



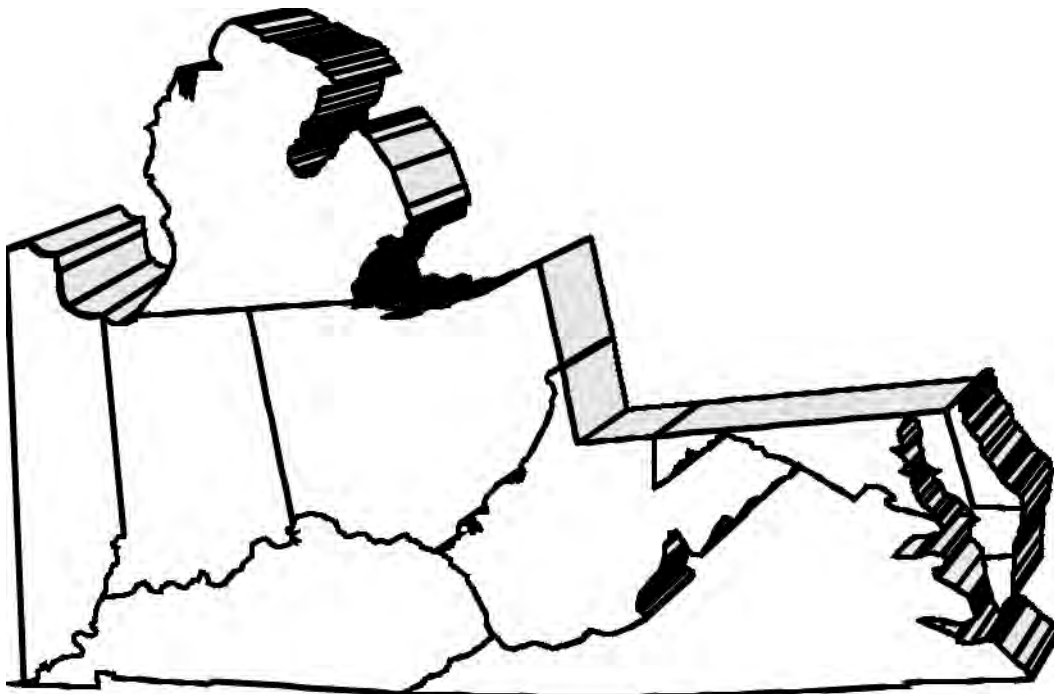
US Army Corps  
of Engineers®

EP 1110-1-8  
Volume 2  
April 2014

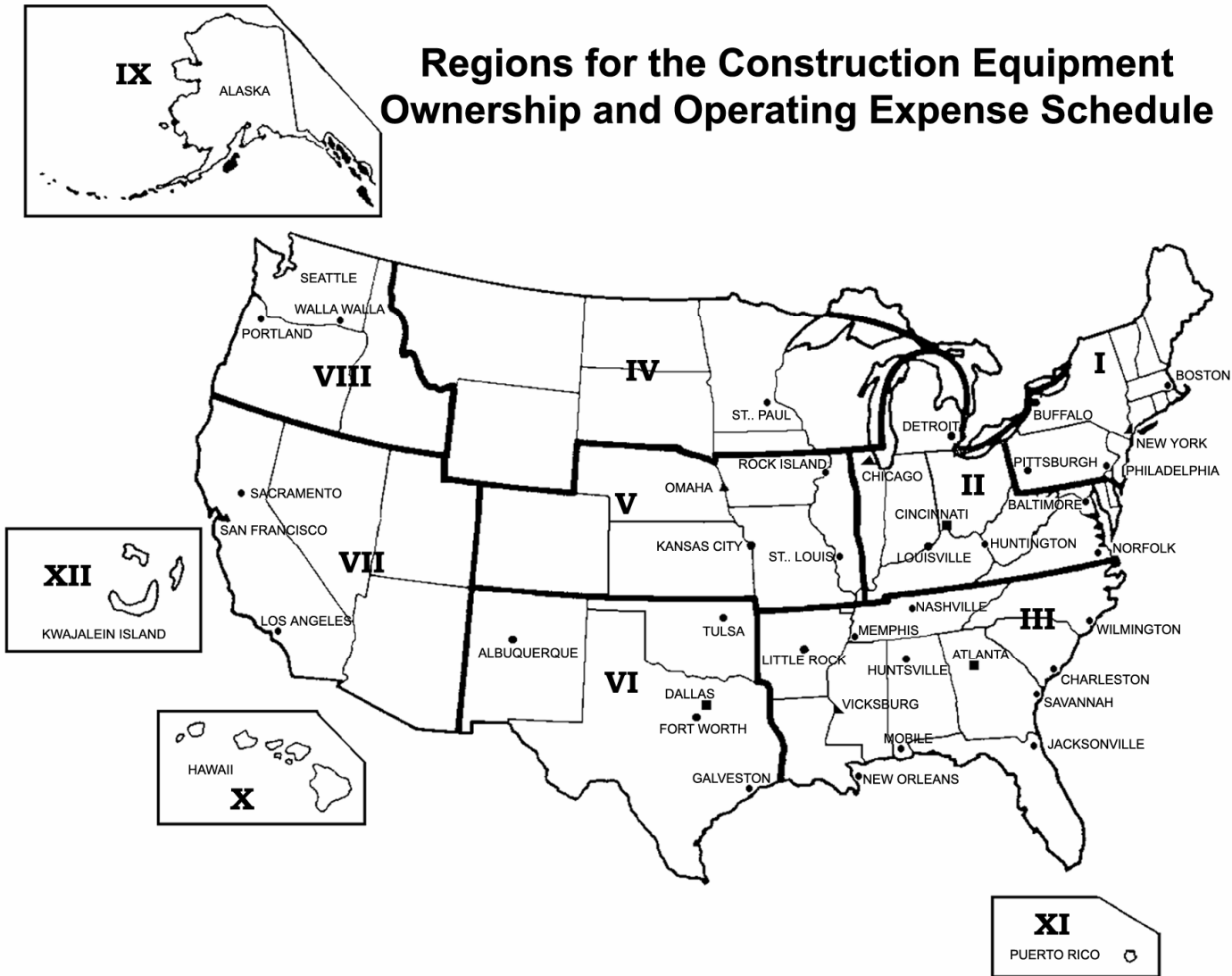
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# Construction Equipment Ownership and Operating Expense Schedule

## Region II



## Regions for the Construction Equipment Ownership and Operating Expense Schedule





DEPARTMENT OF THE ARMY  
U.S. Army Corps of Engineers  
Washington, DC 20314-1000

EP 1110-1-8

REPLY TO  
ATTENTION OF:

CECW-EC

Pamphlet  
No. 1110-1-8

30 April 2014

Engineering and Design  
CONSTRUCTION EQUIPMENT OWNERSHIP AND  
OPERATING EXPENSE SCHEDULE

1. Purpose. This pamphlet is authorized by and established in accordance with Federal Acquisition Regulation (FAR) 31.105 and USACE Acquisition Instructions (UAI) SUBPART 31.105. This pamphlet establishes predetermined equipment ownership and operating expense rates for construction equipment. This pamphlet also establishes a method to calculate equipment ownership and operating expense rates for construction equipment when the predetermined rates are not considered appropriate. The overall intent of this pamphlet is to determine equipment costs that are fair and reasonable. Expense factors for calculating dredge plant and marine equipment costs are provided in chapter 4.
2. Applicability. This pamphlet applies to all USACE commands. It is applicable to all solicitations and contracts for construction expected to exceed the Simplified Acquisition Threshold of \$150,000 when actual cost data for both ownership and operating costs cannot be determined. The pamphlet is published in 12 volumes and a description of each volume's corresponding geographic region is provided in Appendix A.
3. Distribution Statement. Approved for public release, distribution is unlimited.
4. References. See Appendix A.

FOR THE COMMANDER:

12 Appendices  
(See Table of Contents)

  
ADAM S. ROTH  
Colonel, EN  
Chief of Staff

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30 Apr 14

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CECW-EC

Pamphlet  
No. 1110-1-8, Vol. 2

30 April 2014

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## CHAPTER 1

### Introduction

1.1 Use. The use of this pamphlet is for rate determination on construction contracts, dredging contracts, and negotiated procurements and relates only to contractor-owned equipment. The overall intent of the pamphlet is to determine equipment costs that are fair and reasonable.

a. This pamphlet shall be used for determining hourly equipment rates that are contained in the independent government estimate.

b. The use of this pamphlet will be required by contractors for pricing contractor-owned equipment in negotiated procurements when:

(1) Cost or pricing data is not required, as defined in Federal Acquisition Regulation (FAR) Part 15.4, Contract Pricing.

(2) Cost or pricing data is required and the actual cost data to support either ownership or operating costs for equipment or equipment groups of similar model and series is not available.

(3) Cost or pricing data is required and available, but all or part of the data is determined not to be in accordance with the FAR cost principles.

1.2 Regions. This pamphlet is published in 12 volumes, each volume uses pricing and factors developed for a specific geographic region. The numbering of the pamphlets volume corresponds to its respective region. A listing of the volumes along with a description of the geographic region is contained in Appendix A.

1.3 Decision Flow Process. A flow chart (figure 1-1) is provided at the end of this chapter to help the user better understand the process for developing an hourly equipment rate. The flow chart shows the decision points that allow the user to decide whether to use the predetermined rate tables or calculate the rate using the method shown in figure 2-1 or using CHECKRATE (also see paragraph 3.4).

1.4 How to Obtain Assistance. When assistance is needed in understanding the methodology for calculating equipment rates, contact the Chief, Cost Engineering Branch, Engineering and Construction Division, Walla Walla District, U.S. Army Corps of Engineers, (CENWW-EC-X), 509-527-7511, 509-527-7510, or visit the Web site at <http://www.nww.usace.army.mil/>.

1.5 How to Obtain CHECKRATE. A Microsoft Excel® workbook, named "CHECKRATE," has been developed to calculate equipment rates using the

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methodology required by this pamphlet. The user must have Microsoft Excel® to run the application. The factors needed in the hourly cost calculations are located in the appendixes of this pamphlet. A copy of the workbook may be obtained by going to the Cost Engineering webpage on the Walla Walla District website <http://www.nww.usace.army.mil/>. by selecting "Missions", and selecting "Cost Engineering". Expand the Product Support Section by clicking on the plus sign next to "Construction Equipment Rates (EP 1110-1-8) and CHECKRATE", then follow the link to Download CHECKRATE.

1.6 How to Obtain this Publication. Volumes 1-12 of this Engineer Pamphlet are available in portable document format (PDF) and can be viewed or downloaded at the official HQUSACE documents webpage at <http://www.usace.army.mil/> by selecting "Library" and selecting "Publications". Additional instructions in Appendix A.

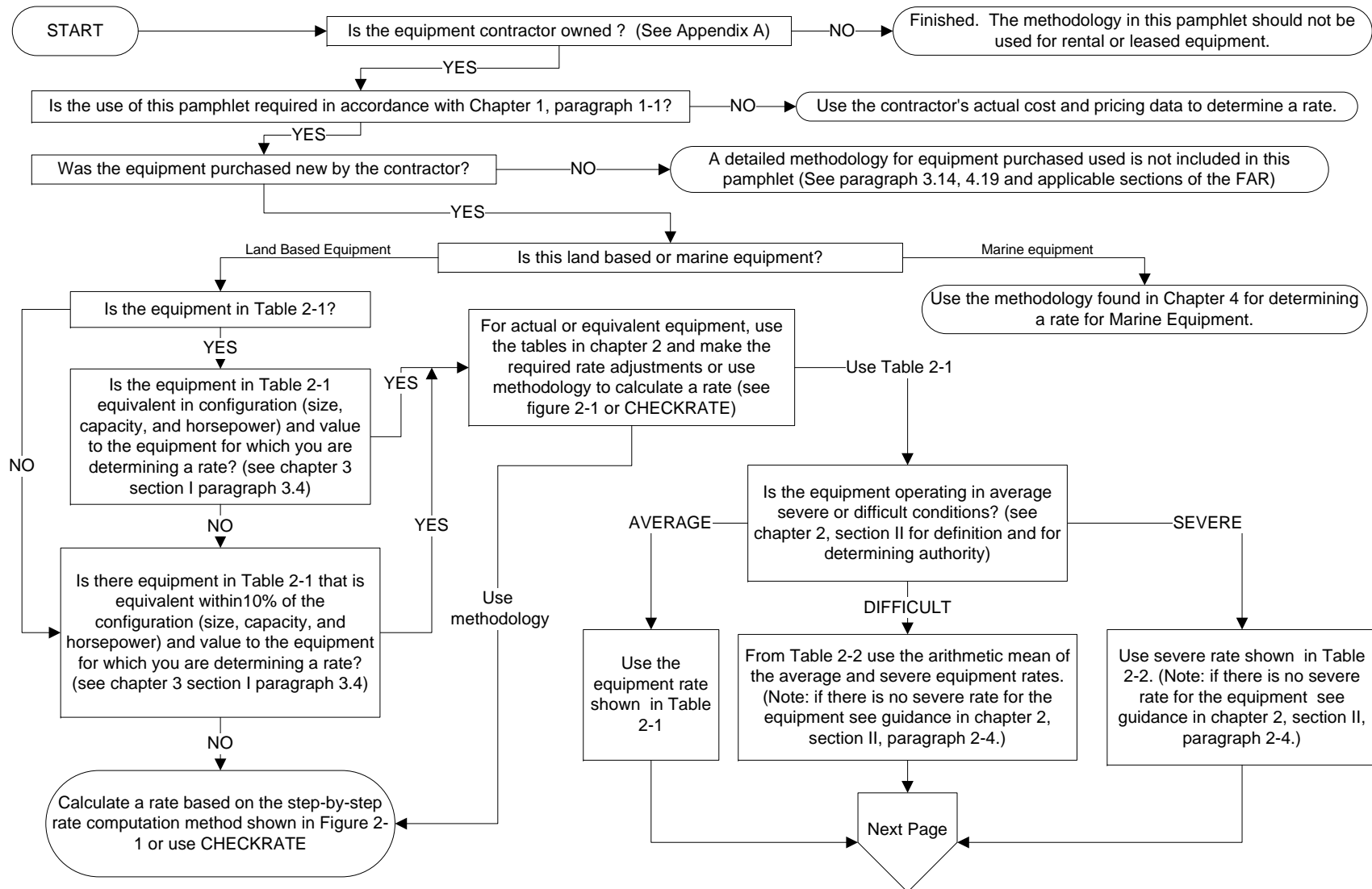


Figure 1-1. Methodology for Developing an Hourly Ownership and Operating Rate for Construction Equipment

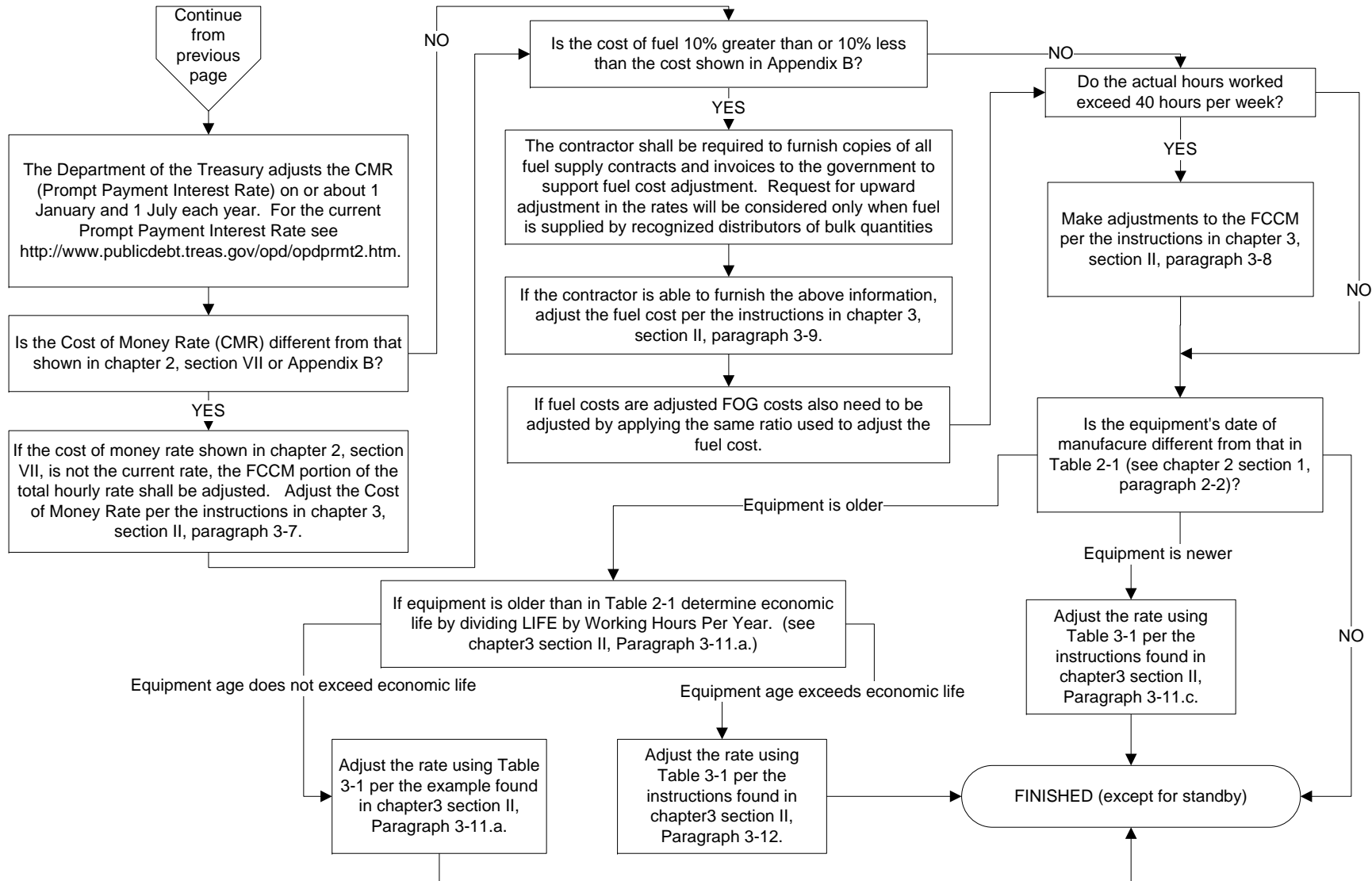


Figure 1-1. Methodology for Developing an Hourly Ownership and Operating Rate for Construction Equipment

## CHAPTER 2

### Methodology for Construction Equipment

#### SECTION I. GENERAL

2.1 Contents. This chapter provides the methodology used to compute the total hourly ownership and operating rates for construction equipment and marine equipment (except dredging plant). This detailed methodology includes the formulas and factors used to develop both total hourly rates and hourly standby rates. If the equipment is determined to be older than its estimated economic life (overage) or was purchased used, refer to chapter 3.

2.2 Basis for Equipment Rates. The hourly rates shown in table 2-1 reflect catalog list prices of equipment manufactured in 2011 (3 years old). List prices for equipment manufactured in years other than 2011 have been adjusted to a 2011 price level using economic indexes. Ownership and operating expenses are computed using area factors, found in appendix B, which are specific to each region and volume. This hourly rate methodology assumes that equipment furnished to the job is in sound, workable condition. Furthermore, the methodology applies only to equipment that prime contractors or subcontractors either own or control. These hourly rates and cost factors do not represent rental charges for those in the business of renting equipment.

2.3 Total Hourly Rate. Hourly rates for average conditions are shown in table 2-1 and are computed based on a 40-hour (hr) workweek. The hourly rate is the sum of ownership and operating costs. Table 2-2 contains all individual rate elements for both average and severe conditions. An example of the methodology used to compute the total hourly rate is shown in figure 2-1. For standby calculation, see section IX.

a. Ownership Cost Elements. The ownership portion of the rate consists of an allowance for depreciation (DEPR) and facilities capital cost of money (FCCM).

b. Operating Cost Elements. Operating costs include allowances for the following:

- (1) Fuel.
- (2) Filters, oil, and grease (FOG) (includes servicing).
- (3) Repairs (includes maintenance and major overhauls).
- (4) Tire wear (replacement).
- (5) Tire repair.

c. Exclusions to Hourly Rates. Total hourly rates for owning and operating equipment do not include allowances for the following (it should also be noted that replacement cost is not included in the rates, as it is not an allowable item of cost per FAR 31.105(d)(2)(i)):

- (1) Operating labor.
- (2) Mobilization and demobilization.
- (3) Field office overhead expenses.
- (4) Home office or general and administrative (G&A) overhead expenses.
- (5) Investment tax credit.
- (6) Contingency allowance.
- (7) Profit.
- (8) Parts and labor escalation.

d. Other Ownership Elements. The following elements of cost are not included in the total hourly rates. These costs are allowable and would normally be included in the contractor's field office or home office overhead rate calculation.

(1) License fees, property taxes, storage, and insurance costs are considered indirect costs and are not included in the total hourly rates.

(2) Jobsite security, inspection fees, recordkeeping, mechanic training, and highway permits are also not included in the total hourly rates.

## SECTION II. OPERATING CONDITIONS

2.4 Average, Difficult, or Severe Conditions. Operating conditions may be average, difficult, or severe. Hourly rates for both average and severe operating conditions are determined in accordance with appendix C. The rate for the difficult condition is the arithmetic mean of the average and the severe rates. When only the average rate is shown in table 2-2, the rate applies for all operating conditions or as determined by the contracting officer. Average condition rates are included in both tables 2-1 and 2-2. Only table 2-2 contains the severe condition rates.

2.5 Determination of Condition. For contract modifications, the contracting officer determines the equipment operating condition to be used. This determination is based on contract specifications, site conditions, basis of any supporting evidence, and guidance in appendix C. Evaluation of operating conditions for equipment not listed in

appendix C will be consistent with examples shown in appendix C. The operating condition of the equipment relates to the average and severe factors as detailed in appendix D.

### SECTION III. EQUIPMENT SELECTION

2.6 General. Equipment shown in table 2-1 is representative of equipment that is used in general construction. Note that some equipment may require additional attachments or accessories. Each unit of equipment is grouped into a main group called a category (CAT) and a subgroup called a subcategory (SUB). This type of grouping is displayed in table 2-1 and appendix D. Also, an identification number (ID No.) is assigned to each unit of equipment. The ID No. consists of three parts. The first three characters are the CAT, the second two characters are the manufacturer's code, and the last three characters are the sequence number.

2.7 Truck Selection. Because of the large number of possible combinations of highway truck chassis and bodies, both are listed separately. For estimating purposes, use the gross vehicle weight (GVW) rating of the truck chassis to make a selection with the following conditions:

a. The combined weight of the truck chassis, truck body, and payload must not exceed the GVW rating shown for the truck chassis.

b. The gross combined weight (GCW) of the truck, trailer, and payload must not exceed the GCW rating shown.

2.8 Crawler Tractor Selection. A wide range of combinations of ripper and various blade options are available for each crawler tractor. For ease of use, all tractors include a universal blade attachment. Other blade and ripper attachments are shown separately and should be substituted for the universal blade to match actual equipment configuration. Only the hourly expense for those attachments that are required to perform the work shall be allowed.

2.9 Equipment Accessories. Equipment accessories included on the major pieces of equipment in table 2-1 are listed in appendix J.

### SECTION IV. EQUIPMENT VALUE

2.10 List Price and Accessories. The total list price includes those accessories normally purchased by the contractor plus required safety features.

2.11 Discount Code (DC). A 7.5-percent discount is used for all equipment except highway trucks that are discounted at 15 percent. The total discounted price is derived by subtracting the appropriate discount from the total list price. The identification of the

discount is shown in appendix D under column heading DC. Two codes are used to identify the discount, B equals the basic discount of 7.5 percent and S equals the special discount of 15 percent.

2.12 Sales or Import Tax. Total state sales tax (which includes local taxes) or import tax is computed as a percentage of the discounted price. The average tax for the region is shown in appendix B.

2.13 Freight. Estimated allowances for freight are provided in appendix B. This allowance includes preparation and delivery. Multiply the shipping weight based on hundredweight (cwt) by the freight rate to determine freight charges.

2.14 Total Equipment Value (TEV). Freight is added to the total discounted price (which includes sales tax) to arrive at the TEV. The estimated TEV is indicated in table 2-1 under the column heading VALUE.

## SECTION V. LIFE

2.15 Economic Life (LIFE). The expected economic life of the equipment will vary based on the type of equipment and the condition of use. It is established from manufacturers' or equipment associations' recommendations. The expected economic life in hours is given in appendix D, under the column heading LIFE, for both average and severe conditions.

2.16 Working Hours Per Year (WHPY). Annual average operating hours have been established for equipment working within the region covered by this pamphlet. The number of WHPY as shown in appendix B is equivalent to 1 year's use for a single shift operation. Average annual hours of use per year are determined by reducing the maximum available hours per year (40 hours per week, 52 weeks per year) to allow for lost working days due to the following factors:

- a. Weather.
- b. Employee holidays.
- c. Equipment maintenance and repairs.
- d. Mobilization and demobilization.
- e. Miscellaneous downtime.

## SECTION VI. SALVAGE VALUE

2.17 Salvage Value (SLV). The salvage value for equipment is based on advertisements of used equipment for sale as displayed in current engineering and



construction magazines, manufacturer's recommendations, and the *Green Guide Volumes I and II, Handbook of New and Used Construction Equipment Values*, Equipment Watch.

2.18 Salvage Value Percentage. The salvage value percentage used for each type of equipment is listed in appendix D under the heading SLV as a percentage of the equipment value. It is equal for both average and severe conditions.

## SECTION VII. OWNERSHIP COST

2.19 Ownership Elements. The ownership portion of the rate consists of allowances for depreciation (DEPR) and facilities capital cost of money (FCCM). These two cost elements are computed based on the TEV. Other ownership elements may be allowed (see paragraph 2.3d.). Total ownership rate per hour is expressed by formula, as follows:

$$\text{Ownership Rate/hr} = \text{DEPR/hr} + \text{FCCM/hr}$$

2.20 Depreciation. The straight-line method is used to compute depreciation.

a. For rubber-tired equipment, the tire cost index (TCI) must first be calculated to complete the depreciation formula.

b. Hourly depreciation is calculated by dividing the "depreciable" value (TEV less estimated salvage and tire cost) by the expected economic life of the unit of equipment in hours. Expressed by formula, depreciation cost equals the following:

$$\text{DEPR/hr} = \frac{[(\text{TEV})(1 - \text{SLV})] - [(\text{TCI})(\text{Tire Cost})]}{\text{LIFE}}$$

Where:

(1) TEV is the total equipment value found in table 2-1.

(2) SLV is the salvage value from appendix D.

(3) TCI is the tire cost index, which is determined by dividing the year of manufacture tire index by the present-year tire index. For table 2-1, the present year is 2014 and the year of manufacture is 2011 (3 years old). These indexes are listed as part of appendix E [see Economic Key (EK) 100, All Tires and Tubes].

(4) Tire cost is the total tire and/or conveyor belt cost. The total tire cost is the sum of the cost of all front, drive, and trailing tires. The tire cost for rubber-tired equipment is based on tire values at the time the equipment was manufactured.

(5) The LIFE is the economic life, which is based on the number of operating hours throughout the economic life of the equipment (see paragraph 2.15). Hours for LIFE are provided in appendix D.

2.21 Facilities Capital Cost of Money (FCCM). The FCCM, as defined in FAR 31.205-10, is included in the total hourly rates. This cost is computed by multiplying a discounted cost of money rate (CMR) by the average value of equipment and prorating the result over the annual operating hours. The January 2014 CMR [2.125 percent as shown in appendix I determined by the Secretary of the Treasury pursuant to Public Law 92-41 (85 Stat. 97)] is discounted by a reduction of 25 percent to avoid duplication when applying estimated markups for overhead and profit. The discounted CMR is then 1.70 percent. The Department of the Treasury adjusts the CMR on or about 1 January and 1 July each year; these revisions are printed in the Federal Register or can be found at [http://www.treasurydirect.gov/govt/rates/tcir/tcir\\_opdprmt2.htm](http://www.treasurydirect.gov/govt/rates/tcir/tcir_opdprmt2.htm). The CMR should be adjusted to the actual period that the equipment is used. Expressed by formula, FCCM cost equals the following:

$$\text{FCCM/hr} = \frac{(\text{TEV})(\text{AVF})(\text{discounted CMR})}{(\text{WHPY})}$$

Where:

- a. TEV is the total equipment value found in table 2-1.
- b. Average Value Factor (AVF) =  $\frac{[(N - 1)(1 + SLV)] + 2}{2N}$ .
- c. Number of Years (N) in Depreciation Period = LIFE/WHPY.
- d. LIFE is the economic life, which is based on the number of operating hours throughout the economic life of the equipment (see paragraph 2.15). Hours for LIFE are provided in appendix D.
- e. Discounted CMR = 2.125% (Jan – Jun 2014 rate) / 1.25 = 1.70%.
- f. WHPY = Working hours Per Year found in appendix B.

## SECTION VIII. OPERATING COST

2.22 Operating Cost Elements. The total operating cost is the sum of the following five elements: fuel, FOG, repairs, tire wear, and tire repair.

2.23 Fuel Cost. Fuel costs are computed for each gas, diesel, or electric engine. When the unit of equipment has two engines, as in the case of a truck crane, this

methodology treats each engine separately for fuel costs. The hourly fuel cost for each unit of equipment is shown under the column heading FUEL in tables 2-1 and 2-2. When the unit of equipment has no engine, no fuel cost will be shown. Hourly fuel costs are calculated for each engine, as expressed in the following formula:

$$\text{Fuel Cost/hr} = \text{Horsepower (hp)} \times \text{Fuel Cost/Gallon (gal)} \times \text{Fuel Factor (gal/bhp-hr)}$$

a. Horsepower is the engines rated horsepower. All horsepower ratings for engine-driven equipment are listed with the equipment description in table 2-1.

b. Fuel Cost/Gallon is based on values shown in appendix B. See chapter 3 for fuel cost adjustments.

c. Fuel Factor - Gas or Diesel Fuel. The fuel factor in gallons per brake horsepower-hour (bhp-hr) is listed in appendix D for both average and severe conditions. Fuel factors are also listed for both the engine powering the main equipment (prime engine) and the engine providing power to the carrier vehicle. For severe conditions, the fuel consumption rate is 30 percent greater than the average condition rate. Gas or diesel fuel factors are computed by using the following formula:

$$\text{Fuel Factor (Gal/bhp - hr)} = \frac{\text{Horsepower Factor (HPF)} \times \text{lbs Fuel per bhp - hr}}{\text{lbs of Fuel per Gal}}$$

Where:

(1) HPF is the horsepower factor used in the fuel and electricity consumption formulas and represents an average percent of full-rated horsepower being used by the engine. The fuel consumption factors, which are shown in appendix D under column headings Fuel Factor-Equipment and Fuel Factor-Carrier, are computed based on the HPF shown under these column headings. This HPF is an estimate of the engine load under average working conditions. It is necessary to modify the rated horsepower as engines and motors in actual production do not work at their full-rated horsepower at all times. Periods spent at idle, travel in reverse, traveling empty, close maneuvering at part throttle, and operating downhill are examples of conditions that reduce the HPF. Professional judgment regarding cycle time and equipment loading is applied to determine this average HPF. Normal field application can also vary according to: operator efficiency, type of material, type of work cycle, and overall jobsite efficiency. This pamphlet provides an estimated average HPF, not a specific factor.

(2) Pounds (lbs) fuel per bhp-hr is an average based on a variety of engine applications from manufacturer engine data. The following represent an average of the normal application of equipment and are indicative of engine fuel consumption

industry wide. Pounds fuel (consumed) per bhp-hr is based on the following averages and is used consistently throughout this pamphlet:

Gasoline = 0.55 lbs per bhp-hr

Diesel = 0.34 lbs per bhp-hr

(3) Pounds fuel per gallon is the factor that determines the weight of the fuel consumed. The following are used as constants in this pamphlet:

Gasoline = 6 lbs per gal

Diesel = 7 lbs per gal

d. Fuel Factor - Electricity. Assuming that an electric motor uses 1 kilowatt (kW) per horsepower (considering all inefficiencies), and using the same HPF for gas or diesel fuel consumption, the electricity consumption is computed by the following formula:

$$\text{Fuel Factor (kW/hr)} = \text{HPF} \times 1 \text{ kW per electric hp - hr}$$

e. Fuel and Electricity Cost. The cost per gallon for gasoline and diesel fuel used to compute the hourly fuel cost is shown in appendix B. The hourly fuel cost for all gasoline-powered equipment, diesel-powered highway trucks, and truck crane carriers includes an allowance for Federal and state road taxes, sales taxes, and rental for fuel storage tanks and pumps. Cost per kilowatt-hour used to compute electricity cost are also shown in appendix B.

2.24 Filters, Oil, and Grease(FOG) Cost. The FOG cost is computed as a percentage of the hourly fuel costs.

a. The FOG contains items of cost for routine servicing of the equipment, which includes the following:

- (1) Base wages for servicing labor.
- (2) Fringe benefits and labor burden costs for servicing.
- (3) Service truck, tools, and fuel truck allowance.
- (4) Shop allowance when shop servicing is required.
- (5) Other equipment costs for servicing.
- (6) FOG material allowance.

(7) Taxes and shipping for FOG supplies.

(8) Handling and disposal of hazardous materials and oil.

b. The hourly FOG cost is calculated for each engine using the following formula:

$$\text{FOG Cost/hr} = \text{FOG Factor} \times \text{Fuel Cost/hr} \times \text{LAF}$$

Where:

(1) The FOG Factor is the percent allowance expressed as a decimal factor under each fuel type heading E (electricity), G (gas), or D (diesel). See appendix D.

(2) Fuel cost/hr is a calculated value shown under the column heading FUEL in tables 2-1 and 2-2.

(3) The LAF (labor adjustment factor) is a decimal factor to account for regional variations in labor and parts costs. This factor is provided in appendix B.

c. The FOG percentage allowance includes the cost for servicing. For equipment that is normally serviced by an oiler assigned to the unit of equipment, the FOG percentage is reduced. This reduction applies to the following equipment: cranes, draglines, hydraulic excavators, and shovels (except equipment under category numbers C75, C80.01, C85.11, C85.12, C85.21, C90.01, H25.11, H25.12, H30.01, H30.02, and M10.32).

d. When a unit of equipment has no engine (therefore no fuel costs calculated) and the equipment requires some type of fuel (i.e., propane, kerosene), an alternative hourly fuel and FOG allowance may be used in lieu of the regularly calculated fuel and FOG hourly costs. A FOG allowance may also be added when the equipment has no engine and has parts that require FOG. The alternative fuel allowance is added to the alternative FOG allowance for a total alternative fuel and FOG cost. (See figure 2-1, 5.c.)

## 2.25 Repair Cost.

a. The repair cost accounts for equipment repairs, maintenance, and major overhauls (including undercarriage wear, ground engaging tools, and designated attachments) performed in either the field or the shop. Where tire cost is the cost of the tires when the equipment was manufactured, use the same TCI and tire cost as shown in the depreciation calculation (see section 2-20). The estimated hourly rate for repairs is computed as follows:

$$\text{Repair Cost/hr} = \frac{[(\text{TEV}) - [(\text{TCI})(\text{Tire Cost})]] \times \text{RF}}{\text{LIFE}}$$

Where:

(1) TEV is the total equipment value found in table 2-1.

(2) TCI is the tire cost index, which is determined by dividing the year of manufacture tire index by the present-year tire index. For table 2-1, the present year is 2014 and the year of manufacture is 2011 (3 years old). These indexes are listed as part of appendix E [see Economic Key (EK) 100, All Tires and Tubes].

(3) Tire cost is the total tire and/or conveyor belt cost. The total tire cost is the sum of the cost of all front, drive, and trailing tires. The tire cost for rubber-tired equipment is based on tire values at the time the equipment was manufactured.

(4) Repair factor (RF) is calculated as follows:

$$\text{RF} = \text{RCF} \times \text{EAF} \times \text{LAF}$$

Where:

(5) The RCF (repair cost factor) is shown in appendix D. This factor varies depending on the operating condition of the equipment (average or severe).

(6) The EAF (economic adjustment factor) is used to adjust the RCF to current price levels. The EAF is equal to the economic index for the present year divided by the economic index for the year of manufacture. Indexes listed in appendix E are used to develop the EAF. Economic indexes are determined as follows:

(a) Economic Index for the Present Year. This is the economic index for the present year (2014 for table 2-1 calculations). Obtain the economic index from appendix E. The index is located in the column with the present year and the row with the type of equipment in question. When the column for the present year has not been included, the index can be estimated using a straight-line projection.

(b) Economic Index for the Year of Manufacture. This is the economic index for the year the equipment was manufactured (2011 for table 2-1 calculations). Obtain the economic index from appendix E. The index is located in the column with the year of manufacture and the row with the type of equipment in question. When the actual age of the equipment is beyond the last year of its economic life, the equipment is considered overage. Economic life is determined by dividing hours of LIFE (from appendix D) by WHPY (appendix B).

(7) The LIFE is the economic life, which is based on the number of operating hours throughout the economic life of the equipment (see paragraph 2.15). Hours for LIFE are provided in appendix D.

b. Items Included in the Repair Cost Factor. The estimated percentage allowances for the RCF are shown in appendix D under the column heading RCF and are expressed as decimal factors. These RCFs (for both the average and severe conditions) compensate for the following cost elements:

(1) Mechanic's labor includes base wages, fringe benefits, supervision, travel, and all other costs for labor associated with craft workers engaged in the direct repair of equipment either in the field or the shop.

(2) Repair parts and supplies include those items that are required for all repairs and major overhauls complete with applicable sales taxes and freight charges.

(3) Service trucks and other equipment used during field or shop repair and maintenance work including tools.

(4) Supporting repair facilities include field and main repair shops, complete with parts and supplies inventory, and shop overhead.

#### 2.26 Tire Wear Cost.

a. Tires included on rubber-tired equipment are generally the type and ply rating recommended as standard tires by the equipment manufacturer. Tire costs include both tire wear (replacement) and tire repair as individual elements of cost. Conveyor belt wear is also included under this cost element. The belt wear is treated like tire wear. The wear factors are listed in the front tire wear factor column in appendix D. Belt life and cost are listed in appendix F.

b. The formula for calculating tire wear applies to each tire position: front (FT), drive (DT), and trailing (TT). However, all tires performing the drive function are considered drive tires and are listed in the drive position. The total hourly tire wear cost for each unit of equipment is the sum of the hourly cost for each position. The total hourly tire wear cost equals the current cost of new tires plus the cost of one recapping divided by the expected life of the new tires plus the life of the recapped tires. This hourly allowance for determining tire wear cost is expressed in the following formula:

$$\text{Tire Wear Cost/hr} = \frac{\text{Tire Cost Factor} \times \text{Current Tire Cost}}{\text{Tire Life Factor} \times \text{Tire Wear Factor} \times \text{Maximum Tire Life}}$$

Where:

(1) Tire Cost Factor is estimated at 1.5, which represents the purchase of the original tire plus one recap. It has been estimated that a recap costs approximately 50 percent of the new tire cost.

(2) Current Tire Cost is the estimated cost that applies to all tires on the equipment in that position. For example, four new drive tires valued at \$500 each would result in an amount of \$2,000 for total drive tire cost. The size and cost of each tire used in the pamphlet are listed for information in appendix F.

(3) Tire Life Factor is estimated at 1.8, which represents the original tire life plus one recap. It has been estimated that a recap lasts approximately 80 percent of the life of a new tire.

(4) Tire Wear Factor is based on the position of the tire, type of equipment, and condition of use. Tire wear factors have been developed and are listed in appendix D. These factors will provide a percentage reduction to the maximum tire life. Appendix G contains the methodology used to develop these factors and a computation example for a rear dump wagon.

(5) Maximum Tire Life expressed in hours is shown for various new tire types in appendix F. The tire life is estimated from information provided by Goodyear Tire and Rubber Company and by using the method and tables in *Production and Cost Estimating of Material Movement with Earthmoving Equipment*, Terex Corporation, Hudson, Ohio.

2.27 Tire Repair Cost. It has been estimated that tire repairs are 15 percent of the total hourly tire wear cost. The LAF is used to adjust the tire repair cost to account for regional variations in labor and parts costs. This cost element has been calculated and listed separately in table 2-2. It is expressed as a formula as follows:

$$\text{Tire Repair Cost} = \text{Total Hourly Tire Wear Cost} \times 0.15 \times \text{LAF}$$

## SECTION IX. STANDBY HOURLY RATE

2.28 Standby Hourly Rate. The standby rate is computed by allowing the full FCCM hourly cost (based on a 40 hour workweek) plus one-half of the hourly depreciation. It is expressed as a formula, as follows:

$$\text{Standby Rate/hr} = (\text{DEPR/hr} \times 0.50) + \text{FCCM/hr}$$



a. Paid standby shall not exceed 40 hours per week (7 calendar days) (based on a 40 hour workweek) per unit of equipment. Actual operating hours during a week will be credited against the 40 hours maximum standby allowance.

b. Standby costs will not be allowed during periods when the equipment would have otherwise been in idle status.

c. When the equipment is purchased used, standby will be computed on the basis that the equipment was purchased new by the contractor in the year it was actually manufactured. Refer to chapter 3 for rate adjustments.

## SECTION X. RATE CALCULATION EXAMPLE

2.29 Computation Example. Figure 2-1 is an example of how the total hourly rates in table 2-1 are computed. A blank Equipment Rate Computation Worksheet is included in appendix A and can be copied as needed.

a. When an hourly rate for a specific unit of equipment is not included in this pamphlet and a rate must be computed, the methodology contained in chapter 2 shall be followed. However, when a unit of equipment is not included in this pamphlet and the necessary factors to compute a rate are not found in appendix D, please contact the Chief, Cost Engineering Branch, Engineering and Construction Division, Walla Walla District, U.S. Army Corps of Engineers, for assistance as explained in chapter 1. A Microsoft Excel® spreadsheet (CHECKRATE) is also available for rate computation (see chapter 1).

b. See chapter 3 for further guidance on the procedure for rate adjustments.

**Example:** *The piece of equipment shown in this example is based on a known piece of equipment for illustration purposes only.*

Use this worksheet to compute an hourly rate for equipment that is not in this pamphlet or is in the pamphlet but not equivalent in size, capacity, horsepower, or value (see appendix A for blank form).

**Region 02**

**1. EQUIPMENT INFORMATION AND EXPENSE FACTORS**

ID No: C90LB001

a. Equipment Specification Data:

- |   |  |                                 |   |              |
|---|--|---------------------------------|---|--------------|
| (1) Equipment Description:  | CRANES, MECHANICAL, LATTICE BOOM, TRUCK MTD,<br>150 TON / 260' BOOM, 8X4   |                                 |   |              |
| (2) Model and Series:   | HC-238H II   |                                 |   |              |
| (3) Present Year or Year of Use:  |  |                                 |   | 2014         |
| (4) Year Manufactured:  |  |                                 |   | 2011         |
| (5) Horsepower - Equipment:   |  |                                 |   | 200          |
| (6) Horsepower - Carrier:   |  |                                 |   | 445          |
| (7) Fuel  | - <b>Equipment:</b> 0-None; 1-electric; 2-gasoline;<br>3-diesel off-road; 4-diesel on-road; 5-marine gas;<br>6-marine diesel | Enter number<br>from 0 to 6 ==> | 3 | <b>D-off</b> |
|   | - <b>Carrier:</b> 0-None; 1-electric; 2-gasoline;<br>3-diesel off-road; 4-diesel on-road; 5-marine gas;<br>6-marine diesel   | Enter number<br>from 0 to 6 ==> | 4 | <b>D-on</b>  |
| (8) Shipping Weight (cwt):  |  |                                 |   | 1,913 cwt    |
| (9) Tire size and number of tires: (Cost of tires based on present year, see 1.a.(3) and App. F): |  |                                 |   |              |

	<u>Size/Ply</u>	<u>App F Code</u>	<u>No.</u>	<u>Unit Price</u>	<u>Cost</u>
(a) Front (FT):	14-25/20	ANMB1	4	\$2,327	\$9,308
(b) Drive (DT):	14-25/20	ANMB1	8	\$2,327	\$18,616
(c) Trailing (TT):			0	\$0	\$0
(d) Total Tire Cost:					\$27,924

- (10) List Price + Accessories:  
 [at Year (yr) of Manufacture] \$1,690,826 OR actual purchase price: \$0

**USE APPENDIX D TO COMPLETE THE FOLLOWING DATA:**

- |  |  |     |         |
|--|--|-----|---------|
| b. Category and Subcategory Number:  |  | C90 | 0.04    |
| c. Hourly Expense Calculation Factors:                                     |  |     |         |
| (1) Economic Key (EK):   |  |     | 20      |
| (2) Condition (C): <b>A</b> =Average <b>D</b> =Difficult <b>S</b> =Severe  |  | A   | AVERAGE |
| (3) Discount Code (DC): <b>B</b> = 7.5% (0.075) or <b>S</b> = 15.0% (0.15) |  | B   | 0.075   |
| (4) Life in Hours (LIFE):  |  |     | 20,000  |
| (5) Salvage Value Percentage (SLV):  |  |     | 0.20    |
| (6) Fuel Factor - Equipment [Electric (E) Gas (G) Diesel (D)]:             |  |     | 0.024   |
| (7) Fuel Factor - Carrier (E G D):   |  |     | 0.005   |
| (8) Filter, Oil, and Grease (FOG) Factor (E G D):                          |  |     | 0.110   |
| (9) Tire Wear Factor:  |  |     |         |
| (a) Front (FT):  |  |     | 0.66    |
| (b) Drive (DT):  |  |     | 0.58    |
| (c) Trailing (TT):   |  |     | 0.73    |
| (10) Repair Cost Factor (RCF):   |  |     | 0.90    |



**Region 02**

**4. OWNERSHIP COST (Continued)**

b. Facilities Capital Cost of Money (FCCM):

		x		+		/		=	Avg Value
(1)	[( N - 1.0 ) {3.a.}]		(1.0 + SLV) {1.c.5.}		2.0]		(2.0 x N) {3.a.}		Factor (AVF)
	<u>[(13.79 yr - 1.0)</u>		<u>(1.0 + 0.20)</u>		2.0]		<u>(2.0 x 13.79 yr)</u>		<u>0.629</u>
(2)	TEV {2.c.}	x	AVF {4.b.(1)}	x	Adjusted Cost-of-Money {Appendix B}	/	WHPY {Appendix B}	=	
	<u>\$1,674,383</u>	x	<u>0.629</u>	x	<u>1.70%</u>	/	<u>1,450 hr/yr</u>	=	<u>\$12.35 /hr</u>

c. **TOTAL HOURLY OWNERSHIP COST:**  
{4.a.(2)} + {4.b.(2)}

**TOTAL [4.]: = \$77.97 /hr**

**5. OPERATING COST**

a. Fuel Costs:

(1) Equipment:

		x		x		x		=	
Fuel Factor {1.c.(6)}			Horsepower (hp) {1.a.(5)}				Fuel Cost per Gallon (gal) {Appendix B}		
<u>0.024</u>		x	<u>200 hp</u>	x			<u>\$3.49 /gal</u>		<u>\$16.75 /hr</u>

(2) Carrier:  
{ 1.c.(4)}

		x		x		x		=	
Fuel Factor {1.c.(7)}			Horse power (hp) {1.a.(6)}				Fuel Cost per gal {Appendix B}		
<u>0.005</u>		x	<u>445 hp</u>	x			<u>\$4.05 /gal</u>		<u>\$9.01 /hr</u>

(3) Total Hourly Fuel Cost:  
{5.a (1)} + {5.a (2)}

**Total [5.a.] = \$25.76 /hr**

b. FOG Cost:

(1) Equipment:

		x		x		x		=	
FOG Factor {1.c.(8)}			Equipment Hourly Fuel Cost {5.a.(1)}				Labor Adjustment Factor (LAF) {Appendix B}		
<u>0.110</u>		x	<u>\$16.75 /hr</u>	x			<u>1.02</u>		<u>\$1.88 /hr</u>

Region 02

5. **OPERATING COST (Continued)**

(2) Carrier:

FOG Factor {1.c.(8)}	x	Carrier Hourly Fuel Cost {5.a.(2)}	x	LAF {Appendix B}	
<u>0.110</u>	x	<u>\$9.01 /hr</u>	x	<u>1.02</u>	= <u>\$1.01 /hr</u>

(3) Total Hourly FOG Cost: Total [5.b.] = \$2.89 /hr  
 {5.b.(1)} + {5.b.(2)}

c. Alternative Fuel/FOG Cost: Total [5.c.] = \$0.00 hr  
 (See chapter 2, paragraph 2.24.d. for guidance on when to use.)

d. Repair Cost:

(1) Economic Adjustment Factor (EAF):  
 EK is from {1c. (1)}

Economic Index, Present Year or Year of Use, {1.a.(3)} Appendix E, EK={1.c.(1)}	/	Economic Index, Year of Manufacture, {1.a.(4)} Appendix E, EK={1.c.(1)}	
<u>7368</u>	/	<u>7031</u>	= <u>1.048</u>

*(See table 3-1 for last year of economic life.)*

(2) Repair Factor (RF):

RCF {1.c.(10)}	x	EAF {5.d.(1)}	x	LAF {Appendix B}	
<u>0.90</u>	x	<u>1.048</u>	x	<u>1.02</u>	= <u>0.962</u>

(3) Repair Cost:

[TEV {2.c.}]	-	(TCI {4.a.(1)})	x	Tire Cost] x RF /	LIFE {1.c.(4)}
<u>[\$1,674,383]</u>	-	<u>(0.970)</u>	x	<u>\$27,924]</u> x <u>0.962</u> /	<u>20,000</u>

(4) Total Hourly Repair Cost: Total [5.d.] = \$79.23 /hr

Region 02

5. **OPERATING COST (Continued)**

e. Tire Wear Cost: (Use current price levels. See Appendix F.)

(1) Front Tires (FT):

$$\begin{array}{rclclcl} (1.5 \times \text{FT Cost}) & / & (1.8 \times \text{FT Wear Factor}) & \times & \text{Maximum Tire Life Hours} & \\ \{1.a.(9)(a)\} & & \{1.c.(9)(a)\} & & \{\text{Appendix F}\} & \\ \underline{(1.5 \times \$9,308)} & / & \underline{(1.8 \times 0.66)} & \times & \underline{2,500 \text{ hr}} & = \underline{\$4.70 /hr} \end{array}$$

(2) Drive Tires (DT):

$$\begin{array}{rclclcl} (1.5 \times \text{DT Cost}) & / & (1.8 \times \text{DT Wear Factor}) & \times & \text{Maximum Tire Life Hours} & \\ \{1.a.(9)(b)\} & & \{1.c.(9)(b)\} & & \{\text{Appendix F}\} & \\ \underline{(1.5 \times \$18,616)} & / & \underline{(1.8 \times 0.58)} & \times & \underline{2,500 \text{ hr}} & = \underline{\$10.70 /hr} \end{array}$$

(3) Trailing Tires (TT):

$$\begin{array}{rclclcl} (1.5 \times \text{TT Cost}) & / & (1.8 \times \text{TT Wear Factor}) & \times & \text{Maximum Tire Life Hours} & \\ \{1.a.(9)(c)\} & & \{1.c.(9)(c)\} & & \{\text{Appendix F}\} & \\ \underline{(1.5 \times \$0.00)} & / & \underline{(1.8 \times 0.73)} & \times & \underline{0 \text{ hr}} & = \underline{\$0.00 /hr} \end{array}$$

(4) Total Tire Wear Cost: Total [5.e.] = \$15.40 /hr  
Sum {5.e.(1)} through {5.e.(3)}

f. Tire Repair Cost:

$$\begin{array}{rclcl} \text{Total Tire Wear Cost} & & & & \\ \text{per Hour} & \times & (0.15 \times \text{LAF}) & & \\ \{5.e.(4)\} & & \{\text{Appendix B}\} & & \\ \underline{\$15.40 /hr} & \times & \underline{(0.15 \times 1.02)} & & \text{Total [5.f.] = } \underline{\$2.36 /hr} \end{array}$$

g. **TOTAL HOURLY OPERATING COST:** Total [5.] = \$125.64 /hr  
Sum {5.a.} through {5.f.}

Region 02

6. **HOURLY RATES**

a. Total Hourly Rate: [*based on 40 hours per week (wk)*]

Ownership Cost {4.c.}	+	Operating Cost {5.g.}	
<u>\$77.97 /hr</u>	+	<u>\$125.64 /hr</u>	= <u>\$203.61 /hr</u>

b. Other Work Shifts Hourly Rate:

(Refer to Chapter 3, Adjustments to Rates, for methodology.)

Depreciation {4.a.(2)}	+	(FCCM {4.b.(2)})	x	40 hr/wk / Work hr/wk example:60 hr/wk	+	Operating Cost {5.g.}	
<u>\$65.62 /hr</u>	+	<u>(\$12.35 /hr)</u>	x	<u>40 hr/wk / 60 hr/wk</u> (example:60 hr/wk)	+	<u>\$125.64 /hr</u>	= <u>\$199.49 /hr</u>

c. Standby Hourly Rate:

(Refer to Chapter 2, paragraph 2.28 for guidance on use.)

(Depreciation {4.a.(2)})	x 0.50)		+	FCCM {4.b.(2)}	
<u>(\$65.62 /hr)</u>	x 0.50)	+	<u>\$12.35 /hr</u>	= <u>\$45.16 /hr</u>	

(Refer to Chapter 3, paragraph 3.12 for guidance for overage equipment.)

See Chapter 3 if rate adjustments are necessary.

**Table 2-1. Hourly Equipment Ownership and Operating Expense**

EXPLANATION OF TABLE HEADINGS

Example unit of equipment: Link Belt, Model HC-238H II.

**CAT:** C90 is the category number and identifies it as Cranes, Mechanical, Lattice Boom, Truck Mounted (from appendix D).

**ID No.:** C90LB001 is the unique identification number for the above Link Belt crane. LB equals the manufacturer (see appendix H). 001 equals the numeric order of this unit of equipment within the manufacturer's listing.

**MODEL:** HC-238H II is the equipment model number.

**EQUIPMENT DESCRIPTION:** Specific information for each particular unit of equipment is described, such as "CRANES, MECHANICAL LATTICE BOOM, TRUCK MTD, 150 TON, 260' BOOM, 8X4" for the Link Belt crane.

**ENGINE HORSEPOWER AND FUEL TYPE:** The amount of horsepower and type of fuel used is stated for the main and carrier engines. The Link Belt crane carrier has a 445-horsepower engine, and the crane has a 200-horsepower engine. The carrier engine is on-road diesel (D-on) and the crane engine is off road diesel (D-off).

**VALUE (TEV):** This column reflects the predetermined "equipment cost" used to compute the rates and is based on equipment purchased new in 2011.

**TOTAL HOURLY RATES (\$/HR):** All ownership and operating expenses for the average condition are included. All cost elements, including fuel, are totaled in the AVERAGE column. The STANDBY column includes the hourly allowance for equipment on legitimate standby status (see section 2.28 for more information).

**ADJUSTABLE ELEMENTS:** This column shows ownership elements and fuel costs used to develop the average total hourly rates so they can be adjusted as indicated in chapter 3. Operating costs may be determined by subtracting the ownership cost elements (DEPR plus FCCM) from the total hourly rate for the average condition.

**CWT:** The shipping weight of the equipment is stated in hundredweight.



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>A10</b>	<b>AGGREGATE / CHIP SPREADERS</b>											
	<b>SUBCATEGORY 0.10</b>		<b>SELF-PROPELLED</b>									
	<b>ROSCO, A LeeBoy COMPANY</b>											
	A10RS003	SPRH	CHIP SPREADER, SELF PROPELLED, 10' WIDE, 1.70 CY, 2WD	152 HP	D-off	\$120,068	45.23	6.76	11.62	0.95	18.04	149
	A10RS004	SPRH	CHIP SPREADER, SELF PROPELLED, 11' WIDE, 1.80 CY, 2WD	152 HP	D-off	\$120,804	45.37	6.80	11.69	0.95	18.04	153
	A10RS005	SPRH	CHIP SPREADER, SELF PROPELLED, 12' WIDE, 2.03 CY, 2WD	152 HP	D-off	\$121,330	45.49	6.83	11.74	0.96	18.04	159
	A10RS006	SPRH	CHIP SPREADER, SELF PROPELLED, 13' WIDE, 2.28 CY, 2WD	152 HP	D-off	\$121,671	45.56	6.85	11.78	0.96	18.04	153
	A10RS007	SPRH	CHIP SPREADER, SELF PROPELLED, 15' WIDE, 2.53 CY, 2WD	152 HP	D-off	\$123,064	45.85	6.93	11.92	0.97	18.04	159
	A10RS008	SPREADPRO	CHIP SPREADER, SELF PROPELLED, 16' WIDE, 4.50 CY, 4WD	205 HP	D-off	\$238,662	77.08	13.56	23.35	1.88	24.33	158
	<b>SUBCATEGORY 0.20</b>		<b>TOWED &amp; TAILGATE</b>									
	<b>AMERICAN ROAD MACHINERY, INC.</b>											
	A10AR001	TG-505C	CHIP SPREADER, TAILGATE, 8' WIDE (ADD DUMP TRUCK)			\$3,345	0.84	0.26	0.45	0.03	0.00	5
	A10AR002	ODELL 900	CHIP SPREADER, TOWED, 8' WIDE, 3 CY (ADD DUMP TRUCK)			\$16,234	4.25	1.21	2.16	0.13	0.00	22
	<b>SEALMASTER, INC.</b>											
	A10SE001	R-1 E2310	CHIP SPREADER, TAILGATE, 8' WIDE, 1.13 CY (ADD DUMP TRUCK)			\$12,802	3.20	0.96	1.71	0.10	0.00	21

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>A10</i>	<i>SEALMASTER, INC. (continued)</i>											
	A10SE002	R-1 E2500	CHIP SPREADER, TOWED, 8' WIDE, 1.13 CY (ADD DUMP TRUCK)			\$15,021	3.75	1.12	2.00	0.12	0.00	30
<b>A15</b>	<b>AIR COMPRESSORS, PORTABLE</b>											
	<b>SUBCATEGORY 0.10</b>		<b>ROTARY SCREW</b>									
	<b>DOOSAN PORTABLE POWER</b>											
	A15DP001	P185WJD	AIR COMPRESSOR, 185 CFM, 100 PSI (ADD HOSE)	56	HP D-off	\$21,132	11.54	0.98	1.64	0.16	7.04	21
	A15DP002	HP375WJD	AIR COMPRESSOR, 375 CFM, 150 PSI (ADD HOSE)	110	HP D-off	\$45,813	23.37	2.16	3.62	0.35	13.82	38
	A15DP003	VHP400WJD	AIR COMPRESSOR, 400 CFM, 200 PSI (ADD HOSE)	174	HP D-off	\$60,428	34.93	2.85	4.76	0.47	21.86	53
	A15DP004	HP450WJD	AIR COMPRESSOR, 450 CFM, 150 PSI (ADD HOSE)	174	HP D-off	\$60,428	34.93	2.85	4.76	0.47	21.86	53
	A15DP010	XHP1070WCAT	AIR COMPRESSOR, 1,070 CFM, 350 PSI (ADD HOSE)	400	HP D-off	\$189,795	88.96	8.98	15.03	1.46	50.26	152
	A15DP011	XP535WCU	AIR COMPRESSOR, 535 CFM, 125 PSI (ADD HOSE)	173	HP D-off	\$80,288	38.15	3.81	6.37	0.62	21.74	53
	A15DP012	HP750WCU-T4I	AIR COMPRESSOR, 750 CFM, 150 PSI (ADD HOSE)	270	HP D-off	\$123,550	59.27	5.84	9.77	0.95	33.92	87
	A15DP013	XP825WCU-T4I	AIR COMPRESSOR, 825 CFM, 125 PSI (ADD HOSE)	270	HP D-off	\$123,550	59.27	5.84	9.77	0.95	33.92	87
	A15DP014	XP1000WCU-T4I	AIR COMPRESSOR, 1,000 CFM, 125 PSI (ADD HOSE)	305	HP D-off	\$206,040	78.41	9.73	16.27	1.59	38.32	104
	A15DP015	HP915WCU-T4I	AIR COMPRESSOR, 915 CFM, 150 PSI (ADD HOSE)	305	HP D-off	\$102,632	60.61	4.84	8.09	0.79	38.32	104

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>SULLAIR CORPORATION</b>												
	A15SR006	125DPOJD	AIR COMPRESSOR, 125 CFM, 100 PSI (ADD HOSE)	76	HP D-off	\$13,274	13.02	0.61	1.01	0.10	9.55	24
	A15SR007	130DPOJD	AIR COMPRESSOR, 130 CFM, 100 PSI (ADD HOSE)	77	HP D-off	\$13,297	13.16	0.61	1.02	0.10	9.67	26
	A15SR004	185	AIR COMPRESSOR, 185 CFM, 100 PSI (ADD HOSE)	78	HP D-off	\$13,274	13.30	0.61	1.01	0.10	9.80	24
	A15SR005	260	AIR COMPRESSOR, 260 CFM, 100 PSI (ADD HOSE)	80	HP D-off	\$17,830	14.37	0.83	1.38	0.14	10.05	26
	A15SR008	375HDPOJD	AIR COMPRESSOR, 375 CFM, 150 PSI (ADD HOSE)	123	HP D-off	\$30,409	22.59	1.41	2.36	0.23	15.45	42
	A15SR009	425DPOJD	AIR COMPRESSOR, 425 CFM, 100 PSI (ADD HOSE)	124	HP D-off	\$30,408	22.74	1.41	2.36	0.23	15.58	42
	A15SR010	600HDTQCA	AIR COMPRESSOR, 600 CFM, 150 PSI (ADD HOSE)	230	HP D-off	\$65,338	43.71	3.04	5.07	0.50	28.90	100
	A15SR011	750HHDTQCA	AIR COMPRESSOR, 750 CFM, 175 PSI (ADD HOSE)	300	HP D-off	\$76,921	55.56	3.59	6.00	0.59	37.69	103
	A15SR002	900XH	AIR COMPRESSOR, 900 CFM, 350 PSI (ADD HOSE)	440	HP D-off	\$156,758	89.00	7.37	12.31	1.21	55.28	157
	A15SR012	1050DTQCA	AIR COMPRESSOR, 1,050 CFM, 100 PSI (ADD HOSE)	300	HP D-off	\$75,716	55.35	3.53	5.90	0.58	37.69	105
	A15SR013	1300HDTQCA	AIR COMPRESSOR, 1,300 CFM, 150 PSI (ADD HOSE)	450	HP D-off	\$134,194	86.49	6.33	10.58	1.04	56.54	156
	A15SR014	1600HDTQCA	AIR COMPRESSOR, 1,600 CFM, 100 PSI (ADD HOSE)	450	HP D-off	\$146,913	88.82	6.84	11.42	1.13	56.54	162
<b>NO SPECIFIC MANUFACTURER</b>												
	A15XX019	85G	AIR COMPRESSOR, 85 CFM, 100 PSI (ADD HOSE)	30	HP G	\$11,482	10.74	0.53	0.87	0.09	7.67	14

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
A15			<i>NO SPECIFIC MANUFACTURER (continued)</i>									
	A15XX020	85D	AIR COMPRESSOR, 85 CFM, 100 PSI (ADD HOSE)	30 HP	D-off	\$21,965	8.03	1.03	1.71	0.17	3.77	24
	A15XX021	100G	AIR COMPRESSOR, 100 CFM, 100 PSI (ADD HOSE)	50 HP	G	\$15,292	17.22	0.71	1.18	0.12	12.78	17
	A15XX022	100D	AIR COMPRESSOR, 100 CFM, 125 PSI (ADD HOSE)	35 HP	D-off	\$22,547	8.83	1.05	1.76	0.17	4.40	17
	A15XX023	125G	AIR COMPRESSOR, 125 CFM, 100 PSI (ADD HOSE)	65 HP	G	\$16,078	21.71	0.74	1.24	0.12	16.62	20
	A15XX024	130	AIR COMPRESSOR, 130 CFM, 100 PSI (ADD HOSE)	50 HP	D-off	\$25,391	11.43	1.19	1.98	0.20	6.28	18
	A15XX025	160G	AIR COMPRESSOR, 160 CFM, 125 PSI (ADD HOSE)	60 HP	G	\$17,559	20.52	0.82	1.36	0.14	15.34	23
	A15XX026	175D	AIR COMPRESSOR, 175 CFM, 100 PSI (ADD HOSE)	70 HP	D-off	\$28,385	14.76	1.33	2.22	0.22	8.79	27
	A15XX027	175G	AIR COMPRESSOR, 175 CFM, 125 PSI (ADD HOSE)	90 HP	G	\$18,259	29.35	0.85	1.41	0.14	23.01	24
	A15XX028	185D	AIR COMPRESSOR, 185 CFM, 100 PSI (ADD HOSE)	80 HP	D-off	\$29,075	16.29	1.36	2.28	0.22	10.05	24
	A15XX029	185G	AIR COMPRESSOR, 185 CFM, 125 PSI (ADD HOSE)	70 HP	G	\$19,763	23.80	0.92	1.53	0.15	17.90	23
	A15XX030	250	AIR COMPRESSOR, 250 CFM, 100 PSI (ADD HOSE)	85 HP	D-off	\$38,477	18.60	1.82	3.03	0.30	10.68	31
	A15XX031	300	AIR COMPRESSOR, 300 CFM, 125 PSI (ADD HOSE)	110 HP	D-off	\$56,212	25.15	2.66	4.45	0.43	13.82	37
	A15XX032	375	AIR COMPRESSOR, 375 CFM, 125 PSI (ADD HOSE)	115 HP	D-off	\$51,272	25.05	2.42	4.03	0.40	14.45	37

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>A15</i>	<i>NO SPECIFIC MANUFACTURER (continued)</i>											
	A15XX033	450	AIR COMPRESSOR, 450 CFM, 125 PSI (ADD HOSE)	170 HP	D-off	\$68,174	35.76	3.18	5.30	0.53	21.36	89
	A15XX034	600	AIR COMPRESSOR, 600 CFM, 150 PSI (ADD HOSE)	250 HP	D-off	\$94,714	51.56	4.44	7.42	0.73	31.41	99
	A15XX035	750	AIR COMPRESSOR, 750 CFM, 125 PSI (ADD HOSE)	275 HP	D-off	\$100,948	56.15	4.74	7.92	0.78	34.55	93
	A15XX036	825	AIR COMPRESSOR, 825 CFM, 125 PSI (ADD HOSE)	275 HP	D-off	\$108,719	57.49	5.12	8.55	0.84	34.55	104
	A15XX037	900	AIR COMPRESSOR, 900 CFM, 125 PSI (ADD HOSE)	310 HP	D-off	\$116,331	63.71	5.48	9.15	0.90	38.95	93
	A15XX038	1200	AIR COMPRESSOR, 1,200 CFM, 125 PSI (ADD HOSE)	360 HP	D-off	\$176,512	81.05	8.35	13.97	1.36	45.23	150
	A15XX039	1300	AIR COMPRESSOR, 1,400 CFM, 150 PSI (ADD HOSE)	460 HP	D-off	\$184,569	96.57	8.70	14.55	1.42	57.79	180
	A15XX040	1600	AIR COMPRESSOR, 1,600 CFM, 150 PSI (ADD HOSE)	500 HP	D-off	\$199,035	104.69	9.39	15.70	1.54	62.82	151
	<b>SUBCATEGORY 0.20</b>	<b>SHOP TYPE</b>										
	<b>NO SPECIFIC MANUFACTURER</b>											
	A15XX041	60/5	AIR COMPRESSOR, 21 CFM, 60 GAL (ADD HOSE)	5 HP	E	\$3,781	1.07	0.17	0.27	0.03	0.36	3
	A15XX042	60/7.5	AIR COMPRESSOR, 26 CFM, 60 GAL (ADD HOSE)	7 HP	E	\$4,906	1.43	0.22	0.35	0.04	0.50	3
	A15XX043	120/10	AIR COMPRESSOR, 41 CFM, 120 GAL (ADD HOSE)	10 HP	E	\$5,854	1.86	0.25	0.41	0.04	0.71	4
	A15XX044	120/15	AIR COMPRESSOR, 58 CFM, 120 GAL (ADD HOSE)	15 HP	E	\$6,885	2.54	0.30	0.49	0.05	1.07	4

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
A15	<i>NO SPECIFIC MANUFACTURER (continued)</i>											
	A15XX045	120/25	AIR COMPRESSOR, 108 CFM, 120 GAL (ADD HOSE)	25	HP E	\$12,228	4.35	0.53	0.87	0.09	1.78	4
	A15XX046	120/30	AIR COMPRESSOR, 130 CFM, 120 GAL (ADD HOSE)	30	HP E	\$13,738	5.08	0.59	0.97	0.10	2.14	5
<b>A20</b>	<b>AIR HOSE, TOOLS &amp; EQUIPMENT</b>											
	<b>SUBCATEGORY 0.10</b>	<b>AIR DRILL HOSE</b>										
	<b>NO SPECIFIC MANUFACTURER</b>											
	A20XX001		AIR HOSE, 0.75", 100', 18 MB AIR DRILL			\$1,694	1.28	0.24	0.46	0.01	0.00	1
	A20XX002		AIR HOSE, 1.00", 100', 18 MB AIR DRILL			\$1,965	1.49	0.29	0.53	0.02	0.00	1
	A20XX003		AIR HOSE, 1.25", 100', 18 MB AIR DRILL			\$2,439	1.84	0.35	0.66	0.02	0.00	1
	A20XX004		AIR HOSE, 1.50", 100', 18 MB AIR DRILL			\$3,187	2.42	0.47	0.87	0.03	0.00	1
	A20XX005		AIR HOSE, 2.00", 100', 18 MB AIR DRILL			\$4,519	3.42	0.66	1.23	0.04	0.00	2
	A20XX006		AIR HOSE, 2.50", 100', HARDROCK			\$5,507	4.16	0.80	1.49	0.05	0.00	3
	A20XX007		AIR HOSE, 3.00", 100', HARDROCK			\$6,675	5.05	0.97	1.81	0.06	0.00	4
	A20XX008		AIR HOSE, 4.00", 100', HARDROCK			\$8,901	6.74	1.29	2.42	0.08	0.00	5

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.20 SANDBLAST HOSE</b>											
	<b>CLEMCO INDUSTRIES CORPORATION</b>											
	A20CM017		SANDBLAST HOSE, 0.75"ID, 100' LONG USE AS SAND BLASTING ACCESSORY			\$461	0.37	0.07	0.13	0.00	0.00	1
	A20CM018		SANDBLAST HOSE, 1.00"ID, 100' LONG USE AS SAND BLASTING ACCESSORY			\$543	0.43	0.08	0.15	0.00	0.00	1
	A20CM020		SANDBLAST HOSE, 1.25"ID, 100' LONG USE AS SAND BLASTING ACCESSORY			\$473	0.38	0.07	0.13	0.00	0.00	1
	A20CM019		SANDBLAST HOSE, 1.50"ID, 100' LONG USE AS SAND BLASTING ACCESSORY			\$775	0.63	0.12	0.21	0.01	0.00	1
	<b>SUBCATEGORY 0.30 SANDBLASTERS, BREAKERS, &amp; MISC. AIR TOOLS</b>											
	<b>CHICAGO PNEUMATIC TOOL CO.</b>											
	A20CK002	CP-0009A	ROTARY / CHIP HAMMER, 8 LB, AIR (ADD 30 CFM COMPRESSOR & BIT COSTS)	20	CFM A	\$1,011	0.44	0.09	0.15	0.01	0.00	1
	A20CK001	CP-0014RR	ROTARY / CHIP HAMMER, 15 LB, AIR (ADD 30 CFM COMPRESSOR & BIT COSTS)	32	CFM A	\$1,758	0.76	0.14	0.26	0.01	0.00	1
	A20CK003	CP-0022	ROCK DRILL, 30 LB, AIR (ADD 50 CFM COMPRESSOR & BIT COSTS)	56	CFM A	\$1,972	0.87	0.17	0.30	0.02	0.00	1
	A20CK005	CP-0069	ROCK DRILL, 55 LB, AIR (ADD 140 CFM COMPRESSOR & BIT COSTS)	130	CFM A	\$2,497	1.08	0.21	0.37	0.02	0.00	1
	A20CK006	CP-0111-CHLA	BREAKER-FOUR BOLT, 25 LB (ADD 50 CFM COMPRESSOR & BIT COSTS)	45	CFM A	\$1,234	0.54	0.11	0.19	0.01	0.00	1
	A20CK008	CP-1230-S	BREAKER-FOUR BOLT, 60 LB (ADD 65 CFM COMPRESSOR & BIT COSTS)	63	CFM A	\$1,385	0.61	0.12	0.21	0.01	0.00	1
	A20CK010	CP-1240-S	BREAKER-FOUR BOLT, 90 LB (ADD 90 CFM COMPRESSOR & BIT COSTS)	81	CFM A	\$1,501	0.66	0.13	0.23	0.01	0.00	1

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>CLEMCO INDUSTRIES CORPORATION</b>												
	A20CM010	PACKAGE TWO	SANDBLASTER, 2 CF CAP, W/0.50" D X 25'L HOSE (ADD 100 CFM COMPRESSOR & NOZZLE COST)	100 CFM	A	\$4,735	2.13	0.40	0.71	0.04	0.00	4
	A20CM011	PACKAGE FOUR	SANDBLASTER, 4 CF CAP, W/1.00"D X 25'L HOSE (ADD 170 CFM COMPRESSOR & NOZZLE COST)	170 CFM	A	\$6,100	2.73	0.51	0.92	0.05	0.00	5
	A20CM012	PACKAGE SIX	SANDBLASTER, 6 CF CAP, W/1.25"D X 25'L HOSE (ADD 200 CFM COMPRESSOR & NOZZLE COST)	200 CFM	A	\$6,846	3.11	0.57	1.03	0.05	0.00	6
	A20CM013		SANDBLASTER, 60 CF CAP, W/1.25"D X 50'L HOSE (ADD 450 CFM COMPRESSOR & NOZZLE COST)	450 CFM	A	\$24,534	10.76	1.96	3.54	0.19	0.00	30
	A20CM014		SANDBLASTER, 120 CF CAP, W/1.25"D X 50'L HOSE (ADD 700 CFM COMPRESSOR & NOZZLE COST)	700 CFM	A	\$28,901	12.18	2.13	3.81	0.22	0.00	35
	A20CM015		SANDBLASTER, 160 CF CAP, W/1.25"D X 50'L HOSE (ADD 900 CFM COMPRESSOR & NOZZLE COST)	900 CFM	A	\$36,458	15.80	2.83	5.10	0.28	0.00	45
	A20CM016		SANDBLAST ABRASIVE STORAGE HOPPER, 700 CF, 8' DEEP, 10' WIDE & 23' HIGH (ADD SAND BLASTER & ACCESSORIES)			\$17,419	7.88	1.44	2.61	0.13	0.00	69
<b>WACKER CORPORATION</b>												
	A20WC002	EHB11/BL/110	BREAKER/DRILL, 40 LB, ELECTRIC (ADD 2 KW GENERATOR & BIT COSTS)	2 HP	E	\$1,354	0.91	0.11	0.20	0.01	0.12	1
	A20WC004	BH 23	BREAKER/DRIVER, 65 LB, W/POWER UNIT (ADD BIT COSTS)	4 HP	G	\$3,948	2.73	0.33	0.59	0.03	0.89	1



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>NO SPECIFIC MANUFACTURER</b>											
	A20XX021	STANDARD 25-35 LBS	PAVEMENT BREAKER, 25-35 LB, HAND HELD (ADD 100 CFM COMPRESSOR & BIT COSTS)	100 CFM	A	\$1,387	0.61	0.12	0.21	0.01	0.00	1
	A20XX022	SILENCED 35-45 LBS	PAVEMENT BREAKER, 35-45 LB, HAND HELD (ADD 100 CFM COMPRESSOR & BIT COSTS)	100 CFM	A	\$1,480	0.64	0.12	0.22	0.01	0.00	1
	A20XX023	SILENCED 60-65 LBS	PAVEMENT BREAKER, 60-65 LB, HAND HELD (ADD 100 CFM COMPRESSOR & BIT COSTS)	100 CFM	A	\$1,537	0.67	0.13	0.23	0.01	0.00	1
	A20XX024	SILENCED 80-90 LBS	PAVEMENT BREAKER, 80-90 LB, HAND HELD (ADD 100 CFM COMPRESSOR & BIT COSTS)	100 CFM	A	\$1,620	0.70	0.13	0.24	0.01	0.00	1
	A20XX025	60 DRY	ROCK DRILL, DRY, 60 LB, HAND HELD (ADD 100 CFM COMPRESSOR & BIT COSTS)	100 CFM	A	\$2,548	1.11	0.21	0.38	0.02	0.00	1
<b>A25</b>	<b>ASPHALT PAVING DISTRIBUTORS</b>											
	<b>SUBCATEGORY 0.00</b>	<b>ASPHALT PAVING DISTRIBUTORS</b>										
	<b>ROSCO, A LeeBoy COMPANY</b>											
	A25RS006	MAXIMIZER 11	ASPHALT DISTRIBUTOR, 1,900 GAL, 400 GPM, TRUCK MTD (ADD 32,000 GVW TRUCK)			\$66,056	21.73	5.47	9.91	0.51	0.00	70
	A25RS008	MAXIMIZER 11	ASPHALT DISTRIBUTOR, 3,000 GAL, 400 GPM, TRUCK MTD (ADD 42,000 GVW TRUCK)			\$75,589	25.34	6.25	11.34	0.58	0.00	97

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>NO SPECIFIC MANUFACTURER</b>											
	A25XX001	1000G	ASPHALT DISTRIBUTOR, 1,000 GAL, 400 GPM, TRUCK MTD (ADD 32,000 GVW TRUCK)			\$72,390	23.18	5.99	10.86	0.56	0.00	64
	A25XX002	2500G	ASPHALT DISTRIBUTOR, 2,500 GAL, 400 GPM, TRUCK MTD (ADD 32,000 GVW TRUCK)			\$75,986	25.18	6.29	11.40	0.59	0.00	89
	A25XX003	3500G	ASPHALT DISTRIBUTOR, 3,500 GAL, 400 GPM, TRUCK MTD (ADD 42,000 GVW TRUCK)			\$77,097	26.10	6.38	11.56	0.60	0.00	104
<b>A30</b>	<b>ASPHALT PAVERS &amp; MISCELLANEOUS ROAD EQUIPMENT</b>											
	<b>SUBCATEGORY 0.10 SELF PROPELLED</b>											
	<b>BARBER-GREENE COMPANY</b>											
	A30BG004	BG225C	ASPHALT FINISHER, 8' WIDE SCREED, CRAWLER, W/15' 6" SCREED EXTENSION, 177 CF HOPPER	112 HP	D-off	\$376,655	110.38	22.89	40.02	2.88	13.29	336
	A30BG005	BG2455D	ASPHALT FINISHER, 10' WIDE SCREED, CRAWLER, W/19' 6" SCREED EXTENSION, 215 CF HOPPER	224 HP	D-off	\$400,709	131.29	24.35	42.58	3.06	26.58	374
	A30BG003	BG260D	ASPHALT FINISHER, 10' WIDE SCREED, WHEEL, W/19' 6" SCREED EXTENSION, 215 CF HOPPER	224 HP	D-off	\$383,153	126.19	21.58	37.29	2.93	26.58	382
	<b>BLAW KNOX CONSTRUCTION EQUIPMENT CORP.</b>											
	A30BK011	PF-161	ASPHALT PAVER/FINISHER, 8' WIDE SCREED, WHEEL, 181 CF HOPPER	107 HP	D-off	\$268,628	81.64	15.40	26.69	2.05	12.70	210
	A30BK013	PF-3172	ASPHALT PAVER/FINISHER, 10' WIDE SCREED, WHEEL, 182 CF HOPPER	145 HP	D-off	\$319,737	99.05	18.63	32.38	2.44	17.21	299

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>A30</i>			<i>BLAW KNOX CONSTRUCTION EQUIPMENT CORP. (continued)</i>									
	A30BK015	PF-6160	ASPHALT PAVER/FINISHER, 10' WIDE SCREED, WHEEL, 230 CF HOPPER	184 HP	D-off	\$368,655	116.63	21.41	37.18	2.82	21.83	361
	A30BK018	PF-6110	ASPHALT PAVER/FINISHER, 10' WIDE SCREED, CRAWLER, 218 CF HOPPER	184 HP	D-off	\$406,490	125.91	24.71	43.19	3.11	21.83	400
	A30BK019	RW 100 A	ASPHALT PAVER, SHOULDER PAVING MACHINE, 1'-10' WIDE, BITUMINOUS & AGGREGATE, WHEEL, 72.5 CF HOPPER	105 HP	D-off	\$287,232	85.57	17.31	30.22	2.20	12.46	245
	A30BK020	RW 195	ASPHALT PAVER, SHOULDER PAVING MACHINE, 2'-10' WIDE, BITUMINOUS & AGGREGATE, WHEEL, 73 CF HOPPER	173 HP	D-off	\$376,205	116.93	22.72	39.68	2.88	20.53	330
	A30BK021	TITAN 325 EPM	ASPHALT PAVER, 32.8' WIDE, CRAWLER W/DUAL TAMPER SCREED, 270 CF HOPPER	176 HP	D-off	\$395,506	122.09	24.03	42.02	3.02	20.88	399
	A30BK022	PF-2181	ASPHALT PAVER, 8' WIDE SCREED, WHEEL, 2 WHEEL DRIVE, 182 CF HOPPER	145 HP	D-off	\$302,465	94.73	17.58	30.54	2.31	17.21	283
	A30BK023	PF-4410	ASPHALT PAVER, 8' WIDE SCREED, CRAWLER, 155 CF HOPPER	145 HP	D-off	\$346,552	105.77	21.06	36.82	2.65	17.21	269
			<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>									
	A30CA013	AP-655D	ASPHALT PAVER, 8' WIDE SCREED, CRAWLER, 177 CF HOPPER	174 HP	D-off	\$273,849	91.48	16.64	29.10	2.09	20.65	402
	A30CA002	AP-600D	ASPHALT PAVER, 8' WIDE+2' EXT. PAVEMASTER SCREED, WHEEL, 230 CF HOPPER	174 HP	D-off	\$285,400	95.07	16.32	28.27	2.18	20.65	319
	A30CA008	AP-1000D	ASPHALT PAVER, 10' - 12' WIDE PAVEMASTER SCREED, WHEEL, 215 CF HOPPER	224 HP	D-off	\$330,363	112.87	18.99	32.91	2.53	26.58	468

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
A30	<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>											
	A30CA016	AP-1055D	ASPHALT PAVER, 10' WIDE SCREED, CRAWLER, 215 CF HOPPER	224 HP	D-off	\$445,632	141.00	27.09	47.35	3.41	26.58	413
	<b>CHAMPION ROAD MACHINERY-PRO PAV (WIRTGEN)</b>											
	A30CH001	780WB	ASPHALT PAVER, 8' WIDE SCREED, WHEEL, 190 CF HOPPER	110 HP	D-off	\$292,836	88.08	16.87	29.26	2.24	13.05	265
	A30CH002	880WB	ASPHALT PAVER, 8' WIDE SCREED, WHEEL, 190 CF HOPPER	152 HP	D-off	\$319,405	99.89	18.61	32.34	2.44	18.04	315
	A30CH003	880RTB	ASPHALT PAVER, 8' WIDE SCREED, CRAWLER-RUBBER TRACK, 190 CF HOPPER	152 HP	D-off	\$321,640	100.48	19.55	34.17	2.46	18.04	282
	A30CH004	1010WB	ASPHALT PAVER, 10' WIDE SCREED, WHEEL, 205 CF HOPPER	152 HP	D-off	\$336,703	104.12	19.60	34.05	2.57	18.04	305
	A30CH005	1110WB	ASPHALT PAVER, 10' WIDE SCREED, WHEEL, 225 CF HOPPER	173 HP	D-off	\$367,408	114.95	21.40	37.18	2.81	20.53	343
	A30CH006	1110RTB SWIFTRACK	ASPHALT PAVER, 10' WIDE SCREED, CRAWLER-RUBBER TRACK, 225 CF HOPPER	200 HP	D-off	\$428,720	133.59	26.06	45.55	3.28	23.73	402
	<b>GEHL COMPANY</b>											
A30GC002	1448	ASPHALT PAVER, 8' WIDE SCREED, WHEEL, 80 CF HOPPER	25 HP	D-off	\$41,022	13.58	2.43	4.23	0.31	2.97	67	
A30GC004	1648	ASPHALT PAVER, 9' WIDE SCREED, CRAWLER, 120 CF HOPPER	41 HP	D-off	\$58,964	20.17	3.58	6.26	0.45	4.87	85	

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.20 TOWED</b>											
	<b>MIDLAND MACHINERY CO</b>											
	A30MP001	SPD-8	ASPHALT PAVER, SHOULDER PAVING MACHINE, 1'-8' WIDE, BITUMINOUS & AGGREGATE, WHEEL, 80 CF HOPPER	80 HP	D-off	\$171,148	39.58	8.17	13.69	1.32	8.66	185
	A30MP002	SPD-10	ASPHALT PAVER, SHOULDER PAVING MACHINE, 1'-10' WIDE, BITUMINOUS & AGGREGATE, WHEEL, 80 CF HOPPER	100 HP	D-off	\$191,627	45.57	9.15	15.33	1.48	10.82	275
	<b>SUBCATEGORY 0.30 SLURRY SEAL PAVERS (Cold mix)</b>											
	<b>NO SPECIFIC MANUFACTURER</b>											
	A30XX001	MINIMAC	ASPHALT PAVER, SLURRY SEAL PAVER 8' WIDE, SELF PROPELLED, WHEEL, 80 CF HOPPER	110 HP	D-off	\$160,446	32.98	6.42	10.40	1.22	11.13	130
	A30XX002	MACROPAVER 12B	ASPHALT PAVER, SLURRY SEAL PAVER 8' WIDE, TRUCK MTD, 12 CF HOPPER (ADD 40,000 GVW TRUCK)	110 HP	D-off	\$196,126	36.60	8.03	13.08	1.49	11.13	175
	<b>SUBCATEGORY 0.40 MISCELLANEOUS ROAD EQUIPMENT</b>											
	<b>BLAW KNOX CONSTRUCTION EQUIPMENT CORP.</b>											
	A30BK024	MC-330	ASPHALT PAVER, MOBILE CONVEYOR, 60" WIDE BELT, WHEEL (ADD ASPHALT PAVER UNIT)	184 HP	D-off	\$384,465	89.87	17.83	29.72	2.97	19.91	430
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	A30CA007	BG-260 D	ASPHALT PAVER, ASPHALT WINDROW ELEVATOR, WHEEL (ADD ASPHALT PAVER UNIT)	107 HP	D-off	\$265,707	59.50	12.46	20.81	2.05	11.58	171

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
			<b>LEE-BOY</b>									
	A30LD001	3000	ASPHALT PAVER, ASPHALT FORCE FEED LOADER, 30" WIDE BELT, WINDROW OR LOOSE, WHEEL (ADD ASPHALT PAVER UNIT)	110 HP	D-off	\$155,482	41.03	7.01	11.61	1.20	11.90	198
			<b>ROADTEC ( ASTEC INDUSTRIES COMPANY)</b>									
	A30RT001	SB-1500	ASPHALT PAVER, ASPHALT MATERIAL TRANSFER VEHICLE, 15 TON HOPPER, 600 TPH, 65" WIDE CONVEYOR, WHEEL	300 HP	D-off	\$421,931	110.05	20.10	33.70	3.25	32.46	672
	A30RT007	SB-2500E	ASPHALT PAVER, ASPHALT MATERIAL TRANSFER VEHICLE, 25 TON HOPPER, 1000 TPH, 69" WIDE CONVEYOR, WHEEL	300 HP	D-off	\$460,712	118.14	21.60	36.09	3.55	32.46	780
<b>A35</b>	<b>ASPHALT PAVING KETTLES</b>											
	<b>SUBCATEGORY 0.00</b>	<b>ASPHALT PAVING KETTLES</b>										
			<b>AEROIL PRODUCTS COMPANY, INC.</b>									
	A35AE001	KEB-80T	ASPHALT/PAVEMENT KETTLE, 80 GAL, TRAILER W/PUMP & HOSE	5 HP	G	\$5,345	4.64	0.35	0.61	0.04	1.11	9
	A35AE002	KEB-115T	ASPHALT/PAVEMENT KETTLE, 115 GAL, TRAILER W/PUMP & HOSE	5 HP	G	\$8,530	6.25	0.59	1.03	0.07	1.11	11
	A35AE003	KEB-170T	ASPHALT/PAVEMENT KETTLE, 170 GAL, TRAILER W/PUMP & HOSE	5 HP	G	\$10,363	7.15	0.73	1.30	0.08	1.11	15
	A35AE004	KEB-260T	ASPHALT/PAVEMENT KETTLE, 260 GAL, TRAILER W/PUMP & HOSE	5 HP	G	\$12,065	8.55	0.87	1.53	0.10	1.11	19
	A35AE005	KEB-350T	ASPHALT/PAVEMENT KETTLE, 350 GAL, TRAILER W/PUMP & HOSE	5 HP	G	\$14,100	11.25	0.98	1.72	0.12	1.11	20

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>A40</b>	<b>ASPHALT &amp; CONCRETE MILLERS / PROFILERS / PLANERS / ROTARY GRINDERS</b>											
	<b>SUBCATEGORY 0.00 ASPHALT &amp; CONCRETE MILLERS / PROFILERS / PLANERS / ROTARY GRINDERS</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
A40CA008	PM-200		ASPHALT COLD PLANER, 75" W X 10" D, CRAWLER (ADD CUTTING TEETH COSTS)	575 HP	D-off	\$564,807	283.31	42.28	75.31	4.62	90.30	505
A40CA009	PM-201		ASPHALT COLD PLANER, 83" W X 12" D, CRAWLER (ADD CUTTING TEETH COSTS)	650 HP	D-off	\$647,271	323.09	48.44	86.30	5.29	102.08	735
	<b>TEREX - CMI (TEREX ROADBUILDING)</b>											
A40CW001	PR-950		ASPHALT PROFILER, MAX 12.5' W X 15" D, CRAWLER (ADD CUTTING TEETH COSTS)	950 HP	D-off	\$884,889	452.52	66.23	117.99	7.23	149.20	1,205
	<b>ROADTEC ( ASTEC INDUSTRIES COMPANY)</b>											
A40RT008	RX-400E		ASPHALT COLD PLANER, 40" W X 10" D, WHEEL (ADD CUTTING TEETH COSTS)	325 HP	D-off	\$403,604	185.29	28.98	51.36	3.30	51.04	470
A40RT009	RX-400E		ASPHALT COLD PLANER, 52" W X 8" D, CRAWLER (ADD CUTTING TEETH COSTS)	325 HP	D-off	\$411,219	189.77	30.78	54.83	3.36	51.04	470
A40RT010	RX-600E		ASPHALT COLD PLANER, 78" W X 12" D, CRAWLER (ADD CUTTING TEETH COSTS)	620 HP	D-off	\$509,450	273.39	38.13	67.93	4.16	97.37	592
A40RT011	RX-700E		ASPHALT COLD PLANER, 98" W X 12" D, CRAWLER (ADD CUTTING TEETH COSTS)	700 HP	D-off	\$600,548	316.84	44.95	80.07	4.91	109.94	840

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>A40</b>	<i>ROADTEC (ASTEC INDUSTRIES COMPANY) (continued)</i>											
	A40RT012	RX-900E	ASPHALT COLD PLANER, 150" W X 8" D, CRAWLER (ADD CUTTING TEETH COSTS)	700 HP	D-off	\$718,372	354.82	53.76	95.78	5.87	109.94	920
<b>A45</b>	<b>ASPHALT RECYCLERS &amp; SEALERS</b>											
	<b>SUBCATEGORY 0.00 ASPHALT RECYCLERS &amp; SEALERS</b>											
	<b>AEROIL PRODUCTS COMPANY, INC.</b>											
	A45AE001	HEPR-52V	ASPHALT RESURFACER-PATCHER, 4' WIDE, 17.3 SF, 600,000 BTU INFRA-RED HEATER, TRAILER MTD			\$13,207	11.83	1.14	2.05	0.11	0.00	11
	A45AE002	HEPR-96V	ASPHALT RESURFACER-PATCHER, 8' WIDE, 32.0 SF, 1,200,000 BTU INFRA-RED HEATER, TRAILER MTD			\$20,365	21.58	1.77	3.19	0.17	0.00	16
	A45AE003	IPRS96V	ASPHALT RESURFACER-PATCHER, 10' WIDE, 40.0 SF, 1,420,000 BTU INFRA-RED HEATER, TRAILER MTD			\$46,849	33.82	4.11	7.43	0.39	0.00	17
	<b>ROSCO, A LeeBoy COMPANY</b>											
	A45RS001	RA-2000	ASPHALT SPRAY PATCHER, 300 GAL, ARTICULATED BOOM - 17' R, TRAILER MTD	80 HP	D-off	\$52,078	29.02	4.55	8.21	0.44	8.66	60
	A45RS002	RA-300	ASPHALT SPRAY PATCHER, 400 GAL, TELESCOPIC BOOM - 22' EXT, TRUCK MTD	210 HP	D-on	\$167,206	90.89	14.78	26.75	1.40	26.37	179



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SEALMASTER, INC.</b>											
	A45SE003	SP300 DUAL	ASPHALT SEALCOATER, 320 GAL, 75 GPM, 108" WIDE DUAL SPRAY, SQUEEGEE, SELF PROPELLED	30 HP	D-off	\$42,696	21.07	3.71	6.69	0.36	3.25	38
	A45SE004	TR-1000	ASPHALT SEALCOATER, 1000 GAL, 50 GPM, 88" WIDE SPRAY BAR, TRAILER MTD	13 HP	G	\$25,805	12.85	2.15	3.85	0.22	2.88	52
<b>B10 BATCH PLANTS, ASPHALT &amp; CONCRETE</b>												
	<b>SUBCATEGORY 0.20 CONCRETE</b>											
<b>CEMEN TECH</b>												
	B10CC007	MCD2-50HT	BATCH PLANT, CONCRETE DISPENSER, 15 CY/HR MAX, W/TWO AGGREGATE BINS, 2 CY/ 1 CY CEMENT BIN/ 7' LONG SLOPING 8" DIA SCREW WET MIXER/DELIVERER/ 250 GAL WATER TANK/ & METERING PUMP, 2 CY LOAD, TRAILER MTD	18 HP	G	\$51,470	19.97	2.91	5.00	0.41	3.99	80
	B10CC008	MCD5-100	BATCH PLANT, CONCRETE DISPENSER, 30 CY/HR MAX, W/TWO AGGREGATE BINS, 5.5 CY/ 1.9 CY CEMENT BIN/ 9' LONG SLOPING 9" DIA SCREW WET MIXER/DELIVERER/ 250 GAL WATER TANK/ & METERING PUMP, 5 CY LOAD, TRUCK MTD	163 HP	G	\$55,699	58.16	2.94	4.99	0.44	36.16	132
	B10CC009	MCD8-100	BATCH PLANT, CONCRETE DISPENSER, 30 CY/HR MAX, W/TWO AGGREGATE BINS, 9.3 CY/ 3.1 CY CEMENT BIN/ 9' LONG SLOPING 12" DIA SCREW WET MIXER/DELIVERER/ 250 GAL WATER TANK/ & METERING PUMP, 8 CY LOAD, TRUCK MTD	200 HP	G	\$72,682	71.95	3.72	6.29	0.57	44.37	194

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B10</i>	<i>CEMEN TECH (continued)</i>											
	B10CC010	MCD8-150	BATCH PLANT, CONCRETE DISPENSER, 60 CY/HR MAX, W/TWO AGGREGATE BINS, 9.6 CY/ 3.1 CY CEMENT BIN/ 9' LONG SLOPING 12" DIA SCREW WET MIXER/DELIVERER/ 250 GAL WATER TANK/ & METERING PUMP, 8 CY LOAD, TRUCK MTD	200 HP	G	\$84,592	75.12	4.42	7.49	0.67	44.37	204
	B10CC012	210 BBL	BATCH PLANT, SILO, CEMENT, 830 CF, 210 BARREL (BATCH PLANT ATTACHMENT)	18 HP	G	\$24,782	11.33	1.44	2.48	0.20	3.99	35
	B10CC011	HS-240	BATCH PLANT, SILO, CEMENT, 38 TON HORIZONTAL 240 BARREL (BATCH PLANT ATTACHMENT)	20 HP	E	\$23,785	8.64	1.38	2.38	0.19	1.24	45
	B10CC013	300 BBL	BATCH PLANT, SILO, CEMENT, 1,200 CF, 300 BARRL (BATCH PLANT ATTACHMENT)	18 HP	G	\$32,522	13.26	1.89	3.25	0.26	3.99	48
	B10CC014		BATCH PLANT, CEMENT LOADING AUGER, 6" DIA, 19' LONG (BATCH PLANT ATTACHMENT)	5 HP	E	\$7,363	2.76	0.43	0.74	0.06	0.31	10
	<b>CON-E-CO</b>											
	B10CL025	MTM 12	BATCH PLANT, CONCRETE MIXER, 12 CY, TILT DRUM, 11.67' DIA, REMOVABLE AXLES, TRAILER MTD (ADD DRY BATCH PLANT)	200 HP	E	\$305,362	92.53	17.55	30.28	2.41	12.35	130
	B10CL021	VERSA-PLANT 10	BATCH PLANT, CONCRETE AGGREGATE DRY, 40CY/HR, 10 CY AGGREGATE BATCHER, W/30" X 40' LOADING CONVEYOR, SCALES & WATER METER INCLUDED, TRAILER MTD (ADD 5 KW GENERATOR, WATER TANK & WET BATCHER)	35 HP	E	\$93,191	25.55	5.14	8.79	0.74	2.16	190

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B10</i>			<i>CON-E-CO (continued)</i>									
	B10CL015	PLP MODEL 12	BATCH PLANT, CONCRETE AGGREGATE DRY, 200 CY/HR, W/TWO AGGREGATE BINS, 81 TON, 60 CY/ 36"X20' CONVEYOR/ 3 BIN 12 CY AGGREGATE BATCHER/ 30"X33.5' LOADING CONVEYOR/ & 475 BARREL, 88 TON CEMENT SILO, TRAILER MTD (ADD 110 KW GENERATOR)	30	HP E	\$174,714	47.17	9.68	16.59	1.38	1.85	380
	B10CL006	LO-PRO 12	BATCH PLANT, CONCRETE AGGREGATE DRY, 275 CY/HR, W/TWO AGGREGATE BINS, 65 TON, 50 CY/ 36"X20' CONVEYOR/ 12 CY AGGREGATE BATCHER/ 36"X36' LOADING CONVEYOR/ & 215 BARREL, 35 TON CEMENT SILO, TRAILER MTD (ADD 140 KW GENERATOR)	120	HP E	\$335,314	94.02	18.95	32.59	2.65	7.41	426
	B10CL027		BATCH PLANT, CEMENT SILO, 1,910 CF, 475 BARREL (BATCH PLANT ATTACHMENT)			\$22,495	5.48	1.31	2.25	0.18	0.00	144
	B10CL042		BATCH PLANT, SCREW CONVEYOR, 6" DIA, 10' LONG (CEMENT SILO ATTACHMENT)	5	HP E	\$3,528	1.32	0.21	0.35	0.03	0.31	5
	B10CL045		BATCH PLANT, SCREW CONVEYOR, 6" DIA, 20' LONG (CEMENT SILO ATTACHMENT)	10	HP E	\$4,491	2.02	0.27	0.45	0.04	0.62	11
	B10CL036		BATCH PLANT, SCREW CONVEYOR, 9" DIA, 10' LONG (CEMENT SILO ATTACHMENT)	8	HP E	\$3,840	1.66	0.22	0.38	0.03	0.49	9
	B10CL040		BATCH PLANT, SCREW CONVEYOR, 9" DIA, 20' LONG (CEMENT SILO ATTACHMENT)	20	HP E	\$5,293	3.13	0.31	0.53	0.04	1.24	16

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B10</i>			<i>CON-E-CO (continued)</i>									
	B10CL032		BATCH PLANT, SCREW CONVEYOR, 12" DIA, 10' LONG (CEMENT SILO ATTACHMENT)	10	HP E	\$4,600	2.04	0.27	0.46	0.04	0.62	10
	B10CL034		BATCH PLANT, SCREW CONVEYOR, 12" DIA, 20' LONG (CEMENT SILO ATTACHMENT)	20	HP E	\$9,201	4.08	0.53	0.92	0.07	1.24	20
			<b>EXCEL MACHINERY LTD.</b>									
	B10EM001	EXCEL PORT-A-PUG	BATCH PLANT, CONCRETE CONTINUOUS PUGG MILL MIXER, 400 CY/HR MAX, W/12 CY AGGREGATE STORAGE BIN/ 48"X18' METERING CONVEYOR/ CEMENT SILO, 44 TON, 34.8 CY/ 30" X 37' CONVEYOR, TRAILER MTD (ADD 200 KW GENERATOR)	25	HP G	\$477,194	123.92	26.84	46.13	3.77	5.55	590
	B10EM002		BATCH PLANT, CEMENT SILO, 45 TON HORIZONTAL 350 BARREL (BATCH PLANT ATTACHMENT)	10	HP E	\$32,542	9.53	1.68	2.84	0.26	0.62	45
	B10EM003		BATCH PLANT, CEMENT SILO, 2,200 CF (BARREL CAP 550 MAX / 450 MIN) W/DRIVE-THRU TYPE UNDERSTRUCTURE (BATCH PLANT ATTACHMENT)			\$29,016	7.07	1.68	2.90	0.23	0.00	222
			<b>JOHNSON-ROSS (TEREX ROADBUILDING)</b>									
	B10RC007	BANDIT 5	BATCH PLANT, CONCRETE AGGREGATE DRY, 100 CY/HR, W/TWO AGGREGATE BINS, 65 TON, 48 CY/ 36" X 20' CONVEYOR/ 2 BIN 5 CY BATCHER/ 30" X 33.5' LOADING CONVEYOR/ & 257 BARREL, 48 TON CEMENT SILO, TRAILER MTD (ADD 100 KW GENERATOR)	15	HP E	\$161,690	42.81	9.04	15.52	1.28	0.93	3,000

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B10</i>			<i>JOHNSON-ROSS (TEREX ROADBUILDING) (continued)</i>									
	B10RC032	RUSTLER III	BATCH PLANT, CONCRETE AGGREGATE DRY, 160 CY/HR, W/TWO AGGREGATE BINS, 28 TON, 21 CY/ 2 BIN 12 CY BATCHER/ 30" X 33.5' LOADING CONVEYOR/ & 400 BARREL, 75 TON CEMENT SILO, TRAILER MTD (ADD 130 KW GENERATOR)	50 HP	E	\$231,510	64.70	12.88	22.09	1.83	3.09	536
	B10RC006	RUSTLER II	BATCH PLANT, CONCRETE AGGREGATE DRY, 160 CY/HR, W/3 AGGREGATE BINS, 71 TON, 52 CY/ 36" X 20' CONVEYOR/ 3 BIN 12 CY BATCHER/ 30" X 33.5' LOADING CONVEYOR/ 375 BARREL, 70 TON CEMENT SILO, TRAILER MTD (ADD 130KW GENERATOR)	46 HP	E	\$212,314	59.61	11.77	20.17	1.68	2.81	489
	B10RC008	BANDIT B12	BATCH PLANT, CONCRETE AGGREGATE DRY, 200 CY/HR, W/THREE AGGREGATE BINS, 65 TON, 48 CY/ 36" X 20' CONVEYOR/ 3 BIN 12 CY BATCHER/ 30" X 33.5' LOADING CONVEYOR/ & 720 BARREL, 134 TON CEMENT SILO, TRAILER MTD (ADD 100 KW GENERATOR)	30 HP	E	\$273,885	71.49	15.53	26.74	2.16	1.85	250
	B10RC027		BATCH PLANT, CONCRETE MIXER, 4.5 CY, TILT DRUM, SKID MTD (ADD DRY BATCH PLANT)	40 HP	E	\$163,019	45.37	9.44	16.30	1.29	2.47	34
	B10RC028		BATCH PLANT, CONCRETE MIXER, 6.0 CY, TILT DRUM, SKID MTD (ADD DRY BATCH PLANT)	60 HP	E	\$183,072	52.35	10.60	18.31	1.44	3.71	45
	B10RC029		BATCH PLANT, CONCRETE MIXER, 8.0 CY, TILT DRUM, SKID MTD (ADD DRY BATCH PLANT)	80 HP	E	\$206,842	60.20	11.97	20.68	1.63	4.94	60

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B10</i>			<i>JOHNSON-ROSS (TEREX ROADBUILDING) (continued)</i>									
	B10RC030		BATCH PLANT, CONCRETE MIXER, 10.0 CY, TILT DRUM, SKID MTD (ADD DRY BATCH PLANT)	100 HP	E	\$225,295	67.81	13.05	22.53	1.78	6.18	75
	B10RC031		BATCH PLANT, CONCRETE MIXER, 12.0 CY, TILT DRUM, SKID MTD (ADD DRY BATCH PLANT)	120 HP	E	\$237,780	72.93	13.77	23.78	1.88	7.41	90
	B10RC016	MOBILE MIXER	BATCH PLANT, CONCRETE MIXER, 4.5CY, TILT DRUM TYPE, REVOLVING LIFT STAND, TRAILER MTD (ADD DRY BATCH PLANT & POWER)	75 HP	E	\$261,876	75.38	14.64	25.13	2.07	4.63	420
			<b>STEPHENS MANUFACTURING CO., INC.</b>									
	B10SN031	DC-12	BATCH PLANT, CONCRETE AGGREGATE DRY, 100 CY/HR, W/2 BIN 12 CY BATCHER/ 24" X 41' LOADING CONVEYOR/ & 311 BARREL, 58 TON CEMENT SILO, TRAILER MTD (ADD 100 KW GENERATOR)	25 HP	E	\$81,958	22.84	4.23	7.15	0.65	1.54	340
	B10SN033	DC COLT	BATCH PLANT, CONCRETE AGGREGATE DRY, 100 CY/HR, W/2 BIN 12 CY BATCHER/ 30" X 33.5' LOADING CONVEYOR/ & 311 BARREL, 58 TON CEMENT SILO, TRAILER MTD (ADD 100 KW GENERATOR)	30 HP	E	\$158,608	42.11	8.66	14.82	1.25	1.85	340
	B10SN032	MUSTANG 5	BATCH PLANT, CONCRETE AGGREGATE DRY, 160 CY/HR, W/3 AGGREGATE STORAGE BINS, 29.6 TON, 40 CY/ 3 BIN 5 CY BATCHER/ 30" X 33.5' LOADING CONVEYOR/ & 251 BARREL, 47 TON CEMENT SILO, TRAILER MTD (ADD 115 KW GENERATOR)	30 HP	E	\$126,801	34.59	6.81	11.61	1.00	1.85	420

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B10</i>	<i>STEPHENS MANUFACTURING CO., INC. (continued)</i>											
	B10SN034	STALLION	BATCH PLANT, CONCRETE AGGREGATE DRY, 160 CY/HR, W/3 AGGREGATE BIN STORAGE, 70 TON, 48 CY/ 2 BIN 10 CY BATCHER/ 30" X 33.5' LOADING CONVEYOR/ & 374 BARREL, 70 TON CEMENT SILO, TRAILER MTD (ADD 100 KW GENERATOR)	20 HP	E	\$176,597	45.55	9.69	16.59	1.39	1.24	360
	B10SN036	MUSTANG 10	BATCH PLANT, CONCRETE AGGREGATE DRY, 160 CY/HR, W/3 AGGREGATE BIN STORAGE, 75 TON, 55 CY/ 2 BIN 10 CY BATCHER/ 30" X 33.5' LOADING CONVEYOR/ & 351 BARREL, 65 TON CEMENT SILO, TRAILER MTD (ADD 115 KW GENERATOR)	45 HP	E	\$165,795	45.47	9.07	15.51	1.31	2.78	500
	B10SN035	THOROUGH-BRED	BATCH PLANT, CONCRETE AGGREGATE DRY, 180 CY/HR, W/4 AGGREGATE BIN STORAGE, 65 TON, 48 CY/ 2 BIN 12 CY BATCHER/ 30" X 33.5' LOADING CONVEYOR/ & 374 BARREL, 70 TON CEMENT SILO, TRAILER MTD (ADD 100 KW GENERATOR)	30 HP	E	\$185,803	48.86	10.23	17.51	1.47	1.85	300
	<b>SUBCATEGORY 0.30 PUGMILL</b>											
	<b>KOLBERG - PIONEER, INC</b>											
	B10KB001	52 PORTABLE PUGMILL	BATCH PLANT, PUGMILL, CONTINUOUS MIXER, 48" DIA TWIN SHAFT X 6' LONG, W/9 CY FEEDER HOPPER/ 36" X 11.5' BELT FEEDER/ 30" X 27' CONVEYOR/ WATER OR ASPHALT PUMP & METER (ADD 95 KW GENERATOR & ANY MATERIAL FEEDS)	95 HP	E	\$189,136	45.69	8.80	14.67	1.46	5.87	190

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT	
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL		
	<b>B10</b>			<i>KOLBERG - PIONEER, INC (continued)</i>									
	B10KB002	52S PORTABLE PUGMILL	BATCH PLANT, PUGMILL, CONTINUOUS MIXER, 48" DIA TWIN SHAFT X 8' LONG, W/13 CY FEEDER HOPPER/ TWO - 36" X 11.5' BELT FEEDERS/ 2ND 11 CY FEEDER HOPPER/ 30" X 27' CONVEYOR/ WATER OR ASPHALT PUMP & METER (ADD 220 KW GENERATOR & ANY MATERIAL FEEDS)	220 HP	E	\$337,591	86.27	15.85	26.49	2.60	13.59	230	
<b>B15</b>	<b>BROOMS, STREET SWEEPERS &amp; FLUSHERS</b>												
	<b>SUBCATEGORY 0.00 BROOMS, STREET SWEEPERS &amp; FLUSHERS</b>												
	<b>BROCE MANUFACTURING COMPANY</b>												
	B15BM001	RJ-350	BROOM, 8' BROOM PATH, PAVEMENT, SELF PROPELLED	80 HP	D-off	\$49,050	21.00	3.12	5.52	0.36	8.66	50	
	<b>ELGIN SWEEPER COMPANY</b>												
	B15EC002	PELICAN P	STREET SWEEPER, 10' BROOM PATH, 3.5 CY HOPPER, 180 GAL WATER TANK, SELF PROPELLED	100 HP	D-off	\$158,731	48.71	9.99	17.61	1.18	10.82	128	
	B15EC001	EAGLE F	STREET SWEEPER, 10' BROOM PATH, 4.5 CY HOPPER, 280 GAL WATER TANK, DUAL ENGINE, SELF PROPELLED	49 HP	D-off	170 HP D-on	\$220,385	61.47	13.81	24.35	1.63	9.43	150
	B15EC003	BROOM BEAR FL42H	STREET SWEEPER, 12' BROOM PATH, 4.5 CY HOPPER, 350 GAL WATER TANK, SELF PROPELLED	230 HP	D-off		\$210,820	76.45	13.39	23.65	1.56	24.88	213
	B15EC004	MEGAWIND	STREET SWEEPER AND CATCH BASIN CLEANER, 12' BROOM PATH, 13 CY HOPPER, 335 GAL WATER TANK, SELF PROPELLED	115 HP	D-off	230 HP D-off	\$233,543	73.13	14.87	26.27	1.73	17.26	238



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
			<b>M-B COMPANIES, INC.</b>									
	B15MB001	MT-AR	STREET SWEEPER, 7' BROOM PATH, W/SPRINKLER AND 152 GAL WATER TANK, PTO DRIVE (ADD 45-100 HP TRACTOR)			\$8,629	2.08	0.55	0.97	0.06	0.00	10
	B15MB002	HT	STREET SWEEPER, 7' BROOM PATH, W/SPRINKLER AND 152 GAL WATER TANK, PTO DRIVE (ADD 45-100 HP TRACTOR)			\$10,425	2.54	0.67	1.17	0.08	0.00	12
	B15MB003	53T	STREET SWEEPER, 7' BROOM PATH, W/SPRINKLER AND 152 GAL WATER TANK, TOWED, HYDRAULIC (ADD TOWING UNIT)			\$15,164	3.70	0.92	1.62	0.11	0.00	18
	B15MB004	53MH	STREET SWEEPER, 7' BROOM PATH, W/SPRINKLER AND 152 GAL WATER TANK, TOWED (ADD TOWING UNIT)	18 HP	G	\$17,517	8.40	1.07	1.88	0.13	3.99	17
			<b>ROSCO, A LeeBoy COMPANY</b>									
	B15RS005	CHALLENGER II	STREET SWEEPER, 7' BROOM PATH, W/SPRINKLER AND 125 GAL WATER TANK, SELF PROPELLED	80 HP	D-off	\$55,818	22.59	3.48	6.14	0.41	8.66	75
	B15RS001	RB-48	STREET SWEEPER, 8' BROOM PATH, W/SPRINKLER AND 150 GAL WATER TANK, SELF PROPELLED	80 HP	D-off	\$42,965	19.62	2.70	4.76	0.32	8.66	52
			<b>TERRAMITE CONSTRUCTION EQUIPMENT</b>									
	B15TB001	TSS46	STREET SWEEPER, 6' BROOM PATH, W/SPRINKLER AND 2 - 50 GAL WATER TANKS, SELF PROPELLED	37 HP	D-off	\$23,671	9.96	1.47	2.58	0.18	4.00	34

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>B15</b>	<b>TERRAMITE CONSTRUCTION EQUIPMENT (continued)</b>											
	B15TB002	TSS48	STREET SWEEPER, 8' BROOM PATH, W/SPRINKLER AND 2 - 50 GAL WATER TANKS, SELF PROPELLED	37 HP	D-off	\$23,810	9.98	1.48	2.59	0.18	4.00	34
	<b>WALDON, INC.</b>											
	B15WD001	SWEEPMASTER 250	BROOM, 7.5' BROOM PATH, PAVEMENT, SELF PROPELLED	80 HP	D-off	\$38,669	18.63	2.43	4.28	0.29	8.66	48
	B15WD002	SWEEPMASTER 250	BROOM, 90" BROOM PATH, PAVEMENT, W/SPRINKLER AND 180 GAL WATER TANK, SELF PROPELLED	80 HP	D-off	\$40,178	18.98	2.53	4.45	0.30	8.66	48
<b>B20</b>	<b>BRUSH CHIPPERS</b>											
	<b>SUBCATEGORY 0.00</b>	<b>BRUSH CHIPPERS</b>										
	<b>BANDIT INDUSTRIES, INC.</b>											
	B20BN001	65XP	BRUSH CHIPPER, 6" CAPACITY, DISC TYPE, TRAILER MTD	44 HP	G	\$11,661	13.96	0.73	1.28	0.09	9.76	19
	B20BN002	90XP	BRUSH CHIPPER, 9" CAPACITY, DISC TYPE, TRAILER MTD	84 HP	G	\$15,965	25.09	0.99	1.74	0.12	18.63	44
	B20BN003	200XP	BRUSH CHIPPER, 12" CAPACITY, DISC TYPE, TRAILER MTD	140 HP	G	\$18,607	39.89	1.16	2.04	0.14	31.06	58
	B20BN005	1390XP	BRUSH CHIPPER, 13" CAPACITY, DRUM TYPE, TRAILER MTD	142 HP	G	\$23,053	41.47	1.44	2.54	0.17	31.50	66
	B20BN006	1590XP	BRUSH CHIPPER, 17" CAPACITY, DRUM TYPE, TRAILER MTD	142 HP	G	\$28,584	42.81	1.79	3.16	0.21	31.50	87
	B20BN007	1890XP	BRUSH CHIPPER, 18" CAPACITY, DRUM TYPE, TRAILER MTD	142 HP	D-off	\$33,231	25.29	2.04	3.57	0.25	15.36	92

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
			<b>MORBARK, INC.</b>									
	B20MQ001	M12R	BRUSH CHIPPER, 12" CAPACITY, DRUM TYPE, TRAILER MTD	84 HP	D-off	\$33,457	18.35	2.13	3.75	0.25	9.09	45
	B20MQ003	M15R	BRUSH CHIPPER, 15" CAPACITY, DRUM TYPE, TRAILER MTD	142 HP	D-off	\$49,811	29.36	3.15	5.55	0.37	15.36	89
	B20MQ004	M18R	BRUSH CHIPPER, 18" CAPACITY, DRUM TYPE, TRAILER MTD	200 HP	D-off	\$68,342	40.90	4.26	7.49	0.51	21.64	94
	B20MQ005	22 RXL	BRUSH CHIPPER, LOG CHIPPER, 22" CAPACITY, DISC TYPE, TRAILER MTD	875 HP	D-off	\$545,782	240.61	34.35	60.62	4.04	94.67	813
<b>B25</b>	<b>BUCKETS, CLAMSHELL</b>											
	<b>SUBCATEGORY 0.00</b>	<b>BUCKETS, CLAMSHELL</b>										
			<b>HAWCO (ANVIL ATTACHMENTS)</b>									
	B25HB001	MWRH-050	BUCKET, CLAMSHELL, 0.5 CY, HEAVY DUTY/DIGGING			\$24,849	5.30	1.58	2.80	0.18	0.00	30
	B25HB003	MWRH-100	BUCKET, CLAMSHELL, 1.0 CY, HEAVY DUTY/DIGGING			\$26,842	5.73	1.71	3.02	0.20	0.00	48
	B25HB005	MWRH-150	BUCKET, CLAMSHELL, 1.5 CY, HEAVY DUTY/DIGGING			\$28,061	5.99	1.79	3.16	0.21	0.00	66
	B25HB007	MWRH-200	BUCKET, CLAMSHELL, 2.0 CY, HEAVY DUTY/DIGGING			\$33,587	7.17	2.14	3.78	0.25	0.00	78
	B25HB008	MWRH-250	BUCKET, CLAMSHELL, 2.5 CY, HEAVY DUTY/DIGGING			\$34,607	7.39	2.21	3.89	0.26	0.00	91
	B25HB009	MWRH-300	BUCKET, CLAMSHELL, 3.0 CY, HEAVY DUTY/DIGGING			\$36,205	7.73	2.31	4.07	0.27	0.00	103
	B25HB010	MWRH-350	BUCKET, CLAMSHELL, 3.5 CY, HEAVY DUTY/DIGGING			\$41,817	8.92	2.66	4.70	0.31	0.00	131

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B25</i>			<i>HAWCO (ANVIL ATTACHMENTS) (continued)</i>									
	B25HB011	MWRH-400	BUCKET, CLAMSHELL, 4.0 CY, HEAVY DUTY/DIGGING			\$43,583	9.30	2.77	4.90	0.32	0.00	145
	B25HB012	MWRH-450	BUCKET, CLAMSHELL, 4.5 CY, HEAVY DUTY/DIGGING			\$44,235	9.45	2.82	4.98	0.33	0.00	165
	B25HB013	MWRH-500	BUCKET, CLAMSHELL, 5.0 CY, HEAVY DUTY/DIGGING			\$45,202	9.65	2.88	5.09	0.33	0.00	173
	B25HB014	MWRH-550	BUCKET, CLAMSHELL, 5.5 CY, HEAVY DUTY/DIGGING			\$49,783	10.62	3.17	5.60	0.37	0.00	178
	B25HB015	MWRH-600	BUCKET, CLAMSHELL, 6.0 CY, HEAVY DUTY/DIGGING			\$51,318	10.95	3.27	5.77	0.38	0.00	199
			<b>NO SPECIFIC MANUFACTURER</b>									
	B25XX001	1/4SSN	BUCKET, CLAMSHELL, 0.2 CY, SQUARE NOSE, STANDARD			\$17,883	3.81	1.14	2.01	0.13	0.00	14
	B25XX002	1/2SSN	BUCKET, CLAMSHELL, 0.5 CY, SQUARE NOSE, STANDARD			\$19,201	4.10	1.22	2.16	0.14	0.00	27
	B25XX003	3/4SSN	BUCKET, CLAMSHELL, 0.7 CY, SQUARE NOSE, STANDARD			\$20,635	4.40	1.31	2.32	0.15	0.00	35
	B25XX004	1SSN	BUCKET, CLAMSHELL, 1.0 CY, SQUARE NOSE, STANDARD			\$22,069	4.70	1.40	2.48	0.16	0.00	43
	B25XX005	1-1/4SSN	BUCKET, CLAMSHELL, 1.2 CY, SQUARE NOSE, STANDARD			\$23,145	4.93	1.47	2.60	0.17	0.00	49
	B25XX006	1-1/2SSN	BUCKET, CLAMSHELL, 1.5 CY, SQUARE NOSE, STANDARD			\$26,876	5.73	1.71	3.02	0.20	0.00	64
	B25XX007	1-3/4SSN	BUCKET, CLAMSHELL, 1.7 CY, SQUARE NOSE, STANDARD			\$27,926	5.96	1.78	3.14	0.21	0.00	67

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B25</i>			<i>NO SPECIFIC MANUFACTURER (continued)</i>									
	B25XX008	2SSN	BUCKET, CLAMSHELL, 2.0 CY, SQUARE NOSE, STANDARD			\$31,061	6.62	1.98	3.49	0.23	0.00	76
	B25XX009	2-1/2SSN	BUCKET, CLAMSHELL, 2.5 CY, SQUARE NOSE, STANDARD			\$36,581	7.81	2.33	4.12	0.27	0.00	92
	B25XX010	3SSN	BUCKET, CLAMSHELL, 3.0 CY, SQUARE NOSE, STANDARD			\$38,641	8.25	2.47	4.35	0.29	0.00	98
	B25XX011	3-1/2SSN	BUCKET, CLAMSHELL, 3.5 CY, SQUARE NOSE, STANDARD			\$42,022	8.97	2.68	4.73	0.31	0.00	108
	B25XX012	4SSN	BUCKET, CLAMSHELL, 4.0 CY, SQUARE NOSE, STANDARD			\$45,699	9.75	2.91	5.14	0.34	0.00	119
	B25XX013	4-1/2SSN	BUCKET, CLAMSHELL, 4.5 CY, SQUARE NOSE, STANDARD			\$54,211	11.57	3.45	6.10	0.40	0.00	145
	B25XX014	5SSN	BUCKET, CLAMSHELL, 5.0 CY, SQUARE NOSE, STANDARD			\$57,127	12.19	3.64	6.43	0.42	0.00	154
	B25XX015	5-1/2SSN	BUCKET, CLAMSHELL, 5.5 CY, SQUARE NOSE, STANDARD			\$58,419	12.46	3.72	6.57	0.43	0.00	158
	B25XX016	6SSN	BUCKET, CLAMSHELL, 6.0 CY, SQUARE NOSE, STANDARD			\$60,806	12.98	3.87	6.84	0.45	0.00	166
	B25XX017	6-1/2SSN	BUCKET, CLAMSHELL, 6.5 CY, SQUARE NOSE, STANDARD			\$64,519	13.77	4.11	7.26	0.48	0.00	177
	B25XX018	7SSN	BUCKET, CLAMSHELL, 7.0 CY, SQUARE NOSE, STANDARD			\$67,753	14.45	4.31	7.62	0.50	0.00	185
	B25XX019	7-1/2SSN	BUCKET, CLAMSHELL, 7.5 CY, SQUARE NOSE, STANDARD			\$70,006	14.95	4.46	7.88	0.52	0.00	192

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>B30</b>	<b>BUCKETS, CONCRETE</b>											
	<b>SUBCATEGORY 0.10</b>	<b>GENERAL PURPOSE, MANUAL TRIP</b>										
	<b>GAR-BRO MANUFACTURING COMPANY</b>											
	B30GB018	413-G	BUCKET, CONCRETE, GENERAL PURPOSE, 0.5 CY			\$3,320	0.72	0.22	0.39	0.02	0.00	4
	B30GB001	433-G	BUCKET, CONCRETE, GENERAL PURPOSE, 1.0 CY			\$4,174	0.92	0.28	0.50	0.03	0.00	6
	B30GB002	442-G	BUCKET, CONCRETE, GENERAL PURPOSE, 1.5 CY			\$5,459	1.20	0.37	0.65	0.04	0.00	8
	B30GB003	462-G	BUCKET, CONCRETE, GENERAL PURPOSE, 2.0 CY			\$6,730	1.48	0.45	0.80	0.05	0.00	10
	B30GB004	493-G	BUCKET, CONCRETE, GENERAL PURPOSE, 3.0 CY			\$9,731	2.14	0.65	1.16	0.07	0.00	14
	B30GB005	4123-G	BUCKET, CONCRETE, GENERAL PURPOSE, 4.0 CY			\$11,609	2.55	0.77	1.38	0.08	0.00	18
	<b>SUBCATEGORY 0.20</b>	<b>LAYDOWN</b>										
	<b>GAR-BRO MANUFACTURING COMPANY</b>											
	B30GB006	425-A	BUCKET, CONCRETE, LAYDOWN, 1.0 CY, HEAVY DUTY AIR GATE			\$26,280	5.94	1.75	3.12	0.19	0.00	26
	B30GB007	465-A	BUCKET, CONCRETE, LAYDOWN, 2.0 CY, HEAVY DUTY AIR GATE			\$28,420	6.42	1.89	3.37	0.20	0.00	32
	B30GB008	495-A	BUCKET, CONCRETE, LAYDOWN, 3.0 CY, HEAVY DUTY AIR GATE			\$31,464	7.12	2.10	3.74	0.23	0.00	40
	B30GB009	4125-A	BUCKET, CONCRETE, LAYDOWN, 4.0 CY, HEAVY DUTY AIR GATE			\$34,849	7.88	2.32	4.14	0.25	0.00	51

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
B30	<i>GAR-BRO MANUFACTURING COMPANY (continued)</i>											
	B30GB010	4155-A	BUCKET, CONCRETE, LAYDOWN, 5.0 CY, HEAVY DUTY AIR GATE			\$44,049	9.97	2.94	5.23	0.32	0.00	73
	<b>SUBCATEGORY 0.30 LOWBOY</b>											
	<b>CAMLEVER</b>											
	B30CR001	LB-375	BUCKET, CONCRETE, LOWBOY, 0.38 CY			\$4,577	1.06	0.30	0.54	0.03	0.00	2
	B30CR002	LB-050	BUCKET, CONCRETE, LOWBOY, 0.5 CY			\$5,137	1.20	0.35	0.61	0.04	0.00	2
	B30CR003	LB-075	BUCKET, CONCRETE, LOWBOY, 0.75 CY			\$5,691	1.33	0.38	0.68	0.04	0.00	3
	B30CR004	LB-100	BUCKET, CONCRETE, LOWBOY, 1.0 CY			\$6,021	1.39	0.40	0.71	0.04	0.00	5
	B30CR005	LB-150	BUCKET, CONCRETE, LOWBOY, 1.5 CY			\$7,463	1.74	0.50	0.89	0.05	0.00	6
	B30CR009	LXB-150	BUCKET, CONCRETE, LOWBOY, 1.5 CY			\$7,954	1.85	0.53	0.94	0.06	0.00	6
	B30CR006	LB-200	BUCKET, CONCRETE, LOWBOY, 2.0 CY			\$9,209	2.14	0.62	1.09	0.07	0.00	8
	B30CR010	LXB-200	BUCKET, CONCRETE, LOWBOY, 2.0 CY			\$9,722	2.26	0.65	1.15	0.07	0.00	6
	B30CR011	LXB-300	BUCKET, CONCRETE, LOWBOY, 3.0 CY			\$12,202	2.84	0.82	1.45	0.09	0.00	6
B30CR012	LXB-400	BUCKET, CONCRETE, LOWBOY, 4.0 CY			\$14,322	3.33	0.95	1.70	0.10	0.00	6	

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.40 LOW SLUMP</b>											
	<b>GAR-BRO MANUFACTURING COMPANY</b>											
	B30GB011	440-A	BUCKET, CONCRETE, LOW SLUMP, 1.0 CY, AIR GATE			\$17,005	3.96	1.13	2.02	0.12	0.00	20
	B30GB012	450-A	BUCKET, CONCRETE, LOW SLUMP, 1.5 CY, AIR GATE			\$17,631	4.10	1.18	2.09	0.13	0.00	21
	B30GB013	460-A	BUCKET, CONCRETE, LOW SLUMP, 2.0 CY, AIR GATE			\$18,273	4.25	1.22	2.17	0.13	0.00	24
	B30GB014	493-A	BUCKET, CONCRETE, LOW SLUMP, 3.0 CY, AIR GATE			\$23,888	5.56	1.59	2.84	0.17	0.00	49
	B30GB015	4139-A	BUCKET, CONCRETE, LOW SLUMP, 4.0 CY, AIR GATE			\$24,738	5.76	1.65	2.94	0.18	0.00	52
	B30GB016	4200-A	BUCKET, CONCRETE, LOW SLUMP, 6.0 CY, AIR GATE			\$41,380	9.63	2.76	4.91	0.30	0.00	78
	B30GB017	4250-A	BUCKET, CONCRETE, LOW SLUMP, 8.0 CY, AIR GATE			\$44,858	10.44	2.99	5.33	0.32	0.00	90
<b>B35</b>	<b>BUCKETS, DRAGLINE</b>											
	<b>SUBCATEGORY 0.10 LIGHT WEIGHT</b>											
	<b>HENDRIX MANUFACTURING COMPANY, INC.</b>											
	B35HE001	LS	BUCKET, DRAGLINE, 0.75 CY, LIGHT WEIGHT/PERFORATED			\$8,036	1.71	0.51	0.90	0.06	0.00	15
	B35HE002	LS	BUCKET, DRAGLINE, 1.0 CY, LIGHT WEIGHT/PERFORATED			\$9,415	2.01	0.60	1.06	0.07	0.00	18
	B35HE003	LS	BUCKET, DRAGLINE, 1.5 CY, LIGHT WEIGHT/PERFORATED			\$13,335	2.85	0.85	1.50	0.10	0.00	26



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B35</i>			<i>HENDRIX MANUFACTURING COMPANY, INC. (continued)</i>									
	B35HE004	LS	BUCKET, DRAGLINE, 2.0 CY, LIGHT WEIGHT/PERFORATED			\$16,094	3.43	1.03	1.81	0.12	0.00	32
	B35HE005	LS	BUCKET, DRAGLINE, 2.5 CY, LIGHT WEIGHT/PERFORATED			\$18,427	3.93	1.18	2.07	0.14	0.00	37
	B35HE006	LS	BUCKET, DRAGLINE, 3.0 CY, LIGHT WEIGHT/PERFORATED			\$22,979	4.91	1.47	2.59	0.17	0.00	46
	B35HE007	LS	BUCKET, DRAGLINE, 3.5 CY, LIGHT WEIGHT/PERFORATED			\$24,991	5.34	1.60	2.81	0.19	0.00	50
	B35HE008	LS	BUCKET, DRAGLINE, 4.0 CY, LIGHT WEIGHT/PERFORATED			\$32,820	7.00	2.09	3.69	0.24	0.00	65
	B35HE009	LS	BUCKET, DRAGLINE, 4.5 CY, LIGHT WEIGHT/PERFORATED			\$34,418	7.35	2.20	3.87	0.26	0.00	69
	B35HE010	LS	BUCKET, DRAGLINE, 5.0 CY, LIGHT WEIGHT/PERFORATED			\$39,769	8.48	2.53	4.47	0.29	0.00	85
	B35HE011	LS	BUCKET, DRAGLINE, 6.0 CY, LIGHT WEIGHT/PERFORATED			\$43,057	9.19	2.74	4.84	0.32	0.00	92
	B35HE012	LS	BUCKET, DRAGLINE, 7.0 CY, LIGHT WEIGHT/PERFORATED			\$47,091	10.05	3.00	5.30	0.35	0.00	101
	B35HE013	LS	BUCKET, DRAGLINE, 8.0 CY, LIGHT WEIGHT/PERFORATED			\$52,183	11.14	3.33	5.87	0.39	0.00	112
	B35HE014	LS	BUCKET, DRAGLINE, 9.0 CY, LIGHT WEIGHT/PERFORATED			\$59,711	12.74	3.80	6.72	0.44	0.00	128
	B35HE015	LS	BUCKET, DRAGLINE, 10.0 CY, LIGHT WEIGHT/PERFORATED			\$64,907	13.85	4.13	7.30	0.48	0.00	139
	B35HE016	LS	BUCKET, DRAGLINE, 12.0 CY, LIGHT WEIGHT/PERFORATED			\$77,528	16.54	4.93	8.72	0.57	0.00	166

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B35</i>			<i>HENDRIX MANUFACTURING COMPANY, INC. (continued)</i>									
	B35HE017	LS	BUCKET, DRAGLINE, 14.0 CY, LIGHT WEIGHT/PERFORATED			\$89,194	19.03	5.68	10.03	0.66	0.00	191
			<b>SAUERMAN (NATIONAL OILWELL VARCO)</b>									
	B35SA001	SC-1050-K	BUCKET, DRAGLINE, 1.0 CY, CRESCENT, W/CARRIER			\$58,620	12.50	3.73	6.59	0.43	0.00	15
	B35SA003	SC-1070-K	BUCKET, DRAGLINE, 2.0 CY, CRESCENT, W/CARRIER			\$87,869	18.76	5.60	9.89	0.65	0.00	25
	B35SA004	SC-1090-K	BUCKET, DRAGLINE, 3.0 CY, CRESCENT, W/CARRIER			\$131,919	28.15	8.40	14.84	0.98	0.00	36
	B35SA005	SC-1100-K	BUCKET, DRAGLINE, 4.0 CY, CRESCENT, W/CARRIER			\$175,903	37.54	11.20	19.79	1.30	0.00	49
	B35SA006	SC-1110-K	BUCKET, DRAGLINE, 5.0 CY, CRESCENT, W/CARRIER			\$220,120	46.97	14.01	24.76	1.63	0.00	58
	B35SA007	SC-1120-K	BUCKET, DRAGLINE, 6.0 CY, CRESCENT, W/CARRIER			\$263,797	56.30	16.79	29.68	1.95	0.00	68
	B35SA008	SC-1130-K	BUCKET, DRAGLINE, 8.0 CY, CRESCENT, W/CARRIER			\$351,701	75.06	22.40	39.57	2.61	0.00	88
	B35SA009	SC-1140-K	BUCKET, DRAGLINE, 10.0 CY, CRESCENT, W/CARRIER			\$439,585	93.81	27.99	49.45	3.26	0.00	106
	B35SA010	SC-1150-K	BUCKET, DRAGLINE, 12.0 CY, CRESCENT, W/CARRIER			\$527,552	112.59	33.59	59.35	3.91	0.00	132
			<b>NO SPECIFIC MANUFACTURER</b>									
	B35XX001	6-1/2L	BUCKET, DRAGLINE, 6.5 CY, LIGHT WEIGHT			\$31,664	6.75	2.01	3.56	0.23	0.00	94
	B35XX002	7-1/2L	BUCKET, DRAGLINE, 7.5 CY, LIGHT WEIGHT			\$35,604	7.60	2.27	4.01	0.26	0.00	106

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B35</i>	<i>NO SPECIFIC MANUFACTURER (continued)</i>											
	B35XX003	8-1/2L	BUCKET, DRAGLINE, 8.5 CY, LIGHT WEIGHT			\$39,377	8.40	2.51	4.43	0.29	0.00	116
	B35XX004	9-1/2L	BUCKET, DRAGLINE, 9.5 CY, LIGHT WEIGHT			\$44,910	9.58	2.86	5.05	0.33	0.00	132
	B35XX005	11L	BUCKET, DRAGLINE, 11.0 CY, LIGHT WEIGHT			\$50,425	10.75	3.21	5.67	0.37	0.00	148
	B35XX006	13L	BUCKET, DRAGLINE, 13.0 CY, LIGHT WEIGHT			\$62,062	13.24	3.95	6.98	0.46	0.00	178
	<b>SUBCATEGORY 0.20</b>	<b>MEDIUM WEIGHT</b>										
	<b>HENDRIX MANUFACTURING COMPANY, INC.</b>											
	B35HE018	TS	BUCKET, DRAGLINE, 0.75 CY, MEDIUM WEIGHT			\$8,679	1.65	0.50	0.87	0.06	0.00	17
	B35HE019	TS	BUCKET, DRAGLINE, 1.0 CY, MEDIUM WEIGHT			\$9,944	1.89	0.57	0.99	0.07	0.00	19
	B35HE020	TS	BUCKET, DRAGLINE, 1.5 CY, MEDIUM WEIGHT			\$14,186	2.70	0.81	1.42	0.10	0.00	28
	B35HE021	TS	BUCKET, DRAGLINE, 2.0 CY, MEDIUM WEIGHT			\$17,898	3.41	1.03	1.79	0.13	0.00	36
	B35HE022	TS	BUCKET, DRAGLINE, 2.5 CY, MEDIUM WEIGHT			\$20,646	3.93	1.18	2.06	0.15	0.00	41
	B35HE023	TS	BUCKET, DRAGLINE, 3.0 CY, MEDIUM WEIGHT			\$24,670	4.70	1.42	2.47	0.18	0.00	49
	B35HE024	TS	BUCKET, DRAGLINE, 3.5 CY, MEDIUM WEIGHT			\$27,210	5.18	1.56	2.72	0.20	0.00	54
	B35HE025	TS	BUCKET, DRAGLINE, 4.0 CY, MEDIUM WEIGHT			\$35,257	6.72	2.03	3.53	0.26	0.00	70

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B35</i>			<i>HENDRIX MANUFACTURING COMPANY, INC. (continued)</i>									
	B35HE026	TS	BUCKET, DRAGLINE, 4.5 CY, MEDIUM WEIGHT			\$36,004	6.85	2.06	3.60	0.26	0.00	72
	B35HE027	TS	BUCKET, DRAGLINE, 5.0 CY, MEDIUM WEIGHT			\$43,586	8.30	2.50	4.36	0.32	0.00	93
	B35HE028	TS	BUCKET, DRAGLINE, 6.0 CY, MEDIUM WEIGHT			\$45,069	8.59	2.59	4.51	0.33	0.00	96
	B35HE029	TS	BUCKET, DRAGLINE, 7.0 CY, MEDIUM WEIGHT			\$51,965	9.90	2.98	5.20	0.38	0.00	111
	B35HE030	TS	BUCKET, DRAGLINE, 8.0 CY, MEDIUM WEIGHT			\$57,264	10.91	3.29	5.73	0.42	0.00	122
	B35HE031	TS	BUCKET, DRAGLINE, 9.0 CY, MEDIUM WEIGHT			\$69,677	13.27	4.00	6.97	0.51	0.00	149
	B35HE032	TS	BUCKET, DRAGLINE, 10.0 CY, MEDIUM WEIGHT			\$74,240	14.13	4.25	7.42	0.54	0.00	159
	B35HE033	TS	BUCKET, DRAGLINE, 12.0 CY, MEDIUM WEIGHT			\$94,597	18.01	5.42	9.46	0.69	0.00	202
	B35HE034	TS	BUCKET, DRAGLINE, 14.0 CY, MEDIUM WEIGHT			\$105,413	20.07	6.04	10.54	0.77	0.00	225
			<b>NO SPECIFIC MANUFACTURER</b>									
	B35XX007	6-1/2M	BUCKET, DRAGLINE, 6.5 CY, MEDIUM WEIGHT			\$35,826	6.82	2.05	3.58	0.26	0.00	101
	B35XX008	7-1/2M	BUCKET, DRAGLINE, 7.5 CY, MEDIUM WEIGHT			\$40,951	7.80	2.35	4.10	0.30	0.00	117
	B35XX009	8-1/2M	BUCKET, DRAGLINE, 8.5 CY, MEDIUM WEIGHT			\$44,094	8.39	2.53	4.41	0.32	0.00	126

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B35</i>	<i>NO SPECIFIC MANUFACTURER (continued)</i>											
	B35XX010	9-1/2M	BUCKET, DRAGLINE, 9.5 CY, MEDIUM WEIGHT			\$52,443	9.98	3.00	5.24	0.38	0.00	152
	B35XX011	11M	BUCKET, DRAGLINE, 11.0 CY, MEDIUM WEIGHT			\$57,987	11.04	3.32	5.80	0.42	0.00	169
	B35XX012	13M	BUCKET, DRAGLINE, 13.0 CY, MEDIUM WEIGHT			\$73,508	14.00	4.22	7.35	0.54	0.00	211
	<b>SUBCATEGORY 0.30</b>	<b>HEAVY WEIGHT</b>										
	<b>HENDRIX MANUFACTURING COMPANY, INC.</b>											
	B35HE035	MH-S	BUCKET, DRAGLINE, 2.75 CY, HEAVY WEIGHT			\$32,370	5.56	1.69	2.91	0.23	0.00	69
	B35HE036	MH-S	BUCKET, DRAGLINE, 3.0 CY, HEAVY WEIGHT			\$33,777	5.81	1.76	3.04	0.24	0.00	72
	B35HE037	MH-S	BUCKET, DRAGLINE, 3.5 CY, HEAVY WEIGHT			\$37,995	6.53	1.98	3.42	0.27	0.00	81
	B35HE038	MH-S	BUCKET, DRAGLINE, 4.0 CY, HEAVY WEIGHT			\$51,602	8.87	2.69	4.64	0.37	0.00	110
	B35HE039	MH-S	BUCKET, DRAGLINE, 4.5 CY, HEAVY WEIGHT			\$57,704	9.93	3.02	5.19	0.42	0.00	123
	B35HE040	MH-S	BUCKET, DRAGLINE, 5.0 CY, HEAVY WEIGHT			\$59,573	10.25	3.11	5.36	0.43	0.00	127
	B35HE041	MH-S	BUCKET, DRAGLINE, 6.0 CY, HEAVY WEIGHT			\$63,797	10.97	3.33	5.74	0.46	0.00	136
	B35HE042	MH-S	BUCKET, DRAGLINE, 7.0 CY, HEAVY WEIGHT			\$82,094	14.12	4.29	7.39	0.59	0.00	175
	B35HE043	MH-S	BUCKET, DRAGLINE, 8.0 CY, HEAVY WEIGHT			\$84,440	14.53	4.41	7.60	0.61	0.00	180

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B35</i>			<i>HENDRIX MANUFACTURING COMPANY, INC. (continued)</i>									
	B35HE044	MH-S	BUCKET, DRAGLINE, 9.0 CY, HEAVY WEIGHT			\$109,774	18.88	5.73	9.88	0.79	0.00	234
	B35HE045	MH-S	BUCKET, DRAGLINE, 10.0 CY, HEAVY WEIGHT			\$113,820	19.57	5.94	10.24	0.82	0.00	243
	B35HE046	MH-S	BUCKET, DRAGLINE, 12.0 CY, HEAVY WEIGHT			\$135,364	23.29	7.07	12.18	0.98	0.00	289
	B35HE047	MH-S	BUCKET, DRAGLINE, 14.0 CY, HEAVY WEIGHT			\$144,432	24.84	7.54	13.00	1.04	0.00	309
			<b>NO SPECIFIC MANUFACTURER</b>									
	B35XX013	3/4H	BUCKET, DRAGLINE, 0.75 CY, HEAVY WEIGHT			\$9,071	1.57	0.48	0.82	0.07	0.00	20
	B35XX014	1H	BUCKET, DRAGLINE, 1.0 CY, HEAVY WEIGHT			\$10,186	1.75	0.53	0.92	0.07	0.00	23
	B35XX015	1-1/2H	BUCKET, DRAGLINE, 1.5 CY, HEAVY WEIGHT			\$15,141	2.60	0.79	1.36	0.11	0.00	35
	B35XX016	2H	BUCKET, DRAGLINE, 2.0 CY, HEAVY WEIGHT			\$17,271	2.96	0.90	1.55	0.12	0.00	42
	B35XX017	2-1/2H	BUCKET, DRAGLINE, 2.5 CY, HEAVY WEIGHT			\$18,851	3.25	0.99	1.70	0.14	0.00	48
	B35XX018	5-1/2H	BUCKET, DRAGLINE, 5.5 CY, HEAVY WEIGHT			\$40,232	6.92	2.10	3.62	0.29	0.00	113
	B35XX019	6-1/2H	BUCKET, DRAGLINE, 6.5 CY, HEAVY WEIGHT			\$42,923	7.38	2.24	3.86	0.31	0.00	125
	B35XX020	7-1/2H	BUCKET, DRAGLINE, 7.5 CY, HEAVY WEIGHT			\$48,475	8.34	2.53	4.36	0.35	0.00	135

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>B35</i>			<i>NO SPECIFIC MANUFACTURER (continued)</i>									
	B35XX021	8-1/2H	BUCKET, DRAGLINE, 8.5 CY, HEAVY WEIGHT			\$52,696	9.06	2.75	4.74	0.38	0.00	159
	B35XX022	9-1/2H	BUCKET, DRAGLINE, 9.5 CY, HEAVY WEIGHT			\$66,628	11.46	3.48	6.00	0.48	0.00	181
	B35XX023	11H	BUCKET, DRAGLINE, 11.0 CY, HEAVY WEIGHT			\$71,362	12.27	3.72	6.42	0.51	0.00	198
<b>C05</b>	<b>CHAIN SAWS</b>											
	<b>SUBCATEGORY 0.00 CHAIN SAWS</b>											
	<b>OLYMPYK CHAIN SAWS</b>											
	C05OL001	941	CHAIN SAW, 16"-18" BAR	2	HP G	\$367	1.48	0.09	0.17	0.00	0.70	1
	C05OL002	962	CHAIN SAW, 16"-24" BAR	5	HP G	\$584	2.71	0.14	0.26	0.01	1.43	1
	C05OL003	970	CHAIN SAW, 16"-36" BAR	5	HP G	\$712	3.11	0.17	0.32	0.01	1.58	1
	C05OL004	980	CHAIN SAW, 16"-42" BAR	6	HP G	\$776	3.41	0.19	0.35	0.01	1.74	1
<b>C10</b>	<b>COMPACTORS, WALK-BEHIND OR REMOTE CONTROLLER</b>											
	<b>SUBCATEGORY 0.10 COMPACTORS, RAMMERS / TAMPERS &amp; VIBRATORY PLATES</b>											
	<b>COMPACTION AMERICA (BOMAG)</b>											
	C10B0001	BT 60/4	COMPACTOR, RAMMER, TAMPER, 11" X 13.2" SHOE, 2,630 LBS IMPACT	3	HP G	\$4,112	3.37	0.52	0.98	0.03	0.91	2
	C10B0003	BP 10/36-2	COMPACTOR, VIBROPLATE, 14.2" X 22" PLATE, 2,250 LBS IMPACT	4	HP G	\$1,569	2.25	0.20	0.37	0.01	1.22	2
	C10B0004	BP 18/45-2	COMPACTOR, VIBROPLATE, 17.7" X 22" PLATE, 4,050 LBS IMPACT	6	HP G	\$1,845	3.09	0.24	0.44	0.02	1.83	2

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
C10	<i>COMPACTION AMERICA (BOMAG) (continued)</i>											
	C10BO008	BPR 55/65D	COMPACTOR, VIBROPLATE, 25.6" X 35.4" PLATE, REVERSIBLE, 11,250 LBS IMPACT	9	HP D-off	\$16,252	10.86	2.06	3.86	0.13	1.35	10
	<b>WACKER CORPORATION</b>											
	C10WC003	DS 70	COMPACTOR, RAMMER, 13" X 13" SHOE, 3,550 LBS IMPACT	4	HP D-off	\$3,940	2.93	0.50	0.94	0.03	0.60	2
	C10WC006	BPU 2540 A	COMPACTOR, VIBROPLATE, 19.5" X 25.5" PLATE, REVERSIBLE, 5,600 LBS IMPACT	6	HP G	\$5,129	4.81	0.65	1.22	0.04	1.68	3
	C10WC007	BPU 3545A	COMPACTOR, VIBROPLATE, 23.5" X 35.5" PLATE, REVERSIBLE, 7,550 LBS IMPACT	9	HP G	\$7,825	7.53	0.99	1.86	0.06	2.74	7
	C10WC008	DPU 4045H	COMPACTOR, VIBROPLATE, 24" X 35.5" PLATE, REVERSIBLE, 9,000 LBS IMPACT	9	HP D-off	\$14,166	9.66	1.80	3.36	0.12	1.35	7
	C10WC015	DPU 7060	COMPACTOR, VIBROPLATE, 25.5" X 42" PLATE, REVERSIBLE, 15,600 LBS IMPACT	14	HP D-off	\$28,038	18.49	3.56	6.66	0.23	2.10	15
	<b>SUBCATEGORY 0.20 ROLLERS, VIBRATORY</b>											
	<b>COMPACTION AMERICA (BOMAG)</b>											
C10BO009	BW 55E	COMPACTOR, ROLLER, VIBRATORY, 22"W X 15.7"DIA, SINGLE SMOOTH DRUM, WALK BEHIND, 2,273 LBS IMPACT	4	HP G	\$8,414	6.00	0.97	1.79	0.07	1.22	3	
C10BO015	BW65HS-D	COMPACTOR, ROLLER, VIBRATORY, 25.6"W X 15.7"DIA, DOUBLE SMOOTH DRUMS, WALK BEHIND, 2,655 LBS IMPACT	5	HP D-off	\$19,687	11.70	2.26	4.18	0.17	0.75	13	



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>C10</i>	<i>COMPACTION AMERICA (BOMAG)</i> <i>(continued)</i>											
	C10B0011	BW 65H	COMPACTOR, ROLLER, VIBRATORY, 25.6"W X 15.7"DIA, DOUBLE SMOOTH DRUMS, WALK BEHIND, 1,980 LBS IMPACT	8 HP	D-off	\$22,124	13.53	2.54	4.70	0.19	1.20	16
	C10B0016	BW75S-D	COMPACTOR, ROLLER, VIBRATORY, 29.5"W X 18.9"DIA, DOUBLE SMOOTH DRUMS, WALK BEHIND, 4,455 LBS IMPACT	9 HP	D-off	\$24,661	15.10	2.83	5.24	0.21	1.35	20
	C10B0013	BMP851	COMPACTOR, TRENCH ROLLER, VIBRATORY, 33.5"W X 19.7"DIA, DOUBLE TAMPING FOOT DRUMS, WALK BEHIND, 18,000 LBS IMPACT	19 HP	D-off	\$50,493	31.02	5.80	10.73	0.43	2.85	45
	<b>RAMMAX MACHINERY CO.</b>											
	C10RX001	P23/16FM	COMPACTOR, TRENCH ROLLER, VIBRATORY, 23"W X 14.6"DIA, QUAD PADFOOT DRUMS, WALK BEHIND, 7,875 LBS IMPACT	8 HP	D-off	\$33,001	19.53	3.79	7.01	0.28	1.20	16
	C10RX002	P33/24FMR	COMPACTOR, TRENCH ROLLER, VIBRATORY, 33"W X 21.7"DIA, QUAD PADFOOT DRUMS, WALK BEHIND, 15,652 LBS IMPACT	14 HP	D-off	\$45,524	27.45	5.23	9.67	0.39	2.10	30
	C10RX003	P47/40KM	COMPACTOR, TRENCH ROLLER, VIBRATORY, 47"W X 22"DIA, QUAD PADFOOT DRUMS, RIDE ON, 21,600 LBS IMPACT	33 HP	D-off	\$76,071	47.46	8.74	16.17	0.65	4.95	66
	<b>WACKER CORPORATION</b>											
	C10WC010	RSS800A	COMPACTOR, ROLLER, VIBRATORY, 28"W X 22"DIA, SINGLE SMOOTH DRUM, WALK BEHIND, 3,400 LBS IMPACT	11 HP	G	\$10,037	9.24	1.16	2.13	0.09	3.35	11

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>C10</b>	<i>WACKER CORPORATION (continued)</i>											
	C10WC017	RD7H	COMPACTOR, ROLLER, VIBRATORY, 25.5"W X 16.5"DIA, DOUBLE SMOOTH DRUM, WALK BEHIND, 2,925 LBS IMPACT	9 HP	D-off	\$13,315	8.84	1.53	2.83	0.11	1.35	16
	C10WC019	RT 56-SC	COMPACTOR, ROLLER, VIBRATORY, 22"W X 20"DIA, DOUBLE SMOOTH DRUM, WALK BEHIND, 7,000/14,000 LBS IMPACT	20 HP	D-off	\$33,120	21.59	3.80	7.04	0.28	3.00	31
	C10WC016	RT 82-SC	COMPACTOR, TRENCH ROLLER, VIBRATORY, 32"W X 20"DIA, DOUBLE TAMPING FOOT DRUMS, WALK BEHIND, 7,000/14,000 LBS IMPACT	20 HP	D-off	\$34,930	22.59	4.01	7.42	0.30	3.00	33
<b>C15</b>	<b>CONCRETE CLEANERS / ABRASIVE BLASTERS</b>											
	<b>SUBCATEGORY 0.10</b>		<b>WALK BEHIND</b>									
	<b>US FILTER/BLASTRAC</b>											
	C15BL001	1-8DEC & BDC-1216	CONCRETE BLASTER CLEANING SYSTEM, WALK BEHIND, 8" PATH (ADD 4 KVA GENERATOR & BLAST MEDIA COST)	2 HP	E	\$9,940	5.25	1.09	1.99	0.09	0.13	2
	C15BL003	1-10DSG1 & 6-54DCG1	CONCRETE BLASTER CLEANING SYSTEM, WALK BEHIND, 10" PATH (ADD 30 KVA GENERATOR & BLAST MEDIA COST)	10 HP	E	\$39,233	20.46	4.27	7.85	0.34	0.67	7
	C15BL004	1-15DSG1 & 6-54DCG1	CONCRETE BLASTER CLEANING SYSTEM, WALK BEHIND, 15" PATH (ADD 30 KVA GENERATOR & BLAST MEDIA COST)	15 HP	E	\$45,081	23.89	4.90	9.02	0.39	1.00	8
	C15BL005	2-20DT & 8-54DCG1	CONCRETE BLASTER CLEANING SYSTEM, WALK BEHIND, 20" PATH (ADD 75 KVA GENERATOR & BLAST MEDIA COST)	30 HP	E	\$63,269	33.99	6.88	12.65	0.55	2.00	12

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>EQUIPMENT DEVELOPMENT CO., INC. (EDCO)</b>											
	C15ED002	CPM-8	CONCRETE GRINDER, WALK BEHIND, TRAFFIC LINE REMOVER, 8" CUTTING PATH	9 HP	G	\$5,151	4.77	0.56	1.03	0.04	2.13	2
	C15ED001	TLR-7	CONCRETE GRINDER, WALK BEHIND, TRAFFIC LINE REMOVER, 7" CUTTING WIDTH	11 HP	G	\$8,513	6.85	0.92	1.70	0.07	2.61	5
	<b>SUBCATEGORY 0.20</b>		<b>TRUCK/TRAILER MOUNTED</b>									
	<b>US FILTER/BLASTRAC</b>											
	C15BL006	2-4800 DH	CONCRETE BLASTER, SELF PROPELLED, 48" PATH	350 HP	D-off	\$470,726	170.84	27.25	47.07	3.71	54.97	255
	<b>NO SPECIFIC MANUFACTURER</b>											
	C15XX001		CONCRETE CLEANER/ABRASIVE BLASTER, TRUCK MOUNTED, GINDER/BLASTER, 4" - 16" CLEANING PATH WIDTH	86 HP	D-on 180 HP D-off	\$145,284	68.27	8.29	14.27	1.15	30.75	138
<b>C20</b>	<b>CONCRETE BUGGIES</b>											
	<b>SUBCATEGORY 0.00</b>		<b>CONCRETE BUGGIES</b>									
	<b>WACKER CORPORATION</b>											
	C20WC002	WB 16A	CONCRETE BUGGY, 16 CF BUCKET, 2,500 LBS, WALK & RIDE, 4X2	13 HP	G	\$12,545	8.29	1.21	2.19	0.11	3.08	13
	<b>NO SPECIFIC MANUFACTURER</b>											
	C20XX001	16G	CONCRETE BUGGY, 16 CF BUCKET, 1,500 LBS	13 HP	G	\$8,189	6.65	0.79	1.43	0.07	3.08	10

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>C25</b>	<b>CONCRETE FINISHERS/SCREEDS/SPREADERS</b>											
	<b>SUBCATEGORY 0.10</b>		<b>FINISHERS/TROWELS</b>									
	<b>ALLEN ENGINEERING CORP.</b>											
	C25AJ015	PRO 900	CONCRETE TROWEL, RIDING, 2 - 36" DIA ROTORS, 8 BLADES	20	HP G	\$12,415	9.68	1.10	1.99	0.10	4.74	8
	C25AJ016	PRO 1050	CONCRETE TROWEL, RIDING, 2 - 42" DIA ROTORS, 8 BLADES	24	HP G	\$13,920	11.29	1.24	2.23	0.12	5.69	9
	C25AJ018	PRO 1200	CONCRETE TROWEL, RIDING, 2 - 46" DIA ROTORS, 8 BLADES	24	HP G	\$14,440	11.46	1.28	2.31	0.12	5.69	11
	C25AJ019	SUPER PRO 400	CONCRETE TROWEL, RIDING, 2 - 46" DIA ROTORS, 8 BLADES	34	HP G	\$19,847	16.01	1.76	3.18	0.17	8.05	13
	<b>STOW MANUFACTURING, INC.</b>											
	C25ST001	SCT36H80	CONCRETE FINISHER, WALK BEHIND, ROTO TROWEL, 36" DIA ROTOR, 4 BLADES	8	HP G	\$2,784	3.12	0.25	0.45	0.02	1.90	3
	C25ST002	SCT46H80	CONCRETE FINISHER, WALK BEHIND, ROTO TROWEL, 46" DIA ROTOR, 4 BLADES	9	HP G	\$2,855	3.40	0.25	0.46	0.02	2.13	3
	<b>WACKER CORPORATION</b>											
	C25WC002	CT48ADP	CONCRETE FINISHER, WALK BEHIND, POWER TROWEL, 48" DIA ROTOR, 4 BLADES	8	HP G	\$3,494	3.37	0.31	0.56	0.03	1.90	3
	<b>SUBCATEGORY 0.20</b>		<b>VIBRATORY SCREED</b>									
	<b>ALLEN ENGINEERING CORP.</b>											
	C25AJ003	12HED	CONCRETE, VIBRATORY SCREED, 22.5' WIDE	6	HP G	\$8,538	4.57	0.76	1.37	0.07	1.42	7

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT	
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL		
C25	<i>ALLEN ENGINEERING CORP. (continued)</i>												
	C25AJ001	12 HD	CONCRETE, VIBRATORY SCREED, 20' WIDE	6 HP	G	\$5,035	3.36	0.45	0.81	0.04	1.42	5	
	C25AJ004	12HED	CONCRETE, VIBRATORY SCREED, 32.5' WIDE	9 HP	G	\$9,640	5.74	0.85	1.54	0.08	2.13	8	
	C25AJ005	12HED	CONCRETE, VIBRATORY SCREED, 42.5' WIDE	11 HP	G	\$10,763	6.68	0.95	1.72	0.09	2.61	11	
	C25AJ006	12HED	CONCRETE, VIBRATORY SCREED, 50' WIDE	11 HP	G	\$12,168	7.17	1.08	1.95	0.10	2.61	12	
	C25AJ007	12HED	CONCRETE, VIBRATORY SCREED, 55' WIDE	11 HP	G	\$12,852	7.41	1.14	2.06	0.11	2.61	13	
	<b>SUBCATEGORY 0.25 VIBRATORY LASER SCREED</b>												
	<b>SOMERO ENTERPRISES, INC.</b>												
	C25SV003	S-100	CONCRETE, VIBRATORY LASER SCREED, 8' WIDE X 12' BOOM	30 HP	D-off	\$157,509	31.95	8.14	13.63	1.32	3.25	72	
	C25SV002	SXP (VERSATILE)	CONCRETE, VIBRATORY LASER SCREED, 8' WIDE X 20' BOOM	65 HP	D-off	\$315,003	64.48	16.32	27.38	2.63	7.03	126	
C25SV001	SXP (PRODUCTIVE)	CONCRETE, VIBRATORY LASER SCREED, 12' WIDE X 20' BOOM	65 HP	D-off	\$335,070	68.08	17.35	29.09	2.80	7.03	151		
<b>SUBCATEGORY 0.30 MATERIAL/TOPPING SPREADERS</b>													
<b>ALLEN ENGINEERING CORP.</b>													
C25AJ008	SP23H	CONCRETE, MATERIAL/TOPPING SPREADER, 12.5' WIDE	6 HP	G	\$17,214	4.51	0.90	1.51	0.14	1.22	11		
C25AJ009	SP23H	CONCRETE, MATERIAL/TOPPING SPREADER, 20' WIDE	6 HP	G	\$18,277	4.70	0.95	1.60	0.15	1.22	12		

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>C25</i>			<i>ALLEN ENGINEERING CORP. (continued)</i>								
	C25AJ010	SP23H	CONCRETE, MATERIAL/TOPPING SPREADER, 30' WIDE	6 HP	G	\$19,531	4.93	1.02	1.71	0.16	1.22	13
	C25AJ011	SP23H	CONCRETE, MATERIAL/TOPPING SPREADER, 40' WIDE	6 HP	G	\$20,919	5.17	1.09	1.83	0.17	1.22	14
	C25AJ012	SP23H	CONCRETE, MATERIAL/TOPPING SPREADER, 50' WIDE	6 HP	G	\$22,205	5.41	1.16	1.94	0.19	1.22	15
	C25AJ013	SP23H	CONCRETE, MATERIAL/TOPPING SPREADER, 60' WIDE	6 HP	G	\$23,502	5.64	1.23	2.06	0.20	1.22	17
<b>C35</b>	<b>CONCRETE GUNITERS / SHOTCRETTERS</b>											
	<b>SUBCATEGORY 0.00</b>	<b>CONCRETE GUNITERS / SHOTCRETTERS</b>										
			<b>AIRPLACO EQUIPMENT CO., INC.</b>									
	C35AF002	C-10SL	CONCRETE GUNITER/SHOTCRETER, DRY/SEMI-WET, HOPPER/PUMP/SPRAY, 12 CY/HR, 2" HOSE & 1 GUN (ADD 600 CFM COMPRESSOR)	9	CFM A	\$16,611	6.25	1.01	1.74	0.14	0.00	6
	C35AF004	634D Mix Elevator	CONCRETE GUNITER/SHOTCRETER, DRY BATCH MIXER, 13 CY/HR, W/FEEDER, TRAILER MTD (ADD SHOTCRETE MACHINE)	30	HP D-off	\$47,064	18.30	2.88	4.98	0.39	3.77	45
	C35AF005	734LBD Mix Elevator	CONCRETE GUNITER/SHOTCRETER, DRY BATCH MIXER, W/20 CY/HR ELEVATOR FEEDER/ 45 CF SAND HOPPER/ 4 CF CEMENT HOPPER/ & PREDAMPENING SPRAY BAR, TRAILER MTD (ADD SHOTCRETE MACHINE)	54	HP D-off	\$68,860	27.20	4.18	7.22	0.57	6.78	81

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>ALLENTOWN EQUIPMENT</b>												
	C35AL003	GRH-610 ROTARY GUN	CONCRETE GUNITER/SHOTCRETER, ROTARY PUMP, WET/DRY, 1 - 6 CY/HR, W/HOPPER/ 100' - 1.5" DIA HOSE/ & NOZZLE, CART MTD, (ADD 250 - 600 CFM COMPRESSOR)	5 HP	E	\$16,817	4.90	0.93	1.58	0.14	0.36	11
	C35AL013	AG-15 AUTOMATIC GUN	CONCRETE GUNITER/SHOTCRETER, ROTARY PUMP, WET/DRY, 3 - 15 CY/HR, W/HOPPER/ 100' - 1.5" DIA HOSE/ & NOZZLE (ADD 300 - 900 CFM COMPRESSOR)	9 CFM	A	\$14,214	3.98	0.83	1.41	0.12	0.00	15
	C35AL008	N-2 PNEUMATIC GUN	CONCRETE GUNITER/SHOTCRETER, DRY MIX, 2 - 8 CY/HR, W/2 PRESSURIZED TANKS/ 100' - 1.5" DIA HOSE/ & NOZZLE (ADD 200 - 900 CFM COMPRESSOR)	9 CFM	A	\$27,531	7.39	1.71	2.95	0.23	0.00	13
	C35AL002	R-900 BATCH MIX RIG	CONCRETE GUNITER/SHOTCRETER, DRY BATCH MIXER, 10 TON/HR, W/ELEVATOR FEEDER/ 20 CF CEMENT HOPPER/ 8 CF MIXER/ & PREDAMPENING SPRAY BAR, TRAILER MTD (ADD SHOTCRETE MACHINE OR ROTARY PUMP)	30 HP	D-off	\$47,101	17.20	2.81	4.83	0.39	3.77	47
	C35AL014	POWER CRETER 10	CONCRETE GUNITER/SHOTCRETER, GROUT/MUD JACK/ SHOTCRETE, 10 CY/HR, 2,085 PSI, W/30 GAL HOPPER/ 74 GAL MIXER, TRAILER MTD (ADD 3" HOSE LINE)	61 HP	D-off	\$72,276	27.65	4.44	7.68	0.60	7.66	30
<b>ALIVA LTD.</b>												
	C35AV008	AL 246	CONCRETE GUNITER/SHOTCRETER, DRY/SEMI-WET, 1.4 - 2.3 CY/HR, W/1 GAL HOPPER/ ROTARY PUMP/ 100' - 1.5" DIA HOSE/ NOZZLE/ & AIR COMPRESSOR	7 HP	E	\$29,686	10.37	1.83	3.18	0.24	0.50	9

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>C35</b>	<i>ALIVA LTD. (continued)</i>											
	C35AV009	AL 252	CONCRETE GUNITER/SHOTCRETER, DRY/SEMI-WET, 5 - 10 CY/HR, W/4.2 GAL HOPPER/ ROTARY PUMP/ 100' - 2.36" DIA HOSE/ NOZZLE/ & AIR COMPRESSOR	16 HP	E	\$36,102	12.98	2.24	3.87	0.30	1.14	18
	C35AV010	AL 262	CONCRETE GUNITER/SHOTCRETER, WET/DRY, 9 - 13 CY/HR, W/4.2 GAL HOPPER/ ROTARY PUMP/ 100' - 2.36" DIA HOSE/ NOZZLE/ & AIR COMPRESSOR	26 HP	E	\$67,351	22.08	4.17	7.22	0.56	1.85	27
	C35AV006	AL 285	CONCRETE GUNITER/SHOTCRETER, WET/DRY, 11 - 27.5 CY/HR, W/6.6 GAL HOPPER/ ROTARY PUMP/ 100' - 2.55" DIA HOSE/ NOZZLE/ & AIR COMPRESSOR	20 HP	E	\$96,388	28.86	5.90	10.21	0.79	1.43	33
	C35AV011	AL 302	CONCRETE GUNITER/SHOTCRETER, SHOTCRETE HYDRAULIC SPRAYER ARM, 25.6' HIGH (ADD TRUCK OR SMALL TRAILER & SHOTCRETE UNIT)	12 HP	E	\$53,120	16.95	3.29	5.69	0.44	0.86	50
	C35AV012	AL 307	CONCRETE GUNITERS / SHOTCRETERS, SHOTCRETE HYDRAULIC SPRAYER ARM, 52.5' HIGH (ADD TRUCK OR SMALL TRAILER & SHOTCRETE UNIT)	20 HP	E	\$154,340	44.33	9.54	16.54	1.27	1.43	68
<b>C40</b>	<b>CONCRETE MIXING UNITS</b>											
	<b>SUBCATEGORY 0.00</b>	<b>CONCRETE MIXING UNITS</b>										
			<b>CEMEN TECH</b>									
	C40CC001	SCD2-50H	CONCRETE MIXERS, STATIONARY CONCRETE DISPENSER, 15 CY/HR, 2 - 4.5 CY MATERIAL CAPACITY	10 HP	E	\$32,620	12.28	2.88	5.22	0.27	0.67	23



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
			<b>MULTIQUIP, INC.</b>									
	C40MU001	WM 70SH8	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 7 CF, TRAILER MTD	8	HP G	\$3,771	3.42	0.31	0.55	0.03	1.90	8
	C40MU002	WM 120SHH	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 12 CF, TRAILER MTD	13	HP G	\$7,694	6.12	0.65	1.18	0.06	3.08	11
	C40MU003	MC 64SH8	CONCRETE MIXERS, MIXER, CONCRETE, 6 CF, TRAILER MTD	8	HP G	\$3,725	3.41	0.31	0.55	0.03	1.90	7
	C40MU004	MC 94SH8	CONCRETE MIXERS, MIXER, CONCRETE, 9 CF, TRAILER MTD	8	HP G	\$4,284	3.61	0.36	0.64	0.04	1.90	8
			<b>STOW MANUFACTURING, INC.</b>									
	C40ST001	CMS44E	CONCRETE MIXERS, MIXER, CONCRETE, 4 CF, TRAILER MTD	1	HP E	\$2,342	1.03	0.19	0.33	0.02	0.03	5
	C40ST002	CMS44H	CONCRETE MIXERS, MIXER, CONCRETE, 4 CF, TRAILER MTD	6	HP G	\$2,566	2.33	0.20	0.36	0.02	1.30	5
	C40ST003	CMS64E	CONCRETE MIXERS, MIXER, CONCRETE, 6 CF, TRAILER MTD	2	HP E	\$2,984	1.45	0.25	0.43	0.03	0.13	7
	C40ST005	CMS94E	CONCRETE MIXERS, MIXER, CONCRETE, 9 CF, TRAILER MTD	2	HP E	\$3,921	1.77	0.32	0.58	0.03	0.10	8
			<b>NO SPECIFIC MANUFACTURER</b>									
	C40XX001	8E	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 8 CF, ELECTRIC, PORTABLE	2	HP E	\$2,954	1.41	0.26	0.47	0.02	0.13	7
	C40XX002	8G	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 8 CF, GAS, PORTABLE	7	HP G	\$3,174	2.99	0.29	0.51	0.03	1.66	7

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>C40</b>	<i>NO SPECIFIC MANUFACTURER (continued)</i>											
	C40XX003	10E	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 10 CF, ELECTRIC, PORTABLE	3 HP	E	\$4,259	1.98	0.38	0.68	0.04	0.20	9
	C40XX004	10G	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 10 CF, GAS, PORTABLE	8 HP	G	\$4,269	3.63	0.38	0.68	0.04	1.90	10
	C40XX005	12E	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 12 CF, ELECTRIC, PORTABLE	5 HP	E	\$5,124	2.52	0.45	0.82	0.04	0.33	11
	C40XX006	16E	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 16 CF, ELECTRIC, PORTABLE	5 HP	E	\$9,856	4.16	0.87	1.58	0.08	0.33	12
	C40XX007	16G	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 16 CF, GAS, PORTABLE	9 HP	G	\$9,341	5.64	0.83	1.49	0.08	2.13	13
<b>C45</b>	<b>CONCRETE PAVING MACHINES</b>											
	<b>SUBCATEGORY 0.00</b>		<b>CONCRETE PAVING MACHINES</b>									
	<b>GOMACO CORPORATION</b>											
	C45G0026	C-450	CONCRETE PAVING MACHINES, CYLINDER FINISHER, SINGLE DRUM, FINISHING WIDTH 9'-137'	36 HP	G	\$60,431	29.95	4.52	8.06	0.49	9.20	64
	C45G0027	C-650-F	CONCRETE PAVING MACHINES, CYLINDER FINISHER, DOUBLE DRUM, FINISHING WIDTH 19'-51'	50 HP	D-off	\$76,735	31.78	5.75	10.23	0.63	6.28	91
	C45G0028	C-650-S	CONCRETE PAVING MACHINES, CYLINDER FINISHER, DOUBLE DRUM, FINISHING WIDTH 19'-51'	50 HP	D-off	\$122,242	46.45	9.15	16.30	1.00	6.28	126

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>C45</i>	<i>GOMACO CORPORATION (continued)</i>											
	C45G0029	C-750	CONCRETE PAVING MACHINES, CYLINDER FINISHER, DOUBLE DRUM, FINISHING WIDTH 8'-156'	36 HP	G	\$81,209	36.65	6.08	10.83	0.66	9.20	91
	C45G0013	GT-3200	CONCRETE PAVING MACHINES, CURB/GUTTER SLIPFORM PAVER, CRAWLER, 3-TRACK, 36" WIDE MOLD/FORM	92 HP	D-off	\$140,131	58.13	10.49	18.68	1.15	11.56	130
	C45G0010	COMMANDER II /GT6200	CONCRETE PAVING MACHINES, CURB/GUTTER SLIPFORM PAVER, CRAWLER, 2-TRACK, 36" WIDE MOLD/FORM	92 HP	D-off	\$168,561	67.29	12.62	22.47	1.38	11.56	200
	C45G0014	GT-3600	CONCRETE PAVING MACHINES, CURB/GUTTER SLIPFORM PAVER, CRAWLER, 3-TRACK, 24" WIDE MOLD/FORM	98 HP	D-off	\$192,963	76.00	14.45	25.73	1.58	12.31	210
	C45G0011	COMMANDER III/GT6300	CONCRETE PAVING MACHINES, CURB/GUTTER SLIPFORM PAVER, CRAWLER, 3-TRACK, 36" WIDE MOLD/FORM	185 HP	D-off	\$259,911	109.83	19.45	34.65	2.12	23.24	300
	C45G0012	COMMANDER III	CONCRETE PAVING MACHINES, CURB/GUTTER SLIPFORM PAVER, CRAWLER, 4-TRACK, 36" WIDE MOLD/FORM	169 HP	D-off	\$348,760	136.22	26.10	46.50	2.85	21.23	369
	C45G0016	GP-2600	CONCRETE PAVING MACHINES, SLIPFORM PAVER, CRAWLER, 2-TRACK, 24'-32' PAVING WIDTH	230 HP	D-off	\$382,443	155.68	28.63	50.99	3.13	28.90	750
	C45G0018	GHP-2800	CONCRETE PAVING MACHINES, SLIPFORM PAVER, CRAWLER, 2-TRACK, 24'-32' PAVING WIDTH	335 HP	D-off	\$477,062	200.97	35.71	63.61	3.90	42.09	700

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>C45</b>	<b>GOMACO CORPORATION (continued)</b>											
	C45G0020	GP-4000	CONCRETE PAVING MACHINES, SLIPFORM PAVER, CRAWLER, 2-TRACK, 12'-50' PAVING WIDTH	450 HP	D-off	\$570,613	247.32	42.70	76.08	4.66	56.54	880
	C45G0031	9500	CONCRETE PAVING MACHINES, TRIMMER/PLACER, W/16'-8" TRIMMER HEAD	385 HP	D-off	\$463,415	203.61	34.69	61.79	3.79	48.37	729
	<b>MILLER SPREADER CO.</b>											
	C45MJ001	MC 650	CONCRETE PAVING MACHINES, CURB BUILDER, SLIPFORM PAVER, 6.1 CF HOPPER 6" AUGER	15 HP	G	\$8,773	7.20	0.66	1.17	0.07	3.84	8
	<b>M-B-W, INC.</b>											
	C45MW00	C101	CONCRETE PAVING MACHINES, CURB ONLY SLIPFORM PAVER, RUBBER TIRE, 12"	26 HP	D-off	\$50,822	20.00	3.78	6.71	0.42	3.27	27
	C45MW00	CG200	CONCRETE PAVING MACHINES, CURB/GUTTER SLIPFORM PAVER, RUBBER TIRE, 48"	26 HP	D-off	\$64,543	24.42	4.79	8.51	0.53	3.27	34
<b>C55</b>	<b>CONCRETE PUMPS</b>											
	<b>SUBCATEGORY 0.00</b>	<b>CONCRETE PUMPS</b>										
	<b>MAYCO PUMP - MULTIQUIP INC.</b>											
	C55M3001	C-30HDG	CONCRETE PUMP, 25 CY/HR, SINGLE, TRAILER MTD	46 HP	G	\$24,873	18.79	1.55	2.74	0.18	10.90	27
	C55M3002	LS-400	CONCRETE PUMP, 45 CY/HR, SINGLE, TRAILER MTD	60 HP	D-off	\$56,758	22.62	3.62	6.39	0.42	7.12	42

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
C55	<i>MAYCO PUMP - MULTIQUIP INC. (continued)</i>											
	C55M3003	LS-600	CONCRETE PUMP, 70 CY/HR, SINGLE, TRAILER MTD	106 HP	D-off	\$64,832	30.82	4.13	7.29	0.48	12.58	47
	<b>OLIN ENGINEERING, INC.</b>											
	C55OE006	10 22	CONCRETE PUMP, 22 CY/HR, TRAILER MTD (OPEN LOOP HYDRAULIC SYSTEM)	74 HP	D-off	\$54,022	23.74	3.41	6.02	0.40	8.78	44
	C55OE009	20 80	CONCRETE PUMP, 76 CY/HR, TRAILER MTD TANDEM (CLOSED LOOP HYDRAULIC SYSTEM)	127 HP	D-off	\$102,111	43.17	6.45	11.38	0.76	15.07	72
	C55OE011	15 95	CONCRETE PUMP, 100 CY/HR, TRAILER MTD TANDEM (OPEN LOOP HYDRAULIC SYSTEM)	181 HP	D-off	\$74,708	43.28	4.70	8.30	0.55	21.48	70
	C55OE012	20 100	CONCRETE PUMP, 100 CY/HR, TRAILER MTD TANDEM (CLOSED LOOP HYDRAULIC SYSTEM)	181 HP	D-off	\$119,997	54.96	7.59	13.39	0.89	21.48	81
	C55OE001	4Z 26X	CONCRETE PUMP, PUMP & BOOM, 130 CY/HR, REACH: 72' HORIZONTAL / 85' VERTICAL (ADD 50,000 GVW TRUCK)			\$287,444	74.14	18.30	32.34	2.13	0.00	100
	C55OE002	4Z 36X	CONCRETE PUMP, PUMP & BOOM, 182 CY/HR, REACH: 104' HORIZONTAL / 118' VERTICAL (ADD 50,000 GVW TRUCK)			\$369,270	95.24	23.51	41.54	2.74	0.00	100
	C55OE003	5RZ 471	CONCRETE PUMP, PUMP & BOOM, 182 CY/HR, REACH: 134' HORIZONTAL / 152' VERTICAL (ADD 50,000 GVW TRUCK)			\$562,677	145.12	35.82	63.30	4.17	0.00	100
<b>SCHWING AMERICA INC.</b>												
C55SC001	SP750-18	CONCRETE PUMP, 70 CY/HR, 1,100 PSI, TRAILER MTD	80 HP	D-off	\$82,733	31.94	5.24	9.25	0.61	9.49	69	

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>C55</i>	<i>SCHWING AMERICA INC. (continued)</i>											
	C55SC002	SP2800	CONCRETE PUMP, 76 CY/HR, 1,565 PSI, TRAILER MTD	197 HP	D-off	\$143,955	63.22	9.07	16.00	1.07	23.38	115
	C55SC005	S 28X	CONCRETE PUMP, 117 CY/HR, 75' BOOM, TRUCK MTD	210 HP	D-on	\$478,499	155.62	30.13	53.16	3.55	28.92	359
	C55SC006	KVM 32XG	CONCRETE PUMP, 117 CY/HR, 92' BOOM, TRUCK MTD	210 HP	D-on	\$515,809	165.24	32.50	57.36	3.82	28.92	470
<b>C60</b>	<b>CONCRETE SAWS (Add cost for sawblade wear)</b>											
	<b>SUBCATEGORY 0.00</b>	<b>CONCRETE SAWS (Add cost for sawblade wear)</b>										
	<b>HUSQVARNA CONSTRUCTION PRODUCTS</b>											
	C60HG008	K760	CONCRETE SAW, 5.00" DEPTH, MANUAL, 14" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	2 HP	G	\$1,021	1.04	0.09	0.15	0.01	0.61	1
	C60HG010	FS 400	CONCRETE SAW, 6.5" DEPTH, WALK BEHIND, 18" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	11 HP	G	\$1,990	4.50	0.17	0.30	0.02	3.35	2
	C60HG015	FS 520	CONCRETE SAW, 7.625" DEPTH, SELF PROPELLED, 20" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	20 HP	G	\$6,066	9.01	0.51	0.91	0.05	6.09	5
	C60HG020	FS 4600 G 20	CONCRETE SAW, 12" DEPTH, SELF-PROPELLED, 20" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	48 HP	G	\$20,977	23.81	1.74	3.15	0.16	14.62	12
	C60HG021	FS 4600 G 30	CONCRETE SAW, 12" DEPTH, SELF PROPELLED, 30" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	48 HP	G	\$25,338	25.30	2.10	3.80	0.20	14.62	12
	C60HG023	FS 3500 E 30	CONCRETE SAW, 11.5" DEPTH, SELF PROPELLED, 30" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	30 HP	E	\$14,876	8.90	1.23	2.23	0.11	2.57	9

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>C60</i>	<i>HUSQVARNA CONSTRUCTION PRODUCTS (continued)</i>											
	C60HG024	FS 4600 G 26	CONCRETE SAW, 12" DEPTH, SELF-PROPELLED, 26" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	48 HP	G	\$25,281	25.28	2.10	3.79	0.20	14.62	12
	C60HG025	FS 309 G 14	CONCRETE SAW, 4.625" DEPTH, MANUAL, 14" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	9 HP	G	\$1,602	3.66	0.13	0.24	0.01	2.74	2
	C60HG026	FS 513 G 18	CONCRETE SAW, 7.5" DEPTH, SELF-PROPELLED, 18" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	13 HP	G	\$3,988	5.87	0.33	0.60	0.03	3.96	4
	C60HG011	FS 6600 D 20	CONCRETE SAW, 6.5" DEPTH, SELF PROPELLED, 20" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	66 HP	D-off	\$26,622	20.63	2.21	3.99	0.21	9.90	19
	C60HG014	FS 3500 E 26	CONCRETE SAW, 10.625" DEPTH, SELF PROPELLED, 26" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	30 HP	E	\$14,731	8.85	1.22	2.21	0.11	2.57	9
	C60HG012	FS 6600 D 26	CONCRETE SAW, 10.625" DEPTH, SELF PROPELLED, 26" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	66 HP	D-off	\$27,992	21.10	2.32	4.20	0.22	9.90	19
	C60HG013	FS 6600 D 36	CONCRETE SAW, 14.875" DEPTH, SELF PROPELLED, 36" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	66 HP	D-off	\$28,210	21.17	2.34	4.23	0.22	9.90	20
	C60HG016	FS 8400 D 36	CONCRETE SAW, 14.875" DEPTH, SELF PROPELLED, 36" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	84 HP	D-off	\$34,881	26.60	2.89	5.23	0.27	12.61	21
	<b>BOART LONGYEAR COMPANY</b>											
	C60LY005	FS 13B	CONCRETE SAW, 7.00" DEPTH, WALK BEHIND(ADD COST FOR SAWBLADE WEAR & WATER)	13 HP	G	\$3,319	5.65	0.28	0.50	0.03	3.96	2

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>C60</i>	<i>BOART LONGYEAR COMPANY (continued)</i>											
	C60LY001	360-10AP	CONCRETE SAW, RAIL SAW, 15.50" DEPTH, WALL (ADD COMPRESSOR & COST FOR SAWBLADE WEAR & WATER)	10 HP	G	\$29,025	13.38	2.40	4.35	0.22	3.05	2
	C60LY002	360-35HM	CONCRETE SAW, RAIL SAW, 24.50" DEPTH, WALL(ADD COST FOR SAWBLADE WEAR & WATER)	35 HP	G	\$42,932	26.80	3.55	6.44	0.33	10.66	2
	C60LY011	WR-400	CONCRETE SAW, WIRE SAW SYSTEM, HEAVY DUTY (ADD COST FOR SAW WIRE WEAR & WATER)	32 HP	D-off	\$82,895	33.91	6.86	12.43	0.64	4.80	15
<b>C65</b>	<b>CONCRETE VIBRATORS</b>											
	<b>SUBCATEGORY 0.00</b>		<b>CONCRETE VIBRATORS</b>									
	<b>STOW MANUFACTURING, INC.</b>											
	C65ST007	SV-1 115V	CONCRETE VIBRATOR, 1.375" HEAD, 21' SHAFT (ADD 2KV GENERATOR)	1 HP	E	\$1,090	1.11	0.14	0.25	0.01	0.06	1
	C65ST008	SV-2 115V	CONCRETE VIBRATOR, 2.175" HEAD, 21' SHAFT (ADD 2KV GENERATOR)	2 HP	E	\$1,138	1.24	0.14	0.26	0.01	0.12	1
	C65ST009	SV-3 115V	CONCRETE VIBRATOR, 2.625" HEAD, 21' SHAFT (ADD 2KV GENERATOR)	3 HP	E	\$1,347	1.53	0.16	0.30	0.01	0.19	1
	C65ST013	G55H	CONCRETE VIBRATOR, 2.325" HEAD, 21' SHAFT, W/GAS MOTOR ON CART	6 HP	G	\$2,486	3.70	0.30	0.56	0.02	1.22	2
	<b>WACKER CORPORATION</b>											
	C65WC005	A 5000	CONCRETE VIBRATOR, 1.75" HEAD, 13' SHAFT, W/GAS MOTOR ON CART	5 HP	G	\$2,275	3.37	0.28	0.51	0.02	1.11	1



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>C65</i>	<i>WACKER CORPORATION (continued)</i>										
	C65WC004	M 3000	CONCRETE VIBRATOR, 1.75" HEAD, 13' SHAFT, HI-FREQ INTERNAL (ADD 2KV GENERATOR)	3	HP E	\$1,197	1.53	0.15	0.27	0.01	0.19	1
	C65WC003	IREN 57	CONCRETE VIBRATOR, 2.50" HEAD, 16.5' SHAFT, HI-FREQ INTERNAL (ADD 2KV GENERATOR)	2	HP E	\$1,862	2.05	0.23	0.42	0.02	0.12	1
<b>C75</b>	<b>CRANES, HYDRAULIC, SELF-PROPELLED</b>											
	<b>SUBCATEGORY 0.00 CRANES, HYDRAULIC, SELF-PROPELLED</b>											
	<b>BRODERSON MANUFACTURING CORPORATION</b>											
	C75BD007	IC-20-1F	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 2.5 TON, 15' BOOM, 4X2	38	HP G	\$63,722	19.45	2.36	3.80	0.46	9.72	63
	C75BD008	IC-35-2C	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 4.0 TON, 19.2' BOOM, 4X2	42	HP G	\$84,763	23.34	3.16	5.08	0.62	10.74	78
	C75BD004	IC-35-2C	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 4.0 TON, 19' BOOM, 4X2, NON-ROTATING OPERATOR'S CAB	42	HP G	\$88,293	23.78	3.29	5.30	0.64	10.74	79
	C75BD009	IC-80-3G	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 8.5 TON, 30' BOOM, 4X2	69	HP G	\$114,086	35.21	4.22	6.77	0.83	17.64	172
	C75BD005	IC-80-1G	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 9.0 TON, 20' BOOM, 4X2, NON-ROTATING OPERATOR'S CAB	69	HP G	\$110,472	34.74	4.08	6.55	0.80	17.64	163
	C75BD006	IC-200-3F	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 15.0 TON, 50' BOOM, 4X2, NON-ROTATING OPERATOR'S CAB	110	HP G	\$161,278	53.50	5.94	9.53	1.17	28.12	308
	C75BD010	IC-250-3A	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 18.0 TON, 50' BOOM, 4X4	85	HP D-off	\$190,458	37.32	7.03	11.30	1.38	10.68	384

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
C75			<i>BRODERSON MANUFACTURING CORPORATION (continued)</i>									
	C75BD011	RT-300-2B	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 15.0 TON, 60' BOOM, 4X4, 20'0" OFFSET	130 HP	D-off	\$253,573	52.87	9.38	15.08	1.84	16.33	473
			<b>GROVE CRANES (MANITOWOC)</b>									
	C75GV029	YB4411	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 10.5 TON, 32' BOOM, 4X4, NON-ROTATING OPERATOR'S CAB	80 HP	G	\$174,605	46.26	6.49	10.44	1.27	20.45	175
	C75GV030	YB5515	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 15 TON, 41' BOOM, 4X4, NON-ROTATING OPERATOR'S CAB	100 HP	G	\$265,071	63.62	9.90	15.96	1.92	25.57	326
	C75GV023	RT530E-2	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 30 TON, 95' BOOM, 4X4	160 HP	D-off	\$429,181	82.89	15.77	25.32	3.11	20.10	580
	C75GV024	RT640E	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 40 TON, 105' BOOM 4X4	173 HP	D-off	\$564,639	103.86	20.66	33.11	4.10	21.74	650
	C75GV016	RT9130E-2	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 130 TON, 160' BOOM, 4X4, W/HOOK BLOCK & BALL	300 HP	D-off	\$1,479,827	252.82	54.19	86.90	10.74	37.69	1,364
	C75GV031	RT765E	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 65 TON, 110' BOOM, 4X4, W/HOOK BLOCK & BALL	240 HP	D-off	\$691,353	136.79	24.98	39.91	5.02	30.15	934
	C75GV032	RT880E	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 80 TON, 128' BOOM, 4X4, W/HOOK BLOCK & BALL	275 HP	D-off	\$836,496	161.97	30.32	48.49	6.07	34.55	1,093

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>TADANO AMERICA CORPORATION</b>											
	C75TD009	GR-350XL-2	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 35 TON, 112' BOOM, 4X4	180 HP	D-off	\$358,263	71.78	13.48	21.75	2.60	22.62	537
	C75TD010	GR-550XL-2	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 55TON, 175' BOOM, 4X4	247 HP	D-off	\$467,384	95.37	17.58	28.38	3.39	31.03	882
	C75TD011	GR-750XL-2	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 75 TON, 180' BOOM, 4X4	247 HP	D-off	\$614,863	114.40	23.13	37.33	4.46	31.03	945
	<b>TEREX CORPORATION</b>											
	C75TE001	RT230	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 30 TON, 94' BOOM, 4X4	130 HP	D-off	\$379,288	70.42	13.99	22.48	2.75	16.33	563
	C75TE002	RT335/40	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 40 TON, 94' BOOM, 4X4	152 HP	D-off	\$521,828	92.98	19.26	30.94	3.79	19.10	634
<b>C80</b>	<b>CRANES, HYDRAULIC, TRUCK MOUNTED</b>											
	<b>SUBCATEGORY 0.01 UNDER 26 TON</b>											
	<b>TEREX CORPORATION</b>											
	C80TE008	CD225	CRANES, HYDRAULIC, TRUCK MTD, ROUGH TERRAIN, 25 TON, 72' BOOM, 4X4	130 HP	D-off	\$302,371	55.32	11.00	17.62	2.19	14.06	525
	<b>NO SPECIFIC MANUFACTURER</b>											
	C80XX001	1700	CRANES, HYDRAULIC, TRUCK MTD, BOOM TRUCK, 17 TON, 80' BOOM, 4X2	245 HP	D-off	\$152,303	49.10	5.54	8.86	1.11	26.51	330

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
C80	<i>NO SPECIFIC MANUFACTURER (continued)</i>											
	C80XX002	2300	CRANES, HYDRAULIC, TRUCK MTD, BOOM TRUCK, 23.5 TON, 102' BOOM, 6X2	300 HP	D-off	\$202,311	62.30	7.32	11.69	1.47	32.46	600
	<b>SUBCATEGORY 0.02</b>		<b>26 TON THRU 65 TON</b>									
	<b>GROVE CRANES (MANITOWOC)</b>											
	C80GV006	TMS-700E	CRANES, HYDRAULIC, TRUCK MTD, 50 TON, 110' BOOM, 8X4	400 HP	D-off	\$848,657	140.36	28.46	44.69	6.11	43.28	771
	C80GV029	TMS750E	CRANES, HYDRAULIC, TRUCK MTD, 50 TON, 110' BOOM, 8X4X4	450 HP	D-off	\$887,359	152.12	29.54	46.30	6.39	48.69	947
	C80GV033	GMK3055	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 60 TON, 141' BOOM, 6X4X6	355 HP	D-off	\$1,041,325	161.59	34.68	54.36	7.50	38.41	782
	C80GV030	TMS760E	CRANES, HYDRAULIC, TRUCK MTD, 60 TON, 110' BOOM, 8X4X4	450 HP	D-off	\$889,693	152.35	29.61	46.42	6.40	48.69	949
	<b>LINK-BELT CONSTRUCTION EQUIPMENT CO.</b>											
	C80LB009	HTC-8640 SL	CRANES, HYDRAULIC, TRUCK MTD, 40 TON, 105' BOOM, 6X4X2	365 HP	D-off	\$616,547	111.23	20.64	32.39	4.44	39.49	575
	C80LB011	HTC-8660 II	CRANES, HYDRAULIC, TRUCK MTD, 60 TON, 110' BOOM, 8X4X4	365 HP	D-off	\$629,290	113.88	20.88	32.69	4.53	39.49	831
	<b>TEREX CORPORATION</b>											
	C80TE002	T335/40	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 40 TON, 94' BOOM, 6X4	250 HP	D-off	\$384,108	73.15	12.70	19.86	2.77	27.05	493
C80TE003	T 500	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 50 TON, 110' BOOM, 8X4	370 HP	D-off	\$512,711	102.27	16.91	26.43	3.69	40.03	806	

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT	
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL		
	<b>SUBCATEGORY 0.03 66 TON THRU 125 TON</b>												
	<b>GROVE CRANES (MANITOWOC)</b>												
	C80GV034	GMK4100B	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 100 TON, 167' BOOM, 8X6X8	402 HP	D-off	\$1,495,192	208.14	45.56	69.75	10.68	43.49	940	
	C80GV035	TMS800E	CRANES, HYDRAULIC, TRUCK MTD, 80 TON, 128' BOOM, 8X4X4	402 HP	D-off	\$974,034	150.62	29.58	45.25	6.95	43.49	922	
	<b>TADANO AMERICA CORPORATION</b>												
	C80TD001	ATF-650XL	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 65 TON, 132' BOOM, 8X8	121 HP	D-off	349 HP D-on	\$779,493	106.53	23.41	35.67	5.57	20.16	1,090
	C80TD002	ATF-1000XL	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 100 TON, 138' BOOM, 8X8	158 HP	D-off	375 HP D-on	\$971,839	130.93	29.32	44.75	6.94	24.68	1,070
	C80TD003	ATF-90G-4	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 90 TON, 138' BOOM, 8X8	158 HP	D-off	375 HP D-on	\$1,099,406	139.44	33.81	51.92	7.85	24.68	1,070
	<b>SUBCATEGORY 0.04 OVER 125 TON</b>												
	<b>GROVE CRANES (MANITOWOC)</b>												
	C80GV016	GMK 6350	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 200 TON, 197' BOOM, 12X8	255 HP	D-off	563 HP D-on	\$3,033,501	354.81	85.24	127.38	21.55	38.99	1,425
	<b>TADANO AMERICA CORPORATION</b>												
	C80TD004	ATF-130G-5	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 130 TON, 162' BOOM, 10X8	533 HP	D-off	503 HP D-on	\$1,386,043	210.93	39.31	58.91	9.85	67.86	1,330
	C80TD005	ATF-1500XL	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 150 TON, 162' BOOM, 10X8	533 HP	D-off	503 HP D-on	\$1,166,604	195.32	32.44	48.29	8.29	67.86	1,330

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>C85</b>	<b>CRANES, MECHANICAL, LATTICE BOOM, CRAWLER MOUNTED</b>											
	<b>SUBCATEGORY 0.12</b>		<b>DRAGLINE, CLAMSHELL, OVER 1.0 CY THRU 2.5 CY</b>									
	<b>LINK-BELT CONSTRUCTION EQUIPMENT CO.</b>											
	C85LB019	138 HSL	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 80 TON, 100' BOOM (ADD BUCKET)	284 HP	D-off	\$867,917	128.74	28.17	43.40	6.47	25.77	1,390
	<b>TEREX CORPORATION</b>											
	C85TE001	5220	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 50 TON, 100' BOOM (ADD BUCKET)	150 HP	D-off	\$693,132	94.82	22.50	34.66	5.17	13.61	831
	C85TE002	7225	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 85 TON, 100' BOOM (ADD BUCKET)	250 HP	D-off	\$964,430	136.22	31.30	48.22	7.19	22.69	1,259
	<b>SUBCATEGORY 0.13</b>		<b>DRAGLINE, CLAMSHELL, OVER 2.5 CY THRU 5.0 CY</b>									
	<b>LINK-BELT CONSTRUCTION EQUIPMENT CO.</b>											
	C85LB021	238 HYLAB 5	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 150 TON, 100' BOOM (ADD BUCKET)	284 HP	D-off	\$1,376,074	177.25	40.78	61.16	10.20	25.77	3,357
	<b>MANITOWOC ENGINEERING CO.</b>											
	C85MA002	777	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 5.0 CY, 130' BOOM (ADD BUCKET)	340 HP	D-off	\$1,503,226	196.58	44.55	66.81	11.14	30.85	3,815
	C85MA011	1015	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 3.5 CY, 80' BOOM (ADD BUCKET)	600 HP	D-off	\$1,909,288	266.40	56.58	84.86	14.15	54.44	2,083

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>TEREX CORPORATION</b>											
	C85TE003	9225	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 150 TON, 100' BOOM (ADD BUCKET)	335 HP	D-off	\$1,216,665	165.05	36.06	54.07	9.02	30.40	2,482
	<b>SUBCATEGORY 0.14</b>	<b>DRAGLINE, CLAMSHELL, OVER 5.0 CY</b>										
	<b>MANITOWOC ENGINEERING CO.</b>											
	C85MA003	999	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 7.0 CY, 140' BOOM (ADD BUCKET)	400 HP	D-off	\$2,181,970	265.84	59.73	87.28	16.09	36.30	5,100
	<b>SUBCATEGORY 0.22</b>	<b>LIFTING, 26 TON THRU 50 TON</b>										
	<b>LINK-BELT CONSTRUCTION EQUIPMENT CO.</b>											
	C85LB024	108 HYLAB 5	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 50 TON, 70' BOOM, LIFTING	197 HP	D-off	\$624,487	74.39	18.51	27.75	4.63	13.06	968
	<b>SUBCATEGORY 0.23</b>	<b>LIFTING, 51 TON THRU 150 TON</b>										
	<b>KOBELCO AMERICA INC.</b>											
	C85KC009	CK1100	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 110 TON, 200' BOOM, LIFTING	285 HP	D-off	\$765,527	93.46	21.71	32.53	5.44	18.90	2,148
	C85KC010	CK1600	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 160 TON, 250' BOOM, LIFTING	363 HP	D-off	\$1,236,205	143.87	35.05	52.54	8.78	24.07	3,338
	C85KC005	CK850	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 85 TON, 200' BOOM, LIFTING	213 HP	D-off	\$649,157	77.16	18.41	27.59	4.61	14.12	1,729

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>LINK-BELT CONSTRUCTION EQUIPMENT CO.</b>											
	C85LB001	138 HSL	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 80 TON, 40' TUBULAR BOOM, LIFTING	248 HP	D-off	\$794,338	93.50	22.52	33.76	5.64	16.44	1,464
	C85LB014	218 HSL	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 110 TON, 230' BOOM, LIFTING	284 HP	D-off	\$1,037,315	119.23	29.42	44.09	7.37	18.83	1,790
	C85LB015	238 HYLAB 5	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 150 TON, 240' BOOM, LIFTING	284 HP	D-off	\$1,436,952	157.21	40.75	61.07	10.21	18.83	3,357
	<b>MANITOWOC ENGINEERING CO.</b>											
	C85MA012	1015	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 120 TON, 210' BOOM, LIFTING	600 HP	D-off	\$1,877,823	222.07	53.25	79.81	13.34	39.79	2,197
	C85MA008	555	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 100 TON, 260' BOOM, LIFTING	340 HP	D-off	\$1,255,360	144.02	35.60	53.35	8.92	22.55	3,121
	C85MA005	555	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 150 TON, 250' BOOM, LIFTING	340 HP	D-off	\$1,253,264	143.81	35.53	53.26	8.90	22.55	2,744
	<b>TEREX CORPORATION</b>											
	C85TE008	HC 80	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 80 TON, 200' BOOM, LIFTING	184 HP	D-off	\$729,012	82.65	20.67	30.98	5.18	12.20	1,430
	C85TE009	HC 110	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 100 TON, 230' BOOM, LIFTING	230 HP	D-off	\$898,840	102.14	25.49	38.20	6.39	15.25	1,911



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
C85	<i>TEREX CORPORATION (continued)</i>											
	C85TE010	HC 125	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 125 TON, 240' BOOM, LIFTING	240 HP	D-off	\$1,192,209	130.75	33.81	50.67	8.47	15.91	2,128
	<b>SUBCATEGORY 0.24 LIFTING, OVER 150 TON</b>											
	<b>KOBELCO AMERICA INC.</b>											
	C85KC008	CK2000	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 200 TON, 50' BOOM, LIFTING	316 HP	D-off	\$1,360,805	148.16	35.91	52.58	9.62	20.95	3,622
	C85KC011	CK2750	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 275 TON, 300' BOOM, LIFTING	363 HP	D-off	\$1,783,468	190.44	47.07	68.91	12.61	24.07	5,236
	<b>LINK-BELT CONSTRUCTION EQUIPMENT CO.</b>											
	C85LB016	248 HYLAB 5	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 200 TON, 280' BOOM, LIFTING	284 HP	D-off	\$1,831,320	189.06	48.33	70.76	12.95	18.83	3,242
	<b>MANITOWOC ENGINEERING CO.</b>											
	C85MA006	777	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 200 TON, 260' BOOM, LIFTING	340 HP	D-off	\$1,518,805	164.45	40.08	58.68	10.74	22.55	3,929
C85MA007	999	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 250 TON, 260' BOOM, LIFTING	375 HP	D-off	\$2,061,337	216.86	54.39	79.64	14.57	24.87	4,942	
<b>TEREX CORPORATION</b>												
C85TE011	HC 210	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 210 TON, 280' BOOM, LIFTING	315 HP	D-off	\$1,760,865	184.85	46.47	68.03	12.45	20.89	3,708	

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT	
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL		
<b>C90</b>	<b>CRANES, MECHANICAL, LATTICE BOOM, TRUCK MOUNTED</b>												
	<b>SUBCATEGORY 0.04 OVER 125 TON</b>												
	<b>LINK-BELT CONSTRUCTION EQUIPMENT CO.</b>												
	C90LB001	HC-238H II	CRANES, MECHANICAL, LATTICE BOOM, TRUCK MTD, 150 TON, 260' BOOM, 8X4	200 HP	D-off	445 HP D-on	\$1,622,296	198.65	43.73	63.54	11.96	25.76	1,913
	C90LB003	HC-278 H II	CRANES, MECHANICAL, LATTICE BOOM, TRUCK MTD, 300 TON, 330' BOOM, 12X6	445 HP	D-off	445 HP D-on	\$3,000,362	360.59	81.12	117.98	22.13	46.28	3,385
<b>C95</b>	<b>CRANES, TOWER</b>												
	<b>SUBCATEGORY 0.00 CRANES, TOWER</b>												
	<b>PECCO AND WOLFF TOWER CRANES (MORROW)</b>												
	C95AP004	SK200	TOWER CRANE 3.4 TON @ 181' RADIUS 42.6' HEIGHT (ADD 95KW GENERATOR & T-SECTION)	128 HP	E		\$557,765	73.26	16.53	24.79	4.13	7.90	970
	C95AP005	S16-35 TOWER SECTION	TOWER CRANE OPTION, 1.1' T-TRANSITION S35 -S16 (ADD SK 140 - SK 225 TOWER CRANE)				\$17,559	1.80	0.52	0.78	0.13	0.00	16
	C95AP006	S35 TOWER SECTION	TOWER CRANE OPTION, 19.33' TOWER SECTION (ADD TO SK 140 - SK 400 TOWER CRANE)				\$32,844	3.36	0.97	1.46	0.24	0.00	89
	C95AP007	SK400	TOWER CRANE, 3.3 TON @ 245' RADIUS, 56.7' HEIGHT (ADD 160 KW GENERATOR & T-SECTION)	213 HP	E		\$881,560	115.49	26.12	39.18	6.53	13.15	1,783

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>C95</i>			<i>PECCO AND WOLFF TOWER CRANES (MORROW) (continued)</i>									
	C95AP008	S35 CLIMBING UNIT	TOWER CRANE OPTION, 29.2' CLIMBING UNIT (ADD TO SK 200 - SK 400 TOWER CRANE)			\$133,871	14.20	3.97	5.95	0.99	0.00	248
	C95AP009	S35-60 TOWER SECTION	TOWER CRANE OPTION, 19.4' T-TRANSITION S60 S35 (ADD SK 225 - SK 560 TOWER CRANE)			\$44,385	4.54	1.32	1.97	0.33	0.00	99
	C95AP010	SK560	TOWER CRANE, 2.8 TON @ 265' RADIUS, 76.5' HEIGHT (ADD 161 KW GENERATOR & T-SECTION)	217 HP	E	\$1,175,791	145.99	34.84	52.26	8.71	13.40	1,557
	C95AP011	S60 TOWER SECTION	TOWER CRANE OPTION, 19.33' TOWER SECTION (ADD TO SK 225 - SK 560 TOWER CRANE)			\$41,446	4.24	1.23	1.84	0.31	0.00	99
	C95AP012	S60 CLIMB UNIT	TOWER CRANE OPTION, 32.8' CLIMBING UNIT (ADD TO SK 225 - SK 560 TOWER CRANE)			\$167,224	17.61	4.96	7.43	1.24	0.00	258
	C95AP013	SN355	TOWER CRANE, 3.8 TON @ 197' RADIUS, 110' TALL, LUFFING (ADD 300 KW GENERATOR & T-SECTION)	354 HP	E	\$1,125,643	153.89	33.36	50.03	8.34	21.86	2,748
	C95AP014	SN35 TOWER SECTION	TOWER CRANE OPTION, 14.75' TOWER SECTION (ADD TO SN 141 - SN 355 TOWER CRANE)			\$37,722	3.86	1.12	1.68	0.28	0.00	89
	C95AP015	SN35 CLIMBING UNIT	TOWER CRANE OPTION, 29.2' CLIMBING UNIT (ADD TO SN 141 - SN 355 TOWER CRANE)			\$145,718	15.42	4.32	6.48	1.08	0.00	248
	C95AP016	S35N-60TOWER SECTION	TOWER CRANE OPTION, 19.4' T-TRANSITION S60 S35N (ADD SN 141 - SK 355 TOWER CRANE)			\$50,803	5.21	1.51	2.26	0.38	0.00	99

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>C95</i>			<i>PECCO AND WOLFF TOWER CRANES (MORROW) (continued)</i>									
	C95AP017	SK140	TOWER CRANE, 3.1 TON @ 151' RADIUS, 85.0' HEIGHT (ADD 95KW GENERATOR & T-SECTION)	125 HP	E	\$476,281	63.64	14.12	21.17	3.53	7.72	1,309
	C95AP018	S16 TOWER SECTION	TOWER CRANE OPTION, 14.75' TOWER SECTION (ADD TO SK 140 - SK 200 TOWER CRANE)			\$15,660	1.61	0.47	0.70	0.12	0.00	55
	C95AP019	S16 CLIMBING UNIT	TOWER CRANE OPTION, 29.2' CLIMBING UNIT (ADD TO SK140 - SK 200 TOWER CRANE)			\$90,426	9.76	2.68	4.02	0.67	0.00	165
	C95AP020	SN141	TOWER CRANE, 1.6 TON @ 147' RADIUS, 89' TALL, LUFFING (ADD 200 KW GENERATOR & T-SECTION)	223 HP	E	\$524,670	77.92	15.55	23.32	3.89	13.77	1,082
	C95AP021	SN160-16	TOWER CRANE, 2.8 TON @ 164' RADIUS, 88' TALL, LUFFING (ADD 250 KW GENERATOR & T-SECTION)	258 HP	E	\$820,318	112.51	24.31	36.46	6.08	15.93	1,179
	C95AP022	PH5000-12	TOWER CRANE OPTION, 24 PERSON / 2.4 TON MATERIAL ELEVATOR/HOIST (ADD 4.9' MAST SECTION & 18 KW GENERATOR)	24 HP	E	\$123,235	15.89	3.65	5.48	0.91	1.48	130
	C95AP023	MAST SECTION	TOWER CRANE OPTION, 4.9' MAST-> PERSON/MATERIAL ELEVATOR/HOIST (ADD WALL TIE & CABLE GUIDE @30')			\$2,910	0.30	0.09	0.13	0.02	0.00	3
			<b>MORROW EQUIPMENT COMPANY, LLC</b>									
	C95LH022	97K	TOWER CRANE, HORIZONTAL BOOM, JIB CRANE, 13.2 TON MAX, 1.9 TON @ 148' RADIUS, 66' HEIGHT, SELF/ERECTING, W/FIVE - 7' 10" TOWER SECTIONS/ & ROAD TRANSPORT EQUIPMENT (ADD 40KW GENERATOR)	35 HP	E	\$433,403	50.15	12.73	19.03	3.21	2.16	1,593

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
C95			<i>MORROW EQUIPMENT COMPANY, LLC (continued)</i>									
	C95LH023	140K	TOWER CRANE, HORIZONTAL BOOM, JIB CRANE, 11.0 TON MAX, 1.7 TON @ 180' RAD 146' HEIGHT, SELF/ERECTING, W/EIGHT - 9' 10" TOWER SECTIONS/ & ROAD TRANSPORT EQUIPMENT (ADD 60KW GENERATOR)	65 HP	E	\$604,534	71.67	17.76	26.56	4.48	4.01	1,836
	C95LH003	132 HC	TOWER CRANE, HORIZONTAL BOOM, JIB CRANE, 8.8 TON MAX, 2.4 TON @ 168' RADIUS, 147.8' HEIGHT, W/FOURTEEN - 8' 2" TOWER SECTIONS (ADD 85 KW GENERATOR)	109 HP	E	\$487,075	63.23	14.44	21.65	3.61	6.73	1,156
	C95LH005	200 HC	TOWER CRANE, HORIZONTAL BOOM, JIB CRANE, 11.0 TON MAX, 2.5 TON @ 201' RADIUS, 162.7' HEIGHT, W/NINE - 13' 7" TOWER SECTIONS (ADD 110 KW GENERATOR)	148 HP	E	\$633,502	82.92	18.77	28.16	4.69	9.14	1,374
	C95LH011	390 HC	TOWER CRANE, HORIZONTAL BOOM, JIB CRANE, 17.6 TON MAX, 3.3 TON @ 246' RADIUS, 199.1' HEIGHT, W/NINE - 19' 0" TOWER SECTIONS (ADD 170 KW GENERATOR)	223 HP	E	\$1,183,673	147.37	35.08	52.61	8.77	13.77	2,744
	C95LH013	550 HC20	TOWER CRANE, HORIZONTAL BOOM, JIB CRANE, 22.0 TON MAX, 3.8 TON @ 265' RADIUS, 237.5' HEIGHT, W/TWELVE - 19' 0" TOWER SECTIONS (ADD 170 KW GENERATOR)	223 HP	E	\$1,512,024	180.97	44.80	67.20	11.20	13.77	3,765
	C95LH015	550 HC-L	TOWER CRANE, 26.4 TON MAX, 3/4 TON @ 197' RADIUS, 210' HEIGHT, LUFFING, W/SIX 19' 0" TOWER SECTIONS (ADD 480 KW GENERATOR)	317 HP	E	\$2,015,254	243.42	59.72	89.57	14.93	19.57	5,075

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>D10</b>	<b>DRILLS, HYDRAULIC TRACK (Add cost for drill steel and bit wear)</b>											
	<b>SUBCATEGORY 0.10 DRILLS, AIR TRACK (Add cost for drill steel and bit wear)</b>											
	<b>INGERSOLL RAND ROCK DRILL DIV</b>											
D10IR003	ECM350/VL140		DRILL, AIR TRACK, CRAWLER, 2.5-4.0" DIA, 12' FEED (ADD COST FOR DRILL STEEL AND BIT WEAR, ADD 750 CFM COMPRESSOR)	750 CFM	A	\$189,782	27.08	6.57	10.17	1.48	0.00	129
	<b>SULLIVAN-PALATEK, INC.</b>											
D10SU002	RAM EXT, VCR360		DRILL, AIR TRACK, CRAWLER, 2.5-4.0" DIA, 12' FEED (ADD COST FOR DRILL STEEL AND BIT WEAR, ADD 750 CFM COMPRESSOR)	750 CFM	A	\$233,818	33.19	8.09	12.53	1.82	0.00	152
D10SU003	RAM EXT, VCR361		DRILL, AIR TRACK, CRAWLER, 3.0-4.0" DIA, 12' FEED (ADD COST FOR DRILL STEEL AND BIT WEAR, ADD 900 CFM COMPRESSOR)	900 CFM	A	\$239,122	33.92	8.27	12.81	1.86	0.00	205
	<b>SUBCATEGORY 0.20 DRILLS, HYDRAULIC TRACK (Add cost for drill steel and bit wear)</b>											
	<b>INGERSOLL RAND ROCK DRILL DIV</b>											
D10IR005	ECM590/YH80A		DRILL, HYDRAULIC TRACK, CRAWLER, 2.5-4.5" DIA, 14' DRIFTER TRAVEL, SELF-CONTAINED (ADD COST FOR DRILL STEEL AND BIT WEAR)	215 HP	D-off	\$511,637	129.66	23.26	38.37	4.07	28.51	245
	<b>SULLIVAN-PALATEK, INC.</b>											
D10SU005	SCORPION VCR360		DRILL, HYDRAULIC TRACK, CRAWLER, 5.25" DIA, 12' FEED (ADD COST FOR DRILL STEEL AND BIT WEAR)	260 HP	D-off	\$259,651	88.24	11.81	19.47	2.07	34.48	265

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>D10</i>			<i>SULLIVAN-PALATEK, INC. (continued)</i>								
	D10SU006	SCORPION VCR361	DRILL, HYDRAULIC TRACK, CRAWLER, 6.5" DIA, 12" FEED (ADD COST FOR DRILL STEEL AND BIT WEAR)	260 HP	D-off	\$262,814	88.84	11.95	19.71	2.09	34.48	265
<b>D15</b>	<b>DRILLS, HORIZONTAL</b>											
	<b>SUBCATEGORY 0.10</b>	<b>DRILLS, HORIZONTAL BORING &amp; GROUND PIERCING</b>		<b>(Add cost for drill steel and bit wear)</b>								
	<b>BOR-IT MANUFACTURING COMPANY INC.</b>											
	D15BI001	12 MIGHT MAX	DRILL, HORIZONTAL BORING, 12" DIA, COMBINED HEAD 28,000 LBS THRUST, W/100' AUGER TRACK (ADD COST FOR DRILL STEEL AND BIT WEAR)	12 HP	G	\$16,337	6.65	0.75	1.23	0.13	3.25	18
	D15BI002	20 POWER HOUSE II	DRILL, HORIZONTAL BORING, 20" DIA, COMBINED HEAD 44,000 LBS THRUST, W/100' AUGER TRACK (ADD COST FOR DRILL STEEL AND BIT WEAR)	20 HP	D-off	\$29,926	8.36	1.36	2.24	0.24	2.65	15
	D15BI003	24 BRUTE	DRILL, HORIZONTAL BORING, 24" DIA, COMBINED HEAD 84,000 LBS THRUST, W/100' AUGER TRACK (ADD COST FOR DRILL STEEL AND BIT WEAR)	30 HP	D-off	\$46,124	12.77	2.10	3.46	0.37	3.98	38
	D15BI004	30 POWER PLUS	DRILL, HORIZONTAL BORING, 30" DIA, COMBINED HEAD 170,000 LBS THRUST, W/100' AUGER TRACK (ADD COST FOR DRILL STEEL AND BIT WEAR)	45 HP	D-off	\$70,532	19.40	3.21	5.29	0.56	5.97	70
	D15BI005	36 WORKHORSE	DRILL, HORIZONTAL BORING, 36" DIA, COMBINED HEAD 225,000 LBS THRUST, W/100' AUGER TRACK (ADD COST FOR DRILL STEEL AND BIT WEAR)	62 HP	D-off	\$94,702	26.28	4.30	7.10	0.75	8.22	90

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
D15	<i>BOR-IT MANUFACTURING COMPANY INC. (continued)</i>											
	D15BI006	48 TERMINATOR	DRILL, HORIZONTAL BORING, 48" DIA, COMBINED HEAD 525,000 LBS THRUST, W/100' AUGER TRACK (ADD COST FOR DRILL STEEL AND BIT WEAR)	119 HP	D-off	\$150,928	44.88	6.86	11.32	1.20	15.78	170
	D15BI008	54 TERMINATOR II	DRILL, HORIZONTAL BORING, 54" DIA, COMBINED HEAD 32,700,000 LBS THRUST, W/100' AUGER TRACK (ADD COST FOR DRILL STEEL AND BIT WEAR)	189 HP	D-off	\$208,135	65.61	9.47	15.61	1.66	25.07	250
	D15BI007	60	DRILL, HORIZONTAL BORING, 60" DIA, COMBINED HEAD 1,100,000 LBS THRUST, W/100' AUGER TRACK (ADD COST FOR DRILL STEEL AND BIT WEAR)	189 HP	D-off	\$186,211	61.66	8.47	13.97	1.48	25.07	250
	<b>NO SPECIFIC MANUFACTURER</b>											
	D15XX001	MC-500H	DRILL, HORIZONTAL BORING, 3" - 6" DIA, 15,000 LBS THRUST, HYDRAULIC MOTOR (ADD COST FOR DRILL STEEL AND BIT WEAR)			\$9,656	1.74	0.44	0.72	0.08	0.00	10
	D15XX002	H-12/RM-12	DRILL, HORIZONTAL BORING, 4" - 12" DIA, 24,000 LBS THRUST, HYDRAULIC MOTOR (ADD COST FOR DRILL STEEL AND BIT WEAR)			\$14,560	2.63	0.67	1.09	0.12	0.00	12
<b>SUBCATEGORY 0.20 DRILLS, HORIZONTAL &amp; DIRECTIONAL</b>			<b>(Add cost for drill steel and bit wear)</b>									
<b>VERMEER MANUFACTURING CO.</b>												
D15VE001	D6x6	DRILL, HORIZONTAL DIRECTIONAL, 2.25" DIA, 5,500 LB THRUST, W/150' OF RODS (ADD COST FOR DRILL STEEL AND BIT WEAR)	26 HP	D-off	\$50,230	12.92	2.29	3.77	0.40	3.45	32	



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>D15</i>			<i>VERMEER MANUFACTURING CO. (continued)</i>									
	D15VE002	D9x13 II	DRILL, HORIZONTAL DIRECTIONAL, 2.5" DIA, 9,000 LB THRUST, W/300' OF RODS (ADD COST FOR DRILL STEEL AND BIT WEAR)	47 HP	D-off	\$85,838	22.44	3.90	6.44	0.68	6.23	63
	D15VE003	D16x20 II	DRILL, HORIZONTAL DIRECTIONAL, 3.5" DIA, 16,000 LB THRUST, W/400' OF RODS (ADD COST FOR DRILL STEEL AND BIT WEAR)	63 HP	D-off	\$120,157	31.02	5.47	9.01	0.96	8.36	105
	D15VE004	D20x22 II	DRILL, HORIZONTAL DIRECTIONAL, 3.5" DIA, 20,000 LB THRUST, W/400' OF RODS (ADD COST FOR DRILL STEEL AND BIT WEAR)	83 HP	D-off	\$149,160	39.22	6.79	11.19	1.19	11.01	109
	D15VE005	D24x40 II	DRILL, HORIZONTAL DIRECTIONAL, 3.5" DIA, 24,000 LB THRUST, W/500' OF RODS (ADD COST FOR DRILL STEEL AND BIT WEAR)	125 HP	D-off	\$426,462	95.41	19.38	31.98	3.39	16.58	184
	D15VE006	D36x50 II	DRILL, HORIZONTAL DIRECTIONAL, 3.5" DIA, 32,700 LB THRUST, W/525' OF RODS (ADD COST FOR DRILL STEEL AND BIT WEAR)	140 HP	D-off	\$312,840	77.18	14.22	23.46	2.49	18.57	219
	D15VE007	D80x100 II	DRILL, HORIZONTAL DIRECTIONAL, 5.0" DIA, 80,000 LB THRUST, W/360' OF RODS (ADD COST FOR DRILL STEEL AND BIT WEAR)	200 HP	D-off	\$535,208	126.15	24.33	40.14	4.26	26.52	425
	D15VE008	D100x120 II	DRILL, HORIZONTAL DIRECTIONAL, 5.0" DIA, 100,000 LB THRUST, W/300' OF RODS (ADD COST FOR DRILL STEEL AND BIT WEAR)	225 HP	D-off	\$597,251	141.05	27.15	44.79	4.75	29.84	435

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>D15</b>	<b>VERMEER MANUFACTURING CO. (continued)</b>											
	D15VE009	MX125	DRILL, HORIZONTAL DIRECTIONAL, 500 GAL, DRILLING FLUID MIXING SYSTEM (ADD TRAILER COST)	6 HP	G	\$7,055	2.98	0.33	0.53	0.06	1.49	6
	D15VE010	MX240	DRILL, HORIZONTAL DIRECTIONAL, 750 GAL, DRILLING FLUID MIXING SYSTEM (ADD TRAILER COST)	22 HP	D-off	\$20,727	7.00	0.95	1.55	0.17	2.92	12
	D15VE011	MX240	DRILL, HORIZONTAL DIRECTIONAL, 1,000 GAL, DRILLING FLUID MIXING SYSTEM (ADD TRAILER COST)	22 HP	D-off	\$21,055	7.07	0.96	1.58	0.17	2.92	13
	D15VE012	MX240 & MX125	DRILL, HORIZONTAL DIRECTIONAL, 1,500 GAL, DRILLING FLUID MIXING SYSTEM WITH TRAILER	28 HP	D-off	\$43,141	11.86	1.96	3.24	0.34	3.65	81
<b>D20</b>	<b>DRILLS, CORE, COLUMN MOUNTED (Add cost for drill steel and bit wear)</b>											
	<b>SUBCATEGORY 0.00</b>	<b>DRILLS, CORE, COLUMN MOUNTED (Add cost for drill steel and bit wear)</b>										
	<b>ACKER DRILL COMPANY INC.</b>											
	D20AD007	1200-G	DRILL, CORE, COLUMN MOUNTED, 12" DIA MAX CORE HOLE (ADD COST FOR DRILL STEEL AND BIT WEAR)	8 HP	E	\$17,108	5.41	0.94	1.60	0.14	0.61	3
	<b>Dynatech</b>											
	D20DN001	M-1 DRILL RIG COMBO	DRILL, CORE, COLUMN MOUNTED, 1" TO 10" BIT DIA, CB 350/900 MOTOR (20 AMP) (INCLUDES VACUUM)	4 HP	E	\$2,297	0.90	0.13	0.22	0.02	0.27	2
	D20DN002	M-2 DRILL RIG COMBO	DRILL, CORE, COLUMN MOUNTED, 10" BIT DIA, WEKA DK22 300/640/960 MOTOR (23 AMP) (INCLUDES VACUUM), PROF HEAVY DUTY	2 HP	E	\$3,306	0.97	0.19	0.31	0.03	0.17	2

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>D20</i>	<i>Dynatech (continued)</i>											
	D20DN003	M-6 DRILL BIT SYSTEM	DRILL, CORE, COLUMN MOUNTED, 18" BIT DIA, HYDRUALIC CHAR-LYNN 9.6 CU IN W/ GAS POWER PACK	18 HP	G	\$10,081	7.40	0.56	0.95	0.08	4.87	7
	D20DN004	M-6 DRILL BIT SYSTEM	DRILL, CORE, COLUMN MOUNTED, 18" BIT DIA, HYDRUALIC CHAR-LYNN 9.6 CU IN W/ ELECT POWER PACK	13 HP	E	\$10,383	3.65	0.57	0.97	0.08	0.95	7
	<b>HUSQVARNA CONSTRUCTION PRODUCTS</b>											
	D20HG022	DM 406 H	HYDRAULIC DRILL, CORE, COLUMN MOUNTED, 1"-24" BIT DIA WITH POWER PACK AND DRILL STAND (ADD COST FOR DRILL STEEL AND BIT WEAR)	18 HP	G	\$14,136	8.27	0.78	1.33	0.11	4.87	8
<b>D25</b>	<b>DRILLS, CORE &amp; DOWELLING (Add cost for drill steel and bit wear)</b>											
	<b>SUBCATEGORY 0.00</b>	<b>DRILLS, CORE &amp; DOWELLING (Add cost for drill steel and bit wear)</b>										
	<b>ACKER DRILL COMPANY INC.</b>											
	D25AD004	ACE W	DRILL, CORE, SKID MTD, 725' MAX DRILL DEPTH (ADD COST FOR DRILL STEEL AND BIT WEAR)	28 HP	D-off	\$86,132	20.54	3.92	6.46	0.69	3.71	35
	D25AD003	BUSH MASTER	DRILL, CORE, SKID MTD, 1500' MAX DRILL DEPTH (ADD COST FOR DRILL STEEL AND BIT WEAR)	69 HP	D-off	\$133,754	35.64	6.08	10.03	1.06	9.15	45
	<b>E-Z DRILL, INC.</b>											
	D25EZ002	210 B	DRILL, CORE, SKID MTD, 0.6"-2.5" DIA., 18" DEPTH, HORIZONTAL DOWELLING ASSEMBLY (ADD COST FOR DRILL STEEL AND BIT WEAR, ADD 100 CFM COMPRESSOR)	100 CFM	A	\$7,787	1.98	0.32	0.51	0.06	0.00	3

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>D25</i>	<i>E-Z DRILL, INC. (continued)</i>											
	D25EZ003	210 B SRA	DRILL, CORE, SKID MTD, 0.6"-2.5" DIA., 18" DEPTH, HORIZONTAL DOWELLING ASSEMBLY (ADD COST FOR DRILL STEEL AND BIT WEAR, ADD 100 CFM COMPRESSOR)	100 CFM	A	\$8,475	2.12	0.37	0.59	0.07	0.00	3
	D25EZ001	210 B SR HORIZONTAL	DRILL, CORE, SKID MTD, 0.6"-2.5" DIA., 18" DEPTH, HORIZONTAL DOWELLING ASSEMBLY (ADD COST FOR DRILL STEEL AND BIT WEAR, ADD 100 CFM COMPRESSOR)	100 CFM	A	\$8,965	2.21	0.41	0.67	0.07	0.00	3
	D25EZ005	210-3 SRA	DRILL, CORE, SELF PROPELLED, 0.6"-2.5" DIA., 18" DEPTH, DOWELLING MACHINE (ADD COST FOR DRILL STEEL AND BIT WEAR, ADD 100 CFM COMPRESSOR)	100 CFM	A	\$30,954	7.18	1.37	2.23	0.25	0.00	12
<b>D30</b>	<b>DRILLS, EARTH / AUGER (Add cost for drill steel and cutting edge wear)</b>											
	<b>SUBCATEGORY 0.00</b>	<b>DRILLS, EARTH / AUGER (Add cost for drill steel and cutting edge wear)</b>										
	<b>HYDRAULIC POWER SYSTEMS, INC.</b>											
	D30HD001	H-15	DRILL, AUGER, HYDRAULIC, W/60' 8" X 21" LEADS, 15,000 FT-LBS TORQUE (ADD COST FOR DRILL STEEL AND CUTTING EDGE WEAR AND CRANE)	210 HP	D-off	\$170,748	65.83	7.77	12.81	1.36	27.85	146
	D30HD002	H-35VT	DRILL, AUGER, HYDRAULIC, W/60' 8" X 27" LEADS, 33,000 FT-LBS TORQUE (ADD COST FOR DRILL STEEL AND CUTTING EDGE WEAR AND CRANE)	270 HP	D-off	\$216,093	84.42	9.83	16.21	1.72	35.81	200
	D30HD003	H-50VT	DRILL, AUGER, HYDRAULIC, W/60' 8" X 33" LEADS, 50,000 FT-LBS TORQUE (ADD COST FOR DRILL STEEL AND CUTTING EDGE WEAR AND CRANE)	335 HP	D-off	\$263,389	104.11	11.98	19.75	2.10	44.43	269

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>FOREMOST MOBILE DRILLING COMPANY, INC.</b>											
	D30MR001	MINUTEMAN	DRILL, EARTH / AUGER, W/AUGER KIT, 3" DIA, 30' DEPTH, 350 FT-LBS TORQUE, PORTABLE (ADD COST FOR DRILL STEEL AND CUTTING EDGE WEAR)	8 HP	G	\$14,708	5.28	0.67	1.10	0.12	2.17	4
	D30MR003	B-31	DRILL, EARTH / AUGER, HYDRAULIC AUGER, 14" DIA, 30' DEPTH, 3,500 FT-LBS TORQUE, TRAILER MOUNTED (ADD COST FOR DRILL STEEL AND CUTTING EDGE WEAR)	58 HP	D-off	\$99,568	27.61	4.47	7.36	0.79	7.69	42
	D30MR005	B-53	DRILL, EARTH / AUGER, MULTI-PURPOSE, 6" DIA, 245' DEPTH, 5,955 FT-LBS TORQUE, W/21,000 GVW TRUCK (W/PTO DRIVE)(ADD COST FOR DRILL STEEL AND CUTTING EDGE WEAR)	100 HP	D-off 230 HP D-on	\$239,625	65.90	10.74	17.66	1.91	17.92	120
	D30MR006	B-58	DRILL, EARTH / AUGER, MULTI-PURPOSE, 8" DIA, 250' DEPTH, 7,000 FT-LBS TORQUE W/33,000 GVW TRUCK (ADD COST FOR DRILL STEEL AND CUTTING EDGE WEAR)	115 HP	D-off 260 HP D-on	\$246,780	70.18	11.06	18.20	1.96	20.52	130
	D30MR007	B-61HT	DRILL, EARTH / AUGER, MULTI-PURPOSE, 8" DIA, 375' DEPTH, 20,000 FT-LBS TORQUE W/33,000 GVW TRUCK (ADD COST FOR DRILL STEEL AND CUTTING EDGE WEAR)	115 HP	D-off 260 HP D-on	\$311,440	82.53	14.00	23.04	2.48	20.52	205

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT	
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL		
<b>D35</b>	<b>DRILLS, ROTARY BLASTHOLE (Add cost for drill steel and bit wear)</b>												
	<b>SUBCATEGORY 0.11</b>	<b>DIESEL, 4.5" THRU 9.875" DIAMETER</b>	<b>HOLE (Add cost for drill steel and bit wear)</b>										
	<b>DRILTECH, INC. (SANDVIK)</b>												
	D35DT001	D25KS	DRILL, ROTARY BLASTHOLE, 5"-6.75" DIA., 27,000 LB PULLDOWN, CRAWLER, 88' DEEP(ADD COST FOR DRILL STEEL AND BIT WEAR)	450 HP	D-off	\$811,616	184.58	29.29	46.38	6.10	59.68	620	
	D35DT002	D245KS	DRILL, ROTARY BLASTHOLE, 5"-8" DIA., 40,000 LB PULLDOWN, CRAWLER, 148' DEEP (ADD COST FOR DRILL STEEL AND BIT WEAR)	450 HP	D-off	\$833,585	187.69	30.08	47.63	6.26	59.68	720	
	D35DT003	D45KS	DRILL, ROTARY BLASTHOLE, 6"-9" DIA., 45,000 LB PULLDOWN, CRAWLER, 208' DEEP (ADD COST FOR DRILL STEEL AND BIT WEAR)	450 HP	D-off	\$942,760	203.18	34.03	53.87	7.09	59.68	1,050	
	D35DT004	D50KS	DRILL, ROTARY BLASTHOLE, 6"-9.875" DIA., 50,000 LB PULLDOWN, CRAWLER, 148' DEEP (ADD COST FOR DRILL STEEL AND BIT WEAR)	525 HP	D-off	\$999,704	222.84	36.08	57.13	7.51	69.63	1,050	
	D35DT005	D55SP	DRILL, ROTARY BLASTHOLE, 6.75"-10" DIA., 45,000 LB PULLDOWN, CRAWLER, 55' DEEP (SINGLE PASS) (ADD COST FOR DRILL STEEL AND BIT WEAR)	760 HP	D-off	\$1,555,967	337.99	56.15	88.91	11.69	100.79	1,320	
	<b>REICHDRILL</b>												
	D35RL007	T-650-DII	DRILL, ROTARY BLASTHOLE, 5"-6 3/4" DIA, 30,000 LBS PULL BACK, TRUCK MTD, 200' DEEP (ADD COST FOR DRILL STEEL AND BIT WEAR)	540 HP	D-off	505 HP D-off	\$733,702	198.27	26.20	41.37	5.51	80.42	560

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT	
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL		
	<b>SUBCATEGORY 0.12</b>		<b>DIESEL, OVER 9.875" DIAMETER (Add cost for drill steel and bit wear)</b>										
			<b>DRILTECH, INC. (SANDVIK)</b>										
	D35DT006	D75KS	DRILL, ROTARY BLASTHOLE, 9"-11" DIA., 75,000 LB PULLDOWN, CRAWLER, 173' DEEP (ADD COST FOR DRILL STEEL AND BIT WEAR)	760 HP	D-off	\$1,357,942	266.62	40.24	60.35	10.06	100.79	1,400	
			<b>INGERSOLL RAND DRILLING (ATLAS COPCO)</b>										
	D35IB004	T3W	DRILL, ROTARY BLASTHOLE, WATER WELL 6"-24" DIA, 30,000 LB PULL BACK, TRUCK MTD (ADD COST FOR DRILL STEEL AND BIT WEAR)	465 HP	D-off	380 HP D-on	\$741,834	162.76	21.79	32.57	5.50	69.37	660
	D35IB003	TH-60	DRILL, ROTARY BLASTHOLE, WATER WELL, 12" DIA, 26,500 LBS PULL BACK, TRUCK MTD (ADD COST FOR DRILL STEEL AND BIT WEAR)	475 HP	D-off	380 HP D-on	\$778,445	168.13	22.92	34.30	5.77	70.69	600
	D35IB005	T3W DEEPHOLE	DRILL, ROTARY BLASTHOLE, WATER WELL 6"-18" DIA, 50,000 LB PULL BACK, TRUCK MTD (ADD COST FOR DRILL STEEL AND BIT WEAR)	575 HP	D-off	380 HP D-on	\$860,126	192.59	25.29	37.83	6.37	83.96	688
	D35IB006	T4W	DRILL, ROTARY BLASTHOLE, WATER WELL 6"-20" DIA, 70,000 LB PULL BACK, TRUCK MTD (ADD COST FOR DRILL STEEL AND BIT WEAR)	600 HP	D-off	305 HP D-on	\$904,432	199.57	26.60	39.79	6.70	85.75	688

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>F10</b>	<b>FORK LIFTS</b>											
	<b>SUBCATEGORY 0.00 FORK LIFTS</b>											
	<b>JCB INC.</b>											
	F10JC001	930-4	FORK LIFT, ROUGH TERRAIN, 6,000 LBS @ 28' HIGH STRAIGHT MAST, 4X4	75 HP	D-off	\$77,059	22.78	3.51	5.84	0.59	8.11	150
	F10JC002	940-4	FORK LIFT, ROUGH TERRAIN, 8,000 LBS @ 30' HIGH STRAIGHT MAST, 4X4	75 HP	D-off	\$83,811	23.94	3.84	6.38	0.65	8.11	165
<b>G10</b>	<b>GENERATOR SETS</b>											
	<b>SUBCATEGORY 0.10 PORTABLE</b>											
	<b>WACKER CORPORATION</b>											
	G10WC001	GP 3800A	GENERATOR SET, PORTABLE, 3.7 KW, 120/240V, 60 HZ	8 HP	G	\$1,492	2.25	0.10	0.17	0.01	1.77	2
	G10WC002	GP 5600A	GENERATOR SET, PORTABLE, 5.6 KW, 120/240V, 60 HZ	11 HP	G	\$1,752	3.04	0.11	0.20	0.01	2.44	2
	G10WC003	GS 8.5V	GENERATOR SET, PORTABLE, 8.5 KW, 120/240V, 60 HZ, WITH ELECTRIC START	16 HP	G	\$5,585	5.04	0.36	0.63	0.04	3.55	2
	G10WC004	GPS 9700V	GENERATOR SET, PORTABLE, 9.7 KW, 120/240V, 60 HZ, WITH ELECTRIC START	18 HP	G	\$3,052	5.00	0.19	0.34	0.02	3.99	2
	<b>NO SPECIFIC MANUFACTURER</b>											
	G10XX001	1000	GENERATOR SET, PORTABLE, 1 KW	3 HP	G	\$897	0.79	0.06	0.10	0.01	0.55	1
	G10XX004	D4500	GENERATOR SET, PORTABLE, 5 KW	9 HP	D-off	\$6,791	2.42	0.43	0.76	0.05	0.97	3
	G10XX002	10000	GENERATOR SET, PORTABLE, 10 KW	18 HP	G	\$3,530	5.11	0.23	0.40	0.03	3.99	3



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT	
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL		
G10	<i>NO SPECIFIC MANUFACTURER (continued)</i>												
	G10XX003	10000D	GENERATOR SET, PORTABLE, 10 KW	23 HP	D-off	\$13,108	5.37	0.84	1.47	0.10	2.49	9	
	<b>SUBCATEGORY 0.20</b>		<b>SKID MOUNTED</b>										
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>												
	G10CA020	3304 PKG - P 304DE03	GENERATOR SET, SKID MTD, 113 EKW, 240/480V, 60 HZ PGS PRIME	174 HP	D-off	\$32,179	26.31	1.68	2.90	0.23	18.83	37	
	G10CA012	3306 PKG - 306DE39	GENERATOR SET, SKID MTD, 210 EKW, 240 VOLT, 60 HZ PGS PRIME	314 HP	D-off	\$39,821	44.33	2.08	3.58	0.29	33.97	50	
	G10CA013	3406 PKG - 306DE30	GENERATOR SET, SKID MTD, 275 EKW, 480 VOLT, 60 HZ PGS PRIME	405 HP	D-off	\$52,105	57.32	2.73	4.69	0.38	43.82	68	
	G10CA014	3406 PKG - 406DE30	GENERATOR SET, SKID MTD, 365 EKW, 240/480V, 60 HZ PGS PRIME	536 HP	D-off	\$71,197	76.24	3.72	6.41	0.51	57.99	72	
	G10CA015	3412 PKG - 412DE3H	GENERATOR SET, SKID MTD, 455 EKW, 240/480V, 60 HZ PGS PRIME	687 HP	D-off	\$94,644	98.30	4.94	8.52	0.68	74.33	93	
	G10CA016	3412 PKG - 412DE30	GENERATOR SET, SKID MTD, 545 EKW, 240/480V, 60 HZ PGS PRIME	817 HP	D-off	\$115,820	117.46	6.05	10.42	0.84	88.39	100	
	G10CA017	3508 PKG - 508DE34	GENERATOR SET, SKID MTD, 725 EKW, 480 VOLT, 60 HZ PGS PRIME	1,000 HP	D-off	\$261,267	164.31	13.64	23.51	1.88	108.19	181	
G10CA018	3512 PKG - 512DE1F	GENERATOR SET, SKID MTD, 1000 EKW, 480 VOLT, 60 HZ PGS PRIME	2,206 HP	D-off	\$306,898	316.16	16.02	27.62	2.21	238.67	236		
G10CA019	3516 PKG - 516DE35	GENERATOR SET, SKID MTD, 1600 EKW, 480 VOLT, 60 HZ PGS PRIME	2,304 HP	D-off	\$443,767	351.39	23.17	39.94	3.20	249.27	291		
<b>NO SPECIFIC MANUFACTURER</b>													
G10XX005	25G	GENERATOR SET, SKID MTD, 25 KW	36 HP	G	\$27,568	13.56	1.44	2.48	0.20	7.99	16		
G10XX006	35G	GENERATOR SET, SKID MTD, 35 KW	50 HP	G	\$18,177	15.37	0.95	1.64	0.13	11.09	17		

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>G10</b>	<i>NO SPECIFIC MANUFACTURER (continued)</i>											
	G10XX007	50G	GENERATOR SET, SKID MTD, 50 KW	70 HP	G	\$13,357	19.44	0.70	1.20	0.10	15.53	13
	G10XX008	75D	GENERATOR SET, SKID MTD, 75 KW	107 HP	D-off	\$25,996	17.25	1.36	2.34	0.19	11.58	40
	G10XX009	100D	GENERATOR SET, SKID MTD, 100 KW	143 HP	D-off	\$24,475	21.28	1.28	2.20	0.18	15.47	29
	G10XX010	110D	GENERATOR SET, SKID MTD, 110 KW	170 HP	D-off	\$63,451	31.21	3.32	5.71	0.46	18.39	44
	G10XX011	200D	GENERATOR SET, SKID MTD, 200 KW	375 HP	D-off	\$53,601	53.98	2.80	4.82	0.39	40.57	60
	G10XX012	300D	GENERATOR SET, SKID MTD, 300 KW	428 HP	D-off	\$84,177	65.59	4.40	7.58	0.61	46.31	105
	G10XX013	400D	GENERATOR SET, SKID MTD, 400 KW	570 HP	D-off	\$70,557	80.19	3.69	6.35	0.51	61.67	150
	G10XX014	500D	GENERATOR SET, SKID MTD, 500 KW	713 HP	D-off	\$79,530	98.80	4.15	7.16	0.57	77.14	170
	G10XX015	750D	GENERATOR SET, SKID MTD, 750 KW	1,050 HP	D-off	\$165,083	153.75	8.62	14.86	1.19	113.60	215
	G10XX016	1000D	GENERATOR SET, SKID MTD, 1,000 KW	1,425 HP	D-off	\$154,696	196.75	8.08	13.92	1.12	154.17	154
<b>G15</b>	<b>GRADERS, MOTOR</b>											
	<b>SUBCATEGORY 0.00 GRADERS, MOTOR</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	G15CA001	120-M	GRADER, MOTOR, ARTICULATED, 6X4, 12' BLADE W/17 TEETH SCARIFIERS	138 HP	D-off	\$310,501	55.04	10.27	15.72	2.41	13.97	299
	G15CA003	12-M	GRADER, MOTOR, ARTICULATED, 6X4, 12' BLADE W/11 TEETH SCARIFIERS	158 HP	D-off	\$308,147	57.08	10.20	15.59	2.40	15.99	336
	G15CA004	140-M	GRADER, MOTOR, ARTICULATED, 6X4, 12' BLADE W/5 RIPPER/SCARIFIERS	183 HP	D-off	\$317,691	61.54	10.48	16.01	2.47	18.52	334
	G15CA009	160-M	GRADER, MOTOR, ARTICULATED, 6X4, 14' BLADE W/5 RIPPER/SCARIFIERS	213 HP	D-off	\$351,384	69.06	11.61	17.75	2.73	21.56	351

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>G15</b>											
			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	G15CA005	14-M	GRADER, MOTOR, ARTICULATED, 6X4, 14' BLADE W/7 SHANK RIPPER	259 HP	D-off	\$480,408	92.17	15.73	23.99	3.73	26.21	471
	G15CA006	16-M	GRADER, MOTOR, ARTICULATED, 6X4, 16' BLADE W/7 SHANK RIPPER	297 HP	D-off	\$728,821	127.73	24.05	36.76	5.67	30.06	575
			<b>DEERE &amp; COMPANY</b>									
	G15JD008	670G	GRADER, MOTOR, ARTICULATED, 6X4, AWD, 12' BLADE W/5 RIPPER/SCARIFIERS	151 HP	D-off	\$244,047	50.42	7.88	11.95	1.90	15.28	343
	G15JD009	672G	GRADER, MOTOR, ARTICULATED, 6X6, AWD, 12' BLADE W/5 RIPPER/SCARIFIERS	156 HP	D-off	\$258,374	53.37	8.36	12.69	2.01	15.79	353
	G15JD010	770G	GRADER, MOTOR, ARTICULATED, 6X4, AWD, 12' BLADE W/5 RIPPER/SCARIFIERS	185 HP	D-off	\$263,595	56.70	8.53	12.96	2.05	18.72	353
	G15JD011	772G	GRADER, MOTOR, ARTICULATED, 6X6, AWD, 12' BLADE W/5 RIPPER/SCARIFIERS	205 HP	D-off	\$304,337	64.55	9.90	15.06	2.37	20.75	363
<b>H10</b>	<b>HAMMERS, HYDRAULIC (Demolition tool) (Add cost for point wear)</b>											
	<b>SUBCATEGORY 0.00</b>	<b>HAMMERS, HYDRAULIC (Demolition tool) (Add cost for point wear)</b>										
	<b>NPK CONSTRUCTION EQUIPMENT</b>											
	H10NP019	GH-06	HAMMERS, HYDRAULIC, 150 FT-LBS, IMPACT FREQUENCY 840 BPM (ADD 150-250 HP HYDRAULIC EXCAVATOR H25)(ADD COST FOR POINT WEAR)			\$6,528	2.92	0.49	0.87	0.05	0.00	2

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H10</i>			<i>NPK CONSTRUCTION EQUIPMENT (continued)</i>									
	H10NP020	GH-07	HAMMERS, HYDRAULIC, 200 FT-LBS, IMPACT FREQUENCY 850 BPM (ADD 60-75 HP HYDRAULIC EXCAVATOR H25 OR L50)(ADD COST FOR POINT WEAR)			\$6,814	3.02	0.52	0.91	0.06	0.00	3
	H10NP021	PH-1	HAMMERS, HYDRAULIC, 350 FT-LBS, IMPACT FREQUENCY 830 BPM (ADD 60-75HP HYDRAULIC EXCAVATOR H25 OR L50)(ADD COST FOR POINT WEAR)			\$7,970	3.80	0.60	1.06	0.07	0.00	4
	H10NP022	PH-2	HAMMERS, HYDRAULIC, 500 FT-LBS, IMPACT FREQUENCY 900 BPM (ADD 60-75 HP HYDRAULIC EXCAVATOR H25 OR L50)(ADD COST FOR POINT WEAR)			\$9,911	4.42	0.74	1.32	0.08	0.00	5
	H10NP023	PH-3	HAMMERS, HYDRAULIC, 750 FT-LBS, IMPACT FREQUENCY 830 BPM (ADD 75-100 HP HYDRAULIC EXCAVATOR H25 OR L50)(ADD COST FOR POINT WEAR)			\$12,910	5.81	0.97	1.72	0.11	0.00	8
	H10NP024	PH-4	HAMMERS, HYDRAULIC, 1,300 FT-LBS, IMPACT FREQUENCY 730 BPM (ADD 95-125 HP HYDRAULIC EXCAVATOR H25)(ADD COST FOR POINT WEAR)			\$20,562	8.29	1.54	2.74	0.17	0.00	10
	H10NP025	GH6	HAMMERS, HYDRAULIC, 2,000 FT-LBS, IMPACT FREQUENCY 650 BPM (ADD 95-125 HP HYDRAULIC EXCAVATOR H25)(ADD COST FOR POINT WEAR)			\$36,672	13.94	2.75	4.89	0.30	0.00	22
	H10NP026	GH7	HAMMERS, HYDRAULIC, 2,500 FT-LBS, IMPACT FREQUENCY 580 BPM (ADD 95-125 HP HYDRAULIC EXCAVATOR H25)(ADD COST FOR POINT WEAR)			\$46,803	17.23	3.50	6.24	0.38	0.00	29

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>H10</b>	<b>NPK CONSTRUCTION EQUIPMENT (continued)</b>											
	H10NP027	GH9	HAMMERS, HYDRAULIC, 2,500 FT-LBS, IMPACT FREQUENCY 590 BPM (ADD 95-125 HP HYDRAULIC EXCAVATOR H25)(ADD COST FOR POINT WEAR)			\$54,994	19.90	4.12	7.33	0.45	0.00	36
	H10NP028	GH12	HAMMERS, HYDRAULIC, 5,500 FT-LBS, IMPACT FREQUENCY 430 BPM (ADD 28-43 TON HYDRAULIC EXCAVATOR H25)(ADD COST FOR POINT WEAR)			\$76,638	27.35	5.74	10.22	0.63	0.00	57
	H10NP029	GH15	HAMMERS, HYDRAULIC, 8,000 FT-LBS, IMPACT FREQUENCY 360 BPM (ADD 33-50 TON HYDRAULIC EXCAVATOR H25)(ADD COST FOR POINT WEAR)			\$100,206	35.02	7.50	13.36	0.82	0.00	68
	H10NP030	GH40	HAMMERS, HYDRAULIC, 20,000 FT-LBS, IMPACT FREQUENCY 290 BPM (ADD 80-130 TON HYDRAULIC EXCAVATOR H25)(ADD COST FOR POINT WEAR)			\$245,419	82.29	18.37	32.72	2.01	0.00	170
<b>H13</b>	<b>HAZARDOUS/TOXIC WASTE EQUIPMENT</b>											
	<b>SUBCATEGORY 0.11</b>	<b>COMPACTORS (Compression force) 0 THRU 50 TONS</b>										
	<b>CONSOLIDATED BALING MACHINE COMPANY, INC</b>											
	H13CB001	DOS RAW W1	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, RADIOLOGICAL WASTE, 12.5 TON, LOW LEVEL	5	HP E	\$26,282	5.48	1.32	2.23	0.20	0.31	25
	H13CB002	DOS RAW W2	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, RADIOLOGICAL WASTE, 20 TON, LOW LEVEL	10	HP E	\$28,433	6.35	1.42	2.42	0.21	0.62	25

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>WASTE CONTROL SYSTEMS, INC.</b>											
	H13CO002	8041CC	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 37 TON HAZARD WASTE IN-DRUM , EXPLOSION PROOF	5	HP E	\$11,090	2.73	0.55	0.94	0.08	0.31	167
	<b>ENVIRO-PAK</b>											
	H13EP001	4000HM	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 30 TON HAZARDOUS WASTE, HAZ-MAT STORAGE CONTAINER 40"X40"X40"	5	HP E	\$30,995	6.33	1.55	2.63	0.23	0.31	32
	<b>TEEMARK CORPORATION</b>											
	H13TH001	DPC60-E50	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 30 TON DRUM CRUSHER	5	HP E	\$14,542	3.11	0.73	1.24	0.11	0.31	20
	H13TH002	DPC60-D90	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 30 TON DRUM CRUSHER, TRAILER MOUNTED	9	HP D-off	\$27,413	6.01	1.34	2.28	0.20	0.97	32
	H13TH003	DPC85-D90	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 42.5 TON DRUM CRUSHER, TRAILER MOUNTED	9	HP D-off	\$30,918	6.64	1.52	2.57	0.23	0.97	47
	<b>ADVANCED ENVIRONMENTAL SOLUTIONS</b>											
	H13YB001	CCYC	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 700 PSI OPERATING PRESSURE, FINAL COMPACTED SIZE 39.4" X 39.4" X 39.4"	50	HP E	\$404,259	77.84	20.20	34.36	3.02	3.09	320
	H13YB002	CCYC-HD-E	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 1,000 PSI OPERATING PRESSURE, FINAL COMPACTED SIZE 39.4" X 39.4" X 39.4"	50	HP E	\$404,259	77.84	20.20	34.36	3.02	3.09	320

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
H13	<i>ADVANCED ENVIRONMENTAL SOLUTIONS (continued)</i>											
	H13YB003	CMC-HD	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 1,200 PSI OPERATING PRESSURE, FINAL COMPACTED SIZE 39.4" X 39.4" X 39.4"	50	HP E	\$404,259	77.84	20.20	34.36	3.02	3.09	320
	<b>SUBCATEGORY 0.12 COMPACTORS (Compression force) OVER 50 TONS</b>											
	<b>WASTE CONTROL SYSTEMS, INC.</b>											
	H13CO003	8551	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 85 TON HAZARD WASTE IN-DRUM	3	HP E	\$24,468	4.38	1.01	1.63	0.19	0.19	270
	H13CO004	8564	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 85 TON HAZARD WASTE IN-DRUM, W/HEPA FILTER	3	HP E	\$36,821	6.57	1.51	2.45	0.28	0.19	290
	H13CO006	8560-EX	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 85 TON HAZARD WASTE IN-DRUM, W/HEPA FILTER & SS PLATEN & CHAMBER	3	HP E	\$54,587	9.21	2.23	3.64	0.41	0.19	300
H13CO005	8560-EXL	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 85 TON HAZARD WASTE IN-DRUM, EXPLOSION PROOF, W/LIQUID REMOVAL SYSTEM	3	HP E	\$65,667	11.10	2.69	4.38	0.50	0.19	310	
	<b>ENVIRO-PAK</b>											
H13EP002	9600HM	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 42.5 TON HAZARDOUS WASTE, B-25 METAL STORAGE CONTAINER 4'X4'X6'	8	HP E	\$40,123	7.30	1.64	2.67	0.30	0.46	100	

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.21</b>		<b>FILTER PRESSES, STATIONARY</b>									
			<b>KOMLINE-SANDERSON ENGINEERING CO.</b>									
	H13AY015	L/S 1200/25	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 25 CF MEMBRANE, 1,200 MM SQ (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$68,533	12.82	3.27	5.48	0.53	0.00	112
	H13AY016	K/F 1200/25	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 25 CF CONVENTIONAL, 1,200 MM SQ (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$44,129	8.25	2.11	3.53	0.34	0.00	108
	H13AY013	L/S 1200/50	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 50 CF MEMBRANE, 1,200 MM SQ (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$116,466	21.79	5.56	9.32	0.90	0.00	173
	H13AY014	K/F 1200/50	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 50 CF CONVENTIONAL, 1,200 MM SQ (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$61,958	11.59	2.96	4.96	0.48	0.00	168
	H13AY011	L/S 1200/75	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 75 CF MEMBRANE, 1,200 MM SQ (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$145,348	27.18	6.94	11.63	1.12	0.00	194
	H13AY012	K/F 1200/75	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 75 CF CONVENTIONAL, 1,200 MM SQ (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$73,633	13.77	3.52	5.89	0.57	0.00	188
	H13AY009	L/S 1200/100	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 100 CF MEMBRANE, 1,200 MM SQ (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$174,062	32.54	8.30	13.92	1.34	0.00	199



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H13</i>			<i>KOMLINE-SANDERSON ENGINEERING CO. (continued)</i>									
	H13AY010	K/F 1200/100	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 100 CF CONVENTIONAL, 1,200 MM SQ (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$87,995	16.46	4.20	7.04	0.68	0.00	191
	H13AY007	L/S 1200/125	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 125 CF MEMBRANE, 1,200 MM SQ (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$195,737	36.61	9.34	15.66	1.51	0.00	216
	H13AY008	K/F 1200/125	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 125 CF CONVENTIONAL, 1,200 MM SQ (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$95,329	17.84	4.56	7.63	0.74	0.00	207
	H13AY017	L/S 1200/150	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 150 CF MEMBRANE, 1,200 MM SQ (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$217,432	40.66	10.38	17.39	1.68	0.00	235
	H13AY018	K/F 1200/150	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 150 CF CONVENTIONAL, 1,200 MM SQ (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$109,838	20.55	5.25	8.79	0.85	0.00	224
	H13AY019		HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, FILTER PRESS PLATE SHIFTING UNIT, 1,200 MM SQ, MECHANIZED	1 HP	E	\$14,312	3.01	0.68	1.14	0.11	0.06	5
	H13AY020	SLC-500	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, PLC CONTROL PANEL - PLATE SHIFTING, COMPUTER AUTOMATED	1 HP	E	\$18,579	3.81	0.89	1.49	0.14	0.06	2

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>USFILTER PERRIN PRODUCTS</b>											
	H13PR001	PLC 25-1000	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 25 CF STANDARD FILTER PRESS, 1,000 MM SQ	3	HP E	\$109,284	20.72	5.21	8.74	0.84	0.19	125
	H13PR003	PLC 115-1200	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 115 CF STANDARD FILTER PRESS, 1,200 MM SQ	5	HP E	\$192,897	36.55	9.21	15.43	1.49	0.31	460
	H13PR005	PLC 180-1500	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 180 CF STANDARD FILTER PRESS, 1,500 MM SQ	5	HP E	\$256,301	48.41	12.23	20.50	1.98	0.31	680
	H13PR007	PLC 270-1500	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 270 CF MAXI FILTER PRESS, 1,500 MM SQ	10	HP E	\$315,644	59.99	15.07	25.25	2.44	0.62	1,100
	H13PR022	BPR 1200-15H	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 47" WIDE FILTER BELT PRESS, 2 HP	2	HP E	\$226,561	42.55	10.81	18.12	1.75	0.12	191
	H13PR023	BPR 1600-15H	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 63" WIDE FILTER BELT PRESS, 3 HP	3	HP E	\$259,015	48.73	12.36	20.72	2.00	0.19	258
	H13PR024	BPR 2000-15H	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 78.75" WIDE FILTER BELT PRESS, 3 HP	3	HP E	\$287,247	54.01	13.71	22.98	2.22	0.19	319
	H13PR025	BPR 2500-15H	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 98.5" WIDE FILTER BELT PRESS, 3 HP	3	HP E	\$347,968	65.36	16.60	27.84	2.68	0.19	515
	H13PR026	BPR 3000-15H	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 118" WIDE FILTER BELT PRESS, 4 HP	4	HP E	\$424,223	79.73	20.24	33.94	3.27	0.25	594

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
		<b>SUBCATEGORY 0.22</b>		<b>FILTER PRESSES, MOBILE</b>								
			<b>KOMLINE-SANDERSON ENGINEERING CO.</b>									
	H13AY031	L/S 1200/25M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 25 CF MEMBRANE, 1,200 MM SQ, TRAILER MOUNTED (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$85,523	15.69	4.14	7.00	0.64	0.00	112
	H13AY032	K/F 1200/25M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 25 CF CONVENTIONAL, 1,200 MM SQ, TRAILER MOUNTED (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$56,831	10.50	2.70	4.56	0.42	0.00	109
	H13AY029	L/S 1200/50M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 50 CF MEMBRANE, 1,200 MM SQ, TRAILER MOUNTED (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$129,368	23.61	6.33	10.72	0.97	0.00	193
	H13AY030	K/F 1200/50M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 50 CF CONVENTIONAL, 1,200 MM SQ, TRAILER MOUNTED (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$74,860	13.76	3.61	6.09	0.56	0.00	188
	H13AY027	L/S 1200/75M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 75 CF MEMBRANE, 1,200 MM SQ, TRAILER MOUNTED (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$159,646	29.09	7.84	13.30	1.19	0.00	214
	H13AY028	K/F 1200/75M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 75 CF CONVENTIONAL, 1,200 MM SQ, TRAILER MOUNTED (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$87,931	16.12	4.26	7.20	0.66	0.00	208

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H13</i>			<i>KOMLINE-SANDERSON ENGINEERING CO. (continued)</i>									
	H13AY025	L/S 1200/100M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 100 CF MEMBRANE, 1,200 MM SQ, TRAILER MOUNTED (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$189,754	34.53	9.35	15.86	1.42	0.00	219
	H13AY026	K/F 1200/100M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 100 CF CONVENTIONAL, 1,200 MM SQ, TRAILER MOUNTED (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$103,688	18.96	5.04	8.54	0.77	0.00	211
	H13AY023	L/S 1200/125M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 125 CF MEMBRANE, 1,200 MM SQ, TRAILER MOUNTED (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$212,825	38.70	10.50	17.82	1.59	0.00	236
	H13AY024	K/F 1200/125M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 125 CF CONVENTIONAL, 1,200 MM SQ, TRAILER MOUNTED (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$112,417	20.55	5.48	9.28	0.84	0.00	227
	H13AY021	L/S 1200/150M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 150 CF MEMBRANE, 1,200 MM SQ, TRAILER MOUNTED (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$234,335	42.59	11.58	19.65	1.75	0.00	255
	H13AY022	K/F 1200/150M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 150 CF CONVENTIONAL, 1200 MM SQ, TRAILER MOUNTED (ADD 100 CFM COMPRESSOR)	100 CFM	A	\$126,749	23.14	6.20	10.50	0.95	0.00	244

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
			<b>KOCH-WATER</b>									
	H13KP001	BFP-0500	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, FILTER BELT PRESS, 20" (0.5M) WIDE, 0.6 - 2.0 TONS/HR, TRAILER MOUNTED (STAND ALONE UNIT, INCLUDES POLYMER FEED PUMP, BOOSTER PUMP, SLUDGE PUMP, AND DISCHARGE CONVEYOR)	13 HP	E	\$90,422	17.59	4.49	7.62	0.68	0.77	40
	H13KP002	BFP-1000	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, FILTER BELT PRESS, 39" (1.0M) WIDE, 3.0 - 6.5 TONS/HR, TRAILER MOUNTED (STAND ALONE UNIT, INCLUDES POLYMER FEED PUMP, BOOSTER PUMP, SLUDGE PUMP, AND DISCHARGE CONVEYOR)	16 HP	E	\$102,506	20.07	5.10	8.65	0.77	0.96	48
	H13KP003	BFP-1500	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, FILTER BELT PRESS, 59" (1.5M) WIDE, 6.0 - 14.0 TONS/HR, TRAILER MOUNTED (STAND ALONE UNIT, INCLUDES POLYMER FEED PUMP, BOOSTER PUMP, SLUDGE PUMP, AND DISCHARGE CONVEYOR)	22 HP	E	\$120,580	23.95	6.00	10.19	0.90	1.36	55
	H13KP004	BFP-2000	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, FILTER BELT PRESS, 79" (2.0M) WIDE, 14.0 - 20.0 TONS/HR, TRAILER MOUNTED (STAND ALONE UNIT, INCLUDES POLYMER FEED PUMP, BOOSTER PUMP, SLUDGE PUMP, AND DISCHARGE CONVEYOR)	28 HP	E	\$138,685	27.79	6.90	11.72	1.04	1.73	65

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>USFILTER PERRIN PRODUCTS</b>											
	H13PR002	PLC 25-1000M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 25 CF STANDARD FILTER PRESS, 1,000 MM SQ, TRAILER MOUNTED (COMPLETE)	3	HP E	\$309,093	57.89	15.31	26.00	2.31	0.19	145
	H13PR006	180-1500M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 180 CF STANDARD FILTER PRESS, 1,500 MM SQ, TRAILER MOUNTED	5	HP E	\$272,907	51.54	13.50	22.92	2.04	0.31	705
	H13PR011	BPR 1200-15H-M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 47" FILTER BELT PRESS, TRAILER MOUNTED (STAND ALONE UNIT, ADD APPURTENANCES SUCH AS FEED PUMPS, POLYMER SYSTEM, WASH WATER BOOSTER PUMP, CONVEYOR ETC.)	2	HP E	\$426,623	79.03	21.19	35.99	3.19	0.12	235
	H13PR012	BPR 1600-15H-M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 63" FILTER BELT PRESS, TRAILER MOUNTED (STAND ALONE UNIT, ADD APPURTENANCES SUCH AS FEED PUMPS, POLYMER SYSTEM, WASH WATER BOOSTER PUMP, CONVEYOR ETC.)	3	HP E	\$458,752	84.95	22.79	38.72	3.43	0.19	302
	H13PR013	BPR 2000-15H-M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 78.75" FILTER BELT PRESS, TRAILER MOUNTED (STAND ALONE UNIT, ADD APPURTENANCES SUCH AS FEED PUMPS, POLYMER SYSTEM, WASH WATER BOOSTER PUMP, CONVEYOR ETC.)	5	HP E	\$486,846	90.22	24.20	41.11	3.64	0.31	319

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
H13	<i>USFILTER PERRIN PRODUCTS (continued)</i>											
	H13PR014	BPR 2500-15H-M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 98.5" FILTER BELT PRESS, TRAILER MOUNTED (STAND ALONE UNIT, ADD APPURTENANCES SUCH AS FEED PUMPS, POLYMER SYSTEM, WASH WATER BOOSTER PUMP, CONVEYOR ETC.)	8	HP E	\$547,566	101.46	27.23	46.27	4.09	0.49	515
	H13PR015	BPR 3000-15H-M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 118" FILTER BELT PRESS, TRAILER MOUNTED (STAND ALONE UNIT, ADD APPURTENANCES SUCH AS FEED PUMPS, POLYMER SYSTEM, WASH WATER BOOSTER PUMP, CONVEYOR ETC.)	8	HP E	\$623,822	115.24	31.04	52.75	4.66	0.49	594
	<b>SOMAT WASTE REDUCTION TECHNOLOGY</b>											
	H13S5001	1PB-6D	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, PUSHER SCREW PRESS, 6-15 GPM CAPACITY, TRAILER MOUNTED	3	HP E	\$61,663	11.43	3.08	5.24	0.46	0.19	14
H13S5002	1PB-9D	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, PUSHER SCREW PRESS, 15-40 GPM CAPACITY, TRAILER MOUNTED	5	HP E	\$96,515	17.92	4.82	8.20	0.72	0.31	35	
H13S5003	2PB-9D	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, PUSHER SCREW PRESS, 30-80 GPM CAPACITY, TRAILER MOUNTED	5	HP E	\$114,631	21.20	5.73	9.74	0.86	0.31	40	

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.30</b>		<b>CENTRIFUGES</b>									
			<b>NORTH STAR ENGINEERED PRODUCTS, INC.</b>									
	H13BC013	GP 35	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, TIMER, 35 LB DRY WT.	3	HP E	\$16,768	7.03	1.83	3.35	0.15	0.19	9
	H13BC010	305 TX	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, TIMER, 35 LB DRY WT.	3	HP E	\$14,606	6.16	1.59	2.92	0.13	0.19	6
	H13BC012	GP 60	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, TIMER, 60 LB DRY WT.	3	HP E	\$18,540	7.74	2.02	3.71	0.16	0.19	9
	H13BC006	605 TX	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, TIMER, 60 LB DRY WT.	3	HP E	\$18,012	7.53	1.96	3.60	0.16	0.19	9
	H13BC011	GP 100	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, TIMER, 100 LB DRY WT.	5	HP E	\$22,652	9.59	2.47	4.53	0.20	0.31	12
	H13BC003	GP 130	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, TIMER, 130 LB DRY WT.	5	HP E	\$24,897	10.49	2.71	4.98	0.22	0.31	12
	H13BC009	355	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, MANUAL CONTROL, EXPLOSION PROOF, 35 LB	3	HP E	\$25,695	10.62	2.79	5.14	0.22	0.19	6
	H13BC007	655	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, MANUAL CONTROL, EXPLOSION PROOF, 60 LB	3	HP E	\$29,714	12.23	3.23	5.94	0.26	0.19	9
	H13BC008	755	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, MANUAL CONTROL, EXPLOSION PROOF, 100 LB	5	HP E	\$34,219	14.23	3.72	6.84	0.30	0.31	12



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
		<b>SUBCATEGORY 0.40</b>	<b>SHREDDERS</b>									
			<b>GRANUTE-SATURN SYSTEMS(MAC CORPORATION)</b>									
	H13MN001	52-32HT	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 32" X 52" OPENING, TRAILER MTD, W/DIESEL GENERATOR SET/ BELT-TYPE INFEED & DISCHARGE CONVEYORS	150 HP	E	\$385,496	90.55	19.04	32.31	2.88	9.26	200
	H13MN002	62-40HT	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 38" X 62" OPENING, TRAILER MTD, W/DIESEL GENERATOR SET, HOOK-TYPE INFEED FOR TIRES, & DISCHARGE CONVEYOR	200 HP	E	\$450,925	108.62	22.21	37.67	3.37	12.35	300
	H13MN003	62-40HT	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 38" X 62" OPENING, TRAILER MTD, W/DIESEL GENERATOR SET, CRANE GRAPPLE & DISCHARGE CONVEYOR SYSTEM	200 HP	E	\$511,246	121.18	25.22	42.79	3.82	12.35	300
	H13MN004	72-46HT	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 45" X 72" OPENING, TRAILER MTD, W/DIESEL GENERATOR SET, CRANE GRAPPLE & DISCHARGE CONVEYOR SYSTEM	300 HP	E	\$583,389	145.21	28.83	48.93	4.36	18.53	400
			<b>SHRED-TECH LIMITED</b>									
	H13SH001	ST-25E	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 29" X 42" OPENING, TRAILER MTD. (ADD COST FOR CONVEYOR SYSTEM, POWER SUPPLY, AND TRAILER)	20 HP	E	\$59,659	13.28	2.99	5.07	0.45	1.24	20

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H13</i>	<i>SHRED-TECH LIMITED (continued)</i>											
	H13SH002	ST-25EL	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 29" X 46" OPENING, TRAILER MTD. (ADD COST FOR CONVEYOR SYSTEM, POWER SUPPLY, AND TRAILER)	20	HP E	\$55,926	12.56	2.80	4.75	0.42	1.24	23
	H13SH003	ST-50	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 40" X 55" OPENING, TRAILER MTD. (ADD COST FOR CONVEYOR SYSTEM, POWER SUPPLY, AND TRAILER)	40	HP E	\$96,223	22.12	4.81	8.18	0.72	2.47	45
	H13SH004	ST-50L	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 40" X 65" OPENING, TRAILER MTD. (ADD COST FOR CONVEYOR SYSTEM, POWER SUPPLY, AND TRAILER)	40	HP E	\$100,391	22.92	5.02	8.53	0.75	2.47	50
	H13SH005	ST-100	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 63" X 70" OPENING, TRAILER MTD. (ADD COST FOR CONVEYOR SYSTEM, POWER SUPPLY, AND TRAILER)	100	HP E	\$159,808	39.83	7.98	13.58	1.19	6.18	200
	H13SH006	ST-500	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 66" X 96" OPENING, TRAILER MTD. (ADD COST FOR CONVEYOR SYSTEM, POWER SUPPLY, AND TRAILER)	300	HP E	\$516,465	126.59	25.81	43.90	3.86	18.53	420
	H13SH007	ST-500L	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 66" X 115" OPENING, TRAILER MTD. (ADD COST FOR CONVEYOR SYSTEM, POWER SUPPLY, AND TRAILER)	600	HP E	\$673,091	184.16	33.64	57.21	5.03	37.05	440

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.71</b>		<b>WASTE HANDLING EQUIPMENT, DRUM HANDLING</b>									
			<b>BASCO</b>									
	H13BB001	VELT 55/35	HAZARDOUS/TOXIC WASTE EQUIPMENT, WASTE HANDLING EQUIPMENT, DRUM HANDLING, DRUM FILLER, 55 GAL TOP FILL	10 HP	E	\$15,800	9.53	1.82	3.36	0.14	0.62	11
	H13BB002	2B	HAZARDOUS/TOXIC WASTE EQUIPMENT, WASTE HANDLING EQUIPMENT, DRUM CLEANER, 12 DRUM/HR CAP INTERIOR	15 HP	E	\$20,172	12.41	2.32	4.29	0.17	0.93	19
<b>H20</b>	<b>HOISTS &amp; AIR WINCHES</b>											
	<b>SUBCATEGORY 0.00</b>		<b>HOISTS &amp; AIR WINCHES</b>									
			<b>INGERSOLL RAND MATERIAL HANDLING</b>									
	H20BE002	FA2.5i	AIR WINCH, MANUAL BRAKE, 24" DRUM, 5,000 LBS CAP, 145 FPM (ADD 700 CFM COMPRESSOR)	25 CFM	A	\$34,718	6.97	1.82	3.09	0.27	0.00	11
	H20BE003	FA5i	AIR WINCH, MANUAL BRAKE, 24" DRUM, 10,000 LBS CAP, 65 FPM (ADD 700 CFM COMPRESSOR)	25 CFM	A	\$44,884	9.04	2.35	3.99	0.35	0.00	19
	H20BE004	FA10i	AIR WINCH, AUTOMATIC BRAKE, 24" DRUM, 22,000 LBS CAP, 30 FPM (ADD 800 CFM COMPRESSOR)	31 CFM	A	\$65,203	13.11	3.41	5.80	0.51	0.00	32

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>H25</b>	<b>HYDRAULIC EXCAVATORS, CRAWLER MOUNTED</b>											
	<b>SUBCATEGORY 0.10</b>	<b>0 LBS THRU 12,500 LBS (COMPACT EXCAVATORS)</b>										
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	H25CA034	301.8	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 3,800 LBS, 0.04 CY BUCKET, 7.50' MAX DIGGING DEPTH	18 HP	D-off	\$39,271	9.92	2.16	3.68	0.32	1.95	37
	H25CA035	303 CR	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 7,500 LBS, 0.11 CY BUCKET, 9.08' MAX DIGGING DEPTH	30 HP	D-off	\$45,683	12.66	2.51	4.28	0.37	3.25	76
	H25CA036	305 CR	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 10,800 LBS, 0.17 CY BUCKET, 11.08' MAX DIGGING DEPTH	47 HP	D-off	\$73,478	20.21	4.05	6.89	0.60	5.08	115
	<b>Komatsu America International Company</b>											
	H25KM018	PC20MR-2	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 4,800 LBS, 0.05 CY BUCKET, 8'11" MAX DIGGING DEPTH	20 HP	D-off	\$50,010	12.27	2.76	4.69	0.41	2.16	51
	H25KM021	PC40MR-2	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 10,000 LBS, 0.18 CY BUCKET, 12'9" MAX DIGGING DEPTH	39 HP	D-off	\$67,023	17.95	3.68	6.28	0.54	4.22	106
	H25KM022	PC58UU-3	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 11,400 LBS, 0.29 CY BUCKET, 13'1" MAX DIGGING DEPTH	40 HP	D-off	\$85,813	21.75	4.72	8.04	0.70	4.33	115
	H25KM023	PC78US-6	HYDRAULIC EXCAVATOR, CRAWLER, 6,200 LBS, 0.37 CY BUCKET, 12'4" MAX DIGGING DEPTH	54 HP	D-off	\$105,663	27.38	5.82	9.91	0.86	5.84	159

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>MELROE COMPANY/BOBCAT</b>												
	H25ME001	323	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 3,600 LBS, 0.04 CY BUCKET, 7'6" MAX DIGGING DEPTH	13	HP D-off	\$30,564	7.64	1.69	2.87	0.25	1.44	37
	H25ME002	331	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 7,200 LBS, 0.10 CY BUCKET, 10'2" MAX DIGGING DEPTH	40	HP D-off	\$43,684	13.52	2.40	4.10	0.35	4.33	72
	H25ME003	337	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 11,000 LBS, 0.18 CY BUCKET, 12' MAX DIGGING DEPTH	48	HP D-off	\$60,636	17.82	3.33	5.68	0.49	5.19	110
<b>SUBCATEGORY 0.11 OVER 12,500 LBS THRU 40,000 LBS</b>												
<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>												
	H25CA038	307D	HYDRAULIC EXCAVATOR, CRAWLER, 14,310 LBS, 0.48 CY BUCKET, 15.25' MAX DIGGING DEPTH	54	HP D-off	\$105,811	26.23	5.52	9.34	0.85	5.84	159
	H25CA020	311-CU	HYDRAULIC EXCAVATOR, CRAWLER, 24,640 LBS, 0.60 CY BUCKET, 16.50' MAX DIGGING DEPTH	79	HP D-off	\$135,216	34.77	7.06	11.93	1.09	8.55	258
	H25CA021	312-DL	HYDRAULIC EXCAVATOR, CRAWLER, 26,900 LBS, 0.68 CY BUCKET, 18.16' MAX DIGGING DEPTH	84	HP D-off	\$135,809	35.50	7.09	11.98	1.10	9.09	288
<b>KOBELCO AMERICA INC.</b>												
	H25KC027	SK140SR LC	HYDRAULIC EXCAVATOR, CRAWLER, 33,100 LBS, 0.50 CY BUCKET, 17.83' MAX DIGGING DEPTH	93	HP D-off	\$161,615	41.36	8.44	14.26	1.31	10.04	331
	H25KC017	SK70SR	HYDRAULIC EXCAVATOR, CRAWLER, 16,400 LBS, 0.33 CY BUCKET, 14.75' MAX DIGGING DEPTH	54	HP D-off	\$99,049	24.99	5.17	8.74	0.80	5.84	168

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>Komatsu America International Company</b>												
	H25KM027	PC128UU-2	HYDRAULIC EXCAVATOR, CRAWLER, 12,200 LBS, 0.58 CY BUCKET, 16' 0" MAX DIGGING DEPTH	86 HP	D-off	\$205,575	48.60	10.73	18.14	1.66	9.30	295
	H25KM001	PC 120-6	HYDRAULIC EXCAVATOR, CRAWLER, 26,950 LBS, 0.75 CY BUCKET, 18.08' MAX DIGGING DEPTH	89 HP	D-off	\$145,053	37.82	7.57	12.80	1.17	9.63	265
	H25KM003	PC 160LC-7	HYDRAULIC EXCAVATOR, CRAWLER, 39,400 LBS, 1.12 CY BUCKET, 19.58' MAX DIGGING DEPTH	110 HP	D-off	\$199,655	50.51	10.42	17.62	1.61	11.90	395
<b>LINK-BELT CONSTRUCTION EQUIPMENT CO.</b>												
	H25LB003	130 2XLC	HYDRAULIC EXCAVATOR, CRAWLER, 27,100 LBS, 0.50 CY BUCKET, 18' 2" MAX DIGGING DEPTH	95 HP	D-off	\$163,695	42.01	8.54	14.44	1.32	10.28	271
	H25LB005	160 X2	HYDRAULIC EXCAVATOR, CRAWLER, 35,275 LBS, 0.66 CY BUCKET, 20' 1" MAX DIGGING DEPTH	120 HP	D-off	\$191,681	50.28	10.01	16.91	1.55	12.98	362
<b>SUBCATEGORY 0.12 OVER 40,000 LBS THRU 100,000 LBS</b>												
<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>												
	H25CA040	319CL	HYDRAULIC EXCAVATOR, CRAWLER, 40,600 LBS, 1.00 CY BUCKET, 22.50' MAX DIGGING DEPTH	125 HP	D-off	\$146,351	36.30	5.73	9.15	1.15	13.52	405
	H25CA022	320D	HYDRAULIC EXCAVATOR, CRAWLER, 43,800 LBS, 1.50 CY BUCKET, 21.75' MAX DIGGING DEPTH	128 HP	D-off	\$219,750	47.07	8.60	13.73	1.73	13.85	444
	H25CA023	320DL	HYDRAULIC EXCAVATOR, CRAWLER, 49,000 LBS, 0.80 CY BUCKET, 39.0' MAX DIGGING DEPTH, LONG REACH BOOM	128 HP	D-off	\$319,821	61.24	12.51	19.99	2.51	13.85	536

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>KOBELCO AMERICA INC.</b>											
	H25KC028	SK260 LC	HYDRAULIC EXCAVATOR, CRAWLER, 56,890 LBS, 1.31 CY BUCKET, 23' MAX DIGGING DEPTH	176 HP	D-off	\$245,040	56.63	9.58	15.32	1.92	19.04	568
	H25KC029	SK260 LC LR	HYDRAULIC EXCAVATOR, CRAWLER, 56,890 LBS, 1.57 CY BUCKET, 25' MAX DIGGING DEPTH, LONG REACH BOOM	176 HP	D-off	\$327,925	68.37	12.83	20.50	2.58	19.04	568
	H25KC030	SK350LC	HYDRAULIC EXCAVATOR, CRAWLER, 80,900 LBS, 2.09 CY BUCKET, 27'7" MAX DIGGING DEPTH	238 HP	D-off	\$332,495	76.74	13.00	20.78	2.61	25.75	809
	H25KC019	SK210 LC	HYDRAULIC EXCAVATOR, CRAWLER, 48,000 LBS, 1.13 CY BUCKET, 22.00' MAX DIGGING DEPTH	143 HP	D-off	\$200,729	46.25	7.86	12.55	1.58	15.47	480
	H25KC020	SK210 LC LR	HYDRAULIC EXCAVATOR, CRAWLER, 53,400 LBS, 0.63 CY BUCKET, 39' MAX DIGGING DEPTH, LONG REACH BOOM	143 HP	D-off	\$264,512	55.28	10.35	16.53	2.08	15.47	534
<b>SUBCATEGORY 0.13 OVER 100,000 LBS THRU 160,000 LBS</b>												
<b>KOBELCO AMERICA INC.</b>												
	H25KC031	SK485 LC	HYDRAULIC EXCAVATOR, CRAWLER, 111,774 LBS 2.75 CY BUCKET, 25.58' MAX DIGGING DEPTH	345 HP	D-off	\$462,259	95.24	14.41	21.67	3.57	37.33	1,117
<b>Komatsu America International Company</b>												
	H25KM015	PC 600 LC-8	HYDRAULIC EXCAVATOR, CRAWLER, 133,160 LBS, 4.25 CY BUCKET, 27.83' MAX DIGGING DEPTH	384 HP	D-off	\$680,249	126.13	21.21	31.89	5.26	41.54	1,332

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.14 OVER 160,000 LBS</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	H25CA065	390D L	HYDRAULIC EXCAVATOR, CRAWLER, 190,016LB, 7.6CY BUCKET, 35.13' MAX DIGGING DEPTH	523 HP	D-off	\$1,129,344	182.66	30.95	44.58	8.66	56.58	1,900
	<b>Komatsu America International Company</b>											
	H25KM009	PC 800 LC-8	HYDRAULIC EXCAVATOR, CRAWLER, 171,070 LBS, 4.05 CY BUCKET, 27.66' MAX DIGGING DEPTH	454 HP	D-off	\$996,890	160.37	27.32	39.35	7.64	49.12	1,750
	H25KM033	PC1800-6	HYDRAULIC EXCAVATOR, CRAWLER, 396,800 LBS, 15.70 CY BUCKET, 30'5" MAX DIGGING DEPTH	908 HP	D-off	\$2,326,110	356.98	63.75	91.82	17.84	98.24	3,968
	<b>SUBCATEGORY 0.21 ATTACHMENTS, MOBILE SHEARS</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	H25CA055	S305	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, SCRAP, 9.4" JAW OPENING (ADD 10,000 LB HYDRAULIC EXCAVATOR)			\$21,484	7.17	1.69	3.04	0.17	0.00	15
	H25CA057	S320B	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, SCRAP, 15.4" JAW OPENING (ADD 20,000 LB HYDRAULIC EXCAVATOR)			\$85,920	27.87	6.77	12.17	0.68	0.00	57
	H25CA066	S325B	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, SCRAP, 28.0" JAW OPENING (ADD 45,000 LB HYDRAULIC EXCAVATOR)			\$109,120	34.39	8.60	15.46	0.87	0.00	84



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H25</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	H25CA067	S340B	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, SCRAP, 32.0" JAW OPENING (ADD 100,000 LB HYDRAULIC EXCAVATOR)			\$128,017	40.35	10.09	18.14	1.02	0.00	191
			<b>LABOUNTY MANUFACTURING,</b>									
	H25LU001	MSD 7	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 10" JAW OPENING (ADD 10,000 LB HYDRAULIC EXCAVATOR)			\$28,469	9.37	2.25	4.03	0.23	0.00	10
	H25LU002	MSD 7R	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 10" JAW OPENING (ADD 14,000 LB HYDRAULIC EXCAVATOR)			\$32,118	10.63	2.54	4.55	0.26	0.00	11
	H25LU003	MSD 15	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 18" JAW OPENING (ADD 20,000 LB HYDRAULIC EXCAVATOR)			\$49,907	16.53	3.94	7.07	0.40	0.00	30
	H25LU004	MSD 15R	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 18" JAW OPENING (ADD 25,000 LB HYDRAULIC EXCAVATOR)			\$58,019	19.18	4.57	8.22	0.46	0.00	35
	H25LU005	MSD 30 - III SV	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 22" JAW OPENING (ADD 25,000 LB HYDRAULIC EXCAVATOR)			\$72,682	24.01	5.73	10.30	0.58	0.00	50
	H25LU006	MSD 30R - III SV	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 22" JAW OPENING (ADD 35,000 LB HYDRAULIC EXCAVATOR)			\$101,872	33.60	8.03	14.43	0.81	0.00	67
	H25LU007	MSD 40-III SV	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 27" JAW OPENING (ADD 40,000 LB HYDRAULIC EXCAVATOR)			\$86,779	28.74	6.84	12.29	0.69	0.00	70

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H25</i>	<i>LABOUNTY MANUFACTURING, (continued)</i>											
	H25LU008	MSD 40R-III SV	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 27" JAW OPENING (ADD 45,000 LB HYDRAULIC EXCAVATOR)			\$113,521	37.37	8.94	16.08	0.90	0.00	90
	H25LU009	MSD 50-III SV	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 32" JAW OPENING (ADD 45,000 LB HYDRAULIC EXCAVATOR)			\$124,507	40.94	9.81	17.64	0.99	0.00	109
	H25LU010	MSD 50R-III SV	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 32" JAW OPENING (ADD 60,000 LB HYDRAULIC EXCAVATOR)			\$149,506	49.11	11.78	21.18	1.19	0.00	140
	H25LU011	MSD 70-III SV	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 35" JAW OPENING (ADD 60,000 LB HYDRAULIC EXCAVATOR)			\$148,161	48.69	11.68	20.99	1.18	0.00	130
	H25LU012	MSD 70R-III SV	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 35" JAW OPENING (ADD 75,000 LB HYDRAULIC EXCAVATOR)			\$181,373	59.65	14.29	25.69	1.44	0.00	164
	H25LU013	MSD 100-III SV	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 38" JAW OPENING (ADD 75,000 LB HYDRAULIC EXCAVATOR)			\$187,549	61.70	14.78	26.57	1.49	0.00	150
	H25LU014	MSD 100R-III SV	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 38" JAW OPENING (ADD 75,000 LB HYDRAULIC EXCAVATOR)			\$218,240	71.77	17.19	30.92	1.73	0.00	180
	<b>SUBCATEGORY 0.22</b>	<b>ATTACHMENTS, MATERIAL HANDLING</b>										
	<b>BALDERSON, INC.</b>											
	H25BS001	B315-24	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, 0.50 CY BUCKET, W/TIPS (ADD 25,000-50,000 LB HYDRAULIC EXCAVATOR)			\$7,136	2.06	0.54	0.95	0.06	0.00	10

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H25</i>			<i>BALDERSON, INC. (continued)</i>									
	H25BS002	B3F-B-30	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, 0.75 CY BUCKET, W/TIPS (ADD 25,000-50,000 LB HYDRAULIC EXCAVATOR)			\$7,199	2.08	0.54	0.96	0.06	0.00	16
	H25BS003	B315-48	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, 1.25 CY BUCKET, W/TIPS (ADD 25,000-60,000 LB HYDRAULIC EXCAVATOR)			\$9,370	2.71	0.71	1.25	0.08	0.00	30
	H25BS004	B3F-C-42	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, 1.50 CY BUCKET, W/TIPS (ADD 50,000-60,000 LB HYDRAULIC EXCAVATOR)			\$12,560	3.62	0.94	1.67	0.10	0.00	22
	H25BS005	B3F-D-66	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, 3.25 CY BUCKET, W/TIPS (ADD 50,000-75,000 LB HYDRAULIC EXCAVATOR)			\$16,825	4.86	1.26	2.24	0.14	0.00	52
			<b>LABOUNTY MANUFACTURING,</b>									
	H25LU023	TW 100	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 1.25CY, 4-TINE/ 5-TINE (ADD 25,000 LB HYDRAULIC EXCAVATOR)			\$38,483	11.35	2.88	5.13	0.31	0.00	16
	H25LU024	TW 110	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 3.50CY, 4-TINE/ 5-TINE (ADD 35,000 LB HYDRAULIC EXCAVATOR)			\$19,573	5.95	1.47	2.61	0.16	0.00	28
	H25LU025	120 TR	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 3.50CY, 4-TINE/ 5-TINE (ADD 45,000 LB HYDRAULIC EXCAVATOR)			\$23,986	7.33	1.80	3.20	0.20	0.00	35

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H25</i>			<i>LABOUNTY MANUFACTURING, (continued)</i>									
	H25LU026	140 TW	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 5.50CY, 4-TINE/ 5-TINE (ADD 60,000 LB HYDRAULIC EXCAVATOR)			\$27,223	8.36	2.04	3.63	0.22	0.00	48
	H25LU027	160 TR	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 6.50CY, 4-TINE/ 5-TINE (ADD 75,000 LB HYDRAULIC EXCAVATOR)			\$30,428	9.39	2.28	4.06	0.25	0.00	58
	H25LU028	TW 170	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 9.00CY, 4-TINE/ 5-TINE (ADD 100,000 LB HYDRAULIC EXCAVATOR)			\$49,009	14.84	3.67	6.53	0.40	0.00	78
	H25LU034	RDG 60	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, ROTATING GRAPPLE, 1.75 CY (ADD 38,000-70,000 LB HYDRAULIC EXCAVATOR)			\$72,063	21.61	5.40	9.61	0.59	0.00	35
	H25LU035	RDG 90	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, ROTATING GRAPPLE, 1.25 CY (ADD 70,000-140,000 LB HYDRAULIC EXCAVATOR)			\$86,105	25.75	6.44	11.48	0.70	0.00	69
	H25LU036	RDG 120	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, ROTATING GRAPPLE, 2.00 CY (ADD 120,000-160,000 LB HYDRAULIC EXCAVATOR)			\$98,943	29.56	7.41	13.19	0.81	0.00	100
			<b>WAIN-ROY, INC.</b>									
	H25WN001		HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, BUCKET, 36" CONCRETE/PAVEMENT REMOVAL (ADD 75,000 LB HYDRAULIC EXCAVATOR)			\$7,997	2.32	0.61	1.07	0.07	0.00	16

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.23 ATTACHMENTS, CONCRETE PULVERIZERS</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	H25CA068	P215	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, CRUSHER, 16.0" JAW OPENING (ADD 40,000 LB MIN HYDRAULIC EXCAVATOR)			\$50,458	16.83	3.98	7.15	0.40	0.00	46
	H25CA069	P225	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 30.0" JAW OPENING (ADD 40,000 LB MIN HYDRAULIC EXCAVATOR)			\$60,870	20.30	4.79	8.62	0.48	0.00	53
	H25CA070	P235	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 34.0" JAW OPENING (ADD 40,000 LB MIN HYDRAULIC EXCAVATOR)			\$85,352	28.47	6.73	12.09	0.68	0.00	87
	<b>KENT DEMOLITION TOOLS</b>											
	H25KN001	KF12 TLB	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE BREAKER, 2,000 FT-LB, W/4.25" DIA. POINT (ADD 16,000-24,000 LB HYDRAULIC EXCAVATOR)			\$31,544	11.02	2.49	4.47	0.25	0.00	19
	H25KN002	KF19 QT	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE BREAKER, 3,000 FT-LB, W/4.75" DIA. POINT (ADD 26,000-36,000 LB HYDRAULIC EXCAVATOR)			\$43,708	15.08	3.45	6.19	0.35	0.00	31
	H25KN003	KF22 QT	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE BREAKER, 4,000 FT-LB, W/5.25" DIA. POINT (ADD 36,000-50,000 LB HYDRAULIC EXCAVATOR)			\$53,273	18.27	4.20	7.55	0.42	0.00	38

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H25</i>			<i>KENT DEMOLITION TOOLS (continued)</i>									
	H25KN004	KF27 QT	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE BREAKER, 5,000 FT-LB, W/5.51" DIA. POINT (ADD 50,000-64,000 LB HYDRAULIC EXCAVATOR)			\$61,258	20.94	4.83	8.68	0.49	0.00	43
	H25KN006	KF70 QT	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE BREAKER, 10,000 FT-LB, W/7.09 " DIA. POINT (ADD 80,000 LB HYDRAULIC EXCAVATOR)			\$123,537	42.21	9.73	17.50	0.98	0.00	103
			<b>LABOUNTY MANUFACTURING,</b>									
	H25LU046	CP 40 C	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 30" JAW OPENING (ADD 40,000 LB HYDRAULIC EXCAVATOR)			\$34,808	12.11	2.75	4.93	0.28	0.00	29
	H25LU047	CP 60 S	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 36" JAW OPENING (ADD 60,000 LB HYDRAULIC EXCAVATOR)			\$41,172	14.34	3.25	5.83	0.33	0.00	30
	H25LU048	CP 80 S	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 42" JAW OPENING (ADD 75,000 LB HYDRAULIC EXCAVATOR)			\$44,067	15.40	3.47	6.24	0.35	0.00	45
	H25LU049	CP 100 S	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 48" JAW OPENING (ADD 100,000 LB HYDRAULIC EXCAVATOR)			\$53,141	18.53	4.19	7.53	0.42	0.00	62
	H25LU050	CP 120 S	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 54" JAW OPENING (ADD 140,000 LB HYDRAULIC EXCAVATOR)			\$80,410	27.73	6.34	11.39	0.64	0.00	99

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H25</i>			<i>LABOUNTY MANUFACTURING, (continued)</i>									
	H25LU040	UP 45 SV	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, CRACKING JAWS, 45" JAW OPENING (ADD 55,000 LB HYDRAULIC EXCAVATOR)			\$150,603	51.00	11.87	21.34	1.20	0.00	105
	H25LU041	UP 75 SV	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, CRACKING JAWS, 49" JAW OPENING (ADD 80,000 LB HYDRAULIC EXCAVATOR)			\$184,691	62.36	14.55	26.16	1.47	0.00	127
	H25LU042	UP 90	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, CRACKING JAWS, 62" JAW OPENING (ADD 75,000 LB HYDRAULIC EXCAVATOR)			\$222,651	75.78	17.54	31.54	1.77	0.00	171
	H25LU053	UP 45 SV	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 36" JAW OPENING (ADD 55,000 LB HYDRAULIC EXCAVATOR)			\$158,520	53.64	12.49	22.46	1.26	0.00	105
	H25LU054	UP 75 SV	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 40" JAW OPENING (ADD 80,000 LB HYDRAULIC EXCAVATOR)			\$195,151	65.86	15.38	27.65	1.55	0.00	126
	<b>SUBCATEGORY 0.24</b>		<b>ATTACHMENTS, COMPACTORS</b>									
	<b>ALLIED CONSTRUCTION PRODUCTS</b>											
	H25AU006	500B	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 13" X 27" PLATE, 3,940 LBS FORCE (ADD 7,000-15,000 LB HYDRAULIC EXCAVATOR)			\$6,031	2.01	0.48	0.85	0.05	0.00	5

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H25</i>			<i>ALLIED CONSTRUCTION PRODUCTS (continued)</i>									
	H25AU007	1000B	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 24" X 32" PLATE, 8,000 LBS FORCE (ADD 9,000-30,000 LB HYDRAULIC EXCAVATOR)			\$7,091	2.36	0.56	1.00	0.06	0.00	11
	H25AU008	1600	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 29" X 32" PLATE, 18,000 LBS FORCE (ADD 19,000-45,000 LB HYDRAULIC EXCAVATOR)			\$11,628	3.88	0.92	1.65	0.09	0.00	16
	H25AU009	2300	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 34" X 36" PLATE, 24,000 LBS FORCE (ADD 35,000-120,000 LB HYDRAULIC EXCAVATOR)			\$16,673	5.56	1.31	2.36	0.13	0.00	22
	H25AU010	4000	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 50" X 42" PLATE, 40,000 LBS FORCE (ADD 70,000-120,000 LB HYDRAULIC EXCAVATOR)			\$18,358	6.13	1.45	2.60	0.15	0.00	40
			<b>AMERICAN COMPACTION EQUIPMENT, INC.</b>									
	H25AX001	DC-24BL	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 23" WIDE, SHEEPS FOOT, 3 RIMS - 38" DIA (ADD 25,000-50,000 LB HYDRAULIC EXCAVATOR)			\$8,221	2.74	0.65	1.16	0.07	0.00	25
	H25AX003	DC-24EX	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 23" WIDE, SHEEPS FOOT, 3 RIMS - 42" DIA (ADD 50,000-75,000 LB HYDRAULIC EXCAVATOR)			\$10,197	3.40	0.80	1.44	0.08	0.00	33
	H25AX005	DC-24EXL	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 23" WIDE, SHEEPS FOOT, 3 RIMS - 48" DIA (ADD 75,000-110,000 LB HYDRAULIC EXCAVATOR)			\$12,052	4.03	0.96	1.71	0.10	0.00	39



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H25</i>			<i>AMERICAN COMPACTION EQUIPMENT, INC. (continued)</i>									
	H25AX002	DC-36BL	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 35" WIDE, SHEEPS FOOT, 4 RIMS - 38" DIA (ADD 50,000-75,000 LB HYDRAULIC EXCAVATOR)			\$9,301	3.10	0.73	1.32	0.07	0.00	33
	H25AX004	DC-36EX	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 35" WIDE, SHEEPS FOOT, 4 RIMS - 42" DIA (ADD 50,000-75,000 LB HYDRAULIC EXCAVATOR)			\$11,895	3.97	0.94	1.69	0.09	0.00	43
	H25AX006	DC-36EXL	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 36" WIDE, SHEEPS FOOT, 4 RIMS - 48" DIA (ADD 75,000-110,000 LB HYDRAULIC EXCAVATOR)			\$15,186	5.06	1.20	2.15	0.12	0.00	53
			<b>KENT DEMOLITION TOOLS</b>									
	H25KN007	KHP-35 ME-S	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 12" X 26" PLATE, 3000 LB FORCE (ADD 14,000-25,000 LB HYDRAULIC EXCAVATOR)			\$6,349	2.27	0.50	0.90	0.05	0.00	4
	H25KN009	KHP-135FT - II	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 28" X 40" PLATE, 13500 LB FORCE (ADD 25,000-50,000 LB HYDRAULIC EXCAVATOR)			\$13,141	4.53	1.03	1.86	0.10	0.00	14
	H25KN010	KHP-210FT - II	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 34" X 46" PLATE, 21000 LB FORCE (ADD 40,000-75,000 LB HYDRAULIC EXCAVATOR)			\$18,099	6.18	1.42	2.56	0.14	0.00	23

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
			<b>WAIN-ROY, INC.</b>									
	H25WN002	24-3 (15-22.5 TON)	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 24" WIDE, SHEEPSFOOT, 3 RIMS - 33" DIA (ADD 15-22.5 TON HYDRAULIC EXCAVATOR)			\$8,482	2.83	0.67	1.20	0.07	0.00	22
	H25WN003	36-4 (15-22.5 TON)	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 36" WIDE, SHEEPSFOOT, 4 RIMS - 33" DIA (ADD 15-22.5 TON HYDRAULIC EXCAVATOR)			\$9,294	3.10	0.73	1.32	0.07	0.00	26
	H25WN004	24-3 (22.5-30 TON)	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 24" WIDE, SHEEPSFOOT, 3 RIMS - 39" DIA (ADD 22.5-30 TON HYDRAULIC EXCAVATOR)			\$10,147	3.39	0.80	1.44	0.08	0.00	31
	H25WN005	36-4 (22.5-30 TON)	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 36" WIDE, SHEEPSFOOT, 4 RIMS - 39" DIA (ADD 22.5-30 TON HYDRAULIC EXCAVATOR)			\$11,505	3.84	0.91	1.63	0.09	0.00	38
<b>H30</b>	<b>HYDRAULIC EXCAVATORS, WHEEL MOUNTED</b>											
	<b>SUBCATEGORY 0.01</b>	<b>0 THRU 1.0 CY</b>										
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	H30CA005	M318D	HYDRAULIC EXCAVATORS, WHEEL, 33,700 LBS, 1.00 CY BUCKET, 1-PIECE BOOM, 19' DIGGING DEPTH, 4X4	151 HP	D-off	\$207,774	53.73	11.00	18.62	1.69	15.28	393
	H30CA007	M315D	HYDRAULIC EXCAVATORS, WHEEL, 35,100 LBS, 0.70 CY BUCKET, 1-PIECE BOOM, 17' 7" DIGGING DEPTH, 4X4X2	121 HP	D-off	\$175,700	45.00	9.18	15.49	1.43	12.25	352

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>GRADALL COMPANY</b>											
	H30GA006	XL4100 III	HYDRAULIC EXCAVATORS, WHEEL, 44,851 LBS, 0.75 CY BUCKET, TELESCOPIC BOOM, 22' 6" DIGGING DEPTH, 6X4	233 HP	D-off D-on	\$303,541	79.08	16.29	27.64	2.47	23.58	475
	H30GA007	XL 3300 III	HYDRAULIC EXCAVATORS, WHEEL, 15,270 LBS, 0.68 CY BUCKET, TELESCOPIC BOOM, 4X4X2	138 HP	D-off	\$227,159	54.83	12.24	20.78	1.85	13.97	393
<b>SUBCATEGORY 0.02 OVER 1.0 CY</b>												
<b>GRADALL COMPANY</b>												
	H30GA008	XL 5100 III	HYDRAULIC EXCAVATORS, WHEEL, 22,800 LBS, 1.25 CY BUCKET, TELESCOPIC BOOM, 25' 4" DIGGING DEPTH, 6X4	163 HP	D-off 230 HP D-on	\$342,221	80.62	14.84	24.23	2.72	21.16	550
<b>Komatsu America International Company</b>												
	H30KM001	PW170ES-6	HYDRAULIC EXCAVATORS, WHEEL, 37,600 LBS, 1.12 CY BUCKET, 1-PIECE BOOM, 18' 8" DIGGING DEPTH, 4X4	123 HP	D-off	\$255,177	52.70	11.37	18.68	2.03	12.45	376
<b>H35</b>	<b>HYDRAULIC SHOVELS, CRAWLER MOUNTED</b>											
<b>SUBCATEGORY 0.12 DIESEL, OVER 5.0 CY</b>												
<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>												
	H35CA001	6015	HYDRAULIC SHOVEL, CRAWLER, 9.20 CY BUCKET, BACKHOE, 23' 11" DIGGING DEPTH	665 HP	D-off	\$1,127,112	230.83	36.58	56.36	8.40	71.95	2,277
	H35CA003	6018	HYDRAULIC SHOVEL, CRAWLER, 13.10 CY BUCKET, BACKHOE, 27' 11" DIGGING DEPTH	1,104 HP	D-off	\$2,235,931	433.41	72.57	111.80	16.67	119.44	3,981

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>H35</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	H35CA004	6030	HYDRAULIC SHOVEL, CRAWLER, 20.10 CY BUCKET, FRONT SHOVEL, 8' 2" DIGGING DEPTH	1,530 HP	D-off	\$3,718,515	685.98	120.70	185.93	27.73	165.53	6,477
	H35CA005	6050	HYDRAULIC SHOVEL, CRAWLER, 34.00 CY BUCKET, BACKHOE, 30' 6" DIGGING DEPTH	2,520 HP	D-off	\$7,307,305	1,292.63	237.18	365.37	54.49	272.64	11,838
			<b>HITACHI CONSTRUCTION MACHINERY</b>									
	H35HI006	EX1200-5	HYDRAULIC SHOVEL, CRAWLER, 8.5 CY BUCKET, FRONT SHOVEL, 17' 3" DIGGING DEPTH	641 HP	D-off	\$1,672,785	303.21	54.29	83.64	12.47	69.35	2,447
<b>L10</b>	<b>LAND CLEARING EQUIPMENT</b>											
	<b>SUBCATEGORY 0.00</b>	<b>LAND CLEARING EQUIPMENT</b>										
			<b>BALDERSON, INC.</b>									
	L10BS004	BBL7	LAND CLEARING EQUIPMENT, ROCK & ROOT RAKE, 12.0' WIDE, 9 TEETH (ADD 200 - 250 HP TRACTOR DOZER)			\$28,155	5.56	1.35	2.25	0.22	0.00	24
	L10BS005	BRK8	LAND CLEARING EQUIPMENT, ROCK & ROOT RAKE 12.5' WIDE, 9 TEETH (ADD D8 TRACTOR DOZER 275 - 325 HP)			\$41,169	8.07	1.97	3.29	0.32	0.00	72
	L10BS002	BMA8	LAND CLEARING EQUIPMENT, MULTI-APPLICATION RAKE, 12.5' WIDE, 9 TEETH (ADD D8 TRACTOR DOZER 275 - 325 HP)			\$41,127	8.06	1.97	3.29	0.32	0.00	68
	L10BS007	BLF988DTC	LAND CLEARING EQUIPMENT, LOGGING FORK, 92" TINES (ADD 400 - 450 HP FE LOADER)			\$29,428	6.05	1.41	2.35	0.23	0.00	90

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
			<b>BUSH HOG</b>									
	L10BU005	SM-60	LAND CLEARING EQUIPMENT, ROTARY CUTTER, 5' WIDE-SIDE MTD (ADD FARM 50 HP TRACTOR)			\$10,088	3.01	0.49	0.81	0.08	0.00	17
	L10BU010	287	LAND CLEARING EQUIPMENT, ROTARY CUTTER, 7' WIDE, 1.5 - 12" HEIGHT (ADD FARM 40 HP TRACTOR)			\$4,098	1.57	0.20	0.33	0.03	0.00	11
	L10BU011	3210	LAND CLEARING EQUIPMENT, ROTARY CUTTER, 10.5' WIDE, 2 - 14" HEIGHT (ADD FARM 70 HP TRACTOR)			\$8,356	3.07	0.40	0.67	0.06	0.00	25
	L10BU012	3715	LAND CLEARING EQUIPMENT, ROTARY CUTTER, 15' WIDE, 2 - 14" HEIGHT (ADD FARM 80 HP TRACTOR)			\$17,129	5.23	0.82	1.37	0.13	0.00	50
	L10BU013	2720	LAND CLEARING EQUIPMENT, ROTARY CUTTER, 20' WIDE, 2 - 14" HEIGHT (ADD FARM 90 HP TRACTOR)			\$20,774	6.42	0.99	1.66	0.16	0.00	56
			<b>ROME PLOW CO.</b>									
	L10RM001	RV8N	LAND CLEARING EQUIPMENT, V-TREE CUTTER (ADD 275 - 325 HP TRACTOR DOZER)			\$55,053	10.78	2.62	4.40	0.42	0.00	134
	L10RM002	MA-152R-8S	LAND CLEARING EQUIPMENT, MULTI-APPLICATION RAKE, 12' 8" WIDE, 9 TEETH (ADD 275 - 325 HP TRACTOR DOZER)			\$49,421	9.32	2.36	3.95	0.38	0.00	150
			<b>VERMEER MANUFACTURING CO.</b>									
	L10VE010	SC 252	LAND CLEARING EQUIPMENT, STUMPER, 16" DIA WHEEL, TRAILER MTD	27 HP	G	\$13,946	8.84	0.66	1.10	0.11	5.48	11
	L10VE002	SC 352	LAND CLEARING EQUIPMENT, STUMPER, 18" DIA WHEEL, TRAILER MTD	35 HP	G	\$25,502	12.86	1.20	1.99	0.20	7.11	22

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>L10</b>	<b>VERMEER MANUFACTURING CO. (continued)</b>											
	L10VE009	SC 802	LAND CLEARING EQUIPMENT, STUMPER, 28" DIA WHEEL, TRAILER MTD	78 HP	D-off	\$39,977	16.33	1.89	3.15	0.31	7.89	40
	L10VE005	TS-30	LAND CLEARING EQUIPMENT, TREE SPADE, 30" DIA, 26" DEPTH, TRAILER MTD	13 HP	G	\$13,365	5.50	0.61	1.02	0.10	2.64	38
	L10VE006	TS-44A	LAND CLEARING EQUIPMENT, TREE SPADE, 44" DIA, 40" DEPTH, TRAILER MTD	20 HP	G	\$35,220	11.24	1.66	2.77	0.27	4.06	66
	L10VE007	TS-50	LAND CLEARING EQUIPMENT, TREE SPADE, 50" DIA, 48" DEPTH (ADD 13,800 GVW TRUCK)			\$30,114	7.18	1.44	2.41	0.23	0.00	81
<b>L15</b>	<b>LANDSCAPING EQUIPMENT</b>											
	<b>SUBCATEGORY 0.00</b>		<b>LANDSCAPING EQUIPMENT</b>									
	<b>BOWIE INDUSTRIES, INC.</b>											
	L15BW001	LANCER 500	LANDSCAPING EQUIPMENT, 500 GAL, HYDROMULCHER, TRAILER MTD	25 HP	G	\$20,782	16.02	2.33	4.30	0.18	6.77	25
	L15BW002	VICTOR 800	LANDSCAPING EQUIPMENT, 800 GAL, HYDROMULCHER, TRAILER MTD	35 HP	G	\$38,141	26.13	4.27	7.87	0.33	9.48	48
	L15BW003	VICTOR 1100	LANDSCAPING EQUIPMENT, 1,100 GAL, HYDROMULCHER, GOOSENECK TRAILER MTD	50 HP	G	\$43,810	32.94	4.91	9.07	0.37	13.54	60
	L15BW004	IMPERIAL 3000	LANDSCAPING EQUIPMENT, 3,000 GAL, HYDROMULCHER, TRUCK MTD (ADD 55,000 GVW TRUCK)	90 HP	D-off	\$63,847	39.64	7.34	13.57	0.55	11.94	88

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>FINN CORPORATION</b>												
L15FG001	T330		LANDSCAPING EQUIPMENT, 3,000 GAL, HYDROSEEDER, TRUCK MTD (ADD 56,000 GVW TRUCK)	115 HP	D-off 310 HP D-off	\$70,279	53.10	8.07	14.93	0.60	21.74	96
L15FG002	B260T		LANDSCAPING EQUIPMENT, MULCHER, STRAW BLOWER, 20 TONS PER HOUR, TRAILER MOUNTED	115 HP	D-off	\$47,305	36.34	5.36	9.91	0.40	15.25	48
<b>HUSQVARNA FOREST &amp; GARDEN CO.</b>												
L15HV001	DRT900		LANDSCAPING EQUIPMENT, ROTOTILLER, 17" WIDTH BY 6.5" DEPTH	5 HP	G	\$806	1.83	0.10	0.17	0.01	1.35	2
L15HV002	CRT1350LS		LANDSCAPING EQUIPMENT, ROTOTILLER, 21" WIDTH BY 7" DEPTH	10 HP	G	\$1,232	3.50	0.14	0.26	0.01	2.71	3
<b>HOFFCO-COMET</b>												
L15HZ001	PH980E		POST HOLE DRILL, UP TO 8" DIA, 30" DEEP, ONE MAN OPERATION	3 HP	G	\$886	1.26	0.11	0.19	0.01	0.81	1
<b>DEERE &amp; COMPANY</b>												
L15JD005	MX5		LANDSCAPING EQUIPMENT, ROTARY MOWER, 60" WIDE, MEDIUM DUTY, PTO DRIVE (ADD 45 - 100 HP AGRICULTURAL TRACTOR)			\$2,537	1.05	0.29	0.54	0.02	0.00	8
<b>TORO</b>												
L15TO001	22188 - PRO-LINE 21"		LANDSCAPING EQUIPMENT, LAWNMOWER, 21" DECK, REAR BAGGER, PUSH MOWER	6 HP	G	\$1,444	2.39	0.17	0.31	0.01	1.62	1
L15TO002	30092 MID-SIZE		LANDSCAPING EQUIPMENT, LAWNMOWER, 32" DECK, SIDE DISCHARGE, WALK BEHIND MOWER	15 HP	G	\$4,374	6.35	0.46	0.84	0.04	4.06	6

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>L15</i>	<i>TORO (continued)</i>										
	L15TO003	74448	LANDSCAPING EQUIPMENT, LAWNMOWER, 48" DECK, SIDE DISCHARGE, RIDING MOWER	21 HP	G	\$8,406	9.81	0.92	1.69	0.07	5.69	12
	L15TO004	74449	LANDSCAPING EQUIPMENT, LAWNMOWER, 52" DECK W/Z100 TRACTOR, SIDE DISCHARGE, RIDING MOWER	21 HP	G	\$8,969	10.04	1.00	1.83	0.08	5.69	13
	L15TO006	74253	LANDSCAPING EQUIPMENT, LAWNMOWER, 60" DECK W/Z500 TRACTOR, SIDE DISCHARGE, RIDING MOWER	29 HP	G	\$16,640	15.66	1.83	3.38	0.14	7.85	15
	L15TO007	74254	LANDSCAPING EQUIPMENT, LAWNMOWER, 72" DECK, W/Z500 TRACTOR, SIDE DISCHARGE, RIDING MOWER	29 HP	G	\$17,158	15.88	1.90	3.49	0.15	7.85	17
	L15TO009	POWER MAX 8260E	LANDSCAPING EQUIPMENT, SNOWBLOWER, 26" PATH, 45' THROW	8 HP	G	\$1,317	2.93	0.15	0.28	0.01	2.17	2
	L15TO010	POWER MAX 11280XE	LANDSCAPING EQUIPMENT, SNOWBLOWER, 28" PATH, 45' THROW	10 HP	G	\$2,025	3.83	0.24	0.43	0.02	2.71	3
	<b>WILLMAR EQUIPMENT COMPANY</b>											
	L15WI001	S-200	LANDSCAPING EQUIPMENT, SPREADER, 70 CF DRY CHEMICAL (ADD 55 HP FARM TRACTOR)			\$9,017	3.73	0.99	1.81	0.08	0.00	15
<b>L20</b>	<b>LIGHTING SETS, TRAILER MOUNTED</b>											
	<b>SUBCATEGORY 0.10</b>	<b>METALLIC VAPOR</b>										
	<b>ALLMAND BROTHERS INC.</b>											
	L20AB017	MAXI-LITE 7.5/8	LITE SET, TRAILER MTD., 4/1250W, W/7.5 KW GEN, ELECTRIC MAST WINCH	13 HP	D-off	\$14,712	6.75	0.84	1.44	0.12	1.92	21



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>L20</i>	<i>ALLMAND BROTHERS INC. (continued)</i>										
	L20AB018	MAXI-LITE 7.5/8 CSA	LITE SET, TRAILER MTD., 4/1,000W, W/8 KW GEN, ELECTRIC MAST WINCH	14 HP	D-off	\$16,402	7.42	0.94	1.61	0.13	2.05	21
	L20AB019	MAXI-LITE 7.5/8 CSA	LITE SET, TRAILER MTD., 6/1,000W, W/8 KW GEN, ELECTRIC MAST WINCH	14 HP	D-off	\$19,252	8.31	1.10	1.89	0.15	2.05	21
	L20AB020	NIGHT-LITE PRO	LITE SET, TRAILER MTD., 4/1,000W, W/6 KW GEN, MANUAL MAST WINCH	12 HP	D-off	\$12,395	5.71	0.70	1.20	0.10	1.65	20
	L20AB021	NIGHT-LITE PRO CSA	LITE SET, TRAILER MTD., 4/1,000W, W/8 KW GEN, MANUAL MAST WINCH	14 HP	D-off	\$13,105	6.37	0.74	1.28	0.10	2.05	20
	L20AB022	NIGHT-LITE PRO V	LITE SET, TRAILER MTD., 4/1,000W, W/7.5 KW GEN, ELECTRIC MAST WINCH	13 HP	D-off	\$14,795	6.76	0.84	1.44	0.12	1.92	21
	L20AB023	ECLIPSE 2220/SE ALT	LITE SET, TRAILER MTD., 15 LED LAMP, FLASHING ARROW, W/TWO 8D BATTERIES AND 50W SOLAR ARRAY			\$6,060	1.90	0.34	0.58	0.05	0.00	12
	L20AB024	ECLIPSE 2220/SE APF	LITE SET, TRAILER MTD., 25 LED LAMP, FLASHING ARROW, W/TWO 8D BATTERIES AND 50W SOLAR ARRAY			\$6,496	2.04	0.37	0.63	0.05	0.00	12
<b>L25</b>	<b>LINE STRIPING EQUIPMENT</b>											
	<b>SUBCATEGORY 0.00</b>	<b>LINE STRIPING EQUIPMENT</b>										
	<b>JCL EQUIPMENT CO.</b>											
	L25JE002	ROAD RUNNER	LINE STRIPING EQUIPMENT, STRIPER, INTERMEDIATE, 3 GUNS, TRUCK MOUNTED (17,590 LB GVW), TWO COLORS	190 HP	D-off	\$154,836	72.39	8.86	15.28	1.22	27.19	116
	L25JE003	HRL-1	LINE STRIPING EQUIPMENT, STRIPER, INTERMEDIATE, 1 GUNS SELF PROPELLED, SINGLE COLOR	6 HP	G	\$3,709	2.76	0.22	0.37	0.03	1.59	9

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>M-B COMPANIES, INC.</b>											
	L25MB002	5-10	LINE STRIPING EQUIPMENT, STRIPER, 1 GUN, WALK-BEHIND, SINGLE COLOR	5	HP G	\$6,734	4.49	0.31	0.51	0.05	1.45	6
	L25MB005	5-12A	LINE STRIPING EQUIPMENT, STRIPER, 2 GUNS, WALK BEHIND, SINGLE COLOR	10	HP G	\$12,313	7.62	0.64	1.07	0.10	2.90	6
	L25MB007	220	LINE STRIPING EQUIPMENT, STRIPER, INTERMEDIATE, 3-4 GUNS, SELF PROPELLED, THREE COLORS	23	HP G	\$57,337	24.02	3.32	5.73	0.45	6.66	30
	L25MB006	245	LINE STRIPING EQUIPMENT, STRIPER, INTERMEDIATE, 3 GUNS, SELF PROPELLED, TWO COLORS	60	HP G	\$102,192	48.36	5.92	10.22	0.81	17.37	48
	L25MB004	VANMARK 360	LINE STRIPING EQUIPMENT, STRIPER, INTERMEDIATE, 3-4 GUNS, W/11,000 LBS GVW TRUCK, TWO COLORS	190	HP G	\$167,771	108.13	9.61	16.57	1.32	55.01	133
	L25MB008	360	LINE STRIPING EQUIPMENT, STRIPER, INTERMEDIATE, 3-4 GUNS, THERMAL 120 GAL, TRUCK MTD, TWO COLORS	190	HP D-off	\$183,888	81.97	10.34	17.77	1.45	27.19	80
<b>L30</b>	<b>LOADERS, BELT (Conveyor belts) &amp; ACCESSORIES</b>											
	<b>SUBCATEGORY 0.00</b>	<b>LOADERS, BELT (Conveyor belts) &amp; ACCESSORIES</b>										
	<b>HEWITT-ROBINS</b>											
	L30HW015	V-11 6X16FT, TD	LOADER, CONVEYOR BELT & ACCESSORIES, SCREENING PLANT, W/6' X 16' VIBRATORY SLOPE TRIPLE DECK SCREENS/36"X 16.5' UNDER SCREEN CONVEYOR/ 7 CY HOPPER/ & FEEDER	25	HP E	\$155,447	33.42	7.18	11.96	1.20	1.54	138

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>KOLBERG - PIONEER, INC</b>												
	L30KB001	11-2450	LOADER, CONVEYOR BELT & ACCESSORIES, COVEYOR 50', MOBILE, CONCRETE & AGGREGATE, 24" WIDE	15	HP E	\$36,750	8.76	1.67	2.78	0.28	0.93	57
	L30KB002	11-2460	LOADER, CONVEYOR BELT & ACCESSORIES, CONVEYOR, 60', MOBILE, CONCRETE & AGGREGATE, 24" WIDE	15	HP E	\$38,695	9.15	1.77	2.94	0.30	0.93	62
<b>METSO MINERALS</b>												
	L30RA001	CV50D	LOADER, CONVEYOR BELT & ACCESSORIES, GRIZZLY SINGLE SCREEN, 40 CY/HR TRAILER MTD	25	HP D-off	\$79,353	18.85	3.70	6.18	0.61	2.70	130
<b>SUPERIOR INDUSTRIES, AN ASTEC COMPANY</b>												
	L30S4001	36"X35' FEED CONVEY	LOADER, CONVEYOR BELT & ACCESSORIES, BELT FEEDER	15	HP E	\$24,903	6.31	1.19	1.99	0.19	0.93	33
	L30S4002	RUN-ON HYDRAULIC LEG	LOADER, CONVEYOR BELT & ACCESSORIES, 4 HYDRAULIC JACK LEGS			\$21,403	4.24	1.03	1.71	0.17	0.00	28
	L30S4005	HOPPER SKIRTING	HOPPER SKIRTING DITCH AND CENTER LINE SIDES			\$1,766	0.34	0.08	0.14	0.01	0.00	9
	L30S4006	FRAME SKIRTING	FRAME SKIRTING DITCH AND CENTER LINE SIDES			\$2,010	0.40	0.10	0.16	0.02	0.00	9
<b>TELSMITH INC.</b>												
	L30TS001	PTC 24IN X 50FT	LOADER, CONVEYOR BELT & ACCESSORIES, CONVEYOR, TRUSS FRAME, 24"W X 50'L, WHEEL MTD, 300 TPH	12	HP E	\$41,837	9.65	1.83	3.02	0.32	0.74	10

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>L35</b>	<b>LOADERS, FRONT END, CRAWLER TYPE</b>											
	<b>SUBCATEGORY 0.00 LOADERS, FRONT END, CRAWLER TYPE</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	L35CA013	939-C	LOADER, FRONT END, CRAWLER, 1.50 CY BUCKET	90 HP	D-off	\$133,387	39.94	6.37	10.67	1.03	10.68	209
	L35CA005	953-D	LOADER, FRONT END, CRAWLER, 2.25 CY BUCKET	148 HP	D-off	\$220,060	65.83	10.50	17.60	1.70	17.56	334
	L35CA014	963-D	LOADER, FRONT END, CRAWLER, 3.20 CY BUCKET	160 HP	D-off	\$301,021	84.50	14.36	24.08	2.32	18.99	433
	L35CA007	973-C	LOADER, FRONT END, CRAWLER, 3.70 CY BUCKET	242 HP	D-off	\$418,185	119.96	19.96	33.45	3.23	28.72	581
	<b>Komatsu America International Company</b>											
	L35KM006	D75S-5	LOADER, FRONT END, CRAWLER, 3.30 CY BUCKET	200 HP	D-off	\$489,952	129.61	23.38	39.20	3.78	23.73	485
<b>L40</b>	<b>LOADERS, FRONT END, WHEEL TYPE</b>											
	<b>SUBCATEGORY 0.11 ARTICULATED, 0 THRU 225 HP</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	L40CA032	904B	LOADER, FRONT END, WHEEL, 0.80 CY BUCKET, ARTICULATED, 4X4	52 HP	D-off	\$50,084	15.47	2.28	3.76	0.40	5.63	98
	L40CA033	906	LOADER, FRONT END, WHEEL, 1.00 CY BUCKET, ARTICULATED, 4X4	68 HP	D-off	\$65,918	20.15	3.05	5.04	0.53	7.36	109
	L40CA034	908	LOADER, FRONT END, WHEEL, 1.30 CY BUCKET, ARTICULATED, 4X4	76 HP	D-off	\$77,083	27.45	3.26	5.27	0.62	8.22	133

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>L40</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	L40CA019	914G	LOADER, FRONT END, WHEEL, 1.70 CY BUCKET, ARTICULATED, 4X4	95 HP	D-off	\$108,115	31.61	5.06	8.38	0.87	10.28	175
	L40CA022	924Hz	LOADER, FRONT END, WHEEL, 2.20 CY BUCKET, ARTICULATED, 4X4	128 HP	D-off	\$150,264	42.93	7.11	11.80	1.21	13.85	242
	L40CA015	928Hz	LOADER, FRONT END, WHEEL, 2.60 CY BUCKET, ARTICULATED, 4X4	149 HP	D-off	\$148,709	45.18	7.03	11.67	1.19	16.12	276
	L40CA023	938H	LOADER, FRONT END, WHEEL, 3.65 CY BUCKET, ARTICULATED, 4X4	180 HP	D-off	\$183,535	55.70	8.61	14.28	1.47	19.47	332
	L40CA024	950H	LOADER, FRONT END, WHEEL, 3.50 CY BUCKET, ARTICULATED, 4X4	197 HP	D-off	\$231,904	70.32	10.38	17.03	1.86	21.31	404
	L40CA025	962H	LOADER, FRONT END, WHEEL, 4.00 CY BUCKET, ARTICULATED, 4X4	211 HP	D-off	\$246,223	74.49	11.07	18.19	1.97	22.83	427
			<b>CASE CORPORATION</b>									
	L40CS009	621D	LOADER, FRONT END, WHEEL, 2.5 CY BUCKET, ARTICULATED, 4X4	136 HP	D-off	\$168,096	48.34	7.78	12.86	1.35	14.71	261
	L40CS010	721D	LOADER, FRONT END, WHEEL, 3.0 CY BUCKET, ARTICULATED, 4X4	181 HP	D-off	\$200,757	59.43	9.36	15.50	1.61	19.58	306
	L40CS011	821C	LOADER, FRONT END, WHEEL, 3.5 CY BUCKET, ARTICULATED, 4X4	187 HP	D-off	\$253,570	72.88	11.42	18.78	2.03	20.23	379
			<b>Komatsu America International Company</b>									
	L40KM015	WA95-3	LOADER, FRONT END, WHEEL, 1.40 CY BUCKET, ARTICULATED, 4X4	75 HP	D-off	\$94,443	26.18	4.37	7.21	0.76	8.11	128
	L40KM003	WA250-6	LOADER, FRONT END, WHEEL, 3.00 CY BUCKET, ARTICULATED, 4X4	139 HP	D-off	\$153,171	52.75	6.11	9.75	1.23	15.04	241

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.12 ARTICULATED, OVER 225 HP</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	L40CA007	980H	LOADER, FRONT END, WHEEL, 6.00 CY BUCKET, ARTICULATED, 4X4	349 HP	D-off	\$513,328	120.44	17.78	27.82	3.87	37.76	673
	L40CA018	990 H	LOADER, FRONT END, WHEEL, 11.00 CY BUCKET, ARTICULATED, 4X4	627 HP	D-off	\$1,406,043	259.48	48.29	75.37	10.60	67.84	1,716
	L40CA009	992-K	LOADER, FRONT END, WHEEL, 16.00 CY BUCKET, ARTICULATED, 4X4	800 HP	D-off	\$1,940,889	347.32	67.86	106.46	14.63	86.55	2,150
	L40CA035	988H	LOADER, FRONT END, WHEEL, 9.00 CY BUCKET, ARTICULATED, 4X4	501 HP	D-off	\$813,929	176.32	27.73	43.18	6.14	54.20	1,092
	<b>Komatsu America International Company</b>											
	L40KM008	WA500-6	LOADER, FRONT END, WHEEL, 6.50 CY BUCKET, ARTICULATED, 4X4	335 HP	D-off	\$368,811	100.75	12.41	19.26	2.78	36.24	671
	L40KM009	WA600-6	LOADER, FRONT END, WHEEL, 8.00 CY BUCKET, ARTICULATED, 4X4	490 HP	D-off	\$682,667	148.60	23.10	35.90	5.15	53.01	1,019
	L40KM010	WA700-3A	LOADER, FRONT END, WHEEL, 11.10 CY BUCKET, ARTICULATED, 4X4	684 HP	D-off	\$929,937	206.65	30.59	47.16	7.01	74.00	1,574
	L40KM011	WA800-3	LOADER, FRONT END, WHEEL, 13.10 CY BUCKET, ARTICULATED, 4X4	853 HP	D-off	\$1,537,807	303.17	52.88	82.58	11.59	92.29	2,230
	<b>SUBCATEGORY 0.20 SKID STEER</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	L40CA028	216B	LOADER, FRONT END, WHEEL, SKID-STEER, 13.0 CF, 60" BUCKET, 4X4	49 HP	D-off	\$33,353	14.45	1.84	3.16	0.26	5.81	54
	L40CA029	226B	LOADER, FRONT END, WHEEL, SKID-STEER, 13.0 CF, 60" BUCKET, 4X4	54 HP	D-off	\$36,973	15.92	2.05	3.52	0.29	6.41	58

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
L40	<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>											
	L40CA030	236B	LOADER, FRONT END, WHEEL, SKID-STEER, 14.0 CF, 66" BUCKET, 4X4	59 HP	D-off	\$41,901	17.81	2.31	3.96	0.33	7.00	71
	L40CA031	246C	LOADER, FRONT END, WHEEL, SKID-STEER, 15.4 CF, 72" BUCKET, 4X4	74 HP	D-off	\$40,723	19.54	2.25	3.85	0.32	8.78	74
	<b>MELROE COMPANY/BOBCAT</b>											
	L40ME016	S70	LOADER, FRONT END, WHEEL, SKID-STEER, 6.5 CF, 44" BUCKET, 4X4	24 HP	D-off	\$17,983	7.30	1.01	1.74	0.14	2.79	28
	L40ME017	S100	LOADER, FRONT END, WHEEL, SKID-STEER, 6.7 CF, 48" BUCKET, 4X4	36 HP	D-off	\$22,332	10.10	1.23	2.09	0.18	4.21	41
	L40ME012	S175	LOADER, FRONT END, WHEEL, SKID-STEER, 14.3 CF, 60" BUCKET	46 HP	D-off	\$29,114	12.91	1.63	2.79	0.23	5.46	62
	L40ME021	S130	LOADER, FRONT END, WHEEL, SKID-STEER, 13.0 CF, 54" BUCKET, 4X4	49 HP	D-off	\$25,512	13.36	1.30	2.19	0.20	5.81	52
	L40ME022	S220	LOADER, FRONT END, WHEEL, SKID-STEER, 16.3 CF, 66" BUCKET, 4X4	75 HP	D-off	\$37,382	19.41	1.98	3.38	0.29	8.90	75
	L40ME023	S300	LOADER, FRONT END, WHEEL, SKID-STEER, 23.3 CF, 78" BUCKET, 4X4	81 HP	D-off	\$41,508	21.12	2.23	3.79	0.33	9.61	83
<b>SUBCATEGORY 0.31 TOOL CARRIER &amp; TELESCOPIC HANDLERS, 0 THRU 225 HP</b>												
<b>CATERPILLAR INC. (MACHINE DIVISION)</b>												
L40CA013	IT14G	LOADER, WHEEL, INTEGRATED TOOL CARRIER, 1.75 CY LOADER; 6,303 LB @ 12.17' HIGH, FORK LIFT, OR 1,841 LB @ 22.42' HIGH, MATERIAL HANDLING ARM	90 HP	D-off	\$126,724	34.80	5.59	9.15	1.01	9.74	180	

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>L40</b>	<b>CATERPILLAR INC. (MACHINE DIVISION) (continued)</b>											
	L40CA012	IT38H	LOADER, WHEEL, INTEGRATED TOOL CARRIER, 2.50 CY LOADER; 10,640 LB @ 12.58' HIGH FORK LIFT, OR 3,195 LB @ 23.25' HIGH, MATERIAL HANDLING ARM	145 HP	D-off	\$202,317	54.91	9.02	14.82	1.61	15.69	279
	L40CA014	IT62G II	LOADER, WHEEL, INTEGRATED TOOL CARRIER, 4.25 CY LOADER; 13,670 LB @ 12.42' HIGH, FORK LIFT, OR 5,040 LB @ 22.67' HIGH, MATERIAL HANDLING ARM	200 HP	D-off	\$282,078	75.90	12.63	20.76	2.25	21.64	454
<b>L50</b>	<b>LOADERS / BACKHOE, WHEEL TYPE</b>											
	<b>SUBCATEGORY 0.00 LOADERS / BACKHOE, WHEEL TYPE</b>											
	<b>CATERPILLAR INC. (MACHINE DIVISION)</b>											
	L50CA001	416F	LOADER / BACKHOE, WHEEL, 1.00 CY FRONT END BUCKET, 24" DIP, 6.2 CF, 14.5' DIGGING DEPTH, 4X2	87 HP	D-off	\$75,470	23.97	3.31	5.41	0.60	7.29	162
	L50CA005	450E	LOADER / BACKHOE, WHEEL, 1.50 CY FRONT END BUCKET, 36" DIP, 19 CF, 17.1' DIGGING DEPTH, 4X2	101 HP	D-off	\$144,896	37.30	6.59	10.87	1.15	8.46	203
	<b>CASE CORPORATION</b>											
	L50CS005	580 SUPER M SERIES 2	LOADER / BACKHOE, WHEEL, 1.00 CY FRONT END BUCKET, 24" DIP, 6.2 CF, 14.25' DIGGING DEPTH, 4X4	90 HP	D-off	\$100,956	28.87	4.42	7.23	0.80	7.54	143
	L50CS006	590 SUPER M SERIES 2	LOADER / BACKHOE, WHEEL, 1.30 CY FRONT END BUCKET, 24" DIP, 6.4 CF, 18' DIGGING DEPTH, 4X4, EXTENDAHOE	98 HP	D-off	\$121,484	33.60	5.28	8.61	0.97	8.21	153



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
			<b>JCB INC.</b>									
	L50JC008	3CX14	LOADER / BACKHOE, WHEEL, 1.1 CY FRONT END BUCKET, 24" DIP, 7.1 CF, 14.6' DIGGING DEPTH, 4X4	74 HP	D-off	\$84,844	24.20	3.66	5.95	0.68	6.20	154
	L50JC009	3CX14 Super	LOADER / BACKHOE, WHEEL, 1.4 CY FRONT END BUCKET, 24" DIP, 7.1 CF, 14.6' DIGGING DEPTH, 4X4	91 HP	D-off	\$110,870	30.76	4.84	7.91	0.88	7.62	159
	L50JC010	3CX15 Super	LOADER / BACKHOE, WHEEL, 1.40 CY FRONT END BUCKET, 24" DIP, 7.1 CF, 16.3' DIGGING DEPTH, 4X4	109 HP	D-off	\$121,378	34.89	5.33	8.72	0.97	9.13	175
	L50JC011	4CX15 Super	LOADER / BACKHOE, WHEEL, 1.40 CY FRONT END BUCKET, 24" DIP, 7.1 CF, 20.1' DIGGING DEPTH, 4X4	109 HP	D-off	\$134,145	37.10	5.91	9.68	1.07	9.13	187
	L50JC012	4CX17 Super	LOADER / BACKHOE, WHEEL, 1.60 CY FRONT END BUCKET, 24" DIP, 7.1 CF, 21.5' DIGGING DEPTH, 4X4	109 HP	D-off	\$166,318	42.64	7.37	12.09	1.32	9.13	189
<b>L55</b>	<b>LOADER / BACKHOE, ATTACHMENTS</b>											
	<b>SUBCATEGORY 0.00 LOADER / BACKHOE, ATTACHMENTS</b>											
			<b>KENT DEMOLITION TOOLS</b>									
	L55KN001	KB-555	LOADER / BACKHOE, ATTACHMENT, AIR RAM, 500 FT-LB, W/2.5" DIA. POINT (ADD 175 CFM COMPRESSOR & LDR/BH)	175 CFM	A	\$7,551	2.98	0.57	1.01	0.06	0.00	6
	L55KN002	KB-999	LOADER / BACKHOE, ATTACHMENT, AIR RAM, 1000 FT-LB, W/ 3.5" DIA. POINT (ADD 250 CFM COMPRESSOR & LDR/BH)	250 CFM	A	\$15,480	6.10	1.16	2.06	0.13	0.00	10
	L55KN004	KF6TLB	LOADER / BACKHOE, ATTACHMENT, HYDRA RAM, 1000 FT-LB, W/3" DIA. POINT (ADD 12,000-14,000 LB LDR/BH)			\$14,358	4.67	1.08	1.91	0.12	0.00	7

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>L55</i>			<i>KENT DEMOLITION TOOLS (continued)</i>								
	L55KN005	KF9TLB	LOADER / BACKHOE, ATTACHMENT, HYDRA RAM, 1500 FT-LB, W/3.5" DIA. POINT (ADD 14,000-20,000 LB LDR/BH)			\$21,186	6.89	1.58	2.82	0.17	0.00	11
	L55KN006	KF12TLB	LOADER / BACKHOE, ATTACHMENT, HYDRA RAM, 2000 FT-LB, W/4.25" DIA. POINT (ADD 20,000-30,000 LB LDR/BH)			\$31,544	10.27	2.37	4.21	0.26	0.00	19
<b>L60</b>	<b>LOG SKIDDERS</b>											
	<b>SUBCATEGORY 0.00 LOG SKIDDERS</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	L60CA013	525 C	LOG SKIDDER, 11 SF GRAPPLE, CABLE 43,000 LBS LINE-PULL AND WINCH, WHEEL, 4X2	160 HP	D-off	\$347,806	79.19	16.94	28.67	2.60	17.31	358
	L60CA010	527 CABLE	LOG SKIDDER, CABLE, 69,200 LBS LINE-PULL AND WINCH, BLADE, CRAWLER	150 HP	D-off	\$379,282	82.13	18.95	32.24	2.83	16.23	407
	L60CA011	527 GRAPPLE	LOG SKIDDER, 10 SF GRAPPLE, CABLE 69,200 LBS LINE-PULL AND WINCH, CRAWLER	150 HP	D-off	\$414,290	88.03	20.70	35.21	3.09	16.23	473
	<b>DEERE &amp; COMPANY</b>											
	L60JD001	540G III	LOG SKIDDER, CABLE, 40,525 LBS LINE-PULL WINCH AND BLADE, WHEEL, 4X4	119 HP	D-off	\$167,227	44.41	7.89	13.27	1.25	12.87	219
	L60JD003	548G III - GRAPPLE	LOG SKIDDER, 8.0 SF GRAPPLE WITH BLADE, WHEEL, 4X4	119 HP	D-off	\$166,654	44.32	7.86	13.23	1.24	12.87	217
	L60JD004	648H	LOG SKIDDER, 10.4 SF GRAPPLE WITH BLADE, WHEEL, 4X4	160 HP	D-off	\$243,924	64.10	11.25	18.86	1.82	17.31	266

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>L60</i>	<i>DEERE &amp; COMPANY (continued)</i>										
	L60JD002	640H	LOG SKIDDER, CABLE, 48,867 LBS LINE-PULL WINCH AND BLADE, WHEEL, 4X4	151 HP	D-off	\$219,353	57.10	10.50	17.71	1.64	16.34	239
	L60JD006	643K	LOG SKIDDER, LOG FELLER/BUNCHER, 18" DIA TREE SAW CUTTER, WHEEL, 4X4	170 HP	D-off	\$210,703	58.63	9.87	16.60	1.57	18.39	320
	L60JD008	753J	LOG SKIDDER, LOG FELLER/BUNCHER, 28" DIA TREE SAW CUTTER, CRAWLER	170 HP	D-off	\$408,266	89.44	20.40	34.70	3.05	18.39	410
	L60JD007	843K	LOG SKIDDER, LOG FELLER/BUNCHER, 20" DIA TREE SAW CUTTER, WHEEL, 4X4	200 HP	D-off	\$224,934	64.67	10.59	17.81	1.68	21.64	323
<b>M10</b>	<b>MARINE EQUIPMENT (NON DREDGING)</b>											
	<b>SUBCATEGORY 0.41</b>		<b>WORK FLOATS (NON-DREDGING)</b>									
	<b>MARINE INLAND FABRICATORS</b>											
	M10MZ001	BARGE 40'x8'x4'	MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MEDIUM DUTY, 40' X 8' X 4', 23 TON			\$23,568	5.82	1.95	3.54	0.18	0.00	143
	M10MZ003	BARGE 40'x10'x4'	MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MEDIUM DUTY, 40' X 10' X 4', 30 TON			\$27,561	6.80	2.28	4.13	0.21	0.00	173
	<b>SUBCATEGORY 0.42</b>		<b>WORK BARGES (SECTIONAL, NON-DREDGING)</b>									
	<b>MARINE INLAND FABRICATORS</b>											
	M10MZ005	BARGE 40'x12'x4'	MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MEDIUM DUTY, 40' X 12' X 4', 36 TON			\$31,449	1.82	0.68	0.94	0.21	0.00	193

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>M10</i>			<i>MARINE INLAND FABRICATORS (continued)</i>									
	M10MZ007	BARGE 40'x12'x5'	MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MEDIUM DUTY, 40' X 12' X 5', 51 TON			\$34,643	2.01	0.75	1.04	0.23	0.00	217
			<b>NO SPECIFIC MANUFACTURER</b>									
	M10XX001		MARINE EQUIPMENT, WORK BARGE, SECTIONAL, BOW AND STERN SECTIONS			\$7,144	0.41	0.16	0.21	0.05	0.00	1
	M10XX002		MARINE EQUIPMENT, WORK BARGE, SECTIONAL, LOADING RAMPS			\$22,224	1.30	0.49	0.67	0.15	0.00	1
	M10XX003		MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MID-SECTION, 20' X 10' X 5'			\$26,842	1.56	0.59	0.81	0.18	0.00	1
	M10XX004		MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MID-SECTION, 40' X 10' X 5'			\$43,499	2.52	0.94	1.30	0.29	0.00	1
	<b>SUBCATEGORY 0.45</b>		<b>FLAT-DECK OR CARGO BARGE (NON-DREDGING)</b>									
			<b>NO SPECIFIC MANUFACTURER</b>									
	M10XX005		MARINE EQUIPMENT, FLAT-DECK CARGO BARGE, 120' X 30' X 7.25', 400 TON			\$187,656	4.49	2.16	1.98	1.17	0.00	1
	M10XX006		MARINE EQUIPMENT, FLAT-DECK CARGO BARGE, 120' X 45' X 7', 800 TON			\$264,144	6.32	3.05	2.79	1.65	0.00	1
	M10XX007		MARINE EQUIPMENT, FLAT-DECK CARGO BARGE, 140' X 45' X 7', 900 TON			\$335,995	8.05	3.88	3.55	2.10	0.00	1
	M10XX008		MARINE EQUIPMENT, FLAT-DECK CARGO BARGE, 150' X 45' X 9', 1,100 TON			\$466,306	11.16	5.37	4.92	2.91	0.00	1

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.48 ALL OTHER BARGES (NON-DREDGING)</b>											
	<b>NO SPECIFIC MANUFACTURER</b>											
	M10XX016	OPEN 195	MARINE EQUIPMENT, ALL OTHER BARGES, HOPPER, 195' X 35' X 12', 1,400 TON			\$280,405	17.68	6.24	8.88	1.80	0.00	1
	M10XX017	OPEN 200	MARINE EQUIPMENT, ALL OTHER BARGES, HOPPER, 200' X 35' X 12', 1,600 TON			\$296,472	18.69	6.60	9.39	1.90	0.00	1
	M10XX018	CLOSED 195	MARINE EQUIPMENT, ALL OTHER BARGES, HOPPER, 195' X 35' X 12', 1,400 TON (COVERED)			\$369,262	23.28	8.22	11.69	2.37	0.00	1
	M10XX019	CLOSED 200	MARINE EQUIPMENT, ALL OTHER BARGES, HOPPER, 200' X 35' X 12', 1,600 TON (COVERED)			\$377,315	23.79	8.40	11.95	2.42	0.00	1
	<b>SUBCATEGORY 0.51 BOATS &amp; LAUNCHES, 0 THRU 250 HP</b>											
	<b>MARINE INLAND FABRICATORS</b>											
	M10MZ010	COLT	MARINE EQUIPMENT, BOATS & LAUNCHES, TRUCKABLE WORKBOAT W/PILOT HOUSE & PUSH KNEES, INBOARD, 20.25' X 8' X 3'	140 HP	D-off	\$68,165	24.94	2.30	3.62	0.49	15.15	95
	M10MZ011	MUSTANG	MARINE EQUIPMENT, BOATS & LAUNCHES, TRUCKABLE WORKBOAT W/PILOT HOUSE & PUSH KNEES, INBOARD, 25.25' X 10' X 3.5'	210 HP	D-off	\$87,796	35.86	2.96	4.66	0.63	22.72	190
	<b>SEAARK MARINE</b>											
	M10SM005	18' - 72 SERIES	MARINE EQUIPMENT, BOATS & LAUNCHES, 18' RIVER RUNNER, VEE HULL, NO CABIN, CAP 1,350 LBS, OUTBOARD, 18' X 7.9' X 0.5'	115 HP	G	\$38,005	33.11	1.28	2.02	0.27	25.51	15

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>M10</i>	<i>SEAARK MARINE (continued)</i>											
	M10SM008	19' - UTILITY SERIES	MARINE EQUIPMENT, BOATS & LAUNCHES, 19' ROUSTABOUT, TRI HULL, NO CABIN, CAP 2,600 LBS, OUTBOARD, 19.4' X 8.5' X 0.8'	200 HP	G	\$66,650	57.65	2.25	3.54	0.48	44.37	17
	M10SM001	17' - UTILITY SERIES	MARINE EQUIPMENT, BOATS & LAUNCHES, 17' LITTLE GIANT, W/CABIN TRI-HULL, CAP 2,000 LBS, OUTBOARD, 17.5' X 7.25' X 0.7'	150 HP	G	\$84,346	46.92	2.85	4.48	0.61	33.28	18
	M10SM003	21' - UTILITY SERIES	MARINE EQUIPMENT, BOATS & LAUNCHES, 21' LITTLE GIANT, W/CABIN TRI-HULL, CAP 2,800 LBS, OUTBOARD, 21.4' X 8.5' X 1'	200 HP	G	\$98,251	61.04	3.32	5.22	0.71	44.37	24
	M10SM004	23' - UTILITY SERIES	MARINE EQUIPMENT, BOATS & LAUNCHES, 23' LITTLE GIANT, W/CABIN TRI-HULL, CAP 3,400 LBS, OUTBOARD, 23.4' X 8.5' X 1.2'	250 HP	G	\$103,265	74.19	3.49	5.49	0.74	55.46	28
	<b>NO SPECIFIC MANUFACTURER</b>											
	M10XX010	12	MARINE EQUIPMENT, BOATS & LAUNCHES, 12' TENDER, 7' BEAM, INBOARD ENGINE	75 HP	D-off	\$56,149	15.45	1.89	2.98	0.40	8.11	1
	M10XX009	13	MARINE EQUIPMENT, BOATS & LAUNCHES, 13' RUNABOUT, 5' BEAM, OUTBOARD ENGINE	50 HP	G	\$16,713	14.41	0.57	0.89	0.12	11.09	13
	M10XX011	14	MARINE EQUIPMENT, BOATS & LAUNCHES, 14' TENDER, 7' BEAM, INBOARD ENGINE	100 HP	D-off	\$64,430	19.50	2.17	3.42	0.46	10.82	13
	M10XX012	100	MARINE EQUIPMENT, BOATS & LAUNCHES, 16', SHALLOW DRAFT, INLAND TUG	100 HP	D-off	\$65,638	19.63	2.22	3.49	0.47	10.82	13
	M10XX013	115	MARINE EQUIPMENT, BOATS & LAUNCHES, 22', SHALLOW DRAFT, INLAND TUG	115 HP	D-off	\$84,991	23.60	2.87	4.52	0.61	12.44	23

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
M10	<i>NO SPECIFIC MANUFACTURER (continued)</i>											
	M10XX014	175	MARINE EQUIPMENT, BOATS & LAUNCHES, 18', W/STEERING NOZZLE, INLAND TUG	175 HP	D-off	\$116,669	34.54	3.94	6.20	0.84	18.93	60
	M10XX015	250	MARINE EQUIPMENT, BOATS & LAUNCHES, 26', W/STEERING NOZZLE, INLAND TUG	250 HP	D-off	\$146,293	47.17	4.94	7.77	1.05	27.05	83
	<b>SUBCATEGORY 0.53 BOATS &amp; LAUNCHES, 251 THRU 500 HP</b>											
	<b>NO SPECIFIC MANUFACTURER</b>											
	M10XX021	380	MARINE EQUIPMENT, BOATS & LAUNCHES, 40', STANDARD RUDDER, INLAND TUG	380 HP	D-off	\$388,963	88.49	12.40	19.45	2.67	41.11	100
	M10XX022	435	MARINE EQUIPMENT, BOATS & LAUNCHES, 45' LENGTH, 16' BEAM, 5' 0" DRAFT, PUSH BOAT	435 HP	D-off	\$442,720	101.03	14.11	22.14	3.04	47.06	100
	M10XX023	400	MARINE EQUIPMENT, BOATS & LAUNCHES, 48' LENGTH, 20' BEAM, 6' 6" DRAFT PUSH BOAT	400 HP	D-off	\$593,252	112.35	18.91	29.66	4.08	43.28	100
	M10XX024	435	MARINE EQUIPMENT, BOATS & LAUNCHES, 58' LENGTH, 21' BEAM, 6' 0" DRAFT, PUSH BOAT	435 HP	D-off	\$846,045	143.14	26.96	42.30	5.81	47.06	130

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>P10</b>	<b>PILE HAMMER ACCESSORIES - EXTRACTORS &amp; BOX LEADS</b>											
	<b>SUBCATEGORY 0.00 PILE HAMMER ACCESSORIES - EXTRACTORS &amp; BOX LEADS</b>											
	<b>INTERNATIONAL CONSTRUCTION EQUIPMENT,INC</b>											
	P10IC001	216	PILE HAMMER ACCESSORIES, PILE EXTRACTOR, 30 TON LINE PULL (ADD LEADS & CRANE)	175 HP	D-off	\$119,496	53.15	7.54	12.95	1.06	18.93	130
	P10IC002	416L	PILE HAMMER ACCESSORIES, PILE EXTRACTOR, 40 TON LINE PULL (ADD LEADS & CRANE)	300 HP	D-off	\$188,089	86.67	11.85	20.38	1.66	32.46	207
	P10IC005	1412B	PILE HAMMER ACCESSORIES, PILE EXTRACTOR, 150 TON LINE PULL (ADD LEADS & CRANE)	800 HP	D-off	\$505,342	232.11	31.85	54.75	4.47	86.55	593
	P10IC010		PILE HAMMER ACCESSORIES, PILE LEADS, SWING, 26" X 86'			\$16,995	4.49	1.07	1.84	0.15	0.00	101
	P10IC012		PILE HAMMER ACCESSORIES, PILE LEADS, SWING, 32" X 88'			\$23,876	6.31	1.51	2.59	0.21	0.00	155
	P10IC011		PILE HAMMER ACCESSORIES, PILE LEADS, FIXED, 26" X 86', W/SPOTTER	13 HP	D-off	\$34,011	10.60	2.14	3.68	0.30	1.41	134
	P10IC013		PILE HAMMER ACCESSORIES, PILE LEADS, FIXED, 32" X 88', W/SPOTTER	13 HP	G	\$41,981	14.38	2.65	4.55	0.37	2.88	193
<b>P20</b>	<b>PILE HAMMERS, DOUBLE ACTING</b>											
	<b>SUBCATEGORY 0.10 DIESEL</b>											
	<b>INTERNATIONAL CONSTRUCTION EQUIPMENT,INC</b>											
	P20IC002	422	PILE HAMMER, DOUBLE ACTING, DIESEL, 22,500 FT-LBS, MAX STROKE 5' 8" (ADD LEADS & CRANE)			\$108,448	38.31	7.69	13.56	0.91	0.00	122



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>P20</i>			<i>INTERNATIONAL CONSTRUCTION EQUIPMENT, INC (continued)</i>									
	P20IC003	520	PILE HAMMER, DOUBLE ACTING, DIESEL, 30,000 FT-LBS, MAX STROKE 5' 11" (ADD LEADS & CRANE)			\$109,975	39.42	7.80	13.75	0.92	0.00	156
	P20IC004	640	PILE HAMMER, DOUBLE ACTING, DIESEL, 40,000 FT-LBS, MAX STROKE 6' 8" (ADD LEADS & CRANE)			\$117,216	42.50	8.31	14.65	0.98	0.00	187
	<b>SUBCATEGORY 0.20</b>		<b>PNEUMATIC (STEAM/AIR)</b>									
	<b>MKT MANUFACTURING, INC.</b>											
	P20MK002	5	PILE HAMMER, DOUBLE ACTING, PNEUMATIC (STEAM/AIR), 1,000 FT-LBS, MAX STROKE 7" (ADD 250 CFM COMPRESSOR, LEADS & CRANE)	250 CFM	A	\$27,460	9.94	2.05	3.66	0.22	0.00	17
	P20MK003	6	PILE HAMMER, DOUBLE ACTING, PNEUMATIC (STEAM/AIR), 2,500 FT-LBS, MAX STROKE 8.75" (ADD 400 CFM COMPRESSOR, LEADS & CRANE)	400 CFM	A	\$30,875	11.62	2.31	4.12	0.25	0.00	31
	P20MK004	7	PILE HAMMER, DOUBLE ACTING, PNEUMATIC (STEAM/AIR), 4,150 FT-LBS, MAX STROKE 9.5" (ADD 450 CFM COMPRESSOR, LEADS & CRANE)	450 CFM	A	\$43,280	16.13	3.24	5.77	0.35	0.00	51
	P20MK005	9B3	PILE HAMMER, DOUBLE ACTING, PNEUMATIC (STEAM/AIR), 8,750 FT-LBS, MAX STROKE 17" (ADD 600 CFM COMPRESSOR, LEADS & CRANE)	600 CFM	A	\$66,778	24.21	5.00	8.90	0.55	0.00	72
	P20MK006	10B3	PILE HAMMER, DOUBLE ACTING, PNEUMATIC (STEAM/AIR), 13,100 FT-LBS, MAX STROKE 19" (ADD 750 CFM COMPRESSOR, LEADS & CRANE)	750 CFM	A	\$90,676	33.68	6.79	12.09	0.74	0.00	111

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>P20</i>			<i>MKT MANUFACTURING, INC. (continued)</i>									
	P20MK007	11B3	PILE HAMMER, DOUBLE ACTING, PNEUMATIC (STEAM/AIR), 19,150 FT-LBS, MAX STROKE 19" (ADD 900 CFM COMPRESSOR, LEADS & CRANE)	900 CFM	A	\$102,632	37.79	7.68	13.68	0.84	0.00	139
<b>P25</b>	<b>PILE HAMMERS, SINGLE ACTING</b>											
	<b>SUBCATEGORY 0.10</b>		<b>DIESEL</b>									
			<b>PILECO, INC.</b>									
	P25DL001	D6-42	PILE HAMMER, SINGLE ACTING, DIESEL, 10,500 FT-LBS (ADD LEADS & CRANE)	21 HP	D-off	\$26,574	12.18	1.99	3.54	0.22	2.27	36
	P25DL003	D12-42	PILE HAMMER, SINGLE ACTING, DIESEL, 31,320 FT-LBS (ADD LEADS & CRANE)	54 HP	D-off	\$34,321	19.03	2.57	4.58	0.28	5.84	57
	P25DL004	D19-42	PILE HAMMER, SINGLE ACTING, DIESEL, 42,800 FT-LBS (ADD LEADS & CRANE)	68 HP	D-off	\$37,538	22.41	2.82	5.01	0.31	7.36	84
	P25DL005	D25-32	PILE HAMMER, SINGLE ACTING, DIESEL, 58,248 FT-LBS (ADD LEADS & CRANE)	105 HP	D-off	\$65,132	36.77	4.87	8.68	0.53	11.36	124
	P25DL006	D30-32	PILE HAMMER, SINGLE ACTING, DIESEL, 69,898 FT-LBS (ADD LEADS & CRANE)	119 HP	D-off	\$63,293	38.56	4.74	8.44	0.52	12.87	135
	P25DL008	D46-32	PILE HAMMER, SINGLE ACTING, DIESEL, 107,177 FT-LBS (ADD LEADS & CRANE)	196 HP	D-off	\$81,530	55.98	6.11	10.87	0.67	21.21	196
	P25DL009	D62-22	PILE HAMMER, SINGLE ACTING, DIESEL, 165,000 FT-LBS (ADD LEADS & CRANE)	249 HP	D-off	\$121,601	76.84	9.10	16.21	0.99	26.94	270
	P25DL010	D80-23	PILE HAMMER, SINGLE ACTING, DIESEL, 225,000 FT-LBS (ADD LEADS & CRANE)	290 HP	D-off	\$227,811	118.12	17.05	30.37	1.86	31.38	373

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>P25</i>	<i>PILECO, INC. (continued)</i>											
	P25DL011	D100-23	PILE HAMMER, SINGLE ACTING, DIESEL, 300,000 FT-LBS (ADD LEADS & CRANE)	362 HP	D-off	\$343,782	166.39	25.73	45.84	2.81	39.16	449
	<b>INTERNATIONAL CONSTRUCTION EQUIPMENT, INC</b>											
	P25IC001	30S	PILE HAMMER, SINGLE ACTING, DIESEL, 22,500 FT-LBS (ADD LEADS & CRANE)	30 HP	D-off	\$74,291	30.09	5.57	9.91	0.61	3.25	73
	P25IC002	42S	PILE HAMMER, SINGLE ACTING, DIESEL, 42,000 FT-LBS (ADD LEADS & CRANE)	47 HP	D-off	\$82,622	36.13	6.19	11.02	0.68	5.08	91
	P25IC003	60S	PILE HAMMER, SINGLE ACTING, DIESEL, 60,000 FT-LBS (ADD LEADS & CRANE)	75 HP	D-off	\$118,721	52.27	8.89	15.83	0.97	8.11	159
	P25IC004	80S	PILE HAMMER, SINGLE ACTING, DIESEL, 80,000 FT-LBS (ADD LEADS & CRANE)	92 HP	D-off	\$131,551	59.45	9.84	17.54	1.07	9.95	220
	P25IC005	100S	PILE HAMMER, SINGLE ACTING, DIESEL, 100,000 FT-LBS (ADD LEADS & CRANE)	115 HP	D-off	\$164,085	73.82	12.28	21.88	1.34	12.44	220
	P25IC006	120S	PILE HAMMER, SINGLE ACTING, DIESEL, 120,000 FT-LBS (ADD LEADS & CRANE)	138 HP	D-off	\$202,882	90.24	15.19	27.05	1.66	14.93	274
	<b>MKT MANUFACTURING, INC.</b>											
	P25MK001	DE-33/30/20C	PILE HAMMER, SINGLE ACTING, DIESEL, 33,000 FT-LBS (ADD LEADS & CRANE)	37 HP	D-off	\$63,343	27.68	4.75	8.45	0.52	4.00	78
	P25MK003	DE-70/50C	PILE HAMMER, SINGLE ACTING, DIESEL, 70,000 FT-LBS (ADD LEADS & CRANE)	78 HP	D-off	\$98,053	45.67	7.34	13.07	0.80	8.44	153

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.20</b>		<b>PNEUMATIC (STEAM/AIR)</b>									
			<b>VULCAN FOUNDATION EQUIPMENT, INC</b>									
	P25VU002	306	PILE HAMMER, SINGLE ACTING, PNUEMATIC (STEAM/AIR), 18,000 FT-LBS (ADD 750 CFM COMPRESSOR, LEADS & CRANE)	750 CFM	A	\$77,150	28.24	6.08	10.93	0.61	0.00	121
	P25VU003	505	PILE HAMMER, SINGLE ACTING, PNUEMATIC (STEAM/AIR), 25,000 FT-LBS (ADD 600 CFM COMPRESSOR, LEADS & CRANE)	600 CFM	A	\$94,983	34.20	7.49	13.46	0.76	0.00	127
	P25VU004	506	PILE HAMMER, SINGLE ACTING, PNUEMATIC (STEAM/AIR), 32,500 FT-LBS (ADD 900 CFM COMPRESSOR, LEADS & CRANE)	900 CFM	A	\$97,023	34.86	7.64	13.74	0.77	0.00	140
	P25VU005	508	PILE HAMMER, SINGLE ACTING, PNUEMATIC (STEAM/AIR), 40,000 FT-LBS (ADD 900 CFM COMPRESSOR, LEADS & CRANE)	900 CFM	A	\$130,351	45.99	10.28	18.47	1.04	0.00	202
	P25VU010	510	PILE HAMMER, SINGLE ACTING, PNUEMATIC (STEAM/AIR), 50,000 FT-LBS (ADD 1,050 CFM COMPRESSOR, LEADS & CRANE)	1,050 CFM	A	\$133,897	45.62	10.55	18.97	1.06	0.00	222
	P25VU011	512	PILE HAMMER, SINGLE ACTING, PNUEMATIC (STEAM/AIR), 60,000 FT-LBS (ADD 1,200 CFM COMPRESSOR, LEADS & CRANE)	1,200 CFM	A	\$135,644	46.43	10.69	19.22	1.08	0.00	242

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>P30 PILE HAMMERS, DRIVER/ EXTRACTOR, VIBRATORY</b>											
	<b>SUBCATEGORY 0.00 PILE HAMMERS, DRIVER/ EXTRACTOR, VIBRATORY</b>											
	<b>MKT MANUFACTURING, INC.</b>											
	P30MK001	V-5C/HP-185	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 53 TON FORCE DRIVE (ADD LEADS & CRANE)	185 HP	D-off	\$105,896	57.26	7.93	14.12	0.87	20.02	120
	P30MK003	V-20B/HP-365	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 98.5 TON FORCE DRIVE (ADD LEADS & CRANE)	325 HP	D-off	\$179,726	98.52	13.45	23.96	1.47	35.16	220
	P30MK004	V-35/HP-630	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 200 TON FORCE DRIVE (ADD LEADS & CRANE)	630 HP	D-off	\$307,559	177.70	23.02	41.01	2.51	68.16	327
<b>P35 PIPELAYERS</b>												
	<b>SUBCATEGORY 0.00 PIPELAYERS</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	P35CA010	PL61	PIPELAYER, 18' BOOM, 40,000 LBS CAPACITY	125 HP	D-off	\$320,393	53.83	11.57	18.31	2.41	7.42	354
	P35CA011	PL83	PIPELAYER, 24' BOOM, 160,000 LBS CAPACITY	310 HP	D-off	\$809,268	135.52	29.20	46.24	6.08	18.39	855
	P35CA012	PL87	PIPELAYER, 28' BOOM, 214,000 LBS CAPACITY	366 HP	D-off	\$960,917	160.77	34.68	54.91	7.22	21.71	945

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>P40</b>	<b>PLATFORMS &amp; MAN-LIFTS</b>											
	<b>SUBCATEGORY 0.00 PLATFORMS &amp; MAN-LIFTS</b>											
	<b>GENIE INDUSTRIES</b>											
	P40GJ016	GRC-12	MAN-LIFT, 38X29.5" PLATFORM W/EXT DECK, 18' HEIGHT, 500 LBS, 24 VOLT DC, RECHARGABLE BATTERIES	1	HP E	\$13,965	3.29	0.87	1.54	0.10	0.05	20
	<b>TEREX CORPORATION</b>											
	P40TE003	TA50RT	MAN-LIFT, ARTICULATED BOOM, 55' HEIGHT, 500 LBS, 29' REACH, 4X4, SELF PROPELLED, 2.2' X 5' PLATFORM	32	HP D-off	\$93,461	25.36	5.75	10.12	0.69	2.68	154
	P40TE004	TA60RT	MAN-LIFT, ARTICULATED BOOM, 66' HEIGHT, 500 LBS, 33' REACH, 4X4, SELF PROPELLED, 3' X 6' PLATFORM	44	HP D-off	\$107,203	29.59	6.63	11.67	0.79	3.69	241
	P40TE005	TB42	MAN-LIFT, STRAIGHT BOOM, 43' HEIGHT, 650 LBS, 37' REACH, 4X4, SELF PROPELLED, 3' X 6' PLATFORM	66	HP D-off	\$82,315	26.03	5.04	8.86	0.61	5.53	131
	P40TE006	TB66	MAN-LIFT, STRAIGHT BOOM, 66' HEIGHT, 650 LBS, 51' REACH, 4X4, SELF PROPELLED, 3' X 6' PLATFORM	66	HP D-off	\$109,878	32.34	6.79	11.95	0.81	5.53	250
	P40TE007	TB85	MAN-LIFT, STRAIGHT BOOM, 86' HEIGHT, 600 LBS, 70' REACH, 4X4, SELF PROPELLED, 3' X 6' PLATFORM	66	HP D-off	\$184,266	49.21	11.53	20.31	1.37	5.53	373
	P40TE008	TB100	MAN-LIFT, STRAIGHT BOOM, 92' HEIGHT, 500 LBS, 67' REACH, 4X4, SELF PROPELLED, 3' X 6' PLATFORM	76	HP D-off	\$205,100	54.87	12.85	22.66	1.52	6.37	393
	P40TE009	TB110	MAN-LIFT, STRAIGHT BOOM, 110' HEIGHT, 500 LBS, 74' REACH, 4X4, SELF PROPELLED, 3' X 6' PLATFORM	76	HP D-off	\$229,254	60.35	14.39	25.37	1.70	6.37	420

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>P40</i>	<i>TEREX CORPORATION (continued)</i>										
	P40TE010	T-292	MAN-LIFT, LINE-TRUCK, W/AERIAL 2' X 2.5' PLATFORM, 300 LBS, 34' HEIGHT, 23' RAD	210 HP	D-off	\$78,380	37.95	4.88	8.60	0.58	17.59	115
	P40TE011	T-38P	MAN-LIFT, LINE-TRUCK, W/AERIAL 2' X 2.5' PLATFORM, 300 LBS, 43' HEIGHT, 26' RAD	210 HP	D-off	\$86,347	40.09	5.32	9.35	0.64	17.59	128
	P40TE012	Digger DerrickC-4045	MAN-LIFT, LINE-TRUCK, W/13.7 TON, 45' HIGH-BOOM TILT POLE CLAWS, & 1.5' DIA AUGER	210 HP	D-off	\$128,984	49.75	8.03	14.14	0.96	17.59	268
	P40TE013	5FC-52	MAN-LIFT, LINE-TRUCK, W/AERIAL 2' X 4' PLATFORM, 700 LBS, 57' HEIGHT, 35' RAD	210 HP	D-off	\$118,111	47.29	7.34	12.92	0.88	17.59	215
	P40TE014	5FC-55	MAN-LIFT, LINE-TRUCK, W/AERIAL 2' X 2.5' PLATFORM, 500 LBS, 60' HEIGHT, 38' RAD	210 HP	D-off	\$120,357	47.79	7.48	13.17	0.89	17.59	248
	P40TE015	6H-65	MAN-LIFT, LINE-TRUCK, W/AERIAL 2' X 4' PLATFORM, 750 LBS, 70' HEIGHT, 39' RAD	210 HP	D-off	\$136,724	51.51	8.52	15.02	1.01	17.59	255
<b>P45</b>	<b>PUMPS, GROUT</b>											
	<b>SUBCATEGORY 0.00 PUMPS, GROUT</b>											
	<b>AIRPLACO EQUIPMENT CO., INC.</b>											
	P45AF002	HG-5	PUMP, GROUT, HAND PUMP, 12 CF/HR, 0-100 PSI, W/O HOPPER (ADD HOSES)			\$973	0.24	0.06	0.10	0.01	0.00	1
	P45AF003	HG-9	PUMP, GROUT, HAND PUMP, 15 CF/HR, 0-100 PSI, W/5 GAL HOPPER (ADD HOSES)			\$1,407	0.35	0.09	0.15	0.01	0.00	1

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>P45</i>			<i>AIRPLACO EQUIPMENT CO., INC. (continued)</i>									
	P45AF008	HGA-530	PUMP, GROUT, 50 CF/HR, 0-250 PSI, SKID MTD, W/5 GAL HOPPER AND 30 GAL MIXER (ADD 50 CFM COMPRESSOR & HOSE)	5	CFM A	\$8,496	2.23	0.51	0.90	0.06	0.00	4
	P45AF009	SM-78MD	PUMP, GROUT, 0 - 10 GAL/MIN, TRL MTD, W/60 GAL HOPPER, 4.5 CF HYDRAULIC MIXERS, & 12 CFM COMPRESSOR (ADD HOSE)	10	HP D-off	\$18,689	6.57	1.14	1.99	0.14	1.57	13
	P45AF006	MJ-16	PUMP, MUDJACK/ SLABJACKING, 160 CF/HR, 0-400 PSI, GROUT-MUD JACKING-SHOTCRETE, TRAILER MTD, W/5 CF HOPPER (ADD 2" HOSE)	12	HP G	\$11,790	7.40	0.66	1.14	0.09	3.88	7
	P45AF010	Pro-Cretor	PUMP, GROUT/SHOTCRETE, SELF CONTAINED W/ 10 CF MIXER, HIGH PRESSURE DUAL CYLINDER PUMP, S-TUBE, TRAILER MTD (ADD HOSE)	46	HP D-off	\$62,993	23.96	3.80	6.63	0.48	7.22	37
	P45AF011	COBRA 536	PUMP, GROUT/SHOTCRETE, HIGH PRESSURE DUAL CYLINDER GROUT PUMP, 30-36 CY/HR, 0 - 900 PSI, GROUT-MUD JACK-SHOTCRETE, TRAILER MTD, (ADD UP TO 5" HOSE)	60	HP D-off	\$57,432	25.03	3.46	6.04	0.44	9.42	49
	P45AF007	PG-25 PumpMaster	PUMP, GROUT, HIGH VOLUME DUAL CYLINDER GROUT PUMP, 756 CF/HR CONCRETE, 350 CF/HR SHOTCRETE, TRAILER MTD, W/5 CF HOPPER (ADD HOSE 1" - 2" DIA)	25	HP G	\$14,823	12.93	0.86	1.50	0.11	8.08	25



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>ALLENTOWN EQUIPMENT</b>												
	P45AL015	POWER CRETER MAGNUM	PUMP, GROUT, GROUT-MUD JACK-SHOTCRE, HIGH PRESSURE DUAL CYLINDER GROUT PUMP, 135 CF/HR, 0 - 1,770 PSI, TRAILER MTD, W/75 GAL HOPPER/ 82 GAL MIXER/ 3" HOSE	46 HP	D-off	\$66,111	24.76	4.00	6.97	0.51	7.22	35
<b>CHEMGROUT, INC.</b>												
	P45CG001	CG-050	PUMP, GROUT, MINI, AIR, 40 CF/HR, 225 PSI, PORTABLE, SKID MTD (ADD 15 CFM - 100 PSI COMPRESSOR)	15 CFM	A	\$4,364	1.14	0.26	0.46	0.03	0.00	1
	P45CG002	CG-550P	PUMP, GROUT, MIXER, AIR, 40 CF/HR, 225 PSI, SKID MTD (ADD 85 CFM - 100 PSI COMPRESSOR)	85 CFM	A	\$7,119	1.89	0.43	0.76	0.05	0.00	3
	P45CG003	CG-500/2C6 VERSATILE	PUMP, GROUT, MIXER, AIR, 160 CF/HR, 160 PSI, SKID MTD, 15 GAL HOPPER & 2 - 70 GAL MIXING TANKS (ADD 250 CFM - 100 PSI COMPRESSOR)	230 CFM	A	\$16,210	4.23	0.98	1.72	0.12	0.00	12
	P45CG007	CG-570 / 3C6 / H	PUMP, GROUT, THICK MIX/SPRAY, 64 CF/HR, 261 PSI, SKID MTD, 15 GAL HOPPER & 45 GAL MIXING TANK, W/AIR COMPRESSOR, POWER UNIT	16 HP	G	\$24,225	11.99	1.48	2.57	0.19	5.17	13
	P45CG006	CG-570 / 3C6	PUMP, GROUT, THICK MIX/SPRAY, 64 CF/HR, 261 PSI, TRAILER MTD, 15 GAL HOPPER & 45 GAL MIXING TANK, W/AIR COMPRESSOR, POWER UNIT	16 HP	G	\$30,193	13.50	1.81	3.15	0.23	5.17	15
<b>OLIN ENGINEERING, INC.</b>												
	P45OE002	5 40	PUMP, GROUT PUMP, 1,134 CF/HR, 750 PSI, 37 GAL HOPPER, TRAILER MTD, W/POWER UNIT	55 HP	D-off	\$30,621	17.41	1.83	3.20	0.23	8.64	42

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>P45</i>			<i>OLIN ENGINEERING, INC. (continued)</i>								
	P45OE003	5 65	PUMP, GROUT PUMP, 1,836 CF/HR, 1100 PSI, 37 GAL HOPPER, TRAILER MTD, W/POWER UNIT	84 HP	D-off	\$40,490	25.00	2.44	4.25	0.31	13.19	48
	P45OE004	5 85	PUMP, GROUT PUMP, 2,295 CF/HR, 1100 PSI, 37 GAL HOPPER, TRAILER MTD, W/POWER UNIT	120 HP	D-off	\$47,524	33.11	2.86	5.00	0.36	18.85	56
	P45OE005	5 140CA	PUMP, GROUT PUMP, 3,780 CF/HR, 900 PSI, 37 GAL HOPPER, TRAILER MTD TANDEM, W/POWER UNIT	181 HP	D-off	\$79,160	51.84	4.77	8.31	0.61	28.43	100
<b>P50</b>	<b>PUMPS, WATER, CENTRIFUGAL, TRASH</b>											
	<b>SUBCATEGORY 0.11</b>	<b>ENGINE DRIVE</b>										
	<b>WACKER CORPORATION</b>											
	P50WC001	PT 2A	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 2" DIA, 205 GPM @ 100' HEAD (ADD HOSES)	10 HP	G	\$1,140	3.73	0.07	0.11	0.01	3.05	1
	P50WC002	PT 3A	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 3" DIA, 425 GPM @ 95' HEAD (ADD HOSES)	15 HP	D-off	\$1,327	2.92	0.08	0.13	0.01	2.25	2
	P50WC003	PTS 4V	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 4" DIA, 705 GPM @ 106' HEAD (ADD HOSES)	16 HP	D-off	\$3,446	3.59	0.20	0.34	0.03	2.40	3
	P50WC004	PTS 6LT	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 6" DIA, 1,300 GPM @ 100' HEAD ,TRAILER MTD (ADD HOSES)	33 HP	D-off	\$14,161	9.05	0.81	1.39	0.11	4.95	25

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>NO SPECIFIC MANUFACTURER</b>												
	P50XX001	6" DIESEL	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 6" DIA, 1,165 GPM, AIR COOLED (ADD HOSES)	60	HP D-off	\$48,715	21.78	2.82	4.87	0.38	9.00	22
	P50XX002	8" DIESEL	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 8" DIA, 2,085 GPM, WATER COOLED (ADD HOSES)	70	HP D-off	\$45,748	22.84	2.65	4.57	0.36	10.50	35
	P50XX003	10" DIESEL	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 10" DIA, 2,665 GPM, WATER COOLED (ADD HOSES)	85	HP D-off	\$84,733	34.52	4.91	8.47	0.67	12.76	43
<b>SUBCATEGORY 0.31 HOSES, PUMP, SUCTION &amp; DISCHARGE</b>												
<b>GORMAN-RUPP COMPANY</b>												
	P50GR001	C221-90	PUMP, WATER, CENTRIFUGAL, TRASH, HOSE, SUCTION, 2" DIA X 20' WITH COUPLING (PER SECTION)			\$118	0.08	0.02	0.03	0.00	0.00	1
	P50GR002	C356-90	PUMP, WATER, CENTRIFUGAL, TRASH, HOSE, SUCTION, 3" DIA X 20' WITH COUPLING (PER SECTION)			\$191	0.12	0.02	0.04	0.00	0.00	1
	P50GR003	C357-90	PUMP, WATER, CENTRIFUGAL, TRASH, HOSE, SUCTION, 4" DIA X 20' WITH COUPLING (PER SECTION)			\$329	0.21	0.04	0.07	0.00	0.00	1
	P50GR004	C354-90	PUMP, WATER, CENTRIFUGAL, TRASH, HOSE, SUCTION, 6" DIA X 20' WITH COUPLING (PER SECTION)			\$706	0.46	0.09	0.16	0.01	0.00	1
	P50GR005	C373-90	PUMP, WATER, CENTRIFUGAL, TRASH, HOSE, DISCH, 2" DIA X 50' WITH COUPLING (PER SECTION)			\$103	0.06	0.01	0.02	0.00	0.00	1

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>P50</i>	<i>GORMAN-RUPP COMPANY (continued)</i>											
	P50GR006	C374-90	PUMP, WATER, CENTRIFUGAL, TRASH, HOSE, DISCH, 3" DIA X 50' WITH COUPLING (PER SECTION)			\$172	0.11	0.02	0.04	0.00	0.00	1
	P50GR007	C375-90	PUMP, WATER, CENTRIFUGAL, TRASH, HOSE, DISCH, 4" DIA X 50' WITH COUPLING (PER SECTION)			\$266	0.17	0.03	0.06	0.00	0.00	2
	P50GR008	C376-90	PUMP, WATER, CENTRIFUGAL, TRASH, HOSE, DISCH, 6" DIA X 50' WITH COUPLING (PER SECTION)			\$502	0.32	0.06	0.11	0.00	0.00	3
<b>P55</b>	<b>PUMPS, WATER, SUBMERSIBLE</b>											
	<b>SUBCATEGORY 0.01</b>		<b>ENGINE DRIVE</b>									
	<b>GRIFFIN DEWATERING CORP.</b>											
	P55GF001	4MH	PUMP, WATER, SUBMERSIBLE, ENGINE DRIVE, 4" DIA, 400 GPM @ 20' HEAD, SKID MTD (INCLUDES POWER UNIT MODEL 250)(ADD HOSES)	21 HP	D-off	\$21,866	9.05	1.27	2.19	0.17	3.15	19
	P55GF002	6T	PUMP, WATER, SUBMERSIBLE, ENGINE DRIVE, 6" DIA, 2,000 GPM @ 20' HEAD, SKID MTD (INCLUDES POWER UNIT MODEL 400)(ADD HOSES)	72 HP	D-off	\$31,320	20.29	1.82	3.13	0.25	10.81	31
	<b>SUBCATEGORY 0.02</b>		<b>ELECTRIC DRIVE</b>									
	<b>GORMAN-RUPP COMPANY</b>											
	P55GR001	S2A1	PUMP, WATER, SUBMERSIBLE, ELECTRIC, 2" DIA, 138 GPM @ 20' HEAD (ADD HOSES)	2 HP	E	\$4,310	1.10	0.26	0.46	0.03	0.17	2

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
P55	<i>GORMAN-RUPP COMPANY (continued)</i>											
	P55GR002	S3A1	PUMP, WATER, SUBMERSIBLE, ELECTRIC, 3" DIA, 278 GPM @ 20' HEAD (ADD HOSES)	5	HP E	\$5,224	1.67	0.32	0.56	0.04	0.43	3
	P55GR003	S4A1	PUMP, WATER, SUBMERSIBLE, ELECTRIC, 4" DIA, 860 GPM @ 40' HEAD (ADD HOSES)	25	HP E	\$14,139	5.96	0.86	1.50	0.11	2.14	12
	P55GR004	S6A1	PUMP, WATER, SUBMERSIBLE, ELECTRIC, 6" DIA, 1,950 GPM @ 40' HEAD (ADD HOSES)	60	HP E	\$20,687	11.70	1.26	2.20	0.16	5.13	14
	<b>WACKER CORPORATION</b>											
	P55WC001	PS2 500	PUMP, WATER, SUBMERSIBLE, ELECTRIC, 2" DIA, 66 GPM @ 39' HEAD (ADD HOSES)	1	HP E	\$289	0.18	0.02	0.03	0.00	0.09	1
P55WC002	PS2 750	PUMP, WATER, SUBMERSIBLE, ELECTRIC, 2" DIA, 100 GPM @ 52' HEAD (ADD HOSES)	1	HP E	\$591	0.24	0.03	0.06	0.00	0.09	1	
<b>P60</b>	<b>PUMPS, WATER, CENTRIFUGAL, DEWATERING</b>											
	<b>SUBCATEGORY 0.11</b>	<b>SKID MOUNTED, ENGINE DRIVE</b>										
	<b>RIVERSIDE PUMP MANUFACTURING</b>											
P60HO002	S2B	PUMP, WATER, CENTRIFUGAL, DEWATERING, SKID MOUNTED, ENGINE DRIVE, 2" DIA, 150 GPM @ 22' HEAD (ADD HOSES)		4	HP G	\$900	1.43	0.06	0.09	0.01	1.07	1
P60HO003	TP3B	PUMP, WATER, CENTRIFUGAL, DEWATERING, SKID MOUNTED, ENGINE DRIVE, 3" DIA, 293 GPM @ 20' HEAD (ADD HOSES)		8	HP G	\$1,800	3.19	0.10	0.18	0.01	2.44	1

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>WACKER CORPORATION</b>												
	P60WC001	PG 2A	PUMP, WATER, CENTRIFUGAL, DEWATERING, SKID MOUNTED, ENGINE DRIVE, 2" DIA, 159 GPM @ 98' HEAD (ADD HOSES)	4	HP G	\$455	1.50	0.03	0.05	0.00	1.22	1
	P60WC002	PG 3A	PUMP, WATER, CENTRIFUGAL, DEWATERING, SKID MOUNTED, ENGINE DRIVE, 3" DIA, 264 GPM @ 98' HEAD (ADD HOSES)	6	HP G	\$525	2.20	0.03	0.05	0.00	1.83	1
<b>SUBCATEGORY 0.21 WHEEL MOUNTED, ENGINE DRIVE</b>												
<b>GRIFFIN DEWATERING CORP.</b>												
	P60GF003	250/4"MH	PUMP, WATER, CENTRIFUGAL, DEWATERING, WHEEL, 4" DIA, 400 GPM @ 60' HEAD (ADD HOSES)	21	HP D-off	\$25,603	9.62	1.45	2.50	0.20	3.15	19
	P60GF008	400/6"T	PUMP, WATER, CENTRIFUGAL, DEWATERING, 6" DIA, 1,040 GPM @ 60' HEAD, SKID MTD. (ADD HOSES)	72	HP D-off	\$35,055	20.74	2.01	3.45	0.28	10.81	31
	P60GF004	400/6"T	PUMP, WATER, CENTRIFUGAL, DEWATERING, WHEEL, 6" DIA, 2,000 GPM @ 60' HEAD (ADD HOSES)	72	HP D-off	\$30,780	19.74	1.75	3.02	0.24	10.81	31
	P60GF005	600/8"T	PUMP, WATER, CENTRIFUGAL, DEWATERING, WHEEL, 8" DIA, 3,410 GPM @ 60' HEAD (ADD HOSES)	113	HP D-off	\$40,711	29.20	2.33	4.01	0.32	16.96	39
	P60GF006	825/12"T	PUMP, WATER, CENTRIFUGAL, DEWATERING, WHEEL, 12" DIA, 4,410 GPM @ 60' HEAD (ADD HOSES)	140	HP D-off	\$49,136	35.88	2.82	4.85	0.39	21.01	39

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>GORMAN-RUPP COMPANY</b>											
	P60GR001	14C2-F3L	PUMP, WATER, CENTRIFUGAL, DEWATERING, WHEEL, 4" DIA, 600 GPM @ 80' HEAD (ADD HOSES)	47 HP	D-off	\$26,602	14.40	1.52	2.61	0.21	7.05	20
	P60GR002	16C2-F4L	PUMP, WATER, CENTRIFUGAL, DEWATERING, WHEEL, 6" DIA, 1,825 GPM @ 40' HEAD (ADD HOSES)	101 HP	G	\$31,052	42.23	1.78	3.05	0.25	30.76	20
<b>P65</b>	<b>PUMPS, WATER, DIAPHRAGM</b>											
	<b>SUBCATEGORY 0.11 SKID MOUNTED, ENGINE DRIVE</b>											
	<b>RIVERSIDE PUMP MANUFACTURING</b>											
	P65HO001	DP2B	PUMP, WATER, DIAPHRAGM, SKID MTD, 2" DIA, 33 GPM @ 25' HEAD (ADD HOSES)	4 HP	G	\$1,622	1.59	0.09	0.16	0.01	1.07	1
	P65HO002	DP3B	PUMP, WATER, DIAPHRAGM, SKID MTD, 3" DIA, 80 GPM @ 25' HEAD (ADD HOSES)	4 HP	G	\$1,846	1.64	0.10	0.18	0.01	1.07	2
	<b>SUBCATEGORY 0.21 WHEEL MOUNTED, ENGINE DRIVE</b>											
	<b>GORMAN-RUPP COMPANY</b>											
	P65GR001	3D-13	PUMP, WATER, DIAPHRAGM, WHEEL, 2" DIA SUCTION X 3" DIA DISCHARGE, 56 GPMH @ 25' HEAD (ADD HOSES)	5 HP	G	\$4,757	2.80	0.23	0.38	0.04	1.52	2
	P65GR002	3D-B	PUMP, WATER, DIAPHRAGM, WHEEL, 3" DIA, 560 GPM @ 25' HEAD (ADD HOSES)	2 HP	G	\$5,602	1.76	0.27	0.46	0.04	0.46	2
	P65GR003	4D-B	PUMP, WATER, DIAPHRAGM, WHEEL, 4" DIA, 74 GPM @ 25' HEAD (ADD HOSES)	3 HP	G	\$13,446	4.01	0.73	1.24	0.11	0.91	3

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>WACKER CORPORATION</b>												
	P65WC001	PDT 2A	PUMP, WATER, DIAPHRAGM, WHEEL, 2" DIA, 50 GPM @ 25' HEAD (ADD HOSES)	4	HP G	\$1,585	1.73	0.09	0.16	0.01	1.22	1
	P65WC002	PDT 3A	PUMP, WATER, DIAPHRAGM, WHEEL, 3" DIA, 88 GPM @ 25' HEAD (ADD HOSES)	4	HP G	\$1,688	1.76	0.10	0.17	0.01	1.22	2
<b>P70</b>	<b>PUMPS, WATER (For core drills)</b>											
	<b>SUBCATEGORY 0.01</b>		<b>ENGINE DRIVE</b>									
	<b>NO SPECIFIC MANUFACTURER</b>											
	P70XX001	75-7.6	PUMP, WATER, FOR CORE DRILLS, 7.6 GPM, 75 PSI, MANUAL, SKID (ADD HOSES)	2	HP G	\$3,723	1.48	0.21	0.35	0.03	0.61	1
	P70XX002	225-17.5	PUMP, WATER, FOR CORE DRILLS, 17.5 GPM, 225 PSI, MANUAL, SKID (ADD HOSES)	6	HP G	\$9,722	4.14	0.54	0.91	0.08	1.83	1
<b>R10</b>	<b>RIPPERS &amp; HYDRAULIC BANK SLOPERS (Add cost for point wear)</b>											
	<b>SUBCATEGORY 0.00</b>		<b>RIPPERS &amp; HYDRAULIC BANK SLOPERS (Add cost for point wear)</b>									
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	R10CA006	D-5C111	RIPPER, SHANK, EACH (ADD D-5 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			\$293	0.07	0.02	0.03	0.00	0.00	1
	R10CA022	D6R11-174-9198	RIPPER SHANK, EACH (ADD D6R11 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			\$1,193	0.28	0.07	0.12	0.01	0.00	2
	R10CA023	D6R II - 9J-8926	RIPPER, SHANK, EACH (ADD D-6 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			\$1,204	0.28	0.07	0.12	0.01	0.00	2



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>R10</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	R10CA010	D-7R	RIPPER, SHANK, EACH (ADD D-7 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			\$1,962	0.47	0.12	0.20	0.02	0.00	2
	R10CA013	D-8R	RIPPER, SHANK, EACH (ADD D-8 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			\$4,335	1.01	0.25	0.43	0.03	0.00	7
	R10CA016	D-9R	RIPPER, SHANK, EACH (ADD D-9 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			\$4,346	1.01	0.25	0.43	0.03	0.00	8
	R10CA019	D-10R	RIPPER, SHANK, EACH (ADD D-10 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			\$8,213	2.16	0.47	0.82	0.06	0.00	12
	R10CA001	D-3	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-3 TRACTOR DOZER & COST FOR POINT WEAR)			\$10,792	2.61	0.63	1.08	0.09	0.00	13
	R10CA003	D-4C SERIES III	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-4 TRACTOR DOZER & COST FOR POINT WEAR)			\$10,792	2.61	0.63	1.08	0.09	0.00	13
	R10CA005	D-5C SERIES III	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-5 TRACTOR DOZER & COST FOR POINT WEAR)			\$10,792	2.61	0.63	1.08	0.09	0.00	13
	R10CA007	D-6R II	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-6 TRACTOR DOZER & COST FOR POINT WEAR)			\$17,178	4.11	1.00	1.72	0.14	0.00	40
	R10CA009	D-7R	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-7 TRACTOR DOZER & COST FOR POINT WEAR)			\$45,357	10.71	2.63	4.54	0.36	0.00	77

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>R10</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	R10CA011	D-8R	RIPPER, 1-SHANK & BEAM, HYDRAULIC (ADD D-8 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			\$50,669	11.97	2.94	5.07	0.40	0.00	91
	R10CA012	D-8R	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-8 TRACTOR DOZER & COST FOR POINT WEAR)			\$62,170	14.66	3.60	6.22	0.49	0.00	102
	R10CA014	D-9R	RIPPER, 1-SHANK & BEAM, HYDRAULIC (ADD D-9 TRACTOR DOZER & COST FOR POINT WEAR)			\$67,832	16.04	3.93	6.78	0.54	0.00	102
	R10CA015	D-9R	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-9 TRACTOR DOZER & COST FOR POINT WEAR)			\$87,497	20.65	5.07	8.75	0.69	0.00	91
	R10CA017	D-10R	RIPPER, 1-SHANK & BEAM, HYDRAULIC (ADD D-10 TRACTOR DOZER & COST FOR POINT WEAR)			\$114,644	27.04	6.63	11.46	0.90	0.00	161
	R10CA018	D-10R	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-10 TRACTOR DOZER & COST FOR POINT WEAR)			\$138,681	32.69	8.03	13.87	1.09	0.00	179
	R10CA020	D-11R	RIPPER, 1-SHANK & BEAM, HYDRAULIC (ADD D-11 TRACTOR DOZER & COST FOR POINT WEAR)			\$137,388	32.40	7.95	13.74	1.08	0.00	72
	R10CA021	D-11R	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-11 TRACTOR DOZER & COST FOR POINT WEAR)			\$140,100	33.06	8.12	14.01	1.11	0.00	103

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>R15</b>	<b>ROLLERS, STATIC, TOWED, PNEUMATIC</b>											
	<b>SUBCATEGORY 0.00 ROLLERS, STATIC, TOWED, PNEUMATIC</b>											
	<b>SOUTHWEST CONSTRUCTION EQUIPMENT CO.</b>											
R15SO001	C-50		ROLLER, STATIC, TOWED, PNEUMATIC, 60 TON, 9.8' WIDE, 4 TIRE (ADD TOWING UNIT)			\$152,175	24.57	6.41	10.47	1.17	0.00	309
R15SO002	C-75		ROLLER, STATIC, TOWED, PNEUMATIC, 75 TON, 10.5' WIDE, 4 TIRE (ADD TOWING UNIT)			\$167,778	25.80	5.49	8.39	1.29	0.00	347
R15SO003	C-100XL		ROLLER, STATIC, TOWED, PNEUMATIC, 100 TON, 10.5' WIDE, 4 TIRE (ADD TOWING UNIT)			\$235,822	37.15	8.74	13.83	1.82	0.00	551
<b>R20</b>	<b>ROLLERS, STATIC, TOWED, STEEL DRUM</b>											
	<b>SUBCATEGORY 0.00 ROLLERS, STATIC, TOWED, STEEL DRUM</b>											
	<b>SOUTHWEST CONSTRUCTION EQUIPMENT CO.</b>											
R20SO001	2DH-RR		ROLLER, STATIC, TOWED, 2 STEEL DRUMS, 10-20 TON, 60" WIDE X 60" DIA, SHEEPSFOOT (ADD TOWING UNIT)			\$83,808	14.86	4.00	6.70	0.65	0.00	200

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>R30</b>	<b>ROLLERS, STATIC, SELF-PROPELLED</b>											
	<b>SUBCATEGORY 0.01 PNEUMATIC</b>											
	<b>COMPACTION AMERICA (BOMAG)</b>											
	R30BO004	BW11RH	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 13.50 TON, 68" WIDE, 9 TIRE, ASPHALT COMPACTOR	85	HP D-off	\$78,947	29.66	4.28	7.36	0.60	11.27	100
	R30BO003	BW24R	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 30.00 TON, 78" WIDE, 8 TIRE, ASPHALT COMPACTOR	110	HP D-off	\$148,203	47.68	8.52	14.77	1.13	14.59	290
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	R30CA010	PS-150B	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 14.25 TON, 68" WIDE, 9 TIRE, ASPHALT COMPACTOR	70	HP D-off	\$85,500	28.36	5.08	8.85	0.65	9.28	85
	R30CA014	PS-360B	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 27.55 TON, 90" WIDE, 7 TIRE, ASPHALT COMPACTOR	105	HP D-off	\$154,941	51.54	8.80	15.23	1.18	13.93	352
	<b>ROSCO, A LeeBoy COMPANY</b>											
	R30RS003	TRU-PAC 915	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 6-15 TON, 68" WIDE, 9 TIRES, ASPHALT/SOIL COMPACTOR	80	HP D-off	\$73,596	27.32	4.27	7.41	0.56	10.61	115
	<b>SAKAI AMERICA, INC.</b>											
	R30SI002	TS200	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 16 TON, 81" WIDE, 9 TIRE, ASPHALT COMPACTOR	91	HP D-off	\$122,938	39.65	7.01	12.13	0.94	12.07	187

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>R30</i>	<i>SAKAI AMERICA, INC. (continued)</i>											
	R30SI003	TS600C	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 16 TON, 81" WIDE, 9 TIRE, ASPHALT COMPACTOR	95 HP	D-off	\$152,921	46.49	8.83	15.31	1.17	12.60	187
	R30SI004	TS650C	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 27 TON, 82" WIDE, 7 TIRE, ASPHALT COMPACTOR	108 HP	D-off	\$202,677	58.63	11.96	20.81	1.55	14.32	281
	<b>SUBCATEGORY 0.02</b>	<b>SMOOTH DRUM</b>										
	<b>COMPACTION AMERICA (BOMAG)</b>											
	R30BO005	BW5AS	ROLLER, STATIC, SELF-PROPELLED, SMOOTH DRUM, DOUBLE DRUM, 6 TON, 40" WIDE ASPHALT COMPACTOR	47 HP	D-off	\$85,651	22.22	4.28	7.28	0.64	6.23	130
	R30BO006	BW9AS	ROLLER, STATIC, SELF-PROPELLED, SMOOTH DRUM, DOUBLE DRUM, 10 TON, 50" WIDE ASPHALT COMPACTOR	83 HP	D-off	\$93,286	28.86	4.67	7.93	0.70	11.01	162
	R30BO007	BW11AS	ROLLER, STATIC, SELF-PROPELLED, SMOOTH DRUM, DOUBLE DRUM, 14 TON, 54" WIDE ASPHALT COMPACTOR	78 HP	D-off	\$108,682	30.87	5.43	9.24	0.81	10.34	215
	<b>ROSCO, A LeeBoy COMPANY</b>											
	R30RS001	300 B	ROLLER, STATIC, SELF-PROPELLED, SMOOTH DRUM, DOUBLE DRUM, 1.5 TON, 34" WIDE, ASPHALT COMPACTOR	16 HP	G	\$16,575	7.75	0.83	1.41	0.12	4.33	26
	R30RS002	400	ROLLER, STATIC, SELF-PROPELLED, SMOOTH DRUM, DOUBLE DRUM, 2 TON, 40" WIDE, ASPHALT COMPACTOR	40 HP	D-off	\$33,236	11.81	1.67	2.83	0.25	5.30	37

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SAKAI AMERICA, INC.</b>											
	R30SI005	R2H-2	ROLLER, STATIC, SELF-PROPELLED, SMOOTH DRUM, 3 DRUMS, 14 TON, 64" WIDE, ASPHALT COMPACTOR	75 HP	D-off	\$131,525	34.53	6.57	11.18	0.98	9.95	207
	<b>SUBCATEGORY 0.03</b>	<b>TAMPING FOOT, LANDFILL &amp; SOIL COMPACTORS</b>										
	<b>COMPACTION AMERICA (BOMAG)</b>											
	R30BO009	BC672RB	ROLLER, STATIC, SELF-PROPELLED, LANDFILL/SOIL COMPACTOR, SHEEPSFOOT, 4X4, 35 TON, 63" DIA, 19.58' WIDTH PER 2-PASS, W/BLADE	442 HP	D-off	\$557,251	146.28	22.81	37.15	4.23	58.62	710
	R30BO008	BC772RB	ROLLER, STATIC, SELF-PROPELLED, LANDFILL/SOIL COMPACTOR, SHEEPSFOOT, 4X4, 40 TON, 63" DIA, 19.58' WIDTH PER 2-PASS, W/BLADE	442 HP	D-off	\$573,102	148.61	23.46	38.21	4.35	58.62	812
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	R30CA003	815-F	ROLLER, STATIC, SELF-PROPELLED, LANDFILL/SOIL COMPACTOR, SHEEPSFOOT, 4X4, 23 TON, 56" DIA, 14.25' WIDTH PER 2-PASS, W/BLADE	240 HP	D-off	\$506,716	109.33	20.74	33.78	3.85	31.83	449
	R30CA012	816-F	ROLLER, STATIC, SELF-PROPELLED, LANDFILL/SOIL COMPACTOR, TAMPING FOOT, CHOPPER, 4X4, 25.0 TON, 14.75' WIDTH PER 2-PASS, W/BLADE	220 HP	D-off	\$502,338	105.76	20.57	33.49	3.82	29.18	509
	R30CA006	825-G II	ROLLER, STATIC, SELF-PROPELLED, LANDFILL/SOIL COMPACTOR, SHEEPSFOOT, 4X4, 35 TON, 51" DIA, 16.00' WIDTH PER 2-PASS, W/BLADE	315 HP	D-off	\$731,397	153.21	29.94	48.76	5.56	41.78	734

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>R30</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	R30CA013	826-H	ROLLER, STATIC, SELF-PROPELLED, LANDFILL/SOIL COMPACTOR, TAMPING FOOT, CHOPPER, 4X4, 36.5 TON, 15.66' WIDTH PER 2-PASS, W/BLADE	315 HP	D-off	\$766,623	158.36	31.38	51.11	5.82	41.78	771
<b>R40</b>	<b>ROLLERS, VIBRATORY, TOWED</b>											
	<b>SUBCATEGORY 0.00 ROLLERS, VIBRATORY, TOWED</b>											
	<b>COMPACTION AMERICA (BOMAG)</b>											
	R40B0001	BW6	ROLLER, VIBRATORY, TOWED, SINGLE DRUM, SMOOTH, 13,000 LB OPER. WT., 26,550 LB (13.3 TONS) CENTRIFUGAL FORCE, 67" WIDE (ADD 180 HP TOWING UNIT)	50 HP	D-off	\$68,393	23.32	3.96	6.84	0.54	7.50	128
	R40B0002	BW6S	ROLLER, VIBRATORY, TOWED, SINGLE DRUM, SHEEPSFOOT, 15,000 LB OPER. WT., 26,550 LB (13.3 TONS) CENTRIFUGAL FORCE, 67" WIDE (ADD 180 HP TOWING UNIT)	50 HP	D-off	\$74,053	24.55	4.29	7.41	0.58	7.50	148
<b>R45</b>	<b>ROLLERS, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM</b>											
	<b>SUBCATEGORY 0.00 ROLLERS, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM</b>											
	<b>COMPACTION AMERICA (BOMAG)</b>											
	R45B0004	BW120AD-4	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 2.9 TON, 47.2" WIDE, 2X1, ASPHALT COMPACTOR	33 HP	D-off	\$41,237	16.21	2.39	4.12	0.33	4.95	57

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>R45</i>	<i>COMPACTION AMERICA (BOMAG) (continued)</i>											
	R45BO005	BW138AD	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 4.6 TON, 54.3" WIDE, 2X1, ASPHALT COMPACTOR	46 HP	D-off	\$60,592	23.40	3.51	6.06	0.48	6.90	92
	R45BO006	BW151AD-4	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 7.8 TON, 66.1" WIDE, 2X1, ASPHALT COMPACTOR	108 HP	D-off	\$122,169	49.80	7.07	12.22	0.96	16.21	158
	R45BO007	BW161AD-4	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 10.4 TON, 66.1" WIDE, 2X1, ASPHALT COMPACTOR	131 HP	D-off	\$139,601	58.21	8.08	13.96	1.10	19.66	209
	R45BO008	BW190AD-4 HF	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 12.6 TON, 79.0" WIDE, 2X1, ASPHALT COMPACTOR	205 HP	D-off	\$156,265	75.11	9.05	15.63	1.23	30.76	252
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	R45CA001	CB-214D	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 2.5 TON, 39.4" WIDE, 2X1, ASPHALT COMPACTOR	32 HP	D-off	\$53,066	19.08	3.08	5.31	0.42	4.80	81
	R45CA005	CB-434D	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 6.6 TON, 56" WIDE, 2X1, ASPHALT COMPACTOR	70 HP	D-off	\$124,984	44.03	7.24	12.50	0.99	10.50	137
	R45CA011	CB-24	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 2.7 TON, 47" WIDE, 2X1, ASPHALT COMPACTOR	33 HP	D-off	\$40,761	16.09	2.36	4.08	0.32	4.95	60
	R45CA012	CB-54	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 12.0 TON, 67" WIDE, 2X1, ASPHALT COMPACTOR	137 HP	D-off	\$143,260	60.17	8.30	14.33	1.13	20.56	238
	R45CA013	CB-64	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 15.5 TON, 84" WIDE, 2X1, ASPHALT COMPACTOR	137 HP	D-off	\$190,924	72.40	11.06	19.09	1.51	20.56	286



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>ROSCO, A LeeBoy COMPANY</b>											
	R45RS001	300B	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 2.0 TON, 36" WIDE, ASPHALT COMPACTOR	20 HP	D-off	\$21,320	8.88	1.24	2.13	0.17	3.00	26
	<b>SAKAI AMERICA, INC.</b>											
	R45SI008	SW320-1	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 3.0 TON, 47" WIDE, 2X1, ASPHALT COMPACTOR	35 HP	D-off	\$41,287	16.58	2.40	4.13	0.33	5.25	28
	R45SI009	SW652	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 7.8 TON, 58" WIDE, 2X1, ASPHALT COMPACTOR	78 HP	D-off	\$111,793	42.02	6.47	11.18	0.88	11.71	157
	R45SI010	SW850-3	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 14.0 TON, 79" WIDE, 2X1, ASPHALT COMPACTOR	127 HP	D-off	\$150,552	60.34	8.72	15.06	1.19	19.06	124
<b>R50</b>	<b>ROLLERS, VIBRATORY, SELF-PROPELLED, SINGLE DRUM</b>											
	<b>SUBCATEGORY 0.00</b>	<b>ROLLERS, VIBRATORY, SELF-PROPELLED, SINGLE DRUM</b>										
	<b>COMPACTION AMERICA (BOMAG)</b>											
	R50BO005	BW124DH-40	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 2.9 TON, 47.2" WIDE, 3X2, SOIL COMPACTOR	50 HP	D-off	\$59,358	20.77	2.96	4.95	0.48	5.41	60
	R50BO010	BW124PDH-40	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 2.9 TON, 47.2" WIDE, 3X2, SOIL COMPACTOR	50 HP	D-off	\$61,337	20.83	3.31	5.61	0.50	5.41	60
	R50BO006	BW145D-40	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 5.5 TON, 56.1" WIDE, 3X2, SOIL COMPACTOR	75 HP	D-off	\$87,282	29.99	4.76	8.10	0.71	8.11	110

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>R50</i>	<i>COMPACTION AMERICA (BOMAG) (continued)</i>											
	R50BO011	BW145PDH-40	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 5.8 TON, 56.1" WIDE, 3X2, SOIL COMPACTOR	75 HP	D-off	\$92,058	31.13	5.03	8.55	0.75	8.11	118
	R50BO007	BW177D-40	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 7.9 TON, 66.4" WIDE, 3X2, SOIL COMPACTOR	75 HP	D-off	\$101,455	33.46	5.48	9.31	0.82	8.11	159
	R50BO012	BW177PDH-40	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 8.3 TON, 66.4" WIDE, 3X2, SOIL COMPACTOR	101 HP	D-off	\$119,437	40.93	6.47	10.99	0.97	10.93	166
	R50BO008	BW213DH-4	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 11.5 TON, 83.9" WIDE, 3X2, SOIL COMPACTOR	155 HP	D-off	\$174,198	60.93	9.28	15.71	1.42	16.77	269
	R50BO013	BW213PDH-4	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 14.1 TON, 83.9" WIDE, 3X2, SOIL COMPACTOR	131 HP	D-off	\$182,956	60.05	9.76	16.53	1.49	14.17	283
	R50BO009	BW219DH-4	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 20.6 TON, 83.9" WIDE, 3X2, SOIL COMPACTOR	195 HP	D-off	\$159,631	62.41	8.48	14.35	1.30	21.10	412
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	R50CA001	CS-323C	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 4.6 TON, 50" WIDE, 3X2, SOIL COMPACTOR	70 HP	D-off	\$91,982	30.56	4.99	8.47	0.75	7.57	97
	R50CA005	CS-433E	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 7.1 TON, 66" WIDE, 3X2, SOIL COMPACTOR	100 HP	D-off	\$129,367	43.22	6.99	11.87	1.05	10.82	147
	R50CA011	CS-583E	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 16.5 TON, 84" WIDE, 3X2, SOIL COMPACTOR	150 HP	D-off	\$222,452	71.70	11.96	20.29	1.81	16.23	340

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>R50</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	R50CA002	CP-323C (PADS)	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 4.6 TON, 50" WIDE, 3X2, SOIL COMPACTOR	70 HP	D-off	\$101,836	32.90	5.53	9.39	0.83	7.57	105
	R50CA006	CS-423E	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 7.4 TON, 66" WIDE, 3X2, SOIL COMPACTOR	83 HP	D-off	\$105,270	35.67	5.52	9.31	0.86	8.98	137
	R50CA007	CS-64	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 15.7 TON, 84" WIDE, 3X2, SOIL COMPACTOR	156 HP	D-off	\$169,885	59.98	9.07	15.37	1.38	16.88	254
	R50CA008	CS-74	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 17.0 TON, 84" WIDE, 3X2, SOIL COMPACTOR	156 HP	D-off	\$198,555	66.77	10.64	18.05	1.61	16.88	340
	R50CA013	CS44	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 7.9 TON, 66" WIDE, 3X2, SOIL COMPACTOR	100 HP	D-off	\$141,374	46.04	7.66	13.02	1.15	10.82	168
	R50CA014	CP44	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 7.9 TON, 66" WIDE, 3X2, SOIL COMPACTOR	100 HP	D-off	\$169,409	52.69	9.21	15.65	1.38	10.82	168
	R50CA015	CS56B	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 12.2 TON, 84" WIDE, 3X2, SOIL COMPACTOR	157 HP	D-off	\$268,761	83.55	14.50	24.64	2.18	16.99	257
	R50CA016	CP56B	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 12.2 TON, 84" WIDE, 3X2, SOIL COMPACTOR	157 HP	D-off	\$273,568	84.69	14.77	25.09	2.22	16.99	211
			<b>INGERSOLL RAND ROAD MACHINERY DIV</b>									
	R50IP001	SD-45D	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 4.9 TON, 54" WIDE, SOIL COMPACTOR	80 HP	D-off	\$102,156	34.37	5.45	9.24	0.83	8.66	104

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SAKAI AMERICA, INC.</b>											
	R50SI024	TW350 Combo	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 1.5 TON, 39.5" WIDE, 2X1, ASPHALT COMPACTOR	28 HP	D-off	\$65,203	19.07	3.50	5.93	0.53	3.03	25
	R50SI025	TW500 Combo	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 3.9 TON, 51" WIDE, 2X1, ASPHALT COMPACTOR	30 HP	D-off	\$80,439	22.93	4.33	7.36	0.65	3.25	36
	R50SI006	SV201D	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 4.8 TON, 54" WIDE, 3X2, SOIL COMPACTOR	60 HP	D-off	\$85,344	28.12	4.40	7.41	0.69	6.49	41
	R50SI007	SV201T (PADS)	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 4.9 TON, 54" WIDE, 3X2, SOIL COMPACTOR	60 HP	D-off	\$91,405	29.56	4.73	7.98	0.74	6.49	43
	R50SI022	SV400D-2	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 7.7 TON, 67" WIDE, 3X2, SOIL COMPACTOR	100 HP	D-off	\$115,695	39.98	6.24	10.60	0.94	10.82	156
	R50SI026	TW750 Combo	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 8.7 TON, 66" WIDE, 2X1, ASPHALT COMPACTOR	104 HP	D-off	\$159,800	50.86	8.70	14.80	1.30	11.25	100
	R50SI023	SV400TB-2 (PADS)	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 9.6 TON, 67" WIDE, 3X2, SOIL COMPACTOR	100 HP	D-off	\$130,468	43.47	7.05	11.98	1.06	10.82	72
	R50SI013	SV510D-3	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 11.5 TON, 84" WIDE, 3X2, SOIL COMPACTOR	148 HP	D-off	\$139,993	51.95	7.40	12.51	1.14	16.01	507
	R50SI016	SV510T-3 (PADS)	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 11.9 TON, 60" WIDE, 3X2, SOIL COMPACTOR	148 HP	D-off	\$150,205	54.37	7.95	13.46	1.22	16.01	110
	R50SI017	SV510TF-3 (PADS)	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 14.3 TON, 85" WIDE, 3X2, SOIL COMPACTOR	148 HP	D-off	\$162,465	57.27	8.63	14.61	1.32	16.01	131

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>R55</b>	<b>ROOFING EQUIPMENT</b>											
	<b>SUBCATEGORY 0.00 ROOFING EQUIPMENT</b>											
	<b>GARLOCK EQUIPMENT CO.</b>											
	R55GL020	300628	ROOFING EQUIPMENT, MATERIAL BUGGY, 36" WIDE, WALK BEHIND GRAVEL SPREADER, HOPPER 800 LBS, 8 CF, 4X2	5	HP G	\$5,194	2.58	0.34	0.60	0.04	1.02	4
	R55GL021	Ultracutter 300645	ROOFING EQUIPMENT, 1-BLADE CUTTER, 3.75" DEEP, WALK BEHIND 11 HP (ADD BLADE COST)	9	HP G	\$3,058	2.92	0.24	0.43	0.02	1.83	2
	R55GL022	GENESIS 1012	ROOFING EQUIPMENT, KETTLE, 1,012 GAL, W/PUMP, TRAILER MTD	8	HP G	\$29,431	17.33	2.19	3.92	0.23	1.62	54
	R55GL023	ROOF WARRIOR	ROOFING EQUIPMENT, ROOF PEELER, 16" WIDE, WALK BEHIND, POWERED WHEEL 2X2, STD W/ 18" FLAT BLADE	8	HP G	\$8,830	4.37	0.66	1.18	0.07	1.62	6
	R55GL024	NO. 78	1-ply graveler	6	HP G	\$5,903	3.00	0.47	0.84	0.05	1.12	4
	R55GL025	Garlock 3610	ROOFING EQUIPMENT, POWER BROOM W/ STEEL BRUSH, 36" WIDE	7	HP G	\$4,359	2.75	0.34	0.62	0.03	1.32	4
	R55GL017	SUPER MINI SAW	ROOFING EQUIPMENT, 1-BLADE CUTTER, 18" HEIGHT & 2" WALL CLEARANCE	5	HP G	\$2,534	1.88	0.20	0.36	0.02	1.02	2
	R55GL016	DUST MASTER ULTRA CU	ROOFING EQUIPMENT, 1-BLADE CUTTER, W/WATER DAMPENING SYSTEM AND H.E.P.A. VACUUM SYSTEM	9	HP G	\$5,784	3.74	0.46	0.82	0.05	1.83	3
	R55GL011	ENFORCER TWIN CUTTER	ROOFING EQUIPMENT, 2-BLADE CUTTER, 25" WIDE, SELF PROPELLED (ADD BLADE COST)	16	HP G	\$8,219	6.03	0.65	1.16	0.07	3.25	4
	R55GL018	NO.12	ROOFING EQUIPMENT, SCRATCHER, 4.5" WIDE	5	HP G	\$2,873	1.98	0.23	0.41	0.02	1.02	1

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>R55</i>			<i>GARLOCK EQUIPMENT CO. (continued)</i>									
	R55GL019	NO. 30	ROOFING EQUIPMENT, SCRATCHER, 13" WIDE	8	HP G	\$5,600	3.44	0.44	0.79	0.04	1.62	3
	R55GL009	ROTARY PLANER	ROOFING EQUIPMENT, ROTARY PLANER, 12" WIDE	11	HP G	\$3,288	3.33	0.27	0.47	0.03	2.13	2
	R55GL015	MODEL 1000	ROOFING EQUIPMENT, HYDRAULIC HOIST, W/175' CABLE, 1,000 LB CAP	9	HP G	\$13,601	6.06	1.08	1.93	0.11	1.83	8
	R55GL007	SUPER MAX HYDR HOIST	ROOFING EQUIPMENT, HYDRAULIC SWING HOIST, W/275' CABLE, 1,400 LB CAP	18	HP G	\$14,473	8.33	1.15	2.05	0.12	3.65	10
	R55GL013	MODEL 30	ROOFING EQUIPMENT, KETTLE, 30 GAL, WHEEL MTD			\$1,938	0.72	0.09	0.13	0.02	0.00	3
	R55GL014	MODEL 90	ROOFING EQUIPMENT, KETTLE, 90 GAL, SKID MTD			\$4,316	1.63	0.34	0.61	0.03	0.00	7
	R55GL001	MODEL 115	ROOFING EQUIPMENT, KETTLE, 115 GAL, TRAILER MTD			\$5,065	1.97	0.38	0.68	0.04	0.00	8
	R55GL002	MODEL 175	ROOFING EQUIPMENT, KETTLE, 175 GAL, W/PUMP, TRAILER MTD	5	HP G	\$6,963	3.64	0.52	0.91	0.06	1.02	17
	R55GL012	MODEL 300	ROOFING EQUIPMENT, KETTLE, 300 GAL, W/PUMP, TRAILER MTD	9	HP G	\$13,114	6.59	0.99	1.78	0.10	1.83	23
	R55GL003	GENESIS 412	ROOFING EQUIPMENT, KETTLE, 412 GAL, W/PUMP, TRAILER MTD	9	HP G	\$18,593	8.24	1.44	2.57	0.15	1.83	30
	R55GL004	GENESIS 612	ROOFING EQUIPMENT, KETTLE, 612 GAL, W/PUMP, TRAILER MTD	9	HP G	\$22,612	9.69	1.76	3.15	0.18	1.83	40

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>S10</b>	<b>SCRAPERS, ELEVATING</b>											
	<b>SUBCATEGORY 0.01 0 THRU 200 HP</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
S10CA001	613-C	SERIES II	SCRAPER, ELEVATING LOADING, 11 CY, 13 TON, 7.7' CUT WIDTH, 4X2 - SINGLE POWERED	175 HP	D-off	\$321,317	86.49	14.82	24.67	2.48	18.93	336
	<b>SUBCATEGORY 0.02 OVER 200 HP</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
S10CA003	623-G		SCRAPER, ELEVATING LOADING, 23 CY, 25 TON, 11.5' CUT WIDTH, 4X2 - SINGLE POWERED	365 HP	D-off	\$525,958	135.12	18.06	27.90	4.11	39.49	810
<b>S15</b>	<b>SCRAPERS, CONVENTIONAL</b>											
	<b>SUBCATEGORY 0.00 SCRAPERS, CONVENTIONAL</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
S15CA001	621-G		SCRAPER, CONVENTIONAL, STANDARD LOADING, 21 CY, 24 TON, 9.1' CUT WIDTH, 4X2 - SINGLE POWERED	365 HP	D-off	\$616,807	129.92	20.01	30.78	4.62	36.94	714
S15CA002	631-G		SCRAPER, CONVENTIONAL, STANDARD LOADING, 34 CY, 37.5 TON, 11.5' CUT WIDTH, 4X2 - SINGLE POWERED	450 HP	D-off	\$903,737	181.29	29.26	44.98	6.77	45.54	1,020

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT	
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL		
			<b>ATI-Bell</b>										
	S15JU001	4206DTIS28	SCRAPER, CONVENTIONAL, STANDARD LOADING, 28 CY, 32 TON, 14' CUT WIDTH, 4X4 - SINGLE POWERED, TRACTOR EQUIPPED WITH ATI RUBBER TRACKS	422 HP	D-off	\$635,368	130.14	21.13	32.73	4.76	42.71	940	
	S15JU002	4206DTIS33	SCRAPER, CONVENTIONAL, STANDARD LOADING, 33 CY, 37 TON, 14' CUT WIDTH, 4X4 - SINGLE POWERED, TRACTOR EQUIPPED WITH ATI RUBBER TRACKS	422 HP	D-off	\$657,508	132.86	21.89	33.91	4.93	42.71	953	
<b>S20</b>	<b>SCRAPERS, TANDEM POWERED</b>												
	<b>SUBCATEGORY 0.00</b>	<b>SCRAPERS, TANDEM POWERED</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>												
	S20CA001	627-G	SCRAPER, TANDEM POWERED, STANDARD LOADING, 21 CY, 24 TON, 9.1' CUT WIDTH, 4X4, D-9 ASSISTED LOADING	330 HP	D-off	225 HP D-off	\$516,919	146.30	16.60	25.45	3.87	58.11	791
	S20CA002	627-G PP	SCRAPER, TANDEM POWERED, STANDARD LOADING, 20 CY, 24 TON, 9.1' CUT WIDTH, 4X4, PUSH-PULL	330 HP	D-off	225 HP D-off	\$744,912	175.17	24.39	37.61	5.58	58.11	824
	S20CA003	637-G	SCRAPER, TANDEM POWERED, STANDARD LOADING, 34 CY, 37.5 TON, 11.5' CUT WIDTH, 4X4, D-10 ASSISTED LOADING	450 HP	D-off	250 HP D-off	\$1,155,734	252.58	37.87	58.42	8.66	73.30	1,084
	S20CA004	637-G PP	SCRAPER, TANDEM POWERED, STANDARD LOADING, 34 CY, 37.5 TON, 11.5' CUT WIDTH, 4X4, PUSH-PULL	450 HP	D-off	250 HP D-off	\$1,203,652	258.64	39.51	60.97	9.02	73.30	1,117
	S20CA005	657-G	SCRAPER, TANDEM POWERED, STANDARD LOADING, 44 CY, 52 TON, 12.6' CUT WIDTH, 4X4, D-11 ASSISTED LOADING	550 HP	D-off	400 HP D-off	\$1,481,363	324.34	48.90	75.60	11.10	99.47	1,516



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>S20</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	S20CA006	657-G PP	SCRAPER, TANDEM POWERED, STANDARD LOADING, 44 CY, 52 TON, 12.6' CUT WIDTH, 4X4, PUSH-PULL	550 HP D-off	400 HP D-off	\$1,571,477	339.99	51.70	79.85	11.77	99.47	1,550
<b>S25</b>	<b>SCRAPERS, TRACTOR DRAWN</b>											
	<b>SUBCATEGORY 0.00</b>		<b>SCRAPERS, TRACTOR DRAWN</b>									
	<b>DEERE &amp; COMPANY</b>											
	S25JD001	1510C	SCRAPER, TOWED, STANDARD LOADING, 11 CY, 17 TON, 10' CUT WIDTH (ADD 460 HP TRACTOR)			\$56,903	10.04	2.01	3.16	0.43	0.00	168
	S25JD002	1814C	SCRAPER, TOWED, STANDARD LOADING, 14 CY, 23 TON, 14' CUT WIDTH (ADD 460HP TRACTOR)			\$73,578	14.31	2.59	4.05	0.56	0.00	213
	<b>REYNOLDS INTERNATIONAL, L.P.</b>											
	S25RI001	14CS10	SCRAPER, TOWED, PIVOT DUMP, 10.7-14 CY, 15 TON, 10' CUT WIDTH (ADD 250 - 300 HP TRACTOR)			\$48,374	8.98	1.85	2.95	0.37	0.00	138
	S25RI002	17C12 (RG)	SCRAPER, TOWED, PIVOT DUMP, 13-17 CY, 17 TON, 12' CUT WIDTH (ADD 350 - 400 HP TRACTOR)			\$54,384	10.13	2.02	3.21	0.41	0.00	170
	<b>ROME PLOW CO.</b>											
	S25RM003	R56H	SCRAPER, TOWED, 9-12 CY, 12.5 TON, 8.5' CUT WIDTH (ADD 120-165 HP TRACTOR)			\$103,788	19.06	3.78	5.97	0.79	0.00	203

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>S25</i>	<i>ROME PLOW CO. (continued)</i>											
	S25RM001	R67H	SCRAPER, TOWED, 12-17 CY, 17 TON, 9.9' CUT WIDTH (ADD 165-215 HP TRACTOR)			\$137,805	23.90	5.17	8.24	1.05	0.00	238
	S25RM002	R89H	SCRAPER, TOWED, 18-26 CY, 25 TON, 10.8' CUT WIDTH (ADD 285-370 HP TRACTOR)			\$203,935	36.79	7.25	11.40	1.55	0.00	382
	S25RM004	R89HD	SCRAPER, TOWED, 18-26 CY, 25 TON, 10.8' CUT WIDTH (ADD 310-410 HP TRACTOR)			\$168,731	31.50	5.74	8.91	1.28	0.00	419
<b>S30</b>	<b>SCREENING &amp; CRUSHING PLANTS</b>											
	<b>SUBCATEGORY 0.10</b>		<b>CONVEYORS</b>									
	<b>KOLBERG - PIONEER, INC</b>											
	S30KB034	12-3050	SCREENING & CRUSHING PLANTS, FEEDER CONVEYOR, 30" WIDE X 50' LONG, 7 CY HOPPER & 6' FEED, PORTABLE, 500 TPH	15	HP E	\$60,667	11.95	2.89	4.89	0.44	0.93	15
	S30KB035	12-3070	SCREENING & CRUSHING PLANTS, FEEDER CONVEYOR, 30" WIDE X 70' LONG, 7 CY HOPPER & 6' FEED, PORTABLE, 500 TPH	20	HP E	\$69,177	13.91	3.28	5.56	0.50	1.24	18
	S30KB036	12-3650	SCREENING & CRUSHING PLANTS, FEEDER CONVEYOR, 36" WIDE X 50' LONG, 7 CY HOPPER & 6' FEED, PORTABLE, 750 TPH	20	HP E	\$65,036	13.17	3.09	5.23	0.47	1.24	16
	S30KB041	12-3670	SCREENING & CRUSHING PLANTS, FEEDER CONVEYOR, 36" WIDE X 70' LONG, 7 CY HOPPER & 6' FEED, PORTABLE, 750 TPH	20	HP E	\$74,417	14.81	3.52	5.96	0.54	1.24	19

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>S30</i>			<i>KOLBERG - PIONEER, INC (continued)</i>									
	S30KB001	13-2480	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 24" WIDE X 80' LONG, PORTABLE, 250 TPH	10 HP	E	\$39,935	7.87	1.88	3.17	0.29	0.62	14
	S30KB002	13-24100	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 24" WIDE X 100' LONG, PORTABLE, 250 TPH	15 HP	E	\$51,540	10.35	2.43	4.11	0.37	0.93	18
	S30KB003	13-3080	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 30" WIDE X 80' LONG, PORTABLE, 500 TPH	20 HP	E	\$42,284	9.20	2.06	3.51	0.30	1.24	20
	S30KB004	13-30100	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 30" WIDE X 100' LONG, PORTABLE, 500 TPH	25 HP	E	\$64,556	13.50	2.94	4.93	0.47	1.54	25
	S30KB005	13-3680	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 36" WIDE X 80' LONG, PORTABLE, 750 TPH	25 HP	E	\$49,449	10.91	2.29	3.86	0.36	1.54	30
	S30KB006	13-36100	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 36" WIDE X 100' LONG, PORTABLE, 750 TPH	30 HP	E	\$73,182	15.47	3.36	5.66	0.53	1.85	38
	S30KB007	31-2480	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 24" WIDE X 80' LONG, WHEEL MTD, 750 TPH	10 HP	E	\$45,876	8.90	2.18	3.70	0.33	0.62	22
	S30KB008	31-24100	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 24" WIDE X 100' LONG, PORTABLE, 250 TPH	15 HP	E	\$56,388	11.20	2.72	4.61	0.41	0.93	27
	S30KB009	31-24125	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 24" WIDE X 125' LONG, PORTABLE, 250 TPH	15 HP	E	\$78,141	14.95	3.63	6.14	0.56	0.93	33

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>S30</i>			<i>KOLBERG - PIONEER, INC (continued)</i>									
	S30KB010	31-3080	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 30" WIDE X 80' LONG, PORTABLE, 500 TPH	20	HP E	\$48,065	10.21	2.24	3.78	0.35	1.24	32
	S30KB011	31-30100	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 30" WIDE X 100' LONG, PORTABLE, 550 TPH	25	HP E	\$68,689	14.27	3.30	5.59	0.50	1.54	39
	S30KB012	31-30125	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 30" WIDE X 125' LONG, PORTABLE, 500 TPH	25	HP E	\$83,083	16.73	3.86	6.52	0.60	1.54	47
	S30KB013	31-3680	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 36" WIDE X 80' LONG, PORTABLE, 750 TPH	25	HP E	\$55,639	11.99	2.61	4.42	0.40	1.54	42
	S30KB014	31-36100	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 36" WIDE X 100' LONG, PORTABLE, 750 TPH	30	HP E	\$74,305	15.70	3.56	6.04	0.54	1.85	59
	S30KB015	31-36125	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 36" WIDE X 125' LONG, PORTABLE, 750 TPH	40	HP E	\$100,682	21.19	4.75	8.04	0.73	2.47	70
	S30KB018	35-24150	SCREENING & CRUSHING PLANTS, CONVEYOR, FIXED HEIGHT STACKER, 24" WIDE X 150' LONG, PORTABLE, 750 TPH	25	HP E	\$115,360	22.40	5.71	9.76	0.83	1.54	39

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>S30</i>			<i>KOLBERG - PIONEER, INC (continued)</i>									
	S30KB021	35-30150	SCREENING & CRUSHING PLANTS, CONVEYOR, FIXED HEIGHT STACKER, 30" WIDE X 150' LONG, PORTABLE, 1,500 TPH	40 HP	E	\$133,622	26.97	6.63	11.33	0.96	2.47	56
	S30KB024	35-36150	SCREENING & CRUSHING PLANTS, CONVEYOR, FIXED HEIGHT STACKER, 36" WIDE X 150' LONG, PORTABLE, 2,000 TPH	60 HP	E	\$152,979	32.21	7.60	13.00	1.10	3.71	84
	S30KB025	36-24100	SCREENING & CRUSHING PLANTS, CONVEYOR, ADJUSTABLE HEIGHT RADIAL STACKER, 24" WIDE X 100' LONG, PORTABLE, 750 TPH	20 HP	E	\$81,990	16.13	4.02	6.86	0.59	1.24	52
	S30KB026	36-24125	SCREENING & CRUSHING PLANTS, CONVEYOR, ADJUSTABLE HEIGHT RADIAL STACKER, 24" WIDE X 120' LONG, PORTABLE, 750 TPH	20 HP	E	\$97,467	18.83	4.81	8.21	0.70	1.24	57
	S30KB027	36-24150	SCREENING & CRUSHING PLANTS, CONVEYOR, ADJUSTABLE HEIGHT RADIAL STACKER, 24" WIDE X 150' LONG, PORTABLE, 750 TPH	25 HP	E	\$123,221	23.78	6.13	10.47	0.89	1.54	65
	S30KB028	36-30100	SCREENING & CRUSHING PLANTS, CONVEYOR, ADJUSTABLE HEIGHT RADIAL STACKER, 30" WIDE X 100' LONG, PORTABLE, 1,500 TPH	30 HP	E	\$93,197	18.99	4.58	7.82	0.67	1.85	64
	S30KB029	36-30125	SCREENING & CRUSHING PLANTS, CONVEYOR, ADJUSTABLE HEIGHT RADIAL STACKER, 30" WIDE X 120' LONG, PORTABLE, 1,500 TPH	30 HP	E	\$112,199	22.31	5.55	9.48	0.81	1.85	71

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>S30</i>			<i>KOLBERG - PIONEER, INC (continued)</i>									
	S30KB030	36-30150	SCREENING & CRUSHING PLANTS, CONVEYOR, ADJUSTABLE HEIGHT RADIAL STACKER, 30" WIDE X 150' LONG, PORTABLE, 1,500 TPH	40 HP	E	\$140,908	28.26	7.02	11.99	1.02	2.47	82
	S30KB031	36-36100	SCREENING & CRUSHING PLANTS, CONVEYOR, ADJUSTABLE HEIGHT RADIAL STACKER, 36" WIDE X 100' LONG, PORTABLE, 2,000 TPH	50 HP	E	\$121,053	25.70	6.01	10.28	0.87	3.09	82
	S30KB032	36-36125	SCREENING & CRUSHING PLANTS, CONVEYOR, ADJUSTABLE HEIGHT RADIAL STACKER, 36" WIDE X 120' LONG, PORTABLE, 2,000 TPH	50 HP	E	\$142,698	29.48	7.11	12.15	1.03	3.09	93
	S30KB033	36-36150	SCREENING & CRUSHING PLANTS, CONVEYOR, ADJUSTABLE HEIGHT RADIAL STACKER, 36" WIDE X 150' LONG, PORTABLE, 2,000 TPH	60 HP	E	\$164,464	34.22	8.21	14.04	1.19	3.71	110
	S30KB042	1430-60-25	SCREENING & CRUSHING PLANTS, SURGE BIN, 25CY, BELT FEEDER, & 30" WIDE X 60' LONG CONVEYOR, PORTABLE, 1,500 TPH	30 HP	E	\$102,881	20.69	5.11	8.74	0.74	1.85	18
	S30KB054	1936-2	SCREENING & CRUSHING PLANTS, SURGE BIN, 25CY, BELT FEEDER, & 30" WIDE X 40' LONG CONVEYOR, PORTABLE, 1,500 TPH	15 HP	E	\$105,307	19.74	5.24	8.95	0.76	0.93	18
	S30KB053	1436-60-25	SCREENING & CRUSHING PLANTS, SURGE BIN, 25CY, BELT FEEDER, & 36" WIDE X 60' LONG CONVEYOR, PORTABLE, 2,000 TPH	40 HP	E	\$106,281	22.20	5.27	9.00	0.77	2.47	20

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>S30</i>			<i>KOLBERG - PIONEER, INC (continued)</i>								
	S30KB043	1936-3	SCREENING & CRUSHING PLANTS, SURGE BIN, 25CY, BELT FEEDER, & 36" WIDE X 40' LONG CONVEYOR, PORTABLE, 2,000 TPH	15 HP	E	\$152,128	27.92	7.67	13.13	1.10	0.93	20
	S30KB044	1936-4	SCREENING & CRUSHING PLANTS, SURGE BIN, 25CY, BELT FEEDER, & 36" WIDE X 40' LONG CONVEYOR, PORTABLE, 2,000 TPH	15 HP	E	\$186,827	33.97	9.48	16.25	1.35	0.93	20
			<b>PUTZMEISTER INC.</b>									
	S30PU004	TELEBELT TB 130	SCREENING & CRUSHING PLANTS, CONVEYOR, 18" WIDE X 126' LONG, 3 CY HOPPER & TREMIE, 4X8, TRUCK MTD, 360 CY/HR	400 HP	D-off	\$914,542	208.44	47.30	81.42	6.59	43.28	763
	S30PU002	TELEBELT TB 80	SCREENING & CRUSHING PLANTS, CONVEYOR, 18" WIDE X 80' LONG, 3 CY HOPPER & TREMIE, 4X6, TRUCK MTD, 360 CY/HR	400 HP	D-off	\$619,536	156.98	31.96	54.98	4.47	43.28	520
	S30PU003	TELEBELT TB 110	SCREENING & CRUSHING PLANTS, CONVEYOR, 18" WIDE X 106' LONG, 3 CY HOPPER & TREMIE, 4X8, TRUCK MTD, 360 CY/HR	400 HP	D-off	\$779,379	184.86	40.25	69.26	5.62	43.28	615
			<b>TELSMITH INC.</b>									
	S30TS001	PTC 24IN X 50FT	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 24" WIDE X 50' LONG, WHEEL MTD, 300 TPH	12 HP	E	\$41,837	8.41	2.02	3.44	0.30	0.74	10
	S30TS002	PTC 24IN X 70FT	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 24" WIDE X 70' LONG, WHEEL MTD, 300 TPH	17 HP	E	\$56,779	11.48	2.76	4.70	0.41	1.05	13

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>S30</i>	<i>TELSMITH INC. (continued)</i>											
	S30TS003	PTC 30IN X 50FT	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 30" WIDE X 50' LONG, WHEEL MTD, 590 TPH	17 HP	E	\$43,319	9.12	2.07	3.52	0.31	1.05	12
	S30TS004	PTC 30IN X 70FT	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 30" WIDE X 70' LONG, WHEEL MTD, 1,000 TPH	22 HP	E	\$58,672	12.27	2.83	4.81	0.42	1.36	17
	S30TS005	PTC 36IN X 50FT	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 36" WIDE X 50' LONG, WHEEL MTD, 750 TPH	22 HP	E	\$45,560	9.98	2.17	3.68	0.33	1.36	19
	S30TS006	PTC 36IN X 70FT	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 36" WIDE X 70' LONG, WHEEL MTD, 1,200 TPH	27 HP	E	\$61,643	13.25	2.95	5.01	0.44	1.67	26
	S30TS007	PTC 42IN X 50FT	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 42" WIDE X 50' LONG, WHEEL MTD, 1,000 TPH	32 HP	E	\$54,475	12.45	2.61	4.43	0.39	1.98	25
	S30TS008	PTC 42IN X 70FT	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 42" WIDE X 70' LONG, WHEEL MTD, 1,000 TPH	42 HP	E	\$91,703	19.88	4.49	7.65	0.66	2.59	25
	<b>SUBCATEGORY 0.20</b>	<b>CRUSHERS - VERTICAL &amp; HORIZONTAL SHAFT IMPACTOR</b>										
		<b>HEWITT-ROBINS</b>										
	S30HW001	MODEL 13654V	SCREENING & CRUSHING PLANTS, CRUSHER - SHAFT IMPACTOR, 36"X54", SINGLE ROTOR, 250 TPH, W/3' X 16' FEEDER/ 4' GRIZZLY/ 24" X 8' REJECTION CONVEYOR/ & 36" X 37' DISCHARGE END DELIVERY CONVEYOR, TRAILER MTD (ADD 250 KW GENERATOR)	250 HP	E	\$363,643	55.59	8.77	12.61	2.46	15.44	804



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>S30</i>	<i>HEWITT-ROBINS (continued)</i>											
	S30HW002	MODEL 14866V	SCREENING & CRUSHING PLANTS, CRUSHER - SHAFT IMPACTOR, 48"X66" SINGLE ROTOR, 350 TPH, W/4'X16' FEEDER/ 6' GRIZZLY/ 30" X 9.5' REJECTION CONVEYOR/ & 48" X43' DISCHARGE END DELIVERY CONVEYOR, TRAILER MTD (ADD 350 KW GENERATOR)	350 HP	E	\$490,840	76.07	11.85	17.08	3.31	21.61	1,280
	S30HW013	MODEL H4832S	SCREENING & CRUSHING PLANTS, CRUSHER - SHAFT IMPACTOR, SECONDARY, 48"X32" HAMMERMILL, 500 TPH, W/3' X 37' FEED CONVEYOR/ 5' X 16' VIBRATORY HORIZONTAL TRIPLE DECK SCREEN/ 36"X30' RETURN CONVEYOR/ & ROTOR LIFT, TRAILER MTD (ADD 450 KW GENERATOR)	450 HP	E	\$435,223	80.15	10.54	15.19	2.94	27.79	600
	<b>KOLBERG - PIONEER, INC</b>											
	S30KB045	CS-4250	SCREENING & CRUSHING PLANTS, CRUSHER - SHAFT IMPACTOR, 42" X 52", 500 TPH, W/18' X 42" VIBRATORY FEEDER/ ADJUSTABLE GRIZZLY/ & BYPASS FEED, TRAILER MTD	360 HP	D-off	\$622,654	98.54	15.22	22.04	4.20	38.95	548
	<b>TELSMITH INC.</b>											
	S30TS009	4246	SCREENING & CRUSHING PLANTS, CRUSHER - SHAFT IMPACTOR, 46" X 59", 600 TPH	300 HP	E	\$330,863	59.30	8.19	11.91	2.23	18.53	595
	S30TS010	4856	SCREENING & CRUSHING PLANTS, CRUSHER - SHAFT IMPACTOR, 56" X 85", 1,100 TPH	400 HP	E	\$490,581	83.35	12.14	17.66	3.31	24.70	942

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT	
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL		
S30	<i>TELSMITH INC. (continued)</i>												
	S30TS011	6071	SCREENING & CRUSHING PLANTS, CRUSHER - SHAFT IMPACTOR, 71" X 100", 2,100 TPH	800 HP	E	\$813,764	152.18	20.15	29.30	5.50	49.40	1,950	
	<b>SUBCATEGORY 0.21</b>		<b>CRUSHERS - CONE</b>										
	<b>KOLBERG - PIONEER, INC</b>												
S30KB046	1200 LS	SCREENING & CRUSHING PLANTS, CRUSHERS - CONE, SECONDARY, 120 TPH @ 3/8" -> 250 TPH @ 1", 42" X 50" IMPACT CRUSHER, W/HOPPER/ & 36" X 32' END DELIVERY CONVEYOR, TRAILER MTD (ADD 210KW GENERATOR)	272 HP	E	\$435,114	67.46	10.55	15.21	2.94	16.80	810		
S30KB047	1400 LS	SCREENING & CRUSHING PLANTS, CRUSHERS - CONE, SECONDARY PLANT, 630 TPH @ 1" ->1,050 TPH @ 2.5", 42" X 50" IMPACT CRUSHER, W/HOPPER/ & 42" X 32' END DELIVERY CONVEYOR, TRAILER MTD (INCLUDES GENERATOR)	315 HP	E	\$541,890	81.42	13.25	19.17	3.66	19.45	741		
<b>SUBCATEGORY 0.22</b>		<b>CRUSHERS - JAW</b>											
<b>HEWITT-ROBINS</b>													
S30HW005	MODEL J1524PF	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 15"X24", 21 TPH @ 1" -> 54 TPH @ 3", W/2.5' X 8' FEEDER/ 2' GRIZZLY/ & 24" X 20" END DELIVERY CONVEYOR, TRAILER MTD (ADD 40 KW GENERATOR)	40 HP	E	\$195,379	18.35	4.69	6.74	1.32	2.47	86		

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>S30</i>	<i>HEWITT-ROBINS (continued)</i>											
	S30HW006	MODEL J1536V	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 15"X36", 45 TPH @1.5" -> 150 TPH @ 6", W/3' X 14' FEEDER/ 4' GRIZZLY/ & 30" X 31' END DELIVERY CONVEYOR, TRAILER MTD (ADD 40 KW GENERATOR)	100 HP	E	\$325,328	33.22	7.90	11.40	2.20	6.18	128
	S30HW007	MODEL J2036V	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 20" X 36", 65 TPH @ 2" -> 223 TPH @ 7", W/3' X 14' FEEDER/ 4' GRIZZLY/ & 30" X 31' END DELIVERY CONVEYOR, TRAILER MTD (ADD 40 KW GENERATOR)	125 HP	E	\$353,603	37.54	8.60	12.42	2.39	7.72	128
	S30HW009	MODEL J2142V	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 21" X 42", 183 TPH @ 4" -> 345 TPH @ 8", W/3.5' X 16' FEEDER/ 4' GRIZZLY/ & 36" X 34' END DELIVERY CONVEYOR, TRAILER MTD (ADD 40 KW GENERATOR)	150 HP	E	\$383,066	42.30	9.26	13.33	2.59	9.26	152
	S30HW011	MODEL J2248V	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 22" X 48", 115 TPH @ 2.5" -> 240 TPH @ 6", W/4' X 16' FEEDER/ 4' GRIZZLY/ & 48" X 37' END DELIVERY CONVEYOR (ADD 40 KW GENERATOR)	200 HP	E	\$457,745	52.42	11.07	15.95	3.09	12.35	168
	S30HW008	MODEL J2436V	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 24" X 36", 95 TPH @ 2.5" -> 230 TPH @ 6", W/3' X 14' FEEDER/ 4' GRIZZLY/ & 30" X 31' END DELIVERY CONVEYOR, TRAILER MTD (ADD 40 KW GENERATOR)	125 HP	E	\$369,473	38.67	9.00	12.99	2.50	7.72	128

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
S30	<i>HEWITT-ROBINS (continued)</i>											
	S30HW010	MODEL J3042V	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 30" X 42", 200 TPH @ 4" -> 390 TPH @ 8", W/3.5' X 16' FEEDER/ 6' GRIZZLY/ & 36" X 55' END DELIVERY CONVEYOR, TRAILER MTD (ADD 40 KW GENERATOR)	200 HP	E	\$466,964	53.00	11.30	16.30	3.15	12.35	156
	S30HW012	MODEL J3048V	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 30" X 48", 340 TPH @ 5" -> 615 TPH @ 10", W/4' X 16' FEEDER/ 4' GRIZZLY/ & 48" X 37' END DELIVERY CONVEYOR, TRAILER MTD (ADD 40 KW GENERATOR)	200 HP	E	\$541,195	58.54	13.10	18.89	3.65	12.35	168
	<b>KOLBERG - PIONEER, INC</b>											
S30KB055	CS-1536	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 15" X 36", 45 TPH @ 1.5" -> 150 TPH @ 6", W/36" X 14' VIBRATING FEEDER/ ADJUSTABLE GRIZZLY & BYPASS/ HOPPER/ & 36" X 22' END DELIVERY CONVEYOR, TRAILER MTD, INCLUDES GENERATOR	245 HP	D-off	\$404,183	59.39	9.85	14.24	2.73	26.51	548	
S30KB058	1524-2416 DUPLEX PL	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 15" X 36", 200 TPH @ 1/4" -> 250 TPH @ 6", W/36" X 14' VIBRATING FEEDER/ ADJUSTABLE GRIZZLY & BYPASS/ HOPPER/ SCREEN CONVEYOR/ & TRIPLE VIBRATORY SCREENS, TRAILER MTD	130 HP	E	\$431,451	43.58	10.52	15.22	2.91	8.03	391	

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>S30</i>			<i>KOLBERG - PIONEER, INC (continued)</i>								
	S30KB056	CS-2036	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 20" X 36", 65 TPH @ 2" -> 223 TPH @ 7", W/36" X 14' VIBRATING FEEDER/ ADJUSTABLE GRIZZLY & BYPASS/ HOPPER/ & 36" X 22' END DELIVERY CONVEYOR, TRAILER MTD, INCLUDES GENERATOR	245 HP	D-off	\$414,180	60.10	10.10	14.60	2.80	26.51	590
	S30KB059	2036-3024 DUPLEX PL	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 20" X 36", 270 TPH @ 1/4" -> 320 TPH @ 7", W/36" X 14' RECIPROCATING PLATE FEEDER/ 12' LONG ADJUSTABLE GRIZZLY & BYPASS/ HOPPER/ & 18" X 15' SCREEN CONVEYOR, TRAILER MTD (ADD 300KW GENERATOR)	300 HP	E	\$678,266	77.12	16.57	23.98	4.58	18.53	415
	S30KB057	CS-2436	SCREENING & CRUSHING PLANTS, JAW CRUSHER, 24" X 36", 95 TPH @ 2.5" -> 230 TPH @ 6", W/36" X 16' VIBRATING FEEDER/ ADJUSTABLE GRIZZLY & BYPASS/ HOPPER/ & 36" X 22' END DELIVERY CONVEYOR, TRAILER MTD, INCLUDES GENERATOR	245 HP	D-off	\$462,177	63.52	11.28	16.32	3.12	26.51	701
	<b>SUBCATEGORY 0.30</b>		<b>SCREENING PLANT</b>									
	<b>HEWITT-ROBINS</b>											
	S30HW014	V-11 6X16FT, DD	SCREENING & CRUSHING PLANTS, SCREENING PLANT, 6' X 16' VIBRATORY SLOPE DOUBLE DECK SCREENS, W/36" X 16.5' UNDER SCREEN CONVEYOR/ 7 CY HOPPER/ & FEEDER, TRAILER MTD	15 HP	E	\$141,663	27.59	7.16	12.28	1.02	0.93	101

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>S30</i>	<i>HEWITT-ROBINS (continued)</i>											
	S30HW016	V-11 6X20FT, DD	SCREENING & CRUSHING PLANTS, SCREENING PLANT, 6' X 20' VIBRATORY SLOPE DOUBLE DECK SCREENS, W/36" X 16.5' UNDER SCREEN CONVEYOR/ 7 CY HOPPER/ & FEEDER, TRAILER MTD	20 HP	E	\$147,262	29.08	7.45	12.78	1.06	1.24	115
	S30HW015	V-11 6X16FT, TD	SCREENING & CRUSHING PLANTS, SCREENING PLANT, 6' X 16' VIBRATORY SLOPE TRIPLE DECK SCREENS W/36" X 16.5' UNDER SCREEN CONVEYOR/ 7 CY HOPPER/ & FEEDER, TRAILER MTD	25 HP	E	\$155,447	31.06	7.88	13.52	1.12	1.54	138
	S30HW017	V-11 6X20FT, TD	SCREENING & CRUSHING PLANTS, SCREENING PLANT, 6' X 20' VIBRATORY SLOPE TRIPLE DECK SCREENS W/36" X 16.5' UNDER SCREEN CONVEYOR/ 7 CY HOPPER/ & FEEDER, TRAILER MTD,	25 HP	E	\$158,001	31.53	8.02	13.75	1.14	1.54	167
	S30HW018	V-11 8X20FT, TD	SCREENING & CRUSHING PLANTS, SCREENING PLANT, 8' X 20' VIBRATORY SLOPE TRIPLE DECK SCREENS, W/48" X 15.5' UNDER SCREEN CONVEYOR/ 7 CY HOPPER/ & FEEDER, TRAILER MTD	40 HP	E	\$188,041	38.40	9.39	16.05	1.36	2.47	243
	<b>KOLBERG - PIONEER, INC</b>											
	S30KB048	616 E-3	SCREENING & CRUSHING PLANTS, SCREENING PLANT, 6' X 16', VIBRATORY SLOPE TRIPLE DECK SCREENS, W/HOPPER/ 36" X 28.5' FEEDER CONVEYOR/ 48" X27' UNDER SCREEN CONVEYOR/ & 24" X 20' SIDE DELIVERY CONVEYOR, TRAILER MTD	85 HP	E	\$190,229	43.00	9.61	16.48	1.37	5.25	280

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>S30</i>			<i>KOLBERG - PIONEER, INC (continued)</i>								
	S30KB049	620 E-3	SCREENING & CRUSHING PLANTS, SCREENING PLANT, 6' X 20' VIBRATORY SLOPE TRIPLE DECK SCREENS, W/HOPPER/ 42" X 34' FEEDER CONVEYOR/ 60" X 25' UNDER SCREEN CONVEYOR/ & 30" X 15' SIDE DELIVERY CONVEYOR, TRAILER MTD	90 HP	E	\$224,547	49.78	10.83	18.41	1.62	5.56	355
	S30KB050	1822	SCREENING & CRUSHING PLANTS, WASHING/SCREENING PLANT, 6' X 16' VIBRATORY SLOPE TRIPLE DECK SCREENS, W/HOPPER / 3 PRODUCT CHUTES/ ONE FINES CHUTE TO 8' X 32' CLASSIFYING TANK/ 36" DIA X 32' SLOPED SCREW & CHUTE, TRAILER MTD (ADD WATER & FEEDER)	250 HP	E	\$271,315	73.15	13.86	23.80	1.96	15.44	416
	S30KB051	1830	SCREENING & CRUSHING PLANTS, WASHING/SCREENING PLANT, 6' X 20' VIBRATORY SLOPED TRIPLE DECK SCREENS, W/HOPPER/ 3 PRODUCT CHUTES/ ONE FINES CHUTE/ 8' X 32' CLASSIFYING TANK/ & 44" DIA X 32' SLOPED SCREW & CHUTE, TRAILER MTD (ADD WATER & FEEDER)	250 HP	E	\$345,290	86.79	17.56	30.14	2.49	15.44	420
	S30KB052	7208-32 S/P	SCREENING & CRUSHING PLANTS, CLASSIFYING PLANT (SAND SORT) 8'W X 32'L TANK & 44" DIA SCREW	250 HP	E	\$360,408	89.75	18.67	32.13	2.60	15.44	450
			<b>METSO MINERALS</b>									
	S30RA002	CV 50D	SCREENING & CRUSHING PLANTS, GRIZZLY-SINGLE SCREEN, 120 CY/HR, TRAILER MTD	25 HP	D-off	\$79,353	17.72	4.06	6.98	0.57	2.70	130

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>S30</i>	<i>METSO MINERALS (continued)</i>											
	S30RA003	CV 90D	SCREENING & CRUSHING PLANTS, GRIZZLY-SINGLE SCREEN, 200 CY/HR, TRAILER MTD	49 HP	D-off	\$125,625	29.17	6.40	10.97	0.91	5.30	195
<b>S35</b>	<b>SNOW REMOVAL EQUIPMENT</b>											
	<b>SUBCATEGORY 0.00 SNOW REMOVAL EQUIPMENT</b>											
	<b>AMERICAN ROAD MACHINERY, INC.</b>											
	S35AR001	112	SNOW REMOVAL EQUIPMENT, SNOW PLOW, REVERSIBLE (ADD DUMP TRUCK)			\$5,289	1.15	0.31	0.53	0.04	0.00	15
	S35AR002	713	SNOW REMOVAL EQUIPMENT, SNOW PLOW, 1-WAY TRIP (ADD DUMP TRUCK)			\$7,524	1.64	0.44	0.75	0.06	0.00	20
<b>S40</b>	<b>SOIL &amp; ROAD STABILIZERS</b>											
	<b>SUBCATEGORY 0.00 SOIL &amp; ROAD STABILIZERS</b>											
	<b>COMPACTION AMERICA (BOMAG)</b>											
	S40B0002	MPH-362 R RECYCLER	SOIL & ROAD STABILIZER, 12" DEEP X 79" WIDE, HYDROSTATIC RECLAIMER/ SOIL STABILIZER, 4X2	360 HP	D-off	\$367,443	117.26	17.20	28.74	2.83	42.72	390
	S40B0003	MPH-362 S	SOIL & ROAD STABILIZER, 14" DEEP X 79" WIDE, HYDROSTATIC RECLAIMER/ SOIL STABILIZER, 4X2	360 HP	D-off	\$346,586	113.37	16.21	27.07	2.67	42.72	390
	S40B0004	MPH-362 SDM	SOIL & ROAD STABILIZER, 21" DEEP X 79" WIDE, HYDROSTATIC RECLAIMER/ SOIL STABILIZER, 4X2	360 HP	D-off	\$352,619	114.49	16.50	27.55	2.72	42.72	390



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>												
	S40CA001	RR-250B	SOIL & ROAD STABILIZER, 12" DEEP X 96" WIDE, HYDROSTATIC RECLAIMER/ SOIL STABILIZER, 4X2	309 HP	D-off	\$407,562	118.62	19.10	31.91	3.14	36.67	370
	S40CA002	SS-250B	SOIL & ROAD STABILIZER, 18" DEEP X 96" WIDE, HYDROSTATIC RECLAIMER/ SOIL STABILIZER, 4X2	309 HP	D-off	\$391,237	114.55	18.28	30.51	3.02	36.67	308
	S40CA003	RM-300	SOIL & ROAD STABILIZER, 18" DEEP X 96" WIDE, HYDROSTATIC ROAD RECLAIMER/ SOIL STABILIZER, 4X4	350 HP	D-off	\$338,604	117.81	14.92	24.62	2.61	41.53	518
	S40CA004	RM-500	SOIL & ROAD STABILIZER, 16" DEEP X 96" WIDE, HYDROSTATIC ROAD RECLAIMER/ SOIL STABILIZER, 4X4	540 HP	D-off	\$530,588	177.33	24.15	40.12	4.09	64.08	599
<b>S45</b>	<b>SPLITTERS, ROCK &amp; CONCRETE</b>											
	<b>SUBCATEGORY 0.00</b>	<b>SPLITTERS, ROCK &amp; CONCRETE</b>										
<b>ELCO INTERNATIONAL INC.</b>												
	S45DA004	02-2	SPLITTER, ROCK & CONCRETE, 220 TON SFORCE, 1.75" DIA, SIZE 2, 5 GAL, 12" DEEP HOLE REQ'D (ADD 80 CFM COMPRESSOR)	80 CFM	A	\$13,560	4.67	1.02	1.81	0.11	0.00	1
	S45DA005	02-9	SPLITTER, ROCK & CONCRETE, 220 TON SFORCE, 1.75" DIA, SIZE 9, 5 GAL, 18" DEEP HOLE REQ'D (ADD 80 CFM COMPRESSOR)	80 CFM	A	\$16,212	5.52	1.21	2.16	0.13	0.00	1
	S45DA007	02-12	SPLITTER, ROCK & CONCRETE, 385 TON SFORCE, 1.75" DIA, SIZE 12, 5 GAL, 26" DEEP HOLE REQ'D (ADD 80 CFM COMPRESSOR)	80 CFM	A	\$17,089	5.81	1.28	2.28	0.14	0.00	1

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>T10</b>	<b>TRACTOR BLADES &amp; ATTACHMENTS (including agricultural)</b>											
	<b>SUBCATEGORY 0.00</b>	<b>TRACTOR BLADES &amp; ATTACHMENTS (including agricultural)</b>										
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	T10CA001	D3-61-9722	TRACTOR ATTACHMENTS, BLADE, POWER ANGLE, HYDRAULIC, FOR D3, 1.65 CY (ADD D3 TRACTOR)			\$14,544	2.66	0.69	1.16	0.11	0.00	22
	T10CA002	D3-PA 30B	TRACTOR ATTACHMENTS, POWER WINCH, W/250' CABLE, FOR D3 (ADD D3 TRACTOR)			\$18,011	3.28	0.86	1.44	0.14	0.00	21
	T10CA004	D4-104-5683	TRACTOR ATTACHMENTS, BLADE, POWER ANGLE, HYDRAULIC, FOR D4, 2.17 CY (ADD D4 TRACTOR)			\$16,100	2.94	0.77	1.29	0.12	0.00	24
	T10CA005	D4-PA 30B	TRACTOR ATTACHMENTS, POWER WINCH, W/250' CABLE, FOR D4 (ADD D4 TRACTOR)			\$18,011	3.28	0.86	1.44	0.14	0.00	21
	T10CA007	D5 N - ANGLE BLADE	TRACTOR ATTACHMENTS, BLADE, POWER ANGLE, HYDRAULIC, FOR D5, 2.53 CY (ADD D5 TRACTOR)			\$24,450	4.43	1.17	1.96	0.19	0.00	26
	T10CA008	D5-PA 50	TRACTOR ATTACHMENTS, POWER WINCH, FOR D5 (ADD D5 TRACTOR)			\$27,429	4.94	1.31	2.19	0.21	0.00	26
	T10CA009	D6-108-3970	TRACTOR ATTACHMENTS, BLADE, STRAIGHT, HYDRAULIC, FOR D6, 5.09 CY (ADD D6 TRACTOR)			\$29,645	5.34	1.42	2.37	0.23	0.00	57
	T10CA010	D6-108-3982	TRACTOR ATTACHMENTS, BLADE, POWER ANGLE, HYDRAULIC, FOR D6, 4.16 CY (ADD D6 TRACTOR)			\$32,368	5.83	1.55	2.59	0.25	0.00	69
	T10CA011	D6-PA56 WINCH	TRACTOR ATTACHMENTS, POWER WINCH, W/CABLE, FOR D6 (ADD D6 TRACTOR)			\$45,667	8.18	2.18	3.65	0.35	0.00	27

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>T10</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	T10CA012	D7-S	TRACTOR ATTACHMENTS, BLADE, STRAIGHT, HYDRAULIC, FOR D7, 6.75 CY (ADD D7 TRACTOR)			\$43,717	7.85	2.09	3.50	0.34	0.00	77
	T10CA013	D7-U	TRACTOR ATTACHMENTS, BLADE, UNIVERSAL, HYDRAULIC, FOR D7, 10.09 CY (ADD D7 TRACTOR)			\$47,996	8.60	2.29	3.84	0.37	0.00	86
	T10CA014	D7-A	TRACTOR ATTACHMENTS, BLADE, POWER ANGLE, HYDRAULIC, FOR D7, 5.08 CY (ADD D7 TRACTOR)			\$39,881	7.16	1.91	3.19	0.31	0.00	78
	T10CA015	D7-PA57	WINCH TRACTOR ATTACHMENTS, POWER WINCH, W/CABLE, FOR D7 (ADD D7 TRACTOR)			\$59,964	10.74	2.86	4.80	0.46	0.00	45
	T10CA016	D8-SU	TRACTOR ATTACHMENTS, BLADE, STRAIGHT, HYDRAULIC, FOR D8, 6.09 CY (ADD D8 TRACTOR)			\$58,195	10.46	2.78	4.66	0.45	0.00	107
	T10CA017	D8-U	TRACTOR ATTACHMENTS, BLADE, UNIVERSAL, HYDRAULIC, FOR D8, 15.30 CY (ADD D8 TRACTOR)			\$63,099	11.34	3.02	5.05	0.49	0.00	124
	T10CA018	D8-A	TRACTOR ATTACHMENTS, BLADE, POWER ANGLE, HYDRAULIC, FOR D8, 6.09 CY (ADD D8 TRACTOR)			\$55,719	10.02	2.66	4.46	0.43	0.00	123
	T10CA019	D8-PP	TRACTOR ATTACHMENTS, BLADE, PUSH PLATE, FOR D8 (ADD D8 TRACTOR)			\$1,591	0.33	0.08	0.13	0.01	0.00	5
	T10CA020	D8, PA58VS	WINCH TRACTOR ATTACHMENTS, POWER WINCH, W/CABLE, FOR D8 (ADD D8 TRACTOR)			\$59,722	10.75	2.85	4.78	0.46	0.00	50
	T10CA021	D9-SU	TRACTOR ATTACHMENTS, BLADE, SEMI-U, HYDRAULIC, FOR D9, 17.70 CY (ADD D9 TRACTOR)			\$79,084	14.23	3.78	6.33	0.61	0.00	143

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>T10</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	T10CA022	D9-U	TRACTOR ATTACHMENTS, BLADE, UNIVERSAL, HYDRAULIC, FOR D9, 21.40 CY (ADD D9 TRACTOR)			\$77,039	13.86	3.67	6.16	0.59	0.00	137
	T10CA023	D9, PA59VS WINCH	TRACTOR ATTACHMENTS, POWER WINCH, W/CABLE, FOR D9 (ADD D9 TRACTOR)			\$80,160	14.43	3.83	6.41	0.62	0.00	86
	T10CA024	D10-SU ABRASION	TRACTOR ATTACHMENTS, BLADE, SEMI-U, HYDRAULIC, FOR D10, 24.20 CY (ADD D10 TRACTOR)			\$60,558	11.03	2.89	4.84	0.47	0.00	357
	T10CA025	D10-U ABRASION	TRACTOR ATTACHMENTS, BLADE, UNIVERSAL, HYDRAULIC, FOR D10, 28.70 CY (ADD D10 TRACTOR)			\$73,200	13.28	3.49	5.86	0.56	0.00	251
	T10CA026	D11-SU	TRACTOR ATTACHMENTS, BLADE, STRAIGHT, HYDRAULIC, FOR D11, 35.50 CY (ADD D11 TRACTOR)			\$115,100	20.84	5.50	9.21	0.89	0.00	367
	T10CA027	D11-U	TRACTOR ATTACHMENTS, BLADE, UNIVERSAL, HYDRAULIC, FOR D11, 45.00 CY (ADD D11 TRACTOR)			\$152,518	27.50	7.28	12.20	1.18	0.00	423
			<b>DEERE &amp; COMPANY</b>									
	T10JD001	915 V-RIPPER	TRACTOR ATTACHMENTS, DEEP TILLER, 5x7 V SHAPED, 175" WIDE, 7 SHANKS (ADD 200HP TRACTOR W/PTO)			\$12,654	2.50	0.58	0.95	0.10	0.00	17

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>T15</b>	<b>TRACTORS, CRAWLER (DOZER) (includes blade)</b>											
	<b>SUBCATEGORY</b>	<b>0.01</b>	<b>0 THRU 225 HP</b>									
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	T15CA002	D-3K LGP	TRACTOR, CRAWLER (DOZER), 70 HP, LOW GROUND PRESSURE, W/2.0 CY SEMI-U BLADE (ADD ATTACHMENTS)	70 HP	D-off	\$115,221	32.85	4.99	8.07	0.95	8.31	175
	T15CA020	D-4K XL	TRACTOR, CRAWLER (DOZER), 80 HP, POWERSHIFT, W/2.18 CY SEMI-U BLADE (ADD ATTACHMENTS)	80 HP	D-off	\$122,638	35.69	5.30	8.58	1.01	9.49	181
	T15CA005	D-4K LGP	TRACTOR, CRAWLER (DOZER), 80 HP, LOW GROUND PRESSURE, W/2.39 CY SEMI-U BLADE (ADD ATTACHMENTS)	80 HP	D-off	\$129,425	37.06	5.59	9.06	1.06	9.49	184
	T15CA021	D-5G XL	TRACTOR, CRAWLER (DOZER), 90 HP, POWERSHIFT, W/2.85 CY POWER ANGLE BLADE (ADD ATTACHMENTS)	90 HP	D-off	\$138,824	40.34	6.00	9.72	1.14	10.68	195
	T15CA022	D-5K LGP	TRACTOR, CRAWLER (DOZER), 90 HP, LOW GROUND PRESSURE, W/3.04 CY POWER ANGLE BLADE (ADD ATTACHMENTS)	90 HP	D-off	\$137,798	40.13	5.96	9.65	1.13	10.68	203
	T15CA024	D-5K XL	TRACTOR, CRAWLER (DOZER), 110 HP, POWERSHIFT, W/3.37 CY SEMI-U BLADE (ADD ATTACHMENTS)	110 HP	D-off	\$131,617	41.62	5.69	9.21	1.08	13.05	277
	T15CA008	D-6N PS XL FTC	TRACTOR, CRAWLER (DOZER), 145 HP, POWERSHIFT, W/5.60 CY SEMI-U BLADE (ADD ATTACHMENTS)	145 HP	D-off	\$262,219	72.78	11.34	18.36	2.16	17.21	321
	T15CA023	D-6T	TRACTOR, CRAWLER (DOZER), 165 HP, LOW GROUND PRESSURE, POWERSHIFT, W/5.09 CY SEMI-U BLADE (ADD ATTACHMENTS)	165 HP	D-off	\$321,405	87.44	13.89	22.50	2.64	19.58	519

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>T15</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	T15CA009	D-6T WHA	TRACTOR, CRAWLER (DOZER), 165 HP, W/14.3 CY BLADE, TRASH/WASTE HANDLING ARRANGEMENT	165 HP	D-off	\$394,888	102.26	17.07	27.64	3.25	19.58	519
	T15CA011	D-6T LGP	TRACTOR, CRAWLER (DOZER), 165 HP, LOW GROUND PRESSURE, W/5.09 CY SEMI-U BLADE (ADD ATTACHMENTS)	185 HP	D-off	\$388,480	103.70	16.79	27.19	3.19	21.95	461
			<b>CASE CORPORATION</b>									
	T15CS004	550H WT	TRACTOR, CRAWLER (DOZER), 67 HP, POWERSHIFT, W/1.90 CY UNIVERSAL BLADE (ADD ATTACHMENTS)	67 HP	D-off	\$114,200	32.21	4.94	7.99	0.94	7.95	146
	T15CS007	1150H WT	TRACTOR, CRAWLER (DOZER), 119 HP, POWERSHIFT, W/3.90 CY UNIVERSAL BLADE (ADD ATTACHMENTS)	119 HP	D-off	\$199,422	56.53	8.62	13.96	1.64	14.12	263
			<b>DEERE &amp; COMPANY</b>									
	T15JD005	450J LT	TRACTOR, CRAWLER (DOZER), 70 HP, HYDROSTATIC, W/2.00 CY ANGLE BLADE (ADD ATTACHMENTS)	70 HP	D-off	\$95,631	28.89	4.14	6.69	0.79	8.31	155
	T15JD006	450J LGP	TRACTOR, CRAWLER (DOZER), 70 HP, HYDROSTATIC, LOW GROUND PRESSURE, W/2.15 CY ANGLE BLADE (ADD ATTACHMENTS)	70 HP	D-off	\$97,585	29.28	4.22	6.83	0.80	8.31	165
	T15JD007	650K	TRACTOR, CRAWLER (DOZER), 101 HP, HYDROSTATIC, W/2.60 CY POWER ANGLE TILT (PAT) BLADE (ADD ATTACHMENTS)	101 HP	D-off	\$149,633	44.01	6.47	10.47	1.23	11.98	185

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>T15</i>	<i>DEERE &amp; COMPANY (continued)</i>											
	T15JD008	750K XLT	TRACTOR, CRAWLER (DOZER), 155 HP, HYDROSTATIC, W/5.60 CY POWER ANGLE TILT (PAT) BLADE (ADD ATTACHMENTS)	155 HP	D-off	\$243,061	70.26	10.51	17.01	2.00	18.39	317
	T15JD009	750K LGP	TRACTOR, CRAWLER (DOZER), 165 HP, HYDROSTATIC, LOW GROUND PRESSURE, W/4.84 CY POWER ANGLE TILT (PAT) BLADE (ADD ATTACHMENTS)	165 HP	D-off	\$253,115	73.67	10.94	17.72	2.08	19.58	365
	T15JD010	850K XLT	TRACTOR, CRAWLER (DOZER), 187 HP, HYDROSTATIC, W/7.44 CY SEMI-U POWER ANGLE TILT (PAT) BLADE (ADD ATTACHMENTS)	187 HP	D-off	\$343,381	94.88	14.84	24.04	2.82	22.19	404
	T15JD011	850K LGP	TRACTOR, CRAWLER (DOZER), 205 HP, HYDROSTATIC LOW GROUND PRESSURE, W/7.14 CY SEMI-U POWER ANGLE TITLE (PAT) BLADE (ADD ATTACHMENTS)	205 HP	D-off	\$366,330	101.99	15.83	25.64	3.01	24.33	420
	<b>SUBCATEGORY 0.02</b>	<b>226 HP THRU 425 HP</b>										
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	T15CA012	D-7R SERIES II	TRACTOR, CRAWLER (DOZER), 240 HP, POWERSHIFT, W/8.98 CY SEMI-U BLADE (ADD ATTACHMENTS)	240 HP	D-off	\$362,031	95.48	13.70	21.72	2.84	28.48	563
	T15CA014	D-7R II LGP	TRACTOR, CRAWLER (DOZER), 240 HP, LOW GROUND PRESSURE, W/7.70 CY STRAIGHT BLADE (ADD ATTACHMENTS)	240 HP	D-off	\$410,344	103.97	15.53	24.62	3.22	28.48	530
	T15CA016	D-8T	TRACTOR, CRAWLER (DOZER), 310 HP, POWERSHIFT, W/15.3 CY SEMI-U BLADE (ADD ATTACHMENTS)	310 HP	D-off	\$624,869	150.92	23.65	37.49	4.90	36.78	898

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
T15	<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>											
	T15CA017	D-9T	TRACTOR, CRAWLER (DOZER), 410 HP, POWERSHIFT, W/17.7 CY SEMI-U BLADE (ADD ATTACHMENTS)	410 HP	D-off	\$725,646	181.93	27.46	43.54	5.69	48.65	1,033
	<b>Komatsu America International Company</b>											
	T15KM008	D155AX-6	TRACTOR, CRAWLER (DOZER), 310 HP, POWERSHIFT, W/11.5 CY SEMI-U BLADE	310 HP	D-off	\$576,851	142.49	21.83	34.61	4.52	36.78	803
	<b>SUBCATEGORY 0.03 OVER 425 HP</b>											
<b>CATERPILLAR INC. (MACHINE DIVISION)</b>												
T15CA018	D-10TQ	TRACTOR, CRAWLER (DOZER), 580 HP, POWERSHIFT, W/28.7 CY SEMI-U BLADE (ADD ATTACHMENTS)	580 HP	D-off	\$1,205,601	244.16	41.18	64.30	9.03	58.70	1,421	
T15CA019	D-11TQ	TRACTOR, CRAWLER (DOZER), 850 HP, POWERSHIFT, W/44.0 CY SEMI-U BLADE (ADD ATTACHMENTS)	850 HP	D-off	\$1,957,277	386.50	66.86	104.39	14.66	86.03	2,029	
<b>T20</b>	<b>TRACTORS, WHEEL TYPE (DOZER)</b>											
	<b>SUBCATEGORY 0.00 TRACTORS, WHEEL TYPE (DOZER)</b>											
<b>CATERPILLAR INC. (MACHINE DIVISION)</b>												
T20CA001	814-FS	TRACTOR, WHEEL (DOZER), 240 HP, ARTICULATING, 4X4, W/3.77 CY STRAIGHT BLADE	240 HP	D-off	\$518,393	92.75	18.91	30.30	3.76	24.29	479	
T20CA002	824-HQ	TRACTOR, WHEEL (DOZER), 339 HP, ARTICULATING, 4X4, W/6.70 CY STRAIGHT BLADE	339 HP	D-off	\$769,666	139.73	27.71	44.23	5.59	34.31	633	



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>T20</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	T20CA003	834-HQ	TRACTOR, WHEEL (DOZER), 481 HP, ARTICULATING, 4X4, W/10.33 CY STRAIGHT BLADE	481 HP	D-off	\$1,185,817	203.82	42.17	67.12	8.61	48.68	902
<b>T25</b>	<b>TRACTORS, AGRICULTURAL</b>											
	<b>SUBCATEGORY 0.10 CRAWLER</b>											
	<b>CATERPILLAR INC. (MACHINE DIVISION)</b>											
	T25CA006	CH 65E	TRACTOR, AGRICULTURAL, CRAWLER-RUBBER TRACK, 267 HP, 3 POINT HITCH	267 HP	D-off	\$230,322	74.98	11.51	19.58	1.72	28.89	331
	T25CA007	CH 75E	TRACTOR, AGRICULTURAL, CRAWLER-RUBBER TRACK, 292 HP, 3 POINT HITCH	292 HP	D-off	\$252,872	82.17	12.64	21.49	1.89	31.59	341
	T25CA008	CH 85E	TRACTOR, AGRICULTURAL, CRAWLER-RUBBER TRACK, 353 HP, 3 POINT HITCH	353 HP	D-off	\$274,063	93.50	13.70	23.30	2.05	38.19	350
	<b>SUBCATEGORY 0.20 WHEEL</b>											
	<b>DEERE &amp; COMPANY</b>											
	T25JD021	6115R	TRACTOR, AGRICULTURAL, WHEEL, 115 HP, 4X4, PTO, 3 POINT HITCH	115 HP	D-off	\$95,129	33.97	5.56	9.66	0.73	12.44	55
	T25JD022	6170R	TRACTOR, AGRICULTURAL, WHEEL, 170HP, 4X4, PTO, 3 POINT HITCH	170 HP	D-off	\$136,112	49.20	8.05	14.01	1.04	18.39	74
	T25JD023	8235R	TRACTOR, AGRICULTURAL, WHEEL, 235 HP, 4X4, PTO, 3 POINT HITCH	235 HP	D-off	\$192,264	68.98	11.20	19.45	1.47	25.42	272

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>T25</b>	<b>DEERE &amp; COMPANY (continued)</b>											
	T25JD024	8285R	TRACTOR, AGRICULTURAL, WHEEL, 285 HP, 4X4, PTO, 3 POINT HITCH	285 HP	D-off	\$221,844	81.22	13.00	22.59	1.70	30.83	211
	T25JD025	9360R	TRACTOR, AGRICULTURAL, WHEEL, 360 HP, 4X4, PTO, 3 POINT HITCH	360 HP	D-off	\$250,861	96.60	13.61	23.37	1.92	38.95	329
	T25JD026	9460R	TRACTOR, AGRICULTURAL, WHEEL, 460 HP, 4X4, PTO, 3 POINT HITCH	460 HP	D-off	\$300,753	119.16	16.64	28.67	2.30	49.77	349
	T25JD027	5045D	TRACTOR, AGRICULTURAL, WHEEL, 45 HP, 4X2, PTO, 3 POINT HITCH	45 HP	D-off	\$15,246	8.73	0.81	1.37	0.12	4.87	42
	T25JD028	5055D	TRACTOR, AGRICULTURAL, WHEEL, 55 HP, 4X2, PTO, 3 POINT HITCH	55 HP	D-off	\$16,521	10.20	0.88	1.50	0.13	5.95	39
	T25JD029	5055D W/MX6 MOWER	TRACTOR, AGRICULTURAL, WHEEL, 55 HP, 4X2, PTO, 3 POINT HITCH, WITH 60" HEAVY DUTY ROTARY MOWER	55 HP	D-off	\$22,445	11.43	1.24	2.13	0.17	5.95	51
	T25JD030	5065E	TRACTOR, AGRICULTURAL, WHEEL, 65 HP, 4X2, PTO, 3 POINT HITCH	65 HP	D-off	\$34,042	15.08	1.95	3.37	0.26	7.03	27
	T25JD031	5083E	TRACTOR, AGRICULTURAL, WHEEL, 83 HP, 4X2, PTO, 3 POINT HITCH	83 HP	D-off	\$34,946	17.46	1.98	3.41	0.27	8.98	54
	T25JD032	5101E	TRACTOR, AGRICULTURAL, WHEEL, 101 HP, 4X2, PTO, 3 POINT HITCH	101 HP	D-off	\$41,886	21.39	2.06	3.47	0.32	10.93	73
<b>T30</b>	<b>TRENCHERS, CHAIN TYPE CUTTER</b>											
	<b>SUBCATEGORY 0.00 TRENCHERS, CHAIN TYPE CUTTER</b>											
	<b>DITCH WITCH (THE CHARLES MACHINE WORKS)</b>											
	T30DW012	RT12	TRENCHER, CHAIN TYPE CUTTER, 36" DEEP X 10" WIDE, WALK BEHIND	16 HP	G	\$9,739	6.22	0.56	0.96	0.08	3.55	10
	T30DW013	RT24	TRENCHER, CHAIN TYPE CUTTER, 48" DEEP X 8" WIDE, WALK BEHIND	22 HP	G	\$12,754	8.40	0.70	1.20	0.10	4.88	11

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>T30</i>			<i>DITCH WITCH (THE CHARLES MACHINE WORKS) (continued)</i>									
	T30DW014	RT115	TRENCHER, CHAIN TYPE CUTTER, 96" DEEP X 16" WIDE, 4X4 (W/BLADE, BHOE)	102 HP	D-off	\$130,579	42.36	7.39	12.72	1.03	11.04	80
	T30DW005	RT45	TRENCHER, CHAIN TYPE CUTTER, 63" DEEP X 12" WIDE, 4X4 (W/DBL PIVOT & H313 TRENCHER)	42 HP	D-off	\$38,870	14.01	2.16	3.69	0.31	4.54	42
	T30DW015	RT45	TRENCHER, CHAIN TYPE CUTTER, 52" DEEP X 12" WIDE, 4X4 (W/BLADE)	42 HP	D-off	\$41,267	14.56	2.23	3.79	0.33	4.54	42
	T30DW016	RT55	TRENCHER, CHAIN TYPE CUTTER, 62" DEEP X 12" WIDE, 4X4 (W/BLADE)	60 HP	D-off	\$70,045	23.36	3.96	6.81	0.55	6.49	95
	T30DW017	RT80	TRENCHER, CHAIN TYPE CUTTER, 62" DEEP X 12" WIDE, 4X4 (W/BLADE)	78 HP	D-off	\$83,989	28.73	4.69	8.06	0.66	8.44	69
	T30DW018	RT95M	TRENCHER, CHAIN TYPE CUTTER, 96" DEEP X 24" WIDE, 4X4 (W/BLADE)	99 HP	D-off	\$112,795	37.90	6.36	10.94	0.89	10.71	77
	T30DW011	HT220	TRENCHER, CHAIN TYPE CUTTER, 96" DEEP X 12"-24" WIDE, CRAWLER (W/BLADE)	220 HP	D-off	\$542,150	151.19	31.39	54.22	4.28	23.80	430
	T30DW010	RT95H	TRENCHER, CHAIN TYPE CUTTER, 96" DEEP X 24" WIDE, 4X4 (W/BLADE)	99 HP	D-off	\$114,158	39.16	6.16	10.52	0.90	10.71	77
			<b>TESMEC USA, INC.</b>									
	T30TM007	TRS 775	TRENCHER, CHAIN TYPE CUTTER, 4' DEEP X 12" WIDE, CRAWLER (W/CRUMBSHOE) SELF LEVEL, OFFSET	220 HP	D-off	\$502,542	142.08	29.10	50.25	3.97	23.80	450
	T30TM008	TRS 775	TRENCHER, CHAIN TYPE CUTTER, 6' DEEP X 18" WIDE, CRAWLER (W/CRUMBSHOE) SELF LEVEL, OFFSET	220 HP	D-off	\$505,772	142.83	29.28	50.58	3.99	23.80	470

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>T30</i>	<i>TESMEC USA, INC. (continued)</i>											
	T30TM012	TRS 1100	TRENCHER, CHAIN TYPE CUTTER, 8' DEEP X 26" WIDE, CRAWLER (W/CRUMBSHOE)	385 HP	D-off	\$865,706	245.50	50.12	86.57	6.83	41.65	850
	T30TM014	TRS 1475 XHP	TRENCHER, CHAIN TYPE CUTTER, 10' DEEP X 26" WIDE, CRAWLER (W/CRUMBSHOE)	525 HP	D-off	\$1,358,275	375.60	78.64	135.83	10.72	56.80	1,680
	T30TM013	TRS 1475 XHP	TRENCHER, CHAIN TYPE CUTTER, 14' DEEP X 42" WIDE, CRAWLER (W/CRUMBSHOE)	525 HP	D-off	\$1,418,702	389.47	82.13	141.87	11.19	56.80	1,680
	T30TM015	TRS 1475 XHP	TRENCHER, CHAIN TYPE CUTTER, 16' DEEP X 42" WIDE, CRAWLER (W/CRUMBSHOE)	525 HP	D-off	\$1,448,420	396.30	83.85	144.84	11.43	56.80	1,680
	<b>VERMEER MANUFACTURING CO.</b>											
	T30VE007	T 455	TRENCHER, CHAIN TYPE CUTTER, 6' DEEP X 8"-24" WIDE, CRAWLER, HYDROSTATIC	125 HP	D-off	\$198,221	60.67	11.47	19.82	1.56	13.52	180
	T30VE008	T 555 III	TRENCHER, CHAIN TYPE CUTTER, 8' DEEP X 8"-24" WIDE, CRAWLER, HYDROSTATIC	185 HP	D-off	\$251,897	80.30	14.59	25.19	1.99	20.02	225
	T30VE009	T 655 III	TRENCHER, CHAIN TYPE CUTTER, 8' DEEP X 10.5"-26" WIDE, CRAWLER, HYDROSTATIC	250 HP	D-off	\$408,648	124.16	23.65	40.86	3.22	27.05	500
	T30VE010	T 755 III	TRENCHER, CHAIN TYPE CUTTER, 10' DEEP X 14"-36" WIDE, CRAWLER, HYDROSTATIC	275 HP	D-off	\$497,285	147.55	28.79	49.73	3.92	29.75	660

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>T35</b>	<b>TRENCHERS, WHEEL TYPE CUTTER</b>											
	<b>SUBCATEGORY 0.00 TRENCHERS, WHEEL TYPE CUTTER</b>											
	<b>CLEVELAND PACIFIC TRENCHER CO</b>											
	T35CT001	9624	TRENCHER, WHEEL TYPE CUTTER, 72" DEEP X 21.5" WIDE, ROUND BUCKET, CRAWLER	140 HP	D-off	\$263,732	77.55	15.27	26.37	2.08	15.15	170
	T35CT002	9600-S	TRENCHER, WHEEL TYPE CUTTER, 72" DEEP X 24" WIDE, ROUND BUCKET, CRAWLER	140 HP	D-off	\$324,655	91.55	18.80	32.47	2.56	15.15	228
	T35CT003	246-FD	TRENCHER, WHEEL TYPE CUTTER, 84" DEEP X 24" WIDE, ROUND BUCKET, CRAWLER	185 HP	D-off	\$364,838	106.23	21.12	36.48	2.88	20.02	320
	T35CT005	7036	TRENCHER, WHEEL TYPE CUTTER, 84" DEEP X 36" WIDE, ROUND BUCKET, CRAWLER	102 HP	D-off	\$324,844	86.97	18.80	32.48	2.56	11.04	263
	T35CT006	7036	TRENCHER, WHEEL TYPE CUTTER, 84" DEEP X 36" WIDE, ROUND BUCKET, CRAWLER	102 HP	D-off	\$324,844	86.97	18.80	32.48	2.56	11.04	263
	T35CT004	7036-HD	TRENCHER, WHEEL TYPE CUTTER, 84" DEEP X 36" WIDE, ROUND BUCKET, CRAWLER	102 HP	D-off	\$343,361	91.23	19.88	34.34	2.71	11.04	286
	T35CT007	7036-SD	TRENCHER, WHEEL TYPE CUTTER, 84" DEEP X 36" WIDE, ROUND BUCKET, CRAWLER	102 HP	D-off	\$359,553	94.96	20.82	35.96	2.84	11.04	340
	T35CT008	8700	TRENCHER, WHEEL TYPE CUTTER, 84" DEEP X 36" WIDE, ROUND BUCKET, CRAWLER	150 HP	D-off	\$461,212	124.11	26.70	46.12	3.64	16.23	424

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<i>T35</i>			<i>CLEVELAND PACIFIC TRENCHER CO (continued)</i>								
	T35CT009	7648-SD	TRENCHER, WHEEL TYPE CUTTER, 90" DEEP X 48" WIDE, ROUND BUCKET, CRAWLER	150 HP	D-off	\$537,032	141.52	31.09	53.70	4.24	16.23	445
	T35CT010	7648	TRENCHER, WHEEL TYPE CUTTER, 90" DEEP X 48" WIDE, ROUND BUCKET, CRAWLER	150 HP	D-off	\$526,027	138.99	30.45	52.60	4.15	16.23	445
	T35CT011	400W-HD	TRENCHER, WHEEL TYPE CUTTER, 108" DEEP X 72" WIDE, ROUND BUCKET, CRAWLER	175 HP	D-off	\$632,970	166.57	36.64	63.30	4.99	18.93	700
<b>T40</b>	<b>TRUCK OPTIONS</b>											
	<b>SUBCATEGORY 0.10</b>	<b>CRANES / HOISTS, PERSONNEL &amp; MATERIAL HANDLING</b>										
			<b>AUTO CRANE CO.</b>									
	T40AH001	AC8-59	TRUCK OPTIONS, CRANE, HYDRAULIC, 3-ARM ARTICULATING, 3.5 TON, 32' BOOM (ADD 21,000 GVW TRUCK & FLATBED)			\$29,455	6.68	1.71	2.95	0.23	0.00	2
	T40AH003	AC15-101	TRUCK OPTIONS, CRANE, HYDRAULIC, 3-ARM ARTICULATING, 6.6 TON, 36' BOOM (ADD 32,500 GVW TRUCK & FLATBED)			\$43,657	9.78	2.53	4.37	0.34	0.00	3
	T40AH004	AC20-142	TRUCK OPTIONS, CRANE, HYDRAULIC, 3-ARM ARTICULATING, 8.6 TON, 41' BOOM (ADD 46,000 GVW TRUCK & FLATBED)			\$53,959	12.04	3.13	5.40	0.43	0.00	8
			<b>PALFINGER INC.</b>									
	T40PA007	PK 22002-EH	TRUCK OPTIONS, CRANE, HYDRAULIC, 3-ARM ARTICULATING, 8.3 TON, 70' BOOM (ADD 30,000 GVW TRUCK & FLATBED)			\$50,958	11.38	2.95	5.10	0.40	0.00	51

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>T40</i>	<i>PALFINGER INC. (continued)</i>											
	T40PA001	PC 2700	TRUCK OPTIONS, CRANE, HYDRAULIC, 2-ARM ARTICULATING, 2.4 TON, 21' BOOM (ADD 25,000 GVW TRUCK & FLATBED)			\$7,693	1.92	0.45	0.77	0.06	0.00	9
	T40PA002	PK 14002-EH	TRUCK OPTIONS, CRANE, HYDRAULIC, 3-ARM ARTICULATING, 6.2 TON, 62' BOOM (ADD 28,000 GVW TRUCK & FLATBED)			\$40,327	9.04	2.34	4.03	0.32	0.00	35
	T40PA004	PK 30002	TRUCK OPTIONS, CRANE, HYDRAULIC, 3-ARM ARTICULATING, 10 TON, 69' BOOM (ADD 52,000 GVW TRUCK & FLATBED)			\$52,011	11.61	3.01	5.20	0.41	0.00	61
	T40PA005	PK 50002-EH	TRUCK OPTIONS, CRANE, HYDRAULIC, 2-ARM ARTICULATING, 12.5 TON, 82' BOOM (ADD 60,000 GVW TRUCK & FLATBED)			\$98,163	21.69	5.68	9.82	0.77	0.00	1,072
	T40PA006	PK 65002-SH	TRUCK OPTIONS, CRANE, HYDRAULIC, 2-ARM ARTICULATING, 22 TON, 82' BOOM (ADD 62,000 GVW TRUCK & FLATBED)			\$113,534	25.05	6.58	11.35	0.90	0.00	126
	<b>SUBCATEGORY 0.20</b>	<b>DUMP BODY, REAR</b>										
	<b>GALION DUMP BODIES, INC.</b>											
	T40GN001	BODY502 PACKAGE 89-F	TRUCK OPTIONS, DUMP BODY, REAR, 16-23.5 CY (W/HOIST) (ADD 36,000 GVW TRUCK)			\$16,755	3.62	1.06	1.88	0.12	0.00	42
	<b>MIDLAND MANUFACTURING INC.</b>											
	T40MY002	KLENSIDE	TRUCK OPTIONS, DUMP BODY, REAR, 7.5 CY, AIR GATE (W/HOIST) (ADD 30,000 GVW TRUCK)			\$5,513	1.19	0.35	0.62	0.04	0.00	21
	T40MY003	KLENSIDE	TRUCK OPTIONS, DUMP BODY, REAR, 8.9 CY, AIR GATE (W/HOIST) (ADD 27,000 GVW TRUCK)			\$6,850	1.48	0.44	0.77	0.05	0.00	26

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT	
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL		
T40	<i>MIDLAND MANUFACTURING INC. (continued)</i>												
	T40MY004	KLEENSIDE	TRUCK OPTIONS, DUMP BODY, REAR, 10.0 CY, AIR GATE (W/HOIST) (ADD 35,000 GVW TRUCK)			\$7,923	1.72	0.51	0.89	0.06	0.00	31	
	T40MY005	KLEENSIDE	TRUCK OPTIONS, DUMP BODY, REAR, 13.6 CY, AIR GATE (W/HOIST) (ADD 35,000 GVW TRUCK)			\$11,239	2.43	0.71	1.26	0.08	0.00	33	
	T40MY006	KLEENSIDE	TRUCK OPTIONS, DUMP BODY, REAR, 20.0 CY, AIR GATE (W/HOIST) (ADD 50,000 GVW TRUCK)			\$12,787	2.77	0.81	1.44	0.09	0.00	40	
	<b>SUBCATEGORY 0.30</b>		<b>FLATBEDS, WITH SIDES</b>										
	<b>KNAPHEIDE MANUFACTURING CO.</b>												
	T40KF011	8' VALUE MASTER PLAT	TRUCK OPTIONS, FLATBED, W/40" SIDE RACKS, 8' X 8'			\$4,744	0.90	0.28	0.47	0.04	0.00	11	
	T40KF013	10' VALUE MASTER PLA	TRUCK OPTIONS, FLATBED, W/40" SIDE RACKS, 8' X 10'			\$5,058	0.97	0.30	0.51	0.04	0.00	14	
	T40KF014	12' VALUE MASTER	TRUCK OPTIONS, FLATBED, W/40" SIDE RACKS, 8' X 12'			\$5,474	1.04	0.32	0.55	0.04	0.00	16	
	T40KF016	16' VALUE MASTER	TRUCK OPTIONS, FLATBED, W/40" SIDE RACKS, 8' X 16'			\$6,639	1.26	0.38	0.66	0.05	0.00	16	
T40KF018	20' VALUE MASTER	TRUCK OPTIONS, FLATBED, W/40" SIDE RACKS, 8' X 20'			\$7,890	1.50	0.46	0.79	0.06	0.00	18		
T40KF020	24' VALUE MASTER	TRUCK OPTIONS, FLATBED, W/40" SIDE RACKS, 8' X 24'			\$9,494	1.81	0.55	0.95	0.07	0.00	20		



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.41 HOIST, ELECTRIC DRIVE</b>											
	<b>KNAPHEIDE MANUFACTURING CO.</b>											
	T40KF021	KH-1416L	TRUCK OPTIONS, HOIST, ELECTRIC DRIVE, PTO, 10' TO 14', 7-16 TON			\$4,735	1.07	0.28	0.47	0.04	0.00	6
	T40KF023	KH-1416-EE	TRUCK OPTIONS, HOIST, ELECTRIC DRIVE, 10' TO 14', 7-16 TON			\$3,421	0.75	0.20	0.34	0.03	0.00	6
	T40KF024	KH-1627L-EE	TRUCK OPTIONS, HOIST, ELECTRIC DRIVE, 15' TO 20', 14-37 TON			\$4,959	1.07	0.29	0.50	0.04	0.00	10
	T40KF022	KH-2538L	TRUCK OPTIONS, HOIST, ELECTRIC DRIVE, PTO, 20' TO 24', 20-45 TON			\$8,453	1.84	0.50	0.85	0.07	0.00	15
	<b>SUBCATEGORY 0.50 TRANSIT MIXERS</b>											
	<b>NO SPECIFIC MANUFACTURER</b>											
	T40XX034	RDTM-8	TRANSIT MIXER, 8 CY, HYDROSTATIC, 100 GAL, (INCLUDES 60,000 GVW TRUCK)	235 HP	D-on	\$159,725	67.20	9.71	16.97	1.22	29.50	266
	T40XX035	RDTM-9	TRANSIT MIXER, 9 CY, HYDROSTATIC, 100 GAL, (INCLUDES 66,000 GVW TRUCK)	250 HP	D-on	\$162,278	69.89	9.86	17.24	1.24	31.39	270
	T40XX036	RDTM-10	TRANSIT MIXER, 10 CY, HYDROSTATIC, 100 GAL, (INCLUDES 66,000 GVW TRUCK)	285 HP	D-on	\$170,251	76.57	10.35	18.09	1.30	35.78	274
	T40XX037	RDTM-11	TRANSIT MIXER, 11 CY, HYDROSTATIC, 100 GAL, (INCLUDES 70,000 GVW TRUCK)	285 HP	D-on	\$191,299	81.00	11.63	20.33	1.46	35.78	285
	T40XX038	RDTM-12	TRANSIT MIXER, 12 CY, HYDROSTATIC, 100 GAL, (INCLUDES 75,000 GVW TRUCK)	285 HP	D-on	\$200,232	82.88	12.17	21.27	1.53	35.78	295

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.60 WATER TANKS</b>											
	<b>ROSCO, A LeeBoy COMPANY</b>											
	T40RS001	DS 2000	TRUCK OPTIONS, WATER TANK, 2,000 GAL (ADD 28,000 GVW TRUCK)			\$31,582	5.83	1.74	2.96	0.26	0.00	38
	T40RS002	DS 3000	TRUCK OPTIONS, WATER TANK, 3,000 GAL (ADD 40,000 GVW TRUCK)			\$32,573	6.01	1.79	3.05	0.26	0.00	45
	T40RS003	DS 4000	TRUCK OPTIONS, WATER TANK, 4,000 GAL (ADD 50,000 GVW TRUCK)			\$34,971	6.45	1.92	3.28	0.28	0.00	55
	<b>SUBCATEGORY 0.70 ALL OTHER OPTIONS</b>											
	<b>ARROW-MASTER, INC.</b>											
	T40AG001	1350T	TRUCK OPTIONS, GUILLOTINE CONCRETE BREAKER, W/8" DIA BREAKING TOOL AND CAB	80 HP	D-off	\$91,948	28.66	5.17	8.88	0.73	8.66	100
<b>T45</b>	<b>TRUCK TRAILERS</b>											
	<b>SUBCATEGORY 0.10 BOTTOM DUMP</b>											
	<b>MIDLAND MANUFACTURING INC.</b>											
	T45MY004	40' MC 2000	TRUCK TRAILER, BOTTOM DUMP, 21 CY, 28 TON, 40' - 2 AXLE, CLAMSHELL (ADD TOWING TRUCK)			\$32,991	6.69	1.40	2.31	0.24	0.00	152
	T45MY005	40' TC 3000	TRUCK TRAILER, BOTTOM DUMP, 21 CY, 30 TON, 40' - 3 AXLE, CLAMSHELL (ADD TOWING TRUCK)			\$45,050	9.09	1.85	3.06	0.32	0.00	138
	T45MY006	38' MC 3000	TRUCK TRAILER, BOTTOM DUMP, 23 CY, 30 TON, 38' - 3 AXLE, CLAMSHELL (ADD TOWING TRUCK)			\$46,239	9.30	1.92	3.17	0.33	0.00	145

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
T45	<i>MIDLAND MANUFACTURING INC. (continued)</i>											
	T45MY007	40' MC 3000	TRUCK TRAILER, BOTTOM DUMP, 23 CY, 30 TON, 40' - 3 AXLE, CLAMSHELL (ADD TOWING TRUCK)			\$44,749	9.04	1.84	3.03	0.32	0.00	152
	<b>NO SPECIFIC MANUFACTURER</b>											
	T45XX001		TRUCK TRAILER, BOTTOM DUMP, 22.5 CY, 27 TON (ADD TOWING TRUCK)			\$41,975	8.17	1.96	3.31	0.30	0.00	122
	T45XX003		TRUCK TRAILER, BOTTOM DUMP, 25 CY, 30 TON (ADD TOWING TRUCK)			\$50,532	9.66	2.40	4.08	0.36	0.00	160
	<b>SUBCATEGORY 0.20 END DUMP</b>											
	<b>MIDLAND MANUFACTURING INC.</b>											
	T45MY015	28' SK2000	TRUCK TRAILER, END DUMP, 28 CY, 36 TON, 28' - 2 AXLE (W/HOIST) (ADD TOWING TRUCK)			\$35,633	7.08	1.53	2.54	0.26	0.00	115
	T45MY016	32' ST 2400	TRUCK TRAILER, END DUMP, 28 CY, 36 TON, 32' - 2 AXLE (W/HOIST) (ADD TOWING TRUCK)			\$36,220	7.18	1.56	2.60	0.26	0.00	130
	T45MY017	39' SK 2300	TRUCK TRAILER, END DUMP, 39 CY, 50 TON, 39' - 3 AXLE (W/HOIST) (ADD TOWING TRUCK)			\$39,974	8.14	1.59	2.60	0.29	0.00	170
<b>NO SPECIFIC MANUFACTURER</b>												
T45XX008		TRUCK TRAILER, END DUMP, 20 CY, 24 TON (ADD TOWING TRUCK)			\$34,599	6.71	1.57	2.64	0.25	0.00	110	

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.30 PUP TRAILER</b>											
	<b>MIDLAND MANUFACTURING INC.</b>											
	T45MY018	14' SK 2100	TRUCK TRAILER, PUP TRAILER, 10 CY, 13 TON, 14' - 2 AXLE (W/HOIST) (ADD TOWING TRUCK)			\$23,955	5.68	1.12	1.87	0.18	0.00	80
	T45MY019	14' SL 2100	TRUCK TRAILER, PUP TRAILER, 12 CY, 15 TON, 14' - 2 AXLE (W/HOIST) (ADD TOWING TRUCK)			\$23,758	5.64	1.10	1.84	0.18	0.00	80
	<b>NO SPECIFIC MANUFACTURER</b>											
	T45XX009		TRUCK TRAILER, PUP TRAILER, 8 CY, LONG TONGUE (ADD TOWING TRUCK)			\$31,586	7.10	1.72	2.97	0.23	0.00	86
	T45XX010		TRUCK TRAILER, PUP TRAILER, 10 CY, LONG TONGUE (ADD TOWING TRUCK)			\$34,970	7.79	1.94	3.35	0.26	0.00	86
	T45XX032		TRUCK TRAILER, PUP TRAILER, 13 CY, 14.5 TON, 3 AXLE (ADD TOWING TRUCK)			\$42,575	9.36	2.50	4.35	0.32	0.00	92
	T45XX033		TRUCK TRAILER, PUP TRAILER, 16 CY, 18.0 TON, 4 AXLE (ADD TOWING TRUCK)			\$52,553	11.55	3.05	5.32	0.39	0.00	100
	<b>SUBCATEGORY 0.41 LOWBOY, RIGID NECK, DROP DECK</b>											
	<b>EAGER BEAVER</b>											
	T45EA006	35GSL-BR	TRUCK TRAILER, LOWBOY, 35 TON, 2 AXLE, DETATCHABLE GOOSENECK (ADD TOWING TRUCK)			\$48,019	8.78	2.10	3.50	0.35	0.00	171
	T45EA007	50GSL/3	TRUCK TRAILER, LOWBOY, 50 TON, 3 AXLE, DETATCHABLE GOOSENECK (ADD TOWING TRUCK)			\$65,003	11.84	2.78	4.62	0.47	0.00	205

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
			<b>NO SPECIFIC MANUFACTURER</b>									
	T45XX011		TRUCK TRAILER, LOWBOY, 25 TON, 2 AXLE (ADD TOWING TRUCK)			\$34,939	6.21	1.62	2.73	0.25	0.00	95
	T45XX012		TRUCK TRAILER, LOWBOY, 30 TON, 2 AXLE (ADD TOWING TRUCK)			\$37,018	6.52	1.73	2.91	0.27	0.00	115
	T45XX013		TRUCK TRAILER, LOWBOY, 35 TON, 2 AXLE (ADD TOWING TRUCK)			\$38,896	6.88	1.80	3.03	0.28	0.00	110
	T45XX014		TRUCK TRAILER, LOWBOY, 35 TON, 3 AXLE (ADD TOWING TRUCK)			\$47,544	8.46	2.17	3.65	0.34	0.00	127
	T45XX015		TRUCK TRAILER, LOWBOY, 40 TON, 3 AXLE (ADD TOWING TRUCK)			\$181,058	28.82	9.15	15.67	1.31	0.00	136
	T45XX016		TRUCK TRAILER, LOWBOY, 50 TON, 3 AXLE (ADD TOWING TRUCK)			\$100,345	16.61	4.89	8.33	0.72	0.00	145
	T45XX017		TRUCK TRAILER, LOWBOY, 60 TON, 4 AXLE (ADD TOWING TRUCK)			\$142,406	23.17	7.03	12.00	1.03	0.00	175
	T45XX018		TRUCK TRAILER, LOWBOY, 65 TON, 4 AXLE (ADD TOWING TRUCK)			\$155,537	25.16	7.71	13.18	1.12	0.00	213
	T45XX019		TRUCK TRAILER, LOWBOY, 75 TON, 3 AXLE (ADD TOWING TRUCK)			\$66,459	11.59	3.06	5.16	0.48	0.00	220
	T45XX020		TRUCK TRAILER, LOWBOY, 80 TON, 4 AXLE (ADD TOWING TRUCK)			\$64,527	11.53	2.91	4.87	0.47	0.00	268
	T45XX021		TRUCK TRAILER, LOWBOY, 90 TON, 4 AXLE (ADD TOWING TRUCK)			\$70,066	12.38	3.20	5.37	0.51	0.00	293
	T45XX022		TRUCK TRAILER, LOWBOY, 100 TON, 4 AXLE (ADD TOWING TRUCK)			\$79,415	13.97	3.60	6.06	0.57	0.00	312
	T45XX023		TRUCK TRAILER, LOWBOY, 120 TON, 4 AXLE (ADD TOWING TRUCK)			\$95,120	16.65	4.31	7.23	0.69	0.00	350

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.50 FLATBED TRAILER</b>											
	<b>NO SPECIFIC MANUFACTURER</b>											
	T45XX025		TRUCK TRAILER, FLATBED, 25 TON, 2 AXLE (ADD TOWING TRUCK)			\$32,984	5.68	1.49	2.50	0.24	0.00	110
	T45XX034	32	TRUCK TRAILER, FLATBED, 40 TON, 2 AXLE (ADD TOWING TRUCK)			\$32,439	5.89	1.46	2.45	0.23	0.00	103
	T45XX035	40	TRUCK TRAILER, FLATBED, 40 TON, 2 AXLE (ADD TOWING TRUCK)			\$34,475	6.20	1.57	2.63	0.25	0.00	110
	<b>SUBCATEGORY 0.60 MISCELLANEOUS / UTILITY</b>											
	<b>NO SPECIFIC MANUFACTURER</b>											
	T45XX026		TRUCK TRAILER, MISCELLANEOUS/UTILITY, TILT BED, 12 TON, 2 AXLE (ADD TOWING TRUCK)			\$18,656	3.51	0.86	1.45	0.13	0.00	62
	T45XX027		TRUCK TRAILER, MISCELLANEOUS/UTILITY, TILT BED, 16 TON, 2 AXLE (ADD TOWING TRUCK)			\$21,129	3.98	0.95	1.60	0.15	0.00	65
	T45XX028		TRUCK TRAILER, MISCELLANEOUS/UTILITY, TILT BED, 20 TON, 2 AXLE (ADD TOWING TRUCK)			\$24,394	4.63	1.06	1.75	0.18	0.00	67
	T45XX024		TRUCK TRAILER, MISCELLANEOUS/UTILITY, ATTACHMENT, HELPER DOLLY, 60 TON TRAILER MAX (ADD TOWING TRUCK)			\$30,756	5.33	1.37	2.30	0.22	0.00	62
	<b>SUBCATEGORY 0.70 WATER TANKER TRAILER</b>											
	<b>NO SPECIFIC MANUFACTURER</b>											
	T45XX029		TRUCK TRAILER, WATER TANKER, 4,000 GAL, W/PUMP (ADD TOWING TRUCK)	63 HP	D-off	\$86,955	20.74	3.84	6.29	0.69	6.82	170

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
T45	<i>NO SPECIFIC MANUFACTURER (continued)</i>											
	T45XX030		TRUCK TRAILER, WATER TANKER, 5,000 GAL, W/PUMP (ADD TOWING TRUCK)	63 HP	D-off	\$86,304	20.90	3.69	6.00	0.69	6.82	240
	T45XX031		TRUCK TRAILER, WATER TANKER, 6,000 GAL, W/PUMP (ADD TOWING TRUCK)	63 HP	D-off	\$105,202	23.72	4.55	7.42	0.84	6.82	250
	<b>SUBCATEGORY 0.90</b>		<b>TANK TRAILERS</b>									
			<b>GRACO, INC.</b>									
T45G1001	28' GOOSENECK		TRAILER, FOAM SPRAY RIG, 40 KW GENERATOR, AIR COMPRESSOR, 410' HOSE, ETC.	75 HP	D-off	\$111,105	26.75	5.05	8.33	0.88	8.11	160
T45G1002	16' TRAILER		TRAILER, FOAM SPRAY RIG, 40 KW GENERATOR, AIR COMPRESSOR, 160' HOSE, ETC.	75 HP	D-off	\$55,367	17.82	2.52	4.15	0.44	8.11	140
<b>T50</b>	<b>TRUCKS, HIGHWAY (Add attachments as required)</b>											
<b>SUBCATEGORY 0.01</b>		<b>0 THRU 10,000 GVW</b>										
		<b>GMC AND CHEVROLET</b>										
T50GM001	S10		TRUCK, HIGHWAY, 3,500 GVW, 4X2 (COMPACT)	120 HP	G	\$18,363	10.98	1.00	1.72	0.14	6.32	26
T50GM004	R26		TRUCK, HIGHWAY, 8,600 GVW, 4X2 (SUBURBAN)	285 HP	G	\$40,906	25.36	2.31	3.97	0.32	15.00	50
T50GM005	V26		TRUCK, HIGHWAY, 8,600 GVW, 4X4 (SUBURBAN)	285 HP	G	\$43,990	26.02	2.49	4.28	0.35	15.00	52

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>NO SPECIFIC MANUFACTURER</b>											
	T50XX001	4X2 1/2 130 CONV GAS	TRUCK, HIGHWAY, CONVENTIONAL, 1/2 TON PICKUP, 4X2	130 HP	G	\$17,681	11.45	0.95	1.62	0.14	6.84	45
	T50XX002	4X2 3/4 130 CONV GAS	TRUCK, HIGHWAY, CONVENTIONAL, 3/4 TON PICKUP, 4X2	130 HP	G	\$21,213	12.15	1.18	2.01	0.17	6.84	40
	T50XX003	4X2 1 180 CONV GAS	TRUCK, HIGHWAY, CONVENTIONAL, 1 TON PICKUP, 4X2	180 HP	G	\$24,149	15.72	1.34	2.29	0.19	9.48	41
	T50XX004	4X4 1/2 130 CONV GAS	TRUCK, HIGHWAY, CONVENTIONAL, 1/2 TON PICKUP, 4X4	130 HP	G	\$21,300	12.22	1.16	1.98	0.17	6.84	43
	T50XX005	4X4 3/4 130 CONV GAS	TRUCK, HIGHWAY, CONVENTIONAL, 3/4 TON PICKUP, 4X4	130 HP	G	\$25,031	12.95	1.40	2.40	0.20	6.84	45
	T50XX006	4X4 1 180 CONV GAS	TRUCK, HIGHWAY, CONVENTIONAL, 1 TON PICKUP, 4X4	180 HP	G	\$25,897	16.11	1.44	2.47	0.20	9.48	41
	T50XX007	4X2 1/2 130 CREW GAS	TRUCK, HIGHWAY, CREW, 1/2 TON PICKUP, 4X2	130 HP	G	\$18,677	11.66	1.01	1.72	0.15	6.84	45
	T50XX008	4X2 3/4 130 CREW GAS	TRUCK, HIGHWAY, CREW, 3/4 TON PICKUP, 4X2	130 HP	G	\$22,499	12.41	1.25	2.14	0.18	6.84	47
	T50XX009	4X2 1 180 CREW GAS	TRUCK, HIGHWAY, CREW, 1 TON PICKUP, 4X2	180 HP	G	\$27,669	16.46	1.55	2.65	0.22	9.48	45
	T50XX010	4X4 1/2 130 CREW GAS	TRUCK, HIGHWAY, CREW, 1/2 TON PICKUP, 4X4	130 HP	G	\$25,305	13.06	1.40	2.39	0.20	6.84	48
	T50XX011	4X4 3/4 180 CREW GAS	TRUCK, HIGHWAY, CREW, 3/4 TON PICKUP, 4X4	180 HP	G	\$27,165	16.34	1.52	2.61	0.21	9.48	55
	T50XX012	4X4 1 180 CREW GAS	TRUCK, HIGHWAY, CREW, 1 TON PICKUP, 4X4	180 HP	G	\$28,481	16.64	1.59	2.73	0.22	9.48	45
	T50XX013	4X2 1/2 75 CONV DSL	TRUCK, HIGHWAY, CONVENTIONAL, 1/2 TON PICKUP, 4X2	75 HP	D-on	\$22,983	7.22	1.26	2.15	0.18	2.13	39
	T50XX014	4X2 3/4 75 CONV DSL	TRUCK, HIGHWAY, CONVENTIONAL, 3/4 TON PICKUP, 4X2	75 HP	D-on	\$25,489	7.71	1.42	2.44	0.20	2.13	40



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>T50</i>	<i>NO SPECIFIC MANUFACTURER (continued)</i>											
	T50XX015	4X2 1 130 CONV DSL	TRUCK, HIGHWAY, CONVENTIONAL, 1 TON PICKUP, 4X2	130 HP	D-on	\$29,388	10.25	1.64	2.82	0.23	3.69	43
	T50XX016	4X4 1/2 130 CONV DSL	TRUCK, HIGHWAY, CONVENTIONAL, 1/2 TON PICKUP, 4X4	130 HP	D-on	\$27,388	9.88	1.52	2.59	0.22	3.69	43
	T50XX017	4X4 3/4 130 CONV DSL	TRUCK, HIGHWAY, CONVENTIONAL, 3/4 TON PICKUP, 4X4	130 HP	D-on	\$27,644	9.89	1.55	2.66	0.22	3.69	45
	T50XX018	CONV DSL 4X4 1 130	TRUCK, HIGHWAY, CONVENTIONAL, 1 TON PICKUP, 4X4	130 HP	D-on	\$33,082	11.03	1.86	3.19	0.26	3.69	49
	T50XX019	4X2 3/4 130 CREW DSL	TRUCK, HIGHWAY, CREW, 3/4 TON PICKUP, 4X2	130 HP	D-on	\$26,420	9.62	1.48	2.53	0.21	3.69	47
	T50XX020	4X4 3/4 130 CREW DSL	TRUCK, HIGHWAY, CREW, 3/4 TON PICKUP 4X4	130 HP	D-on	\$31,953	10.77	1.80	3.09	0.25	3.69	55
	T50XX021	4X2 1 130 CREW DSL	TRUCK, HIGHWAY, CREW, 1 TON PICKUP, 4X2	130 HP	D-on	\$29,014	10.17	1.62	2.78	0.23	3.69	48
	<b>SUBCATEGORY 0.02</b>	<b>OVER 10,000 THRU 30,000 GVW (Chassis only - Add options)</b>										
	<b>NO SPECIFIC MANUFACTURER</b>											
	T50XX023	4X2 20KGVW GAS	TRUCK, HIGHWAY, 20,000 LBS GVW, 2 AXLE, 4X2 (CHASSIS ONLY-ADD OPTIONS)	210 HP	G	\$45,606	36.12	2.07	3.44	0.35	25.27	70
	T50XX024	4X2 25KGVW GAS	TRUCK, HIGHWAY, 25,000 LBS GVW, 2 AXLE, 4X2 (CHASSIS ONLY-ADD OPTIONS)	210 HP	G	\$39,625	35.16	1.79	2.96	0.31	25.27	72
	T50XX022	4X2 25KGVW DSL	TRUCK, HIGHWAY, 25,000 LBS GVW, 2 AXLE, 4X2 (CHASSIS ONLY-ADD OPTIONS)	180 HP	D-on	\$57,879	23.34	2.66	4.42	0.45	12.39	88
	T50XX025	4X4 30KGVW DSL	TRUCK, HIGHWAY, 30,000 LBS GVW, 2 AXLE, 4X4 (CHASSIS ONLY-ADD OPTIONS)	170 HP	D-on	\$76,331	25.70	3.48	5.78	0.59	11.70	97
	T50XX026	4X2 30KGVW DSL	TRUCK, HIGHWAY, 30,000 LBS GVW, 2 AXLE, 4X2 (CHASSIS ONLY-ADD OPTIONS)	210 HP	D-on	\$77,566	28.93	3.54	5.88	0.60	14.46	105

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV) 2011 (\$)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER		AVERAGE	STANDBY	DEPR	FCCM	FUEL	
T50	<i>NO SPECIFIC MANUFACTURER (continued)</i>											
	T50XX035	4X2 30KGVW DSL	TRUCK, HIGHWAY, 30,000 LBS GVW, 2 AXLE, 4X2, WITH 3-ARM ARTICULATING CRANE, 3.5 TON, 32' BOOM, WITH 8' X 20' FLATBED	210 HP	D-on	\$107,719	33.78	4.98	8.29	0.83	14.46	135
	<b>SUBCATEGORY 0.03 OVER 30,000 GVW (Chassis only - Add options)</b>											
	<b>NO SPECIFIC MANUFACTURER</b>											
	T50XX027	4X2 35KGVW DSL	TRUCK, HIGHWAY, 35,000 LBS GVW, 2 AXLE, 4X2 (CHASSIS ONLY-ADD OPTIONS)	265 HP	D-on	\$123,368	45.95	4.92	7.95	0.94	25.76	126
	T50XX032	4X2 35KGVW DSL	DUMP TRUCK, HIGHWAY, 35,000 LBS GVW, 2 AXLE, 4X2 WITH REAR 10 - 13 CY DUMP BODY	265 HP	D-on	\$133,761	47.36	5.35	8.65	1.02	25.76	160
	T50XX028	6X4 45KGVW DSL	TRUCK, HIGHWAY, 45,000 LBS GVW, 3 AXLE, 6X4 (CHASSIS ONLY-ADD OPTIONS)	230 HP	D-on	\$123,575	42.38	4.86	7.83	0.94	22.36	135
	T50XX029	6X4 55KGVW DSL	TRUCK, HIGHWAY, 50,000 LBS GVW, 3 AXLE, 6X4 (CHASSIS ONLY-ADD OPTIONS)	310 HP	D-on	\$113,839	49.77	4.45	7.18	0.86	30.13	144
	T50XX030	6X6 70KGVW DSL	TRUCK, HIGHWAY, 70,000 LBS GVW, 3 AXLE, 6X6 (CHASSIS ONLY-ADD OPTIONS)	350 HP	D-on	\$145,013	58.35	5.73	9.26	1.10	34.02	180
T50XX031	6X4 75KGVW DSL	TRUCK, HIGHWAY, 75,000 LBS GVW, 3 AXLE, 6X4 (CHASSIS ONLY-ADD OPTIONS)	400 HP	D-on	\$133,363	62.25	5.25	8.48	1.01	38.88	197	
T50XX033	6X4 75KGVW DSL	DUMP TRUCK, HIGHWAY, 75,000 LBS GVW, 3 AXLE, 6X4 WITH REAR 16 - 20 CY DUMP BODY	400 HP	D-on	\$145,210	63.85	5.74	9.27	1.10	38.88	240	

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>T55</b>	<b>TRUCKS, OFF-HIGHWAY</b>											
	<b>SUBCATEGORY 0.10 RIGID FRAME</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	T55CA007	770	TRUCK, OFF-HIGHWAY, RIGID FRAME, 31.7 CY, 41.6 TON, 4X4, REAR DUMP	487 HP	D-off	\$677,212	112.29	18.31	27.00	4.81	28.89	668
	T55CA002	773F	TRUCK, OFF-HIGHWAY, RIGID FRAME, 46.9 CY, 57.7 TON, 4X4, REAR DUMP	650 HP	D-off	\$893,056	140.53	23.92	35.14	6.35	38.56	872
	T55CA003	777G	TRUCK, OFF-HIGHWAY, RIGID FRAME, 78.6 CY, 100 TON, 4X4, REAR DUMP	938 HP	D-off	\$1,296,220	210.79	33.60	48.77	9.21	55.65	1,419
	<b>Komatsu America International Company</b>											
	T55KM009	HD325-6A	TRUCK, OFF-HIGHWAY, RIGID FRAME, 31.4 CY, 44 TON, 4X4, REAR DUMP	488 HP	D-off	\$499,078	94.97	13.27	19.43	3.55	28.95	707
	T55KM012	HD785-5	TRUCK, OFF-HIGHWAY, RIGID FRAME, 78.7 CY, 100 TON, 4X4, REAR DUMP	1,042 HP	D-off	\$1,027,279	191.61	25.97	37.34	7.30	61.82	1,542
	T55KM013	HD1500-5	TRUCK, OFF-HIGHWAY, RIGID FRAME, 102 CY, 165 TON, 4X4, REAR DUMP	1,486 HP	D-off	\$2,375,559	349.74	64.79	95.81	16.88	88.16	5,500
	T55KM014	730E	TRUCK, OFF-HIGHWAY, RIGID FRAME, 145 CY, 205 TON, 4X4, REAR DUMP	2,000 HP	D-off	\$2,806,887	432.80	76.09	112.29	19.94	118.66	7,150
	<b>SUBCATEGORY 0.20 ARTICULATED FRAME</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	T55CA014	725	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 18 CY, 25 TON, 6X6, REAR DUMP	214 HP	D-off	\$383,527	72.45	15.34	25.08	2.80	17.92	424

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>T55</i>			<i>CATERPILLAR INC. (MACHINE DIVISION) (continued)</i>									
	T55CA015	730	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 22 CY, 30 TON, 4X4, REAR DUMP	285 HP	D-off	\$438,764	86.53	17.55	28.69	3.20	23.87	473
	T55CA016	735	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 22 CY, 30 TON, 6X6, REAR DUMP	260 HP	D-off	\$530,991	97.03	21.23	34.72	3.87	21.78	488
	T55CA017	735B	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 25 CY, 35 TON, 6X6, REAR DUMP	355 HP	D-off	\$599,787	115.15	23.98	39.22	4.37	29.73	667
	T55CA018	740	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 28 CY, 40 TON, 6X6, REAR DUMP	405 HP	D-off	\$616,042	121.93	24.63	40.28	4.49	33.92	698
			<b>DEERE &amp; COMPANY</b>									
	T55JD001	250D-11	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 18 CY, 25 TON, 6X6, REAR DUMP	265 HP	D-off	\$382,586	82.95	14.58	23.58	2.79	22.20	355
	T55JD002	300D-11	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 22 CY, 29 TON, 6X6, REAR DUMP	285 HP	D-off	\$424,990	90.63	16.28	26.35	3.10	23.87	401
	T55JD003	370E	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 26.8 CY, 37 TON, 6X6, REAR DUMP	380 HP	D-off	\$568,594	129.53	20.77	33.24	4.15	31.83	571
	T55JD004	410E	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 29.7 CY, 41 TON, 6X6, REAR DUMP	413 HP	D-off	\$616,950	135.10	23.19	37.38	4.50	34.59	635

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>Komatsu America International Company</b>												
	T55KM015	HM350-2	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 19.1-25.9 CY, 35.7 TON, 6 X 6 X 2, REAR DUMP	389 HP	D-off	\$394,996	106.32	13.83	21.89	2.88	32.58	630
	T55KM016	HM400-2	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 21.6-29.2 CY, 40.3 TON, 6 X 6 X 2, REAR DUMP	430 HP	D-off	\$500,096	120.49	18.52	29.74	3.65	36.02	668
<b>VOLVO CONSTRUCTION EQUIPMENT GROUP</b>												
	T55VO002	A-25E 4X4	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 14-18 CY, 25 TON, 4X4, REAR DUMP	299 HP	D-off	\$389,755	89.65	14.57	23.45	2.84	25.04	429
	T55VO003	A-25E	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 14-18 CY, 25 TON, 6X6, REAR DUMP	299 HP	D-off	\$411,005	89.95	15.72	25.43	3.00	25.04	475
	T55VO005	A-30E	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 17-22 CY, 30 TON, 6X6, REAR DUMP	336 HP	D-off	\$484,014	101.51	18.76	30.45	3.53	28.14	508
	T55VO004	A-35E	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 19-25 CY, 35 TON, 6X6, REAR DUMP	414 HP	D-off	\$598,668	130.53	22.73	36.71	4.37	34.68	620
	T55VO006	A-40E	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 21-29 CY, 40 TON, 6X6, REAR DUMP	464 HP	D-off	\$664,585	153.41	24.25	38.80	4.85	38.86	666

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>T56</b>	<b>TRUCKS, OFF-HIGHWAY/PRIME MOVER TRACTORS &amp; WAGONS</b>											
	<b>SUBCATEGORY 0.10 PRIME MOVER TRACTORS</b>											
	<b>CATERPILLAR INC. ( MACHINE DIVISION)</b>											
	T56CA006	776D	TRUCK, OFF-HIGHWAY, RIGID FRAME, PRIME MOVER TRACTOR, 4X4	938 HP	D-off	\$1,441,841	235.75	37.72	54.96	10.24	62.20	1,164
<b>T57</b>	<b>TRUCKS, VACUUM</b>											
	<b>SUBCATEGORY 0.00 TRUCKS, VACUUM</b>											
	<b>WASTEQUIP CUSCO INDUSTRIES</b>											
	T57CU001	INDUSTRIAL VAC 130	TRAILER, VACUUM, 5,500 GAL, 750 CFM, REAR DOOR & HYDRAULIC DUMP SYSTEM	76 HP	D-off	\$125,715	31.73	5.97	9.99	0.97	8.22	76
	T57CU002	SS INDUST. VAC 130	TRAILER, VACUUM, 5,500 GAL, 750 CFM, STAINLESS STEEL, REAR DOOR & HYDRAULIC DUMP SYSTEM	76 HP	D-off	\$154,452	36.79	7.34	12.29	1.19	8.22	76
	T57CU003	2127	TRUCK, VACUUM, 3,500 GAL, 2,100 CFM, REAR DOOR & HYDRAULIC DUMP SYSTEM (ADD TRUCK COST)	300 HP	D-off	\$132,089	60.03	6.27	10.50	1.02	32.46	115
	T57CU004	3827	TRUCK, VACUUM, 3,500 GAL, 3,170 CFM, REAR DOOR & HYDRAULIC DUMP SYSTEM (ADD TRUCK COST)	350 HP	D-off	\$146,035	68.56	6.94	11.62	1.13	37.87	177
	T57CU005	5327	TRUCK, VACUUM, 3,500 GAL, 4,550 CFM, REAR DOOR & HYDRAULIC DUMP SYSTEM (ADD TRUCK COST)	425 HP	D-off	\$172,349	82.27	8.19	13.72	1.33	45.98	335

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>T60</b>	<b>TRUCKS, WATER, OFF-HIGHWAY</b>											
	<b>SUBCATEGORY 0.00 TRUCKS, WATER, OFF-HIGHWAY</b>											
	<b>KLEIN PRODUCTS, INC.</b>											
	T60KI001	KT-50	TRUCK, WATER, OFF-HIGHWAY, 5,000 GAL, W/CAT 621G TRACTOR	330 HP	D-off	\$466,159	107.19	18.61	30.13	3.54	35.70	320
	T60KI002	KT-60	TRUCK, WATER, OFF-HIGHWAY, 6,000 GAL, W/CAT 621G TRACTOR	330 HP	D-off	\$338,781	97.02	12.40	19.66	2.57	35.70	580
	T60KI003	KT-80	TRUCK, WATER, OFF-HIGHWAY, 8,000 GAL, W/CAT 631G TRACTOR	462 HP	D-off	\$475,138	136.42	17.33	27.44	3.61	49.98	751
	T60KI004	KT-100	TRUCK, WATER, OFF-HIGHWAY, 10,000 GAL, W/CAT 631G TRACTOR	462 HP	D-off	\$674,192	163.61	25.48	40.71	5.12	49.98	811
	T60KI006	KT-140	TRUCK, WATER, OFF-HIGHWAY, 14,000 GAL, W/CAT 651G TRACTOR	564 HP	D-off	\$990,917	219.51	38.43	61.80	7.53	61.02	1,097
	<b>SOUTHWEST CONSTRUCTION EQUIPMENT CO.</b>											
	T60SO001	STT-60	TRUCK, WATER, OFF-HIGHWAY, 6,000 GAL, W/CAT 621E TRACTOR	330 HP	D-off	\$510,716	120.51	19.44	31.12	3.88	35.70	610
	T60SO002	STT-80	TRUCK, WATER, OFF-HIGHWAY, 8,000 GAL, W/CAT 631E TRACTOR	450 HP	D-off	\$711,305	164.22	27.42	44.04	5.40	48.69	812
	T60SO003	STT-100	TRUCK, WATER, OFF-HIGHWAY, 10,000 GAL, W/CAT 631E TRACTOR	450 HP	D-off	\$722,338	165.74	27.88	44.78	5.49	48.69	897
	T60SO004	STT-120	TRUCK, WATER, OFF-HIGHWAY, 12,000 GAL, W/CAT 651E TRACTOR	550 HP	D-off	\$897,821	207.44	34.28	54.91	6.82	59.50	1,149
	T60SO005	STT-140	TRUCK, WATER, OFF-HIGHWAY, 14,000 GAL, W/CAT 651E TRACTOR	550 HP	D-off	\$912,916	209.50	34.90	55.91	6.94	59.50	1,184

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>T65</b>	<b>TUNNEL/MINING EQUIPMENT</b>											
	<b>SUBCATEGORY 0.10</b>		<b>DRIFTING &amp; TUNNELING DRILLS</b>									
	<b>ATLAS COPCO WAGNER</b>											
	T65WG012	L2C	TUNNELING DRILL, 2 BOOM, 560-1,120 SF CROSS SECTION, RUBBER TIRED (ADD DRILL BITS AND DRILL STEEL COST)	158 HP	E 156 HP D-off	\$1,797,674	271.22	67.22	108.34	13.05	15.28	520
	T65WG013	WL2C	TUNNELING DRILL, 4 BOOM, 700-1,600 SF CROSS SECTION, RUBBER TIRED (ADD DRILL BITS AND DRILL STEEL COST)	158 HP	E 156 HP D-off	\$2,703,511	395.68	101.29	163.34	19.62	15.28	728
	T65WG014	WL4C	TUNNELING DRILL, 4 BOOM, 700-1,650 SF CROSS SECTION, RUBBER TIRED (ADD DRILL BITS AND DRILL STEEL COST)	380 HP	E 224 HP D-off	\$2,950,150	457.14	110.57	178.31	21.41	33.57	1,058
<b>W25</b>	<b>WATER &amp; CO2 BLASTERS</b>											
	<b>SUBCATEGORY 0.10</b>		<b>LOW PRESSURE, (&lt; 5,000 PSI)</b>									
	<b>SIOUX STEAM CLEANER CORPORATION</b>											
	W25SD006	S1.7 D250	WATER BLASTER, LOW PRESSURE, STEAM CLEANER, 100 GPH, 250 PSI, 1.7 GPM	1 HP	E	\$6,059	7.23	0.66	1.21	0.05	0.09	4
	W25SD007	S2 D250	WATER BLASTER, LOW PRESSURE, STEAM CLEANER, 120 GPH, 250 PS, 2.0 GPM	1 HP	E	\$6,452	8.44	0.71	1.29	0.06	0.09	5
	W25SD008	S2.7 D250	WATER BLASTER, LOW PRESSURE, STEAM CLEANER, 160 GPH, 250 PSI, 2.7 GPM	1 HP	E	\$7,015	9.72	0.76	1.40	0.06	0.09	6
	W25SD001	C-4-E 2000	WATER BLASTER, LOW PRESSURE, COLD WATER, 2,000 PSI, 4 GPM	5 HP	E	\$5,685	3.56	0.62	1.14	0.05	0.45	4
	W25SD005	C-4-G 2800	WATER BLASTER, LOW PRESSURE, COLD WATER, 2,800 PSI, 4 GPM	12 HP	G	\$6,658	7.69	0.73	1.33	0.06	3.88	4



**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>W25</i>			<i>SIoux STEAM CLEANER CORPORATION (continued)</i>									
	W25SD003	C-5-G 3400	WATER BLASTER, LOW PRESSURE, COLD WATER, 3,400 PSI, 5 GPM	18 HP	G	\$8,826	10.95	0.97	1.77	0.08	5.82	5
	W25SD004	H3.5*3000	WATER BLASTER, LOW PRESSURE, HOT WATER, 3,000 PSI, 3.5 GPM, TRAILER MTD	8 HP	G	\$12,938	9.38	1.37	2.52	0.11	2.59	6
	W25SD009	SF11	WATER BLASTER, LOW PRESSURE, STEAM GENERATOR, 15 PSI, 355 LB/HR STEAM, 55 GAL BOILER	11 HP	E	\$15,574	15.40	1.70	3.11	0.14	0.99	9
	W25SD002	EN-140-H4-1800	WATER BLASTER, LOW PRESSURE, HOT WATER, 1,800 PSI, 2.3 GPM	3 HP	E	\$14,701	7.92	1.60	2.94	0.13	0.27	7
			<b>NO SPECIFIC MANUFACTURER</b>									
	W25XX005	COLD 3/1000G	WATER BLASTER, LOW PRESSURE, COLD WATER, 700 PSI, 3 GPM	5 HP	G	\$2,107	2.87	0.23	0.42	0.02	1.62	4
	W25XX006	COLD 4/1000G	WATER BLASTER, LOW PRESSURE, COLD WATER, 1,200 PSI, 3 GPM	5 HP	G	\$2,958	3.31	0.33	0.59	0.03	1.62	4
	W25XX007	COLD 4/2000G	WATER BLASTER, LOW PRESSURE, COLD WATER, 2,000 PSI, 4 GPM	8 HP	G	\$3,988	4.90	0.43	0.80	0.03	2.59	2
	W25XX008	COLD 4/3000G	WATER BLASTER, LOW PRESSURE, COLD WATER, 3,000 PSI, 4 GPM	11 HP	G	\$4,122	6.04	0.45	0.82	0.04	3.56	6
	W25XX009	HOT 4/1000G	WATER BLASTER, LOW PRESSURE, HOT WATER/STEAM, 1,000 PSI, 4 GPM	8 HP	G	\$8,324	7.12	0.90	1.66	0.07	2.59	6
	W25XX010	HOT 6/3000G	WATER BLASTER, LOW PRESSURE, HOT WATER/STEAM, 3,000 PSI, 6 GPM	24 HP	G	\$12,743	15.09	1.39	2.55	0.11	7.76	10

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
	<b>SUBCATEGORY 0.20 HIGH PRESSURE, (&gt;= 5,000 PSI)</b>											
	<b>NLB CORPORATION</b>											
	W25NL001	6200E	WATER BLASTER, HIGH PRESSURE, 6,000 PSI, 50 GPM, SKID MTD, W/MODEL 10200 PUMP	200 HP	E	\$77,615	67.75	8.44	15.52	0.68	18.05	118
	W25NL003	201536D	WATER BLASTER, HIGH PRESSURE, 20,000 PSI, 13.2 GPM, SKID MTD, W/50 LF HOSE & CLEANING LANCE	150 HP	D-off	\$84,145	71.82	9.15	16.83	0.73	23.56	78
	W25NL002	20253D	WATER BLASTER, HIGH PRESSURE, 20,000 PSI, 22 GPM, SKID MTD (ADD TRUCK, FLATBED TRAILER & WATER TANKER)	335 HP	D-off	\$131,162	129.78	14.27	26.23	1.15	52.61	140
	W25NL005	20600D	WATER BLASTER, HIGH PRESSURE, 20,000 PSI, 53 GPM, SKID MTD (ADD TRUCK, FLATBED TRAILER & WATER TANKER)	700 HP	D-off	\$322,951	297.57	35.12	64.59	2.82	109.94	200
	W25NL004	4400	WATER BLASTER, HIGH PRESSURE, HYDRODEMOLITION UNIT, CONCRETE BUSTER, SELF PROPELLED (ADD MODEL 20600D WATER BLASTER)	34 HP	D-off	\$173,231	98.36	18.42	33.82	1.51	5.34	80
	<b>SUBCATEGORY 0.30 STEAM CLEANERS</b>											
	<b>ALKOTA CLEANING SYSTEMS, INC.</b>											
	W25AO002	122	WATER BLASTER, STEAM CLEANER, 400 PSI, 1.7 GPM	1 HP	E	\$4,542	3.21	0.50	0.91	0.04	0.09	4
	W25AO003	181	WATER BLASTER, STEAM CLEANER, 250 PSI, 3.0 GPM	1 HP	E	\$6,610	4.27	0.72	1.32	0.06	0.09	6
	W25AO004	240	WATER BLASTER, STEAM CLEANER, 350 PSI, 4.0 GPM	2 HP	E	\$6,497	4.59	0.71	1.30	0.06	0.18	7

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
W25	<i>ALKOTA CLEANING SYSTEMS, INC. (continued)</i>											
	W25AO005	301	WATER BLASTER, STEAM CLEANER, 400 PSI, 5.0 GPM	4	HP E	\$13,150	8.75	1.43	2.63	0.11	0.36	14
	W25AO006	246	WATER BLASTER, STEAM GENERATOR, 100 PSI, 1.0 GPM	1	HP E	\$10,191	6.10	1.11	2.04	0.09	0.09	7
	<b>SUBCATEGORY 0.40</b>		<b>CO2 BLASTERS</b>									
	<b>COLD JET</b>											
	W25CJ001	P750B	CARBON DIOXIDE (CO2) BLASTER/PELLETIZER, 600 LBS/HR, SINGLE HOSE DELIVERY (ADD 65-100 CFM COMPRESSOR)	20	HP E	\$80,851	28.37	6.05	10.78	0.66	1.33	34
	W25CJ002	P1500B	CARBON DIOXIDE (CO2) BLASTER/PELLETIZER, 1,200 LBS/HR, SINGLE HOSE DELIVERY (ADD 65-150 CFM COMPRESSOR)	24	HP E	\$125,628	43.37	9.41	16.75	1.03	1.60	37
	W25CJ003	P3000B	CARBON DIOXIDE (CO2) BLASTER/PELLETIZER, 1,200 LBS/HR, DUAL HOSE DELIVERY (ADD 65-200 CFM COMPRESSOR)	24	HP E	\$198,522	67.09	14.86	26.47	1.62	1.60	66
	<b>SUBCATEGORY 0.50</b>		<b>WET ABRASIVE BLASTING SYSTEM (TORBO)</b>									
	<b>KEIZER TECHNOLOGIES AMERICAS, INC</b>											
W25KZ001	TORBO M120	WATER BLASTER, WET ABRASIVE BLASTER, 4.2 CF TANK CAP, 170 PSI, (INCLUDES HOSES & NOZZLE, ADD 350 CFM AIR COMPRESSOR)	350	CFM A	\$22,677	2.66	0.93	1.47	0.19	0.00	4	

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>W25</i>			<i>KEIZER TECHNOLOGIES AMERICAS, INC (continued)</i>									
	W25KZ002	TORBO M120	WATER BLASTER, WET ABRASIVE BLASTER, 4.2 CF TANK CAP, 170 PSI, W/MIX RUST INHIBITOR INJECTOR (INCLUDES HOSES & NOZZLE, ADD 350 CFM AIR COMPRESSOR)	350 CFM	A	\$25,109	2.95	1.03	1.63	0.21	0.00	4
	W25KZ003	LOC RESTORATION UNIT	WATER BLASTER, WET ABRASIVE BLASTER, 4.2 CF TANK CAP, 170 PSI, W/LOC RESTORATION UNIT (INCLUDES HOSES & NOZZLE, ADD 350 CFM AIR COMPRESSOR)	350 CFM	A	\$25,670	3.02	1.06	1.67	0.22	0.00	4
	W25KZ004	TORBO M320	WATER BLASTER, WET ABRASIVE BLASTER, 13.0 CF TANK CAP, 170 PSI, (INCLUDES HOSES & NOZZLE, ADD 385 CFM AIR COMPRESSOR)	385 CFM	A	\$36,499	4.29	1.50	2.37	0.31	0.00	8
	W25KZ005	TORBO XL320	WATER BLASTER, WET ABRASIVE BLASTER, 13.0 CF TANK CAP, 170 PSI, (INCLUDES HOSES & NOZZLE, ADD 385 CFM AIR COMPRESSOR)	385 CFM	A	\$43,109	5.06	1.76	2.80	0.36	0.00	8
	W25KZ006	TORBO XL320	WATER BLASTER, WET ABRASIVE BLASTER, 19.0 CF TANK CAP, 170 PSI, (INCLUDES HOSES & NOZZLE, ADD 385 CFM AIR COMPRESSOR)	385 CFM	A	\$43,930	5.17	1.80	2.86	0.37	0.00	9
	W25KZ007	TORBO XL320	WATER BLASTER, WET ABRASIVE BLASTER, 19.0 CF TANK CAP, 170 PSI, W/MIX RUST INHIBATOR INJECTOR,(INCLUDES HOSES & NOZZLE, ADD 385 CFM AIR COMPRESSOR)	385 CFM	A	\$46,861	5.52	1.93	3.05	0.40	0.00	9

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<b>W30</b>	<b>WATER TANKS</b>											
	<b>SUBCATEGORY 0.10</b>		<b>PORTABLE WITH WHEELS</b>									
	<b>SOUTHWEST CONSTRUCTION EQUIPMENT CO.</b>											
	W30SO001	EWT-8C	WATER TANK, PORTABLE, TRAILER MTD, SELF ELEVATING, 8,000 GAL, 10" PIPE	8	HP G	\$56,256	9.42	2.22	3.58	0.43	1.77	130
	W30SO002	EWT-10C	WATER TANK, PORTABLE, TRAILER MTD, SELF ELEVATING, 10,000 GAL, 10" PIPE	8	HP G	\$67,021	10.79	2.66	4.29	0.51	1.77	170
	W30SO003	EWT-12C	WATER TANK, PORTABLE, TRAILER MTD, SELF ELEVATING, 12,000 GAL, 10" PIPE	8	HP G	\$72,934	11.54	2.90	4.69	0.55	1.77	185
	<b>SUBCATEGORY 0.20</b>		<b>SKID MOUNTED</b>									
	<b>SOUTHWEST CONSTRUCTION EQUIPMENT CO.</b>											
	W30SO004	WST-8	WATER TANK, PORTABLE, SKID MTD, 8,000 GAL, 10" PIPE			\$35,827	4.26	1.47	2.39	0.27	0.00	107
	W30SO005	WST-10	WATER TANK, PORTABLE, SKID MTD, 10,000 GAL, 10" PIPE			\$39,989	4.76	1.64	2.67	0.30	0.00	122
	W30SO006	WST-12	WATER TANK, PORTABLE, SKID MTD, 12,000 GAL, 10" PIPE			\$46,122	5.48	1.89	3.07	0.35	0.00	142
<b>W35</b>	<b>WELDERS</b>											
	<b>SUBCATEGORY 0.10</b>		<b>ENGINE DRIVEN</b>									
	<b>NO SPECIFIC MANUFACTURER</b>											
	W35XX020	GAS 150 AC	WELDER, ENGINE DRIVEN, GAS, AC, 150 AMP, 4.5 KW, PORTABLE, SKID MTD	11	HP G	\$2,637	3.83	0.15	0.25	0.02	2.98	2

**Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE**

CAT	REGION 2			ENGINE HORSEPOWER AND FUEL TYPE		VALUE (TEV)	TOTAL HOURLY RATES (\$/HR)		ADJUSTABLE ELEMENTS			CWT
	ID.NO.	MODEL	EQUIPMENT DESCRIPTION	MAIN	CARRIER	2011 (\$)	AVERAGE	STANDBY	DEPR	FCCM	FUEL	
<i>W35</i>	<i>NO SPECIFIC MANUFACTURER (continued)</i>											
	W35XX021	GAS 225 AC/DC-CC	WELDER, ENGINE DRIVEN, GAS, AC/DC-CC, 225 AMP, 5-8 KW, TRAILER MTD	17 HP	G	\$6,962	6.50	0.38	0.63	0.06	4.60	6
	W35XX022	GAS 250 AC/DC-CC/CV	WELDER, ENGINE DRIVEN, GAS, AC/DC-CC/CV, 250 AMP, 9 KW, TRAILER MTD	18 HP	G	\$7,175	6.83	0.39	0.65	0.06	4.87	6
	W35XX023	GAS 300 DC-CC	WELDER, ENGINE DRIVEN, GAS, DC-CC, 300 AMP, 3 KW, TRAILER MTD	45 HP	G	\$12,376	15.97	0.67	1.14	0.10	12.18	14
	W35XX024	DIESEL 400 DC-CC/CV	WELDER, ENGINE DRIVEN, DIESEL, DC-CC/CV, 400 AMP, 2-10 KW, TRAILER MTD	48 HP	D-off	\$18,274	10.77	1.00	1.69	0.15	6.37	21
	W35XX025	DIESEL 500 DC-CC/CV	WELDER, ENGINE DRIVEN, DIESEL, DC-CC/CV, 500 AMP, 4 KW, TRAILER MTD	42 HP	D-off	\$17,542	9.74	0.95	1.62	0.14	5.57	18
	<b>SUBCATEGORY 0.20</b>	<b>ELECTRIC DRIVEN</b>										
	<b>LINCOLN ELECTRIC COMPANY</b>											
	W35LC021	Tomahawk 1000	WELDER, ELECTRIC DRIVEN, 60 AMP, PLASMA CUTTER WITH 25' HAND TORCH	20 HP	E	\$2,903	1.50	0.22	0.39	0.02	0.57	1
	W35LC018	SP-180T	WELDER, ELECTRIC DRIVEN, 30-180 AMP, WIRE FEEDER	5 HP	E	\$808	0.39	0.07	0.11	0.01	0.14	1
	W35LC012	IDEAL ARC R3R-400	WELDER, ELECTRIC DRIVEN, 400 AMP, STICK	35 HP	E	\$4,607	2.50	0.35	0.61	0.04	1.00	5
	W35LC013	IDEAL ARC R3R-500	WELDER, ELECTRIC DRIVEN, 500 AMP, STICK	41 HP	E	\$4,945	2.83	0.37	0.66	0.04	1.17	5

**Table 2-2. Hourly Rate Elements**

This Table Contains All Hourly Rate Elements as  
Described in Chapter 2  
For  
Average and Severe Operating Conditions.

Refer to Chapter 2, Section II. Operating Condition

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>A10</b>	A10AR001	0.45	0.03	0.00	0.00	0.00	0.00	0.36	0.84								
	A10AR002	2.16	0.13	0.00	0.20	0.00	0.00	1.76	4.25								
	A10RS003	11.62	0.95	18.04	1.87	0.74	0.11	11.90	45.23								
	A10RS004	11.69	0.95	18.04	1.87	0.74	0.11	11.97	45.37								
	A10RS005	11.74	0.96	18.04	1.87	0.74	0.11	12.03	45.49								
	A10RS006	11.78	0.96	18.04	1.87	0.74	0.11	12.06	45.56								
	A10RS007	11.92	0.97	18.04	1.87	0.74	0.11	12.20	45.85								
	A10RS008	23.35	1.88	24.33	2.52	0.98	0.15	23.87	77.08								
	A10SE001	1.71	0.10	0.00	0.00	0.00	0.00	1.39	3.20								
	A10SE002	2.00	0.12	0.00	0.00	0.00	0.00	1.63	3.75								
<b>A15</b>	A15DP001	1.64	0.16	7.04	0.85	0.11	0.02	1.72	11.54								
	A15DP002	3.62	0.35	13.82	1.67	0.11	0.02	3.78	23.37								
	A15DP003	4.76	0.47	21.86	2.65	0.18	0.03	4.98	34.93								
	A15DP004	4.76	0.47	21.86	2.65	0.18	0.03	4.98	34.93								
	A15DP010	15.03	1.46	50.26	6.09	0.36	0.06	15.70	88.96								
	A15DP011	6.37	0.62	21.74	2.63	0.12	0.02	6.65	38.15								
	A15DP012	9.77	0.95	33.92	4.11	0.27	0.04	10.21	59.27								
	A15DP013	9.77	0.95	33.92	4.11	0.27	0.04	10.21	59.27								
	A15DP014	16.27	1.59	38.32	4.64	0.50	0.08	17.01	78.41								
	A15DP015	8.09	0.79	38.32	4.64	0.27	0.04	8.46	60.61								
	A15SR002	12.31	1.21	55.28	6.70	0.54	0.08	12.88	89.00								
	A15SR004	1.01	0.10	9.80	1.19	0.11	0.02	1.07	13.30								
	A15SR005	1.38	0.14	10.05	1.22	0.11	0.02	1.45	14.37								
	A15SR006	1.01	0.10	9.55	1.16	0.11	0.02	1.07	13.02								
	A15SR007	1.02	0.10	9.67	1.17	0.11	0.02	1.07	13.16								



**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>A15</b>	<i>cont.</i>																
	A15SR008	2.36	0.23	15.45	1.87	0.18	0.03	2.47	22.59								
	A15SR009	2.36	0.23	15.58	1.89	0.18	0.03	2.47	22.74								
	A15SR010	5.07	0.50	28.90	3.50	0.36	0.06	5.32	43.71								
	A15SR011	6.00	0.59	37.69	4.57	0.36	0.06	6.29	55.56								
	A15SR012	5.90	0.58	37.69	4.57	0.36	0.06	6.19	55.35								
	A15SR013	10.58	1.04	56.54	6.85	0.36	0.06	11.06	86.49								
	A15SR014	11.42	1.13	56.54	6.85	0.78	0.12	11.98	88.82								
	A15XX019	0.87	0.09	7.67	1.06	0.11	0.02	0.92	10.74								
	A15XX020	1.71	0.17	3.77	0.46	0.11	0.02	1.79	8.03								
	A15XX021	1.18	0.12	12.78	1.77	0.11	0.02	1.24	17.22								
	A15XX022	1.76	0.17	4.40	0.53	0.11	0.02	1.84	8.83								
	A15XX023	1.24	0.12	16.62	2.30	0.11	0.02	1.30	21.71								
	A15XX024	1.98	0.20	6.28	0.76	0.11	0.02	2.08	11.43								
	A15XX025	1.36	0.14	15.34	2.12	0.11	0.02	1.43	20.52								
	A15XX026	2.22	0.22	8.79	1.07	0.11	0.02	2.33	14.76								
	A15XX027	1.41	0.14	23.01	3.18	0.11	0.02	1.48	29.35								
	A15XX028	2.28	0.22	10.05	1.22	0.11	0.02	2.39	16.29								
	A15XX029	1.53	0.15	17.90	2.48	0.11	0.02	1.61	23.80								
	A15XX030	3.03	0.30	10.68	1.29	0.11	0.02	3.17	18.60								
	A15XX031	4.45	0.43	13.82	1.67	0.11	0.02	4.65	25.15								
	A15XX032	4.03	0.40	14.45	1.75	0.18	0.03	4.21	25.05								
	A15XX033	5.30	0.53	21.36	2.59	0.36	0.06	5.56	35.76								
	A15XX034	7.42	0.73	31.41	3.81	0.36	0.06	7.77	51.56								
	A15XX035	7.92	0.78	34.55	4.19	0.36	0.06	8.29	56.15								
	A15XX036	8.55	0.84	34.55	4.19	0.36	0.06	8.94	57.49								
	A15XX037	9.15	0.90	38.95	4.72	0.36	0.06	9.57	63.71								
	A15XX038	13.97	1.36	45.23	5.48	0.36	0.06	14.59	81.05								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>A15</b>	<i>cont.</i>																
	A15XX039	14.55	1.42	57.79	7.00	0.52	0.08	15.21	96.57								
	A15XX040	15.70	1.54	62.82	7.61	0.52	0.08	16.42	104.69								
	A15XX041	0.27	0.03	0.36	0.18	0.00	0.00	0.23	1.07								
	A15XX042	0.35	0.04	0.50	0.24	0.00	0.00	0.30	1.43								
	A15XX043	0.41	0.04	0.71	0.35	0.00	0.00	0.35	1.86								
	A15XX044	0.49	0.05	1.07	0.52	0.00	0.00	0.41	2.54								
	A15XX045	0.87	0.09	1.78	0.87	0.00	0.00	0.74	4.35								
A15XX046	0.97	0.10	2.14	1.04	0.00	0.00	0.83	5.08									
<b>A20</b>	A20CK001	0.26	0.01	0.00	0.00	0.00	0.00	0.49	0.76								
	A20CK002	0.15	0.01	0.00	0.00	0.00	0.00	0.28	0.44								
	A20CK003	0.30	0.02	0.00	0.00	0.00	0.00	0.55	0.87								
	A20CK005	0.37	0.02	0.00	0.00	0.00	0.00	0.69	1.08								
	A20CK006	0.19	0.01	0.00	0.00	0.00	0.00	0.34	0.54								
	A20CK008	0.21	0.01	0.00	0.00	0.00	0.00	0.39	0.61								
	A20CK010	0.23	0.01	0.00	0.00	0.00	0.00	0.42	0.66								
	A20CM010	0.71	0.04	0.00	0.06	0.00	0.00	1.32	2.13								
	A20CM011	0.92	0.05	0.00	0.06	0.00	0.00	1.70	2.73								
	A20CM012	1.03	0.05	0.00	0.13	0.00	0.00	1.90	3.11								
	A20CM013	3.54	0.19	0.00	0.28	0.14	0.02	6.59	10.76								
	A20CM014	3.81	0.22	0.00	0.41	0.51	0.08	7.15	12.18								
	A20CM015	5.10	0.28	0.00	0.50	0.35	0.05	9.52	15.80								
	A20CM016	2.61	0.13	0.00	0.30	0.00	0.00	4.84	7.88								
	A20CM017	0.13	0.00	0.00	0.00	0.00	0.00	0.24	0.37								
	A20CM018	0.15	0.00	0.00	0.00	0.00	0.00	0.28	0.43								
A20CM019	0.21	0.01	0.00	0.00	0.00	0.00	0.41	0.63									
A20CM020	0.13	0.00	0.00	0.00	0.00	0.00	0.25	0.38									

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>A20</b>	<i>cont.</i>																
	A20WC002	0.20	0.01	0.12	0.20	0.00	0.00	0.38	0.91								
	A20WC004	0.59	0.03	0.89	0.12	0.00	0.00	1.10	2.73								
	A20XX001	0.46	0.01	0.00	0.00	0.00	0.00	0.81	1.28								
	A20XX002	0.53	0.02	0.00	0.00	0.00	0.00	0.94	1.49								
	A20XX003	0.66	0.02	0.00	0.00	0.00	0.00	1.16	1.84								
	A20XX004	0.87	0.03	0.00	0.00	0.00	0.00	1.52	2.42								
	A20XX005	1.23	0.04	0.00	0.00	0.00	0.00	2.15	3.42								
	A20XX006	1.49	0.05	0.00	0.00	0.00	0.00	2.62	4.16								
	A20XX007	1.81	0.06	0.00	0.00	0.00	0.00	3.18	5.05								
	A20XX008	2.42	0.08	0.00	0.00	0.00	0.00	4.24	6.74								
	A20XX021	0.21	0.01	0.00	0.00	0.00	0.00	0.39	0.61								
	A20XX022	0.22	0.01	0.00	0.00	0.00	0.00	0.41	0.64								
	A20XX023	0.23	0.01	0.00	0.00	0.00	0.00	0.43	0.67								
	A20XX024	0.24	0.01	0.00	0.00	0.00	0.00	0.45	0.70								
A20XX025	0.38	0.02	0.00	0.00	0.00	0.00	0.71	1.11									
<b>A25</b>	A25RS006	9.91	0.51	0.00	1.16	0.00	0.00	10.15	21.73								
	A25RS008	11.34	0.58	0.00	1.80	0.00	0.00	11.62	25.34								
	A25XX001	10.86	0.56	0.00	0.64	0.00	0.00	11.12	23.18								
	A25XX002	11.40	0.59	0.00	1.51	0.00	0.00	11.68	25.18								
	A25XX003	11.56	0.60	0.00	2.09	0.00	0.00	11.85	26.10								
<b>A30</b>	A30BG003	37.29	2.93	26.58	4.72	5.56	0.85	48.26	126.19								
	A30BG004	40.02	2.88	13.29	3.11	0.00	0.00	51.08	110.38								
	A30BG005	42.58	3.06	26.58	4.72	0.00	0.00	54.35	131.29								
	A30BK011	26.69	2.05	12.70	1.54	3.68	0.56	34.42	81.64								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>A30</b>	<i>cont.</i>																
	A30BK013	32.38	2.44	17.21	2.09	2.85	0.44	41.64	99.05								
	A30BK015	37.18	2.82	21.83	2.65	3.74	0.57	47.84	116.63								
	A30BK018	43.19	3.11	21.83	2.65	0.00	0.00	55.13	125.91								
	A30BK019	30.22	2.20	12.46	1.51	0.47	0.07	38.64	85.57								
	A30BK020	39.68	2.88	20.53	2.49	0.56	0.09	50.70	116.93								
	A30BK021	42.02	3.02	20.88	2.53	0.00	0.00	53.64	122.09								
	A30BK022	30.54	2.31	17.21	2.09	2.85	0.44	39.29	94.73								
	A30BK023	36.82	2.65	17.21	2.09	0.00	0.00	47.00	105.77								
	A30BK024	29.72	2.97	19.91	2.41	2.07	0.32	32.47	89.87								
	A30CA002	28.27	2.18	20.65	2.50	4.34	0.66	36.47	95.07								
	A30CA007	20.81	2.05	11.58	1.40	0.86	0.13	22.67	59.50								
	A30CA008	32.91	2.53	26.58	3.22	4.51	0.69	42.43	112.87								
	A30CA013	29.10	2.09	20.65	2.50	0.00	0.00	37.14	91.48								
	A30CA016	47.35	3.41	26.58	3.22	0.00	0.00	60.44	141.00								
	A30CH001	29.26	2.24	13.05	1.58	3.68	0.56	37.71	88.08								
	A30CH002	32.34	2.44	18.04	2.19	2.85	0.44	41.59	99.89								
	A30CH003	34.17	2.46	18.04	2.19	0.00	0.00	43.62	100.48								
	A30CH004	34.05	2.57	18.04	2.19	3.02	0.46	43.79	104.12								
	A30CH005	37.18	2.81	20.53	2.49	3.58	0.55	47.81	114.95								
	A30CH006	45.55	3.28	23.73	2.88	0.00	0.00	58.15	133.59								
	A30GC002	4.23	0.31	2.97	0.36	0.25	0.04	5.42	13.58								
	A30GC004	6.26	0.45	4.87	0.59	0.00	0.00	8.00	20.17								
	A30LD001	11.61	1.20	11.90	1.44	1.82	0.28	12.78	41.03								
	A30MP001	13.69	1.32	8.66	1.05	0.00	0.00	14.86	39.58								
	A30MP002	15.33	1.48	10.82	1.31	0.00	0.00	16.63	45.57								
	A30RT001	33.70	3.25	32.46	3.93	0.12	0.02	36.57	110.05								
	A30RT007	36.09	3.55	32.46	3.93	2.42	0.37	39.32	118.14								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>A30</b>	<i>cont.</i>																
	A30XX001	10.40	1.22	11.13	1.14	1.12	0.17	7.80	32.98								
	A30XX002	13.08	1.49	11.13	1.14	0.00	0.00	9.76	36.60								
<b>A35</b>	A35AE001	0.61	0.04	1.11	2.10	0.09	0.01	0.68	4.64								
	A35AE002	1.03	0.07	1.11	2.80	0.09	0.01	1.14	6.25								
	A35AE003	1.30	0.08	1.11	3.15	0.07	0.01	1.43	7.15								
	A35AE004	1.53	0.10	1.11	4.05	0.07	0.01	1.68	8.55								
	A35AE005	1.72	0.12	1.11	6.25	0.13	0.02	1.90	11.25								
<b>A40</b>	A40CA008	75.31	4.62	90.30	10.94	0.00	0.00	102.14	283.31								
	A40CA009	86.30	5.29	102.08	12.37	0.00	0.00	117.05	323.09								
	A40CW001	117.99	7.23	149.20	18.08	0.00	0.00	160.02	452.52								
	A40RT008	51.36	3.30	51.04	6.18	2.67	0.41	70.33	185.29								
	A40RT009	54.83	3.36	51.04	6.18	0.00	0.00	74.36	189.77								
	A40RT010	67.93	4.16	97.37	11.80	0.00	0.00	92.13	273.39								
	A40RT011	80.07	4.91	109.94	13.32	0.00	0.00	108.60	316.84								
	A40RT012	95.78	5.87	109.94	13.32	0.00	0.00	129.91	354.82								
<b>A45</b>	A45AE001	2.05	0.11	0.00	7.10	0.05	0.01	2.51	11.83								
	A45AE002	3.19	0.17	0.00	14.25	0.05	0.01	3.91	21.58								
	A45AE003	7.43	0.39	0.00	16.85	0.05	0.01	9.09	33.82								
	A45RS001	8.21	0.44	8.66	1.55	0.09	0.01	10.06	29.02								
	A45RS002	26.75	1.40	26.37	3.70	0.00	0.00	32.67	90.89								
	A45SE003	6.69	0.36	3.25	2.39	0.15	0.02	8.21	21.07								
	A45SE004	3.85	0.22	2.88	0.90	0.20	0.03	4.77	12.85								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>B10</b>																	
	B10CC007	5.00	0.41	3.99	3.55	0.17	0.03	6.82	19.97								
	B10CC008	4.99	0.44	36.16	8.50	1.00	0.15	6.92	58.16								
	B10CC009	6.29	0.57	44.37	9.89	1.76	0.27	8.80	71.95								
	B10CC010	7.49	0.67	44.37	10.14	1.76	0.27	10.42	75.12								
	B10CC011	2.38	0.19	1.24	1.60	0.00	0.00	3.23	8.64								
	B10CC012	2.48	0.20	3.99	1.30	0.00	0.00	3.36	11.33								
	B10CC013	3.25	0.26	3.99	1.35	0.00	0.00	4.41	13.26								
	B10CC014	0.74	0.06	0.31	0.65	0.00	0.00	1.00	2.76								
	B10CL006	32.59	2.65	7.41	5.61	1.13	0.17	44.46	94.02								
	B10CL015	16.59	1.38	1.85	3.40	1.05	0.16	22.74	47.17								
	B10CL021	8.79	0.74	2.16	1.05	0.64	0.10	12.07	25.55								
	B10CL025	30.28	2.41	12.35	6.01	0.30	0.05	41.13	92.53								
	B10CL027	2.25	0.18	0.00	0.00	0.00	0.00	3.05	5.48								
	B10CL032	0.46	0.04	0.62	0.30	0.00	0.00	0.62	2.04								
	B10CL034	0.92	0.07	1.24	0.60	0.00	0.00	1.25	4.08								
	B10CL036	0.38	0.03	0.49	0.24	0.00	0.00	0.52	1.66								
	B10CL040	0.53	0.04	1.24	0.60	0.00	0.00	0.72	3.13								
	B10CL042	0.35	0.03	0.31	0.15	0.00	0.00	0.48	1.32								
	B10CL045	0.45	0.04	0.62	0.30	0.00	0.00	0.61	2.02								
	B10EM001	46.13	3.77	5.55	3.27	1.91	0.29	63.00	123.92								
	B10EM002	2.84	0.26	0.62	1.30	0.48	0.07	3.96	9.53								
	B10EM003	2.90	0.23	0.00	0.00	0.00	0.00	3.94	7.07								
	B10KB001	14.67	1.46	5.87	2.86	0.70	0.11	20.02	45.69								
	B10KB002	26.49	2.60	13.59	6.61	0.79	0.12	36.07	86.27								
	B10RC006	20.17	1.68	2.81	5.87	1.25	0.19	27.64	59.61								
	B10RC007	15.52	1.28	0.93	2.95	0.78	0.12	21.23	42.81								
	B10RC008	26.74	2.16	1.85	3.40	0.78	0.12	36.44	71.49								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>B10</b>	<i>cont.</i>																
	B10RC016	25.13	2.07	4.63	7.75	1.25	0.19	34.36	75.38								
	B10RC027	16.30	1.29	2.47	3.20	0.00	0.00	22.11	45.37								
	B10RC028	18.31	1.44	3.71	4.06	0.00	0.00	24.83	52.35								
	B10RC029	20.68	1.63	4.94	4.90	0.00	0.00	28.05	60.20								
	B10RC030	22.53	1.78	6.18	6.76	0.00	0.00	30.56	67.81								
	B10RC031	23.78	1.88	7.41	7.61	0.00	0.00	32.25	72.93								
	B10RC032	22.09	1.83	3.09	6.00	1.25	0.19	30.25	64.70								
	B10SN031	7.15	0.65	1.54	2.10	1.23	0.19	9.98	22.84								
	B10SN032	11.61	1.00	1.85	2.65	1.25	0.19	16.04	34.59								
	B10SN033	14.82	1.25	1.85	2.40	1.21	0.19	20.39	42.11								
	B10SN034	16.59	1.39	1.24	2.10	1.25	0.19	22.79	45.55								
	B10SN035	17.51	1.47	1.85	2.55	1.25	0.19	24.04	48.86								
B10SN036	15.51	1.31	2.78	3.10	1.25	0.19	21.33	45.47									
<b>B15</b>																	
	B15BM001	5.52	0.36	8.66	1.05	0.00	0.00	5.41	21.00								
	B15EC001	24.35	1.63	9.43	1.14	0.85	0.13	23.94	61.47								
	B15EC002	17.61	1.18	10.82	1.31	0.42	0.06	17.31	48.71								
	B15EC003	23.65	1.56	24.88	3.01	0.12	0.02	23.21	76.45								
	B15EC004	26.27	1.73	17.26	2.09	0.00	0.00	25.78	73.13								
	B15MB001	0.97	0.06	0.00	0.10	0.00	0.00	0.95	2.08								
	B15MB002	1.17	0.08	0.00	0.14	0.00	0.00	1.15	2.54								
	B15MB003	1.62	0.11	0.00	0.24	0.11	0.02	1.60	3.70								
	B15MB004	1.88	0.13	3.99	0.41	0.11	0.02	1.86	8.40								
	B15RS001	4.76	0.32	8.66	1.05	0.13	0.02	4.68	19.62								
	B15RS005	6.14	0.41	8.66	1.05	0.25	0.04	6.04	22.59								
	B15TB001	2.58	0.18	4.00	0.48	0.16	0.02	2.54	9.96								
B15TB002	2.59	0.18	4.00	0.48	0.16	0.02	2.55	9.98									

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>B15</b>	<i>cont.</i>																
	B15WD001	4.28	0.29	8.66	1.05	0.13	0.02	4.20	18.63								
	B15WD002	4.45	0.30	8.66	1.05	0.13	0.02	4.37	18.98								
<b>B20</b>	B20BN001	1.28	0.09	9.76	1.35	0.05	0.01	1.42	13.96								
	B20BN002	1.74	0.12	18.63	2.58	0.09	0.01	1.92	25.09								
	B20BN003	2.04	0.14	31.06	4.30	0.08	0.01	2.26	39.89								
	B20BN005	2.54	0.17	31.50	4.36	0.08	0.01	2.81	41.47								
	B20BN006	3.16	0.21	31.50	4.36	0.08	0.01	3.49	42.81								
	B20BN007	3.57	0.25	15.36	1.86	0.25	0.04	3.96	25.29								
	B20MQ001	3.75	0.25	9.09	1.10	0.02	0.00	4.14	18.35								
	B20MQ003	5.55	0.37	15.36	1.86	0.08	0.01	6.13	29.36								
	B20MQ004	7.49	0.51	21.64	2.62	0.30	0.05	8.29	40.90								
	B20MQ005	60.62	4.04	94.67	12.97	1.16	0.18	66.97	240.61								
	<b>B25</b>	B25HB001	2.80	0.18	0.00	0.00	0.00	0.00	2.32	5.30	3.44	0.19	0.00	0.00	0.00	0.00	3.27
B25HB003		3.02	0.20	0.00	0.00	0.00	0.00	2.51	5.73	3.72	0.20	0.00	0.00	0.00	0.00	3.53	7.45
B25HB005		3.16	0.21	0.00	0.00	0.00	0.00	2.62	5.99	3.89	0.21	0.00	0.00	0.00	0.00	3.69	7.79
B25HB007		3.78	0.25	0.00	0.00	0.00	0.00	3.14	7.17	4.65	0.26	0.00	0.00	0.00	0.00	4.42	9.33
B25HB008		3.89	0.26	0.00	0.00	0.00	0.00	3.24	7.39	4.79	0.26	0.00	0.00	0.00	0.00	4.55	9.60
B25HB009		4.07	0.27	0.00	0.00	0.00	0.00	3.39	7.73	5.01	0.28	0.00	0.00	0.00	0.00	4.76	10.05
B25HB010		4.70	0.31	0.00	0.00	0.00	0.00	3.91	8.92	5.79	0.32	0.00	0.00	0.00	0.00	5.50	11.61
B25HB011		4.90	0.32	0.00	0.00	0.00	0.00	4.08	9.30	6.03	0.33	0.00	0.00	0.00	0.00	5.73	12.09
B25HB012		4.98	0.33	0.00	0.00	0.00	0.00	4.14	9.45	6.12	0.34	0.00	0.00	0.00	0.00	5.82	12.28
B25HB013		5.09	0.33	0.00	0.00	0.00	0.00	4.23	9.65	6.26	0.34	0.00	0.00	0.00	0.00	5.95	12.55
B25HB014		5.60	0.37	0.00	0.00	0.00	0.00	4.65	10.62	6.89	0.38	0.00	0.00	0.00	0.00	6.55	13.82
B25HB015		5.77	0.38	0.00	0.00	0.00	0.00	4.80	10.95	7.11	0.39	0.00	0.00	0.00	0.00	6.75	14.25



Table 2-2 . HOURLY RATE ELEMENTS

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>B25</b>	<i>cont.</i>																
	B25XX001	2.01	0.13	0.00	0.00	0.00	0.00	1.67	3.81	2.48	0.14	0.00	0.00	0.00	0.00	2.35	4.97
	B25XX002	2.16	0.14	0.00	0.00	0.00	0.00	1.80	4.10	2.66	0.15	0.00	0.00	0.00	0.00	2.53	5.34
	B25XX003	2.32	0.15	0.00	0.00	0.00	0.00	1.93	4.40	2.86	0.16	0.00	0.00	0.00	0.00	2.71	5.73
	B25XX004	2.48	0.16	0.00	0.00	0.00	0.00	2.06	4.70	3.06	0.17	0.00	0.00	0.00	0.00	2.90	6.13
	B25XX005	2.60	0.17	0.00	0.00	0.00	0.00	2.16	4.93	3.20	0.18	0.00	0.00	0.00	0.00	3.04	6.42
	B25XX006	3.02	0.20	0.00	0.00	0.00	0.00	2.51	5.73	3.72	0.20	0.00	0.00	0.00	0.00	3.54	7.46
	B25XX007	3.14	0.21	0.00	0.00	0.00	0.00	2.61	5.96	3.87	0.21	0.00	0.00	0.00	0.00	3.67	7.75
	B25XX008	3.49	0.23	0.00	0.00	0.00	0.00	2.90	6.62	4.30	0.24	0.00	0.00	0.00	0.00	4.09	8.63
	B25XX009	4.12	0.27	0.00	0.00	0.00	0.00	3.42	7.81	5.07	0.28	0.00	0.00	0.00	0.00	4.81	10.16
	B25XX010	4.35	0.29	0.00	0.00	0.00	0.00	3.61	8.25	5.35	0.29	0.00	0.00	0.00	0.00	5.08	10.72
	B25XX011	4.73	0.31	0.00	0.00	0.00	0.00	3.93	8.97	5.82	0.32	0.00	0.00	0.00	0.00	5.53	11.67
	B25XX012	5.14	0.34	0.00	0.00	0.00	0.00	4.27	9.75	6.33	0.35	0.00	0.00	0.00	0.00	6.01	12.69
	B25XX013	6.10	0.40	0.00	0.00	0.00	0.00	5.07	11.57	7.51	0.41	0.00	0.00	0.00	0.00	7.13	15.05
	B25XX014	6.43	0.42	0.00	0.00	0.00	0.00	5.34	12.19	7.91	0.44	0.00	0.00	0.00	0.00	7.51	15.86
	B25XX015	6.57	0.43	0.00	0.00	0.00	0.00	5.46	12.46	8.09	0.45	0.00	0.00	0.00	0.00	7.68	16.22
	B25XX016	6.84	0.45	0.00	0.00	0.00	0.00	5.69	12.98	8.42	0.46	0.00	0.00	0.00	0.00	8.00	16.88
	B25XX017	7.26	0.48	0.00	0.00	0.00	0.00	6.03	13.77	8.93	0.49	0.00	0.00	0.00	0.00	8.49	17.91
	B25XX018	7.62	0.50	0.00	0.00	0.00	0.00	6.33	14.45	9.38	0.52	0.00	0.00	0.00	0.00	8.91	18.81
B25XX019	7.88	0.52	0.00	0.00	0.00	0.00	6.55	14.95	9.69	0.53	0.00	0.00	0.00	0.00	9.21	19.43	
<b>B30</b>																	
	B30CR001	0.54	0.03	0.00	0.00	0.00	0.00	0.49	1.06								
	B30CR002	0.61	0.04	0.00	0.00	0.00	0.00	0.55	1.20								
	B30CR003	0.68	0.04	0.00	0.00	0.00	0.00	0.61	1.33								
	B30CR004	0.71	0.04	0.00	0.00	0.00	0.00	0.64	1.39								
	B30CR005	0.89	0.05	0.00	0.00	0.00	0.00	0.80	1.74								
	B30CR006	1.09	0.07	0.00	0.00	0.00	0.00	0.98	2.14								
	B30CR009	0.94	0.06	0.00	0.00	0.00	0.00	0.85	1.85								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>B30</b>	<i>cont.</i>																
	B30CR010	1.15	0.07	0.00	0.00	0.00	0.00	1.04	2.26								
	B30CR011	1.45	0.09	0.00	0.00	0.00	0.00	1.30	2.84								
	B30CR012	1.70	0.10	0.00	0.00	0.00	0.00	1.53	3.33								
	B30GB001	0.50	0.03	0.00	0.00	0.00	0.00	0.39	0.92								
	B30GB002	0.65	0.04	0.00	0.00	0.00	0.00	0.51	1.20								
	B30GB003	0.80	0.05	0.00	0.00	0.00	0.00	0.63	1.48								
	B30GB004	1.16	0.07	0.00	0.00	0.00	0.00	0.91	2.14								
	B30GB005	1.38	0.08	0.00	0.00	0.00	0.00	1.09	2.55								
	B30GB006	3.12	0.19	0.00	0.00	0.00	0.00	2.63	5.94								
	B30GB007	3.37	0.20	0.00	0.00	0.00	0.00	2.85	6.42								
	B30GB008	3.74	0.23	0.00	0.00	0.00	0.00	3.15	7.12								
	B30GB009	4.14	0.25	0.00	0.00	0.00	0.00	3.49	7.88								
	B30GB010	5.23	0.32	0.00	0.00	0.00	0.00	4.42	9.97								
	B30GB011	2.02	0.12	0.00	0.00	0.00	0.00	1.82	3.96								
	B30GB012	2.09	0.13	0.00	0.00	0.00	0.00	1.88	4.10								
	B30GB013	2.17	0.13	0.00	0.00	0.00	0.00	1.95	4.25								
	B30GB014	2.84	0.17	0.00	0.00	0.00	0.00	2.55	5.56								
	B30GB015	2.94	0.18	0.00	0.00	0.00	0.00	2.64	5.76								
B30GB016	4.91	0.30	0.00	0.00	0.00	0.00	4.42	9.63									
B30GB017	5.33	0.32	0.00	0.00	0.00	0.00	4.79	10.44									
B30GB018	0.39	0.02	0.00	0.00	0.00	0.00	0.31	0.72									
<b>B35</b>																	
	B35HE001	0.90	0.06	0.00	0.00	0.00	0.00	0.75	1.71	1.11	0.06	0.00	0.00	0.00	0.00	1.06	2.23
	B35HE002	1.06	0.07	0.00	0.00	0.00	0.00	0.88	2.01	1.30	0.07	0.00	0.00	0.00	0.00	1.24	2.61
	B35HE003	1.50	0.10	0.00	0.00	0.00	0.00	1.25	2.85	1.85	0.10	0.00	0.00	0.00	0.00	1.75	3.70
	B35HE004	1.81	0.12	0.00	0.00	0.00	0.00	1.50	3.43	2.23	0.12	0.00	0.00	0.00	0.00	2.12	4.47
B35HE005	2.07	0.14	0.00	0.00	0.00	0.00	1.72	3.93	2.55	0.14	0.00	0.00	0.00	0.00	2.42	5.11	

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>B35</b>	<b>cont.</b>																
	B35HE006	2.59	0.17	0.00	0.00	0.00	0.00	2.15	4.91	3.18	0.18	0.00	0.00	0.00	0.00	3.02	6.38
	B35HE007	2.81	0.19	0.00	0.00	0.00	0.00	2.34	5.34	3.46	0.19	0.00	0.00	0.00	0.00	3.29	6.94
	B35HE008	3.69	0.24	0.00	0.00	0.00	0.00	3.07	7.00	4.54	0.25	0.00	0.00	0.00	0.00	4.32	9.11
	B35HE009	3.87	0.26	0.00	0.00	0.00	0.00	3.22	7.35	4.77	0.26	0.00	0.00	0.00	0.00	4.53	9.56
	B35HE010	4.47	0.29	0.00	0.00	0.00	0.00	3.72	8.48	5.51	0.30	0.00	0.00	0.00	0.00	5.23	11.04
	B35HE011	4.84	0.32	0.00	0.00	0.00	0.00	4.03	9.19	5.96	0.33	0.00	0.00	0.00	0.00	5.66	11.95
	B35HE012	5.30	0.35	0.00	0.00	0.00	0.00	4.40	10.05	6.52	0.36	0.00	0.00	0.00	0.00	6.19	13.07
	B35HE013	5.87	0.39	0.00	0.00	0.00	0.00	4.88	11.14	7.23	0.40	0.00	0.00	0.00	0.00	6.86	14.49
	B35HE014	6.72	0.44	0.00	0.00	0.00	0.00	5.58	12.74	8.27	0.46	0.00	0.00	0.00	0.00	7.85	16.58
	B35HE015	7.30	0.48	0.00	0.00	0.00	0.00	6.07	13.85	8.99	0.49	0.00	0.00	0.00	0.00	8.54	18.02
	B35HE016	8.72	0.57	0.00	0.00	0.00	0.00	7.25	16.54	10.73	0.59	0.00	0.00	0.00	0.00	10.20	21.52
	B35HE017	10.03	0.66	0.00	0.00	0.00	0.00	8.34	19.03	12.35	0.68	0.00	0.00	0.00	0.00	11.73	24.76
	B35HE018	0.87	0.06	0.00	0.00	0.00	0.00	0.72	1.65	1.12	0.07	0.00	0.00	0.00	0.00	1.06	2.25
	B35HE019	0.99	0.07	0.00	0.00	0.00	0.00	0.83	1.89	1.28	0.07	0.00	0.00	0.00	0.00	1.21	2.56
	B35HE020	1.42	0.10	0.00	0.00	0.00	0.00	1.18	2.70	1.82	0.11	0.00	0.00	0.00	0.00	1.73	3.66
	B35HE021	1.79	0.13	0.00	0.00	0.00	0.00	1.49	3.41	2.30	0.13	0.00	0.00	0.00	0.00	2.19	4.62
	B35HE022	2.06	0.15	0.00	0.00	0.00	0.00	1.72	3.93	2.65	0.16	0.00	0.00	0.00	0.00	2.52	5.33
	B35HE023	2.47	0.18	0.00	0.00	0.00	0.00	2.05	4.70	3.17	0.19	0.00	0.00	0.00	0.00	3.01	6.37
	B35HE024	2.72	0.20	0.00	0.00	0.00	0.00	2.26	5.18	3.50	0.21	0.00	0.00	0.00	0.00	3.32	7.03
	B35HE025	3.53	0.26	0.00	0.00	0.00	0.00	2.93	6.72	4.53	0.27	0.00	0.00	0.00	0.00	4.31	9.11
	B35HE026	3.60	0.26	0.00	0.00	0.00	0.00	2.99	6.85	4.63	0.27	0.00	0.00	0.00	0.00	4.40	9.30
	B35HE027	4.36	0.32	0.00	0.00	0.00	0.00	3.62	8.30	5.60	0.33	0.00	0.00	0.00	0.00	5.32	11.25
	B35HE028	4.51	0.33	0.00	0.00	0.00	0.00	3.75	8.59	5.79	0.34	0.00	0.00	0.00	0.00	5.50	11.63
	B35HE029	5.20	0.38	0.00	0.00	0.00	0.00	4.32	9.90	6.68	0.39	0.00	0.00	0.00	0.00	6.35	13.42
	B35HE030	5.73	0.42	0.00	0.00	0.00	0.00	4.76	10.91	7.36	0.43	0.00	0.00	0.00	0.00	6.99	14.78
	B35HE031	6.97	0.51	0.00	0.00	0.00	0.00	5.79	13.27	8.96	0.53	0.00	0.00	0.00	0.00	8.51	18.00
	B35HE032	7.42	0.54	0.00	0.00	0.00	0.00	6.17	14.13	9.55	0.56	0.00	0.00	0.00	0.00	9.07	19.18

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>B35</b>	<i>cont.</i>																
	B35HE033	9.46	0.69	0.00	0.00	0.00	0.00	7.86	18.01	12.16	0.71	0.00	0.00	0.00	0.00	11.55	24.42
	B35HE034	10.54	0.77	0.00	0.00	0.00	0.00	8.76	20.07	13.55	0.79	0.00	0.00	0.00	0.00	12.88	27.22
	B35HE035	2.91	0.23	0.00	0.00	0.00	0.00	2.42	5.56	3.64	0.24	0.00	0.00	0.00	0.00	3.46	7.34
	B35HE036	3.04	0.24	0.00	0.00	0.00	0.00	2.53	5.81	3.80	0.25	0.00	0.00	0.00	0.00	3.61	7.66
	B35HE037	3.42	0.27	0.00	0.00	0.00	0.00	2.84	6.53	4.27	0.28	0.00	0.00	0.00	0.00	4.06	8.61
	B35HE038	4.64	0.37	0.00	0.00	0.00	0.00	3.86	8.87	5.81	0.38	0.00	0.00	0.00	0.00	5.51	11.70
	B35HE039	5.19	0.42	0.00	0.00	0.00	0.00	4.32	9.93	6.49	0.43	0.00	0.00	0.00	0.00	6.17	13.09
	B35HE040	5.36	0.43	0.00	0.00	0.00	0.00	4.46	10.25	6.70	0.44	0.00	0.00	0.00	0.00	6.37	13.51
	B35HE041	5.74	0.46	0.00	0.00	0.00	0.00	4.77	10.97	7.18	0.47	0.00	0.00	0.00	0.00	6.82	14.47
	B35HE042	7.39	0.59	0.00	0.00	0.00	0.00	6.14	14.12	9.24	0.61	0.00	0.00	0.00	0.00	8.77	18.62
	B35HE043	7.60	0.61	0.00	0.00	0.00	0.00	6.32	14.53	9.50	0.63	0.00	0.00	0.00	0.00	9.02	19.15
	B35HE044	9.88	0.79	0.00	0.00	0.00	0.00	8.21	18.88	12.35	0.81	0.00	0.00	0.00	0.00	11.73	24.89
	B35HE045	10.24	0.82	0.00	0.00	0.00	0.00	8.51	19.57	12.80	0.84	0.00	0.00	0.00	0.00	12.16	25.80
	B35HE046	12.18	0.98	0.00	0.00	0.00	0.00	10.13	23.29	15.23	1.00	0.00	0.00	0.00	0.00	14.47	30.70
	B35HE047	13.00	1.04	0.00	0.00	0.00	0.00	10.80	24.84	16.25	1.07	0.00	0.00	0.00	0.00	15.44	32.76
	B35SA001	6.59	0.43	0.00	0.00	0.00	0.00	5.48	12.50	8.12	0.45	0.00	0.00	0.00	0.00	7.71	16.28
	B35SA003	9.89	0.65	0.00	0.00	0.00	0.00	8.22	18.76	12.17	0.67	0.00	0.00	0.00	0.00	11.56	24.40
	B35SA004	14.84	0.98	0.00	0.00	0.00	0.00	12.33	28.15	18.27	1.01	0.00	0.00	0.00	0.00	17.35	36.63
	B35SA005	19.79	1.30	0.00	0.00	0.00	0.00	16.45	37.54	24.36	1.34	0.00	0.00	0.00	0.00	23.14	48.84
	B35SA006	24.76	1.63	0.00	0.00	0.00	0.00	20.58	46.97	30.48	1.68	0.00	0.00	0.00	0.00	28.95	61.11
	B35SA007	29.68	1.95	0.00	0.00	0.00	0.00	24.67	56.30	36.53	2.01	0.00	0.00	0.00	0.00	34.70	73.24
	B35SA008	39.57	2.61	0.00	0.00	0.00	0.00	32.88	75.06	48.70	2.68	0.00	0.00	0.00	0.00	46.26	97.64
	B35SA009	49.45	3.26	0.00	0.00	0.00	0.00	41.10	93.81	60.87	3.35	0.00	0.00	0.00	0.00	57.82	122.04
	B35SA010	59.35	3.91	0.00	0.00	0.00	0.00	49.33	112.59	73.05	4.02	0.00	0.00	0.00	0.00	69.39	146.46
	B35XX001	3.56	0.23	0.00	0.00	0.00	0.00	2.96	6.75	4.38	0.24	0.00	0.00	0.00	0.00	4.17	8.79
	B35XX002	4.01	0.26	0.00	0.00	0.00	0.00	3.33	7.60	4.93	0.27	0.00	0.00	0.00	0.00	4.68	9.88
	B35XX003	4.43	0.29	0.00	0.00	0.00	0.00	3.68	8.40	5.45	0.30	0.00	0.00	0.00	0.00	5.18	10.93

Table 2-2 . HOURLY RATE ELEMENTS

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>B35</b>	<i>cont.</i>																
	B35XX004	5.05	0.33	0.00	0.00	0.00	0.00	4.20	9.58	6.22	0.34	0.00	0.00	0.00	0.00	5.91	12.47
	B35XX005	5.67	0.37	0.00	0.00	0.00	0.00	4.71	10.75	6.98	0.38	0.00	0.00	0.00	0.00	6.63	13.99
	B35XX006	6.98	0.46	0.00	0.00	0.00	0.00	5.80	13.24	8.59	0.47	0.00	0.00	0.00	0.00	8.16	17.22
	B35XX007	3.58	0.26	0.00	0.00	0.00	0.00	2.98	6.82	4.61	0.27	0.00	0.00	0.00	0.00	4.38	9.26
	B35XX008	4.10	0.30	0.00	0.00	0.00	0.00	3.40	7.80	5.27	0.31	0.00	0.00	0.00	0.00	5.00	10.58
	B35XX009	4.41	0.32	0.00	0.00	0.00	0.00	3.66	8.39	5.67	0.33	0.00	0.00	0.00	0.00	5.39	11.39
	B35XX010	5.24	0.38	0.00	0.00	0.00	0.00	4.36	9.98	6.74	0.40	0.00	0.00	0.00	0.00	6.41	13.55
	B35XX011	5.80	0.42	0.00	0.00	0.00	0.00	4.82	11.04	7.46	0.44	0.00	0.00	0.00	0.00	7.08	14.98
	B35XX012	7.35	0.54	0.00	0.00	0.00	0.00	6.11	14.00	9.45	0.55	0.00	0.00	0.00	0.00	8.98	18.98
	B35XX013	0.82	0.07	0.00	0.00	0.00	0.00	0.68	1.57	1.02	0.07	0.00	0.00	0.00	0.00	0.97	2.06
	B35XX014	0.92	0.07	0.00	0.00	0.00	0.00	0.76	1.75	1.15	0.08	0.00	0.00	0.00	0.00	1.09	2.32
	B35XX015	1.36	0.11	0.00	0.00	0.00	0.00	1.13	2.60	1.70	0.11	0.00	0.00	0.00	0.00	1.62	3.43
	B35XX016	1.55	0.12	0.00	0.00	0.00	0.00	1.29	2.96	1.94	0.13	0.00	0.00	0.00	0.00	1.85	3.92
	B35XX017	1.70	0.14	0.00	0.00	0.00	0.00	1.41	3.25	2.12	0.14	0.00	0.00	0.00	0.00	2.01	4.27
	B35XX018	3.62	0.29	0.00	0.00	0.00	0.00	3.01	6.92	4.53	0.30	0.00	0.00	0.00	0.00	4.30	9.13
	B35XX019	3.86	0.31	0.00	0.00	0.00	0.00	3.21	7.38	4.83	0.32	0.00	0.00	0.00	0.00	4.59	9.74
	B35XX020	4.36	0.35	0.00	0.00	0.00	0.00	3.63	8.34	5.45	0.36	0.00	0.00	0.00	0.00	5.18	10.99
	B35XX021	4.74	0.38	0.00	0.00	0.00	0.00	3.94	9.06	5.93	0.39	0.00	0.00	0.00	0.00	5.63	11.95
	B35XX022	6.00	0.48	0.00	0.00	0.00	0.00	4.98	11.46	7.50	0.49	0.00	0.00	0.00	0.00	7.12	15.11
B35XX023	6.42	0.51	0.00	0.00	0.00	0.00	5.34	12.27	8.03	0.53	0.00	0.00	0.00	0.00	7.63	16.19	
<b>C05</b>																	
	C05OL001	0.17	0.00	0.70	0.10	0.00	0.00	0.51	1.48								
	C05OL002	0.26	0.01	1.43	0.20	0.00	0.00	0.81	2.71								
	C05OL003	0.32	0.01	1.58	0.22	0.00	0.00	0.98	3.11								
	C05OL004	0.35	0.01	1.74	0.24	0.00	0.00	1.07	3.41								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>C10</b>	C10BO001	0.98	0.03	0.91	0.09	0.00	0.00	1.36	3.37								
	C10BO003	0.37	0.01	1.22	0.13	0.00	0.00	0.52	2.25								
	C10BO004	0.44	0.02	1.83	0.19	0.00	0.00	0.61	3.09								
	C10BO008	3.86	0.13	1.35	0.14	0.00	0.00	5.38	10.86								
	C10BO009	1.79	0.07	1.22	0.13	0.00	0.00	2.79	6.00								
	C10BO011	4.70	0.19	1.20	0.12	0.00	0.00	7.32	13.53								
	C10BO013	10.73	0.43	2.85	0.30	0.00	0.00	16.71	31.02								
	C10BO015	4.18	0.17	0.75	0.08	0.00	0.00	6.52	11.70								
	C10BO016	5.24	0.21	1.35	0.14	0.00	0.00	8.16	15.10								
	C10RX001	7.01	0.28	1.20	0.12	0.00	0.00	10.92	19.53								
	C10RX002	9.67	0.39	2.10	0.22	0.00	0.00	15.07	27.45								
	C10RX003	16.17	0.65	4.95	0.51	0.00	0.00	25.18	47.46								
	C10WC003	0.94	0.03	0.60	0.06	0.00	0.00	1.30	2.93								
	C10WC006	1.22	0.04	1.68	0.17	0.00	0.00	1.70	4.81								
	C10WC007	1.86	0.06	2.74	0.28	0.00	0.00	2.59	7.53								
	C10WC008	3.36	0.12	1.35	0.14	0.00	0.00	4.69	9.66								
	C10WC010	2.13	0.09	3.35	0.35	0.00	0.00	3.32	9.24								
	C10WC015	6.66	0.23	2.10	0.22	0.00	0.00	9.28	18.49								
	C10WC016	7.42	0.30	3.00	0.31	0.00	0.00	11.56	22.59								
C10WC017	2.83	0.11	1.35	0.14	0.00	0.00	4.41	8.84									
C10WC019	7.04	0.28	3.00	0.31	0.00	0.00	10.96	21.59									
<b>C15</b>	C15BL001	1.99	0.09	0.13	0.57	0.00	0.00	2.47	5.25								
	C15BL003	7.85	0.34	0.67	1.86	0.00	0.00	9.74	20.46								
	C15BL004	9.02	0.39	1.00	2.29	0.00	0.00	11.19	23.89								
	C15BL005	12.65	0.55	2.00	3.08	0.00	0.00	15.71	33.99								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>C15</b>	<i>cont.</i>																
	C15BL006	47.07	3.71	54.97	6.66	0.00	0.00	58.43	170.84								
	C15ED001	1.70	0.07	2.61	0.36	0.00	0.00	2.11	6.85								
	C15ED002	1.03	0.04	2.13	0.29	0.00	0.00	1.28	4.77								
	C15XX001	14.27	1.15	30.75	3.73	0.52	0.08	17.77	68.27								
<b>C20</b>																	
	C20WC002	2.19	0.11	3.08	0.43	0.26	0.04	2.18	8.29								
	C20XX001	1.43	0.07	3.08	0.43	0.19	0.03	1.42	6.65								
<b>C25</b>																	
	C25AJ001	0.81	0.04	1.42	0.20	0.00	0.00	0.89	3.36								
	C25AJ003	1.37	0.07	1.42	0.20	0.00	0.00	1.51	4.57								
	C25AJ004	1.54	0.08	2.13	0.29	0.00	0.00	1.70	5.74								
	C25AJ005	1.72	0.09	2.61	0.36	0.00	0.00	1.90	6.68								
	C25AJ006	1.95	0.10	2.61	0.36	0.00	0.00	2.15	7.17								
	C25AJ007	2.06	0.11	2.61	0.36	0.00	0.00	2.27	7.41								
	C25AJ008	1.51	0.14	1.22	0.22	0.00	0.00	1.42	4.51								
	C25AJ009	1.60	0.15	1.22	0.22	0.00	0.00	1.51	4.70								
	C25AJ010	1.71	0.16	1.22	0.22	0.00	0.00	1.62	4.93								
	C25AJ011	1.83	0.17	1.22	0.22	0.00	0.00	1.73	5.17								
	C25AJ012	1.94	0.19	1.22	0.22	0.00	0.00	1.84	5.41								
	C25AJ013	2.06	0.20	1.22	0.22	0.00	0.00	1.94	5.64								
	C25AJ015	1.99	0.10	4.74	0.66	0.00	0.00	2.19	9.68								
	C25AJ016	2.23	0.12	5.69	0.79	0.00	0.00	2.46	11.29								
	C25AJ018	2.31	0.12	5.69	0.79	0.00	0.00	2.55	11.46								
	C25AJ019	3.18	0.17	8.05	1.11	0.00	0.00	3.50	16.01								
C25ST001	0.45	0.02	1.90	0.26	0.00	0.00	0.49	3.12									
C25ST002	0.46	0.02	2.13	0.29	0.00	0.00	0.50	3.40									

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>C25</b>	<i>cont.</i>																
	C25SV001	29.09	2.80	7.03	1.15	0.37	0.06	27.58	68.08								
	C25SV002	27.38	2.63	7.03	1.15	0.30	0.05	25.94	64.48								
	C25SV003	13.63	1.32	3.25	0.53	0.25	0.04	12.93	31.95								
	C25WC002	0.56	0.03	1.90	0.26	0.00	0.00	0.62	3.37								
<b>C35</b>	C35AF002	1.74	0.14	0.00	2.00	0.04	0.01	2.32	6.25								
	C35AF004	4.98	0.39	3.77	2.46	0.08	0.01	6.61	18.30								
	C35AF005	7.22	0.57	6.78	2.82	0.17	0.03	9.61	27.20								
	C35AL002	4.83	0.39	3.77	1.46	0.24	0.04	6.47	17.20								
	C35AL003	1.58	0.14	0.36	0.37	0.24	0.04	2.17	4.90								
	C35AL008	2.95	0.23	0.00	0.30	0.00	0.00	3.91	7.39								
	C35AL013	1.41	0.12	0.00	0.40	0.12	0.02	1.91	3.98								
	C35AL014	7.68	0.60	7.66	1.43	0.08	0.01	10.19	27.65								
	C35AV006	10.21	0.79	1.43	2.70	0.16	0.02	13.55	28.86								
	C35AV008	3.18	0.24	0.50	2.24	0.00	0.00	4.21	10.37								
	C35AV009	3.87	0.30	1.14	2.55	0.00	0.00	5.12	12.98								
	C35AV010	7.22	0.56	1.85	2.90	0.00	0.00	9.55	22.08								
	C35AV011	5.69	0.44	0.86	2.42	0.00	0.00	7.54	16.95								
C35AV012	16.54	1.27	1.43	3.20	0.00	0.00	21.89	44.33									
<b>C40</b>	C40CC001	5.22	0.27	0.67	0.36	0.00	0.00	5.76	12.28								
	C40MU001	0.55	0.03	1.90	0.26	0.05	0.01	0.62	3.42								
	C40MU002	1.18	0.06	3.08	0.43	0.05	0.01	1.31	6.12								
	C40MU003	0.55	0.03	1.90	0.26	0.05	0.01	0.61	3.41								
	C40MU004	0.64	0.04	1.90	0.26	0.05	0.01	0.71	3.61								
	C40ST001	0.33	0.02	0.03	0.22	0.05	0.01	0.37	1.03								



**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>C40</b>	<i>cont.</i>																
	C40ST002	0.36	0.02	1.30	0.18	0.05	0.01	0.41	2.33								
	C40ST003	0.43	0.03	0.13	0.32	0.05	0.01	0.48	1.45								
	C40ST005	0.58	0.03	0.10	0.35	0.05	0.01	0.65	1.77								
	C40XX001	0.47	0.02	0.13	0.27	0.00	0.00	0.52	1.41								
	C40XX002	0.51	0.03	1.66	0.23	0.00	0.00	0.56	2.99								
	C40XX003	0.68	0.04	0.20	0.31	0.00	0.00	0.75	1.98								
	C40XX004	0.68	0.04	1.90	0.26	0.00	0.00	0.75	3.63								
	C40XX005	0.82	0.04	0.33	0.43	0.00	0.00	0.90	2.52								
	C40XX006	1.58	0.08	0.33	0.43	0.00	0.00	1.74	4.16								
C40XX007	1.49	0.08	2.13	0.29	0.00	0.00	1.65	5.64									
<b>C45</b>	C45GO010	22.47	1.38	11.56	1.40	0.00	0.00	30.48	67.29								
	C45GO011	34.65	2.12	23.24	2.82	0.00	0.00	47.00	109.83								
	C45GO012	46.50	2.85	21.23	2.57	0.00	0.00	63.07	136.22								
	C45GO013	18.68	1.15	11.56	1.40	0.00	0.00	25.34	58.13								
	C45GO014	25.73	1.58	12.31	1.49	0.00	0.00	34.89	76.00								
	C45GO016	50.99	3.13	28.90	3.50	0.00	0.00	69.16	155.68								
	C45GO018	63.61	3.90	42.09	5.10	0.00	0.00	86.27	200.97								
	C45GO020	76.08	4.66	56.54	6.85	0.00	0.00	103.19	247.32								
	C45GO026	8.06	0.49	9.20	1.27	0.00	0.00	10.93	29.95								
	C45GO027	10.23	0.63	6.28	0.76	0.00	0.00	13.88	31.78								
	C45GO028	16.30	1.00	6.28	0.76	0.00	0.00	22.11	46.45								
	C45GO029	10.83	0.66	9.20	1.27	0.00	0.00	14.69	36.65								
	C45GO031	61.79	3.79	48.37	5.86	0.00	0.00	83.80	203.61								
	C45MJ001	1.17	0.07	3.84	0.53	0.00	0.00	1.59	7.20								
	C45MW002	6.71	0.42	3.27	0.40	0.08	0.01	9.11	20.00								
	C45MW003	8.51	0.53	3.27	0.40	0.12	0.02	11.57	24.42								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>C55</b>	C55M3001	2.74	0.18	10.90	1.51	0.08	0.01	3.37	18.79								
	C55M3002	6.39	0.42	7.12	0.86	0.00	0.00	7.83	22.62								
	C55M3003	7.29	0.48	12.58	1.52	0.00	0.00	8.95	30.82								
	C55OE001	32.34	2.13	0.00	0.00	0.00	0.00	39.67	74.14								
	C55OE002	41.54	2.74	0.00	0.00	0.00	0.00	50.96	95.24								
	C55OE003	63.30	4.17	0.00	0.00	0.00	0.00	77.65	145.12								
	C55OE006	6.02	0.40	8.78	1.06	0.07	0.01	7.40	23.74								
	C55OE009	11.38	0.76	15.07	1.83	0.14	0.02	13.97	43.17								
	C55OE011	8.30	0.55	21.48	2.60	0.14	0.02	10.19	43.28								
	C55OE012	13.39	0.89	21.48	2.60	0.14	0.02	16.44	54.96								
	C55SC001	9.25	0.61	9.49	1.15	0.08	0.01	11.35	31.94								
	C55SC002	16.00	1.07	23.38	2.83	0.24	0.04	19.66	63.22								
	C55SC005	53.16	3.55	28.92	3.50	1.04	0.16	65.29	155.62								
C55SC006	57.36	3.82	28.92	3.50	1.04	0.16	70.44	165.24									
<b>C60</b>	C60HG008	0.15	0.01	0.61	0.08	0.00	0.00	0.19	1.04								
	C60HG010	0.30	0.02	3.35	0.46	0.00	0.00	0.37	4.50								
	C60HG011	3.99	0.21	9.90	1.63	0.00	0.00	4.90	20.63								
	C60HG012	4.20	0.22	9.90	1.63	0.00	0.00	5.15	21.10								
	C60HG013	4.23	0.22	9.90	1.63	0.00	0.00	5.19	21.17								
	C60HG014	2.21	0.11	2.57	1.25	0.00	0.00	2.71	8.85								
	C60HG015	0.91	0.05	6.09	0.84	0.00	0.00	1.12	9.01								
	C60HG016	5.23	0.27	12.61	2.07	0.00	0.00	6.42	26.60								
	C60HG020	3.15	0.16	14.62	2.02	0.00	0.00	3.86	23.81								
	C60HG021	3.80	0.20	14.62	2.02	0.00	0.00	4.66	25.30								
	C60HG023	2.23	0.11	2.57	1.25	0.00	0.00	2.74	8.90								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>C60</b>	<i>cont.</i>																
	C60HG024	3.79	0.20	14.62	2.02	0.00	0.00	4.65	25.28								
	C60HG025	0.24	0.01	2.74	0.38	0.00	0.00	0.29	3.66								
	C60HG026	0.60	0.03	3.96	0.55	0.00	0.00	0.73	5.87								
	C60LY001	4.35	0.22	3.05	0.42	0.00	0.00	5.34	13.38								
	C60LY002	6.44	0.33	10.66	1.47	0.00	0.00	7.90	26.80								
	C60LY005	0.50	0.03	3.96	0.55	0.00	0.00	0.61	5.65								
C60LY011	12.43	0.64	4.80	0.79	0.00	0.00	15.25	33.91									
<b>C65</b>	C65ST007	0.25	0.01	0.06	0.03	0.00	0.00	0.76	1.11								
	C65ST008	0.26	0.01	0.12	0.06	0.00	0.00	0.79	1.24								
	C65ST009	0.30	0.01	0.19	0.09	0.00	0.00	0.94	1.53								
	C65ST013	0.56	0.02	1.22	0.17	0.00	0.00	1.73	3.70								
	C65WC003	0.42	0.02	0.12	0.20	0.00	0.00	1.29	2.05								
	C65WC004	0.27	0.01	0.19	0.23	0.00	0.00	0.83	1.53								
	C65WC005	0.51	0.02	1.11	0.15	0.00	0.00	1.58	3.37								
<b>C75</b>	C75BD004	5.30	0.64	10.74	1.49	0.23	0.04	5.34	23.78								
	C75BD005	6.55	0.80	17.64	2.44	0.61	0.09	6.61	34.74								
	C75BD006	9.53	1.17	28.12	3.89	1.01	0.15	9.63	53.50								
	C75BD007	3.80	0.46	9.72	1.34	0.25	0.04	3.84	19.45								
	C75BD008	5.08	0.62	10.74	1.49	0.25	0.04	5.12	23.34								
	C75BD009	6.77	0.83	17.64	2.44	0.61	0.09	6.83	35.21								
	C75BD010	11.30	1.38	10.68	1.39	1.01	0.15	11.41	37.32								
	C75BD011	15.08	1.84	16.33	2.12	1.98	0.30	15.22	52.87								
	C75GV016	86.90	10.74	37.69	4.89	21.47	3.28	87.85	252.82								
	C75GV023	25.32	3.11	20.10	2.61	5.35	0.82	25.58	82.89								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>C75</b>	<i>cont.</i>																
	C75GV024	33.11	4.10	21.74	2.82	7.47	1.14	33.48	103.86								
	C75GV029	10.44	1.27	20.45	2.83	0.64	0.10	10.53	46.26								
	C75GV030	15.96	1.92	25.57	3.54	0.48	0.07	16.08	63.62								
	C75GV031	39.91	5.02	30.15	3.91	15.05	2.30	40.45	136.79								
	C75GV032	48.49	6.07	34.55	4.48	16.70	2.56	49.12	161.97								
	C75TD009	21.75	2.60	22.62	2.93	0.00	0.00	21.88	71.78								
	C75TD010	28.38	3.39	31.03	4.03	0.00	0.00	28.54	95.37								
	C75TD011	37.33	4.46	31.03	4.03	0.00	0.00	37.55	114.40								
	C75TE001	22.48	2.75	16.33	2.12	3.51	0.54	22.69	70.42								
C75TE002	30.94	3.79	19.10	2.48	4.72	0.72	31.23	92.98									
<b>C80</b>	C80GV006	44.69	6.11	43.28	4.87	1.76	0.27	39.38	140.36	51.07	6.16	57.24	6.45	6.84	1.05	48.25	177.06
	C80GV016	127.38	21.55	38.99	4.39	15.67	2.40	144.43	354.81	141.53	21.66	50.17	5.65	62.64	9.58	169.48	460.71
	C80GV029	46.30	6.39	48.69	5.48	3.82	0.58	40.86	152.12	52.92	6.44	64.39	7.25	15.23	2.33	50.06	198.62
	C80GV030	46.42	6.40	48.69	5.48	3.82	0.58	40.96	152.35	53.06	6.46	64.39	7.25	15.23	2.33	50.20	198.92
	C80GV033	54.36	7.50	38.41	4.33	7.83	1.20	47.96	161.59	62.12	7.56	50.80	5.72	31.32	4.79	58.77	221.08
	C80GV034	69.75	10.68	43.49	4.90	7.83	1.20	70.29	208.14	78.47	10.76	57.52	6.48	31.32	4.79	84.07	273.41
	C80GV035	45.25	6.95	43.49	4.90	3.82	0.58	45.63	150.62	50.91	7.01	57.52	6.48	15.23	2.33	54.57	194.05
	C80LB009	32.39	4.44	39.49	4.45	1.66	0.25	28.55	111.23	37.01	4.47	52.23	5.88	6.64	1.02	34.98	142.23
	C80LB011	32.69	4.53	39.49	4.45	3.34	0.51	28.87	113.88	37.36	4.57	52.23	5.88	13.25	2.03	35.37	150.69
	C80TD001	35.67	5.57	20.16	2.27	5.91	0.90	36.05	106.53	40.12	5.61	25.79	2.90	23.85	3.65	43.12	145.04
	C80TD002	44.75	6.94	24.68	2.77	5.73	0.88	45.18	130.93	50.34	7.00	31.72	3.58	22.45	3.43	54.04	172.56
	C80TD003	51.92	7.85	24.68	2.77	0.00	0.00	52.22	139.44	58.41	7.91	31.72	3.58	0.00	0.00	62.46	164.08
	C80TD004	58.91	9.85	67.86	7.64	0.00	0.00	66.67	210.93	65.45	9.90	88.49	9.97	0.00	0.00	78.23	252.04
	C80TD005	48.29	8.29	67.86	7.64	7.25	1.11	54.88	195.32	53.66	8.33	88.49	9.97	28.76	4.40	64.40	258.01
	C80TE002	19.86	2.77	27.05	3.05	2.49	0.38	17.55	73.15	22.70	2.79	35.77	4.03	10.06	1.54	21.51	98.40
	C80TE003	26.43	3.69	40.03	4.51	3.68	0.56	23.37	102.27	30.21	3.72	52.94	5.96	14.72	2.25	28.63	138.43

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>C80</b>	<i>cont.</i>																
	C80TE008	17.62	2.19	14.06	2.19	5.11	0.78	13.37	55.32	20.56	2.22	18.60	2.90	20.05	3.07	16.92	84.32
	C80XX001	8.86	1.11	26.51	4.13	1.53	0.23	6.73	49.10	10.34	1.12	35.06	5.46	6.12	0.94	8.51	67.55
	C80XX002	11.69	1.47	32.46	5.06	2.38	0.36	8.88	62.30	13.64	1.48	42.93	6.69	9.61	1.47	11.24	87.06
<b>C85</b>	C85KC005	27.59	4.61	14.12	1.34	0.00	0.00	29.50	77.16	34.49	4.67	18.58	1.77	0.00	0.00	39.03	98.54
	C85KC008	52.58	9.62	20.95	2.17	0.00	0.00	62.84	148.16	64.26	9.72	27.57	2.86	0.00	0.00	80.82	185.23
	C85KC009	32.53	5.44	18.90	1.80	0.00	0.00	34.79	93.46	40.67	5.51	24.87	2.36	0.00	0.00	46.03	119.44
	C85KC010	52.54	8.78	24.07	2.29	0.00	0.00	56.19	143.87	65.67	8.90	31.67	3.01	0.00	0.00	74.33	183.58
	C85KC011	68.91	12.61	24.07	2.49	0.00	0.00	82.36	190.44	84.22	12.73	31.67	3.28	0.00	0.00	105.92	237.82
	C85LB001	33.76	5.64	16.44	1.56	0.00	0.00	36.10	93.50	42.20	5.72	21.64	2.06	0.00	0.00	47.76	119.38
	C85LB014	44.09	7.37	18.83	1.79	0.00	0.00	47.15	119.23	55.11	7.47	24.78	2.36	0.00	0.00	62.37	152.09
	C85LB015	61.07	10.21	18.83	1.79	0.00	0.00	65.31	157.21	76.34	10.34	24.78	2.36	0.00	0.00	86.40	200.22
	C85LB016	70.76	12.95	18.83	1.95	0.00	0.00	84.57	189.06	86.48	13.08	24.78	2.57	0.00	0.00	108.76	235.67
	C85LB019	43.40	6.47	25.77	3.79	0.00	0.00	49.31	128.74	53.41	6.56	33.70	4.95	0.00	0.00	67.83	166.45
	C85LB021	61.16	10.20	25.77	2.45	0.00	0.00	77.67	177.25	73.39	10.31	33.70	3.20	0.00	0.00	102.93	223.53
	C85LB024	27.75	4.63	13.06	1.13	0.00	0.00	27.82	74.39	33.31	4.68	17.19	1.49	0.00	0.00	35.60	92.27
	C85MA002	66.81	11.14	30.85	2.93	0.00	0.00	84.85	196.58	80.17	11.26	40.34	3.83	0.00	0.00	112.44	248.04
	C85MA003	87.28	16.09	36.30	3.76	0.00	0.00	122.41	265.84	109.10	16.27	47.46	4.92	0.00	0.00	167.60	345.35
	C85MA005	53.26	8.90	22.55	2.14	0.00	0.00	56.96	143.81	66.58	9.02	29.67	2.82	0.00	0.00	75.35	183.44
	C85MA006	58.68	10.74	22.55	2.34	0.00	0.00	70.14	164.45	71.72	10.84	29.67	3.07	0.00	0.00	90.20	205.50
	C85MA007	79.64	14.57	24.87	2.58	0.00	0.00	95.20	216.86	97.34	14.72	32.72	3.39	0.00	0.00	122.42	270.59
	C85MA008	53.35	8.92	22.55	2.14	0.00	0.00	57.06	144.02	66.69	9.04	29.67	2.82	0.00	0.00	75.48	183.70
	C85MA011	84.86	14.15	54.44	5.18	0.00	0.00	107.77	266.40	101.83	14.30	71.20	6.77	0.00	0.00	142.81	336.91
	C85MA012	79.81	13.34	39.79	3.78	0.00	0.00	85.35	222.07	99.76	13.52	52.35	4.98	0.00	0.00	112.90	283.51
	C85TE001	34.66	5.17	13.61	2.00	0.00	0.00	39.38	94.82	42.65	5.24	17.80	2.61	0.00	0.00	54.17	122.47
C85TE002	48.22	7.19	22.69	3.33	0.00	0.00	54.79	136.22	59.35	7.29	29.67	4.36	0.00	0.00	75.37	176.04	
C85TE003	54.07	9.02	30.40	2.89	0.00	0.00	68.67	165.05	64.89	9.11	39.75	3.78	0.00	0.00	91.01	208.54	

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>C85</b>	<i>cont.</i>																
	C85TE008	30.98	5.18	12.20	1.16	0.00	0.00	33.13	82.65	38.73	5.25	16.05	1.53	0.00	0.00	43.83	105.39
	C85TE009	38.20	6.39	15.25	1.45	0.00	0.00	40.85	102.14	47.75	6.47	20.07	1.91	0.00	0.00	54.04	130.24
	C85TE010	50.67	8.47	15.91	1.51	0.00	0.00	54.19	130.75	63.34	8.58	20.94	1.99	0.00	0.00	71.68	166.53
	C85TE011	68.03	12.45	20.89	2.16	0.00	0.00	81.32	184.85	83.15	12.57	27.48	2.85	0.00	0.00	104.58	230.63
<b>C90</b>																	
	C90LB001	63.54	11.96	25.76	2.90	15.40	2.36	76.73	198.65	70.60	12.02	32.45	3.66	61.56	9.42	90.04	279.75
	C90LB003	117.98	22.13	46.28	5.21	23.10	3.53	142.36	360.59	131.09	22.23	58.95	6.64	92.35	14.13	167.06	492.45
<b>C95</b>																	
		C95AP004	24.79	4.13	7.90	8.27	0.00	0.00	28.17	73.26							
		C95AP005	0.78	0.13	0.00	0.00	0.00	0.00	0.89	1.80							
		C95AP006	1.46	0.24	0.00	0.00	0.00	0.00	1.66	3.36							
		C95AP007	39.18	6.53	13.15	12.11	0.00	0.00	44.52	115.49							
		C95AP008	5.95	0.99	0.00	0.50	0.00	0.00	6.76	14.20							
		C95AP009	1.97	0.33	0.00	0.00	0.00	0.00	2.24	4.54							
		C95AP010	52.26	8.71	13.40	12.24	0.00	0.00	59.38	145.99							
		C95AP011	1.84	0.31	0.00	0.00	0.00	0.00	2.09	4.24							
		C95AP012	7.43	1.24	0.00	0.50	0.00	0.00	8.44	17.61							
		C95AP013	50.03	8.34	21.86	16.82	0.00	0.00	56.84	153.89							
		C95AP014	1.68	0.28	0.00	0.00	0.00	0.00	1.90	3.86							
		C95AP015	6.48	1.08	0.00	0.50	0.00	0.00	7.36	15.42							
		C95AP016	2.26	0.38	0.00	0.00	0.00	0.00	2.57	5.21							
		C95AP017	21.17	3.53	7.72	7.17	0.00	0.00	24.05	63.64							
		C95AP018	0.70	0.12	0.00	0.00	0.00	0.00	0.79	1.61							
		C95AP019	4.02	0.67	0.00	0.50	0.00	0.00	4.57	9.76							
		C95AP020	23.32	3.89	13.77	10.44	0.00	0.00	26.50	77.92							
	C95AP021	36.46	6.08	15.93	12.61	0.00	0.00	41.43	112.51								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>C95</b>	<i>cont.</i>																
	C95AP022	5.48	0.91	1.48	1.80	0.00	0.00	6.22	15.89								
	C95AP023	0.13	0.02	0.00	0.00	0.00	0.00	0.15	0.30								
	C95LH003	21.65	3.61	6.73	6.64	0.00	0.00	24.60	63.23								
	C95LH005	28.16	4.69	9.14	8.94	0.00	0.00	31.99	82.92								
	C95LH011	52.61	8.77	13.77	12.44	0.00	0.00	59.78	147.37								
	C95LH013	67.20	11.20	13.77	12.44	0.00	0.00	76.36	180.97								
	C95LH015	89.57	14.93	19.57	17.58	0.00	0.00	101.77	243.42								
	C95LH022	19.03	3.21	2.16	3.17	0.78	0.12	21.68	50.15								
C95LH023	26.56	4.48	4.01	5.17	1.04	0.16	30.25	71.67									
<b>D10</b>																	
	D10IR003	10.17	1.48	0.00	0.79	0.00	0.00	14.64	27.08								
	D10IR005	38.37	4.07	28.51	3.45	0.00	0.00	55.26	129.66								
	D10SU002	12.53	1.82	0.00	0.80	0.00	0.00	18.04	33.19								
	D10SU003	12.81	1.86	0.00	0.80	0.00	0.00	18.45	33.92								
	D10SU005	19.47	2.07	34.48	4.18	0.00	0.00	28.04	88.24								
	D10SU006	19.71	2.09	34.48	4.18	0.00	0.00	28.38	88.84								
<b>D15</b>																	
	D15BI001	1.23	0.13	3.25	0.45	0.00	0.00	1.59	6.65								
	D15BI002	2.24	0.24	2.65	0.32	0.00	0.00	2.91	8.36								
	D15BI003	3.46	0.37	3.98	0.48	0.00	0.00	4.48	12.77								
	D15BI004	5.29	0.56	5.97	0.72	0.00	0.00	6.86	19.40								
	D15BI005	7.10	0.75	8.22	1.00	0.00	0.00	9.21	26.28								
	D15BI006	11.32	1.20	15.78	1.91	0.00	0.00	14.67	44.88								
	D15BI007	13.97	1.48	25.07	3.04	0.00	0.00	18.10	61.66								
	D15BI008	15.61	1.66	25.07	3.04	0.00	0.00	20.23	65.61								
D15VE001	3.77	0.40	3.45	0.42	0.00	0.00	4.88	12.92									

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>D15</b>	<i>cont.</i>																
	D15VE002	6.44	0.68	6.23	0.75	0.00	0.00	8.34	22.44								
	D15VE003	9.01	0.96	8.36	1.01	0.00	0.00	11.68	31.02								
	D15VE004	11.19	1.19	11.01	1.33	0.00	0.00	14.50	39.22								
	D15VE005	31.98	3.39	16.58	2.01	0.00	0.00	41.45	95.41								
	D15VE006	23.46	2.49	18.57	2.25	0.00	0.00	30.41	77.18								
	D15VE007	40.14	4.26	26.52	3.21	0.00	0.00	52.02	126.15								
	D15VE008	44.79	4.75	29.84	3.62	0.00	0.00	58.05	141.05								
	D15VE009	0.53	0.06	1.49	0.21	0.00	0.00	0.69	2.98								
	D15VE010	1.55	0.17	2.92	0.35	0.00	0.00	2.01	7.00								
	D15VE011	1.58	0.17	2.92	0.35	0.00	0.00	2.05	7.07								
	D15VE012	3.24	0.34	3.65	0.44	0.00	0.00	4.19	11.86								
	D15XX001	0.72	0.08	0.00	0.00	0.00	0.00	0.94	1.74								
D15XX002	1.09	0.12	0.00	0.00	0.00	0.00	1.42	2.63									
<b>D20</b>	D20AD007	1.60	0.14	0.61	1.10	0.00	0.00	1.96	5.41								
	D20DN001	0.22	0.02	0.27	0.13	0.00	0.00	0.26	0.90								
	D20DN002	0.31	0.03	0.17	0.08	0.00	0.00	0.38	0.97								
	D20DN003	0.95	0.08	4.87	0.34	0.00	0.00	1.16	7.40								
	D20DN004	0.97	0.08	0.95	0.46	0.00	0.00	1.19	3.65								
	D20HG022	1.33	0.11	4.87	0.34	0.00	0.00	1.62	8.27								
<b>D25</b>	D25AD003	10.03	1.06	9.15	0.95	0.00	0.00	14.45	35.64								
	D25AD004	6.46	0.69	3.71	0.38	0.00	0.00	9.30	20.54								
	D25EZ001	0.67	0.07	0.00	0.50	0.00	0.00	0.97	2.21								
	D25EZ002	0.51	0.06	0.00	0.50	0.13	0.02	0.76	1.98								
	D25EZ003	0.59	0.07	0.00	0.50	0.09	0.01	0.86	2.12								



**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>D25</b>	<i>cont.</i> D25EZ005	2.23	0.25	0.00	1.25	0.18	0.03	3.24	7.18								
<b>D30</b>																	
	D30HD001	12.81	1.36	27.85	5.37	0.00	0.00	18.44	65.83								
	D30HD002	16.21	1.72	35.81	7.34	0.00	0.00	23.34	84.42								
	D30HD003	19.75	2.10	44.43	9.38	0.00	0.00	28.45	104.11								
	D30MR001	1.10	0.12	2.17	0.30	0.00	0.00	1.59	5.28								
	D30MR003	7.36	0.79	7.69	0.93	0.17	0.03	10.64	27.61								
	D30MR005	17.66	1.91	17.92	2.17	0.61	0.09	25.54	65.90								
	D30MR006	18.20	1.96	20.52	2.49	0.61	0.09	26.31	70.18								
	D30MR007	23.04	2.48	20.52	2.49	0.61	0.09	33.30	82.53								
<b>D35</b>																	
	D35DT001	46.38	6.10	59.68	9.81	0.00	0.00	62.61	184.58								
	D35DT002	47.63	6.26	59.68	9.81	0.00	0.00	64.31	187.69								
	D35DT003	53.87	7.09	59.68	9.81	0.00	0.00	72.73	203.18								
	D35DT004	57.13	7.51	69.63	11.45	0.00	0.00	77.12	222.84								
	D35DT005	88.91	11.69	100.79	16.57	0.00	0.00	120.03	337.99								
	D35DT006	60.35	10.06	100.79	13.94	0.00	0.00	81.48	266.62								
	D35IB003	34.30	5.77	70.69	9.78	1.04	0.16	46.39	168.13								
	D35IB004	32.57	5.50	69.37	9.60	1.42	0.22	44.08	162.76								
	D35IB005	37.83	6.37	83.96	11.62	1.42	0.22	51.17	192.59								
	D35IB006	39.79	6.70	85.75	11.86	1.42	0.22	53.83	199.57								
	D35RL007	41.37	5.51	80.42	13.22	1.52	0.23	56.00	198.27								
<b>F10</b>																	
	F10JC001	5.84	0.59	8.11	0.84	1.12	0.17	6.11	22.78								
	F10JC002	6.38	0.65	8.11	0.84	1.12	0.17	6.67	23.94								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>G10</b>	G10CA012	3.58	0.29	33.97	3.52	0.00	0.00	2.97	44.33	4.48	0.30	44.93	4.66	0.00	0.00	4.25	58.62
	G10CA013	4.69	0.38	43.82	4.54	0.00	0.00	3.89	57.32	5.86	0.39	57.95	6.01	0.00	0.00	5.56	75.77
	G10CA014	6.41	0.51	57.99	6.01	0.00	0.00	5.32	76.24	8.01	0.53	76.70	7.95	0.00	0.00	7.60	100.79
	G10CA015	8.52	0.68	74.33	7.70	0.00	0.00	7.07	98.30	10.65	0.70	98.30	10.19	0.00	0.00	10.10	129.94
	G10CA016	10.42	0.84	88.39	9.16	0.00	0.00	8.65	117.46	13.03	0.86	116.90	12.11	0.00	0.00	12.36	155.26
	G10CA017	23.51	1.88	108.19	11.21	0.00	0.00	19.52	164.31	29.39	1.94	143.09	14.83	0.00	0.00	27.89	217.14
	G10CA018	27.62	2.21	238.67	24.73	0.00	0.00	22.93	316.16	34.53	2.27	315.66	32.71	0.00	0.00	32.76	417.93
	G10CA019	39.94	3.20	249.27	25.83	0.00	0.00	33.15	351.39	49.92	3.29	329.68	34.17	0.00	0.00	47.37	464.43
	G10CA020	2.90	0.23	18.83	1.95	0.00	0.00	2.40	26.31	3.62	0.24	24.90	2.58	0.00	0.00	3.44	34.78
	G10WC001	0.17	0.01	1.77	0.18	0.00	0.00	0.12	2.25	0.19	0.01	2.32	0.24	0.00	0.00	0.16	2.92
	G10WC002	0.20	0.01	2.44	0.25	0.00	0.00	0.14	3.04	0.23	0.01	3.18	0.33	0.00	0.00	0.19	3.94
	G10WC003	0.63	0.04	3.55	0.37	0.00	0.00	0.45	5.04	0.72	0.04	4.63	0.48	0.00	0.00	0.60	6.47
	G10WC004	0.34	0.02	3.99	0.41	0.00	0.00	0.24	5.00	0.39	0.02	5.21	0.54	0.00	0.00	0.33	6.49
	G10XX001	0.10	0.01	0.55	0.06	0.00	0.00	0.07	0.79	0.12	0.01	0.72	0.07	0.00	0.00	0.10	1.02
	G10XX002	0.40	0.03	3.99	0.41	0.00	0.00	0.28	5.11	0.45	0.03	5.21	0.54	0.00	0.00	0.38	6.61
	G10XX003	1.47	0.10	2.49	0.26	0.00	0.00	1.05	5.37	1.69	0.10	3.29	0.34	0.00	0.00	1.40	6.82
	G10XX004	0.76	0.05	0.97	0.10	0.00	0.00	0.54	2.42	0.87	0.05	1.29	0.13	0.00	0.00	0.72	3.06
	G10XX005	2.48	0.20	7.99	0.83	0.00	0.00	2.06	13.56	3.10	0.20	10.42	1.08	0.00	0.00	2.94	17.74
	G10XX006	1.64	0.13	11.09	1.15	0.00	0.00	1.36	15.37	2.04	0.13	14.48	1.50	0.00	0.00	1.94	20.09
	G10XX007	1.20	0.10	15.53	1.61	0.00	0.00	1.00	19.44	1.50	0.10	20.27	2.10	0.00	0.00	1.43	25.40
	G10XX008	2.34	0.19	11.58	1.20	0.00	0.00	1.94	17.25	2.92	0.19	15.31	1.59	0.00	0.00	2.78	22.79
	G10XX009	2.20	0.18	15.47	1.60	0.00	0.00	1.83	21.28	2.75	0.18	20.46	2.12	0.00	0.00	2.61	28.12
	G10XX010	5.71	0.46	18.39	1.91	0.00	0.00	4.74	31.21	7.14	0.47	24.33	2.52	0.00	0.00	6.77	41.23
	G10XX011	4.82	0.39	40.57	4.20	0.00	0.00	4.00	53.98	6.03	0.40	53.66	5.56	0.00	0.00	5.72	71.37
G10XX012	7.58	0.61	46.31	4.80	0.00	0.00	6.29	65.59	9.47	0.62	61.24	6.35	0.00	0.00	8.99	86.67	
G10XX013	6.35	0.51	61.67	6.39	0.00	0.00	5.27	80.19	7.94	0.52	81.56	8.45	0.00	0.00	7.53	106.00	
G10XX014	7.16	0.57	77.14	7.99	0.00	0.00	5.94	98.80	8.95	0.59	102.02	10.57	0.00	0.00	8.49	130.62	

Table 2-2 . HOURLY RATE ELEMENTS

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>G10</b>	<i>cont.</i>																
	G10XX015	14.86	1.19	113.60	11.77	0.00	0.00	12.33	153.75	18.57	1.22	150.24	15.57	0.00	0.00	17.62	203.22
	G10XX016	13.92	1.12	154.17	15.98	0.00	0.00	11.56	196.75	17.40	1.15	203.90	21.13	0.00	0.00	16.51	260.09
<b>G15</b>	G15CA001	15.72	2.41	13.97	2.05	2.20	0.34	18.35	55.04	16.88	2.42	17.82	2.62	7.26	1.11	22.34	70.45
	G15CA003	15.59	2.40	15.99	2.35	2.20	0.34	18.21	57.08	16.75	2.40	20.40	3.00	7.26	1.11	22.16	73.08
	G15CA004	16.01	2.47	18.52	2.72	2.70	0.41	18.71	61.54	17.19	2.48	23.63	3.47	8.91	1.36	22.78	79.82
	G15CA005	23.99	3.73	26.21	3.85	5.45	0.83	28.11	92.17	25.77	3.75	33.44	4.91	18.00	2.75	34.22	122.84
	G15CA006	36.76	5.67	30.06	4.42	6.82	1.04	42.96	127.73	39.48	5.68	38.35	5.63	22.52	3.45	52.29	167.40
	G15CA009	17.75	2.73	21.56	3.17	2.70	0.41	20.74	69.06	19.07	2.74	27.50	4.04	8.91	1.36	25.24	88.86
	G15JD008	11.95	1.90	15.28	2.24	4.32	0.66	14.07	50.42	12.83	1.90	19.50	2.86	14.25	2.18	17.12	70.64
	G15JD009	12.69	2.01	15.79	2.32	4.88	0.75	14.93	53.37	13.63	2.01	20.14	2.96	16.48	2.52	18.17	75.91
	G15JD010	12.96	2.05	18.72	2.75	4.32	0.66	15.24	56.70	13.92	2.06	23.89	3.51	14.25	2.18	18.55	78.36
	G15JD011	15.06	2.37	20.75	3.05	4.88	0.75	17.69	64.55	16.18	2.37	26.47	3.89	16.48	2.52	21.53	89.44
	<b>H10</b>	H10NP019	0.87	0.05	0.00	0.80	0.00	0.00	1.20	2.92							
H10NP020		0.91	0.06	0.00	0.80	0.00	0.00	1.25	3.02								
H10NP021		1.06	0.07	0.00	1.20	0.00	0.00	1.47	3.80								
H10NP022		1.32	0.08	0.00	1.20	0.00	0.00	1.82	4.42								
H10NP023		1.72	0.11	0.00	1.60	0.00	0.00	2.38	5.81								
H10NP024		2.74	0.17	0.00	1.60	0.00	0.00	3.78	8.29								
H10NP025		4.89	0.30	0.00	2.00	0.00	0.00	6.75	13.94								
H10NP026		6.24	0.38	0.00	2.00	0.00	0.00	8.61	17.23								
H10NP027		7.33	0.45	0.00	2.00	0.00	0.00	10.12	19.90								
H10NP028		10.22	0.63	0.00	2.40	0.00	0.00	14.10	27.35								
H10NP029		13.36	0.82	0.00	2.40	0.00	0.00	18.44	35.02								
H10NP030		32.72	2.01	0.00	2.40	0.00	0.00	45.16	82.29								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>H13</b>	H13AY007	15.66	1.51	0.00	0.00	0.00	0.00	19.44	36.61								
	H13AY008	7.63	0.74	0.00	0.00	0.00	0.00	9.47	17.84								
	H13AY009	13.92	1.34	0.00	0.00	0.00	0.00	17.28	32.54								
	H13AY010	7.04	0.68	0.00	0.00	0.00	0.00	8.74	16.46								
	H13AY011	11.63	1.12	0.00	0.00	0.00	0.00	14.43	27.18								
	H13AY012	5.89	0.57	0.00	0.00	0.00	0.00	7.31	13.77								
	H13AY013	9.32	0.90	0.00	0.00	0.00	0.00	11.57	21.79								
	H13AY014	4.96	0.48	0.00	0.00	0.00	0.00	6.15	11.59								
	H13AY015	5.48	0.53	0.00	0.00	0.00	0.00	6.81	12.82								
	H13AY016	3.53	0.34	0.00	0.00	0.00	0.00	4.38	8.25								
	H13AY017	17.39	1.68	0.00	0.00	0.00	0.00	21.59	40.66								
	H13AY018	8.79	0.85	0.00	0.00	0.00	0.00	10.91	20.55								
	H13AY019	1.14	0.11	0.06	0.28	0.00	0.00	1.42	3.01								
	H13AY020	1.49	0.14	0.06	0.28	0.00	0.00	1.84	3.81								
	H13AY021	19.65	1.75	0.00	0.00	0.64	0.10	20.45	42.59								
	H13AY022	10.50	0.95	0.00	0.00	0.64	0.10	10.95	23.14								
	H13AY023	17.82	1.59	0.00	0.00	0.64	0.10	18.55	38.70								
	H13AY024	9.28	0.84	0.00	0.00	0.64	0.10	9.69	20.55								
	H13AY025	15.86	1.42	0.00	0.00	0.64	0.10	16.51	34.53								
	H13AY026	8.54	0.77	0.00	0.00	0.64	0.10	8.91	18.96								
	H13AY027	13.30	1.19	0.00	0.00	0.64	0.10	13.86	29.09								
	H13AY028	7.20	0.66	0.00	0.00	0.64	0.10	7.52	16.12								
	H13AY029	10.72	0.97	0.00	0.00	0.64	0.10	11.18	23.61								
	H13AY030	6.09	0.56	0.00	0.00	0.64	0.10	6.37	13.76								
	H13AY031	7.00	0.64	0.00	0.00	0.64	0.10	7.31	15.69								
	H13AY032	4.56	0.42	0.00	0.00	0.64	0.10	4.78	10.50								
	H13BB001	3.36	0.14	0.62	1.05	0.00	0.00	4.36	9.53								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>H13</b>	<b>cont.</b>																
	H13BB002	4.29	0.17	0.93	1.45	0.00	0.00	5.57	12.41								
	H13BC003	4.98	0.22	0.31	0.17	0.00	0.00	4.81	10.49								
	H13BC006	3.60	0.16	0.19	0.10	0.00	0.00	3.48	7.53								
	H13BC007	5.94	0.26	0.19	0.10	0.00	0.00	5.74	12.23								
	H13BC008	6.84	0.30	0.31	0.17	0.00	0.00	6.61	14.23								
	H13BC009	5.14	0.22	0.19	0.10	0.00	0.00	4.97	10.62								
	H13BC010	2.92	0.13	0.19	0.10	0.00	0.00	2.82	6.16								
	H13BC011	4.53	0.20	0.31	0.17	0.00	0.00	4.38	9.59								
	H13BC012	3.71	0.16	0.19	0.10	0.00	0.00	3.58	7.74								
	H13BC013	3.35	0.15	0.19	0.10	0.00	0.00	3.24	7.03								
	H13CB001	2.23	0.20	0.31	0.42	0.00	0.00	2.32	5.48								
	H13CB002	2.42	0.21	0.62	0.59	0.00	0.00	2.51	6.35								
	H13CO002	0.94	0.08	0.31	0.42	0.00	0.00	0.98	2.73								
	H13CO003	1.63	0.19	0.19	0.35	0.00	0.00	2.02	4.38								
	H13CO004	2.45	0.28	0.19	0.60	0.00	0.00	3.05	6.57								
	H13CO005	4.38	0.50	0.19	0.60	0.00	0.00	5.43	11.10								
	H13CO006	3.64	0.41	0.19	0.45	0.00	0.00	4.52	9.21								
	H13EP001	2.63	0.23	0.31	0.42	0.00	0.00	2.74	6.33								
	H13EP002	2.67	0.30	0.46	0.55	0.00	0.00	3.32	7.30								
	H13KP001	7.62	0.68	0.77	0.42	0.15	0.02	7.93	17.59								
	H13KP002	8.65	0.77	0.96	0.52	0.15	0.02	9.00	20.07								
	H13KP003	10.19	0.90	1.36	0.74	0.15	0.02	10.59	23.95								
	H13KP004	11.72	1.04	1.73	0.94	0.15	0.02	12.19	27.79								
	H13MN001	32.31	2.88	9.26	7.51	0.66	0.10	37.83	90.55								
	H13MN002	37.67	3.37	12.35	10.01	0.95	0.15	44.12	108.62								
	H13MN003	42.79	3.82	12.35	11.01	0.95	0.15	50.11	121.18								
	H13MN004	48.93	4.36	18.53	15.02	0.95	0.15	57.27	145.21								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>H13</b>	<b>cont.</b>																
	H13PR001	8.74	0.84	0.19	0.10	0.00	0.00	10.85	20.72								
	H13PR002	26.00	2.31	0.19	1.60	0.64	0.10	27.05	57.89								
	H13PR003	15.43	1.49	0.31	0.17	0.00	0.00	19.15	36.55								
	H13PR005	20.50	1.98	0.31	0.17	0.00	0.00	25.45	48.41								
	H13PR006	22.92	2.04	0.31	1.67	0.64	0.10	23.86	51.54								
	H13PR007	25.25	2.44	0.62	0.34	0.00	0.00	31.34	59.99								
	H13PR011	35.99	3.19	0.12	1.56	0.64	0.10	37.43	79.03								
	H13PR012	38.72	3.43	0.19	1.60	0.64	0.10	40.27	84.95								
	H13PR013	41.11	3.64	0.31	1.67	0.64	0.10	42.75	90.22								
	H13PR014	46.27	4.09	0.49	1.76	0.64	0.10	48.11	101.46								
	H13PR015	52.75	4.66	0.49	1.76	0.64	0.10	54.84	115.24								
	H13PR022	18.12	1.75	0.12	0.06	0.00	0.00	22.50	42.55								
	H13PR023	20.72	2.00	0.19	0.10	0.00	0.00	25.72	48.73								
	H13PR024	22.98	2.22	0.19	0.10	0.00	0.00	28.52	54.01								
	H13PR025	27.84	2.68	0.19	0.10	0.00	0.00	34.55	65.36								
	H13PR026	33.94	3.27	0.25	0.14	0.00	0.00	42.13	79.73								
	H13S5001	5.24	0.46	0.19	0.10	0.00	0.00	5.44	11.43								
	H13S5002	8.20	0.72	0.31	0.17	0.00	0.00	8.52	17.92								
	H13S5003	9.74	0.86	0.31	0.17	0.00	0.00	10.12	21.20								
	H13SH001	5.07	0.45	1.24	0.60	0.00	0.00	5.92	13.28								
	H13SH002	4.75	0.42	1.24	0.60	0.00	0.00	5.55	12.56								
	H13SH003	8.18	0.72	2.47	1.20	0.00	0.00	9.55	22.12								
	H13SH004	8.53	0.75	2.47	1.20	0.00	0.00	9.97	22.92								
	H13SH005	13.58	1.19	6.18	3.01	0.00	0.00	15.87	39.83								
	H13SH006	43.90	3.86	18.53	9.02	0.00	0.00	51.28	126.59								
	H13SH007	57.21	5.03	37.05	18.03	0.00	0.00	66.84	184.16								
	H13TH001	1.24	0.11	0.31	0.17	0.00	0.00	1.28	3.11								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>H13</b>	<i>cont.</i>																
	H13TH002	2.28	0.20	0.97	0.10	0.08	0.01	2.37	6.01								
	H13TH003	2.57	0.23	0.97	0.10	0.08	0.01	2.68	6.64								
	H13YB001	34.36	3.02	3.09	1.67	0.00	0.00	35.70	77.84								
	H13YB002	34.36	3.02	3.09	1.67	0.00	0.00	35.70	77.84								
	H13YB003	34.36	3.02	3.09	1.67	0.00	0.00	35.70	77.84								
<b>H20</b>																	
	H20BE002	3.09	0.27	0.00	0.20	0.00	0.00	3.41	6.97								
	H20BE003	3.99	0.35	0.00	0.30	0.00	0.00	4.40	9.04								
	H20BE004	5.80	0.51	0.00	0.40	0.00	0.00	6.40	13.11								
<b>H25</b>																	
	H25AU006	0.85	0.05	0.00	0.00	0.00	0.00	1.11	2.01								
	H25AU007	1.00	0.06	0.00	0.00	0.00	0.00	1.30	2.36								
	H25AU008	1.65	0.09	0.00	0.00	0.00	0.00	2.14	3.88								
	H25AU009	2.36	0.13	0.00	0.00	0.00	0.00	3.07	5.56								
	H25AU010	2.60	0.15	0.00	0.00	0.00	0.00	3.38	6.13								
	H25AX001	1.16	0.07	0.00	0.00	0.00	0.00	1.51	2.74								
	H25AX002	1.32	0.07	0.00	0.00	0.00	0.00	1.71	3.10								
	H25AX003	1.44	0.08	0.00	0.00	0.00	0.00	1.88	3.40								
	H25AX004	1.69	0.09	0.00	0.00	0.00	0.00	2.19	3.97								
	H25AX005	1.71	0.10	0.00	0.00	0.00	0.00	2.22	4.03								
	H25AX006	2.15	0.12	0.00	0.00	0.00	0.00	2.79	5.06								
	H25BS001	0.95	0.06	0.00	0.00	0.00	0.00	1.05	2.06								
	H25BS002	0.96	0.06	0.00	0.00	0.00	0.00	1.06	2.08								
	H25BS003	1.25	0.08	0.00	0.00	0.00	0.00	1.38	2.71								
	H25BS004	1.67	0.10	0.00	0.00	0.00	0.00	1.85	3.62								
H25BS005	2.24	0.14	0.00	0.00	0.00	0.00	2.48	4.86									

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>H25</b>	<b>cont.</b>																
	H25CA020	11.93	1.09	8.55	1.30	0.00	0.00	11.90	34.77	14.49	1.11	11.30	1.72	0.00	0.00	17.56	46.18
	H25CA021	11.98	1.10	9.09	1.38	0.00	0.00	11.95	35.50	14.55	1.12	12.02	1.83	0.00	0.00	17.64	47.16
	H25CA022	13.73	1.73	13.85	2.10	0.00	0.00	15.66	47.07	16.48	1.75	18.32	2.78	0.00	0.00	22.33	61.66
	H25CA023	19.99	2.51	13.85	2.10	0.00	0.00	22.79	61.24	23.99	2.55	18.32	2.78	0.00	0.00	32.49	80.13
	H25CA034	3.68	0.32	1.95	0.30	0.00	0.00	3.67	9.92	4.21	0.32	2.58	0.39	0.00	0.00	4.80	12.30
	H25CA035	4.28	0.37	3.25	0.49	0.00	0.00	4.27	12.66	4.89	0.38	4.29	0.65	0.00	0.00	5.58	15.79
	H25CA036	6.89	0.60	5.08	0.77	0.00	0.00	6.87	20.21	7.87	0.61	6.73	1.02	0.00	0.00	8.97	25.20
	H25CA038	9.34	0.85	5.84	0.89	0.00	0.00	9.31	26.23	11.34	0.87	7.73	1.17	0.00	0.00	13.74	34.85
	H25CA040	9.15	1.15	13.52	2.05	0.00	0.00	10.43	36.30	10.98	1.17	17.89	2.72	0.00	0.00	14.87	47.63
	H25CA055	3.04	0.17	0.00	0.40	0.00	0.00	3.56	7.17								
	H25CA057	12.17	0.68	0.00	0.80	0.00	0.00	14.22	27.87								
	H25CA065	44.58	8.66	56.58	2.94	0.00	0.00	69.90	182.66	56.47	8.75	74.84	3.89	0.00	0.00	100.59	244.54
	H25CA066	15.46	0.87	0.00	0.00	0.00	0.00	18.06	34.39								
	H25CA067	18.14	1.02	0.00	0.00	0.00	0.00	21.19	40.35								
	H25CA068	7.15	0.40	0.00	0.00	0.00	0.00	9.28	16.83								
	H25CA069	8.62	0.48	0.00	0.00	0.00	0.00	11.20	20.30								
	H25CA070	12.09	0.68	0.00	0.00	0.00	0.00	15.70	28.47								
	H25KC017	8.74	0.80	5.84	0.89	0.00	0.00	8.72	24.99	10.61	0.82	7.73	1.17	0.00	0.00	12.86	33.19
	H25KC019	12.55	1.58	15.47	2.35	0.00	0.00	14.30	46.25	15.05	1.60	20.46	3.11	0.00	0.00	20.39	60.61
	H25KC020	16.53	2.08	15.47	2.35	0.00	0.00	18.85	55.28	19.84	2.11	20.46	3.11	0.00	0.00	26.87	72.39
	H25KC027	14.26	1.31	10.04	1.53	0.00	0.00	14.22	41.36	17.32	1.33	13.28	2.02	0.00	0.00	20.99	54.94
	H25KC028	15.32	1.92	19.04	2.89	0.00	0.00	17.46	56.63	18.38	1.95	25.18	3.83	0.00	0.00	24.90	74.24
	H25KC029	20.50	2.58	19.04	2.89	0.00	0.00	23.36	68.37	24.59	2.61	25.18	3.83	0.00	0.00	33.32	89.53
	H25KC030	20.78	2.61	25.75	3.91	0.00	0.00	23.69	76.74	24.94	2.65	34.06	5.18	0.00	0.00	33.78	100.61
	H25KC031	21.67	3.57	37.33	1.79	0.00	0.00	30.88	95.24	25.68	3.60	49.37	2.37	0.00	0.00	40.27	121.29
	H25KM001	12.80	1.17	9.63	1.46	0.00	0.00	12.76	37.82	15.54	1.20	12.74	1.94	0.00	0.00	18.84	50.26
	H25KM003	17.62	1.61	11.90	1.81	0.00	0.00	17.57	50.51	21.39	1.65	15.74	2.39	0.00	0.00	25.93	67.10



Table 2-2 . HOURLY RATE ELEMENTS

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>H25</b>	<b>cont.</b>																
	H25KM009	39.35	7.64	49.12	2.56	0.00	0.00	61.70	160.37	49.84	7.73	64.96	3.38	0.00	0.00	88.79	214.70
	H25KM015	31.89	5.26	41.54	1.99	0.00	0.00	45.45	126.13	37.79	5.30	54.95	2.63	0.00	0.00	59.26	159.93
	H25KM018	4.69	0.41	2.16	0.33	0.00	0.00	4.68	12.27	5.36	0.41	2.86	0.43	0.00	0.00	6.11	15.17
	H25KM021	6.28	0.54	4.22	0.64	0.00	0.00	6.27	17.95	7.18	0.55	5.58	0.85	0.00	0.00	8.19	22.35
	H25KM022	8.04	0.70	4.33	0.66	0.00	0.00	8.02	21.75	9.19	0.71	5.72	0.87	0.00	0.00	10.48	26.97
	H25KM023	9.91	0.86	5.84	0.89	0.00	0.00	9.88	27.38	11.32	0.87	7.73	1.17	0.00	0.00	12.91	34.00
	H25KM027	18.14	1.66	9.30	1.41	0.00	0.00	18.09	48.60	22.03	1.69	12.31	1.87	0.00	0.00	26.70	64.60
	H25KM033	91.82	17.84	98.24	5.11	0.00	0.00	143.97	356.98	116.31	18.03	129.93	6.76	0.00	0.00	207.18	478.21
	H25KN001	4.47	0.25	0.00	0.50	0.00	0.00	5.80	11.02								
	H25KN002	6.19	0.35	0.00	0.50	0.00	0.00	8.04	15.08								
	H25KN003	7.55	0.42	0.00	0.50	0.00	0.00	9.80	18.27								
	H25KN004	8.68	0.49	0.00	0.50	0.00	0.00	11.27	20.94								
	H25KN006	17.50	0.98	0.00	1.00	0.00	0.00	22.73	42.21								
	H25KN007	0.90	0.05	0.00	0.15	0.00	0.00	1.17	2.27								
	H25KN009	1.86	0.10	0.00	0.15	0.00	0.00	2.42	4.53								
	H25KN010	2.56	0.14	0.00	0.15	0.00	0.00	3.33	6.18								
	H25LB003	14.44	1.32	10.28	1.56	0.00	0.00	14.41	42.01	17.54	1.35	13.59	2.07	0.00	0.00	21.26	55.81
	H25LB005	16.91	1.55	12.98	1.97	0.00	0.00	16.87	50.28	20.54	1.58	17.17	2.61	0.00	0.00	24.89	66.79
	H25LU001	4.03	0.23	0.00	0.40	0.00	0.00	4.71	9.37								
	H25LU002	4.55	0.26	0.00	0.50	0.00	0.00	5.32	10.63								
	H25LU003	7.07	0.40	0.00	0.80	0.00	0.00	8.26	16.53								
	H25LU004	8.22	0.46	0.00	0.90	0.00	0.00	9.60	19.18								
	H25LU005	10.30	0.58	0.00	1.10	0.00	0.00	12.03	24.01								
	H25LU006	14.43	0.81	0.00	1.50	0.00	0.00	16.86	33.60								
	H25LU007	12.29	0.69	0.00	1.40	0.00	0.00	14.36	28.74								
	H25LU008	16.08	0.90	0.00	1.60	0.00	0.00	18.79	37.37								
	H25LU009	17.64	0.99	0.00	1.70	0.00	0.00	20.61	40.94								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>H25</b>	<b>cont.</b>																
	H25LU010	21.18	1.19	0.00	2.00	0.00	0.00	24.74	49.11								
	H25LU011	20.99	1.18	0.00	2.00	0.00	0.00	24.52	48.69								
	H25LU012	25.69	1.44	0.00	2.50	0.00	0.00	30.02	59.65								
	H25LU013	26.57	1.49	0.00	2.60	0.00	0.00	31.04	61.70								
	H25LU014	30.92	1.73	0.00	3.00	0.00	0.00	36.12	71.77								
	H25LU023	5.13	0.31	0.00	0.25	0.00	0.00	5.66	11.35								
	H25LU024	2.61	0.16	0.00	0.30	0.00	0.00	2.88	5.95								
	H25LU025	3.20	0.20	0.00	0.40	0.00	0.00	3.53	7.33								
	H25LU026	3.63	0.22	0.00	0.50	0.00	0.00	4.01	8.36								
	H25LU027	4.06	0.25	0.00	0.60	0.00	0.00	4.48	9.39								
	H25LU028	6.53	0.40	0.00	0.70	0.00	0.00	7.21	14.84								
	H25LU034	9.61	0.59	0.00	0.80	0.00	0.00	10.61	21.61								
	H25LU035	11.48	0.70	0.00	0.90	0.00	0.00	12.67	25.75								
	H25LU036	13.19	0.81	0.00	1.00	0.00	0.00	14.56	29.56								
	H25LU040	21.34	1.20	0.00	0.75	0.00	0.00	27.71	51.00								
	H25LU041	26.16	1.47	0.00	0.75	0.00	0.00	33.98	62.36								
	H25LU042	31.54	1.77	0.00	1.50	0.00	0.00	40.97	75.78								
	H25LU046	4.93	0.28	0.00	0.50	0.00	0.00	6.40	12.11								
	H25LU047	5.83	0.33	0.00	0.60	0.00	0.00	7.58	14.34								
	H25LU048	6.24	0.35	0.00	0.70	0.00	0.00	8.11	15.40								
	H25LU049	7.53	0.42	0.00	0.80	0.00	0.00	9.78	18.53								
	H25LU050	11.39	0.64	0.00	0.90	0.00	0.00	14.80	27.73								
	H25LU053	22.46	1.26	0.00	0.75	0.00	0.00	29.17	53.64								
	H25LU054	27.65	1.55	0.00	0.75	0.00	0.00	35.91	65.86								
	H25ME001	2.87	0.25	1.44	0.22	0.00	0.00	2.86	7.64	3.27	0.25	1.90	0.29	0.00	0.00	3.73	9.44
	H25ME002	4.10	0.35	4.33	0.66	0.00	0.00	4.08	13.52	4.68	0.36	5.72	0.87	0.00	0.00	5.34	16.97
	H25ME003	5.68	0.49	5.19	0.79	0.00	0.00	5.67	17.82	6.50	0.50	6.87	1.04	0.00	0.00	7.41	22.32

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>H25</b>	<i>cont.</i>																
	H25WN001	1.07	0.07	0.00	0.00	0.00	0.00	1.18	2.32								
	H25WN002	1.20	0.07	0.00	0.00	0.00	0.00	1.56	2.83								
	H25WN003	1.32	0.07	0.00	0.00	0.00	0.00	1.71	3.10								
	H25WN004	1.44	0.08	0.00	0.00	0.00	0.00	1.87	3.39								
	H25WN005	1.63	0.09	0.00	0.00	0.00	0.00	2.12	3.84								
<b>H30</b>	H30CA005	18.62	1.69	15.28	2.20	2.19	0.34	13.41	53.73	22.91	1.73	19.50	2.80	7.88	1.21	18.17	74.20
	H30CA007	15.49	1.43	12.25	1.76	2.49	0.38	11.20	45.00	19.07	1.46	15.62	2.25	8.98	1.37	15.19	63.94
	H30GA006	27.64	2.47	23.58	3.39	1.88	0.29	19.83	79.08	34.02	2.52	30.09	4.33	6.65	1.02	26.87	105.50
	H30GA007	20.78	1.85	13.97	2.01	1.15	0.18	14.89	54.83	25.58	1.89	17.82	2.56	4.06	0.62	20.18	72.71
	H30GA008	24.23	2.72	21.16	3.04	7.34	1.12	21.01	80.62	30.28	2.78	26.64	3.83	25.99	3.98	28.48	121.98
	H30KM001	18.68	2.03	12.45	1.79	1.47	0.22	16.06	52.70	23.35	2.07	15.88	2.28	5.28	0.81	21.77	71.44
<b>H35</b>	H35CA001	56.36	8.40	71.95	3.74	0.00	0.00	90.38	230.83	64.41	8.47	95.15	4.95	0.00	0.00	111.91	284.89
	H35CA003	111.80	16.67	119.44	6.21	0.00	0.00	179.29	433.41	127.77	16.80	157.97	8.22	0.00	0.00	222.00	532.76
	H35CA004	185.93	27.73	165.53	8.61	0.00	0.00	298.18	685.98	212.49	27.95	218.93	11.39	0.00	0.00	369.20	839.96
	H35CA005	365.37	54.49	272.64	14.18	0.00	0.00	585.95	1,292.63	417.56	54.92	360.59	18.76	0.00	0.00	725.51	1,577.34
	H35HI006	83.64	12.47	69.35	3.61	0.00	0.00	134.14	303.21	95.59	12.57	91.72	4.77	0.00	0.00	166.08	370.73
<b>L10</b>	L10BS002	3.29	0.32	0.00	0.30	0.00	0.00	4.15	8.06	4.70	0.33	0.00	0.30	0.00	0.00	6.59	11.92
	L10BS004	2.25	0.22	0.00	0.25	0.00	0.00	2.84	5.56	3.22	0.23	0.00	0.25	0.00	0.00	4.51	8.21
	L10BS005	3.29	0.32	0.00	0.30	0.00	0.00	4.16	8.07	4.71	0.33	0.00	0.30	0.00	0.00	6.60	11.94
	L10BS007	2.35	0.23	0.00	0.50	0.00	0.00	2.97	6.05	3.36	0.24	0.00	0.50	0.00	0.00	4.72	8.82
	L10BU005	0.81	0.08	0.00	1.10	0.00	0.00	1.02	3.01	1.15	0.08	0.00	1.10	0.00	0.00	1.62	3.95
	L10BU010	0.33	0.03	0.00	0.80	0.00	0.00	0.41	1.57	0.47	0.03	0.00	0.80	0.00	0.00	0.66	1.96

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>L10</b>	<i>cont.</i>																
	L10BU011	0.67	0.06	0.00	1.50	0.00	0.00	0.84	3.07	0.95	0.07	0.00	1.50	0.00	0.00	1.34	3.86
	L10BU012	1.37	0.13	0.00	2.00	0.00	0.00	1.73	5.23	1.96	0.14	0.00	2.00	0.00	0.00	2.75	6.85
	L10BU013	1.66	0.16	0.00	2.50	0.00	0.00	2.10	6.42	2.37	0.17	0.00	2.50	0.00	0.00	3.33	8.37
	L10RM001	4.40	0.42	0.00	0.40	0.00	0.00	5.56	10.78	6.29	0.44	0.00	0.40	0.00	0.00	8.82	15.95
	L10RM002	3.95	0.38	0.00	0.00	0.00	0.00	4.99	9.32	5.65	0.40	0.00	0.00	0.00	0.00	7.92	13.97
	L10VE002	1.99	0.20	7.11	0.92	0.10	0.02	2.52	12.86	2.84	0.20	9.21	1.19	0.33	0.05	4.00	17.82
	L10VE005	1.02	0.10	2.64	0.34	0.09	0.01	1.30	5.50	1.46	0.11	3.42	0.44	0.29	0.04	2.07	7.83
	L10VE006	2.77	0.27	4.06	0.53	0.09	0.01	3.51	11.24	3.96	0.28	5.26	0.68	0.29	0.04	5.57	16.08
	L10VE007	2.41	0.23	0.00	1.50	0.00	0.00	3.04	7.18	3.44	0.24	0.00	1.50	0.00	0.00	4.83	10.01
L10VE009	3.15	0.31	7.89	0.89	0.09	0.01	3.99	16.33	4.50	0.32	10.07	1.13	0.29	0.04	6.33	22.68	
L10VE010	1.10	0.11	5.48	0.71	0.04	0.01	1.39	8.84	1.57	0.11	7.11	0.92	0.12	0.02	2.20	12.05	
<b>L15</b>	L15BW001	4.30	0.18	6.77	0.70	0.12	0.02	3.93	16.02								
	L15BW002	7.87	0.33	9.48	0.98	0.24	0.04	7.19	26.13								
	L15BW003	9.07	0.37	13.54	1.40	0.24	0.04	8.28	32.94								
	L15BW004	13.57	0.55	11.94	1.24	0.00	0.00	12.34	39.64								
	L15FG001	14.93	0.60	21.74	2.25	0.00	0.00	13.58	53.10								
	L15FG002	9.91	0.40	15.25	1.58	0.15	0.02	9.03	36.34								
	L15HV001	0.17	0.01	1.35	0.14	0.00	0.00	0.16	1.83								
	L15HV002	0.26	0.01	2.71	0.28	0.00	0.00	0.24	3.50								
	L15HZ001	0.19	0.01	0.81	0.08	0.00	0.00	0.17	1.26								
	L15JD005	0.54	0.02	0.00	0.00	0.00	0.00	0.49	1.05								
	L15TO001	0.31	0.01	1.62	0.17	0.00	0.00	0.28	2.39								
	L15TO002	0.84	0.04	4.06	0.42	0.19	0.03	0.77	6.35								
	L15TO003	1.69	0.07	5.69	0.59	0.19	0.03	1.55	9.81								
	L15TO004	1.83	0.08	5.69	0.59	0.16	0.02	1.67	10.04								
	L15TO006	3.38	0.14	7.85	0.81	0.34	0.05	3.09	15.66								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>L15</b>	<i>cont.</i>																
	L15TO007	3.49	0.15	7.85	0.81	0.34	0.05	3.19	15.88								
	L15TO009	0.28	0.01	2.17	0.22	0.00	0.00	0.25	2.93								
	L15TO010	0.43	0.02	2.71	0.28	0.00	0.00	0.39	3.83								
	L15WI001	1.81	0.08	0.00	0.05	0.11	0.02	1.66	3.73								
<b>L20</b>	L20AB017	1.44	0.12	1.92	0.20	0.07	0.01	2.99	6.75								
	L20AB018	1.61	0.13	2.05	0.21	0.07	0.01	3.34	7.42								
	L20AB019	1.89	0.15	2.05	0.21	0.07	0.01	3.93	8.31								
	L20AB020	1.20	0.10	1.65	0.17	0.07	0.01	2.51	5.71								
	L20AB021	1.28	0.10	2.05	0.21	0.07	0.01	2.65	6.37								
	L20AB022	1.44	0.12	1.92	0.20	0.07	0.01	3.00	6.76								
	L20AB023	0.58	0.05	0.00	0.00	0.05	0.01	1.21	1.90								
	L20AB024	0.63	0.05	0.00	0.00	0.05	0.01	1.30	2.04								
<b>L25</b>	L25JE002	15.28	1.22	27.19	2.82	0.46	0.07	25.35	72.39								
	L25JE003	0.37	0.03	1.59	0.16	0.00	0.00	0.61	2.76								
	L25MB002	0.51	0.05	1.45	1.15	0.37	0.06	0.90	4.49								
	L25MB004	16.57	1.32	55.01	7.20	0.46	0.07	27.50	108.13								
	L25MB005	1.07	0.10	2.90	1.30	0.37	0.06	1.82	7.62								
	L25MB006	10.22	0.81	17.37	3.05	0.00	0.00	16.91	48.36								
	L25MB007	5.73	0.45	6.66	1.69	0.00	0.00	9.49	24.02								
	L25MB008	17.77	1.45	27.19	4.32	1.41	0.22	29.61	81.97								
<b>L30</b>	L30HW015	11.96	1.20	1.54	0.75	1.15	0.18	16.64	33.42	14.95	1.23	2.02	0.98	3.66	0.56	22.87	46.27
	L30KB001	2.78	0.28	0.93	0.45	0.37	0.06	3.89	8.76	3.48	0.29	1.21	0.59	1.16	0.18	5.34	12.25

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>L30</b>	<i>cont.</i>																
	L30KB002	2.94	0.30	0.93	0.45	0.37	0.06	4.10	9.15	3.67	0.31	1.21	0.59	1.16	0.18	5.64	12.76
	L30RA001	6.18	0.61	2.70	0.33	0.39	0.06	8.58	18.85	7.73	0.63	3.58	0.43	1.24	0.19	11.79	25.59
	L30S4001	1.99	0.19	0.93	0.45	0.00	0.00	2.75	6.31	2.49	0.20	1.21	0.59	0.00	0.00	3.78	8.27
	L30S4002	1.71	0.17	0.00	0.00	0.00	0.00	2.36	4.24	2.14	0.17	0.00	0.00	0.00	0.00	3.25	5.56
	L30S4005	0.14	0.01	0.00	0.00	0.00	0.00	0.19	0.34	0.18	0.01	0.00	0.00	0.00	0.00	0.27	0.46
	L30S4006	0.16	0.02	0.00	0.00	0.00	0.00	0.22	0.40	0.20	0.02	0.00	0.00	0.00	0.00	0.31	0.53
	L30TS001	3.02	0.32	0.74	0.36	0.82	0.13	4.26	9.65	3.77	0.33	0.97	0.47	2.60	0.40	5.85	14.39
<b>L35</b>	L35CA005	17.60	1.70	17.56	1.81	0.00	0.00	27.16	65.83	22.01	1.74	22.73	2.34	0.00	0.00	38.59	87.41
	L35CA007	33.45	3.23	28.72	2.96	0.00	0.00	51.60	119.96	41.82	3.30	37.16	3.83	0.00	0.00	73.34	159.45
	L35CA013	10.67	1.03	10.68	1.10	0.00	0.00	16.46	39.94	13.34	1.05	13.82	1.42	0.00	0.00	23.39	53.02
	L35CA014	24.08	2.32	18.99	1.96	0.00	0.00	37.15	84.50	30.10	2.38	24.57	2.53	0.00	0.00	52.79	112.37
	L35KM006	39.20	3.78	23.73	2.44	0.00	0.00	60.46	129.61	49.00	3.87	30.71	3.16	0.00	0.00	85.93	172.67
<b>L40</b>	L40CA007	27.82	3.87	37.76	3.08	17.43	2.67	27.81	120.44	31.30	3.90	49.94	4.08	62.74	9.60	33.56	195.12
	L40CA009	106.46	14.63	86.55	7.06	22.96	3.51	106.15	347.32	119.77	14.75	114.47	9.34	82.66	12.65	128.08	481.72
	L40CA012	14.82	1.61	15.69	1.78	1.78	0.27	18.96	54.91	16.02	1.62	20.75	2.35	6.40	0.98	21.70	69.82
	L40CA013	9.15	1.01	9.74	1.10	1.78	0.27	11.75	34.80	9.89	1.02	12.88	1.46	6.40	0.98	13.45	46.08
	L40CA014	20.76	2.25	21.64	2.45	1.97	0.30	26.53	75.90	22.44	2.26	28.62	3.24	7.09	1.08	30.37	95.10
	L40CA015	11.67	1.19	16.12	1.83	1.78	0.27	12.32	45.18	12.34	1.20	21.32	2.41	6.40	0.98	14.90	59.55
	L40CA018	75.37	10.60	67.84	5.54	21.34	3.27	75.52	259.48	84.79	10.68	89.72	7.32	76.82	11.75	91.13	372.21
	L40CA019	8.38	0.87	10.28	1.16	1.78	0.27	8.87	31.61	8.86	0.87	13.59	1.54	6.40	0.98	10.73	42.97
	L40CA022	11.80	1.21	13.85	1.57	1.78	0.27	12.45	42.93	12.47	1.21	18.32	2.07	6.40	0.98	15.05	56.50
	L40CA023	14.28	1.47	19.47	2.20	2.76	0.42	15.10	55.70	15.10	1.48	25.76	2.92	9.93	1.52	18.27	74.98
	L40CA024	17.03	1.86	21.31	2.41	8.17	1.25	18.29	70.32	18.00	1.87	28.19	3.19	29.40	4.50	22.11	107.26
	L40CA025	18.19	1.97	22.83	2.58	8.17	1.25	19.50	74.49	19.23	1.98	30.19	3.42	29.40	4.50	23.58	112.30

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>L40</b>	<i>cont.</i>																
	L40CA028	3.16	0.26	5.81	0.66	0.85	0.13	3.58	14.45								
	L40CA029	3.52	0.29	6.41	0.73	0.85	0.13	3.99	15.92								
	L40CA030	3.96	0.33	7.00	0.79	1.07	0.16	4.50	17.81								
	L40CA031	3.85	0.32	8.78	0.99	1.07	0.16	4.37	19.54								
	L40CA032	3.76	0.40	5.63	0.64	0.89	0.14	4.01	15.47	3.97	0.40	7.44	0.84	3.20	0.49	4.85	21.19
	L40CA033	5.04	0.53	7.36	0.83	0.89	0.14	5.36	20.15	5.33	0.53	9.73	1.10	3.20	0.49	6.48	26.86
	L40CA034	5.27	0.62	8.22	0.93	5.75	0.88	5.78	27.45	5.58	0.62	10.87	1.23	20.68	3.16	6.98	49.12
	L40CA035	43.18	6.14	54.20	4.42	21.70	3.32	43.36	176.32	48.58	6.18	71.69	5.85	78.12	11.95	52.33	274.70
	L40CS009	12.86	1.35	14.71	1.67	3.55	0.54	13.66	48.34	13.59	1.35	19.46	2.20	12.79	1.96	16.52	67.87
	L40CS010	15.50	1.61	19.58	2.22	3.55	0.54	16.43	59.43	16.39	1.62	25.90	2.93	12.79	1.96	19.87	81.46
	L40CS011	18.78	2.03	20.23	2.29	8.17	1.25	20.13	72.88	19.86	2.04	26.76	3.03	29.40	4.50	24.34	109.93
	L40KM003	9.75	1.23	15.04	1.70	12.25	1.87	10.91	52.75	10.31	1.23	19.89	2.25	44.11	6.75	13.19	97.73
	L40KM008	19.26	2.78	36.24	2.96	17.43	2.67	19.41	100.75	21.67	2.80	47.94	3.91	62.74	9.60	23.42	172.08
	L40KM009	35.90	5.15	53.01	4.33	12.22	1.87	36.12	148.60	40.39	5.19	70.11	5.72	44.01	6.73	43.59	215.74
	L40KM010	47.16	7.01	74.00	6.04	21.34	3.27	47.83	206.65	53.05	7.06	97.87	7.99	76.82	11.75	57.72	312.26
	L40KM011	82.58	11.59	92.29	7.53	22.96	3.51	82.71	303.17	92.90	11.68	122.06	9.96	82.66	12.65	99.80	431.71
	L40KM015	7.21	0.76	8.11	0.92	1.31	0.20	7.67	26.18	7.63	0.76	10.73	1.21	4.70	0.72	9.27	35.02
	L40ME012	2.79	0.23	5.46	0.62	0.56	0.09	3.16	12.91								
	L40ME016	1.74	0.14	2.79	0.32	0.30	0.05	1.96	7.30								
	L40ME017	2.09	0.18	4.21	0.48	0.66	0.10	2.38	10.10								
	L40ME021	2.19	0.20	5.81	0.66	1.70	0.26	2.54	13.36								
	L40ME022	3.38	0.29	8.90	1.01	1.70	0.26	3.87	19.41								
L40ME023	3.79	0.33	9.61	1.09	1.70	0.26	4.34	21.12									
<b>L50</b>																	
	L50CA001	5.41	0.60	7.29	3.28	0.73	0.11	6.55	23.97	9.01	0.63	10.32	4.64	2.60	0.40	11.60	39.20
	L50CA005	10.87	1.15	8.46	3.81	0.00	0.00	13.01	37.30	18.11	1.22	11.98	5.39	0.00	0.00	23.04	59.74
L50CS005	7.23	0.80	7.54	3.39	1.00	0.15	8.76	28.87	12.05	0.85	10.68	4.80	3.55	0.54	15.51	47.98	

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>L50</b>	<i>cont.</i>																
	L50CS006	8.61	0.97	8.21	3.69	1.44	0.22	10.46	33.60	14.35	1.02	11.63	5.23	5.09	0.78	18.52	56.62
	L50JC008	5.95	0.68	6.20	2.79	1.15	0.18	7.25	24.20	9.92	0.71	8.78	3.95	4.03	0.62	12.84	40.85
	L50JC009	7.91	0.88	7.62	3.43	1.15	0.18	9.59	30.76	13.18	0.93	10.80	4.86	4.03	0.62	16.98	51.40
	L50JC010	8.72	0.97	9.13	4.11	1.21	0.19	10.56	34.89	14.54	1.02	12.93	5.82	4.35	0.67	18.70	58.03
	L50JC011	9.68	1.07	9.13	4.11	1.21	0.19	11.71	37.10	16.14	1.13	12.93	5.82	4.35	0.67	20.73	61.77
	L50JC012	12.09	1.32	9.13	4.11	1.21	0.19	14.59	42.64	20.16	1.40	12.93	5.82	4.35	0.67	25.84	71.17
<b>L55</b>	L55KN001	1.01	0.06	0.00	0.52	0.00	0.00	1.39	2.98								
	L55KN002	2.06	0.13	0.00	1.06	0.00	0.00	2.85	6.10								
	L55KN004	1.91	0.12	0.00	0.00	0.00	0.00	2.64	4.67								
	L55KN005	2.82	0.17	0.00	0.00	0.00	0.00	3.90	6.89								
	L55KN006	4.21	0.26	0.00	0.00	0.00	0.00	5.80	10.27								
	<b>L60</b>	L60CA010	32.24	2.83	16.23	1.97	0.00	0.00	28.86	82.13	40.30	2.90	21.46	2.60	0.00	0.00	41.25
L60CA011		35.21	3.09	16.23	1.97	0.00	0.00	31.53	88.03	44.02	3.17	21.46	2.60	0.00	0.00	45.05	116.30
L60CA013		28.67	2.60	17.31	2.10	2.36	0.36	25.79	79.19	35.83	2.66	22.89	2.77	8.21	1.26	36.85	110.47
L60JD001		13.27	1.25	12.87	1.56	2.99	0.46	12.01	44.41	16.59	1.28	17.03	2.06	10.76	1.65	17.16	66.53
L60JD002		17.71	1.64	16.34	1.98	2.99	0.46	15.98	57.10	22.13	1.68	21.61	2.62	10.76	1.65	22.83	83.28
L60JD003		13.23	1.24	12.87	1.56	2.99	0.46	11.97	44.32	16.53	1.27	17.03	2.06	10.76	1.65	17.10	66.40
L60JD004		18.86	1.82	17.31	2.10	5.96	0.91	17.14	64.10	23.57	1.86	22.89	2.77	21.47	3.28	24.49	100.33
L60JD006		16.60	1.57	18.39	2.23	4.16	0.64	15.04	58.63	20.75	1.61	24.33	2.95	14.98	2.29	21.49	88.40
L60JD007		17.81	1.68	21.64	2.62	4.16	0.64	16.12	64.67	22.26	1.72	28.62	3.47	14.98	2.29	23.04	96.38
L60JD008		34.70	3.05	18.39	2.23	0.00	0.00	31.07	89.44	43.38	3.12	24.33	2.95	0.00	0.00	44.40	118.18
<b>M10</b>	M10MZ001	3.54	0.18	0.00	0.00	0.00	0.00	2.10	5.82								



Table 2-2 . HOURLY RATE ELEMENTS

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>M10</b>	<b>cont.</b>																
	M10MZ003	4.13	0.21	0.00	0.00	0.00	0.00	2.46	6.80								
	M10MZ005	0.94	0.21	0.00	0.00	0.00	0.00	0.67	1.82								
	M10MZ007	1.04	0.23	0.00	0.00	0.00	0.00	0.74	2.01								
	M10MZ010	3.62	0.49	15.15	2.49	0.00	0.00	3.19	24.94	4.46	0.50	20.03	3.29	0.00	0.00	4.21	32.49
	M10MZ011	4.66	0.63	22.72	3.74	0.00	0.00	4.11	35.86	5.74	0.64	30.05	4.94	0.00	0.00	5.42	46.79
	M10SM001	4.48	0.61	33.28	4.60	0.00	0.00	3.95	46.92	5.51	0.62	43.43	6.01	0.00	0.00	5.20	60.77
	M10SM003	5.22	0.71	44.37	6.14	0.00	0.00	4.60	61.04	6.42	0.72	57.90	8.01	0.00	0.00	6.06	79.11
	M10SM004	5.49	0.74	55.46	7.67	0.00	0.00	4.83	74.19	6.75	0.75	72.38	10.01	0.00	0.00	6.37	96.26
	M10SM005	2.02	0.27	25.51	3.53	0.00	0.00	1.78	33.11	2.48	0.28	33.29	4.60	0.00	0.00	2.34	42.99
	M10SM008	3.54	0.48	44.37	6.14	0.00	0.00	3.12	57.65	4.36	0.49	57.90	8.01	0.00	0.00	4.11	74.87
	M10XX001	0.21	0.05	0.00	0.00	0.00	0.00	0.15	0.41								
	M10XX002	0.67	0.15	0.00	0.00	0.00	0.00	0.48	1.30								
	M10XX003	0.81	0.18	0.00	0.00	0.00	0.00	0.57	1.56								
	M10XX004	1.30	0.29	0.00	0.00	0.00	0.00	0.93	2.52								
	M10XX005	1.98	1.17	0.00	0.00	0.00	0.00	1.34	4.49								
	M10XX006	2.79	1.65	0.00	0.00	0.00	0.00	1.88	6.32								
	M10XX007	3.55	2.10	0.00	0.00	0.00	0.00	2.40	8.05								
	M10XX008	4.92	2.91	0.00	0.00	0.00	0.00	3.33	11.16								
	M10XX009	0.89	0.12	11.09	1.53	0.00	0.00	0.78	14.41	1.09	0.12	14.48	2.00	0.00	0.00	1.03	18.72
	M10XX010	2.98	0.40	8.11	1.33	0.00	0.00	2.63	15.45	3.67	0.41	10.73	1.76	0.00	0.00	3.46	20.03
	M10XX011	3.42	0.46	10.82	1.78	0.00	0.00	3.02	19.50	4.21	0.47	14.31	2.35	0.00	0.00	3.97	25.31
	M10XX012	3.49	0.47	10.82	1.78	0.00	0.00	3.07	19.63	4.29	0.48	14.31	2.35	0.00	0.00	4.05	25.48
	M10XX013	4.52	0.61	12.44	2.05	0.00	0.00	3.98	23.60	5.56	0.62	16.46	2.71	0.00	0.00	5.24	30.59
	M10XX014	6.20	0.84	18.93	3.11	0.00	0.00	5.46	34.54	7.63	0.85	25.04	4.12	0.00	0.00	7.20	44.84
	M10XX015	7.77	1.05	27.05	4.45	0.00	0.00	6.85	47.17	9.57	1.07	35.77	5.88	0.00	0.00	9.03	61.32
	M10XX016	8.88	1.80	0.00	0.00	0.00	0.00	7.00	17.68								
M10XX017	9.39	1.90	0.00	0.00	0.00	0.00	7.40	18.69									

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>M10</b>	<i>cont.</i>																
	M10XX018	11.69	2.37	0.00	0.00	0.00	0.00	9.22	23.28								
	M10XX019	11.95	2.42	0.00	0.00	0.00	0.00	9.42	23.79								
	M10XX021	19.45	2.67	41.11	6.76	0.00	0.00	18.50	88.49	23.34	2.71	54.37	8.94	0.00	0.00	23.57	112.93
	M10XX022	22.14	3.04	47.06	7.74	0.00	0.00	21.05	101.03	26.56	3.08	62.24	10.23	0.00	0.00	26.83	128.94
	M10XX023	29.66	4.08	43.28	7.12	0.00	0.00	28.21	112.35	35.60	4.13	57.24	9.41	0.00	0.00	35.95	142.33
	M10XX024	42.30	5.81	47.06	7.74	0.00	0.00	40.23	143.14	50.76	5.89	62.24	10.23	0.00	0.00	51.27	180.39
<b>P10</b>	P10IC001	12.95	1.06	18.93	2.62	0.00	0.00	17.59	53.15								
	P10IC002	20.38	1.66	32.46	4.49	0.00	0.00	27.68	86.67								
	P10IC005	54.75	4.47	86.55	11.97	0.00	0.00	74.37	232.11								
	P10IC010	1.84	0.15	0.00	0.00	0.00	0.00	2.50	4.49								
	P10IC011	3.68	0.30	1.41	0.20	0.00	0.00	5.01	10.60								
	P10IC012	2.59	0.21	0.00	0.00	0.00	0.00	3.51	6.31								
	P10IC013	4.55	0.37	2.88	0.40	0.00	0.00	6.18	14.38								
<b>P20</b>	P20IC002	13.56	0.91	0.00	1.90	0.00	0.00	21.94	38.31								
	P20IC003	13.75	0.92	0.00	2.50	0.00	0.00	22.25	39.42								
	P20IC004	14.65	0.98	0.00	3.15	0.00	0.00	23.72	42.50								
	P20MK002	3.66	0.22	0.00	0.50	0.00	0.00	5.56	9.94								
	P20MK003	4.12	0.25	0.00	1.00	0.00	0.00	6.25	11.62								
	P20MK004	5.77	0.35	0.00	1.25	0.00	0.00	8.76	16.13								
	P20MK005	8.90	0.55	0.00	1.25	0.00	0.00	13.51	24.21								
	P20MK006	12.09	0.74	0.00	2.50	0.00	0.00	18.35	33.68								
	P20MK007	13.68	0.84	0.00	2.50	0.00	0.00	20.77	37.79								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS								
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	
<b>P25</b>	P25DL001	3.54	0.22	2.27	1.26	0.00	0.00	4.89	12.18									
	P25DL003	4.58	0.28	5.84	2.01	0.00	0.00	6.32	19.03									
	P25DL004	5.01	0.31	7.36	2.82	0.00	0.00	6.91	22.41									
	P25DL005	8.68	0.53	11.36	4.22	0.00	0.00	11.98	36.77									
	P25DL006	8.44	0.52	12.87	5.08	0.00	0.00	11.65	38.56									
	P25DL008	10.87	0.67	21.21	8.23	0.00	0.00	15.00	55.98									
	P25DL009	16.21	0.99	26.94	10.33	0.00	0.00	22.37	76.84									
	P25DL010	30.37	1.86	31.38	12.59	0.00	0.00	41.92	118.12									
	P25DL011	45.84	2.81	39.16	15.32	0.00	0.00	63.26	166.39									
	P25IC001	9.91	0.61	3.25	2.65	0.00	0.00	13.67	30.09									
	P25IC002	11.02	0.68	5.08	4.15	0.00	0.00	15.20	36.13									
	P25IC003	15.83	0.97	8.11	5.52	0.00	0.00	21.84	52.27									
	P25IC004	17.54	1.07	9.95	6.68	0.00	0.00	24.21	59.45									
	P25IC005	21.88	1.34	12.44	7.97	0.00	0.00	30.19	73.82									
	P25IC006	27.05	1.66	14.93	9.27	0.00	0.00	37.33	90.24									
	P25MK001	8.45	0.52	4.00	3.05	0.00	0.00	11.66	27.68									
	P25MK003	13.07	0.80	8.44	5.32	0.00	0.00	18.04	45.67									
	P25VU002	10.93	0.61	0.00	2.50	0.00	0.00	14.20	28.24									
	P25VU003	13.46	0.76	0.00	2.50	0.00	0.00	17.48	34.20									
	P25VU004	13.74	0.77	0.00	2.50	0.00	0.00	17.85	34.86									
	P25VU005	18.47	1.04	0.00	2.50	0.00	0.00	23.98	45.99									
P25VU010	18.97	1.06	0.00	0.95	0.00	0.00	24.64	45.62										
P25VU011	19.22	1.08	0.00	1.17	0.00	0.00	24.96	46.43										
<b>P30</b>	P30MK001	14.12	0.87	20.02	2.77	0.00	0.00	19.48	57.26									
	P30MK003	23.96	1.47	35.16	4.86	0.00	0.00	33.07	98.52									

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>P30</b>	<i>cont.</i> P30MK004	41.01	2.51	68.16	9.43	0.00	0.00	56.59	177.70								
<b>P35</b>	P35CA010	18.31	2.41	7.42	1.29	0.00	0.00	24.40	53.83	22.29	2.44	9.60	1.66	0.00	0.00	34.38	70.37
	P35CA011	46.24	6.08	18.39	3.19	0.00	0.00	61.62	135.52	56.30	6.17	23.80	4.13	0.00	0.00	86.84	177.24
	P35CA012	54.91	7.22	21.71	3.76	0.00	0.00	73.17	160.77	66.85	7.32	28.10	4.87	0.00	0.00	103.11	210.25
<b>P40</b>	P40GJ016	1.54	0.10	0.05	0.07	0.06	0.01	1.46	3.29								
	P40TE003	10.12	0.69	2.68	0.32	1.65	0.25	9.65	25.36								
	P40TE004	11.67	0.79	3.69	0.45	1.62	0.25	11.12	29.59								
	P40TE005	8.86	0.61	5.53	0.67	1.65	0.25	8.46	26.03								
	P40TE006	11.95	0.81	5.53	0.67	1.73	0.26	11.39	32.34								
	P40TE007	20.31	1.37	5.53	0.67	1.73	0.26	19.34	49.21								
	P40TE008	22.66	1.52	6.37	0.77	1.73	0.26	21.56	54.87								
	P40TE009	25.37	1.70	6.37	0.77	1.73	0.26	24.15	60.35								
	P40TE010	8.60	0.58	17.59	2.13	0.75	0.11	8.19	37.95								
	P40TE011	9.35	0.64	17.59	2.13	1.27	0.19	8.92	40.09								
	P40TE012	14.14	0.96	17.59	2.13	1.27	0.19	13.47	49.75								
	P40TE013	12.92	0.88	17.59	2.13	1.27	0.19	12.31	47.29								
	P40TE014	13.17	0.89	17.59	2.13	1.27	0.19	12.55	47.79								
	P40TE015	15.02	1.01	17.59	2.13	1.27	0.19	14.30	51.51								
<b>P45</b>	P45AF002	0.10	0.01	0.00	0.00	0.00	0.00	0.13	0.24								
	P45AF003	0.15	0.01	0.00	0.00	0.00	0.00	0.19	0.35								
	P45AF006	1.14	0.09	3.88	0.54	0.22	0.03	1.50	7.40								
	P45AF007	1.50	0.11	8.08	1.12	0.14	0.02	1.96	12.93								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>P45</b>	<i>cont.</i>																
	P45AF008	0.90	0.06	0.00	0.10	0.00	0.00	1.17	2.23								
	P45AF009	1.99	0.14	1.57	0.29	0.00	0.00	2.58	6.57								
	P45AF010	6.63	0.48	7.22	0.87	0.11	0.02	8.63	23.96								
	P45AF011	6.04	0.44	9.42	1.14	0.11	0.02	7.86	25.03								
	P45AL015	6.97	0.51	7.22	0.87	0.11	0.02	9.06	24.76								
	P45CG001	0.46	0.03	0.00	0.05	0.00	0.00	0.60	1.14								
	P45CG002	0.76	0.05	0.00	0.10	0.00	0.00	0.98	1.89								
	P45CG003	1.72	0.12	0.00	0.15	0.00	0.00	2.24	4.23								
	P45CG006	3.15	0.23	5.17	0.72	0.11	0.02	4.10	13.50								
	P45CG007	2.57	0.19	5.17	0.72	0.00	0.00	3.34	11.99								
	P45OE002	3.20	0.23	8.64	1.05	0.10	0.02	4.17	17.41								
	P45OE003	4.25	0.31	13.19	1.60	0.10	0.02	5.53	25.00								
	P45OE004	5.00	0.36	18.85	2.28	0.10	0.02	6.50	33.11								
P45OE005	8.31	0.61	28.43	3.45	0.20	0.03	10.81	51.84									
<b>P50</b>																	
	P50GR001	0.03	0.00	0.00	0.00	0.00	0.00	0.05	0.08								
	P50GR002	0.04	0.00	0.00	0.00	0.00	0.00	0.08	0.12								
	P50GR003	0.07	0.00	0.00	0.00	0.00	0.00	0.14	0.21								
	P50GR004	0.16	0.01	0.00	0.00	0.00	0.00	0.29	0.46								
	P50GR005	0.02	0.00	0.00	0.00	0.00	0.00	0.04	0.06								
	P50GR006	0.04	0.00	0.00	0.00	0.00	0.00	0.07	0.11								
	P50GR007	0.06	0.00	0.00	0.00	0.00	0.00	0.11	0.17								
	P50GR008	0.11	0.00	0.00	0.00	0.00	0.00	0.21	0.32								
	P50WC001	0.11	0.01	3.05	0.42	0.00	0.00	0.14	3.73								
	P50WC002	0.13	0.01	2.25	0.37	0.00	0.00	0.16	2.92								
	P50WC003	0.34	0.03	2.40	0.39	0.00	0.00	0.43	3.59								
	P50WC004	1.39	0.11	4.95	0.81	0.05	0.01	1.73	9.05								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>P50</b>	<i>cont.</i>																
	P50XX001	4.87	0.38	9.00	1.48	0.00	0.00	6.05	21.78								
	P50XX002	4.57	0.36	10.50	1.73	0.00	0.00	5.68	22.84								
	P50XX003	8.47	0.67	12.76	2.10	0.00	0.00	10.52	34.52								
<b>P55</b>	P55GF001	2.19	0.17	3.15	0.52	0.00	0.00	3.02	9.05								
	P55GF002	3.13	0.25	10.81	1.78	0.00	0.00	4.32	20.29								
	P55GR001	0.46	0.03	0.17	0.08	0.00	0.00	0.36	1.10								
	P55GR002	0.56	0.04	0.43	0.21	0.00	0.00	0.43	1.67								
	P55GR003	1.50	0.11	2.14	1.04	0.00	0.00	1.17	5.96								
	P55GR004	2.20	0.16	5.13	2.50	0.00	0.00	1.71	11.70								
	P55WC001	0.03	0.00	0.09	0.04	0.00	0.00	0.02	0.18								
	P55WC002	0.06	0.00	0.09	0.04	0.00	0.00	0.05	0.24								
<b>P60</b>	P60GF003	2.50	0.20	3.15	0.52	0.11	0.02	3.12	9.62								
	P60GF004	3.02	0.24	10.81	1.78	0.11	0.02	3.76	19.74								
	P60GF005	4.01	0.32	16.96	2.79	0.11	0.02	4.99	29.20								
	P60GF006	4.85	0.39	21.01	3.45	0.13	0.02	6.03	35.88								
	P60GF008	3.45	0.28	10.81	1.78	0.11	0.02	4.29	20.74								
	P60GR001	2.61	0.21	7.05	1.16	0.10	0.02	3.25	14.40								
	P60GR002	3.05	0.25	30.76	4.25	0.10	0.02	3.80	42.23								
	P60HO002	0.09	0.01	1.07	0.15	0.00	0.00	0.11	1.43								
	P60HO003	0.18	0.01	2.44	0.34	0.00	0.00	0.22	3.19								
	P60WC001	0.05	0.00	1.22	0.17	0.00	0.00	0.06	1.50								
	P60WC002	0.05	0.00	1.83	0.25	0.00	0.00	0.07	2.20								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>P65</b>	P65GR001	0.38	0.04	1.52	0.21	0.18	0.03	0.44	2.80								
	P65GR002	0.46	0.04	0.46	0.06	0.18	0.03	0.53	1.76								
	P65GR003	1.24	0.11	0.91	0.13	0.20	0.03	1.39	4.01								
	P65HO001	0.16	0.01	1.07	0.15	0.00	0.00	0.20	1.59								
	P65HO002	0.18	0.01	1.07	0.15	0.00	0.00	0.23	1.64								
	P65WC001	0.16	0.01	1.22	0.17	0.00	0.00	0.17	1.73								
	P65WC002	0.17	0.01	1.22	0.17	0.00	0.00	0.19	1.76								
<b>P70</b>	P70XX001	0.35	0.03	0.61	0.08	0.00	0.00	0.41	1.48								
	P70XX002	0.91	0.08	1.83	0.25	0.00	0.00	1.07	4.14								
<b>R10</b>	R10CA001	1.08	0.09	0.00	0.08	0.00	0.00	1.36	2.61	1.33	0.09	0.00	0.08	0.00	0.00	1.86	3.36
	R10CA003	1.08	0.09	0.00	0.08	0.00	0.00	1.36	2.61	1.33	0.09	0.00	0.08	0.00	0.00	1.86	3.36
	R10CA005	1.08	0.09	0.00	0.08	0.00	0.00	1.36	2.61	1.33	0.09	0.00	0.08	0.00	0.00	1.86	3.36
	R10CA006	0.03	0.00	0.00	0.00	0.00	0.00	0.04	0.07	0.04	0.00	0.00	0.00	0.00	0.00	0.05	0.09
	R10CA007	1.72	0.14	0.00	0.08	0.00	0.00	2.17	4.11	2.11	0.14	0.00	0.08	0.00	0.00	2.97	5.30
	R10CA009	4.54	0.36	0.00	0.08	0.00	0.00	5.73	10.71	5.58	0.37	0.00	0.08	0.00	0.00	7.83	13.86
	R10CA010	0.20	0.02	0.00	0.00	0.00	0.00	0.25	0.47	0.24	0.02	0.00	0.00	0.00	0.00	0.34	0.60
	R10CA011	5.07	0.40	0.00	0.10	0.00	0.00	6.40	11.97	6.24	0.41	0.00	0.10	0.00	0.00	8.75	15.50
	R10CA012	6.22	0.49	0.00	0.10	0.00	0.00	7.85	14.66	7.65	0.50	0.00	0.10	0.00	0.00	10.73	18.98
	R10CA013	0.43	0.03	0.00	0.00	0.00	0.00	0.55	1.01	0.53	0.04	0.00	0.00	0.00	0.00	0.75	1.32
	R10CA014	6.78	0.54	0.00	0.16	0.00	0.00	8.56	16.04	8.35	0.55	0.00	0.16	0.00	0.00	11.71	20.77
	R10CA015	8.75	0.69	0.00	0.16	0.00	0.00	11.05	20.65	10.77	0.71	0.00	0.16	0.00	0.00	15.10	26.74
	R10CA016	0.43	0.03	0.00	0.00	0.00	0.00	0.55	1.01	0.53	0.04	0.00	0.00	0.00	0.00	0.75	1.32
	R10CA017	11.46	0.90	0.00	0.21	0.00	0.00	14.47	27.04	14.11	0.93	0.00	0.21	0.00	0.00	19.79	35.04

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>R10</b>	<i>cont.</i>																
	R10CA018	13.87	1.09	0.00	0.22	0.00	0.00	17.51	32.69	17.07	1.12	0.00	0.22	0.00	0.00	23.94	42.35
	R10CA019	0.82	0.06	0.00	0.24	0.00	0.00	1.04	2.16	1.01	0.07	0.00	0.24	0.00	0.00	1.42	2.74
	R10CA020	13.74	1.08	0.00	0.23	0.00	0.00	17.35	32.40	16.91	1.11	0.00	0.23	0.00	0.00	23.72	41.97
	R10CA021	14.01	1.11	0.00	0.25	0.00	0.00	17.69	33.06	17.24	1.13	0.00	0.25	0.00	0.00	24.18	42.80
	R10CA022	0.12	0.01	0.00	0.00	0.00	0.00	0.15	0.28	0.15	0.01	0.00	0.00	0.00	0.00	0.21	0.37
	R10CA023	0.12	0.01	0.00	0.00	0.00	0.00	0.15	0.28	0.15	0.01	0.00	0.00	0.00	0.00	0.21	0.37
<b>R15</b>	R15SO001	10.47	1.17	0.00	0.40	1.99	0.30	10.24	24.57								
	R15SO002	8.39	1.29	0.00	0.45	5.87	0.90	8.90	25.80								
	R15SO003	13.83	1.82	0.00	0.67	5.87	0.90	14.06	37.15								
<b>R20</b>	R20SO001	6.70	0.65	0.00	0.25	0.00	0.00	7.26	14.86								
<b>R30</b>	R30BO003	14.77	1.13	14.59	1.51	2.06	0.32	13.30	47.68								
	R30BO004	7.36	0.60	11.27	1.17	2.22	0.34	6.70	29.66								
	R30BO005	7.28	0.64	6.23	0.65	0.00	0.00	7.42	22.22								
	R30BO006	7.93	0.70	11.01	1.14	0.00	0.00	8.08	28.86								
	R30BO007	9.24	0.81	10.34	1.07	0.00	0.00	9.41	30.87								
	R30BO008	38.21	4.35	58.62	6.07	0.00	0.00	41.36	148.61								
	R30BO009	37.15	4.23	58.62	6.07	0.00	0.00	40.21	146.28								
	R30CA003	33.78	3.85	31.83	3.30	0.00	0.00	36.57	109.33								
	R30CA006	48.76	5.56	41.78	4.33	0.00	0.00	52.78	153.21								
	R30CA010	8.85	0.65	9.28	0.96	0.61	0.09	7.92	28.36								
	R30CA012	33.49	3.82	29.18	3.02	0.00	0.00	36.25	105.76								
	R30CA013	51.11	5.82	41.78	4.33	0.00	0.00	55.32	158.36								



**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>R30</b>	<i>cont.</i>																
	R30CA014	15.23	1.18	13.93	1.44	5.21	0.80	13.75	51.54								
	R30RS001	1.41	0.12	4.33	0.45	0.00	0.00	1.44	7.75								
	R30RS002	2.83	0.25	5.30	0.55	0.00	0.00	2.88	11.81								
	R30RS003	7.41	0.56	10.61	1.10	0.85	0.13	6.66	27.32								
	R30SI002	12.13	0.94	12.07	1.25	2.01	0.31	10.94	39.65								
	R30SI003	15.31	1.17	12.60	1.31	2.01	0.31	13.78	46.49								
	R30SI004	20.81	1.55	14.32	1.48	1.58	0.24	18.65	58.63								
R30SI005	11.18	0.98	9.95	1.03	0.00	0.00	11.39	34.53									
<b>R40</b>																	
	R40BO001	6.84	0.54	7.50	1.04	0.00	0.00	7.40	23.32								
	R40BO002	7.41	0.58	7.50	1.04	0.00	0.00	8.02	24.55								
<b>R45</b>																	
	R45BO004	4.12	0.33	4.95	0.68	0.00	0.00	6.13	16.21								
	R45BO005	6.06	0.48	6.90	0.95	0.00	0.00	9.01	23.40								
	R45BO006	12.22	0.96	16.21	2.24	0.00	0.00	18.17	49.80								
	R45BO007	13.96	1.10	19.66	2.72	0.00	0.00	20.77	58.21								
	R45BO008	15.63	1.23	30.76	4.25	0.00	0.00	23.24	75.11								
	R45CA001	5.31	0.42	4.80	0.66	0.00	0.00	7.89	19.08								
	R45CA005	12.50	0.99	10.50	1.45	0.00	0.00	18.59	44.03								
	R45CA011	4.08	0.32	4.95	0.68	0.00	0.00	6.06	16.09								
	R45CA012	14.33	1.13	20.56	2.84	0.00	0.00	21.31	60.17								
	R45CA013	19.09	1.51	20.56	2.84	0.00	0.00	28.40	72.40								
	R45RS001	2.13	0.17	3.00	0.41	0.00	0.00	3.17	8.88								
	R45SI008	4.13	0.33	5.25	0.73	0.00	0.00	6.14	16.58								
	R45SI009	11.18	0.88	11.71	1.62	0.00	0.00	16.63	42.02								
R45SI010	15.06	1.19	19.06	2.64	0.00	0.00	22.39	60.34									

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>R50</b>	R50BO005	4.95	0.48	5.41	0.75	1.58	0.24	7.36	20.77								
	R50BO006	8.10	0.71	8.11	1.12	0.20	0.03	11.72	29.99								
	R50BO007	9.31	0.82	8.11	1.12	0.52	0.08	13.50	33.46								
	R50BO008	15.71	1.42	16.77	2.32	1.58	0.24	22.89	60.93								
	R50BO009	14.35	1.30	21.10	2.92	1.58	0.24	20.92	62.41								
	R50BO010	5.61	0.50	5.41	0.75	0.36	0.06	8.14	20.83								
	R50BO011	8.55	0.75	8.11	1.12	0.20	0.03	12.37	31.13								
	R50BO012	10.99	0.97	10.93	1.51	0.52	0.08	15.93	40.93								
	R50BO013	16.53	1.49	14.17	1.96	1.58	0.24	24.08	60.05								
	R50CA001	8.47	0.75	7.57	1.05	0.39	0.06	12.27	30.56								
	R50CA002	9.39	0.83	7.57	1.05	0.39	0.06	13.61	32.90								
	R50CA005	11.87	1.05	10.82	1.50	0.66	0.10	17.22	43.22								
	R50CA006	9.31	0.86	8.98	1.24	1.43	0.22	13.63	35.67								
	R50CA007	15.37	1.38	16.88	2.33	1.43	0.22	22.37	59.98								
	R50CA008	18.05	1.61	16.88	2.33	1.43	0.22	26.25	66.77								
	R50CA011	20.29	1.81	16.23	2.24	1.43	0.22	29.48	71.70								
	R50CA013	13.02	1.15	10.82	1.50	0.59	0.09	18.87	46.04								
	R50CA014	15.65	1.38	10.82	1.50	0.59	0.09	22.66	52.69								
	R50CA015	24.64	2.18	16.99	2.35	1.43	0.22	35.74	83.55								
	R50CA016	25.09	2.22	16.99	2.35	1.43	0.22	36.39	84.69								
	R50IP001	9.24	0.83	8.66	1.20	0.85	0.13	13.46	34.37								
	R50SI006	7.41	0.69	6.49	0.90	1.50	0.23	10.90	28.12								
	R50SI007	7.98	0.74	6.49	0.90	1.50	0.23	11.72	29.56								
	R50SI013	12.51	1.14	16.01	2.21	1.58	0.24	18.26	51.95								
	R50SI016	13.46	1.22	16.01	2.21	1.58	0.24	19.65	54.37								
	R50SI017	14.61	1.32	16.01	2.21	1.58	0.24	21.30	57.27								
R50SI022	10.60	0.94	10.82	1.50	0.64	0.10	15.38	39.98									

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>R50</b>	<i>cont.</i>																
	R50SI023	11.98	1.06	10.82	1.50	0.64	0.10	17.37	43.47								
	R50SI024	5.93	0.53	3.03	0.42	0.47	0.07	8.62	19.07								
	R50SI025	7.36	0.65	3.25	0.45	0.47	0.07	10.68	22.93								
	R50SI026	14.80	1.30	11.25	1.56	0.47	0.07	21.41	50.86								
<b>R55</b>	R55GL001	0.68	0.04	0.00	0.50	0.03	0.00	0.72	1.97								
	R55GL002	0.91	0.06	1.02	0.61	0.07	0.01	0.96	3.64								
	R55GL003	2.57	0.15	1.83	0.94	0.06	0.01	2.68	8.24								
	R55GL004	3.15	0.18	1.83	1.19	0.05	0.01	3.28	9.69								
	R55GL007	2.05	0.12	3.65	0.38	0.00	0.00	2.13	8.33								
	R55GL009	0.47	0.03	2.13	0.22	0.00	0.00	0.48	3.33								
	R55GL011	1.16	0.07	3.25	0.34	0.00	0.00	1.21	6.03								
	R55GL012	1.78	0.10	1.83	0.94	0.07	0.01	1.86	6.59								
	R55GL013	0.13	0.02	0.00	0.25	0.14	0.02	0.16	0.72								
	R55GL014	0.61	0.03	0.00	0.35	0.00	0.00	0.64	1.63								
	R55GL015	1.93	0.11	1.83	0.19	0.00	0.00	2.00	6.06								
	R55GL016	0.82	0.05	1.83	0.19	0.00	0.00	0.85	3.74								
	R55GL017	0.36	0.02	1.02	0.11	0.00	0.00	0.37	1.88								
	R55GL018	0.41	0.02	1.02	0.11	0.00	0.00	0.42	1.98								
	R55GL019	0.79	0.04	1.62	0.17	0.00	0.00	0.82	3.44								
	R55GL020	0.60	0.04	1.02	0.11	0.15	0.02	0.64	2.58								
	R55GL021	0.43	0.02	1.83	0.19	0.00	0.00	0.45	2.92								
	R55GL022	3.92	0.23	1.62	7.17	0.24	0.04	4.11	17.33								
	R55GL023	1.18	0.07	1.62	0.17	0.08	0.01	1.24	4.37								
	R55GL024	0.84	0.05	1.12	0.12	0.00	0.00	0.87	3.00								
R55GL025	0.62	0.03	1.32	0.14	0.00	0.00	0.64	2.75									

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>S10</b>	S10CA001	24.67	2.48	18.93	3.27	4.03	0.62	32.49	86.49	30.83	2.54	25.04	4.33	16.30	2.49	45.12	126.65
	S10CA003	27.90	4.11	39.49	5.46	14.08	2.15	41.93	135.12	31.54	4.14	52.23	7.22	56.89	8.70	49.90	210.62
<b>S15</b>	S15CA001	30.78	4.62	36.94	5.11	14.08	2.15	36.24	129.92	36.94	4.67	47.13	6.52	56.89	8.70	46.20	207.05
	S15CA002	44.98	6.77	45.54	6.30	21.44	3.28	52.98	181.29	53.97	6.84	58.11	8.04	86.64	13.26	67.55	294.41
	S15JU001	32.73	4.76	42.71	5.91	4.99	0.76	38.28	130.14	39.28	4.81	54.49	7.54	18.58	2.84	48.80	176.34
	S15JU002	33.91	4.93	42.71	5.91	4.99	0.76	39.65	132.86	40.70	4.98	54.49	7.54	18.58	2.84	50.55	179.68
<b>S20</b>	S20CA001	25.45	3.87	58.11	6.54	17.69	2.71	31.93	146.30	28.28	3.90	75.54	8.51	74.86	11.45	37.56	240.10
	S20CA002	37.61	5.58	58.11	6.54	17.69	2.71	46.93	175.17	41.79	5.62	75.54	8.51	74.86	11.45	55.21	272.98
	S20CA003	58.42	8.66	73.30	8.26	26.95	4.12	72.87	252.58	64.91	8.71	95.28	10.73	114.00	17.44	85.72	396.79
	S20CA004	60.97	9.02	73.30	8.26	26.95	4.12	76.02	258.64	67.75	9.07	95.28	10.73	114.00	17.44	89.43	403.70
	S20CA005	75.60	11.10	99.47	11.21	28.49	4.36	94.11	324.34	84.00	11.17	129.30	14.56	120.55	18.44	110.71	488.73
	S20CA006	79.85	11.77	99.47	11.21	33.12	5.07	99.50	339.99	88.73	11.85	129.30	14.56	140.12	21.44	117.05	523.05
<b>S25</b>	S25JD001	3.16	0.43	0.00	1.50	1.40	0.21	3.34	10.04	3.79	0.44	0.00	1.50	5.22	0.80	4.29	16.04
	S25JD002	4.05	0.56	0.00	1.50	3.39	0.52	4.29	14.31	4.86	0.57	0.00	1.50	12.63	1.93	5.51	27.00
	S25RI001	2.95	0.37	0.00	1.50	0.96	0.15	3.05	8.98	3.54	0.37	0.00	1.50	3.58	0.55	3.92	13.46
	S25RI002	3.21	0.41	0.00	1.50	1.44	0.22	3.35	10.13	3.85	0.42	0.00	1.50	5.38	0.82	4.30	16.27
	S25RM001	8.24	1.05	0.00	1.50	3.94	0.60	8.57	23.90	9.89	1.06	0.00	1.50	14.51	2.22	11.01	40.19
	S25RM002	11.40	1.55	0.00	1.50	8.94	1.37	12.03	36.79	13.67	1.57	0.00	1.50	33.08	5.06	15.46	70.34
	S25RM003	5.97	0.79	0.00	1.50	3.94	0.60	6.26	19.06	7.17	0.80	0.00	1.50	14.51	2.22	8.05	34.25
	S25RM004	8.91	1.28	0.00	1.50	8.92	1.36	9.53	31.50	10.69	1.30	0.00	1.50	32.91	5.04	12.25	63.69

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>S30</b>	S30HW001	12.61	2.46	15.44	7.51	1.78	0.27	15.52	55.59	21.01	2.53	18.53	10.91	2.00	0.31	32.34	87.63
	S30HW002	17.08	3.31	21.61	10.51	2.20	0.34	21.02	76.07	28.47	3.42	25.94	15.27	2.46	0.38	43.80	119.74
	S30HW005	6.74	1.32	2.47	1.20	1.07	0.16	5.39	18.35	11.23	1.36	2.96	1.74	1.21	0.19	11.76	30.45
	S30HW006	11.40	2.20	6.18	3.01	1.15	0.18	9.10	33.22	19.00	2.27	7.41	4.36	1.29	0.20	19.85	54.38
	S30HW007	12.42	2.39	7.72	3.76	1.15	0.18	9.92	37.54	20.69	2.46	9.26	5.45	1.29	0.20	21.62	60.97
	S30HW008	12.99	2.50	7.72	3.76	1.15	0.18	10.37	38.67	21.64	2.57	9.26	5.45	1.29	0.20	22.61	63.02
	S30HW009	13.33	2.59	9.26	4.51	1.69	0.26	10.66	42.30	22.21	2.67	11.12	6.54	1.89	0.29	23.23	67.95
	S30HW010	16.30	3.15	12.35	6.01	1.87	0.29	13.03	53.00	27.17	3.25	14.82	8.72	2.10	0.32	28.41	84.79
	S30HW011	15.95	3.09	12.35	6.01	1.97	0.30	12.75	52.42	26.58	3.19	14.82	8.72	2.21	0.34	27.79	83.65
	S30HW012	18.89	3.65	12.35	6.01	2.20	0.34	15.10	58.54	31.49	3.77	14.82	8.72	2.46	0.38	32.92	94.56
	S30HW013	15.19	2.94	27.79	13.52	1.74	0.27	18.70	80.15	25.32	3.03	33.35	19.63	1.95	0.30	38.95	122.53
	S30HW014	12.28	1.02	0.93	0.45	0.71	0.11	12.09	27.59	15.34	1.05	1.11	0.65	0.79	0.12	18.90	37.96
	S30HW015	13.52	1.12	1.54	0.75	0.71	0.11	13.31	31.06	16.90	1.15	1.85	1.09	0.79	0.12	20.80	42.70
	S30HW016	12.78	1.06	1.24	0.60	0.71	0.11	12.58	29.08	15.97	1.09	1.48	0.87	0.79	0.12	19.67	39.99
	S30HW017	13.75	1.14	1.54	0.75	0.71	0.11	13.53	31.53	17.18	1.17	1.85	1.09	0.79	0.12	21.15	43.35
	S30HW018	16.05	1.36	2.47	1.20	1.29	0.20	15.83	38.40	20.06	1.39	2.96	1.74	1.46	0.22	24.74	52.57
	S30KB001	3.17	0.29	0.62	0.30	0.63	0.10	2.76	7.87	3.96	0.30	0.74	0.44	0.71	0.11	4.18	10.44
	S30KB002	4.11	0.37	0.93	0.45	0.79	0.12	3.58	10.35	5.14	0.38	1.11	0.65	0.88	0.13	5.43	13.72
	S30KB003	3.51	0.30	1.24	0.60	0.44	0.07	3.04	9.20	4.39	0.31	1.48	0.87	0.50	0.08	4.61	12.24
	S30KB004	4.93	0.47	1.54	0.75	1.30	0.20	4.31	13.50	6.16	0.48	1.85	1.09	1.46	0.22	6.53	17.79
	S30KB005	3.86	0.36	1.54	0.75	0.89	0.14	3.37	10.91	4.83	0.37	1.85	1.09	1.00	0.15	5.11	14.40
	S30KB006	5.66	0.53	1.85	0.90	1.38	0.21	4.94	15.47	7.07	0.54	2.22	1.31	1.55	0.24	7.49	20.42
S30KB007	3.70	0.33	0.62	0.30	0.63	0.10	3.22	8.90	4.63	0.34	0.74	0.44	0.71	0.11	4.88	11.85	
S30KB008	4.61	0.41	0.93	0.45	0.69	0.11	4.00	11.20	5.76	0.42	1.11	0.65	0.78	0.12	6.07	14.91	
S30KB009	6.14	0.56	0.93	0.45	1.32	0.20	5.35	14.95	7.67	0.58	1.11	0.65	1.48	0.23	8.11	19.83	
S30KB010	3.78	0.35	1.24	0.60	0.82	0.13	3.29	10.21	4.72	0.36	1.48	0.87	0.92	0.14	4.99	13.48	
S30KB011	5.59	0.50	1.54	0.75	0.90	0.14	4.85	14.27	6.98	0.51	1.85	1.09	1.01	0.15	7.36	18.95	

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>S30</b>	<i>cont.</i>																
	S30KB012	6.52	0.60	1.54	0.75	1.42	0.22	5.68	16.73	8.15	0.62	1.85	1.09	1.59	0.24	8.62	22.16
	S30KB013	4.42	0.40	1.54	0.75	0.89	0.14	3.85	11.99	5.52	0.41	1.85	1.09	1.00	0.15	5.83	15.85
	S30KB014	6.04	0.54	1.85	0.90	0.98	0.15	5.24	15.70	7.55	0.55	2.22	1.31	1.10	0.17	7.95	20.85
	S30KB015	8.04	0.73	2.47	1.20	1.52	0.23	7.00	21.19	10.06	0.75	2.96	1.74	1.70	0.26	10.61	28.08
	S30KB018	9.76	0.83	1.54	0.75	0.94	0.14	8.44	22.40	12.20	0.85	1.85	1.09	1.05	0.16	12.80	30.00
	S30KB021	11.33	0.96	2.47	1.20	1.06	0.16	9.79	26.97	14.17	0.99	2.96	1.74	1.18	0.18	14.86	36.08
	S30KB024	13.00	1.10	3.71	1.81	1.17	0.18	11.24	32.21	16.26	1.13	4.45	2.62	1.31	0.20	17.04	43.01
	S30KB025	6.86	0.59	1.24	0.60	0.79	0.12	5.93	16.13	8.57	0.61	1.48	0.87	0.88	0.13	9.00	21.54
	S30KB026	8.21	0.70	1.24	0.60	0.85	0.13	7.10	18.83	10.26	0.72	1.48	0.87	0.95	0.15	10.77	25.20
	S30KB027	10.47	0.89	1.54	0.75	0.94	0.14	9.05	23.78	13.09	0.91	1.85	1.09	1.05	0.16	13.72	31.87
	S30KB028	7.82	0.67	1.85	0.90	0.86	0.13	6.76	18.99	9.77	0.69	2.22	1.31	0.96	0.15	10.26	25.36
	S30KB029	9.48	0.81	1.85	0.90	0.94	0.14	8.19	22.31	11.85	0.83	2.22	1.31	1.05	0.16	12.43	29.85
	S30KB030	11.99	1.02	2.47	1.20	1.06	0.16	10.36	28.26	14.99	1.04	2.96	1.74	1.18	0.18	15.71	37.80
	S30KB031	10.28	0.87	3.09	1.50	0.94	0.14	8.88	25.70	12.85	0.90	3.71	2.18	1.05	0.16	13.47	34.32
	S30KB032	12.15	1.03	3.09	1.50	1.06	0.16	10.49	29.48	15.18	1.06	3.71	2.18	1.18	0.18	15.91	39.40
	S30KB033	14.04	1.19	3.71	1.81	1.17	0.18	12.12	34.22	17.55	1.22	4.45	2.62	1.31	0.20	18.39	45.74
	S30KB034	4.89	0.44	0.93	0.45	0.86	0.13	4.25	11.95	6.11	0.45	1.11	0.65	0.96	0.15	6.44	15.87
	S30KB035	5.56	0.50	1.24	0.60	1.02	0.16	4.83	13.91	6.95	0.51	1.48	0.87	1.14	0.17	7.33	18.45
	S30KB036	5.23	0.47	1.24	0.60	0.94	0.14	4.55	13.17	6.54	0.48	1.48	0.87	1.05	0.16	6.90	17.48
	S30KB041	5.96	0.54	1.24	0.60	1.12	0.17	5.18	14.81	7.45	0.55	1.48	0.87	1.26	0.19	7.86	19.66
	S30KB042	8.74	0.74	1.85	0.90	0.79	0.12	7.55	20.69	10.92	0.76	2.22	1.31	0.88	0.13	11.45	27.67
	S30KB043	13.13	1.10	0.93	0.45	0.85	0.13	11.33	27.92	16.41	1.13	1.11	0.65	0.95	0.15	17.18	37.58
	S30KB044	16.25	1.35	0.93	0.45	0.85	0.13	14.01	33.97	20.32	1.38	1.11	0.65	0.95	0.15	21.25	45.81
	S30KB045	22.04	4.20	38.95	4.72	1.34	0.21	27.08	98.54	36.74	4.34	46.49	6.75	1.50	0.23	56.42	152.47
	S30KB046	15.21	2.94	16.80	8.17	1.64	0.25	22.45	67.46	25.36	3.03	20.16	11.87	1.84	0.28	49.90	112.44
	S30KB047	19.17	3.66	19.45	9.46	1.24	0.19	28.25	81.42	31.95	3.77	23.34	13.74	1.39	0.21	62.81	137.21
	S30KB048	16.48	1.37	5.25	2.55	0.97	0.15	16.23	43.00	20.60	1.41	6.30	3.71	1.08	0.17	25.37	58.64

Table 2-2 . HOURLY RATE ELEMENTS

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>S30</b>	<i>cont.</i>																
	S30KB049	18.41	1.62	5.56	2.71	2.82	0.43	18.23	49.78	23.01	1.66	6.67	3.93	3.17	0.49	28.50	67.43
	S30KB050	23.80	1.96	15.44	7.51	0.89	0.14	23.41	73.15	29.74	2.01	18.53	10.91	1.00	0.15	36.58	98.92
	S30KB051	30.14	2.49	15.44	7.51	1.34	0.21	29.66	86.79	37.68	2.56	18.53	10.91	1.50	0.23	46.36	117.77
	S30KB052	32.13	2.60	15.44	7.51	0.45	0.07	31.55	89.75	40.16	2.67	18.53	10.91	0.50	0.08	49.31	122.16
	S30KB053	9.00	0.77	2.47	1.20	0.85	0.13	7.78	22.20	11.26	0.79	2.96	1.74	0.95	0.15	11.80	29.65
	S30KB054	8.95	0.76	0.93	0.45	0.79	0.12	7.74	19.74	11.19	0.78	1.11	0.65	0.88	0.13	11.73	26.47
	S30KB055	14.24	2.73	26.51	3.21	1.15	0.18	11.37	59.39	23.73	2.81	31.64	4.60	1.29	0.20	24.78	89.05
	S30KB056	14.60	2.80	26.51	3.21	1.15	0.18	11.65	60.10	24.33	2.88	31.64	4.60	1.29	0.20	25.41	90.35
	S30KB057	16.32	3.12	26.51	3.21	1.15	0.18	13.03	63.52	27.21	3.22	31.64	4.60	1.29	0.20	28.41	96.57
	S30KB058	15.22	2.91	8.03	3.91	1.18	0.18	12.15	43.58	25.37	3.00	9.63	5.67	1.32	0.20	26.50	71.69
	S30KB059	23.98	4.58	18.53	9.02	1.62	0.25	19.14	77.12	39.97	4.72	22.23	13.08	1.82	0.28	41.74	123.84
	S30PU002	54.98	4.47	43.28	5.24	1.49	0.23	47.29	156.98	68.72	4.59	51.65	7.50	1.77	0.27	71.73	206.23
	S30PU003	69.26	5.62	43.28	5.24	1.65	0.25	59.56	184.86	86.57	5.77	51.65	7.50	1.94	0.30	90.34	244.07
	S30PU004	81.42	6.59	43.28	5.24	1.65	0.25	70.01	208.44	101.78	6.78	51.65	7.50	1.94	0.30	106.19	276.14
	S30RA002	6.98	0.57	2.70	0.33	0.24	0.04	6.86	17.72	8.72	0.59	3.23	0.47	0.27	0.04	10.72	24.04
	S30RA003	10.97	0.91	5.30	0.64	0.48	0.07	10.80	29.17	13.72	0.93	6.33	0.92	0.53	0.08	16.88	39.39
	S30TS001	3.44	0.30	0.74	0.36	0.51	0.08	2.98	8.41	4.30	0.31	0.89	0.52	0.57	0.09	4.52	11.20
	S30TS002	4.70	0.41	1.05	0.51	0.63	0.10	4.08	11.48	5.88	0.42	1.26	0.74	0.71	0.11	6.18	15.30
	S30TS003	3.52	0.31	1.05	0.51	0.58	0.09	3.06	9.12	4.40	0.32	1.26	0.74	0.65	0.10	4.64	12.11
	S30TS004	4.81	0.42	1.36	0.66	0.74	0.11	4.17	12.27	6.01	0.43	1.63	0.96	0.83	0.13	6.33	16.32
	S30TS005	3.68	0.33	1.36	0.66	0.66	0.10	3.19	9.98	4.60	0.34	1.63	0.96	0.74	0.11	4.85	13.23
	S30TS006	5.01	0.44	1.67	0.81	0.84	0.13	4.35	13.25	6.26	0.46	2.00	1.18	0.95	0.15	6.60	17.60
S30TS007	4.43	0.39	1.98	0.96	0.73	0.11	3.85	12.45	5.54	0.40	2.37	1.39	0.82	0.13	5.84	16.49	
S30TS008	7.65	0.66	2.59	1.26	0.95	0.15	6.62	19.88	9.56	0.68	3.11	1.83	1.07	0.16	10.04	26.45	
S30TS009	11.91	2.23	18.53	12.02	0.00	0.00	14.61	59.30	19.85	2.30	22.23	16.08	0.00	0.00	30.44	90.90	
S30TS010	17.66	3.31	24.70	16.02	0.00	0.00	21.66	83.35	29.43	3.42	29.64	21.44	0.00	0.00	45.13	129.06	
S30TS011	29.30	5.50	49.40	32.04	0.00	0.00	35.94	152.18	48.83	5.67	59.28	42.89	0.00	0.00	74.87	231.54	

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>S35</b>	S35AR001	0.53	0.04	0.00	0.00	0.00	0.00	0.58	1.15								
	S35AR002	0.75	0.06	0.00	0.00	0.00	0.00	0.83	1.64								
<b>S40</b>	S40BO002	28.74	2.83	42.72	5.18	1.88	0.29	35.62	117.26	35.92	2.90	55.28	6.70	7.75	1.19	49.76	159.50
	S40BO003	27.07	2.67	42.72	5.18	1.88	0.29	33.56	113.37	33.84	2.73	55.28	6.70	7.75	1.19	46.88	154.37
	S40BO004	27.55	2.72	42.72	5.18	1.88	0.29	34.15	114.49	34.44	2.78	55.28	6.70	7.75	1.19	47.71	155.85
	S40CA001	31.91	3.14	36.67	4.44	2.53	0.39	39.54	118.62	39.88	3.22	47.45	5.75	9.75	1.49	55.23	162.77
	S40CA002	30.51	3.02	36.67	4.44	1.80	0.28	37.83	114.55	38.14	3.09	47.45	5.75	6.84	1.05	52.85	155.17
	S40CA003	24.62	2.61	41.53	5.03	11.31	1.73	30.98	117.81	30.77	2.67	53.75	6.51	45.15	6.91	43.28	189.04
	S40CA004	40.12	4.09	64.08	7.77	9.71	1.49	50.07	177.33	50.15	4.19	82.92	10.05	37.46	5.73	69.94	260.44
<b>S45</b>	S45DA004	1.81	0.11	0.00	0.25	0.00	0.00	2.50	4.67								
	S45DA005	2.16	0.13	0.00	0.25	0.00	0.00	2.98	5.52								
	S45DA007	2.28	0.14	0.00	0.25	0.00	0.00	3.14	5.81								
<b>T10</b>	T10CA001	1.16	0.11	0.00	0.08	0.00	0.00	1.31	2.66	1.45	0.11	0.00	0.08	0.00	0.00	1.84	3.48
	T10CA002	1.44	0.14	0.00	0.08	0.00	0.00	1.62	3.28	1.80	0.14	0.00	0.08	0.00	0.00	2.27	4.29
	T10CA004	1.29	0.12	0.00	0.08	0.00	0.00	1.45	2.94	1.61	0.13	0.00	0.08	0.00	0.00	2.03	3.85
	T10CA005	1.44	0.14	0.00	0.08	0.00	0.00	1.62	3.28	1.80	0.14	0.00	0.08	0.00	0.00	2.27	4.29
	T10CA007	1.96	0.19	0.00	0.08	0.00	0.00	2.20	4.43	2.45	0.19	0.00	0.08	0.00	0.00	3.09	5.81
	T10CA008	2.19	0.21	0.00	0.08	0.00	0.00	2.46	4.94	2.74	0.22	0.00	0.08	0.00	0.00	3.46	6.50
	T10CA009	2.37	0.23	0.00	0.08	0.00	0.00	2.66	5.34	2.96	0.23	0.00	0.08	0.00	0.00	3.74	7.01
	T10CA010	2.59	0.25	0.00	0.08	0.00	0.00	2.91	5.83	3.24	0.26	0.00	0.08	0.00	0.00	4.09	7.67
	T10CA011	3.65	0.35	0.00	0.08	0.00	0.00	4.10	8.18	4.57	0.36	0.00	0.08	0.00	0.00	5.77	10.78



**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>T10</b>	<i>cont.</i>																
	T10CA012	3.50	0.34	0.00	0.08	0.00	0.00	3.93	7.85	4.37	0.34	0.00	0.08	0.00	0.00	5.52	10.31
	T10CA013	3.84	0.37	0.00	0.08	0.00	0.00	4.31	8.60	4.80	0.38	0.00	0.08	0.00	0.00	6.06	11.32
	T10CA014	3.19	0.31	0.00	0.08	0.00	0.00	3.58	7.16	3.99	0.31	0.00	0.08	0.00	0.00	5.03	9.41
	T10CA015	4.80	0.46	0.00	0.10	0.00	0.00	5.38	10.74	6.00	0.47	0.00	0.10	0.00	0.00	7.57	14.14
	T10CA016	4.66	0.45	0.00	0.12	0.00	0.00	5.23	10.46	5.82	0.46	0.00	0.12	0.00	0.00	7.35	13.75
	T10CA017	5.05	0.49	0.00	0.13	0.00	0.00	5.67	11.34	6.31	0.50	0.00	0.13	0.00	0.00	7.97	14.91
	T10CA018	4.46	0.43	0.00	0.13	0.00	0.00	5.00	10.02	5.57	0.44	0.00	0.13	0.00	0.00	7.03	13.17
	T10CA019	0.13	0.01	0.00	0.05	0.00	0.00	0.14	0.33	0.16	0.01	0.00	0.05	0.00	0.00	0.20	0.42
	T10CA020	4.78	0.46	0.00	0.15	0.00	0.00	5.36	10.75	5.97	0.47	0.00	0.15	0.00	0.00	7.54	14.13
	T10CA021	6.33	0.61	0.00	0.19	0.00	0.00	7.10	14.23	7.91	0.62	0.00	0.19	0.00	0.00	9.98	18.70
	T10CA022	6.16	0.59	0.00	0.19	0.00	0.00	6.92	13.86	7.70	0.61	0.00	0.19	0.00	0.00	9.73	18.23
	T10CA023	6.41	0.62	0.00	0.20	0.00	0.00	7.20	14.43	8.02	0.63	0.00	0.20	0.00	0.00	10.12	18.97
	T10CA024	4.84	0.47	0.00	0.28	0.00	0.00	5.44	11.03	6.06	0.48	0.00	0.28	0.00	0.00	7.65	14.47
	T10CA025	5.86	0.56	0.00	0.29	0.00	0.00	6.57	13.28	7.32	0.58	0.00	0.29	0.00	0.00	9.24	17.43
T10CA026	9.21	0.89	0.00	0.40	0.00	0.00	10.34	20.84	11.51	0.91	0.00	0.40	0.00	0.00	14.53	27.35	
T10CA027	12.20	1.18	0.00	0.42	0.00	0.00	13.70	27.50	15.25	1.20	0.00	0.42	0.00	0.00	19.26	36.13	
T10JD001	0.95	0.10	0.00	0.25	0.10	0.02	1.08	2.50	1.19	0.10	0.00	0.25	0.12	0.02	1.52	3.20	
<b>T15</b>	T15CA002	8.07	0.95	8.31	1.30	0.00	0.00	14.22	32.85	10.08	0.96	10.75	1.68	0.00	0.00	20.21	43.68
	T15CA005	9.06	1.06	9.49	1.48	0.00	0.00	15.97	37.06	11.32	1.08	12.28	1.92	0.00	0.00	22.70	49.30
	T15CA008	18.36	2.16	17.21	2.69	0.00	0.00	32.36	72.78	22.94	2.19	22.27	3.48	0.00	0.00	45.99	96.87
	T15CA009	27.64	3.25	19.58	3.06	0.00	0.00	48.73	102.26	34.55	3.30	25.34	3.95	0.00	0.00	69.25	136.39
	T15CA011	27.19	3.19	21.95	3.43	0.00	0.00	47.94	103.70	33.99	3.25	28.41	4.43	0.00	0.00	68.13	138.21
	T15CA012	21.72	2.84	28.48	3.46	0.00	0.00	38.98	95.48	25.86	2.87	36.85	4.47	0.00	0.00	48.37	118.42
	T15CA014	24.62	3.22	28.48	3.46	0.00	0.00	44.19	103.97	29.31	3.26	36.85	4.47	0.00	0.00	54.83	128.72
	T15CA016	37.49	4.90	36.78	4.46	0.00	0.00	67.29	150.92	44.63	4.96	47.60	5.78	0.00	0.00	83.49	186.46
	T15CA017	43.54	5.69	48.65	5.91	0.00	0.00	78.14	181.93	51.83	5.76	62.96	7.64	0.00	0.00	96.96	225.15

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>T15</b>	<i>cont.</i>																
	T15CA018	64.30	9.03	58.70	3.95	0.00	0.00	108.18	244.16	77.16	9.13	74.90	5.04	0.00	0.00	146.12	312.35
	T15CA019	104.39	14.66	86.03	5.79	0.00	0.00	175.63	386.50	125.27	14.82	109.76	7.39	0.00	0.00	237.22	494.46
	T15CA020	8.58	1.01	9.49	1.48	0.00	0.00	15.13	35.69	10.73	1.03	12.28	1.92	0.00	0.00	21.51	47.47
	T15CA021	9.72	1.14	10.68	1.67	0.00	0.00	17.13	40.34	12.15	1.16	13.82	2.16	0.00	0.00	24.35	53.64
	T15CA022	9.65	1.13	10.68	1.67	0.00	0.00	17.00	40.13	12.06	1.15	13.82	2.16	0.00	0.00	24.17	53.36
	T15CA023	22.50	2.64	19.58	3.06	0.00	0.00	39.66	87.44	28.12	2.69	25.34	3.95	0.00	0.00	56.37	116.47
	T15CA024	9.21	1.08	13.05	2.04	0.00	0.00	16.24	41.62	11.52	1.10	16.89	2.64	0.00	0.00	23.08	55.23
	T15CS004	7.99	0.94	7.95	1.24	0.00	0.00	14.09	32.21	9.99	0.95	10.29	1.61	0.00	0.00	20.03	42.87
	T15CS007	13.96	1.64	14.12	2.20	0.00	0.00	24.61	56.53	17.45	1.67	18.27	2.85	0.00	0.00	34.97	75.21
	T15JD005	6.69	0.79	8.31	1.30	0.00	0.00	11.80	28.89	8.37	0.80	10.75	1.68	0.00	0.00	16.77	38.37
	T15JD006	6.83	0.80	8.31	1.30	0.00	0.00	12.04	29.28	8.54	0.82	10.75	1.68	0.00	0.00	17.11	38.90
	T15JD007	10.47	1.23	11.98	1.87	0.00	0.00	18.46	44.01	13.09	1.25	15.51	2.42	0.00	0.00	26.24	58.51
	T15JD008	17.01	2.00	18.39	2.87	0.00	0.00	29.99	70.26	21.27	2.03	23.80	3.71	0.00	0.00	42.63	93.44
	T15JD009	17.72	2.08	19.58	3.06	0.00	0.00	31.23	73.67	22.15	2.12	25.34	3.95	0.00	0.00	44.39	97.95
	T15JD010	24.04	2.82	22.19	3.46	0.00	0.00	42.37	94.88	30.05	2.87	28.72	4.48	0.00	0.00	60.22	126.34
T15JD011	25.64	3.01	24.33	3.80	0.00	0.00	45.21	101.99	32.05	3.06	31.48	4.91	0.00	0.00	64.25	135.75	
T15KM008	34.61	4.52	36.78	4.46	0.00	0.00	62.12	142.49	41.20	4.58	47.60	5.78	0.00	0.00	77.08	176.24	
<b>T20</b>	T20CA001	30.30	3.76	24.29	2.95	7.00	1.07	23.38	92.75	32.63	3.78	30.99	3.76	29.40	4.50	27.30	132.36
	T20CA002	44.23	5.59	34.31	4.16	14.94	2.29	34.21	139.73	47.63	5.61	43.78	5.31	62.74	9.60	39.95	214.62
	T20CA003	67.12	8.61	48.68	5.91	18.60	2.85	52.05	203.82	72.29	8.65	62.11	7.54	78.12	11.95	60.78	301.44
<b>T25</b>	T25CA006	19.58	1.72	28.89	3.51	0.00	0.00	21.28	74.98								
	T25CA007	21.49	1.89	31.59	3.83	0.00	0.00	23.37	82.17								
	T25CA008	23.30	2.05	38.19	4.64	0.00	0.00	25.32	93.50								
	T25JD021	9.66	0.73	12.44	1.51	0.80	0.12	8.71	33.97								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>T25</b>	<i>cont.</i>																
	T25JD022	14.01	1.04	18.39	2.23	0.80	0.12	12.61	49.20								
	T25JD023	19.45	1.47	25.42	3.09	1.74	0.27	17.54	68.98								
	T25JD024	22.59	1.70	30.83	3.74	1.74	0.27	20.35	81.22								
	T25JD025	23.37	1.92	38.95	4.73	5.44	0.83	21.36	96.60								
	T25JD026	28.67	2.30	49.77	6.04	5.44	0.83	26.11	119.16								
	T25JD027	1.37	0.12	4.87	0.59	0.45	0.07	1.26	8.73								
	T25JD028	1.50	0.13	5.95	0.72	0.45	0.07	1.38	10.20								
	T25JD029	2.13	0.17	5.95	0.72	0.45	0.07	1.94	11.43								
	T25JD030	3.37	0.26	7.03	0.85	0.45	0.07	3.05	15.08								
	T25JD031	3.41	0.27	8.98	1.09	0.54	0.08	3.09	17.46								
	T25JD032	3.47	0.32	10.93	1.33	1.82	0.28	3.24	21.39								
<b>T30</b>	T30DW005	3.69	0.31	4.54	0.55	0.33	0.05	4.54	14.01	4.92	0.32	6.01	0.73	1.22	0.19	6.73	20.12
	T30DW010	10.52	0.90	10.71	1.30	2.34	0.36	13.03	39.16	14.03	0.93	14.17	1.72	8.72	1.33	19.30	60.20
	T30DW011	54.22	4.28	23.80	2.88	0.00	0.00	66.01	151.19	72.29	4.43	31.48	3.82	0.00	0.00	97.77	209.79
	T30DW012	0.96	0.08	3.55	0.43	0.03	0.00	1.17	6.22	1.28	0.08	4.63	0.56	0.09	0.01	1.73	8.38
	T30DW013	1.20	0.10	4.88	0.59	0.13	0.02	1.48	8.40	1.60	0.10	6.37	0.77	0.48	0.07	2.19	11.58
	T30DW014	12.72	1.03	11.04	1.34	0.57	0.09	15.57	42.36	16.96	1.07	14.60	1.77	2.13	0.33	23.06	59.92
	T30DW015	3.79	0.33	4.54	0.55	0.57	0.09	4.69	14.56	5.05	0.34	6.01	0.73	2.13	0.33	6.95	21.54
	T30DW016	6.81	0.55	6.49	0.79	0.33	0.05	8.34	23.36	9.08	0.57	8.59	1.04	1.22	0.19	12.35	33.04
	T30DW017	8.06	0.66	8.44	1.02	0.57	0.09	9.89	28.73	10.74	0.69	11.16	1.35	2.13	0.33	14.65	41.05
	T30DW018	10.94	0.89	10.71	1.30	0.57	0.09	13.40	37.90	14.58	0.92	14.17	1.72	2.13	0.33	19.85	53.70
	T30TM007	50.25	3.97	23.80	2.88	0.00	0.00	61.18	142.08	67.01	4.11	31.48	3.82	0.00	0.00	90.63	197.05
	T30TM008	50.58	3.99	23.80	2.88	0.00	0.00	61.58	142.83	67.44	4.13	31.48	3.82	0.00	0.00	91.21	198.08
	T30TM012	86.57	6.83	41.65	5.05	0.00	0.00	105.40	245.50	115.43	7.07	55.09	6.69	0.00	0.00	156.12	340.40
	T30TM013	141.87	11.19	56.80	6.88	0.00	0.00	172.73	389.47	189.16	11.59	75.12	9.12	0.00	0.00	255.84	540.83
	T30TM014	135.83	10.72	56.80	6.88	0.00	0.00	165.37	375.60	181.10	11.10	75.12	9.12	0.00	0.00	244.94	521.38

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>T30</b>	<i>cont.</i>																
	T30TM015	144.84	11.43	56.80	6.88	0.00	0.00	176.35	396.30	193.12	11.84	75.12	9.12	0.00	0.00	261.20	550.40
	T30VE007	19.82	1.56	13.52	1.64	0.00	0.00	24.13	60.67	26.43	1.62	17.89	2.17	0.00	0.00	35.75	83.86
	T30VE008	25.19	1.99	20.02	2.43	0.00	0.00	30.67	80.30	33.59	2.06	26.47	3.21	0.00	0.00	45.43	110.76
	T30VE009	40.86	3.22	27.05	3.28	0.00	0.00	49.75	124.16	54.49	3.34	35.77	4.34	0.00	0.00	73.69	171.63
T30VE010	49.73	3.92	29.75	3.61	0.00	0.00	60.54	147.55	66.30	4.06	39.35	4.78	0.00	0.00	89.68	204.17	
<b>T35</b>	T35CT001	26.37	2.08	15.15	1.84	0.00	0.00	32.11	77.55	35.16	2.16	20.03	2.43	0.00	0.00	47.56	107.34
	T35CT002	32.47	2.56	15.15	1.84	0.00	0.00	39.53	91.55	43.29	2.65	20.03	2.43	0.00	0.00	58.55	126.95
	T35CT003	36.48	2.88	20.02	2.43	0.00	0.00	44.42	106.23	48.65	2.98	26.47	3.21	0.00	0.00	65.79	147.10
	T35CT004	34.34	2.71	11.04	1.34	0.00	0.00	41.80	91.23	45.78	2.81	14.60	1.77	0.00	0.00	61.92	126.88
	T35CT005	32.48	2.56	11.04	1.34	0.00	0.00	39.55	86.97	43.31	2.65	14.60	1.77	0.00	0.00	58.58	120.91
	T35CT006	32.48	2.56	11.04	1.34	0.00	0.00	39.55	86.97	43.31	2.65	14.60	1.77	0.00	0.00	58.58	120.91
	T35CT007	35.96	2.84	11.04	1.34	0.00	0.00	43.78	94.96	47.94	2.94	14.60	1.77	0.00	0.00	64.84	132.09
	T35CT008	46.12	3.64	16.23	1.97	0.00	0.00	56.15	124.11	61.49	3.77	21.46	2.60	0.00	0.00	83.17	172.49
	T35CT009	53.70	4.24	16.23	1.97	0.00	0.00	65.38	141.52	71.60	4.39	21.46	2.60	0.00	0.00	96.84	196.89
	T35CT010	52.60	4.15	16.23	1.97	0.00	0.00	64.04	138.99	70.14	4.30	21.46	2.60	0.00	0.00	94.86	193.36
	T35CT011	63.30	4.99	18.93	2.29	0.00	0.00	77.06	166.57	84.40	5.17	25.04	3.03	0.00	0.00	114.15	231.79
<b>T40</b>	T40AG001	8.88	0.73	8.66	1.20	0.48	0.07	8.64	28.66								
	T40AH001	2.95	0.23	0.00	0.25	0.00	0.00	3.25	6.68								
	T40AH003	4.37	0.34	0.00	0.25	0.00	0.00	4.82	9.78								
	T40AH004	5.40	0.43	0.00	0.25	0.00	0.00	5.96	12.04								
	T40GN001	1.88	0.12	0.00	0.00	0.00	0.00	1.62	3.62	2.32	0.13	0.00	0.00	0.00	0.00	2.28	4.73
	T40KF011	0.47	0.04	0.00	0.00	0.00	0.00	0.39	0.90								
	T40KF013	0.51	0.04	0.00	0.00	0.00	0.00	0.42	0.97								
	T40KF014	0.55	0.04	0.00	0.00	0.00	0.00	0.45	1.04								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS								
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	
<b>T40</b>	<i>cont.</i>																	
	T40KF016	0.66	0.05	0.00	0.00	0.00	0.00	0.55	1.26									
	T40KF018	0.79	0.06	0.00	0.00	0.00	0.00	0.65	1.50									
	T40KF020	0.95	0.07	0.00	0.00	0.00	0.00	0.79	1.81									
	T40KF021	0.47	0.04	0.00	0.10	0.00	0.00	0.46	1.07									
	T40KF022	0.85	0.07	0.00	0.10	0.00	0.00	0.82	1.84									
	T40KF023	0.34	0.03	0.00	0.05	0.00	0.00	0.33	0.75									
	T40KF024	0.50	0.04	0.00	0.05	0.00	0.00	0.48	1.07									
	T40MY002	0.62	0.04	0.00	0.00	0.00	0.00	0.53	1.19	0.76	0.04	0.00	0.00	0.00	0.00	0.00	0.75	1.55
	T40MY003	0.77	0.05	0.00	0.00	0.00	0.00	0.66	1.48	0.95	0.05	0.00	0.00	0.00	0.00	0.00	0.93	1.93
	T40MY004	0.89	0.06	0.00	0.00	0.00	0.00	0.77	1.72	1.10	0.06	0.00	0.00	0.00	0.00	0.00	1.08	2.24
	T40MY005	1.26	0.08	0.00	0.00	0.00	0.00	1.09	2.43	1.56	0.09	0.00	0.00	0.00	0.00	0.00	1.53	3.18
	T40MY006	1.44	0.09	0.00	0.00	0.00	0.00	1.24	2.77	1.77	0.10	0.00	0.00	0.00	0.00	0.00	1.74	3.61
	T40PA001	0.77	0.06	0.00	0.24	0.00	0.00	0.85	1.92									
	T40PA002	4.03	0.32	0.00	0.24	0.00	0.00	4.45	9.04									
	T40PA004	5.20	0.41	0.00	0.26	0.00	0.00	5.74	11.61									
	T40PA005	9.82	0.77	0.00	0.27	0.00	0.00	10.83	21.69									
	T40PA006	11.35	0.90	0.00	0.27	0.00	0.00	12.53	25.05									
	T40PA007	5.10	0.40	0.00	0.26	0.00	0.00	5.62	11.38									
	T40RS001	2.96	0.26	0.00	0.00	0.00	0.00	2.61	5.83									
	T40RS002	3.05	0.26	0.00	0.00	0.00	0.00	2.70	6.01									
	T40RS003	3.28	0.28	0.00	0.00	0.00	0.00	2.89	6.45									
	T40XX034	16.97	1.22	29.50	4.08	0.00	0.00	15.43	67.20									
	T40XX035	17.24	1.24	31.39	4.34	0.00	0.00	15.68	69.89									
	T40XX036	18.09	1.30	35.78	4.95	0.00	0.00	16.45	76.57									
	T40XX037	20.33	1.46	35.78	4.95	0.00	0.00	18.48	81.00									
	T40XX038	21.27	1.53	35.78	4.95	0.00	0.00	19.35	82.88									

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>T45</b>	T45EA006	3.50	0.35	0.00	0.50	1.93	0.30	2.20	8.78								
	T45EA007	4.62	0.47	0.00	0.50	2.90	0.44	2.91	11.84								
	T45G1001	8.33	0.88	8.11	0.84	0.00	0.00	8.59	26.75								
	T45G1002	4.15	0.44	8.11	0.84	0.00	0.00	4.28	17.82								
	T45MY004	2.31	0.24	0.00	0.30	1.56	0.24	2.04	6.69	2.88	0.24	0.00	0.30	5.70	0.87	2.91	12.90
	T45MY005	3.06	0.32	0.00	0.30	2.34	0.36	2.71	9.09	3.82	0.33	0.00	0.30	8.55	1.31	3.87	18.18
	T45MY006	3.17	0.33	0.00	0.30	2.34	0.36	2.80	9.30	3.96	0.34	0.00	0.30	8.55	1.31	4.01	18.47
	T45MY007	3.03	0.32	0.00	0.30	2.34	0.36	2.69	9.04	3.79	0.33	0.00	0.30	8.55	1.31	3.84	18.12
	T45MY015	2.54	0.26	0.00	0.40	1.56	0.24	2.08	7.08	3.18	0.26	0.00	0.40	5.70	0.87	3.00	13.41
	T45MY016	2.60	0.26	0.00	0.40	1.56	0.24	2.12	7.18	3.25	0.27	0.00	0.40	5.70	0.87	3.06	13.55
	T45MY017	2.60	0.29	0.00	0.40	2.34	0.36	2.15	8.14	3.25	0.30	0.00	0.40	8.55	1.31	3.11	16.92
	T45MY018	1.87	0.18	0.00	0.40	1.56	0.24	1.43	5.68								
	T45MY019	1.84	0.18	0.00	0.40	1.56	0.24	1.42	5.64								
	T45XX001	3.31	0.30	0.00	0.40	1.11	0.17	2.88	8.17	4.13	0.31	0.00	0.40	4.04	0.62	4.11	13.61
	T45XX003	4.08	0.36	0.00	0.40	1.11	0.17	3.54	9.66	5.10	0.37	0.00	0.40	4.04	0.62	5.06	15.59
	T45XX008	2.64	0.25	0.00	0.40	1.11	0.17	2.14	6.71	3.30	0.26	0.00	0.40	4.04	0.62	3.09	11.71
	T45XX009	2.97	0.23	0.00	0.40	1.11	0.17	2.22	7.10								
	T45XX010	3.35	0.26	0.00	0.40	1.11	0.17	2.50	7.79								
	T45XX011	2.73	0.25	0.00	0.40	0.98	0.15	1.70	6.21								
	T45XX012	2.91	0.27	0.00	0.40	0.98	0.15	1.81	6.52								
T45XX013	3.03	0.28	0.00	0.40	1.11	0.17	1.89	6.88									
T45XX014	3.65	0.34	0.00	0.50	1.47	0.22	2.28	8.46									
T45XX015	15.67	1.31	0.00	0.50	1.47	0.22	9.65	28.82									
T45XX016	8.33	0.72	0.00	0.50	1.66	0.25	5.15	16.61									
T45XX017	12.00	1.03	0.00	0.50	1.93	0.30	7.41	23.17									
T45XX018	13.18	1.12	0.00	0.50	1.93	0.30	8.13	25.16									
T45XX019	5.16	0.48	0.00	0.50	1.93	0.30	3.22	11.59									

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>T45</b>	<i>cont.</i>																
	T45XX020	4.87	0.47	0.00	0.60	2.21	0.34	3.04	11.53								
	T45XX021	5.37	0.51	0.00	0.60	2.21	0.34	3.35	12.38								
	T45XX022	6.06	0.57	0.00	0.60	2.57	0.39	3.78	13.97								
	T45XX023	7.23	0.69	0.00	0.60	3.13	0.48	4.52	16.65								
	T45XX024	2.30	0.22	0.00	0.09	1.11	0.17	1.44	5.33								
	T45XX025	2.50	0.24	0.00	0.10	1.11	0.17	1.56	5.68								
	T45XX026	1.45	0.13	0.00	0.40	0.55	0.08	0.90	3.51								
	T45XX027	1.60	0.15	0.00	0.40	0.72	0.11	1.00	3.98								
	T45XX028	1.75	0.18	0.00	0.40	1.04	0.16	1.10	4.63								
	T45XX029	6.29	0.69	6.82	0.71	0.55	0.08	5.60	20.74								
	T45XX030	6.00	0.69	6.82	0.71	1.11	0.17	5.40	20.90								
	T45XX031	7.42	0.84	6.82	0.71	1.11	0.17	6.65	23.72								
	T45XX032	4.35	0.32	0.00	0.50	0.83	0.13	3.23	9.36								
	T45XX033	5.32	0.39	0.00	0.60	1.11	0.17	3.96	11.55								
T45XX034	2.45	0.23	0.00	0.40	1.11	0.17	1.53	5.89									
T45XX035	2.63	0.25	0.00	0.40	1.11	0.17	1.64	6.20									
<b>T50</b>	T50GM001	1.72	0.14	6.32	0.77	0.27	0.04	1.72	10.98	2.12	0.15	8.12	0.98	0.90	0.14	2.26	14.67
	T50GM004	3.97	0.32	15.00	1.82	0.27	0.04	3.94	25.36	4.89	0.33	19.29	2.34	0.90	0.14	5.19	33.08
	T50GM005	4.28	0.35	15.00	1.82	0.29	0.04	4.24	26.02	5.27	0.36	19.29	2.34	1.01	0.15	5.59	34.01
	T50XX001	1.62	0.14	6.84	0.83	0.34	0.05	1.63	11.45	2.00	0.14	8.80	1.07	1.12	0.17	2.15	15.45
	T50XX002	2.01	0.17	6.84	0.83	0.25	0.04	2.01	12.15	2.48	0.17	8.80	1.07	0.83	0.13	2.64	16.12
	T50XX003	2.29	0.19	9.48	1.15	0.29	0.04	2.28	15.72	2.82	0.20	12.18	1.48	0.94	0.14	3.01	20.77
	T50XX004	1.98	0.17	6.84	0.83	0.36	0.06	1.98	12.22	2.44	0.17	8.80	1.07	1.25	0.19	2.62	16.54
	T50XX005	2.40	0.20	6.84	0.83	0.26	0.04	2.38	12.95	2.95	0.20	8.80	1.07	0.92	0.14	3.14	17.22
	T50XX006	2.47	0.20	9.48	1.15	0.30	0.05	2.46	16.11	3.04	0.21	12.18	1.48	1.04	0.16	3.24	21.35
	T50XX007	1.72	0.15	6.84	0.83	0.34	0.05	1.73	11.66	2.12	0.15	8.80	1.07	1.12	0.17	2.27	15.70

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>T50</b>	<i>cont.</i>																
	T50XX008	2.14	0.18	6.84	0.83	0.25	0.04	2.13	12.41	2.64	0.18	8.80	1.07	0.83	0.13	2.81	16.46
	T50XX009	2.65	0.22	9.48	1.15	0.29	0.04	2.63	16.46	3.26	0.22	12.18	1.48	0.94	0.14	3.47	21.69
	T50XX010	2.39	0.20	6.84	0.83	0.36	0.06	2.38	13.06	2.94	0.20	8.80	1.07	1.25	0.19	3.14	17.59
	T50XX011	2.61	0.21	9.48	1.15	0.26	0.04	2.59	16.34	3.21	0.22	12.18	1.48	0.92	0.14	3.42	21.57
	T50XX012	2.73	0.22	9.48	1.15	0.30	0.05	2.71	16.64	3.36	0.23	12.18	1.48	1.04	0.16	3.57	22.02
	T50XX013	2.15	0.18	2.13	0.22	0.34	0.05	2.15	7.22	2.65	0.19	3.04	0.32	1.12	0.17	2.83	10.32
	T50XX014	2.44	0.20	2.13	0.22	0.25	0.04	2.43	7.71	3.01	0.21	3.04	0.32	0.83	0.13	3.20	10.74
	T50XX015	2.82	0.23	3.69	0.38	0.29	0.04	2.80	10.25	3.47	0.24	5.27	0.55	0.94	0.14	3.69	14.30
	T50XX016	2.59	0.22	3.69	0.38	0.36	0.06	2.58	9.88	3.19	0.22	5.27	0.55	1.25	0.19	3.41	14.08
	T50XX017	2.66	0.22	3.69	0.38	0.26	0.04	2.64	9.89	3.27	0.22	5.27	0.55	0.92	0.14	3.48	13.85
	T50XX018	3.19	0.26	3.69	0.38	0.30	0.05	3.16	11.03	3.92	0.27	5.27	0.55	1.04	0.16	4.17	15.38
	T50XX019	2.53	0.21	3.69	0.38	0.25	0.04	2.52	9.62	3.12	0.21	5.27	0.55	0.83	0.13	3.32	13.43
	T50XX020	3.09	0.25	3.69	0.38	0.26	0.04	3.06	10.77	3.80	0.26	5.27	0.55	0.92	0.14	4.04	14.98
	T50XX021	2.78	0.23	3.69	0.38	0.29	0.04	2.76	10.17	3.42	0.23	5.27	0.55	0.94	0.14	3.64	14.19
	T50XX022	4.42	0.45	12.39	1.40	0.52	0.08	4.08	23.34	5.53	0.46	16.04	1.81	2.02	0.31	5.50	31.67
	T50XX023	3.44	0.35	25.27	3.28	0.52	0.08	3.18	36.12	4.30	0.36	32.37	4.20	2.02	0.31	4.29	47.85
	T50XX024	2.96	0.31	25.27	3.28	0.52	0.08	2.74	35.16	3.70	0.31	32.37	4.20	2.02	0.31	3.70	46.61
	T50XX025	5.78	0.59	11.70	1.32	0.84	0.13	5.34	25.70	7.23	0.60	15.15	1.71	3.48	0.53	7.20	35.90
	T50XX026	5.88	0.60	14.46	1.63	0.81	0.12	5.43	28.93	7.35	0.61	18.71	2.11	3.13	0.48	7.32	39.71
	T50XX027	7.95	0.94	25.76	3.12	0.75	0.11	7.32	45.95	9.55	0.95	33.27	4.03	2.86	0.44	10.14	61.24
	T50XX028	7.83	0.94	22.36	2.71	1.14	0.17	7.23	42.38	9.40	0.95	28.88	3.50	4.41	0.67	10.02	57.83
	T50XX029	7.18	0.86	30.13	3.65	1.14	0.17	6.64	49.77	8.62	0.88	38.92	4.72	4.41	0.67	9.20	67.42
	T50XX030	9.26	1.10	34.02	4.12	1.14	0.17	8.54	58.35	11.12	1.12	43.94	5.32	4.41	0.67	11.83	78.41
	T50XX031	8.48	1.01	38.88	4.71	1.17	0.18	7.82	62.25	10.17	1.03	50.22	6.09	4.53	0.69	10.84	83.57
	T50XX032	8.65	1.02	25.76	3.12	0.75	0.11	7.95	47.36	10.38	1.03	33.27	4.03	2.86	0.44	11.02	63.03
	T50XX033	9.27	1.10	38.88	4.71	1.17	0.18	8.54	63.85	11.12	1.12	50.22	6.09	4.53	0.69	11.84	85.61
	T50XX035	8.29	0.83	14.46	1.63	0.81	0.12	7.64	33.78	10.37	0.85	18.71	2.11	3.13	0.48	10.29	45.94



**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>T55</b>	T55CA002	35.14	6.35	38.56	5.66	12.67	1.94	40.21	140.53	39.05	6.38	49.91	7.33	49.81	7.62	47.19	207.29
	T55CA003	48.77	9.21	55.65	8.17	28.43	4.35	56.21	210.79	54.19	9.26	72.02	10.58	111.85	17.11	65.97	340.98
	T55CA007	27.00	4.81	28.89	4.24	14.33	2.19	30.83	112.29	30.00	4.84	37.39	5.49	56.38	8.63	36.18	178.91
	T55CA014	25.08	2.80	17.92	1.46	0.00	0.00	25.19	72.45	26.61	2.81	21.66	1.77	0.00	0.00	28.43	81.28
	T55CA015	28.69	3.20	23.87	1.95	0.00	0.00	28.82	86.53	30.44	3.22	28.84	2.35	0.00	0.00	32.52	97.37
	T55CA016	34.72	3.87	21.78	1.78	0.00	0.00	34.88	97.03	36.84	3.89	26.31	2.15	0.00	0.00	39.36	108.55
	T55CA017	39.22	4.37	29.73	2.43	0.00	0.00	39.40	115.15	41.62	4.39	35.93	2.93	0.00	0.00	44.46	129.33
	T55CA018	40.28	4.49	33.92	2.77	0.00	0.00	40.47	121.93	42.75	4.51	40.99	3.34	0.00	0.00	45.66	137.25
	T55JD001	23.58	2.79	22.20	1.81	7.52	1.15	23.90	82.95	25.02	2.80	26.82	2.19	29.57	4.52	26.97	117.89
	T55JD002	26.35	3.10	23.87	1.95	7.52	1.15	26.69	90.63	27.96	3.11	28.84	2.35	29.57	4.52	30.12	126.47
	T55JD003	33.24	4.15	31.83	2.60	20.57	3.15	33.99	129.53	35.28	4.17	38.46	3.14	80.89	12.38	38.35	212.67
	T55JD004	37.38	4.50	34.59	2.82	15.45	2.36	38.00	135.10	39.67	4.52	41.80	3.41	60.79	9.30	42.88	202.37
	T55KM009	19.43	3.55	28.95	4.25	14.33	2.19	22.27	94.97	21.59	3.56	37.47	5.50	56.38	8.63	26.13	159.26
	T55KM012	37.34	7.30	61.82	9.08	28.43	4.35	43.29	191.61	41.49	7.33	80.00	11.75	111.85	17.11	50.80	320.33
	T55KM013	95.81	16.88	88.16	12.95	23.20	3.55	109.19	349.74	106.46	16.96	114.10	16.76	91.23	13.96	128.15	487.62
	T55KM014	112.29	19.94	118.66	17.43	31.52	4.82	128.14	432.80	124.77	20.04	153.56	22.55	123.97	18.97	150.38	614.24
	T55KM015	21.89	2.88	32.58	2.66	20.57	3.15	22.59	106.32	23.23	2.89	39.37	3.21	80.89	12.38	25.49	187.46
	T55KM016	29.74	3.65	36.02	2.94	15.45	2.36	30.33	120.49	31.56	3.66	43.52	3.55	60.79	9.30	34.22	186.60
	T55VO002	23.45	2.84	25.04	2.04	10.76	1.65	23.87	89.65	24.89	2.86	30.26	2.47	42.70	6.53	26.93	136.64
	T55VO003	25.43	3.00	25.04	2.04	7.52	1.15	25.77	89.95	26.99	3.01	30.26	2.47	29.57	4.52	29.08	125.90
T55VO004	36.71	4.37	34.68	2.83	12.74	1.95	37.25	130.53	38.95	4.39	41.90	3.42	50.10	7.67	42.03	188.46	
T55VO005	30.45	3.53	28.14	2.30	5.48	0.84	30.77	101.51	32.31	3.55	34.01	2.78	21.55	3.30	34.72	132.22	
T55VO006	38.80	4.85	38.86	3.17	24.33	3.72	39.68	153.41	41.17	4.87	46.96	3.83	95.68	14.64	44.78	251.93	
<b>T56</b>																	
	T56CA006	54.96	10.24	62.20	9.14	31.22	4.78	63.21	235.75	61.07	10.29	101.48	14.04	121.90	18.65	74.18	401.61

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>T57</b>	T57CU001	9.99	0.97	8.22	1.00	0.44	0.07	11.04	31.73								
	T57CU002	12.29	1.19	8.22	1.00	0.44	0.07	13.58	36.79								
	T57CU003	10.50	1.02	32.46	3.93	0.44	0.07	11.61	60.03								
	T57CU004	11.62	1.13	37.87	4.59	0.44	0.07	12.84	68.56								
	T57CU005	13.72	1.33	45.98	5.57	0.44	0.07	15.16	82.27								
<b>T60</b>	T60KI001	30.13	3.54	35.70	4.94	3.93	0.60	28.35	107.19	36.15	3.60	47.22	6.53	15.03	2.30	38.83	149.66
	T60KI002	19.66	2.57	35.70	4.94	13.20	2.02	18.93	97.02	23.59	2.61	47.22	6.53	50.95	7.80	25.93	164.63
	T60KI003	27.44	3.61	49.98	6.91	19.11	2.92	26.45	136.42	32.93	3.67	66.11	9.14	73.75	11.28	36.23	233.11
	T60KI004	40.71	5.12	49.98	6.91	19.11	2.92	38.86	163.61	48.85	5.20	66.11	9.14	73.75	11.28	53.23	267.56
	T60KI006	61.80	7.53	61.02	8.44	19.20	2.94	58.58	219.51	74.17	7.64	80.70	11.16	74.07	11.33	80.26	339.33
	T60SO001	31.12	3.88	35.70	4.94	13.20	2.02	29.65	120.51	37.34	3.94	47.22	6.53	50.95	7.80	40.62	194.40
	T60SO002	44.04	5.40	48.69	6.73	15.22	2.33	41.81	164.22	52.85	5.49	64.39	8.91	58.74	8.99	57.29	256.66
	T60SO003	44.78	5.49	48.69	6.73	15.22	2.33	42.50	165.74	53.74	5.57	64.39	8.91	58.74	8.99	58.23	258.57
	T60SO004	54.91	6.82	59.50	8.23	22.31	3.41	52.26	207.44	65.89	6.93	78.70	10.89	86.10	13.17	71.60	333.28
	T60SO005	55.91	6.94	59.50	8.23	22.31	3.41	53.20	209.50	67.10	7.04	78.70	10.89	86.10	13.17	72.89	335.89
<b>T65</b>	T65WG012	108.34	13.05	15.28	6.89	3.15	0.48	124.03	271.22								
	T65WG013	163.34	19.62	15.28	6.89	3.15	0.48	186.92	395.68								
	T65WG014	178.31	21.41	33.57	16.18	3.15	0.48	204.04	457.14								
<b>W25</b>	W25AO002	0.91	0.04	0.09	0.79	0.00	0.00	1.38	3.21								
	W25AO003	1.32	0.06	0.09	0.79	0.00	0.00	2.01	4.27								
	W25AO004	1.30	0.06	0.18	1.08	0.00	0.00	1.97	4.59								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>W25</b>	<i>cont.</i>																
	W25AO005	2.63	0.11	0.36	1.66	0.00	0.00	3.99	8.75								
	W25AO006	2.04	0.09	0.09	0.79	0.00	0.00	3.09	6.10								
	W25CJ001	10.78	0.66	1.33	0.72	0.00	0.00	14.88	28.37								
	W25CJ002	16.75	1.03	1.60	0.87	0.00	0.00	23.12	43.37								
	W25CJ003	26.47	1.62	1.60	0.87	0.00	0.00	36.53	67.09								
	W25KZ001	1.47	0.19	0.00	0.00	0.00	0.00	1.00	2.66								
	W25KZ002	1.63	0.21	0.00	0.00	0.00	0.00	1.11	2.95								
	W25KZ003	1.67	0.22	0.00	0.00	0.00	0.00	1.13	3.02								
	W25KZ004	2.37	0.31	0.00	0.00	0.00	0.00	1.61	4.29								
	W25KZ005	2.80	0.36	0.00	0.00	0.00	0.00	1.90	5.06								
	W25KZ006	2.86	0.37	0.00	0.00	0.00	0.00	1.94	5.17								
	W25KZ007	3.05	0.40	0.00	0.00	0.00	0.00	2.07	5.52								
	W25NL001	15.52	0.68	18.05	7.81	0.00	0.00	25.69	67.75								
	W25NL002	26.23	1.15	52.61	6.38	0.00	0.00	43.41	129.78								
	W25NL003	16.83	0.73	23.56	2.85	0.00	0.00	27.85	71.82								
	W25NL004	33.82	1.51	5.34	0.65	0.69	0.11	56.24	98.36								
	W25NL005	64.59	2.82	109.94	13.32	0.00	0.00	106.90	297.57								
	W25SD001	1.14	0.05	0.45	0.19	0.00	0.00	1.73	3.56								
	W25SD002	2.94	0.13	0.27	0.12	0.00	0.00	4.46	7.92								
	W25SD003	1.77	0.08	5.82	0.60	0.00	0.00	2.68	10.95								
	W25SD004	2.52	0.11	2.59	0.27	0.04	0.01	3.84	9.38								
	W25SD005	1.33	0.06	3.88	0.40	0.00	0.00	2.02	7.69								
	W25SD006	1.21	0.05	0.09	4.04	0.00	0.00	1.84	7.23								
	W25SD007	1.29	0.06	0.09	5.04	0.00	0.00	1.96	8.44								
	W25SD008	1.40	0.06	0.09	6.04	0.00	0.00	2.13	9.72								
	W25SD009	3.11	0.14	0.99	6.43	0.00	0.00	4.73	15.40								
	W25XX005	0.42	0.02	1.62	0.17	0.00	0.00	0.64	2.87								

**Table 2-2 . HOURLY RATE ELEMENTS**

REGION 2		AVERAGE OPERATING CONDITIONS								SEVERE OPERATING CONDITIONS							
CAT	ID. NO.	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE	DEPR	FCCM	FUEL	FOG	TIRE WEAR	TIRE REPAIR	REPAIR	TOTAL RATE
<b>W25</b>	<i>cont.</i>																
	W25XX006	0.59	0.03	1.62	0.17	0.00	0.00	0.90	3.31								
	W25XX007	0.80	0.03	2.59	0.27	0.00	0.00	1.21	4.90								
	W25XX008	0.82	0.04	3.56	0.37	0.00	0.00	1.25	6.04								
	W25XX009	1.66	0.07	2.59	0.27	0.00	0.00	2.53	7.12								
	W25XX010	2.55	0.11	7.76	0.80	0.00	0.00	3.87	15.09								
<b>W30</b>	W30SO001	3.58	0.43	1.77	0.19	0.49	0.07	2.89	9.42								
	W30SO002	4.29	0.51	1.77	0.19	0.49	0.07	3.47	10.79								
	W30SO003	4.69	0.55	1.77	0.19	0.49	0.07	3.78	11.54								
	W30SO004	2.39	0.27	0.00	0.01	0.00	0.00	1.59	4.26								
	W30SO005	2.67	0.30	0.00	0.01	0.00	0.00	1.78	4.76								
	W30SO006	3.07	0.35	0.00	0.01	0.00	0.00	2.05	5.48								
<b>W35</b>	W35LC012	0.61	0.04	1.00	0.43	0.00	0.00	0.42	2.50								
	W35LC013	0.66	0.04	1.17	0.51	0.00	0.00	0.45	2.83								
	W35LC018	0.11	0.01	0.14	0.06	0.00	0.00	0.07	0.39								
	W35LC021	0.39	0.02	0.57	0.25	0.00	0.00	0.27	1.50								
	W35XX020	0.25	0.02	2.98	0.31	0.00	0.00	0.27	3.83								
	W35XX021	0.63	0.06	4.60	0.48	0.03	0.00	0.70	6.50								
	W35XX022	0.65	0.06	4.87	0.50	0.03	0.00	0.72	6.83								
	W35XX023	1.14	0.10	12.18	1.26	0.03	0.00	1.26	15.97								
	W35XX024	1.69	0.15	6.37	0.66	0.03	0.00	1.87	10.77								
	W35XX025	1.62	0.14	5.57	0.58	0.03	0.00	1.80	9.74								

## CHAPTER 3

### Adjustments to Hourly Rates

#### SECTION I. GENERAL

3.1 Contents. This chapter explains the procedures for adjusting the hourly rates shown in tables 2-1 and 2-2.

3.2 Basis for Equipment Rates. The rates shown in tables 2-1 and 2-2 are based on the catalog list price of equipment manufactured in 2011 (3 years old). Area factors used to compute regional ownership and operating expenses are listed in appendix B. All equipment hourly rate elements for average and severe conditions are given in table 2-2. Individual cost elements, which comprise the total hourly rate, are shown in table 2-2. These hourly rate elements are listed by equipment ID No., which corresponds to the equipment shown in tables 2-1 and 2-2.

a. Ownership costs consist of two cost elements: depreciation (DEPR) and facilities capital cost of money (FCCM). These elements are located in tables 2-1 and 2-2.

b. Operating costs consist of five cost elements: fuel (FUEL); filters, oil, and grease (FOG); repairs (REPAIR); tire wear (TIRE WEAR); and tire repair (TIRE REPAIR). These elements are located in table 2-2.

3.3 Equipment Rate Adjustment Tables. Table 3-1 is used to adjust the ownership (DEPR + FCCM) portion of the average hourly rate and table 3-2 is used to adjust the standby hourly rate shown in table 2-1.

3.4 Determination for Use of Equipment Rates in Tables 2-1 and 2-2. The predetermined equipment rates in tables 2-1 and 2-2 may be used when the contractor's actual cost data (cost or pricing data) is insufficient to calculate the rates. If the contractor's actual equipment is listed in tables 2-1 and 2-2, the equipment must be equivalent. However, if the contractor's actual equipment is not listed in tables 2-1 and 2-2, an equivalent piece of equipment may be chosen from the tables. To be considered equivalent, the contractor's equipment must be no more or less than 10.00 percent of the configuration (size, capacity, and horsepower) and value as compared to the equipment in tables 2-1 and 2-2. In either case, if the equipment is not equivalent, the equipment rate must be calculated using the methodology in chapter 2.

#### SECTION II. RATE ADJUSTMENTS

3.5 Rate Adjustments. The ownership and/or the operating portion of the hourly rates and standby hourly rates shall be adjusted whenever one or more of the following rate

adjustment conditions exist (rate adjustments are explained in detail in the following paragraphs).

- a. Changes in operating conditions.
- b. Changes in Cost of Money Rate.
- c. Actual work hours (hrs) exceed 40 hr per week (wk).
- d. Changes in FUEL cost.
- e. Adjustments to FOG cost.
- f. Equipment of different age than table 2-1.
- g. Rate adjustment for overage equipment.
- h. Rate adjustment for overage equipment standby.

There are no rate adjustments for appendix B factors except for fuel cost (electric, gas, diesel off-road, and diesel on-road) and the Cost of Money Rate. Also, there are no rate adjustments for repairs, tire wear, or tire repair.

3.6 Changes in Operating Conditions. If difficult or severe conditions are justified by the Contracting Officer, selection or calculation of the appropriate rate is necessary. See chapter 2, section II, for definition of average, difficult, or severe conditions and determination of condition.

3.7 Change in Cost of Money Rate (CMR). The Department of the Treasury adjusts the CMR (Prompt Payment Interest Rate) on or about 1 January and 1 July each year; these revisions are printed in the Federal Register. The Internet address for Prompt Payment Interest Rate is [http://www.treasurydirect.gov/govt/rates/tcir/tcir\\_opdprmt2.htm](http://www.treasurydirect.gov/govt/rates/tcir/tcir_opdprmt2.htm). If the CMR shown in chapter 2, section VII, is not the current rate, the FCCM portion of the total hourly rate shall be adjusted upward or downward to match the CMR for the period of equipment use. See appendix I for a listing of historical CMRs. The total hourly rate adjusted for a differing CMR is computed by the formula:

$$\text{Total Hourly Rate} = \text{DEPR/hr} + [(\text{FCCM/hr}) \times \frac{(\text{NEW CMR})}{(\text{Old CMR})}] + \text{Operating Costs/hr}$$

Example: Assume that table 2-1 includes a crane [category (CAT) C80, subcategory (SUB) 0.02] with hourly costs as shown in the following example. The CMR has increased from 5.00 percent to a current rate of 6.00 percent (increase of 20.00 percent). The total hourly rate for this piece of equipment is determined as follows:

Assumptions for Total Hourly Rate with CMR of 5.00 percent (per hour):

DEPR	\$30.00
FCCM	\$10.00
Operating Costs (FUEL, FOG, TIRE WEAR, TIRE REPAIR, and REPAIR)	<u>\$40.00</u>
Total Hourly Rate (Based on a 40 hr/wk)	<u>\$80.00</u>

Adjustment Calculation of Total Hourly Rate for New CMR of 6.00 percent (per hour):

$$\$30.00/\text{hr} + [(\$10.00/\text{hr}) \times \frac{(6.00\%)}{(5.00\%)}] + \$40.00/\text{hr} = \$82.00/\text{hr}$$

3.8 Actual Work Hours Greater than 40 Hours per Week. If the actual number of work hours per week is greater than 40 hours, an adjustment shall be made to the FCCM element of the ownership cost. The FCCM is to be paid up to a maximum of 40 hours per week (7 calendar days). To calculate a multi-shift rate, prorate the 40-hour FCCM over the actual hours per week, as follows:

Example: Assume that table 2-1 includes a crane (*category C80, subcategory 0.02*) with the below hourly costs. This crane worked 10 hours per day, 6 days per week (60 hours per week). The total hourly rate for this piece of equipment is determined as follows:

$$\text{Total Hourly Rate} = \text{DEPR}/\text{hr} + [(\text{FCCM}/\text{hr}) \times \frac{(40 \text{ hr}/\text{wk})}{(\text{Actual Work hr}/\text{wk})}] + \text{Operating Costs}/\text{hr}$$

Assumptions for Total Hourly Rate for 40 Hours/Week:

DEPR	\$30.00
FCCM	\$10.00
Operating Costs (FUEL, FOG, TIRE WEAR, TIRE REPAIR, and REPAIR)	<u>\$40.00</u>
Total Hourly Rate (Based on a 40 hr/wk)	<u>\$80.00</u>

Adjustment Calculation of Total Hourly Rate for 60 Hours/Week:

$$\$30.00/\text{hr} + [\$10.00/\text{hr}) \times \frac{(40 \text{ hr}/\text{wk})}{(60 \text{ hr}/\text{wk})}] + \$40.00/\text{hr} = \$76.67/\text{hr}$$

3.9 Changes in Fuel Cost. Hourly fuel costs (including electricity) shall be adjusted in the event the average fuel prices at the jobsite vary by more than 10.00 percent above or below the price in appendix B. The contractor shall be required to furnish copies of all fuel supply contracts and invoices to the government to support fuel cost adjustment. Request for upward adjustment in the rates will be considered only when fuel is supplied by recognized distributors of bulk quantities. Mathematically, this is the ratio of the new fuel cost divided by the fuel cost (appendix B). To calculate the total hourly rate, apply the ratio of fuel cost, as follows:

Example: Assume that table 2-1 includes a crane (*category C80, subcategory 0.02*) with the below hourly costs. Assume the fuel cost (diesel off-road) in appendix B is \$3.50/gal and the current fuel cost has increased to \$4.20/gal (increase of 20.00 percent). The total hourly rate for this piece of equipment can be determined as follows:

$$\text{Total Hourly Rate} = (\text{DEPR/hr} + \text{FCCM/hr}) + (\text{FOG/hr} + \text{TIRE WEAR/hr} + \text{TIRE REPAIR/hr} + \text{REPAIR/hr}) + \left[ \frac{(\text{New Fuel Cost})}{(\text{Fuel Cost in Appendix B})} \times \text{FUEL/hr} \right]$$

Assumptions for Fuel Cost (based on \$3.50/gal from appendix B) per hour:

DEPR	\$30.00
FCCM	\$10.00
FOG, TIRE WEAR, TIRE REPAIR, and REPAIR	\$30.00
FUEL	<u>\$10.00</u>
Total Hourly Rate	<u>\$80.00</u>

Adjustment Calculation for hourly FUEL cost using the new fuel cost of \$3.00/gal:

$$(\$30.00/\text{hr} + \$10.00/\text{hr}) + \$30.00/\text{hr} + \left[ \frac{(\$4.20/\text{gal})}{(\$3.50/\text{gal})} \times \$10.00/\text{hr} \right] = \$82.00/\text{hr}$$

3.10 Adjustments to Filters, Oil, and Grease (FOG) Cost. The hourly FOG allowance shall also be adjusted upward or downward by applying the same ratio (new fuel cost divided by fuel cost shown in appendix B) as the fuel costs change using the methodology as shown in paragraph 3.9.

3.11 Equipment of Different Age than Table 2-1. When the age of the equipment is newer or older than the age of the equipment listed in table 2-1, table 3-1 factors may be used to adjust the hourly rate (see paragraph 3.12 for guidance on overage equipment), otherwise the step-by-step calculation method (as shown in figure 2-1) is necessary. To adjust the hourly rate using the tables, the factors given in table 3-1 are multiplied by the hourly ownership costs shown in table 2-1. The result is an ownership rate adjusted for the actual age of the equipment. Note: Age adjustment factors in tables 3-1 and 3-2 vary by region.

a. When the age of a unit of equipment is older than the age of the equipment listed in table 2-1 (purchased new in 2011) and does not exceed the years of economic life, adjust the hourly rate as shown in the next example. The years of economic life is determined by dividing hours of LIFE (from appendix D) by Working Hours Per Year (WHPY) (from appendix B).



Example: Assume that table 2-1 includes a crane (*category C80, subcategory 0.02*) manufactured in 2011 and has a total hourly rate of \$65 per hour and an ownership rate of \$30 per hour. If an equivalent crane owned by a contractor was manufactured in 2007, the total hourly rate is determined as follows:

Table 2-1 Rate and Adjustment Calculation:

Total hourly rate	= \$65.00/hr
Ownership rate 2011 (DEPR + FCCM)	= -(\$30.00)/hr
Ownership rate 2007 adjusted for age (Ownership rate = \$30) x (0.93 the age adjustment factor from table 3-1, for category C80, subcategory 0.02, and for the year 2007.)	= <u>+\$27.90/hr</u>
Total hourly rate for equipment manufactured in 2007	= \$62.90/hr

b. When the unit of equipment is older than the age of equipment listed in table 2-1 (purchased new in 2011) and exceeds the years of economic life, adjust the hourly rate as shown in the example for overage equipment in paragraph 3.12.

c. When the unit of equipment is newer than the equipment listed in table 2-1 (purchased new in 2011), use the adjustment factor in table 3-1 for the year of manufacture. If the equipment is newer than the most recent year shown in table 3-1, use the adjustment factor in the column of the most recent year. Once the adjustment factor is determined from table 3-1, complete the adjustment calculation as shown in the example above. The step-by-step calculation method shown in figure 2-1 may also be used.

3.12 Rate Adjustment for Overage Equipment. If the contractor's equipment exceeds the economic life in hours (from appendix D), it is considered overage, and the rates shall be adjusted.

a. The total hourly operating rate for overage equipment (no matter how old) shall be computed on the basis that the equipment is as old as possible "without" exceeding the hours of LIFE as shown in appendix D. Tables 3-1 and 3-2 show factors for the economic life for equipment based on the current pamphlet year (e.g., manufactured in 2011). Select a comparable unit of equipment (horsepower, value, capacity, and size) shown in table 2-1, the total hourly rate can be computed as shown in the following example. If there is no comparable unit of equipment in table 2-1, follow the methodology presented in figure 3-1.

b. The ownership portion of the rate shall be adjusted for equipment that is overage. This adjusted rate is not to exceed the rate for the same unit of equipment that is not overage.

Example: Assume that table 2-1 includes a crane (*category C80, subcategory 0.02*) manufactured in 2011, has a total hourly rate of \$65 per hour, and an ownership rate of \$30 per hour. If an equivalent crane owned by a contractor was manufactured in 1997 (maximum life 2003), this crane is overage and the total hourly rate is determined as follows:

Table 2-1 Rate and Adjustment Calculation:

Total hourly rate	= \$65.00/hr
Ownership rate 2011 (DEPR + FCCM)	= -(\$30.00)/hr
Ownership rate 1997 adjusted for age (Ownership rate = \$30.00) x (0.79) use the oldest age adjustment factor from table 3-1, for category C80, subcategory 0.02, the last year shown.)	= +\$23.70/hr
Total hourly rate for equipment manufactured in 1997	= \$58.70/hr

3.13 Standby Rate Adjustment for Equipment of a Different Age than Table 2-1. If the equipment age is other than listed in table 2-1 (purchased new in 2011), adjustment to the hourly standby rate is required. When the age of the equipment is newer or older than the age of the equipment listed in table 2-1, table 3-2 factors may be used to adjust the hourly rate, otherwise the step-by-step calculation method is necessary. The result is a standby rate adjusted for the actual age of the equipment.

a. Standby rates for overage equipment are based on the actual age of the equipment. The age adjustment factor given in table 3-2 is multiplied by the hourly standby cost shown in table 2-1 for the listed or comparable unit of equipment. This results in a standby rate adjusted for the actual age of the unit of equipment being considered.

$$\text{Hourly Standby Rate Adjusted for Actual Age} = \text{Hourly Standby Rate} \times \text{Age Adjustment Factor}$$

Example: Assume that table 2-1 includes a crane (*category C80, subcategory 0.02*) manufactured in 2011 and has a standby rate of \$20.00 per hour. If an equivalent crane owned by a contractor was manufactured in 2003, the hourly standby rate is determined as follows:

Hourly Standby Rate (table 2-1)	= \$20.00/hr
Age Adjustment Factor (table 3-2) for category C80, subcategory 0.02, and for 2003 (actual year of manufacture)	= 0.79

Adjustment Calculation:

Hourly Standby Rate Adjusted for Actual Age	= \$20.00/hr
(Hourly Standby Rate) x 0.79 (Age Adjustment Factor)	= \$15.80/hr

b. When the unit of equipment is newer than the equipment listed in table 2-1 (purchased new in 2011), use the adjustment factor in table 3-2 for the year of manufacture. Once the adjustment factor is determined from table 3-2, complete the adjustment calculation as shown in the example above. The step-by-step calculation method shown in figure 3-2 may also be used.

c. When the equipment age is older than the last year shown in table 3-2 or newer than the first year shown in table 3-2, the standby rate must be calculated using the step-by-step methodology shown in figure 3-2.

3.14 Equipment Purchased Used. A detailed methodology for computing a total hourly rate for equipment purchased used is not included in this pamphlet.

a. When actual cost data in accordance with chapter 1 is not available, an hourly rate and standby rate for equipment purchased used can be computed on the basis that the equipment was purchased new by the contractor in the year it was manufactured. Consideration for the actual age of used equipment may require an adjustment for overage.

b. The condition of the used equipment at the time of purchase should consider the extent of capital improvements, mechanical condition, and previous hours of operation. These conditions are difficult or impossible to determine and evaluate when computing a total hourly rate based on actual acquisition cost.

3.15 Rate Calculation Examples. Figure 3-1 illustrates how total hourly rates are adjusted for overage equipment. Figure 3-2 gives a sample calculation for computing adjusted standby rates.

Table 3-1. Equipment Age Adjustment Factors  
for  
Ownership Costs

The factors in this table are used when the age of a unit of equipment is other than the age of the equipment listed in table 2-1 (purchased new in 2011).

The factors are multiplied by the hourly ownership costs (shown in table 2-1) and result in an ownership rate adjusted for the actual age of the equipment being considered.

When the actual "life" in hours of the unit of equipment has exceeded the economic life given in appendix D, the age will be determined as discussed in chapter 3.

Refer to chapter 3, as follows:

3.11. Equipment of Different Age than Table 2-1

3.12. Rate Adjustment for Overage Equipment

**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY	SUB	REGION 2 TYPE OF EQUIPMENT	<u>Life in Years</u>					<u>Year Purchased New</u>														
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
			2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997		
A10	0.00	AGGREGATE / CHIP SPREADERS																				
A10	0.10	SELF-PROPELLED	1.08	1.05	1.03	1.00	0.97	0.97														
A10	0.20	TOWED & TAILGATE	1.08	1.06	1.03	1.00	0.97															
A15	0.00	AIR COMPRESSORS, PORTABLE																				
A15	0.10	ROTARY SCREW	1.11	1.09	1.04	1.00	0.91	0.91	0.85													
A15	0.20	SHOP TYPE	1.11	1.09	1.04	1.00	0.92	0.91	0.86	0.80	0.76											
A20	0.00	AIR HOSE, TOOLS & EQUIPMENT																				
A20	0.10	AIR DRILL HOSE	1.09	1.08	1.03	1.00																
A20	0.20	SANDBLAST HOSE	1.09	1.08	1.03	1.00																
A20	0.30	SANDBLASTERS, BREAKERS, & MISC. AIR TOOLS	1.10	1.08	1.04	1.00	0.92															
A25	0.00	ASPHALT PAVING DISTRIBUTORS	1.07	1.05	1.03	1.00	0.97															
A30	0.00	ASPHALT PAVERS & MISCELLANEOUS ROAD EQUIPMENT																				
A30	0.10	SELF PROPELLED	1.08	1.05	1.03	1.00	0.97	0.97														
A30	0.20	TOWED	1.08	1.05	1.03	1.00	0.97	0.97	0.93													
A30	0.30	SLURRY SEAL PAVERS (Cold mix)	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86											
A30	0.40	MISCELLANEOUS ROAD EQUIPMENT	1.08	1.05	1.03	1.00	0.97	0.97	0.93													
A35	0.00	ASPHALT PAVING KETTLES	1.08	1.06	1.03	1.00	0.97															
A40	0.00	ASPHALT & CONCRETE MILLERS / PROFILERS / PLANERS / ROTARY GRINDERS	1.08	1.06	1.03	1.00	0.97															
A45	0.00	ASPHALT RECYCLERS & SEALERS	1.08	1.06	1.03	1.00																
B10	0.00	BATCH PLANTS, ASPHALT & CONCRETE																				
B10	0.10	ASPHALT	1.08	1.05	1.03	1.00	0.97	0.97														
B10	0.20	CONCRETE	1.08	1.05	1.03	1.00	0.97	0.97														

**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY	REGION 2 SUB TYPE OF EQUIPMENT		Year Purchased New																	
			Life in Years																	
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
B10	0.30	PUGMILL	1.08	1.05	1.03	1.00	0.97	0.97	0.93											
B15	0.00	BROOMS, STREET SWEEPERS & FLUSHERS	1.09	1.08	1.05	1.00	0.97	0.96												
B20	0.00	BRUSH CHIPPERS	1.09	1.08	1.05	1.00	0.97	0.96												
B25	0.00	BUCKETS, CLAMSHELL	1.05	1.04	1.01	1.00	0.97	0.97												
B30	0.00	BUCKETS, CONCRETE																		
B30	0.10	GENERAL PURPOSE, MANUAL TRIP	1.05	1.04	1.01	1.00	0.97	0.97												
B30	0.20	LAYDOWN	1.05	1.04	1.01	1.00	0.97	0.97												
B30	0.30	LOWBOY	1.05	1.04	1.01	1.00	0.97	0.97												
B30	0.40	LOW SLUMP	1.05	1.04	1.01	1.00	0.97	0.97												
B35	0.00	BUCKETS, DRAGLINE																		
B35	0.10	LIGHT WEIGHT	1.05	1.04	1.01	1.00	0.97	0.97												
B35	0.20	MEDIUM WEIGHT	1.05	1.04	1.01	1.00	0.97	0.97	0.95											
B35	0.30	HEAVY WEIGHT	1.05	1.04	1.01	1.00	0.97	0.97	0.95											
C05	0.00	CHAIN SAWS	1.09	1.08		1.00														
C10	0.00	COMPACTORS, WALK-BEHIND OR REMOTE CONTROLLER																		
C10	0.10	COMPACTORS, RAMMERS / TAMPERS & VIBRATORY PLATES	1.09	1.07	1.04	1.00														
C10	0.20	ROLLERS, VIBRATORY	1.10	1.08	1.05	1.00														
C15	0.00	CONCRETE CLEANERS / ABRASIVE BLASTERS																		
C15	0.10	WALK BEHIND	1.10	1.09	1.05	1.00														
C15	0.20	TRUCK/TRAILER MOUNTED	1.10	1.09	1.05	1.00	0.96	0.96												
C20	0.00	CONCRETE BUGGIES	1.10	1.09	1.05	1.00														
C25	0.00	CONCRETE FINISHERS/SCREEDS/SPREADERS																		

**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY	REGION 2 SUB TYPE OF EQUIPMENT		Year Purchased New																
			Life in Years																
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
C25	0.10	FINISHERS/TROWELS	1.10	1.09	1.05	1.00													
C25	0.20	VIBRATORY SCREED	1.10	1.09	1.05	1.00													
C25	0.25	VIBRATORY LASER SCREED	1.12	1.10	1.06	1.00	0.96	0.95											
C25	0.30	MATERIAL/TOPPING SPREADERS	1.12	1.10	1.06	1.00	0.96	0.95											
C30	0.00	CONCRETE GRINDERS	1.10	1.09	1.05	1.00													
C35	0.00	CONCRETE GUNITERS / SHOTCRETTERS	1.11	1.09	1.05	1.00	0.96												
C40	0.00	CONCRETE MIXING UNITS	1.10	1.09	1.05	1.00													
C45	0.00	CONCRETE PAVING MACHINES	1.08	1.06	1.03	1.00	0.97												
C55	0.00	CONCRETE PUMPS	1.09	1.08	1.05	1.00	0.97	0.96											
C60	0.00	CONCRETE SAWS (Add cost for sawblade wear)	1.09	1.08	1.05	1.00	0.97												
C65	0.00	CONCRETE VIBRATORS	1.10	1.08	1.04	1.00													
C70	0.00	CRANES, GANTRY & STRADDLE																	
C75	0.00	CRANES, HYDRAULIC, SELF-PROPELLED	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86							
C80	0.00	CRANES, HYDRAULIC, TRUCK MOUNTED																	
C80	0.01	UNDER 26 TON	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86							
C80	0.02	26 TON THRU 65 TON	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.79					
C80	0.03	66 TON THRU 125 TON	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.79	0.76				
C80	0.04	OVER 125 TON	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.79	0.76	0.71			
C85	0.00	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER MOUNTED																	
C85	0.11	DRAGLINE, CLAMSHELL, 0 THRU 1.0 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.91	0.86							
C85	0.12	DRAGLINE, CLAMSHELL, OVER 1.0 CY THRU 2.5 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.77					
C85	0.13	DRAGLINE, CLAMSHELL, OVER 2.5 CY THRU 5.0 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.77	0.75				

**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY	SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years					Year Purchased New														
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
			2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997		
C85	0.14	DRAGLINE, CLAMSHELL, OVER 5.0 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.78	0.75	0.69						
C85	0.21	LIFTING, 0 THRU 25 TON	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.77								
C85	0.22	LIFTING, 26 TON THRU 50 TON	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.77	0.75							
C85	0.23	LIFTING, 51 TON THRU 150 TON	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.79	0.76	0.71						
C85	0.24	LIFTING, OVER 150 TON	1.05	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.79	0.76	0.71	0.72	0.72				
C90	0.00	CRANES, MECHANICAL, LATTICE BOOM, TRUCK MOUNTED																				
C90	0.01	UNDER 26 TON	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86										
C90	0.02	26 TON THRU 65 TON	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.79								
C90	0.03	66 TON THRU 125 TON	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.77	0.75							
C90	0.04	OVER 125 TON	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.78	0.75	0.69						
C95	0.00	CRANES, TOWER	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.77	0.75							
D10	0.00	DRILLS, AIR/HYDRAULIC, CRWLR MTD, 0" THRU 6.5" DIA HOLE (Add cost for drill steel and bit wear)																				
D10	0.10	DRILLS, AIR TRACK (Add cost for drill steel and bit wear)	1.08	1.06	1.04	1.00	0.95	0.94	0.91	0.84	0.77	0.70										
D10	0.20	DRILLS, HYDRAULIC TRACK (Add cost for drill steel and bit wear)	1.08	1.06	1.04	1.00	0.95	0.94	0.91													
D15	0.00	DRILLS, HORIZONTAL																				
D15	0.10	DRILLS, HORIZONTAL BORING & GROUND PIERCING (Add cost for drill steel and bit wear)	1.08	1.06	1.04	1.00	0.95	0.94	0.91													
D15	0.20	DRILLS, HORIZONTAL & DIRECTIONAL (Add cost for drill steel and bit wear)	1.08	1.06	1.04	1.00	0.95	0.94	0.91													
D20	0.00	DRILLS, CORE, COLUMN MOUNTED (Add cost for drill steel and bit wear)	1.08	1.06	1.04	1.00	0.95	0.94														
D25	0.00	DRILLS, CORE & DOWELLING (Add cost for drill steel and bit wear)	1.08	1.06	1.04	1.00	0.95	0.94	0.91													
D30	0.00	DRILLS, EARTH / AUGER (Add cost for drill steel and cutting edge wear)	1.08	1.06	1.04	1.00	0.95	0.94	0.91													
D35	0.00	DRILLS, ROTARY BLASTHOLE (Add cost for drill steel and bit wear)																				
D35	0.11	DIESEL, 4.5" THRU 9.875" DIAMETER HOLE (Add cost for drill steel and bit wear)	1.07	1.05	1.04	1.00	0.96	0.95	0.92	0.85	0.78	0.71										



**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY	SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years					Year Purchased New														
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
			2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997		
D35	0.12	DIESEL, OVER 9.875" DIAMETER (Add cost for drill steel and bit wear)	1.07	1.05	1.04	1.00	0.96	0.95	0.92	0.85	0.78	0.72	0.65	0.61	0.59							
D35	0.21	ELECTRIC, 4.5" THRU 9.875" DIAMETER HOLE (Add cost for drill steel and bit wear)	1.07	1.05	1.04	1.00	0.96	0.95	0.92	0.85	0.78	0.71										
D35	0.22	ELECTRIC, OVER 9.875" DIAMETER (Add cost for drill steel and bit wear)	1.07	1.05	1.04	1.00	0.96	0.95	0.92	0.85	0.78	0.72	0.65	0.61	0.59							
F10	0.00	FORK LIFTS	1.10	1.08	1.05	1.00	0.96	0.96	0.92													
G10	0.00	GENERATOR SETS																				
G10	0.10	PORTABLE	1.05	1.03	1.02	1.00	0.94	0.92														
G10	0.20	SKID MOUNTED	1.05	1.03	1.02	1.00	0.94	0.92	0.89													
G15	0.00	GRADERS, MOTOR	1.18	1.17	1.12	1.00	0.95	0.93	0.87	0.83	0.82	0.77										
H10	0.00	HAMMERS, HYDRAULIC (Demolition tool) (Add cost for point wear)	1.10	1.09	1.05	1.00	0.96															
H13	0.00	HAZARDOUS/TOXIC WASTE EQUIPMENT																				
H13	0.11	COMPACTORS (Compression force) 0 THRU 50 TONS	1.10	1.08	1.05	1.00	0.96	0.96	0.93													
H13	0.12	COMPACTORS (Compression force) OVER 50 TONS	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86											
H13	0.21	FILTER PRESSES, STATIONARY	1.10	1.08	1.05	1.00	0.96	0.96	0.92													
H13	0.22	FILTER PRESSES, MOBILE	1.10	1.08	1.05	1.00	0.96	0.96	0.93													
H13	0.30	CENTRIFUGES	1.10	1.09	1.05	1.00																
H13	0.40	SHREDDERS	1.10	1.08	1.05	1.00	0.96	0.96	0.93													
H13	0.51	SOIL TREATMENT PLANT, MOBILE	1.10	1.08	1.05	1.00	0.96	0.96	0.93													
H13	0.61	SLUDGE PROCESSING EQUIP, SLUDGE DISPENSERS	1.10	1.08	1.05	1.00	0.96	0.96	0.93													
H13	0.71	WASTE HANDLING EQUIPMENT, DRUM HANDLING	1.10	1.08	1.05	1.00																
H15	0.00	HEATERS, SPACE																				
H20	0.00	HOISTS & AIR WINCHES	1.10	1.09	1.05	1.00	0.96	0.96	0.92													
H25	0.00	HYDRAULIC EXCAVATORS, CRAWLER MOUNTED																				

**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY	REGION 2 SUB TYPE OF EQUIPMENT		Year Purchased New																	
			Life in Years																	
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	
H25	0.10	0 LBS THRU 12,500 LBS (COMPACT EXCAVATORS)	1.06	1.05	1.02	1.00	0.96	0.97												
H25	0.11	OVER 12,500 LBS THRU 40,000 LBS	1.06	1.05	1.02	1.00	0.96	0.97												
H25	0.12	OVER 40,000 LBS THRU 100,000 LBS	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.92	0.91									
H25	0.13	OVER 100,000 LBS THRU 160,000 LBS	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.92	0.91	0.85	0.79	0.76						
H25	0.14	OVER 160,000 LBS	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.91	0.85	0.79	0.76	0.74	0.67				
H25	0.21	ATTACHMENTS, MOBILE SHEARS	1.10	1.08	1.05	1.00	0.96													
H25	0.22	ATTACHMENTS, MATERIAL HANDLING	1.10	1.09	1.05	1.00	0.96													
H25	0.23	ATTACHMENTS, CONCRETE PULVERIZERS	1.10	1.08	1.05	1.00	0.96													
H25	0.24	ATTACHMENTS, COMPACTORS	1.10	1.08	1.05	1.00	0.96													
H30	0.00	HYDRAULIC EXCAVATORS, WHEEL MOUNTED																		
H30	0.01	0 THRU 1.0 CY	1.06	1.05	1.02	1.00	0.96	0.97												
H30	0.02	OVER 1.0 CY	1.06	1.05	1.02	1.00	0.96	0.97	0.94											
H35	0.00	HYDRAULIC SHOVELS, CRAWLER MOUNTED																		
H35	0.11	DIESEL, 0 CY THRU 5.0 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.91	0.86								
H35	0.12	DIESEL, OVER 5.0 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.77						
H35	0.21	ELECTRIC, OVER 2.5 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.77	0.75					
L10	0.00	LAND CLEARING EQUIPMENT	1.13	1.11	1.06	1.00	0.95	0.96	0.93											
L15	0.00	LANDSCAPING EQUIPMENT	1.10	1.08	1.05	1.00														
L20	0.00	LIGHTING SETS, TRAILER MOUNTED																		
L20	0.10	METALLIC VAPOR	1.10	1.09	1.05	1.00	0.96	0.96												
L25	0.00	LINE STRIPING EQUIPMENT	1.10	1.09	1.05	1.00	0.96	0.96												
L30	0.00	LOADERS, BELT (Conveyor belts) & ACCESSORIES	1.10	1.08	1.05	1.00	0.96	0.96	0.92											

**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY	SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years					Year Purchased New														
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
			2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997		
L35	0.00	LOADERS, FRONT END, CRAWLER TYPE	1.13	1.11	1.06	1.00	0.95	0.96	0.93													
L40	0.00	LOADERS, FRONT END, WHEEL TYPE																				
L40	0.11	ARTICULATED, 0 THRU 225 HP	1.13	1.12	1.07	1.00	0.95	0.95	0.92													
L40	0.12	ARTICULATED, OVER 225 HP	1.12	1.11	1.06	1.00	0.95	0.96	0.93	0.89	0.87	0.83										
L40	0.20	SKID STEER	1.13	1.11	1.06	1.00	0.95	0.96														
L40	0.21	SKID STEER ATTACHMENTS	1.13	1.11	1.06	1.00																
L40	0.31	TOOL CARRIER & TELESCOPIC HANDLERS, 0 THRU 225 HP	1.13	1.12	1.07	1.00	0.95	0.95	0.92													
L40	0.32	TOOL CARRIER & TELESCOPIC HANDLERS, OVER 225 HP	1.12	1.10	1.06	1.00	0.96	0.96	0.93	0.90	0.88											
L45	0.00	LOADERS / BACKHOE, CRAWLER TYPE	1.13	1.11	1.06	1.00	0.95	0.96														
L50	0.00	LOADERS / BACKHOE, WHEEL TYPE	1.13	1.12	1.07	1.00	0.95	0.95	0.92													
L55	0.00	LOADER / BACKHOE, ATTACHMENTS	1.10	1.09	1.05	1.00	0.96															
L60	0.00	LOG SKIDDERS	1.08	1.06	1.04	1.00	0.97	0.96	0.93													
M10	0.00	MARINE EQUIPMENT (NON DREDGING)																				
M10	0.11	AQUATIC MAINTENANCE	1.06	1.03	1.01	1.00	0.97	0.95	0.91													
M10	0.12	AQUATIC MAINTENANCE ATTACHMENTS	1.06	1.03	1.02	1.00	0.97															
M10	0.21	HYDRAULIC CUTTERHEAD DREDGE, 8" OR LESS, TRANSPORTABLE	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.84	0.80	0.77	0.73								
M10	0.22	HYDRAULIC CUTTERHEAD DREDGE, 8" - 12", TRANSPORTABLE	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.84	0.80	0.77	0.73								
M10	0.23	HYDRAULIC AUGERHEAD DREDGE, 12" OR LESS, TRANSPORTABLE	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.84	0.80	0.77	0.73								
M10	0.24	HYDRAULIC FLOATING PUMPS, 12" OR LESS, TRANSPORTABLE	1.05	1.03	1.01	1.00	0.98	0.95														
M10	0.25	HYDRAULIC DREDGE PUMPS, 12" OR LESS, TRANSPORTABLE	1.06	1.03	1.01	1.00	0.97															
M10	0.26	HYDRAULIC DREDGE / PUMP ATTACHMENTS	1.06	1.03	1.01	1.00	0.97															
M10	0.31	SMALL MECH DREDGES, CLAMSHELL, BARGE-MTD TO 5 CY	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.79	0.76							

**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years					Year Purchased New														
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997		
M10 0.32	SMALL MECH DREDGES, AMPHIBIOUS EXCAVATORS	1.06	1.04	1.02	1.00	0.96	0.97	0.94													
M10 0.33	SMALL MECH DREDGES, HOE-MOUNTED DREDGING ATTACH	1.06	1.03	1.01	1.00	0.97	0.95	0.91	0.87	0.83	0.79	0.76	0.71	0.68	0.67						
M10 0.41	WORK FLOATS (NON-DREDGING)	1.05	1.03	1.01	1.00	0.98															
M10 0.42	WORK BARGES (SECTIONAL, NON-DREDGING)	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.84	0.81	0.78	0.73	0.70	0.69	0.67	0.66	0.65	0.64		
M10 0.45	FLAT-DECK OR CARGO BARGE (NON-DREDGING)	1.05	1.02	1.01	1.00	0.98	0.96	0.92	0.89	0.85	0.82	0.79	0.75	0.72	0.71	0.69	0.68	0.67	0.66		
M10 0.46	DUMP SCOW (NON-DREDGING)	1.05	1.02	1.01	1.00	0.98	0.96	0.92	0.89	0.85	0.82	0.79	0.75	0.72	0.71	0.69	0.68	0.67	0.66		
M10 0.47	DRILL BARGE (NON-DREDGING)	1.05	1.03	1.01	1.00	0.98	0.96	0.92	0.88	0.84	0.81	0.78	0.74	0.71	0.70	0.68	0.67	0.67	0.66		
M10 0.48	ALL OTHER BARGES (NON-DREDGING)	1.05	1.03	1.01	1.00	0.98	0.96	0.92	0.88	0.84	0.81	0.78	0.74	0.71	0.70	0.68	0.67	0.67	0.66		
M10 0.51	BOATS & LAUNCHES, 0 THRU 250 HP	1.06	1.03	1.01	1.00	0.97	0.95	0.91	0.87	0.83	0.79	0.76	0.71								
M10 0.53	BOATS & LAUNCHES, 251 THRU 500 HP	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.84	0.80	0.77	0.73	0.69							
M10 0.54	TUGS, 501 THRU 1,000 HP	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.84	0.81	0.78	0.73	0.70	0.69	0.67	0.66	0.66	0.64		
M10 0.55	TUGS, 1,000 THRU 2,000 HP	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.84	0.81	0.78	0.74	0.70	0.69	0.68	0.67	0.66	0.65		
P10 0.00	PILE HAMMER ACCESSORIES - EXTRACTORS & BOX LEADS	1.13	1.11	1.06	1.00	0.95															
P20 0.00	PILE HAMMERS, DOUBLE ACTING																				
P20 0.10	DIESEL	1.11	1.09	1.06	1.00	0.96															
P20 0.20	PNEUMATIC (STEAM/AIR)	1.10	1.09	1.05	1.00	0.96															
P25 0.00	PILE HAMMERS, SINGLE ACTING																				
P25 0.10	DIESEL	1.10	1.09	1.05	1.00	0.96															
P25 0.20	PNEUMATIC (STEAM/AIR)	1.10	1.08	1.05	1.00	0.96															
P30 0.00	PILE HAMMERS, DRIVER/ EXTRACTOR, VIBRATORY	1.10	1.09	1.05	1.00	0.96															
P35 0.00	PIPELAYERS	1.12	1.11	1.06	1.00	0.96	0.96	0.93	0.89	0.87	0.83										
P40 0.00	PLATFORMS & MAN-LIFTS	1.05	1.04	1.01	1.00	0.97	0.97														

**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years							Year Purchased New												
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997		
P45 0.00	PUMPS, GROUT	1.10	1.08	1.05	1.00	0.96	0.96														
P50 0.00	PUMPS, WATER, CENTRIFUGAL, TRASH																				
P50 0.11	ENGINE DRIVE	1.10	1.09	1.05	1.00	0.96	0.96														
P50 0.12	ELECTRIC DRIVE	1.10	1.09	1.05	1.00	0.96	0.96														
P50 0.21	WHEEL MOUNTED, ENGINE DRIVE	1.10	1.09	1.05	1.00	0.96	0.96														
P50 0.22	WHEEL MOUNTED, ELECTRIC DRIVE	1.10	1.09	1.05	1.00	0.96	0.96														
P50 0.31	HOSES, PUMP, SUCTION & DISCHARGE	1.09	1.08	1.05	1.00																
P55 0.00	PUMPS, WATER, SUBMERSIBLE																				
P55 0.01	ENGINE DRIVE	1.10	1.09	1.05	1.00	0.96	0.96														
P55 0.02	ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96														
P60 0.00	PUMPS, WATER, CENTRIFUGAL, DEWATERING																				
P60 0.11	SKID MOUNTED, ENGINE DRIVE	1.10	1.09	1.05	1.00	0.96	0.96														
P60 0.12	SKID MOUNTED, ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96														
P60 0.21	WHEEL MOUNTED, ENGINE DRIVE	1.10	1.09	1.05	1.00	0.96	0.96														
P60 0.22	WHEEL MOUNTED, ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96														
P65 0.00	PUMPS, WATER, DIAPHRAGM																				
P65 0.11	SKID MOUNTED, ENGINE DRIVE	1.10	1.09	1.05	1.00	0.96	0.96														
P65 0.12	SKID MOUNTED, ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96														
P65 0.21	WHEEL MOUNTED, ENGINE DRIVE	1.10	1.09	1.05	1.00	0.96	0.96														
P65 0.22	WHEEL MOUNTED, ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96														
P70 0.00	PUMPS, WATER (For core drills)																				
P70 0.01	ENGINE DRIVE	1.11	1.09	1.05	1.00	0.96	0.96														

**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY	REGION 2 SUB TYPE OF EQUIPMENT		Year Purchased New																	
			Life in Years					Year Purchased New												
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	
P70	0.02	ELECTRIC DRIVE	1.11	1.09	1.05	1.00	0.96	0.96												
R10	0.00	RIPPERS & HYDRAULIC BANK SLOPERS (Add cost for point wear)	1.13	1.11	1.06	1.00	0.95	0.96												
R15	0.00	ROLLERS, STATIC, TOWED, PNEUMATIC	1.08	1.06	1.03	1.00	0.97	0.96	0.93											
R20	0.00	ROLLERS, STATIC, TOWED, STEEL DRUM	1.08	1.06	1.03	1.00	0.97	0.96	0.93											
R30	0.00	ROLLERS, STATIC, SELF-PROPELLED																		
R30	0.01	PNEUMATIC	1.07	1.05	1.03	1.00	0.97	0.96												
R30	0.02	SMOOTH DRUM	1.07	1.05	1.03	1.00	0.97	0.96	0.93											
R30	0.03	TAMPING FOOT, LANDFILL & SOIL COMPACTORS	1.08	1.06	1.03	1.00	0.97	0.96	0.93	0.87	0.82									
R40	0.00	ROLLERS, VIBRATORY, TOWED	1.08	1.06	1.03	1.00	0.97	0.96												
R45	0.00	ROLLERS, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM	1.08	1.06	1.03	1.00	0.97	0.96												
R50	0.00	ROLLERS, VIBRATORY, SELF-PROPELLED, SINGLE DRUM	1.08	1.06	1.03	1.00	0.97	0.96												
R55	0.00	ROOFING EQUIPMENT	1.10	1.08	1.05	1.00	0.96													
S10	0.00	SCRAPERS, ELEVATING																		
S10	0.01	0 THRU 200 HP	1.18	1.16	1.12	1.00	0.95	0.94	0.88											
S10	0.02	OVER 200 HP	1.19	1.17	1.12	1.00	0.95	0.93	0.87	0.83	0.81									
S15	0.00	SCRAPERS, CONVENTIONAL	1.17	1.16	1.11	1.00	0.95	0.94	0.88	0.84	0.83	0.79	0.75							
S20	0.00	SCRAPERS, TANDEM POWERED	1.17	1.16	1.11	1.00	0.95	0.94	0.88	0.84	0.83	0.79	0.75							
S25	0.00	SCRAPERS, TRACTOR DRAWN	1.17	1.16	1.12	1.00	0.95	0.94	0.88	0.84	0.83									
S30	0.00	SCREENING & CRUSHING PLANTS																		
S30	0.10	CONVEYORS	1.09	1.08	1.05	1.00	0.97	0.96	0.93											
S30	0.20	CRUSHERS - VERTICAL & HORIZONTAL SHAFT IMPACTOR	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.76	0.74	0.73	0.73	0.72	0.71	0.70
S30	0.21	CRUSHERS - CONE	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.76	0.74	0.73	0.73	0.72	0.71	0.70

**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY	SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years					Year Purchased New													
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
			2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	
S30	0.22	CRUSHERS - JAW	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.76	0.74	0.73	0.73	0.72	0.71	0.70	
S30	0.30	SCREENING PLANT	1.09	1.08	1.05	1.00	0.97	0.96	0.93												
S35	0.00	SNOW REMOVAL EQUIPMENT	1.10	1.09	1.05	1.00	0.96	0.96													
S40	0.00	SOIL & ROAD STABILIZERS	1.18	1.16	1.12	1.00	0.95	0.94	0.88												
S45	0.00	SPLITTERS, ROCK & CONCRETE	1.10	1.09	1.05	1.00	0.96														
T10	0.00	TRACTOR BLADES & ATTACHMENTS (including agricultural)	1.13	1.11	1.06	1.00	0.95	0.96	0.93												
T15	0.00	TRACTORS, CRAWLER (DOZER) (includes blade)																			
T15	0.01	0 THRU 225 HP	1.14	1.12	1.07	1.00	0.95	0.95	0.91												
T15	0.02	226 HP THRU 425 HP	1.13	1.11	1.06	1.00	0.95	0.96	0.92	0.88	0.86										
T15	0.03	OVER 425 HP	1.12	1.11	1.06	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.78								
T20	0.00	TRACTORS, WHEEL TYPE (DOZER)	1.08	1.06	1.03	1.00	0.97	0.96	0.93	0.88	0.84	0.79									
T25	0.00	TRACTORS, AGRICULTURAL																			
T25	0.10	CRAWLER	1.08	1.06	1.04	1.00	0.97	0.96	0.93												
T25	0.20	WHEEL	1.08	1.06	1.04	1.00	0.97	0.96													
T30	0.00	TRENCHERS, CHAIN TYPE CUTTER	1.08	1.06	1.03	1.00	0.97	0.96													
T35	0.00	TRENCHERS, WHEEL TYPE CUTTER	1.08	1.06	1.03	1.00	0.97	0.96													
T40	0.00	TRUCK OPTIONS																			
T40	0.10	CRANES / HOISTS, PERSONNEL & MATERIAL HANDLING	1.10	1.09	1.05	1.00	0.96	0.96													
T40	0.20	DUMP BODY, REAR	1.09	1.08	1.05	1.00	0.97	0.96													
T40	0.30	FLATBEDS, WITH SIDES	1.10	1.09	1.05	1.00	0.96	0.96													
T40	0.41	HOIST, ELECTRIC DRIVE	1.10	1.09	1.05	1.00	0.96	0.96													
T40	0.50	TRANSIT MIXERS	1.10	1.08	1.05	1.00	0.96	0.96													

**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY	REGION 2 SUB TYPE OF EQUIPMENT		Year Purchased New																
			Life in Years																
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
T40	0.60	WATER TANKS	1.11	1.09	1.05	1.00	0.96	0.96											
T40	0.70	ALL OTHER OPTIONS	1.10	1.09	1.05	1.00	0.96	0.96											
T45	0.00	TRUCK TRAILERS																	
T45	0.10	BOTTOM DUMP	1.09	1.08	1.05	1.00	0.97	0.96	0.93										
T45	0.20	END DUMP	1.09	1.08	1.05	1.00	0.97	0.96	0.93										
T45	0.30	PUP TRAILER	1.09	1.08	1.05	1.00	0.97	0.96											
T45	0.41	LOWBOY, RIGID NECK, DROP DECK	1.09	1.08	1.05	1.00	0.97	0.96	0.93										
T45	0.50	FLATBED TRAILER	1.09	1.08	1.05	1.00	0.97	0.96	0.93										
T45	0.60	MISCELLANEOUS / UTILITY	1.09	1.08	1.05	1.00	0.97	0.96	0.93										
T45	0.70	WATER TANKER TRAILER	1.11	1.09	1.05	1.00	0.96	0.96	0.92										
T45	0.80	DECONTAMINATION FACILITY	1.11	1.09	1.05	1.00	0.96	0.96											
T45	0.90	TANK TRAILERS	1.11	1.09	1.05	1.00	0.96	0.96	0.92										
T50	0.00	TRUCKS, HIGHWAY (Add attachments as required)																	
T50	0.01	0 THRU 10,000 GVW	1.13	1.11	1.08	1.00	0.96	0.94											
T50	0.02	OVER 10,000 THRU 30,000 GVW (Chassis only - Add options)	1.13	1.11	1.08	1.00	0.96	0.94	0.88										
T50	0.03	OVER 30,000 GVW (Chassis only - Add options)	1.13	1.11	1.08	1.00	0.96	0.94	0.88	0.85	0.82								
T55	0.00	TRUCKS, OFF-HIGHWAY																	
T55	0.10	RIGID FRAME	1.05	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.90	0.85	0.78	0.73	0.72	0.71			
T55	0.20	ARTICULATED FRAME	1.05	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.90								
T56	0.00	TRUCKS, OFF-HIGHWAY/PRIME MOVER TRACTORS & WAGONS																	
T56	0.10	PRIME MOVER TRACTORS	1.05	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.90	0.85	0.78	0.73	0.72	0.71			
T56	0.20	WAGONS, BOTTOM DUMP	1.06	1.04	1.03	1.00	0.98	0.98	0.96	0.92	0.89	0.84	0.77						



**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY	REGION 2 SUB TYPE OF EQUIPMENT		Year Purchased New																	
			Life in Years																	
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	
T56	0.30	WAGONS, REAR DUMP	1.06	1.04	1.03	1.00	0.98	0.98	0.96	0.91	0.89									
T57	0.00	TRUCKS, VACUUM	1.10	1.08	1.05	1.00	0.96	0.96	0.92											
T60	0.00	TRUCKS, WATER, OFF-HIGHWAY	1.06	1.04	1.03	1.00	0.98	0.98	0.96	0.91	0.89									
T65	0.00	TUNNEL/MINING EQUIPMENT																		
T65	0.10	DRIFTING & TUNNELING DRILLS	1.07	1.05	1.03	1.00	0.96	0.95	0.92	0.86	0.79	0.73								
T65	0.20	TUNNEL BORING MACHINES	1.10	1.08	1.05	1.00	0.97	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73					
T65	0.30	PRODUCTION DRILLING RIGS	1.07	1.05	1.04	1.00	0.96	0.95	0.92	0.86	0.79									
T65	0.40	ROADHEADERS & CONTINUOUS MINERS	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.90	0.87	0.83	0.77	0.74						
T65	0.50	ROCK BOLTING EQUIPMENT	1.10	1.08	1.05	1.00	0.96	0.96	0.92											
T65	0.61	LOADING & HAULING EQUIPMENT, DIESEL OR GAS	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86									
T65	0.62	LOADING & HAULING EQUIPMENT, ELECTRIC	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82								
T65	0.63	LOADING & HAULING EQUIPMENT, AIR-POWERED	1.11	1.09	1.05	1.00	0.96	0.96	0.92											
T65	0.70	LOCOMOTIVES	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86									
T65	0.90	OTHER TUNNELING EQUIPMENT	1.10	1.08	1.05	1.00	0.96	0.96	0.92											
W10	0.00	WAGONS, BOTTOM DUMP	1.05	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.90									
W15	0.00	WAGONS, REAR DUMP	1.05	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.90									
W25	0.00	WATER & CO2 BLASTERS																		
W25	0.10	LOW PRESSURE, (< 5,000 PSI)	1.10	1.09	1.05	1.00														
W25	0.20	HIGH PRESSURE, (>= 5,000 PSI)	1.10	1.09	1.05	1.00														
W25	0.30	STEAM CLEANERS	1.10	1.09	1.05	1.00														
W25	0.40	CO2 BLASTERS	1.10	1.09	1.05	1.00	0.96													
W25	0.50	WET ABRASIVE BLASTING SYSTEM (TORBO)	1.13	1.10	1.06	1.00	0.95	0.95	0.91											

**Table 3-1 Equipment Age Adjustment Factors for Ownership Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Year Purchased New																	
		Life in Years																	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
W30 0.00	WATER TANKS																		
W30 0.10	PORTABLE WITH WHEELS	1.06	1.04	1.03	1.00	0.98	0.98	0.96	0.91	0.89									
W30 0.20	SKID MOUNTED	1.06	1.04	1.03	1.00	0.98	0.98	0.96	0.91	0.89									
W35 0.00	WELDERS																		
W35 0.10	ENGINE DRIVEN	1.11	1.09	1.05	1.00	0.96	0.96												
W35 0.20	ELECTRIC DRIVEN	1.10	1.09	1.05	1.00	0.96													

**TOTAL HOURLY RATE CALCULATION FOR OVERAGE EQUIPMENT**

**EXAMPLE**

Assume the following set of given information for the rate calculation example:

1. The unit of equipment is not listed in table 2-1.
2. The equipment is contractor owned.
3. Data for the unit in question:
  - a. Caterpillar front-end wheel loader
  - b. Model 950-G, 4WD, 3.5 CY capacity
  - c. Serial number indicates year of manufacture = 2002
  - d. Actual purchase price in 2002 = \$205,000  
(includes all regional discounts, sales tax and freight)
  - e. Horsepower is 180 hp (fuel is Diesel off-road)
  - f. Drive tire (DT) size = 23.50 x 25, 16 ply, L-3 (appendix F tire code ANNB5)  
DT cost (2014) = 4 tires x \$4,233 /tire = \$16,932
  - g. Weight = 392 cwt
4. Table 3-1, Age Adjustment Factors for Ownership Costs:
  - a. The category L40, subcategory 0.11 (wheel loaders < 225 hp)
  - b. The year corresponding to the last age adjustment factor = 2008
5. Adjust the actual purchase price:
  - a. Economic Indexes from appendix E (wheel loaders EK = 45)
    - (1) For 2008 (first year of economic life), the economic index = 6695
    - (2) For 2002 (year of manufacture), the economic index = 5612
  - b. Purchase price [total equipment value (TEV)] indexed to 2008 (first year of economic life): (Purchase price includes discount, sales tax, and freight for this region).  
$$(6695 / 5612) \times \$205,000 = \$244,561 \quad (= 2008 \text{ purchase price})$$
6. Hourly rate is computed as follows in accordance with figure 2-1, Equipment Rate Computation Worksheet.

**Figure 3-1. Total Hourly Rate Calculation for Overage Equipment**

**Example:** *The piece of equipment shown in this example is based on a known piece of equipment for illustration purposes only.*

USE THIS WORKSHEET TO COMPUTE A HOURLY RATE FOR EQUIPMENT THAT IS NOT IN THIS PAMPHLET OR IS IN THE PAMPHLET BUT NOT EQUIVALENT IN SIZE, CAPACITY, HORSEPOWER OR VALUE. (See Appendix A for a blank form)

**Region 02**

**1. EQUIPMENT INFORMATION AND EXPENSE FACTORS**

ID No: \_\_\_\_\_

a. Equipment Specification Data:

(1) Equipment Description:	Loader, Front-end, Wheel, 4WD, 3.5 CY capacity		
(2) Model and Series:	Caterpillar Model 950-G		
(3) Present Year or Year of Use:			2014
(4) Year Manufactured:	2002	indexed to	2008
(5) Horsepower - Equipment:			180
(6) Horsepower - Carrier:			0

(7) Fuel      - **Equipment:** 0=None; 1-electric; 2-gasoline;  
                   3-diesel off-road; 4-diesel on-road; 5-marine gas;  
                   6-marine diesel      **Enter number from 0 to 6 ==>** 3                        D-off

                  - **Carrier:** 0=None; 1-electric; 2-gasoline;  
                   3-diesel off-road; 4-diesel on-road; 5-marine gas;  
                   6-marine diesel      **Enter number from 0 to 6 ==>** 0                        None

(8) Shipping Weight (cwt):                   392 cwt

(9) Tire size and number of tires: (Cost of tires based on present year - see 1.a.(3) and Appendix F)

	<u>Size/Ply</u>	<u>App F Code</u>	<u>No.</u>	<u>Unit Price</u>	<u>Cost</u>
(a) Front (FT):			0	\$0	\$0
(b) Drive (DT):	<u>23.5X25/16Ply</u>	<u>ANNB5</u>	4	\$4,233	\$16,932
(c) Trailing (TT):			0	\$0	\$0
(d) Total Tire Cost:					<u>\$16,932</u>

(10) List Price + Accessories:  
       [at Year (yr) of Manufacture]      \$0      OR      actual purchase price: \$244,561

**USE APPENDIX D TO COMPLETE THE FOLLOWING DATA:**

b. Category and Subcategory Number:                   L40                        0.11

c. Hourly Expense Calculation Factors:

(1) Economic Key (EK):	<u>45</u>
(2) Condition (C): <b>A</b> =Average <b>D</b> =Difficult <b>S</b> =Severe	<u>A AVERAGE</u>
(3) Discount Code (DC): <b>B</b> = 7.5% (0.075) or <b>S</b> = 15.0% (0.15)	<u>B 0.075</u>
(4) Life in Hours (LIFE):	<u>9,250</u>
(5) Salvage Value Percentage (SLV):	<u>0.25</u>
(6) Fuel Factor - Equipment [Electric (E) Gas (G) Diesel (D)]:	<u>0.031</u>
(7) Fuel Factor - Carrier (E G D):	<u>0.000</u>
(8) Filter, Oil, and Grease (FOG) Factor (E G D):	<u>0.111</u>
(9) Tire Wear Factor:	
(a) Front (FT):	<u>0.83</u>
(b) Drive (DT):	<u>0.54</u>
(c) Trailing (TT):	<u>0.92</u>
(10) Repair Cost Factor (RCF):	<u>0.70</u>

**Figure 3-1. Total Hourly Rate Calculation for Overage Equipment**      Page 1 of 6

Region 02

**2. EQUIPMENT VALUE**

a. List Price + Accessories: [at Year (yr) of Manufacture]				=	<u>          </u>	\$0	
(1) Discount:	(List Price {1.a.(10)})	+ Accessories)	x	Discount {1.c.(3)}			
	<u>(\$0)</u>	+ <u>\$0.00)</u>	x	<u>0.075</u>	=	<u>          </u> - [ \$0 ]	
(2) Subtotal {2.a.} - {2.a.(1)}					Subtotal =	<u>          </u> \$0	
(3) Sales or Import	Subtotal {2.a.(2)}		x	Tax Rate {Appendix B}			
	<u>\$0</u>		x	<u>6.00%</u>	=	<u>          </u> \$0	
(4) Total Discounted Price: Subtotal: {2.a.(2)} + {2.a.(3)}					Subtotal =	<u>          </u> \$0	
b. Freight:	Shipping Weight {1.a.(8)}		x	Freight Rate per cwt {Appendix B}			
	<u>0.000 cwt</u>		x	<u>\$0.00 /cwt</u>	=	<u>          </u> \$0	
c. <b>TOTAL EQUIPMENT VALUE (TEV):</b>					<b>TOTAL[2.]: =</b>	<b><u>          </u> \$244,561</b>	
	{2.a.(4)} + {2.b} OR actual purchase price {1a.(10)}						
	(See chapter 3 for used and overage equipment rate adjustments.)						

**3. DEPRECIATION PERIOD (N)**

a.	LIFE	/	Working Hours Per Year (WHPY)		=	<u>          </u> N
	{1.c.(4)}		{Appendix B}			
	<u>9,250 hr</u>	/	<u>1,450 hr/yr</u>		=	<u>          </u> 6.38 yrs (N)

**4. OWNERSHIP COST**

a. Depreciation							
(1) Tire Cost Index (TCI):							
	Tire Index, Year of Manufacture, {1.a.(4)}	/	Present Year or Year of Use, {1.a.(3)}		=	<u>          </u> TCI	
	Appendix E, EK=100		Appendix E, EK=100				
	<u>3267</u>	/	<u>4050</u>		=	<u>          </u> 0.807	
(2)	[TEV {2.c.}]	x	(1.0-SLV) {1.c.(5)}	-	(TCI {4.a.(1)})	x	Tire Cost) / LIFE {1.a.(9)(d)} / {1.c.(4)}
	<u>[\$244,561</u>	x	<u>(1.0-0.25)</u>	-	<u>( 0.807</u>	x	<u>\$16,932 ] / 9,250 hr</u> = <u>          </u> \$18.35 /hr

Figure 3-1. Total Hourly Rate Calculation for Overage Equipment Page 2 of 6

**Region 02**

**4. OWNERSHIP COST (Continued)**

b. Facilities Capital Cost of Money (FCCM):

(1)	[( N - 1.0 ) {3.a.}]	x	(1.0 + SLV) {1.c.5.}]	+	2.0]	/	(2.0 x N) {3.a.}]	=	Avg Value Factor {AVF}
	<u>[(6.38 yr - 1.0)]</u>	x	<u>(1.0 + 0.25)</u>	+	2.0]	/	<u>(2.0 x 6.38 yr)</u>	=	<u>0.684</u>

(2)	TEV {2.c.}]	x	AVF {4.b.(1)}]	x	Adjusted Cost-of-Money {Appendix B}]	/	WHPY {Appendix B}]	=	
	<u>\$244,561</u>	x	<u>0.684</u>	x	<u>1.70%</u>	/	<u>1,450 hr/yr</u>	=	<u>\$1.96 /hr</u>

c. <b>TOTAL HOURLY OWNERSHIP COST:</b> {4.a.(2)} + {4.b.(2)}	<b>TOTAL [4.]: = <u>\$20.31 /hr</u></b>
---	---

**5. OPERATING COST**

a. Fuel Costs:

(1) Equipment:

Fuel Factor {1.c.(6)}]	x	Horsepower (hp) {1.a.(5)}]	x	Fuel Cost per Gallon (gal) {Appendix B}]	=	
<u>0.031</u>	x	<u>180 hp</u>	x	<u>\$3.49 /gal</u>	=	<u>\$19.47 /hr</u>

(2) Carrier:

Fuel Factor {1.c.(7)}]	x	hp {1.a.(6)}]	x	Fuel Cost per gal {Appendix B}]	=	
<u>0.000</u>	x	<u>0 hp</u>	x	<u>\$0.00 /gal</u>	=	<u>\$0.00 /hr</u>

(3) Total Hourly Fuel Cost: {5.a (1)} + {5.a (2)}	<b>Total [5.a.] = <u>\$19.47 /hr</u></b>
--	--

b. FOG Cost:

(1) Equipment:

FOG Factor {1.c.(8)}]	x	Equipment Hourly Fuel Cost {5.a.(1)}]	x	Labor Adjustment Factor (LAF) {Appendix B}]	=	
<u>0.111</u>	x	<u>\$19.47 /hr</u>	x	<u>1.02</u>	=	<u>\$2.20 /hr</u>

**Figure 3-1. Total Hourly Rate Calculation for Overage Equipment Page 3 of 6**

Region 02

5. **OPERATING COST (Continued)**

(2) Carrier:

FOG Factor {1.c.(8)}	x	Carrier Hourly Fuel Cost {5.a.(2)}	x	LAF {Appendix B}	
<u>0.111</u>	x	<u>\$0.00 /hr</u>	x	<u>1.02</u>	= <u>\$0.00 /hr</u>

(3) Total Hourly FOG Cost: Total [5.b.] = \$2.20 /hr  
 {5.b.(1)} + {5.b.(2)}

c. Alternative Fuel/FOG Cost: Total [5.c.] = \$0.00 hr  
 (See chapter 2, paragraph 2.24.d. for guidance on when to use.)

d. Repair Cost:

(1) Economic Adjustment Factor (EAF):  
 [EK is from 1c. (1)]

Economic Index, Present Year or Year of Use, 1.a.(3)	/	Economic Index, Year of Manufacture, 1.a.(4)	
Appendix E, EK={1.c.(1)}	/	Appendix E, EK={1.c.(1)}	= <u>EAF</u>
<u>7830</u>	/	<u>6695</u>	= <u>1.170</u>

*(See table 3-1 for last year of economic life.)*

(2) Repair Factor (RF):

RCF {1.c.(10)}	x	EAF {5.d.(1)}	x	LAF {Appendix B}	
<u>0.70</u>	x	<u>1.170</u>	x	<u>1.02</u>	= <u>0.835</u>

(3) Repair Cost:

[TEV {2.c.}]	-	(TCI {4.a.(1)})	x	Tire Cost)]	x	RF	/	LIFE
<u>[\$244,561]</u>	-	<u>(0.807)</u>	x	<u>\$16,932]</u>	x	<u>0.835</u>	/	<u>9,250</u>

(4) Total Hourly Repair Cost: Total [5.d.] = \$20.84 /hr

Figure 3-1. Total Hourly Rate Calculation for Overage Equipment Page 4 of 6

**Region 02**

**5. OPERATING COST (Continued)**

e. Tire Wear Cost: (Use current price levels. See Appendix F.)

(1) Front Tires (FT):

$$\begin{array}{rclclcl} (1.5 \times \text{FT Cost}) & / & (1.8 \times \text{FT Wear Factor}) & \times & \text{Maximum Tire Life Hours} & \\ \{1.a.(9)(a)\} & & \{1.c.(9)(a)\} & & \{\text{Appendix F}\} & \\ \underline{(1.5 \times \$0)} & / & \underline{(1.8 \times 0.83)} & \times & \underline{0 \text{ hr}} & = \underline{\$0.00 /hr} \end{array}$$

(2) Drive Tires (DT):

$$\begin{array}{rclclcl} (1.5 \times \text{DT Cost}) & / & (1.8 \times \text{DT Wear Factor}) & \times & \text{Maximum Tire Life Hours} & \\ \{1.a.(9)(b)\} & & \{1.c.(9)(b)\} & & \{\text{Appendix F}\} & \\ \underline{(1.5 \times \$16,932)} & / & \underline{(1.8 \times 0.54)} & \times & \underline{3200 \text{ hr}} & = \underline{\$8.17 /hr} \end{array}$$

(3) Trailing Tires (TT):

$$\begin{array}{rclclcl} (1.5 \times \text{TT Cost}) & / & (1.8 \times \text{TT Wear Factor}) & \times & \text{Maximum Tire Life Hours} & \\ \{1.a.(9)(c)\} & & \{1.c.(9)(c)\} & & \{\text{Appendix F}\} & \\ \underline{(1.5 \times \$0)} & / & \underline{(1.8 \times 0.92)} & \times & \underline{0 \text{ hr}} & = \underline{\$0.00 /hr} \end{array}$$

(4) Total Tire Wear Cost: Total [5.e.] = \$8.17 /hr  
Sum {5.e.(1)} through {5.e.(3)}

f. Tire Repair Cost:

$$\begin{array}{rclcl} \text{Total Tire Wear Cost} & & & & \\ \text{per Hour} & \times & (0.15 \times \text{LAF}) & & \\ \{5.e.(4)\} & & \{\text{Appendix B}\} & & \\ \underline{\$8.17 /hr} & \times & \underline{(0.15 \times 1.02)} & & \text{Total [5.f.] = } \underline{\$1.25 /hr} \end{array}$$

**g. TOTAL HOURLY OPERATING COST:** Total [5.] = \$51.93 /hr  
Sum {5.a.} through {5.f.}



Region 02

6. **HOURLY RATES**

a. Total Hourly Rate: [based on 40 hours per week (wk)]

Ownership Cost {4.c.}	+	Operating Cost {5.g.}	
<u>\$20.31 /hr</u>	+	<u>\$51.93 /hr</u>	= <u>\$72.24 /hr</u>

b. Other Work Shifts Hourly Rate:

*(Refer to Chapter 3, Adjustments to Rates, for methodology.)*

Depreciation {4.a.(2)}	+	(FCCM x 40 hr/wk / Work hr/wk) {4.b.(2)}	+	Operating Cost {5.g.}	
<u>\$0.00 /hr</u>	+	( <u>\$0.00 /hr</u> x <u>40 hr/wk</u> / <u>60 hr/wk</u> ) (example:60 hr/wk)	+	<u>\$0.00 /hr</u>	= <u>\$0.00 /hr</u>

c. Standby Hourly Rate:

*(Refer to Chapter 2, paragraph 2.28 for guidance on use.)*

(Depreciation x 0.50) {4.a.(2)}	+	FCCM {4.b.(2)}	
<u>(\$0.00 /hr</u> x 0.50)	+	<u>\$0.00 /hr</u>	= <u>\$0.00 /hr</u>

*(Refer to Chapter 3, paragraph 3.12 for guidance for overage equipment.)*

**See Figure 3-2 for standby calculations for overage equipment**

**See Chapter 3 if rate adjustments are necessary.**

**Figure 3-1. Total Hourly Rate Calculation for Overage Equipment Page 6 of 6**

Table 3-2. Equipment Age Adjustment Factors

for  
Standby costs

The factors in this table are used when the age of a unit of equipment is other than the age of the equipment listed in table 2-1.

These factors are multiplied by the hourly standby costs shown in table 2-1 and result in a standby rate adjusted for the actual age of the equipment being considered.

When the actual "life" in hours of the unit of equipment has exceeded the economic life given in appendix D, the age will be determined as discussed in chapter 3.

Refer to chapter 3, as follows:

3.13. Rate Adjustments Overage Equipment Standby

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years																	
		Year Purchased New																	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
A10 0.00	AGGREGATE / CHIP SPREADERS																		
A10 0.10	SELF-PROPELLED	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86	0.82	0.76	0.77	0.77	0.77	0.75	0.73	0.72	0.69
A10 0.20	TOWED & TAILGATE	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86	0.81	0.76	0.76	0.76	0.76	0.75	0.73	0.72	0.69
A15 0.00	AIR COMPRESSORS, PORTABLE																		
A15 0.10	ROTARY SCREW	1.11	1.09	1.04	1.00	0.91	0.91	0.85	0.79	0.76	0.72	0.69	0.69	0.68	0.69	0.67	0.69	0.69	0.68
A15 0.20	SHOP TYPE	1.10	1.09	1.04	1.00	0.92	0.91	0.86	0.80	0.77	0.74	0.71	0.70	0.70	0.71	0.69	0.71	0.70	0.70
A20 0.00	AIR HOSE, TOOLS & EQUIPMENT																		
A20 0.10	AIR DRILL HOSE	1.09	1.08	1.03	1.00	0.93	0.92	0.87	0.82	0.79	0.76	0.73	0.73	0.73	0.73	0.72	0.73	0.73	0.73
A20 0.20	SANDBLAST HOSE	1.09	1.08	1.03	1.00	0.93	0.92	0.87	0.82	0.79	0.76	0.73	0.73	0.73	0.73	0.72	0.73	0.73	0.73
A20 0.30	SANDBLASTERS, BREAKERS, & MISC. AIR TOOLS	1.10	1.08	1.04	1.00	0.92	0.92	0.87	0.81	0.78	0.75	0.72	0.71	0.71	0.72	0.70	0.72	0.71	0.71
A25 0.00	ASPHALT PAVING DISTRIBUTORS	1.07	1.05	1.03	1.00	0.97	0.97	0.94	0.90	0.87	0.83	0.79	0.79	0.79	0.79	0.78	0.76	0.75	0.72
A30 0.00	ASPHALT PAVERS & MISCELLANEOUS ROAD EQUIPMENT																		
A30 0.10	SELF PROPELLED	1.07	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.87	0.82	0.78	0.78	0.78	0.78	0.77	0.75	0.73	0.71
A30 0.20	TOWED	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86	0.82	0.77	0.77	0.77	0.77	0.76	0.74	0.72	0.70
A30 0.30	SLURRY SEAL PAVERS (Cold mix)	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86	0.82	0.77	0.77	0.77	0.77	0.76	0.74	0.73	0.70
A30 0.40	MISCELLANEOUS ROAD EQUIPMENT	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86	0.82	0.77	0.77	0.77	0.77	0.76	0.74	0.72	0.70
A35 0.00	ASPHALT PAVING KETTLES	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86	0.81	0.76	0.76	0.76	0.76	0.75	0.73	0.72	0.69
A40 0.00	ASPHALT & CONCRETE MILLERS / PROFILERS / PLANERS / ROTARY GRINDERS	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86	0.81	0.76	0.76	0.76	0.76	0.75	0.73	0.72	0.69
A45 0.00	ASPHALT RECYCLERS & SEALERS	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86	0.81	0.76	0.76	0.76	0.76	0.75	0.73	0.72	0.69
B10 0.00	BATCH PLANTS, ASPHALT & CONCRETE																		
B10 0.10	ASPHALT	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86	0.82	0.76	0.77	0.77	0.77	0.75	0.73	0.72	0.69
B10 0.20	CONCRETE	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86	0.82	0.76	0.77	0.77	0.77	0.75	0.73	0.72	0.69

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Year Purchased New																		
		Life in Years					Year Purchased New													
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	
B10	0.30	PUGMILL	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86	0.82	0.77	0.77	0.77	0.76	0.74	0.72	0.70	
B15	0.00	BROOMS, STREET SWEEPERS & FLUSHERS	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
B20	0.00	BRUSH CHIPPERS	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
B25	0.00	BUCKETS, CLAMHELL	1.05	1.04	1.01	1.00	0.97	0.97	0.95	0.94	0.92	0.87	0.82	0.80	0.77	0.72	0.73	0.74	0.73	0.73
B30	0.00	BUCKETS, CONCRETE																		
B30	0.10	GENERAL PURPOSE, MANUAL TRIP	1.05	1.04	1.01	1.00	0.97	0.97	0.95	0.94	0.93	0.88	0.83	0.81	0.78	0.73	0.74	0.75	0.75	0.74
B30	0.20	LAYDOWN	1.05	1.04	1.01	1.00	0.97	0.97	0.95	0.94	0.93	0.88	0.83	0.81	0.78	0.73	0.74	0.75	0.75	0.74
B30	0.30	LOWBOY	1.05	1.04	1.01	1.00	0.97	0.97	0.95	0.94	0.93	0.88	0.83	0.81	0.78	0.73	0.74	0.75	0.75	0.74
B30	0.40	LOW SLUMP	1.05	1.04	1.01	1.00	0.97	0.97	0.95	0.94	0.93	0.88	0.83	0.81	0.78	0.73	0.74	0.75	0.75	0.74
B35	0.00	BUCKETS, DRAGLINE																		
B35	0.10	LIGHT WEIGHT	1.05	1.04	1.01	1.00	0.97	0.97	0.95	0.94	0.92	0.87	0.82	0.80	0.77	0.72	0.73	0.74	0.73	0.73
B35	0.20	MEDIUM WEIGHT	1.05	1.04	1.01	1.00	0.97	0.97	0.95	0.94	0.92	0.87	0.82	0.80	0.77	0.72	0.73	0.74	0.74	0.73
B35	0.30	HEAVY WEIGHT	1.05	1.04	1.01	1.00	0.97	0.97	0.95	0.94	0.92	0.87	0.82	0.80	0.77	0.72	0.73	0.74	0.74	0.73
C05	0.00	CHAIN SAWS	1.09	1.08	1.05	1.00	0.97	0.96	0.93	0.90	0.88	0.83	0.78	0.75	0.74	0.73	0.72	0.72	0.70	0.69
C10	0.00	COMPACTORS, WALK-BEHIND OR REMOTE CONTROLLER																		
C10	0.10	COMPACTORS, RAMMERS / TAMPERS & VIBRATORY PLATES	1.09	1.07	1.04	1.00	0.97	0.97	0.94	0.91	0.88	0.84	0.79	0.76	0.75	0.74	0.74	0.73	0.72	0.71
C10	0.20	ROLLERS, VIBRATORY	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.77	0.74	0.72	0.71	0.71	0.70	0.69	0.67
C15	0.00	CONCRETE CLEANERS / ABRASIVE BLASTERS																		
C15	0.10	WALK BEHIND	1.10	1.09	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.81	0.75	0.72	0.70	0.69	0.69	0.68	0.67	0.65
C15	0.20	TRUCK/TRAILER MOUNTED	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
C20	0.00	CONCRETE BUGGIES	1.10	1.09	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.81	0.75	0.72	0.70	0.69	0.69	0.68	0.67	0.65
C25	0.00	CONCRETE FINISHERS/SCREEDS/SPREADERS																		

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Year Purchased New																	
		Life in Years																	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
C25 0.10	FINISHERS/TROWELS	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.69	0.69	0.68	0.67	0.65
C25 0.20	VIBRATORY SCREED	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.69	0.69	0.68	0.67	0.65
C25 0.25	VIBRATORY LASER SCREED	1.11	1.09	1.06	1.00	0.96	0.96	0.92	0.87	0.85	0.80	0.73	0.69	0.67	0.66	0.66	0.65	0.63	0.61
C25 0.30	MATERIAL/TOPPING SPREADERS	1.11	1.09	1.06	1.00	0.96	0.96	0.92	0.87	0.85	0.80	0.73	0.69	0.67	0.66	0.66	0.65	0.63	0.61
C30 0.00	CONCRETE GRINDERS	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.69	0.69	0.68	0.67	0.65
C35 0.00	CONCRETE GUNITERS / SHOTCRETERS	1.11	1.09	1.05	1.00	0.96	0.96	0.92	0.88	0.85	0.81	0.74	0.71	0.69	0.68	0.68	0.67	0.65	0.63
C40 0.00	CONCRETE MIXING UNITS	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.69	0.69	0.68	0.67	0.65
C45 0.00	CONCRETE PAVING MACHINES	1.08	1.05	1.03	1.00	0.97	0.97	0.93	0.89	0.86	0.81	0.76	0.76	0.76	0.76	0.75	0.73	0.72	0.69
C55 0.00	CONCRETE PUMPS	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
C60 0.00	CONCRETE SAWS (Add cost for sawblade wear)	1.09	1.08	1.05	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
C65 0.00	CONCRETE VIBRATORS	1.10	1.08	1.04	1.00	0.92	0.92	0.87	0.81	0.78	0.75	0.72	0.71	0.71	0.71	0.70	0.71	0.71	0.71
C70 0.00	CRANES, GANTRY & STRADDLE																		
C75 0.00	CRANES, HYDRAULIC, SELF-PROPELLED	1.05	1.04	1.01	1.00	0.97	0.97	0.94	0.93	0.92	0.87	0.81	0.79	0.77	0.71	0.72	0.72	0.71	0.69
C80 0.00	CRANES, HYDRAULIC, TRUCK MOUNTED																		
C80 0.01	UNDER 26 TON	1.05	1.04	1.01	1.00	0.97	0.97	0.94	0.93	0.92	0.87	0.81	0.79	0.77	0.71	0.72	0.72	0.71	0.69
C80 0.02	26 TON THRU 65 TON	1.05	1.04	1.01	1.00	0.97	0.97	0.94	0.93	0.92	0.87	0.81	0.79	0.77	0.71	0.72	0.72	0.71	0.69
C80 0.03	66 TON THRU 125 TON	1.05	1.04	1.01	1.00	0.97	0.97	0.94	0.93	0.92	0.87	0.81	0.79	0.77	0.71	0.73	0.72	0.71	0.70
C80 0.04	OVER 125 TON	1.05	1.04	1.01	1.00	0.97	0.97	0.95	0.94	0.92	0.87	0.82	0.79	0.77	0.72	0.73	0.72	0.71	0.70
C85 0.00	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER MOUNTED																		
C85 0.11	DRAGLINE, CLAMSHELL, 0 THRU 1.0 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.78	0.76	0.70	0.71	0.71	0.70	0.68
C85 0.12	DRAGLINE, CLAMSHELL, OVER 1.0 CY THRU 2.5 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.81	0.78	0.76	0.70	0.71	0.71	0.70	0.68
C85 0.13	DRAGLINE, CLAMSHELL, OVER 2.5 CY THRU 5.0 CY	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.78	0.76	0.70	0.71	0.71	0.70	0.68

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years																	
		Year Purchased New																	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
C85 0.14	DRAGLINE, CLAMSHELL, OVER 5.0 CY	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.79	0.76	0.70	0.72	0.71	0.70	0.68
C85 0.21	LIFTING, 0 THRU 25 TON	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.81	0.78	0.76	0.70	0.71	0.71	0.70	0.68
C85 0.22	LIFTING, 26 TON THRU 50 TON	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.78	0.76	0.70	0.71	0.71	0.70	0.68
C85 0.23	LIFTING, 51 TON THRU 150 TON	1.05	1.04	1.01	1.00	0.97	0.97	0.95	0.94	0.92	0.87	0.82	0.79	0.77	0.72	0.73	0.72	0.71	0.70
C85 0.24	LIFTING, OVER 150 TON	1.05	1.04	1.01	1.00	0.97	0.97	0.95	0.94	0.92	0.87	0.82	0.79	0.77	0.72	0.73	0.73	0.72	0.70
C90 0.00	CRANES, MECHANICAL, LATTICE BOOM, TRUCK MOUNTED																		
C90 0.01	UNDER 26 TON	1.05	1.04	1.01	1.00	0.97	0.97	0.94	0.93	0.92	0.87	0.81	0.79	0.77	0.71	0.72	0.72	0.71	0.69
C90 0.02	26 TON THRU 65 TON	1.05	1.04	1.01	1.00	0.97	0.97	0.94	0.93	0.92	0.87	0.81	0.79	0.77	0.71	0.72	0.72	0.71	0.69
C90 0.03	66 TON THRU 125 TON	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.78	0.76	0.70	0.71	0.71	0.70	0.68
C90 0.04	OVER 125 TON	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.79	0.76	0.70	0.72	0.71	0.70	0.68
C95 0.00	CRANES, TOWER	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.78	0.76	0.70	0.71	0.71	0.70	0.68
D10 0.00	DRILLS, AIR/HYDRAULIC, CRWLR MTD, 0" THRU 6.5" DIA HOLE (Add cost for drill steel and bit wear)																		
D10 0.10	DRILLS, AIR TRACK (Add cost for drill steel and bit wear)	1.07	1.05	1.04	1.00	0.96	0.95	0.92	0.85	0.78	0.71	0.65	0.60	0.58	0.52	0.50	0.49	0.48	0.47
D10 0.20	DRILLS, HYDRAULIC TRACK (Add cost for drill steel and bit wear)	1.08	1.05	1.04	1.00	0.96	0.94	0.91	0.84	0.77	0.70	0.64	0.59	0.57	0.51	0.49	0.48	0.47	0.46
D15 0.00	DRILLS, HORIZONTAL																		
D15 0.10	DRILLS, HORIZONTAL BORING & GROUND PIERCING (Add cost for drill steel and bit wear)	1.08	1.05	1.04	1.00	0.96	0.94	0.91	0.84	0.77	0.70	0.64	0.59	0.57	0.51	0.49	0.48	0.47	0.46
D15 0.20	DRILLS, HORIZONTAL & DIRECTIONAL (Add cost for drill steel and bit wear)	1.08	1.05	1.04	1.00	0.96	0.94	0.91	0.84	0.77	0.70	0.64	0.59	0.57	0.51	0.49	0.48	0.47	0.46
D20 0.00	DRILLS, CORE, COLUMN MOUNTED (Add cost for drill steel and bit wear)	1.08	1.06	1.04	1.00	0.95	0.94	0.91	0.84	0.77	0.70	0.63	0.58	0.56	0.50	0.48	0.47	0.46	0.45
D25 0.00	DRILLS, CORE & DOWELLING (Add cost for drill steel and bit wear)	1.08	1.05	1.04	1.00	0.96	0.94	0.91	0.84	0.77	0.70	0.64	0.59	0.57	0.51	0.49	0.48	0.47	0.46
D30 0.00	DRILLS, EARTH / AUGER (Add cost for drill steel and cutting edge wear)	1.08	1.05	1.04	1.00	0.96	0.94	0.91	0.84	0.77	0.70	0.64	0.59	0.57	0.51	0.49	0.48	0.47	0.46
D35 0.00	DRILLS, ROTARY BLASTHOLE (Add cost for drill steel and bit wear)																		
D35 0.11	DIESEL, 4.5" THRU 9.875" DIAMETER HOLE (Add cost for drill steel and bit wear)	1.07	1.05	1.04	1.00	0.96	0.95	0.92	0.86	0.79	0.72	0.66	0.61	0.60	0.54	0.53	0.52	0.51	0.50

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years																	
		Year Purchased New																	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
D35 0.12	DIESEL, OVER 9.875" DIAMETER (Add cost for drill steel and bit wear)	1.07	1.05	1.04	1.00	0.96	0.95	0.92	0.86	0.79	0.73	0.67	0.62	0.61	0.55	0.54	0.53	0.51	0.50
D35 0.21	ELECTRIC, 4.5" THRU 9.875" DIAMETER HOLE (Add cost for drill steel and bit wear)	1.07	1.05	1.04	1.00	0.96	0.95	0.92	0.86	0.79	0.72	0.66	0.61	0.60	0.54	0.53	0.52	0.51	0.50
D35 0.22	ELECTRIC, OVER 9.875" DIAMETER (Add cost for drill steel and bit wear)	1.07	1.05	1.04	1.00	0.96	0.95	0.92	0.86	0.79	0.73	0.67	0.62	0.61	0.55	0.54	0.53	0.51	0.50
F10 0.00	FORK LIFTS	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.68	0.66
G10 0.00	GENERATOR SETS																		
G10 0.10	PORTABLE	1.05	1.03	1.02	1.00	0.94	0.92	0.89	0.84	0.80	0.76	0.72	0.70	0.70	0.70	0.70	0.69	0.69	0.69
G10 0.20	SKID MOUNTED	1.05	1.03	1.02	1.00	0.94	0.92	0.89	0.84	0.80	0.76	0.72	0.70	0.70	0.70	0.70	0.70	0.70	0.69
G15 0.00	GRADERS, MOTOR	1.18	1.16	1.12	1.00	0.95	0.94	0.88	0.84	0.82	0.79	0.74	0.71	0.70	0.69	0.69	0.67	0.64	0.62
H10 0.00	HAMMERS, HYDRAULIC (Demolition tool) (Add cost for point wear)	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.70	0.69	0.68	0.67	0.65
H13 0.00	HAZARDOUS/TOXIC WASTE EQUIPMENT																		
H13 0.11	COMPACTORS (Compression force) 0 THRU 50 TONS	1.09	1.08	1.05	1.00	0.97	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73	0.72	0.72	0.71	0.69	0.68
H13 0.12	COMPACTORS (Compression force) OVER 50 TONS	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.87	0.82	0.76	0.73	0.72	0.71	0.70	0.69	0.68	0.66
H13 0.21	FILTER PRESSES, STATIONARY	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.68	0.66
H13 0.22	FILTER PRESSES, MOBILE	1.09	1.08	1.05	1.00	0.97	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73	0.72	0.72	0.71	0.69	0.68
H13 0.30	CENTRIFUGES	1.10	1.09	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.81	0.75	0.72	0.70	0.69	0.69	0.68	0.67	0.65
H13 0.40	SHREDDERS	1.09	1.08	1.05	1.00	0.97	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73	0.72	0.72	0.71	0.69	0.68
H13 0.51	SOIL TREATMENT PLANT, MOBILE	1.09	1.08	1.05	1.00	0.97	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73	0.72	0.72	0.71	0.69	0.68
H13 0.61	SLUDGE PROCESSING EQUIP, SLUDGE DISPENSERS	1.09	1.08	1.05	1.00	0.97	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73	0.72	0.72	0.71	0.69	0.68
H13 0.71	WASTE HANDLING EQUIPMENT, DRUM HANDLING	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.77	0.74	0.72	0.71	0.71	0.70	0.69	0.67
H15 0.00	HEATERS, SPACE																		
H20 0.00	HOISTS & AIR WINCHES	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.68	0.66
H25 0.00	HYDRAULIC EXCAVATORS, CRAWLER MOUNTED																		

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Year Purchased New																	
		Life in Years							Year Purchased New										
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
H25 0.10	0 LBS THRU 12,500 LBS (COMPACT EXCAVATORS)	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.92	0.91	0.85	0.79	0.76	0.73	0.67	0.68	0.68	0.67	0.65
H25 0.11	OVER 12,500 LBS THRU 40,000 LBS	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.92	0.91	0.85	0.79	0.76	0.73	0.67	0.68	0.68	0.67	0.65
H25 0.12	OVER 40,000 LBS THRU 100,000 LBS	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.91	0.85	0.79	0.77	0.74	0.68	0.69	0.69	0.68	0.66
H25 0.13	OVER 100,000 LBS THRU 160,000 LBS	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.91	0.85	0.80	0.77	0.75	0.69	0.70	0.70	0.68	0.67
H25 0.14	OVER 160,000 LBS	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.78	0.75	0.69	0.70	0.70	0.69	0.67
H25 0.21	ATTACHMENTS, MOBILE SHEARS	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.77	0.74	0.73	0.71	0.71	0.70	0.69	0.67
H25 0.22	ATTACHMENTS, MATERIAL HANDLING	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.70	0.69	0.68	0.67	0.65
H25 0.23	ATTACHMENTS, CONCRETE PULVERIZERS	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.77	0.74	0.73	0.71	0.71	0.70	0.69	0.67
H25 0.24	ATTACHMENTS, COMPACTORS	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.77	0.74	0.73	0.71	0.71	0.70	0.69	0.67
H30 0.00	HYDRAULIC EXCAVATORS, WHEEL MOUNTED																		
H30 0.01	0 THRU 1.0 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.92	0.91	0.85	0.79	0.76	0.73	0.67	0.68	0.68	0.67	0.65
H30 0.02	OVER 1.0 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.91	0.85	0.79	0.76	0.74	0.67	0.69	0.68	0.67	0.65
H35 0.00	HYDRAULIC SHOVELS, CRAWLER MOUNTED																		
H35 0.11	DIESEL, 0 CY THRU 5.0 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.80	0.78	0.76	0.70	0.71	0.71	0.70	0.68
H35 0.12	DIESEL, OVER 5.0 CY	1.06	1.04	1.02	1.00	0.96	0.97	0.94	0.93	0.92	0.86	0.81	0.78	0.76	0.70	0.71	0.71	0.70	0.68
H35 0.21	ELECTRIC, OVER 2.5 CY	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.78	0.76	0.70	0.71	0.71	0.70	0.68
L10 0.00	LAND CLEARING EQUIPMENT	1.12	1.11	1.06	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.78	0.76	0.74	0.74	0.73	0.72	0.70	0.68
L15 0.00	LANDSCAPING EQUIPMENT	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.77	0.74	0.72	0.71	0.71	0.70	0.69	0.67
L20 0.00	LIGHTING SETS, TRAILER MOUNTED																		
L20 0.10	METALLIC VAPOR	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
L25 0.00	LINE STRIPING EQUIPMENT	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
L30 0.00	LOADERS, BELT (Conveyor belts) & ACCESSORIES	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.68	0.66



**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Year Purchased New																	
		Life in Years							Year Purchased New										
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
L35 0.00	LOADERS, FRONT END, CRAWLER TYPE	1.12	1.11	1.06	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.78	0.76	0.74	0.74	0.73	0.72	0.70	0.68
L40 0.00	LOADERS, FRONT END, WHEEL TYPE																		
L40 0.11	ARTICULATED, 0 THRU 225 HP	1.13	1.11	1.06	1.00	0.95	0.96	0.92	0.89	0.86	0.82	0.77	0.74	0.72	0.72	0.72	0.71	0.69	0.67
L40 0.12	ARTICULATED, OVER 225 HP	1.12	1.10	1.06	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.79	0.76	0.75	0.74	0.74	0.73	0.71	0.69
L40 0.20	SKID STEER	1.12	1.11	1.06	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.78	0.75	0.74	0.74	0.73	0.72	0.70	0.69
L40 0.21	SKID STEER ATTACHMENTS	1.13	1.11	1.06	1.00	0.95	0.96	0.92	0.89	0.87	0.83	0.78	0.75	0.73	0.73	0.72	0.71	0.70	0.68
L40 0.31	TOOL CARRIER & TELESCOPIC HANDLERS, 0 THRU 225 HP	1.13	1.11	1.06	1.00	0.95	0.96	0.92	0.89	0.86	0.82	0.77	0.74	0.73	0.72	0.72	0.71	0.69	0.67
L40 0.32	TOOL CARRIER & TELESCOPIC HANDLERS, OVER 225 HP	1.11	1.10	1.06	1.00	0.96	0.96	0.93	0.90	0.88	0.84	0.80	0.77	0.76	0.75	0.75	0.74	0.72	0.71
L45 0.00	LOADERS / BACKHOE, CRAWLER TYPE	1.12	1.11	1.06	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.78	0.75	0.74	0.74	0.73	0.72	0.69	0.68
L50 0.00	LOADERS / BACKHOE, WHEEL TYPE	1.13	1.11	1.06	1.00	0.95	0.96	0.92	0.89	0.86	0.82	0.77	0.74	0.73	0.72	0.72	0.71	0.69	0.67
L55 0.00	LOADER / BACKHOE, ATTACHMENTS	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.70	0.69	0.68	0.67	0.65
L60 0.00	LOG SKIDDERS	1.08	1.06	1.03	1.00	0.97	0.96	0.93	0.88	0.84	0.79	0.76	0.72	0.70	0.69	0.67	0.66	0.64	0.63
M10 0.00	MARINE EQUIPMENT (NON DREDGING)																		
M10 0.11	AQUATIC MAINTENANCE	1.06	1.03	1.01	1.00	0.97	0.95	0.91	0.87	0.83	0.79	0.76	0.71	0.68	0.67	0.65	0.64	0.63	0.62
M10 0.12	AQUATIC MAINTENANCE ATTACHMENTS	1.06	1.03	1.01	1.00	0.97	0.95	0.90	0.86	0.82	0.78	0.74	0.69	0.65	0.64	0.62	0.61	0.60	0.59
M10 0.21	HYDRAULIC CUTTERHEAD DREDGE, 8" OR LESS, TRANSPORTABLE	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.84	0.81	0.78	0.73	0.70	0.69	0.67	0.66	0.65	0.64
M10 0.22	HYDRAULIC CUTTERHEAD DREDGE, 8" - 12", TRANSPORTABLE	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.84	0.81	0.78	0.73	0.70	0.69	0.67	0.66	0.65	0.64
M10 0.23	HYDRAULIC AUGERHEAD DREDGE, 12" OR LESS, TRANSPORTABLE	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.84	0.81	0.78	0.73	0.70	0.69	0.67	0.66	0.65	0.64
M10 0.24	HYDRAULIC FLOATING PUMPS, 12" OR LESS, TRANSPORTABLE	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.84	0.80	0.77	0.73	0.69	0.68	0.67	0.65	0.65	0.64
M10 0.25	HYDRAULIC DREDGE PUMPS, 12" OR LESS, TRANSPORTABLE	1.06	1.03	1.01	1.00	0.97	0.95	0.91	0.87	0.83	0.79	0.76	0.71	0.67	0.66	0.64	0.63	0.63	0.61
M10 0.26	HYDRAULIC DREDGE / PUMP ATTACHMENTS	1.06	1.03	1.01	1.00	0.97	0.95	0.91	0.87	0.83	0.79	0.76	0.71	0.67	0.66	0.64	0.63	0.63	0.61
M10 0.31	SMALL MECH DREDGES, CLAMSHELL, BARGE-MTD TO 5 CY	1.05	1.04	1.01	1.00	0.97	0.97	0.94	0.93	0.92	0.87	0.81	0.79	0.77	0.71	0.73	0.72	0.71	0.70

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Year Purchased New																	
		Life in Years							Year Purchased New										
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
M10 0.32	SMALL MECH DREDGES, AMPHIBIOUS EXCAVATORS	1.06	1.04	1.02	1.00	0.97	0.97	0.94	0.93	0.92	0.86	0.81	0.79	0.76	0.71	0.72	0.72	0.70	0.69
M10 0.33	SMALL MECH DREDGES, HOE-MOUNTED DREDGING ATTACH	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.87	0.83	0.80	0.77	0.72	0.69	0.68	0.66	0.65	0.64	0.63
M10 0.41	WORK FLOATS (NON-DREDGING)	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.83	0.80	0.77	0.73	0.69	0.68	0.66	0.65	0.65	0.63
M10 0.42	WORK BARGES (SECTIONAL, NON-DREDGING)	1.05	1.03	1.01	1.00	0.98	0.96	0.92	0.88	0.84	0.81	0.78	0.74	0.70	0.69	0.68	0.67	0.66	0.65
M10 0.45	FLAT-DECK OR CARGO BARGE (NON-DREDGING)	1.05	1.02	1.01	1.00	0.98	0.96	0.92	0.89	0.85	0.82	0.79	0.75	0.72	0.71	0.70	0.68	0.68	0.67
M10 0.46	DUMP SCOW (NON-DREDGING)	1.05	1.02	1.01	1.00	0.98	0.96	0.92	0.89	0.85	0.82	0.79	0.75	0.72	0.71	0.70	0.68	0.68	0.67
M10 0.47	DRILL BARGE (NON-DREDGING)	1.05	1.03	1.01	1.00	0.98	0.96	0.92	0.88	0.85	0.82	0.79	0.74	0.71	0.70	0.69	0.68	0.67	0.66
M10 0.48	ALL OTHER BARGES (NON-DREDGING)	1.05	1.03	1.01	1.00	0.98	0.96	0.92	0.88	0.85	0.82	0.79	0.74	0.71	0.70	0.69	0.68	0.67	0.66
M10 0.51	BOATS & LAUNCHES, 0 THRU 250 HP	1.06	1.03	1.01	1.00	0.98	0.95	0.91	0.87	0.83	0.80	0.77	0.72	0.68	0.67	0.66	0.64	0.64	0.63
M10 0.53	BOATS & LAUNCHES, 251 THRU 500 HP	1.05	1.03	1.01	1.00	0.98	0.95	0.91	0.88	0.84	0.81	0.78	0.73	0.70	0.69	0.67	0.66	0.65	0.64
M10 0.54	TUGS, 501 THRU 1,000 HP	1.05	1.03	1.01	1.00	0.98	0.96	0.92	0.88	0.84	0.81	0.78	0.74	0.71	0.70	0.68	0.67	0.67	0.66
M10 0.55	TUGS, 1,000 THRU 2,000 HP	1.05	1.02	1.01	1.00	0.98	0.96	0.92	0.88	0.85	0.82	0.79	0.75	0.71	0.70	0.69	0.68	0.67	0.66
P10 0.00	PILE HAMMER ACCESSORIES - EXTRACTORS & BOX LEADS	1.12	1.10	1.06	1.00	0.95	0.95	0.91	0.86	0.83	0.78	0.70	0.66	0.64	0.63	0.62	0.61	0.60	0.58
P20 0.00	PILE HAMMERS, DOUBLE ACTING																		
P20 0.10	DIESEL	1.11	1.09	1.05	1.00	0.96	0.96	0.92	0.88	0.85	0.80	0.74	0.70	0.69	0.68	0.67	0.66	0.65	0.63
P20 0.20	PNEUMATIC (STEAM/AIR)	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.70	0.69	0.68	0.67	0.65
P25 0.00	PILE HAMMERS, SINGLE ACTING																		
P25 0.10	DIESEL	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.70	0.69	0.68	0.67	0.65
P25 0.20	PNEUMATIC (STEAM/AIR)	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.77	0.74	0.73	0.71	0.71	0.70	0.69	0.67
P30 0.00	PILE HAMMERS, DRIVER/ EXTRACTOR, VIBRATORY	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.70	0.69	0.68	0.67	0.65
P35 0.00	PIPELAYERS	1.12	1.10	1.06	1.00	0.96	0.96	0.93	0.90	0.87	0.84	0.79	0.76	0.75	0.74	0.74	0.73	0.70	0.69
P40 0.00	PLATFORMS & MAN-LIFTS	1.05	1.04	1.01	1.00	0.97	0.97	0.95	0.94	0.92	0.87	0.82	0.80	0.77	0.72	0.73	0.73	0.72	0.70

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years																	
		Year Purchased New																	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
P45 0.00	PUMPS, GROUT	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73	0.72	0.71	0.70	0.69	0.68
P50 0.00	PUMPS, WATER, CENTRIFUGAL, TRASH																		
P50 0.11	ENGINE DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
P50 0.12	ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
P50 0.21	WHEEL MOUNTED, ENGINE DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
P50 0.22	WHEEL MOUNTED, ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
P50 0.31	HOSES, PUMP, SUCTION & DISCHARGE	1.09	1.08	1.05	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.72	0.72	0.71	0.69
P55 0.00	PUMPS, WATER, SUBMERSIBLE																		
P55 0.01	ENGINE DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
P55 0.02	ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73	0.72	0.71	0.70	0.69	0.68
P60 0.00	PUMPS, WATER, CENTRIFUGAL, DEWATERING																		
P60 0.11	SKID MOUNTED, ENGINE DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
P60 0.12	SKID MOUNTED, ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73	0.72	0.71	0.70	0.69	0.68
P60 0.21	WHEEL MOUNTED, ENGINE DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
P60 0.22	WHEEL MOUNTED, ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73	0.72	0.71	0.70	0.69	0.68
P65 0.00	PUMPS, WATER, DIAPHRAGM																		
P65 0.11	SKID MOUNTED, ENGINE DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
P65 0.12	SKID MOUNTED, ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73	0.72	0.71	0.70	0.69	0.68
P65 0.21	WHEEL MOUNTED, ENGINE DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
P65 0.22	WHEEL MOUNTED, ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73	0.72	0.71	0.70	0.69	0.68
P70 0.00	PUMPS, WATER (For core drills)																		
P70 0.01	ENGINE DRIVE	1.11	1.09	1.05	1.00	0.96	0.96	0.92	0.88	0.86	0.81	0.74	0.71	0.69	0.68	0.68	0.67	0.66	0.64

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years																	
		Year Purchased New																	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
P70 0.02	ELECTRIC DRIVE	1.11	1.09	1.05	1.00	0.96	0.96	0.92	0.88	0.86	0.81	0.74	0.71	0.69	0.68	0.68	0.67	0.66	0.64
R10 0.00	RIPPERS & HYDRAULIC BANK SLOPERS (Add cost for point wear)	1.12	1.11	1.06	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.78	0.75	0.74	0.74	0.73	0.72	0.69	0.68
R15 0.00	ROLLERS, STATIC, TOWED, PNEUMATIC	1.07	1.06	1.03	1.00	0.97	0.96	0.93	0.88	0.83	0.78	0.74	0.70	0.68	0.67	0.66	0.67	0.65	0.63
R20 0.00	ROLLERS, STATIC, TOWED, STEEL DRUM	1.07	1.06	1.03	1.00	0.97	0.96	0.93	0.88	0.83	0.78	0.74	0.70	0.68	0.67	0.66	0.67	0.65	0.63
R30 0.00	ROLLERS, STATIC, SELF-PROPELLED																		
R30 0.01	PNEUMATIC	1.07	1.05	1.03	1.00	0.97	0.96	0.93	0.88	0.84	0.79	0.76	0.72	0.70	0.69	0.67	0.68	0.67	0.65
R30 0.02	SMOOTH DRUM	1.07	1.05	1.03	1.00	0.97	0.96	0.93	0.88	0.84	0.79	0.76	0.72	0.70	0.69	0.67	0.69	0.67	0.65
R30 0.03	TAMPING FOOT, LANDFILL & SOIL COMPACTORS	1.07	1.06	1.03	1.00	0.97	0.96	0.93	0.88	0.83	0.78	0.75	0.71	0.69	0.68	0.66	0.67	0.65	0.64
R40 0.00	ROLLERS, VIBRATORY, TOWED	1.08	1.06	1.03	1.00	0.97	0.96	0.93	0.87	0.83	0.78	0.74	0.70	0.68	0.67	0.65	0.67	0.65	0.63
R45 0.00	ROLLERS, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM	1.08	1.06	1.03	1.00	0.97	0.96	0.93	0.87	0.83	0.78	0.74	0.70	0.68	0.67	0.65	0.67	0.65	0.63
R50 0.00	ROLLERS, VIBRATORY, SELF-PROPELLED, SINGLE DRUM	1.08	1.06	1.03	1.00	0.97	0.96	0.92	0.87	0.82	0.77	0.73	0.68	0.66	0.65	0.63	0.65	0.63	0.61
R55 0.00	ROOFING EQUIPMENT	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.77	0.74	0.73	0.71	0.71	0.70	0.69	0.67
S10 0.00	SCRAPERS, ELEVATING																		
S10 0.01	0 THRU 200 HP	1.17	1.15	1.11	1.00	0.96	0.94	0.88	0.84	0.83	0.79	0.75	0.72	0.71	0.70	0.69	0.68	0.65	0.63
S10 0.02	OVER 200 HP	1.18	1.16	1.12	1.00	0.95	0.93	0.88	0.84	0.82	0.78	0.74	0.71	0.70	0.69	0.68	0.67	0.64	0.62
S15 0.00	SCRAPERS, CONVENTIONAL	1.17	1.15	1.11	1.00	0.96	0.94	0.88	0.85	0.83	0.80	0.76	0.73	0.72	0.71	0.70	0.69	0.66	0.64
S20 0.00	SCRAPERS, TANDEM POWERED	1.17	1.15	1.11	1.00	0.96	0.94	0.88	0.85	0.83	0.80	0.76	0.73	0.72	0.71	0.70	0.69	0.66	0.64
S25 0.00	SCRAPERS, TRACTOR DRAWN	1.17	1.15	1.11	1.00	0.96	0.94	0.88	0.84	0.83	0.79	0.75	0.72	0.71	0.70	0.70	0.68	0.66	0.63
S30 0.00	SCREENING & CRUSHING PLANTS																		
S30 0.10	CONVEYORS	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
S30 0.20	CRUSHERS - VERTICAL & HORIZONTAL SHAFT IMPACTOR	1.09	1.07	1.04	1.00	0.97	0.97	0.94	0.90	0.88	0.84	0.79	0.76	0.75	0.74	0.74	0.73	0.72	0.70
S30 0.21	CRUSHERS - CONE	1.09	1.07	1.04	1.00	0.97	0.97	0.94	0.90	0.88	0.84	0.79	0.76	0.75	0.74	0.74	0.73	0.72	0.70

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years																		
		Year Purchased New																		
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	
S30	0.22	CRUSHERS - JAW	1.09	1.07	1.04	1.00	0.97	0.97	0.94	0.90	0.88	0.84	0.79	0.76	0.75	0.74	0.74	0.73	0.72	0.70
S30	0.30	SCREENING PLANT	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
S35	0.00	SNOW REMOVAL EQUIPMENT	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
S40	0.00	SOIL & ROAD STABILIZERS	1.17	1.15	1.11	1.00	0.96	0.94	0.88	0.84	0.83	0.79	0.75	0.72	0.71	0.70	0.69	0.68	0.65	0.63
S45	0.00	SPLITTERS, ROCK & CONCRETE	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.70	0.69	0.68	0.67	0.65
T10	0.00	TRACTOR BLADES & ATTACHMENTS (including agricultural)	1.12	1.11	1.06	1.00	0.96	0.96	0.93	0.89	0.87	0.83	0.78	0.76	0.74	0.74	0.73	0.72	0.70	0.68
T15	0.00	TRACTORS, CRAWLER (DOZER) (includes blade)																		
T15	0.01	0 THRU 225 HP	1.14	1.12	1.07	1.00	0.95	0.95	0.92	0.88	0.86	0.81	0.76	0.73	0.71	0.71	0.70	0.69	0.66	0.64
T15	0.02	226 HP THRU 425 HP	1.13	1.11	1.06	1.00	0.95	0.96	0.92	0.89	0.87	0.83	0.77	0.75	0.73	0.73	0.72	0.71	0.68	0.67
T15	0.03	OVER 425 HP	1.12	1.10	1.06	1.00	0.96	0.96	0.93	0.90	0.88	0.84	0.79	0.76	0.75	0.74	0.74	0.73	0.70	0.69
T20	0.00	TRACTORS, WHEEL TYPE (DOZER)	1.08	1.06	1.03	1.00	0.97	0.97	0.93	0.88	0.84	0.80	0.76	0.72	0.70	0.69	0.68	0.67	0.64	0.63
T25	0.00	TRACTORS, AGRICULTURAL																		
T25	0.10	CRAWLER	1.08	1.06	1.03	1.00	0.97	0.96	0.93	0.88	0.84	0.79	0.76	0.72	0.70	0.69	0.67	0.66	0.64	0.63
T25	0.20	WHEEL	1.08	1.06	1.03	1.00	0.97	0.96	0.93	0.88	0.84	0.79	0.76	0.72	0.70	0.69	0.67	0.66	0.64	0.62
T30	0.00	TRENCHERS, CHAIN TYPE CUTTER	1.07	1.06	1.03	1.00	0.97	0.96	0.93	0.87	0.83	0.78	0.74	0.67	0.68	0.67	0.65	0.64	0.61	0.58
T35	0.00	TRENCHERS, WHEEL TYPE CUTTER	1.07	1.06	1.03	1.00	0.97	0.96	0.93	0.87	0.83	0.78	0.74	0.67	0.68	0.67	0.65	0.64	0.61	0.58
T40	0.00	TRUCK OPTIONS																		
T40	0.10	CRANES / HOISTS, PERSONNEL & MATERIAL HANDLING	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
T40	0.20	DUMP BODY, REAR	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
T40	0.30	FLATBEDS, WITH SIDES	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
T40	0.41	HOIST, ELECTRIC DRIVE	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
T40	0.50	TRANSIT MIXERS	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.90	0.87	0.83	0.77	0.74	0.73	0.72	0.71	0.70	0.69	0.68

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years																	
		Year Purchased New																	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
T40 0.60	WATER TANKS	1.11	1.09	1.05	1.00	0.96	0.96	0.92	0.88	0.86	0.81	0.74	0.71	0.69	0.68	0.68	0.67	0.66	0.64
T40 0.70	ALL OTHER OPTIONS	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.67	0.66
T45 0.00	TRUCK TRAILERS																		
T45 0.10	BOTTOM DUMP	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
T45 0.20	END DUMP	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
T45 0.30	PUP TRAILER	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
T45 0.41	LOWBOY, RIGID NECK, DROP DECK	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
T45 0.50	FLATBED TRAILER	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
T45 0.60	MISCELLANEOUS / UTILITY	1.09	1.07	1.04	1.00	0.97	0.96	0.93	0.90	0.88	0.84	0.78	0.75	0.74	0.73	0.73	0.72	0.71	0.69
T45 0.70	WATER TANKER TRAILER	1.11	1.09	1.05	1.00	0.96	0.96	0.92	0.88	0.86	0.81	0.75	0.71	0.70	0.69	0.68	0.67	0.66	0.64
T45 0.80	DECONTAMINATION FACILITY	1.11	1.09	1.05	1.00	0.96	0.96	0.92	0.88	0.86	0.81	0.74	0.71	0.69	0.68	0.68	0.67	0.66	0.64
T45 0.90	TANK TRAILERS	1.11	1.09	1.05	1.00	0.96	0.96	0.92	0.88	0.86	0.81	0.75	0.71	0.70	0.69	0.68	0.67	0.66	0.64
T50 0.00	TRUCKS, HIGHWAY (Add attachments as required)																		
T50 0.01	0 THRU 10,000 GVW	1.13	1.11	1.07	1.00	0.96	0.94	0.89	0.85	0.82	0.78	0.74	0.72	0.71	0.69	0.69	0.71	0.69	0.69
T50 0.02	OVER 10,000 THRU 30,000 GVW (Chassis only - Add options)	1.13	1.10	1.07	1.00	0.96	0.94	0.89	0.85	0.82	0.78	0.74	0.72	0.71	0.69	0.69	0.71	0.69	0.70
T50 0.03	OVER 30,000 GVW (Chassis only - Add options)	1.12	1.10	1.07	1.00	0.97	0.94	0.89	0.85	0.82	0.78	0.74	0.72	0.71	0.69	0.69	0.71	0.69	0.70
T55 0.00	TRUCKS, OFF-HIGHWAY																		
T55 0.10	RIGID FRAME	1.05	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.90	0.85	0.79	0.74	0.73	0.72	0.70	0.69	0.68	0.67
T55 0.20	ARTICULATED FRAME	1.05	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.90	0.85	0.78	0.74	0.73	0.71	0.70	0.68	0.67	0.66
T56 0.00	TRUCKS, OFF-HIGHWAY/PRIME MOVER TRACTORS & WAGONS																		
T56 0.10	PRIME MOVER TRACTORS	1.05	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.90	0.85	0.79	0.74	0.73	0.72	0.70	0.69	0.68	0.67
T56 0.20	WAGONS, BOTTOM DUMP	1.06	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.89	0.84	0.77	0.73	0.72	0.70	0.69	0.67	0.66	0.65

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years																		
		Year Purchased New																		
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	
T56	0.30	WAGONS, REAR DUMP	1.06	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.89	0.84	0.77	0.72	0.71	0.70	0.68	0.66	0.65	0.64
T57	0.00	TRUCKS, VACUUM	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.68	0.66
T60	0.00	TRUCKS, WATER, OFF-HIGHWAY	1.06	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.89	0.84	0.77	0.72	0.71	0.70	0.68	0.66	0.65	0.64
T65	0.00	TUNNEL/MINING EQUIPMENT																		
T65	0.10	DRIFTING & TUNNELING DRILLS	1.07	1.05	1.03	1.00	0.96	0.95	0.92	0.86	0.80	0.74	0.68	0.63	0.62	0.56	0.55	0.54	0.53	0.52
T65	0.20	TUNNEL BORING MACHINES	1.09	1.08	1.05	1.00	0.97	0.96	0.93	0.90	0.88	0.83	0.78	0.75	0.74	0.73	0.72	0.71	0.70	0.69
T65	0.30	PRODUCTION DRILLING RIGS	1.07	1.05	1.03	1.00	0.96	0.95	0.92	0.86	0.80	0.73	0.68	0.63	0.62	0.56	0.55	0.54	0.53	0.52
T65	0.40	ROADHEADERS & CONTINUOUS MINERS	1.09	1.08	1.05	1.00	0.97	0.96	0.93	0.90	0.87	0.83	0.78	0.75	0.73	0.72	0.72	0.71	0.70	0.68
T65	0.50	ROCK BOLTING EQUIPMENT	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.68	0.66
T65	0.61	LOADING & HAULING EQUIPMENT, DIESEL OR GAS	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.87	0.82	0.76	0.73	0.72	0.71	0.70	0.69	0.68	0.66
T65	0.62	LOADING & HAULING EQUIPMENT, ELECTRIC	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.87	0.82	0.76	0.73	0.72	0.71	0.71	0.70	0.68	0.67
T65	0.63	LOADING & HAULING EQUIPMENT, AIR-POWERED	1.11	1.09	1.05	1.00	0.96	0.96	0.92	0.88	0.86	0.81	0.75	0.71	0.70	0.69	0.68	0.67	0.66	0.64
T65	0.70	LOCOMOTIVES	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.87	0.82	0.76	0.73	0.72	0.71	0.70	0.69	0.68	0.66
T65	0.90	OTHER TUNNELING EQUIPMENT	1.10	1.08	1.05	1.00	0.96	0.96	0.93	0.89	0.86	0.82	0.76	0.73	0.71	0.70	0.70	0.69	0.68	0.66
W10	0.00	WAGONS, BOTTOM DUMP	1.05	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.90	0.85	0.78	0.73	0.73	0.71	0.70	0.68	0.67	0.66
W15	0.00	WAGONS, REAR DUMP	1.05	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.90	0.85	0.78	0.73	0.73	0.71	0.70	0.68	0.67	0.66
W25	0.00	WATER & CO2 BLASTERS																		
W25	0.10	LOW PRESSURE, (< 5,000 PSI)	1.10	1.09	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.81	0.75	0.72	0.70	0.69	0.69	0.68	0.67	0.65
W25	0.20	HIGH PRESSURE, (>= 5,000 PSI)	1.10	1.09	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.81	0.75	0.72	0.70	0.69	0.69	0.68	0.67	0.65
W25	0.30	STEAM CLEANERS	1.10	1.09	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.81	0.75	0.72	0.70	0.69	0.69	0.68	0.67	0.65
W25	0.40	CO2 BLASTERS	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.70	0.69	0.68	0.67	0.65
W25	0.50	WET ABRASIVE BLASTING SYSTEM (TORBO)	1.12	1.10	1.06	1.00	0.96	0.95	0.91	0.87	0.84	0.79	0.71	0.68	0.66	0.64	0.64	0.63	0.62	0.59

**Table 3-2 Equipment Age Adjustment Factors for Standby Cost**

CATEGORY SUB	REGION 2 TYPE OF EQUIPMENT	Life in Years																	
		Year Purchased New																	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
W30 0.00	WATER TANKS																		
W30 0.10	PORTABLE WITH WHEELS	1.06	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.89	0.84	0.77	0.72	0.71	0.70	0.68	0.66	0.65	0.64
W30 0.20	SKID MOUNTED	1.06	1.03	1.02	1.00	0.98	0.98	0.96	0.92	0.89	0.84	0.77	0.72	0.71	0.70	0.68	0.66	0.65	0.64
W35 0.00	WELDERS																		
W35 0.10	ENGINE DRIVEN	1.11	1.09	1.05	1.00	0.96	0.96	0.92	0.88	0.86	0.81	0.74	0.71	0.69	0.68	0.68	0.67	0.66	0.64
W35 0.20	ELECTRIC DRIVEN	1.10	1.08	1.05	1.00	0.96	0.96	0.92	0.89	0.86	0.82	0.75	0.72	0.71	0.70	0.69	0.68	0.67	0.65



**STANDBY HOURLY RATE CALCULATION FOR OVERAGE EQUIPMENT**

**EXAMPLE**

Assume the following set of given information for the rate calculation example:

1. The unit of equipment is not listed in table 2-1.
2. The equipment is contractor owned.
3. Data for the unit in question:
  - a. Caterpillar front-end wheel loader
  - b. Model 950-G, 4WD, 3.5 CY capacity
  - c. Serial number indicates year of manufacture = 2002
  - d. Actual purchase price in 2002 = \$205,000  
(includes all regional discounts, sales tax and freight)
  - e. Horsepower is 180 hp (fuel is Diesel off-road)
  - f. Drive tire (DT) size = 23.50 x 25, 16 ply, L-3 (appendix F tire code ANNB5)  
DT cost (2014) = 4 tires x \$4,233/tire = \$16,932
  - g. Weight = 39,200 lbs
4. Use the actual cost data as follows:
  - a. Purchase price (TEV) = \$205,000
  - b. Year of manufacture = 2002
5. Hourly rate is computed as follows:

Figure 3-2. Total Hourly Rate Calculation for Overage Equipment

**Example:** The piece of equipment shown in this example is based on a known piece of equipment for illustration purposes only.

USE THIS WORKSHEET TO COMPUTE A HOURLY RATE FOR EQUIPMENT THAT IS NOT IN THIS PAMPHLET OR IS IN THE PAMPHLET BUT NOT EQUIVALENT IN SIZE, CAPACITY, HORSEPOWER OR VALUE. (See Appendix A for a blank form)

Region 02

**1. EQUIPMENT INFORMATION AND EXPENSE FACTORS**

ID No: \_\_\_\_\_

a. Equipment Specification Data:

(1)	Equipment Description:	Loader, Front-end, Wheel, 4WD, 3.5 CY capacity	
(2)	Model and Series:	Caterpillar Model 950-G	
(3)	Present Year or Year of Use:		2014
(4)	Year Manufactured:		2002
(5)	Horsepower - Equipment:		180
(6)	Horsepower - Carrier:		0
(7)	Fuel		
	- <b>Equipment:</b> 0=None; 1=electric; 2-gasoline; 3-diesel off-road; 4-diesel on-road; 5-marine gas; 6-marine diesel	Enter number from 0 to 6 ==> <span style="border: 1px solid black; padding: 2px 10px;">3</span>	<b>D-off</b>
	- <b>Carrier:</b> 0=None; 1=electric; 2-gasoline; 3-diesel off-road; 4-diesel on-road; 5-marine gas; 6-marine diesel	Enter number from 0 to 6 ==> <span style="border: 1px solid black; padding: 2px 10px;">0</span>	<b>None</b>
(8)	Shipping Weight (cwt):		392 cwt

(9) Tire size and number of tires: (Cost of tires based on present year - see 1.a.(3) and Appendix F)

	<u>Size/Ply</u>	<u>App F Code</u>	<u>No.</u>	<u>Unit Price</u>	<u>Cost</u>
(a) Front (FT):			0	\$0	\$0
(b) Drive (DT):	23.5X25/16Ply	ANNB5	4	\$4,233	\$16,932
(c) Trailing (TT):			0	\$0	\$0
(d) Total Tire Cost:					\$16,932

(10) List Price + Accessories:  
[at Year (yr) of Manufacture] \$0 OR actual purchase price: \$205,000

**USE APPENDIX D TO COMPLETE THE FOLLOWING DATA:**

b.	Category and Subcategory Number:		L40	0.11
c.	Hourly Expense Calculation Factors:			
(1)	Economic Key (EK):			45
(2)	Condition (C): <b>A</b> =Average <b>D</b> =Difficult <b>S</b> =Severe		A	AVERAGE
(3)	Discount Code (DC): <b>B</b> = 7.5% (0.075) or <b>S</b> = 15.0% (0.15)		B	0.075
(4)	Life in Hours (LIFE):			9,250
(5)	Salvage Value Percentage (SLV):			0.25
(6)	Fuel Factor - Equipment [Electric (E) Gas (G) Diesel (D)]:			0.031
(7)	Fuel Factor - Carrier (E G D):			0.000
(8)	Filter, Oil, and Grease (FOG) Factor (E G D):			0.111
(9)	Tire Wear Factor:			
(a)	Front (FT):			0.83
(b)	Drive (DT):			0.54
(c)	Trailing (TT):			0.92
(10)	Repair Cost Factor (RCF):			0.70

Figure 3-2. Total Hourly Rate Calculation for Overage Equipment Page 1 of 6

Region 02

**2. EQUIPMENT VALUE**

a. List Price + Accessories: [at Year (yr) of Manufacture]				=	<u>          </u>	\$0
(1) Discount:	(List Price {1.a.(10)})	+ Accessories)	x	Discount {1.c.(3)}		
	<u>(\$0)</u>	+ <u>\$0.00)</u>	x	<u>0.075</u>	=	<u>          </u> - [ \$0 ]
(2) Subtotal {2.a.} - {2.a.(1)}					Subtotal	= <u>          </u> <u>\$0</u>
(3) Sales or Import Tax:	Subtotal {2.a.(2)}		x	Tax Rate {Appendix B}		
	<u>\$0</u>		x	<u>6.00%</u>	=	<u>          </u> \$0
(4) Total Discounted Price: {Subtotal: 2.a.(2) + 2.a.(3)}					Subtotal	= <u>          </u> <u>\$0</u>
b. Freight:	Shipping Weight {1.a.(8)}		x	Freight Rate per cwt {Appendix B}		
	<u>0,000 cwt</u>		x	<u>\$0.00 /cwt</u>	=	<u>          </u> \$0
c. <b>TOTAL EQUIPMENT VALUE (TEV):</b>				<b>TOTAL[2.]:</b>	=	<u>          </u> <b>\$205,000</b>
	{2.a.(4)} + {2.b} OR actual purchase price {1a.(10)}					
	<i>(See chapter 3 for used and overage equipment rate adjustments.)</i>					

**3. DEPRECIATION PERIOD (N)**

a.	LIFE {1.c.(4)}	/	Working Hours Per Year (WHPY) {Appendix B}	=	<u>          </u>	N
	<u>9,250 hr</u>	/	<u>1,450 hr/yr</u>	=	<u>          </u>	<u>6.38 yrs</u>

**4. OWNERSHIP COST**

a. Depreciation							
(1) Tire Cost Index (TCI):	Tire Index, Year of Manufacture, {1.a.(4)}	/	Tire Index, Present Year or Year of Use {1.a.(3)}		=	<u>          </u> TCI	
	Appendix E, EK=100	/	Appendix E, EK=100		=	<u>          </u> 0.600	
	<u>2430</u>	/	<u>4050</u>		=	<u>          </u> 0.600	
(2)	[TEV {2.c.}]	x	(1.0-SLV) {1.c.(5)}	-	(TCI {4.a.(1)})	x	Tire Cost)] / LIFE {1.a.(9)(d)} {1.c.(4)}
	<u>[\$205,000</u>	x	<u>(1.0-0.25)</u>	-	<u>(0.600</u>	x	<u>\$16,932 ]</u> / <u>9.250 /hr</u> = <u>          </u> <u>\$15.52 /hr</u>

Figure 3-2. Total Hourly Rate Calculation for Overage Equipment Page 2 of 6

**Region 02**

**4. OWNERSHIP COST (Continued)**

b. Facilities Capital Cost of Money (FCCM):

(1)	[( N - 1.0) {3.a.}]	x	(1.0 + SLV) {1.c.5.}	+	2.0]	/	(2.0 x N) {3.a.}	=	Avg Value Factor (AVF)
	<u>[(6.38 yr - 1.0)</u>	x	<u>(1.0 + 0.25)</u>	+	2.0]	/	<u>(2.0 x 6.38 yr)</u>	=	<u>0.684</u>

(2)	TEV {2.c.}	x	AVF {4.b.(1)}	x	Adjusted Cost-of-Money {Appendix B}	/	WHPY {Appendix B}	=	
	<u>\$205,000</u>	x	<u>0.684</u>	x	<u>1.70%</u>	/	<u>1,450 hr/yr</u>	=	<u>\$1.64 /hr</u>

c. <b>TOTAL HOURLY OWNERSHIP COST:</b> {4.a.(2)} + {4.b.(2)}	<b>TOTAL [4.]: = <u>\$17.16 /hr</u></b>
---	---

**5. OPERATING COST**

a. Fuel Costs:

(1) Equipment:

	Fuel Factor {1.c.(6)}	x	Horsepower (hp) {1.a.(5)}	x	Fuel Cost per Gallon (gal) {Appendix B}	=	
	<u>0.000</u>	x	<u>0 hp</u>	x	<u>\$0.00 /gal</u>	=	<u>\$0.00 /hr</u>

(2) Carrier:

	Fuel Factor {1.c.(7)}	x	hp {1.a.(6)}	x	Fuel Cost per gal {Appendix B}	=	
	<u>0.000</u>	x	<u>0 hp</u>	x	<u>\$0.00 /gal</u>	=	<u>\$0.00 /hr</u>

(3) Total Hourly Fuel Cost: {5.a (1)} + {5.a (2)}	<b>Total [5.a.] = <u>\$0.00 /hr</u></b>
--	---

b. FOG Cost:

(1) Equipment:

	FOG Factor {1.c.(8)}	x	Equipment Hourly Fuel Cost {5.a.(1)}	x	Labor Adjustment Factor (LAF) {Appendix B}	=	
	<u>0.000</u>	x	<u>\$0.00 /hr</u>	x	<u>0.00</u>	=	<u>\$0.00 /hr</u>

**Figure 3-2. Total Hourly Rate Calculation for Overage Equipment** Page 3 of 6

Region 02

5. **OPERATING COST (Continued)**

(2) Carrier:

FOG Factor {1.c.(8)}	x	Carrier Hourly Fuel Cost {5.a.(2)}	x	LAF {Appendix B}	
<u>0.000</u>	x	<u>\$0.00 /hr</u>	x	<u>0.00</u>	= <u>\$0.00 /hr</u>

(3) Total Hourly FOG Cost: Total [5.b.] = \$0.00 /hr  
 {5.b.(1)} + {5.b.(2)}

c. Alternative Fuel/FOG Cost: Total [5.c.] = \$0.00 hr  
 (See chapter 2, paragraph 2.24.d. for guidance on when to use.)

d. Repair Cost:

(1) Economic Adjustment Factor (EAF):  
 EK is from {1.c.(1)}

Economic Index, Present Year or Year of Appendix E, EK={1.c.(1)}	/	Economic Index, Year of Manufacture, {1.a.(4)} Appendix E, EK={1.c.(1)}	
<u>0000</u>	/	<u>0000</u>	= <u>0.000</u>

*(See table 3-1 for last year of economic life.)*

(2) Repair Factor (RF):

RCF {1.c.(10)}	x	EAF {5.d.(1)}	x	LAF {Appendix B}	= <u>RF</u>
<u>0.00</u>	x	<u>0.000</u>	x	<u>0.00</u>	= <u>0.000</u>

(3) Repair Cost:

[TEV {2.c.}]	-	(TCI {4.a.(1)})	x	Tire Cost]]	x	RF	/	LIFE
<u>[\$0</u>	-	<u>(0.000</u>	x	<u>\$0)]</u>	x	<u>0.000</u>	/	<u>0</u>

(4) Total Hourly Repair Cost: Total [5.d.] = \$0.00 /hr

Figure 3-2. Total Hourly Rate Calculation for Overage Equipment Page 4 of 6

Region 02

5. OPERATING COST (Continued)

e. Tire Wear Cost: (Use current price levels. See Appendix F.)

(1) Front Tires (FT):

$$\begin{array}{rclclcl} (1.5 \times \text{FT Cost}) & / & (1.8 \times \text{FT Wear Factor}) & \times & \text{Maximum Tire Life Hours} & \\ \{1.a.(9)(a)\} & & \{1.c.(9)(a)\} & & \{Appendix F\} & \\ \underline{(1.5 \times \$0)} & / & \underline{(1.8 \times 0.00)} & \times & \underline{0 \text{ hrs}} & = \underline{\$0.00/hr} \end{array}$$

(2) Drive Tires (DT):

$$\begin{array}{rclclcl} (1.5 \times \text{DT Cost}) & / & (1.8 \times \text{DT Wear Factor}) & \times & \text{Maximum Tire Life Hours} & \\ \{1.a.(9)(b)\} & & \{1.c.(9)(b)\} & & \{Appendix F\} & \\ \underline{(1.5 \times \$0)} & / & \underline{(1.8 \times 0.00)} & \times & \underline{0 \text{ hrs}} & = \underline{\$0.00/hr} \end{array}$$

(3) Trailing Tires (TT):

$$\begin{array}{rclclcl} (1.5 \times \text{TT Cost}) & / & (1.8 \times \text{TT Wear Factor}) & \times & \text{Maximum Tire Life Hours} & \\ \{1.a.(9)(c)\} & & \{1.c.(9)(c)\} & & \{Appendix F\} & \\ \underline{(1.5 \times \$0)} & / & \underline{(1.8 \times 0.00)} & \times & \underline{0 \text{ hr}} & = \underline{\$0.00/hr} \end{array}$$

(4) Total Tire Wear Cost: Total [5.e.] = \$0.00/hr  
Sum {5.e.(1)} through {5.e.(3)}

f. Tire Repair Cost:

$$\begin{array}{rclclcl} \text{Total Tire Wear Cost} & & & & & \\ \text{per Hour} & \times & (0.15 \times \text{LAF}) & & & \\ \{5.e.(4)\} & & \{Appendix B\} & & & \\ \underline{\$0.00/hr} & \times & \underline{(0.15 \times 0.00)} & & \text{Total [5.f.] = } & \underline{\$0.00/hr} \end{array}$$

**g. TOTAL HOURLY OPERATING COST:** Total [5.] = \$0.00/hr  
Sum {5.a.} through {5.f.}

Region 02

6. **HOURLY RATES**

a. Total Hourly Rate: *[based on 40 hours per week (wk)]*

$$\begin{array}{rcl} \text{Ownership Cost} & + & \text{Operating Cost} \\ \text{\{4.c.\}} & & \text{\{5.g.\}} \\ \\ \underline{\$0.00 /hr} & + & \underline{\$0.00 /hr} \end{array}$$

$$= \underline{\$0.00 /hr}$$

See Figure 3-1 for hourly rate calculations for overage equipment

b. Other Work Shifts Hourly Rate:  
*(Refer to Chapter 3, Adjustments to Rates, for methodology.)*

$$\begin{array}{rcl} \text{Depreciation} & + & (\text{FCCM} \times 40 \text{ hr/wk} / \text{Work hr/wk}) + \text{Operating Cost} \\ \text{\{4.a.(2)\}} & & \text{\{4.b.(2)\}} \qquad \text{example:60 hr/wk} \qquad \text{\{5.g.\}} \\ \\ \underline{\$0.00 /hr} & + & \underline{\$0.00 /hr} \times \underline{40 \text{ hr/wk}} / \underline{60 \text{ hr/wk}} + \underline{\$0.00 /hr} \\ & & \text{example:60 hr/wk} \end{array}$$

$$= \underline{\$0.00 /hr}$$

c. Standby Hourly Rate:  
*(Refer to Chapter 2, paragraph 2.28 for guidance on use.)*

$$\begin{array}{rcl} (\text{Depreciation} \times 0.50) & + & \text{FCCM} \\ \text{\{4.a.(2)\}} & & \text{\{4.b.(2)\}} \\ \\ (\underline{\$15.52 /hr} \times 0.50) & + & \underline{\$1.64 /hr} \end{array}$$

$$= \underline{\$9.40 /hr}$$

*(Refer to Chapter 3, paragraph 3.12 for guidance for overage equipment.)*

See Chapter 3 if rate adjustments are necessary.

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## CHAPTER 4

### Methodology for Dredging Plant and Marine Equipment

#### SECTION I. GENERAL

4.1 Contents. This chapter contains the methodology used to compute ownership and operating rates for dredging plant and permanent floating plant such as floating pile-driving equipment. Dredging plant is marine equipment used for dredging operations for the majority of its life or designed and built for marine/dredging use.

#### 4.2 General.

a. The ownership and operating rates provided in table 2-1, category M-10, are based on the methodology in chapter 2 for non-dredging equipment. However, the cost data (Acquisition Cost, Horsepower, and Fuel Type) may be used for calculation of dredging plant and marine equipment rates, provided they are calculated in accordance with the methodology in this chapter.

b. Table 4-1 shows ownership and operating cost factors for various types of dredging plant. When a type of plant is not listed, the cost is estimated by using the factors listed in this table for a similar type of plant.

c. The methodology for determining operating rates for hopper dredges was omitted from this pamphlet due to the limited number of hopper dredges and the complexity of the methods used to calculate the rates. Further information can be found in Engineer Regulation (ER) 1110-2-1302, Engineering and Design, Civil Works Cost Engineering, and in Engineer Technical Letter (ETL) 1110-2-573 Engineering and Design: Construction Cost Estimating Guide for Civil Works. The internet locations for downloading these documents are provided in Appendix A. The methodology for calculating ownership cost is in section V of this chapter.

d. For mechanical dredges, the cost of the bucket is typically included in the plant value; therefore, no additional allowance should be made for ownership cost. If the bucket cost is not included in the plant value, the bucket may be treated as a separate unit of equipment.

#### SECTION II. ANNUAL USE

4.3 Time Available to Dredge. The number of months available per calendar year (yr) for dredging shall be based on the work time available to dredge, excluding downtime for major repairs, work in dry dock, bad weather, and environmental restrictions. Figure 4-1 depicts months available for dredging, including mobilization and demobilization, based on historic data collected by the U.S. Army Corps of Engineers' regional dredge

estimating teams. The data in figure 4-1 shall be used for computing the ownership costs unless specified otherwise in the contract documents.

<b>AVAILABLE TIME TO DREDGE BY REGION (In Months)</b>			
	<u>Type of Dredging Operation</u>		
<u>Region</u>	<u>Pipeline</u>	<u>Bucket</u>	<u>Hopper</u>
Atlantic Coast and tributaries	9	10	10
Gulf Coast, Lower Mississippi, and Tributaries	10	10	11
Great Lakes, Upper Mississippi, and Tributaries	8	8	8
West Coast and Tributaries	9	9	9

Figure 4-1. Months Available by Region

### SECTION III. LIFE

4.4 Life. The life for determining ownership and operating costs is defined as follows:

a. The Useful Life is expressed in years in table 4-1. It is the economic life of the equipment and is used to develop ownership rates for various types of dredging plant.

b. The Physical Life is expressed in hours (hrs) in table 4-1. It is the life of the unit based on effective working time and is used to develop operating rates for various types of dredging plant.

4.5 Annual Hours Available. The annual hours available to dredge can be established for each type of plant based on the months available and the estimated effective monthly hours worked. Dredging time is defined as effective plus non-effective working time. "Effective working time" is defined as time during the dredging operation when actual production is taking place. "Non-effective working time" is defined as time during the dredging operation when the dredge is operational but no production is taking place. For further information see ER 1110-2-1302, *Engineering and Design, Civil Works*

*Cost Engineering.* The total annual hours available can be expressed by formula, as follows:

$$\text{Available Hours per yr} = \text{Months Available/yr} \times \text{Effective Hours/Month}$$

Where:

- a. Months Available/yr is found in figure 4-1.
- b. Effective Hours/Month is the effective working time.

#### SECTION IV. SALVAGE VALUE

4.6 Salvage Value (SLV). The salvage value, expressed as a decimal, is shown in table 4-1 for different types of plant.

#### SECTION V. OWNERSHIP COST

4.7 Ownership Cost. Ownership cost is calculated based on a percent of plant value. Plant value is the acquisition cost plus the cost of any initial capital improvements. The value of initial capital improvements is based on those betterments, which were made within 1 year of purchase. Capital improvements do not include any replacement or repair work. Repairs or replacements are an operating cost and are covered in the repair cost allowance. Capital improvements are considered betterments, where the plant has been improved (e.g., adding radar or upgrade of engines). (Note: Only the cost difference between replacement of existing similar engines and actual cost for upgrading engines should be considered as capital improvement). For capital improvements not made within the first year after the initial acquisition, see section VIII.

a. The ownership cost is determined from the plant value and is the total expense rate based on depreciation and CMR. When cost or pricing data is available, the actual acquisition price shall be used. Otherwise, the value of a similar piece of plant is used and, if necessary, adjusted so that capacity, size, and horsepower are properly considered.

b. Ownership rate is determined on a yearly basis and distributed over a monthly basis. The monthly rate is calculated based on the available use months by using the following formula:

$$\text{Monthly Ownership Cost} = \frac{\text{Plant Value} \times (\text{Yearly DEPR Percent} + \text{Yearly CMR Percent})}{\text{Available Use Months}}$$

Where:

- (1) Plant Value = Acquisition price plus initial capital improvements.
- (2) Yearly DEPR Percent = Ownership percent per year for depreciation.
- (3) Yearly CMR Percent = Ownership percent per year for cost of money rate.
- (4) Available Use Months is from figure 4-1.

4.8 Depreciation Factor. Depreciation is computed using the straight-line method. The depreciable value is the acquisition cost, plus initial capital improvements, less estimated salvage. The basis for determining the yearly percentage factor for depreciation is expressed by the following formula:

$$\text{Yearly DEPR Percent} = (1 - \text{SLV}) / N$$

Where:

- a. N = Useful Life from table 4-1.
- b. SLV = Salvage Value from table 4-1.

4.9 The Cost of Money Rate (CMR) Factor. The CMR factor is calculated on a yearly basis and is expressed here as an annual percentage factor. The CMR used in the calculation is the rate in effect at the time the work was performed. This formula is expressed as follows:

$$\text{Yearly CMR Percent} = \frac{[(N - 1)(1 + \text{SLV}) + 2](\text{discounted CMR})}{2N}$$

Where:

- a. N = Useful Life from table 4-1.
- b. SLV = Salvage Value from table 4-1.
- c. Discounted CMR = Cost of money rate (appendix I) reduced by 25 percent for overhead and profit allowance.

4.10 Other Ownership Elements. Taxes, storage (lay up), and insurance are considered indirect (overhead) costs. These costs are not included in ownership rates since they vary by geographic area and with individual contractors. These costs are

considered as overhead costs and are, therefore, not included here so they will not be duplicated in the overhead in the estimate or submitted proposal.

## SECTION VI. OPERATING FACTORS

4.11 Hourly Operating Cost. Operating cost is based on effective working time. Dredging plant operating factors are shown in table 4-1. These factors, which are described in paragraph 4.12, are not intended to replace historical data but shall be used when historical data is limited or nonexistent.

4.12 Prime and Secondary Power. Prime power refers to the primary operating engine for the dredge or other piece of attendant plant. Secondary power refers to all other secondary engines or power plants. If more than one secondary power engine is present, the horsepower is totaled. Fuel consumption factors are prepared on the same basis as in chapter 2. Hourly fuel costs are calculated separately for the primary and secondary engines. The formula used is expressed as follows:

$$\text{Hourly Fuel Cost} = \text{Horsepower} \times \text{Fuel Cost/Gallon} \times \text{Engine Fuel Factor}$$

Where:

- a. Horsepower is the engines rated horsepower.
- b. Fuel Cost/Gallon is based on values shown in appendix B. See chapter 3 for fuel cost adjustments.
- c. Fuel Factor - Gas or Diesel Fuel. The fuel factor is listed in table 4-1 for the primary and secondary engines.

4.13 Water, Lube, and Supplies (WLS). This factor is similar to the filters, oil, and grease (FOG) factor described in chapter 2. This item is computed as either a percentage of the hourly fuel costs or, if the type of plant has no engine, a reasonable hourly cost should be included. This factor does not include an allowance for the oiler normally assigned to the dredge or other piece of dredging plant. The formula is expressed as follows:

$$\text{Water, Lube, and Supply Cost} = \text{WLS factor} \times \text{Hourly Fuel Cost}$$

Where:

- a. WLS Factor is obtained from table 4-1.
- b. Hourly Fuel cost is calculated as shown in paragraph 4-12.

4.14 Repair Factor (RPR). This factor includes an allowance for all major and minor repairs and is similar to the maintenance and repair cost factor (RCF) described in chapter 2. The economic adjustment factor (EAF) and the labor adjustment factor (LAF) are required to develop this cost. The formula is expressed as follows:

$$\text{Repair Cost} = \frac{(\text{Total Plant Value} \times \text{RPR} \times \text{EAF} \times \text{LAF})}{\text{Life in hr}}$$

Where:

- a. Total Plant Value = Acquisition price plus Initial capital improvements.
- b. RPR = Repair Factor from table 4-1.
- c. EAF = Economic Index (present year)/ Economic Index (acquisition year).
- d. LAF = Labor Adjustment Factor from appendix B.
- e. Life in hrs = Physical Life from table 4-1.

It should be noted that the repair allowance does not include the following estimated additive items:

f. Excessive dredge wear for parts (*e.g.*, cutter teeth and main suction pumps) is not included due to the wide variety of materials being dredged. The original cost of the bucket and normal wear are typically included in the plant value covered in the plant rate. Excessive bucket wear for mechanical dredges is estimated as an additive item or treated as a separate unit of equipment from table 2-1. Allowances for wear due to abrasive material should only be included as an additive item if it is warranted and is not considered elsewhere in the estimate.

g. Dry docking costs, which represent an allowance for rental of the dry dock facility, are not included because they vary greatly depending on the facilities available. Repairs incurred while in dry dock, which occur periodically, are in the repairs. Dry docking costs will be allocated on an average annual basis over the years between such occurrences in accordance with cost accounting standards and generally accepted accounting principles and practices.

h. There is no predetermined allowance in the dredging plant methodology for jobsite yard costs, mobilization, or demobilization. All of these cost elements must be separately estimated to match each project's construction conditions.

## SECTION VII. STANDBY

4.15 Standby Rate. The standby rate is computed by allowing the full ownership cost. In addition to the standby ownership rate, it may be necessary on dredges to include operating costs. Examples of allowable operating cost are as follows: a generator fuel allowance to account for operation of a diesel engine generator for power to operate pumps; navigation lights; minimum crew; *etc.*

a. Standby is a directed delay by the Government and will not be allowed during periods when the plant would have otherwise been in idle status, such as non-effective working time. Since ownership is calculated based on life in years computed monthly, standby should be paid only when additional time has been directed by the Government. Standby is to be paid on a 24-hour basis.

b. Standby for pipeline and accessories shall be based on pumping mud in determining values from table 4-1.

## SECTION VIII. NEGOTIATED PROCUREMENT

4.16 Rates. The calculated dredging plant rates based on the methodology presented in this chapter should be used for preparing a reasonable contract estimate. When adequate cost or pricing data is available and submitted by the contractor for negotiated procurement, the rates may be adjusted in accordance with the methodology in this chapter. Cost or pricing data is defined in FAR 15.4, *Contract Pricing*.

4.17 Allowance for Additional Capital Improvements. Allowance for additional capital improvements shall be calculated in accordance with generally accepted accounting principles. When adequate cost or pricing data is not available, factors for a similar unit of equipment may be used for determining the ownership rate for overage equipment and plant.

4.18 Overage Plant. When the plant has exceeded the useful life given in table 4-1, it is considered overage. The ownership rate for overage plant should be determined with the same methodology described in section V.

a. When actual cost or pricing data is available to adjust the operating rate, the data must be accurate, complete, and established in accordance with generally accepted accounting principles.

b. When actual cost or pricing data is not available, the total hourly operating rate for overage equipment shall be computed on the basis that the equipment is equal to the useful life as shown in table 4-1.

4.19 Dredging Plant Purchased Used. For plant purchased used, the ownership and operating rate must be calculated on an individual case, due to the varying conditions. When actual cost or pricing data is not available, the methodology from this chapter shall be used and values for life and salvage from table 4-1 can be adjusted. Support for adjustments can be obtained by calling the Chief, Cost Engineering Branch, Engineering and Construction Division, Walla Walla District, U.S. Army Corps of Engineers (CENWW-EC-X), telephone 509-527-7511 or 509-527-7510.

#### SECTION IX. RATE CALCULATION EXAMPLE

4.20 Rate Calculation Example. The example shown in figure 4-2 illustrates the use of figure 4-1, table 4-1, and the regional data from appendix B to generate a rate. For illustration purposes, assume that a 24-inch hydraulic dredge (pipeline) was purchased new in 1997 for \$4,500,000, including tax and delivery, and there were no initial capital improvements. This example uses 500 hours per month and a discounted CMR of 1.70 percent.



Table 4-1. Dredging Plant Cost Factors

Type of Plant	Useful Life	Physical Life	Salvage Value	Prime Engine Fuel Factor			Secondary Engine Fuel Factor			WLS %		RPR %
	YRS	HR	SLV	HPF	G	D	HPF	G	D	G	D	
<u>Hydraulic Dredges - Pipeline</u>												
(Cutterhead or Dustpan)												
(Based on Discharge Diameter)												
(Non-Truckable)												
8 inch and under	5	10,000	0.05	80	0.083	0.045	70	0.072	0.039	20	22	70
9 inch through 10 inch	6	12,000	0.05	80	0.083	0.045	70	0.072	0.039	20	22	80
11 inch through 12 inch	8	16,000	0.05	80	0.083	0.045	70	0.072	0.039	20	22	90
13 inch through 15 inch	15	40,000	0.05	80	0.083	0.045	70	0.072	0.039	20	22	100
16 inch through 17 inch	20	80,000	0.05	80	0.083	0.045	70	0.072	0.039	20	22	110
18 inch through 20 inch	20	100,000	0.05	80	0.083	0.045	70	0.072	0.039	20	22	120
21 inch through 22 inch	25	120,000	0.10	80	0.083	0.045	70	0.072	0.039	20	22	130
23 inch through 24 inch	25	130,000	0.10	80	0.083	0.045	70	0.072	0.039	20	22	130
25 inch through 29 inch	30	135,000	0.10	80	0.083	0.045	70	0.072	0.039	20	22	130
30 inch or larger	30	135,000	0.10	80	0.083	0.045	70	0.072	0.039	20	22	130
<u>Barge Mounted Booster Pump</u>												
(For Pipeline Dredges)												
16 inch through 17 inch	20	80,000	0.05	80	0.083	0.045	70	0.072	0.039	22	24	80
18 inch through 20 inch	20	100,000	0.10	80	0.083	0.045	70	0.072	0.039	22	24	90
21 inch through 22 inch	25	120,000	0.10	80	0.083	0.045	70	0.072	0.039	22	24	100
23 inch through 24 inch	25	130,000	0.10	80	0.083	0.045	70	0.072	0.039	22	24	110
25 inch through 29 inch	30	135,000	0.10	80	0.083	0.045	70	0.072	0.039	22	24	120
30 inch or larger	30	135,000	0.10	80	0.083	0.045	70	0.072	0.039	22	24	120

SLV = Salvage Value  
WLS = Water, Lube and Supplies

HPF = Horsepower Factor  
RPR = Repairs

G = Gas

D = Diesel

Table 4-1. Dredging Plant Cost Factors (Continued)

Type of Plant	Useful Life	Physical Life	Salvage Value	Prime Engine Fuel Factor			Secondary Engine Fuel Factor			WLS %		RPR %
	YRS	HR	SLV	HPF	G	D	HPF	G	D	G	D	
<u>Mechanical Dredges (Large)</u> <sup>1</sup>												
Clamshell - under 5 cy	8	18,000	0.05	70	0.072	0.039	60	0.062	0.033	22	24	90
Clamshell - 6 cy to 10 cy	13	26,000	0.05	70	0.072	0.039	60	0.062	0.033	22	24	100
Clamshell - 11 cy to 15 cy	20	40,000	0.05	70	0.072	0.039	60	0.062	0.033	22	24	110
Clamshell - 16 cy to 20 cy	25	75,000	0.05	70	0.072	0.039	60	0.062	0.033	22	24	120
Clamshell - 20 cy and over	30	90,000	0.05	70	0.072	0.039	60	0.062	0.033	22	24	130
All Other Types (Bucket or Dipper)	25	90,000	0.10	70	0.072	0.039	60	0.062	0.033	22	24	120
<u>Barge Mounted Crane with Clamshell Bucket</u>												
<u>Non - Dredging</u>												
Clamshell - under 6 cy	9	18,000	0.05	55	0.055	0.031	45	0.045	0.025	22	24	85
Clamshell - 6 cy to 10 cy	14	28,000	0.05	55	0.055	0.031	45	0.045	0.025	22	24	95
Clamshell - 11 cy to 15 cy	21	42,000	0.05	55	0.055	0.031	45	0.045	0.025	22	24	105
<u>Barge Mounted Lifting Crane</u>												
25 Ton to 75 Ton, 45' Boom	9	18,000	0.05	40	0.040	0.022	30	0.030	0.017	22	24	80
75 Ton to 125 Ton, 60' Boom	14	28,000	0.05	40	0.040	0.022	30	0.030	0.017	22	24	90
Over 125 Ton, over 60' Boom	21	42,000	0.05	40	0.040	0.022	30	0.030	0.017	22	24	100
<u>Barges (Used with Dredging)</u>												
Fuel or Water	20	90,000	0.05	20	0.021	0.011	20	0.021	0.011	18	20	60
Equipment or Work	20	90,000	0.05	20	0.021	0.011	20	0.021	0.011	18	20	60
Derrick	20	90,000	0.10	20	0.021	0.011	20	0.021	0.011	18	20	70
Anchor	20	90,000	0.05	20	0.021	0.011	20	0.021	0.011	18	20	60
Mooring Barge	20	90,000	0.05	20	0.021	0.011	20	0.021	0.011	18	20	60
Dump Scow	20	90,000	0.05	20	0.021	0.011	20	0.021	0.011	18	20	70

SLV = Salvage Value

WLS = Water, Lube and Supplies

<sup>1</sup> Sized by the largest bucket used (normally a mud bucket)

HPF = Horsepower Factor

RPR = Repairs

G = Gas

D = Diesel

Table 4-1. Dredging Plant Cost Factors (Continued)

Type of Plant	Useful Life	Physical Life	Salvage Value	Prime Engine Fuel Factor			Secondary Engine Fuel Factor			WLS %		RPR %
	YRS	HR	SLV	HPF	G	D	HPF	G	D	G	D	
<u>Boats – See Category M10</u>												
<u>Tugs and Tenders</u> (Used with Dredging)												
Under 500 hp	8	18,000	0.10	80	0.083	0.045	70	0.072	0.039	32	38	80
501 through 1,000 hp	10	40,000	0.10	80	0.083	0.045	70	0.072	0.039	32	38	90
1,001 through 2,000 hp	15	55,000	0.10	80	0.083	0.045	70	0.072	0.039	32	38	100
2,001 through 3,000 hp	20	100,000	0.10	80	0.083	0.045	70	0.072	0.039	32	38	110
Over 3,000 hp	25	120,000	0.10	80	0.083	0.045	70	0.072	0.039	32	38	120
<u>Pipeline and Accessories</u> (Inland Environment)												
<u>Metal Pipeline (under 20 inch)</u>												
Pumping Mud	2	9,000	0.10	0	0.000	0.000	0	0.000	0.000	0	0	5
Pumping Sand	1	4,500	0.10	0	0.000	0.000	0	0.000	0.000	0	0	5
Pumping Rock (Gravel)	0.3	1,500	0.10	0	0.000	0.000	0	0.000	0.000	0	0	5
Joints	3	12,000	0.10	0	0.000	0.000	0	0.000	0.000	0	0	30
Pontoons/Floats	12	60,000	0.10	0	0.000	0.000	0	0.000	0.000	0	0	5
<u>Metal Pipeline (20 inch and Larger)</u>												
Pumping Mud	3	12,000	0.10	0	0.000	0.000	0	0.000	0.000	0	0	5
Pumping Sand	1.5	6,000	0.10	0	0.000	0.000	0	0.000	0.000	0	0	5
Pumping Rock (Gravel)	0.5	2,000	0.10	0	0.000	0.000	0	0.000	0.000	0	0	5
Joints	3	12,000	0.10	0	0.000	0.000	0	0.000	0.000	0	0	30
Pontoons/Floats	12	60,000	0.10	0	0.000	0.000	0	0.000	0.000	0	0	5

SLV = Salvage Value

WLS = Water, Lube and Supplies

HPF = Horsepower Factor

RPR = Repairs

G = Gas

D = Diesel

Table 4-1. Dredging Plant Cost Factors (Continued)

Type of Plant	Useful Life	Physical Life	Salvage Value	Prime Engine Fuel Factor			Secondary Engine Fuel Factor			WLS %		RPR %
	YRS	HR	SLV	HPF	G	D	HPF	G	D	G	D	
<u>Pipeline and Accessories (Ocean Environment)</u>												
<u>Metal Pipeline (All sizes)</u>												
Pumping Mud	2	9,000	0.40	0	0.000	0.000	0	0.000	0.000	0	0	5
Pumping Sand	1	4,500	0.40	0	0.000	0.000	0	0.000	0.000	0	0	5
Pumping Rock (Gravel)	0.3	1,500	0.40	0	0.000	0.000	0	0.000	0.000	0	0	5
Joints	1	4,500	0.40	0	0.000	0.000	0	0.000	0.000	0	0	5
Pontons/Floats	2	9,000	0.40	0	0.000	0.000	0	0.000	0.000	0	0	5
<u>Metal Pipeline On-Shore</u>												
Pumping Mud	3	12,000	0.10	0	0.000	0.000	0	0.000	0.000	0	0	5
Pumping Sand	1.5	6,000	0.10	0	0.000	0.000	0	0.000	0.000	0	0	5
Pumping Rock (Gravel)	0.5	2,000	0.10	0	0.000	0.000	0	0.000	0.000	0	0	5
Standby Calculation: Standby for pipeline and accessories shall be based on pumping mud.												

SLV = Salvage Value  
WLS = Water, Lube and Supplies

HPF = Horsepower Factor  
RPR = Repairs

G = Gas

D = Diesel

**Example:** *The piece of equipment shown is based on a known piece of equipment for illustration purposes only.*

**USE THIS WORKSHEET TO COMPUTE A MONTHLY AND HOURLY RATE FOR MARINE AND DREDGING PLANT**

Region 02

ID No: \_\_\_\_\_

**1. MARINE AND DREDGING PLANT INFORMATION AND EXPENSE FACTORS**

a. Plant Pertinent Data:	
(1) Equipment Description:	<u>24" Hydraulic Cutter Suction Dredge</u>
(2) Model and Series:	<u>Ellicott Series 4900 Super Dragon</u>
(3) Present Year or Year of Use:	<u>2014</u>
(4) Acquisition Year:	<u>1997</u>
(5) Horsepower (hp) - Prime	<u>3,730 hp</u>
(6) Horsepower (hp) - Secondary Engine	
(a) Electrical Generators	<u>200 hp</u>
(b) Hydraulic System	<u>1,325 hp</u>
(c) Cutter Head Drive	<u>750 hp</u>
(d) Hydraulic Water Jet	<u>200 hp</u>
	<b><u>2,475 hp</u></b>
(7) Plant Value:	
(a) Acquisition Costs	<u>\$4,500,000</u>
(b) Capital Improvements	<u>\$0</u>
	<b><u>\$4,500,000</u></b>
(8) Hours Worked per Month (Effective Time)	<u>500 hrs/mo</u>
(9) Additive Item(s) (Monthly Costs To be Estimated)	
(a) Excessive Dredge Wear (Gravel)	<u>\$8,000 /mo</u>
(b) _____	<u>\$0 /mo</u>
(c) _____	<u>\$0 /mo</u>
(d) _____	<u>\$0 /mo</u>
(e) _____	<u>\$0 /mo</u>
	<b><u>\$8,000 /mo</u></b>
b. Appendix B, Area Factors Data	
(1) Labor Adjustment Factor (LAF)	<u>1.02</u>
(2) Fuel type	<u>Marine Diesel</u>
Fuel Cost Per Gallon	<u>\$3.11</u>
(3) Cost of Money Rate (undiscounted)	<u>2.125%</u>
(4) Cost of Money Rate (discounted)	<u>1.700%</u>
c. Appendix E, Economic Index Data (EK 105)	
(1) Economic Index, Acquisition Year	<u>5429</u>
(2) Economic Index, Present Year or Year of Use	<u>8515</u>

Input data, methodology and notes used in the following sections of this form are or have reference to EP 1110-1-8, CONSTRUCTION EQUIPMENT OWNERSHIP AND EXPENSE SCHEDULE (see chapter 4).

**Region 02**

**1. MARINE AND DREDGING PLANT INFORMATION AND EXPENSE FACTORS (Continued)**

d. Figure 4-1, Available Time to Dredge By Region Data (See Chapter 4, paragraph 4.3 for guidance)	
(1) Months Available Per Year (9 months is used for this example)	<u>9 months/yr</u>
e. Table 4-1, Dredging Plant Cost Factors Data	
(1) Useful Life (in Years) for Ownership (N)	<u>25 yrs</u>
(2) Physical Life (in Hours) for Repairs	<u>130,000 hrs</u>
(3) SLV (Salvage Value Factor)	<u>0.10</u>
(4) Prime Engine Fuel Factor (gal/bhp-hr)	<u>0.045</u>
(5) Secondary Engine Fuel Factor (gal/bhp-hr)	<u>0.039</u>
(6) WLS (Water, Lube & Supplies Factor) percent	<u>22%</u>
(7) RPR (Repair Cost Factor)	<u>1.30</u>

**2. ANNUAL OWNERSHIP PERCENTAGE FACTORS**

a. Depreciation Percent Per Year (DEPR)	
$\frac{1.0 - \text{SLV}}{\{1.e.(3)\}} \quad / \quad \text{N}$ $\frac{1.0 - 0.10}{\quad} \quad / \quad 25 \text{ yrs}$	= <u>3.60% /yr</u>
b. Facilities Capital Cost of Money Percent Per Year (FCCM)	
$\frac{(N-1)}{\{1.e.(1)\}} \quad x \quad \frac{(1+\text{SLV})+2}{\{1.e.(3)\}} \quad x \quad \frac{\text{Discounted Money Rate}}{\{\text{Appendix B}\}} \quad / \quad \frac{2N}{\{1.e.(1)\}}$ $\frac{(25-1)}{\quad} \quad x \quad \frac{(1+0.10)+2}{\quad} \quad x \quad 1.700\% \quad / \quad 50.00$	= <u>0.97% /yr</u>
c. Total Ownership Percent Per Year (DEPR + FCCM)	= <u>4.57% /yr</u>

**3. OWNERSHIP COSTS**

a. Ownership per Year	
$\text{Plant Value} \quad x \quad \text{Total Ownership Percent Per Year}$ $\{1.a.(7)(a)\} \quad x \quad (\text{DEPR} + \text{FCCM})$ $\underline{\$4,500,000} \quad x \quad \underline{4.57\%} \quad = \quad \underline{\$205,650.00 /yr}$	
b. Monthly Ownership Expense	
$\text{Ownership per Year} \quad / \quad \text{Months Available per Year}$ $\{3.a.\} \quad / \quad \{1.d.(1)\}$ $\underline{\$205,650.00 /yr} \quad / \quad \underline{9 \text{ months/yr}} \quad \text{rounded} = \quad \underline{\$22,850.00 /mo}$	

Region 02

4. OPERATING COSTS

a. Fuel Cost

(1) Prime Engine Fuel

	Fuel Factor	x	HP	x	Fuel Cost per Gallon	
	{1.e.(4)}		{1.a.(5)}		{1.b.(2)}	
	<u>0.045 gal/bhp-hr</u>	x	<u>3,730</u>	x	<u>\$3.11</u>	= <u>\$522.01 /hr</u>

(2) Secondary Engine Fuel

	Fuel Factor	x	HP	x	Fuel Cost per Gallon	
	{1.e.(5)}		{1.a.(6)}		{1.b.(2)}	
	<u>0.039 gal/bhp-hr</u>	x	<u>2,475</u>	x	<u>\$3.11</u>	= <u>\$300.19 /hr</u>

(3) Total Fuel (Prime Engine Fuel + Secondary Engine Fuel) = \$822.20 /hr

b. Water, Lube, and Supply (WLS) Cost

(1) Prime Engine WLS

	WLS Factor	x	Hourly Fuel Cost	
	{1.e.(6)}		{4.a.(1)}	
	<u>0.22</u>	x	<u>\$522.01 /hr</u>	= <u>\$114.84 /hr</u>

(2) Secondary Engine WLS

	WLS Factor	x	Hourly Fuel Cost	
	{1.e.(6)}		{4.a.(2)}	
	<u>0.22</u>	x	<u>\$300.19 /hr</u>	= <u>\$66.04 /hr</u>

(3) Total Fuel (Prime Engine WLS + Secondary Engine WLS) = \$180.88 /hr

c. Repair Cost

(1) Economic Adjustment Factor (EAF)

	Economic Index for Present Year or Year of Use	/	Economic Index for Acquisition Year	
	{1.c.(2)}		{1.c.(1)}	
	<u>8515</u>	/	<u>5429</u>	= <u>1.568</u>

(2) Repair Cost

	Total Plant Value	x	RPR	x	EAF	x	LAF	/	Life in Hrs	
	{1.a.(7)}		{1.e.(7)}		{4.c.(1)}		{1.b.(1)}		{1.e.(2)}	
	<u>\$4,500,000</u>	x	<u>1.30</u>	x	<u>1.568</u>	x	<u>1.02</u>	/	<u>130,000</u>	= <u>\$71.97 /hr</u>

Region 02

4. **OPERATING COSTS (Continued)**

d. Total Hourly Operating Cost (Fuel + WLS + Repairs)

Fuel	+	WLS	+	Repairs	=	
{4.a.(3)}		{4.b.(3)}		{4.c.(2)}		
<u>\$822.20 /hr</u>		<u>\$180.88 /hr</u>		<u>\$71.97 /hr</u>		<u>\$1,075.05 /hr</u>

e. Monthly Operating Cost

Total Hourly Operating Cost	x	Hrs Worked per Mo				
{4.d.}		{1.a.(8)}				
<u>\$1,075.05 /hr</u>		<u>500 hrs/mo</u>		rounded =		<u>\$537,525.00 /mo</u>

5. **TOTAL MONTHLY RATE**

a. Ownership {3.b.} = \$22,850.00 /mo

b. Operating {4.e.} = \$537,525.00 /mo

c. Total Estimated Additive Items {1.a.(9))} = \$8,000.00 /mo

d. **TOTAL MONTHLY RATE** = \$568,375.00 /mo

{5.a.} + {5.b.} + {5.c.}

6. **STANDBY ALLOWANCE**

a. Standard Hourly Standby Expense

Monthly Ownership Expense	/	Maximum hrs/mo = 30.4 days/mo x 24 hrs/day				
{3.b.}						
<u>\$22,850.00 /mo</u>		<u>730 hrs/mo</u>		=		<u>\$31.30 /hr</u>

b. Generator Fuel Allowance for Dredge (An additional generator fuel allowance may be allowed under certain circumstances. This allowance is applicable to dredges only.)

Generator HP	/	Total Secondary HP	x	Secondary Fuel Cost	=	
{1.a.(6)}		{1.a.}		{4.a.(2)}		
<u>200 hp</u>		<u>2,475 hp</u>		<u>\$300.19</u>		<u>\$24.26 /hr</u>

c. **TOTAL HOURLY STANDBY ALLOWANCE FOR DREDGE**

Standby Expense	+	Generator Fuel Allowance				
{6.a.}		{6.b.}				
<u>\$31.30 /hr</u>		<u>\$24.26 /hr</u>		=		<u>\$55.56 /hr</u>



## APPENDIX A REFERENCES

### SECTION I: REQUIRED PUBLICATIONS

Public Law 92-41. *Renegotiation Act of 1971* [PL 92-41 (85 Stat. 97)].

Federal Acquisition Regulation 15.4 *Contract Pricing*, Government Printing Office, Washington, DC.

\_\_\_\_\_. 30.101. *Cost Accounting Standards*, Part 30, Government Printing Office, Washington, DC.

\_\_\_\_\_. 31.105. *Construction and Architect-Engineer Contracts*, Government Printing Office, Washington, DC.

\_\_\_\_\_. 31.205-10. *Cost of Money*, Government Printing Office, Washington, DC.

\_\_\_\_\_. 31.205-36. *Rental Costs*, Government Printing Office, Washington, DC.

\_\_\_\_\_. 49. *Termination of Contracts*, Government Printing Office, Washington, DC.

\_\_\_\_\_. 52.230-2. *Cost Accounting Standards*, Government Printing Office, Washington, DC.

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### **SECTION III: GEOGRAPHIC REGIONS**

Engineer Pamphlet 1110-1-8 Construction Equipment Ownership and Operating Expense Schedule, Volume 1

Volume 1 is for use in Region I, which includes the following states:

Connecticut	New York
Maine	Pennsylvania
Massachusetts	Rhode Island
New Hampshire	Vermont
New Jersey	

Engineer Pamphlet 1110-1-8 Construction Equipment Ownership and Operating Expense Schedule, Volume 2

Volume 2 is for use in Region II, which includes the following states:

Delaware	Maryland
District of Columbia	Michigan (Lower Peninsula)
Illinois (East of U.S. Highway 51)	Ohio
Kentucky (East of U.S. Highway 51)	Virginia
Indiana	West Virginia

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Engineer Pamphlet 1110-1-8 Construction Equipment Ownership and Operating Expense Schedule, Volume 3

Volume 3 is for use in Region III, which includes the following states:

Alabama	Mississippi
Arkansas	Missouri (Panhandle South of 36° - 30'00")
Florida	North Carolina
Georgia	South Carolina
Louisiana	Tennessee

Engineer Pamphlet 1110-1-8 Construction Equipment Ownership and Operating Expense Schedule, Volume 4

Volume 4 is for use in Region IV, which includes the following states:

Iowa (North of U.S. Highway 20)	North Dakota
Michigan (Upper Peninsula)	South Dakota
Minnesota	Wisconsin
Montana	Wyoming

Engineer Pamphlet 1110-1-8 Construction Equipment Ownership and Operating Expense Schedule, Volume 5

Volume 5 is for use in Region V, which includes the following states:

Colorado	Kentucky (West of U.S. Highway 51)
Illinois (West of U.S. Highway 51)	Missouri (North of 36° -30'00")
Iowa (South of U.S. Highway 20)	Nebraska
Kansas	

Engineer Pamphlet 1110-1-8 Construction Equipment Ownership and Operating Expense Schedule, Volume 6

Volume 6 is for use in Region VI, which includes the following states:

New Mexico  
Oklahoma

Texas

Engineer Pamphlet 1110-1-8 Construction Equipment Ownership and Operating Expense Schedule, Volume 7

Volume 7 is for use in Region VII, which includes the following states:

Arizona  
California

Nevada  
Utah

Engineer Pamphlet 1110-1-8 Construction Equipment Ownership and Operating Expense Schedule, Volume 8

Volume 8 is for use in Region VIII, which includes the following states:

Idaho  
Oregon

Washington

Engineer Pamphlet 1110-1-8 Construction Equipment Ownership and Operating Expense Schedule, Volume 9

Volume 9 is for use in Region IX, which includes the following states:

Alaska

Engineer Pamphlet 1110-1-8 Construction Equipment Ownership and Operating Expense Schedule, Volume 10

Volume 10 is for use in Region X, which includes the following states:

Hawaii

Engineer Pamphlet 1110-1-8 Construction Equipment Ownership and Operating Expense Schedule, Volume 11

Volume 11 is for use in Region XI, which includes the following states:

Puerto Rico

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Engineer Pamphlet 1110-1-8 Construction Equipment Ownership and Operating Expense Schedule, Volume 12

Volume 12 is for use in Region XII, which includes the following states:

Kwajalein Island

## **SECTION IV: USACE ACQUISITION INSTRUCTIONS**

### **PART 31 – CONTRACT COST PRINCIPLES AND PROCEDURES SUBPART 31.1 — APPLICABILITY**

#### **31.105-100 Construction and A-E Contracts.**

In accordance with FAR 31.105(d)(2)(i)(b), equipment ownership and operating costs shall be determined using EP 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule.

#### **31.105-101 Special Contract Requirements.**

The contracting officer shall insert the SCR, Equipment Ownership and Operating Expense Schedule, in Section 00 73 00, in all solicitations and contracts for construction within the United States that are expected to exceed the micro-purchase threshold.

Equipment Ownership and Operating Expense Schedule (MAR 1995)

(a) This special contract requirement does not apply to terminations. See 52.249-5000, Basis for Settlement of Proposals, and FAR Part 49.

(b) Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial and series for which the Government can determine both ownership and operating costs from the contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment or groups of similar serial or series equipment from the contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of EP 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule, Region [*insert Roman numeral for the appropriate region of the schedule*]. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the contracting officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be

developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retroactive pricing, the schedule in effect at the time the work was performed shall apply.

(c) Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(ii) and FAR 31.205-36, Rental Costs. Rates for equipment rented from an organization under common control, lease-purchase arrangements, and sale-leaseback arrangements, will be determined using the schedule, except that actual rates will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.

#### **SECTION IV: USACE ACQUISITION INSTRUCTIONS (Continued)**

(d) When actual equipment costs are proposed and the total amount of the pricing action exceeds the SAT, the contracting officer shall request the contractor to submit either certified cost or pricing data, or partial/limited data, as appropriate. The data shall be submitted on Standard Form 1411, Contract Pricing Proposal Cover Sheet.

#### **SECTION V: EFAR REFERENCE**

The Engineer Federal Acquisition Regulation Supplement (EFARS) is RESCINDED by the USACE Acquisition Instruction which was issued by USACE Head of Contracting Activity on March 18, 2013. EFARS can be referenced, as necessary, for any contracts issued before March 18, 2013.

#### **EFARS PART 31 - CONTRACT COST PRINCIPLE AND PROCEDURES**

##### **SUBPART 31.1 -- APPLICABILITY**

##### **31.105 Construction and Architect-Engineer Contracts.**

(d)(2)(i)(b) In this case, equipment ownership and operating costs shall be determined using the Construction Equipment Ownership and Operating Expense Schedule published by the U.S. Army Corps of Engineers.

##### **31.105-100 Contract Statement.**

The contracting officer shall insert the statement at 52.231-5000 in all solicitations and contracts for construction within the United States that are expected to exceed the small purchase threshold.

**EFARS Clause - 52.231-5000 Equipment Ownership and Operating Expense Schedule.**

As prescribed in 31.105-100, insert the following clause in all solicitations and contracts for construction that are expected to exceed the small purchase threshold.

EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE (MAR 1995) – EFARS.

(a) This clause does not apply to terminations. See 52.249-5000, *Basis for Settlement of Proposals*, and FAR Part 49, *Termination of Contracts*.

(b) Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial and series for which the Government can determine both ownership and operating costs from the contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment or groups of similar serial or series equipment from the contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of EP 1110-1-8, *Construction Equipment Ownership and Operating Expense Schedule, Region [Insert roman numeral for the appropriate region of the schedule]*. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the contracting officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retroactive pricing, the schedule in effect at the time the work was performed shall apply.

(c) Equipment rental costs are allowable, subject to the provisions of FAR 31.105, *Construction and Architect-Engineer Contract*, and FAR 31.205-36, *Rental Costs*. Rates for equipment rented from an organization under common control, lease-purchase arrangements, and sale-leaseback arrangements, will be determined using the schedule, except that actual rates will be used for equipment leased from an

organization under common control that has an established practice of leasing the same or similar equipment or unaffiliated lessees.

(d) When actual equipment costs are proposed and the total amount of the pricing action exceeds the small purchase threshold, the contracting officer shall request the contractor to submit either certified cost or pricing data, or partial/limited



data, as appropriate. The data shall be submitted on Standard Form 1411, Contract Pricing Proposal Cover Sheet.

**SECTION VI. OBTAINING PUBLICATION AND CHECKRATE**

The Engineer Pamphlet (EP) 1110-1-8 Volumes 1-12 is available in portable document format (PDF) and can be viewed or downloaded at the official HQUSACE documents webpage at <http://www.usace.army.mil/> by selecting "Library" and selecting "Publications". The direct link to the current edition is:

[http://publications.usace.army.mil/publications/eng-pamphlets/EP\\_1110-1-8/toc.html](http://publications.usace.army.mil/publications/eng-pamphlets/EP_1110-1-8/toc.html).

Compact disks (CDs) are developed and distributed to a pre-publication mailing list, a limited number of additional CDs are produced and available upon request.

Requests for CDs may be placed by sending an e-mail to [CENWWW-COST@usace.army.mil](mailto:CENWWW-COST@usace.army.mil). When ordering, please give the following information and specify the quantity:

Title of Publication:	EP 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule
Region:	Region I through XII
Volume No.	Volume No. 1 through No. 12
Media:	CD
Quantities:	

Other Products are available at the Walla Walla District Cost Engineering website: <http://www.nww.usace.army.mil/Missions/CostEngineering.aspx>. Expand the Product Support Section by clicking on the plus sign next to "Construction Equipment Rates (EP 1110-1-8) and CHECKRATE", the following links and downloads are available:

Previous editions of Engineers Pamphlet EP1110-1-8 are available at: <http://www.nww.usace.army.mil/Missions/CostEngineering/Historical.aspx>.

To download the CHECKRATE workbook the direct link is: <http://www.nww.usace.army.mil/Portals/28/docs/costengineering/CheckRate04v06r1.xls>.

Use this worksheet to compute rates for equipment that is not in this pamphlet.

1. **EQUIPMENT INFORMATION AND EXPENSE FACTORS**

ID No.: \_\_\_\_\_

a. Equipment Specification Data:

- (1) Equipment Description: \_\_\_\_\_
- (2) Model and Series: \_\_\_\_\_
- (3) Year of Use: \_\_\_\_\_
- (4) Year Manufactured: \_\_\_\_\_
- (5) Horsepower - Equipment: \_\_\_\_\_
- (6) Horsepower - Carrier: \_\_\_\_\_
- (7) Fuel type: - Equipment: gas/diesel off-road/diesel on-road/electric/air \_\_\_\_\_  
- Carrier: gas/diesel off-road/diesel on-road/electric/air \_\_\_\_\_
- (8) Shipping Weight (cwt): \_\_\_\_\_
- (9) Tire size and number of tires: (Cost of tires based on year of use – see 1.a.(3) and appendix F)

	<u>No.</u>	<u>Size/Ply</u>	<u>Unit Price</u>	<u>Cost</u>
(a) Front (FT):	_____	_____	\$ _____	\$ _____
(b) Drive (DT):	_____	_____	\$ _____	\$ _____
(c) Trailing (TT):	_____	_____	\$ _____	\$ _____
(d) Total Tire Cost:				\$ _____

**USE APPENDIX D TO COMPLETE THE FOLLOWING DATA:**

- b. Category and Subcategory Number: \_\_\_\_\_
- c. Hourly Expense Calculation Factors:
  - (1) Economic Key (EK): \_\_\_\_\_
  - (2) Condition (C): \_\_\_\_\_ Average or Severe or Difficult
  - (3) Discount Code (DC): B = 7.5% (0.075) – or – S = 15.0% (0.15) \_\_\_\_\_
  - (4) Life in Hours (LIFE): \_\_\_\_\_
  - (5) Salvage Value Percentage (SLV): \_\_\_\_\_
  - (6) Fuel Factor – Equipment [Electric (E) Gas (G) Diesel (D)]: \_\_\_\_\_
  - (7) Fuel Factor – Carrier (E G D): \_\_\_\_\_
  - (8) Filters, Oil, and Grease (FOG) Factor (E G D): \_\_\_\_\_
  - (9) Tire Wear Factor:
    - (a) Front (FT): \_\_\_\_\_
    - (b) Drive (DT): \_\_\_\_\_
    - (c) Trailing (TT): \_\_\_\_\_
  - (10) Repair Cost Factor (RCF): \_\_\_\_\_



4. **OWNERSHIP COST (Continued)**

b. Facilities Capital Cost of Money (FCCM):

(1) 
$$\frac{[(N) - 1.0] \times [1.0 + (SLV)] + 2.0}{[2.0 \times (N)]} = \text{Avg Value Factor}$$

[3.a.]                      [1.c.5.]                      [3.a.]                      (AVF)

$$\frac{[(\text{_____ yr}) - 1.0] \times [1.0 + (\text{_____})] + 2.0}{[2.0 \times (\text{_____ yr})]}$$

= \_\_\_\_\_ (AVF)

(2) 
$$(\text{TEV}) \times (\text{AVF}) \times (\text{Adjusted Cost - of - Money}) / (\text{WHPY})$$

[2.c]    [4.b.(1)]                      [Appendix B]                      [Appendix B]

$$(\$ \text{_____}) \times (\text{_____}) \times (\text{_____}) / (\text{_____ hr/yr})$$

= \$ \_\_\_\_\_ /hr

c. **TOTAL HOURLY OWNERSHIP COST: TOTAL [4.]:** = \$ \_\_\_\_\_ /hr

[4.a.(2)] + [4.b.(2)]

5. **OPERATING COST**

a. Fuel Costs:

(1) Equipment:

$$(\text{Fuel Factor} \times (\text{Horsepower (hp)}) \times (\text{Fuel Cost Per Gallon (gal)}))$$

[1.c.(6)]                      [1.a.(5)]                      [Appendix B]

$$(\text{_____}) \times (\text{_____ hp}) \times (\$ \text{_____} / \text{gal}) = \$ \text{_____} / \text{hr}$$

(2) Carrier:

$$(\text{Fuel Factor}) \times (\text{Horsepower}) \times (\text{Fuel Cost Per Gallon})$$

[1.c.(7)]                      [1.a.(6)]                      [Appendix B]

$$(\text{_____}) \times (\text{_____ hp}) \times (\$ \text{_____} / \text{gal}) = \$ \text{_____} / \text{hr}$$

(3) **Total Hourly Fuel Cost:** **Total [5.a.] = \$ \_\_\_\_\_ /hr**

[(5.a.(1)) + (5.a.(2))]

b. FOG Cost:

(1) Equipment:

$$(\text{FOG Factor}) \times (\text{Equipment Fuel Cost}) \times (\text{Labor Adjustment Factor (LAF)})$$

[1.c.(8)]                      [5.a.(1)]                      [Appendix B]

$$(\text{_____}) \times (\$ \text{_____} / \text{hr}) \times (\text{_____}) = \$ \text{_____} / \text{hr}$$

5. **OPERATING COST (Continued)**

(2) Carrier:

$$\text{(FOG Factor)} \times \text{(Carrier Fuel Cost)} \times \text{(LAF)}$$

[1.c.(8)]                      [5.a.(2)]                      [Appendix B]

$$(\text{_____}) \times (\$ \text{_____} / \text{hr}) \times (\text{_____}) = \$ \text{_____} / \text{hr}$$

(3) Total Hourly FOG Cost: **Total [5.b.] = \$\_\_\_\_\_ /hr**  
 [(5.b.(1)) + (5.b.(2))]

c. Alternative Fuel/FOG Cost: **Total [5.c.] = \$\_\_\_\_\_ /hr**

(See chapter 2, paragraph 24.d. for guidance on when to use.)

d. Repair Cost:

(1) Economic Adjustment Factor (EAF):  
 (EK is from [1.c.(1)])

$$\text{(Economic Index for Year 1.a.(3))} / \text{(Economic Index for Year 1.a.(4))}$$

[Appendix E]    [Appendix E]

$$(\text{_____}) / (\text{_____}) = \text{_____ (EAF)}$$

(See table 3-1 for last year of economic life.)

(2) Repair Factor (RF):

$$\text{(RCF)} \times \text{(EAF)} \times \text{(LAF)} = \text{_____ Repair Factor (RF)}$$

[1.c.(10)]                      [5.d.(1)]                      [Appendix B]

$$(\text{_____}) \times (\text{_____}) \times (\text{_____}) = \text{_____ (RF)}$$

(3) Repair Cost:

$$[(\text{TEV}) - [(\text{TCI}) \times (\text{Tire Cost})]] \times (\text{RF}) / (\text{LIFE})$$

[2.c.]                      [4.a.(1)]                      [1.a.(9)(d)]                      [5.d.(2)]                      [1.c.(4)]

$$[(\$ \text{_____}) - [(\text{_____}) \times (\$ \text{_____})]] \times (\text{_____}) / (\text{_____})$$

(4) Total Hourly Repair Cost: **Total [5.d.] = \$\_\_\_\_\_ /hr**

5. **OPERATING COST (Continued)**

e. Tire Wear Cost: (Use current price levels. See Appendix F)

(1) Front Tires (FT):

$$\frac{[1.5 \times (\text{FT Cost})]}{[1.8 \times (\text{FT Wear Factor}) \times (\text{Maximum Tire Life Hours})]}$$

[1.a.(9)(a)]
[1.c.(9)(a)]
[Appendix F]

$$[1.5 \times (\$ \text{_____})] / [1.8 \times (\text{_____}) \times (\text{_____}/\text{hr})]$$

$$= \$ \text{_____} / \text{hr}$$

(2) Drive Tires (DT):

$$\frac{[1.5 \times (\text{DT Cost})]}{[1.8 \times (\text{DT Wear Factor}) \times (\text{Maximum Tire Life Hours})]}$$

[1.a.(9)(b)]
[1.c.(9)(b)]
[Appendix F]

$$[1.5 \times (\$ \text{_____})] / [1.8 \times (\text{_____}) \times (\text{_____}/\text{hr})]$$

$$= \$ \text{_____} / \text{hr}$$

(3) Trailing Tires (TT):

$$\frac{[1.5 \times (\text{TT Cost})]}{[1.8 \times (\text{TT Wear Factor}) \times (\text{Maximum Tire Life Hours})]}$$

[1.a.(9)(c)]
[1.c.(9)(c)]
[Appendix F]

$$[1.5 \times (\$ \text{_____})] / [1.8 \times (\text{_____}) \times (\text{_____}/\text{hr})]$$

$$= \$ \text{_____} / \text{hr}$$

(4) Total Tire Wear Cost:  
[Sum 5.e.(1) through 5.e.(3)]

**Total [5.e.] = \$ \_\_\_\_\_ /hr**

f. Tire Repair Cost:

$$(\text{Total Tire Wear Cost}) \times 0.15 \times (\text{LAF})$$

[5.e.(4)]
[Appendix B]

$$(\$ \text{_____} / \text{hr}) \times 0.15 \times (\text{_____})$$

**Total [5.f.] = \$ \_\_\_\_\_ /hr**

g. **TOTAL HOURLY OPERATING COST:**  
[Sum 5.a. through 5.f.]

**TOTAL [5.] = \$ \_\_\_\_\_ /hr**

6. **HOURLY RATES**

a. Total Hourly Rate: *[based on 40 hours per week (wk)]*

(Ownership Cost) + (Operating Cost)

(\$ \_\_\_\_\_/hr) + (\$ \_\_\_\_\_/hr)

=\$ _____/hr
--------------

b. Other Work Shifts Hourly Rate:  
*(Refer to Chapter 3, Adjustments to Rates, for methodology.)*

[(Depreciation) + [(FCCM) x (40 hr/wk) / (Work hr/wk)] + (Operating Cost)]  
[4.a.(2)]                      [4.b.(2)]                      (example: 60 hr/wk)                      [5.g.]

[( \$ \_\_\_\_\_/hr) + [( \$ \_\_\_\_\_/hr) x (40 hr/wk) / ( \_\_\_\_\_ hr/wk)] + ( \$ \_\_\_\_\_/hr)]

=\$ _____/hr
--------------

c. Standby Hourly Rate:

[(Depreciation) x 0.50] + (FCCM)  
[4.a.(2)]                      [4.b.(2)]

[( \$ \_\_\_\_\_/hr) x 0.50] + ( \$ \_\_\_\_\_/hr)

=\$ _____/hr
--------------

**See Chapter 3 if rate adjustments are necessary.**

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**APPENDIX B**  
**AREA FACTORS**

*MIDEAST*

**Region:** 2

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Total State Sales or Import Tax Rate:	6.00%
Working Hours Per Year (WHPY):	1,450 hrs/yr
Labor Adjustment Factor (LAF):	1.02
Electricity Cost Per Kilowatt-Hour:	\$0.095 /kW-Hr
Gasoline Cost Per Gallon:	\$3.76 /gal
Diesel Cost Per Gallon (Off-Road Use):	\$3.49 /gal
Diesel Cost Per Gallon (On-Road Use):	\$4.05 /gal
Cost-of-Money Rate (Full Rate):	2.125%
Cost-of-Money Rate (Adjusted):	1.700%

**Freight Rates**

over	0	cwt	thru	240	\$10.54
over	240	cwt	thru	300	\$9.81
over	300	cwt	thru	400	\$8.84
over	400	cwt	thru	500	\$7.94
over	500	cwt	thru	700	\$5.17
over	700	cwt	thru	800	\$5.17
over	800	cwt	thru	99,999	\$8.64

## APPENDIX B AREA FACTORS (for all regions)

Below is a listing of all regional area factors for reference only. The area factor's used for this pamphlet are located on previous page B-1.

Reg	SST	WHPY	LAF	Elec	Gas	D-Off	D-On	Freight Cost															
								Thru CWT \$	Thru CWT \$	Thru CWT \$	Thru CWT \$	Thru CWT \$	Thru CWT \$	Thru CWT \$	Thru CWT \$								
1	NORTHEAST	2014	6.00%	1360	1.15	\$0.132	\$3.77	\$3.66	\$4.19	240	\$19.34	300	\$17.80	400	\$15.56	500	\$13.43	700	\$6.79	800	\$6.79	99,999	\$11.41
2	MIDEAST	2014	6.00%	1450	1.02	\$0.095	\$3.76	\$3.49	\$4.05	240	\$10.54	300	\$9.81	400	\$8.84	500	\$7.94	700	\$5.17	800	\$5.17	99,999	\$8.64
3	SOUTHEAST	2014	8.60%	1530	0.88	\$0.095	\$3.62	\$3.42	\$3.89	240	\$16.27	300	\$14.82	400	\$12.69	500	\$10.64	700	\$5.85	800	\$5.85	99,999	\$9.79
4	NORTHCENTRAL	2014	5.85%	1260	1.02	\$0.094	\$3.75	\$3.49	\$4.00	240	\$22.71	300	\$20.99	400	\$18.72	500	\$16.62	700	\$12.23	800	\$12.14	99,999	\$7.90
5	MIDWEST	2014	7.90%	1400	0.98	\$0.089	\$3.82	\$3.44	\$3.94	240	\$17.09	300	\$15.69	400	\$13.80	500	\$12.05	700	\$9.02	800	\$8.99	99,999	\$7.36
6	SOUTHWEST	2014	8.70%	1590	0.86	\$0.086	\$3.65	\$3.43	\$3.86	240	\$22.74	300	\$21.12	400	\$19.04	500	\$17.14	700	\$12.49	800	\$12.45	99,999	\$8.14
7	WEST	2014	9.25%	1630	1.12	\$0.105	\$3.83	\$3.49	\$4.05	240	\$36.13	300	\$33.56	400	\$30.18	500	\$27.08	700	\$18.40	800	\$17.53	99,999	\$10.93
8	NORTHWEST	2014	6.05%	1540	1.06	\$0.078	\$3.85	\$3.54	\$4.07	240	\$30.86	300	\$29.05	400	\$26.59	500	\$24.30	700	\$11.26	800	\$9.51	99,999	\$6.48
9	ALASKA	2014	4.40%	1040	1.19	\$0.155	\$4.36	\$3.87	\$4.11	240	\$63.98	300	\$53.95	400	\$43.11	500	\$49.09	700	\$33.08	800	\$31.15	99,999	\$27.79
10	HAWAII	2014	4.50%	1480	1.23	\$0.341	\$4.39	\$4.15	\$4.90	240	\$118.93	300	\$71.52	400	\$56.01	500	\$61.76	700	\$43.92	800	\$48.92	99,999	\$22.55
11	PUERTO RICO	2014	7.00%	1560	0.7	\$0.312	\$3.86	\$3.47	\$3.95	240	\$42.12	300	\$30.96	400	\$26.95	500	\$24.52	700	\$17.75	800	\$16.52	99,999	\$12.22
12	KWAJALEIN	2014	4.50%	1390	1	\$0.341	\$4.00	\$4.15	\$4.90	240	\$33.40	300	\$31.19	400	\$28.13	500	\$25.24	700	\$12.23	800	\$10.61	99,999	\$8.09

**SST = State Sales tax**      **WHPY = Work Hours Per Year**      **LAF = Labor Adjustment Factor**      **Elec = Electricity Cost Per kW-Hr**  
**Gas = Gasoline Cost per Gal**      **D-Off = Diesel-Off Road Cost per Gal**      **D-On = Diesel-On Road Cost per Gal**      **CWT = Hundred Pounds**

**APPENDIX C  
GUIDE FOR SELECTING OPERATING CONDITIONS**

<b>EQUIPMENT TYPE</b>	<b>AVERAGE</b>	<b>SEVERE</b>
<p><b><u>B25 and B35:</u></b> Buckets Clamshell or Dragline</p> <p>Depreciation Period:</p>	<p>Working in gravels, silts, and sands at low impact freshwater environment.</p> <p>8,000 - 10,000 hours</p>	<p>Working in rock, hard digging, high impact, or saltwater environment.</p> <p>6,500 - 8,000 hours</p>
<p><b><u>C80 and C90:</u></b> Cranes Hydraulic, Truck Mounted Mechanical, Truck Mounted</p> <p>Depreciation Period:</p>	<p>Lift less than rated capacity, intermittent duty.</p> <p>14,000 - 20,000 hours</p>	<p>Continuous lift near rated capacity, excessive swing, abrasive materials, sloped surfaces, and saltwater environment.</p> <p>12,000 - 18,000 hours</p>
<p><b><u>C85:</u></b> Cranes Mechanical Dragline, Lifting, or Clamshell  Crawler Mounted</p> <p>Depreciation Period:</p>	<p>Gravels, silts, pull, and lift less than rated capacity.</p> <p>14,000 - 22,000 hours</p>	<p>Highly abrasive materials, impact breakout, continuous load near rated capacity, and saltwater environment.</p> <p>12,000 - 18,000 hours</p>
<p><b><u>G10:</u></b> Generators</p> <p>Depreciation Period:</p>	<p>Working below rated capacity, good field conditions.</p> <p>8,000 - 10,000 hours</p>	<p>Working at or above rated capacity, poor field conditions, such as saltwater.</p> <p>7,000 - 8,000 hours</p>

EQUIPMENT TYPE	AVERAGE	SEVERE
<p><b>G15:</b> Graders, Motor</p> <p>Depreciation Period:</p>	<p>Haul road maintenance; road construction, ditching; loose fill spreading; landforming, landleveling; summer road maintenance with medium to heavy winter snow removal; and elevating grader use.</p> <p>14,500 hours</p>	<p>Maintenance of hard-packed roads with embedded rock; heavy fill spreading; ripping scarifying of asphalt or concrete; continuous high load factor; and high impact.</p> <p>13,500 hours</p>
<p><b>H25:</b> Hydraulic Excavators Crawler Mounted</p> <p>Depreciation Period:</p>	<p>Mass excavation or trenching where machine digs all the time in natural bed clay soils; some traveling and steady, full throttle operation; and most log loading operations.</p> <p>8,500 - 19,000 hours</p>	<p>Continuous trenching or truck loading in rock or shot rock soils; large amount of travel over rough ground; machine continuously working on rock floor with constant high load factor and high impact; and saltwater environment.</p> <p>7,000 – 15,000 hours</p>
<p><b>H30:</b> Hydraulic Excavators Wheel Mounted</p> <p>Depreciation Period:</p>	<p>Continuous digging in sandy clay/sandy gravel, site development, and lumber yard applications.</p> <p>8,000 - 10,000 hours</p>	<p>Continuous digging in rock/natural bed clay, high impact, using hammer, and working in forests or quarries.</p> <p>6,500 - 8,000 hours</p>

EQUIPMENT TYPE	AVERAGE	SEVERE
<p><b>H35:</b> Hydraulic Shovels Crawler Mounted (nonelectric)</p> <p>Depreciation Period:</p>	<p>Continuous loading in well shot rock or fairly tight bank. Good underfoot conditions: dry floor, little impact, or sliding on undercarriage.</p> <p>14,000 - 18,000 hours</p>	<p>Continuous loading in poorly shot rock, virgin, or lightly blasted tight banks. Adverse underfoot conditions: rough floors, high impact sliding on undercarriage; and saltwater environment.</p> <p>12,000 - 16,000 hours</p>
<p><b>L10:</b> Land Clearing Equipment</p> <p>Depreciation Period:</p>	<p>Working in low impact conditions at or below rated capacity.</p> <p>10,000 hours</p>	<p>High impact conditions working at or above rated capacity.</p> <p>7,000 hours</p>
<p><b>L30:</b> Loaders, Belt (conveyors)</p> <p>Depreciation Period:</p>	<p>Working below rated capacity, with intermittent service.</p> <p>10,000 hours</p>	<p>Working at or above rated capacity with continuous service.</p> <p>8,000 hours</p>
<p><b>L35:</b> Loaders, Front End Crawler Type</p> <p>Depreciation Period:</p>	<p>Bank excavation, intermittent ripping, basement digging of natural bed clays, sands, silts, and gravels; some traveling; and steady full throttle operations.</p> <p>10,000 hours</p>	<p>Loading shot rock, cobbles, glacial till, and caliche; steel millwork; high density materials in standard bucket; continuous work on rock surfaces; large amount of ripping of tight rock materials; high impact conditions; and saltwater environment.</p> <p>8,000 hours</p>

EQUIPMENT TYPE	AVERAGE	SEVERE
<p><b><u>L40:</u></b> Loaders, Front End Wheel Type (does not include skid steer and tool carriers)</p> <p>Depreciation Period:</p>	<p>Continuous truck loading from stockpile; low to medium density materials in properly sized bucket; hopper charging in low to medium rolling resistance; loading from bank in good digging; and load and carry on poor surfaces and slight adverse grades.</p> <p>9,250 - 13,500 hours</p>	<p>Loading shot rock (large loaders); handling high density materials with counterweighted machine; steady loading from very tight banks; continuous work on rough or very soft surfaces; load and carry in hard digging; travel longer distances on poor surfaces with adverse grades and saltwater environment.</p> <p>8,750 - 12,000 hours</p>
<p><b><u>L45 and L50:</u></b> Loaders with Backhoe Crawler Type and Wheel Type</p> <p>Depreciation Period:</p>	<p>Utility applications in medium to heavy soil; occasional use of constant flow implements and dig depths to 3.05 meters (10 feet).</p> <p>8,000 hours</p>	<p>Production applications or digging in rock; regular use of constant flow implements; and dig depths over 3.05 meters (10 feet).</p> <p>6,000 hours</p>
<p><b><u>L60:</u></b> Log Skidders</p> <p>Depreciation Period:</p>	<p>Continuous turning, steady skidding for medium distances with moderate decking. Good underfooting: dry floor with few stumps and gradual rolling terrain.</p> <p>10,000 hours</p>	<p>Continuous turning, steady skidding for long distances with frequent decking; poor underfoot conditions: wet floor, steep slopes, and numerous stumps; and saltwater environment.</p> <p>8,000 hours</p>

EQUIPMENT TYPE	AVERAGE	SEVERE
<p><b><u>M10 - .31 and .32:</u></b> Clamshell dredges &lt; 5 cy Amphibious Excavator</p> <p>Depreciation Period:</p>	<p>Gravel, silts, breakout force at less than capacity, freshwater conditions.</p> <p>10,000 - 20,000 hours</p>	<p>Rock, abrasive materials, load at rated capacity, saltwater conditions.</p> <p>9,000 - 18,000 hours</p>
<p><b><u>M10 - .51 and .53:</u></b> Boats, Skiffs, Crew Boats, Work Boats, Survey Boats, and Launches</p> <p>Depreciation Period:</p>	<p>Freshwater applications, light waves, and steady to light use.</p> <p>16,000 - 18,000 hours</p>	<p>Saltwater use, medium to high waves, heavy use.</p> <p>13,000 - 15,000 hours</p>
<p><b><u>P35:</u></b> Pipelayers</p> <p>Depreciation Period:</p>	<p>Typical pipelayer use in operating conditions ranging from very good to severe.</p> <p>14,000 hours</p>	<p>Continuous use in deep mud or water or on rock surfaces.</p> <p>11,500 hours</p>
<p><b><u>R10:</u></b> Rippers and Bank Slopers</p> <p>Depreciation Period:</p>	<p>Light rock, medium breakout force required.</p> <p>8,000 hours</p>	<p>Hard rock, excessive wear due to high breakout force.</p> <p>6,500 hours</p>
<p><b><u>S10, S15, S20, and S25:</u></b> Scrapers Self-Propelled Tractor Drawn Soil Stabilizers</p> <p>Depreciation Period:</p>	<p>Varying loading and haul road conditions; long and short hauls; adverse and favorable grades; some impact; and typical road-building use on a variety of jobs.</p> <p>10,000 - 15,000 hours</p>	<p>High impact conditions, such as loading ripped rock; overloading, continuous high total resistance conditions; and rough haul roads.</p> <p>8,000 - 13,500 hours</p>

EQUIPMENT TYPE	AVERAGE	SEVERE
<p><b>T15:</b> Tractors Crawler (Dozer)</p> <p>Depreciation Period:</p>	<p>Production dozing in clays, sands, gravels, and talus rock. Push-loading scrapers, borrow pit ripping, most land clearing and skidding applications. Medium impact conditions. Production landfill work.</p> <p>10,000 - 15,000 hours</p>	<p>Heavy rock ripping; tandem ripping; pushloading and dozing in hard rock; work on rock surfaces; continuous high impact conditions; and saltwater environment.</p> <p>8,000 - 12,500 hours</p>
<p><b>T20:</b> Tractors Wheel Type (Dozer)</p> <p>Depreciation Period:</p>	<p>Production dozing, push loading in clays, sands, silts, loose gravels; and shovel cleanup.</p> <p>14,000 hours</p>	<p>Production dozing in rock; push loading in rocky, boulder strewn borrow pits; high impact conditions; and landfill compactor work.</p> <p>13,000 hours</p>
<p><b>T30:</b> Trenchers Chain and Wheel Type</p> <p>Depreciation Period:</p>	<p>Working in sands and silts below rated capacity of the machine.</p> <p>8,000 hours</p>	<p>Working in gravels and abrasive materials at or above the rated capacity of the machine.</p> <p>6,000 hours</p>
<p><b>T45 and T50:</b> Truck Trailers Trucks, Highway</p> <p>Depreciation Period:</p>	<p>Varying loading and road conditions; and typical construction use on a variety of jobs.</p> <p>8,000 - 12,000 hours</p>	<p>Consistently poor road conditions; and oversized loading equipment.</p> <p>6,500 - 10,000 hours</p>



EQUIPMENT TYPE	AVERAGE	SEVERE
<p><b>T55 and T60:</b> Truck, Off-Highway Trucks, Water, Off-Highway (Articulated and Rigid)</p> <p>Depreciation Period:</p>	<p>Varying load and haul road conditions; high rolling resistance and poor traction during part of the job; some adverse grades; some impact loads; and typical use in road building, dam construction, open-pit mining, <i>etc.</i></p> <p>12,000 - 20,000 hours</p>	<p>Continuous use on very poorly maintained haul roads, high rolling resistance, and poor traction; frequent adverse grades and high impact loads; and poorly matched loading equipment with continuous overloading.</p> <p>10,000 - 18,000 hours</p>
<p><b>W10 and W15:</b> Wagons Bottom Dump Rear Dump</p> <p>Depreciation Period:</p>	<p>Varying load and haul road conditions; long and short hauls; high rolling resistance and poor traction during part of the job; some adverse grades; some impact; typical road building use in a variety of jobs; and dam construction, open-pit mining, <i>etc.</i></p> <p>12,000 hours</p>	<p>Continuous use on very poorly maintained haul roads, high rolling resistance, and poor traction; high impact conditions, such as loading ripped rock; frequent adverse grades and high impact loads; and poorly matched loading equipment with continuous overloading.</p> <p>10,000 hours</p>

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**APPENDIX D  
EQUIPMENT HOURLY CALCULATION FACTORS**

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
A10	0.00	AGGREGATE / CHIP SPREADERS	1																			
A10	0.10	SELF-PROPELLED	10	A	B	8,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.000	.102	.102	0.83	0.72	0.92	0.75
A10	0.20	TOWED & TAILGATE	10	A	B	6,000	0.20	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	0.60
A15	0.00	AIR COMPRESSORS, PORTABLE	1																			
A15	0.10	ROTARY SCREW	5	A	B	10,000	0.20	75	.750	.068	.036	0	.000	.000	.000	.477	.136	.119	0.66	0.00	0.73	0.75
A15	0.20	SHOP TYPE	5	A	B	12,000	0.15	75	.750	.068	.036	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.65
A20	0.00	AIR HOSE, TOOLS & EQUIPMENT	1																			
A20	0.10	AIR DRILL HOSE	5	A	B	3,500	0.05	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	1.50
A20	0.20	SANDBLAST HOSE	5	A	B	3,500	0.05	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	1.65
A20	0.30	SANDBLASTERS, BREAKERS, & MISC. AIR TOOLS	5	A	B	6,000	0.10	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	0.96	0.84	1.07	1.50
A25	0.00	ASPHALT PAVING DISTRIBUTORS	10	A	B	6,000	0.10	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.119	0.96	0.63	1.07	0.85
A30	0.00	ASPHALT PAVERS & MISCELLANEOUS ROAD EQUIPMENT	1																			
A30	0.10	SELF PROPELLED	10	A	B	8,000	0.15	70	.700	.063	.034	0	.000	.000	.000	.000	.136	.119	1.08	0.72	1.20	1.00
A30	0.20	TOWED	10	A	B	10,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.119	1.08	0.00	1.20	0.80
A30	0.30	SLURRY SEAL PAVERS (Cold mix)	10	A	B	12,000	0.20	60	.600	.054	.029	13	.130	.012	.006	.000	.100	.100	1.08	0.71	1.20	0.55
A30	0.40	MISCELLANEOUS ROAD EQUIPMENT	10	A	B	10,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.119	1.08	0.71	1.20	0.80
A35	0.00	ASPHALT PAVING KETTLES	10	A	B	6,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.119	1.08	0.71	1.20	0.80
A40	0.00	ASPHALT & CONCRETE MILLERS / PROFILERS / PLANERS / ROTARY GRINDERS	10	A	B	6,000	0.20	95	.950	.086	.045	0	.000	.000	.000	.000	.136	.119	1.08	0.71	1.20	1.00
A45	0.00	ASPHALT RECYCLERS & SEALERS	10	A	B	5,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.119	1.08	0.71	1.20	0.90
B10	0.00	BATCH PLANTS, ASPHALT & CONCRETE	1																			
B10	0.10	ASPHALT	10	A	B	8,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	1.08	0.72	1.20	1.00

EK=Economic Key (Appendix E)  
C=Operating Conditions (A=average, S=severe)  
DC=Discount Code (B=basic 7.5%, S=special 15%)  
RCF=Repair Cost Factor

LIFE=Economic Life  
SLV=Salvage Value  
HPF=Horsepower Factor

E=Electric Powered  
G=Gas Powered  
D=Diesel Powered

FT=Front Tire  
DT=Drive Tire  
TT=Trailing Tire

### APPENDIX D EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
B10	0.20	CONCRETE	10	A	B	8,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	1.08	0.71	1.20	1.00
B10	0.30	PUGMILL	10	A	B	10,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	1.08	0.71	1.20	1.00
B15	0.00	BROOMS, STREET SWEEPERS & FLUSHERS	95	A	B	8,000	0.10	65	.650	.059	.031	13	.130	.012	.006	.000	.102	.119	0.96	0.63	1.07	0.80
B20	0.00	BRUSH CHIPPERS	95	A	B	8,000	0.10	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.119	0.00	0.00	0.92	0.90
B25	0.00	BUCKETS, CLAMSHELL	15	A	B	8,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.70
B25	0.00	BUCKETS, CLAMSHELL	15	S	B	6,500	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.80
B30	0.00	BUCKETS, CONCRETE	1																			
B30	0.10	GENERAL PURPOSE, MANUAL TRIP	15	A	B	8,000	0.05	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.70
B30	0.20	LAYDOWN	15	A	B	8,000	0.05	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.75
B30	0.30	LOWBOY	15	A	B	8,000	0.05	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.80
B30	0.40	LOW SLUMP	15	A	B	8,000	0.05	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.80
B35	0.00	BUCKETS, DRAGLINE	1																			
B35	0.10	LIGHT WEIGHT	15	A	B	8,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.70
B35	0.10	LIGHT WEIGHT	15	S	B	6,500	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.80
B35	0.20	MEDIUM WEIGHT	15	A	B	9,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.70
B35	0.20	MEDIUM WEIGHT	15	S	B	7,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.80
B35	0.30	HEAVY WEIGHT	15	A	B	10,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.70
B35	0.30	HEAVY WEIGHT	15	S	B	8,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.80
C05	0.00	CHAIN SAWS	95	A	B	2,000	0.10	90	.900	.081	.043	0	.000	.000	.000	.477	.136	.161	0.00	0.00	0.00	2.50
C10	0.00	COMPACTORS, WALK-BEHIND OR REMOTE CONTROLLER	1																			
C10	0.10	COMPACTORS, RAMMERS / TAMPERS & VIBRATORY PLATES	95	A	B	4,000	0.05	90	.900	.081	.043	0	.000	.000	.000	.477	.102	.102	0.00	0.00	0.00	1.20

EK=Economic Key (Appendix E)  
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DC=Discount Code (B=basic 7.5%, S=special 15%)  
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TT=Trailing Tire

**APPENDIX D  
EQUIPMENT HOURLY CALCULATION FACTORS**

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
C10	0.20	ROLLERS, VIBRATORY	95	A	B	4,000	0.15	90	.900	.081	.043	0	.000	.000	.000	.477	.102	.102	0.00	0.00	0.00	1.20
C15	0.00	CONCRETE CLEANERS / ABRASIVE BLASTERS	1	A																		
C15	0.10	WALK BEHIND	95	A	B	4,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.530	.136	.119	0.00	0.00	0.00	0.90
C15	0.20	TRUCK/TRAILER MOUNTED	95	A	B	8,000	0.20	95	.950	.086	.045	50	.500	.045	.024	.000	.136	.119	0.72	0.66	0.79	0.90
C20	0.00	CONCRETE BUGGIES	95	A	B	4,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.530	.136	.119	0.96	0.63	1.07	0.70
C25	0.00	CONCRETE FINISHERS/SCREEDS/SPREADERS	1																			
C25	0.10	FINISHERS/TROWELS	95	A	B	5,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.530	.136	.119	0.00	0.00	0.00	0.80
C25	0.20	VIBRATORY SCREED	95	A	B	5,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.530	.136	.119	0.96	0.84	1.07	0.80
C25	0.25	VIBRATORY LASER SCREED	95	A	B	8,000	0.30	65	.650	.059	.031	0	.000	.000	.000	.000	.180	.160	0.96	0.84	1.07	0.60
C25	0.30	MATERIAL/TOPPING SPREADERS	95	A	B	8,000	0.30	65	.650	.059	.031	0	.000	.000	.000	.000	.180	.160	0.96	0.84	1.07	0.60
C30	0.00	CONCRETE GRINDERS	95	A	B	5,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.530	.136	.119	0.00	0.00	0.00	0.90
C35	0.00	CONCRETE GUNITERS / SHOTCRETTERS	95	A	B	7,000	0.25	75	.750	.068	.036	0	.000	.000	.000	.477	.136	.119	0.96	0.86	1.07	0.90
C40	0.00	CONCRETE MIXING UNITS	95	A	B	5,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.530	.136	.119	0.00	0.00	0.92	0.80
C45	0.00	CONCRETE PAVING MACHINES	10	A	B	6,000	0.20	75	.750	.068	.036	0	.000	.000	.000	.000	.136	.119	1.08	0.72	1.20	1.00
C55	0.00	CONCRETE PUMPS	95	A	B	8,000	0.10	70	.700	.063	.034	10	.100	.009	.005	.477	.136	.119	0.96	0.86	1.07	1.00
C60	0.00	CONCRETE SAWS (Add cost for sawblade wear)	95	A	B	6,000	0.10	90	.900	.081	.043	0	.000	.000	.000	.477	.136	.161	0.00	0.00	0.00	1.00
C65	0.00	CONCRETE VIBRATORS	5	A	B	4,000	0.10	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.161	0.00	0.00	0.00	2.50
C70	0.00	CRANES, GANTRY & STRADDLE	1																			
C75	0.00	CRANES, HYDRAULIC, SELF-PROPELLED	20	A	B	14,000	0.15	75	.750	.068	.036	0	.000	.000	.000	.000	.136	.127	0.66	0.59	0.73	0.80
C80	0.00	CRANES, HYDRAULIC, TRUCK MOUNTED	1																			
C80	0.01	UNDER 26 TON	20	A	B	14,000	0.15	65	.650	.059	.031	10	.100	.009	.005	.000	.161	.153	0.66	0.58	0.73	0.60
C80	0.01	UNDER 26 TON	20	S	B	12,000	0.15	85	.850	.077	.041	13	.130	.012	.006	.000	.161	.153	0.18	0.14	0.20	0.65

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### APPENDIX D EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
C80	0.02	26 TON THRU 65 TON	20	A	B	16,000	0.15	65	.650	.059	.031	10	.100	.009	.005	.000	.127	.110	0.66	0.58	0.73	0.70
C80	0.02	26 TON THRU 65 TON	20	S	B	14,000	0.15	85	.850	.077	.041	13	.130	.012	.006	.000	.127	.110	0.18	0.14	0.20	0.75
C80	0.03	66 TON THRU 125 TON	20	A	B	18,000	0.15	65	.650	.059	.031	10	.100	.009	.005	.000	.127	.110	0.66	0.58	0.73	0.80
C80	0.03	66 TON THRU 125 TON	20	S	B	16,000	0.15	85	.850	.077	.041	13	.130	.012	.006	.000	.127	.110	0.18	0.14	0.20	0.85
C80	0.04	OVER 125 TON	20	A	B	20,000	0.15	65	.650	.059	.031	10	.100	.009	.005	.000	.127	.110	0.66	0.58	0.73	0.90
C80	0.04	OVER 125 TON	20	S	B	18,000	0.15	85	.850	.077	.041	13	.130	.012	.006	.000	.127	.110	0.18	0.14	0.20	0.95
C85	0.00	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER MOUNTED	1																			
C85	0.11	DRAGLINE, CLAMSHELL, 0 THRU 1.0 CY	20	A	B	14,000	0.20	55	.550	.050	.026	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	0.80
C85	0.11	DRAGLINE, CLAMSHELL, 0 THRU 1.0 CY	20	S	B	12,000	0.20	72	.720	.065	.034	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	0.90
C85	0.12	DRAGLINE, CLAMSHELL, OVER 1.0 CY THRU 2.5 CY	20	A	B	16,000	0.20	55	.550	.050	.026	0	.000	.000	.000	.000	.144	.144	0.00	0.00	0.00	0.85
C85	0.12	DRAGLINE, CLAMSHELL, OVER 1.0 CY THRU 2.5 CY	20	S	B	13,000	0.20	72	.720	.065	.034	0	.000	.000	.000	.000	.144	.144	0.00	0.00	0.00	0.95
C85	0.13	DRAGLINE, CLAMSHELL, OVER 2.5 CY THRU 5.0 CY	20	A	B	18,000	0.20	55	.550	.050	.026	0	.000	.000	.000	.000	.093	.093	0.00	0.00	0.00	0.95
C85	0.13	DRAGLINE, CLAMSHELL, OVER 2.5 CY THRU 5.0 CY	20	S	B	15,000	0.20	72	.720	.065	.034	0	.000	.000	.000	.000	.093	.093	0.00	0.00	0.00	1.05
C85	0.14	DRAGLINE, CLAMSHELL, OVER 5.0 CY	20	A	B	20,000	0.20	55	.550	.050	.026	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.00	1.05
C85	0.14	DRAGLINE, CLAMSHELL, OVER 5.0 CY	20	S	B	16,000	0.20	72	.720	.065	.034	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.00	1.15
C85	0.21	LIFTING, 0 THRU 25 TON	20	A	B	16,000	0.20	40	.400	.036	.019	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	0.65
C85	0.21	LIFTING, 0 THRU 25 TON	20	S	B	13,000	0.20	52	.520	.047	.025	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	0.70
C85	0.22	LIFTING, 26 TON THRU 50 TON	20	A	B	18,000	0.20	40	.400	.036	.019	0	.000	.000	.000	.000	.085	.085	0.00	0.00	0.00	0.75
C85	0.22	LIFTING, 26 TON THRU 50 TON	20	S	B	15,000	0.20	52	.520	.047	.025	0	.000	.000	.000	.000	.085	.085	0.00	0.00	0.00	0.80

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**APPENDIX D  
EQUIPMENT HOURLY CALCULATION FACTORS**

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
C85	0.23	LIFTING, 51 TON THRU 150 TON	20	A	B	20,000	0.15	40	.400	.036	.019	0	.000	.000	.000	.000	.093	.093	0.00	0.00	0.00	0.85
C85	0.23	LIFTING, 51 TON THRU 150 TON	20	S	B	16,000	0.15	52	.520	.047	.025	0	.000	.000	.000	.000	.093	.093	0.00	0.00	0.00	0.90
C85	0.24	LIFTING, OVER 150 TON	20	A	B	22,000	0.15	40	.400	.036	.019	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.00	0.95
C85	0.24	LIFTING, OVER 150 TON	20	S	B	18,000	0.15	52	.520	.047	.025	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.00	1.00
C90	0.00	CRANES, MECHANICAL, LATTICE BOOM, TRUCK MOUNTED	1																			
C90	0.01	UNDER 26 TON	20	A	B	14,000	0.15	50	.500	.045	.024	10	.100	.009	.005	.000	.161	.153	0.66	0.58	0.73	0.60
C90	0.01	UNDER 26 TON	20	S	B	12,000	0.15	65	.650	.059	.031	13	.130	.012	.006	.000	.161	.153	0.18	0.14	0.20	0.65
C90	0.02	26 TON THRU 65 TON	20	A	B	16,000	0.15	50	.500	.045	.024	10	.100	.009	.005	.000	.127	.110	0.66	0.58	0.73	0.70
C90	0.02	26 TON THRU 65 TON	20	S	B	14,000	0.15	65	.650	.059	.031	13	.130	.012	.006	.000	.127	.110	0.18	0.14	0.20	0.75
C90	0.03	66 TON THRU 125 TON	20	A	B	18,000	0.20	50	.500	.045	.024	10	.100	.009	.005	.000	.127	.110	0.66	0.58	0.73	0.80
C90	0.03	66 TON THRU 125 TON	20	S	B	16,000	0.20	65	.650	.059	.031	13	.130	.012	.006	.000	.127	.110	0.18	0.14	0.20	0.85
C90	0.04	OVER 125 TON	20	A	B	20,000	0.20	50	.500	.045	.024	10	.100	.009	.005	.000	.127	.110	0.66	0.58	0.73	0.90
C90	0.04	OVER 125 TON	20	S	B	18,000	0.20	65	.650	.059	.031	13	.130	.012	.006	.000	.127	.110	0.18	0.14	0.20	0.95
C95	0.00	CRANES, TOWER	20	A	B	18,000	0.20	65	.650	.059	.031	10	.100	.009	.005	.530	.127	.110	0.00	0.00	0.92	0.85
D10	0.00	DRILLS, AIR/HYDRAULIC, CRWLR MTD, 0" THRU 6.5" DIA HOLE (Add cost for drill steel and bit wear)	1																			
D10	0.10	DRILLS, AIR TRACK (Add cost for drill steel and bit wear)	25	A	B	14,000	0.25	80	.800	.072	.038	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	1.00
D10	0.20	DRILLS, HYDRAULIC TRACK (Add cost for drill steel and bit wear)	25	A	B	10,000	0.25	80	.800	.072	.038	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	1.00
D15	0.00	DRILLS, HORIZONTAL	1																			
D15	0.10	DRILLS, HORIZONTAL BORING & GROUND PIERCING (Add cost for drill steel and bit wear)	25	A	B	10,000	0.25	80	.800	.072	.038	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.90

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## APPENDIX D EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
D15	0.20	DRILLS, HORIZONTAL & DIRECTIONAL (Add cost for drill steel and bit wear)	25	A	B	10,000	0.25	80	.800	.072	.038	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.90
D20	0.00	DRILLS, CORE, COLUMN MOUNTED (Add cost for drill steel and bit wear)	25	A	B	8,000	0.25	80	.800	.072	.038	0	.000	.000	.000	.477	.068	.102	0.00	0.00	0.00	0.85
D25	0.00	DRILLS, CORE & DOWELLING (Add cost for drill steel and bit wear)	25	A	B	10,000	0.25	80	.800	.072	.038	0	.000	.000	.000	.477	.068	.102	0.00	0.00	0.92	1.00
D30	0.00	DRILLS, EARTH / AUGER (Add cost for drill steel and cutting edge wear)	25	A	B	10,000	0.25	80	.800	.072	.038	10	.100	.009	.005	.477	.136	.119	0.96	0.86	1.07	1.00
D35	0.00	DRILLS, ROTARY BLASTHOLE (Add cost for drill steel and bit wear)	1																			
D35	0.11	DIESEL, 4.5" THRU 9.875" DIAMETER HOLE (Add cost for drill steel and bit wear)	25	A	B	14,000	0.20	80	.800	.072	.038	10	.100	.009	.005	.005	.161	.161	0.96	0.86	1.07	1.00
D35	0.12	DIESEL, OVER 9.875" DIAMETER (Add cost for drill steel and bit wear)	25	A	B	18,000	0.20	80	.800	.072	.038	10	.100	.009	.005	.011	.136	.136	0.96	0.86	1.07	1.00
D35	0.21	ELECTRIC, 4.5" THRU 9.875" DIAMETER HOLE (Add cost for drill steel and bit wear)	25	A	B	14,000	0.20	70	.700	.063	.034	10	.100	.009	.005	.530	.000	.000	0.00	0.00	0.00	0.55
D35	0.22	ELECTRIC, OVER 9.875" DIAMETER (Add cost for drill steel and bit wear)	25	A	B	18,000	0.20	70	.700	.063	.034	10	.100	.009	.005	.530	.000	.000	0.00	0.00	0.00	0.55
F10	0.00	FORK LIFTS	95	A	B	10,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.477	.102	.102	0.83	0.46	0.92	0.75
G10	0.00	GENERATOR SETS	1																			
G10	0.10	PORTABLE	30	A	B	8,000	0.10	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.73	0.60
G10	0.10	PORTABLE	30	S	B	7,000	0.10	85	.850	.077	.041	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.20	0.70
G10	0.20	SKID MOUNTED	30	A	B	10,000	0.10	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.00	0.70
G10	0.20	SKID MOUNTED	30	S	B	8,000	0.10	85	.850	.077	.041	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.00	0.80
G15	0.00	GRADERS, MOTOR	35	A	B	14,500	0.25	60	.600	.054	.029	0	.000	.000	.000	.000	.085	.144	0.83	0.54	0.92	0.75
G15	0.00	GRADERS, MOTOR	35	S	B	13,500	0.25	78	.780	.070	.037	0	.000	.000	.000	.000	.085	.144	0.27	0.16	0.30	0.85

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**APPENDIX D  
EQUIPMENT HOURLY CALCULATION FACTORS**

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
H10	0.00	HAMMERS, HYDRAULIC (Demolition tool) (Add cost for point wear)	95	A	B	6,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	1.00
H13	0.00	HAZARDOUS/TOXIC WASTE EQUIPMENT	1																			
H13	0.11	COMPACTORS (Compression force) 0 THRU 50 TONS	95	A	B	10,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.530	.102	.102	1.08	0.86	1.20	0.80
H13	0.12	COMPACTORS (Compression force) OVER 50 TONS	95	A	B	12,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.530	.102	.102	1.08	0.86	1.20	0.90
H13	0.21	FILTER PRESSES, STATIONARY	95	A	B	10,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.530	.102	.102	0.00	0.00	0.00	0.90
H13	0.22	FILTER PRESSES, MOBILE	95	A	B	10,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.530	.102	.102	0.66	0.59	0.73	0.80
H13	0.30	CENTRIFUGES	95	A	B	4,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.530	.000	.000	0.00	0.00	0.00	0.70
H13	0.40	SHREDDERS	95	A	B	10,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	1.08	0.86	1.20	0.90
H13	0.51	SOIL TREATMENT PLANT, MOBILE	95	A	B	10,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	0.77	0.69	0.86	1.00
H13	0.61	SLUDGE PROCESSING EQUIP, SLUDGE DISPENSERS	95	A	B	10,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	1.00
H13	0.71	WASTE HANDLING EQUIPMENT, DRUM HANDLING	95	A	B	4,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	1.00
H15	0.00	HEATERS, SPACE	1																			
H20	0.00	HOISTS & AIR WINCHES	95	A	B	9,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.00	0.80
H25	0.00	HYDRAULIC EXCAVATORS, CRAWLER MOUNTED	1																			
H25	0.10	0 LBS THRU 12,500 LBS (COMPACT EXCAVATORS)	65	A	B	8,000	0.25	65	.650	.059	.031	0	.000	.000	.000	.000	.149	.149	0.00	0.00	0.00	0.70
H25	0.10	0 LBS THRU 12,500 LBS (COMPACT EXCAVATORS)	65	S	B	7,000	0.25	85	.850	.077	.041	0	.000	.000	.000	.000	.149	.149	0.00	0.00	0.00	0.80
H25	0.11	OVER 12,500 LBS THRU 40,000 LBS	65	A	B	8,500	0.25	65	.650	.059	.031	0	.000	.000	.000	.000	.149	.149	0.00	0.00	0.00	0.70
H25	0.11	OVER 12,500 LBS THRU 40,000 LBS	65	S	B	7,000	0.25	85	.850	.077	.041	0	.000	.000	.000	.000	.149	.149	0.00	0.00	0.00	0.85
H25	0.12	OVER 40,000 LBS THRU 100,000 LBS	65	A	B	12,000	0.25	65	.600	.059	.031	0	.000	.000	.000	.000	.149	.149	0.00	0.00	0.00	0.80
H25	0.12	OVER 40,000 LBS THRU 100,000 LBS	65	S	B	10,000	0.25	85	.800	.077	.041	0	.000	.000	.000	.000	.149	.149	0.00	0.00	0.00	0.95

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									E	G	D		E	G	D	E	G	D	FT	DT	TT	
H25	0.13	OVER 100,000 LBS THRU 160,000 LBS	65	A	B	16,000	0.25	65	.650	.059	.031	0	.000	.000	.000	.000	.047	.047	0.00	0.00	0.00	1.00
H25	0.13	OVER 100,000 LBS THRU 160,000 LBS	65	S	B	13,500	0.25	85	.850	.077	.041	0	.000	.000	.000	.000	.047	.047	0.00	0.00	0.00	1.10
H25	0.14	OVER 160,000 LBS	65	A	B	19,000	0.25	65	.650	.059	.031	0	.000	.000	.000	.000	.051	.051	0.00	0.00	0.00	1.10
H25	0.14	OVER 160,000 LBS	65	S	B	15,000	0.25	85	.850	.077	.041	0	.000	.000	.000	.000	.051	.051	0.00	0.00	0.00	1.25
H25	0.21	ATTACHMENTS, MOBILE SHEARS	95	A	B	6,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	0.90
H25	0.22	ATTACHMENTS, MATERIAL HANDLING	95	A	B	6,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	0.80
H25	0.23	ATTACHMENTS, CONCRETE PULVERIZERS	95	A	B	6,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	1.00
H25	0.24	ATTACHMENTS, COMPACTORS	95	A	B	6,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	1.00
H30	0.00	HYDRAULIC EXCAVATORS, WHEEL MOUNTED	1																			
H30	0.01	0 THRU 1.0 CY	65	A	B	8,000	0.25	60	.600	.054	.029	10	.100	.009	.005	.000	.149	.141	0.83	0.54	0.92	0.50
H30	0.01	0 THRU 1.0 CY	65	S	B	6,500	0.25	78	.780	.070	.037	13	.130	.012	.006	.000	.149	.141	0.25	0.15	0.28	0.55
H30	0.02	OVER 1.0 CY	65	A	B	10,000	0.25	60	.600	.054	.029	10	.100	.009	.005	.000	.149	.141	0.83	0.54	0.92	0.60
H30	0.02	OVER 1.0 CY	65	S	B	8,000	0.25	78	.780	.070	.037	13	.130	.012	.006	.000	.149	.141	0.25	0.15	0.28	0.65
H35	0.00	HYDRAULIC SHOVELS, CRAWLER MOUNTED	1																			
H35	0.11	DIESEL, 0 CY THRU 5.0 CY	65	A	B	14,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.047	.047	0.00	0.00	0.00	1.00
H35	0.11	DIESEL, 0 CY THRU 5.0 CY	65	S	B	12,000	0.20	85	.850	.077	.041	0	.000	.000	.000	.000	.047	.047	0.00	0.00	0.00	1.10
H35	0.12	DIESEL, OVER 5.0 CY	65	A	B	16,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.051	.051	0.00	0.00	0.00	1.20
H35	0.12	DIESEL, OVER 5.0 CY	65	S	B	14,000	0.20	85	.850	.077	.041	0	.000	.000	.000	.000	.051	.051	0.00	0.00	0.00	1.30
H35	0.21	ELECTRIC, OVER 2.5 CY	65	A	B	18,000	0.20	50	.500	.045	.024	0	.000	.000	.000	.265	.000	.000	0.00	0.00	0.00	0.80
H35	0.21	ELECTRIC, OVER 2.5 CY	65	S	B	16,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.265	.000	.000	0.00	0.00	0.00	0.90
L10	0.00	LAND CLEARING EQUIPMENT	70	A	B	10,000	0.20	60	.600	.054	.029	10	.100	.009	.005	.000	.127	.110	0.83	0.54	0.92	0.90
L10	0.00	LAND CLEARING EQUIPMENT	70	S	B	7,000	0.20	78	.780	.070	.037	13	.130	.012	.006	.000	.127	.110	0.25	0.15	0.28	1.00

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FT=Front Tire  
DT=Drive Tire  
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**APPENDIX D  
EQUIPMENT HOURLY CALCULATION FACTORS**

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
L15	0.00	LANDSCAPING EQUIPMENT	95	A	B	4,000	0.15	80	.800	.072	.038	13	.130	.012	.006	.477	.102	.102	0.59	0.30	0.66	0.70
L20	0.00	LIGHTING SETS, TRAILER MOUNTED	1																			
L20	0.10	METALLIC VAPOR	95	A	B	8,000	0.20	85	.850	.077	.041	0	.000	.000	.000	.000	.102	.102	0.66	0.58	0.73	1.50
L25	0.00	LINE STRIPING EQUIPMENT	95	A	B	8,000	0.20	85	.850	.077	.041	13	.130	.012	.006	.000	.102	.102	0.66	0.58	0.73	1.20
L30	0.00	LOADERS, BELT (Conveyor belts) & ACCESSORIES	95	A	B	10,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.477	.119	.119	0.66	0.58	0.73	1.00
L30	0.00	LOADERS, BELT (Conveyor belts) & ACCESSORIES	95	S	B	8,000	0.20	85	.850	.077	.041	0	.000	.000	.000	.477	.119	.119	0.21	0.16	0.23	1.10
L35	0.00	LOADERS, FRONT END, CRAWLER TYPE	40	A	B	10,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.000	.170	.101	0.00	0.00	0.00	1.10
L35	0.00	LOADERS, FRONT END, CRAWLER TYPE	40	S	B	8,000	0.20	91	.910	.082	.044	0	.000	.000	.000	.000	.170	.101	0.00	0.00	0.00	1.25
L40	0.00	LOADERS, FRONT END, WHEEL TYPE	1																			
L40	0.11	ARTICULATED, 0 THRU 225 HP	45	A	B	9,250	0.25	65	.650	.059	.031	0	.000	.000	.000	.000	.170	.111	0.83	0.54	0.92	0.70
L40	0.11	ARTICULATED, 0 THRU 225 HP	45	S	B	8,750	0.25	85	.850	.077	.041	0	.000	.000	.000	.000	.170	.111	0.25	0.15	0.28	0.80
L40	0.12	ARTICULATED, OVER 225 HP	45	A	B	13,500	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.170	.080	0.83	0.54	0.92	0.70
L40	0.12	ARTICULATED, OVER 225 HP	45	S	B	12,000	0.20	85	.850	.077	.041	0	.000	.000	.000	.000	.170	.080	0.25	0.15	0.28	0.75
L40	0.20	SKID STEER	45	A	B	8,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.000	.170	.111	0.57	0.29	0.63	0.80
L40	0.21	SKID STEER ATTACHMENTS	45	A	B	4,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.170	.170	0.00	0.00	0.00	1.00
L40	0.31	TOOL CARRIER & TELESCOPIC HANDLERS, 0 THRU 225 HP	45	A	B	10,000	0.25	65	.650	.059	.031	0	.000	.000	.000	.000	.170	.111	0.83	0.54	0.92	0.85
L40	0.31	TOOL CARRIER & TELESCOPIC HANDLERS, 0 THRU 225 HP	45	S	B	9,250	0.25	85	.850	.077	.041	0	.000	.000	.000	.000	.170	.111	0.25	0.15	0.28	0.90
L40	0.32	TOOL CARRIER & TELESCOPIC HANDLERS, OVER 225 HP	45	A	B	12,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.000	.170	.080	0.83	0.54	0.92	0.85
L40	0.32	TOOL CARRIER & TELESCOPIC HANDLERS, OVER 225 HP	45	S	B	10,000	0.15	85	.850	.077	.041	0	.000	.000	.000	.000	.170	.080	0.25	0.15	0.28	0.90
L45	0.00	LOADERS / BACKHOE, CRAWLER TYPE	40	A	B	8,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.000	.441	.524	0.00	0.00	0.00	1.35

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### APPENDIX D EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
L45	0.00	LOADERS / BACKHOE, CRAWLER TYPE	40	S	B	6,000	0.20	91	.910	.082	.044	0	.000	.000	.000	.000	.441	.524	0.00	0.00	0.00	1.40
L50	0.00	LOADERS / BACKHOE, WHEEL TYPE	45	A	B	10,000	0.25	50	.500	.045	.024	0	.000	.000	.000	.000	.441	.441	0.83	0.54	0.92	0.80
L50	0.00	LOADERS / BACKHOE, WHEEL TYPE	45	S	B	6,000	0.25	70	.700	.063	.034	0	.000	.000	.000	.000	.441	.441	0.25	0.15	0.28	0.85
L55	0.00	LOADER / BACKHOE, ATTACHMENTS	95	A	B	6,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.441	.441	0.00	0.00	0.00	1.00
L60	0.00	LOG SKIDDERS	75	A	B	10,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.119	0.83	0.54	0.92	0.70
L60	0.00	LOG SKIDDERS	75	S	B	8,000	0.15	85	.850	.077	.041	0	.000	.000	.000	.000	.102	.119	0.25	0.15	0.28	0.80
M10	0.00	MARINE EQUIPMENT (NON DREDGING)	1																			
M10	0.11	AQUATIC MAINTENANCE	105	A	B	10,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.70
M10	0.12	AQUATIC MAINTENANCE ATTACHMENTS	105	A	B	6,000	0.20	80	.800	.072	.038	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.60
M10	0.21	HYDRAULIC CUTTERHEAD DREDGE, 8" OR LESS, TRANSPORTABLE	105	A	B	16,000	0.10	80	.800	.072	.038	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.70
M10	0.22	HYDRAULIC CUTTERHEAD DREDGE, 8" - 12", TRANSPORTABLE	105	A	B	16,000	0.10	80	.800	.072	.038	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.80
M10	0.23	HYDRAULIC AUGERHEAD DREDGE, 12" OR LESS, TRANSPORTABLE	105	A	B	16,000	0.10	80	.800	.072	.038	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.80
M10	0.24	HYDRAULIC FLOATING PUMPS, 12" OR LESS, TRANSPORTABLE	105	A	B	8,000	0.10	80	.800	.072	.038	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.70
M10	0.25	HYDRAULIC DREDGE PUMPS, 12" OR LESS, TRANSPORTABLE	105	A	B	6,000	0.15	80	.800	.072	.038	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.70
M10	0.26	HYDRAULIC DREDGE / PUMP ATTACHMENTS	105	A	B	6,000	0.15	80	.800	.072	.038	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.60
M10	0.31	SMALL MECH DREDGES, CLAMSHELL, BARGE-MTD TO 5 CY	20	A	B	18,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.477	.102	.102	0.00	0.00	0.00	1.00
M10	0.31	SMALL MECH DREDGES, CLAMSHELL, BARGE-MTD TO 5 CY	20	S	B	16,000	0.15	85	.850	.077	.041	0	.000	.000	.000	.477	.102	.102	0.00	0.00	0.00	1.05

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**APPENDIX D  
EQUIPMENT HOURLY CALCULATION FACTORS**

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
M10	0.32	SMALL MECH DREDGES, AMPHIBIOUS EXCAVATORS	65	A	B	10,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.477	.161	.161	0.00	0.00	0.00	1.00
M10	0.32	SMALL MECH DREDGES, AMPHIBIOUS EXCAVATORS	65	S	B	9,000	0.15	85	.850	.077	.041	0	.000	.000	.000	.477	.161	.161	0.00	0.00	0.00	1.10
M10	0.33	SMALL MECH DREDGES,HOE-MOUNTED DREDGING ATTACH	105	A	B	20,000	0.15	80	.800	.072	.038	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.90
M10	0.41	WORK FLOATS (NON-DREDGING)	105	A	B	6,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.50
M10	0.42	WORK BARGES (SECTIONAL, NON-DREDGING)	105	A	B	30,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.60
M10	0.45	FLAT-DECK OR CARGO BARGE (NON-DREDGING)	105	A	B	90,000	0.05	20	.200	.018	.010	0	.000	.000	.000	.000	.000	.136	0.00	0.00	0.00	0.60
M10	0.46	DUMP SCOW (NON-DREDGING)	105	A	B	90,000	0.05	20	.200	.018	.010	0	.000	.000	.000	.000	.000	.136	0.00	0.00	0.00	0.70
M10	0.47	DRILL BARGE (NON-DREDGING)	105	A	B	30,000	0.05	20	.200	.018	.010	0	.000	.000	.000	.000	.000	.136	0.00	0.00	0.00	0.70
M10	0.48	ALL OTHER BARGES (NON-DREDGING)	105	A	B	30,000	0.05	20	.200	.018	.010	0	.000	.000	.000	.000	.000	.136	0.00	0.00	0.00	0.70
M10	0.51	BOATS & LAUNCHES, 0 THRU 250 HP	105	A	B	16,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.161	0.00	0.00	0.00	0.70
M10	0.51	BOATS & LAUNCHES, 0 THRU 250 HP	105	S	B	13,000	0.15	85	.850	.077	.041	0	.000	.000	.000	.477	.136	.161	0.00	0.00	0.00	0.75
M10	0.53	BOATS & LAUNCHES, 251 THRU 500 HP	105	A	B	18,000	0.10	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.161	0.00	0.00	0.00	0.80
M10	0.53	BOATS & LAUNCHES, 251 THRU 500 HP	105	S	B	15,000	0.10	85	.850	.077	.041	0	.000	.000	.000	.477	.136	.161	0.00	0.00	0.00	0.85
M10	0.54	TUGS, 501 THRU 1,000 HP	105	A	B	40,000	0.10	60	.600	.054	.029	50	.500	.045	.024	.477	.136	.161	0.00	0.00	0.00	0.90
M10	0.55	TUGS, 1,000 THRU 2,000 HP	105	A	B	55,000	0.10	60	.600	.054	.029	50	.500	.045	.024	.477	.136	.161	0.00	0.00	0.00	1.00
P10	0.00	PILE HAMMER ACCESSORIES - EXTRACTORS & BOX LEADS	50	A	B	6,000	0.35	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.136	0.00	0.00	0.00	0.80
P20	0.00	PILE HAMMERS, DOUBLE ACTING	1																			
P20	0.10	DIESEL	50	A	B	6,000	0.25	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	1.10
P20	0.20	PNEUMATIC (STEAM/AIR)	50	A	B	6,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	1.10
P25	0.00	PILE HAMMERS, SINGLE ACTING	1																			

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CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
P25	0.10	DIESEL	50	A	B	6,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	1.00
P25	0.20	PNEUMATIC (STEAM/AIR)	50	A	B	6,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	1.00
P30	0.00	PILE HAMMERS, DRIVER/ EXTRACTOR, VIBRATORY	50	A	B	6,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.136	0.00	0.00	0.00	1.00
P35	0.00	PIPELAYERS	70	A	B	14,000	0.20	35	.350	.032	.017	0	.000	.000	.000	.000	.000	.170	0.00	0.00	0.00	0.95
P35	0.00	PIPELAYERS	70	S	B	11,500	0.20	46	.460	.041	.022	0	.000	.000	.000	.000	.000	.170	0.00	0.00	0.00	1.10
P40	0.00	PLATFORMS & MAN-LIFTS	20	A	B	8,000	0.10	50	.500	.045	.024	50	.500	.045	.024	.477	.136	.119	0.66	0.33	0.73	0.80
P45	0.00	PUMPS, GROUT	95	A	B	8,000	0.15	95	.950	.086	.045	0	.000	.000	.000	.477	.136	.119	0.66	0.59	0.73	1.00
P50	0.00	PUMPS, WATER, CENTRIFUGAL, TRASH	1																			
P50	0.11	ENGINE DRIVE	95	A	B	8,000	0.20	90	.900	.081	.043	0	.000	.000	.000	.000	.136	.161	0.66	0.00	0.73	0.90
P50	0.12	ELECTRIC DRIVE	95	A	B	8,000	0.20	90	.900	.081	.043	0	.000	.000	.000	.477	.000	.000	0.66	0.00	0.73	0.50
P50	0.21	WHEEL MOUNTED, ENGINE DRIVE	95	A	B	8,000	0.20	90	.900	.081	.043	0	.000	.000	.000	.000	.136	.161	0.66	0.00	0.73	0.90
P50	0.22	WHEEL MOUNTED, ELECTRIC DRIVE	95	A	B	8,000	0.20	90	.900	.081	.043	0	.000	.000	.000	.477	.000	.000	0.66	0.00	0.73	0.50
P50	0.31	HOSES, PUMP, SUCTION & DISCHARGE	95	A	B	4,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	1.50
P55	0.00	PUMPS, WATER, SUBMERSIBLE	1																			
P55	0.01	ENGINE DRIVE	95	A	B	8,000	0.20	90	.900	.081	.043	0	.000	.000	.000	.000	.136	.161	0.00	0.00	0.00	1.00
P55	0.02	ELECTRIC DRIVE	95	A	B	8,000	0.15	90	.900	.081	.043	0	.000	.000	.000	.477	.000	.000	0.00	0.00	0.00	0.60
P60	0.00	PUMPS, WATER, CENTRIFUGAL, DEWATERING	1																			
P60	0.11	SKID MOUNTED, ENGINE DRIVE	95	A	B	8,000	0.20	90	.900	.081	.043	0	.000	.000	.000	.000	.136	.161	0.00	0.00	0.00	0.90
P60	0.12	SKID MOUNTED, ELECTRIC DRIVE	95	A	B	8,000	0.15	90	.900	.081	.043	0	.000	.000	.000	.477	.000	.000	0.00	0.00	0.00	0.50
P60	0.21	WHEEL MOUNTED, ENGINE DRIVE	95	A	B	8,000	0.20	90	.900	.081	.043	0	.000	.000	.000	.000	.136	.161	0.00	0.00	0.73	0.90
P60	0.22	WHEEL MOUNTED, ELECTRIC DRIVE	95	A	B	8,000	0.15	90	.900	.081	.043	0	.000	.000	.000	.477	.000	.000	0.00	0.00	0.73	0.50
P65	0.00	PUMPS, WATER, DIAPHRAGM	1																			

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### APPENDIX D EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
P65	0.11	SKID MOUNTED, ENGINE DRIVE	95	A	B	8,000	0.20	90	.900	.081	.043	0	.000	.000	.000	.000	.136	.161	0.00	0.00	0.00	0.90
P65	0.12	SKID MOUNTED, ELECTRIC DRIVE	95	A	B	8,000	0.15	90	.900	.081	.043	0	.000	.000	.000	.477	.000	.000	0.00	0.00	0.00	0.50
P65	0.21	WHEEL MOUNTED, ENGINE DRIVE	95	A	B	8,000	0.20	90	.900	.081	.043	0	.000	.000	.000	.000	.136	.161	0.00	0.00	0.73	0.80
P65	0.22	WHEEL MOUNTED, ELECTRIC DRIVE	95	A	B	8,000	0.15	90	.900	.081	.043	0	.000	.000	.000	.477	.000	.000	0.00	0.00	0.73	0.40
P70	0.00	PUMPS, WATER (For core drills)	1																			
P70	0.01	ENGINE DRIVE	95	A	B	8,000	0.25	90	.900	.081	.043	0	.000	.000	.000	.000	.136	.161	0.00	0.00	0.00	0.80
P70	0.02	ELECTRIC DRIVE	95	A	B	8,000	0.25	90	.900	.081	.043	0	.000	.000	.000	.477	.000	.000	0.00	0.00	0.00	0.40
R10	0.00	RIPPERS & HYDRAULIC BANK SLOPERS (Add cost for point wear)	70	A	B	8,000	0.20	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.90
R10	0.00	RIPPERS & HYDRAULIC BANK SLOPERS (Add cost for point wear)	70	S	B	6,500	0.20	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	1.00
R15	0.00	ROLLERS, STATIC, TOWED, PNEUMATIC	55	A	B	10,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.92	0.70
R20	0.00	ROLLERS, STATIC, TOWED, STEEL DRUM	55	A	B	10,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.92	0.80
R30	0.00	ROLLERS, STATIC, SELF-PROPELLED	1																			
R30	0.01	PNEUMATIC	55	A	B	8,000	0.15	80	.800	.072	.038	0	.000	.000	.000	.000	.102	.102	0.83	0.54	0.92	0.70
R30	0.02	SMOOTH DRUM	55	A	B	10,000	0.15	80	.800	.072	.038	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.00	0.80
R30	0.03	TAMPING FOOT, LANDFILL & SOIL COMPACTORS	55	A	B	12,000	0.20	80	.800	.072	.038	0	.000	.000	.000	.000	.102	.102	0.00	0.00	0.00	0.80
R40	0.00	ROLLERS, VIBRATORY, TOWED	55	A	B	8,000	0.20	90	.900	.081	.043	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	0.80
R45	0.00	ROLLERS, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM	55	A	B	8,000	0.20	90	.900	.081	.043	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	1.10
R50	0.00	ROLLERS, VIBRATORY, SELF-PROPELLED, SINGLE DRUM	55	A	B	8,000	0.25	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.136	0.83	0.54	0.92	1.00
R55	0.00	ROOFING EQUIPMENT	95	A	B	6,000	0.15	60	.600	.054	.029	0	.000	.000	.000	.477	.102	.102	0.97	0.87	1.08	0.80
S10	0.00	SCRAPERS, ELEVATING	1																			

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CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
S10	0.01	0 THRU 200 HP	60	A	B	10,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.000	.170	0.84	0.55	0.93	0.90
S10	0.01	0 THRU 200 HP	60	S	B	8,000	0.20	85	.850	.077	.041	0	.000	.000	.000	.000	.000	.170	0.23	0.13	0.25	1.00
S10	0.02	OVER 200 HP	60	A	B	13,000	0.25	65	.650	.059	.031	0	.000	.000	.000	.000	.000	.136	0.84	0.55	0.93	0.95
S10	0.02	OVER 200 HP	60	S	B	11,500	0.25	85	.850	.077	.041	0	.000	.000	.000	.000	.000	.136	0.23	0.13	0.25	1.00
S15	0.00	SCRAPERS, CONVENTIONAL	60	A	B	15,000	0.20	60	.600	.054	.029	0	.000	.000	.000	.000	.000	.136	0.84	0.55	0.93	0.80
S15	0.00	SCRAPERS, CONVENTIONAL	60	S	B	12,500	0.20	78	.780	.070	.037	0	.000	.000	.000	.000	.000	.136	0.23	0.13	0.25	0.85
S20	0.00	SCRAPERS, TANDEM POWERED	60	A	B	15,000	0.20	62	.620	.056	.030	62	.620	.056	.030	.000	.000	.110	0.84	0.55	0.93	0.85
S20	0.00	SCRAPERS, TANDEM POWERED	60	S	B	13,500	0.20	81	.810	.073	.039	81	.810	.073	.039	.000	.000	.110	0.23	0.13	0.25	0.90
S25	0.00	SCRAPERS, TRACTOR DRAWN	60	A	B	12,000	0.20	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.84	0.55	0.93	0.70
S25	0.00	SCRAPERS, TRACTOR DRAWN	60	S	B	10,000	0.20	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.23	0.13	0.25	0.75
S30	0.00	SCREENING & CRUSHING PLANTS	1																			
S30	0.10	CONVEYORS	95	A	B	10,000	0.10	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	1.08	0.86	1.20	0.70
S30	0.10	CONVEYORS	95	S	B	8,000	0.10	78	.780	.070	.037	0	.000	.000	.000	.577	.163	.142	0.96	0.72	1.07	0.85
S30	0.20	CRUSHERS - VERTICAL & HORIZONTAL SHAFT IMPACTOR	95	A	B	25,000	0.10	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	1.08	0.86	1.20	1.00
S30	0.20	CRUSHERS - VERTICAL & HORIZONTAL SHAFT IMPACTOR	95	S	B	15,000	0.10	78	.780	.070	.037	0	.000	.000	.000	.577	.163	.142	0.96	0.72	1.07	1.25
S30	0.21	CRUSHERS - CONE	95	A	B	25,000	0.10	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	1.08	0.86	1.20	1.20
S30	0.21	CRUSHERS - CONE	95	S	B	15,000	0.10	78	.780	.070	.037	0	.000	.000	.000	.577	.163	.142	0.96	0.72	1.07	1.60
S30	0.22	CRUSHERS - JAW	95	A	B	25,000	0.10	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	1.08	0.86	1.20	0.65
S30	0.22	CRUSHERS - JAW	95	S	B	15,000	0.10	78	.780	.070	.037	0	.000	.000	.000	.577	.163	.142	0.96	0.72	1.07	0.85
S30	0.30	SCREENING PLANT	95	A	B	10,000	0.10	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	1.08	0.86	1.20	0.80
S30	0.30	SCREENING PLANT	95	S	B	8,000	0.10	78	.780	.070	.037	0	.000	.000	.000	.577	.163	.142	0.96	0.72	1.07	1.00

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CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
S35	0.00	SNOW REMOVAL EQUIPMENT	95	A	B	8,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.000	.119	0.00	0.00	0.00	0.80
S40	0.00	SOIL & ROAD STABILIZERS	60	A	B	10,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.000	.000	.119	0.84	0.55	0.96	0.85
S40	0.00	SOIL & ROAD STABILIZERS	60	S	B	8,000	0.20	91	.910	.082	.044	0	.000	.000	.000	.000	.000	.119	0.23	0.13	0.25	0.95
S45	0.00	SPLITTERS, ROCK & CONCRETE	95	A	B	6,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.136	0.00	0.00	0.00	1.00
T10	0.00	TRACTOR BLADES & ATTACHMENTS (including agricultural)	70	A	B	10,000	0.20	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.96	0.80
T10	0.00	TRACTOR BLADES & ATTACHMENTS (including agricultural)	70	S	B	8,000	0.20	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.86	0.90
T15	0.00	TRACTORS, CRAWLER (DOZER) (includes blade)	1																			
T15	0.01	0 THRU 225 HP	70	A	B	10,000	0.30	70	.700	.063	.034	0	.000	.000	.000	.000	.000	.153	0.00	0.00	0.00	1.10
T15	0.01	0 THRU 225 HP	70	S	B	8,000	0.30	91	.910	.082	.044	0	.000	.000	.000	.000	.000	.153	0.00	0.00	0.00	1.25
T15	0.02	226 HP THRU 425 HP	70	A	B	12,500	0.25	70	.700	.063	.034	0	.000	.000	.000	.000	.000	.119	0.00	0.00	0.00	1.20
T15	0.02	226 HP THRU 425 HP	70	S	B	10,500	0.25	91	.910	.082	.044	0	.000	.000	.000	.000	.000	.119	0.00	0.00	0.00	1.25
T15	0.03	OVER 425 HP	70	A	B	15,000	0.20	60	.600	.054	.029	0	.000	.000	.000	.000	.000	.066	0.00	0.00	0.00	1.20
T15	0.03	OVER 425 HP	70	S	B	12,500	0.20	78	.780	.070	.037	0	.000	.000	.000	.000	.000	.066	0.00	0.00	0.00	1.35
T20	0.00	TRACTORS, WHEEL TYPE (DOZER)	75	A	B	14,000	0.15	60	.600	.054	.029	0	.000	.000	.000	.000	.102	.119	0.96	0.63	0.00	0.60
T20	0.00	TRACTORS, WHEEL TYPE (DOZER)	75	S	B	13,000	0.15	78	.780	.070	.037	0	.000	.000	.000	.000	.102	.119	0.25	0.15	0.00	0.65
T25	0.00	TRACTORS, AGRICULTURAL	1																			
T25	0.10	CRAWLER	75	A	B	10,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.119	0.00	0.00	0.00	0.85
T25	0.20	WHEEL	75	A	B	8,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.119	0.96	0.73	0.00	0.70
T30	0.00	TRENCHERS, CHAIN TYPE CUTTER	80	A	B	8,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.119	.119	1.08	0.82	0.00	0.90
T30	0.00	TRENCHERS, CHAIN TYPE CUTTER	80	S	B	6,000	0.20	85	.850	.077	.041	0	.000	.000	.000	.000	.119	.119	0.32	0.22	0.00	1.00
T35	0.00	TRENCHERS, WHEEL TYPE CUTTER	80	A	B	8,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.119	.119	1.08	0.82	0.00	0.90

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CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
T35	0.00	TRENCHERS, WHEEL TYPE CUTTER	80	S	B	6,000	0.20	85	.850	.077	.041	0	.000	.000	.000	.000	.119	.119	0.32	0.22	0.00	1.00
T40	0.00	TRUCK OPTIONS	1																			
T40	0.10	CRANES / HOISTS, PERSONNEL & MATERIAL HANDLING	95	A	B	8,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.136	0.00	0.00	0.00	0.80
T40	0.20	DUMP BODY, REAR	95	A	B	8,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.70
T40	0.20	DUMP BODY, REAR	95	S	B	6,500	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.80
T40	0.30	FLATBEDS, WITH SIDES	95	A	B	8,000	0.20	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.00	0.60
T40	0.41	HOIST, ELECTRIC DRIVE	95	A	B	8,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.136	0.00	0.00	0.00	0.70
T40	0.50	TRANSIT MIXERS	95	A	B	8,000	0.15	65	.650	.059	.031	35	.350	.032	.017	.477	.136	.136	0.77	0.69	0.86	0.70
T40	0.60	WATER TANKS	95	A	B	8,000	0.25	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.136	0.00	0.00	0.00	0.60
T40	0.70	ALL OTHER OPTIONS	95	A	B	8,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.136	1.08	0.86	1.20	0.70
T45	0.00	TRUCK TRAILERS	1																			
T45	0.10	BOTTOM DUMP	95	A	B	10,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.66	0.00	0.73	0.70
T45	0.10	BOTTOM DUMP	95	S	B	8,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.18	0.00	0.20	0.80
T45	0.20	END DUMP	95	A	B	10,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.66	0.00	0.73	0.65
T45	0.20	END DUMP	95	S	B	8,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.18	0.00	0.20	0.75
T45	0.30	PUP TRAILER	95	A	B	8,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.66	0.00	0.73	0.60
T45	0.41	LOWBOY, RIGID NECK, DROP DECK	95	A	B	10,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.66	0.00	0.73	0.50
T45	0.50	FLATBED TRAILER	95	A	B	10,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.66	0.00	0.73	0.50
T45	0.60	MISCELLANEOUS / UTILITY	95	A	B	10,000	0.10	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.66	0.00	0.73	0.50
T45	0.70	WATER TANKER TRAILER	95	A	B	10,000	0.25	65	.650	.059	.031	0	.000	.000	.000	.000	.119	.102	0.66	0.92	0.73	0.60
T45	0.80	DECONTAMINATION FACILITY	95	A	B	8,000	0.25	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.66	0.00	0.73	0.70
T45	0.90	TANK TRAILERS	95	A	B	10,000	0.25	65	.650	.059	.031	0	.000	.000	.000	.000	.119	.102	0.66	0.00	0.73	0.70

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**APPENDIX D  
EQUIPMENT HOURLY CALCULATION FACTORS**

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF	
									E	G	D	HPF	E	G	D	E	G	D	FT	DT		TT
T50	0.00	TRUCKS, HIGHWAY (Add attachments as required)	1																			
T50	0.01	0 THRU 10,000 GVW	85	A	S	8,000	0.20	15	.150	.014	.007	0	.000	.000	.000	.000	.119	.102	0.61	0.56	0.67	0.70
T50	0.01	0 THRU 10,000 GVW	85	S	S	6,500	0.20	20	.200	.018	.010	0	.000	.000	.000	.000	.119	.102	0.20	0.16	0.22	0.75
T50	0.02	OVER 10,000 THRU 30,000 GVW (Chassis only - Add options)	85	A	S	10,000	0.20	35	.350	.032	.017	0	.000	.000	.000	.000	.127	.110	0.72	0.66	0.79	0.65
T50	0.02	OVER 10,000 THRU 30,000 GVW (Chassis only - Add options)	85	S	S	8,000	0.20	46	.460	.041	.022	0	.000	.000	.000	.000	.127	.110	0.20	0.16	0.22	0.70
T50	0.03	OVER 30,000 GVW (Chassis only - Add options)	85	A	S	12,000	0.20	50	.500	.045	.024	0	.000	.000	.000	.000	.136	.119	0.77	0.71	0.86	0.65
T50	0.03	OVER 30,000 GVW (Chassis only - Add options)	85	S	S	10,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.136	.119	0.21	0.18	0.24	0.75
T55	0.00	TRUCKS, OFF-HIGHWAY	1																			
T55	0.10	RIGID FRAME	90	A	B	20,000	0.15	35	.350	.032	.017	0	.000	.000	.000	.000	.000	.144	0.84	0.73	0.93	0.90
T55	0.10	RIGID FRAME	90	S	B	18,000	0.15	45	.450	.041	.022	0	.000	.000	.000	.000	.000	.144	0.23	0.18	0.25	0.95
T55	0.20	ARTICULATED FRAME	90	A	B	13,000	0.15	50	.500	.045	.024	0	.000	.000	.000	.000	.000	.080	0.84	0.73	0.93	0.80
T55	0.20	ARTICULATED FRAME	90	S	B	12,250	0.15	60	.600	.054	.029	0	.000	.000	.000	.000	.000	.080	0.23	0.18	0.25	0.85
T56	0.00	TRUCKS, OFF-HIGHWAY/PRIME MOVER TRACTORS & WAGONS	1																			
T56	0.10	PRIME MOVER TRACTORS	90	A	B	20,000	0.15	40	.400	.036	.019	0	.000	.000	.000	.000	.102	.144	0.84	0.64	0.93	0.90
T56	0.10	PRIME MOVER TRACTORS	90	S	B	18,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.136	0.23	0.16	0.25	0.95
T56	0.20	WAGONS, BOTTOM DUMP	90	A	B	15,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.136	0.84	0.64	0.93	0.65
T56	0.20	WAGONS, BOTTOM DUMP	90	S	B	10,000	0.20	85	.850	.077	.041	0	.000	.000	.000	.000	.102	.136	0.23	0.16	0.25	0.75
T56	0.30	WAGONS, REAR DUMP	90	A	B	12,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.136	0.84	0.65	0.93	0.60
T57	0.00	TRUCKS, VACUUM	95	A	B	10,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.119	0.23	0.17	0.25	0.80
T60	0.00	TRUCKS, WATER, OFF-HIGHWAY	90	A	B	12,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.136	0.90	0.69	1.00	0.70

EK=Economic Key (Appendix E)  
C=Operating Conditions (A=average, S=severe)  
DC=Discount Code (B=basic 7.5%, S=special 15%)  
RCF=Repair Cost Factor

LIFE=Economic Life  
SLV=Salvage Value  
HPF=Horsepower Factor

E=Electric Powered  
G=Gas Powered  
D=Diesel Powered

FT=Front Tire  
DT=Drive Tire  
TT=Trailing Tire

### APPENDIX D EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS			HPF	CARRIER FUEL FACTORS			FOG FACTORS			TIRE WEAR FACTORS			RCF
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
T60	0.00	TRUCKS, WATER, OFF-HIGHWAY	90	S	B	10,000	0.20	85	.850	.077	.041	0	.000	.000	.000	.000	.102	.136	0.25	0.17	0.28	0.80
T65	0.00	TUNNEL/MINING EQUIPMENT	1																			
T65	0.10	DRIFTING & TUNNELING DRILLS	25	A	B	14,000	0.15	80	.800	.072	.038	13	.130	.012	.006	.530	.136	.119	0.67	0.57	0.00	0.90
T65	0.20	TUNNEL BORING MACHINES	95	A	B	18,000	0.15	70	.700	.063	.034	0	.000	.000	.000	.530	.000	.000	0.00	0.00	0.00	0.70
T65	0.20	TUNNEL BORING MACHINES	95	S	B	16,000	0.15	91	.910	.082	.044	0	.000	.000	.000	.530	.000	.000	0.00	0.00	0.00	0.80
T65	0.30	PRODUCTION DRILLING RIGS	25	A	B	12,000	0.15	80	.800	.072	.038	0	.000	.000	.000	.530	.136	.119	0.00	0.00	0.00	0.90
T65	0.40	ROADHEADERS & CONTINUOUS MINERS	95	A	B	16,000	0.15	70	.700	.063	.034	0	.000	.000	.000	.530	.000	.000	0.00	0.00	0.00	0.90
T65	0.40	ROADHEADERS & CONTINUOUS MINERS	95	S	B	14,000	0.15	91	.910	.082	.044	0	.000	.000	.000	.530	.000	.000	0.00	0.00	0.00	1.00
T65	0.50	ROCK BOLTING EQUIPMENT	95	A	B	10,000	0.20	80	.800	.072	.038	10	.100	.009	.005	.530	.136	.119	0.00	0.00	0.00	0.80
T65	0.61	LOADING & HAULING EQUIPMENT, DIESEL OR GAS	95	A	B	12,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.000	.136	.127	0.00	0.00	0.00	0.75
T65	0.62	LOADING & HAULING EQUIPMENT, ELECTRIC	95	A	B	14,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.477	.102	.102	0.00	0.00	0.00	0.70
T65	0.63	LOADING & HAULING EQUIPMENT, AIR-POWERED	95	A	B	10,000	0.25	70	.700	.063	.034	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.65
T65	0.70	LOCOMOTIVES	95	A	B	12,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.477	.136	.119	0.00	0.00	0.00	0.75
T65	0.90	OTHER TUNNELING EQUIPMENT	95	A	B	10,000	0.20	70	.700	.063	.034	13	.130	.012	.006	.477	.136	.127	0.00	0.00	0.00	0.80
W10	0.00	WAGONS, BOTTOM DUMP	90	A	B	12,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.136	0.88	0.67	0.98	0.65
W10	0.00	WAGONS, BOTTOM DUMP	90	S	B	10,000	0.15	85	.850	.077	.041	0	.000	.000	.000	.000	.102	.136	0.25	0.17	0.28	0.75
W15	0.00	WAGONS, REAR DUMP	90	A	B	12,000	0.15	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.136	0.88	0.77	0.98	0.60
W15	0.00	WAGONS, REAR DUMP	90	S	B	10,000	0.15	85	.850	.077	.041	0	.000	.000	.000	.000	.102	.136	0.25	0.19	0.28	0.70
W25	0.00	WATER & CO2 BLASTERS	1																			
W25	0.10	LOW PRESSURE, (< 5,000 PSI)	95	A	B	4,000	0.20	95	.950	.086	.045	0	.000	.000	.000	.424	.102	.119	0.96	0.73	1.07	1.10
W25	0.20	HIGH PRESSURE, (>= 5,000 PSI)	95	A	B	4,000	0.20	95	.950	.086	.045	0	.000	.000	.000	.424	.102	.119	0.96	0.73	1.07	1.20
W25	0.30	STEAM CLEANERS	95	A	B	4,000	0.20	95	.950	.086	.045	0	.000	.000	.000	.424	.102	.119	0.00	0.00	0.73	1.10

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D=Diesel Powered

FT=Front Tire  
DT=Drive Tire  
TT=Trailing Tire

**APPENDIX D  
EQUIPMENT HOURLY CALCULATION FACTORS**

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT			HPF	CARRIER			FOG			TIRE WEAR			RCF
									FUEL FACTORS				FUEL FACTORS			FACTORS			FACTORS			
									E	G	D		E	G	D	E	G	D	FT	DT	TT	
W25	0.40	CO2 BLASTERS	95	A	B	6,000	0.20	70	.700	.063	.034	0	.000	.000	.000	.530	.127	.148	0.00	0.00	0.73	1.00
W25	0.50	WET ABRASIVE BLASTING SYSTEM (TORBO)	95	A	B	10,000	0.35	0	.000	.000	.000	0	.000	.000	.000	.000	.000	.000	0.00	0.00	0.73	0.40
W30	0.00	WATER TANKS	1																			
W30	0.10	PORTABLE WITH WHEELS	90	A	B	12,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.119	0.00	0.00	0.73	0.60
W30	0.20	SKID MOUNTED	90	A	B	12,000	0.20	65	.650	.059	.031	0	.000	.000	.000	.000	.102	.119	0.00	0.00	0.00	0.50
W35	0.00	WELDERS	1																			
W35	0.10	ENGINE DRIVEN	95	A	B	8,000	0.25	80	.800	.072	.038	0	.000	.000	.000	.000	.102	.102	0.00	0.00	1.07	0.75
W35	0.20	ELECTRIC DRIVEN	95	A	B	6,000	0.20	30	.300	.027	.014	0	.000	.000	.000	.424	.000	.000	0.00	0.00	0.00	0.50

EK=Economic Key (Appendix E)  
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DC=Discount Code (B=basic 7.5%, S=special 15%)  
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LIFE=Economic Life  
SLV=Salvage Value  
HPF=Horsepower Factor

E=Electric Powered  
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FT=Front Tire  
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**APPENDIX E**  
**ECONOMIC INDEXES FOR CONSTRUCTION EQUIPMENT**

KEY		Note: Table 2-1 Equipment Rates are based on equipment purchased new in the year 2011 {--Projected-----}																		
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
(EK)	EQUIPMENT DIVISIONS																			
5	Air Equipment	3165	3105	3047	3007	2887	2796	2601	2585	2458	2319	2234	2157	2085	2075	2069	2079	2047	2078	2074
10	Asphalt & Concrete Paving Equipment	5142	5046	4951	4855	4767	4652	4534	4526	4381	4228	4116	3950	3758	3763	3769	3766	3717	3638	3589
15	Buckets	9944	9757	9574	9448	9257	9135	8862	8911	8687	8604	8502	8057	7626	7443	7254	6804	6900	6982	6930
20	Cranes, Draglines & Clamshells - Crawler & Truck Mtd	7653	7509	7368	7271	7124	7031	6820	6858	6685	6621	6543	6201	5869	5728	5582	5236	5310	5289	5225
25	Drills	6824	6695	6569	6469	6391	6205	5987	5938	5783	5448	5104	4762	4444	4192	4116	3819	3736	3683	3626
30	Generators	6807	6679	6553	6458	6397	6262	5905	5794	5628	5357	5112	4888	4641	4566	4548	4548	4529	4520	4517
35	Graders, Motor	9365	9189	9016	8914	8648	7920	7632	7516	7155	6909	6825	6578	6318	6117	6049	5979	5952	5853	5682
40	Loaders, Track	8813	8647	8485	8378	8088	7713	7434	7454	7254	7037	6907	6653	6347	6177	6081	6058	6032	5960	5792
45	Loaders, Wheel	8133	7980	7830	7732	7464	7119	6861	6880	6695	6494	6374	6140	5857	5701	5612	5591	5567	5511	5409
50	Pile Driving Equipment	7628	7485	7344	7247	7063	6787	6582	6569	6375	6176	6033	5787	5450	5270	5195	5127	5112	5062	4993
55	Rollers	7890	7741	7596	7488	7341	7157	6983	6938	6736	6424	6145	5872	5646	5406	5285	5225	5130	5204	5092
60	Scrapers & Soil Stabilizers	9365	9189	9016	8914	8648	7920	7632	7516	7155	6909	6825	6578	6318	6117	6049	5979	5952	5853	5682
65	Shovels, Backhoes & Hydraulic Excavators	7653	7509	7368	7271	7124	7031	6820	6858	6685	6621	6543	6201	5869	5728	5582	5236	5310	5289	5225
70	Tractors, Crawlers & Attachments	8813	8647	8485	8378	8088	7713	7434	7454	7254	7037	6907	6653	6347	6177	6081	6058	6032	5960	5792
75	Tractor, Wheel	7583	7440	7300	7196	7050	6845	6678	6636	6442	6144	5876	5616	5400	5170	5055	4997	4906	4833	4695
80	Trenchers	9739	9556	9376	9243	9062	8835	8620	8565	8314	7930	7584	7248	6970	6466	6524	6450	6332	6223	6042
85	Trucks, Highway	6473	6351	6231	6131	5988	5648	5485	5366	5123	4965	4820	4638	4450	4356	4306	4216	4212	4307	4216
90	Trucks & Wagons - Off-Highway	8636	8473	8314	8172	8103	7940	7820	7785	7651	7392	7231	6896	6424	6095	6026	5931	5828	5715	5651
95	All Other Equipment	7628	7485	7344	7247	7063	6787	6582	6569	6375	6176	6033	5787	5450	5270	5195	5127	5112	5062	4993
100	All Tires & Tubes	4207	4128	4050	3991	4062	3929	3525	3343	3267	3025	2926	2759	2614	2487	2430	2401	2373	2371	2400
105	Marine Equipment	8844	8678	8515	8316	8216	8118	7941	7773	7466	7202	6905	6661	6436	6101	5846	5771	5645	5556	5513

EK = Economic Key

## APPENDIX E

### ECONOMIC INDEXES FOR CONSTRUCTION EQUIPMENT

KEY		Note: Table 2-1 Equipment Rates are based on equipment purchased new in the year 2011																	
(EK)	EQUIPMENT DIVISIONS	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
5	Air Equipment	2070	2063	2053	2012	2022	2008	1963	1956	1888	1801	1730	1720	1733	1683	1695	1668	1563	1630
10	Asphalt & Concrete Paving Equipment	3490	3390	3323	3248	3189	3092	3106	2967	2867	2793	2730	2687	2687	2611	2583	2620	2461	2296
15	Buckets	6888	6774	6672	6638	6663	6380	5901	5640	5314	4872	4767	4713	4640	4527	4471	4541	4313	3879
20	Cranes, Draglines & Clamshells - Crawler & Truck Mtd	5116	5013	4880	4783	4736	4540	4298	4152	3967	3688	3595	3485	3395	3339	3282	3213	3009	2782
25	Drills	3574	3518	3394	3320	3268	3196	3163	3069	2969	2807	2792	2786	2832	2803	2836	2810	2602	2265
30	Generators	4484	4511	4457	4343	4294	4234	4181	4116	3998	3773	3575	3514	3510	3400	3314	3236	3160	2817
35	Graders, Motor	5544	5466	5186	5088	4946	4655	4509	4359	4219	4010	3914	3759	3738	3645	3643	3561	3276	2992
40	Loaders, Track	5686	5606	5434	5257	5068	4816	4677	4555	4404	4163	3918	3770	3767	3791	3792	3655	3349	3061
45	Loaders, Wheel	5303	5251	5101	4988	4894	4758	4640	4532	4409	4235	4099	3991	3973	3944	3873	3788	3441	2938
50	Pile Driving Equipment	4892	4809	4700	4598	4539	4427	4305	4182	4029	3845	3745	3668	3626	3570	3519	3439	3208	2894
55	Rollers	5001	4950	4851	4719	4484	4460	4668	4630	4507	4412	4217	4151	4090	3926	3744	3431	3199	2913
60	Scrapers & Soil Stabilizers	5544	5466	5186	5088	4946	4655	4509	4359	4219	4010	3914	3759	3738	3645	3643	3561	3276	2992
65	Shovels, Backhoes & Hydraulic Excavators	5116	5013	4880	4783	4736	4540	4298	4152	3967	3688	3595	3485	3395	3339	3282	3213	3009	2782
70	Tractors, Crawlers & Attachments	5686	5606	5434	5257	5068	4816	4677	4555	4404	4163	3918	3770	3767	3791	3792	3655	3349	3061
75	Tractor, Wheel	4624	4540	4527	4484	4342	4270	4186	4123	4018	3936	3862	3820	3818	3656	3557	3530	3256	2927
80	Trenchers	5833	5749	5670	5509	5207	5015	4948	4886	4753	4679	4600	4586	4488	4431	4360	4097	3618	3153
85	Trucks, Highway	4241	4318	4293	4190	4025	3838	3669	3546	3495	3363	3299	3282	3139	3055	2934	2824	2638	2324
90	Trucks & Wagons - Off-Highway	5581	5440	5265	4979	4837	4797	4739	4617	4405	4094	3915	3840	3822	3786	3744	3662	3363	2964
95	All Other Equipment	4892	4809	4700	4598	4539	4427	4305	4182	4029	3845	3745	3668	3626	3570	3519	3439	3208	2894
100	All Tires & Tubes	2431	2475	2559	2517	2525	2524	2506	2470	2480	2399	2322	2340	2374	2421	2453	2552	2506	2369
105	Marine Equipment	5429	5245	5036	4951	4881	4679	4438	4271	4091	3920	3886	3863	3749	3633	3497	3391	3239	2922

EK = Economic Key



**APPENDIX F  
TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
<b><u>LT TRUCK/RECREATIONAL VEHICLE, RADIAL</u></b>						
<b>WORKHORSE EXTRA GRIP RADIAL</b>			<i>(Life = 5000 hrs )</i>			
ABAA3		LT265/75R16	10.40 x 16.00	10	TL	\$254
<b>WRANGLER RADIAL AT</b>			<i>(Life = 5000 hrs )</i>			
ABAC1		LT235/75R15	9.25 x 15.00	6	TL	\$216
ABAC2		31-1050R15	10.50 x 15.00	6	TL	\$177
<b>SERVICE TRAILER - MARATHON RADIAL</b>			<i>(Life = 5000 hrs )</i>			
ABBF1		ST175/80R13	7.00 x 13.00	4	TL	\$101
ABBF3		ST185/80R13	7.20 x 13.00	6	TL	\$128
ABBF5		ST205/75R14	8.00 x 14.00	6	TL	\$141
ABBF8		ST205/75R15	8.00 x 15.00	6	TL	\$143
ABBF6		ST215/75R14	8.50 x 14.00	6	TL	\$152
ABBF9		ST225/75R15	8.80 x 15.00	6	TL	\$154
ABBF10		ST225/75R15	8.80 x 15.00	8	TL	\$164
<b><u>LT TRUCK/RECREATIONAL VEHICLE, BIAS</u></b>						
<b>WORKHORSE RIB</b>			<i>(Life = 5000 hrs )</i>			
ACBA2		700-15LT	8.30 x 15.00	8	TL	\$242
ACBA7		875-16.5LT	8.80 x 16.50	10	TL	\$281
ACBA4		750-16LT	8.90 x 16.00	10	TL	\$279
ACBA9		950-16.5LT	9.60 x 16.50	10	TL	\$308
<b>TRACTION HI-MILER</b>			<i>(Life = 5000 hrs )</i>			
ACBC1		6.70-15LT	7.50 x 15.00	6	TL	\$248
ACBC3		8-14.5LT	8.00 x 14.50	12	TL	\$189
ACBC4		9-14.5LT	9.50 x 14.50	12	TL	\$218
<b>CUSTOM HI-MILER</b>			<i>(Life = 5000 hrs )</i>			
ACBD1		12-16.5LT	12.10 x 16.50	12	TL	\$818
<b><u>OVER-THE-ROAD TRUCK, COMMERCIAL, RADIAL</u></b>						
<b>COMMERICAL RADIAL LT TRUCK</b>			<i>(Life = 5000 hrs )</i>			
ADCA2		LT225/75R16	7.50 x 16.00	10	TL	\$299
ADCA17		8R19.5	8.00 x 19.50	10	TL	\$503
ADCA18		8R195	8.00 x 19.50	12	TL	\$343

(1) TT = includes tube, TL = no tube, NO = no tube

## APPENDIX F TIRE DESCRIPTION AND TIRE COST

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
ADCA4		LT215/85R16	8.50 x 16.00	10	TL	\$250
ADCA3		LT215/85R16	8.50 x 16.00	8	TL	\$245
ADCA1		750R16LT	8.70 x 16.00	8	TL	\$218
ADCA6		LT225/75R16	8.80 x 16.00	10	TL	\$204
ADCA19		225/70R195	8.85 x 19.50	12	TL	\$351
ADCA8		LT235/85R16	9.25 x 16.00	10	TL	\$213
ADCA21		245/70R195	9.65 x 19.50	14	TL	\$393
ADCA11		LT245/75R16	9.80 x 16.00	10	TL	\$221
<b>COMMERCIAL RADIAL TRUCK TL</b>			<i>(Life = 5000 hrs )</i>			
ADCB2		9R175	9.00 x 17.50	16	TL	\$520
ADCB5		9R22.5	9.00 x 22.50	12	TL	\$368
ADCB3		10R175	10.00 x 17.50	16	TL	\$559
ADCB7		10R22.5	10.00 x 22.50	14	TL	\$524
ADCB4		11R17.5	11.00 x 17.50	16	TL	\$506
ADCB8		11R22.5	11.00 x 22.50	16	TL	\$803
ADCB13		11R24.5	11.00 x 24.50	16	TL	\$855
ADCB10		12R22.5	12.00 x 22.50	16	TL	\$926
ADCB14		12R24.5	12.00 x 24.50	16	TL	\$959
<b>LOW PROFILE RADIAL TRUCK TL</b>			<i>(Life = 5000 hrs )</i>			
ADCC1		215/75R175	8.40 x 17.50	16	TL	\$549
ADCC5		245/75R22.5	9.60 x 22.50	14	TL	\$403
ADCC3		255/70R22.5	10.00 x 22.50	16	TL	\$486
ADCC2		265/70R19.5	10.40 x 19.50	14	TL	\$426
ADCC6		265/75R22.5	10.40 x 22.50	14	TL	\$489
ADCC4		275/70R22.5	10.80 x 22.50	16	TL	\$562
ADCC12		285/75R24.5	11.20 x 24.50	14	TL	\$491
ADCC8		295/75R22.5	11.60 x 22.50	16	TL	\$716
ADCC10		315/80R22.5	12.40 x 22.50	18	TL	\$1,134
<b>SUPER SINGLE COMMERCIAL RADIAL TRUCK</b>			<i>(Life = 5000 hrs )</i>			
ADCD1		385/65R22.5	15.10 x 22.50	18	TL	\$943
ADCD2		425/65R22.5	16.70 x 22.50	20	TL	\$1,058
ADCD3		445/65R22.5	17.50 x 22.50	20	TL	\$1,196
<b>COMMERCIAL RADIAL TRUCK TT</b>			<i>(Life = 5000 hrs )</i>			
ADCE1		825R15	8.25 x 15.00	14	TT	\$393
ADCE5		9.00R20	8.25 x 20.00	12	TT	\$513

(1) TT = includes tube, TL = no tube, NO = no tube

**APPENDIX F  
TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
ADCE6		9.00R20	9.00 x 20.00	12	TT	\$538
ADCE3		1000R15	10.00 x 15.00	14	TT	\$568
ADCE7		1000R20	10.00 x 20.00	14	TT	\$606
ADCE13		10R22.5	10.00 x 22.50	12	TL	\$607
ADCE12		365/80R20	10.40 x 20.00	18	TT	\$1,305
ADCE9		1100R20	11.00 x 20.00	16	TT	\$703
ADCE10		1100R20	11.00 x 20.00	16	TT	\$887
ADCE14		1100R22	11.00 x 22.00	16	TT	\$834
ADCE15		1100R24	11.00 x 24.00	16	TT	\$833
ADCE11		1200R20	12.00 x 20.00	18	TT	\$858
ADCE17		1200R24	12.00 x 24.00	18	TT	\$950
<b><u>FARM, FRONT</u></b>						
<b>DYNA RIB F-2-M</b>			<i>(Life = 5000 hrs)</i>			
AFED2	F-2M	1000-16	10.00 x 16.00	8	TL	\$350
AFED1	F-2M	11L-15	11.00 x 15.00	6	TL	\$338
AFED4	F-2M	1100-16	11.00 x 16.00	8	TL	\$449
AFED8	F-2M	1100-24	11.00 x 24.00	12	TL	\$1,015
AFED6	F-2M	14L-161	14.00 x 16.10	10	TL	\$884
AFED7	F-2M	165L-161	16.50 x 16.10	8	TL	\$1,128
<b>SINGLE RIB FRONT TRACTOR F-1</b>			<i>(Life = 5000 hrs)</i>			
AFEE1	F-1	600-16	6.00 x 16.00	4	TT	\$251
<b>FARM HIGHWAY SERVICE</b>			<i>(Life = 5000 hrs)</i>			
AFEF2	I-1	95L-15FI	9.50 x 15.00	D	TL	\$282
<b>FARM UTILITY</b>			<i>(Life = 5000 hrs)</i>			
AFEG7	I-1	750-14	7.50 x 14.00	4	TL	\$233
AFEG14	I-1	760-15	7.60 x 15.00	8	TL	\$203
AFEG8	I-1	85L-14	8.50 x 14.00	6	TL	\$210
AFEG1	I-1	95L-14	9.50 x 14.00	6	TT	\$205
AFEG17	I-1	95L-15	9.50 x 15.00	12	TL	\$302
AFEG18	I-1	1000-15	10.00 x 15.00	8	TL	\$356
AFEG11	I-1	11L-14	11.00 x 14.00	8	TL	\$271
AFEG22	I-1	11L-15	11.00 x 15.00	10	TL	\$310
AFEG20	I-1	11L-15	11.00 x 15.00	8	TL	\$227
AFEG34	I-1	11L-16	11.00 x 16.00	10	TL	\$312

(1) TT = includes tube, TL = no tube, NO = no tube

**APPENDIX F  
TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
AFEG25	I-1	125L-15	12.50 x 15.00	12	TL	\$388
AFEG30	I-1	125L-16	12.50 x 16.00	12	TL	\$451
AFEG29	I-1	125L-16	12.50 x 16.00	8	TL	\$398
AFEG28	I-1	14L-161	14.00 x 16.10	12	TL	\$681
AFEG31	I-1	165L-161	16.50 x 16.10	10	TL	\$677
AFEG32	I-1	19L-161	19.00 x 16.10	10	TL	\$891
AFEG27	I-1	215L-161	21.50 x 16.10	14	TL	\$1,449
<b>FOUR RIB FRONT TRACTOR F-2-M</b>			<i>(Life = 5000 hrs )</i>			
AFEH1	F-2M	750-16	7.50 x 16.00	6	TT	\$232
AFEH3	F-2M	1000-16	10.00 x 16.00	8	TT	\$323
AFEH4	F-2M	1100-16	11.00 x 16.00	8	TT	\$427
<b>IMPLEMENT RIB</b>			<i>(Life = 5000 hrs )</i>			
TFEK11	I-1	4.00-18	4.00 x 18.00	4	TT	\$171
AFEK4	I-1	500-15	5.00 x 15.00	4	TL	\$126
AFEK16	I-1	590-15	5.90 x 15.00	4	TL	\$171
AFEK6	I-1	600-16	6.00 x 16.00	6	TL	\$175
AFEK7	I-1	650-16	6.50 x 16.00	6	TL	\$175
AFEK5	I-1	670-15	6.70 x 15.00	6	TL	\$169
AFEK9	I-1	750-16	7.50 x 16.00	10	TL	\$292
AFEK13	I-1	900-24	9.00 x 24.00	8	TL	\$637
AFEK14	I-1	1125-28	11.25 x 28.00	12	TL	\$1,185
<b>LABORER F-3</b>			<i>(Life = 5000 hrs )</i>			
AFEL6	F-3	145/75-161	5.70 x 16.10	10	TL	\$785
AFEL2	F-3	11L-15	11.00 x 15.00	10	TL	\$349
AFEL4	F-3	11L-16	11.00 x 16.00	10	TL	\$325
AFEL5	F-3	11L-16	11.00 x 16.00	12	TL	\$372
<b>MULTI-RIB F-3</b>			<i>(Life = 5000 hrs )</i>			
AFEM1	F-3	900-10	9.00 x 10.00	10	TT	\$236
TFEM2	F-3	1100-16	11.00 x 16.00	12	TL	\$564
<b>SMOOTH</b>			<i>(Life = 5000 hrs )</i>			
AFEN1	I-1	169-30	16.90 x 30.00	6	TL	\$1,354
<b>SMOOTH IMP</b>			<i>(Life = 5000 hrs )</i>			
AFEO1		4.00-8	4.00 x 8.00	4	TL	\$127
AFEO3		600-16	6.00 x 16.00	10	TL	\$394

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**APPENDIX F  
TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
AFE02		11L-15	11.00 x 15.00	10	TL	\$378
<b>SOFTRAC II</b>			<i>(Life = 5000 hrs)</i>			
AFEP1	I-2	165L-161	16.50 x 16.10	6	TL	\$760
AFEP3	I-2	215L-161	21.50 x 16.10	10	TL	\$1,734
<b>SUPER RIB F-2</b>			<i>(Life = 5000 hrs)</i>			
TFER1	F-2	400-12	4.00 x 12.00	4	TT	\$119
<b>COMPACT UTILITY R-1</b>			<i>(Life = 5000 hrs)</i>			
TFES2		5-12	5.00 x 12.00	4	TL	\$127
AFES1		7-16	7.00 x 16.00	6	TL	\$277
<b>SURE GRIP IMPLEMENT</b>			<i>(Life = 5000 hrs)</i>			
AFET1	I-3	105/80-18	10.50 x 18.00	10	TL	\$722
AFET2	I-3	12.5/80-18	12.50 x 18.00	10	TL	\$776
<b>SURE GRIP LUG</b>			<i>(Life = 5000 hrs)</i>			
AFEU2	I-3	105/80-18	10.50 x 18.00	10	TL	\$594
AFEU1	I-3	124-16	12.40 x 16.00	4	TL	\$880
AFEU3	I-3	12.5/80-18	12.50 x 18.00	14	TL	\$720
<b>SURE GRIP TRACTION</b>			<i>(Life = 5000 hrs)</i>			
AFEV1	I-3	670-15	6.70 x 15.00	4	TT	\$224
AFEV5	I-3	750-16	7.50 x 16.00	4	TL	\$345
AFEV2	I-3	750-18	7.50 x 18.00	4	TT	\$341
AFEV3	I-3	750-20	7.50 x 20.00	4	TT	\$386
AFEV4	I-3	760-15	7.60 x 15.00	6	TL	\$297
<b>TRACTION IMPLEMENT</b>			<i>(Life = 5000 hrs)</i>			
AFEW1	I-3	500-15	5.00 x 15.00	4	TL	\$216
AFEW2	I-3	590-15	5.90 x 15.00	4	TL	\$231
<b>TRIPLE RIB HD</b>			<i>(Life = 5000 hrs)</i>			
AFEX8	F-2	550-16	5.50 x 16.00	6	TT	\$137
AFEX10	F-2	600-16	6.00 x 16.00	6	TT	\$156
AFEX11	F-2	650-16	6.50 x 16.00	6	TT	\$195
AFEX4	F-2	75L-15	7.50 x 15.00	6	TT	\$192
AFEX18	F-2	750-16	7.50 x 16.00	6	TL	\$229
AFEX13	F-2	750-16	7.50 x 16.00	8	TT	\$237

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## APPENDIX F TIRE DESCRIPTION AND TIRE COST

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
AFEX14	F-2	750-18	7.50 x 18.00	6	TT	\$265
AFEX5	F-2	95L-15	9.50 x 15.00	8	TT	\$305
AFEX16	F-2	1000-16	10.00 x 16.00	8	TL	\$377
AFEX6	F-2	11L-15	11.00 x 15.00	8	TT	\$338
AFEX17	F-2	1100-16	11.00 x 16.00	8	TL	\$474
<b>TRIPLE RIB R/S F-2</b>			<i>(Life = 5000 hrs)</i>			
AFEY2	F-2	400-15	4.00 x 15.00	4	TT	\$164
AFEY1	F-2	500-15	5.00 x 15.00	4	TT	\$156
<b>DURATORQUE R-1</b>			<i>(Life = 5000 hrs)</i>			
AFFU3	R-1	8-16	8.00 x 16.00	6	TL	\$345
<b><u>FARM, REAR</u></b>						
<b>ALL TRACTION R-3</b>			<i>(Life = 5000 hrs)</i>			
AGFA1	R-3	750-16	7.50 x 16.00	4	TT	\$322
<b>ALL WEATHER R-3</b>			<i>(Life = 5000 hrs)</i>			
AGFB2	R-3	95-24	9.50 x 24.00	4	TT	\$584
AGFB7	R-3	136-161	13.60 x 16.10	8	TL	\$999
AGFB5	R-3	136-28	13.60 x 28.00	6	TT	\$1,087
AGFB3	R-3	149-24	14.90 x 24.00	6	TL	\$1,065
AGFB4	R-3	169-24	16.90 x 24.00	6	TL	\$1,248
AGFB8	R-3	184-161	18.40 x 16.10	8	TL	\$1,275
AGFB10	R-3	184-26	18.40 x 26.00	12	TL	\$1,476
AGFB11	R-3	231-26	23.10 x 26.00	10	TL	\$2,309
AGFB12	R-3	231-26	23.10 x 26.00	12	TL	\$2,421
AGFB14	R-3	245-32	24.50 x 32.00	12	TL	\$3,827
AGFB13	R-3	28L-26	28.00 x 26.00	16	TL	\$3,371
AGFB15	R-3	305L-32	30.50 x 32.00	12	TL	\$4,513
AGFB16	R-3	305L-32 VA	30.50 x 32.00	16	TL	\$5,741
<b>DT 800 RADIAL R-1W</b>			<i>(Life = 5000 hrs)</i>			
AGFE1	R-1W	320/90R42	12.60 x 42.00	139A8	TL	\$2,257
AGFE3	R-1W	320/90R50	12.60 x 50.00	148A8	TL	\$2,952
AGFE2	R-1W	380/90R46	14.90 x 46.00	149A8	TL	\$2,913
<b>DT 812 RADIAL R-1W</b>			<i>(Life = 5000 hrs)</i>			
AGFF1	R-1W	380/70R24	14.90 x 24.00	125A8	TL	\$2,231

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**APPENDIX F  
TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
AGFF2	R-1W	420/70R28	16.50 x 28.00	133A8	TL	\$3,111
AGFF3	R-1W	480/70R30	18.90 x 30.00	152A8	TL	\$3,159
<b>DT 820 RADIAL R-1W</b>			<i>(Life = 5000 hrs )</i>			
AGFG2	R-1W	600/65R28	23.60 x 28.00	154A8/B	TL	\$3,869
AGFG1	R-1W	620/75R26	24.40 x 26.00	166A8	TL	\$6,478
AGFG5	R-1W	620/70R42	24.40 x 42.00	UK	TL	\$4,477
AGFG3	R-1W	650/75R34	25.60 x 34.00	UK	TL	\$6,124
AGFG4	R-1W	710/70R38	27.90 x 38.00	UK	TL	\$4,870
<b>DYNA TORQUE RADIAL R-1</b>			<i>(Life = 5000 hrs )</i>			
TGFH5	R-1	320/85R34	12.60 x 34.00	132D	TL	\$1,796
AGFH7	R-1	380/85R30	14.90 x 30.00	X3	TL	\$2,112
AGFH9	R-1	380/85R34	14.90 x 34.00	X3	TL	\$2,358
AGFH15	R-1	380/85R46	14.90 x 46.00	X3	TL	\$2,801
TGFH6	R-1	385/85R34	15.20 x 34.00	141G	TL	\$2,358
AGFH16	R-1	420/80R46	16.50 x 46.00	UK	TL	\$3,817
AGFH8	R-1	420/90R30	16.90 x 30.00	X3	TT	\$2,394
TGFH2	R-1	480/85R26	18.40 x 26.00	X2	TL	\$2,367
AGFH10	R-1	480/80R38	18.40 x 38.00	14	TL	\$2,126
AGFH17	R-1	480/80R46	18.40 x 46.00	X3	TL	\$3,269
AGFH12	R-1	520/85R38	20.80 x 38.00	14	TL	\$2,758
AGFH14	R-1	520/85R42	20.80 x 42.00	14	TL	\$2,992
<b>DYNA TORQUE II R-1</b>			<i>(Life = 5000 hrs )</i>			
AGFJ29	R-1	112-16	11.20 x 16.00	4	TL	\$522
AGFJ6	R-1	136-24	13.60 x 24.00	8	TT	\$1,080
AGFJ41	R-1	136-28	13.60 x 28.00	10	TL	\$1,377
AGFJ7	R-1	149-24	14.90 x 24.00	6	TL	\$835
AGFJ31	R-1	149-24	14.90 x 24.00	8	TL	\$961
AGFJ42	R-1	149-28	14.90 x 28.00	10	TL	\$1,805
AGFJ8	R-1	169-24	16.90 x 24.00	6	TT	\$1,033
AGFJ39	R-1	169-26	16.90 x 26.00	10	TL	\$2,257
AGFJ43	R-1	169-28	16.90 x 28.00	10	TL	\$2,084
AGFJ37	R-1	169-34	16.90 x 34.00	6	TT	\$1,260
AGFJ23	R-1	169-38	16.90 x 38.00	14	TL	\$2,245
AGFJ40	R-1	184-26	18.40 x 26.00	12	TL	\$1,810
AGFJ18	R-1	184-34	18.40 x 34.00	8	TT	\$1,448

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## APPENDIX F TIRE DESCRIPTION AND TIRE COST

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
AGFJ24	R-1	184-38	18.40 x 38.00	8	TT	\$1,511
AGFJ19	R-1	208-34	20.80 x 34.00	8	TT	\$2,518
AGFJ25	R-1	208-38	20.80 x 38.00	8	TT	\$2,016
AGFJ27	R-1	208-42	20.80 x 42.00	10	TL	\$3,385
AGFJ45	R-1	231-26	23.10 x 26.00	12	TL	\$2,552
AGFJ20	R-1	231-34	23.10 x 34.00	8	TT	\$2,821
AGFJ35	R-1	245-32	24.50 x 32.00	12	TL	\$3,184
AGFJ34	R-1	28L-26	28.00 x 26.00	12	TL	\$3,241
AGFJ36	R-1	305L-32	30.50 x 32.00	14	TL	\$4,831
<b>INDUSTRIAL SURE GRIP R-4</b>			<i>(Life = 5000 hrs )</i>			
AGFK1	R-4	169-30	16.90 x 30.00	10	TT	\$2,868
AGFK3	R-4	184-28	18.40 x 28.00	12	TL	\$1,587
<b>IT510 RADIAL R4</b>			<i>(Life = 5000 hrs )</i>			
AGFL3	R-4	195LR24	19.50 x 24.00	UK	TL	\$2,585
<b>IT525 RADIAL R4</b>			<i>(Life = 5000 hrs )</i>			
AGFM1	R-4	149-24	14.90 x 24.00	8	TL	\$962
AGFM4	R-4	169-24	16.90 x 24.00	10	TL	\$978
AGFM12	R-4	169-28	16.90 x 28.00	10	TL	\$1,250
AGFM6	R-4	175L-24	17.50 x 24.00	10	TL	\$1,095
AGFM5	R-4	184-24	18.40 x 24.00	12	TL	\$1,422
AGFM7	R-4	195L-24	19.50 x 24.00	10	TL	\$1,369
AGFM8	R-4	195L-24	19.50 x 24.00	12	TL	\$1,536
AGFM9	R-4	21L-24	21.00 x 24.00	12	TL	\$1,846
AGFM11	R-4	21L-24	21.00 x 24.00	16	TL	\$2,138
AGFM14	R-4	21L-28	21.00 x 28.00	14	TL	\$2,257
<b>POWER TORQUE R-1</b>			<i>(Life = 5000 hrs )</i>			
AGFN1	R-1	6-12	6.00 x 12.00	4	TL	\$129
<b>SPECIAL SURE GRIP R-2-0</b>			<i>(Life = 5000 hrs )</i>			
AGFO2	R-2	149-24	14.90 x 24.00	6	TL	\$1,989
AGFO11	R-2	184-26	18.40 x 26.00	10	TL	\$2,000
AGFO8	R-2	184-38	18.40 x 38.00	8	TL	\$2,868
AGFO12	R-2	VA500/95D32	19.70 x 32.00	20	TL	\$5,608
AGFO10	R-2	208-38	20.80 x 38.00	8	TL	\$2,978
AGFO3	R-2	231-26	23.10 x 26.00	10	TL	\$3,204

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**APPENDIX F  
TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
AGFO4	R-2	28L-26	28.00 x 26.00	12	TL	\$4,459
AGFO6	R-2	305L-32	30.50 x 32.00	14	TL	\$5,529
<b>SPECIAL SURE GRIP RADIAL R-2-0</b>			<i>(Life = 5000 hrs )</i>			
AGFP8	R-2	320/90R46	12.60 x 46.00		TL	\$2,914
AGFP9	R-2	340/85R46	13.40 x 46.00	UK	TL	\$3,150
AGFP6	R-2	520/85R42	20.80 x 42.00	X2	TL	\$4,845
<b>SUPER TRACTION RADIAL R-1W</b>			<i>(Life = 5000 hrs )</i>			
AGFQ3	R-1W	260/80R20	10.20 x 20.00	8	TL	\$1,242
TGFQ15	R-1W	340/85R28	13.60 x 38.00	UK	TL	\$2,351
AGFQ20	R-1W	149R24	14.90 x 24.00	X2	TL	\$2,438
TGFQ7	R-1W	380/85R28	14.90 x 28.00	UK	TL	\$1,785
AGFQ9	R-1W	149R30	14.90 x 30.00	UK	TL	\$2,421
AGFQ5	R-1W	169R26	16.90 x 26.00	UK	TL	\$3,611
AGFQ8	R-1W	169R28	16.90 x 28.00	UK	TL	\$2,598
AGFQ10	R-1W	169R30	16.90 x 30.00	UK	TL	\$2,611
AGFQ11	R-1W	184R26	18.40 x 26.00	UK	TL	\$2,720
AGFQ12	R-1W	460/85R30	18.40 x 30.00	UK	TL	\$3,593
AGFQ14	R-1W	460/85R34	18.40 x 34.00	UK	TL	\$4,036
AGFQ16	R-1W	184R38	18.40 x 38.00	UK	TL	\$2,611
AGFQ18	R-1W	184R42	18.40 x 42.00	UK	TL	\$3,200
AGFQ17	R-1W	208R38	20.80 x 38.00	UK	TL	\$3,397
AGFQ13	R-1W	800/65R32	31.50 x 32.00	UK	TL	\$5,647
<b>DURATORQUE R-1</b>			<i>(Life = 5000 hrs )</i>			
AGFU1	R-1	149-28	14.90 x 28.00	6	TT	\$806
AGFU2	R-1	169-30	16.90 x 30.00	6	TT	\$1,015
AGFU3	R-1	184-30	18.40 x 30.00	6	TT	\$1,261
AGFU5	R-1	184-38	18.40 x 38.00	8	TT	\$1,519
<b><u>FARM, TERRA - 20" UP</u></b>						
<b>SFT105</b>			<i>(Life = 5000 hrs )</i>			
AHGA2	HF-1	54-3100-26	31.00 x 26.00	10	TL	\$2,450
<b>SOF TRAC</b>			<i>(Life = 5000 hrs )</i>			
AHGB3	HF-1	38-1400-20	14.00 x 20.00	4	TL	\$729
AHGB2	HF-1	41-1400-20	14.00 x 20.00	4	TL	\$780

(1) TT = includes tube, TL = no tube, NO = no tube

**APPENDIX F**  
**TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
AHGB1	HF-1	44-1800-20	18.00 x 20.00	4	TL	\$1,088
<b>SUPER TERRA GRIP</b>			<i>(Life = 5000 hrs)</i>			
AHGC1	HF-2	38-1400-20	14.00 x 20.00	8	TL	\$1,065
AHGC11	HF-2	1000/50R25	43.00 x 25.00	20	TL	\$9,859
<b>SUPER TERRA GRIP XT</b>			<i>(Life = 5000 hrs)</i>			
AHGD5	HF-3	48-3100-20	31.00 x 20.00	12	TL	\$3,388
AHGD6	HF-3	1000/50R25	43.00 x 25.00	10	TL	\$8,173
AHGD7	HF-3	1050/50R32	44.00 x 32.00	16	TL	\$11,917
<b>TUNDRA GRIP</b>			<i>(Life = 5000 hrs)</i>			
AHGF2	HF-1	1050/50R25	44.00 x 25.00	16	TL	\$12,242
AHGF1	HF-1	66-4400-25	44.00 x 25.00	20	TL	\$11,752
<b><u>FARM, SPECIALTY</u></b>						
<b>SOFTRAC</b>			<i>(Life = 5000 hrs)</i>			
TJHB2		18-6.50-8/2	6.50 x 17.20	2.0	TL	\$43
TJHB3		18-850-10	8.50 x 10.00	4	TL	\$151
AJHB1	HF-1	25-850-14	8.50 x 14.00	6	TL	\$284
AJHB5	HF-1	27-850-15	8.50 x 15.00	4	TL	\$289
AJHB4	HF-1	25-1050-15	10.50 x 15.00	4	TL	\$303
AJHB6	HF-1	27-1050-15	10.50 x 15.00	4	TL	\$359
AJHB7	HF-1	29-1250-15	12.50 x 15.00	4	TL	\$391
AJHB10	HF-1	31-1250-15	12.50 x 15.00	4	TL	\$433
AJHB11	HF-1	33-1250-15	12.50 x 15.00	4	TL	\$506
AJHB8	HF-1	31-1350-15	13.50 x 15.00	4	TL	\$476
AJHB9	HF-1	31-1550-15	15.50 x 15.00	4	TL	\$550
<b>SUPER TERRA GRIP</b>			<i>(Life = 5000 hrs)</i>			
AJHC3	HF-2	29-1250-15	12.50 x 15.00	6	TL	\$401
AJHC6	HF-2	31-1550-15	15.50 x 15.00	8	TL	\$704
AJHC7	HF-2	38-2000-16.1	20.00 x 16.00	8	TL	\$1,436
<b>SURE GRIP LUG</b>			<i>(Life = 5000 hrs)</i>			
AJHD9	HF-2	27-850-15	8.50 x 15.00	6	TL	\$331
AJHD1		10-16.5	10.00 x 16.50	6	TL	\$359
AJHD10	HF-2	27-1050-15	10.50 x 15.00	6	TL	\$317
AJHD4		12-165	12.00 x 16.50	10	TL	\$418

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**APPENDIX F  
TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
AJHD3		12-165	12.00 x 16.50	8	TL	\$381
AJHD5	I-3	14-17.5	14.00 x 17.50	10	TL	\$741
AJHD6	I-3	15-19.5	15.00 x 19.50	12	TL	\$858
<b>IT 323</b>			<i>(Life = 5000 hrs)</i>			
AJHE1		10-165	10.00 x 16.50	8	TL	\$368
AJHE3		12-165	12.00 x 16.50	10	TL	\$467
AJHE4		31-1550-15	15.50 x 15.00	8	TL	\$1,233
<b>POWER RIB</b>			<i>(Life = 5000 hrs)</i>			
TJHJ1		18-850-8	8.50 x 8.00	4	TL	\$122
TJHJ2		20X10.00-10	8.80 x 20.80	4	TL	\$81
<b>RALLY</b>			<i>(Life = 5000 hrs)</i>			
TJHK1		480-8	4.80 x 8.00	6.0	TL	\$59
TJHK2		18X9.50-8	9.50 x 18.50	6.0	TL	\$72
<b>TERRA RIB</b>			<i>(Life = 5000 hrs)</i>			
AJHM2	HF-1	25-750-15	7.50 x 15.00	6	TL	\$213
AJHM4	HF-1	27-950-15	9.50 x 15.00	10	TL	\$325
AJHM6	HF-1	31-1350-15	13.50 x 15.00	8	TL	\$546
<b>ATV</b>			<i>(Life = 5000 hrs)</i>			
TJHN1		AT21-7-10	7.00 x 10.00	X3	TL	\$127
TJHN3		AT23-8-11	8.00 x 11.00	6	TL	\$140
TJHN5		AT24-9-11	9.00 x 11.00	6	TL	\$162
<b>TRACKER ATT</b>			<i>(Life = 5000 hrs)</i>			
TJHT1		AT24-8-11	8.00 x 11.00	X2	TL	\$185
TJHT2		AT24-10-11	10.00 x 11.00	X2	TL	\$172
<b><u>INDUSTRIAL, MINE SERVICE</u></b>						
<b>HARD ROCK LUG MINE &amp; INDUSTRIAL</b>			<i>(Life = 5000 hrs)</i>			
TKJC1		10.00-20	10.00 x 20.00	16.0	TT	\$1,010
<b>XTRA TRACTION LUG</b>			<i>(Life = 5000 hrs)</i>			
AKJD2		825-15	8.25 x 15.00	16	TT	\$945
AKJD7		24x12x12	12.00 x 12.00	24	TL	\$606
AKJD6		35-15x15(14.50L-15)	15.00 x 15.00	28	TL	\$1,636

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**APPENDIX F**  
**TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
<b>XTRA TRACTION GRIP</b>			<i>(Life = 5000 hrs )</i>			
AKJE1		32x15-15	15.00 x 15.00	24	TL	\$1,503
<b>OFF-THE-ROAD, MED &amp; HEAVY COMMERCIAL, RADIAL</b>						
<b>G-2 GRADER SERVICE - RL2F, SG2B</b>			<i>(Life = 3200 hrs )</i>			
AMLA1	G2	14.00R24	14.00 x 24.00	X1	TL	\$1,688
<b>E-2 HAULAGE SERVICE - RL2F/GP2B RL2+</b>			<i>(Life = 2800 hrs )</i>			
AMLB1	E/L/G3	17.5R25	17.50 x 25.00	X1	TL	\$1,959
AMLB8	L5	1800R25	18.00 x 25.00	X2	TL	\$5,904
AMLB2	E/L/G3	20.5R25	20.50 x 25.00	X1	TL	\$2,652
AMLB9	E/L/G3	20.5R25	20.50 x 25.00	X2	TL	\$2,652
AMLB15	E4	21.00R35	21.00 x 35.00	X2	TL	\$9,855
AMLB3	E/L/G3	23.5R25	23.50 x 25.00	X1	TL	\$3,213
AMLB10	E/L/G3	23.5R25	23.50 x 25.00	X2	TL	\$3,213
AMLB22	E/L 3	29.5R25	29.50 x 25.00	X2	TL	\$6,606
AMLB21	E/L/G 3+T	295R29	29.50 x 29.00	X2	TL	\$8,791
FMLB23	E3	40.5/75R39	40.50 x 39.00	X2	TL	\$13,164
<b>E-3 HAULAGE SERVICE - ROCK DESIGN RL3, RL3J, R</b>			<i>(Life = 2800 hrs )</i>			
AMLC3	E3+	1800R33	18.00 x 33.00	X3	TL	\$6,127
AMLC5	E3+	24.00R35	24.00 x 35.00	X2	TL	\$9,850
AMLC6	E3	29.5R29	29.50 x 29.00	X2	TL	\$8,398
FMLC8	E3	37.25R35	37.35 x 35.00	X2	TL	\$10,440
<b>E-4 RL4J/RL4 &amp; RL4H/RL4 E4</b>			<i>(Life = 5000 hrs )</i>			
AMLD2	E4	14.00R24	14.00 x 24.00	X3	TL	\$2,910
AMLD3	E4	14.00R25	14.00 x 25.00	X3	TL	\$2,910
AMLD4	E4	1800R25	18.00 x 25.00	X2	TL	\$4,843
AMLD14	E4	21.00R35	21.00 x 35.00	X2	TL	\$9,855
AMLD7	E4	27.00R49	27.00 x 49.00	X2	TL	\$21,706
FMLD9	E4	33.00R51	33.00 x 51.00	X2	TL	\$17,703
FMLD11	E4	37.00R57	37.00 x 57.00	X2	TL	\$24,058
<b>MOBILE CRANE</b>			<i>(Life = 5000 hrs )</i>			
AMLF1	E/L/G3	445/95R25	17.50 x 25.00	UK	TL	\$2,497
AMLF3	E/L/G3	525/80R25 (20.5R25)	20.60 x 25.00	UK	TL	\$2,652

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**APPENDIX F  
TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
<b>SPECIAL SERVICE - AT2A</b>			<i>(Life = 5000 hrs )</i>			
AMLH1	E/L/G 3	14.00R20	14.00 x 20.00	18	TL	\$2,110
AMLH3	E/L/G 3	16.00R20	16.00 x 20.00	22	TL	\$2,519
AMLH2	E/L/G3	17.5R25	17.50 x 25.00	X1	TL	\$1,959
<b>E-3 ROCK SERVICE SUPER HARD ROCK LUG</b>			<i>(Life = 2800 hrs )</i>			
AMMF1	L3	26.5-25	26.50 x 25.00	24	TL	\$5,445
<b><u>OFF-THE-ROAD, MED &amp; HEAVY COMMERCIAL, BIAS</u></b>						
<b>E-1 HRR 1A</b>			<i>(Life = 2500 hrs )</i>			
ANMB1	E3	1400-24	14.00 x 24.00	20	TT	\$2,327
<b>E-2 TRACTION EARTHMOVER SURE GRIP</b>			<i>(Life = 2800 hrs )</i>			
ANMC3	E7	18.00-25	18.00 x 25.00	16	TL	\$2,335
<b>E-3 ROCK SERVICE HARD ROCK LUG/HRL WC</b>			<i>(Life = 2800 hrs )</i>			
ANME1	E3	12.00-20	12.00 x 20.00	20	TT	\$1,309
ANME2	E3	12.00-24	12.00 x 24.00	16	TT	\$1,454
ANME3	E3	14.00-24	14.00 x 24.00	28	TT	\$2,187
ANME6	E3	1600-25	16.00 x 25.00	28	TL	\$3,897
<b>E-3 ROCK SERVICE SUPER HARD ROCK LUG</b>			<i>(Life = 2800 hrs )</i>			
TNMF4	L5	29.5-25	29.50 x 25.00	28	TL	\$10,398
TNMF5	L4	29.5-29	29.50 x 29.00	28	TL	\$9,053
TNMF6	E3	29.5-29	29.50 x 29.00	34	TL	\$8,175
<b>E-3 ROCK SERVICE SHRL8</b>			<i>(Life = 2800 hrs )</i>			
TNMG8	E-3	29.5-25	29.50 x 25.00	28.0	TL	\$7,460
TNMG9	E-3	29.5-25	29.50 x 25.00	34.0	TL	\$8,276
TNMG7	E-3/L-3	33.25-29	33.25 x 29.00	38.0	TL	\$10,640
TNMG6	E3	33.25-35	33.25 x 35.00	38	TL	\$12,783
ANMG7	E3	37.25-35	37.25 x 35.00	36	TL	\$12,449
ANMG9	E3	375-39	37.50 x 39.00	52	TL	\$15,301
<b>E-3 ROCK SERVICE ELV3A, ELV4B, ELV4/5A</b>			<i>(Life = 2800 hrs )</i>			
ANMH9	IND 3	1800-25	18.00 x 25.00	40	TL	\$4,403
ANMH4	IND 5S	18.00-25	18.00 x 25.00	40	TL	\$5,596

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## APPENDIX F TIRE DESCRIPTION AND TIRE COST

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
<b>E-3 ROCK SERVICE HRL 3F</b>			<i>(Life = 2800 hrs)</i>			
ANMJ5	E3	37.25-35	37.25 x 35.00	36	TL	\$13,105
ANMJ6	E3	3725-35	37.25 x 35.00	36	TL	\$13,105
ANMJ2	E3	3725-35	37.25 x 35.00	36	TL	\$13,105
<b>E-3 ROCK SERVICE WRL 3A</b>			<i>(Life = 2800 hrs)</i>			
ANML1	E3	14.00-20	14.00 x 20.00	24	TT	\$1,927
ANML2	E3	14.00-24	14.00 x 24.00	24	TT	\$2,042
<b>E-4 ROCK SERVICE HRL 4B</b>			<i>(Life = 5000 hrs)</i>			
ANMN1	E4	16.00-25	16.00 x 25.00	28	TL	\$4,169
ANMN4	E4	21.00-35	21.00 x 35.00	36	TL	\$9,291
ANMN5	E4	24.00-35	24.00 x 35.00	42	TL	\$9,667
ANMN9	E4	36.00-51	36.00 x 51.00	58	TL	\$26,709
<b>E-7 FLOTATION TYPE SAND RIB SRB 7A</b>			<i>(Life = 3000 hrs)</i>			
TNMQ1	E7	14.00-20	14.00 x 20.00	10	TL	\$1,448
TNMQ2	E7	16.00-24	16.00 x 24.00	12	TL	\$2,852
TNMQ3	E7	18.00-25	18.00 x 25.00	16	TL	\$3,701
<b>E-7 FLOTATION TYPE PAVER TIRE</b>			<i>(Life = 3000 hrs)</i>			
ANMR1	E7	1600-24	16.00 x 24.00	12	TL	\$1,779
<b>G-2 SGG2A</b>			<i>(Life = 3200 hrs)</i>			
TNMT10	G2	13.00-24	13.00 x 24.00	12	TL	\$860
TNMT6	G-2	14.00-24	14.00 x 24.00	14	TL	\$1,055
TNMT8	G2	16.00-24	16.00 x 24.00	16	TL	\$2,133
<b>G-2 SGLDL 2A L2</b>			<i>(Life = 3200 hrs)</i>			
ANMV3	L2/G2	17.5-25	17.50 x 25.00	12	TL	\$921
ANMV2	L2/G2	17.5-25	17.50 x 25.00	12	TL	\$921
ANMV4	L2/G2	17.5-25	17.50 x 25.00	16	TL	\$1,021
ANMV5	L2/G2	17.5-25	17.50 x 25.00	20	TL	\$1,121
<b>G-2 SGLEL 2A ES/L2/G2</b>			<i>(Life = 3200 hrs)</i>			
TNMW1	L2	20.5-25	20.50 x 25.00	12	TL	\$1,842
TNMW2	L2	20.5-25	20.50 x 25.00	16	TL	\$1,986
TNMW5	L2	23.5-25	23.50 x 25.00	16	TL	\$2,676

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**APPENDIX F  
TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
<b>G-3 RKG 3A</b>			<i>(Life = 3200 hrs)</i>			
TNMX1	G2	14.00-24	14.00 x 24.00	14	TL	\$1,055
<b>L-3 DOZER/LOADER SERVICE ROCK SERVICE E3/L3</b>			<i>(Life = 3200 hrs)</i>			
ANNB1	E/G/L3	205-25	20.50 x 25.00	20	TL	\$1,430
ANNB5	E/L 3	23.5-25	23.50 x 25.00	16	TL	\$4,233
ANNB2	E/G/L3	235-25	23.50 x 25.00	16	TL	\$4,233
ANNB6	E/L 3	23.5-25	23.50 x 25.00	20	TL	\$4,458
<b>L-3 DOZER/LOADER SERVICE ROCK SHRL DL</b>			<i>(Life = 3200 hrs)</i>			
TNNC3	L4	29.5-25	29.50 x 25.00	28	TL	\$9,034
<b>L-3 DOZER/LOADER SERVICE ROCK HRL DL 3A &amp; 3F</b>			<i>(Life = 3200 hrs)</i>			
ANND2	L/G3	265-25	26.50 x 25.00	20	TL	\$6,352
<b>L-4 DOZER/LOADER SERVICE ROCK DEEP TREAD N</b>			<i>(Life = 5000 hrs)</i>			
TNNG1	L5	35/65-33	35.00 x 33.00	42	TL	\$17,577
<b>L-5 DOZER/LOADER SERVICE ROCK SUPER XTRA T</b>			<i>(Life = 8000 hrs)</i>			
TNNL2	L4	35/65-33	35.00 x 33.00	42	TL	\$15,843
TNNL4	L5	41.25/70-39	41.25 x 39.00	42	TL	\$27,656
ANNL7	L5	45/65-45	45.00 x 45.00	58	TL	\$29,758
<b>L-5 DOZER/LOADER SERVICE SMOOTH SMO SL5B</b>			<i>(Life = 8000 hrs)</i>			
ANNN3	IND3	18.00-25	18.00 x 25.00	40	TL	\$4,403
<b>L-5 DOZER/LOADER SERVICE SMOOTH SUPER XTRA</b>			<i>(Life = 8000 hrs)</i>			
TNNO1	L5S	295-25	29.50 x 25.00	28	TL	\$12,967
<b><u>INDUSTRIAL, SOLID</u></b>						
<b>SOLID, HIGH PERFORMANCE, OIL RESISTANT/STATI</b>			<i>(Life = 5000 hrs)</i>			
IPPO5		10x3x6-1/4 Grip	3.00 x 10.00		NO	\$399
IPPO4		10x3-1/2x6	3.50 x 10.00		NO	\$432
IPPO18		12x3-1/2x8	3.50 x 12.00		NO	\$441
IPPO23		13x3-1/2x8	3.50 x 13.00		NO	\$501
IPPO32		15x3-1/2x11-1/4	3.50 x 15.00		NO	\$473
IPPO1		8-1/2x4x4	4.00 x 8.50		NO	\$546
IPPO10		10x4x6-1/2	4.00 x 10.00		NO	\$377
IPPO6		10x4x6-1/4	4.00 x 10.00		NO	\$440

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## APPENDIX F TIRE DESCRIPTION AND TIRE COST

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
IPPO19		12x4x8	4.00 x 12.00		NO	\$482
IPPO47		16-1/4x4x11-1/4 Lug	4.00 x 16.25		NO	\$595
IPPO30		14x4-1/2x8	4.50 x 14.00		NO	\$655
IPPO40		16x4-1/2x10-1/2 Lug	4.50 x 16.00		NO	\$711
IPPO2		9-5-5 Grip	5.00 x 9.00		NO	\$408
IPPO12		10x5x6-1/2	5.00 x 10.00		NO	\$392
IPPO7		10x5x6-1/4	5.00 x 10.00		NO	\$439
IPPO13		10-1/2x5x5	5.00 x 10.50		NO	\$640
IPPO31		14x5x10	5.00 x 14.00		NO	\$600
IPPO33		15x5x11-1/4	5.00 x 15.00		NO	\$578
IPPO38		15-1/2x5x10	5.00 x 15.50		NO	\$672
IPPO41		16x5x10-1/2	5.00 x 16.00		NO	\$742
IPPO48		16-1/4x5x11-1/4	5.00 x 16.25		NO	\$642
IPPO53		17x5x12-1/8	5.00 x 17.00		NO	\$732
IPPO63		18x5x14	5.00 x 18.00		NO	\$653
IPPO58		18x5x12-1/8	5.00 x 18.00		NO	\$777
IPPO68		20x5x16	5.00 x 20.00		NO	\$870
IPPO73		21x5x15	5.00 x 21.00		NO	\$904
IPPO79		22x5x16	5.00 x 22.00		NO	\$966
IPPO8		10x6x6-1/4	6.00 x 10.00		NO	\$530
IPPO14		10-1/2x6x5	6.00 x 10.50		NO	\$666
IPPO34		15x6x11-1/4	6.00 x 15.00		NO	\$614
IPPO42		16x6x10-1/2	6.00 x 16.00		NO	\$833
IPPO49		16-1/4x6x11-1/4	6.00 x 16.25		NO	\$757
IPPO59		18x6x12-1/8	6.00 x 18.00		NO	\$874
IPPO69		20x6x16	6.00 x 20.00		NO	\$925
IPPO74		21x6x15	6.00 x 21.00		NO	\$1,131
IPPO80		22x6x16	6.00 x 22.00		NO	\$1,141
IPPO22		12-6-1/2x8	6.50 x 12.00		NO	\$668
IPPO9		10x7x6-1/4	7.00 x 10.00		NO	\$617
IPPO35		15x7x11-1/4	7.00 x 15.00		NO	\$765
IPPO43		16x7x10-1/2	7.00 x 16.00		NO	\$955
IPPO50		16-1/4x7x11-1/4	7.00 x 16.25		NO	\$943
IPPO60		18x7x12-1/8	7.00 x 18.00		NO	\$911
IPPO70		20x7x16	7.00 x 20.00		NO	\$1,119
IPPO75		21x7x15	7.00 x 21.00		NO	\$1,161
IPPO81		22x7x16	7.00 x 22.00		NO	\$1,369

(1) TT = includes tube, TL = no tube, NO = no tube



**APPENDIX F  
TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
IPPO94		26x7x20	7.00 x 26.00		NO	\$1,712
CPPO1		10x8x3	8.00 x 10.00		NO	\$68
IPPO36		15x8x11-1/4	8.00 x 15.00		NO	\$915
IPPO61		18x8x12-1/8	8.00 x 18.00		NO	\$1,070
IPPO66		18x8x14	8.00 x 18.00		NO	\$1,115
IPPO71		20x8x16	8.00 x 20.00		NO	\$1,195
IPPO76		21x8x15	8.00 x 21.00		NO	\$1,415
IPPO82		22x8x16	8.00 x 22.00		NO	\$1,477
IPPO37		15x9x11-1/4	9.00 x 15.00		NO	\$1,218
IPPO67		18x9x14	9.00 x 18.00		NO	\$1,177
IPPO62		18x9x12-1/8	9.00 x 18.00		NO	\$1,265
IPPO72		20x9x16	9.00 x 20.00		NO	\$1,622
IPPO77		21x9x15	9.00 x 21.00		NO	\$1,692
IPPO83		22x9x16	9.00 x 22.00		NO	\$1,678
IPPO16		22x9x16	9.00 x 22.00		NO	\$1,678
IPPO92		22x10x17-3/4	10.00 x 22.00		NO	\$2,030
IPPO84		22x10x16	10.00 x 22.00		NO	\$2,270
IPPO95		28x10x22	10.00 x 28.00		NO	\$2,727
IPPO78		21x12x15	12.00 x 21.00		NO	\$2,720
IPPO86		22x12x16	12.00 x 22.00		NO	\$2,394
IPPO96		28x12x22	12.00 x 28.00		NO	\$3,547
IPPO87		22x14x16	14.00 x 22.00		NO	\$2,666
IPPO93		22x14x17-3/4	14.00 x 22.00		NO	\$3,083
IPPO88		22x16x16	16.00 x 22.00		NO	\$2,939
IPPO98		28x16x22	16.00 x 28.00		NO	\$5,050

**CONVEYOR/LOADER BELTING**

**CONVEYOR BELTING (GOODYEAR EP)**

*(Life = 5000 hrs)*

AZZA1	Conveyor Belting	24.00 x 50.00	2	NO	\$1,185
AZZA2	Conveyor Belting	24.00 x 60.00	2	NO	\$1,385
AZZA3	Conveyor Belting	24.00 x 70.00	2	NO	\$1,585
AZZA4	Conveyor Belting	24.00 x 80.00	2	NO	\$1,786
AZZA5	Conveyor Belting	24.00 x 90.00	2	NO	\$1,986
AZZA6	Conveyor Belting	24.00 x 100.00	2	NO	\$2,186
AZZA7	Conveyor Belting	24.00 x 110.00	2	NO	\$2,387
AZZA8	Conveyor Belting	24.00 x 120.00	2	NO	\$2,587
AZZA9	Conveyor Belting	24.00 x 130.00	2	NO	\$2,788

(1) TT = includes tube, TL = no tube, NO = no tube

## APPENDIX F TIRE DESCRIPTION AND TIRE COST

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
AZZA10		Conveyor Belting	24.00 x 140.00	2	NO	\$2,988
AZZA11		Conveyor Belting	24.00 x 150.00	2	NO	\$3,188
AZZA12		Conveyor Belting	30.00 x 50.00	2	NO	\$1,429
AZZA13		Conveyor Belting	30.00 x 60.00	2	NO	\$1,679
AZZA14		Conveyor Belting	30.00 x 70.00	2	NO	\$1,928
AZZA15		Conveyor Belting	30.00 x 80.00	2	NO	\$2,177
AZZA16		Conveyor Belting	30.00 x 90.00	2	NO	\$2,427
AZZA17		Conveyor Belting	30.00 x 100.00	2	NO	\$2,676
AZZA18		Conveyor Belting	30.00 x 110.00	2	NO	\$2,925
AZZA19		Conveyor Belting	30.00 x 120.00	2	NO	\$3,175
AZZA20		Conveyor Belting	30.00 x 130.00	2	NO	\$3,424
AZZA21		Conveyor Belting	30.00 x 140.00	2	NO	\$3,673
AZZA22		Conveyor Belting	30.00 x 150.00	2	NO	\$3,923
AZZA23		Conveyor Belting	36.00 x 50.00	2	NO	\$1,674
AZZA24		Conveyor Belting	36.00 x 60.00	2	NO	\$1,972
AZZA25		Conveyor Belting	36.00 x 70.00	2	NO	\$2,271
AZZA26		Conveyor Belting	36.00 x 80.00	2	NO	\$2,569
AZZA27		Conveyor Belting	36.00 x 90.00	2	NO	\$2,867
AZZA28		Conveyor Belting	36.00 x 100.00	2	NO	\$3,165
AZZA29		Conveyor Belting	36.00 x 110.00	2	NO	\$3,464
AZZA30		Conveyor Belting	36.00 x 120.00	2	NO	\$3,762
AZZA31		Conveyor Belting	36.00 x 130.00	2	NO	\$4,060
AZZA32		Conveyor Belting	36.00 x 140.00	2	NO	\$4,359
AZZA33		Conveyor Belting	36.00 x 150.00	2	NO	\$4,657
AZZA34		Conveyor Belting	42.00 x 50.00	2	NO	\$1,919
AZZA35		Conveyor Belting	42.00 x 60.00	2	NO	\$2,266
AZZA36		Conveyor Belting	42.00 x 70.00	2	NO	\$2,613
AZZA37		Conveyor Belting	42.00 x 80.00	2	NO	\$2,961
AZZA38		Conveyor Belting	42.00 x 90.00	2	NO	\$3,308
AZZA39		Conveyor Belting	42.00 x 100.00	2	NO	\$3,655
AZZA40		Conveyor Belting	42.00 x 110.00	2	NO	\$4,002
AZZA41		Conveyor Belting	42.00 x 120.00	2	NO	\$4,349
AZZA42		Conveyor Belting	42.00 x 130.00	2	NO	\$4,697
AZZA43		Conveyor Belting	42.00 x 140.00	2	NO	\$5,044
AZZA44		Conveyor Belting	42.00 x 150.00	2	NO	\$5,391
AZZA45		Conveyor Belting	48.00 x 50.00	3	NO	\$2,624
AZZA46		Conveyor Belting	48.00 x 60.00	3	NO	\$3,112

(1) TT = includes tube, TL = no tube, NO = no tube

**APPENDIX F**  
**TIRE DESCRIPTION AND TIRE COST**

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
AZZA47		Conveyor Belting	48.00 x 70.00	3	NO	\$3,600
AZZA48		Conveyor Belting	48.00 x 80.00	3	NO	\$4,089
AZZA49		Conveyor Belting	48.00 x 90.00	3	NO	\$4,577
AZZA50		Conveyor Belting	48.00 x 100.00	3	NO	\$5,065
AZZA51		Conveyor Belting	48.00 x 110.00	3	NO	\$5,553
AZZA52		Conveyor Belting	48.00 x 120.00	3	NO	\$6,041
AZZA53		Conveyor Belting	48.00 x 130.00	3	NO	\$6,530
AZZA54		Conveyor Belting	48.00 x 140.00	3	NO	\$7,018
AZZA55		Conveyor Belting	48.00 x 150.00	3	NO	\$7,506
AZZA56		Conveyor Belting	60.00 x 50.00	4	NO	\$3,936
AZZA57		Conveyor Belting	60.00 x 60.00	4	NO	\$4,687
AZZA58		Conveyor Belting	60.00 x 70.00	4	NO	\$5,439
AZZA59		Conveyor Belting	60.00 x 80.00	4	NO	\$6,190
AZZA60		Conveyor Belting	60.00 x 90.00	4	NO	\$6,940
AZZA61		Conveyor Belting	60.00 x 100.00	4	NO	\$7,691
AZZA62		Conveyor Belting	60.00 x 110.00	4	NO	\$8,442
AZZA63		Conveyor Belting	60.00 x 120.00	4	NO	\$9,193
AZZA64		Conveyor Belting	60.00 x 130.00	4	NO	\$9,943
AZZA65		Conveyor Belting	60.00 x 140.00	4	NO	\$10,694
AZZA66		Conveyor Belting	60.00 x 150.00	4	NO	\$11,445

(1) TT = includes tube, TL = no tube, NO = no tube

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## APPENDIX G TIRE LIFE AND TIRE WEAR FACTORS

### SECTION I. TIRE WEAR FACTORS

The tire wear factors used in this pamphlet are listed in appendix D. The “useful life” of a new tire is the product of Condition Factors (CF) from I through V, the Wheel Position Factor (WPF), the Grade Factor (GF) (for Drive Tires only) and the Miscellaneous Condition (MC). These factors provide a percentage reduction to the maximum tire life. See chapter 2 for tire cost methodology.

Condition Factors, Wheel Position Factors, Grade Factor, and Miscellaneous Condition are derived from the Caterpillar Performance Handbook.

The factors shown below are examples specifically for a rear dump wagon.

<b><u>Condition Factors (CF):</u></b>	<b><u>Average</u></b>	<b><u>Severe</u></b>
I. Maintenance	0.981	0.763
II. Speed	0.872	0.763
III. Curves	0.981	0.872
IV. Surface Condition	0.981	0.763
V. Loads	1.090	0.709
 <b>CF Product of the factors (I x II x III x IV x V)</b>	 <b>0.897</b>	 <b>0.275</b>
 <b>VI. <u>Wheel Position Factors (WPF):</u></b>		
WPF-FT Front Tire (FT)	0.981	0.981
WPF-DTR Drive Tire (DT) - Rear Dump	0.818	0.709
WPF-TT Trailing Tire (TT)	1.090	1.090
 <b>VII. Grade Factor (GF) (Drive Tires Only)</b>	 0.981	 0.763
 <b>VIII. Miscellaneous Condition (MC)</b>	 1.090	 0.981

**SECTION I. TIRE WEAR FACTORS (Continued)**

**Example: Final Tire Wear Factors for Wagon, Rear Dump  
 (See Appendix D, Category W15)**

	<u>Average</u>	<u>Severe</u>
Front Tire - Average = (CF = 0.897)(WPF-FT = 0.981)(MC = 1.090)	0.96	
Front Tire - Severe = (CF = 0.275)(WPF-FT = 0.981)(MC = 0.927)		0.60
Drive Tire - Average = (CF = 0.897)(WPF-DTR = 0.763)(GF = 0.981)(MC = 1.090)	0.78	
Drive Tire - Severe = (CF = 0.275)(WPF-DTR = 0.732)(GF = 0.763)(MC = 0.927)		0.15
Trailing Tire - Average = (CF = 0.897)(WPF-TT = 1.090)(MC = 1.090)	1.07	
Trailing Tire - Severe = (CF = 0.275)(WPF-TT = 1.090)(MC = 0.927)		0.29

**SECTION II. MAXIMUM TIRE LIFE**

Maximum tire life is used in the formula to determine tire wear cost and is located in Appendix F by type of tire.

## APPENDIX H MANUFACTURER LIST

CODE	MANUFACTURER
A1	- ALLIED-GATOR, INC.
A2	- ASV INC.
A3	- AMERICAN PILEDRIVING EQUIPMENT, INC.
A4	- ATLAS COPCO WAGNER INC.
AA	- AMERICAN AUGERS, INC.
AB	- ALLMAND BROTHERS INC.
AC	- ACE ENTERPRISES
AD	- ACKER DRILL COMPANY INC.
AE	- AEROIL PRODUCTS COMPANY, INC.
AF	- AIRPLACO EQUIPMENT CO., INC.
AG	- ARROW-MASTER, INC.
AH	- AUTO CRANE CO.
AI	- AMIDA INDUSTRIES, INC.
AJ	- ALLEN ENGINEERING CORP.
AK	- TYLER EQUIPMENT CO.
AL	- ALLENTOWN EQUIPMENT
AM	- AMERICAN CRANE CORPORATION (TEREX)
AN	- ATLANTIC
AO	- ALKOTA CLEANING SYSTEMS, INC.
AP	- PECCO AND WOLFF TOWER CRANES (MORROW)
AQ	- AQUATICS UNLIMITED
AR	- AMERICAN ROAD MACHINERY, INC.
AS	- ATLAS COPCO CONSTRUCTION TOOLS INC.
AT	- ANDERSON MAVOR INC.
AU	- ALLIED CONSTRUCTION PRODUCTS
AV	- ALIVA LTD.
AW	- AIRMAN (HOKUETSU INDUSTRIES CO. LTD.)
AX	- AMERICAN COMPACTION EQUIPMENT, INC.

## APPENDIX H MANUFACTURER LIST

---

**CODE MANUFACTURER**

---

AY - KOMLINE-SANDERSON ENGINEERING CO.

---

AZ - ALLIS-CHALMERS CORP.

---

BA - BADGER EQUIPMENT CO.

---

BB - BASCO

---

BC - NORTH STAR ENGINEERED PRODUCTS, INC.

---

BD - BRODERSON MANUFACTURING CORPORATION

---

BE - INGERSOLL RAND MATERIAL HANDLING

---

BF - BENFORD

---

BG - BARBER-GREENE COMPANY

---

BI - BOR-IT MANUFACTURING COMPANY INC.

---

BJ - BURKEEN MANUFACTURING CO.

---

BK - BLAW KNOX CONSTRUCTION EQUIPMENT CORP.

---

BL - US FILTER/BLASTRAC

---

BM - BROCE MANUFACTURING COMPANY

---

BN - BANDIT INDUSTRIES, INC.

---

BO - COMPACTION AMERICA (BOMAG)

---

BQ - BELL EQUIPMENT NORTH AMERICA INC .

---

BR - BROOKVILLE MINING EQUIPMENT CORP.

---

BS - BALDERSON, INC.

---

BT - BREAKER TECHNOLOGY INC.

---

BU - BUSH HOG

---

BW - BOWIE INDUSTRIES, INC.

---

BX - BIL-JAX, INC.

---

BY - BUCYRUS INTERNATIONAL INC.

---

C1 - COYOTE LOADER SALES, INC.

---

C2 - CARELIFT EQUIPMENT

---

C3 - TIME CONDOR CORPORATION

---

C4 - CATERPILLAR LIFT TRUCKS,

---



## APPENDIX H MANUFACTURER LIST

---

**CODE MANUFACTURER**

---

C5	- Construction Equipment Company
CA	- CATERPILLAR INC. ( MACHINE DIVISION)
CB	- CONSOLIDATED BALING MACHINE COMPANY, INC
CC	- CEMEN TECH
CD	- CDS GROUP
CE	- ATHEY PRODUCTS CORPORATION
CF	- CGR COMPACTING
CG	- CHEMGROUT, INC.
CH	- CHAMPION ROAD MACHINERY-PRO PAV (WIRTGEN
CI	- CHIPMORE MANUFACTURING CO., INC.
CJ	- COLD JET
CK	- CHICAGO PNEUMATIC TOOL CO.
CL	- CON-E-CO
CM	- CLEMCO INDUSTRIES CORPORATION
CN	- CEMEN TECH, INC.
CO	- WASTE CONTROL SYSTEMS, INC.
CP	- CRISAFULLI PUMP
CQ	- CUSHION CUT, INC. (HUSQVARNA)
CR	- CAMLEVER
CS	- CASE CORPORATION
CT	- CLEVELAND PACIFIC TRENCHER CO
CU	- WASTEQUIP CUSCO INDUSTRIES
CV	- CONMACO, INC.
CW	- TEREX - CMI (TEREX ROADBUILDING)
CX	- CMC (CONSTRUCTION MACHINERY COMPANY)
CY	- CENTRIC
CZ	- CLYDE IRON WORKS
DA	- ELCO INTERNATIONAL INC.

---

## APPENDIX H MANUFACTURER LIST

CODE	MANUFACTURER
DD	- DELTA DREDGE & PUMP CORP.
DE	- DEMOLITION TECHNOLOGIES
DF	- DURA FLOAT
DG	- DAINONG HEAVY INDUSTRIES, INC.
DH	- DAEWOO HEAVY INDUSTRIES LTD.
DI	- DICKSON INDUSTRIES INC.
DJ	- CATERPILLAR/DJB
DL	- PILECO, INC.
DN	- Dynatech
DO	- DOSCO CORPORATION
DP	- DOOSAN PORTABLE POWER
DR	- DRESSER MINING EQUIPMENT
DS	- DREDGING SUPPLY COMPANY (DSC)
DT	- DRILTECH, INC. (SANDVIK)
DW	- DITCH WITCH (THE CHARLES MACHINE WORKS)
DY	- DYNAPAC DIVISION - SVEDALA INDUSTRIES
EA	- EAGER BEAVER
EC	- ELGIN SWEEPER COMPANY
ED	- EQUIPMENT DEVELOPMENT CO., INC. (EDCO)
EI	- EIMCO JARVIS CLARK
EJ	- CEDARAPIDS INC., A TEREX COMPANY
EL	- ELLICOTT MACHINE CORPORATION
EM	- EXCEL MACHINERY LTD.
EP	- ENVIRO-PAK
ES	- ESCO CORPORATION
ET	- E. D. ETNYRE & CO.
EU	- EUCLID INDUSTRIES, INC.
EX	- EXCEL INDUSTRIES, INC.

## APPENDIX H MANUFACTURER LIST

CODE	MANUFACTURER
EZ	- E-Z DRILL, INC.
FC	- FERMEC NORTH AMERICA LTD., A TEREX CO.
FE	- FELKER (TARGET)
FG	- FINN CORPORATION
FH	- FRUEHAUF TRAILER CORPORATION
FI	- FIATALLIS
FK	- FRANKLIN TREEFARMER
FL	- FLETCHER MINING EQUIPMENT
FN	- NEW HOLLAND NORTH AMERICA, INC.
FO	- FORD MOTOR COMPANY
FR	- FERGUSON MANUFACTURING & EQUIPMENT
FS	- FIVE STAR MANUFACTURING CO/ELGIN SWEEPER
FU	- FURUKAWA CO.,LTD.
G1	- GRACO, INC.
GA	- GRADALL COMPANY
GB	- GAR-BRO MANUFACTURING COMPANY
GC	- GEHL COMPANY
GD	- GARDNER-DENVER INDUSTRIAL MACHINES
GE	- GENSCO AMERICA CO. LTD.
GF	- GRIFFIN DEWATERING CORP.
GH	- GEITH INC.
GI	- GALION DIVISION
GJ	- GENIE INDUSTRIES
GL	- GARLOCK EQUIPMENT CO.
GM	- GMC AND CHEVROLET
GN	- GALION DUMP BODIES, INC.
GO	- GOMACO CORPORATION
GR	- GORMAN-RUPP COMPANY

## APPENDIX H MANUFACTURER LIST

CODE	MANUFACTURER
GT	- GILCREST EQUIPMENT COMPANY
GV	- GROVE CRANES (MANITOWOC)
GW	- GROVE MANLIFT (JLG)
HA	- HAZCO SERVICES, INC.
HB	- HAWCO (ANVIL ATTACHMENTS)
HC	- HAMM COMPACTORS, INC.
HD	- HYDRAULIC POWER SYSTEMS, INC.
HE	- HENDRIX MANUFACTURING COMPANY, INC.
HF	- HYDRA-MAC INTERNATIONAL, INC.
HG	- HUSQVARNA CONSTRUCTION PRODUCTS
HH	- ESG MANUFACTURING H&H PUMP & DREDGE
HI	- HITACHI CONSTRUCTION MACHINERY
HM	- H&M VIBRO, INC.
HN	- HINO DIESEL TRUCKS (U.S.A.) INC.
HO	- RIVERSIDE PUMP MANUFACTURING
HP	- COMPACTION AMERICA
HQ	- HYPAC COMPACTION EQUIPMENT
HR	- HYDROCAL INC.
HU	- HYUNDAI CONSTRUCTION EQUIPMENT
HV	- HUSQVARNA FOREST & GARDEN CO.
HW	- HEWITT-ROBINS
HY	- HYSTER CO.
HZ	- HOFFCO-COMET
IA	- INGERSOLL RAND ROTARY-REC COMPRESSOR DIV
IB	- INGERSOLL RAND DRILLING (ATLAS COPCO)
IC	- INTERNATIONAL CONSTRUCTION EQUIPMENT, INC
ID	- KOMATSU DRESSER
IE	- IDEAL MANUFACTURING, INC.

## APPENDIX H MANUFACTURER LIST

---

**CODE MANUFACTURER**

---

IF - INGERSOLL RAND PORTABLE COMPRESSOR DIV

---

IG - INGRAM COMPACTING, LLC

---

IH - NAVISTAR INTERNATIONAL TRANSPORTATION

---

IM - INNOVATIVE MATERIAL SYSTEMS, INC. (IMS)

---

IN - INGERSOLL RAND CO.

---

IP - INGERSOLL RAND ROAD MACHINERY DIV

---

IR - INGERSOLL RAND ROCK DRILL DIV

---

IS - INSLEY DIVISION

---

IT - NAVISTAR INTERNATIONAL CORPORATION

---

JC - JCB INC.

---

JD - DEERE & COMPANY

---

JE - JCL EQUIPMENT CO.

---

JL - JLG INDUSTRIES, INC.

---

JM - JEFFREY MINING MACHINERY DIVISION

---

JO - C. S. JOHNSON COMPANY

---

JR - JRB COMPANY INC.

---

JS - JOHNSTON SWEEPER COMPANY

---

JU - ATI-Bell

---

KA - KAWASAKI LOADERS, INC.

---

KB - KOLBERG - PIONEER, INC

---

KC - KOBELCO AMERICA INC.

---

KD - K-D MANITOU, INC.

---

KE - KENWORTH TRUCK COMPANY

---

KF - KNAPHEIDE MANUFACTURING CO.

---

KH - KOHLER COMPANY

---

KI - KLEIN PRODUCTS, INC.

---

KK - KEENE ENGINEERING INC.

---

KL - KOLMAN / ATHEY DIV.

---

## APPENDIX H MANUFACTURER LIST

CODE	MANUFACTURER
KM	- Komatsu America International Company
KN	- KENT DEMOLITION TOOLS
KO	- KOEHRING CRANES, INC.
KP	- KOCH-WATER
KR	- KORI CORPORATION
KU	- KUBOTA TRACTOR CORPORATION
KW	- KERSHAW MFG., CO.
KZ	- KEIZER TECHNOLOGIES AMERICAS, INC
LA	- LAYTON MANUFACTURING COMPANY
LB	- LINK-BELT CONSTRUCTION EQUIPMENT CO.
LC	- LINCOLN ELECTRIC COMPANY
LD	- LEE-BOY
LE	- LELY PACIFIC, INC.
LF	- LOFTNESS / US ATTACHMENTS
LG	- LITTLE GIANT CRANE & SHOVEL INC.
LH	- MORROW EQUIPMENT COMPANY, LLC
LI	- LINK-BELT CONSTRUCTION EQUIPMENT COMPANY
LK	- LIFTKING INDUSTRIES, INC.
LL	- OMNIQUIP, LULL
LN	- LONDON MACHINERY INC.
LO	- LORAIN CRANES DIVISION
LS	- LAKE SHORE MINING EQUIPMENT INC.
LU	- LABOUNTY MANUFACTURING,
LY	- BOART LONGYEAR COMPANY
LZ	- LIEBHERR CONSTRUCTION EQUIPMENT CO.
M1	- MANITEX - MANITOWOC BOOM TRUCKS GROUP
M2	- MAULDIN - CALDER BROTHERS CORP.
M3	- MAYCO PUMP - MULTIQUIP INC.

## APPENDIX H MANUFACTURER LIST

CODE	MANUFACTURER
M4	- MITCHELL INDUSTRIAL TIRE COMPANY (MITCO)
MA	- MANITOWOC ENGINEERING CO.
MB	- M-B COMPANIES, INC.
MC	- VME NORTH AMERICA
MD	- MDI/YUTANI
ME	- MELROE COMPANY/BOBCAT
MF	- MF INDUSTRIAL
MG	- McMASTER-CARR
MH	- MITSUBISHI FUSO TRUCK OF AMERICA
MI	- MITSUBISHI CONSTRUCTION EQUIP.
MJ	- MILLER SPREADER CO.
MK	- MKT MANUFACTURING, INC.
ML	- ITT MARLOW PUMPS
MM	- MACO-MUEDON
MN	- GRANUTE-SATURN SYSTEMS(MAC CORPORATION)
MO	- MORGEN MANUFACTURING CO.
MP	- MIDLAND MACHINERY CO
MQ	- MORBARK, INC.
MR	- FOREMOST MOBILE DRILLING COMPANY, INC.
MS	- MUSTANG UNITS COMPANY
MT	- MACK TRUCKS, INC.
MU	- MULTIQUIP, INC.
MV	- MAYVILLE ENGINEERING CO., INC.
MW	- M-B-W, INC.
MX	- MAXON INDUSTRIES
MY	- MIDLAND MANUFACTURING INC.
MZ	- MARINE INLAND FABRICATORS
NA	- NAGANO - LELY CORP.

## APPENDIX H MANUFACTURER LIST

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**CODE MANUFACTURER**

---

NB - NASCO EQUIPMENT CO. INC.

---

NC - NATIONAL CRANE CORPORATION

---

NE - NEAL MANUFACTURING COMPANY, INC

---

NI - NIFTYLIFT INC. - USA

---

NL - NLB CORPORATION

---

NO - NORTHWEST ENGINEERING COMPANY

---

NP - NPK CONSTRUCTION EQUIPMENT

---

OE - OLIN ENGINEERING, INC.

---

OK - O & K ORENSTEIN & KOPPEL INC.

---

OL - OLYMPYK CHAIN SAWS

---

ON - ONAN CORPORATION

---

PA - PALFINGER INC.

---

PB - PETTIBONE MICHIGAN LLC

---

PC - GETMAN BROTHERS MFG. COMPANY

---

PE - PETERBILT MOTORS COMPANY

---

PH - P & H

---

PI - PIQUA ENGINEERING

---

PL - PRO-LINE / ANVIL ATTACHMENTS

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PN - PEMBERTON, INC.

---

PO - PROGRESSIVE DEVELOPMENT INC.

---

PP - PACIFIC RUBBER

---

PR - USFILTER PERRIN PRODUCTS

---

PS - POWER CURBERS, INC.

---

PT - PATENT CONSTRUCTION SYSTEMS

---

PU - PUTZMEISTER INC.

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PW - POWERSCREEN INTERNATIONAL DISTRIBUTN LTD

---

RA - METSO MINERALS

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RC - JOHNSON-ROSS (TEREX ROADBUILDING)

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## APPENDIX H MANUFACTURER LIST

CODE	MANUFACTURER
RD	- REEDRILL (TEREX)
RE	- NORSTAR PRODUCTS INTERNATIONAL, INC.
RI	- REYNOLDS INTERNATIONAL, L.P.
RK	- RAPID MIX
RL	- REICHDRILL
RM	- ROME PLOW CO.
RN	- ALLIED SYSTEMS COMPANY (RANGER)
RO	- ROBBINS COMPANY
RQ	- REED MANUFACTURING
RR	- RAMMER - GR COSTRUTTORI - SANDVIK
RS	- ROSCO, A LeeBoy COMPANY
RT	- ROADTEC (ASTEC INDUSTRIES COMPANY)
RX	- RAMMAX MACHINERY CO.
S1	- STANLEY HYDRAULIC TOOLS
S2	- SCHRAMM, INC
S3	- CHAMPION ROAD MACHINERY - SUPERPAC CO.
S4	- SUPERIOR INDUSTRIES, AN ASTEC COMPANY
S5	- SOMAT WASTE REDUCTION TECHNOLOGY
S6	- SUPERIOR TIRE & RUBBER CORP.
SA	- SAUERMAN (NATIONAL OILWELL VARCO)
SB	- SCAT TRAK - OMNIQUIP - TEXTRON INC.
SC	- SCHWING AMERICA INC.
SD	- SIOUX STEAM CLEANER CORPORATION
SE	- SEALMASTER, INC.
SF	- SECO CORPORATION
SG	- STONE CONSTRUCTION EQUIPMENT, INC.
SH	- SHRED-TECH LIMITED
SI	- SAKAI AMERICA, INC.

## APPENDIX H MANUFACTURER LIST

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**CODE MANUFACTURER**

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SJ - SKYJACK, INC.

SK - LTV ENERGY PRODUCTS (SKAGIT)

SL - SHUTTLELIFT, INC.

SM - SEAARK MARINE

SN - STEPHENS MANUFACTURING CO., INC.

SO - SOUTHWEST CONSTRUCTION EQUIPMENT CO.

SP - SPRAGUE AND HENWOOD

SQ - SCHAEFF INC.

SR - SULLAIR CORPORATION

SS - SAMSUNG CONSTRUCTION EQUIPMENT AMERICA

ST - STOW MANUFACTURING, INC.

SU - SULLIVAN-PALATEK, INC.

SV - SOMERO ENTERPRISES, INC.

SW - SNORKEL

SX - SELICK EQUIPMENT LIMITED

SY - SKY TRAK - OMNIQUIP - TEXTRON INC.

SZ - STRATO-LIFT INTERNATIONAL CORP.

TA - TAMPO MANUFACTURING CO., INC.

TB - TERRAMITE CONSTRUCTION EQUIPMENT

TC - TCM

TD - TADANO AMERICA CORPORATION

TE - TEREX CORPORATION

TF - THOMAS EQUIPMENT LTD.

TG - TIMBCO HYDRAULICS, INC.

TH - TEEMARK CORPORATION

TI - TIMBERJACK, A JOHN DEERE COMPANY

TJ - TRAMAC

TK - TAKEUCHI MFG. (U.S.), LTD

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## APPENDIX H MANUFACTURER LIST

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**CODE MANUFACTURER**

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TL - BREAKER TECHNOLOGY, INC. (AN ASTEC CO.)

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TM - TESMEC USA, INC.

---

TO - TORO

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TR - TEREX MINING

---

TS - TELSMITH INC.

---

TT - TRAIL KING INDUSTRIES, INC.

---

TU - TITAN INTERNATIONAL, INC.

---

TV - TRAVERSE LIFT CO.

---

UE - UNDERGROUND EQUIPMENT & SUPPLY

---

UL - UNIVERSAL ENGINEERING - SVEDALA - METSO

---

UN - UNIT RIG

---

UP - UPRIGHT INC.

---

VA - VOEST-ALPINE

---

VB - VIBROMAX AMERICA INC.

---

VE - VERMEER MANUFACTURING CO.

---

VI - VINCE HAGAN COMPANY

---

VO - VOLVO CONSTRUCTION EQUIPMENT GROUP

---

VP - VOGELE AMERICA - PRO-PAV DIV.

---

VS - VALLEY SLURRY SEAL / MACROPAVER DIVISION

---

VT - VALMET - PARTEK FOREST LLC

---

VU - VULCAN FOUNDATION EQUIPMENT, INC

---

WA - HAULPAK DIVISION

---

WB - WEBER MASCHINENTECHNIK GMBH

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WC - WACKER CORPORATION

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WD - WALDON, INC.

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WE - WEATHERFORD U.S. INC.

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WF - WATSON INC.

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WG - ATLAS COPCO WAGNER

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## APPENDIX H MANUFACTURER LIST

CODE	MANUFACTURER
WH	- WIGGINS LIFT CO., INC.
WI	- WILLMAR EQUIPMENT COMPANY
WL	- WALKER MANUFACTURING CO., INC.
WN	- WAIN-ROY, INC.
WO	- WACO SCAFFOLDING & EQUIPMENT
WR	- WARNER FRUEHAUF TRAILER CO., INC.
WS	- WHITEMAN CONSPRAY, INC.
WT	- WIRTGEN AMERICAN, INC.
XX	- NO SPECIFIC MANUFACTURER
YA	- YANMAR DIESEL AMERICA CORP
YB	- ADVANCED ENVIRONMENTAL SOLUTIONS
ZZ	- GENERIC EQUIPMENT

**APPENDIX I  
FEDERAL COST-OF-MONEY RATE**

*(Renegotiation or Prompt Payment Rate)*

<b>EFFECTIVE MONTHS</b>	<b>EFFECTIVE DATE</b>	<b>RATE</b>
JANUARY - JUNE	1/1/1999	5.000%
JULY - DECEMBER	7/1/1999	6.500%
JANUARY - JUNE	1/1/2000	6.750%
JULY - DECEMBER	7/1/2000	7.250%
JANUARY - JUNE	1/1/2001	6.375%
JULY - DECEMBER	7/1/2001	5.875%
JANUARY - JUNE	1/1/2002	5.500%
JULY - DECEMBER	7/1/2002	5.250%
JANUARY - JUNE	1/1/2003	4.250%
JULY - DECEMBER	7/1/2003	3.125%
JANUARY - JUNE	1/1/2004	4.000%
JULY - DECEMBER	7/1/2004	4.500%
JANUARY - JUNE	1/1/2005	4.250%
JULY - DECEMBER	7/1/2005	4.500%
JANUARY - JUNE	1/1/2006	5.125%
JULY - DECEMBER	7/1/2006	5.750%
JANUARY - JUNE	1/1/2007	5.250%
JULY - DECEMBER	7/1/2007	5.750%
JANUARY - JUNE	1/1/2008	4.750%
JULY - DECEMBER	7/1/2008	5.125%
JANUARY - JUNE	1/1/2009	5.625%
JULY - DECEMBER	7/1/2009	4.875%
JANUARY - JUNE	1/1/2010	3.250%
JULY - DECEMBER	7/1/2010	3.125%
JANUARY - JUNE	1/1/2011	2.625%
JULY - DECEMBER	7/1/2011	2.500%
JANUARY - JUNE	1/1/2012	2.000%
JULY - DECEMBER	7/1/2012	1.750%
JANUARY - JUNE	1/1/2013	1.375%
JULY - DECEMBER	7/1/2013	1.750%
JANUARY - JUNE	1/1/2014	2.125%

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**APPENDIX J  
EQUIPMENT ACCESSORIES**

The following accessories are listed by category (CAT), subcategory (SUB), and description (including features required for safety). The accessories have been included with the major equipment listed in this pamphlet when they are not included with the basic cost and are offered by the manufacturer.

CAT SUB	DESCRIPTION
<b>C85.10</b>	<p><b>CRANES, DRAGLINE AND CLAMSHELL, CRAWLER MOUNTED</b>            Power load lowering            Independent swing and travel            Third drum            Torque converter [machines 1 1/2 cubic yard (cy) or larger]            Approximately one-half maximum boom length            Counterweight (standard)            Fire extinguisher 5-B:C            Swing and reverse signal (backup) alarm            Boom angle indicator and a load-indicating device            Drum rotation indicators            Anti-two block (upper limit) devices            Manufacturers' mandatory accessories</p>
<b>C85.20</b>	<p><b>CRANES, LIFTING, CRAWLER MOUNTED</b>            Power load lowering            Independent swing and travel            Third drum            Torque converter (machines 25 tons or larger)            One-half maximum boom length (machines less than 60 tons)            Maximum boom length at 360 degree rating (machines larger than 60 tons)            Counterweight (standard)            Fire extinguisher 5-B:C            Swing and reverse signal (backup) alarm            Boom angle indicator and a load-indicating device            Drum rotation indicators            Anti-two block (upper limit) devices            Manufacturers' mandatory accessories            Hook block on machines larger than 100 tons</p>
<b>C90.01</b>	<b>TRUCK CRANES - LESS THAN 25 TONS</b>

CAT SUB	DESCRIPTION
	Power load lowering Third drum Mechanical outriggers with screw jacks Maximum boom length at 360 degrees rating Counterweight (standard) Fire extinguisher 5-B:C Swing and reverse signal (backup) alarm Boom angle indicator and a load-indicating device Drum rotation indicators Anti-two block (upper limit) devices Manufacturers mandatory accessories
<b>C90.02</b>	<b>TRUCK CRANE - 25 TONS AND LARGER</b>
<b>C90.03</b>	Power load lowering
<b>C90.04</b>	Third drum Hydraulic outriggers with screw jacks Torque converter when available (upper only) Maximum boom length at 360 degrees rating Counterweight (standard) Fire extinguisher 5-B:C Reverse signal (backup) alarm Boom angle indicator and a load-indicating device Drum rotation indicators Anti-two block (upper limit) devices Hook block on machines larger than 100 tons
<b>G15</b>	<b>GRADER</b>
	Rollover protective structures (ROPS) with enclosed cab Ripper/scarifier, rear mounted Front wheel lean Power circle Hydraulic shift and tilt moldboard End bits Standard work lights Fire extinguisher 5-B:C Reverse signal (backup) alarm
<b>H25</b>	<b>EXCAVATORS, HYDRAULIC</b>
<b>H30</b>	Backhoe bucket (standard) Backhoe stick (medium length) Backhoe boom (one piece)



CAT SUB	DESCRIPTION
	Backhoe bucket linkage (with cylinder) Guards Counterweight Standard work lights Reverse signal (backup) alarm ROPS Fire extinguisher 5-B:C
<b>H35</b>	<b>HYDRAULIC SHOVELS - CRAWLER MOUNTED</b> Torque converter (machines 1 1/2 cy or larger) Counterweight Reverse signal (backup) alarm ROPS Fire extinguisher 5-B:C
<b>L30</b>	<b>LOADERS, BELT (CONVEYOR BELTS)</b> Power unit Head pulley clutch and backstop Belt cleaner and belt installing equipment King pin attachments
<b>L35</b>	<b>LOADERS, 1 1/2 cy AND LARGER</b>
<b>L40</b>	Blower fan Guard, power train Automatic bucket positioner Standard counterweight <u>Machines less than 7 cy:</u> General purpose or excavating bucket with bolt on cutting edge and no teeth <u>Machines 7 cy or larger:</u> Rock bucket with bolt on cutting edge and teeth Standard work lights Reverse signal (backup) alarm ROPS Fire extinguisher 5-B:C
<b>S10</b>	<b>SCRAPERS</b>
<b>S15</b>	Control single lever
<b>S20</b>	Blower fan Standard work light Guards, power train Reverse signal (backup) alarm

CAT SUB	DESCRIPTION
	ROPS Fire extinguisher 5-B:C Supplemental steering
<b>T15</b>	<b>TRACTOR, CRAWLER</b> Hydraulic controls for ripper and blade Guards Blower fan Standard work lights Hook, front pull Track grousers (severe service for units over 200 hp) Counterweights where required Reverse signal (backup) alarm ROPS Universal blade
<b>T20</b>	<b>TRACTOR, WHEEL</b> Hydraulic controls for ripper and blade Guards Blower fan Standard work lights Blade Fire extinguisher 5-B:C Counterweights when required
<b>T25</b>	<b>TRACTOR, AGRICULTURAL</b> Independent power take off (PTO) Standard work lights Fire extinguisher 5-B:C Counterweights when required 3-point hitch ROPS Hydraulic system with controls
<b>T55</b>	<b>TRUCKS, OFF-HIGHWAY</b> No spin differential Tachograph Engine and transmission guards Body liners

## APPENDIX K

### Ground Engaging Component Costs Included in Repairs (RCF)

CATEGORY								Blade cutting edges, wear plates, hard facing, and end plates	Bucket teeth, cutting edges, side cutters, and wear plates	Ripper tips and shank protection	Equipment Specific Wear Items	RCF
SUB	DESCRIPTION	EK	C	DC	LIFE	SLV						
B15 0.00	BROOMS, STREET SWEEPERS & FLUSHERS	95	A	B	8,000	0.10		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.80
B25 0.00	BUCKETS, CLAMSHELL	15	A	B	8,000	0.10		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.70
B25 0.00	BUCKETS, CLAMSHELL	15	S	B	6,500	0.10		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.80
B35 0.00	BUCKETS, DRAGLINE	1						<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B35 0.10	LIGHT WEIGHT	15	A	B	8,000	0.10		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.70
B35 0.10	LIGHT WEIGHT	15	S	B	6,500	0.10		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.80
B35 0.20	MEDIUM WEIGHT	15	A	B	9,000	0.10		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.70
B35 0.20	MEDIUM WEIGHT	15	S	B	7,000	0.10		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.80
B35 0.30	HEAVY WEIGHT	15	A	B	10,000	0.10		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.70
B35 0.30	HEAVY WEIGHT	15	S	B	8,000	0.10		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.80
G15 0.00	GRADERS, MOTOR	35	A	B	14,500	0.25		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.75
G15 0.00	GRADERS, MOTOR	35	S	B	13,500	0.25		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.85
H25 0.00	HYDRAULIC EXCAVATORS, CRAWLER MOUNTED	1						<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H25 0.10	0 LBS THRU 12,500 LBS (COMPACT EXCAVATORS)	65	A	B	8,000	0.25		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.70
H25 0.10	0 LBS THRU 12,500 LBS (COMPACT EXCAVATORS)	65	S	B	7,000	0.25		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.80
H25 0.11	OVER 12,500 LBS THRU 40,000 LBS	65	A	B	8,500	0.25		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.70
H25 0.11	OVER 12,500 LBS THRU 40,000 LBS	65	S	B	7,000	0.25		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.85
H25 0.12	OVER 40,000 LBS THRU 100,000 LBS	65	A	B	12,000	0.25		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.80
H25 0.12	OVER 40,000 LBS THRU 100,000 LBS	65	S	B	10,000	0.25		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.95
H25 0.13	OVER 100,000 LBS THRU 160,000 LBS	65	A	B	16,000	0.25		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.00

EK=Economic Key (Appendix E)  
LIFE=Economic Life

C=Operating Conditions (A=average, S=severe)  
SLV=Salvage Value

DC=Discount Code (B=basic 7.5%, S=special 15%)  
RCF=Repair Cost Factor

Ground Engaging Component (GEC) is defined as those wear items on the machine that come in direct contact with in situ ground to perform the machines primary function. For machines with blades, GEC can include: cutting edges, wear plates, hard facing, and end plates. For machines with buckets, GEC can include: bucket teeth, cutting edges, side cutters, and wear plates. For machines with rippers, GEC can include: tips and shank protectors. Equipment Specific Wear items include those items of wear that are specific to that equipment. Not included in the Repairs and must be added as needed are: drill/bits, drill/steel, roadheader/rock breaking bits, air tools/breaker points/jackhammer points, concrete coring drill bits, and other wear items that are not shown here.

## APPENDIX K

### Ground Engaging Component Costs Included in Repairs (RCF)

CATEGORY								Blade cutting edges, wear plates, hard facing, and end plates	Bucket teeth, cutting edges, side cutters, and wear plates	Ripper tips and shank protection	Equipment Specific Wear Items	RCF
SUB	DESCRIPTION	EK	C	DC	LIFE	SLV						
H25 0.13	OVER 100,000 LBS THRU 160,000 LBS	65	S	B	13,500	0.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.10	
H25 0.14	OVER 160,000 LBS	65	A	B	19,000	0.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.10	
H25 0.14	OVER 160,000 LBS	65	S	B	15,000	0.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.25	
H30 0.00	HYDRAULIC EXCAVATORS, WHEEL MOUNTED	1					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
H30 0.01	0 THRU 1.0 CY	65	A	B	8,000	0.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.50	
H30 0.01	0 THRU 1.0 CY	65	S	B	6,500	0.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.55	
H30 0.02	OVER 1.0 CY	65	A	B	10,000	0.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.60	
H30 0.02	OVER 1.0 CY	65	S	B	8,000	0.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.65	
H35 0.00	HYDRAULIC SHOVELS, CRAWLER MOUNTED	1					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
H35 0.11	DIESEL, 0 CY THRU 5.0 CY	65	A	B	14,000	0.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.00	
H35 0.11	DIESEL, 0 CY THRU 5.0 CY	65	S	B	12,000	0.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.10	
H35 0.12	DIESEL, OVER 5.0 CY	65	A	B	16,000	0.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.20	
H35 0.12	DIESEL, OVER 5.0 CY	65	S	B	14,000	0.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.30	
H35 0.21	ELECTRIC, OVER 2.5 CY	65	A	B	18,000	0.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.80	
H35 0.21	ELECTRIC, OVER 2.5 CY	65	S	B	16,000	0.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.90	
L35 0.00	LOADERS, FRONT END, CRAWLER TYPE	40	A	B	10,000	0.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.10	
L35 0.00	LOADERS, FRONT END, CRAWLER TYPE	40	S	B	8,000	0.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.25	
L40 0.00	LOADERS, FRONT END, WHEEL TYPE	1					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
L40 0.11	ARTICULATED, 0 THRU 225 HP	45	A	B	9,250	0.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.70	
L40 0.11	ARTICULATED, 0 THRU 225 HP	45	S	B	8,750	0.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.80	

EK=Economic Key (Appendix E)  
LIFE=Economic Life

C=Operating Conditions (A=average, S=severe)  
SLV=Salvage Value

DC=Discount Code (B=basic 7.5%, S=special 15%)  
RCF=Repair Cost Factor

Ground Engaging Component (GEC) is defined as those wear items on the machine that come in direct contact with in situ ground to perform the machines primary function. For machines with blades, GEC can include: cutting edges, wear plates, hard facing, and end plates. For machines with buckets, GEC can include: bucket teeth, cutting edges, side cutters, and wear plates. For machines with rippers, GEC can include: tips and shank protectors. Equipment Specific Wear items include those items of wear that are specific to that equipment. Not included in the Repairs and must be added as needed are: drill/bits, drill/steel, roadheader/rock breaking bits, air tools/breaker points/jackhammer points, concrete coring drill bits, and other wear items that are not shown here.

## APPENDIX K

### Ground Engaging Component Costs Included in Repairs (RCF)

CATEGORY								Blade cutting edges, wear plates, hard facing, and end plates	Bucket teeth, cutting edges, side cutters, and wear plates	Ripper tips and shank protection	Equipment Specific Wear Items	RCF
SUB	DESCRIPTION	EK	C	DC	LIFE	SLV						
L40 0.12	ARTICULATED, OVER 225 HP	45	A	B	13,500	0.20		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.70
L40 0.12	ARTICULATED, OVER 225 HP	45	S	B	12,000	0.20		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.75
L40 0.20	SKID STEER	45	A	B	8,000	0.20		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.80
L40 0.31	TOOL CARRIER & TELESCOPIC HANDLERS, 0 THRU 225 HP	45	A	B	10,000	0.25		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.85
L40 0.31	TOOL CARRIER & TELESCOPIC HANDLERS, 0 THRU 225 HP	45	S	B	9,250	0.25		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.90
L40 0.32	TOOL CARRIER & TELESCOPIC HANDLERS, OVER 225 HP	45	A	B	12,000	0.15		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.85
L40 0.32	TOOL CARRIER & TELESCOPIC HANDLERS, OVER 225 HP	45	S	B	10,000	0.15		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.90
L45 0.00	LOADERS / BACKHOE, CRAWLER TYPE	40	A	B	8,000	0.20		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.35
L45 0.00	LOADERS / BACKHOE, CRAWLER TYPE	40	S	B	6,000	0.20		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.40
L50 0.00	LOADERS / BACKHOE, WHEEL TYPE	45	A	B	10,000	0.25		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.80
L50 0.00	LOADERS / BACKHOE, WHEEL TYPE	45	S	B	6,000	0.25		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.85
L60 0.00	LOG SKIDDERS	75	A	B	10,000	0.15		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.70
L60 0.00	LOG SKIDDERS	75	S	B	8,000	0.15		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.80
P35 0.00	PIPELAYERS	70	A	B	14,000	0.20		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.95
P35 0.00	PIPELAYERS	70	S	B	11,500	0.20		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.10
R30 0.00	ROLLERS, STATIC, SELF-PROPELLED	1						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
R30 0.03	TAMPING FOOT, LANDFILL & SOIL COMPACTORS	55	A	B	12,000	0.20		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.80
S10 0.00	SCRAPERS, ELEVATING	1						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
S10 0.01	0 THRU 200 HP	60	A	B	10,000	0.20		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.90
S10 0.01	0 THRU 200 HP	60	S	B	8,000	0.20		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.00

EK=Economic Key (Appendix E)  
LIFE=Economic Life

C=Operating Conditions (A=average, S=severe)  
SLV=Salvage Value

DC=Discount Code (B=basic 7.5%, S=special 15%)  
RCF=Repair Cost Factor

Ground Engaging Component (GEC) is defined as those wear items on the machine that come in direct contact with in situ ground to perform the machines primary function. For machines with blades, GEC can include: cutting edges, wear plates, hard facing, and end plates. For machines with buckets, GEC can include: bucket teeth, cutting edges, side cutters, and wear plates. For machines with rippers, GEC can include: tips and shank protectors. Equipment Specific Wear items include those items of wear that are specific to that equipment. Not included in the Repairs and must be added as needed are: drill/bits, drill/steel, roadheader/rock breaking bits, air tools/breaker points/jackhammer points, concrete coring drill bits, and other wear items that are not shown here.

## APPENDIX K

### Ground Engaging Component Costs Included in Repairs (RCF)

CATEGORY								Blade cutting edges, wear plates, hard facing, and end plates	Bucket teeth, cutting edges, side cutters, and wear plates	Ripper tips and shank protection	Equipment Specific Wear Items	RCF
SUB	DESCRIPTION	EK	C	DC	LIFE	SLV						
S10 0.02	OVER 200 HP	60	A	B	13,000	0.25		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.95
S10 0.02	OVER 200 HP	60	S	B	11,500	0.25		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.00
S15 0.00	SCRAPERS, CONVENTIONAL	60	A	B	15,000	0.20		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.80
S15 0.00	SCRAPERS, CONVENTIONAL	60	S	B	12,500	0.20		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.85
S20 0.00	SCRAPERS, TANDEM POWERED	60	A	B	15,000	0.20		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.85
S20 0.00	SCRAPERS, TANDEM POWERED	60	S	B	13,500	0.20		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.90
S25 0.00	SCRAPERS, TRACTOR DRAWN	60	A	B	12,000	0.20		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.70
S25 0.00	SCRAPERS, TRACTOR DRAWN	60	S	B	10,000	0.20		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.75
T15 0.00	TRACTORS, CRAWLER (DOZER) (includes blade)	1						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
T15 0.01	0 THRU 225 HP	70	A	B	10,000	0.30		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.10
T15 0.01	0 THRU 225 HP	70	S	B	8,000	0.30		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.25
T15 0.02	226 HP THRU 425 HP	70	A	B	12,500	0.25		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.20
T15 0.02	226 HP THRU 425 HP	70	S	B	10,500	0.25		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.25
T15 0.03	OVER 425 HP	70	A	B	15,000	0.20		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.20
T15 0.03	OVER 425 HP	70	S	B	12,500	0.20		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.35
T20 0.00	TRACTORS, WHEEL TYPE (DOZER)	75	A	B	14,000	0.15		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.60
T20 0.00	TRACTORS, WHEEL TYPE (DOZER)	75	S	B	13,000	0.15		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.65

EK=Economic Key (Appendix E)  
LIFE=Economic Life

C=Operating Conditions (A=average, S=severe)  
SLV=Salvage Value

DC=Discount Code (B=basic 7.5%, S=special 15%)  
RCF=Repair Cost Factor

Ground Engaging Component (GEC) is defined as those wear items on the machine that come in direct contact with in situ ground to perform the machines primary function. For machines with blades, GEC can include: cutting edges, wear plates, hard facing, and end plates. For machines with buckets, GEC can include: bucket teeth, cutting edges, side cutters, and wear plates. For machines with rippers, GEC can include: tips and shank protectors. Equipment Specific Wear items include those items of wear that are specific to that equipment. Not included in the Repairs and must be added as needed are: drill/bits, drill/steel, roadheader/rock breaking bits, air tools/breaker points/jackhammer points, concrete coring drill bits, and other wear items that are not shown here.

**APPENDIX L**  
**GUIDE FOR ESTIMATING DRILL STEEL AND DRILL BIT COSTS**

# Guide for Estimating Drill Steel and Drill Bit Costs

Prepared for the  
US Army Corps of Engineers, Walla Walla District  
By Western Mine Engineering, Inc in cooperation  
with Aventurine Engineering, Inc. 2006

August 2006

## Cost Assumptions for Drill Steel and Drill Bit

### **General:**

The approach to defining the scope of this cost guide was to confine the work to the basic drilling process and attendant drill bit and steel lives and costs. This not only simplified the study parameters but also ensured that future users of the study results could readily modify the data to suit their individual needs.

1. The steel costs reflect the cost of drilling steel only. All ancillary equipment such as couplings, striking bars, and hammer maintenance items were not included.
2. The bit life is indicative of the total life of each bit to include up to 10 sharpenings/grindings per bit. The bit costs, however, are list prices for each bit and do not reflect the costs associated with this process.
3. Costs for both bits and steel are list pricing based on manufacturers' catalogs or quotes. No additional materials, equipment costs, or other associated costs are included. No discounts were applied to the catalog list prices. Estimators will have to determine an appropriate discount for their individual cases. All prices are based on current, 2006 costs.
4. The bit and steel lives and penetration rates are based on time the bit is engaged in the hole. Adjustment for setup, tear down, and moving time between holes has not been considered.
5. Appropriate bits were identified primarily by drill type and then list prices were determined from manufacturers' catalogs. All bits were button type; with threaded button bits used for the top hammer percussion drills, down the hole (DTH) button bits for "DTH" drills, and tungsten carbide button, roller bits selected for rotary drills.
6. Large rotary drills often use 20' or longer drilling steel. It was our belief that most situations Corps of Engineers estimators face will fall in the range of percussion or smaller "DTH" drills. In these instances the 12' rod is appropriate. cursory review of the costs of longer steel rods suggest that costs for a specific drill steel diameter do not vary dramatically on a per foot basis for longer rods. Therefore, the assumption is made that a direct conversion to cost per rod for longer lengths can be made in proportion to the cost for a 12' length rod. For further information, see the note at the lower right corner of each of the spreadsheets for a detailed procedure to make the conversion for rod length and hole depth.



## Example of Estimating Drill Steel and Drill Bit Costs

### General:

The approach is to define the scope of the work and determine an estimated cost for drill steel and bits from the answers to the questions below. Follow the simplified steps to arrive at the estimated costs.

### Determine parameters:

1. Determine the type of drilling method – percussion, down the hole (DTH), or rotary.
2. Determine the manufacturer and model of drilling equipment or determine equivalency of equipment used in this guide.
3. Determine the material that will be drilled through.
4. Determine the hole diameter of drill.
5. Determine the length of drill rod required to drill hole to the required depth.

### Determine costs: (This is an example on how to determine costs)

1. Determine the type of drilling method – **down the hole (DTH)**.
2. Determine the manufacturer/model of drilling equipment – **Atlas Copco DM25SP**.
3. Determine the material that will be drilled - **Basalt** .
4. Determine the hole diameter of drill – **5"**.
5. Determine the length of drill rod required – **90 feet**.
6. Calculate drill steel costs from cost tables:
  - a. Cost of drill steel \$/foot per rod ranges \$0.034 to \$0.025 → will use **\$0.034**.
  - b. Based on 90' of drilling at 12' lengths of drill rod –  $(90'/12') = 7.5$  rods are required. **Round up to next whole number = 8 rods**.
  - c. From drill steel cost adjustment factor chart: for 8 rods the **factor is 4.5**.
  - d. From instructions:  $\$0.034 \times 4.5 =$  **\$0.1530/lf of hole drilled**.
7. Determine drill bit costs from cost tables – costs range from **\$0.55 to \$0.40/lf**.

**DRILL MODEL - Atlas Copco ROC D5 - percussion**

**Bit Life (feet/bit)**

	Hole Diameter (inches)					
	1.75		2.00		2.50	
Granite	1,506	- 2,037	1,449	- 1,960	1,359	- 1,838
Basalt	674	- 912	649	- 878	608	- 823
Gabbro	1,002	- 1,356	964	- 1,305	904	- 1,223
Shale	1,427	- 1,931	1,373	- 1,858	1,287	- 1,742
Sandstone	524	- 709	504	- 682	473	- 639
Siltstone	3,779	- 5,112	3,636	- 4,919	3,409	- 4,612
Conglomer	292	- 395	281	- 380	263	- 356
Breccia	2,181	- 2,951	2,099	- 2,839	1,968	- 2,662
Limestone	1,835	- 2,483	1,766	- 2,389	1,656	- 2,240
Schist	3,414	- 4,619	3,285	- 4,444	3,080	- 4,167
Slate	1,710	- 2,313	1,645	- 2,226	1,542	- 2,087
Gneiss	735	- 995	707	- 957	663	- 897

**Drill Steel Life (feet/rod)**

	Hole Diameter (inches)					
	1.75		2.00		2.50	
Granite	2,720	- 3,680	2,617	- 3,541	2,454	- 3,320
Basalt	1,417	- 1,918	1,364	- 1,845	1,279	- 1,730
Gabbro	1,600	- 2,164	1,539	- 2,083	1,443	- 1,953
Shale	2,855	- 3,863	2,747	- 3,717	2,576	- 3,485
Sandstone	2,978	- 4,029	2,865	- 3,877	2,687	- 3,635
Siltstone	2,964	- 4,011	2,852	- 3,859	2,674	- 3,618
Conglomer	3,425	- 4,633	3,295	- 4,458	3,090	- 4,180
Breccia	4,739	- 6,412	4,560	- 6,170	4,276	- 5,785
Limestone	3,931	- 5,318	3,782	- 5,117	3,546	- 4,798
Schist	4,828	- 6,532	4,646	- 6,285	4,356	- 5,893
Slate	3,133	- 4,239	3,015	- 4,079	2,827	- 3,824
Gneiss	2,849	- 3,855	2,742	- 3,709	2,571	- 3,478

**Penetration Rate (feet/hour)**

	Hole Diameter (inches)					
	1.75		2.00		2.50	
Granite	98	- 132	83	- 113	64	- 86
Basalt	57	- 77	48	- 65	37	- 50
Gabbro	63	- 85	53	- 72	41	- 55
Shale	102	- 138	87	- 117	66	- 90
Sandstone	105	- 142	90	- 121	69	- 93
Siltstone	105	- 142	89	- 121	68	- 92
Conglomer	118	- 160	101	- 136	77	- 104
Breccia	155	- 210	132	- 179	101	- 137
Limestone	133	- 180	113	- 153	86	- 117
Schist	158	- 213	134	- 181	103	- 139
Slate	110	- 149	94	- 127	72	- 97
Gneiss	102	- 137	86	- 117	66	- 89

**Bit Cost (\$/foot)**

	Hole Diameter (inches)					
	1.75		2.00		2.50	
Granite	\$0.04	- \$0.03	\$0.05	- \$0.04	\$0.07	- \$0.05
Basalt	\$0.09	- \$0.07	\$0.11	- \$0.08	\$0.16	- \$0.12
Gabbro	\$0.06	- \$0.05	\$0.07	- \$0.05	\$0.11	- \$0.08
Shale	\$0.04	- \$0.03	\$0.05	- \$0.04	\$0.08	- \$0.06
Sandstone	\$0.12	- \$0.09	\$0.14	- \$0.10	\$0.21	- \$0.15
Siltstone	\$0.02	- \$0.01	\$0.02	- \$0.01	\$0.03	- \$0.02
Conglomer	\$0.21	- \$0.16	\$0.25	- \$0.18	\$0.37	- \$0.28
Breccia	\$0.03	- \$0.02	\$0.03	- \$0.02	\$0.05	- \$0.04
Limestone	\$0.03	- \$0.02	\$0.04	- \$0.03	\$0.06	- \$0.04
Schist	\$0.02	- \$0.01	\$0.02	- \$0.02	\$0.03	- \$0.02
Slate	\$0.04	- \$0.03	\$0.04	- \$0.03	\$0.06	- \$0.05
Gneiss	\$0.08	- \$0.06	\$0.10	- \$0.07	\$0.15	- \$0.11

**Drill Steel Cost (\$/foot per rod)**

	Hole Diameter (inches)					
	1.75		2.00		2.50	
Granite	\$0.103	- \$0.076	\$0.107	- \$0.079	\$0.132	- \$0.098
Basalt	\$0.198	- \$0.146	\$0.205	- \$0.152	\$0.253	- \$0.187
Gabbro	\$0.175	- \$0.129	\$0.182	- \$0.134	\$0.224	- \$0.166
Shale	\$0.098	- \$0.072	\$0.102	- \$0.075	\$0.126	- \$0.093
Sandstone	\$0.094	- \$0.069	\$0.098	- \$0.072	\$0.121	- \$0.089
Siltstone	\$0.094	- \$0.070	\$0.098	- \$0.073	\$0.121	- \$0.090
Conglomer	\$0.082	- \$0.060	\$0.085	- \$0.063	\$0.105	- \$0.078
Breccia	\$0.059	- \$0.044	\$0.061	- \$0.045	\$0.076	- \$0.056
Limestone	\$0.071	- \$0.053	\$0.074	- \$0.055	\$0.091	- \$0.068
Schist	\$0.058	- \$0.043	\$0.060	- \$0.045	\$0.074	- \$0.055
Slate	\$0.089	- \$0.066	\$0.093	- \$0.069	\$0.115	- \$0.085
Gneiss	\$0.098	- \$0.073	\$0.102	- \$0.075	\$0.126	- \$0.093

(Based on 12 foot drilling rod length.)

**Drill Steel Cost Adjustment Factor**

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other drill steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

**DRILL MODEL - Atlas Copco ROC D7 - percussion**

**Bit Life (feet/bit)**

	Hole Diameter (inches)					
	2.50		3.00		4.00	
Granite	1,203	- 1,628	1,115	- 1,509	1,050	- 1,421
Basalt	539	- 729	499	- 676	470	- 636
Gabbro	801	- 1,083	742	- 1,004	699	- 946
Shale	1,140	- 1,542	1,057	- 1,430	995	- 1,347
Sandstone	418	- 566	388	- 525	365	- 494
Siltstone	3,019	- 4,084	2,798	- 3,786	2,636	- 3,566
Conglomer	233	- 315	216	- 292	204	- 275
Breccia	1,742	- 2,357	1,615	- 2,186	1,521	- 2,058
Limestone	1,466	- 1,983	1,359	- 1,839	1,280	- 1,732
Schist	2,727	- 3,690	2,528	- 3,421	2,381	- 3,222
Slate	1,366	- 1,848	1,266	- 1,713	1,193	- 1,613
Gneiss	587	- 795	544	- 737	513	- 694

**Drill Steel Life (feet/rod)**

	Hole Diameter (inches)					
	2.50		3.00		4.00	
Granite	2,173	- 2,940	2,014	- 2,725	1,897	- 2,567
Basalt	1,132	- 1,532	1,050	- 1,420	989	- 1,338
Gabbro	1,278	- 1,729	1,185	- 1,603	1,116	- 1,510
Shale	2,281	- 3,086	2,115	- 2,861	1,992	- 2,695
Sandstone	2,379	- 3,218	2,205	- 2,984	2,077	- 2,810
Siltstone	2,368	- 3,204	2,195	- 2,970	2,068	- 2,798
Conglomer	2,736	- 3,701	2,536	- 3,431	2,389	- 3,232
Breccia	3,786	- 5,122	3,510	- 4,749	3,306	- 4,473
Limestone	3,140	- 4,249	2,911	- 3,939	2,742	- 3,710
Schist	3,857	- 5,218	3,576	- 4,838	3,368	- 4,556
Slate	2,503	- 3,386	2,320	- 3,139	2,185	- 2,957
Gneiss	2,276	- 3,080	2,110	- 2,855	1,987	- 2,689

**Penetration Rate (feet/hour)**

	Hole Diameter (inches)					
	2.50		3.00		4.00	
Granite	87	- 117	63	- 85	49	- 67
Basalt	50	- 68	37	- 50	29	- 39
Gabbro	56	- 75	41	- 55	32	- 43
Shale	90	- 122	66	- 89	51	- 69
Sandstone	93	- 126	68	- 92	53	- 72
Siltstone	93	- 126	68	- 92	53	- 71
Conglomer	105	- 142	76	- 103	60	- 81
Breccia	137	- 186	100	- 136	78	- 106
Limestone	118	- 159	86	- 116	67	- 90
Schist	140	- 189	102	- 138	79	- 107
Slate	97	- 132	71	- 96	55	- 75
Gneiss	90	- 122	66	- 89	51	- 69

**Bit Cost (\$/foot)**

	Hole Diameter (inches)					
	2.50		3.00		4.00	
Granite	\$0.08	- \$0.06	\$0.12	- \$0.09	\$0.21	- \$0.16
Basalt	\$0.18	- \$0.13	\$0.26	- \$0.19	\$0.47	- \$0.35
Gabbro	\$0.12	- \$0.09	\$0.18	- \$0.13	\$0.32	- \$0.24
Shale	\$0.09	- \$0.06	\$0.12	- \$0.09	\$0.22	- \$0.17
Sandstone	\$0.23	- \$0.17	\$0.34	- \$0.25	\$0.61	- \$0.45
Siltstone	\$0.03	- \$0.02	\$0.05	- \$0.03	\$0.08	- \$0.06
Conglomer	\$0.42	- \$0.31	\$0.61	- \$0.45	\$1.10	- \$0.81
Breccia	\$0.06	- \$0.04	\$0.08	- \$0.06	\$0.15	- \$0.11
Limestone	\$0.07	- \$0.05	\$0.10	- \$0.07	\$0.17	- \$0.13
Schist	\$0.04	- \$0.03	\$0.05	- \$0.04	\$0.09	- \$0.07
Slate	\$0.07	- \$0.05	\$0.10	- \$0.08	\$0.19	- \$0.14
Gneiss	\$0.17	- \$0.12	\$0.24	- \$0.18	\$0.43	- \$0.32

**Drill Steel Cost (\$/foot per rod)**

	Hole Diameter (inches)					
	2.50		3.00		4.00	
Granite	\$0.129	- \$0.095	\$0.161	- \$0.119	\$0.215	- \$0.159
Basalt	\$0.247	- \$0.183	\$0.309	- \$0.228	\$0.412	- \$0.304
Gabbro	\$0.219	- \$0.162	\$0.273	- \$0.202	\$0.365	- \$0.270
Shale	\$0.123	- \$0.091	\$0.153	- \$0.113	\$0.204	- \$0.151
Sandstone	\$0.118	- \$0.087	\$0.147	- \$0.109	\$0.196	- \$0.145
Siltstone	\$0.118	- \$0.087	\$0.148	- \$0.109	\$0.197	- \$0.145
Conglomer	\$0.102	- \$0.076	\$0.128	- \$0.094	\$0.170	- \$0.126
Breccia	\$0.074	- \$0.055	\$0.092	- \$0.068	\$0.123	- \$0.091
Limestone	\$0.089	- \$0.066	\$0.111	- \$0.082	\$0.148	- \$0.110
Schist	\$0.073	- \$0.054	\$0.091	- \$0.067	\$0.121	- \$0.089
Slate	\$0.112	- \$0.083	\$0.140	- \$0.103	\$0.186	- \$0.138
Gneiss	\$0.123	- \$0.091	\$0.154	- \$0.113	\$0.205	- \$0.151

(Based on 12 foot drilling rod length.)

**Drill Steel Cost Adjustment Factor**

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other drill steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

**DRILL MODEL - Atlas Copco ECM590 - percussion**

**Bit Life (feet/bit)**

	Hole Diameter (inches)					
	2.50		3.50		4.50	
Granite	1,168	- 1,580	1,060	- 1,434	986	- 1,334
Basalt	523	- 708	475	- 642	441	- 597
Gabbro	778	- 1,052	706	- 955	656	- 888
Shale	1,107	- 1,498	1,005	- 1,359	934	- 1,264
Sandstone	406	- 550	369	- 499	343	- 464
Siltstone	2,931	- 3,966	2,660	- 3,599	2,474	- 3,347
Conglomer	226	- 306	205	- 278	191	- 259
Breccia	1,692	- 2,289	1,535	- 2,077	1,428	- 1,932
Limestone	1,424	- 1,926	1,292	- 1,748	1,201	- 1,626
Schist	2,648	- 3,583	2,403	- 3,251	2,235	- 3,024
Slate	1,326	- 1,794	1,203	- 1,628	1,119	- 1,514
Gneiss	570	- 771	517	- 700	481	- 651

**Drill Steel Life (feet/rod)**

	Hole Diameter (inches)					
	2.50		3.50		4.50	
Granite	2,110	- 2,855	1,915	- 2,590	1,781	- 2,409
Basalt	1,100	- 1,488	998	- 1,350	928	- 1,255
Gabbro	1,241	- 1,679	1,126	- 1,524	1,047	- 1,417
Shale	2,215	- 2,997	2,010	- 2,719	1,869	- 2,529
Sandstone	2,310	- 3,125	2,096	- 2,836	1,950	- 2,638
Siltstone	2,300	- 3,111	2,087	- 2,823	1,941	- 2,626
Conglomer	2,657	- 3,594	2,411	- 3,262	2,242	- 3,033
Breccia	3,676	- 4,974	3,336	- 4,514	3,103	- 4,198
Limestone	3,049	- 4,125	2,767	- 3,744	2,573	- 3,482
Schist	3,745	- 5,067	3,399	- 4,598	3,161	- 4,277
Slate	2,430	- 3,288	2,205	- 2,984	2,051	- 2,775
Gneiss	2,210	- 2,990	2,006	- 2,714	1,865	- 2,524

**Penetration Rate (feet/hour)**

	Hole Diameter (inches)					
	2.50		3.50		4.50	
Granite	99	- 134	66	- 89	49	- 66
Basalt	57	- 78	38	- 52	28	- 38
Gabbro	63	- 86	42	- 57	31	- 42
Shale	103	- 139	69	- 93	51	- 69
Sandstone	107	- 144	71	- 96	52	- 71
Siltstone	106	- 144	71	- 96	52	- 71
Conglomer	120	- 162	80	- 108	59	- 80
Breccia	157	- 212	105	- 142	77	- 105
Limestone	134	- 182	90	- 121	66	- 90
Schist	159	- 216	106	- 144	79	- 106
Slate	111	- 150	74	- 100	55	- 74
Gneiss	103	- 139	68	- 93	51	- 68

**Bit Cost (\$/foot)**

	Hole Diameter (inches)					
	2.50		3.50		4.50	
Granite	\$0.08	- \$0.06	\$0.15	- \$0.11	\$0.27	- \$0.20
Basalt	\$0.19	- \$0.14	\$0.34	- \$0.25	\$0.61	- \$0.45
Gabbro	\$0.13	- \$0.09	\$0.23	- \$0.17	\$0.41	- \$0.30
Shale	\$0.09	- \$0.07	\$0.16	- \$0.12	\$0.29	- \$0.21
Sandstone	\$0.24	- \$0.18	\$0.43	- \$0.32	\$0.78	- \$0.58
Siltstone	\$0.03	- \$0.02	\$0.06	- \$0.04	\$0.11	- \$0.08
Conglomer	\$0.43	- \$0.32	\$0.77	- \$0.57	\$1.40	- \$1.04
Breccia	\$0.06	- \$0.04	\$0.10	- \$0.08	\$0.19	- \$0.14
Limestone	\$0.07	- \$0.05	\$0.12	- \$0.09	\$0.22	- \$0.16
Schist	\$0.04	- \$0.03	\$0.07	- \$0.05	\$0.12	- \$0.09
Slate	\$0.07	- \$0.05	\$0.13	- \$0.10	\$0.24	- \$0.18
Gneiss	\$0.17	- \$0.13	\$0.31	- \$0.23	\$0.56	- \$0.41

**Drill Steel Cost (\$/foot per rod)**

	Hole Diameter (inches)					
	2.50		3.50		4.50	
Granite	\$0.154	- \$0.114	\$0.213	- \$0.157	\$0.229	- \$0.169
Basalt	\$0.295	- \$0.218	\$0.408	- \$0.302	\$0.439	- \$0.324
Gabbro	\$0.261	- \$0.193	\$0.361	- \$0.267	\$0.389	- \$0.287
Shale	\$0.146	- \$0.108	\$0.202	- \$0.150	\$0.218	- \$0.161
Sandstone	\$0.140	- \$0.104	\$0.194	- \$0.144	\$0.209	- \$0.154
Siltstone	\$0.141	- \$0.104	\$0.195	- \$0.144	\$0.210	- \$0.155
Conglomer	\$0.122	- \$0.090	\$0.169	- \$0.125	\$0.182	- \$0.134
Breccia	\$0.088	- \$0.065	\$0.122	- \$0.090	\$0.131	- \$0.097
Limestone	\$0.106	- \$0.079	\$0.147	- \$0.109	\$0.158	- \$0.117
Schist	\$0.087	- \$0.064	\$0.120	- \$0.089	\$0.129	- \$0.095
Slate	\$0.133	- \$0.099	\$0.185	- \$0.136	\$0.198	- \$0.147
Gneiss	\$0.147	- \$0.108	\$0.203	- \$0.150	\$0.218	- \$0.161

(Based pm 12 foot drilling rod length.)

**Drill Steel Cost Adjustment Factor**

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other drill steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

**DRILL MODEL - Atlas Copco ECM720 - percussion**

**Bit Life (feet/bit)**

	Hole Diameter (inches)					
	4.00		4.50		5.00	
Granite	2,305	- 3,118	2,228	- 3,014	2,161	- 2,924
Basalt	1,032	- 1,396	997	- 1,349	967	- 1,309
Gabbro	1,534	- 2,075	1,483	- 2,006	1,438	- 1,946
Shale	2,184	- 2,955	2,111	- 2,856	2,048	- 2,771
Sandstone	802	- 1,085	775	- 1,048	752	- 1,017
Siltstone	5,783	- 7,824	5,589	- 7,562	5,422	- 7,336
Conglomer	447	- 604	432	- 584	419	- 567
Breccia	3,338	- 4,516	3,227	- 4,365	3,130	- 4,235
Limestone	2,809	- 3,800	2,715	- 3,673	2,633	- 3,563
Schist	5,225	- 7,069	5,050	- 6,833	4,899	- 6,628
Slate	2,617	- 3,540	2,529	- 3,422	2,453	- 3,319
Gneiss	1,125	- 1,522	1,087	- 1,471	1,055	- 1,427

**Drill Steel Life (feet/rod)**

	Hole Diameter (inches)					
	4.00		4.50		5.00	
Granite	4,163	- 5,632	4,024	- 5,444	3,903	- 5,281
Basalt	2,169	- 2,935	2,097	- 2,837	2,034	- 2,752
Gabbro	2,448	- 3,313	2,367	- 3,202	2,296	- 3,106
Shale	4,370	- 5,912	4,224	- 5,715	4,097	- 5,544
Sandstone	4,557	- 6,166	4,405	- 5,960	4,273	- 5,781
Siltstone	4,537	- 6,138	4,385	- 5,933	4,254	- 5,755
Conglomer	5,241	- 7,091	5,066	- 6,854	4,914	- 6,649
Breccia	7,253	- 9,813	7,011	- 9,485	6,801	- 9,201
Limestone	6,016	- 8,139	5,815	- 7,867	5,641	- 7,631
Schist	7,389	- 9,997	7,142	- 9,663	6,928	- 9,374
Slate	4,795	- 6,487	4,635	- 6,270	4,496	- 6,083
Gneiss	4,361	- 5,900	4,215	- 5,702	4,089	- 5,532

**Penetration Rate (feet/hour)**

	Hole Diameter (inches)					
	4.00		4.50		5.00	
Granite	100	- 135	87	- 117	76	- 103
Basalt	58	- 78	50	- 68	44	- 60
Gabbro	64	- 87	56	- 75	49	- 66
Shale	104	- 141	90	- 122	79	- 107
Sandstone	108	- 146	93	- 126	82	- 111
Siltstone	107	- 145	93	- 126	82	- 111
Conglomer	121	- 163	105	- 142	92	- 125
Breccia	158	- 214	137	- 186	121	- 164
Limestone	136	- 183	118	- 159	104	- 140
Schist	161	- 218	140	- 189	123	- 166
Slate	112	- 152	97	- 132	86	- 116
Gneiss	104	- 140	90	- 122	79	- 107

**Bit Cost (\$/foot)**

	Hole Diameter (inches)					
	4.00		4.50		5.00	
Granite	\$0.10	- \$0.07	\$0.12	- \$0.09	\$0.15	- \$0.11
Basalt	\$0.22	- \$0.16	\$0.27	- \$0.20	\$0.33	- \$0.25
Gabbro	\$0.15	- \$0.11	\$0.18	- \$0.13	\$0.22	- \$0.16
Shale	\$0.10	- \$0.08	\$0.13	- \$0.09	\$0.16	- \$0.12
Sandstone	\$0.28	- \$0.21	\$0.35	- \$0.26	\$0.43	- \$0.32
Siltstone	\$0.04	- \$0.03	\$0.05	- \$0.04	\$0.06	- \$0.04
Conglomer	\$0.50	- \$0.37	\$0.62	- \$0.46	\$0.77	- \$0.57
Breccia	\$0.07	- \$0.05	\$0.08	- \$0.06	\$0.10	- \$0.08
Limestone	\$0.08	- \$0.06	\$0.10	- \$0.07	\$0.12	- \$0.09
Schist	\$0.04	- \$0.03	\$0.05	- \$0.04	\$0.07	- \$0.05
Slate	\$0.09	- \$0.06	\$0.11	- \$0.08	\$0.13	- \$0.10
Gneiss	\$0.20	- \$0.15	\$0.25	- \$0.18	\$0.30	- \$0.22

**Drill Steel Cost (\$/foot per rod)**

	Hole Diameter (inches)					
	4.00		4.50		5.00	
Granite	\$0.098	- \$0.072	\$0.141	- \$0.104	\$0.146	- \$0.108
Basalt	\$0.188	- \$0.139	\$0.271	- \$0.200	\$0.279	- \$0.206
Gabbro	\$0.166	- \$0.123	\$0.240	- \$0.177	\$0.247	- \$0.183
Shale	\$0.093	- \$0.069	\$0.134	- \$0.099	\$0.139	- \$0.102
Sandstone	\$0.089	- \$0.066	\$0.129	- \$0.095	\$0.133	- \$0.098
Siltstone	\$0.090	- \$0.066	\$0.130	- \$0.096	\$0.134	- \$0.099
Conglomer	\$0.078	- \$0.057	\$0.112	- \$0.083	\$0.116	- \$0.085
Breccia	\$0.056	- \$0.041	\$0.081	- \$0.060	\$0.084	- \$0.062
Limestone	\$0.068	- \$0.050	\$0.098	- \$0.072	\$0.101	- \$0.074
Schist	\$0.055	- \$0.041	\$0.080	- \$0.059	\$0.082	- \$0.061
Slate	\$0.085	- \$0.063	\$0.123	- \$0.091	\$0.126	- \$0.093
Gneiss	\$0.093	- \$0.069	\$0.135	- \$0.100	\$0.139	- \$0.103

(Based on 12 foot drilling rod length.)

**Drill Steel Cost Adjustment Factor**

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other drill steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

DRILL MODEL - Atlas Copco DM25SP - DTH

Bit Life (feet/bit)

	Hole Diameter (inches)					
	3.50		5.00		6.50	
Granite	2,498	- 3,380	2,254	- 3,049	2,089	- 2,827
Basalt	1,118	- 1,513	1,009	- 1,365	935	- 1,266
Gabbro	1,663	- 2,250	1,500	- 2,030	1,391	- 1,882
Shale	2,367	- 3,203	2,136	- 2,890	1,980	- 2,679
Sandstone	869	- 1,176	784	- 1,061	727	- 983
Siltstone	6,268	- 8,481	5,655	- 7,651	5,243	- 7,093
Conglomer	484	- 655	437	- 591	405	- 548
Breccia	3,618	- 4,896	3,265	- 4,417	3,026	- 4,095
Limestone	3,044	- 4,119	2,747	- 3,716	2,546	- 3,445
Schist	5,664	- 7,663	5,110	- 6,913	4,737	- 6,409
Slate	2,836	- 3,837	2,559	- 3,462	2,372	- 3,209
Gneiss	1,219	- 1,650	1,100	- 1,489	1,020	- 1,380

Drill Steel Life (feet/rod)

	Hole Diameter (inches)					
	3.50		5.00		6.50	
Granite	28,996	- 39,229	26,159	- 35,392	24,252	- 32,811
Basalt	16,978	- 22,970	15,317	- 20,723	14,200	- 19,212
Gabbro	18,752	- 25,371	16,918	- 22,889	15,684	- 21,220
Shale	30,177	- 40,827	27,225	- 36,834	25,240	- 34,148
Sandstone	31,235	- 42,259	28,180	- 38,125	26,125	- 35,345
Siltstone	31,120	- 42,103	28,076	- 37,985	26,028	- 35,215
Conglomer	35,035	- 47,400	31,608	- 42,764	29,303	- 39,645
Breccia	45,750	- 61,896	41,275	- 55,842	38,265	- 51,770
Limestone	39,235	- 53,082	35,397	- 47,890	32,816	- 44,398
Schist	46,452	- 62,847	41,908	- 56,699	38,852	- 52,565
Slate	32,566	- 44,060	29,381	- 39,750	27,238	- 36,852
Gneiss	30,123	- 40,755	27,177	- 36,768	25,195	- 34,087

Penetration Rate (feet/hour)

	Hole Diameter (inches)					
	3.50		5.00		6.50	
Granite	129	- 175	84	- 114	61	- 83
Basalt	75	- 102	49	- 66	36	- 48
Gabbro	83	- 113	54	- 73	39	- 53
Shale	135	- 182	88	- 119	64	- 87
Sandstone	140	- 189	91	- 123	66	- 90
Siltstone	139	- 188	90	- 122	66	- 89
Conglomer	157	- 212	102	- 138	74	- 101
Breccia	205	- 278	134	- 181	98	- 132
Limestone	176	- 238	114	- 155	83	- 113
Schist	209	- 282	136	- 184	99	- 134
Slate	146	- 197	95	- 128	69	- 93
Gneiss	134	- 182	88	- 118	64	- 86

Bit Cost (\$/foot)

	Hole Diameter (inches)					
	3.50		5.00		6.50	
Granite	\$0.16	- \$0.12	\$0.24	- \$0.18	\$0.31	- \$0.23
Basalt	\$0.37	- \$0.27	\$0.55	- \$0.40	\$0.68	- \$0.51
Gabbro	\$0.25	- \$0.18	\$0.37	- \$0.27	\$0.46	- \$0.34
Shale	\$0.17	- \$0.13	\$0.26	- \$0.19	\$0.32	- \$0.24
Sandstone	\$0.47	- \$0.35	\$0.70	- \$0.52	\$0.88	- \$0.65
Siltstone	\$0.07	- \$0.05	\$0.10	- \$0.07	\$0.12	- \$0.09
Conglomer	\$0.85	- \$0.63	\$1.26	- \$0.93	\$1.58	- \$1.17
Breccia	\$0.11	- \$0.08	\$0.17	- \$0.12	\$0.21	- \$0.16
Limestone	\$0.13	- \$0.10	\$0.20	- \$0.15	\$0.25	- \$0.19
Schist	\$0.07	- \$0.05	\$0.11	- \$0.08	\$0.14	- \$0.10
Slate	\$0.14	- \$0.11	\$0.21	- \$0.16	\$0.27	- \$0.20
Gneiss	\$0.34	- \$0.25	\$0.50	- \$0.37	\$0.63	- \$0.46

Drill Steel Cost (\$/foot per rod)

	Hole Diameter (inches)					
	3.50		5.00		6.50	
Granite	\$0.016	- \$0.012	\$0.020	- \$0.015	\$0.025	- \$0.018
Basalt	\$0.028	- \$0.020	\$0.034	- \$0.025	\$0.042	- \$0.031
Gabbro	\$0.025	- \$0.018	\$0.031	- \$0.023	\$0.038	- \$0.028
Shale	\$0.016	- \$0.011	\$0.019	- \$0.014	\$0.024	- \$0.018
Sandstone	\$0.015	- \$0.011	\$0.019	- \$0.014	\$0.023	- \$0.017
Siltstone	\$0.015	- \$0.011	\$0.019	- \$0.014	\$0.023	- \$0.017
Conglomer	\$0.013	- \$0.010	\$0.017	- \$0.012	\$0.020	- \$0.015
Breccia	\$0.010	- \$0.008	\$0.013	- \$0.009	\$0.016	- \$0.012
Limestone	\$0.012	- \$0.009	\$0.015	- \$0.011	\$0.018	- \$0.013
Schist	\$0.010	- \$0.007	\$0.013	- \$0.009	\$0.015	- \$0.011
Slate	\$0.014	- \$0.011	\$0.018	- \$0.013	\$0.022	- \$0.016
Gneiss	\$0.016	- \$0.011	\$0.019	- \$0.014	\$0.024	- \$0.018

(Based on 12 foot drilling rod length.)

Drill Steel Cost Adjustment Factor

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other total steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

DRILL MODEL - Atlas Copco DM30 -DTH

Bit Life (feet/bit)

	Hole Diameter (inches)					
	5.50		6.00		6.50	
Granite	1,946	- 2,633	1,898	- 2,568	1,855	- 2,509
Basalt	871	- 1,179	850	- 1,150	830	- 1,124
Gabbro	1,296	- 1,753	1,263	- 1,709	1,235	- 1,670
Shale	1,845	- 2,496	1,799	- 2,434	1,758	- 2,378
Sandstone	677	- 916	660	- 893	645	- 873
Siltstone	4,884	- 6,608	4,763	- 6,444	4,654	- 6,297
Conglomer	377	- 510	368	- 498	360	- 486
Breccia	2,819	- 3,814	2,749	- 3,720	2,687	- 3,635
Limestone	2,372	- 3,209	2,313	- 3,130	2,260	- 3,058
Schist	4,413	- 5,970	4,303	- 5,822	4,205	- 5,689
Slate	2,210	- 2,990	2,155	- 2,916	2,106	- 2,849
Gneiss	950	- 1,285	927	- 1,254	905	- 1,225

Drill Steel Life (feet/rod)

	Hole Diameter (inches)					
	5.50		6.00		6.50	
Granite	26,110	- 35,326	25,463	- 34,450	24,881	- 33,663
Basalt	15,288	- 20,684	14,909	- 20,171	14,569	- 19,711
Gabbro	16,886	- 22,846	16,468	- 22,280	16,092	- 21,771
Shale	27,174	- 36,765	26,500	- 35,853	25,895	- 35,034
Sandstone	28,127	- 38,054	27,429	- 37,110	26,803	- 36,263
Siltstone	28,023	- 37,914	27,328	- 36,974	26,704	- 36,129
Conglomer	31,549	- 42,684	30,766	- 41,625	30,064	- 40,675
Breccia	41,197	- 55,738	40,176	- 54,355	39,258	- 53,114
Limestone	35,331	- 47,800	34,455	- 46,615	33,668	- 45,551
Schist	41,830	- 56,593	40,792	- 55,190	39,861	- 53,929
Slate	29,326	- 39,676	28,599	- 38,692	27,945	- 37,809
Gneiss	27,126	- 36,700	26,453	- 35,790	25,849	- 34,972

Penetration Rate (feet/hour)

	Hole Diameter (inches)					
	5.50		6.00		6.50	
Granite	81	- 110	73	- 99	67	- 90
Basalt	47	- 64	43	- 58	39	- 52
Gabbro	52	- 71	47	- 64	43	- 58
Shale	85	- 115	76	- 103	69	- 94
Sandstone	88	- 119	79	- 107	72	- 97
Siltstone	87	- 118	79	- 107	72	- 97
Conglomer	99	- 133	89	- 120	81	- 109
Breccia	129	- 175	116	- 158	106	- 143
Limestone	111	- 150	100	- 135	91	- 122
Schist	131	- 178	118	- 160	107	- 145
Slate	92	- 124	83	- 112	75	- 101
Gneiss	85	- 115	76	- 103	69	- 94

Bit Cost (\$/foot)

	Hole Diameter (inches)					
	5.50		6.00		6.50	
Granite	\$0.30	- \$0.22	\$0.33	- \$0.25	\$0.35	- \$0.26
Basalt	\$0.66	- \$0.49	\$0.74	- \$0.55	\$0.77	- \$0.57
Gabbro	\$0.44	- \$0.33	\$0.50	- \$0.37	\$0.52	- \$0.38
Shale	\$0.31	- \$0.23	\$0.35	- \$0.26	\$0.36	- \$0.27
Sandstone	\$0.85	- \$0.63	\$0.95	- \$0.71	\$0.99	- \$0.73
Siltstone	\$0.12	- \$0.09	\$0.13	- \$0.10	\$0.14	- \$0.10
Conglomer	\$1.52	- \$1.13	\$1.71	- \$1.27	\$1.78	- \$1.32
Breccia	\$0.20	- \$0.15	\$0.23	- \$0.17	\$0.24	- \$0.18
Limestone	\$0.24	- \$0.18	\$0.27	- \$0.20	\$0.28	- \$0.21
Schist	\$0.13	- \$0.10	\$0.15	- \$0.11	\$0.15	- \$0.11
Slate	\$0.26	- \$0.19	\$0.29	- \$0.22	\$0.30	- \$0.22
Gneiss	\$0.61	- \$0.45	\$0.68	- \$0.50	\$0.71	- \$0.52

Drill Steel Cost (\$/foot per rod)

	Hole Diameter (inches)					
	5.50		6.00		6.50	
Granite	\$0.020	- \$0.015	\$0.024	- \$0.017	\$0.029	- \$0.021
Basalt	\$0.034	- \$0.025	\$0.040	- \$0.030	\$0.050	- \$0.037
Gabbro	\$0.031	- \$0.023	\$0.036	- \$0.027	\$0.045	- \$0.033
Shale	\$0.019	- \$0.014	\$0.023	- \$0.017	\$0.028	- \$0.021
Sandstone	\$0.019	- \$0.014	\$0.022	- \$0.016	\$0.027	- \$0.020
Siltstone	\$0.019	- \$0.014	\$0.022	- \$0.016	\$0.027	- \$0.020
Conglomer	\$0.017	- \$0.012	\$0.019	- \$0.014	\$0.024	- \$0.018
Breccia	\$0.013	- \$0.009	\$0.015	- \$0.011	\$0.018	- \$0.014
Limestone	\$0.015	- \$0.011	\$0.017	- \$0.013	\$0.021	- \$0.016
Schist	\$0.013	- \$0.009	\$0.015	- \$0.011	\$0.018	- \$0.013
Slate	\$0.018	- \$0.013	\$0.021	- \$0.015	\$0.026	- \$0.019
Gneiss	\$0.019	- \$0.014	\$0.023	- \$0.017	\$0.028	- \$0.021

(Based on 12 foot drilling rod length.)

Drill Steel Cost Adjustment Factor

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other total steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

**DRILL MODEL - Atlas Copco DM45 -DTH**

**Bit Life (feet/bit)**

	Hole Diameter (inches)					
	5.00		6.50		8.00	
Granite	2,580	- 3,490	2,392	- 3,236	2,253	- 3,048
Basalt	1,155	- 1,563	1,071	- 1,449	1,009	- 1,364
Gabbro	1,717	- 2,323	1,592	- 2,154	1,499	- 2,029
Shale	2,445	- 3,308	2,267	- 3,067	2,135	- 2,888
Sandstone	897	- 1,214	832	- 1,126	784	- 1,060
Siltstone	6,473	- 8,758	6,001	- 8,120	5,652	- 7,647
Conglomer	500	- 677	464	- 627	437	- 591
Breccia	3,737	- 5,056	3,464	- 4,687	3,263	- 4,414
Limestone	3,144	- 4,254	2,915	- 3,944	2,745	- 3,714
Schist	5,849	- 7,913	5,422	- 7,336	5,107	- 6,910
Slate	2,929	- 3,963	2,715	- 3,674	2,557	- 3,460
Gneiss	1,259	- 1,704	1,168	- 1,580	1,100	- 1,488

**Drill Steel Life (feet/rod)**

	Hole Diameter (inches)					
	5.00		6.50		8.00	
Granite	28,482	- 38,534	26,405	- 35,724	24,869	- 33,646
Basalt	16,677	- 22,563	15,461	- 20,917	14,561	- 19,701
Gabbro	18,420	- 24,921	17,077	- 23,104	16,083	- 21,760
Shale	29,642	- 40,104	27,480	- 37,179	25,882	- 35,017
Sandstone	30,681	- 41,510	28,444	- 38,483	26,789	- 36,245
Siltstone	30,568	- 41,357	28,339	- 38,341	26,691	- 36,111
Conglomer	34,414	- 46,560	31,904	- 43,165	30,049	- 40,654
Breccia	44,939	- 60,799	41,662	- 56,366	39,238	- 53,087
Limestone	38,539	- 52,141	35,729	- 48,339	33,651	- 45,527
Schist	45,628	- 61,733	42,301	- 57,231	39,841	- 53,902
Slate	31,989	- 43,279	29,656	- 40,123	27,931	- 37,789
Gneiss	29,589	- 40,032	27,432	- 37,113	25,836	- 34,955

**Penetration Rate (feet/hour)**

	Hole Diameter (inches)					
	5.00		6.50		8.00	
Granite	109	- 148	80	- 108	62	- 84
Basalt	64	- 86	46	- 63	36	- 49
Gabbro	70	- 95	51	- 69	40	- 54
Shale	114	- 154	83	- 112	65	- 88
Sandstone	118	- 160	86	- 116	67	- 91
Siltstone	118	- 159	86	- 116	67	- 90
Conglomer	133	- 179	97	- 131	75	- 102
Breccia	174	- 235	127	- 171	99	- 134
Limestone	149	- 201	108	- 147	84	- 114
Schist	177	- 239	129	- 174	100	- 136
Slate	123	- 167	90	- 121	70	- 95
Gneiss	114	- 154	83	- 112	65	- 87

**Bit Cost (\$/foot)**

	Hole Diameter (inches)					
	5.00		6.50		8.00	
Granite	\$0.21	- \$0.16	\$0.27	- \$0.20	\$0.55	- \$0.40
Basalt	\$0.48	- \$0.35	\$0.60	- \$0.44	\$1.22	- \$0.90
Gabbro	\$0.32	- \$0.24	\$0.40	- \$0.30	\$0.82	- \$0.61
Shale	\$0.22	- \$0.17	\$0.28	- \$0.21	\$0.58	- \$0.43
Sandstone	\$0.61	- \$0.45	\$0.77	- \$0.57	\$1.57	- \$1.16
Siltstone	\$0.08	- \$0.06	\$0.11	- \$0.08	\$0.22	- \$0.16
Conglomer	\$1.10	- \$0.81	\$1.38	- \$1.02	\$2.82	- \$2.08
Breccia	\$0.15	- \$0.11	\$0.18	- \$0.14	\$0.38	- \$0.28
Limestone	\$0.17	- \$0.13	\$0.22	- \$0.16	\$0.45	- \$0.33
Schist	\$0.09	- \$0.07	\$0.12	- \$0.09	\$0.24	- \$0.18
Slate	\$0.19	- \$0.14	\$0.24	- \$0.17	\$0.48	- \$0.36
Gneiss	\$0.44	- \$0.32	\$0.55	- \$0.41	\$1.12	- \$0.83

**Drill Steel Cost (\$/foot per rod)**

	Hole Diameter (inches)					
	5.00		6.50		8.00	
Granite	\$0.021	- \$0.016	\$0.027	- \$0.020	\$0.029	- \$0.021
Basalt	\$0.036	- \$0.027	\$0.047	- \$0.035	\$0.050	- \$0.037
Gabbro	\$0.033	- \$0.024	\$0.042	- \$0.031	\$0.045	- \$0.033
Shale	\$0.020	- \$0.015	\$0.026	- \$0.019	\$0.028	- \$0.021
Sandstone	\$0.020	- \$0.014	\$0.025	- \$0.019	\$0.027	- \$0.020
Siltstone	\$0.020	- \$0.014	\$0.025	- \$0.019	\$0.027	- \$0.020
Conglomer	\$0.017	- \$0.013	\$0.023	- \$0.017	\$0.024	- \$0.018
Breccia	\$0.013	- \$0.010	\$0.017	- \$0.013	\$0.018	- \$0.014
Limestone	\$0.016	- \$0.011	\$0.020	- \$0.015	\$0.021	- \$0.016
Schist	\$0.013	- \$0.010	\$0.017	- \$0.013	\$0.018	- \$0.013
Slate	\$0.019	- \$0.014	\$0.024	- \$0.018	\$0.026	- \$0.019
Gneiss	\$0.020	- \$0.015	\$0.026	- \$0.019	\$0.028	- \$0.021

(Based on 12 foot drilling rod length.)

**Drill Steel Cost Adjustment Factor**

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other drill steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.



**DRILL MODEL - Atlas Copco DM M2 -DTH**

**Bit Life (feet/bit)**

	Hole Diameter (inches)					
	8.88		10.00		11.875	
Granite	1,779	- 2,407	1,719	- 2,325	1,636	- 2,213
Basalt	796	- 1,078	770	- 1,041	732	- 991
Gabbro	1,184	- 1,602	1,144	- 1,548	1,089	- 1,473
Shale	1,686	- 2,281	1,629	- 2,204	1,550	- 2,097
Sandstone	619	- 837	598	- 809	569	- 770
Siltstone	4,464	- 6,039	4,313	- 5,835	4,104	- 5,553
Conglome:	345	- 467	333	- 451	317	- 429
Breccia	2,577	- 3,486	2,490	- 3,368	2,369	- 3,205
Limestone	2,168	- 2,933	2,095	- 2,834	1,993	- 2,697
Schist	4,033	- 5,457	3,897	- 5,272	3,708	- 5,017
Slate	2,020	- 2,733	1,951	- 2,640	1,857	- 2,512
Gneiss	868	- 1,175	839	- 1,135	798	- 1,080

**Drill Steel Life (feet/rod)**

	Hole Diameter (inches)					
	8.88		10.00		11.875	
Granite	25,947	- 35,105	25,069	- 33,917	23,856	- 32,276
Basalt	15,193	- 20,555	14,679	- 19,859	13,968	- 18,898
Gabbro	16,781	- 22,704	16,213	- 21,935	15,428	- 20,874
Shale	27,004	- 36,535	26,090	- 35,298	24,828	- 33,590
Sandstone	27,951	- 37,817	27,005	- 36,536	25,698	- 34,768
Siltstone	27,848	- 37,677	26,905	- 36,401	25,604	- 34,640
Conglome:	31,352	- 42,417	30,290	- 40,981	28,825	- 38,998
Breccia	40,940	- 55,390	39,554	- 53,514	37,640	- 50,925
Limestone	35,110	- 47,502	33,921	- 45,894	32,280	- 43,673
Schist	41,569	- 56,240	40,161	- 54,336	38,218	- 51,707
Slate	29,143	- 39,428	28,156	- 38,093	26,794	- 36,250
Gneiss	26,957	- 36,471	26,044	- 35,236	24,784	- 33,531

**Penetration Rate (feet/hour)**

	Hole Diameter (inches)					
	8.88		10.00		11.875	
Granite	69	- 93	60	- 81	48	- 66
Basalt	40	- 54	35	- 47	28	- 38
Gabbro	44	- 60	38	- 52	31	- 42
Shale	72	- 97	62	- 84	50	- 68
Sandstone	74	- 100	64	- 87	52	- 71
Siltstone	74	- 100	64	- 87	52	- 70
Conglome:	83	- 113	72	- 98	59	- 79
Breccia	109	- 148	95	- 128	77	- 104
Limestone	94	- 127	81	- 110	66	- 89
Schist	111	- 150	96	- 130	78	- 106
Slate	77	- 105	67	- 91	55	- 74
Gneiss	72	- 97	62	- 84	50	- 68

**Bit Cost (\$/foot)**

	Hole Diameter (inches)					
	8.88		10.00		11.875	
Granite	\$0.78	- \$0.58	\$1.11	- \$0.82	\$2.75	- \$2.03
Basalt	\$1.74	- \$1.29	\$2.47	- \$1.82	\$6.15	- \$4.54
Gabbro	\$1.17	- \$0.86	\$1.66	- \$1.23	\$4.13	- \$3.06
Shale	\$0.82	- \$0.61	\$1.17	- \$0.86	\$2.90	- \$2.15
Sandstone	\$2.24	- \$1.65	\$3.18	- \$2.35	\$7.91	- \$5.85
Siltstone	\$0.31	- \$0.23	\$0.44	- \$0.33	\$1.10	- \$0.81
Conglome:	\$4.02	- \$2.97	\$5.70	- \$4.22	\$14.19	- \$10.49
Breccia	\$0.54	- \$0.40	\$0.76	- \$0.56	\$1.90	- \$1.40
Limestone	\$0.64	- \$0.47	\$0.91	- \$0.67	\$2.26	- \$1.67
Schist	\$0.34	- \$0.25	\$0.49	- \$0.36	\$1.21	- \$0.90
Slate	\$0.69	- \$0.51	\$0.97	- \$0.72	\$2.42	- \$1.79
Gneiss	\$1.59	- \$1.18	\$2.26	- \$1.67	\$5.64	- \$4.17

**Drill Steel Cost (\$/foot per rod)**

	Hole Diameter (inches)					
	8.88		10.00		11.875	
Granite	\$0.038	- \$0.028	\$0.040	- \$0.029	\$0.042	- \$0.031
Basalt	\$0.065	- \$0.048	\$0.068	- \$0.050	\$0.071	- \$0.053
Gabbro	\$0.059	- \$0.044	\$0.061	- \$0.045	\$0.064	- \$0.048
Shale	\$0.037	- \$0.027	\$0.038	- \$0.028	\$0.040	- \$0.030
Sandstone	\$0.036	- \$0.026	\$0.037	- \$0.027	\$0.039	- \$0.029
Siltstone	\$0.036	- \$0.026	\$0.037	- \$0.027	\$0.039	- \$0.029
Conglome:	\$0.032	- \$0.023	\$0.033	- \$0.024	\$0.035	- \$0.026
Breccia	\$0.024	- \$0.018	\$0.025	- \$0.019	\$0.026	- \$0.020
Limestone	\$0.028	- \$0.021	\$0.029	- \$0.022	\$0.031	- \$0.023
Schist	\$0.024	- \$0.018	\$0.025	- \$0.018	\$0.026	- \$0.019
Slate	\$0.034	- \$0.025	\$0.035	- \$0.026	\$0.037	- \$0.027
Gneiss	\$0.037	- \$0.027	\$0.038	- \$0.028	\$0.040	- \$0.030

(Based on 12 foot drilling rod length.)

**Drill Steel Cost Adjustment Factor**

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other drill steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

**DRILL MODEL - Atlas Copco DM25SP - Rotary**

**Bit Life (feet/bit)**

	Hole Diameter (inches)					
	3.88		5.00		6.25	
Granite	3,585	- 4,851	3,364	- 4,552	3,182	- 4,305
Basalt	1,878	- 2,541	1,762	- 2,384	1,667	- 2,255
Gabbro	2,118	- 2,865	1,987	- 2,689	1,880	- 2,543
Shale	3,762	- 5,090	3,531	- 4,777	3,339	- 4,518
Sandstone	3,922	- 5,307	3,681	- 4,980	3,481	- 4,710
Siltstone	3,905	- 5,283	3,664	- 4,957	3,466	- 4,689
Conglome:	4,506	- 6,096	4,228	- 5,720	3,999	- 5,411
Breccia	6,220	- 8,415	5,836	- 7,896	5,520	- 7,468
Limestone	5,166	- 6,990	4,848	- 6,559	4,585	- 6,203
Schist	6,335	- 8,571	5,945	- 8,043	5,623	- 7,607
Slate	4,125	- 5,581	3,871	- 5,237	3,661	- 4,953
Gneiss	3,754	- 5,079	3,523	- 4,766	3,332	- 4,508

**Drill Steel Life (feet/rod)**

	Hole Diameter (inches)					
	3.88		5.00		6.25	
Granite	44,519	- 60,232	41,775	- 56,519	39,512	- 53,457
Basalt	26,067	- 35,267	24,460	- 33,093	23,135	- 31,301
Gabbro	28,792	- 38,954	27,017	- 36,552	25,553	- 34,572
Shale	46,333	- 62,685	43,477	- 58,821	41,121	- 55,635
Sandstone	47,957	- 64,883	45,001	- 60,884	42,563	- 57,586
Siltstone	47,780	- 64,644	44,835	- 60,659	42,406	- 57,373
Conglome:	53,792	- 72,777	50,476	- 68,291	47,741	- 64,591
Breccia	70,243	- 95,034	65,913	- 89,176	62,342	- 84,345
Limestone	60,240	- 81,501	56,527	- 76,478	53,465	- 72,334
Schist	71,321	- 96,493	66,925	- 90,545	63,299	- 85,640
Slate	50,001	- 67,649	46,919	- 63,479	44,377	- 60,040
Gneiss	46,250	- 62,574	43,400	- 58,717	41,048	- 55,536

**Penetration Rate (feet/hour)**

	Hole Diameter (inches)					
	3.88		5.00		6.25	
Granite	57	- 77	34	- 46	22	- 29
Basalt	33	- 45	20	- 27	13	- 17
Gabbro	37	- 50	22	- 30	14	- 19
Shale	60	- 81	36	- 48	23	- 31
Sandstone	62	- 83	37	- 50	23	- 32
Siltstone	61	- 83	37	- 50	23	- 32
Conglome:	69	- 94	41	- 56	26	- 36
Breccia	91	- 123	54	- 73	34	- 47
Limestone	78	- 105	46	- 63	29	- 40
Schist	92	- 125	55	- 74	35	- 47
Slate	64	- 87	38	- 52	24	- 33
Gneiss	59	- 80	35	- 48	23	- 31

**Bit Cost (\$/foot)**

	Hole Diameter (inches)					
	3.88		5.00		6.25	
Granite	\$0.32	- \$0.24	\$0.48	- \$0.36	\$0.69	- \$0.51
Basalt	\$0.61	- \$0.45	\$0.92	- \$0.68	\$1.32	- \$0.98
Gabbro	\$0.54	- \$0.40	\$0.82	- \$0.61	\$1.17	- \$0.87
Shale	\$0.31	- \$0.23	\$0.46	- \$0.34	\$0.66	- \$0.49
Sandstone	\$0.29	- \$0.22	\$0.44	- \$0.33	\$0.63	- \$0.47
Siltstone	\$0.29	- \$0.22	\$0.44	- \$0.33	\$0.64	- \$0.47
Conglome:	\$0.26	- \$0.19	\$0.39	- \$0.28	\$0.55	- \$0.41
Breccia	\$0.18	- \$0.14	\$0.28	- \$0.21	\$0.40	- \$0.30
Limestone	\$0.22	- \$0.16	\$0.34	- \$0.25	\$0.48	- \$0.36
Schist	\$0.18	- \$0.13	\$0.27	- \$0.20	\$0.39	- \$0.29
Slate	\$0.28	- \$0.21	\$0.42	- \$0.31	\$0.60	- \$0.45
Gneiss	\$0.31	- \$0.23	\$0.46	- \$0.34	\$0.66	- \$0.49

**Drill Steel Cost (\$/foot per rod)**

	Hole Diameter (inches)					
	3.88		5.00		6.25	
Granite	\$0.012	- \$0.009	\$0.038	- \$0.028	\$0.047	- \$0.035
Basalt	\$0.020	- \$0.015	\$0.065	- \$0.048	\$0.081	- \$0.060
Gabbro	\$0.018	- \$0.014	\$0.059	- \$0.043	\$0.073	- \$0.054
Shale	\$0.011	- \$0.008	\$0.036	- \$0.027	\$0.046	- \$0.034
Sandstone	\$0.011	- \$0.008	\$0.035	- \$0.026	\$0.044	- \$0.033
Siltstone	\$0.011	- \$0.008	\$0.035	- \$0.026	\$0.044	- \$0.033
Conglome:	\$0.010	- \$0.007	\$0.031	- \$0.023	\$0.039	- \$0.029
Breccia	\$0.007	- \$0.006	\$0.024	- \$0.018	\$0.030	- \$0.022
Limestone	\$0.009	- \$0.006	\$0.028	- \$0.021	\$0.035	- \$0.026
Schist	\$0.007	- \$0.005	\$0.024	- \$0.017	\$0.030	- \$0.022
Slate	\$0.011	- \$0.008	\$0.034	- \$0.025	\$0.042	- \$0.031
Gneiss	\$0.011	- \$0.008	\$0.036	- \$0.027	\$0.046	- \$0.034

(Based on 12 foot drilling rod length.)

**Drill Steel Cost Adjustment Factor**

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other drill steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

**DRILL MODEL - Atlas Copco DM30 -Rotary**

**Bit Life (feet/bit)**

	Hole Diameter (inches)					
	5.50		6.00		6.75	
Granite	3,347	- 4,528	3,275	- 4,431	3,180	- 4,302
Basalt	1,753	- 2,372	1,716	- 2,321	1,666	- 2,254
Gabbro	1,977	- 2,675	1,934	- 2,617	1,878	- 2,541
Shale	3,512	- 4,752	3,437	- 4,649	3,337	- 4,515
Sandstone	3,661	- 4,954	3,583	- 4,847	3,479	- 4,707
Siltstone	3,645	- 4,931	3,567	- 4,826	3,463	- 4,686
Conglomer	4,206	- 5,690	4,116	- 5,568	3,996	- 5,407
Breccia	5,806	- 7,855	5,681	- 7,686	5,516	- 7,463
Limestone	4,822	- 6,524	4,719	- 6,384	4,582	- 6,199
Schist	5,913	- 8,000	5,786	- 7,829	5,619	- 7,602
Slate	3,851	- 5,210	3,768	- 5,098	3,659	- 4,950
Gneiss	3,504	- 4,741	3,429	- 4,639	3,330	- 4,505

**Drill Steel Life (feet/rod)**

	Hole Diameter (inches)					
	5.50		6.00		6.75	
Granite	41,556	- 56,222	40,663	- 55,014	39,485	- 53,421
Basalt	24,332	- 32,920	23,809	- 32,212	23,119	- 31,279
Gabbro	26,875	- 36,360	26,298	- 35,579	25,536	- 34,549
Shale	43,248	- 58,513	42,319	- 57,255	41,093	- 55,597
Sandstone	44,765	- 60,564	43,803	- 59,263	42,534	- 57,546
Siltstone	44,600	- 60,341	43,642	- 59,045	42,377	- 57,334
Conglomer	50,211	- 67,932	49,132	- 66,473	47,709	- 64,547
Breccia	65,567	- 88,708	64,158	- 86,802	62,299	- 84,288
Limestone	56,230	- 76,076	55,022	- 74,441	53,428	- 72,285
Schist	66,573	- 90,070	65,143	- 88,135	63,256	- 85,582
Slate	46,673	- 63,146	45,670	- 61,789	44,347	- 59,999
Gneiss	43,172	- 58,409	42,244	- 57,154	41,020	- 55,498

**Penetration Rate (feet/hour)**

	Hole Diameter (inches)					
	5.50		6.00		6.75	
Granite	32	- 43	27	- 36	21	- 28
Basalt	18	- 25	15	- 21	12	- 16
Gabbro	20	- 28	17	- 23	13	- 18
Shale	33	- 45	28	- 37	22	- 29
Sandstone	34	- 46	29	- 39	23	- 31
Siltstone	34	- 46	29	- 39	22	- 30
Conglomer	38	- 52	32	- 44	25	- 34
Breccia	50	- 68	42	- 57	33	- 45
Limestone	43	- 58	36	- 49	28	- 38
Schist	51	- 69	43	- 58	34	- 46
Slate	36	- 48	30	- 40	24	- 32
Gneiss	33	- 45	28	- 37	22	- 29

**Bit Cost (\$/foot)**

	Hole Diameter (inches)					
	5.50		6.00		6.75	
Granite	\$0.59	- \$0.44	\$0.65	- \$0.48	\$0.77	- \$0.57
Basalt	\$1.12	- \$0.83	\$1.24	- \$0.92	\$1.48	- \$1.09
Gabbro	\$1.00	- \$0.74	\$1.10	- \$0.81	\$1.31	- \$0.97
Shale	\$0.56	- \$0.42	\$0.62	- \$0.46	\$0.74	- \$0.55
Sandstone	\$0.54	- \$0.40	\$0.59	- \$0.44	\$0.71	- \$0.52
Siltstone	\$0.54	- \$0.40	\$0.60	- \$0.44	\$0.71	- \$0.53
Conglomer	\$0.47	- \$0.35	\$0.52	- \$0.38	\$0.62	- \$0.46
Breccia	\$0.34	- \$0.25	\$0.38	- \$0.28	\$0.45	- \$0.33
Limestone	\$0.41	- \$0.30	\$0.45	- \$0.33	\$0.54	- \$0.40
Schist	\$0.33	- \$0.25	\$0.37	- \$0.27	\$0.44	- \$0.32
Slate	\$0.51	- \$0.38	\$0.57	- \$0.42	\$0.67	- \$0.50
Gneiss	\$0.56	- \$0.42	\$0.62	- \$0.46	\$0.74	- \$0.55

**Drill Steel Cost (\$/foot per rod)**

	Hole Diameter (inches)					
	5.50		6.00		6.75	
Granite	\$0.045	- \$0.033	\$0.046	- \$0.034	\$0.047	- \$0.035
Basalt	\$0.077	- \$0.057	\$0.079	- \$0.058	\$0.081	- \$0.060
Gabbro	\$0.070	- \$0.051	\$0.071	- \$0.053	\$0.073	- \$0.054
Shale	\$0.043	- \$0.032	\$0.044	- \$0.033	\$0.046	- \$0.034
Sandstone	\$0.042	- \$0.031	\$0.043	- \$0.032	\$0.044	- \$0.033
Siltstone	\$0.042	- \$0.031	\$0.043	- \$0.032	\$0.044	- \$0.033
Conglomer	\$0.037	- \$0.028	\$0.038	- \$0.028	\$0.039	- \$0.029
Breccia	\$0.029	- \$0.021	\$0.029	- \$0.022	\$0.030	- \$0.022
Limestone	\$0.033	- \$0.025	\$0.034	- \$0.025	\$0.035	- \$0.026
Schist	\$0.028	- \$0.021	\$0.029	- \$0.021	\$0.030	- \$0.022
Slate	\$0.040	- \$0.030	\$0.041	- \$0.030	\$0.042	- \$0.031
Gneiss	\$0.043	- \$0.032	\$0.044	- \$0.033	\$0.046	- \$0.034

(Based on 12 foot drilling rod length.)

**Drill Steel Cost Adjustment Factor**

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other drill steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

**DRILL MODEL - Atlas Copco DM45 -Rotary**

**Bit Life (feet/bit)**

	Hole Diameter (inches)					
	5.00		6.75		7.875	
Granite	3,619	- 4,897	3,358	- 4,543	3,231	- 4,372
Basalt	1,896	- 2,565	1,759	- 2,380	1,693	- 2,290
Gabbro	2,138	- 2,893	1,984	- 2,684	1,909	- 2,582
Shale	3,798	- 5,139	3,524	- 4,768	3,391	- 4,588
Sandstone	3,960	- 5,357	3,674	- 4,971	3,535	- 4,783
Siltstone	3,942	- 5,333	3,658	- 4,948	3,519	- 4,762
Conglome:	4,549	- 6,154	4,220	- 5,710	4,061	- 5,494
Breccia	6,279	- 8,495	5,825	- 7,881	5,606	- 7,584
Limestone	5,215	- 7,056	4,839	- 6,547	4,656	- 6,300
Schist	6,395	- 8,652	5,934	- 8,028	5,710	- 7,725
Slate	4,164	- 5,634	3,864	- 5,228	3,718	- 5,030
Gneiss	3,790	- 5,128	3,517	- 4,758	3,384	- 4,578

**Drill Steel Life (feet/rod)**

	Hole Diameter (inches)					
	5.00		6.75		7.875	
Granite	44,942	- 60,803	41,698	- 56,415	40,124	- 54,286
Basalt	26,314	- 35,602	24,415	- 33,033	23,494	- 31,786
Gabbro	29,065	- 39,323	26,967	- 36,485	25,950	- 35,108
Shale	46,772	- 63,280	43,397	- 58,713	41,759	- 56,497
Sandstone	48,412	- 65,499	44,919	- 60,772	43,223	- 58,478
Siltstone	48,234	- 65,258	44,753	- 60,548	43,064	- 58,263
Conglome:	54,302	- 73,468	50,383	- 68,166	48,482	- 65,593
Breccia	70,909	- 95,936	65,792	- 89,013	63,309	- 85,653
Limestone	60,812	- 82,275	56,423	- 76,337	54,293	- 73,456
Schist	71,998	- 97,409	66,802	- 90,379	64,280	- 86,968
Slate	50,476	- 68,291	46,833	- 63,362	45,065	- 60,971
Gneiss	46,689	- 63,168	43,320	- 58,609	41,685	- 56,397

**Penetration Rate (feet/hour)**

	Hole Diameter (inches)					
	5.00		6.75		7.875	
Granite	50	- 68	27	- 37	20	- 27
Basalt	29	- 39	16	- 21	12	- 16
Gabbro	32	- 44	17	- 24	13	- 17
Shale	52	- 71	28	- 38	21	- 28
Sandstone	54	- 73	29	- 40	21	- 29
Siltstone	54	- 73	29	- 40	21	- 29
Conglome:	61	- 82	33	- 45	24	- 33
Breccia	80	- 108	43	- 59	32	- 43
Limestone	68	- 92	37	- 50	27	- 37
Schist	81	- 109	44	- 59	32	- 44
Slate	56	- 76	31	- 41	22	- 30
Gneiss	52	- 70	28	- 38	21	- 28

**Bit Cost (\$/foot)**

	Hole Diameter (inches)					
	5.00		6.75		7.875	
Granite	\$0.45	- \$0.33	\$0.73	- \$0.54	\$0.94	- \$0.69
Basalt	\$0.86	- \$0.64	\$1.40	- \$1.03	\$1.79	- \$1.32
Gabbro	\$0.76	- \$0.56	\$1.24	- \$0.92	\$1.58	- \$1.17
Shale	\$0.43	- \$0.32	\$0.70	- \$0.52	\$0.89	- \$0.66
Sandstone	\$0.41	- \$0.30	\$0.67	- \$0.50	\$0.86	- \$0.63
Siltstone	\$0.41	- \$0.31	\$0.67	- \$0.50	\$0.86	- \$0.63
Conglome:	\$0.36	- \$0.26	\$0.58	- \$0.43	\$0.74	- \$0.55
Breccia	\$0.26	- \$0.19	\$0.42	- \$0.31	\$0.54	- \$0.40
Limestone	\$0.31	- \$0.23	\$0.51	- \$0.38	\$0.65	- \$0.48
Schist	\$0.25	- \$0.19	\$0.42	- \$0.31	\$0.53	- \$0.39
Slate	\$0.39	- \$0.29	\$0.64	- \$0.47	\$0.81	- \$0.60
Gneiss	\$0.43	- \$0.32	\$0.70	- \$0.52	\$0.89	- \$0.66

**Drill Steel Cost (\$/foot per rod)**

	Hole Diameter (inches)					
	5.00		6.75		7.875	
Granite	\$0.035	- \$0.026	\$0.045	- \$0.033	\$0.069	- \$0.051
Basalt	\$0.060	- \$0.044	\$0.077	- \$0.057	\$0.117	- \$0.087
Gabbro	\$0.054	- \$0.040	\$0.069	- \$0.051	\$0.106	- \$0.079
Shale	\$0.034	- \$0.025	\$0.043	- \$0.032	\$0.066	- \$0.049
Sandstone	\$0.033	- \$0.024	\$0.042	- \$0.031	\$0.064	- \$0.047
Siltstone	\$0.033	- \$0.024	\$0.042	- \$0.031	\$0.064	- \$0.047
Conglome:	\$0.029	- \$0.022	\$0.037	- \$0.027	\$0.057	- \$0.042
Breccia	\$0.022	- \$0.017	\$0.028	- \$0.021	\$0.044	- \$0.032
Limestone	\$0.026	- \$0.019	\$0.033	- \$0.025	\$0.051	- \$0.038
Schist	\$0.022	- \$0.016	\$0.028	- \$0.021	\$0.043	- \$0.032
Slate	\$0.031	- \$0.023	\$0.040	- \$0.030	\$0.061	- \$0.045
Gneiss	\$0.034	- \$0.025	\$0.043	- \$0.032	\$0.066	- \$0.049

(Based on 12 foot drilling rod length.)

**Drill Steel Cost Adjustment Factor**

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other drill steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

**DRILL MODEL - Atlas Copco DM M2 -Rotary**

**Bit Life (feet/bit)**

	Hole Diameter (inches)					
	9.00		9.875		11.00	
Granite	3,312	- 4,481	3,236	- 4,378	3,150	- 4,262
Basalt	1,735	- 2,347	1,695	- 2,294	1,650	- 2,233
Gabbro	1,956	- 2,647	1,912	- 2,586	1,861	- 2,518
Shale	3,476	- 4,702	3,396	- 4,595	3,306	- 4,473
Sandstone	3,623	- 4,902	3,540	- 4,790	3,446	- 4,663
Siltstone	3,607	- 4,880	3,525	- 4,769	3,431	- 4,642
Conglomer	4,162	- 5,631	4,067	- 5,502	3,959	- 5,356
Breccia	5,745	- 7,773	5,614	- 7,595	5,465	- 7,393
Limestone	4,772	- 6,457	4,663	- 6,309	4,539	- 6,141
Schist	5,852	- 7,917	5,718	- 7,736	5,566	- 7,531
Slate	3,811	- 5,156	3,723	- 5,038	3,624	- 4,904
Gneiss	3,468	- 4,692	3,389	- 4,585	3,299	- 4,463

**Drill Steel Life (feet/rod)**

	Hole Diameter (inches)					
	9.00		9.875		11.00	
Granite	41,124	- 55,639	40,183	- 54,365	39,115	- 52,921
Basalt	24,079	- 32,578	23,528	- 31,832	22,903	- 30,986
Gabbro	26,596	- 35,983	25,987	- 35,159	25,297	- 34,225
Shale	42,800	- 57,905	41,820	- 56,580	40,709	- 55,077
Sandstone	44,300	- 59,936	43,286	- 58,564	42,136	- 57,008
Siltstone	44,137	- 59,715	43,127	- 58,348	41,981	- 56,798
Conglomer	49,690	- 67,228	48,552	- 65,689	47,262	- 63,943
Breccia	64,887	- 87,788	63,401	- 85,778	61,717	- 83,499
Limestone	55,647	- 75,287	54,373	- 73,563	52,928	- 71,609
Schist	65,883	- 89,135	64,374	- 87,095	62,664	- 84,781
Slate	46,189	- 62,490	45,131	- 61,060	43,932	- 59,438
Gneiss	42,724	- 57,803	41,746	- 56,479	40,637	- 54,979

**Penetration Rate (feet/hour)**

	Hole Diameter (inches)					
	9.00		9.875		11.00	
Granite	21	- 29	18	- 24	14	- 19
Basalt	12	- 17	10	- 14	8	- 11
Gabbro	14	- 18	11	- 15	9	- 12
Shale	22	- 30	18	- 25	15	- 20
Sandstone	23	- 31	19	- 26	15	- 21
Siltstone	23	- 31	19	- 26	15	- 21
Conglomer	26	- 35	21	- 29	17	- 23
Breccia	34	- 46	28	- 38	22	- 30
Limestone	29	- 39	24	- 32	19	- 26
Schist	34	- 46	28	- 38	23	- 31
Slate	24	- 32	20	- 27	16	- 22
Gneiss	22	- 30	18	- 25	15	- 20

**Bit Cost (\$/foot)**

	Hole Diameter (inches)					
	9.00		9.875		11.00	
Granite	\$1.08	- \$0.80	\$1.48	- \$1.09	\$1.79	- \$1.32
Basalt	\$2.07	- \$1.53	\$2.82	- \$2.09	\$3.42	- \$2.53
Gabbro	\$1.83	- \$1.36	\$2.50	- \$1.85	\$3.03	- \$2.24
Shale	\$1.03	- \$0.76	\$1.41	- \$1.04	\$1.71	- \$1.26
Sandstone	\$0.99	- \$0.73	\$1.35	- \$1.00	\$1.64	- \$1.21
Siltstone	\$0.99	- \$0.74	\$1.36	- \$1.00	\$1.64	- \$1.22
Conglomer	\$0.86	- \$0.64	\$1.18	- \$0.87	\$1.42	- \$1.05
Breccia	\$0.62	- \$0.46	\$0.85	- \$0.63	\$1.03	- \$0.76
Limestone	\$0.75	- \$0.56	\$1.03	- \$0.76	\$1.24	- \$0.92
Schist	\$0.61	- \$0.45	\$0.84	- \$0.62	\$1.01	- \$0.75
Slate	\$0.94	- \$0.70	\$1.29	- \$0.95	\$1.56	- \$1.15
Gneiss	\$1.03	- \$0.76	\$1.41	- \$1.04	\$1.71	- \$1.26

**Drill Steel Cost (\$/foot per rod)**

	Hole Diameter (inches)					
	9.00		9.875		11.00	
Granite	\$0.067	- \$0.050	\$0.069	- \$0.051	\$0.070	- \$0.051
Basalt	\$0.115	- \$0.085	\$0.117	- \$0.087	\$0.119	- \$0.088
Gabbro	\$0.104	- \$0.077	\$0.106	- \$0.078	\$0.108	- \$0.079
Shale	\$0.064	- \$0.048	\$0.066	- \$0.049	\$0.067	- \$0.049
Sandstone	\$0.062	- \$0.046	\$0.064	- \$0.047	\$0.065	- \$0.048
Siltstone	\$0.063	- \$0.046	\$0.064	- \$0.047	\$0.065	- \$0.048
Conglomer	\$0.056	- \$0.041	\$0.057	- \$0.042	\$0.058	- \$0.043
Breccia	\$0.043	- \$0.031	\$0.044	- \$0.032	\$0.044	- \$0.033
Limestone	\$0.050	- \$0.037	\$0.051	- \$0.038	\$0.051	- \$0.038
Schist	\$0.042	- \$0.031	\$0.043	- \$0.032	\$0.043	- \$0.032
Slate	\$0.060	- \$0.044	\$0.061	- \$0.045	\$0.062	- \$0.046
Gneiss	\$0.065	- \$0.048	\$0.066	- \$0.049	\$0.067	- \$0.049

(Based on 12 foot drilling rod length.)

**Drill Steel Cost Adjustment Factor**

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other drill steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

**DRILL MODEL - Bucyrus International 59R -Rotary**

**Bit Life (feet/bit)**

	Hole Diameter (inches)								
	12.25		15.00		16.00				
Granite	3379.984	-	4572.919	3213.372	-	4347.504	3162.023	-	4278.031
Basalt	1770.653	-	2395.589	1683.371	-	2277.502	1656.471	-	2241.108
Gabbro	1996.573	-	2701.246	1898.155	-	2568.092	1867.823	-	2527.054
Shale	3546.993	-	4798.873	3372.149	-	4562.319	3318.263	-	4489.414
Sandstone	3697.769	-	5002.863	3515.492	-	4756.254	3459.315	-	4680.25
Siltstone	3681.304	-	4980.588	3499.839	-	4735.076	3443.912	-	4659.411
Conglomer	4247.818	-	5747.048	4038.427	-	5463.755	3973.894	-	5376.445
Breccia	5863.339	-	7932.753	5574.314	-	7541.719	5485.238	-	7421.204
Limestone	4870.335	-	6589.277	4630.259	-	6264.468	4556.268	-	6164.363
Schist	5972.24	-	8080.09	5677.846	-	7681.792	5587.116	-	7559.039
Slate	3888.976	-	5261.555	3697.274	-	5002.194	3638.192	-	4922.26
Gneiss	3539.394	-	4788.591	3364.924	-	4552.544	3311.153	-	4479.796

**Drill Steel Life (feet/rod)**

	Hole Diameter (inches)								
	12.25		15.00		16.00				
Granite	41969.55	-	56782.33	39900.72	-	53983.32	39263.11	-	53120.68
Basalt	24574.25	-	33247.51	23362.89	-	31608.62	22989.56	-	31103.52
Gabbro	27142.87	-	36722.71	25804.9	-	34912.52	25392.55	-	34354.62
Shale	43679.22	-	59095.42	41526.11	-	56182.39	40862.54	-	55284.61
Sandstone	45210.83	-	61167.6	42982.23	-	58152.42	42295.38	-	57223.16
Siltstone	45044.11	-	60942.03	42823.72	-	57937.98	42139.41	-	57012.14
Conglomer	50711.07	-	68609.09	48211.33	-	65227.1	47440.93	-	64184.78
Breccia	66219.99	-	89591.75	62955.76	-	85175.45	61949.75	-	83814.36
Limestone	56790.17	-	76833.76	53990.78	-	73046.35	53128.02	-	71879.08
Schist	67236.6	-	90967.16	63922.26	-	86483.06	62900.8	-	85101.08
Slate	47137.81	-	63774.69	44814.22	-	60631	44098.1	-	59662.13
Gneiss	43601.73	-	58990.58	41452.44	-	56082.72	40790.04	-	55186.53

**Penetration Rate (feet/hour)**

	Hole Diameter (inches)								
	12.25		15.00		16.00				
Granite	19.00236	-	25.70907	12.60139	-	17.04894	11.05531	-	14.95719
Basalt	11.03265	-	14.92652	7.316286	-	9.898504	6.418644	-	8.684048
Gabbro	12.205	-	16.51264	8.093728	-	10.95034	7.100701	-	9.606831
Shale	19.78892	-	26.77325	13.123	-	17.75464	11.51293	-	15.57631
Sandstone	20.49398	-	27.72715	13.59055	-	18.38722	11.92312	-	16.13128
Siltstone	20.41721	-	27.62329	13.53965	-	18.31835	11.87846	-	16.07085
Conglomer	23.02897	-	31.15684	15.27163	-	20.66162	13.39794	-	18.12663
Breccia	30.19898	-	40.85745	20.02642	-	27.09456	17.56936	-	23.77031
Limestone	25.83581	-	34.95433	17.13298	-	23.17992	15.03092	-	20.33595
Schist	30.66998	-	41.49468	20.33876	-	27.51714	17.84338	-	24.14104
Slate	21.38157	-	28.92801	14.17916	-	19.18357	12.43951	-	16.82992
Gneiss	19.75326	-	26.725	13.09935	-	17.72265	11.49218	-	15.54824

**Bit Cost (\$/foot)**

	Hole Diameter (inches)								
	12.25		15.00		16.00				
Granite	\$1.95	-	\$1.44	\$3.23	-	\$2.38	\$3.48	-	\$2.58
Basalt	\$3.73	-	\$2.76	\$6.16	-	\$4.55	\$6.65	-	\$4.92
Gabbro	\$3.31	-	\$2.44	\$5.46	-	\$4.04	\$5.90	-	\$4.36
Shale	\$1.86	-	\$1.38	\$3.07	-	\$2.27	\$3.32	-	\$2.45
Sandstone	\$1.79	-	\$1.32	\$2.95	-	\$2.18	\$3.18	-	\$2.35
Siltstone	\$1.79	-	\$1.33	\$2.96	-	\$2.19	\$3.20	-	\$2.36
Conglomer	\$1.55	-	\$1.15	\$2.57	-	\$1.90	\$2.77	-	\$2.05
Breccia	\$1.13	-	\$0.83	\$1.86	-	\$1.37	\$2.01	-	\$1.48
Limestone	\$1.36	-	\$1.00	\$2.24	-	\$1.65	\$2.42	-	\$1.79
Schist	\$1.11	-	\$0.82	\$1.83	-	\$1.35	\$1.97	-	\$1.46
Slate	\$1.70	-	\$1.25	\$2.80	-	\$2.07	\$3.03	-	\$2.24
Gneiss	\$1.87	-	\$1.38	\$3.08	-	\$2.28	\$3.33	-	\$2.46

**Drill Steel Cost (\$/foot per rod)**

	Hole Diameter (inches)								
	12.25		15.00		16.00				
Granite	\$0.078	-	\$0.058	\$0.082	-	\$0.061	\$0.083	-	\$0.062
Basalt	\$0.133	-	\$0.098	\$0.140	-	\$0.104	\$0.142	-	\$0.105
Gabbro	\$0.121	-	\$0.089	\$0.127	-	\$0.094	\$0.129	-	\$0.095
Shale	\$0.075	-	\$0.055	\$0.079	-	\$0.058	\$0.080	-	\$0.059
Sandstone	\$0.072	-	\$0.054	\$0.076	-	\$0.056	\$0.077	-	\$0.057
Siltstone	\$0.073	-	\$0.054	\$0.076	-	\$0.056	\$0.078	-	\$0.057
Conglomer	\$0.065	-	\$0.048	\$0.068	-	\$0.050	\$0.069	-	\$0.051
Breccia	\$0.049	-	\$0.037	\$0.052	-	\$0.038	\$0.053	-	\$0.039
Limestone	\$0.058	-	\$0.043	\$0.061	-	\$0.045	\$0.062	-	\$0.046
Schist	\$0.049	-	\$0.036	\$0.051	-	\$0.038	\$0.052	-	\$0.038
Slate	\$0.069	-	\$0.051	\$0.073	-	\$0.054	\$0.074	-	\$0.055
Gneiss	\$0.075	-	\$0.055	\$0.079	-	\$0.058	\$0.080	-	\$0.059

(Based on 12 foot drilling rod length.)

**Drill Steel Cost Adjustment Factor**

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other drill steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

DRILL MODEL - Atlas Copco TBH4 - Rotary

Bit Life (feet/bit)

	Hole Diameter (inches)					
	5.00		6.750		7.875	
Granite	3,526	- 4,770	3,271	- 4,426	3,148	- 4,259
Basalt	1,847	- 2,499	1,714	- 2,319	1,649	- 2,231
Gabbro	2,083	- 2,818	1,932	- 2,614	1,859	- 2,516
Shale	3,700	- 5,006	3,433	- 4,645	3,303	- 4,469
Sandstone	3,857	- 5,219	3,579	- 4,842	3,444	- 4,659
Siltstone	3,840	- 5,195	3,563	- 4,820	3,428	- 4,638
Conglomer	4,431	- 5,995	4,111	- 5,562	3,956	- 5,352
Breccia	6,116	- 8,275	5,675	- 7,678	5,461	- 7,388
Limestone	5,080	- 6,873	4,714	- 6,377	4,536	- 6,137
Schist	6,230	- 8,429	5,780	- 7,820	5,562	- 7,525
Slate	4,057	- 5,488	3,764	- 5,092	3,622	- 4,900
Gneiss	3,692	- 4,995	3,426	- 4,635	3,296	- 4,460

Drill Steel Life (feet/rod)

	Hole Diameter (inches)					
	5.00		6.750		7.875	
Granite	43,780	- 59,231	40,620	- 54,957	39,087	- 52,882
Basalt	25,634	- 34,681	23,784	- 32,178	22,886	- 30,964
Gabbro	28,313	- 38,306	26,270	- 35,542	25,279	- 34,200
Shale	45,563	- 61,644	42,275	- 57,195	40,679	- 55,036
Sandstone	47,161	- 63,806	43,757	- 59,201	42,106	- 56,966
Siltstone	46,987	- 63,570	43,596	- 58,983	41,950	- 56,756
Conglomer	52,898	- 71,568	49,081	- 66,403	47,228	- 63,897
Breccia	69,076	- 93,456	64,091	- 86,711	61,672	- 83,438
Limestone	59,239	- 80,147	54,964	- 74,363	52,890	- 71,556
Schist	70,136	- 94,890	65,075	- 88,042	62,618	- 84,719
Slate	49,171	- 66,525	45,622	- 61,724	43,900	- 59,394
Gneiss	45,482	- 61,535	42,200	- 57,094	40,607	- 54,939

Penetration Rate (feet/hour)

	Hole Diameter (inches)					
	5.00		6.750		7.875	
Granite	45	- 60	24	- 33	18	- 24
Basalt	26	- 35	14	- 19	10	- 14
Gabbro	29	- 39	16	- 21	11	- 15
Shale	46	- 63	25	- 34	18	- 25
Sandstone	48	- 65	26	- 35	19	- 26
Siltstone	48	- 65	26	- 35	19	- 26
Conglomer	54	- 73	29	- 40	22	- 29
Breccia	71	- 96	39	- 52	28	- 38
Limestone	61	- 82	33	- 45	24	- 33
Schist	72	- 97	39	- 53	29	- 39
Slate	50	- 68	27	- 37	20	- 27
Gneiss	46	- 63	25	- 34	18	- 25

Bit Cost (\$/foot)

	Hole Diameter (inches)					
	5.00		6.750		7.875	
Granite	\$0.46	- \$0.34	\$0.75	- \$0.56	\$0.96	- \$0.71
Basalt	\$0.88	- \$0.65	\$1.44	- \$1.06	\$1.83	- \$1.35
Gabbro	\$0.78	- \$0.58	\$1.27	- \$0.94	\$1.63	- \$1.20
Shale	\$0.44	- \$0.33	\$0.72	- \$0.53	\$0.92	- \$0.68
Sandstone	\$0.42	- \$0.31	\$0.69	- \$0.51	\$0.88	- \$0.65
Siltstone	\$0.42	- \$0.31	\$0.69	- \$0.51	\$0.88	- \$0.65
Conglomer	\$0.37	- \$0.27	\$0.60	- \$0.44	\$0.76	- \$0.56
Breccia	\$0.27	- \$0.20	\$0.43	- \$0.32	\$0.55	- \$0.41
Limestone	\$0.32	- \$0.24	\$0.52	- \$0.39	\$0.67	- \$0.49
Schist	\$0.26	- \$0.19	\$0.43	- \$0.31	\$0.54	- \$0.40
Slate	\$0.40	- \$0.30	\$0.65	- \$0.48	\$0.83	- \$0.62
Gneiss	\$0.44	- \$0.33	\$0.72	- \$0.53	\$0.92	- \$0.68

Drill Steel Cost (\$/foot per rod)

	Hole Diameter (inches)					
	5.00		6.750		7.875	
Granite	\$0.036	- \$0.027	\$0.046	- \$0.034	\$0.071	- \$0.052
Basalt	\$0.062	- \$0.046	\$0.079	- \$0.058	\$0.121	- \$0.089
Gabbro	\$0.056	- \$0.041	\$0.071	- \$0.053	\$0.109	- \$0.081
Shale	\$0.035	- \$0.026	\$0.044	- \$0.033	\$0.068	- \$0.050
Sandstone	\$0.034	- \$0.025	\$0.043	- \$0.032	\$0.066	- \$0.048
Siltstone	\$0.034	- \$0.025	\$0.043	- \$0.032	\$0.066	- \$0.049
Conglomer	\$0.030	- \$0.022	\$0.038	- \$0.028	\$0.058	- \$0.043
Breccia	\$0.023	- \$0.017	\$0.029	- \$0.022	\$0.045	- \$0.033
Limestone	\$0.027	- \$0.020	\$0.034	- \$0.025	\$0.052	- \$0.039
Schist	\$0.023	- \$0.017	\$0.029	- \$0.021	\$0.044	- \$0.033
Slate	\$0.032	- \$0.024	\$0.041	- \$0.030	\$0.063	- \$0.046
Gneiss	\$0.035	- \$0.026	\$0.044	- \$0.033	\$0.068	- \$0.050

Drill Steel Cost Adjustment Factor

Number of rods	Factor
1	1.0
2	1.5
3	2.0
4	2.5
5	3.0
6	3.5
7	4.0
8	4.5
9	5.0
10	5.5
n	(n+1)/2

As this study is based on 12 foot drilling rod length, the total steel cost per foot of hole drilled depends upon the total number of 12 foot sections in the hole. Divide the total hole length by 12 and round this result up to the next whole number to determine number of rods required to drill the hole. Adjust this number to the average number of rods during drilling by consulting the Drill Steel Cost Adjustment Factor table to the left. Multiply this adjustment factor times the cost per foot per rod from the table above. The result is the total drill steel cost per foot of hole drilled. Other drill steel lengths may be adjusted for by determining the total length of rods required and then converting that to the number of equivalent 12 foot sections. Once this is determined follow the procedure outlined above.

<b><u>BIT AND DRILL STEEL PRICE DATABASE</u></b>					
<u>Effective date - 8/2006</u>					
<b><u>Drill Bits</u></b>			<b><u>Drill Rod</u></b>		
Bit Type	Bit Size	Bit Price		Rod Type	Rod Size Rod Price
<u>Button - drop center</u>				<u>Percussion rod - 12 ft</u>	
	1-3/4"	\$62		R32	\$280
	2"	\$69		T38	\$324
	2-1.2"	\$98		T45	\$407
	3"	\$131		T51	\$568
	3-1.2"	\$159			
	4"	\$223		<u>DTH rod - 9'10"</u>	
	4-1.2"	\$268		3.0 76mm	\$384
	5"	\$321		3.5 89mm	\$431
				4.0 102mm	\$491
				4.5 114mm	\$592
				5.5 140mm	\$815
<u>DTH - concave face</u>				<u>Rotary rod - 25' to 30'</u>	
	3-1/2"	\$410		4" x 25'	\$3,300
	5"	\$550		5" x 25'	\$3,900
	5-1/2"	\$575		7" x 30'	\$6,900
	6"	\$630		8-5/8" x 30'	\$6,800
	6-1/2"	\$640		10-3/4" x 27.5	\$7,500
	8"	\$1,230			
	8-7/8"	\$1,385			
	10"	\$1,900			
	11-7/8"	\$4,500			
<u>TRICONE - carbide insert</u>				All unit prices are manufacturer list prices. Discounts or premiums may apply depending upon market conditions.	
	3-7/8"	\$1,150			
	5"	\$1,629			
	5-1/2"	\$1,972			
	6"	\$2,131			
	6-1/4"	\$2,207			
	6-3/4"	\$2,463			
	7-7/8"	\$3,023			
	9"	\$3,589			
	9-7/8"	\$4,787			
	11"	\$5,640			
	12-1/4"	\$6,603			
	15"	\$10,367			
	16"	\$11,016			

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## ROTARY BLASTHOLE DRILLS

Bucyrus manufactures electric rotary blasthole drills with the most innovative features on the market, including programmed drill control, rack and pinion pull-down, hydrostatic propel drives and more. [Contact us](#) today for more information about any of our performance-packed drills!



### 59R

Max. hole size: 444 mm (17-1/2 in)  
Max. bit loading: 74,830 kg (165,000 lbs)  
Working weight: 183,673 kg (405,000 lbs)



### 49RIII

Max. hole size: 406 mm (16 in)  
Max. bit loading: 63,975 kg (141,000 lbs)  
Working weight: 154,224 kg (340,000 lbs)



### 39HR

Max. hole size: 349 mm (13-3/4 in)  
Max. bit loading: 55,000 kg (122,000 lbs)  
Working weight: 122,500 kg (270,000 lbs)



### 35HR Series

Max. hole size: 270 mm (10-5/8 in)  
Max. bit loading: 34,000 kg (75,000 lbs)  
Working weight: 54,432 kg (120,000 lbs)



## Infrastructure - Drilling Solutions



### Drilling Solutions

Ingersoll-Rand has been in the drilling business since Simon Ingersoll invented his first rock drill in 1871. This innovative piece of machinery revolutionized the drilling industry and set the pace for the company's future.

Ingersoll-Rand drills are designed and manufactured to a stringent set of quality standards, assuring you of the most efficient and reliable drills available anywhere.

Now in our second century, we are proud of the comprehensive line of Ingersoll-Rand drilling equipment for the mining, exploration, oil and gas, quarry and water well industries around the world.

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Drilling Solutions

#### Drilling Solutions

##### Blasthole Drills

- Rotary
  - Large
  - Mid-range
- Hydraulic Crawler
- Pneumatic Crawl
- DHD

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- Waterwell Drills
- Exploration Drills
- Gas & Oil / Coal Bed Drills

##### Drilling Accessories

- Down Hole Drills
- Threaded Access

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## Infrastructure - Drilling Solutions

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### Rotary - DM45/LP

Select Model:

T4BH
DM25/SP
DM30
DM45/LP
DM50/LP
DM-L/LP
DM45/SP
DM-LSP
DM-M2
DM-M3
DM-H2
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The DM45/LP is a hydraulic rotary head drive, multi-pass, crawler-mounted drill rig with a 45,000 lb. (20,400 kg) bit load capacity. The standard two-motor spur gear rotary head is rated from 9,000 ft-lb. (12,204 N-m) at 0-100 RPM and 5,400 ft-lb. (732 N-m) at 0-160 RPM. The DM45/LP can drill from 5-1/8 to 7-7/8 in. (130 to 200 mm) diameter blastholes to depths of 180 ft. (55 m) with a 30 ft. (9.1 m) drill pipe change. Two low-pressure Ingersoll-Rand compressor options are available with your choice of Caterpillar or Cummins engines.

Drilling Solutions

Blasthole Drills

- Rotary
  - Large
  - Mid-range
- Hydraulic Crawler
- Pneumatic Crawl
- DHD

Drill Selector

- Waterwell Drills
- Exploration Drills
- Gas & Oil / Coal Bed Drills

Drilling Accessories

- Down Hole Drills
- Threaded Access

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[ SPECS ]	[ FEATURES ]	[ LITERATURE ]
	Nominal Hole Diameter	
Diameter		6-8 in.
	Power Pack	
Engine #1		Cummins QSX15 (425 HP @ 1800 rpm)
Compressor #1		900 @ 110 CFM @ PSI / 25.5 @ 758 m3/min@kPA
Engine #2		CAT C15 (425 HP @ 1800 RPM)
Compressor #2		900 @ 110 CFM @ PSI / 25.5 @ 758 m3/min@kPA
Engine #3		Cummins QSX15 (475 HP @ 1800 RPM)
Compressor #3		1050 @ 110 CFM @ PSI / 29.7 @ 758 m3/min@kPA
Engine #4		Cat C15 (475 HP @ 1800 RPM)
Compressor #4		1050 @ 110 CFM @ PSI / 29.7 @ 758 m3/min@kPA
	Rotation	
Type		2-motor variable displacement, high torque/high speed
Head Torque		High torque: 9,000 ft-lb @ 100 rpm
Speed		High speed: 5,400 ft-lb @ 160 rpm rpm
	Feed System	
Type		Hydraulic cyls. w/cable pulldown & chain pullback
Bit Load		45,000 lb / 20,411 kg
	Tower	
Pipe Length		30 ft. / 9.1 m.
Fabrication		4-member open front w/rectangular hollow steel tubing/double cut lacing
	Undercarriage	
Model		Caterpillar 325L or equivalent

<b>Length</b>	15.3 ft. / 4.66 m
<b>Capacity</b>	Carousel Capable of 180 ft.
<b>Option #1</b>	Options Contact your local IR distributor for a complete list of options.
<b>Weight &amp; Dimensions</b>	
<b>Height (Tower Up)</b>	43 ft. / 13.11 m
<b>Approx. Working Weight</b>	77,000 - 85,000 lbs. / 34,900 - 38,600 kg.
<b>Material To Be Drilled</b>	
<b>Soft</b>	Yes
<b>Drill Application</b>	
<b>Mining</b>	Yes
<b>Quarry</b>	Yes
<b>Drilling Method</b>	
<b>Rotary</b>	Yes



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## Infrastructure - Drilling Solutions

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Select Model:

T4BH
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DM30
DM45/LP
DM50/LP
DM-L/LP
DM45/SP
DM-LSP
DM-M2
DM-M3
DM-H2
351

### Rotary - DM30



The DM30 is a hydraulic tophead drive, multi-pass, crawler-mounted drill rig designed for blastholes ranging from 5-1/8 to 6-3/4 in. (130 to 171 mm) in diameter. On-board depth capability is up to 150 ft. (45.7 m). For rotary drilling, the DM30 can assert a bit load force up to 30,000 lb. (13,608 kg) and rotation speeds of 0-130 RPM. This rig can also be used with downhole drills when equipped with a high-pressure air compressor option.

#### Drilling Solutions

- Blasthole Drills
  - Rotary
    - Large
    - Mid-range
  - Hydraulic Crawler
  - Pneumatic Crawler
  - DHD

#### Drill Selector

- Waterwell Drills
- Exploration Drills
- Gas & Oil / Coal Bed Drills

#### Drilling Accessories

- Down Hole Drills
- Threaded Access

#### Hollow Anchor Systems

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[ SPECS ]	[ FEATURES ]	[ LITERATURE ]
Nominal Hole Diameter		
Diameter	5-6 in.	
Power Pack		
Engine #1	Cummins QSX15 (525 HP @ 1800 RPM)	
Compressor #1	IR HR2 900/350 CFM @ PSI / 25.5/2,413 m3/min@kPA	
Engine #2	CAT C15 (525 HP @ 1800 RPM)	
Compressor #2	IR HR2 900/350 CFM @ PSI / 25.5/2,413 m3/min@kPA	
Engine #3	Cummins QSX15 (425 HP @ 1800 RPM)	
Compressor #3	IR WW226 900/110 CFM @ PSI / 25.5/758 m3/min@kPA	
Engine #4	CAT C15 (425 HP @ 1800 RPM)	
Compressor #4	IR WW226 900/110 CFM @ PSI / 25.5/758 m3/min@kPA	
Floating Sub Base	Isolates components from drilling and propel shock loads/maintains alignment	
Rotation		
Type	Rotary Tophead	
Head Torque	5,400 ft.-lb. / 7,322 N-m	
Speed	0-100 rpm	
Feed System		
Type	Single cylinder, cable feed	
Bit Load	30,000 lb / (13,608) kg	
Tower		
Pipe Length	30 ft. / 9.1 m.	
Construction	4 member open front with hollow steel tubing.	

<b>Manufacturer</b>	<b>Undercarriage</b>	Caterpillar
<b>Option #1</b>	<b>Options</b>	Contact your local IR distributor for a complete list of options.
<b>Height (Tower Up)</b>	<b>Weight &amp; Dimensions</b>	44.3 ft. / 13.4 m
<b>Approx. Working Weight</b>		68,000 lbs. / 30,844 kg.
<b>Hard</b>	<b>Material To Be Drilled</b>	Yes
<b>Medium</b>		Yes
<b>Soft</b>		Yes
<b>Mining</b>	<b>Drill Application</b>	Yes
<b>Quarry</b>		Yes
<b>Rotary</b>	<b>Drilling Method</b>	Yes
<b>DHD</b>		Yes



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## Infrastructure - Drilling Solutions

Welcome to IR  
Drilling Solutions

Select Model:

T4BH
<b>DM25/SP</b>
DM30
DM45/LP
DM50/LP
DM-L/LP
DM45/SP
DM-LSP
DM-M2
DM-M3
DM-H2
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### Rotary - DM25/SP



The DM25SP is a crawler-mounted rotary table drill rig designed for single-pass blasthole drilling to depths of up to 50 ft. (15.2 m) and diameters of 3-1/2 to 6-3/4 in. (89 to 171 mm). This drill is capable of rotary drilling with 25,000 lb. (11,340 kg) of bit load at 0-200 rpm. The DM25SP can also be used with downhole drills when equipped with a high-pressure air compressor option.

#### Drilling Solutions

- Blasthole Drills**
  - Rotary
    - Large
    - Mid-range
  - Hydraulic Crawler
  - Pneumatic Crawler
  - DHD
- Drill Selector**
- Waterwell Drills**
- Exploration Drills**
- Gas & Oil / Coal Bed Drills**
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  - Down Hole Drills
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[ SPECS ]	[ FEATURES ]	[ LITERATURE ]
<b>Nominal Hole Diameter</b>		
Diameter	5-6 in.	
<b>Power Pack</b>		
Engine #1	Cummins QSX15 (525 HP @ 1800 RPM)	
Compressor #1	900/350 CFM @ PSI / 25.5/2,413 m3/min@kPA	
Engine #2	CAT C15 (525 HP @ 1800 RPM)	
Compressor #2	900/350 CFM @ PSI / 25.5/2,413 m3/min@kPA	
Engine #3	Cummins QSX15 (425 HP @ 1800 RPM)	
Compressor #3	900/110 CFM @ PSI / 25.5/758 m3/min@kPA	
Engine #4	CAT C15 (425 HP @ 1800 RPM)	
Compressor #4	900/110 CFM @ PSI / 25.5/758 m3/min@kPA	
<b>Rotation</b>		
Type	Rotary Table Drive	
Speed	0-170 rpm	
Torque	3,500 / (4,746 N-m)	
<b>Feed System</b>		
Type	Heavy-duty chains through cluster sprocket	
Pulldown	25,000 lbs. / 11,340 kg.	
<b>Tower</b>		
Construction	4 main member, open front, rectangular steel tubing	
#1 Single pass depth	40 ft. / 12.2 m.	
#2 Single pass depth	50 ft. / 15.2 m.	
<b>Undercarriage</b>		



<b>Type</b>	Excavator
<b>Option #1</b>	Options Contact your local IR distributor for a complete list of options.
<b>Weight</b>	Weight & Dimensions Varies according to drill pipe: 60,000 - 62,000 lb / 27,216-28,123 kg
<b>Hard</b>	Material To Be Drilled Yes
<b>Medium</b>	Yes
<b>Soft</b>	Yes
<b>Quarry</b>	Drill Application Yes
<b>Rotary</b>	Drilling Method Yes
<b>DHD</b>	Yes



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## Infrastructure - Drilling Solutions

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### Rotary - DM-M2

Select Model:

T4BH
DM25/SP
DM30
DM45/LP
DM50/LP
DM-L/LP
DM45/SP
DM-LSP
DM-M2
DM-M3
DM-H2
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Designed for rotary or downhole drilling of up to 10-5/8 in. (270 mm) diameter blastholes, the DM-M2 provides 75,000 lb. (34,000 kg) of bit load and a 35 ft. (10 m) drill pipe change. Advanced frame and tower design and a unique, patented carriage feed system allow on-board drill depths to 175 ft. (53 m). Compressor/engine packages in both low-pressure, [1900 CFM @ 110 PSI (51 m<sup>3</sup>/min. @ 758 kPa)] for rotary drilling and high pressure [1250 CFM @ 350 PSI (35.4 m<sup>3</sup>/min. @ 2,413 kPa)], for downhole drilling, are available.

Drilling Solutions

Blasthole Drills

- Rotary
  - Large
  - Mid-range
- Hydraulic Crawler
- Pneumatic Crawler
- DHD

Drill Selector

- Waterwell Drills
- Exploration Drills
- Gas & Oil / Coal Bed Drills

Drilling Accessories

- Down Hole Drills
- Threaded Access

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[ SPECS ]	[ FEATURES ]	[ LITERATURE ]
	Nominal Hole Diameter	9-11 in.
Diameter		
	Power Pack	
Engine #1		Caterpillar 3412E / EPA certified
Compressor #1		1900 @ 100 CFM @ PSI / 53.8 @ 690 m <sup>3</sup> /min@kPA
Engine #2		Cummins QSK19 / EPA certified
Compressor #2		1900 @ 100 CFM @ PSI / 53.8 @ 690 m <sup>3</sup> /min@kPA
Engine #3		Caterpillar 3412E / EPA certified
Compressor #3		1250 @ 350 CFM @ PSI / 35.4 @ 2413 m <sup>3</sup> /min@kPA
	Rotation	
Type		Two-motor, variable displacement
Speed Range		0-150 rpm, variable
Head Torque		0-8,640 ft-lbs (0-11,714 Nm) (forward)
	Feed System	
Type		Patented carriage feed
Weight on Bit		0 to 75,000 lb. / 0 to 34,019 kg
	Tower	
Pipe Length		35 ft. / 10.7 m.
Construction		4 member open front with hollow steel tubing.
	Undercarriage	
Model		Caterpillar 330EL or equivalent
	Carousel	
Size		Holds 2 to 4 drill pipe depending on pipe diameter

	<b>Options</b>	Contact your local IR distributor for a complete list of options.
<b>Option #1</b>		
	<b>Weight &amp; Dimensions</b>	
<b>Height (Tower Up)</b>		56.2 ft. / 17.1 m
<b>Approx. Working Weight</b>		120,000 - 133,500 lbs. / 54,400 - 60,555 kg.
	<b>Material To Be Drilled</b>	
<b>Medium</b>		Yes
<b>Soft</b>		Yes
	<b>Drill Application</b>	
<b>Mining</b>		Yes
	<b>Drilling Method</b>	
<b>Rotary</b>		Yes
<b>DHD</b>		Yes



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## Infrastructure - Drilling Solutions

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### Rotary - T4BH

Select Model:

T4BH
DM25/SP
DM30
DM45/LP
DM50/LP
DM-L/LP
DM45/SP
DM-LSP
DM-M2
DM-M3
DM-H2
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The T4BH is a truck-mounted, hydraulic tophead drive multipass rotary drill specifically designed for production blasthole drilling to depths of 150 ft. (45.7 m) with a 25 ft. (7.6 m) drill pipe change. Nominal hole size is 5-1/8 to 7-7/8 in. (130 to 200 mm) for rotary or DHD drilling methods. Feed pressure generates a bit load force of up to 30,000 lb. (12,610 kg). An angle drilling option is available. All drill functions are controlled from the newly designed operator cab.

Drilling Solutions

Blasthole Drills

- Rotary
  - Large
  - Mid-range
- Hydraulic Crawler
- Pneumatic Crawler
- DHD

Drill Selector

- Waterwell Drills
- Exploration Drills
- Gas & Oil / Coal Bed Drills

Drilling Accessories

- Down Hole Drills
- Threaded Access

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	[ SPECS ]	[ FEATURES ]	[ LITERATURE ]
	Nominal Hole Diameter		
Diameter			6-9 in.
	Carrier		
Chassis (Standard)			Crane Carrier, Custom, 3 axle, 6X4
Engine			CAT C10 (305 HP)
	Power Pack		
Engine #1			Cummins QSX19 (525 HP @ 1800 RPM)
Compressor #1			IR HR2-900/350 CFM @ PSI / 25.5/2413 m3/min@kPA
Engine #2			Cummins QSX19 (600 HP @ 1800 RPM)
Compressor #2			1050 @ 350 CFM @ PSI / 129.7 @ 2413 m3/min@kPA
Engine #3			Cummins QSK-19C (700 HP @ 2100 RPM)
Compressor #3			IR HR2.5 - 1250/350 CFM @ PSI / (35.39 @ 2413) m3/min@kPA
Floating Sub Base			Isolates components from drilling and propel shock loads/maintains alignment
	Rotation		
Type			Rotary Tophead
Speed Range			0-160 RPM (std.)
Head Torque			6,500 ft.-lb. / (8,814 N-m)
Option			7,165 ft.-lb @ 0-130 RPM / 9,716 N-m @ 0-130 RPM
	Feed System		
Type			Hydraulic cylinders w/cable and chain
Pulldown			0-37,700 lbs. / 17,108 kg.

	<b>Tower</b>	
<b>Pipe Length</b>		25 ft. / 7.6 m.
<b>Construction</b>		4 member open front with ASTM A500 GRB steel tubing.
	<b>Cab &amp; Controls</b>	
<b>Operator Cab</b>		New cab designed to optimize operator comfort and safety
<b>Controls</b>		All operational functions controlled from driller console in cab
	<b>Options</b>	
<b>Option #1</b>		Contact your local distributor for a complete list of options.
	<b>Weight &amp; Dimensions</b>	
<b>Height (Tower Up)</b>		28-3/4 ft. / 8.7 m
<b>Approx. Working Weight</b>		58,000 lbs. / 26,309 kg.
	<b>Material To Be Drilled</b>	
<b>Hard</b>		Yes
<b>Medium</b>		Yes
<b>Soft</b>		Yes
	<b>Drill Application</b>	
<b>Mining</b>		Yes
<b>Quarry</b>		Yes
	<b>Drilling Method</b>	
<b>Rotary</b>		Yes



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<a href="#">DM30</a>
<a href="#">DM45/HP</a>
<a href="#">DM45/SP</a>
<a href="#">DM-L/HP</a>
<a href="#">DM-M2</a>

### DHD - DM-M2



Designed for rotary or downhole drilling of up to 10-5/8 in. (270 mm) diameter blastholes, the DM-M2 provides 75,000 lb. (34,000 kg) of bit load and a 35 ft. (10 m) drill pipe change. Advanced frame and tower design and a unique, patented carriage feed system allow on-board drill depths to 175 ft. (53 m). Compressor/engine packages in both low-pressure, [1900 CFM @ 110 PSI (51 m<sup>3</sup>/min. @ 758 kPa)] for rotary drilling and high pressure [1250 CFM @ 350 PSI (35.4 m<sup>3</sup>/min. @ 2,413 kPa)], for downhole drilling, are available.

#### Drilling Solutions

##### Blasthole Drills

- Rotary
  - Large
  - Mid-range
- Hydraulic Crawler
- Pneumatic Crawler
- DHD

##### Drill Selector

- Waterwell Drills
- Exploration Drills
- Gas & Oil / Coal Bed Drills

##### Drilling Accessories

- Down Hole Drills
- Threaded Access

##### Hollow Anchor System

- Literature

##### Split Set Products

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  - Upgrades
  - Kits
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##### New Product

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[ SPECS ]	[ FEATURES ]	[ LITERATURE ]
	Nominal Hole Diameter	
Diameter	9-11 in.	
	Power Pack	
Engine #1	Caterpillar 3412E / EPA certified	
Compressor #1	1900 @ 100 CFM @ PSI / 53.8 @ 690 m <sup>3</sup> /min@kPA	
Engine #2	Cummins QSK19 / EPA certified	
Compressor #2	1900 @ 100 CFM @ PSI / 53.8 @ 690 m <sup>3</sup> /min@kPA	
Engine #3	Caterpillar 3412E / EPA certified	
Compressor #3	1250 @ 350 CFM @ PSI / 35.4 @ 2413 m <sup>3</sup> /min@kPA	
	Rotation	
Type	Two-motor, variable displacement	
Speed Range	0-150 rpm, variable	
Head Torque	0-8,640 ft-lbs (0-11,714 Nm) (forward)	
	Feed System	
Type	Patented carriage feed	
Weight on Bit	0 to 75,000 lb. / 0 to 34,019 kg	
	Tower	
Pipe Length	35 ft. / 10.7 m.	
Construction	4 member open front with hollow steel tubing.	
	Undercarriage	
Model	Caterpillar 330EL or equivalent	
	Carousel	
Size	Holds 2 to 4 drill pipe depending on pipe diameter	

	<b>Options</b>	Contact your local IR distributor for a complete list of options.
<b>Option #1</b>		
	<b>Weight &amp; Dimensions</b>	56.2 ft. / 17.1 m
<b>Height (Tower Up)</b>		
<b>Approx. Working Weight</b>		120,000 - 133,500 lbs. / 54,400 - 60,555 kg.
	<b>Material To Be Drilled</b>	
<b>Medium</b>		Yes
<b>Soft</b>		Yes
	<b>Drill Application</b>	
<b>Mining</b>		Yes
	<b>Drilling Method</b>	
<b>Rotary</b>		Yes
<b>DHD</b>		Yes



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## Infrastructure - Drilling Solutions

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Select Model:

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<a href="#">DM45/SP</a>
<a href="#">DM-L/HP</a>
<a href="#">DM-M2</a>

### DHD - DM30



The DM30 is a hydraulic tophead drive, multi-pass, crawler-mounted drill rig designed for blastholes ranging from 5-1/8 to 6-3/4 in. (130 to 171 mm) in diameter. On-board depth capability is up to 150 ft. (45.7 m). For rotary drilling, the DM30 can assert a bit load force up to 30,000 lb. (13,608 kg) and rotation speeds of 0-130 RPM. This rig can also be used with downhole drills when equipped with a high-pressure air compressor option.

#### Drilling Solutions

- Blasthole Drills**
  - Rotary
    - Large
    - Mid-range
  - Hydraulic Crawler
  - Pneumatic Crawler
  - DHD

#### Drill Selector

- Waterwell Drills**
- Exploration Drills**
- Gas & Oil / Coal Bed Drills**

#### Drilling Accessories

- Down Hole Drills
- Threaded Accessories

#### Hollow Anchor Systems

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[ SPECS ]	[ FEATURES ]	[ LITERATURE ]
	Nominal Hole Diameter	5-6 in.
Diameter		
	Power Pack	Cummins QSX15 (525 HP @ 1800 RPM)
Engine #1		
Compressor #1		IR HR2 900/350 CFM @ PSI / 25.5/2,413 m3/min@kPA
Engine #2		CAT C15 (525 HP @ 1800 RPM)
Compressor #2		IR HR2 900/350 CFM @ PSI / 25.5/2,413 m3/min@kPA
Engine #3		Cummins QSX15 (425 HP @ 1800 RPM)
Compressor #3		IR WW226 900/110 CFM @ PSI / 25.5/758 m3/min@kPA
Engine #4		CAT C15 (425 HP @ 1800 RPM)
Compressor #4		IR WW226 900/110 CFM @ PSI / 25.5/758 m3/min@kPA
Floating Sub Base		Isolates components from drilling and propel shock loads/maintains alignment
	Rotation	Rotary Tophead
Type		
Head Torque		5,400 ft-lb. / 7,322 N-m
Speed		0-100 rpm
	Feed System	Single cylinder, cable feed
Type		
Bit Load		30,000 lb / (13,608) kg
	Tower	30 ft. / 9.1 m.
Pipe Length		
Construction		4 member open front with hollow steel tubing.



	<b>Undercarriage</b>	Caterpillar
<b>Manufacturer</b>		
	<b>Options</b>	Contact your local IR distributor for a complete list of options.
<b>Option #1</b>		
	<b>Weight &amp; Dimensions</b>	
<b>Height (Tower Up)</b>		44.3 ft. / 13.4 m
<b>Approx. Working Weight</b>		68,000 lbs. / 30,844 kg.
	<b>Material To Be Drilled</b>	
<b>Hard</b>		Yes
<b>Medium</b>		Yes
<b>Soft</b>		Yes
	<b>Drill Application</b>	
<b>Mining</b>		Yes
<b>Quarry</b>		Yes
	<b>Drilling Method</b>	
<b>Rotary</b>		Yes
<b>DHD</b>		Yes



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Select Model:

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<a href="#">DM45/SP</a>
<a href="#">DM-L/HP</a>
<a href="#">DM-M2</a>

### DHD - DM25/SP



The DM25SP is a crawler-mounted rotary table drill rig designed for single-pass blasthole drilling to depths of up to 50 ft. (15.2 m) and diameters of 3-1/2 to 6-3/4 in. (89 to 171 mm). This drill is capable of rotary drilling with 25,000 lb. (11,340 kg) of bit load at 0-200 rpm. The DM25SP can also be used with downhole drills when equipped with a high-pressure air compressor option.

**Drilling Solutions**

- Blasthole Drills**
  - Rotary
    - Large
    - Mid-range
  - Hydraulic Crawler
  - Pneumatic Crawler
- DHD**
- Drill Selector**
- Waterwell Drills**
- Exploration Drills**
- Gas & Oil / Coal Bed Drills**
- Drilling Accessories**
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[ SPECS ]	[ FEATURES ]	[ LITERATURE ]
<b>Nominal Hole Diameter</b>		
Diameter	5-6 in.	
<b>Power Pack</b>		
Engine #1	Cummins QSX15 (525 HP @ 1800 RPM)	
Compressor #1	900/350 CFM @ PSI / 25.5/2,413 m3/min@kPA	
Engine #2	CAT C15 (525 HP @ 1800 RPM)	
Compressor #2	900/350 CFM @ PSI / 25.5/2,413 m3/min@kPA	
Engine #3	Cummins QSX15 (425 HP @ 1800 RPM)	
Compressor #3	900/110 CFM @ PSI / 25.5/758 m3/min@kPA	
Engine #4	CAT C15 (425 HP @ 1800 RPM)	
Compressor #4	900/110 CFM @ PSI / 25.5/758 m3/min@kPA	
<b>Rotation</b>		
Type	Rotary Table Drive	
Speed	0-170 rpm	
Torque	3,500 / (4,746 N-m)	
<b>Feed System</b>		
Type	Heavy-duty chains through cluster sprocket	
Pulldown	25,000 lbs. / 11,340 kg.	
<b>Tower</b>		
Construction	4 main member, open front, rectangular steel tubing	
#1 Single pass depth	40 ft. / 12.2 m.	
#2 Single pass depth	50 ft. / 15.2 m.	
<b>Undercarriage</b>		

<b>Type</b>	Excavator
<b>Option #1</b>	Options Contact your local IR distributor for a complete list of options.
<b>Weight</b>	Weight & Dimensions Varies according to drill pipe: 60,000 - 62,000 lb / 27,216-28,123 kg
<b>Hard</b>	Material To Be Drilled Yes
<b>Medium</b>	Yes
<b>Soft</b>	Yes
<b>Quarry</b>	Drill Application Yes
<b>Rotary</b>	Drilling Method Yes
<b>DHD</b>	Yes



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## Infrastructure - Drilling Solutions

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<a href="#">DM45/SP</a>
<a href="#">DM-L/HP</a>
<a href="#">DM-M2</a>

### DHD - DM45/SP



The DM45/SP is a crawler-mounted hydraulic rotary table drive, drill rig designed to produce 50 ft. (15.2 m) of clean hole in a single pass. Hole diameter capability is 5-1/2 to 6-3/4 in. (139.7 to 171.5 mm) to a depth of up to 50 ft. (15.2 m) with a downhole hammer (high-pressure air package). Feed pressure generates a bit load force of up to 25,000 lb. (11,340 kg). An optional angle drilling system is available.

#### Drilling Solutions

##### Blasthole Drills

- Rotary
  - Large
  - Mid-range
- Hydraulic Crawler
- Pneumatic Crawler
- DHD

##### Drill Selector

##### Waterwell Drills Exploration Drills Gas & Oil / Coal Bed Drills

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Diameter	Nominal Hole Diameter	5-7 in.
Engine #1	Power Pack	Cummins QSX15 (525 HP @ 1800 RPM)
Compressor #1		900/350 CFM @ PSI / 25.5/2413 m3/min@kPA
Engine #2		CAT C15 (525 HP @ 1800 RPM)
Compressor #2		900/350 CFM @ PSI / 25.5/2413 m3/min@kPA
Engine #3		Cummins QSX15 (600 HP @ 1800 RPM)
Compressor #3		1070/350 CFM @ PSI / 30.30/2,413 m3/min@kPA
Engine #4		CAT C16 (600 HP @ 1800 RPM)
Compressor #4		1070/350 CFM @ PSI / 30.30/2413 m3/min@kPA
Type	Rotation	Rotary table w/kelly drive
Speed		0-200 rpm
Torque		4,000 ft-lb / (5,424 N-m)
Type	Feed System	Chain and cable
Pulldown		25,000 lbs. / 11,340 kg.
Type	Tower	Single Pass
Pipe Length		50 ft. / 15.2 m.
		4 member open front with rectangular steel

<b>Construction</b>	tubing
<b>Type</b>	Undercarriage Excavator-type
<b>Option #1</b>	Options Contact your local IR distributor for a complete list of options.
<b>Height (Tower Up)</b>	Weight & Dimensions 76-1/2 ft. / 23.3 m
<b>Approx. Working Weight</b>	75,000 - 78,000 lbs. / 34,020 - 35,400 kg.
<b>Hard</b>	Material To Be Drilled Yes
<b>Medium</b>	Yes
<b>Mining</b>	Drill Application Yes
<b>Quarry</b>	Yes
<b>DHD</b>	Drilling Method Yes



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<a href="#">LM100A</a>
<a href="#">CM348</a>
<a href="#">ECM350</a>



This agile, powerful drill climbs steep grades over roughest ground, and takes the punishment. You have seen thousands of them on construction jobs of all kinds around the world. The basic ECM350 design has seen many improvements in its years of service ? but every drill produced has set the world standard for reliability and performance in its time. The ECM350 is also a fine quarry drill when teamed with an Ingersoll-Rand air compressor. This high-performance team gets more work done faster, more efficiently, and keeps doing it longer than anything else in its class.

**Drilling Solutions**

- Blasthole Drills**
  - Rotary
  - Large
  - Mid-range
  - Hydraulic Crawler
  - Pneumatic Crawler
  - DHD
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- Exploration Drills**
- Gas & Oil / Coal Bed Drills**
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<b>Nominal Hole Diameter</b>		
<b>Diameter</b>	2-1/2 - 5-1/2 in.	
<b>Drifter</b>		
<b>Drifter #1</b>	VL140	
<b>Hole Diameter #1</b>	2.5-4 " / 64-102 mm	
<b>Rotation Speed #1</b>	0 - 72 rpm	
<b>Frequency #1</b>	2100 BPM	
<b>Air Consumption #1</b>	750 SCFM @ 100 PSI / 21.2 m3/min @ 7 kg/cm2	
<b>Stroke #1</b>	5-1/2 in. / 140 mm.	
<b>Bore #1</b>	5-1/2 in. / 140 mm.	
<b>Weight #1</b>	421 lb. / 191 kg.	
<b>Guide</b>		
<b>Guide Dump #1</b>	180 °	
<b>Guide Swing (L/R)</b>	50 deg / 35 deg	
<b>Boom</b>		
<b>Boom Swing (L/R) #1</b>	40 ° / 35 °	
<b>Boom Lift (Up/Down) #1</b>	45 ° / 15 °	
<b>Air Rotary Head</b>		
<b>Weight</b>	554 lb. / 252 kg.	
<b>Torque Max.</b>	1492 Nm @ 8.4 kg/cm? / (1100 lb-ft @ 120 PSI)	
<b>Rotation</b>	0 - 72	
<b>Air Consumption</b>	120 CFM @ 50 RPM & 90 PSI / 3.4 m3/min @ 50 RPM & 6.3 kg/cm2	
<b>Gear Ratio</b>	33:1	
<b>Horse Power</b>	2.23 kw @ 6.3 kg/cm? (3.0 hp @ 90 psig) / 3.13 kw @ 8.4 kg/cm? (4.2 hp @ 120 psig)	
<b>General</b>		
<b>Feed/Pullback Force</b>	3,000 lb / 1,361 kg	

Downhole Drills	
O.D. #1	3.62 in. / 92 mm.
Length (bit ext.) #1	45.7 in. / 1161 mm.
Air Consumption @ 10.5 kg/cm? (150 PSIG) #1	5.1 m <sup>3</sup> /min / (180 SCFM)
Air Consumption @ 17.6 kg/cm? (250 PSIG) #1	9.9 m <sup>3</sup> /min / (350 SCFM)
Drill #2	DHD350R
Hole Diameter #2	5-1/8 - 5-1/2 in. / 130-140 mm.
Weight (less bit) #2	151 lb. / 68.5 kg.
O.D. #2	4.5 in. / 114 mm.
Length (bit ext.) #2	54.6 in. / 1388 mm.
Air Consumption @ 10.5 kg/cm? (150 PSIG) #2	7.9 m <sup>3</sup> /min / (280 SCFM)
Air Consumption @ 17.6 kg/cm? (250 PSIG) #2	14.7 m <sup>3</sup> /min / (520 SCFM)
Crawler Drill Specifications	
Net weight	12,900 lb. / 5851 kg.
Overall shipping length	12 ft. 0 in. / 3645 mm.
Width	8 ft 0 in. / 2438 mm.
Height (vertical guide)	18 ft. 10 in. / 5753 mm.
Steel change	12 ft. / 3645 mm.
Drill travel	14 ft. 3 in. / 4356 mm.
Max. horizontal boom swing	40? left, 35? right
Max. vertical boom movement	45? above, 15? below
Max. guide swing	50? left, 35? right
Max guide dump	180?
Ground clearance	12 in. / 292 mm.
Grouser width	10 in. / 254 mm.
Weight & Dimensions	
Ground Clearance	12 " / 292 mm
Shipping Width	96 " / 2438 mm
Shipping Length	144 " / 3645 mm
Approx. Working Weight	12,900 lbs. / 5851 kg.
Material To Be Drilled	
Hard	Yes
Medium	Yes
Soft	Yes
Drill Application	
Mining	Yes
Construction	Yes
Quarry	Yes
Drilling Method	
Drifter	Yes



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## Infrastructure - Drilling Solutions

Welcome to IR Drilling Solutions

Select Model:

<a href="#">ECM470</a>
<a href="#">ECM580</a>
<a href="#">ECM590</a>
<a href="#">ECM660II</a>
<a href="#">ECM-720</a>

### Hydraulic Crawler - ECM-720



They said it couldn't be done...they were wrong. The new ECM-720 crawler drill delivers a perfect balance of productivity and cost efficiency. Hole straightness, faster penetration rates, long accessory life, and increased profitability are just a few of the results you can expect with the ECM-720.

**Drilling Solutions**

- Blasthole Drills**
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    - Large
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  - Pneumatic Crawler
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<b>Nominal Hole Diameter</b>		
Diameter	4-1/2 - 5-1/2 in.	
<b>Drifter</b>		
Type	Montabert HC-200A	
<b>Boom &amp; Guide</b>		
Boom Swing	45 deg right / 20 deg left maximum	
Vertical Boom Movement	50 deg up / 20 deg down maximum	
Guide Swing	20 deg right / 90 deg left maximum	
Guide Dump	135 deg maximum	
Boom Extension	36 in. / 914 mm	
Guide Extension	5 ft / 1,524 mm	
Overall Guide Length	27 ft 6 in / 8.4 m	
Drifter Travel	16 ft. 11 in. / 5.15 m	
<b>Engine</b>		
Type	CAT 3176 C-10	
Rated Power	365 HP / 272 kW	
Operating Speed	1,800 rpm	
<b>Compressor</b>		
Type	Ingersoll-Rand Rotary Screw	
Volume	480 CFM / 13.6 m3/min	
Pressure	150 PSI / 10.3 BAR	
<b>Cab &amp; Controls</b>		
Operator Cab	ROPS/FOPS	
Noise level	80 dBA	
<b>General</b>		
Gradeability	35 deg (70 percent) °	
Tramming Speed	2.0 mph / 3.3 km/hr	
Ground clearance	17 in. / 432 mm.	
Grouser Width	13-3/4 in. / 349 mm mm.	
Rod Changer Capacity	(6) 12 ft (3.66 m) / (6) 14 ft (4.27 m) opt.	
<b>Shipping Information</b>		
Weight	45,900 lb / 20,820 kg	



<b>Width</b>		8 ft 3 in / 2.5 m
<b>Length</b>		35 ft 8 in / 10.9 m
<b>Height</b>		10 ft 8 in / 3.3 m
	<b>Material To Be Drilled</b>	
<b>Hard</b>		Yes
<b>Medium</b>		Yes
<b>Soft</b>		Yes
	<b>Drill Application</b>	
<b>Mining</b>		Yes
<b>Construction</b>		Yes
<b>Quarry</b>		Yes
	<b>Drilling Method</b>	
<b>Drifter</b>		Yes



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## Infrastructure - Drilling Solutions

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Select Model:

<a href="#">ECM470</a>
<a href="#">ECM580</a>
<a href="#">ECM590</a>
<a href="#">ECM660II</a>
<a href="#">ECM-720</a>

### Hydraulic Crawler - ECM590



The ECM-590 is a self-contained, cableless hydraulic crawler drill capable of drilling up to 4 in. (102 mm) holes. It is available in either a YH70 drifter and rod rack configuration for smaller hole work, or with a YH80 and rod changer for higher production requirements. An extended guide option for 20 ft. (6.1 m) starter steel is available.

#### Drilling Solutions

- Blasthole Drills**
  - Rotary
    - Large
    - Mid-range
  - Hydraulic Crawler
  - Pneumatic Crawler
  - DHD
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<b>Nominal Hole Diameter</b>		
Diameter	2-1/2 - 4-1/2 in.	
<b>Drifter</b>		
Drifter #1	YH70	
Hole Diameter #1	2.5-4" / 64-102 mm	
Rotation Speed #1	0-200 rpm	
Frequency #1	2800 BPM	
Weight #1	419 lb. / 190 kg.	
Steel Size #1	T45/T38	
Drifter #2	YH80A	
Hole Diameter #2	2.5-4.5 in. / 64-114 mm.	
Rotation Speed #2	0-200 rpm	
Frequency #2	2600 BPM	
Weight #2	462 lb. / 210 kg.	
Steel Size #2	T51/T45	
Hydraulic Pressure	2130 psi / 150 kg/cm <sup>2</sup>	
<b>Boom &amp; Guide</b>		
Horizontal Boom Swing	30 deg R / 34.6 deg L	
Vertical Boom Movement	51 deg up / 15 deg down	
Guide Swing	48 deg R / 40 deg L	
Guide Dump	180 deg	
Boom Extension - YH70 (YH80A)	48 in (30 in) / 1,219 mm (762 mm)	
Drifter Travel - YH70 (YH80A)	15 ft 4 in (14 ft) / 3,099 mm (4,267 mm)	
Guide Extension	4 ft / 1,219 mm	
Overall Guide Length	23 ft 8 in / 7,214 mm	
<b>Engine</b>		
Type	Cummins 6CT8.3	
Rated Power	215 HP / 159 kW	
Operating Speed	2350 rpm	

IR Rotary Screw Compressor	
<b>Compressor pressure(max)</b>	140 psig / 9.8 kg/cm2
<b>Compressor volume</b>	250 cfm / 7 m <sup>3</sup> /min
<b>General</b>	
<b>Gradeability</b>	35 °
<b>Tramming Speed</b>	2 mph / 3.3 km/hr
<b>Grouser Width</b>	12 in. / 305 mm.
<b>Steel length</b>	starter rod 14 ft. / 4.27 m.
<b>Weight &amp; Dimensions</b>	
<b>Length</b>	232.9 " / 5918 mm
<b>Weight #2</b>	24,500 lb. / 11,150 kg.
<b>Ground Clearance</b>	18 " / 457 mm
<b>Shipping Width</b>	95.98 " / 2438 mm
<b>Shipping Height</b>	112 " / 2845 mm
<b>Material To Be Drilled</b>	
<b>Hard</b>	Yes
<b>Medium</b>	Yes
<b>Soft</b>	Yes
<b>Drill Application</b>	
<b>Construction</b>	Yes
<b>Drilling Method</b>	
<b>Drifter</b>	Yes



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## Infrastructure - Drilling Solutions

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Drilling Solutions

Select Model:

<a href="#">LM100A</a>
<a href="#">CM348</a>
<a href="#">ECM350</a>

### Pneumatic Crawler - LM100A



The LM100A is a small class pneumatic Crawler, capable of drilling 1-3/4" to 4- 1/2" (44 - 114 mm) diameter holes. It can be equipped with either of two drifters or a BRH rotary head for downhole drilling. The LM100A is ideal for applications in confined areas where hand-held tools are not enough, and is light enough to transport by helicopter. Like all Ingersoll-Rand crawler drills, the LM100A is "Abuse Resistant". It keeps coming back for more!

**Drilling Solutions**

- Blasthole Drills**
- Rotary
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- Pneumatic Crawler
- DHD

**Drill Selector**

- Waterwell Drills**
- Exploration Drills**
- Gas & Oil / Coal Bed Drills**

**Drilling Accessories**

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- Threaded Access

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Nominal Hole Diameter			
Diameter	1-3/4 - 2-1/2 in.		
Carrier			
Overall Track Length	72 " / 1845 mm		
Ground Clearance	9 " / 230 mm		
Oscillation	20 °		
Air Motors	4.5 HP		
Gradeability	30 °		
Tramming Speed	0-2 mph / 0-3.2 km/hr		
Drifter			
Type	Ingersoll-Rand YD90		
Hole Diameter #1	1.75-2.5 " / 44-64 mm		
Frequency #1	1600 BPM		
Air Consumption #1	375 scfm @ 100 psi & 50 rpm / 10.6 m3/min @ 7 kg/cm2 & 50 rpm		
Stroke #1	3.4 in. / 85 mm.		
Bore #1	3.5 in. / 90 mm.		
Steel Size #1	10 ft / 3048 mm		
Drifter #2	VL120		
Hole Diameter #2	2 - 3.5 in. / 51 - 89 mm.		
Frequency #2	1900 BPM		
Air Consumption #2	600 SCFM @ 50 RPM & 100 psi / 17.0 m3/min @ 50 RPM & 7 kg/cm2		
Stroke #2	3.62 in. / 92 mm.		
Bore #2	4.75 in. / 120 mm.		
Steel Size #2	10 ft / 3048 mm		
Guide			
Guide Dump #1	75 °		
Guide Swing (L/R)	45 deg/45 deg		

<b>Guide Extension #1</b>	29 " / 750 mm
<b>Drill Rod Length</b>	10 ft. / 3 m
<b>Feed Motor Pull</b>	3000 lbs. / 1360 kg.
<b>Boom</b>	
<b>Boom Swing (L/R) #1</b>	30/35 °
<b>Boom Lift (Up/Down) #1</b>	45/30 °
<b>Coverage Length</b>	107 " / 2720 mm
<b>Max. Drill Height (Horizontal)</b>	99 " / 2510 mm
<b>BRH Rotary Head</b>	
<b>Weight</b>	304 lbs. / 138 kg.
<b>Torque Maximum</b>	700 lb.-ft. / 96.7 kg.-m
<b>Rotation Range</b>	0 - 50 RPM
<b>Air Consumption</b>	120 SCFM @ 50 RPM & 100 psi / 3.39 m3/min @ 50 RPM & 7 kg/cm2
<b>Gear Ratio</b>	20:1
<b>Horse Power @ 100 psi (7 kg/cm)</b>	4.5 HP / 3.35 kW
<b>Weight &amp; Dimensions</b>	
<b>Width</b>	75 " / 1905 mm
<b>Length (Boom @45°)</b>	195 " / 4950 mm
<b>Minimum Height</b>	44 " / 1120 mm
<b>Height (Boom @45°)</b>	188 " / 4775 mm
<b>Hole Size</b>	1.75-4.5 " / 44-114 mm
<b>Weight Less Drifter</b>	5400 lbs. / 2450 kg.
<b>Material To Be Drilled</b>	
<b>Hard</b>	Yes
<b>Medium</b>	Yes
<b>Soft</b>	Yes
<b>Drill Application</b>	
<b>Mining</b>	Yes
<b>Construction</b>	Yes
<b>Quarry</b>	Yes
<b>Drilling Method</b>	
<b>Drifter</b>	Yes



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## **GLOSSARY TERMS AND ABBREVIATIONS**

AVF	average value factor
bhp	brake horsepower
CAT	category
CENWW	U.S. Army Corps of Engineers, Walla Walla District
CMR	cost of money rate
cwt	hundredweight
D	diesel
DC	discount code
DEPR	depreciation
DT	drive tire
E	electricity
EAF	economic adjustment factor
EK	economic key
EP	Engineer Pamphlet
ER	Engineer Regulation
FAR	Federal Acquisition Regulation
EFAR	Engineer Federal Acquisition Regulation
FCCM	facilities capital cost of money
FOG	filters, oil, and grease
FT	front tire
G	gas
G&A	general and administrative
gal	gallon
GCW	gross combined weight
GVW	gross vehicle weight
hp	horsepower
HPF	horsepower factor
hr	hour
ID No.	identification number
IGE	Independent Government Estimate
kW	kilowatt
LAF	labor adjustment factor
lbs	pounds
LIFE	Chapter 1 economic life (probably should take this out)
N	number of years
PDF	portable document format
PTO	power take off
RCF	repair cost factor
RF	repair factor
ROPS	rollover protective structures
RPR	repairs

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SLV	salvage value
SUB	subcategory
TCI	tire cost index
TEV	total equipment value
TT	trailing tire
USACE	United States Army Corps of Engineers
WHPY	working hours per year
wk	week
WLS	water, lube, and supplies
yr	year



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