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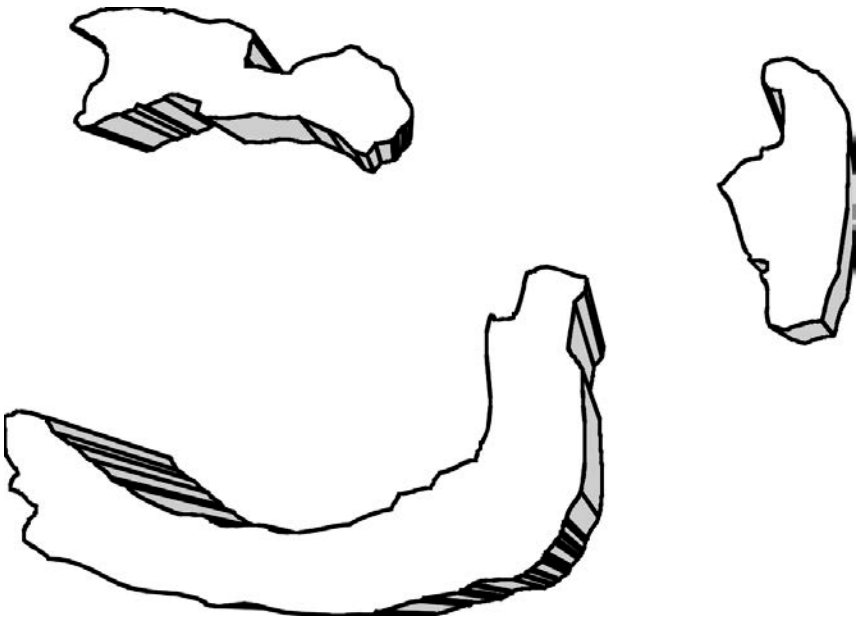
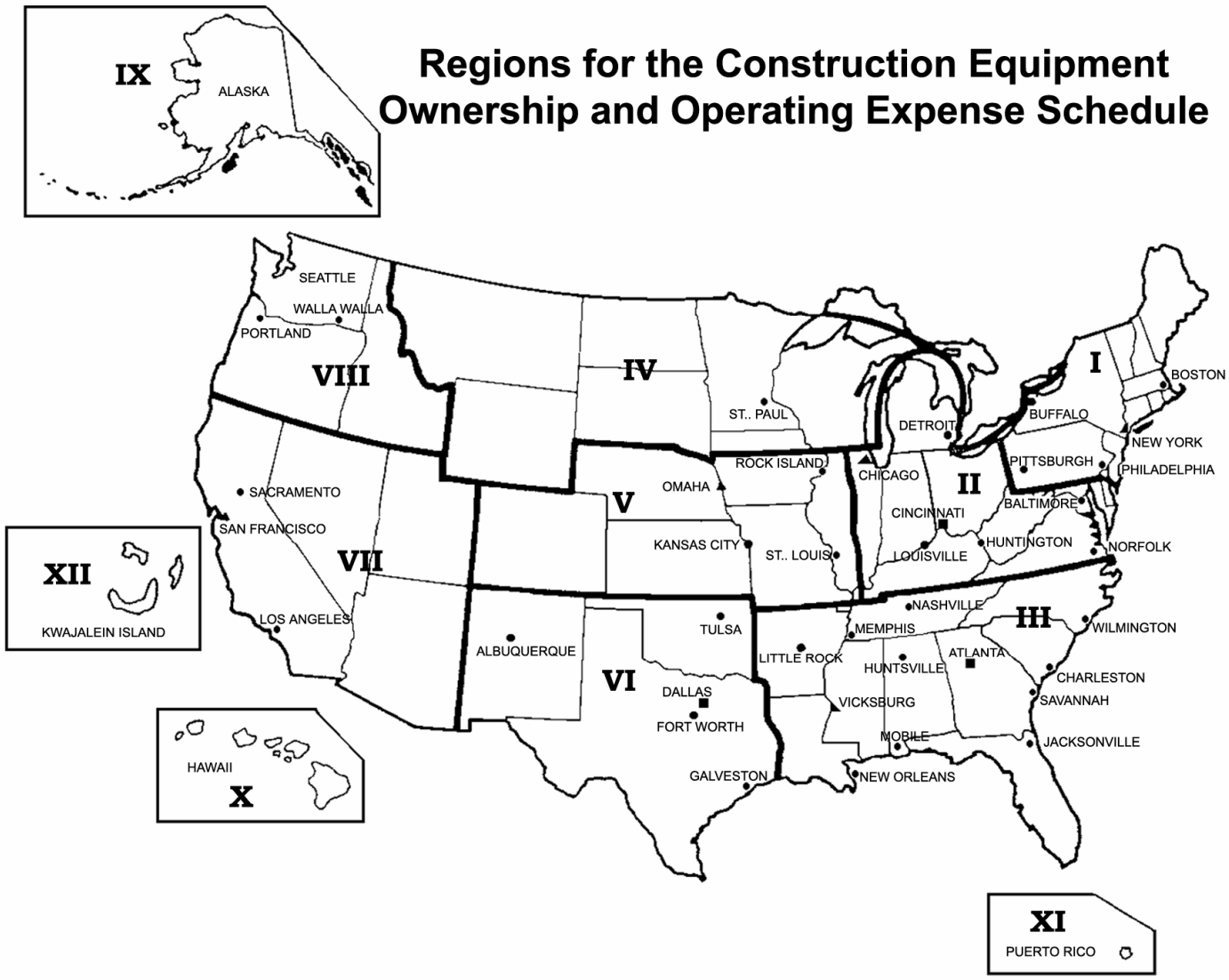
Construction Equipment Ownership and Operating Expense Schedule

Region XII



Regions for the Construction Equipment Ownership and Operating Expense Schedule



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30 November 2016

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:

PAUL E. OWEN
COL, EN
Chief of Staff

12 Appendices
(See Table of Contents)

This pamphlet supersedes EP 1110-1-8, dated 30 April 2014.

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Engineering and Design
CONSTRUCTION EQUIPMENT OWNERSHIP AND
OPERATING EXPENSE SCHEDULE

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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 pamphlet's volume numbers correspond to its respective regions. 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," enables the user to calculate equipment rates using the 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/, selecting “Missions,” and selecting “Cost Engineering.” Under “Product Support,” click on the plus sign next to “Construction Equipment Rates (EP 1110-1-8) and CHECKRATE,” then select the “Download CHECKRATE” link.

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.” Select “USACE Publications” in the title bar. A dropdown menu will appear. From the dropdown menu, select “Engineer Pamphlets.” Additional instructions are located in appendix A.

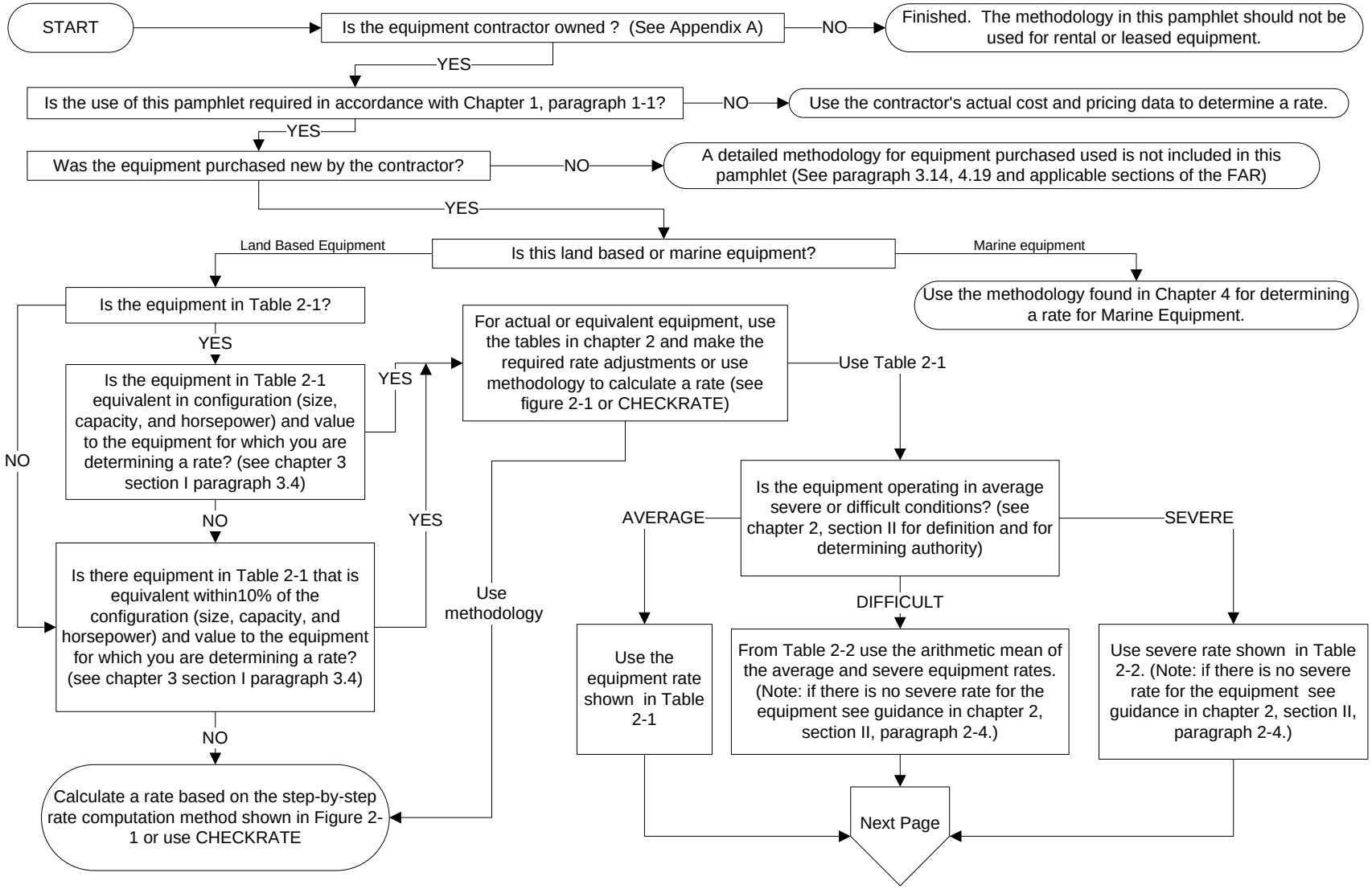

Figure 1-1. Methodology for Developing an Hourly Ownership and Operating Rate for Construction Equipment

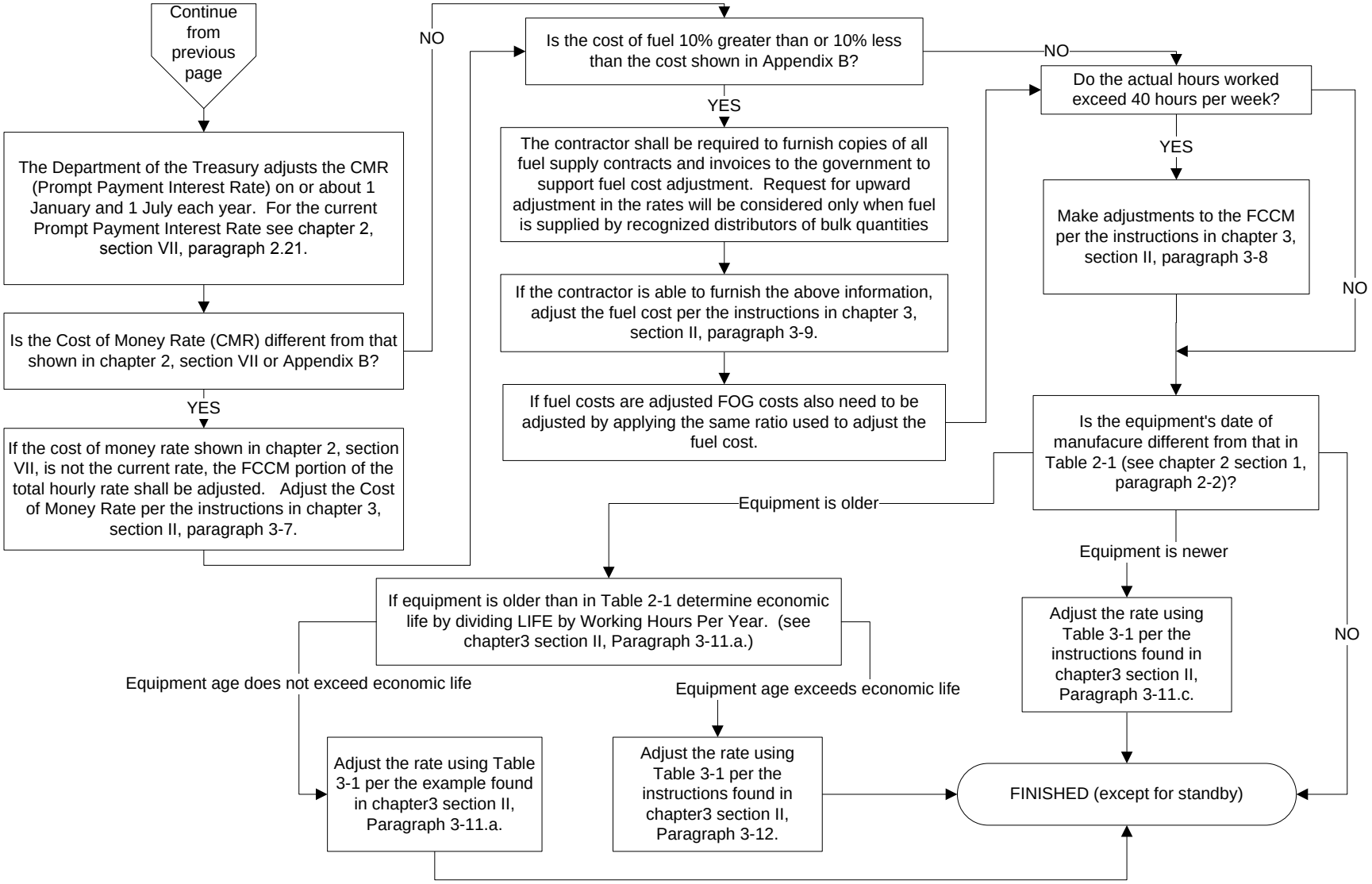

Figure 1-1. Methodology for Developing an Hourly Ownership and Operating Rate for Construction Equipment

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 2013 (3 years old). List prices for equipment manufactured in years other than 2013 have been adjusted to a 2013 price level using economic indices. 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 condition will be average until the contracting officer determines the equipment operating condition to be used. This determination is based on contract specifications, site conditions, 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. For standby, the average condition shall be used, unless a separate determination is made by the contracting officer.

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 attachments 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 one 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 2016 and the year of manufacture is 2013 (3 years old). These indices 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 July 2016 CMR [1.875 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 25 percent to avoid duplication when applying estimated markups for overhead and profit. The discounted CMR is then 1.50 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 https://www.fiscal.treasury.gov/fsservices/gov/pmt/promptPayment/rates.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. $\text{Average Value Factor (AVF)} = [[(\text{N} - 1)(1 + \text{SLV})] + 2] / 2\text{N}$.

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 = 1.875% (Jul – Dec 2016 rate) / 1.25 = 1.50%.

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:

Fuel Cost/hr = Horsepower (hp) x Fuel Cost/Gallon (gal) x 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:

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

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 Equipment Fuel Factors and Carrier Fuel Factors, 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 industrywide. 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 is 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), and 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 labor adjustment factor (LAF) 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 paragraph 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 manufacture-year tire index by the present-year tire index. For table 2-1, the present year is 2016 and the manufacture year is 2013 (3 years old). These indices 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 repair cost factor (RCF) is shown in appendix D. This factor varies depending on the operating condition of the equipment (average or severe).

(6) The economic adjustment factor (EAF) 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. Indices listed in appendix E are used to develop the EAF. Economic indices are determined as follows:

(a) Economic Index for the Present Year. This is the economic index for the present year (2016 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 (2013 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, which 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, which 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, which 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 tire (FT), drive tire (DT), and trailing tire (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:

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

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 work week), 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 work week) 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, paragraph 1.5, How to Obtain CHECKRATE).

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 12

1. EQUIPMENT INFORMATION AND EXPENSE FACTORS

ID No **C90LB001**

a. Equipment Specification Data:

(1)	Equipment Description:	CRANES, MECHANICAL, LATTICE BOOM, TRUCK MTD, 150 TON / 260' BOOM, 8X4
(2)	Model and Series:	HC-238H II
(3)	Present Year or Year of Use:	2016
(4)	Year Manufactured:	2011
(5)	Horsepower - Equipment:	200
(6)	Horsepower - Carrier:	445
(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 ==>** 3	**D-off**
(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):

	Size/Ply	App F Code	No.	Unit Price	Cost
(a) Front (FT):	17.5R25	AMLB1	4	$1,710	$6,840
(b) Drive (DT):	17.5R25	AMLB1	8	$1,710	$13,680
(c) Trailing (TT):			0	$0	$0
(d) Total Tire Cost:					$20,520

(10) List Price + Accessories:
[at Year (yr) of Manufacture] $1,508,606 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): **A**=Average **D**=Difficult **S**=Severe	A	AVERAGE
(3)	Discount Code (DC): **B** = 7.5% (0.075) or **S** = 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

Figure 2-1. Equipment Rate Computation Worksheet Page 1 of 6

Region 12

2. EQUIPMENT VALUE

a. List Price + Accessories: *[at Year (yr) of Manufacture]* = $1,508,606

(1) Discount:

(List Price {1.a.(10)}	+	Accessories)	x	Discount Code {1.c.(3)}	
($1,508,606	+	$0.00)	x	0.075	= - [$113,145]

(2) Subtotal {2.a.} - {2.a.(1)} Subtotal = $1,395,461

(3) Sales or Import Tax:

Subtotal {2 a.(2)}	x	Tax Rate {'Appendix B}	
$1,395,461	x	4.25%	= $59,307

(4) Total Discounted Price: Subtotal: 2.a.(2) + 2.a.(3) Subtotal = $1,454,768

b. Freight:

Shipping Weight {1 a.(8)}	x	Freight Rate per cwt {Appendix B}	
1,913 cwt	x	$8.09 /cwt	= $15,476

c. **TOTAL EQUIPMENT VALUE (TEV):** **TOTAL [2.]:** **= $1,470,244**
{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 {1.c.(4)}	/	Working Hours Per Year (WHPY) = N {Appendix B}	
20,000 hr	/	1,390 hr/yr	= 14.39 yrs (N)

4. OWNERSHIP COST

a. Depreciation

(1) Tire Cost Index (TCI):

Tire Index, Year of Manufacture, {1.a.(4)} Appendix E, EK=100	/	Tire Index, Present Year or Year of Use, {1.a.(3)} Appendix E, EK=100		Tire Cost Index (TCI)
3796	/	3796	=	1.000

(2)

[TEV {2 c.}	x	(1.0-SLV) {1 c.(5)}	-	(TCI {4.a (1)}	x	Tire Cost)] {1 a (9)(d)}	/	LIFE {1 c.(4)}		
[$1,470,244	x	(1.0-0.20)	-	(1.000	x	$20,520)]	/	20,000 hrs	=	$57.78 /hr

Figure 2-1. Equipment Rate Computation Worksheet Page 2 of 6

Region 12

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)
	[(14.39 yr - 1.0)	x	(1.0 + 0.20)	+	2.0]	/	(2.0 x 14.39 yr)	=	0.628

(2)	TEV {2 c.}	x	AVF {4.b.(1)}	x	Adjusted Cost-of-Money {Appendix B}	/	WHPY {Appendix B}		
	$1,470,244	x	0.628	x	1.70%	/	1,390 hr/yr	=	$11.29 /hr

c. **TOTAL HOURLY OWNERSHIP COST:** **TOTAL [4.]: = $69.07 /hr**
{4.a.(2)} + {4.b (2)}

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}		
0.024	x	200 hp	x		$3.81 /gal	=	$18.29 /hr

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

Fuel Factor {1.c (7)}	x	Horse power (hp) {1.a.(6)}	x		Fuel Cost per gal {Appendix B}		
0.005	x	445 hp	x		$3.81 /gal	=	$8.48 /hr

(3) Total Hourly Fuel Cost: **Total [5.a.] = $26.77 /hr**
{5.a (1)} + {5.a (2)}

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}		
0.110	x	$18.29 /hr	x		0.98	=	$1.97 /hr

Figure 2-1. Equipment Rate Computation Worksheet Page 3 of 6

Region 12

5. OPERATING COST (Continued)

(2) Carrier:

FOG Factor {1.c (8)}	x	Carrier Hourly Fuel Cost {5.a.(2)}	x	LAF {Appendix B}		
0.110	x	$8.48 /hr	x	0.98	=	$0.91 /hr

(3) Total Hourly FOG Cost: {5.b.(1)} + {5 b (2)} **Total [5.b.]** = **$2.88 /hr**

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)}		
7505	/	7505	=	1.000

(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}		
0.90	x	1.000	x	0.98	=	0.882

(3) Repair Cost:

[TEV {2 c.}	-	(TCI {4.a.(1)}	x	Tire Cost)] {1.a.(9)(d)}	x	RF {5.d.(2)}	/	LIFE {1 c.(4)}
[$1,470,244	-	(1.000	x	$20,520)]	x	0.882	/	20,000

(4) Total Hourly Repair Cost: **Total [5.d.]** = **$63.93 /hr**

Figure 2-1. Equipment Rate Computation Worksheet Page 4 of 6

Region 12

5. OPERATING COST (Continued)

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

(1) Front Tires (FT):

(1.5 x FT Cost) {1.a (9)(a)}	/	(1.8 x FT Wear Factor {1 c.(9)(a)}	x	Maximum Tire Life Hours) {Appendix F}	
(1.5 x $6,840)	/	(1.8 x 0.66	x	2,800 hr)	= $3.08 /hr

(2) Drive Tires (DT):

(1.5 x DT Cost) {1.a (9)(b)}	/	(1.8 x DT Wear Factor {1 c.(9)(b)}	x	Maximum Tire Life Hours) {Appendix F}	
(1.5 x $13,680)	/	(1.8 x 0.58	x	2,800 hr)	= $7.02 /hr

(3) Trailing Tires (TT):

(1.5 x TT Cost) {1.a.(9)(c)}	/	(1.8 x TT Wear Factor {1 c.(9)(c)}	x	Maximum Tire Life Hours) {Appendix F}	
(1.5 x $0.00)	/	(1.8 x 0.73	x	0 hr)	= $0.00 /hr

(4) Total Tire Wear Cost: **Total [5.e.] = $10.10 /hr**
Sum {5.e (1)} through {5.e.(3)}

f. Tire Repair Cost:

Total Tire Wear Cost per Hour {5.e.(4)}	x	(0.15 x LAF) {Appendix B}	
$10.10 /hr	x	(0.15 x 0.98)	**Total [5.f.] = $1.48 /hr**

g. TOTAL HOURLY OPERATING COST: **Total [5.] = $105.16 /hr**
Sum {5.a } through{ 5.f.}

Figure 2-1. Equipment Rate Computation Worksheet Page 5 of 6

Region 12

6. HOURLY RATES

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

Ownership Cost {4.c.}	+	Operating Cost {5.g }		
$69.07 /hr	+	$105.16 /hr	=	**$174.23 /hr**

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 }		
$57.78 /hr	+	($11.29 /hr	x	40 hr/wk / 60 hr/wk) (example 60 hr/wk)	+	$105.16 /hr	=	**$170.47 /hr**

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)}		
($57.78 /hr	x 0.50)	+	$11.29 /hr	=	**$40.18 /hr**

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

See Chapter 3 if rate adjustments are necessary.

Figure 2-1. Equipment Rate Computation Worksheet Page 6 of 6

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 2013.

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 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
A10	**AGGREGATE / CHIP SPREADERS**											
	SUBCATEGORY 0.10		**SELF-PROPELLED**									
			ROSCO, A LeeBoy COMPANY									
	A10RS003	CSM	CHIP SPREADER, SELF PROPELLED, 10' WIDE, 1.70 CY, 2WD	160 HP D-off		$148,379	52.97	8.36	14.57	1.07	20.73	149
	A10RS004	CSM	CHIP SPREADER, SELF PROPELLED, 11' WIDE, 1.80 CY, 2WD	160 HP D-off		$149,655	53.24	8.43	14.70	1.08	20.73	153
	A10RS005	CSM	CHIP SPREADER, SELF PROPELLED, 12' WIDE, 2.03 CY, 2WD	160 HP D-off		$150,273	53.36	8.47	14.76	1.09	20.73	159
	A10RS006	CSM	CHIP SPREADER, SELF PROPELLED, 13' WIDE, 2.28 CY, 2WD	160 HP D-off		$150,480	53.40	8.48	14.78	1.09	20.73	153
	A10RS007	CSM	CHIP SPREADER, SELF PROPELLED, 15' WIDE, 2.53 CY, 2WD	160 HP D-off		$152,371	53.79	8.59	14.97	1.10	20.73	159
	SUBCATEGORY 0.20		**TOWED & TAILGATE**									
			AMERICAN ROAD MACHINERY, INC.									
	A10AR001	TG-505C	CHIP SPREADER, TAILGATE, 8' WIDE (ADD DUMP TRUCK)			$3,541	0.86	0.27	0.47	0.03	0.00	5
	A10AR002	ODELL 900	CHIP SPREADER, TOWED, 8' WIDE, 3 CY (ADD DUMP TRUCK)			$17,158	4.37	1.28	2.29	0.13	0.00	22
			PAVEMENT TECHNOLOGIES INETERNATIONAL									
	A10PV001	GS 84	CHIP SPREADER, TAILGATE, 8' WIDE (ADD DUMP TRUCK)			$3,880	0.95	0.29	0.52	0.03	0.00	7

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			SEALMASTER, INC.									
	A10SE003	R-1 E2330	CHIP SPREADER, TAILGATE, 10' WIDE, 1.41 CY (ADD DUMP TRUCK)			$22,084	5.37	1.64	2.94	0.17	0.00	30
	A10SE001	R-1 E2310	CHIP SPREADER, TAILGATE, 8' WIDE, 1.13 CY (ADD DUMP TRUCK)			$13,580	3.30	1.01	1.81	0.10	0.00	21
	A10SE002	R-1 E2500	CHIP SPREADER, TOWED, 8' WIDE, 1.13 CY (ADD DUMP TRUCK)			$16,005	3.89	1.19	2.13	0.12	0.00	30
A15	AIR COMPRESSORS, PORTABLE											
	SUBCATEGORY 0.10		**ROTARY SCREW**									
			DOOSAN PORTABLE POWER									
	A15DP016	HP1600WCU-T4I	AIR COMPRESSOR, 1,600 CFM, 150 PSI, TRAILER MTD (ADD HOSE)	580 HP D-off		$284,741	135.40	13.39	22.73	2.02	79.55	186
	A15DP017	P250-T4F	AIR COMPRESSOR, 250 CFM, 100 PSI, TRAILER MTD (ADD HOSE)	74 HP D-off		$37,160	17.42	1.74	2.95	0.26	10.15	27
	A15DP001	P185WDO-T4F	AIR COMPRESSOR, 185 CFM, 100 PSI, TRAILER MTD (ADD HOSE)	49 HP D-on		$29,943	13.67	1.40	2.38	0.21	7.85	23
	A15DP002	HP375WCU-T4I	AIR COMPRESSOR, 375 CFM, 150 PSI, TRAILER MTD (ADD HOSE)	140 HP D-on		$67,416	36.08	3.17	5.37	0.48	22.43	42
	A15DP003	VHP400WCU-T4I	AIR COMPRESSOR, 400 CFM, 200 PSI, TRAILER MTD (ADD HOSE)	173 HP D-on		$82,990	44.53	3.90	6.61	0.59	27.71	52
	A15DP004	HP450	AIR COMPRESSOR, 450 CFM, 150 PSI (ADD HOSE)	173 HP D-on		$82,990	44.53	3.90	6.61	0.59	27.71	52
	A15DP010	XHP1070WCAT	AIR COMPRESSOR, 1,070 CFM, 350 PSI (ADD HOSE)	400 HP D-on		$205,802	105.28	9.64	16.36	1.46	64.08	152
	A15DP011	XP535WCU	AIR COMPRESSOR, 535 CFM, 125 PSI (ADD HOSE)	173 HP D-on		$86,912	45.18	4.08	6.91	0.62	27.71	53

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
A15			*DOOSAN PORTABLE POWER (continued)*									
	A15DP012	HP750WCU-T4I	AIR COMPRESSOR, 750 CFM, 150 PSI, TRAILER MTD (ADD HOSE)	270 HP D-on		$127,823	69.22	5.99	10.17	0.90	43.25	87
	A15DP013	XP825WCU-T4I	AIR COMPRESSOR, 825 CFM, 125 PSI, TRAILER MTD (ADD HOSE)	270 HP D-on		$127,823	69.22	5.99	10.17	0.90	43.25	87
	A15DP014	HP1000WCU-T4I	AIR COMPRESSOR, 1,000 CFM, 125 PSI, TRAILER MTD (ADD HOSE)	305 HP D-on		$157,140	80.28	7.37	12.52	1.11	48.86	105
	A15DP015	HP915WCU-T4I	AIR COMPRESSOR, 915 CFM, 150 PSI, TRAILER MTD (ADD HOSE)	305 HP D-on		$157,140	80.28	7.37	12.52	1.11	48.86	105
			SULLAIR CORPORATION									
	A15SR006	125DPQJD	AIR COMPRESSOR, 125 CFM, 100 PSI (ADD HOSE)	76 HP D-off		$12,944	13.77	0.60	1.01	0.09	10.42	24
	A15SR007	130DPQJD	AIR COMPRESSOR, 130 CFM, 100 PSI (ADD HOSE)	77 HP D-off		$12,994	13.93	0.60	1.01	0.09	10.56	26
	A15SR004	185	AIR COMPRESSOR, 185 CFM, 100 PSI, TRAILER MTD (ADD HOSE)	61 HP D-off		$26,456	13.67	1.24	2.10	0.19	8.37	20
	A15SR005	260	AIR COMPRESSOR, 260 CFM, 100 PSI, TRAILER MTD (ADD HOSE)	74 HP D-off		$34,968	17.08	1.64	2.78	0.25	10.15	26
	A15SR008	375H	AIR COMPRESSOR, 375 CFM, 150 PSI, TRAILER MTD (ADD HOSE)	122 HP D-off		$66,065	29.53	3.08	5.22	0.47	16.73	42
	A15SR009	425	AIR COMPRESSOR, 425 CFM, 100 PSI, TRAILER MTD (ADD HOSE)	122 HP D-off		$66,065	29.53	3.08	5.22	0.47	16.73	42
	A15SR010	600H	AIR COMPRESSOR, 600 CFM, 150 PSI, TRAILER MTD (ADD HOSE)	300 HP D-off		$178,530	75.24	8.33	14.13	1.26	41.15	100
	A15SR011	750HH	AIR COMPRESSOR, 750 CFM, 175 PSI, TRAILER MTD (ADD HOSE)	300 HP D-off		$190,650	77.23	8.90	15.10	1.35	41.15	103
	A15SR002	900XHH	AIR COMPRESSOR, 900 CFM, 350 PSI, TRAILER MTD (ADD HOSE)	540 HP D-off		$335,267	137.57	15.74	26.73	2.37	74.07	157

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
A15			*SULLAIR CORPORATION (continued)*									
	A15SR012	1050	AIR COMPRESSOR, 1,050 CFM, 100 PSI, TRAILER MTD (ADD HOSE)	300 HP D-off		$190,699	77.23	8.90	15.10	1.35	41.15	105
	A15SR013	1300H	AIR COMPRESSOR, 1,300 CFM, 150 PSI, TRAILER MTD (ADD HOSE)	475 HP D-off		$309,301	123.35	14.53	24.68	2.19	65.15	156
	A15SR014	1600H	AIR COMPRESSOR, 1,600 CFM, 100 PSI, TRAILER MTD (ADD HOSE)	540 HP D-off		$309,447	133.35	14.52	24.66	2.19	74.07	162
			NO SPECIFIC MANUFACTURER									
	A15XX019	50G	AIR COMPRESSOR, 50 CFM, 100 PSI (ADD HOSE)	21 HP G		$13,536	6.82	0.64	1.08	0.10	4.07	5
	A15XX020	60G	AIR COMPRESSOR, 60 CFM, 100 PSI (ADD HOSE)	18 HP G		$9,234	5.47	0.44	0.74	0.07	3.49	5
	A15XX021	100D	AIR COMPRESSOR, 100 CFM, 100 PSI (ADD HOSE)	21 HP D-off		$13,654	5.48	0.64	1.08	0.10	2.88	13
	A15XX022	100D	AIR COMPRESSOR, 100 CFM, 125 PSI (ADD HOSE)	35 HP D-off		$24,435	9.38	1.14	1.93	0.17	4.80	17
	A15XX023	125G	AIR COMPRESSOR, 125 CFM, 100 PSI (ADD HOSE)	65 HP G		$17,527	17.16	0.81	1.38	0.12	12.60	20
	A15XX024	130	AIR COMPRESSOR, 130 CFM, 100 PSI (ADD HOSE)	50 HP D-off		$27,502	12.17	1.28	2.17	0.19	6.86	18
	A15XX025	160G	AIR COMPRESSOR, 160 CFM, 125 PSI (ADD HOSE)	60 HP G		$19,157	16.34	0.90	1.51	0.14	11.63	23
	A15XX026	175D	AIR COMPRESSOR, 175 CFM, 100 PSI (ADD HOSE)	70 HP D-off		$30,835	15.79	1.44	2.44	0.22	9.60	27
	A15XX027	175G	AIR COMPRESSOR, 175 CFM, 125 PSI (ADD HOSE)	90 HP G		$19,921	23.04	0.93	1.57	0.14	17.44	24
	A15XX028	185D	AIR COMPRESSOR, 185 CFM, 100 PSI (ADD HOSE)	49 HP D-off		$29,943	12.42	1.40	2.37	0.21	6.72	23

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
A15			*NO SPECIFIC MANUFACTURER (continued)*									
	A15XX029	185G	AIR COMPRESSOR, 185 CFM, 125 PSI (ADD HOSE)	70 HP G		$21,524	18.90	1.00	1.69	0.15	13.57	23
	A15XX030	250D	AIR COMPRESSOR, 250 CFM, 100 PSI (ADD HOSE)	74 HP D-off		$37,160	17.42	1.73	2.94	0.26	10.15	27
	A15XX031	300	AIR COMPRESSOR, 300 CFM, 200 PSI (ADD HOSE)	122 HP D-off		$74,599	30.91	3.50	5.94	0.53	16.73	37
	A15XX032	375	AIR COMPRESSOR, 375 CFM, 150 PSI (ADD HOSE)	140 HP D-off		$67,416	32.49	3.17	5.37	0.48	19.20	42
	A15XX033	450	AIR COMPRESSOR, 450 CFM, 150 PSI (ADD HOSE)	173 HP D-off		$82,990	40.09	3.90	6.61	0.59	23.73	52
	A15XX034	600	AIR COMPRESSOR, 600 CFM, 150 PSI (ADD HOSE)	300 HP D-off		$189,253	76.99	8.83	14.98	1.34	41.15	150
	A15XX035	750	AIR COMPRESSOR, 750 CFM, 150 PSI (ADD HOSE)	270 HP D-off		$127,823	62.25	5.99	10.18	0.90	37.03	87
	A15XX036	825	AIR COMPRESSOR, 825 CFM, 125 PSI (ADD HOSE)	270 HP D-off		$127,823	62.25	5.99	10.18	0.90	37.03	87
	A15XX037	950	AIR COMPRESSOR, 950 CFM, 150 PSI (ADD HOSE)	310 HP D-off		$157,115	73.26	7.32	12.41	1.11	42.52	105
	A15XX038	1050	AIR COMPRESSOR, 1,050 CFM, 100 PSI (ADD HOSE)	300 HP D-off		$201,739	79.03	9.42	15.98	1.43	41.15	168
	A15XX039	1300	AIR COMPRESSOR, 1,400 CFM, 150 PSI (ADD HOSE)	475 HP D-off		$309,886	123.49	14.52	24.66	2.19	65.15	180
	A15XX040	1600	AIR COMPRESSOR, 1,600 CFM, 150 PSI (ADD HOSE)	500 HP D-off		$283,889	123.08	13.29	22.55	2.01	68.58	151

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.20		**SHOP TYPE**									
			NO SPECIFIC MANUFACTURER									
	A15XX041	21	AIR COMPRESSOR, 21 CFM, 80 GAL (ADD HOSE)	8 HP D-off		$2,020	1.41	0.08	0.14	0.01	1.03	7
	A15XX042	26	AIR COMPRESSOR, 26 CFM, 80 GAL (ADD HOSE)	8 HP D-off		$2,441	1.47	0.11	0.17	0.02	1.03	10
	A15XX043	40	AIR COMPRESSOR, 40 CFM, 120 GAL (ADD HOSE)	10 HP D-off		$2,834	1.91	0.12	0.20	0.02	1.37	10
	A15XX044	58	AIR COMPRESSOR, 58 CFM, 120 GAL (ADD HOSE)	15 HP D-off		$9,312	3.53	0.39	0.66	0.06	2.06	10
	A15XX045	102	AIR COMPRESSOR, 102 CFM, 120 GAL (ADD HOSE)	25 HP D-off		$11,864	5.40	0.50	0.84	0.08	3.43	16
	A15XX046	125	AIR COMPRESSOR, 125 CFM, 120 GAL (ADD HOSE)	30 HP D-off		$12,881	6.30	0.55	0.91	0.09	4.11	16
A20	AIR HOSE, TOOLS & EQUIPMENT											
	SUBCATEGORY 0.10		**AIR DRILL HOSE**									
			NO SPECIFIC MANUFACTURER									
	A20XX001	3618-0011	AIR HOSE, 0.75", 100', AIR DRILL 500			$684	0.50	0.11	0.19	0.01	0.00	1
	A20XX002	3618-0021	AIR HOSE, 1.00", 100', AIR DRILL 500			$792	0.57	0.12	0.21	0.01	0.00	1
	A20XX003	3618-0031	AIR HOSE, 1.25", 100', AIR DRILL 500			$977	0.71	0.15	0.27	0.01	0.00	1
	A20XX004	3618-0041	AIR HOSE, 1.50", 100', AIR DRILL 500			$1,268	0.90	0.18	0.34	0.01	0.00	1
	A20XX005	3618-0051	AIR HOSE, 2.00", 100', AIR DRILL 500			$1,789	1.28	0.26	0.49	0.01	0.00	1
	A20XX006	3618-0205	AIR HOSE, 2.50", 100', AIR DRILL 500			$3,147	2.24	0.45	0.85	0.02	0.00	3
	A20XX007	3618-0215	AIR HOSE, 3.00", 100', AIR DRILL 500			$2,699	1.93	0.39	0.73	0.02	0.00	4

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
A20			*NO SPECIFIC MANUFACTURER (continued)*									
	A20XX008	HR4D	AIR HOSE, 4.00", 100', HARDROCK			$9,624	6.88	1.38	2.61	0.07	0.00	5
	SUBCATEGORY 0.20		**SANDBLAST HOSE**									
			CLEMCO INDUSTRIES CORPORATION									
	A20CM017	24750	SANDBLAST HOSE, 0.75"ID, 100' LONG USE AS SAND BLASTING ACCESSORY, 4 PLY			$694	0.53	0.11	0.19	0.01	0.00	1
	A20CM018	23448	SANDBLAST HOSE, 1.00"ID, 100' LONG USE AS SAND BLASTING ACCESSORY, 4 PLY			$694	0.53	0.11	0.19	0.01	0.00	1
	A20CM020	23451	SANDBLAST HOSE, 1.25"ID, 100' LONG USE AS SAND BLASTING ACCESSORY, 4 PLY			$750	0.57	0.11	0.20	0.01	0.00	1
	A20CM019	23453	SANDBLAST HOSE, 1.50"ID, 100' LONG USE AS SAND BLASTING ACCESSORY, 4 PLY			$936	0.71	0.14	0.25	0.01	0.00	1
	SUBCATEGORY 0.30		**SANDBLASTERS, BREAKERS, & MISC. AIR TOOLS**									
			BLAST ONE									
	A20B1001	725 CF HOPPER	SANDBLAST ABBRASIVE STORAGE HOPPER, 725 CF, 8' X 10' X 8' BOX WITH 9' DRIVE THROUGH CLEARANCE			$23,695	9.76	1.95	3.55	0.17	0.00	60
			CHICAGO PNEUMATIC TOOL CO.									
	A20CK002	CP-0009A	ROTARY / CHIP HAMMER, 8 LB, AIR (ADD 30 CFM COMPRESSOR & BIT COSTS)	A		$953	0.49	0.08	0.14	0.01	0.00	1

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN		CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
A20			*CHICAGO PNEUMATIC TOOL CO. (continued)*										
	A20CK001	CP-0014RR	ROTARY / CHIP HAMMER, 15 LB, AIR (ADD 30 CFM COMPRESSOR & BIT COSTS)		A		$1,656	0.80	0.14	0.25	0.01	0.00	1
	A20CK003	CP-0022	ROCK DRILL, 30 LB, AIR (ADD 50 CFM COMPRESSOR & BIT COSTS)		A		$1,855	0.93	0.15	0.28	0.01	0.00	1
	A20CK005	CP-0069	ROCK DRILL, 55 LB, AIR (ADD 140 CFM COMPRESSOR & BIT COSTS)		A		$2,589	1.26	0.22	0.39	0.02	0.00	1
	A20CK006	CP-0111-CHLA	BREAKER-FOUR BOLT, 25 LB (ADD 50 CFM COMPRESSOR & BIT COSTS)		A		$1,009	0.57	0.09	0.15	0.01	0.00	1
	A20CK008	CP-1260-S	BREAKER-FOUR BOLT, 60 LB (ADD 65 CFM COMPRESSOR & BIT COSTS)		A		$1,409	0.78	0.12	0.21	0.01	0.00	1
	A20CK010	CP-1290-S	BREAKER-FOUR BOLT, 90 LB (ADD 90 CFM COMPRESSOR & BIT COSTS)		A		$1,507	0.87	0.13	0.23	0.01	0.00	1
			CLEMCO INDUSTRIES CORPORATION										
	A20CM010	21547	SANDBLASTER, 2 CF CAP, W/0.50" D X 25'L HOSE (ADD 100 CFM COMPRESSOR & NOZZLE COST)	100 CFM	A		$5,541	2.34	0.46	0.83	0.04	0.00	4
	A20CM011	21548	SANDBLASTER, 4 CF CAP, W/1.00"D X 25'L HOSE (ADD 170 CFM COMPRESSOR & NOZZLE COST)	170 CFM	A		$6,050	2.55	0.50	0.91	0.04	0.00	5
	A20CM012	21549	SANDBLASTER, 6 CF CAP, W/1.25"D X 25'L HOSE (ADD 200 CFM COMPRESSOR & NOZZLE COST)	200 CFM	A		$6,809	2.94	0.56	1.02	0.05	0.00	6
	A20CM013	25815	SANDBLASTER, 60 CF CAP, W/1.25"D X 50'L HOSE (ADD 450 CFM COMPRESSOR & NOZZLE COST)	450 CFM	A		$28,345	11.78	2.27	4.13	0.20	0.00	30

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
A20			*CLEMCO INDUSTRIES CORPORATION (continued)*									
	A20CM014	25744	SANDBLASTER, 120 CF CAP, W/1.25"D X 50'L HOSE (ADD 700 CFM COMPRESSOR & NOZZLE COST)	700 CFM A		$31,256	13.11	2.51	4.57	0.22	0.00	35
	A20CM015	25741	SANDBLASTER, 160 CF CAP, W/1.25"D X 50'L HOSE (ADD 900 CFM COMPRESSOR & NOZZLE COST)	900 CFM A		$33,359	14.07	2.68	4.88	0.24	0.00	45
			WACKER CORPORATION									
	A20WC002	EHB11/BL/110	BREAKER/DRILL, 40 LB, ELECTRIC (ADD 2 KW GENERATOR & BIT COSTS)	2 HP E		$1,467	1.27	0.12	0.22	0.01	0.36	1
	A20WC004	BH 23	BREAKER/DRIVER, 65 LB, W/POWER UNIT (ADD BIT COSTS)	4 HP G		$4,253	2.51	0.35	0.64	0.03	0.67	1
			NO SPECIFIC MANUFACTURER									
	A20XX021	35LB BREAKER	PAVEMENT BREAKER, 35 LB, HAND HELD (ADD 100 CFM COMPRESSOR & BIT COSTS)			$1,607	0.66	0.13	0.24	0.01	0.00	1
	A20XX022	45LB BREAKER	PAVEMENT BREAKER, 45 LB, HAND HELD (ADD 100 CFM COMPRESSOR & BIT COSTS)			$1,342	0.55	0.11	0.20	0.01	0.00	1
	A20XX023	60LB BREAKER	PAVEMENT BREAKER, 60 LB, HAND HELD (ADD 100 CFM COMPRESSOR & BIT COSTS)			$1,660	0.68	0.14	0.25	0.01	0.00	1
	A20XX024	90LB BREAKER	PAVEMENT BREAKER, 90 LB, HAND HELD (ADD 100 CFM COMPRESSOR & BIT COSTS)			$1,756	0.72	0.14	0.26	0.01	0.00	1
	A20XX025	60LB DRILL	ROCK DRILL, DRY, 60 LB, HAND HELD (ADD 100 CFM COMPRESSOR & BIT COSTS)			$2,615	1.08	0.22	0.39	0.02	0.00	1

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
A20			*NO SPECIFIC MANUFACTURER (continued)*									
	A20XX026	37 LBS	BACKFILL TAMPER, 35-40 LB, HAND HELD (ADD 100 CFM COMPRESSOR)			$929	0.39	0.08	0.14	0.01	0.00	1
A25	ASPHALT PAVING DISTRIBUTORS											
	SUBCATEGORY 0.00		**ASPHALT PAVING DISTRIBUTORS**									
			ROSCO, A LeeBoy COMPANY									
	A25RS006	MAXIMIZER II	ASPHALT DISTRIBUTOR, 1,900 GAL, 400 GPM, TRUCK MTD (ADD 32,000 GVW TRUCK)			$91,141	28.66	7.48	13.67	0.64	0.00	70
	A25RS008	MAXIMIZER II	ASPHALT DISTRIBUTOR, 3,000 GAL, 400 GPM, TRUCK MTD (ADD 42,000 GVW TRUCK)			$98,660	31.57	8.10	14.80	0.70	0.00	97
			NO SPECIFIC MANUFACTURER									
	A25XX001	1000G	ASPHALT DISTRIBUTOR, 1,000 GAL, 400 GPM, TRUCK MTD (ADD 32,000 GVW TRUCK)			$76,053	23.59	6.25	11.41	0.54	0.00	64
	A25XX002	1900G	ASPHALT DISTRIBUTOR, 1900 GAL, 400 GPM, TRUCK MTD (ADD 32,000 GVW TRUCK)			$91,604	29.15	7.52	13.74	0.65	0.00	89
	A25XX003	3500G	ASPHALT DISTRIBUTOR, 3000 GAL, 400 GPM, TRUCK MTD (ADD 42,000 GVW TRUCK)			$98,831	31.91	8.11	14.82	0.70	0.00	104

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
A30	ASPHALT PAVERS & MISCELLANEOUS ROAD EQUIPMENT											
	SUBCATEGORY 0.10		SELF PROPELLED									
			BARBER-GREENE COMPANY									
	A30BG004	BG225C	ASPHALT FINISHER, 8' WIDE SCREED, CRAWLER, W/15' 6" SCREED EXTENSION, 177 CF HOPPER	112 HP D-off		$393,016	112.37	23.63	41.76	2.75	14.51	336
	A30BG005	BG2455D	ASPHALT FINISHER, 10' WIDE SCREED, CRAWLER, W/19' 6" SCREED EXTENSION, 215 CF HOPPER	224 HP D-off		$418,202	134.63	25.15	44.43	2.93	29.02	374
	A30BG003	BG260D	ASPHALT FINISHER, 10' WIDE SCREED, WHEEL, W/19' 6" SCREED EXTENSION, 215 CF HOPPER	224 HP D-off		$400,007	129.08	22.27	38.94	2.80	29.02	382
			VOLVO [BLAW KNOX]									
	A30BK018	PF-6110	ASPHALT PAVER/FINISHER, 10' WIDE SCREED, CRAWLER, 218 CF HOPPER	184 HP D-off		$423,805	128.71	25.49	45.03	2.97	23.84	418
	A30BK023	PF-4410	ASPHALT PAVER, 8' WIDE SCREED, CRAWLER, 155 CF HOPPER	145 HP D-off		$361,955	108.15	21.76	38.46	2.53	18.78	269
			CATERPILLAR INC. (MACHINE DIVISION)									
	A30CA001	AP500F	ASPHALT PAVER, 8' 4" - 16' 4" PAVING WIDTH, WHEEL, 237 CF HOPPER	142 HP D-off		$321,511	98.68	19.11	33.71	2.25	18.39	286
	A30CA003	AP555F	ASPHALT PAVER, 8' 4" - 16' 4" PAVING WIDTH, CRAWLER, 237 CF HOPPER	142 HP D-off		$360,666	108.12	21.47	37.87	2.53	18.39	300
	A30CA013	AP-655D	ASPHALT PAVER, 8' WIDE SCREED, CRAWLER, 177 CF HOPPER	174 HP D-off		$351,874	109.92	21.16	37.39	2.46	22.54	402

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
A30			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	A30CA002	AP-600D	ASPHALT PAVER, 8' WIDE+2' EXT. PAVEMASTER SCREED, WHEEL, 230 CF HOPPER	174 HP D-off		$299,218	97.71	16.90	29.59	2.10	22.54	319
	A30CA008	AP-1000E	ASPHALT PAVER, 10' - 12' WIDE PAVEMASTER SCREED, WHEEL, 215 CF HOPPER	224 HP D-off		$392,721	127.39	22.45	39.39	2.75	29.02	468
	A30CA016	AP-1055E	ASPHALT PAVER, 10' WIDE SCREED, CRAWLER, 215 CF HOPPER	225 HP D-off		$504,430	154.05	30.33	53.60	3.53	29.15	413
			GEHL COMPANY									
	A30GC002	1448	ASPHALT PAVER, 8' WIDE SCREED, WHEEL, 80 CF HOPPER	25 HP D-off		$43,510	14.09	2.61	4.62	0.30	3.24	67
	A30GC004	1648	ASPHALT PAVER, 9' WIDE SCREED, CRAWLER, 120 CF HOPPER	41 HP D-off		$62,388	20.96	3.76	6.63	0.44	5.31	85
			MIDLAND MACHINERY CO									
	A30MP001	SPD-8	ASPHALT PAVER, SHOULDER PAVING MACHINE, 1'-8' WIDE, BITUMINOUS & AGGREGATE, WHEEL, 80 CF HOPPER	80 HP D-off		$179,402	54.63	10.62	18.71	1.26	10.36	185
	A30MP002	SPD-10	ASPHALT PAVER, SHOULDER PAVING MACHINE, 1'-10' WIDE, BITUMINOUS & AGGREGATE, WHEEL, 80 CF HOPPER	100 HP D-off		$193,413	60.90	11.41	20.12	1.35	12.95	275

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.20		**TOWED**									
			J-PYOTT									
	A30JP001	CONTRACTOR GRADE	ASPHALT PAVER, DRAG BOX ASPHALT PAVER, 8' - 10' ADJUSTABLE WIDTH, 0" - 8" PAVING THICKNESS (ADD 10 - 14 CY DUMP TRUCK)			$6,976	1.18	0.33	0.56	0.05	0.00	15
	A30JP002	MILITARY GRADE	ASPHALT PAVER, DRAG BOX ASPHALT SPREADER, 6'-10' ADJUSTABLE WIDTH, 0"-8" PAVING THICKNESS (ADD 10-14 CY DUMP TRUCK)			$20,321	3.43	0.96	1.63	0.14	0.00	20
	SUBCATEGORY 0.30		**SLURRY SEAL PAVERS (Cold mix)**									
			NO SPECIFIC MANUFACTURER									
	A30XX001	MINIMAC	ASPHALT PAVER, SLURRY SEAL PAVER 8' WIDE, SELF PROPELLED, WHEEL, 80 CF HOPPER	110 HP D-off		$196,481	37.28	7.79	12.84	1.37	12.15	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		$263,587	45.09	10.63	17.57	1.84	12.15	175
	SUBCATEGORY 0.40		**MISCELLANEOUS ROAD EQUIPMENT**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	A30CA007	BG-260 D	ASPHALT PAVER, ASPHALT WINDROW ELEVATOR, WHEEL (ADD ASPHALT PAVER UNIT)	107 HP D-off		$278,296	61.17	12.88	21.81	1.97	12.64	171

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			LEE-BOY									
	A30LD001	3000	ASPHALT PAVER, ASPHALT FORCE FEED LOADER, 30" WIDE BELT, WINDROW OR LOOSE, WHEEL (ADD ASPHALT PAVER UNIT)	130 HP D-off		$198,137	51.22	9.15	15.49	1.40	15.35	198
			ROADTEC									
	A30RT001	SB-1500	ASPHALT PAVER, ASPHALT MATERIAL TRANSFER VEHICLE, 15 TON HOPPER, 600 TPH, 65" WIDE CONVEYOR, WHEEL	300 HP D-off		$442,894	118.48	19.80	33.32	3.14	35.43	672
	A30RT007	SB-2500E	ASPHALT PAVER, ASPHALT MATERIAL TRANSFER VEHICLE, 25 TON HOPPER, 1000 TPH, 69" WIDE CONVEYOR, WHEEL	300 HP D-off		$482,654	122.24	22.32	37.80	3.42	35.43	780
			WEILER									
	A30WR001	E650B	ASPHALT PAVER, ASPHALT MATERIAL WINDROW ELEVATOR, 121" CONVEYOR WIDTH	115 HP D-off		$162,313	42.52	7.59	12.87	1.15	13.58	203
	A30WR002	E2850	ASPHALT PAVER, ASPHALT MATERIAL TRANSFER VEHICLE, 25 TON HOPPER, 600 TPH, 30" CONVEYOR WIDTH, WHEEL	300 HP D-off		$456,873	120.50	20.53	34.60	3.23	35.43	745
A35	ASPHALT PAVING KETTLES											
	SUBCATEGORY 0.00		**ASPHALT PAVING KETTLES**									
			MARATHON EQUIPMENT									
	A35AE001	KEB-80T	ASPHALT/PAVEMENT KETTLE, 80 GAL, TRAILER W/PUMP & HOSE	5 HP G		$5,306	4.26	0.34	0.59	0.04	0.84	9
	A35AE002	KEB-115T	ASPHALT/PAVEMENT KETTLE, 115 GAL, TRAILER W/PUMP & HOSE	5 HP G		$5,888	5.20	0.42	0.75	0.04	0.84	11

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
A35			*MARATHON EQUIPMENT (continued)*									
	A35AE003	KEB-170T	ASPHALT/PAVEMENT KETTLE, 170 GAL, TRAILER W/PUMP & HOSE	5 HP G		$7,767	6.07	0.56	1.00	0.06	0.84	15
	A35AE004	KEB-260T	ASPHALT/PAVEMENT KETTLE, 260 GAL, TRAILER W/PUMP & HOSE	5 HP G		$9,524	7.45	0.69	1.23	0.07	0.84	19
	A35AE005	KEB-350T	ASPHALT/PAVEMENT KETTLE, 350 GAL, TRAILER W/PUMP & HOSE	5 HP G		$11,567	10.17	0.82	1.45	0.09	0.84	20
A40	**ASPHALT & CONCRETE MILLERS / PROFILERS / PLANERS / ROTARY GRINDERS**											
	SUBCATEGORY 0.00		**ASPHALT & CONCRETE MILLERS / PROFILERS / PLANERS / ROTARY GRINDERS**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	A40CA001	PM102	ASPHALT COLD PLANER, 75" W X 10" D, CRAWLER (ADD CUTTING TEETH COSTS)	225 HP D-off		$407,647	169.84	30.23	54.35	3.05	38.58	282
	A40CA008	PM-200	ASPHALT COLD PLANER, 75" W X 10" D, CRAWLER (ADD CUTTING TEETH COSTS)	575 HP D-off		$667,587	317.66	49.50	89.01	4.99	98.58	505
	A40CA009	PM-201	ASPHALT COLD PLANER, 83" W X 12" D, CRAWLER (ADD CUTTING TEETH COSTS)	650 HP D-off		$779,336	366.77	57.79	103.91	5.83	111.44	735
			TEREX - CMI (TEREX ROADBUILDING)									
	A40CW001	PR-950	ASPHALT PROFILER, MAX 12.5' W X 15" D, CRAWLER (ADD CUTTING TEETH COSTS)	950 HP D-off		$918,119	467.36	68.08	122.42	6.87	162.88	1,205

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			ROADTEC									
	A40RT008	RX-400E	ASPHALT COLD PLANER, 40" W X 10" D, WHEEL (ADD CUTTING TEETH COSTS)	325 HP D-off		$421,255	193.21	31.24	56.17	3.15	55.72	470
	A40RT009	RX-400E	ASPHALT COLD PLANER, 52" W X 8" D, CRAWLER (ADD CUTTING TEETH COSTS)	325 HP D-off		$429,164	195.67	31.82	57.22	3.21	55.72	470
	A40RT010	RX-600E	ASPHALT COLD PLANER, 78" W X 12" D, CRAWLER (ADD CUTTING TEETH COSTS)	620 HP D-off		$533,256	284.51	39.54	71.10	3.99	106.30	592
	A40RT011	RX-700E	ASPHALT COLD PLANER, 98" W X 12" D, CRAWLER (ADD CUTTING TEETH COSTS)	700 HP D-off		$623,080	327.76	46.20	83.08	4.66	120.02	840
	A40RT012	RX-900E	ASPHALT COLD PLANER, 150" W X 8" D, CRAWLER (ADD CUTTING TEETH COSTS)	700 HP D-off		$745,400	365.79	55.27	99.39	5.57	120.02	920
A45	ASPHALT RECYCLERS & SEALERS											
	SUBCATEGORY 0.00		**ASPHALT RECYCLERS & SEALERS**									
			MARATHON EQUIPMENT									
	A45AE001	HEPR-52V	ASPHALT RESURFACER-PATCHER, 4' WIDE, 17.3 SF, 600,000 BTU INFRA-RED HEATER, TRAILER MTD			$13,394	11.75	1.15	2.09	0.10	0.00	11
	A45AE002	HEPR-96V	ASPHALT RESURFACER-PATCHER, 8' WIDE, 32.0 SF, 1,200,000 BTU INFRA-RED HEATER, TRAILER MTD			$20,640	21.37	1.76	3.19	0.16	0.00	16
	A45AE003	IPRS96V	ASPHALT RESURFACER-PATCHER, 10' WIDE, 40.0 SF, 1,420,000 BTU INFRA-RED HEATER, TRAILER MTD			$46,856	33.19	4.06	7.39	0.36	0.00	17

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			ROSCO, A LeeBoy COMPANY									
	A45RS001	RA-2000	ASPHALT SPRAY PATCHER, 300 GAL, ARTICULATED BOOM - 17' R, TRAILER MTD	74 HP D-off		$78,594	37.79	6.85	12.49	0.60	8.74	60
	A45RS002	RA-400	ASPHALT SPRAY PATCHER, 400 GAL, TELESCOPIC BOOM - 22' EXT, TRUCK MTD	67 HP D-off	245 HP D-on	$205,379	110.72	18.01	32.86	1.58	34.06	179
			SEALMASTER, INC.									
	A45SE003	SP300 DUAL	ASPHALT SEALCOATER, 320 GAL, 75 GPM, 108" WIDE DUAL SPRAY, SQUEEGEE, SELF PROPELLED	30 HP D-off		$47,603	22.63	4.14	7.54	0.37	3.54	38
	A45SE004	TR-1000	ASPHALT SEALCOATER, 1000 GAL, 50 GPM, 88" WIDE SPRAY BAR, TRAILER MTD	13 HP G		$29,558	13.05	2.46	4.45	0.23	2.19	52
B10	BATCH PLANTS, ASPHALT & CONCRETE											
	SUBCATEGORY 0.20		**CONCRETE**									
			CEMEN TECH									
	B10CC015	CT270	BATCH PLANT, SILO, CEMENT, 50 TON, HORIZONTAL, 270 BARREL (BATCH PLANT ATTACHMENT)	16 HP E		$22,869	10.13	1.05	1.76	0.17	2.85	85
	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		$72,203	23.25	4.05	7.06	0.52	3.03	80

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B10			*CEMEN TECH (continued)*									
	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		$66,030	49.99	3.45	5.94	0.48	27.41	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		$80,203	60.62	4.19	7.22	0.58	33.63	194
	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		$88,491	62.80	4.73	8.18	0.64	33.63	204
	B10CC012	MT-200LP	BATCH PLANT, SILO, CEMENT, 800 CF, 200 BARREL (BATCH PLANT ATTACHMENT)	18 HP G		$25,553	10.18	1.46	2.56	0.18	3.03	35
	B10CC013	MT-300LP	BATCH PLANT, SILO, CEMENT, 1,200 CF, 300 BARRL (BATCH PLANT ATTACHMENT)	18 HP G		$33,471	12.09	1.92	3.35	0.24	3.03	48
	B10CC014	6" LOADING AUGER	BATCH PLANT, CEMENT LOADING AUGER, 6" DIA, 19' LONG (BATCH PLANT ATTACHMENT)	5 HP E		$5,905	3.19	0.34	0.59	0.04	0.89	10

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN		CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			CON-E-CO										
	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		$498,242	169.14	28.43	49.65	3.60	35.62	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		$98,926	32.05	5.44	9.44	0.72	6.23	190
	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		$288,384	77.54	16.15	28.12	2.09	5.34	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		$252,730	92.14	14.08	24.49	1.83	21.37	426
	B10CL027	SILO1910	BATCH PLANT, CEMENT SILO, 1,910 CF, 475 BARREL (BATCH PLANT ATTACHMENT)				$46,978	11.04	2.69	4.70	0.34	0.00	144
	B10CL042	SC6D-10	BATCH PLANT, SCREW CONVEYOR, 6" DIA, 10' LONG (CEMENT SILO ATTACHMENT)	5 HP	E		$4,610	2.39	0.26	0.46	0.03	0.89	5

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B10			*CON-E-CO (continued)*									
	B10CL045	SC6D-20	BATCH PLANT, SCREW CONVEYOR, 6" DIA, 20' LONG (CEMENT SILO ATTACHMENT)	10 HP E		$6,227	4.07	0.36	0.62	0.05	1.78	11
	B10CL036	SC9D-10	BATCH PLANT, SCREW CONVEYOR, 9" DIA, 10' LONG (CEMENT SILO ATTACHMENT)	8 HP E		$5,075	3.28	0.30	0.51	0.04	1.42	9
	B10CL040	SC9D-20	BATCH PLANT, SCREW CONVEYOR, 9" DIA, 20' LONG (CEMENT SILO ATTACHMENT)	20 HP E		$7,000	6.86	0.40	0.70	0.05	3.56	16
	B10CL032	SC12D-10	BATCH PLANT, SCREW CONVEYOR, 12" DIA, 10' LONG (CEMENT SILO ATTACHMENT)	10 HP E		$6,061	4.03	0.35	0.61	0.04	1.78	10
	B10CL034	SC12D-20	BATCH PLANT, SCREW CONVEYOR, 12" DIA, 20' LONG (CEMENT SILO ATTACHMENT)	20 HP E		$12,117	8.07	0.70	1.21	0.09	3.56	20
			EXCEL MACHINERY LTD.									
	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		$499,736	123.65	27.93	48.64	3.61	4.20	590
	B10EM002	BELGRADE 350 BBL	BATCH PLANT, CEMENT SILO, 45 TON HORIZONTAL 350 BARREL (BATCH PLANT ATTACHMENT)	10 HP E		$33,629	11.44	1.89	3.29	0.24	1.78	45
	B10EM003	BELGRADE 550	BATCH PLANT, CEMENT SILO, 2,200 CF (BARREL CAP 550 MAX / 450 MIN) W/DRIVE-THRU TYPE UNDERSTRUCTURE (BATCH PLANT ATTACHMENT)			$36,289	8.52	2.08	3.63	0.26	0.00	222

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			JOHNSON-ROSS (TEREX ROADBUILDING)									
	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		$165,302	45.03	9.33	16.26	1.20	2.67	3,000
	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		$244,160	74.31	13.58	23.61	1.77	8.91	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		$222,632	68.07	12.35	21.48	1.61	8.10	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		$286,333	77.20	16.13	28.12	2.07	5.34	250
	B10RC027	MIX4.5	BATCH PLANT, CONCRETE MIXER, 4.5 CY, TILT DRUM, SKID MTD (ADD DRY BATCH PLANT)	40 HP E		$169,793	52.33	9.72	16.98	1.23	7.12	34

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B10			*JOHNSON-ROSS (TEREX ROADBUILDING) (continued)*									
	B10RC028	MIX6.0	BATCH PLANT, CONCRETE MIXER, 6.0 CY, TILT DRUM, SKID MTD (ADD DRY BATCH PLANT)	60 HP E		$190,770	62.75	10.92	19.08	1.38	10.69	45
	B10RC029	MIX8.0	BATCH PLANT, CONCRETE MIXER, 8.0 CY, TILT DRUM, SKID MTD (ADD DRY BATCH PLANT)	80 HP E		$215,663	74.06	12.35	21.57	1.56	14.25	60
	B10RC030	MIX10.0	BATCH PLANT, CONCRETE MIXER, 10.0 CY, TILT DRUM, SKID MTD (ADD DRY BATCH PLANT)	100 HP E		$235,032	85.09	13.45	23.50	1.70	17.81	75
	B10RC031	MIX12.0	BATCH PLANT, CONCRETE MIXER, 12.0 CY, TILT DRUM, SKID MTD (ADD DRY BATCH PLANT)	120 HP E		$248,202	93.65	14.20	24.82	1.79	21.37	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		$273,820	88.80	15.27	26.57	1.98	13.36	420
			STEPHENS MANUFACTURING CO., INC.									
	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		$86,919	27.71	4.60	7.93	0.63	4.45	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		$166,540	47.87	9.16	15.91	1.20	5.34	340

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B10			*STEPHENS MANUFACTURING CO., INC. (continued)*									
	B10SN032	MUSTANG	BATCH PLANT, CONCRETE AGGREGATE DRY, 150 CY/HR, W/3 AGGREGATE STORAGE BINS, 70 TON, 14 CY BATCHER, 30" X 33.5' LOADING CONVEYOR, TRAILER MTD (ADD 115 KW GENERATOR)	45 HP E		$194,543	58.58	10.75	18.67	1.41	8.01	420
	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		$185,330	49.64	10.22	17.75	1.34	3.56	360
	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		$195,204	54.73	10.78	18.74	1.41	5.34	300
	SUBCATEGORY 0.30		**PUGMILL**									
			KPI-JCI									
	B10KJ001	52 PORTABLE PUGMILL	BATCH PLANT, PUGMILL, TWO 12' LONG X 6' WIDE 9 CY HOPPERS WITH 30" X 10' 9" BELT FEEDER, 48" WIDE X 6' LONG TWIN PUGMILL, WALKWAY, TANDEM AXLE CHASSIS	130 HP E		$353,246	100.49	16.29	27.57	2.50	23.15	371

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B10			*KPI-JCI (continued)*									
	B10KJ002	52S PORTABLE PUGMILL	BATCHPLANT, PUGMILL, TWO 14' LONG X 7' WIDE 15 CY PRIMARY HOPPERS WITH 36" WIDE X 36' LONG BELT FEEDERS, 4' WIDE X 8' LONG TWIN SHAFT PUGMILL, WALKWAY, TANDEM AXLE CHASSIS, UP TO 500 TONS PER HOUR (ADD 200 KW GENERATOR & MATERIAL FEEDS)	220 HP E		$349,198	123.24	16.07	27.19	2.47	39.18	444
B15	**BROOMS, STREET SWEEPERS & FLUSHERS**											
	SUBCATEGORY 0.00		**BROOMS, STREET SWEEPERS & FLUSHERS**									
			BROCE MANUFACTURING COMPANY									
	B15BM001	RJT-350	BROOM, 8' BROOM PATH, PAVEMENT, SELF PROPELLED	80 HP D-on		$57,607	25.06	3.63	6.48	0.39	11.04	50
			ELGIN SWEEPER COMPANY									
	B15EC002	PELICAN P DUAL	STREET SWEEPER, 10' BROOM PATH, 3.5 CY HOPPER, 180 GAL WATER TANK, SELF PROPELLED	100 HP D-off		$191,147	55.44	11.94	21.27	1.30	11.81	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	$282,158	73.99	17.58	31.34	1.91	10.33	150
	B15EC003	BROOM BEAR FL42H	STREET SWEEPER, 12' BROOM PATH, 4.5 CY HOPPER, 350 GAL WATER TANK, SELF PROPELLED	230 HP D-on		$272,774	95.82	17.00	30.29	1.85	31.73	213
	B15EC004	MEGAWIND	STREET SWEEPER AND CATCH BASIN CLEANER, 12' BROOM PATH, 13 CY HOPPER, 335 GAL WATER TANK, SELF PROPELLED	115 HP D-on	230 HP D-on	$288,444	88.31	18.18	32.45	1.95	22.00	238

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			LAYMOR SWEEPERS									
	B15LS001	SWEEPMASTER 300	BROOM, 8' BROOM PATH, PAVEMENT, SELF PROPELLED	25 HP D-on		$26,024	9.57	1.62	2.87	0.18	3.42	30
	B15LS002	SWEEPMASTER 400	BROOM, 100" BROOM PATH, PAVEMENT, W/SPRINKLER AND 180 GAL WATER TANK, SELF PROPELLED	74 HP D-on		$51,101	22.71	3.19	5.68	0.35	10.21	48
			M-B COMPANIES, INC.									
	B15MB001	MT-AR	STREET SWEEPER, 7' BROOM PATH, W/SPRINKLER AND 152 GAL WATER TANK, PTO DRIVE (ADD 45-100 HP TRACTOR)			$7,865	1.83	0.49	0.88	0.05	0.00	10
	B15MB002	HT	STREET SWEEPER, 7' BROOM PATH, W/SPRINKLER AND 152 GAL WATER TANK, PTO DRIVE (ADD 45-100 HP TRACTOR)			$7,587	1.81	0.48	0.85	0.05	0.00	12
	B15MB003	53T	STREET SWEEPER, 7' BROOM PATH, W/SPRINKLER AND 152 GAL WATER TANK, TOWED, HYDRAULIC (ADD TOWING UNIT)			$16,456	3.87	1.04	1.85	0.11	0.00	18
	B15MB004	53MH	STREET SWEEPER, 7' BROOM PATH, W/SPRINKLER AND 152 GAL WATER TANK, TOWED (ADD TOWING UNIT)	24 HP G		$24,611	9.87	1.54	2.73	0.17	4.04	17
			ROSCO, A LeeBoy COMPANY									
	B15RS005	CHALLENGER 6	STREET SWEEPER, 8' BROOM PATH, W/SPRINKLER AND 150 GAL WATER TANK, SELF PROPELLED	74 HP D-on		$67,328	26.30	4.21	7.50	0.46	10.21	75
	B15RS001	RB-48	STREET SWEEPER, 8' BROOM PATH, W/SPRINKLER AND 150 GAL WATER TANK, SELF PROPELLED	74 HP D-on		$53,175	23.16	3.33	5.93	0.36	10.21	56

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			TERRAMITE CONSTRUCTION EQUIPMENT									
	B15TB001	TSS46	STREET SWEEPER, 6' BROOM PATH, W/SPRINKLER AND 2 - 50 GAL WATER TANKS, SELF PROPELLED	37 HP D-off		$24,645	10.35	1.51	2.68	0.17	4.37	34
	B15TB002	TSS48	STREET SWEEPER, 8' BROOM PATH, W/SPRINKLER AND 2 - 50 GAL WATER TANKS, SELF PROPELLED	37 HP D-off		$24,790	10.38	1.52	2.70	0.17	4.37	34
B20	BRUSH CHIPPERS											
	SUBCATEGORY 0.00		**BRUSH CHIPPERS**									
			BANDIT INDUSTRIES, INC.									
	B20BN001	65XP	BRUSH CHIPPER, 6" CAPACITY, DISC TYPE, TRAILER MTD	27 HP G		$13,578	8.31	0.85	1.51	0.09	4.54	19
	B20BN002	90XP	BRUSH CHIPPER, 9" CAPACITY, DISC TYPE, TRAILER MTD	49 HP D-off		$22,618	11.73	1.41	2.52	0.15	5.79	44
	B20BN003	200XP	BRUSH CHIPPER, 12" CAPACITY, DISC TYPE, TRAILER MTD	85 HP G		$41,808	25.95	2.62	4.68	0.28	14.29	58
	B20BN005	1390XP	BRUSH CHIPPER, 13" CAPACITY, DRUM TYPE, TRAILER MTD	130 HP G		$44,232	35.08	2.78	4.95	0.30	21.86	66
	B20BN006	1590XP	BRUSH CHIPPER, 17" CAPACITY, DRUM TYPE, TRAILER MTD	213 HP D-off		$65,447	43.37	4.11	7.34	0.44	25.16	87
	B20BN007	1890XP	BRUSH CHIPPER, 18" CAPACITY, DRUM TYPE, TRAILER MTD	173 HP D-off		$67,415	38.54	4.22	7.51	0.46	20.43	97
			MORBARK, INC.									
	B20MQ001	M12R	BRUSH CHIPPER, 12" CAPACITY, DRUM TYPE, TRAILER MTD	130 HP D-on		$49,412	31.56	3.10	5.53	0.33	17.93	55

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B20			*MORBARK, INC. (continued)*									
	B20MQ003	M15R	BRUSH CHIPPER, 15" CAPACITY, DRUM TYPE, TRAILER MTD	174 HP D-off		$60,681	37.09	3.78	6.73	0.41	20.55	89
	B20MQ004	M18R	BRUSH CHIPPER, 18" CAPACITY, DRUM TYPE, TRAILER MTD	275 HP D-off		$76,196	54.01	4.71	8.38	0.52	32.48	110
	B20MQ005	M20R	BRUSH CHIPPER, LOG CHIPPER, 20" CAPACITY, DISC TYPE, TRAILER MTD	400 HP D-off		$159,219	91.40	9.94	17.72	1.08	47.24	147
B25	**BUCKETS, CLAMSHELL**											
	SUBCATEGORY 0.00		**BUCKETS, CLAMSHELL**									
			HAWCO (ANVIL ATTACHMENTS)									
	B25HB001	MWRH-050	BUCKET, CLAMSHELL, 0.5 CY, HEAVY DUTY/DIGGING			$26,058	5.42	1.65	2.93	0.18	0.00	30
	B25HB003	MWRH-100	BUCKET, CLAMSHELL, 1.0 CY, HEAVY DUTY/DIGGING			$28,358	5.89	1.79	3.19	0.19	0.00	48
	B25HB005	MWRH-150	BUCKET, CLAMSHELL, 1.5 CY, HEAVY DUTY/DIGGING			$29,859	6.20	1.88	3.36	0.20	0.00	66
	B25HB007	MWRH-200	BUCKET, CLAMSHELL, 2.0 CY, HEAVY DUTY/DIGGING			$35,726	7.42	2.25	4.02	0.24	0.00	78
	B25HB008	MWRH-250	BUCKET, CLAMSHELL, 2.5 CY, HEAVY DUTY/DIGGING			$36,954	7.68	2.33	4.16	0.25	0.00	91
	B25HB009	MWRH-300	BUCKET, CLAMSHELL, 3.0 CY, HEAVY DUTY/DIGGING			$38,765	8.05	2.44	4.36	0.26	0.00	103
	B25HB010	MWRH-350	BUCKET, CLAMSHELL, 3.5 CY, HEAVY DUTY/DIGGING			$44,935	9.34	2.83	5.06	0.30	0.00	131
	B25HB011	MWRH-400	BUCKET, CLAMSHELL, 4.0 CY, HEAVY DUTY/DIGGING			$46,948	9.75	2.96	5.28	0.32	0.00	145

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B25			*HAWCO (ANVIL ATTACHMENTS) (continued)*									
	B25HB012	MWRH-450	BUCKET, CLAMSHELL, 4.5 CY, HEAVY DUTY/DIGGING			$47,890	9.95	3.02	5.39	0.32	0.00	165
	B25HB013	MWHR-500	BUCKET, CLAMSHELL, 5.0 CY, HEAVY DUTY/DIGGING			$48,996	10.18	3.09	5.51	0.33	0.00	173
	B25HB014	MWRH-550	BUCKET, CLAMSHELL, 5.5 CY, HEAVY DUTY/DIGGING			$53,793	11.17	3.39	6.05	0.36	0.00	178
	B25HB015	MWRH-600	BUCKET, CLAMSHELL, 6.0 CY, HEAVY DUTY/DIGGING			$55,660	11.57	3.51	6.26	0.38	0.00	199
			NO SPECIFIC MANUFACTURER									
	B25XX001	1/4SSN	BUCKET, CLAMSHELL, 0.2 CY, SQUARE NOSE, STANDARD			$18,651	3.88	1.18	2.10	0.13	0.00	14
	B25XX002	1/2SSN	BUCKET, CLAMSHELL, 0.5 CY, SQUARE NOSE, STANDARD			$20,187	4.20	1.28	2.27	0.14	0.00	27
	B25XX003	3/4SSN	BUCKET, CLAMSHELL, 0.7 CY, SQUARE NOSE, STANDARD			$21,775	4.53	1.38	2.45	0.15	0.00	35
	B25XX004	1SSN	BUCKET, CLAMSHELL, 1.0 CY, SQUARE NOSE, STANDARD			$23,363	4.86	1.48	2.63	0.16	0.00	43
	B25XX005	1-1/4SSN	BUCKET, CLAMSHELL, 1.2 CY, SQUARE NOSE, STANDARD			$24,555	5.10	1.55	2.76	0.17	0.00	49
	B25XX006	1-1/2SSN	BUCKET, CLAMSHELL, 1.5 CY, SQUARE NOSE, STANDARD			$28,608	5.94	1.80	3.22	0.19	0.00	64
	B25XX007	1-3/4SSN	BUCKET, CLAMSHELL, 1.7 CY, SQUARE NOSE, STANDARD			$29,733	6.17	1.87	3.34	0.20	0.00	67
	B25XX008	2SSN	BUCKET, CLAMSHELL, 2.0 CY, SQUARE NOSE, STANDARD			$33,091	6.87	2.08	3.72	0.22	0.00	76

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B25			*NO SPECIFIC MANUFACTURER (continued)*									
	B25XX009	2-1/2SSN	BUCKET, CLAMSHELL, 2.5 CY, SQUARE NOSE, STANDARD			$39,005	8.10	2.46	4.39	0.26	0.00	92
	B25XX010	3SSN	BUCKET, CLAMSHELL, 3.0 CY, SQUARE NOSE, STANDARD			$41,212	8.57	2.60	4.64	0.28	0.00	98
	B25XX011	3-1/2SSN	BUCKET, CLAMSHELL, 3.5 CY, SQUARE NOSE, STANDARD			$44,838	9.31	2.82	5.04	0.30	0.00	108
	B25XX012	4SSN	BUCKET, CLAMSHELL, 4.0 CY, SQUARE NOSE, STANDARD			$48,782	10.14	3.08	5.49	0.33	0.00	119
	B25XX013	4-1/2SSN	BUCKET, CLAMSHELL, 4.5 CY, SQUARE NOSE, STANDARD			$57,919	12.04	3.65	6.52	0.39	0.00	145
	B25XX014	5SSN	BUCKET, CLAMSHELL, 5.0 CY, SQUARE NOSE, STANDARD			$61,052	12.68	3.85	6.87	0.41	0.00	154
	B25XX015	5-1/2SSN	BUCKET, CLAMSHELL, 5.5 CY, SQUARE NOSE, STANDARD			$62,439	12.97	3.93	7.02	0.42	0.00	158
	B25XX016	6SSN	BUCKET, CLAMSHELL, 6.0 CY, SQUARE NOSE, STANDARD			$65,012	13.50	4.10	7.31	0.44	0.00	166
	B25XX017	6-1/2SSN	BUCKET, CLAMSHELL, 6.5 CY, SQUARE NOSE, STANDARD			$68,992	14.34	4.35	7.76	0.47	0.00	177
	B25XX018	7SSN	BUCKET, CLAMSHELL, 7.0 CY, SQUARE NOSE, STANDARD			$72,439	15.05	4.57	8.15	0.49	0.00	185
	B25XX019	7-1/2SSN	BUCKET, CLAMSHELL, 7.5 CY, SQUARE NOSE, STANDARD			$74,859	15.56	4.72	8.42	0.51	0.00	192

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B30	**BUCKETS, CONCRETE**											
	SUBCATEGORY 0.10		**GENERAL PURPOSE, MANUAL TRIP**									
			GAR-BRO MANUFACTURING COMPANY									
	B30GB018	413-G	BUCKET, CONCRETE, GENERAL PURPOSE, 0.5 CY			$3,759	0.80	0.25	0.45	0.02	0.00	4
	B30GB001	433-G	BUCKET, CONCRETE, GENERAL PURPOSE, 1.0 CY			$4,606	0.99	0.31	0.55	0.03	0.00	6
	B30GB002	442-G	BUCKET, CONCRETE, GENERAL PURPOSE, 1.5 CY			$5,960	1.28	0.40	0.71	0.04	0.00	8
	B30GB003	462-G	BUCKET, CONCRETE, GENERAL PURPOSE, 2.0 CY			$7,361	1.57	0.49	0.87	0.05	0.00	10
	B30GB004	493-G	BUCKET, CONCRETE, GENERAL PURPOSE, 3.0 CY			$10,646	2.27	0.70	1.26	0.07	0.00	14
	B30GB005	4123-G	BUCKET, CONCRETE, GENERAL PURPOSE, 4.0 CY			$12,640	2.70	0.83	1.50	0.08	0.00	18
	SUBCATEGORY 0.20		**LAYDOWN**									
			GAR-BRO MANUFACTURING COMPANY									
	B30GB006	425-A	BUCKET, CONCRETE, LAYDOWN, 1.0 CY, HEAVY DUTY AIR GATE			$28,873	6.36	1.91	3.43	0.19	0.00	26
	B30GB007	465-A	BUCKET, CONCRETE, LAYDOWN, 2.0 CY, HEAVY DUTY AIR GATE			$31,306	6.90	2.07	3.72	0.21	0.00	32
	B30GB008	495-A	BUCKET, CONCRETE, LAYDOWN, 3.0 CY, HEAVY DUTY AIR GATE			$34,646	7.63	2.29	4.11	0.23	0.00	40
	B30GB009	4125-A	BUCKET, CONCRETE, LAYDOWN, 4.0 CY, HEAVY DUTY AIR GATE			$38,501	8.47	2.54	4.57	0.25	0.00	51

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B30			*GAR-BRO MANUFACTURING COMPANY (continued)*									
	B30GB010	4155-A	BUCKET, CONCRETE, LAYDOWN, 5.0 CY, HEAVY DUTY AIR GATE			$48,816	10.75	3.22	5.80	0.32	0.00	73
	SUBCATEGORY 0.30		**LOWBOY**									
			CAMLEVER									
	B30CR001	LB-375	BUCKET, CONCRETE, LOWBOY, 0.38 CY			$3,522	0.80	0.23	0.42	0.02	0.00	2
	B30CR002	LB-050	BUCKET, CONCRETE, LOWBOY, 0.5 CY			$3,898	0.88	0.26	0.46	0.03	0.00	2
	B30CR003	LB-075	BUCKET, CONCRETE, LOWBOY, 0.75 CY			$4,298	0.97	0.29	0.51	0.03	0.00	3
	B30CR004	LB-100	BUCKET, CONCRETE, LOWBOY, 1.0 CY			$4,722	1.07	0.31	0.56	0.03	0.00	5
	B30CR005	LB-150	BUCKET, CONCRETE, LOWBOY, 1.5 CY			$5,873	1.33	0.39	0.70	0.04	0.00	6
	B30CR009	LXB-150	BUCKET, CONCRETE, LOWBOY, 1.5 CY			$7,188	1.63	0.48	0.85	0.05	0.00	6
	B30CR006	LB-200	BUCKET, CONCRETE, LOWBOY, 2.0 CY			$6,955	1.58	0.47	0.83	0.05	0.00	8
	B30CR010	LXB-200	BUCKET, CONCRETE, LOWBOY, 2.0 CY			$8,597	1.95	0.57	1.02	0.06	0.00	6
	B30CR011	LXB-300	BUCKET, CONCRETE, LOWBOY, 3.0 CY			$9,958	2.26	0.66	1.18	0.07	0.00	6
	B30CR012	LXB-400	BUCKET, CONCRETE, LOWBOY, 4.0 CY			$12,165	2.75	0.80	1.44	0.08	0.00	6

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.40		**LOW SLUMP**									
			GAR-BRO MANUFACTURING COMPANY									
	B30GB011	440-A	BUCKET, CONCRETE, LOW SLUMP, 1.0 CY, AIR GATE			$18,731	4.23	1.23	2.22	0.12	0.00	20
	B30GB012	450-A	BUCKET, CONCRETE, LOW SLUMP, 1.5 CY, AIR GATE			$19,413	4.40	1.29	2.31	0.13	0.00	21
	B30GB013	460-A	BUCKET, CONCRETE, LOW SLUMP, 2.0 CY, AIR GATE			$20,148	4.56	1.33	2.39	0.13	0.00	24
	B30GB014	493-A	BUCKET, CONCRETE, LOW SLUMP, 3.0 CY, AIR GATE			$26,593	6.02	1.75	3.16	0.17	0.00	49
	B30GB015	4139-A	BUCKET, CONCRETE, LOW SLUMP, 4.0 CY, AIR GATE			$27,539	6.23	1.82	3.27	0.18	0.00	52
	B30GB016	4200-A	BUCKET, CONCRETE, LOW SLUMP, 6.0 CY, AIR GATE			$45,933	10.39	3.03	5.45	0.30	0.00	78
	B30GB017	4250-A	BUCKET, CONCRETE, LOW SLUMP, 8.0 CY, AIR GATE			$49,859	11.29	3.29	5.92	0.33	0.00	90
B35	**BUCKETS, DRAGLINE**											
	SUBCATEGORY 0.10		**LIGHT WEIGHT**									
			HENDRIX MANUFACTURING COMPANY, INC.									
	B35HE001	LS	BUCKET, DRAGLINE, 0.75 CY, LIGHT WEIGHT/PERFORATED			$8,498	1.77	0.54	0.96	0.06	0.00	15
	B35HE002	LS	BUCKET, DRAGLINE, 1.0 CY, LIGHT WEIGHT/PERFORATED			$9,963	2.07	0.63	1.12	0.07	0.00	18
	B35HE003	LS	BUCKET, DRAGLINE, 1.5 CY, LIGHT WEIGHT/PERFORATED			$14,117	2.94	0.90	1.59	0.10	0.00	26

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B35			*HENDRIX MANUFACTURING COMPANY, INC. (continued)*									
	B35HE004	LS	BUCKET, DRAGLINE, 2.0 CY, LIGHT WEIGHT/PERFORATED			$17,046	3.55	1.08	1.92	0.12	0.00	32
	B35HE005	LS	BUCKET, DRAGLINE, 2.5 CY, LIGHT WEIGHT/PERFORATED			$19,522	4.06	1.23	2.20	0.13	0.00	37
	B35HE006	LS	BUCKET, DRAGLINE, 3.0 CY, LIGHT WEIGHT/PERFORATED			$24,343	5.05	1.53	2.74	0.16	0.00	46
	B35HE007	LS	BUCKET, DRAGLINE, 3.5 CY, LIGHT WEIGHT/PERFORATED			$26,474	5.50	1.67	2.98	0.18	0.00	50
	B35HE008	LS	BUCKET, DRAGLINE, 4.0 CY, LIGHT WEIGHT/PERFORATED			$34,759	7.23	2.20	3.91	0.24	0.00	65
	B35HE009	LS	BUCKET, DRAGLINE, 4.5 CY, LIGHT WEIGHT/PERFORATED			$36,462	7.58	2.30	4.10	0.25	0.00	69
	B35HE010	LS	BUCKET, DRAGLINE, 5.0 CY, LIGHT WEIGHT/PERFORATED			$42,202	8.77	2.67	4.75	0.29	0.00	85
	B35HE011	LS	BUCKET, DRAGLINE, 6.0 CY, LIGHT WEIGHT/PERFORATED			$45,690	9.49	2.88	5.14	0.31	0.00	92
	B35HE012	LS	BUCKET, DRAGLINE, 7.0 CY, LIGHT WEIGHT/PERFORATED			$49,976	10.38	3.15	5.62	0.34	0.00	101
	B35HE013	LS	BUCKET, DRAGLINE, 8.0 CY, LIGHT WEIGHT/PERFORATED			$55,381	11.51	3.50	6.23	0.38	0.00	112
	B35HE014	LS	BUCKET, DRAGLINE, 9.0 CY, LIGHT WEIGHT/PERFORATED			$63,369	13.17	4.00	7.13	0.43	0.00	128
	B35HE015	LS	BUCKET, DRAGLINE, 10.0 CY, LIGHT WEIGHT/PERFORATED			$68,881	14.32	4.35	7.75	0.47	0.00	139
	B35HE016	LS	BUCKET, DRAGLINE, 12.0 CY, LIGHT WEIGHT/PERFORATED			$82,274	17.10	5.19	9.26	0.56	0.00	166

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B35			*HENDRIX MANUFACTURING COMPANY, INC. (continued)*									
	B35HE017	LS	BUCKET, DRAGLINE, 14.0 CY, LIGHT WEIGHT/PERFORATED			$94,655	19.67	5.97	10.65	0.64	0.00	191
			SAUERMAN (NATIONAL OILWELL VARCO)									
	B35SA001	SC-1050-K	BUCKET, DRAGLINE, 1.0 CY, CRESCENT, W/CARRIER			$60,720	12.61	3.83	6.83	0.41	0.00	15
	B35SA003	SC-1070-K	BUCKET, DRAGLINE, 2.0 CY, CRESCENT, W/CARRIER			$91,051	18.92	5.74	10.24	0.62	0.00	25
	B35SA004	SC-1090-K	BUCKET, DRAGLINE, 3.0 CY, CRESCENT, W/CARRIER			$136,676	28.41	8.62	15.38	0.93	0.00	36
	B35SA005	SC-1100-K	BUCKET, DRAGLINE, 4.0 CY, CRESCENT, W/CARRIER			$182,260	37.87	11.49	20.50	1.24	0.00	49
	B35SA006	SC-1110-K	BUCKET, DRAGLINE, 5.0 CY, CRESCENT, W/CARRIER			$228,030	47.38	14.38	25.65	1.55	0.00	58
	B35SA007	SC-1120-K	BUCKET, DRAGLINE, 6.0 CY, CRESCENT, W/CARRIER			$273,257	56.77	17.22	30.74	1.85	0.00	68
	B35SA008	SC-1130-K	BUCKET, DRAGLINE, 8.0 CY, CRESCENT, W/CARRIER			$364,277	75.69	22.96	40.98	2.47	0.00	88
	B35SA009	SC-1140-K	BUCKET, DRAGLINE, 10.0 CY,CRESCENT, W/CARRIER			$455,249	94.60	28.70	51.22	3.09	0.00	106
	B35SA010	SC-1150-K	BUCKET, DRAGLINE, 12.0 CY,CRESCENT, W/CARRIER			$546,415	113.53	34.44	61.47	3.70	0.00	132
			NO SPECIFIC MANUFACTURER									
	B35XX001	6-1/2L	BUCKET, DRAGLINE, 6.5 CY, LIGHT WEIGHT			$33,955	7.06	2.14	3.82	0.23	0.00	94

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B35			*NO SPECIFIC MANUFACTURER (continued)*									
	B35XX002	7-1/2L	BUCKET, DRAGLINE, 7.5 CY, LIGHT WEIGHT			$38,185	7.94	2.41	4.30	0.26	0.00	106
	B35XX003	8-1/2L	BUCKET, DRAGLINE, 8.5 CY, LIGHT WEIGHT			$42,215	8.78	2.67	4.75	0.29	0.00	116
	B35XX004	9-1/2L	BUCKET, DRAGLINE, 9.5 CY, LIGHT WEIGHT			$48,143	10.01	3.04	5.42	0.33	0.00	132
	B35XX005	11L	BUCKET, DRAGLINE, 11.0 CY, LIGHT WEIGHT			$54,052	11.23	3.41	6.08	0.37	0.00	148
	B35XX006	13L	BUCKET, DRAGLINE, 13.0 CY, LIGHT WEIGHT			$66,469	13.81	4.19	7.48	0.45	0.00	178
	SUBCATEGORY 0.20		**MEDIUM WEIGHT**									
			HENDRIX MANUFACTURING COMPANY, INC.									
	B35HE018	TS	BUCKET, DRAGLINE, 0.75 CY, MEDIUM WEIGHT			$9,189	1.70	0.52	0.92	0.06	0.00	17
	B35HE019	TS	BUCKET, DRAGLINE, 1.0 CY, MEDIUM WEIGHT			$10,522	1.95	0.60	1.05	0.07	0.00	19
	B35HE020	TS	BUCKET, DRAGLINE, 1.5 CY, MEDIUM WEIGHT			$15,022	2.78	0.85	1.50	0.10	0.00	28
	B35HE021	TS	BUCKET, DRAGLINE, 2.0 CY, MEDIUM WEIGHT			$18,963	3.52	1.08	1.90	0.13	0.00	36
	B35HE022	TS	BUCKET, DRAGLINE, 2.5 CY, MEDIUM WEIGHT			$21,867	4.06	1.25	2.19	0.15	0.00	41
	B35HE023	TS	BUCKET, DRAGLINE, 3.0 CY, MEDIUM WEIGHT			$26,129	4.84	1.48	2.61	0.17	0.00	49

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B35			*HENDRIX MANUFACTURING COMPANY, INC. (continued)*									
	B35HE024	TS	BUCKET, DRAGLINE, 3.5 CY, MEDIUM WEIGHT			$28,819	5.34	1.63	2.88	0.19	0.00	54
	B35HE025	TS	BUCKET, DRAGLINE, 4.0 CY, MEDIUM WEIGHT			$37,342	6.92	2.12	3.73	0.25	0.00	70
	B35HE026	TS	BUCKET, DRAGLINE, 4.5 CY, MEDIUM WEIGHT			$38,140	7.07	2.17	3.81	0.26	0.00	72
	B35HE027	TS	BUCKET, DRAGLINE, 5.0 CY, MEDIUM WEIGHT			$46,250	8.58	2.63	4.63	0.31	0.00	93
	B35HE028	TS	BUCKET, DRAGLINE, 6.0 CY, MEDIUM WEIGHT			$47,821	8.86	2.71	4.78	0.32	0.00	96
	B35HE029	TS	BUCKET, DRAGLINE, 7.0 CY, MEDIUM WEIGHT			$55,143	10.22	3.13	5.51	0.37	0.00	111
	B35HE030	TS	BUCKET, DRAGLINE, 8.0 CY, MEDIUM WEIGHT			$60,762	11.27	3.45	6.08	0.41	0.00	122
	B35HE031	TS	BUCKET, DRAGLINE, 9.0 CY, MEDIUM WEIGHT			$73,941	13.70	4.19	7.39	0.49	0.00	149
	B35HE032	TS	BUCKET, DRAGLINE, 10.0 CY, MEDIUM WEIGHT			$78,786	14.61	4.47	7.88	0.53	0.00	159
	B35HE033	TS	BUCKET, DRAGLINE, 12.0 CY, MEDIUM WEIGHT			$100,381	18.61	5.69	10.04	0.67	0.00	202
	B35HE034	TS	BUCKET, DRAGLINE, 14.0 CY, MEDIUM WEIGHT			$111,857	20.74	6.35	11.19	0.75	0.00	225
			NO SPECIFIC MANUFACTURER									
	B35XX007	6-1/2M	BUCKET, DRAGLINE, 6.5 CY, MEDIUM WEIGHT			$38,347	7.11	2.18	3.83	0.26	0.00	101

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B35			*NO SPECIFIC MANUFACTURER (continued)*									
	B35XX008	7-1/2M	BUCKET, DRAGLINE, 7.5 CY, MEDIUM WEIGHT			$43,853	8.13	2.49	4.39	0.29	0.00	117
	B35XX009	8-1/2M	BUCKET, DRAGLINE, 8.5 CY, MEDIUM WEIGHT			$47,219	8.75	2.68	4.72	0.32	0.00	126
	B35XX010	9-1/2M	BUCKET, DRAGLINE, 9.5 CY, MEDIUM WEIGHT			$56,189	10.42	3.19	5.62	0.38	0.00	152
	B35XX011	11M	BUCKET, DRAGLINE, 11.0 CY, MEDIUM WEIGHT			$62,141	11.52	3.53	6.21	0.42	0.00	169
	B35XX012	13M	BUCKET, DRAGLINE, 13.0 CY, MEDIUM WEIGHT			$78,730	14.59	4.47	7.87	0.53	0.00	211
	SUBCATEGORY 0.30		**HEAVY WEIGHT**									
			HENDRIX MANUFACTURING COMPANY, INC.									
	B35HE035	MH-S	BUCKET, DRAGLINE, 2.75 CY, HEAVY WEIGHT			$34,348	5.75	1.78	3.09	0.23	0.00	69
	B35HE036	MH-S	BUCKET, DRAGLINE, 3.0 CY, HEAVY WEIGHT			$35,840	6.01	1.86	3.23	0.24	0.00	72
	B35HE037	MH-S	BUCKET, DRAGLINE, 3.5 CY, HEAVY WEIGHT			$40,317	6.75	2.09	3.63	0.27	0.00	81
	B35HE038	MH-S	BUCKET, DRAGLINE, 4.0 CY, HEAVY WEIGHT			$54,755	9.17	2.83	4.93	0.36	0.00	110
	B35HE039	MH-S	BUCKET, DRAGLINE, 4.5 CY, HEAVY WEIGHT			$61,230	10.26	3.17	5.51	0.41	0.00	123
	B35HE040	MH-S	BUCKET, DRAGLINE, 5.0 CY, HEAVY WEIGHT			$63,212	10.59	3.27	5.69	0.42	0.00	127

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B35			*HENDRIX MANUFACTURING COMPANY, INC. (continued)*									
	B35HE041	MH-S	BUCKET, DRAGLINE, 6.0 CY, HEAVY WEIGHT			$67,695	11.33	3.50	6.09	0.45	0.00	136
	B35HE042	MH-S	BUCKET, DRAGLINE, 7.0 CY, HEAVY WEIGHT			$87,110	14.59	4.50	7.84	0.58	0.00	175
	B35HE043	MH-S	BUCKET, DRAGLINE, 8.0 CY, HEAVY WEIGHT			$89,599	14.99	4.62	8.06	0.59	0.00	180
	B35HE044	MH-S	BUCKET, DRAGLINE, 9.0 CY, HEAVY WEIGHT			$116,481	19.50	6.01	10.48	0.77	0.00	234
	B35HE045	MH-S	BUCKET, DRAGLINE, 10.0 CY, HEAVY WEIGHT			$119,303	19.98	6.16	10.74	0.79	0.00	243
	B35HE046	MH-S	BUCKET, DRAGLINE, 12.0 CY, HEAVY WEIGHT			$141,884	23.76	7.33	12.77	0.94	0.00	289
	B35HE047	MH-S	BUCKET, DRAGLINE, 14.0 CY, HEAVY WEIGHT			$150,748	25.24	7.79	13.57	1.00	0.00	309
			NO SPECIFIC MANUFACTURER									
	B35XX013	3/4H	BUCKET, DRAGLINE, 0.75 CY, HEAVY WEIGHT			$9,634	1.61	0.50	0.87	0.06	0.00	20
	B35XX014	1H	BUCKET, DRAGLINE, 1.0 CY, HEAVY WEIGHT			$10,825	1.81	0.56	0.97	0.07	0.00	23
	B35XX015	1-1/2H	BUCKET, DRAGLINE, 1.5 CY, HEAVY WEIGHT			$16,103	2.70	0.84	1.45	0.11	0.00	35
	B35XX016	2H	BUCKET, DRAGLINE, 2.0 CY, HEAVY WEIGHT			$18,396	3.08	0.95	1.66	0.12	0.00	42
	B35XX017	2-1/2H	BUCKET, DRAGLINE, 2.5 CY, HEAVY WEIGHT			$20,108	3.36	1.04	1.81	0.13	0.00	48

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
B35			*NO SPECIFIC MANUFACTURER (continued)*									
	B35XX018	5-1/2H	BUCKET, DRAGLINE, 5.5 CY, HEAVY WEIGHT			$43,057	7.21	2.22	3.88	0.28	0.00	113
	B35XX019	6-1/2H	BUCKET, DRAGLINE, 6.5 CY, HEAVY WEIGHT			$45,997	7.70	2.37	4.14	0.30	0.00	125
	B35XX020	7-1/2H	BUCKET, DRAGLINE, 7.5 CY, HEAVY WEIGHT			$51,864	8.68	2.68	4.67	0.34	0.00	135
	B35XX021	8-1/2H	BUCKET, DRAGLINE, 8.5 CY, HEAVY WEIGHT			$56,544	9.46	2.92	5.09	0.37	0.00	159
	B35XX022	9-1/2H	BUCKET, DRAGLINE, 9.5 CY, HEAVY WEIGHT			$71,224	11.92	3.68	6.41	0.47	0.00	181
	B35XX023	11H	BUCKET, DRAGLINE, 11.0 CY, HEAVY WEIGHT			$76,340	12.77	3.94	6.87	0.50	0.00	198
C05	CHAIN SAWS											
	SUBCATEGORY 0.00		**CHAIN SAWS**									
			STIHL									
	C05S7001	MS241CM	CHAIN SAW, 12"-16" GUIDE BAR	3 HP G		$560	1.79	0.14	0.25	0.01	0.72	1
	C05S7002	MS362CM	CHAIN SAW, 16"-25" GUIDE BAR	5 HP G		$710	2.45	0.17	0.32	0.01	1.08	1
	C05S7003	MS441CM MAGNUM	CHAIN SAW, 16"-32" GUIDE BAR	6 HP G		$936	3.08	0.22	0.42	0.01	1.29	1
	C05S7004	MS880 MAGNUM	CHAIN SAW, 17"-59" GUIDE BAR	9 HP G		$1,791	5.36	0.43	0.81	0.02	1.99	1

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN			CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C10	**COMPACTORS, WALK-BEHIND OR REMOTE CONTROLLER**													
	SUBCATEGORY 0.10		**COMPACTORS, RAMMERS / TAMPERS & VIBRATORY PLATES**											
			BOMAG											
	C10BO001	BT 60/4	COMPACTOR, RAMMER, TAMPER, 11" X 13.2" SHOE, 2,630 LBS IMPACT	3	HP	G		$4,425	3.19	0.56	1.05	0.03	0.69	2
	C10BO003	BP 10/36-2	COMPACTOR, VIBROPLATE, 14.2" X 22" PLATE, 2,250 LBS IMPACT	4	HP	G		$1,705	1.94	0.21	0.40	0.01	0.92	2
	C10BO004	BP 18/45-2	COMPACTOR, VIBROPLATE, 17.7" X 22" PLATE, 4,050 LBS IMPACT	6	HP	G		$2,000	2.63	0.25	0.48	0.01	1.39	2
	C10BO008	BPR 55/65D	COMPACTOR, VIBROPLATE, 25.6" X 35.4" PLATE, REVERSIBLE, 11,250 LBS IMPACT	9	HP	D-off		$17,516	11.26	2.21	4.16	0.13	1.47	10
			WACKER CORPORATION											
	C10WC003	DS 70	COMPACTOR, RAMMER, 13" X 13" SHOE, 3,550 LBS IMPACT	4	HP	D-off		$5,612	3.81	0.71	1.33	0.04	0.66	2
	C10WC006	BPU 2540 A	COMPACTOR, VIBROPLATE, 19.5" X 25.5" PLATE, REVERSIBLE, 5,600 LBS IMPACT	6	HP	G		$5,542	4.45	0.70	1.32	0.04	1.27	3
	C10WC007	BPU 3750A	COMPACTOR, VIBROPLATE, 19.7" WIDE PLATE, REVERSIBLE, 8,300 LBS IMPACT	8	HP	G		$8,510	6.71	1.07	2.02	0.06	1.85	6
	C10WC008	DPU 6555 HEC	COMPACTOR, VIBROPLATE, 22" X 35" PLATE, REVERSIBLE, 14,600 LBS IMPACT	14	HP	D-off		$22,941	15.05	2.90	5.45	0.17	2.21	11

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.20		**ROLLERS, VIBRATORY**									
			BOMAG									
	C10BO009	BW 55E	COMPACTOR, ROLLER, VIBRATORY, 22"W X 15.7"DIA, SINGLE SMOOTH DRUM, WALK BEHIND, 2,273 LBS IMPACT	4 HP G		$9,040	5.76	1.03	1.92	0.07	0.92	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		$21,229	12.06	2.43	4.51	0.17	0.82	13
	C10BO011	BW 65H	COMPACTOR, ROLLER, VIBRATORY, 25.6"W X 15.7"DIA, DOUBLE SMOOTH DRUMS, WALK BEHIND, 1,980 LBS IMPACT	8 HP D-on		$23,875	14.23	2.73	5.07	0.19	1.53	16
	C10BO016	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		$26,641	15.62	3.04	5.66	0.21	1.47	20
	C10BO013	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-on		$54,600	32.70	6.23	11.60	0.43	3.64	45
			MULTIQUIP, INC.									
	C10MU001	MRH800GS	COMPACTOR, TRENCH ROLLER, VIBRATORY, 23"W X 14.6"DIA, QUAD PADFOOT DRUMS, WALK BEHIND, 7,875 LBS IMPACT	11 HP D-off		$18,564	11.73	2.11	3.94	0.14	1.80	16
	C10MU002	RX157533	COMPACTOR, TRENCH ROLLER, VIBRATORY, 33"W X 21.7"DIA, QUAD PADFOOT DRUMS, WALK BEHIND, 15,652 LBS IMPACT	20 HP D-off		$40,617	24.96	4.64	8.63	0.32	3.28	32

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C10			*MULTIQUIP, INC. (continued)*									
	C10MU003	AR14H	COMPACTOR, TRENCH ROLLER, VIBRATORY, 47"W X 22"DIA, QUAD PADFOOT DRUMS, RIDE ON, 21,600 LBS IMPACT	21 HP D-off		$18,885	13.70	2.16	4.01	0.15	3.44	29
			WACKER CORPORATION									
	C10WC010	RSS800A	COMPACTOR, ROLLER, VIBRATORY, 28"W X 22"DIA, SINGLE SMOOTH DRUM, WALK BEHIND, 3,400 LBS IMPACT	11 HP G		$15,061	10.71	1.72	3.20	0.12	2.54	11
	C10WC017	RD7H ES	COMPACTOR, ROLLER, VIBRATORY,25.5"W X 16.5"DIA, DOUBLE SMOOTH DRUM, WALK BEHIND, 2,925 LBS IMPACT	9 HP D-off		$20,004	12.14	2.29	4.25	0.16	1.47	16
	C10WC016	RTL 82-SC3	COMPACTOR, TRENCH ROLLER, VIBRATORY, 32"W X 20"DIA, DOUBLE TAMPING FOOT DRUMS, WALK BEHIND, 7,700/15,000 LBS IMPACT	20 HP D-on		$47,188	28.97	5.39	10.03	0.37	3.79	32
C15	**CONCRETE CLEANERS / ABRASIVE BLASTERS**											
	SUBCATEGORY 0.10		**WALK BEHIND**									
			BLASTRAC									
	C15BL001	1-8 DEC MKI&BDC-1216	CONCRETE BLASTER CLEANING SYSTEM, WALK BEHIND, 8" PATH (ADD 4 KVA GENERATOR & BLAST MEDIA COST)	2 HP E		$9,889	5.40	1.07	1.98	0.08	0.38	2
	C15BL003	1-10DSG1 & BDC66DBP	CONCRETE BLASTER CLEANING SYSTEM, WALK BEHIND, 10" PATH (ADD 30 KVA GENERATOR & BLAST MEDIA COST)	10 HP E		$42,063	22.80	4.55	8.41	0.34	1.92	7
	C15BL004	1-15DSG1 & BDC66DBP	CONCRETE BLASTER CLEANING SYSTEM, WALK BEHIND, 15" PATH (ADD 30 KVA GENERATOR & BLAST MEDIA COST)	15 HP E		$46,886	26.62	5.06	9.38	0.37	2.88	8

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C15			*BLASTRAC (continued)*									
	C15BL005	2-20DTMKII&BDC99DBP	CONCRETE BLASTER CLEANING SYSTEM, WALK BEHIND, 20" PATH (ADD 75 KVA GENERATOR & BLAST MEDIA COST)	30 HP E		$62,941	38.24	6.80	12.59	0.50	5.75	12
			EQUIPMENT DEVELOPMENT CO., INC. (EDCO)									
	C15ED002	CPM-8	CONCRETE GRINDER, WALK BEHIND, TRAFFIC LINE REMOVER, 8" CUTTING PATH	9 HP G		$4,821	3.94	0.52	0.96	0.04	1.62	2
	C15ED001	TLR-7	CONCRETE GRINDER, WALK BEHIND, TRAFFIC LINE REMOVER, 7" CUTTING WIDTH	11 HP G		$8,303	5.87	0.90	1.66	0.07	1.98	5
	SUBCATEGORY 0.20		**TRUCK/TRAILER MOUNTED**									
			BLASTRAC									
	C15BL006	2-4800 DH MKV	CONCRETE BLASTER, SELF PROPELLED, 48" PATH	350 HP D-on		$449,639	177.94	25.73	44.96	3.25	70.09	255
			NO SPECIFIC MANUFACTURER									
	C15XX001	2-45 DTM	CONCRETE CLEANER/ABRASIVE BLASTER, TRUCK MOUNTED, GINDER/BLASTER, UP TO 38,750 SF/HR	86 HP D-on	180 HP D-off	$612,297	173.50	34.78	60.70	4.43	33.68	138
C20	CONCRETE BUGGIES											
	SUBCATEGORY 0.00		**CONCRETE BUGGIES**									
			NO SPECIFIC MANUFACTURER									
	C20XX001	WBH-16	CONCRETE BUGGY, 16 CF BUCKET, 2,500 LBS	12 HP G		$9,513	5.79	0.78	1.39	0.08	2.15	14

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C20			*NO SPECIFIC MANUFACTURER (continued)*									
	C20XX002	107TT	CONCRETE BUGGY, 11.5 CF BUCKET, 1,500 LBS, CRAWLER MTD	8 HP G		$12,001	6.27	1.30	2.40	0.10	1.44	14
C25	**CONCRETE FINISHERS/SCREEDS/SPREADERS**											
	SUBCATEGORY 0.10		**FINISHERS/TROWELS**									
			ALLEN ENGINEERING CORP.									
	C25AJ020	TR MP215	CONCRETE TROWEL, RIDING, 2 - 36" DIA ROTORS, 4 BLADED SPIDER, 145 RPM	22 HP G		$12,364	8.55	1.08	1.98	0.09	3.95	8
	C25AJ021	TR MP315	CONCRETE TROWEL, RIDING, 2 - 46" DIA ROTORS, 4 BLADED SPIDER, 145 RPM	22 HP G		$14,449	9.24	1.27	2.31	0.11	3.95	9
	C25AJ022	TR MSP445	CONCRETE TROWEL, RIDING, 2 - 46" DIA ROTORS, 5 BLADED SPIDER, 165 RPM	40 HP G		$19,294	14.51	1.70	3.09	0.15	7.18	11
	C25AJ023	TR MSP 450	CONCRETE TROWEL, RIDING, 2 - 46" DIA ROTORS, 5 BLADED SPIDER, 180 RPM	44 HP D-off		$26,671	15.17	2.34	4.27	0.20	5.70	15
	C25AJ015	PRO 900	CONCRETE TROWEL, RIDING, 2 - 36" DIA ROTORS, 8 BLADES	20 HP G		$13,385	8.49	1.17	2.14	0.10	3.59	8
	C25AJ016	PRO 1050	CONCRETE TROWEL, RIDING, 2 - 42" DIA ROTORS, 8 BLADES	24 HP G		$15,008	9.84	1.32	2.40	0.12	4.31	9
	C25AJ018	PRO 1200	CONCRETE TROWEL, RIDING, 2 - 46" DIA ROTORS, 8 BLADES	24 HP G		$15,590	10.03	1.37	2.49	0.12	4.31	11
	C25AJ019	SUPER PRO 400	CONCRETE TROWEL, RIDING, 2 - 46" DIA ROTORS, 8 BLADES	34 HP G		$21,400	13.97	1.87	3.42	0.16	6.10	13
			MULTIQUIP, INC.									
	C25MU001	J36H90H	CONCRETE FINISHER, WALK BEHIND, ROTO TROWEL, 36" DIA ROTOR, 4	8 HP G		$2,615	2.50	0.23	0.42	0.02	1.44	3

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C25			*MULTIQUIP, INC. (continued)*									
	C25MU002	B46H11H	CONCRETE FINISHER, WALK BEHIND, ROTO TROWEL, 46" DIA ROTOR, 4	9 HP G		$3,075	2.85	0.27	0.49	0.02	1.62	3
			WACKER CORPORATION									
	C25WC002	CT48-8A	CONCRETE FINISHER, WALK BEHIND, POWER TROWEL, 48" DIA ROTOR, 4 BLADES	7 HP G		$3,080	2.45	0.27	0.49	0.02	1.27	3
	SUBCATEGORY 0.20		**VIBRATORY SCREED**									
			ALLEN ENGINEERING CORP.									
	C25AJ024	SA12	CONCRETE, PNEUMATIC VIBRATORY SCREED, VARIABLE WIDTH 65' MAX(ADD 100CFM COMPRESSOR	30 CFM A		$9,533	3.20	0.84	1.53	0.07	0.00	11
	C25AJ003	12HED	CONCRETE, VIBRATORY SCREED, 22.5' WIDE	6 HP G		$9,225	4.27	0.81	1.48	0.07	1.08	7
	C25AJ001	12 HD	CONCRETE, VIBRATORY SCREED, 20' WIDE	6 HP G		$5,451	3.02	0.48	0.87	0.04	1.08	5
	C25AJ004	12HED	CONCRETE, VIBRATORY SCREED, 32.5' WIDE	9 HP G		$10,416	5.29	0.92	1.67	0.08	1.62	8
	C25AJ005	12HED	CONCRETE, VIBRATORY SCREED, 42.5' WIDE	11 HP G		$11,657	6.10	1.03	1.87	0.09	1.98	11
	C25AJ006	12HED	CONCRETE, VIBRATORY SCREED, 50' WIDE	11 HP G		$13,173	6.59	1.16	2.11	0.10	1.98	12
	C25AJ007	12HED	CONCRETE, VIBRATORY SCREED, 55' WIDE	11 HP G		$13,917	6.85	1.23	2.23	0.11	1.98	13

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			NO SPECIFIC MANUFACTURER									
	C25XX001	10' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 10' WIDTH	9 HP G		$4,996	3.49	0.44	0.80	0.04	1.62	5
	C25XX002	15' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 15' WIDTH	9 HP G		$6,322	3.93	0.56	1.01	0.05	1.62	6
	C25XX003	20' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 20' WIDTH	9 HP G		$6,831	4.09	0.60	1.09	0.05	1.62	7
	C25XX004	25' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 25' WIDTH	9 HP G		$7,693	4.38	0.68	1.23	0.06	1.62	7
	C25XX005	30' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 30' WIDTH	9 HP G		$8,642	4.70	0.76	1.38	0.07	1.62	8
	C25XX006	35' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 35' WIDTH	11 HP G		$9,703	5.44	0.85	1.55	0.07	1.98	8
	C25XX007	4' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 4' WIDTH	2 HP G		$1,432	0.88	0.13	0.23	0.01	0.36	1
	C25XX008	40' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 40' WIDTH	11 HP G		$10,677	5.77	0.94	1.71	0.08	1.98	10
	C25XX009	45' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 45' WIDTH	11 HP G		$11,562	6.06	1.02	1.85	0.09	1.98	11
	C25XX010	50' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 50' WIDTH	11 HP G		$12,512	6.38	1.10	2.00	0.10	1.98	12
	C25XX011	55' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 55' WIDTH	11 HP G		$13,398	6.66	1.17	2.14	0.10	1.98	13
	C25XX012	6' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 6' WIDTH	2 HP G		$1,469	0.90	0.13	0.24	0.01	0.36	1
	C25XX013	60' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 60' WIDTH	11 HP G		$14,347	6.99	1.26	2.30	0.11	1.98	14

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C25			*NO SPECIFIC MANUFACTURER (continued)*									
	C25XX014	65' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 65' WIDTH	11 HP G		$15,233	7.28	1.34	2.44	0.12	1.98	15
	C25XX015	8' POWER SCREED	CONCRETE, VIBRATORY POWER SCREED, 8' WIDTH	2 HP G		$1,488	0.90	0.13	0.24	0.01	0.36	1
	SUBCATEGORY 0.25		**VIBRATORY LASER SCREED**									
			SOMERO ENTERPRISES, INC.									
	C25SV004	S-485	CONCRETE, VIBRATORY LASER SCREED, WALK BEHIND, 8' WIDTH	21 HP G		$74,985	17.06	3.63	6.10	0.58	3.53	11
	C25SV005	S-840	CONCRETE, VIBRATORY SCREED, WALK BEHIND, 8' WIDTH	21 HP G		$73,039	16.73	3.53	5.93	0.56	3.53	16
	C25SV008	MINI SCREED C	CONCRETE, VIBRATORY LASER SCREED, WALK BEHIND, 30" WIDTH	6 HP G		$35,145	7.24	1.69	2.83	0.27	1.01	5
	C25SV009	S-15M	CONCRETE, VIBRATORY LASER SCREED, 7' 2" WIDTH X 20' BOOM	35 HP D-off		$280,591	52.93	14.19	24.08	2.15	4.13	78
	C25SV010	S-15R	CONCRETE, VIBRATORY LASER SCREED, 7' 6" WIDTH X 20' BOOM	35 HP D-off		$313,588	58.59	15.90	26.97	2.41	4.13	88
	C25SV011	S-22E	CONCRETE, VIBRATORY LASER SCREED, 14' WIDTH X 20' BOOM	74 HP D-off		$370,558	73.68	18.82	31.95	2.84	8.74	136
	SUBCATEGORY 0.30		**MATERIAL/TOPPING SPREADERS**									
			ALLEN ENGINEERING CORP.									
	C25AJ008	SP23H	CONCRETE, MATERIAL/TOPPING SPREADER, 12.5' WIDE	6 HP G		$20,415	4.59	1.06	1.79	0.16	0.92	11
	C25AJ009	SP23H	CONCRETE, MATERIAL/TOPPING SPREADER, 20' WIDE	6 HP G		$22,112	4.87	1.14	1.93	0.17	0.92	12

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C25			*ALLEN ENGINEERING CORP. (continued)*									
	C25AJ010	SP23H	CONCRETE, MATERIAL/TOPPING SPREADER, 30' WIDE	6 HP G		$23,563	5.12	1.21	2.06	0.18	0.92	13
	C25AJ011	SP23H	CONCRETE, MATERIAL/TOPPING SPREADER, 40' WIDE	6 HP G		$25,015	5.37	1.29	2.19	0.19	0.92	14
	C25AJ012	SP23H	CONCRETE, MATERIAL/TOPPING SPREADER, 50' WIDE	6 HP G		$26,466	5.62	1.36	2.32	0.20	0.92	15
	C25AJ013	SP23H	CONCRETE, MATERIAL/TOPPING SPREADER, 60' WIDE	6 HP G		$27,942	5.86	1.43	2.44	0.21	0.92	17
			SOMERO ENTERPRISES, INC.									
	C25SV006	STS-11M	CONCRETE, MATERIAL/TOPPING SPREADER, 6' WIDTH, 20' BOOM	35 HP D-off		$122,021	25.76	6.05	10.21	0.94	4.13	90
	C25SV007	XD 3.0	CONCRETE, VIBRATORY LASER SCREED, WALK BEHIND, 8' 10" WIDTH	14 HP G		$68,056	14.45	3.38	5.71	0.52	2.35	9
C35	**CONCRETE GUNITERS / SHOTCRETERS**											
	SUBCATEGORY 0.00		**CONCRETE GUNITERS / SHOTCRETERS**									
			AIRPLACO EQUIPMENT CO., INC.									
	C35AF001	AG-15 WITH 634D MIXR	CONCRETE GUNITER/SHOTCRETER, WET/DRY, 13 CY/HR MIXER WITH 13 CY/HR PUMP/GUN (ADD 300-900 CFM COMPRESSOR)	30 HP D-off		$78,290	26.19	4.77	8.36	0.59	4.11	50
	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		$12,699	5.10	0.77	1.33	0.10	0.00	6

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C35			*AIRPLACO EQUIPMENT CO., INC. (continued)*									
	C35AF004	634D Mix Elevator	CONCRETE GUNITER/SHOTCRETER, DRY BATCH MIXER, 13 CY/HR, W/FEEDER, TRAILER MTD (ADD SHOTCRETE MACHINE)	30 HP D-off		$64,175	22.32	3.91	6.85	0.48	4.11	43
	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		$74,718	28.53	4.52	7.91	0.56	7.41	81
			ALIVA LTD.									
	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		$103,537	33.40	6.29	11.01	0.78	4.11	33
			EQUIPMENT NORTH									
	C35EN001	HALMAN EN CRETER	CONCRETE GUNITERS / SHOTCRETERS, SHOTCRETE HYDRAULIC SPRAYER ARM, 24' REACH (ADD TRUCK OR SMALL TRAILER & SHOTCRETE UNIT)	40 HP E		$223,079	69.33	13.63	23.90	1.68	8.22	91
			PUTZMEISTER INC.									
	C35PU001	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)	35 HP D-off		$44,332	17.18	2.67	4.67	0.33	4.80	47

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C35			*PUTZMEISTER INC. (continued)*									
	C35PU002	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		$17,575	6.01	1.07	1.88	0.13	1.03	11
	C35PU003	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		$28,421	7.28	1.74	3.05	0.21	0.00	13
	C35PU004	AG-15 AUTOMATIC GUN	CONCRETE GUNITER/SHOTCRETER, ROTARY PUMP, WET/DRY, 3 - 15 CY/HR (ADD 300 - 900 CFM COMPRESSOR)	9 CFM A		$14,115	3.87	0.87	1.51	0.11	0.00	7
	C35PU005	TK10	CONCRETE GUNITER/SHOTCRETER, GROUT/MUD JACK/ SHOTCRETE, 7 CY/HR, 2,085 PSI, 8 CF HOPPER, TRAILER MTD (ADD 3" HOSE LINE)	61 HP D-off		$50,813	22.28	3.09	5.41	0.38	8.37	40
			REED MANUFACTURING									
	C35RQ001	SOVA	CONCRETE GUNITER/SHOTCRETER, DRY MIX, 9 CY/HR, DUST EXTRACTION SYSTEM, 3/8" MAX AGGREGATE (ADD 315 CFM AIR COMPRESSOR)	5 HP E		$12,346	5.54	0.75	1.32	0.09	1.03	5
	C35RQ002	LOVA 16-4	CONCRETE GUNITER/SHOTCRETER, DRY MIX, 12 CY/HR, DUST EXTRACTION SYSTEM, 5/8" MAX AGGREGATE (ADD 450 CFM AIR COMPRESSOR)	9 HP E		$19,870	9.59	1.22	2.13	0.15	1.85	7

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN			CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C40	CONCRETE MIXING UNITS													
	SUBCATEGORY 0.00		CONCRETE MIXING UNITS											
			CEMEN TECH											
	C40CC001	SCD2-50	CONCRETE MIXERS, STATIONARY CONCRETE DISPENSER, 15 CY/HR, 2 - 4.5 CY MATERIAL CAPACITY	10	HP	E		$42,315	16.90	3.71	6.77	0.32	1.92	23
			MULTIQUIP, INC.											
	C40MU005	MC44SE	CONCRETE MIXERS, MIXER, CONCRETE, 4 CF, TRAILER MTD	1	HP	E		$2,391	1.11	0.20	0.35	0.02	0.10	5
	C40MU006	MC44SH	CONCRETE MIXERS, MIXER, CONCRETE, 4 CF, TRAILER MTD	6	HP	G		$2,772	2.01	0.23	0.41	0.02	0.99	5
	C40MU007	MC64SE	CONCRETE MIXERS, MIXER, CONCRETE, 6 CF, TRAILER MTD	2	HP	E		$3,412	1.94	0.29	0.52	0.03	0.38	7
	C40MU008	MC94SE	CONCRETE MIXERS, MIXER, CONCRETE, 9 CF, TRAILER MTD	2	HP	E		$4,287	2.13	0.36	0.66	0.03	0.29	8
	C40MU001	WM70SH8	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 7 CF, TRAILER MTD	8	HP	G		$3,794	2.85	0.32	0.57	0.03	1.44	8
	C40MU002	WM120SHHD	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 12 CF, TRAILER MTD	13	HP	G		$7,852	5.20	0.67	1.22	0.06	2.33	11
	C40MU003	MC64SH8	CONCRETE MIXERS, MIXER, CONCRETE, 6 CF, TRAILER MTD	8	HP	G		$3,845	2.87	0.32	0.58	0.03	1.44	7
	C40MU004	MC94SH8	CONCRETE MIXERS, MIXER, CONCRETE, 9 CF, TRAILER MTD	8	HP	G		$4,363	3.04	0.37	0.67	0.03	1.44	8

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			NO SPECIFIC MANUFACTURER									
	C40XX001	6E	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 6 CF, ELECTRIC, PORTABLE	6 HP E		$2,932	2.77	0.26	0.47	0.02	1.05	5
	C40XX002	9.5G	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 9.5 CF, GAS, PORTABLE	6 HP G		$3,342	2.22	0.30	0.53	0.03	0.99	7
	C40XX003	9.5E	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 9.5 CF, ELECTRIC, PORTABLE	2 HP E		$3,306	1.74	0.30	0.53	0.03	0.29	5
	C40XX004	10G	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 10 CF, GAS, PORTABLE	8 HP G		$4,697	3.18	0.42	0.75	0.04	1.44	10
	C40XX005	12E	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 12 CF, ELECTRIC, PORTABLE	5 HP E		$4,823	3.31	0.43	0.77	0.04	0.96	12
	C40XX006	16E	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 16 CF, ELECTRIC, PORTABLE	5 HP E		$8,564	4.54	0.76	1.37	0.07	0.96	17
	C40XX007	16G	CONCRETE MIXERS, MIXER, PLASTER/MORTAR, 16 CF, GAS, PORTABLE	12 HP G		$8,408	5.16	0.74	1.35	0.06	2.10	13
C45	CONCRETE PAVING MACHINES											
	SUBCATEGORY 0.00		**CONCRETE PAVING MACHINES**									
			GOMACO CORPORATION									
	C45GO026	C-450X	CONCRETE PAVING MACHINES, CYLINDER FINISHER, SINGLE DRUM, FINISHING WIDTH 9'-137'	36 HP G		$99,986	39.00	7.42	13.33	0.75	6.98	64

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C45			*GOMACO CORPORATION (continued)*									
	C45GO027	C-650-F	CONCRETE PAVING MACHINES, CYLINDER FINISHER, DOUBLE DRUM, FINISHING WIDTH 19'-51'	50 HP D-off		$115,786	43.67	8.59	15.44	0.87	6.86	91
	C45GO028	C-650-S	CONCRETE PAVING MACHINES, CYLINDER FINISHER, DOUBLE DRUM, FINISHING WIDTH 19'-51'	50 HP D-off		$163,960	58.65	12.16	21.86	1.23	6.86	126
	C45GO029	C-750	CONCRETE PAVING MACHINES, CYLINDER FINISHER, DOUBLE DRUM, FINISHING WIDTH 8'-156'	36 HP G		$161,215	58.05	11.96	21.50	1.21	6.98	91
	C45GO013	GT-3200	CONCRETE PAVING MACHINES, CURB/GUTTER SLIPFORM PAVER, CRAWLER, 3-TRACK, 36" WIDE MOLD/FORM	92 HP D-on		$204,754	80.13	15.18	27.30	1.53	14.74	130
	C45GO014	GT-3600	CONCRETE PAVING MACHINES, CURB/GUTTER SLIPFORM PAVER, CRAWLER, 3-TRACK, 24" WIDE MOLD/FORM	98 HP D-on		$233,202	90.04	17.29	31.09	1.74	15.70	210
	C45GO011	COMMANDER III (CURB	CONCRETE PAVING MACHINES, CURB/GUTTER SLIPFORM PAVER, CRAWLER, 3-TRACK, 36" WIDE MOLD/FORM	185 HP D-on		$310,951	129.79	23.06	41.46	2.33	29.64	300
	C45GO012	COMMANDER III (4 TRA	CONCRETE PAVING MACHINES, CURB/GUTTER SLIPFORM PAVER, CRAWLER , 4-TRACK, 36" WIDE MOLD/FORM	169 HP D-off		$470,966	172.34	34.92	62.80	3.52	23.18	369
	C45GO016	GP-2600 2 TRACK	CONCRETE PAVING MACHINES, SLIPFORM PAVER, CRAWLER, 2-TRACK, 24'-32' PAVING WIDTH	230 HP D-off		$749,009	268.15	55.54	99.87	5.60	31.55	750

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C45			*GOMACO CORPORATION (continued)*									
	C45GO018	GHP-2800 2 TRACK	CONCRETE PAVING MACHINES, SLIPFORM PAVER, CRAWLER, 2-TRACK, 24'-32' PAVING WIDTH	335 HP D-off		$819,648	306.20	60.78	109.29	6.13	45.95	700
	C45GO020	GP-4000 2 TRACK	CONCRETE PAVING MACHINES, SLIPFORM PAVER, CRAWLER, 2-TRACK, 12'-50' PAVING WIDTH	450 HP D-off		$1,022,634	386.93	75.83	136.35	7.65	61.72	880
	C45GO031	9500	CONCRETE PAVING MACHINES, TRIMMER/PLACER, W/16'-8" TRIMMER HEAD	385 HP D-off		$509,340	217.35	37.77	67.91	3.81	52.81	729
			MILLER CURBER									
	C45MJ001	MC 650	CONCRETE PAVING MACHINES, CURB BUILDER, SLIPFORM PAVER, 6.1 CF HOPPER 6" AUGER	15 HP G		$8,584	5.96	0.63	1.14	0.06	2.91	8
			M-B-W, INC.									
	C45MW00	C101	CONCRETE PAVING MACHINES, SLIPFORM PAVER, RUBBER TIRED, 12" MAX PAVING WIDTH, 18" MAX PAVING HEIGHT	26 HP D-on		$58,293	22.74	4.29	7.70	0.44	4.17	27
	C45MW00	CG200	CONCRETE PAVING MACHINES, SLIPFORM PAVER, RUBBER TIRED, 48" MAX PAVING WIDTH, 18" MAX PAVING HEIGHT	26 HP D-on		$75,394	28.04	5.54	9.96	0.56	4.17	34
C55	CONCRETE PUMPS											
	SUBCATEGORY 0.00		**CONCRETE PUMPS**									
			MULTIQUIP, INC.									
	C55MU001	C30HDG	CONCRETE PUMP, 25 CY/HR, SINGLE, TRAILER MTD	58 HP G		$29,349	19.01	1.84	3.28	0.20	10.41	29

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C55			*MULTIQUIP, INC. (continued)*									
	C55MU002	LS-400	CONCRETE PUMP, 45 CY/HR, SINGLE, TRAILER MTD	79 HP D-off		$59,810	26.16	3.78	6.73	0.41	10.23	49
	C55MU003	LS-600P	CONCRETE PUMP, 70 CY/HR, SINGLE, TRAILER MTD	108 HP D-off		$72,086	33.38	4.55	8.11	0.49	13.99	53
			OLIN PUMP									
	C55OE013	S5 25	CONCRETE PUMP, 38 CY/HR,TRAILER MTD	48 HP D-off		$53,702	20.15	3.37	6.01	0.36	6.22	44
	C55OE011	15 95	CONCRETE PUMP, 100 CY/HR, TRAILER MTD TANDEM (OPEN LOOP HYDRAULIC SYSTEM)	181 HP D-off		$80,830	46.10	5.10	9.09	0.55	23.45	70
			REED MANUFACTURING									
	C55RQ003	A30	CONCRETE PUMP, 30 CY/HR, SINGLE, TRAILER MTD	82 HP D-off		$52,110	24.68	3.27	5.83	0.35	10.62	46
			SCHWING AMERICA INC.									
	C55SC001	SP750-18	CONCRETE PUMP, 70 CY/HR, 1,100 PSI, TRAILER MTD	100 HP D-off		$80,613	34.26	5.04	8.97	0.55	12.95	75
	C55SC002	SP2000	CONCRETE PUMP, 76 CY/HR, 1,565 PSI, TRAILER MTD	174 HP D-off		$117,033	53.95	7.34	13.10	0.79	22.54	126
	C55SC005	S28X	CONCRETE PUMP, 117 CY/HR, 75' BOOM, TRUCK MTD	210 HP D-on		$341,735	119.45	21.23	37.82	2.32	31.77	359
	C55SC006	S32X	CONCRETE PUMP, 117 CY/HR, 92' BOOM, TRUCK MTD	210 HP D-on		$437,995	143.17	27.30	48.65	2.97	31.77	470

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN			CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C60	CONCRETE SAWS (Add cost for sawblade wear)													
	SUBCATEGORY 0.00		CONCRETE SAWS (Add cost for sawblade wear)											
			HUSQVARNA CONSTRUCTION PRODUCTS											
	C60HG027	FS 520	CONCRETE SAW, 7.70" MAX CUTTING DEPTH, WALK BEHIND(ADD COST FOR SAWBLADE WEAR & WATER)	21	HP	G		$7,023	7.78	0.58	1.05	0.05	4.85	5
	C60HG028	CS 2512	CONCRETE SAW, WIRE SAW SYSTEM, INCLUDES PP455E POWER PACK (ADD COST FOR SAW WIRE WEAR & WATER)	27	HP	E		$26,681	18.48	2.19	4.00	0.19	6.66	4
	C60HG029	WS440 HF	CONCRETE SAW, RAIL SAW, 21" MAX CUTTING DEPTH, WALL (ADD 13KW GENERATOR & COST FOR SAWBLADE WEAR & WATER)	17	HP	E		$54,325	24.04	4.46	8.15	0.38	4.29	1
	C60HG030	HW482 HF	CONCRETE SAW, RAIL SAW, 29" MAX CUTTING DEPTH, WALL (ADD 19KW GENERATOR & COST FOR SAWBLADE WEAR & WATER)	25	HP	E		$69,016	31.59	5.67	10.35	0.49	6.17	1
	C60HG008	K760	CONCRETE SAW, 5.00" DEPTH, MANUAL, 14" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	2	HP	G		$1,105	0.89	0.10	0.17	0.01	0.46	1
	C60HG010	FS 400	CONCRETE SAW, 6.5" DEPTH, WALK BEHIND, 18" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	11	HP	G		$2,154	3.59	0.18	0.32	0.02	2.54	2
	C60HG015	FS 520	CONCRETE SAW, 7.625" DEPTH, SELF PROPELLED, 20" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	20	HP	G		$6,554	7.37	0.54	0.98	0.05	4.62	5

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C60			*HUSQVARNA CONSTRUCTION PRODUCTS (continued)*									
	C60HG020	FS 4600 G 20	CONCRETE SAW, 12" DEPTH, SELF-PROPELLED, 20" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	48 HP G		$22,595	19.93	1.86	3.39	0.16	11.08	12
	C60HG021	FS 4600 G 30	CONCRETE SAW, 12" DEPTH, SELF PROPELLED, 30" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	48 HP G		$27,260	21.45	2.24	4.09	0.19	11.08	12
	C60HG023	FS 3500 E 30	CONCRETE SAW, 11.5" DEPTH, SELF PROPELLED, 30" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	30 HP E		$16,030	16.09	1.31	2.40	0.11	7.40	9
	C60HG024	FS 4600 G 26	CONCRETE SAW, 12" DEPTH, SELF-PROPELLED, 26" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	48 HP G		$27,199	21.43	2.23	4.08	0.19	11.08	12
	C60HG025	FS 309 G 14	CONCRETE SAW, 4.625" DEPTH, MANUAL, 14" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	9 HP G		$1,740	2.92	0.14	0.26	0.01	2.08	2
	C60HG026	FS 513 G 18	CONCRETE SAW, 7.5" DEPTH, SELF-PROPELLED, 18" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	13 HP G		$4,318	4.81	0.36	0.65	0.03	3.00	4
	C60HG011	FS 6600 D 20	CONCRETE SAW, 6.5" DEPTH, SELF PROPELLED, 20" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	66 HP D-on		$28,726	24.01	2.36	4.31	0.20	12.63	19
	C60HG014	FS 3500 E 26	CONCRETE SAW, 10.625" DEPTH, SELF PROPELLED, 26" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	30 HP E		$15,875	16.04	1.30	2.38	0.11	7.40	9
	C60HG012	FS 6600 D 26	CONCRETE SAW, 10.625" DEPTH, SELF PROPELLED, 26" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	66 HP D-on		$30,191	24.49	2.48	4.53	0.21	12.63	19

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C60			*HUSQVARNA CONSTRUCTION PRODUCTS (continued)*									
	C60HG013	FS 6600 D 36	CONCRETE SAW, 14.875" DEPTH, SELF PROPELLED, 36" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	66 HP D-on		$30,438	24.57	2.50	4.57	0.21	12.63	20
	C60HG016	FS 8400 D 36	CONCRETE SAW, 14.875" DEPTH, SELF PROPELLED, 36" BLADE (ADD COST FOR SAWBLADE WEAR & WATER)	84 HP D-on		$37,587	30.89	3.09	5.64	0.27	16.07	21
C65	CONCRETE VIBRATORS											
	SUBCATEGORY 0.00		**CONCRETE VIBRATORS**									
			MULTIQUIP, INC.									
	C65MU001	CV1A	CONCRETE VIBRATOR, 1.375" HEAD, 21' SHAFT (ADD 2KV GENERATOR)	1 HP E		$576	0.76	0.07	0.13	0.00	0.18	1
	C65MU002	CV2A	CONCRETE VIBRATOR, 2.175" HEAD, 21' SHAFT (ADD 2KV GENERATOR)	2 HP E		$636	1.08	0.07	0.14	0.00	0.36	1
	C65MU003	CV3A	CONCRETE VIBRATOR, 2.625" HEAD, 21' SHAFT (ADD 2KV GENERATOR)	3 HP E		$762	1.45	0.10	0.17	0.01	0.53	1
	C65MU004	G55H	CONCRETE VIBRATOR, 2.325" HEAD, 21' SHAFT, W/GAS MOTOR ON CART	6 HP G		$1,556	2.39	0.19	0.35	0.01	0.92	2
			WACKER CORPORATION									
	C65WC006	IRFU 57 W/ A5000	CONCRETE VIBRATOR, 2.3" HEAD, 16.5' SHAFT, HI-FREQ INTERNAL, GAS POWERED MOTOR	6 HP G		$3,425	4.26	0.42	0.77	0.03	1.01	1
	C65WC005	H45 HEAD W/ A5000	CONCRETE VIBRATOR, 1.75" HEAD, 13' SHAFT, W/GAS MOTOR ON CART	6 HP G		$2,103	2.87	0.26	0.47	0.02	0.92	1
	C65WC004	HMS KIT H50 HA	CONCRETE VIBRATOR, 2" HEAD, 13' SHAFT (ADD 2KV GENERATOR)	3 HP E		$1,509	2.23	0.18	0.34	0.01	0.53	1

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C65			*WACKER CORPORATION (continued)*									
	C65WC003	IRFU 57 W/ M3000	CONCRETE VIBRATOR, 2.3" HEAD, 16.5' SHAFT, HI-FREQ INTERNAL (ADD 2KV GENERATOR)	3 HP E		$2,813	3.36	0.34	0.63	0.02	0.53	1
C75	**CRANES, HYDRAULIC, SELF-PROPELLED**											
	SUBCATEGORY 0.00		**CRANES, HYDRAULIC, SELF-PROPELLED**									
			BRODERSON MANUFACTURING CORPORATION									
	C75BD012	IC-35-2F	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 4.0 TON, 19' BOOM, 4X2, NON-ROTATING OPERATOR'S CAB, BOOM ROTATES 360	49 HP D-off		$101,676	20.37	3.75	6.13	0.68	6.72	77
	C75BD013	IC-20-1J	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 2.5 TON, 15' BOOM, 4X2, NON-ROTATING OPERATOR'S CAB, BOOM ROTATES 90	49 HP D-off		$84,867	18.27	3.13	5.11	0.57	6.72	64
	C75BD014	IC-80-1J	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 9 TON, 24' BOOM, 4X4, NON-ROTATING OPERATOR'S CAB, BOOM ROTATES 360	74 HP D-off		$156,028	31.17	5.73	9.38	1.04	10.15	164
	C75BD015	IC-250-3D	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 18.0 TON, 50' BOOM, 4X4, NON-ROTATING OPERATOR'S CAB, BOOM ROTATES 360	100 HP D-off		$238,076	45.78	8.71	14.24	1.59	13.72	377
	C75BD016	RT-300-2G	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 15.0 TON, 60' BOOM, 4X4, 20' OFFSET, NON-ROTATING OPERATOR'S CAB, BOOM ROTATES 360	163 HP D-off		$314,821	66.16	11.34	18.48	2.10	22.36	448

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C75			*BRODERSON MANUFACTURING CORPORATION (continued)*									
	C75BD017	IC-40-2C	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 4.5 TON, 19' BOOM, 4X4, NON-ROTATING OPERATOR'S CAB, BOOM ROTATES 360	49 HP D-off		$108,424	23.13	3.61	5.78	0.72	6.72	90
	C75BD018	IC-200-3H	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 15.0 TON, 50' BOOM, 4X4, NON-ROTATING OPERATOR'S CAB, BOOM ROTATES 360	100 HP D-off		$207,138	41.90	7.56	12.36	1.38	13.72	311
	C75BD019	IC-400-3A	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 25 TON, 64' BOOM, 4X4, NON-ROTATING OPERATOR'S CAB, BOOM ROTATES 360	160 HP D-off		$328,320	67.26	12.01	19.63	2.19	21.95	549
	C75BD009	IC-80-3G	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 8.5 TON, 30' BOOM, 4X2	69 HP G		$120,085	30.39	4.40	7.20	0.80	13.37	172
	C75BD005	IC-80-1G	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 9.0 TON, 20' BOOM, 4X2, NON-ROTATING OPERATOR'S CAB	69 HP G		$116,233	29.90	4.26	6.97	0.77	13.37	163
	C75BD006	IC-200-3F	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 15.0 TON, 50' BOOM, 4X2, NON-ROTATING OPERATOR'S CAB	110 HP G		$168,117	45.69	6.12	9.99	1.12	21.32	308
			GROVE CRANES (MANITOWOC)									
	C75GV029	YB4411	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 10.5 TON, 32' BOOM, 4X4, NON-ROTATING OPERATOR'S CAB	80 HP G		$182,598	40.68	6.71	10.98	1.22	15.50	175
	C75GV030	YB5515-2	CRANES, HYDRAULIC, SELF-PROPELLED, YARD, 15 TON, 41' BOOM, 4X4, NON-ROTATING OPERATOR'S CAB	100 HP G		$275,356	57.72	9.93	16.20	1.83	19.38	326

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CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C75			*GROVE CRANES (MANITOWOC) (continued)*									
	C75GV023	RT530E-2	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 30 TON, 95' BOOM, 4X4	160 HP D-off		$447,030	82.65	16.35	26.74	2.98	21.95	580
	C75GV024	RT640E	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 40 TON, 105' BOOM 4X4	173 HP D-off		$587,344	106.13	21.14	34.46	3.91	23.73	650
	C75GV016	RT9130E-2	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 130 TON, 160' BOOM, 4X4, W/HOOK BLOCK & BALL	300 HP D-off		$1,526,458	255.72	54.94	89.56	10.16	41.15	1,364
	C75GV031	RT765E	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 65 TON, 110' BOOM, 4X4, W/HOOK BLOCK & BALL	240 HP D-off		$712,892	144.22	24.87	40.24	4.75	32.92	934
	C75GV032	RT880E	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 80 TON, 128' BOOM, 4X4, W/HOOK BLOCK & BALL	275 HP D-off		$862,588	164.67	30.72	49.95	5.74	37.72	1,093
			TADANO MANTIS									
	C75TD001	6010	CRANES, HYDRAULIC, TELESCOPIC BOOM, CRAWLER, 30 TON, 33' - 80' BOOM, LIFTING	173 HP D-off		$462,060	84.52	17.11	28.05	3.08	23.73	629
	C75TD002	9010	CRANES, HYDRAULIC, TELESCOPIC BOOM, CRAWLER, 45 TON, 34' - 105' BOOM, LIFTING	206 HP D-off		$680,049	116.89	25.18	41.29	4.53	28.25	939
	C75TD009	GR-350XL-2	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 35 TON, 112' BOOM, 4X4	180 HP D-off		$373,528	74.52	13.83	22.68	2.49	24.69	537
	C75TD010	GR-550XL-2	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 55TON, 175' BOOM, 4X4	247 HP D-off		$481,738	98.40	17.84	29.25	3.21	33.88	882

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C75			*TADANO MANTIS (continued)*									
	C75TD011	GR-750XL-2	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 75 TON, 180' BOOM, 4X4	247 HP D-off		$633,925	117.44	23.47	38.49	4.22	33.88	945
			TEREX CORPORATION									
	C75TE006	RT-555	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 55 TON, 110' BOOM, 4X4	173 HP D-off		$515,437	92.80	18.76	30.66	3.43	23.73	922
	C75TE001	RT230	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 30 TON, 94' BOOM, 4X4	130 HP D-off		$417,643	75.18	15.17	24.77	2.78	17.83	563
	C75TE002	RT335/40	CRANES, HYDRAULIC, SELF-PROPELLED, ROUGH TERRAIN, 40 TON, 94' BOOM, 4X4	152 HP D-off		$543,040	95.30	19.72	32.19	3.62	20.85	634
C80	**CRANES, HYDRAULIC, TRUCK MOUNTED**											
	SUBCATEGORY 0.01		**UNDER 26 TON**									
			TEREX CORPORATION									
	C80TE008	CD225	CRANES, HYDRAULIC, TRUCK MTD, ROUGH TERRAIN, 25 TON, 72' BOOM, 4X4	130 HP D-off		$315,749	54.48	11.32	18.43	2.10	15.35	525
			NO SPECIFIC MANUFACTURER									
	C80XX002	BT4792	CRANES, HYDRAULIC, TRUCK MTD, BOOM TRUCK, 23.5 TON, 102' BOOM, 6X2	350 HP D-on		$221,170	81.11	7.97	13.00	1.47	48.28	600
	C80XX001	1970C	CRANES, HYDRAULIC, TRUCK MTD, BOOM TRUCK, 17 TON, 80' BOOM, 4X2	245 HP D-off		$175,451	53.29	6.38	10.42	1.17	28.94	330

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.02		**26 TON THRU 65 TON**									
			GROVE CRANES (MANITOWOC)									
	C80GV006	TMS-700E	CRANES, HYDRAULIC, TRUCK MTD, 50 TON, 110' BOOM, 8X4	400 HP D-off		$880,113	145.11	28.98	46.33	5.81	47.24	771
	C80GV029	TMS750E	CRANES, HYDRAULIC, TRUCK MTD, 50 TON, 110' BOOM, 8X4X4	160 HP D-on	290 HP D-on	$915,043	128.64	30.04	47.99	6.04	28.52	926
	C80GV033	GMK3055	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 60 TON, 141' BOOM, 6X4X6	355 HP D-on		$1,079,057	175.86	35.11	55.96	7.13	48.97	782
	C80GV030	TMS760E	CRANES, HYDRAULIC, TRUCK MTD, 60 TON, 110' BOOM, 8X4X4	310 HP D-on		$916,983	144.64	30.11	48.10	6.06	42.76	870
			LINK-BELT CONSTRUCTION EQUIPMENT CO.									
	C80LB009	HTC-8640 SL	CRANES, HYDRAULIC, TRUCK MTD, 40 TON, 105' BOOM, 6X4X2	365 HP D-on		$640,409	123.70	21.03	33.59	4.23	50.35	575
	C80LB011	HTC-8660 II	CRANES, HYDRAULIC, TRUCK MTD, 60 TON, 110' BOOM, 8X4X4	365 HP D-on		$648,911	124.59	21.31	34.04	4.29	50.35	831
			TEREX CORPORATION									
	C80TE007	T340-1	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 40 TON, 94' BOOM, 6X4	300 HP D-on		$510,486	100.11	16.75	26.75	3.37	41.39	556
	C80TE009	T560-1	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 60 TON, 110' BOOM, 8X4	450 HP D-on		$699,797	143.03	22.97	36.70	4.62	62.08	977
	SUBCATEGORY 0.03		**66 TON THRU 125 TON**									
			GROVE CRANES (MANITOWOC)									
	C80GV034	GMK4100B	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 100 TON, 167' BOOM, 8X6X8	402 HP D-on		$1,542,670	223.29	45.94	71.64	10.12	55.46	940

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C80			*GROVE CRANES (MANITOWOC) (continued)*									
	C80GV035	TMS800E	CRANES, HYDRAULIC, TRUCK MTD, 80 TON, 128' BOOM, 8X4X4	402 HP D-on		$1,004,707	162.61	30.04	46.90	6.59	55.46	922
			TADANO MANTIS									
	C80TD006	ATF 70G-4	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 75 TON, 145' BOOM, 8X6	129 HP D-off	435 HP D-on	$830,831	114.28	24.44	37.98	5.45	24.92	1,067
	C80TD007	ATF 100G-6	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 110 TON, 168' BOOM, 8X6	175 HP D-off	435 HP D-on	$1,111,740	148.26	32.88	51.18	7.29	30.35	945
	C80TD003	ATF-90G-4	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 90 TON, 138' BOOM, 8X8	158 HP D-off	375 HP D-on	$1,134,003	141.88	34.22	53.55	7.44	27.00	1,070
			TEREX CORPORATION									
	C80TE001	CROSSOVER 8000	CRANES, HYDRAULIC, TRUCK MTD, 80 TON, 126' TELESCOPIC BOOM, 6X10	485 HP D-on		$646,539	139.96	19.23	29.98	4.24	66.91	989
	SUBCATEGORY 0.04		**OVER 125 TON**									
			GROVE CRANES (MANITOWOC)									
	C80GV016	GMK 6350	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 200 TON, 197' BOOM, 12X8	255 HP D-on	563 HP D-on	$3,130,227	368.05	85.87	130.85	20.44	47.71	1,425
			TADANO MANTIS									
	C80TD008	ATF 130G-5	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 160 TON, 197' BOOM, 10X8	173 HP D-off	551 HP D-on	$1,326,302	168.18	36.05	54.78	8.66	32.69	1,333
	C80TD004	ATF-130G-5	CRANES, HYDRAULIC, TRUCK MTD, ALL TERRAIN, 160 TON, 197' BOOM, 10X6	173 HP D-off	551 HP D-on	$1,326,278	166.12	36.29	55.25	8.66	32.69	1,330

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C85	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER MOUNTED											
	SUBCATEGORY 0.11		**DRAGLINE, CLAMSHELL, 0 THRU 1.0 CY**									
			LINK-BELT CONSTRUCTION EQUIPMENT CO.									
	C85LB025	108 HYLAB 5	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 50 TON, 70' BOOM (ADD BUCKET)	197 HP D-off		$684,442	105.49	24.29	39.11	4.73	19.51	968
	SUBCATEGORY 0.12		**DRAGLINE, CLAMSHELL, OVER 1.0 CY THRU 2.5 CY**									
			KOBELCO AMERICA INC.									
	C85KC001	CK850G	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 85 TON, 190' BOOM (ADD BUCKET)	285 HP D-off		$652,371	104.36	20.78	32.62	4.47	28.23	1,657
			LINK-BELT CONSTRUCTION EQUIPMENT CO.									
	C85LB019	138 HSL	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 80 TON, 100' BOOM (ADD BUCKET)	284 HP D-off		$894,777	131.06	28.50	44.74	6.13	28.13	1,390
			TEREX CORPORATION									
	C85TE004	HC 80	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 80 TON, 100' BOOM, LIFTING/CLAMSHELL	185 HP D-off		$684,089	96.58	21.79	34.20	4.69	18.33	1,430

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.13		**DRAGLINE, CLAMSHELL, OVER 2.5 CY THRU 5.0 CY**									
			LINK-BELT CONSTRUCTION EQUIPMENT CO.									
	C85LB021	238 HYLAB 5	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 150 TON, 100' BOOM (ADD BUCKET)	284 HP D-off		$1,417,704	179.05	41.16	63.01	9.65	28.13	3,357
			MANITOWOC ENGINEERING CO.									
	C85MA002	777	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 5.0 CY, 130' BOOM (ADD BUCKET)	340 HP D-off		$1,548,580	198.81	44.96	68.83	10.54	33.68	3,815
	C85MA011	1015	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 3.5 CY, 80' BOOM (ADD BUCKET)	600 HP D-off		$1,969,184	270.93	57.17	87.52	13.41	59.44	2,083
			TEREX CORPORATION									
	C85TE017	HC 165	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 165 TON, 80' BOOM (ADD BUCKET)	310 HP D-off		$1,374,606	177.35	39.91	61.09	9.36	30.71	3,090
	C85TE005	HC 110	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 100 TON, 100' BOOM, LIFTING/CLAMSHELL	240 HP D-off		$877,117	117.72	25.46	38.98	5.97	23.77	1,911
	C85TE006	HC 165	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 165 TON, 80' BOOM (ADD BUCKET)	310 HP D-off		$1,374,606	177.35	39.91	61.09	9.36	30.71	3,090

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.14		**DRAGLINE, CLAMSHELL, OVER 5.0 CY**									
			MANITOWOC ENGINEERING CO.									
	C85MA003	999	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, DRAGLINE/CLAMSHELL, 7.0 CY, 140' BOOM (ADD BUCKET)	400 HP D-off		$2,248,166	268.11	60.21	89.93	15.24	39.62	5,100
	SUBCATEGORY 0.22		**LIFTING, 26 TON THRU 50 TON**									
			LINK-BELT CONSTRUCTION EQUIPMENT CO.									
	C85LB024	108 HYLAB 5	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 50 TON, 70' BOOM, LIFTING	197 HP D-off		$644,307	75.65	18.71	28.64	4.39	14.26	968
	SUBCATEGORY 0.23		**LIFTING, 51 TON THRU 150 TON**									
			KOBELCO AMERICA INC.									
	C85KC009	CK1100	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 110 TON, 200' BOOM, LIFTING	285 HP D-off		$788,454	95.07	21.91	33.51	5.15	20.63	2,148
	C85KC010	CK1600	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 160 TON, 250' BOOM, LIFTING	363 HP D-off		$1,273,337	145.86	35.37	54.12	8.31	26.28	3,338
	C85KC005	CK850	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 85 TON, 200' BOOM, LIFTING	213 HP D-off		$652,953	76.92	18.14	27.75	4.26	15.42	1,729
			LINK-BELT CONSTRUCTION EQUIPMENT CO.									
	C85LB001	138 HSL	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 80 TON, 40' TUBULAR BOOM, LIFTING	248 HP D-off		$818,761	94.95	22.75	34.80	5.35	17.95	1,464

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C85			*LINK-BELT CONSTRUCTION EQUIPMENT CO. (continued)*									
	C85LB014	218 HSL	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 110 TON, 230' BOOM, LIFTING	284 HP D-off		$1,069,311	120.85	29.71	45.45	6.98	20.56	1,790
	C85LB015	238 HYLAB 5	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 150 TON, 240' BOOM, LIFTING	284 HP D-off		$1,480,547	158.69	41.13	62.92	9.67	20.56	3,357
			MANITOWOC ENGINEERING CO.									
	C85MA012	1015	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 120 TON, 210' BOOM, LIFTING	600 HP D-off		$1,936,609	225.62	53.80	82.31	12.64	43.43	2,197
	C85MA008	555	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 100 TON, 260' BOOM, LIFTING	340 HP D-off		$1,293,290	145.87	35.92	54.96	8.44	24.61	3,121
	C85MA005	555	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 150 TON, 250' BOOM, LIFTING	340 HP D-off		$1,291,439	145.71	35.88	54.89	8.43	24.61	2,744
			TEREX CORPORATION									
	C85TE008	HC 80	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 80 TON, 100' BOOM, LIFTING/CLAMSHELL	185 HP D-off		$684,089	77.57	19.01	29.07	4.47	13.39	1,430
	C85TE009	HC 110	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 100 TON, 100' BOOM, LIFTING/CLAMSHELL	240 HP D-off		$877,117	99.69	24.37	37.28	5.73	17.37	1,911

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.24		**LIFTING, OVER 150 TON**									
			KOBELCO AMERICA INC.									
	C85KC008	CK2000	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 200 TON, 50' BOOM, LIFTING	316 HP D-off		$1,401,723	149.66	36.19	54.16	9.11	22.88	3,622
	C85KC011	CK2750	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 275 TON, 300' BOOM, LIFTING	363 HP D-off		$1,836,690	192.02	47.41	70.96	11.93	26.28	5,236
			LINK-BELT CONSTRUCTION EQUIPMENT CO.									
	C85LB016	248 HYLAB 5	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 200 TON, 280' BOOM, LIFTING	284 HP D-off		$1,887,739	190.27	48.73	72.94	12.26	20.56	3,242
			MANITOWOC ENGINEERING CO.									
	C85MA006	777	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 200 TON, 260' BOOM, LIFTING	340 HP D-off		$1,564,568	166.01	40.39	60.45	10.16	24.61	3,929
	C85MA007	999	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 250 TON, 260' BOOM, LIFTING	375 HP D-off		$2,123,771	218.47	54.83	82.05	13.80	27.15	4,942
			TEREX CORPORATION									
	C85TE016	HC 230	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER, 230 TON, 280' BOOM, LIFTING	300 HP D-off		$1,849,518	188.15	47.75	71.46	12.02	21.72	3,864

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C90	**CRANES, MECHANICAL, LATTICE BOOM, TRUCK MOUNTED**											
	SUBCATEGORY 0.03		**66 TON THRU 125 TON**									
			MANITEX									
	C90MX001	6430	CRANES, MECHANICAL, LATTICE BOOM, TRUCK MTD, 30 TON, 50' BOOM, DRAGLINE/CLAMSHELL CAPABLE, 6X4	260 HP D-off	260 HP D-on	$757,118	106.96	21.80	33.28	5.16	29.56	610
	SUBCATEGORY 0.04		**OVER 125 TON**									
			LINK-BELT CONSTRUCTION EQUIPMENT CO.									
	C90LB001	HC-238H II	CRANES, MECHANICAL, LATTICE BOOM, TRUCK MTD, 150 TON, 260' BOOM, 8X4	200 HP D-off	445 HP D-on	$1,673,070	195.14	44.26	65.84	11.34	28.19	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	$3,094,394	351.23	81.69	121.44	20.97	50.59	3,385
C95	**CRANES, TOWER**											
	SUBCATEGORY 0.00		**CRANES, TOWER**									
			LIEBHERR CONSTRUCTION EQUIPMENT CO.									
	C95LH024	172 EC-B 8 LITRONIC	TOWER CRANE, TROLLEY JIB MODEL, 8.8 TON MAX, 2.1 TON @ 197' MAX RADIUS, 207' MAX HOOK HEIGHT W/ 12 COUNT - 13' 7" TALL SECTIONS (ADD 480V 3P 60HZ 100A POWER)	60 HP E		$737,094	94.24	21.40	32.76	5.02	10.69	1,968

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
C95			*LIEBHERR CONSTRUCTION EQUIPMENT CO. (continued)*									
	C95LH025	316 EC-H 12 LITRONIC	TOWER CRANE, TROLLEY JIB MODEL, 13.2 TON MAX, 3 TON MAX @ 246' MAX RADIUS, 184' MAX HOOK HEIGHT W/ 10 COUNT - 13' 7" TALL SECTIONS (ADD 480V 3P 60HZ 200A POWER)	147 HP E		$919,069	135.80	26.69	40.85	6.26	26.18	2,234
	C95LH026	550 EC-H 20 LITRONIC	TOWER CRANE, TROLLEY JIB MODEL, 22 TON MAX, 4.4 TON @ 267' MAX RADIUS, 238' MAX HOOK HEIGHT W/ 13 COUNT - 19' TALL SECTIONS (ADD 480V 3P 60HZ 250A POWER)	147 HP E		$1,512,227	194.54	43.91	67.21	10.30	26.18	4,117
	C95LH027	630 EC-H 20/40 LITRO	TOWER CRANE, TROLLEY JIB MODEL, 22 TON MAX, 6.4 TON @ 267' MAX RADIUS, 195' MAX HOOK HEIGHT W/ 10 COUNT - 19' TALL SECTIONS (ADD 480V 3P 60HZ 250A POWER)	147 HP E		$1,717,424	214.85	49.86	76.33	11.69	26.18	4,456
	C95LH028	357 HC-L 12/24 LITRO	TOWER CRANE, LUFFING BOOM CRANE, 26.5 TON MAX, 3.5 TON @ 197' MAX RADIUS, 194' TOWER HEIGHT W/ 8 COUNT - 19' TALL SECTIONS (ADD 480V 3P 60HZ 300A POWER)	147 HP E		$1,853,463	230.33	53.81	82.38	12.62	26.18	3,350
	C95LH029	542 CH-L 18/36 LITRO	TOWER CRANE, LUFFING BOOM CRANE, 35.3 TON MAX, 5.4 TON @ 197' MAX RADIUS, 175' TOWER HEIGHT W/ 7 COUNT - 19' TALL SECTIONS (ADD 480V 3P 60HZ 350A POWER)	215 HP E		$2,125,182	276.64	61.70	94.45	14.47	38.29	3,984

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
D10	DRILLS, HYDRAULIC TRACK (Add cost for drill steel and bit wear)											
	SUBCATEGORY 0.10		DRILLS, AIR TRACK (Add cost for dril steel and bit wear)									
			SCHRAMM, INC									
	D10S2001	T450GT	DRILL, AIR TRACK, CRAWLER, GEOTHERMAL/WATER WELL RIG, 30,000 LBF PULLBACK, 3.5"-4.5" DIA, INCLUDES 1,050 CFM AIR COMPRESSOR (ADD COST FOR DRILL STEEL AND BIT WEAR)	580 HP D-off		$1,230,376	258.53	41.75	65.91	8.79	83.97	591
	D10S2002	T685EX	DRILL, AIR TRACK, CRAWLER, MINERAL EXPLORATION, 40,000 LBF PULLBACK, 3.5"-5.5" DIA, INCLUDES 1,350 CFM AIR COMPRESSOR (ADD COST FOR DRILL STEEL AND BIT WEAR)	905 HP D-off		$2,190,416	439.65	74.32	117.34	15.65	131.03	963
	D10S2003	T685WS	DRILL, AIR, TRUCK MTD, MINERAL EXPLORATION, 40,000 LBF PULLBACK, 3.5"-5.5" DIA, INCLUDES 1,350 CFM AIR COMPRESSOR (ADD COST FOR DRILL STEEL AND BIT WEAR)	760 HP D-off		$1,511,217	325.61	51.04	80.47	10.80	110.03	746
			ATLAS COPCO WAGNER									
	D10WG001	AIRROC D40	DRILL, AIR TRACK, CRAWLER MTD, 2"-3" DIA, 49.2' MAX DEPTH (ADD COST FOR DRILL STEEL AND BIT WEAR, ADD 400 CFM COMPRESSOR)			$86,910	11.64	2.95	4.66	0.62	0.00	56
	D10WG002	AIRROC D50	DRILL, AIR TRACK, CRAWLER MTD, 2.5"-4" DIA, 49.2' MAX DEPTH (ADD COST FOR DRILL STEEL AND BIT WEAR, ADD 750 CFM COMPRESSOR)			$138,066	18.50	4.69	7.40	0.99	0.00	106

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
D10			*ATLAS COPCO WAGNER (continued)*									
	D10WG003	AIRROC T25	DRILL, AIR TRACK, CRAWLER MTD, 2"-3" DIA, 49.2' MAX DEPTH (ADD COST FOR DRILL STEEL AND BIT WEAR, ADD 400 CFM COMPRESSOR)			$88,362	11.83	3.00	4.73	0.63	0.00	55
	D10WG004	AIRROC T35	DRILL, AIR TRACK, CRAWLER MTD, 2.5"-4" DIA, 49.2' MAX DEPTH (ADD COST FOR DRILL STEEL AND BIT WEAR, ADD 750 CFM COMPRESSOR)			$136,613	18.30	4.64	7.32	0.98	0.00	106
	SUBCATEGORY 0.20		**DRILLS, HYDRAULIC TRACK (Add co**	**t for drill steel and bit wear)**								
			CATERPILLAR INC. (MACHINE DIVISION)									
	D10CA001	MD5075	DRILL, AIR TRACK, CRAWLER, UP TO 5" DIA, 103 FT MAX DEPTH, INCLUDES 350 CFM AIR COMPRESSOR (ADD COST FOR DRILL STEEL AND BIT WEAR)	300 HP D-off		$611,035	162.20	27.38	45.83	4.46	43.43	430
	D10CA002	MD5090	DRILL, HYDRAULIC TRACK, CRAWLER, 3.5"-5" DIA, 73 FT MAX DEPTH, INCLUDES 300 CFM AIR COMPRESSOR (ADD COST FOR DRILL STEEL AND BIT WEAR)	300 HP D-off		$476,704	137.37	21.36	35.75	3.48	43.43	410
D15	**DRILLS, HORIZONTAL**											
	SUBCATEGORY 0.10		**DRILLS, HORIZONTAL BORING & GROUND PIERCING (Add cost for drill steel and bit wear)**									
			BOR-IT MANUFACTURING COMPANY INC.									
	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, ADD BACKHOE)	12 HP G		$17,012	5.76	0.76	1.28	0.12	2.46	6

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
D15			*BOR-IT MANUFACTURING COMPANY INC. (continued)*									
	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		$32,834	8.97	1.47	2.46	0.24	2.90	17
	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		$47,995	13.23	2.15	3.60	0.35	4.34	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		$73,110	20.04	3.27	5.48	0.53	6.52	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		$98,027	27.15	4.40	7.35	0.72	8.98	90
	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		$156,910	46.64	7.04	11.77	1.15	17.23	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		$215,482	68.17	9.65	16.16	1.57	27.36	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		$193,109	64.26	8.65	14.48	1.41	27.36	250

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			NO SPECIFIC MANUFACTURER									
	D15XX001	4"-12" DIA	DRILL, HORIZONTAL BORING, 4" - 12" CASING DIA, 25,000 LBS THRUST, HYDRAULIC MOTOR (ADD COST FOR DRILL STEEL AND BIT WEAR, ADD BACKHOE)	12 HP D-off		$10,620	3.80	0.48	0.80	0.08	1.74	6
	D15XX002	4"-20" DIA	DRILL, HORIZONTAL BORING, 4" - 20" DIA, 44,000 LBS THRUST, HYDRAULIC MOTOR (ADD COST FOR DRILL STEEL AND BIT WEAR)	20 HP D-off		$24,076	7.45	1.09	1.81	0.18	2.90	18
	SUBCATEGORY 0.20		**DRILLS, HORIZONTAL & DIRECTIONAL (Add cost for drill steel and bit wear)**									
			VERMEER MANUFACTURING CO.									
	D15VE001	D6x6	DRILL, HORIZONTAL DIRECTIONAL, 2.25" DIA, 5,500 LB THRUST, W/150' OF RODS (ADD COST FOR DRILL STEEL AND BIT WEAR)	25 HP D-off		$54,568	13.57	2.45	4.09	0.40	3.62	32
	D15VE002	D9x13 III	DRILL, HORIZONTAL DIRECTIONAL, 2.5" DIA, 9,000 LB THRUST, W/300' OF RODS (ADD COST FOR DRILL STEEL AND BIT WEAR)	44 HP D-off		$90,559	22.92	4.06	6.79	0.66	6.37	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		$127,334	32.41	5.71	9.55	0.93	9.12	105
	D15VE004	D20x22 III	DRILL, HORIZONTAL DIRECTIONAL, 3.5" DIA, 20,000 LB THRUST, W/400' OF RODS (ADD COST FOR DRILL STEEL AND BIT WEAR)	74 HP D-off		$131,551	34.93	5.90	9.87	0.96	10.71	109

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
D15			*VERMEER MANUFACTURING CO. (continued)*									
	D15VE005	D24x40 III	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		$229,872	60.35	10.30	17.24	1.68	18.10	207
	D15VE006	D30x50DR 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		$340,571	82.09	15.26	25.54	2.49	20.27	289
	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		$562,738	130.59	25.22	42.21	4.11	28.96	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		$627,808	146.00	28.14	47.09	4.59	32.58	435
	D15VE009	MX125	DRILL, HORIZONTAL DIRECTIONAL, 500 GAL, DRILLING FLUID MIXING SYSTEM (ADD TRAILER COST)	6 HP G		$7,368	2.56	0.33	0.55	0.05	1.13	3
	D15VE010	MX240	DRILL, HORIZONTAL DIRECTIONAL, 750 GAL, DRILLING FLUID MIXING SYSTEM (ADD TRAILER COST)	22 HP D-off		$14,665	6.12	0.66	1.10	0.11	3.19	7
	D15VE011	MX240	DRILL, HORIZONTAL DIRECTIONAL, 1,000 GAL, DRILLING FLUID MIXING SYSTEM (ADD TRAILER COST)	22 HP D-off		$22,241	7.44	1.00	1.67	0.16	3.19	13
	D15VE012	MX240 & MX125	DRILL, HORIZONTAL DIRECTIONAL, 750 GAL, DRILLING FLUID MIXING SYSTEM WITH TRAILER	28 HP D-off		$46,294	12.52	2.08	3.47	0.34	3.98	81

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN			CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			NO SPECIFIC MANUFACTURER											
	D15XX003	RST-1400	DRILL, HORIZONTAL DIRECTIONAL, 1,400 GAL, TRAILER MOUNTED DRILLING FLUID MIXING SYSTEM, INCLUDES 3PH GEN SET	30	HP	D-off		$94,908	21.36	4.13	6.88	0.69	4.34	117
D20	DRILLS, CORE, COLUMN MOUNTED (Add cost for drill steel and bit wear)													
	SUBCATEGORY 0.00		**DRILLS, CORE, COLUMN MOUNTED (Add cost for drill steel and bit wear)**											
			ACKER DRILL COMPANY INC.											
	D20AD007	1200-G	DRILL, CORE, COLUMN MOUNTED, 12" DIA MAX CORE HOLE (ADD COST FOR DRILL STEEL AND BIT WEAR)	8	HP	E		$17,685	7.09	0.96	1.66	0.13	1.75	3
			DYNATECH											
	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		$2,159	1.59	0.12	0.20	0.02	0.77	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		$3,109	1.35	0.17	0.29	0.02	0.48	2
	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		$12,664	6.60	0.69	1.19	0.09	3.69	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		$23,159	8.88	1.26	2.17	0.17	2.74	7

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			HUSQVARNA CONSTRUCTION PRODUCTS									
	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		$14,923	7.07	0.81	1.40	0.11	3.69	8
D25	DRILLS, CORE & DOWELLING (Add cost for drill steel and bit wear)											
	SUBCATEGORY 0.00		**DRILLS, CORE & DOWELLING (Add cost for drill steel and bit wear)**									
			ACKER DRILL COMPANY INC.									
	D25AD004	ACE W	DRILL, CORE, SKID MTD, 725' MAX DRILL DEPTH (ADD COST FOR DRILL STEEL AND BIT WEAR)	28 HP D-off		$88,915	20.88	3.99	6.67	0.65	4.05	35
	D25AD003	BUSH MASTER	DRILL, CORE, SKID MTD, 1500' MAX DRILL DEPTH (ADD COST FOR DRILL STEEL AND BIT WEAR)	69 HP D-off		$167,952	42.03	7.53	12.60	1.23	9.99	45
			E-Z DRILL, INC.									
	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		$7,702	1.93	0.35	0.58	0.06	0.00	3
	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		$8,447	2.06	0.38	0.63	0.06	0.00	3

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
D25			*E-Z DRILL, INC. (continued)*									
	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		$32,206	7.21	1.45	2.42	0.24	0.00	12
D30	DRILLS, EARTH / AUGER (Add cost for drill steel and cutting edge wear)											
	SUBCATEGORY 0.00		**DRILLS, EARTH / AUGER (Add cost for drill steel and cutting edge wear)**									
			HYDRAULIC POWER SYSTEMS, INC.									
	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		$193,202	71.64	8.66	14.49	1.41	30.40	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		$240,148	91.02	10.76	18.01	1.75	39.09	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		$289,987	111.74	13.00	21.75	2.12	48.50	269
			MOBILE DRILL									
	D30MR001	MINUTEMAN	DRILL, EARTH / AUGER, W/AUGER KIT, 3" DIA, 35' DEPTH, 664 FT-LBS TORQUE, PORTABLE (ADD COST FOR DRILL STEEL AND CUTTING EDGE WEAR)	8 HP G		$16,225	4.86	0.73	1.22	0.12	1.64	4

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
D30			*MOBILE DRILL (continued)*									
	D30MR003	B-31	DRILL, EARTH / AUGER, HYDRAULIC AUGER, 6" DIA, 135' DEPTH, 4,450 FT-LBS TORQUE, W/19.5K GVW TRUCK (ADD COST FOR DRILL STEEL AND CUTTING EDGE WEAR)	58 HP D-off	230 HP G	$133,737	40.78	5.90	9.84	0.98	14.30	42
	D30MR005	B-48	DRILL, EARTH / AUGER, MULTI-PURPOSE, 6" DIA, 300' DEPTH, 8,611 FT-LBS TORQUE, W/ 19.5K GVW TRUCK (W/PTO DRIVE)(ADD COST FOR DRILL STEEL AND CUTTING EDGE WEAR)	100 HP D-off	230 HP G	$289,548	76.37	12.89	21.53	2.12	20.38	120
	D30MR006	B-60	DRILL, EARTH / AUGER, MULTI-PURPOSE, 8" DIA, 250' DEPTH, 7,000 FT-LBS TORQUE W/45,000 GVW TRUCK (ADD COST FOR DRILL STEEL AND CUTTING EDGE WEAR)	115 HP D-off	260 HP D-off	$402,037	98.43	17.87	29.85	2.94	21.60	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	$329,148	85.87	14.64	24.48	2.40	22.44	205
D35	**DRILLS, ROTARY BLASTHOLE (Add cost for drill steel and bit wear)**											
	SUBCATEGORY 0.11		**DIESEL, 4.5" THRU 9.875" DIAMETER HOLE (Add cost for drill steel and bit wear)**									
			SANDVIK [DRILLTECH]									
	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		$837,601	190.40	29.71	47.86	5.78	65.15	620

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
D35			*SANDVIK [DRILLTECH] (continued)*									
	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		$834,274	189.95	29.60	47.67	5.76	65.15	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		$930,840	203.21	33.03	53.19	6.43	65.15	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		$1,004,998	225.97	35.66	57.43	6.94	76.01	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		$1,489,212	331.83	52.84	85.10	10.29	110.03	1,320
			REICHDRILL									
	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-on	$772,811	209.96	27.23	43.78	5.34	89.42	560
	SUBCATEGORY 0.12		**DIESEL, OVER 9.875" DIAMETER (Add cost for drill steel and bit wear)**									
			SANDVIK [DRILLTECH]									
	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		$1,339,364	269.57	38.89	59.53	9.12	110.03	1,400

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			ATLAS COPCO WAGNER									
	D35WG001	T2W	DRILL, ROTARY BLASTHOLE, WATER WELL, 6"-24" DIA., 40,000 LB PULL BACK, TRUCK MTD (ADD COST FOR DRILL STEEL AND BIT WEAR)	425 HP D-on		$786,578	167.06	22.68	34.64	5.36	71.87	447
	D35WG002	TH60	DRILL, ROTARY BLASTHOLE, WATER WELL, 5"-20" DIA., 40,000 LB PULL BACK, TRUCK MTD (ADD COST FOR DRILL STEEL AND BIT WEAR)	600 HP D-on		$800,346	202.07	23.08	35.25	5.45	101.46	549
	D35WG003	TH60DH	DRILL, ROTARY BLASTHOLE, WATER WELL, 5"-20" DIA., 70,000 LB PULL BACK, TRUCK MTD (ADD COST FOR DRILL STEEL AND BIT WEAR)	600 HP D-on		$865,044	209.06	24.95	38.12	5.89	101.46	549
	D35WG004	T3W	DRILL, ROTARY BLASTHOLE, WATER WELL, 6"-24" DIA., 40,000 LB PULL BACK, TRUCK MTD (ADD COST FOR DRILL STEEL AND BIT WEAR)	380 HP D-on		$818,895	161.93	23.62	36.07	5.58	64.26	660
	D35WG005	T3WDH	DRILL, ROTARY BLASTHOLE, WATER WELL, 6"-24" DIA., 70,000 LB PULL BACK, TRUCK MTD (ADD COST FOR DRILL STEEL AND BIT WEAR)	380 HP D-on		$887,773	169.38	25.62	39.13	6.05	64.26	668
	D35WG006	T4W	DRILL, ROTARY BLASTHOLE, WATER WELL, 6"-20" DIA., 50,000 LB PULL BACK, TRUCK MTD (ADD COST FOR DRILL STEEL AND BIT WEAR)	755 HP D-on		$892,246	241.71	25.75	39.33	6.08	127.67	605

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
F10	**FORK LIFTS**											
	SUBCATEGORY 0.00		**FORK LIFTS**									
			JCB INC.									
	F10JC001	930-4	FORK LIFT, ROUGH TERRAIN, 6,000 LBS @ 22' HIGH STRAIGHT MAST, 4X4	74 HP D-off		$81,341	23.51	3.67	6.18	0.58	8.74	148
	F10JC002	940-4	FORK LIFT, ROUGH TERRAIN, 8,000 LBS @ 22' HIGH STRAIGHT MAST, 4X4	74 HP D-off		$90,665	25.03	4.11	6.93	0.64	8.74	168
G10	**GENERATOR SETS**											
	SUBCATEGORY 0.10		**PORTABLE**									
			WACKER CORPORATION									
	G10WC005	GPS 9700V	GENERATOR SET, PORTABLE, 9.3 KW, 120/240V, 60HZ	14 HP G		$4,931	3.45	0.31	0.55	0.03	2.27	11
	G10WC001	GP 3800A	GENERATOR SET, PORTABLE, 3.7 KW, 120/240V, 60 HZ	8 HP G		$2,223	1.92	0.15	0.25	0.02	1.35	2
	G10WC002	GP 5600A	GENERATOR SET, PORTABLE, 5.6 KW, 120/240V, 60 HZ	11 HP G		$2,564	2.53	0.17	0.29	0.02	1.85	2
	G10WC003	GS 8.5V	GENERATOR SET, PORTABLE, 8.5 KW, 120/240V, 60 HZ, WITH ELECTRIC START	16 HP G		$4,126	3.76	0.26	0.46	0.03	2.69	2
	G10WC004	GPS 9700V	GENERATOR SET, PORTABLE, 9.7 KW, 120/240V, 60 HZ, WITH ELECTRIC START	18 HP G		$4,700	4.24	0.30	0.53	0.03	3.03	2
			NO SPECIFIC MANUFACTURER									
	G10XX001	1.6KW	GENERATOR SET, PORTABLE, 1.6 KW	6 HP G		$1,069	1.32	0.07	0.12	0.01	1.01	1

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
G10			*NO SPECIFIC MANUFACTURER (continued)*									
	G10XX004	5KW	GENERATOR SET, PORTABLE, 5 KW	10 HP G		$3,590	2.54	0.22	0.40	0.02	1.68	3
	G10XX002	10KW	GENERATOR SET, PORTABLE, 10 KW	16 HP G		$1,592	3.27	0.10	0.18	0.01	2.69	3
	SUBCATEGORY 0.20		**SKID MOUNTED**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	G10CA021	C18	GENERATOR SET, SKID MTD, 600 EKW, 208-600V, 60 HZ PGS PRIME	900 HP D-off		$133,588	139.10	6.89	12.02	0.88	106.30	167
	G10CA022	C7.1	GENERATOR SET, SKID MTD, 200 EKW, 240/480V, 60 HZ PGS PRIME	302 HP D-off		$46,603	46.97	2.41	4.19	0.31	35.67	40
	G10CA012	C9 250KW	GENERATOR SET, SKID MTD, 250 EKW, 240 VOLT, 60 HZ PGS PRIME	480 HP D-off		$81,544	75.90	4.21	7.34	0.54	56.69	50
	G10CA013	C9 300KW	GENERATOR SET, SKID MTD, 300 EKW, 240/480 VOLT, 60 HZ PGS PRIME	480 HP D-off		$87,449	76.88	4.52	7.87	0.58	56.69	68
	G10CA014	C15 350KW	GENERATOR SET, SKID MTD, 365 EKW, 240/480V, 60 HZ PGS PRIME	689 HP D-off		$96,815	105.59	5.00	8.71	0.64	81.38	72
	G10CA015	C15 455KW	GENERATOR SET, SKID MTD, 455 EKW, 240/480V, 60 HZ PGS PRIME	687 HP D-off		$126,359	110.25	6.53	11.37	0.84	81.14	93
	G10CA017	C27	GENERATOR SET, SKID MTD, 750 EKW, 480 VOLT, 60 HZ PGS PRIME	1,214 HP D-off		$199,284	190.84	10.29	17.94	1.32	143.39	181
	G10CA018	C32	GENERATOR SET, SKID MTD, 1000 EKW, 480 VOLT, 60 HZ PGS PRIME	1,474 HP D-off		$193,493	223.62	9.99	17.41	1.28	174.09	236
	G10CA019	3516B HD	GENERATOR SET, SKID MTD, 1450 EKW, 4160 VOLT, 60 HZ PGS PRIME	2,100 HP D-off		$432,876	344.76	22.34	38.96	2.86	248.03	291
			NO SPECIFIC MANUFACTURER									
	G10XX005	20KW	GENERATOR SET, SKID MTD, 20 KW	49 HP D-off		$15,623	8.97	0.81	1.41	0.10	5.79	17

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
G10			*NO SPECIFIC MANUFACTURER (continued)*									
	G10XX006	30KW	GENERATOR SET, SKID MTD, 30 KW	48 HP D-off		$15,148	8.75	0.78	1.36	0.10	5.67	17
	G10XX007	50KW	GENERATOR SET, SKID MTD, 50 KW	85 HP D-off		$15,935	13.69	0.83	1.43	0.11	10.04	22
	G10XX008	75KW	GENERATOR SET, SKID MTD, 75 KW	126 HP D-off		$43,210	23.56	2.24	3.89	0.29	14.88	50
	G10XX009	90KW	GENERATOR SET, SKID MTD, 90 KW	158 HP D-off		$49,181	28.71	2.55	4.43	0.33	18.66	58
	G10XX010	116D	GENERATOR SET, SKID MTD, 116 KW	197 HP D-off		$33,184	31.12	1.72	2.99	0.22	23.27	55
	G10XX011	240D	GENERATOR SET, SKID MTD, 240 KW	363 HP D-off		$49,584	55.39	2.56	4.46	0.33	42.87	98
	G10XX012	300D	GENERATOR SET, SKID MTD, 300 KW	428 HP D-off		$88,350	70.28	4.56	7.95	0.58	50.55	105
	G10XX013	400D	GENERATOR SET, SKID MTD, 400 KW	689 HP D-off		$107,032	107.29	5.53	9.63	0.71	81.38	150
	G10XX014	550D	GENERATOR SET, SKID MTD, 550 KW	900 HP D-off		$133,588	139.10	6.89	12.02	0.88	106.30	167
	G10XX015	750D	GENERATOR SET, SKID MTD, 750 KW	1,214 HP D-off		$198,285	190.67	10.24	17.85	1.31	143.39	140
	G10XX016	1000D	GENERATOR SET, SKID MTD, 1,000 KW	1,474 HP D-off		$191,497	223.29	9.89	17.23	1.27	174.09	154
G15	**GRADERS, MOTOR**											
	SUBCATEGORY 0.00		**GRADERS, MOTOR**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	G15CA010	12M3 AWD	GRADER, MOTOR, ARTICULATED, 6X6, 12' BLADE W/11 TEETH SCARIFIERS	252 HP D-off		$407,777	81.22	13.15	20.47	2.91	27.84	427
	G15CA011	140M3	GRADER, MOTOR, ARTICULATED, 6X4, 12' BLADE W/11 TEETH SCARIFIERS AND RIPPER	200 HP D-off		$406,675	73.99	13.11	20.41	2.90	22.10	427
	G15CA012	160M3 AWD	GRADER, MOTOR, ARTICULATED, 6X4, 14' BLADE W/11 TEETH SCARIFIERS AND RIPPER	293 HP D-off		$524,052	99.45	16.98	26.48	3.74	32.37	456

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
G15			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	G15CA001	120-M2	GRADER, MOTOR, ARTICULATED, 6X4, 12' BLADE W/11 TEETH SCARIFIERS	145 HP D-off		$315,515	55.53	10.23	15.95	2.25	16.02	351
	G15CA003	12-M2	GRADER, MOTOR, ARTICULATED, 6X4, 12' BLADE W/11 TEETH SCARIFIERS	179 HP D-off		$381,434	68.51	12.28	19.11	2.72	19.78	336
	G15CA004	140-M2	GRADER, MOTOR, ARTICULATED, 6X4, 12' BLADE W/5 RIPPER/SCARIFIERS	200 HP D-off		$404,538	73.76	13.04	20.30	2.89	22.10	334
	G15CA009	160-M2	GRADER, MOTOR, ARTICULATED, 6X4, 14' BLADE W/9 RIPPER/SCARIFIERS	213 HP D-off		$430,516	77.08	13.83	21.52	3.07	23.53	381
	G15CA005	14-M	GRADER, MOTOR, ARTICULATED, 6X4, 14' BLADE W/7 SHANK RIPPER	259 HP D-off		$558,057	97.42	18.21	28.45	3.98	28.62	471
	G15CA006	16-M	GRADER, MOTOR, ARTICULATED, 6X4, 16' BLADE W/7 SHANK RIPPER	297 HP D-off		$947,136	149.46	30.69	47.85	6.76	32.82	575
			JOHN DEERE									
	G15JD008	670G	GRADER, MOTOR, ARTICULATED, 6X4, AWD, 12' BLADE W/5 RIPPER/SCARIFIERS	151 HP D-off		$281,214	53.72	8.97	13.92	2.01	16.68	343
	G15JD009	672G	GRADER, MOTOR, ARTICULATED, 6X6, AWD, 12' BLADE W/5 RIPPER/SCARIFIERS	156 HP D-off		$297,680	56.75	9.51	14.77	2.12	17.24	353
	G15JD010	770G	GRADER, MOTOR, ARTICULATED, 6X4, AWD, 12' BLADE W/5 RIPPER/SCARIFIERS	185 HP D-off		$303,664	60.53	9.71	15.08	2.17	20.44	353
	G15JD011	772G	GRADER, MOTOR, ARTICULATED, 6X6, AWD, 12' BLADE W/5 RIPPER/SCARIFIERS	205 HP D-off		$350,408	68.86	11.25	17.50	2.50	22.65	363

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H10	HAMMERS, HYDRAULIC (Demolition tool) (Add cost for point wear)											
	SUBCATEGORY 0.00		**HAMMERS, HYDRAULIC (Demolition tool) (Add cost for point wear)**									
			NPK CONSTRUCTION EQUIPMENT									
	H10NP019	GH-06	HAMMERS, HYDRAULIC, 150 FT-LBS, IMPACT FREQUENCY 840 BPM (ADD 150-250 HP HYDRAULIC EXCAVATOR H25)(ADD COST FOR POINT WEAR)			$7,003	2.97	0.52	0.93	0.05	0.00	2
	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)			$7,321	3.07	0.54	0.98	0.05	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)			$8,570	3.85	0.63	1.14	0.06	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)			$10,657	4.51	0.79	1.42	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)			$13,901	5.91	1.03	1.85	0.10	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)			$22,105	8.47	1.65	2.95	0.17	0.00	10

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H10			*NPK CONSTRUCTION EQUIPMENT (continued)*									
	H10NP025	GH6	HAMMERS, HYDRAULIC, 2,000 FT-LBS, IMPACT FREQUENCY 650 BPM (ADD 95-125 HP HYDRAULIC EXCAVATOR H25)(ADD COST FOR POINT WEAR)			$39,477	14.25	2.93	5.26	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)			$50,395	17.64	3.74	6.72	0.38	0.00	29
	H10NP027	GH9	HAMMERS, HYDRAULIC, 2,500 FT-LBS, IMPACT FREQUENCY 590 BPM (ADD 95-125 HP HYDRAULIC EXCAVATOR H25)(ADD COST FOR POINT WEAR)			$59,241	20.38	4.39	7.90	0.44	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)			$82,645	28.05	6.13	11.02	0.62	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)			$107,975	35.91	8.01	14.40	0.81	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)			$264,492	84.48	19.62	35.27	1.98	0.00	170

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN			CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H13	**HAZARDOUS/TOXIC WASTE EQUIPMENT**													
	SUBCATEGORY 0.11		**COMPACTORS (Compression force) 0 THRU 50 TONS**											
			CONSOLIDATED BALING MACHINE COMPANY, INC											
	H13CB001	DOS RAW WI	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, RADIOLOGICAL WASTE, 12.5 TON, LOW LEVEL	5	HP	E		$28,440	6.53	1.40	2.42	0.19	0.89	25
	H13CB002	DOS RAW W2	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, RADIOLOGICAL WASTE, 20 TON, LOW LEVEL	10	HP	E		$30,741	8.27	1.52	2.61	0.21	1.78	25
			WASTE CONTROL SYSTEMS, INC.											
	H13CO002	8041CC	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 37 TON HAZARD WASTE IN-DRUM , EXPLOSION PROOF	5	HP	E		$16,190	4.41	0.80	1.38	0.11	0.89	167
			ENVIRO-PAK											
	H13EP001	4000HM	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 30 TON HAZARDOUS WASTE, HAZ-MAT STORAGE CONTAINER 40"X40"X40"	5	HP	E		$34,230	7.53	1.69	2.91	0.23	0.89	32
			TEEMARK CORPORATION											
	H13TH001	DPC60-E50	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 30 TON DRUM CRUSHER	5	HP	E		$13,379	3.67	0.66	1.14	0.09	0.89	20
	H13TH002	DPC60-D90	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 30 TON DRUM CRUSHER, TRAILER MOUNTED	9	HP	D-off		$23,226	5.19	1.13	1.94	0.16	1.06	32

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H13			*TEEMARK CORPORATION (continued)*									
	H13TH003	DPC85-D90	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 42.5 TON DRUM CRUSHER, TRAILER MOUNTED	9 HP D-off		$24,771	5.46	1.21	2.07	0.17	1.06	47
			ADVANCED ENVIRONMENTAL SOLUTIONS									
	H13YB004	SMASH-IT CY BOX COMP	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, COMPACTS 3'X3'X3' BOX, 6000 LBS FORCE, 27" STROKE LENGTH, 3:1 COMPACTION RATIO			$6,555	1.13	0.32	0.56	0.04	0.00	3
	SUBCATEGORY 0.12		**COMPACTORS (Compression force) OVER 50 TONS**									
			WASTE CONTROL SYSTEMS, INC.									
	H13CO003	8551	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 85 TON HAZARD WASTE IN-DRUM	3 HP E		$42,952	7.50	1.73	2.86	0.30	0.53	270
	H13CO004	8564	HAZARDOUS/TOXIC WASTE EQIPMENT, COMPACTOR, 85 TON HAZARD WASTE IN-DRUM, W/HEPA FILTER	3 HP E		$55,669	9.66	2.25	3.71	0.39	0.53	290
	H13CO006	8560-EX	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 85 TON HAZARD WASTE IN-DRUM, W/HEPA FILTER & SS PLATEN & CHAMBER	3 HP E		$75,049	12.41	3.02	5.00	0.52	0.53	300
	H13CO005	8560-EXL	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 85 TON HAZARD WASTE IN-DRUM, EXPLOSION PROOF, W/LIQUID REMOVAL SYSTEM	3 HP E		$78,295	13.06	3.16	5.22	0.55	0.53	310

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			ENVIRO-PAK									
	H13EP002	9600HM	HAZARDOUS/TOXIC WASTE EQUIPMENT, COMPACTOR, 42.5 TON HAZARDOUS WASTE, B-25 METAL STORAGE CONTAINER 4'X4'X6'	8 HP E		$45,921	9.23	1.85	3.06	0.32	1.34	100
	SUBCATEGORY 0.21		**FILTER PRESSES, STATIONARY**									
			DURCO FILTERS									
	H13DC001	EP1000/32-48	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 48 CHAMBERS, 1M X 1M POLYPROPYLENE PLATES, 40 CF CAKE CAPACITY PER FILTER, 830 SF TOTAL FILTER AREA, HYDRAULIC RAM 100 PSIG			$54,746	9.78	2.58	4.38	0.39	0.00	108
	H13DC002	EP1200/32-78	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 72 CHAMBERS, 1.2M X 1.2M POLYPROPYLENE PLATES, 97 CF CAKE CAPACITY PER FILTER, 1825 SF TOTAL FILTER AREA, HYDRAULIC RAM 100 PSIG			$133,780	23.90	6.30	10.70	0.95	0.00	244
	H13DC003	EP1500/32-76	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 76 CHAMBERS, 1.2M X 1.2M POLYPROPYLENE PLATES, 97 CF CAKE CAPACITY PER FILTER, 1825 SF TOTAL FILTER AREA, HYDRAULIC RAM 100 PSIG			$183,038	32.71	8.62	14.64	1.30	0.00	236
	H13DC004	EP1200/32-100	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 100 CHAMBERS, 1.5M X 1.5M POLYPROPYLENE PLATES, 200 CF CAKE CAPACITY PER FILTER, 4042 SF TOTAL FILTER AREA, HYDRAULIC RAM 100 PSIG			$207,359	37.05	9.77	16.59	1.47	0.00	255

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			EVOQUA									
	H13EV001	PLC 25-1000	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 25 CF STANDARD FILTER PRESS, 1,000 MM SQ	2 HP E		$67,684	12.50	3.19	5.41	0.48	0.27	125
	H13EV003	PLC 115-1200	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 115 CF STANDARD FILTER PRESS, 1,200 MM SQ	2 HP E		$141,599	25.71	6.67	11.33	1.00	0.27	460
	H13EV004	PLC 180-1500	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 180 CF STANDARD FILTER PRESS, 1,500 MM SQ	3 HP E		$275,312	50.00	12.96	22.02	1.95	0.53	680
	H13EV005	PLC 270-1500	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, STATIONARY, 270 CF MAXI FILTER PRESS, 1,500 MM SQ	10 HP E		$313,367	58.69	14.76	25.07	2.22	1.78	1,100
	SUBCATEGORY 0.22		**FILTER PRESSES, MOBILE**									
			DURCO FILTERS									
	H13DC005	EP1200/32-78 TRLR	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 72 CHAMBERS, 1.2M X 1.2M POLYPROPYLENE PLATES, 97 CF CAKE CAPACITY PER FILTER, 1825 SF TOTAL FILTER AREA, HYDRAULIC RAM 100 PSIG, TRLR MTD	A		$156,345	27.40	7.56	12.98	1.07	0.00	304
	H13DC006	EP1500/32-76 TRLR	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 76 CHAMBERS, 1.2M X 1.2M POLYPROPYLENE PLATES, 97 CF CAKE CAPACITY PER FILTER, 1825 SF TOTAL FILTER AREA, HYDRAULIC RAM 100 PSIG, TRLR MTD	A		$205,459	36.41	9.99	17.15	1.41	0.00	396

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H13			*DURCO FILTERS (continued)*									
	H13DC007	EP1000/32-48 M TRLR	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 48 CHAMBERS, 1M X 1M POLYPROPYLENE PLATES, 40 CF CAKE CAPACITY PER FILTER, 830 SF TOTAL FILTER AREA, HYDRAULIC RAM 100 PSIG, FLATBED SEMI TRAILER MTD			$78,451	14.41	3.72	6.36	0.54	0.00	168
	H13DC008	EP1200/32-100 M TRLR	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 100 CHAMBERS, 1.5M X 1.5M POLYPROPYLENE PLATES, 200 CF CAKE CAPACITY PER FILTER, 4042 SF TOTAL FILTER AREA, HYDRAULIC RAM 100 PSIG, FLATBED SEMI TRAILER MTD			$229,257	40.53	11.16	19.17	1.57	0.00	315
			EVOQUA									
	H13EV002	PLC 100-1200M	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 100 CF STANDARD FILTER PRESS, 1,200 MM SQ, TRAILER MOUNTED	3 HP E		$565,626	100.30	27.91	48.08	3.87	0.53	145
	H13EV006	PLC 25-1000-TRLR	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 25 CF STANDARD FILTER PRESS, 1,000 MM SQ, FLATBED SEMI TRAILER MTD	2 HP E		$91,535	17.09	4.37	7.47	0.63	0.27	185
	H13EV007	PLC 115-1200-TRLR	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 115 CF STANDARD FILTER PRESS, 1,200 MM SQ, FLATBED SEMI TRAILER MTD	2 HP E		$164,589	29.74	7.97	13.68	1.13	0.27	520
	H13EV008	PLC 180-1500-TRLR	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, 180 CF STANDARD FILTER PRESS, 1,500 MM SQ, FLATBED SEMI TRAILER MTD	3 HP E		$297,237	53.11	14.51	24.95	2.03	0.53	740

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SOMAT WASTE REDUCTION TECHNOLOGY											
	H13S5001	1PB-6D	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, PUSHER SCREW PRESS, 6-15 GPM CAPACITY, TRAILER MOUNTED	3 HP E		$65,141	12.10	3.22	5.54	0.45	0.53	14
	H13S5002	1PB-9D	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, PUSHER SCREW PRESS, 15-40 GPM CAPACITY, TRAILER MOUNTED	5 HP E		$102,162	19.05	5.04	8.68	0.70	0.89	35
	H13S5003	2PB-9D	HAZARDOUS/TOXIC WASTE EQUIPMENT, FILTER PRESS, MOBILE, PUSHER SCREW PRESS, 30-80 GPM CAPACITY, TRAILER MOUNTED	5 HP E		$121,303	22.36	5.99	10.31	0.83	0.89	40
	SUBCATEGORY 0.30		**CENTRIFUGES**									
	NORTH STAR ENGINEERED PRODUCTS, INC.											
	H13BC013	GP 35	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, TIMER, 35 LB DRY WT.	3 HP E		$14,311	6.33	1.54	2.86	0.11	0.53	9
	H13BC012	GP 60	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, TIMER, 60 LB DRY WT.	3 HP E		$18,069	7.78	1.95	3.61	0.14	0.53	9
	H13BC006	605 TX	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, TIMER, 60 LB DRY WT.	3 HP E		$17,136	7.43	1.86	3.43	0.14	0.53	9
	H13BC011	GP 100	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, TIMER, 100 LB DRY WT.	5 HP E		$25,657	11.25	2.77	5.13	0.20	0.89	12

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H13			*NORTH STAR ENGINEERED PRODUCTS, INC. (continued)*									
	H13BC003	GP 130	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, TIMER, 130 LB DRY WT.	5 HP E		$25,657	11.25	2.77	5.13	0.20	0.89	12
	H13BC008	755	HAZARDOUS/TOXIC WASTE EQUIPMENT, CENTRIFUGE, FIXED SPEED, MANUAL CONTROL, EXPLOSION PROOF, 100 LB	5 HP E		$34,831	14.80	3.77	6.97	0.28	0.89	12
	SUBCATEGORY 0.40		**SHREDDERS**									
			GRANUTE-SATURN SYSTEMS(MAC CORPORATION)									
	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		$413,970	118.01	20.26	34.86	2.83	26.72	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		$482,507	144.62	23.62	40.63	3.30	35.62	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		$568,370	161.37	27.86	47.93	3.89	35.62	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		$631,454	200.08	30.97	53.29	4.32	53.43	400

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			SHRED-TECH LIMITED									
	H13SH001	ST-25	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 29" X 42" OPENING, TRAILER MTD. (ADD COST FOR CONVEYOR SYSTEM, POWER SUPPLY, AND TRAILER)	20 HP E		$42,284	12.97	2.09	3.59	0.29	3.56	23
	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		$39,633	12.49	1.96	3.37	0.27	3.56	25
	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		$187,269	60.49	9.24	15.92	1.28	17.81	145
	H13SH006	ST-400EL	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 46" X 75" OPENING, TRAILER MTD. (ADD COST FOR CONVEYOR SYSTEM, POWER SUPPLY, AND TRAILER)	200 HP E		$250,871	98.29	12.38	21.32	1.72	35.62	350
	H13SH007	ST-400ES	HAZARDOUS/TOXIC WASTE EQUIPMENT, SHREDDER, 46" X 53" OPENING, TRAILER MTD. (ADD COST FOR CONVEYOR SYSTEM, POWER SUPPLY, AND TRAILER)	200 HP E		$302,726	107.80	14.94	25.73	2.07	35.62	300
	SUBCATEGORY 0.71		**WASTE HANDLING EQUIPMENT, DRUM HANDLING**									
			INLINE FILLING SYSTEMS									
	H13I2001	DRUM FILLING MACHINE	HAZARDOUS/TOXIC WASTE EQUIPMENT, WASTE HANDLING EQUIPMENT, DRUM HANDLING, DRUM FILLER, 55 GAL TOP FILL	3 HP E		$51,938	25.44	5.93	11.04	0.41	0.53	11

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	NO SPECIFIC MANUFACTURER											
	H13XX001	DC7000-10	HAZARDOUS/TOXIC WASTE EQUIPMENT, WASTE HANDLING EQUIPMENT, 55 GAL DRUM CRUSHER, 3 KSI CRUSHING FORCE	10 HP E		$22,623	13.35	2.59	4.81	0.18	1.78	10
	H13XX002	DW55-ITR	HAZARDOUS/TOXIC WASTE EQUIPMENT, WASTE HANDLING EQUIPMENT, 55 GAL DRUM WASHER W/ IMMERSION HEATER, AUTO FILL, AND 1.5 HP DISCHARGE PUMP, PLC OPERATION	2 HP E		$126,221	60.29	14.39	26.82	0.98	0.27	15
	H13XX003	FRK LFT DRUM GRAB	HAZARDOUS/TOXIC WASTE EQUIPMENT, WASTE HANDLING EQUIPMENT, ADAPTS FORKLIFT TO LIFT/TRANSPORT 55 GAL DRUMS 1K LOAD CAPACITY			$458	0.22	0.05	0.10	0.00	0.00	1
	H13XX004	DRUM TRUCK	HAZARDOUS/TOXIC WASTE EQUIPMENT, WASTE HANDLING EQUIPMENT, 55 GAL PALLET JACK STYLE DRUM LIFT TRUCK, 660 LB CAPACITY, ON CASTORS			$943	0.45	0.11	0.20	0.01	0.00	1
H20	HOISTS & AIR WINCHES											
	SUBCATEGORY 0.00 HOISTS & AIR WINCHES											
	INGERSOLL RAND CO.											
	H20IR002	FA2.5i	AIR WINCH, MANUAL BRAKE, 24" DRUM, 5,000 LBS CAP, 145 FPM (ADD 700 CFM COMPRESSOR)	25 CFM A		$43,436	8.30	2.24	3.86	0.31	0.00	11
	H20IR003	FA5i	AIR WINCH, MANUAL BRAKE, 24" DRUM, 10,000 LBS CAP, 65 FPM (ADD 700 CFM COMPRESSOR)	25 CFM A		$45,918	8.86	2.37	4.08	0.33	0.00	19

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H20			*INGERSOLL RAND CO. (continued)*									
	H20IR004	FA10i	AIR WINCH, AUTOMATIC BRAKE, 24" DRUM, 22,000 LBS CAP, 30 FPM (ADD 800 CFM COMPRESSOR)	31 CFM A		$74,772	14.34	3.86	6.65	0.53	0.00	32
H25	**HYDRAULIC EXCAVATORS, CRAWLER MOUNTED**											
	SUBCATEGORY 0.10		**0 LBS THRU 12,500 LBS (COMPACT EXCAVATORS)**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	H25CA034	301.7D CR	HYDRAULIC EXCAVATOR, MINI, CRAWLER-RUBBER TRACK, 3800 LBS, 0.07 CY BUCKET, 7.22' MAX DIGGING DEPTH	18 HP D-off		$36,630	9.38	1.99	3.43	0.27	2.13	38
	H25CA035	303.5E CR	HYDRAULIC EXCAVATOR, MINI, CRAWLER-RUBBER TRACK, 7,700 LBS, 0.11 CY BUCKET, 9.6' MAX DIGGING DEPTH	32 HP D-off		$58,019	15.33	3.15	5.44	0.43	3.78	77
	H25CA036	305E CR	HYDRAULIC EXCAVATOR, MINI, CRAWLER-RUBBER TRACK, 11,500 LBS, 0.17 CY BUCKET, 10.8' MAX DIGGING DEPTH	42 HP D-off		$72,421	19.42	3.94	6.79	0.54	4.96	115
			KOMATSU AMERICA INTERNATIONAL COMPANY									
	H25KM034	PC88MR-10	HYDRAULIC EXCAVATOR, CRAWLER, 18,739 LBS, 0.26 CY BUCKET, 15' 0" MAX DIGGING DEPTH	66 HP D-off		$122,672	32.21	6.66	11.50	0.91	7.80	193
	H25KM018	PC27MR-3	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 6,500 LBS, 0.05 CY BUCKET, 9'4" MAX DIGGING DEPTH	26 HP D-off		$42,549	11.60	2.32	3.99	0.32	3.07	65
	H25KM021	PC45MR-5	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 10,737 LBS, 0.21 CY BUCKET, 12'0" MAX DIGGING DEPTH	38 HP D-off		$61,507	16.82	3.35	5.77	0.46	4.49	107

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H25			*KOMATSU AMERICA INTERNATIONAL COMPANY (continued)*									
	H25KM022	PC55MR-5	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 11,354 LBS, 0.24 CY BUCKET, 12'6" MAX DIGGING DEPTH	38 HP D-off		$74,091	19.21	4.03	6.95	0.55	4.49	114
	H25KM023	PC78US-8	HYDRAULIC EXCAVATOR, CRAWLER, 16,240 LBS, 0.37 CY BUCKET, 15'5" MAX DIGGING DEPTH	65 HP D-off		$113,712	30.37	6.18	10.66	0.85	7.68	178
			MELROE BOBCAT									
	H25ME001	E20	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 4,306 LBS, 1.4 CY BUCKET, 8'6" MAX DIGGING DEPTH	14 HP D-off		$30,216	7.60	1.64	2.83	0.22	1.64	43
	H25ME002	E35	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 7,468 LBS, 0.10 CY BUCKET, 10'2" MAX DIGGING DEPTH	34 HP D-off		$50,894	14.19	2.77	4.77	0.38	3.96	75
	H25ME003	E50	HYDRAULIC EXCAVATOR, CRAWLER-RUBBER TRACK, 10,677 LBS, 0.18 CY BUCKET, 11' 6" MAX DIGGING DEPTH	50 HP D-off		$66,339	19.32	3.60	6.22	0.49	5.88	107
	SUBCATEGORY 0.11		**OVER 12,500 LBS THRU 40,000 LBS**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	H25CA038	308E2	HYDRAULIC EXCAVATOR, CRAWLER, 14,310 LBS, 0.48 CY BUCKET, 15.25' MAX DIGGING DEPTH	65 HP D-off		$136,481	33.22	7.03	12.04	1.01	7.68	185
	H25CA020	311F RR	HYDRAULIC EXCAVATOR, CRAWLER, 30,600 LBS, 0.69 CY BUCKET, 18.4' MAX DIGGING DEPTH	70 HP D-off		$183,556	42.33	9.46	16.20	1.36	8.27	306

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H25			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	H25CA021	312E	HYDRAULIC EXCAVATOR, CRAWLER, 33,080 LBS, 1.0 CY BUCKET, 18.2' MAX DIGGING DEPTH	91 HP D-off		$201,514	48.37	10.38	17.78	1.49	10.75	331
			KOBELCO AMERICA INC.									
	H25KC027	SK140SR LC	HYDRAULIC EXCAVATOR, CRAWLER, 33,100 LBS, 0.50 CY BUCKET, 17.83' MAX DIGGING DEPTH	93 HP D-off		$168,587	42.73	8.69	14.88	1.25	10.96	331
	H25KC017	SK70SR	HYDRAULIC EXCAVATOR, CRAWLER, 16,400 LBS, 0.33 CY BUCKET, 14.75' MAX DIGGING DEPTH	54 HP D-off		$104,508	26.00	5.38	9.22	0.77	6.38	168
			KOMATSU AMERICA INTERNATIONAL COMPANY									
	H25KM001	PC138USLC-10	HYDRAULIC EXCAVATOR, CRAWLER, 31,791 LBS, 1.0 CY BUCKET, 18.0' MAX DIGGING DEPTH	94 HP D-off		$167,355	42.67	8.63	14.77	1.24	11.10	326
	H25KM003	PC170LC-10	HYDRAULIC EXCAVATOR, CRAWLER, 38,100 LBS, 1.24 CY BUCKET, 19' 7" MAX DIGGING DEPTH	115 HP D-off		$179,968	47.76	9.27	15.88	1.33	13.58	416
			LINK-BELT CONSTRUCTION EQUIPMENT CO.									
	H25LB003	130 2XLC	HYDRAULIC EXCAVATOR, CRAWLER, 27,100 LBS, 0.50 CY BUCKET, 18' 2" MAX DIGGING DEPTH	95 HP D-off		$170,982	43.46	8.82	15.09	1.27	11.22	271
	H25LB005	160 X2	HYDRAULIC EXCAVATOR, CRAWLER, 35,275 LBS, 0.66 CY BUCKET, 20' 1" MAX DIGGING DEPTH	120 HP D-off		$199,788	51.99	10.30	17.63	1.48	14.17	362

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.12		**OVER 40,000 LBS THRU 100,000 LBS**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	H25CA001	336F L	HYDRAULIC EXCAVATOR, CRAWLER, 80,500 LBS, 3.15 CY BUCKET, 26' 10" MAX DIGGING DEPTH	303 HP D-off		$393,034	94.91	15.11	24.56	2.83	35.79	805
	H25CA040	318E	HYDRAULIC EXCAVATOR, CRAWLER, 40,600 LBS, 1.00 CY BUCKET, 22.50' MAX DIGGING DEPTH	113 HP D-off		$267,424	51.97	10.29	16.71	1.93	13.35	410
	H25CA022	320E L	HYDRAULIC EXCAVATOR, CRAWLER, 47,400 LBS, 1.56 CY BUCKET, 25' MAX DIGGING DEPTH	153 HP D-off		$250,859	55.11	9.65	15.68	1.81	18.07	474
	H25CA023	320DL	HYDRAULIC EXCAVATOR, CRAWLER, 49,000 LBS, 0.80 CY BUCKET, 39.0' MAX DIGGING DEPTH, LONG REACH BOOM	128 HP D-off		$333,838	63.11	12.84	20.86	2.41	15.12	536
			KOBELCO AMERICA INC.									
	H25KC028	SK260 LC	HYDRAULIC EXCAVATOR, CRAWLER, 56,890 LBS, 1.31 CY BUCKET, 23' MAX DIGGING DEPTH	176 HP D-off		$256,864	59.05	9.88	16.05	1.85	20.79	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		$342,424	70.79	13.17	21.40	2.47	20.79	568
	H25KC030	SK350LC	HYDRAULIC EXCAVATOR, CRAWLER, 80,900 LBS, 2.09 CY BUCKET, 27'7" MAX DIGGING DEPTH	238 HP D-off		$342,555	79.18	13.18	21.41	2.47	28.11	809
	H25KC019	SK210 LC	HYDRAULIC EXCAVATOR, CRAWLER, 48,000 LBS, 1.13 CY BUCKET, 22.00' MAX DIGGING DEPTH	143 HP D-off		$209,283	48.06	8.05	13.08	1.51	16.89	480

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CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H25			*KOBELCO AMERICA INC. (continued)*									
	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		$276,730	57.31	10.64	17.30	1.99	16.89	534
	SUBCATEGORY 0.13		**OVER 100,000 LBS THRU 160,000 LBS**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	H25CA002	349E	HYDRAULIC EXCAVATOR, CRAWLER, 105,000 LBS, 4.2 CY BUCKET, 25' MAX DIGGING DEPTH	425 HP D-off		$528,424	114.42	16.14	24.77	3.75	50.20	1,054
	H25CA003	352F	HYDRAULIC EXCAVATOR, CRAWLER, 115,700 LBS, 4.05 CY BUCKET, 28' 10" MAX DIGGING DEPTH	417 HP D-off		$556,862	116.76	17.00	26.10	3.95	49.25	1,157
	H25CA004	374F	HYDRAULIC EXCAVATOR, CRAWLER, 157,000 LBS, 4.97 CY BUCKET, 31' 8" MAX DIGGING DEPTH	472 HP D-off		$836,318	156.30	25.54	39.20	5.94	55.75	1,570
			KOBELCO AMERICA INC.									
	H25KC031	SK485 LC	HYDRAULIC EXCAVATOR, CRAWLER, 111,774 LBS 2.75 CY BUCKET, 25.58' MAX DIGGING DEPTH	345 HP D-off		$476,253	98.42	14.54	22.32	3.38	40.75	1,117
			KOMATSU AMERICA INTERNATIONAL COMPANY									
	H25KM015	PC650LC-8	HYDRAULIC EXCAVATOR, CRAWLER, 139,330 LBS, 4.98 CY BUCKET, 27' 10" MAX DIGGING DEPTH	429 HP D-off		$846,259	152.15	25.85	39.67	6.01	50.67	1,464

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.14		**OVER 160,000 LBS**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	H25CA005	390F	HYDRAULIC EXCAVATOR, CRAWLER, 190,000 LBS, 6.0 CY BUCKET, 35' 3" MAX DIGGING DEPTH	524 HP D-off		$1,122,651	182.90	30.06	44.32	7.90	61.89	1,570
	H25CA065	390D L	HYDRAULIC EXCAVATOR, CRAWLER, 190,016LB, 7.6CY BUCKET, 35.13' MAX DIGGING DEPTH	523 HP D-off		$1,010,435	171.00	27.06	39.89	7.11	61.77	1,900
			KOMATSU AMERICA INTERNATIONAL COMPANY									
	H25KM009	PC 800 LC-8	HYDRAULIC EXCAVATOR, CRAWLER, 184,705 LBS, 6.0 CY BUCKET, 28' 3" MAX DIGGING DEPTH	487 HP D-off		$1,033,474	168.95	27.67	40.80	7.27	57.52	1,930
	H25KM033	PC2000-8	HYDRAULIC EXCAVATOR, CRAWLER, 429,900 LBS, 14.40 CY BUCKET, 30'4" MAX DIGGING DEPTH	976 HP D-off		$2,385,923	371.65	63.88	94.18	16.79	115.28	4,500
	SUBCATEGORY 0.21		**ATTACHMENTS, MOBILE SHEARS**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	H25CA055	S305	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, SCRAP, 9.4" JAW OPENING (ADD 10,000 LB HYDRAULIC EXCAVATOR)			$23,177	7.39	1.81	3.28	0.17	0.00	15
	H25CA057	S320B	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, SCRAP, 15.4" JAW OPENING (ADD 20,000 LB HYDRAULIC EXCAVATOR)			$92,652	28.74	7.24	13.13	0.67	0.00	57

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H25			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	H25CA066	S325B	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, SCRAP, 28.0" JAW OPENING (ADD 45,000 LB HYDRAULIC EXCAVATOR)			$117,822	35.54	9.21	16.69	0.86	0.00	84
	H25CA067	S340B	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, SCRAP, 32.0" JAW OPENING (ADD 100,000 LB HYDRAULIC EXCAVATOR)			$139,435	42.05	10.89	19.75	1.01	0.00	191
			LABOUNTY MANUFACTURING,									
	H25LU055	MSD 2250	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 30" JAW OPENING (ADD 90,000 LB HYDRAULIC EXCAVATOR)			$148,922	47.52	11.63	21.10	1.08	0.00	105
	H25LU056	MSD 2250R	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, ROTATING, 30" JAW OPENING (ADD 110,000 LB HYDRAULIC EXCAVATOR)			$181,808	57.44	14.20	25.76	1.32	0.00	125
	H25LU001	MSD 7	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 10" JAW OPENING (ADD 10,000 LB HYDRAULIC EXCAVATOR)			$28,285	8.94	2.22	4.01	0.21	0.00	10
	H25LU002	MSD 7R	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, ROTATING, 10" JAW OPENING (ADD 14,000 LB HYDRAULIC EXCAVATOR)			$31,909	10.12	2.49	4.52	0.23	0.00	11
	H25LU003	MSD 800	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 15" JAW OPENING (ADD 20,000 LB HYDRAULIC EXCAVATOR)			$65,613	20.60	5.13	9.30	0.48	0.00	28

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H25			*LABOUNTY MANUFACTURING, (continued)*									
	H25LU004	MSD 800R	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, ROTATING, 15" JAW OPENING (ADD 25,000 LB HYDRAULIC EXCAVATOR)			$73,032	22.93	5.71	10.35	0.53	0.00	23
	H25LU005	MSD 1000	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 19" JAW OPENING (ADD 35,000 LB HYDRAULIC EXCAVATOR)			$88,595	27.82	6.92	12.55	0.64	0.00	42
	H25LU006	MSD 1000R	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, ROTATING, 19" JAW OPENING (ADD 40,000 LB HYDRAULIC EXCAVATOR)			$96,185	30.51	7.52	13.63	0.70	0.00	44
	H25LU007	MSD 1500	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 22" JAW OPENING (ADD 55,000 LB HYDRAULIC EXCAVATOR)			$108,657	34.17	8.49	15.39	0.79	0.00	66
	H25LU008	MSD 1500R	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, ROTATING, 22" JAW OPENING (ADD 65,000 LB HYDRAULIC EXCAVATOR)			$128,175	40.26	10.01	18.16	0.93	0.00	70
	H25LU009	MSD 2000	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 28" JAW OPENING (ADD 70,000 LB HYDRAULIC EXCAVATOR)			$121,154	38.24	9.46	17.16	0.88	0.00	89
	H25LU010	MSD 2000R	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, ROTATING, 28" JAW OPENING (ADD 90,000 LB HYDRAULIC EXCAVATOR)			$153,775	48.38	12.01	21.78	1.12	0.00	102
	H25LU011	MSD 2500	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 32" JAW OPENING (ADD 90,000 LB HYDRAULIC EXCAVATOR)			$170,508	53.43	13.32	24.16	1.24	0.00	120

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H25			*LABOUNTY MANUFACTURING, (continued)*									
	H25LU012	MSD 2500R	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, ROTATING, 32" JAW OPENING (ADD 110,000 LB HYDRAULIC EXCAVATOR)			$203,540	63.88	15.90	28.83	1.48	0.00	146
	H25LU013	MSD 3000	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 35" JAW OPENING (ADD 145,000 LB HYDRAULIC EXCAVATOR)			$203,223	63.90	15.88	28.79	1.48	0.00	133
	H25LU014	MSD 3000R	HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, ROTATING, 35" JAW OPENING (ADD 160,000 LB HYDRAULIC EXCAVATOR)			$242,966	76.27	18.97	34.42	1.76	0.00	170
	SUBCATEGORY 0.22		**ATTACHMENTS, MATERIAL HANDLING**									
			BALDERSON, INC.									
	H25BS001	B315-24	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, 0.50 CY BUCKET, W/TIPS (ADD 25,000-50,000 LB HYDRAULIC EXCAVATOR)			$7,764	2.15	0.58	1.04	0.06	0.00	10
	H25BS002	B3F-B-30	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, 0.75 CY BUCKET, W/TIPS (ADD 25,000-50,000 LB HYDRAULIC EXCAVATOR)			$7,910	2.18	0.59	1.05	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)			$10,415	2.88	0.78	1.39	0.08	0.00	30

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H25			*BALDERSON, INC. (continued)*									
	H25BS004	B3F-C-42	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, 1.50 CY BUCKET, W/TIPS (ADD 50,000-60,000 LB HYDRAULIC EXCAVATOR)			$13,723	3.79	1.02	1.83	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)			$18,678	5.16	1.39	2.49	0.14	0.00	52
			LABOUNTY MANUFACTURING,									
	H25LU057	HDR 100S	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 2-TINE/3-TINE (ADD 85,000-110,000 LB HYDRAULIC EXCAVATOR)			$34,179	10.06	2.54	4.56	0.26	0.00	77
	H25LU023	TW 100	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 1.25CY, 4-TINE/ 5-TINE (ADD 25,000 LB HYDRAULIC EXCAVATOR)			$38,236	10.83	2.84	5.10	0.29	0.00	16
	H25LU024	HDR 30S	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 2-TINE/3-TINE (ADD 25,000-35,000 LB HYDRAULIC EXCAVATOR)			$14,884	4.41	1.10	1.98	0.11	0.00	16
	H25LU025	HDR 40S	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 2-TINE/3-TINE (ADD 35,000-45,000 LB HYDRAULIC EXCAVATOR)			$19,225	5.71	1.42	2.56	0.14	0.00	27
	H25LU026	HDR 50S	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 2-TINE/3-TINE (ADD 45,000-65,000 LB HYDRAULIC EXCAVATOR)			$24,157	7.18	1.79	3.22	0.18	0.00	35

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H25			*LABOUNTY MANUFACTURING, (continued)*									
	H25LU027	HDR 70S	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 2-TINE/3-TINE (ADD 65,000-85,000 LB HYDRAULIC EXCAVATOR)			$27,013	8.06	2.00	3.60	0.20	0.00	57
	H25LU028	TW 170	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, GRAPPLE, 9.00CY, 4-TINE/ 5-TINE (ADD 100,000 LB HYDRAULIC EXCAVATOR)			$49,503	14.39	3.67	6.60	0.37	0.00	78
	H25LU034	RDG 60	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, ROTATING GRAPPLE, 1.75 CY (ADD 38,000-70,000 LB HYDRAULIC EXCAVATOR)			$71,571	20.59	5.31	9.54	0.54	0.00	35
	H25LU035	RDG 90	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, ROTATING GRAPPLE, 1.25 CY (ADD 70,000-140,000 LB HYDRAULIC EXCAVATOR)			$85,946	24.66	6.37	11.46	0.64	0.00	69
	H25LU036	RDG 120	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, ROTATING GRAPPLE, 2.00 CY (ADD 120,000-160,000 LB HYDRAULIC EXCAVATOR)			$100,390	28.76	7.45	13.39	0.75	0.00	100
			ROCKLAND MANUFACTURING COMPANY									
	H25RZ001	EPR-B2-36	HYDRAULIC EXCAVATOR, ATTACHMENT, MATERIAL HANDLING, BUCKET, 36" CONCRETE/PAVEMENT REMOVAL (ADD 75,000 LB HYDRAULIC EXCAVATOR)			$7,313	2.02	0.54	0.98	0.05	0.00	21

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.23		**ATTACHMENTS, CONCRETE PULVERIZERS**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	H25CA068	P215	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, CRUSHER, 16.0" JAW OPENING (ADD 40,000 LB MIN HYDRAULIC EXCAVATOR)			$54,575	17.38	4.27	7.73	0.40	0.00	46
	H25CA069	P225	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 30.0" JAW OPENING (ADD 40,000 LB MIN HYDRAULIC EXCAVATOR)			$65,805	20.95	5.14	9.32	0.48	0.00	53
	H25CA070	P235	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 34.0" JAW OPENING (ADD 40,000 LB MIN HYDRAULIC EXCAVATOR)			$92,437	29.44	7.22	13.10	0.67	0.00	87
			FURUKAWA CO.,LTD.									
	H25FU001	FX175 QTV	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE BREAKER, 3,250 FT-LB, W/4.72" DIA (ADD 13,000-22,000 LB HYDRAULIC EXCAVATOR)			$37,635	12.48	2.94	5.33	0.27	0.00	21
	H25FU002	FX275 QTV	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE BREAKER, 5,250 FT-LB, W/5.51" DIA. POINT (ADD 42,000-66,000 LB HYDRAULIC EXCAVATOR)			$54,308	17.79	4.24	7.69	0.39	0.00	38
	H25FU003	F70 QT	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE BREAKER, 10,000 FT-LB, W/7.09 " DIA. POINT (ADD 80,000 LB HYDRAULIC EXCAVATOR)			$123,809	40.43	9.67	17.54	0.90	0.00	103

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			LABOUNTY MANUFACTURING,									
	H25LU046	CP 40 C	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 30" JAW OPENING (ADD 40,000 LB HYDRAULIC EXCAVATOR)			$34,810	11.58	2.72	4.93	0.25	0.00	29
	H25LU047	CP 60 S	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 36" JAW OPENING (ADD 60,000 LB HYDRAULIC EXCAVATOR)			$42,508	14.14	3.32	6.02	0.31	0.00	30
	H25LU048	CP 80 S	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 42" JAW OPENING (ADD 75,000 LB HYDRAULIC EXCAVATOR)			$44,200	14.77	3.45	6.26	0.32	0.00	45
	H25LU049	CP 100 S	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 48" JAW OPENING (ADD 100,000 LB HYDRAULIC EXCAVATOR)			$53,377	17.80	4.17	7.56	0.39	0.00	62
	H25LU050	CP 120 S	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 54" JAW OPENING (ADD 140,000 LB HYDRAULIC EXCAVATOR)			$80,851	26.64	6.32	11.45	0.59	0.00	99
	H25LU040	UP 45 SV	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, CRACKING JAWS, 45" JAW OPENING (ADD 55,000 LB HYDRAULIC EXCAVATOR)			$158,158	51.12	12.36	22.41	1.15	0.00	105
	H25LU041	UP 75 SV	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, CRACKING JAWS, 49" JAW OPENING (ADD 80,000 LB HYDRAULIC EXCAVATOR)			$194,693	62.74	15.20	27.58	1.41	0.00	127

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H25			*LABOUNTY MANUFACTURING, (continued)*									
	H25LU042	UP 90	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, CRACKING JAWS, 62" JAW OPENING (ADD 75,000 LB HYDRAULIC EXCAVATOR)			$226,554	73.65	17.70	32.10	1.65	0.00	171
	H25LU053	UP 45 SV	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 36" JAW OPENING (ADD 55,000 LB HYDRAULIC EXCAVATOR)			$158,158	51.12	12.36	22.41	1.15	0.00	105
	H25LU054	UP 75 SV	HYDRAULIC EXCAVATOR, ATTACHMENT, CONCRETE PULVERIZER, 40" JAW OPENING (ADD 80,000 LB HYDRAULIC EXCAVATOR)			$194,669	62.74	15.20	27.58	1.41	0.00	126
	SUBCATEGORY 0.24		**ATTACHMENTS, COMPACTORS**									
			ALLIED CONSTRUCTION PRODUCTS									
	H25AU011	700B	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 18" X 27" PLATE, 6,400 LBS FORCE (ADD 7,000-15,000 LB HYDRAULIC EXCAVATOR)			$5,782	1.84	0.45	0.82	0.04	0.00	6
	H25AU007	1000B	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 24" X 32" PLATE, 8,000 LBS FORCE (ADD 9,000-30,000 LB HYDRAULIC EXCAVATOR)			$6,846	2.18	0.54	0.97	0.05	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)			$9,318	2.97	0.73	1.32	0.07	0.00	16

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H25			*ALLIED CONSTRUCTION PRODUCTS (continued)*									
	H25AU009	2300	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 34" X 36" PLATE, 24,000 LBS FORCE (ADD 35,000-120,000 LB HYDRAULIC EXCAVATOR)			$13,223	4.21	1.04	1.87	0.10	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)			$19,770	6.29	1.54	2.80	0.14	0.00	40
			AMERICAN COMPACTION EQUIPMENT, INC.									
	H25AX001	DC-24BL	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 23" WIDE, SHEEPS FOOT, 3 RIMS - 38" DIA (ADD 25,000-50,000 LB HYDRAULIC EXCAVATOR)			$9,257	2.95	0.73	1.31	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)			$11,494	3.66	0.90	1.63	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)			$14,363	4.56	1.12	2.03	0.10	0.00	39
	H25AX002	DC-36BL	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 35" WIDE, SHEEPS FOOT, 4 RIMS - 38" DIA (ADD 50,000-75,000 LB HYDRAULIC EXCAVATOR)			$10,522	3.35	0.83	1.49	0.08	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)			$13,488	4.30	1.06	1.91	0.10	0.00	43

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H25			*AMERICAN COMPACTION EQUIPMENT, INC. (continued)*									
	H25AX006	DC-36EXL	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 36" WIDE, SHEEPS FOOT, 4 RIMS - 48" DIA (ADD 75,000-110,000 LB HYDRAULIC EXCAVATOR)			$17,329	5.52	1.36	2.45	0.13	0.00	53
			FURUKAWA CO.,LTD.									
	H25FU004	HP35ME	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 12" X 36" PLATE, 3000 LB FORCE (ADD 14,000-25,000 LB HYDRAULIC EXCAVATOR)			$6,464	2.22	0.51	0.92	0.05	0.00	4
	H25FU005	HP135II	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 28" X 40" PLATE, 13,500 LB FORCE (ADD 25,000-50,000 LB HYDRAULIC EXCAVATOR)			$13,146	4.34	1.03	1.86	0.10	0.00	14
	H25FU006	HP210II	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 34" X 46" PLATE, 21,000 LB FORCE (ADD 40,000-75,000 LB HYDRAULIC EXCAVATOR)			$18,134	5.92	1.42	2.57	0.13	0.00	22
			ROCKLAND MANUFACTURING COMPANY									
	H25RZ002	WI24-3	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 24" WIDE, SHEEPSFOOT, 3 RIMS (ADD 15-22.5 TON HYDRAULIC EXCAVATOR)			$6,631	2.11	0.52	0.94	0.05	0.00	21
	H25RZ003	WI36-4	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 36" WIDE, SHEEPSFOOT, 4 RIMS (ADD 15-22.5 TON HYDRAULIC EXCAVATOR)			$7,852	2.50	0.62	1.11	0.06	0.00	25

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H25			*ROCKLAND MANUFACTURING COMPANY (continued)*									
	H25RZ004	WE24-3	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 24'' WIDE, SHEEPSFOOT, 3 RIMS (ADD 22.5-30 TON HYDRAULIC EXCAVATOR)			$8,203	2.61	0.64	1.16	0.06	0.00	29
	H25RZ005	WE36-4	HYDRAULIC EXCAVATOR, ATTACHMENT, COMPACTOR, 36'' WIDE, SHEEPSFOOT, 4 RIMS (ADD 22.5-30 TON HYDRAULIC EXCAVATOR)			$10,083	3.21	0.79	1.43	0.07	0.00	36
H30	**HYDRAULIC EXCAVATORS, WHEEL MOUNTED**											
	SUBCATEGORY 0.01		**0 THRU 1.0 CY**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	H30CA001	M314F	HYDRAULIC EXCAVATORS, WHEEL, 0.69 CY BUCKET, TELESCOPIC BOOM, 19' DIGGING DEPTH, AWD	141 HP D-off		$245,121	59.27	12.80	21.94	1.83	15.58	322
	H30CA005	M318D	HYDRAULIC EXCAVATORS, WHEEL, 33,700 LBS, 1.00 CY BUCKET, 1-PIECE BOOM, 19' DIGGING DEPTH, 4X4	174 HP D-off		$252,194	64.60	13.19	22.61	1.88	19.23	393
	H30CA007	M315D	HYDRAULIC EXCAVATORS, WHEEL, 35,100 LBS, 0.70 CY BUCKET, 1-PIECE BOOM, 17' 7" DIGGING DEPTH, 4X4X2	147 HP D-off		$218,746	55.68	11.37	19.47	1.63	16.24	352
			GRADALL COMPANY									
	H30GA009	XL 4100 IV	HYDRAULIC EXCAVATORS, WHEEL, 1 CY BUCKET, TELESCOPIC BOOM, 19' 11" MAX DIGGING DEPTH, 6X6	262 HP D-on		$358,832	98.20	19.12	32.89	2.67	33.81	509

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H30			*GRADALL COMPANY (continued)*									
	H30GA010	XL 3100 IV	HYDRAULIC EXCAVATORS, WHEEL, 1 CY BUCKET, TELESCOPIC BOOM, 18' 11" MAX DIGGING DEPTH, 4X4	235 HP D-on		$311,377	86.12	16.67	28.70	2.32	30.33	417
	SUBCATEGORY 0.02		**OVER 1.0 CY**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	H30CA002	M316F	HYDRAULIC EXCAVATORS, WHEEL, 1.03 CY BUCKET, TELESCOPIC BOOM, 20' DIGGING DEPTH, AWD	141 HP D-off		$272,898	58.21	11.81	19.64	1.99	15.58	340
	H30CA003	M318F	HYDRAULIC EXCAVATOR, WHEEL, 1.19 CY BUCKET, TELESCOPIC BOOM, 20' DIGGING DEPTH, AWD	169 HP D-off		$286,197	63.64	12.41	20.64	2.09	18.67	369
	H30CA004	M320F	HYDRAULIC EXCAVATORS, WHEEL, 1.28 CY BUCKET. TELESCOPIC BOOM, 20' 9" DIGGING DEPTH, AWD	169 HP D-off		$304,788	66.30	13.25	22.03	2.23	18.67	408
	H30CA006	M322F	HYDRAULIC EXCAVATORS, WHEEL, 1.55 CY BUCKET. TELESCOPIC BOOM, 21' 10" DIGGING DEPTH, AWD	173 HP D-off		$341,435	71.35	15.08	25.17	2.49	19.11	459
			GRADALL COMPANY									
	H30GA011	XL 5100 IV	HYDRAULIC EXCAVATORS, WHEEL, 1.50 CY BUCKET, TELESCOPIC BOOM, 24' 1" DIGGING DEPTH, 6X6	282 HP D-on		$403,660	100.03	17.78	29.65	2.95	36.39	584

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
H35	HYDRAULIC SHOVELS, CRAWLER MOUNTED											
	SUBCATEGORY 0.12		DIESEL, OVER 5.0 CY									
			CATERPILLAR INC. (MACHINE DIVISION)									
	H35CA001	6015	HYDRAULIC SHOVEL, CRAWLER, 9.20 CY BUCKET, BACKHOE, 23' 11" DIGGING DEPTH	665 HP D-off		$1,161,602	236.65	37.00	58.08	7.96	78.54	2,277
	H35CA003	6018	HYDRAULIC SHOVEL, CRAWLER, 13.10 CY BUCKET, BACKHOE, 27' 11" DIGGING DEPTH	1,104 HP D-off		$2,304,796	442.82	73.41	115.24	15.79	130.39	3,981
	H35CA004	6030	HYDRAULIC SHOVEL, CRAWLER, 20.10 CY BUCKET, FRONT SHOVEL, 8' 2" DIGGING DEPTH	1,530 HP D-off		$3,833,162	698.51	122.10	191.66	26.27	180.71	6,477
	H35CA005	6050	HYDRAULIC SHOVEL, CRAWLER, 34.00 CY BUCKET, BACKHOE, 30' 6" DIGGING DEPTH	2,520 HP D-off		$7,533,337	1,312.40	239.96	376.67	51.62	297.64	11,838
			HITACHI CONSTRUCTION MACHINERY									
	H35HI007	EX1900-6	HYDRAULIC SHOVEL, CRAWLER, 15.7 CY BUCKET, FRONT SHOVEL, 35' 3" MAX DIGGING DEPTH	1,086 HP D-off		$2,449,042	459.73	78.01	122.45	16.78	128.27	4,233
	H35HI006	EX1200-6	HYDRAULIC SHOVEL, CRAWLER, 8.5 CY BUCKET, FRONT SHOVEL, 17' 3" DIGGING DEPTH	641 HP D-off		$1,724,746	308.42	54.94	86.24	11.82	75.71	2,447

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L10	**LAND CLEARING EQUIPMENT**											
	SUBCATEGORY 0.00		**LAND CLEARING EQUIPMENT**									
			BALDERSON, INC.									
	L10BS004	BBL7	LAND CLEARING EQUIPMENT, ROCK & ROOT RAKE, 12.0' WIDE, 9 TEETH (ADD 200 - 250 HP TRACTOR DOZER)			$31,037	5.76	1.46	2.48	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)			$45,858	8.44	2.16	3.67	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)			$45,760	8.42	2.15	3.66	0.32	0.00	68
	L10BS007	BLF988DTC	LAND CLEARING EQUIPMENT, LOGGING FORK, 92" TINES (ADD 400 - 450 HP FE LOADER)			$33,275	6.41	1.57	2.66	0.24	0.00	90
			BUSH HOG									
	L10BU014	2815	LAND CLEARING EQUIPMENT, ROTARY CUTTER, 15' CUTTING WIDTH, 2" - 14" CUTTING HEIGHT (ADD FARM 60 HP TRACTOR)			$23,614	6.19	1.12	1.89	0.17	0.00	45
	L10BU015	2820	LAND CLEARING EQUIPMENT, ROTARY CUTTER, 20' CUTTING WIDTH, 2" - 14" CUTTING HEIGHT (ADD FARM 90 HP TRACTOR)			$27,510	7.38	1.29	2.20	0.19	0.00	59
	L10BU005	SM-60	LAND CLEARING EQUIPMENT, ROTARY CUTTER, 5' WIDE-SIDE MTD (ADD FARM 50 HP TRACTOR)			$11,609	3.16	0.55	0.93	0.08	0.00	17

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L10			*BUSH HOG (continued)*									
	L10BU010	BH27D-2R	LAND CLEARING EQUIPMENT, ROTARY CUTTER, 7' WIDE, 1.5" - 10.5" CUT HEIGHT (ADD FARM 55 HP TRACTOR)			$5,789	1.82	0.27	0.46	0.04	0.00	11
	L10BU011	3210	LAND CLEARING EQUIPMENT, ROTARY CUTTER, 10.5' WIDE, 2 - 13" CUT HEIGHT (ADD FARM 70 HP TRACTOR)			$11,544	3.54	0.54	0.92	0.08	0.00	25
	L10BU012	3715	LAND CLEARING EQUIPMENT, ROTARY CUTTER, 15' WIDE, 2 - 14" HEIGHT (ADD FARM 80 HP TRACTOR)			$19,337	5.44	0.92	1.55	0.14	0.00	50
	L10BU013	2720	LAND CLEARING EQUIPMENT, ROTARY CUTTER, 20' WIDE, 2 - 14" HEIGHT (ADD FARM 90 HP TRACTOR)			$23,393	6.65	1.11	1.87	0.17	0.00	56
			ROME PLOW CO.									
	L10RM001	RV8N	LAND CLEARING EQUIPMENT, V-TREE CUTTER (ADD 275 - 325 HP TRACTOR DOZER)			$60,460	11.14	2.85	4.84	0.43	0.00	134
	L10RM002	MA-152R-8S	LAND CLEARING EQUIPMENT, MULTI-APPLICATION RAKE, 12' 8" WIDE, 9 TEETH (ADD 275 - 325 HP TRACTOR DOZER)			$68,305	12.11	3.21	5.46	0.48	0.00	150
			VERMEER MANUFACTURING CO.									
	L10VE010	SC 292	LAND CLEARING EQUIPMENT, STUMPER, 16" DIA WHEEL, TRAILER MTD	27 HP G		$16,363	7.59	0.77	1.29	0.12	4.16	11
	L10VE002	SC 40TX	LAND CLEARING EQUIPMENT, STUMPER, 18" DIA WHEEL, TRAILER MTD	35 HP G		$38,598	12.91	1.82	3.09	0.27	5.39	22
	L10VE009	SC 802	LAND CLEARING EQUIPMENT, STUMPER, 28" DIA WHEEL, TRAILER MTD	78 HP D-off		$44,146	17.39	2.06	3.50	0.31	8.62	40

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L10			*VERMEER MANUFACTURING CO. (continued)*									
	L10VE005	TS-30	LAND CLEARING EQUIPMENT, TREE SPADE, 30" DIA, 26" DEPTH, TRAILER MTD	13 HP G		$15,075	4.93	0.72	1.21	0.11	2.00	38
	L10VE006	TS-44A	LAND CLEARING EQUIPMENT, TREE SPADE, 44" DIA, 40" DEPTH, TRAILER MTD	20 HP G		$39,288	10.45	1.84	3.12	0.28	3.08	66
	L10VE007	TS-50	LAND CLEARING EQUIPMENT, TREE SPADE, 50" DIA, 48" DEPTH (ADD 13,800 GVW TRUCK)			$33,908	7.52	1.60	2.71	0.24	0.00	81
L15	LANDSCAPING EQUIPMENT											
	SUBCATEGORY 0.00		**LANDSCAPING EQUIPMENT**									
			BOWIE INDUSTRIES, INC.									
	L15BW005	LANCER 600	LANDSCAPING EQUIPMENT, 600 GAL, HYDROMULCHER, TRAILER MTD	25 HP G		$24,562	15.31	2.71	5.03	0.19	5.13	29
	L15BW001	LANCER 500	LANDSCAPING EQUIPMENT, 500 GAL, HYDROMULCHER, TRAILER MTD	25 HP G		$24,464	15.35	2.76	5.13	0.19	5.13	25
	L15BW002	VICTOR 800	LANDSCAPING EQUIPMENT, 800 GAL, HYDROMULCHER, TRAILER MTD	35 HP G		$40,540	23.84	4.47	8.30	0.32	7.18	48
	L15BW003	VICTOR 1100	LANDSCAPING EQUIPMENT, 1,100 GAL, HYDROMULCHER, GOOSENECK TRAILER MTD	50 HP G		$44,394	28.77	4.91	9.12	0.35	10.26	60
	L15BW004	IMPERIAL 3000	LANDSCAPING EQUIPMENT, 3,000 GAL, HYDROMULCHER, TRUCK MTD (ADD 55,000 GVW TRUCK)	90 HP D-off		$67,747	41.32	7.73	14.40	0.53	13.03	88

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			FINN CORPORATION									
	L15FG001	T330	LANDSCAPING EQUIPMENT, 3,000 GAL, HYDROSEEDER, TRUCK MTD (ADD 56,000 GVW TRUCK)	115 HP D-on	310 HP D-on	$93,083	67.57	10.62	19.78	0.73	27.73	96
	L15FG002	B260T	LANDSCAPING EQUIPMENT, MULCHER, STRAW BLOWER, 20 TONS PER HOUR, TRAILER MOUNTED	115 HP D-on		$51,382	41.82	5.83	10.85	0.40	19.45	48
			HUSQVARNA FOREST & GARDEN CO.									
	L15HV003	CRT900	LANDSCAPING EQUIPMENT, ROTOTILLER, 14" WIDTH BY 6" DEPTH	7 HP G		$611	1.82	0.07	0.13	0.00	1.44	2
	L15HV004	FT900	LANDSCAPING EQUIPMENT, ROTOTILLER, 26" WIDTH BY 6" DEPTH	7 HP G		$446	1.75	0.05	0.09	0.00	1.44	1
	L15HV001	DRT900	LANDSCAPING EQUIPMENT, ROTOTILLER, 17" WIDTH BY 6.5" DEPTH	5 HP G		$798	1.45	0.10	0.17	0.01	1.03	2
	L15HV002	CRT1350LS	LANDSCAPING EQUIPMENT, ROTOTILLER, 21" WIDTH BY 7" DEPTH	10 HP G		$1,357	2.79	0.16	0.29	0.01	2.05	3
			JOHN DEERE									
	L15JD005	MX5	LANDSCAPING EQUIPMENT, ROTARY MOWER, 60" WIDE, MEDIUM DUTY, PTO DRIVE (ADD 45 - 100 HP AGRICULTURAL TRACTOR)			$2,819	1.12	0.32	0.60	0.02	0.00	8
			STIHL									
	L15S7001	BT130	POST HOLE DRILL, UP TO 8" DIA, 30" DEEP, ONE MAN OPERATION	2 HP G		$967	0.84	0.12	0.21	0.01	0.41	1

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			TORO									
	L15TO001	22298	LANDSCAPING EQUIPMENT, LAWNMOWER, 21" DECK, REAR BAGGER, WALK BEHIND MOWER	6 HP G		$1,585	1.98	0.18	0.34	0.01	1.23	1
	L15TO002	30672	LANDSCAPING EQUIPMENT, LAWNMOWER, 32" DECK, SIDE DISCHARGE, WALK BEHIND MOWER	15 HP G		$3,706	4.81	0.21	0.35	0.03	2.98	6
	L15TO003	74952	LANDSCAPING EQUIPMENT, LAWNMOWER, 48" DECK, SIDE DISCHARGE, RIDING MOWER	21 HP G		$9,613	9.24	0.38	0.59	0.08	4.21	12
	L15TO004	74953	LANDSCAPING EQUIPMENT, LAWNMOWER, 52" DECK W/Z100 TRACTOR, SIDE DISCHARGE, RIDING MOWER	22 HP G		$8,560	9.15	0.26	0.37	0.07	4.51	13
	L15TO006	74925	LANDSCAPING EQUIPMENT, LAWNMOWER, 60" DECK W/Z500 TRACTOR, SIDE DISCHARGE, RIDING MOWER	26 HP G		$13,715	12.37	0.51	0.79	0.11	5.23	15
	L15TO007	74927	LANDSCAPING EQUIPMENT, LAWNMOWER, 72" DECK, W/Z500 TRACTOR, SIDE DISCHARGE, RIDING MOWER	26 HP G		$14,372	12.62	0.58	0.93	0.11	5.23	17
	L15TO009	POWER MAX 8260XE	LANDSCAPING EQUIPMENT, SNOWBLOWER, 26" PATH, 45' THROW	8 HP G		$1,229	2.29	0.14	0.26	0.01	1.64	2
	L15TO010	POWER MAX 11280HXE	LANDSCAPING EQUIPMENT, SNOWBLOWER, 28" PATH, 45' THROW	10 HP G		$2,433	3.22	0.28	0.52	0.02	2.05	3
			WILLMAR EQUIPMENT COMPANY									
	L15WI001	S-150	LANDSCAPING EQUIPMENT, SPREADER, 54CF DRY CHEMICAL (ADD 55 HP FARM TRACTOR)			$8,557	3.39	0.92	1.70	0.07	0.00	15

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L20	**LIGHTING SETS, TRAILER MOUNTED**											
	SUBCATEGORY 0.10		**METALLIC VAPOR**									
			ALLMAND BROTHERS INC.									
	L20AB025	NIGHT-LITE PRO II	LITE SET, TRAILER MTD., 4/1,250W, W/7.5 KW GEN, MANUAL MAST WINCH	12 HP D-off		$12,691	5.77	0.72	1.25	0.09	1.83	16
	L20AB026	NIGHT-LITE PR0 II V	LITE SET, TRAILER MTD., 4/1,000W, W/7.5 KW GEN, ELECTRIC MAST WINCH	12 HP D-off		$15,138	6.51	0.86	1.50	0.11	1.83	18
	L20AB017	MLIILD	LITE SET, TRAILER MTD., 4/1250W, W/7.5 KW GEN, ELECTRIC MAST WINCH	12 HP D-off		$17,245	7.13	0.97	1.70	0.12	1.83	21
	L20AB018	MAXILITE 7/8 CSAML6	LITE SET, TRAILER MTD., 4/1,000W, W/8 KW GEN, ELECTRIC MAST WINCH	13 HP D-off		$17,400	7.47	0.99	1.72	0.13	2.08	21
	L20AB019	MAXILITE 7/8 CSAML8	LITE SET, TRAILER MTD., 6/1,000W, W/8 KW GEN, ELECTRIC MAST WINCH	19 HP D-off		$19,165	8.93	1.09	1.89	0.14	2.94	21
	L20AB021	NIGHT-LITE PRO CSA	LITE SET, TRAILER MTD., 4/1,000W, W/8 KW GEN, MANUAL MAST WINCH	13 HP D-off		$12,479	5.99	0.71	1.23	0.09	2.08	20
	L20AB023	ECLIPSE 2220/SE ALT	LITE SET, TRAILER MTD., 15 LED LAMP, FLASHING ARROW, W/TWO 8D BATTERIES AND 50W SOLAR ARRAY			$5,502	1.62	0.31	0.53	0.04	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			$5,881	1.73	0.33	0.57	0.04	0.00	12

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN			CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L25	**LINE STRIPING EQUIPMENT**													
	SUBCATEGORY 0.00		**LINE STRIPING EQUIPMENT**											
			JCL EQUIPMENT CO.											
	L25JE002	ROAD RUNNER	LINE STRIPING EQUIPMENT, STRIPER, INTERMEDIATE, 3 GUNS, TRUCK MOUNTED (17,590 LB GVW), TWO COLORS	190	HP	D-on		$167,142	81.63	9.37	16.32	1.21	34.67	116
	L25JE003	HRL-1	LINE STRIPING EQUIPMENT, STRIPER, INTERMEDIATE, 1 GUNS SELF PROPELLED, SINGLE COLOR	6	HP	G		$4,085	2.39	0.24	0.41	0.03	1.21	9
			M-B COMPANIES, INC.											
	L25MB002	5-10	LINE STRIPING EQUIPMENT, STRIPER, 1 GUN, WALK-BEHIND, SINGLE COLOR	6	HP	G		$12,137	5.48	0.68	1.18	0.09	1.21	6
	L25MB005	5-12A	LINE STRIPING EQUIPMENT, STRIPER, 2 GUNS, WALK BEHIND, SINGLE COLOR	10	HP	G		$12,793	6.73	0.72	1.25	0.09	2.19	6
	L25MB007	260 ACL	LINE STRIPING EQUIPMENT, STRIPER, INTERMEDIATE, 3-4 GUNS, SELF PROPELLED, THREE COLORS	23	HP	G		$85,044	28.64	4.86	8.50	0.61	5.05	30
	L25MB006	245	LINE STRIPING EQUIPMENT, STRIPER, INTERMEDIATE, 3 GUNS, SELF PROPELLED, TWO COLORS	20	HP	G		$185,723	54.34	10.63	18.57	1.34	4.39	48
	L25MB004	TPX 2000	LINE STRIPING EQUIPMENT, STRIPER, INTERMEDIATE, 3-4 GUNS, W/11,000 LBS GVW TRUCK, TWO COLORS	190	HP	G		$376,261	145.20	21.34	37.23	2.72	41.70	290
	L25MB008	360	LINE STRIPING EQUIPMENT, STRIPER, INTERMEDIATE, 3-4 GUNS, THERMAL 120 GAL, TRUCK MTD, TWO COLORS	74	HP	D-off		$205,343	67.64	11.54	20.11	1.48	11.56	192

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L30	**LOADERS, BELT (Conveyor belts) & ACCESSORIES**											
	SUBCATEGORY 0.00		**LOADERS, BELT (Conveyor belts) & ACCESSORIES**									
			KPI-JCI									
	L30KJ004	616 E-3	LOADER, CONVEYOR BELT & ACCESSORIES, 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		$223,289	64.71	10.25	17.33	1.58	15.14	280
	L30KJ001	11-2450	LOADER, CONVEYOR BELT & ACCESSORIES, 24" WIDE X 50' LONG CONVEYOR WITH 24" DEEP LATTICE FRAME, SINGLE AXLE TELESCOPING UNDERCARRIAGE FOR RAISE AND LOWER, CAPABLE OF RADIAL TRAVEL, UP TO 250 TONS PER HOUR	10 HP E		$49,163	11.94	2.27	3.83	0.35	1.78	105
	L30KJ002	11-2460	LOADER, CONVEYOR BELT & ACCESSORIES, 24" WIDE X 60' LONG CONVEYOR WITH 24" DEEP LATTICE FRAME, SINGLE AXLE, TELESCOPING UNDERCARRIAGE FOR RAISE AND LOWER, CAPABLE OF RADIAL TRAVEL, UP TO 250 TONS PER HOUR	10 HP E		$48,595	11.82	2.23	3.78	0.34	1.78	128
	L30KJ003	PTC 24INX50FT	LOADER, CONVEYOR BELT & ACCESSORIES, CONVEYOR, TRUSS FRAME, 24"W X 50'L, WHEEL MTD, 300 TPH	10 HP E		$44,688	11.27	1.93	3.22	0.32	1.78	78

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			METSO MINERALS									
	L30RA001	CV50D	LOADER, CONVEYOR BELT & ACCESSORIES, GRIZZLY SINGLE SCREEN, 40-120 CY/HR TRAILER MTD	29 HP D-off		$94,619	21.72	4.42	7.49	0.67	3.43	135
			SUPERIOR INDUSTRIES, AN ASTEC COMPANY									
	L30S4001	36"X35' FEED CONVEY	LOADER, CONVEYOR BELT & ACCESSORIES, BELT FEEDER	15 HP E		$27,070	9.03	1.28	2.17	0.19	2.67	33
	L30S4002	RUN-ON HYDRAULIC LEG	LOADER, CONVEYOR BELT & ACCESSORIES, 4 HYDRAULIC JACK LEGS			$23,261	4.39	1.09	1.86	0.16	0.00	28
	L30S4005	HOPPER SKIRTING	HOPPER SKIRTING DITCH AND CENTER LINE SIDES			$2,007	0.37	0.09	0.16	0.01	0.00	9
	L30S4006	FRAME SKIRTING	FRAME SKIRTING DITCH AND CENTER LINE SIDES			$2,268	0.43	0.11	0.18	0.02	0.00	9
L35	**LOADERS, FRONT END, CRAWLER TYPE**											
	SUBCATEGORY 0.00		**LOADERS, FRONT END, CRAWLER TYPE**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	L35CA001	239D	LOADER, FRONT END, TRACKED, 0.52 CY, 66" BUCKET	67 HP D-off		$52,104	19.85	2.46	4.17	0.37	8.69	73
	L35CA002	249D	LOADER, FRONT END, TRACKED, 0.52 CY, 66" BUCKET	67 HP D-off		$55,044	20.42	2.59	4.40	0.39	8.69	77
	L35CA003	257D	LOADER, FRONT END, TRACKED, 0.54 CY, 66" BUCKET	74 HP D-off		$61,137	22.65	2.88	4.89	0.43	9.62	81
	L35CA004	259D	LOADER, FRONT END, TRACKED, 0.54 CY, 66" BUCKET	74 HP D-off		$61,860	22.80	2.92	4.95	0.44	9.62	89

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L35			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	L35CA006	277D	LOADER, FRONT END, TRACKED, 0.54 CY, 66" BUCKET	74 HP D-off		$82,282	26.82	3.87	6.58	0.58	9.62	93
	L35CA008	279D	LOADER, FRONT END, TRACKED, 0.54 CY, 66" BUCKET	74 HP D-off		$84,126	27.20	3.97	6.73	0.60	9.62	100
	L35CA009	287D	LOADER, FRONT END, TRACKED, 0.54 CY, 66" BUCKET	74 HP D-off		$77,217	25.83	3.64	6.18	0.55	9.62	100
	L35CA010	289D	LOADER, FRONT END, TRACKED, 0.54 CY, 66" BUCKET	74 HP D-off		$82,975	26.97	3.91	6.64	0.59	9.62	105
	L35CA011	299D XHP	LOADER, FRONT END, TRACKED, 0.54 CY, 66" BUCKET	110 HP D-off		$100,019	35.42	4.71	8.00	0.71	14.25	116
	L35CA005	953-D	LOADER, FRONT END, CRAWLER, 2.25 CY BUCKET	148 HP D-off		$248,943	70.26	11.72	19.92	1.76	19.17	334
	L35CA014	963-D	LOADER, FRONT END, CRAWLER, 3.20 CY BUCKET	189 HP D-off		$307,633	87.68	14.49	24.61	2.18	24.48	433
	L35CA007	973D	LOADER, FRONT END, CRAWLER, 4.20 CY BUCKET, 3 SHANK RIPPER	263 HP D-off		$518,784	139.94	24.42	41.50	3.67	34.07	573
L40	**LOADERS, FRONT END, WHEEL TYPE**											
	SUBCATEGORY 0.11		**ARTICULATED, 0 THRU 225 HP**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	L40CA001	903C	LOADER, FRONT END, WHEEL, 0.8 CY BUCKET, ARTICULATED, 4X4	42 HP D-off		$66,258	16.66	3.09	5.19	0.49	4.96	92
	L40CA002	926M	LOADER, FRONT END, WHEEL, 3.2 CY BUCKET, ARTICULATED, 4X4	155 HP D-off		$194,914	62.20	8.06	13.25	1.43	18.31	288
	L40CA033	906H2	LOADER, FRONT END, WHEEL, 1.18 CY BUCKET, ARTICULATED, 4X4	69 HP D-off		$98,783	25.74	4.58	7.69	0.73	8.15	124

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L40			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	L40CA034	908H2	LOADER, FRONT END, WHEEL, 1.40 CY BUCKET, ARTICULATED, 4X4	69 HP D-off		$114,872	28.38	5.34	8.99	0.84	8.15	143
	L40CA019	914G2	LOADER, FRONT END, WHEEL, 1.80 CY BUCKET, ARTICULATED, 4X4	95 HP D-off		$119,679	33.29	5.55	9.33	0.88	11.22	175
	L40CA022	924Hz	LOADER, FRONT END, WHEEL, 2.20 CY BUCKET, ARTICULATED, 4X4	128 HP D-off		$165,647	45.18	7.75	13.06	1.22	15.12	242
	L40CA040	930K	LOADER, FRONT END, WHEEL, 3.0 CY BUCKET, ARTICULATED, 4X4	154 HP D-off		$226,943	59.44	10.57	17.79	1.67	18.19	305
	L40CA023	938K	LOADER, FRONT END, WHEEL, 3.50 CY BUCKET, ARTICULATED, 4X4	169 HP D-off		$250,894	65.33	11.71	19.73	1.84	19.96	351
	L40CA024	950K	LOADER, FRONT END, WHEEL, 4.25 CY BUCKET, ARTICULATED, 4X4	211 HP D-off		$332,927	88.13	15.04	25.18	2.45	24.92	428
	L40CA025	962K	LOADER, FRONT END, WHEEL, 4.50 CY BUCKET, ARTICULATED, 4X4	245 HP D-off		$329,484	92.01	14.87	24.90	2.42	28.94	451
			CASE CORPORATION									
	L40CS012	621F	LOADER, FRONT END, WHEEL, 4.5 CY BUCKET, ARTICULATED, 4X4	156 HP D-off		$266,881	66.90	12.37	20.82	1.96	18.43	267
	L40CS013	721F	LOADER, FRONT END, WHEEL, 5.5 CY BUCKET, ARTICULATED, 4X4	176 HP D-off		$295,162	74.18	13.73	23.12	2.17	20.79	315
	L40CS014	821F	LOADER, FRONT END, WHEEL, 4.5 CY BUCKET, ARTICULATED, 4X4	208 HP D-off		$370,386	93.88	16.83	28.21	2.72	24.57	389
			KOMATSU AMERICA INTERNATIONAL COMPANY									
	L40KM003	WA200-7	LOADER, FRONT END, WHEEL, 3.10 CY BUCKET, ARTICULATED, 4X4	126 HP D-off		$192,550	50.11	8.92	15.00	1.42	14.88	263

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.12		**ARTICULATED, OVER 225 HP**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	L40CA007	980K	LOADER, FRONT END, WHEEL, UP TO 7.50 CY BUCKET, ARTICULATED, 4X4	369 HP D-off		$574,209	129.72	19.61	31.28	3.97	43.58	689
	L40CA018	990 H	LOADER, FRONT END, WHEEL, 11.00 CY BUCKET, ARTICULATED, 4X4	627 HP D-off		$1,532,262	270.62	51.80	82.40	10.60	74.05	1,716
	L40CA009	992-K	LOADER, FRONT END, WHEEL, 16.00 CY BUCKET, ARTICULATED, 4X4	800 HP D-off		$2,115,413	360.70	73.51	117.76	14.63	94.49	2,150
	L40CA035	988K	LOADER, FRONT END, WHEEL, UP TO 17.00 CY BUCKET, ARTICULATED, 4X4	541 HP D-off		$869,849	186.96	29.13	46.21	6.02	63.90	1,126
			KOMATSU AMERICA INTERNATIONAL COMPANY									
	L40KM008	WA500-7	LOADER, FRONT END, WHEEL, 8.20 CY BUCKET, ARTICULATED, 4X4	353 HP D-off		$589,145	129.46	20.17	32.17	4.08	41.69	755
	L40KM009	WA600-6	LOADER, FRONT END, WHEEL, 9.20 CY BUCKET, ARTICULATED, 4X4	527 HP D-off		$859,167	174.20	28.99	46.10	5.94	62.24	1,190
	L40KM010	WA700-3A	LOADER, FRONT END, WHEEL, 11.10 CY BUCKET, ARTICULATED, 4X4	684 HP D-off		$1,012,828	216.46	32.82	51.62	7.01	80.79	1,574
	L40KM011	WA800-3	LOADER, FRONT END, WHEEL, 18.30 CY BUCKET, ARTICULATED, 4X4	808 HP D-off		$1,446,313	282.59	49.06	78.11	10.00	95.43	2,304
	SUBCATEGORY 0.20		**SKID STEER**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	L40CA003	226D	LOADER, FRONT END WHEEL, SKID-STEER, 0.47 CY, 60" BUCKET	67 HP D-off		$38,324	18.20	2.10	3.64	0.28	8.69	57
	L40CA004	232D	LOADER, FRONT END WHEEL, SKID-STEER, 0.47 CY, 60" BUCKET	67 HP D-off		$54,159	21.49	3.01	5.23	0.39	8.69	62

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L40			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	L40CA005	236D	LOADER, FRONT END WHEEL, SKID-STEER, 0.52 CY, 66" BUCKET	74 HP D-off		$46,948	21.03	2.60	4.51	0.34	9.62	66
	L40CA006	242D	LOADER, FRONT END, WHEEL, SKID-STEER, 0.52 CY, 66" BUCKET	74 HP D-off		$45,424	20.86	2.48	4.30	0.33	9.62	70
	L40CA008	262D	LOADER, FRONT END, WHEEL, SKID-STEER, 0.52 CY, 66" BUCKET	74 HP D-off		$51,669	22.16	2.84	4.93	0.37	9.62	81
	L40CA010	272D	LOADER, FRONT END, WHEEL, SKID-STEER, 0.52 CY, 66" BUCKET	98 HP D-off		$70,497	29.47	3.92	6.81	0.51	12.69	83
	L40CA028	216B3	LOADER, FRONT END, WHEEL, SKID-STEER, 13.0 CF, 60" BUCKET, 4X4	51 HP D-off		$34,733	15.15	1.90	3.29	0.25	6.61	57
	L40CA029	226B3	LOADER, FRONT END, WHEEL, SKID-STEER, 13.0 CF, 60" BUCKET, 4X4	56 HP D-off		$41,824	17.32	2.30	3.99	0.30	7.25	59
	L40CA030	236B3	LOADER, FRONT END, WHEEL, SKID-STEER, 14.0 CF, 66" BUCKET, 4X4	74 HP D-off		$38,099	19.31	2.07	3.57	0.28	9.59	70
	L40CA031	246D	LOADER, FRONT END, WHEEL, SKID-STEER, 15.4 CF, 72" BUCKET, 4X4	74 HP D-off		$46,986	21.15	2.57	4.46	0.34	9.59	74
			MELROE BOBCAT									
	L40ME016	S70	LOADER, FRONT END, WHEEL, SKID-STEER, 7.4 CF, 44" BUCKET, 4X4	24 HP D-off		$21,642	8.08	1.21	2.10	0.16	3.04	28
	L40ME017	S530	LOADER, FRONT END, WHEEL, SKID-STEER, 10.5 CF, 62" BUCKET, 4X4	49 HP D-off		$33,023	14.50	1.80	3.12	0.24	6.35	65
	L40ME012	S450	LOADER, FRONT END, WHEEL, SKID-STEER, 10.5 CF, 62" BUCKET	49 HP D-off		$33,691	14.63	1.83	3.18	0.24	6.35	50
	L40ME021	S570	LOADER, FRONT END, WHEEL, SKID-STEER, 10.5 CF, 62" BUCKET, 4X4	49 HP D-off		$34,744	14.85	1.90	3.29	0.25	6.35	62

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L40			*MELROE BOBCAT (continued)*									
	L40ME022	S630	LOADER, FRONT END, WHEEL, SKID-STEER, 20.6 CF, 74" BUCKET, 4X4	74 HP D-off		$43,843	20.43	2.41	4.17	0.32	9.59	76
	L40ME023	S740	LOADER, FRONT END, WHEEL, SKID-STEER, 23.3 CF, 78" BUCKET, 4X4	74 HP D-off		$50,722	21.87	2.80	4.86	0.37	9.59	88
	SUBCATEGORY 0.31		**TOOL CARRIER & TELESCOPIC HANDLERS, 0 THRU 225 HP**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	L40CA015	TH255C	TELEHANDLER, 5500 LB RATED LOAD CAPACITY, 18.4' MAX LIFT HEIGHT WITH 3000 LB CAPACITY, 10.8' MAX FORWARD REACH WITH 1700 LB CAPACITY, 4X4	74 HP D-off		$89,260	24.94	3.90	6.50	0.65	8.74	110
	L40CA038	TH514C	TELEHANDLER, 11,000 LB RATED LOAD CAPACITY, 45' MAX LIFT HEIGHT WITH 7,000 LB CAPACITY, 30.3' MAX FORWARD REACH WITH 3,000 LB CAPACITY, 4X4	101 HP D-off		$189,840	46.42	8.31	13.84	1.39	11.93	249
	L40CA039	TH406C	TELEHANDLER, 8150 LB RATED LOAD CAPACITY, 20' MAX LIFT HEIGHT WITH 5500 LB CAPACITY, 10.2' MAX FORWARD REACH WITH 3300 LB CAPACITY, 4X4	101 HP D-off		$95,261	30.38	4.10	6.80	0.70	11.93	184
	L40CA011	330D MH	MATERIAL HANDLER, TRACKED, 1.25 CY GRAPPLE OR 66" MAGNET, 52' MAX HEIGHT, 48' MAX REACH	268 HP D-off		$578,788	132.16	25.94	43.41	4.23	31.65	984
	L40CA016	MH3037	MATERIAL HANDLER, WHEELED, 1.25 CY GRAPPLE OR 66" MAGNET, 58' MAX HEIGHT, 52' MAX REACH	225 HP D-off		$599,148	131.21	26.43	44.10	4.38	26.57	871
	L40CA017	MH3049	MATERIAL HANDLER, WHEELED, 1.5 CY GRAPPLE OR 66" MAGNET, 64' MAX HEIGHT, 58.4' MAX REACH	300 HP D-off		$727,669	162.58	32.19	53.74	5.32	35.43	1,110

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L40			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	L40CA020	MH3059	MATERIAL HANDLER, WHEELED, 2.0 CY GRAPPLE OR 66" MAGNET, 64' MAX HEIGHT, 58.4' MAX REACH	325 HP D-off		$876,835	191.54	38.66	64.50	6.41	38.39	1,328
	L40CA021	MH3295	MATERIAL HANDLER, CRAWLER, 2.5 CY GRAPPLE OR 66" MAGNET, 74.2' MAX HEIGHT, 71.5' MAX REACH	524 HP D-off		$1,330,779	291.80	59.63	99.81	9.72	61.89	2,100
	L40CA026	TL1055D	TELEHANDLER, 10,000 LB RATED LOAD CAPACITY, 55' MAX LIFT HEIGHT WITH 5,000 LB CAPACITY, 42' MAX FORWARD REACH WITH 2,500 LB CAPACITY, 4X4	142 HP D-off		$197,058	52.42	8.58	14.27	1.44	16.78	319
	L40CA027	TL1255D	TELEHANDLER, 12,000 LB RATED LOAD CAPACITY, 55' MAX LIFT HEIGHT WITH 5,000 LB CAPACITY, 42' MAX FORWARD REACH WITH 3,500 LB CAPACITY, 4X4	142 HP D-off		$215,311	55.48	9.39	15.64	1.57	16.78	344
	L40CA036	TL642D	TELEHANDLER, 6,500 LB RATED LOAD CAPACITY, 42' MAX LIFT HEIGHT WITH 6,500 LB CAPACITY, 30' MAX FORWARD REACH WITH 700 LB CAPACITY, 4X4	100 HP D-off		$152,668	40.05	6.65	11.06	1.12	11.81	220
	L40CA037	TL943D	TELEHANDLER, 9,000 LB RATED LB RATED LOAD CAPACITY, 43' MAX LIFT HEIGHT WITH 7,000 LB CAPACITY, 31' MAX FORWARD REACH WITH 1,200 LB CAPACITY, 4X4	111 HP D-off		$163,692	43.34	7.14	11.88	1.20	13.11	258
	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		$140,620	36.55	6.13	10.20	1.03	10.63	180

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L40			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	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		$222,710	58.92	9.61	15.95	1.63	17.13	279
L50	**LOADERS / BACKHOE, WHEEL TYPE**											
	SUBCATEGORY 0.00		**LOADERS / BACKHOE, WHEEL TYPE**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	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		$92,858	26.98	3.99	6.62	0.68	7.96	162
	L50CA002	420F	LOADER/BACKHOE, WHEEL, 1.5 CY FRONT END BUCKET, 8.5 CF BACKHOE BUCKET, 14' 4" DIGGING DEPTH, 4X4	93 HP D-off		$136,126	34.86	5.87	9.75	0.99	8.50	154
	L50CA005	450F	LOADER / BACKHOE, WHEEL, 1.75 CY FRONT END BUCKET, 9.5 CF, 17.2' DIGGING DEPTH, 4X2	127 HP D-off		$197,714	49.14	8.72	14.56	1.44	11.61	241
			CASE CORPORATION									
	L50CS007	580 SUPER N	LOADER / BACKHOE, WHEEL, 1.29 CY FRONT END BUCKET, 12.7 CF BACKHOE BUCKET, 14.5' MAX DIGGING DEPTH, 4X4	97 HP D-off		$170,640	40.93	7.47	12.44	1.25	8.87	173
	L50CS008	590 SUPER N	LOADER / BACKHOE, WHEEL, 1.50 CY FRONT END BUCKET, 12.7 CF BACKHOE BUCKET, 15.5' MAX DIGGING DEPTH, 4X4	110 HP D-off		$193,110	46.48	8.39	13.95	1.41	10.06	205

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			JCB INC.									
	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		$94,577	25.58	4.02	6.66	0.69	6.77	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		$123,046	32.44	5.30	8.80	0.90	8.32	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		$134,721	36.68	5.82	9.67	0.98	9.97	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		$148,809	39.83	6.25	10.31	1.09	9.97	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		$183,948	45.55	7.82	12.95	1.34	9.97	189
L55	LOADER / BACKHOE, ATTACHMENTS											
	SUBCATEGORY 0.00		**LOADER / BACKHOE, ATTACHMENTS**									
			FURUKAWA CO.,LTD.									
	L55FU001	B555	LOADER / BACKHOE, ATTACHMENT, AIR RAM, 500 FT-LB, W/2.5" DIA CHISEL (ADD 175 CFM COMPRESSOR & LDR/BH)			$8,538	3.17	0.63	1.14	0.06	0.00	5
	L55FU002	B999	LOADER / BACKHOE, ATTACHMENT, AIR RAM, 1000 FT-LB, W/ 3.5" DIA CHISEL (ADD 250 CFM COMPRESSOR & LDR/BH)			$15,609	5.91	1.16	2.08	0.12	0.00	10

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L55			*FURUKAWA CO.,LTD. (continued)*									
	L55FU003	F6TLB	LOADER / BACKHOE, ATTACHMENT, HYDRAULIC BREAKER, 1,000 FT-LB, W/3" DIA. POINT (ADD 12,000-14,000 LOADER/BACKHOE)			$14,258	4.43	1.06	1.90	0.11	0.00	7
	L55FU004	F9TLB	LOADER / BACKHOE, ATTACHMENT, HYDRAULIC BREAKER, 1500 FT-LB, W/3.5" DIA. POINT (ADD 14,000-20,000 LOADER/BACKHOE)			$19,534	6.06	1.45	2.60	0.15	0.00	11
L60	**LOG SKIDDERS**											
	SUBCATEGORY 0.00		**LOG SKIDDERS**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	L60CA013	525 C	LOG SKIDDER, 11 SF GRAPPLE, CABLE 43,000 LBS LINE-PULL AND WINCH, WHEEL, 4X2	160 HP D-off		$366,389	83.85	16.91	28.80	2.51	18.90	358
	L60CA010	527 CABLE	LOG SKIDDER, CABLE, 69,200 LBS LINE-PULL AND WINCH, BLADE, CRAWLER	150 HP D-off		$399,240	85.47	19.70	33.94	2.73	17.72	407
	L60CA011	527 GRAPPLE	LOG SKIDDER, 10 SF GRAPPLE, CABLE 69,200 LBS LINE-PULL AND WINCH, CRAWLER	150 HP D-off		$436,210	91.55	21.52	37.08	2.98	17.72	473
			JOHN DEERE									
	L60JD001	540G III	LOG SKIDDER, CABLE, 40,525 LBS LINE-PULL WINCH AND BLADE, WHEEL, 4X4	119 HP D-off		$178,186	48.04	7.87	13.30	1.22	14.06	219
	L60JD003	548G III - GRAPPLE	LOG SKIDDER, 8.0 SF GRAPPLE WITH BLADE, WHEEL, 4X4	119 HP D-off		$177,560	46.53	8.26	14.10	1.21	14.06	217

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
L60			*JOHN DEERE (continued)*									
	L60JD004	648H	LOG SKIDDER, 10.4 SF GRAPPLE WITH BLADE, WHEEL, 4X4	160 HP D-off		$257,585	66.51	11.79	20.05	1.76	18.90	266
	L60JD002	640H	LOG SKIDDER, CABLE, 48,867 LBS LINE-PULL WINCH AND BLADE, WHEEL, 4X4	151 HP D-off		$233,086	61.29	10.58	17.97	1.59	17.83	239
	L60JD006	643K	LOG SKIDDER, LOG FELLER/BUNCHER, 18" DIA TREE SAW CUTTER, WHEEL, 4X4	170 HP D-off		$222,494	62.06	10.06	17.07	1.52	20.08	320
	L60JD008	753J	LOG SKIDDER, LOG FELLER/BUNCHER, 28" DIA TREE SAW CUTTER, CRAWLER	170 HP D-off		$429,631	93.11	21.20	36.52	2.94	20.08	410
	L60JD007	843K	LOG SKIDDER, LOG FELLER/BUNCHER, 20" DIA TREE SAW CUTTER, WHEEL, 4X4	200 HP D-off		$237,425	68.46	10.79	18.34	1.62	23.62	323
M10	MARINE EQUIPMENT (NON DREDGING)											
	SUBCATEGORY 0.41		**WORK FLOATS (NON-DREDGING)**									
			MARINE INLAND FABRICATORS									
	M10MZ001	BARGE 40'x8'x4'	MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MEDIUM DUTY, 40' X 8' X 4', 23 TON			$27,242	6.60	2.24	4.09	0.19	0.00	143
	M10MZ003	BARGE 40'x10'x4'	MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MEDIUM DUTY, 40' X 10' X 4', 30 TON			$31,961	7.74	2.63	4.79	0.23	0.00	173
	SUBCATEGORY 0.42		**WORK BARGES (SECTIONAL, NON-DREDGING)**									
			MARINE INLAND FABRICATORS									
	M10MZ005	BARGE 40'x12'x4'	MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MEDIUM DUTY', 40' X 12' X 4', 36 TON			$36,438	2.05	0.77	1.09	0.22	0.00	193

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
M10			*MARINE INLAND FABRICATORS (continued)*									
	M10MZ007	BARGE 40'x12'x5'	MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MEDIUM DUTY, 40' X 12' X 5', 51 TON			$38,941	2.20	0.83	1.17	0.24	0.00	217
			NO SPECIFIC MANUFACTURER									
	M10XX020	48' X 12' X 4' BARGE	MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MEDIUM DUTY, 48' X 12' X 4', 20 TON			$27,326	1.55	0.58	0.82	0.17	0.00	1
	M10XX002	RAMP	MARINE EQUIPMENT, WORK BARGE, SECTIONAL, LOADING RAMPS			$12,373	0.70	0.27	0.37	0.08	0.00	1
	M10XX003	20-10-7	MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MID-SECTION, 20' X 10' X 7'			$27,352	1.55	0.58	0.82	0.17	0.00	90
	M10XX004	40-10-4	MARINE EQUIPMENT, WORK BARGE, SECTIONAL, MID-SECTION, 40' X 10' X 4'			$31,961	1.81	0.68	0.96	0.20	0.00	173
	SUBCATEGORY 0.45		**FLAT-DECK OR CARGO BARGE (NON-DREDGING)**									
			NO SPECIFIC MANUFACTURER									
	M10XX025	1600T	MARINE EQUIPMENT, FLAT-DECK CARGO BARGE, 150' X 60' X 10', 1600 TON CAPACITY			$2,267,451	52.37	24.99	23.93	13.02	0.00	1
	M10XX026	160334-BD	MARINE EQUIPMENT, FLAT-DECK CARGO BARGE, 210' X 60' X 13', 3000 TON CAPACITY			$2,436,814	56.28	26.85	25.72	13.99	0.00	1
	M10XX005	120-30-7	MARINE EQUIPMENT, FLAT-DECK CARGO BARGE, 120' X 30' X 7.25', 400 TON			$189,663	4.38	2.09	2.00	1.09	0.00	1

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
M10			*NO SPECIFIC MANUFACTURER (continued)*									
	M10XX006	120-45-7	MARINE EQUIPMENT, FLAT-DECK CARGO BARGE, 120' X 45' X 7', 800 TON			$266,963	6.17	2.94	2.82	1.53	0.00	1
	M10XX007	140-45-7	MARINE EQUIPMENT, FLAT-DECK CARGO BARGE, 140' X 45' X 7', 900 TON			$339,576	7.84	3.74	3.58	1.95	0.00	1
	M10XX008	150-45-9	MARINE EQUIPMENT, FLAT-DECK CARGO BARGE, 150' X 45' X 9', 1,100 TON			$471,272	10.88	5.20	4.97	2.71	0.00	1
	SUBCATEGORY 0.48		**ALL OTHER BARGES (NON-DREDGING)**									
			NO SPECIFIC MANUFACTURER									
	M10XX027	120410-BW	MARINE EQUIPMENT, ALL OTHER BARGES, 40' X 24' X 5' WORK BARGE WITH 36" HIGH SIDE WALLS AND LOADING RAMP, TWO - 12" DIA SPUDS			$101,827	6.24	2.21	3.22	0.60	0.00	1
	M10XX029	130601-BJ	MARINE EQUIPMENT, ALL OTHER BARGES, 40' X 12' X 5', JACK UP BARGE, 4 DETACHABLE WELLS AND HYDRAULIC SYSTEM, 12 TON CAPACITY			$171,238	10.50	3.72	5.42	1.01	0.00	1
	M10XX016	OPEN 195	MARINE EQUIPMENT, ALL OTHER BARGES, HOPPER, 195' X 35' X 12', 1,400 TON			$283,397	17.38	6.16	8.97	1.67	0.00	1
	M10XX017	OPEN 200	MARINE EQUIPMENT, ALL OTHER BARGES, HOPPER, 200' X 35' X 12', 1,600 TON			$299,634	18.38	6.52	9.49	1.77	0.00	1
	M10XX018	CLOSED 195	MARINE EQUIPMENT, ALL OTHER BARGES, HOPPER, 195' X 35' X 12', 1,400 TON (COVERED)			$373,197	22.89	8.11	11.82	2.20	0.00	1
	M10XX019	CLOSED 200	MARINE EQUIPMENT, ALL OTHER BARGES, HOPPER, 200' X 35' X 12', 1,600 TON (COVERED)			$381,336	23.39	8.29	12.08	2.25	0.00	1

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.51		**BOATS & LAUNCHES, 0 THRU 250 HP**									
			MUNSON WORKBOATS									
	M10M5001	19-8	MARINE EQUIPMENT, BOATS & LAUNCHES, 19' UTILITY, ROOF COVERING, 8' BEAM, SINGLE 115 HP OUTBOARD MOTOR	115 HP G		$51,656	27.29	1.71	2.74	0.34	19.34	31
	M10M5002	21-22	MARINE EQUIPMENT, BOATS & LAUNCHES, 21' UTILITY, ROOF COVERING, 8.5' BEAM, SINGLE 150 HP OUTBOARD MOTOR	150 HP G		$61,008	34.93	2.02	3.24	0.40	25.22	35
	M10M5003	23-20	MARINE EQUIPMENT, BOATS & LAUNCHES, 23' UTILITY, ROOF COVERING, 8.5' BEAM, TWIN 115 HP OUTBOARD MOTORS	230 HP G	G	$75,012	51.64	2.50	3.99	0.50	38.67	40
			MARINE INLAND FABRICATORS									
	M10MZ010	COLT	MARINE EQUIPMENT, BOATS & LAUNCHES, TRUCKABLE WORKBOAT W/PILOT HOUSE & PUSH KNEES, INBOARD, 20.25' X 8' X 3'	160 HP D-off		$84,911	30.74	2.82	4.51	0.56	18.90	95
	M10MZ011	MUSTANG180	MARINE EQUIPMENT, BOATS & LAUNCHES, TRUCKABLE WORKBOAT W/PILOT HOUSE & PUSH KNEES, INBOARD, 25.25' X 10' X 3.5' 200HP	200 HP D-off		$106,470	38.45	3.53	5.66	0.70	23.62	180
	M10MZ012	MUSTANG 200	MARINE EQUIPMENT, BOATS & LAUNCHES, TRUCKABLE WORKBOAT W/PILOT HOUSE & PUSH KNEES, INBOARD, 25.75' X 10' X 3.5' 300HP	300 HP D-off		$117,857	53.32	3.91	6.26	0.78	35.43	95

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			SEAARK MARINE									
	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		$38,614	25.94	1.29	2.05	0.26	19.34	15
	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		$67,591	45.15	2.25	3.59	0.45	33.63	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		$85,488	37.48	2.83	4.54	0.56	25.22	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		$99,623	48.49	3.31	5.29	0.66	33.63	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		$104,746	58.55	3.47	5.56	0.69	42.04	28
			NO SPECIFIC MANUFACTURER									
	M10XX030	24' - 225 HP	MARINE EQUIPMENT, BOATS & LAUNCHES, 24' LENGTH, 8' 1" BEAM, CANOPY, OUTBOARD ENGINE	225 HP G		$56,210	48.72	1.87	2.99	0.37	37.83	28
	M10XX031	25' - 225 HP	MARINE EQUIPMENT, BOATS & LAUNCHES, 25' LENGTH, 8' BEAM, CANOPY, OUTBOARD ENGINE	225 HP G		$46,931	47.75	1.56	2.49	0.31	37.83	27
	M10XX010	15' TENDER	MARINE EQUIPMENT, BOATS & LAUNCHES, 15' TENDER, 6.5' BEAM, OUTBOARD ENGINE	60 HP G		$21,874	13.70	0.72	1.16	0.14	10.09	10

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
M10			*NO SPECIFIC MANUFACTURER (continued)*									
	M10XX009	13' RUNABOUT	MARINE EQUIPMENT, BOATS & LAUNCHES, 13' RUNABOUT, 6' BEAM, OUTBOARD ENGINE	40 HP G		$17,580	9.45	0.59	0.93	0.12	6.73	13
	M10XX011	14	MARINE EQUIPMENT, BOATS & LAUNCHES, 14' TENDER, 7' BEAM, INBOARD ENGINE	100 HP D-off		$65,292	20.49	2.17	3.47	0.43	11.81	13
	M10XX012	100	MARINE EQUIPMENT, BOATS & LAUNCHES, 16', SHALLOW DRAFT, INLAND TUG	100 HP D-off		$66,513	20.61	2.21	3.53	0.44	11.81	13
	M10XX013	115	MARINE EQUIPMENT, BOATS & LAUNCHES, 22', SHALLOW DRAFT, INLAND TUG	115 HP D-off		$86,209	24.72	2.86	4.58	0.57	13.58	23
	M10XX014	175	MARINE EQUIPMENT, BOATS & LAUNCHES, 18', W/STEERING NOZZLE, INLAND TUG	175 HP D-off		$118,730	36.32	3.94	6.31	0.78	20.67	60
	M10XX015	250	MARINE EQUIPMENT, BOATS & LAUNCHES, 26', W/STEERING NOZZLE, INLAND TUG	250 HP D-off		$148,984	49.73	4.94	7.91	0.98	29.53	83
	SUBCATEGORY 0.53		**BOATS & LAUNCHES, 251 THRU 500 HP**									
			NO SPECIFIC MANUFACTURER									
	M10XX032	25' PUSHBOAT	MARINE EQUIPMENT, BOATS & LAUNCHES, 25' LENGTH, 14' BEAM, 5' DRAFT, PUSH BOAT, INBOARD ENGINES	460 HP D-off		$189,251	82.13	5.92	9.46	1.19	54.33	290
	M10XX035	25' PUSHBOAT	MARINE EQUIPMENT, BOATS & LAUNCHES, 25.25' LENGTH, 14' BEAM, 3.5' DRAFT, PUSH BOAT, INBOARD ENGINES	660 HP D-off		$247,556	115.41	7.75	12.38	1.56	77.95	290
	M10XX037	28' - 350 HP	MARINE EQUIPMENT, BOATS & LAUNCHES, 28' LENGTH, 9' BEAM, ENCLOSED CABIN, OUTBOARD ENGINE	350 HP G		$105,529	77.40	3.31	5.28	0.67	58.85	1

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
M10			*NO SPECIFIC MANUFACTURER (continued)*									
	M10XX038	32' - 425 HP	MARINE EQUIPMENT, BOATS & LAUNCHES, 32' LENGTH, ENCLOSED CABIN, INBOARD ENGINE	425 HP D-off		$350,781	93.76	10.98	17.54	2.21	50.20	1
	M10XX039	40' PUSHBOAT	MARINE EQUIPMENT, BOATS & LAUNCHES, 40' LENGTH, 20' BEAM, 4.5' DRAFT, PUSH BOAT, INBOARD ENGINES	800 HP D-off		$806,800	191.38	25.26	40.34	5.09	94.49	500
	M10XX021	380	MARINE EQUIPMENT, BOATS & LAUNCHES, 40', STANDARD RUDDER, INLAND TUG	380 HP D-off		$394,463	92.04	12.35	19.72	2.49	44.88	100
	M10XX022	435	MARINE EQUIPMENT, BOATS & LAUNCHES, 45' LENGTH, 16' BEAM, 5' 0" DRAFT, PUSH BOAT	435 HP D-off		$448,791	105.09	14.05	22.44	2.83	51.38	100
	M10XX023	400	MARINE EQUIPMENT, BOATS & LAUNCHES, 48' LENGTH, 20' BEAM, 6' 6" DRAFT PUSH BOAT	400 HP D-off		$600,922	115.75	18.82	30.05	3.79	47.24	100
	M10XX024	435	MARINE EQUIPMENT, BOATS & LAUNCHES, 58' LENGTH, 21' BEAM, 6' 0" DRAFT, PUSH BOAT	435 HP D-off		$856,811	146.54	26.83	42.84	5.41	51.38	130
	SUBCATEGORY 0.54		**TUGS, 501 THRU 1,000 HP**									
			NO SPECIFIC MANUFACTURER									
	M10XX028	55	MARINE EQUIPMENT, TUGS, 55 FT LENGTH, 20 FT BEAM, 5'0" DRAFT, 80 TON, TOW BOAT	870 HP D-off		$662,772	145.47	11.51	14.91	4.05	96.13	200

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.55		**TUGS, 1,000 THRU 2,000 HP**									
			NO SPECIFIC MANUFACTURER									
	M10XX033	60 21	MARINE EQUIPMENT, TUGS, 60 FT LENGTH, 21 FT BEAM, 5'0" DRAFT, 80 TON, TOW BOAT	1,050 HP D-off		$786,523	166.54	11.20	12.87	4.76	116.01	1
	M10XX034	70 30	MARINE EQUIPMENT, TUGS, 70 FT LENGTH, 30 FT BEAM, 7'6" DRAFT, 80 TON, TOW BOAT	1,350 HP D-off		$1,445,578	231.90	20.58	23.65	8.75	149.16	1
	M10XX036	120	MARINE EQUIPMENT, TUGS, 120 FT LENGTH, 34 FT BEAM, 8'0" DRAFT, 80 TON, TOW BOAT	2,000 HP D-off		$3,865,371	414.15	55.03	63.25	23.40	220.98	1
P10	PILE HAMMER ACCESSORIES - EXTRACTORS & BOX LEADS											
	SUBCATEGORY 0.00		**PILE HAMMER ACCESSORIES - EXTRACTORS & BOX LEADS**									
			AMERICAN PILEDRIVING EQUIPMENT, INC.									
	P10AP001	8" X 21" PILE LEADS	PILE HAMMER ACCESSORIES, PILE LEADS, INCLUDES 21" LIFTING BAIL, 40' MID SECTION, 20' MID SECTION, 20' TOP TAPER, 4' STABBER, 3 LINE HEAD BLOCK			$44,171	11.14	2.76	4.79	0.36	0.00	132
	P10AP002	8" X 26" PILE LEADS	PILE HAMMER ACCESSORIES, PILE LEADS, INCLUDES 4' STABBER, TWO 40' MID SECTIONS, 20' MID SECTION, 20' TOP TAPER, LIFTING BALE, 3 LINE HEAD BLOCK			$80,439	20.27	5.01	8.71	0.65	0.00	177
	P10AP003	8" X 32" PILE LEADS	PILE HAMMER ACCESSORIES, PILE LEADS, INCLUDES 4' STABBER, TWO 40' MID SECTIONS, 20' MID SECTION, 40' TOP TAPER, LIFTING BALE, 3 LINE HEAD BLOCK			$87,716	22.11	5.46	9.50	0.71	0.00	254

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P10			*AMERICAN PILEDRIVING EQUIPMENT, INC. (continued)*									
	P10AP004	8" X 43" PILE LEADS	PILE HAMMER ACCESSORIES, PILE LEADS, INCLUDES 4' STABBER, TWO 40' MID SECTIONS, 20' MID SECTION, 20' TOP TAPER, LIFTING BALE, 3 LINE HEAD BLOCK			$105,848	26.69	6.60	11.47	0.86	0.00	232
	P10AP005	10" X 54" PILE LEADS	PILE HAMMER ACCESSORIES, PILE LEADS, INCLUDES 5' STABBER, TWO 40' MID SECTIONS, 20' MID SECTION, 40' TOP TAPER, LIFTING BALE, 3 LINE HEAD BLOCK			$156,114	39.35	9.72	16.91	1.26	0.00	457
	P10AP006	MODEL 100 SPOTTER	PILE HAMMER ACCESSORIES, LEAD SPOTTER, 37.5' MAX LENGTH (ADD LEAD & CRANE)			$27,360	6.89	1.70	2.96	0.22	0.00	70
	P10AP007	MODEL 150 SPOTTER	PILE HAMMER ACCESSORIES, LEAD SPOTTER, 33' MAX LENGTH (ADD LEAD & CRANE)			$44,052	11.11	2.75	4.77	0.36	0.00	85
			INTERNATIONAL CONSTRUCTION EQUIPMENT,INC									
	P10IC002	416L	PILE HAMMER ACCESSORIES, PILE EXTRACTOR, 40 TON LINE PULL (ADD LEADS & CRANE)	300 HP D-off		$203,903	91.54	12.70	22.09	1.65	35.43	207
	P10IC010	SWING26-86	PILE HAMMER ACCESSORIES, PILE LEADS, SWING, 26" X 86'			$19,500	4.92	1.22	2.11	0.16	0.00	101
	P10IC012	SWING32-88	PILE HAMMER ACCESSORIES, PILE LEADS, SWING, 32" X 88'			$27,566	6.95	1.72	2.99	0.22	0.00	155
	P10IC011	FIXED26-86	PILE HAMMER ACCESSORIES, PILE LEADS, FIXED, 26" X 86', W/SPOTTER	13 HP D-off		$38,134	11.35	2.38	4.13	0.31	1.54	134
	P10IC013	FIX-32-88	PILE HAMMER ACCESSORIES, PILE LEADS, FIXED, 32" X 88', W/SPOTTER	13 HP G		$47,430	14.43	2.95	5.14	0.38	2.19	193

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P20	**PILE HAMMERS, DOUBLE ACTING**											
	SUBCATEGORY 0.10		**DIESEL**									
			INTERNATIONAL CONSTRUCTION EQUIPMENT,INC									
	P20IC002	422	PILE HAMMER, DOUBLE ACTING, DIESEL, 22,500 FT-LBS, MAX STROKE 5' 8" (ADD LEADS & CRANE)			$117,600	39.43	8.25	14.70	0.90	0.00	122
	P20IC003	520	PILE HAMMER, DOUBLE ACTING, DIESEL, 30,000 FT-LBS, MAX STROKE 5' 11" (ADD LEADS & CRANE)			$119,678	40.70	8.40	14.96	0.92	0.00	156
	P20IC004	640	PILE HAMMER, DOUBLE ACTING, DIESEL, 40,000 FT-LBS, MAX STROKE 6' 8" (ADD LEADS & CRANE)			$127,829	43.95	8.97	15.98	0.98	0.00	187
	SUBCATEGORY 0.20		**PNEUMATIC (STEAM/AIR)**									
			MKT MANUFACTURING, INC.									
	P20MK001	#6	PILE HAMMER, DOUBLE ACTING, PNEUMATIC, 2500 FT-LBS, MAX STROKE 8.75" (ADD 400 CFM COMPRESSOR, LEADS, & CRANE)			$47,047	15.39	3.49	6.27	0.35	0.00	31
	P20MK002	5	PILE HAMMER, DOUBLE ACTING, PNUEMATIC (STEAM/AIR), 1,000 FT-LBS, MAX STROKE 7" (ADD 250 CFM COMPRESSOR, LEADS & CRANE)	250 CFM A		$29,596	10.19	2.20	3.95	0.22	0.00	17
	P20MK003	6	PILE HAMMER, DOUBLE ACTING, PNUEMATIC (STEAM/AIR), 2,500 FT-LBS, MAX STROKE 8.75" (ADD 400 CFM COMPRESSOR, LEADS & CRANE)	400 CFM A		$47,549	16.57	3.53	6.34	0.36	0.00	31

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P20			*MKT MANUFACTURING, INC. (continued)*									
	P20MK004	7	PILE HAMMER, DOUBLE ACTING, PNUEMATIC (STEAM/AIR), 4,150 FT-LBS, MAX STROKE 9.5" (ADD 450 CFM COMPRESSOR, LEADS & CRANE)	450 CFM A		$46,963	16.62	3.48	6.26	0.35	0.00	51
	P20MK005	9B3	PILE HAMMER, DOUBLE ACTING, PNUEMATIC (STEAM/AIR), 8,750 FT-LBS, MAX STROKE 17" (ADD 600 CFM COMPRESSOR, LEADS & CRANE)	600 CFM A		$72,373	24.94	5.37	9.65	0.54	0.00	72
	P20MK006	10B3	PILE HAMMER, DOUBLE ACTING, PNUEMATIC (STEAM/AIR), 13,100 FT-LBS, MAX STROKE 19" (ADD 750 CFM COMPRESSOR, LEADS & CRANE)	750 CFM A		$98,446	34.73	7.31	13.13	0.74	0.00	111
	P20MK007	11B3	PILE HAMMER, DOUBLE ACTING, PNUEMATIC (STEAM/AIR), 19,150 FT-LBS, MAX STROKE 19" (ADD 900 CFM COMPRESSOR, LEADS & CRANE)	900 CFM A		$111,601	39.02	8.27	14.88	0.83	0.00	139
P25	**PILE HAMMERS, SINGLE ACTING**											
	SUBCATEGORY 0.10		**DIESEL**									
			BAUER-PILECO, INC.									
	P25DL001	D6-42	PILE HAMMER, SINGLE ACTING, DIESEL, 10,500 FT-LBS (ADD LEADS & CRANE)	21 HP D-off		$26,756	12.07	1.99	3.57	0.20	2.48	36
	P25DL003	D12-42	PILE HAMMER, SINGLE ACTING, DIESEL, 31,320 FT-LBS (ADD LEADS & CRANE)	54 HP D-off		$34,692	19.20	2.58	4.63	0.26	6.38	57
	P25DL004	D19-42	PILE HAMMER, SINGLE ACTING, DIESEL, 42,800 FT-LBS (ADD LEADS & CRANE)	68 HP D-off		$38,246	22.77	2.84	5.10	0.29	8.03	84
	P25DL005	D25-32	PILE HAMMER, SINGLE ACTING, DIESEL, 58,248 FT-LBS (ADD LEADS & CRANE)	105 HP D-off		$66,044	37.19	4.90	8.81	0.49	12.40	124

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P25			*BAUER-PILECO, INC. (continued)*									
	P25DL006	D30-32	PILE HAMMER, SINGLE ACTING, DIESEL, 69,898 FT-LBS (ADD LEADS & CRANE)	119 HP D-off		$67,272	40.10	4.99	8.97	0.50	14.06	135
	P25DL008	D46-32	PILE HAMMER, SINGLE ACTING, DIESEL, 107,177 FT-LBS (ADD LEADS & CRANE)	196 HP D-off		$83,231	57.36	6.17	11.10	0.62	23.15	196
	P25DL009	D62-22	PILE HAMMER, SINGLE ACTING, DIESEL, 165,000 FT-LBS (ADD LEADS & CRANE)	249 HP D-off		$159,878	89.54	11.86	21.32	1.20	29.41	270
	P25DL010	D80-23	PILE HAMMER, SINGLE ACTING, DIESEL, 225,000 FT-LBS (ADD LEADS & CRANE)	290 HP D-off		$230,174	118.47	17.07	30.69	1.72	34.25	373
	P25DL011	D100-23	PILE HAMMER, SINGLE ACTING, DIESEL, 300,000 FT-LBS (ADD LEADS & CRANE)	362 HP D-off		$227,415	128.91	16.86	30.32	1.70	42.76	449
			MKT MANUFACTURING, INC.									
	P25MK001	D19	PILE HAMMER, SINGLE ACTING, DIESEL, 33,000 FT-LBS (ADD LEADS & CRANE)	39 HP D-off		$38,034	19.52	2.82	5.07	0.28	4.61	100
	P25MK003	D36	PILE HAMMER, SINGLE ACTING, DIESEL, 70,000 FT-LBS (ADD LEADS & CRANE)	84 HP D-off		$66,078	35.89	4.90	8.81	0.49	9.92	225
	SUBCATEGORY 0.20		**PNEUMATIC (STEAM/AIR)**									
			VULCAN HAMMER									
	P25VU002	306	PILE HAMMER, SINGLE ACTING, PNUEMATIC (STEAM/AIR), 18,000 FT-LBS (ADD 750 CFM COMPRESSOR, LEADS & CRANE)	750 CFM A		$61,193	21.98	4.78	8.67	0.44	0.00	121

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P25			*VULCAN HAMMER (continued)*									
	P25VU003	505	PILE HAMMER, SINGLE ACTING, PNUEMATIC (STEAM/AIR), 25,000 FT-LBS (ADD 600 CFM COMPRESSOR, LEADS & CRANE)	600 CFM A		$74,980	26.37	5.85	10.62	0.54	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		$76,757	26.94	6.00	10.87	0.56	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		$103,351	35.41	8.07	14.64	0.75	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		$106,398	34.82	8.31	15.07	0.77	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		$106,547	35.09	8.32	15.09	0.77	0.00	242
P30	**PILE HAMMERS, DRIVER/ EXTRACTOR, VIBRATORY**											
	SUBCATEGORY 0.00		**PILE HAMMERS, DRIVER/ EXTRACTOR, VIBRATORY**									
			AMERICAN PILEDRIVING EQUIPMENT, INC.									
	P30AP001	MODEL 6	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 4 TON DRIVE FORCE, 6 TON MAX PULL, INCLUDES MODEL 10 POWER UNIT (ADD LEADS & CRANE)	10 HP D-off		$39,099	13.47	2.90	5.21	0.29	1.18	8

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P30			*AMERICAN PILEDRIVING EQUIPMENT, INC. (continued)*									
	P30AP002	MODEL 20	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 35 TON DRIVE FORCE, 28 TON MAX PULL, INCLUDES MODEL 275 POWER UNIT (ADD LEADS & CRANE)	275 HP D-off		$169,166	89.30	12.55	22.56	1.27	32.48	135
	P30AP003	MODEL 50	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 50 TON DRIVE FORCE, 56 TON MAX PULL, INCLUDES MODEL 275 POWER UNIT (ADD LEADS & CRANE)	275 HP D-off		$194,710	97.22	14.44	25.96	1.46	32.48	161
	P30AP004	MODEL 100	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 85 TON DRIVE FORCE, 45 TON MAX PULL, INCLUDES MODEL 275 POWER UNIT (ADD LEADS & CRANE)	275 HP D-off		$208,554	101.52	15.47	27.81	1.56	32.48	174
	P30AP005	MODEL 150	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 85 TON DRIVE FORCE, 108 TON MAX PULL, INCLUDES MODEL 375 POWER UNIT (ADD LEADS & CRANE)	375 HP D-off		$302,820	144.15	22.45	40.38	2.26	44.29	210
	P30AP006	MODEL 400	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 298 TON DRIVE FORCE, 234 TON MAX PULL, INCLUDES MODEL 1050 POWER UNIT (ADD LEADS & CRANE)	1,050 HP D-off		$692,806	355.48	51.37	92.37	5.18	124.02	541
	P30AP007	MODEL 600	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 445 TON DRIVE FORCE, 351 TON MAX PULL, INCLUDES MODEL 1200 POWER UNIT (ADD LEADS & CRANE)	1,200 HP D-off		$961,068	458.79	71.26	128.14	7.19	141.73	715
	P30AP008	MODEL 15 EXCAVATOR	PILE HAMMER, EXCAVATOR MOUNTED, DRIVER/EXTRACTOR, VIBRATORY, 23 TON DRIVE FORCE (ADD EXCAVATOR)			$64,554	20.03	4.79	8.61	0.48	0.00	17
	P30AP009	MODEL 20 EXCAVATOR	PILE HAMMER, EXCAVATOR MOUNTED, DRIVER/EXTRACTOR, VIBRATORY, 35 TON DRIVE FORCE (ADD EXCAVATOR)			$71,304	22.13	5.29	9.51	0.53	0.00	26

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P30			*AMERICAN PILEDRIVING EQUIPMENT, INC. (continued)*									
	P30AP010	MODEL 50 EXCAVATOR	PILE HAMMER, EXCAVATOR MOUNTED, DRIVER/EXTRACTOR, VIBRATORY, 50 TON DRIVE FORCE (ADD EXCAVATOR)			$83,540	25.92	6.19	11.14	0.62	0.00	40
	P30AP011	MODEL 300	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 160 TON DRIVE FORCE, 150 TON MAX PULL, INCLUDES MODEL 765 POWER UNIT (ADD LEADS & CRANE)	765 HP D-off		$388,212	222.82	28.78	51.76	2.90	90.35	395
			MKT MANUFACTURING, INC.									
	P30MK001	V-5C/HP-185	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 53 TON FORCE DRIVE (ADD LEADS & CRANE)	185 HP D-off		$132,151	65.76	9.80	17.62	0.99	21.85	110
	P30MK003	V-20B/HP-365 T3	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 98.5 TON FORCE DRIVE (ADD LEADS & CRANE)	365 HP D-off		$204,214	112.21	15.15	27.23	1.53	43.11	220
	P30MK004	V52/HP-700	PILE HAMMER, DRIVER/EXTRACTOR, VIBRATORY, 200 TON FORCE DRIVE (ADD LEADS & CRANE)	700 HP D-off		$330,825	196.32	24.53	44.11	2.47	82.68	327
P35	**PIPELAYERS**											
	SUBCATEGORY 0.00		**PIPELAYERS**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	P35CA010	PL61	PIPELAYER, 18' BOOM, 40,000 LBS CAPACITY	125 HP D-off		$351,376	55.90	12.47	20.08	2.43	8.10	354
	P35CA011	PL83	PIPELAYER, 24' BOOM, 160,000 LBS CAPACITY	310 HP D-off		$882,107	140.04	31.30	50.41	6.09	20.08	855

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P35			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	P35CA012	PL87	PIPELAYER, 28' BOOM, 214,000 LBS CAPACITY	366 HP D-off		$1,047,500	166.13	37.16	59.86	7.23	23.71	945
P40	PLATFORMS & MAN-LIFTS											
	SUBCATEGORY 0.00		**PLATFORMS & MAN-LIFTS**									
			BIL-JAX, INC.									
	P40BX001	SKYRIDER 15	MAN-LIFT, TELESCOPIC MAST, 14.8' HEIGHT, 500 LBS, 24 VOLT DC, RECHARGABLE BATTERIES, SELF PROPELLED, 2.2' X 4' PLATFORM			$14,519	3.25	0.92	1.63	0.10	0.00	18
			TEREX CORPORATION									
	P40TE018	Z-45/25RT - 4WD	MAN-LIFT, ARTICULATED BOOM, 52' HEIGHT, 500 LBS, 24' REACH, 4X4, SELF PROPELLED, 2.5' X 6' PLATFORM	48 HP D-off		$119,406	34.92	7.22	12.82	0.81	4.39	134
	P40TE019	S80X	MAN-LIFT, STRAIGHT BOOM, 86' HEIGHT, 500 LBS, 71.5' REACH, 4X4, SELF PROPELLED, 3' X 8' PLATFORM	58 HP D-off		$247,819	64.45	14.87	26.37	1.68	5.30	355
	P40TE020	Z-62/40 - 4WD W/ JIB	MAN-LIFT, ARTICULATED BOOM, 62' HEIGHT, 500 LBS, 41' REACH, 4X4, SELF PROPELLED, 3' X 8' PLATFROM	48 HP D-off		$183,225	49.20	10.80	19.11	1.24	4.39	219
	P40TE021	S60X	MAN-LIFT, STRAIGHT BOOM, 64' HEIGHT, 500 LBS, 51' REACH, 4X4, SELF PROPELLED, 3' X 8' PLATFORM	48 HP D-off		$181,735	48.87	10.70	18.94	1.23	4.39	208
	P40TE022	S105	MAN-LIFT, STRAIGHT BOOM, 110' HEIGHT, 500 LBS, 80' REACH, 4X4, SELF PROPELLED, 3' X 8' PLATFORM	74 HP D-off		$326,954	83.54	19.86	35.28	2.22	6.77	400

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P40			*TEREX CORPORATION (continued)*									
	P40TE023	S40	MAN-LIFT, STRAIGHT BOOM, 46' HEIGHT, 500 LBS, 32' REACH, 4X4, SELF PROPELLED, 3' X 8' PLATFORM	48 HP D-off		$126,008	33.21	7.84	13.97	0.85	4.39	124
	P40TE024	S85	MAN-LIFT, STRAIGHT BOOM, 91' HEIGHT, 500 LBS, 76.5' REACH, 4X4, SELF PROPELLED, 3' X 8' PLATFORM	58 HP D-off		$258,589	66.82	15.54	27.58	1.75	5.30	380
	P40TE025	COMMANDER 4047	MAN-LIFT, LINE-TRUCK, W/ 12T LIFT CAPACITY BOOM, 47' MAX SHEAVE HEIGHT, 18" DIA AUGER, POLE GUIDES, MOUNTED ON FREIGHTLINER M2 4X2 56KGVW TRUCK CHASSIS	360 HP D-on		$183,416	84.08	11.39	20.30	1.24	38.45	220
	P40TE026	COMMANDER 6000	MAN-LIFT, LINE-TRUCK, W/ 13.5T LIFT CAPACITY BOOM, 60' MAX SHEAVE HEIGHT, 18" DIA AUGER, POLE GUIDES, MOUNTED ON FREIGHTLINER M2 6X6 56KGVW TRUCK CHASSIS	380 HP D-on		$238,791	99.34	14.75	26.26	1.62	40.58	310
	P40TE027	HR37M	MAN-LIFT, LINE-TRUCK, W/ 1,000 LB MATERIAL HANDLER, SINGLE MAN BUCKET W/ 42' MAX WORKING HEIGHT. MOUNTED ON FORD F550 4X4	300 HP D-on		$108,782	60.18	6.74	12.00	0.74	32.04	120
	P40TE028	LTM40	MAN-LIFT, LINE-TRUCK, W/ 800 LB MATERIAL HANDLER, SINGLE MAN BUCKET W/ 45' MAX WORKING HEIGHT. MOUNTED ON FORD F550 4X4	300 HP D-on		$127,778	64.37	7.94	14.14	0.87	32.04	130
	P40TE029	TM105	MAN-LIFT, LINE-TRUCK, W/ 1,500 LB MATERIAL HANDLER, SINGLE MAN BUCKET W/ 105' MAX WORKING HEIGHT. MOUNTED ON FREIGHTLINER M2 6X4 56KGVW TRUCK CHASSIS	360 HP D-on		$455,611	144.76	28.42	50.65	3.09	38.45	450

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P40			*TEREX CORPORATION (continued)*									
	P40TE030	XT55	MAN-LIFT, LINE-TRUCK, W/ 1,000 LB MATERIAL HANDLER, SINGLE MAN BUCKET W/ 60' MAX WORKING HEIGHT. MOUNTED ON FORD F750 4X2	270 HP D-on		$119,001	58.87	7.39	13.15	0.81	28.84	170
	P40TE031	GS-3246	MAN-LIFT, SCISSOR, 38' (11.6 M) HIGH, 5,211 LB (2,364 KG), 24V DC BATTERIES, 4X2			$37,274	8.65	2.20	3.90	0.25	0.00	52
	P40TE032	GS-3232	MAN-LIFT, SCISSOR, 38' (11.6 M) HIGH, 5,185 LB (2,352 KG), 24V DC BATTERIES, 4X2			$42,018	9.69	2.50	4.43	0.28	0.00	52
	P40TE016	GRC-12	MAN-LIFT, TELESCOPIC MAST, 12' HEIGHT, 500 LBS, 24 VOLT DC, RECHARGEABLE BATTERIES, SELF PROPELLED, 2.5' X 4.5' PLATFORM	1 HP E		$22,189	5.16	1.40	2.50	0.15	0.15	21
	P40TE033	GS-2032	MAN-LIFT, SCISSOR, 26' (7.9 M) HIGH, 3,574 LB (1,621 KG), 24V DC BATTERIES, 4X2			$23,048	5.52	1.31	2.30	0.16	0.00	36
	P40TE034	GS-4069RT - T4F	MAN-LIFT, SCISSOR, ROUGH TERRAIN W/ OUTRIGGERS, 46' (14.02 M) HIGH, 11,110 LB (5,039 KG), 4X4	25 HP D-off		$94,836	25.38	5.60	9.92	0.64	2.27	111
	P40TE035	GS-5390RT - T4F	MAN-LIFT, SCISSOR, ROUGH TERRAIN W/ OUTRIGGERS, 59' (18.15 M) HIGH, 18,272 LB (9,190 KG), 4X4	48 HP D-off		$127,750	51.51	6.54	11.33	0.87	4.39	183

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P45	**PUMPS, GROUT**											
	SUBCATEGORY 0.00		**PUMPS, GROUT**									
			AIRPLACO EQUIPMENT CO., INC.									
	P45AF012	PUMP MASTER PG35	PUMP, GROUT/SHOTCRETE, HIGH PRESSURE DUAL CYLINDER GROUT PUMP, 10 CY/HR, 500 PSI, GROUT-MUD JACK-SHOTCRETE, CART MTD, (ADD 4" HOSE)	35 HP G		$31,129	17.22	1.84	3.24	0.22	8.58	14
	P45AF013	SPRAY	PUMP, GROUT, 0 - 10 GAL/MIN, CART MTD, W/52 GAL HOPPER & 12 CFM COMPRESSOR (ADD HOSE)	14 HP G		$13,305	7.21	0.77	1.35	0.09	3.43	8
	P45AF002	HG-5	PUMP, GROUT, HAND PUMP, 12 CF/HR, 0-100 PSI, W/O HOPPER (ADD HOSES)			$778	0.19	0.05	0.08	0.01	0.00	1
	P45AF003	HG-9	PUMP, GROUT, HAND PUMP, 15 CF/HR, 0-100 PSI, W/5 GAL HOPPER (ADD HOSES)			$1,359	0.32	0.08	0.14	0.01	0.00	1
	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		$8,992	2.26	0.54	0.96	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-on		$20,157	7.17	1.21	2.14	0.14	2.00	13
	P45AF006	MJ-16	PUMP, MUDJACK/ SLABJACKING, 160 CF/HR, 0-400 PSI, GROUT-MUD JACKING-SHOTCRETE, CART MTD, W/5 CF HOPPER (ADD 2" HOSE)	12 HP G		$10,573	5.86	0.63	1.12	0.07	2.94	7

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P45			*AIRPLACO EQUIPMENT CO., INC. (continued)*									
	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		$69,032	25.41	4.14	7.31	0.48	7.89	38
	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		$62,075	26.41	3.71	6.56	0.43	10.29	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		$15,855	10.75	0.95	1.68	0.11	6.13	25
			CHEMGROUT, INC.									
	P45CG001	CG-050	PUMP, GROUT, MINI, AIR, 40 CF/HR, 225 PSI, PORTABLE, SKID MTD (ADD 15 CFM - 100 PSI COMPRESSOR)	15 CFM A		$4,644	1.16	0.28	0.49	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		$7,420	1.88	0.45	0.79	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		$17,461	4.35	1.05	1.86	0.12	0.00	12
	P45CG007	CG575/3C6/DH33/AC	PUMP, GROUT, SPRAY, 64 CF/HR, 261 PSI, TRAILER MTD, 15 GAL HOPPER & 45 GAL MIXING TANK, W/AIR COMPRESSOR, POWER UNIT	33 HP D-off		$31,534	13.90	1.88	3.32	0.22	5.66	23

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P45			*CHEMGROUT, INC. (continued)*									
	P45CG006	CG575/3C6/DH20	PUMP, GROUT, THICK MIX, 64 CF/HR, 261 PSI, TRAILER MTD, 15 GAL HOPPER & 45 GAL MIXING TANK, W/AIR COMPRESSOR, POWER UNIT	20 HP D-off		$26,080	10.10	1.55	2.74	0.18	3.43	23
			OLIN PUMP									
	P45OE002	5 40	PUMP, GROUT PUMP, 1,134 CF/HR, 750 PSI, 37 GAL HOPPER, TRAILER MTD, W/POWER UNIT	55 HP D-off		$33,304	18.54	1.99	3.51	0.23	9.43	42
	P45OE003	5 65	PUMP, GROUT PUMP, 1,836 CF/HR, 1100 PSI, 37 GAL HOPPER, TRAILER MTD, W/POWER UNIT	84 HP D-off		$43,939	26.65	2.63	4.64	0.31	14.40	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		$51,568	35.36	3.09	5.45	0.36	20.57	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		$82,321	54.42	4.93	8.69	0.58	31.03	100
			PUTZMEISTER INC.									
	P45PU001	MAGNUM	PUMP, GROUT, GROUT-MUD JACK-SHOTCRETE, HIGH PRESSURE DUAL CYLINDER GROUT PUMP, 135 CF/HR, 0 - 1,750 PSI, TRAILER MTD, W/7 CF HOPPER, 5 CF MIXER, 3" HOSE	46 HP D-off		$57,015	22.51	3.41	6.02	0.40	7.89	35

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P50	**PUMPS, WATER, CENTRIFUGAL, TRASH**											
	SUBCATEGORY 0.11		**ENGINE DRIVE**									
			WACKER CORPORATION									
	P50WC001	PT 2A	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 2" DIA, 205 GPM @ 100' HEAD (ADD HOSES)	10 HP G		$1,636	2.98	0.09	0.16	0.01	2.31	1
	P50WC002	PT 3A	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 3" DIA, 425 GPM @ 95' HEAD (ADD HOSES)	15 HP D-off		$2,012	3.29	0.11	0.20	0.01	2.46	2
	P50WC003	PTS 4V	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 4" DIA, 705 GPM @ 106' HEAD (ADD HOSES)	16 HP D-off		$4,490	4.02	0.26	0.45	0.03	2.62	3
	P50WC004	PT6LT	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 6" DIA, 1,300 GPM @ 100' HEAD ,TRAILER MTD (ADD HOSES)	33 HP D-off		$21,050	10.93	1.19	2.07	0.15	5.41	25
			NO SPECIFIC MANUFACTURER									
	P50XX001	6" DIESEL	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 6" DIA, 1,165 GPM, AIR COOLED (ADD HOSES)	60 HP D-off		$52,397	23.00	3.00	5.24	0.38	9.83	22
	P50XX002	8" DIESEL	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 8" DIA, 2,085 GPM, WATER COOLED (ADD HOSES)	70 HP D-off		$49,394	24.24	2.83	4.94	0.36	11.47	35
	P50XX003	10" DIESEL	PUMP, WATER, CENTRIFUGAL, TRASH, ENGINE DRIVE, 10" DIA, 2,665 GPM, WATER COOLED (ADD HOSES)	85 HP D-off		$91,199	36.35	5.22	9.12	0.66	13.93	43

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.31		**HOSES, PUMP, SUCTION & DISCHARGE**									
			GORMAN-RUPP COMPANY									
	P50GR001	C221-90	PUMP, WATER, CENTRIFUGAL, TRASH, HOSE, SUCTION, 2" DIA X 20' WITH COUPLING (PER SECTION)			$130	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)			$196	0.11	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)			$353	0.21	0.04	0.08	0.00	0.00	1
	P50GR004	C354-90	PUMP, WATER, CENTRIFUGAL, TRASH, HOSE, SUCTION, 6" DIA X 20' WITH COUPLING (PER SECTION)			$623	0.38	0.07	0.14	0.00	0.00	1
	P50GR005	C373-90	PUMP, WATER, CENTRIFUGAL, TRASH, HOSE, DISCH, 2" DIA X 50' WITH COUPLING (PER SECTION)			$110	0.06	0.01	0.02	0.00	0.00	1
	P50GR006	C374-90	PUMP, WATER, CENTRIFUGAL, TRASH, HOSE, DISCH, 3" DIA X 50' WITH COUPLING (PER SECTION)			$179	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)			$283	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)			$517	0.32	0.06	0.12	0.00	0.00	3

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN			CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P55	**PUMPS, WATER, SUBMERSIBLE**													
	SUBCATEGORY 0.01		**ENGINE DRIVE**											
			GRIFFIN DEWATERING CORP.											
	P55GF001	04MH & 250HPND	PUMP, WATER, SUBMERSIBLE, 4" DIA, 455 GPM MAX FLOW, 59' MAX HEAD (INCLUDES TRAILER MTD POWER UNIT MODEL 250)(ADD HOSES)	21	HP	D-off		$26,712	10.23	1.50	2.62	0.19	3.44	19
	P55GF002	06T & 250HPND	PUMP, WATER, SUBMERSIBLE, 6" DIA, 990 GPM MAX FLOW, 72' MAX HEAD (INCLUDES TRAILER MTD HPU MODEL 250HPND)(ADD HOSES)	21	HP	D-off		$28,977	10.77	1.64	2.85	0.21	3.44	31
	SUBCATEGORY 0.02		**ELECTRIC DRIVE**											
			GORMAN-RUPP COMPANY											
	P55GR001	S2A1	PUMP, WATER, SUBMERSIBLE, ELECTRIC, 2" DIA, 138 GPM @ 20' HEAD (ADD HOSES), 115V 1-PHASE	2	HP	E		$4,974	1.66	0.30	0.53	0.03	0.49	2
	P55GR002	S3A1	PUMP, WATER, SUBMERSIBLE, ELECTRIC, 3" DIA, 278 GPM @ 20' HEAD (ADD HOSES), 230V 1-PHASE	5	HP	E		$5,605	2.88	0.34	0.60	0.04	1.23	3
	P55GR003	S4A1	PUMP, WATER, SUBMERSIBLE, ELECTRIC, 4" DIA, 860 GPM @ 40' HEAD (ADD HOSES), 460V 3-PHASE	25	HP	E		$14,474	11.79	0.87	1.54	0.10	6.17	7
	P55GR004	S6A1-E60 460/3	PUMP, WATER, SUBMERSIBLE, ELECTRIC, 6" DIA, 1,950 GPM @ 40' HEAD (ADD HOSES)	60	HP	E		$21,264	25.75	1.28	2.26	0.15	14.80	11

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			WACKER CORPORATION									
	P55WC001	PS2 500	PUMP, WATER, SUBMERSIBLE, ELECTRIC, 2" DIA, 66 GPM @ 39' HEAD (ADD HOSES)	1 HP E		$412	0.44	0.02	0.04	0.00	0.25	1
	P55WC002	PS2 800	PUMP, WATER, SUBMERSIBLE, ELECTRIC, 2" DIA, 82 GPM @ 59' HEAD (ADD HOSES)	1 HP E		$633	0.49	0.04	0.07	0.00	0.25	1
P60	PUMPS, WATER, CENTRIFUGAL, DEWATERING											
	SUBCATEGORY 0.11		**SKID MOUNTED, ENGINE DRIVE**									
			RIVERSIDE PUMP MANUFACTURING									
	P60HO002	S2B	PUMP, WATER, CENTRIFUGAL, DEWATERING, SKID MOUNTED, ENGINE DRIVE, 2" DIA, 150 GPM @ 22' HEAD (ADD HOSES)	4 HP G		$1,069	1.16	0.07	0.11	0.01	0.81	1
	P60HO003	TP3B	PUMP, WATER, CENTRIFUGAL, DEWATERING, SKID MOUNTED, ENGINE DRIVE, 3" DIA, 293 GPM @ 20' HEAD (ADD HOSES)	8 HP G		$1,978	2.54	0.11	0.20	0.01	1.85	1
			WACKER CORPORATION									
	P60WC001	PG 2A	PUMP, WATER, CENTRIFUGAL, DEWATERING, SKID MOUNTED, ENGINE DRIVE, 2" DIA, 159 GPM @ 98' HEAD (ADD HOSES)	4 HP G		$616	1.17	0.03	0.06	0.00	0.92	1
	P60WC002	PG 3A	PUMP, WATER, CENTRIFUGAL, DEWATERING, SKID MOUNTED, ENGINE DRIVE, 3" DIA, 264 GPM @ 98' HEAD (ADD HOSES)	6 HP G		$724	1.73	0.05	0.07	0.01	1.39	1

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN			CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.21		**WHEEL MOUNTED, ENGINE DRIVE**											
			GRIFFIN DEWATERING CORP.											
	P60GF003	04MHL & 400HPND	PUMP, WATER, SUBMERSIBLE, 4" DIA, 900 GPM MAX FLOW, 112' MAX HEAD (INCLUDES TRAILER MTD HPU MODEL 400HPND)(ADD HOSES)	72	HP	D-off		$36,896	21.84	2.09	3.64	0.27	11.80	19
	P60GF008	08T & 400HPND	PUMP, WATER, SUBMERSIBLE, 8" DIA, 1490 GPM MAX FLOW, 80' MAX HEAD (INCLUDES TRAILER MTD HPU MODEL 400HPND)(ADD HOSES)	72	HP	D-off		$38,945	22.30	2.21	3.85	0.28	11.80	31
	P60GF004	06MH & 400HPND	PUMP, WATER, SUBMERSIBLE, 6" DIA, 1500 GPM MAX FLOW, 80' MAX HEAD (INCLUDES TRAILER MTD HPU MODEL 400HPND)(ADD HOSES)	72	HP	D-off		$38,368	22.17	2.18	3.79	0.28	11.80	31
	P60GF005	06MHL & 600HPND	PUMP, WATER, SUBMERSIBLE, 6" DIA, 1800 GPM MAX FLOW, 119' MAX HEAD (INCLUDES TRAILER MTD HPU MODEL 600HPND)(ADD HOSES)	113	HP	D-off		$48,275	32.13	2.74	4.78	0.35	18.51	39
	P60GF006	12T & 825HPND	PUMP, WATER, SUBMERSIBLE, 12" DIA, 5000 GPM MAX FLOW, 55' MAX HEAD (INCLUDES TRAILER MTD HPU MODEL 825HPND)(ADD HOSES)	140	HP	D-off		$54,806	38.71	3.12	5.43	0.40	22.94	39
			GORMAN-RUPP COMPANY											
	P60GR001	14C2-F3L	PUMP, WATER, CENTRIFUGAL, DEWATERING, WHEEL, 4" DIA, 600 GPM @ 80' HEAD (ADD HOSES)	47	HP	D-off		$28,718	15.28	1.63	2.83	0.21	7.70	20
	P60GR002	16C2-F4L	PUMP, WATER, CENTRIFUGAL, DEWATERING, WHEEL, 6" DIA, 1,825 GPM @ 40' HEAD (ADD HOSES)	73	HP	G		$35,682	27.00	2.03	3.53	0.26	16.85	26

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P65	**PUMPS, WATER, DIAPHRAGM**											
	SUBCATEGORY 0.11		**SKID MOUNTED, ENGINE DRIVE**									
			RIVERSIDE PUMP MANUFACTURING									
	P65HO001	DP2B	PUMP, WATER, DIAPHRAGM, SKID MTD, 2" DIA, 33 GPM @ 25' HEAD (ADD HOSES)	4 HP G		$1,790	1.31	0.10	0.18	0.01	0.81	1
	P65HO002	DP3B	PUMP, WATER, DIAPHRAGM, SKID MTD, 3" DIA, 80 GPM @ 25' HEAD (ADD HOSES)	4 HP G		$2,124	1.39	0.13	0.21	0.02	0.81	2
	SUBCATEGORY 0.21		**WHEEL MOUNTED, ENGINE DRIVE**									
			GORMAN-RUPP COMPANY									
	P65GR002	3D-B	PUMP, WATER, DIAPHRAGM, WHEEL, 3" DIA, 560 GPM @ 25' HEAD (ADD	2 HP G		$5,161	1.50	0.25	0.41	0.04	0.35	2
	P65GR003	4D-B	PUMP, WATER, DIAPHRAGM, WHEEL, 4" DIA, 74 GPM @ 25' HEAD (ADD	3 HP G		$9,926	2.88	0.51	0.88	0.07	0.69	4
			WACKER CORPORATION									
	P65WC001	PDT 2A	PUMP, WATER, DIAPHRAGM, WHEEL, 2" DIA, 50 GPM @ 25' HEAD (ADD	4 HP G		$2,209	1.50	0.13	0.22	0.02	0.92	1
	P65WC002	PDT 3A	PUMP, WATER, DIAPHRAGM, WHEEL, 3" DIA, 88 GPM @ 25' HEAD (ADD	4 HP G		$2,332	1.53	0.14	0.23	0.02	0.92	2

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
P70	**PUMPS, WATER (For core drills)**											
	SUBCATEGORY 0.01		**ENGINE DRIVE**									
			NO SPECIFIC MANUFACTURER									
	P70XX001	75-7.6	PUMP, WATER, FOR CORE DRILLS, 7.6 GPM, 75 PSI, MANUAL, SKID (ADD HOSES)	2 HP G		$3,996	1.33	0.22	0.37	0.03	0.46	1
	P70XX002	225-17.5	PUMP, WATER, FOR CORE DRILLS, 17.5 GPM, 225 PSI, MANUAL, SKID (ADD HOSES)	6 HP G		$10,412	3.69	0.57	0.98	0.08	1.39	1
R10	**RIPPERS & HYDRAULIC BANK SLOPERS (Add cost for point wear)**											
	SUBCATEGORY 0.00		**RIPPERS & HYDRAULIC BANK SLOPERS (Add cost for point wear)**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	R10CA006	D-5C111	RIPPER, SHANK, EACH (ADD D-5 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			$350	0.08	0.02	0.04	0.00	0.00	1
	R10CA022	D6RII-174-9198	RIPPER SHANK, EACH (ADD D6RII TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			$2,231	0.49	0.13	0.22	0.02	0.00	2
	R10CA010	D-7R	RIPPER, SHANK, EACH (ADD D-7 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			$2,280	0.51	0.14	0.23	0.02	0.00	4
	R10CA013	D-8R	RIPPER, SHANK, EACH (ADD D-8 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			$5,857	1.29	0.34	0.59	0.04	0.00	7
	R10CA016	D-9R	RIPPER, SHANK, EACH (ADD D-9 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			$7,002	1.54	0.40	0.70	0.05	0.00	8

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R10			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	R10CA019	D-10R	RIPPER, SHANK, EACH (ADD D-10 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			$9,118	2.25	0.53	0.91	0.07	0.00	12
	R10CA001	D-3 RIPPER	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-3 TRACTOR DOZER & COST FOR POINT WEAR)			$12,402	2.81	0.71	1.24	0.09	0.00	14
	R10CA003	D-4C RIPPER	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-4 TRACTOR DOZER & COST FOR POINT WEAR)			$12,382	2.81	0.71	1.24	0.09	0.00	14
	R10CA005	D-5C RIPPER	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-5 TRACTOR DOZER & COST FOR POINT WEAR)			$12,402	2.81	0.71	1.24	0.09	0.00	14
	R10CA007	D-6RII RIPPER	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-6 TRACTOR DOZER & COST FOR POINT WEAR)			$31,597	7.04	1.81	3.16	0.23	0.00	16
	R10CA009	D-7R	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-7 TRACTOR DOZER & COST FOR POINT WEAR)			$55,550	12.32	3.18	5.56	0.40	0.00	77
	R10CA011	D-8R	RIPPER, 1-SHANK & BEAM, HYDRAULIC (ADD D-8 TRACTOR DOZER & RIPPER & COST FOR POINT WEAR)			$67,897	15.05	3.89	6.79	0.49	0.00	91
	R10CA012	D-8R	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-8 TRACTOR DOZER & COST FOR POINT WEAR)			$77,002	17.06	4.41	7.70	0.56	0.00	102
	R10CA014	D-9R	RIPPER, 1-SHANK & BEAM, HYDRAULIC (ADD D-9 TRACTOR DOZER & COST FOR POINT WEAR)			$95,453	21.19	5.47	9.55	0.69	0.00	102

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R10			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	R10CA015	D-9R	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-9 TRACTOR DOZER & COST FOR POINT WEAR)			$91,010	20.20	5.21	9.10	0.66	0.00	91
	R10CA017	D-10R	RIPPER, 1-SHANK & BEAM, HYDRAULIC (ADD D-10 TRACTOR DOZER & COST FOR POINT WEAR)			$127,193	28.22	7.28	12.72	0.92	0.00	161
	R10CA018	D-10R	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-10 TRACTOR DOZER & COST FOR POINT WEAR)			$153,659	34.06	8.80	15.37	1.11	0.00	179
	R10CA020	D-11R	RIPPER, 1-SHANK & BEAM, HYDRAULIC (ADD D-11 TRACTOR DOZER & COST FOR POINT WEAR)			$150,873	33.46	8.64	15.09	1.09	0.00	72
	R10CA021	D-11R	RIPPER, 3-SHANKS & BEAM, HYDRAULIC (ADD D-11 TRACTOR DOZER & COST FOR POINT WEAR)			$154,231	34.22	8.83	15.42	1.12	0.00	103
R15	**ROLLERS, STATIC, TOWED, PNEUMATIC**											
	SUBCATEGORY 0.00		**ROLLERS, STATIC, TOWED, PNEUMATIC**									
			WRT EQUIPMENT									
	R15WV001	PT-13	ROLLER, STATIC, TOWED, PNEUMATIC, 5.9 TON, 10.5' WIDE, 4 TIRE (ADD TOWING UNIT)			$12,451	2.03	0.52	0.86	0.09	0.00	43
	R15WV002	PT-15	ROLLER, STATIC, TOWED, PNEUMATIC, 6.7 TON, 10.5' WIDE, 4 TIRE (ADD TOWING UNIT)			$14,126	2.30	0.60	0.99	0.10	0.00	47

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R20	**ROLLERS, STATIC, TOWED, STEEL DRUM**											
	SUBCATEGORY 0.00		**ROLLERS, STATIC, TOWED, STEEL DRUM**									
			HOLMES									
	R20HJ001	60X60	ROLLER, STATIC, TOWED, 2 STEEL DRUMS, 9-15 TON, 60" WIDE X 60" DIA, SHEEPSFOOT (ADD TOWING UNIT)			$41,340	7.29	1.95	3.31	0.29	0.00	184
	R20HJ002	48X48	ROLLER, STATIC, TOWED, 2 STEEL DRUMS, 3.5-6 TON, 48" WIDE X 48" DIA, SHEEPSFOOT (ADD TOWING UNIT)			$17,321	3.20	0.82	1.39	0.12	0.00	68
R30	**ROLLERS, STATIC, SELF-PROPELLED**											
	SUBCATEGORY 0.01		**PNEUMATIC**									
			BOMAG									
	R30BO004	BW11RH	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 13.50 TON, 68" WIDE, 9 TIRE, ASPHALT COMPACTOR	85 HP D-off		$83,671	31.26	4.45	7.72	0.59	12.31	100
	R30BO003	BW24R	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 30.00 TON, 78" WIDE, 8 TIRE, ASPHALT COMPACTOR	110 HP D-off		$156,678	50.02	8.91	15.61	1.10	15.93	290
			CATERPILLAR INC. (MACHINE DIVISION)									
	R30CA001	CW14	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 14.3 TON, 68" WIDE, 9 TIRE, ASPHALT COMPACTOR	101 HP D-off		$100,978	36.75	6.01	10.59	0.71	14.55	108
	R30CA002	CW34	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 17.6 TON, 82" WIDE, 9 TIRE, ASPHALT COMPACTOR	133 HP D-off		$230,378	68.34	13.78	24.34	1.61	19.26	221

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			ROSCO, A LeeBoy COMPANY									
	R30RS003	TRU-PAC 915	ROLLER, STATIC, SELF-PROPELLED, PNEUMATIC, 6-15 TON, 68" WIDE, 9 TIRES, ASPHALT/SOIL COMPACTOR	85 HP D-off		$84,873	31.10	4.88	8.58	0.59	12.31	135
	SUBCATEGORY 0.02		**SMOOTH DRUM**									
			BOMAG									
	R30BO005	BW5AS	ROLLER, STATIC, SELF-PROPELLED, SMOOTH DRUM, DOUBLE DRUM, 6 TON, 40" WIDE ASPHALT COMPACTOR	47 HP D-off		$90,406	23.29	4.46	7.68	0.62	6.80	103
	R30BO006	BW9AS	ROLLER, STATIC, SELF-PROPELLED, SMOOTH DRUM, DOUBLE DRUM, 10 TON, 50" WIDE ASPHALT COMPACTOR	83 HP D-off		$99,454	30.61	4.91	8.45	0.68	12.02	162
	R30BO007	BW11AS	ROLLER, STATIC, SELF-PROPELLED, SMOOTH DRUM, DOUBLE DRUM, 14 TON, 54" WIDE ASPHALT COMPACTOR	78 HP D-off		$116,219	32.75	5.74	9.88	0.80	11.29	215
			ROSCO, A LeeBoy COMPANY									
	R30RS002	400	ROLLER, STATIC, SELF-PROPELLED, SMOOTH DRUM, DOUBLE DRUM, 2 TON, 40" WIDE, ASPHALT COMPACTOR	25 HP D-off		$48,704	12.50	2.40	4.14	0.33	3.62	59
			SAKAI AMERICA, INC.									
	R30SI005	R2H-2	ROLLER, STATIC, SELF-PROPELLED, SMOOTH DRUM, 3 DRUMS, 14 TON, 64" WIDE, ASPHALT COMPACTOR	75 HP D-off		$139,936	36.42	6.91	11.89	0.96	10.86	207

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			ATLAS COPCO WAGNER									
	R30WG001	CS1400	ROLLER, STATIC, SELF-PROPELLED, SMOOTH DRUM, 3 DRUMS, 14.5 TON, 83" WIDE, 3X2, ASPHALT COMPACTOR	74 HP D-off		$145,162	37.17	7.16	12.34	0.99	10.71	291
	SUBCATEGORY 0.03		**TAMPING FOOT, LANDFILL & SOIL COMPACTORS**									
			BOMAG									
	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		$584,875	153.93	23.58	38.99	4.08	63.99	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		$596,953	155.66	24.06	39.80	4.16	63.99	812
			CATERPILLAR INC. (MACHINE DIVISION)									
	R30CA003	815-F II	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		$530,370	114.00	21.38	35.36	3.70	34.75	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		$527,381	110.38	21.26	35.16	3.68	31.85	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		$766,621	159.69	30.90	51.11	5.34	45.61	734

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R30			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	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	354 HP D-off		$801,966	170.94	32.32	53.46	5.59	51.25	815
R40	**ROLLERS, VIBRATORY, TOWED**											
	SUBCATEGORY 0.00		**ROLLERS, VIBRATORY, TOWED**									
			BOMAG									
	R40BO001	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		$73,038	24.70	4.18	7.30	0.53	8.19	128
	R40BO002	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		$79,208	26.00	4.53	7.92	0.57	8.19	148
R45	**ROLLERS, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM**											
	SUBCATEGORY 0.00		**ROLLERS, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM**									
			BOMAG									
	R45BO004	BW120AD-4	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 2.9 TON, 47.2" WIDE, 2X1, ASPHALT COMPACTOR	33 HP D-off		$43,768	17.08	2.51	4.38	0.32	5.41	57

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R45			*BOMAG (continued)*									
	R45BO005	BW138AD	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 4.6 TON, 54.3" WIDE, 2X1, ASPHALT COMPACTOR	46 HP D-off		$64,421	24.65	3.69	6.44	0.47	7.54	92
	R45BO006	BW151AD-4	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 7.8 TON, 66.1" WIDE, 2X1, ASPHALT COMPACTOR	108 HP D-off		$129,523	52.44	7.42	12.95	0.94	17.69	158
	R45BO007	BW161AD-4	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 10.4 TON, 66.1" WIDE, 2X1, ASPHALT COMPACTOR	131 HP D-off		$148,385	61.42	8.49	14.84	1.07	21.46	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		$164,809	79.27	9.43	16.48	1.19	33.59	252
			CATERPILLAR INC. (MACHINE DIVISION)									
	R45CA016	CB22B	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 2.5 TON, 39" WIDE, 2X1, ASPHALT COMPACTOR	36 HP D-off		$45,921	18.16	2.63	4.59	0.33	5.90	56
	R45CA002	CB14B	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 1.75 TON, 43" WIDE, 2X1, ASPHALT COMPACTOR	23 HP D-off		$36,890	13.41	2.12	3.69	0.27	3.69	307
	R45CA003	CB32B	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 3.3 TON, 51" WIDE, 2X1, ASPHALT COMPACTOR	36 HP D-off		$51,602	19.62	2.95	5.16	0.37	5.93	58
	R45CA004	CB34B	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 4.3 TON, 51" WIDE, 2X1, ASPHALT COMPACTOR	49 HP D-off		$63,411	24.91	3.63	6.34	0.46	7.99	77
	R45CA006	CB36B	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 4.9 TON, 51" WIDE, 2X1, ASPHALT COMPACTOR	49 HP D-off		$73,799	27.50	4.22	7.38	0.53	7.99	93

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R45			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	R45CA007	CB44B	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 10 TON, 59" WIDE, 2X1, ASPHALT COMPACTOR	110 HP D-off		$123,459	51.29	7.07	12.35	0.89	18.02	183
	R45CA008	CB54B	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 13.3 TON, 67" WIDE, 2X1, ASPHALT COMPACTOR	132 HP D-off		$155,038	63.27	8.87	15.50	1.12	21.63	215
	R45CA009	CB64B	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 15.2 TON, 79" WIDE, 2X1, ASPHALT COMPACTOR	142 HP D-off		$172,191	69.41	9.85	17.22	1.24	23.26	225
	R45CA010	CB66B	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 16.3 TON, 84" WIDE, 2X1, ASPHALT COMPACTOR	144 HP D-off		$210,767	79.43	12.06	21.08	1.52	23.59	247
	R45CA014	CD44B	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 10.4 TON, 59" WIDE, 2X1, ASPHALT COMPACTOR	100 HP D-off		$112,541	46.70	6.44	11.25	0.81	16.38	185
	R45CA015	CD54B	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 12.6 TON, 74" WIDE, 2X1, ASPHALT COMPACTOR	100 HP D-off		$190,293	66.16	10.90	19.03	1.38	16.38	223
	R45CA005	CB-434D	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 6.6 TON, 56" WIDE, 2X1, ASPHALT COMPACTOR	83 HP D-off		$132,909	48.65	7.61	13.29	0.96	13.60	167
	R45CA011	CB-24	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 2.7 TON, 47" WIDE, 2X1, ASPHALT COMPACTOR	33 HP D-off		$43,312	16.96	2.48	4.33	0.31	5.41	60
	R45CA012	CB-54	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 12.0 TON, 67" WIDE, 2X1, ASPHALT COMPACTOR	137 HP D-off		$152,588	63.58	8.73	15.26	1.10	22.44	238

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R45			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	R45CA013	CB-64	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 15.5 TON, 84" WIDE, 2X1, ASPHALT COMPACTOR	137 HP D-off		$201,204	75.74	11.51	20.12	1.45	22.44	286
			SAKAI AMERICA, INC.									
	R45SI008	SW320-1	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 3.0 TON, 47" WIDE, 2X1, ASPHALT COMPACTOR	35 HP D-off		$43,433	17.35	2.48	4.34	0.31	5.73	28
	R45SI009	SW652	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 7.8 TON, 58" WIDE, 2X1, ASPHALT COMPACTOR	78 HP D-off		$118,689	44.17	6.80	11.87	0.86	12.78	157
	R45SI010	SW850-3	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 14.0 TON, 79" WIDE, 2X1, ASPHALT COMPACTOR	127 HP D-off		$158,671	63.27	9.09	15.87	1.15	20.81	124
			ATLAS COPCO WAGNER									
	R45WG001	CC1200	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 3.0 TON, 47" WIDE, 2X1, ASPHALT COMPACTOR	35 HP D-off		$47,310	18.32	2.71	4.73	0.34	5.73	60
	R45WG002	CC2200	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 9.9 TON, 59" WIDE, 2X1, ASPHALT COMPACTOR	100 HP D-off		$138,015	53.08	7.90	13.80	1.00	16.38	198
	R45WG003	CC5200	ROLLER, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM, SMOOTH, 14.0 TON, 77" WIDE, 2X1, ASPHALT COMPACTOR	130 HP D-off		$187,105	70.92	10.71	18.71	1.35	21.30	280

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R50	ROLLERS, VIBRATORY, SELF-PROPELLED, SINGLE DRUM											
	SUBCATEGORY 0.00		ROLLERS, VIBRATORY, SELF-PROPELLED, SINGLE DRUM									
			BOMAG									
	R50BO005	BW124DH-40	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 2.9 TON, 47.2" WIDE, 3X2, SOIL COMPACTOR	50 HP D-off		$62,951	21.34	3.35	5.75	0.47	5.91	70
	R50BO010	BW124PDH-40	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 2.9 TON, 47.2" WIDE, 3X2, SOIL COMPACTOR	50 HP D-off		$64,771	21.76	3.44	5.92	0.48	5.91	60
	R50BO006	BW145D-40	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 5.5 TON, 56.1" WIDE, 3X2, SOIL COMPACTOR	75 HP D-off		$92,497	31.51	4.96	8.53	0.69	8.86	110
	R50BO011	BW145PDH-40	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 5.8 TON, 56.1" WIDE, 3X2, SOIL COMPACTOR	75 HP D-off		$97,586	32.69	5.24	9.01	0.73	8.86	118
	R50BO007	BW177D-40	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 7.9 TON, 66.4" WIDE, 3X2, SOIL COMPACTOR	75 HP D-off		$107,933	35.16	5.73	9.85	0.80	8.86	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		$126,781	42.98	6.75	11.61	0.94	11.93	166
	R50BO008	BW213DH-4	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 11.5 TON, 83.9" WIDE, 3X2, SOIL COMPACTOR	155 HP D-off		$183,636	63.29	9.89	17.03	1.37	18.31	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		$192,872	62.22	10.39	17.90	1.44	15.47	283

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R50			*BOMAG (continued)*									
	R50BO009	BW219DH-4	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 20.6 TON, 83.9" WIDE, 3X2, SOIL COMPACTOR	195 HP D-off		$168,230	65.08	9.05	15.59	1.25	23.03	412
			CATERPILLAR INC. (MACHINE DIVISION)									
	R50CA003	CP34	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 5.5 TON, 50" WIDE, 3X2, SOIL COMPACTOR	74 HP D-off		$119,741	37.57	6.51	11.23	0.89	8.74	109
	R50CA004	CP44	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 7.6 TON, 66" WIDE, 3X2, SOIL COMPACTOR	100 HP D-off		$164,914	51.63	8.86	15.25	1.23	11.81	153
	R50CA009	CP68B	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 16.2 TON, 84" WIDE, 3X2, SOIL COMPACTOR	157 HP D-off		$232,154	75.06	12.29	21.11	1.73	18.54	322
	R50CA010	CP74B	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 18 TON, 84" WIDE, 3X2, SOIL COMPACTOR	174 HP D-off		$256,878	83.03	13.63	23.43	1.91	20.52	355
	R50CA012	CS34	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 5 TON, 50" WIDE, 3X2, SOIL COMPACTOR	74 HP D-off		$98,861	33.23	5.27	9.05	0.74	8.74	96
	R50CA017	CS54B	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 12 TON, 84" WIDE, 3X2, SOIL COMPACTOR	131 HP D-off		$170,731	57.36	8.98	15.42	1.27	15.47	239
	R50CA018	CS78B	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 20.6 TON, 84" WIDE, 3X2, SOIL COMPACTOR	174 HP D-off		$260,973	83.93	13.88	23.88	1.94	20.52	412
	R50CA001	CS-323C	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 4.6 TON, 50" WIDE, 3X2, SOIL COMPACTOR	70 HP D-off		$97,226	31.92	5.21	8.98	0.72	8.27	97

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R50			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	R50CA005	CS-433E	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 7.1 TON, 66" WIDE, 3X2, SOIL COMPACTOR	100 HP D-off		$136,884	45.18	7.32	12.59	1.02	11.81	147
	R50CA011	Cs68B	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SHEEPSFOOT, 16.5 TON, 84" WIDE, 3X2, SOIL COMPACTOR	157 HP D-off		$203,746	68.46	10.78	18.51	1.52	18.54	324
	R50CA002	CP-323C (PADS)	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 4.6 TON, 50" WIDE, 3X2, SOIL COMPACTOR	70 HP D-off		$107,610	34.33	5.78	9.96	0.80	8.27	105
	R50CA006	CS-423E	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 7.4 TON, 66" WIDE, 3X2, SOIL COMPACTOR	83 HP D-off		$111,618	37.06	5.94	10.22	0.83	9.80	137
	R50CA007	CS-64	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 15.7 TON, 84" WIDE, 3X2, SOIL COMPACTOR	156 HP D-off		$179,029	62.78	9.32	15.97	1.33	18.43	254
	R50CA008	CS-74	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 17.0 TON, 84" WIDE, 3X2, SOIL COMPACTOR	156 HP D-off		$208,849	69.68	10.94	18.76	1.56	18.43	340
	R50CA013	CS44	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 7.9 TON, 66" WIDE, 3X2, SOIL COMPACTOR	100 HP D-off		$149,085	48.00	7.98	13.73	1.11	11.81	152
	R50CA014	CP44	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 7.9 TON, 66" WIDE, 3X2, SOIL COMPACTOR	100 HP D-off		$164,914	51.66	8.84	15.22	1.23	11.81	153
	R50CA015	CS56B	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 12.2 TON, 84" WIDE, 3X2, SOIL COMPACTOR	157 HP D-off		$198,959	67.35	10.51	18.06	1.48	18.54	254

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R50			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	R50CA016	CP56B	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PAD FOOT, 12.2 TON, 84" WIDE, 3X2, SOIL COMPACTOR	157 HP D-off		$196,811	66.86	10.40	17.86	1.47	18.54	253
			SAKAI AMERICA, INC.									
	R50SI006	SV201D	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 4.8 TON, 54" WIDE, 3X2, SOIL COMPACTOR	60 HP D-off		$89,555	29.14	4.56	7.77	0.67	7.09	41
	R50SI007	SV201T (PADS)	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 4.9 TON, 54" WIDE, 3X2, SOIL COMPACTOR	60 HP D-off		$95,903	30.61	4.90	8.37	0.71	7.09	43
	R50SI022	SV400D-2	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 7.7 TON, 67" WIDE, 3X2, SOIL COMPACTOR	100 HP D-off		$122,745	41.91	6.53	11.24	0.91	11.81	156
	R50SI023	SV400TB-2 (PADS)	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 9.6 TON, 67" WIDE, 3X2, SOIL COMPACTOR	100 HP D-off		$137,030	45.21	7.31	12.58	1.02	11.81	72
	R50SI013	SV510D-3	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 11.5 TON, 84" WIDE, 3X2, SOIL COMPACTOR	148 HP D-off		$148,991	54.65	7.77	13.32	1.11	17.48	235
	R50SI016	SV510T-3 (PADS)	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 11.9 TON, 60" WIDE, 3X2, SOIL COMPACTOR	148 HP D-off		$158,121	56.76	8.27	14.17	1.18	17.48	110
	R50SI017	SV510TF-3 (PADS)	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 14.3 TON, 85" WIDE, 3X2, SOIL COMPACTOR	148 HP D-off		$171,189	59.78	8.97	15.40	1.27	17.48	131

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			ATLAS COPCO WAGNER									
	R50WG001	CA2500PD (4.5)	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PADFOOT, 12.1 TON, 83" WIDE, 3X2, SOIL COMPACTOR	132 HP D-off		$149,403	52.61	7.79	13.36	1.11	15.59	243
	R50WG002	CA4000D	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 14.4 TON, 83" WIDE, 3X2, SOIL COMPACTOR	160 HP D-off		$164,207	59.77	8.59	14.74	1.22	18.90	289
	R50WG003	CC1100C	ROLLER, VIBRATORY, SELF-PROPELLED, PNEUMATIC/SINGLE DRUM, SMOOTH, 2.7 TON, 42" WIDE, 5X4, ASPHALT COMPACTOR	35 HP D-off		$51,691	16.74	2.71	4.65	0.38	4.13	54
	R50WG004	CC1300C	ROLLER, VIBRATORY, SELF-PROPELLED, PNEUMATIC/SINGLE DRUM, SMOOTH, 4.3 TON, 51" WIDE, 5X4, ASPHALT COMPACTOR	45 HP D-off		$66,283	21.46	3.50	6.02	0.49	5.31	86
	R50WG005	CC2200C	ROLLER, VIBRATORY, SELF-PROPELLED, PNEUMATIC/SINGLE DRUM, SMOOTH, 9.1 TON, 59" WIDE, 5X4, ASPHALT COMPACTOR	100 HP D-off		$157,580	49.92	8.46	14.58	1.17	11.81	181
	R50WG006	CA1300D	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 5 TON, 53" WIDE, 3X2, SOIL COMPACTOR	75 HP D-off		$82,029	29.84	4.30	7.38	0.61	8.86	100
	R50WG007	CA1300PD	ROLLER, VIBRATORY, SELF-PROPELLED, PADFOOT DRUM, 5 TON, 53" WIDE, 3X2, SOIL COMPACTOR	75 HP D-off		$87,763	31.68	4.49	7.67	0.65	8.86	105
	R50WG008	CA1500D	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 7.5 TON, 65" WIDE, 3X2, SOIL COMPACTOR	100 HP D-off		$107,623	38.41	5.72	9.84	0.80	11.81	150
	R50WG009	CA1500PD	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, PADFOOT DRUM, 7.5 TON, 65" WIDE, 3X2, SOIL COMPACTOR	100 HP D-off		$115,940	40.33	6.17	10.62	0.86	11.81	150

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R50			*ATLAS COPCO WAGNER (continued)*									
	R50WG010	CA2500D (3.3)	ROLLER, VIBRATORY, SELF-PROPELLED, SINGLE DRUM, SMOOTH, 11.0 TON, 84" WIDE, 3X2, SOIL COMPACTOR	110 HP D-off		$128,081	44.46	6.84	11.77	0.95	12.99	220
R55	**ROOFING EQUIPMENT**											
	SUBCATEGORY 0.00		**ROOFING EQUIPMENT**									
			GARLOCK EQUIPMENT CO.									
	R55GL026	GS-36	ROOFING EQUIPMENT, POWER SWEEPER, 36" WIDE, WALK BEHIND	6 HP G		$4,219	2.21	0.33	0.60	0.03	0.92	3
	R55GL027	RAM 150	ROOFING EQUIPMENT, ASPHALT KETTLE, 150 GAL, TRAILER MTD	6 HP D-off		$31,684	10.22	2.46	4.46	0.23	0.66	10
	R55GL028	RAM 230	ROOFING EQUIPMENT, ASPHALT KETTLE, 230 GAL, W/PUMP, TRAILER MTD	5 HP G		$35,833	11.52	2.78	5.04	0.26	0.77	17
	R55GL029	RAM 410	ROOFING EQUIPMENT, ASPHALT KETTLE, 410 GAL, W/PUMP, TRAILER MTD	9 HP G		$41,892	14.17	3.25	5.90	0.30	1.39	25
	R55GL020	MUSTANG WORKHORSE	ROOFING EQUIPMENT, MATERIAL BUGGY, 36" WIDE, WALK BEHIND GRAVEL SPREADER, HOPPER 800 LBS, 8 CF, 4X2	5 HP G		$5,412	2.39	0.43	0.77	0.04	0.77	4
	R55GL021	Ultracutter 300645	ROOFING EQUIPMENT, 1-BLADE CUTTER, 3.75" DEEP, WALK BEHIND 11 HP (ADD BLADE COST)	9 HP G		$3,164	2.43	0.25	0.45	0.02	1.39	2
	R55GL022	GENESIS 1012	ROOFING EQUIPMENT, KETTLE, 1,012 GAL, W/PUMP, TRAILER MTD	8 HP G		$32,188	17.36	2.42	4.38	0.23	1.23	54
	R55GL023	ROOF WARRIOR	ROOFING EQUIPMENT, ROOF PEELER, 16" WIDE, WALK BEHIND, POWERED WHEEL 2X2, STD W/ 18" FLAT BLADE	8 HP G		$9,111	3.95	0.72	1.29	0.07	1.23	6

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R55			*GARLOCK EQUIPMENT CO. (continued)*									
	R55GL024	N0. 78	1-ply graveler	6 HP G		$6,367	2.74	0.50	0.90	0.05	0.85	4
	R55GL025	Garlock 3610	ROOFING EQUIPMENT, POWER BROOM W/ STEEL BRUSH, 36" WIDE	7 HP G		$4,554	2.40	0.36	0.65	0.03	1.00	4
	R55GL017	SUPER MINI SAW	ROOFING EQUIPMENT, 1-BLADE CUTTER, 18" HEIGHT & 2" WALL CLEARANCE	5 HP G		$2,709	1.62	0.21	0.38	0.02	0.77	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		$6,162	3.28	0.48	0.87	0.04	1.39	3
	R55GL011	ENFORCER TWIN CUTTER	ROOFING EQUIPMENT, 2-BLADE CUTTER, 25" WIDE, SELF PROPELLED (ADD BLADE COST)	16 HP G		$9,117	5.30	0.72	1.29	0.07	2.46	4
	R55GL018	NO.12	ROOFING EQUIPMENT, SCRATCHER, 4.5" WIDE	5 HP G		$3,168	1.75	0.25	0.45	0.02	0.77	1
	R55GL019	NO. 30	ROOFING EQUIPMENT, SCRATCHER, 13" WIDE	8 HP G		$6,029	3.06	0.47	0.85	0.04	1.23	3
	R55GL009	ROTARY PLANER	ROOFING EQUIPMENT, ROTARY PLANER, 12" WIDE	11 HP G		$3,808	2.87	0.30	0.54	0.03	1.62	2
	R55GL015	MODEL 1000	ROOFING EQUIPMENT, HYDRAULIC HOIST, W/175' CABLE, 1,000 LB CAP	9 HP G		$14,653	5.71	1.15	2.08	0.11	1.39	8
	R55GL007	SUPER MAX HYDR HOIST	ROOFING EQUIPMENT, HYDRAULIC SWING HOIST, W/225' CABLE, 1,400 LB CAP	18 HP G		$17,327	7.98	1.36	2.45	0.13	2.77	10
	R55GL013	MODEL 30	ROOFING EQUIPMENT, KETTLE, 30 GAL, WHEEL MTD			$2,112	0.73	0.10	0.15	0.02	0.00	3
	R55GL014	MODEL 90	ROOFING EQUIPMENT, KETTLE, 90 GAL, SKID MTD			$4,709	1.69	0.37	0.67	0.03	0.00	7
	R55GL001	MODEL 115	ROOFING EQUIPMENT, KETTLE, 115 GAL, TRAILER MTD			$5,522	2.05	0.42	0.76	0.04	0.00	8

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
R55			*GARLOCK EQUIPMENT CO. (continued)*									
	R55GL002	MODEL 175	ROOFING EQUIPMENT, KETTLE, 175 GAL, W/PUMP, TRAILER MTD	5 HP G		$7,671	3.50	0.58	1.04	0.06	0.77	17
	R55GL012	MODEL 300	ROOFING EQUIPMENT, KETTLE, 300 GAL, W/PUMP, TRAILER MTD	9 HP G		$14,329	6.32	1.09	1.98	0.10	1.39	23
	R55GL003	GENESIS 412	ROOFING EQUIPMENT, KETTLE, 412 GAL, W/PUMP, TRAILER MTD	9 HP G		$20,281	8.02	1.57	2.83	0.15	1.39	30
	R55GL004	GENESIS 612	ROOFING EQUIPMENT, KETTLE, 612 GAL, W/PUMP, TRAILER MTD	9 HP G		$24,711	9.52	1.91	3.46	0.18	1.39	40
S10	**SCRAPERS, ELEVATING**											
	SUBCATEGORY 0.02		**OVER 200 HP**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	S10CA003	623-K	SCRAPER, ELEVATING LOADING, 23 CY, 25 TON, 10.3' CUT WIDTH, 4X2 - SINGLE POWERED	407 HP D-off		$851,839	188.74	29.01	45.79	6.11	48.07	810
S15	**SCRAPERS, CONVENTIONAL**											
	SUBCATEGORY 0.00		**SCRAPERS, CONVENTIONAL**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	S15CA001	621-K	SCRAPER, CONVENTIONAL, STANDARD LOADING, 21 CY, 24 TON, 9.1' CUT WIDTH, 4X2 - SINGLE POWERED	407 HP D-off		$756,023	154.17	23.91	37.41	5.20	44.97	714
	S15CA002	631-G	SCRAPER, CONVENTIONAL, STANDARD LOADING, 34 CY, 37.5 TON, 11.5' CUT WIDTH, 4X2 - SINGLE POWERED	450 HP D-off		$1,034,064	189.54	33.42	52.61	7.11	49.72	1,020

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			ATI-BELL									
	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		$603,677	122.46	20.25	32.20	4.15	46.63	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		$632,189	125.75	21.21	33.72	4.35	46.63	953
S20	SCRAPERS, TANDEM POWERED											
	SUBCATEGORY 0.00		**SCRAPERS, TANDEM POWERED**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	S20CA001	627-K	SCRAPER, TANDEM POWERED, STANDARD LOADING, 21 CY, 24 TON, 9.1' CUT WIDTH, 4X4, D-9 ASSISTED LOADING	407 HP D-off	290 HP D-off	$757,008	198.52	23.93	37.46	5.20	79.67	700
	S20CA002	627-HQ	SCRAPER, TANDEM POWERED, STANDARD LOADING, 20 CY, 24 TON, 9.1' CUT WIDTH, 4X4, PUSH-PULL	407 HP D-off	290 HP D-off	$884,292	213.65	28.21	44.25	6.08	79.67	925
	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	$1,322,801	263.54	43.10	68.01	9.09	80.02	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	$1,377,667	270.06	44.94	70.94	9.47	80.02	1,117

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
S20			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	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	$1,695,271	349.76	54.85	86.40	11.65	108.59	1,516
	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	$1,798,503	362.03	58.32	91.91	12.36	108.59	1,550
S25	**SCRAPERS, TRACTOR DRAWN**											
	SUBCATEGORY 0.00		**SCRAPERS, TRACTOR DRAWN**									
			JOHN DEERE									
	S25JD001	1510C	SCRAPER, TOWED, STANDARD LOADING, 11 CY, 17 TON, 10' CUT WIDTH (ADD 460 HP TRACTOR)			$67,286	11.43	2.48	4.01	0.47	0.00	168
	S25JD002	1814C	SCRAPER, TOWED, STANDARD LOADING, 14 CY, 23 TON, 14' CUT WIDTH (ADD 460HP TRACTOR)			$86,953	14.06	3.27	5.32	0.61	0.00	213
			REYNOLDS INTERNATIONAL, L.P.									
	S25RI001	14CS10	SCRAPER, TOWED, PIVOT DUMP, 10.7-14 CY, 15 TON, 10' CUT WIDTH (ADD 250 - 300 HP TRACTOR)			$57,290	10.09	2.07	3.34	0.40	0.00	136
	S25RI002	17C12 (RG)	SCRAPER, TOWED, PIVOT DUMP, 13-17 CY, 17 TON, 12' CUT WIDTH (ADD 350 - 400 HP TRACTOR)			$65,061	11.53	2.28	3.66	0.45	0.00	170

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			ROME PLOW CO.									
	S25RM003	R56H	SCRAPER, TOWED, 9-12 CY, 12.5 TON, 8.5' CUT WIDTH (ADD 104-200 HP TRACTOR)			$109,543	18.34	3.89	6.25	0.76	0.00	203
	S25RM001	R67H	SCRAPER, TOWED, 12-17 CY, 17 TON, 9.9' CUT WIDTH (ADD 150-240 HP TRACTOR)			$138,046	22.16	5.04	8.15	0.96	0.00	238
	S25RM002	R89H	SCRAPER, TOWED, 18-26 CY, 25 TON, 10.8' CUT WIDTH (ADD 310-410 HP TRACTOR)			$186,055	31.80	6.33	10.05	1.30	0.00	372
	S25RM004	R89HD	SCRAPER, TOWED, 18-26 CY, 25 TON, 10.8' CUT WIDTH (ADD 310-410 HP TRACTOR)			$190,712	32.42	6.51	10.36	1.33	0.00	419
S30	**SCREENING & CRUSHING PLANTS**											
	SUBCATEGORY 0.10		**CONVEYORS**									
			KOLBERG - PIONEER, INC									
	S30KB034	12-3050	SCREENING & CRUSHING PLANTS, FEEDER CONVEYOR, 30" WIDE X 50' LONG, 7 CY HOPPER & 6' FEED, PORTABLE, 500 TPH	15 HP E		$65,090	14.79	3.12	5.37	0.43	2.67	15
	S30KB036	12-3650	SCREENING & CRUSHING PLANTS, FEEDER CONVEYOR, 36" WIDE X 50' LONG, 7 CY HOPPER & 6' FEED, PORTABLE, 750 TPH	20 HP E		$69,777	16.88	3.33	5.74	0.46	3.56	16
	S30KB007	31-2480	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 24" WIDE X 80' LONG, WHEEL MTD, 750 TPH	10 HP E		$49,361	10.86	2.39	4.11	0.33	1.78	22

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
S30			*KOLBERG - PIONEER, INC (continued)*									
	S30KB008	31-24100	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 24" WIDE X 100' LONG, PORTABLE, 250 TPH	15 HP E		$60,670	14.05	2.94	5.08	0.40	2.67	27
	S30KB009	31-24125	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 24" WIDE X 125' LONG, PORTABLE, 250 TPH	15 HP E		$84,018	17.93	3.99	6.85	0.56	2.67	33
	S30KB012	31-30125	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 30" WIDE X 125' LONG, PORTABLE, 500 TPH	25 HP E		$89,487	21.46	4.23	7.28	0.59	4.45	47
	S30KB013	31-3680	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 36" WIDE X 80' LONG, PORTABLE, 750 TPH	25 HP E		$60,065	16.56	2.85	4.90	0.40	4.45	42
	S30KB014	31-36100	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 36" WIDE X 100' LONG, PORTABLE, 750 TPH	30 HP E		$80,255	21.25	3.86	6.65	0.53	5.34	59
	S30KB015	31-36125	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 36" WIDE X 125' LONG, PORTABLE, 750 TPH	40 HP E		$108,614	28.57	5.19	8.93	0.72	7.12	70
	S30KB018	35-24150	SCREENING & CRUSHING PLANTS, CONVEYOR, FIXED HEIGHT STACKER, 24" WIDE X 150' LONG, PORTABLE, 750 TPH	25 HP E		$123,909	27.27	6.13	10.61	0.82	4.45	39

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
S30			*KOLBERG - PIONEER, INC (continued)*									
	S30KB021	35-30150	SCREENING & CRUSHING PLANTS, CONVEYOR, FIXED HEIGHT STACKER, 30" WIDE X 150' LONG, PORTABLE, 1,500 TPH	40 HP E		$143,665	34.50	7.11	12.31	0.95	7.12	56
	S30KB044	1936-4	SCREENING & CRUSHING PLANTS, SURGE BIN, 25CY, BELT FEEDER, & 36" WIDE X 40' LONG CONVEYOR, PORTABLE, 2,000 TPH	15 HP E		$200,108	37.45	10.09	17.53	1.32	2.67	20
			KPI-JCI									
	S30KJ060	13-42150	SCREENING & CRUSHING PLANTS, CONVEYOR, 42" WIDE, 125' LONG CONVEYOR WITH 36" DEEP LATTICE FRAME, SINGLE AXLE, TELESCOPING UNDERCARRIAGE FOR RAISE & LOWER, CAPABLE OF RADIAL TRAVEL, HEAD AND TAIL FOLD FOR TRAVEL, UP TO 1000 TONS PER HOUR	75 HP E		$179,949	49.84	8.78	15.17	1.19	13.36	125
	S30KJ062	13-4280	SCREENING & CRUSHING PLANTS, CONVEYOR, 42" WIDE, 80' LONG CONVEYOR WITH 36" DEEP LATTICE FRAME, SINGLE AXLE, TELESCOPING UNDERCARRIAGE FOR RAIS AND LOWER, CAPABLE OF RADIAL TRAVEL, HEAD AND TAIL FOLD FOR TRAVEL, 1000 TONS PER HOUR	40 HP E		$125,581	31.46	6.23	10.79	0.83	7.12	65

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
S30			*KPI-JCI (continued)*									
	S30KJ063	13-42100	SCREENING & CRUSHING PLANTS, CONVEYOR, 42" WIDE, 100' LONG CONVEYOR WITH 36" DEEP LATTICE FRAME, SINGLE AXLE, TELESCOPING UNDERCARRIAGE FOR RAISE AND LOWER, CAPABLE OF RADIAL TRAVEL, HEAD AND TAIL FOLD FOR TRAVEL, 1000 TONS PER HOUR	58 HP E		$156,029	41.16	7.80	13.54	1.03	10.24	82
	S30KJ064	13-42125	SCREENING & CRUSHING PLANTS, CONVEYOR, 42" WIDE, 125' LONG CONVEYOR WITH 36" DEEP LATTICE FRAME, SINGLE AXLE, TELESCOPING UNDERCARRIAGE FOR RAIS AND LOWER, CAPABLE OF RADIAL TRAVEL, HEAD AND TAIL FOLD FOR TRAVEL, 1000 TONS PER HOUR	60 HP E		$178,729	45.71	8.71	15.06	1.18	10.69	103
	S30KJ065	13-30150	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 30" WIDE X 150' LONG, PORTABLE, 500 TPH	58 HP E		$180,724	45.39	8.77	15.13	1.20	10.24	82
	S30KJ066	13-36125	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 36" WIDE X 125' LONG, PORTABLE, 750 TPH	68 HP E		$159,932	44.51	7.69	13.26	1.06	12.02	93
	S30KJ067	13-36150	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 36" WIDE X 150' LONG, PORTABLE, 750 TPH	83 HP E		$185,453	52.72	9.01	15.56	1.23	14.69	110
	S30KJ070	13-24125	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 24" WIDE X 125' LONG, PORTABLE, 250 TPH	23 HP E		$97,665	22.22	4.80	8.30	0.65	4.01	57
	S30KJ071	13-24150	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 24" WIDE X 150' LONG, PORTABLE, 250 TPH	23 HP E		$164,426	33.38	8.14	14.10	1.09	4.01	65

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
S30			*KPI-JCI (continued)*									
	S30KJ072	13-30125	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 30" WIDE X 125' LONG, PORTABLE, 500 TPH	33 HP E		$139,063	31.86	6.68	11.51	0.92	5.79	71
	S30KJ081	11-2450	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 24" WIDE X 50' LONG, WHEEL MTD, 250 TPH	10 HP E		$44,688	10.08	2.14	3.67	0.30	1.78	78
	S30KJ082	11-2470	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 24" WIDE X 70' LONG, WHEEL MTD, 250 TPH	10 HP E		$60,871	12.77	2.88	4.96	0.40	1.78	115
	S30KJ083	11-3050	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 30" WIDE X 50' LONG, WHEEL MTD, 500 TPH	15 HP E		$46,646	11.69	2.17	3.71	0.31	2.67	97
	S30KJ084	11-3070	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 30" WIDE X 70' LONG, WHEEL MTD, 1,000 TPH	20 HP E		$62,988	15.73	2.96	5.08	0.42	3.56	124
	S30KJ085	11-3650	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 36" WIDE X 50' LONG, WHEEL MTD, 750 TPH	20 HP E		$48,966	13.38	2.26	3.87	0.32	3.56	101
	S30KJ086	11-3670	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 36" WIDE X 70' LONG, WHEEL MTD, 750 TPH	25 HP E		$66,258	17.60	3.09	5.30	0.44	4.45	137
	S30KJ087	11-4250	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 42" WIDE X 50' LONG, WHEEL MTD, 1,000 TPH	30 HP E		$58,392	17.59	2.73	4.67	0.39	5.34	116
	S30KJ088	11-4270	SCREENING & CRUSHING PLANTS, CONVEYOR, TRUSS FRAME, 42" WIDE X 70' LONG, WHEEL MTD, 1,000 TPH	40 HP E		$97,660	26.78	4.68	8.06	0.65	7.12	161

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
S30			*KPI-JCI (continued)*									
	S30KJ035	12-3070	SCREENING & CRUSHING PLANTS, FEEDER CONVEYOR, 30" WIDE X 70' LONG, 7 CY HOPPER & 6' FEED, PORTABLE, 500 TPH	20 HP E		$100,950	22.11	4.92	8.50	0.67	3.56	18
	S30KJ041	12-3670	SCREENING & CRUSHING PLANTS, FEEDER CONVEYOR, 36" WIDE X 70' LONG, 7 CY HOPPER & 6' FEED, PORTABLE, 750 TPH	20 HP E		$119,186	25.18	5.83	10.07	0.79	3.56	19
	S30KJ002	13-24100	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 24" WIDE X 100' LONG, PORTABLE, 250 TPH	15 HP E		$97,132	20.16	4.79	8.30	0.64	2.67	18
	S30KJ004	13-30100	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 30" WIDE X 100' LONG, PORTABLE, 500 TPH	15 HP E		$112,375	22.72	5.56	9.63	0.74	2.67	64
	S30KJ006	13-36100	SCREENING & CRUSHING PLANTS, CONVEYOR, STACKING, 36" WIDE X 100' LONG, PORTABLE, 750 TPH	30 HP E		$113,053	26.77	5.57	9.64	0.75	5.34	38
	S30KJ010	31-3080	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 30" WIDE X 80' LONG, PORTABLE, 500 TPH	20 HP E		$84,054	19.29	4.11	7.10	0.56	3.56	32
	S30KJ011	31-30100	SCREENING & CRUSHING PLANTS, CONVEYOR, SIDE FOLDING STACKER, 30" WIDE X 100' LONG, PORTABLE, 550 TPH	25 HP E		$94,351	22.31	4.61	7.98	0.62	4.45	39
	S30KJ042	1430-60-20	SCREENING & CRUSHING PLANTS, SURGE BIN, 25CY, BELT FEEDER, & 30" WIDE X 60' LONG CONVEYOR, PORTABLE, 1,500 TPH	30 HP E		$209,204	42.89	10.58	18.39	1.38	5.34	18

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
S30			*KPI-JCI (continued)*									
	S30KJ054	1936-2	SCREENING & CRUSHING PLANTS, SURGE BIN, 25CY, BELT FEEDER, & 30" WIDE X 40' LONG CONVEYOR, PORTABLE, 1,500 TPH	15 HP E		$136,357	26.76	6.82	11.84	0.90	2.67	18
	S30KJ053	1436-60-20	SCREENING & CRUSHING PLANTS, SURGE BIN, 25CY, BELT FEEDER, & 36" WIDE X 60' LONG CONVEYOR, PORTABLE, 2,000 TPH	40 HP E		$117,449	30.11	5.83	10.09	0.78	7.12	20
	S30KJ043	1936-3	SCREENING & CRUSHING PLANTS, SURGE BIN, 25CY, BELT FEEDER, & 36" WIDE X 40' LONG CONVEYOR, PORTABLE, 2,000 TPH	15 HP E		$189,599	35.69	9.55	16.59	1.25	2.67	20
			PUTZMEISTER INC.									
	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		$885,655	201.52	45.40	79.07	5.86	47.24	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		$600,827	153.73	30.74	53.54	3.97	47.24	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		$755,559	179.75	38.68	67.36	5.00	47.24	615

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN		CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.20		**CRUSHERS - VERTICAL & HORIZONTAL SHAFT IMPACTOR**										
			KPI-JCI										
	S30KJ045	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		$565,130	94.76	13.56	20.09	3.51	42.52	548
			TELSMITH INC.										
	S30TS009	4246	SCREENING & CRUSHING PLANTS, CRUSHER - SHAFT IMPACTOR, 46" X 59", 600 TPH	300 HP	E		$360,306	111.28	8.73	12.97	2.24	53.43	595
	S30TS010	4856	SCREENING & CRUSHING PLANTS, CRUSHER - SHAFT IMPACTOR, 56" X 85", 1,100 TPH	400 HP	E		$527,215	152.24	12.76	18.98	3.27	71.24	942
	S30TS011	6071	SCREENING & CRUSHING PLANTS, CRUSHER - SHAFT IMPACTOR, 71" X 100", 2,100 TPH	800 HP	E		$799,343	283.34	19.35	28.78	4.96	142.48	1,950
	SUBCATEGORY 0.21		**CRUSHERS - CONE**										
			KOLBERG - PIONEER, INC										
	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		$464,501	113.94	11.08	16.39	2.88	48.44	810

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN		CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			KPI-JCI										
	S30KJ068	K200PM	SCREENING & CRUSHING PLANTS, CONE CRUSHER, 385 TPH, HOPPER FEED, 42" WIDE DISCHARGE CONVEYOR, TRAILER MTD (ADD 210KW GENERATOR)	215 HP	E		$495,569	101.76	11.87	17.58	3.08	38.29	340
	S30KJ069	K300PM	SCREENING & CRUSHING PLANTS, CONE CRUSHER, 460 TPH, HOPPER FEED, 42" WIDE DISCHARGE CONVEYOR, TRAILER MTD (ADD 210KW GENERATOR)	315 HP	E		$615,138	138.91	14.72	21.80	3.82	56.10	825
	SUBCATEGORY 0.22		**CRUSHERS - JAW**										
			KPI-JCI										
	S30KJ056	CS2650	SCREENING & CRUSHING PLANTS, JAW CRUSHER, TRIPLE AXLE CHASSIS, 2650 VANGUARD JAW CRUSHER, 50" WIDE X 20' LONG VIBRATING GRIZZLY FEEDER WITH BYPASS CHUTE, ELECTRIC MOTOR WITH V-BELT DRIVE, 165 TONS PER HOUR (ADD 150 KW GENERATOR)	175 HP	D-off		$587,505	64.13	14.07	20.83	3.65	20.67	590
	S30KJ059	DUPLEX III PORTABLE	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		$1,304,867	169.02	31.37	46.53	8.10	53.43	5

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
S30			*KPI-JCI (continued)*									
	S30KJ057	CS2742	SCREENING & CRUSHING PLANTS, JAW CRUSHER, TRIPLE AXLE CHASSIS, 2742 VANGUARD JAW CRUSHER, 42" WIDE END DELIVERY CONVEYOR, 42" WIDE X 18' LONG VIBRATING GRIZZLY FEEDER WITH BYPASS CHUTE, ELECTRIC MOTOR WITH V-BELT DRIVE, 165 TONS PER HOUR (ADD 150 KW GENER	212 HP D-off		$581,988	68.44	13.97	20.71	3.61	25.04	701
	SUBCATEGORY 0.30		**SCREENING PLANT**									
			KPI-JCI									
	S30KJ061	7110-40P	SCREENING & CRUSHING PLANTS, 10' WIDE X 40' LONG CLASSIFYING TANK WITH FEED BOX, OVERFLOW COLLECTING FLUME AND ADJUSTABLE OVERFLOW WEIR BOARDS, WALKWAY, COLLECTING FLUME WITH DISCHARGE BOX, WINDOWS BASED CONTROL SYSTEM	10 HP E		$429,759	78.87	21.68	37.68	2.84	1.78	527
	S30KJ048	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		$223,289	61.87	11.26	19.56	1.48	15.14	280
	S30KJ049	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		$263,855	70.16	12.62	21.74	1.75	16.03	355

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
S30			*KPI-JCI (continued)*									
	S30KJ050	1822P	SCREENING & CRUSHING PLANTS, WASHING/SCREENING PLANT, 6' X 16' TRIPLE DECK INCLINE SCREEN WITH SPRAY BARS, CHUTEWORK AND FINES COLLECTION, 5036-25 TWIN SAND PREP, TANDEM AXLE PORTABLE CHASSIS	40 HP E		$425,627	86.09	21.76	37.88	2.82	7.12	530
	S30KJ051	1830P	SCREENING & CRUSHING PLANTS, WASHING/SCREENING PLANT, 6' X 20' TRIPLE DECK INCLINE SCREEN WITH SPRAY BARS, CHUTEWORK AND FINES COLLECTION, 5044-32 TWIN SAND PREP, TRIPLE AXLE PORTABLE CHASSIS	40 HP E		$524,619	103.64	26.76	46.58	3.47	7.12	752
	S30KJ052	7208-32 S/P	SCREENING & CRUSHING PLANTS, CLASSIFYING PLANT, 8'W X 32'L TANK WITH FEED BOX, OVERFLOW COLLECTING FLUME AND ADJUSTABLE OVERFLOW WEIR BOARDS, WALKWAY, COLLECTING FLUME WITH DISCHARGE BOX, SPEC-SELECT WBSM CONTROL AND MONITORING SYSTEM	3 HP E		$488,163	87.68	25.20	43.93	3.23	0.53	423
			METSO MINERALS									
	S30RA003	CV 100	SCREENING & CRUSHING PLANTS, GRIZZLY-SINGLE SCREEN, 200 CY/HR, TRAILER MTD	44 HP D-off		$148,634	32.21	7.59	13.22	0.98	5.20	244

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
S35	SNOW REMOVAL EQUIPMENT											
	SUBCATEGORY 0.00		SNOW REMOVAL EQUIPMENT									
			AMERICAN ROAD MACHINERY, INC.									
	S35AR001	112	SNOW REMOVAL EQUIPMENT, SNOW PLOW, REVERSIBLE (ADD DUMP TRUCK)			$5,854	1.23	0.34	0.59	0.04	0.00	15
	S35AR002	713	SNOW REMOVAL EQUIPMENT, SNOW PLOW, 1-WAY TRIP (ADD DUMP TRUCK)			$8,310	1.74	0.48	0.83	0.06	0.00	20
			NO SPECIFIC MANUFACTURER									
	S35XX001	EX1270	SNOW REMOVAL EQUIPMENT, HIGHWAY/MUNICIPAL SNOW PLOW, 10' CUTTING WIDTH, 6' DISCHARGE HEIGHT, REVERSIBLE (ADD 45K GVW TRUCK)			$11,966	2.51	0.69	1.20	0.09	0.00	24
	S35XX002	MP BLOWER	SNOW REMOVAL EQUIPMENT, LOADER MOUNTED SNOW BLOWER, 114" CUTTING WIDTH, 1800 TPH (ADD 3-3.5 CY FRONT END WHEEL LOADER)	300 HP D-off		$151,272	71.16	8.66	15.13	1.09	35.43	100
	S35XX003	TOMCAT	SNOW REMOVAL EQUIPMENT, RUNWAY SNOW PLOW, 24' WIDE, 20' CUTTING WIDTH, 6' DISCHARGE HEIGHT, REVERSIBLE (ADD 55K GVW TRUCK)			$97,353	20.35	5.57	9.74	0.70	0.00	90
	S35XX004	TU3 BLOWER	SNOW REMOVAL EQUIPMENT, TRUCK MOUNTED SNOW BLOWER, 102" CUTTING WIDTH, 2500 TPH (ADD 45K GVW TRUCK)	425 HP D-off		$265,880	111.60	15.22	26.59	1.92	50.20	140

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
S40	SOIL & ROAD STABILIZERS											
	SUBCATEGORY 0.00		SOIL & ROAD STABILIZERS									
			BOMAG									
	S40BO002	MPH-362 R RECYCLER	SOIL & ROAD STABILIZER, 12" DEEP X 79" WIDE, HYDROSTATIC RECLAIMER/ SOIL STABILIZER, 4X2	360 HP D-off		$422,859	127.05	19.49	33.00	2.99	46.63	390
	S40BO003	MPH-362 S	SOIL & ROAD STABILIZER, 14" DEEP X 79" WIDE, HYDROSTATIC RECLAIMER/ SOIL STABILIZER, 4X2	360 HP D-off		$398,952	122.86	18.36	31.08	2.82	46.63	390
	S40BO004	MPH-362 SDM	SOIL & ROAD STABILIZER, 21" DEEP X 79" WIDE, HYDROSTATIC RECLAIMER/ SOIL STABILIZER, 4X2	360 HP D-off		$405,868	124.07	18.69	31.64	2.87	46.63	390
			CATERPILLAR INC. (MACHINE DIVISION)									
	S40CA003	RM-300	SOIL & ROAD STABILIZER, 18" DEEP X 96" WIDE, HYDROSTATIC ROAD RECLAIMER/ SOIL STABILIZER, 4X4	350 HP D-off		$395,027	120.99	17.89	30.18	2.80	45.34	518
	S40CA004	RM-500	SOIL & ROAD STABILIZER, 16" DEEP X 96" WIDE, HYDROSTATIC ROAD RECLAIMER/ SOIL STABILIZER, 4X4	540 HP D-off		$636,634	192.32	29.02	49.02	4.51	69.95	599

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
S45	**SPLITTERS, ROCK & CONCRETE**											
	SUBCATEGORY 0.00		**SPLITTERS, ROCK & CONCRETE**									
			ELCO INTERNATIONAL INC.									
	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		$16,847	5.49	1.26	2.25	0.13	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		$18,290	5.93	1.36	2.44	0.14	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		$20,277	6.54	1.50	2.70	0.15	0.00	1
T10	**TRACTOR BLADES & ATTACHMENTS (including agricultural)**											
	SUBCATEGORY 0.00		**TRACTOR BLADES & ATTACHMENTS (ncluding agricultural)**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	T10CA001	D3 ACCUGRADE BLADE	TRACTOR ATTACHMENTS, BLADE, LGP, ACCUGRADE, HYDRAULIC, 2.17 CY (ADD D3 TRACTOR)			$9,628	1.69	0.46	0.77	0.07	0.00	15
	T10CA002	D3-PA 30B	TRACTOR ATTACHMENTS, POWER WINCH, W/250' CABLE, FOR D3 (ADD D3 TRACTOR)			$19,913	3.41	0.94	1.59	0.14	0.00	21

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T10			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	T10CA004	D4 ACCUGRADE BLADE	TRACTOR ATTACHMENTS, BLADE, LGP, ACCUGRADE, HYDRAULIC, 2.42 CY (ADD D4 TRACTOR)			$10,237	1.79	0.48	0.82	0.07	0.00	16
	T10CA005	D4-PA 30B	TRACTOR ATTACHMENTS, POWER WINCH, W/250' CABLE, FOR D4 (ADD D4 TRACTOR)			$19,913	3.41	0.94	1.59	0.14	0.00	21
	T10CA007	D5 ACCUGRADE BLADE	TRACTOR ATTACHMENTS, BLADE, ACCUGRADE, HYDRAULIC, 3.06 CY (ADD D5 TRACTOR)			$10,582	1.85	0.50	0.85	0.07	0.00	18
	T10CA008	D5-PA 50	TRACTOR ATTACHMENTS, POWER WINCH, FOR D5 (ADD D5 TRACTOR)			$30,250	5.14	1.42	2.42	0.21	0.00	26
	T10CA009	D6 SU BLADE XL	TRACTOR ATTACHMENTS, BLADE, SEMI-UNIVERSAL, HYDRAULIC, 6.94 CY (ADD D6 TRACTOR)			$30,973	5.27	1.46	2.48	0.22	0.00	57
	T10CA010	D6 VPAT BLADE	TRACTOR ATTACHMENTS, BLADE, POWER ANGLE, HYDRAULIC, 6.55 CY (ADD D6 TRACTOR)			$43,445	7.36	2.05	3.48	0.31	0.00	82
	T10CA011	D6-PA56 WINCH	TRACTOR ATTACHMENTS, POWER WINCH, W/CABLE, FOR D6 (ADD D6 TRACTOR)			$50,828	8.60	2.40	4.07	0.36	0.00	27
	T10CA012	D7 STRAIGHT BLADE	TRACTOR ATTACHMENTS, BLADE, STRAIGHT, HYDRAULIC, FOR D7, 6.75 CY (ADD D7 TRACTOR)			$58,661	9.91	2.77	4.69	0.42	0.00	77
	T10CA013	D7 UNIVERSAL BLADE	TRACTOR ATTACHMENTS, BLADE, UNIVERSAL, HYDRAULIC, FOR D7, 10.09 CY (ADD D7 TRACTOR)			$58,976	9.96	2.78	4.72	0.42	0.00	86
	T10CA014	D7 ANGLE BLADE	TRACTOR ATTACHMENTS, BLADE, POWER ANGLE, HYDRAULIC, FOR D7, 5.08 CY (ADD D7 TRACTOR)			$49,149	8.31	2.32	3.93	0.35	0.00	78

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T10			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	T10CA015	D7 PA90 POWER WINCH	TRACTOR ATTACHMENTS, POWER WINCH, VARIABLE SPEED (ADD D7 TRACTOR)			$57,176	9.67	2.69	4.57	0.40	0.00	5
	T10CA016	D8-SU	TRACTOR ATTACHMENTS, BLADE, STRAIGHT, HYDRAULIC, FOR D8, 6.09 CY (ADD D8 TRACTOR)			$62,638	10.61	2.95	5.01	0.44	0.00	107
	T10CA017	D8-U	TRACTOR ATTACHMENTS, BLADE, UNIVERSAL, HYDRAULIC, FOR D8, 15.30 CY (ADD D8 TRACTOR)			$68,270	11.56	3.21	5.46	0.48	0.00	124
	T10CA018	D8-A	TRACTOR ATTACHMENTS, BLADE, POWER ANGLE, HYDRAULIC, FOR D8, 6.09 CY (ADD D8 TRACTOR)			$74,134	12.54	3.49	5.93	0.52	0.00	123
	T10CA019	D8 SU PP	TRACTOR ATTACHMENTS, BLADE, PUSH PLATE, FOR D8 (ADD D8 TRACTOR)			$62,950	10.60	2.97	5.04	0.45	0.00	5
	T10CA020	D8, PA140VS WINCH	TRACTOR ATTACHMENTS, POWER WINCH, (ADD D8 TRACTOR)			$75,770	12.84	3.57	6.06	0.54	0.00	5
	T10CA021	D9-SU	TRACTOR ATTACHMENTS, BLADE, SEMI-U, HYDRAULIC, FOR D9, 17.70 CY (ADD D9 TRACTOR)			$109,635	18.55	5.17	8.77	0.78	0.00	143
	T10CA022	D9-U	TRACTOR ATTACHMENTS, BLADE, UNIVERSAL, HYDRAULIC, FOR D9, 21.40 CY (ADD D9 TRACTOR)			$113,290	19.16	5.33	9.06	0.80	0.00	137
	T10CA023	D9, PA140VS WINCH	TRACTOR ATTACHMENTS, POWER WINCH, W/CABLE, FOR D9 (ADD D9 TRACTOR)			$107,199	18.16	5.05	8.58	0.76	0.00	6
	T10CA024	D10-SU ABRASION	TRACTOR ATTACHMENTS, BLADE, SEMI-U, HYDRAULIC, FOR D10, 24.20 CY (ADD D10 TRACTOR)			$67,801	11.63	3.19	5.42	0.48	0.00	357

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T10			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	T10CA025	D10-U ABRASION	TRACTOR ATTACHMENTS, BLADE, UNIVERSAL, HYDRAULIC, FOR D10, 28.70 CY (ADD D10 TRACTOR)			$81,603	13.96	3.85	6.53	0.58	0.00	251
	T10CA026	D11-SU	TRACTOR ATTACHMENTS, BLADE, STRAIGHT, HYDRAULIC, FOR D11, 35.50 CY (ADD D11 TRACTOR)			$127,377	21.73	6.00	10.19	0.90	0.00	367
	T10CA027	D11-U	TRACTOR ATTACHMENTS, BLADE, UNIVERSAL, HYDRAULIC, FOR D11, 45.00 CY (ADD D11 TRACTOR)			$168,091	28.57	7.92	13.45	1.19	0.00	423
			JOHN DEERE									
	T10JD001	915 V-RIPPER	TRACTOR ATTACHMENTS, DEEP TILLER, 5x7 V SHAPED, 175" WIDE, 7 SHANKS (ADD 200HP TRACTOR W/PTO)			$14,029	2.60	0.63	1.06	0.10	0.00	17
T15	**TRACTORS, CRAWLER (DOZER) (includes blade)**											
	SUBCATEGORY 0.01		**0 THRU 225 HP**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	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		$120,812	33.15	5.14	8.46	0.91	9.07	164
	T15CA020	D-4K XL	TRACTOR, CRAWLER (DOZER), 80 HP, POWERSHIFT, W/2.18 CY SEMI-U BLADE (ADD ATTACHMENTS)	80 HP D-off		$136,175	37.52	5.80	9.53	1.03	10.36	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		$143,621	38.91	6.11	10.05	1.08	10.36	184

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T15			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	T15CA021	D-5G X	TRACTOR, CRAWLER (DOZER), 90 HP, POWERSHIFT, W/2.85 CY POWER ANGLE BLADE (ADD ATTACHMENTS)	90 HP D-off		$145,432	40.76	6.19	10.18	1.10	11.66	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		$153,003	42.18	6.51	10.71	1.15	11.66	203
	T15CA024	D-5K XL	TRACTOR, CRAWLER (DOZER), 110 HP, POWERSHIFT, W/3.37 CY SEMI-U BLADE (ADD ATTACHMENTS)	110 HP D-off		$147,404	44.11	6.27	10.32	1.11	14.25	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		$287,727	75.70	12.24	20.14	2.17	18.78	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		$390,700	98.04	16.63	27.35	2.95	21.37	519
	T15CA009	D-6T WHA	TRACTOR, CRAWLER (DOZER), 165 HP, W/14.3 CY BLADE, TRASH/WASTE HANDLING ARRANGEMENT	165 HP D-off		$434,409	106.26	18.49	30.41	3.28	21.37	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		$425,772	107.61	18.11	29.80	3.21	23.96	461
			CASE CORPORATION									
	T15CS008	1150M	TRACTOR, CRAWLER (DOZER), 138 HP, 3.75 CY UNIVERSAL BLADE, REAR RIPPER	138 HP D-off		$262,438	69.91	11.17	18.37	1.98	17.88	311

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			JOHN DEERE									
	T15JD005	450J LT	TRACTOR, CRAWLER (DOZER), 70 HP, HYDROSTATIC, W/2.00 CY ANGLE BLADE (ADD ATTACHMENTS)	70 HP D-off		$106,365	30.43	4.53	7.45	0.80	9.07	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		$108,626	30.85	4.62	7.60	0.82	9.07	165
	T15JD007	650K	TRACTOR, CRAWLER (DOZER), 101 HP, HYDROSTATIC, W/2.60 CY POWER ANGLE TILT (PAT) BLADE (ADD ATTACHMENTS)	101 HP D-off		$165,689	46.20	7.05	11.60	1.25	13.08	185
	T15JD008	750K XLT	TRACTOR, CRAWLER (DOZER), 155 HP, HYDROSTATIC, W/5.60 CY POWER ANGLE TILT (PAT) BLADE (ADD ATTACHMENTS)	155 HP D-off		$266,798	73.26	11.35	18.68	2.01	20.08	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		$278,001	76.85	11.83	19.46	2.10	21.37	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		$376,331	98.61	16.01	26.34	2.84	24.22	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		$401,440	106.03	17.08	28.10	3.03	26.56	420

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.02		**226 HP THRU 425 HP**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	T15CA012	D-7R SERIES II	TRACTOR, CRAWLER (DOZER), 240 HP, POWERSHIFT, W/8.98 CY SEMI-U BLADE (ADD ATTACHMENTS)	240 HP D-off		$398,838	99.97	14.84	23.93	2.87	31.09	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		$451,349	108.56	16.79	27.08	3.25	31.09	530
	T15CA016	D-8T	TRACTOR, CRAWLER (DOZER), 310 HP, POWERSHIFT, W/15.3 CY SEMI-U BLADE (ADD ATTACHMENTS)	310 HP D-off		$680,792	156.22	25.33	40.85	4.90	40.16	898
	T15CA017	D-9T	TRACTOR, CRAWLER (DOZER), 410 HP, POWERSHIFT, W/17.7 CY SEMI-U BLADE (ADD ATTACHMENTS)	410 HP D-off		$790,602	188.64	29.41	47.44	5.69	53.11	1,033
			KOMATSU AMERICA INTERNATIONAL COMPANY									
	T15KM008	D155AX-8	TRACTOR, CRAWLER (DOZER), 354 HP, POWERSHIFT, W/15.6 CY FULL-U BLADE	354 HP D-off		$609,017	150.84	22.65	36.54	4.38	45.86	893
	SUBCATEGORY 0.03		**OVER 425 HP**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	T15CA018	D-10TQ	TRACTOR, CRAWLER (DOZER), 580 HP, POWERSHIFT, W/28.7 CY SEMI-U BLADE (ADD ATTACHMENTS)	580 HP D-off		$1,313,915	252.88	44.07	70.08	9.03	64.08	1,421
	T15CA019	D-11TQ	TRACTOR, CRAWLER (DOZER), 850 HP, POWERSHIFT, W/44.0 CY SEMI-U BLADE (ADD ATTACHMENTS)	850 HP D-off		$2,133,497	399.84	71.57	113.79	14.67	93.92	2,029

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T20	**TRACTORS, WHEEL TYPE (DOZER)**											
	SUBCATEGORY 0.00		**TRACTORS, WHEEL TYPE (DOZER)**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	T20CA001	814-FS	TRACTOR, WHEEL (DOZER), 240 HP, ARTICULATING, 4X4, W/3.77 CY STRAIGHT BLADE	240 HP D-off		$545,346	96.25	19.59	31.91	3.63	26.52	479
	T20CA002	824-HQ	TRACTOR, WHEEL (DOZER), 339 HP, ARTICULATING, 4X4, W/6.70 CY STRAIGHT BLADE	339 HP D-off		$811,010	144.98	28.70	46.59	5.40	37.46	633
	T20CA003	834-HQ	TRACTOR, WHEEL (DOZER), 481 HP, ARTICULATING, 4X4, W/10.33 CY STRAIGHT BLADE	481 HP D-off		$1,242,002	210.76	43.40	70.26	8.27	53.15	902
T25	**TRACTORS, AGRICULTURAL**											
	SUBCATEGORY 0.10		**CRAWLER**									
			JOHN DEERE									
	T25JD001	8320RT	TRACTOR, AGRICULTURAL, CRAWLER-RUBBER TRACK, 320 HP, 3 POINT HITCH	320 HP D-off		$319,275	99.72	15.75	27.14	2.18	37.80	345
	T25JD002	8345RT	TRACTOR, AGRICULTURAL, CRAWLER-RUBBER TRACK, 345 HP, 3 POINT HITCH	345 HP D-off		$335,107	105.86	16.53	28.48	2.29	40.75	345
	T25JD003	8370RT	TRACTOR, AGRICULTURAL, CRAWLER-RUBBER TRACK, 370 HP, 3 POINT HITCH	370 HP D-off		$350,953	112.02	17.32	29.83	2.40	43.70	366

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.20		**WHEEL**									
			JOHN DEERE									
	T25JD021	6115R	TRACTOR, AGRICULTURAL, WHEEL, 115 HP, 4X4, PTO, 3 POINT HITCH	115 HP D-off		$100,438	35.87	5.14	8.88	0.70	13.58	55
	T25JD022	6170R	TRACTOR, AGRICULTURAL, WHEEL, 170HP, 4X4, PTO, 3 POINT HITCH	170 HP D-off		$143,645	51.83	7.58	13.13	1.01	20.08	74
	T25JD023	8235R	TRACTOR, AGRICULTURAL, WHEEL, 235 HP, 4X4, PTO, 3 POINT HITCH	235 HP D-off		$203,484	72.92	11.27	19.68	1.43	27.76	272
	T25JD024	8285R	TRACTOR, AGRICULTURAL, WHEEL, 285 HP, 4X4, PTO, 3 POINT HITCH	285 HP D-off		$235,325	86.02	13.19	23.07	1.65	33.66	211
	T25JD025	9360R	TRACTOR, AGRICULTURAL, WHEEL, 360 HP, 4X4, PTO, 3 POINT HITCH	360 HP D-off		$264,630	102.72	13.63	23.55	1.85	42.52	329
	T25JD026	9460R	TRACTOR, AGRICULTURAL, WHEEL, 460 HP, 4X4, PTO, 3 POINT HITCH	460 HP D-off		$317,026	126.61	16.78	29.12	2.22	54.33	349
	T25JD027	5045D	TRACTOR, AGRICULTURAL, WHEEL, 45 HP, 4X2, PTO, 3 POINT HITCH	45 HP D-off		$16,538	9.35	0.87	1.49	0.12	5.31	42
	T25JD028	5055D	TRACTOR, AGRICULTURAL, WHEEL, 55 HP, 4X2, PTO, 3 POINT HITCH	55 HP D-off		$17,834	10.94	0.94	1.63	0.12	6.50	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		$24,204	12.25	1.33	2.31	0.17	6.50	51
	T25JD030	5065E	TRACTOR, AGRICULTURAL, WHEEL, 65 HP, 4X2, PTO, 3 POINT HITCH	65 HP D-off		$36,040	15.97	2.03	3.56	0.25	7.68	27
	T25JD031	5083E	TRACTOR, AGRICULTURAL, WHEEL, 83 HP, 4X2, PTO, 3 POINT HITCH	83 HP D-off		$37,346	18.62	2.09	3.65	0.26	9.80	54
	T25JD032	5101E	TRACTOR, AGRICULTURAL, WHEEL, 101 HP, 4X2, PTO, 3 POINT HITCH	101 HP D-off		$44,872	22.72	2.18	3.73	0.31	11.93	73

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T30	**TRENCHERS, CHAIN TYPE CUTTER**											
	SUBCATEGORY 0.00		**TRENCHERS, CHAIN TYPE CUTTER**									
	DITCH WITCH (THE CHARLES MACHINE WORKS)											
	T30DW019	C12	TRENCHER, CHAIN TYPE CUTTER, 24" MAX DEPTH X 3.5" - 6" WIDTH, WALK BEHIND, WHEELED	12 HP G		$11,221	4.77	0.63	1.09	0.08	2.02	15
	T30DW020	C16	TRENCHER, CHAIN TYPE CUTTER, 30" MAX DEPTH X 3.5"-6" WIDTH, WALK BEHIND, WHEELED	16 HP G		$10,857	5.43	0.61	1.05	0.08	2.69	15
	T30DW021	C16X	TRENCHER, CHAIN TYPE CUTTER, 36" MAX DEPTH X 3.5"-6" WIDTH, WALK BEHIND, CRAWLER	16 HP G		$12,131	5.72	0.70	1.21	0.09	2.69	19
	T30DW022	C30X	TRENCHER, CHAIN TYPE CUTTER, 48" MAX DEPTH X 3.5"-6" WIDTH, WALK BEHIND, CRAWLER	31 HP G		$15,998	9.41	0.92	1.60	0.12	5.21	21
	T30DW023	RT100	TRENCHER, CHAIN TYPE CUTTER, 94" MAX DEPTH X 24" WIDTH, RIDE-ON, 4X4	100 HP D-off		$129,893	42.03	6.57	11.25	0.94	11.81	89
	T30DW024	RT30	TRENCHER, CHAIN TYPE CUTTER, 42" MAX DEPTH X 4"-8" WIDTH, RIDE-ON, WHEELED, 4X4	25 HP D-off		$28,580	9.65	1.61	2.79	0.21	2.93	31
	T30DW025	RT45	TRENCHER, CHAIN TYPE CUTTER, 63" MAX DEPTH X 6"-12" WIDTH, RIDE-ON, 4X4	49 HP D-off		$52,040	18.08	2.95	5.14	0.38	5.76	54
	T30DW026	RT80	TRENCHER, CHAIN TYPE CUTTER, 93" MAX DEPTH X 24" WIDTH, RIDE-ON, 4X4	74 HP D-off		$103,143	32.81	5.71	9.92	0.75	8.74	77
	T30DW012	RT12	TRENCHER, CHAIN TYPE CUTTER, 36" DEEP X 10" WIDE, WALK BEHIND	16 HP G		$10,291	5.30	0.57	0.99	0.07	2.69	10
	T30DW013	RT24	TRENCHER, CHAIN TYPE CUTTER, 48" DEEP X 8" WIDE, WALK BEHIND	22 HP G		$13,449	7.14	0.77	1.34	0.10	3.70	11

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T30			*DITCH WITCH (THE CHARLES MACHINE WORKS) (continued)*									
	T30DW014	RT115	TRENCHER, CHAIN TYPE CUTTER, 96" DEEP X 16" WIDE, 4X4 (W/BLADE, BHOE)	102 HP D-off		$137,251	43.94	6.99	11.99	0.99	12.05	80
	T30DW005	RT45	TRENCHER, CHAIN TYPE CUTTER, 63" DEEP X 12" WIDE, 4X4 (W/DBL PIVOT & H313 TRENCHER)	42 HP D-on		$41,099	15.65	2.26	3.91	0.30	5.79	42
	T30DW015	RT45	TRENCHER, CHAIN TYPE CUTTER, 52" DEEP X 12" WIDE, 4X4 (W/BLADE)	42 HP D-on		$43,599	16.21	2.40	4.16	0.32	5.79	42
	T30DW016	RT55	TRENCHER, CHAIN TYPE CUTTER, 62" DEEP X 12" WIDE, 4X4 (W/BLADE)	60 HP D-off		$74,320	24.30	3.39	5.69	0.54	7.09	95
	T30DW017	RT80	TRENCHER, CHAIN TYPE CUTTER, 62" DEEP X 12" WIDE, 4X4 (W/BLADE)	78 HP D-off		$88,515	29.84	4.20	7.11	0.64	9.21	69
	T30DW018	RT95M	TRENCHER, CHAIN TYPE CUTTER, 96" DEEP X 24" WIDE, 4X4 (W/BLADE)	99 HP D-off		$118,664	39.37	5.93	10.13	0.86	11.69	77
	T30DW011	HT220	TRENCHER, CHAIN TYPE CUTTER, 96" DEEP X 12"-24" WIDE, CRAWLER (W/BLADE)	220 HP D-off		$567,239	156.12	32.46	56.72	4.10	25.98	430
	T30DW010	RT95H	TRENCHER, CHAIN TYPE CUTTER, 96" DEEP X 24" WIDE, 4X4 (W/BLADE)	99 HP D-off		$120,085	39.69	6.01	10.27	0.87	11.69	77
			TESMEC USA, INC.									
	T30TM007	TRS 775	TRENCHER, CHAIN TYPE CUTTER, 4' DEEP X 12" WIDE, CRAWLER (W/CRUMBSHOE) SELF LEVEL, OFFSET	220 HP D-off		$526,016	146.88	30.10	52.60	3.80	25.98	450
	T30TM008	TRS 775	TRENCHER, CHAIN TYPE CUTTER, 6' DEEP X 18" WIDE, CRAWLER (W/CRUMBSHOE) SELF LEVEL, OFFSET	220 HP D-off		$529,469	147.66	30.31	52.95	3.83	25.98	470

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T30			*TESMEC USA, INC. (continued)*									
	T30TM012	TRS 1100	TRENCHER, CHAIN TYPE CUTTER, 8' DEEP X 26" WIDE, CRAWLER (W/CRUMBSHOE)	385 HP D-off		$902,075	252.92	51.63	90.21	6.52	45.47	850
	T30TM014	TRS 1475 XHP	TRENCHER, CHAIN TYPE CUTTER, 10' DEEP X 26" WIDE, CRAWLER (W/CRUMBSHOE)	525 HP D-off		$1,415,018	386.34	80.98	141.50	10.23	62.01	1,680
	T30TM013	TRS 1475 XHP	TRENCHER, CHAIN TYPE CUTTER, 14' DEEP X 42" WIDE, CRAWLER (W/CRUMBSHOE)	525 HP D-off		$1,478,039	400.47	84.59	147.80	10.69	62.01	1,680
	T30TM015	TRS 1475 XHP	TRENCHER, CHAIN TYPE CUTTER, 16' DEEP X 42" WIDE, CRAWLER (W/CRUMBSHOE)	525 HP D-off		$1,509,032	407.41	86.36	150.90	10.91	62.01	1,680
			VERMEER MANUFACTURING CO.									
	T30VE007	T 455	TRENCHER, CHAIN TYPE CUTTER, 6' DEEP X 8"-24" WIDE, CRAWLER, HYDROSTATIC	125 HP D-off		$209,132	63.34	11.97	20.91	1.51	14.76	180
	T30VE008	T 555 III	TRENCHER, CHAIN TYPE CUTTER, 8' DEEP X 8"-24" WIDE, CRAWLER, HYDROSTATIC	185 HP D-off		$265,713	83.94	15.21	26.57	1.92	21.85	225
	T30VE009	T 655 III	TRENCHER, CHAIN TYPE CUTTER, 8' DEEP X 10.5"-26" WIDE, CRAWLER, HYDROSTATIC	250 HP D-off		$428,305	128.96	24.52	42.83	3.10	29.53	500
	T30VE010	T 755 III	TRENCHER, CHAIN TYPE CUTTER, 10' DEEP X 14"-36" WIDE, CRAWLER, HYDROSTATIC	275 HP D-off		$523,139	153.49	29.94	52.31	3.78	32.48	660

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T35	**TRENCHERS, WHEEL TYPE CUTTER**											
	SUBCATEGORY 0.00		**TRENCHERS, WHEEL TYPE CUTTER**									
			CLEVELAND PACIFIC TRENCHER CO									
	T35CT001	9624	TRENCHER, WHEEL TYPE CUTTER, 72" DEEP X 21.5" WIDE, ROUND BUCKET, CRAWLER	140 HP D-off		$277,321	80.62	15.88	27.73	2.01	16.54	170
	T35CT002	9600-S	TRENCHER, WHEEL TYPE CUTTER, 72" DEEP X 24" WIDE, ROUND BUCKET, CRAWLER	140 HP D-off		$341,633	95.03	19.55	34.16	2.47	16.54	228
			PORT INDUSTRIES									
	T35PZ001	2600	TRENCHER, WHEEL TYPE CUTTER, 87" DEEP X 18"-32" WIDE, ROUND BUCKET, WHEELED	350 HP D-off		$398,060	134.44	21.55	37.34	2.88	41.34	460
	T35PZ002	2700	TRENCHER, WHEEL TYPE CUTTER, 87" DEEP X 18"-35" WIDE, ROUND BUCKET, WHEELED	425 HP D-off		$439,428	153.60	23.92	41.48	3.18	50.20	485
	T35PZ003	2710	TRENCHER, WHEEL TYPE CUTTER, 87" DEEP X 18"-40" WIDE, ROUND BUCKET, WHEELED	425 HP D-off		$457,737	157.70	24.97	43.31	3.31	50.20	490
	T35PZ004	2800	TRENCHER, CRAWLER TYPE CUTTER, 108" DEEP X 26"-48" WIDE, ROUND BUCKET, CRAWLER	425 HP D-off		$631,579	197.59	36.15	63.16	4.57	50.20	820

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T40	TRUCK OPTIONS											
	SUBCATEGORY 0.10		CRANES / HOISTS, PERSONNEL & MATERIAL HANDLING									
			FISCHER CRANE									
	T40FA001	808N	TRUCK OPTIONS, CRANE, HYDRAULIC, 3-ARM ARTICULATING, 3.25 TON, 29' BOOM (ADD 21,000 GVW TRUCK & FLATBED)			$32,424	7.02	1.85	3.24	0.23	0.00	24
	T40FA002	815	TRUCK OPTIONS, CRANE, HYDRAULIC, 3-ARM ARTICULATING, 5.6 TON, 33' BOOM (ADD 32,500 GVW TRUCK & FLATBED)			$41,340	8.89	2.37	4.13	0.30	0.00	32
	T40FA003	820	TRUCK OPTIONS, CRANE, HYDRAULIC, 3-ARM ARTICULATING, 9.4 TON, 33' BOOM (ADD 45,000 GVW TRUCK & FLATBED)			$56,763	12.12	3.25	5.68	0.41	0.00	32
			PALFINGER INC.									
	T40PA007	PK 22002-EH	TRUCK OPTIONS, CRANE, HYDRAULIC, 3-ARM ARTICULATING, 8.3 TON, 70' BOOM (ADD 30,000 GVW TRUCK & FLATBED)			$66,834	14.22	3.82	6.68	0.48	0.00	53
	T40PA001	PC 2700	TRUCK OPTIONS, CRANE, HYDRAULIC, 2-ARM ARTICULATING, 2.4 TON, 21' BOOM (ADD 25,000 GVW TRUCK & FLATBED)			$8,439	2.00	0.48	0.84	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)			$53,403	11.40	3.06	5.34	0.39	0.00	40
	T40PA004	PK 30002	TRUCK OPTIONS, CRANE, HYDRAULIC, 3-ARM ARTICULATING, 10 TON, 69' BOOM (ADD 52,000 GVW TRUCK & FLATBED)			$78,558	16.68	4.50	7.86	0.57	0.00	64
	T40PA005	PK 50002-EH	TRUCK OPTIONS, CRANE, HYDRAULIC, 2-ARM ARTICULATING, 12.5 TON, 82' BOOM (ADD 60,000 GVW TRUCK & FLATBED)			$124,510	26.29	7.13	12.45	0.90	0.00	107

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T40			*PALFINGER INC. (continued)*									
	T40PA006	PK 65002-SH	TRUCK OPTIONS, CRANE, HYDRAULIC, 2-ARM ARTICULATING, 22 TON, 82' BOOM (ADD 62,000 GVW TRUCK & FLATBED)			$155,836	32.84	8.92	15.58	1.13	0.00	126
	SUBCATEGORY 0.20		**DUMP BODY, REAR**									
			OX BODIES									
	T40OX001	MAVERICK	TRUCK OPTIONS, DUMP BODY, REAR, 10.0 CY, AIR GATE (W/HOIST) (ADD 35,000 GVW TRUCK)			$9,600	2.00	0.61	1.08	0.07	0.00	33
	T40OX002	MAVERICK	TRUCK OPTIONS, DUMP BODY, REAR, 8 CY, AIR GATE (W/HOIST) (ADD 30,000 GVW TRUCK)			$9,073	1.89	0.57	1.02	0.06	0.00	21
	T40OX003	STAMPEDE	TRUCK OPTIONS, DUMP BODY, REAR, 16 CY, AIR GATE (W/HOIST) (ADD 50,000 GVW TRUCK)			$17,379	3.63	1.10	1.96	0.12	0.00	35
	T40OX006	STAMPEDE	TRUCK OPTIONS, DUMP BODY, REAR, 20.0 CY, AIR GATE (W/HOIST) (ADD 50,000 GVW TRUCK)			$19,951	4.16	1.26	2.24	0.14	0.00	40
	SUBCATEGORY 0.30		**FLATBEDS, WITH SIDES**									
			KNAPHEIDE MANUFACTURING CO.									
	T40KF011	PVMXT-83C	TRUCK OPTIONS, FLATBED, W/40" SIDE RACKS, 8' X 8'			$5,766	1.06	0.33	0.58	0.04	0.00	11
	T40KF013	PVMXT-103C	TRUCK OPTIONS, FLATBED, W/40" SIDE RACKS, 8' X 10'			$6,141	1.12	0.35	0.61	0.04	0.00	14
	T40KF014	PVMXT-123C	TRUCK OPTIONS, FLATBED, W/40" SIDE RACKS, 8' X 12'			$6,929	1.27	0.40	0.69	0.05	0.00	16

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T40			*KNAPHEIDE MANUFACTURING CO. (continued)*									
	T40KF016	PVMXT-163C	TRUCK OPTIONS, FLATBED, W/40" SIDE RACKS, 8' X 16'			$8,628	1.58	0.49	0.86	0.06	0.00	16
	T40KF018	PVMXT-203C	TRUCK OPTIONS, FLATBED, W/40" SIDE RACKS, 8' X 20'			$10,405	1.91	0.60	1.04	0.08	0.00	18
	T40KF020	PVMXT-243	TRUCK OPTIONS, FLATBED, W/40" SIDE RACKS, 8' X 24'			$12,161	2.24	0.70	1.22	0.09	0.00	20
	SUBCATEGORY 0.41		**HOIST, ELECTRIC DRIVE**									
			KNAPHEIDE MANUFACTURING CO.									
	T40KF021	KH-1416L	TRUCK OPTIONS, HOIST, ELECTRIC DRIVE, PTO, 10' TO 14', 7-16 TON			$4,037	0.89	0.23	0.40	0.03	0.00	6
	T40KF023	KH-1416-EE	TRUCK OPTIONS, HOIST, ELECTRIC DRIVE, 10' TO 14', 7-16 TON			$3,566	0.76	0.21	0.36	0.03	0.00	6
	T40KF024	KH-1627L-EE	TRUCK OPTIONS, HOIST, ELECTRIC DRIVE, 15' TO 20', 14-37 TON			$3,640	0.76	0.21	0.36	0.03	0.00	10
	T40KF022	KH-2538L	TRUCK OPTIONS, HOIST, ELECTRIC DRIVE, PTO, 20' TO 24', 20-45 TON			$8,436	1.75	0.48	0.84	0.06	0.00	15
	SUBCATEGORY 0.50		**TRANSIT MIXERS**									
			NO SPECIFIC MANUFACTURER									
	T40XX034	RDTM-8	TRANSIT MIXER, 8 CY, HYDROSTATIC, (INCLUDES 60,000 GVW TRUCK)	235 HP D-on		$172,725	71.66	10.39	18.35	1.21	32.42	266
	T40XX035	9CY MIXER	TRANSIT MIXER, 9 CY, HYDROSTATIC, (INCLUDES 66,000 GVW TRUCK)	380 HP D-on		$167,904	93.73	9.57	16.77	1.18	52.42	270
	T40XX036	10CY MIXER	TRANSIT MIXER, 10 CY, HYDROSTATIC, (INCLUDES 66,000 GVW TRUCK)	285 HP D-on		$177,304	80.79	10.13	17.77	1.24	39.32	274

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T40			*NO SPECIFIC MANUFACTURER (continued)*									
	T40XX037	11CY MIXER	TRANSIT MIXER, 11 CY, HYDROSTATIC, (INCLUDES 70,000 GVW TRUCK)	410 HP D-on		$158,884	96.59	9.02	15.81	1.11	56.56	285
	T40XX038	12CY MIXER	TRANSIT MIXER, 12 CY, HYDROSTATIC, (INCLUDES 75,000 GVW TRUCK)	470 HP D-on		$201,341	114.52	11.66	20.49	1.41	64.84	295
	SUBCATEGORY 0.60		**WATER TANKS**									
			ROSCO, A LeeBoy COMPANY									
	T40RS001	DS 2000	TRUCK OPTIONS, WATER TANK, 2,000 GAL (ADD 28,000 GVW TRUCK)			$33,979	6.03	1.85	3.19	0.25	0.00	38
	T40RS002	DS 3000	TRUCK OPTIONS, WATER TANK, 3,000 GAL (ADD 40,000 GVW TRUCK)			$33,069	5.87	1.80	3.10	0.25	0.00	45
	T40RS003	DS 4000	TRUCK OPTIONS, WATER TANK, 4,000 GAL (ADD 50,000 GVW TRUCK)			$43,124	7.65	2.34	4.04	0.32	0.00	55
	SUBCATEGORY 0.70		**ALL OTHER OPTIONS**									
			ARROW-MASTER, INC.									
	T40AG001	1350T	TRUCK OPTIONS, GUILLOTINE CONCRETE BREAKER, W/8" DIA BREAKING TOOL AND CAB	80 HP D-off		$99,663	30.26	5.65	9.85	0.72	9.45	100

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T45	TRUCK TRAILERS											
	SUBCATEGORY 0.10		BOTTOM DUMP									
			MIDLAND MANUFACTURING INC.									
	T45MY004	40' MC 2000	TRUCK TRAILER, BOTTOM DUMP, 21 CY, 28 TON, 40' - 2 AXLE, CLAMSHELL (ADD TOWING TRUCK)			$37,277	6.90	1.70	2.90	0.25	0.00	152
	T45MY005	40' TC 3000	TRUCK TRAILER, BOTTOM DUMP, 21 CY, 30 TON, 40' - 3 AXLE, CLAMSHELL (ADD TOWING TRUCK)			$49,993	9.22	2.24	3.82	0.33	0.00	138
	T45MY006	38' MC 3000	TRUCK TRAILER, BOTTOM DUMP, 23 CY, 30 TON, 38' - 3 AXLE, CLAMSHELL (ADD TOWING TRUCK)			$51,358	9.46	2.32	3.95	0.34	0.00	145
	T45MY007	40' MC 3000	TRUCK TRAILER, BOTTOM DUMP, 23 CY, 30 TON, 40' - 3 AXLE, CLAMSHELL (ADD TOWING TRUCK)			$49,855	9.20	2.24	3.81	0.33	0.00	152
			TRAIL KING INDUSTRIES, INC.									
	T45TT001	TK BD22-362	TRUCK TRAILER, BOTTOM DUMP, 22 CY, 37' - 2 AXLE, CLAMSHELL (ADD TOWING TRUCK)			$42,898	7.83	2.00	3.44	0.28	0.00	122
	T45TT002	TK BD22-402	TRUCK TRAILER, BOTTOM DUMP, 22 CY, 40' - 2 AXLE, CLAMSHELL (ADD TOWING TRUCK)			$39,338	7.23	1.82	3.11	0.26	0.00	126
	T45TT003	TK BD22-403	TRUCK TRAILER, BOTTOM DUMP, 22 CY, 40' - 2 AXLE, CLAMSHELL (ADD TOWING TRUCK)			$44,018	8.02	2.06	3.54	0.29	0.00	146
	T45TT004	TK BD22-433	TRUCK TRAILER, BOTTOM DUMP, 22 CY, 43' - 3 AXLE, CLAMSHELL (ADD TOWING TRUCK)			$45,165	8.38	2.02	3.43	0.30	0.00	149

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			NO SPECIFIC MANUFACTURER									
	T45XX001	BD22.5-27	TRUCK TRAILER, BOTTOM DUMP, 22.5 CY, 27 TON (ADD TOWING TRUCK)			$46,496	8.54	2.19	3.76	0.31	0.00	122
	T45XX003	BD25-30	TRUCK TRAILER, BOTTOM DUMP, 25 CY, 30 TON (ADD TOWING TRUCK)			$56,145	10.14	2.69	4.63	0.37	0.00	160
	SUBCATEGORY 0.20		**END DUMP**									
			CANCADE									
	T45C6003	29' TANDEM	TRUCK TRAILER, END DUMP, 25 CY, DOUBLE AXLE, (W/HOIST) (ADD TOWING TRUCK)			$51,024	9.07	2.41	4.14	0.34	0.00	150
	T45C6004	33' TRIDEM	TRUCK TRAILER, END DUMP, 30 CY, 36 TON, 32' - 2 AXLE (W/HOIST) (ADD TOWING TRUCK)			$58,430	10.48	2.68	4.58	0.39	0.00	172
			MIDLAND MANUFACTURING INC.									
	T45MY015	28' SK2000	TRUCK TRAILER, END DUMP, 28 CY, 36 TON, 28' - 2 AXLE (W/HOIST) (ADD TOWING TRUCK)			$39,620	7.22	1.82	3.12	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)			$40,444	7.36	1.87	3.19	0.27	0.00	130
	T45MY017	39' SK 2300	TRUCK TRAILER, END DUMP, 39 CY, 50 TON, 39' - 3 AXLE (W/HOIST) (ADD TOWING TRUCK)			$44,983	8.29	1.99	3.37	0.30	0.00	170
			NO SPECIFIC MANUFACTURER									
	T45XX008	25CY END DUMP TRAILE	TRUCK TRAILER, END DUMP, 25 CY, 30 TON (ADD TOWING TRUCK)			$51,055	9.06	2.43	4.17	0.34	0.00	150

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.30		**PUP TRAILER**									
			CANCADE									
	T45C6001	14' PUP	TRUCK TRAILER, PUP TRAILER, 13 CY, 14', DOUBLE AXLE (W/HOIST) (ADD TOWING TRUCK)			$33,542	7.16	1.85	3.24	0.23	0.00	100
	T45C6002	17' PUP	TRUCK TRAILER, PUP TRAILER, 15 CY, 17', TRIPLE AXLE (W/HOIST) (ADD TOWING TRUCK)			$40,171	8.58	2.11	3.67	0.27	0.00	130
			MIDLAND MANUFACTURING INC.									
	T45MY018	14' SK 2100	TRUCK TRAILER, PUP TRAILER, 10 CY, 13 TON, 14' - 2 AXLE (W/HOIST) (ADD TOWING TRUCK)			$26,670	5.83	1.40	2.44	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)			$26,459	5.78	1.39	2.41	0.18	0.00	80
			NO SPECIFIC MANUFACTURER									
	T45XX009	PUP8CY	TRUCK TRAILER, PUP TRAILER, 13 CY, LONG TONGUE (ADD TOWING TRUCK)			$33,202	7.10	1.83	3.20	0.23	0.00	86
	T45XX010	15CY BELLY DUMP PUP	TRUCK TRAILER, PUP TRAILER, 15 CY, LONG TONGUE, BELLY DUMP (ADD TOWING TRUCK)			$72,612	14.82	4.29	7.59	0.49	0.00	130
	T45XX032	12CY PUP	TRUCK TRAILER, PUP TRAILER, 12 CY, 14.5 TON, 3 AXLE (ADD TOWING TRUCK)			$45,814	9.67	2.61	4.59	0.31	0.00	130
	T45XX033	14CY PUP	TRUCK TRAILER, PUP TRAILER, 14 CY, 18.0 TON, 4 AXLE (ADD TOWING TRUCK)			$54,897	11.63	3.08	5.41	0.37	0.00	100

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.41		**LOWBOY, RIGID NECK, DROP DECK**									
			EAGER BEAVER									
	T45EA006	35GSL-BR	TRUCK TRAILER, LOWBOY, 35 TON, 2 AXLE, DETATCHABLE GOOSENECK (ADD TOWING TRUCK)			$49,681	8.28	2.33	4.00	0.33	0.00	171
	T45EA007	50GSL-3	TRUCK TRAILER, LOWBOY, 50 TON, 3 AXLE , DETATCHABLE GOOSENECK (ADD TOWING TRUCK)			$72,623	11.90	3.40	5.84	0.48	0.00	205
			NO SPECIFIC MANUFACTURER									
	T45XX011	LBY-25	TRUCK TRAILER, LOWBOY, 25 TON, 2 AXLE (ADD TOWING TRUCK)			$18,486	3.42	0.80	1.35	0.12	0.00	109
	T45XX013	LBY-35	TRUCK TRAILER, LOWBOY, 35 TON, 2 AXLE (ADD TOWING TRUCK)			$37,690	6.26	1.80	3.09	0.25	0.00	135
	T45XX015	LBY-40	TRUCK TRAILER, LOWBOY, 40 TON, 3 AXLE (ADD TOWING TRUCK)			$74,042	12.05	3.51	6.03	0.49	0.00	136
	T45XX016	LBY-55	TRUCK TRAILER, LOWBOY, 55 TON, 3 AXLE (ADD TOWING TRUCK)			$82,105	13.34	3.86	6.64	0.54	0.00	145
	T45XX017	LBY-60	TRUCK TRAILER, LOWBOY, 60 TON, 4 AXLE (ADD TOWING TRUCK)			$154,617	23.80	7.73	13.41	1.02	0.00	175
	T45XX018	LBY-65	TRUCK TRAILER, LOWBOY, 65 TON, 4 AXLE (ADD TOWING TRUCK)			$169,161	25.95	8.48	14.72	1.12	0.00	213
	T45XX019	75T LOWBOY TRAILER	TRUCK TRAILER, LOWBOY, 75 TON, 3 AXLE (ADD TOWING TRUCK)			$309,357	47.47	15.30	26.49	2.05	0.00	220
	T45XX020	80T LOWBOY TRAILER	TRUCK TRAILER, LOWBOY, 80 TON, 4 AXLE (ADD TOWING TRUCK)			$198,264	30.84	9.73	16.83	1.31	0.00	268
	T45XX023	120T LOWBOY TRAILER	TRUCK TRAILER, LOWBOY, 120 TON, 4 AXLE (ADD TOWING TRUCK)			$408,844	62.57	20.25	35.10	2.70	0.00	350

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.50		**FLATBED TRAILER**									
			NO SPECIFIC MANUFACTURER									
	T45XX025	25T FLATBED TRAILER	TRUCK TRAILER, FLATBED, 25 TON, 2 AXLE (ADD TOWING TRUCK)			$24,976	4.10	1.14	1.94	0.17	0.00	110
	T45XX035	40T FLATBED TRAILER	TRUCK TRAILER, FLATBED, 40 TON, 2 AXLE (ADD TOWING TRUCK)			$29,846	5.12	1.38	2.36	0.20	0.00	110
	SUBCATEGORY 0.60		**MISCELLANEOUS / UTILITY**									
			NO SPECIFIC MANUFACTURER									
	T45XX026	10T TILT BED TRAILER	TRUCK TRAILER, MISCELLANEOUS/UTILITY, TILT BED, 10 TON, 2 AXLE (ADD TOWING TRUCK)			$14,834	2.71	0.71	1.21	0.10	0.00	57
	T45XX027	15T TILT BED TRAILER	TRUCK TRAILER, MISCELLANEOUS/UTILITY, TILT BED, 15 TON, 2 AXLE (ADD TOWING TRUCK)			$13,574	2.71	0.55	0.91	0.09	0.00	65
	T45XX028	TILT BED, 20T TRAILE	TRUCK TRAILER, MISCELLANEOUS/UTILITY, TILT BED, 20 TON, 2 AXLE (ADD TOWING TRUCK)			$22,503	4.03	1.01	1.71	0.15	0.00	83
	T45XX024	50T UTILITY TRAILER	TRUCK TRAILER, MISCELLANEOUS/UTILITY, 50 TON TRAILER MAX (ADD TOWING TRUCK)			$41,575	6.57	1.98	3.39	0.28	0.00	80
	SUBCATEGORY 0.70		**WATER TANKER TRAILER**									
			NO SPECIFIC MANUFACTURER									
	T45XX029	4K GAL, WATER TRAILE	TRUCK TRAILER, WATER TANKER, 4,000 GAL (ADD TOWING TRUCK)			$61,285	9.16	2.54	4.17	0.45	0.00	170

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CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T45			*NO SPECIFIC MANUFACTURER (continued)*									
	T45XX030	5K GAL, WATER TRAILE	TRUCK TRAILER, WATER TANKER, 5,000 GAL (ADD TOWING TRUCK)			$63,927	9.54	2.66	4.37	0.47	0.00	240
	T45XX031	6K GAL, WATER TRAILE	TRUCK TRAILER, WATER TANKER, 6,000 GAL (ADD TOWING TRUCK)			$65,273	9.73	2.72	4.47	0.48	0.00	250
	SUBCATEGORY 0.90		**TANK TRAILERS**									
			GRACO, INC.									
	T45G1001	REACTOR 2H-30	FOAM SPRAY RIG, UP TO 52 LB/MIN, 40KW GENERATOR & 100 CFM COMPRESSOR INCLUDED, MOUNTED WITHIN ENCLOSED TRAILER	75 HP D-on		$74,158	22.81	3.30	5.51	0.54	10.35	160
	T45G1002	REACTOR 2E-30	FOAM SPRAY RIG, UP TO 30 LB/MIN, 40 KW GENERATOR & 60 CFM COMPRESSOR INCLUDED, MOUNTED WITHIN ENCLOSED TRAILER	75 HP D-on		$67,113	21.73	2.98	4.98	0.49	10.35	140
T50	**TRUCKS, HIGHWAY (Add attachments as required)**											
	SUBCATEGORY 0.01		**0 THRU 10,000 GVW**									
			GENERAL MOTORS									
	T50GM001	SILVERADO 1500	TRUCK, HIGHWAY, 6,500 GVW, 4X2	285 HP G		$24,744	17.64	1.39	2.41	0.18	11.37	26
	T50GM004	SUBURBAN 2500	TRUCK, HIGHWAY, 8,600 GVW, 4X2 (SUBURBAN)	355 HP G		$40,987	24.07	2.26	3.92	0.30	14.16	50
	T50GM005	SUBURBAN 2500	TRUCK, HIGHWAY, 8,600 GVW, 4X4 (SUBURBAN)	355 HP G		$43,559	24.59	2.40	4.18	0.31	14.16	52

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			NO SPECIFIC MANUFACTURER									
	T50XX001	4X2 1/2 TON CONV GAS	TRUCK, HIGHWAY, CONVENTIONAL, 1/2 TON PICKUP, 4X2	385 HP G		$26,045	22.36	1.46	2.54	0.19	15.36	43
	T50XX002	4X2 3/4 TON CONV GAS	TRUCK, HIGHWAY, CONVENTIONAL, 3/4 TON PICKUP, 4X2	385 HP G		$29,756	23.10	1.68	2.91	0.22	15.36	60
	T50XX003	4X2 1 TON CONV GAS	TRUCK, HIGHWAY, CONVENTIONAL, 1 TON PICKUP, 4X2	385 HP G		$30,854	23.31	1.73	3.02	0.22	15.36	66
	T50XX004	4X4 1/2 TON CONV GAS	TRUCK, HIGHWAY, CONVENTIONAL, 1/2 TON PICKUP, 4X4	385 HP G		$30,988	23.34	1.74	3.03	0.22	15.36	45
	T50XX005	4X4 3/4 TON CONV GAS	TRUCK, HIGHWAY, CONVENTIONAL, 3/4 TON PICKUP, 4X4	385 HP G		$32,587	23.66	1.84	3.19	0.24	15.36	64
	T50XX006	4X4 1 TON CONV GAS	TRUCK, HIGHWAY, CONVENTIONAL, 1 TON PICKUP, 4X4	385 HP G		$33,615	23.87	1.89	3.30	0.24	15.36	65
	T50XX007	4X2 1/2 TON CREW GAS	TRUCK, HIGHWAY, CREW, 1/2 TON PICKUP, 4X2	385 HP G		$32,856	23.71	1.85	3.22	0.24	15.36	47
	T50XX008	4X2 3/4 TON CREW GAS	TRUCK, HIGHWAY, CREW, 3/4 TON PICKUP, 4X2	385 HP G		$34,784	24.08	1.96	3.41	0.25	15.36	66
	T50XX009	4X2 1 TON CREW GAS	TRUCK, HIGHWAY, CREW, 1 TON PICKUP, 4X2	385 HP G		$34,609	24.06	1.95	3.40	0.25	15.36	66
	T50XX010	4X4 1/2 TON CREW GAS	TRUCK, HIGHWAY, CREW, 1/2 TON PICKUP, 4X4	385 HP G		$36,675	24.51	2.06	3.57	0.27	15.36	50
	T50XX011	4X4 3/4 TON CREW GAS	TRUCK, HIGHWAY, CREW, 3/4 TON PICKUP, 4X4	385 HP G		$37,162	24.57	2.10	3.65	0.27	15.36	70
	T50XX012	4X4 1 TON CREW GAS	TRUCK, HIGHWAY, CREW, 1 TON PICKUP, 4X4	385 HP G		$37,926	24.72	2.14	3.73	0.27	15.36	70
	T50XX014	4X2 3/4 TON CONV DSL	TRUCK, HIGHWAY, CONVENTIONAL, 3/4 TON PICKUP, 4X2	440 HP D-on		$38,670	22.79	2.18	3.80	0.28	13.71	66

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T50			*NO SPECIFIC MANUFACTURER (continued)*									
	T50XX015	4X2 1 TON CONV DSL	TRUCK, HIGHWAY, CONVENTIONAL, 1 TON PICKUP, 4X2	440 HP D-on		$39,848	23.05	2.24	3.89	0.29	13.71	67
	T50XX017	4X4 3/4 TON CONV DSL	TRUCK, HIGHWAY, CONVENTIONAL, 3/4 TON PICKUP, 4X4	440 HP D-on		$41,548	23.37	2.35	4.09	0.30	13.71	70
	T50XX018	4X4 1 TON CONV DSL	TRUCK, HIGHWAY, CONVENTIONAL, 1 TON PICKUP, 4X4	440 HP D-on		$42,499	23.57	2.41	4.19	0.31	13.71	71
	T50XX019	4X2 3/4 TON CREW DSL	TRUCK, HIGHWAY, CREW, 3/4 TON PICKUP, 4X2	440 HP D-on		$40,746	23.22	2.28	3.98	0.29	13.71	73
	T50XX020	4X4 3/4 TON CREW DSL	TRUCK, HIGHWAY, CREW, 3/4 TON PICKUP 4X4	440 HP D-on		$44,759	24.00	2.53	4.41	0.32	13.71	77
	T50XX021	4X2 1 TON CREW DSL	TRUCK, HIGHWAY, CREW, 1 TON PICKUP, 4X2	440 HP D-on		$42,621	23.58	2.41	4.20	0.31	13.71	74
	SUBCATEGORY 0.02		**OVER 10,000 THRU 30,000 GVW (Chassis only - Add options)**									
			NO SPECIFIC MANUFACTURER									
	T50XX023	4X2 20KGVW GAS	TRUCK, HIGHWAY, 20,000 LBS GVW, 2 AXLE, 4X2 (CHASSIS ONLY-ADD OPTIONS)	362 HP G		$36,870	43.00	1.64	2.76	0.26	33.01	70
	T50XX024	4X2 26KGVW GAS	TRUCK, HIGHWAY, 26,000 LBS GVW, 2 AXLE, 4X2 (CHASSIS ONLY-ADD OPTIONS)	320 HP G		$59,724	42.26	2.71	4.57	0.42	29.18	72
	T50XX022	4X2 25KGVW DSL	TRUCK, HIGHWAY, 25,000 LBS GVW, 2 AXLE, 4X2 (CHASSIS ONLY-ADD OPTIONS)	270 HP D-on		$70,087	33.80	3.15	5.29	0.50	20.43	88
	T50XX025	4X4 30KGVW DSL	TRUCK, HIGHWAY, 30,000 LBS GVW, 2 AXLE, 4X4 (CHASSIS ONLY-ADD OPTIONS)	170 HP D-on		$84,444	27.52	3.88	6.55	0.60	12.86	97
	T50XX026	4X2 32KGVW DSL	TRUCK, HIGHWAY, 32,000 LBS GVW, 2 AXLE, 4X2 (CHASSIS ONLY-ADD OPTIONS)	270 HP D-on		$69,230	33.66	3.10	5.22	0.49	20.43	105

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T50			*NO SPECIFIC MANUFACTURER (continued)*									
	T50XX035	4X2 32KGVW DSL	TRUCK, HIGHWAY, 32,000 LBS GVW, 2 AXLE, 4X2, WITH A QT-EQUIPMENT ARTICULATING CRANE, 3.5 TON, 32' BOOM, WITH 8' X 20' FLATBED	270 HP D-on		$107,378	39.55	4.90	8.27	0.76	20.43	135
	SUBCATEGORY 0.03		**OVER 30,000 GVW (Chassis only - Add options)**									
			NO SPECIFIC MANUFACTURER									
	T50XX027	4X2 35KGVW DSL	TRUCK, HIGHWAY, 35,000 LBS GVW, 2 AXLE, 4X2 (CHASSIS ONLY-ADD OPTIONS)	265 HP D-on		$93,415	44.08	3.63	5.96	0.65	28.30	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		$84,867	42.96	3.29	5.39	0.59	28.30	160
	T50XX028	6X4 45KGVW DSL	TRUCK, HIGHWAY, 45,000 LBS GVW, 3 AXLE, 6X4 (CHASSIS ONLY-ADD OPTIONS)	230 HP D-on		$104,714	41.62	4.00	6.54	0.73	24.56	135
	T50XX029	6X4 55KGVW DSL	TRUCK, HIGHWAY, 50,000 LBS GVW, 3 AXLE, 6X4 (CHASSIS ONLY-ADD OPTIONS)	310 HP D-on		$114,309	52.41	4.39	7.18	0.80	33.11	144
	T50XX030	6X6 70KGVW DSL	TRUCK, HIGHWAY, 70,000 LBS GVW, 3 AXLE, 6X6 (CHASSIS ONLY-ADD OPTIONS)	350 HP D-on		$157,802	62.83	6.14	10.08	1.10	37.38	180
	T50XX031	6X4 75KGVW DSL	TRUCK, HIGHWAY, 75,000 LBS GVW, 3 AXLE, 6X4 (CHASSIS ONLY-ADD OPTIONS)	400 HP D-on		$128,384	64.96	4.95	8.12	0.89	42.72	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		$159,263	68.97	6.20	10.17	1.11	42.72	240

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T55	**TRUCKS, OFF-HIGHWAY**											
	SUBCATEGORY 0.10		**RIGID FRAME**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	T55CA007	770	TRUCK, OFF-HIGHWAY, RIGID FRAME, 31.7 CY, 41.6 TON, 4X4, REAR DUMP	487 HP D-off		$696,996	114.35	18.45	27.80	4.55	31.54	668
	T55CA002	773F	TRUCK, OFF-HIGHWAY, RIGID FRAME, 46.9 CY, 57.7 TON, 4X4, REAR DUMP	650 HP D-off		$912,380	142.58	24.00	36.07	5.96	42.10	872
	T55CA003	777G	TRUCK, OFF-HIGHWAY, RIGID FRAME, 78.6 CY, 100 TON, 4X4, REAR DUMP	938 HP D-off		$1,334,775	210.97	34.51	51.59	8.71	60.75	1,419
			KOMATSU AMERICA INTERNATIONAL COMPANY									
	T55KM009	HD325-7	TRUCK, OFF-HIGHWAY, RIGID FRAME, 31.4 CY, 44 TON, 4X4, REAR DUMP	518 HP D-off		$678,550	115.59	17.94	27.01	4.43	33.55	1,547
	T55KM012	HD785-7	TRUCK, OFF-HIGHWAY, RIGID FRAME, 78.5 CY, 100 TON, 4X4, REAR DUMP	1,200 HP D-off		$1,221,048	220.63	31.35	46.76	7.97	77.72	3,660
	T55KM014	730E	TRUCK, OFF-HIGHWAY, RIGID FRAME, 145 CY, 205 TON, 4X4, REAR DUMP	2,000 HP D-off		$2,864,346	469.34	71.58	105.76	18.70	129.54	7,150
			WACKER CORPORATION									
	T55WC001	DUMPER 3001	TRUCK, OFF-HIGHWAY, RIGID FRAME, 1.7 CY, 3.3 TON, 4X4, REAR DUMP	34 HP D-off		$48,260	7.29	1.32	1.99	0.32	2.20	56
	SUBCATEGORY 0.20		**ARTICULATED FRAME**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	T55CA001	725C	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 19.6 CY, 26 TON, 6X6, REAR DUMP	320 HP D-off		$423,904	94.12	16.04	26.39	2.84	29.26	512

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T55			*CATERPILLAR INC. (MACHINE DIVISION) (continued)*									
	T55CA004	730C	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 23 CY, 31 TON, 6X6, REAR DUMP	375 HP D-off		$493,933	109.02	18.79	30.97	3.30	34.29	531
	T55CA005	735C	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 26.8 CY, 36 TON, 6X6, REAR DUMP	452 HP D-off		$685,456	146.16	25.88	42.57	4.59	41.33	693
	T55CA006	740B	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 31.4 CY, 43.5 TON, 6X6, REAR DUMP	484 HP D-off		$680,625	150.57	25.44	41.78	4.55	44.26	753
	T55CA008	745C	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 32.7 CY, 45.2 TON, 6X6, REAR DUMP	511 HP D-off		$730,593	159.99	27.42	45.05	4.89	46.73	737
	T55CA014	725	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 18 CY, 25 TON, 6X6, REAR DUMP	214 HP D-off		$393,970	78.21	14.89	24.49	2.64	19.57	424
	T55CA015	730	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 22 CY, 30 TON, 4X4, REAR DUMP	285 HP D-off		$450,658	91.50	17.33	28.62	3.02	26.06	473
	T55CA016	735	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 22 CY, 30 TON, 6X6, REAR DUMP	260 HP D-off		$545,015	107.67	20.35	33.39	3.65	23.77	488
	T55CA017	735B	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 25 CY, 35 TON, 6X6, REAR DUMP	355 HP D-off		$617,832	126.87	23.21	38.15	4.13	32.46	667
	T55CA018	740	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 28 CY, 40 TON, 6X6, REAR DUMP	405 HP D-off		$634,666	144.03	22.54	36.58	4.25	37.03	698

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
			JOHN DEERE									
	T55JD001	250D-II	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 18 CY, 25 TON, 6X6, REAR DUMP	265 HP D-off		$393,056	84.21	14.82	24.38	2.63	24.23	355
	T55JD002	300D-II	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 22 CY, 29 TON, 6X6, REAR DUMP	285 HP D-off		$436,260	92.01	16.52	27.20	2.92	26.06	401
	T55JD003	370E	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 26.8 CY, 37 TON, 6X6, REAR DUMP	380 HP D-off		$585,275	124.95	21.93	36.02	3.92	34.75	571
	T55JD004	410E	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 29.7 CY, 41 TON, 6X6, REAR DUMP	413 HP D-off		$635,157	136.73	23.66	38.81	4.25	37.76	635
			KOMATSU AMERICA INTERNATIONAL COMPANY									
	T55KM015	HM300-5	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 22.4 CY, 31 TON, 6 X 6, REAR DUMP	332 HP D-off		$544,447	111.28	20.78	34.27	3.64	30.36	1,179
	T55KM016	HM400-5	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 31.4 CY, 44.1 TON, 6 X 6, REAR DUMP	473 HP D-off		$767,980	160.60	28.89	47.49	5.14	43.25	1,626
			VOLVO CONSTRUCTION EQUIPMENT GROUP									
	T55VO002	A-25E 4X4	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 14-18 CY, 25 TON, 4X4, REAR DUMP	299 HP D-off		$400,360	86.25	15.41	25.45	2.68	27.34	429
	T55VO003	A-25E	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 14-18 CY, 25 TON, 6X6, REAR DUMP	299 HP D-off		$422,288	90.66	16.09	26.52	2.83	27.34	475

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T55			*VOLVO CONSTRUCTION EQUIPMENT GROUP (continued)*									
	T55VO005	A-30E	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 17-22 CY, 30 TON, 6X6, REAR DUMP	336 HP D-off		$498,366	113.61	17.86	29.05	3.33	30.72	508
	T55VO004	A-35E	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 19-25 CY, 35 TON, 6X6, REAR DUMP	414 HP D-off		$616,362	132.51	23.15	38.06	4.12	37.86	620
	T55VO006	A-40E	TRUCK, OFF-HIGHWAY, ARTICULATED FRAME, 21-29 CY, 40 TON, 6X6, REAR DUMP	464 HP D-off		$684,073	156.54	24.49	39.81	4.58	42.43	666
T57	TRUCKS, VACUUM											
	SUBCATEGORY 0.00		**TRUCKS, VACUUM**									
			WASTEQUIP CUSCO INDUSTRIES									
	T57CU001	INDUSTRIAL VAC 130	TRAILER, VACUUM, 5,500 GAL, 750 CFM, REAR DOOR & HYDRAULIC DUMP SYSTEM	76 HP D-on		$135,470	34.82	6.35	10.78	0.96	10.48	76
	T57CU002	SS INDUST. VAC 130	TRAILER, VACUUM, 5,500 GAL, 750 CFM, STAINLESS STEEL, REAR DOOR & HYDRAULIC DUMP SYSTEM	76 HP D-on		$166,208	40.00	7.80	13.24	1.18	10.48	76
	T57CU003	TVAC3600TPMBUS	TRUCK, VACUUM, 3,600 GAL, 2,600 CFM, REAR DOOR & HYDRAULIC DUMP SYSTEM, INCLUDES TRUCK CHASSIS	300 HP D-on		$337,256	104.64	15.80	26.81	2.39	41.39	230
	T57CU004	TV3600721TPMU	TRUCK, VACUUM, 3,600 GAL, 3,000 CFM, REAR DOOR & HYDRAULIC DUMP SYSTEM, INCLUDES TRUCK CHASSIS	300 HP D-on		$314,419	100.79	14.72	24.98	2.23	41.39	200

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T57			*WASTEQUIP CUSCO INDUSTRIES (continued)*									
	T57CU005	TV3200721TPMU	TRUCK, VACUUM, 3,200 GAL, 3,000 CFM, REAR DOOR & HYDRAULIC DUMP SYSTEM, INCLUDES TRUCK CHASSIS	300 HP D-off		$293,785	90.65	13.75	23.33	2.08	35.43	190
T60	**TRUCKS, WATER, OFF-HIGHWAY**											
	SUBCATEGORY 0.00		**TRUCKS, WATER, OFF-HIGHWAY**									
			CATERPILLAR INC. (MACHINE DIVISION)									
	T60CA001	725C2 & 6K TANK	TRUCK, WATER, OFF-HIGHWAY, 6K GAL, W/CAT 725C2 TRUCK	320 HP D-off		$502,479	114.89	19.53	32.06	3.50	37.80	512
	T60CA002	740B & 8K TANK	TRUCK, WATER, OFF-HIGHWAY, 8K GAL, W/CAT 740B TRUCK	489 HP D-off		$760,937	177.30	29.19	47.78	5.30	57.76	758
	T60CA003	745C & 9K TANK	TRUCK, WATER, OFF-HIGHWAY, 9K GAL, W/ CAT 745C ARTICULATED TRUCK	511 HP D-off		$648,535	166.53	24.66	40.28	4.52	60.35	736
	T60CA004	770G & 10K TANK	TRUCK, WATER, OFF-HIGHWAY, 10K GAL, W/CAT 770G TRUCK	511 HP D-off		$724,177	175.65	27.67	45.24	5.05	60.35	722
	T60CA005	773G & 12K TANK	TRUCK, WATER, OFF-HIGHWAY, 12K GAL, W/CAT 773G TRUCK	775 HP D-off		$1,023,009	245.65	38.98	63.69	7.13	91.54	1,005
	T60CA006	775G & 14K TANK	TRUCK, WATER, OFF-HIGHWAY, 14K GAL, W/CAT 775G TRUCK	825 HP D-off		$1,075,020	259.28	41.07	67.16	7.49	97.44	1,040
			KLEIN PRODUCTS, INC.									
	T60KI001	KT-50	TRUCK, WATER, OFF-HIGHWAY, 5,000 GAL, W/CAT 621G TRACTOR	330 HP D-off		$478,310	119.12	17.46	28.25	3.33	38.98	320
	T60KI002	KT-60	TRUCK, WATER, OFF-HIGHWAY, 6,000 GAL, W/CAT 621G TRACTOR	330 HP D-off		$350,385	102.04	12.30	19.72	2.44	38.98	580

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
T60			*KLEIN PRODUCTS, INC. (continued)*									
	T60KI003	KT-80	TRUCK, WATER, OFF-HIGHWAY, 8,000 GAL, W/CAT 631G TRACTOR	462 HP D-off		$489,763	136.88	18.15	29.48	3.41	54.57	751
	T60KI004	KT-100	TRUCK, WATER, OFF-HIGHWAY, 10,000 GAL, W/CAT 631G TRACTOR	462 HP D-off		$688,667	163.43	26.17	42.74	4.80	54.57	811
	T60KI006	KT-140	TRUCK, WATER, OFF-HIGHWAY, 14,000 GAL, W/CAT 651G TRACTOR	564 HP D-off		$1,012,262	220.26	39.22	64.31	7.06	66.61	1,097
T65	TUNNEL/MINING EQUIPMENT											
	SUBCATEGORY 0.10		**DRIFTING & TUNNELING DRILLS**									
			ATLAS COPCO WAGNER									
	T65WG015	E2C	TUNNELING DRILL, 2 BOOM, 1,205 SF CROSS SECTION, RUBBER TIRED (ADD DRILL BITS AND DRILL STEEL COST)	212 HP E	161 HP D-off	$1,192,917	235.37	43.78	71.68	7.94	50.15	816
	T65WG016	WE3 C	TUNNELING DRILL, 4 BOOM, 700-2,015 SF CROSS SECTION, RUBBER TIRED (ADD DRILL BITS AND DRILL STEEL COST)	313 HP E	241 HP D-off	$1,632,491	329.65	60.06	98.37	10.87	74.12	981
	T65WG017	XE3C	TUNNELING DRILL, 4 BOOM, 2,130 SF CROSS SECTION, RUBBER TIRED (ADD DRILL BITS AND DRILL STEEL COST)	313 HP E	241 HP D-off	$1,637,143	330.28	60.23	98.66	10.90	74.12	981
	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	$1,887,691	309.89	69.51	113.87	12.57	38.20	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	$2,837,341	436.47	104.65	171.52	18.89	38.20	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	$3,091,043	545.97	114.05	186.93	20.58	88.42	1,058

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
W25	**WATER & CO2 BLASTERS**											
	SUBCATEGORY 0.10		**LOW PRESSURE, (< 5,000 PSI)**									
			SIOUX STEAM CLEANER CORPORATION									
	W25SD006	S1.7 D250	WATER BLASTER, LOW PRESSURE, STEAM CLEANER, 100 GPH, 250 PSI, 1.7 GPM	1 HP E		$6,533	7.56	0.71	1.31	0.05	0.26	4
	W25SD007	S2 D250	WATER BLASTER, LOW PRESSURE, STEAM CLEANER, 120 GPH, 250 PSI, 2.0 GPM	1 HP E		$6,967	8.77	0.76	1.39	0.06	0.26	5
	W25SD008	S2.7 D250	WATER BLASTER, LOW PRESSURE, STEAM CLEANER, 160 GPH, 250 PSI, 2.7 GPM	1 HP E		$7,583	10.07	0.82	1.52	0.06	0.26	6
	W25SD001	C-4-E 2000	WATER BLASTER, LOW PRESSURE, COLD WATER, 2,000 PSI, 4 GPM	5 HP E		$6,134	4.84	0.67	1.23	0.05	1.30	4
	W25SD005	C-4-G 2800	WATER BLASTER, LOW PRESSURE, COLD WATER, 2,800 PSI, 4 GPM	12 HP G		$7,175	6.74	0.78	1.44	0.06	2.94	4
	W25SD003	C-5-G 3400	WATER BLASTER, LOW PRESSURE, COLD WATER, 3,400 PSI, 5 GPM	18 HP G		$9,506	9.49	1.03	1.90	0.08	4.41	5
	W25SD004	H3.5*3000	WATER BLASTER, LOW PRESSURE, HOT WATER, 3,000 PSI, 3.5 GPM, TRAILER MTD	8 HP G		$13,918	8.88	1.48	2.74	0.11	1.96	6
	W25SD009	SF11	WATER BLASTER, LOW PRESSURE, STEAM GENERATOR, 15 PSI, 355 LB/HR STEAM, 55 GAL BOILER	11 HP E		$16,777	18.23	1.81	3.36	0.13	2.86	9
	W25SD002	EN-140-H4-1800	WATER BLASTER, LOW PRESSURE, HOT WATER, 1,800 PSI, 2.3 GPM	3 HP E		$15,817	8.81	1.71	3.16	0.13	0.78	7
			NO SPECIFIC MANUFACTURER									
	W25XX005	ET-301109D	PRESSURE WASHER, LOW PRESSURE, COLD WATER, 1,000 PSI, 3 GPM	2 HP E		$1,600	1.52	0.17	0.32	0.01	0.52	1

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
W25			*NO SPECIFIC MANUFACTURER (continued)*									
	W25XX006	1710	PRESSURE WASHER, LOW PRESSURE, COLD WATER, 1,000 PSI, 2.75 GPM	2 HP E		$2,497	1.96	0.27	0.50	0.02	0.52	2
	W25XX007	1720	PRESSURE WASHER, LOW PRESSURE, COLD WATER, 2,000 PSI, 3.9 GPM	6 HP E		$3,291	3.82	0.36	0.66	0.03	1.56	3
	W25XX008	1745	PRESSURE WASHER, LOW PRESSURE, COLD WATER, 3,000 PSI, 4.8 GPM	10 HP E		$3,664	5.47	0.40	0.73	0.03	2.60	3
	W25XX009	680SS	PRESSURE WASHER, LOW PRESSURE, HOT WATER/STEAM, 1,000 PSI, 3 GPM (OIL FIRED)	2 HP E		$4,090	6.81	0.44	0.82	0.03	0.52	4
	W25XX010	1833SS	PRESSURE WASHER, LOW PRESSURE, HOT WATER/STEAM, 3,000 PSI, 6 GPM (OIL FIRED	15 HP E		$11,737	15.32	1.27	2.35	0.09	3.90	10
	SUBCATEGORY 0.20		**HIGH PRESSURE, (>= 5,000 PSI)**									
			NLB CORPORATION									
	W25NL001	6205E	WATER BLASTER, HIGH PRESSURE, 6,000 PSI, 55 GPM, SKID MTD, W/MODEL 225 PUMP	200 HP E		$96,081	123.01	10.38	19.22	0.77	52.06	76
	W25NL003	20145D	WATER BLASTER, HIGH PRESSURE, 20,000 PSI, 10 GPM, SKID MTD, W/MODEL 125 PUMP	152 HP D-off		$74,021	67.07	7.99	14.80	0.59	26.06	78
	W25NL002	20350D	WATER BLASTER, HIGH PRESSURE, 20,000 PSI, 26 GPM, TRAILER MTD W/MODEL 225 PUMP	400 HP D-off		$126,500	141.48	13.66	25.30	1.01	68.58	140
	W25NL005	20755D	WATER BLASTER, HIGH PRESSURE, 20,000 PSI, 56 GPM, SKID MTD	750 HP D-off		$373,204	335.10	40.30	74.64	2.98	128.59	200

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CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
	SUBCATEGORY 0.30		**STEAM CLEANERS**									
			ALKOTA CLEANING SYSTEMS, INC.									
	W25AO002	122	WATER BLASTER, OIL FIRED, STEAM CLEANER, 400 PSI, 1.7 GPM (ADD COST FOR HEATING OIL)	1 HP E		$4,555	3.34	0.50	0.91	0.04	0.26	4
	W25AO003	181	WATER BLASTER, LP FIRED, STEAM CLEANER, 250 PSI, 3.0 GPM (ADD COST FOR HEATING LP)	2 HP E		$8,187	5.49	0.89	1.64	0.07	0.52	6
	W25AO004	240	WATER BLASTER, OIL FIRED, STEAM CLEANER, 350 PSI, 4.0 GPM (ADD COST FOR HEATING OIL)	2 HP E		$6,914	5.11	0.75	1.38	0.06	0.52	7
	W25AO005	301	WATER BLASTER, LP FIRED, STEAM CLEANER, 400 PSI, 5.0 GPM (ADD COST FOR HEATING LP)	4 HP E		$14,087	9.84	1.52	2.82	0.11	1.04	14
	W25AO006	241	WATER BLASTER, LP FIRED, STEAM GENERATOR, 100 PSI, 1.0 GPM (ADD COST FOR HEATING LP)	2 HP E		$9,829	6.29	1.07	1.97	0.08	0.52	8
	SUBCATEGORY 0.40		**CO2 BLASTERS**									
			COLD JET									
	W25CJ001	P750B	CARBON DIOXIDE (CO2) BLASTER/PELLETIZER, 600 LBS/HR, SINGLE HOSE DELIVERY (ADD 65-100 CFM COMPRESSOR)	20 HP E		$88,703	33.36	6.58	11.83	0.66	3.84	34
	W25CJ002	P1500B	CARBON DIOXIDE (CO2) BLASTER/PELLETIZER, 1,200 LBS/HR, SINGLE HOSE DELIVERY (ADD 65-150 CFM COMPRESSOR)	24 HP E		$134,124	48.60	9.94	17.88	1.00	4.60	37

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
W25			*COLD JET (continued)*									
	W25CJ003	P3000B	CARBON DIOXIDE (CO2) BLASTER/PELLETIZER, 1,200 LBS/HR, DUAL HOSE DELIVERY (ADD 65-200 CFM COMPRESSOR)	24 HP E		$216,831	74.27	16.08	28.91	1.62	4.60	66
	SUBCATEGORY 0.50		**WET ABRASIVE BLASTING SYSTEM (TORBO)**									
			KEIZER TECHNOLOGIES AMERICAS, INC									
	W25KZ001	TORBO M120	WATER BLASTER, WET ABRASIVE BLASTER, 4.2 CF TANK CAP, 170 PSI, (INCLUDES HOSES & NOZZLE, ADD 350 CFM AIR COMPRESSOR)	A		$21,517	2.70	0.87	1.40	0.17	0.00	4
	W25KZ006	TORBO XL320	WATER BLASTER, WET ABRASIVE BLASTER, 19.0 CF TANK CAP, 170 PSI, (INCLUDES HOSES & NOZZLE, ADD 385 CFM AIR COMPRESSOR)	A		$33,570	4.06	1.35	2.18	0.26	0.00	9
W30	**WATER TANKS**											
	SUBCATEGORY 0.10		**PORTABLE WITH WHEELS**									
			KLEIN PRODUCTS, INC.									
	W30KI007	KPT-100	WATER TANK, PORTABLE, TRAILER MTD, SELF ELEVATING, 10,000 GAL, 10" PIPE	6 HP G		$53,699	7.97	2.07	3.40	0.37	0.92	170
	W30KI008	KPT-120	WATER TANK, PORTABLE, TRAILER MTD, SELF ELEVATING, 12,000 GAL, 10" PIPE	6 HP G		$54,064	8.03	2.10	3.43	0.38	0.92	185

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
W35	WELDERS											
	SUBCATEGORY 0.10		**ENGINE DRIVEN**									
			NO SPECIFIC MANUFACTURER									
	W35XX020	GAS 140 AC-CC	WELDER, ENGINE DRIVEN, GAS, AC, 140 AMP, 4 KW, PORTABLE, SKID MTD	9 HP G		$1,640	2.35	0.09	0.15	0.01	1.85	2
	W35XX021	GAS 225 DC-CC/CV	WELDER, ENGINE DRIVEN, GAS, AC/DC-CC, 225 AMP, 10.5 KW, PORTABLE, SKID MTD	23 HP G		$3,518	5.89	0.20	0.33	0.03	4.72	6
	W35XX022	GAS 250 AC/DC-CC/CV	WELDER, ENGINE DRIVEN, GAS, AC/DC-CC/CV, 250 AMP, 11 KW, TRAILER MTD	23 HP G		$6,065	6.37	0.33	0.55	0.05	4.72	6
	W35XX023	DIESEL 300 DC-CC	WELDER, ENGINE DRIVEN, DIESEL, DC-CC, 300 AMP, 3 KW, TRAILER MTD	25 HP D-off		$18,590	7.58	1.00	1.72	0.14	3.58	19
	W35XX024	DIESEL 450 DC-CC/CV	WELDER, ENGINE DRIVEN, DIESEL, DC-CC/CV, 450 AMP, 12 KW, TRAILER MTD	33 HP D-off		$18,354	8.80	0.99	1.70	0.14	4.73	17
	W35XX025	DIESEL 500 DC-CC/CV	WELDER, ENGINE DRIVEN, DIESEL, DC-CC/CV, 500 AMP, 13 KW, TRAILER MTD	45 HP D-off		$22,523	11.58	1.22	2.09	0.17	6.52	18
	SUBCATEGORY 0.20		**ELECTRIC DRIVEN**									
			LINCOLN ELECTRIC COMPANY									
	W35LC021	Tomahawk 1000	WELDER, ELECTRIC DRIVEN, 60 AMP, PLASMA CUTTER WITH 25' HAND TORCH	20 HP E		$3,119	3.02	0.23	0.42	0.02	1.64	1
	W35LC018	SP-180T	WELDER, ELECTRIC DRIVEN, 30-180 AMP, WIRE FEEDER	5 HP E		$877	0.78	0.07	0.12	0.01	0.41	1

Table 2-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

CAT	REGION 12 ID.NO.	MODEL	EQUIPMENT DESCRIPTION	ENGINE HORSEPOWER AND FUEL TYPE MAIN	CARRIER	VALUE (TEV) 2013 ($)	TOTAL HOURLY RATES ($/HR) AVERAGE	STANDBY	ADJUSTABLE ELEMENTS DEPR	FCCM	FUEL	CWT
W35			*LINCOLN ELECTRIC COMPANY (continued)*									
	W35LC012	IDEAL ARC R3R-400	WELDER, ELECTRIC DRIVEN, 400 AMP, STICK	35 HP E		$4,994	5.21	0.38	0.67	0.04	2.88	5
	W35LC013	IDEAL ARC R3R-500	WELDER, ELECTRIC DRIVEN, 500 AMP, STICK	41 HP E		$5,355	5.97	0.40	0.71	0.04	3.37	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 12		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
A10																	
	A10AR001	0.47	0.03	0.00	0.00	0.00	0.00	0.36	0.86								
	A10AR002	2.29	0.13	0.00	0.20	0.00	0.00	1.75	4.37								
	A10PV001	0.52	0.03	0.00	0.00	0.00	0.00	0.40	0.95								
	A10RS003	14.57	1.07	20.73	2.06	0.47	0.07	14.00	52.97								
	A10RS004	14.70	1.08	20.73	2.06	0.47	0.07	14.13	53.24								
	A10RS005	14.76	1.09	20.73	2.06	0.47	0.07	14.18	53.36								
	A10RS006	14.78	1.09	20.73	2.06	0.47	0.07	14.20	53.40								
	A10RS007	14.97	1.10	20.73	2.06	0.47	0.07	14.39	53.79								
	A10SE001	1.81	0.10	0.00	0.00	0.00	0.00	1.39	3.30								
	A10SE002	2.13	0.12	0.00	0.00	0.00	0.00	1.64	3.89								
	A10SE003	2.94	0.17	0.00	0.00	0.00	0.00	2.26	5.37								
A15																	
	A15DP001	2.38	0.21	7.85	0.91	0.04	0.01	2.27	13.67								
	A15DP002	5.37	0.48	22.43	2.61	0.04	0.01	5.14	36.08								
	A15DP003	6.61	0.59	27.71	3.23	0.06	0.01	6.32	44.53								
	A15DP004	6.61	0.59	27.71	3.23	0.06	0.01	6.32	44.53								
	A15DP010	16.36	1.46	64.08	7.46	0.24	0.04	15.64	105.28								
	A15DP011	6.91	0.62	27.71	3.23	0.09	0.01	6.61	45.18								
	A15DP012	10.17	0.90	43.25	5.04	0.12	0.02	9.72	69.22								
	A15DP013	10.17	0.90	43.25	5.04	0.12	0.02	9.72	69.22								
	A15DP014	12.52	1.11	48.86	5.69	0.12	0.02	11.96	80.28								
	A15DP015	12.52	1.11	48.86	5.69	0.12	0.02	11.96	80.28								
	A15DP016	22.73	2.02	79.55	9.26	0.11	0.02	21.71	135.40								
	A15DP017	2.95	0.26	10.15	1.18	0.05	0.01	2.82	17.42								
	A15SR002	26.73	2.37	74.07	8.62	0.21	0.03	25.54	137.57								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
A15	***cont.***																
	A15SR004	2.10	0.19	8.37	0.97	0.03	0.00	2.01	13.67								
	A15SR005	2.78	0.25	10.15	1.18	0.05	0.01	2.66	17.08								
	A15SR006	1.01	0.09	10.42	1.21	0.06	0.01	0.97	13.77								
	A15SR007	1.01	0.09	10.56	1.23	0.06	0.01	0.97	13.93								
	A15SR008	5.22	0.47	16.73	1.95	0.14	0.02	5.00	29.53								
	A15SR009	5.22	0.47	16.73	1.95	0.14	0.02	5.00	29.53								
	A15SR010	14.13	1.26	41.15	4.79	0.34	0.05	13.52	75.24								
	A15SR011	15.10	1.35	41.15	4.79	0.34	0.05	14.45	77.23								
	A15SR012	15.10	1.35	41.15	4.79	0.34	0.05	14.45	77.23								
	A15SR013	24.68	2.19	65.15	7.59	0.14	0.02	23.58	123.35								
	A15SR014	24.66	2.19	74.07	8.62	0.21	0.03	23.57	133.35								
	A15XX019	1.08	0.10	4.07	0.54	0.00	0.00	1.03	6.82								
	A15XX020	0.74	0.07	3.49	0.46	0.00	0.00	0.71	5.47								
	A15XX021	1.08	0.10	2.88	0.34	0.04	0.01	1.03	5.48								
	A15XX022	1.93	0.17	4.80	0.56	0.06	0.01	1.85	9.38								
	A15XX023	1.38	0.12	12.60	1.67	0.06	0.01	1.32	17.16								
	A15XX024	2.17	0.19	6.86	0.80	0.06	0.01	2.08	12.17								
	A15XX025	1.51	0.14	11.63	1.55	0.06	0.01	1.44	16.34								
	A15XX026	2.44	0.22	9.60	1.12	0.06	0.01	2.34	15.79								
	A15XX027	1.57	0.14	17.44	2.32	0.06	0.01	1.50	23.04								
	A15XX028	2.37	0.21	6.72	0.78	0.06	0.01	2.27	12.42								
	A15XX029	1.69	0.15	13.57	1.80	0.06	0.01	1.62	18.90								
	A15XX030	2.94	0.26	10.15	1.18	0.06	0.01	2.82	17.42								
	A15XX031	5.94	0.53	16.73	1.95	0.07	0.01	5.68	30.91								
	A15XX032	5.37	0.48	19.20	2.24	0.06	0.01	5.13	32.49								
	A15XX033	6.61	0.59	23.73	2.76	0.07	0.01	6.32	40.09								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
A15	***cont.***																
	A15XX034	14.98	1.34	41.15	4.79	0.34	0.05	14.34	76.99								
	A15XX035	10.18	0.90	37.03	4.31	0.09	0.01	9.73	62.25								
	A15XX036	10.18	0.90	37.03	4.31	0.09	0.01	9.73	62.25								
	A15XX037	12.41	1.11	42.52	4.95	0.34	0.05	11.88	73.26								
	A15XX038	15.98	1.43	41.15	4.79	0.34	0.05	15.29	79.03								
	A15XX039	24.66	2.19	65.15	7.59	0.28	0.04	23.58	123.49								
	A15XX040	22.55	2.01	68.58	7.98	0.34	0.05	21.57	123.08								
	A15XX041	0.14	0.01	1.03	0.12	0.00	0.00	0.11	1.41								
	A15XX042	0.17	0.02	1.03	0.12	0.00	0.00	0.13	1.47								
	A15XX043	0.20	0.02	1.37	0.16	0.00	0.00	0.16	1.91								
	A15XX044	0.66	0.06	2.06	0.24	0.00	0.00	0.51	3.53								
	A15XX045	0.84	0.08	3.43	0.40	0.00	0.00	0.65	5.40								
	A15XX046	0.91	0.09	4.11	0.48	0.00	0.00	0.71	6.30								
A20																	
	A20B1001	3.55	0.17	0.00	0.00	0.00	0.00	6.04	9.76								
	A20CK001	0.25	0.01	0.00	0.12	0.00	0.00	0.42	0.80								
	A20CK002	0.14	0.01	0.00	0.10	0.00	0.00	0.24	0.49								
	A20CK003	0.28	0.01	0.00	0.17	0.00	0.00	0.47	0.93								
	A20CK005	0.39	0.02	0.00	0.19	0.00	0.00	0.66	1.26								
	A20CK006	0.15	0.01	0.00	0.15	0.00	0.00	0.26	0.57								
	A20CK008	0.21	0.01	0.00	0.20	0.00	0.00	0.36	0.78								
	A20CK010	0.23	0.01	0.00	0.25	0.00	0.00	0.38	0.87								
	A20CM010	0.83	0.04	0.00	0.06	0.00	0.00	1.41	2.34								
	A20CM011	0.91	0.04	0.00	0.06	0.00	0.00	1.54	2.55								
	A20CM012	1.02	0.05	0.00	0.13	0.00	0.00	1.74	2.94								
	A20CM013	4.13	0.20	0.00	0.28	0.11	0.02	7.04	11.78								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
A20	***cont.***																
	A20CM014	4.57	0.22	0.00	0.41	0.11	0.02	7.78	13.11								
	A20CM015	4.88	0.24	0.00	0.50	0.11	0.02	8.32	14.07								
	A20CM017	0.19	0.01	0.00	0.00	0.00	0.00	0.33	0.53								
	A20CM018	0.19	0.01	0.00	0.00	0.00	0.00	0.33	0.53								
	A20CM019	0.25	0.01	0.00	0.00	0.00	0.00	0.45	0.71								
	A20CM020	0.20	0.01	0.00	0.00	0.00	0.00	0.36	0.57								
	A20WC002	0.22	0.01	0.36	0.31	0.00	0.00	0.37	1.27								
	A20WC004	0.64	0.03	0.67	0.09	0.00	0.00	1.08	2.51								
	A20XX001	0.19	0.01	0.00	0.00	0.00	0.00	0.30	0.50								
	A20XX002	0.21	0.01	0.00	0.00	0.00	0.00	0.35	0.57								
	A20XX003	0.27	0.01	0.00	0.00	0.00	0.00	0.43	0.71								
	A20XX004	0.34	0.01	0.00	0.00	0.00	0.00	0.55	0.90								
	A20XX005	0.49	0.01	0.00	0.00	0.00	0.00	0.78	1.28								
	A20XX006	0.85	0.02	0.00	0.00	0.00	0.00	1.37	2.24								
	A20XX007	0.73	0.02	0.00	0.00	0.00	0.00	1.18	1.93								
	A20XX008	2.61	0.07	0.00	0.00	0.00	0.00	4.20	6.88								
	A20XX021	0.24	0.01	0.00	0.00	0.00	0.00	0.41	0.66								
	A20XX022	0.20	0.01	0.00	0.00	0.00	0.00	0.34	0.55								
	A20XX023	0.25	0.01	0.00	0.00	0.00	0.00	0.42	0.68								
	A20XX024	0.26	0.01	0.00	0.00	0.00	0.00	0.45	0.72								
	A20XX025	0.39	0.02	0.00	0.00	0.00	0.00	0.67	1.08								
	A20XX026	0.14	0.01	0.00	0.00	0.00	0.00	0.24	0.39								
A25																	
	A25RS006	13.67	0.64	0.00	1.16	0.00	0.00	13.19	28.66								
	A25RS008	14.80	0.70	0.00	1.80	0.00	0.00	14.27	31.57								
	A25XX001	11.41	0.54	0.00	0.64	0.00	0.00	11.00	23.59								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
A25	***cont.***																
	A25XX002	13.74	0.65	0.00	1.51	0.00	0.00	13.25	29.15								
	A25XX003	14.82	0.70	0.00	2.09	0.00	0.00	14.30	31.91								
A30																	
	A30BG003	38.94	2.80	29.02	4.88	5.25	0.77	47.42	129.08								
	A30BG004	41.76	2.75	14.51	3.19	0.00	0.00	50.16	112.37								
	A30BG005	44.43	2.93	29.02	4.88	0.00	0.00	53.37	134.63								
	A30BK018	45.03	2.97	23.84	2.78	0.00	0.00	54.09	128.71								
	A30BK023	38.46	2.53	18.78	2.19	0.00	0.00	46.19	108.15								
	A30CA001	33.71	2.25	18.39	2.14	1.41	0.21	40.57	98.68								
	A30CA002	29.59	2.10	22.54	2.62	4.29	0.63	35.94	97.71								
	A30CA003	37.87	2.53	18.39	2.14	1.41	0.21	45.57	108.12								
	A30CA007	21.81	1.97	12.64	1.47	0.80	0.12	22.36	61.17								
	A30CA008	39.39	2.75	29.02	3.38	4.46	0.66	47.73	127.39								
	A30CA013	37.39	2.46	22.54	2.62	0.00	0.00	44.91	109.92								
	A30CA016	53.60	3.53	29.15	3.39	0.00	0.00	64.38	154.05								
	A30GC002	4.62	0.30	3.24	0.38	0.00	0.00	5.55	14.09								
	A30GC004	6.63	0.44	5.31	0.62	0.00	0.00	7.96	20.96								
	A30JP001	0.56	0.05	0.00	0.00	0.00	0.00	0.57	1.18								
	A30JP002	1.63	0.14	0.00	0.00	0.00	0.00	1.66	3.43								
	A30LD001	15.49	1.40	15.35	1.79	1.13	0.17	15.89	51.22								
	A30MP001	18.71	1.26	10.36	1.21	0.48	0.07	22.54	54.63								
	A30MP002	20.12	1.35	12.95	1.51	0.63	0.09	24.25	60.90								
	A30RT001	33.32	3.14	35.43	4.12	6.98	1.03	34.46	118.48								
	A30RT007	37.80	3.42	35.43	4.12	2.35	0.35	38.77	122.24								
	A30WR001	12.87	1.15	13.58	1.58	0.15	0.02	13.17	42.52								
	A30WR002	34.60	3.23	35.43	4.12	6.43	0.95	35.74	120.50								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
A30	***cont.***																
	A30XX001	12.84	1.37	12.15	1.19	0.58	0.09	9.06	37.28								
	A30XX002	17.57	1.84	12.15	1.19	0.00	0.00	12.34	45.09								
A35																	
	A35AE001	0.59	0.04	0.84	2.06	0.09	0.01	0.63	4.26								
	A35AE002	0.75	0.04	0.84	2.76	0.03	0.00	0.78	5.20								
	A35AE003	1.00	0.06	0.84	3.11	0.03	0.00	1.03	6.07								
	A35AE004	1.23	0.07	0.84	4.01	0.03	0.00	1.27	7.45								
	A35AE005	1.45	0.09	0.84	6.21	0.07	0.01	1.50	10.17								
A40																	
	A40CA001	54.35	3.05	38.58	4.49	0.00	0.00	69.37	169.84								
	A40CA008	89.01	4.99	98.58	11.48	0.00	0.00	113.60	317.66								
	A40CA009	103.91	5.83	111.44	12.97	0.00	0.00	132.62	366.77								
	A40CW001	122.42	6.87	162.88	18.96	0.00	0.00	156.23	467.36								
	A40RT008	56.17	3.15	55.72	6.49	0.00	0.00	71.68	193.21								
	A40RT009	57.22	3.21	55.72	6.49	0.00	0.00	73.03	195.67								
	A40RT010	71.10	3.99	106.30	12.38	0.00	0.00	90.74	284.51								
	A40RT011	83.08	4.66	120.02	13.97	0.00	0.00	106.03	327.76								
	A40RT012	99.39	5.57	120.02	13.97	0.00	0.00	126.84	365.79								
A45																	
	A45AE001	2.09	0.10	0.00	7.10	0.04	0.01	2.41	11.75								
	A45AE002	3.19	0.16	0.00	14.25	0.07	0.01	3.69	21.37								
	A45AE003	7.39	0.36	0.00	16.85	0.07	0.01	8.51	33.19								
	A45RS001	12.49	0.60	8.74	1.52	0.06	0.01	14.37	37.79								
	A45RS002	32.86	1.58	34.06	4.47	0.00	0.00	37.75	110.72								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
A45	***cont.***																
	A45SE003	7.54	0.37	3.54	2.41	0.08	0.01	8.68	22.63								
	A45SE004	4.45	0.23	2.19	0.79	0.18	0.03	5.18	13.05								
B10																	
	B10CC007	7.06	0.52	3.03	3.40	0.17	0.02	9.05	23.25								
	B10CC008	5.94	0.48	27.41	7.14	1.11	0.16	7.75	49.99								
	B10CC009	7.22	0.58	33.63	8.22	1.35	0.20	9.42	60.62								
	B10CC010	8.18	0.64	33.63	8.47	1.11	0.16	10.61	62.80								
	B10CC012	2.56	0.18	3.03	1.15	0.00	0.00	3.26	10.18								
	B10CC013	3.35	0.24	3.03	1.20	0.00	0.00	4.27	12.09								
	B10CC014	0.59	0.04	0.89	0.92	0.00	0.00	0.75	3.19								
	B10CC015	1.76	0.17	2.85	2.33	0.56	0.08	2.38	10.13								
	B10CL006	24.49	1.83	21.37	11.99	0.88	0.13	31.45	92.14								
	B10CL015	28.12	2.09	5.34	5.00	0.80	0.12	36.07	77.54								
	B10CL021	9.44	0.72	6.23	2.91	0.51	0.07	12.17	32.05								
	B10CL025	49.65	3.60	35.62	16.65	0.18	0.03	63.41	169.14								
	B10CL027	4.70	0.34	0.00	0.00	0.00	0.00	6.00	11.04								
	B10CL032	0.61	0.04	1.78	0.83	0.00	0.00	0.77	4.03								
	B10CL034	1.21	0.09	3.56	1.66	0.00	0.00	1.55	8.07								
	B10CL036	0.51	0.04	1.42	0.66	0.00	0.00	0.65	3.28								
	B10CL040	0.70	0.05	3.56	1.66	0.00	0.00	0.89	6.86								
	B10CL042	0.46	0.03	0.89	0.42	0.00	0.00	0.59	2.39								
	B10CL045	0.62	0.05	1.78	0.83	0.00	0.00	0.79	4.07								
	B10EM001	48.64	3.61	4.20	3.06	1.50	0.22	62.42	123.65								
	B10EM002	3.29	0.24	1.78	1.83	0.07	0.01	4.22	11.44								
	B10EM003	3.63	0.26	0.00	0.00	0.00	0.00	4.63	8.52								
	B10KJ001	27.57	2.50	23.15	10.82	0.95	0.14	35.36	100.49								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
B10	***cont.***																
	B10KJ002	27.19	2.47	39.18	18.32	1.04	0.15	34.89	123.24								
	B10RC006	21.48	1.61	8.10	8.29	0.85	0.12	27.62	68.07								
	B10RC007	16.26	1.20	2.67	3.75	0.28	0.04	20.83	45.03								
	B10RC008	28.12	2.07	5.34	5.00	0.57	0.08	36.02	77.20								
	B10RC016	26.57	1.98	13.36	11.75	0.89	0.13	34.12	88.80								
	B10RC027	16.98	1.23	7.12	5.33	0.00	0.00	21.67	52.33								
	B10RC028	19.08	1.38	10.69	7.25	0.00	0.00	24.35	62.75								
	B10RC029	21.57	1.56	14.25	9.16	0.00	0.00	27.52	74.06								
	B10RC030	23.50	1.70	17.81	12.08	0.00	0.00	30.00	85.09								
	B10RC031	24.82	1.79	21.37	13.99	0.00	0.00	31.68	93.65								
	B10RC032	23.61	1.77	8.91	8.67	0.89	0.13	30.33	74.31								
	B10SN031	7.93	0.63	4.45	3.43	0.83	0.12	10.32	27.71								
	B10SN032	18.67	1.41	8.01	5.49	0.85	0.12	24.03	58.58								
	B10SN033	15.91	1.20	5.34	4.00	0.81	0.12	20.49	47.87								
	B10SN034	17.75	1.34	3.56	3.16	0.85	0.12	22.86	49.64								
	B10SN035	18.74	1.41	5.34	4.15	0.85	0.12	24.12	54.73								
B15																	
	B15BM001	6.48	0.39	11.04	1.29	0.00	0.00	5.86	25.06								
	B15EC001	31.34	1.91	10.33	1.20	0.72	0.11	28.38	73.99								
	B15EC002	21.27	1.30	11.81	1.38	0.37	0.05	19.26	55.44								
	B15EC003	30.29	1.85	31.73	3.69	0.72	0.11	27.43	95.82								
	B15EC004	32.45	1.95	22.00	2.56	0.00	0.00	29.35	88.31								
	B15LS001	2.87	0.18	3.42	0.40	0.09	0.01	2.60	9.57								
	B15LS002	5.68	0.35	10.21	1.19	0.12	0.02	5.14	22.71								
	B15MB001	0.88	0.05	0.00	0.10	0.00	0.00	0.80	1.83								
	B15MB002	0.85	0.05	0.00	0.14	0.00	0.00	0.77	1.81								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
B15	***cont.***																
	B15MB003	1.85	0.11	0.00	0.24	0.00	0.00	1.67	3.87								
	B15MB004	2.73	0.17	4.04	0.40	0.04	0.01	2.48	9.87								
	B15RS001	5.93	0.36	10.21	1.19	0.09	0.01	5.37	23.16								
	B15RS005	7.50	0.46	10.21	1.19	0.13	0.02	6.79	26.30								
	B15TB001	2.68	0.17	4.37	0.51	0.16	0.02	2.44	10.35								
	B15TB002	2.70	0.17	4.37	0.51	0.16	0.02	2.45	10.38								
B20																	
	B20BN001	1.51	0.09	4.54	0.60	0.03	0.00	1.54	8.31								
	B20BN002	2.52	0.15	5.79	0.67	0.03	0.00	2.57	11.73								
	B20BN003	4.68	0.28	14.29	1.90	0.03	0.00	4.77	25.95								
	B20BN005	4.95	0.30	21.86	2.90	0.03	0.00	5.04	35.08								
	B20BN006	7.34	0.44	25.16	2.93	0.03	0.00	7.47	43.37								
	B20BN007	7.51	0.46	20.43	2.38	0.10	0.01	7.65	38.54								
	B20MQ001	5.53	0.33	17.93	2.09	0.04	0.01	5.63	31.56								
	B20MQ003	6.73	0.41	20.55	2.39	0.13	0.02	6.86	37.09								
	B20MQ004	8.38	0.52	32.48	3.78	0.26	0.04	8.55	54.01								
	B20MQ005	17.72	1.08	47.24	7.00	0.26	0.04	18.06	91.40								
B25																	
	B25HB001	2.93	0.18	0.00	0.00	0.00	0.00	2.31	5.42	3.61	0.18	0.00	0.00	0.00	0.00	3.24	7.03
	B25HB003	3.19	0.19	0.00	0.00	0.00	0.00	2.51	5.89	3.93	0.20	0.00	0.00	0.00	0.00	3.53	7.66
	B25HB005	3.36	0.20	0.00	0.00	0.00	0.00	2.64	6.20	4.13	0.21	0.00	0.00	0.00	0.00	3.72	8.06
	B25HB007	4.02	0.24	0.00	0.00	0.00	0.00	3.16	7.42	4.95	0.25	0.00	0.00	0.00	0.00	4.45	9.65
	B25HB008	4.16	0.25	0.00	0.00	0.00	0.00	3.27	7.68	5.12	0.26	0.00	0.00	0.00	0.00	4.60	9.98
	B25HB009	4.36	0.26	0.00	0.00	0.00	0.00	3.43	8.05	5.37	0.27	0.00	0.00	0.00	0.00	4.82	10.46
	B25HB010	5.06	0.30	0.00	0.00	0.00	0.00	3.98	9.34	6.22	0.31	0.00	0.00	0.00	0.00	5.59	12.12

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
B25	***cont.***																
	B25HB011	5.28	0.32	0.00	0.00	0.00	0.00	4.15	9.75	6.50	0.33	0.00	0.00	0.00	0.00	5.84	12.67
	B25HB012	5.39	0.32	0.00	0.00	0.00	0.00	4.24	9.95	6.63	0.33	0.00	0.00	0.00	0.00	5.96	12.92
	B25HB013	5.51	0.33	0.00	0.00	0.00	0.00	4.34	10.18	6.78	0.34	0.00	0.00	0.00	0.00	6.10	13.22
	B25HB014	6.05	0.36	0.00	0.00	0.00	0.00	4.76	11.17	7.45	0.38	0.00	0.00	0.00	0.00	6.70	14.53
	B25HB015	6.26	0.38	0.00	0.00	0.00	0.00	4.93	11.57	7.71	0.39	0.00	0.00	0.00	0.00	6.93	15.03
	B25XX001	2.10	0.13	0.00	0.00	0.00	0.00	1.65	3.88	2.58	0.13	0.00	0.00	0.00	0.00	2.32	5.03
	B25XX002	2.27	0.14	0.00	0.00	0.00	0.00	1.79	4.20	2.80	0.14	0.00	0.00	0.00	0.00	2.51	5.45
	B25XX003	2.45	0.15	0.00	0.00	0.00	0.00	1.93	4.53	3.02	0.15	0.00	0.00	0.00	0.00	2.71	5.88
	B25XX004	2.63	0.16	0.00	0.00	0.00	0.00	2.07	4.86	3.23	0.16	0.00	0.00	0.00	0.00	2.91	6.30
	B25XX005	2.76	0.17	0.00	0.00	0.00	0.00	2.17	5.10	3.40	0.17	0.00	0.00	0.00	0.00	3.06	6.63
	B25XX006	3.22	0.19	0.00	0.00	0.00	0.00	2.53	5.94	3.96	0.20	0.00	0.00	0.00	0.00	3.56	7.72
	B25XX007	3.34	0.20	0.00	0.00	0.00	0.00	2.63	6.17	4.12	0.21	0.00	0.00	0.00	0.00	3.70	8.03
	B25XX008	3.72	0.22	0.00	0.00	0.00	0.00	2.93	6.87	4.58	0.23	0.00	0.00	0.00	0.00	4.12	8.93
	B25XX009	4.39	0.26	0.00	0.00	0.00	0.00	3.45	8.10	5.40	0.27	0.00	0.00	0.00	0.00	4.85	10.52
	B25XX010	4.64	0.28	0.00	0.00	0.00	0.00	3.65	8.57	5.71	0.29	0.00	0.00	0.00	0.00	5.13	11.13
	B25XX011	5.04	0.30	0.00	0.00	0.00	0.00	3.97	9.31	6.21	0.31	0.00	0.00	0.00	0.00	5.58	12.10
	B25XX012	5.49	0.33	0.00	0.00	0.00	0.00	4.32	10.14	6.75	0.34	0.00	0.00	0.00	0.00	6.07	13.16
	B25XX013	6.52	0.39	0.00	0.00	0.00	0.00	5.13	12.04	8.02	0.40	0.00	0.00	0.00	0.00	7.21	15.63
	B25XX014	6.87	0.41	0.00	0.00	0.00	0.00	5.40	12.68	8.45	0.43	0.00	0.00	0.00	0.00	7.60	16.48
	B25XX015	7.02	0.42	0.00	0.00	0.00	0.00	5.53	12.97	8.65	0.44	0.00	0.00	0.00	0.00	7.77	16.86
	B25XX016	7.31	0.44	0.00	0.00	0.00	0.00	5.75	13.50	9.00	0.45	0.00	0.00	0.00	0.00	8.09	17.54
	B25XX017	7.76	0.47	0.00	0.00	0.00	0.00	6.11	14.34	9.55	0.48	0.00	0.00	0.00	0.00	8.59	18.62
	B25XX018	8.15	0.49	0.00	0.00	0.00	0.00	6.41	15.05	10.03	0.50	0.00	0.00	0.00	0.00	9.02	19.55
	B25XX019	8.42	0.51	0.00	0.00	0.00	0.00	6.63	15.56	10.37	0.52	0.00	0.00	0.00	0.00	9.32	20.21
B30																	
	B30CR001	0.42	0.02	0.00	0.00	0.00	0.00	0.36	0.80								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
B30	***cont.***																
	B30CR002	0.46	0.03	0.00	0.00	0.00	0.00	0.39	0.88								
	B30CR003	0.51	0.03	0.00	0.00	0.00	0.00	0.43	0.97								
	B30CR004	0.56	0.03	0.00	0.00	0.00	0.00	0.48	1.07								
	B30CR005	0.70	0.04	0.00	0.00	0.00	0.00	0.59	1.33								
	B30CR006	0.83	0.05	0.00	0.00	0.00	0.00	0.70	1.58								
	B30CR009	0.85	0.05	0.00	0.00	0.00	0.00	0.73	1.63								
	B30CR010	1.02	0.06	0.00	0.00	0.00	0.00	0.87	1.95								
	B30CR011	1.18	0.07	0.00	0.00	0.00	0.00	1.01	2.26								
	B30CR012	1.44	0.08	0.00	0.00	0.00	0.00	1.23	2.75								
	B30GB001	0.55	0.03	0.00	0.00	0.00	0.00	0.41	0.99								
	B30GB002	0.71	0.04	0.00	0.00	0.00	0.00	0.53	1.28								
	B30GB003	0.87	0.05	0.00	0.00	0.00	0.00	0.65	1.57								
	B30GB004	1.26	0.07	0.00	0.00	0.00	0.00	0.94	2.27								
	B30GB005	1.50	0.08	0.00	0.00	0.00	0.00	1.12	2.70								
	B30GB006	3.43	0.19	0.00	0.00	0.00	0.00	2.74	6.36								
	B30GB007	3.72	0.21	0.00	0.00	0.00	0.00	2.97	6.90								
	B30GB008	4.11	0.23	0.00	0.00	0.00	0.00	3.29	7.63								
	B30GB009	4.57	0.25	0.00	0.00	0.00	0.00	3.65	8.47								
	B30GB010	5.80	0.32	0.00	0.00	0.00	0.00	4.63	10.75								
	B30GB011	2.22	0.12	0.00	0.00	0.00	0.00	1.89	4.23								
	B30GB012	2.31	0.13	0.00	0.00	0.00	0.00	1.96	4.40								
	B30GB013	2.39	0.13	0.00	0.00	0.00	0.00	2.04	4.56								
	B30GB014	3.16	0.17	0.00	0.00	0.00	0.00	2.69	6.02								
	B30GB015	3.27	0.18	0.00	0.00	0.00	0.00	2.78	6.23								
	B30GB016	5.45	0.30	0.00	0.00	0.00	0.00	4.64	10.39								
	B30GB017	5.92	0.33	0.00	0.00	0.00	0.00	5.04	11.29								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
B30	***cont.***																
	B30GB018	0.45	0.02	0.00	0.00	0.00	0.00	0.33	0.80								
B35																	
	B35HE001	0.96	0.06	0.00	0.00	0.00	0.00	0.75	1.77	1.18	0.06	0.00	0.00	0.00	0.00	1.06	2.30
	B35HE002	1.12	0.07	0.00	0.00	0.00	0.00	0.88	2.07	1.38	0.07	0.00	0.00	0.00	0.00	1.24	2.69
	B35HE003	1.59	0.10	0.00	0.00	0.00	0.00	1.25	2.94	1.95	0.10	0.00	0.00	0.00	0.00	1.76	3.81
	B35HE004	1.92	0.12	0.00	0.00	0.00	0.00	1.51	3.55	2.36	0.12	0.00	0.00	0.00	0.00	2.12	4.60
	B35HE005	2.20	0.13	0.00	0.00	0.00	0.00	1.73	4.06	2.70	0.14	0.00	0.00	0.00	0.00	2.43	5.27
	B35HE006	2.74	0.16	0.00	0.00	0.00	0.00	2.15	5.05	3.37	0.17	0.00	0.00	0.00	0.00	3.03	6.57
	B35HE007	2.98	0.18	0.00	0.00	0.00	0.00	2.34	5.50	3.67	0.18	0.00	0.00	0.00	0.00	3.29	7.14
	B35HE008	3.91	0.24	0.00	0.00	0.00	0.00	3.08	7.23	4.81	0.24	0.00	0.00	0.00	0.00	4.33	9.38
	B35HE009	4.10	0.25	0.00	0.00	0.00	0.00	3.23	7.58	5.05	0.25	0.00	0.00	0.00	0.00	4.54	9.84
	B35HE010	4.75	0.29	0.00	0.00	0.00	0.00	3.73	8.77	5.84	0.29	0.00	0.00	0.00	0.00	5.25	11.38
	B35HE011	5.14	0.31	0.00	0.00	0.00	0.00	4.04	9.49	6.33	0.32	0.00	0.00	0.00	0.00	5.69	12.34
	B35HE012	5.62	0.34	0.00	0.00	0.00	0.00	4.42	10.38	6.92	0.35	0.00	0.00	0.00	0.00	6.22	13.49
	B35HE013	6.23	0.38	0.00	0.00	0.00	0.00	4.90	11.51	7.67	0.39	0.00	0.00	0.00	0.00	6.89	14.95
	B35HE014	7.13	0.43	0.00	0.00	0.00	0.00	5.61	13.17	8.77	0.44	0.00	0.00	0.00	0.00	7.89	17.10
	B35HE015	7.75	0.47	0.00	0.00	0.00	0.00	6.10	14.32	9.54	0.48	0.00	0.00	0.00	0.00	8.57	18.59
	B35HE016	9.26	0.56	0.00	0.00	0.00	0.00	7.28	17.10	11.39	0.57	0.00	0.00	0.00	0.00	10.24	22.20
	B35HE017	10.65	0.64	0.00	0.00	0.00	0.00	8.38	19.67	13.11	0.66	0.00	0.00	0.00	0.00	11.78	25.55
	B35HE018	0.92	0.06	0.00	0.00	0.00	0.00	0.72	1.70	1.18	0.06	0.00	0.00	0.00	0.00	1.06	2.30
	B35HE019	1.05	0.07	0.00	0.00	0.00	0.00	0.83	1.95	1.35	0.07	0.00	0.00	0.00	0.00	1.22	2.64
	B35HE020	1.50	0.10	0.00	0.00	0.00	0.00	1.18	2.78	1.93	0.10	0.00	0.00	0.00	0.00	1.74	3.77
	B35HE021	1.90	0.13	0.00	0.00	0.00	0.00	1.49	3.52	2.44	0.13	0.00	0.00	0.00	0.00	2.19	4.76
	B35HE022	2.19	0.15	0.00	0.00	0.00	0.00	1.72	4.06	2.81	0.15	0.00	0.00	0.00	0.00	2.53	5.49
	B35HE023	2.61	0.17	0.00	0.00	0.00	0.00	2.06	4.84	3.36	0.18	0.00	0.00	0.00	0.00	3.02	6.56
	B35HE024	2.88	0.19	0.00	0.00	0.00	0.00	2.27	5.34	3.71	0.20	0.00	0.00	0.00	0.00	3.33	7.24

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
B35	***cont.***																
	B35HE025	3.73	0.25	0.00	0.00	0.00	0.00	2.94	6.92	4.80	0.26	0.00	0.00	0.00	0.00	4.32	9.38
	B35HE026	3.81	0.26	0.00	0.00	0.00	0.00	3.00	7.07	4.90	0.26	0.00	0.00	0.00	0.00	4.41	9.57
	B35HE027	4.63	0.31	0.00	0.00	0.00	0.00	3.64	8.58	5.95	0.32	0.00	0.00	0.00	0.00	5.35	11.62
	B35HE028	4.78	0.32	0.00	0.00	0.00	0.00	3.76	8.86	6.15	0.33	0.00	0.00	0.00	0.00	5.53	12.01
	B35HE029	5.51	0.37	0.00	0.00	0.00	0.00	4.34	10.22	7.09	0.38	0.00	0.00	0.00	0.00	6.37	13.84
	B35HE030	6.08	0.41	0.00	0.00	0.00	0.00	4.78	11.27	7.81	0.42	0.00	0.00	0.00	0.00	7.02	15.25
	B35HE031	7.39	0.49	0.00	0.00	0.00	0.00	5.82	13.70	9.51	0.51	0.00	0.00	0.00	0.00	8.55	18.57
	B35HE032	7.88	0.53	0.00	0.00	0.00	0.00	6.20	14.61	10.13	0.54	0.00	0.00	0.00	0.00	9.11	19.78
	B35HE033	10.04	0.67	0.00	0.00	0.00	0.00	7.90	18.61	12.91	0.69	0.00	0.00	0.00	0.00	11.60	25.20
	B35HE034	11.19	0.75	0.00	0.00	0.00	0.00	8.80	20.74	14.38	0.77	0.00	0.00	0.00	0.00	12.93	28.08
	B35HE035	3.09	0.23	0.00	0.00	0.00	0.00	2.43	5.75	3.86	0.23	0.00	0.00	0.00	0.00	3.47	7.56
	B35HE036	3.23	0.24	0.00	0.00	0.00	0.00	2.54	6.01	4.03	0.24	0.00	0.00	0.00	0.00	3.62	7.89
	B35HE037	3.63	0.27	0.00	0.00	0.00	0.00	2.85	6.75	4.54	0.27	0.00	0.00	0.00	0.00	4.08	8.89
	B35HE038	4.93	0.36	0.00	0.00	0.00	0.00	3.88	9.17	6.16	0.37	0.00	0.00	0.00	0.00	5.54	12.07
	B35HE039	5.51	0.41	0.00	0.00	0.00	0.00	4.34	10.26	6.89	0.41	0.00	0.00	0.00	0.00	6.19	13.49
	B35HE040	5.69	0.42	0.00	0.00	0.00	0.00	4.48	10.59	7.11	0.43	0.00	0.00	0.00	0.00	6.39	13.93
	B35HE041	6.09	0.45	0.00	0.00	0.00	0.00	4.79	11.33	7.62	0.46	0.00	0.00	0.00	0.00	6.85	14.93
	B35HE042	7.84	0.58	0.00	0.00	0.00	0.00	6.17	14.59	9.80	0.59	0.00	0.00	0.00	0.00	8.81	19.20
	B35HE043	8.06	0.59	0.00	0.00	0.00	0.00	6.34	14.99	10.08	0.61	0.00	0.00	0.00	0.00	9.06	19.75
	B35HE044	10.48	0.77	0.00	0.00	0.00	0.00	8.25	19.50	13.10	0.79	0.00	0.00	0.00	0.00	11.78	25.67
	B35HE045	10.74	0.79	0.00	0.00	0.00	0.00	8.45	19.98	13.42	0.81	0.00	0.00	0.00	0.00	12.06	26.29
	B35HE046	12.77	0.94	0.00	0.00	0.00	0.00	10.05	23.76	15.96	0.96	0.00	0.00	0.00	0.00	14.35	31.27
	B35HE047	13.57	1.00	0.00	0.00	0.00	0.00	10.67	25.24	16.96	1.02	0.00	0.00	0.00	0.00	15.24	33.22
	B35SA001	6.83	0.41	0.00	0.00	0.00	0.00	5.37	12.61	8.41	0.42	0.00	0.00	0.00	0.00	7.56	16.39
	B35SA003	10.24	0.62	0.00	0.00	0.00	0.00	8.06	18.92	12.61	0.63	0.00	0.00	0.00	0.00	11.33	24.57
	B35SA004	15.38	0.93	0.00	0.00	0.00	0.00	12.10	28.41	18.92	0.95	0.00	0.00	0.00	0.00	17.01	36.88

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
B35	***cont.***																
	B35SA005	20.50	1.24	0.00	0.00	0.00	0.00	16.13	37.87	25.24	1.27	0.00	0.00	0.00	0.00	22.68	49.19
	B35SA006	25.65	1.55	0.00	0.00	0.00	0.00	20.18	47.38	31.57	1.59	0.00	0.00	0.00	0.00	28.38	61.54
	B35SA007	30.74	1.85	0.00	0.00	0.00	0.00	24.18	56.77	37.84	1.90	0.00	0.00	0.00	0.00	34.01	73.75
	B35SA008	40.98	2.47	0.00	0.00	0.00	0.00	32.24	75.69	50.44	2.54	0.00	0.00	0.00	0.00	45.34	98.32
	B35SA009	51.22	3.09	0.00	0.00	0.00	0.00	40.29	94.60	63.03	3.17	0.00	0.00	0.00	0.00	56.66	122.86
	B35SA010	61.47	3.70	0.00	0.00	0.00	0.00	48.36	113.53	75.66	3.81	0.00	0.00	0.00	0.00	68.01	147.48
	B35XX001	3.82	0.23	0.00	0.00	0.00	0.00	3.01	7.06	4.70	0.24	0.00	0.00	0.00	0.00	4.23	9.17
	B35XX002	4.30	0.26	0.00	0.00	0.00	0.00	3.38	7.94	5.29	0.27	0.00	0.00	0.00	0.00	4.75	10.31
	B35XX003	4.75	0.29	0.00	0.00	0.00	0.00	3.74	8.78	5.85	0.29	0.00	0.00	0.00	0.00	5.25	11.39
	B35XX004	5.42	0.33	0.00	0.00	0.00	0.00	4.26	10.01	6.67	0.34	0.00	0.00	0.00	0.00	5.99	13.00
	B35XX005	6.08	0.37	0.00	0.00	0.00	0.00	4.78	11.23	7.48	0.38	0.00	0.00	0.00	0.00	6.73	14.59
	B35XX006	7.48	0.45	0.00	0.00	0.00	0.00	5.88	13.81	9.20	0.46	0.00	0.00	0.00	0.00	8.27	17.93
	B35XX007	3.83	0.26	0.00	0.00	0.00	0.00	3.02	7.11	4.93	0.26	0.00	0.00	0.00	0.00	4.43	9.62
	B35XX008	4.39	0.29	0.00	0.00	0.00	0.00	3.45	8.13	5.64	0.30	0.00	0.00	0.00	0.00	5.07	11.01
	B35XX009	4.72	0.32	0.00	0.00	0.00	0.00	3.71	8.75	6.07	0.33	0.00	0.00	0.00	0.00	5.46	11.86
	B35XX010	5.62	0.38	0.00	0.00	0.00	0.00	4.42	10.42	7.22	0.39	0.00	0.00	0.00	0.00	6.49	14.10
	B35XX011	6.21	0.42	0.00	0.00	0.00	0.00	4.89	11.52	7.99	0.43	0.00	0.00	0.00	0.00	7.18	15.60
	B35XX012	7.87	0.53	0.00	0.00	0.00	0.00	6.19	14.59	10.12	0.54	0.00	0.00	0.00	0.00	9.10	19.76
	B35XX013	0.87	0.06	0.00	0.00	0.00	0.00	0.68	1.61	1.08	0.07	0.00	0.00	0.00	0.00	0.97	2.12
	B35XX014	0.97	0.07	0.00	0.00	0.00	0.00	0.77	1.81	1.22	0.07	0.00	0.00	0.00	0.00	1.09	2.38
	B35XX015	1.45	0.11	0.00	0.00	0.00	0.00	1.14	2.70	1.81	0.11	0.00	0.00	0.00	0.00	1.63	3.55
	B35XX016	1.66	0.12	0.00	0.00	0.00	0.00	1.30	3.08	2.07	0.12	0.00	0.00	0.00	0.00	1.86	4.05
	B35XX017	1.81	0.13	0.00	0.00	0.00	0.00	1.42	3.36	2.26	0.14	0.00	0.00	0.00	0.00	2.03	4.43
	B35XX018	3.88	0.28	0.00	0.00	0.00	0.00	3.05	7.21	4.84	0.29	0.00	0.00	0.00	0.00	4.35	9.48
	B35XX019	4.14	0.30	0.00	0.00	0.00	0.00	3.26	7.70	5.17	0.31	0.00	0.00	0.00	0.00	4.65	10.13
	B35XX020	4.67	0.34	0.00	0.00	0.00	0.00	3.67	8.68	5.83	0.35	0.00	0.00	0.00	0.00	5.24	11.42

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
B35	***cont.***																
	B35XX021	5.09	0.37	0.00	0.00	0.00	0.00	4.00	9.46	6.36	0.38	0.00	0.00	0.00	0.00	5.72	12.46
	B35XX022	6.41	0.47	0.00	0.00	0.00	0.00	5.04	11.92	8.01	0.48	0.00	0.00	0.00	0.00	7.20	15.69
	B35XX023	6.87	0.50	0.00	0.00	0.00	0.00	5.40	12.77	8.59	0.52	0.00	0.00	0.00	0.00	7.72	16.83
C05																	
	C05S7001	0.25	0.01	0.72	0.10	0.00	0.00	0.71	1.79								
	C05S7002	0.32	0.01	1.08	0.14	0.00	0.00	0.90	2.45								
	C05S7003	0.42	0.01	1.29	0.17	0.00	0.00	1.19	3.08								
	C05S7004	0.81	0.02	1.99	0.26	0.00	0.00	2.28	5.36								
C10																	
	C10BO001	1.05	0.03	0.69	0.07	0.00	0.00	1.35	3.19								
	C10BO003	0.40	0.01	0.92	0.09	0.00	0.00	0.52	1.94								
	C10BO004	0.48	0.01	1.39	0.14	0.00	0.00	0.61	2.63								
	C10BO008	4.16	0.13	1.47	0.15	0.00	0.00	5.35	11.26								
	C10BO009	1.92	0.07	0.92	0.09	0.00	0.00	2.76	5.76								
	C10BO011	5.07	0.19	1.53	0.15	0.00	0.00	7.29	14.23								
	C10BO013	11.60	0.43	3.64	0.36	0.00	0.00	16.67	32.70								
	C10BO015	4.51	0.17	0.82	0.08	0.00	0.00	6.48	12.06								
	C10BO016	5.66	0.21	1.47	0.15	0.00	0.00	8.13	15.62								
	C10MU001	3.94	0.14	1.80	0.18	0.00	0.00	5.67	11.73								
	C10MU002	8.63	0.32	3.28	0.33	0.00	0.00	12.40	24.96								
	C10MU003	4.01	0.15	3.44	0.34	0.00	0.00	5.76	13.70								
	C10WC003	1.33	0.04	0.66	0.07	0.00	0.00	1.71	3.81								
	C10WC006	1.32	0.04	1.27	0.13	0.00	0.00	1.69	4.45								
	C10WC007	2.02	0.06	1.85	0.18	0.00	0.00	2.60	6.71								
	C10WC008	5.45	0.17	2.21	0.22	0.00	0.00	7.00	15.05								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
C10	***cont.***																
	C10WC010	3.20	0.12	2.54	0.25	0.00	0.00	4.60	10.71								
	C10WC016	10.03	0.37	3.79	0.38	0.00	0.00	14.40	28.97								
	C10WC017	4.25	0.16	1.47	0.15	0.00	0.00	6.11	12.14								
C15																	
	C15BL001	1.98	0.08	0.38	0.70	0.00	0.00	2.26	5.40								
	C15BL003	8.41	0.34	1.92	2.50	0.00	0.00	9.63	22.80								
	C15BL004	9.38	0.37	2.88	3.25	0.00	0.00	10.74	26.62								
	C15BL005	12.59	0.50	5.75	4.99	0.00	0.00	14.41	38.24								
	C15BL006	44.96	3.25	70.09	8.16	0.00	0.00	51.48	177.94								
	C15ED001	1.66	0.07	1.98	0.26	0.00	0.00	1.90	5.87								
	C15ED002	0.96	0.04	1.62	0.22	0.00	0.00	1.10	3.94								
	C15XX001	60.70	4.43	33.68	3.92	1.00	0.15	69.62	173.50								
C20																	
	C20XX001	1.39	0.08	2.15	0.29	0.48	0.07	1.33	5.79								
	C20XX002	2.40	0.10	1.44	0.19	0.00	0.00	2.14	6.27								
C25																	
	C25AJ001	0.87	0.04	1.08	0.14	0.00	0.00	0.89	3.02								
	C25AJ003	1.48	0.07	1.08	0.14	0.00	0.00	1.50	4.27								
	C25AJ004	1.67	0.08	1.62	0.22	0.00	0.00	1.70	5.29								
	C25AJ005	1.87	0.09	1.98	0.26	0.00	0.00	1.90	6.10								
	C25AJ006	2.11	0.10	1.98	0.26	0.00	0.00	2.14	6.59								
	C25AJ007	2.23	0.11	1.98	0.26	0.00	0.00	2.27	6.85								
	C25AJ008	1.79	0.16	0.92	0.16	0.00	0.00	1.56	4.59								
	C25AJ009	1.93	0.17	0.92	0.16	0.00	0.00	1.69	4.87								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
C25	***cont.***																
	C25AJ010	2.06	0.18	0.92	0.16	0.00	0.00	1.80	5.12								
	C25AJ011	2.19	0.19	0.92	0.16	0.00	0.00	1.91	5.37								
	C25AJ012	2.32	0.20	0.92	0.16	0.00	0.00	2.02	5.62								
	C25AJ013	2.44	0.21	0.92	0.16	0.00	0.00	2.13	5.86								
	C25AJ015	2.14	0.10	3.59	0.48	0.00	0.00	2.18	8.49								
	C25AJ016	2.40	0.12	4.31	0.57	0.00	0.00	2.44	9.84								
	C25AJ018	2.49	0.12	4.31	0.57	0.00	0.00	2.54	10.03								
	C25AJ019	3.42	0.16	6.10	0.81	0.00	0.00	3.48	13.97								
	C25AJ020	1.98	0.09	3.95	0.52	0.00	0.00	2.01	8.55								
	C25AJ021	2.31	0.11	3.95	0.52	0.00	0.00	2.35	9.24								
	C25AJ022	3.09	0.15	7.18	0.95	0.00	0.00	3.14	14.51								
	C25AJ023	4.27	0.20	5.70	0.66	0.00	0.00	4.34	15.17								
	C25AJ024	1.53	0.07	0.00	0.05	0.00	0.00	1.55	3.20								
	C25MU001	0.42	0.02	1.44	0.19	0.00	0.00	0.43	2.50								
	C25MU002	0.49	0.02	1.62	0.22	0.00	0.00	0.50	2.85								
	C25SV004	6.10	0.58	3.53	0.62	0.70	0.10	5.43	17.06								
	C25SV005	5.93	0.56	3.53	0.62	0.70	0.10	5.29	16.73								
	C25SV006	10.21	0.94	4.13	0.65	0.71	0.10	9.02	25.76								
	C25SV007	5.71	0.52	2.35	0.41	0.37	0.05	5.04	14.45								
	C25SV008	2.83	0.27	1.01	0.18	0.37	0.05	2.53	7.24								
	C25SV009	24.08	2.15	4.13	0.65	0.71	0.10	21.11	52.93								
	C25SV010	26.97	2.41	4.13	0.65	0.71	0.10	23.62	58.59								
	C25SV011	31.95	2.84	8.74	1.37	0.71	0.10	27.97	73.68								
	C25WC002	0.49	0.02	1.27	0.17	0.00	0.00	0.50	2.45								
	C25XX001	0.80	0.04	1.62	0.22	0.00	0.00	0.81	3.49								
	C25XX002	1.01	0.05	1.62	0.22	0.00	0.00	1.03	3.93								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
C25	***cont.***																
	C25XX003	1.09	0.05	1.62	0.22	0.00	0.00	1.11	4.09								
	C25XX004	1.23	0.06	1.62	0.22	0.00	0.00	1.25	4.38								
	C25XX005	1.38	0.07	1.62	0.22	0.00	0.00	1.41	4.70								
	C25XX006	1.55	0.07	1.98	0.26	0.00	0.00	1.58	5.44								
	C25XX007	0.23	0.01	0.36	0.05	0.00	0.00	0.23	0.88								
	C25XX008	1.71	0.08	1.98	0.26	0.00	0.00	1.74	5.77								
	C25XX009	1.85	0.09	1.98	0.26	0.00	0.00	1.88	6.06								
	C25XX010	2.00	0.10	1.98	0.26	0.00	0.00	2.04	6.38								
	C25XX011	2.14	0.10	1.98	0.26	0.00	0.00	2.18	6.66								
	C25XX012	0.24	0.01	0.36	0.05	0.00	0.00	0.24	0.90								
	C25XX013	2.30	0.11	1.98	0.26	0.00	0.00	2.34	6.99								
	C25XX014	2.44	0.12	1.98	0.26	0.00	0.00	2.48	7.28								
	C25XX015	0.24	0.01	0.36	0.05	0.00	0.00	0.24	0.90								
C35																	
	C35AF001	8.36	0.59	4.11	2.88	0.03	0.00	10.22	26.19								
	C35AF002	1.33	0.10	0.00	2.00	0.03	0.00	1.64	5.10								
	C35AF004	6.85	0.48	4.11	2.48	0.03	0.00	8.37	22.32								
	C35AF005	7.91	0.56	7.41	2.86	0.09	0.01	9.69	28.53								
	C35AV006	11.01	0.78	4.11	3.92	0.10	0.01	13.47	33.40								
	C35EN001	23.90	1.68	8.22	6.34	0.00	0.00	29.19	69.33								
	C35PU001	4.67	0.33	4.80	1.56	0.08	0.01	5.73	17.18								
	C35PU002	1.88	0.13	1.03	0.67	0.00	0.00	2.30	6.01								
	C35PU003	3.05	0.21	0.00	0.30	0.00	0.00	3.72	7.28								
	C35PU004	1.51	0.11	0.00	0.40	0.00	0.00	1.85	3.87								
	C35PU005	5.41	0.38	8.37	1.47	0.03	0.00	6.62	22.28								
	C35RQ001	1.32	0.09	1.03	1.48	0.00	0.00	1.62	5.54								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
C35	***cont.***																
	C35RQ002	2.13	0.15	1.85	2.86	0.00	0.00	2.60	9.59								
C40																	
	C40CC001	6.77	0.32	1.92	1.00	0.00	0.00	6.89	16.90								
	C40MU001	0.57	0.03	1.44	0.19	0.03	0.00	0.59	2.85								
	C40MU002	1.22	0.06	2.33	0.31	0.03	0.00	1.25	5.20								
	C40MU003	0.58	0.03	1.44	0.19	0.03	0.00	0.60	2.87								
	C40MU004	0.67	0.03	1.44	0.19	0.03	0.00	0.68	3.04								
	C40MU005	0.35	0.02	0.10	0.25	0.03	0.00	0.36	1.11								
	C40MU006	0.41	0.02	0.99	0.13	0.03	0.00	0.43	2.01								
	C40MU007	0.52	0.03	0.38	0.45	0.03	0.00	0.53	1.94								
	C40MU008	0.66	0.03	0.29	0.45	0.03	0.00	0.67	2.13								
	C40XX001	0.47	0.02	1.05	0.75	0.00	0.00	0.48	2.77								
	C40XX002	0.53	0.03	0.99	0.13	0.00	0.00	0.54	2.22								
	C40XX003	0.53	0.03	0.29	0.35	0.00	0.00	0.54	1.74								
	C40XX004	0.75	0.04	1.44	0.19	0.00	0.00	0.76	3.18								
	C40XX005	0.77	0.04	0.96	0.75	0.00	0.00	0.79	3.31								
	C40XX006	1.37	0.07	0.96	0.75	0.00	0.00	1.39	4.54								
	C40XX007	1.35	0.06	2.10	0.28	0.00	0.00	1.37	5.16								
C45																	
	C45GO011	41.46	2.33	29.64	3.45	0.00	0.00	52.91	129.79								
	C45GO012	62.80	3.52	23.18	2.70	0.00	0.00	80.14	172.34								
	C45GO013	27.30	1.53	14.74	1.72	0.00	0.00	34.84	80.13								
	C45GO014	31.09	1.74	15.70	1.83	0.00	0.00	39.68	90.04								
	C45GO016	99.87	5.60	31.55	3.67	0.00	0.00	127.46	268.15								
	C45GO018	109.29	6.13	45.95	5.35	0.00	0.00	139.48	306.20								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
C45	***cont.***																
	C45GO020	136.35	7.65	61.72	7.19	0.00	0.00	174.02	386.93								
	C45GO026	13.33	0.75	6.98	0.93	0.00	0.00	17.01	39.00								
	C45GO027	15.44	0.87	6.86	0.80	0.00	0.00	19.70	43.67								
	C45GO028	21.86	1.23	6.86	0.80	0.00	0.00	27.90	58.65								
	C45GO029	21.50	1.21	6.98	0.93	0.00	0.00	27.43	58.05								
	C45GO031	67.91	3.81	52.81	6.15	0.00	0.00	86.67	217.35								
	C45MJ001	1.14	0.06	2.91	0.39	0.00	0.00	1.46	5.96								
	C45MW002	7.70	0.44	4.17	0.49	0.08	0.01	9.85	22.74								
	C45MW003	9.96	0.56	4.17	0.49	0.11	0.02	12.73	28.04								
C55																	
	C55MU001	3.28	0.20	10.41	1.38	0.03	0.00	3.71	19.01								
	C55MU002	6.73	0.41	10.23	1.19	0.00	0.00	7.60	26.16								
	C55MU003	8.11	0.49	13.99	1.63	0.00	0.00	9.16	33.38								
	C55OE011	9.09	0.55	23.45	2.73	0.00	0.00	10.28	46.10								
	C55OE013	6.01	0.36	6.22	0.72	0.04	0.01	6.79	20.15								
	C55RQ003	5.83	0.35	10.62	1.24	0.04	0.01	6.59	24.68								
	C55SC001	8.97	0.55	12.95	1.51	0.11	0.02	10.15	34.26								
	C55SC002	13.10	0.79	22.54	2.62	0.08	0.01	14.81	53.95								
	C55SC005	37.82	2.32	31.77	3.70	0.90	0.13	42.81	119.45								
	C55SC006	48.65	2.97	31.77	3.70	0.90	0.13	55.05	143.17								
C60																	
	C60HG008	0.17	0.01	0.46	0.06	0.00	0.00	0.19	0.89								
	C60HG010	0.32	0.02	2.54	0.34	0.00	0.00	0.37	3.59								
	C60HG011	4.31	0.20	12.63	2.00	0.00	0.00	4.87	24.01								
	C60HG012	4.53	0.21	12.63	2.00	0.00	0.00	5.12	24.49								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
C60	***cont.***																
	C60HG013	4.57	0.21	12.63	2.00	0.00	0.00	5.16	24.57								
	C60HG014	2.38	0.11	7.40	3.46	0.00	0.00	2.69	16.04								
	C60HG015	0.98	0.05	4.62	0.61	0.00	0.00	1.11	7.37								
	C60HG016	5.64	0.27	16.07	2.54	0.00	0.00	6.37	30.89								
	C60HG020	3.39	0.16	11.08	1.47	0.00	0.00	3.83	19.93								
	C60HG021	4.09	0.19	11.08	1.47	0.00	0.00	4.62	21.45								
	C60HG023	2.40	0.11	7.40	3.46	0.00	0.00	2.72	16.09								
	C60HG024	4.08	0.19	11.08	1.47	0.00	0.00	4.61	21.43								
	C60HG025	0.26	0.01	2.08	0.28	0.00	0.00	0.29	2.92								
	C60HG026	0.65	0.03	3.00	0.40	0.00	0.00	0.73	4.81								
	C60HG027	1.05	0.05	4.85	0.64	0.00	0.00	1.19	7.78								
	C60HG028	4.00	0.19	6.66	3.11	0.00	0.00	4.52	18.48								
	C60HG029	8.15	0.38	4.29	2.01	0.00	0.00	9.21	24.04								
	C60HG030	10.35	0.49	6.17	2.88	0.00	0.00	11.70	31.59								
C65																	
	C65MU001	0.13	0.00	0.18	0.08	0.00	0.00	0.37	0.76								
	C65MU002	0.14	0.00	0.36	0.17	0.00	0.00	0.41	1.08								
	C65MU003	0.17	0.01	0.53	0.25	0.00	0.00	0.49	1.45								
	C65MU004	0.35	0.01	0.92	0.12	0.00	0.00	0.99	2.39								
	C65WC003	0.63	0.02	0.53	0.39	0.00	0.00	1.79	3.36								
	C65WC004	0.34	0.01	0.53	0.39	0.00	0.00	0.96	2.23								
	C65WC005	0.47	0.02	0.92	0.12	0.00	0.00	1.34	2.87								
	C65WC006	0.77	0.03	1.01	0.27	0.00	0.00	2.18	4.26								
C75																	
	C75BD005	6.97	0.77	13.37	1.78	0.32	0.05	6.64	29.90								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
C75	***cont.***																
	C75BD006	9.99	1.12	21.32	2.83	0.78	0.11	9.54	45.69								
	C75BD009	7.20	0.80	13.37	1.78	0.32	0.05	6.87	30.39								
	C75BD012	6.13	0.68	6.72	0.84	0.14	0.02	5.84	20.37								
	C75BD013	5.11	0.57	6.72	0.84	0.14	0.02	4.87	18.27								
	C75BD014	9.38	1.04	10.15	1.27	0.34	0.05	8.94	31.17								
	C75BD015	14.24	1.59	13.72	1.71	0.82	0.12	13.58	45.78								
	C75BD016	18.48	2.10	22.36	2.79	2.40	0.35	17.68	66.16								
	C75BD017	5.78	0.72	6.72	0.84	3.01	0.44	5.62	23.13								
	C75BD018	12.36	1.38	13.72	1.71	0.82	0.12	11.79	41.90								
	C75BD019	19.63	2.19	21.95	2.74	1.76	0.26	18.73	67.26								
	C75GV016	89.56	10.16	41.15	5.13	20.95	3.08	85.69	255.72								
	C75GV023	26.74	2.98	21.95	2.74	2.39	0.35	25.50	82.65								
	C75GV024	34.46	3.91	23.73	2.96	7.06	1.04	32.97	106.13								
	C75GV029	10.98	1.22	15.50	2.06	0.39	0.06	10.47	40.68								
	C75GV030	16.20	1.83	19.38	2.58	1.95	0.29	15.49	57.72								
	C75GV031	40.24	4.75	32.92	4.10	20.47	3.01	38.73	144.22								
	C75GV032	49.95	5.74	37.72	4.70	16.29	2.39	47.88	164.67								
	C75TD001	28.05	3.08	23.73	2.96	0.00	0.00	26.70	84.52								
	C75TD002	41.29	4.53	28.25	3.52	0.00	0.00	39.30	116.89								
	C75TD009	22.68	2.49	24.69	3.08	0.00	0.00	21.58	74.52								
	C75TD010	29.25	3.21	33.88	4.22	0.00	0.00	27.84	98.40								
	C75TD011	38.49	4.22	33.88	4.22	0.00	0.00	36.63	117.44								
	C75TE001	24.77	2.78	17.83	2.22	3.42	0.50	23.66	75.18								
	C75TE002	32.19	3.62	20.85	2.60	4.61	0.68	30.75	95.30								
	C75TE006	30.66	3.43	23.73	2.96	2.40	0.35	29.27	92.80								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
C80																	
	C80GV006	46.33	5.81	47.24	5.11	1.73	0.25	38.64	145.11	52.95	5.86	62.48	6.76	6.77	1.00	47.35	183.17
	C80GV016	130.85	20.44	47.71	5.17	20.44	3.00	140.44	368.05	145.39	20.54	61.55	6.66	81.72	12.01	164.79	492.66
	C80GV029	47.99	6.04	28.52	3.09	2.57	0.38	40.05	128.64	54.85	6.09	36.93	4.00	10.25	1.51	49.07	162.70
	C80GV030	48.10	6.06	42.76	4.63	2.57	0.38	40.14	144.64	54.97	6.11	56.56	6.12	10.25	1.51	49.18	184.70
	C80GV033	55.96	7.13	48.97	5.30	10.22	1.50	46.78	175.86	63.96	7.18	64.77	7.01	40.86	6.01	57.32	247.11
	C80GV034	71.64	10.12	55.46	6.00	10.22	1.50	68.35	223.29	80.59	10.19	73.34	7.93	40.86	6.01	81.75	300.67
	C80GV035	46.90	6.59	55.46	6.00	2.57	0.38	44.71	162.61	52.76	6.64	73.34	7.93	10.25	1.51	53.47	205.90
	C80LB009	33.59	4.23	50.35	5.45	1.79	0.26	28.03	123.70	38.39	4.26	66.59	7.20	7.00	1.03	34.34	158.81
	C80LB011	34.04	4.29	50.35	5.45	1.79	0.26	28.41	124.59	38.90	4.32	66.59	7.20	7.00	1.03	34.80	159.84
	C80TD003	53.55	7.44	27.00	2.92	0.00	0.00	50.97	141.88	60.24	7.49	34.69	3.75	0.00	0.00	60.95	167.12
	C80TD004	55.25	8.66	32.69	3.54	5.80	0.85	59.33	166.12	61.39	8.70	41.73	4.51	23.02	3.38	69.62	212.35
	C80TD006	37.98	5.45	24.92	2.70	6.02	0.88	36.33	114.28	42.73	5.49	31.76	3.44	24.40	3.59	43.44	154.85
	C80TD007	51.18	7.29	30.35	3.29	6.32	0.93	48.90	148.26	57.58	7.34	38.95	4.22	25.66	3.77	58.48	196.00
	C80TD008	54.78	8.66	32.69	3.54	8.38	1.23	58.90	168.18	60.86	8.70	41.73	4.51	33.62	4.94	69.11	223.47
	C80TE001	29.98	4.24	66.91	7.24	2.59	0.38	28.62	139.96	33.73	4.27	88.49	9.57	10.36	1.52	34.22	182.16
	C80TE007	26.75	3.37	41.39	4.48	1.57	0.23	22.32	100.11	30.57	3.40	54.74	5.92	6.33	0.93	27.35	129.24
	C80TE008	18.43	2.10	15.35	2.30	2.67	0.39	13.24	54.48	21.50	2.13	20.31	3.04	10.47	1.54	16.72	75.71
	C80TE009	36.70	4.62	62.08	6.72	1.99	0.29	30.63	143.03	41.94	4.66	82.10	8.88	7.85	1.15	37.52	184.10
	C80XX001	10.42	1.17	28.94	4.33	0.84	0.12	7.47	53.29	12.16	1.18	38.27	5.73	3.35	0.49	9.43	70.61
	C80XX002	13.00	1.47	48.28	7.23	1.57	0.23	9.33	81.11	15.17	1.49	63.86	9.56	6.33	0.93	11.78	109.12
C85																	
	C85KC001	32.62	4.47	28.23	3.98	0.00	0.00	35.06	104.36	40.15	4.53	36.92	5.21	0.00	0.00	48.23	135.04
	C85KC005	27.75	4.26	15.42	1.41	0.00	0.00	28.08	76.92	34.69	4.31	20.29	1.85	0.00	0.00	37.14	98.28
	C85KC008	54.16	9.11	22.88	2.28	0.00	0.00	61.23	149.66	66.19	9.20	30.10	3.00	0.00	0.00	78.73	187.22
	C85KC009	33.51	5.15	20.63	1.88	0.00	0.00	33.90	95.07	41.89	5.21	27.15	2.48	0.00	0.00	44.84	121.57

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
C85	***cont.***																
	C85KC010	54.12	8.31	26.28	2.40	0.00	0.00	54.75	145.86	67.65	8.41	34.58	3.16	0.00	0.00	72.42	186.22
	C85KC011	70.96	11.93	26.28	2.62	0.00	0.00	80.23	192.02	86.73	12.05	34.58	3.44	0.00	0.00	103.16	239.96
	C85LB001	34.80	5.35	17.95	1.64	0.00	0.00	35.21	94.95	43.50	5.41	23.62	2.16	0.00	0.00	46.57	121.26
	C85LB014	45.45	6.98	20.56	1.88	0.00	0.00	45.98	120.85	56.81	7.06	27.05	2.47	0.00	0.00	60.82	154.21
	C85LB015	62.92	9.67	20.56	1.88	0.00	0.00	63.66	158.69	78.65	9.78	27.05	2.47	0.00	0.00	84.21	202.16
	C85LB016	72.94	12.26	20.56	2.05	0.00	0.00	82.46	190.27	89.14	12.39	27.05	2.69	0.00	0.00	106.03	237.30
	C85LB019	44.74	6.13	28.13	3.97	0.00	0.00	48.09	131.06	55.06	6.21	36.79	5.19	0.00	0.00	66.14	169.39
	C85LB021	63.01	9.65	28.13	2.57	0.00	0.00	75.69	179.05	75.61	9.75	36.79	3.36	0.00	0.00	100.37	225.88
	C85LB024	28.64	4.39	14.26	1.19	0.00	0.00	27.17	75.65	34.36	4.43	18.76	1.56	0.00	0.00	34.75	93.86
	C85LB025	39.11	4.73	19.51	2.59	0.00	0.00	39.55	105.49	45.63	4.77	25.52	3.39	0.00	0.00	51.90	131.21
	C85MA002	68.83	10.54	33.68	3.08	0.00	0.00	82.68	198.81	82.59	10.65	44.04	4.02	0.00	0.00	109.64	250.94
	C85MA003	89.93	15.24	39.62	3.94	0.00	0.00	119.38	268.11	112.41	15.41	51.82	5.16	0.00	0.00	163.41	348.21
	C85MA005	54.89	8.43	24.61	2.25	0.00	0.00	55.53	145.71	68.61	8.53	32.39	2.96	0.00	0.00	73.45	185.94
	C85MA006	60.45	10.16	24.61	2.45	0.00	0.00	68.34	166.01	73.88	10.27	32.39	3.23	0.00	0.00	87.88	207.65
	C85MA007	82.05	13.80	27.15	2.70	0.00	0.00	92.77	218.47	100.29	13.93	35.72	3.56	0.00	0.00	119.29	272.79
	C85MA008	54.96	8.44	24.61	2.25	0.00	0.00	55.61	145.87	68.71	8.54	32.39	2.96	0.00	0.00	73.56	186.16
	C85MA011	87.52	13.41	59.44	5.43	0.00	0.00	105.13	270.93	105.02	13.54	77.72	7.10	0.00	0.00	139.42	342.80
	C85MA012	82.31	12.64	43.43	3.97	0.00	0.00	83.27	225.62	102.88	12.79	57.15	5.22	0.00	0.00	110.14	288.18
	C85TE004	34.20	4.69	18.33	2.59	0.00	0.00	36.77	96.58	42.10	4.75	23.96	3.38	0.00	0.00	50.57	124.76
	C85TE005	38.98	5.97	23.77	2.17	0.00	0.00	46.83	117.72	46.78	6.03	31.09	2.84	0.00	0.00	62.10	148.84
	C85TE006	61.09	9.36	30.71	2.80	0.00	0.00	73.39	177.35	73.31	9.45	40.16	3.67	0.00	0.00	97.32	223.91
	C85TE008	29.07	4.47	13.39	1.22	0.00	0.00	29.42	77.57	36.34	4.52	17.62	1.61	0.00	0.00	38.91	99.00
	C85TE009	37.28	5.73	17.37	1.59	0.00	0.00	37.72	99.69	46.60	5.79	22.86	2.09	0.00	0.00	49.89	127.23
	C85TE016	71.46	12.02	21.72	2.16	0.00	0.00	80.79	188.15	87.34	12.13	28.58	2.85	0.00	0.00	103.88	234.78
	C85TE017	61.09	9.36	30.71	2.80	0.00	0.00	73.39	177.35	73.31	9.45	40.16	3.67	0.00	0.00	97.32	223.91

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
C90																	
	C90LB001	65.84	11.34	28.19	3.05	10.10	1.48	75.14	195.14	73.16	11.39	35.50	3.85	40.39	5.94	88.17	258.40
	C90LB003	121.44	20.97	50.59	5.47	12.28	1.81	138.67	351.23	134.93	21.07	64.44	6.98	49.08	7.21	162.71	446.42
	C90MX001	33.28	5.16	29.56	3.20	1.77	0.26	33.73	106.96	37.44	5.19	37.65	4.07	7.14	1.05	40.34	132.88
C95																	
	C95LH024	32.76	5.02	10.69	10.55	0.00	0.00	35.22	94.24								
	C95LH025	40.85	6.26	26.18	18.60	0.00	0.00	43.91	135.80								
	C95LH026	67.21	10.30	26.18	18.60	0.00	0.00	72.25	194.54								
	C95LH027	76.33	11.69	26.18	18.60	0.00	0.00	82.05	214.85								
	C95LH028	82.38	12.62	26.18	20.60	0.00	0.00	88.55	230.33								
	C95LH029	94.45	14.47	38.29	27.89	0.00	0.00	101.54	276.64								
D10																	
	D10CA001	45.83	4.46	43.43	5.85	0.00	0.00	62.63	162.20								
	D10CA002	35.75	3.48	43.43	5.85	0.00	0.00	48.86	137.37								
	D10S2001	65.91	8.79	83.97	9.78	0.00	0.00	90.08	258.53								
	D10S2002	117.34	15.65	131.03	15.26	0.00	0.00	160.37	439.65								
	D10S2003	80.47	10.80	110.03	12.81	1.19	0.17	110.14	325.61								
	D10WG001	4.66	0.62	0.00	0.00	0.00	0.00	6.36	11.64								
	D10WG002	7.40	0.99	0.00	0.00	0.00	0.00	10.11	18.50								
	D10WG003	4.73	0.63	0.00	0.00	0.00	0.00	6.47	11.83								
	D10WG004	7.32	0.98	0.00	0.00	0.00	0.00	10.00	18.30								
D15																	
	D15BI001	1.28	0.12	2.46	0.33	0.00	0.00	1.57	5.76								
	D15BI002	2.46	0.24	2.90	0.34	0.00	0.00	3.03	8.97								
	D15BI003	3.60	0.35	4.34	0.51	0.00	0.00	4.43	13.23								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
D15	***cont.***																
	D15BI004	5.48	0.53	6.52	0.76	0.00	0.00	6.75	20.04								
	D15BI005	7.35	0.72	8.98	1.05	0.00	0.00	9.05	27.15								
	D15BI006	11.77	1.15	17.23	2.01	0.00	0.00	14.48	46.64								
	D15BI007	14.48	1.41	27.36	3.19	0.00	0.00	17.82	64.26								
	D15BI008	16.16	1.57	27.36	3.19	0.00	0.00	19.89	68.17								
	D15VE001	4.09	0.40	3.62	0.42	0.00	0.00	5.04	13.57								
	D15VE002	6.79	0.66	6.37	0.74	0.00	0.00	8.36	22.92								
	D15VE003	9.55	0.93	9.12	1.06	0.00	0.00	11.75	32.41								
	D15VE004	9.87	0.96	10.71	1.25	0.00	0.00	12.14	34.93								
	D15VE005	17.24	1.68	18.10	2.11	0.00	0.00	21.22	60.35								
	D15VE006	25.54	2.49	20.27	2.36	0.00	0.00	31.43	82.09								
	D15VE007	42.21	4.11	28.96	3.37	0.00	0.00	51.94	130.59								
	D15VE008	47.09	4.59	32.58	3.79	0.00	0.00	57.95	146.00								
	D15VE009	0.55	0.05	1.13	0.15	0.00	0.00	0.68	2.56								
	D15VE010	1.10	0.11	3.19	0.37	0.00	0.00	1.35	6.12								
	D15VE011	1.67	0.16	3.19	0.37	0.00	0.00	2.05	7.44								
	D15VE012	3.47	0.34	3.98	0.46	0.00	0.00	4.27	12.52								
	D15XX001	0.80	0.08	1.74	0.20	0.00	0.00	0.98	3.80								
	D15XX002	1.81	0.18	2.90	0.34	0.00	0.00	2.22	7.45								
	D15XX003	6.88	0.69	4.34	0.51	0.35	0.05	8.54	21.36								
D20																	
	D20AD007	1.66	0.13	1.75	1.62	0.00	0.00	1.93	7.09								
	D20DN001	0.20	0.02	0.77	0.36	0.00	0.00	0.24	1.59								
	D20DN002	0.29	0.02	0.48	0.22	0.00	0.00	0.34	1.35								
	D20DN003	1.19	0.09	3.69	0.25	0.00	0.00	1.38	6.60								
	D20DN004	2.17	0.17	2.74	1.28	0.00	0.00	2.52	8.88								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
D20	***cont.***																
	D20HG022	1.40	0.11	3.69	0.25	0.00	0.00	1.62	7.07								
D25																	
	D25AD003	12.60	1.23	9.99	0.99	0.00	0.00	17.22	42.03								
	D25AD004	6.67	0.65	4.05	0.40	0.00	0.00	9.11	20.88								
	D25EZ002	0.58	0.06	0.00	0.50	0.00	0.00	0.79	1.93								
	D25EZ003	0.63	0.06	0.00	0.50	0.00	0.00	0.87	2.06								
	D25EZ005	2.42	0.24	0.00	1.25	0.00	0.00	3.30	7.21								
D30																	
	D30HD001	14.49	1.41	30.40	5.54	0.00	0.00	19.80	71.64								
	D30HD002	18.01	1.75	39.09	7.55	0.00	0.00	24.62	91.02								
	D30HD003	21.75	2.12	48.50	9.65	0.00	0.00	29.72	111.74								
	D30MR001	1.22	0.12	1.64	0.22	0.00	0.00	1.66	4.86								
	D30MR003	9.84	0.98	14.30	1.76	0.33	0.05	13.52	40.78								
	D30MR005	21.53	2.12	20.38	2.47	0.33	0.05	29.49	76.37								
	D30MR006	29.85	2.94	21.60	2.52	0.54	0.08	40.90	98.43								
	D30MR007	24.48	2.40	22.44	2.61	0.36	0.05	33.53	85.87								
D35																	
	D35DT001	47.86	5.78	65.15	10.29	0.00	0.00	61.32	190.40								
	D35DT002	47.67	5.76	65.15	10.29	0.00	0.00	61.08	189.95								
	D35DT003	53.19	6.43	65.15	10.29	0.00	0.00	68.15	203.21								
	D35DT004	57.43	6.94	76.01	12.01	0.00	0.00	73.58	225.97								
	D35DT005	85.10	10.29	110.03	17.38	0.00	0.00	109.03	331.83								
	D35DT006	59.53	9.12	110.03	14.62	0.00	0.00	76.27	269.57								
	D35RL007	43.78	5.34	89.42	14.13	0.96	0.14	56.19	209.96								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
D35	***cont.***																
	D35WG001	34.64	5.36	71.87	9.55	1.03	0.15	44.46	167.06								
	D35WG002	35.25	5.45	101.46	13.48	1.03	0.15	45.25	202.07								
	D35WG003	38.12	5.89	101.46	13.48	1.03	0.15	48.93	209.06								
	D35WG004	36.07	5.58	64.26	8.54	1.03	0.15	46.30	161.93								
	D35WG005	39.13	6.05	64.26	8.54	1.03	0.15	50.22	169.38								
	D35WG006	39.33	6.08	127.67	16.97	1.03	0.15	50.48	241.71								
F10																	
	F10JC001	6.18	0.58	8.74	0.87	1.03	0.15	5.96	23.51								
	F10JC002	6.93	0.64	8.74	0.87	1.03	0.15	6.67	25.03								
G10																	
	G10CA012	7.34	0.54	56.69	5.64	0.00	0.00	5.69	75.90	9.17	0.55	74.98	7.47	0.00	0.00	8.12	100.29
	G10CA013	7.87	0.58	56.69	5.64	0.00	0.00	6.10	76.88	9.84	0.59	74.98	7.47	0.00	0.00	8.71	101.59
	G10CA014	8.71	0.64	81.38	8.10	0.00	0.00	6.76	105.59	10.89	0.66	107.63	10.72	0.00	0.00	9.65	139.55
	G10CA015	11.37	0.84	81.14	8.08	0.00	0.00	8.82	110.25	14.22	0.86	107.32	10.69	0.00	0.00	12.59	145.68
	G10CA017	17.94	1.32	143.39	14.28	0.00	0.00	13.91	190.84	22.42	1.35	189.64	18.88	0.00	0.00	19.85	252.14
	G10CA018	17.41	1.28	174.09	17.33	0.00	0.00	13.51	223.62	21.77	1.31	230.25	22.93	0.00	0.00	19.28	295.54
	G10CA019	38.96	2.86	248.03	24.70	0.00	0.00	30.21	344.76	48.70	2.93	328.04	32.66	0.00	0.00	43.13	455.46
	G10CA021	12.02	0.88	106.30	10.58	0.00	0.00	9.32	139.10	15.03	0.91	140.59	14.00	0.00	0.00	13.31	183.84
	G10CA022	4.19	0.31	35.67	3.55	0.00	0.00	3.25	46.97	5.24	0.32	47.18	4.70	0.00	0.00	4.64	62.08
	G10WC001	0.25	0.02	1.35	0.13	0.00	0.00	0.17	1.92	0.29	0.02	1.76	0.18	0.00	0.00	0.22	2.47
	G10WC002	0.29	0.02	1.85	0.18	0.00	0.00	0.19	2.53	0.33	0.02	2.41	0.24	0.00	0.00	0.26	3.26
	G10WC003	0.46	0.03	2.69	0.27	0.00	0.00	0.31	3.76	0.53	0.03	3.51	0.35	0.00	0.00	0.41	4.83
	G10WC004	0.53	0.03	3.03	0.30	0.00	0.00	0.35	4.24	0.60	0.03	3.95	0.39	0.00	0.00	0.47	5.44
	G10WC005	0.55	0.03	2.27	0.23	0.00	0.00	0.37	3.45	0.63	0.03	2.96	0.29	0.00	0.00	0.49	4.40
	G10XX001	0.12	0.01	1.01	0.10	0.00	0.00	0.08	1.32	0.14	0.01	1.32	0.13	0.00	0.00	0.11	1.71

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
G10	***cont.***																
	G10XX002	0.18	0.01	2.69	0.27	0.00	0.00	0.12	3.27	0.20	0.01	3.51	0.35	0.00	0.00	0.16	4.23
	G10XX004	0.40	0.02	1.68	0.17	0.00	0.00	0.27	2.54	0.46	0.02	2.19	0.22	0.00	0.00	0.36	3.25
	G10XX005	1.41	0.10	5.79	0.58	0.00	0.00	1.09	8.97	1.76	0.11	7.65	0.76	0.00	0.00	1.56	11.84
	G10XX006	1.36	0.10	5.67	0.56	0.00	0.00	1.06	8.75	1.70	0.10	7.50	0.75	0.00	0.00	1.51	11.56
	G10XX007	1.43	0.11	10.04	1.00	0.00	0.00	1.11	13.69	1.79	0.11	13.28	1.32	0.00	0.00	1.59	18.09
	G10XX008	3.89	0.29	14.88	1.48	0.00	0.00	3.02	23.56	4.86	0.29	19.68	1.96	0.00	0.00	4.30	31.09
	G10XX009	4.43	0.33	18.66	1.86	0.00	0.00	3.43	28.71	5.53	0.33	24.68	2.46	0.00	0.00	4.90	37.90
	G10XX010	2.99	0.22	23.27	2.32	0.00	0.00	2.32	31.12	3.73	0.22	30.77	3.06	0.00	0.00	3.31	41.09
	G10XX011	4.46	0.33	42.87	4.27	0.00	0.00	3.46	55.39	5.58	0.34	56.70	5.65	0.00	0.00	4.94	73.21
	G10XX012	7.95	0.58	50.55	5.03	0.00	0.00	6.17	70.28	9.94	0.60	66.86	6.66	0.00	0.00	8.80	92.86
	G10XX013	9.63	0.71	81.38	8.10	0.00	0.00	7.47	107.29	12.04	0.73	107.63	10.72	0.00	0.00	10.66	141.78
	G10XX014	12.02	0.88	106.30	10.58	0.00	0.00	9.32	139.10	15.03	0.91	140.59	14.00	0.00	0.00	13.31	183.84
	G10XX015	17.85	1.31	143.39	14.28	0.00	0.00	13.84	190.67	22.31	1.34	189.64	18.88	0.00	0.00	19.75	251.92
	G10XX016	17.23	1.27	174.09	17.33	0.00	0.00	13.37	223.29	21.54	1.30	230.25	22.93	0.00	0.00	19.08	295.10
G15																	
	G15CA001	15.95	2.25	16.02	2.26	2.15	0.32	16.58	55.53	17.14	2.26	20.44	2.88	7.08	1.04	20.20	71.04
	G15CA003	19.11	2.72	19.78	2.79	3.67	0.54	19.90	68.51	20.52	2.73	25.23	3.56	12.11	1.78	24.25	90.18
	G15CA004	20.30	2.89	22.10	3.12	3.67	0.54	21.14	73.76	21.80	2.90	28.19	3.98	12.11	1.78	25.75	96.51
	G15CA005	28.45	3.98	28.62	4.04	2.47	0.36	29.50	97.42	30.55	4.00	36.51	5.15	8.14	1.20	35.94	121.49
	G15CA006	47.85	6.76	32.82	4.63	6.68	0.98	49.74	149.46	51.40	6.79	41.87	5.91	22.04	3.24	60.60	191.85
	G15CA009	21.52	3.07	23.53	3.32	2.80	0.41	22.43	77.08	23.12	3.08	30.03	4.24	9.24	1.36	27.33	98.40
	G15CA010	20.47	2.91	27.84	3.93	4.15	0.61	21.31	81.22	21.98	2.92	35.52	5.01	14.01	2.06	25.96	107.46
	G15CA011	20.41	2.90	22.10	3.12	3.67	0.54	21.25	73.99	21.92	2.91	28.19	3.98	12.11	1.78	25.89	96.78
	G15CA012	26.48	3.74	32.37	4.57	4.15	0.61	27.53	99.45	28.44	3.76	41.30	5.83	14.01	2.06	33.53	128.93
	G15JD008	13.92	2.01	16.68	2.35	3.67	0.54	14.55	53.72	14.95	2.02	21.29	3.00	12.11	1.78	17.72	72.87
	G15JD009	14.77	2.12	17.24	2.43	4.15	0.61	15.43	56.75	15.87	2.13	21.99	3.10	14.01	2.06	18.79	77.95

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
G15	***cont.***																
	G15JD010	15.08	2.17	20.44	2.88	3.67	0.54	15.75	60.53	16.20	2.18	26.08	3.68	12.11	1.78	19.18	81.21
	G15JD011	17.50	2.50	22.65	3.20	4.15	0.61	18.25	68.86	18.80	2.51	28.90	4.08	14.01	2.06	22.23	92.59
H10																	
	H10NP019	0.93	0.05	0.00	0.80	0.00	0.00	1.19	2.97								
	H10NP020	0.98	0.05	0.00	0.80	0.00	0.00	1.24	3.07								
	H10NP021	1.14	0.06	0.00	1.20	0.00	0.00	1.45	3.85								
	H10NP022	1.42	0.08	0.00	1.20	0.00	0.00	1.81	4.51								
	H10NP023	1.85	0.10	0.00	1.60	0.00	0.00	2.36	5.91								
	H10NP024	2.95	0.17	0.00	1.60	0.00	0.00	3.75	8.47								
	H10NP025	5.26	0.30	0.00	2.00	0.00	0.00	6.69	14.25								
	H10NP026	6.72	0.38	0.00	2.00	0.00	0.00	8.54	17.64								
	H10NP027	7.90	0.44	0.00	2.00	0.00	0.00	10.04	20.38								
	H10NP028	11.02	0.62	0.00	2.40	0.00	0.00	14.01	28.05								
	H10NP029	14.40	0.81	0.00	2.40	0.00	0.00	18.30	35.91								
	H10NP030	35.27	1.98	0.00	2.40	0.00	0.00	44.83	84.48								
H13																	
	H13BC003	5.13	0.20	0.89	0.46	0.00	0.00	4.57	11.25								
	H13BC006	3.43	0.14	0.53	0.28	0.00	0.00	3.05	7.43								
	H13BC008	6.97	0.28	0.89	0.46	0.00	0.00	6.20	14.80								
	H13BC011	5.13	0.20	0.89	0.46	0.00	0.00	4.57	11.25								
	H13BC012	3.61	0.14	0.53	0.28	0.00	0.00	3.22	7.78								
	H13BC013	2.86	0.11	0.53	0.28	0.00	0.00	2.55	6.33								
	H13CB001	2.42	0.19	0.89	0.71	0.00	0.00	2.32	6.53								
	H13CB002	2.61	0.21	1.78	1.17	0.00	0.00	2.50	8.27								
	H13CO002	1.38	0.11	0.89	0.71	0.00	0.00	1.32	4.41								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
H13	***cont.***																
	H13CO003	2.86	0.30	0.53	0.53	0.00	0.00	3.28	7.50								
	H13CO004	3.71	0.39	0.53	0.78	0.00	0.00	4.25	9.66								
	H13CO005	5.22	0.55	0.53	0.78	0.00	0.00	5.98	13.06								
	H13CO006	5.00	0.52	0.53	0.63	0.00	0.00	5.73	12.41								
	H13DC001	4.38	0.39	0.00	0.00	0.00	0.00	5.01	9.78								
	H13DC002	10.70	0.95	0.00	0.00	0.00	0.00	12.25	23.90								
	H13DC003	14.64	1.30	0.00	0.00	0.00	0.00	16.77	32.71								
	H13DC004	16.59	1.47	0.00	0.00	0.00	0.00	18.99	37.05								
	H13DC005	12.98	1.07	0.00	0.10	0.68	0.10	12.47	27.40								
	H13DC006	17.15	1.41	0.00	0.60	0.68	0.10	16.47	36.41								
	H13DC007	6.36	0.54	0.00	0.60	0.68	0.10	6.13	14.41								
	H13DC008	19.17	1.57	0.00	0.60	0.68	0.10	18.41	40.53								
	H13EP001	2.91	0.23	0.89	0.71	0.00	0.00	2.79	7.53								
	H13EP002	3.06	0.32	1.34	1.00	0.00	0.00	3.51	9.23								
	H13EV001	5.41	0.48	0.27	0.14	0.00	0.00	6.20	12.50								
	H13EV002	48.08	3.87	0.53	1.78	0.00	0.00	46.04	100.30								
	H13EV003	11.33	1.00	0.27	0.14	0.00	0.00	12.97	25.71								
	H13EV004	22.02	1.95	0.53	0.28	0.00	0.00	25.22	50.00								
	H13EV005	25.07	2.22	1.78	0.92	0.00	0.00	28.70	58.69								
	H13EV006	7.47	0.63	0.27	0.74	0.68	0.10	7.20	17.09								
	H13EV007	13.68	1.13	0.27	0.74	0.68	0.10	13.14	29.74								
	H13EV008	24.95	2.03	0.53	0.88	0.68	0.10	23.94	53.11								
	H13I2001	11.04	0.41	0.53	0.25	0.00	0.00	13.21	25.44								
	H13MN001	34.86	2.83	26.72	15.49	0.43	0.06	37.62	118.01								
	H13MN002	40.63	3.30	35.62	20.65	0.50	0.07	43.85	144.62								
	H13MN003	47.93	3.89	35.62	21.65	0.50	0.07	51.71	161.37								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
H13	***cont.***																
	H13MN004	53.29	4.32	53.43	30.98	0.50	0.07	57.49	200.08								
	H13S5001	5.54	0.45	0.53	0.28	0.00	0.00	5.30	12.10								
	H13S5002	8.68	0.70	0.89	0.46	0.00	0.00	8.32	19.05								
	H13S5003	10.31	0.83	0.89	0.46	0.00	0.00	9.87	22.36								
	H13SH001	3.59	0.29	3.56	1.66	0.00	0.00	3.87	12.97								
	H13SH002	3.37	0.27	3.56	1.66	0.00	0.00	3.63	12.49								
	H13SH005	15.92	1.28	17.81	8.33	0.00	0.00	17.15	60.49								
	H13SH006	21.32	1.72	35.62	16.65	0.00	0.00	22.98	98.29								
	H13SH007	25.73	2.07	35.62	16.65	0.00	0.00	27.73	107.80								
	H13TH001	1.14	0.09	0.89	0.46	0.00	0.00	1.09	3.67								
	H13TH002	1.94	0.16	1.06	0.11	0.05	0.01	1.86	5.19								
	H13TH003	2.07	0.17	1.06	0.11	0.05	0.01	1.99	5.46								
	H13XX001	4.81	0.18	1.78	0.83	0.00	0.00	5.75	13.35								
	H13XX002	26.82	0.98	0.27	0.13	0.00	0.00	32.09	60.29								
	H13XX003	0.10	0.00	0.00	0.00	0.00	0.00	0.12	0.22								
	H13XX004	0.20	0.01	0.00	0.00	0.00	0.00	0.24	0.45								
	H13YB004	0.56	0.04	0.00	0.00	0.00	0.00	0.53	1.13								
H20																	
	H20IR002	3.86	0.31	0.00	0.20	0.00	0.00	3.93	8.30								
	H20IR003	4.08	0.33	0.00	0.30	0.00	0.00	4.15	8.86								
	H20IR004	6.65	0.53	0.00	0.40	0.00	0.00	6.76	14.34								
H25																	
	H25AU007	0.97	0.05	0.00	0.00	0.00	0.00	1.16	2.18								
	H25AU008	1.32	0.07	0.00	0.00	0.00	0.00	1.58	2.97								
	H25AU009	1.87	0.10	0.00	0.00	0.00	0.00	2.24	4.21								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
H25	***cont.***																
	H25AU010	2.80	0.14	0.00	0.00	0.00	0.00	3.35	6.29								
	H25AU011	0.82	0.04	0.00	0.00	0.00	0.00	0.98	1.84								
	H25AX001	1.31	0.07	0.00	0.00	0.00	0.00	1.57	2.95								
	H25AX002	1.49	0.08	0.00	0.00	0.00	0.00	1.78	3.35								
	H25AX003	1.63	0.08	0.00	0.00	0.00	0.00	1.95	3.66								
	H25AX004	1.91	0.10	0.00	0.00	0.00	0.00	2.29	4.30								
	H25AX005	2.03	0.10	0.00	0.00	0.00	0.00	2.43	4.56								
	H25AX006	2.45	0.13	0.00	0.00	0.00	0.00	2.94	5.52								
	H25BS001	1.04	0.06	0.00	0.00	0.00	0.00	1.05	2.15								
	H25BS002	1.05	0.06	0.00	0.00	0.00	0.00	1.07	2.18								
	H25BS003	1.39	0.08	0.00	0.00	0.00	0.00	1.41	2.88								
	H25BS004	1.83	0.10	0.00	0.00	0.00	0.00	1.86	3.79								
	H25BS005	2.49	0.14	0.00	0.00	0.00	0.00	2.53	5.16								
	H25CA001	24.56	2.83	35.79	5.23	0.00	0.00	26.50	94.91	29.48	2.87	47.33	6.91	0.00	0.00	37.77	124.36
	H25CA002	24.77	3.75	50.20	2.31	0.00	0.00	33.39	114.42	29.36	3.79	66.39	3.06	0.00	0.00	43.53	146.13
	H25CA003	26.10	3.95	49.25	2.27	0.00	0.00	35.19	116.76	30.94	3.99	65.14	3.00	0.00	0.00	45.87	148.94
	H25CA004	39.20	5.94	55.75	2.57	0.00	0.00	52.84	156.30	46.46	5.99	73.73	3.40	0.00	0.00	68.89	198.47
	H25CA005	44.32	7.90	61.89	3.09	0.00	0.00	65.70	182.90	56.13	8.00	81.85	4.09	0.00	0.00	94.60	244.67
	H25CA020	16.20	1.36	8.27	1.21	0.00	0.00	15.29	42.33	19.67	1.38	10.93	1.60	0.00	0.00	22.55	56.13
	H25CA021	17.78	1.49	10.75	1.57	0.00	0.00	16.78	48.37	21.59	1.52	14.22	2.08	0.00	0.00	24.76	64.17
	H25CA022	15.68	1.81	18.07	2.64	0.00	0.00	16.91	55.11	18.81	1.83	23.90	3.49	0.00	0.00	24.11	72.14
	H25CA023	20.86	2.41	15.12	2.21	0.00	0.00	22.51	63.11	25.04	2.44	19.99	2.92	0.00	0.00	32.08	82.47
	H25CA034	3.43	0.27	2.13	0.31	0.00	0.00	3.24	9.38	3.92	0.28	2.81	0.41	0.00	0.00	4.23	11.65
	H25CA035	5.44	0.43	3.78	0.55	0.00	0.00	5.13	15.33	6.22	0.44	5.00	0.73	0.00	0.00	6.71	19.10
	H25CA036	6.79	0.54	4.96	0.72	0.00	0.00	6.41	19.42	7.76	0.55	6.56	0.96	0.00	0.00	8.37	24.20
	H25CA038	12.04	1.01	7.68	1.12	0.00	0.00	11.37	33.22	14.62	1.03	10.15	1.48	0.00	0.00	16.77	44.05

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
H25	***cont.***																
	H25CA040	16.71	1.93	13.35	1.95	0.00	0.00	18.03	51.97	20.06	1.95	17.65	2.58	0.00	0.00	25.70	67.94
	H25CA055	3.28	0.17	0.00	0.40	0.00	0.00	3.54	7.39								
	H25CA057	13.13	0.67	0.00	0.80	0.00	0.00	14.14	28.74								
	H25CA065	39.89	7.11	61.77	3.09	0.00	0.00	59.14	171.00	50.52	7.20	81.70	4.08	0.00	0.00	85.15	228.65
	H25CA066	16.69	0.86	0.00	0.00	0.00	0.00	17.99	35.54								
	H25CA067	19.75	1.01	0.00	0.00	0.00	0.00	21.29	42.05								
	H25CA068	7.73	0.40	0.00	0.00	0.00	0.00	9.25	17.38								
	H25CA069	9.32	0.48	0.00	0.00	0.00	0.00	11.15	20.95								
	H25CA070	13.10	0.67	0.00	0.00	0.00	0.00	15.67	29.44								
	H25FU001	5.33	0.27	0.00	0.50	0.00	0.00	6.38	12.48								
	H25FU002	7.69	0.39	0.00	0.50	0.00	0.00	9.21	17.79								
	H25FU003	17.54	0.90	0.00	1.00	0.00	0.00	20.99	40.43								
	H25FU004	0.92	0.05	0.00	0.15	0.00	0.00	1.10	2.22								
	H25FU005	1.86	0.10	0.00	0.15	0.00	0.00	2.23	4.34								
	H25FU006	2.57	0.13	0.00	0.15	0.00	0.00	3.07	5.92								
	H25KC017	9.22	0.77	6.38	0.93	0.00	0.00	8.70	26.00	11.20	0.79	8.44	1.23	0.00	0.00	12.84	34.50
	H25KC019	13.08	1.51	16.89	2.47	0.00	0.00	14.11	48.06	15.70	1.53	22.34	3.26	0.00	0.00	20.11	62.94
	H25KC020	17.30	1.99	16.89	2.47	0.00	0.00	18.66	57.31	20.75	2.02	22.34	3.26	0.00	0.00	26.59	74.96
	H25KC027	14.88	1.25	10.96	1.60	0.00	0.00	14.04	42.73	18.06	1.27	14.50	2.12	0.00	0.00	20.71	56.66
	H25KC028	16.05	1.85	20.79	3.04	0.00	0.00	17.32	59.05	19.26	1.88	27.49	4.01	0.00	0.00	24.68	77.32
	H25KC029	21.40	2.47	20.79	3.04	0.00	0.00	23.09	70.79	25.68	2.50	27.49	4.01	0.00	0.00	32.91	92.59
	H25KC030	21.41	2.47	28.11	4.10	0.00	0.00	23.09	79.18	25.69	2.50	37.18	5.43	0.00	0.00	32.92	103.72
	H25KC031	22.32	3.38	40.75	1.88	0.00	0.00	30.09	98.42	26.46	3.41	53.89	2.48	0.00	0.00	39.23	125.47
	H25KM001	14.77	1.24	11.10	1.62	0.00	0.00	13.94	42.67	17.93	1.26	14.68	2.14	0.00	0.00	20.56	56.57
	H25KM003	15.88	1.33	13.58	1.98	0.00	0.00	14.99	47.76	19.28	1.36	17.96	2.62	0.00	0.00	22.11	63.33
	H25KM009	40.80	7.27	57.52	2.87	0.00	0.00	60.49	168.95	51.67	7.36	76.07	3.80	0.00	0.00	87.09	225.99

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
H25	***cont.***																
	H25KM015	39.67	6.01	50.67	2.33	0.00	0.00	53.47	152.15	47.01	6.06	67.01	3.09	0.00	0.00	69.71	192.88
	H25KM018	3.99	0.32	3.07	0.45	0.00	0.00	3.77	11.60	4.56	0.32	4.06	0.59	0.00	0.00	4.92	14.45
	H25KM021	5.77	0.46	4.49	0.66	0.00	0.00	5.44	16.82	6.59	0.46	5.94	0.87	0.00	0.00	7.11	20.97
	H25KM022	6.95	0.55	4.49	0.66	0.00	0.00	6.56	19.21	7.94	0.56	5.94	0.87	0.00	0.00	8.56	23.87
	H25KM023	10.66	0.85	7.68	1.12	0.00	0.00	10.06	30.37	12.18	0.86	10.15	1.48	0.00	0.00	13.14	37.81
	H25KM033	94.18	16.79	115.28	5.76	0.00	0.00	139.64	371.65	119.30	16.99	152.46	7.62	0.00	0.00	201.05	497.42
	H25KM034	11.50	0.91	7.80	1.14	0.00	0.00	10.86	32.21	13.14	0.93	10.31	1.51	0.00	0.00	14.18	40.07
	H25LB003	15.09	1.27	11.22	1.64	0.00	0.00	14.24	43.46	18.32	1.29	14.84	2.17	0.00	0.00	21.01	57.63
	H25LB005	17.63	1.48	14.17	2.07	0.00	0.00	16.64	51.99	21.41	1.51	18.75	2.74	0.00	0.00	24.55	68.96
	H25LU001	4.01	0.21	0.00	0.40	0.00	0.00	4.32	8.94								
	H25LU002	4.52	0.23	0.00	0.50	0.00	0.00	4.87	10.12								
	H25LU003	9.30	0.48	0.00	0.80	0.00	0.00	10.02	20.60								
	H25LU004	10.35	0.53	0.00	0.90	0.00	0.00	11.15	22.93								
	H25LU005	12.55	0.64	0.00	1.10	0.00	0.00	13.53	27.82								
	H25LU006	13.63	0.70	0.00	1.50	0.00	0.00	14.68	30.51								
	H25LU007	15.39	0.79	0.00	1.40	0.00	0.00	16.59	34.17								
	H25LU008	18.16	0.93	0.00	1.60	0.00	0.00	19.57	40.26								
	H25LU009	17.16	0.88	0.00	1.70	0.00	0.00	18.50	38.24								
	H25LU010	21.78	1.12	0.00	2.00	0.00	0.00	23.48	48.38								
	H25LU011	24.16	1.24	0.00	2.00	0.00	0.00	26.03	53.43								
	H25LU012	28.83	1.48	0.00	2.50	0.00	0.00	31.07	63.88								
	H25LU013	28.79	1.48	0.00	2.60	0.00	0.00	31.03	63.90								
	H25LU014	34.42	1.76	0.00	3.00	0.00	0.00	37.09	76.27								
	H25LU023	5.10	0.29	0.00	0.25	0.00	0.00	5.19	10.83								
	H25LU024	1.98	0.11	0.00	0.30	0.00	0.00	2.02	4.41								
	H25LU025	2.56	0.14	0.00	0.40	0.00	0.00	2.61	5.71								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
H25	***cont.***																
	H25LU026	3.22	0.18	0.00	0.50	0.00	0.00	3.28	7.18								
	H25LU027	3.60	0.20	0.00	0.60	0.00	0.00	3.66	8.06								
	H25LU028	6.60	0.37	0.00	0.70	0.00	0.00	6.72	14.39								
	H25LU034	9.54	0.54	0.00	0.80	0.00	0.00	9.71	20.59								
	H25LU035	11.46	0.64	0.00	0.90	0.00	0.00	11.66	24.66								
	H25LU036	13.39	0.75	0.00	1.00	0.00	0.00	13.62	28.76								
	H25LU040	22.41	1.15	0.00	0.75	0.00	0.00	26.81	51.12								
	H25LU041	27.58	1.41	0.00	0.75	0.00	0.00	33.00	62.74								
	H25LU042	32.10	1.65	0.00	1.50	0.00	0.00	38.40	73.65								
	H25LU046	4.93	0.25	0.00	0.50	0.00	0.00	5.90	11.58								
	H25LU047	6.02	0.31	0.00	0.60	0.00	0.00	7.21	14.14								
	H25LU048	6.26	0.32	0.00	0.70	0.00	0.00	7.49	14.77								
	H25LU049	7.56	0.39	0.00	0.80	0.00	0.00	9.05	17.80								
	H25LU050	11.45	0.59	0.00	0.90	0.00	0.00	13.70	26.64								
	H25LU053	22.41	1.15	0.00	0.75	0.00	0.00	26.81	51.12								
	H25LU054	27.58	1.41	0.00	0.75	0.00	0.00	33.00	62.74								
	H25LU055	21.10	1.08	0.00	2.60	0.00	0.00	22.74	47.52								
	H25LU056	25.76	1.32	0.00	2.60	0.00	0.00	27.76	57.44								
	H25LU057	4.56	0.26	0.00	0.60	0.00	0.00	4.64	10.06								
	H25ME001	2.83	0.22	1.64	0.24	0.00	0.00	2.67	7.60	3.24	0.23	2.17	0.32	0.00	0.00	3.49	9.45
	H25ME002	4.77	0.38	3.96	0.58	0.00	0.00	4.50	14.19	5.45	0.38	5.23	0.76	0.00	0.00	5.88	17.70
	H25ME003	6.22	0.49	5.88	0.86	0.00	0.00	5.87	19.32	7.11	0.50	7.78	1.14	0.00	0.00	7.67	24.20
	H25RZ001	0.98	0.05	0.00	0.00	0.00	0.00	0.99	2.02								
	H25RZ002	0.94	0.05	0.00	0.00	0.00	0.00	1.12	2.11								
	H25RZ003	1.11	0.06	0.00	0.00	0.00	0.00	1.33	2.50								
	H25RZ004	1.16	0.06	0.00	0.00	0.00	0.00	1.39	2.61								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
H25	***cont.***																
	H25RZ005	1.43	0.07	0.00	0.00	0.00	0.00	1.71	3.21								
H30																	
	H30CA001	21.94	1.83	15.58	2.15	2.43	0.36	14.98	59.27	27.01	1.86	19.88	2.75	8.76	1.29	20.26	81.81
	H30CA002	19.64	1.99	15.58	2.15	2.43	0.36	16.06	58.21	24.55	2.03	19.88	2.75	8.76	1.29	21.73	80.99
	H30CA003	20.64	2.09	18.67	2.58	2.43	0.36	16.87	63.64	25.79	2.13	23.82	3.29	8.76	1.29	22.82	87.90
	H30CA004	22.03	2.23	18.67	2.58	2.43	0.36	18.00	66.30	27.54	2.27	23.82	3.29	8.76	1.29	24.35	91.32
	H30CA005	22.61	1.88	19.23	2.66	2.43	0.36	15.43	64.60	27.82	1.92	24.53	3.39	8.76	1.29	20.86	88.57
	H30CA006	25.17	2.49	19.11	2.64	1.29	0.19	20.46	71.35	31.46	2.54	24.39	3.37	4.65	0.68	27.68	94.77
	H30CA007	19.47	1.63	16.24	2.24	2.43	0.36	13.31	55.68	23.96	1.66	20.72	2.86	8.76	1.29	18.00	77.25
	H30GA009	32.89	2.67	33.81	4.67	1.61	0.24	22.31	98.20	40.47	2.73	43.14	5.96	5.73	0.84	30.18	129.05
	H30GA010	28.70	2.32	30.33	4.19	0.99	0.15	19.44	86.12	35.32	2.37	38.69	5.35	3.47	0.51	26.30	112.01
	H30GA011	29.65	2.95	36.39	5.03	1.65	0.24	24.12	100.03	37.07	3.01	46.43	6.42	5.85	0.86	32.64	132.28
H35																	
	H35CA001	58.08	7.96	78.54	3.93	0.00	0.00	88.14	236.65	66.38	8.02	103.88	5.19	0.00	0.00	109.11	292.58
	H35CA003	115.24	15.79	130.39	6.52	0.00	0.00	174.88	442.82	131.70	15.92	172.46	8.62	0.00	0.00	216.49	545.19
	H35CA004	191.66	26.27	180.71	9.03	0.00	0.00	290.84	698.51	219.04	26.47	239.00	11.95	0.00	0.00	360.04	856.50
	H35CA005	376.67	51.62	297.64	14.88	0.00	0.00	571.59	1,312.40	430.48	52.03	393.65	19.67	0.00	0.00	707.60	1,603.43
	H35HI006	86.24	11.82	75.71	3.78	0.00	0.00	130.87	308.42	98.56	11.91	100.13	5.00	0.00	0.00	162.00	377.60
	H35HI007	122.45	16.78	128.27	6.41	0.00	0.00	185.82	459.73	139.95	16.91	169.64	8.48	0.00	0.00	230.04	565.02
L10																	
	L10BS002	3.66	0.32	0.00	0.30	0.00	0.00	4.14	8.42	5.23	0.34	0.00	0.30	0.00	0.00	6.57	12.44
	L10BS004	2.48	0.22	0.00	0.25	0.00	0.00	2.81	5.76	3.55	0.23	0.00	0.25	0.00	0.00	4.46	8.49
	L10BS005	3.67	0.32	0.00	0.30	0.00	0.00	4.15	8.44	5.24	0.34	0.00	0.30	0.00	0.00	6.58	12.46
	L10BS007	2.66	0.24	0.00	0.50	0.00	0.00	3.01	6.41	3.80	0.24	0.00	0.50	0.00	0.00	4.78	9.32

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
L10	***cont.***																
	L10BU005	0.93	0.08	0.00	1.10	0.00	0.00	1.05	3.16	1.33	0.09	0.00	1.10	0.00	0.00	1.67	4.19
	L10BU010	0.46	0.04	0.00	0.80	0.00	0.00	0.52	1.82	0.66	0.04	0.00	0.80	0.00	0.00	0.83	2.33
	L10BU011	0.92	0.08	0.00	1.50	0.00	0.00	1.04	3.54	1.32	0.08	0.00	1.50	0.00	0.00	1.66	4.56
	L10BU012	1.55	0.14	0.00	2.00	0.00	0.00	1.75	5.44	2.21	0.14	0.00	2.00	0.00	0.00	2.78	7.13
	L10BU013	1.87	0.17	0.00	2.50	0.00	0.00	2.11	6.65	2.67	0.17	0.00	2.50	0.00	0.00	3.36	8.70
	L10BU014	1.89	0.17	0.00	2.00	0.00	0.00	2.13	6.19	2.70	0.17	0.00	2.00	0.00	0.00	3.39	8.26
	L10BU015	2.20	0.19	0.00	2.50	0.00	0.00	2.49	7.38	3.14	0.20	0.00	2.50	0.00	0.00	3.95	9.79
	L10RM001	4.84	0.43	0.00	0.40	0.00	0.00	5.47	11.14	6.91	0.44	0.00	0.40	0.00	0.00	8.68	16.43
	L10RM002	5.46	0.48	0.00	0.00	0.00	0.00	6.17	12.11	7.81	0.50	0.00	0.00	0.00	0.00	9.81	18.12
	L10VE002	3.09	0.27	5.39	0.67	0.00	0.00	3.49	12.91	4.41	0.28	6.98	0.87	0.00	0.00	5.54	18.08
	L10VE005	1.21	0.11	2.00	0.25	0.00	0.00	1.36	4.93	1.72	0.11	2.59	0.32	0.00	0.00	2.16	6.90
	L10VE006	3.12	0.28	3.08	0.38	0.05	0.01	3.53	10.45	4.45	0.29	3.99	0.50	0.15	0.02	5.60	15.00
	L10VE007	2.71	0.24	0.00	1.50	0.00	0.00	3.07	7.52	3.88	0.25	0.00	1.50	0.00	0.00	4.87	10.50
	L10VE009	3.50	0.31	8.62	0.93	0.05	0.01	3.97	17.39	5.01	0.32	11.00	1.19	0.15	0.02	6.30	23.99
	L10VE010	1.29	0.12	4.16	0.52	0.03	0.00	1.47	7.59	1.85	0.12	5.39	0.67	0.08	0.01	2.33	10.45
L15																	
	L15BW001	5.13	0.19	5.13	0.51	0.07	0.01	4.31	15.35								
	L15BW002	8.30	0.32	7.18	0.71	0.30	0.04	6.99	23.84								
	L15BW003	9.12	0.35	10.26	1.02	0.30	0.04	7.68	28.77								
	L15BW004	14.40	0.53	13.03	1.30	0.00	0.00	12.06	41.32								
	L15BW005	5.03	0.19	5.13	0.51	0.19	0.03	4.23	15.31								
	L15FG001	19.78	0.73	27.73	2.76	0.00	0.00	16.57	67.57								
	L15FG002	10.85	0.40	19.45	1.94	0.07	0.01	9.10	41.82								
	L15HV001	0.17	0.01	1.03	0.10	0.00	0.00	0.14	1.45								
	L15HV002	0.29	0.01	2.05	0.20	0.00	0.00	0.24	2.79								
	L15HV003	0.13	0.00	1.44	0.14	0.00	0.00	0.11	1.82								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
L15	***cont.***																
	L15HV004	0.09	0.00	1.44	0.14	0.00	0.00	0.08	1.75								
	L15JD005	0.60	0.02	0.00	0.00	0.00	0.00	0.50	1.12								
	L15S7001	0.21	0.01	0.41	0.04	0.00	0.00	0.17	0.84								
	L15TO001	0.34	0.01	1.23	0.12	0.00	0.00	0.28	1.98								
	L15TO002	0.35	0.03	2.98	0.30	0.71	0.10	0.34	4.81								
	L15TO003	0.59	0.08	4.21	0.42	2.84	0.42	0.68	9.24								
	L15TO004	0.37	0.07	4.51	0.45	2.84	0.42	0.49	9.15								
	L15TO006	0.79	0.11	5.23	0.52	4.18	0.61	0.93	12.37								
	L15TO007	0.93	0.11	5.23	0.52	4.18	0.61	1.04	12.62								
	L15TO009	0.26	0.01	1.64	0.16	0.00	0.00	0.22	2.29								
	L15TO010	0.52	0.02	2.05	0.20	0.00	0.00	0.43	3.22								
	L15WI001	1.70	0.07	0.00	0.05	0.11	0.02	1.44	3.39								
L20																	
	L20AB017	1.70	0.12	1.83	0.18	0.04	0.01	3.25	7.13								
	L20AB018	1.72	0.13	2.08	0.21	0.04	0.01	3.28	7.47								
	L20AB019	1.89	0.14	2.94	0.29	0.04	0.01	3.62	8.93								
	L20AB021	1.23	0.09	2.08	0.21	0.03	0.00	2.35	5.99								
	L20AB023	0.53	0.04	0.00	0.00	0.03	0.00	1.02	1.62								
	L20AB024	0.57	0.04	0.00	0.00	0.03	0.00	1.09	1.73								
	L20AB025	1.25	0.09	1.83	0.18	0.03	0.00	2.39	5.77								
	L20AB026	1.50	0.11	1.83	0.18	0.03	0.00	2.86	6.51								
L25																	
	L25JE002	16.32	1.21	34.67	3.45	0.84	0.12	25.02	81.63								
	L25JE003	0.41	0.03	1.21	0.12	0.00	0.00	0.62	2.39								
	L25MB002	1.18	0.09	1.21	1.12	0.06	0.01	1.81	5.48								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
L25	***cont.***																
	L25MB004	37.23	2.72	41.70	5.65	0.84	0.12	56.94	145.20								
	L25MB005	1.25	0.09	2.19	1.22	0.06	0.01	1.91	6.73								
	L25MB006	18.57	1.34	4.39	1.69	0.00	0.00	28.35	54.34								
	L25MB007	8.50	0.61	5.05	1.50	0.00	0.00	12.98	28.64								
	L25MB008	20.11	1.48	11.56	2.65	0.89	0.13	30.82	67.64								
L30																	
	L30KJ001	3.83	0.35	1.78	0.83	0.23	0.03	4.89	11.94	4.78	0.36	2.33	1.09	0.73	0.11	6.73	16.13
	L30KJ002	3.78	0.34	1.78	0.83	0.23	0.03	4.83	11.82	4.73	0.35	2.33	1.09	0.73	0.11	6.65	15.99
	L30KJ003	3.22	0.32	1.78	0.83	0.81	0.12	4.19	11.27	4.03	0.32	2.33	1.09	2.57	0.38	5.76	16.48
	L30KJ004	17.33	1.58	15.14	7.08	1.24	0.18	22.16	64.71	21.66	1.61	19.80	9.26	3.93	0.58	30.48	87.32
	L30RA001	7.49	0.67	3.43	0.40	0.17	0.02	9.54	21.72	9.36	0.68	4.53	0.53	0.54	0.08	13.13	28.85
	L30S4001	2.17	0.19	2.67	1.25	0.00	0.00	2.75	9.03	2.71	0.20	3.49	1.63	0.00	0.00	3.79	11.82
	L30S4002	1.86	0.16	0.00	0.00	0.00	0.00	2.37	4.39	2.33	0.17	0.00	0.00	0.00	0.00	3.25	5.75
	L30S4005	0.16	0.01	0.00	0.00	0.00	0.00	0.20	0.37	0.20	0.01	0.00	0.00	0.00	0.00	0.28	0.49
	L30S4006	0.18	0.02	0.00	0.00	0.00	0.00	0.23	0.43	0.23	0.02	0.00	0.00	0.00	0.00	0.32	0.57
L35																	
	L35CA001	4.17	0.37	8.69	0.86	0.00	0.00	5.76	19.85	5.21	0.38	11.25	1.11	0.00	0.00	8.18	26.13
	L35CA002	4.40	0.39	8.69	0.86	0.00	0.00	6.08	20.42	5.50	0.40	11.25	1.11	0.00	0.00	8.64	26.90
	L35CA003	4.89	0.43	9.62	0.95	0.00	0.00	6.76	22.65	6.11	0.44	12.46	1.23	0.00	0.00	9.60	29.84
	L35CA004	4.95	0.44	9.62	0.95	0.00	0.00	6.84	22.80	6.19	0.45	12.46	1.23	0.00	0.00	9.71	30.04
	L35CA005	19.92	1.76	19.17	1.90	0.00	0.00	27.51	70.26	24.89	1.80	24.81	2.46	0.00	0.00	39.08	93.04
	L35CA006	6.58	0.58	9.62	0.95	0.00	0.00	9.09	26.82	8.23	0.59	12.46	1.23	0.00	0.00	12.92	35.43
	L35CA007	41.50	3.67	34.07	3.37	0.00	0.00	57.33	139.94	51.88	3.75	44.09	4.36	0.00	0.00	81.45	185.53
	L35CA008	6.73	0.60	9.62	0.95	0.00	0.00	9.30	27.20	8.41	0.61	12.46	1.23	0.00	0.00	13.21	35.92
	L35CA009	6.18	0.55	9.62	0.95	0.00	0.00	8.53	25.83	7.72	0.56	12.46	1.23	0.00	0.00	12.12	34.09

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
L35	***cont.***																
	L35CA010	6.64	0.59	9.62	0.95	0.00	0.00	9.17	26.97	8.30	0.60	12.46	1.23	0.00	0.00	13.03	35.62
	L35CA011	8.00	0.71	14.25	1.41	0.00	0.00	11.05	35.42	10.00	0.72	18.44	1.83	0.00	0.00	15.70	46.69
	L35CA014	24.61	2.18	24.48	2.42	0.00	0.00	33.99	87.68	30.76	2.22	31.68	3.14	0.00	0.00	48.30	116.10
L40																	
	L40CA001	5.19	0.49	4.96	0.54	0.50	0.07	4.91	16.66	5.48	0.49	6.56	0.71	1.81	0.27	5.93	21.25
	L40CA002	13.25	1.43	18.31	1.99	12.38	1.82	13.02	62.20	14.01	1.44	24.21	2.63	44.57	6.55	15.74	109.15
	L40CA003	3.64	0.28	8.69	0.95	0.82	0.12	3.70	18.20								
	L40CA004	5.23	0.39	8.69	0.95	0.82	0.12	5.29	21.49								
	L40CA005	4.51	0.34	9.62	1.05	0.82	0.12	4.57	21.03								
	L40CA006	4.30	0.33	9.62	1.05	1.04	0.15	4.37	20.86								
	L40CA007	31.28	3.97	43.58	3.42	17.00	2.50	27.97	129.72	35.19	4.00	57.64	4.52	61.22	9.00	33.71	205.28
	L40CA008	4.93	0.37	9.62	1.05	1.04	0.15	5.00	22.16								
	L40CA009	117.76	14.63	94.49	7.41	18.82	2.77	104.82	360.70	132.48	14.75	124.97	9.80	67.76	9.96	126.31	486.03
	L40CA010	6.81	0.51	12.69	1.38	1.04	0.15	6.89	29.47								
	L40CA011	43.41	4.23	31.65	3.44	0.00	0.00	49.43	132.16	46.93	4.25	41.86	4.55	0.00	0.00	56.56	154.15
	L40CA012	15.95	1.63	17.13	1.86	3.47	0.51	18.37	58.92	17.24	1.64	22.65	2.46	12.48	1.83	21.03	79.33
	L40CA013	10.20	1.03	10.63	1.16	1.58	0.23	11.72	36.55	11.03	1.03	14.06	1.53	5.68	0.83	13.41	47.57
	L40CA015	6.50	0.65	8.74	0.95	0.56	0.08	7.46	24.94	7.03	0.66	11.56	1.26	2.02	0.30	8.54	31.37
	L40CA016	44.10	4.38	26.57	2.89	2.45	0.36	50.46	131.21	47.68	4.40	35.15	3.82	8.80	1.29	57.74	158.88
	L40CA017	53.74	5.32	35.43	3.85	2.45	0.36	61.43	162.58	58.10	5.35	46.86	5.10	8.80	1.29	70.30	195.80
	L40CA018	82.40	10.60	74.05	5.81	20.82	3.06	73.88	270.62	92.70	10.68	97.94	7.68	74.96	11.02	89.03	384.01
	L40CA019	9.33	0.88	11.22	1.22	1.58	0.23	8.83	33.29	9.87	0.88	14.84	1.61	5.68	0.83	10.68	44.39
	L40CA020	64.50	6.41	38.39	4.18	3.71	0.55	73.80	191.54	69.73	6.44	50.77	5.52	13.37	1.97	84.46	232.26
	L40CA021	99.81	9.72	61.89	6.73	0.00	0.00	113.65	291.80	107.90	9.78	81.85	8.90	0.00	0.00	130.06	338.49
	L40CA022	13.06	1.22	15.12	1.64	1.58	0.23	12.33	45.18	13.81	1.22	19.99	2.17	5.68	0.83	14.90	58.60
	L40CA023	19.73	1.84	19.96	2.17	2.61	0.38	18.64	65.33	20.86	1.85	26.40	2.87	9.38	1.38	22.53	85.27

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
L40	*cont.*																
	L40CA024	25.18	2.45	24.92	2.71	7.71	1.13	24.03	88.13	26.62	2.46	32.96	3.59	27.76	4.08	29.05	126.52
	L40CA025	24.90	2.42	28.94	3.15	7.71	1.13	23.76	92.01	26.32	2.44	38.27	4.16	27.76	4.08	28.73	131.76
	L40CA026	14.27	1.44	16.78	1.83	1.48	0.22	16.40	52.42	15.43	1.45	22.20	2.41	5.34	0.78	18.76	66.37
	L40CA027	15.64	1.57	16.78	1.83	1.48	0.22	17.96	55.48	16.91	1.58	22.20	2.41	5.34	0.78	20.55	69.77
	L40CA028	3.29	0.25	6.61	0.72	0.82	0.12	3.34	15.15								
	L40CA029	3.99	0.30	7.25	0.79	0.82	0.12	4.05	17.32								
	L40CA030	3.57	0.28	9.59	1.04	1.04	0.15	3.64	19.31								
	L40CA031	4.46	0.34	9.59	1.04	1.04	0.15	4.53	21.15								
	L40CA033	7.69	0.73	8.15	0.89	0.87	0.13	7.28	25.74	8.13	0.73	10.78	1.17	3.12	0.46	8.81	33.20
	L40CA034	8.99	0.84	8.15	0.89	0.87	0.13	8.51	28.38	9.51	0.85	10.78	1.17	3.12	0.46	10.28	36.17
	L40CA035	46.21	6.02	63.90	5.01	21.17	3.11	41.54	186.96	51.98	6.06	84.51	6.63	76.22	11.20	50.06	286.66
	L40CA036	11.06	1.12	11.81	1.28	1.81	0.27	12.70	40.05	11.95	1.12	15.62	1.70	6.51	0.96	14.53	52.39
	L40CA037	11.88	1.20	13.11	1.43	1.81	0.27	13.64	43.34	12.85	1.20	17.34	1.89	6.51	0.96	15.61	56.36
	L40CA038	13.84	1.39	11.93	1.30	1.81	0.27	15.88	46.42	14.97	1.40	15.78	1.72	6.51	0.96	18.17	59.51
	L40CA039	6.80	0.70	11.93	1.30	1.58	0.23	7.84	30.38	7.35	0.70	15.78	1.72	5.68	0.83	8.97	41.03
	L40CA040	17.79	1.67	18.19	1.98	2.61	0.38	16.82	59.44	18.80	1.68	24.06	2.62	9.38	1.38	20.33	78.25
	L40CS012	20.82	1.96	18.43	2.00	3.47	0.51	19.71	66.90	22.01	1.97	24.37	2.65	12.48	1.83	23.83	89.14
	L40CS013	23.12	2.17	20.79	2.26	3.47	0.51	21.86	74.18	24.44	2.18	27.49	2.99	12.48	1.83	26.43	97.84
	L40CS014	28.21	2.72	24.57	2.67	7.71	1.13	26.87	93.88	29.83	2.74	32.49	3.53	27.76	4.08	32.49	132.92
	L40KM003	15.00	1.42	14.88	1.62	2.61	0.38	14.20	50.11	15.86	1.42	19.68	2.14	9.38	1.38	17.17	67.03
	L40KM008	32.17	4.08	41.69	3.27	17.00	2.50	28.75	129.46	36.19	4.11	55.14	4.32	61.22	9.00	34.64	204.62
	L40KM009	46.10	5.94	62.24	4.88	11.93	1.75	41.36	174.20	51.86	5.99	82.32	6.45	42.94	6.31	49.83	245.70
	L40KM010	51.62	7.01	80.79	6.33	20.82	3.06	46.83	216.46	58.07	7.06	106.85	8.38	74.96	11.02	56.44	322.78
	L40KM011	78.11	10.00	95.43	7.48	18.82	2.77	69.98	282.59	87.88	10.08	126.22	9.90	67.76	9.96	84.32	396.12
	L40ME012	3.18	0.24	6.35	0.69	0.81	0.12	3.24	14.63								
	L40ME016	2.10	0.16	3.04	0.33	0.29	0.04	2.12	8.08								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
L40	***cont.***																
	L40ME017	3.12	0.24	6.35	0.69	0.81	0.12	3.17	14.50								
	L40ME021	3.29	0.25	6.35	0.69	0.81	0.12	3.34	14.85								
	L40ME022	4.17	0.32	9.59	1.04	0.94	0.14	4.23	20.43								
	L40ME023	4.86	0.37	9.59	1.04	0.94	0.14	4.93	21.87								
L50																	
	L50CA001	6.62	0.68	7.96	3.44	0.95	0.14	7.19	26.98	11.03	0.71	11.27	4.87	3.37	0.50	12.72	44.47
	L50CA002	9.75	0.99	8.50	3.67	1.20	0.18	10.57	34.86	16.25	1.05	12.05	5.21	4.25	0.62	18.72	58.15
	L50CA005	14.56	1.44	11.61	5.02	0.72	0.11	15.68	49.14	24.27	1.52	16.45	7.11	2.53	0.37	27.76	80.01
	L50CS007	12.44	1.25	8.87	3.83	0.97	0.14	13.43	40.93	20.73	1.31	12.57	5.43	3.44	0.51	23.78	67.77
	L50CS008	13.95	1.41	10.06	4.35	1.40	0.21	15.10	46.48	23.26	1.48	14.25	6.16	4.94	0.73	26.73	77.55
	L50JC008	6.66	0.69	6.77	2.93	1.11	0.16	7.26	25.58	11.10	0.73	9.59	4.14	3.91	0.57	12.85	42.89
	L50JC009	8.80	0.90	8.32	3.60	1.11	0.16	9.55	32.44	14.66	0.95	11.79	5.10	3.91	0.57	16.90	53.88
	L50JC010	9.67	0.98	9.97	4.31	1.11	0.16	10.48	36.68	16.12	1.04	14.12	6.10	3.91	0.57	18.56	60.42
	L50JC011	10.31	1.09	9.97	4.31	2.50	0.37	11.28	39.83	17.18	1.14	14.12	6.10	8.99	1.32	19.97	68.82
	L50JC012	12.95	1.34	9.97	4.31	2.50	0.37	14.11	45.55	21.58	1.41	14.12	6.10	8.99	1.32	24.97	78.49
L55																	
	L55FU001	1.14	0.06	0.00	0.52	0.00	0.00	1.45	3.17								
	L55FU002	2.08	0.12	0.00	1.06	0.00	0.00	2.65	5.91								
	L55FU003	1.90	0.11	0.00	0.00	0.00	0.00	2.42	4.43								
	L55FU004	2.60	0.15	0.00	0.00	0.00	0.00	3.31	6.06								
L60																	
	L60CA010	33.94	2.73	17.72	2.06	0.00	0.00	29.02	85.47	42.42	2.80	23.43	2.73	0.00	0.00	41.47	112.85
	L60CA011	37.08	2.98	17.72	2.06	0.00	0.00	31.71	91.55	46.35	3.06	23.43	2.73	0.00	0.00	45.31	120.88
	L60CA013	28.80	2.51	18.90	2.20	5.68	0.83	24.93	83.85	36.00	2.57	24.99	2.91	19.82	2.91	35.62	124.82

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
L60	***cont.***																
	L60JD001	13.30	1.22	14.06	1.64	5.41	0.80	11.61	48.04	16.63	1.25	18.59	2.16	19.48	2.86	16.60	77.57
	L60JD002	17.97	1.59	17.83	2.08	5.41	0.80	15.61	61.29	22.46	1.63	23.59	2.75	19.48	2.86	22.30	95.07
	L60JD003	14.10	1.21	14.06	1.64	2.90	0.43	12.19	46.53	17.63	1.24	18.59	2.16	10.45	1.54	17.42	69.03
	L60JD004	20.05	1.76	18.90	2.20	5.41	0.80	17.39	66.51	25.07	1.80	24.99	2.91	19.48	2.86	24.84	101.95
	L60JD006	17.07	1.52	20.08	2.34	5.41	0.80	14.84	62.06	21.34	1.56	26.56	3.09	19.48	2.86	21.20	96.09
	L60JD007	18.34	1.62	23.62	2.75	5.41	0.80	15.92	68.46	22.92	1.66	31.24	3.64	19.48	2.86	22.75	104.55
	L60JD008	36.52	2.94	20.08	2.34	0.00	0.00	31.23	93.11	45.65	3.01	26.56	3.09	0.00	0.00	44.63	122.94
M10																	
	M10M5001	2.74	0.34	19.34	2.57	0.00	0.00	2.30	27.29	3.38	0.35	25.24	3.35	0.00	0.00	3.04	35.36
	M10M5002	3.24	0.40	25.22	3.35	0.00	0.00	2.72	34.93	3.99	0.41	32.92	4.37	0.00	0.00	3.59	45.28
	M10M5003	3.99	0.50	38.67	5.14	0.00	0.00	3.34	51.64	4.90	0.50	50.47	6.71	0.00	0.00	4.41	66.99
	M10MZ001	4.09	0.19	0.00	0.00	0.00	0.00	2.32	6.60								
	M10MZ003	4.79	0.23	0.00	0.00	0.00	0.00	2.72	7.74								
	M10MZ005	1.09	0.22	0.00	0.00	0.00	0.00	0.74	2.05								
	M10MZ007	1.17	0.24	0.00	0.00	0.00	0.00	0.79	2.20								
	M10MZ010	4.51	0.56	18.90	2.99	0.00	0.00	3.78	30.74	5.55	0.57	24.99	3.95	0.00	0.00	4.99	40.05
	M10MZ011	5.66	0.70	23.62	3.73	0.00	0.00	4.74	38.45	6.96	0.71	31.24	4.94	0.00	0.00	6.26	50.11
	M10MZ012	6.26	0.78	35.43	5.60	0.00	0.00	5.25	53.32	7.71	0.79	46.86	7.40	0.00	0.00	6.93	69.69
	M10SM001	4.54	0.56	25.22	3.35	0.00	0.00	3.81	37.48	5.59	0.57	32.92	4.37	0.00	0.00	5.02	48.47
	M10SM003	5.29	0.66	33.63	4.47	0.00	0.00	4.44	48.49	6.51	0.67	43.89	5.83	0.00	0.00	5.85	62.75
	M10SM004	5.56	0.69	42.04	5.59	0.00	0.00	4.67	58.55	6.85	0.70	54.86	7.29	0.00	0.00	6.16	75.86
	M10SM005	2.05	0.26	19.34	2.57	0.00	0.00	1.72	25.94	2.52	0.26	25.24	3.35	0.00	0.00	2.27	33.64
	M10SM008	3.59	0.45	33.63	4.47	0.00	0.00	3.01	45.15	4.42	0.45	43.89	5.83	0.00	0.00	3.97	58.56
	M10XX002	0.37	0.08	0.00	0.00	0.00	0.00	0.25	0.70								
	M10XX003	0.82	0.17	0.00	0.00	0.00	0.00	0.56	1.55								
	M10XX004	0.96	0.20	0.00	0.00	0.00	0.00	0.65	1.81								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
M10	*cont.*																
	M10XX005	2.00	1.09	0.00	0.00	0.00	0.00	1.29	4.38								
	M10XX006	2.82	1.53	0.00	0.00	0.00	0.00	1.82	6.17								
	M10XX007	3.58	1.95	0.00	0.00	0.00	0.00	2.31	7.84								
	M10XX008	4.97	2.71	0.00	0.00	0.00	0.00	3.20	10.88								
	M10XX009	0.93	0.12	6.73	0.89	0.00	0.00	0.78	9.45	1.15	0.12	8.78	1.17	0.00	0.00	1.03	12.25
	M10XX010	1.16	0.14	10.09	1.34	0.00	0.00	0.97	13.70	1.43	0.15	13.17	1.75	0.00	0.00	1.29	17.79
	M10XX011	3.47	0.43	11.81	1.87	0.00	0.00	2.91	20.49	4.27	0.44	15.62	2.47	0.00	0.00	3.84	26.64
	M10XX012	3.53	0.44	11.81	1.87	0.00	0.00	2.96	20.61	4.35	0.45	15.62	2.47	0.00	0.00	3.91	26.80
	M10XX013	4.58	0.57	13.58	2.15	0.00	0.00	3.84	24.72	5.64	0.58	17.96	2.84	0.00	0.00	5.07	32.09
	M10XX014	6.31	0.78	20.67	3.27	0.00	0.00	5.29	36.32	7.76	0.79	27.34	4.32	0.00	0.00	6.98	47.19
	M10XX015	7.91	0.98	29.53	4.67	0.00	0.00	6.64	49.73	9.74	1.00	39.05	6.17	0.00	0.00	8.76	64.72
	M10XX016	8.97	1.67	0.00	0.00	0.00	0.00	6.74	17.38								
	M10XX017	9.49	1.77	0.00	0.00	0.00	0.00	7.12	18.38								
	M10XX018	11.82	2.20	0.00	0.00	0.00	0.00	8.87	22.89								
	M10XX019	12.08	2.25	0.00	0.00	0.00	0.00	9.06	23.39								
	M10XX020	0.82	0.17	0.00	0.00	0.00	0.00	0.56	1.55								
	M10XX021	19.72	2.49	44.88	7.09	0.00	0.00	17.86	92.04	23.67	2.52	59.36	9.38	0.00	0.00	22.77	117.70
	M10XX022	22.44	2.83	51.38	8.12	0.00	0.00	20.32	105.09	26.93	2.87	67.95	10.73	0.00	0.00	25.91	134.39
	M10XX023	30.05	3.79	47.24	7.46	0.00	0.00	27.21	115.75	36.06	3.84	62.48	9.87	0.00	0.00	34.69	146.94
	M10XX024	42.84	5.41	51.38	8.12	0.00	0.00	38.79	146.54	51.41	5.47	67.95	10.73	0.00	0.00	49.47	185.03
	M10XX025	23.93	13.02	0.00	0.00	0.00	0.00	15.42	52.37								
	M10XX026	25.72	13.99	0.00	0.00	0.00	0.00	16.57	56.28								
	M10XX027	3.22	0.60	0.00	0.00	0.00	0.00	2.42	6.24								
	M10XX028	14.91	4.05	96.13	15.19	0.00	0.00	15.19	145.47								
	M10XX029	5.42	1.01	0.00	0.00	0.00	0.00	4.07	10.50								
	M10XX030	2.99	0.37	37.83	5.03	0.00	0.00	2.50	48.72	3.68	0.38	49.38	6.56	0.00	0.00	3.30	63.30

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
M10	*cont.*																
	M10XX031	2.49	0.31	37.83	5.03	0.00	0.00	2.09	47.75	3.07	0.31	49.38	6.56	0.00	0.00	2.76	62.08
	M10XX032	9.46	1.19	54.33	8.58	0.00	0.00	8.57	82.13	11.36	1.21	71.86	11.35	0.00	0.00	10.93	106.71
	M10XX033	12.87	4.76	116.01	18.33	0.00	0.00	14.57	166.54								
	M10XX034	23.65	8.75	149.16	23.56	0.00	0.00	26.78	231.90								
	M10XX035	12.38	1.56	77.95	12.31	0.00	0.00	11.21	115.41	14.85	1.58	103.10	16.29	0.00	0.00	14.29	150.11
	M10XX036	63.25	23.40	220.98	34.91	0.00	0.00	71.61	414.15								
	M10XX037	5.28	0.67	58.85	7.82	0.00	0.00	4.78	77.40	6.33	0.67	76.81	10.21	0.00	0.00	6.09	100.11
	M10XX038	17.54	2.21	50.20	7.93	0.00	0.00	15.88	93.76	21.05	2.24	66.39	10.49	0.00	0.00	20.25	120.42
	M10XX039	40.34	5.09	94.49	14.93	0.00	0.00	36.53	191.38	48.41	5.15	124.97	19.74	0.00	0.00	46.58	244.85
P10																	
	P10AP001	4.79	0.36	0.00	0.00	0.00	0.00	5.99	11.14								
	P10AP002	8.71	0.65	0.00	0.00	0.00	0.00	10.91	20.27								
	P10AP003	9.50	0.71	0.00	0.00	0.00	0.00	11.90	22.11								
	P10AP004	11.47	0.86	0.00	0.00	0.00	0.00	14.36	26.69								
	P10AP005	16.91	1.26	0.00	0.00	0.00	0.00	21.18	39.35								
	P10AP006	2.96	0.22	0.00	0.00	0.00	0.00	3.71	6.89								
	P10AP007	4.77	0.36	0.00	0.00	0.00	0.00	5.98	11.11								
	P10IC002	22.09	1.65	35.43	4.71	0.00	0.00	27.66	91.54								
	P10IC010	2.11	0.16	0.00	0.00	0.00	0.00	2.65	4.92								
	P10IC011	4.13	0.31	1.54	0.20	0.00	0.00	5.17	11.35								
	P10IC012	2.99	0.22	0.00	0.00	0.00	0.00	3.74	6.95								
	P10IC013	5.14	0.38	2.19	0.29	0.00	0.00	6.43	14.43								
P20																	
	P20IC002	14.70	0.90	0.00	1.90	0.00	0.00	21.93	39.43								
	P20IC003	14.96	0.92	0.00	2.50	0.00	0.00	22.32	40.70								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
P20	***cont.***																
	P20IC004	15.98	0.98	0.00	3.15	0.00	0.00	23.84	43.95								
	P20MK001	6.27	0.35	0.00	0.00	0.00	0.00	8.77	15.39								
	P20MK002	3.95	0.22	0.00	0.50	0.00	0.00	5.52	10.19								
	P20MK003	6.34	0.36	0.00	1.00	0.00	0.00	8.87	16.57								
	P20MK004	6.26	0.35	0.00	1.25	0.00	0.00	8.76	16.62								
	P20MK005	9.65	0.54	0.00	1.25	0.00	0.00	13.50	24.94								
	P20MK006	13.13	0.74	0.00	2.50	0.00	0.00	18.36	34.73								
	P20MK007	14.88	0.83	0.00	2.50	0.00	0.00	20.81	39.02								
P25																	
	P25DL001	3.57	0.20	2.48	1.28	0.00	0.00	4.54	12.07								
	P25DL003	4.63	0.26	6.38	2.05	0.00	0.00	5.88	19.20								
	P25DL004	5.10	0.29	8.03	2.87	0.00	0.00	6.48	22.77								
	P25DL005	8.81	0.49	12.40	4.30	0.00	0.00	11.19	37.19								
	P25DL006	8.97	0.50	14.06	5.17	0.00	0.00	11.40	40.10								
	P25DL008	11.10	0.62	23.15	8.38	0.00	0.00	14.11	57.36								
	P25DL009	21.32	1.20	29.41	10.51	0.00	0.00	27.10	89.54								
	P25DL010	30.69	1.72	34.25	12.80	0.00	0.00	39.01	118.47								
	P25DL011	30.32	1.70	42.76	15.58	0.00	0.00	38.55	128.91								
	P25MK001	5.07	0.28	4.61	3.11	0.00	0.00	6.45	19.52								
	P25MK003	8.81	0.49	9.92	5.47	0.00	0.00	11.20	35.89								
	P25VU002	8.67	0.44	0.00	2.50	0.00	0.00	10.37	21.98								
	P25VU003	10.62	0.54	0.00	2.50	0.00	0.00	12.71	26.37								
	P25VU004	10.87	0.56	0.00	2.50	0.00	0.00	13.01	26.94								
	P25VU005	14.64	0.75	0.00	2.50	0.00	0.00	17.52	35.41								
	P25VU010	15.07	0.77	0.00	0.95	0.00	0.00	18.03	34.82								
	P25VU011	15.09	0.77	0.00	1.17	0.00	0.00	18.06	35.09								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
P30																	
	P30AP001	5.21	0.29	1.18	0.16	0.00	0.00	6.63	13.47								
	P30AP002	22.56	1.27	32.48	4.32	0.00	0.00	28.67	89.30								
	P30AP003	25.96	1.46	32.48	4.32	0.00	0.00	33.00	97.22								
	P30AP004	27.81	1.56	32.48	4.32	0.00	0.00	35.35	101.52								
	P30AP005	40.38	2.26	44.29	5.89	0.00	0.00	51.33	144.15								
	P30AP006	92.37	5.18	124.02	16.48	0.00	0.00	117.43	355.48								
	P30AP007	128.14	7.19	141.73	18.83	0.00	0.00	162.90	458.79								
	P30AP008	8.61	0.48	0.00	0.00	0.00	0.00	10.94	20.03								
	P30AP009	9.51	0.53	0.00	0.00	0.00	0.00	12.09	22.13								
	P30AP010	11.14	0.62	0.00	0.00	0.00	0.00	14.16	25.92								
	P30AP011	51.76	2.90	90.35	12.01	0.00	0.00	65.80	222.82								
	P30MK001	17.62	0.99	21.85	2.90	0.00	0.00	22.40	65.76								
	P30MK003	27.23	1.53	43.11	5.73	0.00	0.00	34.61	112.21								
	P30MK004	44.11	2.47	82.68	10.99	0.00	0.00	56.07	196.32								
P35																	
	P35CA010	20.08	2.43	8.10	1.35	0.00	0.00	23.94	55.90	24.44	2.46	10.48	1.75	0.00	0.00	33.76	72.89
	P35CA011	50.41	6.09	20.08	3.35	0.00	0.00	60.11	140.04	61.36	6.17	25.98	4.33	0.00	0.00	84.76	182.60
	P35CA012	59.86	7.23	23.71	3.95	0.00	0.00	71.38	166.13	72.87	7.32	30.68	5.11	0.00	0.00	100.65	216.63
P40																	
	P40BX001	1.63	0.10	0.00	0.05	0.00	0.00	1.47	3.25								
	P40TE016	2.50	0.15	0.15	0.12	0.00	0.00	2.24	5.16								
	P40TE018	12.82	0.81	4.39	0.51	4.19	0.62	11.58	34.92								
	P40TE019	26.37	1.68	5.30	0.62	5.79	0.85	23.84	64.45								
	P40TE020	19.11	1.24	4.39	0.51	5.79	0.85	17.31	49.20								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
P40	***cont.***																
	P40TE021	18.94	1.23	4.39	0.51	5.79	0.85	17.16	48.87								
	P40TE022	35.28	2.22	6.77	0.79	5.79	0.85	31.84	83.54								
	P40TE023	13.97	0.85	4.39	0.51	0.79	0.12	12.58	33.21								
	P40TE024	27.58	1.75	5.30	0.62	5.79	0.85	24.93	66.82								
	P40TE025	20.30	1.24	38.45	4.48	1.16	0.17	18.28	84.08								
	P40TE026	26.26	1.62	40.58	4.72	2.18	0.32	23.66	99.34								
	P40TE027	12.00	0.74	32.04	3.73	0.75	0.11	10.81	60.18								
	P40TE028	14.14	0.87	32.04	3.73	0.75	0.11	12.73	64.37								
	P40TE029	50.65	3.09	38.45	4.48	2.18	0.32	45.59	144.76								
	P40TE030	13.15	0.81	28.84	3.36	0.75	0.11	11.85	58.87								
	P40TE031	3.90	0.25	0.00	0.00	0.85	0.12	3.53	8.65								
	P40TE032	4.43	0.28	0.00	0.00	0.85	0.12	4.01	9.69								
	P40TE033	2.30	0.16	0.00	0.00	0.85	0.12	2.09	5.52								
	P40TE034	9.92	0.64	2.27	0.26	2.89	0.42	8.98	25.38								
	P40TE035	11.33	0.87	4.39	0.51	20.88	3.07	10.46	51.51								
P45																	
	P45AF002	0.08	0.01	0.00	0.00	0.00	0.00	0.10	0.19								
	P45AF003	0.14	0.01	0.00	0.00	0.00	0.00	0.17	0.32								
	P45AF006	1.12	0.07	2.94	0.39	0.00	0.00	1.34	5.86								
	P45AF007	1.68	0.11	6.13	0.81	0.00	0.00	2.02	10.75								
	P45AF008	0.96	0.06	0.00	0.10	0.00	0.00	1.14	2.26								
	P45AF009	2.14	0.14	2.00	0.33	0.00	0.00	2.56	7.17								
	P45AF010	7.31	0.48	7.89	0.92	0.05	0.01	8.75	25.41								
	P45AF011	6.56	0.43	10.29	1.20	0.06	0.01	7.86	26.41								
	P45AF012	3.24	0.22	8.58	1.14	0.13	0.02	3.89	17.22								
	P45AF013	1.35	0.09	3.43	0.56	0.13	0.02	1.63	7.21								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
P45	***cont.***																
	P45CG001	0.49	0.03	0.00	0.05	0.00	0.00	0.59	1.16								
	P45CG002	0.79	0.05	0.00	0.10	0.00	0.00	0.94	1.88								
	P45CG003	1.86	0.12	0.00	0.15	0.00	0.00	2.22	4.35								
	P45CG006	2.74	0.18	3.43	0.40	0.06	0.01	3.28	10.10								
	P45CG007	3.32	0.22	5.66	0.66	0.06	0.01	3.97	13.90								
	P45OE002	3.51	0.23	9.43	1.10	0.05	0.01	4.21	18.54								
	P45OE003	4.64	0.31	14.40	1.68	0.05	0.01	5.56	26.65								
	P45OE004	5.45	0.36	20.57	2.39	0.05	0.01	6.53	35.36								
	P45OE005	8.69	0.58	31.03	3.61	0.09	0.01	10.41	54.42								
	P45PU001	6.02	0.40	7.89	0.92	0.06	0.01	7.21	22.51								
P50																	
	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	0.07	0.11								
	P50GR003	0.08	0.00	0.00	0.00	0.00	0.00	0.13	0.21								
	P50GR004	0.14	0.00	0.00	0.00	0.00	0.00	0.24	0.38								
	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	0.12	0.00	0.00	0.00	0.00	0.00	0.20	0.32								
	P50WC001	0.16	0.01	2.31	0.31	0.00	0.00	0.19	2.98								
	P50WC002	0.20	0.01	2.46	0.39	0.00	0.00	0.23	3.29								
	P50WC003	0.45	0.03	2.62	0.41	0.00	0.00	0.51	4.02								
	P50WC004	2.07	0.15	5.41	0.85	0.06	0.01	2.38	10.93								
	P50XX001	5.24	0.38	9.83	1.55	0.00	0.00	6.00	23.00								
	P50XX002	4.94	0.36	11.47	1.81	0.00	0.00	5.66	24.24								
	P50XX003	9.12	0.66	13.93	2.20	0.00	0.00	10.44	36.35								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
P55																	
	P55GF001	2.62	0.19	3.44	0.54	0.08	0.01	3.35	10.23								
	P55GF002	2.85	0.21	3.44	0.54	0.08	0.01	3.64	10.77								
	P55GR001	0.53	0.03	0.49	0.23	0.00	0.00	0.38	1.66								
	P55GR002	0.60	0.04	1.23	0.58	0.00	0.00	0.43	2.88								
	P55GR003	1.54	0.10	6.17	2.88	0.00	0.00	1.10	11.79								
	P55GR004	2.26	0.15	14.80	6.92	0.00	0.00	1.62	25.75								
	P55WC001	0.04	0.00	0.25	0.12	0.00	0.00	0.03	0.44								
	P55WC002	0.07	0.00	0.25	0.12	0.00	0.00	0.05	0.49								
P60																	
	P60GF003	3.64	0.27	11.80	1.86	0.08	0.01	4.18	21.84								
	P60GF004	3.79	0.28	11.80	1.86	0.08	0.01	4.35	22.17								
	P60GF005	4.78	0.35	18.51	2.92	0.08	0.01	5.48	32.13								
	P60GF006	5.43	0.40	22.94	3.62	0.08	0.01	6.23	38.71								
	P60GF008	3.85	0.28	11.80	1.86	0.08	0.01	4.42	22.30								
	P60GR001	2.83	0.21	7.70	1.22	0.06	0.01	3.25	15.28								
	P60GR002	3.53	0.26	16.85	2.24	0.06	0.01	4.05	27.00								
	P60HO002	0.11	0.01	0.81	0.11	0.00	0.00	0.12	1.16								
	P60HO003	0.20	0.01	1.85	0.25	0.00	0.00	0.23	2.54								
	P60WC001	0.06	0.00	0.92	0.12	0.00	0.00	0.07	1.17								
	P60WC002	0.07	0.01	1.39	0.18	0.00	0.00	0.08	1.73								
P65																	
	P65GR002	0.41	0.04	0.35	0.05	0.18	0.03	0.44	1.50								
	P65GR003	0.88	0.07	0.69	0.09	0.20	0.03	0.92	2.88								
	P65HO001	0.18	0.01	0.81	0.11	0.00	0.00	0.20	1.31								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
P65	***cont.***																
	P65HO002	0.21	0.02	0.81	0.11	0.00	0.00	0.24	1.39								
	P65WC001	0.22	0.02	0.92	0.12	0.00	0.00	0.22	1.50								
	P65WC002	0.23	0.02	0.92	0.12	0.00	0.00	0.24	1.53								
P70																	
	P70XX001	0.37	0.03	0.46	0.06	0.00	0.00	0.41	1.33								
	P70XX002	0.98	0.08	1.39	0.18	0.00	0.00	1.06	3.69								
R10																	
	R10CA001	1.24	0.09	0.00	0.08	0.00	0.00	1.40	2.81	1.53	0.09	0.00	0.08	0.00	0.00	1.92	3.62
	R10CA003	1.24	0.09	0.00	0.08	0.00	0.00	1.40	2.81	1.52	0.09	0.00	0.08	0.00	0.00	1.91	3.60
	R10CA005	1.24	0.09	0.00	0.08	0.00	0.00	1.40	2.81	1.53	0.09	0.00	0.08	0.00	0.00	1.92	3.62
	R10CA006	0.04	0.00	0.00	0.00	0.00	0.00	0.04	0.08	0.04	0.00	0.00	0.00	0.00	0.00	0.05	0.09
	R10CA007	3.16	0.23	0.00	0.08	0.00	0.00	3.57	7.04	3.89	0.23	0.00	0.08	0.00	0.00	4.89	9.09
	R10CA009	5.56	0.40	0.00	0.08	0.00	0.00	6.28	12.32	6.84	0.41	0.00	0.08	0.00	0.00	8.59	15.92
	R10CA010	0.23	0.02	0.00	0.00	0.00	0.00	0.26	0.51	0.28	0.02	0.00	0.00	0.00	0.00	0.35	0.65
	R10CA011	6.79	0.49	0.00	0.10	0.00	0.00	7.67	15.05	8.36	0.50	0.00	0.10	0.00	0.00	10.50	19.46
	R10CA012	7.70	0.56	0.00	0.10	0.00	0.00	8.70	17.06	9.48	0.57	0.00	0.10	0.00	0.00	11.91	22.06
	R10CA013	0.59	0.04	0.00	0.00	0.00	0.00	0.66	1.29	0.72	0.04	0.00	0.00	0.00	0.00	0.91	1.67
	R10CA014	9.55	0.69	0.00	0.16	0.00	0.00	10.79	21.19	11.75	0.71	0.00	0.16	0.00	0.00	14.76	27.38
	R10CA015	9.10	0.66	0.00	0.16	0.00	0.00	10.28	20.20	11.20	0.67	0.00	0.16	0.00	0.00	14.07	26.10
	R10CA016	0.70	0.05	0.00	0.00	0.00	0.00	0.79	1.54	0.86	0.05	0.00	0.00	0.00	0.00	1.08	1.99
	R10CA017	12.72	0.92	0.00	0.21	0.00	0.00	14.37	28.22	15.65	0.94	0.00	0.21	0.00	0.00	19.67	36.47
	R10CA018	15.37	1.11	0.00	0.22	0.00	0.00	17.36	34.06	18.91	1.14	0.00	0.22	0.00	0.00	23.76	44.03
	R10CA019	0.91	0.07	0.00	0.24	0.00	0.00	1.03	2.25	1.12	0.07	0.00	0.24	0.00	0.00	1.41	2.84
	R10CA020	15.09	1.09	0.00	0.23	0.00	0.00	17.05	33.46	18.57	1.12	0.00	0.23	0.00	0.00	23.33	43.25
	R10CA021	15.42	1.12	0.00	0.25	0.00	0.00	17.43	34.22	18.98	1.14	0.00	0.25	0.00	0.00	23.85	44.22

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
R10	***cont.***																
	R10CA022	0.22	0.02	0.00	0.00	0.00	0.00	0.25	0.49	0.27	0.02	0.00	0.00	0.00	0.00	0.34	0.63
R15																	
	R15WV001	0.86	0.09	0.00	0.00	0.24	0.04	0.80	2.03								
	R15WV002	0.99	0.10	0.00	0.00	0.24	0.04	0.93	2.30								
R20																	
	R20HJ001	3.31	0.29	0.00	0.25	0.00	0.00	3.44	7.29								
	R20HJ002	1.39	0.12	0.00	0.25	0.00	0.00	1.44	3.20								
R30																	
	R30BO003	15.61	1.10	15.93	1.59	2.01	0.30	13.48	50.02								
	R30BO004	7.72	0.59	12.31	1.23	2.31	0.34	6.76	31.26								
	R30BO005	7.68	0.62	6.80	0.68	0.00	0.00	7.51	23.29								
	R30BO006	8.45	0.68	12.02	1.20	0.00	0.00	8.26	30.61								
	R30BO007	9.88	0.80	11.29	1.12	0.00	0.00	9.66	32.75								
	R30BO008	39.80	4.16	63.99	6.37	0.00	0.00	41.34	155.66								
	R30BO009	38.99	4.08	63.99	6.37	0.00	0.00	40.50	153.93								
	R30CA001	10.59	0.71	14.55	1.45	0.33	0.05	9.07	36.75								
	R30CA002	24.34	1.61	19.26	1.92	0.33	0.05	20.83	68.34								
	R30CA003	35.36	3.70	34.75	3.46	0.00	0.00	36.73	114.00								
	R30CA006	51.11	5.34	45.61	4.54	0.00	0.00	53.09	159.69								
	R30CA012	35.16	3.68	31.85	3.17	0.00	0.00	36.52	110.38								
	R30CA013	53.46	5.59	51.25	5.10	0.00	0.00	55.54	170.94								
	R30RS002	4.14	0.33	3.62	0.36	0.00	0.00	4.05	12.50								
	R30RS003	8.58	0.59	12.31	1.23	0.86	0.13	7.40	31.10								
	R30SI005	11.89	0.96	10.86	1.08	0.00	0.00	11.63	36.42								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
R30	***cont.***																
	R30WG001	12.34	0.99	10.71	1.07	0.00	0.00	12.06	37.17								
R40																	
	R40BO001	7.30	0.53	8.19	1.09	0.00	0.00	7.59	24.70								
	R40BO002	7.92	0.57	8.19	1.09	0.00	0.00	8.23	26.00								
R45																	
	R45BO004	4.38	0.32	5.41	0.72	0.00	0.00	6.25	17.08								
	R45BO005	6.44	0.47	7.54	1.00	0.00	0.00	9.20	24.65								
	R45BO006	12.95	0.94	17.69	2.35	0.00	0.00	18.51	52.44								
	R45BO007	14.84	1.07	21.46	2.85	0.00	0.00	21.20	61.42								
	R45BO008	16.48	1.19	33.59	4.46	0.00	0.00	23.55	79.27								
	R45CA002	3.69	0.27	3.69	0.49	0.00	0.00	5.27	13.41								
	R45CA003	5.16	0.37	5.93	0.79	0.00	0.00	7.37	19.62								
	R45CA004	6.34	0.46	7.99	1.06	0.00	0.00	9.06	24.91								
	R45CA005	13.29	0.96	13.60	1.81	0.00	0.00	18.99	48.65								
	R45CA006	7.38	0.53	7.99	1.06	0.00	0.00	10.54	27.50								
	R45CA007	12.35	0.89	18.02	2.39	0.00	0.00	17.64	51.29								
	R45CA008	15.50	1.12	21.63	2.87	0.00	0.00	22.15	63.27								
	R45CA009	17.22	1.24	23.26	3.09	0.00	0.00	24.60	69.41								
	R45CA010	21.08	1.52	23.59	3.13	0.00	0.00	30.11	79.43								
	R45CA011	4.33	0.31	5.41	0.72	0.00	0.00	6.19	16.96								
	R45CA012	15.26	1.10	22.44	2.98	0.00	0.00	21.80	63.58								
	R45CA013	20.12	1.45	22.44	2.98	0.00	0.00	28.75	75.74								
	R45CA014	11.25	0.81	16.38	2.18	0.00	0.00	16.08	46.70								
	R45CA015	19.03	1.38	16.38	2.18	0.00	0.00	27.19	66.16								
	R45CA016	4.59	0.33	5.90	0.78	0.00	0.00	6.56	18.16								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
R45	***cont.***																
	R45SI008	4.34	0.31	5.73	0.76	0.00	0.00	6.21	17.35								
	R45SI009	11.87	0.86	12.78	1.70	0.00	0.00	16.96	44.17								
	R45SI010	15.87	1.15	20.81	2.77	0.00	0.00	22.67	63.27								
	R45WG001	4.73	0.34	5.73	0.76	0.00	0.00	6.76	18.32								
	R45WG002	13.80	1.00	16.38	2.18	0.00	0.00	19.72	53.08								
	R45WG003	18.71	1.35	21.30	2.83	0.00	0.00	26.73	70.92								
R50																	
	R50BO005	5.75	0.47	5.91	0.79	0.35	0.05	8.02	21.34								
	R50BO006	8.53	0.69	8.86	1.18	0.33	0.05	11.87	31.51								
	R50BO007	9.85	0.80	8.86	1.18	0.64	0.09	13.74	35.16								
	R50BO008	17.03	1.37	18.31	2.43	0.43	0.06	23.66	63.29								
	R50BO009	15.59	1.25	23.03	3.06	0.43	0.06	21.66	65.08								
	R50BO010	5.92	0.48	5.91	0.79	0.35	0.05	8.26	21.76								
	R50BO011	9.01	0.73	8.86	1.18	0.33	0.05	12.53	32.69								
	R50BO012	11.61	0.94	11.93	1.59	0.64	0.09	16.18	42.98								
	R50BO013	17.90	1.44	15.47	2.06	0.43	0.06	24.86	62.22								
	R50CA001	8.98	0.72	8.27	1.10	0.31	0.05	12.49	31.92								
	R50CA002	9.96	0.80	8.27	1.10	0.31	0.05	13.84	34.33								
	R50CA003	11.23	0.89	8.74	1.16	0.00	0.00	15.55	37.57								
	R50CA004	15.25	1.23	11.81	1.57	0.50	0.07	21.20	51.63								
	R50CA005	12.59	1.02	11.81	1.57	0.58	0.09	17.52	45.18								
	R50CA006	10.22	0.83	9.80	1.30	0.58	0.09	14.24	37.06								
	R50CA007	15.97	1.33	18.43	2.45	1.92	0.28	22.40	62.78								
	R50CA008	18.76	1.56	18.43	2.45	1.92	0.28	26.28	69.68								
	R50CA009	21.11	1.73	18.54	2.46	1.53	0.22	29.47	75.06								
	R50CA010	23.43	1.91	20.52	2.73	1.53	0.22	32.69	83.03								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
R50	***cont.***																
	R50CA011	18.51	1.52	18.54	2.46	1.38	0.20	25.85	68.46								
	R50CA012	9.05	0.74	8.74	1.16	0.81	0.12	12.61	33.23								
	R50CA013	13.73	1.11	11.81	1.57	0.58	0.09	19.11	48.00								
	R50CA014	15.22	1.23	11.81	1.57	0.58	0.09	21.16	51.66								
	R50CA015	18.06	1.48	18.54	2.46	1.38	0.20	25.23	67.35								
	R50CA016	17.86	1.47	18.54	2.46	1.38	0.20	24.95	66.86								
	R50CA017	15.42	1.27	15.47	2.06	1.38	0.20	21.56	57.36								
	R50CA018	23.88	1.94	20.52	2.73	1.38	0.20	33.28	83.93								
	R50SI006	7.77	0.67	7.09	0.94	1.47	0.22	10.98	29.14								
	R50SI007	8.37	0.71	7.09	0.94	1.47	0.22	11.81	30.61								
	R50SI013	13.32	1.11	17.48	2.32	1.53	0.22	18.67	54.65								
	R50SI016	14.17	1.18	17.48	2.32	1.53	0.22	19.86	56.76								
	R50SI017	15.40	1.27	17.48	2.32	1.53	0.22	21.56	59.78								
	R50SI022	11.24	0.91	11.81	1.57	0.62	0.09	15.67	41.91								
	R50SI023	12.58	1.02	11.81	1.57	0.62	0.09	17.52	45.21								
	R50WG001	13.36	1.11	15.59	2.07	1.53	0.22	18.73	52.61								
	R50WG002	14.74	1.22	18.90	2.51	1.53	0.22	20.65	59.77								
	R50WG003	4.65	0.38	4.13	0.55	0.45	0.07	6.51	16.74								
	R50WG004	6.02	0.49	5.31	0.71	0.45	0.07	8.41	21.46								
	R50WG005	14.58	1.17	11.81	1.57	0.45	0.07	20.27	49.92								
	R50WG006	7.38	0.61	8.86	1.18	1.28	0.19	10.34	29.84								
	R50WG007	7.67	0.65	8.86	1.18	2.18	0.32	10.82	31.68								
	R50WG008	9.84	0.80	11.81	1.57	0.58	0.09	13.72	38.41								
	R50WG009	10.62	0.86	11.81	1.57	0.58	0.09	14.80	40.33								
	R50WG010	11.77	0.95	12.99	1.73	0.55	0.08	16.39	44.46								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
R55																	
	R55GL001	0.76	0.04	0.00	0.50	0.02	0.00	0.73	2.05								
	R55GL002	1.04	0.06	0.77	0.58	0.04	0.01	1.00	3.50								
	R55GL003	2.83	0.15	1.39	0.89	0.04	0.01	2.71	8.02								
	R55GL004	3.46	0.18	1.39	1.14	0.03	0.00	3.32	9.52								
	R55GL007	2.45	0.13	2.77	0.28	0.00	0.00	2.35	7.98								
	R55GL009	0.54	0.03	1.62	0.16	0.00	0.00	0.52	2.87								
	R55GL011	1.29	0.07	2.46	0.24	0.00	0.00	1.24	5.30								
	R55GL012	1.98	0.10	1.39	0.89	0.04	0.01	1.91	6.32								
	R55GL013	0.15	0.02	0.00	0.25	0.13	0.02	0.16	0.73								
	R55GL014	0.67	0.03	0.00	0.35	0.00	0.00	0.64	1.69								
	R55GL015	2.08	0.11	1.39	0.14	0.00	0.00	1.99	5.71								
	R55GL016	0.87	0.04	1.39	0.14	0.00	0.00	0.84	3.28								
	R55GL017	0.38	0.02	0.77	0.08	0.00	0.00	0.37	1.62								
	R55GL018	0.45	0.02	0.77	0.08	0.00	0.00	0.43	1.75								
	R55GL019	0.85	0.04	1.23	0.12	0.00	0.00	0.82	3.06								
	R55GL020	0.77	0.04	0.77	0.08	0.00	0.00	0.73	2.39								
	R55GL021	0.45	0.02	1.39	0.14	0.00	0.00	0.43	2.43								
	R55GL022	4.38	0.23	1.23	7.12	0.16	0.02	4.22	17.36								
	R55GL023	1.29	0.07	1.23	0.12	0.00	0.00	1.24	3.95								
	R55GL024	0.90	0.05	0.85	0.08	0.00	0.00	0.86	2.74								
	R55GL025	0.65	0.03	1.00	0.10	0.00	0.00	0.62	2.40								
	R55GL026	0.60	0.03	0.92	0.09	0.00	0.00	0.57	2.21								
	R55GL027	4.46	0.23	0.66	0.57	0.03	0.00	4.27	10.22								
	R55GL028	5.04	0.26	0.77	0.58	0.03	0.00	4.84	11.52								
	R55GL029	5.90	0.30	1.39	0.89	0.03	0.00	5.66	14.17								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
S10																	
	S10CA003	45.79	6.11	48.07	6.39	18.60	2.73	61.05	188.74	51.76	6.16	63.58	8.45	74.41	10.94	72.67	287.97
S15																	
	S15CA001	37.41	5.20	44.97	5.98	18.60	2.73	39.28	154.17	44.89	5.25	57.37	7.62	74.41	10.94	50.09	250.57
	S15CA002	52.61	7.11	49.72	6.61	16.20	2.38	54.91	189.54	63.14	7.19	63.44	8.43	64.85	9.53	70.04	286.62
	S15JU001	32.20	4.15	46.63	6.20	0.00	0.00	33.28	122.46	38.64	4.20	59.49	7.91	0.00	0.00	42.45	152.69
	S15JU002	33.72	4.35	46.63	6.20	0.00	0.00	34.85	125.75	40.46	4.39	59.49	7.91	0.00	0.00	44.46	156.71
S20																	
	S20CA001	37.46	5.20	79.67	8.62	22.47	3.30	41.80	198.52	41.63	5.24	103.57	11.20	95.07	13.98	49.20	319.89
	S20CA002	44.25	6.08	79.67	8.62	22.47	3.30	49.26	213.65	49.17	6.12	103.57	11.20	95.07	13.98	57.97	337.08
	S20CA003	68.01	9.09	80.02	8.66	19.59	2.88	75.29	263.54	75.57	9.15	104.02	11.25	82.87	12.18	88.60	383.64
	S20CA004	70.94	9.47	80.02	8.66	19.59	2.88	78.50	270.06	78.82	9.53	104.02	11.25	82.87	12.18	92.38	391.05
	S20CA005	86.40	11.65	108.59	11.75	31.00	4.56	95.81	349.76	96.00	11.73	141.16	15.27	131.14	19.28	112.76	527.34
	S20CA006	91.91	12.36	108.59	11.75	31.00	4.56	101.86	362.03	102.12	12.44	141.16	15.27	131.14	19.28	119.88	541.29
S25																	
	S25JD001	4.01	0.47	0.00	1.50	1.51	0.22	3.72	11.43	4.81	0.48	0.00	1.50	5.63	0.83	4.77	18.02
	S25JD002	5.32	0.61	0.00	1.50	1.51	0.22	4.90	14.06	6.39	0.62	0.00	1.50	5.63	0.83	6.30	21.27
	S25RI001	3.34	0.40	0.00	1.50	1.52	0.22	3.11	10.09	4.01	0.41	0.00	1.50	5.67	0.83	4.00	16.42
	S25RI002	3.66	0.45	0.00	1.50	2.17	0.32	3.43	11.53	4.39	0.46	0.00	1.50	8.08	1.19	4.41	20.03
	S25RM001	8.15	0.96	0.00	1.50	3.47	0.51	7.57	22.16	9.78	0.98	0.00	1.50	12.84	1.89	9.72	36.71
	S25RM002	10.05	1.30	0.00	1.50	8.22	1.21	9.52	31.80	12.06	1.32	0.00	1.50	30.34	4.46	12.23	61.91
	S25RM003	6.25	0.76	0.00	1.50	3.47	0.51	5.85	18.34	7.50	0.78	0.00	1.50	12.84	1.89	7.51	32.02
	S25RM004	10.36	1.33	0.00	1.50	8.22	1.21	9.80	32.42	12.43	1.35	0.00	1.50	30.34	4.46	12.59	62.67

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
S30																	
	S30KB007	4.11	0.33	1.78	0.83	0.46	0.07	3.28	10.86	5.14	0.33	2.14	1.21	0.52	0.08	4.98	14.40
	S30KB008	5.08	0.40	2.67	1.25	0.52	0.08	4.05	14.05	6.36	0.41	3.21	1.82	0.59	0.09	6.15	18.63
	S30KB009	6.85	0.56	2.67	1.25	0.98	0.14	5.48	17.93	8.56	0.57	3.21	1.82	1.10	0.16	8.31	23.73
	S30KB012	7.28	0.59	4.45	2.08	1.08	0.16	5.82	21.46	9.10	0.61	5.34	3.02	1.21	0.18	8.84	28.30
	S30KB013	4.90	0.40	4.45	2.08	0.71	0.10	3.92	16.56	6.12	0.41	5.34	3.02	0.81	0.12	5.95	21.77
	S30KB014	6.65	0.53	5.34	2.50	0.80	0.12	5.31	21.25	8.32	0.54	6.41	3.62	0.91	0.13	8.06	27.99
	S30KB015	8.93	0.72	7.12	3.33	1.17	0.17	7.13	28.57	11.17	0.74	8.55	4.83	1.32	0.19	10.83	37.63
	S30KB018	10.61	0.82	4.45	2.08	0.76	0.11	8.44	27.27	13.26	0.84	5.34	3.02	0.86	0.13	12.81	36.26
	S30KB021	12.31	0.95	7.12	3.33	0.87	0.13	9.79	34.50	15.39	0.97	8.55	4.83	0.99	0.15	14.87	45.75
	S30KB034	5.37	0.43	2.67	1.25	0.68	0.10	4.29	14.79	6.71	0.44	3.21	1.82	0.77	0.11	6.51	19.57
	S30KB036	5.74	0.46	3.56	1.66	0.76	0.11	4.59	16.88	7.18	0.47	4.27	2.41	0.86	0.13	6.96	22.28
	S30KB044	17.53	1.32	2.67	1.25	0.67	0.10	13.91	37.45	21.92	1.36	3.21	1.82	0.76	0.11	21.12	50.30
	S30KB046	16.39	2.88	48.44	22.64	1.14	0.17	22.28	113.94	27.31	2.97	58.13	32.87	1.28	0.19	49.50	172.25
	S30KJ002	8.30	0.64	2.67	1.25	0.61	0.09	6.60	20.16	10.38	0.66	3.21	1.82	0.69	0.10	10.03	26.89
	S30KJ004	9.63	0.74	2.67	1.25	0.68	0.10	7.65	22.72	12.03	0.76	3.21	1.82	0.77	0.11	11.62	30.32
	S30KJ006	9.64	0.75	5.34	2.50	0.76	0.11	7.67	26.77	12.05	0.77	6.41	3.62	0.86	0.13	11.64	35.48
	S30KJ010	7.10	0.56	3.56	1.66	0.65	0.10	5.66	19.29	8.88	0.57	4.27	2.41	0.73	0.11	8.59	25.56
	S30KJ011	7.98	0.62	4.45	2.08	0.72	0.11	6.35	22.31	9.97	0.64	5.34	3.02	0.82	0.12	9.65	29.56
	S30KJ035	8.50	0.67	3.56	1.66	0.83	0.12	6.77	22.11	10.62	0.68	4.27	2.41	0.94	0.14	10.28	29.34
	S30KJ041	10.07	0.79	3.56	1.66	0.94	0.14	8.02	25.18	12.58	0.81	4.27	2.41	1.06	0.16	12.17	33.46
	S30KJ042	18.39	1.38	5.34	2.50	0.61	0.09	14.58	42.89	22.99	1.42	6.41	3.62	0.69	0.10	22.15	57.38
	S30KJ043	16.59	1.25	2.67	1.25	0.67	0.10	13.16	35.69	20.73	1.28	3.21	1.82	0.76	0.11	19.99	47.90
	S30KJ045	20.09	3.51	42.52	4.95	0.84	0.12	22.73	94.76	33.48	3.61	50.75	7.08	0.95	0.14	47.38	143.39
	S30KJ048	19.56	1.48	15.14	7.08	0.76	0.11	17.74	61.87	24.45	1.51	18.17	10.27	0.86	0.13	27.70	83.09
	S30KJ049	21.74	1.75	16.03	7.49	2.88	0.42	19.85	70.16	27.18	1.79	19.23	10.87	3.24	0.48	30.99	93.78
	S30KJ050	37.88	2.82	7.12	3.33	0.56	0.08	34.30	86.09	47.35	2.88	8.55	4.83	0.63	0.09	53.57	117.90

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
S30	***cont.***																
	S30KJ051	46.58	3.47	7.12	3.33	0.84	0.12	42.18	103.64	58.22	3.56	8.55	4.83	0.95	0.14	65.88	142.13
	S30KJ052	43.93	3.23	0.53	0.25	0.00	0.00	39.74	87.68	54.92	3.31	0.64	0.36	0.00	0.00	62.06	121.29
	S30KJ053	10.09	0.78	7.12	3.33	0.67	0.10	8.02	30.11	12.62	0.80	8.55	4.83	0.76	0.11	12.18	39.85
	S30KJ054	11.84	0.90	2.67	1.25	0.61	0.09	9.40	26.76	14.79	0.92	3.21	1.82	0.69	0.10	14.27	35.80
	S30KJ056	20.83	3.65	20.67	2.41	1.09	0.16	15.32	64.13	34.71	3.75	24.67	3.44	1.23	0.18	33.41	101.39
	S30KJ057	20.71	3.61	25.04	2.92	0.81	0.12	15.23	68.44	34.52	3.72	29.89	4.17	0.91	0.13	33.22	106.56
	S30KJ059	46.53	8.10	53.43	24.98	1.55	0.23	34.20	169.02	77.54	8.34	64.12	36.26	1.75	0.26	74.60	262.87
	S30KJ060	15.17	1.19	13.36	6.25	1.56	0.23	12.08	49.84	18.96	1.22	16.03	9.06	1.80	0.26	18.35	65.68
	S30KJ061	37.68	2.84	1.78	0.83	1.37	0.20	34.17	78.87	47.10	2.91	2.14	1.21	1.54	0.23	53.36	108.49
	S30KJ062	10.79	0.83	7.12	3.33	0.71	0.10	8.58	31.46	13.49	0.85	8.55	4.83	0.81	0.12	13.03	41.68
	S30KJ063	13.54	1.03	10.24	4.79	0.71	0.10	10.75	41.16	16.92	1.06	12.29	6.95	0.81	0.12	16.32	54.47
	S30KJ064	15.06	1.18	10.69	5.00	1.56	0.23	11.99	45.71	18.82	1.21	12.82	7.25	1.80	0.26	18.21	60.37
	S30KJ065	15.13	1.20	10.24	4.79	1.72	0.25	12.06	45.39	18.91	1.22	12.29	6.95	1.98	0.29	18.31	59.95
	S30KJ066	13.26	1.06	12.02	5.62	1.72	0.25	10.58	44.51	16.57	1.08	14.43	8.16	1.98	0.29	16.07	58.58
	S30KJ067	15.56	1.23	14.69	6.87	1.72	0.25	12.40	52.72	19.44	1.26	17.63	9.97	1.98	0.29	18.82	69.39
	S30KJ068	17.58	3.08	38.29	17.90	0.90	0.13	23.88	101.76	29.30	3.17	45.95	25.98	1.01	0.15	53.07	158.63
	S30KJ069	21.80	3.82	56.10	26.22	1.18	0.17	29.62	138.91	36.33	3.93	67.32	38.07	1.33	0.20	65.82	213.00
	S30KJ070	8.30	0.65	4.01	1.87	0.68	0.10	6.61	22.22	10.38	0.66	4.81	2.72	0.77	0.11	10.03	29.48
	S30KJ071	14.10	1.09	4.01	1.87	0.96	0.14	11.21	33.38	17.62	1.11	4.81	2.72	1.08	0.16	17.02	44.52
	S30KJ072	11.51	0.92	5.79	2.71	1.53	0.22	9.18	31.86	14.39	0.94	6.95	3.93	1.76	0.26	13.95	42.18
	S30KJ081	3.67	0.30	1.78	0.83	0.50	0.07	2.93	10.08	4.59	0.30	2.14	1.21	0.56	0.08	4.45	13.33
	S30KJ082	4.96	0.40	1.78	0.83	0.73	0.11	3.96	12.77	6.20	0.41	2.14	1.21	0.83	0.12	6.02	16.93
	S30KJ083	3.71	0.31	2.67	1.25	0.68	0.10	2.97	11.69	4.64	0.32	3.21	1.82	0.77	0.11	4.52	15.39
	S30KJ084	5.08	0.42	3.56	1.66	0.83	0.12	4.06	15.73	6.35	0.43	4.27	2.41	0.94	0.14	6.17	20.71
	S30KJ085	3.87	0.32	3.56	1.66	0.76	0.11	3.10	13.38	4.84	0.33	4.27	2.41	0.86	0.13	4.71	17.55
	S30KJ086	5.30	0.44	4.45	2.08	0.94	0.14	4.25	17.60	6.63	0.45	5.34	3.02	1.06	0.16	6.45	23.11

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
S30	***cont.***																
	S30KJ087	4.67	0.39	5.34	2.50	0.83	0.12	3.74	17.59	5.83	0.40	6.41	3.62	0.94	0.14	5.68	23.02
	S30KJ088	8.06	0.65	7.12	3.33	1.04	0.15	6.43	26.78	10.07	0.66	8.55	4.83	1.18	0.17	9.77	35.23
	S30PU002	53.54	3.97	47.24	5.50	0.94	0.14	42.40	153.73	66.93	4.07	56.39	7.87	1.12	0.16	64.39	200.93
	S30PU003	67.36	5.00	47.24	5.50	1.14	0.17	53.34	179.75	84.20	5.12	56.39	7.87	1.35	0.20	81.00	236.13
	S30PU004	79.07	5.86	47.24	5.50	1.09	0.16	62.60	201.52	98.84	6.00	56.39	7.87	1.29	0.19	95.07	265.65
	S30RA003	13.22	0.98	5.20	0.61	0.20	0.03	11.97	32.21	16.53	1.01	6.20	0.87	0.23	0.03	18.70	43.57
	S30TS009	12.97	2.24	53.43	27.98	0.00	0.00	14.66	111.28	21.62	2.30	64.12	39.26	0.00	0.00	30.55	157.85
	S30TS010	18.98	3.27	71.24	37.30	0.00	0.00	21.45	152.24	31.63	3.37	85.49	52.34	0.00	0.00	44.71	217.54
	S30TS011	28.78	4.96	142.48	74.60	0.00	0.00	32.52	283.34	47.96	5.11	170.98	104.68	0.00	0.00	67.78	396.51
S35																	
	S35AR001	0.59	0.04	0.00	0.00	0.00	0.00	0.60	1.23								
	S35AR002	0.83	0.06	0.00	0.00	0.00	0.00	0.85	1.74								
	S35XX001	1.20	0.09	0.00	0.00	0.00	0.00	1.22	2.51								
	S35XX002	15.13	1.09	35.43	4.12	0.00	0.00	15.39	71.16								
	S35XX003	9.74	0.70	0.00	0.00	0.00	0.00	9.91	20.35								
	S35XX004	26.59	1.92	50.20	5.84	0.00	0.00	27.05	111.60								
S40																	
	S40BO002	33.00	2.99	46.63	5.43	2.23	0.33	36.44	127.05	41.25	3.06	60.35	7.03	9.25	1.36	50.88	173.18
	S40BO003	31.08	2.82	46.63	5.43	2.23	0.33	34.34	122.86	38.86	2.88	60.35	7.03	9.25	1.36	47.95	167.68
	S40BO004	31.64	2.87	46.63	5.43	2.23	0.33	34.94	124.07	39.55	2.93	60.35	7.03	9.25	1.36	48.80	169.27
	S40CA003	30.18	2.80	45.34	5.28	3.42	0.50	33.47	120.99	37.72	2.86	58.67	6.83	13.73	2.02	46.74	168.57
	S40CA004	49.02	4.51	69.95	8.14	5.60	0.82	54.28	192.32	61.27	4.60	90.53	10.54	21.56	3.17	75.80	267.47
S45																	
	S45DA004	2.25	0.13	0.00	0.25	0.00	0.00	2.86	5.49								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
S45	***cont.***																
	S45DA005	2.44	0.14	0.00	0.25	0.00	0.00	3.10	5.93								
	S45DA007	2.70	0.15	0.00	0.25	0.00	0.00	3.44	6.54								
T10																	
	T10CA001	0.77	0.07	0.00	0.08	0.00	0.00	0.77	1.69	0.96	0.07	0.00	0.08	0.00	0.00	1.09	2.20
	T10CA002	1.59	0.14	0.00	0.08	0.00	0.00	1.60	3.41	1.99	0.14	0.00	0.08	0.00	0.00	2.25	4.46
	T10CA004	0.82	0.07	0.00	0.08	0.00	0.00	0.82	1.79	1.02	0.07	0.00	0.08	0.00	0.00	1.16	2.33
	T10CA005	1.59	0.14	0.00	0.08	0.00	0.00	1.60	3.41	1.99	0.14	0.00	0.08	0.00	0.00	2.25	4.46
	T10CA007	0.85	0.07	0.00	0.08	0.00	0.00	0.85	1.85	1.06	0.08	0.00	0.08	0.00	0.00	1.20	2.42
	T10CA008	2.42	0.21	0.00	0.08	0.00	0.00	2.43	5.14	3.03	0.22	0.00	0.08	0.00	0.00	3.42	6.75
	T10CA009	2.48	0.22	0.00	0.08	0.00	0.00	2.49	5.27	3.10	0.22	0.00	0.08	0.00	0.00	3.50	6.90
	T10CA010	3.48	0.31	0.00	0.08	0.00	0.00	3.49	7.36	4.34	0.31	0.00	0.08	0.00	0.00	4.91	9.64
	T10CA011	4.07	0.36	0.00	0.08	0.00	0.00	4.09	8.60	5.08	0.37	0.00	0.08	0.00	0.00	5.74	11.27
	T10CA012	4.69	0.42	0.00	0.08	0.00	0.00	4.72	9.91	5.87	0.42	0.00	0.08	0.00	0.00	6.63	13.00
	T10CA013	4.72	0.42	0.00	0.08	0.00	0.00	4.74	9.96	5.90	0.43	0.00	0.08	0.00	0.00	6.66	13.07
	T10CA014	3.93	0.35	0.00	0.08	0.00	0.00	3.95	8.31	4.91	0.36	0.00	0.08	0.00	0.00	5.55	10.90
	T10CA015	4.57	0.40	0.00	0.10	0.00	0.00	4.60	9.67	5.72	0.41	0.00	0.10	0.00	0.00	6.46	12.69
	T10CA016	5.01	0.44	0.00	0.12	0.00	0.00	5.04	10.61	6.26	0.45	0.00	0.12	0.00	0.00	7.08	13.91
	T10CA017	5.46	0.48	0.00	0.13	0.00	0.00	5.49	11.56	6.83	0.49	0.00	0.13	0.00	0.00	7.71	15.16
	T10CA018	5.93	0.52	0.00	0.13	0.00	0.00	5.96	12.54	7.41	0.54	0.00	0.13	0.00	0.00	8.38	16.46
	T10CA019	5.04	0.45	0.00	0.05	0.00	0.00	5.06	10.60	6.30	0.46	0.00	0.05	0.00	0.00	7.11	13.92
	T10CA020	6.06	0.54	0.00	0.15	0.00	0.00	6.09	12.84	7.58	0.55	0.00	0.15	0.00	0.00	8.56	16.84
	T10CA021	8.77	0.78	0.00	0.19	0.00	0.00	8.81	18.55	10.96	0.79	0.00	0.19	0.00	0.00	12.39	24.33
	T10CA022	9.06	0.80	0.00	0.19	0.00	0.00	9.11	19.16	11.33	0.82	0.00	0.19	0.00	0.00	12.80	25.14
	T10CA023	8.58	0.76	0.00	0.20	0.00	0.00	8.62	18.16	10.72	0.78	0.00	0.20	0.00	0.00	12.11	23.81
	T10CA024	5.42	0.48	0.00	0.28	0.00	0.00	5.45	11.63	6.78	0.49	0.00	0.28	0.00	0.00	7.66	15.21
	T10CA025	6.53	0.58	0.00	0.29	0.00	0.00	6.56	13.96	8.16	0.59	0.00	0.29	0.00	0.00	9.22	18.26

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
T10	***cont.***																
	T10CA026	10.19	0.90	0.00	0.40	0.00	0.00	10.24	21.73	12.74	0.92	0.00	0.40	0.00	0.00	14.39	28.45
	T10CA027	13.45	1.19	0.00	0.42	0.00	0.00	13.51	28.57	16.81	1.22	0.00	0.42	0.00	0.00	18.99	37.44
	T10JD001	1.06	0.10	0.00	0.25	0.10	0.01	1.08	2.60	1.33	0.10	0.00	0.25	0.11	0.02	1.52	3.33
T15																	
	T15CA002	8.46	0.91	9.07	1.36	0.00	0.00	13.35	33.15	10.57	0.93	11.73	1.76	0.00	0.00	18.97	43.96
	T15CA005	10.05	1.08	10.36	1.55	0.00	0.00	15.87	38.91	12.57	1.10	13.41	2.01	0.00	0.00	22.55	51.64
	T15CA008	20.14	2.17	18.78	2.82	0.00	0.00	31.79	75.70	25.18	2.21	24.31	3.65	0.00	0.00	45.17	100.52
	T15CA009	30.41	3.28	21.37	3.20	0.00	0.00	48.00	106.26	38.01	3.33	27.66	4.15	0.00	0.00	68.20	141.35
	T15CA011	29.80	3.21	23.96	3.59	0.00	0.00	47.05	107.61	37.26	3.27	31.01	4.65	0.00	0.00	66.85	143.04
	T15CA012	23.93	2.87	31.09	3.63	0.00	0.00	38.45	99.97	28.49	2.91	40.23	4.69	0.00	0.00	47.71	124.03
	T15CA014	27.08	3.25	31.09	3.63	0.00	0.00	43.51	108.56	32.24	3.29	40.23	4.69	0.00	0.00	53.99	134.44
	T15CA016	40.85	4.90	40.16	4.68	0.00	0.00	65.63	156.22	48.63	4.96	51.97	6.06	0.00	0.00	81.44	193.06
	T15CA017	47.44	5.69	53.11	6.19	0.00	0.00	76.21	188.64	56.47	5.76	68.73	8.02	0.00	0.00	94.57	233.55
	T15CA018	70.08	9.03	64.08	4.14	0.00	0.00	105.55	252.88	84.09	9.13	81.76	5.29	0.00	0.00	142.53	322.80
	T15CA019	113.79	14.67	93.92	6.07	0.00	0.00	171.39	399.84	136.54	14.83	119.82	7.75	0.00	0.00	231.44	510.38
	T15CA020	9.53	1.03	10.36	1.55	0.00	0.00	15.05	37.52	11.92	1.04	13.41	2.01	0.00	0.00	21.38	49.76
	T15CA021	10.18	1.10	11.66	1.75	0.00	0.00	16.07	40.76	12.73	1.12	15.09	2.26	0.00	0.00	22.83	54.03
	T15CA022	10.71	1.15	11.66	1.75	0.00	0.00	16.91	42.18	13.39	1.17	15.09	2.26	0.00	0.00	24.02	55.93
	T15CA023	27.35	2.95	21.37	3.20	0.00	0.00	43.17	98.04	34.19	3.00	27.66	4.15	0.00	0.00	61.34	130.34
	T15CA024	10.32	1.11	14.25	2.14	0.00	0.00	16.29	44.11	12.90	1.13	18.44	2.76	0.00	0.00	23.14	58.37
	T15CS008	18.37	1.98	17.88	2.68	0.00	0.00	29.00	69.91	22.96	2.01	23.13	3.47	0.00	0.00	41.20	92.77
	T15JD005	7.45	0.80	9.07	1.36	0.00	0.00	11.75	30.43	9.31	0.82	11.73	1.76	0.00	0.00	16.70	40.32
	T15JD006	7.60	0.82	9.07	1.36	0.00	0.00	12.00	30.85	9.50	0.83	11.73	1.76	0.00	0.00	17.05	40.87
	T15JD007	11.60	1.25	13.08	1.96	0.00	0.00	18.31	46.20	14.50	1.27	16.93	2.54	0.00	0.00	26.01	61.25
	T15JD008	18.68	2.01	20.08	3.01	0.00	0.00	29.48	73.26	23.34	2.05	25.98	3.90	0.00	0.00	41.89	97.16
	T15JD009	19.46	2.10	21.37	3.20	0.00	0.00	30.72	76.85	24.33	2.13	27.66	4.15	0.00	0.00	43.65	101.92

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
T15	***cont.***																
	T15JD010	26.34	2.84	24.22	3.63	0.00	0.00	41.58	98.61	32.93	2.89	31.35	4.70	0.00	0.00	59.08	130.95
	T15JD011	28.10	3.03	26.56	3.98	0.00	0.00	44.36	106.03	35.13	3.08	34.37	5.15	0.00	0.00	63.03	140.76
	T15KM008	36.54	4.38	45.86	5.35	0.00	0.00	58.71	150.84	43.50	4.44	59.34	6.92	0.00	0.00	72.85	187.05
T20																	
	T20CA001	31.91	3.63	26.52	3.09	6.61	0.97	23.52	96.25	34.36	3.65	33.83	3.95	27.76	4.08	27.44	135.07
	T20CA002	46.59	5.40	37.46	4.37	14.58	2.14	34.44	144.98	50.18	5.43	47.79	5.57	61.22	9.00	40.19	219.38
	T20CA003	70.26	8.27	53.15	6.20	18.15	2.67	52.06	210.76	75.66	8.31	67.81	7.91	76.22	11.20	60.74	307.85
T25																	
	T25JD001	27.14	2.18	37.80	4.41	0.00	0.00	28.19	99.72								
	T25JD002	28.48	2.29	40.75	4.75	0.00	0.00	29.59	105.86								
	T25JD003	29.83	2.40	43.70	5.10	0.00	0.00	30.99	112.02								
	T25JD021	8.88	0.70	13.58	1.58	2.88	0.42	7.83	35.87								
	T25JD022	13.13	1.01	20.08	2.34	3.29	0.48	11.50	51.83								
	T25JD023	19.68	1.43	27.76	3.24	3.25	0.48	17.08	72.92								
	T25JD024	23.07	1.65	33.66	3.93	3.25	0.48	19.98	86.02								
	T25JD025	23.55	1.85	42.52	4.96	7.94	1.17	20.73	102.72								
	T25JD026	29.12	2.22	54.33	6.34	7.94	1.17	25.49	126.61								
	T25JD027	1.49	0.12	5.31	0.62	0.44	0.06	1.31	9.35								
	T25JD028	1.63	0.12	6.50	0.76	0.44	0.06	1.43	10.94								
	T25JD029	2.31	0.17	6.50	0.76	0.44	0.06	2.01	12.25								
	T25JD030	3.56	0.25	7.68	0.90	0.44	0.06	3.08	15.97								
	T25JD031	3.65	0.26	9.80	1.14	0.53	0.08	3.16	18.62								
	T25JD032	3.73	0.31	11.93	1.39	1.78	0.26	3.32	22.72								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
T30																	
	T30DW005	3.91	0.30	5.79	0.67	0.32	0.05	4.61	15.65	5.21	0.31	7.66	0.89	1.18	0.17	6.83	22.25
	T30DW010	10.27	0.87	11.69	1.36	2.69	0.40	12.41	39.69	13.69	0.90	15.46	1.80	10.02	1.47	18.39	61.73
	T30DW011	56.72	4.10	25.98	3.02	0.00	0.00	66.30	156.12	75.63	4.24	34.37	4.01	0.00	0.00	98.23	216.48
	T30DW012	0.99	0.07	2.69	0.31	0.06	0.01	1.17	5.30	1.32	0.08	3.51	0.41	0.22	0.03	1.73	7.30
	T30DW013	1.34	0.10	3.70	0.43	0.00	0.00	1.57	7.14	1.79	0.10	4.83	0.56	0.00	0.00	2.33	9.61
	T30DW014	11.99	0.99	12.05	1.40	2.69	0.40	14.42	43.94	15.98	1.03	15.93	1.86	10.02	1.47	21.36	67.65
	T30DW015	4.16	0.32	5.79	0.67	0.32	0.05	4.90	16.21	5.54	0.33	7.66	0.89	1.18	0.17	7.27	23.04
	T30DW016	5.69	0.54	7.09	0.83	2.69	0.40	7.06	24.30	7.59	0.56	9.37	1.09	10.02	1.47	10.46	40.56
	T30DW017	7.11	0.64	9.21	1.07	2.69	0.40	8.72	29.84	9.49	0.66	12.18	1.42	10.02	1.47	12.92	48.16
	T30DW018	10.13	0.86	11.69	1.36	2.69	0.40	12.24	39.37	13.51	0.89	15.46	1.80	10.02	1.47	18.14	61.29
	T30DW019	1.09	0.08	2.02	0.24	0.05	0.01	1.28	4.77	1.45	0.08	2.63	0.31	0.18	0.03	1.90	6.58
	T30DW020	1.05	0.08	2.69	0.31	0.05	0.01	1.24	5.43	1.41	0.08	3.51	0.41	0.18	0.03	1.84	7.46
	T30DW021	1.21	0.09	2.69	0.31	0.00	0.00	1.42	5.72	1.62	0.09	3.51	0.41	0.00	0.00	2.10	7.73
	T30DW022	1.60	0.12	5.21	0.61	0.00	0.00	1.87	9.41	2.13	0.12	6.80	0.79	0.00	0.00	2.77	12.61
	T30DW023	11.25	0.94	11.81	1.38	2.69	0.40	13.56	42.03	15.00	0.97	15.62	1.82	10.02	1.47	20.09	64.99
	T30DW024	2.79	0.21	2.93	0.34	0.09	0.01	3.28	9.65	3.72	0.21	3.87	0.45	0.32	0.05	4.86	13.48
	T30DW025	5.14	0.38	5.76	0.67	0.10	0.01	6.02	18.08	6.85	0.39	7.62	0.89	0.38	0.06	8.92	25.11
	T30DW026	9.92	0.75	8.74	1.02	0.60	0.09	11.69	32.81	13.23	0.77	11.56	1.35	2.25	0.33	17.32	46.81
	T30TM007	52.60	3.80	25.98	3.02	0.00	0.00	61.48	146.88	70.14	3.93	34.37	4.01	0.00	0.00	91.09	203.54
	T30TM008	52.95	3.83	25.98	3.02	0.00	0.00	61.88	147.66	70.60	3.96	34.37	4.01	0.00	0.00	91.69	204.63
	T30TM012	90.21	6.52	45.47	5.29	0.00	0.00	105.43	252.92	120.28	6.75	60.14	7.01	0.00	0.00	156.21	350.39
	T30TM013	147.80	10.69	62.01	7.22	0.00	0.00	172.75	400.47	197.07	11.05	82.01	9.56	0.00	0.00	255.95	555.64
	T30TM014	141.50	10.23	62.01	7.22	0.00	0.00	165.38	386.34	188.67	10.58	82.01	9.56	0.00	0.00	245.03	535.85
	T30TM015	150.90	10.91	62.01	7.22	0.00	0.00	176.37	407.41	201.20	11.29	82.01	9.56	0.00	0.00	261.31	565.37
	T30VE007	20.91	1.51	14.76	1.72	0.00	0.00	24.44	63.34	27.88	1.56	19.53	2.28	0.00	0.00	36.21	87.46
	T30VE008	26.57	1.92	21.85	2.54	0.00	0.00	31.06	83.94	35.43	1.99	28.90	3.37	0.00	0.00	46.01	115.70

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
T30	***cont.***																
	T30VE009	42.83	3.10	29.53	3.44	0.00	0.00	50.06	128.96	57.11	3.20	39.05	4.55	0.00	0.00	74.17	178.08
	T30VE010	52.31	3.78	32.48	3.78	0.00	0.00	61.14	153.49	69.75	3.91	42.96	5.01	0.00	0.00	90.59	212.22
T35																	
	T35CT001	27.73	2.01	16.54	1.93	0.00	0.00	32.41	80.62	36.98	2.07	21.87	2.55	0.00	0.00	48.02	111.49
	T35CT002	34.16	2.47	16.54	1.93	0.00	0.00	39.93	95.03	45.55	2.55	21.87	2.55	0.00	0.00	59.16	131.68
	T35PZ001	37.34	2.88	41.34	4.81	3.36	0.49	44.22	134.44	49.79	2.98	54.67	6.36	12.00	1.76	65.52	193.08
	T35PZ002	41.48	3.18	50.20	5.84	3.36	0.49	49.05	153.60	55.30	3.29	66.39	7.73	12.00	1.76	72.68	219.15
	T35PZ003	43.31	3.31	50.20	5.84	3.36	0.49	51.19	157.70	57.74	3.42	66.39	7.73	12.00	1.76	75.85	224.89
	T35PZ004	63.16	4.57	50.20	5.84	0.00	0.00	73.82	197.59	84.21	4.72	66.39	7.73	0.00	0.00	109.37	272.42
T40																	
	T40AG001	9.85	0.72	9.45	1.26	0.17	0.02	8.79	30.26								
	T40FA001	3.24	0.23	0.00	0.25	0.00	0.00	3.30	7.02								
	T40FA002	4.13	0.30	0.00	0.25	0.00	0.00	4.21	8.89								
	T40FA003	5.68	0.41	0.00	0.25	0.00	0.00	5.78	12.12								
	T40KF011	0.58	0.04	0.00	0.00	0.00	0.00	0.44	1.06								
	T40KF013	0.61	0.04	0.00	0.00	0.00	0.00	0.47	1.12								
	T40KF014	0.69	0.05	0.00	0.00	0.00	0.00	0.53	1.27								
	T40KF016	0.86	0.06	0.00	0.00	0.00	0.00	0.66	1.58								
	T40KF018	1.04	0.08	0.00	0.00	0.00	0.00	0.79	1.91								
	T40KF020	1.22	0.09	0.00	0.00	0.00	0.00	0.93	2.24								
	T40KF021	0.40	0.03	0.00	0.10	0.00	0.00	0.36	0.89								
	T40KF022	0.84	0.06	0.00	0.10	0.00	0.00	0.75	1.75								
	T40KF023	0.36	0.03	0.00	0.05	0.00	0.00	0.32	0.76								
	T40KF024	0.36	0.03	0.00	0.05	0.00	0.00	0.32	0.76								
	T40OX001	1.08	0.07	0.00	0.00	0.00	0.00	0.85	2.00	1.33	0.07	0.00	0.00	0.00	0.00	1.20	2.60

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
T40	***cont.***																
	T40OX002	1.02	0.06	0.00	0.00	0.00	0.00	0.81	1.89	1.26	0.06	0.00	0.00	0.00	0.00	1.14	2.46
	T40OX003	1.96	0.12	0.00	0.00	0.00	0.00	1.55	3.63	2.41	0.12	0.00	0.00	0.00	0.00	2.18	4.71
	T40OX006	2.24	0.14	0.00	0.00	0.00	0.00	1.78	4.16	2.76	0.14	0.00	0.00	0.00	0.00	2.50	5.40
	T40PA001	0.84	0.06	0.00	0.24	0.00	0.00	0.86	2.00								
	T40PA002	5.34	0.39	0.00	0.24	0.00	0.00	5.43	11.40								
	T40PA004	7.86	0.57	0.00	0.26	0.00	0.00	7.99	16.68								
	T40PA005	12.45	0.90	0.00	0.27	0.00	0.00	12.67	26.29								
	T40PA006	15.58	1.13	0.00	0.27	0.00	0.00	15.86	32.84								
	T40PA007	6.68	0.48	0.00	0.26	0.00	0.00	6.80	14.22								
	T40RS001	3.19	0.25	0.00	0.00	0.00	0.00	2.59	6.03								
	T40RS002	3.10	0.25	0.00	0.00	0.00	0.00	2.52	5.87								
	T40RS003	4.04	0.32	0.00	0.00	0.00	0.00	3.29	7.65								
	T40XX034	18.35	1.21	32.42	4.31	0.00	0.00	15.37	71.66								
	T40XX035	16.77	1.18	52.42	6.97	1.93	0.28	14.18	93.73								
	T40XX036	17.77	1.24	39.32	5.23	1.93	0.28	15.02	80.79								
	T40XX037	15.81	1.11	56.56	7.52	1.93	0.28	13.38	96.59								
	T40XX038	20.49	1.41	64.84	8.62	1.64	0.24	17.28	114.52								
T45																	
	T45C6001	3.24	0.23	0.00	0.40	0.92	0.14	2.23	7.16								
	T45C6002	3.67	0.27	0.00	0.40	1.47	0.22	2.55	8.58								
	T45C6003	4.14	0.34	0.00	0.40	0.98	0.14	3.07	9.07	5.18	0.35	0.00	0.40	3.57	0.52	4.44	14.46
	T45C6004	4.58	0.39	0.00	0.40	1.47	0.22	3.42	10.48	5.73	0.40	0.00	0.40	5.36	0.79	4.93	17.61
	T45EA006	4.00	0.33	0.00	0.50	1.01	0.15	2.29	8.28								
	T45EA007	5.84	0.48	0.00	0.50	1.52	0.22	3.34	11.90								
	T45G1001	5.51	0.54	10.35	1.03	0.12	0.02	5.24	22.81								
	T45G1002	4.98	0.49	10.35	1.03	0.12	0.02	4.74	21.73								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
T45	***cont.***																
	T45MY004	2.90	0.25	0.00	0.30	0.98	0.14	2.33	6.90	3.63	0.25	0.00	0.30	3.57	0.52	3.33	11.60
	T45MY005	3.82	0.33	0.00	0.30	1.47	0.22	3.08	9.22	4.78	0.34	0.00	0.30	5.36	0.79	4.40	15.97
	T45MY006	3.95	0.34	0.00	0.30	1.47	0.22	3.18	9.46	4.93	0.35	0.00	0.30	5.36	0.79	4.54	16.27
	T45MY007	3.81	0.33	0.00	0.30	1.47	0.22	3.07	9.20	4.76	0.34	0.00	0.30	5.36	0.79	4.38	15.93
	T45MY015	3.12	0.26	0.00	0.40	0.98	0.14	2.32	7.22	3.89	0.27	0.00	0.40	3.57	0.52	3.35	12.00
	T45MY016	3.19	0.27	0.00	0.40	0.98	0.14	2.38	7.36	3.99	0.27	0.00	0.40	3.57	0.52	3.43	12.18
	T45MY017	3.37	0.30	0.00	0.40	1.47	0.22	2.53	8.29	4.22	0.30	0.00	0.40	5.36	0.79	3.65	14.72
	T45MY018	2.44	0.18	0.00	0.40	0.98	0.14	1.69	5.83								
	T45MY019	2.41	0.18	0.00	0.40	0.98	0.14	1.67	5.78								
	T45TT001	3.44	0.28	0.00	0.30	0.92	0.14	2.75	7.83	4.29	0.29	0.00	0.30	3.37	0.50	3.93	12.68
	T45TT002	3.11	0.26	0.00	0.30	0.92	0.14	2.50	7.23	3.89	0.27	0.00	0.30	3.37	0.50	3.57	11.90
	T45TT003	3.54	0.29	0.00	0.30	0.92	0.14	2.83	8.02	4.42	0.30	0.00	0.30	3.37	0.50	4.05	12.94
	T45TT004	3.43	0.30	0.00	0.30	1.39	0.20	2.76	8.38	4.28	0.31	0.00	0.30	5.06	0.74	3.95	14.64
	T45XX001	3.76	0.31	0.00	0.40	0.92	0.14	3.01	8.54	4.70	0.32	0.00	0.40	3.37	0.50	4.30	13.59
	T45XX003	4.63	0.37	0.00	0.40	0.91	0.13	3.70	10.14	5.79	0.38	0.00	0.40	3.33	0.49	5.28	15.67
	T45XX008	4.17	0.34	0.00	0.40	0.92	0.14	3.09	9.06	5.21	0.35	0.00	0.40	3.37	0.50	4.46	14.29
	T45XX009	3.20	0.23	0.00	0.40	0.92	0.14	2.21	7.10								
	T45XX010	7.59	0.49	0.00	0.40	1.00	0.15	5.19	14.82								
	T45XX011	1.35	0.12	0.00	0.40	0.67	0.10	0.78	3.42								
	T45XX013	3.09	0.25	0.00	0.40	0.66	0.10	1.76	6.26								
	T45XX015	6.03	0.49	0.00	0.50	1.39	0.20	3.44	12.05								
	T45XX016	6.64	0.54	0.00	0.50	1.62	0.24	3.80	13.34								
	T45XX017	13.41	1.02	0.00	0.50	1.10	0.16	7.61	23.80								
	T45XX018	14.72	1.12	0.00	0.50	1.10	0.16	8.35	25.95								
	T45XX019	26.49	2.05	0.00	0.50	2.94	0.43	15.06	47.47								
	T45XX020	16.83	1.31	0.00	0.60	2.21	0.32	9.57	30.84								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
T45	***cont.***																
	T45XX023	35.10	2.70	0.00	0.60	3.68	0.54	19.95	62.57								
	T45XX024	3.39	0.28	0.00	0.09	0.76	0.11	1.94	6.57								
	T45XX025	1.94	0.17	0.00	0.10	0.68	0.10	1.11	4.10								
	T45XX026	1.21	0.10	0.00	0.40	0.27	0.04	0.69	2.71								
	T45XX027	0.91	0.09	0.00	0.40	0.68	0.10	0.53	2.71								
	T45XX028	1.71	0.15	0.00	0.40	0.68	0.10	0.99	4.03								
	T45XX029	4.17	0.45	0.00	0.00	0.92	0.14	3.48	9.16								
	T45XX030	4.37	0.47	0.00	0.00	0.92	0.14	3.64	9.54								
	T45XX031	4.47	0.48	0.00	0.00	0.92	0.14	3.72	9.73								
	T45XX032	4.59	0.31	0.00	0.50	0.98	0.14	3.15	9.67								
	T45XX033	5.41	0.37	0.00	0.60	1.33	0.20	3.72	11.63								
	T45XX035	2.36	0.20	0.00	0.40	0.71	0.10	1.35	5.12								
T50																	
	T50GM001	2.41	0.18	11.37	1.32	0.14	0.02	2.20	17.64	2.97	0.18	14.62	1.70	0.47	0.07	2.90	22.91
	T50GM004	3.92	0.30	14.16	1.65	0.38	0.06	3.60	24.07	4.83	0.30	18.21	2.12	1.24	0.18	4.74	31.62
	T50GM005	4.18	0.31	14.16	1.65	0.40	0.06	3.83	24.59	5.15	0.32	18.21	2.12	1.38	0.20	5.05	32.43
	T50XX001	2.54	0.19	15.36	1.79	0.14	0.02	2.32	22.36	3.13	0.19	19.75	2.30	0.47	0.07	3.06	28.97
	T50XX002	2.91	0.22	15.36	1.79	0.14	0.02	2.66	23.10	3.58	0.22	19.75	2.30	0.47	0.07	3.50	29.89
	T50XX003	3.02	0.22	15.36	1.79	0.14	0.02	2.76	23.31	3.72	0.23	19.75	2.30	0.47	0.07	3.64	30.18
	T50XX004	3.03	0.22	15.36	1.79	0.15	0.02	2.77	23.34	3.73	0.23	19.75	2.30	0.51	0.07	3.65	30.24
	T50XX005	3.19	0.24	15.36	1.79	0.15	0.02	2.91	23.66	3.93	0.24	19.75	2.30	0.51	0.07	3.84	30.64
	T50XX006	3.30	0.24	15.36	1.79	0.15	0.02	3.01	23.87	4.06	0.25	19.75	2.30	0.51	0.07	3.97	30.91
	T50XX007	3.22	0.24	15.36	1.79	0.14	0.02	2.94	23.71	3.96	0.24	19.75	2.30	0.47	0.07	3.88	30.67
	T50XX008	3.41	0.25	15.36	1.79	0.14	0.02	3.11	24.08	4.20	0.26	19.75	2.30	0.47	0.07	4.11	31.16
	T50XX009	3.40	0.25	15.36	1.79	0.14	0.02	3.10	24.06	4.18	0.26	19.75	2.30	0.47	0.07	4.09	31.12
	T50XX010	3.57	0.27	15.36	1.79	0.23	0.03	3.26	24.51	4.39	0.27	19.75	2.30	0.79	0.12	4.30	31.92

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
T50	***cont.***																
	T50XX011	3.65	0.27	15.36	1.79	0.15	0.02	3.33	24.57	4.49	0.28	19.75	2.30	0.51	0.07	4.39	31.79
	T50XX012	3.73	0.27	15.36	1.79	0.15	0.02	3.40	24.72	4.59	0.28	19.75	2.30	0.51	0.07	4.48	31.98
	T50XX014	3.80	0.28	13.71	1.37	0.14	0.02	3.47	22.79	4.68	0.29	19.58	1.95	0.47	0.07	4.57	31.61
	T50XX015	3.89	0.29	13.71	1.37	0.21	0.03	3.55	23.05	4.78	0.29	19.58	1.95	0.71	0.10	4.68	32.09
	T50XX017	4.09	0.30	13.71	1.37	0.15	0.02	3.73	23.37	5.03	0.31	19.58	1.95	0.51	0.07	4.92	32.37
	T50XX018	4.19	0.31	13.71	1.37	0.15	0.02	3.82	23.57	5.15	0.31	19.58	1.95	0.51	0.07	5.03	32.60
	T50XX019	3.98	0.29	13.71	1.37	0.21	0.03	3.63	23.22	4.89	0.30	19.58	1.95	0.71	0.10	4.79	32.32
	T50XX020	4.41	0.32	13.71	1.37	0.15	0.02	4.02	24.00	5.43	0.33	19.58	1.95	0.51	0.07	5.30	33.17
	T50XX021	4.20	0.31	13.71	1.37	0.14	0.02	3.83	23.58	5.17	0.32	19.58	1.95	0.47	0.07	5.05	32.61
	T50XX022	5.29	0.50	20.43	2.21	0.74	0.11	4.52	33.80	6.61	0.51	26.43	2.86	2.95	0.43	6.08	45.87
	T50XX023	2.76	0.26	33.01	4.11	0.44	0.06	2.36	43.00	3.45	0.27	42.30	5.27	1.72	0.25	3.18	56.44
	T50XX024	4.57	0.42	29.18	3.64	0.49	0.07	3.89	42.26	5.71	0.43	37.39	4.66	1.93	0.28	5.24	55.64
	T50XX025	6.55	0.60	12.86	1.39	0.49	0.07	5.56	27.52	8.19	0.61	16.64	1.80	2.01	0.30	7.49	37.04
	T50XX026	5.22	0.49	20.43	2.21	0.74	0.11	4.46	33.66	6.52	0.50	26.43	2.86	2.95	0.43	6.00	45.69
	T50XX027	5.96	0.65	28.30	3.29	0.70	0.10	5.08	44.08	7.15	0.66	36.56	4.26	2.67	0.39	7.03	58.72
	T50XX028	6.54	0.73	24.56	2.86	1.17	0.17	5.59	41.62	7.85	0.74	31.73	3.69	4.55	0.67	7.74	56.97
	T50XX029	7.18	0.80	33.11	3.85	1.17	0.17	6.13	52.41	8.61	0.81	42.76	4.98	4.55	0.67	8.49	70.87
	T50XX030	10.08	1.10	37.38	4.35	1.17	0.17	8.58	62.83	12.09	1.12	48.28	5.62	4.55	0.67	11.88	84.21
	T50XX031	8.12	0.89	42.72	4.97	1.17	0.17	6.92	64.96	9.74	0.91	55.18	6.42	4.55	0.67	9.59	87.06
	T50XX032	5.39	0.59	28.30	3.29	0.70	0.10	4.59	42.96	6.47	0.60	36.56	4.26	2.67	0.39	6.36	57.31
	T50XX033	10.17	1.11	42.72	4.97	1.17	0.17	8.66	68.97	12.21	1.13	55.18	6.42	4.55	0.67	11.99	92.15
	T50XX035	8.27	0.76	20.43	2.21	0.74	0.11	7.03	39.55	10.34	0.78	26.43	2.86	2.95	0.43	9.47	53.26
T55																	
	T55CA001	26.39	2.84	29.26	2.29	6.68	0.98	25.68	94.12	28.01	2.85	35.36	2.77	27.09	3.98	28.95	129.01
	T55CA002	36.07	5.96	42.10	5.94	11.25	1.65	39.61	142.58	40.08	5.99	54.48	7.69	44.23	6.50	46.49	205.46
	T55CA003	51.59	8.71	60.75	8.57	21.35	3.14	56.86	210.97	57.32	8.76	78.62	11.09	83.98	12.35	66.73	318.85

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
T55	***cont.***																
	T55CA004	30.97	3.30	34.29	2.69	6.68	0.98	30.11	109.02	32.87	3.32	41.43	3.25	27.09	3.98	33.93	145.87
	T55CA005	42.57	4.59	41.33	3.24	11.32	1.66	41.45	146.16	45.18	4.61	49.94	3.92	45.92	6.75	46.72	203.04
	T55CA006	41.78	4.55	44.26	3.47	13.74	2.02	40.75	150.57	44.34	4.58	53.48	4.19	55.71	8.19	45.93	216.42
	T55CA007	27.80	4.55	31.54	4.45	13.54	1.99	30.48	114.35	30.89	4.57	40.82	5.76	53.25	7.83	35.78	178.90
	T55CA008	45.05	4.89	46.73	3.66	13.74	2.02	43.90	159.99	47.80	4.91	56.46	4.43	55.71	8.19	49.49	226.99
	T55CA014	24.49	2.64	19.57	1.53	5.35	0.79	23.84	78.21	25.99	2.65	23.64	1.85	21.02	3.09	26.87	105.11
	T55CA015	28.62	3.02	26.06	2.04	3.48	0.51	27.77	91.50	30.37	3.03	31.49	2.47	13.46	1.98	31.30	114.10
	T55CA016	33.39	3.65	23.77	1.86	10.83	1.59	32.58	107.67	35.43	3.66	28.73	2.25	42.60	6.26	36.72	155.65
	T55CA017	38.15	4.13	32.46	2.54	10.83	1.59	37.17	126.87	40.49	4.15	39.22	3.07	42.60	6.26	41.90	177.69
	T55CA018	36.58	4.25	37.03	2.90	23.74	3.49	36.04	144.03	38.82	4.27	44.75	3.51	93.36	13.72	40.62	239.05
	T55JD001	24.38	2.63	24.23	1.90	6.39	0.94	23.74	84.21	25.87	2.64	29.28	2.30	25.13	3.69	26.75	115.66
	T55JD002	27.20	2.92	26.06	2.04	6.39	0.94	26.46	92.01	28.87	2.93	31.49	2.47	25.13	3.69	29.83	124.41
	T55JD003	36.02	3.92	34.75	2.72	10.83	1.59	35.12	124.95	38.23	3.93	41.99	3.29	42.60	6.26	39.58	175.88
	T55JD004	38.81	4.25	37.76	2.96	13.14	1.93	37.88	136.73	41.18	4.27	45.63	3.58	51.67	7.60	42.69	196.62
	T55KM009	27.01	4.43	33.55	4.73	14.16	2.08	29.63	115.59	30.02	4.45	43.42	6.13	57.41	8.44	34.78	184.65
	T55KM012	46.76	7.97	77.72	10.97	22.32	3.28	51.61	220.63	51.95	8.01	100.58	14.19	90.54	13.31	60.57	339.15
	T55KM014	105.76	18.70	129.54	18.28	69.42	10.20	117.44	469.34	117.51	18.79	167.64	23.66	281.53	41.38	137.84	788.35
	T55KM015	34.27	3.64	30.36	2.38	6.39	0.94	33.30	111.28	36.37	3.66	36.68	2.88	25.13	3.69	37.53	145.94
	T55KM016	47.49	5.14	43.25	3.39	13.14	1.93	46.26	160.60	50.40	5.16	52.26	4.10	51.67	7.60	52.15	223.34
	T55VO002	25.45	2.68	27.34	2.14	3.44	0.51	24.69	86.25	27.01	2.69	33.04	2.59	13.30	1.96	27.82	108.41
	T55VO003	26.52	2.83	27.34	2.14	5.28	0.78	25.77	90.66	28.14	2.84	33.04	2.59	20.75	3.05	29.05	119.46
	T55VO004	38.06	4.12	37.86	2.97	10.83	1.59	37.08	132.51	40.39	4.14	45.74	3.59	42.60	6.26	41.80	184.52
	T55VO005	29.05	3.33	30.72	2.41	17.03	2.50	28.57	113.61	30.83	3.35	37.12	2.91	66.98	9.85	32.21	183.25
	T55VO006	39.81	4.58	42.43	3.33	23.74	3.49	39.16	156.54	42.24	4.60	51.27	4.02	93.36	13.72	44.14	253.35
	T55WC001	1.99	0.32	2.20	0.31	0.26	0.04	2.17	7.29	2.21	0.32	2.85	0.40	1.00	0.15	2.55	9.48

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
T57																	
	T57CU001	10.78	0.96	10.48	1.22	0.35	0.05	10.98	34.82								
	T57CU002	13.24	1.18	10.48	1.22	0.35	0.05	13.48	40.00								
	T57CU003	26.81	2.39	41.39	5.07	1.46	0.21	27.31	104.64								
	T57CU004	24.98	2.23	41.39	5.07	1.46	0.21	25.45	100.79								
	T57CU005	23.33	2.08	35.43	4.37	1.46	0.21	23.77	90.65								
T60																	
	T60CA001	32.06	3.50	37.80	5.02	6.52	0.96	29.03	114.89	38.48	3.56	49.99	6.64	25.62	3.77	39.84	167.90
	T60CA002	47.78	5.30	57.76	7.68	13.40	1.97	43.41	177.30	57.33	5.39	76.39	10.15	52.70	7.75	59.57	269.28
	T60CA003	40.28	4.52	60.35	8.02	14.53	2.14	36.69	166.53	48.34	4.59	79.82	10.61	58.99	8.67	50.34	261.36
	T60CA004	45.24	5.05	60.35	8.02	13.81	2.03	41.15	175.65	54.28	5.13	79.82	10.61	54.31	7.98	56.46	268.59
	T60CA005	63.69	7.13	91.54	12.16	11.47	1.69	57.97	245.65	76.43	7.24	121.06	16.09	45.10	6.63	79.55	352.10
	T60CA006	67.16	7.49	97.44	12.95	11.47	1.69	61.08	259.28	80.59	7.61	128.87	17.13	45.10	6.63	83.82	369.75
	T60KI001	28.25	3.33	38.98	5.18	15.14	2.23	26.01	119.12	33.90	3.39	51.55	6.85	58.42	8.59	35.69	198.39
	T60KI002	19.72	2.44	38.98	5.18	15.14	2.23	18.35	102.04	23.67	2.48	51.55	6.85	58.42	8.59	25.18	176.74
	T60KI003	29.48	3.41	54.57	7.25	13.20	1.94	27.03	136.88	35.38	3.47	72.17	9.59	50.92	7.49	37.09	216.11
	T60KI004	42.74	4.80	54.57	7.25	13.20	1.94	38.93	163.43	51.29	4.88	72.17	9.59	50.92	7.49	53.42	249.76
	T60KI006	64.31	7.06	66.61	8.85	13.20	1.94	58.29	220.26	77.18	7.17	88.10	11.71	50.92	7.49	79.98	322.55
T65																	
	T65WG012	113.87	12.57	38.20	18.41	2.68	0.39	123.77	309.89								
	T65WG013	171.52	18.89	38.20	18.41	2.68	0.39	186.38	436.47								
	T65WG014	186.93	20.58	88.42	43.87	2.68	0.39	203.10	545.97								
	T65WG015	71.68	7.94	50.15	24.57	2.68	0.39	77.96	235.37								
	T65WG016	98.37	10.87	74.12	36.28	2.68	0.39	106.94	329.65								
	T65WG017	98.66	10.90	74.12	36.28	2.68	0.39	107.25	330.28								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
W25																	
	W25AO002	0.91	0.04	0.26	0.86	0.00	0.00	1.27	3.34								
	W25AO003	1.64	0.07	0.52	0.97	0.00	0.00	2.29	5.49								
	W25AO004	1.38	0.06	0.52	1.22	0.00	0.00	1.93	5.11								
	W25AO005	2.82	0.11	1.04	1.93	0.00	0.00	3.94	9.84								
	W25AO006	1.97	0.08	0.52	0.97	0.00	0.00	2.75	6.29								
	W25CJ001	11.83	0.66	3.84	1.99	0.00	0.00	15.04	33.36								
	W25CJ002	17.88	1.00	4.60	2.39	0.00	0.00	22.73	48.60								
	W25CJ003	28.91	1.62	4.60	2.39	0.00	0.00	36.75	74.27								
	W25KZ001	1.40	0.17	0.00	0.25	0.00	0.00	0.88	2.70								
	W25KZ006	2.18	0.26	0.00	0.25	0.00	0.00	1.37	4.06								
	W25NL001	19.22	0.77	52.06	21.63	0.00	0.00	29.33	123.01								
	W25NL002	25.30	1.01	68.58	7.98	0.00	0.00	38.61	141.48								
	W25NL003	14.80	0.59	26.06	3.03	0.00	0.00	22.59	67.07								
	W25NL005	74.64	2.98	128.59	14.97	0.00	0.00	113.92	335.10								
	W25SD001	1.23	0.05	1.30	0.54	0.00	0.00	1.72	4.84								
	W25SD002	3.16	0.13	0.78	0.32	0.00	0.00	4.42	8.81								
	W25SD003	1.90	0.08	4.41	0.44	0.00	0.00	2.66	9.49								
	W25SD004	2.74	0.11	1.96	0.20	0.03	0.00	3.84	8.88								
	W25SD005	1.44	0.06	2.94	0.29	0.00	0.00	2.01	6.74								
	W25SD006	1.31	0.05	0.26	4.11	0.00	0.00	1.83	7.56								
	W25SD007	1.39	0.06	0.26	5.11	0.00	0.00	1.95	8.77								
	W25SD008	1.52	0.06	0.26	6.11	0.00	0.00	2.12	10.07								
	W25SD009	3.36	0.13	2.86	7.19	0.00	0.00	4.69	18.23								
	W25XX005	0.32	0.01	0.52	0.22	0.00	0.00	0.45	1.52								
	W25XX006	0.50	0.02	0.52	0.22	0.00	0.00	0.70	1.96								
	W25XX007	0.66	0.03	1.56	0.65	0.00	0.00	0.92	3.82								

Table 2-2 . HOURLY RATE ELEMENTS

REGION 12		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
W25 cont.																	
	W25XX008	0.73	0.03	2.60	1.08	0.00	0.00	1.03	5.47								
	W25XX009	0.82	0.03	0.52	4.30	0.00	0.00	1.14	6.81								
	W25XX010	2.35	0.09	3.90	5.70	0.00	0.00	3.28	15.32								
W30																	
	W30KI007	3.40	0.37	0.92	0.10	0.46	0.07	2.65	7.97								
	W30KI008	3.43	0.38	0.92	0.10	0.46	0.07	2.67	8.03								
W35																	
	W35LC012	0.67	0.04	2.88	1.20	0.00	0.00	0.42	5.21								
	W35LC013	0.71	0.04	3.37	1.40	0.00	0.00	0.45	5.97								
	W35LC018	0.12	0.01	0.41	0.17	0.00	0.00	0.07	0.78								
	W35LC021	0.42	0.02	1.64	0.68	0.00	0.00	0.26	3.02								
	W35XX020	0.15	0.01	1.85	0.18	0.00	0.00	0.16	2.35								
	W35XX021	0.33	0.03	4.72	0.47	0.00	0.00	0.34	5.89								
	W35XX022	0.55	0.05	4.72	0.47	0.02	0.00	0.56	6.37								
	W35XX023	1.72	0.14	3.58	0.36	0.02	0.00	1.76	7.58								
	W35XX024	1.70	0.14	4.73	0.47	0.02	0.00	1.74	8.80								
	W35XX025	2.09	0.17	6.52	0.65	0.02	0.00	2.13	11.58								

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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 2013 (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.

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); tire wear (TIRE WEAR); tire repair (TIRE REPAIR); and repairs (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 exists (rate adjustments are explained in detail in the following paragraphs).

a. Changes in operating conditions.
b. Changes in cost of money rate (CMR).
c. Actual work hours (hrs) exceed 40 hr per week (wk).
d. Changes in fuel cost (FUEL).
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 (CMR). 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, also known as the 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 https://www.fiscal.treasury.gov/fsservices/gov/pmt/promptPayment/rates.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:

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

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)	$40.00
Total Hourly Rate (Based on a 40 hr/wk)	$80.00

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

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

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:

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

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)	$40.00
Total Hourly Rate (Based on a 40 hr/wk)	$80.00

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

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

3.9 Changes in Fuel Cost. Hourly fuel costs (including electricity) shall be adjusted in the event that 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 $2.35/gal and the current fuel cost has increased to $2.82/gal (increase of 20.00 percent). The total hourly rate for this piece of equipment can be determined as follows:

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

Assumptions for Fuel Cost (based on $2.35/gal from appendix B) per hour:

DEPR	$30.00
FCCM	$10.00
FOG, TIRE WEAR, TIRE REPAIR, and REPAIR	$30.00
FUEL	$10.00
Total Hourly Rate	$80.00

Adjustment Calculation for hourly FUEL cost using the new fuel cost of $2.82/gal:

$$(\$30.00/\text{hr} + \$10.00/\text{hr}) + \$30.00/\text{hr} + [\frac{(\$2.82/\text{gal})}{(\$2.35/\text{gal})} \text{ x } \$10.00/\text{hr}] = \$82.00/\text{hr}$$

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 changes in fuel cost, 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 2013) 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 2013 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 2009, the total hourly rate is determined as follows:

Table 2-1 Rate and Adjustment Calculation:

Total hourly rate	= $65.00/hr
Ownership rate 2013 (DEPR + FCCM)	= -($30.00)/hr
Ownership rate 2009 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 2009.)	= +$27.90/hr
Total hourly rate for equipment manufactured in 2009	= $62.90/hr

b. When the unit of equipment is older than the age of equipment listed in table 2-1 (purchased new in 2013) 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 2013), 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 2013). 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 2013, 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 1999 (maximum life 2005), 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 2013 (DEPR + FCCM)	= -($30.00)/hr
Ownership rate 1999 adjusted for age (Ownership rate = $30.00) x (0.83 the oldest age adjustment factor from table 3-1, for category C80, subcategory 0.02, the last year shown.)	= +$24.90/hr
Total hourly rate for equipment manufactured in 1999	= $59.90/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 2013), 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.

Hourly Standby Rate Adjusted for Actual Age =
Hourly Standby Rate x Age Adjustment Factor

Example: Assume that table 2-1 includes a crane (category C80, subcategory 0.02) manufactured in 2013 and has a standby rate of $20.00 per hour. If an equivalent crane owned by a contractor was manufactured in 2005, 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 2005 (actual year of	= 0.83

manufacture)

Adjustment Calculation:

Hourly Standby Rate Adjusted for Actual Age	=$20.00/hr
(Hourly Standby Rate) x 0.83 (Age Adjustment Factor)	=$16.60/hr

b. When the unit of equipment is newer than the equipment listed in table 2-1 (purchased new in 2013), 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 2013).

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 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
A10 0.00	AGGREGATE / CHIP SPREADERS																		
A10 0.10	SELF-PROPELLED	1.05	1.03	1.03	1.00	0.98	0.95												
A10 0.20	TOWED & TAILGATE	1.05	1.03	1.03	1.00	0.98													
A15 0.00	AIR COMPRESSORS, PORTABLE																		
A15 0.10	ROTARY SCREW	1.05	1.05	1.03	1.00	0.95	0.91	0.83	0.83										
A15 0.20	SHOP TYPE	1.05	1.05	1.03	1.00	0.95	0.92	0.84	0.84	0.79									
A20 0.00	AIR HOSE, TOOLS & EQUIPMENT																		
A20 0.10	AIR DRILL HOSE	1.04	1.04	1.03	1.00														
A20 0.20	SANDBLAST HOSE	1.04	1.04	1.03	1.00														
A20 0.30	SANDBLASTERS, BREAKERS, & MISC. AIR TOOLS	1.04	1.05	1.03	1.00	0.96													
A25 0.00	ASPHALT PAVING DISTRIBUTORS	1.05	1.03	1.03	1.00	0.98													
A30 0.00	ASPHALT PAVERS & MISCELLANEOUS ROAD EQUIPMENT																		
A30 0.10	SELF PROPELLED	1.05	1.03	1.03	1.00	0.98	0.95												
A30 0.20	TOWED	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92										
A30 0.30	SLURRY SEAL PAVERS (Cold mix)	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88									
A30 0.40	MISCELLANEOUS ROAD EQUIPMENT	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92										
A35 0.00	ASPHALT PAVING KETTLES	1.05	1.03	1.03	1.00	0.98													
A40 0.00	ASPHALT & CONCRETE MILLERS / PROFILERS / PLANERS / ROTARY GRINDERS	1.05	1.03	1.03	1.00	0.98													
A45 0.00	ASPHALT RECYCLERS & SEALERS	1.05	1.03	1.03	1.00														
B10 0.00	BATCH PLANTS, ASPHALT & CONCRETE																		
B10 0.10	ASPHALT	1.05	1.03	1.03	1.00	0.98	0.95												
B10 0.20	CONCRETE	1.05	1.03	1.03	1.00	0.98	0.95												

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
B10 0.30	PUGMILL	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92										
B15 0.00	BROOMS, STREET SWEEPERS & FLUSHERS	1.04	1.03	1.02	1.00	0.97	0.93												
B20 0.00	BRUSH CHIPPERS	1.04	1.03	1.02	1.00	0.97	0.93												
B25 0.00	BUCKETS, CLAMSHELL	1.04	1.03	1.01	1.00	0.98	0.96												
B30 0.00	BUCKETS, CONCRETE																		
B30 0.10	GENERAL PURPOSE, MANUAL TRIP	1.03	1.03	1.01	1.00	0.98	0.97												
B30 0.20	LAYDOWN	1.03	1.03	1.01	1.00	0.98	0.97												
B30 0.30	LOWBOY	1.03	1.03	1.01	1.00	0.98	0.97												
B30 0.40	LOW SLUMP	1.03	1.03	1.01	1.00	0.98	0.97												
B35 0.00	BUCKETS, DRAGLINE																		
B35 0.10	LIGHT WEIGHT	1.04	1.03	1.01	1.00	0.98	0.96												
B35 0.20	MEDIUM WEIGHT	1.04	1.03	1.01	1.00	0.98	0.96	0.93											
B35 0.30	HEAVY WEIGHT	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94										
C05 0.00	CHAIN SAWS	1.04	1.03		1.00														
C10 0.00	COMPACTORS, WALK-BEHIND OR REMOTE CONTROLLER																		
C10 0.10	COMPACTORS, RAMMERS / TAMPERS & VIBRATORY PLATES	1.04	1.03	1.02	1.00														
C10 0.20	ROLLERS, VIBRATORY	1.05	1.03	1.02	1.00														
C15 0.00	CONCRETE CLEANERS / ABRASIVE BLASTERS																		
C15 0.10	WALK BEHIND	1.05	1.04	1.02	1.00														
C15 0.20	TRUCK/TRAILER MOUNTED	1.05	1.04	1.02	1.00	0.97	0.92												
C20 0.00	CONCRETE BUGGIES	1.05	1.04	1.02	1.00														
C25 0.00	CONCRETE FINISHERS/SCREEDS/SPREADERS																		

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
C25 0.10	FINISHERS/TROWELS	1.05	1.04	1.02	1.00														
C25 0.20	VIBRATORY SCREED	1.05	1.04	1.02	1.00														
C25 0.25	VIBRATORY LASER SCREED	1.05	1.04	1.02	1.00	0.96	0.91												
C25 0.30	MATERIAL/TOPPING SPREADERS	1.05	1.04	1.02	1.00	0.96	0.91												
C30 0.00	CONCRETE GRINDERS	1.05	1.04	1.02	1.00														
C35 0.00	CONCRETE GUNITERS / SHOTCRETERS	1.05	1.04	1.02	1.00	0.97	0.92												
C40 0.00	CONCRETE MIXING UNITS	1.05	1.04	1.02	1.00														
C45 0.00	CONCRETE PAVING MACHINES	1.05	1.03	1.03	1.00	0.98													
C55 0.00	CONCRETE PUMPS	1.04	1.03	1.02	1.00	0.97	0.93												
C60 0.00	CONCRETE SAWS (Add cost for sawblade wear)	1.04	1.03	1.02	1.00	0.97													
C65 0.00	CONCRETE VIBRATORS	1.04	1.05	1.03	1.00														
C70 0.00	CRANES, GANTRY & STRADDLE																		
C75 0.00	CRANES, HYDRAULIC, SELF-PROPELLED	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88							
C80 0.00	CRANES, HYDRAULIC, TRUCK MOUNTED																		
C80 0.01	UNDER 26 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88							
C80 0.02	26 TON THRU 65 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83						
C80 0.03	66 TON THRU 125 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83	0.78					
C80 0.04	OVER 125 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83	0.78	0.76	0.73			
C85 0.00	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER MOUNTED																		
C85 0.11	DRAGLINE, CLAMSHELL, 0 THRU 1.0 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88							
C85 0.12	DRAGLINE, CLAMSHELL, OVER 1.0 CY THRU 2.5 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88	0.82						
C85 0.13	DRAGLINE, CLAMSHELL, OVER 2.5 CY THRU 5.0 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88	0.82	0.77					

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
C85 0.14	DRAGLINE, CLAMSHELL, OVER 5.0 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88	0.82	0.77	0.74	0.72			
C85 0.21	LIFTING, 0 THRU 25 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88	0.82						
C85 0.22	LIFTING, 26 TON THRU 50 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88	0.82	0.77					
C85 0.23	LIFTING, 51 TON THRU 150 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83	0.78	0.76	0.73			
C85 0.24	LIFTING, OVER 150 TON	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.89	0.83	0.78	0.76	0.73	0.68		
C90 0.00	CRANES, MECHANICAL, LATTICE BOOM, TRUCK MOUNTED																		
C90 0.01	UNDER 26 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88							
C90 0.02	26 TON THRU 65 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83						
C90 0.03	66 TON THRU 125 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88	0.82	0.77					
C90 0.04	OVER 125 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88	0.82	0.77	0.74	0.72			
C95 0.00	CRANES, TOWER	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88	0.82	0.77					
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)	1.06	1.05	1.03	1.00	0.98	0.95	0.90	0.89	0.86	0.79	0.72							
D10 0.20	DRILLS, HYDRAULIC TRACK (Add cost for drill steel and bit wear)	1.06	1.05	1.03	1.00	0.98	0.95	0.90	0.89										
D15 0.00	DRILLS, HORIZONTAL																		
D15 0.10	DRILLS, HORIZONTAL BORING & GROUND PIERCING (Add cost for drill steel and bit wear)	1.06	1.05	1.03	1.00	0.98	0.95	0.90	0.89										
D15 0.20	DRILLS, HORIZONTAL & DIRECTIONAL (Add cost for drill steel and bit wear)	1.06	1.05	1.03	1.00	0.98	0.95	0.90	0.89										
D20 0.00	DRILLS, CORE, COLUMN MOUNTED (Add cost for drill steel and bit wear)	1.06	1.05	1.03	1.00	0.98	0.95												
D25 0.00	DRILLS, CORE & DOWELLING (Add cost for drill steel and bit wear)	1.06	1.05	1.03	1.00	0.98	0.95	0.90	0.89										
D30 0.00	DRILLS, EARTH / AUGER (Add cost for drill steel and cutting edge wear)	1.06	1.05	1.03	1.00	0.98	0.95	0.90	0.89										
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)	1.06	1.04	1.02	1.00	0.99	0.95	0.91	0.90	0.87	0.81	0.74							

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
D35 0.12	DIESEL, OVER 9.875" DIAMETER (Add cost for drill steel and bit wear)	1.06	1.04	1.02	1.00	0.99	0.95	0.91	0.90	0.87	0.81	0.74	0.68	0.62					
D35 0.21	ELECTRIC, 4.5" THRU 9.875" DIAMETER HOLE (Add cost for drill steel and bit wear)	1.06	1.04	1.02	1.00	0.99	0.95	0.91	0.90	0.87	0.81	0.74							
D35 0.22	ELECTRIC, OVER 9.875" DIAMETER (Add cost for drill steel and bit wear)	1.06	1.04	1.02	1.00	0.99	0.95	0.91	0.90	0.87	0.81	0.74	0.68	0.62					
F10 0.00	FORK LIFTS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88										
G10 0.00	GENERATOR SETS																		
G10 0.10	PORTABLE	1.02	1.02	1.02	1.00	0.99	0.97												
G10 0.20	SKID MOUNTED	1.02	1.02	1.02	1.00	0.99	0.97	0.91	0.89										
G15 0.00	GRADERS, MOTOR	1.07	1.04	1.02	1.00	0.96	0.85	0.81	0.79	0.74	0.70	0.69							
H10 0.00	HAMMERS, HYDRAULIC (Demolition tool) (Add cost for point wear)	1.05	1.04	1.02	1.00	0.97													
H13 0.00	HAZARDOUS/TOXIC WASTE EQUIPMENT																		
H13 0.11	COMPACTORS (Compression force) 0 THRU 50 TONS	1.05	1.03	1.02	1.00	0.97	0.93	0.89	0.89										
H13 0.12	COMPACTORS (Compression force) OVER 50 TONS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85									
H13 0.21	FILTER PRESSES, STATIONARY	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88										
H13 0.22	FILTER PRESSES, MOBILE	1.05	1.03	1.02	1.00	0.97	0.93	0.89	0.89										
H13 0.30	CENTRIFUGES	1.05	1.04	1.02	1.00														
H13 0.40	SHREDDERS	1.05	1.03	1.02	1.00	0.97	0.93	0.89	0.89										
H13 0.51	SOIL TREATMENT PLANT, MOBILE	1.05	1.03	1.02	1.00	0.97	0.93	0.89	0.89										
H13 0.61	SLUDGE PROCESSING EQUIP, SLUDGE DISPENSERS	1.05	1.03	1.02	1.00	0.97	0.93	0.89	0.89										
H13 0.71	WASTE HANDLING EQUIPMENT, DRUM HANDLING	1.05	1.03	1.02	1.00														
H15 0.00	HEATERS, SPACE																		
H20 0.00	HOISTS & AIR WINCHES	1.05	1.04	1.02	1.00	0.97	0.92	0.89											
H25 0.00	HYDRAULIC EXCAVATORS, CRAWLER MOUNTED																		

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
H25 0.10	0 LBS THRU 12,500 LBS (COMPACT EXCAVATORS)	1.04	1.04	1.02	1.00	0.97	0.96												
H25 0.11	OVER 12,500 LBS THRU 40,000 LBS	1.04	1.04	1.02	1.00	0.97	0.96	0.92											
H25 0.12	OVER 40,000 LBS THRU 100,000 LBS	1.04	1.04	1.02	1.00	0.97	0.96	0.92	0.93	0.89									
H25 0.13	OVER 100,000 LBS THRU 160,000 LBS	1.04	1.04	1.02	1.00	0.97	0.96	0.92	0.93	0.90	0.88	0.87	0.81						
H25 0.14	OVER 160,000 LBS	1.04	1.04	1.02	1.00	0.97	0.96	0.92	0.93	0.90	0.89	0.87	0.81	0.75	0.73				
H25 0.21	ATTACHMENTS, MOBILE SHEARS	1.05	1.03	1.02	1.00	0.97													
H25 0.22	ATTACHMENTS, MATERIAL HANDLING	1.05	1.04	1.02	1.00	0.97													
H25 0.23	ATTACHMENTS, CONCRETE PULVERIZERS	1.05	1.03	1.02	1.00	0.97													
H25 0.24	ATTACHMENTS, COMPACTORS	1.05	1.03	1.02	1.00	0.97													
H30 0.00	HYDRAULIC EXCAVATORS, WHEEL MOUNTED																		
H30 0.01	0 THRU 1.0 CY	1.04	1.04	1.02	1.00	0.97	0.96												
H30 0.02	OVER 1.0 CY	1.04	1.04	1.02	1.00	0.97	0.96	0.92	0.93										
H35 0.00	HYDRAULIC SHOVELS, CRAWLER MOUNTED																		
H35 0.11	DIESEL, 0 CY THRU 5.0 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88							
H35 0.12	DIESEL, OVER 5.0 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88	0.82						
H35 0.21	ELECTRIC, OVER 2.5 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88	0.82	0.77					
L10 0.00	LAND CLEARING EQUIPMENT	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.86										
L15 0.00	LANDSCAPING EQUIPMENT	1.05	1.03	1.02	1.00														
L20 0.00	LIGHTING SETS, TRAILER MOUNTED																		
L20 0.10	METALLIC VAPOR	1.05	1.04	1.02	1.00	0.97	0.92												
L25 0.00	LINE STRIPING EQUIPMENT	1.05	1.04	1.02	1.00	0.97	0.92												
L30 0.00	LOADERS, BELT (Conveyor belts) & ACCESSORIES	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88										

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
L35 0.00	LOADERS, FRONT END, CRAWLER TYPE	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.86										
L40 0.00	LOADERS, FRONT END, WHEEL TYPE																		
L40 0.11	ARTICULATED, 0 THRU 225 HP	1.03	1.02	1.01	1.00	0.96	0.90	0.85											
L40 0.12	ARTICULATED, OVER 225 HP	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.87	0.84	0.80								
L40 0.20	SKID STEER	1.03	1.02	1.01	1.00	0.96	0.90												
L40 0.21	SKID STEER ATTACHMENTS	1.03	1.02	1.01	1.00														
L40 0.31	TOOL CARRIER & TELESCOPIC HANDLERS, 0 THRU 225 HP	1.03	1.02	1.01	1.00	0.96	0.90	0.85	0.86										
L40 0.32	TOOL CARRIER & TELESCOPIC HANDLERS, OVER 225 HP	1.03	1.02	1.01	1.00	0.96	0.91	0.87	0.87	0.85									
L45 0.00	LOADERS / BACKHOE, CRAWLER TYPE	1.03	1.02	1.01	1.00	0.96	0.90												
L50 0.00	LOADERS / BACKHOE, WHEEL TYPE	1.03	1.02	1.01	1.00	0.96	0.90	0.85	0.86										
L55 0.00	LOADER / BACKHOE, ATTACHMENTS	1.05	1.04	1.02	1.00	0.97													
L60 0.00	LOG SKIDDERS	1.07	1.06	1.04	1.00	0.98	0.94	0.91	0.91										
M10 0.00	MARINE EQUIPMENT (NON DREDGING)																		
M10 0.11	AQUATIC MAINTENANCE	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.92										
M10 0.12	AQUATIC MAINTENANCE ATTACHMENTS	1.05	1.04	1.02	1.00	0.99													
M10 0.21	HYDRAULIC CUTTERHEAD DREDGE, 8" OR LESS,TRANSPORTABLE	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.85	0.81	0.78						
M10 0.22	HYDRAULIC CUTTERHEAD DREDGE,8" - 12",TRANSPORTABLE	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.85	0.81	0.78						
M10 0.23	HYDRAULIC AUGERHEAD DREDGE,12" OR LESS,TRANSPORTABLE	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.85	0.81	0.78						
M10 0.24	HYDRAULIC FLOATING PUMPS,12" OR LESS,TRANSPORTABLE	1.04	1.04	1.02	1.00	0.99	0.97												
M10 0.25	HYDRAULIC DREDGE PUMPS,12" OR LESS,TRANSPORTABLE	1.05	1.04	1.02	1.00	0.99													
M10 0.26	HYDRAULIC DREDGE / PUMP ATTACHMENTS	1.05	1.04	1.02	1.00	0.99													
M10 0.31	SMALL MECH DREDGES,CLAMSHELL,BARGE-MTD TO 5 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83	0.78					

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
M10 0.32	SMALL MECH DREDGES, AMPHIBIOUS EXCAVATORS	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93										
M10 0.33	SMALL MECH DREDGES,HOE-MOUNTED DREDGING ATTACH	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.88	0.85	0.81	0.77	0.74	0.69	0.66			
M10 0.41	WORK FLOATS (NON-DREDGING)	1.04	1.04	1.02	1.00	0.99													
M10 0.42	WORK BARGES (SECTIONAL, NON-DREDGING)	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.86	0.82	0.78	0.76	0.71	0.68	0.67	0.65	0.64
M10 0.45	FLAT-DECK OR CARGO BARGE (NON-DREDGING)	1.04	1.03	1.02	1.00	0.99	0.98	0.95	0.93	0.90	0.86	0.83	0.80	0.77	0.73	0.70	0.69	0.67	0.66
M10 0.46	DUMP SCOW (NON-DREDGING)	1.04	1.03	1.02	1.00	0.99	0.98	0.95	0.93	0.90	0.86	0.83	0.80	0.77	0.73	0.70	0.69	0.67	0.66
M10 0.47	DRILL BARGE (NON-DREDGING)	1.04	1.03	1.02	1.00	0.99	0.98	0.95	0.93	0.89	0.86	0.82	0.79	0.77	0.72	0.69	0.68	0.67	0.65
M10 0.48	ALL OTHER BARGES (NON-DREDGING)	1.04	1.03	1.02	1.00	0.99	0.98	0.95	0.93	0.89	0.86	0.82	0.79	0.77	0.72	0.69	0.68	0.67	0.65
M10 0.51	BOATS & LAUNCHES, 0 THRU 250 HP	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.92	0.88	0.85	0.80	0.77						
M10 0.53	BOATS & LAUNCHES, 251 THRU 500 HP	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.85	0.81	0.78	0.75					
M10 0.54	TUGS, 501 THRU 1,000 HP	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.86	0.82	0.79	0.76	0.71	0.68	0.67	0.66	0.64
M10 0.55	TUGS, 1,000 THRU 2,000 HP	1.04	1.03	1.02	1.00	0.99	0.98	0.95	0.93	0.89	0.86	0.82	0.79	0.76	0.72	0.68	0.68	0.66	0.65
P10 0.00	PILE HAMMER ACCESSORIES - EXTRACTORS & BOX LEADS	1.06	1.05	1.03	1.00	0.96													
P20 0.00	PILE HAMMERS, DOUBLE ACTING																		
P20 0.10	DIESEL	1.05	1.04	1.02	1.00	0.97													
P20 0.20	PNEUMATIC (STEAM/AIR)	1.05	1.04	1.02	1.00	0.97													
P25 0.00	PILE HAMMERS, SINGLE ACTING																		
P25 0.10	DIESEL	1.05	1.04	1.02	1.00	0.97													
P25 0.20	PNEUMATIC (STEAM/AIR)	1.05	1.03	1.02	1.00	0.97													
P30 0.00	PILE HAMMERS, DRIVER/ EXTRACTOR, VIBRATORY	1.05	1.04	1.02	1.00	0.97													
P35 0.00	PIPELAYERS	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.87	0.84	0.81	0.79							
P40 0.00	PLATFORMS & MAN-LIFTS	1.04	1.03	1.01	1.00	0.98	0.96												

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
P45 0.00	PUMPS, GROUT	1.05	1.03	1.02	1.00	0.97	0.93												
P50 0.00	PUMPS, WATER, CENTRIFUGAL, TRASH																		
P50 0.11	ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92												
P50 0.12	ELECTRIC DRIVE	1.05	1.04	1.02	1.00	0.97	0.92												
P50 0.21	WHEEL MOUNTED, ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92												
P50 0.22	WHEEL MOUNTED, ELECTRIC DRIVE	1.05	1.04	1.02	1.00	0.97	0.92												
P50 0.31	HOSES, PUMP, SUCTION & DISCHARGE	1.04	1.03	1.02	1.00														
P55 0.00	PUMPS, WATER, SUBMERSIBLE																		
P55 0.01	ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92												
P55 0.02	ELECTRIC DRIVE	1.05	1.03	1.02	1.00	0.97	0.93												
P60 0.00	PUMPS, WATER, CENTRIFUGAL, DEWATERING																		
P60 0.11	SKID MOUNTED, ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92												
P60 0.12	SKID MOUNTED, ELECTRIC DRIVE	1.05	1.03	1.02	1.00	0.97	0.93												
P60 0.21	WHEEL MOUNTED, ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92												
P60 0.22	WHEEL MOUNTED, ELECTRIC DRIVE	1.05	1.03	1.02	1.00	0.97	0.93												
P65 0.00	PUMPS, WATER, DIAPHRAGM																		
P65 0.11	SKID MOUNTED, ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92												
P65 0.12	SKID MOUNTED, ELECTRIC DRIVE	1.05	1.03	1.02	1.00	0.97	0.93												
P65 0.21	WHEEL MOUNTED, ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92												
P65 0.22	WHEEL MOUNTED, ELECTRIC DRIVE	1.05	1.03	1.02	1.00	0.97	0.93												
P70 0.00	PUMPS, WATER (For core drills)																		
P70 0.01	ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92												

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
P70 0.02	ELECTRIC DRIVE	1.05	1.04	1.02	1.00	0.97	0.92												
R10 0.00	RIPPERS & HYDRAULIC BANK SLOPERS (Add cost for point wear)	1.03	1.02	1.01	1.00	0.96	0.90												
R15 0.00	ROLLERS, STATIC, TOWED, PNEUMATIC	1.08	1.07	1.04	1.00	0.98	0.94	0.92	0.91										
R20 0.00	ROLLERS, STATIC, TOWED, STEEL DRUM	1.08	1.07	1.04	1.00	0.98	0.94	0.92	0.91										
R30 0.00	ROLLERS, STATIC, SELF-PROPELLED																		
R30 0.01	PNEUMATIC	1.07	1.06	1.04	1.00	0.98	0.95												
R30 0.02	SMOOTH DRUM	1.07	1.06	1.04	1.00	0.98	0.95	0.92	0.91										
R30 0.03	TAMPING FOOT, LANDFILL & SOIL COMPACTORS	1.07	1.07	1.04	1.00	0.98	0.94	0.92	0.91	0.87									
R40 0.00	ROLLERS, VIBRATORY, TOWED	1.08	1.07	1.04	1.00	0.97	0.94												
R45 0.00	ROLLERS, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM	1.08	1.07	1.04	1.00	0.97	0.94												
R50 0.00	ROLLERS, VIBRATORY, SELF-PROPELLED, SINGLE DRUM	1.08	1.07	1.04	1.00	0.97	0.94												
R55 0.00	ROOFING EQUIPMENT	1.05	1.03	1.02	1.00	0.97													
S10 0.00	SCRAPERS, ELEVATING																		
S10 0.01	0 THRU 200 HP	1.07	1.04	1.02	1.00	0.96	0.86	0.82	0.80										
S10 0.02	OVER 200 HP	1.07	1.04	1.02	1.00	0.96	0.85	0.81	0.79	0.74	0.70								
S15 0.00	SCRAPERS, CONVENTIONAL	1.07	1.04	1.02	1.00	0.96	0.86	0.82	0.80	0.76	0.72	0.71							
S20 0.00	SCRAPERS, TANDEM POWERED	1.07	1.04	1.02	1.00	0.96	0.86	0.82	0.80	0.76	0.72	0.71							
S25 0.00	SCRAPERS, TRACTOR DRAWN	1.07	1.04	1.02	1.00	0.96	0.86	0.82	0.80	0.75									
S30 0.00	SCREENING & CRUSHING PLANTS																		
S30 0.10	CONVEYORS	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90										
S30 0.20	CRUSHERS - VERTICAL & HORIZONTAL SHAFT IMPACTOR	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
S30 0.21	CRUSHERS - CONE	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
S30 0.22	CRUSHERS - JAW	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
S30 0.30	SCREENING PLANT	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90										
S35 0.00	SNOW REMOVAL EQUIPMENT	1.05	1.04	1.02	1.00	0.97	0.92												
S40 0.00	SOIL & ROAD STABILIZERS	1.07	1.04	1.02	1.00	0.96	0.86	0.82	0.80										
S45 0.00	SPLITTERS, ROCK & CONCRETE	1.05	1.04	1.02	1.00	0.97													
T10 0.00	TRACTOR BLADES & ATTACHMENTS (including agricultural)	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.86										
T15 0.00	TRACTORS, CRAWLER (DOZER) (ncludes blade)																		
T15 0.01	0 THRU 225 HP	1.04	1.02	1.01	1.00	0.95	0.89	0.84	0.85										
T15 0.02	226 HP THRU 425 HP	1.03	1.02	1.01	1.00	0.96	0.90	0.85	0.86	0.83									
T15 0.03	OVER 425 HP	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.87	0.84	0.81	0.79							
T20 0.00	TRACTORS, WHEEL TYPE (DOZER)	1.07	1.06	1.04	1.00	0.98	0.94	0.92	0.91	0.88	0.83	0.79							
T25 0.00	TRACTORS, AGRICULTURAL																		
T25 0.10	CRAWLER	1.07	1.06	1.04	1.00	0.98	0.94	0.91	0.91										
T25 0.20	WHEEL	1.07	1.06	1.04	1.00	0.98	0.94												
T30 0.00	TRENCHERS, CHAIN TYPE CUTTER	1.08	1.07	1.04	1.00	0.98	0.94												
T35 0.00	TRENCHERS, WHEEL TYPE CUTTER	1.08	1.07	1.04	1.00	0.98	0.94												
T40 0.00	TRUCK OPTIONS																		
T40 0.10	CRANES / HOISTS, PERSONNEL & MATERIAL HANDLING	1.05	1.04	1.02	1.00	0.97	0.92												
T40 0.20	DUMP BODY, REAR	1.04	1.03	1.02	1.00	0.97	0.93												
T40 0.30	FLATBEDS, WITH SIDES	1.05	1.04	1.02	1.00	0.97	0.92												
T40 0.41	HOIST, ELECTRIC DRIVE	1.05	1.04	1.02	1.00	0.97	0.92												
T40 0.50	TRANSIT MIXERS	1.05	1.03	1.02	1.00	0.97	0.93												

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
T40 0.60	WATER TANKS	1.05	1.04	1.02	1.00	0.97	0.92												
T40 0.70	ALL OTHER OPTIONS	1.05	1.04	1.02	1.00	0.97	0.92												
T45 0.00	TRUCK TRAILERS																		
T45 0.10	BOTTOM DUMP	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90										
T45 0.20	END DUMP	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90										
T45 0.30	PUP TRAILER	1.04	1.03	1.02	1.00	0.97	0.93												
T45 0.41	LOWBOY, RIGID NECK, DROP DECK	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90										
T45 0.50	FLATBED TRAILER	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90										
T45 0.60	MISCELLANEOUS / UTILITY	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90										
T45 0.70	WATER TANKER TRAILER	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88										
T45 0.80	DECONTAMINATION FACILITY	1.05	1.04	1.02	1.00	0.97	0.92												
T45 0.90	TANK TRAILERS	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88										
T50 0.00	TRUCKS, HIGHWAY (Add attachments as required)																		
T50 0.01	0 THRU 10,000 GVW	1.07	1.05	1.02	1.00	0.97	0.90												
T50 0.02	OVER 10,000 THRU 30,000 GVW (Chassis only - Add options)	1.07	1.05	1.02	1.00	0.97	0.90	0.87	0.84										
T50 0.03	OVER 30,000 GVW (Chassis only - Add options)	1.07	1.05	1.02	1.00	0.97	0.90	0.87	0.84	0.79									
T55 0.00	TRUCKS, OFF-HIGHWAY																		
T55 0.10	RIGID FRAME	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.95	0.93	0.89	0.87	0.82	0.75	0.71	0.70			
T55 0.20	ARTICULATED FRAME	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.95	0.93	0.89								
T56 0.00	TRUCKS,OFF-HIGHWAY/PRIME MOVER TRACTORS & WAGONS																		
T56 0.10	PRIME MOVER TRACTORS	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.95	0.93	0.89	0.87	0.82	0.75	0.71	0.70			
T56 0.20	WAGONS, BOTTOM DUMP	1.06	1.05	1.02	1.00	0.99	0.97	0.95	0.94	0.92	0.88	0.86							

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
T56 0.30	WAGONS, REAR DUMP	1.06	1.05	1.02	1.00	0.99	0.97	0.95	0.94	0.92									
T57 0.00	TRUCKS, VACUUM	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88										
T60 0.00	TRUCKS, WATER, OFF-HIGHWAY	1.06	1.05	1.02	1.00	0.99	0.97	0.95	0.94	0.92									
T65 0.00	TUNNEL/MINING EQUIPMENT																		
T65 0.10	DRIFTING & TUNNELING DRILLS	1.05	1.04	1.02	1.00	0.99	0.95	0.91	0.90	0.88	0.82	0.75							
T65 0.20	TUNNEL BORING MACHINES	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71					
T65 0.30	PRODUCTION DRILLING RIGS	1.05	1.04	1.02	1.00	0.99	0.95	0.91	0.90	0.88									
T65 0.40	ROADHEADERS & CONTINUOUS MINERS	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77						
T65 0.50	ROCK BOLTING EQUIPMENT	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88										
T65 0.61	LOADING & HAULING EQUIPMENT, DIESEL OR GAS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85									
T65 0.62	LOADING & HAULING EQUIPMENT, ELECTRIC	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.79							
T65 0.63	LOADING & HAULING EQUIPMENT, AIR-POWERED	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88										
T65 0.70	LOCOMOTIVES	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85									
T65 0.90	OTHER TUNNELING EQUIPMENT	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88										
W10 0.00	WAGONS, BOTTOM DUMP	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.94	0.93									
W15 0.00	WAGONS, REAR DUMP	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.94	0.93									
W25 0.00	WATER & CO2 BLASTERS																		
W25 0.10	LOW PRESSURE, (< 5,000 PSI)	1.05	1.04	1.02	1.00														
W25 0.20	HIGH PRESSURE, (>= 5,000 PSI)	1.05	1.04	1.02	1.00														
W25 0.30	STEAM CLEANERS	1.05	1.04	1.02	1.00														
W25 0.40	CO2 BLASTERS	1.05	1.04	1.02	1.00	0.97													
W25 0.50	WET ABRASIVE BLASTING SYSTEM (TORBO)	1.06	1.04	1.03	1.00	0.96	0.90	0.86	0.86										

Table 3-1 Equipment Age Adjustment Factors for Ownership Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
W30 0.00	WATER TANKS																		
W30 0.10	PORTABLE WITH WHEELS	1.06	1.05	1.02	1.00	0.99	0.97	0.95	0.94	0.92									
W30 0.20	SKID MOUNTED	1.06	1.05	1.02	1.00	0.99	0.97	0.95	0.94	0.92									
W35 0.00	WELDERS																		
W35 0.10	ENGINE DRIVEN	1.05	1.04	1.02	1.00	0.97	0.92												
W35 0.20	ELECTRIC DRIVEN	1.05	1.04	1.02	1.00	0.97													

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 = 2004
   d. Actual purchase price in 2004 = $222,151
      (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 $3,998 /tire = $15,992
   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 = 2010

5. Adjust the actual purchase price:

   a. Economic Indexes from appendix E (wheel loaders EK = 45)
      (1) For 2010 (first year of economic life), the economic index = 7119
      (2) For 2004 (year of manufacture), the economic index = 6140

   b. Purchase price [total equipment value (TEV)] indexed to 2010 (first year of economic life): (Purchase price includes discount, sales tax, and freight for this region).

      (7119 / 6140) x $222,151 = $257,572 (= 2010 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 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 12

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:				2016
(4)	Year Manufactured:	2004	indexed to		2010
(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)

	Size/Ply	App F Code	No.	Unit Price	Cost
(a) Front (FT):			0	$0	$0
(b) Drive (DT):	23.5X25/16Ply	ANNB5	4	$3,998	$15,992
(c) Trailing (TT):			0	$0	$0
(d) Total Tire Cost:					$15,992

(10)	List Price + Accessories: [at Year (yr) of Manufacture]	$0	OR	actual purchase price:	$257,572

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): **A**=Average **D**=Difficult **S**=Severe	A	AVERAGE
(3)	Discount Code (DC): **B** = 7.5% (0.075) or **S** = 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 3-1. Total Hourly Rate Calculation for Overage Equipment Page 1 of 6

Region 12

2. EQUIPMENT VALUE

a. List Price + Accessories: *[at Year (yr) of Manufacture]* = $0

(1) Discount:

(List Price {1.a.(10)}	+ Accessories)	x	Discount {1.c.(3)}	
($0	+ $0.00)	x	0.075	= - [$0]

(2) Subtotal {2.a}. - {2.a.(1)} Subtotal = $0

(3) Sales or Import

Subtotal {2 a.(2)}	x	Tax Rate {Appendix B}	
$0	x	4.25%	= $0

(4) Total Discounted Price: Subtotal: {2.a.(2)} + {2.a.(3)} Subtotal = $0

b. Freight:

Shipping Weight {1 a.(8)}	x	Freight Rate per cwt {Appendix B}	
0,000 cwt	x	$0.00 /cwt	= $0

c. **TOTAL EQUIPMENT VALUE (TEV):** **TOTAL[2.]: = $257,572**
{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 {1.c (4)}	/	Working Hours Per Year (WHPY) {Appendix B}	
			= N
9,250 hr	/	1,390 hr/yr	= 6.65 yrs (N)

4. OWNERSHIP COST

a. Depreciation

(1) Tire Cost Index (TCI):

Tire Index, Year of Manufacture, {1.a.(4)} Appendix E, EK=100	/	Present Year or Year of Use, {1.a.(3)} Appendix E, EK=100	
			= TCI
3929	/	3860	= 1.018

(2)

[TEV {2.c.}	x	(1.0-SLV) {1.c.(5)}	-	(TCI {4.a.(1)}	x	Tire Cost)] {1 a.(9)(d)}	/	LIFE {1.c.(4)}	
[$257,572	x	(1.0-0.25)	-	(1.018	x	$15,992)]	/	9,250 hr	= $19.12 /hr

Figure 3-1. Total Hourly Rate Calculation for Overage Equipment Page 2 of 6

Region 12

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}
	[(6.65 yr - 1.0)	x	(1.0 + 0.25)	+	2.0]	/	(2.0 x 6.65 yr)	=	0.681

(2)	TEV {2.c.}	x	AVF {4.b.(1)}	x	Adjusted Cost-of-Money {Appendix B}	/	WHPY {Appendix B}		
	$257,572	x	0.681	x	1.70%	/	1,390 hr/yr	=	$2.15 /hr

c. **TOTAL HOURLY OWNERSHIP COST:** **TOTAL [4.]: = $21.27 /hr**
{4.a.(2)} + {4.b.(2)}

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}		
0.031	x	180 hp	x	$3.81 /gal	=	$21.26 /hr

(2) Carrier:

Fuel Factor {1.c.(7)}	x	hp {1.a.(6)}	x	Fuel Cost per gal {Appendix B}		
0.000	x	0 hp	x	$0.00 /gal	=	$0.00 /hr

(3) Total Hourly Fuel Cost: **Total [5.a.] = $21.26 /hr**
{(5.a (1)} + {5.a (2)}

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}		
0.111	x	$21.26 /hr	x	0.98	=	$2.31 /hr

Figure 3-1. Total Hourly Rate Calculation for Overage Equipment Page 3 of 6

Region 12

5. OPERATING COST (Continued)

(2) Carrier:

FOG Factor {1.c.(8)}	x	Carrier Hourly Fuel Cost {5.a.(2)}	x	LAF {Appendix B}		
0.111	x	$0.00 /hr	x	0.98	=	$0.00 /hr

(3) Total Hourly FOG Cost: **Total [5.b.]** = **$2.31 /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)}		
			=	EAF
8049	/	7119	=	1.131

(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}		
					=	RF
0.70	x	1.131	x	0.98	=	0.776

(3) Repair Cost:

[TEV {2.c.}	-	(TCI {4.a.(1)}	x	Tire Cost)] {1.a.(9)(d)}	x	RF {5.d.(2)}	/	LIFE {1.c.(4)}
[$257,572	-	(1.018	x	$15,992)]	x	0.776	/	9,250

(4) Total Hourly Repair Cost: **Total [5.d.]** = **$20.24 /hr**

Figure 3-1. Total Hourly Rate Calculation for Overage Equipment Page 4 of 6

Region 12

5. OPERATING COST (Continued)

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

(1) Front Tires (FT):

(1.5 x FT Cost) {1.a.(9)(a)}	/	(1.8 x FT Wear Factor {1.c.(9)(a)}	x	Maximum Tire Life Hours) {Appendix F}	
(1.5 x $0)	/	(1.8 x 0.83	x	0 hr)	= $0.00 /hr

(2) Drive Tires (DT):

(1.5 x DT Cost) {1.a.(9)(b)}	/	(1.8 x DT Wear Factor {1.c.(9)(b)}	x	Maximum Tire Life Hours) {Appendix F}	
(1.5 x $15,992)	/	(1.8 x 0.54	x	3200 hr)	= $7.71 /hr

(3) Trailing Tires (TT):

(1.5 x TT Cost) {1.a.(9)(c)}	/	(1.8 x TT Wear Factor {1.c.(9)(c)}	x	Maximum Tire Life Hours) {Appendix F}	
(1.5 x $0)	/	(1.8 x 0.92	x	0 hr)	= $0.00 /hr

(4) Total Tire Wear Cost: **Total [5.e.] = $7.71 /hr**
Sum {5.e (1)} through {5.e.(3)}

f. Tire Repair Cost:

Total Tire Wear Cost per Hour {5.e.(4)}	x	(0.15 x LAF) {Appendix B}		
$7.71 /hr	x	(0.15 x 0.98)	**Total [5.f.] =**	**$1.13 /hr**

g. TOTAL HOURLY OPERATING COST: **Total [5.] = $52.65 /hr**
Sum {5 a.} through {5.f.}

Figure 3-1. Total Hourly Rate Calculation for Overage Equipment Page 5 of 6

Region 12

6. HOURLY RATES

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

Ownership Cost {4.c.}	+	Operating Cost {5.g.}		
$21.27 /hr	+	$52.65 /hr	=	**$73.92 /hr**

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.}		
$0.00 /hr	+	($0.00 /hr	x	40 hr/wk	/	60 hr/wk) (example:60 hr/wk)	+	$0.00 /hr	=	**$0.00 /hr**

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)}		
($0.00 /hr	x 0.50)	+	$0.00 /hr	=	**$0.00 /hr**

(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 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
A10 0.00	AGGREGATE / CHIP SPREADERS																		
A10 0.10	SELF-PROPELLED	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88	0.84	0.81	0.77	0.72	0.73	0.73	0.73	0.71	0.69
A10 0.20	TOWED & TAILGATE	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88	0.84	0.81	0.77	0.72	0.72	0.72	0.72	0.71	0.69
A15 0.00	AIR COMPRESSORS, PORTABLE																		
A15 0.10	ROTARY SCREW	1.05	1.05	1.03	1.00	0.95	0.91	0.84	0.83	0.78	0.72	0.69	0.66	0.63	0.62	0.62	0.63	0.61	0.63
A15 0.20	SHOP TYPE	1.05	1.05	1.03	1.00	0.95	0.92	0.85	0.84	0.79	0.74	0.71	0.68	0.65	0.65	0.64	0.65	0.64	0.65
A20 0.00	AIR HOSE, TOOLS & EQUIPMENT																		
A20 0.10	AIR DRILL HOSE	1.04	1.04	1.03	1.00	0.96	0.93	0.86	0.85	0.81	0.76	0.73	0.70	0.68	0.67	0.67	0.68	0.66	0.67
A20 0.20	SANDBLAST HOSE	1.04	1.04	1.03	1.00	0.96	0.93	0.86	0.85	0.81	0.76	0.73	0.70	0.68	0.67	0.67	0.68	0.66	0.67
A20 0.30	SANDBLASTERS, BREAKERS, & MISC. AIR TOOLS	1.04	1.05	1.03	1.00	0.96	0.92	0.85	0.84	0.80	0.75	0.72	0.69	0.66	0.66	0.66	0.66	0.65	0.66
A25 0.00	ASPHALT PAVING DISTRIBUTORS	1.05	1.03	1.03	1.00	0.98	0.95	0.93	0.93	0.89	0.86	0.83	0.79	0.75	0.75	0.75	0.75	0.74	0.72
A30 0.00	ASPHALT PAVERS & MISCELLANEOUS ROAD EQUIPMENT																		
A30 0.10	SELF PROPELLED	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.89	0.85	0.82	0.78	0.74	0.74	0.74	0.74	0.73	0.71
A30 0.20	TOWED	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88	0.84	0.82	0.77	0.73	0.73	0.73	0.73	0.72	0.70
A30 0.30	SLURRY SEAL PAVERS (Cold mix)	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88	0.85	0.82	0.78	0.73	0.73	0.73	0.73	0.72	0.70
A30 0.40	MISCELLANEOUS ROAD EQUIPMENT	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88	0.84	0.82	0.77	0.73	0.73	0.73	0.73	0.72	0.70
A35 0.00	ASPHALT PAVING KETTLES	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88	0.84	0.81	0.77	0.72	0.72	0.72	0.72	0.71	0.69
A40 0.00	ASPHALT & CONCRETE MILLERS / PROFILERS / PLANERS / ROTARY GRINDERS	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88	0.84	0.81	0.77	0.72	0.72	0.72	0.72	0.71	0.69
A45 0.00	ASPHALT RECYCLERS & SEALERS	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88	0.84	0.81	0.77	0.72	0.72	0.72	0.72	0.71	0.69
B10 0.00	BATCH PLANTS, ASPHALT & CONCRETE																		
B10 0.10	ASPHALT	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88	0.84	0.81	0.77	0.72	0.73	0.73	0.73	0.71	0.69
B10 0.20	CONCRETE	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88	0.84	0.81	0.77	0.72	0.73	0.73	0.73	0.71	0.69

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
B10 0.30	PUGMILL	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88	0.84	0.82	0.77	0.73	0.73	0.73	0.73	0.72	0.70
B15 0.00	BROOMS, STREET SWEEPERS & FLUSHERS	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
B20 0.00	BRUSH CHIPPERS	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
B25 0.00	BUCKETS, CLAMSHELL	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.84	0.79	0.77	0.74	0.69	0.70	0.71
B30 0.00	BUCKETS, CONCRETE																		
B30 0.10	GENERAL PURPOSE, MANUAL TRIP	1.03	1.03	1.01	1.00	0.98	0.97	0.94	0.94	0.92	0.91	0.90	0.85	0.80	0.78	0.76	0.71	0.72	0.73
B30 0.20	LAYDOWN	1.03	1.03	1.01	1.00	0.98	0.97	0.94	0.94	0.92	0.91	0.90	0.85	0.80	0.78	0.76	0.71	0.72	0.73
B30 0.30	LOWBOY	1.03	1.03	1.01	1.00	0.98	0.97	0.94	0.94	0.92	0.91	0.90	0.85	0.80	0.78	0.76	0.71	0.72	0.73
B30 0.40	LOW SLUMP	1.03	1.03	1.01	1.00	0.98	0.97	0.94	0.94	0.92	0.91	0.90	0.85	0.80	0.78	0.76	0.71	0.72	0.73
B35 0.00	BUCKETS, DRAGLINE																		
B35 0.10	LIGHT WEIGHT	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.84	0.79	0.77	0.74	0.69	0.70	0.71
B35 0.20	MEDIUM WEIGHT	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.84	0.79	0.77	0.75	0.69	0.70	0.71
B35 0.30	HEAVY WEIGHT	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.84	0.79	0.77	0.75	0.69	0.70	0.71
C05 0.00	CHAIN SAWS	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.81	0.78	0.72	0.70	0.68	0.67	0.67	0.66
C10 0.00	COMPACTORS, WALK-BEHIND OR REMOTE CONTROLLER																		
C10 0.10	COMPACTORS, RAMMERS / TAMPERS & VIBRATORY PLATES	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.79	0.74	0.71	0.70	0.69	0.69	0.68
C10 0.20	ROLLERS, VIBRATORY	1.05	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.80	0.76	0.71	0.68	0.67	0.66	0.65	0.65
C15 0.00	CONCRETE CLEANERS / ABRASIVE BLASTERS																		
C15 0.10	WALK BEHIND	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.63	0.63	0.62
C15 0.20	TRUCK/TRAILER MOUNTED	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
C20 0.00	CONCRETE BUGGIES	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.63	0.63	0.62
C25 0.00	CONCRETE FINISHERS/SCREEDS/SPREADERS																		

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
C25 0.10	FINISHERS/TROWELS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.63	0.63
C25 0.20	VIBRATORY SCREED	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.63	0.63
C25 0.25	VIBRATORY LASER SCREED	1.05	1.04	1.02	1.00	0.97	0.91	0.87	0.87	0.83	0.80	0.77	0.72	0.66	0.62	0.61	0.60	0.59	0.59
C25 0.30	MATERIAL/TOPPING SPREADERS	1.05	1.04	1.02	1.00	0.97	0.91	0.87	0.87	0.83	0.80	0.77	0.72	0.66	0.62	0.61	0.60	0.59	0.59
C30 0.00	CONCRETE GRINDERS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.63	0.63
C35 0.00	CONCRETE GUNITERS / SHOTCRETERS	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88	0.84	0.81	0.78	0.74	0.68	0.64	0.63	0.62	0.62	0.61
C40 0.00	CONCRETE MIXING UNITS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.63	0.63
C45 0.00	CONCRETE PAVING MACHINES	1.05	1.03	1.03	1.00	0.98	0.95	0.92	0.92	0.88	0.84	0.81	0.77	0.72	0.72	0.72	0.72	0.71	0.69
C55 0.00	CONCRETE PUMPS	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
C60 0.00	CONCRETE SAWS (Add cost for sawblade wear)	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.81	0.78	0.73	0.70	0.69	0.68	0.67	0.67
C65 0.00	CONCRETE VIBRATORS	1.04	1.05	1.03	1.00	0.96	0.92	0.85	0.84	0.80	0.75	0.71	0.69	0.66	0.66	0.65	0.66	0.65	0.66
C70 0.00	CRANES, GANTRY & STRADDLE																		
C75 0.00	CRANES, HYDRAULIC, SELF-PROPELLED	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.83	0.78	0.76	0.74	0.68	0.69	0.69
C80 0.00	CRANES, HYDRAULIC, TRUCK MOUNTED																		
C80 0.01	UNDER 26 TON	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.83	0.78	0.76	0.74	0.68	0.69	0.69
C80 0.02	26 TON THRU 65 TON	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.83	0.78	0.76	0.74	0.68	0.70	0.69
C80 0.03	66 TON THRU 125 TON	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.83	0.78	0.76	0.74	0.69	0.70	0.69
C80 0.04	OVER 125 TON	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.84	0.78	0.76	0.74	0.69	0.70	0.70
C85 0.00	CRANES, MECHANICAL, LATTICE BOOM, CRAWLER MOUNTED																		
C85 0.11	DRAGLINE, CLAMSHELL, 0 THRU 1.0 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.90	0.89	0.88	0.83	0.77	0.75	0.72	0.67	0.68	0.68
C85 0.12	DRAGLINE, CLAMSHELL, OVER 1.0 CY THRU 2.5 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.90	0.89	0.88	0.83	0.77	0.75	0.73	0.67	0.68	0.68
C85 0.13	DRAGLINE, CLAMSHELL, OVER 2.5 CY THRU 5.0 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83	0.77	0.75	0.73	0.67	0.68	0.68

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
C85 0.14	DRAGLINE, CLAMSHELL, OVER 5.0 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83	0.78	0.75	0.73	0.68	0.69	0.68
C85 0.21	LIFTING, 0 THRU 25 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.90	0.89	0.88	0.83	0.77	0.75	0.73	0.67	0.68	0.68
C85 0.22	LIFTING, 26 TON THRU 50 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83	0.77	0.75	0.73	0.67	0.68	0.68
C85 0.23	LIFTING, 51 TON THRU 150 TON	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.84	0.78	0.76	0.74	0.69	0.70	0.70
C85 0.24	LIFTING, OVER 150 TON	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.84	0.79	0.76	0.74	0.69	0.70	0.70
C90 0.00	CRANES, MECHANICAL, LATTICE BOOM, TRUCK MOUNTED																		
C90 0.01	UNDER 26 TON	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.83	0.78	0.76	0.74	0.68	0.69	0.69
C90 0.02	26 TON THRU 65 TON	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.83	0.78	0.76	0.74	0.68	0.70	0.69
C90 0.03	66 TON THRU 125 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83	0.77	0.75	0.73	0.67	0.68	0.68
C90 0.04	OVER 125 TON	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83	0.78	0.75	0.73	0.68	0.69	0.68
C95 0.00	CRANES, TOWER	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83	0.77	0.75	0.73	0.67	0.68	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)	1.06	1.04	1.02	1.00	0.99	0.95	0.91	0.90	0.87	0.80	0.74	0.67	0.61	0.56	0.55	0.49	0.47	0.46
D10 0.20	DRILLS, HYDRAULIC TRACK (Add cost for drill steel and bit wear)	1.06	1.04	1.03	1.00	0.98	0.95	0.90	0.90	0.86	0.80	0.73	0.66	0.60	0.55	0.53	0.48	0.46	0.45
D15 0.00	DRILLS, HORIZONTAL																		
D15 0.10	DRILLS, HORIZONTAL BORING & GROUND PIERCING (Add cost for drill steel and bit wear)	1.06	1.04	1.03	1.00	0.98	0.95	0.90	0.90	0.86	0.80	0.73	0.66	0.60	0.55	0.53	0.48	0.46	0.45
D15 0.20	DRILLS, HORIZONTAL & DIRECTIONAL (Add cost for drill steel and bit wear)	1.06	1.04	1.03	1.00	0.98	0.95	0.90	0.90	0.86	0.80	0.73	0.66	0.60	0.55	0.53	0.48	0.46	0.45
D20 0.00	DRILLS, CORE, COLUMN MOUNTED (Add cost for drill steel and bit wear)	1.06	1.04	1.03	1.00	0.98	0.95	0.90	0.89	0.86	0.80	0.73	0.66	0.59	0.54	0.53	0.47	0.45	0.44
D25 0.00	DRILLS, CORE & DOWELLING (Add cost for drill steel and bit wear)	1.06	1.04	1.03	1.00	0.98	0.95	0.90	0.90	0.86	0.80	0.73	0.66	0.60	0.55	0.53	0.48	0.46	0.45
D30 0.00	DRILLS, EARTH / AUGER (Add cost for drill steel and cutting edge wear)	1.06	1.04	1.03	1.00	0.98	0.95	0.90	0.90	0.86	0.80	0.73	0.66	0.60	0.55	0.53	0.48	0.46	0.45
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)	1.05	1.04	1.02	1.00	0.99	0.95	0.91	0.90	0.87	0.81	0.75	0.69	0.63	0.58	0.57	0.51	0.50	0.49

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY	SUB	REGION 12 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
			2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
D35	0.12	DIESEL, OVER 9.875" DIAMETER (Add cost for drill steel and bit wear)	1.05	1.04	1.02	1.00	0.99	0.95	0.91	0.90	0.88	0.82	0.75	0.69	0.63	0.59	0.57	0.52	0.50	0.50
D35	0.21	ELECTRIC, 4.5" THRU 9.875" DIAMETER HOLE (Add cost for drill steel and bit wear)	1.05	1.04	1.02	1.00	0.99	0.95	0.91	0.90	0.87	0.81	0.75	0.69	0.63	0.58	0.57	0.51	0.50	0.49
D35	0.22	ELECTRIC, OVER 9.875" DIAMETER (Add cost for drill steel and bit wear)	1.05	1.04	1.02	1.00	0.99	0.95	0.91	0.90	0.88	0.82	0.75	0.69	0.63	0.59	0.57	0.52	0.50	0.50
F10	0.00	FORK LIFTS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.76	0.70	0.67	0.66	0.65	0.64	0.63
G10	0.00	GENERATOR SETS																		
G10	0.10	PORTABLE	1.02	1.02	1.02	1.00	0.99	0.97	0.91	0.89	0.86	0.81	0.77	0.73	0.69	0.68	0.68	0.68	0.67	0.67
G10	0.20	SKID MOUNTED	1.02	1.02	1.02	1.00	0.99	0.97	0.91	0.89	0.86	0.81	0.77	0.73	0.69	0.68	0.68	0.68	0.67	0.67
G15	0.00	GRADERS, MOTOR	1.07	1.04	1.02	1.00	0.96	0.86	0.82	0.80	0.75	0.72	0.70	0.67	0.63	0.61	0.60	0.59	0.58	0.57
H10	0.00	HAMMERS, HYDRAULIC (Demolition tool) (Add cost for point wear)	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.64	0.63
H13	0.00	HAZARDOUS/TOXIC WASTE EQUIPMENT																		
H13	0.11	COMPACTORS (Compression force) 0 THRU 50 TONS	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71	0.69	0.67	0.66	0.66	0.65
H13	0.12	COMPACTORS (Compression force) OVER 50 TONS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.86	0.82	0.80	0.76	0.70	0.67	0.66	0.65	0.65	0.64
H13	0.21	FILTER PRESSES, STATIONARY	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.76	0.70	0.67	0.66	0.65	0.64	0.63
H13	0.22	FILTER PRESSES, MOBILE	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71	0.69	0.67	0.66	0.66	0.65
H13	0.30	CENTRIFUGES	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.63	0.63	0.62
H13	0.40	SHREDDERS	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71	0.69	0.67	0.66	0.66	0.65
H13	0.51	SOIL TREATMENT PLANT, MOBILE	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71	0.69	0.67	0.66	0.66	0.65
H13	0.61	SLUDGE PROCESSING EQUIP, SLUDGE DISPENSERS	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71	0.69	0.67	0.66	0.66	0.65
H13	0.71	WASTE HANDLING EQUIPMENT, DRUM HANDLING	1.05	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.80	0.76	0.71	0.68	0.67	0.66	0.65	0.65
H15	0.00	HEATERS, SPACE																		
H20	0.00	HOISTS & AIR WINCHES	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.66	0.64	0.64	0.63
H25	0.00	HYDRAULIC EXCAVATORS, CRAWLER MOUNTED																		

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
H25 0.10	0 LBS THRU 12,500 LBS (COMPACT EXCAVATORS)	1.04	1.04	1.02	1.00	0.97	0.96	0.92	0.93	0.90	0.88	0.87	0.81	0.75	0.73	0.70	0.64	0.65	0.65
H25 0.11	OVER 12,500 LBS THRU 40,000 LBS	1.04	1.04	1.02	1.00	0.97	0.96	0.92	0.93	0.90	0.88	0.87	0.81	0.75	0.73	0.70	0.64	0.65	0.65
H25 0.12	OVER 40,000 LBS THRU 100,000 LBS	1.04	1.03	1.02	1.00	0.97	0.96	0.92	0.93	0.90	0.89	0.87	0.81	0.76	0.73	0.71	0.65	0.66	0.66
H25 0.13	OVER 100,000 LBS THRU 160,000 LBS	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88	0.82	0.76	0.74	0.71	0.65	0.67	0.66
H25 0.14	OVER 160,000 LBS	1.04	1.03	1.02	1.00	0.98	0.96	0.92	0.93	0.90	0.89	0.88	0.82	0.77	0.74	0.72	0.66	0.67	0.67
H25 0.21	ATTACHMENTS, MOBILE SHEARS	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.80	0.77	0.71	0.68	0.67	0.66	0.66	0.65
H25 0.22	ATTACHMENTS, MATERIAL HANDLING	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.64	0.63
H25 0.23	ATTACHMENTS, CONCRETE PULVERIZERS	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.80	0.77	0.71	0.68	0.67	0.66	0.66	0.65
H25 0.24	ATTACHMENTS, COMPACTORS	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.80	0.77	0.71	0.68	0.67	0.66	0.66	0.65
H30 0.00	HYDRAULIC EXCAVATORS, WHEEL MOUNTED																		
H30 0.01	0 THRU 1.0 CY	1.04	1.04	1.02	1.00	0.97	0.96	0.92	0.93	0.90	0.88	0.87	0.81	0.75	0.73	0.70	0.64	0.65	0.65
H30 0.02	OVER 1.0 CY	1.04	1.04	1.02	1.00	0.97	0.96	0.92	0.93	0.90	0.89	0.87	0.81	0.75	0.73	0.70	0.64	0.66	0.65
H35 0.00	HYDRAULIC SHOVELS, CRAWLER MOUNTED																		
H35 0.11	DIESEL, 0 CY THRU 5.0 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.90	0.89	0.88	0.83	0.77	0.75	0.72	0.67	0.68	0.68
H35 0.12	DIESEL, OVER 5.0 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.90	0.89	0.88	0.83	0.77	0.75	0.73	0.67	0.68	0.68
H35 0.21	ELECTRIC, OVER 2.5 CY	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83	0.77	0.75	0.73	0.67	0.68	0.68
L10 0.00	LAND CLEARING EQUIPMENT	1.03	1.02	1.01	1.00	0.96	0.91	0.87	0.87	0.84	0.81	0.79	0.75	0.71	0.68	0.67	0.67	0.66	0.65
L15 0.00	LANDSCAPING EQUIPMENT	1.05	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.80	0.76	0.71	0.68	0.67	0.66	0.65	0.65
L20 0.00	LIGHTING SETS, TRAILER MOUNTED																		
L20 0.10	METALLIC VAPOR	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
L25 0.00	LINE STRIPING EQUIPMENT	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
L30 0.00	LOADERS, BELT (Conveyor belts) & ACCESSORIES	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.76	0.70	0.67	0.66	0.65	0.64	0.63

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY	SUB	REGION 12 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
			2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
L35	0.00	LOADERS, FRONT END, CRAWLER TYPE	1.03	1.02	1.01	1.00	0.96	0.91	0.87	0.87	0.84	0.81	0.79	0.75	0.71	0.68	0.67	0.67	0.66	0.65
L40	0.00	LOADERS, FRONT END, WHEEL TYPE																		
L40	0.11	ARTICULATED, 0 THRU 225 HP	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.86	0.83	0.80	0.78	0.74	0.69	0.66	0.65	0.65	0.64	0.63
L40	0.12	ARTICULATED, OVER 225 HP	1.03	1.02	1.01	1.00	0.96	0.91	0.87	0.87	0.84	0.81	0.79	0.76	0.71	0.69	0.67	0.67	0.67	0.66
L40	0.20	SKID STEER	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.87	0.84	0.81	0.79	0.75	0.71	0.68	0.67	0.66	0.66	0.65
L40	0.21	SKID STEER ATTACHMENTS	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.86	0.83	0.80	0.78	0.75	0.70	0.67	0.66	0.66	0.65	0.64
L40	0.31	TOOL CARRIER & TELESCOPIC HANDLERS, 0 THRU 225 HP	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.86	0.83	0.80	0.78	0.74	0.69	0.67	0.65	0.65	0.64	0.64
L40	0.32	TOOL CARRIER & TELESCOPIC HANDLERS, OVER 225 HP	1.03	1.02	1.01	1.00	0.96	0.91	0.87	0.88	0.85	0.82	0.80	0.77	0.72	0.70	0.69	0.69	0.68	0.67
L45	0.00	LOADERS / BACKHOE, CRAWLER TYPE	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.87	0.84	0.81	0.79	0.75	0.71	0.68	0.67	0.66	0.66	0.65
L50	0.00	LOADERS / BACKHOE, WHEEL TYPE	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.86	0.83	0.80	0.78	0.74	0.69	0.67	0.65	0.65	0.64	0.64
L55	0.00	LOADER / BACKHOE, ATTACHMENTS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.64	0.63
L60	0.00	LOG SKIDDERS	1.07	1.06	1.04	1.00	0.98	0.94	0.92	0.91	0.88	0.83	0.79	0.75	0.71	0.67	0.66	0.65	0.63	0.62
M10	0.00	MARINE EQUIPMENT (NON DREDGING)																		
M10	0.11	AQUATIC MAINTENANCE	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.88	0.85	0.81	0.77	0.74	0.69	0.66	0.65	0.63	0.62
M10	0.12	AQUATIC MAINTENANCE ATTACHMENTS	1.05	1.04	1.02	1.00	0.99	0.97	0.94	0.92	0.87	0.83	0.79	0.75	0.72	0.67	0.63	0.62	0.60	0.59
M10	0.21	HYDRAULIC CUTTERHEAD DREDGE, 8" OR LESS,TRANSPORTABLE	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.86	0.82	0.78	0.76	0.71	0.68	0.67	0.65	0.64
M10	0.22	HYDRAULIC CUTTERHEAD DREDGE,8" - 12",TRANSPORTABLE	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.86	0.82	0.78	0.76	0.71	0.68	0.67	0.65	0.64
M10	0.23	HYDRAULIC AUGERHEAD DREDGE,12" OR LESS,TRANSPORTABLE	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.86	0.82	0.78	0.76	0.71	0.68	0.67	0.65	0.64
M10	0.24	HYDRAULIC FLOATING PUMPS,12" OR LESS,TRANSPORTABLE	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.85	0.81	0.78	0.75	0.71	0.67	0.66	0.65	0.64
M10	0.25	HYDRAULIC DREDGE PUMPS,12" OR LESS,TRANSPORTABLE	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.92	0.88	0.84	0.80	0.77	0.74	0.69	0.65	0.64	0.63	0.61
M10	0.26	HYDRAULIC DREDGE / PUMP ATTACHMENTS	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.92	0.88	0.84	0.80	0.77	0.74	0.69	0.65	0.64	0.63	0.61
M10	0.31	SMALL MECH DREDGES,CLAMSHELL,BARGE-MTD TO 5 CY	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.83	0.78	0.76	0.74	0.69	0.70	0.69

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY	SUB	REGION 12 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
			2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
M10	0.32	SMALL MECH DREDGES, AMPHIBIOUS EXCAVATORS	1.04	1.03	1.02	1.00	0.98	0.96	0.93	0.93	0.91	0.90	0.88	0.83	0.78	0.76	0.73	0.68	0.69	0.69
M10	0.33	SMALL MECH DREDGES,HOE-MOUNTED DREDGING ATTACH	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.85	0.81	0.78	0.75	0.70	0.67	0.66	0.64	0.63
M10	0.41	WORK FLOATS (NON-DREDGING)	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.85	0.81	0.78	0.75	0.71	0.67	0.66	0.65	0.63
M10	0.42	WORK BARGES (SECTIONAL, NON-DREDGING)	1.04	1.03	1.02	1.00	0.99	0.98	0.95	0.93	0.89	0.86	0.82	0.79	0.76	0.72	0.69	0.68	0.66	0.65
M10	0.45	FLAT-DECK OR CARGO BARGE (NON-DREDGING)	1.04	1.03	1.02	1.00	0.99	0.98	0.96	0.93	0.90	0.87	0.83	0.80	0.77	0.73	0.70	0.69	0.68	0.67
M10	0.46	DUMP SCOW (NON-DREDGING)	1.04	1.03	1.02	1.00	0.99	0.98	0.96	0.93	0.90	0.87	0.83	0.80	0.77	0.73	0.70	0.69	0.68	0.67
M10	0.47	DRILL BARGE (NON-DREDGING)	1.04	1.03	1.02	1.00	0.99	0.98	0.95	0.93	0.90	0.86	0.83	0.80	0.77	0.73	0.69	0.69	0.67	0.66
M10	0.48	ALL OTHER BARGES (NON-DREDGING)	1.04	1.03	1.02	1.00	0.99	0.98	0.95	0.93	0.90	0.86	0.83	0.80	0.77	0.73	0.69	0.69	0.67	0.66
M10	0.51	BOATS & LAUNCHES, 0 THRU 250 HP	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.88	0.85	0.81	0.78	0.74	0.70	0.66	0.65	0.64	0.63
M10	0.53	BOATS & LAUNCHES, 251 THRU 500 HP	1.04	1.04	1.02	1.00	0.99	0.97	0.95	0.93	0.89	0.86	0.82	0.79	0.76	0.71	0.68	0.67	0.65	0.64
M10	0.54	TUGS, 501 THRU 1,000 HP	1.04	1.03	1.02	1.00	0.99	0.98	0.95	0.93	0.89	0.86	0.82	0.79	0.76	0.72	0.69	0.68	0.66	0.65
M10	0.55	TUGS, 1,000 THRU 2,000 HP	1.04	1.03	1.02	1.00	0.99	0.98	0.95	0.93	0.90	0.86	0.83	0.80	0.77	0.73	0.69	0.69	0.67	0.66
P10	0.00	PILE HAMMER ACCESSORIES - EXTRACTORS & BOX LEADS	1.06	1.04	1.03	1.00	0.96	0.90	0.86	0.86	0.82	0.78	0.75	0.70	0.63	0.59	0.58	0.56	0.56	0.55
P20	0.00	PILE HAMMERS, DOUBLE ACTING																		
P20	0.10	DIESEL	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88	0.84	0.81	0.78	0.74	0.67	0.64	0.63	0.62	0.61	0.60
P20	0.20	PNEUMATIC (STEAM/AIR)	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.64	0.63
P25	0.00	PILE HAMMERS, SINGLE ACTING																		
P25	0.10	DIESEL	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.64	0.63
P25	0.20	PNEUMATIC (STEAM/AIR)	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.80	0.77	0.71	0.68	0.67	0.66	0.66	0.65
P30	0.00	PILE HAMMERS, DRIVER/ EXTRACTOR, VIBRATORY	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.64	0.63
P35	0.00	PIPELAYERS	1.03	1.02	1.01	1.00	0.96	0.91	0.87	0.87	0.84	0.81	0.79	0.76	0.71	0.69	0.68	0.67	0.67	0.66
P40	0.00	PLATFORMS & MAN-LIFTS	1.04	1.03	1.01	1.00	0.98	0.96	0.93	0.94	0.91	0.90	0.89	0.84	0.79	0.77	0.74	0.69	0.70	0.70

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY	SUB	REGION 12 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
			2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
P45	0.00	PUMPS, GROUT	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71	0.68	0.67	0.66	0.66	0.65
P50	0.00	PUMPS, WATER, CENTRIFUGAL, TRASH																		
P50	0.11	ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
P50	0.12	ELECTRIC DRIVE	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
P50	0.21	WHEEL MOUNTED, ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
P50	0.22	WHEEL MOUNTED, ELECTRIC DRIVE	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
P50	0.31	HOSES, PUMP, SUCTION & DISCHARGE	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.81	0.78	0.72	0.70	0.69	0.68	0.67	0.67
P55	0.00	PUMPS, WATER, SUBMERSIBLE																		
P55	0.01	ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
P55	0.02	ELECTRIC DRIVE	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71	0.68	0.67	0.66	0.66	0.65
P60	0.00	PUMPS, WATER, CENTRIFUGAL, DEWATERING																		
P60	0.11	SKID MOUNTED, ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
P60	0.12	SKID MOUNTED, ELECTRIC DRIVE	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71	0.68	0.67	0.66	0.66	0.65
P60	0.21	WHEEL MOUNTED, ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
P60	0.22	WHEEL MOUNTED, ELECTRIC DRIVE	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71	0.68	0.67	0.66	0.66	0.65
P65	0.00	PUMPS, WATER, DIAPHRAGM																		
P65	0.11	SKID MOUNTED, ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
P65	0.12	SKID MOUNTED, ELECTRIC DRIVE	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71	0.68	0.67	0.66	0.66	0.65
P65	0.21	WHEEL MOUNTED, ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
P65	0.22	WHEEL MOUNTED, ELECTRIC DRIVE	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71	0.68	0.67	0.66	0.66	0.65
P70	0.00	PUMPS, WATER (For core drills)																		
P70	0.01	ENGINE DRIVE	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88	0.84	0.81	0.78	0.74	0.68	0.65	0.63	0.62	0.62	0.61

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY	SUB	REGION 12 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
			2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
P70	0.02	ELECTRIC DRIVE	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88	0.84	0.81	0.78	0.74	0.68	0.65	0.63	0.62	0.62	0.61
R10	0.00	RIPPERS & HYDRAULIC BANK SLOPERS (Add cost for point wear)	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.87	0.84	0.81	0.79	0.75	0.71	0.68	0.67	0.66	0.66	0.65
R15	0.00	ROLLERS, STATIC, TOWED, PNEUMATIC	1.07	1.06	1.04	1.00	0.98	0.95	0.92	0.91	0.88	0.83	0.78	0.74	0.70	0.66	0.64	0.63	0.62	0.63
R20	0.00	ROLLERS, STATIC, TOWED, STEEL DRUM	1.07	1.06	1.04	1.00	0.98	0.95	0.92	0.91	0.88	0.83	0.78	0.74	0.70	0.66	0.64	0.63	0.62	0.63
R30	0.00	ROLLERS, STATIC, SELF-PROPELLED																		
R30	0.01	PNEUMATIC	1.07	1.06	1.04	1.00	0.98	0.95	0.92	0.91	0.88	0.83	0.79	0.75	0.71	0.68	0.66	0.65	0.63	0.65
R30	0.02	SMOOTH DRUM	1.07	1.06	1.04	1.00	0.98	0.95	0.92	0.91	0.88	0.84	0.79	0.75	0.72	0.68	0.66	0.65	0.64	0.65
R30	0.03	TAMPING FOOT, LANDFILL & SOIL COMPACTORS	1.07	1.06	1.04	1.00	0.98	0.95	0.92	0.91	0.88	0.83	0.78	0.74	0.70	0.66	0.65	0.64	0.62	0.63
R40	0.00	ROLLERS, VIBRATORY, TOWED	1.07	1.07	1.04	1.00	0.98	0.95	0.92	0.91	0.88	0.83	0.78	0.73	0.70	0.66	0.64	0.63	0.61	0.62
R45	0.00	ROLLERS, VIBRATORY, SELF-PROPELLED, DOUBLE DRUM	1.07	1.07	1.04	1.00	0.98	0.95	0.92	0.91	0.88	0.83	0.78	0.73	0.70	0.66	0.64	0.63	0.61	0.62
R50	0.00	ROLLERS, VIBRATORY, SELF-PROPELLED, SINGLE DRUM	1.08	1.07	1.04	1.00	0.97	0.94	0.91	0.90	0.87	0.81	0.77	0.72	0.68	0.64	0.62	0.61	0.59	0.60
R55	0.00	ROOFING EQUIPMENT	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.80	0.77	0.71	0.68	0.67	0.66	0.66	0.65
S10	0.00	SCRAPERS, ELEVATING																		
S10	0.01	0 THRU 200 HP	1.07	1.04	1.02	1.00	0.96	0.86	0.82	0.81	0.76	0.72	0.71	0.68	0.64	0.62	0.61	0.60	0.59	0.58
S10	0.02	OVER 200 HP	1.07	1.04	1.02	1.00	0.96	0.86	0.82	0.80	0.75	0.71	0.70	0.67	0.63	0.60	0.59	0.58	0.58	0.57
S15	0.00	SCRAPERS, CONVENTIONAL	1.07	1.04	1.02	1.00	0.96	0.87	0.83	0.81	0.76	0.73	0.72	0.69	0.65	0.63	0.62	0.61	0.60	0.59
S20	0.00	SCRAPERS, TANDEM POWERED	1.07	1.04	1.02	1.00	0.96	0.87	0.83	0.81	0.76	0.73	0.72	0.69	0.65	0.63	0.62	0.61	0.60	0.59
S25	0.00	SCRAPERS, TRACTOR DRAWN	1.07	1.04	1.02	1.00	0.96	0.86	0.82	0.81	0.76	0.73	0.72	0.68	0.65	0.62	0.61	0.60	0.60	0.58
S30	0.00	SCREENING & CRUSHING PLANTS																		
S30	0.10	CONVEYORS	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
S30	0.20	CRUSHERS - VERTICAL & HORIZONTAL SHAFT IMPACTOR	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.79	0.74	0.71	0.70	0.69	0.69	0.68
S30	0.21	CRUSHERS - CONE	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.79	0.74	0.71	0.70	0.69	0.69	0.68

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
S30 0.22	CRUSHERS - JAW	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.79	0.74	0.71	0.70	0.69	0.69	0.68
S30 0.30	SCREENING PLANT	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
S35 0.00	SNOW REMOVAL EQUIPMENT	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
S40 0.00	SOIL & ROAD STABILIZERS	1.07	1.04	1.02	1.00	0.96	0.86	0.82	0.81	0.76	0.72	0.71	0.68	0.64	0.62	0.61	0.60	0.59	0.58
S45 0.00	SPLITTERS, ROCK & CONCRETE	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.64	0.63
T10 0.00	TRACTOR BLADES & ATTACHMENTS (including agricultural)	1.03	1.02	1.01	1.00	0.96	0.91	0.87	0.87	0.84	0.81	0.79	0.75	0.71	0.68	0.67	0.67	0.66	0.65
T15 0.00	TRACTORS, CRAWLER (DOZER) (includes blade)																		
T15 0.01	0 THRU 225 HP	1.03	1.02	1.01	1.00	0.95	0.89	0.85	0.85	0.82	0.79	0.76	0.72	0.67	0.65	0.63	0.63	0.62	0.61
T15 0.02	226 HP THRU 425 HP	1.03	1.02	1.01	1.00	0.96	0.90	0.86	0.86	0.83	0.80	0.78	0.74	0.70	0.67	0.66	0.65	0.65	0.64
T15 0.03	OVER 425 HP	1.03	1.02	1.01	1.00	0.96	0.91	0.87	0.87	0.84	0.81	0.79	0.76	0.71	0.69	0.68	0.67	0.67	0.66
T20 0.00	TRACTORS, WHEEL TYPE (DOZER)	1.07	1.06	1.04	1.00	0.98	0.94	0.92	0.91	0.88	0.83	0.79	0.75	0.72	0.68	0.66	0.65	0.64	0.63
T25 0.00	TRACTORS, AGRICULTURAL																		
T25 0.10	CRAWLER	1.07	1.06	1.04	1.00	0.98	0.94	0.92	0.91	0.88	0.83	0.79	0.75	0.71	0.67	0.66	0.65	0.63	0.62
T25 0.20	WHEEL	1.07	1.06	1.04	1.00	0.98	0.94	0.92	0.91	0.88	0.83	0.79	0.74	0.71	0.67	0.65	0.64	0.63	0.62
T30 0.00	TRENCHERS, CHAIN TYPE CUTTER	1.07	1.07	1.04	1.00	0.98	0.95	0.92	0.91	0.88	0.83	0.78	0.73	0.70	0.63	0.64	0.63	0.61	0.60
T35 0.00	TRENCHERS, WHEEL TYPE CUTTER	1.07	1.07	1.04	1.00	0.98	0.95	0.92	0.91	0.88	0.83	0.78	0.73	0.70	0.63	0.64	0.63	0.61	0.60
T40 0.00	TRUCK OPTIONS																		
T40 0.10	CRANES / HOISTS, PERSONNEL & MATERIAL HANDLING	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
T40 0.20	DUMP BODY, REAR	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
T40 0.30	FLATBEDS, WITH SIDES	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
T40 0.41	HOIST, ELECTRIC DRIVE	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
T40 0.50	TRANSIT MIXERS	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.89	0.86	0.83	0.81	0.77	0.71	0.68	0.67	0.66	0.66	0.65

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY	SUB	REGION 12 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
			2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
T40	0.60	WATER TANKS	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88	0.84	0.81	0.78	0.74	0.68	0.65	0.63	0.62	0.62	0.61
T40	0.70	ALL OTHER OPTIONS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.75	0.70	0.67	0.65	0.64	0.64	0.63
T45	0.00	TRUCK TRAILERS																		
T45	0.10	BOTTOM DUMP	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
T45	0.20	END DUMP	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
T45	0.30	PUP TRAILER	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
T45	0.41	LOWBOY, RIGID NECK, DROP DECK	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
T45	0.50	FLATBED TRAILER	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
T45	0.60	MISCELLANEOUS / UTILITY	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.90	0.87	0.84	0.82	0.78	0.73	0.70	0.69	0.68	0.68	0.67
T45	0.70	WATER TANKER TRAILER	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88	0.85	0.81	0.79	0.74	0.68	0.65	0.64	0.63	0.62	0.61
T45	0.80	DECONTAMINATION FACILITY	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88	0.84	0.81	0.78	0.74	0.68	0.65	0.63	0.62	0.62	0.61
T45	0.90	TANK TRAILERS	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88	0.85	0.81	0.79	0.74	0.68	0.65	0.64	0.63	0.62	0.61
T50	0.00	TRUCKS, HIGHWAY (Add attachments as required)																		
T50	0.01	0 THRU 10,000 GVW	1.07	1.05	1.02	1.00	0.97	0.90	0.87	0.85	0.80	0.77	0.74	0.70	0.66	0.64	0.63	0.62	0.61	0.63
T50	0.02	OVER 10,000 THRU 30,000 GVW (Chassis only - Add options)	1.07	1.05	1.02	1.00	0.97	0.90	0.87	0.85	0.80	0.77	0.74	0.70	0.67	0.65	0.64	0.62	0.62	0.64
T50	0.03	OVER 30,000 GVW (Chassis only - Add options)	1.07	1.05	1.02	1.00	0.97	0.90	0.87	0.85	0.80	0.77	0.74	0.71	0.67	0.65	0.64	0.62	0.62	0.64
T55	0.00	TRUCKS, OFF-HIGHWAY																		
T55	0.10	RIGID FRAME	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.95	0.93	0.89	0.87	0.83	0.76	0.72	0.71	0.69	0.68	0.66
T55	0.20	ARTICULATED FRAME	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.95	0.93	0.89	0.87	0.82	0.76	0.71	0.70	0.69	0.67	0.66
T56	0.00	TRUCKS,OFF-HIGHWAY/PRIME MOVER TRACTORS & WAGONS																		
T56	0.10	PRIME MOVER TRACTORS	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.95	0.93	0.89	0.87	0.83	0.76	0.72	0.71	0.69	0.68	0.66
T56	0.20	WAGONS, BOTTOM DUMP	1.06	1.05	1.02	1.00	0.99	0.97	0.95	0.94	0.92	0.89	0.86	0.81	0.75	0.70	0.69	0.67	0.66	0.64

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY	SUB	REGION 12	Life in Years																	
			Year Purchased New																	
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		TYPE OF EQUIPMENT	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
T56	0.30	WAGONS, REAR DUMP	1.06	1.05	1.02	1.00	0.99	0.97	0.95	0.94	0.92	0.89	0.86	0.81	0.74	0.69	0.68	0.67	0.66	0.64
T57	0.00	TRUCKS, VACUUM	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.76	0.70	0.67	0.66	0.65	0.64	0.63
T60	0.00	TRUCKS, WATER, OFF-HIGHWAY	1.06	1.05	1.02	1.00	0.99	0.97	0.95	0.94	0.92	0.89	0.86	0.81	0.74	0.69	0.68	0.67	0.66	0.64
T65	0.00	TUNNEL/MINING EQUIPMENT																		
T65	0.10	DRIFTING & TUNNELING DRILLS	1.05	1.04	1.02	1.00	0.99	0.95	0.92	0.91	0.88	0.82	0.76	0.70	0.64	0.60	0.59	0.53	0.52	0.51
T65	0.20	TUNNEL BORING MACHINES	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.89	0.86	0.83	0.81	0.77	0.72	0.69	0.68	0.67	0.67	0.66
T65	0.30	PRODUCTION DRILLING RIGS	1.05	1.04	1.02	1.00	0.99	0.95	0.92	0.91	0.88	0.82	0.76	0.70	0.64	0.60	0.58	0.53	0.52	0.51
T65	0.40	ROADHEADERS & CONTINUOUS MINERS	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.89	0.86	0.83	0.81	0.77	0.72	0.69	0.68	0.67	0.67	0.66
T65	0.50	ROCK BOLTING EQUIPMENT	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.76	0.70	0.67	0.66	0.65	0.64	0.63
T65	0.61	LOADING & HAULING EQUIPMENT, DIESEL OR GAS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.86	0.82	0.80	0.76	0.70	0.67	0.66	0.65	0.65	0.64
T65	0.62	LOADING & HAULING EQUIPMENT, ELECTRIC	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.86	0.82	0.80	0.76	0.70	0.68	0.66	0.65	0.65	0.64
T65	0.63	LOADING & HAULING EQUIPMENT, AIR-POWERED	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88	0.85	0.81	0.79	0.74	0.68	0.65	0.64	0.63	0.62	0.61
T65	0.70	LOCOMOTIVES	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.86	0.82	0.80	0.76	0.70	0.67	0.66	0.65	0.65	0.64
T65	0.90	OTHER TUNNELING EQUIPMENT	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.89	0.85	0.82	0.80	0.76	0.70	0.67	0.66	0.65	0.64	0.63
W10	0.00	WAGONS, BOTTOM DUMP	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.95	0.93	0.89	0.87	0.82	0.76	0.71	0.70	0.69	0.67	0.66
W15	0.00	WAGONS, REAR DUMP	1.05	1.04	1.02	1.00	0.99	0.97	0.95	0.95	0.93	0.89	0.87	0.82	0.76	0.71	0.70	0.69	0.67	0.66
W25	0.00	WATER & CO2 BLASTERS																		
W25	0.10	LOW PRESSURE, (< 5,000 PSI)	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.63	0.63	0.62
W25	0.20	HIGH PRESSURE, (>= 5,000 PSI)	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.63	0.63	0.62
W25	0.30	STEAM CLEANERS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.63	0.63	0.62
W25	0.40	CO2 BLASTERS	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.64	0.63
W25	0.50	WET ABRASIVE BLASTING SYSTEM (TORBO)	1.06	1.04	1.02	1.00	0.96	0.91	0.87	0.87	0.83	0.79	0.76	0.71	0.64	0.61	0.59	0.58	0.58	0.57

Table 3-2 Equipment Age Adjustment Factors for Standby Cost

CATEGORY SUB	REGION 12 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
		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
W30 0.00	WATER TANKS																		
W30 0.10	PORTABLE WITH WHEELS	1.06	1.05	1.02	1.00	0.99	0.97	0.95	0.94	0.92	0.89	0.86	0.81	0.74	0.69	0.68	0.67	0.66	0.64
W30 0.20	SKID MOUNTED	1.06	1.05	1.02	1.00	0.99	0.97	0.95	0.94	0.92	0.89	0.86	0.81	0.74	0.69	0.68	0.67	0.66	0.64
W35 0.00	WELDERS																		
W35 0.10	ENGINE DRIVEN	1.05	1.04	1.02	1.00	0.97	0.92	0.88	0.88	0.84	0.81	0.78	0.74	0.68	0.65	0.63	0.62	0.62	0.61
W35 0.20	ELECTRIC DRIVEN	1.05	1.04	1.02	1.00	0.97	0.92	0.89	0.88	0.85	0.82	0.79	0.75	0.69	0.66	0.65	0.64	0.64	0.63

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 = 2004
   d. Actual purchase price in 2004 = $222,151
      (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 (2016) = 4 tires x $3,998/tire = $15,992
   g. Weight = 39,200 lbs

4. Use the actual cost data as follows:

   a. Purchase price (TEV) = $222,151
   b. Year of manufacture = 2004

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 12

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:	2016
(4)	Year Manufactured:	2004
(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)

	Size/Ply	App F Code	No.	Unit Price	Cost
(a) Front (FT):			0	$0	$0
(b) Drive (DT):	23.5X25/16Ply	ANNB5	4	$3,998	$15,992
(c) Trailing (TT):			0	$0	$0
(d) Total Tire Cost:					$15,992

(10) List Price + Accessories:
[at Year (yr) of Manufacture] $0 OR actual purchase price: $222,151

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): **A**=Average **D**=Difficult **S**=Severe	A	AVERAGE
(3)	Discount Code (DC): **B** = 7.5% (0.075) or **S** = 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 12

2. EQUIPMENT VALUE

a. List Price + Accessories: *[at Year (yr) of Manufacture]* = $0

(1) Discount:

(List Price {1.a.(10)}	+ Accessories)	x	Discount {1.c.(3)}		
($0	+ $0.00)	x	0.075	=	- [$0]

(2) Subtotal {2.a.} - {2.a.(1)} Subtotal = $0

(3) Sales or Import Tax:

Subtotal {2.a.(2)}	x	Tax Rate {Appendix B}		
$0	x	4.25%	=	$0

(4) Total Discounted Price: {Subtotal: 2.a.(2) + 2.a.(3)} Subtotal = $0

b. Freight:

Shipping Weight {1.a.(8)}	x	Freight Rate per cwt {Appendix B}		
0,000 cwt	x	$0.00 /cwt	=	$0

c. **TOTAL EQUIPMENT VALUE (TEV):** **TOTAL[2.]:** **= $222,151**
{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 {1.c.(4)}	/	Working Hours Per Year (WHPY) {Appendix B}		
			=	N
9,250 hr	/	1,390 hr/yr	=	6.65 yrs

4. OWNERSHIP COST

a. Depreciation

(1) Tire Cost Index (TCI):

Tire Index, Year of Manufacture, {1.a.(4)} Appendix E, EK=100	/	Tire Index, Present Year or Year of Use {1.a.(3)} Appendix E, EK=100		
			=	TCI
2759	/	3860	=	0.715

(2)

[TEV {2.c.}	x	(1.0-SLV) {1.c.(5)}	-	(TCI {4.a.(1)}	x	Tire Cost)] {1.a.(9)(d)}	/	LIFE {1.c.(4)}		
[$222,151	x	(1.0-0.25)	-	(0.715	x	$15,992)]	/	9,250 /hr	=	$16.78 /hr

Figure 3-2. Total Hourly Rate Calculation for Overage Equipment Page 2 of 6

Region 12

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)
	[(6.65 yr - 1.0)	x	(1.0 + 0.25)	+	2.0]	/	(2.0 x 6.65 yr)	=	0.681

(2)	TEV {2.c.}	x	AVF {4 b.(1)}	x	Adjusted Cost-of-Money {Appendix B}	/	WHPY {Appendix B}		
	$222,151	x	0.681	x	1.70%	/	1,390 hr/yr	=	$1.85 /hr

c. **TOTAL HOURLY OWNERSHIP COST:** **TOTAL [4.]: = $18.63 /hr**
{4.a.(2)} + {4.b.(2)}

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}		
0.000	x	0 hp	x	$0.00 /gal	=	$0.00 /hr

(2) Carrier:

Fuel Factor {1.c.(7)}	x	hp {1 a.(6)}	x	Fuel Cost per gal {Appendix B}		
0.000	x	0 hp	x	$0.00 /gal	=	$0.00 /hr

(3) Total Hourly Fuel Cost: **Total [5.a.] = $0.00 /hr**
{5 a (1)} + {5.a (2)}

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}		
0.000	x	$0.00 /hr	x	0.00	=	$0.00 /hr

Figure 3-2. Total Hourly Rate Calculation for Overage Equipment Page 3 of 6

Region 12

5. OPERATING COST (Continued)

(2) Carrier:

FOG Factor {1.c.(8)}	x	Carrier Hourly Fuel Cost {5.a.(2)}	x	LAF {Appendix B}		
0.000	x	$0.00 /hr	x	0.00	=	$0.00 /hr

(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)}		
0000	/	0000	=	0.000

(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}		
RF						
0.00	x	0.000	x	0.00	=	0.000

(3) Repair Cost:

[TEV {2.c.}	-	(TCI {4.a.(1)}	x	Tire Cost)] {1.a.(9)(d)}	x	RF {5.d.(2)}	/	LIFE {1.c.(4)}
[$0	-	(0.000	x	$0)]	x	0.000	/	0

(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 12

5. OPERATING COST (Continued)

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

(1) Front Tires (FT):

(1.5 x FT Cost) {1.a.(9)(a)}	/	(1.8 x FT Wear Factor {1.c.(9)(a)}	x	Maximum Tire Life Hours) {Appendix F}	
(1.5 x $0)	/	(1.8 x 0.00	x	0 hrs)	= $0.00/hr

(2) Drive Tires (DT):

(1.5 x DT Cost) {1.a.(9)(b)}	/	(1.8 x DT Wear Factor {1.c.(9)(b)}	x	Maximum Tire Life Hours) {Appendix F}	
(1.5 x ($0)	/	(1.8 x 0.00	x	0 hrs	= $0.00/hr

(3) Trailing Tires (TT):

(1.5 x TT Cost) {1.a.(9)(c)}	/	(1.8 x TT Wear Factor {1.c.(9)(c)}	x	Maximum Tire Life Hours) {Appendix F}	
(1.5 x $0)	/	(1.8 x 0.00	x	0 hr)	= $0.00/hr

(4) Total Tire Wear Cost: **Total [5.e.] = $0.00/hr**
Sum {5 e.(1)} through {5.e (3)}

f. Tire Repair Cost:

Total Tire Wear Cost per Hour {5.e (4)}	x	(0.15 x LAF) {Appendix B}		
$0.00/hr	x	(0.15 x 0.00)	**Total [5.f.]**	**= $0.00/hr**

g. TOTAL HOURLY OPERATING COST: **Total [5.] = $0.00/hr**
Sum {5.a.} through {5.f.}

Figure 3-2. Total Hourly Rate Calculation for Overage Equipment Page 5 of 6

Region 12

6. HOURLY RATES

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

Ownership Cost {4.c.}	+	Operating Cost {5.g.}		=
$0.00 /hr	+	$0.00 /hr		= **$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.)

Depreciation {4.a.(2)}	+	(FCCM {4.b.(2)}	x	40 hr/wk	/	Work hr/wk) example:60 hr/wk	+	Operating Cost {5.g.}	=
$0.00 /hr	+	$0.00 /hr	x	40 hr/wk	/	60 hr/wk example:60 hr/wk	+	$0.00 /hr	= **$0.00 /hr**

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)}	=
($16.78 /hr	x 0.50)	+	$1.85 /hr	= **$10.24 /hr**

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

See Chapter 3 if rate adjustments are necessary.

Figure 3-2. Total Hourly Rate Calculation for Overage Equipment Page 6 of 6

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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. These documents can be viewed or downloaded at the official HQUSACE documents webpage at http://www.usace.army.mil/ by selecting “Library” and selecting “Publications.” Select “USACE Publications” in the title bar. A dropdown menu will appear. From the dropdown menu, select “Engineer Regulations,” or “Engineer Technical Letters.” 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.

AVAILABLE TIME TO DREDGE BY REGION
(In Months)

Region	Type of Dredging Operation		
	Pipeline	Bucket	Hopper
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:

Available Hours per yr = Months Available/yr x 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 one 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 upgrading 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 is distributed over a monthly basis. The monthly rate is calculated based on the available use months by using the following formula:

$$\text{Monthly Ownership Cost} = \frac{\text{Plant Value x (Yearly DEPR Percent} + \text{Yearly CMR Percent)}}{\text{Available Use Months}}$$

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 cost is calculated separately for the primary and secondary engines. The formula used is expressed as follows:

Hourly Fuel Cost = Horsepower x Fuel Cost/Gallon x Engine Fuel Factor

Where:

a. Horsepower is the engine's 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:

Water, Lube, and Supply Cost = WLS factor x 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:

$$\text{Repair Cost} = \frac{(\text{Total Plant Value x RPR x EAF x LAF})}{\text{Life in hr}}$$

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 costs are as follows: Minimum crew; a generator fuel allowance to account for operation of a diesel engine generator for power to operate pumps; navigation lights; 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 and Marine 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 1.50 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	
Hydraulic Dredges - Pipeline (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
Barge Mounted Booster Pump (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 HPF = Horsepower Factor G = Gas D = Diesel
WLS = Water, Lube, and Supplies RPR = Repairs

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	
Mechanical Dredges (Large)[1]												
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
Barge Mounted Crane with Clamshell Bucket Non Dredging												
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
Barge Mounted Lifting Crane												
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
Barges (Used with Dredging)												
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 HPF = Horsepower Factor G = Gas D = Diesel
WLS = Water, Lube, and Supplies RPR = Repairs
[1] Sized by the largest bucket used (normally a mud bucket)

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	
Boats – See Category M10												
Tugs and Tenders (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
Pipeline and Accessories (Inland Environment)												
Metal Pipeline (under 20 inch)												
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
Metal Pipeline (20 inch and Larger)												
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 HPF = Horsepower Factor G = Gas D = Diesel
WLS = Water, Lube, and Supplies RPR = Repairs

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	
Pipeline and Accessories (Ocean Environment)												
Metal Pipeline (All sizes)												
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
Pontoons/Floats	2	9,000	0.40	0	0.000	0.000	0	0.000	0.000	0	0	5
Metal Pipeline On-Shore												
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 HPF = Horsepower Factor G = Gas D = Diesel
WLS = Water, Lube, and Supplies RPR = Repairs

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 12 **ID No:** _____

1. MARINE AND DREDGING PLANT INFORMATION AND EXPENSE FACTORS

a.	Plant Pertinent Data:		
	(1) Equipment Description:	24" Hydraulic Cutter Suction Dredge	
	(2) Model and Series:	Ellicott Super Dragon	
	(3) Present Year or Year of Use:		2016
	(4) Acquisition Year:		1999
	(5) Horsepower (hp) - Prime		3,730 hp
	(6) Horsepower (hp) - Secondary Engine		
	(a) Electrical Generators		200 hp
	(b) Hydraulic System		1,325 hp
	(c) Cutter Head Drive		750 hp
	(d) Hydraulic Water Jet		200 hp
	Total Secondary hp		**2,475 hp**
	(7) Plant Value:		
	(a) Acquisition Costs		$4,500,000
	(b) Capital Improvements		$0
	Total Plant Value		**$4,500,000**
	(8) Hours Worked per Month (Effective Time)		500 hrs/mo
	(9) Additive Item(s) (Monthly Costs To be Estimated)		
	(a) Excessive Dredge Wear (Gravel)		$8,000 /mo
	(b)		$0 /mo
	(c)		$0 /mo
	(d)		$0 /mo
	(e)		$0 /mo
	Total Additive Items		**$8,000 /mo**
b.	Appendix B, Area Factors Data		
	(1) Labor Adjustment Factor (LAF)		0.98
	(2) Fuel type		Marine Diesel
	Fuel Cost Per Gallon		$2.38
	(3) Cost of Money Rate (undiscounted)		2.125%
	(4) Cost of Money Rate (discounted)		1.700%
c.	Appendix E, Economic Index Data (EK 105)		
	(1) Economic Index, Acquisition Year		5556
	(2) Economic Index, Present Year or Year of Use		8643

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).

Figure 4-2. Dredging Plant Ownership and Operating Rate Worksheet **Page 1 of 4**

Region 12

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)*	9 months/yr

e. Table 4-1, Dredging Plant Cost Factors Data

(1)	Useful Life (in Years) for Ownership (N)	25 yrs
(2)	Physical Life (in Hours) for Repairs	130,000 hrs
(3)	SLV (Salvage Value Factor)	0.10
(4)	Prime Engine Fuel Factor (gal/bhp-hr)	0.045
(5)	Secondary Engine Fuel Factor (gal/bhp-hr)	0.039
(6)	WLS (Water, Lube & Supplies Factor) percent	22%
(7)	RPR (Repair Cost Factor)	1.30

2. ANNUAL OWNERSHIP PERCENTAGE FACTORS

a. Depreciation Percent Per Year (DEPR)

1.0 - SLV	/	N		
{1.e.(3)}		{1.e.(1)}		
1.0 - 0.10	/	25 yrs	=	3.60% /yr

b. Facilities Capital Cost of Money Percent Per Year (FCCM)

(N-1)	x	(1+SLV)+2	x	Discounted Money Rate	/	2N		
{1.e.(1)}		{1.e.(3)}		{Appendix B}		{1 e.(1)}		
(25-1)	x	(1+ 0.10) + 2	x	1.700%	/	50.00	=	0.97% /yr

c. Total Ownership Percent Per Year (DEPR + FCCM) = **4.57% /yr**

3. OWNERSHIP COSTS

a. Ownership per Year

Plant Value	x	Total Ownership Percent Per Year (DEPR + FCCM)	=	
{1.a.(7)(a)}		{2.c.}		
$4,500,000	x	4.57%	=	$205,650.00 /yr

b. Monthly Ownership Expense

Ownership per Year	/	Months Available per Year		
{3.a.}		{1.d.(1)}		
$205,650.00 /yr	/	9 months/yr	rounded =	$22,850.00 /mo

Figure 4-2. Dredging Plant Ownership and Operating Rate Worksheet Page 2 of 4

Region 12

4. OPERATING COSTS

a. Fuel Cost

(1) Prime Engine Fuel

Fuel Factor {1.e (4)}	x	HP {1.a.(5)}	x	Fuel Cost per Gallon {1.b.(2)}		
0.045 gal/bhp-hr	x	3,730	x	$2.38	=	$399.48 /hr

(2) Secondary Engine Fuel

Fuel Factor {1.e (5)}	x	HP {1.a.(6)}	x	Fuel Cost per Gallon {1.b.(2)}		
0.039 gal/bhp-hr	x	2,475	x	$2.38	=	$229.73 /hr

(3) Total Fuel (Prime Engine Fuel + Secondary Engine Fuel) = $629.21 /hr

b. Water, Lube, and Supply (WLS) Cost

(1) Prime Engine WLS

WLS Factor {1.e (6)}	x	Hourly Fuel Cost {4.a.(1)}		
0.22	x	$399.48 /hr	=	$87.89 /hr

(2) Secondary Engine WLS

WLS Factor {1.e (6)}	x	Hourly Fuel Cost {4.a.(2)}		
0.22	x	$229.73 /hr	=	$50.54 /hr

(3) Total Fuel (Prime Engine WLS + Secondary Engine WLS) = $138.43 /hr

c. Repair Cost

(1) Economic Adjustment Factor (EAF)

Economic Index for Present Year or Year of Use {1.c.(2)}	/	Economic Index for Acquisition Year {1.c.(1)}		
8643	/	5556	=	1.556

(2) Repair Cost

Total Plant Value {1 a.(7)}	x	RPR {1.e (7)}	x	EAF {4.c.(1)}	x	LAF {1.b.(1)}	/	Life in Hrs {1.e.(2)}		
$4,500,000	x	1.30	x	1.556	x	0.98	/	130,000	=	$68.62 /hr

Figure 4-2. Dredging Plant Ownership and Operating Rate Worksheet Page 3 of 4

Region 12

4. OPERATING COSTS (Continued)

d. Total Hourly Operating Cost (Fuel + WLS + Repairs)

Fuel {4.a.(3)}	+	WLS {4.b.(3)}	+	Repairs {4.c.(2)}		
$629.21 /hr	+	$138.43 /hr	+	$68.62 /hr	=	**$836.26 /hr**

e. Monthly Operating Cost

Total Hourly Operating Cost {4.d.}	x	Hrs Worked per Mo {1.a.(8)}			
$836.26 /hr	x	500 hrs/mo	rounded	=	$418,130.00 /mo

5. TOTAL MONTHLY RATE

a. Ownership {3.b.}	=	$22,850.00 /mo
b. Operating {4.e.}	=	$418,130.00 /mo
c. Total Estimated Additive Items {1 a.(9))}	=	$8,000.00 /mo
d. TOTAL MONTHLY RATE {5.a.} + {5.b.} + {5.c.}	=	**$448,980.00 /mo**

6. STANDBY ALLOWANCE

a. Standard Hourly Standby Expense

Monthly Ownership Expense {3.b.}	/	Maximum hrs/mo = 30.4 days/mo x 24 hrs/day		
$22,850.00 /mo	/	730 hrs/mo	=	**$31.30 /hr**

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 {1.a.(6)}	/	Total Secondary HP {1.a.}	x	Secondary Fuel Cost {4.a.(2)}		
200 hp	/	2,475 hp	x	$229.73	=	**$18.56 /hr**

c. TOTAL HOURLY STANDBY ALLOWANCE FOR DREDGE

Standby Expense {6.a.}	+	Generator Fuel Allowance {6.b.}		
$31.30 /hr	+	$18.56 /hr	=	**$49.86 /hr**

Figure 4-2. Dredging Plant Ownership and Operating Rate Worksheet Page 4 of 4

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.

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_____. 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.

Engineer Federal Acquisition Regulation Supplement (EFARS) 31.105. Construction and Architect-Engineer Contracts, Regulation Supplement, Government Printing Office, Washington, DC.

_____. 31.105-100. Contract Clause, Government Printing Office, Washington, DC.

U.S. Department of Labor, Bureau of Labor Statistics. Producer Prices and Price Indexes, Government Printing Office, Washington, DC.

Engineer Regulation 1110-2-1302. Engineering and Design - Civil Works Cost Engineering, U.S. Army Corps of Engineers.

SECTION II: RELATED PUBLICATIONS

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Terex Corporation. 1981. Production and Cost Estimating of Material Movement with Earthmoving Equipment, Hudson, Ohio.

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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
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

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
District of Columbia
Illinois (East of U.S. Highway 51)
Kentucky (East of U.S. Highway 51)
Indiana
Maryland
Michigan (Lower Peninsula)
Ohio
Virginia
West Virginia

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
Arkansas
Florida
Georgia
Louisiana
Mississippi
Missouri (Panhandle South of 36° - 30'00")
North Carolina
South Carolina
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)
Michigan (Upper Peninsula)
Minnesota
Montana
North Dakota
South Dakota
Wisconsin
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
Illinois (West of U.S. Highway 51)
Iowa (South of U.S. Highway 20)
Kansas
Kentucky (West of U.S. Highway 51)
Missouri (North of 36° -30'00")
Nebraska

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 territory:

Puerto Rico

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 area:

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.
(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. The applicable EFARS sections are included in the schedule in effect at the time the work was performed.

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.” Select “USACE Publications” in the title bar. A dropdown menu will appear. From the dropdown menu, select “Engineer Pamphlets.” From there, use the search feature located under “Engineer Pamphlets” to enter and search for 1110-1-8. This will narrow the publication list down to one selection that contains the portal with all 12 volumes of EP 1110-1-8 in PDF format. Using the “Search Publications” feature at the top right of this web page will bring up not only a link to EP 1110-1-8, but also a list of publications that mention this EP.

Compact disks (CDs) are developed and distributed to a pre-publication mailing list. A limited number of additional CDs are produced and are available upon request.

Requests for CDs may be placed by sending an e-mail to CENWW-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 EP 1110-1-8. To access, select “Historical Construction Equipment Rates (past issues of EP 1110-1-8).” The direct link to past editions is: http://www.nww.usace.army.mil/Missions/CostEngineering/Historical.aspx.

CHECKRATE. To access, select “Download CHECKRATE (Excel-based program).” The direct link to download the CHECKRATE workbook 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)

	No.	Size/Ply	Unit Price	Cost
(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): _____

Equipment Rate Computation Worksheet (copy as needed). Page 1 of 6

2. **EQUIPMENT VALUE**

a. List Price + Accessories: *[at Year of Manufacture]* =$_____

(1) Discount: (List Price + Accessories) x (Discount Code)
[1.c.(3)]

($_____ + $_____) x (_____) =-($_____

(2) Subtotal [2.a.] – [2.a.(1)] Subtotal=$_____

(3) Sales or Import Tax: (Subtotal) x (Tax Rate)
[2.a.(2)] [Appendix B]

($_____) x (_____) =+$_____

(4) Total Discounted Price: Subtotal: [2.a.(2)] + [2.a.(3)] Subtotal=$_____

b. Freight: (Shipping Weight) x (Freight Rate per cwt)
[1.a.(8)] [Appendix B]

(_____cwt) x ($_____/cwt) =+$_____

c. **TOTAL EQUIPMENT VALUE (TEV):** **TOTAL[2.]:=$_____**
[(2.a.(4)] + [(2.b)]

(See chapter 3 for used and overage equipment rate adjustments.)

3. **DEPRECIATION PERIOD (N)**

a. (LIFE hours (hr)) / (Working Hours Per Year (WHPY)) = N
[1.c.(4)] [Appendix B]

(_____hr) / (_____hr/yr) =_____

4. **OWNERSHIP COST**

a. Depreciation

(1) Tire Cost Index (TCI):
(Tire Index, Yr of Mfg) / (Tire Index, Based on 1.a.(3)) =Tire Cost Index (TCI)
[Appendix E, EK=100] [Appendix E, EK=100]

(_____) / (_____) =_____(TCI)

(2) [(TEV) x [1.0 - (SLV)] - [(TCI) x (Tire Cost)]] / (LIFE)
[2.c.] [1.c.(5)] [4.a.(1)] [1.a.(9)(d)] [1.c.(4)]

[($_____) x [1.0 – (_____)] – [(_____) x ($_____)]] / (_____hr)

=$_____/hr

Equipment Rate Computation Worksheet (copy as needed). Page 2 of 6

4. **OWNERSHIP COST (Continued)**

b. Facilities Capital Cost of Money (FCCM):

(1) [[(N) - 1.0] x [1.0 + (SLV)] + 2.0] / [2.0x (N)] = Avg Value Factor
[3.a.] [1.c.5.] [3.a.] (AVF)

[[(_____yr) – 1.0] x [1.0 + (_____)] + 2.0] / [2.0 x (_____yr)]

=_____(AVF)

(2) (TEV) x (AVF) x (Adjusted Cost - of - Money) / (WHPY)
[2.c] [4.b.(1)] [Appendix B] [Appendix B]

($_____) x (_____) x (_____) / (_____hr/yr)
=$_____/hr

c. **TOTAL HOURLY OWNERSHIP COST: TOTAL [4.]:** **=$_____**/hr
[4.a.(2)] + [4.b.(2)]

5. **OPERATING COST**

a. Fuel Costs:

(1) Equipment:

(Fuel Factor x (Horsepower (hp)) x (Fuel Cost Per Gallon (gal))
[1.c.(6)] [1.a.(5)] [Appendix B]

(_____) x (_____hp) x ($_____/ gal) =$_____/hr

(2) Carrier:

(Fuel Factor) x (Horsepower) x (Fuel Cost Per Gallon)
[1.c.(7)] [1.a.(6)] [Appendix B]

(_____) x (_____hp) x ($_____/gal) =$_____/hr

(3) Total Hourly Fuel Cost: **Total [5.a.]** =$_____/hr
[(5.a.(1)] + [5.a.(2)]

b. FOG Cost:

(1) Equipment:

(FOG Factor) x (Equipment Fuel Cost) x (Labor Adjustment Factor (LAF))
[1.c.(8)] [5.a.(1)] [Appendix B]

(_____) x ($_____/hr) x (_____) =$_____/hr

Equipment Rate Computation Worksheet (copy as needed). Page 3 of 6

5. **OPERATING COST (Continued)**

(2) Carrier:

(FOG Factor) x (Carrier Fuel Cost) x (LAF)
[1.c.(8)] [5.a.(2)] [Appendix B]

(_____) x ($_____/hr) x (_____) =$_____/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)])

(Economic Index for Year 1.a.(3)) / (Economic Index for Year 1.a.(4))
[Appendix E] [Appendix E]

(_____) / (_____) =_____(EAF)

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

(2) Repair Factor (RF):

(RCF) x (EAF) x (LAF) =Repair Factor (RF)
[1.c.(10)] [5.d.(1)] [Appendix B]

(_____) x (_____) x (_____) =_____(RF)

(3) Repair Cost:

[(TEV) - [(TCI) x (Tire Cost)]] x (RF) / (LIFE)
[2.c.] [4.a.(1)] [1.a.(9)(d)] [5.d.(2)] [1.c.(4)]

[($_____) – [(_____) x ($_____)]] x (_____) / (_____)

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

Equipment Rate Computation Worksheet (copy as needed). Page 4 of 6

5. **OPERATING COST (Continued)**

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

(1) Front Tires (FT):

[1.5 x (FT Cost)] / [1.8 x (FT Wear Factor) x (Maximum Tire Life Hours)]
[1.a.(9)(a)] [1.c.(9)(a)] [Appendix F]

[1.5 x ($_____)] / [1.8 x (_____) x (_____/hr)]

=$_____/hr

(2) Drive Tires (DT):

[1.5 x (DT Cost)] / [1.8 x (DT Wear Factor) x (Maximum Tire Life Hours)]
[1.a.(9)(b)] [1.c.(9)(b)] [Appendix F]

[1.5 x ($_____)] / [1.8 x (_____) x (_____/hr)]

=$_____/hr

(3) Trailing Tires (TT):

[1.5 x (TT Cost)] / [1.8 x (TT Wear Factor) x (Maximum Tire Life Hours)]
[1.a.(9)(c)] [1.c.(9)(c)] [Appendix F]

[1.5 x ($_____)] / [1.8 x (_____) x (_____/hr)]

=$_____/hr

(4) Total Tire Wear Cost: **Total [5.e.]** =$_____/hr
[Sum 5.e.(1) through 5.e.(3)]

f. Tire Repair Cost:

(Total Tire Wear Cost) x 0.15 x (LAF)
[5.e.(4)] [Appendix B]

($_____/hr) x 0.15 x (_____) **Total [5.f.]** =$_____/hr

g. **TOTAL HOURLY OPERATING COST:** **TOTAL [5.] =$_____/hr**
[Sum 5.a. through 5.f.]

Equipment Rate Computation Worksheet (copy as needed). Page 5 of 6

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.

APPENDIX B

AREA FACTORS

KWAJALEIN

Region: 12

Total State Sales or Import Tax Rate:	4.25%	
Working Hours Per Year (WHPY):	1,390	hrs/yr
Labor Adjustment Factor (LAF):	0.98	
Electricity Cost Per Kilowatt-Hour:	$0.274	/kW-Hr
Gasoline Cost Per Gallon:	$2.85	/gal
Diesel Cost Per Gallon (Off-Road Use):	$3.81	/gal
Diesel Cost Per Gallon (On-Road Use):	$4.45	/gal
Cost of Money Rate (Full Rate):	1.875%	
Cost of Money Rate (Adjusted):	1.500%	

Freight Rates

over	0	cwt	thru	240	$24.35
over	240	cwt	thru	300	$17.52
over	300	cwt	thru	400	$14.43
over	400	cwt	thru	500	$12.52
over	500	cwt	thru	700	$12.23
over	700	cwt	thru	800	$10.61
over	800	cwt	thru	99,999	$8.09

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 $	
1	NORTHEAST	2016	5.80%	1360	1.16	$0.143	$2.23	$2.28	$2.88	240	$17.43	300	$12.24	400	$9.98	500	$8.61	700	$7.45	800	$7.45	99,999	$10.71
2	MIDEAST	2016	5.90%	1450	1.02	$0.098	$2.17	$2.21	$2.74	240	$10.27	300	$7.45	400	$6.16	500	$5.35	700	$5.43	800	$5.43	99,999	$7.99
3	SOUTHEAST	2016	7.45%	1530	0.9	$0.096	$2.02	$2.11	$2.59	240	$12.29	300	$8.86	400	$7.30	500	$6.34	700	$6.27	800	$6.27	99,999	$9.12
4	NORTHCENTRAL	2016	5.25%	1260	1.03	$0.097	$2.18	$2.14	$2.67	240	$19.71	300	$14.91	400	$12.52	500	$10.98	700	$13.06	800	$12.96	99,999	$7.60
5	MIDWEST	2016	7.10%	1400	0.98	$0.093	$2.09	$2.10	$2.61	240	$14.14	300	$10.74	400	$9.03	500	$7.93	700	$9.56	800	$9.53	99,999	$6.97
6	SOUTHWEST	2016	7.30%	1590	0.88	$0.087	$2.04	$2.09	$2.52	240	$19.41	300	$14.79	400	$12.46	500	$10.78	700	$13.34	800	$13.30	99,999	$7.84
7	WEST	2016	7.95%	1630	1.13	$0.112	$2.49	$2.26	$2.80	240	$28.91	300	$21.98	400	$18.50	500	$16.24	700	$19.65	800	$18.73	99,999	$10.52
8	NORTHWEST	2016	5.25%	1540	1.08	$0.083	$2.41	$2.25	$2.85	240	$23.66	300	$16.88	400	$13.85	500	$12.00	700	$11.26	800	$9.51	99,999	$6.48
9	ALASKA	2016	3.75%	1040	1.19	$0.179	$2.72	$2.78	$3.15	240	$67.36	300	$47.92	400	$32.22	500	$31.25	700	$28.13	800	$26.60	99,999	$23.65
10	HAWAII	2016	4.25%	1480	1.2	$0.274	$2.85	$3.81	$4.45	240	$105.90	300	$50.87	400	$42.81	500	$44.15	700	$48.15	800	$60.79	99,999	$29.85
11	PUERTO RICO	2016	11.50%	1560	0.69	$0.206	$2.17	$2.11	$2.59	240	$36.55	300	$20.92	400	$17.68	500	$16.91	700	$18.79	800	$17.61	99,999	$12.34
12	KWAJALEIN	2016	4.25%	1390	0.98	$0.274	$2.85	$3.81	$4.45	240	$24.35	300	$17.52	400	$14.43	500	$12.52	700	$12.23	800	$10.61	99,999	$8.09

SST = State Sales tax **WHPY = Work Hours Per Year** **LAF = Labor Adjustment Factor** **Elec = Electricty 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

EQUIPMENT TYPE	AVERAGE	SEVERE
B25 and B35: Buckets Clamshell or Dragline	Working in gravels, silts, and sands at low impact, freshwater environment.	Working in rock, hard digging, high impact, or saltwater environment.
Depreciation Period:	8,000 - 10,000 hours	6,500 - 8,000 hours
C80 and C90: Cranes Hydraulic, Truck Mounted Mechanical, Truck Mounted	Lift less than rated capacity, intermittent duty.	Continuous lift near rated capacity, excessive swing, abrasive materials, sloped surfaces, and saltwater environment.
Depreciation Period:	14,000 - 20,000 hours	12,000 - 18,000 hours
C85: Cranes Mechanical Dragline, Lifting, or Clamshell Crawler Mounted	Gravels, silts, pull, and lift less than rated capacity.	Highly abrasive materials, impact breakout, continuous load near rated capacity, and saltwater environment.
Depreciation Period:	14,000 - 22,000 hours	12,000 - 18,000 hours
G10: Generators	Working below rated capacity, good field conditions.	Working at or above rated capacity, poor field conditions, such as saltwater.
Depreciation Period:	8,000 - 10,000 hours	7,000 - 8,000 hours

EQUIPMENT TYPE	AVERAGE	SEVERE
G15: Graders, Motor	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.	Maintenance of hard-packed roads with embedded rock; heavy fill spreading; ripping scarifying of asphalt or concrete; continuous high load factor; and high impact.
Depreciation Period:	14,500 hours	13,500 hours
H25: Hydraulic Excavators Crawler Mounted	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.	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.
Depreciation Period:	8,500 - 19,000 hours	7,000 – 15,000 hours
H30: Hydraulic Excavators Wheel Mounted	Continuous digging in sandy clay/sandy gravel, site development, and lumber yard applications.	Continuous digging in rock/natural bed clay, high impact, using hammer, and working in forests or quarries.
Depreciation Period:	8,000 - 10,000 hours	6,500 - 8,000 hours

EQUIPMENT TYPE	AVERAGE	SEVERE
H35: Hydraulic Shovels Crawler Mounted (nonelectric) Depreciation Period:	Continuous loading in well shot rock or fairly tight bank. Good underfoot conditions: dry floor, little impact, or sliding on undercarriage. 14,000 - 18,000 hours	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. 12,000 - 16,000 hours
L10: Land Clearing Equipment Depreciation Period:	Working in low impact conditions at or below rated capacity. 10,000 hours	High impact conditions working at or above rated capacity. 7,000 hours
L30: Loaders, Belt (conveyors) Depreciation Period:	Working below rated capacity, with intermittent service. 10,000 hours	Working at or above rated capacity with continuous service. 8,000 hours
L35: Loaders, Front End Crawler Type Depreciation Period:	Bank excavation, intermittent ripping, basement digging of natural bed clays, sands, silts, and gravels; some traveling; and steady full throttle operations. 10,000 hours	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. 8,000 hours

EQUIPMENT TYPE	AVERAGE	SEVERE
L40: Loaders, Front End Wheel Type (does not include skid steer and tool carriers)	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.	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.
Depreciation Period:	9,250 - 13,500 hours	8,750 - 12,000 hours
L45 and L50: Loaders with Backhoe Crawler Type and Wheel Type	Utility applications in medium to heavy soil; occasional use of constant flow implements and dig depths to 3.05 meters (10 feet).	Production applications or digging in rock; regular use of constant flow implements; and dig depths over 3.05 meters (10 feet).
Depreciation Period:	8,000 hours	6,000 hours
L60: Log Skidders	Continuous turning, steady skidding for medium distances with moderate decking. Good underfooting: dry floor with few stumps and gradual rolling terrain.	Continuous turning, steady skidding for long distances with frequent decking; poor underfoot conditions: wet floor, steep slopes, and numerous stumps; and saltwater environment.
Depreciation Period:	10,000 hours	8,000 hours

EQUIPMENT TYPE	AVERAGE	SEVERE
M10 - .31 and .32: Clamshell dredges < 5 cy Amphibious Excavator Depreciation Period:	Gravel, silts, breakout force at less than capacity, freshwater conditions. 10,000 - 20,000 hours	Rock, abrasive materials, load at rated capacity, saltwater conditions. 9,000 - 18,000 hours
M10 - .51 and .53: Boats, Skiffs, Crew Boats, Work Boats, Survey Boats, and Launches Depreciation Period:	Freshwater applications, light waves, and steady to light use. 16,000 - 18,000 hours	Saltwater use, medium to high waves, heavy use. 13,000 - 15,000 hours
P35: Pipelayers Depreciation Period:	Typical pipelayer use in operating conditions ranging from very good to severe. 14,000 hours	Continuous use in deep mud or water or on rock surfaces. 11,500 hours
R10: Rippers and Bank Slopers Depreciation Period:	Light rock, medium breakout force required. 8,000 hours	Hard rock, excessive wear due to high breakout force. 6,500 hours
S10, S15, S20, and S25: Scrapers Self-Propelled Tractor Drawn Soil Stabilizers Depreciation Period:	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. 10,000 - 15,000 hours	High impact conditions, such as loading ripped rock; overloading, continuous high total resistance conditions; and rough haul roads. 8,000 - 13,500 hours

EQUIPMENT TYPE	AVERAGE	SEVERE
T15: Tractors Crawler (Dozer)	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.	Heavy rock ripping; tandem ripping; pushloading and dozing in hard rock; work on rock surfaces; continuous high impact conditions; and saltwater environment.
Depreciation Period:	10,000 - 15,000 hours	8,000 - 12,500 hours
T20: Tractors Wheel Type (Dozer)	Production dozing, push loading in clays, sands, silts, loose gravels; and shovel cleanup.	Production dozing in rock; push loading in rocky, boulder strewn borrow pits; high impact conditions; and landfill compactor work.
Depreciation Period:	14,000 hours	13,000 hours
T30: Trenchers Chain and Wheel Type	Working in sands and silts below rated capacity of the machine.	Working in gravels and abrasive materials at or above the rated capacity of the machine.
Depreciation Period:	8,000 hours	6,000 hours
T45 and T50: Truck Trailers Trucks, Highway	Varying loading and road conditions; and typical construction use on a variety of jobs.	Consistently poor road conditions; and oversized loading equipment.
Depreciation Period:	8,000 - 12,000 hours	6,500 - 10,000 hours

EQUIPMENT TYPE	AVERAGE	SEVERE
T55 and T60: Truck, Off-Highway Trucks, Water, Off-Highway (Articulated and Rigid)	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, *etc*.	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.
Depreciation Period:	12,000 - 20,000 hours	10,000 - 18,000 hours
W10 and W15: Wagons Bottom Dump Rear Dump	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, *etc*.	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.
Depreciation Period:	12,000 hours	10,000 hours

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APPENDIX D
EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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	0.73	0.00	0.82	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	50	.500	.045	.024	.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

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APPENDIX D
EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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

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CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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 / SHOTCRETERS	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
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CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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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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	0.96	0.86	1.07	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	0.96	0.86	1.07	0.90

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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	0.96	0.86	1.07	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	0.92	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

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APPENDIX D
EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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
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

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CATEGORY SUB		DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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
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

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APPENDIX D
EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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
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

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CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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
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 E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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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APPENDIX D
EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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	0.66	0.00	0.73	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	0.66	0.00	0.73	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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EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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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APPENDIX D
EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY SUB		DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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 E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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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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	
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 E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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

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APPENDIX D
EQUIPMENT HOURLY CALCULATION FACTORS

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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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APPENDIX D
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CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV	HPF	EQUIPMENT FUEL FACTORS E	G	D	HPF	CARRIER FUEL FACTORS E	G	D	FOG FACTORS E	G	D	TIRE WEAR FACTORS FT	DT	TT	RCF
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

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APPENDIX E

ECONOMIC INDEXES FOR CONSTRUCTION EQUIPMENT

Note: Table 2-1 Equipment Rates are based on equipment purchased new in 2013

KEY		{--Projected------}																			
(EK)	EQUIPMENT DIVISIONS	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
5	Air Equipment	3229	3171	3127	3130	3079	3007	2887	2796	2601	2585	2458	2319	2234	2157	2085	2075	2069	2079	2047
10	Asphalt & Concrete Paving Equipment	5248	5155	5054	4971	4970	4852	4767	4652	4534	4526	4381	4228	4116	3950	3758	3763	3769	3766	3717
15	Buckets	10101	9921	9752	9709	9571	9448	9257	9135	8862	8911	8687	8604	8502	8057	7626	7443	7254	6804	6900
20	Cranes, Draglines & Clamshells - Crawler & Truck Mtd	7774	7635	7505	7471	7366	7271	7124	7031	6820	6858	6685	6621	6543	6201	5869	5728	5582	5236	5310
25	Drills	7015	6890	6765	6691	6594	6467	6391	6205	5987	5938	5783	5448	5104	4762	4444	4192	4116	3819	3736
30	Generators	6801	6680	6568	6554	6555	6458	6397	6262	5905	5794	5628	5357	5112	4888	4641	4566	4548	4548	4529
35	Graders, Motor	9763	9589	9427	9231	9079	8933	8648	7920	7632	7516	7155	6909	6825	6578	6318	6117	6049	5979	5952
40	Loaders, Track	8880	8722	8578	8484	8449	8369	8088	7713	7434	7454	7254	7037	6907	6653	6347	6177	6081	6058	6032
45	Loaders, Wheel	8195	8049	7917	7830	7798	7723	7464	7119	6861	6880	6695	6494	6374	6140	5857	5701	5612	5591	5567
50	Pile Driving Equipment	7793	7654	7526	7461	7370	7247	7063	6787	6582	6569	6375	6176	6033	5787	5450	5270	5195	5127	5112
55	Rollers	8224	8078	7943	7888	7730	7491	7341	7157	6983	6938	6736	6424	6145	5872	5646	5406	5285	5225	5130
60	Scrapers & Soil Stabilizers	9763	9589	9427	9231	9079	8933	8648	7920	7632	7516	7155	6909	6825	6578	6318	6117	6049	5979	5952
65	Shovels, Backhoes & Hydraulic Excavators	7774	7635	7505	7471	7366	7271	7124	7031	6820	6858	6685	6621	6543	6201	5869	5728	5582	5236	5310
70	Tractors, Crawlers & Attachments	8880	8722	8578	8484	8449	8369	8088	7713	7434	7454	7254	7037	6907	6653	6347	6177	6081	6058	6032
75	Tractor, Wheel	7904	7763	7634	7581	7429	7199	7050	6845	6678	6636	6442	6144	5876	5616	5400	5170	5055	4997	4906
80	Trenchers	10152	9971	9805	9737	9542	9246	9062	8835	8620	8565	8314	7930	7584	7248	6970	6466	6524	6450	6332
85	Trucks, Highway	6734	6614	6505	6371	6250	6139	5988	5648	5485	5366	5123	4965	4820	4638	4450	4356	4306	4216	4212
90	Trucks & Wagons - Off-Highway	8856	8699	8550	8482	8315	8170	8103	7940	7820	7785	7651	7392	7231	6896	6424	6095	6026	5931	5828
95	All Other Equipment	7793	7654	7526	7461	7370	7247	7063	6787	6582	6569	6375	6176	6033	5787	5450	5270	5195	5127	5112
100	All Tires & Tubes	3930	3860	3796	3812	3892	3989	4062	3929	3525	3343	3267	3025	2926	2759	2614	2487	2430	2401	2373
105	Marine Equipment	8949	8789	8643	8585	8460	8313	8216	8118	7941	7773	7466	7202	6905	6661	6436	6101	5846	5771	5645

EK = Economic Key

APPENDIX E

ECONOMIC INDEXES FOR CONSTRUCTION EQUIPMENT

KEY		Note: Table 2-1 Equipment Rates are based on equipment purchased new in 2013																	
(EK)	EQUIPMENT DIVISIONS	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
5	Air Equipment	2078	2074	2070	2063	2053	2012	2022	2008	1963	1956	1888	1801	1730	1720	1733	1683	1695	1668
10	Asphalt & Concrete Paving Equipment	3638	3589	3490	3390	3323	3248	3189	3092	3106	2967	2867	2793	2730	2687	2687	2611	2583	2620
15	Buckets	6982	6930	6888	6774	6672	6638	6663	6380	5901	5640	5314	4872	4767	4713	4640	4527	4471	4541
20	Cranes, Draglines & Clamshells - Crawler & Truck Mtd	5289	5225	5116	5013	4880	4783	4736	4540	4298	4152	3967	3688	3595	3485	3395	3339	3282	3213
25	Drills	3683	3626	3574	3518	3394	3320	3268	3196	3163	3069	2969	2807	2792	2786	2832	2803	2836	2810
30	Generators	4520	4517	4484	4511	4457	4343	4294	4234	4181	4116	3998	3773	3575	3514	3510	3400	3314	3236
35	Graders, Motor	5853	5682	5544	5466	5186	5088	4946	4655	4509	4359	4219	4010	3914	3759	3738	3645	3643	3561
40	Loaders, Track	5960	5792	5686	5606	5434	5257	5068	4816	4677	4555	4404	4163	3918	3770	3767	3791	3792	3655
45	Loaders, Wheel	5511	5409	5303	5251	5101	4988	4894	4758	4640	4532	4409	4235	4099	3991	3973	3944	3873	3788
50	Pile Driving Equipment	5062	4993	4892	4809	4700	4598	4539	4427	4305	4182	4029	3845	3745	3668	3626	3570	3519	3439
55	Rollers	5204	5092	5001	4950	4851	4719	4484	4460	4668	4630	4507	4412	4217	4151	4090	3926	3744	3431
60	Scrapers & Soil Stabilizers	5853	5682	5544	5466	5186	5088	4946	4655	4509	4359	4219	4010	3914	3759	3738	3645	3643	3561
65	Shovels, Backhoes & Hydraulic Excavators	5289	5225	5116	5013	4880	4783	4736	4540	4298	4152	3967	3688	3595	3485	3395	3339	3282	3213
70	Tractors, Crawlers & Attachments	5960	5792	5686	5606	5434	5257	5068	4816	4677	4555	4404	4163	3918	3770	3767	3791	3792	3655
75	Tractor, Wheel	4833	4695	4624	4540	4527	4484	4342	4270	4186	4123	4018	3936	3862	3820	3818	3656	3557	3530
80	Trenchers	6223	6042	5833	5749	5670	5509	5207	5015	4948	4886	4753	4679	4600	4586	4488	4431	4360	4097
85	Trucks, Highway	4307	4216	4241	4318	4293	4190	4025	3838	3669	3546	3495	3363	3299	3282	3139	3055	2934	2824
90	Trucks & Wagons - Off-Highway	5715	5651	5581	5440	5265	4979	4837	4797	4739	4617	4405	4094	3915	3840	3822	3786	3744	3662
95	All Other Equipment	5062	4993	4892	4809	4700	4598	4539	4427	4305	4182	4029	3845	3745	3668	3626	3570	3519	3439
100	All Tires & Tubes	2371	2400	2431	2475	2559	2517	2525	2524	2506	2470	2480	2399	2322	2340	2374	2421	2453	2552
105	Marine Equipment	5556	5513	5429	5245	5036	4951	4881	4679	4438	4271	4091	3920	3886	3863	3749	3633	3497	3391

EK = Economic Key

APPENDIX F
TIRE DESCRIPTION AND TIRE COST

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE *(1)*	COST PER EACH
LT TRUCK/RECREATIONAL VEHICLE, RADIAL						
	WORKHORSE EXTRA GRIP RADIAL		***(Life = 5000 hrs)***			
ABAA3		LT265/75R16	10.43 x 16.00	10	TL	$189
	WRANGLER RADIAL AT		***(Life = 5000 hrs)***			
ABAC1		LT235/75R15	9.25 x 15.00	6	TL	$141
ABAC2		31-1050R15	10.50 x 15.00	6	TL	$157
	SERVICE TRAILER - MARATHON RADIAL		***(Life = 5000 hrs)***			
ABBF1		ST175/80R13	6.89 x 13.00	6	TL	$71
ABBF3		ST185/80R13	7.28 x 13.00	6	TL	$78
ABBF5		ST205/75R14	8.07 x 14.00	6	TL	$83
ABBF8		ST205/75R15	8.07 x 15.00	6	TL	$90
ABBF6		ST215/75R14	8.46 x 14.00	6	TL	$88
ABBF9		ST225/75R15	8.86 x 15.00	6	TL	$102
ABBF10		ST225/75R15	8.86 x 15.00	8	TL	$133
LT TRUCK/RECREATIONAL VEHICLE, BIAS						
	WORKHORSE RIB		***(Life = 5000 hrs)***			
ACBA2		7.00-15LT	7.00 x 15.00	10	TL	$129
ACBA4		750-16LT	7.50 x 16.00	10	TL	$152
ACBA7		8.75-16.5LT	8.75 x 16.50	10	TL	$92
ACBA9		ST235/85R16	9.25 x 16.00	10	TL	$157
	TRACTION HI-MILER		***(Life = 5000 hrs)***			
ACBC1		6.70-15LT	6.70 x 15.00	6	TL	$161
ACBC3		8-14.5LT	8.00 x 14.50	12	TL	$130
ACBC4		9-14.5LT	9.00 x 14.50	12	TL	$130
	CUSTOM HI-MILER		***(Life = 5000 hrs)***			
ACBD1		12-16.5LT	12.00 x 16.50	12	TL	$170
OVER-THE-ROAD TRUCK, COMMERCIAL, RADIAL						
	COMMERICAL RADIAL LT TRUCK		***(Life = 5000 hrs)***			
ADCA17		8R19.5	8.00 x 19.50	12	TL	$284
ADCA18		8R195	8.00 x 19.50	12	TL	$304
ADCA4		LT215/85R16	8.46 x 16.00	10	TL	$123

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EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE (1)	COST PER EACH
ADCA3		LT215/85R16	8.46 x 16.00	10	TL	$182
ADCA6		LT225/75R16	8.86 x 16.00	10	TL	$143
ADCA1		225/75R16	8.86 x 16.00	10	TL	$173
ADCA2		LT225/75R16	8.86 x 16.00	10	TL	$299
ADCA19		225/70R195	8.86 x 19.50	12	TL	$296
ADCA8		LT235/85R16	9.25 x 16.00	10	TL	$150
ADCA11		LT245/75R16	9.65 x 16.00	10	TL	$123
ADCA21		245/70R195	9.65 x 19.50	14	TL	$332
COMMERCIAL RADIAL TRUCK TL			***(Life = 5000 hrs)***			
ADCB2		9R175	9.00 x 17.50	14	TL	$363
ADCB5		9R22.5	9.00 x 22.50	14	TL	$272
ADCB3		10R175	10.00 x 17.50	16	TL	$368
ADCB7		10R22.5	10.00 x 22.50	14	TL	$403
ADCB4		11R17.5	11.00 x 17.50	14	TL	$293
ADCB8		11R22.5	11.00 x 22.50	16	TL	$506
ADCB13		11R24.5	11.00 x 24.50	16	TL	$536
ADCB10		12R22.5	12.00 x 22.50	16	TL	$591
ADCB14		12R24.5	12.00 x 24.50	16	TL	$620
LOW PROFILE RADIAL TRUCK TL			***(Life = 5000 hrs)***			
ADCC1		215/75R175	8.46 x 17.50	16	TL	$372
ADCC5		245/75R22.5	9.65 x 22.50	14	TL	$343
ADCC3		255/70R22.5	10.04 x 22.50	16	TL	$555
ADCC2		265/70R19.5	10.40 x 19.50	14	TL	$442
ADCC6		265/75R22.5	10.43 x 22.50	14	TL	$379
ADCC4		275/70R22.5	10.80 x 22.50	18	TL	$417
ADCC12		285/75R24.5	11.22 x 24.50	14	TL	$500
ADCC8		295/75R22.5	11.61 x 22.50	14	TL	$404
ADCC10		315/80R22.5	12.40 x 22.50	18	TL	$732
SUPER SINGLE COMMERCIAL RADIAL TRUCK			***(Life = 5000 hrs)***			
ADCD1		385/65R22.5	15.16 x 22.50	18	TL	$730
ADCD2		425/65R22.5	16.73 x 22.50	20	TL	$817
ADCD3		445/65R22.5	17.52 x 22.50	20	TL	$886
COMMERCIAL RADIAL TRUCK TT			***(Life = 5000 hrs)***			
ADCE1		825R15	8.25 x 15.00	14	TT	$259
ADCE5		225/70R19.5	8.86 x 19.50	12	TT	$372

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EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE *(1)*	COST PER EACH
ADCE6		225/70R19.5	8.86 x 19.50	14	TT	$326
ADCE3		LT235/85R16	9.25 x 16.00	14	TT	$302
ADCE7		245/70R19.5	9.65 x 19.50	14	TT	$475
ADCE13		10R22.5	10.00 x 22.50	14	TT	$391
ADCE12		365/80R20	10.40 x 20.00	20	TT	$754
ADCE9		1100R20	11.00 x 20.00	16	TT	$523
ADCE10		1100R20	11.00 x 20.00	16	TT	$574
ADCE14		11R22.5	11.00 x 22.50	16	TT	$482
ADCE15		1200R24	12.00 x 24.00	18	TT	$744
ADCE17		1200R24	12.00 x 24.00	18	TT	$899
ADCE11		305/70R19.5	12.01 x 19.50	18	TT	$533
FARM, FRONT						
DYNA RIB F-2-M			***(Life = 5000 hrs)***			
AFED2	F-2M	1000-16	10.00 x 16.00	8	TL	$339
AFED1	F-2M	11L-15	11.00 x 15.00	6	TL	$329
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	$986
AFED6	F-2M	14L-161	14.00 x 16.10	10	TL	$859
AFED7	F-2M	165L-161	16.50 x 16.10	8	TL	$1,095
SINGLE RIB FRONT TRACTOR F-1			***(Life = 5000 hrs)***			
AFEE1	F-1	600-16	6.00 x 16.00	4	TT	$244
FARM HIGHWAY SERVICE			***(Life = 5000 hrs)***			
AFEF2	I-1	95L-15FI	9.50 x 15.00	8	TL	$274
FARM UTILITY			***(Life = 5000 hrs)***			
AFEG7	I-1	750-14	7.50 x 14.00	4	TL	$226
AFEG14	I-1	760-15	7.60 x 15.00	8	TL	$197
AFEG8	I-1	85L-14	8.50 x 14.00	6	TL	$204
AFEG1	I-1	95L-14	9.50 x 14.00	6	TL	$199
AFEG17	I-1	95L-15	9.50 x 15.00	12	TL	$294
AFEG18	I-1	1000-15	10.00 x 15.00	8	TL	$346
AFEG11	I-1	11L-14	11.00 x 14.00	8	TL	$263
AFEG22	I-1	11L-15	11.00 x 15.00	10	TL	$301
AFEG20	I-1	11L-15	11.00 x 15.00	8	TL	$220
AFEG34	I-1	11L-16	11.00 x 16.00	10	TL	$305

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APPENDIX F
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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	$377
AFEG30	I-1	125L-16	12.50 x 16.00	12	TL	$438
AFEG29	I-1	125L-16	12.50 x 16.00	8	TL	$388
AFEG28	I-1	14L-161	14.00 x 16.10	12	TL	$661
AFEG31	I-1	165L-161	16.50 x 16.10	10	TL	$657
AFEG32	I-1	19L-161	19.00 x 16.10	10	TL	$865
AFEG27	I-1	215L-161	21.50 x 16.10	14	TL	$1,407
FOUR RIB FRONT TRACTOR F-2-M			***(Life = 5000 hrs)***			
AFEH1	F-2M	750-16	7.50 x 16.00	6	TT	$226
AFEH3	F-2M	1000-16	10.00 x 16.00	8	TT	$313
AFEH4	F-2M	1100-16	11.00 x 16.00	8	TT	$422
IMPLEMENT RIB			***(Life = 5000 hrs)***			
TFEK11	F-2	4.00-19	4.00 x 19.00	4	TT	$163
AFEK4	I-1	500-15	5.00 x 15.00	4	TL	$123
AFEK16	I-1	590-15	5.90 x 15.00	4	TL	$166
AFEK6	I-1	600-16	6.00 x 16.00	6	TL	$171
AFEK7	I-1	650-16	6.50 x 16.00	6	TL	$171
AFEK5	I-1	670-15	6.70 x 15.00	6	TL	$164
AFEK9	I-1	750-16	7.50 x 16.00	10	TL	$284
AFEK13	I-1	900-24	9.00 x 24.00	8	TL	$618
AFEK14	I-1	1125-28	11.25 x 28.00	12	TL	$1,150
LABORER F-3			***(Life = 5000 hrs)***			
AFEL6	F-3	145/75-161	5.70 x 16.10	10	TL	$762
AFEL2	F-3	11L-15	11.00 x 15.00	10	TL	$339
AFEL4	F-3	11L-16	11.00 x 16.00	10	TL	$316
AFEL5	F-3	11L-16	11.00 x 16.00	12	TL	$361
MULTI-RIB F-3			***(Life = 5000 hrs)***			
AFEM1	F-3	900-10	9.00 x 10.00	10	TT	$229
TFEM2	F-3	1100-16	11.00 x 16.00	12	TL	$550
SMOOTH			***(Life = 5000 hrs)***			
AFEN1	I-1	169-30	16.90 x 30.00	6	TL	$1,315
SMOOTH IMP			***(Life = 5000 hrs)***			
AFEO1		4.00-8	4.00 x 8.00	4	TL	$124
AFEO3		600-16	6.00 x 16.00	10	TL	$382

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EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE *(1)*	COST PER EACH
AFEO2		11L-15	11.00 x 15.00	10	TL	$367
SOFTRAC II			***(Life = 5000 hrs)***			
AFEP1	I-2	165L-161	16.50 x 16.10	6	TL	$738
AFEP3	I-2	215L-161	21.50 x 16.10	10	TL	$1,684
SUPER RIB F-2			***(Life = 5000 hrs)***			
TFER1	F-2	400-12	4.00 x 12.00	4	TT	$116
COMPACT UTILITY R-1			***(Life = 5000 hrs)***			
TFES2		5-12	5.00 x 12.00	4	TL	$124
AFES1		7-16	7.00 x 16.00	6	TL	$269
SURE GRIP IMPLEMENT			***(Life = 5000 hrs)***			
AFET1	I-3	105/80-18	10.50 x 18.00	10	TL	$701
AFET2	I-3	12.5/80-18	12.50 x 18.00	10	TL	$757
SURE GRIP LUG			***(Life = 5000 hrs)***			
AFEU2	I-3	105/80-18	10.50 x 18.00	10	TL	$577
AFEU1	I-3	124-16	12.40 x 16.00	4	TL	$854
AFEU3	I-3	12.5/80-18	12.50 x 18.00	14	TL	$703
SURE GRIP TRACTION			***(Life = 5000 hrs)***			
AFEV1	I-3	670-15	6.70 x 15.00	4	TT	$217
AFEV5	I-3	750-16	7.50 x 16.00	4	TL	$337
AFEV2	I-3	750-18	7.50 x 18.00	4	TT	$331
AFEV3	I-3	750-20	7.50 x 20.00	4	TT	$375
AFEV4	I-3	760-15	7.60 x 15.00	6	TL	$288
TRACTION IMPLEMENT			***(Life = 5000 hrs)***			
AFEW1	I-3	500-15	5.00 x 15.00	4	TL	$210
AFEW2	I-3	590-15	5.90 x 15.00	4	TL	$224
TRIPLE RIB HD			***(Life = 5000 hrs)***			
AFEX8	F-2	550-16	5.50 x 16.00	6	TT	$134
AFEX10	F-2	600-16	6.00 x 16.00	6	TT	$151
AFEX11	F-2	650-16	6.50 x 16.00	6	TT	$191
AFEX4	F-2	75L-15	7.50 x 15.00	6	TT	$186
AFEX18	F-2	750-16	7.50 x 16.00	6	TL	$223
AFEX13	F-2	750-16	7.50 x 16.00	8	TT	$230

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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	$257
AFEX5	F-2	95L-15	9.50 x 15.00	8	TT	$296
AFEX16	F-2	1000-16	10.00 x 16.00	8	TL	$366
AFEX6	F-2	11L-15	11.00 x 15.00	8	TT	$329
AFEX17	F-2	1100-16	11.00 x 16.00	8	TL	$460
TRIPLE RIB R/S F-2			***(Life = 5000 hrs)***			
AFEY2	F-2	400-15	4.00 x 15.00	4	TT	$159
AFEY1	F-2	500-15	5.00 x 15.00	4	TT	$151
DURATORQUE R-1			***(Life = 5000 hrs)***			
AFFU3	R-1	8-16	8.00 x 16.00	6	TL	$335
FARM, REAR						
ALL TRACTION R-3			***(Life = 5000 hrs)***			
AGFA1	R-3	9.5-16	9.50 x 16.00	4	TT	$581
ALL WEATHER R-3			***(Life = 5000 hrs)***			
AGFB2	R-3	95-24	9.50 x 24.00	4	TT	$567
AGFB7	R-3	136-161	13.60 x 16.10	8	TL	$970
AGFB5	R-3	136-28	13.60 x 28.00	6	TT	$1,056
AGFB3	R-3	149-24	14.90 x 24.00	6	TL	$1,034
AGFB4	R-3	169-24	16.90 x 24.00	6	TL	$1,212
AGFB8	R-3	184-161	18.40 x 16.10	8	TL	$1,238
AGFB10	R-3	184-26	18.40 x 26.00	12	TL	$1,433
AGFB11	R-3	231-26	23.10 x 26.00	10	TL	$2,241
AGFB12	R-3	231-26	23.10 x 26.00	12	TL	$2,351
AGFB14	R-3	245-32	24.50 x 32.00	12	TL	$3,716
AGFB13	R-3	28L-26	28.00 x 26.00	16	TL	$3,273
AGFB15	R-3	305L-32	30.50 x 32.00	12	TL	$4,382
AGFB16	R-3	305L-32 VA	30.50 x 32.00	16	TL	$5,574
DT 800 RADIAL R-1W			***(Life = 5000 hrs)***			
AGFE1	R-1W	320/90R42	12.60 x 42.00	139A8	TL	$2,191
AGFE3	R-1W	320/90R50	12.60 x 50.00	148A8	TL	$2,866
AGFE2	R-1W	380/90R46	14.90 x 46.00	149A8	TL	$2,828
DT 812 RADIAL R-1W			***(Life = 5000 hrs)***			
AGFF1	R-1W	380/70R24	14.90 x 24.00	125A8	TL	$2,166

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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	$3,021
AGFF3	R-1W	480/70R30	18.90 x 30.00	152A8	TL	$3,067
DT 820 RADIAL R-1W			***(Life = 5000 hrs)***			
AGFG2	R-1W	600/65R28	23.60 x 28.00	154A8/B	TL	$3,775
AGFG1	R-1W	620/75R26	24.40 x 26.00	166A8	TL	$6,290
AGFG5	R-1W	620/70R42	24.40 x 42.00	160A8	TL	$4,347
AGFG3	R-1W	650/75R34	25.60 x 34.00	162A8	TL	$5,946
AGFG4	R-1W	710/70R38	27.90 x 38.00	166A8	TL	$4,728
DYNA TORQUE RADIAL R-1			***(Life = 5000 hrs)***			
AGFH7	R-1	380/85R30	14.90 x 30.00	135A8/B	TL	$2,051
TGFH5	R-1	380/85R34	14.90 x 34.00	137A8	TL	$2,399
AGFH9	R-1	380/85R34	14.90 x 34.00	137A8/B	TL	$2,289
TGFH6	R-1	380/85R34	14.90 x 34.00	148A8	TL	$2,300
AGFH15	R-1	380/85R46	14.90 x 46.00	147A8/B	TL	$2,733
AGFH16	R-1	420/80R46	16.50 x 46.00	159A8/B	TL	$3,725
AGFH8	R-1	420/90R30	16.90 x 30.00	142A8/B	TL	$2,325
TGFH2	R-3	184-26	18.40 x 26.00	146A8	TL	$2,896
AGFH10	R-1	480/80R38	18.40 x 38.00	149A8/B	TL	$2,064
AGFH17	R-1	480/80R46	18.40 x 46.00	158A8/B	TL	$3,190
AGFH12	R-1	520/85R38	20.80 x 38.00	148A8/B	TL	$2,677
AGFH14	R-1	520/85R42	20.80 x 42.00	157A8/B	TL	$2,905
DYNA TORQUE II R-1			***(Life = 5000 hrs)***			
AGFJ29	R-1	112-16	11.20 x 16.00	4	TL	$507
AGFJ6	R-1	136-24	13.60 x 24.00	8	TT	$1,054
AGFJ41	R-1	136-28	13.60 x 28.00	10	TL	$1,336
AGFJ7	R-1	149-24	14.90 x 24.00	6	TL	$811
AGFJ31	R-1	149-24	14.90 x 24.00	8	TL	$933
AGFJ42	R-1	149-28	14.90 x 28.00	10	TL	$1,201
AGFJ8	R-1	169-24	16.90 x 24.00	6	TT	$1,008
AGFJ39	R-1	169-26	16.90 x 26.00	10	TL	$1,273
AGFJ43	R-1	169-28	16.90 x 28.00	10	TL	$2,023
AGFJ37	R-1	169-34	16.90 x 34.00	6	TT	$1,229
AGFJ23	R-1	169-38	16.90 x 38.00	14	TT	$2,191
AGFJ40	R-1	184-26	18.40 x 26.00	12	TL	$1,757
AGFJ18	R-1	184-34	18.40 x 34.00	8	TT	$1,413

(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
AGFJ24	R-1	184-38	18.40 x 38.00	8	TT	$1,474
AGFJ19	R-1	208-34	20.80 x 34.00	8	TT	$2,457
AGFJ25	R-1	208-38	20.80 x 38.00	8	TT	$1,967
AGFJ27	R-1	208-42	20.80 x 42.00	10	TL	$3,286
AGFJ45	R-1	231-26	23.10 x 26.00	12	TL	$2,478
AGFJ20	R-1	231-34	23.10 x 34.00	8	TT	$2,739
AGFJ35	R-1	245-32	24.50 x 32.00	12	TL	$3,091
AGFJ34	R-1	28L-26	28.00 x 26.00	12	TL	$3,146
AGFJ36	R-1	305L-32	30.50 x 32.00	14	TL	$4,691
INDUSTRIAL SURE GRIP R-4			***(Life = 5000 hrs)***			
AGFK1	R-4	169-30	16.90 x 30.00	10	TT	$2,784
AGFK3	R-4	184-28	18.40 x 28.00	12	TL	$1,541
IT510 RADIAL R4			***(Life = 5000 hrs)***			
AGFL3	R-4	195LR24	19.50 x 24.00	152A8	TL	$2,510
IT525 RADIAL R4			***(Life = 5000 hrs)***			
AGFM1	R-4	149-24	14.90 x 24.00	8	TL	$934
AGFM4	R-4	169-24	16.90 x 24.00	10	TL	$949
AGFM12	R-4	169-28	16.90 x 28.00	10	TL	$1,214
AGFM6	R-4	175L-24	17.50 x 24.00	10	TL	$1,063
AGFM5	R-4	184-24	18.40 x 24.00	12	TL	$1,380
AGFM7	R-4	195L-24	19.50 x 24.00	10	TL	$1,329
AGFM8	R-4	195L-24	19.50 x 24.00	12	TL	$1,491
AGFM9	R-4	21L-24	21.00 x 24.00	12	TL	$1,792
AGFM11	R-4	21L-24	21.00 x 24.00	16	TL	$2,076
AGFM14	R-4	21L-28	21.00 x 28.00	14	TL	$2,191
POWER TORQUE R-1			***(Life = 5000 hrs)***			
AGFN1	R-1	6-12	6.00 x 12.00	4	TL	$125
SPECIAL SURE GRIP R-2-0			***(Life = 5000 hrs)***			
AGFO2	R-2	149-24	14.90 x 24.00	6	TL	$1,421
AGFO11	R-2	184-26	18.40 x 26.00	10	TL	$1,941
AGFO8	R-2	184-38	18.40 x 38.00	8	TL	$2,784
AGFO12	R-2	VA500/95D32	19.70 x 32.00	6A5/179	TL	$5,445
AGFO10	R-2	208-38	20.80 x 38.00	8	TL	$2,891
AGFO3	R-2	231-26	23.10 x 26.00	10	TL	$3,110

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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	$4,329
AGFO6	R-2	305L-32	30.50 x 32.00	14	TL	$5,368
SPECIAL SURE GRIP RADIAL R-2-0			***(Life = 5000 hrs)***			
AGFP8	R-2	320/90R46	12.60 x 46.00	148A8	TL	$2,843
AGFP9	R-2	340/85R46	13.40 x 46.00	140A8	TL	$3,074
AGFP6	R-2	520/85R42	20.80 x 42.00	157A8/B	TL	$4,728
SUPER TRACTION RADIAL R-1W			***(Life = 5000 hrs)***			
AGFQ3	R-1W	260/80R20	10.20 x 20.00	106A8	TL	$1,212
AGFQ20	R-1W	385/85R24	14.90 x 24.00	131A8/B	TL	$2,379
AGFQ9	R-1W	149R30	14.90 x 30.00	134A8	TL	$2,362
AGFQ5	R-1W	169R26	16.90 x 26.00	135A8	TL	$3,523
TGFQ15	R-1W	16.9R28	16.90 x 28.00	136A8	TL	$2,410
AGFQ8	R-1W	169R28	16.90 x 28.00	136A8	TL	$2,535
TGFQ7	R-1W	16.9R30	16.90 x 30.00	144A8	TL	$2,410
AGFQ10	R-1W	169R30	16.90 x 30.00	144A8	TL	$2,548
AGFQ11	R-1W	184R26	18.40 x 26.00	140A8	TL	$2,641
AGFQ12	R-1W	460/85R30	18.40 x 30.00	145A8/B	TL	$3,505
AGFQ14	R-1W	460/85R34	18.40 x 34.00	147A8	TL	$3,938
AGFQ16	R-1W	184R38	18.40 x 38.00	146A8	TL	$2,548
AGFQ18	R-1W	184R42	18.40 x 42.00	148A8	TL	$3,122
AGFQ17	R-1W	208R38	20.80 x 38.00	153A8	TL	$3,315
AGFQ13	R-1W	800/65R32	31.50 x 32.00	172A8	TL	$5,510
DURATORQUE R-1			***(Life = 5000 hrs)***			
AGFU1	R-1	149-28	14.90 x 28.00	6	TT	$782
AGFU2	R-1	169-30	16.90 x 30.00	6	TT	$986
AGFU3	R-1	184-30	18.40 x 30.00	6	TT	$1,225
AGFU5	R-1	184-38	18.40 x 38.00	8	TT	$1,474
FARM, TERRA - 20" UP						
SFT105			***(Life = 5000 hrs)***			
AHGA2	HF-1	54-3100-26	31.00 x 26.00	10	TL	$2,390
SOF TRAC			***(Life = 5000 hrs)***			
AHGB3	HF-1	38-1400-20	14.00 x 20.00	4	TL	$711
AHGB2	HF-1	41-1400-20	14.00 x 20.00	4	TL	$761

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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	$1,061
SUPER TERRA GRIP			***(Life = 5000 hrs)***			
AHGC1	HF-2	38-1400-20	14.00 x 20.00	8	TL	$1,039
AHGC11	HF-2	1000/50R25	43.00 x 25.00	172A8	TL	$9,620
SUPER TERRA GRIP XT			***(Life = 5000 hrs)***			
AHGD5	HF-3	48-3100-20	31.00 x 20.00	150A8	TL	$3,306
AHGD6	HF-3	1000/50R25	43.00 x 25.00	172A8	TL	$7,975
AHGD7	HF-3	1050/50R32	44.00 x 32.00	178A8	TL	$11,627
TUNDRA GRIP			***(Life = 5000 hrs)***			
AHGF1	HF-1	66-4400-25	44.00 x 25.00	20	TL	$11,467
AHGF2	HF-1	66X4400-25	44.00 x 25.00	26	TL	$12,380
FARM, SPECIALTY						
SOFTRAC			***(Life = 5000 hrs)***			
TJHB2		16-650-8	6.50 x 8.00	4	TL	$105
TJHB3		18-850-10	8.50 x 10.00	4	TL	$147
AJHB1	HF-1	25-850-14	8.50 x 14.00	6	TL	$276
AJHB5	HF-1	27-850-15	8.50 x 15.00	4	TL	$280
AJHB4	HF-1	25-1050-15	10.50 x 15.00	4	TL	$294
AJHB6	HF-1	27-1050-15	10.50 x 15.00	4	TL	$349
AJHB7	HF-1	29-1250-15	12.50 x 15.00	4	TL	$380
AJHB10	HF-1	31-1250-15	12.50 x 15.00	4	TL	$421
AJHB11	HF-1	33-1250-15	12.50 x 15.00	4	TL	$492
AJHB8	HF-1	31-1350-15	13.50 x 15.00	4	TL	$462
AJHB9	HF-1	31-1550-15	15.50 x 15.00	4	TL	$534
SUPER TERRA GRIP			***(Life = 5000 hrs)***			
AJHC3	HF-2	29-1250-15	12.50 x 15.00	6	TL	$389
AJHC6	HF-2	31-1550-15	15.50 x 15.00	8	TL	$683
AJHC7	HF-2	38-2000-16.1	20.00 x 16.00	8	TL	$1,401
SURE GRIP LUG			***(Life = 5000 hrs)***			
AJHD9	HF-2	27-850-15	8.50 x 15.00	6	TL	$322
AJHD1		10-16.5	10.00 x 16.50	6	TL	$351
AJHD10	HF-2	27-1050-15	10.50 x 15.00	6	TL	$308
AJHD4		12-165	12.00 x 16.50	10	TL	$408

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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	$371
AJHD5	I-3	14-17.5	14.00 x 17.50	14	TL	$723
AJHD6	I-3	15-19.5	15.00 x 19.50	12	TL	$837
IT 323			***(Life = 5000 hrs)***			
AJHE1		10-165	10.00 x 16.50	8	TL	$357
AJHE3		12-165	12.00 x 16.50	10	TL	$454
AJHE4		31-1550-15	15.50 x 15.00	8	TL	$694
POWER RIB			***(Life = 5000 hrs)***			
TJHJ1		18-850-8	8.50 x 8.00	4	TL	$120
TJHJ2		20X10.00-10	10.00 x 10.00	3*	TL	$151
RALLY			***(Life = 5000 hrs)***			
TJHK1		480-8	4.80 x 8.00	4	TL	$58
TJHK2		18X9.50-8	9.50 x 8.00	3*	TL	$124
TERRA RIB			***(Life = 5000 hrs)***			
AJHM2	HF-1	25-750-15	7.50 x 15.00	6	TL	$207
AJHM4	HF-1	27-950-15	9.50 x 15.00	10	TL	$316
AJHM6	HF-1	31-1350-15	13.50 x 15.00	8	TL	$530
ATV			***(Life = 5000 hrs)***			
TJHN1		AT21-7-10	7.00 x 10.00	X3	TL	$124
TJHN3		AT23-8-11	8.00 x 11.00	6	TL	$136
TJHN5		AT24-9-11	9.00 x 11.00	6	TL	$158
TRACKER ATT			***(Life = 5000 hrs)***			
TJHT1		AT24-8-11	8.00 x 11.00	6	TL	$181
TJHT2		AT24-10-11	10.00 x 11.00	6	TL	$168
INDUSTRIAL, MINE SERVICE						
HARD ROCK LUG MINE & INDUSTRIAL			***(Life = 5000 hrs)***			
TKJC1		10.00-20	10.00 x 20.00	16.0	TT	$986
XTRA TRACTION LUG			***(Life = 5000 hrs)***			
AKJD2		825-15	8.25 x 15.00	24	TT	$839
AKJD7		24x12x12	12.00 x 12.00	24	TL	$538
AKJD6		35-15x15(14.50L-15)	15.00 x 15.00	28	TL	$1,452

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APPENDIX F
TIRE DESCRIPTION AND TIRE COST

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE *(1)*	COST PER EACH
XTRA TRACTION GRIP			***(Life = 5000 hrs)***			
AKJE1		32x15-15	15.00 x 15.00	24	TL	$1,334
OFF-THE-ROAD, MED & HEAVY COMMERCIAL, RADIAL						
G-2 GRADER SERVICE - RL2F, SG2B			***(Life = 3200 hrs)***			
AMLA1	G2	14.00R24	14.00 x 24.00	X1	TL	$1,435
E-2 HAULAGE SERVICE - RL2F/GP2B RL2+			***(Life = 2800 hrs)***			
AMLB1	E/L/G3	17.5R25	17.50 x 25.00	X1	TL	$1,710
AMLB8	L5	1800R25	18.00 x 25.00	X2	TL	$5,019
AMLB2	E/L/G3	20.5R25	20.50 x 25.00	X1	TL	$2,255
AMLB9	E/L/G3	20.5R25	20.50 x 25.00	X2	TL	$2,255
AMLB15	E4	21.00R35	21.00 x 35.00	X2	TL	$9,308
AMLB3	E/L/G3	23.5R25	23.50 x 25.00	X1	TL	$2,731
AMLB10	E/L/G3	23.5R25	23.50 x 25.00	X2	TL	$2,731
AMLB22	E/L 3	29.5R25	29.50 x 25.00	X2	TL	$5,616
AMLB21	E/L/G 3+T	295R29	29.50 x 29.00	X2	TL	$8,303
FMLB23	E3	40.5/75R39	40.50 x 39.00	X2	TL	$14,321
E-3 HAULAGE SERVICE - ROCK DESIGN RL3, RL3J, R			***(Life = 2800 hrs)***			
AMLC3	E3+	1800R33	18.00 x 33.00	X3	TL	$5,787
AMLC5	E3+	24.00R35	24.00 x 35.00	X2	TL	$9,304
AMLC6	E3	29.5R29	29.50 x 29.00	X2	TL	$7,932
FMLC8	E3	37.25R35	37.35 x 35.00	X2	TL	$9,059
E-4 RL4J/RL4 & RL4H/RL4 E4			***(Life = 5000 hrs)***			
AMLD2	E4	14.00R24	14.00 x 24.00	X3	TL	$2,474
AMLD3	E4	14.00R25	14.00 x 25.00	X3	TL	$2,474
AMLD4	E4	1800R25	18.00 x 25.00	X2	TL	$4,117
AMLD14	E4	21.00R35	21.00 x 35.00	X2	TL	$9,308
AMLD7	E4	27.00R49	27.00 x 49.00	X2	TL	$16,297
FMLD9	E4	33.00R51	33.00 x 51.00	X2	TL	$27,834
FMLD11	E4	37.00R57	37.00 x 57.00	X2	TL	$50,675
MOBILE CRANE			***(Life = 5000 hrs)***			
AMLF1	E/L/G3	445/95R25	17.50 x 25.00	UK	TL	$2,123
AMLF3	E/L/G3	525/80R25 (20.5R25)	20.60 x 25.00	UK	TL	$2,255

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APPENDIX F
TIRE DESCRIPTION AND TIRE COST

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE *(1)*	COST PER EACH
SPECIAL SERVICE - AT2A			***(Life = 5000 hrs)***			
AMLH1	E/L/G 3	14.00R20	14.00 x 20.00	18	TL	$1,725
AMLH3	E/L/G 3	16.00R20	16.00 x 20.00	22	TL	$1,990
AMLH2	E/L/G3	17.5R25	17.50 x 25.00	X1	TL	$1,710
E-3 ROCK SERVICE SUPER HARD ROCK LUG			***(Life = 2800 hrs)***			
AMMF1	L3	26.5-25	26.50 x 25.00	24	TL	$4,629
OFF-THE-ROAD, MED & HEAVY COMMERCIAL, BIAS						
E-1 HRR 1A			***(Life = 2500 hrs)***			
ANMB1	E3	1400-24	14.00 x 24.00	20	TT	$2,198
E-2 TRACTION EARTHMOVER SURE GRIP			***(Life = 2800 hrs)***			
ANMC3	E7	18.00-25	18.00 x 25.00	16	TL	$2,073
E-3 ROCK SERVICE HARD ROCK LUG/HRL WC			***(Life = 2800 hrs)***			
ANME1	E3	12.00-20	12.00 x 20.00	20	TT	$1,162
ANME2	E3	12.00-24	12.00 x 24.00	16	TT	$1,291
ANME3	E3	14.00-24	14.00 x 24.00	28	TT	$1,942
ANME6	E3	1600-25	16.00 x 25.00	28	TL	$3,460
E-3 ROCK SERVICE SUPER HARD ROCK LUG			***(Life = 2800 hrs)***			
TNMF4	L-5	29.5-25	29.50 x 25.00	28	TL	$10,146
TNMF5	L-4	29.5-29	29.50 x 29.00	28	TL	$8,834
TNMF6	E-3	29.5-29	29.50 x 29.00	34	TL	$7,977
E-3 ROCK SERVICE SHRL8			***(Life = 2800 hrs)***			
TNMG8	L-3	29.5-25	29.50 x 25.00	28.0	TL	$7,279
TNMG9	L-3	29.5-25	29.50 x 25.00	34.0	TL	$8,075
TNMG7	E-3/L-3	33.25-29	33.25 x 29.00	38.0	TL	$10,382
TNMG6	E-3	33.25-35	33.25 x 35.00	38	TL	$12,473
ANMG7	E3	37.25-35	37.25 x 35.00	36	TL	$9,049
ANMG9	E3	375-39	37.50 x 39.00	52	TL	$13,585
E-3 ROCK SERVICE ELV3A, ELV4B, ELV4/5A			***(Life = 2800 hrs)***			
ANMH9	IND 3	1800-25	18.00 x 25.00	40	TL	$4,159
ANMH4	IND 5S	18.00-25	18.00 x 25.00	40	TL	$4,968

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APPENDIX F
TIRE DESCRIPTION AND TIRE COST

EP CODE	INDUSTRY CODE	SIZE DESCRIPTION	SIZE	PLY	TUBE *(1)*	COST PER EACH
E-3 ROCK SERVICE HRL 3F			***(Life = 2800 hrs)***			
ANMJ2	E3	3725-35	37.25 x 35.00	36	TL	$11,635
ANMJ5	E3	37.25-35	37.25 x 35.00	36	TL	$11,635
ANMJ6	E3	3725-35	37.25 x 35.00	36	TL	$11,635
E-3 ROCK SERVICE WRL 3A			***(Life = 2800 hrs)***			
ANML1	E3	14.00-20	14.00 x 20.00	24	TT	$1,711
ANML2	E3	14.00-24	14.00 x 24.00	24	TT	$1,813
E-4 ROCK SERVICE HRL 4B			***(Life = 5000 hrs)***			
ANMN1	E4	16.00-25	16.00 x 25.00	28	TL	$3,701
ANMN4	E4	21.00-35	21.00 x 35.00	36	TL	$8,249
ANMN5	E4	24.00-35	24.00 x 35.00	42	TL	$8,583
ANMN9	E4	36.00-51	36.00 x 51.00	58	TL	$25,227
E-7 FLOTATION TYPE SAND RIB SRB 7A			***(Life = 3000 hrs)***			
TNMQ1	E-3	17.5R25	17.50 x 25.00	1*	TL	$2,120
TNMQ2	E-3	20.5R25	20.50 x 25.00	1*	TL	$2,761
TNMQ3	E-3	23.5R25	23.50 x 25.00	1*	TL	$3,697
E-7 FLOTATION TYPE PAVER TIRE			***(Life = 3000 hrs)***			
ANMR1	E7	1600-24	16.00 x 24.00	12	TL	$1,579
G-2 SGG2A			***(Life = 3200 hrs)***			
TNMT10	G-2	13.00-24	13.00 x 24.00	12	TL	$839
TNMT6	G-2	14.00-24	14.00 x 24.00	12	TL	$938
TNMT8	G-2	14.00-24	14.00 x 24.00	12	TL	$965
G-2 SGLDL 2A L2			***(Life = 3200 hrs)***			
ANMV2	L2/G2	17.5-25	17.50 x 25.00	12	TL	$818
ANMV3	L2/G2	17.5-25	17.50 x 25.00	12	TL	$818
ANMV4	L2/G2	17.5-25	17.50 x 25.00	16	TL	$907
ANMV5	L2/G2	17.5-25	17.50 x 25.00	20	TL	$995
G-2 SGLEL 2A ES/L2/G2			***(Life = 3200 hrs)***			
TNMW1	L-2	20.5-25	20.50 x 25.00	12	TL	$1,797
TNMW2	L-2	20.5-25	20.50 x 25.00	16	TL	$1,938
TNMW5	L-2	23.5-25	23.50 x 25.00	16	TL	$2,611

(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
G-3 RKG 3A			***(Life = 3200 hrs)***			
TNMX1	G-2	14.00-24	14.00 x 24.00	14	TL	$1,029
L-3 DOZER/LOADER SERVICE ROCK SERVICE E3/L3			***(Life = 3200 hrs)***			
ANNB1	E/G/L3	205-25	20.50 x 25.00	20	TL	$1,351
ANNB2	E/G/L3	235-25	23.50 x 25.00	16	TL	$3,998
ANNB5	E/L 3	23.5-25	23.50 x 25.00	16	TL	$3,998
ANNB6	E/L 3	23.5-25	23.50 x 25.00	20	TL	$4,211
L-3 DOZER/LOADER SERVICE ROCK SHRL DL			***(Life = 3200 hrs)***			
TNNC3	L-4	29.5-25	29.50 x 25.00	28	TL	$8,815
L-3 DOZER/LOADER SERVICE ROCK HRL DL 3A & 3F			***(Life = 3200 hrs)***			
ANND2	L/G3	265-25	26.50 x 25.00	20	TL	$6,000
L-4 DOZER/LOADER SERVICE ROCK DEEP TREAD N			***(Life = 5000 hrs)***			
TNNG1	L-5	35/65-33	35.00 x 33.00	42	TL	$17,150
L-5 DOZER/LOADER SERVICE ROCK SUPER XTRA T			***(Life = 8000 hrs)***			
TNNL2	L-4	35/65-33	35.00 x 33.00	42	TL	$15,458
TNNL4	L-5	41.25/70-39	41.25 x 39.00	42	TL	$26,985
ANNL7	L5	45/65-45	45.00 x 45.00	58	TL	$24,393
L-5 DOZER/LOADER SERVICE SMOOTH SMO SL5B			***(Life = 8000 hrs)***			
ANNN3	IND3	18.00-25	18.00 x 25.00	40	TL	$4,159
L-5 DOZER/LOADER SERVICE SMOOTH SUPER XTRA			***(Life = 8000 hrs)***			
TNNO1	L-5S	295-25	29.50 x 25.00	28	TL	$12,652
INDUSTRIAL, SOLID						
SOLID, HIGH PERFORMANCE, OIL RESISTANT/STATI			***(Life = 5000 hrs)***			
IPPO5		10x3x6-1/4 Grip	3.00 x 10.00		NO	$389
IPPO4		10x3-1/2x6	3.50 x 10.00		NO	$421
IPPO18		12x3-1/2x8	3.50 x 12.00		NO	$430
IPPO23		13x3-1/2x8	3.50 x 13.00		NO	$489
IPPO32		15x3-1/2x11-1/4	3.50 x 15.00		NO	$462
IPPO1		8-1/2x4x4	4.00 x 8.50		NO	$533
IPPO10		10x4x6-1/2	4.00 x 10.00		NO	$368
IPPO6		10x4x6-1/4	4.00 x 10.00		NO	$430

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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	$470
IPPO47		16-1/4x4x11-1/4 Lug	4.00 x 16.25		NO	$581
IPPO30		14x4-1/2x8	4.50 x 14.00		NO	$639
IPPO40		16x4-1/2x10-1/2 Lug	4.50 x 16.00		NO	$694
IPPO2		9-5-5 Grip	5.00 x 9.00		NO	$398
IPPO12		10x5x6-1/2	5.00 x 10.00		NO	$383
IPPO7		10x5x6-1/4	5.00 x 10.00		NO	$429
IPPO13		10-1/2x5x5	5.00 x 10.50		NO	$625
IPPO31		14x5x10	5.00 x 14.00		NO	$586
IPPO33		15x5x11-1/4	5.00 x 15.00		NO	$564
IPPO38		15-1/2x5x10	5.00 x 15.50		NO	$656
IPPO41		16x5x10-1/2	5.00 x 16.00		NO	$724
IPPO48		16-1/4x5x11-1/4	5.00 x 16.25		NO	$626
IPPO53		17x5x12-1/8	5.00 x 17.00		NO	$714
IPPO63		18x5x14	5.00 x 18.00		NO	$637
IPPO58		18x5x12-1/8	5.00 x 18.00		NO	$758
IPPO68		20x5x16	5.00 x 20.00		NO	$849
IPPO73		21x5x15	5.00 x 21.00		NO	$883
IPPO79		22x5x16	5.00 x 22.00		NO	$942
IPPO8		10x6x6-1/4	6.00 x 10.00		NO	$517
IPPO14		10-1/2x6x5	6.00 x 10.50		NO	$650
IPPO34		15x6x11-1/4	6.00 x 15.00		NO	$600
IPPO42		16x6x10-1/2	6.00 x 16.00		NO	$813
IPPO49		16-1/4x6x11-1/4	6.00 x 16.25		NO	$738
IPPO59		18x6x12-1/8	6.00 x 18.00		NO	$853
IPPO69		20x6x16	6.00 x 20.00		NO	$903
IPPO74		21x6x15	6.00 x 21.00		NO	$1,103
IPPO80		22x6x16	6.00 x 22.00		NO	$1,113
IPPO22		12-6-1/2x8	6.50 x 12.00		NO	$651
IPPO9		10x7x6-1/4	7.00 x 10.00		NO	$602
IPPO35		15x7x11-1/4	7.00 x 15.00		NO	$746
IPPO43		16x7x10-1/2	7.00 x 16.00		NO	$932
IPPO50		16-1/4x7x11-1/4	7.00 x 16.25		NO	$920
IPPO60		18x7x12-1/8	7.00 x 18.00		NO	$889
IPPO70		20x7x16	7.00 x 20.00		NO	$1,092
IPPO75		21x7x15	7.00 x 21.00		NO	$1,133
IPPO81		22x7x16	7.00 x 22.00		NO	$1,336

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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	$1,670
CPPO1		10x8x3	8.00 x 10.00		NO	$81
IPPO36		15x8x11-1/4	8.00 x 15.00		NO	$893
IPPO61		18x8x12-1/8	8.00 x 18.00		NO	$1,044
IPPO66		18x8x14	8.00 x 18.00		NO	$1,088
IPPO71		20x8x16	8.00 x 20.00		NO	$1,166
IPPO76		21x8x15	8.00 x 21.00		NO	$1,380
IPPO82		22x8x16	8.00 x 22.00		NO	$1,441
IPPO37		15x9x11-1/4	9.00 x 15.00		NO	$1,188
IPPO67		18x9x14	9.00 x 18.00		NO	$1,148
IPPO62		18x9x12-1/8	9.00 x 18.00		NO	$1,235
IPPO72		20x9x16	9.00 x 20.00		NO	$1,582
IPPO77		21x9x15	9.00 x 21.00		NO	$1,651
IPPO16		22x9x16	9.00 x 22.00		NO	$1,638
IPPO83		22x9x16	9.00 x 22.00		NO	$1,638
IPPO92		22x10x17-3/4	10.00 x 22.00		NO	$1,981
IPPO84		22x10x16	10.00 x 22.00		NO	$2,215
IPPO95		28x10x22	10.00 x 28.00		NO	$2,661
IPPO78		21x12x15	12.00 x 21.00		NO	$2,654
IPPO86		22x12x16	12.00 x 22.00		NO	$2,336
IPPO96		28x12x22	12.00 x 28.00		NO	$3,461
IPPO87		22x14x16	14.00 x 22.00		NO	$2,602
IPPO93		22x14x17-3/4	14.00 x 22.00		NO	$3,008
IPPO88		22x16x16	16.00 x 22.00		NO	$2,868
IPPO98		28x16x22	16.00 x 28.00		NO	$4,928
CONVEYOR/LOADER BELTING						
CONVEYOR BELTING (GOODYEAR EP)			***(Life = 5000 hrs)***			
AZZA1		Conveyor Belting	24.00 x 50.00	2	NO	$1,158
AZZA2		Conveyor Belting	24.00 x 60.00	2	NO	$1,354
AZZA3		Conveyor Belting	24.00 x 70.00	2	NO	$1,550
AZZA4		Conveyor Belting	24.00 x 80.00	2	NO	$1,745
AZZA5		Conveyor Belting	24.00 x 90.00	2	NO	$1,941
AZZA6		Conveyor Belting	24.00 x 100.00	2	NO	$2,137
AZZA7		Conveyor Belting	24.00 x 110.00	2	NO	$2,333
AZZA8		Conveyor Belting	24.00 x 120.00	2	NO	$2,529
AZZA9		Conveyor Belting	24.00 x 130.00	2	NO	$2,725

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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	$2,921
AZZA11		Conveyor Belting	24.00 x 150.00	2	NO	$3,116
AZZA12		Conveyor Belting	30.00 x 50.00	2	NO	$1,397
AZZA13		Conveyor Belting	30.00 x 60.00	2	NO	$1,641
AZZA14		Conveyor Belting	30.00 x 70.00	2	NO	$1,885
AZZA15		Conveyor Belting	30.00 x 80.00	2	NO	$2,128
AZZA16		Conveyor Belting	30.00 x 90.00	2	NO	$2,372
AZZA17		Conveyor Belting	30.00 x 100.00	2	NO	$2,616
AZZA18		Conveyor Belting	30.00 x 110.00	2	NO	$2,859
AZZA19		Conveyor Belting	30.00 x 120.00	2	NO	$3,103
AZZA20		Conveyor Belting	30.00 x 130.00	2	NO	$3,347
AZZA21		Conveyor Belting	30.00 x 140.00	2	NO	$3,590
AZZA22		Conveyor Belting	30.00 x 150.00	2	NO	$3,834
AZZA23		Conveyor Belting	36.00 x 50.00	2	NO	$1,636
AZZA24		Conveyor Belting	36.00 x 60.00	2	NO	$1,928
AZZA25		Conveyor Belting	36.00 x 70.00	2	NO	$2,219
AZZA26		Conveyor Belting	36.00 x 80.00	2	NO	$2,511
AZZA27		Conveyor Belting	36.00 x 90.00	2	NO	$2,803
AZZA28		Conveyor Belting	36.00 x 100.00	2	NO	$3,094
AZZA29		Conveyor Belting	36.00 x 110.00	2	NO	$3,386
AZZA30		Conveyor Belting	36.00 x 120.00	2	NO	$3,677
AZZA31		Conveyor Belting	36.00 x 130.00	2	NO	$3,969
AZZA32		Conveyor Belting	36.00 x 140.00	2	NO	$4,260
AZZA33		Conveyor Belting	36.00 x 150.00	2	NO	$4,552
AZZA34		Conveyor Belting	42.00 x 50.00	2	NO	$1,876
AZZA35		Conveyor Belting	42.00 x 60.00	2	NO	$2,215
AZZA36		Conveyor Belting	42.00 x 70.00	2	NO	$2,554
AZZA37		Conveyor Belting	42.00 x 80.00	2	NO	$2,894
AZZA38		Conveyor Belting	42.00 x 90.00	2	NO	$3,233
AZZA39		Conveyor Belting	42.00 x 100.00	2	NO	$3,573
AZZA40		Conveyor Belting	42.00 x 110.00	2	NO	$3,912
AZZA41		Conveyor Belting	42.00 x 120.00	2	NO	$4,251
AZZA42		Conveyor Belting	42.00 x 130.00	2	NO	$4,591
AZZA43		Conveyor Belting	42.00 x 140.00	2	NO	$4,930
AZZA44		Conveyor Belting	42.00 x 150.00	2	NO	$5,270
AZZA45		Conveyor Belting	48.00 x 50.00	3	NO	$2,565
AZZA46		Conveyor Belting	48.00 x 60.00	3	NO	$3,042

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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	$3,519
AZZA48		Conveyor Belting	48.00 x 80.00	3	NO	$3,996
AZZA49		Conveyor Belting	48.00 x 90.00	3	NO	$4,474
AZZA50		Conveyor Belting	48.00 x 100.00	3	NO	$4,951
AZZA51		Conveyor Belting	48.00 x 110.00	3	NO	$5,428
AZZA52		Conveyor Belting	48.00 x 120.00	3	NO	$5,905
AZZA53		Conveyor Belting	48.00 x 130.00	3	NO	$6,383
AZZA54		Conveyor Belting	48.00 x 140.00	3	NO	$6,860
AZZA55		Conveyor Belting	48.00 x 150.00	3	NO	$7,337
AZZA56		Conveyor Belting	60.00 x 50.00	4	NO	$3,848
AZZA57		Conveyor Belting	60.00 x 60.00	4	NO	$4,582
AZZA58		Conveyor Belting	60.00 x 70.00	4	NO	$5,316
AZZA59		Conveyor Belting	60.00 x 80.00	4	NO	$6,050
AZZA60		Conveyor Belting	60.00 x 90.00	4	NO	$6,784
AZZA61		Conveyor Belting	60.00 x 100.00	4	NO	$7,518
AZZA62		Conveyor Belting	60.00 x 110.00	4	NO	$8,252
AZZA63		Conveyor Belting	60.00 x 120.00	4	NO	$8,986
AZZA64		Conveyor Belting	60.00 x 130.00	4	NO	$9,719
AZZA65		Conveyor Belting	60.00 x 140.00	4	NO	$10,453
AZZA66		Conveyor Belting	60.00 x 150.00	4	NO	$11,187

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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.

	Condition Factors (CF):		**Average**	**Severe**
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
CF	***Product of the factors (I x II x III x IV x V)***		**0.897**	**0.275**
VI.	**Wheel Position Factors (WPF):**			
	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
VII.	**Grade Factor (GF)** (Drive Tires Only)		0.981	0.763
VIII.	**Miscellaneous Condition (MC)**		1.090	0.981

SECTION I. TIRE WEAR FACTORS (Continued)

Example: Final Tire Wear Factors for Wagon, Rear Dump
(See Appendix D, Category W15)

	Average	Severe
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	- MARATHON EQUIPMENT
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	- AMERICAN PILEDRIVING EQUIPMENT, INC.
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.
B1	- BLAST ONE
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	- VOLVO [BLAW KNOX]
BL	- BLASTRAC
BM	- BROCE MANUFACTURING COMPANY
BN	- BANDIT INDUSTRIES, INC.
BO	- 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

APPENDIX H
MANUFACTURER LIST

CODE	MANUFACTURER
C4	- CATERPILLAR LIFT TRUCKS,
C5	- CONSTRUCTION EQUIPMENT COMPANY
C6	- CANCADE
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

APPENDIX H
MANUFACTURER LIST

CODE	MANUFACTURER
CZ	- CLYDE IRON WORKS
DA	- ELCO INTERNATIONAL INC.
DC	- DURCO FILTERS
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	- BAUER-PILECO, INC.
DN	- DYNATECH
DO	- DOSCO CORPORATION
DP	- DOOSAN PORTABLE POWER
DR	- DRESSER MINING EQUIPMENT
DS	- DREDGING SUPPLY COMPANY (DSC)
DT	- SANDVIK [DRILLTECH]
DW	- DITCH WITCH (THE CHARLES MACHINE WORKS)
DX	- DYMAX
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.
EN	- EQUIPMENT NORTH

APPENDIX H
MANUFACTURER LIST

CODE	MANUFACTURER
EP	- ENVIRO-PAK
ES	- ESCO CORPORATION
ET	- E. D. ETNYRE & CO.
EU	- EUCLID INDUSTRIES, INC.
EV	- EVOQUA
EX	- EXCEL INDUSTRIES, INC.
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

APPENDIX H
MANUFACTURER LIST

CODE	MANUFACTURER
GJ	- GENIE INDUSTRIES
GL	- GARLOCK EQUIPMENT CO.
GM	- GENERAL MOTORS
GN	- GALION DUMP BODIES, INC.
GO	- GOMACO CORPORATION
GR	- GORMAN-RUPP COMPANY
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
HJ	- HOLMES
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

APPENDIX H
MANUFACTURER LIST

CODE	MANUFACTURER
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.
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 CO.
IS	- INSLEY DIVISION
IT	- NAVISTAR INTERNATIONAL CORPORATION
JC	- JCB INC.
JD	- JOHN DEERE
JE	- JCL EQUIPMENT CO.
JL	- JLG INDUSTRIES, INC.
JM	- JEFFREY MINING MACHINERY DIVISION
JO	- C. S. JOHNSON COMPANY
JP	- J-PYOTT
JR	- JRB COMPANY INC.
JS	- JOHNSTON SWEEPER COMPANY
JU	- ATI-BELL
KA	- KAWASAKI LOADERS, INC.
KB	- KOLBERG - PIONEER, INC

APPENDIX H
MANUFACTURER LIST

CODE	MANUFACTURER
KC	- KOBELCO AMERICA INC.
KD	- K-D MANITOU, INC.
KE	- KENWORTH TRUCK COMPANY
KF	- KNAPHEIDE MANUFACTURING CO.
KH	- KOHLER COMPANY
KI	- KLEIN PRODUCTS, INC.
KJ	- KPI-JCI
KK	- KEENE ENGINEERING INC.
KL	- KOLMAN / ATHEY DIV.
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	- LIEBHERR CONSTRUCTION EQUIPMENT CO.
LI	- LINK-BELT CONSTRUCTION EQUIPMENT COMPANY
LK	- LIFTKING INDUSTRIES, INC.
LL	- OMNIQUIP, LULL

APPENDIX H
MANUFACTURER LIST

CODE	MANUFACTURER
LN	- LONDON MACHINERY INC.
LO	- LORAIN CRANES DIVISION
LS	- LAYMOR SWEEPERS
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.
M4	- MITCHELL INDUSTRIAL TIRE COMPANY (MITCO)
M5	- MUNSON WORKBOATS
MA	- MANITOWOC ENGINEERING CO.
MB	- M-B COMPANIES, INC.
MC	- VME NORTH AMERICA
MD	- MDI/YUTANI
ME	- MELROE BOBCAT
MF	- MF INDUSTRIAL
MG	- McMASTER-CARR
MH	- MITSUBISHI FUSO TRUCK OF AMERICA
MI	- MITSUBISHI CONSTRUCTION EQUIP.
MJ	- MILLER CURBER
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.

APPENDIX H
MANUFACTURER LIST

CODE	MANUFACTURER
MR	- MOBILE DRILL
MS	- MUSTANG UNITS COMPANY
MT	- MACK TRUCKS, INC.
MU	- MULTIQUIP, INC.
MV	- MAYVILLE ENGINEERING CO., INC.
MW	- M-B-W, INC.
MX	- MANITEX
MY	- MIDLAND MANUFACTURING INC.
MZ	- MARINE INLAND FABRICATORS
NA	- NAGANO - LELY CORP.
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 PUMP
OK	- O & K ORENSTEIN & KOPPEL INC.
OL	- OLYMPYK CHAIN SAWS
ON	- ONAN CORPORATION
OX	- OX BODIES
PA	- PALFINGER INC.
PB	- PETTIBONE MICHIGAN LLC
PC	- GETMAN BROTHERS MFG. COMPANY
PE	- PETERBILT MOTORS COMPANY
PH	- P & H
PI	- PIQUA ENGINEERING

APPENDIX H
MANUFACTURER LIST

CODE	MANUFACTURER
PL	- PRO-LINE / ANVIL ATTACHMENTS
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.
PV	- PAVEMENT TECHNOLOGIES INETERNATIONAL
PW	- POWERSCREEN INTERNATIONAL DISTRIBUTN LTD
PZ	- PORT INDUSTRIES
RA	- METSO MINERALS
RC	- JOHNSON-ROSS (TEREX ROADBUILDING)
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
RX	- RAMMAX MACHINERY CO.
RZ	- ROCKLAND MANUFACTURING COMPANY
S1	- STANLEY HYDRAULIC TOOLS

APPENDIX H
MANUFACTURER LIST

CODE	MANUFACTURER
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.
S7	- STIHL
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.
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.

APPENDIX H
MANUFACTURER LIST

CODE	MANUFACTURER
SW	- SNORKEL
SX	- SELLICK 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 MANTIS
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
TL	- BREAKER TECHNOLOGY, INC. (AN ASTEC CO.)
TM	- TESMEC USA, INC.
TO	- TORO
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

APPENDIX H
MANUFACTURER LIST

CODE	MANUFACTURER
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 HAMMER
WA	- HAULPAK DIVISION
WB	- WEBER MASCHINENTECHNIK GMBH
WC	- WACKER CORPORATION
WD	- WALDON, INC.
WE	- WEATHERFORD U.S. INC.
WF	- WATSON INC.
WG	- ATLAS COPCO WAGNER
WH	- WIGGINS LIFT CO., INC.
WI	- WILLMAR EQUIPMENT COMPANY
WL	- WALKER MANUFACTURING CO., INC.
WN	- WAIN-ROY, INC.
WO	- WACO SCAFFOLDING & EQUIPMENT
WR	- WEILER
WS	- WHITEMAN CONSPRAY, INC.
WT	- WIRTGEN AMERICAN, INC.
WV	- WRT EQUIPMENT
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)

EFFECTIVE MONTHS	EFFECTIVE DATE	RATE
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%
JULY - DECEMBER	7/1/2014	2.000%
JANUARY - JUNE	1/1/2015	2.125%
JULY - DECEMBER	7/1/2015	2.375%
JANUARY - JUNE	1/1/2016	2.500%
JULY - DECEMBER	7/1/2016	1.875%

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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
C85.10	**CRANES, DRAGLINE AND CLAMSHELL, CRAWLER MOUNTED**
	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
C85.20	**CRANES, LIFTING, CRAWLER MOUNTED**
	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
C90.01	**TRUCK CRANES - LESS THAN 25 TONS**

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
C90.02	**TRUCK CRANE - 25 TONS AND LARGER**
C90.03	Power load lowering
C90.04	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
G15	**GRADER**
	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
H25	**EXCAVATORS, HYDRAULIC**
H30	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
H35	**HYDRAULIC SHOVELS - CRAWLER MOUNTED** Torque converter (machines 1 1/2 cy or larger) Counterweight Reverse signal (backup) alarm ROPS Fire extinguisher 5-B:C
L30	**LOADERS, BELT (CONVEYOR BELTS)** Power unit Head pulley clutch and backstop Belt cleaner and belt installing equipment King pin attachments
L35 **L40**	**LOADERS, 1 1/2 cy AND LARGER** Blower fan Guard, power train Automatic bucket positioner Standard counterweight Machines less than 7 cy: General purpose or excavating bucket with bolt on cutting edge and no teeth Machines 7 cy or larger: Rock bucket with bolt on cutting edge and teeth Standard work lights Reverse signal (backup) alarm ROPS Fire extinguisher 5-B:C
S10 **S15** **S20**	**SCRAPERS** Control single lever Blower fan Standard work light Guards, power train Reverse signal (backup) alarm

CAT SUB	DESCRIPTION
	ROPS
	Fire extinguisher 5-B:C
	Supplemental steering
T15	**TRACTOR, CRAWLER**
	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
T20	**TRACTOR, WHEEL**
	Hydraulic controls for ripper and blade
	Guards
	Blower fan
	Standard work lights
	Blade
	Fire extinguisher 5-B:C
	Counterweights when required
T25	**TRACTOR, AGRICULTURAL**
	Independent power take-off (PTO)
	Standard work lights
	Fire extinguisher 5-B:C
	Counterweights when required 3-point hitch
	ROPS
	Hydraulic system with controls
T55	**TRUCKS, OFF-HIGHWAY**
	No spin differential
	Tachograph
	Engine and transmission guards
	Body liners

APPENDIX K

Ground Engaging Component Costs Included in Repairs (RCF)

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV		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
B15	0.00	BROOMS, STREET SWEEPERS & FLUSHERS	95	A	B	8,000	0.10		☐		☐	☐	☑	0.80
B25	0.00	BUCKETS, CLAMSHELL	15	A	B	8,000	0.10		☐		☑	☐	☐	0.70
B25	0.00	BUCKETS, CLAMSHELL	15	S	B	6,500	0.10		☐		☑	☐	☐	0.80
B35	0.00	BUCKETS, DRAGL NE	1						☐		☑	☐	☐	
B35	0.10	LIGHT WEIGHT	15	A	B	8,000	0.10		☐		☑	☐	☐	0.70
B35	0.10	LIGHT WEIGHT	15	S	B	6,500	0.10		☐		☑	☐	☐	0.80
B35	0.20	MEDIUM WEIGHT	15	A	B	9,000	0.10		☐		☑	☐	☐	0.70
B35	0.20	MEDIUM WEIGHT	15	S	B	7,000	0.10		☐		☑	☐	☐	0.80
B35	0.30	HEAVY WEIGHT	15	A	B	10,000	0.10		☐		☑	☐	☐	0.70
B35	0.30	HEAVY WEIGHT	15	S	B	8,000	0.10		☐		☑	☐	☐	0.80
G15	0.00	GRADERS, MOTOR	35	A	B	14,500	0.25		☑		☐	☑	☐	0.75
G15	0.00	GRADERS, MOTOR	35	S	B	13,500	0.25		☑		☐	☑	☐	0.85
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		☐		☑	☐	☐	0.70
H25	0.10	0 LBS THRU 12,500 LBS (COMPACT EXCAVATORS)	65	S	B	7,000	0.25		☐		☑	☐	☐	0.80
H25	0.11	OVER 12,500 LBS THRU 40,000 LBS	65	A	B	8,500	0.25		☐		☑	☐	☐	0.70
H25	0.11	OVER 12,500 LBS THRU 40,000 LBS	65	S	B	7,000	0.25		☐		☑	☐	☐	0.85
H25	0.12	OVER 40,000 LBS THRU 100,000 LBS	65	A	B	12,000	0.25		☐		☑	☐	☐	0.80

EK=Economic Key (Appendix E) **C=Operating Conditions (A=average, S=severe)** **DC=Discount Code (B=basic 7.5%, S=special 15%)**
LIFE=Economic Life **SLV=Salvage Value** **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	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV		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
H25	0.12	OVER 40,000 LBS THRU 100,000 LBS	65	S	B	10,000	0.25		☐		☑	☐	☐	0.95
H25	0.13	OVER 100,000 LBS THRU 160,000 LBS	65	A	B	16,000	0.25		☐		☑	☐	☐	1.00
H25	0.13	OVER 100,000 LBS THRU 160,000 LBS	65	S	B	13,500	0.25		☐		☑	☐	☐	1.10
H25	0.14	OVER 160,000 LBS	65	A	B	19,000	0.25		☐		☑	☐	☐	1.10
H25	0.14	OVER 160,000 LBS	65	S	B	15,000	0.25		☐		☑	☐	☐	1.25
H30	0.00	HYDRAULIC EXCAVATORS, WHEEL MOUNTED	1						☐		☑	☐	☐	
H30	0.01	0 THRU 1.0 CY	65	A	B	8,000	0.25		☐		☑	☐	☐	0.50
H30	0.01	0 THRU 1.0 CY	65	S	B	6,500	0.25		☐		☑	☐	☐	0.55
H30	0.02	OVER 1 0 CY	65	A	B	10,000	0.25		☐		☑	☐	☐	0.60
H30	0.02	OVER 1 0 CY	65	S	B	8,000	0.25		☐		☑	☐	☐	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		☐		☑	☐	☐	1.00
H35	0.11	DIESEL, 0 CY THRU 5 0 CY	65	S	B	12,000	0.20		☐		☑	☐	☐	1.10
H35	0.12	DIESEL, OVER 5 0 CY	65	A	B	16,000	0.20		☐		☑	☐	☐	1.20
H35	0.12	DIESEL, OVER 5 0 CY	65	S	B	14,000	0.20		☐		☑	☐	☐	1.30
H35	0.21	ELECTRIC, OVER 2 5 CY	65	A	B	18,000	0.20		☐		☑	☐	☐	0.80
H35	0.21	ELECTRIC, OVER 2 5 CY	65	S	B	16,000	0.20		☐		☑	☐	☐	0.90
L35	0.00	LOADERS, FRONT END, CRAWLER TYPE	40	A	B	10,000	0.20		☐		☑	☐	☐	1.10

EK=Economic Key (Appendix E) **C=Operating Conditions (A=average, S=severe)** **DC=Discount Code (B=basic 7.5%, S=special 15%)**
LIFE=Economic Life **SLV=Salvage Value** **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	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV		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
L35	0.00	LOADERS, FRONT END, CRAWLER TYPE	40	S	B	8,000	0.20		☐		☑	☐	☐	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		☐		☑	☐	☐	0.70
L40	0.11	ARTICULATED, 0 THRU 225 HP	45	S	B	8,750	0.25		☐		☑	☐	☐	0.80
L40	0.12	ARTICULATED, OVER 225 HP	45	A	B	13,500	0.20		☐		☑	☐	☐	0.70
L40	0.12	ARTICULATED, OVER 225 HP	45	S	B	12,000	0.20		☐		☑	☐	☐	0.75
L40	0.20	SK D STEER	45	A	B	8,000	0.20		☐		☑	☐	☐	0.80
L40	0.31	TOOL CARR ER & TELESCOPIC HANDLERS, 0 THRU 225 HP	45	A	B	10,000	0.25		☐		☐	☐	☑	0.85
L40	0.31	TOOL CARR ER & TELESCOPIC HANDLERS, 0 THRU 225 HP	45	S	B	9,250	0.25		☐		☐	☐	☑	0.90
L40	0.32	TOOL CARR ER & TELESCOPIC HANDLERS, OVER 225 HP	45	A	B	12,000	0.15		☐		☐	☐	☑	0.85
L40	0.32	TOOL CARR ER & TELESCOPIC HANDLERS, OVER 225 HP	45	S	B	10,000	0.15		☐		☐	☐	☑	0.90
L45	0.00	LOADERS / BACKHOE, CRAWLER TYPE	40	A	B	8,000	0.20		☐		☑	☐	☐	1.35
L45	0.00	LOADERS / BACKHOE, CRAWLER TYPE	40	S	B	6,000	0.20		☐		☑	☐	☐	1.40
L50	0.00	LOADERS / BACKHOE, WHEEL TYPE	45	A	B	10,000	0.25		☐		☑	☐	☐	0.80
L50	0.00	LOADERS / BACKHOE, WHEEL TYPE	45	S	B	6,000	0.25		☐		☑	☐	☐	0.85
L60	0.00	LOG SK DDERS	75	A	B	10,000	0.15		☑		☐	☐	☑	0.70
L60	0.00	LOG SK DDERS	75	S	B	8,000	0.15		☑		☐	☐	☑	0.80
P35	0.00	PIPELAYERS	70	A	B	14,000	0.20		☐		☐	☐	☑	0.95

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APPENDIX K

Ground Engaging Component Costs Included in Repairs (RCF)

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV		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
P35	0.00	PIPELAYERS	70	S	B	11,500	0.20		☐		☐	☐	☑	1.10
R30	0.00	ROLLERS, STATIC, SELF-PROPELLED	1						☐		☐	☐	☑	
R30	0.03	TAMPING FOOT, LANDFILL & SOIL COMPACTORS	55	A	B	12,000	0.20		☐		☐	☐	☑	0.80
S10	0.00	SCRAPERS, ELEVAT NG	1						☐		☐	☐	☑	
S10	0.01	0 THRU 200 HP	60	A	B	10,000	0.20		☐		☐	☐	☑	0.90
S10	0.01	0 THRU 200 HP	60	S	B	8,000	0.20		☐		☐	☐	☑	1.00
S10	0.02	OVER 200 HP	60	A	B	13,000	0.25		☐		☐	☐	☑	0.95
S10	0.02	OVER 200 HP	60	S	B	11,500	0.25		☐		☐	☐	☑	1.00
S15	0.00	SCRAPERS, CONVENTIONAL	60	A	B	15,000	0.20		☐		☐	☐	☑	0.80
S15	0.00	SCRAPERS, CONVENTIONAL	60	S	B	12,500	0.20		☐		☐	☐	☑	0.85
S20	0.00	SCRAPERS, TANDEM POWERED	60	A	B	15,000	0.20		☐		☐	☐	☑	0.85
S20	0.00	SCRAPERS, TANDEM POWERED	60	S	B	13,500	0.20		☐		☐	☐	☑	0.90
S25	0.00	SCRAPERS, TRACTOR DRAWN	60	A	B	12,000	0.20		☐		☐	☐	☑	0.70
S25	0.00	SCRAPERS, TRACTOR DRAWN	60	S	B	10,000	0.20		☐		☐	☐	☑	0.75
T15	0.00	TRACTORS, CRAWLER (DOZER) (includes blade)	1						☑		☐	☐	☐	
T15	0.01	0 THRU 225 HP	70	A	B	10,000	0.30		☑		☐	☐	☐	1.10
T15	0.01	0 THRU 225 HP	70	S	B	8,000	0.30		☑		☐	☐	☐	1.25
T15	0.02	226 HP THRU 425 HP	70	A	B	12,500	0.25		☑		☐	☐	☐	1.20

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APPENDIX K

Ground Engaging Component Costs Included in Repairs (RCF)

CATEGORY	SUB	DESCRIPTION	EK	C	DC	LIFE	SLV		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
T15	0.02	226 HP THRU 425 HP	70	S	B	10,500	0.25		☑		☐	☐	☐	1.25
T15	0.03	OVER 425 HP	70	A	B	15,000	0.20		☑		☐	☐	☐	1.20
T15	0.03	OVER 425 HP	70	S	B	12,500	0.20		☑		☐	☐	☐	1.35
T20	0.00	TRACTORS, WHEEL TYPE (DOZER)	75	A	B	14,000	0.15		☑		☐	☐	☐	0.60
T20	0.00	TRACTORS, WHEEL TYPE (DOZER)	75	S	B	13,000	0.15		☑		☐	☐	☐	0.65

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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 X 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)

	1.75		2.00		2.50		
			Hole Diameter (inches)				
Granite	1,506	-	2,037	1,149	-	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

Bit Cost ($/foot)

	1.75			2.00			2.50		
				Hole Diameter (inches)					
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 Life (feet/rod)

	1.75		2.00		2.50		
			Hole Diameter (inches)				
Granite	2,720	-	3,680	2,017	-	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

Drill Steel Cost ($/foot per rod)

	1.75			2.00			2.50		
				Hole Diameter (inches)					
Granite	$0.103	-	$0.078	$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.)

Penetration Rate (feet/hour)

	1.75		2.00		2.50		
			Hole Diameter (inches)				
Granite	98	-	132	82	-	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

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)

	2.50			3.00			4.00	
			Hole Diameter (inches)					
Granite	1,203	-	1,628	1,116	-	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

Bit Cost ($/foot)

	2.50			3.00			4.00	
			Hole Diameter (inches)					
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 Life (feet/rod)

	2.50			3.00			4.00	
			Hole Diameter (inches)					
Granite	2,173	-	2,940	2,004	-	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

Drill Steel Cost ($/foot per rod)

	2.50			3.00			4.00	
			Hole Diameter (inches)					
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 on12 foot drilling rod length.)

Penetration Rate (feet/hour)

	2.50			3.00			4.00	
			Hole Diameter (inches)					
Granite	87	-	117	68	-	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

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)

	2.50			3.50			4.50	
			Hole Diameter (inches)					
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

Bit Cost ($/foot)

	2.50			3.50			4.50	
			Hole Diameter (inches)					
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 Life (feet/rod)

	2.50			3.50			4.50	
			Hole Diameter (inches)					
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

Drill Steel Cost ($/foot per rod)

	2.50			3.50			4.50	
			Hole Diameter (inches)					
Granite	$0.154	-	$0.114	$0.263	-	$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.)

Penetration Rate (feet/hour)

	2.50			3.50			4.50	
			Hole Diameter (inches)					
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

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)

	4.00			4.50			5.00		
				Hole Diameter (inches)					
Granite	2,305	-	3,118	2,099	-	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

Bit Cost ($/foot)

	4.00			4.50			5.00		
				Hole Diameter (inches)					
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 Life (feet/rod)

	4.00			4.50			5.00		
				Hole Diameter (inches)					
Granite	4,163	-	5,632	4,068	-	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

Drill Steel Cost ($/foot per rod)

	4.00			4.50			5.00		
				Hole Diameter (inches)					
Granite	$0 098	-	$0 072	$0.112	-	$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.)

Penetration Rate (feet/hour)

	4.00			4.50			5.00		
				Hole Diameter (inches)					
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

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)

	3.50			5.00			6.50	
				Hole Diameter (inches)				
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

Bit Cost ($/foot)

	3.50			5.00			6.50	
				Hole Diameter (inches)				
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 Life (feet/rod)

	3.50			5.00			6.50	
				Hole Diameter (inches)				
Granite	28,996	-	39,229	26,150	-	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

Drill Steel Cost ($/foot per rod)

	3.50			5.00			6.50	
				Hole Diameter (inches)				
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.)

Penetration Rate (feet/hour)

	3.50			5.00			6.50	
				Hole Diameter (inches)				
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

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 -DTH**

Bit Life (feet/bit)

	5.50			6.00			6.50		
				Hole Diameter (inches)					
Granite	1,946	-	2,633	1,899	-	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

Bit Cost ($/foot)

	5.50			6.00			6.50		
				Hole Diameter (inches)					
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 Life (feet/rod)

	5.50			6.00			6.50		
				Hole Diameter (inches)					
Granite	26,110	-	35,326	25,662	-	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

Drill Steel Cost ($/foot per rod)

	5.50			6.00			6.50		
				Hole Diameter (inches)					
Granite	$0.020	-	$0.015	$0.017	-	$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.)

Penetration Rate (feet/hour)

	5.50			6.00			6.50		
				Hole Diameter (inches)					
Granite	81	-	110	72	-	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

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 -DTH**

Bit Life (feet/bit)

	5.00			6.50			8.00		
				Hole Diameter (inches)					
Granite	2,580	-	3,490	2,692	-	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

Bit Cost ($/foot)

	5.00			6.50			8.00		
				Hole Diameter (inches)					
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 Life (feet/rod)

	5.00			6.50			8.00		
				Hole Diameter (inches)					
Granite	28,482	-	38,534	30,425	-	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

Drill Steel Cost ($/foot per rod)

	5.00			6.50			8.00		
				Hole Diameter (inches)					
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.)

Penetration Rate (feet/hour)

	5.00			6.50			8.00		
				Hole Diameter (inches)					
Granite	109	-	148	90	-	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

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)

	8.88			10.00			11.875		
Granite	1,779	-	2,407	1,770	-	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
Conglomer	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

Hole Diameter (inches)

Bit Cost ($/foot)

	8.88			10.00			11.875		
Granite	$0.78	-	$0.58	$1.01	-	$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
Conglomer	$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

Hole Diameter (inches)

Drill Steel Life (feet/rod)

	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
Conglomer	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

Hole Diameter (inches)

Drill Steel Cost ($/foot per rod)

	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
Conglomer	$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

Hole Diameter (inches)

(Based on 12 foot drilling rod length.)

Penetration Rate (feet/hour)

	8.88			10.00			11.875		
Granite	69	-	93	68	-	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
Conglomer	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

Hole Diameter (inches)

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)

	3.88			5.00			6.25		
Granite	3,585	-	4,851	3,650	-	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
Conglomer	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

Hole Diameter (inches)

Bit Cost ($/foot)

	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
Conglomer	$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

Hole Diameter (inches)

Drill Steel Life (feet/rod)

	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
Conglomer	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

Hole Diameter (inches)

Drill Steel Cost ($/foot per rod)

	3.88			5.00			6.25		
Granite	$0.012	-	$0.009	$0 022	-	$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
Conglomer	$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

Hole Diameter (inches)

(Based on 12 foot drilling rod length.)

Penetration Rate (feet/hour)

	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
Conglomer	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

Hole Diameter (inches)

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)

	5.50			6.00			6.75		
Granite	3,347	-	4,528	Hole Diameter (inches)		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

Bit Cost ($/foot)

	5.50			6.00			6.75		
Granite	$0.59	-	$0.44	Hole Diameter (inches)		$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 Life (feet/rod)

	5.50			6.00			6.75		
Granite	41,556	-	56,222	Hole Diameter (inches)		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

Drill Steel Cost ($/foot per rod)

	5.50			6.00			6.75		
Granite	$0.045	-	$0.033	Hole Diameter (inches)		$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.)

Penetration Rate (feet/hour)

	5.50			6.00			6.75		
Granite	32	-	43	Hole Diameter (inches)		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

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)

	5.00			6.75			7.875		
				Hole Diameter (inches)					
Granite	3,619	-	4,897	3,658	-	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
Conglomer	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

Bit Cost ($/foot)

	5.00			6.75			7.875		
				Hole Diameter (inches)					
Granite	$0.45	-	$0.33	$0.59	-	$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
Conglomer	$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 Life (feet/rod)

	5.00			6.75			7.875		
				Hole Diameter (inches)					
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
Conglomer	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

Drill Steel Cost ($/foot per rod)

	5.00			6.75			7.875		
				Hole Diameter (inches)					
Granite	$0.035	-	$0.026	$0.046	-	$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
Conglomer	$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.)

Penetration Rate (feet/hour)

	5.00			6.75			7.875		
				Hole Diameter (inches)					
Granite	50	-	68	37	-	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
Conglomer	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

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)

	9.00			9.875			11.00		
				Hole Diameter (inches)					
Granite	3,312	-	4,481	3,696	-	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

Bit Cost ($/foot)

	9.00			9.875			11.00		
				Hole Diameter (inches)					
Granite	$1 08	-	$0 80	$1.09	-	$1.79	$1.09	-	$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 Life (feet/rod)

	9.00			9.875			11.00		
				Hole Diameter (inches)					
Granite	41,124	-	55,639	40,482	-	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

Drill Steel Cost ($/foot per rod)

	9.00			9.875			11.00		
				Hole Diameter (inches)					
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.)

Penetration Rate (feet/hour)

	9.00			9.875			11.00		
				Hole Diameter (inches)					
Granite	21	-	29	16	-	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

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)

	12.25			15.00			16.00	
				Hole Diameter (inches)				
Granite	3379.984	-	4572.916	3219.672	-	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

Bit Cost ($/foot)

	12.25			15.00			16.00	
				Hole Diameter (inches)				
Granite	$1 95	-	$1.64	$2.38	-	$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 Life (feet/rod)

	12.25			15.00			16.00	
				Hole Diameter (inches)				
Granite	41969.55	-	56782.83	39800.62	-	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

Drill Steel Cost ($/foot per rod)

	12.25			15.00			16.00	
				Hole Diameter (inches)				
Granite	$0 078	-	$0 058	$0 083	-	$0 062	$0.061	$0.083 - $0 062
Basalt	$0.133	-	$0 098	$0.140	-	$0.105	$0.104	$0.142 - $0.105
Gabbro	$0.121	-	$0 089	$0.127	-	$0.095	$0.094	$0.129 - $0 095
Shale	$0 075	-	$0 055	$0.079	-	$0.059	$0.058	$0.080 - $0 059
Sandstone	$0 072	-	$0 054	$0.076	-	$0.057	$0.056	$0.077 - $0 057
Siltstone	$0 073	-	$0 054	$0.076	-	$0.057	$0.056	$0.078 - $0 057
Conglomer	$0 065	-	$0 048	$0.068	-	$0.051	$0.050	$0.069 - $0 051
Breccia	$0 049	-	$0 037	$0.052	-	$0.039	$0.038	$0.053 - $0 039
Limestone	$0 058	-	$0 043	$0.061	-	$0.046	$0.045	$0.062 - $0 046
Schist	$0 049	-	$0 036	$0.051	-	$0.038	$0.038	$0.052 - $0 038
Slate	$0 069	-	$0 051	$0.073	-	$0.054	$0.054	$0.074 - $0 055
Gneiss	$0 075	-	$0 055	$0.079	-	$0.059	$0.058	$0.080 - $0 059

(Based on 12 foot drilling rod length.)

Penetration Rate (feet/hour)

	12.25			15.00			16.00	
				Hole Diameter (inches)				
Granite	19 00236	-	25.70987	12.66489	-	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

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

Bit Cost ($/foot)

	Hole Diameter (inches)								
	5.00			6.750			7.875		
Granite	$0.46	-	$0.34	$0.65	-	$1.44	$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 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

Drill Steel Cost ($/foot per rod)

	Hole Diameter (inches)								
	5.00			6.750			7.875		
Granite	$0.036	-	$0.027	$0.046	-	$0.079	$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

(Based on 12 foot drilling rod length.)

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

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.

BIT AND DRILL STEEL PRICE DATABASE

Effective date - 8/2006

Drill Bits

Bit Type	Bit Size	Bit Price
Button - drop center		
	1-3/4"	$62
	2"	$69
	2-1.2"	$98
	3"	$131
	3-1.2"	$159
	4"	$223
	4-1.2"	$268
	5"	$321
DTH - concave face		
	3-1/2	$410
	5"	$550
	5-1/2"	$575
	6"	$630
	6-1/2"	$640
	8"	$1,230
	8-7/8"	$1,385
	10"	$1,900
	11-/7/8	$4,500
TRICONE - carbide insert		
	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

Drill Rod

Rod Type	Rod Size	Rod Price
Percussion rod - 12 ft		
R32		$280
T38		$324
T45		$407
T51		$568
DTH rod - 9'10"		
	3.0 76mm	$384
	3.5 89mm	$431
	4.0 102mm	$491
	4.5 114mm	$592
	5.5 140mm	$815
Rotary rod - 25' to 30'		
4" x 25'		$3,300
5" x 25'		$3,900
7" x 30'		$6,900
8-5/8" x 30'		$6,800
10-3/4" x 27.5		$7,500

All unit prices are manufacturer list prices. Discounts or premiums may apply depending upon market conditions.

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)

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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 he most efficient and reliable drills available anywhere.

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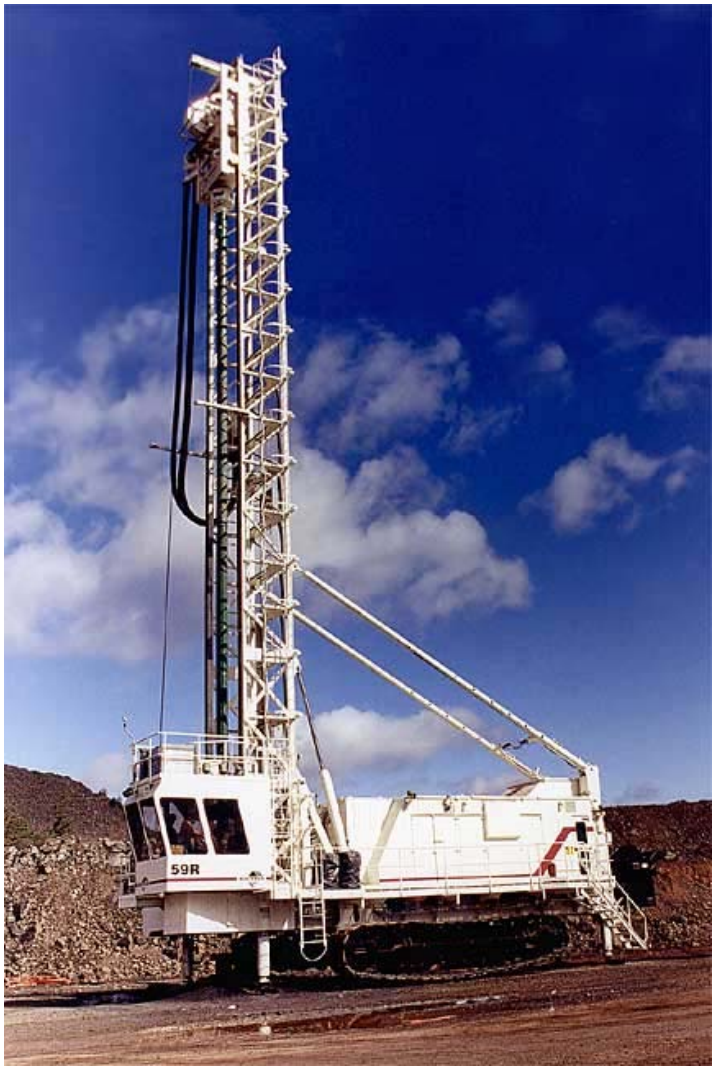
59R

Infrastructure - Drilling Solutions

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
351

The DM45/LP is a hydraulic rotary head drive, multi-pass, crawler-mounted drill rig wi h 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.

[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

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Length	15.3 ft. / 4.66 m
Carousel	
Capacity	Capable of 180 ft.
Options	
Option #1	Contact your local IR distributor for a complete list of options.
Weight & Dimensions	
Height (Tower Up)	43 ft. / 13.11 m
Approx. Working Weight	77,000 - 85,000 lbs. / 34,900 - 38,600 kg.
Material To Be Drilled	
Soft	Yes
Drill Application	
Mining	Yes
Quarry	Yes
Drilling Method	
Rotary	Yes

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Rotary - DM30

Select Model:

T4BH
DM25/SP
DM30
DM45/LP
DM50/LP
DM-L/LP
DM45/SP
DM-LSP
DM-M2
DM-M3
DM-H2
351

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 dep h 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.

[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.

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Undercarriage	
Manufacturer	Caterpillar
Options	
Option #1	Contact your local IR distributor for a complete list of options.
Weight & Dimensions	
Height (Tower Up)	44.3 ft. / 13.4 m
Approx. Working Weight	68,000 lbs. / 30,844 kg.
Material To Be Drilled	
Hard	Yes
Medium	Yes
Soft	Yes
Drill Application	
Mining	Yes
Quarry	Yes
Drilling Method	
Rotary	Yes
DHD	Yes

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Rotary - DM25/SP

Select Model:

T4BH
DM25/SP
DM30
DM45/LP
DM50/LP
DM-L/LP
DM45/SP
DM-LSP
DM-M2
DM-M3
DM-H2
351

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 op ion.

[SPECS] | [FEATURES] | [LITERATURE]

Nominal Hole Diameter	
Diameter	5-6 in.
Power Pack	
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
Rotation	
Type	Rotary Table Drive
Speed	0-170 rpm
Torque	3,500 / (4,746 N-m)
Feed System	
Type	Heavy-duty chains through cluster sprocket
Pulldown	25,000 lbs. / 11,340 kg.
Tower	
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.
Undercarriage	

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Type	Excavator
Options	
Option #1	Contact your local IR distributor for a complete list of options.
Weight & Dimensions	
Weight	Varies according to drill pipe: 60,000 - 62,000 lb / 27,216-28,123 kg
Material To Be Drilled	
Hard	Yes
Medium	Yes
Soft	Yes
Drill Application	
Quarry	Yes
Drilling Method	
Rotary	Yes
DHD	Yes

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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
- 351

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 m3/min. @ 758 kPa)] for rotary drilling and high pressure [1250 CFM @ 350 PSI (35.4 m3/min. @ 2,413 kPa)], for downhole drilling, are available.

[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 m3/min@kPA
Engine #2	Cummins QSK19 / EPA certified
Compressor #2	1900 @ 100 CFM @ PSI / 53.8 @ 690 m3/min@kPA
Engine #3	Caterpillar 3412E / EPA certified
Compressor #3	1250 @ 350 CFM @ PSI / 35.4 @ 2413 m3/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

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Options	
Option #1	Contact your local IR distributor for a complete list of options.
Weight & Dimensions	
Height (Tower Up)	56.2 ft. / 17.1 m
Approx. Working Weight	120,000 - 133,500 lbs. / 54,400 - 60,555 kg.
Material To Be Drilled	
Medium	Yes
Soft	Yes
Drill Application	
Mining	Yes
Drilling Method	
Rotary	Yes
DHD	Yes

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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
351

The T4BH is a truck-mounted, hydraulic tophead drive mul ipass rotary drill specificaly designed for production blas hole drilling to dep hs 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 op ion is available. All drill functions are controlled from the newly designed operator cab.

[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.

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Tower	
Pipe Length	25 ft. / 7.6 m.
Construction	4 member open front with ASTM A500 GRB steel tubing.
Cab & Controls	
Operator Cab	New cab designed to optimize operator comfort and safety
Controls	All operational functions controlled from driller console in cab
Options	
Option #1	Contact your local distributor for a complete list of options.
Weight & Dimensions	
Height (Tower Up)	28-3/4 ft. / 8.7 m
Approx. Working Weight	58,000 lbs. / 26,309 kg.
Material To Be Drilled	
Hard	Yes
Medium	Yes
Soft	Yes
Drill Application	
Mining	Yes
Quarry	Yes
Drilling Method	
Rotary	Yes

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DHD - DM-M2

Select Model:

- CM695D
- DM25/SP
- DM30
- DM45/HP
- DM45/SP
- DM-L/HP
- 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 m3/min. @ 758 kPa)] for rotary drilling and high pressure [1250 CFM @ 350 PSI (35.4 m3/min. @ 2,413 kPa)], for downhole drilling, are available.

[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 m3/min@kPA
Engine #2	Cummins QSK19 / EPA certified
Compressor #2	1900 @ 100 CFM @ PSI / 53.8 @ 690 m3/min@kPA
Engine #3	Caterpillar 3412E / EPA certified
Compressor #3	1250 @ 350 CFM @ PSI / 35.4 @ 2413 m3/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

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Options	
Option #1	Contact your local IR distributor for a complete list of options.
Weight & Dimensions	
Height (Tower Up)	56.2 ft. / 17.1 m
Approx. Working Weight	120,000 - 133,500 lbs. / 54,400 - 60,555 kg.
Material To Be Drilled	
Medium	Yes
Soft	Yes
Drill Application	
Mining	Yes
Drilling Method	
Rotary	Yes
DHD	Yes

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DHD - DM30

Select Model:

CM695D
DM25/SP
DM30
DM45/HP
DM45/SP
DM-L/HP
DM-M2

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 dep h 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.

[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.

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Undercarriage	
Manufacturer	Caterpillar
Options	
Option #1	Contact your local IR distributor for a complete list of options.
Weight & Dimensions	
Height (Tower Up)	44.3 ft. / 13.4 m
Approx. Working Weight	68,000 lbs. / 30,844 kg.
Material To Be Drilled	
Hard	Yes
Medium	Yes
Soft	Yes
Drill Application	
Mining	Yes
Quarry	Yes
Drilling Method	
Rotary	Yes
DHD	Yes

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DHD - DM25/SP

Select Model:

- CM695D
- DM25/SP
- DM30
- DM45/HP
- DM45/SP
- DM-L/HP
- DM-M2

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 op ion.

[SPECS] | [FEATURES] | [LITERATURE]

Nominal Hole Diameter	
Diameter	5-6 in.
Power Pack	
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
Rotation	
Type	Rotary Table Drive
Speed	0-170 rpm
Torque	3,500 / (4,746 N-m)
Feed System	
Type	Heavy-duty chains through cluster sprocket
Pulldown	25,000 lbs. / 11,340 kg.
Tower	
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.
Undercarriage	

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Type	Excavator
Options	
Option #1	Contact your local IR distributor for a complete list of options.
Weight & Dimensions	
Weight	Varies according to drill pipe: 60,000 - 62,000 lb / 27,216-28,123 kg
Material To Be Drilled	
Hard	Yes
Medium	Yes
Soft	Yes
Drill Application	
Quarry	Yes
Drilling Method	
Rotary	Yes
DHD	Yes

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DHD - DM45/SP

Select Model:

CM695D
DM25/SP
DM30
DM45/HP
DM45/SP
DM-L/HP
DM-M2

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 op ional angle drilling system is available.

[SPECS] | [FEATURES] | [LITERATURE]

Nominal Hole Diameter	
Diameter	5-7 in.
Power Pack	
Engine #1	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
Rotation	
Type	Rotary table w/kelly drive
Speed	0-200 rpm
Torque	4,000 ft-lb / (5,424 N-m)
Feed System	
Type	Chain and cable
Pulldown	25,000 lbs. / 11,340 kg.
Tower	
Type	Single Pass
Pipe Length	50 ft. / 15.2 m.
	4 member open front with rectangular steel

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Construction	tubing
Undercarriage	
Type	Excavator-type
Options	
Option #1	Contact your local IR distributor for a complete list of options.
Weight & Dimensions	
Height (Tower Up)	76-1/2 ft. / 23.3 m
Approx. Working Weight	75,000 - 78,000 lbs. / 34,020 - 35,400 kg.
Material To Be Drilled	
Hard	Yes
Medium	Yes
Drill Application	
Mining	Yes
Quarry	Yes
Drilling Method	
DHD	Yes

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Pneumatic Crawler - ECM350

Select Model:

- LM100A
- CM348
- ECM350

This agile, powerfull drill climbs steep grades over roughest ground, and takes the punishment. You have seen thousands of hem on construction jobs of all kinds around he 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 perfomance in its ime. 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.

[SPECS] | [FEATURES] | [LITERATURE]

Nominal Hole Diameter	
Diameter	2-1/2 - 5-1/2 in.
Drifter	
Drifter #1	VL140
Hole Diameter #1	2.5-4 " / 64-102 mm
Rotation Speed #1	0 - 72 rpm
Frequency #1	2100 BPM
Air Consumption #1	750 SCFM @ 100 PSI / 21.2 m3/min @ 7 kg/cm2
Stroke #1	5-1/2 in. / 140 mm.
Bore #1	5-1/2 in. / 140 mm.
Weight #1	421 lb. / 191 kg.
Guide	
Guide Dump #1	180 °
Guide Swing (L/R)	50 deg / 35 deg
Boom	
Boom Swing (L/R) #1	40 ° / 35 °
Boom Lift (Up/Down) #1	45 ° / 15 °
Air Rotary Head	
Weight	554 lb. / 252 kg.
Torque Max.	1492 Nm @ 8.4 kg/cm? / (1100 lb-ft @ 120 PSI)
Rotation	0 - 72
Air Consumption	120 CFM @ 50 RPM & 90 PSI / 3.4 m3/min @ 50 RPM & 6.3 kg/cm2
Gear Ratio	33:1
Horse Power	2.23 kw @ 6.3 kg/cm? (3.0 hp @ 90 psig) / 3.13 kw @ 8.4 kg/cm? (4.2 hp @ 120 psig)
General	
Feed/Pullback Force	3,000 lb / 1,361 kg

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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?/min / (180 SCFM)
Air Consumption @ 17.6 kg/cm? (250 PSIG) #1	9.9 m?/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?/min / (280 SCFM)
Air Consumption @ 17.6 kg/cm? (250 PSIG) #2	14.7 m?/min / (520 SCFM)
Crawlair 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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Hydraulic Crawler - ECM-720

Select Model:

ECM470
ECM580
ECM590
ECM660II
ECM-720

They said it couldn't be done... hey were wrong. The new ECM-720 crawler drill delivers a perfect balance of productivity and cost efficiency. Hole straightness, faster penetra ion rates, long accessory life, and increased profitability are just a few of he results you can expect with the ECM-720.

[SPECS] | [FEATURES] | [LITERATURE]

Nominal Hole Diameter	
Diameter	4-1/2 - 5-1/2 in.
Drifter	
Type	Montabert HC-200A
Boom & Guide	
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
Engine	
Type	CAT 3176 C-10
Rated Power	365 HP / 272 kW
Operating Speed	1,800 rpm
Compressor	
Type	Ingersoll-Rand Rotary Screw
Volume	480 CFM / 13.6 m3/min
Pressure	150 PSI / 10.3 BAR
Cab & Controls	
Operator Cab	ROPS/FOPS
Noise level	80 dBA
General	
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.
Shipping Information	
Weight	45,900 lb / 20,820 kg

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Width	8 ft 3 in / 2.5 m
Length	35 ft 8 in / 10.9 m
Height	10 ft 8 in / 3.3 m
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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Hydraulic Crawler - ECM590

Select Model:

ECM470
ECM580
ECM590
ECM660II
ECM-720

The ECM-590 is a self-contained, cabless hydraulic crawler drill capable of drilling up to 4 in. (102 mm) holes. It is available in either a YH70 drifter and rod rack configura ion 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.

[SPECS] | [FEATURES] | [LITERATURE]

Nominal Hole Diameter	
Diameter	2-1/2 - 4-1/2 in.
Drifter	
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?
Boom & Guide	
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
Engine	
Type	Cummins 6CT8.3
Rated Power	215 HP / 159 kW
Operating Speed	2350 rpm

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IR Rotary Screw Compressor	
Compressor pressure(max)	140 psig / 9.8 kg/cm2
Compressor volume	250 cfm / 7 m?/min
General	
Gradeability	35 °
Tramming Speed	2 mph / 3.3 km/hr
Grouser Width	12 in. / 305 mm.
Steel length	starter rod 14 ft. / 4.27 m.
Weight & Dimensions	
Length	232 9 " / 5918 mm
Weight #2	24,500 lb. / 11,150 kg.
Ground Clearance	18 " / 457 mm
Shipping Width	95.98 " / 2438 mm
Shipping Height	112 " / 2845 mm
Material To Be Drilled	
Hard	Yes
Medium	Yes
Soft	Yes
Drill Application	
Construction	Yes
Drilling Method	
Drifter	Yes

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Pneumatic Crawler - LM100A

Select Model:

- LM100A
- CM348
- ECM350

The LM100A is a small class pneumatic Crawlair?, 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!

[SPECS] | [FEATURES] | [LITERATURE]

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

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Guide Extension #1	29 " / 750 mm
Drill Rod Length	10 ft. / 3 m
Feed Motor Pull	3000 lbs. / 1360 kg.
Boom	
Boom Swing (L/R) #1	30/35 °
Boom Lift (Up/Down) #1	45/30 °
Coverage Length	107 " / 2720 mm
Max. Drill Height (Horizontal)	99 " / 2510 mm
BRH Rotary Head	
Weight	304 lbs. / 138 kg.
Torque Maximum	700 lb.-ft. / 96.7 kg.-m
Rotation Range	0 - 50 RPM
Air Consumption	120 SCFM @ 50 RPM & 100 psi / 3.39 m3/min @ 50 RPM & 7 kg/cm2
Gear Ratio	20:1
Horse Power @ 100 psi (7 kg/cm)	4.5 HP / 3.35 kW
Weight & Dimensions	
Width	75 " / 1905 mm
Length (Boom @45°)	195 " / 4950 mm
Minimum Height	44 " / 1120 mm
Height (Boom @45°)	188 " / 4775 mm
Hole Size	1.75-4.5 " / 44-114 mm
Weight Less Drifter	5400 lbs. / 2450 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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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
ETL	Engineer Technical Letter
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	economic life
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
SCR	special contract requirements
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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