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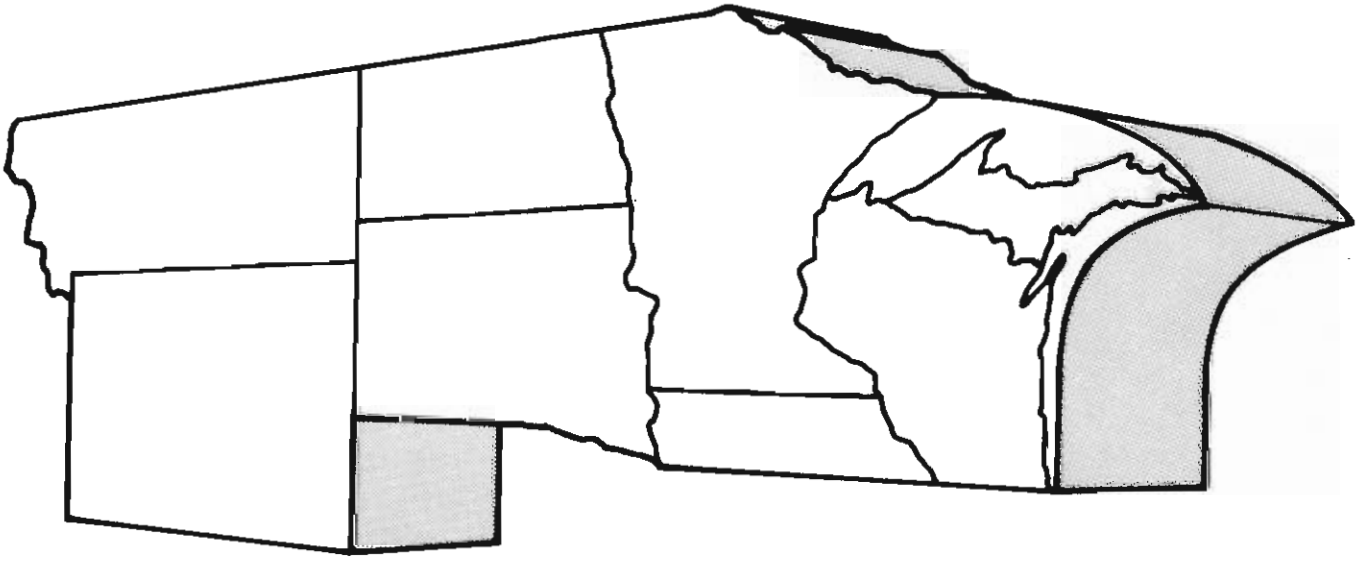
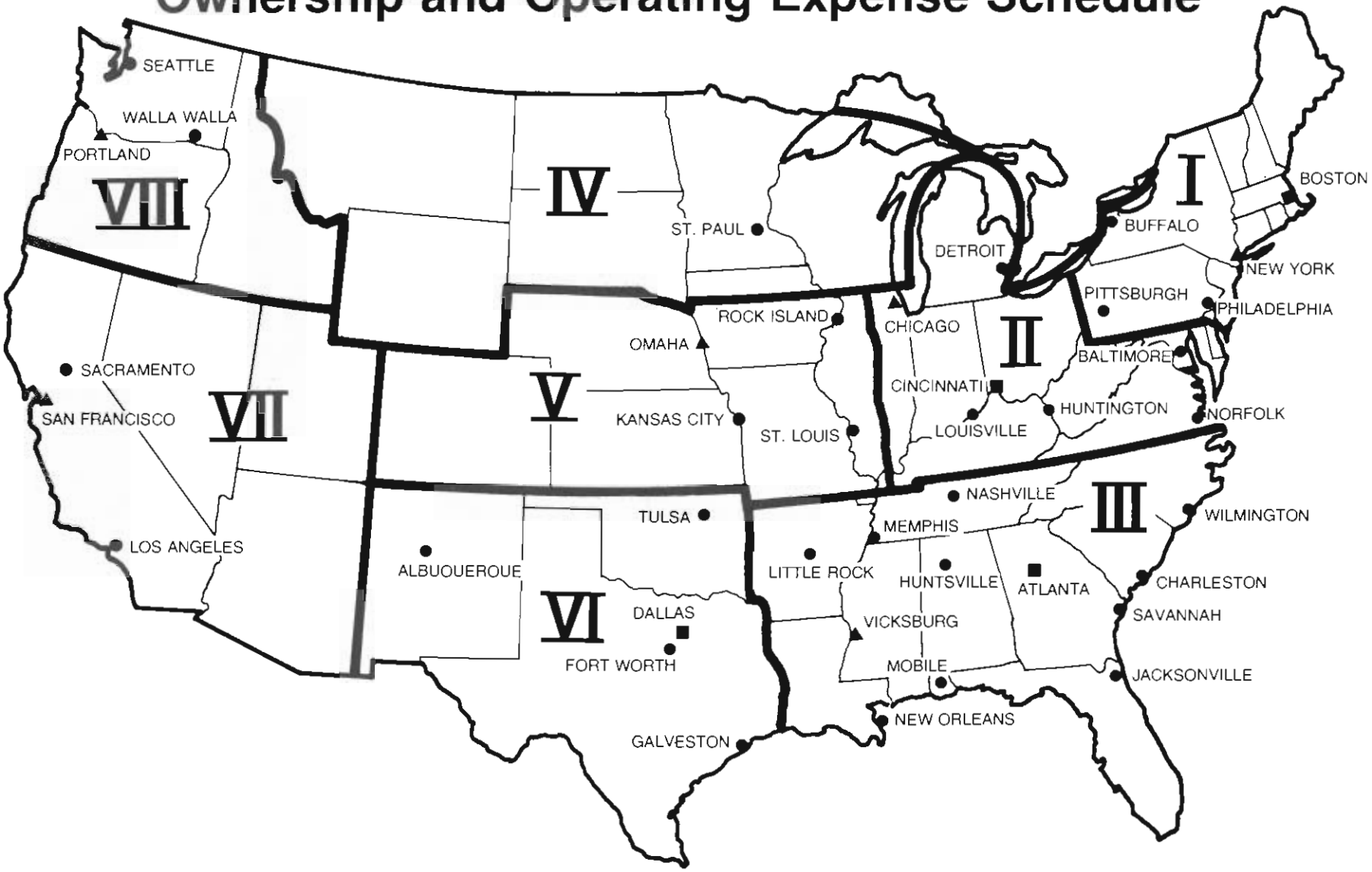
June 1981

Construction Equipment Ownership and Operating Expense Schedule

Region IV



Regions for the Construction Equipment Ownership and Operating Expense Schedule



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DEPARTMENT OF THE ARMY
US Army Corps of Engineers
Washington, DC 20314

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Pamphlet
No. 1110-1-8

15 June 1981

Engineering and Design
CONSTRUCTION EQUIPMENT OWNERSHIP
AND OPERATING EXPENSE SCHEDULE

1. Purpose. This pamphlet establishes predetermined equipment ownership and operating expense rates for use in preparation of estimates and in pricing negotiated procurements requiring independent Government estimates.

2. Applicability. This pamphlet applies to all field operating activities having either military or civil works responsibilities for construction contracts in Region IV which includes the following states:

Iowa (north of U.S. Hwy 20)	North Dakota
Michigan (upper peninsula)	South Dakota
Minnesota	Wisconsin
Montana	Wyoming

3. General. The rates and percentages shown in this pamphlet are based on equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor. These rates and percentages do not include allowances for operating labor, mobilization or demobilization costs, overhead, or profit, and do not represent rental charges for those in the business of renting equipment. The rates included in this pamphlet are based on construction equipment purchased new on 1 July 1979. The percentages for marine equipment provide an allowance for ownership expenses only. This pamphlet will be updated annually or more frequently if necessary.

FOR THE COMMANDER:

for FORREST T. GAY, III
Colonel, Corps of Engineers
Chief of Staff

Initial Issue

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DAEN-MPE-S

DEPARTMENT OF THE ARMY
US Army Corps of Engineers
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CHAPTER 1

INTRODUCTION

1-1. Purpose. This pamphlet establishes predetermined equipment ownership and operating expense rates for use in preparation of estimates and in pricing negotiated procurements requiring independent Government estimates.

1-2. Applicability. This pamphlet applies to all field operating activities having either military or civil works responsibilities for construction contracts for work in Region IV, which includes the following states:

Iowa (north of U.S. Hwy. 20)	North Dakota
Michigan (upper peninsula)	South Dakota
Minnesota	Wisconsin
Montana	Wyoming

1-3. References. See APPENDIX A.

1-4. General. The rates and percentages shown in this pamphlet are based on equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor. These rates and percentages do not include allowances for operating labor, mobilization or demobilization costs, overhead, or profit, and do not represent rental charges for those in the business of renting equipment. The rates included in this pamphlet are based on construction equipment purchased new on 1 July 1979. The percentages for marine equipment provide an allowance for ownership expenses only. This pamphlet will be updated annually or more frequently if necessary.

1-5. Use. This pamphlet shall be used as the basis for estimating equipment costs for all construction contracts (including dredging) and modifications requiring an independent Government estimate. This pamphlet shall also be used in pricing of contract modifications over $25,000 when:

a. Cost or pricing data is not required.

b. Cost or pricing data is required and actual cost data to support either ownership or operating costs for each piece of equipment or equipment groups of similar serial and series is not available.

c. Cost or pricing data is required and available but all or part of the data is determined not to be in accordance with the cost principles of the Defense Acquisition Regulations (DAR).

CHAPTER 2

METHODOLOGY

2-1. General. This pamphlet provides hourly use rates for construction equipment and annual ownership percentages for marine plant and equipment. The methodology used to compute the hourly use rates for construction equipment is provided in paragraph 2-2. The methodology used to compute the annual ownership percentages for marine equipment is provided in paragraph 2-3.

2-2. Construction Equipment.

a. General. The total hourly rates include all costs of owning and operating equipment except operating labor and overhead expenses. The ownership portion of the rate consists of allowances for depreciation and cost of facilities capital. Operating costs include allowances for: fuel; filters, oil and grease; servicing the equipment; repair and maintenance; and tire wear and tire repair. Area factors used to compute the hourly equipment ownership and operating expenses are provided in APPENDIX B.

b. Operating Conditions.

(1) Equipment rates have been computed for both "Average" and "Severe" working conditions. "Difficult" conditions are the arithmetic mean of "Average" and "Severe" rates. Where only the "Average" rate is shown, the one rate will apply for all conditions.

(2) Average, difficult, or severe conditions in accordance with contract specifications are determined by the Contracting Officer on the basis of supporting evidence and in general accordance with the "Guide for Selecting Operating Conditions" in APPENDIX C. Difficult conditions are those lying midway between average and severe. Evaluation of operating conditions for equipment not listed in APPENDIX C will be consistent with the examples shown in the "guide."

c. Ownership Costs. The ownership portion of the rate consists of allowances for depreciation and cost of facilities capital and is computed from a predetermined "equipment cost." "Equipment cost" is based on the total catalog price for the equipment, including extras normally purchased, and required safety features. A 7.5 percent discount is taken for all equipment except highway trucks which are discounted

17.5 percent. Freight and sales tax are added to the discounted price to arrive at the predetermined "equipment cost."

(1) Depreciation.

(a) Depreciation was computed using the straight-line method and the hourly rate was determined by dividing the "Depreciation Value" ("equipment cost," less tire cost and estimated salvage) by the expected normal life of the equipment in hours.

(b) Salvage value for the used equipment was determined from the "Handbook of New and Used Construction Equipment Values" (Green Guide) and advertisements of used equipment for sale displayed in current engineering and construction magazines. The salvage value percentages used for each type of equipment are listed in APPENDIX D (column "SLV") as a percent of the "equipment cost" and are equal for both "Average Condition" and "Severe Condition." The percentages are adjusted by the economic adjustment factor (EAF) to bring the salvage value up to current price levels. The factor is obtained from APPENDIX E and is equal to the economic index for the current year divided by the economic index for the year the equipment was purchased new. The ownership costs shown in TABLE 3-1 represent the hourly costs for equipment purchased new approximately two years ago.

(c) Tire cost was considered to be an operating expense and was subtracted from the "equipment cost" before computing depreciation. The tire cost is that cost at the time the equipment was purchased new.

(d) The expected normal life of the equipment was established from manufacturers' or equipment associations' recommendations. The expected normal life in hours is given in APPENDIX D. (Column "LFE" in thousand Hrs.)

(e) Annual average operating hours have been established for equipment operation within the region covered by this pamphlet. Average hours of use per year were determined by reducing the maximum available hours (40 hours per week, 52 weeks per year) to allow for lost time due to weather, employee's holidays, equipment maintenance and repairs, mobilization and demobilization and miscellaneous down time. The hours of use per year shown in APPENDIX B is equivalent to one year's life for single shift operation.

(2) Cost of Facilities Capital ("CFC").

(a) The cost of facilities capital (CFC) as defined in DAR 15-205.50 and CAS 414 is included in the use rates. This

cost was computed by multiplying the cost of money rate (14.625%) determined by the Secretary of the Treasury pursuant to P.L. 92-41 (85 Stat. 97) by the average value of equipment and prorating the result over the annual operating hours. This cost of money rate was discounted to 11.6% to avoid duplication when applying markups for overhead and profit.

$$\text{CFC/hr} = \frac{[(N-1)(1+S)+2] \quad (\text{Equipment Cost}) \quad (11.6\%)}{2N \quad (\text{Work Hrs per Year})}$$

Where: N = No. of years in depreciation period
S = Salvage Value Factor

(b) The salvage value is determined by multiplying the salvage value percentage in APPENDIX D times the economic adjustment factor as explained in paragraph 2-2.c.(1)(b).

(3) Licenses, Taxes, Storage and Insurance. License fees, taxes, storage and insurance costs are considered indirect costs and are not included in the use rates. If the Contractor normally allocates these costs directly to a particular item of work, an allowance for these costs may be made.

d. Operating Cost.

(1) General. The total operating cost is the sum of the costs for fuel, filters, oil and grease, servicing the equipment, repairs and maintenance, tire wear and tire repair.

(2) Fuel Consumption Cost.

(a) The fuel consumption in gallons per BHP-hour is listed in TABLE 3-1 for both "Average" and "Severe" conditions. The fuel consumption rate for "Severe Conditions" is 30 percent greater than the "Average Conditions" rate. Fuel consumption is computed by using the following formula:

$$\text{Fuel consumption(gal/hr)} = \frac{\text{BHP x HP Factor x Lbs Fuel per BHP-HR}}{\text{Wt of Fuel per Gallon}}$$

where:

(1) BHP as used herein is the net brake HP of the engine at the flywheel under the following conditions: (1) at sea level; and (2) at full-load governed speed with engine fully equipped with generator, fan, air cleaner, and other regular equipment.

(2) Gasoline consumption = 0.62 lbs per BHP-hr

(3) Diesel consumption = 0.42 lbs per BHP-hr

(4) Gasoline wt = 6.1 lbs per gallon

(5) Diesel wt = 7.1 lbs per gallon

(b) Electricity consumption = HP factor x 1 KW per electric HP hour. This assumes that electric motor uses 1 KW/HP considering all inefficiencies.

(c) 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. The horsepower factor used in the fuel and electricity consumption formulas represents the average percent of full rated horsepower being utilized by the engine. The "HP Factors" are given in APPENDIX D.

(d) The cost per gallon for gasoline and diesel fuel and the cost per kilowatt hour for electricity used to compute the hourly fuel and electricity costs are shown in APPENDIX B. The hourly fuel costs for all gasoline powered equipment and diesel powered highway trucks and truck crane carriers includes an allowance for federal and state road taxes.

(e) The estimated hourly fuel costs included in TABLE 3-1 are also noted separately for both average and severe conditions. Hourly fuel costs will be adjusted in the event the averaged (weighted) fuel prices (f.o.b. jobsite) vary by more than 10 percent above or below the price assumed in the basic computation. For example, if the price per gallon should increase by 15 percent, then 15 percent of the hourly fuel cost will be added to the total hourly rate. The Contractor will be required to furnish copies of all fuel supply contracts and invoices to the Government. Request for upward adjustment in the rates will be considered only where fuel is to be supplied by recognized distributors.

(3) Filters, Oil and Grease Costs (FOG). "FOG" costs are computed as either a percentage of the hourly fuel costs (see APPENDIX D) or, if the equipment has no engine, a reasonable hourly cost is included. Labor and equipment costs for fueling, greasing, and servicing are included in the rate. The "FOG" allowance for cranes, draglines, backhoes, and shovels (except self-propelled hydraulic cranes) has been reduced to allow for servicing normally performed by the oiler assigned to the piece of equipment.

(4) Maintenance and Repair Costs.

(a) The cost of maintenance and repairs includes all expenses incurred for parts, labor, fringe benefits, shop overhead, supporting facilities, outside specialty services, and maintenance equipment. The basic hourly costs are computed as follows:

$$\text{Repairs/Hr} = \frac{(\text{New Equipment Cost} - \text{Tire Cost})\ (\text{Repairs \%})}{\text{Life in Hrs}}$$

The maintenance and repair cost percentages are given in APPENDIX D (Column "RPR"). The tire cost is the cost of the tires when the equipment was purchased new.

(b) The basic hourly rate for maintenance and repairs is adjusted by two multiplying factors so that actual costs and site conditions are considered.

(1) Economic Adjustment Factor. The economic adjustment factor (EAF) is used to adjust the basic hourly rate to current price levels. The indexes in APPENDIX E are used to develop this factor which is equal to the economic index for current year divided by the economic index for the year the piece of equipment was purchased new.

(2) Labor Adjustment Factor. The labor adjustment factor (LAF) is used to adjust the repairs percentage (RPR) to account for variations in labor costs. The factor for the area covered by this pamphlet is given in APPENDIX B.

(5) Hourly Tire Cost.

(a) Tires included on rubber-tired equipment are the bias ply tires suggested as standard equipment by the equipment manufacturers.

(b) The hourly tire 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. It has been determined that a recap costs approximately 50 percent of the new tire cost and that the life of a new tire plus recapping will equal approximately 1.8 times the "useful life" of a new tire.

(c) The useful tire life was determined from the method and tables in the manual prepared by Terex Division of General Motors "Production and Cost Estimating of Material Movement with Earthmoving Equipment," with the exception that the maximum tire life has been assumed to be as indicated in APPENDIX F. A

sample computation of the tire wear factors for off-highway haul units is given in APPENDIX F.

(d) The tire wear factor for front tires for belt loaders shown in APPENDIX D is used to provide an hourly allowance for belt wear of the conveyor belt.

(6) Tire Repair Costs. Tire repairs are computed as 15 percent of the hourly tire wear cost.

e. Standby. The standby rate is computed from the average condition rates by allowing the full "CFC" hourly cost plus one-fourth of the hourly depreciation. No more than 8 hours of standby will be paid during a 24-hour day, nor more than 40 hours per week. Standby time will not be allowed unless the equipment has been in idle status in excess of 16 hours during a 24-hour day. Likewise, standby will not be allowed during periods when the equipment would have otherwise been in idle status. Actual operating time during a week will be credited against the 40 hours maximum standby allowance.

f. Working Hours. The hourly use rates shown in TABLE 3-1 are computed on the basis of a 40-hour work week. When the Contractor works more than 40 hours per week the cost for "CFC" will be excluded from the hourly rate for those hours in excess of 40 hours per week. The hourly use rates for work weeks greater than 40 hours can be computed as shown in the sample computations or may be calculated by the use of TABLE 3-3.

g. Sample Computation. A sample computation has been provided in Figure 2-1 to illustrate how the hourly use rates in TABLE 3-1 were computed using the methodology stated in this pamphlet. When an hourly rate for a specific piece of equipment must be computed by the methods in Figure 2-1, the procedure given shall be followed.

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CONSTRUCTION EQUIPMENT HOURLY OWNERSHIP AND OPERATING RATE WORK SHEET
(EP 1110-1-8)

1. REQUIRED DATA

a. Unit Number 2740

(1) Equipment Description Lorain Truck Crane 50-Ton

(2) Model and Series MC-550A w/160' Boom

(3) Year Purchased 1979 (4) Year Purchased New 1979

(5) Equipment Horsepower 115 (6) Carrier Horsepower 246

(7) Fuel Type Diesel/Diesel (8) Shipping Weight 111,100 Lbs.

(9) Tire Size: Front-1400x20-18 PR Drive-1400x20-18 PR Trailing- N/A

b. Key Number from APPENDIX D 225

(1) Condition Average

(2) Salvage Value % 20% (3) Life 18,000 Hrs.

(4) Equipment Fuel Factor .038 (5) Carrier Fuel Factor .006

(6) FOG Factor: Gas N/A Diesel .26 Electric N/A

(7) Tire Wear Factor: Front .95 Drive .90 Trailing N/A

(8) Repairs Cost Factor .60

2. EQUIPMENT COST

a. List Price When New (including extras) =$ 267,037.00

(1) Discount: (List Price) x *7.5% *(17.5% for Highway Trucks)

=($ 267,037.00) x *.075 =(-)$ 20,027.78

(2) Freight: (Shipping Weight) x (Prep. and Del. Rate)
From 1-a-(8) From APPENDIX B

=(1,111 Cwt) x ($ 2.43) =(+)$ 2,699.73

b. Subtotal: Summation of Part a. (Use actual cost when available) =$ 249,708.95

(1) State Sales Tax: (Subtotal) x (Tax Rate)
From 2-b

=($ 249,708.95) x (.035) =(+)$ 8,739.81

c. Equipment Cost: Summation of Part b. (Use actual cost when available) =$ 258,448.76

ENG FORM 4737-R, May 81 (Proponents CAEN-CWE 8[illegible])

Figure 2-1. Example of Equipment Rate Computation

CONSTRUCTION EQUIPMENT HOURLY OWNERSHIP AND OPERATING RATE WORK SHEET (Continued)

3. LIFE (N)

(Life From 1-b-(3)) ÷ (Hours Use/Year From APPENDIX B)

=(18,000 Hrs) ÷ (1,350 Hrs/Yr) 13.33 Yrs.

4. ECONOMIC ADJUSTMENT FACTOR (EAF)

(Economic Index for Present Year From APPENDIX E) ÷ (Economic Index for Year Purchased New From APP. E)

=(3044) ÷ (2512) =1.212 (EAF)

5. SALVAGE VALUE FACTOR (S)

(Salvage Factor From 1-b-(2)) x (EAF From 4)

=(.20) x (1.212) =.242 (S)

6. OWNERSHIP COSTS

a. Depreciation:

[(Equipment Cost From 2-c) x [1.0 - (S From 5)] - (Tire Cost When New)] ÷ (Life From 1-b-(3))

=[($ 258,449) x [1.0 - (.242)] - ($ 5,698)] ÷ (18,000 Hr)=$ 10.57 /Hr.

b. Cost of Facilities Capital (CFC):

(1) [[(Life From 3) - 1.0] x [(S From 5) + 1.0] + 2.0] ÷ [(Life From 3) x 2.0]

=[[(13.33 Yrs)-1.0] x [(.242)+1.0] + 2.0] ÷ [(13.33 Yrs)x2.0] = .6494

(2) (Equipment Cost From 2-c) x (Average Value Factor From 6-b-(1)) x (CFC Factor From Para. 2-2.c.(2)) ÷ (Hrs Use/Yr From APP. B)

=($ 258,449) x (.6494) x (.116) ÷ (1,350 Hrs/Yr) =$ 14.42 /Hr.

c. Total Hourly Ownership: (Sum 6-a + 6-b-(2)) =$ 24.99 /Hr.

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Figure 2-1. (Continued)

CONSTRUCTION EQUIPMENT HOURLY OWNERSHIP AND OPERATING RATE WORK SHEET (Continued)

7. OPERATING COSTS

a. Fuel Costs:

(1) Equipment: (Equip Fuel Factor From 1-b-(4)) x (H.P. From 1-a-(5)) x (Fuel Cost Per Gal.)

=(.038) x (115 HP) x ($ 1.06 /Gal) =$ 4.63 /Hr.

(2) Carrier: (Carrier Fuel Factor From 1-b-(5)) x (H.P. From 1-a-(6)) x (Fuel Cost Per Gal.)

=(.006) x (246 HP) x ($ 1.16 /Gal) =$ 1.71 /Hr.

(3) Total Fuel Costs: (Sum 7-a-(1), 7-a-(2)) =$ 6.34 /Hr.

b. FOG Costs:

(1) Equipment: (FOG Factor From 1-b-(6)) x (Hourly Fuel Cost From 7-a-(1))

=(.26) x ($ 4.63 /Hr) =$ 1.20 /Hrs.

(2) Carrier: (FOG Factor From 1-b-(6)) x (Hourly Fuel Cost From 7-a-(2))

=(.26) x ($ 1.71 /Hr) =$ .44 /Hr.

(3) Total FOG Costs: (Sum 7-b-(1), 7-b-(2)) =$ 1.64 /Hr.

c. Repairs Cost:

(1) Repair Factor:

(Repairs Cost Factor From 1-b-(8)) x (EAF From 4) x (LAF From APP. B)

=(.60) x (1.212) x (.94) = .684

(2) Hourly Repairs:

[(Equipment Cost From 2-c) - (Tire Cost When New)] x (Repair Factor From 7-c-(1)) ÷ (Life From 1-b-(3))

=[($ 258,449) - ($ 5,698)] x (.684) ÷ (18,000 Hr) =$ 9.60 /Hr.

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Figure 2-1. (Continued)

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CONSTRUCTION EQUIPMENT HOURLY OWNERSHIP AND OPERATING RATE WORK SHEET (Continued)

d. Tire Wear Costs:

(1) Front Tires: 1.5 x (Front Tires Cost) ÷ [1.8 x (F-Tire Ftr Frm 1-b-(7)) x (Max Tire Life Frm Tbl F-1)]

=1.5x($ 2,423)÷ [1.8x(.95)x(5,000 Hr)] =$ .43 /Hr.

(2) Drive Tires: 1.5 x (Drive Tires Cost) ÷ [1.8 x (D-Tire Ftr Frm 1-b-(7)) x (Max Tire Life Frm Tbl F-1)]

=1.5x($ 4,845)÷ [1.8x(.90)x(5,000 Hr)] =$ .90 /Hr.

(3) Trailing Tires: 1.5x(Trlg Tires Cost) ÷ [1.8x(T-Tire Ftr Frm 1-b-(7)) x (Max Tire Life Frm Tbl F-1)]

=1.5x($)÷ [1.8x( )x(Hr)] =$ N/A /Hr.

(4) Total Tire Wear Cost: (Sum 7-d-(1) thru (3)) =$ 1.33 /Hr.

e. Tire Repair Cost: (Tire Wear Frm 7-d-(4)) x 0.15

=($ 1.33) x 0.15 =$ .20 /Hr.

f. Total Operating Costs: (Sum 7-a thru 7-e) =$ 19.11 /Hr.

8. TOTAL HOURLY RATES

a. Single Shift Hourly Rate: (40 Hours per Week)

(Ownership Costs Frm 6-c) + (Operating Costs Frm 7-f)

=($ 24.99 /Hr) + ($ 19.11 /Hr) =$ 44.10 /Hr.

b. Hourly Rate for Other Work Shifts:

(Depreciation From 6-a) + [(CFC Frm 6-b-(2)) x 40 ÷ (Work Hrs Per Week)] + (Operating Costs Frm 7-f)

=($ 10.57 /Hr) + [($ 14.42 /Hr)x40÷(60 Hr/Wk)] + ($ 19.11 /Hr) =$ 39.29 /Hr.

c. Hourly Standby Rate:

(Depreciation From 6-a) x 0.25 + (CFC Frm 6-b-(2))

=($ 10.57 /Hr) x 0.25 + ($ 14.42 /Hr) =$ 17.06 /Hr.

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Figure 2-1. (Continued)

2-3. Marine Equipment.

a. General. Hourly use rates for ownership and operating costs have not been developed for marine equipment since this type of equipment is normally custom designed and built. This section, however, presents the methodology for determining the ownership expense expressed as a percent of equipment value, which is defined as the actual acquisition cost plus any capital improvements. The annual percentages are shown in TABLE 2-1 for various types of equipment. When a type of equipment is not listed, the ownership expense percent may be determined by using the percentage listed for a similar type with the same expected life. Hourly ownership and operating expenses for any land-based equipment involved with the operation will be based on the methodology herein for construction equipment.

b. Ownership Cost. Ownership cost is based on the equipment value and equals the cost of depreciation and facilities capital. When cost or pricing data is available, the actual equipment value shall be used. Otherwise, the value of a similar piece of equipment may be used and, if necessary, adjusted so that capacity, size, and horsepower are properly considered.

(1) Depreciation. Depreciation is computed using the straight-line method and the annual rate is determined by dividing the depreciable value by the expected normal life of the equipment in years. When the actual age of a piece of equipment exceeds the normal life, one year shall be added to the actual age and the depreciation shall be recomputed. The depreciable value is the acquisition cost, plus any capital improvements, less estimated salvage. Costs for drydocking and major repairs, which occur periodically, are considered a part of operating costs and will be allocated on an equal annual basis over the years between such occurrances, in accordance with paragraph 15-205.20 of DAR.

(2) Cost of Facilities Capital (CFC). The cost of facilities capital (CFC) is computed as shown in paragraph 2-2.c, except that CFC is determined on an annual basis instead of an hourly basis and it is expressed here as an annual percentage factor.

$$CFC = \frac{[(N-1)\ (1+S) + 2]\ (11.6\%)}{2N}$$

where: N = No. of years in depreciation period
S - Salvage Value Factor

(3) The salvage value factor is expressed as a decimal and is shown in TABLE 2-1 for different items of equipment.

(4) Taxes, storage (layup), and insurance are considered indirect (overhead) costs or a part of operating costs (see paragraph 2-2.c.(3)). These are not included in ownership rates since they vary by geographic areas and with individual contractors and should not be duplicated in the estimate or submitted proposal.

(5) The expected life shown in TABLE 2-1 for shore pipeline and floating pipeline is based on average dredging conditions. When more severe conditions are encountered, such as the dredging of very abrasive sand or rock, the expected life should be decreased. Similarly when better than average conditions are encountered, such as dredging mud or silt, the expected life should be increased. In either case, the adjustment should be made only for the time required to dredge the exceptional material. When the dredged material is a combination of various types, a weighted average should be estimated and the expected life adjusted accordingly. The repair of pipelines during the economic life is considered a part of operating costs.

c. Annual Use. Marine equipment is normally operated 24 hours per day, 7 days per week, and costs are usually kept on a monthly basis. This is the preferred basis, but if an hourly or daily basis is used, the monthly cost should be divided by the actual number of hours or days the contractor is working. If actual time cannot be determined the monthly cost should be divided by 720 hours or 30 days. The number of months' use per year is of such a variable nature that it is established for each contract by including this factor in the clauses of the contract.

d. Standby. The standby rate is computed by allowing the full CFC monthly rate plus one-fourth of the monthly depreciation. In addition to the standby ownership rate, on dredges it may be necessary to include a small amount for operating costs to account for the operation of a diesel engine generator for power to operate pumps, navigation lights, etc. Standby will not be allowed during periods when the equipment would have otherwise been in idle status.

TABLE 2-1 ANNUAL OWNERSHIP EXPENSE FACTORS FOR MARINE EQUIPMENT

TYPE OF EQUIPMENT	LIFE (YRS)	SALVAGE VALUE FACTOR	PERCENT ANNUAL OWNERSHIP EXPENSE DEPRE-CIATION	CFC	TOTAL
Hydraulic dredge, including hydraulic dredges used as Boosters:					
10-inch thru 14-inch	20	.05	4.75	6.37	11.12
16-inch thru 20-inch	25	.10	3.60	6.59	10.19
24-inch and over	30	.10	3.00	6.55	9.55
Booster & Barge:					
10-inch thru 14-inch	20	.05	4.75	6.37	11.12
16-inch thru 20-inch	25	.10	3.60	6.59	10.19
24-inch and over	30	.10	3.00	6.55	9.55
Dredge, Hopper	30	.10	3.00	6.55	9.55
Dredge, clamshell/ dragline	20	.05	4.75	6.37	11.12
Dredge, Dipper/Hyd Excav	25	.05	3.80	6.31	10.11
Bucket Dredge	30	.10	3.00	6.55	9.55
Dump Scows	20	.05	4.75	6.37	11.12
Barges:					
Fuel	20	.05	4.75	6.37	11.12
Water	20	.05	4.75	6.37	11.12
Equipment or Work	20	.05	4.75	6.37	11.12
Derrick	20	.10	4.50	6.64	11.14
Anchor	20	.05	4.75	6.37	11.12
Drill Boat or Barge	20	.10	4.50	6.64	11.14
Mooring Barge	20	.05	4.75	6.37	11.12
Tugs	20	.10	4.50	6.64	11.14
Tenders	20	.10	4.50	6.64	11.14
Launches	12	.05	7.92	6.55	14.47
Shore Pipeline (Average)	3	0	33.3	7.73	41.03
Floating Line:					
Pontoons	15	0	6.7	6.19	12.89
Pipeline/Joints (Avg)	10	0	10.0	6.38	16.38

CHAPTER 3

RATE SCHEDULE

3-1. Introduction. Hourly rates for construction equipment for both average and severe conditions are presented in TABLE 3-1. The rates may be adjusted or recomputed when (a) "Difficult Conditions" are specified by the contract, (b) actual acquisition cost is significantly different from the "Equipment Cost" shown, (c) age is different from that used, (d) license, taxes, storage and insurance costs are charged directly to an item of work, (e) fuel costs differ by more than 10% from the cost shown, and (f) work week exceeds 40 hours per week. Whenever one or more of these conditions exist, the rates may be adjusted using the tables in this chapter or computed as shown in the sample computations in Figure 2-1.

3-2. Hourly Equipment Ownership and Operating Expense.

a. Description.

(1) The following example illustrates how the equipment is listed in TABLE 3-1: The unit number 2710 is the identifying number of this piece of equipment in the input and output computer listings. The number 5530 is the model number of the equipment (American Model 5530 Truck Crane). The crane is rated at 75 tons and is equipped with a 170-foot boom. The crane has a 115-horsepower engine, the carrier has a 238-horsepower engine and both engines are diesel. The cost column reflects the pre-determined "equipment cost," used to compute the rates.

(2) The "total hourly rate" column includes all ownership and operating expenses, including fuel costs. The "Adjustable Elements" column shows ownership and fuel costs broken out of the total rate so they can be adjusted as indicated in CHAPTER 2 and 3. Operating costs may be determined by subtracting the ownership cost from the total hourly rate. The CWT column is the shipping weight of the equipment in hundredweight.

b. Truck Selection. Because of the large number of possible combinations of highway truck chassis and truck bodies, they are listed separately. To make an exact truck selection for a given set of hauling conditions would require lengthy calculations; however, for estimating purposes the selection can be made by using the GVW rating of the truck chassis. The combined weight of the truck chassis, the truck body and the payload must not exceed the GVW rating shown for the truck chassis.

c. Dozer Selection. Because of the various number of dozer and ripper combinations available for each crawler tractor the tractors and attachments are listed separately. Only the hourly expense for those attachments that are required to perform the work shall be allowed.

d. Equipment Extras. Equipment extras included on the major pieces of equipment in TABLE 3-1 are listed in APPENDIX G.

e. Equipment Not Listed. When an item of equipment is not listed in TABLE 3-1 the hourly rate may be determined by using the hourly rate listed for a similar piece of equipment or by proportioning a rate listed so that capacity, size, and horsepower are properly considered. When an hourly rate cannot be determined from TABLE 3-1, the rate will be calculated following the methodology outlined in CHAPTER 2.

f. Over-Age Equipment. When an item of equipment has exceeded the economic service life given in APPENDIX D, it is considered over-age and the hourly use rate will not exceed the rate for a piece of equipment that is not over age. An hourly rate for over-age equipment will be computed from TABLE 3-1 and the age adjustment tables or as shown in Figure 2-1 on the basis that the equipment is as old as possible without exceeding the "life" as shown in APPENDIX D.

g. Equipment Purchased Used. A detailed method for computing an hourly use rate for equipment purchased used has not been included in this pamphlet. The condition of the equipment at the time of purchase (extent of capital improvements, mechanical condition of drive train, previous hours of operation, etc.) is difficult or impossible to determine and to evaluate when computing an hourly use rate based on actual acquisition cost. When actual cost data in accordance with paragraph 1-5 is not available, an hourly use rate and standby rate for equipment purchased used will be computed on the basis that the equipment was purchased new by the contractor in the year it was manufactured.

h. Rate Adjustment Tables. The rate adjustment tables (TABLES 3-2, 3-3 and 3-4) should be used to adjust the hourly rates in TABLE 3-1 when the actual age of the equipment and working hours are to be considered. These tables may be used whenever information is available to indicate that the contractor's equipment is not the same age as the equipment listed in this pamphlet or when the hours worked have exceeded 40 hours per week. The rate adjustment tables have been developed from the equations used to calculate ownership and standby costs and it has been determined that they provide

reasonable adjustment factors to allow a short-cut method for computing an hourly use rate when actual conditions are considered. When cost or pricing data is available the rate adjustment tables may be used in lieu of a step-by-step rate computation for each item of equipment, provided that the equipment is equivalent in size, capacity, horsepower, etc. to the item listed in the pamphlet.

TABLE 3-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

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UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	AGGREGATE SPREADER **********									
	TOWED									
1005	WALES HANDY SPREADER SPREADS TO 2" DEPTH AND UP TO 10' WIDE	4,731	1.12		0.36	0.61	0.00			19
1010	HI-WAY MOD R-1 SPREADS TO 3.5" DEPTH AND UP TO 12' WIDE	6,165	1.44		0.46	0.80	0.00			23
	SELF PROPELLED									
1020	ETNYRE TO 8" DEPTH & 13' WIDE 187 HP G	30,739	22.12		2.34	4.03	12.21			155
1025	ETNYRE TO 8" DEPTH & 13' WIDE 123 HP D	34,317	12.63		2.61	4.51	3.91			160
	AIR COMPRESSORS PORTABLE ********** (HOSE NOT INCLUDED)									
	ROTARY SCREW									
1040	SIZE 85 CFM QUIET 100 PSI 47 HP G	6,707	6.78		0.52	0.87	3.97			17
1045	SIZE 85 CFM QUIET 100 PSI 38 HP D	9,503	4.14		0.74	1.24	1.53			20
1050	SIZE 100 CFM QUIET 100 PSI 50 HP G	8,957	7.62		0.69	1.16	4.22			20
1055	SIZE 100 CFM QUIET 100 PSI 42 HP D	10,745	4.63		0.83	1.40	1.69			23
1060	SIZE 125 CFM QUIET 100 PSI 56 HP G	10,231	8.59		0.79	1.33	4.73			24
1065	SIZE 125 CFM QUIET 100 PSI 47 HP D	12,007	5.18		0.93	1.57	1.89			26
1070	SIZE 150 CFM QUIET 100 PSI 69 HP G	12,703	10.62		0.99	1.66	5.83			26
1075	SIZE 150 CFM QUIET 100 PSI 70 HP D	14,922	7.03		1.15	1.94	2.82			28
1080	SIZE 185 CFM QUIET 100 PSI 69 HP G	13,791	10.86		1.06	1.79	5.83			27
1085	SIZE 185 CFM QUIET 100 PSI 70 HP D	16,260	7.35		1.26	2.12	2.82			29

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	AIR COMPRESSORS PORTABLE (CONT'D) ********** (HOSE NOT INCLUDED)									
	ROTARY SCREW (CONT'D)									
1090	SIZE 340 CFM QUIET 100 PSI 103 HP D	31,602	12.57		2.45	4.12	4.15			55
1095	SIZE 450 CFM QUIET 100 PSI 152 HP D	41,854	17.45		3.24	5.46	6.12			80
1100	SIZE 600 CFM QUIET 100 PSI 196 HP D	58,616	23.57		4.54	7.64	7.89			111
1105	SIZE 750 CFM QUIET 100 PSI 228 HP D	68,098	27.39		5.26	8.87	9.18			120
1110	SIZE 825 CFM QUIET 100 PSI 250 HP D	73,222	29.71		5.66	9.54	10.07			127
1115	SIZE 900 CFM QUIET 100 PSI 280 HP D	80,916	33.02		6.26	10.54	11.28			148
1120	SIZE 1000 CFM QUIET 100 PSI 283 HP D	92,151	35.76		7.13	12.01	11.40			165
1125	SIZE 1200 CFM QUIET 100 PSI 325 HP D	111,436	42.36		8.62	14.52	13.09			192
1130	SIZE 1600 CFM QUIET 100 PSI 456 HP D	132,197	53.88		10.23	17.23	18.37			223
	AIR TOOLS ********* (HOSE NOT INCLUDED)									
	GARDNER DENVER									
1140	TAMPER T23 20CFM A	848	0.44		0.09	0.21	0.00			1
1145	SPADER SP27E 32CFM A	854	0.45		0.09	0.21	0.00			1
1150	SINKER DRILL S48 88CFM A	1,766	0.94		0.20	0.45	0.00			1
1155	SINKER DRILL S58 98CFM A	1,878	1.00		0.21	0.48	0.00			1
1160	PAVING BREAKER B37 41CFM A	876	0.47		0.10	0.23	0.00			1
1165	PAVING BREAKER B67C 46CFM A	940	0.50		0.11	0.24	0.00			1
1170	PAVING BREAKER B87C 50CFM A	1,022	0.55		0.12	0.27	0.00			1

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	AIR TOOLS (CONT'D) ********** (HOSE NOT INCLUDED)									
	GARDNER DENVER (CONT'D)									
1175	FEED LEG DRILL FL83-54" TRAVEL 103CFM A RETRACTABLE	3,454	1.83		0.39	0.88	0.00			1
1180	FEED LEG DRILL FL53-48" TRAVEL 88CFM A RETRACTABLE	2,956	1.58		0.33	0.76	0.00			1
	SANDBLASTERS CLEMCO									
1190	SCW-1028P SANDBLASTER 1/2" HOSE 85CFM A INCLUDES ACCESSORIES AND 50' HOSE	1,207	0.70		0.14	0.31	0.00			2
1195	SCW-1440P SANDBLASTER 3/4" HOSE 85CFM A INCLUDES ACCESSORIES AND 50' HOSE	2,142	1.20		0.24	0.55	0.00			5
1200	SCWB-1648P SANDBLASTER 1" HOSE 125CFM A INCLUDES ACCESSORIES AND 50' HOSE	2,212	1.23		0.25	0.56	0.00			6
1205	SCWB-2452P SANDBLASTER 1-1/4" HOS 210CFM A INCLUDES ACCESSORIES AND 50' HOSE	2,321	1.29		0.26	0.59	0.00			6
1210	SCH-3079P SANDBLASTER 1-1/4" HOSE 210CFM A INCLUDES ACCESSORIES AND 50' HOSE	2,527	1.40		0.28	0.64	0.00			9
	CONCRETE VIBRATORS (DART)									
1220	CONCRETE VIBRATOR MOD A-600SH 6" 120CFM A	2,152	2.04		0.24	0.55	0.00			1
1225	CONCRETE VIBRATOR MOD A-450SH 4.5 98CFM A	1,835	1.74		0.21	0.47	0.00			1
1230	CONCRETE VIBRATOR MOD A-35012 3.5 74CFM A	1,640	1.55		0.19	0.42	0.00			1
1235	CONCRETE VIBRATOR MOD A-30012 3" 50CFM A	1,461	1.38		0.16	0.37	0.00			1
1240	CONCRETE VIBRATOR MOD A-25010 2.5 44CFM A	1,188	1.13		0.14	0.31	0.00			1

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	ASPHALT DISTRIBUTOR-ROSCO ********** (NO CHASSIS)									
1250	MOD RES 1000 GAL. TRUCK MOUNTED 50 HP G 18,000 TO 24,000 GVW REQUIRED	17,728	9.49		1.39	2.24	4.22			72
1255	MOD RES 1500 GAL. TRUCK MOUNTED 50 HP G 24,000 TO 32,000 GVW REQUIRED	18,389	9.64		1.44	2.33	4.22			75
1260	MOD RES 2000 GAL. TRUCK MOUNTED 50 HP G 32,000 GVW REQUIRED	19,697	9.92		1.54	2.49	4.22			87
1265	MOD RES 3000 GAL. TRUCK MOUNTED 50 HP G 42,000 GVW REQUIRED	22,198	10.54		1.72	2.75	4.22			109
	ASPHALT FINISHERS-BARBER GREENE **********									
1275	MOD SB111 8'-12' WIDE (PNEUMATIC) 70 HP D	68,498	19.86		5.23	9.11	2.82			155
1280	MOD SB131 10'-12' WIDE (P'MATIC) 95 HP D W/VIB SCREED,AUTO. FEEDERS AND GR CONTROL	99,535	28.80		7.59	13.18	3.83			245
1285	MOD SB140 10'-12' WIDE (P'MATIC) 130 HP D OPTIONS SAME AS MOD SB131	114,162	34.45		8.69	15.03	5.24			314
1290	MOD SA150 10'-12' WIDE (CRAWLER) 130 HP D OPTIONS SAME AS MOD SB131	137,526	38.90		10.55	18.42	5.24			370
	BROOMS M-B **********									
1300	MOD 53T HYD 7 FT. TOWED MECH/DRIVE W/SPRINKLER	4,836	1.30		0.37	0.64	0.00			24
1305	MOD 53-M 7 FT. TOWED 25 HP G MOTOR/DRIVEN W/SPRINKLER	6,192	4.10		0.48	0.82	2.11			30
1310	MOD MT 7 FT. TRACTOR/MOUNTED PTO/DRIVE W/SPRINKLER/	2,213	0.68		0.17	0.30	0.00			10

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	BROOMS M-B (CONT'D) **********									
1315	MOD HT 7 FT. TRACTOR/MOUNTED HYD/DRIVE W/SPRINKLER	3,713	0.99		0.29	0.50	0.00			14
	BRUSH CHIPPERS - FITCHBERG **********									
1325	MOD TWC-612 CAP. TO 6" DIA. LOG 151 HP G	4,871	18.00		0.37	0.65	12.76			37
1330	MOD TWC-915 CAP. TO 9" DIA. LOG 165 HP G	5,991	19.83		0.46	0.80	13.94			40
	BUCKETS-CLAMSHELL **********									
	GENERAL PURPOSE - SQUARE NOSE ESCO MODEL G									
1340	1.0 C.Y.	7,812	1.81	2.76	0.60	1.03	0.00	1.66	0.00	43
1345	1.5 C.Y.	11,483	2.66	4.04	0.88	1.51	0.00	2.43	0.00	65
1350	2.0 C.Y.	12,994	3.01	4.58	1.00	1.71	0.00	2.75	0.00	72
1355	2.5 C.Y.	16,933	3.92	5.96	1.30	2.23	0.00	3.58	0.00	94
1360	3.0 C.Y.	17,937	4.16	6.32	1.38	2.37	0.00	3.80	0.00	99
1365	3.5 C.Y.	18,339	4.26	6.45	1.42	2.43	0.00	3.87	0.00	110
1370	4.0 C.Y.	20,190	4.68	7.11	1.55	2.66	0.00	4.27	0.00	120
1375	4.5 C.Y.	21,825	5.06	7.68	1.68	2.88	0.00	4.61	0.00	132
1380	5.0 C.Y.	23,634	5.49	8.32	1.83	3.13	0.00	5.00	0.00	146
1385	5.5 C.Y.	25,506	5.92	8.97	1.97	3.37	0.00	5.39	0.00	158
1390	6.0 C.Y.	26,401	6.13	9.29	2.04	3.49	0.00	5.58	0.00	166
1395	6.5 C.Y.	28,557	6.62	10.04	2.20	3.77	0.00	6.03	0.00	177

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	BUCKETS-CLAMSHELL (CONT'D) **********									
	GENERAL PURPOSE - SQUARE NOSE CONT'D ESCO MODEL G									
1400	7.0 C.Y.	29,402	6.82	10.35	2.26	3.88	0.00	6.22	0.00	185
	HEAVY DUTY - SQUARE NOSE ESCO MODEL HD									
1410	1.0 C.Y.	9,485	2.21	3.34	0.74	1.26	0.00	2.01	0.00	49
1415	1.5 C.Y.	13,785	3.20	4.86	1.06	1.82	0.00	2.92	0.00	74
1420	2.0 C.Y.	14,868	3.45	5.23	1.14	1.96	0.00	3.14	0.00	82
1425	2.5 C.Y.	18,892	4.39	6.64	1.46	2.50	0.00	3.99	0.00	104
1430	3.0 C.Y.	20,656	4.79	7.27	1.59	2.73	0.00	4.37	0.00	115
1435	3.5 C.Y.	22,284	5.18	7.85	1.72	2.95	0.00	4.72	0.00	126
1440	4.0 C.Y.	23,945	5.55	8.42	1.84	3.16	0.00	5.06	0.00	137
1445	4.5 C.Y.	25,705	5.97	9.04	1.98	3.40	0.00	5.43	0.00	147
1450	5.0 C.Y.	28,287	6.57	9.95	2.18	3.74	0.00	5.98	0.00	163
1455	5.5 C.Y.	29,843	6.92	10.50	2.30	3.94	0.00	6.31	0.00	172
1460	6.0 C.Y.	31,570	7.32	11.10	2.43	4.17	0.00	6.67	0.00	182
1465	6.5 C.Y.	32,900	7.64	11.57	2.54	4.35	0.00	6.95	0.00	193
1470	7.0 C.Y.	34,242	7.94	12.04	2.64	4.52	0.00	7.23	0.00	193
	EXTRA HEAVY DUTY - SQUARE NOSE ESCO MODEL X									
1480	1.0 C.Y.	10,838	2.52	3.81	0.84	1.44	0.00	2.29	0.00	58
1485	1.5 C.Y.	16,103	3.73	5.67	1.24	2.12	0.00	3.41	0.00	85

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	BUCKETS-CLAMSHELL (CONT'D)									
	EXTRA HEAVY DUTY - SQUARE NOSE CONT'D ESCO MODEL X									
1490	2.0 C.Y.	19,477	4.52	6.86	1.50	2.57	0.00	4.12	0.00	103
1495	2.5 C.Y.	21,733	5.04	7.64	1.67	2.87	0.00	4.59	0.00	121
1500	3.0 C.Y.	23,588	5.47	8.30	1.81	3.11	0.00	4.99	0.00	135
1505	3.5 C.Y.	24,789	5.75	8.72	1.91	3.27	0.00	5.24	0.00	149
1510	4.0 C.Y.	26,256	6.09	9.24	2.02	3.47	0.00	5.55	0.00	158
1515	4.5 C.Y.	27,494	6.38	9.67	2.12	3.63	0.00	5.81	0.00	168
1520	5.0 C.Y.	29,483	6.85	10.38	2.27	3.90	0.00	6.24	0.00	181
1525	5.5 C.Y.	31,212	7.24	10.97	2.40	4.12	0.00	6.59	0.00	193
1530	6.0 C.Y.	32,810	7.61	11.54	2.52	4.33	0.00	6.93	0.00	203
1535	6.5 C.Y.	35,548	8.24	12.50	2.73	4.69	0.00	7.51	0.00	220
1540	7.0 C.Y.	36,609	8.50	12.88	2.82	4.84	0.00	7.74	0.00	230
	BUCKETS-CONCRETE-GAR-BRO									
	GENERAL PURPOSE - MANUAL									
1550	1.0 C.Y.	1,062	0.25		0.08	0.14	0.00			6
1555	1.5 C.Y.	1,326	0.31		0.11	0.18	0.00			8
1560	2.0 C.Y.	1,721	0.40		0.13	0.23	0.00			11
1565	3.0 C.Y.	2,463	0.57		0.19	0.32	0.00			19
1570	4.0 C.Y.	3,113	0.72		0.24	0.41	0.00			23

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	BUCKETS-CONCRETE-GAR-BRO (CONT'D)									
	GENERAL PURPOSE - LOW SLUMP - AIR									
1580	1.0 C.Y.	4,557	1.06		0.35	0.60	0.00			19
1585	1.5 C.Y.	4,775	1.11		0.37	0.63	0.00			21
1590	2.0 C.Y.	4,980	1.16		0.38	0.66	0.00			23
1595	3.0 C.Y.	6,781	1.58		0.53	0.90	0.00			42
1600	4.0 C.Y.	7,047	1.63		0.54	0.93	0.00			52
1605	6.0 C.Y. DBL. COMPT.	10,213	2.37		0.79	1.35	0.00			72
1610	8.0 C.Y. DBL. COMPT.	12,171	2.82		0.93	1.60	0.00			80
	LAYDOWN - HEAVY DUTY - CLAM GATE TYPE									
1620	1.0 C.Y.	4,179	0.98		0.33	0.56	0.00			17
1625	2.0 C.Y.	4,627	1.07		0.36	0.61	0.00			21
1630	3.0 C.	5,289	1.23		0.41	0.70	0.00			27
1635	4.0 C.Y.	6,136	1.42		0.47	0.81	0.00			60
	BUCKETS-DRAGLINE									
	LIGHT WEIGHT - PERFORATED HENDRIX MODEL LS									
1650	1.0 C.Y.	2,450	0.56	0.86	0.19	0.32	0.00	0.52	0.00	18
1655	1.5 C.Y.	2,990	0.70	1.05	0.24	0.40	0.00	0.63	0.00	26
1660	2.0 C.Y.	3,524	0.82	1.25	0.28	0.47	0.00	0.75	0.00	32
1665	2.5 C.Y.	4,140	0.95	1.46	0.32	0.54	0.00	0.88	0.00	36

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	BUCKETS-DRAGLINE (CONT'D)									
	LIGHT WEIGHT - PERFORATED (CONT'D) HENDRIX MODEL LS									
1670	3.0 C.Y.	5,089	1.18	1.79	0.39	0.67	0.00	1.08	0.00	41
1675	3.5 C.Y.	5,642	1.30	1.99	0.43	0.74	0.00	1.20	0.00	47
1680	4.0 C.Y.	6,875	1.59	2.43	0.53	0.90	0.00	1.46	0.00	64
1685	4.5 C.Y.	7,299	1.70	2.58	0.57	0.97	0.00	1.55	0.00	67
1690	5.0 C.Y.	8,810	2.05	3.11	0.68	1.17	0.00	1.87	0.00	83
1695	6.0 C.Y.	9,559	2.21	3.37	0.74	1.26	0.00	2.03	0.00	90
1700	7.0 C.Y.	10,450	2.42	3.68	0.80	1.38	0.00	2.21	0.00	101
1705	8.0 C.Y.	11,587	2.69	4.08	0.89	1.53	0.00	2.45	0.00	112
1710	10.0 C.Y.	14,546	3.37	5.12	1.12	1.92	0.00	3.08	0.00	139
1715	12.0 C.Y.	17,886	4.15	6.29	1.38	2.36	0.00	3.78	0.00	166
1720	14.0 C.Y.	20,566	4.77	7.24	1.59	2.72	0.00	4.35	0.00	191
	MEDIUM WEIGHT - HENDRIX MODEL TS									
1730	1.0 C.Y.	2,966	0.69	1.05	0.23	0.39	0.00	0.63	0.00	19
1735	1.5 C.Y.	3,649	0.84	1.28	0.28	0.48	0.00	0.77	0.00	28
1740	2.0 C.Y.	4,347	1.00	1.53	0.33	0.57	0.00	0.92	0.00	36
1745	2.5 C.Y.	5,014	1.16	1.76	0.38	0.66	0.00	1.06	0.00	41
1750	3.0 C.Y.	5,990	1.39	2.11	0.46	0.79	0.00	1.27	0.00	49
1755	3.5 C.Y.	6,618	1.54	2.34	0.51	0.88	0.00	1.41	0.00	54
1760	4.0 C.Y.	7,937	1.84	2.79	0.62	1.05	0.00	1.68	0.00	70

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	AVERAGE COND. FUEL	SEVERE COND. OWNER-SHIP	SEVERE COND. FUEL	CWT
	BUCKETS-DRAGLINE (CONT'D)									
	MEDIUM WT. - HENDRIX MODEL TS CONT'D									
1765	4.5 C.Y.	8,497	1.97	2.99	0.66	1.12	0.00	1.80	0.00	72
1770	5.0 C.Y.	10,892	2.53	3.84	0.84	1.44	0.00	2.31	0.00	93
1775	6.0 C.Y.	11,252	2.61	3.96	0.87	1.49	0.00	2.38	0.00	96
1780	7.0 C.Y.	12,843	2.97	4.52	0.99	1.69	0.00	2.72	0.00	111
1785	8.0 C.Y.	14,144	3.28	4.98	1.09	1.87	0.00	2.99	0.00	122
1790	10.0 C.Y.	18,025	4.18	6.34	1.39	2.38	0.00	3.81	0.00	159
1795	12.0 C.Y.	22,973	5.33	8.09	1.77	3.04	0.00	4.86	0.00	202
1800	14.0 C.Y.	25,582	5.94	9.00	1.97	3.38	0.00	5.41	0.00	225
	HEAVY WEIGHT - HENDRIX MODEL HH-S									
1810	2.75 C.Y.	9,626	2.23	3.38	0.74	1.27	0.00	2.03	0.00	69
1815	3.0 C.Y.	10,017	2.33	3.53	0.78	1.33	0.00	2.12	0.00	72
1820	3.5 C.Y.	11,216	2.60	3.95	0.87	1.48	0.00	2.37	0.00	81
1825	4.0 C.Y.	14,993	3.48	5.29	1.16	1.98	0.00	3.18	0.00	110
1830	4.5 C.Y.	16,763	3.88	5.90	1.29	2.21	0.00	3.55	0.00	123
1835	5.0 C.Y.	17,310	4.01	6.09	1.33	2.28	0.00	3.66	0.00	127
1840	6.0 C.Y.	18,535	4.30	6.52	1.43	2.45	0.00	3.92	0.00	136
1845	7.0 C.Y.	23,251	5.39	8.18	1.79	3.07	0.00	4.91	0.00	173
1850	8.0 C.Y.	24,123	5.59	8.49	1.85	3.18	0.00	5.10	0.00	180
1855	10.0 C.Y.	31,786	7.37	11.19	2.44	4.19	0.00	6.72	0.00	242
1860	12.0 C.Y.	36,038	8.36	12.68	2.77	4.76	0.00	7.62	0.00	275

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	BUCKETS-DRAGLINE (CONT'D) **********									
	HEAVY WT - HENDRIX MODEL HH-S CONT'D									
1865	14.0 C.Y.	39,180	9.09	13.78	3.02	5.18	0.00	8.28	0.00	299
	COMPACTORS MANUALLY OPERATED **********									
1875	UR-12 I-R RAMMER 3 HP G	1,420	0.96		0.14	0.27	0.35			1
1880	GVR100 WACKER RAMMER 3 HP G	1,350	0.93		0.12	0.25	0.35			1
1885	GVR220Y WACKER RAMMER 5 HP G	2,280	1.57		0.21	0.43	0.58			2
1890	VPG160B WACKER VIBRO PLATE 4 HP G	1,042	0.96		0.09	0.19	0.47			2
1895	VPG600 WACKER VIBRO PLATE 9 HP G	3,190	2.49		0.29	0.60	1.05			6
	CONCRETE BUGGIES - REMINGTON **********									
1905	10 CF WALK-BEHIND 8 HP G	1,956	1.40		0.15	0.26	0.73			6
	CONCRETE PAVERS **********									
	CMI									
1915	MOD SUPER 200 16' WIDE SLIPFORM UNIT, 0-25 FT/MIN, CRAWLER MTD. 165 HP D	105,145	33.12		6.06	14.08	6.65			296
1920	MOD SUBURBAN 24' WIDE SLIPFORM UNIT, 0-60 FT/MIN, CRAWLER MTD. 250 HP D	188,357	56.97		14.44	25.22	10.07			720

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	CONCRETE PAVERS (CONT'D)									
	**********									
	GOMACO									
1930	MOD C-650 24' WIDE FORM PAVER 50 HP G W/4' FINISHING CYLINDERS	17,503	9.71		1.34	2.32	4.22			91
1935	MOD HW-165 16'-6' WIDE SLIPFORM 100 HP D UNIT, AUTO VIBRATORS, CRLR MTD	84,342	24.89		6.46	11.29	4.03			240
	CONCRETE PLACERS									
	**********									
	ALIVA SHOTCRETE EQUIPMENT									
1945	MOD 240 PLACE 1 TO 5 CY/HR 275CFM A	8,939	2.18		0.69	1.19	0.00			7
1950	MOD 250 PLACE 5.5 TO 10 CY/HR 450CFM A	16,388	3.87		1.26	2.18	0.00			13
1955	MOD 260 PLACE 5 TO 22 CY/HR 675CFM A	23,442	5.47		1.80	3.12	0.00			19
	CONCRETE PUMPS - CHALLENGE-COOK									
1965	MOD 700 1" AGG 70 CY/HR 128 HP D REQUIRES 15,000 GVW TRUCK	41,586	21.58		3.44	6.36	7.60			84
1970	MOD TITAN4000 TR'L MT'D 100 CY/HR 240 HP D	66,669	37.24		5.50	10.19	14.25			134
1975	HYDRAULIC BOOM 60' VERT 52'RAD REQUIRES 20,000 GVW TRUCK FOR BOOM ONLY OR 43,000 GVW WITH PUMP	30,258	8.83		2.50	4.63	0.00			59

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	CRANE-SHOVEL-BACKHOE-DRAGLINE **********									
	CRAWLER TYPE-AMERICAN									
	MOD 4120 DRAGLINE 1 CY 93 HP D 13'-8" CRAWLERS W/28" SHOES									
1985	DRAGLINE OR CLAMSHELL (LESS BUCKET)	126,231	27.05	40.18	9.19	15.17	2.96	24.15	3.84	609
	MOD 597-C 1.25 CY T/C 129 HP D 14'-7" CRAWLERS W/32" SHOES									
1990	DRAGLINE OR CLAMSHELL (LESS BUCKET)	181,759	35.29	51.85	12.53	19.41	4.10	31.23	5.33	814
1995	CRANE 35-T W/70' BOOM	181,181	31.48	46.45	12.49	19.35	3.28	31.13	4.24	803
	MOD 599-C LIFTING CRANE T/C 129 HP D 16'-0" CRAWLERS W/32" SHOES									
2005	CRANE 40-T W/80' BOOM	180,776	31.42	46.37	12.46	19.31	3.28	31.07	4.24	962
	MOD 5299 LIFTING CRANE T/C 129 HP D 17'-6" CRAWLERS W/32" SHOES									
2015	CRANE 50-T W/80' BOOM	207,473	35.48	52.47	14.30	22.16	3.28	35.65	4.24	1088
	MOD 797-C 2 CY T/C 205 HP D 17'-6" CRAWLERS W/33" SHOES									
2025	DRAGLINE OR CLAMSHELL (LESS BUCKET)	242,727	48.37	70.85	16.74	25.93	6.52	41.71	8.47	1278
2030	CRANE 40-T W/80' BOOM	239,111	42.59	62.66	16.48	25.54	5.22	41.09	6.74	1262
	MOD 7250 STEEL ERECTOR T/C 205 HP D 17'-6" CRAWLERS W/33" SHOES									
2040	CRANE 60-T W/80' BOOM	258,557	42.92	63.03	17.15	25.31	5.22	41.27	6.74	1421

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	CRANE-SHOVEL-BACKHOE-DRAGLINE CONT'D									
	**********									
	CRAWLER TYPE-AMERICAN (CONT'D)									
	MOD 7260 LIFTING CRANE T/C 205 HP D 19'-6" CRAWLERS W/38" SHOES									
2050	CRANE 100T W/200' BOOM	332,748	53.48	78.83	22.07	32.58	5.22	53.11	6.74	1886
	MOD 999-C STEEL ERECTOR T/C 289 HP D 23'-9" CRAWLERS W/44" SHOES									
2060	CRANE 110-T W/200' BOOM	434,859	70.50	103.84	28.85	42.57	7.35	69.41	9.50	2792
	MOD 9260 4.5 CY T/C 289 HP D 23'-9" CRAWLERS W/38" SHOES									
2070	CRANE 125T W/270' BOOM	460,489	74.15	109.30	30.55	45.08	7.35	73.50	9.50	3025
2075	DRAGLINE OR CLAMSHELL (LESS BUCKET)	440,925	79.12	115.87	29.25	43.17	9.19	70.38	11.95	2619
	MOD 9270 LIFT CR TAPERED TIP T/C 289 HP D 23'-9" CRAWLERS W/44" SHOES									
2085	CRANE 150T W/280' BOOM	504,664	80.44	118.71	33.48	49.41	7.35	80.55	9.50	3400
	MOD 9299 LIFTING CRANE T/C 289 HP D 24'-11" CRAWLERS W/50" SHOES									
2095	CRANE 165T W/290' BOOM	531,108	82.50	121.43	34.54	49.63	7.35	81.65	9.50	3580
	MOD 9310 LIFTING CRANE T/C 289 HP D 28'-2" CRAWLERS W/50" SHOES									
2105	CRANE 225T W/320' BOOM	622,052	95.14	140.30	40.46	58.13	7.35	95.63	9.50	3990

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	CRANE-SHOVEL-BACKHOE-DRAGLINE CONT'D									
	**********									
	CRAWLER TYPE-BUCYRUS ERIE									
	MOD 25-B SER-3 HVY DUTY 1 CY 115 HP D 13'-11" CRAWLERS W/30" SHOES									
2120	DRAGLINE OR CLAMSHELL (LESS BUCKET)	145,318	31.44	46.65	10.58	17.46	3.66	27.80	4.75	671
2125	CRANE 28-T W/50' BOOM	143,942	25.39	37.39	9.92	15.37	2.93	24.73	3.78	674
	MOD 30-B SER 4 HVY DUTY 1.5 CY 144 HP D 14'-9" CRAWLERS W/30" SHOES									
2135	BACKHOE	207,015	46.44	67.74	14.77	23.81	5.34	38.02	7.02	787
2140	DRAGLINE OR CLAMSHELL (LESS BUCKET)	198,472	38.65	56.77	13.68	21.19	4.58	34.10	5.95	833
2145	CRANE 35-T W/60' BOOM	195,587	34.12	50.33	13.48	20.89	3.66	33.61	4.73	831
	MOD 38-B SER 2 HVY DUTY 2 CY T/C 178 HP D 17'-5" CRAWLERS W/36" SHOES									
2155	SHOVEL	290,355	64.09	93.63	20.71	33.40	6.60	53.32	8.68	1298
2160	DRAGLINE OR CLAMSHELL (LESS BUCKET)	273,961	52.59	77.35	18.89	29.27	5.66	47.07	7.36	1226
	MOD 61-B SER 2 3.25 CY T/C 205 HP D 15'-11" CRAWLERS W/33" SHOES									
2170	SHOVEL	412,050	80.94	117.56	28.00	42.63	7.61	68.88	10.00	1691
2175	BACKHOE	394,752	77.92	113.11	26.82	40.84	7.61	65.98	10.00	1751
2180	DRAGLINE OR CLAMSHELL (LESS BUCKET)	374,798	65.74	96.50	24.87	36.70	6.52	59.82	8.47	1523
2185	CRANE 51-T W/70' BOOM	366,748	58.32	86.07	24.33	35.91	5.22	58.54	6.74	1536

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	CRANE-SHOVEL-BACKHOE-DRAGLINE CONT'D									
	CRAWLER TYPE-BUCYRUS ERIE (CONT'D)									
	MOD 61-B SER-2 110-T 4 CY T/C 243 HP D 20'-6" CRAWLERS W/42" SHOES									
2195	CRANE 110T W/160' BOOM	468,247	72.38	106.60	30.46	43.76	6.18	71.99	7.98	2182
2200	DRAGLINE OR CLAMSHELL (LESS BUCKET)	441,024	77.42	113.65	29.26	43.18	7.73	70.39	10.05	2010
	MOD 71-B SER 3 4.25 CY T/C 246 HP D 16'-10" CRAWLERS W/36" SHOES									
2210	SHOVEL	468,159	92.54	134.31	31.81	48.44	9.13	78.26	11.99	2196
2215	BACKHOE	443,666	88.27	128.02	30.15	45.91	9.13	74.16	11.99	2100
2220	DRAGLINE OR CLAMSHELL (LESS BUCKET)	420,304	74.32	109.00	27.88	41.15	7.82	67.08	10.17	1736
	MOD 88-B SER 4 5.5 CY T/C 365 HP D 17'-10" CRAWLERS W/36" SHOES									
2230	SHOVEL	657,124	126.06	182.02	43.60	64.34	13.54	104.88	17.80	2822
2235	DRAGLINE OR CLAMSHELL (LESS BUCKET)	557,511	97.55	142.33	36.26	52.10	11.61	85.71	15.09	2274
	CRAWLER TYPE-LINK BELT (FMC)									
	MOD LS-98A LIFTING CRANE T/C 118 HP D 15'-1" CRAWLERS W/24" SHOES									
2250	CRANE 40-T W/50' BOOM	149,531	26.32	38.79	10.31	15.97	3.00	25.69	3.88	772
	MOD LS-118 LIFTING CRANE T/C 165 HP B 17'-0" CRAWLERS W/30" SHOES									
2260	CRANE 60-T W/80' BOOM	214,903	37.70	55.56	14.81	22.95	4.20	36.92	5.42	1232

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	CRANE-SHOVEL-BACKHOE-DRAGLINE CONT'D									
	**********									
	CRAWLER TYPE-LINK BELT (CONT'D)									
	MOD LS-338 LIFTING CRANE T/C 208 HP D 20'-0" CRAWLERS W/38" SHOES									
2270	CRANE 100-T W/200' BOOM	343,412	53.98	79.32	22.33	32.09	5.29	52.79	6.83	1912
	MOD LS-518 LIFTING CRANE T/C 230 HP D 24'-4" CRAWLERS W-44" SHOES									
2280	CRANE 150-T W/250' BOOM	500,836	76.52	112.85	32.57	46.80	5.85	76.99	7.56	2912
	CRAWLER TYPE-MANITOWOC									
	MOD 3900 VICON 3.5 CY T/C 334 HP D 20'-4" CRAWLERS W/38" SHOES									
2295	DRAGLINE OR CLAMSHELL (LESS BUCKET)	347,244	66.31	96.44	23.04	34.00	10.62	55.42	13.81	2306
2300	CRANE 100T W/240' BOOM	356,011	60.65	88.79	23.62	34.85	8.50	56.82	10.98	2354
	MOD 3900W VICON SER2 4 CY T/C 334 HP D 24'-0" CRAWLERS W/48" SHOES									
2310	DRAGLINE OR CLAMSHELL (LESS BUCKET)	417,050	77.11	112.56	27.67	40.83	10.62	66.57	13.81	2763
2315	CRANE 140T W/250' BOOM	424,810	70.44	103.45	28.18	41.59	8.50	67.81	10.98	2815
	MOD 4100W VICON SER2 5 CY T/C 345 HP D 26'-6" CRAWLERS W/48" SHOES									
2325	DRAGLINE OR CLAMSHELL (LESS BUCKET)	591,731	104.58	153.40	39.26	57.94	10.97	94.44	14.26	3788
2330	CRANE 200T W/260' BOOM	602,064	94.06	138.32	39.16	56.27	8.78	92.56	11.34	3929

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	CRANE-SHOVEL-BACKHOE-DRAGLINE CONT'D									
	**********									
	CRAWLER TYPE-MANITOWOC (CONT'D)									
	MOD 4600 VICON SERIES 3 7CY T/C 685 HP D 26'-1" CRAWLERS W/60" SHOES									
2340	CRANE 240T W/260' BOOM	864,578	140.76	205.98	56.24	80.80	17.43	132.91	22.51	5095
2345	DRAGLINE OR CLAMSHELL (LESS BUCKET)	894,187	160.19	233.13	58.16	83.56	21.78	137.47	28.32	5083
	CRAWLER TYPE-NORTHWEST									
	MOD 28-D 3/4 CY 148 HP D 11'-11" CRAWLERS W/28" SHOES									
2360	DRAGLINE OR CLAMSHELL (LESS BUCKET)	114,092	26.85	39.45	8.31	13.71	4.71	21.83	6.12	484
2365	CRANE 15-T W/30' BOOM	112,518	22.33	32.82	8.03	12.95	3.77	20.67	4.86	474
	MOD-41 1 CY 148 HP D 15'-0" CRAWLERS W/30" SHOES									
2375	DRAGLINE OR CLAMSHELL (LESS BUCKET)	149,082	33.38	49.34	10.85	17.91	4.71	28.53	6.12	737
2380	CRANE 20-T W/40' BOOM	146,792	27.77	41.06	10.47	16.89	3.77	26.96	4.86	720
	MOD 6 1.5 CY T/C 238 HP D 14'-8" CRAWLERS W/33" SHOES									
2390	DRAGLINE OR CLAMSHELL (LESS BUCKET)	198,321	42.17	61.33	13.68	21.19	7.57	34.08	9.84	1001
2395	CRANE 30-T W/45' BOOM	199,319	37.51	54.83	13.74	21.29	6.05	34.25	7.82	1001
	MOD 80-D 2.5 CY T/C 238 HP D 15'-10" CRAWLERS W/30" SHOES									
2405	SHOVEL	301,270	68.84	100.21	21.49	34.66	8.83	55.32	11.60	1550
2410	DRAGLINE OR CLAMSHELL (LESS BUCKET)	264,200	53.20	77.83	18.22	28.22	7.57	45.39	9.84	1380

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	CRANE-SHOVEL-BACKHOE-DRAGLINE CONT'D									
	**********									
	CRAWLER TYPE-NORTHWEST (CONT'D)									
	MOD 80-D 2.5 CY T/C 238 HP D 15'-10" CRAWLERS W/30" SHOES									
2415	CRANE 40-T W/50' BOOM	261,188	46.94	68.98	18.01	27.90	6.05	44.87	7.82	1320
	MOD 95-WT 4.0 CY T/C 263 HP D 19'-0" CRAWLERS W/38" SHOES									
2425	DRAGLINE OR CLAMSHELL (LESS BUCKET)	336,707	62.01	90.54	22.33	32.96	8.36	53.74	10.87	1580
2430	CRANE 60-T W/50' BOOM	333,689	55.35	81.28	22.14	32.68	6.69	53.26	8.64	1565
	MOD 180-D SERIES 2 5 CY T/C 357 HP D 18'-1" CRAWLERS W/36" SHOES									
2440	SHOVEL	546,072	111.01	160.69	37.12	56.51	13.24	91.28	17.41	2571
2445	DRAGLINE OR CLAMSHELL (LESS BUCKET)	502,981	91.28	133.51	33.36	49.24	11.35	80.28	14.76	2365
2450	CRANE 98-T W/170' BOOM	524,308	85.28	125.53	34.79	51.34	9.08	83.69	11.73	2464
	MOD 190-D SERIES 2 6.5 CY T/C 357 HP D 21'-1" CRAWLERS W/54" SHOES									
2460	SHOVEL	633,072	121.68	175.66	42.00	61.99	13.24	101.04	17.41	2825
2465	DRAGLINE OR CLAMSHELL (LESS BUCKET)	540,376	94.67	138.12	35.15	50.50	11.35	83.08	14.76	2555
2470	CRANE 100-T W/170' BOOM	564,820	91.03	134.15	37.47	55.30	9.08	90.15	11.73	2865

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	CRANE-SHOVEL-BACKHOE-DRAGLINE CONT'D									
	**********									
	CRAWLER TYPE-P & H									
	MOD 535 1.25 CY T/C 158 HP D 15'-8" CRAWLERS W/30" SHOES									
2485	DRAGLINE OR CLAMSHELL (LESS BUCKET)	195,061	38.60	56.61	13.44	20.83	5.02	33.52	6.53	870
2490	CRANE 35-T W/50' BOOM	188,852	33.51	49.33	13.02	20.17	4.02	32.45	5.19	870
	MOD 550 1.75 CY T/C 158 HP D 18'-0" CRAWLERS W/30" SHOES									
2500	DRAGLINE (LESS BUCKET)	216,501	42.20	61.98	14.93	23.13	5.02	37.20	6.53	1002
2505	CRANE 50-T W/80' BOOM	210,984	36.89	54.39	14.55	22.54	4.02	36.25	5.19	1002
	MOD 670WLC 2 CY T/C 198 HP D 18'-6" CRAWLERS W/30" SHOES									
2515	DRAGLINE OR CLAMSHELL (LESS BUCKET)	253,858	49.96	73.29	17.50	27.11	6.30	43.61	8.19	1344
2520	CRANE 70-T W/150' BOOM	259,271	42.82	62.91	17.20	25.38	5.04	41.39	6.51	1466
	CRANES-HYDRAULIC-SELF PROPELLED									
	**********									
	GROVE									
2535	MOD RT48 8 TON 123 HP G	75,761	25.41		5.24	7.66	10.39			326
2540	MOD RT49 10 TON 123 HP G	76,974	25.59		5.32	7.78	10.39			336
2545	MOD RT515 15 TON 115 HP D	92,137	20.28		6.36	9.26	4.63			415
2550	MOD RT518 18 TON 115 HP D	92,741	20.75		6.37	9.19	4.63			450
2555	MOD RT522 22 TON 115 HP D	106,604	22.84		7.33	10.61	4.63			495
2560	MOD RT625 25 TON 156 HP D	133,223	29.24		9.15	13.22	6.28			545

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	CRANES-HYD.-SELF PROPELLED CONT'D) **********									
	GROVE (CONT'D)									
2565	MOD RT65S 35 TON 173 HP D	185,467	38.35		12.75	18.44	6.97			673
	HYSTER									
2575	MOD K300B 15 TON 127 HP D	100,283	22.15		6.93	10.09	5.12			438
2580	MOD K360B 18 TON 127 HP D	102,898	22.55		7.11	10.36	5.12			440
2585	MOD K400B 20 TON 127 HP D	110,751	23.74		7.65	11.16	5.12			466
	PETTIBONE									
2595	MOD 25 12.5 TON 120 HP D	90,134	20.27		6.21	9.04	4.83			440
2600	MOD 36 18 TON 120 HP D	105,233	22.70		7.26	10.54	4.83			460
2605	MOD 70 35 TON 188 HP D	159,240	35.05		10.94	15.80	7.57			770
2610	MOD 100SC 50 TON 188 HP D	227,214	45.37		15.65	22.73	7.57			1050
	CRANES-HYDRAULIC-TRUCK MOUNTED ********** (HP & FUEL LISTED EQUIP/CARRIER)									
	BUCYRUS ERIE									
2620	30-XC 30 TON W/80' BOOM 130/210 HP D/D	183,786	33.92	49.11	12.15	17.83	6.70	29.15	8.46	552
2625	60-XC 60-TON W/136' BOOM 197/238 HP D/D	286,517	51.62	75.04	18.96	27.85	9.59	45.50	12.16	783
	GROVE									
2635	TMS185 18 TON W/106' BOOM 172 HP D	147,296	30.43	44.11	10.11	15.57	6.93	25.12	8.93	442
2640	TMS300 35 TON W/136' BOOM 203 HP D	161,375	32.90	47.32	10.66	15.59	8.18	25.52	10.54	705

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	CRANES-HYDRAULIC-TRUCK MOUNTED CONT'D									
	**********									
	(HP & FUEL LISTED EQUIP/CARRIER)									
	GROVE (CONT'D)									
2645	TMS475 50 TON W/142' BOOM 203 HP D	195,991	37.57	54.39	12.95	18.98	8.18	31.05	10.54	773
2650	TM875 80 TON W/146' BOOM 212/302 HP D/D	296,292	54.40	78.38	19.17	27.28	10.64	45.09	13.46	1175
	LINK BELT (FMC)									
2660	HTC-25 25-T W/95' BOOM 216 HP D	145,166	31.19	44.64	9.59	14.05	8.70	22.99	11.22	462
2665	HTC-35 35-T W/108' BOOM 216 HP D	170,597	34.73	49.98	11.27	16.51	8.70	27.02	11.22	628
2670	HTC-50 50-T W/122' BOOM 244 HP D	208,132	41.25	59.52	13.76	20.19	9.83	33.02	12.67	727
	PETTIBONE									
2680	50TKLSPC 25 TON W/95' BOOM 210 HP D	143,380	32.09	46.09	9.81	15.04	8.46	24.32	10.91	520
2685	60TKLSPC 30 TON W/101' BOOM 202 HP D	169,245	34.01	48.96	11.17	16.33	8.14	26.74	10.49	673
2690	100TKLSPC50 TON W/111' BOOM 244 HP D	211,428	41.90	60.43	13.96	20.45	9.83	33.47	12.67	820
2695	160TKLSPC80 TON W/153' BOOM 365 HP D	311,826	61.65	88.52	20.17	28.70	14.70	47.46	18.96	1395
	CRANES-TRUCK MOUNTED									
	**********									
	(HP & FUEL LISTED EQUIP/CARRIER)									
	AMERICAN									
2705	5530 75-T W/170' BOOM 115/238 HP D/D	274,316	45.51	66.40	17.77	25.35	6.29	41.86	7.91	1245
2710	7530 125T W/200' BOOM 203/350 HP D/D	382,700	65.62	95.36	24.81	35.42	10.61	58.45	13.39	1696

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	CRANES-TRUCK MOUNTED (CONT'D) ********** (HP & FUEL LISTED EQUIP/CARRIER)									
	LINK BELT (FMC)									
2720	MC108C 50-T W/150' BOOM 117/238 HP D/D	263,288	44.80	65.50	17.39	25.47	6.37	41.67	8.01	1197
2725	MC218A 100-T W/220' BOOM 165/318 HP D/D	361,262	59.89	86.81	23.04	32.15	8.86	53.52	11.15	1566
2730	MC238A 140-T W/230' BOOM 171/318 HP D/D	433,798	69.83	101.63	27.68	38.64	9.10	64.30	11.46	2068
	LORAIN									
2740	MC550A 50-T W/160' BOOM 115/246 HP D/D	258,449	44.10	64.45	17.07	24.99	6.34	40.89	7.97	1111
2745	MC670A 70-T W/170' BOOM 150/270 HP D/D	309,160	52.21	76.02	20.04	28.61	7.92	47.22	9.98	1243
2750	MC680 80-T W/190' BOOM 167/270 HP D/D	315,526	53.92	78.41	20.45	29.20	8.61	48.19	10.87	1373
2755	MC790 90-T W/220' BOOM 210/270 HP D/D	379,415	64.86	94.35	24.60	35.11	10.34	57.94	13.10	1594
2760	MC8150 150T W/250' BOOM 246/365 HP D/D	520,304	86.20	124.97	33.16	46.22	12.45	76.98	15.74	2625
	P & H									
2770	325TC 25-T W/110' BOOM 79/190 HP D/D	160,942	29.60	43.28	11.03	16.94	4.50	27.36	5.65	645
2775	430ATC 35-T W/150' BOOM 95/210 HP D/D	180,677	31.98	46.49	11.92	17.44	5.29	28.56	6.64	763
2780	440TC 40-T W/170' BOOM 95/236 HP D/D	192,502	33.93	49.33	12.70	18.56	5.47	30.41	6.85	964
2785	650ATC 50-T W/150' BOOM 135/236 HP D/D	268,564	46.40	67.74	17.74	25.98	7.08	42.51	8.93	1178
2790	670TC 70-T W/180' BOOM 135/255 HP D/D	287,383	48.41	70.50	18.62	26.57	7.21	43.87	9.08	1340
2795	790TC 90-T W/200' BOOM 160/350 HP D/D	333,315	56.87	82.62	21.59	30.80	8.88	50.85	11.15	1736
2800	9125TC 140T W/270' BOOM 210/350 HP D/D	456,944	75.12	109.08	29.16	40.72	10.89	67.75	13.75	2529
2805	6250TC 250T W/320' BOOM 363/450 HP D/D	908,060	143.67	209.96	57.98	81.07	17.75	134.80	22.51	4552

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	DRILLS-BLAST HOLE-CRAWLER MTD **********									
	GARDNER DENVER									
2815	AT3100B/PR123J 3.5" HOLE 12' FEED 600CFM A	61,517	14.90		4.72	8.18	0.00			91
2820	AT3100B/PR55 4" HOLE 12' FEED 750CFM A	56,362	13.66		4.33	7.49	0.00			93
2825	AT3100B/PR66 4.5" HOLE 12' FEED 900CFM A	64,245	15.56		4.94	8.55	0.00			95
2830	AT3700A/PR123J ANGLE DRILL 600CFM A 3.5" HOLE 12' FEED	72,943	17.69		5.61	9.71	0.00			137
2835	AT3700A/PR66 ANGLE DRILL 900CFM A 4.5" HOLE 12' FEED	75,677	18.33		5.81	10.06	0.00			143
	INGERSOLL-RAND									
2845	CM350/VL140 5.5" HOLE 12' FEED 750CFM A	58,502	14.18		4.50	7.78	0.00			120
2850	ECM350/VL140 5.5" HOLE 12' FEED 750CFM A	64,926	15.72		4.99	8.64	0.00			129
2855	CM350/URD550 5.5" HOLE 12' FEED 900CFM A	64,141	15.53		4.92	8.53	0.00			121
2860	ECM350/URD550 5.5 HOLE 12' FEED 900CFM A	70,568	17.07		5.42	9.39	0.00			130
	JOY									
2870	RAM VCR260 4.5" HOLE 12' FEED 750CFM A	54,023	13.11		4.15	7.19	0.00			126
2875	MUSTANG VCR280 5" HOLE 23' FEED1200CFM A	74,890	18.14		5.75	9.96	0.00			185
	DRILLS-CORE-AIR-COLUMN MOUNTED **********									
2885	LONGYEAR 24 WOLVERINE AX 700' 450CFM A	10,279	2.71		0.79	1.37	0.00			12
2890	LONGYEAR 65D EX 600' 400CFM A	6,796	1.87		0.52	0.90	0.00			3
2895	65D ROD PULLER 21" STROKE 400CFM A	1,120	0.47		0.09	0.15	0.00			1

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CWT
			CONDITION		STAND-BY	AVERAGE COND.		SEVERE COND.		
			AVERAGE	SEVERE		OWNER-SHIP	FUEL	OWNER-SHIP	FUEL	
	DRILLS-CORE-SKID MOUNTED **********									
	ACKER									
2905	HILLBILLY MARK-III NX 1000' MAX 46 HP D	22,586	8.23		1.73	3.00	2.29			40
2910	MOUNTAINEER NX 2000' MAX 44 HP D	24,933	8.68		1.92	3.32	2.19			45
	SPRAGUE AND HENWOOD									
2920	MOD 37-H NX 400' MAX 18 HP G	10,338	4.64		0.79	1.37	1.87			18
2925	MOD 40-CL NX 900' MAX 45 HP D	19,086	7.34		1.47	2.54	2.24			27
	LONGYEAR									
2935	MOD 24 STD AX 675' MAX 12 HP G	8,068	3.36		0.62	1.07	1.24			19
2940	MOD 34 NX 1000' MAX 31 HP G	18,314	8.09		1.40	2.43	3.21			38
2945	MOD 34 NX 1000' MAX 38 HP D	20,519	7.24		1.58	2.73	1.89			39
2950	MOD 38 NX 1800' MAX 42 HP D	22,440	7.95		1.72	2.98	2.09			41
2955	MOD 44 NX 2500' MAX 60 HP D	29,676	10.79		2.28	3.94	2.99			56
	DRILLS-ROTARY **********									
	CHICAGO PNEUMATIC									
2965	MOD T-650 6-3/4" - W/TRUCK 50,000 G.V.W. 218 HP D	191,762	48.09		13.22	20.29	10.86			440
	JOY-ROBBINS									
2975	RRT 50 TK MOUNTED 6-3/4" TO 9" 304 HP D	318,009	76.25		21.92	33.63	15.15			820
2980	RRT 60 TK MTD 6-3/4" TO 9-7/8" 325 HP D	356,558	84.38		24.58	37.74	16.19			920

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	DRILLS-ROTARY (CONT'D)									
	**********									
	JOY-ROBBINS (CONT'D)									
2985	RRT 70 TK MTD 6-3/4" TO 10-5/8" 350 HP D	409,467	95.29		28.23	43.37	17.44			1020
2990	RR10S ON D9 6 -3/4" TO 9-7/8" 320 HP D	318,764	76.27		22.03	33.98	15.94			1120
2995	RR10HD ON D9 6-3/4" TO 10-5/8" 500 HP D	385,984	99.30		26.68	41.15	24.91			1200
3000	RR11 CRLR MTD 6-3/4" TO 12-1/4" 575 HP E	578,023	102.49		37.73	53.97	22.14			1421
3005	RR12 CRLR MTD 10-5/8" TO 12-1/2" 600 HP E	721,834	121.17		47.11	67.40	23.10			1500
3010	RR16 CRLR MTD 10-5/8" TO 15' 1100 HP E	819,336	161.73		53.48	76.51	42.35			2200
	FORK LIFTS									
	**********									
	HYSTER-CHALLENGER									
3020	H30H 3000# @ 24" LC (LOAD CNTR) 63 HP G	18,647	11.09		1.42	2.44	5.32			71
3025	H60H 6000# @ 24" LC 63 HP G	21,084	11.67		1.61	2.76	5.32			103
3030	H110F 11000# @ 24" LC 116 HP G	32,197	19.91		2.46	4.21	9.80			163
3035	H150H 15000# @ 24" LC 127 HP G	45,134	24.20		3.44	5.89	10.73			223
3040	H200HS20000# @ 24" LC PS 127 HP G	51,697	25.76		3.94	6.76	10.73			256
3045	H250H 25000# @ 24" LC PS 127 HP G	53,745	26.29		4.09	7.01	10.73			295
3050	H300B 30000# @ 24" LC PS 127 HP G	59,847	27.73		4.56	7.81	10.73			360
3055	H460B 46000# @ 48" LC PS 190 HP G	116,042	47.94		8.83	15.11	16.05			590

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	GENERATOR ELECT PLANTS									
	**********									
	CATERPILLAR									
	T = TURBOCHARGED									
	TA = TURBOCHARGED AFTER COOLED									
	SKID MOUNTED									
3070	MOD 3304 -T 240/480V 86 KW 129 HP D	14,067	9.59	12.79	1.10	1.74	5.20	2.74	6.70	37
3075	MOD 3306 -T 240/480V 130 KW 200 HP D	16,900	13.76	18.27	1.33	2.09	8.06	3.29	10.39	45
3080	MOD 3306 -TA 240/480V 150 KW 220 HP D	19,296	15.29	20.33	1.51	2.39	8.86	3.77	11.43	46
3085	MOD 3406 -T 240/480V 175 KW 270 HP D	20,263	18.01	23.85	1.60	2.51	10.88	3.95	14.02	64
3090	MOD 3406 -TA 240/480V 200 KW 305 HP B	23,214	20.41	27.05	1.82	2.87	12.29	4.53	15.84	66
3095	MOD 3408 -T 240/480V 225 KW 335 HP D	26,345	22.60	29.99	2.07	3.26	13.49	5.14	17.40	72
3100	MOD 3408 -TA 240/480V 250 KW 375 HP D	29,624	25.34	33.60	2.33	3.67	15.10	5.78	19.48	75
3105	MOD D353E-TA 240/480V 335 KW 435 HP D	46,903	32.19	42.98	3.69	5.81	17.52	9.15	22.59	96
3110	MOD 3412 -T 240/480V 300 KW 425 HP D	41,133	30.41	40.49	3.23	5.10	17.12	8.02	22.07	92
3115	MOD 3412 -TA 240/480V 440 KW 565 HP D	45,747	38.42	50.98	3.59	5.66	22.76	8.92	29.35	94
3120	MOD D348 -TA 240/480V 480 KW 683 HP D	70,311	49.80	66.42	5.52	8.71	27.51	13.71	35.48	135
3125	MOD D398B-TA 230/460V 566 KW 812 HP D	94,219	61.58	82.35	7.40	11.67	32.71	18.37	42.18	197
3130	MOD D399 -TA 230/460V 770 KW 1074 HP D	121,314	80.71	107.85	9.53	15.03	43.26	23.64	55.78	278
	ONAN									
	SKID MOUNTED									
3145	120/240V 15 KW 27 HP D	4,901	2.45	3.31	0.39	0.61	1.09	0.96	1.40	14
3150	120/240V 30 KW 63 HP D	7,272	4.77	6.38	0.57	0.90	2.54	1.42	3.27	19
3155	120/240V 45 KW 87 HP D	9,615	6.48	8.67	0.76	1.19	3.50	1.88	4.52	25

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	GENERATOR ELECT PLANTS (CONT'D)									
	OWAN (CONT'D)									
3160	120/240V 60 KW 102 HP D	11,056	7.57	10.10	0.87	1.37	4.11	2.16	5.30	26
3165	120/240V 75 KW 162 HP D	13,157	11.04	14.63	1.04	1.63	6.53	2.57	8.41	30
3170	120/240V 90 KW 162 HP D	13,787	11.18	14.84	1.09	1.71	6.53	2.70	8.41	30
3175	120/240V 125 KW 210 HP D	15,933	14.04	18.62	1.25	1.97	8.46	3.11	10.91	50
3180	120/240V 150 KW 276 HP D	18,872	18.00	23.81	1.49	2.34	11.12	3.69	14.34	65
	GRADERS MOTOR									
	AUSTIN WESTERN									
3190	PACER 301 POWER SHIFT 4X4 146 HP D	81,968	22.62	32.90	6.00	9.40	5.42	15.30	7.12	245
3195	SUPER 301 POWER SHIFT 6X6 146 HP D	88,977	24.19	35.41	6.50	10.12	5.42	16.51	7.12	273
3200	PACER 501 POWER SHIFT 4X4 187 HP D	87,120	25.54	36.90	6.39	10.01	6.94	16.28	9.12	280
3205	SUPER 501 POWER SHIFT 6X6 187 HP D	93,794	27.04	39.32	6.86	10.69	6.94	17.42	9.12	315
	CATERPILLAR									
3215	MOD 120-G POWER SHIFT ARTIC 125 HP D	67,556	18.69	27.02	4.97	7.81	4.64	12.68	6.09	258
3220	MOD 130-G POWER SHIFT ARTIC 135 HP D	77,295	20.96	30.34	5.69	8.95	5.01	14.53	6.58	301
3225	MOD 12-G POWER SHIFT ARTIC 135 HP D	83,906	22.31	32.38	6.16	9.68	5.01	15.73	6.58	311
3230	MOD 140-G POWER SHIFT ARTIC 150 HP D	84,844	23.32	33.81	6.22	9.74	5.56	15.83	7.31	317
3235	MOD 14-G POWER SHIFT ARTIC 180 HP D	116,416	30.90	45.09	8.51	13.28	6.68	21.65	8.78	433
3240	MOD 16-G POWER SHIFT ARTIC 250 HP D	169,456	44.57	65.21	12.38	19.27	9.27	31.41	12.19	581

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT				VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	GRADERS MOTOR (CONT'D)												
	FIAT-ALLIS												
3250	MOD-65	DIRECT DRIVE	59 HP	D	37,339	9.98	14.56	2.73	4.26	2.19	6.94	2.88	125
3255	MOD-100C	CONSTANT MESH	135 HP	D	71,679	20.05	29.00	5.26	8.24	5.01	13.41	6.58	310
3260	MOD-150C	POWER SHIFT	135 HP	D	76,681	20.97	30.38	5.63	8.83	5.01	14.35	6.58	316
3265	MOD-200C	POWER SHIFT	160 HP	D	82,668	23.37	33.77	6.07	9.50	5.94	15.44	7.80	322
	GALION												
3275	MOD 503-L	DIRECT DRIVE	74 HP	G	28,509	12.08	16.79	2.10	3.30	5.78	5.35	7.48	102
3280	MOD T-500C	POWER SHIFT	150 HP	D	64,511	19.79	28.67	4.69	7.24	5.56	11.85	7.31	257
3285	MOD T-600C	POWER SHIFT	200 HP	D	79,676	24.98	36.00	5.81	9.02	7.42	14.73	9.75	300
	WABCO												
3295	MOD 444	POWER SHIFT	134 HP	D	69,267	19.44	28.06	5.09	8.01	4.97	13.01	6.53	302
3300	MOD 555-B	CONSTANT MESH	160 HP	D	71,372	21.17	30.46	5.23	8.21	5.94	13.35	7.80	328
3305	MOD 777-B	POWER SHIFT	201 HP	D	84,062	25.84	37.28	6.14	9.54	7.46	15.57	9.80	355
	HOISTS												
	BENDIX-SKAGIT												
3315	BU-18W DOUBLE DRUM W/5/8" CABLE		100 HP	D	45,061	15.76		3.47	6.00	4.03			85
3320	G-70 DOUBLE DRUM W/7/8" CABLE		100 HP	D	58,627	18.99		4.50	7.80	4.03			126
3325	RB-80 DOUBLE DRUM W/1-1/8" CABLE		130 HP	D	105,296	31.64		8.09	14.01	5.24			240

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	HOISTS (CONT'D)									
	**********									
	GARDNER DENVER									
3335	HML SINGLE DRUM W/1/2" CABLE 350CFM A	5,308	1.37		0.41	0.71	0.00			10
	HYDRAULIC EXCAVATOR-CRAWLER MOUNTED									
	**********									
	T/B = TELESCOPING BOOM									
	B/H = BACKHOE									
	AMERICAN									
3345	MOD 25A 1.38 CY B/H 182 HP D	133,405	33.83	48.78	9.51	15.34	6.75	24.50	8.87	644
3350	MOD 35A 2.00 CY B/H 250 HP D	191,953	48.16	69.51	13.69	22.08	9.27	35.25	12.19	850
3355	MOD 45A 3.50 CY B/H 420 HP D	327,155	75.52	108.13	22.23	33.85	15.58	54.68	20.48	1620
	BUCYRUS ERIE									
3365	MOD 300-H 1.00 CY B/H 176 HP D	130,349	34.97	51.13	9.73	16.46	6.53	26.16	8.58	515
3370	MOD 325-H 1.75 CY B/H 205 HP D	178,474	43.58	63.05	12.73	20.53	7.61	32.77	10.00	715
3375	MOD 350-H 2.50 CY B/H 248 HP D	225,975	54.68	79.16	16.12	26.00	9.20	41.49	12.09	920
	CATEPILLAR									
3385	MOD 225 1.00 CY B/H 125 HP D	113,535	29.21	42.91	8.47	14.33	4.64	22.79	6.09	494
3390	MOD 235 1.50 CY B/H 195 HP D	187,876	44.96	65.18	13.40	21.61	7.23	34.50	9.51	832
3395	MOD 245 2.50 CY B/H 325 HP D	291,206	70.69	102.34	20.77	33.50	12.06	53.48	15.85	1290

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	HYDRAULIC EXCAVATOR-CRLR MNTD CONT'D ********** T/B = TELESCOPING BOOM B/H = BACKHOE									
	DROTT									
3405	MOD 40-D 1.00 CY B/H 157 HP D	85,052	24.66	35.80	6.35	10.74	5.82	17.07	7.66	400
3410	MOD 50-D 1.25 CY B/H 190 HP D	108,726	29.40	42.16	7.76	12.51	7.05	19.97	9.26	510
	GRADALL									
3420	MOD G-660 .50 CY T/B 115 HP D	116,223	29.35	43.19	8.67	14.68	4.27	23.33	5.61	459
3425	MOD G-880 .75 CY T/B 160 HP D	139,282	36.13	53.03	10.39	17.58	5.94	27.96	7.80	549
3430	MOD G-1000 1.25 CY T/B 272 HP D	186,623	48.10	69.25	13.31	21.47	10.09	34.27	13.26	787
	HOPTO									
3440	MOD 211 1.13 CY B/H 160 HP D	115,761	29.46	42.45	8.26	13.32	5.94	21.26	7.80	521
3445	MOD 311 1.88 CY B/H 235 HP D	161,179	41.54	59.81	11.50	18.54	8.72	29.60	11.46	743
3450	MOD 900B 3.25 CY B/H 308 HP D	191,052	46.86	66.76	12.98	19.77	11.43	31.94	15.02	1009
3455	MOD 1900 5.00 CY B/H 616 HP D	392,316	95.49	136.14	26.67	40.60	22.85	65.58	30.04	1998
	INSLEY									
3465	MOD H1500B 1.50 CY B/H 240 HP D	169,105	43.30	62.38	12.07	19.46	8.90	31.06	11.70	801
3470	MOD H3500B 3.00 CY B/H 355 HP D	233,854	56.38	80.46	15.89	24.19	13.17	39.10	17.31	1149
	KOEHRING									
3480	MOD 866D 1.75 CY B/H 325 HP D	252,235	63.14	91.14	18.00	29.02	12.06	46.32	15.85	1197
3485	MOD 1066D 2.50 CY B/H 380 HP D	312,089	77.15	111.50	22.26	35.90	14.10	57.31	18.53	1524

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	HYDRAULIC EXCAVATOR-CRLR MNTD CONT'D									
	**********									
	T/B = TELESCOPING BOOM									
	B/H = BACKHOE									
	KOEHRING (CONT'D)									
3490	MOD 1266D 5.50 CY B/H 760 HP D	641,092	145.26	208.27	43.57	66.34	28.20	107.16	37.06	2600
	P & H									
3500	MOD H-750 .75 CY B/H 105 HP D	89,189	23.25	34.11	6.66	11.26	3.90	17.91	5.12	390
3505	MOD H-1250 1.00 CY B/H 190 HP D	124,753	34.40	50.18	9.31	15.75	7.05	25.04	9.26	620
	SHIELD BANTAM									
3515	MOD C166 .50 CY B/H 118 HP D	71,490	20.11	29.28	5.33	9.02	4.38	14.35	5.75	321
	UNIT									
3525	MOD H202C .75 CY B/H 152 HP D	94,710	26.46	38.54	7.06	11.95	5.64	19.01	7.41	440
3530	MOD H342 1.25 CY B/H 228 HP D	161,843	41.36	59.60	11.55	18.62	8.46	29.72	11.12	740
3535	MOD H471 1.75 CY B/H 304 HP D	204,059	52.87	76.09	14.55	23.47	11.28	37.47	14.82	990

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CWT
			CONDITION		STAND-BY	AVERAGE COND.		SEVERE COND.		
			AVERAGE	SEVERE		OWNER-SHIP	FUEL	OWNER-SHIP	FUEL	
	HYDRAULIC EXCAVATOR-TRUCK MOUNTED ********** (HP & FUEL LISTED EQUIP/CARRRIER) T/B = TELESCOPING BOOM B/H = BACKHOE									
	GRADALL									
3545	MOD G-660 .50 CY T/B 115/180 HP D/G	136,084	28.92	41.83	9.34	14.38	6.94	23.20	8.97	419
3550	MOD G-880 .75 CY T/B 160/210 HP D/D	151,417	32.47	46.63	10.39	15.95	7.91	25.75	10.02	508
3555	MOD G-1000 1.25 CY T/B 272/228 HP D/D	199,106	43.58	62.00	13.15	19.26	12.54	31.52	15.98	698
	LAND CLEARING EQUIPMENT ********** (ADD TO TRACTOR)									
3565	FLECO LAND CLEARING RAKE FOR D-7	19,315	4.41	6.68	1.48	2.57	0.00	4.11	0.00	107
3570	FLECO LAND CLEARING RAKE FOR D-8	24,665	5.63	8.51	1.90	3.29	0.00	5.24	0.00	145
3575	FLECO LAND CLEARING RAKE FOR D-9	31,146	7.09	10.72	2.39	4.15	0.00	6.61	0.00	200
3580	FLECO CLAMP RAKE FOR CAT 977 (ADB TO 977 LOADER)	10,040	2.32	3.50	0.77	1.34	0.00	2.14	0.00	23
	LIGHTING SETS-TRAILER MOUNTED **********									
	ALLMAND METALLIC VAPOR									
3590	30' TOWER 4/1000W LTS 5 KW 11 HP D	9,628	2.91		0.75	1.20	0.65			26
	OVER LOWE METALLIC VAPOR									
3600	38' TOWER 4/1000W LTS 6 KW 12 HP D	8,772	2.80		0.69	1.10	0.71			22

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	LOADERS-BELT ********** KOLMAN									
3610	101XHD 24"X50' 355 T/HR 56 HP D	24,699	9.21	13.43	1.91	2.98	2.26	4.93	2.91	113
	OPTIONAL EQUIPMENT SELECT AS NEEDED									
3620	PLATE FEEDER DOZER TRAP MODEL 45	3,490	0.81	1.23	0.28	0.44	0.00	0.72	0.00	37
3625	BELT FEEDER DOZER TRAP MODEL 65	5,097	1.18	1.80	0.40	0.64	0.00	1.05	0.00	36
3630	WING WALLS STATIONARY	924	0.22	0.33	0.08	0.12	0.00	0.19	0.00	9
3635	TUNNEL EXTENSION W/WING WALLS	4,812	1.11	1.71	0.38	0.60	0.00	1.00	0.00	61
3640	SINGLE DECK SCREEN SB-70 7'X42	3,748	0.86	1.32	0.29	0.46	0.00	0.77	0.00	19
3645	DOUBLE DECK SCREEN DC-70-42 7'X42	4,596	1.07	1.62	0.36	0.58	0.00	0.95	0.00	26
3650	TRIPLE DECK SCREEN TC-70-42 7'X42	5,807	1.33	2.04	0.45	0.72	0.00	1.19	0.00	34
3655	XHD CONVEYOR JACKLEG	726	0.18	0.27	0.06	0.10	0.00	0.16	0.00	9
3660	101XHD 30"X50' 615 T/HR 56 HP D	25,629	9.58	14.03	1.98	3.07	2.26	5.09	2.91	122
	OPTIONAL EQUIPMENT SELECT AS NEEDED									
3670	PLATE FEEDER DOZER TRAP MODEL 45	4,348	1.00	1.54	0.34	0.54	0.00	0.90	0.00	42
3675	BELT FEEDER DOZER TRAP MODEL 65	5,339	1.22	1.88	0.41	0.66	0.00	1.10	0.00	40
3680	WING WALLS STATIONARY	924	0.22	0.33	0.08	0.12	0.00	0.19	0.00	9
3685	TUNNEL EXTENSION W/WING WALLS	4,812	1.11	1.71	0.38	0.60	0.00	1.00	0.00	61
3690	SINGLE DECK SCREEN SB-80 8'X48	4,203	0.96	1.49	0.33	0.52	0.00	0.87	0.00	23
3695	DOUBLE DECK SCREEN DC-80-48 8'X48	5,327	1.22	1.88	0.41	0.66	0.00	1.10	0.00	35
3700	TRIPLE DECK SCREEN TC-80-48 8'X48	6,548	1.51	2.31	0.51	0.82	0.00	1.35	0.00	43
3705	XHD CONVEYOR JACKLEG	726	0.18	0.27	0.06	0.10	0.00	0.16	0.00	9

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	LOADERS-BELT (CONT'D) **********									
	KOLMAN (CONT'D)									
3710	101XHD 36"X50' 910 T/HR 68 HP D	31,502	11.71	17.14	2.42	3.77	2.74	6.26	3.53	173
	OPTIONAL EQUIPMENT SELECT AS NEEDED									
3720	PLATE FEEDER DOZER TRAP MODEL 45	4,660	1.07	1.64	0.36	0.58	0.00	0.96	0.00	45
3725	BELT FEEDER DOZER TRAP MODEL 65	5,654	1.30	1.99	0.44	0.70	0.00	1.16	0.00	42
3730	WING WALLS STATIONARY	924	0.22	0.33	0.08	0.12	0.00	0.19	0.00	9
3735	TUNNEL EXTENSION W/WING WALLS	4,812	1.11	1.71	0.38	0.60	0.00	1.00	0.00	61
3740	SINGLE DECK SCREEN SB-90 9'X54	4,742	1.10	1.68	0.38	0.60	0.00	0.98	0.00	28
3745	DOUBLE DECK SCREEN DC-90-54 9'X54	5,960	1.37	2.10	0.46	0.74	0.00	1.23	0.00	43
3750	TRIPLE DECK SCREEN TC-90-54 9'X54	7,937	1.84	2.79	0.63	1.00	0.00	1.63	0.00	54
3755	XHD CONVEYOR JACKLEG	726	0.18	0.27	0.06	0.10	0.00	0.16	0.00	9
3760	101XHD 42"X50' 1260 T/HR 84 HP D	36,746	13.88	20.30	2.83	4.40	3.38	7.30	4.36	204
	OPTIONAL EQUIPMENT SELECT AS NEEDED									
3770	PLATE FEEDER DOZER TRAP MODEL 45	4,969	1.15	1.76	0.39	0.62	0.00	1.03	0.00	48
3775	BELT FEEDER DOZER TRAP MODEL 65	6,504	1.51	2.29	0.51	0.82	0.00	1.34	0.00	45
3780	WING WALLS STATIONARY	924	0.22	0.33	0.08	0.12	0.00	0.19	0.00	9
3785	TUNNEL EXTENSION W/WING WALLS	4,812	1.11	1.71	0.38	0.60	0.00	1.00	0.00	61
3790	SINGLE DECK SCREEN SB-100	5,921	1.37	2.09	0.46	0.74	0.00	1.22	0.00	37
3795	DOUBLE DECK SCREEN DC-100-60 10'X	7,359	1.70	2.60	0.58	0.92	0.00	1.52	0.00	55
3800	TRIPLE DECK SCREEN TC-100-60 10'X	9,216	2.13	3.25	0.73	1.16	0.00	1.90	0.00	68
3805	XHD CONVEYOR JACKLEG	726	0.18	0.27	0.06	0.10	0.00	0.16	0.00	9

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	LOADERS-BELT (CONT'D)									
	**********									
	KOLMAN (CONT'D)									
3810	101XHD 48"X50' 1700 T/HR 125 HP D	67,169	23.19	34.00	5.19	8.12	5.03	13.44	6.49	287
	OPTIONAL EQUIPMENT SELECT AS NEEDED									
3820	PLATE FEEDER DOZER TRAP MODEL 45	7,872	1.81	2.79	0.61	0.98	0.00	1.63	0.00	51
3825	WING WALLS STATIONARY	924	0.22	0.33	0.08	0.12	0.00	0.19	0.00	9
3830	TUNNEL EXTENSION W/WING WALLS	5,377	1.25	1.90	0.43	0.68	0.00	1.11	0.00	66
3835	SINGLE DECK SCREEN SB-120 12'X	7,396	1.70	2.62	0.58	0.92	0.00	1.53	0.00	53
3840	DOUBLE DECK SCREEN DC-120-72 12'X	9,073	2.10	3.20	0.71	1.14	0.00	1.87	0.00	77
3845	TRIPLE DECK SCREEN TC-120-60 12'X	10,346	2.39	3.65	0.81	1.30	0.00	2.13	0.00	80
3850	XHD CONVEYOR JACKLEG	726	0.18	0.27	0.06	0.10	0.00	0.16	0.00	9
3855	303 48"X50' 2000 CY/HR 125 HP D	111,064	33.45	49.61	8.62	13.58	5.03	22.40	6.49	627
3860	303 48"X60' 2000 CY/HR 185 HP D	123,571	39.53	58.17	9.60	15.14	7.45	24.96	9.61	662
3865	303 60"X50' 3600 CY/HR 185 HP D	127,683	40.58	59.78	9.91	15.63	7.45	25.78	9.61	682
3870	303 60"X60' 3600 CY/HR 290 HP D	147,116	50.78	74.13	11.42	18.03	11.68	29.73	15.06	737
	OPTIONAL EQUIPMENT SELECT AS NEEDED									
3880	SINGLE DECK SCREEN SB-120 12'X	8,246	1.91	2.90	0.65	1.04	0.00	1.69	0.00	53
3885	DOUBLE DECK SCREEN DC-120-72 12'X	10,107	2.33	3.56	0.79	1.26	0.00	2.08	0.00	77
3890	TRIPLE DECK SCREEN TC-120-60 12'X	11,528	2.66	4.06	0.90	1.44	0.00	2.37	0.00	80
3895	SINGLE DECK VIBRATING GRIZZLE 72"W	13,651	3.15	4.81	1.07	1.71	0.00	2.81	0.00	80
3900	404 48"X50' 2000 CY/HR 185 HP D	140,465	43.80	64.74	10.91	17.21	7.45	28.36	9.61	607
3905	404 48"X60' 2000 CY/HR 185 HP D	147,662	45.81	67.88	11.46	18.06	7.45	29.79	9.61	638

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	LOADERS-BELT (CONT'D)									
	KOLMAN (CONT'D)									
3910	404 60"X50' 3600 CY/HR 290 HP D	164,834	55.27	81.05	12.80	20.19	11.68	33.29	15.06	658
3915	404 60"X60' 3600 CY/HR 290 HP D	180,448	59.32	87.31	14.01	22.09	11.68	36.43	15.06	709
	OPTIONAL EQUIPMENT SELECT AS NEEDED									
3925	SINGLE DECK SCREEN SB-120 12'X	8,246	1.91	2.90	0.65	1.04	0.00	1.69	0.00	53
3930	DOUBLE DECK SCREEN DC-120-72 12'X	10,107	2.33	3.56	0.79	1.26	0.00	2.08	0.00	77
3935	TRIPLE DECK SCREEN TC-120-60 12'X	11,528	2.66	4.06	0.90	1.44	0.00	2.37	0.00	80
3940	SINGLE DECK VIBRATING GRIZZLE 72"W	13,651	3.15	4.81	1.07	1.71	0.00	2.81	0.00	80
	LOADERS - F.E. TRACK TYPE									
	CASE									
3950	350 3/4 CY 39 HP D	27,428	9.36	13.57	2.13	3.55	1.69	5.74	2.23	125
3955	450 1 CY 53 HP D	37,347	12.76	18.46	2.90	4.84	2.30	7.81	3.03	160
3960	850B 1-1/2 CY 72 HP D	49,627	17.05	24.66	3.85	6.43	3.13	10.38	4.12	220
3965	1150B 2 CY 105 HP D	64,674	22.87	33.01	5.01	8.37	4.56	13.52	6.01	290
	CATERPILLAR									
3975	931 1 CY 62 HP D	36,164	12.99	18.72	2.81	4.69	2.69	7.56	3.55	151
3980	941B 1-1/2 CY 80 HP D	51,355	17.97	25.95	3.98	6.65	3.48	10.74	4.58	257
3985	951C 1-3/4 CY 95 HP D	55,598	19.96	28.77	4.31	7.20	4.13	11.63	5.44	270
3990	955L 2-1/4 CY 130 HP D	76,220	27.35	39.40	5.91	9.87	5.65	15.93	7.44	355
3995	977L 3-1/4 CY 190 HP D	113,996	40.64	58.57	8.84	14.76	8.26	23.82	10.88	507

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT					VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	LOADERS - F.E. TRACK TYPE (CONT'D)													
	CATERPILLAR (CONT'D)													
4000	983	5	CY	275 HP	D	173,811	61.06	88.15	13.47	22.50	11.95	36.33	15.74	783
	FIAT-ALLIS													
4010	FL9	1-5/8	CY	87 HP	D	47,518	17.40	25.04	3.68	6.15	3.78	9.94	4.98	272
4015	FL10C	1-7/8	CY	122 HP	D	61,476	23.08	33.14	4.77	7.96	5.30	12.86	6.98	312
4020	FL14C	2-1/2	CY	150 HP	D	76,609	28.65	41.14	5.94	9.92	6.52	16.02	8.59	436
	INTERNATIONAL													
4030	100-E	1	CY	65 HP	D	36,179	13.17	18.95	2.81	4.69	2.82	7.56	3.72	160
4035	125-E	1-1/4	CY	78 HP	D	43,158	15.75	22.66	3.35	5.59	3.39	9.03	4.46	198
4040	175-C	2	CY	134 HP	D	66,558	25.09	36.03	5.15	8.61	5.82	13.92	7.67	317
4045	250-C	2-3/4	CY	190 HP	D	98,408	36.64	52.62	7.63	12.74	8.26	20.57	10.88	443
	JOHN DEERE													
4055	JD350-C	3/4	CY	42 HP	D	26,495	9.31	13.45	2.05	3.43	1.83	5.55	2.40	119
4060	JD450-C	1-1/4	CY	65 HP	D	35,386	12.96	18.66	2.74	4.58	2.82	7.40	3.72	167

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT				VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	LOADERS - F.E. WHEEL TYPE **********												
		BOBCAT											
4070	MOD 630	1/2 CY SKID-STEER	30 HP	G	8,995	5.30	7.39	0.69	1.14	2.53	1.86	3.30	34
		CASE											
4080	W-14	1-1/2 CY ARTIC	83 HP	D	45,885	14.97	22.11	3.53	5.79	3.34	9.41	4.31	148
4085	W-18	2 CY ARTIC	103 HP	D	56,353	18.51	27.38	4.32	7.09	4.15	11.53	5.35	199
4090	W-24 C	2-1/2 CY ARTIC	132 HP	D	78,136	25.71	38.78	5.96	9.69	5.32	15.81	6.86	236
4095	W-36	3-1/2 CY ARTIC	185 HP	D	93,604	32.52	48.92	7.13	11.55	7.45	18.87	9.61	332
		CATERPILLAR											
4105	920	1-3/4 CY ARTIC	80 HP	D	49,302	15.53	22.98	3.79	6.23	3.22	10.12	4.16	183
4110	930	2-1/4 CY ARTIC	100 HP	D	56,939	18.47	27.36	4.37	7.17	4.03	11.66	5.19	205
4115	950	3 CY ARTIC	130 HP	D	78,073	25.27	37.87	5.97	9.74	5.24	15.88	6.75	284
4120	966-C	4 CY ARTIC	170 HP	D	102,688	33.60	50.74	7.83	12.72	6.85	20.76	8.83	374
4125	980-C	5-1/4 CY ARTIC	270 HP	D	148,183	47.91	71.98	10.61	16.94	10.88	27.34	14.02	577
4130	988-B	7 CY ARTIC	375 HP	D	223,568	71.07	107.63	15.98	25.47	15.10	41.15	19.48	888
4135	992-C	12-1/2 CY ARTIC	690 HP	D	452,748	143.29	220.49	32.23	51.02	27.79	82.65	35.84	1908
		CLARK											
4145	35C	1-1/4 CY	74 HP	D	42,459	13.54	19.91	3.27	5.39	2.98	8.75	3.84	171
4150	55-B	2 CY ARTIC	114 HP	D	60,205	19.90	29.33	4.63	7.60	4.59	12.36	5.92	247
4155	75-B	2-1/2 CY ARTIC	142 HP	D	81,216	26.84	40.30	6.20	10.10	5.72	16.48	7.38	303
4160	125B	3-1/2 CY ARTIC	212 HP	D	109,872	38.50	58.57	8.33	13.41	8.54	21.96	11.01	419

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT					VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	LOADERS - F.E. WHEEL TYPE (CONT'D)													
	CLARK (CONT'D)													
4165	175-B	4-1/2	CY ARTIC	273 HP	B	138,697	46.17	69.40	9.91	15.80	11.00	25.54	14.18	527
4170	275-B	6-1/2	CY ARTIC	344 HP	B	195,335	62.25	93.42	14.00	22.38	13.86	36.11	17.87	739
4175	475-B	12	CY ARTIC	632 HP	D	378,625	121.75	185.77	27.00	42.85	25.46	69.33	32.83	1544
	FIAT-ALLIS													
4185	345-B	1-3/4	CY ARTIC	80 HP	B	47,268	15.09	22.34	3.63	5.96	3.22	9.70	4.16	174
4190	545-B	2	CY ARTIC	102 HP	D	57,886	18.78	27.80	4.45	7.30	4.11	11.85	5.30	217
4195	605-B	2-1/2	CY ARTIC	108 HP	D	61,057	19.79	29.25	4.69	7.70	4.35	12.52	5.61	238
4200	645-B	3	CY ARTIC	151 HP	D	80,119	26.89	40.04	6.13	10.01	6.08	16.30	7.84	286
4205	745-C	4	CY ARTIC	202 HP	B	106,943	37.32	56.92	8.11	13.04	8.14	21.35	10.49	418
4210	945-B	6	CY ARTIC	335 HP	B	191,534	62.62	95.60	13.64	21.63	13.49	35.03	17.40	708
	INTERNATIONAL													
4220	515	1-3/4	CY	95 HP	B	43,243	15.01	21.96	3.32	5.46	3.83	8.88	4.93	161
4225	H-60E	2-1/4	CY ARTIC	104 HP	D	49,492	16.97	24.91	3.80	6.24	4.19	10.15	5.40	205
4230	H-90E	4-1/2	CY ARTIC	239 HP	D	109,950	37.08	54.82	7.89	12.66	9.63	20.40	12.41	402
4235	H-100-C	5	CY ARTIC	290 HP	D	122,745	43.65	65.33	8.77	13.94	11.68	22.54	15.06	487
4240	560	6-1/2	CY ARTIC	380 HP	D	184,144	61.91	92.59	13.18	21.04	15.31	33.97	19.74	796
4245	H-400-C	11	CY ARTIC	580 HP	D	329,323	106.45	161.17	23.52	37.45	23.36	60.54	30.13	1254

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT					VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	LOADERS - F.E. WHEEL TYPE (CONT'D)													
	TEREX (GM)													
4255	72-31B	3	CY ARTIC	160 HP	D	76,888	26.71	39.67	5.88	9.59	6.44	15.63	8.31	277
4260	72-51B	4	CY ARTIC	231 HP	D	109,723	37.67	56.82	7.83	12.43	9.30	20.12	12.00	392
4265	72-61	5-1/2	CY ARTIC	307 HP	D	143,746	49.78	75.18	10.25	16.26	12.37	26.32	15.95	562
4270	72-71B	7-1/2	CY ARTIC	388 HP	D	199,738	65.43	97.67	14.32	22.91	15.63	36.95	20.15	846
4275	72-81	9	CY ARTIC	434 HP	D	302,965	90.82	136.92	21.73	34.81	17.48	56.12	22.54	1149
	YALE													
4285	1500-C	1-3/4	CY ARTIC	98 HP	D	44,115	15.35	22.45	3.39	5.57	3.95	9.06	5.09	166
4290	1700-C	2	CY ARTIC	136 HP	G	52,297	27.01	38.36	4.01	6.57	11.49	10.69	14.97	193
4295	1900-C	2-1/4	CY ARTIC	136 HP	D	55,055	20.09	29.37	4.22	6.92	5.48	11.26	7.06	203
4300	2000-C	3	CY ARTIC	165 HP	D	73,559	26.30	38.98	5.62	9.16	6.65	14.94	8.57	278
4305	2500-C	3-3/4	CY ARTIC	182 HP	D	94,463	33.32	50.94	7.14	11.47	7.33	18.81	9.45	369
4310	3000-C	4-1/4	CY ARTIC	255 HP	D	99,005	36.45	54.42	7.07	11.22	10.27	18.15	13.24	409
4315	5500-C	5-1/2	CY ARTIC	320 HP	D	140,810	48.65	72.25	10.09	16.13	12.89	26.03	16.62	590
4320	7500-C	6-1/2	CY ARTIC	400 HP	D	189,962	65.17	98.18	13.55	21.54	16.11	34.84	20.78	778

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	LOADER-BACKHOE IND. TYPE TRACTOR **********									
	CASE									
4330	580C LDR/BHOE 7/8 CY FE BUCKET 55 HP D 24" B/H DIPPER	30,311	9.44	13.79	2.34	3.86	2.22	6.27	2.86	114
4335	680E LDR/BHOE 1-1/4 CY FE BUCKET 80 HP D 30" B/H DIPPER	44,420	13.86	20.31	3.42	5.65	3.22	9.17	4.16	152
	JOHN DEERE									
4345	410 LDR/BHOE 1 CY FE BUCKET 66 HP D 24" B/H DIPPER	31,188	10.35	15.15	2.40	3.94	2.66	6.40	3.43	137
4350	510B LDR/BHOE 1-1/2 CY FE BUCKET 83 HP D 30" B/H DIPPER	47,276	14.69	21.56	3.64	5.99	3.34	9.73	4.31	205
	LOADER-BACKHOE CRLR TYPE TRACTOR **********									
	CASE									
4360	350 LDR/BHOE 3/4 CY FE BUCKET 39 HP D 24" B/H DIPPER	37,473	11.94	17.41	2.90	4.85	1.69	7.84	2.23	141
4365	450 LDR/BHOE 1 CY FE BUCKET 53 HP D 24" B/H DIP	47,365	15.32	22.28	3.67	6.13	2.30	9.90	3.03	167
	CATERPILLAR									
4375	931 LDR/BHOE 1 CY FE BUCKET 62 HP D 30" B/H DIPPER	44,495	15.12	21.90	3.45	5.76	2.69	9.30	3.55	187

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	LOADER-BACKHOE ATTACHMENT'S ********** HYDRAULICLY OPERATED IMPACTOR MOUNTED ON BACKHOE BOOM TO FIT CASE AND JOHN DEERE BACKHOES (ADD TO BASIC LOADER-BACKHOE)									
4385	IMPACTOR WITH TAMPER TOOL	9,490	3.54		0.88	1.77	0.00			12
4390	IMPACTOR WITH CHISEL TOOL	8,952	3.35		0.83	1.67	0.00			11
	PILE EXTRACTORS **********									
	MKT CORPORATION									
4400	E2 700 FT-LBS 400CFM A	10,811	4.11		1.00	2.01	0.00			26
4405	E4 1000 FT-LBS 550CFM A	16,609	6.22		1.53	3.09	0.00			45
	VULCAN									
4415	400A 500 FT-LBS 450CFM A	13,606	5.13		1.26	2.53	0.00			29
4420	800A 1000 FT-LBS 900CFM A	18,336	6.84		1.69	3.41	0.00			55
4425	1200A 1640 FT-LBS 1350CFM A	21,415	7.96		1.98	3.99	0.00			92
	PILE HAMMERS-DIESEL ********** (FUEL NOT INCLUDED)									
	MKT CORPORATION									
4435	DE-20B/30B (6-FT) 12,000 FT-LBS	27,550	10.02		2.54	5.12	0.00			74
4440	DE-20B/30B (6-FT) 16,800 FT-LBS	28,655	10.43		2.65	5.33	0.00			82
4445	DE-50B/70B (6-FT) 30,000 FT-LBS	51,900	18.84		4.78	9.65	0.00			138
4450	DE-50B/70B (6-FT) 42,000 FT-LBS	55,112	20.01		5.08	10.25	0.00			158

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	PILE HAMMERS-SINGLE ACTING **********									
	VULCAN									
4460	1 15000 FT-LBS 750CFM A	23,209	8.60		2.14	4.31	0.00			101
4465	106 19000 FT-LBS 750CFM A	29,426	10.85		2.71	5.47	0.00			121
4470	06 19500 FT-LBS 900CFM A	26,569	9.82		2.45	4.94	0.00			121
4475	08 26000 FT-LBS 1100CFM A	29,804	11.00		2.75	5.55	0.00			178
4480	010 32500 FT-LBS 1350CFM A	32,644	12.02		3.01	6.07	0.00			198
4485	014 42000 FT-LBS 1750CFM A	47,087	17.25		4.34	8.76	0.00			283
4490	016 48750 FT-LBS 1750CFM A	55,957	20.46		5.16	10.41	0.00			320
4495	020 60000 FT-LBS 2150CFM A	59,635	21.79		5.50	11.09	0.00			425
4500	030 90000 FT-LBS 2350CFM A	87,334	31.82		8.05	16.24	0.00			550
	PILE HAMMERS-DOUBLE ACTING **********									
	MKT CORPORATION									
4510	9-B-3 8750 FT-LBS 900CFM A	19,969	7.44		1.85	3.72	0.00			72
4515	10-B-3 13100 FT-LBS 1200CFM A	25,706	9.51		2.37	4.78	0.00			111
4520	11-B-3 19150 FT-LBS 1200CFM A	33,366	12.28		3.07	6.20	0.00			138
4525	5 (SELF STOP) 1000 FT-LBS 375CFM A	7,661	2.98		0.71	1.43	0.00			16
4530	6 (SELF STOP) 2500 FT-LBS 600CFM A	9,189	3.53		0.85	1.71	0.00			30
4535	7 (SELF STOP) 4150 FT-LBS 750CFM A	12,383	4.68		1.14	2.30	0.00			49

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	PILE HAMMERS-DOUBLE ACTING (CONT'D)									
	VULCAN									
4545	50C 15100 FT-LBS 1250CFM A	27,742	10.25		2.56	5.16	0.00			127
4550	65C 19200 FT-LBS 1450CFM A	31,802	11.72		2.94	5.92	0.00			158
4555	80C 24450 FT-LBS 1750CFM A	32,567	11.99		3.00	6.05	0.00			191
4560	100C 32900 FT-LBS 2050CFM A	33,302	12.25		3.07	6.19	0.00			232
4565	140C 36000 FT-LBS 2150CFM A	44,005	16.13		4.06	8.18	0.00			287
4570	200C 50200 FT-LBS 2550CFM A	66,849	24.40		6.16	12.43	0.00			422
4575	400C 113500 FT-LBS 5800CFM A	182,931	66.44		16.87	34.02	0.00			850
	PILE HAMMERS-VIBRATORY									
	MKT CORPORATION									
4585	V5 WITH POWER PACK 59 HP D	46,799	19.99		4.31	8.70	2.38			131
4590	V16 WITH POWER PACK 156 HP D	93,326	41.84		8.61	17.36	6.28			225
4595	V18 WITH POWER PACK 248 HP D	135,574	61.88		12.50	25.21	9.99			304
	PIPELAYER									
	CATERPILLAR									
4605	561D 15 FT BOOM, 40,000 LB CAP 105 HP D	80,604	15.66	23.46	5.96	9.45	2.34	15.28	3.01	280
4610	571G 18 FT BOOM, 60,000 LB CAP 200 HP D	137,330	27.27	40.77	10.16	16.09	4.45	26.05	5.72	500
4615	572G 18 FT BOOM, 90,000 LB CAP 200 HP D	157,259	30.38	45.59	11.64	18.43	4.45	29.83	5.72	605
4620	583K 20 FT BOOM, 140,000 LB CAP 300 HP D	203,723	40.57	60.60	15.07	23.87	6.68	38.63	8.59	900

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	PIPELAYER (CONT'D)									
	**********									
	CATERPILLAR (CONT'D)									
4625	594G 24 FT BOOM, 200,000 LB CAP 410 HP D	290,156	57.27	85.64	21.46	34.00	9.13	55.02	11.73	1230
	PUMPS-GROUT									
	**********									
	G.M. PHILPOTT GROUT UNITS WITH GARDNER-DENVER PUMPS									
4635	SSF2-10 W/ (2 EA) FG-AG 600CFM A 6" X 3" X 6" PUMPS UNIT INCLUDES (2)-10 C.F. TANKS, AUTO. WATER METER, FITTINGS, HOSES & SKD MOUNTING CAPACITY: 21 GPM @ 252 PSI TO 60 GPM @ 90 PSI	19,773	5.78		1.63	3.02	0.00			64
4640	SSF2-20 W/ (2 EA) FD-FS 900CFM A 10" X 3" X 10" PUMPS UNIT INCLUDES (2)-20 C.F. TANKS, AUTO. WATER METER, FITTINGS, HOSES & SKID MOUNTING CAPACITY: 32 GPM AT 700 PSI TO 98 GPM @ 252 PSI	30,928	9.02		2.56	4.73	0.00			107
	PUMPS-WATER-FOR CORE DRILLS									
	**********									
	LONGYEAR									
4650	520 RQ 5.7-20 GPM UP TO 600PSI 10 HP G	4,105	2.47		0.32	0.55	1.16			7
4655	535 RQ 9.9-35 GPM UP TO 800PSI 15 HP G	5,245	3.49		0.40	0.69	1.75			10

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	PUMPS-WATER-CENTRIF.-DEWATERING									
	HOMELITE, SKID MOUNTED									
4665	MOD 110S 1-1/2"-5000 GPH @ 30' H 2 HP G	335	0.38		0.03	0.05	0.23			1
4670	MOD 111S 2" - 9000 GPH @ 22' H 3 HP G	374	0.55		0.03	0.05	0.35			1
4675	MOD 120SP 3" - 18000 GPH @ 20' H 6 HP G	564	1.04		0.04	0.07	0.70			2
	MARLOW, WHEEL MOUNTED									
4685	MOD 4D2 465 GPM @ 20 ' HEAD 59 HP G	6,125	10.47		0.48	0.82	6.87			14
4690	MOD 4D2 470 GPM @ 20 ' HEAD 47 HP D	7,969	5.45		0.61	1.06	2.64			15
4695	MOD 6E4A 1095 GPM @ 20 ' HEAD 117 HP G	7,310	19.65		0.56	0.97	13.63			18
4700	MOD 6E4A 1090 GPM @ 20 ' HEAD 80 HP D	11,648	8.84		0.90	1.55	4.49			24
4705	MOD 8FA3 2200 GPM @ 20 ' HEAD 108 HP D	14,272	11.62		1.10	1.90	6.07			23
4710	MOD 1061 2840 GPM @ 20 ' HEAD 108 HP D	15,889	11.98		1.22	2.11	6.07			30
	PUMPS-WATER-CENTRIF.-TRASH									
	HOMELITE, SKID MOUNTED									
4720	MOD 121TP 2" - 11500 GPH @ 20' H 4 HP G	531	0.74		0.04	0.07	0.47			2
4725	MOD 122TP 3" - 21600 GPH @ 20' H 4 HP G	727	0.78		0.05	0.09	0.47			3
4730	MOD 123TP 4" - 36500 GPH @ 20' H 10 HP G	1,329	1.83		0.11	0.18	1.16			4

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	PUMPS-WATER-DIAPHRAGM									
	**********									
	HOMELITE, SKID MOUNTED									
4740	MOD 111DP 2" - 1900 GPH @ 10' HD 4 HP G	625	0.77		0.05	0.09	0.47			2
4745	MOD 111DP 3" - 4140 GPH @ 10' HD 4 HP G	1,410	0.94		0.11	0.19	0.47			3
	PUMPS-WATER-SUBMERSIBLE									
	**********									
	HOMELITE									
4755	MOD SP-2 2" - 7400 GPH @ 10' HD 2 HP E	690	0.26		0.05	0.09	0.10			1
4760	MOD SP-3 3" - 19000 GPH @ 15' HD 5 HP E	1,237	0.58		0.09	0.16	0.25			2
	RIPPER & HYDR. BANK SLOPER									
	**********									
	(DOES NOT INCLUDE COST OF POINT WEAR)									
	ATECO									
4770	VRAR-1 D9H RADIAL LIFT	29,509	7.99	12.48	2.44	4.52	0.00	7.30	0.00	136
4775	D-9H SHANKS EA	2,244	0.60	0.95	0.18	0.34	0.00	0.56	0.00	15
4780	LPAS-D8K PARALLEL LIFT	16,736	4.56	7.10	1.39	2.57	0.00	4.14	0.00	87
4785	D-8K SHANKS EA	3,127	0.83	1.32	0.25	0.47	0.00	0.78	0.00	19
4790	LPAS-D7G PARALLEL LIFT	13,444	3.67	5.72	1.11	2.06	0.00	3.33	0.00	45
4795	D-7G SHANKS EA	2,231	0.60	0.95	0.18	0.34	0.00	0.56	0.00	10
4800	PS D6D RADIAL LIFT	6,512	1.80	2.80	0.53	0.99	0.00	1.62	0.00	24
4805	D-6C SHANKS EA	213	0.05	0.10	0.02	0.03	0.00	0.06	0.00	1
4810	V-LPRF-TD25C PARALLEL LIFT STD SVC	14,932	4.07	6.34	1.23	2.29	0.00	3.69	0.00	89
4815	TD-25C SHANKS EA	1,348	0.37	0.57	0.11	0.21	0.00	0.34	0.00	8

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	RIPPER & HYDR. BANK SLOPER (CONT'D) ********** (DOES NOT INCLUDE COST OF POINT WEAR)									
	ATECO (CONT'D)									
4820	V-LPRF-TD20E PARALLEL LIFT STD SVC	10,953	3.00	4.68	0.91	1.68	0.00	2.72	0.00	51
4825	TD-20E SHANKS EA	987	0.26	0.42	0.08	0.15	0.00	0.25	0.00	4
4830	PS-TD15C RADIAL LIFT	6,177	1.71	2.66	0.51	0.94	0.00	1.54	0.00	22
4835	TD-15C SHANKS EA	213	0.05	0.10	0.02	0.03	0.00	0.06	0.00	1
4840	V-LPRF 82-50 PARALLEL LIFT STD SVC	16,863	4.60	7.16	1.40	2.59	0.00	4.18	0.00	96
4845	82-50 SHANKS EA	1,348	0.37	0.57	0.11	0.21	0.00	0.34	0.00	8
4850	LPRS-82-50 PARALLEL LIFT EXT SVC	16,402	4.46	6.96	1.36	2.51	0.00	4.06	0.00	88
4855	82-50 SHANKS EA	3,127	0.83	1.32	0.25	0.47	0.00	0.78	0.00	19
4860	V-LPRF-82-30 PARALLEL LIFT	14,932	4.07	6.34	1.23	2.29	0.00	3.69	0.00	89
4865	82-30 SHANKS EA	1,348	0.37	0.57	0.11	0.21	0.00	0.34	0.00	8
4870	D9,D8;82-30,82-50;TD25 HYDR BANK SLOP	6,422	1.50	2.25	0.49	0.85	0.00	1.36	0.00	28
	CATERPILLAR									
4880	D-10 MULTI-SHANK BEAM	33,598	9.09	14.20	2.77	5.14	0.00	8.31	0.00	150
4885	D-10 SHANKS EA	2,467	0.67	1.05	0.21	0.38	0.00	0.62	0.00	16
4890	D-10 SINGLE-SHANK BEAM	36,193	9.75	15.25	2.99	5.55	0.00	8.95	0.00	165
4895	D-9 MULTI-SHANK BEAM W/HYD-CONTROL	26,352	7.15	11.15	2.18	4.04	0.00	6.52	0.00	132
4900	D-9 SHANKS EA	1,299	0.35	0.55	0.11	0.20	0.00	0.32	0.00	8
4905	D-9 SINGLE-SHANK BEAM HYD-CNTL&SHANK	24,525	6.65	10.39	2.03	3.76	0.00	6.07	0.00	124
4910	D-8 MULTI-SHANK BEAM HYD-CONTROL	18,591	5.06	7.88	1.54	2.85	0.00	4.60	0.00	103

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	RIPPER & HYDR. BANK SLOPER (CONT'D)									
	**********									
	(DOES NOT INCLUDE COST OF POINT WEAR)									
	CATERPILLAR (CONT'D)									
4915	D-8 SHANKS EA	1,247	0.33	0.54	0.10	0.19	0.00	0.32	0.00	7
4920	D-8 SINGLE-SHANK BEAM HYD-CNTL&SHANK	18,062	4.91	7.66	1.50	2.77	0.00	4.47	0.00	100
4925	D-7 MULTI-SHANK BEAM HYD-CONTROL	10,788	2.96	4.60	0.90	1.66	0.00	2.67	0.00	53
4930	D-7 SHANKS EA	649	0.18	0.27	0.06	0.10	0.00	0.16	0.00	4
4935	D-6 MULTI-SHANK BEAM HYD-CONTROL	6,766	1.87	2.91	0.56	1.04	0.00	1.68	0.00	27
4940	D-6 SHANKS EA	334	0.09	0.15	0.03	0.05	0.00	0.09	0.00	2
4945	D-4 MULTI-SHANK BEAM HYD-CONTROL	4,153	1.17	1.80	0.35	0.64	0.00	1.03	0.00	14
4950	D-4 SHANKS EA	176	0.05	0.08	0.02	0.03	0.00	0.05	0.00	1
4955	D-3 FIVE-SHANK BEAM HYD-CONTROL	1,855	0.55	0.83	0.15	0.28	0.00	0.46	0.00	6
4960	D-3 SHANKS EA	98	0.03	0.05	0.01	0.02	0.00	0.03	0.00	1
	FIAT-ALLIS									
4970	41-R W/HYD-CNTL AND 2 SHANKS	37,870	10.25	16.00	3.13	5.81	0.00	9.36	0.00	204
4975	31-R W/HYD-CNTL AND 2 SHANKS	30,485	8.26	12.89	2.52	4.67	0.00	7.54	0.00	188
4980	21-R W/HYD-CNTL AND 2 SHANKS	19,645	5.34	8.34	1.62	3.01	0.00	4.87	0.00	108
4985	16-R W/HYD-CNTL AND 2 SHANKS	12,334	3.37	5.26	1.02	1.89	0.00	3.06	0.00	73

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT				VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	ROLLERS-RUBBER-TIRED-SELF PROPELLED **********												
	INGRAM												
4995	9-2800-P	12 TON	107 HP	G	19,779	15.98		1.50	2.58	9.04			77
5000	9-2800-PA	12 TON	76 HP	D	24,354	9.64		1.86	3.19	3.06			89
5005	11-2700	15 TON	107 HP	G	23,592	16.90		1.80	3.08	9.04			89
5010	11-2700	15 TON	76 HP	D	25,960	10.04		1.97	3.39	3.06			91
5015	13-2300	15 TON	107 HP	G	24,059	17.04		1.83	3.13	9.04			94
5020	13-2300	15 TON	76 HP	D	27,105	10.34		2.06	3.54	3.06			96
5025	9-6000	27 TON	117 HP	D	57,852	19.94		4.38	7.46	4.71			208
5030	7-10000	35 TON	148 HP	D	62,887	22.91		4.73	7.99	5.96			241
	ROLLER-RUBBER TIRED-TOWED **********												
5040	FERGUSON RT-100S	50 TON			37,427	9.15		2.74	4.46	0.00			200
5045	FERGUSON RT-120S	60 TON			43,602	10.61		3.21	5.28	0.00			233
5050	SOUTHWEST C 75	75 TON			51,375	12.55		3.77	6.15	0.00			347
5055	SOUTHWEST C 50	50 TON			48,791	11.91		3.58	5.86	0.00			309

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	ROLLER-SHEEPS FOOT-DOUBLE DRUM **********									
	FERGUSON-TOWED									
5065	MOD 112 40"X48"	7,691	1.93		0.60	1.03	0.00			65
5070	MOD 112W-48 48"X48"	9,787	2.42		0.76	1.31	0.00			105
5075	MOD 120 60"X60"	15,075	3.67		1.16	2.01	0.00			157
5080	MOD 120 MODIFIED 60"X60"	29,097	6.99		2.23	3.88	0.00			230
5085	MOD 120-RE 60"X60"	35,579	8.54		2.73	4.75	0.00			327
5090	MOD 22 60"X72"	20,908	5.06		1.61	2.79	0.00			215
5095	MOD 22 MODIFIED 60"X72"	33,882	8.13		2.60	4.52	0.00			269
5100	MOD 144-RE 60"X72"	41,510	9.93		3.18	5.53	0.00			385
	CATERPILLER-SELF PROPELLED									
5110	815 40.5'X38' 170 HP D	87,599	29.24		6.72	11.68	6.85			360
5115	825C 51'X41.5' 300 HP D	157,580	52.32		12.10	21.02	12.08			631
5120	825C W/S BLADE 300 HP D	166,014	54.32		12.75	22.15	12.08			683
	HYSTER-SELF PROPELLED									
5130	C455-B TANDEM 60"X72" ARTIC 330 HP D	158,943	54.14		12.20	21.20	13.29			523

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	ROLLER-SMOOTH WHEEL-SELF PROPELLED **********									
	INGRAM									
5140	8 TON 3 WHEEL 3" OVERLAP 107 HP G	29,220	18.14		2.24	3.90	9.04			124
5145	8 TON 3 WHEEL 3" OVERLAP 76 HP D	32,268	11.44		2.48	4.31	3.06			126
5150	12 TON 3 WHEEL 3" OVERLAP 107 HP G	35,438	19.61		2.72	4.73	9.04			203
5155	12 TON 3 WHEEL 3" OVERLAP 86 HP D	38,486	13.42		2.96	5.14	3.46			205
5160	14 TON 3 WHEEL 3" OVERLAP 107 HP G	37,616	20.13		2.89	5.02	9.04			241
5165	14 TON 3 WHEEL 3" OVERLAP 86 HP D	40,664	13.92		3.12	5.42	3.46			243
5170	4-6 TON 2 WHEEL TANDEM 53 HP G	17,925	9.80		1.38	2.39	4.48			82
5175	6-9 TON 2 WHEEL TANDEM 107 HP G	24,134	16.93		1.86	3.22	9.04			133
5180	6-9 TON 2 WHEEL TANDEM 76 HP D	27,182	10.23		2.08	3.62	3.06			135
5185	8-12 TON 2 WHEEL TANDEM 107 HP G	29,201	18.13		2.24	3.90	9.04			171
5190	8-12 TON 2 WHEEL TANDEM 76 HP D	32,248	11.44		2.48	4.31	3.06			173
5195	10-14 TON 2 WHEEL TANDEM 107 HP G	31,621	18.71		2.43	4.22	9.04			258
5200	10-14 TON 2 WHEEL TANDEM 76 HP D	34,675	12.01		2.67	4.63	3.06			262

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	FUEL	SEVERE COND. OWNER-SHIP	FUEL	CWT
	ROLLER-VIBRATORY ********** TF=ROLLER W/TAMPING FEET TOWED									
5210	FERGUSON 652 TF 60"X60" 9 TON 49 HP D	27,466	12.61		2.28	4.06	2.75			125
5215	SOUTHWEST 756 TF 66"X78" 20 TON 75 HP D	54,969	23.63		4.55	8.13	4.21			240
5220	FERGUSON 230 66"X78" 20 TON 66 HP D	40,874	18.29		3.39	6.05	3.71			234
5225	FERGUSON 230 TF 66 HP D	44,616	19.54		3.70	6.60	3.71			266
5230	HYSTER C200B 48"X60" 12.5 TON 36 HP D	21,952	9.86		1.82	3.24	2.02			87
5235	HYSTER C210A TF 58"X60" 14 TON 39 HP D	25,763	11.35		2.14	3.81	2.19			100
	SELF PROPELLED SINGLE DRUM									
5245	VIBRO PLUS CA-25 60"X84" 23 TON 125 HP D	49,814	25.46		4.10	7.25	7.02			198
5250	VIBRO PLUS CA-25S 61"X84" 28 TON 125 HP D	52,962	26.52		4.36	7.72	7.02			203
5255	VIBRO PLUS CA-25PD 60"X48" 30 TON 125 HP D	61,281	29.30		5.05	8.95	7.02			240
5260	RAYGO RASCAL 400A 59"X84" ARTIC 88 HP D	54,759	24.53		4.51	8.00	4.94			197
5265	RAYGO RASCAL 600A 60"X100" 119 HP D	67,755	31.06		5.58	9.88	6.69			288
5270	I-RAND SP-60 60"X100" 210 HP D	109,042	51.38		8.94	15.74	11.80			450
5275	I-RAND SPF-54 TF 54"X85" 120 HP D	63,094	29.54		5.21	9.25	6.74			264
5280	FERGUSON SP 75D 120 HP D	53,945	26.49		4.44	7.87	6.74			179
5285	FERGUSON SP 75BT TF 120 HP D	61,555	29.04		5.07	8.98	6.74			217
5290	FERGUSON SP 230D 148 HP D	63,942	31.79		5.27	9.35	8.31			302

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	SCRAPERS-SELF PROPELLED ********** (CAPACITY AS RECOMMENDED BY MFGR HP & FUEL LISTED TRACTOR/SCRAPER PP = PUSH PULL ATTACHMENT)									
	CATERPILLAR									
5300	613-B 13 T 11 CY P.S. 150 HP D	85,599	30.87	44.22	6.43	10.86	6.20	17.48	8.11	311
5305	621-B 24 T 14-20 CY P.S. 330 HP D	171,046	57.24	86.16	12.81	21.55	12.24	34.73	16.09	640
5310	623-B 25 T 22 CY P.S. 330 HP D	190,558	65.21	93.95	14.31	24.15	13.64	38.87	17.84	702
5315	627-B 24 T 14-20 CY P.S. 225/225 HP D/D	200,383	75.05	107.08	15.06	25.45	17.65	40.96	22.90	715
5320	627-B PP 24 T 14-20 CY P.S. 225/225 HP D/D	213,038	77.77	111.12	16.04	27.15	17.65	43.64	22.90	757
5325	631-D 37.5T 21-31 CY P.S. 450 HP D	261,987	84.85	128.08	19.63	33.05	16.69	53.27	21.94	876
5330	633-D 37.5T 34 CY P.S. 450 HP D	299,139	98.35	142.19	22.49	38.01	18.60	61.15	24.33	996
5335	637-D 37.5T 21-31 CY P.S. 450/255 HP D/D	322,747	118.67	169.46	24.29	41.15	27.65	66.16	35.87	983
5340	637-D PP 37.5T 21-31 CY P.S. 450/255 HP D/D	336,930	121.71	174.00	25.39	43.05	27.65	69.17	35.87	1018
5345	641-B 47 T 28-38 CY P.S. 550 HP D	326,331	105.76	160.11	24.42	41.03	20.40	66.16	26.82	1155
5350	651-B 52 T 32-44 CY P.S. 550 HP D	340,044	108.70	164.51	25.48	42.86	20.40	69.08	26.82	1179
5355	657-B 52 T 32-44 CY P.S. 550/400 HP D/D	420,131	162.56	231.80	31.42	52.76	37.26	85.11	48.34	1408
	CLARK									
5365	110-11B 13 T 11 CY P.S. 174 HP D	91,182	34.13	48.79	6.83	11.48	7.19	18.51	9.41	345
5370	110-15 18 T 15 CY P.S. 232 HP D	121,377	42.96	61.78	9.10	15.32	9.59	24.69	12.54	456
5375	110-TB 19 T 16 CY P.S. 140/140 HP D/D	161,270	57.49	82.45	12.13	20.54	11.58	33.03	15.14	521
5380	210-HB 26.5T 23 CY P.S. 324 HP D	193,567	65.56	94.55	14.54	24.55	13.39	39.52	17.52	710

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	SCRAPERS-SELF PROPELLED (CONT'D) ********** (CAPACITY AS RECOMMENDED BY MFGR HP & FUEL LISTED TRACTOR/SCRAPER PP = PUSH PULL ATTACHMENT)									
	FIAT-ALLIS									
5390	161 18.7 T 15 CY P.S. 229 HP D	125,552	46.61	66.73	9.38	15.75	9.47	25.42	12.38	448
5395	260B 25 T 15-21 CY P.S. 325 HP D	172,332	57.28	86.27	12.91	21.71	12.06	35.00	15.85	586
5400	261B 26.5T 23 CY P.S. 325 HP D	199,216	66.86	96.46	14.97	25.30	13.44	40.71	17.57	639
5405	262B 25 T 15-21 CY P.S. 325/171 HP D/D	203,656	74.66	109.31	15.31	25.89	18.40	41.66	24.18	681
5410	263-B 26.5 T 23 CY P.S 325/171 HP D/D	232,939	89.44	127.66	17.47	29.45	20.50	47.43	26.81	744
	INTERNATIONAL									
5420	412 13 T 11 CY P.S. 150 HP D	81,698	30.37	43.47	6.11	10.26	6.20	16.55	8.11	308
5425	431B 24 T 14-21 CY P.S. 326 HP D	158,700	54.40	81.97	11.86	19.89	12.09	32.11	15.90	594
5430	433B 24 T 14-21 CY P.S. 126/185 HP D/D	186,276	65.23	93.72	13.98	23.58	12.20	37.97	15.82	690
5435	442B 25 T 22 CY P.S. 326 HP D	180,721	62.85	90.46	13.56	22.84	13.48	36.78	17.62	680
5440	444B 25 T 22 CY P.S. 326/185 HP D/D	213,699	84.40	120.13	16.04	27.07	21.12	43.59	27.62	805
	JOHN DEERE									
5450	JD762 13.7 T 11 CY P.S. 175 HP D	92,230	34.18	48.88	6.92	11.66	7.23	18.78	9.46	345
5455	JD860-B 18.7 T 15 CY P.S. 215 HP D	119,535	41.40	59.62	8.97	15.13	8.89	24.37	11.62	451
	TEREX (GM)									
5465	S-23E 26.5T 23 CY P.S. 310 HP D	177,717	62.27	89.74	13.27	22.25	12.82	35.93	16.76	655
5470	S-24B 40 T 24-34 CY P.S. 475 HP D	276,545	89.81	135.73	20.71	34.83	17.62	56.14	23.16	931

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	SCRAPERS-SELF PROPELLED (CONT'D) ********** (CAPACITY AS RECOMMENDED BY MFGR HP & FUEL LISTED TRACTOR/SCRAPER PP = PUSH PULL ATTACHMENT)									
	TEREX (GM) (CONT'D)									
5475	TS-14B 23.5T 14-20 CY P.S. 144/144 HP D/D	171,473	60.36	86.70	12.86	21.67	11.30	34.91	14.65	528
5480	TS-18 30 T 18-24 CY P.S. 295/225 HP D/D	232,385	88.15	125.76	17.43	29.38	20.39	47.32	26.46	720
5485	TS-24 40 T 24-32 CY P.S. 394/225 HP D/D	314,014	114.72	164.18	23.56	39.73	24.28	63.98	31.49	932
5490	TS-24B 52 T 24-34 CY P.S. 475/242 HP D/D	340,054	124.27	177.58	25.59	43.31	28.12	69.63	36.48	1050
	WABCO									
5500	1016 13 T 11 CY P.S. 161 HP D	85,614	32.40	46.38	6.38	10.67	6.66	17.25	8.70	317
5505	222H 25 T 22 CY P.S. 332 HP D	184,245	64.82	93.35	13.78	23.13	13.72	37.31	17.95	648
5510	229H 25 T 15-21 CY P.S. 332 HP D	161,262	55.96	84.69	12.01	20.06	12.32	32.43	16.19	594
5515	252FT 32 T 27 CY P.S. 332/332 HP D/D	301,772	115.30	164.47	22.69	38.36	27.45	61.71	35.90	1017
5520	333F 38 T 32 CY P.S. 467 HP D	267,255	92.00	132.55	20.05	33.80	19.31	54.44	25.25	1020
5525	339F 41 T 25-34 CY P.S. 467 HP D	257,993	84.62	127.47	19.34	32.57	17.33	52.48	22.77	937
5530	353FT 43 T 36 CY P.S. 493/473 HP D/D	424,186	168.38	239.90	31.74	53.33	39.93	86.01	52.22	1355
	SCRAPER-TRACTOR DRAWN **********									
5540	ROME 18T 12-17CY HYDR/CONTROL	47,197	10.22	15.26	3.32	5.19	0.00	8.46	0.00	235
5545	ROME 27T 18-26CY HYDR/CONTROL	66,890	14.68	21.95	4.68	7.26	0.00	11.88	0.00	365
5550	SOUTHWEST DS18 DRAG SCRAPER 8.8 CY	27,376	5.91	8.82	1.92	3.01	0.00	4.91	0.00	137

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT			VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	AVERAGE COND. FUEL	SEVERE COND. OWNER-SHIP	SEVERE COND. FUEL	CWT
		TRACTOR - CRAWLERS ********** CATERPILLAR										
5560	D3	P.S.	62 HP D	25,227	9.35	13.55	1.98	3.17	2.69	5.20	3.55	119
5565	3P	POWER ANGLE & POWER TILT		5,500	1.24	1.89	0.42	0.73	0.00	1.17	0.00	24
5570	D4-E	D.D.	75 HP D	39,360	13.35	19.47	3.08	4.94	3.26	8.10	4.29	176
5575	4A	ANGLE BLADE HYDRAULIC		7,337	1.71	2.57	0.57	0.98	0.00	1.56	0.00	30
5580	4S	STRAIGHT BLADE HYDRAULIC		5,730	1.34	2.02	0.44	0.76	0.00	1.22	0.00	25
5585	D5-B	P.S.	105 HP D	59,864	19.78	28.92	4.68	7.51	4.56	12.31	6.01	269
5590	5A	ANGLE BLADE HYDRAULIC		8,835	2.05	3.08	0.68	1.18	0.00	1.88	0.00	41
5595	5S	STRAIGHT BLADE HYDRAULIC		6,955	1.62	2.44	0.53	0.92	0.00	1.48	0.00	34
5600	D6-D	P.S.	140 HP D	77,684	25.89	37.81	6.08	9.75	6.08	15.98	8.01	264
5605	6S	STRAIGHT BLADE HYDRAULIC		9,279	2.15	3.23	0.72	1.24	0.00	1.97	0.00	47
5610	6A	ANGLE BLADE HYDRAULIC		10,350	2.39	3.60	0.80	1.38	0.00	2.20	0.00	51
5615	D7-G	P.S.	200 HP D	106,751	36.00	52.54	8.35	13.39	8.69	21.95	11.45	373
5620	7S	STRAIGHT BLADE HYDRAULIC		14,494	3.32	5.02	1.11	1.93	0.00	3.08	0.00	77
5625	7U	HYD. UNIVERSAL BLADE		15,860	3.63	5.49	1.22	2.11	0.00	3.37	0.00	84
5630	7A	ANGLE BLADE HYDRAULIC		12,658	2.90	4.39	0.97	1.68	0.00	2.69	0.00	68
5635	D8-K	P.S.	300 HP D	149,277	48.22	68.81	11.04	17.49	13.04	28.31	17.17	606
5640	8S	STRAIGHT BLADE HYDRAULIC		21,147	4.83	7.30	1.63	2.82	0.00	4.49	0.00	121
5645	8U	HYD. UNIVERSAL BLADE		23,291	5.31	8.03	1.79	3.10	0.00	4.94	0.00	133
5650	8A	ANGLE BLADE HYDRAULIC		17,942	4.10	6.20	1.38	2.39	0.00	3.81	0.00	116
5655		PUSH PLATE USE W/8S		537	0.12	0.19	0.04	0.07	0.00	0.12	0.00	4

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRACTOR - CRAWLER (CONT'D)									
	CATERPILLAR (CONT'D)									
5660	D9-H P.S. 410 HP D	219,587	69.22	98.99	16.24	25.73	17.82	41.64	23.47	809
5665	9S STRAIGHT BLADE HYDRAULIC	27,305	6.22	9.41	2.10	3.64	0.00	5.80	0.00	173
5670	9A ANGLE BLADE HYDRAULIC	23,295	5.31	8.04	1.79	3.10	0.00	4.95	0.00	152
5675	9U HYD. UNIVERSAL BLADE	29,841	6.80	10.28	2.29	3.98	0.00	6.34	0.00	190
5680	9C CUSHION BLADE	21,010	4.80	7.26	1.62	2.80	0.00	4.47	0.00	127
5685	REAR CUSHION PUSH BLOCK	5,260	1.29	1.92	0.40	0.70	0.00	1.13	0.00	29
5690	FRONT PUSH PLATE	619	0.16	0.23	0.05	0.09	0.00	0.14	0.00	5
5695	DUAL D9-H P.S. 820 HP D	464,883	143.96	206.13	34.39	54.48	35.64	88.15	46.94	1851
5700	D10 P.S. 700 HP D	407,913	121.04	170.43	28.61	45.07	30.42	72.27	40.07	1478
5705	10S STRAIGHT BLADE HYDRAULIC	43,816	9.96	15.08	3.37	5.84	0.00	9.31	0.00	286
5710	10U HYD. UNIVERSAL BLADE	48,179	10.94	16.57	3.70	6.42	0.00	10.23	0.00	283
5715	FRONT PUSH PLATE	946	0.26	0.38	0.07	0.12	0.00	0.21	0.00	7
5720	REAR PUSH BLOCK	13,778	3.17	4.78	1.06	1.84	0.00	2.93	0.00	46
	FIAT-ALLIS									
5730	8 P.S. 87 HP D	39,569	14.08	20.45	3.09	4.96	3.78	8.14	4.98	189
5735	8-HA ANGLE BLADE HYDRAULIC	6,462	1.51	2.27	0.49	0.86	0.00	1.38	0.00	30
5740	8-HSU SEMI-U BLADE HYDRAULIC	6,759	1.58	2.37	0.52	0.90	0.00	1.44	0.00	30
5745	10-B P.S. 110 HP D	58,888	19.85	28.97	4.61	7.39	4.78	12.12	6.30	256
5750	10-HA ANGLE BLADE HYDRAULIC	7,190	1.68	2.52	0.56	0.96	0.00	1.53	0.00	36
5755	10-HSU SEMI-U BLADE HYDRAULIC	7,585	1.76	2.65	0.58	1.01	0.00	1.61	0.00	36

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRACTOR - CRAWLER (CONT'D)									
	FIAT-ALLIS (CONT'D)									
5760	14-C P.S. 150 HP D	82,544	27.59	40.29	6.46	10.36	6.52	16.98	8.59	306
5765	14-HA ANGLE BLADE HYDRAULIC	11,013	2.54	3.84	0.85	1.47	0.00	2.35	0.00	51
5770	14-HSU STRAIGHT BLADE HYDRAULIC	11,507	2.66	3.99	0.89	1.54	0.00	2.44	0.00	51
5775	16-B P.S. 195 HP D	109,233	36.29	53.03	8.55	13.71	8.47	22.46	11.16	453
5780	16-HA ANGLE BLADE HYDRAULIC	11,707	2.70	4.07	0.90	1.56	0.00	2.49	0.00	66
5785	16-HS STRAIGHT BLADE HYDRAULIC	12,300	2.83	4.27	0.94	1.64	0.00	2.62	0.00	66
5790	16-HSU FULL-U BLADE HYDRAULIC	13,547	3.11	4.70	1.04	1.80	0.00	2.88	0.00	81
5795	21-C P.S. 300 HP D	161,168	50.77	72.59	11.92	18.89	13.04	30.57	17.17	636
5800	21HSU HYD. SEMI-UNIVERSAL BLADE	21,140	4.82	7.30	1.62	2.81	0.00	4.49	0.00	127
5805	21-HU FULL-U BLADE HYDRAULIC	20,767	4.74	7.18	1.59	2.76	0.00	4.42	0.00	114
5810	31 P.S. 425 HP D	246,180	75.73	108.50	18.21	28.85	18.47	46.68	24.33	908
5815	31-HSU SEMI-U BLADE HYDRAULIC	30,252	6.89	10.43	2.32	4.03	0.00	6.43	0.00	190
5820	31-HU FULL-U BLADE HYDRAULIC	31,304	7.12	10.78	2.40	4.17	0.00	6.65	0.00	210
5825	31-HC CUSHION BLADE	22,482	5.13	7.76	1.72	2.99	0.00	4.78	0.00	120
5830	41-B P.S. 524 HP D	313,314	92.25	129.96	21.98	34.62	22.77	55.52	29.99	1128
5835	41-HSU SEMI-U BLADE HYDRAULIC	35,347	8.04	12.17	2.72	4.71	0.00	7.51	0.00	222
5840	41-HU FULL-U BLADE HYDRAULIC	40,331	9.17	13.88	3.10	5.38	0.00	8.57	0.00	254
5845	41-HC CUSHION BLADE	25,809	5.88	8.90	1.99	3.44	0.00	5.48	0.00	120

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRACTOR - CRAWLER (CONT'D)									
	INTERNATIONAL									
5855	TD-7-E P. S. W/HYD BLADE 65 HP D	35,498	11.89	17.36	2.78	4.46	2.82	7.30	3.72	139
5860	TD-8-E P.S. W/HYD BLADE 78 HP D	43,265	14.42	21.06	3.38	5.43	3.39	8.90	4.46	172
5865	TD-15-C P.S. 140 HP D	71,396	24.44	35.60	5.59	8.96	6.08	14.68	8.01	269
5870	HYD. SEMI-UNIVERSAL BLADE	9,612	2.22	3.35	0.74	1.28	0.00	2.05	0.00	46
5875	ANGLE BLADE HYDRAULIC	10,696	2.47	3.73	0.82	1.43	0.00	2.28	0.00	50
5880	TD-20-E P.S. 210 HP D	103,624	35.88	52.20	8.11	13.01	9.13	21.31	12.02	475
5885	HYD. SEMI-UNIVERSAL BLADE	13,777	3.17	4.78	1.06	1.84	0.00	2.93	0.00	61
5890	ANGLE BLADE HYDRAULIC	14,215	3.26	4.92	1.09	1.89	0.00	3.02	0.00	71
5895	TD-25-E P.S. 310 HP D	141,848	47.17	67.18	10.49	16.62	13.47	26.90	17.74	590
5900	HYD. SEMI-UNIVERSAL BLADE	18,373	4.19	6.35	1.41	2.44	0.00	3.90	0.00	108
5905	ANGLE BLADE HYDRAULIC	16,228	3.72	5.62	1.25	2.16	0.00	3.45	0.00	110
5910	FRONT PUSHER CUSHION	7,429	1.73	2.60	0.57	0.99	0.00	1.58	0.00	29
5915	REAR PUSHER CUSHION	3,936	1.00	1.45	0.31	0.53	0.00	0.84	0.00	23
5920	FRONT PUSH BLOCK /S BLD	596	0.18	0.27	0.04	0.07	0.00	0.14	0.00	12
	JOHN DEERE									
5930	JD350C/6305 D.D. W/HYD BLADE 42 HP D	25,023	8.16	11.95	1.96	3.14	1.83	5.15	2.40	102
5935	JD450C/6405 D.D. W/HYD BLADE 65 HP D	36,021	12.00	17.54	2.82	4.52	2.82	7.41	3.72	143
5940	JD550/6405 P.S. W/HYD BLADE 72 HP D	43,019	14.02	20.53	3.37	5.40	3.13	8.85	4.12	169

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRACTOR - CRAWLER (CONT'D) **********									
	TEREX (GM)									
5950	82-20B P.S. 205 HP D	106,872	36.33	52.94	8.36	13.41	8.91	21.97	11.73	372
5955	STRAIGHT BLADE HYDRAULIC	10,452	2.37	3.58	0.81	1.40	0.00	2.22	0.00	58
5960	ANGLE BLADE HYDRAULIC	11,329	2.56	3.89	0.87	1.51	0.00	2.41	0.00	59
5965	HYD. UNIVERSAL BLADE	11,323	2.56	3.89	0.87	1.51	0.00	2.41	0.00	57
5970	82-30B P.S. 260 HP D	138,523	43.74	62.54	10.25	16.23	11.30	26.27	14.88	569
5975	STRAIGHT BLADE HYDRAULIC	15,252	3.50	5.29	1.17	2.03	0.00	3.25	0.00	91
5980	ANGLE BLADE HYDRAULIC	16,961	3.88	5.87	1.30	2.26	0.00	3.61	0.00	93
5985	HYD. UNIVERSAL BLADE	16,957	3.88	5.87	1.30	2.26	0.00	3.61	0.00	92
5990	REAR CUSHION PUSH BLOCK	4,636	1.15	1.69	0.36	0.62	0.00	0.99	0.00	21
5995	82-50B P.S. 370 HP D	201,613	63.22	90.42	14.92	23.63	16.08	38.23	21.18	762
6000	STRAIGHT BLADE	19,677	4.45	6.75	1.51	2.62	0.00	4.18	0.00	118
6005	HYD. UNIVERSAL BLADE	21,971	4.96	7.54	1.68	2.92	0.00	4.67	0.00	134
6010	ANGLE BLADE HYDRAULIC	22,048	4.99	7.57	1.70	2.94	0.00	4.69	0.00	157
6015	PUSH PLATE (WELD ON)	795	0.18	0.27	0.07	0.11	0.00	0.17	0.00	6
6020	PUSH BLOCK (CUSHION REAR)	4,636	1.05	1.59	0.36	0.62	0.00	0.99	0.00	21

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRACTOR - WHEEL TYPE DOZERS									
	CATERPILLAR									
6030	814 ARTICULATED ST BLADE P.S. 170 HP D	91,839	30.29	48.41	6.88	11.48	6.85	18.57	8.83	363
6035	824-C ARTICULATED ST BLADE P.S. 300 HP D	164,072	54.71	88.77	12.23	20.30	12.08	32.89	15.58	603
	CLARK									
6045	280 ARTICULATED ST BLADE P.S. 274 HP D	164,868	53.11	85.90	12.33	20.53	11.04	33.21	14.23	688
6050	380 ARTICULATED ST BLADE P.S. 473 HP D	247,041	81.40	128.47	18.56	31.12	19.05	50.21	24.57	1010
	TRACTOR - WHEEL TYPE - FARM TYPE									
	JOHN DEERE									
6060	MOD 20-40 40 HP G	9,808	6.72	10.13	0.72	1.16	3.38	1.91	4.40	0
6065	MOD 24-40 60 HP G	14,296	9.74	14.24	1.06	1.76	5.07	2.86	6.60	0
	TRENCHER-CHAIN-DITCH WITCH									
6075	MOD C99 6"X24" TRENCH 9 HP G	2,415	1.59	2.23	0.19	0.32	0.76	0.51	0.99	5
6080	MOD 2200 8"X36" TRENCH 17 HP G	10,756	4.53	6.48	0.83	1.42	1.44	2.27	1.87	27
6085	MOD V30 10"X36" TRENCH 30 HP G	11,799	6.23	8.74	0.91	1.56	2.53	2.49	3.30	40
6090	MOD 65 12"X48" TRANCH 65 HP D	23,950	9.23	13.32	1.83	3.14	2.62	5.03	3.38	72
6095	MOD 100 18"X72" TRENCH 101 HP D	56,002	19.09	28.03	4.28	7.33	4.07	11.73	5.25	95

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRENCHER-WHEEL TYPE **********									
	BARBER-GREEN									
6105	MOD TA 56 16"X5'-10" TRENCH 84 HP D	74,076	22.10	32.28	5.70	9.85	3.38	15.70	4.36	275
6110	MOD TA 65 22"X7'-0" TRENCH 175 HP D	169,928	49.77	72.88	13.06	22.58	7.05	36.01	9.09	632
	CLEVELAND									
6120	MOD 247-HD-1 21"X7' TRENCH 84 HP D	74,076	22.10	32.28	5.70	9.85	3.38	15.70	4.36	275
6125	MOD 400W-HD-1 36"X9' TRENCH 175 HP D	169,928	49.77	72.88	13.06	22.58	7.05	36.01	9.09	632
	TRUCKS - HIGHWAY ********** (CHASSIS ONLY)									
	FORD									
6140	F100 4X2 1/2T PKUP 4900 GVW 157 HP G	4,826	6.58	8.94	0.39	0.71	4.02	1.17	5.22	37
6145	F150 4X2 1/2T PKUP 6150 GVW 157 HP G	5,226	6.70	9.11	0.43	0.78	4.02	1.27	5.22	38
6150	F250 4X2 3/4T PKUP 7900 GVW 157 HP G	6,000	6.95	9.51	0.48	0.88	4.02	1.43	5.22	39
6155	F250 4X4 3/4T PKUP 8400 GVW 157 HP G	7,029	7.21	10.02	0.57	1.03	4.02	1.69	5.22	44
6160	F600 2AX 16000 GVW 155 HP G	9,026	13.19	17.84	0.73	1.33	8.13	2.16	10.52	51
6165	F612 2AX 21000 GVW 155 HP G	9,226	13.30	18.06	0.74	1.33	8.13	2.18	10.52	53
6170	F702 2AX 22000 GVW 170 HP G	11,040	14.88	20.26	0.89	1.59	8.92	2.59	11.53	59
6175	F706 2AX 25500 GVW 170 HP G	11,295	15.01	20.54	0.90	1.60	8.92	2.62	11.53	62
6180	L804 2AX 27500 GVW 170 HP G	12,869	15.41	21.18	1.03	1.84	8.92	3.02	11.53	66
6185	L8000 2AX 35000 GVW 175 HP D	22,863	15.30	21.99	1.85	3.36	7.10	5.47	9.34	87
6190	LTS900 3AX 39000 GVW 200 HP D	24,756	17.49	25.38	1.98	3.52	8.12	5.76	10.67	102

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRUCKS - HIGHWAY (CONT'D) ********** (CHASSIS ONLY)									
	FORD (CONT'D)									
6195	LTS904 3AX 46000 GVW 200 HP D	25,435	17.67	25.65	2.03	3.63	8.12	5.93	10.67	104
6200	LTS9000 3AX 54000 GVW 250 HP D	39,863	24.05	35.14	3.20	5.79	10.15	9.44	13.34	135
6205	LTS9000 3AX 58000 GVW 250 HP D	41,826	24.53	35.92	3.37	6.10	10.15	9.94	13.34	140
	GMC AND CHEVROLET									
6215	C10903 4X2 1/2T PKUP 6000 GVW 140 HP G	5,389	6.16	8.43	0.44	0.81	3.58	1.31	4.66	43
6220	C10906 4X2 WAGON 6400 GVW 165 HP G	6,599	7.30	10.02	0.54	0.99	4.22	1.61	5.49	46
6225	K10906 4X4 WAGON 6800 GVW 165 HP G	7,615	7.57	10.47	0.63	1.15	4.22	1.86	5.49	50
6230	C20903 4X2 3/4T PKUP 7500 GVW 165 HP G	5,932	7.20	9.87	0.48	0.87	4.22	1.41	5.49	46
6235	C20903 4X4 3/4T PKUP 7500 GVW 165 HP G	7,114	7.52	10.43	0.58	1.05	4.22	1.71	5.49	49
6240	C5D042 2AX 16000 GVW 160 HP G	9,181	13.72	18.62	0.73	1.31	8.40	2.14	10.85	56
6245	C6D042 2AX 20000 GVW 160 HP G	10,246	13.98	19.05	0.82	1.47	8.40	2.41	10.85	63
6250	C7D042 2AX 24000 GVW 188 HP G	10,542	16.00	21.66	0.85	1.52	9.87	2.47	12.75	67
6255	J8C042 2AX 27500 GVW 220 HP G	18,521	20.33	27.94	1.49	2.70	11.55	4.40	14.92	85
6260	J9C042 2AX 33900 GVW 242 HP D	34,767	21.93	31.58	2.82	5.14	9.83	8.36	12.91	121
6265	C7D064 3AX 37000 GVW 200 HP G	14,838	24.88	33.74	1.18	2.10	15.62	3.44	20.22	100
6270	J8C064 3AX 43000 GVW 220 HP G	24,404	29.57	40.65	1.96	3.52	17.18	5.73	22.25	120
6275	J9C064 3AX 44900 GVW 242 HP D	38,941	23.39	34.20	3.13	5.66	9.83	9.22	12.91	148
6280	N9E042 2AX 33900 GVW 242 HP D	37,239	22.56	32.56	3.03	5.53	9.83	8.97	12.91	122
6285	D9K042 2AX 33900 GVW 289 HP D	37,660	25.10	35.93	3.06	5.59	11.73	9.07	15.42	123

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRUCKS - HIGHWAY (CONT'D) ********** (CHASSIS ONLY)									
	GMC AND CHEVROLET (CONT'D)									
6290	N9E064 3AX 48900 GVW 289 HP D	42,412	26.62	38.59	3.42	6.22	11.73	10.12	15.42	154
6295	D9K064 3AX 48900 GVW 289 HP D	42,811	26.67	38.64	3.47	6.30	11.73	10.24	15.42	152
	INTERNATIONAL									
6305	800 4X4 SCOUT 6200 GVW 97 HP G	6,061	4.86	6.82	0.50	0.92	2.48	1.48	3.23	30
6310	1624 2AX 20000 GVW 147 HP G	9,447	12.81	17.42	0.76	1.37	7.71	2.23	9.97	57
6315	1724 2AX 20500 GVW 147 HP G	9,763	12.88	17.55	0.78	1.41	7.71	2.31	9.97	65
6320	1824 2AX 23600 GVW 189 HP G	10,373	16.00	21.65	0.83	1.49	9.92	2.44	12.82	68
6325	1854 2AX 23600 GVW 180 HP D	15,652	10.65	15.12	1.27	2.30	5.01	3.75	6.47	74
6330	1924 2AX 25000 GVW 190 HP G	12,156	16.51	22.45	0.97	1.76	9.97	2.88	12.89	79
6335	1954 2AX 27000 GVW 180 HP D	20,209	11.88	17.10	1.64	2.98	5.01	4.85	6.47	100
6340	F1954 3AX 43000 GVW 210 HP D	24,150	17.51	25.07	1.95	3.54	8.53	5.76	11.21	123
6345	F2554 3AX 43000 GVW 210 HP D	33,641	20.04	29.14	2.73	4.96	8.53	8.07	11.21	123
6350	F2574 3AX 50000 GVW 230 HP D	40,341	22.77	33.16	3.28	5.99	9.34	9.72	12.27	123
6355	F5050 3AX 52000 GVW 225 HP D	41,055	22.69	33.10	3.33	6.10	9.13	9.89	12.01	138
	KENWORTH									
6365	K100 3AX 47400 GVW 72800 GCW 290 HP D	47,549	27.96	40.69	3.85	7.01	11.77	11.39	15.47	138
6370	W900 3AX 50000 GVW 76800 GCW 290 HP D	46,456	27.68	40.26	3.76	6.84	11.77	11.12	15.47	140
6375	C500 3AX 56000 GVW 86000 GCW 290 HP D	53,177	29.39	42.93	4.32	7.88	11.77	12.78	15.47	144
6380	BRUTE 3AX 62000 GVW 95300 GCW 290 HP D	57,152	30.39	44.52	4.64	8.49	11.77	13.77	15.47	179

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRUCKS - HIGHWAY (CONT'D) ********** (CHASSIS ONLY)									
	PETERBILT									
6390	MOD 348 3AX 56000 GVW 250 HP D	47,842	25.98	38.08	3.87	7.04	10.15	11.45	13.34	121
6395	MOD 352 3AX 50000 GVW 76800 GCW 350 HP D	51,304	32.00	46.22	4.17	7.60	14.21	12.34	18.68	131
6400	MOD 359 3AX 50000 GVW 76800 GCW 350 HP D	51,314	32.00	46.22	4.17	7.60	14.21	12.34	18.68	134
6405	MOD 381 3AX 73000 GVW 125000 GCW 350 HP D	54,877	32.90	47.64	4.46	8.15	14.21	13.22	18.68	174
6410	MOD 383 3AX 83000 GVW 150000 GCW 350 HP D	54,941	32.92	47.67	4.46	8.16	14.21	13.24	18.68	193
	TRUCK ACCESSORIES-TRAILER B/D **********									
	COOK BROS CHALLENGE									
6420	BDS 2511 19CY 25T 80,000 GVW MAX	22,195	5.42	8.21	1.68	2.69	0.00	4.41	0.00	120
6425	BDS 2811 23CY 28T 80,000 GVW MAX	24,209	5.88	8.93	1.83	2.93	0.00	4.82	0.00	130
6430	BDS-4011 30CY 40T 80,000 GVW MAX	26,753	6.60	9.97	2.02	3.21	0.00	5.27	0.00	150
6435	E-400 20CY 40T 100,000 GVW MAX	35,240	8.48	12.86	2.67	4.30	0.00	7.04	0.00	170
6440	E-550 37CY 55T OFF-HWY	55,677	13.48	20.46	4.20	6.73	0.00	11.05	0.00	370
6445	E-5506 37CY 55T OFF-HWY W/GOOSE NECK	65,648	15.69	23.85	4.97	8.01	0.00	13.13	0.00	390
6450	E-700 43CY 70T OFF-HWY	75,489	18.68	28.32	5.65	8.92	0.00	14.72	0.00	370
6455	E-7006 43CY 70T OFF-HWY W/GOOSE NECK	81,498	20.01	30.36	6.11	9.69	0.00	15.97	0.00	390
6460	DOLLY FOR GOOSE NECK TRAILERS	15,623	4.05	6.12	1.15	1.78	0.00	2.98	0.00	80

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRUCK ACCESSORIES-TRAILER E/D **********									
	COOK BROS CHALLENGE									
6470	SDS-26-R 20CY 28T 80,000 GVW MAX	20,194	5.00	7.56	1.52	2.42	0.00	3.98	0.00	114
6475	SDS-28-R 21CY 28T 80,000 GVW MAX	20,710	5.11	7.73	1.56	2.48	0.00	4.09	0.00	120
	FRUEHAUF									
6485	DDC-M2-27 20CY 25T 80,000 GVW MAX	19,763	4.88	7.38	1.49	2.37	0.00	3.90	0.00	110
	TRUCK ACCESSORIES - DUMP-REAR **********									
	WILLIAMSEN W/HOIST									
6495	5CY 24M TO 26M GVW	4,106	1.26	1.89	0.34	0.63	0.00	1.02	0.00	25
6500	AIR GATE 8CY 27M TO 30M GVW	6,391	1.93	2.91	0.53	0.98	0.00	1.58	0.00	45
6505	AIR GATE 10CY 36000 & UP GVW	6,505	1.95	2.96	0.53	0.99	0.00	1.61	0.00	46
6510	AIR GATE 12CY 36000 & UP GVW	6,596	2.03	3.04	0.55	1.01	0.00	1.63	0.00	47
	TRUCK ACCESSORIES - FLATBEDS **********									
	KNAPHEIDE									
6520	CT 8' X 12'	1,124	0.38		0.10	0.18	0.00			13
6525	CT 8' X 13.5'	1,290	0.42		0.11	0.20	0.00			16
6530	CT 8' X 15'	1,377	0.44		0.11	0.21	0.00			17
6535	CT 8' X 16'	1,469	0.47		0.13	0.23	0.00			19

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRUCK ACCESSORIES-HOIST-ELECT **********									
	AUTO CRANE									
6545	BACKSAVER SENIOR CAP 1500#	2,392	0.71		0.20	0.36	0.00			3
6550	WORKHORSE CAP 2500#	2,976	0.88		0.25	0.46	0.00			6
6555	MIGHTY WORKHORSE CAP 4000#	6,401	1.80		0.53	0.98	0.00			9
6560	MUSTANG CAP 4000#	9,807	2.72		0.81	1.50	0.00			20
	TRUCK ACCESSORIES-CRANE-HYDR **********									
	NATIONAL CRANE									
6570	SERIES 4 7.5T@5'RAD 27500 GVW	25,033	6.84		2.07	3.83	0.00			80
6575	SERIES 6 10T@5'RAD 44000 GVW	31,024	8.45		2.56	4.74	0.00			94
6580	SERIES 8 12T@5'RAD 60000 GVW	45,046	12.24		3.72	6.88	0.00			140
	PITMAN									
6590	HL-140CD 2AX 7T@ 4'RAD 24000 GVW	13,865	3.82		1.15	2.12	0.00			64
6595	HL-170CD 2AX 8T@ 4'RAD 24000 GVW	18,242	5.00		1.51	2.79	0.00			85
6600	HL-1268-1 2AX 12T@5'RAD 33000 GVW	38,768	10.55		3.20	5.93	0.00			120

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRUCK ACCESSORIES-TRAILERS FB **********									
	FRUEHAUF									
6610	PF-F2-40 40 FT 35 T 2 AX	9,188	2.51		0.68	0.96	0.00			96
	TRANSPORT									
6620	PF-BX 36 FT 35 T 2 AX	12,507	3.22		0.93	1.38	0.00			98
6625	PF-BX 40 FT 35 T 2 AX	12,603	3.24		0.94	1.39	0.00			104
	TRUCK ACCESSORIES-TRAILERS LOWBOY FB **********									
	LOAD KING									
6635	302-DR 30T 2AX 41000-49000 GVW	19,322	4.60		1.48	2.29	0.00			96
6640	402-DR 40T 2AX 50000-60000 GVW	25,574	6.05		1.96	3.04	0.00			108
6645	352-DF 35T 2AX 41000-49000 GVW	24,100	5.65		1.86	2.89	0.00			112
6650	402-DF 40T 2AX 50000-60000 GVW	26,568	6.27		2.05	3.17	0.00			117
6655	503-DF 50T 3AX 50000-60000 GVW	32,543	7.79		2.49	3.83	0.00			157
6660	603-DF 60T 3AX 61000-80000 GVW	38,653	9.21		2.95	4.55	0.00			180
6665	DOLLY FOR THREE-AXLE TRAILERS	13,803	3.47		1.05	1.57	0.00			60

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRUCK ACCESSORIES-TRAILERS-TILT **********									
	HYSTER									
6675	HP15T 15T 2AX 35000-40000 GVW	10,942	2.77		0.83	1.24	0.00			68
6680	HP2DT 20T 2AX 35000-40000 GVW	13,006	3.27		0.99	1.48	0.00			71
6685	GHP25T 25T 2AX 35000-40000 GVW	14,816	3.67		1.13	1.71	0.00			80
	TRUCK ACCESSORIES-TRANSIT MIXER **********									
	COOK BROS CHALLENGE (MIXER ONLY - ADD CHASSIS)									
6700	708-MD 7 CY 40000 - 50000 GVW	19,679	5.42		1.62	3.01	0.00			63
6705	808-MD 8 CY 50000 - 70000 GVW	19,984	5.50		1.65	3.05	0.00			66
6710	858-MD 8.5 CY 55000 - 75000 GVW	20,193	5.55		1.66	3.08	0.00			68
6715	908-MD 9 CY 61000 - 80000 GVW	20,485	5.64		1.69	3.13	0.00			73
	TRUCK ACCESSORIES-WATER TANK **********									
	ROSCO									
6720	MFW 2000 GAL 23500 - 28000 GVW 7 HP G TRUCK MOUNTED (ADD CHASSIS)	8,043	2.95		0.67	1.23	0.59			35
6725	MFW 2500 GAL 25000 - 34950 GVW 7 HP G TRUCK MOUNTED (ADD CHASSIS)	8,458	3.06		0.70	1.29	0.59			42
6730	MFW 3000 GAL 29000 - 40000 GVW 7 HP G TRUCK MOUNTED (ADD CHASSIS)	8,956	3.20		0.74	1.37	0.59			46

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRUCKS - OFF HIGHWAY **********									
	CATERPILLAR									
6740	769-B 35T 22-29 CY P.S. 450 HP D	204,942	59.08	87.02	14.72	23.56	11.45	37.99	14.79	681
6745	773 50T 30-40 CY P.S. 600 HP D	288,448	82.28	121.45	20.71	33.12	15.26	53.41	19.72	903
6750	777 85T 47-67 CY P.S. 870 HP D	395,030	119.11	176.57	28.13	44.45	22.13	72.06	28.59	1225
6755	768C PRIME MOVER TRACTOR P.S. 450 HP D	180,385	57.86	85.81	12.77	19.98	11.45	32.53	14.79	506
6760	772B PRIME MOVER TRACTOR P.S. 600 HP D	271,271	82.08	121.73	19.31	30.48	15.26	49.45	19.72	705
	DJB (ARTICULATED FRAME)									
6770	D275 27.5T 15-24 CY P.S. 235 HP D	162,657	43.00	64.17	11.66	18.62	5.98	30.06	7.72	410
6775	D330 33T 17-28 CY P.S. 255 HP D	172,713	45.56	67.89	12.40	19.83	6.49	31.99	8.38	430
6780	D350 35T 20-31 CY P.S. 255 HP D	184,798	49.21	73.69	13.21	21.01	6.49	33.98	8.38	460
6785	D550 55T 32-55 CY P.S. 450 HP D	317,961	84.08	125.60	22.78	36.35	11.45	58.69	14.79	820
	EUCLID									
6795	R25-215FD 25T 14-19 CY P.S. 228 HP D	125,430	34.75	51.51	9.00	14.38	5.80	23.21	7.49	378
6800	R35-302TD 35T 23-29 CY P.S. 394 HP D	186,886	54.57	80.76	13.36	21.25	10.02	34.36	12.95	583
6805	R50-301LD 50T 31-41 CY P.S. 606 HP D	263,218	77.56	114.20	18.87	30.13	15.42	48.63	19.91	790
	INTERNATIONAL									
6815	330 36T 24-31 CY P.S. 394 HP D	179,751	54.05	80.41	12.85	20.44	10.02	33.06	12.95	630
6820	350B 50T 31-42 CY P.S. 580 HP D	261,313	77.29	114.52	18.75	29.97	14.76	48.36	19.06	740

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRUCKS - OFF HIGHWAY (CONT'D)									
	MACK									
6835	M-15-X 15T 11-15 CY 180 HP D	93,118	26.46	39.24	6.67	10.62	4.58	17.17	5.91	340
6840	M-20-X 20T 13-17 CY 250 HP D	95,051	28.14	41.02	6.86	11.06	6.36	17.78	8.21	350
6845	M-25-X 25T 16-20 CY P.S. 250 HP D	120,578	34.59	51.08	8.65	13.81	6.36	22.28	8.21	460
6850	M-35-AX 35T 23-29 CY P.S. 434 HP D	171,590	52.13	76.61	12.28	19.58	11.04	31.64	14.26	630
6855	M-45-SX 3AX45T 28-36 CY P.S. 535 HP D	234,032	70.22	103.90	16.74	26.63	13.61	43.05	17.58	810
6860	M-50-AX 50T 32-39 CY P.S. 635 HP D	249,803	76.00	111.64	17.90	28.53	16.15	46.07	20.87	790
6865	M-65-BX 65T 42-51 CY P.S. 700 HP D	316,401	92.41	136.27	22.68	36.19	17.81	58.43	23.00	955
6870	M-75ASX 3AX75T 44-56 CY P.S. 800 HP D	364,776	107.39	158.88	26.13	41.67	20.35	67.29	26.29	1160
	TEREX									
6880	33-03B 22T 15-18 CY P.S. 215 HP D	101,645	30.20	44.79	7.25	11.47	5.47	18.58	7.06	380
6885	33-05B 30T 19-23 CY P.S. 321 HP D	162,034	46.19	68.37	11.61	18.51	8.17	29.89	10.55	525
6890	33-07 40T 25-32 CY P.S. 493 HP D	216,137	64.34	94.98	15.45	24.58	12.54	39.74	16.20	756
6895	33-09 55T 34-44 CY P.S. 624 HP D	289,022	84.65	125.11	20.68	32.91	15.87	53.19	20.50	992
6900	33-11C 85T 51-65 CY P.S. 840 HP D	390,466	113.96	168.41	27.95	44.52	21.37	71.93	27.60	1227
	WABCO									
6910	HAULPAK 35C 35T 23-29 CY P.S. 456 HP D	183,453	56.27	82.90	13.11	20.80	11.60	33.65	14.98	571
6915	HAULPAK 50 50T 31-40 CY P.S. 635 HP D	263,917	79.96	117.90	18.86	29.97	16.15	48.47	20.87	792
6920	75B 75T 45-47 CY P.S. 700 HP D	304,009	92.76	137.30	21.65	34.20	17.81	55.44	23.00	955
6925	85C 85T 40-60 CY P.S. 860 HP D	368,303	112.77	166.90	26.22	41.42	21.88	67.17	28.26	1181

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	TRUCKS - WATER									
	**********									
	TRACTOR DRAWN - KLEIN									
6940	KT-50 5000 GAL. CAT 613B P.S. 150 HP D	91,709	26.60	38.65	6.55	10.40	6.04	16.83	7.79	310
6945	KT-60 6000 GAL. CAT 621B P.S. 330 HP D	163,500	52.31	75.98	11.62	18.29	13.29	29.70	17.14	593
6950	KT-80 8000 GAL. CAT 631D P.S. 450 HP D	225,022	69.88	101.11	16.10	25.63	18.13	41.44	23.37	788
6955	KT-100 10000 GAL. CAT 631D P.S. 450 HP D	231,457	71.83	104.11	16.50	26.11	18.13	42.32	23.37	798
6960	KT-100 10000 GAL. CAT 641B P.S. 550 HP D	271,071	86.64	125.97	19.34	30.63	22.15	49.60	28.57	951
6965	KT-120 12000 GAL. CAT 651B P.S. 550 HP D	275,421	88.18	128.33	19.59	30.88	22.15	50.11	28.57	1097
6970	KT-140 14000 GAL. CAT 660B P.S. 550 HP D	271,220	89.19	129.96	19.14	29.80	22.15	48.61	28.57	1067
	TRACTOR DRAWN - SOUTHWEST									
6980	STT-60 6000 GAL. CAT 621B P.S. 330 HP D	171,081	53.49	77.74	12.19	19.27	13.29	31.22	17.14	623
6985	STT-80 8000 GAL. CAT 631D P.S. 450 HP D	232,373	71.39	103.37	16.63	26.46	18.13	42.76	23.37	848
6990	STT-100 10000 GAL. CAT 631D P.S. 450 HP D	236,065	72.20	104.59	16.88	26.84	18.13	43.40	23.37	918
6995	STT-120 12000 GAL. CAT 651B P.S. 550 HP D	284,117	91.00	132.66	20.11	31.47	22.15	51.23	28.57	1053
7000	STT-140 14000 GAL. CAT 660B P.S. 550 HP D	278,801	90.91	132.58	19.65	30.57	22.15	49.90	28.57	1137
	WAGONS - BOTTOM - DUMP									
	**********									
	CATERPILLAR-ATHEY									
7010	621B/PW621B 33T 22-26CY P.S. 330 HP D	176,077	55.07	80.15	12.49	19.62	13.29	31.89	17.14	579
7015	631D/PW631D 41T 27-32CY P.S. 450 HP D	243,789	74.08	107.46	17.40	27.58	18.13	44.66	23.37	769
7020	768B/PW768B 72T 42-48CY P.S. 415 HP D	275,037	80.25	117.18	19.47	30.47	16.72	49.60	21.56	850
7025	660B/PW772 100T 60-67CY P.S. 550 HP D	352,971	104.78	153.40	25.01	39.23	22.15	63.82	28.57	1218

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	WAGONS - BOTTOM - DUMP (CONT'D)									
	**********									
	CATERPILLAR-ATHEY (CONT'D)									
7030	660B/PW660B 100T 60-67CY P.S. 550 HP D	352,836	104.18	152.46	25.05	39.42	22.15	64.03	28.57	1164
	EUCLID									
7040	B63-203LDT147W 63T 42-56CY P.S. 442 HP D	270,065	80.28	117.16	19.21	30.30	17.80	49.16	22.96	896
	WAGONS - REAR - DUMP									
	**********									
	CATERPILLAR-ATHEY									
7050	621B/PR621B 30T 20-24CY P.S. 330 HP D	177,202	56.71	83.09	12.59	19.80	13.29	32.17	17.14	572
7055	631D/PR631D 40T 27-32CY P.S. 450 HP D	249,117	77.93	114.05	17.77	28.13	18.13	45.56	23.37	833
	WATER BLASTER									
	**********									
	MULLINS WATER BLASTERS									
7070	5000DH 1 - NOZZLE 95 HP D	22,575	16.98		2.09	4.20	5.64			47
7075	5200DH 2 - NOZZLE 140 HP D	30,382	24.23		2.80	5.65	8.31			52
7080	5300 3 - NOZZLE 275 HP D	55,635	46.02		5.13	10.35	16.32			128
7085	5400 4 - NOZZLE 318 HP D	59,922	51.71		5.52	11.14	18.88			145

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	WATER TANKS									
	**********									
	SKID MOUNTED									
7095	WST-8 8000 GAL. SOUTHWEST	9,839	2.67		0.81	1.50	0.00			128
7100	WST-10 10000 GAL. SOUTHWEST	11,469	3.12		0.95	1.76	0.00			150
7105	WST-12 12000 GAL. SOUTHWEST	13,689	3.71		1.13	2.09	0.00			183
	PORTABLE (WITH WHEELS)									
7115	EWT-8 8000 GAL. SOUTHWEST	21,306	5.77		1.76	3.26	0.00			150
7120	EWT-10 10000 GAL. SOUTHWEST	23,948	6.49		1.98	3.67	0.00			170
7125	EWT-12 12000 GAL. SOUTHWEST	26,658	7.22		2.21	4.08	0.00			210
	WELDERS									
	*******									
	ELECTRIC DRIVE - AC 3 PHASE 60 HZ									
7135	250 AMP SKID MTD 10 HP E	944	0.62		0.08	0.13	0.33			7
7140	300 AMP SKID MTD 20 HP E	1,303	1.12		0.11	0.18	0.66			7
7145	400 AMP SKID MTD 25 HP E	1,573	1.38		0.13	0.22	0.82			8
7150	600 AMP SKID MTD 36 HP E	2,326	2.02		0.20	0.33	1.19			15
	GASOLINE ENGINE DRIVE									
7160	200 AMP W/1 AXLE TRLR 37 HP G	2,063	5.46		0.18	0.34	3.84			11
7165	250 AMP W/1 AXLE TRLR 65 HP G	3,441	9.55		0.31	0.58	6.74			17
7170	300 AMP W/1 AXLE TRLR 65 HP G	3,493	9.57		0.32	0.59	6.74			17
7175	400 AMP W/1 AXLE TRLR 69 HP G	4,040	10.26		0.37	0.68	7.15			21

TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES CONDITION AVERAGE	TOTAL HOURLY RATES CONDITION SEVERE	TOTAL HOURLY RATES STAND-BY	ADJUSTABLE ELEMENTS AVERAGE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS AVERAGE COND. FUEL	ADJUSTABLE ELEMENTS SEVERE COND. OWNER-SHIP	ADJUSTABLE ELEMENTS SEVERE COND. FUEL	CWT
	WELDERS (CONT'D) **********									
	GASOLINE ENGINE DRIVE (CONT'D)									
7180	650 AMP W/2 AXLE TRLR 85 HP G	6,218	13.08		0.56	1.05	8.81			22
	DIESEL ENGINE DRIVE									
7190	350 AMP W/2 AXLE TRLR 55 HP D	5,334	5.25		0.49	0.91	2.74			25
7195	400 AMP W/2 AXLE TRLR 55 HP D	6,970	5.81		0.63	1.18	2.74			30
	RECTIFIER AC-DC COMB.									
7205	250 AMP W/SHOP RUNNING GEAR 19 HP E	804	0.98		0.07	0.11	0.63			4
7210	300 AMP W/SHOP RUNNING GEAR 24 HP E	964	1.23		0.08	0.14	0.79			6
7215	500 AMP W/SHOP RUNNING GEAR 30 HP E	1,377	1.57		0.12	0.20	0.99			7
7220	650 AMP W/SHOP RUNNING GEAR 42 HP E	1,662	2.15		0.14	0.24	1.39			9

TABLE 3-2. EQUIPMENT AGE ADJUSTMENT FACTORS FOR OWNERSHIP COSTS

The "Age Adjustment Factors for Ownership Costs" in TABLE 3-2 are used when the age of an item of equipment is other than the age of the equipment listed in TABLE 3-1. The factors given in TABLE 3-2 are multiplied by the hourly ownership costs shown in TABLE 3-1 and result in an ownership rate adjusted for the actual age of the equipment being considered. When the "life" of the equipment has exceeded the economic service life given in APPENDIX D, the age will be determined as given in paragraph 3-2.f.

Examples: Assume that a two-year old 50-ton truck crane listed in TABLE 3-1 has a total hourly rate of $40.00 per hour and an ownership rate of $19.00 per hour.

A. If an equivalent crane owned by a contractor had been purchased new in 1976, the total hourly rate can be determined as follows:

Total Hourly Rate	= $40.00/Hr.
Ownership Rate	(-) $19.00/Hr.
Ownership Adjusted for Age: (Ownership Rate) x (Age Adj. Factor) = ($19.00) x (.79)	= (+) $15.01/Hr.
Adjusted Total Hourly Rate	= $36.01/Hr.

B. If an equivalent crane owned by a Contractor had been purchased new in 1968, the total hourly rate can be determined as follows:

Total Hourly Rate	= $40.00/Hr.
Ownership Rate	(-) $19.00/Hr.
Ownership adjusted for Age: (Ownership Rate) x (Oldest Age Adj. Factor) = ($19.00) x (.41)	= (+) $ 7.79/Hr.
Adjusted Total Hourly Rate	= $28.79/Hr.

C. If an equivalent crane, manufactured in 1968, had been purchased used in 1976 by the Contractor, the crane is over-age and the rate computation would be identical to Example B.

D. If an equivalent crane, manufactured in 1976, had been purchased used in 1980 by the Contractor, the used crane is not over-age and the rate computation would be identical to Example A.

TABLE 3-2. EQUIPMENT AGE ADJUSTMENT FACTORS FOR OWNERSHIP COSTS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	YEAR PURCHASED NEW												
		1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969
15	AGGREGATE SPREADERS	1.20	1.10	1.00	0.91	0.84	0.78	0.74	0.65					
30	AIR COMPRESSORS	1.20	1.10	1.00	0.87	0.83	0.75	0.73	0.63					
45	AIR TOOLS & EQUIP, TAMPERS ETC	1.21	1.10	1.00										
60	ASPHALT DISTRIBUTORS	1.22	1.11	1.00	0.91	0.84	0.76	0.72	0.63					
65	ASPHALT AND CONCRETE PAVERS	1.20	1.10	1.00	0.91	0.84	0.78	0.74	0.65					
	BACKHOE (SEE KEY NO. 570-601)													
75	BROOMS	1.28	1.14	1.00	0.90	0.81	0.75	0.69	0.55					
80	BRUSH CHIPPERS	1.28	1.14	1.00	0.90	0.81	0.75	0.69	0.55					
90	BUCKETS, CLAMSHELL & DRAGLINE	1.37	1.21	1.00	0.89	0.81	0.74	0.62	0.50					
95	BUCKETS, CONCRETE	1.37	1.21	1.00	0.89	0.81	0.74	0.62	0.50					
105	CONCRETE OR GROUT PUMP	1.29	1.15	1.00	0.90	0.81	0.74							
120	CONCRETE GUNITE EQUIPMENT & FLUID GROUTERS	1.28	1.14	1.00	0.90	0.81	0.75	0.69	0.55					
125	CONCRETE MIXERS & BUGGIES	1.28	1.14	1.00	0.90	0.81	0.75	0.69	0.55					
135	CONCRETE VIBRATORS	1.21	1.10	1.00										
140	COMPACTORS, MANUALLY OPERATED	1.20	1.10	1.00	0.87	0.83								
	CRANE, CRAWLER TYPE													
150	0 THRU 25 TON	1.23	1.12	1.00	0.91	0.84	0.78	0.71	0.57	0.48	0.46			
165	OVER 25 TON THRU 50 TON	1.23	1.12	1.00	0.91	0.84	0.79	0.72	0.58	0.49	0.47	0.45	0.42	
170	OVER 50 TON THRU 150 TON	1.22	1.11	1.00	0.91	0.85	0.79	0.72	0.59	0.50	0.48	0.46	0.44	0.41
180	OVER 150 TON	1.22	1.11	1.00	0.91	0.85	0.80	0.73	0.60	0.51	0.49	0.47	0.44	0.42
	DRAGLINE & CLAMSHELL,CRAWLER MOUNTED													
185	0 THRU 1 CY	1.23	1.12	1.00	0.91	0.84	0.78	0.71	0.57	0.48				
190	OVER 1 CY THRU 2-1/2 CY	1.23	1.12	1.00	0.91	0.84	0.79	0.72	0.58	0.49	0.47	0.45	0.42	
195	OVER 2-1/2 CY THRU 5 CY	1.22	1.11	1.00	0.91	0.85	0.79	0.72	0.59	0.50	0.48	0.46	0.44	0.41
196	OVER 5 CY	1.22	1.11	1.00	0.91	0.85	0.80	0.73	0.60	0.51	0.49	0.47	0.44	0.42
200	CRANES, HYDRAULIC, SELF-PROPELLED	1.23	1.12	1.00	0.91	0.84	0.79	0.71	0.58	0.49	0.47	0.45	0.42	
	CRANES & HYD. EXC. , TRK MTD													
210	UNDER 26 T. (THRU 1 CY)	1.23	1.12	1.00	0.91	0.84	0.79	0.72	0.58	0.49	0.47	0.45	0.42	
225	26 THRU 65 T (1 TH 2-1/2 CY)	1.22	1.11	1.00	0.91	0.85	0.79	0.72	0.59	0.50	0.48	0.46	0.44	0.41
230	66 THRU 125 T	1.22	1.11	1.00	0.91	0.85	0.79	0.73	0.60	0.51	0.49	0.47	0.44	0.42
240	OVER 125 T	1.21	1.11	1.00	0.91	0.85	0.80	0.73	0.60	0.51	0.49	0.48	0.45	0.43
255	DRILL, AUGER	1.28	1.15	1.00	0.92	0.84	0.80	0.76	0.65					
270	DRILL, BLAST HOLE	1.28	1.15	1.00	0.92	0.84	0.80	0.76	0.65					
300	DRILL, CORE	1.28	1.15	1.00	0.92	0.84	0.80	0.76	0.65					
315	DRILL, ROTARY TO 11" DIA. HOLE	1.27	1.15	1.00	0.93	0.84	0.81	0.77	0.67	0.60	0.57	0.55	0.53	
330	DRILL, ROTARY OVER 11" DIA.	1.26	1.14	1.00	0.93	0.85	0.82	0.78	0.68	0.62	0.58	0.57	0.55	0.52
345	DRILL, ROTARY OVER 11" DIA., ELECTRIC	1.26	1.14	1.00	0.93	0.85	0.82	0.78	0.68	0.62	0.58	0.57	0.55	0.52
375	FORK LIFTS	1.28	1.14	1.00	0.90	0.81	0.75	0.69	0.55					
390	GRADERS	1.25	1.13	1.00	0.92	0.82	0.76	0.69	0.55	0.45				
420	GENERATORS	1.38	1.24	1.00	0.96	0.87	0.83	0.72	0.53					
435	HOIST	1.28	1.14	1.00	0.90	0.81	0.75	0.69	0.55					
	HYD. EXCAVATOR (SEE KEY NO. 570-601)													

TABLE 3-2. EQUIPMENT AGE ADJUSTMENT FACTORS FOR OWNERSHIP COSTS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	YEAR PURCHASED NEW												
		1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969
440	LIGHT PLANTS	1.30	1.15	1.00	0.89	0.80	0.73	0.67	0.52					
450	LOADER, BELT	1.30	1.15	1.00	0.89	0.80	0.73	0.67	0.52					
460	LOADER,FRONT END &LOADER F/E WITH BACKHOE,CRAWLER TYPE	1.26	1.14	1.00	0.91	0.83	0.75	0.70	0.55					
	LOADER, WHEEL TYPE													
465	0 THRU 225 HP	1.29	1.15	1.00	0.90	0.80	0.73	0.69	0.55					
470	OVER 225 HP	1.28	1.14	1.00	0.90	0.81	0.75	0.71	0.57	0.48				
475	LOADER, FRONT END WITH BACKHOE,WHEEL TYPE	1.29	1.15	1.00	0.90	0.80	0.73	0.69	0.55					
480	PILE EXTRACTOR, PILE HAMMER & HYDRAULIC IMPACTOR	1.29	1.15	1.00	0.89	0.80								
485	PIPELAYERS	1.26	1.13	1.00	0.89	0.80	0.72	0.66	0.52	0.42				
	PUMP, GROUT (SEE KEY NO. 105)													
495	PUMP, WATER, ENGINE DRIVE	1.28	1.14	1.00	0.90	0.81	0.75	0.69	0.55					
500	PUMP, WATER, ELECTRIC DRIVE	1.28	1.14	1.00	0.90	0.81	0.75	0.69	0.55					
510	RIPPERS	1.27	1.13	1.00	0.89	0.79	0.71							
525	ROLLERS,EXCEPT VIB. ROLLERS	1.25	1.11	1.00	0.89	0.78	0.72	0.67	0.54					
530	ROLLERS, VIBRATORY	1.27	1.12	1.00	0.88	0.77	0.70							
540	SCRAPERS, STANDARD	1.25	1.13	1.00	0.92	0.82	0.76	0.69	0.55					
542	SCRAPERS, TANDEM POWERED	1.25	1.13	1.00	0.92	0.82	0.76	0.69	0.55					
	SCRAPERS, ELEVATING													
545	0 THRU 200 HP	1.25	1.13	1.00	0.92	0.82	0.76	0.69	0.55					
550	OVER 200 HP	1.25	1.13	1.00	0.92	0.82	0.76	0.69	0.55					
555	SCRAPERS, TRACTOR DRAWN	1.25	1.13	1.00	0.92	0.83	0.76	0.70	0.56	0.46				
	SHOVELS, BACKHOES, & HYDRAULIC EXCAVATORS CRAWLER MOUNTED													
570	0 THRU 1 CY	1.23	1.12	1.00	0.91	0.84	0.78	0.71	0.57	0.47				
585	OVER 1 CY THRU 2-1/2 CY	1.23	1.12	1.00	0.91	0.84	0.78	0.71	0.57	0.48	0.46			
595	OVER 2-1/2 CY THRU 5 CY	1.22	1.12	1.00	0.91	0.84	0.79	0.72	0.58	0.49	0.47	0.45	0.43	
600	OVER 5 CY	1.22	1.11	1.00	0.91	0.85	0.79	0.72	0.59	0.50	0.48	0.46	0.44	0.41
601	OVER 2-1/2 CY ELECTRIC	1.21	1.11	1.00	0.91	0.85	0.80	0.73	0.60	0.51	0.49	0.48	0.45	0.43
	TRACTOR, CRAWLER TYPE													
615	0 THRU 225 HP	1.28	1.13	1.00	0.88	0.78	0.70	0.64	0.49					
620	226 HP THRU 425 HP (PER UNIT FOR TANDEM TRACTORS)	1.26	1.13	1.00	0.89	0.80	0.72	0.66	0.52	0.42				
625	OVER 425 HP	1.25	1.12	1.00	0.90	0.80	0.73	0.67	0.54	0.45	0.43	0.41		
630	TRACTOR, BLADES, PUSH BLOCKS, PUSH PLATES & CLEARING BLADES	1.26	1.13	1.00	0.89	0.80	0.72	0.66	0.52					
645	TRACTOR, WHEEL TYPE	1.30	1.15	1.00	0.89	0.80	0.73	0.67	0.53					
650	TRENCHER	1.30	1.15	1.00	0.92	0.81	0.64	0.54	0.50					
655	TRAILERS, BOTTOM DUMP AND END DUMP	1.29	1.15	1.00	0.89	0.81	0.74	0.68	0.53					
660	TRAILERS, FLATBED, LO-BOY AND TILT	1.30	1.16	1.00	0.89	0.80	0.73	0.67	0.51					
	TRUCK ACCESSORIES FOR CHASSIS MOUNTING													

TABLE 3-2. EQUIPMENT AGE ADJUSTMENT FACTORS FOR OWNERSHIP COSTS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	YEAR PURCHASED NEW												
		1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969
670	DUMP BODIES	1.29	1.15	1.00	0.90	0.81	0.74							
675	ALL OTHER ACCESSORIES	1.29	1.15	1.00	0.90	0.81	0.74							
	TRUCK, HIGHWAY													
690	0 THRU 10,000 GVW	1.23	1.12	1.00	0.91	0.82	0.75							
695	OVER 10,000 THRU 30,000 GVW	1.23	1.12	1.00	0.91	0.82	0.75							
705	OVER 30,000 GVW	1.23	1.12	1.00	0.91	0.82	0.75							
720	TRUCK, OFF-HIGHWAY	1.29	1.16	1.00	0.90	0.83	0.78	0.74	0.57	0.46				
765	WAGON, BOTTOM DUMP & WATER	1.29	1.16	1.00	0.90	0.83	0.78	0.73	0.57	0.46				
780	WAGON, REAR DUMP	1.29	1.16	1.00	0.90	0.83	0.78	0.73	0.57	0.46				
785	WATER BLASTER	1.29	1.15	1.00	0.89	0.80								
795	WATER TANKS	1.29	1.15	1.00	0.90	0.81	0.74							
810	WELDERS	1.32	1.17	1.00	0.88	0.78								
811	WELDERS ELECTRIC POWER	1.31	1.16	1.00	0.89	0.79	0.72							

TABLE 3-3. EQUIPMENT AGE ADJUSTMENT FACTORS FOR STANDBY COSTS

The "Age Adjustment Factors for Standby Costs" in TABLE 3-3 are used when the age of a piece of equipment is other than the age of the equipment listed in TABLE 3-1. The factors given in TABLE 3-3 are multiplied by the hourly standby costs shown in TABLE 3-1 and result in a standby rate adjusted for the actual age of the equipment being considered. When the "life" of the equipment has exceeded the economic service life given in APPENDIX D, the age will be determined as given in paragraph 3-2.f.

Example: Assume that a two-year old 50-ton truck crane listed in TABLE 3-1 has an hourly standby rate of $11.00 per hour. If an equivalent crane owned by a Contractor had been purchased new in 1976, the hourly standby rate can be determined as follows:

Hourly Standby Rate	= $11.00/Hr.
Standby Adjusted for Age (Standby Rate) x (Age Adj. Factor) = ($11.00) x (.82)	= $ 9.02/Hr.

TABLE 3-3. EQUIPMENT AGE ADJUSTMENT FACTORS FOR STANDBY COSTS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	YEAR PURCHASED NEW												
		1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969
15	AGGREGATE SPREADERS	1.18	1.09	1.00	0.92	0.87	0.81	0.77	0.70					
30	AIR COMPRESSORS	1.17	1.08	1.00	0.90	0.86	0.79	0.78	0.69					
45	AIR TOOLS & EQUIP, TAMPERS ETC	1.19	1.09	1.00										
60	ASPHALT DISTRIBUTORS	1.17	1.09	1.00	0.92	0.87	0.81	0.78	0.70					
65	ASPHALT AND CONCRETE PAVERS	1.18	1.09	1.00	0.92	0.87	0.81	0.77	0.70					
	BACKHOE (SEE KEY NO. 570-601)													
75	BROOMS	1.24	1.12	1.00	0.91	0.84	0.79	0.73	0.61					
80	BRUSH CHIPPERS	1.24	1.12	1.00	0.91	0.84	0.79	0.73	0.61					
90	BUCKETS, CLAMSHELL & DRAGLINE	1.31	1.17	1.00	0.91	0.84	0.78	0.68	0.58					
95	BUCKETS, CONCRETE	1.31	1.17	1.00	0.91	0.84	0.78	0.68	0.58					
105	CONCRETE OR GROUT PUMP	1.25	1.13	1.00	0.91	0.84	0.78							
120	CONCRETE GUNITE EQUIPMENT & FLUID GROUTERS	1.24	1.12	1.00	0.91	0.84	0.79	0.73	0.61					
125	CONCRETE MIXERS & BUGGIES	1.24	1.12	1.00	0.91	0.84	0.79	0.73	0.61					
135	CONCRETE VIBRATORS	1.19	1.09	1.00										
140	COMPACTORS, MANUALLY OPERATED	1.18	1.09	1.00	0.89	0.85								
	CRANE, CRAWLER TYPE													
150	0 THRU 25 TON	1.20	1.10	1.00	0.92	0.86	0.81	0.75	0.63	0.55	0.53			
165	OVER 25 TON THRU 50 TON	1.20	1.10	1.00	0.92	0.86	0.82	0.75	0.64	0.56	0.54	0.52	0.50	
170	OVER 50 TON THRU 150 TON	1.19	1.10	1.00	0.92	0.87	0.82	0.76	0.64	0.56	0.55	0.53	0.51	0.49
180	OVER 150 TON	1.19	1.10	1.00	0.92	0.87	0.82	0.76	0.65	0.57	0.55	0.54	0.51	0.49
	DRAGLINE & CLAMSHELL,CRAWLER MOUNTED													
185	0 THRU 1 CY	1.20	1.10	1.00	0.92	0.86	0.81	0.75	0.63	0.55				
190	OVER 1 CY THRU 2-1/2 CY	1.20	1.10	1.00	0.92	0.86	0.82	0.75	0.64	0.56	0.54	0.52	0.50	
195	OVER 2-1/2 CY THRU 5 CY	1.19	1.10	1.00	0.92	0.87	0.82	0.76	0.64	0.56	0.55	0.53	0.51	0.49
196	OVER 5 CY	1.19	1.10	1.00	0.92	0.87	0.82	0.76	0.65	0.57	0.55	0.54	0.51	0.49
200	CRANES, HYDRAULIC, SELF-PROPELLED	1.19	1.10	1.00	0.92	0.87	0.82	0.76	0.65	0.57	0.55	0.54	0.51	
	CRANES & HYD. EXC. , TRK MTD													
210	UNDER 26 T. (THRU 1 CY)	1.20	1.10	1.00	0.92	0.86	0.82	0.75	0.64	0.56	0.54	0.52	0.50	
225	26 THRU 65 T (1 TH 2-1/2 CY)	1.19	1.10	1.00	0.92	0.87	0.82	0.76	0.64	0.57	0.55	0.53	0.51	0.49
230	66 THRU 125 T	1.19	1.10	1.00	0.92	0.87	0.82	0.76	0.65	0.57	0.55	0.54	0.51	0.49
240	OVER 125 T	1.19	1.10	1.00	0.93	0.87	0.82	0.76	0.65	0.57	0.56	0.54	0.52	0.50
255	DRILL, AUGER	1.24	1.13	1.00	0.93	0.86	0.83	0.79	0.70					
270	DRILL, BLAST HOLE	1.24	1.13	1.00	0.93	0.86	0.83	0.79	0.70					
300	DRILL, CORE	1.24	1.13	1.00	0.93	0.86	0.83	0.79	0.70					
315	DRILL, ROTARY TO 11" DIA. HOLE	1.23	1.13	1.00	0.94	0.86	0.84	0.80	0.71	0.66	0.63	0.62	0.60	
330	DRILL, ROTARY OVER 11" DIA.	1.23	1.12	1.00	0.94	0.87	0.84	0.81	0.72	0.67	0.64	0.63	0.61	0.58
345	DRILL, ROTARY OVER 11" DIA., ELECTRIC	1.23	1.12	1.00	0.94	0.87	0.84	0.81	0.72	0.67	0.64	0.63	0.61	0.58
375	FORK LIFTS	1.24	1.12	1.00	0.91	0.84	0.79	0.73	0.61					
390	GRADERS	1.21	1.11	1.00	0.93	0.85	0.80	0.75	0.63	0.54				
420	GENERATORS	1.30	1.18	1.00	0.97	0.90	0.87	0.78	0.63					
435	HOIST	1.24	1.12	1.00	0.91	0.84	0.79	0.73	0.61					
	HYD. EXCAVATOR (SEE KEY NO. 570-601)													

TABLE 3-3. EQUIPMENT AGE ADJUSTMENT FACTORS FOR STANDBY COSTS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	YEAR PURCHASED NEW												
		1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969
440	LIGHT PLANTS	1.23	1.12	1.00	0.91	0.84	0.79	0.74	0.62					
450	LOADER, BELT	1.23	1.12	1.00	0.91	0.84	0.79	0.74	0.62					
460	LOADER,FRONT END &LOADER F/E WITH BACKHOE,CRAWLER TYPE	1.22	1.11	1.00	0.92	0.86	0.79	0.75	0.63					
	LOADER, WHEEL TYPE													
465	0 THRU 225 HP	1.24	1.12	1.00	0.92	0.84	0.78	0.75	0.63					
470	OVER 225 HP	1.24	1.12	1.00	0.92	0.84	0.78	0.75	0.63	0.55				
475	LOADER, FRONT END WITH BACKHOE,WHEEL TYPE	1.24	1.12	1.00	0.92	0.84	0.78	0.75	0.63					
480	PILE EXTRACTOR, PILE HAMMER & HYDRAULIC IMPACTOR	1.25	1.13	1.00	0.91	0.83								
485	PIPELAYERS	1.22	1.10	1.00	0.91	0.83	0.76	0.72	0.60	0.52				
	PUMP, GROUT (SEE KEY NO. 105)													
495	PUMP, WATER, ENGINE DRIVE	1.24	1.12	1.00	0.91	0.84	0.79	0.73	0.61					
500	PUMP, WATER, ELECTRIC DRIVE	1.24	1.12	1.00	0.91	0.84	0.79	0.73	0.61					
510	RIPPERS	1.23	1.11	1.00	0.90	0.82	0.75							
525	ROLLERS,EXCEPT VIB. ROLLERS	1.22	1.10	1.00	0.91	0.81	0.76	0.72	0.60					
530	ROLLERS, VIBRATORY	1.22	1.10	1.00	0.90	0.81	0.75							
540	SCRAPERS, STANDARD	1.22	1.11	1.00	0.93	0.85	0.79	0.74	0.61					
542	SCRAPERS, TANDEM POWERED	1.22	1.11	1.00	0.93	0.85	0.79	0.74	0.61					
	SCRAPERS, ELEVATING													
545	0 THRU 200 HP	1.22	1.11	1.00	0.93	0.85	0.79	0.74	0.61					
550	OVER 200 HP	1.22	1.11	1.00	0.93	0.85	0.79	0.74	0.61					
555	SCRAPERS, TRACTOR DRAWN	1.21	1.11	1.00	0.93	0.85	0.80	0.74	0.62	0.54				
	SHOVELS, BACKHOES, & HYDRAULIC EXCAVATORS CRAWLER MOUNTED													
570	0 THRU 1 CY	1.20	1.10	1.00	0.92	0.86	0.81	0.75	0.63	0.54				
585	OVER 1 CY THRU 2-1/2 CY	1.20	1.10	1.00	0.92	0.86	0.81	0.75	0.63	0.55	0.53			
595	OVER 2-1/2 CY THRU 5 CY	1.19	1.10	1.00	0.92	0.86	0.82	0.76	0.64	0.56	0.54	0.53	0.50	
600	OVER 5 CY	1.19	1.10	1.00	0.92	0.87	0.82	0.76	0.64	0.56	0.55	0.53	0.51	0.49
601	OVER 2-1/2 CY ELECTRIC	1.19	1.10	1.00	0.93	0.87	0.82	0.76	0.65	0.57	0.56	0.54	0.52	0.50
	TRACTOR, CRAWLER TYPE													
615	0 THRU 225 HP	1.22	1.11	1.00	0.91	0.83	0.76	0.71	0.60					
620	226 HP THRU 425 HP (PER UNIT FOR TANDEM TRACTORS)	1.22	1.10	1.00	0.91	0.83	0.76	0.72	0.60	0.52				
625	OVER 425 HP	1.22	1.10	1.00	0.91	0.83	0.77	0.72	0.60	0.52	0.51	0.49		
630	TRACTOR, BLADES, PUSH BLOCKS, PUSH PLATES & CLEARING BLADES	1.22	1.11	1.00	0.91	0.82	0.76	0.71	0.59					
645	TRACTOR, WHEEL TYPE	1.25	1.13	1.00	0.90	0.83	0.77	0.72	0.60					
650	TRENCHER	1.25	1.13	1.00	0.93	0.84	0.70	0.61	0.57					
655	TRAILERS, BOTTOM DUMP AND END DUMP	1.24	1.12	1.00	0.91	0.84	0.79	0.74	0.62					
660	TRAILERS, FLATBED, LO-BOY AND TILT	1.23	1.12	1.00	0.91	0.84	0.79	0.74	0.62					
	TRUCK ACCESSORIES FOR CHASSIS MOUNTING													

TABLE 3-3. EQUIPMENT AGE ADJUSTMENT FACTORS FOR STANDBY COSTS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	YEAR PURCHASED NEW												
		1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969
670	DUMP BODIES	1.25	1.13	1.00	0.91	0.84	0.78							
675	ALL OTHER ACCESSORIES	1.25	1.13	1.00	0.91	0.84	0.78							
	TRUCK, HIGHWAY													
690	0 THRU 10,000 GVW	1.20	1.10	1.00	0.92	0.84	0.78							
695	OVER 10,000 THRU 30,000 GVW	1.20	1.10	1.00	0.92	0.84	0.78							
705	OVER 30,000 GVW	1.20	1.10	1.00	0.92	0.84	0.78							
720	TRUCK, OFF-HIGHWAY	1.25	1.13	1.00	0.92	0.86	0.82	0.77	0.63	0.54				
765	WAGON, BOTTOM DUMP & WATER	1.25	1.13	1.00	0.92	0.86	0.82	0.77	0.63	0.54				
780	WAGON, REAR DUMP	1.25	1.13	1.00	0.92	0.86	0.82	0.77	0.63	0.54				
785	WATER BLASTER	1.25	1.13	1.00	0.91	0.83								
795	WATER TANKS	1.25	1.13	1.00	0.91	0.84	0.78							
810	WELDERS	1.26	1.13	1.00	0.91	0.83								
811	WELDERS ELECTRIC POWER	1.24	1.13	1.00	0.91	0.84	0.78							

TABLE 3-4. SHIFT ADJUSTMENT FACTORS FOR OWNERSHIP COSTS

The "Shift Adjustment Factors" in TABLE 3-4 are used when the working hours per week are greater than 40 hours per week. The factors given in TABLE 3-4 are multiplied by the adjusted hourly ownership cost (if adjusted for age) and result in an ownership rate adjusted for working hours other than 40 hours per week.

Example: Assume that the truck crane in Example A of TABLE 3-2 is to be worked 10 hours per day, 6 days per week. The total hourly rate for this piece of equipment can be determined as follows:

Total Hourly Rate (adjusted for age)	= $36.01/Hr.
Ownership Rate (adjusted for age)	(-) $15.01/Hr.
Ownership Adjusted for Work Hours (Ownership Rate) x (Work Hr Adj. Factor) = ($15.01) x (.81)	= (+) $12.16/Hr.
Adjusted Total Hourly Rate	= $33.16/Hr.

TABLE 3-4 SHIFT ADJUSTMENT FACTORS FOR OWNERSHIP COSTS (CONTINUED)

Service Life From APP. D	Equipment Usease - Hours per Week												
	40	45	48	54	60	66	72	80	90	100	110	120	140
4,000	1.00	0.97	0.96	0.93	0.91	0.90	0.89	0.87	0.86	0.85	0.84	0.83	0.82
6,000	1.00	0.96	0.95	0.92	0.89	0.87	0.85	0.84	0.82	0.80	0.79	0.78	0.77
8,000	1.00	0.96	0.94	0.90	0.87	0.85	0.83	0.81	0.79	0.77	0.75	0.74	0.72
9,000	1.00	0.95	0.93	0.89	0.86	0.84	0.82	0.79	0.77	0.75	0.74	0.72	0.71
10,000	1.00	0.95	0.93	0.89	0.85	0.83	0.81	0.78	0.76	0.74	0.72	0.71	0.69
11,000	1.00	0.95	0.92	0.88	0.85	0.82	0.80	0.77	0.75	0.73	0.71	0.69	0.67
12,000	1.00	0.95	0.92	0.88	0.84	0.81	0.79	0.76	0.73	0.71	0.70	0.68	0.66
13,000	1.00	0.94	0.92	0.87	0.83	0.80	0.78	0.75	0.72	0.70	0.68	0.67	0.64
14,000	1.00	0.94	0.91	0.87	0.83	0.80	0.77	0.74	0.71	0.69	0.67	0.66	0.63
15,000	1.00	0.94	0.91	0.86	0.82	0.79	0.76	0.73	0.71	0.68	0.66	0.65	0.62
16,000	1.00	0.94	0.91	0.86	0.82	0.78	0.76	0.73	0.70	0.67	0.65	0.64	0.61
18,000	1.00	0.94	0.90	0.85	0.81	0.77	0.74	0.71	0.68	0.66	0.63	0.62	0.59
20,000	1.00	0.93	0.90	0.84	0.80	0.76	0.73	0.70	0.67	0.64	0.62	0.60	0.57
22,000	1.00	0.93	0.90	0.84	0.79	0.76	0.72	0.69	0.66	0.63	0.61	0.59	0.56
50,000	1.00	0.91	0.87	0.80	0.74	0.69	0.65	0.61	0.56	0.53	0.50	0.48	0.44

APPENDIX A

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APPENDIX A

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13. Defense Acquisition Regulation (DAR).

APPENDIX B

AREA FACTORS

The area factors given in this Appendix were used to compute the hourly equipment rates shown in TABLE 3-1.

State Sales Tax Rate:		3.5 %
Working Hours Per Year:		1,350 Hrs/Yr
Labor Adjustment Factor (LAF):		0.940
Electricity Cost Per Kilowatt-Hour:		0.055 /Kw-Hr
Gasoline Cost Per Gallon:		$ 1.280 /Gal.
Diesel Cost Per Gallon (Off-Road Use):		$ 1.060 /GAL.
Diesel Cost Per Gallon (On-Road Use):		$ 1.160 /Gal.
Freight Rates:	0 thru 30,000 lbs.	$ 3.240 /Cwt.
	over 30,000 thru 40,000 lbs.	$ 3.120 /Cwt.
	over 40,000 thru 50,000 lbs.	$ 2.850 /Cwt.
	over 50,000 thru 9999,900 lbs.	$ 2.430 /Cwt.

APPENDIX C

GUIDE FOR SELECTING OPERATING CONDITIONS

EQUIPMENT TYPE	AVERAGE	SEVERE
Cranes, Crawler Truck	Lift less than rated capacity, intermittent duty.	Continuous lift near rated capacity, excessive swing, abrasive materials, sloped surfaces.
Depreciation Period	13,000 - 22,000 Hrs.	11,000 - 20,000 Hrs.
Shovels	Gravels, silts, well broken rock, lift less than rated capacity.	Extremely abrasive tough materials, lifting near rated capacity, impact breakout.
Depreciation Period	11,000 - 22,000 Hrs.	9,000 - 20,000 Hrs.
Draglines	Gravels, silts, pull and lift less than rated capacity.	Highly abrasive materials, impact breakout, continuous load near rated capacity.
Depreciation Period	12,000 - 20,000 Hrs.	10,000 - 18,000 Hrs.
Backhoes	Clay, earth digging, no breakout impact, easy continuous or intermittent duty.	Rock work,pull near rated capacity, uneven surface, impact breakout, abrasive materials.
Depreciation Period	11,000 - 22,000 Hrs.	9,000 - 20,000 Hrs.

GUIDE FOR SELECTING OPERATING CONDITIONS (Continued)

EQUIPMENT TYPE	AVERAGE	SEVERE
Tractors, Crawler Type	Production dozing in clays, sands, gravels and talus rock. Push-loading scrapers, borrow pit ripping, most landclearing and skidding applications. Medium impact conditions.	Heavy rock ripping. Tandem ripping. Pushloading and dozing in hard rock. Continuous high impact conditions.
Depreciation Period	10,000 - 14,000 Hrs.	8,000 - 12,000 Hrs.
Tractors, Wheel-Type	Production dozing, pushloading in clays, sands, silts, loose gravels. Shovel cleanup.	Production dozing in rock. Push-loading in rocky, bouldery borrow pits. High impact conditions.
Depreciation Period	10,000 Hrs.	8,000 Hrs.
Scrapers, Self-Propelled	Varying loading and haul road conditions. Long and short hauls. Adverse and favorable grades. Some impact. Typical road-building use on a variety of jobs.	High impact condition, such as loading ripped rock. Overloading. Continuous high total resistance conditions. Rough haul roads.
Depreciation Period	10,000 Hrs.	8,000 Hrs.
Trucks, Off Highway	Varying loading and haul road conditions. Typical road-building use on a variety of jobs.	Consistently poor haul road conditions. Extreme overloading. Oversized loading equipment.
Depreciation Period	12,000 Hrs.	10,000 Hrs.

GUIDE FOR SELECTING OPERATING CONDITIONS (Continued)

EQUIPMENT TYPE	AVERAGE	SEVERE
Trucks, Highway	Varying loading and road conditions. Typical construction use on a variety of jobs.	Consistently poor road conditions. Extreme overloading.
Depreciation Period	8,000 Hrs.	6,000 Hrs.
Loaders, Front End Wheel Type	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.	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.
Depreciation Period	10,000 - 12,000 Hrs.	8,000 - 10,000 Hrs.
Loaders, Front End Crawler Type	Bank excavation, intermittent ripping, basement digging of natural bed clays, sands, silts, gravels. Some traveling. Steady full throttle operations.	Loading shot rock, cobbles. High density materials in standard bucket. Continuous work on rock surfaces. Large amount of ripping of tight, rocky materials. High impact conditions.
Depreciation Period	10,000 Hrs.	8,000 Hrs.

GUIDE FOR SELECTING OPERATING CONDITIONS (Continued)

EQUIPMENT TYPE	AVERAGE	SEVERE
Motor Graders	Haul road maintenance. Road construction, ditching. Loose fill spreading. Land-forming, landleveling. Summer road maintenance with medium to heavy winter snow removal. Elevating grader use.	Maintenance of hard packed roads with embedded rock. Heavy fill spreading. Ripping-scarifying of asphalt or concrete. Continuous high load factor. High impact.
Depreciation Period	12,000 Hrs.	10,000 Hrs.

APPENDIX D

EQUIPMENT HOURLY EXPENSE CALCULATION FACTORS

TABLE LEGEND
****

C - OPERATING CONDITIONS
A - AVERAGE CONDITIONS
S - SEVERE CONDITIONS
LFE - EQUIP LIFE 1000 HRS
SLV - EQUIP SALVAGE
HP - HORSEPOWER FACTOR (%)
FOG-E - ELECTRIC FOG (%)
FOG-G - GAS FOG (%)

TABLE LEGEND
****

FOG-D - DIESEL FOG (%)
E - ELECT. CONSUMPTION (KW/HP/HR)
G - GAS CONSUMPTION (GAL/HP/HR)
D - DIESEL CONSUMPTION (GAL/HP/HR)
F-TIRE - FRONT TIRE FACTOR(%)
D-TIRE - DRIVE TIRE FACTOR(%)
T-TIRE - TRAIL TIRE FACTOR(%)
RPR - REPAIR FACTOR (%)

EQUIPMENT HOURLY EXPENSE CALCULATION FACTORS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	C	LFE	SLV	EQUIPMENT POWER				CARRIER POWER				FOG			TIRES			RPR
					HP	E	G	D	HP	E	G	D	E	G	D	F	D	T	
15	AGGREGATE SPREADERS	A	10	20	50	.000	.051	.030	0	.000	.000	.000	0	24	24	77	73	99	80
30	AIR COMPRESSORS	A	10	25	65	.000	.066	.038	0	.000	.000	.000	0	32	28	0	0	0	90
45	AIR TOOLS & EQUIP, TAMPERS ETC	A	4	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	100
60	ASPHALT DISTRIBUTORS	A	10	30	65	.000	.066	.038	0	.000	.000	.000	0	32	28	60	44	79	85
65	ASPHALT AND CONCRETE PAVERS	A	10	20	65	.000	.066	.038	0	.000	.000	.000	0	32	28	65	40	70	90
	BACKHOE (SEE KEY NO. 570-601)																		
75	BROOMS	A	10	20	65	.000	.066	.000	0	.000	.000	.000	0	24	0	77	73	99	90
80	BRUSH CHIPPERS	A	10	20	65	.000	.066	.038	0	.000	.000	.000	0	32	28	0	0	0	90
90	BUCKETS, CLAMSHELL & DRAGLINE	A	10	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	80
90		S	8	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	90
95	BUCKETS, CONCRETE	A	10	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	80
105	CONCRETE OR GROUT PUMP	A	8	20	95	.000	.097	.056	0	.000	.000	.000	0	32	28	0	0	0	90
120	CONCRETE GUNITE EQUIPMENT & FLUID GROUTERS	A	10	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	80
125	CONCRETE MIXERS & BUGGIES	A	10	20	70	.700	.071	.041	0	.000	.000	.000	50	32	28	0	0	0	80
135	CONCRETE VIBRATORS	A	4	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	250
140	COMPACTORS, MANUALLY OPERATED	A	6	20	90	.000	.091	.053	0	.000	.000	.000	0	24	24	0	0	0	100
	CRANE, CRAWLER TYPE																		
150	0 THRU 25 TON	A	13	20	40	.000	.041	.024	0	.000	.000	.000	0	18	18	0	0	0	50
150		S	11	20	0	.000	.053	.031	0	.000	.000	.000	0	18	18	0	0	0	55
165	OVER 25 TON THRU 50 TON	A	15	20	40	.000	.041	.024	0	.000	.000	.000	0	18	18	0	0	0	60
165		S	13	20	0	.000	.053	.031	0	.000	.000	.000	0	18	18	0	0	0	65
170	OVER 50 TON THRU 150 TON	A	18	20	40	.000	.041	.024	0	.000	.000	.000	0	18	18	0	0	0	70
170		S	16	20	0	.000	.053	.031	0	.000	.000	.000	0	18	18	0	0	0	75
180	OVER 150 TON	A	20	20	40	.000	.041	.024	0	.000	.000	.000	0	18	18	0	0	0	80
180		S	18	20	0	.000	.053	.031	0	.000	.000	.000	0	18	18	0	0	0	85

EQUIPMENT HOURLY EXPENSE CALCULATION FACTORS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	C	LFE	SLV	EQUIPMENT POWER				CARRIER POWER				FOG			TIRES			RPR
					HP	E	G	D	HP	E	G	D	E	G	D	F	D	T	
	DRAGLINE & CLAMSHELL,CRAWLER MOUNTED																		
185	0 THRU 1 CY	A	12	20	50	.000	.051	.030	0	.000	.000	.000	0	18	18	0	0	0	70
185		S	10	20	0	.000	.066	.039	0	.000	.000	.000	0	18	18	0	0	0	80
190	OVER 1 CY THRU 2-1/2 CY	A	15	20	50	.000	.051	.030	0	.000	.000	.000	0	18	18	0	0	0	80
190		S	13	20	0	.000	.066	.039	0	.000	.000	.000	0	18	18	0	0	0	90
195	OVER 2-1/2 CY THRU 5 CY	A	18	20	50	.000	.051	.030	0	.000	.000	.000	0	18	18	0	0	0	90
195		S	16	20	0	.000	.066	.039	0	.000	.000	.000	0	18	18	0	0	0	100
196	OVER 5 CY	A	20	20	50	.000	.051	.030	0	.000	.000	.000	0	18	18	0	0	0	100
196		S	18	20	0	.000	.066	.039	0	.000	.000	.000	0	18	18	0	0	0	110
200	CRANES, HYDRAULIC, SELF-PROPELLED	A	16	25	65	.000	.066	.038	0	.000	.000	.000	0	32	28	95	90	0	70
	CRANES & HYD. EXC. , TRK MTD																		
210	UNDER 26 T. (THRU 1 CY)	A	15	20	65	.000	.066	.038	10	.000	.010	.006	0	30	26	95	90	0	50
210		S	13	20	0	.000	.086	.049	0	.000	.013	.007	0	30	26	86	73	0	55
225	26 THRU 65 T (1 TH 2-1/2 CY)	A	18	20	65	.000	.066	.038	10	.000	.010	.006	0	30	26	95	90	0	60
225		S	16	20	0	.000	.086	.049	0	.000	.013	.007	0	30	26	86	73	0	65
230	66 THRU 125 T	A	20	20	65	.000	.066	.038	10	.000	.010	.006	0	30	26	95	90	0	70
230		S	18	20	0	.000	.086	.049	0	.000	.013	.007	0	30	26	86	73	0	75
240	OVER 125 T	A	22	20	65	.000	.066	.038	10	.000	.010	.006	0	30	26	95	80	0	80
240		S	20	20	0	.000	.086	.049	0	.000	.013	.007	0	30	26	86	73	0	85
255	DRILL, AUGER	A	10	20	50	.000	.051	.030	0	.000	.000	.000	0	32	28	67	57	0	90
270	DRILL, BLAST HOLE	A	10	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	90
300	DRILL, CORE	A	10	20	80	.000	.081	.047	0	.000	.000	.000	0	16	24	0	0	0	90
315	DRILL, ROTARY TO 11" DIA. HOLE	A	15	20	80	.000	.081	.047	10	.000	.010	.006	0	24	24	67	57	0	90
330	DRILL, ROTARY OVER 11" DIA.	A	20	20	80	.000	.081	.047	0	.000	.000	.000	0	24	24	67	57	0	90
345	DRILL, ROTARY OVER 11" DIA., ELECTRIC	A	20	20	70	.700	.000	.000	0	.000	.000	.000	50	0	0	0	0	0	45

EQUIPMENT HOURLY EXPENSE CALCULATION FACTORS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	C	LFE	SLV	EQUIPMENT POWER				CARRIER POWER				FOG			TIRES			RPR
					HP	E	G	D	HP	E	G	D	E	G	D	F	D	T	
375	FORK LIFTS	A	10	20	65	.000	.066	.038	0	.000	.000	.000	0	24	24	86	77	0	90
390	GRADERS	A	12	25	60	.000	.061	.035	0	.000	.000	.000	0	16	29	86	68	0	70
390		S	10	25	0	.000	.079	.046	0	.000	.000	.000	0	16	29	60	39	0	75
420	GENERATORS	A	10	30	65	.000	.066	.038	0	.000	.000	.000	0	24	24	0	0	0	80
420		S	9	30	0	.000	.086	.049	0	.000	.000	.000	0	24	24	0	0	0	90
435	HOIST	A	10	20	65	.000	.066	.038	0	.000	.000	.000	0	24	24	0	0	0	90
	HYD. EXCAVATOR (SEE KEY NO. 570-601)																		
440	LIGHT PLANTS	A	10	30	95	.000	.097	.056	0	.000	.000	.000	0	24	24	0	0	0	80
450	LOADER, BELT	A	10	30	65	.000	.066	.038	0	.000	.000	.000	0	32	28	26	0	99	90
450		S	8	30	0	.000	.086	.049	0	.000	.000	.000	0	32	28	16	0	99	100
460	LOADER,FRONT END &LOADER F/E	A	10	25	70	.000	.071	.041	0	.000	.000	.000	0	32	38	0	0	0	110
460	WITH BACKHOE,CRAWLER TYPE	S	8	25	0	.000	.092	.054	0	.000	.000	.000	0	32	38	0	0	0	120
	LOADER, WHEEL TYPE																		
465	0 THRU 225 HP	A	10	25	65	.000	.066	.038	0	.000	.000	.000	0	32	40	60	40	0	70
465		S	8	25	0	.000	.086	.049	0	.000	.000	.000	0	32	40	41	19	0	75
470	OVER 225 HP	A	12	20	65	.000	.066	.038	0	.000	.000	.000	0	32	30	60	40	0	80
470		S	10	20	0	.000	.086	.049	0	.000	.000	.000	0	32	30	41	19	0	85
475	LOADER, FRONT END WITH	A	10	25	65	.000	.066	.038	0	.000	.000	.000	0	32	28	60	40	0	70
475	BACKHOE,WHEEL TYPE	S	8	25	0	.000	.086	.049	0	.000	.000	.000	0	32	28	41	19	0	75
480	PILE EXTRACTOR, PILE HAMMER & HYDRAULIC IMPACTOR	A	6	20	65	.000	.066	.038	0	.000	.000	.000	0	32	28	0	0	0	90
485	PIPELAYERS	A	12	25	35	.000	.000	.021	0	.000	.000	.000	0	0	32	0	0	0	40
485		S	10	25	0	.000	.000	.027	0	.000	.000	.000	0	0	32	0	0	0	45
	PUMP, GROUT (SEE KEY NO. 105)																		
495	PUMP, WATER, ENGINE DRIVE	A	10	20	90	.000	.091	.053	0	.000	.000	.000	0	32	38	0	0	0	80
500	PUMP, WATER, ELECTRIC DRIVE	A	10	20	90	.900	.000	.000	0	.000	.000	.000	45	0	0	0	0	0	40
510	RIPPERS	A	8	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	80
510		S	6	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	90

EQUIPMENT HOURLY EXPENSE CALCULATION FACTORS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	C	LFE	SLV	EQUIPMENT POWER				CARRIER POWER				FOG			TIRES			RPR
					HP	E	G	D	HP	E	G	D	E	G	D	F	D	T	
525	ROLLERS,EXCEPT VIB. ROLLERS	A	10	20	65	.000	.066	.038	65	.000	.066	.038	0	24	24	76	64	99	90
530	ROLLERS, VIBRATORY	A	8	25	90	.000	.091	.053	90	.000	.091	.053	0	24	24	76	64	99	130
540	SCRAPERS, STANDARD	A	10	20	60	.000	.000	.035	60	.000	.000	.035	0	0	27	58	31	65	70
540		S	8	20	0	.000	.000	.046	0	.000	.000	.046	0	0	27	40	19	27	75
542	SCRAPERS, TANDEM POWERED	A	10	20	62	.000	.000	.037	62	.000	.000	.037	0	0	25	58	25	60	70
542		S	8	20	0	.000	.000	.048	0	.000	.000	.048	0	0	25	40	18	40	75
	SCRAPERS, ELEVATING																		
545	0 THRU 200 HP	A	10	20	66	.000	.000	.039	66	.000	.000	.039	0	0	34	0	25	60	85
545		S	8	20	0	.000	.000	.051	0	.000	.000	.051	0	0	34	0	18	40	90
550	OVER 200 HP	A	10	20	66	.000	.000	.039	66	.000	.000	.039	0	0	24	0	25	60	75
550		S	8	20	0	.000	.000	.051	0	.000	.000	.051	0	0	24	0	18	40	80
555	SCRAPERS, TRACTOR DRAWN	A	12	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	58	0	65	70
555		S	10	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	40	0	45	75
	SHOVELS, BACKHOES, & HYDRAULIC EXCAVATORS CRAWLER MOUNTED																		
570	0 THRU 1 CY	A	11	20	60	.000	.061	.035	0	.000	.000	.000	0	18	18	0	0	0	80
570		S	9	20	0	.000	.079	.046	0	.000	.000	.000	0	18	18	0	0	0	90
585	OVER 1 CY THRU 2-1/2 CY	A	13	20	60	.000	.061	.035	0	.000	.000	.000	0	18	18	0	0	0	90
585		S	11	20	0	.000	.079	.046	0	.000	.000	.000	0	18	18	0	0	0	100
595	OVER 2-1/2 CY THRU 5 CY	A	16	20	60	.000	.061	.035	0	.000	.000	.000	0	18	18	0	0	0	100
595		S	14	20	0	.000	.079	.046	0	.000	.000	.000	0	18	18	0	0	0	110
600	OVER 5 CY	A	18	20	60	.000	.061	.035	0	.000	.000	.000	0	18	18	0	0	0	110
600		S	16	20	0	.000	.079	.046	0	.000	.000	.000	0	18	18	0	0	0	120
601	OVER 2-1/2 CY ELECTRIC	A	22	20	50	.500	.000	.000	0	.000	.000	.000	25	0	0	0	0	0	80
601		S	20	20	0	.650	.000	.000	0	.000	.000	.000	25	0	0	0	0	0	90
	TRACTOR, CRAWLER TYPE																		
615	0 THRU 225 HP	A	10	30	70	.000	.000	.041	0	.000	.000	.000	0	0	32	0	0	0	90
615		S	8	30	0	.000	.000	.054	0	.000	.000	.000	0	0	32	0	0	0	100
620	226 HP THRU 425 HP (PER	A	12	25	70	.000	.000	.041	0	.000	.000	.000	0	0	25	0	0	0	100
620	UNIT FOR TANDEM TRACTORS)	S	10	25	0	.000	.000	.054	0	.000	.000	.000	0	0	25	0	0	0	110

EQUIPMENT HOURLY EXPENSE CALCULATION FACTORS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	C	LFE	SLV	EQUIPMENT POWER				CARRIER POWER				FOG			TIRES			RPR
					HP	E	G	D	HP	E	G	D	E	G	D	F	D	T	
625	OVER 425 HP	A	14	20	70	.000	.000	.041	0	.000	.000	.000	0	0	22	0	0	0	115
625		S	12	20	0	.000	.000	.054	0	.000	.000	.000	0	0	22	0	0	0	125
630	TRACTOR, BLADES, PUSH BLOCKS,	A	10	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	80
630	PUSH PLATES & CLEARING BLADES	S	8	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	90
645	TRACTOR, WHEEL TYPE	A	10	20	65	.000	.066	.038	0	.000	.000	.000	0	24	28	60	44	0	60
645		S	8	20	0	.000	.086	.049	0	.000	.000	.000	0	24	28	46	17	0	65
650	TRENCHER	A	10	20	65	.000	.066	.038	0	.000	.000	.000	0	32	28	60	40	0	90
650		S	8	20	0	.000	.086	.049	0	.000	.000	.000	0	32	28	41	19	0	100
655	TRAILERS, BOTTOM DUMP AND	A	10	25	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	61	80
655	END DUMP	S	8	25	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	44	90
660	TRAILERS, FLATBED, LO-BOY AND TILT	A	10	30	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	61	80
	TRUCK ACCESSORIES FOR CHASSIS MOUNTING																		
670	DUMP BODIES	A	8	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	80
670		S	6	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	90
675	ALL OTHER ACCESSORIES	A	8	20	65	.000	.066	.000	0	.000	.000	.000	0	32	0	0	0	0	80
	TRUCK, HIGHWAY																		
690	0 THRU 10,000 GVW	A	8	20	20	.000	.020	.012	0	.000	.000	.000	0	32	28	47	40	0	70
690		S	6	20	0	.000	.026	.015	0	.000	.000	.000	0	32	28	33	20	0	80
695	OVER 10,000 THRU 30,000 GVW	A	8	20	40	.000	.041	.024	0	.000	.000	.000	0	32	28	47	40	0	70
695		S	6	20	0	.000	.053	.031	0	.000	.000	.000	0	32	28	33	20	0	80
705	OVER 30,000 GVW	A	8	20	60	.000	.061	.035	0	.000	.000	.000	0	32	28	47	40	61	70
705		S	6	20	0	.000	.079	.046	0	.000	.000	.000	0	32	28	33	20	44	80
720	TRUCK, OFF-HIGHWAY	A	12	20	40	.000	.000	.024	0	.000	.000	.000	0	0	33	58	36	65	70
720		S	10	20	0	.000	.000	.031	0	.000	.000	.000	0	0	33	40	22	45	80
765	WAGON, BOTTOM DUMP & WATER	A	12	20	65	.000	.066	.038	0	.000	.000	.000	0	24	28	58	36	65	60
765		S	10	20	0	.000	.086	.049	0	.000	.000	.000	0	24	28	40	22	45	65
780	WAGON, REAR DUMP	A	12	20	65	.000	.066	.038	0	.000	.000	.000	0	24	28	58	36	65	70
780		S	10	20	0	.000	.086	.049	0	.000	.000	.000	0	24	28	40	22	45	80
785	WATER BLASTER	A	6	20	95	.000	.097	.056	0	.000	.000	.000	0	24	28	0	0	0	110

EQUIPMENT HOURLY EXPENSE CALCULATION FACTORS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	C	LFE	SLV	EQUIPMENT POWER				CARRIER POWER				FOG			TIRES			RPR
					HP	E	G	D	HP	E	G	D	E	G	D	F	D	T	
795	WATER TANKS	A	8	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	80
810	WELDERS	A	6	30	80	.000	.081	.047	0	.000	.000	.000	0	24	24	0	0	0	90
811	WELDERS ELECTRIC POWER	A	8	30	60	.600	.000	.000	0	.000	.000	.000	30	0	0	0	0	0	40

APPENDIX E

SALVAGE AND REPAIR INDEXES FOR CONSTRUCTION EQUIPMENT

	YEAR PURCHASE NEW												
	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969
	AGE IN YEARS												
CATEGORY	0	1	2	3	4	5	6	7	8	9	10	11	12
Air Equipment	1787	1649	1521	1354	1295	1186	1165	1028	935	920	929	936	918
Asphalt & Concrete Paving Equipment	2498	2306	2111	1941	1815	1686	1610	1451	1304	1263	1235	1163	1091
Buckets	4357	3879	3280	2963	2738	2520	2175	1838	1430	1370	1316	1188	1062
Cranes, Draglines & Clamshells - Crawler & Truck Mounted	3044	2787	2512	2301	2138	2010	1843	1522	1305	1260	1212	1147	1090
Drills	2496	2267	1993	1858	1699	1638	1559	1373	1249	1184	1160	1115	1052
Generators	3153	2858	2390	2301	2128	2053	1839	1456	1316	1283	1243	1188	1089
Graders, Motor	3289	2994	2687	2492	2259	2109	1956	1604	1361	1244	1208	1152	1101
Loaders, Track	2918	2663	2376	2188	2024	1859	1755	1445	1249	1219	1184	1135	1100
Loaders, Wheel	3260	2940	2606	2375	2156	2002	1907	1584	1362	1317	1261	1197	1144
Pile Driving Equipment	3200	2892	2562	2329	2135	1989	1852	1523	1307	1257	1218	1159	1104
Rollers	3248	2926	2653	2396	2139	1983	1872	1556	1328	1279	1230	1178	1082
Scrapers	3289	2994	2687	2492	2259	2109	1956	1604	1361	1244	1208	1152	1101
Shovels, Backhoes & Hydraulic Excavators	3044	2787	2512	2301	2138	2010	1843	1522	1305	1260	1212	1147	1090
Tractors, Crawler & Attachments	3393	3061	2750	2482	2247	2053	1916	1573	1329	1281	1236	1181	1133
Tractors, Wheel	3257	2927	2578	2319	2125	1956	1813	1498	1288	1251	1211	1152	1109
Trenchers	3503	3153	2772	2580	2300	1894	1633	1527	1384	1316	1284	1207	1113
Trucks, Highway	2537	2320	2108	1934	1775	1646	1524	1369	1230	1211	1185	1114	1062
Trucks & Wagons - Off Highway	3270	2960	2588	2364	2196	2081	1965	1568	1315	1293	1245	1190	1135
All Other Equipment	3200	2892	2562	2329	2135	1989	1852	1523	1307	1257	1218	1159	1104

TO EXTEND AGE; Add difference between 11th & 12th year for each additional year.

APPENDIX F

TIRE LIFE AND TIRE WEAR FACTORS

F-1. The tire wear factors used in this pamphlet are listed in APPENDIX D. Using the methods and tables in "Production and Cost Estimating of Material Movement with Earthmoving Equipment" by Terex Division of General Motors, the "useful life" of a new tire is the product of factors from Group A through Group G multiplied by the appropriate maximum tire life from TABLE F-1. A sample computation of the tire wear factors for off-highway haul units is given in Figure F-1.

No.	Condition	Factor Average	Factor Severe
A	Maintenance	1.0	1.0
B	Speeds	0.8	0.9
C	Curves	1.0	0.85
D	Surface Condition	0.9	0.65
E	Loads	0.9	0.9
		0.648	0.448
F	Wheel Positions		
	Trailing (T-Tire)	1.0	1.0
	Front (F-Tire)	0.9	0.9
	Driver (D-Tire)		
	(Rear Dump)	0.7	0.7
	(Bottom Dump)	0.7	0.7
	(Self-Propelled Scrapers)	0.6	0.6
G	Grades		
	Driver	0.80	0.7
TOTALS			
	Trailing (T-Tire)	0.65	0.45
	Front (F-Tire)	0.58	0.40
	Driver (D-Tire)		
	(Rear Dump)	0.36	0.22
	(Bottom Dump)	0.36	0.22
	(Self-Propelled Scrapers)	0.31	0.19

Figure F-1. Rear and Bottom Wagons (Off-Highway), Scrapers

TABLE F-1. Maximum Tire Life.

Bias Ply Tires:	
Off-highway E4, L4, & L5	7,000 Hours
All other bias ply tires	5,000 Hours
Radial Ply Tires:	
Off-highway RL4	8,300 Hours
All other radial ply tires	6,000 Hours

APPENDIX G

EQUIPMENT EXTRAS

In addition to features required for safety, the following extras 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:

(1) Crane, Crawler-Mounted.

(a) Power load lowering.
(b) Independent swing and travel.
(c) Third drum.
(d) Torque converter (Machines 25 ton or larger.)
(e) One-half maximum boom length (Machines 60 ton or smaller.)
(f) Maximum boom length (Machines larger than 60 ton.)
(g) Counterweight.

(2) Dragline and Clamshell, Crawler-Mounted.

(a) Power load lowering.
(b) Independent swing and travel.
(c) Third drum.
(d) Torque converter (Machines 1-1/2 C.Y. or larger.)
(e) Approximately one-half maximum boom length.
(f) Counterweight.

(3) Backhoe and Shovel, Crawler-Mounted.

(a) Power load lowering.
(b) Torque converter (Machines 1-1/2 C.Y. or larger.)
(c) Counterweight.

(4) Truck Crane Less than 25 Ton.

(a) Power load lowering.
(b) Third drum.
(c) Mechanical outriggers w/screw jacks.
(d) Power steering.
(e) Maximum boom length.
(f) Counterweight.

(5) Truck Crane 25 Ton and Larger.

(a) Power load lowering.
(b) Third drum.
(c) Hydraulic outriggers w/screw jacks.
(d) Torque converter when available.
(e) Power steering.
(f) Diesel engines.
(g) Maximum boom length.
(h) Counterweight.

(6) Grader.

(a) Enclosed operators' cab.
(b) Scarifier.
(c) Front wheel lean.
(d) Power circle.
(e) Hydraulic shift and tilt moldboard.
(f) End bits.
(g) Alternator.

(7) Belt Loader.

(a) Power unit.
(b) Head pulley clutch and backstop.
(c) Belt cleaner and belt installing equip.
(d) King pin attachment.

(8) Loader 1-1/2 C.Y. and Larger.

(a) Reversible fan blade.
(b) Guard, power train.
(c) Automatic bucket positioner.
(d) Counterweight.
(e) Rock buckets (Machines 4 C.Y. or larger.)
(f) Alternator.

(9) Scraper.

(a) Control single lever.
(b) Reversible fan blade.
(c) Flood light.
(d) Alternator.
(e) Guards, power train.

(10) Tractor, Crawler.

(a) Hydraulic controls for ripper and blade.
(b) Guards.
(c) Reversible fan blade.
(d) Alternator.
(e) Hook, front pull.
(f) Track Grousers (Severe service for units over 200 hp.)
(g) Blades include counterweights where required.

(11) Tractor, Wheel Dozer.

(a) Hydraulic controls for ripper and blade.
(b) Guards.
(c) Reversible fan blade.
(d) Alternator.
(e) Blade.
(f) Counterweight.

(12) Trucks, Off-Highway.

(a) No-spin differential.
(b) Tacograph.
(c) Engine and transmission guards.
(d) Body liners.

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