



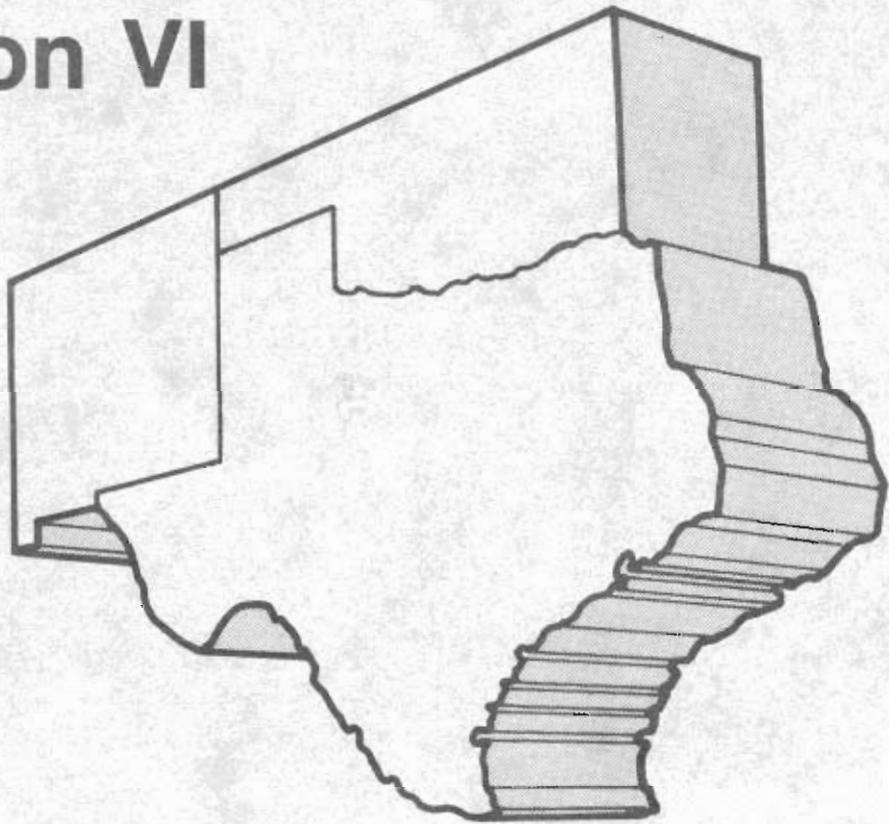
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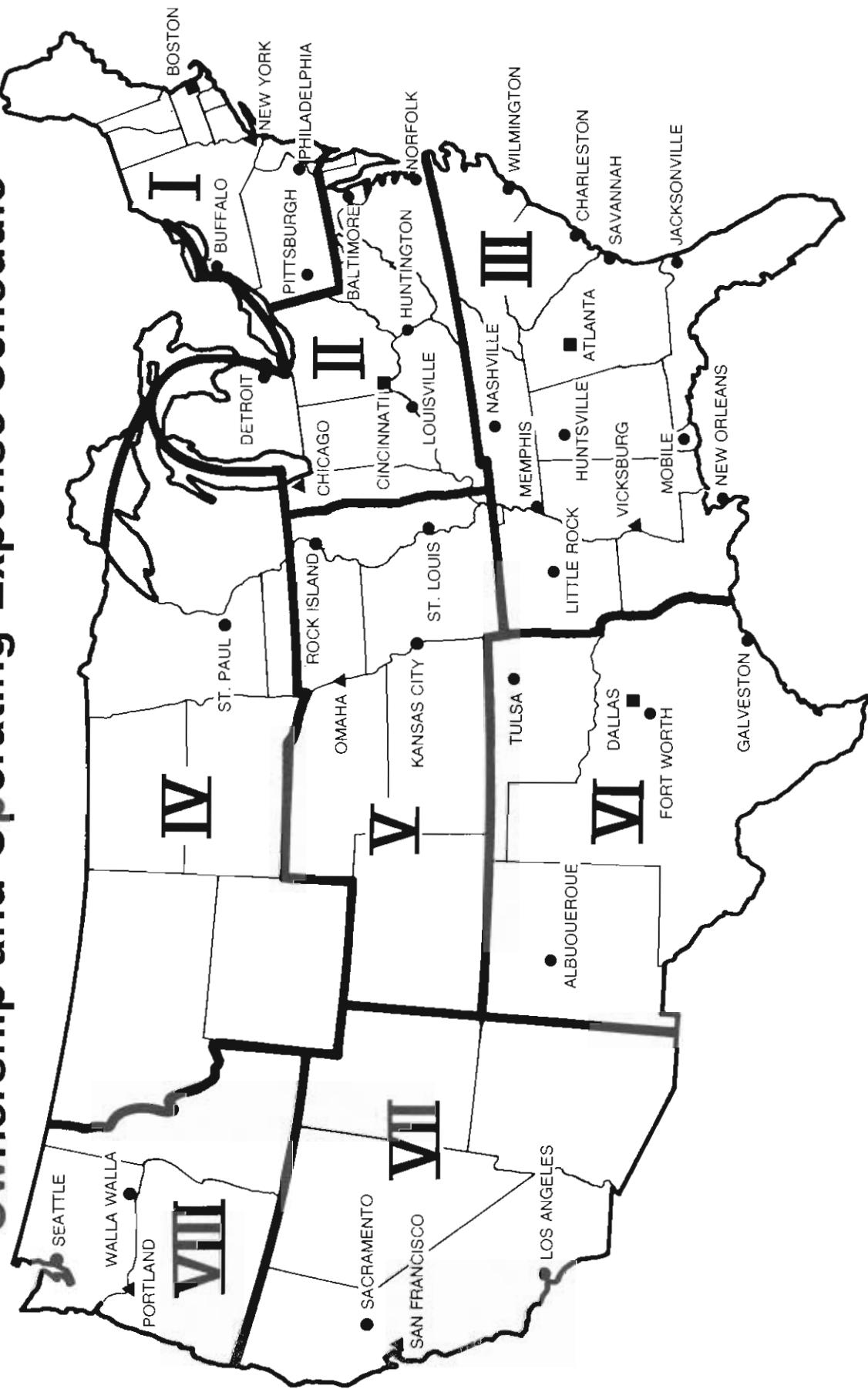
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# Construction Equipment Ownership and Operating Expense Schedule

## Region VI



# Regions for the Construction Equipment Ownership and Operating Expense Schedule



DAEN-CWE-BA  
DAEN-MPE-S

DEPARTMENT OF THE ARMY  
US Army Corps of Engineers  
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Engineering and Design  
CONSTRUCTION EQUIPMENT OWNERSHIP  
AND OPERATING EXPENSE SCHEDULE

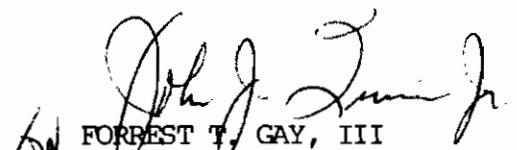
1. Purpose. This pamphlet establishes predetermined equipment ownership and operating expense rates for use in preparation of estimates and in pricing negotiated procurements requiring independent Government estimates.

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

New Mexico  
Oklahoma  
Texas

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:

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

DAEN-CWE-BA  
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DEPARTMENT OF THE ARMY  
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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 VI, which includes the following states:

New Mexico  
Oklahoma  
Texas

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.

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

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:

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

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-B)

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 114,100 Lbs.  
(9) Tire Size: Front-1400x20-18PR Drive-1400x20-18PR 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)

$$= (\$ 267,037.00) \times .075 = (-) \$ 20,027.75$$

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

$$= (111 Cwt) \times (\$ 2.97) = (+) \$ 3,299.67$$

b. Subtotal: Summation of Part a. (Use actual cost when available) = \$ 250,308.87

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

$$= (\$ 250,308.87) \times (.035) = (+) \$ 8,760.81$$

c. Equipment Cost: Summation of Part b. (Use actual cost when available) = \$ 259,069.70

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

3. LIFE (N)

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

$$= (\underline{18,000} \text{ Hrs}) + (\underline{1,700} \text{ Hrs/Yr}) \quad \underline{10.57} \text{ Yrs.}$$

4. ECONOMIC ADJUSTMENT FACTOR (EAF)

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

$$= (\underline{3044}) + (\underline{2512}) \quad \underline{1.212} (\text{EAF})$$

5. SALVAGE VALUE FACTOR (S)

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

$$= (\underline{.20}) \times (\underline{1.212}) \quad \underline{.242} (\text{S})$$

6. OWNERSHIP COSTS

a. Depreciation:

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

$$=[(\underline{\$259,070}) \times [1.0 - (\underline{.242})] - (\underline{\$5,698})] : (\underline{18,000} \text{ Hr}) = \$ \underline{10.57} / \text{Hr.}$$

b. Cost of Facilities Capital (CFC):

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

$$=[(\underline{10.57} \text{ Yrs}) - 1.0] \times [(\underline{.242}) + 1.0] + 2.0 : [\underline{10.57} \text{ Yrs}] \times 2.0 = \underline{.6568}$$

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

$$=(\underline{\$259,070}) \times (\underline{.6568}) \times (\underline{.116}) : (\underline{1,700} \text{ Hrs/Yr}) = \$ \underline{11.61} / \text{Hr.}$$

c. Total Hourly Ownership: (Sum 6-a + 6-b-(2) ) = \$ 22.20 / Hr.

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

**7. OPERATING COSTS**

a. Fuel Costs:

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

$$= (.038) \times (115 \text{ HP}) \times (\$ .99/\text{Gal}) = \$ 4.33/\text{Hr.}$$

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

$$= (.006) \times (246 \text{ HP}) \times (\$ 1.07/\text{Gal}) = \$ 1.58/\text{Hr.}$$

(3) Total Fuel Costs: (Sum 7-a-(1), 7-a-(2)) = \$ 5.91/Hr.

b. FOG Costs:

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

$$= (.26) \times (\$ 4.33/\text{Hr}) = \$ 1.13/\text{Hrs.}$$

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

$$= (.26) \times (\$ 1.58/\text{Hr}) = \$ .41/\text{Hr.}$$

(3) Total FOG Costs: (Sum 7-b-(1), 7-b-(2)) = \$ 1.54/Hr.

c. Repairs Cost:

(1) Repair Factor:

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

$$= (.60) \times (1.212) \times (.93) = .676$$

(2) Hourly Repairs:

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

$$=[(\$ 259,070) - (\$ 5,698)] \times (.676) + (18,000 \text{ Hr}) = \$ 9.52/\text{Hr.}$$

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

d. Tire Wear Costs:

Front F-Tire Max Tire  
(1) Front Tires:  $1.5 \times (\text{Tires}) + [1.8 \times (\text{Ftr Frm}) \times (\text{Life Frm})]$   
Cost 1-b-(7) Tbl F-1  
 $= 1.5 \times (\underline{\$ 2,423}) + [1.8 \times (\underline{.95}) \times (\underline{5,000} \text{ Hr})] = \$ \underline{.43}/\text{Hr.}$

Drive D-Tire Max Tire  
(2) Drive Tires:  $1.5 \times (\text{Tires}) + [1.8 \times (\text{Ftr Frm}) \times (\text{Life Frm})]$   
Cost 1-b-(7) Tbl F-1  
 $= 1.5 \times (\underline{\$ 1,845}) + [1.8 \times (\underline{.90}) \times (\underline{5,000} \text{ Hr})] = \$ \underline{.90}/\text{Hr.}$

Trlg T-Tire Max Tire  
(3) Trailing Tires:  $1.5 \times (\text{Tires}) + [1.8 \times (\text{Ftr Frm}) \times (\text{Life Frm})]$   
Cost 1-b-(7) Tbl F-1  
 $= 1.5 \times (\underline{\$ \quad \quad \quad}) + [1.8 \times (\underline{\quad \quad \quad}) \times (\underline{\quad \quad \quad} \text{ Hr})] = \$ \underline{N/A}/\text{Hr.}$

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

e. Tire Repair Cost: (Tire Wear )  $\times 0.15$   
Frm 7-d-(4)  
 $= (\underline{\$ 1.33}) \times 0.15 = \$ \underline{.20}/\text{Hr.}$

f. Total Operating Costs: (Sum 7-a thru 7-e)  $= \$ \underline{18.50}/\text{Hr.}$

8. TOTAL HOURLY RATES

a. Single Shift Hourly Rate: (40 Hours per Week)  
(Ownership Costs Frm 6-c) + (Operating Costs Frm 7-f)  
 $= (\underline{\$ 22.20}/\text{Hr}) + (\underline{\$ 18.50}/\text{Hr}) = \$ \underline{40.70}/\text{Hr.}$

b. Hourly Rate for Other Work Shifts:  
(Depreciation) + [(CFC Frm 6-a)  $\times 40 \div$  (Work Hrs 6-b-(2)) + (Operating Costs Per Week Frm 7-f)  
 $= (\underline{\$ 10.59}/\text{Hr}) + [(\underline{\$ 11.61}/\text{Hr}) \times 40 \div (\underline{60} \text{ Hr/Wk})] + (\underline{\$ 18.50}/\text{Hr}) = \$ \underline{36.83}/\text{Hr.}$

c. Hourly Standby Rate:  
(Depreciation)  $\times 0.25 +$  (CFC Frm 6-a)  $\times 0.25 +$  (Operating Costs Frm 7-f)  
 $= (\underline{\$ 10.59}/\text{Hr}) \times 0.25 + (\underline{\$ 11.61}/\text{Hr}) = \$ \underline{14.26}/\text{Hr.}$

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 occurrences, 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.

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

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

<u>TYPE OF EQUIPMENT</u>	LIFE (YRS)	SALVAGE VALUE FACTOR	PERCENT <u>ANNUAL OWNERSHIP EXPENSE</u>		
			DEPRE- CIATION	CFC	TOTAL
<b>Hydraulic dredge, including hydraulic dredges used as Boosters:</b>					
Booster:					
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:					
Pontoon	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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TABLE 3-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE  
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TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES		ADJUSTABLE ELEMENTS				CNT			
			CONDITION		STAND-BY	AVERAGE COND.		SEVERE COND.				
			AVERAGE	SEVERE		OWNER-SHIP	FUEL	OWNER-SHIP	FUEL			
<b>AGGREGATE SPREADER</b> *****												
<b>TOWED</b>												
1005	WALES HANDY SPREADER SPREADS TO 2' DEPTH AND UP TO 10' WIDE	4.764	1.07		0.31	0.57	0.00			19		
1010	HI-WAY MOD R-1 SPREADS TO 3.5' DEPTH AND UP TO 12' WIDE	6.205	1.37		0.40	0.74	0.00			23		
<b>SELF PROPELLED</b>												
1020	ETNYRE TO 8' DEPTH & 13' WIDE	187 HP G	31.006	21.34		2.02	3.73	11.83		155		
1025	ETNYRE TO 8' DEPTH & 13' WIDE	123 HP D	34.591	11.95		2.25	4.16	3.65		160		
<b>AIR COMPRESSORS PORTABLE</b> ***** (HOSE NOT INCLUDED)												
<b>ROTARY SCREW</b>												
1040	SIZE 85 CFM QUIET 100 PSI	47 HP G	6.736	6.54		0.44	0.80	3.85		17		
1045	SIZE 85 CFM QUIET 100 PSI	38 HP D	9.537	3.90		0.63	1.13	1.43		20		
1050	SIZE 100 CFM QUIET 100 PSI	50 HP G	8.992	7.35		0.59	1.07	4.09		20		
1055	SIZE 100 CFM QUIET 100 PSI	42 HP D	10.785	4.36		0.71	1.28	1.58		23		
1060	SIZE 125 CFM QUIET 100 PSI	56 HP G	10.272	8.29		0.68	1.23	4.58		24		
1065	SIZE 125 CFM QUIET 100 PSI	47 HP D	12.052	4.89		0.79	1.43	1.77		26		
1070	SIZE 150 CFM QUIET 100 PSI	69 HP G	12.747	10.22		0.84	1.51	5.65		26		
1075	SIZE 150 CFM QUIET 100 PSI	70 HP D	14.970	6.62		0.99	1.78	2.63		28		
1080	SIZE 185 CFM QUIET 100 PSI	69 HP G	13.837	10.47		0.92	1.65	5.65		27		
1085	SIZE 185 CFM QUIET 100 PSI	70 HP D	16.309	6.91		1.08	1.94	2.63		29		

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			
<b>AIR COMPRESSORS PORTABLE (CONT'D)</b>												
<b>*****</b>												
<b>(HOSE NOT INCLUDED)</b>												
<b>ROTARY SCREW (CONT'D)</b>												
1090	SIZE 340 CFM QUIET 100 PSI	103 HP D	31,696	11.84	2.09	3.77	3.87		55			
1095	SIZE 450 CFM QUIET 100 PSI	152 HP D	41,991	16.45	2.77	5.00	5.72		80			
1100	SIZE 600 CFM QUIET 100 PSI	196 HP D	58,807	22.20	3.88	6.99	7.37		111			
1105	SIZE 750 CFM QUIET 100 PSI	228 HP D	68,305	25.81	4.50	8.11	8.58		120			
1110	SIZE 825 CFM QUIET 100 PSI	250 HP D	73,440	27.98	4.84	8.73	9.40		127			
1115	SIZE 900 CFM QUIET 100 PSI	280 HP D	81,170	31.11	5.35	9.65	10.53		148			
1120	SIZE 1000 CFM QUIET 100 PSI	283 HP D	92,435	33.71	6.09	10.99	10.65		165			
1125	SIZE 1200 CFM QUIET 100 PSI	325 HP D	111,766	39.92	7.36	13.28	12.23		192			
1130	SIZE 1600 CFM QUIET 100 PSI	456 HP D	132,580	50.75	8.74	15.76	17.15		223			
<b>AIR TOOLS</b>												
<b>*****</b>												
<b>(HOSE NOT INCLUDED)</b>												
<b>GARDNER DENVER</b>												
1140	TAMPER T23	20CFM A	849	0.44	0.09	0.21	0.00		1			
1145	SPADER SP27E	32CFM A	855	0.44	0.09	0.21	0.00		1			
1150	SINKER DRILL S48	88CFM A	1,768	0.91	0.18	0.43	0.00		1			
1155	SINKER DRILL S58	98CFM A	1,880	0.97	0.19	0.46	0.00		1			
1160	PAVING BREAKER B37	41CFM A	878	0.46	0.09	0.22	0.00		1			
1165	PAVING BREAKER B67C	46CFM A	941	0.49	0.10	0.23	0.00		1			
1170	PAVING BREAKER B87C	50CFM A	1,024	0.53	0.10	0.25	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-	AVERAGE COND.	SEVERE COND.	OWNER- SHIP	FUEL				
AIR TOOLS (CONT'D)												
***** (HOSE NOT INCLUDED)												
GARDNER DENVER (CONT'D)												
1175	FEED LEG DRILL FL83-54° TRAVEL RETRACTABLE	103CFM A	3,455	1.78		0.35	0.84	0.00	1			
1180	FEED LEG DRILL FL53-48° TRAVEL RETRACTABLE	88CFM A	2,958	1.54		0.30	0.73	0.00	1			
SANDBLASTERS CLEMCO												
1190	SCW-1028P SANDBLASTER 1/2" HOSE INCLUDES ACCESSORIES AND 50' HOSE	85CFM A	1,211	0.68		0.12	0.29	0.00	2			
1195	SCW-1440P SANDBLASTER 3/4" HOSE INCLUDES ACCESSORIES AND 50' HOSE	85CFM A	2,151	1.17		0.21	0.52	0.00	5			
1200	SCWB-1648P SANDBLASTER 1" HOSE INCLUDES ACCESSORIES AND 50' HOSE	125CFM A	2,222	1.21		0.23	0.54	0.00	6			
1205	SCWB-2452P SANDBLASTER 1-1/4" HOSE INCLUDES ACCESSORIES AND 50' HOSE	210CFM A	2,331	1.27		0.23	0.57	0.00	6			
1210	SCH-3079P SANDBLASTER 1-1/4" HOSE INCLUDES ACCESSORIES AND 50' HOSE	210CFM A	2,542	1.38		0.26	0.63	0.00	9			
CONCRETE VIBRATORS (DART)												
1220	CONCRETE VIBRATOR MOD A-600SH 6"	120CFM A	2,153	1.99		0.21	0.52	0.00	1			
1225	CONCRETE VIBRATOR MOD A-450SH 4.5"	98CFM A	1,837	1.70		0.19	0.45	0.00	1			
1230	CONCRETE VIBRATOR MOD A-35012 3.5"	74CFM A	1,641	1.52		0.17	0.40	0.00	1			
1235	CONCRETE VIBRATOR MOD A-30012 3"	50CFM A	1,463	1.36		0.15	0.36	0.00	1			
1240	CONCRETE VIBRATOR MOD A-25010 2.5"	44CFM A	1,189	1.10		0.12	0.29	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.	OWNER-SHIP	FUEL	
ASPHALT DISTRIBUTOR-ROSCO ***** (NO CHASSIS)									
1250	MOD RES 1000 GAL. TRUCK MOUNTED 18,000 TO 24,000 GVW REQUIRED	50 HP G	17.852	9.11	1.18	2.04	4.09		72
1255	MOD RES 1500 GAL. TRUCK MOUNTED 24,000 TO 32,000 GVW REQUIRED	50 HP G	18.518	9.25	1.23	2.12	4.09		75
1260	MOD RES 2000 GAL. TRUCK MOUNTED 32,000 GVW REQUIRED	50 HP G	19.846	9.53	1.31	2.27	4.09		87
1265	MOD RES 3000 GAL. TRUCK MOUNTED 42,000 GVW REQUIRED	50 HP G	22.386	10.12	1.47	2.50	4.09		109
ASPHALT FINISHERS-BARBER GREENE *****									
1275	MOD SB111 8'-12' WIDE (PNEUMATIC)	70 HP D	68.764	18.87	4.51	8.40	2.63		155
1280	MOD SB131 10'-12' WIDE (P'MATIC) W/VIB SCREED,AUTO. FEEDERS AND GR CONTROL	95 HP D	99.956	27.37	6.53	12.14	3.57		245
1285	MOD SB140 10'-12' WIDE (P'MATIC) OPTIONS SAME AS MOD SB131	130 HP D	114.601	32.73	7.47	13.84	4.89		314
1290	MOD SA150 10'-12' WIDE (CRAWLER) OPTIONS SAME AS MOD SB131	130 HP D	138.043	36.91	9.08	16.98	4.89		370
BROOMS M-B *****									
1300	MOD 53T HYD 7 FT. TOWED MECH/DRIVE W/SPRINKLER		4,877	1.25	0.32	0.59	0.00		24
1305	MOD 53-M 7 FT. TOWED MOTOR/DRIVEN W/SPRINKLER	25 HP G	6,244	3.95	0.41	0.75	2.05		30
1310	MOD MT 7 FT. TRACTOR/MOUNTED PTO/DRIVE W/SPRINKLER/		2,230	0.65	0.14	0.27	0.00		10

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	
BROOMS M-B (CONT'D) *****										
1315	MOD HT 7 FT. TRACTOR/MOUNTED HYD/DRIVE W/SPRINKLER	3,737	0.95		0.25	0.46	0.00			14
BRUSH CHIPPERS - FITCHBERG *****										
1325	MOD TWC-612 CAP. TO 6" DIA. LOG 151 HP G	4,934	17.43		0.32	0.60	12.36			37
1330	MOD TWC-915 CAP. TO 9" DIA. LOG 165 HP G	6,060	19.18		0.39	0.73	13.50			40
BUCKETS-CLAMSHELL *****										
GENERAL PURPOSE - SQUARE NOSE ESCO MODEL G										
1340	1.0 C.Y.	7,886	1.73	2.59	0.52	0.95	0.00	1.49	0.00	43
1345	1.5 C.Y.	11,595	2.55	3.80	0.76	1.40	0.00	2.19	0.00	65
1350	2.0 C.Y.	13,117	2.88	4.30	0.86	1.58	0.00	2.48	0.00	72
1355	2.5 C.Y.	17,095	3.76	5.61	1.13	2.07	0.00	3.23	0.00	94
1360	3.0 C.Y.	18,107	3.98	5.94	1.19	2.19	0.00	3.42	0.00	99
1365	3.5 C.Y.	18,528	4.07	6.08	1.22	2.24	0.00	3.50	0.00	110
1370	4.0 C.Y.	20,397	4.49	6.68	1.35	2.47	0.00	3.85	0.00	120
1375	4.5 C.Y.	22,051	4.85	7.22	1.46	2.67	0.00	4.16	0.00	132
1380	5.0 C.Y.	23,885	5.24	7.83	1.57	2.88	0.00	4.51	0.00	146
1385	5.5 C.Y.	25,777	5.66	8.46	1.69	3.11	0.00	4.88	0.00	158
1390	6.0 C.Y.	26,686	5.87	8.75	1.76	3.23	0.00	5.04	0.00	166
1395	6.5 C.Y.	28,861	6.34	9.46	1.90	3.49	0.00	5.45	0.00	177

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.	OWNER-SHIP	FUEL	
	BUCKETS-CLAMSHELL (CONT'D) *****									
	GENERAL PURPOSE - SQUARE NOSE CONT'D ESCO MODEL G									
1400	7.0 C.Y.	29,720	6.53	9.75	1.96	3.59	0.00	5.62	0.00	185
	HEAVY DUTY - SQUARE NOSE ESCO MODEL HD									
1410	1.0 C.Y.	9,570	2.10	3.14	0.63	1.15	0.00	1.81	0.00	49
1415	1.5 C.Y.	13,913	3.06	4.56	0.92	1.68	0.00	2.63	0.00	74
1420	2.0 C.Y.	15,009	3.29	4.93	0.99	1.81	0.00	2.84	0.00	82
1425	2.5 C.Y.	19,071	4.18	6.26	1.25	2.30	0.00	3.61	0.00	104
1430	3.0 C.Y.	20,854	4.58	6.84	1.37	2.52	0.00	3.94	0.00	115
1435	3.5 C.Y.	22,501	4.94	7.39	1.48	2.72	0.00	4.26	0.00	126
1440	4.0 C.Y.	24,180	5.32	7.93	1.60	2.93	0.00	4.57	0.00	137
1445	4.5 C.Y.	25,958	5.71	8.51	1.71	3.14	0.00	4.90	0.00	147
1450	5.0 C.Y.	28,567	6.28	9.37	1.89	3.46	0.00	5.40	0.00	163
1455	5.5 C.Y.	30,138	6.62	9.89	1.98	3.64	0.00	5.70	0.00	172
1460	6.0 C.Y.	31,883	7.00	10.46	2.10	3.85	0.00	6.03	0.00	182
1465	6.5 C.Y.	33,232	7.30	10.90	2.19	4.02	0.00	6.28	0.00	193
1470	7.0 C.Y.	34,574	7.60	11.34	2.28	4.18	0.00	6.53	0.00	193
	EXTRA HEAVY DUTY - SQUARE NOSE ESCO MODEL X									
1480	1.0 C.Y.	10,937	2.40	3.59	0.72	1.32	0.00	2.07	0.00	58
1485	1.5 C.Y.	16,249	3.57	5.33	1.07	1.96	0.00	3.07	0.00	85

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CWT
			CONDITION	AVERAGE	SEVERE	STAND-BY	AVERAGE COND.	SEVERE COND.	OWNERSHIP	
	BUCKETS-CLAMSHELL (CONT'D) *****									
	EXTRA HEAVY DUTY - SQUARE NOSE CONT'D ESCO MODEL X									
1490	2.0 C.Y.	19,654	4.31	6.44	1.29	2.37	0.00	3.71	0.00	103
1495	2.5 C.Y.	21,941	4.82	7.19	1.44	2.65	0.00	4.14	0.00	121
1500	3.0 C.Y.	23,820	5.23	7.82	1.57	2.88	0.00	4.51	0.00	135
1505	3.5 C.Y.	25,045	5.51	8.21	1.65	3.03	0.00	4.73	0.00	149
1510	4.0 C.Y.	26,528	5.83	8.71	1.75	3.21	0.00	5.02	0.00	158
1515	4.5 C.Y.	27,783	6.11	9.11	1.83	3.36	0.00	5.25	0.00	168
1520	5.0 C.Y.	29,794	6.54	9.77	1.96	3.60	0.00	5.63	0.00	181
1525	5.5 C.Y.	31,544	6.94	10.35	2.08	3.82	0.00	5.97	0.00	193
1530	6.0 C.Y.	33,159	7.28	10.87	2.18	4.00	0.00	6.26	0.00	203
1535	6.5 C.Y.	35,926	7.89	11.78	2.36	4.34	0.00	6.79	0.00	220
1540	7.0 C.Y.	37,004	8.14	12.13	2.44	4.48	0.00	6.99	0.00	230
	BUCKETS-CONCRETE-GAR-BRO *****									
	GENERAL PURPOSE - MANUAL									
1550	1.0 C.Y.	1,072	0.24			0.07	0.13	0.00		6
1555	1.5 C.Y.	1,340	0.29			0.09	0.16	0.00		8
1560	2.0 C.Y.	1,740	0.38			0.11	0.21	0.00		11
1565	3.0 C.Y.	2,496	0.55			0.17	0.30	0.00		19
1570	4.0 C.Y.	3,152	0.69			0.21	0.38	0.00		23

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			
<b>BUCKETS-CONCRETE-GAR-BRO (CONT'D)</b>												
*****												
GENERAL PURPOSE - LOW SLUMP - AIR												
1580	1.0 C.Y.	4,589	1.01		0.31	0.56	0.00		19			
1585	1.5 C.Y.	4,811	1.06		0.32	0.58	0.00		21			
1590	2.0 C.Y.	5,019	1.11		0.33	0.61	0.00		23			
1595	3.0 C.Y.	6,853	1.51		0.46	0.83	0.00		42			
1600	4.0 C.Y.	7,137	1.57		0.47	0.86	0.00		52			
1605	6.0 C.Y. DBL. COMPT.	10,337	2.27		0.68	1.25	0.00		72			
1610	8.0 C.Y. DBL. COMPT.	12,309	2.70		0.81	1.48	0.00		80			
LAYDOWN - HEAVY DUTY - CLAM GATE TYPE												
1620	1.0 C.Y.	4,209	0.93		0.28	0.51	0.00		17			
1625	2.0 C.Y.	4,663	1.02		0.31	0.56	0.00		21			
1630	3.0 C.	5,335	1.17		0.35	0.64	0.00		27			
1635	4.0 C.Y.	6,239	1.38		0.42	0.76	0.00		60			
BUCKETS-DRAGLINE												
*****												
LIGHT WEIGHT - PERFORATED HENDRIX MODEL LS												
1650	1.0 C.Y.	2,481	0.55	0.82	0.17	0.30	0.00	0.48	0.00			
1655	1.5 C.Y.	3,035	0.66	1.00	0.20	0.36	0.00	0.58	0.00			
1660	2.0 C.Y.	3,579	0.78	1.18	0.24	0.43	0.00	0.68	0.00			
1665	2.5 C.Y.	4,202	0.93	1.38	0.28	0.51	0.00	0.80	0.00			

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					
<b>BUCKETS-DRAGLINE (CONT'D)</b>														
*****														
<b>LIGHT WEIGHT - PERFORATED (CONT'D)</b>														
HENDRIX MODEL LS														
1670	3.0 C.Y.	5,159	1.13	1.70	0.34	0.62	0.00	0.98	0.00	41				
1675	3.5 C.Y.	5,723	1.26	1.89	0.38	0.69	0.00	1.09	0.00	47				
1680	4.0 C.Y.	6,985	1.53	2.29	0.46	0.84	0.00	1.32	0.00	64				
1685	4.5 C.Y.	7,414	1.62	2.43	0.49	0.89	0.00	1.40	0.00	67				
1690	5.0 C.Y.	8,952	1.96	2.93	0.59	1.08	0.00	1.69	0.00	83				
1695	6.0 C.Y.	9,713	2.13	3.19	0.64	1.17	0.00	1.84	0.00	90				
1700	7.0 C.Y.	10,623	2.33	3.50	0.70	1.28	0.00	2.02	0.00	101				
1705	8.0 C.Y.	11,780	2.59	3.87	0.78	1.43	0.00	2.23	0.00	112				
1710	10.0 C.Y.	14,785	3.25	4.85	0.97	1.79	0.00	2.80	0.00	139				
1715	12.0 C.Y.	18,171	3.99	5.97	1.19	2.19	0.00	3.44	0.00	166				
1720	14.0 C.Y.	20,895	4.59	6.85	1.37	2.52	0.00	3.95	0.00	191				
<b>MEDIUM WEIGHT - HENDRIX MODEL TS</b>														
1730	1.0 C.Y.	2,999	0.66	1.00	0.20	0.36	0.00	0.58	0.00	19				
1735	1.5 C.Y.	3,697	0.82	1.21	0.25	0.45	0.00	0.70	0.00	28				
1740	2.0 C.Y.	4,408	0.97	1.44	0.29	0.53	0.00	0.83	0.00	36				
1745	2.5 C.Y.	5,085	1.11	1.68	0.33	0.61	0.00	0.97	0.00	41				
1750	3.0 C.Y.	6,074	1.34	1.99	0.40	0.74	0.00	1.15	0.00	49				
1755	3.5 C.Y.	6,711	1.47	2.21	0.44	0.81	0.00	1.28	0.00	54				
1760	4.0 C.Y.	8,057	1.77	2.65	0.53	0.97	0.00	1.53	0.00	70				

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CWT				
			CONDITION		STAND-BY	ADJUSTABLE ELEMENTS								
			AVERAGE	SEVERE		OWNER-SHIP	FUEL	OWNER-SHIP	FUEL					
<b>BUCKETS-DRAGLINE (CONT'D)</b>														
<b>*****</b>														
<b>MEDIUM WT. - HENDRIX MODEL TS CONT'D</b>														
1765	4.5 C.Y.	8,621	1.89	2.83	0.57	1.04	0.00	1.63	0.00	72				
1770	5.0 C.Y.	11,052	2.42	3.63	0.72	1.33	0.00	2.09	0.00	93				
1775	6.0 C.Y.	11,417	2.51	3.75	0.75	1.38	0.00	2.16	0.00	96				
1780	7.0 C.Y.	13,034	2.87	4.28	0.86	1.58	0.00	2.47	0.00	111				
1785	8.0 C.Y.	14,353	3.15	4.71	0.94	1.73	0.00	2.72	0.00	122				
1790	10.0 C.Y.	18,299	4.02	6.00	1.21	2.21	0.00	3.46	0.00	159				
1795	12.0 C.Y.	23,320	5.12	7.65	1.54	2.82	0.00	4.41	0.00	202				
1800	14.0 C.Y.	25,969	5.71	8.51	1.71	3.14	0.00	4.90	0.00	225				
<b>HEAVY WEIGHT - HENDRIX MODEL MH-S</b>														
1810	2.75 C.Y.	9,745	2.14	3.19	0.64	1.18	0.00	1.84	0.00	69				
1815	3.0 C.Y.	10,141	2.22	3.33	0.67	1.22	0.00	1.92	0.00	72				
1820	3.5 C.Y.	11,356	2.49	3.73	0.75	1.37	0.00	2.15	0.00	81				
1825	4.0 C.Y.	15,182	3.33	4.98	1.00	1.83	0.00	2.87	0.00	110				
1830	4.5 C.Y.	16,975	3.74	5.57	1.12	2.06	0.00	3.21	0.00	123				
1835	5.0 C.Y.	17,528	3.85	5.76	1.15	2.12	0.00	3.32	0.00	127				
1840	6.0 C.Y.	18,769	4.12	6.16	1.24	2.27	0.00	3.55	0.00	136				
1845	7.0 C.Y.	23,548	5.18	7.72	1.55	2.85	0.00	4.45	0.00	173				
1850	8.0 C.Y.	24,433	5.36	8.02	1.61	2.95	0.00	4.62	0.00	180				
1855	10.0 C.Y.	32,202	7.07	10.57	2.12	3.89	0.00	6.09	0.00	242				
1860	12.0 C.Y.	36,510	8.02	11.97	2.40	4.41	0.00	6.90	0.00	275				

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		
	BUCKETS-DRAGLINE (CONT'D) *****									
1865	HEAVY WT - HENDRIX MODEL MH-S CONT'D 14.0 C.Y.	39,694	8.71	13.02	2.61	4.79	0.00	7.50	0.00	299
	COMPACTORS MANUALLY OPERATED *****									
1875	UR-12 I-R RAMMER	3 HP G	1,422	0.93		0.12	0.25	0.34		1
1880	GVR100 WACKER RAMMER	3 HP G	1,352	0.91		0.11	0.24	0.34		1
1885	GVR220Y WACKER RAMMER	5 HP G	2,283	1.52		0.18	0.40	0.56		2
1890	VPG160B WACKER VIBRO PLATE	4 HP G	1,045	0.93		0.08	0.18	0.45		2
1895	VPG600 WACKER VIBRO PLATE	9 HP G	3,200	2.41		0.26	0.57	1.02		6
	CONCRETE BUGGIES - REMINGTON *****									
1905	10 CF WALK-BEHIND	8 HP G	1,966	1.35		0.13	0.24	0.70		6
	CONCRETE PAVERS *****									
	CMI									
1915	MOD SUPER 200 16' WIDE SLIPFORM UNIT, 0-25 FT/MIN, CRAWLER MTD.	165 HP D	105,654	31.40		6.95	12.99	6.21		296
1920	MOD SUBURBAN 24' WIDE SLIPFORM UNIT, 0-60 FT/MIN, CRAWLER MTD.	250 HP D	188,760	53.94		12.40	23.21	9.40		720

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					
<b>CONCRETE PAVERS (CONT'D)</b>														
*****														
GOMACO														
1930	MOD C-650 24' WIDE FORM PAVER W/4' FINISHING CYLINDERS	50 HP G	17,660	9.35		1.15	2.14	4.09		91				
1935	MOD HW-165 16'-6" WIDE SLIPFORM UNIT, AUTO VIBRATORS, CRLR MTD	100 HP D	84,754	23.62		5.57	10.42	3.76		240				
<b>CONCRETE PLACERS</b>														
*****														
ALIVA SHOTCRETE EQUIPMENT														
1945	MOD 240 PLACE 1 TO 5 CY/HR	275CFM A	8,951	2.07		0.59	1.09	0.00		7				
1950	MOD 250 PLACE 5.5 TO 10 CY/HR	450CFM A	16,410	3.67		1.08	2.00	0.00		13				
1955	MOD 260 PLACE 5 TO 22 CY/HR	675CFM A	23,474	5.19		1.54	2.86	0.00		19				
<b>CONCRETE PUMPS - CHALLENGE-COOK</b>														
1965	MOD 700 1" AGG REQUIRES 15,000 GVW TRUCK	70 CY/HR 128 HP D	41,730	20.46		2.99	5.92	7.10		84				
1970	MOD TITAN4000 TR'L MT'D	100 CY/HR 240 HP D	66,899	35.27		4.79	9.49	13.31		134				
1975	HYDRAULIC BOOM 60' VERT 52'RAD REQUIRES 20,000 GVW TRUCK FOR BOOM ONLY OR 43,000 GVW WITH PUMP		30,359	8.48		2.17	4.31	0.00		59				

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.				
					OWNER-SHIP	FUEL	OWNER-SHIP	FUEL		
	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)	126,571	25.40	37.09	7.83	13.82	2.76	21.44	3.59	609
	MOD 597-C 1.25 CY T/C 129 HP D 14'-7" CRAWLERS W/32" SHOES									
1990	DRAGLINE OR CLAMSHELL (LESS BUCKET)	182,214	32.93	47.40	10.56	17.46	3.83	27.30	4.98	814
1995	CRANE 35-T W/70' BOOM	181,630	29.21	42.12	10.52	17.40	3.07	27.22	3.96	803
	MOD 599-C LIFTING CRANE T/C 129 HP D 16'-0" CRAWLERS W/32" SHOES									
2005	CRANE 40-T W/80' BOOM	181,313	29.17	42.06	10.51	17.38	3.07	27.17	3.96	962
	MOD 5299 LIFTING CRANE T/C 129 HP D 17'-6" CRAWLERS W/32" SHOES									
2015	CRANE 50-T W/80' BOOM	208,081	32.94	47.57	12.06	19.94	3.07	31.18	3.96	1088
	MOD 797-C 2 CY T/C 205 HP D 17'-6" CRAWLERS W/33" SHOES									
2025	DRAGLINE OR CLAMSHELL (LESS BUCKET)	243,442	45.15	64.81	14.11	23.33	6.09	36.48	7.92	1278
2030	CRANE 40-T W/80' BOOM	239,817	39.54	56.87	13.90	22.98	4.87	35.94	6.29	1262
	MOD 7250 STEEL ERECTOR T/C 205 HP D 17'-6" CRAWLERS W/33" SHOES									
2040	CRANE 60-T W/80' BOOM	259,352	39.67	56.82	14.36	22.55	4.87	35.70	6.29	1421

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		
	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	333,802	49.39	71.00	18.47	29.01	4.87	45.95	6.29	1886	
	MOD 999-C STEEL ERECTOR T/C 289 HP D 23'-9" CRAWLERS W/44" SHOES										
2060	CRANE 110-T W/200' BOOM	436,419	65.17	93.59	24.15	37.93	6.87	60.07	8.87	2792	
	MOD 9260 4.5 CY T/C 289 HP D 23'-9" CRAWLERS W/38" SHOES										
2070	CRANE 125T W/270' BOOM	462,180	68.54	98.50	25.58	40.17	6.87	63.61	8.87	3025	
2075	DRAGLINE OR CLAMSHELL (LESS BUCKET)	442,389	73.50	105.22	24.49	38.45	8.58	60.89	11.16	2619	
	MOD 9270 LIFT CR TAPERED TIP T/C 289 HP D 23'-9" CRAWLERS W/44" SHOES										
2085	CRANE 150T W/280' BOOM	506,564	74.34	106.95	28.04	44.03	6.87	69.72	8.87	3400	
	MOD 9299 LIFTING CRANE T/C 289 HP D 24'-11" CRAWLERS W/50" SHOES										
2095	CRANE 165T W/290' BOOM	533,109	76.11	109.08	28.82	43.97	6.87	70.24	8.87	3580	
	MOD 9310 LIFTING CRANE T/C 289 HP D 28'-2" CRAWLERS W/50" SHOES										
2105	CRANE 225T W/320' BOOM	624,282	87.73	125.95	33.74	51.48	6.87	82.26	8.87	3990	

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	
	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)	145,693	29.52	43.06	9.01	15.91	3.42	24.68	4.44	671
2125	CRANE 28-T W/50' BOOM	144,319	23.56	33.92	8.36	13.83	2.73	21.62	3.53	674
	MOD 30-B SER 4 HVY DUTY 1.5 CY 144 HP D 14'-9" CRAWLERS W/30" SHOES									
2135	BACKHOE	207,454	43.66	62.53	12.51	21.58	4.99	33.54	6.56	787
2140	DRAGLINE OR CLAMSHELL (LESS BUCKET)	198,937	36.07	51.88	11.52	19.06	4.28	29.80	5.56	833
2145	CRANE 35-T W/60' BOOM	196,051	31.66	45.65	11.36	18.78	3.42	29.38	4.42	831
	MOD 38-B SER 2 HVY DUTY 2 CY T/C 178 HP D 17'-5" CRAWLERS W/36" SHOES									
2155	SHOVEL	291,081	60.27	86.45	17.56	30.28	6.17	47.06	8.11	1298
2160	DRAGLINE OR CLAMSHELL (LESS BUCKET)	274,646	49.07	70.69	15.92	26.32	5.29	41.15	6.87	1226
	MOD 61-B SER 2 3.25 CY T/C 205 HP D 15'-11" CRAWLERS W/33" SHOES									
2170	SHOVEL	412,995	75.67	107.55	23.53	38.20	7.10	59.96	9.34	1691
2175	BACKHOE	395,731	72.85	103.52	22.55	36.60	7.10	57.46	9.34	1751
2180	DRAGLINE OR CLAMSHELL (LESS BUCKET)	375,649	61.01	87.50	20.79	32.65	6.09	51.70	7.92	1523
2185	CRANE 51-T W/70' BOOM	367,607	53.81	77.44	20.35	31.95	4.87	50.60	6.29	1536

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		
	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	469,466	66.68	95.64	25.38	38.71	5.77	61.86	7.46	2182	
2200	DRAGLINE OR CLAMSHELL (LESS BUCKET)	442,147	71.86	103.07	24.47	38.43	7.22	60.86	9.38	2010	
	MOD 71-B SER 3 4.25 CY T/C 246 HP D 16'-10" CRAWLERS W/36" SHOES										
2210	SHOVEL	469,387	86.52	122.92	26.74	43.41	8.52	68.14	11.20	2196	
2215	BACKHOE	444,840	82.52	117.19	25.35	41.14	8.52	64.58	11.20	2100	
2220	DRAGLINE OR CLAMSHELL (LESS BUCKET)	421,275	68.98	98.86	23.31	36.61	7.31	57.98	9.50	1736	
	MOD 88-B SER 4 5.5 CY T/C 365 HP D 17'-10" CRAWLERS W/36" SHOES										
2230	SHOVEL	658,701	117.55	165.93	36.46	57.26	12.65	90.65	16.62	2822	
2235	DRAGLINE OR CLAMSHELL (LESS BUCKET)	558,782	90.36	128.73	30.20	46.08	10.84	73.62	14.09	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	149,962	24.43	35.19	8.69	14.37	2.80	22.47	3.62	772	
	MOD LS-118 LIFTING CRANE T/C 165 HP D 17'-0" CRAWLERS W/30" SHOES										
2260	CRANE 60-T W/80' BOOM	215,592	35.01	50.42	12.49	20.66	3.92	32.30	5.06	1232	

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		
	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	344,481	49.77	71.25	18.62	28.41	4.94	45.39	6.38	1912	
	MOD LS-518 LIFTING CRANE T/C 230 HP D 24'-4" CRAWLERS W/44" SHOES										
2280	CRANE 150-T W/250' BOOM	502,464	70.52	101.27	27.16	41.43	5.46	66.20	7.06	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)	348,532	61.64	87.74	19.29	30.29	9.92	47.97	12.90	2306	
2300	CRANE 100T W/240' BOOM	357,327	56.09	80.16	19.78	31.06	7.94	49.18	10.25	2354	
	MOD 3900W VICON SER2 4 CY T/C 334 HP D 24'-0" CRAWLERS W/48" SHOES										
2310	DRAGLINE OR CLAMSHELL (LESS BUCKET)	418,594	71.68	102.31	23.17	36.38	9.92	57.61	12.90	2763	
2315	CRANE 140T W/250' BOOM	426,384	65.12	93.30	23.60	37.06	7.94	58.68	10.25	2815	
	MOD 4100W VICON SER2 5 CY T/C 345 HP D 26'-6" CRAWLERS W/48" SHOES										
2325	DRAGLINE OR CLAMSHELL (LESS BUCKET)	593,848	97.17	139.28	32.87	51.62	10.25	81.73	13.32	3788	
2330	CRANE 200T W/260' BOOM	604,260	86.75	124.27	32.66	49.83	8.20	79.61	10.59	3929	

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		
	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	867,426	129.84	185.24	46.89	71.53	16.28	114.28	21.02	5095	
2345	DRAGLINE OR CLAMSHELL (LESS BUCKET)	897,028	148.52	211.18	48.49	73.97	20.34	118.19	26.45	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)	114,502	25.22	36.46	7.08	12.50	4.40	19.40	5.71	484	
2365	CRANE 15-T W/30' BOOM	112,920	20.79	29.98	6.82	11.75	3.52	18.26	4.54	474	
	MOD-41 1 CY 148 HP D 15'-0" CRAWLERS W/30" SHOES										
2375	DRAGLINE OR CLAMSHELL (LESS BUCKET)	149,494	31.34	45.54	9.24	16.32	4.40	25.32	5.71	737	
2380	CRANE 20-T W/40' BOOM	147,194	25.85	37.45	8.89	15.32	3.52	23.80	4.54	720	
	MOD 6 1.5 CY T/C 238 HP D 14'-8" CRAWLERS W/33" SHOES										
2390	DRAGLINE OR CLAMSHELL (LESS BUCKET)	198,880	39.35	56.16	11.52	19.06	7.07	29.80	9.19	1001	
2395	CRANE 30-T W/45' BOOM	199,879	34.84	49.82	11.59	19.16	5.65	29.95	7.30	1001	
	MOD 80-D 2.5 CY T/C 238 HP D 15'-10" CRAWLERS W/30" SHOES										
2405	SHOVEL	302,136	64.74	92.58	18.23	31.44	8.25	48.84	10.84	1550	
2410	DRAGLINE OR CLAMSHELL (LESS BUCKET)	264,972	49.66	71.21	15.36	25.39	7.07	39.70	9.19	1380	

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.	SEVERE	
					AVERAGE	OWNER-SHIP	FUEL	AVERAGE	OWNER-SHIP	FUEL
	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	261,926	43.58	62.62	15.18	25.10	5.65	39.25	7.30	1320
	MOD 95-WT 4.0 CY T/C 263 HP D 19'-0" CRAWLERS W/38" SHOES									
2425	DRAGLINE OR CLAMSHELL (LESS BUCKET)	337,590	57.58	82.23	18.68	29.34	7.81	46.47	10.15	1580
2430	CRANE 60-T W/50' BOOM	334,563	51.11	73.23	18.52	29.08	6.25	46.04	8.07	1565
	MOD 180-D SERIES 2 5 CY T/C 357 HP D 18'-1" CRAWLERS W/36" SHOES									
2440	SHOVEL	547,509	103.80	147.16	31.19	50.64	12.37	79.49	16.26	2571
2445	DRAGLINE OR CLAMSHELL (LESS BUCKET)	504,303	84.77	121.19	27.92	43.84	10.60	69.41	13.78	2365
2450	CRANE 98-T W/170' BOOM	525,685	78.75	113.05	29.10	45.70	8.48	72.35	10.96	2464
	MOD 190-D SERIES 2 6.5 CY T/C 357 HP D 21'-1" CRAWLERS W/54" SHOES									
2460	SHOVEL	634,651	113.47	160.17	35.13	55.16	12.37	87.34	16.26	2825
2465	DRAGLINE OR CLAMSHELL (LESS BUCKET)	541,804	87.72	124.96	29.29	44.68	10.60	71.39	13.78	2555
2470	CRANE 100-T W/170' BOOM	566,421	84.06	120.80	31.35	49.23	8.48	77.95	10.96	2865

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		
	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)	195.547	36.02	51.76	11.33	18.74	4.69	29.30	6.10	870	
2490	CRANE 35-T W/50' BOOM	189.339	31.11	44.76	10.97	18.14	3.75	28.37	4.85	870	
	MOD 550 1.75 CY T/C 158 HP D 18'-0" CRAWLERS W/30" SHOES										
2500	DRAGLINE (LESS BUCKET)	217.061	39.38	56.66	12.58	20.80	4.69	32.52	6.10	1002	
2505	CRANE 50-T W/80' BOOM	211.544	34.24	49.34	12.26	20.27	3.75	31.70	4.85	1002	
	MOD 670WLC 2 CY T/C 198 HP D 18'-6" CRAWLERS W/30" SHOES										
2515	DRAGLINE OR CLAMSHELL (LESS BUCKET)	254.609	46.64	67.03	14.76	24.40	5.88	38.15	7.64	1344	
2520	CRANE 70-T W/150' BOOM	260.090	39.56	56.71	14.40	22.61	4.70	35.80	6.08	1466	
	CRANES-HYDRAULIC-SELF PROPELLED *****										
	GROVE										
2535	MOD RT48 8 TON 123 HP G	76.216	24.13			4.39	6.83	10.07		326	
2540	MOD RT49 10 TON 123 HP G	77.444	24.30			4.47	6.94	10.07		336	
2545	MOD RT515 15 TON 115 HP D	92.490	18.84			5.32	8.24	4.33		415	
2550	MOD RT518 18 TON 115 HP D	93.123	19.28			5.31	8.14	4.33		450	
2555	MOD RT522 22 TON 115 HP D	107.024	21.22			6.13	9.41	4.33		495	
2560	MOD RT625 25 TON 156 HP D	133.579	27.16			7.64	11.72	5.87		545	

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						
<b>CRANES-HYD.-SELF PROPELLED CONT'D)</b> *****													
<b>GROVE (CONT'D)</b>													
2565	MOD RT65S	35 TON 173 HP D	185,844	35.57		10.63	16.33	6.51	673				
<b>HYSSTER</b>													
2575	MOD K300B	15 TON 127 HP D	100,654	20.57		5.79	8.97	4.78	438				
2580	MOD K360B	18 TON 127 HP D	103,272	20.93		5.94	9.20	4.78	440				
2585	MOD K400B	20 TON 127 HP D	111,146	22.03		6.40	9.92	4.78	466				
<b>PETTIBONE</b>													
2595	MOD 25	12.5 TON 120 HP D	90,507	18.83		5.20	8.04	4.51	440				
2600	MOD 36	18 TON 120 HP D	105,623	21.06		6.06	9.35	4.51	460				
2605	MOD 70	35 TON 188 HP D	159,670	32.55		9.13	14.00	7.07	770				
2610	MOD 100SC	50 TON 188 HP D	227,801	42.08		13.07	20.17	7.07	1050				
<b>CRANES-HYDRAULIC-TRUCK MOUNTED</b> ***** (HP & FUEL LISTED EQUIP/CARRIER)													
<b>BUCYRUS ERIE</b>													
2620	30-XC	30 TON W/80' BOOM	130/210 HP D/D	184,146	31.28	44.31	10.15	15.83	6.24				
2625	60-XC	60-TON W/136' BOOM	197/238 HP D/D	286,955	47.60	67.67	15.83	24.74	8.94				
<b>GROVE</b>													
2635	TMS185	18 TON W/106' BOOM	172 HP D	147,671	28.23	40.14	8.52	13.99	6.47				
2640	TMS300	35 TON W/136' BOOM	203 HP D	161,769	30.43	42.90	8.90	13.85	7.64				
									22.03				
									9.85				
									705				

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TABLE 3-1 HOURLY EQUIPM: 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					
<b>CRANES-HYDRAULIC-TRUCK MOUNTED CONT'D</b> ***** <b>(HP &amp; FUEL LISTED EQUIP/CARRIER)</b>														
GROVE (CONT'D)														
2645	TMS475 50 TON W/142' BOOM	203 HP D	196,423	34.72	49.20	10.83	16.87	7.64	26.81	9.85	773			
2650	TM875 80 TON W/146' BOOM	212/302 HP D/D	296,949	50.17	70.69	15.95	24.07	9.91	38.66	12.55	1175			
LINK BELT (FMC)														
2660	HTC-25 25-T W/95' BOOM	216 HP D	145,558	28.88	40.51	8.02	12.50	8.13	19.85	10.48	462			
2665	HTC-35 35-T W/108' BOOM	216 HP D	170,948	32.11	45.27	9.41	14.67	8.13	23.32	10.48	628			
2670	HTC-50 50-T W/122' BOOM	244 HP D	208,539	38.11	53.86	11.50	17.94	9.18	28.50	11.84	727			
PETTIBONE														
2680	50TKLSPC 25 TON W/95' BOOM	210 HP D	143,719	29.78	42.03	8.26	13.49	7.90	21.22	10.19	520			
2685	60TKLSPC 30 TON W/101' BOOM	202 HP D	169,621	31.45	44.37	9.33	14.50	7.60	23.08	9.80	673			
2690	100TKLSPC50 TON W/111' BOOM	244 HP D	211,886	38.73	54.71	11.67	18.17	9.18	28.88	11.84	820			
2695	160TKLSPC80 TON W/153' BOOM	365 HP D	312,606	56.97	80.07	16.79	25.34	13.73	40.70	17.71	1395			
CRANES-TRUCK MOUNTED ***** <b>(HP &amp; FUEL LISTED EQUIP/CARRIER)</b>														
AMERICAN														
2705	5530 75-T W/170' BOOM	115/238 HP D/D	275,012	41.90	59.66	14.79	22.39	5.85	35.92	7.36	1245			
2710	7530 125T W/200' BOOM	203/350 HP D/D	383,647	60.45	85.77	20.65	31.29	9.88	50.16	12.47	1696			

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CMT				
			CONDITION		STAND-BY	AVERAGE COND.		SEVERE COND.						
			AVERAGE	SEVERE		OWNER-SHIP	FUEL	OWNER-SHIP	FUEL					
<b>CRANES-TRUCK MOUNTED (CONT'D)</b>														
<b>*****</b> <b>(HP &amp; FUEL LISTED EQUIP/CARRIER)</b>														
<b>LINK BELT (FMC)</b>														
2720	HC108C 50-T	W/150' BOOM 117/238 HP D/D	263,957	41.31	59.01	14.53	22.62	5.93	35.97	7.46	1197			
2725	HC218A 100-T	W/220' BOOM 165/318 HP D/D	362,137	55.10	77.88	19.12	28.25	8.25	45.69	10.39	1566			
2730	HC238A 140-T	W/230' BOOM 171/318 HP D/D	434,954	64.21	91.11	22.97	33.96	8.47	54.92	10.68	2068			
<b>LORAIN</b>														
2740	MC550A 50-T	W/160' BOOM 115/246 HP D/D	259,070	40.69	58.07	14.26	22.20	5.91	35.30	7.42	1111			
2745	MC670A 70-T	W/170' BOOM 150/270 HP D/D	309,854	48.08	68.34	16.67	25.26	7.38	40.52	9.30	1243			
2750	MC680 80-T	W/190' BOOM 167/270 HP D/D	316,293	49.67	70.51	17.03	25.80	8.02	41.36	10.12	1373			
2755	MC790 90-T	W/220' BOOM 210/270 HP D/D	380,306	59.74	84.86	20.48	31.02	9.63	49.72	12.21	1594			
2760	MC8150 150T	W/250' BOOM 246/365 HP D/D	521,771	79.36	112.18	27.53	40.62	11.60	65.74	14.67	2625			
<b>P &amp; H</b>														
2770	325TC 25-T	W/110' BOOM 79/190 HP D/D	161,302	27.42	39.25	9.28	15.20	4.19	23.88	5.26	645			
2775	430ATC 35-T	W/150' BOOM 95/210 HP D/D	181,104	29.53	41.94	9.97	15.50	4.92	24.65	6.18	763			
2780	440TC 40-T	W/170' BOOM 95/236 HP D/D	193,041	31.32	44.51	10.61	16.49	5.09	26.25	6.38	964			
2785	650ATC 50-T	W/150' BOOM 135/236 HP D/D	269,223	42.81	61.06	14.83	23.09	6.59	36.70	8.32	1178			
2790	670TC 70-T	W/180' BOOM 135/255 HP D/D	288,132	44.61	63.39	15.51	23.48	6.72	37.65	8.46	1340			
2795	790TC 90-T	W/200' BOOM 160/350 HP D/D	334,286	52.41	74.34	17.98	27.21	8.27	43.66	10.38	1736			
2800	9125TC 140T	W/270' BOOM 210/350 HP D/D	458,358	69.14	97.88	24.21	35.81	10.15	57.89	12.81	2529			
2805	6250TC 250T	W/320' BOOM 363/450 HP D/D	910,604	132.08	188.06	48.14	71.30	16.55	115.17	20.98	4552			

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						
<b>DRILLS-BLAST HOLE-CRAWLER MTD</b>														
*****														
GARDNER DENVER														
2815	AT3100B/PR123J 3.5" HOLE 12' FEED 600CFM A	61,673	14.18		4.06	7.52	0.00		91					
2820	AT3100B/PR55 4" HOLE 12' FEED 750CFM A	56,522	13.02		3.72	6.90	0.00		93					
2825	AT3100B/PR66 4.5" HOLE 12' FEED 900CFM A	64,409	14.81		4.24	7.86	0.00		95					
2830	AT3700A/PR123J ANGLE DRILL 600CFM A 3.5" HOLE 12' FEED	73,179	16.84		4.81	8.92	0.00		137					
2835	AT3700A/PR66 ANGLE DRILL 900CFM A 4.5" HOLE 12' FEED	75,922	17.47		4.99	9.26	0.00		143					
INGERSOLL-RAND														
2845	CM350/VL140 5.5" HOLE 12' FEED 750CFM A	58,708	13.51		3.86	7.16	0.00		120					
2850	ECM350/VL140 5.5" HOLE 12' FEED 750CFM A	65,148	14.97		4.28	7.94	0.00		129					
2855	CM350/URD550 5.5" HOLE 12' FEED 900CFM A	64,349	14.80		4.24	7.85	0.00		121					
2860	ECM350/URD550 5.5" HOLE 12' FEED 900CFM A	70,792	16.26		4.66	8.64	0.00		130					
JOY														
2870	RAM VCR260 4.5" HOLE 12' FEED 750CFM A	54,240	12.51		3.57	6.62	0.00		126					
2875	MUSTANG VCR280 5" HOLE 23' FEED 1200CFM A	75,208	17.31		4.95	9.18	0.00		185					
<b>DRILLS-CORE-AIR-COLUMN MOUNTED</b>														
*****														
2885	LONGYEAR 24 WOLVERINE AX 700' 450CFM A	10,300	2.58		0.67	1.25	0.00		12					
2890	LONGYEAR 65D EX 600' 400CFM A	6,801	1.79		0.45	0.83	0.00		3					
2895	65D ROD PULLER 21" STROKE 400CFM A	1,121	0.45		0.07	0.13	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	22,654	7.78	1.49	2.76	2.14	40
2910	MOUNTAINEER NX 2000' MAX	44 HP D	25,010	8.21	1.65	3.05	2.05	45
SPRAGUE AND HENWOOD								
2920	MOD 37-H NX 400' MAX	18 HP G	10,369	4.46	0.69	1.27	1.81	18
2925	MOD 40-CL NX 900' MAX	45 HP D	19,132	6.93	1.26	2.33	2.09	27
LONGYEAR								
2935	MOD 24 STD AX 675' MAX	12 HP G	8,101	3.24	0.53	0.99	1.21	19
2940	MOD 34 NX 1000' MAX	31 HP G	18,379	7.78	1.21	2.24	3.11	38
2945	MOD 34 NX 1000' MAX	38 HP D	20,586	6.86	1.36	2.51	1.77	39
2950	MOD 38 NX 1800' MAX	42 HP D	22,511	7.53	1.48	2.75	1.95	41
2955	MOD 44 NX 2500' MAX	60 HP D	29,772	10.21	1.96	3.63	2.79	56
DRILLS-ROTARY								
*****								
CHICAGO PNEUMATIC								
2965	MOD T-650 6-3/4" - W/TRUCK 50,000 G.V.W.	218 HP D	192,135	44.99	11.11	18.20	10.14	440
JOY-ROBBINS								
2975	RRT 50 TK MOUNTED 6-3/4" TO 9"	304 HP D	318,468	71.32	18.42	30.15	14.15	820
2980	RRT 60 TK MTD 6-3/4" TO 9-7/8"	325 HP D	357,072	78.92	20.66	33.84	15.12	920

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.	OWNER-SHIP	FUEL				
DRILLS-ROTARY (CONT'D) *****												
JOY-ROBBINS (CONT'D)												
2985	RRT 70 TK MTD 6-3/4" TO 10-5/8"	350 HP D	410,037	89.13	23.74	38.90	16.29		1020			
2990	RR10S ON D9 6 -3/4" TO 9-7/8"	320 HP D	319,390	71.29	18.54	30.51	14.89		1120			
2995	RR10HD ON D9 6-3/4" TO 10-5/8"	500 HP D	386,655	92.80	22.45	36.94	23.26		1200			
3000	RR11 CRLR MTD 6-3/4" TO 12-1/4"	575 HP E	578,817	99.03	31.37	47.64	24.15		1421			
3005	RR12 CRLR MTD 10-5/8" TO 12-1/2"	600 HP E	722,672	116.22	39.17	59.48	25.20		1500			
3010	RR16 CRLR MTD 10-5/8" TO 15"	1100 HP E	820,566	158.34	44.48	67.54	46.20		2200			
FORK LIFTS *****												
HYSTER-CHALLENGER												
3020	H30H 3000# @ 24" LC (LOAD CNTR)	63 HP G	18,769	10.69	1.22	2.25	5.16		71			
3025	H60H 6000# @ 24" LC	63 HP G	21,261	11.26	1.39	2.55	5.16		103			
3030	H110F 11000# @ 24" LC	116 HP G	32,477	19.21	2.12	3.90	9.49		163			
3035	H150H 15000# @ 24" LC	127 HP G	45,517	23.32	2.97	5.44	10.39		223			
3040	H200HS20000# @ 24" LC	PS 127 HP G	52,137	24.82	3.40	6.25	10.39		256			
3045	H250H 25000# @ 24" LC	PS 127 HP G	54,252	25.32	3.53	6.47	10.39		295			
3050	H300B 30000# @ 24" LC	PS 127 HP G	60,350	26.71	3.94	7.22	10.39		360			
3055	H460B 46000# @ 48" LC	PS 190 HP G	116,427	45.99	7.57	13.87	15.55		590			

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						
<b>GENERATOR ELECT PLANTS</b>															
*****															
CATERPILLAR															
T = TURBOCHARGED															
TA = TURBOCHARGED AFTER COOLED															
SKID MOUNTED															
3070	MOD 3304 -T	240/480V 86 KW 129 HP D	14,131	8.97	11.90	0.93	1.57	4.85	2.41	6.26	37				
3075	MOD 3306 -T	240/480V 130 KW 200 HP D	16,977	12.90	17.00	1.13	1.90	7.52	2.89	9.70	45				
3080	MOD 3306 -TA	240/480V 150 KW 220 HP D	19,375	14.33	18.91	1.28	2.16	8.28	3.30	10.67	46				
3085	MOD 3406 -T	240/480V 175 KW 270 HP D	20,373	16.87	22.21	1.35	2.27	10.16	3.47	13.10	64				
3090	MOD 3406 -TA	240/480V 200 KW 305 HP D	23,327	19.11	25.19	1.54	2.60	11.47	3.98	14.80	66				
3095	MOD 3408 -T	240/480V 225 KW 335 HP D	26,469	21.17	27.91	1.75	2.95	12.60	4.51	16.25	72				
3100	MOD 3408 -TA	240/480V 250 KW 375 HP D	29,753	23.74	31.28	1.97	3.32	14.11	5.07	18.19	75				
3105	MOD D353E-TA	240/480V 335 KW 435 HP D	47,068	30.16	39.94	3.12	5.25	16.36	8.01	21.10	96				
3110	MOD 3412 -T	240/480V 300 KW 425 HP D	41,291	28.48	37.67	2.73	4.60	15.99	7.03	20.62	92				
3115	MOD 3412 -TA	240/480V 440 KW 565 HP D	45,909	35.99	47.43	3.04	5.12	21.26	7.81	27.41	94				
3120	MOD D348 -TA	240/480V 480 KW 683 HP D	70,543	46.65	61.74	4.68	7.87	25.69	12.01	33.13	135				
3125	MOD D398B-TA	230/460V 566 KW 812 HP D	94,558	57.70	76.54	6.26	10.54	30.55	16.10	39.39	197				
3130	MOD D399 -TA	230/460V 770 KW 1074 HP D	121,791	75.64	100.27	8.07	13.59	40.40	20.73	52.10	278				
ONAN															
SKID MOUNTED															
3145		120/240V 15 KW 27 HP D	4,925	2.29	3.06	0.33	0.55	1.02	0.84	1.31	14				
3150		120/240V 30 KW 63 HP D	7,304	4.47	5.94	0.48	0.81	2.37	1.25	3.06	19				
3155		120/240V 45 KW 87 HP D	9,658	6.08	8.06	0.64	1.07	3.27	1.65	4.22	25				

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						
<b>GENERATOR ELECT PLANTS (CONT'D)</b>															
*****															
DNAN (CONT'D)															
3160	120/240V 60 KW 102 HP D	11,101	7.09	9.40	0.74	1.24	3.84	1.90	4.95	26					
3165	120/240V 75 KW 162 HP D	13,209	10.33	13.63	0.88	1.48	6.09	2.26	7.86	30					
3170	120/240V 90 KW 162 HP D	13,839	10.46	13.81	0.92	1.55	6.09	2.36	7.86	30					
3175	120/240V 125 KW 210 HP D	16,019	13.16	17.34	1.06	1.79	7.90	2.74	10.19	50					
3180	120/240V 150 KW 276 HP D	18,984	16.85	22.16	1.26	2.12	10.38	3.23	13.39	65					
GRADERS MOTOR															
*****															
AUSTIN WESTERN															
3190	PACER 301 POWER SHIFT 4X4 146 HP D	82,389	21.24	30.44	5.09	8.51	5.06	13.48	6.65	245					
3195	SUPER 301 POWER SHIFT 6X6 146 HP D	89,446	22.73	32.79	5.51	9.15	5.06	14.53	6.65	273					
3200	PACER 501 POWER SHIFT 4X4 187 HP D	87,601	23.97	34.17	5.42	9.06	6.48	14.35	8.52	280					
3205	SUPER 501 POWER SHIFT 6X6 187 HP D	94,234	25.37	36.40	5.79	9.64	6.48	15.32	8.52	315					
CATERPILLAR															
3215	MOD 120-G POWER SHIFT ARTIC	125 HP D	67,999	17.55	24.99	4.22	7.08	4.33	11.19	5.69	258				
3220	MOD 130-G POWER SHIFT ARTIC	135 HP D	77,715	19.67	28.03	4.82	8.10	4.68	12.81	6.15	301				
3225	MOD 12-G POWER SHIFT ARTIC	135 HP D	84,341	20.93	29.91	5.22	8.75	4.68	13.86	6.15	311				
3230	MOD 140-G POWER SHIFT ARTIC	150 HP D	85,287	21.89	31.27	5.27	8.80	5.20	13.94	6.83	317				
3235	MOD 14-G POWER SHIFT ARTIC	180 HP D	116,783	28.97	41.63	7.20	11.98	6.24	19.01	8.20	433				
3240	MOD 16-G POWER SHIFT ARTIC	250 HP D	169,835	41.77	60.19	10.44	17.35	8.66	27.56	11.38	581				

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				
<b>GRADERS MOTOR (CONT'D)</b>													
<b>*****</b>													
<b>FIAT-ALLIS</b>													
3250	MOD-65 DIRECT DRIVE	59 HP D	37.554	9.37	13.48	2.31	3.85	2.04	6.11	2.69	125		
3255	MOD-100C CONSTANT MESH	135 HP D	72.112	18.84	26.83	4.46	7.47	4.68	11.82	6.15	310		
3260	MOD-150C POWER SHIFT	135 HP D	77.122	19.70	28.09	4.78	8.00	4.68	12.65	6.15	316		
3265	MOD-200C POWER SHIFT	160 HP D	83.118	21.91	31.25	5.13	8.58	5.54	13.61	7.29	322		
<b>GALION</b>													
3275	MOD 503-L DIRECT DRIVE	74 HP G	28.684	11.55	15.88	1.77	2.98	5.60	4.72	7.25	102		
3280	MOD T-500C POWER SHIFT	150 HP D	64.953	18.61	26.62	3.97	6.54	5.20	10.44	6.83	257		
3285	MOD T-600C POWER SHIFT	200 HP D	80.095	23.45	33.37	4.92	8.15	6.93	12.96	9.11	300		
<b>WABCO</b>													
3295	MOD 444 POWER SHIFT	134 HP D	69.689	18.24	25.95	4.32	7.25	4.64	11.48	6.10	302		
3300	MOD 555-B CONSTANT MESH	160 HP D	71.830	19.86	28.20	4.44	7.43	5.54	11.77	7.29	328		
3305	MOD 777-B POWER SHIFT	201 HP D	84.558	24.26	34.54	5.19	8.62	6.96	13.70	9.15	355		
<b>HOISTS</b>													
<b>*****</b>													
<b>BENDIX-SKAGIT</b>													
3315	BU-18W DOUBLE DRUM W/5/8" CABLE	100 HP D	45.208	14.90		2.97	5.51	3.76			85		
3320	G-70 DOUBLE DRUM W/7/8" CABLE	100 HP D	58.844	17.99		3.87	7.18	3.76			126		
3325	RB-80 DOUBLE DRUM W/1-1/8" CABLE	130 HP D	105.708	30.01		6.95	12.90	4.89			240		

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	
	HOISTS (CONT'D) *****									
	GARDNER DENVER									
3335	HML SINGLE DRUM W/1/2" CABLE 350CFM A	5,325	1.31		0.35	0.65	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	133,765	31.81	45.10	8.07	13.92	6.31	21.62	8.29	644
3350	MOD 35A 2.00 CY B/H 250 HP D	192,428	45.25	64.25	11.61	20.02	8.66	31.11	11.38	850
3355	MOD 45A 3.50 CY B/H 420 HP D	328,060	70.62	99.24	18.69	30.34	14.55	47.62	19.13	1620
	BUCYRUS ERIE									
3365	MOD 300-H 1.00 CY B/H 176 HP D	130,685	32.97	47.55	8.31	15.06	6.10	23.36	8.02	515
3370	MOD 325-H 1.75 CY B/H 205 HP D	178,874	40.95	58.27	10.80	18.61	7.10	28.92	9.34	715
3375	MOD 350-H 2.50 CY B/H 240 HP D	226,489	51.38	73.13	13.67	23.57	8.59	36.61	11.29	920
	CATERPILLAR									
3385	MOD 225 1.00 CY B/H 125 HP D	113,954	27.59	39.92	7.25	13.14	4.33	20.37	5.69	494
3390	MOD 235 1.50 CY B/H 195 HP D	188,341	42.27	60.23	11.37	19.60	6.76	30.45	8.88	832
3395	MOD 245 2.50 CY B/H 325 HP D	291,927	66.44	94.56	17.61	30.37	11.26	47.19	14.80	1290

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-CRLR MNTD CONT'D ***** T/B = TELESCOPING BOOM B/H = BACKHOE										
	DROTT										
3405	MOD 40-D	1.00 CY B/H 157 HP D	85,391	23.26	33.33	5.43	9.84	5.44	15.27	7.15	400
3410	MOD 50-D	1.25 CY B/H 190 HP D	109,059	27.63	39.01	6.58	11.35	6.58	17.63	8.65	510
	GRADALL										
3420	MOD G-660	.50 CY T/B 115 HP D	116,612	27.70	40.17	7.42	13.44	3.98	20.85	5.24	459
3425	MOD G-880	.75 CY T/B 160 HP D	139,640	34.08	49.31	8.89	16.10	5.54	24.97	7.29	549
3430	MOD G-1000	1.25 CY T/B 272 HP D	187,062	45.17	64.02	11.29	19.46	9.42	30.24	12.39	787
	HOP TO										
3440	MOD 211	1.13 CY B/H 160 HP D	116,100	27.68	39.26	7.00	12.08	5.54	18.77	7.29	521
3445	MOD 311	1.88 CY B/H 235 HP D	161,594	39.04	55.31	9.76	16.82	8.14	26.12	10.70	743
3450	MOD 900B	3.25 CY B/H 308 HP D	191,616	43.81	61.34	10.92	17.72	10.67	27.82	14.03	1009
3455	MOD 1900	5.00 CY B/H 616 HP D	393,432	89.28	125.06	22.42	36.39	21.34	57.12	28.05	1998
	INSLEY										
3465	MOD H1500B	1.50 CY B/H 240 HP D	169,553	40.69	57.68	10.23	17.64	8.32	27.41	10.93	801
3470	MOD H3500B	3.00 CY B/H 355 HP D	234,496	52.71	73.89	13.36	21.68	12.30	34.05	16.17	1149
	KOEHRING										
3480	MOD 866D	1.75 CY B/H 325 HP D	252,904	59.33	84.25	15.26	26.31	11.26	40.88	14.80	1197
3485	MOD 1066D	2.50 CY B/H 380 HP D	312,941	72.52	103.06	18.88	32.56	13.17	50.58	17.31	1524

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					
<b>HYDRAULIC EXCAVATOR-CRLR MNT'D CONT'D</b>														
*****														
T/B = TELESCOPING BOOM B/H = BACKHOE														
NOEHRING (CONT'D)														
3490	MOD 1266D	5.50 CY B/H 760 HP D	642,545	135.76	191.02	36.61	59.43	26.33	93.28	34.61	2600			
P & H														
3500	MOD H-750	.75 CY B/H 105 HP D	89,734	21.98	31.79	5.71	10.34	3.64	16.04	4.78	390			
3505	MOD H-1250	1.00 CY B/H 190 HP D	125,100	32.44	46.67	7.96	14.42	6.58	22.36	8.65	620			
SHIELD BANTAM														
3515	MOD C166	.50 CY B/H 118 HP D	71,938	19.02	27.32	4.58	8.29	4.09	12.87	5.37	321			
UNIT														
3525	MOD H202C	.75 CY B/H 152 HP D	95,083	24.97	35.88	6.05	10.96	5.27	16.99	6.92	440			
3530	MOD H342	1.25 CY B/H 228 HP D	162,257	38.87	55.11	9.80	16.89	7.90	26.24	10.38	740			
3535	MOD H471	1.75 CY B/H 304 HP D	204,612	49.67	70.37	12.34	21.28	10.53	33.08	13.84	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					
<b>HYDRAULIC EXCAVATOR-TRUCK MOUNTED</b> ***** (HP & FUEL LISTED EQUIP/CARRIER) T/B = TELESCOPING BOOM B/H = BACKHOE														
<b>GRADALL</b>														
3545	MOD G-660 .50 CY T/B 115/180 HP D/G	136,440	26.93	38.21	7.87	12.92	6.56	20.26	8.48	419				
3550	MOD G-880 .75 CY T/B 160/210 HP D/D	151,748	30.10	42.43	8.74	14.31	7.37	22.47	9.33	508				
3555	MOD G-1000 1.25 CY T/B 272/228 HP D/D	199,496	40.30	56.24	10.98	17.10	11.70	27.20	14.90	698				
<b>LAND CLEARING EQUIPMENT</b> ***** (ADD TO TRACTOR)														
3565	FLECO LAND CLEARING RAKE FOR D-7	19,499	4.22	6.29	1.28	2.38	0.00	3.72	0.00	107				
3570	FLECO LAND CLEARING RAKE FOR D-8	24,914	5.39	8.02	1.64	3.05	0.00	4.75	0.00	145				
3575	FLECO LAND CLEARING RAKE FOR D-9	31,489	6.79	10.10	2.07	3.85	0.00	5.99	0.00	200				
3580	FLECO CLAMP RAKE FOR CAT 977 (ADD TO 977 LOADER)	10,079	2.21	3.27	0.66	1.23	0.00	1.92	0.00	23				
<b>LIGHTING SETS-TRAILER MOUNTED</b> *****														
<b>ALLMAND METALLIC VAPOR</b>														
3590	30' TOWER 4/1000W LTS 5 KW 11 HP D	9,673	2.75		0.64	1.09	0.61			26				
<b>OVER LOWE METALLIC VAPOR</b>														
3600	38' TOWER 4/1000W LTS 6 KW 12 HP D	8,810	2.65		0.59	1.00	0.67			22				

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		
	LOADERS-BELT *****										
	KOLMAN										
3610	101XHD 24'X50' 355 T/HR 56 HP D	24,893	8.74	12.62	1.62	2.70	2.11	4.37	2.72	113	
	OPTIONAL EQUIPMENT SELECT AS NEEDED										
3620	PLATE FEEDER DOZER TRAP MODEL 45	3,554	0.77	1.17	0.24	0.40	0.00	0.65	0.00	37	
3625	BELT FEEDER DOZER TRAP MODEL 65	5,159	1.12	1.69	0.34	0.58	0.00	0.94	0.00	36	
3630	WING WALLS STATIONARY	940	0.21	0.31	0.07	0.11	0.00	0.17	0.00	9	
3635	TUNNEL EXTENSION W/WING WALLS	4,917	1.07	1.60	0.33	0.56	0.00	0.89	0.00	61	
3640	SINGLE DECK SCREEN SB-70 7'X42	3,780	0.83	1.24	0.25	0.43	0.00	0.69	0.00	19	
3645	DOUBLE DECK SCREEN DC-70-42 7'X42	4,641	1.01	1.51	0.30	0.52	0.00	0.84	0.00	26	
3650	TRIPLE DECK SCREEN TC-70-42 7'X42	5,865	1.28	1.92	0.39	0.67	0.00	1.07	0.00	34	
3655	XHD CONVEYOR JACKLEG	742	0.17	0.25	0.05	0.09	0.00	0.14	0.00	9	
3660	101XHD 30'X50' 615 T/HR 56 HP D	25,839	9.11	13.20	1.68	2.79	2.11	4.51	2.72	122	
	OPTIONAL EQUIPMENT SELECT AS NEEDED										
3670	PLATE FEEDER DOZER TRAP MODEL 45	4,420	0.96	1.45	0.29	0.50	0.00	0.81	0.00	42	
3675	BELT FEEDER DOZER TRAP MODEL 65	5,408	1.18	1.77	0.36	0.61	0.00	0.98	0.00	40	
3680	WING WALLS STATIONARY	940	0.21	0.31	0.07	0.11	0.00	0.17	0.00	9	
3685	TUNNEL EXTENSION W/WING WALLS	4,917	1.07	1.60	0.33	0.56	0.00	0.89	0.00	61	
3690	SINGLE DECK SCREEN SB-80 8'X48	4,243	0.92	1.39	0.28	0.48	0.00	0.77	0.00	23	
3695	DOUBLE DECK SCREEN DC-80-48 8'X48	5,388	1.17	1.76	0.36	0.61	0.00	0.98	0.00	35	
3700	TRIPLE DECK SCREEN TC-80-48 8'X48	6,622	1.43	2.17	0.43	0.74	0.00	1.21	0.00	43	
3705	XHD CONVEYOR JACKLEG	742	0.17	0.25	0.05	0.09	0.00	0.14	0.00	9	

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					
LOADERS-BELT (CONT'D) *****														
KOLMAN (CONT'D)														
3710	101XHD 36"X50' 910 T/HR	68 HP D	31,800	11.14	16.13	2.07	3.43	2.56	5.55	3.30	173			
OPTIONAL EQUIPMENT SELECT AS NEEDED														
3720	PLATE FEEDER DOZER TRAP MODEL 45		4,737	1.04	1.55	0.32	0.54	0.00	0.86	0.00	45			
3725	BELT FEEDER DOZER TRAP MODEL 65		5,727	1.25	1.87	0.38	0.65	0.00	1.04	0.00	42			
3730	WING WALLS STATIONARY		940	0.21	0.31	0.07	0.11	0.00	0.17	0.00	9			
3735	TUNNEL EXTENSION W/WING WALLS		4,917	1.07	1.60	0.33	0.56	0.00	0.89	0.00	61			
3740	SINGLE DECK SCREEN SB-90 9'X54		4,790	1.04	1.57	0.32	0.54	0.00	0.87	0.00	28			
3745	DOUBLE DECK SCREEN DC-90-54 9'X54		6,034	1.31	1.98	0.40	0.68	0.00	1.10	0.00	43			
3750	TRIPLE DECK SCREEN TC-90-54 9'X54		8,030	1.75	2.63	0.54	0.91	0.00	1.46	0.00	54			
3755	XHD CONVEYOR JACKLEG		742	0.17	0.25	0.05	0.09	0.00	0.14	0.00	9			
3760	101XHD 42"X50' 1260 T/HR	84 HP D	37,097	13.18	19.09	2.40	3.99	3.16	6.47	4.07	204			
OPTIONAL EQUIPMENT SELECT AS NEEDED														
3770	PLATE FEEDER DOZER TRAP MODEL 45		5,051	1.11	1.64	0.34	0.58	0.00	0.91	0.00	48			
3775	BELT FEEDER DOZER TRAP MODEL 65		6,581	1.43	2.15	0.43	0.74	0.00	1.19	0.00	45			
3780	WING WALLS STATIONARY		940	0.21	0.31	0.07	0.11	0.00	0.17	0.00	9			
3785	TUNNEL EXTENSION W/WING WALLS		4,917	1.07	1.60	0.33	0.56	0.00	0.89	0.00	61			
3790	SINGLE DECK SCREEN SB-100		5,985	1.30	1.96	0.39	0.67	0.00	1.09	0.00	37			
3795	DOUBLE DECK SCREEN DC-100-60 10'X		7,454	1.63	2.43	0.50	0.85	0.00	1.35	0.00	55			
3800	TRIPLE DECK SCREEN TC-100-60 10'X		9,333	2.03	3.06	0.62	1.05	0.00	1.70	0.00	68			
3805	XHD CONVEYOR JACKLEG		742	0.17	0.25	0.05	0.09	0.00	0.14	0.00	9			

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						
<b>LOADERS-BELT (CONT'D)</b>															
<b>KOLMAN (CONT'D)</b>															
3810	101XHD 48"X50' 1700 T/HR	125 HP D	67,662	21.99	31.88	4.41	7.36	4.70	11.90	6.06	287				
OPTIONAL EQUIPMENT SELECT AS NEEDED															
3820	PLATE FEEDER DOZER TRAP MODEL 45		7,960	1.73	2.60	0.53	0.90	0.00	1.44	0.00	51				
3825	WING WALLS STATIONARY		940	0.21	0.31	0.07	0.11	0.00	0.17	0.00	9				
3830	TUNNEL EXTENSION W/WING WALLS		5,490	1.19	1.80	0.37	0.62	0.00	1.00	0.00	66				
3835	SINGLE DECK SCREEN SB-120 12'X		7,487	1.63	2.46	0.50	0.85	0.00	1.37	0.00	53				
3840	DOUBLE DECK SCREEN DC-120-72 12'X		9,205	2.01	3.01	0.62	1.05	0.00	1.67	0.00	77				
3845	TRIPLE DECK SCREEN TC-120-60 12'X		10,483	2.29	3.42	0.70	1.19	0.00	1.90	0.00	80				
3850	XHD CONVEYOR JACKLEG		742	0.17	0.25	0.05	0.09	0.00	0.14	0.00	9				
3855	303 48"X50' 2000 CY/HR	125 HP D	111,415	31.64	46.32	7.29	12.27	4.70	19.77	6.06	627				
3860	303 48"X60' 2000 CY/HR	185 HP D	123,941	37.33	54.28	8.11	13.67	6.96	22.02	8.97	662				
3865	303 60"X50' 3600 CY/HR	185 HP D	128,064	38.35	55.79	8.39	14.13	6.96	22.75	8.97	682				
3870	303 60"X60' 3600 CY/HR	290 HP D	147,528	47.92	69.19	9.66	16.28	10.91	26.22	14.07	737				
OPTIONAL EQUIPMENT SELECT AS NEEDED															
3880	SINGLE DECK SCREEN SB-120 12'X		8,338	1.81	2.72	0.55	0.94	0.00	1.51	0.00	53				
3885	DOUBLE DECK SCREEN DC-120-72 12'X		10,239	2.23	3.35	0.68	1.16	0.00	1.86	0.00	77				
3890	TRIPLE DECK SCREEN TC-120-60 12'X		11,665	2.54	3.80	0.77	1.32	0.00	2.11	0.00	80				
3895	SINGLE DECK VIBRATING GRIZZLE 72"W		13,789	3.00	4.50	0.92	1.56	0.00	2.50	0.00	80				
3900	404 48"X50' 2000 CY/HR	185 HP D	140,804	41.37	60.40	9.22	15.53	6.96	25.01	8.97	607				
3905	404 48"X60' 2000 CY/HR	185 HP D	148,018	43.30	63.35	9.69	16.30	6.96	26.25	8.97	638				

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						
<b>LOADERS-BELT (CONT'D)</b>															
*****															
KOLMAN (CONT'D)															
3910	404	60'X50' 3600 CY/HR	290 HP D	165,201	52.18	75.65	10.82	18.23	10.91	29.35	14.07	658			
3915	404	60'X60' 3600 CY/HR	290 HP D	180,845	56.03	81.50	11.84	19.94	10.91	32.11	14.07	709			
OPTIONAL EQUIPMENT SELECT AS NEEDED															
3925		SINGLE DECK SCREEN SB-120	12'X	8,338	1.81	2.72	0.55	0.94	0.00	1.51	0.00	53			
3930		DOUBLE DECK SCREEN DC-120-72	12'X	10,239	2.23	3.35	0.68	1.16	0.00	1.86	0.00	77			
3935		TRIPLE DECK SCREEN TC-120-60	12'X	11,665	2.54	3.80	0.77	1.32	0.00	2.11	0.00	80			
3940		SINGLE DECK VIBRATING GRIZZLE	72"W	13,789	3.00	4.50	0.92	1.56	0.00	2.50	0.00	80			
<b>LOADERS - F.E. TRACK TYPE</b>															
*****															
CASE															
3950	350	3/4 CY	39 HP D	27,642	8.91	12.75	1.82	3.26	1.58	5.14	2.08	125			
3955	450	1 CY	53 HP D	37,622	12.14	17.36	2.48	4.44	2.15	7.00	2.83	160			
3960	850B	1-1/2 CY	72 HP D	50,005	16.21	23.18	3.30	5.90	2.92	9.30	3.85	220			
3965	1150B	2 CY	105 HP D	65,173	21.76	31.03	4.30	7.69	4.26	12.12	5.61	290			
<b>CATERPILLAR</b>															
3975	931	1 CY	62 HP D	36,423	12.35	17.59	2.40	4.29	2.52	6.78	3.31	151			
3980	941B	1-1/2 CY	80 HP D	51,796	17.10	24.41	3.42	6.11	3.25	9.63	4.28	257			
3985	951C	1-3/4 CY	95 HP D	56,062	18.98	27.04	3.70	6.61	3.86	10.43	5.08	270			
3990	955L	2-1/4 CY	130 HP D	76,716	25.98	37.00	5.06	9.05	5.28	14.27	6.95	355			
3995	977L	3-1/4 CY	190 HP D	114,327	38.48	54.86	7.54	13.48	7.71	21.25	10.16	507			

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CWT				
			CONDITION		STAND-BY	ADJUSTABLE ELEMENTS								
			AVERAGE	SEVERE		OWNER-SHIP	FUEL	OWNER-SHIP	FUEL					
<b>LOADERS - F.E. TRACK TYPE (CONT'D)</b>														
<b>*****</b>														
<b>CATERPILLAR (CONT'D)</b>														
4000	983	5 CY	275 HP D	174.249	57.83	82.53	11.49	20.54	11.16	32.39	14.70	783		
FIAT-ALLIS														
4010	FL9	1-5/8 CY	87 HP D	47.985	16.56	23.57	3.16	5.66	3.53	8.93	4.65	272		
4015	FL10C	1-7/8 CY	122 HP D	61.912	21.91	31.12	4.08	7.30	4.95	11.51	6.52	312		
4020	FL14C	2-1/2 CY	150 HP D	76.980	27.14	38.57	5.07	9.07	6.09	14.31	8.02	436		
INTERNATIONAL														
4030	100-E	1 CY	65 HP D	36.454	12.52	17.82	2.40	4.30	2.64	6.78	3.47	160		
4035	125-E	1-1/4 CY	78 HP D	43.498	14.95	21.29	2.86	5.12	3.17	8.09	4.17	198		
4040	175-C	2 CY	134 HP D	67.001	23.83	33.81	4.42	7.90	5.44	12.45	7.16	317		
4045	250-C	2-3/4 CY	190 HP D	98.784	34.70	49.31	6.51	11.65	7.71	18.37	10.16	443		
JOHN DEERE														
4055	JD350-C	3/4 CY	42 HP D	26.700	8.85	12.63	1.76	3.15	1.70	4.96	2.25	119		
4060	JD450-C	1-1/4 CY	65 HP D	35.673	12.32	17.53	2.35	4.20	2.64	6.63	3.47	167		

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				
<b>LOADERS - F.E. WHEEL TYPE</b>													
<b>BOBCAT</b>													
4070	MOD 630	1/2 CY SKID-STEER	30 HP	G	9,053	5.11	7.06	0.59	1.05	2.46	1.67	3.20	34
<b>CASE</b>													
4080	W-14	1-1/2 CY ARTIC	83 HP	D	46,140	14.14	20.67	3.01	5.28	3.12	8.39	4.03	148
4085	W-18	2 CY ARTIC	103 HP	D	56,695	17.49	25.62	3.70	6.48	3.87	10.29	5.00	199
4090	W-24 C	2-1/2 CY ARTIC	132 HP	D	78,541	24.32	36.35	5.08	8.82	4.97	14.06	6.40	236
4095	W-36	3-1/2 CY ARTIC	185 HP	D	94,068	30.76	45.89	6.07	10.52	6.96	16.78	8.97	332
<b>CATERPILLAR</b>													
4105	920	1-3/4 CY ARTIC	80 HP	D	49,616	14.67	21.48	3.24	5.69	3.01	9.03	3.88	183
4110	930	2-1/4 CY ARTIC	100 HP	D	57,291	17.44	25.59	3.73	6.54	3.76	10.40	4.85	205
4115	950	3 CY ARTIC	130 HP	D	78,561	23.92	35.48	5.10	8.89	4.89	14.15	6.31	284
4120	966-C	4 CY ARTIC	170 HP	D	103,210	31.80	47.59	6.67	11.59	6.40	18.48	8.25	374
4125	980-C	5-1/4 CY ARTIC	270 HP	D	148,559	45.29	67.46	8.99	15.34	10.16	24.13	13.10	577
4130	988-B	7 CY ARTIC	375 HP	D	224,064	67.23	100.92	13.54	23.05	14.11	36.28	18.19	888
4135	992-C	12-1/2 CY ARTIC	690 HP	D	453,814	135.76	207.24	27.28	46.13	25.96	72.82	33.47	1908
<b>CLARK</b>													
4145	35C	1-1/4 CY	74 HP	D	42,752	12.80	18.61	2.80	4.94	2.78	7.82	3.59	171
4150	55-B	2 CY ARTIC	114 HP	D	60,629	18.82	27.42	3.96	6.95	4.29	11.03	5.53	247
4155	75-B	2-1/2 CY ARTIC	142 HP	D	81,639	25.38	37.75	5.29	9.21	5.34	14.66	6.89	303
4160	125B	3-1/2 CY ARTIC	212 HP	D	110,228	36.42	54.99	7.08	12.18	7.98	19.48	10.28	419

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						
<b>LOADERS - F.E. WHEEL TYPE (CONT'D)</b>															
*****															
CLARK (CONT'D)															
4165	175-B	4-1/2 CY ARTIC	273 HP D	139,041	43.65	65.07	8.40	14.31	10.27	22.53	13.24	527			
4170	275-B	6-1/2 CY ARTIC	344 HP D	195,748	58.82	87.48	11.86	20.27	12.94	31.86	16.69	739			
4175	475-B	12 CY ARTIC	632 HP D	379,488	115.24	174.44	22.86	38.75	23.78	61.11	30.66	1544			
FIAT-ALLIS															
4185	345-B	1-3/4 CY ARTIC	80 HP D	47,567	14.26	20.89	3.10	5.45	3.01	8.66	3.88	174			
4190	545-B	2 CY ARTIC	102 HP D	58,259	17.75	26.02	3.80	6.66	3.84	10.58	4.95	217			
4195	605-B	2-1/2 CY ARTIC	108 HP D	61,466	18.71	27.36	4.01	7.04	4.06	11.17	5.24	238			
4200	645-B	3 CY ARTIC	151 HP D	80,610	25.43	37.53	5.23	9.14	5.68	14.54	7.33	286			
4205	745-C	4 CY ARTIC	202 HP D	107,297	35.30	53.46	6.88	11.83	7.60	18.94	9.80	418			
4210	945-B	6 CY ARTIC	335 HP D	191,930	59.27	89.79	11.55	19.55	12.60	30.86	16.25	708			
INTERNATIONAL															
4220	515	1-3/4 CY	95 HP D	43,519	14.17	20.54	2.84	4.99	3.57	7.93	4.61	161			
4225	H-60E	2-1/4 CY ARTIC	104 HP D	49,844	16.03	23.32	3.25	5.71	3.91	9.07	5.05	205			
4230	H-90E	4-1/2 CY ARTIC	239 HP D	110,291	35.01	51.31	6.70	11.48	8.99	18.02	11.59	402			
4235	H-100-C	5 CY ARTIC	290 HP D	123,158	41.28	61.31	7.43	12.63	10.91	19.89	14.07	487			
4240	560	6-1/2 CY ARTIC	380 HP D	184,588	58.51	86.75	11.17	19.05	14.30	29.97	18.43	796			
4245	H-400-C	11 CY ARTIC	580 HP D	330,024	100.69	151.16	19.93	33.89	21.82	53.37	28.14	1254			

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS			CWT				
			CONDITION	AVERAGE	SEVERE	STAND-BY	OWNER-SHIP	FUEL					
<b>LOADERS - F.E. WHEEL TYPE (CONT'D)</b>													
<del>XXXXXXXXXXXXXXXXXXXXXX</del>													
<b>TEREX (GM)</b>													
4255	72-31B	3 CY ARTIC	160 HP D	77,364	25.26	37.17	5.02	8.75	6.02	13.94	7.76	277	
4260	72-51B	4 CY ARTIC	231 HP D	110,271	35.69	53.40	6.65	11.28	8.69	17.78	11.21	392	
4265	72-61	5-1/2 CY ARTIC	307 HP D	144,113	47.08	70.58	8.68	14.71	11.55	23.20	14.89	562	
4270	72-71B	7-1/2 CY ARTIC	388 HP D	200,210	61.82	91.46	12.14	20.76	14.60	32.62	18.82	846	
4275	72-81	9 CY ARTIC	434 HP D	303,607	85.86	128.16	18.42	31.53	16.33	49.53	21.05	1149	
<b>YALE</b>													
4285	1500-C	1-3/4 CY ARTIC	98 HP D	44,401	14.50	20.98	2.90	5.10	3.69	8.09	4.75	166	
4290	1700-C	2 CY ARTIC	136 HP G	52,628	25.95	36.56	3.43	6.00	11.13	9.53	14.50	193	
4295	1900-C	2-1/4 CY ARTIC	136 HP D	55,404	18.98	27.48	3.61	6.33	5.12	10.05	6.60	203	
4300	2000-C	3 CY ARTIC	165 HP D	74,036	24.86	36.52	4.80	8.36	6.21	13.31	8.00	278	
4305	2500-C	3-3/4 CY ARTIC	182 HP D	94,978	31.59	47.93	6.08	10.44	6.85	16.72	8.83	369	
4310	3000-C	4-1/4 CY ARTIC	255 HP D	99,352	34.46	51.10	5.99	10.16	9.59	16.02	12.37	409	
4315	5500-C	5-1/2 CY ARTIC	320 HP D	141,194	45.94	67.67	8.55	14.61	12.04	22.98	15.52	590	
4320	7500-C	6-1/2 CY ARTIC	400 HP D	190,397	61.62	92.11	11.48	19.49	15.05	30.71	19.40	778	

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					
<b>LOADER-BACKHOE IND. TYPE TRACTOR</b>														
<b>CASE</b>														
4330	580C LDR/BHOE	7/8 CY FE BUCKET	55 HP D	30,507	8.92	12.86	2.00	3.54	2.07	5.60	2.67	114		
			24" B/H DIPPER											
4335	680E LDR/BHOE	1-1/4 CY FE BUCKET	80 HP D	44,681	13.09	18.95	2.93	5.16	3.01	8.18	3.88	152		
			30" B/H DIPPER											
<b>JOHN DEERE</b>														
4345	410 LDR/BHOE	1 CY FE BUCKET	66 HP D	31,424	9.78	14.17	2.05	3.60	2.48	5.72	3.20	137		
			24" B/H DIPPER											
4350	510B LDR/BHOE	1-1/2 CY FE BUCKET	83 HP D	47,628	13.88	20.15	3.11	5.48	3.12	8.70	4.03	205		
			30" B/H DIPPER											
<b>LOADER-BACKHOE CRLR TYPE TRACTOR</b>														
<b>CASE</b>														
4360	350 LDR/BHOE	3/4 CY FE BUCKET	39 HP D	37,715	11.36	16.35	2.48	4.44	1.58	7.02	2.08	141		
			24" B/H DIPPER											
4365	450 LDR/BHOE	1 CY FE BUCKET	53 HP D	47,652	14.58	20.93	3.15	5.62	2.15	8.86	2.83	167		
			24" B/H DIP											
<b>CATERPILLAR</b>														
4375	931 LDR/BHOE	1 CY FE BUCKET	62 HP D	44,816	14.40	20.58	2.96	5.29	2.52	8.33	3.31	187		
			30" B/H DIPPER											

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	
<b>LOADER-BACKHOE ATTACHMENT'S</b> *****										
4385	IMPACTOR WITH TAMPER TOOL	9,511	3.42		0.77	1.66	0.00			12
4390	IMPACTOR WITH CHISEL TOOL	8,971	3.23		0.73	1.57	0.00			11
<b>PILE EXTRACTORS</b> *****										
MKT CORPORATION										
4400	E2            700 FT-LBS	400CFM A	10,855	3.99	0.88	1.90	0.00			26
4405	E4            1000 FT-LBS	550CFM A	16,686	6.03	1.35	2.92	0.00			45
<b>VULCAN</b>										
4415	400A            500 FT-LBS	450CFM A	13,656	4.97	1.11	2.39	0.00			29
4420	800A            1000 FT-LBS	900CFM A	18,431	6.63	1.50	3.22	0.00			55
4425	1200A            1640 FT-LBS	1350CFM A	21,573	7.74	1.76	3.78	0.00			92
<b>PILE HAMMERS-DIESEL</b> ***** (FUEL NOT INCLUDED)										
MKT CORPORATION										
4435	DE-20B/30B (6-FT) 12,000 FT-LBS		27,677	9.71	2.25	4.84	0.00			74
4440	DE-20B/30B (6-FT) 16,800 FT-LBS		28,796	10.11	2.34	5.04	0.00			82
4445	DE-50B/70B (6-FT) 30,000 FT-LBS		52,137	18.25	4.23	9.12	0.00			138
4450	DE-50B/70B (6-FT) 42,000 FT-LBS		55,383	19.38	4.49	9.68	0.00			158

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					
<b>PILE HAMMERS-SINGLE ACTING</b>													
<b>VULCAN</b>													
4460	1	15000 FT-LBS	750CFM A	23.383	8.36	1.90	4.09	0.00	101				
4465	106	19000 FT-LBS	750CFM A	29.634	10.55	2.41	5.19	0.00	121				
4470	06	19500 FT-LBS	900CFM A	26.777	9.56	2.18	4.69	0.00	121				
4475	08	26000 FT-LBS	1100CFM A	30.109	10.71	2.44	5.26	0.00	178				
4480	010	32500 FT-LBS	1350CFM A	32.984	11.72	2.68	5.77	0.00	198				
4485	014	42000 FT-LBS	1750CFM A	47.573	16.81	3.86	8.32	0.00	283				
4490	016	48750 FT-LBS	1750CFM A	56.404	19.89	4.57	9.86	0.00	320				
4495	020	60000 FT-LBS	2150CFM A	59.996	21.14	4.87	10.49	0.00	425				
4500	030	90000 FT-LBS	2350CFM A	87.693	30.82	7.12	15.34	0.00	550				
<b>PILE HAMMERS-DOUBLE ACTING</b>													
<b>MKT CORPORATION</b>													
4510	9-B-3	8750 FT-LBS	900CFM A	20.093	7.21	1.63	3.51	0.00	72				
4515	10-B-3	13100 FT-LBS	1200CFM A	25.897	9.24	2.10	4.53	0.00	111				
4520	11-B-3	19150 FT-LBS	1200CFM A	33.603	11.93	2.73	5.88	0.00	138				
4525	5 (SELF STOP)	1000 FT-LBS	375CFM A	7.688	2.88	0.62	1.34	0.00	16				
4530	6 (SELF STOP)	2500 FT-LBS	600CFM A	9.241	3.43	0.75	1.62	0.00	30				
4535	7 (SELF STOP)	4150 FT-LBS	750CFM A	12.467	4.55	1.01	2.18	0.00	49				

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			
<b>PILE HAMMERS-DOUBLE ACTING (CONT'D)</b>												
<b>VULCAN</b>												
4545	50C	15100 FT-LBS	1250CFM A	27,960	9.96	2.27	4.89	0.00	127			
4550	65C	19200 FT-LBS	1450CFM A	32,074	11.40	2.60	5.61	0.00	158			
4555	80C	24450 FT-LBS	1750CFM A	32,895	11.68	2.67	5.75	0.00	191			
4560	100C	32900 FT-LBS	2050CFM A	33,701	11.96	2.73	5.89	0.00	232			
4565	140C	36000 FT-LBS	2150CFM A	44,498	15.73	3.61	7.78	0.00	287			
4570	200C	50200 FT-LBS	2550CFM A	67,207	23.66	5.45	11.75	0.00	422			
4575	400C	113500 FT-LBS	5800CFM A	183,406	64.24	14.88	32.08	0.00	850			
<b>PILE HAMMERS-VIBRATORY</b>												
<b>HKT CORPORATION</b>												
4585	V5	WITH POWER PACK	59 HP D	47,024	19.26	3.82	8.23	2.22	131			
4590	V16	WITH POWER PACK	156 HP D	93,713	40.24	7.61	16.40	5.87	225			
4595	V18	WITH POWER PACK	248 HP D	135,999	59.43	11.04	23.79	9.33	304			
<b>PIPELAYER</b>												
<b>CATERPILLAR</b>												
4605	561D	15 FT BOOM, 40,000 LB CAP 105 HP D	81,085	14.54	21.40	5.06	8.56	2.18	13.50			
4610	571G	18 FT BOOM, 60,000 LB CAP 200 HP D	137,656	25.30	37.09	8.59	14.54	4.16	22.92			
4615	572G	18 FT BOOM, 90,000 LB CAP 200 HP D	157,597	28.16	41.44	9.83	16.64	4.16	26.24			
4620	583K	20 FT BOOM, 140,000 LB CAP 300 HP D	204,226	37.62	55.14	12.74	21.57	6.24	34.00			
									900			

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CMT
			CONDITION	AVERAGE	SEVERE	STAND-BY	OWNER-SHIP	FUEL	OWNER-SHIP	
	PIPELAYER (CONT'D) *****									
	CATERPILLAR (CONT'D)									
4625	594G 24 FT BOOM, 200,000 LB CAP 410 HP D	290.843	53.09	77.91	18.15	30.72	8.52	48.42	10.96	1230
	PUMPS-GROUT *****									
	G.M. PHILPOTT GROUT UNITS WITH GARDNER-DENVER PUMPS									
4635	SSF2-10 W/ (2 EA) FG-AG 5" X 3" X 6" PUMPS UNIT INCLUDES (2)-10 C.F. TANKS, AUTO. WATER METER, FITTINGS, HOSES & SKID MOUNTING CAPACITY: 21 GPM @ 252 PSI TO 60 GPM @ 90 PSI	600CFM A	19.883	5.57		1.43	2.82	0.00		64
4640	SSF2-20 W/ (2 EA) FD-FS 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	900CFM A	31.112	8.69		2.23	4.42	0.00		107
	PUMPS-WATER-FOR CORE DRILLS *****									
	LONGYEAR									
4650	520 RQ 5.7-20 GPM UP TO 600PSI	10 HP G	4.117	2.37		0.27	0.50	1.13		7
4655	535 RQ 9.9-35 GPM UP TO 800PSI	15 HP G	5.262	3.36		0.35	0.64	1.69		10

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					
<b>PUMPS-WATER-CENTRIF. -DEWATERING</b>													
*****													
HOMELITE, SKID MOUNTED													
4665	MOD 110S 1-1/2"-5000 GPH @ 30' H 2 HP G	336	0.38			0.03	0.05	0.23	1				
4670	MOD 111S 2" - 9000 GPH @ 22' H 3 HP G	376	0.53			0.03	0.05	0.34	1				
4675	MOD 120SP 3" - 18000 GPH @ 20' H 6 HP G	567	1.02			0.04	0.07	0.68	2				
MARLOW, WHEEL MOUNTED													
4685	MOD 4D2 465 GPM @ 20' HEAD 59 HP G	6,149	10.11			0.41	0.75	6.66	14				
4690	MOD 4D2 470 GPM @ 20' HEAD 47 HP D	7,995	5.13			0.53	0.98	2.47	15				
4695	MOD 6E4A 1095 GPM @ 20' HEAD 117 HP G	7,341	18.99			0.48	0.89	13.20	18				
4700	MOD 6E4A 1090 GPM @ 20' HEAD 80 HP D	11,690	8.32			0.77	1.43	4.20	24				
4705	MOD 8FA3 2200 GPM @ 20' HEAD 108 HP D	14,312	10.89			0.94	1.74	5.67	23				
4710	MOD 1061 2840 GPM @ 20' HEAD 108 HP D	15,940	11.25			1.05	1.95	5.67	30				
<b>PUMPS-WATER-CENTRIF. -TRASH</b>													
*****													
HOMELITE, SKID MOUNTED													
4720	MOD 121TP 2" - 11500 GPH @ 20' H 4 HP G	535	0.71			0.04	0.07	0.45	2				
4725	MOD 122TP 3" - 21600 GPH @ 20' H 4 HP G	732	0.74			0.04	0.08	0.45	3				
4730	MOD 123TP 4" - 36500 GPH @ 20' H 10 HP G	1,336	1.77			0.09	0.16	1.13	4				

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		
	PUMPS-WATER-DIAPHRAGM *****										
	HOMELITE, SKID MOUNTED										
4740	MOD 111DP 2" - 1900 GPH @ 10' HD 4 HP G	629	0.73		0.04	0.08	0.45			2	
4745	MOD 111DP 3" - 4140 GPH @ 10' HD 4 HP G	1,415	0.90		0.10	0.18	0.45			3	
	PUMPS-WATER-SUBMERSIBLE *****										
	HOMELITE										
4755	MOD SP-2 2" - 7400 GPH @ 10' HD 2 HP E	692	0.27		0.04	0.08	0.11			1	
4760	MOD SP-3 3" - 19000 GPH @ 15' HD 5 HP E	1,240	0.60		0.08	0.15	0.27			2	
	RIPPER & HYDR. BANK SLOPER ***** (DOES NOT INCLUDE COST OF POINT WEAR)										
	ATECO										
4770	VRAR-1 D9H RADIAL LIFT	29,742	7.69	11.87	2.13	4.23	0.00	6.70	0.00	136	
4775	D-9H SHANKS EA	2,269	0.58	0.90	0.16	0.32	0.00	0.51	0.00	15	
4780	LPAS-D8K PARALLEL LIFT	16,885	4.39	6.77	1.21	2.40	0.00	3.81	0.00	87	
4785	D-8K SHANKS EA	3,160	0.81	1.26	0.23	0.45	0.00	0.72	0.00	19	
4790	LPAS-D7G PARALLEL LIFT	13,521	3.52	5.43	0.97	1.92	0.00	3.05	0.00	45	
4795	D-7G SHANKS EA	2,248	0.58	0.90	0.16	0.32	0.00	0.51	0.00	10	
4800	PS D6B RADIAL LIFT	6,553	1.73	2.66	0.47	0.93	0.00	1.48	0.00	24	
4805	D-6C SHANKS EA	215	0.05	0.10	0.02	0.03	0.00	0.06	0.00	1	
4810	V-LPRF-TD25C PARALLEL LIFT STD SVC	15,085	3.92	6.05	1.08	2.14	0.00	3.40	0.00	89	
4815	TD-25C SHANKS EA	1,362	0.36	0.54	0.10	0.20	0.00	0.31	0.00	8	

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															
<b>RIPPER &amp; HYDR. BANK SLOPER (CONT'D)</b> ***** <b>(DOES NOT INCLUDE COST OF POINT WEAR)</b>																			
<b>ATECO (CONT'D)</b>																			
4820	V-LPRF-TD20E PARALLEL LIFT STD SVC	11,041	2.89	4.45	0.79	1.57	0.00	2.50	0.00	51									
4825	TD-20E SHANKS EA	994	0.25	0.39	0.07	0.14	0.00	0.22	0.00	4									
4830	PS-TD15C RADIAL LIFT	6,215	1.65	2.52	0.45	0.89	0.00	1.40	0.00	22									
4835	TD-15C SHANKS EA	215	0.05	0.10	0.02	0.03	0.00	0.06	0.00	1									
4840	V-LPRF 82-50 PARALLEL LIFT STD SVC	17,028	4.42	6.82	1.22	2.42	0.00	3.84	0.00	96									
4845	82-50 SHANKS EA	1,362	0.36	0.54	0.10	0.20	0.00	0.31	0.00	8									
4850	LPRS-82-50 PARALLEL LIFT EXT SVC	16,553	4.30	6.63	1.18	2.35	0.00	3.73	0.00	88									
4855	82-50 SHANKS EA	3,160	0.81	1.26	0.23	0.45	0.00	0.72	0.00	19									
4860	V-LPRF-82-30 PARALLEL LIFT	15,085	3.92	6.05	1.08	2.14	0.00	3.40	0.00	89									
4865	82-30 SHANKS EA	1,362	0.36	0.54	0.10	0.20	0.00	0.31	0.00	8									
4870	D9,D8;82-30,82-50;TD25 HYDR BANK SLOP	6,470	1.43	2.13	0.42	0.79	0.00	1.24	0.00	28									
<b>CATERPILLAR</b>																			
4880	D-10 MULTI-SHANK BEAM	33,855	8.74	13.51	2.42	4.81	0.00	7.63	0.00	150									
4885	D-10 SHANKS EA	2,495	0.64	0.99	0.18	0.35	0.00	0.56	0.00	16									
4890	D-10 SINGLE-SHANK BEAM	36,476	9.37	14.50	2.61	5.18	0.00	8.22	0.00	165									
4895	D-9 MULTI-SHANK BEAM W/HYD-CONTROL	26,579	6.88	10.61	1.91	3.78	0.00	5.99	0.00	132									
4900	D-9 SHANKS EA	1,313	0.33	0.53	0.09	0.18	0.00	0.30	0.00	8									
4905	D-9 SINGLE-SHANK BEAM HYD-CNTL&SHANK	24,738	6.41	9.89	1.77	3.52	0.00	5.58	0.00	124									
4910	D-8 MULTI-SHANK BEAM HYD-CONTROL	18,768	4.87	7.51	1.34	2.67	0.00	4.23	0.00	103									

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					
<b>RIPPER &amp; HYDR. BANK SLOPER (CONT'D)</b>													
***** (DOES NOT INCLUDE COST OF POINT WEAR)													
<b>CATERPILLAR (CONT'D)</b>													
4915	D-8 SHANKS EA	1,259	0.32	0.51	0.09	0.18	0.00	0.29	0.00	7			
4920	D-8 SINGLE-SHANK BEAM HYD-CNTL&SHANK	18,234	4.74	7.30	1.31	2.60	0.00	4.11	0.00	100			
4925	D-7 MULTI-SHANK BEAM HYD-CONTROL	10,879	2.84	4.38	0.78	1.54	0.00	2.46	0.00	53			
4930	D-7 SHANKS EA	656	0.17	0.26	0.05	0.09	0.00	0.15	0.00	4			
4935	D-6 MULTI-SHANK BEAM HYD-CONTROL	6,813	1.80	2.76	0.49	0.97	0.00	1.54	0.00	27			
4940	D-6 SHANKS EA	338	0.09	0.14	0.03	0.05	0.00	0.08	0.00	2			
4945	D-4 MULTI-SHANK BEAM HYD-CONTROL	4,177	1.12	1.71	0.30	0.59	0.00	0.94	0.00	14			
4950	D-4 SHANKS EA	177	0.05	0.07	0.02	0.03	0.00	0.04	0.00	1			
4955	D-3 FIVE-SHANK BEAM HYD-CONTROL	1,866	0.53	0.79	0.14	0.27	0.00	0.42	0.00	6			
4960	D-3 SHANKS EA	100	0.02	0.04	0.00	0.01	0.00	0.02	0.00	1			
<b>FIAT-ALLIS</b>													
4970	41-R W/HYD-CNTL AND 2 SHANKS	38,221	9.87	15.24	2.73	5.43	0.00	8.61	0.00	204			
4975	31-R W/HYD-CNTL AND 2 SHANKS	30,808	7.97	12.29	2.21	4.38	0.00	6.94	0.00	188			
4980	21-R W/HYD-CNTL AND 2 SHANKS	19,830	5.15	7.93	1.42	2.82	0.00	4.47	0.00	108			
4985	16-R W/HYD-CNTL AND 2 SHANKS	12,459	3.25	5.00	0.89	1.77	0.00	2.81	0.00	73			

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.								
					OWNER-SHIP	FUEL	OWNER-SHIP	FUEL						
<b>ROLLERS-RUBBER-TIRED-SELF PROPELLED</b> *****														
INGRAM														
4995	9-2800-P	12 TON	107 HP G	19,911	15.42	1.29	2.38	8.76	77					
5000	9-2800-PA	12 TON	76 HP D	24,507	9.14	1.60	2.94	2.86	89					
5005	11-2700	15 TON	107 HP G	23,745	16.29	1.54	2.83	8.76	89					
5010	11-2700	15 TON	76 HP D	26,116	9.52	1.70	3.12	2.86	91					
5015	13-2300	15 TON	107 HP G	24,221	16.43	1.57	2.88	8.76	94					
5020	13-2300	15 TON	76 HP D	27,270	9.81	1.78	3.26	2.86	96					
5025	9-6000	27 TON	117 HP D	58,209	18.94	3.77	6.87	4.40	208					
5030	7-10000	35 TON	148 HP D	63,301	21.77	4.07	7.35	5.57	241					
<b>ROLLER-RUBBER TIRED-TOWED</b> *****														
5040	FERGUSON RT-100S	50 TON		37,771	8.77	2.35	4.08	0.00	200					
5045	FERGUSON RT-120S	60 TON		44,002	10.18	2.76	4.85	0.00	233					
5050	SOUTHWEST C 75	75 TON		51,860	12.04	3.23	5.64	0.00	347					
5055	SOUTHWEST C 50	50 TON		49,223	11.43	3.08	5.38	0.00	309					

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				
<b>ROLLER-SHEEPS FOOT-DOUBLE DRUM</b>												
<b>*****</b>												
<b>FERGUSON-TOWED</b>												
5065	MOD 112	40"X48"	7,803	1.86		0.52	0.96	0.00	65			
5070	MOD 112W-48	48"X48"	9,967	2.34		0.66	1.22	0.00	105			
5075	MOD 120	60"X60"	15,344	3.55		1.01	1.88	0.00	157			
5080	MOD 120 MODIFIED	60"X60"	29,492	6.73		1.94	3.61	0.00	230			
5085	MOD 120-RE	60"X60"	36,036	8.20		2.37	4.41	0.00	327			
5090	MOD 22	60"X72"	21,278	4.89		1.40	2.61	0.00	215			
5095	MOD 22 MODIFIED	60"X72"	34,344	7.82		2.26	4.20	0.00	269			
5100	MOD 144-RE	60"X72"	42,048	9.56		2.77	5.15	0.00	385			
<b>CATERPILLER-SELF PROPELLED</b>												
5110	815	40.5"X38"	170 HP D	88,102	27.74	5.79	10.78	6.40	360			
5115	825C	51"X41.5"	300 HP D	157,932	49.51	10.38	19.33	11.29	631			
5120	825C	W/S BLADE	300 HP D	166,396	51.42	10.94	20.37	11.29	683			
<b>HYSTER-SELF PROPELLED</b>												
5130	C455-B	TANDEM	60"X72" ARTIC	330 HP D	159,284	51.20	10.47	19.49	12.41			
									523			

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								
<b>ROLLER-SMOOTH WHEEL-SELF PROPELLED</b> *****															
<b>INGRAM</b>															
5140	8 TON 3 WHEEL 3" OVERLAP	107 HP G	29.433	17.48		1.94	3.60	8.76	124						
5145	8 TON 3 WHEEL 3" OVERLAP	76 HP D	32.484	10.85		2.13	3.97	2.86	126						
5150	12 TON 3 WHEEL 3" OVERLAP	107 HP G	35.787	18.91		2.36	4.38	8.76	203						
5155	12 TON 3 WHEEL 3" OVERLAP	86 HP D	38.838	12.75		2.55	4.75	3.24	205						
5160	14 TON 3 WHEEL 3" OVERLAP	107 HP G	38.030	19.41		2.50	4.65	8.76	241						
5165	14 TON 3 WHEEL 3" OVERLAP	86 HP D	41.081	13.25		2.70	5.02	3.24	243						
5170	4-6 TON 2 WHEEL TANDEM	53 HP G	18.066	9.44		1.19	2.21	4.34	82						
5175	6-9 TON 2 WHEEL TANDEM	107 HP G	24.363	16.34		1.60	2.98	8.76	133						
5180	6-9 TON 2 WHEEL TANDEM	76 HP D	27.414	9.71		1.80	3.35	2.86	135						
5185	8-12 TON 2 WHEEL TANDEM	107 HP G	29.495	17.49		1.94	3.61	8.76	171						
5190	8-12 TON 2 WHEEL TANDEM	76 HP D	32.545	10.86		2.14	3.98	2.86	173						
5195	10-14 TON 2 WHEEL TANDEM	107 HP G	32.064	18.07		2.11	3.92	8.76	258						
5200	10-14 TON 2 WHEEL TANDEM	76 HP D	35.125	11.45		2.31	4.30	2.86	262						

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES		ADJUSTABLE ELEMENTS				CMT			
			CONDITION	STAND-BY	AVERAGE COND.	SEVERE COND.	OWNER-SHIP	FUEL				
ROLLER-VIBRATORY												
*****												
TF=ROLLER W/TAMPING FEET												
TOWED												
5210	FERGUSON 652 TF 60"X60" 9 TON 49 HP D	27,681	12.08		1.97	3.77	2.57		125			
5215	SOUTHWEST 756 TF 66"X78" 20 TON 75 HP D	55,382	22.68		3.95	7.55	3.94		240			
5220	FERGUSON 230 66"X78" 20 TON 66 HP D	41,276	17.56		2.95	5.63	3.46		234			
5225	FERGUSON 230 TF 66 HP D	45,073	18.78		3.22	6.15	3.46		266			
5230	HYSTER C200B 48"X60" 12.5 TON 36 HP D	22,102	9.45		1.58	3.02	1.89		87			
5235	HYSTER C210A TF 58"X60" 14 TON 39 HP D	25,935	10.88		1.85	3.54	2.05		100			
SELF PROPELLED SINGLE DRUM												
5245	VIBRO PLUS CA-25 60"X84" 23 TON 125 HP D	50,154	24.31		3.55	6.72	6.56		198			
5250	VIBRO PLUS CA-25S 61"X84" 28 TON 125 HP D	53,311	25.33		3.77	7.15	6.56		203			
5255	VIBRO PLUS CA-25PD 60"X48" 30 TON 125 HP D	61,694	28.02		4.37	8.29	6.56		240			
5260	RAYGO RASCAL 400A 59"X84" ARTIC 88 HP D	55,097	23.50		3.90	7.41	4.62		197			
5265	RAYGO RASCAL 600A 60"X100" 119 HP D	68,250	29.75		4.83	9.16	6.24		288			
5270	I-RAND SP-60 60"X100" 210 HP D	109,424	49.06		7.71	14.53	11.02		450			
5275	I-RAND SPF-54 TF 54"X85" 120 HP D	63,547	28.28		4.51	8.58	6.30		264			
5280	FERGUSON SP 75D 120 HP D	54,253	25.31		3.84	7.29	6.30		179			
5285	FERGUSON SP 75DT TF 120 HP D	61,928	27.78		4.38	8.32	6.30		217			
5290	FERGUSON SP 230D 148 HP D	64,364	30.38		4.56	8.67	7.77		302			

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES				ADJUSTABLE ELEMENTS				CWT										
			CONDITION		STAND-BY	OWNER-SHIP	FUEL	OWNER-SHIP	FUEL												
			AVERAGE	SEVERE																	
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	86,033	29.39	41.62	5.52	9.97	5.79	15.67	7.57	311								
5305	621-B	24 T	14-20 CY P.S.	330 HP D	171,404	54.26	80.98	10.95	19.70	11.43	31.03	15.03	640								
5310	623-B	25 T	22 CY P.S.	330 HP D	190,950	61.92	88.21	12.24	22.10	12.74	34.76	16.66	702								
5315	627-B	24 T	14-20 CY P.S.	225/225 HP D/D	200,782	71.31	100.68	12.88	23.30	16.48	36.63	21.38	715								
5320	627-B PP	24 T	14-20 CY P.S.	225/225 HP D/D	213,461	73.87	104.44	13.71	24.85	16.48	39.03	21.38	757								
5325	631-D	37.5T	21-31 CY P.S.	450 HP D	262,476	80.46	120.32	16.78	30.23	15.59	47.58	20.49	876								
5330	633-D	37.5T	34 CY P.S.	450 HP D	299,696	93.39	133.43	19.23	34.78	17.37	54.67	22.72	996								
5335	637-D	37.5T	21-31 CY P.S.	450/255 HP D/D	323,296	112.69	159.21	20.78	37.67	25.82	59.16	33.50	983								
5340	637-D PP	37.5T	21-31 CY P.S.	450/255 HP D/D	337,499	115.57	163.44	21.71	39.41	25.82	61.87	33.50	1018								
5345	641-B	47 T	28-38 CY P.S.	550 HP D	326,977	100.33	150.52	20.87	37.51	19.06	59.10	25.05	1155								
5350	651-B	52 T	32-44 CY P.S.	550 HP D	340,703	103.11	154.60	21.77	39.19	19.06	61.72	25.05	1179								
5355	657-B	52 T	32-44 CY P.S.	550/400 HP D/D	420,918	154.69	218.35	26.85	48.23	34.80	76.01	45.14	1408								
CLARK																					
5365	110-11B	13 T	11 CY P.S.	174 HP D	91,664	32.49	45.98	5.85	10.53	6.72	16.58	8.79	345								
5370	110-15	18 T	15 CY P.S.	232 HP D	121,764	40.82	58.05	7.78	14.03	8.96	22.09	11.71	456								
5375	110-TB	19 T	16 CY P.S.	140/140 HP D/D	161,610	54.68	77.57	10.38	18.80	10.81	29.54	14.14	521								
5380	210-HB	26.5T	23 CY P.S.	324 HP D	193,964	62.26	88.74	12.44	22.47	12.51	35.32	16.36	710								

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				
<b>SCRAPERS-SELF PROPELLED (CONT'D)</b>													
<del>XXXXXXXXXXXXXXXXXXXXXX</del> (CAPACITY AS RECOMMENDED BY MFGR HP & FUEL LISTED TRACTOR/SCRAPER PP = PUSH PULL ATTACHMENT)													
<b>FIAT-ALLIS</b>													
5390	161	18.7 T 15 CY P.S. 229 HP D	125,933	44.36	62.83	8.03	14.42	8.84	22.73	11.56	448		
5395	260B	25 T 15-21 CY P.S. 325 HP D	172,714	54.30	81.09	11.03	19.86	11.26	31.29	14.80	586		
5400	261B	26.5T 23 CY P.S. 325 HP D	199,573	63.46	90.51	12.80	23.15	12.55	36.39	16.41	639		
5405	262B	25 T 15-21 CY P.S. 325/171 HP D/D	204,036	70.80	102.69	13.10	23.70	17.19	37.24	22.59	681		
5410	263-B	26.5 T 23 CY P.S. 325/171 HP D/D	233,355	85.09	120.20	14.93	26.93	19.15	42.38	25.04	744		
<b>INTERNATIONAL</b>													
5420	412	13 T 11 CY P.S. 150 HP D	82,129	28.94	40.98	5.24	9.41	5.79	14.83	7.57	308		
5425	431B	24 T 14-21 CY P.S. 326 HP D	159,087	51.59	77.09	10.14	18.19	11.30	28.69	14.85	594		
5430	433B	24 T 14-21 CY P.S. 126/185 HP D/D	186,662	62.10	88.22	11.96	21.58	11.39	33.93	14.78	690		
5435	442B	25 T 22 CY P.S. 326 HP D	181,101	59.68	84.96	11.58	20.89	12.59	32.88	16.46	680		
5440	444B	25 T 22 CY P.S. 326/185 HP D/D	214,149	80.25	113.07	13.72	24.78	19.73	38.98	25.80	805		
<b>JOHN DEERE</b>													
5450	JD762	13.7 T 11 CY P.S. 175 HP D	92,712	32.55	46.05	5.93	10.70	6.76	16.85	8.84	345		
5455	JD860-B	18.7 T 15 CY P.S. 215 HP D	119,917	39.33	56.01	7.68	13.86	8.30	21.80	10.86	451		
<b>TEREX (GM)</b>													
5465	S-23E	26.5T 23 CY P.S. 310 HP D	178,083	59.18	84.36	11.34	20.34	11.97	32.08	15.65	655		
5470	S-24B	40 T 24-34 CY P.S. 475 HP D	277,066	85.17	127.56	17.70	31.84	16.46	50.15	21.63	931		

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														
<b>SCRAPERS-SELF PROPELLED (CONT'D)</b>																		
***** (CAPACITY AS RECOMMENDED BY MFGR HP & FUEL LISTED TRACTOR/SCRAPER PP = PUSH PULL ATTACHMENT)																		
<b>TEREX (GM) (CONT'D)</b>																		
5475	TS-14B 23.5T 14-20 CY P.S. 144/144 HP D/D	171,817	57.49	81.65	11.00	19.83	10.55	31.20	13.69	528								
5480	TS-18 30 T 18-24 CY P.S. 295/225 HP D/D	232,787	83.81	118.33	14.90	26.87	19.05	42.28	24.71	720								
5485	TS-24 40 T 24-32 CY P.S. 394/225 HP D/D	314,535	109.12	154.49	20.14	36.34	22.67	57.17	29.41	932								
5490	TS-24B 52 T 24-34 CY P.S. 475/242 HP D/D	340,641	118.04	166.89	21.88	39.63	26.26	62.26	34.07	1050								
<b>WABCO</b>																		
5500	101G 13 T 11 CY P.S. 161 HP D	86,057	30.88	43.75	5.47	9.78	6.22	15.45	8.13	317								
5505	222H 25 T 22 CY P.S. 332 HP D	184,607	61.60	87.73	11.77	21.14	12.82	33.33	16.76	648								
5510	229H 25 T 15-21 CY P.S. 332 HP D	161,649	53.10	79.74	10.26	18.33	11.50	28.96	15.12	594								
5515	252FT 32 T 27 CY P.S. 332/332 HP D/D	302,340	109.58	154.71	19.40	35.10	25.64	55.18	33.53	1017								
5520	333F 38 T 32 CY P.S. 467 HP D	267,825	87.37	124.47	17.15	30.93	18.03	48.67	23.58	1020								
5525	339F 41 T 25-34 CY P.S. 467 HP D	258,517	80.22	119.75	16.53	29.79	16.18	46.89	21.27	937								
5530	353FT 43 T 36 CY P.S. 493/473 HP D/D	424,943	160.25	226.04	27.12	48.76	37.30	76.81	48.77	1355								
<b>SCRAPER-TRACTOR DRAWN</b>																		
*****																		
5540	ROME 18T 12-17CY HYDR/CONTROL	47,601	9.75	14.28	2.83	4.72	0.00	7.49	0.00	235								
5545	ROME 27T 18-26CY HYDR/CONTROL	67,400	14.01	20.55	3.98	6.59	0.00	10.49	0.00	365								
5550	SOUTHWEST DS18 DRAG SCRAPER 8.8 CY	27,611	5.63	8.26	1.64	2.73	0.00	4.35	0.00	137								

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			
TRACTOR - CRAWLERS											
*****											
CATERPILLAR											
5560	D3	P.S. 62 HP D	25,431	8.84	12.63	1.68	2.88	2.52	4.61	3.31	119
5565	3P	POWER ANGLE & POWER TILT	5,541	1.19	1.78	0.37	0.68	0.00	1.06	0.00	24
5570	D4-E	D.D. 75 HP D	39,662	12.61	18.18	2.63	4.50	3.04	7.20	4.01	176
5575	4A	ANGLE BLADE HYDRAULIC	7,389	1.64	2.41	0.49	0.91	0.00	1.41	0.00	30
5580	4S	STRAIGHT BLADE HYDRAULIC	5,773	1.28	1.90	0.38	0.70	0.00	1.10	0.00	25
5585	D5-B	P.S. 105 HP D	60,326	18.69	27.01	3.99	6.84	4.26	10.95	5.61	269
5590	5A	ANGLE BLADE HYDRAULIC	8,906	1.96	2.90	0.59	1.09	0.00	1.70	0.00	41
5595	5S	STRAIGHT BLADE HYDRAULIC	7,014	1.55	2.30	0.46	0.86	0.00	1.34	0.00	34
5600	D6-D	P.S. 140 HP D	78,138	24.43	35.26	5.17	8.86	5.68	14.17	7.48	264
5605	6S	STRAIGHT BLADE HYDRAULIC	9,360	2.06	3.04	0.62	1.15	0.00	1.78	0.00	47
5610	6A	ANGLE BLADE HYDRAULIC	10,437	2.29	3.39	0.69	1.28	0.00	1.99	0.00	51
5615	D7-G	P.S. 200 HP D	107,272	33.97	48.96	7.10	12.17	8.12	19.46	10.69	373
5620	7S	STRAIGHT BLADE HYDRAULIC	14,627	3.18	4.73	0.97	1.79	0.00	2.79	0.00	77
5625	7U	HYD. UNIVERSAL BLADE	16,004	3.48	5.17	1.05	1.96	0.00	3.05	0.00	84
5630	7A	ANGLE BLADE HYDRAULIC	12,774	2.78	4.13	0.84	1.56	0.00	2.43	0.00	68
5635	D8-K	P.S. 300 HP D	149,615	45.33	63.84	9.34	15.80	12.18	24.91	16.04	606
5640	8S	STRAIGHT BLADE HYDRAULIC	21,355	4.62	6.87	1.40	2.61	0.00	4.06	0.00	121
5645	8U	HYD. UNIVERSAL BLADE	23,519	5.08	7.56	1.54	2.87	0.00	4.47	0.00	133
5650	8A	ANGLE BLADE HYDRAULIC	18,141	3.94	5.85	1.19	2.22	0.00	3.46	0.00	116
5655	PUSH PLATE USE W/BS		544	0.12	0.18	0.04	0.07	0.00	0.11	0.00	4

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					
<b>TRACTOR - CRAWLER (CONT'D)</b>														
<b>*****</b>														
<b>CATERPILLAR (CONT'D)</b>														
5660	D9-H P.S.	410 HP D	220,039	65.08	91.81	13.73	23.24	16.64	36.64	21.92	809			
5665	95 STRAIGHT BLADE HYDRAULIC		27,602	5.95	8.86	1.81	3.37	0.00	5.25	0.00	173			
5670	9A ANGLE BLADE HYDRAULIC		23,556	5.08	7.58	1.54	2.87	0.00	4.49	0.00	152			
5675	9U HYD. UNIVERSAL BLADE		30,167	6.50	9.68	1.98	3.68	0.00	5.74	0.00	190			
5680	9C CUSHION BLADE		21,229	4.60	6.83	1.40	2.60	0.00	4.04	0.00	127			
5685	REAR CUSHION PUSH BLOCK		5,310	1.24	1.80	0.35	0.65	0.00	1.01	0.00	29			
5690	FRONT PUSH PLATE		628	0.15	0.22	0.04	0.08	0.00	0.13	0.00	5			
5695	DUAL D9-H P.S.	820 HP D	465,917	135.36	191.17	29.07	49.21	33.28	77.56	43.84	1851			
5700	D10 P.S.	700 HP D	408,739	113.84	157.91	24.16	40.65	28.41	63.41	37.42	1478			
5705	10S STRAIGHT BLADE HYDRAULIC		44,307	9.54	14.20	2.92	5.42	0.00	8.43	0.00	286			
5710	10U HYD. UNIVERSAL BLADE		48,665	10.47	15.59	3.20	5.95	0.00	9.26	0.00	283			
5715	FRONT PUSH PLATE		958	0.25	0.36	0.06	0.11	0.00	0.19	0.00	7			
5720	REAR PUSH BLOCK		13,857	3.01	4.48	0.91	1.69	0.00	2.64	0.00	46			
<b>FIAT-ALLIS</b>														
5730	8 P.S.	87 HP D	39,894	13.30	19.10	2.64	4.52	3.53	7.24	4.65	189			
5735	8-HA ANGLE BLADE HYDRAULIC		6,514	1.45	2.13	0.43	0.80	0.00	1.24	0.00	30			
5740	8-HSU SEMI-U BLADE HYDRAULIC		6,811	1.51	2.23	0.45	0.83	0.00	1.30	0.00	30			
5745	10-B P.S.	110 HP D	59,328	18.75	27.03	3.93	6.73	4.46	10.76	5.88	256			
5750	10-HA ANGLE BLADE HYDRAULIC		7,252	1.61	2.37	0.48	0.89	0.00	1.38	0.00	36			
5755	10-HSU SEMI-U BLADE HYDRAULIC		7,647	1.69	2.50	0.51	0.94	0.00	1.46	0.00	36			

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CWT				
			CONDITION		STAND-BY	ADJUSTABLE ELEMENTS								
			AVERAGE	SEVERE		OWNER-SHIP	FUEL	OWNER-SHIP	FUEL					
<b>TRACTOR - CRAWLER (CONT'D)</b>														
<b>*****</b>														
<b>FIAT-ALLIS (CONT'D)</b>														
5760	14-C P.S.	150 HP D	82,972	26.02	37.54	5.49	9.41	6.09	15.05	8.02	306			
5765	14-HA ANGLE BLADE HYDRAULIC		11,101	2.43	3.60	0.73	1.36	0.00	2.12	0.00	51			
5770	14-HSU STRAIGHT BLADE HYDRAULIC		11,595	2.52	3.76	0.76	1.41	0.00	2.21	0.00	51			
5775	16-B P.S.	195 HP D	109,618	34.19	49.36	7.25	12.42	7.92	19.88	10.42	453			
5780	16-HA ANGLE BLADE HYDRAULIC		11,820	2.58	3.83	0.77	1.44	0.00	2.25	0.00	66			
5785	16-HS STRAIGHT BLADE HYDRAULIC		12,413	2.70	4.02	0.81	1.51	0.00	2.37	0.00	66			
5790	16-HSU FULL-U BLADE HYDRAULIC		13,686	2.98	4.43	0.90	1.67	0.00	2.61	0.00	81			
5795	21-C P.S.	300 HP D	161,524	47.73	67.33	10.08	17.06	12.18	26.89	16.04	636			
5800	21HSU HYD. SEMI-UNIVERSAL BLADE		21,358	4.62	6.88	1.40	2.61	0.00	4.07	0.00	127			
5805	21-HU FULL-U BLADE HYDRAULIC		20,963	4.53	6.75	1.38	2.56	0.00	3.99	0.00	114			
5810	31 P.S.	425 HP D	246,687	71.21	100.61	15.40	26.06	17.25	41.07	22.72	908			
5815	31-HSU SEMI-U BLADE HYDRAULIC		30,578	6.59	9.82	2.01	3.73	0.00	5.82	0.00	190			
5820	31-HU FULL-U BLADE HYDRAULIC		31,665	6.84	10.16	2.09	3.88	0.00	6.02	0.00	210			
5825	31-HC CUSHION BLADE		22,689	4.90	7.30	1.49	2.77	0.00	4.32	0.00	120			
5830	41-B P.S.	524 HP D	313,944	86.76	120.40	18.55	31.22	21.27	48.71	28.01	1128			
5835	41-HSU SEMI-U BLADE HYDRAULIC		35,728	7.70	11.45	2.35	4.37	0.00	6.79	0.00	222			
5840	41-HU FULL-U BLADE HYDRAULIC		40,767	8.77	13.07	2.68	4.98	0.00	7.76	0.00	254			
5845	41-HC CUSHION BLADE		26,015	5.62	8.36	1.71	3.18	0.00	4.95	0.00	120			

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					
<b>TRACTOR - CRAWLER (CONT'D)</b>														
<b>*****</b>														
<b>INTERNATIONAL</b>														
5855	TD-7-E P. S. W/HYD BLADE	65 HP D	35,737	11.22	16.19	2.36	4.05	2.64	6.48	3.47	139			
5860	TD-8-E P.S. W/HYD BLADE	78 HP D	43,561	13.62	19.66	2.89	4.94	3.17	7.91	4.17	172			
5865	TD-15-C P.S.	140 HP D	71,859	23.07	33.23	4.75	8.15	5.68	13.04	7.48	269			
5870	HYD. SEMI-UNIVERSAL BLADE		9,691	2.12	3.15	0.63	1.18	0.00	1.85	0.00	46			
5875	ANGLE BLADE HYDRAULIC		10,782	2.36	3.50	0.71	1.32	0.00	2.06	0.00	50			
5880	TD-20-E P.S.	210 HP D	104,027	33.78	48.61	6.88	11.79	8.52	18.87	11.23	475			
5885	HYD. SEMI-UNIVERSAL BLADE		13,882	3.02	4.49	0.91	1.70	0.00	2.65	0.00	61			
5890	ANGLE BLADE HYDRAULIC		14,337	3.12	4.63	0.94	1.75	0.00	2.73	0.00	71			
5895	TD-25-E P.S.	310 HP D	142,232	44.35	62.34	8.87	15.02	12.58	23.68	16.57	590			
5900	HYD. SEMI-UNIVERSAL BLADE		18,559	4.02	5.99	1.22	2.27	0.00	3.54	0.00	108			
5905	ANGLE BLADE HYDRAULIC		16,417	3.57	5.30	1.08	2.01	0.00	3.13	0.00	110			
5910	FRONT PUSHER CUSHION		7,479	1.65	2.44	0.49	0.91	0.00	1.42	0.00	29			
5915	REAR PUSHER CUSHION		3,976	0.95	1.37	0.27	0.49	0.00	0.76	0.00	23			
5920	FRONT PUSH BLOCK /S BLD		617	0.19	0.25	0.04	0.08	0.00	0.12	0.00	12			
<b>JOHN DEERE</b>														
5930	JD350C/6305 D,D. W/HYD BLADE	42 HP D	25,198	7.71	11.15	1.67	2.86	1.70	4.57	2.25	102			
5935	JD450C/6405 D,D. W/HYD BLADE	65 HP D	36,267	11.34	16.37	2.40	4.11	2.64	6.59	3.47	143			
5940	JD550/6405 P.S. W/HYD BLADE	72 HP D	43,309	13.24	19.15	2.86	4.91	2.92	7.86	3.85	169			

## AYLE 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		
	TRACTOR - CRAWLER (CONT'D) *****										
	TEREX (GM)										
5950	82-20B P.S. 205 HP D	107,392	34.24	49.36	7.10	12.17	8.32	19.49	10.96	372	
5955	STRAIGHT BLADE HYDRAULIC	10,551	2.25	3.37	0.69	1.28	0.00	2.01	0.00	58	
5960	ANGLE BLADE HYDRAULIC	11,431	2.45	3.66	0.76	1.40	0.00	2.18	0.00	59	
5965	HYD. UNIVERSAL BLADE	11,420	2.45	3.65	0.76	1.40	0.00	2.18	0.00	57	
5970	82-30B P.S. 260 HP D	138,894	41.13	58.03	8.66	14.66	10.55	23.13	13.90	569	
5975	STRAIGHT BLADE HYDRAULIC	15,408	3.34	4.97	1.01	1.88	0.00	2.93	0.00	91	
5980	ANGLE BLADE HYDRAULIC	17,120	3.71	5.52	1.12	2.09	0.00	3.26	0.00	93	
5985	HYD. UNIVERSAL BLADE	17,115	3.71	5.52	1.12	2.09	0.00	3.26	0.00	92	
5990	REAR CUSHION PUSH BLOCK	4,672	1.10	1.59	0.31	0.57	0.00	0.89	0.00	21	
5995	82-50B P.S. 370 HP D	202,039	59.42	83.86	12.60	21.33	15.02	33.63	19.78	762	
6000	STRAIGHT BLADE	19,880	4.25	6.35	1.31	2.43	0.00	3.78	0.00	118	
6005	HYD. UNIVERSAL BLADE	22,201	4.75	7.10	1.46	2.71	0.00	4.23	0.00	134	
6010	ANGLE BLADE HYDRAULIC	22,318	4.78	7.13	1.47	2.73	0.00	4.25	0.00	157	
6015	PUSH PLATE (WELD ON)	805	0.17	0.26	0.06	0.10	0.00	0.16	0.00	6	
6020	PUSH BLOCK (CUSHION REAR)	4,672	1.00	1.49	0.31	0.57	0.00	0.89	0.00	21	

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CWT			
			CONDITION		STAND-	AVERAGE	OWNER-	AVERAGE	OWNER-				
			AVERAGE	SEVERE	BY	SHIP	FUEL	SHIP	SEVERE				
<b>TRACTOR - WHEEL TYPE DOZERS</b>													
*****													
CATERPILLAR													
6030	814	ARTICULATED ST BLADE P.S. 170 HP D	92.347	28.73	45.69	5.90	10.53	6.40	16.62	8.25	363		
6035	824-C	ARTICULATED ST BLADE P.S. 300 HP D	164.409	51.84	83.76	10.44	18.53	11.29	29.32	14.55	603		
CLARK													
6045	280	ARTICULATED ST BLADE P.S. 274 HP D	165.253	50.31	81.00	10.52	18.75	10.31	29.63	13.29	688		
6050	380	ARTICULATED ST BLADE P.S. 473 HP D	247.606	76.99	120.84	15.86	28.45	17.79	44.84	22.95	1010		
<b>TRACTOR - WHEEL TYPE - FARM TYPE</b>													
*****													
JOHN DEERE													
6060	MOD 20-40	40 HP G	9.808	6.47	9.73	0.61	1.05	3.27	1.69	4.27	0		
6065	MOD 24-40	60 HP G	14.296	9.37	13.66	0.90	1.60	4.91	2.54	6.40	0		
<b>TRENCHER-CHAIN-DITCH WITCH</b>													
*****													
6075	MOD C99	6"X24" TRENCH	9 HP G	2.424	1.54	2.14	0.16	0.29	0.74	0.46	0.96	5	
6080	MOD 2200	8"X36" TRENCH	17 HP G	10.802	4.35	6.16	0.71	1.31	1.39	2.04	1.81	27	
6085	MOD V30	10"X36" TRENCH	30 HP G	11.868	6.00	8.34	0.78	1.43	2.46	2.24	3.20	40	
6090	MOD 65	12"X48" TRANCH	65 HP D	24.074	8.75	12.49	1.57	2.89	2.45	4.52	3.15	72	
6095	MOD 100	18"X72" TRENCH	101 HP D	56.166	18.09	26.31	3.66	6.73	3.80	10.52	4.90	95	

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					
<b>TRENCHER-WHEEL TYPE</b>														
*****														
BARBER-GREEN														
6105	MOD TA 56 16"X5'-10" TRENCH	84 HP D	74,549	21.01	30.31	4.90	9.08	3.16	14.15	4.07				
6110	MOD TA 65 22"X7'-0" TRENCH	175 HP D	170,281	47.17	68.21	11.20	20.74	6.58	32.32	8.49				
<b>CLEVELAND</b>														
6120	MOD 247-HD-1 21"X7' TRENCH	84 HP D	74,549	21.01	30.31	4.90	9.08	3.16	14.15	4.07				
6125	MOD 400W-HD-1 36"X9' TRENCH	175 HP D	170,281	47.17	68.21	11.20	20.74	6.58	32.32	8.49				
<b>TRUCKS - HIGHWAY</b>														
*****														
(CHASSIS ONLY)														
<b>FORD</b>														
6140	F100 4X2 1/2T PKUP	4900 GVW 157 HP G	4,889	6.37	8.64	0.34	0.67	3.89	1.08	5.06				
6145	F150 4X2 1/2T PKUP	6150 GVW 157 HP G	5,292	6.48	8.80	0.37	0.73	3.89	1.17	5.06				
6150	F250 4X2 3/4T PKUP	7900 GVW 157 HP G	6,067	6.72	9.19	0.42	0.82	3.89	1.32	5.06				
6155	F250 4X4 3/4T PKUP	8400 GVW 157 HP G	7,105	6.98	9.67	0.50	0.97	3.89	1.55	5.06				
6160	F600 2AX	16000 GVW 155 HP G	9,113	12.78	17.23	0.64	1.25	7.88	1.98	10.19				
6165	F612 2AX	21000 GVW 155 HP G	9,317	12.89	17.45	0.65	1.25	7.88	2.00	10.19				
6170	F702 2AX	22000 GVW 170 HP G	11,141	14.41	19.57	0.77	1.48	8.64	2.37	11.17				
6175	F706 2AX	25500 GVW 170 HP G	11,402	14.55	19.85	0.79	1.50	8.64	2.40	11.17				
6180	L804 2AX	27500 GVW 170 HP G	12,983	14.92	20.43	0.90	1.72	8.64	2.75	11.17				
6185	L8000 2AX	35000 GVW 175 HP I	23,012	14.36	20.58	1.61	3.13	6.55	5.00	8.61				
6190	LTS900 3AX	39000 GVW 200 HP D	24,931	16.44	23.80	1.71	3.27	7.49	5.25	9.84				
										102				

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					
<b>TRUCKS - HIGHWAY (CONT'D)</b>														
<del>*****</del>														
<b>(CHASSIS ONLY)</b>														
<b>FORD (CONT'D)</b>														
6195	LTS904	3AX	46000 GVW 200 HP D	25.614	16.62	24.06	1.77	3.38	7.49	5.41	9.84	104		
6200	LTS9000	3AX	54000 GVW 250 HP D	40.095	22.63	32.96	2.79	5.39	9.36	8.62	12.30	135		
6205	LTS9000	3AX	58000 GVW 250 HP D	42.067	23.07	33.70	2.93	5.67	9.36	9.07	12.30	140		
<b>GMC AND CHEVROLET</b>														
6215	C10903	4X2 1/2T PKUP	6000 GVW 140 HP 6	5.463	5.96	8.14	0.38	0.75	3.47	1.21	4.51	43		
6220	C10906	4X2	WAGON 6400 GVW 165 HP 6	6.678	7.07	9.66	0.47	0.93	4.09	1.48	5.32	46		
6225	K10906	4X4	WAGON 6800 GVW 165 HP 6	7.701	7.34	10.09	0.55	1.08	4.09	1.71	5.32	50		
6230	C20903	4X2 3/4T PKUP	7500 GVW 165 HP 6	6.011	6.97	9.53	0.42	0.81	4.09	1.30	5.32	46		
6235	C20903	4X4 3/4T PKUP	7500 GVW 165 HP 6	7.198	7.28	10.06	0.50	0.98	4.09	1.57	5.32	49		
6240	C5D042	2AX	16000 GVW 160 HP 6	9.278	13.27	18.00	0.64	1.22	8.13	1.96	10.52	56		
6245	C6D042	2AX	20000 GVW 160 HP 6	10.355	13.53	18.40	0.72	1.38	8.13	2.20	10.52	63		
6250	C7D042	2AX	24000 GVW 188 HP 6	10.657	15.49	20.94	0.74	1.42	9.56	2.27	12.36	67		
6255	J8C042	2AX	27500 GVW 220 HP 6	18.667	19.67	26.95	1.30	2.52	11.18	4.03	14.46	85		
6260	J9C042	2AX	33900 GVW 242 HP D	34.975	20.58	29.55	2.45	4.79	9.06	7.64	11.91	121		
6265	C7D064	3AX	37000 GVW 200 HP 6	15.009	24.10	32.64	1.03	1.97	15.13	3.17	19.59	100		
6270	J8C064	3AX	43000 GVW 220 HP 6	24.610	28.61	39.24	1.71	3.28	16.64	5.24	21.55	120		
6275	J9C064	3AX	44900 GVW 242 HP D	39.195	22.00	32.10	2.72	5.26	9.06	8.42	11.91	148		
6280	N9E042	2AX	33900 GVW 242 HP D	37.449	21.18	30.49	2.63	5.15	9.06	8.21	11.91	122		
6285	D9K042	2AX	33900 GVW 289 HP D	37.871	23.53	33.60	2.66	5.21	10.82	8.30	14.22	123		

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					
<b>TRUCKS - HIGHWAY (CONT'D)</b>														
<b>*****</b>														
<b>(CHASSIS ONLY)</b>														
<b>GMC AND CHEVROLET (CONT'D)</b>														
6290	N9E064	3AX	48900 GVW 289 HP D	42,677	25.01	36.14	2.98	5.79	10.82	9.24	14.22	154		
6295	D9K064	3AX	48900 GVW 289 HP D	43,072	25.06	36.18	3.01	5.87	10.82	9.35	14.22	152		
<b>INTERNATIONAL</b>														
6305	800	4X4 SCOUT	6200 GVW 97 HP G	6,113	4.70	6.57	0.43	0.85	2.41	1.36	3.13	30		
6310	1624	2AX	20000 GVW 147 HP G	9,545	12.40	16.83	0.67	1.28	7.47	2.05	9.66	57		
6315	1724	2AX	20500 GVW 147 HP G	9,875	12.47	16.96	0.68	1.32	7.47	2.13	9.66	65		
6320	1824	2AX	23600 GVW 189 HP G	10,490	15.49	20.93	0.72	1.39	9.61	2.24	12.42	68		
6325	1854	2AX	23600 GVW 180 HP D	15,779	10.00	14.15	1.10	2.15	4.62	3.43	5.97	74		
6330	1924	2AX	25000 GVW 190 HP G	12,291	16.00	21.70	0.86	1.66	9.66	2.65	12.49	79		
6335	1954	2AX	27000 GVW 180 HP D	20,381	11.18	16.04	1.42	2.78	4.62	4.44	5.97	100		
6340	F1954	3AX	43000 GVW 210 HP D	24,361	16.41	23.47	1.71	3.31	7.86	5.29	10.34	123		
6345	F2554	3AX	43000 GVW 210 HP D	33,852	18.83	27.30	2.37	4.62	7.86	7.37	10.34	123		
6350	F2574	3AX	50000 GVW 230 HP D	40,552	21.41	31.07	2.85	5.58	8.61	8.88	11.32	123		
6355	F5050	3AX	52000 GVW 225 HP D	41,293	21.36	31.03	2.91	5.69	8.43	9.05	11.07	138		
<b>KENWORTH</b>														
6365	K100 3AX	47400 GVW	72800 GCW 290 HP D	47,786	26.29	38.14	3.35	6.53	10.86	10.40	14.27	138		
6370	W900 3AX	50000 GVW	76800 GCW 290 HP D	46,697	26.01	37.72	3.26	6.36	10.86	10.15	14.27	140		
6375	C500 3AX	56000 GVW	86000 GCW 290 HP D	53,424	27.64	40.25	3.75	7.33	10.86	11.67	14.27	144		
6380	BRUTE 3AX	62000 GVW	95300 GCW 290 HP D	57,460	28.61	41.76	4.04	7.91	10.86	12.58	14.27	179		

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES		STAND-BY	ADJUSTABLE ELEMENTS				CWT									
			CONDITION			AVERAGE	SEVERE	OWNER-SHIP	FUEL										
			AVERAGE	SEVERE															
TRUCKS - HIGHWAY (CONT'D)																			
***** (CHASSIS ONLY)																			
PETERBILT																			
6390	MOD 348 3AX 56000 GVW 250 HP D	48,050	24.45	35.71	3.36	6.55	9.36	10.45	12.30	121									
6395	MOD 352 3AX 50000 GVW 76800 GCW 350 HP D	51,529	30.02	43.24	3.61	7.06	13.11	11.26	17.23	131									
6400	MOD 359 3AX 50000 GVW 76800 GCW 350 HP D	51,544	30.04	43.25	3.62	7.08	13.11	11.27	17.23	134									
6405	MOD 381 3AX 73000 GVW 125000 GCW 350 HP D	55,176	30.91	44.61	3.88	7.59	13.11	12.09	17.23	174									
6410	MOD 383 3AX 83000 GVW 150000 GCW 350 HP D	55,272	30.93	44.65	3.88	7.60	13.11	12.11	17.23	193									
TRUCK ACCESSORIES-TRAILER B/D																			
*****																			
COOK BROS CHALLENGE																			
6420	BDS 2511 19CY 25T 80,000 GVW MAX	22,401	5.18	7.73	1.43	2.45	0.00	3.93	0.00	120									
6425	BDS 2811 23CY 28T 80,000 GVW MAX	24,433	5.63	8.40	1.56	2.68	0.00	4.30	0.00	130									
6430	BDS-4011 30CY 40T 80,000 GVW MAX	27,011	6.32	9.40	1.72	2.93	0.00	4.70	0.00	150									
6435	E-400 20CY 40T 100,000 GVW MAX	35,533	8.10	12.09	2.28	3.92	0.00	6.28	0.00	170									
6440	E-550 37CY 55T OFF-HWY	56,194	12.88	19.26	3.59	6.14	0.00	9.86	0.00	370									
6445	E-550G 37CY 55T OFF-HWY W/GOOSE NECK	66,193	14.99	22.41	4.25	7.32	0.00	11.70	0.00	390									
6450	E-700 43CY 70T OFF-HWY	76,006	17.84	26.63	4.81	8.10	0.00	13.06	0.00	370									
6455	E-700G 43CY 70T OFF-HWY W/GOOSE NECK	82,043	19.11	28.54	5.20	8.81	0.00	14.18	0.00	390									
6460	DOLLY FOR GOOSE NECK TRAILERS	15,760	3.89	5.78	0.98	1.62	0.00	2.64	0.00	80									

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					
<b>TRUCK ACCESSORIES-TRAILER E/D</b> *****														
<b>COOK BROS CHALLENGE</b>														
6470	SDS-26-R 20CY 28T 80,000 GVW MAX	20,390	4.78	7.12	1.29	2.20	0.00	3.54	0.00	114				
6475	SDS-28-R 21CY 28T 80,000 GVW MAX	20,916	4.90	7.29	1.33	2.27	0.00	3.65	0.00	120				
<b>FRUEHAUF</b>														
6485	DDC-M2-27 20CY 25T 80,000 GVW MAX	19,952	4.67	6.96	1.27	2.16	0.00	3.48	0.00	110				
<b>TRUCK ACCESSORIES - DUMP-REAR</b> *****														
<b>WILLIAMSEN W/HOIST</b>														
6495	SCY 24M TO 26M GVW	4,149	1.22	1.81	0.30	0.59	0.00	0.94	0.00	25				
6500	AIR GATE 8CY 27M TO 30M GVW	6,468	1.87	2.79	0.46	0.92	0.00	1.46	0.00	45				
6505	AIR GATE 10CY 36000 & UP GVW	6,584	1.90	2.83	0.48	0.94	0.00	1.48	0.00	46				
6510	AIR GATE 12CY 36000 & UP GVW	6,677	1.98	2.91	0.48	0.95	0.00	1.50	0.00	47				
<b>TRUCK ACCESSORIES - FLATBEDS</b> *****														
<b>KNAPHEIDE</b>														
6520	CT 8' X 12'	1,146	0.37		0.09	0.17	0.00			13				
6525	CT 8' X 13.5'	1,317	0.40		0.09	0.18	0.00			16				
6530	CT 8' X 15'	1,406	0.43		0.10	0.20	0.00			17				
6535	CT 8' X 16'	1,502	0.45		0.11	0.21	0.00			19				

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						
<b>TRUCK ACCESSORIES-HOIST-ELECT</b>														
<b>*****</b>														
<b>AUTO CRANE</b>														
6545	BACKSAVER SENIOR	CAP 1500#	2,397	0.69		0.18	0.34	0.00	3					
6550	WORKHORSE	CAP 2500#	2,986	0.84		0.21	0.42	0.00	6					
6555	MIGHTY WORKHORSE	CAP 4000#	6,416	1.73		0.46	0.91	0.00	9					
6560	MUSTANG	CAP 4000#	9,842	2.60		0.70	1.39	0.00	20					
<b>TRUCK ACCESSORIES-CRANE-HYDR</b>														
<b>*****</b>														
<b>NATIONAL CRANE</b>														
6570	SERIES 4	7.5T@5'RAD	27500 GVW	25,170	6.56	1.80	3.57	0.00	80					
6575	SERIES 6	10T@5'RAD	44000 GVW	31,185	8.11	2.23	4.42	0.00	94					
6580	SERIES 8	12T@5'RAD	60000 GVW	45,286	11.76	3.24	6.43	0.00	140					
<b>PITMAN</b>														
6590	HL-140CD	2AX 7T@ 4'RAD	24000 GVW	13,975	3.67	1.00	1.98	0.00	64					
6595	HL-170CD	2AX 8T@ 4'RAD	24000 GVW	18,388	4.81	1.31	2.60	0.00	85					
6600	HL-126B-1	2AX 12T@5'RAD	33000 GVW	38,974	10.12	2.78	5.52	0.00	120					

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					
<b>TRUCK ACCESSORIES-TRAILERS FB</b> *****													
<b>FRUEHAUF</b>													
6610	PF-F2-40 40 FT 35 T 2 AX	9,353	2.42		0.57	0.86	0.00		96				
<b>TRANSPORT</b>													
6620	PF-BX 36 FT 35 T 2 AX	12,676	3.10		0.79	1.25	0.00		98				
6625	PF-BX 40 FT 35 T 2 AX	12,782	3.13		0.81	1.27	0.00		104				
<b>TRUCK ACCESSORIES-TRAILERS LOWBOY FB</b> *****													
<b>LOAD KING</b>													
6635	302-DR 30T 2AX 41000-49000 GVW	19,487	4.38		1.25	2.07	0.00		96				
6640	402-DR 40T 2AX 50000-60000 GVW	25,759	5.75		1.66	2.75	0.00		108				
6645	352-DF 35T 2AX 41000-49000 GVW	24,293	5.38		1.58	2.62	0.00		112				
6650	402-DF 40T 2AX 50000-60000 GVW	26,769	5.96		1.73	2.86	0.00		117				
6655	503-DF 50T 3AX 50000-60000 GVW	32,813	7.42		2.11	3.47	0.00		157				
6660	603-DF 60T 3AX 61000-80000 GVW	38,962	8.77		2.51	4.12	0.00		180				
6665	DOLLY FOR THREE-AXLE TRAILERS	13,906	3.31		0.88	1.41	0.00		60				

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., OWNER-SHIP	SEVERE COND., OWNER-SHIP	FUEL	AVERAGE COND., OWNER-SHIP				
<b>TRUCK ACCESSORIES-TRAILERS-TILT</b>												
<b>HYSTER</b>												
6675	HP15T 15T 2AX 35000-40000 GVW	11,059	2.66		0.70	1.12	0.00		68			
6680	HP2DT 20T 2AX 35000-40000 GVW	13,128	3.12		0.83	1.33	0.00		71			
6685	GHP25T 25T 2AX 35000-40000 GVW	14,953	3.50		0.96	1.54	0.00		80			
<b>TRUCK ACCESSORIES-TRANSIT MIXER</b>												
<b>COOK BROS CHALLENGE (MIXER ONLY - ADD CHASSIS)</b>												
6700	708-MD 7 CY 40000 - 50000 GVW	19,787	5.21		1.42	2.81	0.00		63			
6705	808-MD 8 CY 50000 - 70000 GVW	20,098	5.28		1.44	2.85	0.00		66			
6710	858-MD 8.5 CY 55000 - 75000 GVW	20,310	5.34		1.46	2.88	0.00		68			
6715	908-MD 9 CY 61000 - 80000 GVW	20,610	5.41		1.47	2.92	0.00		73			
<b>TRUCK ACCESSORIES-WATER TANK</b>												
<b>ROSCO</b>												
6720	MFW 2000 GAL 23500 - 28000 GVW 7 HP G TRUCK MOUNTED (ADD CHASSIS)	8,103	2.84		0.58	1.15	0.57		35			
6725	MFW 2500 GAL 25000 - 34950 GVW 7 HP G TRUCK MOUNTED (ADD CHASSIS)	8,530	2.95		0.61	1.21	0.57		42			
6730	MFW 3000 GAL 29000 - 40000 GVW 7 HP G TRUCK MOUNTED (ADD CHASSIS)	9,035	3.08		0.64	1.28	0.57		46			

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		OWNERSHIP	FUEL	OWNERSHIP	FUEL					
<b>TRUCKS - OFF HIGHWAY</b>														
<b>*****</b>														
<b>CATERPILLAR</b>														
6740	769-B	35T 22-29 CY	P.S. 450 HP D	205,323	55.74	81.09	12.48	21.34	10.69	33.52	13.81	681		
6745	773	50T 30-40 CY	P.S. 600 HP D	288,952	77.62	113.18	17.54	29.97	14.26	47.11	18.41	903		
6750	777	85T 47-67 CY	P.S. 870 HP D	395,715	112.64	165.12	23.79	40.14	20.67	63.42	26.70	1225		
6755	768C PRIME MOVER TRACTOR		P.S. 450 HP D	180,715	54.80	80.44	10.79	18.02	10.69	28.59	13.81	506		
6760	772B PRIME MOVER TRACTOR		P.S. 600 HP D	271,665	77.63	113.83	16.32	27.52	14.26	43.50	18.41	705		
<b>DJB</b>														
<b>(ARTICULATED FRAME)</b>														
6770	D275	27.5T 15-24 CY	P.S. 235 HP D	163,005	40.63	59.82	9.89	16.86	5.58	26.51	7.21	410		
6775	D330	33T 17-28 CY	P.S. 255 HP D	173,078	43.02	63.25	10.51	17.96	6.06	28.22	7.83	430		
6780	D350	35T 20-31 CY	P.S. 255 HP D	185,188	46.53	68.79	11.19	19.00	6.06	29.95	7.83	460		
6785	D550	55T 32-55 CY	P.S. 450 HP D	318,419	79.41	117.07	19.29	32.87	10.69	51.72	13.81	820		
<b>EUCLID</b>														
6795	R25-215FD	25T 14-19 CY	P.S. 228 HP D	125,959	32.87	48.10	7.64	13.05	5.42	20.52	7.00	378		
6800	R35-302TD	35T 23-29 CY	P.S. 394 HP D	187,266	51.55	75.41	11.32	19.22	9.36	30.29	12.09	583		
6805	R50-301LD	50T 31-41 CY	P.S. 606 HP D	263,660	73.18	106.50	15.98	27.26	14.40	42.88	18.60	790		
<b>INTERNATIONAL</b>														
6815	330	36T 24-31 CY	P.S. 394 HP D	180,103	51.14	75.21	10.89	18.50	9.36	29.14	12.09	630		
6820	350B	50T 31-42 CY	P.S. 580 HP D	261,726	72.98	106.91	15.88	27.12	13.78	42.64	17.80	740		

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					
<b>TRUCKS - OFF HIGHWAY (CONT'D)</b> *****														
<b>MACK</b>														
6835	M-15-X 15T 11-15 CY	180 HP D	93,593	25.05	36.69	5.67	9.64	4.28	15.18	5.52				
6840	M-20-X 20T 13-17 CY	250 HP D	95,540	26.54	38.23	5.84	10.06	5.94	15.75	7.67				
6845	M-25-X 25T 16-20 CY	P.S. 250 HP D	120,968	32.67	47.67	7.34	12.51	5.94	19.67	7.67				
6850	M-35-AX 35T 23-29 CY	P.S. 434 HP D	171,942	49.21	71.49	10.41	17.73	10.31	27.90	13.32				
6855	M-45-SX 3AX45T 28-36 CY	P.S. 535 HP D	234,485	66.35	97.07	14.18	24.09	12.71	37.94	16.42				
6860	M-50-AX 50T 32-39 CY	P.S. 635 HP D	250,245	71.72	104.14	15.15	25.80	15.09	40.60	19.49				
6865	M-65-BX 65T 42-51 CY	P.S. 700 HP D	316,935	87.21	127.07	19.20	32.74	16.63	51.50	21.48				
6870	M-75ASX 3AX75T 44-56 CY	P.S. 800 HP D	365,424	101.43	148.31	22.13	37.70	19.01	59.32	24.55				
<b>TEREX</b>														
6880	33-03B 22T 15-18 CY	P.S. 215 HP D	102,176	28.63	41.96	6.16	10.40	5.11	16.41	6.60				
6885	33-05B 30T 19-23 CY	P.S. 321 HP D	162,376	43.63	63.79	9.84	16.75	7.63	26.36	9.85				
6890	33-07 40T 25-32 CY	P.S. 493 HP D	216,560	60.78	88.67	13.09	22.24	11.71	35.03	15.13				
6895	33-09 55T 34-44 CY	P.S. 624 HP D	289,576	79.96	116.79	17.51	29.77	14.83	46.89	19.15				
6900	33-11C 85T 51-65 CY	P.S. 840 HP D	391,152	107.62	157.14	23.67	40.27	19.96	63.39	25.78				
<b>WABCO</b>														
6910	HAULPAK 35C 35T 23-29 CY	P.S. 456 HP D	183,826	53.15	77.45	11.09	18.80	10.83	29.65	13.99				
6915	HAULPAK 50 50T 31-40 CY	P.S. 635 HP D	264,360	75.52	110.08	15.96	27.09	15.09	42.69	19.49				
6920	75B 75T 45-47 CY	P.S. 700 HP D	304,543	87.71	128.41	18.31	30.89	16.63	48.80	21.48				
6925	85C 85T 40-60 CY	P.S. 860 HP D	368,963	106.63	156.08	22.18	37.41	20.43	59.12	26.39				
										1181				

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					
TRUCKS - WATER													
*****													
TRACTOR DRAWN - KLEIN													
6940	KT-50	5000 GAL. CAT 613B P.S. 150 HP D	92,143	25.09	36.00	5.56	9.43	5.64	14.87	7.28	310		
6945	KT-60	6000 GAL. CAT 621B P.S. 330 HP D	163,887	49.35	70.88	9.83	16.52	12.41	26.14	16.01	593		
6950	KT-80	8000 GAL. CAT 631B P.S. 450 HP D	225,462	65.79	94.08	13.64	23.19	16.93	36.52	21.83	788		
6955	KT-100	10000 GAL. CAT 631B P.S. 450 HP D	231,903	67.67	96.94	13.96	23.60	16.93	37.26	21.83	798		
6960	KT-100	10000 GAL. CAT 641B P.S. 550 HP D	271,603	81.69	117.47	16.36	27.68	20.69	43.69	26.68	951		
6965	KT-120	12000 GAL. CAT 651B P.S. 550 HP D	276,034	83.19	119.75	16.57	27.89	20.69	44.11	26.68	1097		
6970	KT-140	14000 GAL. CAT 660B P.S. 550 HP D	271,816	84.25	121.48	16.16	26.85	20.69	42.70	26.68	1067		
TRACTOR DRAWN - SOUTHWEST													
6980	STT-60	6000 GAL. CAT 621B P.S. 330 HP D	171,429	50.43	72.46	10.32	17.41	12.41	27.49	16.01	623		
6985	STT-80	8000 GAL. CAT 631D P.S. 450 HP D	232,847	67.21	96.18	14.08	23.93	16.93	37.69	21.83	848		
6990	STT-100	10000 GAL. CAT 631D P.S. 450 HP D	236,578	67.99	97.34	14.30	24.28	16.93	38.26	21.83	918		
6995	STT-120	12000 GAL. CAT 651B P.S. 550 HP D	284,705	85.91	123.88	17.00	28.38	20.69	45.03	26.68	1053		
7000	STT-140	14000 GAL. CAT 660B P.S. 550 HP D	279,436	85.90	123.93	16.60	27.55	20.69	43.82	26.68	1137		
WAGONS - BOTTOM - DUMP													
*****													
CATERPILLAR-ATHEY													
7010	621B/PW621B	33T 22-26CY P.S. 330 HP D	176,454	51.96	74.77	10.56	17.71	12.41	28.06	16.01	579		
7015	631D/PW631D	41T 27-32CY P.S. 450 HP D	244,219	69.77	100.01	14.72	24.93	16.93	39.33	21.83	769		
7020	768B/PW768B	72T 42-48CY P.S. 415 HP D	275,512	75.71	109.16	16.45	27.47	15.61	43.58	20.13	850		
7025	660B/PW772	100T 60-67CY P.S. 550 HP D	353,652	98.92	143.06	21.14	35.40	20.69	56.11	26.68	1218		

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		
	WAGONS - BOTTOM - DUMP (CONT'D) *****										
	CATERPILLAR-ATHEY (CONT'D)										
7030	660B/PW660B 100T 60-67CY P.S. 550 HP D	353,486	98.31	142.11	21.18	35.58	20.69	56.32	26.68	1164	
	EUCLID										
7040	B63-203LDT147W 63T 42-56CY P.S. 442 HP D	270,566	75.71	109.14	16.25	27.36	16.63	43.26	21.44	896	
	WAGONS - REAR - DUMP *****										
	CATERPILLAR-ATHEY										
7050	621B/PR621B 30T 20-24CY P.S. 330 HP D	177,575	53.58	77.64	10.64	17.88	12.41	28.30	16.01	572	
7055	631D/PR631D 40T 27-32CY P.S. 450 HP D	249,582	73.54	106.45	15.03	25.42	16.93	40.12	21.83	833	
	WATER BLASTER *****										
	MULLINS WATER BLASTERS										
7070	5000DH 1 - NOZZLE	95 HP D	22,655	16.22		1.84	3.96	5.27			47
7075	5200DH 2 - NOZZLE	140 HP D	30,472	23.15		2.47	5.33	7.76			52
7080	5300 3 - NOZZLE	275 HP D	55,855	43.98		4.54	9.77	15.25			128
7085	5400 4 - NOZZLE	318 HP D	60,171	49.40		4.88	10.52	17.63			145

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			
<b>WATER TANKS</b> *****												
SKID MOUNTED												
7095	WST-8 8000 GAL. SOUTHWEST	10,059	2.60		0.72	1.42	0.00		128			
7100	WST-10 10000 GAL. SOUTHWEST	11,726	3.03		0.84	1.66	0.00		150			
7105	WST-12 12000 GAL. SOUTHWEST	14,004	3.62		1.00	1.98	0.00		183			
PORTABLE (WITH WHEELS)												
7115	EWT-8 8000 GAL. SOUTHWEST	21,564	5.57		1.55	3.06	0.00		150			
7120	EWT-10 10000 GAL. SOUTHWEST	24,240	6.27		1.74	3.44	0.00		170			
7125	EWT-12 12000 GAL. SOUTHWEST	27,018	6.98		1.93	3.83	0.00		210			
WELDERS												
*****												
ELECTRIC DRIVE - AC 3 PHASE 60 HZ												
7135	250 AMP SKID MTD	10 HP E	956	0.65		0.07	0.12	0.36	7			
7140	300 AMP SKID MTD	20 HP E	1,315	1.19		0.10	0.17	0.72	7			
7145	400 AMP SKID MTD	25 HP E	1,587	1.46		0.11	0.20	0.90	8			
7150	600 AMP SKID MTD	36 HP E	2,352	2.13		0.17	0.30	1.30	15			
GASOLINE ENGINE DRIVE												
7160	200 AMP W/1 AXLE TRLR	37 HP G	2,082	5.30		0.17	0.33	3.72	11			
7165	250 AMP W/1 AXLE TRLR	65 HP G	3,471	9.24		0.27	0.54	6.53	17			
7170	300 AMP W/1 AXLE TRLR	65 HP G	3,522	9.27		0.28	0.56	6.53	17			
7175	400 AMP W/1 AXLE TRLR	69 HP G	4,076	9.94		0.33	0.64	6.93	21			

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					
<b>WELDERS (CONT'D)</b> *****														
<b>GASOLINE ENGINE DRIVE (CONT'D)</b>														
7180	650 AMP W/2 AXLE TRLR	85 HP G	6,256	12.66		0.49	0.98	8.54		22				
<b>DIESEL ENGINE DRIVE</b>														
7190	350 AMP W/2 AXLE TRLR	55 HP D	5,377	4.95		0.42	0.84	2.56		25				
7195	400 AMP W/2 AXLE TRLR	55 HP D	7,021	5.49		0.55	1.10	2.56		30				
<b>RECTIFIER AC-DC COMB.</b>														
7205	250 AMP W/SHOP RUNNING GEAR	19 HP E	811	1.04		0.06	0.10	0.68		4				
7210	300 AMP W/SHOP RUNNING GEAR	24 HP E	974	1.31		0.07	0.13	0.86		6				
7215	500 AMP W/SHOP RUNNING GEAR	30 HP E	1,389	1.66		0.10	0.18	1.08		7				
7220	650 AMP W/SHOP RUNNING GEAR	42 HP E	1,677	2.28		0.12	0.22	1.51		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 (.45)	= (+) \$ 8.55/Hr.
Adjusted Total Hourly Rate	= \$29.55/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
15	AGGREGATE SPREADERS	1.21	1.11	1.00	0.91	0.84	0.77						
30	AIR COMPRESSORS	1.21	1.10	1.00	0.87	0.83	0.74						
45	AIR TOOLS & EQUIP, TAMMERS ETC	1.21	1.10	1.00									
60	ASPHALT DISTRIBUTORS	1.22	1.11	1.00	0.90	0.83	0.75						
65	ASPHALT AND CONCRETE PAVERS	1.21	1.11	1.00	0.91	0.84	0.77						
	BACKHOE (SEE KEY NO. 570-601)												
75	BROOMS	1.29	1.15	1.00	0.90	0.81	0.74						
80	BRUSH CHIPPERS	1.29	1.15	1.00	0.90	0.81	0.74						
90	BUCKETS, CLAMSHELL & DRAGLINE	1.38	1.21	1.00	0.89	0.81	0.73						
95	BUCKETS, CONCRETE	1.38	1.21	1.00	0.89	0.81	0.73						
105	CONCRETE OR GROUT PUMP	1.29	1.15	1.00	0.89	0.80							
120	CONCRETE GUNITE EQUIPMENT & FLUID GROUTERS	1.29	1.15	1.00	0.90	0.81	0.74						
125	CONCRETE MIXERS & BUGGIES	1.29	1.15	1.00	0.90	0.81	0.74						
135	CONCRETE VIBRATORS	1.21	1.10	1.00									
140	COMPACTORS, MANUALLY OPERATED	1.21	1.10	1.00	0.87								
	CRANE, CRAWLER TYPE												
150	0 THRU 25 TON	1.24	1.12	1.00	0.91	0.83	0.78	0.70	0.56				
165	OVER 25 TON THRU 50 TON	1.23	1.12	1.00	0.91	0.84	0.78	0.71	0.57	0.48			
170	OVER 50 TON THRU 150 TON	1.23	1.12	1.00	0.91	0.84	0.79	0.72	0.58	0.49	0.47	0.45	
180	OVER 150 TON	1.22	1.12	1.00	0.91	0.84	0.79	0.72	0.58	0.49	0.47	0.45	0.43
	DRAGLINE & CLAMSHELL,CRAWLER MOUNTED												
185	0 THRU 1 CY	1.24	1.12	1.00	0.91	0.83	0.78	0.70	0.56				
190	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			
195	OVER 2-1/2 CY THRU 5 CY	1.23	1.12	1.00	0.91	0.84	0.79	0.72	0.58	0.49	0.47	0.45	
196	OVER 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
200	CRANES, HYDRAULIC, SELF- PROPELLED	1.24	1.12	1.00	0.91	0.83	0.78	0.70	0.56	0.47	0.45		
	CRANES & HYD. EXC., , TRK MTD												
210	UNDER 26 T. (THRU 1 CY)	1.23	1.12	1.00	0.91	0.84	0.78	0.71	0.57	0.47			
225	26 THRU 65 T (1 TH 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	
230	66 THRU 125 T	1.22	1.12	1.00	0.91	0.84	0.79	0.72	0.58	0.49	0.47	0.45	0.43
240	OVER 125 T	1.22	1.11	1.00	0.91	0.84	0.79	0.72	0.59	0.50	0.48	0.46	0.43
255	DRILL, AUGER	1.29	1.16	1.00	0.92	0.83	0.80						
270	DRILL, BLAST HOLE	1.29	1.16	1.00	0.92	0.83	0.80						
300	DRILL, CORE	1.29	1.16	1.00	0.92	0.83	0.80						
315	DRILL, ROTARY TO 11" DIA. HOLE	1.28	1.15	1.00	0.93	0.84	0.80	0.76	0.66	0.59			
330	DRILL, ROTARY OVER 11" DIA.	1.27	1.15	1.00	0.93	0.84	0.81	0.77	0.67	0.61	0.57	0.56	0.53
345	DRILL, ROTARY OVER 11" DIA., ELECTRIC	1.27	1.15	1.00	0.93	0.84	0.81	0.77	0.67	0.61	0.57	0.56	0.53
375	FORK LIFTS	1.29	1.15	1.00	0.90	0.81	0.74						
390	GRADERS	1.26	1.13	1.00	0.92	0.81	0.75	0.68	0.53				
420	GENERATORS	1.40	1.25	1.00	0.95	0.86	0.82						
435	HOIST	1.29	1.15	1.00	0.90	0.81	0.74						
	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	
440	LIGHT PLANTS	1.31	1.16	1.00	0.89	0.79	0.72						
450	LOADER, BELT	1.31	1.16	1.00	0.89	0.79	0.72						
460	LOADER, FRONT END & LOADER F/E WITH BACKHOE, CRAWLER TYPE	1.27	1.14	1.00	0.91	0.82	0.74						
	LOADER, WHEEL TYPE												
465	0 THRU 225 HP	1.30	1.15	1.00	0.89	0.79	0.72						
470	OVER 225 HP	1.28	1.14	1.00	0.90	0.80	0.74	0.70	0.56				
475	LOADER, FRONT END WITH BACKHOE, WHEEL TYPE	1.30	1.15	1.00	0.89	0.79	0.72						
480	PILE EXTRACTOR, PILE HAMMER & HYDRAULIC IMPACTOR	1.30	1.15	1.00	0.89								
485	PIPELAYERS PUMP, GROUT (SEE KEY NO. 105)	1.27	1.13	1.00	0.89	0.79	0.71	0.65	0.50				
495	PUMP, WATER, ENGINE DRIVE	1.29	1.15	1.00	0.90	0.81	0.74						
500	PUMP, WATER, ELECTRIC DRIVE	1.29	1.15	1.00	0.90	0.81	0.74						
510	RIPPERS	1.27	1.13	1.00	0.89	0.79							
525	ROLLERS, EXCEPT VIB. ROLLERS	1.26	1.12	1.00	0.89	0.78	0.71						
530	ROLLERS, VIBRATORY	1.27	1.13	1.00	0.88	0.76							
540	SCRAPERS, STANDARD	1.26	1.13	1.00	0.92	0.82	0.75						
542	SCRAPERS, TANDEM POWERED SCRAPERS, ELEVATING	1.26	1.13	1.00	0.92	0.82	0.75						
545	0 THRU 200 HP	1.26	1.13	1.00	0.92	0.82	0.75						
550	OVER 200 HP	1.26	1.13	1.00	0.92	0.82	0.75						
555	SCRAPERS, TRACTOR DRAWN SHOVELS, BACKHOES, & HYDRAULIC EXCAVATORS CRAWLER MOUNTED	1.25	1.13	1.00	0.92	0.82	0.76	0.69	0.54				
570	0 THRU 1 CY	1.24	1.12	1.00	0.91	0.83	0.77	0.70					
585	OVER 1 CY THRU 2-1/2 CY	1.24	1.12	1.00	0.91	0.83	0.78	0.70	0.56				
595	OVER 2-1/2 CY THRU 5 CY	1.23	1.12	1.00	0.91	0.84	0.78	0.71	0.57	0.48	0.46		
600	OVER 5 CY	1.23	1.12	1.00	0.91	0.84	0.79	0.72	0.58	0.49	0.47	0.45	
601	OVER 2-1/2 CY ELECTRIC TRACTOR, CRAWLER TYPE	1.22	1.11	1.00	0.91	0.84	0.79	0.72	0.59	0.50	0.48	0.46	0.43
615	0 THRU 225 HP	1.29	1.14	1.00	0.88	0.77	0.69						
620	226 HP THRU 425 HP (PER UNIT FOR TANDEM TRACTORS)	1.27	1.13	1.00	0.89	0.79	0.71	0.65	0.50				
625	OVER 425 HP	1.26	1.12	1.00	0.89	0.80	0.72	0.67	0.53	0.43			
630	TRACTOR, BLADES, PUSH BLOCKS, PUSH PLATES & CLEARING BLADES	1.27	1.13	1.00	0.89	0.79	0.71						
645	TRACTOR, WHEEL TYPE	1.30	1.16	1.00	0.88	0.80	0.72						
650	TRENCHER	1.30	1.16	1.00	0.92	0.80	0.64						
655	TRAILERS, BOTTOM DUMP AND END DUMP	1.30	1.16	1.00	0.89	0.80	0.73						
660	TRAILERS, FLATBED, LO-BOY AND TILT	1.32	1.16	1.00	0.88	0.79	0.72						
	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	
670	DUMP BODIES	1.29	1.15	1.00	0.89	0.80							
675	ALL OTHER ACCESSORIES	1.29	1.15	1.00	0.89	0.80							
	TRUCK, HIGHWAY												
690	0 THRU 10,000 GVW	1.24	1.12	1.00	0.90	0.82							
695	OVER 10,000 THRU 30,000 GVW	1.24	1.12	1.00	0.90	0.81							
705	OVER 30,000 GVW	1.24	1.12	1.00	0.90	0.81							
720	TRUCK, OFF-HIGHWAY	1.30	1.16	1.00	0.90	0.83	0.78	0.73	0.55				
765	WAGON, BOTTOM DUMP & WATER	1.30	1.16	1.00	0.90	0.83	0.78	0.73	0.55				
780	WAGON, REAR DUMP	1.30	1.16	1.00	0.90	0.83	0.78	0.73	0.55				
785	WATER BLASTER	1.30	1.15	1.00	0.89								
795	WATER TANKS	1.29	1.15	1.00	0.89	0.80							
810	WELDERS	1.33	1.17	1.00	0.88								
811	WELDERS ELECTRIC POWER	1.32	1.17	1.00	0.88	0.79							

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
15	AGGREGATE SPREADERS	1.18	1.09	1.00	0.92	0.86	0.80						
30	AIR COMPRESSORS	1.17	1.08	1.00	0.89	0.85	0.78						
45	AIR TOOLS & EQUIP, TAMPERS ETC	1.19	1.09	1.00									
60	ASPHALT DISTRIBUTORS	1.18	1.09	1.00	0.92	0.86	0.80						
65	ASPHALT AND CONCRETE PAVERS	1.18	1.09	1.00	0.92	0.86	0.80						
	BACKHOE (SEE KEY NO. 570-601)												
75	BROOMS	1.25	1.13	1.00	0.91	0.84	0.78						
80	BRUSH CHIPPERS	1.25	1.13	1.00	0.91	0.84	0.78						
90	BUCKETS, CLAMSHELL & DRAGLINE	1.32	1.18	1.00	0.90	0.84	0.77						
95	BUCKETS, CONCRETE	1.32	1.18	1.00	0.90	0.84	0.77						
105	CONCRETE OR GROUT PUMP	1.25	1.13	1.00	0.91	0.83							
120	CONCRETE GUNITE EQUIPMENT & FLUID GROUTERS	1.25	1.13	1.00	0.91	0.84	0.78						
125	CONCRETE MIXERS & BUGGIES	1.25	1.13	1.00	0.91	0.84	0.78						
135	CONCRETE VIBRATORS	1.19	1.09	1.00									
140	COMPACTORS, MANUALLY OPERATED CRANE, CRAWLER TYPE	1.18	1.09	1.00	0.88								
150	0 THRU 25 TON	1.20	1.10	1.00	0.92	0.86	0.81	0.74	0.62				
165	OVER 25 TON THRU 50 TON	1.20	1.10	1.00	0.92	0.86	0.81	0.75	0.63	0.55			
170	OVER 50 TON THRU 150 TON	1.20	1.10	1.00	0.92	0.86	0.82	0.75	0.64	0.56	0.54	0.52	
180	OVER 150 TON DRAGLINE & CLAMSHELL+CRAWLER MOUNTED	1.19	1.10	1.00	0.92	0.86	0.82	0.76	0.64	0.56	0.54	0.53	0.50
185	0 THRU 1 CY	1.20	1.11	1.00	0.92	0.86	0.81	0.74	0.62				
190	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			
195	OVER 2-1/2 CY THRU 5 CY	1.20	1.10	1.00	0.92	0.86	0.82	0.75	0.64	0.56	0.54	0.52	
196	OVER 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
200	CRANES, HYDRAULIC, SELF- PROPELLED	1.20	1.10	1.00	0.92	0.86	0.82	0.75	0.64	0.56	0.54		
	CRANES & HYD. EXC., TRK MTD												
210	UNDER 26 T. (THRU 1 CY)	1.20	1.10	1.00	0.92	0.86	0.81	0.75	0.63	0.55			
225	26 THRU 65 T (1 TH 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	
230	66 THRU 125 T	1.19	1.10	1.00	0.92	0.86	0.82	0.76	0.64	0.56	0.54	0.53	0.50
240	OVER 125 T	1.19	1.10	1.00	0.92	0.86	0.82	0.76	0.64	0.56	0.55	0.53	0.51
255	DRILL, AUGER	1.25	1.14	1.00	0.93	0.85	0.82						
270	DRILL, BLAST HOLE	1.25	1.14	1.00	0.93	0.85	0.82						
300	DRILL, CORE	1.25	1.14	1.00	0.93	0.85	0.82						
315	DRILL, ROTARY TO 11' DIA. HOLE	1.24	1.13	1.00	0.94	0.86	0.83	0.80	0.71	0.65			
330	DRILL, ROTARY OVER 11' DIA.	1.23	1.13	1.00	0.94	0.87	0.84	0.80	0.72	0.66	0.63	0.62	0.60
345	DRILL, ROTARY OVER 11' DIA., ELECTRIC	1.23	1.13	1.00	0.94	0.87	0.84	0.80	0.72	0.66	0.63	0.62	0.60
375	FORK LIFTS	1.25	1.13	1.00	0.91	0.84	0.78						
390	GRADERS	1.21	1.11	1.00	0.93	0.85	0.79	0.74	0.61				
420	GENERATORS	1.31	1.19	1.00	0.96	0.89	0.86						
435	HOIST	1.25	1.13	1.00	0.91	0.84	0.78						
	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
440	LIGHT PLANTS	1.24	1.13	1.00	0.91	0.84	0.78						
450	LOADER, BELT	1.24	1.13	1.00	0.91	0.84	0.78						
460	LOADER, FRONT END & LOADER F/E WITH BACKHOE, CRAWLER TYPE	1.22	1.12	1.00	0.92	0.85	0.79						
	LOADER, WHEEL TYPE												
465	0 THRU 225 HP	1.25	1.13	1.00	0.91	0.83	0.77						
470	OVER 225 HP	1.24	1.12	1.00	0.91	0.83	0.78	0.74	0.62				
475	LOADER, FRONT END WITH BACKHOE, WHEEL TYPE	1.25	1.13	1.00	0.91	0.83	0.77						
480	PILE EXTRACTOR, PILE HAMMER & HYDRAULIC IMPACTOR	1.26	1.14	1.00	0.90								
485	PIPELAYERS PUMP, GROUT (SEE KEY NO. 105)	1.22	1.11	1.00	0.91	0.82	0.76	0.71	0.59				
495	PUMP, WATER, ENGINE DRIVE	1.25	1.13	1.00	0.91	0.84	0.78						
500	PUMP, WATER, ELECTRIC DRIVE	1.25	1.13	1.00	0.91	0.84	0.78						
510	RIPPERS	1.24	1.11	1.00	0.90	0.81							
525	ROLLERS, EXCEPT VIB. ROLLERS	1.22	1.10	1.00	0.90	0.81	0.75						
530	ROLLERS, VIBRATORY	1.23	1.10	1.00	0.90	0.80							
540	SCRAPERS, STANDARD	1.22	1.11	1.00	0.93	0.84	0.79						
542	SCRAPERS, TANDEM POWERED SCRAPERS, ELEVATING	1.22	1.11	1.00	0.93	0.84	0.79						
545	0 THRU 200 HP	1.22	1.11	1.00	0.93	0.84	0.79						
550	OVER 200 HP	1.22	1.11	1.00	0.93	0.84	0.79						
555	SCRAPERS, TRACTOR DRAWN SHOVELS, BACKHOES, & HYDRAULIC EXCAVATORS CRAWLER MOUNTED	1.22	1.11	1.00	0.93	0.85	0.79	0.74	0.61				
570	0 THRU 1 CY	1.21	1.11	1.00	0.92	0.85	0.80	0.74					
585	OVER 1 CY THRU 2-1/2 CY	1.20	1.10	1.00	0.92	0.86	0.81	0.74	0.62				
595	OVER 2-1/2 CY THRU 5 CY	1.20	1.10	1.00	0.92	0.86	0.81	0.75	0.63	0.55	0.53		
600	OVER 5 CY	1.20	1.10	1.00	0.92	0.86	0.82	0.75	0.64	0.56	0.54	0.52	
601	OVER 2-1/2 CY ELECTRIC TRACTOR, CRAWLER TYPE	1.19	1.10	1.00	0.92	0.86	0.82	0.76	0.64	0.56	0.55	0.53	0.51
615	0 THRU 225 HP	1.23	1.11	1.00	0.90	0.82	0.75						
620	226 HP THRU 425 HP (PER UNIT FOR TANDEM TRACTORS)	1.22	1.11	1.00	0.91	0.82	0.76	0.71	0.59				
625	OVER 425 HP	1.22	1.11	1.00	0.91	0.83	0.76	0.71	0.59	0.51			
630	TRACTOR, BLADES, PUSH BLOCKS, PUSH PLATES & CLEARING BLADES	1.23	1.11	1.00	0.90	0.82	0.75						
645	TRACTOR, WHEEL TYPE	1.26	1.13	1.00	0.90	0.83	0.76						
650	TRENCHER	1.26	1.14	1.00	0.93	0.83	0.69						
655	TRAILERS, BOTTOM DUMP AND END DUMP	1.24	1.13	1.00	0.91	0.84	0.78						
660	TRAILERS, FLATBED, LO-BOY AND TILT	1.24	1.13	1.00	0.91	0.84	0.78						
	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
670	DUMP BODIES	1.25	1.13	1.00	0.91	0.83							
675	ALL OTHER ACCESSORIES	1.25	1.13	1.00	0.91	0.83							
	TRUCK, HIGHWAY												
690	0 THRU 10,000 GVW	1.21	1.10	1.00	0.92	0.84							
695	OVER 10,000 THRU 30,000 GVW	1.21	1.10	1.00	0.92	0.84							
705	OVER 30,000 GVW	1.21	1.10	1.00	0.92	0.84							
720	TRUCK, OFF-HIGHWAY	1.25	1.14	1.00	0.92	0.85	0.81	0.77	0.62				
765	WAGON, BOTTOM DUMP & WATER	1.25	1.14	1.00	0.92	0.85	0.81	0.77	0.62				
780	WAGON, REAR DUMP	1.25	1.14	1.00	0.92	0.85	0.81	0.77	0.62				
785	WATER BLASTER	1.26	1.14	1.00	0.90								
795	WATER TANKS	1.25	1.13	1.00	0.91	0.83							
810	WELDERS	1.27	1.14	1.00	0.90								
811	WELDERS ELECTRIC POWER	1.25	1.13	1.00	0.91	0.83							

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 (.83)	= (+) \$12.46/Hr.
Adjusted Total Hourly Rate	= <u>\$33.46/Hr.</u>

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

Service Life From APP. D	Equipment Useage - Hours per Week												
	40	45	48	54	60	66	72	80	90	100	110	120	140
4,000	1.00	0.98	0.96	0.94	0.93	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84
6,000	1.00	0.97	0.95	0.93	0.90	0.89	0.87	0.86	0.84	0.83	0.82	0.81	0.80
8,000	1.00	0.96	0.94	0.91	0.89	0.87	0.85	0.83	0.81	0.80	0.78	0.77	0.76
9,000	1.00	0.96	0.94	0.91	0.88	0.86	0.84	0.82	0.80	0.78	0.77	0.76	0.74
10,000	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
11,000	1.00	0.95	0.93	0.89	0.86	0.84	0.82	0.80	0.77	0.76	0.74	0.73	0.71
12,000	1.00	0.95	0.93	0.89	0.86	0.83	0.81	0.79	0.76	0.74	0.73	0.72	0.70
13,000	1.00	0.95	0.93	0.88	0.85	0.83	0.80	0.78	0.75	0.73	0.72	0.70	0.68
14,000	1.00	0.95	0.92	0.88	0.85	0.82	0.80	0.77	0.74	0.72	0.71	0.69	0.67
15,000	1.00	0.95	0.92	0.88	0.84	0.81	0.79	0.76	0.74	0.71	0.70	0.68	0.66
16,000	1.00	0.95	0.92	0.87	0.84	0.81	0.78	0.75	0.73	0.70	0.69	0.67	0.65
18,000	1.00	0.94	0.91	0.87	0.83	0.80	0.77	0.74	0.71	0.69	0.67	0.65	0.63
20,000	1.00	0.94	0.91	0.86	0.82	0.79	0.76	0.73	0.70	0.67	0.65	0.64	0.61
22,000	1.00	0.94	0.91	0.85	0.81	0.78	0.75	0.72	0.69	0.66	0.64	0.62	0.60
50,000	1.00	0.92	0.88	0.81	0.75	0.71	0.67	0.63	0.59	0.55	0.53	0.50	0.47

## APPENDIX A

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## APPENDIX A

### REFERENCES (Cont'd)

11. Terex Division, General Motors Corporation, "Production and Cost Estimating of Material Movement with Earthmoving Equipment," 1975 Revision, Hudson, Ohio 44236.
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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:	1,700 Hrs/Yr
Labor Adjustment Factor (LAF):	0.930
Electricity Cost Per Kilowatt-Hour:	0.060 /Kw-Hr
Gasoline Cost Per Gallon:	\$ 1.240 /Gal.
Diesel Cost Per Gallon (Off-Road Use):	\$ 0.990 /GAL.
Diesel Cost Per Gallon (On-Road Use):	\$ 1.070 /Gal.
Freight Rates:	0 thru 30,000 lbs. \$ 4.900 /Cwt. over 30,000 thru 40,000 lbs. \$ 4.470 /Cwt. over 40,000 thru 50,000 lbs. \$ 3.670 /Cwt. over 50,000 thru 60,000 lbs. \$ 3.060 /Cwt. over 60,000 thru 9999,900 lbs. \$ 2.970 /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. Pushloading 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. Over-sized 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 mainten- ance with medium to heavy winter snow removal. Elevating grader use.	Maintenance of hard packed roads with embedded rock. Heavy fill spread- ing. Ripping- scarifying of asphalt or con- crete. Continuous high load factor. High impact.
Depreciation Period	12,000 Hrs.	10,000 Hrs.

## APPENDIX D

## EQUIPMENT HOURLY EXPENSE CALCULATION FACTORS

## TABLE LEGEND

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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

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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				FOD			TIRES		
					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	0	0	0	0	0	70
185		S	10	20	0 .000 .066 .039	0 .000 .000 .000	0	18	18	0	0	0	0	0	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	0	0	0	0	0	80
190		S	13	20	0 .000 .066 .039	0 .000 .000 .000	0	18	18	0	0	0	0	0	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	0	0	0	0	0	90
195		S	16	20	0 .000 .066 .039	0 .000 .000 .000	0	18	18	0	0	0	0	0	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	0	0	0	0	0	100
196		S	18	20	0 .000 .066 .039	0 .000 .000 .000	0	18	18	0	0	0	0	0	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	0	0	0	0	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	0	0	0	0	0	50
210		S	13	20	0 .000 .086 .049	0 .000 .013 .007	0	30	26	86	73	0	0	0	0	0	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	0	0	0	0	0	60
225		S	16	20	0 .000 .086 .049	0 .000 .013 .007	0	30	26	86	73	0	0	0	0	0	0	65
230	66 THRU 125 T	A	20	20	65 .000 .066 .038	10 .000 .010 .006	0	30	26	95	90	0	0	0	0	0	0	70
230		S	18	20	0 .000 .086 .049	0 .000 .013 .007	0	30	26	86	73	0	0	0	0	0	0	75
240	OVER 125 T	A	22	20	65 .000 .066 .038	10 .000 .010 .006	0	30	26	95	80	0	0	0	0	0	0	80
240		S	20	20	0 .000 .086 .049	0 .000 .013 .007	0	30	26	86	73	0	0	0	0	0	0	85
255	DRILL, AUGER	A	10	20	50 .000 .051 .030	0 .000 .000 .000	0	32	28	67	57	0	0	0	0	0	0	90
270	DRILL, BLAST HOLE	A	10	20	0 .000 .000 .000	0 .000 .000 .000	0	0	0	0	0	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	0	0	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	0	0	0	0	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	0	0	0	0	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	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 BACKHOE, WHEEL TYPE	A	10	25	65 .000	.066	.038		0 .000	.000	.000		0	32	28	60	40	0	70
475		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			
					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	0
	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 UNIT FOR TANDEM TRACTORS)	A	12	25	70 .000	.000	.041		0 .000	.000	.000		0	0	25	0	0	0	100
620		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 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	115
625		S	12	20	0 .000 .000 .054	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	125
630	TRACTOR, BLADES, PUSH BLOCKS,	A	10	20	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	90
630	PUSH PLATES & CLEARING BLADES	S	8	20	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	90
645	TRACTOR, WHEEL TYPE	A	10	20	65 .000 .066 .038	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	60 .44 .0	60	
645		S	8	20	0 .000 .086 .049	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	46 .17 .0	65	
650	TRENCHER	A	10	20	65 .000 .066 .038	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	60 .40 .0	90	
650		S	8	20	0 .000 .086 .049	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	41 .19 .0	100	
655	TRAILERS, BOTTOM DUMP AND	A	10	25	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .61	80	
655	END DUMP	S	8	25	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .44	90		
660	TRAILERS, FLATBED, LO-BOY AND TILT	A	10	30	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .61	80		
	TRUCK ACCESSORIES FOR CHASSIS MOUNTING																		
670	DUMP BODIES	A	8	20	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	80	
670		S	6	20	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	90	
675	ALL OTHER ACCESSORIES	A	8	20	65 .000 .066 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	80	
	TRUCK, HIGHWAY																		
690	0 THRU 10,000 GVW	A	8	20	20 .000 .020 .012	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	47 .40 .0	70		
690		S	6	20	0 .000 .026 .015	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	33 .20 .0	80		
695	OVER 10,000 THRU 30,000 GVW	A	8	20	40 .000 .041 .024	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	47 .40 .0	70		
695		S	6	20	0 .000 .053 .031	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	33 .20 .0	80			
705	OVER 30,000 GVW	A	8	20	60 .000 .061 .035	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	47 .40 .61	70		
705		S	6	20	0 .000 .079 .046	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	33 .20 .44	80			
720	TRUCK, OFF-HIGHWAY	A	12	20	40 .000 .000 .024	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	58 .36 .65	70			
720		S	10	20	0 .000 .000 .031	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	40 .22 .45	80			
765	WAGON, BOTTOM DUMP & WATER	A	12	20	65 .000 .066 .038	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	58 .36 .65	60			
765		S	10	20	0 .000 .086 .049	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	40 .22 .45	65			
780	WAGON, REAR DUMP	A	12	20	65 .000 .066 .038	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	58 .36 .65	70			
780		S	10	20	0 .000 .086 .049	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	40 .22 .45	80			
785	WATER BLASTER	A	6	20	95 .000 .097 .056	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	0 .000 .000 .000	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

CATEGORY	YEAR OF PURCHASE - NEW												
	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969
	AGE IN YEARS												
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 &amp; 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	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
		<u>0.648</u>	<u>0.448</u>
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	<u>0.80</u>	<u>0.7</u>
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.