



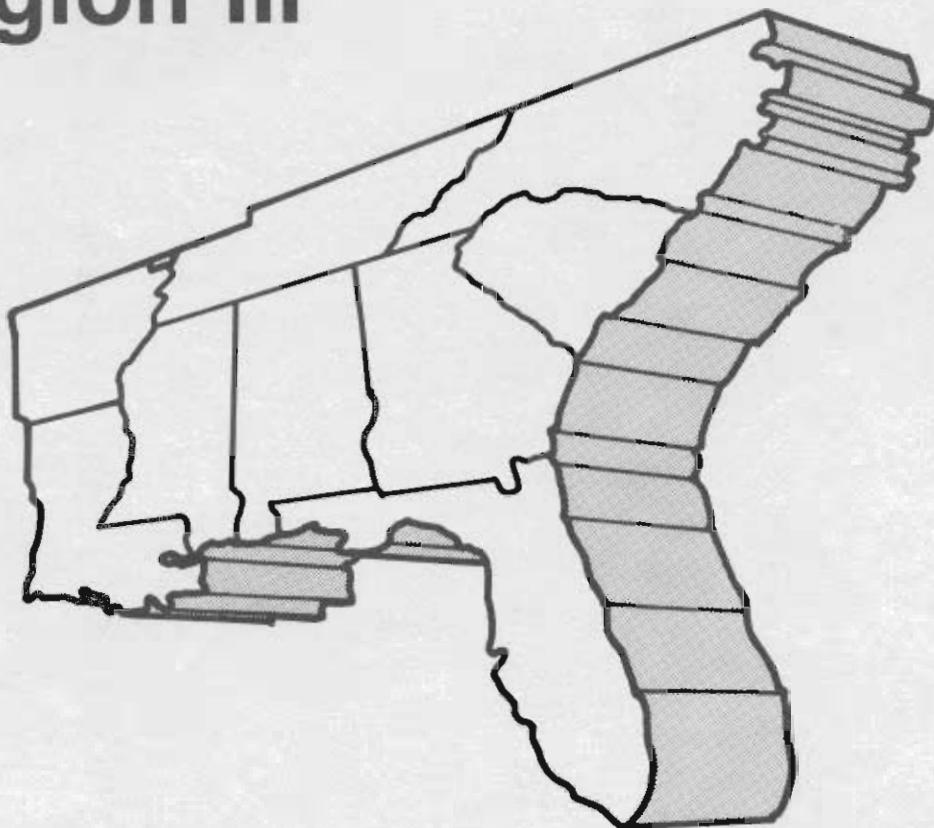
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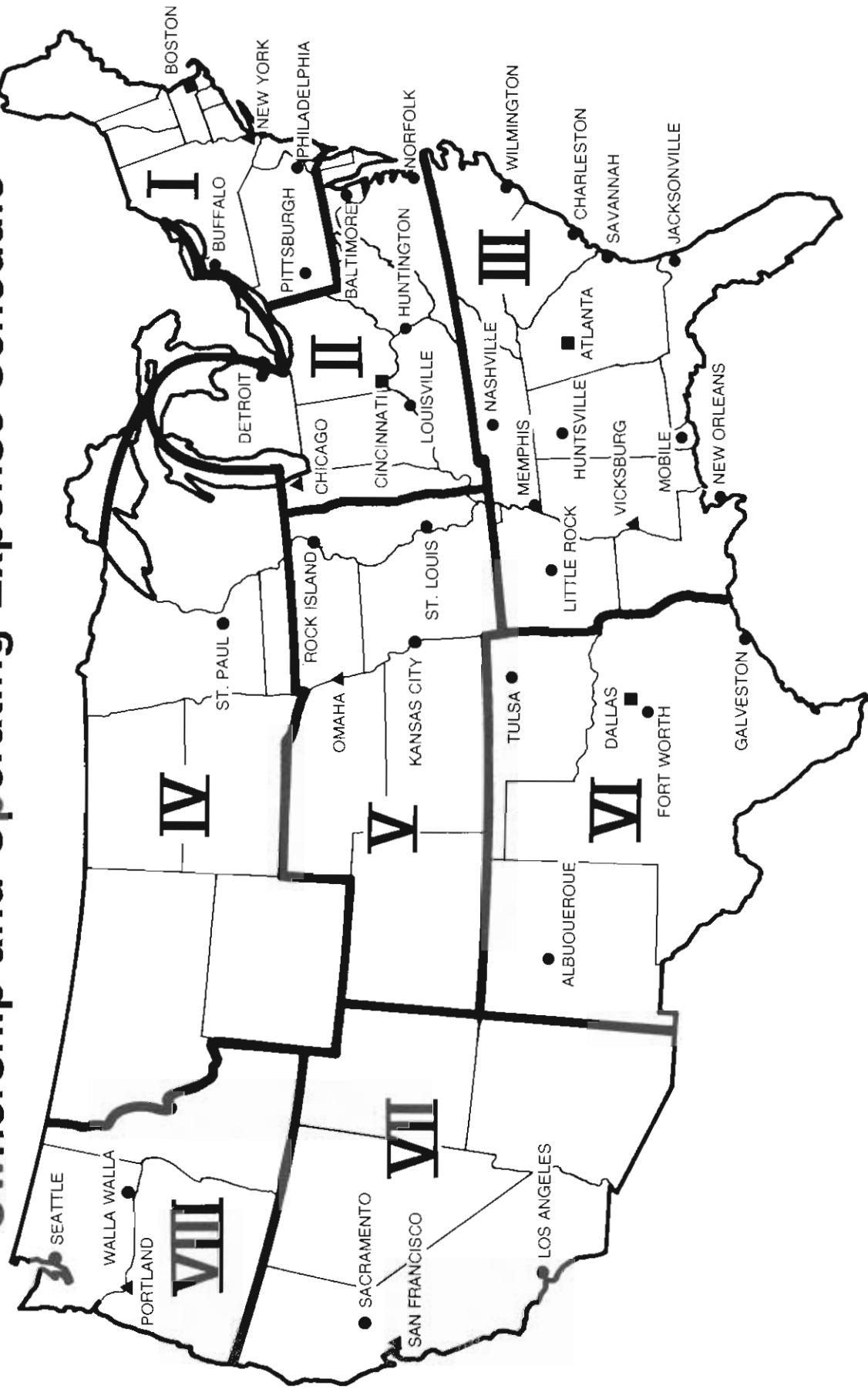
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# Construction Equipment Ownership and Operating Expense Schedule

## Region III



# 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  
Washington, DC 20314

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15 June 1981

Engineering and Design  
CONSTRUCTION EQUIPMENT OWNERSHIP  
AND OPERATING EXPENSE SCHEDULE

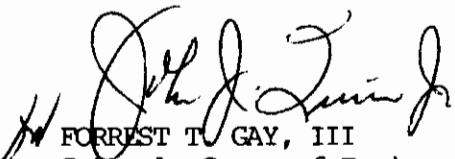
1. Purpose. This pamphlet establishes predetermined equipment ownership and operating expense rates for use in preparation of estimates and in pricing negotiated procurements requiring independent Government estimates.

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

Alabama	Mississippi
Arkansas	Missouri (panhandle south of 36°-30' -00")
Florida	North Carolina
Georgia	South Carolina
Louisiana	Tennessee

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  
DAEN-MPE-S

DEPARTMENT OF THE ARMY  
US Army Corps of Engineers  
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## CHAPTER 1

### INTRODUCTION

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

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

Alabama	Mississippi
Arkansas	Missouri (panhandle south of 36°-30'-00")
Florida	North Carolina
Georgia	South Carolina
Louisiana	Tennessee

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.

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

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.

FOR ILLUSTRATION PURPOSES ONLY

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

1. REQUIRED DATA

a. Unit Number 2740

(1) Equipment Description Lorain Truck Crane 50-Ton  
(2) Model and Series MC-550A W/160' Boom  
(3) Year Purchased 1979 (4) Year Purchased New 1979  
(5) Equipment Horsepower 115 (6) Carrier Horsepower 246  
(7) Fuel Type Diesel/Diesel (8) Shipping Weight 111,100 Lbs.  
(9) Tire Size: Front-1400x20-18 PR Drive-1400x20-18 PR Trailing- N/A

b. Key Number from APPENDIX D 225

(1) Condition Average  
(2) Salvage Value % 20% (3) Life 18,000 Hrs.  
(4) Equipment Fuel Factor .038 (5) Carrier Fuel Factor .006  
(6) FOG Factor: Gas N/A Diesel .26 Electric N/A  
(7) Tire Wear Factor: Front .95 Drive .90 Trailing N/A  
(8) Repairs Cost Factor .60

2. EQUIPMENT COST

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

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

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

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

= (1,111 Cwt.) x (\$ 2.14 ) = (+) \$ 2,377.54

b. Subtotal: Summation of Part a. (Use actual cost when available) = \$ 249,386.76

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

= (\$ 249,386.76) x (.04 ) = (+) \$ 9,975.47

c. Equipment Cost: Summation of Part b. (Use actual cost when available)

= \$ 259,362.23

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

3. LIFE (N)

$$\text{Life} = \frac{\text{Hours Use/Year From APPENDIX B}}{\text{Hours Used}} = \frac{18,000}{1,550} = 11.61 \text{ yrs.}$$

4. ECONOMIC ADJUSTMENT FACTOR (EAF)

$$\text{EAF} = \frac{\text{Economic Index for Present}}{\text{Economic Index for Year Purchased New From APP. E}} = \frac{3044}{2512} = 1.212 \text{ (EAF)}$$

5. SALVAGE VALUE FACTOR (S)

$$\text{S} = \frac{\text{Salvage Factor}}{\text{From 1-b-(2)}} \times \frac{\text{EAF}}{\text{From 4}} = \frac{1.20}{1.212} = .242 \text{ (S)}$$

6. OWNERSHIP COSTS

a. Depreciation:

$$\text{Depreciation} = \frac{\text{Equipment Cost}}{\text{2-c}} \times \frac{[1.0 - (\text{S From})]}{5} - \frac{(\text{Tire Cost})}{\text{When New}} + \frac{\text{Life}}{\text{1-b-(3)}} = \frac{[(\$259,362) \times [1.0 - (.242)] - (\$5,698)]}{18,000} = \$10.61/\text{hr.}$$

b. Cost of Facilities Capital (CFC):

$$\text{CFC} = \frac{\text{Life}}{3} \times \frac{[(\text{From}) - 1.0] \times [(\text{S From}) + 1.0] + 2.0}{5} + \frac{\text{Life}}{3} \times [(\text{From}) \times 2.0] = \frac{[(11.61 \text{ yrs}) - 1.0] \times [(.242) + 1.0] + 2.0}{11.61} + [(11.61 \text{ yrs}) \times 2.0] = .6536$$

$$\text{CFC Factor} = \frac{\text{Equipment Cost}}{\text{2-c}} \times \frac{\text{Average Value Factor}}{\text{From 6-b-(1)}} \times \frac{\text{CFC Factor}}{\text{2-2.c.(2)}} + \frac{\text{Hrs Use/Yr}}{\text{APP. B}} = \frac{(\$259,362) \times (.6536) \times (.116)}{1,550} = \$12.69/\text{hr.}$$

c. Total Hourly Ownership: (Sum 6-a + 6-b-(2)) = \$23.30 /hr.

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

7. OPERATING COSTS

a. Fuel Costs:

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

$$=(.038) \times (115 \text{ HP}) \times (\$ 1.02/\text{Gal}) = \$ 4.46/\text{Hr.}$$

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

$$=(.006) \times (246 \text{ HP}) \times (\$ 1.13/\text{Gal}) = \$ 1.67/\text{Hr.}$$

(3) Total Fuel Costs: (Sum 7-a-(1), 7-a-(2)) = \$ 6.13/Hr.

b. FOG Costs:

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

$$=(.26) \times (\$ 4.46/\text{Hr}) = \$ 1.16/\text{Hrs.}$$

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

$$=(.26) \times (\$ 1.67/\text{Hr}) = \$ .43/\text{Hr.}$$

(3) Total FOG Costs: (Sum 7-b-(1), 7-b-(2)) = \$ 1.59/Hr.

c. Repairs Cost:

(1) Repair Factor:

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

$$=(.60) \times (.212) \times (.90) = .654$$

(2) Hourly Repairs:

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

$$=[(\$ 257,362) - (\$ 5,698)] \times (.654) + (18,000 \text{ Hr}) = \$ 9.22/\text{Hr.}$$

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

**d. Tire Wear Costs:**

$$(2) \text{ Drive Tires: } 1.5 \times (\text{Tires}) + [1.8 \times (\text{Ftr Frm}) \times (\text{Life Frm})]$$

Cost	1-b-(7)	Tbl F-1
------	---------	---------

$$= 1.5 \times (\$ \underline{\underline{4845}}) + [1.8 \times (.90) \times (\underline{\underline{5000}} \text{ Hr})] = \$ \underline{\underline{.90}} / \text{Hr.}$$

(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  
 $= 1.5 \times (\$ \underline{\hspace{2cm}}) + [1.8 \times (\underline{\hspace{2cm}}) \times (\underline{\hspace{2cm}} \text{ Hr})] = \$ \underline{\hspace{2cm}} / \text{Hr.}$

(4) Total Tire Wear Cost: (Sum 7-d-(1) thru (3)) = \$ 11.33 /Hr.

e. Tire Repair Cost: (Tire Wear ) x 0.15  
Frm 7-d-(4)  
= (\$ 1.33 ) x 0.15 = \$ .20 /Hr.

f. Total Operating Costs: (Sum 7-a thru 7-e) = \$ 18.47/Hr.

#### 8. TOTAL HOURLY RATES

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

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

$$= (\$ 23.30 / \text{Hr}) + (\$ 18.47 / \text{Hr}) = \$ 41.77 / \text{Hr}.$$

b. Hourly Rate for Other Work Shifts:

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

$$= (\$ 10.61/\text{Hr}) + [(\$ 12.69/\text{Hr}) \times 40 \div (60 \text{ Hr/Wk})] + (\$ 18.47/\text{Hr}) = \$ 37.54/\text{Hr}.$$

c. Hourly Standby Rate:

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

$$= (\$ \underline{10.61} / \text{Hr}) \times 0.25 + (\$ \underline{12.69} / \text{Hr}) = \$ \underline{15.34} / \text{Hr.}$$

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>	<u>LIFE (YRS)</u>	<u>SALVAGE VALUE FACTOR</u>	PERCENT <u>ANNUAL OWNERSHIP EXPENSE</u>				
			<u>DEPRE- CIATION</u>	<u>CFC</u>	<u>TOTAL</u>		
<b>Hydraulic dredge, including hydraulic dredges used as</b>							
<b>Boosters:</b>							
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		
<b>Booster &amp; Barge:</b>							
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		
<b>Barges:</b>							
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		
<b>Floating Line:</b>							
Pontoons	15	0	6.7	6.19	12.89		
Pipeline/Joints (Avg)	10	0	10.0	6.38	16.38		

## CHAPTER 3

### RATE SCHEDULE

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

### 3-2. Hourly Equipment Ownership and Operating Expense.

#### a. Description.

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

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

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

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

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

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

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

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

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

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

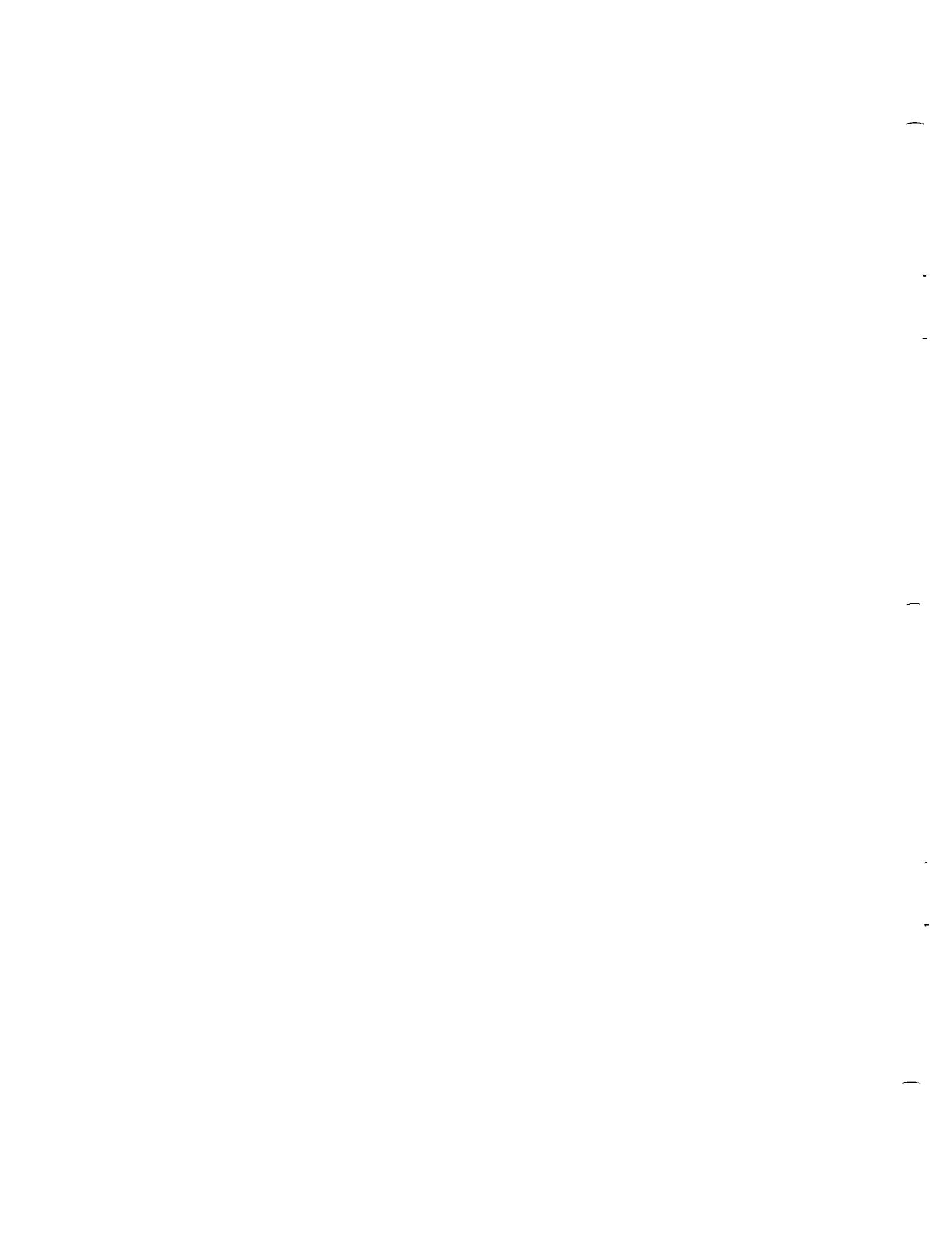


TABLE 3-1. HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE

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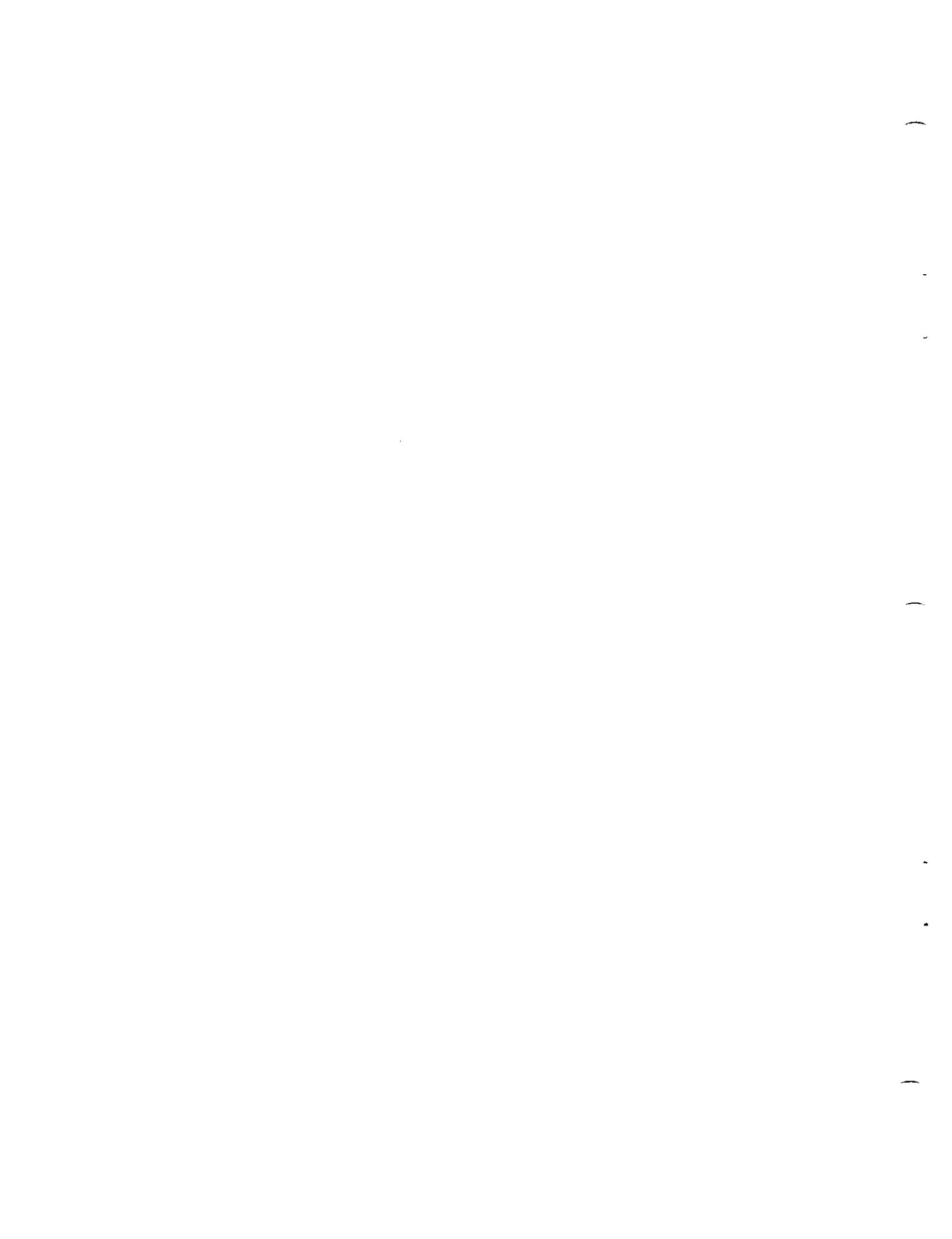


TABLE 3-1 HOURLY EQUIPMENT OWNERSHIP AND OPERATING EXPENSE (CONTINUED)

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>AGGREGATE SPREADER</b> \$888888888888888888												
<b>TOWED</b>												
1005	WALES HANDY SPREADER SPREADS TO 2' DEPTH AND UP TO 10' WIDE	4,761	1.08		0.33	0.59	0.00			19		
1010	HI-WAY MOD R-1 SPREADS TO 3.5' DEPTH AND UP TO 12' WIDE	6,203	1.38		0.42	0.76	0.00			23		
<b>SELF PROPELLED</b>												
1020	ETWYRE TO 8' DEPTH & 13' WIDE	187 HP G	30,946	22.19		2.14	3.85	12.49		155		
1025	ETWYRE TO 8' DEPTH & 13' WIDE	123 HP D	34,542	12.12		2.39	4.30	3.76		160		
<b>AIR COMPRESSORS PORTABLE</b> \$888888888888888888 (HOSE NOT INCLUDED)												
<b>ROTARY SCREW</b>												
1040	SIZE 85 CFM QUIET 100 PSI	47 HP G	6,746	6.83		0.47	0.83	4.06		17		
1045	SIZE 85 CFM QUIET 100 PSI	38 HP D	9,556	3.96		0.67	1.17	1.47		20		
1050	SIZE 100 CFM QUIET 100 PSI	50 HP G	9,008	7.67		0.63	1.11	4.32		20		
1055	SIZE 100 CFM QUIET 100 PSI	42 HP D	10,806	4.45		0.76	1.33	1.63		23		
1060	SIZE 125 CFM QUIET 100 PSI	56 HP G	10,289	8.64		0.72	1.27	4.84		24		
1065	SIZE 125 CFM QUIET 100 PSI	47 HP D	12,075	4.96		0.84	1.48	1.82		26		
1070	SIZE 150 CFM QUIET 100 PSI	69 HP G	12,774	10.67		0.90	1.57	5.97		26		
1075	SIZE 150 CFM QUIET 100 PSI	70 HP D	15,004	6.75		1.06	1.85	2.71		28		
1080	SIZE 185 CFM QUIET 100 PSI	69 HP G	13,867	10.91		0.98	1.71	5.97		27		
1085	SIZE 185 CFM QUIET 100 PSI	70 HP D	16,349	7.04		1.15	2.01	2.71		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	
	AIR COMPRESSORS PORTABLE (CONT'D) ***** (HOSE NOT INCLUDED)									
	ROTARY SCREW (CONT'D)									
1090	SIZE 340 CFM QUIET 100 PSI	103 HP D	31,775	12.04		2.23	3.91	3.99		55
1095	SIZE 450 CFM QUIET 100 PSI	152 HP D	42,086	16.73		2.95	5.18	5.89		80
1100	SIZE 600 CFM QUIET 100 PSI	196 HP D	58,941	22.59		4.13	7.25	7.60		111
1105	SIZE 750 CFM QUIET 100 PSI	228 HP D	68,472	26.27		4.81	8.44	8.84		120
1110	SIZE 825 CFM QUIET 100 PSI	250 HP D	73,623	28.48		5.17	9.07	9.69		127
1115	SIZE 900 CFM QUIET 100 PSI	280 HP D	81,362	31.65		5.71	10.02	10.85		148
1120	SIZE 1000 CFM QUIET 100 PSI	283 HP D	92,658	34.27		6.51	11.41	10.97		165
1125	SIZE 1200 CFM QUIET 100 PSI	325 HP D	112,046	40.58		7.86	13.79	12.60		192
1130	SIZE 1600 CFM QUIET 100 PSI	456 HP D	132,919	51.64		9.33	16.37	17.67		223
	AIR TOOLS ***** (HOSE NOT INCLUDED)									
	GARDNER DENVER									
1140	TAMPER T23	20CFM A	852	0.44		0.09	0.21	0.00		1
1145	SPADER SP27E	32CFM A	858	0.44		0.09	0.21	0.00		1
1150	SINKER DRILL S48	88CFM A	1,775	0.91		0.19	0.44	0.00		1
1155	SINKER DRILL S58	98CFM A	1,887	0.97		0.20	0.47	0.00		1
1160	PAVING BREAKER B37	41CFM A	881	0.45		0.09	0.22	0.00		1
1165	PAVING BREAKER B67C	46CFM A	945	0.48		0.10	0.23	0.00		1
1170	PAVING BREAKER B87C	50CFM A	1,027	0.53		0.11	0.26	0.00		1

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	
AIR TOOLS (CONT'D) XXXXXXXXXXXXXXXXXXXX (HOSE NOT INCLUDED)										
1175	FEED LEG DRILL FL83-54° TRAVEL RETRACTABLE	103CFM A	3.471	1.78		0.37	0.86	0.00		1
1180	FEED LEG DRILL FL53-48° TRAVEL RETRACTABLE	88CFM A	2.971	1.53		0.31	0.74	0.00		1
SANDBLASTERS CLEMCO										
1190	SCW-1028P SANDBLASTER 1/2" HOSE 85CFM A INCLUDES ACCESSORIES AND 50' HOSE	1.214	0.68			0.13	0.30	0.00		2
1195	SCW-1440P SANDBLASTER 3/4" HOSE 85CFM A INCLUDES ACCESSORIES AND 50' HOSE	2.154	1.16			0.22	0.53	0.00		5
1200	SCWB-1648P SANDBLASTER 1" HOSE 125CFM A INCLUDES ACCESSORIES AND 50' HOSE	2.224	1.21			0.24	0.56	0.00		6
1205	SCWB-2452P SANDBLASTER 1-1/4" HOSE 210CFM A INCLUDES ACCESSORIES AND 50' HOSE	2.334	1.26			0.24	0.58	0.00		6
1210	SCH-3079P SANDBLASTER 1-1/4" HOSE 210CFM A INCLUDES ACCESSORIES AND 50' HOSE	2.543	1.37			0.27	0.64	0.00		9
CONCRETE VIBRATORS (DART)										
1220	CONCRETE VIBRATOR MOD A-600SH 6" 120CFM A	2.162	1.96			0.22	0.53	0.00		1
1225	CONCRETE VIBRATOR MOD A-450SH 4.5" 98CFM A	1.844	1.68			0.20	0.46	0.00		1
1230	CONCRETE VIBRATOR MOD A-35012 3.5" 74CFM A	1.648	1.50			0.17	0.41	0.00		1
1235	CONCRETE VIBRATOR MOD A-30012 3" 50CFM A	1.469	1.33			0.15	0.36	0.00		1
1240	CONCRETE VIBRATOR MOD A-25010 2.5" 44CFM A	1.194	1.09			0.13	0.30	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	
<b>ASPHALT DISTRIBUTOR-ROSCO</b> ***** (NO CHASSIS)										
1250	MOD RES 1000 GAL. TRUCK MOUNTED 18,000 TO 24,000 GVW REQUIRED	50 HP G	17.840	9.43		1.26	2.12	4.32		72
1255	MOD RES 1500 GAL. TRUCK MOUNTED 24,000 TO 32,000 GVW REQUIRED	50 HP G	18.506	9.58		1.31	2.20	4.32		75
1260	MOD RES 2000 GAL. TRUCK MOUNTED 32,000 GVW REQUIRED	50 HP G	19.825	9.85		1.40	2.36	4.32		87
1265	MOD RES 3000 GAL. TRUCK MOUNTED 42,000 GVW REQUIRED	50 HP G	22.347	10.45		1.57	2.60	4.32		109
 <b>ASPHALT FINISHERS-BARBER GREENE</b> *****										
1275	MOD SB111 8'-12' WIDE (PNEUMATIC)	70 HP D	68.887	19.05		4.79	8.69	2.71		155
1280	MOD SB131 10'-12' WIDE (P'MATIC) W/VIB SCREED,AUTO. FEEDERS AND GR CONTROL	95 HP D	100.107	27.65		6.96	12.58	3.68		245
1285	MOD SB140 10'-12' WIDE (P'MATIC) OPTIONS SAME AS MOD SB131	130 HP D	114.665	33.04		7.94	14.31	5.04		314
1290	MOD SA150 10'-12' WIDE (CRAWLER) OPTIONS SAME AS MOD SB131	130 HP D	138.133	37.23		9.64	17.54	5.04		370
 <b>BROOMS M-B</b> *****										
1300	MOD S3T HYD 7 FT. TOWED MECH/DRIVE W/SPRINKLER		4.868	1.25		0.34	0.61	0.00		24
1305	MOD S3-M 7 FT. TOWED MOTOR/DRIVEN W/SPRINKLER	25 HP G	6.234	4.09		0.44	0.78	2.16		30
1310	MOD MT 7 FT. TRACTOR/MOUNTED PTO/DRIVE W/SPRINKLER/		2.227	0.66		0.15	0.28	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	
<b>BROOMS M-B (CONT'D)</b> *****									
1315	MOD MT 7 FT. TRACTOR/MOUNTED HYD/DRIVE W/SPRINKLER	3,736	0.95		0.26	0.47	0.00		14
<b>BRUSH CHIPPERS - FITCHBERG</b> *****									
1325	MOD TMC-612 CAP. TD 6" DIA. LOG 151 HP 6	4,908	18.36		0.34	0.62	13.06		37
1330	MOD TMC-915 CAP. TD 9" DIA. LOG 165 HP 6	6,035	20.21		0.42	0.76	14.27		40
<b>BUCKETS-CLAMSHELL</b> *****									
<b>GENERAL PURPOSE - SQUARE NOSE ESCO MODEL 6</b>									
1340	1.0 C.Y.	7,866	1.74	2.61	0.56	0.99	0.00	1.55	0.00
1345	1.5 C.Y.	11,563	2.56	3.84	0.81	1.45	0.00	2.28	0.00
1350	2.0 C.Y.	13,083	2.89	4.34	0.92	1.64	0.00	2.58	0.00
1355	2.5 C.Y.	17,050	3.76	5.66	1.19	2.13	0.00	3.37	0.00
1360	3.0 C.Y.	18,061	3.99	6.00	1.26	2.26	0.00	3.57	0.00
1365	3.5 C.Y.	18,469	4.08	6.13	1.29	2.31	0.00	3.65	0.00
1370	4.0 C.Y.	20,333	4.48	6.75	1.42	2.54	0.00	4.02	0.00
1375	4.5 C.Y.	21,980	4.84	7.30	1.53	2.74	0.00	4.34	0.00
1380	5.0 C.Y.	23,803	5.26	7.89	1.67	2.98	0.00	4.69	0.00
1385	5.5 C.Y.	25,688	5.68	8.52	1.80	3.22	0.00	5.07	0.00
1390	6.0 C.Y.	26,591	5.86	8.83	1.86	3.32	0.00	5.25	0.00
1395	6.5 C.Y.	28,761	6.34	9.55	2.01	3.59	0.00	5.68	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 COMB.		SEVERE COMB.			
			AVERAGE	SEVERE		OWNER-SHIP	FUEL	OWNER-SHIP	FUEL		
	BUCKETS-CLAMSHELL (CONT'D) \$										
	GENERAL PURPOSE - SQUARE NOSE CONT'D ESCO MODEL 6										
1400	7.0 C.Y.	29,613	6.53	9.83	2.07	3.70	0.00	5.85	0.00	185	
	HEAVY DUTY - SQUARE NOSE ESCO MODEL HD										
1410	1.0 C.Y.	9,549	2.10	3.17	0.67	1.19	0.00	1.89	0.00	49	
1415	1.5 C.Y.	13,880	3.07	4.61	0.98	1.74	0.00	2.74	0.00	74	
1420	2.0 C.Y.	14,971	3.30	4.96	1.05	1.87	0.00	2.95	0.00	82	
1425	2.5 C.Y.	19,022	4.20	6.32	1.33	2.38	0.00	3.76	0.00	104	
1430	3.0 C.Y.	20,799	4.59	6.91	1.45	2.60	0.00	4.11	0.00	115	
1435	3.5 C.Y.	22,439	4.96	7.45	1.57	2.81	0.00	4.43	0.00	126	
1440	4.0 C.Y.	24,112	5.32	8.00	1.68	3.01	0.00	4.76	0.00	137	
1445	4.5 C.Y.	25,885	5.72	8.59	1.82	3.24	0.00	5.11	0.00	147	
1450	5.0 C.Y.	28,484	6.28	9.45	1.99	3.56	0.00	5.62	0.00	163	
1455	5.5 C.Y.	30,051	6.63	9.97	2.10	3.76	0.00	5.93	0.00	172	
1460	6.0 C.Y.	31,791	7.01	10.55	2.22	3.97	0.00	6.27	0.00	182	
1465	6.5 C.Y.	33,131	7.31	11.00	2.32	4.14	0.00	6.54	0.00	193	
1470	7.0 C.Y.	34,480	7.61	11.44	2.41	4.31	0.00	6.80	0.00	193	
	EXTRA HEAVY DUTY - SQUARE NOSE ESCO MODEL X										
1480	1.0 C.Y.	10,912	2.40	3.62	0.76	1.36	0.00	2.15	0.00	58	
1485	1.5 C.Y.	16,212	3.58	5.38	1.14	2.03	0.00	3.20	0.00	85	

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-CLAMSHELL (CONT'D)</b>												
*****												
<b>EXTRA HEAVY DUTY - SQUARE NOSE CONT'D</b>												
ESCO MODEL X												
1490	2.0 C.Y.	19.609	4.33	6.51	1.37	2.45	0.00	3.87	0.00	103		
1495	2.5 C.Y.	21.883	4.83	7.26	1.53	2.74	0.00	4.32	0.00	121		
1500	3.0 C.Y.	23.752	5.24	7.88	1.67	2.97	0.00	4.69	0.00	135		
1505	3.5 C.Y.	24.965	5.51	8.29	1.75	3.12	0.00	4.93	0.00	149		
1510	4.0 C.Y.	26.442	5.83	8.78	1.85	3.30	0.00	5.22	0.00	158		
1515	4.5 C.Y.	27.690	6.11	9.18	1.94	3.46	0.00	5.46	0.00	168		
1520	5.0 C.Y.	29.694	6.55	9.85	2.08	3.71	0.00	5.86	0.00	181		
1525	5.5 C.Y.	31.435	6.94	10.44	2.20	3.93	0.00	6.21	0.00	193		
1530	6.0 C.Y.	33.045	7.30	10.96	2.32	4.14	0.00	6.52	0.00	203		
1535	6.5 C.Y.	35.802	7.90	11.89	2.51	4.48	0.00	7.07	0.00	220		
1540	7.0 C.Y.	36.872	8.14	12.23	2.58	4.61	0.00	7.27	0.00	230		
<b>BUCKETS-CONCRETE-GAR-BRO</b>												
*****												
<b>GENERAL PURPOSE - MANUAL</b>												
1550	1.0 C.Y.	1.069	0.24		0.08	0.14	0.00			6		
1555	1.5 C.Y.	1.335	0.30		0.10	0.17	0.00			8		
1560	2.0 C.Y.	1.733	0.39		0.12	0.22	0.00			11		
1565	3.0 C.Y.	2.482	0.55		0.18	0.31	0.00			19		
1570	4.0 C.Y.	3.137	0.69		0.22	0.39	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-BAR-BRO (CONT'D)</b>												
<b>GENERAL PURPOSE - LOW SLUMP - AIR</b>												
1580	1.0 C.Y.	4,586	1.02		0.33	0.58	0.00			19		
1585	1.5 C.Y.	4,806	1.06		0.34	0.60	0.00			21		
1590	2.0 C.Y.	5,013	1.11		0.35	0.63	0.00			23		
1595	3.0 C.Y.	6,830	1.50		0.48	0.85	0.00			42		
1600	4.0 C.Y.	7,101	1.57		0.50	0.89	0.00			52		
1605	6.0 C.Y. DBL. COMPT.	10,290	2.27		0.72	1.29	0.00			72		
1610	8.0 C.Y. DBL. COMPT.	12,260	2.70		0.86	1.53	0.00			80		
<b>LAYDOWN - HEAVY DUTY - CLAM GATE TYPE</b>												
1620	1.0 C.Y.	4,206	0.93		0.30	0.53	0.00			17		
1625	2.0 C.Y.	4,657	1.03		0.33	0.58	0.00			21		
1630	3.0 C.	5,325	1.17		0.37	0.66	0.00			27		
1635	4.0 C.Y.	6,188	1.36		0.43	0.77	0.00			60		
<b>BUCKETS-DRAGLINE</b>												
<b>LIGHT WEIGHT - PERFORATED HENDRIX MODEL LS</b>												
1650	1.0 C.Y.	2,469	0.55	0.83	0.18	0.31	0.00	0.50	0.00	18		
1655	1.5 C.Y.	3,014	0.67	1.01	0.22	0.38	0.00	0.60	0.00	26		
1660	2.0 C.Y.	3,553	0.78	1.19	0.25	0.44	0.00	0.71	0.00	32		
1665	2.5 C.Y.	4,173	0.93	1.38	0.30	0.53	0.00	0.82	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	AVERAGE COND.	SEVERE COND.							
			AVERAGE	SEVERE			OWNER-SHIP	FUEL						
<b>BUCKETS-DRAGLINE (CONT'D)</b>														
<del>XXXXXXXXXXXXXX</del>														
<b>LIGHT WEIGHT - PERFORATED (CONT'D)</b>														
HENDRIX MODEL LS														
1670	3.0 C.Y.	5,129	1.13	1.71	0.36	0.64	0.00	1.02	0.00	41				
1675	3.5 C.Y.	5,687	1.25	1.88	0.40	0.71	0.00	1.12	0.00	47				
1680	4.0 C.Y.	6,932	1.53	2.31	0.49	0.87	0.00	1.38	0.00	64				
1685	4.5 C.Y.	7,359	1.62	2.45	0.52	0.92	0.00	1.46	0.00	67				
1690	5.0 C.Y.	8,883	1.96	2.95	0.62	1.11	0.00	1.76	0.00	83				
1695	6.0 C.Y.	9,639	2.13	3.20	0.68	1.21	0.00	1.90	0.00	90				
1700	7.0 C.Y.	10,538	2.32	3.51	0.73	1.31	0.00	2.09	0.00	101				
1705	8.0 C.Y.	11,685	2.58	3.88	0.82	1.46	0.00	2.31	0.00	112				
1710	10.0 C.Y.	14,669	3.24	4.87	1.03	1.84	0.00	2.90	0.00	139				
1715	12.0 C.Y.	18,035	3.97	6.00	1.26	2.25	0.00	3.57	0.00	166				
1720	14.0 C.Y.	20,737	4.57	6.88	1.45	2.59	0.00	4.09	0.00	191				
<b>MEDIUM WEIGHT - HENDRIX MODEL TS</b>														
1730	1.0 C.Y.	2,988	0.66	0.99	0.21	0.37	0.00	0.59	0.00	19				
1735	1.5 C.Y.	3,677	0.81	1.22	0.26	0.46	0.00	0.73	0.00	28				
1740	2.0 C.Y.	4,381	0.97	1.46	0.31	0.55	0.00	0.87	0.00	36				
1745	2.5 C.Y.	5,054	1.11	1.68	0.35	0.63	0.00	1.00	0.00	41				
1750	3.0 C.Y.	6,037	1.33	2.00	0.42	0.75	0.00	1.19	0.00	49				
1755	3.5 C.Y.	6,671	1.47	2.22	0.46	0.83	0.00	1.32	0.00	54				
1760	4.0 C.Y.	8,001	1.77	2.66	0.56	1.00	0.00	1.58	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	AVERAGE COND.		SEVERE COND.						
			AVERAGE	SEVERE		OWNER-SHIP	FUEL	OWNER-SHIP	FUEL					
<b>BUCKETS-DRAGLINE (CONT'D)</b>														
<b>MEDIUM WT. - HENDRIX MODEL TS CONT'D</b>														
1765	4.5 C.Y.	8,565	1.89	2.85	0.60	1.07	0.00	1.70	0.00	72				
1770	5.0 C.Y.	10,979	2.43	3.65	0.77	1.38	0.00	2.17	0.00	93				
1775	6.0 C.Y.	11,343	2.50	3.77	0.80	1.42	0.00	2.24	0.00	96				
1780	7.0 C.Y.	12,947	2.86	4.30	0.91	1.62	0.00	2.56	0.00	111				
1785	8.0 C.Y.	14,258	3.15	4.74	1.00	1.79	0.00	2.82	0.00	122				
1790	10.0 C.Y.	18,172	4.01	6.03	1.27	2.27	0.00	3.59	0.00	159				
1795	12.0 C.Y.	23,159	5.11	7.69	1.63	2.90	0.00	4.58	0.00	202				
1800	14.0 C.Y.	25,790	5.69	8.56	1.80	3.22	0.00	5.09	0.00	225				
<b>HEAVY WEIGHT - HENDRIX MODEL MH-S</b>														
1810	2.75 C.Y.	9,698	2.14	3.22	0.68	1.21	0.00	1.92	0.00	69				
1815	3.0 C.Y.	10,093	2.23	3.36	0.71	1.26	0.00	2.00	0.00	72				
1820	3.5 C.Y.	11,301	2.49	3.76	0.79	1.41	0.00	2.24	0.00	81				
1825	4.0 C.Y.	15,106	3.33	5.02	1.06	1.89	0.00	2.99	0.00	110				
1830	4.5 C.Y.	16,891	3.73	5.60	1.18	2.11	0.00	3.33	0.00	123				
1835	5.0 C.Y.	17,441	3.85	5.79	1.22	2.18	0.00	3.44	0.00	127				
1840	6.0 C.Y.	18,676	4.12	6.19	1.30	2.33	0.00	3.68	0.00	136				
1845	7.0 C.Y.	23,428	5.17	7.77	1.64	2.93	0.00	4.62	0.00	173				
1850	8.0 C.Y.	24,307	5.35	8.07	1.70	3.03	0.00	4.80	0.00	180				
1855	10.0 C.Y.	32,031	7.06	10.63	2.24	4.00	0.00	6.32	0.00	242				
1860	12.0 C.Y.	36,315	8.01	12.04	2.54	4.54	0.00	7.16	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.	OWNER-SHIP	FUEL	OWNER-SHIP	
	BUCKETS-DRAGLINE (CONT'D) \$									
	HEAVY WT - HENDRIX MODEL MH-S CONT'D									
1865	14.0 C.Y.	39,481	8.72	13.10	2.77	4.94	0.00	7.79	0.00	299
	COMPACTORS MANUALLY OPERATED \$									
1875	UR-12 I-R RAMMER	3 HP G	1,428	0.96		0.13	0.26	0.36		1
1880	GVR100 WACKER RAMMER	3 HP G	1,357	0.93		0.11	0.24	0.36		1
1885	GVR220Y WACKER RAMMER	5 HP G	2,291	1.55		0.19	0.41	0.60		2
1890	VP6160B WACKER VIBRO PLATE	4 HP G	1,047	0.96		0.09	0.19	0.48		2
1895	VP6600 WACKER VIBRO PLATE	9 HP G	3,208	2.48		0.27	0.58	1.07		6
	CONCRETE BUGGIES - REMINGTON \$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$									
1905	10 CF WALK-BEHIND	8 HP G	1,968	1.41		0.14	0.25	0.74		6
	CONCRETE PAVERS \$\$\$\$\$\$\$\$\$									
	CMI									
1915	MOD SUPER 200 16' WIDE SLIPFORM UNIT, 0-25 FT/MIN, CRAWLER MTD.	165 HP D	105,764	31.76		7.38	13.43	6.40		296
1920	MOD SUBURBAN 24' WIDE SLIPFORM UNIT, 0-60 FT/MIN, CRAWLER MTD.	250 HP D	189,050	54.54		13.20	24.02	9.69		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.	OWNER-SHIP	FUEL	
	CONCRETE PAVERS (CONT'D) \$11111111111111111111								
	BONACO								
1930	MOD C-650 24' WIDE FORM PAVER 50 HP G W/4' FINISHING CYLINDERS	17,622	9.66		1.22	2.21	4.32		91
1935	MOD MA-165 16'-6" WIDE SLIPFORM 100 HP D UNIT; AUTO VIBRATORS; CRLR MTD	84,839	23.88		5.92	10.78	3.88		240
	CONCRETE PLACERS \$11111111111111111111								
	ALIVA SHOTCRETE EQUIPMENT								
1945	MOD 240 PLACE 1 TO 5 CY/HR 275CFM A	8,984	2.09		0.63	1.13	0.00		7
1950	MOD 250 PLACE 5.5 TO 10 CY/HR 450CFM A	16,472	3.71		1.15	2.08	0.00		13
1955	MOD 260 PLACE 5 TO 22 CY/HR 675CFM A	23,562	5.24		1.64	2.97	0.00		19
	CONCRETE PUMPS - CHALLENGE-COOK								
1965	MOD 700 1" AGG 70 CY/HR 128 HP D REQUIRES 15,000 GVW TRUCK	41,818	20.75		3.16	6.10	7.31		84
1970	MOD TITAN4000 TR'L MT'D 100 CY/HR 240 HP D	67,041	35.82		5.07	9.79	13.71		134
1975	HYDRAULIC BOOM 60' VERT 52'RAD REQUIRES 20,000 GVW TRUCK FOR BOOM ONLY OR 43,000 GVW WITH PUMP	30,426	8.49		2.30	4.44	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.		
			AVERAGE	SEVERE		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)	126.657	25.77	37.91	8.35	14.35	2.85	22.49	3.70	609
	MOD 597-C 1.25 CY T/C 129 HP D 14'-7" CRAWLERS W/32" SHOES									
1990	DRAGLINE OR CLAMSHELL (LESS BUCKET)	182.392	33.49	48.65	11.31	18.22	3.95	28.83	5.13	814
1995	CRANE 35-T W/70' BOOM	181.814	29.82	43.46	11.28	18.16	3.16	28.74	4.08	803
	MOD 599-C LIFTING CRANE T/C 129 HP D 16'-0" CRAWLERS W/32" SHOES									
2005	CRANE 40-T W/80' BOOM	181.359	29.76	43.36	11.25	18.12	3.16	28.66	4.08	962
	MOD 5299 LIFTING CRANE T/C 129 HP D 17'-6" CRAWLERS W/32" SHOES									
2015	CRANE 50-T W/80' BOOM	208.147	33.61	49.05	12.92	20.80	3.16	32.89	4.08	1088
	MOD 797-C 2 CY T/C 205 HP D 17'-6" CRAWLERS W/33" SHOES									
2025	DRAGLINE OR CLAMSHELL (LESS BUCKET)	243.515	45.89	66.49	15.11	24.33	6.27	38.48	8.15	1278
2030	CRANE 40-T W/80' BOOM	239.886	40.35	58.64	14.88	23.97	5.02	37.91	6.48	1262
	MOD 7250 STEEL ERECTOR T/C 205 HP D 17'-6" CRAWLERS W/33" SHOES									
2040	CRANE 60-T W/80' BOOM	259.378	40.53	58.74	15.42	23.61	5.02	37.83	6.48	1421

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			
	CRANE-SHOVEL-BACKHOE-DRAGLINE CONT'D XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
	CRANER 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	333.786	50.46	73.39	19.84	30.38	5.02	48.68	6.48	1886		
	MOD 999-C STEEL ERECTOR T/C 289 HP D 23'-9" CRAWLERS W/44" SHOES											
2060	CRANE 110-T W/200' BOOM	436.117	66.54	96.68	25.93	39.70	7.07	63.60	9.14	2792		
	MOD 9260 4.5 CY T/C 289 HP D 23'-9" CRAWLERS W/38" SHOES											
2070	CRANE 125T W/270' BOOM	461.802	69.97	101.74	27.46	42.04	7.07	67.35	9.14	3025		
2075	DRAGLINE OR CLAWSELL (LESS BUCKET)	442.265	74.81	108.21	26.30	40.26	8.84	64.49	11.50	2619		
	MOD 9270 LIFT CR TAPERED TIP T/C 289 HP D 23'-9" CRAWLERS W/44" SHOES											
2085	CRANE 150T W/280' BOOM	506.076	75.86	110.45	30.09	46.06	7.07	73.80	9.14	3400		
	MOD 9299 LIFTING CRANE T/C 289 HP D 24'-11" CRAWLERS W/50" SHOES											
2095	CRANE 165T W/290' BOOM	532.594	77.68	112.75	30.98	46.11	7.07	74.54	9.14	3580		
	MOD 9310 LIFTING CRANE T/C 289 HP D 28'-2" CRAWLERS W/50" SHOES											
2105	CRANE 225T W/320' BOOM	623.854	89.56	130.22	36.28	54.00	7.07	87.31	9.14	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 \$										
	CRAMLER 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)	145.817	29.95	44.00	9.61	16.52	3.52	25.89	4.57	671	
2125	CRANE 28-T W/50' BOOM	144.434	24.07	35.00	8.97	14.44	2.82	22.83	3.64	674	
	MOD 30-B SER 4 HVY DUTY 1.5 CY 144 HP D 14'-9" CRAWLERS W/30" SHOES										
2135	BACKHOE	207.777	44.23	63.87	13.39	22.47	5.14	35.29	6.76	787	
2140	DRAGLINE OR CLAMSHELL (LESS BUCKET)	199.179	36.69	53.28	12.36	19.90	4.41	31.48	5.73	833	
2145	CRANE 35-T W/60' BOOM	196.281	32.33	47.09	12.18	19.61	3.53	31.02	4.55	831	
	MOD 38-B SER 2 HVY DUTY 2 CY T/C 178 HP D 17'-5" CRAWLERS W/36" SHOES										
2155	SHOVEL	291.367	61.00	88.23	18.78	31.51	6.35	49.49	8.35	1298	
2160	DRAGLINE OR CLAMSHELL (LESS BUCKET)	274.915	49.90	72.55	17.06	27.48	5.45	43.44	7.08	1226	
	MOD 61-B SER 2 3.25 CY T/C 205 HP D 15'-11" CRAWLERS W/33" SHOES										
2170	SHOVEL	413.530	76.77	110.22	25.26	39.94	7.32	63.43	9.62	1691	
2175	BACKHOE	396.131	73.90	106.05	24.19	38.26	7.32	60.76	9.62	1751	
2180	DRAGLINE OR CLAMSHELL (LESS BUCKET)	376.149	62.14	90.11	22.36	34.23	6.27	54.85	8.15	1523	
2185	CRANE 51-T W/70' BOOM	368.057	55.03	80.15	21.88	33.50	5.02	53.68	6.48	1536	

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		
	CRANE-SHOVEL-BACKHOE-DRAGLINE CONT'D XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX										
	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	469.851	68.19	99.02	27.32	40.67	5.95	65.76	7.68	2182	
2200	DRAGLINE OR CLAMSHELL (LESS BUCKET)	442.548	73.19	106.12	26.31	40.28	7.44	64.54	9.67	2010	
	MOD 71-B SER 3 4.25 CY T/C 246 HP D 16'-10" CRAWLERS W/36" SHOES										
2210	SHOVEL	469.759	87.75	125.92	28.69	45.37	8.78	72.05	11.54	2196	
2215	BACKHOE	445.176	83.70	120.05	27.19	43.00	8.78	68.28	11.54	2100	
2220	DRAGLINE OR CLAMSHELL (LESS BUCKET)	421.811	70.27	101.81	25.08	38.39	7.53	61.51	9.79	1736	
	MOD 88-B SER 4 5.5 CY T/C 365 HP D 17'-10" CRAWLERS W/36" SHOES										
2230	SHOVEL	659.447	119.36	170.32	39.21	60.03	13.03	96.17	17.13	2822	
2235	DRAGLINE OR CLAMSHELL (LESS BUCKET)	559.518	92.13	132.73	32.54	48.44	11.17	78.31	14.52	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	150.020	24.94	36.29	9.31	14.99	2.89	23.71	3.73	772	
	MOD LS-118 LIFTING CRANE T/C 165 HP D 17'-0" CRAWLERS W/30" SHOES										
2260	CRANE 60-T W/80' BOOM	215.570	35.71	51.99	13.37	21.54	4.04	34.07	5.22	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 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
	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	344,495	50.86	73.72	20.03	29.82	5.09	48.22	6.58	1912		
	MOD LS-518 LIFTING CRANE T/C 230 HP D 24'-4" CRAWLERS W/44" SHOES											
2280	CRANE 150-T W/250' BOOM	502,378	72.05	104.77	29.22	43.49	5.63	70.32	7.27	2912		
	CRAWLER TYPE-MANITOWOC											
	MOD 3900 VICOM 3.5 CY T/C 334 HP D 20'-4" CRAWLERS W/38" SHOES											
2295	DRAGLINE OR CLAMSHELL (LESS BUCKET)	348,226	62.75	90.20	20.71	31.70	10.22	50.78	13.29	2306		
2300	CRANE 100T W/240' BOOM	357,021	57.29	82.78	21.23	32.50	8.18	52.07	10.56	2354		
	MOD 3900W VICOM SER2 4 CY T/C 334 HP D 24'-0" CRAWLERS W/48" SHOES											
2310	DRAGLINE OR CLAMSHELL (LESS BUCKET)	418,232	72.93	105.18	24.86	38.06	10.22	60.99	13.29	2763		
2315	CRANE 140T W/250' BOOM	426,014	66.49	96.36	25.32	38.77	8.18	62.12	10.56	2815		
	MOD 4100W VICOM SER2 5 CY T/C 345 HP D 26'-6" CRAWLERS W/48" SHOES											
2325	DRAGLINE OR CLAMSHELL (LESS BUCKET)	593,447	98.84	143.18	35.29	54.02	10.56	86.54	13.72	3788		
2330	CRANE 200T W/260' BOOM	603,788	88.58	128.47	35.12	52.27	8.45	84.50	10.91	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 OWNER-SHIP	FUEL	SEVERE OWNER-SHIP	FUEL				
<b>CRANE-SHOVEL-BACKHOE-DRAGLINE CONT'D</b>												
<del>XXXXXXXXXXXXXXXXXXXXXX</del>												
<b>CRAWLER TYPE-MANITOWOC (CONT'D)</b>												
MOD 4600 VICON SERIES 3 7CY T/C 685 HP D 26'-1" CRAWLERS W/60° SHOES												
2340	CRANE 240T W/260' BOOM	867.218	132.69	191.59	50.43	75.07	16.77	121.37	21.66	5095		
2345	DRAGLINE OR CLAMSHELL (LESS BUCKET)	896.974	151.29	217.46	52.17	77.65	20.96	125.53	27.25	5083		
<b>CRAWLER TYPE-NORTHWEST</b>												
MOD 28-D 3/4 CY 148 HP D 11'-11" CRAWLERS W/28° SHOES												
2360	DRAGLINE OR CLAMSHELL (LESS BUCKET)	114.441	25.60	37.25	7.55	12.97	4.53	20.32	5.89	484		
2365	CRANE 15-T W/30' BOOM	112.864	21.21	30.84	7.28	12.21	3.62	19.17	4.68	474		
MOD-41 1 CY 148 HP D 15'-0" CRAWLERS W/30° SHOES												
2375	DRAGLINE OR CLAMSHELL (LESS BUCKET)	149.580	31.81	46.56	9.86	16.94	4.53	26.56	5.89	737		
2380	CRANE 20-T W/40' BOOM	147.284	26.37	38.57	9.49	15.92	3.62	25.02	4.68	720		
MOD 6 1.5 CY T/C 238 HP D 14'-8" CRAWLERS W/33° SHOES												
2390	DRAGLINE OR CLAMSHELL (LESS BUCKET)	198.977	40.04	57.64	12.34	19.88	7.28	31.45	9.47	1001		
2395	CRANE 30-T W/45' BOOM	199.980	35.58	51.38	12.41	19.98	5.83	31.60	7.53	1001		
MOD 80-D 2.5 CY T/C 238 HP D 15'-10" CRAWLERS W/30° SHOES												
2405	SHOVEL	302.257	65.54	94.49	19.48	32.69	8.50	51.34	11.17	1550		
2410	DRAGLINE OR CLAMSHELL (LESS BUCKET)	265.060	50.50	73.07	16.45	26.49	7.28	41.89	9.47	1380		

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		AVERAGE COND.	SEVERE COND.	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	262,052	44.50	64.58	16.26	26.19	5.83	41.41	7.53	1320
	MOD 95-WT 4.0 CY T/C 263 HP D 19'-0" CRAWLERS W/38" SHOES									
2425	DRAGLINE OR CLAMSHELL (LESS BUCKET)	337,857	58.67	84.64	20.09	30.75	8.05	49.27	10.46	1580
2430	CRANE 60-T W/50' BOOM	334,829	52.27	75.78	19.90	30.47	6.44	48.84	8.32	1565
	MOD 180-D SERIES 2 5 CY T/C 357 HP D 18'-1" CRAWLERS W/36" SHOES									
2440	SHOVEL	547,935	105.31	150.76	33.47	52.93	12.74	84.04	16.75	2571
2445	DRAGLINE OR CLAMSHELL (LESS BUCKET)	504,697	86.34	124.76	30.00	45.93	10.92	73.60	14.20	2365
2450	CRANE 98-T W/170' BOOM	526,098	80.50	116.94	31.28	47.88	8.74	76.72	11.29	2464
	MOD 190-D SERIES 2 6.5 CY T/C 357 HP D 21'-1" CRAWLERS W/54" SHOES									
2460	SHOVEL	635,279	115.19	164.37	37.77	57.82	12.74	92.64	16.75	2825
2465	DRAGLINE OR CLAMSHELL (LESS BUCKET)	542,216	89.40	128.79	31.54	46.94	10.92	75.89	14.20	2555
2470	CRANE 100-T W/170' BOOM	566,685	85.92	124.93	33.69	51.58	8.74	82.64	11.29	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)	195,741	36.65	53.14	12.14	19.56	4.83	30.94	6.29	870	
2490	CRANE 35-T W/50' BOOM	189,502	31.77	46.18	11.75	18.93	3.87	29.95	5.00	870	
	MOD 550 1.75 CY T/C 158 HP D 18'-0" CRAWLERS W/30" SHOES										
2500	DRAGLINE (LESS BUCKET)	217,245	40.05	58.15	13.48	21.71	4.83	34.33	6.29	1002	
2505	CRANE 50-T W/80' BOOM	211,701	34.96	50.90	13.13	21.15	3.87	33.46	5.00	1002	
	MOD 670WLC 2 CY T/C 198 HP D 18'-6" CRAWLERS W/30" SHOES										
2515	DRAGLINE OR CLAMSHELL (LESS BUCKET)	254,679	47.41	68.78	15.81	25.45	6.06	40.25	7.08	1344	
2520	CRANE 70-T W/150' BOOM	260,081	40.43	58.62	15.47	23.68	4.85	37.93	6.26	1466	
	CRANES-HYDRAULIC-SELF PROPELLED *****										
	GROVE										
2535	MOD RT48 8 TON 123 HP G	76,076	25.06		4.71	7.14	10.63			326	
2540	MOD RT49 10 TON 123 HP G	77,294	25.23		4.79	7.26	10.63			336	
2545	MOD RT515 15 TON 115 HP D	92,410	19.25		5.71	8.63	4.46			415	
2550	MOD RT518 18 TON 115 HP D	93,002	19.70		5.71	8.54	4.46			450	
2555	MOD RT522 22 TON 115 HP D	106,913	21.67		6.58	9.86	4.46			495	
2560	MOD RT625 25 TON 156 HP D	133,736	27.78		8.22	12.31	6.05			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	OWNER-SHIP	FUEL			
<b>CRANES-HYD.-SELF PROPELLED CONT'D)</b> *****												
<b>GROVE (CONT'D)</b>												
2565	MOD RT65S	35 TON 173 HP D	186,160	36.41		11.46	17.17	6.71		673		
<b>HYSTER</b>												
2575	MOD K300B	15 TON 127 HP D	100,585	21.02		6.22	9.40	4.92		438		
2580	MOD K360B	18 TON 127 HP D	103,212	21.38		6.38	9.64	4.92		440		
2585	MOD K400B	20 TON 127 HP D	111,092	22.51		6.87	10.39	4.92		466		
<b>PETTIBONE</b>												
2595	MOD 25	12.5 TON 120 HP D	90,386	19.24		5.59	8.42	4.65		440		
2600	MOD 36	18 TON 120 HP D	105,550	21.53		6.51	9.80	4.65		460		
2605	MOD 70	35 TON 188 HP D	159,777	33.28		9.82	14.69	7.29		770		
2610	MOD 100SC	50 TON 188 HP D	227,995	43.02		14.06	21.17	7.29		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	184,542	32.16	45.98	10.93	16.63	6.46	26.73	8.16	552	
2625	60-XC 60-TON W/136' BOOM	197/238 HP D/D	287,665	48.92	70.23	17.06	25.99	9.25	41.73	11.73	783	
<b>GROVE</b>												
2635	TMS185 18 TON W/106' BOOM	172 HP D	147,824	28.94	41.49	9.14	14.62	6.67	23.18	8.60	442	
2640	TMS300 35 TON W/136' BOOM	203 HP D	161,942	31.21	44.40	9.57	14.52	7.87	23.38	10.15	705	

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>CRANES-HYDRAULIC-TRUCK MOUNTED CONT'D</b>														
<del>XXXXXXXXXXXXXXXXXXXXXX</del> <b>(HP &amp; FUEL LISTED EQUIP/CARRIER)</b>														
<b>GROVE (CONT'D)</b>														
2645	TMS475 50 TON W/142' BOOM	203 HP D	196,704	35.61	50.95	11.64	17.69	7.87	28.45	10.15	773			
2650	TM875 80 TON W/146' BOOM	212/302 HP D/D	297,369	51.52	73.32	17.19	25.33	10.26	41.16	12.98	1175			
<b>LINK BELT (FMC)</b>														
2660	HTC-25 25-T W/95' BOOM	216 HP D	145,675	29.62	41.94	8.62	13.10	8.37	21.07	10.80	462			
2665	HTC-35 35-T W/108' BOOM	216 HP D	171,232	32.96	46.90	10.14	15.40	8.37	24.77	10.80	628			
2670	HTC-50 50-T W/122' BOOM	244 HP D	208,918	39.11	55.79	12.37	18.83	9.46	30.26	12.20	727			
<b>PETTIBONE</b>														
2680	50TKLSPC 25 TON W/95' BOOM	210 HP D	143,949	30.55	43.42	8.86	14.11	8.14	22.43	10.50	520			
2685	60TKLSPC 30 TON W/101' BOOM	202 HP D	169,859	32.27	45.92	10.04	15.22	7.83	24.50	10.10	673			
2690	100TKLSPC50 TON W/111' BOOM	244 HP D	212,202	39.73	56.65	12.55	19.06	9.46	30.67	12.20	820			
2695	160TKLSPC80 TON W/153' BOOM	365 HP D	312,912	58.43	82.90	18.08	26.64	14.15	43.31	18.24	1395			
<b>CRANES-TRUCK MOUNTED</b>														
<del>XXXXXXXXXXXXXXXXXXXXXX</del> <b>(HP &amp; FUEL LISTED EQUIP/CARRIER)</b>														
<b>AMERICAN</b>														
2705	5530 75-T W/170' BOOM	115/238 HP D/D	275,266	43.00	61.89	15.94	23.54	6.07	38.21	7.63	1245			
2710	7530 125T W/200' BOOM	203/350 HP D/D	384,037	62.04	88.99	22.25	32.90	10.24	53.37	12.91	1696			

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	OWNER-SHIP		
			AVERAGE	SEVERE	BY						
<b>CRANES-TRUCK MOUNTED (CONT'D)</b>											
<del>*****</del>											
<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	264.199	42.40	61.18	15.63	23.73	6.15	38.17	7.73	1197
2725	HC218A 100-T	W/220' BOOM 165/318 HP D/D	362.534	56.55	80.85	20.63	29.77	8.55	48.72	10.76	1566
2730	HC238A 140-T	W/230' BOOM 171/318 HP D/D	435.270	65.85	94.55	24.77	35.77	8.78	58.53	11.06	2068
<b>LORAIN</b>											
2740	MC550A 50-T	W/160' BOOM 115/246 HP D/D	259.362	41.75	60.22	15.34	23.29	6.13	37.47	7.69	1111
2745	MC670A 70-T	W/170' BOOM 150/270 HP D/D	310.278	49.36	70.90	17.98	26.58	7.64	43.11	9.63	1243
2750	MC680 80-T	W/190' BOOM 167/270 HP D/D	316.636	50.98	73.16	18.35	27.13	8.30	44.00	10.48	1373
2755	MC790 90-T	W/220' BOOM 210/270 HP D/D	380.767	61.31	88.03	22.06	32.61	9.97	52.91	12.63	1594
2760	MC8150 150T	W/250' BOOM 246/365 HP D/D	522.025	81.37	116.37	29.68	42.78	12.01	70.05	15.18	2625
<b>P &amp; H</b>											
2770	325TC 25-T	W/110' BOOM 79/190 HP D/D	161.525	28.11	40.61	9.96	15.88	4.35	25.23	5.45	645
2775	430ATC 35-T	W/150' BOOM 95/210 HP D/D	181.320	30.31	43.50	10.72	16.25	5.11	26.17	6.41	763
2780	440TC 40-T	W/170' BOOM 95/236 HP D/D	193.141	32.15	46.13	11.41	17.30	5.28	27.85	6.61	964
2785	650ATC 50-T	W/150' BOOM 135/236 HP D/D	269.507	43.94	63.31	15.95	24.22	6.83	38.95	8.61	1178
2790	670TC 70-T	W/180' BOOM 135/255 HP D/D	288.367	45.76	65.75	16.70	24.68	6.96	40.04	8.76	1340
2795	790TC 90-T	W/200' BOOM 160/350 HP D/D	334.402	53.77	77.09	19.36	28.60	8.57	46.41	10.77	1736
2800	9125TC 140T	W/270' BOOM 210/350 HP D/D	458.389	70.88	101.51	26.10	37.70	10.51	61.65	13.26	2529
2805	6250TC 250T	W/320' BOOM 363/450 HP D/D	911.074	135.40	195.14	51.90	75.07	17.12	122.71	21.70	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	OWNER-SHIP	FUEL					
<b>DRILLS-BLAST HOLE-CRAWLER MTD</b> *****														
<b>GARDNER DENVER</b>														
2815	AT3100B/PR123J 3.5" HOLE 12' FEED 600CFM A	61,848	14.27		4.32	7.80	0.00			91				
2820	AT3100B/PR55 4" HOLE 12' FEED 750CFM A	56,669	13.10		3.96	7.15	0.00			93				
2825	AT3100B/PR66 4.5" HOLE 12' FEED 900CFM A	64,591	14.89		4.51	8.14	0.00			95				
2830	AT3700A/PR123J ANGLE DRILL 3.5" HOLE 12' FEED	600CFM A	73,347	16.94		5.13	9.25	0.00		137				
2835	AT3700A/PR66 ANGLE DRILL 4.5" HOLE 12' FEED	900CFM A	76,096	17.56		5.32	9.59	0.00		143				
 <b>INGERSOLL-RAND</b>														
2845	CN350/VL140 5.5" HOLE 12' FEED 750CFM A	58,829	13.59		4.11	7.42	0.00			120				
2850	ECN350/VL140 5.5" HOLE 12' FEED 750CFM A	65,288	15.05		4.56	8.23	0.00			129				
2855	CN350/URD550 5.5" HOLE 12' FEED 900CFM A	64,496	14.87		4.51	8.13	0.00			121				
2860	ECN350/URD550 5.5" HOLE 12' FEED 900CFM A	70,938	16.35		4.96	8.95	0.00			130				
 <b>JOY</b>														
2870	RAM VCR260 4.5" HOLE 12' FEED 750CFM A	54,331	12.56		3.80	6.85	0.00			126				
2875	MUSTANG VCR280 5" HOLE 23' FEED 1200CFM A	75,321	17.39		5.26	9.50	0.00			185				
 <b>DRILLS-CORE-AIR-COLUMN MOUNTED</b> *****														
2885	LONGYEAR 24 WOLVERINE AX 700' 450CFM A	10,334	2.60		0.72	1.30	0.00			12				
2890	LONGYEAR 65D EX 600' 400CFM A	6,830	1.80		0.48	0.86	0.00			3				
2895	65D ROD PULLER 21" STROKE 400CFM A	1,125	0.45		0.08	0.14	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			
<b>DRILLS-CORE-SKID MOUNTED</b>												
<del>XXXXXXXXXXXXXX</del>												
<b>ACKER</b>												
2905	HILLBILLY MARK-III NX 1000' MAX	46 HP D	22.710	7.90		1.59	2.86	2.21		40		
2910	MOUNTAINEER NX 2000' MAX	44 HP D	25.070	8.32		1.75	3.16	2.11		45		
<b>SPRAGUE AND HENWOOD</b>												
2920	MOD 37-H NX 400' MAX	18 HP G	10.394	4.58		0.73	1.31	1.91		18		
2925	MOD 40-CL NX 900' MAX	45 HP D	19.188	7.05		1.34	2.42	2.16		27		
<b>LONGYEAR</b>												
2935	MOD 24 STB AX 675' MAX	12 HP G	8.114	3.31		0.56	1.02	1.27		19		
2940	MOD 34 NX 1000' MAX	31 HP G	18.416	8.01		1.29	2.32	3.29		38		
2945	MOD 34 NX 1000' MAX	38 HP D	20.633	6.96		1.45	2.61	1.82		39		
2950	MOD 38 NX 1800' MAX	42 HP D	22.564	7.62		1.57	2.84	2.01		41		
2955	MOD 44 NX 2500' MAX	60 HP D	29.840	10.37		2.09	3.77	2.88		56		
<b>DRILLS-ROTARY</b>												
<del>XXXXXXXXXXXX</del>												
<b>CHICAGO PNEUMATIC</b>												
2965	MOD T-650 6-3/4" - W/TRUCK 50,000 L.V.W.	218 HP D	192.505	45.81		11.94	19.04	10.45		440		
<b>JOY-ROBBINS</b>												
2975	RRT 50 TK MOUNTED 6-3/4" TO 9"	304 HP D	319.298	72.60		19.79	31.55	14.57		820		
2980	RRT 60 TK MTD 6-3/4" TO 9-7/8"	325 HP D	358.003	80.33		22.20	35.41	15.58		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.			
			AVERAGE	SEVERE		OWNER-SHIP	FUEL	OWNER-SHIP	FUEL		
<b>DRILLS-ROTARY (CONT'D)</b> *****											
2985	RRT 70 TK MTD 6-3/4" TO 10-5/8"	350 HP D	411,137	90.70		25.50	40.70	16.78		1920	
2990	RR10S DN D9 6 -3/4" TO 9-7/8"	320 HP D	319,968	72.55		19.90	31.89	15.34		1120	
2995	RR10HD DN D9 6-3/4" TO 10-5/8"	500 HP D	387,487	94.54		24.09	38.61	23.97		1200	
3000	RR11 CRLR MTD 6-3/4" TO 12-1/4"	575 HP E	580,387	104.13		33.86	50.17	26.16		1421	
3005	RR12 CRLR MTD 10-5/8" TO 12-1/2"	600 HP E	724,868	121.99		42.28	62.66	27.30		1500	
3010	RR16 CRLR MTD 10-5/8" TO 15"	1100 HP E	822,631	167.04		47.99	71.11	50.05		2200	
<b>FORK LIFTS</b> *****											
<b>HYSTER-CHALLENGER</b>											
3020	H30H 3000# @ 24" LC (LOAD CNTR)	63 HP G	18,764	11.07		1.30	2.33	5.45		71	
3025	H60H 6000# @ 24" LC	63 HP G	21,224	11.63		1.47	2.63	5.45		103	
3030	H110F 11000# @ 24" LC	116 HP G	32,414	19.89		2.25	4.02	10.03		163	
3035	H150H 15000# @ 24" LC	127 HP G	45,435	24.07		3.14	5.61	10.98		223	
3040	H200H520000# @ 24" LC	PS 127 HP G	52,043	25.58		3.61	6.45	10.98		256	
3045	H250H 25000# @ 24" LC	PS 127 HP G	54,115	26.08		3.75	6.68	10.98		295	
3050	H300B 30000# @ 24" LC	PS 127 HP G	60,080	27.43		4.16	7.43	10.98		360	
3055	H460B 46000# @ 48" LC	PS 190 HP G	116,462	47.18		8.05	14.35	16.43		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>															
\$88888888888888888888															
CATERPILLAR															
T = TURBOCHARGED															
TA = TURBOCHARGED AFTER COOLED															
SKID MOUNTED															
3070	MOD 3304 -T	240/480V	86 KW	129 HP	D	14,149	9.18	12.22	1.00	1.64	5.00	2.54	6.45	37	
3075	MOD 3306 -T	240/480V	130 KW	200 HP	D	16,999	13.20	17.47	1.21	1.98	7.75	3.05	10.00	45	
3080	MOD 3306 -TA	240/480V	150 KW	220 HP	D	19,406	14.67	19.42	1.37	2.25	8.53	3.48	11.00	46	
3085	MOD 3406 -T	240/480V	175 KW	270 HP	D	20,385	17.29	22.81	1.45	2.37	10.47	3.66	13.49	64	
3090	MOD 3406 -TA	240/480V	200 KW	305 HP	D	23,350	19.59	25.87	1.65	2.71	11.82	4.20	15.24	66	
3095	MOD 3408 -T	240/480V	225 KW	335 HP	D	26,499	21.70	28.67	1.88	3.08	12.98	4.76	16.74	72	
3100	MOD 3408 -TA	240/480V	250 KW	375 HP	D	29,795	24.31	32.13	2.11	3.46	14.53	5.35	18.74	75	
3105	MOD D353E-TA	240/480V	335 KW	435 HP	D	47,166	30.87	41.03	3.34	5.48	16.86	8.47	21.74	96	
3110	MOD 3412 -T	240/480V	300 KW	425 HP	D	41,366	29.16	38.68	2.94	4.81	16.47	7.43	21.24	92	
3115	MOD 3412 -TA	240/480V	440 KW	565 HP	D	46,004	36.87	48.74	3.26	5.34	21.90	8.26	28.24	94	
3120	MOD D348 -TA	240/480V	480 KW	683 HP	D	70,702	47.75	63.41	5.01	8.21	26.47	12.69	34.14	135	
3125	MOD D398B-TA	230/460V	566 KW	812 HP	D	94,748	59.02	78.57	6.71	11.00	31.47	17.00	40.58	197	
3130	MOD D399 -TA	230/460V	770 KW	1074 HP	D	122,004	77.38	102.94	8.64	14.17	41.63	21.89	53.68	278	
DNAN															
SKID MOUNTED															
3145		120/240V	15 KW	27 HP	D	4,930	2.34	3.15	0.35	0.57	1.05	0.89	1.35	14	
3150		120/240V	30 KW	63 HP	D	7,314	4.57	6.10	0.52	0.85	2.44	1.32	3.15	19	
3155		120/240V	45 KW	87 HP	D	9,671	6.22	8.28	0.69	1.12	3.37	1.74	4.35	25	

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			
	GENERATOR ELECT PLANTS (CONT'D) *****											
	ONAN (CONT'D)											
3160	120/240V 60 KW 102 HP D	11,119	7.25	9.64	0.79	1.29	3.95	2.00	5.10	26		
3165	120/240V 75 KW 162 HP D	13,232	10.59	13.99	0.94	1.54	6.28	2.38	8.10	30		
3170	120/240V 90 KW 162 HP D	13,865	10.72	14.18	0.98	1.61	6.28	2.49	8.10	30		
3175	120/240V 125 KW 210 HP D	16,028	13.47	17.80	1.13	1.86	8.14	2.88	10.50	50		
3180	120/240V 150 KW 276 HP D	18,988	17.28	22.76	1.35	2.21	10.70	3.41	13.79	65		
	GRADERS MOTOR *****											
	AUSTIN WESTERN											
3190	PACER 301 POWER SHIFT 4X4 146 HP D	82,455	21.63	31.21	5.45	8.87	5.21	14.20	6.85	245		
3195	SUPER 301 POWER SHIFT 6X6 146 HP D	89,509	23.12	33.59	5.89	9.53	5.21	15.30	6.85	273		
3200	PACER 501 POWER SHIFT 4X4 187 HP D	87,646	24.43	35.01	5.80	9.44	6.68	15.11	8.77	280		
3205	SUPER 501 POWER SHIFT 6X6 187 HP D	94,198	25.84	37.28	6.20	10.05	6.68	16.13	8.77	315		
	CATERPILLAR											
3215	MOD 120-6 POWER SHIFT ARTIC 125 HP D	67,979	17.86	25.61	4.51	7.37	4.46	11.78	5.86	258		
3220	MOD 130-6 POWER SHIFT ARTIC 135 HP D	77,621	20.00	28.71	5.14	8.42	4.82	13.47	6.33	301		
3225	MOD 12-6 POWER SHIFT ARTIC 135 HP D	84,263	21.29	30.63	5.58	9.11	4.82	14.57	6.33	311		
3230	MOD 140-6 POWER SHIFT ARTIC 150 HP D	85,204	22.26	32.03	5.63	9.16	5.35	14.67	7.04	317		
3235	MOD 14-6 POWER SHIFT ARTIC 180 HP D	116,798	29.48	42.65	7.70	12.49	6.43	20.02	8.45	433		
3240	MOD 16-6 POWER SHIFT ARTIC 250 HP D	170,135	42.55	61.73	11.20	18.12	8.92	29.07	11.73	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>FIAT-ALLIS</b>											
3250	MOD-65 DIRECT DRIVE	59 HP D	37,567	9.54	13.81	2.47	4.01	2.11	6.44	2.77	125
3255	MOD-100C CONSTANT MESH	135 HP D	71,977	19.15	27.46	4.76	7.76	4.82	12.42	6.33	310
3260	MOD-150C POWER SHIFT	135 HP D	77,002	20.02	28.76	5.09	8.31	4.82	13.30	6.33	316
3265	MOD-200C POWER SHIFT	160 HP D	83,018	22.31	32.01	5.49	8.94	5.71	14.31	7.51	322
GALION											
3275	MOD 503-L DIRECT DRIVE	74 HP G	28,685	11.98	16.53	1.90	3.11	5.91	4.97	7.66	102
3280	MOD T-500C POWER SHIFT	150 HP D	64,919	18.95	27.26	4.25	6.82	5.35	10.98	7.04	257
3285	MOD T-600C POWER SHIFT	200 HP D	80,014	23.88	34.17	5.26	8.48	7.14	13.63	9.38	300
MABCO											
3295	MOD 444 POWER SHIFT	134 HP D	69,554	18.55	26.56	4.61	7.54	4.78	12.05	6.29	302
3300	MOD 555-B CONSTANT MESH	160 HP D	71,665	20.22	28.88	4.74	7.73	5.71	12.37	7.51	328
3305	MOD 777-B POWER SHIFT	201 HP D	84,412	24.70	35.36	5.55	8.97	7.18	14.40	9.43	355
HOISTS											
*****											
<b>BENDIX-SKAGIT</b>											
3315	BU-18W DOUBLE DRUM W/5/8" CABLE	100 HP D	45,311	15.11		3.17	5.72	3.88		85	
3320	G-70 DOUBLE DRUM W/7/8" CABLE	100 HP D	58,957	18.20		4.12	7.43	3.88		126	
3325	RB-80 DOUBLE DRUM W/1-1/8" CABLE	130 HP D	105,894	30.31		7.40	13.35	5.04		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							
<b>HOISTS (CONT'D)</b>															
<b>GARDNER DENVER</b>															
3335	HML SINGLE DRUM W/1/2" CABLE	350CFW A	5,337	1.31			0.37	0.67	0.00	10					
<b>HYDRAULIC EXCAVATOR-CRAWLER MOUNTED</b>															
T/B = TELESCOPING BOOM															
B/H = BACKHOE															
<b>AMERICAN</b>															
3345	MOD 25A	1.38 CY B/H 182 HP D	133,855	32.26	46.09	8.63	14.48	6.50	22.74	8.54					
3350	MOD 35A	2.00 CY B/H 250 HP D	192,624	45.91	65.66	12.42	20.84	8.92	32.72	11.73					
3355	MOD 45A	3.50 CY B/H 420 HP D	328,247	71.76	101.73	20.05	31.70	14.99	50.34	19.71					
<b>BUCYRUS ERIE</b>															
3365	MOD 300-H	1.00 CY B/H 176 HP D	130,856	33.41	48.49	8.86	15.62	6.28	24.47	8.26					
3370	MOD 325-H	1.75 CY B/H 205 HP D	179,121	41.53	59.54	11.54	19.37	7.32	30.43	9.62					
3375	MOD 350-H	2.50 CY B/H 248 HP D	226,789	52.09	74.74	14.62	24.53	8.85	38.52	11.64					
<b>CATERPILLAR</b>															
3385	MOD 225	1.00 CY B/H 125 HP D	113,878	27.88	40.64	7.71	13.59	4.46	21.30	5.86					
3390	MOD 235	1.50 CY B/H 195 HP D	188,533	42.83	61.52	12.15	20.39	6.96	32.03	9.15					
3395	MOD 245	2.50 CY B/H 325 HP D	292,223	67.35	96.60	18.83	31.60	11.60	49.64	15.25					

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	AVERAGE COND.		SEVERE COND.			
			AVERAGE	SEVERE			FUEL	OWNER-SHIP	FUEL	OWNER-SHIP		
	HYDRAULIC EXCAVATOR-CRLR MHTD CONT'D ***** T/B = TELESCOPING BOOM B/H = BACKHOE											
	DROTT											
3405	MOD 40-D	1.00 CY B/H 157 HP D	85.296	23.56	33.95	5.78	10.18	5.60	15.95	7.37	400	
3410	MOD 50-D	1.25 CY B/H 190 HP D	109.129	28.04	39.87	7.03	11.80	6.78	18.54	8.91	510	
	GRADALL											
3420	MOD G-660	.50 CY T/B 115 HP D	116.593	28.02	40.89	7.90	13.92	4.11	21.80	5.40	459	
3425	MOD G-880	.75 CY T/B 160 HP D	139.824	34.52	50.25	9.47	16.69	5.71	26.14	7.51	549	
3430	MOD G-1000	1.25 CY T/B 272 HP D	187.287	45.86	65.44	12.07	20.26	9.71	31.81	12.76	787	
	HOP TO											
3440	MOD 211	1.13 CY B/H 160 HP D	116.195	28.07	40.12	7.48	12.56	5.71	19.74	7.51	521	
3445	MOD 311	1.88 CY B/H 235 HP D	161.733	39.61	56.52	10.43	17.50	8.39	27.47	11.03	743	
3450	MOD 900B	3.25 CY B/H 308 HP D	191.671	44.56	62.87	11.71	18.52	11.00	29.40	14.45	1009	
3455	MOD 1900	5.00 CY B/H 616 HP D	393.608	90.80	128.20	24.04	38.02	21.99	60.37	28.90	1998	
	INSLEY											
3465	MOD H1500B	1.50 CY B/H 240 HP D	169.681	41.27	58.94	10.93	18.35	8.57	28.83	11.26	801	
3470	MOD H3500B	3.00 CY B/H 355 HP D	234.637	53.60	75.76	14.33	22.66	12.67	35.99	16.66	1149	
	KOEHRING											
3480	MOD 866D	1.75 CY B/H 325 HP D	253.093	60.17	86.07	16.31	27.37	11.60	42.99	15.25	1197	
3485	MOD 1066D	2.50 CY B/H 380 HP D	313.138	73.52	105.28	20.18	33.87	13.57	53.19	17.83	1524	

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	OWNER-SHIP	FUEL	
					AVERAGE	SEVERE					
<b>HYDRAULIC EXCAVATOR-CRLR MNTD CONT'D</b> ***** T/B = TELESCOPING BOOM B/H = BACKHOE											
3490	MOD 1266D	5.50 CY B/H 760 HP D	643.405	138.02	195.90	39.30	62.15	27.13	98.69	35.66	2600
		P & H									
3500	MOD H-750	.75 CY B/H 105 HP D	89.560	22.21	32.34	6.06	10.69	3.75	16.75	4.93	390
3505	MOD H-1250	1.00 CY B/H 190 HP D	125.169	32.87	47.57	8.48	14.94	6.78	23.41	8.91	620
<b>SHIELD BANTAM</b>											
3515	MOD C166	.50 CY B/H 118 HP D	71.785	19.22	27.79	4.86	8.56	4.21	13.42	5.54	321
		UNIT									
3525	MOD H202C	.75 CY B/H 152 HP D	94.984	25.28	36.53	6.44	11.34	5.43	17.76	7.13	440
3530	MOD H342	1.25 CY B/H 228 HP D	162.402	39.43	56.32	10.47	17.56	8.14	27.59	10.70	740
3535	MOD H471	1.75 CY B/H 304 HP D	204.746	50.40	71.91	13.19	22.14	10.85	34.78	14.26	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					
<b>HYDRAULIC EXCAVATOR-TRUCK MOUNTED</b> ***** <b>(HP &amp; FUEL LISTED EQUIP/CARRIER)</b> T/B = TELESCOPING BOOM B/H = BACKHOE													
<b>GRADALL</b>													
3545	MOD G-660 .50 CY T/B 115/180 HP D/6	136.567	27.68	39.58	8.44	13.49	6.82	21.41	8.81	419			
3550	MOD G-880 .75 CY T/B 160/210 HP D/D	152.027	30.90	43.91	9.37	14.96	7.63	23.76	9.66	508			
3555	MOD G-1000 1.25 CY T/B 272/228 HP D/D	199.857	41.42	58.28	11.83	17.96	12.09	28.88	15.40	698			
<b>LAND CLEARING EQUIPMENT</b> ***** <b>(ADD TO TRACTOR)</b>													
3565	FLECO LAND CLEARING RAKE FOR D-7	19.448	4.23	6.34	1.36	2.45	0.00	3.86	0.00	107			
3570	FLECO LAND CLEARING RAKE FOR D-8	24.838	5.40	8.08	1.74	3.14	0.00	4.93	0.00	145			
3575	FLECO LAND CLEARING RAKE FOR D-9	31.371	6.80	10.19	2.19	3.96	0.00	6.22	0.00	200			
3580	FLECO CLAMP RAKE FOR CAT 977 (ADD TO 977 LOADER)	10.097	2.23	3.32	0.71	1.28	0.00	2.01	0.00	23			
<b>LIGHTING SETS-TRAILER MOUNTED</b> *****													
<b>ALLMAND</b> <b>METALLIC VAPOR</b>													
3590	30' TOWER 4/1000W LTS 5 KW 11 HP D	9.685	2.79		0.68	1.14	0.63			26			
<b>OVER LOWE</b> <b>METALLIC VAPOR</b>													
3600	38' TOWER 4/1000W LTS 6 KW 12 HP D	8.823	2.68		0.63	1.04	0.69			22			

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CWT
			CONDITION	STAND-	AVERAGE	SEVERE	BY	OWNER-	FUEL	
	LOADERS-BELT XXXXXX									
	KOLMAN									
3610	101XHD 24'X50' 355 T/HR 56 HP D	24,861	8.84	12.82	1.73	2.81	2.17	4.58	2.80	113
	OPTIONAL EQUIPMENT SELECT AS NEEDED									
3620	PLATE FEEDER DOZER TRAP MODEL 45	3,521	0.77	1.17	0.25	0.41	0.00	0.68	0.00	37
3625	BELT FEEDER DOZER TRAP MODEL 65	5,135	1.12	1.70	0.36	0.60	0.00	0.98	0.00	36
3630	WING WALLS STATIONARY	932	0.20	0.31	0.07	0.11	0.00	0.18	0.00	9
3635	TUNNEL EXTENSION W/WING WALLS	4,858	1.06	1.61	0.35	0.57	0.00	0.93	0.00	61
3640	SINGLE DECK SCREEN SB-70 7'X42	3,773	0.83	1.25	0.27	0.45	0.00	0.72	0.00	19
3645	DOUBLE DECK SCREEN DC-70-42 7'X42	4,628	1.01	1.53	0.32	0.54	0.00	0.88	0.00	26
3650	TRIPLE DECK SCREEN TC-70-42 7'X42	5,847	1.28	1.94	0.41	0.69	0.00	1.12	0.00	34
3655	XHD CONVEYOR JACKLEG	733	0.16	0.25	0.05	0.09	0.00	0.15	0.00	9
3660	101XHD 30'X50' 615 T/HR 56 HP D	25,799	9.20	13.40	1.79	2.89	2.17	4.73	2.80	122
	OPTIONAL EQUIPMENT SELECT AS NEEDED									
3670	PLATE FEEDER DOZER TRAP MODEL 45	4,384	0.95	1.46	0.31	0.51	0.00	0.84	0.00	42
3675	BELT FEEDER DOZER TRAP MODEL 65	5,380	1.18	1.79	0.39	0.64	0.00	1.03	0.00	40
3680	WING WALLS STATIONARY	932	0.20	0.31	0.07	0.11	0.00	0.18	0.00	9
3685	TUNNEL EXTENSION W/WING WALLS	4,858	1.06	1.61	0.35	0.57	0.00	0.93	0.00	61
3690	SINGLE DECK SCREEN SB-80 8'X48	4,232	0.92	1.40	0.30	0.49	0.00	0.81	0.00	23
3695	DOUBLE DECK SCREEN DC-80-48 8'X48	5,366	1.18	1.78	0.39	0.64	0.00	1.03	0.00	35
3700	TRIPLE DECK SCREEN TC-80-48 8'X48	6,596	1.44	2.19	0.46	0.77	0.00	1.26	0.00	43
3705	XHD CONVEYOR JACKLEG	733	0.16	0.25	0.05	0.09	0.00	0.15	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>														
3710	101XHD 36'X50' 910 T/HR	68 HP D	31,719	11.26	16.39	2.20	3.56	2.64	5.83	3.40	173			
OPTIONAL EQUIPMENT SELECT AS NEEDED														
3720	PLATE FEEDER DOZER TRAP MODEL 45		4,699	1.03	1.56	0.33	0.55	0.00	0.90	0.00	45			
3725	BELT FEEDER DOZER TRAP MODEL 65		5,697	1.25	1.89	0.40	0.67	0.00	1.09	0.00	42			
3730	WING WALLS STATIONARY		932	0.20	0.31	0.07	0.11	0.00	0.18	0.00	9			
3735	TUNNEL EXTENSION W/WING WALLS		4,858	1.06	1.61	0.35	0.57	0.00	0.93	0.00	61			
3740	SINGLE DECK SCREEN SB-90 9'X54		4,775	1.04	1.58	0.34	0.56	0.00	0.91	0.00	28			
3745	DOUBLE DECK SCREEN DC-90-54 9'X54		6,005	1.32	1.99	0.43	0.71	0.00	1.15	0.00	43			
3750	TRIPLE DECK SCREEN TC-90-54 9'X54		7,995	1.75	2.64	0.57	0.94	0.00	1.52	0.00	54			
3755	XHD CONVEYOR JACKLEG		733	0.16	0.25	0.05	0.09	0.00	0.15	0.00	9			
3760	101XHD 42'X50' 1260 T/HR	84 HP D	37,000	13.34	19.41	2.57	4.15	3.26	6.79	4.20	204			
OPTIONAL EQUIPMENT SELECT AS NEEDED														
3770	PLATE FEEDER DOZER TRAP MODEL 45		5,011	1.10	1.66	0.36	0.59	0.00	0.96	0.00	48			
3775	BELT FEEDER DOZER TRAP MODEL 65		6,552	1.43	2.17	0.46	0.77	0.00	1.25	0.00	45			
3780	WING WALLS STATIONARY		932	0.20	0.31	0.07	0.11	0.00	0.18	0.00	9			
3785	TUNNEL EXTENSION W/WING WALLS		4,858	1.06	1.61	0.35	0.57	0.00	0.93	0.00	61			
3790	SINGLE DECK SCREEN SB-100		5,963	1.30	1.98	0.42	0.70	0.00	1.14	0.00	37			
3795	DOUBLE DECK SCREEN DC-100-60 10'X		7,415	1.62	2.46	0.53	0.87	0.00	1.42	0.00	55			
3800	TRIPLE DECK SCREEN TC-100-60 10'X		9,286	2.03	3.07	0.66	1.09	0.00	1.77	0.00	68			
3805	XHD CONVEYOR JACKLEG		733	0.16	0.25	0.05	0.09	0.00	0.15	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)											
3810	101XHD 48"X50' 1700 T/HR 125 HP D	67,601	22.25	32.41	4.71	7.66	4.84	12.50	6.25	287		
	OPTIONAL EQUIPMENT SELECT AS NEEDED											
3820	PLATE FEEDER DOZER TRAP MODEL 45	7,929	1.74	2.62	0.57	0.94	0.00	1.51	0.00	51		
3825	WING WALLS STATIONARY	932	0.20	0.31	0.07	0.11	0.00	0.18	0.00	9		
3830	TUNNEL EXTENSION W/WING WALLS	5,427	1.19	1.79	0.39	0.64	0.00	1.03	0.00	66		
3835	SINGLE DECK SCREEN SB-120 12'X	7,452	1.63	2.47	0.53	0.88	0.00	1.42	0.00	53		
3840	DOUBLE DECK SCREEN DC-120-72 12'X	9,145	2.00	3.03	0.64	1.07	0.00	1.74	0.00	77		
3845	TRIPLE DECK SCREEN TC-120-60 12'X	10,426	2.27	3.45	0.73	1.22	0.00	1.98	0.00	80		
3850	XHD CONVEYOR JACKLEG	733	0.16	0.25	0.05	0.09	0.00	0.15	0.00	9		
3855	303 48"X50' 2000 CY/HR 125 HP D	111,412	31.96	47.06	7.80	12.78	4.84	20.78	6.25	627		
3860	303 48"X60' 2000 CY/HR 185 HP D	123,969	37.77	55.20	8.68	14.24	7.17	23.15	9.25	662		
3865	303 60"X50' 3600 CY/HR 185 HP D	128,094	38.78	56.73	8.97	14.71	7.17	23.91	9.25	682		
3870	303 60"X60' 3600 CY/HR 290 HP D	147,605	48.57	70.43	10.34	16.97	11.24	27.58	14.49	737		
	OPTIONAL EQUIPMENT SELECT AS NEEDED											
3880	SINGLE DECK SCREEN SB-120 12'X	8,306	1.82	2.75	0.59	0.98	0.00	1.58	0.00	53		
3885	DOUBLE DECK SCREEN DC-120-72 12'X	10,184	2.23	3.38	0.72	1.20	0.00	1.95	0.00	77		
3890	TRIPLE DECK SCREEN TC-120-60 12'X	11,614	2.54	3.85	0.82	1.37	0.00	2.22	0.00	80		
3895	SINGLE DECK VIBRATING GRIZZLE 72"W	13,747	3.01	4.54	0.98	1.62	0.00	2.61	0.00	80		
3900	404 48"X50' 2000 CY/HR 185 HP D	140,960	41.86	61.45	9.87	16.19	7.17	26.32	9.25	607		
3905	404 48"X60' 2000 CY/HR 185 HP D	148,183	43.79	64.44	10.37	16.99	7.17	27.63	9.25	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> *****														
<b>KOLMAN (CONT'D)</b>														
3910	404    60'X50' 3600 CY/HR	290 HP D	165.432	52.87	77.01	11.59	19.01	11.24	30.89	14.49	658			
3915	404    60'X60' 3600 CY/HR	290 HP D	181.106	56.74	82.94	12.68	20.79	11.24	33.80	14.49	709			
<b>OPTIONAL EQUIPMENT SELECT AS NEEDED</b>														
3925	SINGLE DECK SCREEN SB-120 12'X		8.306	1.82	2.75	0.59	0.98	0.00	1.58	0.00	53			
3930	DOUBLE DECK SCREEN DC-120-72 12'X		10.184	2.23	3.38	0.72	1.20	0.00	1.95	0.00	77			
3935	TRIPLE DECK SCREEN TC-120-60 12'X		11.614	2.54	3.85	0.82	1.37	0.00	2.22	0.00	80			
3940	SINGLE DECK VIBRATING GRIZZLE 72"W		13.747	3.01	4.54	0.98	1.62	0.00	2.61	0.00	80			
<b>LOADERS - F.E. TRACK TYPE</b> *****														
<b>CASE</b>														
3950	350    3/4 CY	39 HP D	27.607	8.98	12.92	1.94	3.37	1.63	5.37	2.15	125			
3955	450    1 CY	53 HP D	37.587	12.22	17.58	2.64	4.59	2.22	7.32	2.92	160			
3960	850B    1-1/2 CY	72 HP D	49.949	16.32	23.48	3.51	6.10	3.01	9.72	3.97	220			
3965	1150B    2 CY	105 HP D	65.095	21.93	31.44	4.58	7.96	4.39	12.67	5.78	290			
<b>CATERPILLAR</b>														
3975	931    1 CY	62 HP D	36.395	12.46	17.82	2.56	4.45	2.59	7.08	3.41	151			
3980	941B    1-1/2 CY	80 HP D	51.699	17.23	24.71	3.64	6.32	3.35	10.06	4.41	257			
3985	951C    1-3/4 CY	95 HP D	55.968	19.12	27.39	3.93	6.84	3.97	10.89	5.23	270			
3990	955L    2-1/4 CY	130 HP D	76.533	26.17	37.46	5.38	9.35	5.44	14.89	7.16	355			
3995	977L    3-1/4 CY	190 HP D	114.426	38.87	55.68	8.04	13.99	7.95	22.26	10.47	507			

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-FUEL	OWNER-FUEL				
			AVERAGE	SEVERE								
<b>LOADERS - F.E. TRACK TYPE (CONT'D)</b>												
<b>CATERPILLAR (CONT'D)</b>												
4000	983	5 CY	275 HP D	174,415	58.40	83.76	12.25	21.32	11.50	33.93	15.15	783
<b>FIAT-ALLIS</b>												
4010	FL9	1-5/8 CY	87 HP D	47,849	16.69	23.85	3.36	5.85	3.64	9.31	4.79	272
4015	FL10C	1-7/8 CY	122 HP D	61,725	22.09	31.51	4.34	7.55	5.10	12.01	6.72	312
4020	FL14C	2-1/2 CY	150 HP D	76,798	27.37	39.07	5.39	9.38	6.27	14.94	8.26	436
<b>INTERNATIONAL</b>												
4030	100-E	1 CY	65 HP D	36,413	12.63	18.06	2.56	4.45	2.72	7.08	3.58	160
4035	125-E	1-1/4 CY	78 HP D	43,441	15.09	21.58	3.05	5.31	3.26	8.45	4.30	198
4040	175-C	2 CY	134 HP D	66,830	24.03	34.26	4.70	8.17	5.60	13.00	7.38	317
4045	250-C	2-3/4 CY	190 HP D	98,699	35.03	50.01	6.93	12.06	7.95	19.20	10.47	443
<b>JOHN DEERE</b>												
4055	JD350-C	3/4 CY	42 HP D	26,668	8.93	12.80	1.87	3.26	1.76	5.19	2.31	119
4060	JD450-C	1-1/4 CY	65 HP D	35,620	12.44	17.79	2.51	4.36	2.72	6.94	3.58	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	NOD 630	1/2 CY SKID-STEER	30 HP D	9,051	5.30	7.34	0.63	1.09	2.59	1.74	3.38	34		
<b>CASE</b>														
4080	W-14	1-1/2 CY ARTIC	83 HP D	46,163	14.37	21.09	3.21	5.49	3.22	8.79	4.15	148		
4085	W-18	2 CY ARTIC	103 HP D	56,700	17.75	26.13	3.94	6.72	3.99	10.78	5.15	199		
4090	W-24 C	2-1/2 CY ARTIC	132 HP D	78,602	24.69	37.07	5.42	9.17	5.12	14.76	6.60	236		
4095	W-36	3-1/2 CY ARTIC	185 HP D	94,005	31.22	46.77	6.47	10.92	7.17	17.59	9.25	332		
<b>CATERPILLAR</b>														
4105	920	1-3/4 CY ARTIC	80 HP D	49,609	14.88	21.91	3.45	5.90	3.10	9.46	4.00	183		
4110	930	2-1/4 CY ARTIC	100 HP D	57,291	17.71	26.09	3.98	6.79	3.88	10.89	5.00	205		
4115	950	3 CY ARTIC	130 HP D	78,556	24.27	36.18	5.44	9.23	5.04	14.84	6.50	284		
4120	966-C	4 CY ARTIC	170 HP D	103,125	32.25	48.46	7.12	12.03	6.59	19.35	8.50	374		
4125	980-C	5-1/4 CY ARTIC	270 HP D	148,761	46.00	68.82	9.62	15.98	10.47	25.40	13.49	577		
4130	988-B	7 CY ARTIC	375 HP D	224,380	68.24	102.91	14.49	24.01	14.53	38.19	18.74	888		
4135	992-C	12-1/2 CY ARTIC	690 HP D	454,360	137.70	211.14	29.19	48.06	26.74	76.66	34.49	1908		
<b>CLARK</b>														
4145	35C	1-1/4 CY	74 HP D	42,728	12.98	18.97	2.98	5.11	2.87	8.18	3.70	171		
4150	55-B	2 CY ARTIC	114 HP D	60,588	19.10	27.97	4.22	7.21	4.42	11.55	5.70	247		
4155	75-B	2-1/2 CY ARTIC	142 HP D	81,561	25.73	38.46	5.64	9.55	5.50	15.36	7.10	303		
4160	125B	3-1/2 CY ARTIC	212 HP D	110,229	36.96	56.03	7.55	12.65	8.22	20.43	10.60	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	139,241	44.34	66.37	8.99	14.91	10.58	23.71	13.64	527			
4170	275-B	6-1/2 CY ARTIC	344 HP D	196,055	59.73	89.24	12.69	21.11	13.33	33.52	17.19	739			
4175	475-B	12 CY ARTIC	632 HP D	379,988	116.96	177.81	24.46	40.37	24.50	64.33	31.59	1544			
FIAT-ALLIS															
4185	345-B	1-3/4 CY ARTIC	80 HP D	47,561	14.48	21.30	3.31	5.66	3.10	9.06	4.00	174			
4190	545-B	2 CY ARTIC	102 HP D	58,247	18.01	26.54	4.05	6.91	3.95	11.09	5.10	217			
4195	605-B	2-1/2 CY ARTIC	108 HP D	61,441	18.98	27.90	4.27	7.30	4.19	11.70	5.40	238			
4200	645-B	3 CY ARTIC	151 HP D	80,613	25.82	38.27	5.58	9.49	5.85	15.24	7.55	286			
4205	745-C	4 CY ARTIC	202 HP D	107,285	35.83	54.45	7.35	12.30	7.83	19.86	10.10	418			
4210	945-B	6 CY ARTIC	335 HP D	192,246	60.18	91.52	12.36	20.38	12.98	32.49	16.74	708			
INTERNATIONAL															
4220	515	1-3/4 CY	95 HP D	43,512	14.40	20.96	3.03	5.18	3.68	8.30	4.75	161			
4225	H-60E	2-1/4 CY ARTIC	104 HP D	49,807	16.28	23.77	3.47	5.92	4.03	9.48	5.20	205			
4230	H-90E	4-1/2 CY ARTIC	239 HP D	110,314	35.56	52.37	7.16	11.94	9.26	18.95	11.95	402			
4235	H-100-C	5 CY ARTIC	290 HP D	123,135	41.93	62.51	7.94	13.14	11.24	20.91	14.49	487			
4240	560	6-1/2 CY ARTIC	380 HP D	184,793	59.43	88.51	11.94	19.83	14.73	31.53	18.99	796			
4245	H-400-C	11 CY ARTIC	580 HP D	330,536	102.23	154.16	21.32	35.31	22.48	56.19	28.99	1254			

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					
LOADERS - F.E. WHEEL TYPE (CONT'D)														
TEREX (GM)														
4255	72-31B	3 CY ARTIC	160 HP D	77,363	25.65	37.92	5.36	9.09	6.20	14.61	8.00	277		
4260	72-51B	4 CY ARTIC	231 HP D	110,192	36.21	54.41	7.09	11.72	8.95	18.68	11.55	392		
4265	72-61	5-1/2 CY ARTIC	307 HP D	144,306	47.83	71.98	9.28	15.32	11.90	24.42	15.34	562		
4270	72-71B	7-1/2 CY ARTIC	388 HP D	200,447	62.77	93.30	12.98	21.60	15.04	34.30	19.39	846		
4275	72-81	9 CY ARTIC	434 HP D	304,082	87.13	130.71	19.71	32.84	16.82	52.11	21.69	1149		
YALE														
4285	1500-C	1-3/4 CY ARTIC	98 HP D	44,391	14.73	21.43	3.09	5.29	3.80	8.48	4.90	166		
4290	1700-C	2 CY ARTIC	134 HP D	52,622	26.86	37.92	3.65	6.22	11.76	9.99	15.32	193		
4295	1900-C	2-1/4 CY ARTIC	136 HP D	55,397	19.28	28.05	3.85	6.56	5.27	10.53	6.80	203		
4300	2000-C	3 CY ARTIC	165 HP D	74,018	25.26	37.26	5.12	8.68	6.40	13.95	8.25	278		
4305	2500-C	3-3/4 CY ARTIC	182 HP D	94,842	32.03	48.79	6.49	10.84	7.05	17.52	9.10	369		
4310	3000-C	4-1/4 CY ARTIC	255 HP D	99,313	35.01	52.10	6.40	10.57	9.88	16.83	12.74	409		
4315	5500-C	5-1/2 CY ARTIC	320 HP D	141,349	46.69	69.06	9.14	15.21	12.40	24.17	15.99	590		
4320	7500-C	6-1/2 CY ARTIC	400 HP D	190,645	62.60	93.97	12.28	20.30	15.50	32.33	19.99	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	30,500	9.05	13.13	2.13	3.67	2.13	5.87	2.75	114		
			24° B/H DIPPER											
4335	680E LDR/BHOE	1-1/4 CY FE BUCKET	80 HP D	44,691	13.28	19.34	3.12	5.35	3.10	8.57	4.00	152		
			30° B/H DIPPER											
<b>JOHN DEERE</b>														
4345	410 LDR/BHOE	1 CY FE BUCKET	66 HP D	31,390	9.94	14.45	2.19	3.74	2.56	5.99	3.30	137		
			24° B/H DIPPER											
4350	510B LDR/BHOE	1-1/2 CY FE BUCKET	83 HP D	47,581	14.09	20.53	3.32	5.69	3.22	9.10	4.15	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	37,706	11.44	16.56	2.65	4.61	1.63	7.34	2.15	141		
			24° B/H DIPPER											
4365	450 LDR/BHOE	1 CY FE BUCKET	53 HP D	47,656	14.67	21.21	3.35	5.82	2.22	9.28	2.92	167		
			24° B/H DIP											
<b>CATERPILLAR</b>														
4375	931 LDR/BHOE	1 CY FE BUCKET	62 HP D	44,780	14.49	20.85	3.15	5.47	2.59	8.72	3.41	187		
			30° B/H DIPPER											

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.	OWNER-SHIP	FUEL	
<b>LOADER-BACKHOE ATTACHMENT'S</b> *****									
	HYDRAULICALLY OPERATED IMPACTOR MOUNTED ON BACKHOE BOOM TO FIT CASE AND JOHN DEERE BACKHOES (ADD TO BASIC LOADER-BACKHOE)								
4385	IMPACTOR WITH TAMPER TOOL	9,541	3.42		0.82	1.71	0.00		12
4390	IMPACTOR WITH CHISEL TOOL	8,999	3.24		0.77	1.62	0.00		11
<b>PILE EXTRACTORS</b> *****									
	MKT CORPORATION								
4400	E2            700 FT-LBS      400CFM A	10,873	3.98		0.93	1.95	0.00		26
4405	E4            1000 FT-LBS      550CFM A	16,706	6.01		1.42	2.99	0.00		45
<b>VULCAN</b>									
4415	400A            500 FT-LBS      450CFM A	13,682	4.96		1.17	2.45	0.00		29
4420	800A            1000 FT-LBS      900CFM A	18,445	6.62		1.58	3.31	0.00		55
4425	1200A            1640 FT-LBS      1350CFM A	21,553	7.68		1.83	3.85	0.00		92
<b>PILE HAMMERS-DIESEL</b> ***** (FUEL NOT INCLUDED)									
	MKT CORPORATION								
4435	DE-20B/30B (6-FT) 12,000 FT-LBS	27,710	9.68		2.37	4.96	0.00		74
4440	DE-20B/30B (6-FT) 16,800 FT-LBS	28,825	10.07		2.46	5.16	0.00		82
4445	DE-50B/70B (6-FT) 30,000 FT-LBS	52,202	18.20		4.45	9.35	0.00		138
4450	DE-50B/70B (6-FT) 42,000 FT-LBS	55,437	19.32		4.72	9.92	0.00		158

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CWT				
			CONDITON		STAND-BY	AVERAGE COND.		SEVERE COND.						
			AVERAGE	SEVERE		OWNER-SHIP	FUEL	OWNER-SHIP	FUEL					
<b>PILE HAMMERS-SINGLE ACTING</b>														
<del>XXXXXXXXXXXXXX</del>														
<b>VULCAN</b>														
4460	1	15000 FT-LBS	750CFM A	23,359	8.32		1.99	4.18	0.00	101				
4465	106	19000 FT-LBS	750CFM A	29,613	10.49		2.53	5.30	0.00	121				
4470	06	19500 FT-LBS	900CFM A	26,743	9.49		2.28	4.78	0.00	121				
4475	08	26000 FT-LBS	1100CFM A	30,014	10.63		2.56	5.37	0.00	178				
4480	010	32500 FT-LBS	1350CFM A	32,876	11.63		2.81	5.89	0.00	198				
4485	014	42000 FT-LBS	1750CFM A	47,420	16.69		4.04	8.49	0.00	283				
4490	016	48750 FT-LBS	1750CFM A	56,177	19.72		4.79	10.05	0.00	320				
4495	020	60000 FT-LBS	2150CFM A	59,747	20.97		5.10	10.70	0.00	425				
4500	030	90000 FT-LBS	2350CFM A	87,625	30.67		7.47	15.69	0.00	550				
<b>PILE HAMMERS-DOUBLE ACTING</b>														
<del>XXXXXXXXXXXXXX</del>														
<b>MKT CORPORATION</b>														
4510	9-B-3	8750 FT-LBS	900CFM A	20,093	7.19		1.72	3.60	0.00	72				
4515	10-B-3	13100 FT-LBS	1200CFM A	25,872	9.19		2.21	4.63	0.00	111				
4520	11-B-3	19150 FT-LBS	1200CFM A	33,579	11.87		2.86	6.01	0.00	138				
4525	5 (SELF STOP)	1000 FT-LBS	375CFM A	7,704	2.88		0.66	1.38	0.00	16				
4530	6 (SELF STOP)	2500 FT-LBS	600CFM A	9,245	3.42		0.79	1.66	0.00	30				
4535	7 (SELF STOP)	4150 FT-LBS	750CFM A	12,461	4.53		1.06	2.23	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>														
<del>XXXXXXXXXXXXXX</del>														
<b>VULCAN</b>														
4545	50C	15100 FT-LBS	1250CFM A	27,923	9.91	2.38	5.00	0.00		127				
4550	65C	19200 FT-LBS	1450CFM A	32,015	11.33	2.73	5.73	0.00		158				
4555	80C	24450 FT-LBS	1750CFM A	32,796	11.60	2.80	5.87	0.00		191				
4560	100C	32900 FT-LBS	2050CFM A	33,550	11.86	2.86	6.00	0.00		232				
4565	140C	36000 FT-LBS	2150CFM A	44,325	15.60	3.78	7.93	0.00		287				
4570	200C	50200 FT-LBS	2550CFM A	66,996	23.50	5.72	12.00	0.00		422				
4575	400C	113500 FT-LBS	5800CFM A	183,559	64.02	15.66	32.87	0.00		850				
<b>PILE HAMMERS-VIBRATORY</b>														
<del>XXXXXXXXXXXXXX</del>														
<b>MKT CORPORATION</b>														
4585	V5	WITH POWER PACK	59 HP D	47,074	19.30	4.01	8.43	2.29		131				
4590	V16	WITH POWER PACK	156 HP D	93,861	40.38	8.01	16.81	6.05		225				
4595	V18	WITH POWER PACK	248 HP D	136,182	59.65	11.62	24.39	9.61		304				
<b>PIPELAYER</b>														
<del>XXXXXXX</del>														
<b>CATERPILLAR</b>														
4605	561D	15 FT BOOM, 40,000 LB CAP 105 HP D	81,098	14.88	22.08	5.41	8.91	2.25	14.21	2.89				
4610	571G	18 FT BOOM, 60,000 LB CAP 200 HP D	137,874	25.91	38.30	9.20	15.16	4.28	24.14	5.51				
4615	572G	18 FT BOOM, 90,000 LB CAP 200 HP D	157,836	28.85	42.81	10.54	17.36	4.28	27.65	5.51				
4620	583K	20 FT BOOM, 140,000 LB CAP 300 HP D	204,436	38.53	56.92	13.64	22.47	6.43	35.80	8.26				
										900				

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							
	PIPELAYER (CONT'D) *****										
	CATERPILLAR (CONT'D)										
4625	5946 24 FT BOOM, 200,000 LB CAP 410 HP D	291,186	54.38	80.44	19.43	32.01	8.78	50.99	11.29	1230	
	PUMPS-GROUT *****										
	G.W. PHILPOTT GROUT UNITS WITH GARDNER-DENVER PUMPS										
4635	SSF2-10 W/ (2 EA) FG-AG 6" 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	19,892	5.58		1.51	2.91	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	31,117	8.68		2.35	4.54	0.00		107	
	PUMPS-WATER-FOR CORE DRILLS *****										
	LONGYEAR										
4650	520 RQ 5.7-20 GPM UP TO 600PSI	10 HP 6	4,127	2.46		0.29	0.52	1.19		7	
4655	535 RQ 9.9-35 GPM UP TO 800PSI	15 HP 6	5,274	3.50		0.37	0.67	1.79		10	

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>PUMPS-WATER-CENTRIF.-DEWATERING</b> *****									
<b>HOMELITE, SKID MOUNTED</b>									
4665	MOD 110S 1-1/2"-5000 GPH @ 30' H 2 HP G	337	0.40		0.03	0.05	0.24		1
4670	MOD 111S 2" - 9000 GPH @ 22' H 3 HP G	376	0.55		0.03	0.05	0.36		1
4675	MOD 120SP 3" - 18000 GPH @ 20' H 6 HP G	567	1.07		0.04	0.07	0.72		2
<b>NARLOW, WHEEL MOUNTED</b>									
4685	MOD 4D2 465 GPM @ 20' HEAD 59 HP G	6,160	10.60		0.43	0.77	7.03		14
4690	MOD 4D2 470 GPM @ 20' HEAD 47 HP D	8,013	5.24		0.56	1.01	2.54		15
4695	MOD 6E4A 1095 GPM @ 20' HEAD 117 HP G	7,352	20.00		0.52	0.93	13.95		18
4700	MOD 6E4A 1090 GPM @ 20' HEAD 80 HP D	11,714	8.49		0.82	1.48	4.32		24
4705	MOD 8FA3 2200 GPM @ 20' HEAD 108 HP D	14,350	11.16		1.00	1.81	5.84		23
4710	MOD 1061 2840 GPM @ 20' HEAD 108 HP D	15,977	11.52		1.12	2.02	5.84		30
<b>PUMPS-WATER-CENTRIF.-TRASH</b> *****									
<b>HOMELITE, SKID MOUNTED</b>									
4720	MOD 121TP 2" - 11500 GPH @ 20' H 4 HP G	535	0.75		0.04	0.07	0.48		2
4725	MOD 122TP 3" - 21600 GPH @ 20' H 4 HP G	732	0.79		0.05	0.09	0.48		3
4730	MOD 123TP 4" - 36500 GPH @ 20' H 10 HP G	1,337	1.86		0.10	0.17	1.19		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>PUMPS-WATER-DIAPHRAGM</b>												
*****												
HOMELITE, SKID MOUNTED												
4740	MOD 111DP 2" - 1900 GPH @ 10' HD 4 HP G	629	0.77			0.04	0.08	0.48		2		
4745	MOD 111DP 3" - 4140 GPH @ 10' HD 4 HP G	1,418	0.94			0.10	0.18	0.48		3		
<b>PUMPS-WATER-SUBMERSIBLE</b>												
*****												
HOMELITE												
4755	MOD SP-2 2" - 7400 GPH @ 10' HD 2 HP E	693	0.29			0.05	0.09	0.12		1		
4760	MOD SP-3 3" - 19000 GPH @ 15' HD 5 HP E	1,244	0.63			0.08	0.15	0.29		2		
<b>RIPPER &amp; HYDR. BANK SLOPER</b>												
*****												
(DOES NOT INCLUDE COST OF POINT WEAR)												
<b>ATECO</b>												
4770	VRAR-1 D9H RADIAL LIFT	29,702	7.70	11.94	2.25	4.35	0.00	6.94	0.00	136		
4775	D-9H SHANKS EA	2,260	0.58	0.91	0.17	0.33	0.00	0.53	0.00	15		
4780	LPAS-D8K PARALLEL LIFT	16,849	4.39	6.80	1.28	2.47	0.00	3.94	0.00	87		
4785	D-8K SHANKS EA	3,150	0.81	1.26	0.24	0.46	0.00	0.74	0.00	19		
4790	LPAS-D7G PARALLEL LIFT	13,526	3.52	5.46	1.02	1.97	0.00	3.16	0.00	45		
4795	D-7G SHANKS EA	2,245	0.58	0.90	0.17	0.33	0.00	0.53	0.00	10		
4800	PS D6D RADIAL LIFT	6,553	1.74	2.67	0.50	0.96	0.00	1.53	0.00	24		
4805	D-6C SHANKS EA	214	0.05	0.10	0.02	0.03	0.00	0.06	0.00	1		
4810	V-LPRF-TD25C PARALLEL LIFT STD SVC	15,037	3.92	6.07	1.14	2.20	0.00	3.52	0.00	89		
4815	TD-25C SHANKS EA	1,358	0.35	0.55	0.10	0.20	0.00	0.32	0.00	8		

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					
<b>RIPPER &amp; HYDR. BANK SLOPER (CONT'D)</b> ***** (DOES NOT INCLUDE COST OF POINT WEAR)													
<b>ATECO (CONT'D)</b>													
4820	V-LPRF-TD20E PARALLEL LIFT STD SVC	11,025	2.88	4.46	0.83	1.61	0.00	2.57	0.00	51			
4825	TD-20E SHANKS EA	993	0.25	0.40	0.07	0.14	0.00	0.23	0.00	4			
4830	PS-TD15C RADIAL LIFT	6,215	1.65	2.55	0.47	0.91	0.00	1.46	0.00	22			
4835	TD-15C SHANKS EA	214	0.05	0.10	0.02	0.03	0.00	0.06	0.00	1			
4840	V-LPRF 82-50 PARALLEL LIFT STD SVC	16,981	4.42	6.85	1.28	2.48	0.00	3.97	0.00	96			
4845	82-50 SHANKS EA	1,358	0.35	0.55	0.10	0.20	0.00	0.32	0.00	8			
4850	LPRS-82-50 PARALLEL LIFT EXT SVC	16,514	4.29	6.66	1.25	2.41	0.00	3.86	0.00	88			
4855	82-50 SHANKS EA	3,150	0.81	1.26	0.24	0.46	0.00	0.74	0.00	19			
4860	V-LPRF-82-30 PARALLEL LIFT	15,037	3.92	6.07	1.14	2.20	0.00	3.52	0.00	89			
4865	82-30 SHANKS EA	1,358	0.35	0.55	0.10	0.20	0.00	0.32	0.00	8			
4870	D9,D8;82-30,82-50;TD25 HYDR BANK SLOP	6,464	1.44	2.15	0.45	0.82	0.00	1.29	0.00	28			
<b>CATERPILLAR</b>													
4880	D-10 MULTI-SHANK BEAM	33,816	8.75	13.58	2.56	4.94	0.00	7.90	0.00	150			
4885	D-10 SHANKS EA	2,485	0.64	0.99	0.19	0.36	0.00	0.58	0.00	16			
4890	D-10 SINGLE-SHANK BEAM	36,429	9.38	14.57	2.76	5.33	0.00	8.50	0.00	165			
4895	D-9 MULTI-SHANK BEAM W/HYD-CONTROL	26,529	6.88	10.67	2.01	3.88	0.00	6.20	0.00	132			
4900	D-9 SHANKS EA	1,308	0.34	0.53	0.10	0.19	0.00	0.31	0.00	8			
4905	D-9 SINGLE-SHANK BEAM HYD-CNTL&SHANK	24,690	6.40	9.93	1.87	3.61	0.00	5.77	0.00	124			
4910	D-8 MULTI-SHANK BEAM HYD-CONTROL	18,719	4.87	7.54	1.42	2.74	0.00	4.37	0.00	103			

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.	OWNER-SHIP				
<b>RIPPER &amp; HYDR. BANK SLOPER (CONT'D)</b> \$ <b>(DOES NOT INCLUDE COST OF POINT WEAR)</b>													
<b>CATERPILLAR (CONT'D)</b>													
4915	D-8 SHANKS EA	1.256	0.33	0.51	0.10	0.19	0.00	0.30	0.00	7			
4920	D-8 SINGLE-SHANK BEAM HYD-CNTL&SHANK	18.187	4.73	7.33	1.38	2.66	0.00	4.25	0.00	100			
4925	D-7 MULTI-SHANK BEAM HYD-CONTROL	10.860	2.85	4.40	0.83	1.59	0.00	2.54	0.00	53			
4930	D-7 SHANKS EA	654	0.16	0.27	0.05	0.09	0.00	0.16	0.00	4			
4935	D-6 MULTI-SHANK BEAM HYD-CONTROL	6.809	1.80	2.77	0.51	0.99	0.00	1.59	0.00	27			
4940	D-6 SHANKS EA	336	0.09	0.14	0.03	0.05	0.00	0.08	0.00	2			
4945	D-4 MULTI-SHANK BEAM HYD-CONTROL	4.178	1.12	1.73	0.32	0.61	0.00	0.98	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	1.867	0.54	0.80	0.15	0.28	0.00	0.44	0.00	6			
4960	D-3 SHANKS EA	99	0.03	0.05	0.01	0.02	0.00	0.03	0.00	1			
<b>FIAT-ALLIS</b>													
4970	41-R W/HYD-CNTL AND 2 SHANKS	38.130	9.86	15.31	2.89	5.58	0.00	8.91	0.00	204			
4975	31-R W/HYD-CNTL AND 2 SHANKS	30.703	7.95	12.33	2.32	4.49	0.00	7.17	0.00	188			
4980	21-R W/HYD-CNTL AND 2 SHANKS	19.780	5.14	7.96	1.50	2.89	0.00	4.62	0.00	108			
4985	16-R W/HYD-CNTL AND 2 SHANKS	12.420	3.25	5.02	0.94	1.82	0.00	2.90	0.00	73			

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>ROLLERS-RUBBER-TIRED-SELF PROPELLED</b>									
<b>INGRAM</b>									
4995	9-2800-P	12 TON	107 HP G	19,903	16.05	1.37	2.46	9.25	77
5000	9-2800-PA	12 TON	76 HP D	24,505	9.27	1.70	3.04	2.95	89
5005	11-2700	15 TON	107 HP G	23,740	16.93	1.64	2.93	9.25	89
5010	11-2700	15 TON	76 HP D	26,119	9.65	1.81	3.23	2.95	91
5015	13-2300	15 TON	107 HP G	24,210	17.06	1.67	2.98	9.25	94
5020	13-2300	15 TON	76 HP D	27,272	9.94	1.89	3.37	2.95	96
5025	9-6000	27 TON	117 HP D	58,209	19.16	4.01	7.11	4.53	208
5030	7-10000	35 TON	148 HP D	63,281	22.03	4.32	7.60	5.74	241
<b>ROLLER-RUBBER TIRED-TOWED</b>									
5040	FERGUSON RT-100S	50 TON		37,683	8.80	2.50	4.23	0.00	200
5045	FERGUSON RT-120S	60 TON		43,900	10.21	2.94	5.02	0.00	233
5050	SOUTHWEST C 75	75 TON		51,569	12.05	3.43	5.82	0.00	347
5055	SOUTHWEST C 50	50 TON		48,978	11.44	3.26	5.55	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>FERGUSON-TOWED</b>													
5065	MOD 112	40"X48"	7,753	1.86	0.55	0.99	0.00		65				
5070	MOD 112W-48	48"X48"	9,874	2.33	0.69	1.25	0.00		105				
5075	MOD 120	60"X60"	15,206	3.53	1.06	1.92	0.00		157				
5080	MOD 120 MODIFIED	60"X60"	29,324	6.71	2.04	3.70	0.00		230				
5085	MOD 120-RE	60"X60"	35,700	8.16	2.50	4.52	0.00		327				
5090	MOD 22	60"X72"	21,090	4.85	1.47	2.66	0.00		215				
5095	MOD 22 MODIFIED	60"X72"	34,146	7.81	2.39	4.32	0.00		269				
5100	MOD 144-RE	60"X72"	41,651	9.50	2.91	5.27	0.00		385				
<b>CATERPILLER-SELF PROPELLED</b>													
5110	815	40.5"X38"	170 HP D	87,966	28.01	6.14	11.12	6.59	360				
5115	825C	51"X41.5"	300 HP D	158,151	50.10	11.05	20.00	11.63	631				
5120	825C	W/S BLADE	300 HP D	166,610	52.01	11.64	21.07	11.63	683				
<b>Hyster-SELF PROPELLED</b>													
5130	C455-B	TANDEM	60"X72" ARTIC	330 HP D	159,586	51.87	11.14	20.18	12.79	523			

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		
	ROLLER-SMOOTH WHEEL-SELF PROPELLED #####									
	INGRAM									
5140	8 TON 3 WHEEL 3° OVERLAP 107 HP G	29,408	18.11	2.06	3.72	9.25			124	
5145	8 TON 3 WHEEL 3° OVERLAP 76 HP D	32,471	10.98	2.26	4.10	2.95			126	
5150	12 TON 3 WHEEL 3° OVERLAP 107 HP G	35,685	19.52	2.49	4.51	9.25			203	
5155	12 TON 3 WHEEL 3° OVERLAP 86 HP D	38,748	12.87	2.70	4.90	3.33			205	
5160	14 TON 3 WHEEL 3° OVERLAP 107 HP G	37,888	20.02	2.65	4.79	9.25			241	
5165	14 TON 3 WHEEL 3° OVERLAP 86 HP D	40,951	13.37	2.86	5.18	3.33			243	
5170	4-6 TON 2 WHEEL TANDEM 53 HP G	18,042	9.75	1.26	2.28	4.58			82	
5175	6-9 TON 2 WHEEL TANDEM 107 HP G	24,301	16.96	1.70	3.08	9.25			133	
5180	6-9 TON 2 WHEEL TANDEM 76 HP D	27,364	9.83	1.91	3.46	2.95			135	
5185	8-12 TON 2 WHEEL TANDEM 107 HP G	29,406	18.11	2.06	3.72	9.25			171	
5190	8-12 TON 2 WHEEL TANDEM 76 HP D	32,469	10.98	2.26	4.10	2.95			173	
5195	10-14 TON 2 WHEEL TANDEM 107 HP G	31,870	18.66	2.22	4.03	9.25			258	
5200	10-14 TON 2 WHEEL TANDEM 76 HP D	34,940	11.54	2.44	4.42	2.95			262	

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CNT
			CONDITION	AVERAGE	SEVERE	STAND-BY	OWNER-SHIP	FUEL	OWNER-SHIP	
	ROLLER-VIBRATORY ***** TF=ROLLER W/TAMPING FEET									
	TOWED									
5210	FERGUSON 652 TF 60"X60" 9 TON 49 HP D	27,645	12.13			2.09	3.89	2.65		125
5215	SOUTHWEST 756 TF 66"X78" 20 TON 75 HP D	55,325	22.71			4.18	7.78	4.05		240
5220	FERGUSON 230 66"X78" 20 TON 66 HP D	41,159	17.59			3.11	5.79	3.57		234
5225	FERGUSON 230 TF 66 HP D	44,931	18.79			3.40	6.32	3.57		266
5230	HYSTER C200B 48"X60" 12.5 TON 36 HP D	22,091	9.49			1.67	3.11	1.95		87
5235	HYSTER C210A TF 58"X60" 14 TON 39 HP D	25,925	10.91			1.96	3.65	2.11		100
	SELF PROPELLED SINGLE DRUM									
5245	VIBRO PLUS CA-25 60"X84" 23 TON 125 HP D	50,128	24.48			3.76	6.93	6.76		198
5250	VIBRO PLUS CA-25S 61"X84" 28 TON 125 HP D	53,294	25.48			4.00	7.37	6.76		203
5255	VIBRO PLUS CA-25PD 60"X48" 30 TON 125 HP D	61,667	28.16			4.63	8.55	6.76		240
5260	RAYGO RASCAL 400A 59"X84" ARTIC 88 HP D	55,097	23.58			4.14	7.65	4.76		197
5265	RAYGO RASCAL 600A 60"X100" 119 HP D	68,190	29.87			5.13	9.46	6.43		288
5270	I-RAND SP-60 60"X100" 210 HP D	109,381	49.30			8.18	15.00	11.35		450
5275	I-RAND SPF-54 TF 54"X85" 120 HP D	63,497	28.40			4.78	8.85	6.49		264
5280	FERGUSON SP 75D 120 HP D	54,273	25.47			4.08	7.53	6.49		179
5285	FERGUSON SP 75DT TF 120 HP D	61,934	27.93			4.65	8.59	6.49		217
5290	FERGUSON SP 230D 148 HP D	64,204	30.51			4.83	8.92	8.00		302

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</b>																
<b>*****</b>																
(CAPACITY AS RECOMMENDED BY NFGR HP & FUEL LISTED TRACTOR/SCRAPER PP = PUSH PULL ATTACHMENT)																
<b>CATERPILLAR</b>																
5300	613-B	13 T	11 CY P.S.	150 HP D	85.964	29.72	42.29	5.86	10.31	5.97	16.37	7.80	311			
5305	621-B	24 T	14-20 CY P.S.	330 HP D	171.679	55.06	82.50	11.68	20.45	11.78	32.50	15.48	640			
5310	623-B	25 T	22 CY P.S.	330 HP D	191.267	62.75	89.85	13.04	22.92	13.13	36.39	17.17	702			
5315	627-B	24 T	14-20 CY P.S.	225/225 HP D/D	201.135	72.35	102.60	13.73	24.17	16.98	38.35	22.03	715			
5320	627-B PP	24 T	14-20 CY P.S.	225/225 HP D/D	213.838	74.94	106.43	14.62	25.78	16.98	40.87	22.03	757			
5325	631-D	37.5T	21-31 CY P.S.	450 HP D	262.988	81.61	122.59	17.89	31.37	16.06	49.84	21.11	876			
5330	633-B	37.5T	34 CY P.S.	450 HP D	300.284	94.64	135.91	20.50	36.09	17.90	57.25	23.41	996			
5335	637-B	37.5T	21-31 CY P.S.	450/255 HP D/D	324.009	114.37	162.31	22.16	39.09	26.61	61.96	34.52	983			
5340	637-D PP	37.5T	21-31 CY P.S.	450/255 HP D/D	338.251	117.27	166.61	23.15	40.89	26.61	64.79	34.52	1018			
5345	641-B	47 T	28-38 CY P.S.	550 HP D	327.559	101.74	153.32	22.25	38.93	19.63	61.91	25.81	1155			
5350	651-B	52 T	32-44 CY P.S.	550 HP D	341.331	104.55	157.47	23.21	40.67	19.63	64.64	25.81	1179			
5355	657-B	52 T	32-44 CY P.S.	550/400 HP D/D	421.736	156.90	222.42	28.63	50.06	35.85	79.63	46.51	1408			
<b>CLARK</b>																
5365	110-11B	13 T	11 CY P.S.	174 HP D	91.569	32.86	46.72	6.23	10.90	6.92	17.33	9.05	345			
5370	110-15	18 T	15 CY P.S.	232 HP D	121.774	41.35	59.09	8.29	14.54	9.23	23.09	12.07	456			
5375	110-TB	19 T	16 CY P.S.	140/140 HP D/D	161.925	55.41	78.98	11.07	19.51	11.14	30.93	14.57	521			
5380	210-HB	26.5T	23 CY P.S.	324 HP D	194.288	63.08	90.38	13.25	23.30	12.89	36.98	16.85	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> ***** <b>(CAPACITY AS RECOMMENDED BY MFGR HP &amp; FUEL LISTED TRACTOR/SCRAPER PP = PUSH PULL ATTACHMENT)</b>															
<b>FIAT-ALLIS</b>															
5390	161	18.7 T 15 CY P.S. 229 HP D	125,973	44.88	63.86	8.55	14.94	9.11	23.77	11.91	448				
5395	260B	25 T 15-21 CY P.S. 325 HP D	173,024	55.10	82.62	11.77	20.62	11.60	32.77	15.25	586				
5400	261B	26.5T 23 CY P.S. 325 HP D/D	199,986	64.32	92.22	13.65	24.02	12.93	38.12	16.91	639				
5405	262B	25 T 15-21 CY P.S. 325/171 HP D/D	204,434	71.89	104.69	13.96	24.59	17.71	39.00	23.27	681				
5410	263-B	26.5 T 23 CY P.S. 325/171 HP D/D	233,840	86.28	122.40	15.93	27.96	19.73	44.39	25.80	744				
<b>INTERNATIONAL</b>															
5420	412	13 T 11 CY P.S. 150 HP D	82,045	29.25	41.62	5.57	9.73	5.97	15.49	7.80	308				
5425	431B	24 T 14-21 CY P.S. 326 HP D	159,324	52.36	78.53	10.81	18.88	11.64	30.04	15.30	594				
5430	433B	24 T 14-21 CY P.S. 126/185 HP D/D	186,968	62.91	89.82	12.74	22.38	11.74	35.53	15.23	690				
5435	442B	25 T 22 CY P.S. 326 HP D	181,389	60.49	86.54	12.35	21.67	12.97	34.43	16.96	680				
5440	444B	25 T 22 CY P.S. 326/185 HP D/D	214,489	81.39	115.17	14.62	25.70	20.33	40.81	26.58	805				
<b>JOHN DEERE</b>															
5450	JD762	13.7 T 11 CY P.S. 175 HP D	92,622	32.91	46.78	6.31	11.07	6.96	17.59	9.10	345				
5455	JD860-B	18.7 T 15 CY P.S. 215 HP D	119,924	39.83	56.98	8.17	14.35	8.55	22.79	11.18	451				
<b>TEREX (GN)</b>															
5465	S-23E	26.5T 23 CY P.S. 310 HP D	178,378	59.97	85.92	12.10	21.11	12.33	33.61	16.13	655				
5470	S-24B	40 T 24-34 CY P.S. 475 HP D	277,600	86.40	129.96	18.88	33.05	16.96	52.54	22.29	931				

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CMT			
			AVERAGE	SEVERE	STAND-BY	AVERAGE COND.	SEVERE COND.	OWNER-SHIP	FUEL				
<b>SCRAPERS-SELF PROPELLED (CONT'D)</b>													
<del>XXXXXXXXXXXXXXXXXXXXXX</del>													
(CAPACITY AS RECOMMENDED BY NFGR 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	172,175	58.24	83.13	11.72	20.57	10.87	32.68	14.10	528			
5480	TS-18 30 T 18-24 CY P.S. 295/225 HP D/D	233,291	85.02	120.57	15.89	27.88	19.62	44.28	25.46	720			
5485	TS-24 40 T 24-32 CY P.S. 394/225 HP D/D	315,250	110.66	157.40	21.48	37.72	23.36	59.89	30.31	932			
5490	TS-24B 52 T 24-34 CY P.S. 475/242 HP D/D	341,380	119.76	170.11	23.33	41.13	27.06	65.21	35.10	1050			
<b>WABCO</b>													
5500	1016 13 T 11 CY P.S. 161 HP D	85,979	31.23	44.45	5.82	10.13	6.40	16.14	8.38	317			
5505	222H 25 T 22 CY P.S. 332 HP D	184,940	62.43	89.35	12.55	21.94	13.21	34.91	17.27	648			
5510	229H 25 T 15-21 CY P.S. 332 HP D	161,899	53.88	81.22	10.95	19.03	11.85	30.33	15.58	594			
5515	252FT 32 T 27 CY P.S. 332/332 HP D/D	302,923	111.13	157.58	20.69	36.42	26.41	57.77	34.54	1017			
5520	333F 38 T 32 CY P.S. 467 HP D	268,238	88.55	126.75	18.27	32.08	18.58	50.94	24.29	1020			
5525	339F 41 T 25-34 CY P.S. 467 HP D	258,957	81.38	122.01	17.63	30.91	16.67	49.11	21.91	937			
5530	353FT 43 T 36 CY P.S. 493/473 HP D/D	425,826	162.49	230.20	28.93	50.61	38.43	80.48	50.25	1355			
<b>SCRAPER-TRACTOR DRAWN</b>													
<del>XXXXXXXXXXXXXXXXXXXXXX</del>													
5540	ROME 18T 12-17CY HYDR/CONTROL	47,513	9.83	14.53	3.02	4.90	0.00	7.86	0.00	235			
5545	ROME 27T 18-26CY HYDR/CONTROL	67,156	14.11	20.88	4.24	6.83	0.00	11.00	0.00	365			
5550	SOUTHWEST DS18 DRAG SCRAPER 8.8 CY	27,560	5.68	8.40	1.75	2.84	0.00	4.56	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.	OWNER-	FUEL	
			AVERAGE	SEVERE							
	TRACTOR - CRAWLERS XXXXXXXXXXXXXX										
	CATERPILLAR										
5560	D3 P.S. 62 HP D	25.393	8.95	12.86	1.79	2.99	2.59	4.84	3.41	119	
5565	3P POWER ANGLE & POWER TILT	5.536	1.19	1.79	0.39	0.70	0.00	1.10	0.00	24	
5570	D4-E D.D. 75 HP D	39.616	12.78	18.50	2.81	4.68	3.14	7.55	4.13	176	
5575	4A ANGLE BLADE HYDRAULIC	7.384	1.65	2.44	0.52	0.94	0.00	1.47	0.00	30	
5580	4S STRAIGHT BLADE HYDRAULIC	5.767	1.28	1.92	0.40	0.72	0.00	1.15	0.00	25	
5585	D5-B P.S. 105 HP D	60.254	18.93	27.46	4.26	7.11	4.39	11.47	5.78	269	
5590	5A ANGLE BLADE HYDRAULIC	8.893	1.96	2.93	0.62	1.12	0.00	1.77	0.00	41	
5595	5S STRAIGHT BLADE HYDRAULIC	7.002	1.56	2.31	0.49	0.89	0.00	1.39	0.00	34	
5600	D6-D P.S. 140 HP D	78.158	24.74	35.91	5.52	9.21	5.85	14.88	7.71	264	
5605	6S STRAIGHT BLADE HYDRAULIC	9.342	2.06	3.08	0.66	1.18	0.00	1.86	0.00	47	
5610	6A ANGLE BLADE HYDRAULIC	10.419	2.29	3.42	0.73	1.31	0.00	2.07	0.00	51	
5615	D7-G P.S. 200 HP D	107.209	34.39	49.85	7.58	12.64	8.36	20.42	11.02	373	
5620	7S STRAIGHT BLADE HYDRAULIC	14.593	3.19	4.77	1.02	1.84	0.00	2.90	0.00	77	
5625	7U HYD. UNIVERSAL BLADE	15.968	3.48	5.21	1.11	2.01	0.00	3.17	0.00	84	
5630	7A ANGLE BLADE HYDRAULIC	12.744	2.79	4.17	0.89	1.61	0.00	2.53	0.00	68	
5635	D8-K P.S. 300 HP D	149.815	46.02	65.19	10.00	16.47	12.55	26.24	16.52	606	
5640	8S STRAIGHT BLADE HYDRAULIC	21.295	4.63	6.94	1.49	2.69	0.00	4.23	0.00	121	
5645	8U HYD. UNIVERSAL BLADE	23.453	5.10	7.64	1.64	2.97	0.00	4.66	0.00	133	
5650	8A ANGLE BLADE HYDRAULIC	18.072	3.94	5.90	1.26	2.28	0.00	3.59	0.00	116	
5655	PUSH PLATE USE W/S	541	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			CMT						
			CONDITION		STAND-BY	AVERAGE COND.		SEVERE COND.							
			AVERAGE	SEVERE		OWNER-SHIP	FUEL								
<b>TRACTOR - CRAWLER (CONT'D)</b>															
<b>CATERPILLAR (CONT'D)</b>															
5660	D9-H P.S.	410 HP D	220.403	66.07	93.75	14.71	24.23	17.15	38.60	22.58	809				
5665	9S STRAIGHT BLADE HYDRAULIC		27.502	5.96	8.95	1.92	3.47	0.00	5.46	0.00	173				
5670	9A ANGLE BLADE HYDRAULIC		23.465	5.10	7.64	1.64	2.97	0.00	4.66	0.00	152				
5675	9U HYD. UNIVERSAL BLADE		30.056	6.51	9.77	2.10	3.79	0.00	5.97	0.00	190				
5680	9C CUSHION BLADE		21.159	4.60	6.89	1.48	2.67	0.00	4.20	0.00	127				
5685	REAR CUSHION PUSH BLOCK		5.297	1.24	1.82	0.37	0.67	0.00	1.06	0.00	29				
5690	FRONT PUSH PLATE		624	0.15	0.22	0.04	0.08	0.00	0.13	0.00	5				
5695	DUAL D9-H P.S.	820 HP D	466.570	137.32	195.16	31.12	51.29	34.29	81.71	45.17	1851				
5700	D10 P.S.	700 HP D	409.438	115.47	161.29	25.89	42.41	29.27	66.89	38.56	1478				
5705	10S STRAIGHT BLADE HYDRAULIC		44.135	9.54	14.33	3.08	5.57	0.00	8.77	0.00	286				
5710	10U HYD. UNIVERSAL BLADE		48.518	10.49	15.74	3.39	6.13	0.00	9.63	0.00	283				
5715	FRONT PUSH PLATE		954	0.25	0.36	0.07	0.12	0.00	0.19	0.00	7				
5720	REAR PUSH BLOCK		13.861	3.03	4.54	0.97	1.75	0.00	2.76	0.00	46				
<b>FIAT-ALLIS</b>															
5730	8 P.S.	87 HP D	39.831	13.48	19.44	2.82	4.70	3.64	7.59	4.79	189				
5735	8-HA ANGLE BLADE HYDRAULIC		6.505	1.45	2.15	0.45	0.82	0.00	1.29	0.00	30				
5740	8-HSU SEMI-U BLADE HYDRAULIC		6.803	1.51	2.25	0.48	0.86	0.00	1.35	0.00	30				
5745	10-B P.S.	110 HP D	59.268	18.98	27.52	4.19	6.99	4.60	11.29	6.06	256				
5750	10-HA ANGLE BLADE HYDRAULIC		7.238	1.61	2.39	0.51	0.92	0.00	1.44	0.00	36				
5755	10-HSU SEMI-U BLADE HYDRAULIC		7.635	1.70	2.52	0.54	0.97	0.00	1.52	0.00	36				

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>TRACTOR - CRAWLER (CONT'D)</b>														
<del>XXXXXXXXXXXXXXXXXXXX</del>														
<b>FIAT-ALLIS (CONT'D)</b>														
5760	14-C P.S. 150 HP D	82,895	26.33	38.20	5.86	9.77	6.27	15.79	8.26	306				
5765	14-HA ANGLE BLADE HYDRAULIC	11,086	2.44	3.63	0.78	1.41	0.00	2.20	0.00	51				
5770	14-HSU STRAIGHT BLADE HYDRAULIC	11,582	2.54	3.80	0.81	1.46	0.00	2.30	0.00	51				
5775	16-B P.S. 195 HP D	109,573	34.63	50.26	7.75	12.92	8.15	20.87	10.74	453				
5780	16-HA ANGLE BLADE HYDRAULIC	11,788	2.59	3.86	0.82	1.49	0.00	2.34	0.00	66				
5785	16-HS STRAIGHT BLADE HYDRAULIC	12,384	2.71	4.07	0.86	1.56	0.00	2.47	0.00	66				
5790	16-HSU FULL-U BLADE HYDRAULIC	13,642	2.99	4.46	0.96	1.73	0.00	2.71	0.00	81				
5795	21-C P.S. 300 HP D	161,755	48.44	68.74	10.79	17.78	12.55	28.33	16.52	636				
5800	21HSU HYD. SEMI-UNIVERSAL BLADE	21,289	4.63	6.93	1.49	2.69	0.00	4.22	0.00	127				
5805	21-HU FULL-U BLADE HYDRAULIC	20,910	4.56	6.81	1.47	2.65	0.00	4.15	0.00	114				
5810	31 P.S. 425 HP D	247,095	72.24	102.71	16.48	27.16	17.77	43.27	23.41	908				
5815	31-HSU SEMI-U BLADE HYDRAULIC	30,469	6.61	9.91	2.13	3.85	0.00	6.05	0.00	190				
5820	31-HU FULL-U BLADE HYDRAULIC	31,534	6.84	10.25	2.21	3.99	0.00	6.26	0.00	210				
5825	31-HC CUSHION BLADE	22,636	4.92	7.37	1.58	2.86	0.00	4.49	0.00	120				
5830	41-B P.S. 524 HP D	314,487	87.99	122.97	19.88	32.57	21.91	51.38	28.86	1128				
5835	41-HSU SEMI-U BLADE HYDRAULIC	35,601	7.71	11.57	2.49	4.50	0.00	7.07	0.00	222				
5840	41-HU FULL-U BLADE HYDRAULIC	40,621	8.79	13.18	2.84	5.13	0.00	8.06	0.00	254				
5845	41-HC CUSHION BLADE	25,979	5.63	8.46	1.82	3.29	0.00	5.16	0.00	120				

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>TRACTOR - CRAWLER (CONT'D)</b>															
<del>XXXXXXXXXXXXXXXXXXXXXX</del>															
<b>INTERNATIONAL</b>															
5855	TD-7-E P. S. W/HYD BLADE	65 HP D	35,722	11.37	16.49	2.52	4.21	2.72	6.80	3.58	139				
5860	TD-8-E P.S. W/HYD BLADE	78 HP D	43,539	13.78	20.01	3.08	5.13	3.26	8.30	4.30	172				
5865	TD-15-C P.S.	140 HP D	71,842	23.38	33.84	5.08	8.48	5.85	13.69	7.71	269				
5870	HYD. SEMI-UNIVERSAL BLADE		9,676	2.13	3.18	0.67	1.22	0.00	1.92	0.00	46				
5875	ANGLE BLADE HYDRAULIC		10,766	2.37	3.53	0.75	1.36	0.00	2.14	0.00	50				
5880	TD-20-E P.S.	210 HP D	103,927	34.24	49.49	7.35	12.26	8.78	19.79	11.57	475				
5885	HYD. SEMI-UNIVERSAL BLADE		13,867	3.03	4.54	0.97	1.75	0.00	2.76	0.00	61				
5890	ANGLE BLADE HYDRAULIC		14,310	3.13	4.69	1.00	1.81	0.00	2.85	0.00	71				
5895	TD-25-E P.S.	310 HP D	142,392	45.04	63.67	9.50	15.66	12.96	24.94	17.07	590				
5900	HYD. SEMI-UNIVERSAL BLADE		18,502	4.02	6.03	1.29	2.33	0.00	3.67	0.00	108				
5905	ANGLE BLADE HYDRAULIC		16,347	3.56	5.34	1.14	2.06	0.00	3.25	0.00	110				
5910	FRONT PUSHER CUSHION		7,476	1.65	2.46	0.52	0.94	0.00	1.48	0.00	29				
5915	REAR PUSHER CUSHION		3,964	0.95	1.39	0.28	0.50	0.00	0.79	0.00	23				
5920	FRONT PUSH BLOCK /S BLD		604	0.18	0.26	0.04	0.08	0.00	0.13	0.00	12				
<b>JOHN DEERE</b>															
5930	JD350C/6305 D.D. W/HYD BLADE	42 HP D	25,182	7.81	11.35	1.78	2.97	1.76	4.80	2.31	102				
5935	JD450C/6405 D.D. W/HYD BLADE	65 HP D	36,249	11.48	16.66	2.56	4.27	2.72	6.90	3.58	143				
5940	JD550/6405 P.S. W/HYD BLADE	72 HP D	43,290	13.41	19.50	3.06	5.11	3.01	8.25	3.97	169				

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.	OWNER-SHIP	
	TRACTOR - CRAWLER (CONT'D) \$00000000000000000000									
	TEREX (GM)									
5950	82-20B P.S. 205 HP D	107,331	34.69	50.24	7.58	12.65	8.57	20.44	11.29	372
5955	STRAIGHT BLADE HYDRAULIC	10,524	2.26	3.40	0.74	1.33	0.00	2.09	0.00	58
5960	ANGLE BLADE HYDRAULIC	11,406	2.45	3.68	0.80	1.44	0.00	2.26	0.00	59
5965	HYD. UNIVERSAL BLADE	11,399	2.45	3.68	0.80	1.44	0.00	2.26	0.00	57
5970	82-30B P.S. 260 HP D	139,056	41.74	59.25	9.27	15.28	10.87	24.36	14.32	569
5975	STRAIGHT BLADE HYDRAULIC	15,359	3.35	5.03	1.07	1.94	0.00	3.06	0.00	91
5980	ANGLE BLADE HYDRAULIC	17,077	3.73	5.57	1.19	2.16	0.00	3.39	0.00	93
5985	HYD. UNIVERSAL BLADE	17,074	3.73	5.57	1.19	2.16	0.00	3.39	0.00	92
5990	REAR CUSHION PUSH BLOCK	4,666	1.10	1.61	0.33	0.59	0.00	0.93	0.00	21
5995	82-50B P.S. 370 HP D	202,358	60.31	85.62	13.50	22.24	15.47	35.43	20.38	762
6000	STRAIGHT BLADE	19,816	4.26	6.42	1.38	2.50	0.00	3.94	0.00	118
6005	HYD. UNIVERSAL BLADE	22,127	4.77	7.15	1.55	2.80	0.00	4.39	0.00	134
6010	ANGLE BLADE HYDRAULIC	22,214	4.77	7.19	1.55	2.80	0.00	4.41	0.00	157
6015	PUSH PLATE (WELD ON)	801	0.17	0.27	0.06	0.10	0.00	0.17	0.00	6
6020	PUSH BLOCK (CUSHION REAR)	4,666	1.00	1.51	0.33	0.59	0.00	0.93	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 BY	AVERAGE COND.		SEVERE COND.					
			AVERAGE	SEVERE		OWNER-SHIP	FUEL	OWNER-SHIP	FUEL				
<b>TRACTOR - WHEEL TYPE DOZERS</b>													
*****													
CATERPILLAR													
6030	814 ARTICULATED ST BLADE P.S. 170 HP D	92,226	29.13	46.47	6.26	10.89	6.59	17.36	8.50	363			
6035	824-C ARTICULATED ST BLADE P.S. 300 HP D	164,683	52.67	85.32	11.13	19.24	11.63	30.74	14.99	603			
CLARK													
6045	280 ARTICULATED ST BLADE P.S. 274 HP D	165,457	51.07	82.48	11.22	19.45	10.62	31.04	13.69	688			
6050	380 ARTICULATED ST BLADE P.S. 473 HP D	247,930	78.25	123.16	16.91	29.52	18.33	46.95	23.64	1010			
<b>TRACTOR - WHEEL TYPE - FARM TYPE</b>													
*****													
JOHN DEERE													
6060	MOD 20-40	40 HP G	9,856	6.74	10.10	0.65	1.10	3.46	1.78	4.51			
6065	MOD 24-40	60 HP G	14,365	9.76	14.21	0.97	1.67	5.19	2.68	6.76			
<b>TRENCHER-CHAIN-DITCH WITCH</b>													
*****													
6075	MOD C99 6"X24" TRENCH	9 HP G	2,429	1.59	2.21	0.17	0.30	0.78	0.48	1.01			
6080	MOD 2200 8"X36" TRENCH	17 HP G	10,818	4.45	6.35	0.75	1.35	1.47	2.14	1.92			
6085	MOD V30 10"X36" TRENCH	30 HP G	11,871	6.18	8.63	0.83	1.48	2.59	2.34	3.38			
6090	MOD 65 12"X48" TRENCH	65 HP D	24,093	8.87	12.72	1.67	2.99	2.52	4.73	3.25			
6095	MOD 100 18"X72" TRENCH	101 HP D	56,308	18.32	26.75	3.91	6.98	3.91	11.01	5.05			

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			
	TRENCHER-WHEEL TYPE *****											
	BARBER-GREEN											
6105	MOD TA 56 16"X5'-10" TRENCH	84 HP D	74,537	21.19	30.74	5.21	9.39	3.26	14.76	4.20	275	
6110	MOD TA 65 22"X7'-0" TRENCH	175 HP D	170,558	47.62	69.22	11.92	21.48	6.78	33.77	8.75	632	
	CLEVELAND											
6120	MOD 247-HD-1 21"X7' TRENCH	84 HP D	74,537	21.19	30.74	5.21	9.39	3.26	14.76	4.20	275	
6125	MOD 400W-HD-1 36"X9' TRENCH	175 HP D	170,558	47.62	69.22	11.92	21.48	6.78	33.77	8.75	632	
	TRUCKS - HIGHWAY ***** (CHASSIS ONLY)											
	FORD											
6140	F100 4X2 1/2T PKUP	4900 GVW 157 HP G	4,863	6.66	9.03	0.36	0.69	4.11	1.11	5.35	37	
6145	F150 4X2 1/2T PKUP	6150 GVW 157 HP G	5,266	6.77	9.18	0.39	0.75	4.11	1.20	5.35	38	
6150	F250 4X2 3/4T PKUP	7900 GVW 157 HP G	6,044	7.01	9.58	0.44	0.84	4.11	1.36	5.35	39	
6155	F250 4X4 3/4T PKUP	8400 GVW 157 HP G	7,080	7.28	10.07	0.53	1.00	4.11	1.61	5.35	44	
6160	F600 2AX	16000 GVW 155 HP G	9,088	13.36	18.00	0.67	1.27	8.33	2.05	10.76	51	
6165	F612 2AX	21000 GVW 155 HP G	9,290	13.48	18.21	0.68	1.28	8.33	2.06	10.76	53	
6170	F702 2AX	22000 GVW 170 HP G	11,116	15.06	20.44	0.82	1.53	9.13	2.46	11.80	59	
6175	F706 2AX	25500 GVW 170 HP G	11,373	15.18	20.71	0.83	1.53	9.13	2.49	11.80	62	
6180	L804 2AX	27500 GVW 170 HP G	12,956	15.56	21.31	0.94	1.76	9.13	2.86	11.80	66	
6185	L8000 2AX	35000 GVW 175 HP D	23,006	14.85	21.30	1.70	3.22	6.92	5.19	9.10	87	
6190	LTS900 3AX	39000 GVW 200 HP D	24,914	17.00	24.60	1.81	3.37	7.91	5.45	10.40	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>													
***** (CHASSIS ONLY)													
FORD (CONT'D)													
6195	LTS904 3AX	46000 GVW 200 HP D	25,597	17.16	24.87	1.87	3.47	7.91	5.62	10.40	104		
6200	LTS9000 3AX	54000 GVW 250 HP D	40,106	23.35	34.00	2.95	5.55	9.89	8.95	12.99	135		
6205	LTS9000 3AX	58000 GVW 250 HP D	42,081	23.82	34.74	3.11	5.86	9.89	9.42	12.99	140		
GMC AND CHEVROLET													
6215	C10903 4X2 1/2T PKUP	6000 GVW 140 HP 6	5,431	6.22	8.49	0.40	0.77	3.67	1.24	4.77	43		
6220	C10906 4X2	MAGON 6400 GVW 165 HP 6	6,648	7.38	10.07	0.50	0.96	4.32	1.53	5.62	46		
6225	K10906 4X4	MAGON 6800 GVW 165 HP 6	7,671	7.63	10.51	0.58	1.10	4.32	1.77	5.62	50		
6230	C20903 4X2 3/4T PKUP	7500 GVW 165 HP 6	5,978	7.27	9.94	0.44	0.83	4.32	1.34	5.62	46		
6235	C20903 4X4 3/4T PKUP	7500 GVW 165 HP 6	7,167	7.57	10.48	0.53	1.00	4.32	1.63	5.62	49		
6240	CSD042 2AX	16000 GVW 160 HP 6	9,247	13.88	18.80	0.67	1.25	8.59	2.03	11.11	56		
6245	C6D042 2AX	20000 GVW 160 HP 6	10,320	14.14	19.21	0.76	1.41	8.59	2.28	11.11	63		
6250	C7D042 2AX	24000 GVW 188 HP 6	10,618	16.20	21.89	0.78	1.45	10.10	2.35	13.05	67		
6255	J8C042 2AX	27500 GVW 220 HP 6	18,642	20.53	28.09	1.38	2.60	11.82	4.18	15.27	85		
6260	J9C042 2AX	33900 GVW 242 HP D	34,980	21.28	30.53	2.60	4.94	9.57	7.93	12.58	121		
6265	C7D064 3AX	37000 GVW 200 HP 6	14,947	25.22	34.13	1.09	2.02	15.98	3.27	20.70	100		
6270	J8C064 3AX	43000 GVW 220 HP 6	24,567	29.87	40.93	1.80	3.37	17.58	5.44	22.77	120		
6275	J9C064 3AX	44900 GVW 242 HP D	39,184	22.69	33.09	2.88	5.42	9.57	8.74	12.58	148		
6280	M9E042 2AX	33900 GVW 242 HP D	37,465	21.88	31.47	2.79	5.31	9.57	8.51	12.58	122		
6285	D9K042 2AX	33900 GVW 289 HP D	37,888	24.36	34.76	2.82	5.37	11.43	8.61	15.02	123		

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

UNIT NO.	EQUIPMENT	VALUE	TOTAL HOURLY RATES			ADJUSTABLE ELEMENTS				CWT						
			CONDITION	SEVERE	BY	AVERAGE COND.		SEVERE COND.								
						OWNER-SHIP	FUEL	OWNER-SHIP	FUEL							
<b>TRUCKS - HIGHWAY (CONT'D)</b>																
<del>XXXXXXXXXXXXXXXXXXXX</del>																
<b>(CHASSIS ONLY)</b>																
<b>GMC AND CHEVROLET (CONT'D)</b>																
6290	N9E064 3AX	48900 GVW 289 HP D	42,675	25.84	37.33	3.16	5.97	11.43	9.59	15.02						
6295	D9K064 3AX	48900 GVW 289 HP D	43,075	25.89	37.37	3.19	6.05	11.43	9.71	15.02						
<b>INTERNATIONAL</b>																
6305	800 4X4 SCOUT	6200 GVW 97 HP G	6,102	4.88	6.82	0.46	0.88	2.54	1.41	3.30						
6310	1624 2AX	20000 GVW 147 HP G	9,514	12.97	17.59	0.70	1.31	7.90	2.12	10.21						
6315	1724 2AX	20500 GVW 147 HP G	9,834	13.05	17.70	0.72	1.36	7.90	2.19	10.21						
6320	1824 2AX	23600 GVW 189 HP G	10,449	16.21	21.88	0.76	1.43	10.15	2.32	13.12						
6325	1854 2AX	23600 GVW 180 HP D	15,756	10.35	14.65	1.17	2.21	4.88	3.56	6.31						
6330	1924 2AX	25000 GVW 190 HP G	12,244	16.72	22.65	0.91	1.70	10.20	2.74	13.19						
6335	1954 2AX	27000 GVW 180 HP D	20,345	11.53	16.54	1.51	2.86	4.88	4.60	6.31						
6340	F1954 3AX	43000 GVW 210 HP D	24,312	17.01	24.29	1.80	3.40	8.31	5.47	10.92						
6345	F2554 3AX	43000 GVW 210 HP D	33,850	19.45	28.17	2.51	4.76	8.31	7.64	10.92						
6350	F2574 3AX	50000 GVW 230 HP D	40,582	22.09	32.05	3.02	5.75	9.10	9.22	11.96						
6355	F5050 3AX	52000 GVW 225 HP D	41,305	22.00	31.99	3.08	5.86	8.90	9.40	11.70						
<b>KENWORTH</b>																
6365	K100 3AX	47400 GVW 72800 GCW 290 HP D	47,831	27.12	39.35	3.54	6.72	11.47	10.81	15.07						
6370	W900 3AX	50000 GVW 76800 GCW 290 HP B	46,733	26.86	38.93	3.47	6.57	11.47	10.55	15.07						
6375	C500 3AX	56000 GVW 86000 GCW 290 HP D	53,488	28.49	41.49	3.98	7.56	11.47	12.13	15.07						
6380	BRUTE 3AX	62000 GVW 95300 GCW 290 HP D	57,496	29.46	43.01	4.28	8.15	11.47	13.07	15.07						
										179						

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>TRUCKS - HIGHWAY (CONT'D)</b>												
<del>XXXXXXXXXXXXXXXXXXXXXX</del>												
<b>(CHASSIS ONLY)</b>												
PETERBILT												
6390	MOD 348 3AX 56000 GVW 250 HP D	48,118	25.21	36.79	3.57	6.76	9.89	10.86	12.99	121		
6395	MOD 352 3AX 50000 GVW 76800 GCW 350 HP D	51,601	31.04	44.68	3.83	7.29	13.84	11.70	18.19	131		
6400	MOD 359 3AX 50000 GVW 76800 GCW 350 HP D	51,612	31.04	44.68	3.83	7.29	13.84	11.70	18.19	134		
6405	MOD 381 3AX 73000 GVW 125000 GCW 350 HP D	55,207	31.91	46.04	4.11	7.82	13.84	12.54	18.19	174		
6410	MOD 383 3AX 83000 GVW 150000 GCW 350 HP D	55,279	31.93	46.07	4.11	7.83	13.84	12.56	18.19	193		
<b>TRUCK ACCESSORIES-TRAILER B/D</b>												
<del>XXXXXXXXXXXXXXXXXXXXXX</del>												
COOK BROS CHALLENGE												
6420	BDS 2511 19CY 25T 80,000 GVW MAX	22,347	5.22	7.82	1.53	2.55	0.00	4.11	0.00	120		
6425	BDS 2811 23CY 28T 80,000 GVW MAX	24,375	5.66	8.50	1.66	2.78	0.00	4.50	0.00	130		
6430	BDS-4011 30CY 40T 80,000 GVW MAX	26,939	6.34	9.51	1.83	3.03	0.00	4.92	0.00	150		
6435	E-400 20CY 40T 100,000 GVW MAX	35,474	8.14	12.24	2.43	4.07	0.00	6.57	0.00	170		
6440	E-550 37CY 55T OFF-HWY	55,888	12.91	19.43	3.82	6.35	0.00	10.28	0.00	370		
6445	E-5506 37CY 55T OFF-HWY W/GOOSE NECK	65,904	15.03	22.63	4.52	7.57	0.00	12.22	0.00	390		
6450	E-700 43CY 70T OFF-HWY	75,796	17.92	26.93	5.12	8.40	0.00	13.67	0.00	370		
6455	E-7006 43CY 70T OFF-HWY W/GOOSE NECK	81,831	19.19	28.87	5.54	9.13	0.00	14.85	0.00	390		
6460	DOLLY FOR GOOSE NECK TRAILERS	15,728	3.92	5.85	1.05	1.69	0.00	2.77	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.	OWNER-SHIP	FUEL	
	TRUCK ACCESSORIES-TRAILER E/D *****									
	COOK BROS CHALLENGE									
6470	SDS-26-R 20CY 28T 80,000 GVW MAX	20,334	4.81	7.20	1.38	2.29	0.00	3.71	0.00	114
6475	SDS-28-R 21CY 28T 80,000 GVW MAX	20,855	4.91	7.37	1.42	2.35	0.00	3.81	0.00	120
	FRUEHAUF									
6485	BBC-M2-27 20CY 25T 80,000 GVW MAX	19,900	4.70	7.04	1.36	2.25	0.00	3.64	0.00	110
	TRUCK ACCESSORIES - DUMP-REAR *****									
	WILLIAMS W/HOIST									
6495	5CY 24M TO 26M GVW	4,135	1.22	1.82	0.32	0.61	0.00	0.97	0.00	25
6500	AIR GATE 8CY 27M TO 30M GVW	6,439	1.86	2.80	0.49	0.94	0.00	1.51	0.00	45
6505	AIR GATE 10CY 36000 & UP GVW	6,553	1.89	2.83	0.49	0.95	0.00	1.53	0.00	46
6510	AIR GATE 12CY 36000 & UP GVW	6,645	1.97	2.92	0.51	0.97	0.00	1.55	0.00	47
	TRUCK ACCESSORIES - FLATBEDS *****									
	KNAPHEIDE									
6520	CT 8' X 12'	1,134	0.37		0.09	0.17	0.00			13
6525	CT 8' X 13.5'	1,302	0.41		0.10	0.19	0.00			16
6530	CT 8' X 15'	1,390	0.43		0.10	0.20	0.00			17
6535	CT 8' X 16'	1,483	0.46		0.12	0.22	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	OWNER-SHIP	FUEL			
<b>TRUCK ACCESSORIES-HOIST-ELECT</b> *****												
<b>AUTO CRANE</b>												
6545	BACKSAVER SENIOR	CAP 1500#	2,405	0.70	0.19	0.36	0.00			3		
6550	WORKHORSE	CAP 2500#	2,992	0.85	0.23	0.44	0.00			6		
6555	MIGHTY WORKHORSE	CAP 4000#	6,435	1.73	0.49	0.94	0.00			9		
6560	MUSTANG	CAP 4000#	9,862	2.61	0.74	1.43	0.00			20		
<b>TRUCK ACCESSORIES-CRANE-HYDR</b> *****												
<b>NATIONAL CRANE</b>												
6570	SERIES 4	7.5T@5'RAD	27500 GVW	25,184	6.57	1.90	3.67	0.00		80		
6575	SERIES 6	10T@5'RAD	44000 GVW	31,209	8.14	2.36	4.56	0.00		94		
6580	SERIES 8	12T@5'RAD	60000 GVW	45,316	11.78	3.43	6.62	0.00		140		
<b>PITMAN</b>												
6590	HL-140CD	2AX 7T@ 4'RAD	24000 GVW	13,956	3.68	1.06	2.04	0.00		64		
6595	HL-170CD	2AX 8T@ 4'RAD	24000 GVW	18,362	4.81	1.39	2.68	0.00		85		
6600	HL-126B-1	2AX 12T@5'RAD	33000 GVW	39,000	10.15	2.96	5.70	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		
	TRUCK ACCESSORIES-TRAILERS FB *****									
	FRUEHAUF									
6610	PF-F2-40 40 FT 35 T 2 AX	9,269	2.43		0.61	0.90	0.00		96	
	TRANSPORT									
6620	PF-BX 36 FT 35 T 2 AX	12,605	3.10		0.84	1.29	0.00		98	
6625	PF-BX 40 FT 35 T 2 AX	12,703	3.13		0.85	1.31	0.00		104	
	TRUCK ACCESSORIES-TRAILERS LOWBOY FB *****									
	LOAD KING									
6635	302-DR 30T 2AX 41000-49000 GVW	19,451	4.41		1.34	2.16	0.00		96	
6640	402-DR 40T 2AX 50000-60000 GVW	25,738	5.80		1.78	2.87	0.00		108	
6645	352-DF 35T 2AX 41000-49000 GVW	24,259	5.41		1.69	2.73	0.00		112	
6650	402-DF 40T 2AX 50000-60000 GVW	26,740	6.00		1.85	2.98	0.00		117	
6655	503-DF 50T 3AX 50000-60000 GVW	32,759	7.46		2.25	3.60	0.00		157	
6660	603-DF 60T 3AX 61000-80000 GVW	38,907	8.83		2.68	4.29	0.00		180	
6665	DOLLY FOR THREE-AXLE TRAILERS	13,892	3.33		0.94	1.47	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.		SEVERE COND.							
					AVERAGE	SEVERE	OWNER-SHIP	FUEL						
<b>TRUCK ACCESSORIES-TRAILERS-TILT</b> *****														
<b>Hyster</b>														
6675	HP15T 15T 2AX 35000-40000 GVW	11,020	2.67		0.75	1.17	0.00		68					
6680	HP20T 20T 2AX 35000-40000 GVW	13,095	3.14		0.89	1.39	0.00		71					
6685	GHP25T 25T 2AX 35000-40000 GVW	14,917	3.52		1.02	1.60	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	19,797	5.22		1.50	2.89	0.00		63					
6705	808-MD 8 CY 50000 - 70000 GVW	20,106	5.30		1.52	2.94	0.00		66					
6710	858-MD 8.5 CY 55000 - 75000 GVW	20,316	5.35		1.54	2.97	0.00		68					
6715	908-MD 9 CY 61000 - 80000 GVW	20,611	5.43		1.56	3.01	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)	8,094	2.89		0.61	1.18	0.61		35					
6725	MFW 2500 GAL 25000 - 34950 GVW 7 HP G TRUCK MOUNTED (ADD CHASSIS)	8,514	3.00		0.64	1.24	0.61		42					
6730	MFW 3000 GAL 29000 - 40000 GVW 7 HP G TRUCK MOUNTED (ADD CHASSIS)	9,017	3.13		0.68	1.32	0.61		46					

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		AVERAGE COND.	SEVERE COND.	OWNER-SHIP	FUEL	
	TRUCKS - OFF HIGHWAY *****									
	CATERPILLAR									
6740	769-B 35T 22-29 CY	P.S. 450 HP D 205,727	56.66	82.87	13.35	22.23	11.02	35.29	14.23	681
6745	773 50T 30-40 CY	P.S. 600 HP D 289,569	78.91	115.64	18.78	31.24	14.69	49.60	18.97	903
6750	777 85T 47-67 CY	P.S. 870 HP D 396,569	114.48	168.61	25.49	41.88	21.30	66.85	27.51	1225
6755	768C PRIME MOVER TRACTOR	P.S. 450 HP D 181,135	55.70	82.11	11.57	18.81	11.02	30.16	14.23	506
6760	772B PRIME MOVER TRACTOR	P.S. 600 HP D 272,369	78.90	116.25	17.49	28.72	14.69	45.87	18.97	705
	DJB (ARTICULATED FRAME)									
6770	D275 27.5T 15-24 CY	P.S. 235 HP D 163,273	41.24	61.07	10.57	17.56	5.75	27.91	7.43	410
6775	D330 33T 17-28 CY	P.S. 255 HP D 173,369	43.67	64.58	11.24	18.71	6.24	29.71	8.06	430
6780	D35C 35T 20-31 CY	P.S. 255 HP D 185,499	47.22	70.18	11.98	19.81	6.24	31.53	8.06	460
6785	D550 55T 32-55 CY	P.S. 450 HP D 319,249	80.66	119.58	20.66	34.29	11.02	54.50	14.23	820
	EUCLID									
6795	R25-215FD 25T 14-19 CY	P.S. 228 HP D 125,977	33.33	49.07	8.16	13.57	5.58	21.57	7.21	378
6800	R35-302TD 35T 23-29 CY	P.S. 394 HP D 187,649	52.40	77.02	12.11	20.04	9.65	31.90	12.46	583
6805	R50-301LD 50T 31-41 CY	P.S. 606 HP D 264,251	74.41	108.82	17.11	28.42	14.83	45.16	19.16	790
	INTERNATIONAL									
6815	J30 36T 24-31 CY	P.S. 394 HP D 180,429	51.95	76.77	11.65	19.28	9.65	30.68	12.46	630
6820	350B 50T 31-42 CY	P.S. 580 HP D 262,352	74.20	109.20	17.01	28.28	14.20	44.90	18.34	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							
<b>TRUCKS - OFF HIGHWAY (CONT'D)</b> *****														
<b>MACK</b>														
6835	M-15-X 15T 11-15 CY	180 HP D	93,515	25.41	37.40	6.05	10.02	4.41	15.94	5.69	340			
6840	M-20-X 20T 13-17 CY	250 HP D	95,455	26.96	39.03	6.23	10.44	6.12	16.53	7.90	350			
6845	M-25-X 25T 16-20 CY	P.S. 250 HP D	120,969	33.16	48.64	7.84	13.01	6.12	20.67	7.90	460			
6850	M-35-AX 35T 23-29 CY	P.S. 434 HP D	172,229	50.04	73.03	11.14	18.47	10.62	29.37	13.72	630			
6855	M-45-SX 3AX45T 28-36 CY	P.S. 535 HP D	234,918	67.43	99.13	15.17	25.10	13.10	39.96	16.92	810			
6860	M-50-AX 50T 32-39 CY	P.S. 635 HP D	250,772	72.94	106.44	16.22	26.90	15.54	42.77	20.08	790			
6865	M-65-BX 65T 42-51 CY	P.S. 700 HP D	317,641	88.66	129.85	20.56	34.13	17.14	54.25	22.13	955			
6870	M-75ASX 3AX75T 44-56 CY	P.S. 800 HP D	366,188	103.08	151.50	23.69	39.30	19.58	62.48	25.30	1160			
<b>TEREX</b>														
6880	33-03B 22T 15-18 CY	P.S. 215 HP D	102,077	29.01	42.77	6.56	10.80	5.26	17.25	6.80	380			
6885	33-05B 30T 19-23 CY	P.S. 321 HP D	162,691	44.31	65.16	10.52	17.45	7.86	27.76	10.15	525			
6890	33-07 40T 25-32 CY	P.S. 493 HP D	216,953	61.76	90.58	14.01	23.17	12.07	36.90	15.59	756			
6895	33-09 55T 34-44 CY	P.S. 624 HP D	290,119	81.26	119.28	18.75	31.03	15.28	49.38	19.73	992			
6900	33-11C 85T 51-65 CY	P.S. 840 HP D	391,982	109.38	160.54	25.34	41.98	20.56	66.78	26.56	1227			
<b>WABCO</b>														
6910	HAULPAK 35C 35T 23-29 CY	P.S. 456 HP D	184,203	54.03	79.13	11.88	19.60	11.16	31.24	14.42	571			
6915	HAULPAK 50 50T 31-40 CY	P.S. 635 HP D	264,953	76.78	112.48	17.10	28.25	15.54	44.99	20.08	792			
6920	75B 75T 45-47 CY	P.S. 700 HP D	305,190	89.14	131.12	19.61	32.22	17.14	51.43	22.13	955			
6925	85C 85T 40-60 CY	P.S. 860 HP D	369,726	108.39	159.37	23.76	39.03	21.05	62.30	27.19	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	FUEL					
<b>TRUCKS - WATER</b> *****														
<b>TRACTOR DRAWN - KLEIN</b>														
6940	KT-50 5000 GAL. CAT 613B P.S. 150 HP D	92,104	25.52	36.83	5.94	9.81	5.81	15.63	7.50	310				
6945	KT-60 6000 GAL. CAT 621B P.S. 330 HP D	164,148	50.27	72.57	10.53	17.23	12.79	27.55	16.49	593				
6950	KT-80 8000 GAL. CAT 631B P.S. 450 HP D	225,871	67.05	96.38	14.59	24.17	17.44	38.46	22.49	788				
6955	KT-100 10000 GAL. CAT 631B P.S. 450 HP D	232,335	68.96	99.29	14.95	24.61	17.44	39.26	22.49	798				
6960	KT-100 10000 GAL. CAT 641B P.S. 550 HP D	272,094	83.24	120.27	17.52	28.86	21.32	46.02	27.49	951				
6965	KT-120 12000 GAL. CAT 651B P.S. 550 HP D	276,421	84.74	122.56	17.74	29.08	21.32	46.47	27.49	1097				
6970	KT-140 14000 GAL. CAT 660B P.S. 550 HP D	272,208	85.80	124.27	17.31	28.02	21.32	45.01	27.49	1067				
<b>TRACTOR DRAWN - SOUTHWEST</b>														
6980	STT-60 6000 GAL. CAT 621B P.S. 330 HP D	171,719	51.37	74.18	11.04	18.15	12.79	28.96	16.49	623				
6985	STT-80 8000 GAL. CAT 631B P.S. 450 HP D	233,240	68.48	98.52	15.07	24.94	17.44	39.68	22.49	848				
6990	STT-100 10000 GAL. CAT 631B P.S. 450 HP D	236,929	69.25	99.68	15.29	25.29	17.44	40.27	22.49	918				
6995	STT-120 12000 GAL. CAT 651B P.S. 550 HP D	285,172	87.50	126.76	18.20	29.61	21.32	47.46	27.49	1053				
7000	STT-140 14000 GAL. CAT 660B P.S. 550 HP D	279,803	87.46	126.77	17.79	28.75	21.32	46.20	27.49	1137				
<b>WAGONS - BOTTOM - DUMP</b> *****														
<b>CATERPILLAR-ATHey</b>														
7010	621B/PW621B 33T 22-26CY P.S. 330 HP D	176,789	52.93	76.53	11.32	18.48	12.79	29.57	16.49	579				
7015	631D/PW631D 41T 27-32CY P.S. 450 HP D	244,735	71.09	102.45	15.77	26.00	17.44	41.44	22.49	769				
7020	768B/PW768B 72T 42-48CY P.S. 415 HP D	276,109	77.09	111.77	17.63	28.68	16.09	45.97	20.74	850				
7025	660B/PW772 100T 60-67CY P.S. 550 HP D	354,309	100.71	146.40	22.65	36.94	21.32	59.15	27.49	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	354,189	100.10	145.48	22.69	37.13	21.32	59.38	27.49	1164		
	EUCLID											
7040	B63-203LDT147W 63T 42-56CY P.S. 442 HP D	271,099	77.10	111.75	17.40	28.54	17.13	45.59	22.09	896		
	WAGONS - REAR - DUMP *****											
	CATERPILLAR-ATHEY											
7050	621B/PR621B 30T 20-24CY P.S. 330 HP D	177,921	54.50	79.34	11.40	18.65	12.79	29.83	16.49	572		
7055	631D/PR631D 40T 27-32CY P.S. 450 HP D	250,069	74.81	108.80	16.10	26.51	17.44	42.27	22.49	833		
	WATER BLASTER *****											
	MULLINS WATER BLASTERS											
7070	5000DH 1 - NOZZLE	95 HP D	22,701	16.40		1.94	4.07	5.43			47	
7075	5200DH 2 - NOZZLE	140 HP D	30,549	23.41		2.61	5.47	8.00			52	
7080	5300 3 - NOZZLE	275 HP D	55,952	44.46		4.77	10.02	15.71			128	
7085	5400 4 - NOZZLE	318 HP D	60,266	49.97		5.15	10.80	18.16			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.	OWNER-SHIP	FUEL				
<b>WATER TANKS</b> *****												
SKID MOUNTED												
7095	WST-8 8000 GAL. SOUTHWEST	9,935	2.58	0.75	1.45	0.00			128			
7100	WST-10 10000 GAL. SOUTHWEST	11,580	3.00	0.87	1.69	0.00			150			
7105	WST-12 12000 GAL. SOUTHWEST	13,824	3.58	1.05	2.02	0.00			183			
PORTABLE (WITH WHEELS)												
7115	EWT-8 8000 GAL. SOUTHWEST	21,465	5.55	1.62	3.13	0.00			150			
7120	EWT-10 10000 GAL. SOUTHWEST	24,128	6.24	1.83	3.52	0.00			170			
7125	EWT-12 12000 GAL. SOUTHWEST	26,865	6.95	2.03	3.92	0.00			210			
WELDERS *****												
ELECTRIC DRIVE - AC 3 PHASE 60 HZ												
7135	250 AMP SKID MTD	10 HP E	952	0.68	0.07	0.12	0.39		7			
7140	300 AMP SKID MTD	20 HP E	1,311	1.25	0.10	0.17	0.78		7			
7145	400 AMP SKID MTD	25 HP E	1,584	1.56	0.12	0.21	0.97		8			
7150	600 AMP SKID MTD	36 HP E	2,343	2.26	0.18	0.31	1.40		15			
GASOLINE ENGINE DRIVE												
7160	200 AMP W/1 AXLE TRLR	37 HP 6	2,077	5.56	0.18	0.34	3.93		11			
7165	250 AMP W/1 AXLE TRLR	65 HP 6	3,464	9.70	0.29	0.56	6.90		17			
7170	300 AMP W/1 AXLE TRLR	65 HP 6	3,516	9.72	0.29	0.57	6.90		17			
7175	400 AMP W/1 AXLE TRLR	69 HP 6	4,067	10.42	0.34	0.65	7.32		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>												
<del>XXXXXXXXXXXXXX</del>												
<b>GASOLINE ENGINE DRIVE (CONT'D)</b>												
7180	650 AMP W/2 AXLE TRLR	85 HP G	6,256	13.24		0.52	1.01	9.02		22		
<b>DIESEL ENGINE DRIVE</b>												
7190	350 AMP W/2 AXLE TRLR	55 HP D	5,369	5.05		0.45	0.87	2.64		25		
7195	400 AMP W/2 AXLE TRLR	55 HP D	7,015	5.58		0.58	1.13	2.64		30		
<b>RECTIFIER AC-DC COMB.</b>												
7205	250 AMP W/SHOP RUNNING GEAR	19 HP E	810	1.12		0.07	0.11	0.74		4		
7210	300 AMP W/SHOP RUNNING GEAR	24 HP E	971	1.40		0.07	0.13	0.94		6		
7215	500 AMP W/SHOP RUNNING GEAR	30 HP E	1,386	1.79		0.11	0.19	1.17		7		
7220	650 AMP W/SHOP RUNNING GEAR	42 HP E	1,673	2.44		0.12	0.22	1.64		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 (.43)= (+) \$ 8.17/Hr.	
Adjusted Total Hourly Rate	= \$29.17/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	
15	AGGREGATE SPREADERS	1.21	1.10	1.00	0.91	0.84	0.77	0.73					
30	AIR COMPRESSORS	1.20	1.10	1.00	0.87	0.83	0.74	0.73					
45	AIR TOOLS & EQUIP., TAMPERS ETC	1.21	1.10	1.00									
60	ASPHALT DISTRIBUTORS	1.22	1.11	1.00	0.90	0.83	0.76	0.71					
65	ASPHALT AND CONCRETE PAVERS	1.21	1.10	1.00	0.91	0.84	0.77	0.73					
	BACKHOE (SEE KEY NO. 570-601)												
75	BROOMS	1.28	1.15	1.00	0.90	0.81	0.75	0.68					
80	BRUSH CHIPPERS	1.28	1.15	1.00	0.90	0.81	0.75	0.69					
90	BUCKETS, CLAMSHELL & DRAGLINE	1.38	1.21	1.00	0.89	0.81	0.73	0.61					
95	BUCKETS, CONCRETE	1.38	1.21	1.00	0.89	0.81	0.73	0.61					
105	CONCRETE OR GROUT PUMP	1.29	1.15	1.00	0.89	0.81	0.74						
120	CONCRETE GUNITE EQUIPMENT & FLUID GROUTERS	1.28	1.15	1.00	0.90	0.81	0.75	0.69					
125	CONCRETE MIXERS & BUGGIES	1.28	1.15	1.00	0.90	0.81	0.75	0.69					
135	CONCRETE VIBRATORS	1.21	1.10	1.00									
140	COMPACTORS, MANUALLY OPERATED CRANE, CRAWLER TYPE	1.21	1.10	1.00	0.87								
150	0 THRU 25 TON	1.23	1.12	1.00	0.91	0.84	0.78	0.71	0.57	0.47			
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	0.46		
170	OVER 50 TON THRU 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
180	OVER 150 TON DRAGLINE & CLAMSHELL, CRAWLER MOUNTED	1.22	1.11	1.00	0.91	0.84	0.79	0.72	0.59	0.50	0.48	0.46	0.43
185	0 THRU 1 CY	1.23	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	0.46		
195	OVER 2-1/2 CY THRU 5 CY	1.22	1.12	1.00	0.91	0.84	0.79	0.72	0.58	0.49	0.47	0.45	0.43
196	OVER 5 CY	1.22	1.11	1.00	0.91	0.84	0.79	0.72	0.59	0.50	0.48	0.46	0.43
200	CRANES, HYDRAULIC, SELF- PROPELLED	1.23	1.12	1.00	0.91	0.84	0.78	0.71	0.57	0.47	0.45	0.43	
	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	0.48	0.46		
225	26 THRU 65 T (1 TH 2-1/2 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
230	66 THRU 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
240	OVER 125 T	1.22	1.11	1.00	0.91	0.85	0.79	0.73	0.59	0.50	0.49	0.47	0.44
255	DRILL, AUGER	1.29	1.16	1.00	0.92	0.83	0.80	0.75					
270	DRILL, BLAST HOLE	1.29	1.16	1.00	0.92	0.83	0.80	0.75					
300	DRILL, CORE	1.29	1.16	1.00	0.92	0.83	0.80	0.75					
315	DRILL, ROTARY TO 11" DIA. HOLE	1.27	1.15	1.00	0.93	0.84	0.81	0.76	0.66	0.60	0.56		
330	DRILL, ROTARY OVER 11" DIA.	1.26	1.14	1.00	0.93	0.85	0.81	0.77	0.67	0.61	0.58	0.56	0.54
345	DRILL, ROTARY OVER 11" DIA., ELECTRIC	1.26	1.14	1.00	0.93	0.85	0.81	0.77	0.67	0.61	0.58	0.56	0.54
375	FORK LIFTS	1.28	1.15	1.00	0.90	0.81	0.75	0.68					
390	GRAIDERS	1.26	1.13	1.00	0.92	0.82	0.75	0.69	0.54				
420	GENERATORS	1.39	1.24	1.00	0.95	0.86	0.83	0.72					
435	HOIST	1.28	1.15	1.00	0.90	0.81	0.75	0.69					
	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	1.30	1.16	1.00	0.89	0.80	0.73	0.66					
450	LOADER, BELT	1.30	1.16	1.00	0.89	0.80	0.73	0.66					
460	LOADER, FRONT END & LOADER F/E WITH BACKHOE, CRAWLER TYPE LOADER, WHEEL TYPE	1.27	1.14	1.00	0.91	0.83	0.75	0.69					
465	0 THRU 225 HP	1.30	1.15	1.00	0.90	0.80	0.73	0.68					
470	OVER 225 HP	1.28	1.14	1.00	0.90	0.81	0.74	0.70	0.56				
475	LOADER, FRONT END WITH BACKHOE, WHEEL TYPE	1.30	1.15	1.00	0.90	0.80	0.73	0.68					
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	0.51				
495	PUMP, WATER, ENGINE DRIVE	1.28	1.15	1.00	0.90	0.81	0.75	0.69					
500	PUMP, WATER, ELECTRIC DRIVE	1.28	1.15	1.00	0.90	0.81	0.75	0.69					
510	RIPPERS	1.27	1.13	1.00	0.89	0.79	0.71						
525	ROLLERS, EXCEPT VIB. ROLLERS	1.25	1.12	1.00	0.89	0.78	0.71	0.67					
530	ROLLERS, VIBRATORY	1.27	1.12	1.00	0.88	0.77	0.69						
540	SCRAPERS, STANDARD	1.26	1.13	1.00	0.92	0.82	0.75	0.69					
542	SCRAPERS, TANDEM POWERED SCRAPERS, ELEVATING	1.26	1.13	1.00	0.92	0.82	0.75	0.69					
545	0 THRU 200 HP	1.26	1.13	1.00	0.92	0.82	0.75	0.69					
550	OVER 200 HP	1.26	1.13	1.00	0.92	0.82	0.75	0.69					
555	SCRAPERS, TRACTOR DRAWN SHOVELS, BACKHOES, & HYDRAULIC EXCAVATORS CRAWLER MOUNTED	1.25	1.13	1.00	0.92	0.82	0.76	0.70	0.55				
570	0 THRU 1 CY	1.24	1.12	1.00	0.91	0.83	0.78	0.70	0.56				
585	OVER 1 CY THRU 2-1/2 CY	1.23	1.12	1.00	0.91	0.84	0.78	0.71	0.57	0.47			
595	OVER 2-1/2 CY THRU 5 CY	1.23	1.12	1.00	0.91	0.84	0.79	0.71	0.58	0.48	0.47	0.45	
600	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
601	OVER 2-1/2 CY ELECTRIC TRACTOR, CRAWLER TYPE	1.22	1.11	1.00	0.91	0.85	0.79	0.73	0.59	0.50	0.49	0.47	0.44
615	0 THRU 225 HP	1.28	1.14	1.00	0.88	0.78	0.69	0.63					
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	0.51				
625	OVER 425 HP	1.26	1.12	1.00	0.89	0.80	0.72	0.67	0.53	0.44	0.42		
630	TRACTOR, BLADES, PUSH BLOCKS, PUSH PLATES & CLEARING BLADES	1.27	1.13	1.00	0.89	0.79	0.71	0.66					
645	TRACTOR, WHEEL TYPE	1.30	1.15	1.00	0.88	0.80	0.72	0.66					
650	TRENCHER	1.30	1.16	1.00	0.92	0.81	0.64	0.53					
655	TRAILERS, BOTTOM DUMP AND END DUMP	1.30	1.15	1.00	0.89	0.80	0.73	0.67					
660	TRAILERS, FLATBED, LO-BOY AND TILT	1.31	1.16	1.00	0.89	0.79	0.72	0.66					
	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	0.81	0.74						
675	ALL OTHER ACCESSORIES	1.29	1.15	1.00	0.89	0.81	0.74						
	TRUCK, HIGHWAY												
690	0 THRU 10,000 GVW	1.24	1.12	1.00	0.90	0.82	0.75						
695	OVER 10,000 THRU 30,000 GVW	1.24	1.12	1.00	0.90	0.82	0.74						
705	OVER 30,000 GVW	1.24	1.12	1.00	0.90	0.82	0.74						
720	TRUCK, OFF-HIGHWAY	1.30	1.16	1.00	0.90	0.83	0.78	0.73	0.56				
765	WAGON, BOTTOM DUMP & WATER	1.30	1.16	1.00	0.90	0.83	0.78	0.73	0.56				
780	WAGON, REAR DUMP	1.30	1.16	1.00	0.90	0.83	0.78	0.73	0.56				
785	WATER BLASTER	1.30	1.15	1.00	0.89								
795	WATER TANKS	1.29	1.15	1.00	0.89	0.81	0.74						
810	WELDERS	1.33	1.17	1.00	0.88								
811	WELDERS ELECTRIC POWER	1.31	1.16	1.00	0.88	0.79	0.72						

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

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

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

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

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

KEY NO.	TYPE OF EQUIPMENT	YEAR PURCHASED NEW											
		1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	
15	AGGREGATE SPREADERS	1.18	1.09	1.00	0.92	0.86	0.80	0.77					
30	AIR COMPRESSORS	1.17	1.08	1.00	0.89	0.86	0.79	0.77					
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	0.81	0.77					
65	ASPHALT AND CONCRETE PAVERS	1.18	1.09	1.00	0.92	0.86	0.80	0.77					
	BACKHOE (SEE KEY NO. 570-601)												
75	BROOMS	1.24	1.13	1.00	0.91	0.84	0.78	0.73					
80	BRUSH CHIPPERS	1.24	1.13	1.00	0.91	0.84	0.78	0.73					
90	BUCKETS, CLAMSHELL & DRAGLINE	1.32	1.18	1.00	0.91	0.84	0.77	0.67					
95	BUCKETS, CONCRETE	1.32	1.18	1.00	0.91	0.84	0.77	0.67					
105	CONCRETE OR GROUT PUMP	1.25	1.13	1.00	0.91	0.83	0.78						
120	CONCRETE GUNITE EQUIPMENT & FLUID GROUTERS	1.24	1.13	1.00	0.91	0.84	0.78	0.73					
125	CONCRETE MIXERS & BUGGIES	1.24	1.13	1.00	0.91	0.84	0.78	0.73					
135	CONCRETE VIBRATORS	1.19	1.09	1.00									
140	COMPACTORS, MANUALLY OPERATED CRANE, CRAWLER TYPE	1.18	1.09	1.00	0.89								
150	0 THRU 25 TON	1.20	1.10	1.00	0.92	0.86	0.81	0.75	0.63	0.54			
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	0.53		
170	OVER 50 TON THRU 150 TON	1.19	1.10	1.00	0.92	0.86	0.82	0.76	0.64	0.56	0.54	0.53	0.50
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	0.55	0.53	0.49
185	0 THRU 1 CY	1.20	1.10	1.00	0.92	0.86	0.81	0.75	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	0.53		
195	OVER 2-1/2 CY THRU 5 CY	1.19	1.10	1.00	0.92	0.86	0.82	0.76	0.64	0.56	0.54	0.53	0.50
196	OVER 5 CY	1.19	1.10	1.00	0.92	0.86	0.82	0.76	0.64	0.56	0.55	0.53	0.49
200	CRANES, HYDRAULIC, SELF- PROPELLED	1.19	1.10	1.00	0.92	0.86	0.82	0.76	0.64	0.56	0.55	0.53	
	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	0.53		
225	26 THRU 65 T (1 TH 2-1/2 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
230	66 THRU 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
240	OVER 125 T	1.19	1.10	1.00	0.92	0.87	0.82	0.76	0.65	0.57	0.55	0.53	0.51
255	DRILL, AUGER	1.25	1.13	1.00	0.93	0.86	0.83	0.79					
270	DRILL, BLAST HOLE	1.25	1.13	1.00	0.93	0.86	0.83	0.79					
300	DRILL, CORE	1.25	1.13	1.00	0.93	0.86	0.83	0.79					
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	0.62		
330	DRILL, ROTARY OVER 11" DIA.	1.23	1.12	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	1.12	1.00	0.94	0.87	0.84	0.80	0.72	0.66	0.63	0.62	0.57
375	FORK LIFTS	1.24	1.13	1.00	0.91	0.84	0.78	0.73					
390	GRADERS	1.21	1.11	1.00	0.93	0.85	0.80	0.74	0.62				
420	GENERATORS	1.31	1.19	1.00	0.96	0.89	0.86	0.78					
435	HOIST HYD. EXCAVATOR (SEE KEY NO. 570-601)	1.24	1.13	1.00	0.91	0.84	0.78	0.73					

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	
440	LIGHT PLANTS	1.24	1.12	1.00	0.91	0.84	0.78	0.73					
450	LOADER, BELT	1.24	1.12	1.00	0.91	0.84	0.78	0.73					
460	LOADER, FRONT END & LOADER F/E WITH BACKHOE, CRAWLER TYPE LOADER, WHEEL TYPE	1.22	1.12	1.00	0.92	0.86	0.79	0.75					
465	0 THRU 225 HP	1.24	1.12	1.00	0.91	0.83	0.78	0.74					
470	OVER 225 HP	1.24	1.12	1.00	0.92	0.84	0.78	0.74	0.63				
475	LOADER, FRONT END WITH BACKHOE, WHEEL TYPE	1.24	1.12	1.00	0.91	0.83	0.78	0.74					
480	PILE EXTRACTOR, PILE HAMMER & HYDRAULIC IMPACTOR	1.26	1.13	1.00	0.91								
485	PIPELAYERS PUMP, GROUT (SEE KEY NO. 105)	1.22	1.11	1.00	0.91	0.83	0.76	0.71	0.60				
495	PUMP, WATER, ENGINE DRIVE	1.24	1.13	1.00	0.91	0.84	0.78	0.73					
500	PUMP, WATER, ELECTRIC DRIVE	1.24	1.13	1.00	0.91	0.84	0.78	0.73					
510	RIPPERS	1.23	1.11	1.00	0.90	0.82	0.75						
525	ROLLERS, EXCEPT VIB. ROLLERS	1.22	1.10	1.00	0.91	0.81	0.75	0.71					
530	ROLLERS, VIBRATORY	1.23	1.10	1.00	0.90	0.81	0.75						
540	SCRAPERS, STANDARD	1.22	1.11	1.00	0.93	0.84	0.79	0.73					
542	SCRAPERS, TANDEM POWERED SCRAPERS, ELEVATING	1.22	1.11	1.00	0.93	0.84	0.79	0.73					
545	0 THRU 200 HP	1.22	1.11	1.00	0.93	0.84	0.79	0.73					
550	OVER 200 HP	1.22	1.11	1.00	0.93	0.84	0.79	0.73					
555	SCRAPERS, TRACTOR DRAWN SHOVELS, BACKHOES, & HYDRAULIC EXCAVATORS CRAWLER MOUNTED	1.21	1.11	1.00	0.93	0.85	0.79	0.74	0.61				
570	0 THRU 1 CY	1.20	1.11	1.00	0.92	0.86	0.81	0.74	0.62				
585	OVER 1 CY THRU 2-1/2 CY	1.20	1.10	1.00	0.92	0.86	0.81	0.75	0.63	0.54			
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	0.54	0.52	
600	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
601	OVER 2-1/2 CY ELECTRIC TRACTOR, CRAWLER TYPE	1.19	1.10	1.00	0.92	0.87	0.82	0.76	0.65	0.57	0.55	0.53	0.51
615	0 THRU 225 HP	1.23	1.11	1.00	0.91	0.82	0.76	0.71					
620	226 HP THRU 425 HP (PER UNIT FOR TANDEM TRACTORS)	1.22	1.11	1.00	0.91	0.83	0.76	0.71	0.60				
625	OVER 425 HP	1.22	1.11	1.00	0.91	0.83	0.76	0.71	0.60	0.51	0.50		
630	TRACTOR, BLADES, PUSH BLOCKS, PUSH PLATES & CLEARING BLADES	1.23	1.11	1.00	0.90	0.82	0.75	0.70					
645	TRACTOR, WHEEL TYPE	1.26	1.13	1.00	0.90	0.83	0.76	0.71					
650	TRENCHER	1.26	1.13	1.00	0.93	0.83	0.69	0.60					
655	TRAILERS, BOTTOM DUMP AND END DUMP	1.24	1.12	1.00	0.91	0.84	0.78	0.73					
660	TRAILERS, FLATBED, LO-BOY AND TILT	1.24	1.12	1.00	0.91	0.84	0.78	0.73					
	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
670	DUMP BODIES	1.25	1.13	1.00	0.91	0.83	0.78					
675	ALL OTHER ACCESSORIES	1.25	1.13	1.00	0.91	0.83	0.78					
	TRUCK, HIGHWAY											
690	0 THRU 10,000 GVW	1.20	1.10	1.00	0.92	0.84	0.78					
695	OVER 10,000 THRU 30,000 GVW	1.20	1.10	1.00	0.92	0.84	0.78					
705	OVER 30,000 GVW	1.20	1.10	1.00	0.92	0.84	0.78					
720	TRUCK, OFF-HIGHWAY	1.25	1.14	1.00	0.92	0.86	0.81	0.77	0.62			
765	WAGON, BOTTOM DUMP & WATER	1.25	1.14	1.00	0.92	0.86	0.81	0.77	0.62			
780	WAGON, REAR DUMP	1.25	1.14	1.00	0.92	0.86	0.81	0.77	0.62			
785	WATER BLASTER	1.26	1.13	1.00	0.91							
795	WATER TANKS	1.25	1.13	1.00	0.91	0.83	0.78					
810	WELDERS	1.26	1.14	1.00	0.90							
811	WELDERS ELECTRIC POWER	1.25	1.13	1.00	0.91	0.83	0.78					

TABLE 3-4. SHIFT ADJUSTMENT FACTORS FOR OWNERSHIP COSTS

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

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

Total Hourly Rate (adjusted for age)	= \$36.01/Hr.
Ownership Rate (adjusted for age)	(-) \$15.01/Hr.
Ownership Adjusted for Work Hours (Ownership Rate) x (Work Hr Adj. Factor)	
= (\$15.01) x (.82)	= (+) \$12.31/Hr.
Adjusted Total Hourly Rate	= <u>\$33.31/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	0.97	0.96	0.94	0.92	0.91	0.90	0.88	0.87	0.86	0.85	0.84	0.83
6,000	1.00	0.97	0.95	0.92	0.90	0.88	0.87	0.85	0.83	0.82	0.81	0.80	0.78
8,000	1.00	0.96	0.94	0.91	0.88	0.86	0.84	0.82	0.80	0.79	0.77	0.76	0.74
9,000	1.00	0.96	0.94	0.90	0.87	0.85	0.83	0.81	0.79	0.77	0.76	0.75	0.73
10,000	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
11,000	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
12,000	1.00	0.95	0.93	0.88	0.85	0.82	0.80	0.78	0.75	0.73	0.72	0.70	0.68
13,000	1.00	0.95	0.92	0.88	0.85	0.82	0.79	0.77	0.74	0.72	0.70	0.69	0.67
14,000	1.00	0.95	0.92	0.87	0.84	0.81	0.79	0.76	0.73	0.71	0.69	0.68	0.66
15,000	1.00	0.94	0.92	0.87	0.83	0.80	0.78	0.75	0.72	0.70	0.68	0.67	0.64
16,000	1.00	0.94	0.91	0.87	0.83	0.80	0.77	0.74	0.71	0.69	0.67	0.66	0.63
18,000	1.00	0.94	0.91	0.86	0.82	0.79	0.76	0.73	0.70	0.68	0.66	0.64	0.61
20,000	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
22,000	1.00	0.93	0.90	0.85	0.80	0.77	0.74	0.71	0.67	0.65	0.63	0.61	0.58
50,000	1.00	0.92	0.87	0.80	0.75	0.70	0.66	0.62	0.58	0.54	0.52	0.49	0.46

APPENDIX A

REFERENCES

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9. Pay Line Division, International Harvester, "Earthmoving Principles," November 1975, 600 Woodfield, Schaumburg, Illinois 60196.
10. Power Crane and Shovel Association, Bureau of Construction Industry Manufacturers Association, "Operating Cost Guide," 1976, 111 E. Wisconsin Avenue, Milwaukee, Wisconsin 53202.

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.
12. Construction Equipment Manufacturer's Price Lists.
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:	4.0 %
Working Hours Per Year:	1,550 Hrs/Yr
Labor Adjustment Factor (LAF):	0.900
Electricity Cost Per Kilowatt-Hour:	0.065 /Kw-Hr
Gasoline Cost Per Gallon:	\$ 1.310 /Gal.
Diesel Cost Per Gallon (Off-Road Use):	\$ 1.020 /GAL.
Diesel Cost Per Gallon (On-Road Use):	\$ 1.130 /Gal.
Freight Rates:	0 thru 30,000 lbs. \$ 3.600 /Cwt. over 30,000 thru 40,000 lbs. \$ 2.970 /Cwt. over 40,000 thru 50,000 lbs. \$ 2.450 /Cwt. over 50,000 thru 60,000 lbs. \$ 2.200 /Cwt. over 60,000 thru 9999,900 lbs. \$ 2.140 /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)

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

GUIDE FOR SELECTING OPERATING CONDITIONS (Continued)

<u>EQUIPMENT TYPE</u>	<u>AVERAGE</u>	<u>SEVERE</u>
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)

<u>EQUIPMENT TYPE</u>	<u>AVERAGE</u>	<u>SEVERE</u>
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.

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## APPENDIX D

## EQUIPMENT HOURLY EXPENSE CALCULATION FACTORS

## TABLE LEGEND

\*\*\*\*\*

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

## TABLE LEGEND

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

## EQUIPMENT HOURLY EXPENSE CALCULATION FACTORS (CONTINUED)

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

## EQUIPMENT HOURLY EXPENSE CALCULATION FACTORS (CONTINUED)

KEY NO.	TYPE OF EQUIPMENT	C	LFE	SLV	EQUIPMENT POWER				CARRIER POWER				FOG			TIRES			RPR
					HP	E	G	D	HP	E	G	D	E	G	D	F	B	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			RPR	
					H	P	E	G	D	H	P	E	G	D	E	S	D	F	B	T
525	ROLLERS, EXCEPT VIB. ROLLERS	A	10	20	65	.000	.066	.038		65	.000	.066	.038	0	24	24	76	64	99	90
530	ROLLERS, VIBRATORY	A	8	25	90	.000	.091	.053		90	.000	.091	.053	0	24	24	76	64	99	130
540	SCRAPERS, STANDARD	A	10	20	60	.000	.000	.035		60	.000	.000	.035	0	0	27	58	31	65	70
540		S	8	20	0	.000	.000	.046		0	.000	.000	.046	0	0	27	40	19	27	75
542	SCRAPERS, TANDEM POWERED	A	10	20	62	.000	.000	.037		62	.000	.000	.037	0	0	25	58	25	60	70
542		S	8	20	0	.000	.000	.048		0	.000	.000	.048	0	0	25	40	18	40	75
	SCRAPERS, ELEVATING																			
545	0 THRU 200 HP	A	10	20	66	.000	.000	.039		66	.000	.000	.039	0	0	34	0	25	60	85
545		S	8	20	0	.000	.000	.051		0	.000	.000	.051	0	0	34	0	18	40	90
550	OVER 200 HP	A	10	20	66	.000	.000	.039		66	.000	.000	.039	0	0	24	0	25	60	75
550		S	8	20	0	.000	.000	.051		0	.000	.000	.051	0	0	24	0	18	40	80
555	SCRAPERS, TRACTOR DRAWN	A	12	20	0	.000	.000	.000		0	.000	.000	.000	0	0	0	58	0	65	70
555		S	10	20	0	.000	.000	.000		0	.000	.000	.000	0	0	0	40	0	45	75
	SHOVELS, BACKHOES, & HYDRAULIC EXCAVATORS CRAWLER MOUNTED																			
570	0 THRU 1 CY	A	11	20	60	.000	.061	.035		0	.000	.000	.000	0	18	18	0	0	0	80
570		S	9	20	0	.000	.079	.046		0	.000	.000	.000	0	18	18	0	0	0	90
585	OVER 1 CY THRU 2-1/2 CY	A	13	20	60	.000	.061	.035		0	.000	.000	.000	0	18	18	0	0	0	90
585		S	11	20	0	.000	.079	.046		0	.000	.000	.000	0	18	18	0	0	0	100
595	OVER 2-1/2 CY THRU 5 CY	A	16	20	60	.000	.061	.035		0	.000	.000	.000	0	18	18	0	0	0	100
595		S	14	20	0	.000	.079	.046		0	.000	.000	.000	0	18	18	0	0	0	110
600	OVER 5 CY	A	18	20	60	.000	.061	.035		0	.000	.000	.000	0	18	18	0	0	0	110
600		S	16	20	0	.000	.079	.046		0	.000	.000	.000	0	18	18	0	0	0	120
601	OVER 2-1/2 CY ELECTRIC	A	22	20	50	.500	.000	.000		0	.000	.000	.000	25	0	0	0	0	0	80
601		S	20	20	0	.650	.000	.000		0	.000	.000	.000	25	0	0	0	0	0	90
	TRACTOR, CRAWLER TYPE																			
615	0 THRU 225 HP	A	10	30	70	.000	.000	.041		0	.000	.000	.000	0	0	32	0	0	0	90
615		S	8	30	0	.000	.000	.054		0	.000	.000	.000	0	0	32	0	0	0	100
620	226 HP THRU 425 HP (PER 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	80
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	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	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 .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 .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 .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	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	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	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	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	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	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	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	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	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	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	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	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	B	20	0	.000	.000	.000	0	.000	.000	.000	0	0	0	0	0	0	80
810	WELDERS	A	B	30	80	.000	.081	.047	0	.000	.000	.000	0	24	24	0	0	0	90
811	WELDERS ELECTRIC POWER	A	B	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 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, Braslines & 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>
<b>TOTALS</b>			
	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.