

## STANDARD EQUIPMENT

### GENERAL

Access ladders  
Air conditioning  
Air cleaner protection  
All-hydraulic braking  
Automatic lubrication system  
Battery isolation switch  
Body down indicator, mechanical  
Body prop cable  
Centralized service panel  
Continuous heated body  
Electric horn, quad  
Electronic hoist control  
Electric start  
Engine access ladders (2)  
Fan guard  
Fuel gauge on tank  
Ground level engine shutdown switch  
Guard rails around platform  
HAULTRONIC II load weighing system

HID headlights  
Hoist kickout  
Ladder lights  
Mirror, right and left  
Mud flaps  
NEOCON suspension struts  
On board load box  
Operator arm guard  
Propulsion interlock, body up  
Radiator grille guard  
Retard speed control  
Retarder grid package, 12-element, 3-step  
Reverse alarm  
Rock ejector bars  
Supplementary steering system accumulator  
Tires, 36.00R51(\*\*)E4  
Tow hooks, front  
Two-speed overspeed setting

### CAB

Acoustical lining  
Air filtration/replaceable element  
Air suspension seat, 6-position  
Ash tray  
Auxiliary outlet, 12-volt  
Cab interior light  
Cigar lighter  
Door locks  
Engine starter/shutdown switch  
Full trainer seat  
Integral ROPS/FOPS cab  
ISO driver envelope

Load and hold switch  
Modular heater/AC evaporator  
Modular instrumentation  
Operator & trainer seat belts  
Roll down windows  
Rubber floor mat  
Safety glass  
Sun visor  
Tilt/telescopic steering  
Tinted glass all windows  
Windshield washer  
Windshield wiper

### Gauges and Indicators

Contronic II monitoring and alarm system, multi-function indicator lights:  
Air filter restriction  
Alternator  
Body up indicator  
Brake supply pressure  
Central warning  
Engine oil pressure  
Engine coolant temperature  
High beam indicator  
Hoist filter restriction  
Hoist oil temperature  
Hoist supply pressure  
Parking brake applied  
Steering filter restriction  
Steering oil temperature  
Traction blower failure  
Traction system failure  
Turn signal/hazard

### MACHINE LIGHTS

Back-up lights, (2)  
Clearance lights, LED (4)  
Control cabinet lights, (3)  
Dual combination stop and tail lights, LED (2)  
Dynamic retarding light, (1)  
Engine compartment lights, (2)  
HID Headlights, (4)  
Payload monitoring lights, (6)  
Rear axle light, (1)  
Turn signals and four-way flashers (LED)

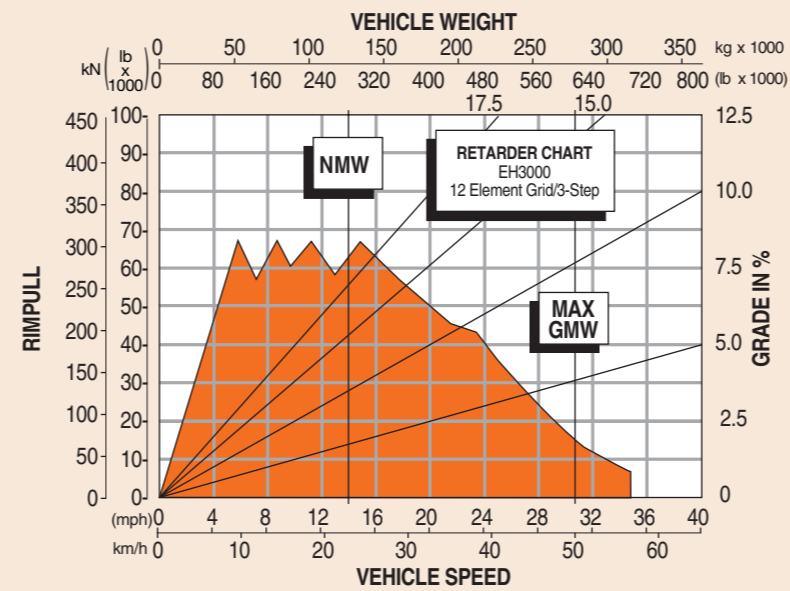
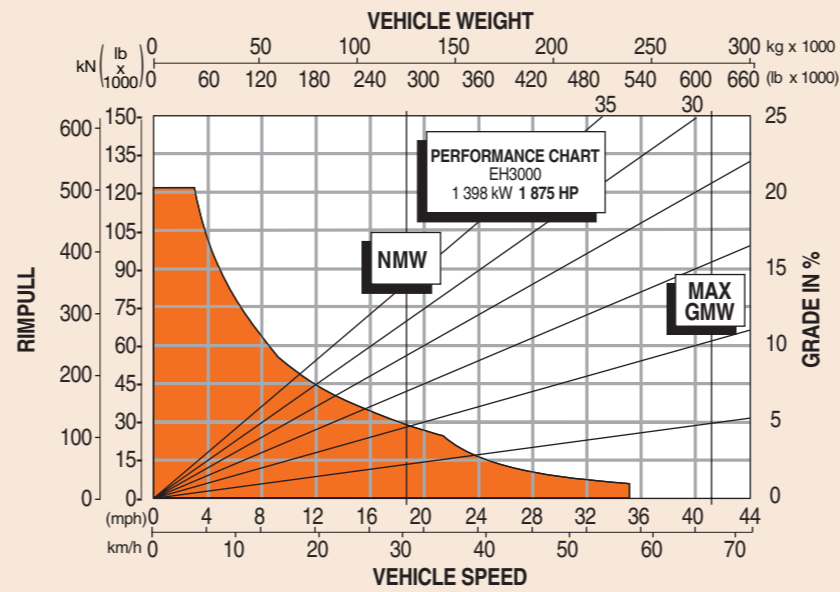
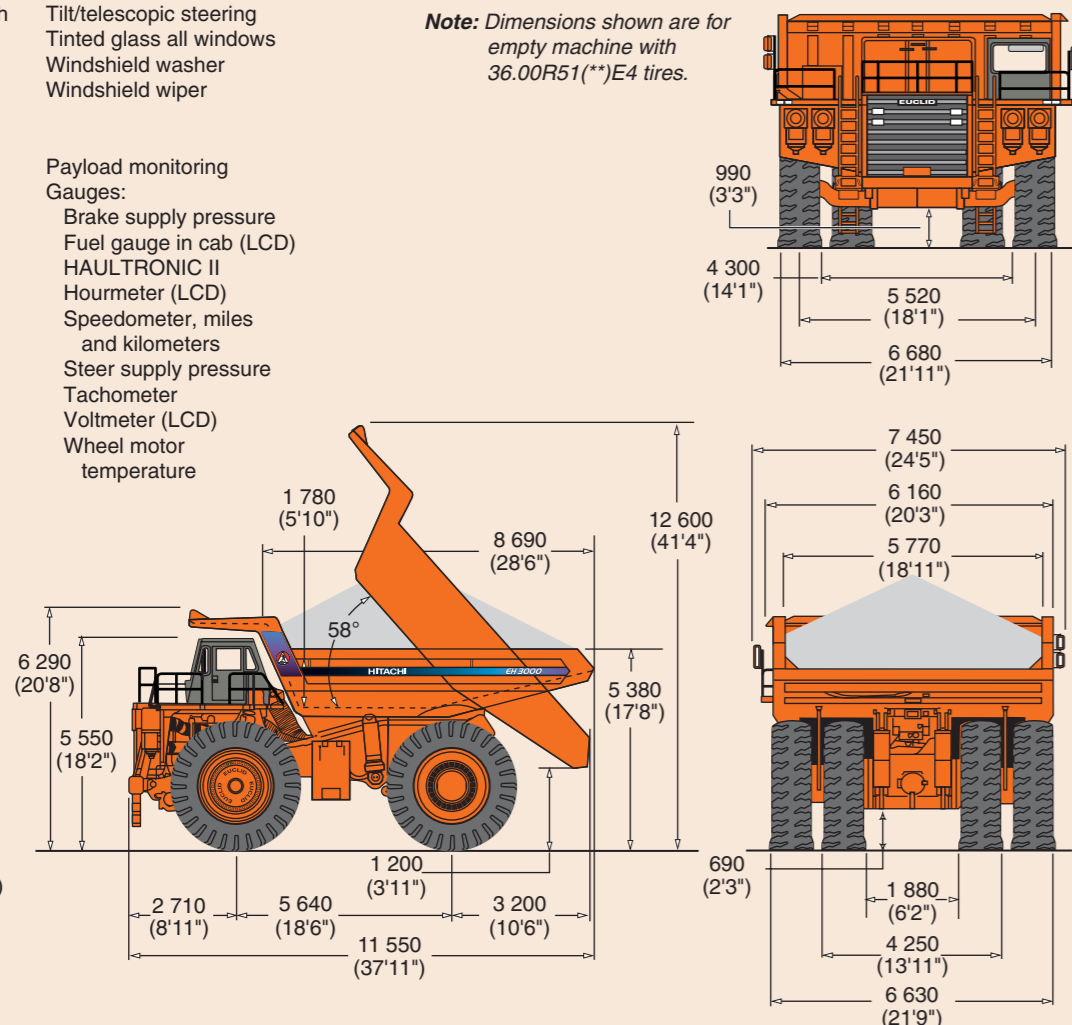
## OPTIONAL EQUIPMENT

Ansul centralized fire extinguishing system (12 nozzle)  
Auxiliary dump  
Auxiliary steer  
Body liners (400BHN)  
Canopy spillguard extension (12" total)  
Circuit board with breakers  
Engine, Cummins K series  
Engine coolant and oil heater (220 V AC)  
Fast fueling system, on tank  
Keyless starter switch  
Mufflers, inline rear exhaust  
Oil sampling connections  
Radio  
Radio with CD player  
Rimex MES rims  
Thermatic fan  
Trolley assist configuration  
Wheel motors, GE 788

Standard and optional equipment may vary from country to country. Special options provided on request. All specifications are subject to change without notice.

Note: Dimensions shown are for empty machine with 36.00R51(\*\*)E4 tires.

unit:mm (ft in)



### NOTES:

Diagonal lines represent total resistance (Grade % plus rolling resistance %). Charts based on 0% rolling resistance, standard power of engine, standard tires and gearing unless otherwise stated.

1. Find the total resistance on diagonal lines on right-hand border of rimpull or retarder chart.
2. Follow the diagonal line downward and intersect the NMW or GMW weight line.
3. From intersection, read horizontally right or left to intersect the rimpull or retarder curve.
4. Read down for machine speed.

These specifications are subject to change without notice. Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment. Before use, read and understand Operator's Manual for proper operation.

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# EH3000

Nominal Payload with Standard Equipment  
140 tonnes (154 tons)

Maximum GMW  
278 964 kg (615 000 lb)

Engine  
Detroit Diesel 12V Series 4000  
Rated Power 1 398 kW (1 875 HP)

# Specifications: EH3000



## ENGINE

|  |   |
|--|---|
| Model  | Detroit Diesel 12V Series 4000          |
| Type   | 4 Cycle                                 |
| Aspiration   | Turbocharged and low temp. aftercooled. |
| Rated Power @ 1 900 min <sup>-1</sup> (rpm)                |   |
| Gross power (SAE J1995)                                    | 1 398 kW (1 875 HP)                     |
| Net power (SAE J1349)                                      | 1 304 kW (1 748 HP)                     |
| Maximum Torque @ 1 500 min <sup>-1</sup> (rpm) (SAE J1995) | 7 612 N·m (776 kgf·m 5 614 lbf·ft)      |
| No. Cylinders  | 12                                      |
| Bore & Stroke  | 165 x 190 mm (6.50 in x 7.48 in)        |
| Displacement   | 48.8 L (2 975 in <sup>3</sup> )         |
| Starting   | Electric                                |



## ELECTRIC DRIVE

**Controls**  
General Electric Stalex III System with latest fuel enhancement feature and wet weather retarding.

**Alternator**  
General Electric Model GTA 22M. Direct mounted to engine.

|                     |        |                      |  |
|---------------------|--------|----------------------|--|
| <b>Wheel Motors</b> |        |                      |  |
| Standard            | GE 776 |                      |  |
| Optional            | GE 788 |                      |  |
|                     |        |                      |  |
| Planetary Ratio     | GE 776 | 28.85:1              |  |
| Optional            | GE 788 | 26.08:1              |  |
|                     |        |                      |  |
| Maximum Speed       | GE 776 | 54.7 km/h (34.0 mph) |  |
| Optional            | GE 788 | 51.0 km/h (31.7 mph) |  |

**Note:**  
Wheel motor and dynamic retarding configuration subject to GE approval for a given application.



## TIRES

|                                  |                  |
|----------------------------------|------------------|
| <b>Standard - Front and Rear</b> | <b>Rim Width</b> |
| 36.00R51(**)E4 Radials           | 660 mm (26.0 in) |

Certain job conditions may require higher TKPH (TMPH) in order to maintain maximum production. Hitachi recommends evaluating the job conditions and consulting the tire manufacturer to make proper tire selection. Optional tire types, treads, ply ratings and rims available.



## ELECTRICAL SYSTEM

Twenty-four volt lighting and accessories system. 175-ampere alternator with integral transistorized regulator. Eight 12-volt, heavy-duty batteries connected in series/parallel.



## BODY CAPACITY

|                |                                   |
|----------------|-----------------------------------|
| Struck (SAE)   | m <sup>3</sup> (yd <sup>3</sup> ) |
| Heap 3:1       | 72.2 (94.4)                       |
| Heap 2:1 (SAE) | 92.3 (120.7)                      |
|                | 101.9 (133.3)                     |

Body capacity and payload subject to change based on customer specific material density and application.



## WEIGHTS

|                    |         |           |
|--------------------|---------|-----------|
|                    | kg      | (lb)      |
| Chassis with Hoist | 99 448  | (219 244) |
| Body               | 24 041  | (53 000)  |
| Net Machine Weight | 123 489 | (272 244) |
| Front Axle         | 66 432  | (146 475) |
| Rear Axle          | 57 057  | (125 787) |

Maximum GMW with Std. Tires [36.00R51(\*\*)E4] 278 964 615 000  
Including Options, 50% Fuel, Operator & Payload Not to Exceed.

Weights given are for standard options, standard body and tires. Net machine weight changes will directly effect the payload. Material density will determine body volume figures.

Payload with Standard Equipment  
155 tonnes (171 tons)

**Note:** Nominal Payload on front cover shows 90% of Payload with Standard Equipment.  
Maximum GMW subject to GE approval for a given application.  
Net Machine Weight includes 36.00R51(\*\*)E4 tires.

|                          |       |      |
|--------------------------|-------|------|
| Load Weight Distribution | FRONT | REAR |
|                          | 33%   | 67%  |

Options: Approximate change in Net Machine Weight:

|                       |       |          |
|-----------------------|-------|----------|
| Body Liners, Complete | kg    | (lb)     |
|                       | 9 528 | (21 000) |



## STEERING SYSTEM

Closed-center, full-time hydrostatic power steering system using two double-acting cylinders, pressure limit compensated piston pump, and a brake actuation/steering system reservoir. An accumulator provides supplementary steering in accordance with SAE J1511/ISO 5010. Tilt/telescopic steering wheel with 35° of tilt and 57.15 mm (2.25") telescopic travel is standard.

|  |                        |
|--|------------------------|
| Steering Angle   | 41°                    |
| Turning Diameter (SAE)                                 | 25.6 m (84'0")         |
| Steering Pump Output (@ 1 900 min <sup>-1</sup> (rpm)) | 186.5 L/min (49.4 gpm) |
| System Operating Pressure                              | 20 685 kPa (3 000 psi) |



## HYDRAULIC SYSTEM

Two (2) Hitachi three-stage, double-acting cylinders with cushioning in retraction, containing dual rod seals and rubber energized scrapers, inverted and outboard mounted. Separate reservoir and tandem gear pump connects with a four-position electric pilot controlled hoist valve. Electronic controller is mounted to operator's seat.

|   |                         |
|---|-------------------------|
| Body Raise Time                                     | 17.9 s                  |
| Hoist Pump Output (@ 1 900 min <sup>-1</sup> (rpm)) | 607.0 L/min (160.0 gpm) |
| System Relief Pressure                              | 18 960 kPa (2 750 psi)  |



## BRAKE SYSTEM

Brake systems meet or surpass SAE J1473/ISO 3450.

**Service**  
All-hydraulic actuated braking system provides precise braking control and quick system response. The system is pressure proportioned, front to rear, for improved slippery road control. Three calipers per front disc, one caliper per rear disc are utilized. The main valves are conveniently located on the firewall. This placement enhances serviceability as all pressure checks and system troubleshooting can be made at a central location. A primary accumulator stores oil under sufficient pressure to ensure 100% braking capacity is always available.

|                                   |                        |                          |
|-----------------------------------|------------------------|--------------------------|
| <b>Front Axle - Dry Disc</b>      |                        |                          |
| Disc Diameter Each (2 discs/axle) | 106.0 cm               | (42 in)                  |
| Brake Surface Area Per Axle       | 15 001 cm <sup>2</sup> | (2 325 in <sup>2</sup> ) |
| Lining Area per Axle              | 6 194 cm <sup>2</sup>  | (960 in <sup>2</sup> )   |
| Brake Pressure (Max.)             | 18 961 kPa             | (2 750 psi)              |

|  |                        |                          |
|--|------------------------|--------------------------|
| <b>Rear Axle - Armature Speed Dry Disc</b> |                        |                          |
| Disc Diameter Each (4 discs/axle)          | 51.1 cm                | (20 in)                  |
| Brake Surface Area Per Axle                | 14 298 cm <sup>2</sup> | (2 216 in <sup>2</sup> ) |
| Lining Area per Axle                       | 2 426 cm <sup>2</sup>  | (376 in <sup>2</sup> )   |
| Brake Pressure (Max.)                      | 8 964 kPa              | (1 300 psi)              |

**Operation**  
Two independent hydraulic circuits within the service brake system provide fully modulated reserve braking capability. The system is automatically applied when loss of pressure is detected.

**Parking**  
Spring-on, hydraulic-off park brake heads provide parking capability. The braking system complies with SAE J1473/ISO 3450.

**Retarder**  
Retardation on grades is achieved through D.C. wheel motors in conjunction with the General Electric resistor grid package located on the cab deck. Cooling for the grid package is achieved with forced air flow provided by dual blowers driven by a single electric motor. Three-step extended range retardation package is standard.

|  |          |            |
|--|----------|------------|
| Maximum dynamic retarding with continuous rated blown grids: |          |            |
| Standard   | 2 028 kW | (2 720 HP) |

**Load/Dump Brake Apply**  
Through activation of a switch by the operator, a solenoid is energized, sending full brake pressure to apply the rear Wet Disc brakes. For use during the load and dump cycles.



## COMMAND CAB III

**Integral ROPS/FOPS**  
Command Cab III integral ROPS (Rollover Protective Structure) is standard in accordance with SAE J1040/ISO 3471.



Double wall construction of 11 gauge inner and outer steel panels produces a more structurally sound cab. Foam rubber lining material along with foam rubber-backed carpeting and multiple layered floor mat act to absorb sound and control interior temperature. A properly maintained cab from Hitachi, tested with doors and windows closed per work cycle procedures in SAE J1166, results in an operator sound exposure Leq (Equivalent Sound Level) of 81 dB(A). A three-point rubber iso-mount arrangement to the deck surface minimizes vibration to the operator compartment.

**Monitoring System**  
CONTRONIC II monitors and diagnoses all onboard systems including Siemens drive system and engine. Data links offer complete integration, while a single multi-language Liquid Crystal Display (LCD) clearly details machine functions. Downtime is minimized with faster and more reliable troubleshooting and analysis.

HAULTRONIC II load weighing system offers benefits such as better equipment utilization on the jobsite, accurate unit and fleet production results, and benchmark unit statistics against fleet results. Cycle time, distance, cycle count can all be measured and recorded to further and improve job productivity. HAULTRONIC II is fully integrated with CONTRONIC II vehicle monitoring system and display interface, avoiding potential failure or error common in aftermarket systems.

**Excellent Serviceability**  
A removable front closure allows easy access to the service brake valve and heater connections. The upper dash utilizes four (4) removable panels that house gauges and customer options, each individually accessible. A removable closure located behind the seat provides easy access to the shifting control, CONTRONIC II, and all electrical junction points.

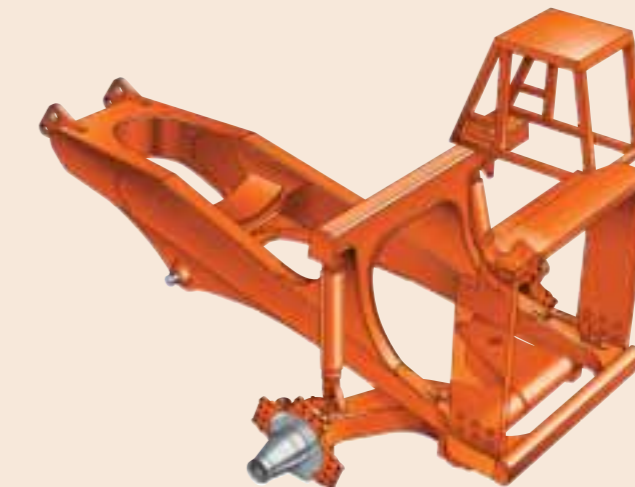
**Comfort and Ease of Operation**  
A wrap-around style dashboard positions controls within easy reach and visual contact. A full complement of easy-to-read gauges, CONTRONIC II monitoring and warning system, a spacious environment, six-way adjustable air seat, tilt/telescopic steering wheel, filtered ventilation, door locks, and a full size trainer seat, all contribute to operator safety and comfort.



## SUSPENSION

**Front Suspension**  
Independent trailing arm for each front wheel. NEOCON struts containing energy-absorbing gas and compressible NEOCON-E™ fluid are mounted between the trailing arms and frame. Variable damping and rebound feature included.

**Rear Suspension**  
"A" frame structure, integral with axle housing, links drive axle to frame at forward center point with pin and spherical bushing. A track rod provides lateral stability between the frame and drive axle. Heavy-duty rear-mounted Neocon struts containing energy-absorbing gas and compressible Neocon-E fluid suspend the drive axle from the frame. Integral rebound feature included.



Maximum wheel oscillation 8°

The Hitachi frame and suspension are designed to work in unison to provide maximum structural integrity and operator comfort. The fabricated rectangular frame rail construction provides superior resistance to bending and torsional loads while eliminating unnecessary weight. The unique trailing arm front suspension absorbs haul road input, minimizing suspension-induced frame twisting while providing independent tire action. NEOCON ride struts are mounted with spherical bushings, eliminating extreme sidewall forces by insuring a purely axial input to the ride strut. The wide track stance of the suspension system and the long wheel base assure a more stable, comfortable ride.

The unique Hitachi NEOCON struts both front and rear combine the energy absorption characteristics of two different compressible media: NEOCON-E liquid and helium gas. They provide nearly twice the energy absorption as Nitrogen over Oil struts. The result is more comfort for the operator, maximum protection for the hauler frame, and excellent stability and control. NEOCON-E has also been approved by the US EPA and does not violate codes defined by TSCA Section 5.

The NEOCON strut outperforms competitive strut designs by improving isolation, stability, and control. Improved isolation means reduced impact loading on structural members of the machine and greater operator comfort, resulting in longer equipment life and productivity. Improved stability means more consistent dynamic response of the machine to fluctuating load energy, resulting in predictable machine performance. Improved control also means better machine maneuverability.



## FRAME

The box section main frame rails are bridged by three crossmembers, front bumper and front suspension tube. The rails are constant taper, constructed of 690 N/mm<sup>2</sup> (100 000 psi) yield strength steel. Two rear crossmembers have integral suspension and drive axle mountings. Crossmember to frame rail junctions employ large radii transitions to minimize stress concentrations.



## BODY

The body has a flat floor, sloped tailchute, and is continuously exhaust-heated. Extended canopy protects service deck area. High yield strength, 690 N/mm<sup>2</sup> (100 000 psi) alloy steel is used in the following thicknesses:

|        |    |        |
|--------|----|--------|
|        | mm | (in)   |
| Floor  | 19 | (0.75) |
| Front  | 10 | (0.39) |
| Sides  | 10 | (0.39) |
| Canopy | 6  | (0.24) |

High strength 690 N/mm<sup>2</sup> (100 000 psi) alloy steel is also used for the canopy side members and floor stiffeners. The body is rubber cushioned on the frame.

The Hitachi horizontal stiffener design minimizes stress concentrations, by dissipating load shocks over the entire body length. Closely spaced stiffeners provide additional protection by minimizing distances between unsupported areas.



## SERVICE CAPACITIES

|   |         |          |
|---|---------|----------|
|   | L       | (US gal) |
| Crankcase (incl. filters)               |         |          |
| Detroit Diesel 12V-4000                 | 213.0   | (56.3)   |
| Cooling System                          | 322.7   | (85.3)   |
| Fuel Tank                               | 2 838.8 | (750.0)  |
| Hydraulics                              |         |          |
| Hoist System                            | 565.9   | (149.5)  |
| Steering System                         | 189.3   | (50.0)   |
| GE 776 wheel motor (per wheel)          | 18.9    | (5.0)    |
| Optional GE 788 wheel motor (per wheel) | 39.7    | (10.5)   |
| Windshield washer                       | 3.8     | (1.0)    |