DG621

Operation & Maintenance Manual



830E

DUMP TRUCK

SERIAL SUFFIX AFE32-A thru AFE32-BN

KOMATSU®

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TABLE OF CONTENTS

SUBJECT	PAGE
MAJOR COMPONENT DESCRIPTION	HB1-1
GENERAL SAFETY	HB2-1
WARNINGS AND CAUTIONS	HB3-1
OPERATOR CONTROLS AND EQUIPMENT	HB4-1
INSTRUMENTS AND INDICATORS	HB5-1
OPERATING INSTRUCTIONS	HB6-1
LUBRICATION AND SERVICE	HB7-1
OPTIONAL EQUIPMENT INDEX	HB8-1

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SPECIFICATIONS

ENGINE - DETROIT DIESEL 16V-149TIB

Number of Cylinders	16
Operating Cycle	2-Stroke
Rated Brake HP	2200 HP (1640kW) @ 1900 RPM
Flywheel HP (w/68 in. fan)	(2054 HP (1530kW) @ 1900 RPM
Weight (Dry)	11,210 pounds (5085 kg)

ELECTRIC DRIVE SYSTEM - STATEX II

(AC/DC Current)

Alternator	General Electric GTA - 26
Gross 2400 HP (1790 kW);	Net 2250 HP (1678 kW)
Dual Impeller, In-Line Blower	9000 cfm (255 m^3/min)
Motorized Wheels	General Electric 787
Ratio	32.38:1
Maximum Speed (w/40.00-57 Tires)	30.1 MPH (48.4 km/h)

DYNAMIC RETARDING

Extended Range Retarding With Fully Blown 18-Resistor Grids and Reverse Retarding	Standard
Maximum Rating	3700 HP (2760 kW)

TIRES

Rock Service, Deep Tread	(E-4) Tubeless
Standard Tire (w/787 Wheelmotor)	40.00 - 57, 68 Ply Rating
Separable Tire Rims *	

* Tires and Rims are interchangeable.

Rim Size

29 in. (737 mm) X 57 in. (1448 mm) X 5 in. (127 mm)

24 VDC ELECTRIC SYSTEM

Batteries	Two 12 Volt Batteries in Series
	90 Ampere-Hour Capacity
Alternator	24 Volt, 140 Ampere Output
Lighting	24 Volt

SERVICE CAPACITIES

	U.S. Gallons	(Liters)
Crankcase *		
Detroit Diesel	52.5	198.7
Cooling System		
Detroit Diesel	135	511
Fuel	1000	3785
Hydraulic System	250	947
Wheel Motor Gear Box (each)	10.5	39.7

* Includes Lube Oil Filters

AIR SYSTEM

Compressor	Bendix-Westinghouse TU-FLO 501
Capacity	12 cfm (0.34 m^3/min)
Starter with Interlock	Ingersol Rand 815
Main Tank Capacity	15 $ft.^3$ (425 liters)

HYDRAULIC SYSTEMS

Pumps	
Hoist	Tandem Gear Pumps
Rated @	240 GPM (908 l/min.) @ 1900 RPM
Steering	Radial Piston-Pressure Compensating
(also Brake)	65 GPM (246 l/min.) @ 1900 RPM
System Relief Pressures	
Hoist/Steering	2500 psi (17.2 MPa)
Brakes	3500 psi (24.1 MPa)
Hoist Cylinders (2)	3-Stage
Tank (Vertical/Cylindrical)	Non-Pressurized
Filtration	Remote-mounted, Replaceable, Elements
Suction	Single, Full Flow, 100 Mesh
Hoist * & Steering *	Full Flow, 7 Micron

(* High Pressure Filters)

STEERING

Turning Circle - Front Wheel Track	93 ft. (28.35 m)
Full Time Power Steering	Twin Cylinders
Automatic Emergency Steering (w/Accumulators)	Standard

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OPERATOR CONTROLS AND EQUIPMENT

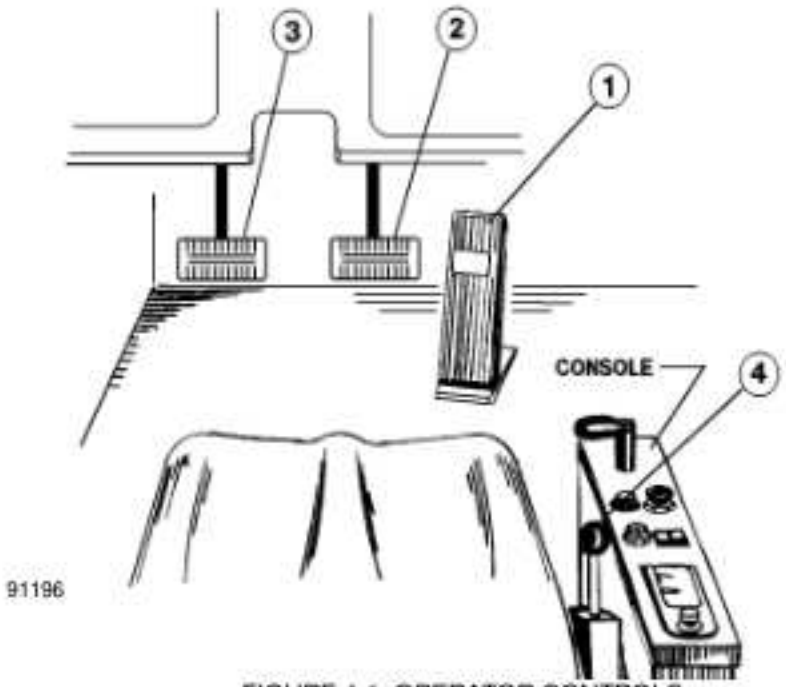


FIGURE 4-1. OPERATOR CONTROLS

(1) THROTTLE PEDAL

The Throttle Pedal is a foot operated pedal which allows the operator to control engine RPM.

(2) DYNAMIC RETARDING PEDAL

The Dynamic Retarding Pedal is a foot operated pedal which allows the operator to slow the truck without the use of the service brakes to maintain a safe productive speed. The Dynamic Retarding should be used to slow and control the speed of the truck. Service brakes should be used to bring the truck to a complete stop.

When Dynamic Retarding is in operation, the engine RPM will automatically go to retard RPM setting.

The Dynamic Retarding system will be applied automatically if operator allows speed of truck to reach the predetermined overspeed retard setting.

(3) BRAKE PEDAL

The Brake Pedal is a foot operated pedal controlling a hydraulic valve, which modulates pressure to the service brakes.

NOTE: In some applications, the functions of the service brake pedal (3) and the dynamic retarding pedal (2) are combined into a single pedal.

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LUBRICATION AND SERVICE

One of the most important factors which will contribute to the long life and dependability of the HAULPAK® truck and its components is the use of proper lubricants at recommended intervals. The lubrication intervals are presented in hours of operation. However, if truck operations are being carried out under extreme conditions, some or all of the intervals may need to be shortened and the servicing carried out more frequently.

Refer to manufacturer's service manual when servicing the engine or any components of the General Electric System.

The information presented on these pages should be used as a reference when servicing the truck on a daily or shift basis. Lubrication requirements are referenced to the lube key found in the Lubrication Specifications Chart. For more detailed lubrication and service specifications for extended intervals, refer to Section "P" of the service manual.

10 HOUR LUBRICATION AND MAINTENANCE CHECKS

1. AIR CLEANERS (NOT SHOWN)- Check air cleaner vacuum gauges in operator cab. The air cleaner(s) should be serviced, if the gauge(s) shows the following maximum restriction:

   20 inches of H_2O vacuum for Detroit Diesel engine.

   See Section "C" of the service manual for servicing air cleaner elements. Empty air cleaner dust caps.

   After service, push the reset button on face of gauge to allow the needle to return to zero.

2. ENGINE - Check oil level. Use Lube Key "A" on Lubrication Specification Chart.
3. ENGINE TURBOCHARGERS - Check for leaks, vibration or unusual noise.
4. FUEL FILTER - Drain water from bottom of filter housing.
5. FUEL TANK - Drain water and sediment at drain cock.
6. AIR TANK - Drain water from air tank.
7. MOTORIZED WHEEL DIRT SEALS - Add grease to each grease fitting. (8 grease fittings per wheel.) Refer to G.E. Service Manual for quantity. Lube Key "E".
8. RADIATOR - Check coolant level and fill with proper mixture as shown in Cooling System Recommendation Chart. Refer to Engine Manual for proper DCA levels.
9. BATTERIES (NOT SHOWN) - Check electrolyte level and add water if necessary.

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