Operation & Maintenance Manual

Dump Truck

830E-1AC

Serial Numbers A30339 — A30560

WARNING

Unsafe use of this machine may cause serious injury or death. Operators and maintenance personnel must read this manual before operating or maintaining this machine. This manual should be kept near the machine for reference and periodically reviewed by all personnel who will come into contact with it.

NOTICE

Komatsu has Operation & Maintenance Manuals written in some other languages. If a foreign language manual is necessary, contact your local distributor for availability.

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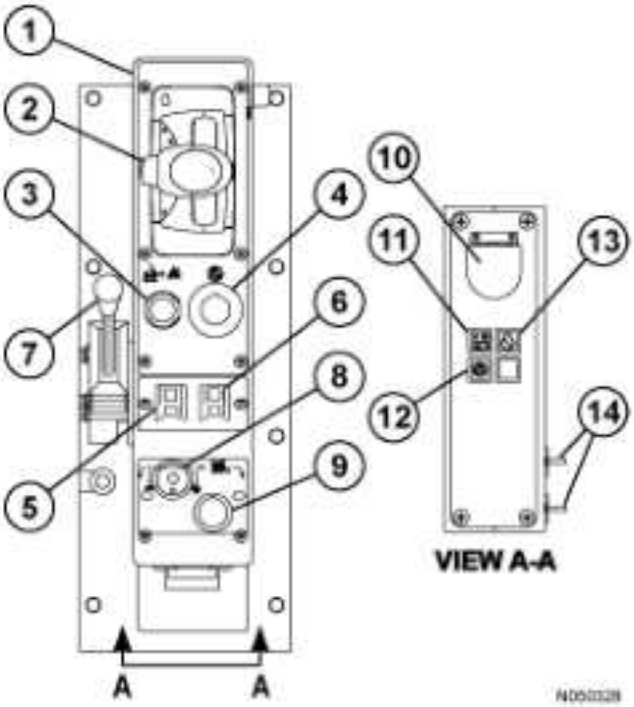
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CENTER CONSOLE D.68-0000051505



1. Center Console
2. Directional Control Lever
3. Override/Fault Reset Switch
4. Engine Stop Switch
5. LH Window Control Switch
6. RH Window Control Switch
7. Hoist Control Lever
8. Retarder Speed Control Dial
9. RSC Switch
10. Data Store Button
11. Komtrax Plus Snapshot In Progress Light
12. Link Energized Light (Red)
13. Service Engine Light (Blue)
14. 12V Auxiliary Power Outlets

Figure 6-4 CENTER CONSOLE

Directional Control Lever

Directional control lever (2) is mounted on a console to the right of the operator's seat. It is a four position lever that controls the park, reverse, neutral, and forward motion of the truck. Before moving the directional control lever, apply the service brakes to completely stop the truck. Depress the button on the side to release the detent lock, then move the control lever to the desired position. When the control lever is in the center N position, it is in NEUTRAL. When the control lever is in the P position, it is in PARK, and the parking brake will be applied. The parking brake is spring applied and hydraulically released. It is designed to hold the truck stationary when the engine is off and the key switch is turned OFF. The truck must be completely stopped before moving the control lever to PARK, or damage may occur to the park brake. When the key switch is ON, and the control lever is in PARK, the parking brake indicator light in the overhead panel will be illuminated.

NOTE: *The directional control lever must be in PARK to start the engine. DO NOT move the directional control lever to the PARK position at the shovel or dump.*

Select FORWARD drive by moving the control lever to the F position.

Select REVERSE drive by moving the control lever to the R position. DO NOT allow the control lever to travel too far and go into the PARK position when REVERSE is desired.

NOTE: *The truck must be completely stopped before the control lever is moved to a drive position or into PARK. A drive system fault will be recorded if the control lever is placed into the PARK position while the truck is still moving.*

Override/Fault Reset Switch

Override/fault reset switch (3) is spring-loaded to the OFF position. When pushed in and held, this switch may be used for several functions.



1. This switch permits the operator to override the body-up limit switch and move the truck forward when the directional control lever is in FORWARD, the dump body is raised, and the brakes are released.

   Use of the override switch for this purpose is intended for emergency situations only!

2. The push button deactivates the retard pedal function when truck speed is below 5 kph (3 mph).

3. The override switch is also used to reset an electric system fault when indicated by a red warning light. Refer to OVERHEAD STATUS/WARNING INDICATOR, page 6-21 in this section.

Engine Stop Switch

Engine stop switch (4) is used to stop the engine. Pull the switch up to stop the engine. Push the switch back down to enable engine operation.



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INITIAL 50 HOUR LUBRICATION AND MAINTENANCE INSPECTION C.9-0000051635

NOTE: *These checks are required only after the initial 50 hours of operation, such as the commissioning of a new truck, or after a new or rebuilt component installation.*

INITIAL 50 HOUR SERVICE INSPECTION	
Item	**Task**
SUSPENSION (See note below)	Suspension oiling height- Front: 25.4 mm (1 in.) Rear: 54.2 mm (2.13 in.)
	Front charge height: 229 mm (9 in.) at 2 689 kPa (390 psi)
	Rear charge height: 270 mm (10.63 in.) at 1 186 kPa (172 psi)
HYDRAULIC SYSTEM FILTERS	Replace filter elements only, after the initial 50, 100 and 250 hours of operation; then at each 500 hours of operation thereafter.
NOTE: *Refer to the Shop Manual for complete suspension oiling and charging instructions.*	

INITIAL 50 HOUR HARDWARE TORQUE	
Item	**Task**
STEERING ARM TO SUSPENSION	Verify hardware torque - Target: **2 705 N·m (1,995 ft lb)**
STEERING CYLINDER TO FRAME	Verify hardware torque - Target: **712 N·m (525 ft lb)**
STEERING CYLINDER TO STEERING ARM	Verify hardware torque - Target: **712 N·m (525 ft lb)**
TWO CAP SCREW STYLE TIE ROD CLAMP NUT	Verify hardware torque - Target: **420 ± 42 N·m (310 ± 31 ft lb)**
FRONT BRAKE CALIPER MOUNTING (Cap screw with Nut)	Verify hardware torque - Target: **1 085 N·m (800 ft lb)**
FRONT BRAKE CALIPER MOUNTING (Cap screw only)	Verify hardware torque - Target: **1 166 N·m (860 ft lb)**
REAR SERVICE BRAKE CALIPER MOUNTING	Verify hardware torque - Target: **780 N·m (575 ft lb)**
REAR BRAKE ADAPTER MOUNTING	Verify hardware torque - Target: **488 N·m (360 ft lb)**
BRAKE DISC TO ADAPTER MOUNTING	Verify hardware torque - Target: **278 N·m (205 ft lb)**

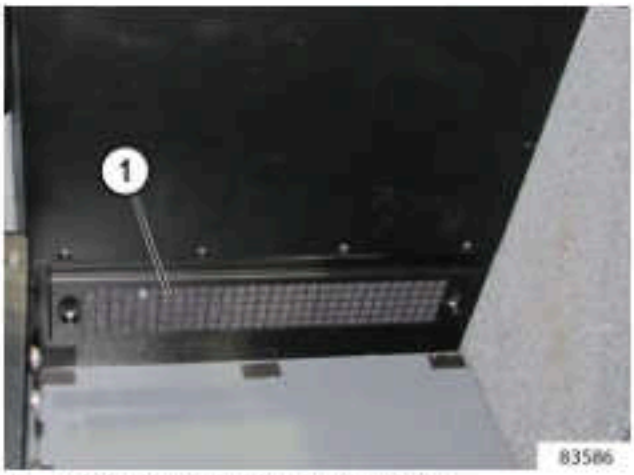
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EVERY 4000 HOUR MAINTENANCE A.5-0000071716

NOTE: *Maintenance for every 10, 250, 500 & 1,000 hour Lubrication and Maintenance Checks must also be performed at this time.*

EVERY 4000 HOUR MAINTENANCE	
Item	**Task**
RESERVE ENGINE OIL SYSTEM (If Equipped)	Remove the oil strainer screen and wash thoroughly in high flash point solvent until all accumulated sludge has been removed. Blow the screen dry with compressed air or leave in a well ventilated place until all the solvent has evaporated. Inspect the screen for damage and replace if necessary. Re-install the screen.

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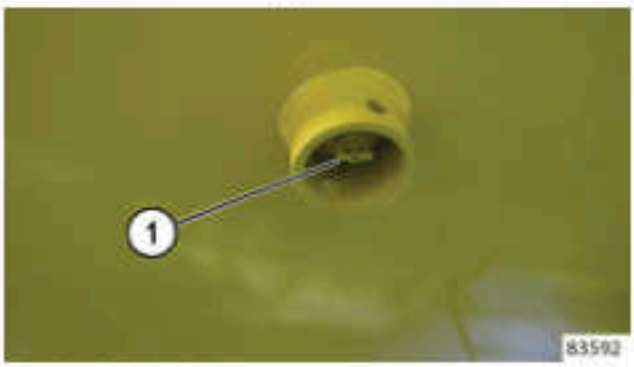
1. HVAC Recirculation Filter Element

Figure 7-7 HVAC RECIRCULATION FILTER LOCATION

1. Clean both filter elements (1, Figure 7-6 CAB AIR FILTER LOCATION, page 7-5 and Figure 7-7 HVAC RECIRCULATION FILTER LOCATION, page 7-6) with mild soap and water.
2. Rinse completely clean and air dry with a maximum of 275 kPa (40 psi).
3. Reinstall the filters.

FUEL SYSTEM SERVICE G.41-0000051601

Fuel Tank Cleaning

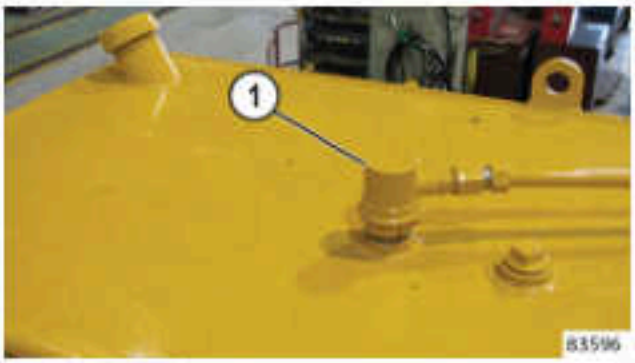


1. Fuel Tank Drain

Figure 7-8 FUEL TANK

Open fuel tank drain (1, Figure 7-8 FUEL TANK, page 7-6) to drain water and sediment from the fuel tank. The fuel tank is provided with a drain and a cleaning port in the side that allows steam or solvent to be utilized in cleaning tanks that have accumulated foreign material.

It is not necessary to remove the tank from the truck for cleaning of sediment, however rust and scale on the walls and baffles may require complete tank removal. Prior to a cleaning procedure of this type, all vents, fuel gauge, and hose connections should be removed and temporarily sealed. After all scale, rust, and foreign material has been removed, the temporary plugs can be removed. A small amount of light oil must be sprayed into the tank to prevent rust if the tank is to remain out of service. All openings should be sealed for rust prevention.



1. Fuel Tank Breather

Figure 7-9 FUEL TANK BREATHER

Remove breather (1, Figure 7-9 FUEL TANK BREATHER, page 7-6) and clean in solvent. Dry with pressurized air and reinstall.

Fuel Filter Service



1. Water Drain Valves

Figure 7-10 WATER SEPARATOR DRAIN

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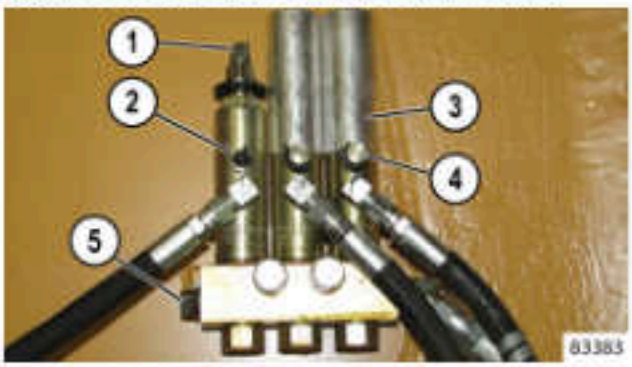
Priming The Automatic Lubrication System

The system must be full of grease and free of air pockets to function properly. After maintenance, if primary or secondary lubrication lines were replaced, it will be necessary to prime the system to eject all entrapped air.



1. Vent Valve
2. Main Supply Line

Figure 5-19 AUTO LUBE MAIN SUPPLY LINE



1. Injector Indicator
2. Injector Grease Zerk
3. Injector Cover
4. Injector Grease Zerk Cap
5. Injector Manifold Plug

Figure 5-20 INJECTOR MANIFOLD

To prime the main supply lines, perform the following:

1. Fill lube reservoir with lubricant, if necessary.
2. Remove injector manifold plug (5, Figure 5-20 INJECTOR MANIFOLD, page 5-52) from injector manifold. Always start with the injector manifold closest to the pump. The last grease line to be purged should be the main grease line to the rear axle (longest grease line).
3. Disconnect main supply line (2, Figure 5-19 AUTO LUBE MAIN SUPPLY LINE, page 5-52) from vent valve (1). Connect an external grease supply to main supply line (2).
4. Pump grease in main supply line (2) until grease appears at the injector manifold plug.
5. Re-install the injector manifold plug. Repeat for remaining injector groups.

After all main supply lines are purged of air, the injector circuits must now be primed.

To prime the secondary supply lines, perform the following:

1. If necessary, disconnect an injector grease line from the component that particular injector supplies grease to.
2. Remove injector grease zerk cap (4) from each injector and connect an external grease supply to injector grease zerk (2) on the injector.
3. Pump grease into the injector until grease appears at the far end of the individual grease line or the joint being greased.
4. Reconnect injector grease line to the component, remove the external grease supply, and reinstall injector grease zerk cap.
5. Repeat steps 1 through 4 until all secondary supply lines have been primed.
6. After all grease lines are primed, use the override switch to cycle the automatic lubrication pump a few times to lube the components.

PREVENTIVE MAINTENANCE PROCEDURES E.6-0000051465

Use the following maintenance procedures to ensure proper system operation.

Daily Lubrication System Inspection

1. Check the grease reservoir level after each shift of operation. Grease usage should be consistent from day-to-day operations. Lack of lubricant usage would indicate an inoperative system. Excessive usage would indicate a broken supply line.
2. Check filter bypass indicator when filling reservoir. Replace element if bypassing.
3. Check all grease hoses from the injectors to the lubrication points.
   a. Repair or replace all damaged feed line hoses.
   b. Ensure that all air is purged and all new feed line hoses are filled with grease before returning the truck to service.

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