CEAM033700

Operation & Maintenance Manual

730E-8

DUMP TRUCK

SERIAL NUMBERS 730E-8 A40018-A40034

ENGINE 16V159

November 2017

KOMATSU®

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b. To operate the park brake, place the directional control lever in the PARK position.

c. To operate the wheel brake lock, apply the service brake and move directional control lever to neutral. Release service brakes, and apply wheel brake lock. Turn the wheel brake lock OFF, then back ON again.

d. Release wheel brake lock and apply service brakes several times.

e. With service brakes applied, move directional control lever to PARK.

4. If any application or release of any brake circuit appears sluggish or improper, or if warning alarms are activated on application or release, shut the engine off and notify maintenance personnel. DO NOT operate the truck until the brake circuit in question is fully operational.

5. Check the gauges, check for warning messages and instruments before moving the truck to ensure proper system operation and proper instrument functioning. Pay special attention to braking and steering circuit hydraulic warning messages. If any warning messages are displayed, shut off the engine immediately and determine the cause.

6. Ensure the headlights, work lights and taillights are in proper working order. Good visibility may prevent an accident. Check operation of the windshield wipers.

7. Any time the directional control lever is placed in the FORWARD or the REVERSE position, the engine speed will go to 1,200 rpm for 15 seconds in preparation for truck movement. If the throttle pedal is not touched within 15 seconds, engine speed will return to 800 rpm.

8. Any time the truck is moving and engine speed is above 1,200 rpm and the throttle pedal is released, engine speed will hold at 1,200 rpm.

MACHINE OPERATION SAFETY PRECAUTIONS H.27-0000051309

After the truck engine is started and all systems are functioning properly, the operator must follow all local safety rules to ensure safe machine operation.

⚠ WARNING

- **If the red warning light is illuminated and any warning messages are displayed, or if any gauge reads in the red area during truck operation, a malfunction is indicated. Stop the truck as soon as safety permits, and stop the engine. Have the problem corrected before resuming truck operation.**

⚠ WARNING

- **The truck is equipped with traction control (often referred to as "slip/slide" control). If this function becomes inoperative, operating the truck with stalled or free spinning wheel motors may cause serious damage to wheel motors! If the truck does not begin to move within ten seconds after depressing the throttle pedal (directional control lever in a drive position), release the throttle pedal and allow wheels to regain traction before accelerating again.**

- Always look to the rear before reversing the truck. Watch for and obey the ground spotter's hand signals before traveling in reverse. Sound the horn (three blasts). The spotter will have a clear view of the total area at the rear of the truck.
- Operate the truck only while properly seated with seat belt fastened. Keep hands and feet inside the cab compartment while the truck is in operation.
- Check gauges and instruments frequently during operation for proper readings.
- Observe all regulations pertaining to the job site's traffic patterns. Be alert to any unusual traffic patterns. Obey the spotter's signals.
- Match the truck speed to haul road conditions and slow the truck in congested areas. Keep a firm grip on the steering wheel at all times.
- DO NOT allow the engine to run at idle for extended periods of time.
- Check the brake lock performance periodically to ensure safe loading and dumping.

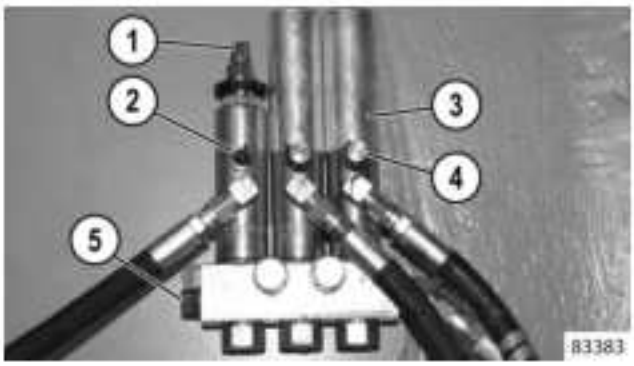
⚠ WARNING

- **DO NOT use the brake lock for parking. When the engine is turned off, hydraulic pressure will bleed down, allowing the brakes to release!**

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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.

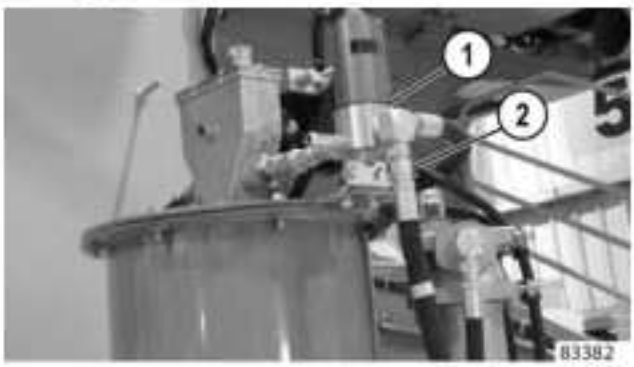


1. Injector Indicator
2. Injector Grease Zerk
3. Injector Cover
4. Injector Grease Zerk Cap
5. Injector Manifold Plug

Figure 5-70 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 5-70 INJECTOR MANIFOLD, page 5-88) from the left hand manifold. Always start with the injector manifold that is closest to the pump. The last grease line to be purged should be the main grease line to the rear axle (longest grease line).



1. Vent Valve
2. Main Supply Line

Figure 5-71 AUTO LUBE MAIN SUPPLY LINE

3. Disconnect main supply line (2, Figure 5-71 AUTO LUBE MAIN SUPPLY LINE, page 5-88) 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 rear injector group.

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, Figure 5-70 INJECTOR MANIFOLD, page 5-88) 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.

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INITIAL 50 HOUR LUBRICATION AND MAINTENANCE INSPECTION B.4-0000051761

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: 38.1 mm (1.5 in.) Rear: 78.7 mm (3.1 in.)
	Front charge height: 229 mm (9 in.) at 2868 kPa (415 psi)
	Rear charge height: 276 mm (11.9 in.) at 1420 kPa (235 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, Section 30 Oiling and Charging Procedure, in the appropriate service manual for complete suspension oiling and charging instructions.*	

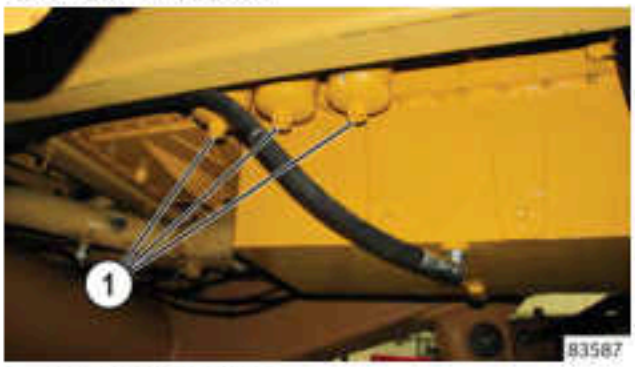
INITIAL 50 HOUR HARDWARE TORQUE	
Item	**Task**
STEERING ARM TO SUSPENSION	Verify hardware torque - Target: **2705 N·m (1995 ft lb)**
STEERING CYLINDER TO FRAME	Verify hardware torque - Target: **464 N·m (342 ft lb)**
STEERING CYLINDER TO STEERING ARM	Verify hardware torque - Target: **464 N·m (342 ft lb)**
TIE ROD PIN RETAINER	Verify hardware torque - Target: **464 N·m (342 ft lb)**
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: **1085 N·m (800 ft lb)**
FRONT BRAKE CALIPER MOUNTING (CAP SCREW ONLY)	Verify hardware torque - Target: **1017 N·m (750 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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Remove breather element drain hose cap (2, Figure 7-10 FUEL TANK BREATHER, page 7-6) from breather hose in order to drain.

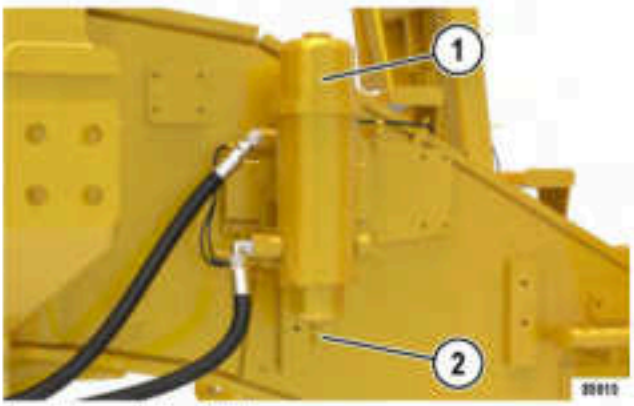
Remove breather element (1) and clean in solvent. Dry with pressurized air and reinstall.

Fuel Filter Service



1. Water Drain Valves

Figure 7-11 WATER SEPARATOR DRAIN



1. Stage 1 Fuel Filter
2. Water Drain Valve

Figure 7-12 WATER SEPARATOR DRAIN (TIER 2 OR TIER 4 ONLY)

Open water drain valves (1, Figure 7-11 WATER SEPARATOR DRAIN, page 7-7) on the engine mounted fuel filters. If equipped, open water drain valves (2, Figure 7-12 WATER SEPARATOR DRAIN (TIER 2 OR TIER 4 ONLY), page 7-7) on the stage 1 fuel filter to remove water from the fuel/water separator daily.

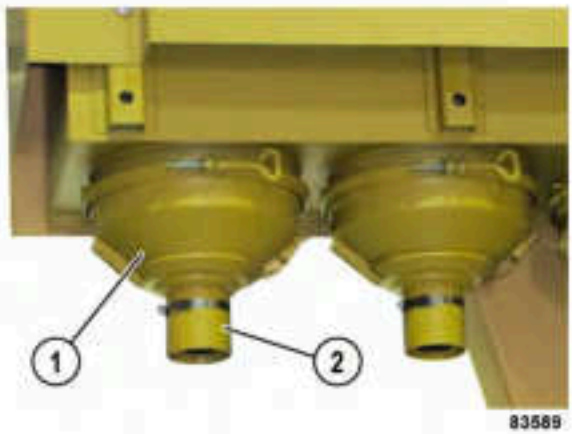
INTAKE AIR CLEANER SERVICE E.5-0000051600

⚠ CAUTION

- **The engine must be turned off before servicing the air cleaner assemblies or opening the engine air intake system. Never start the engine with the filter elements removed. Serious engine damage can result.**

During operation or after the engine has been turned off, observe the air filter restriction gauges mounted on the overhead panel in the cab. When a gauge shows maximum restriction, filter service is required.

To service the intake air cleaner system, perform the following:



1. Dust Cup 2. Vacuator™ Valve

Figure 7-13 DUST CUP LOCATION

1. Inspect and empty dust cups (1, Figure 7-13 DUST CUP LOCATION, page 7-7). Never allow the dust level to build up to the tube (precleaner) chamber.

NOTE: *On dust cups with the Vacuator™ valve, dust cup service is minimal; just check the valve to see that it is not inverted, damaged or plugged. If it is damaged, replace it immediately.*

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NOTE: *Some of the configuration parameters require a password to change. The password for all parameters except the Payload Gain is "**Kac2300**". This is case sensitive. The password for the payload gain, which is a critical setting, is not included in this document.*

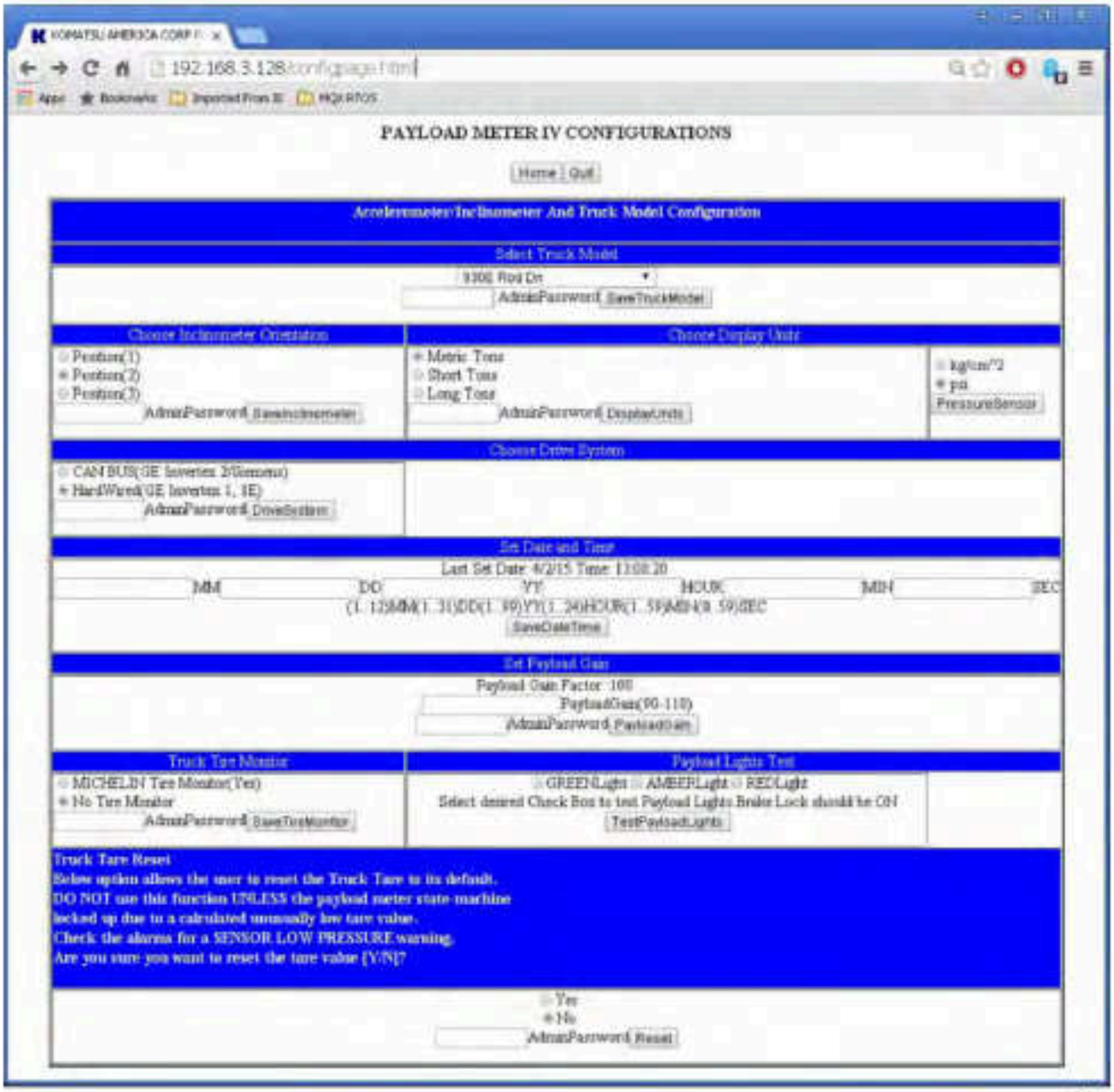


Figure 5-34 PAYLOAD METER IV CONFIGURATIONS

There are ten configuration parameters on this page. Below is a description of each.

- Truck Model
- PLM IV Mounting Orientation
- Gauge Display Units
- Pressure Sensor Units (for RTD web page only)
- Date and Time
- Payload Gain Factor
- Payload Light Test
- Truck Tare Reset

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