CEAM029402

Operation & Maintenance Manual

830E-1AC

DUMP TRUCK

SERIAL NUMBERS 830E-1AC A40962-A40992

ENGINE 16V160

January 2017

KOMATSU®

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b. Ensure that all air is purged and all new feed line hoses are filled with grease before returning the truck to service.

4. Inspect the key lubrication points for a bead of lubricant around seal. If a lubrication point appears dry, troubleshoot and repair problem.

250 Hour Inspection

1. Check all grease hoses from the injectors to the lubrication points.
   a. Repair or replace all worn or broken hoses.
   b. Ensure that all air is purged and all new feed line hoses are filled with grease before returning the truck to service.
2. Check all grease supply line hoses from the pump to the injectors.
   a. Repair or replace all worn / broken supply lines.
   b. Ensure that all air is purged and all new supply line hoses are filled with grease before returning the truck to service.
3. Check the grease reservoir level.
   a. Fill the reservoir if the grease level is low. Check the filter bypass indicator when filling the reservoir. Replace the element if bypassing.
   b. Check the reservoir for contaminants. Clean the reservoir, if required.
   c. Ensure that all filler plugs, covers and breather vents on the reservoir are intact and free of contaminants.
4. Inspect all bearing points for a bead of lubricant around the bearing seal.

   It is good practice to manually lube each bearing point at the grease fitting provided on each Injector. This will indicate if there are any frozen or plugged bearings, and it will help flush the bearings of contaminants.
5. System Checkout
   a. Remove all injector cover caps to allow visual inspection of the injector cycle indicator pins during system operation.
   b. Start truck engine.
   c. Actuate lube system override switch. The hydraulic motor and grease pump should operate.
   d. With the grease under pressure, check each injector assembly. The cycle indicator pin should be retracted inside the injector body.
   e. When the system is at 16 203 - 17 237 kPa (2,350 - 2,500 psi), the pump should shut off and the pressure in the system should drop to zero, venting back to the grease reservoir.
   f. After the system has vented, check the injector indicator pins. All of the pins should be visible. Replace or repair any defective injectors.
   g. Install all injector cover caps.
   h. Initiate one or more lubrication cycles to check the system operation.

NOTE: *Turning the key switch to the ON position will not initiate a lube cycle. To initiate a lube cycle while the truck is stationary, select manual lube using the dash display panel, or use the switch on the lubrication pump. The system should build 13 790 kPa (2,000 psi) at the rear axle during normal pump cycle.*

   i. If the system is working properly, the machine is ready for operation.
   j. If the system is malfunctioning, immediately report problem to maintenance personnel.

1000 Hour Inspection

1. Using the dipstick, check the pump housing oil level. If necessary, refill with SAE 10W-30 motor oil.

SYSTEM CHECKOUT C.9-0000051738

General Checks

To check system operation, proceed as follows:

1. Remove the dust covers from the injectors.
2. Start the engine.
3. Actuate the manual override button at the pump assembly and observe pin movement at each injector.
4. Check for pump, hose or injector damage or leakage with the system under pressure.
5. After checking system, stop the engine. Observing normal precautions regarding high voltage present in the propulsion system before attempting to repair lube system.
6. Re-install the injector dust covers.

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A ground level engine stop switch is also located at the right or left front corner of the truck, depending on ladder access.

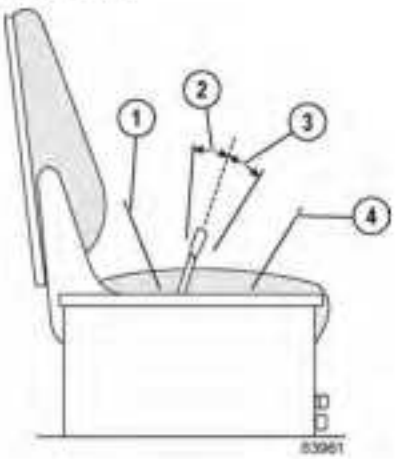
Window Control Switches

The window control switch (5, 6) controls the operation of the window. The switch is spring-loaded to the OFF position.

- Pushing the front of the switch raises the cab window.
- Pushing the rear of the switch lowers the window.

Hoist Control Lever

Hoist control lever (7) is a four position hand-operated lever located between the operator seat and the center console (see Figure 6-5 HOIST CONTROL, page 6-8).



1. Raise
2. Hold
3. Float
4. Lower

Figure 6-5 HOIST CONTROL

Raising The Dump Body

1. Pull the hoist control lever to the rear to actuate hoist circuit. (Releasing the lever anywhere during "hoist up" will place the body in HOLD at that position.)
2. Raise engine rpm to increase hoist speed.
3. Reduce engine rpm as the last stage of the hoist cylinders begin to extend and then let the engine go to low idle as the last stage reaches half-extension.
4. Release hoist control lever as the last stage reaches full extension.
5. After material being dumped clears the body, lower the body to frame.

   Refer to Dumping, page 5-19 for more complete details concerning this control.

Lowering The Dump Body

Move hoist control lever forward to DOWN position and release. Releasing the lever places hoist control valve in the FLOAT position allowing the body to return to frame.

Retard Speed Control (RSC) Adjust Dial

Retard speed control (RSC) adjust dial (8, Figure 6-4 CENTER CONSOLE, page 6-7) allows the operator to vary the downhill truck speed that the retard speed control system will maintain when descending a grade. This function can be overridden by either the accelerator or retard pedal.

The retard speed setting will be displayed to the operator on the digital display in the instrument panel.

When the dial is rotated counterclockwise toward this symbol, the truck will descend a grade at lower speeds.



When the dial is rotated clockwise toward this symbol, the truck speed will increase.



Always refer to the Grade/Speed Chart in the operator's cab and follow the recommendations for truck operation. DO NOT exceed these recommended MAXIMUM speeds when descending grades with a loaded truck.

Throttle pedal position will override RSC setting. If operator depresses throttle pedal to increase truck speed, dynamic retarding will not come on unless truck over speed setting is reached or foot operated retard pedal is used. When throttle pedal is released and RSC switch is on, dynamic retarding will come on at, or above, the RSC dialed speed and will adjust truck speed to, and maintain, the dialed speed. The dialed speed will be displayed on the digital display in the instrument panel.

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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.*

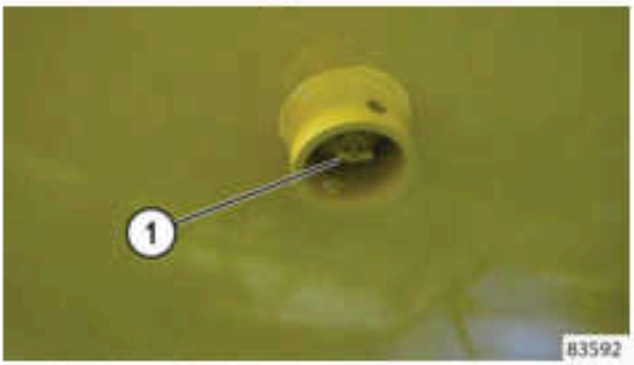
INITIAL 50 HOUR SERVICE INSPECTION	
Item	**Task**
SUSPENSION (See note below)	Suspension oiling height- Front: 25.4 mm (1 in.) Rear: 54.2 mm (2.13 in.)
	Front charge height: 229 mm (9 in.) at 2 689 kPa (390 psi)
	Rear charge height: 270 mm (10.63 in.) at 1 186 kPa (172 psi)
HYDRAULIC SYSTEM FILTERS	Replace 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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FUEL SYSTEM SERVICE G.59-0000051601

Fuel Tank Cleaning

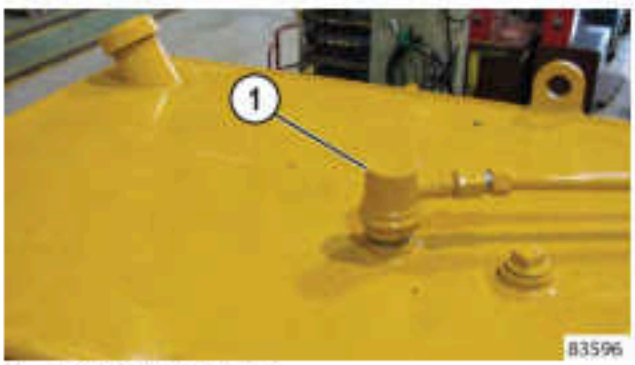


1. Fuel Tank Drain

Figure 7-9 FUEL TANK

Open fuel tank drain (1, Figure 7-9 FUEL TANK, page 7-7) 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.

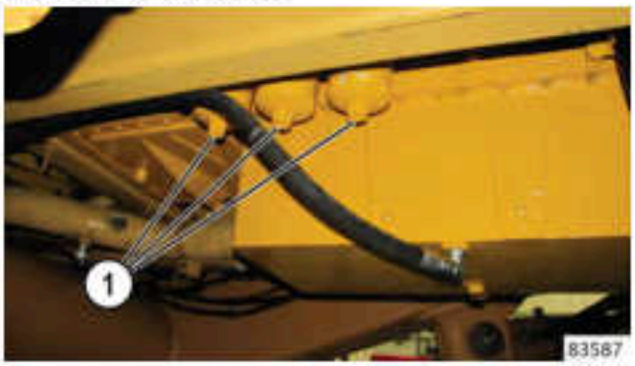


1. Fuel Tank Breather

Figure 7-10 FUEL TANK BREATHER

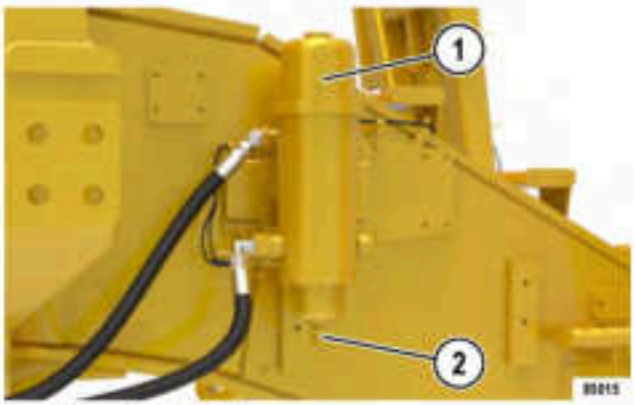
Remove breather (1, Figure 7-10 FUEL TANK BREATHER, page 7-7) and clean in solvent. Dry with pressurized air and reinstall.

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 valve (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.

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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.*

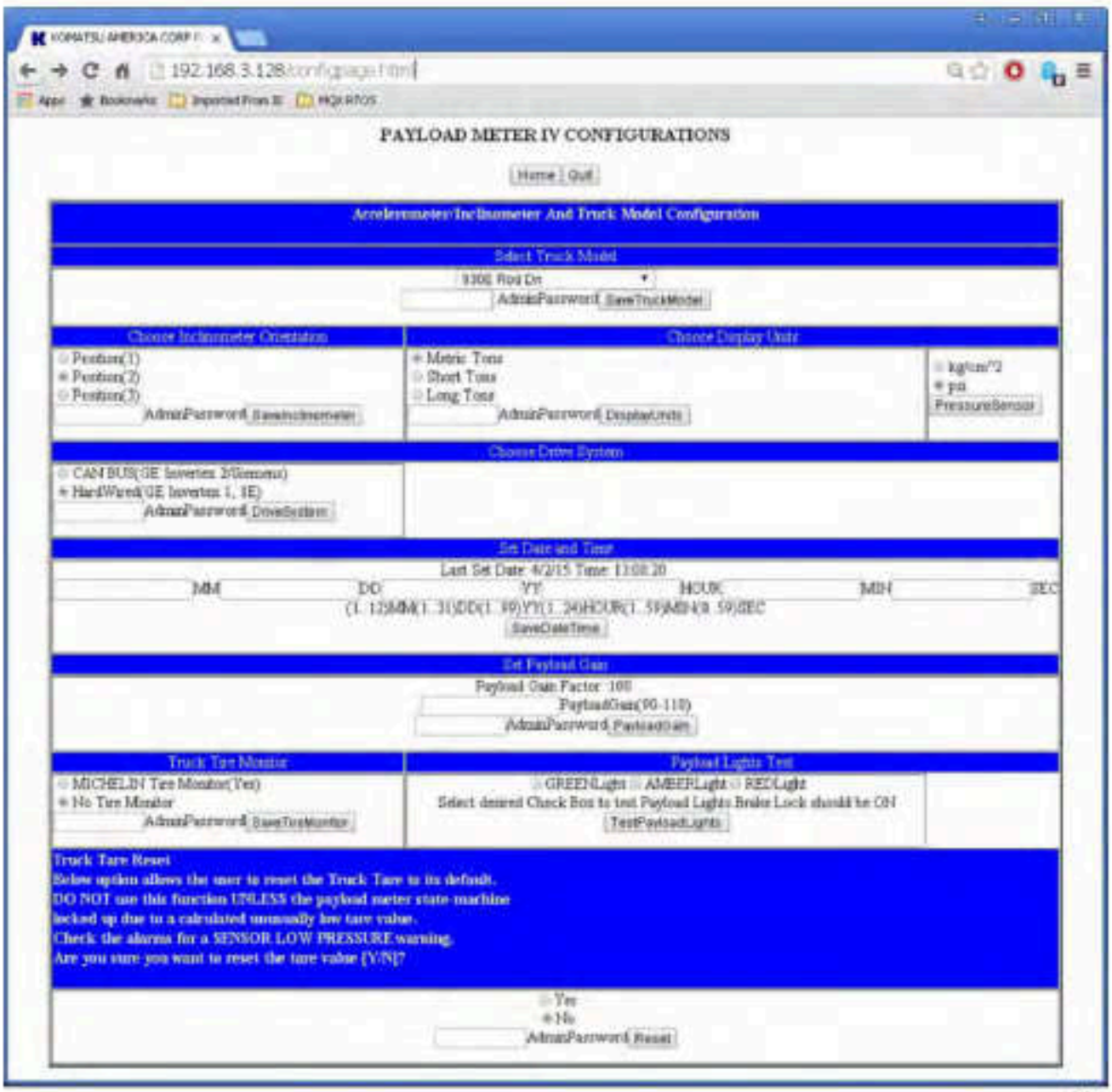


Figure 5-37 PAYLOAD METER IV CONFIGURATIONS

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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