CEAM027701

Operation & Maintenance Manual

730E-8

DUMP TRUCK

SERIAL NUMBERS 730E-8 A40004-A40014

ENGINE 16V159E-2

August 2016

KOMATSU®

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INTRODUCTION
FOREWORD 1-2
ABOUT THIS MANUAL 1-3
ALERTS 1-4
TRUCK MODEL ILLUSTRATION 1-5
WARNINGS 1-6
California Proposition 65 Warnings 1-6
NON-OEM PARTS IN CRITICAL SYSTEMS 1-7
STANDARD CHARTS AND TABLES
GENERAL INFORMATION 2-2
Effect Of Special Lubricants 2-2
Suggested Sources For Rust Preventive Grease 2-2
STANDARD TIGHTENING TORQUES 2-3
Class 10.9 Capscrews And Class 10 Nuts 2-3
SAE Grade 5 And Grade 8 Capscrews 2-4
SAE Grade 9 Capscrews 2-5
T-Bolt Clamps 2-5
Split Flange Clamps 2-6
Flared Tube And Hose Fittings 2-6
JIC 37° Swivel Nuts 2-7
Pipe Thread Fittings 2-8
O-Ring Boss Fittings 2-9
O-Ring Face Seal Fittings 2-10
CONVERSION MULTIPLIERS 2-11
Metric To English 2-11
English To Metric 2-12
Temperature Conversions 2-13
GENERAL SAFETY
GENERAL SAFETY 3-2
Safety Rules 3-2
Truck Safety Features 3-2
Clothing And Personal Items 3-2
Unauthorized Modification 3-2
Leaving The Operator's Seat 3-2
Mounting And Dismounting 3-2
Fire Extinguishers And First Aid Kits 3-3
Precautions For High Temperature Fluids 3-3
Asbestos Dust Hazard Prevention 3-3
Fire Prevention 3-3
ROPS Precautions 3-3
Preventing Injury From Work Equipment 3-4
Precautions For Optional Attachments 3-4
Precautions When Starting The Machine 3-4
PRECAUTIONS FOR TRUCK OPERATION 3-5
Safety Is Thinking Ahead 3-5
Safety At The Worksite 3-5
Preparing For Operation 3-5
Ventilation For Enclosed Areas 3-5
Mirrors, Windows, And Lights 3-5
Before Starting The Engine 3-5
Seat Belts And Tethers 3-5
Emergency Egress Ladders 3-6
OPERATING THE MACHINE 3-7
General Information 3-7

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Starting The Engine 3-7
Traveling In The Machine 3-7
Traveling In Reverse 3-8
Traveling On Slopes 3-8
Traveling On Snow 3-8
Traveling Near High Voltage Cables 3-8
Traveling On Loose Ground 3-8
Ensuring Good Visibility 3-8
Avoid Damage To The Dump Body 3-8
Safe Parking Of The Machine 3-9
Loading The Machine 3-9
Dumping The Machine 3-9
Towing The Machine 3-9
EXTERIOR LIGHTING 3-10
Fog Lights 3-10
Mirror Mounted Backup Lights 3-10
Ladder Lights and Deck Mounted Flood Lights 3-10
Headlights 3-10
Brake Light 3-10
Retard Light 3-10
Clearance/Turn Signal Lights 3-11
Brake Lights 3-11
Retard Lights 3-11
Backup Lights 3-11
Backup Alarm 3-11
PRECAUTIONS FOR MAINTENANCE 3-12
BEFORE PERFORMING MAINTENANCE 3-12
Electrical System Isolation 3-12
Securing The Dump Body 3-13
DURING MAINTENANCE 3-13
Warning Tag 3-13
Proper Tools 3-14
Attachments 3-14
Working Under The Machine 3-14
Keeping The Machine Clean 3-14
Adding Fuel Or Oil To The Machine 3-14
Radiator Coolant Level 3-14
Use Of Lighting 3-14
Handling High Pressure Hoses 3-15
Precautions With High Pressure Oil 3-15
Maintenance Near High Temperatures And High Pressures 3-15
Rotating Fan And Belts 3-15
Waste Materials 3-15
Use Of Tie-Off Anchor During Maintenance 3-15
Handling Tires 3-15
Tire Maintenance 3-16
Storing Tires After Removal 3-16
Battery Hazard Prevention 3-16
Jump Starting With Jumper Cables 3-17
Jump Starting With Receptacles 3-17
WHEN REPAIRS ARE NECESSARY 3-19
Observe The Following Precautions 3-19
SPECIAL PRECAUTIONS 3-20
Preliminary Procedures Before Welding Or Performing Maintenance 3-20

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Engine Shutdown Procedure Before Welding or Performing Maintenance 3-20
Before Welding On The Machine, Obey The Following Guidelines: 3-20
Discharging Control Cabinet Capacitors 3-21
WARNING AND CAUTIONS
GENERAL INFORMATION 4-2
PIN PLATE 4-2
GRADE SPEED CHART 4-3
MACHINE SAFETY 4-3
KEY SWITCH 4-6
OIL FILL AND CHECK 4-7
HIGH PRESSURES 4-8
BATTERY AND ISOLATION BOX 4-10
HIGH VOLTAGE 4-13
WELDING 4-15
LIFTING POINTS 4-16
EMERGENCY DUMPING 4-17
AUTOMATIC LUBRICATION FILL 4-17
ROPS/FOPS 4-18
TOWING 4-18
LUBRICATION CHART 4-18
OPERATING INSTRUCTIONS
PREPARING FOR OPERATION 5-2
Safety Is Thinking Ahead 5-2
Walk Around Inspection 5-2
RETRACTABLE LADDER SYSTEM (If Equipped) 5-7
General Information 5-7
Ladder System Description 5-7
Ladder System Operation 5-7
Retractable Ladder Switch 5-7
Ground Level Ladder Down Switch 5-8
Emergency Down Valve 5-8
PRE-SHIFT BRAKE TEST 5-9
Operation 5-9
Service Brake Test 5-10
Parking Brake Test 5-10
Retard System Test 5-11
Brake Test Exit Criteria 5-11
TRUCK OPERATION 5-12
ENGINE START-UP SAFETY 5-12
After Engine Has Started 5-12
MACHINE OPERATION SAFETY PRECAUTIONS 5-13
Machine Operation On The Haul Road 5-14
Starting On A Grade With A Loaded Truck 5-14
Retarding On A Grade 5-14
Passing 5-15
Loading 5-15
Overload Speed Limit Function 5-15
Dumping 5-16
Lowering The Dump Body (When Dumping On Flat Ground) 5-17
Lowering The Dump Body (When Dumping Over A Berm Or Into A Crusher) 5-17
SUDDEN LOSS OF ENGINE POWER OR LOSS OF DRIVE SYSTEM FUNCTION 5-18
EMERGENCY STEERING SYSTEM 5-18
Operation 5-18
Pre-Operation Testing 5-18

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- Never allow welding current to pass through ball bearings, roller bearings, suspensions, or hydraulic cylinders.

Discharging Control Cabinet Capacitors

The control cabinet is equipped with two capacitor charge lights, one on the exterior of the cabinet and one in the interior. The capacitor charge lights, when off, indicate to service personnel that the drive system is safe to work on. Certain drive system failures, however, can result in a condition where one or more capacitors can remain in a charged state even though the capacitor charge lights are off.

Because a danger can still exist with the capacitor charge lights off, refer to the shop manual "Manual Discharge of Capacitors" before servicing the drive system. Adhere to the proper procedures for disabling the drive system. Only authorized service personnel are allowed to service the drive system.

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NOTE: *The green LED light in the hazard light switch, head light switch and the ladder light switch will be illuminated when battery power is connected to the truck. The LED lights in the other switches will illuminate when the key switch is turned to the ON position.*

This symbol when it appears on an indicator or control identifies that this indicator or control is NOT used.



This symbol identifies a rotary control or switch. Rotate the knob clockwise or counterclockwise for functions.



This symbol identifies a switch used to test or check a function. Press the switch on the side near the symbol to perform the test.



Heater / Air Conditioner Vents

Heater / Air Conditioner vents (1, Figure 6-13 PANEL GAUGES, INDICATORS, AND CONTROLS, page 6-17) may be directed by the operator to provide the most comfortable cabin air flow.

Status Indicator Light Panel

Status indicator light panel (2) contains an array of indicator lights to provide the operator with important status messages concerning selected truck functions. Refer to Figure 6-14 STATUS INDICATOR LIGHTS, page 6-22 for a detailed description of these indicators.

Hydraulic Oil Temperature Gauge

⚠ WARNING

- **If temperature gauge does not move into the green range after a few minutes, and the red overhead indicator light does not go out, stop the engine and notify maintenance personnel immediately.**

Hydraulic oil temperature gauge (3) indicates the oil temperature in the hydraulic tank. There are two colored bands: green and red.



Green indicates normal operation. As the needle approaches the red zone, minimum engine idle speed will increase to help cool the oil. Red indicates high oil temperature in the hydraulic tank. Continued operation could damage components in the hydraulic system. If this occurs, the operator should safely stop the truck, move directional control lever to PARK and operate the engine at 1200 - 1500 rpm to reduce system temperature.

Coolant Temperature Gauge

Coolant temperature gauge (4) indicates the temperature of the coolant in the engine cooling system.



The temperature range after engine warm-up and a truck operating under normal conditions should be 85° to 97°C (185° to 207°F).

Speedometer/Digital Display

Speedometer/digital display (5) displays the following information:

- The analog speedometer indicates the truck speed in miles per hour (mph) or in kilometers per hour (kph).
- The digital display shows payload meter information.
- The digital display also shows warning messages and fault codes indicating abnormal operating conditions and critical problems. See DIGITAL DISPLAY OPERATION, page 6-25 for more information.

Fuel Level Gauge

Fuel level gauge (6) indicates how much diesel fuel is in the fuel tank. When there is only 10% of total fuel tank capacity remaining, the amber low fuel level indicator on the gauge will illuminate.



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EVERY 250 HOUR LUBRICATION AND MAINTENANCE B.3-0000051760

NOTE: *The 10 hour lubrication and maintenance checks must also be performed at this time."Lube Key" references are to the lubrication chart.*

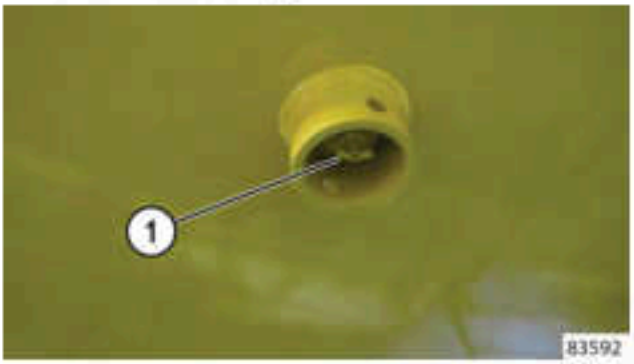
EVERY 250 HOUR LUBRICATION AND MAINTENANCE	
Item	**Task**
ENGINE	• Change the engine oil. (Lube Key "A"). • Replace engine oil filters. • Check belt tension and the condition. Refer to the engine Operation & Maintenance manual for specific adjustment instructions. ***NOTE:*** *If the engine is equipped with the Centinel™ oil system and/or the Eliminator™ filter system, engine oil and filter change intervals are extended beyond 250 hours. Take an engine oil sample for analysis.* Refer to the engine Operation & Maintenance manual for complete specifications regarding engine lube oil specifications.
COOLING SYSTEM	• Check for proper coolant mixture. Add coolant as required. • Change coolant filters. • Check cooling system hoses for damage and signs of deterioration. • Check the torque on the cooling fan mounting cap screws: **237 N·m (175 ft lb)**. Refer to the engine maintenance manual for coolant filter replacement instructions and proper coolant mixture instructions.
FUEL SYSTEM	• Change the fuel filters (fuel separators). Refer to the engine Operation & Maintenance manual for specific filter replacement instructions. • Drain water and sediment from the fuel tank. Refer to FUEL SYSTEM SERVICE, page 7-5 for detailed instructions.
HYDRAULIC SYSTEM	• Add one or two applications of grease to each grease fitting on the pump drive shaft. Non - moly grease only. • Replace hydraulic system filter elements after the initial 250 hours of operation; then at each 500 hours of operation thereafter. Refer to (Lube Key "B"). • Replace auxiliary hydraulic system filter element after the initial 250 hours of operation; then at each 500 hours of operation thereafter. Refer to (Lube Key "B"). Refer to HYDRAULIC SYSTEM SERVICE, page 7-2 for detailed instructions.
STEERING LINKAGE	• Check the torque on the pin retaining nuts located on the steering linkage - **464 N·m (342 ft lb)**. • Check the torque on the tie rod retaining nuts - **420 N·m (310 ft lb)**.
CAB AIR FILTER	Under normal operating conditions, clean every 250 hours. In extremely dusty conditions, service as frequently as required. Refer to CAB AIR FILTER SERVICE, page 7-4 for detailed instructions.

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3. Reinstall the filters.

FUEL SYSTEM SERVICE G.49-0000051601

Fuel Tank Cleaning

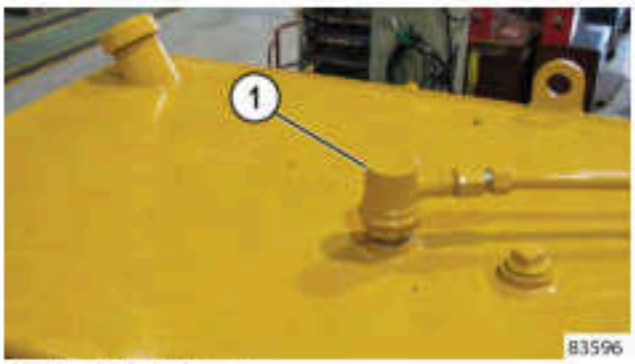


1. Fuel Tank Drain

Figure 7-7 FUEL TANK

Open fuel tank drain (1, Figure 7-7 FUEL TANK, page 7-5) 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.

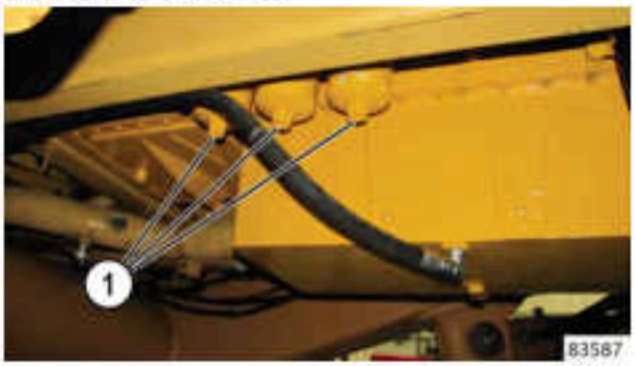


1. Fuel Tank Breather

Figure 7-8 FUEL TANK BREATHER

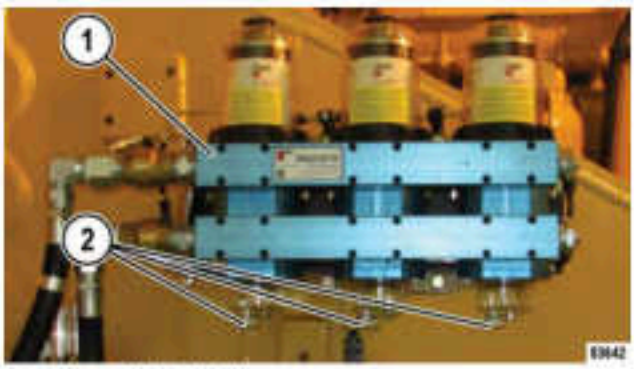
Remove breather (1, Figure 7-8 FUEL TANK BREATHER, page 7-5) and clean in solvent. Dry with pressurized air and reinstall.

Fuel Filter Service



1. Water Drain Valves

Figure 7-9 WATER SEPARATOR DRAIN



1. Stage 1 Fuel Filter
2. Water Drain Valves

Figure 7-10 WATER SEPARATOR DRAIN (TIER 2 OR TIER 4 ONLY)

Open water drain valves (1, Figure 7-9 WATER SEPARATOR DRAIN, page 7-5) on the engine mounted fuel filters. If equipped, open water drain valves (2, Figure 7-10 WATER SEPARATOR DRAIN (TIER 2 OR TIER 4 ONLY), page 7-5) on the stage 1 fuel filter to remove water from the fuel/water separator daily.

INTAKE AIR CLEANER SERVICE E.5-0000051600

⚠ CAUTION

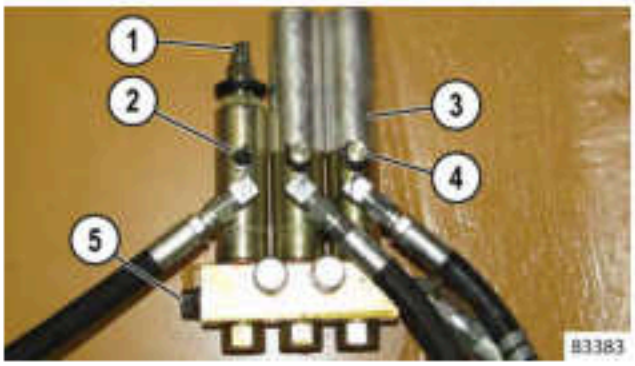
- **The engine must be turned off before servicing the air cleaner assemblies or opening the engine air intake system. Never start the engine with the filter elements removed. Serious engine damage can result.**

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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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.

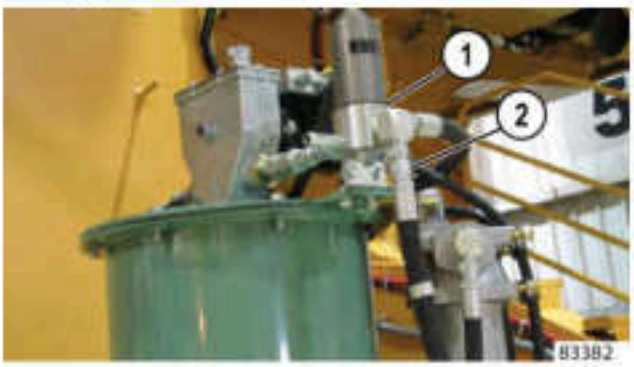


1. Injector Indicator
2. Injector Grease Zerk
3. Injector Cover
4. Injector Grease Zerk Cap
5. Injector Manifold Plug

Figure 5-17 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 5-17 INJECTOR MANIFOLD, page 5-47) 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 5-18 AUTO LUBE MAIN SUPPLY LINE

3. Disconnect main supply line (2, Figure 5-18 AUTO LUBE MAIN SUPPLY LINE, page 5-47) 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 5-17 INJECTOR MANIFOLD, page 5-47) 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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