CEAM019604

Operation & Maintenance Manual

930E-4

DUMP TRUCK

SERIAL NUMBERS A30601 - A30692

KOMATSU®

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TABLE OF CONTENTS

INTRODUCTION **10-1**
FOREWORD 10-1
TRUCK MODEL ILLUSTRATION 10-2
ABOUT THIS MANUAL 10-3
ALERTS PAGE 10-4
TABLE OF CONTENTS 10-5

TORQUE TABLES AND CONVERSION CHARTS **12-1**

SAFETY **20-1**
GENERAL 20-1
Safety Rules 20-1
Safety Features 20-1
Fire Extinguishers And First Aid Kits 20-1
Clothing And Personal Items 20-1
Leaving The Operator's Seat 20-2
Mounting And Dismounting 20-2
Fire Prevention For Fuel And Oil 20-2
Precautions With High Temperature Fluids 20-3
Asbestos Dust Hazard Prevention 20-3
Prevention Of Injury By Work Equipment 20-3
Unauthorized Modification 20-3
ROPS Precautions 20-3
Precautions For Attachments 20-4
Precautions For Starting The Truck 20-4
PRECAUTIONS BEFORE OPERATION 20-4
Safety At The Work Site 20-4
Fire Prevention 20-5
Ventilation In Enclosed Areas 20-5
Preparing For Operation 20-5
Mirrors, Windows, And Lights 20-5
In The Operator Cab (Before Starting The Engine) 20-5
Seat Belts 20-5
OPERATING THE TRUCK 20-6
When Starting The Engine 20-6
General Truck Operation 20-6
Ensuring Good Visibility 20-6
Traveling 20-7
Traveling In Reverse 20-7
Traveling On Slopes 20-7
Operating On Snow Or Ice 20-7
Avoid Damage To The Dump Body 20-7

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TABLE OF CONTENTS (cont.)

Driving Near High Voltage Cables 20-8
When Dumping 20-8
When Loading 20-8
Working On Loose Ground 20-8
Parking The Truck 20-8
Towing 20-8
WORKING NEAR BATTERIES 20-9
Battery Hazard Prevention 20-9
Starting With Booster Cables 20-9
BEFORE PERFORMING MAINTENANCE 20-10
Stopping The Engine 20-10
Warning Tag 20-10
Proper Tools 20-10
Securing The Dump Body 20-10
WHILE PERFORMING MAINTENANCE 20-11
Keep The Truck Clean 20-11
Attachments 20-11
Working Under The Truck 20-11
Rotating Fan And Belts 20-11
Waste Materials 20-11
Adding Fuel Or Oil 20-12
Radiator Coolant Level 20-12
Use Of Lighting 20-12
Precautions With The Battery 20-12
Handling High Pressure Hoses 20-12
Precautions With High Pressure Oil 20-12
Performing Maintenance Near High Temperature Or High Pressure 20-12
TIRES 20-13
Handling Tires 20-13
Storing Tires After Removal 20-13
WHEN REPAIRS ARE NECESSARY 20-14
SPECIAL PRECAUTIONS FOR WORKING ON AC DRIVE TRUCKS 20-15
PRELIMINARY PROCEDURES BEFORE WELDING OR PERFORMING MAINTENANCE . . . 20-15
ENGINE SHUTDOWN PROCEDURE BEFORE WELDING OR PERFORMING MAINTENANCE 20-15
CAPACITOR DISCHARGE SYSTEM 20-17
Necessary Tools 20-17
Warnings And Cautions 20-18
Manual DC Link Capacitor Discharge Procedure 20-19
Failure of the Discharge System 20-21
Manual Discharge of Capacitors 20-22
Short Isolated Capacitor Terminals 20-24
ADDITIONAL JOB SITE RULES 20-26

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TABLE OF CONTENTS (cont.)

WARNINGS AND CAUTIONS **22-1**

OPERATING INSTRUCTIONS **30-1**

PREPARING FOR OPERATION 30-1
WALK AROUND INSPECTION 30-1
ENGINE START-UP 30-5
AFTER ENGINE START-UP 30-6
PRE-SHIFT BRAKE CHECK (IF EQUIPPED) 30-6
Operation 30-7
Performing The Brake Tests 30-8
EMERGENCY STEERING SYSTEM 30-10
Operation 30-10
Pre-Operation Testing 30-10
MACHINE OPERATION SAFETY PRECAUTIONS 30-11
OPERATING ON THE HAUL ROAD 30-12
STARTING ON A GRADE WITH A LOADED TRUCK 30-13
PASSING 30-13
LOADING 30-13
Overload Speed Limit Function 30-13
DUMPING 30-14
Raising The Dump Body 30-14
Lowering The Dump Body (when dumping on flat ground) 30-15
Lowering The Dump Body (when dumping over a berm or into a crusher) 30-15
TOWING 30-16
Special Wiring Harness 30-16
SAFE PARKING PROCEDURES 30-19
NORMAL ENGINE SHUTDOWN PROCEDURE 30-19
SUDDEN LOSS OF ENGINE POWER 30-20
FUEL DEPLETION 30-20
DISABLED TRUCK DUMPING PROCEDURE 30-21
Hookup 30-21
Raising the Body 30-21
Lowering the Body 30-21
RESERVE ENGINE OIL SYSTEM 30-22
Operation 30-22
Changing Oil 30-22

OPERATOR CAB AND CONTROLS **32-1**

STEERING WHEEL AND CONTROLS 32-2
Horn Button 32-2
Tilt/Telescope Lever 32-2

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CAPACITOR DISCHARGE SYSTEM

The control cabinets are 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, it is necessary to adhere to the following instructions before touching or servicing drive system components. Only authorized service personnel are allowed to service the drive system.

Refer to the shop manual for rules when servicing the drive system. Adhere to the proper procedures for disabling the drive system.

Necessary Tools

- 2000 VDC meter (Figure 20-2)
  (Komatsu p/n PC3186)
  (Bierer RCDC 1000 or equivalent)



FIGURE 20-2. VOLT METER (PC3186)

- Personal Protective Equipment (PPE) for working with 2000 VDC meter
  (safety shoes, high voltage gloves, and safety glasses)
- Multimeter for ground resistance measurement
- Grounding stick pair (Figure 20-3)
  (Komatsu p/n PC3299)
  (HVR Advanced Power Components MAS-000039 Ground Stick Pair or equivalent)

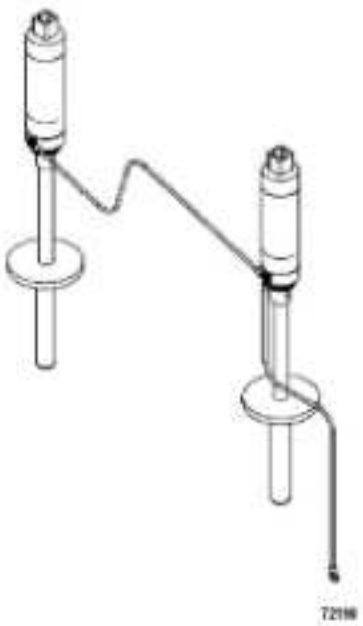


FIGURE 20-3. GROUNDING STICKS (PC3299)

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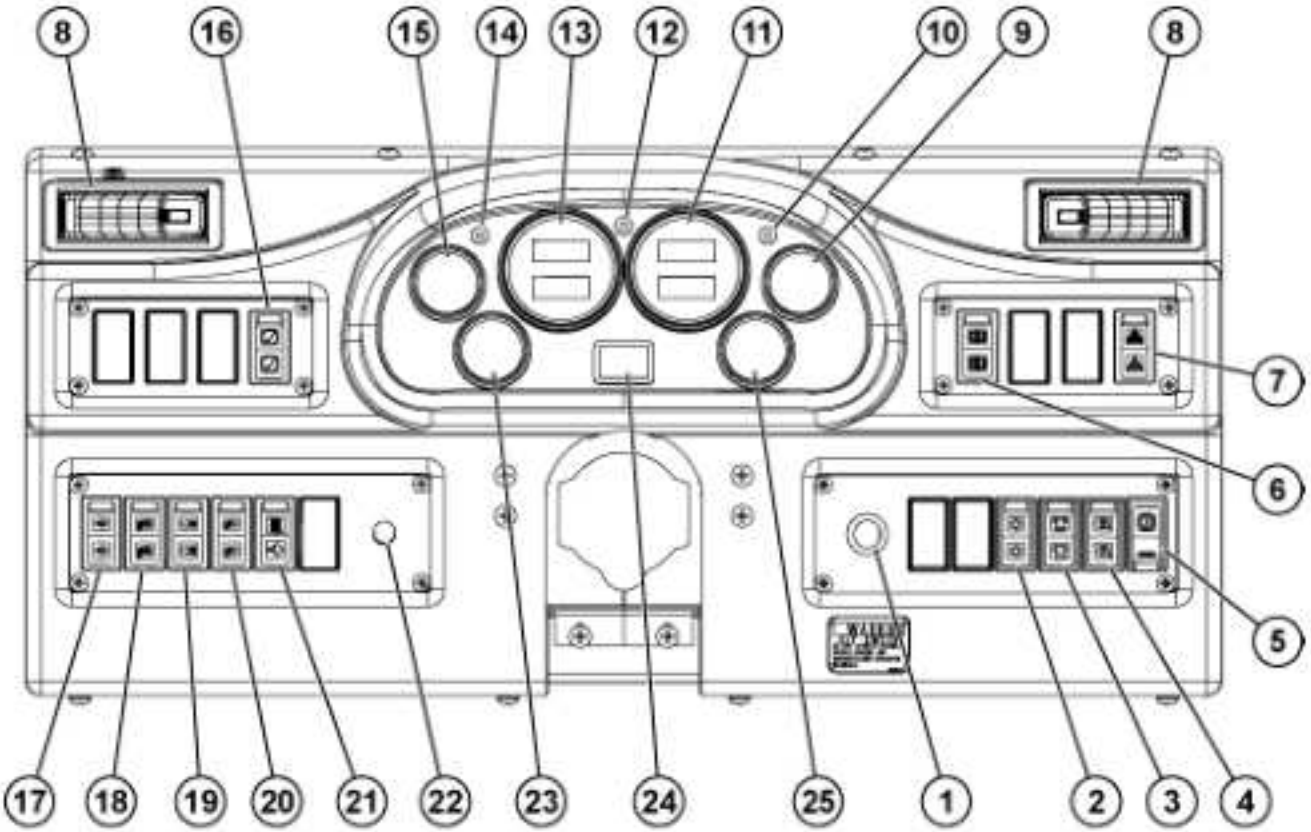


FIGURE 32-7. PANEL GAUGES, INDICATORS, AND CONTROLS

1. Key Switch
2. Air Conditioner Compressor Switch
3. Rotating Beacon Switch (optional)
4. Heated Mirrors Switch (optional)
5. AC Drive System Rest Switch
6. Wheel Brake Lock Switch
7. Hazard Lights Switch
8. Heater/Air Conditioner Vents
9. Engine Oil Pressure Gauge
10. Right Turn Signal Indicator Light
11. Digital Tachometer
12. High Beam Headlight Indicator
13. Speedometer/Payload Meter Display
14. Left Turn Signal Indicator
15. Water Temperature Gauge
16. Lamp Check Switch
17. Headlight/Panel Illumination Lights Switch
18. Ladder Light Switch (3-Way)
19. Backup Light Switch
20. Fog Light Switch
21. Payload Meter Switch
22. Panel Illumination Lights Dimmer Switch
23. Hydraulic Oil Temperature Gauge
24. Engine Hourmeter
25. Fuel Level Gauge

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250 HOUR LUBRICATION AND MAINTENANCE CHECKS (Cont.)

All *10 Hour (Daily) Inspections* should also be performed at this time.

NOTE: "Lube Key" references are to the ***Lubrication Chart*** *on page 40-5.*

Truck Serial Number_____ **Site Unit Number**_____ **Date**_____

Hourmeter_____ **Name of Service Technician**_____

	TASK	COMMENTS	CHECKED	INITIALS
2.	ENGINE - 1. Change the engine oil. Refer to the engine operation and maintenance manual for engine oil specifications. (Lube Key "A") *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 engine operation and maintenance manual for specific oil and filter change intervals.* 2. Replace the engine oil filters. Follow the instructions of the filter manufacturer, which are normally printed on the outside of the filter. **Do not use a wrench or strap to tighten filter elements.** 3. Change the reserve tank oil filter. 4. Check the tension and condition of each accessory drive belt. Refer to the engine operation and maintenance manual for specific adjustment instructions. 5. Check the torque on the cooling fan mounting capscrews. Tighten to **237 N•m (175 ft lb)**.			
3.	COOLING SYSTEM - 1. Check the coolant level and fill the radiator with the proper coolant mixture according to Coolant Specifications on page 40-2. Refer to the engine operation and maintenance manual for additional coolant recommendations. 2. Change the coolant filters. Refer to the engine operation and maintenance manual for coolant filter replacement instructions. 3. Check the cooling system hoses for damage and deterioration. Replace as necessary.			
4.	FUEL FILTERS - Change the fuel filters. Refer to the engine operation and maintenance manual for filter replacement instructions.			
5.	FUEL TANK - Drain water and sediment from the fuel tank. Refer to Section B4, Fuel Tank - Cleaning, in the shop manual.			

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2. Observe both capacitor charge lights (CCL1, CCL2). CCL1 is on the outside of the contactor box. CCL2 is on the switch panel inside the low voltage area. The lights will stay illuminated as long as the voltage on the DC link is greater than 50 VDC. Refer to Figure 20-6.

⚠WARNING

Hazardous voltages may be present in this equipment even if the engine and capacitor charge lights are off.

Use measurement and protective equipment rated for 2000 VDC minimum to verify that no voltage is present before touching any terminal.

⚠WARNING

Verify functionality of the measurement equipment using site-approved procedures both before and after performing control group measurements.

Failure to observe these precautions may result in death or serious personal injury.

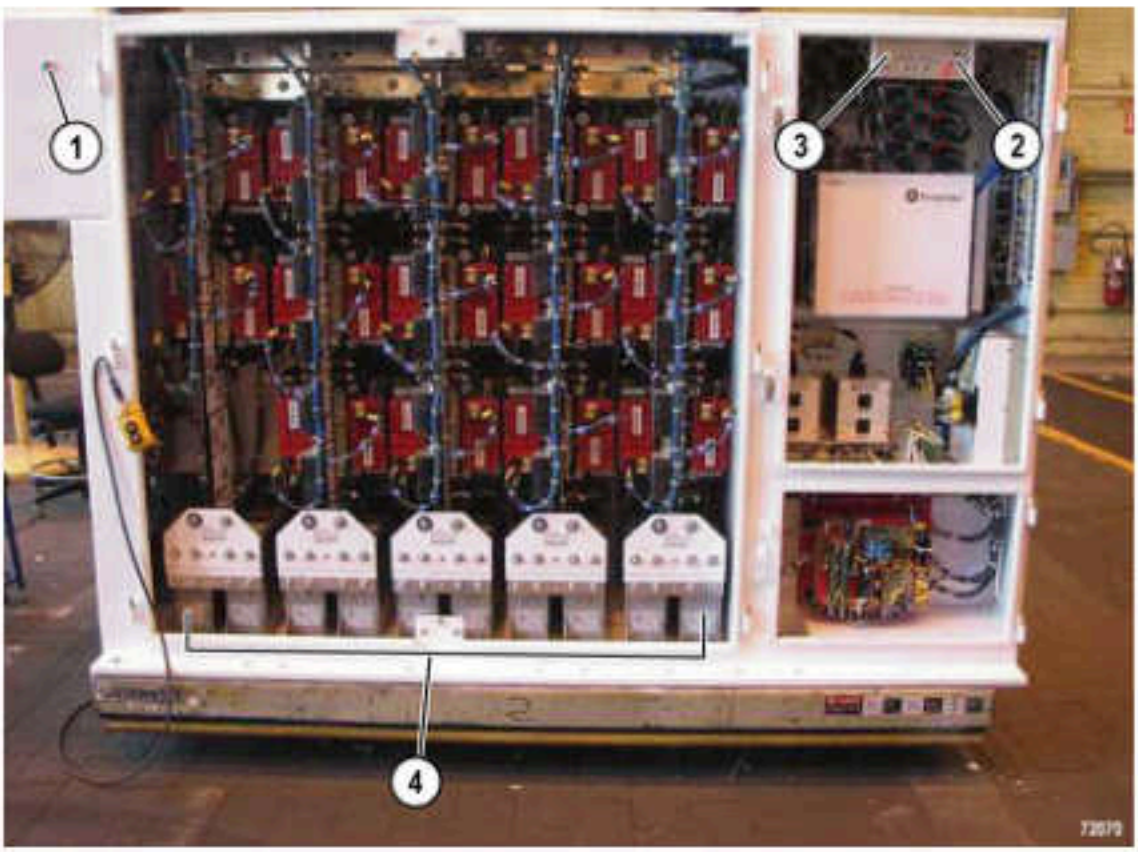


FIGURE 20-6. CAPACITOR CHARGE LIGHTS

1. Exterior Capacitor Charge Light (CCL2)
2. Interior Capacitor Charge Light (CCL1)
3. Information Display Panel
4. DC Link Capacitors

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Setting the Computer Subnet Mask and IP Address

If the adaptor software does not allow for setting an IP address, then this must be done manually.

The Windows TCP/IP settings must be modified for the correct subnet mask and an adequate IP address. The steps to reach the point where the TCP/IP settings can be modified vary according to the operating system and are described below. The actual steps for making the changes to the settings are described for the following operating systems.

Windows 2000:

1. Click on the start menu, select settings and then "Network and Dial-up Connections."
2. Right click on the wireless network adaptor and select "properties." Skip instructions for other Operating Systems and continue to the topic of "Properties".

Windows XP:

1. Click on the start menu, right click on "My Networks" and select "Properties." A window with all available networks will be shown.
2. Right click on the wireless network and select "Properties." Skip instructions for Windows Vista and continue to the topic of "Properties".

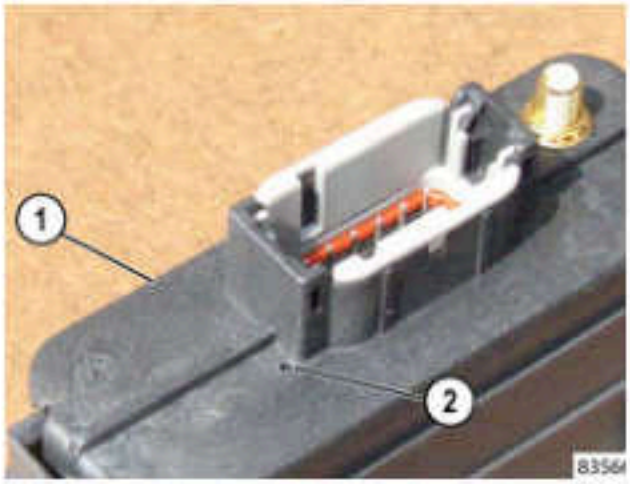


FIGURE 32-14. RESET LOCATION

1. Komatsu Wireless Bridge
2. Reset Button Hole

Windows Vista:

1. Click on the Windows menu, right click on "Network" then select "Properties." A window will open with the option "Manage network connections" as one of the options on the left side. Select that option.
2. A new window showing all available networks will open. Right click on the wireless network to be used to connect to the KWB and select "Properties." Vista will inquire if this was an intentional selection; select "Continue." Continue to the topic of "Properties".

Properties

Once the window with the list of available protocols is shown, the TCP/IP should then be selected. Click on "Properties" and bring up a window for setting the IP address and the subnet mask (alternatively, double click on TCP/IP). Before making any changes, write down the current settings. These settings will be needed to restore the original computer settings if needed.

3. Select "Use the following IP address," then set the IP address to 192.168.0.xxx, where xxx represents any number between 1 and 255. 123 is generally used. However, no two computers should use the same IP address). The subnet mask should now be set to 255.255.0.0. If a gateway address is requested, this is set to the same as the IP address.

This prepares the computer to communicate with the KWB and to interact with the automatic download software.

NOTE: The previous steps are not necessary if the software that comes with the computer/adaptor allows an IP address and mask to be assigned to each profile. This is done automatically by selecting the profile.
It may be necessary to repeat these steps to restore the computer settings when connecting to another network.

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