CEAM014800

Operation & Maintenance Manual

730E

DUMP TRUCK

SERIAL NUMBERS A30299 - A30309 & A30311

KOMATSU®

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SAFETY . . . . SECTION 2

Safety records of most organizations will show that the greatest percentage of accidents are caused by unsafe acts of persons. The remainder are caused by unsafe mechanical or physical conditions. Report all unsafe conditions to the proper authority. These safety rules are provided as a guide for the Komatsu truck operator. However, local conditions and regulations may add many more to this list.

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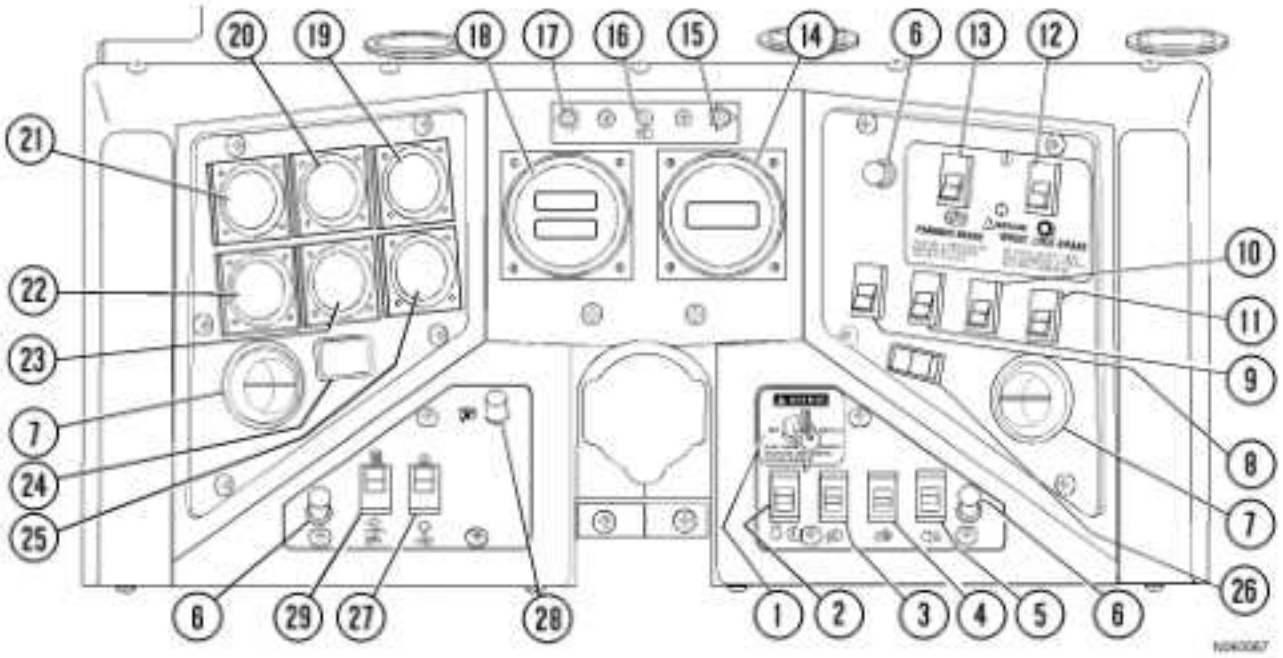


FIGURE 32-11. PANEL, GAUGES, INDICATORS, AND CONTROLS

1. Keyswitch
2. Engine Shutdown Switch with Timer Delay
3. Fog Light Switch (N./O.) (**Optional**)
4. Ladder Light Switch
5. Backup Light Switch (N./O.)
6. Panel Illumination Light(s)
7. Vent(s) - Cab Air Conditioner / Heater
8. Engine Starting Aid Switch (N./O.) (**Optional**)
9. Rotating Beacon Light Switch (N./O.) (**Optional**)
10. Heated Mirror Switch (N./O.) (**Optional**)
11. Leakage Test Switch (**Trolley Option**)
12. Wheel Brake Lock Switch (N./O.)
13. Parking Brake Switch (N./O.)
14. Digital Tachometer
15. Right Turn Signal Indicator Light
16. High Beam Headlight Indicator Light
17. Left Turn Signal Indicator Light
18. Digital Speedometer / Payload Meter Displ
19. Voltmeter Gauge
20. Engine Oil Pressure Gauge
21. Engine Water Temperature Gauge
22. Fuel Gauge
23. Blank - Not Used In This Application
24. Engine Hourmeter
25. Blank - Not Used In This Application
26. Blank - Not Used In This Application
27. Headlights Switch (N./O.)
28. Panel Illumination Lights Dimmer Rheostat
29. Payload Meter Switch

PANEL GAUGES, INDICATORS, AND CONTROLS (Figure 32-11)

(1, Figure 32-11) KEY SWITCH

The keyswitch is a 3-position (Off, Run, Start) switch. When switch is rotated one position clockwise, it is in the RUN position and all electrical circuits (except START) are activated. With Selector Switch in NEUTRAL, rotate keyswitch fully clockwise to START position and hold this position until engine starts. START position is spring loaded to return to RUN when key is released. With truck stopped, turn keyswitch counterclockwise to OFF for normal engine shutdown. Use Engine Shutdown switch on center console if engine does not shutdown with keyswitch.

NOTE: A ground level shutdown switch is located on lower front left side of truck.



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COOLANT LEVEL CHECK

Inspect the coolant sight gauge. If coolant cannot be seen in the sight gauge, it is necessary to add coolant to the cooling system before truck operation. Refer to the procedure below for the proper filling procedure.

RADIATOR FILLING PROCEDURE

Cooling System is pressurized due to thermal expansion of coolant. DO NOT remove radiator cap while engine and coolant are hot. Severe burns may result.

1. With engine and coolant at ambient temperature, remove radiator cap.

Note: If coolant is added using the Wiggins quick fill system, the radiator cap MUST be removed prior to adding coolant.

2. Fill radiator with proper coolant mixture (as specified by the engine manufacturer) until coolant is visible in the sight gauge.

3. Install radiator cap.

4. Run engine for 5 minutes, check coolant level.

5. If coolant is not visible in the sight gauge, repeat steps 1 through 4. Any excess coolant will be discharged through the vent hose after the engine reaches normal operating temperature.

Engine coolant must always be visible in the sight gauge before truck operation.

COOLING SYSTEM ANTI - FREEZE RECOMMENDATIONS

(Ethlyene Glycol Permanent Type Anti-Freeze)

Percentage of Anti-Freeze	Protection To	
10	+23°F	- 5°C
20	+16°F	- 9°C
25	+11°F	- 11°C
30	+4°F	- 16°C
35	- 3°F	- 19°C
40	- 12°F	- 24°C
45	- 23°F	- 30°C
50	- 34°F	- 36°C
55	- 48°F	- 44°C
60	- 62°F	- 52°C

Use only anti-freeze that is compatible with engine as specified by engine manufacturer.

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1000 HOUR LUBRICATION AND MAINTENANCE CHECKS

Truck Serial Number_____ **Site Unit Number**_____ **Date**_____
Hourmeter_____ **Name of Service Technician**_____

	TASK	COMMENTS	CHECKED	INITIALS
1.	HYDRAULIC TANK - Drain hydraulic oil and clean inlet strainer. Refill tank with new oil, approximate capacity 134 gal. (507 l). Use Lube Key B.			
2.	RADIATOR - Clean cooling system with a quality cleaning compound. Flush with water. Refill system with DCA or anti-freeze and water solution. Check Cooling System Recommendation Chart for correct mixture.			
3.	FUEL TANK - Remove breather and clean in solvent. Dry with air pressure and reinstall.			
4.	ENGINE - Remove, clean and dry crankcase breather elements.			
5.	OPERATOR'S SEAT - Apply grease to slide rails. Use Lube Key D.			

Maintenance for every 10, 50, 100, 250 & 500 hour Lubrication and Maintenance Checks should also be carried out at this time.

NOTE: Lube Key references are to the Lubrication Specification Chart.

5000 HOUR LUBRICATION AND MAINTENANCE CHECKS

Truck Serial Number_____ **Site Unit Number**_____ **Date**_____
Hourmeter_____ **Name of Service Technician**_____

	TASK	COMMENTS	CHECKED	INITIALS
1.	FRONT WHEELS - Drain oil and completely disassemble and check all parts for wear or damage. Refer to Section G of the service manual for Disassembly and Assembly procedures. Refill with oil. Check the oil level at oil level plug on wheel hub. Lube Key C. Check wheel bearing preload at the first 500 hours after each rebuild.			
2.	AIR CLEANERS - Clean the Donaclone Tubes in the pre-cleaner section of the air filter. Use low pressure cold water or low pressure air to clean tubes. Refer to Section C of the service manual.			

Maintenance for every 10, 50, 100, 250, 500 & 1000 hour Lubrication and Maintenance Checks should also be carried out at this time.

NOTE: Lube Key references are to the Lubrication Specification Chart.

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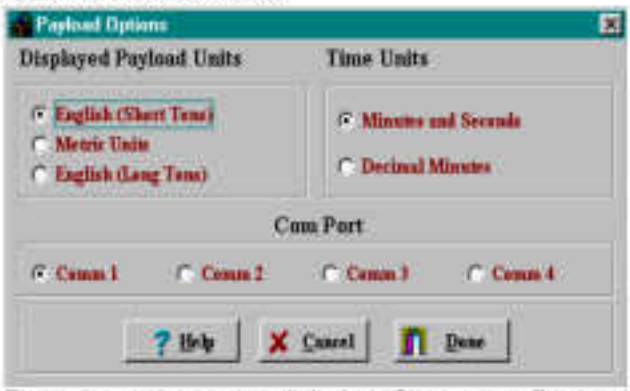
PLMIII System Configuration

Starting Communications

The PDM software allows users to download and configure the system.



Before connecting to the payload meter, select "Change Program Options" and confirm that the program has selected the correct laptop serial port. Most laptops use Comm 1 for serial communications. The units displayed for reports and graphs by the PC software can be set on this form. Click "Done" to return to the main menu.



From the main menu, click the "Connect to Payload Meter" button. The PC will try to connect to the payload meter and request basic information from the system. In the event of communications trouble, the PC will try 3 times to connect before "timing-out". This may take several seconds.

Displayed Payload Units



Three options are available for the display of units in the PC software, reports, and graphs:

Short Tons: Payload is displayed in short tons, distances and speeds will be displayed in Miles

Metric Tons: Payload is displayed in metric tons, distances and speeds are displayed in Kilometers

Long Tons: Payload is displayed in long tons, distances and speeds are displayed in Miles

Time Units

Minutes and Seconds Example:
Five minutes and thirty-two seconds = 5:32
Decimal Minutes Example:
Five minutes and thirty-two seconds = 5.53

Connection Menu



The connection screen displays basic system information to the user.

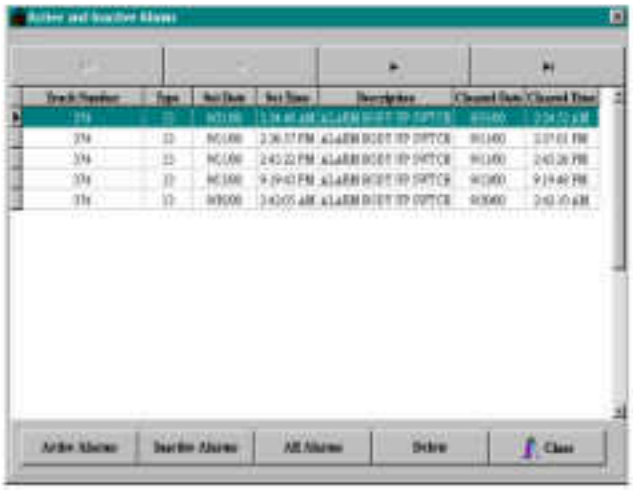
- Frame S/N should agree with the truck serial number from the serial plate located on the truck frame.
- Truck Number is an ID number assigned to the truck by the mine.
- The Payload Meter Date / Time values come from the payload meter at the moment of connection.
- Number of Haul Cycle Records is the number of haul cycles records stored in memory and available for download.
- Number of Active Alarms shows how many alarms are currently active in the system at the time of connection. If there are active alarms, the "Display Active Alarms" button is available.
- Number of Inactive Alarms shows how many alarms have been recorded in memory and are available for download.
- PLM Software Version displays the current version of software in the payload meter.

The information on the connection menu comes from the configuration of the payload meter system on the truck.

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Viewing Alarms

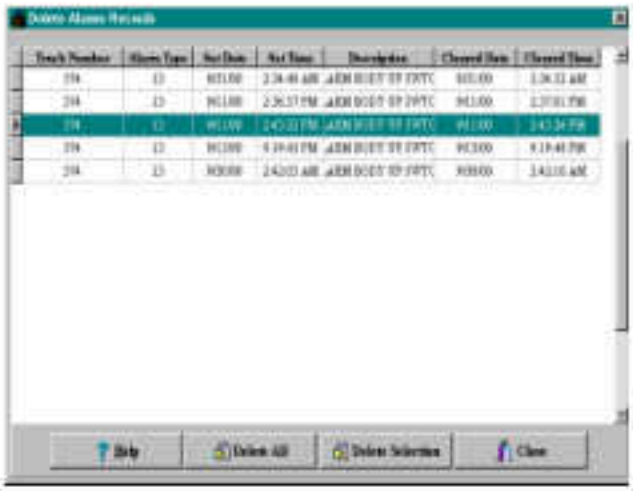
From the Payload Summary screen, click the "Alarms" button to display the alarm screen. The alarms are sorted by the query settings from the Payload Summary screen. Alarms can be displayed as Active or Inactive.



Deleting Alarm Records

To delete alarm records from the main database, press the "Delete" button at the bottom of the "Alarm Display" screen. The program will display a summary of the alarms from the query. To delete an alarm, select one at a time and press the "Delete" button. It is recommended that the query data be exported to a ".zip" file for archival purposes before deletion. Multiple records may be selected by holding down the Shift key. Pressing the "Delete All" button will select all the alarms from the current query and delete them.

NOTE: There is no recovery for alarms that have been deleted from the main database. It is highly recommended that all records be exported and archived in a compressed file format for future reference before being deleted.



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