CEAM014901

Operation & Maintenance Manual

730E

DUMP TRUCK

SERIAL NUMBERS A30310, A30312 - A30426

KOMATSU®

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CONTROL SWITCHES AND GAUGES

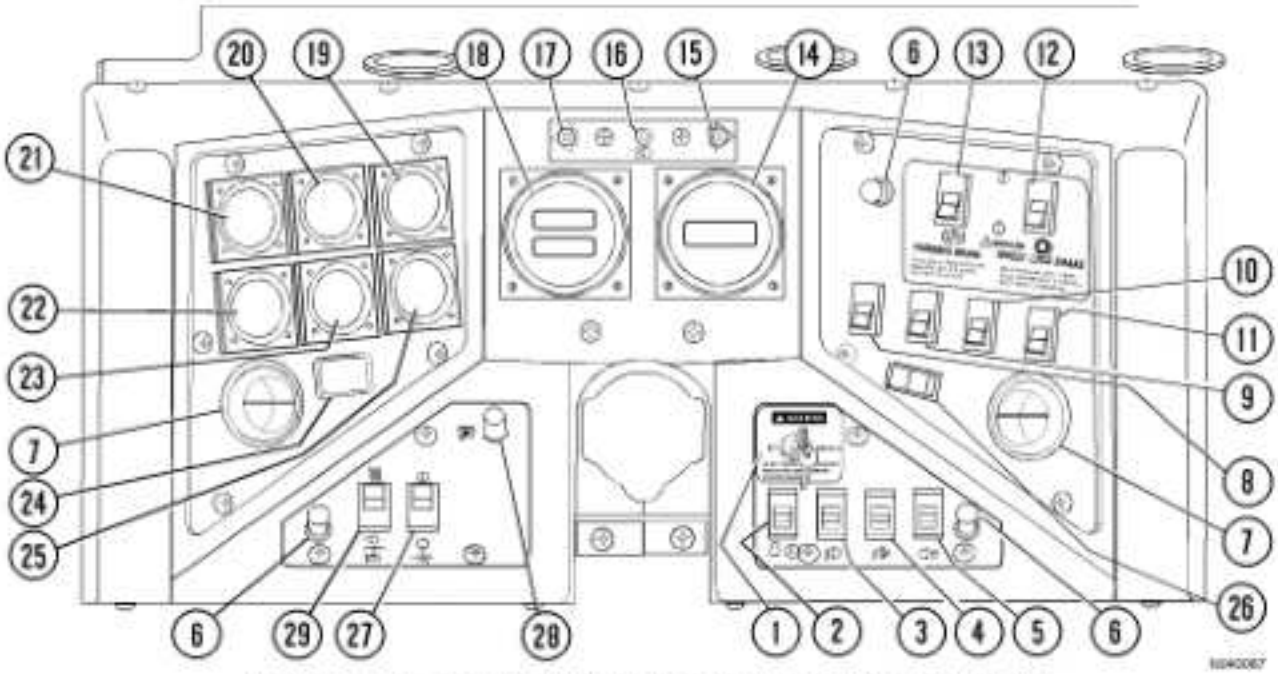


FIGURE 32-11. PANEL, GAUGES, INDICATORS, AND CONTROLS

1. Key Switch
2. Timer Delayed Engine Shutdown Switch
3. Fog Light Switch (Optional)
4. Ladder Light Switch
5. Backup Light Switch
6. Panel Illumination Lights
7. Vent(s) - Cab Air Conditioner/Heater
8. Engine Cold Weather Starting Aid Switch (Optional)
9. Rotating Beacon Light Switch (Optional)
10. Heated Mirror Switch (Optional)
11. Not Used
12. Wheel Brake Lock Switch
13. Parking Brake Switch
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 Display
19. Voltmeter Gauge
20. Engine Oil Pressure Gauge
21. Engine Water Temperature Gauge
22. Fuel Gauge
23. Gauge - Not Used In This Application
24. Engine Hourmeter
25. Gauge - Not Used In This Application
26. Switch - Not Used In This Application
27. Headlight Switch
28. Panel Illumination Lights Dimmer Rheostat
29. Payload Meter Switch

Key Switch

Key switch (1, Figure 32-11) is a three-position (OFF, RUN, START) switch. When the switch is rotated one position clockwise, it is in the RUN position and all electrical circuits (except start) are activated.

With the selector switch in neutral, rotate the key switch fully clockwise to the START position, and hold this position until the engine starts. The START position is spring-loaded to return to RUN when the key is released. With the truck stopped, turn the key switch counterclockwise to OFF for normal engine shutdown. Use the engine shutdown switch on the center console if the engine does not shut off with the key switch.

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



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250 HOUR LUBRICATION AND MAINTENANCE CHECKS

11.	GREASE RESERVOIR - Add grease to the in-frame grease reservoir. When grease is pumped out of the overflow tube, the reservoir is full. Use Lube Key D.			
12.	BATTERIES - Check the electrolyte level and add water, if necessary.			
13.	WHEEL MOTORS - Take an oil sample for oil analysis.			
14.	AC DRIVE BELT - Check the belt for wear or damage. Verify the belt tension is correctly set. Ensure the pulleys are aligned with each other within 3 mm (0.13 in.).			
15.	CAB AIR FILTER - Clean the filter element with mild soap and water. Rinse completely clean, and air dry. In extremely dusty conditions, service as frequently as required. Reinstall the filter. Replace the filters every 2000 hours of service.			
16.	AUTOMATIC LUBE SYSTEM - Perform 250 hour checks as outlined in Automatic Lubrication System, Section 42, in this manual.			

Complete the 10, 50, and 100 hour lubrication and maintenance checks.

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INJECTORS (SL-1 Series H)

Injector Specifications

- Each lubrication injector services only one grease point. In case of pump malfunction, each injector is equipped with a covered grease fitting to allow the use of external lubricating equipment.
- Injector Output Volume:
  Maximum Output =1.31 cc (0.08 in^3)
  Minimum Output = 0.13 cc (0.008 in^3)
- Operating Pressure:
  Minimum - 12755 kPa (1850 psi)
  Maximum- 24133 kPa (3500 psi)
  Recommended - 17238 kPa (2500 psi)
- Maximum Vent Pressure (Recharge):
  4137 kPa (600 psi)

Injector Adjustment

The injectors may be adjusted to supply from 0.13 - 1.31 cc (0.008 - 0.08 in^3) of lubricant per injection cycle. The injector piston travel distance determines the amount of lubricant supplied. This travel is controlled by an adjusting screw in the top of the injector housing.

Turn adjusting screw (1, Figure 42-10) counterclockwise to increase lubricant amount delivered and clockwise to decrease the lubricant amount.

When the injector is not pressurized, maximum injector delivery volume is attained by turning adjusting screw (1) fully counterclockwise until piston assembly (8) touches the adjusting screw. At the maximum delivery point, about 9.7 mm (0.38 in.) adjusting screw threads must be showing. Decrease the delivered lubricant amount by turning the adjusting screw clockwise to limit injector piston travel. If only half the lubricant is needed, turn the adjusting screw to the point where about 4.8 mm (0.19 in.) threads are showing. The injector will be set at the minimum delivery point with about 0.22 mm (0.009 in.) thread showing.

NOTE: The above information concerns adjustment of injector delivery volume. The timer adjustment must also be changed if overall lubricant delivery is too little or too much. Injector output must not be adjusted to less than one-fourth capacity.

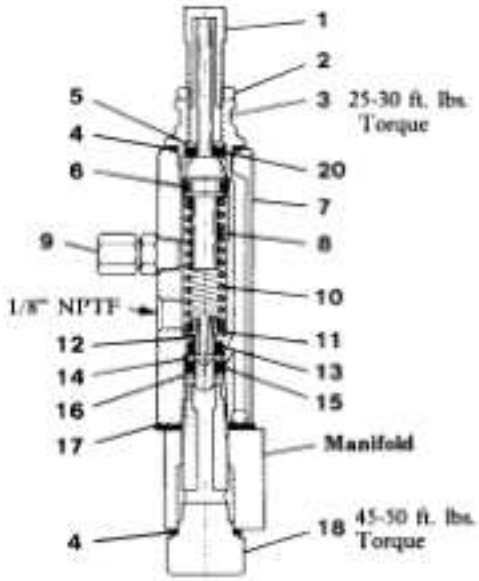


FIGURE 42-10. TYPE SL-1 INJECTOR

1. Adjusting Screw
2. Locknut
3. Piston Stop Plug
4. Gasket
5. Washer
6. Viton O-Ring
7. Injector Body Assembly
8. Piston Assembly
9. Fitting Assembly
10. Plunger Spring
11. Spring Seat
12. Plunger
13. Viton Packing
14. Inlet Disc
15. Viton Packing
16. Washer
17. Gasket
18. Adapter Bolt
19. Adapter
20. Viton Packing

NOTE: Piston assembly (8) has a visible indicator pin at the top of the assembly to verify injector operation.

*NOTE: Piston stop plug (3) must be tightened to **34-41 N·m (25-30 ft lbs)**. Adapter (19) must be tightened to **61-68 N·m (45-50 ft lbs)**.*

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PLM III 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 three 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.

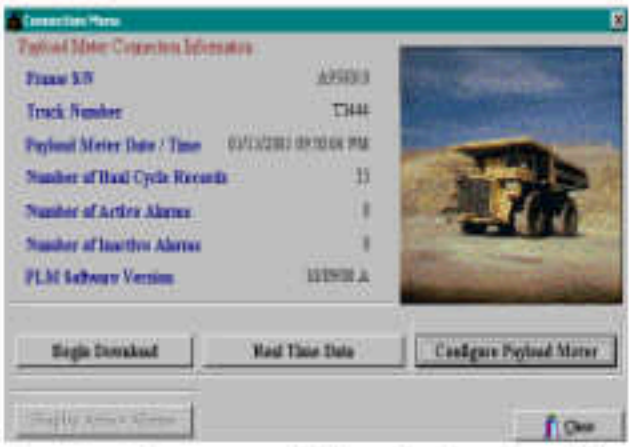
Long Tons: Payload is displayed in long tons, distances and speeds are displayed in Miles.

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.

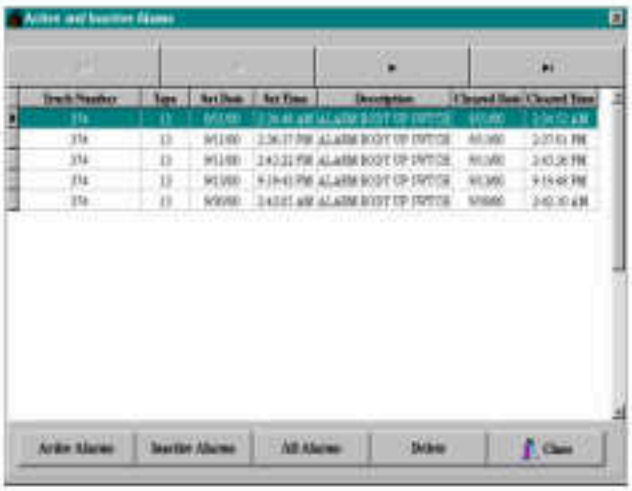
- Frame S/N must agree with the truck serial number from the serial plate located on the truck frame.
- Truck number is an ID number assigned to the truck by the mine.
- The payload meter date/time values come from the payload meter at the moment of connection.
- Number of haul cycle records is the number 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 system on the truck.

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Viewing Alarms

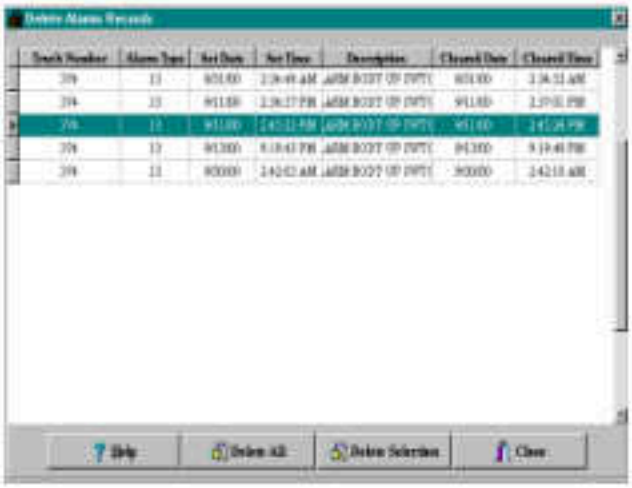
From the payload summary screen, click the "Alarms" button to display the alarm screen. The alarms are sorted by the query settings from the payload summary screen. Alarms can be displayed as active or inactive.



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.



PORTIONS OF THIS PRODUCT RELATING TO PAYLOAD MEASURING SYSTEMS ARE MANUFACTURED UNDER LICENSE FROM

L.G. HAGENBUCH holder of
U.S. Patent Numbers 4,831,539 and 4,839,835

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