CEBM014900

Shop Manual

830E

DUMP TRUCK

SERIAL NUMBERS **A30733 - A30815**

KOMATSU®

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SECTION A

GENERAL INFORMATION

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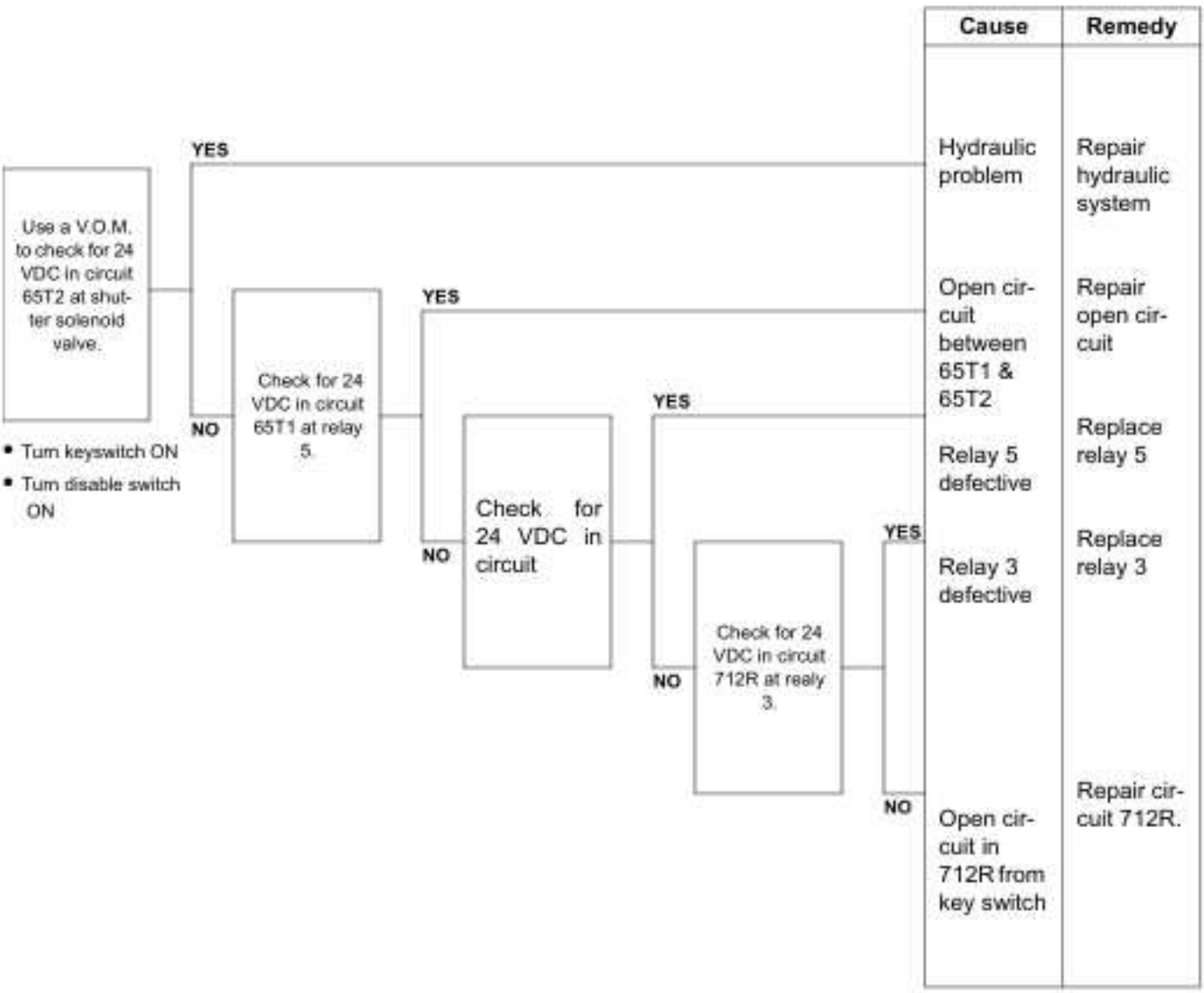
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COOLANT LEVEL CHECK

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

Radiator Filling Procedure

⚠WARNING

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.

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

Anti-Freeze Specifications

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

RESERVE ENGINE OIL SYSTEM (Optional)

The reserve oil tank for the engine is designed to add more oil capacity to the engine to reduce the frequent servicing of the engine oil. The engine oil level must still be checked every shift using the dipstick. If engine oil level is not correct, check for proper operation of reserve oil system. Never add oil to engine unless it has been drained.

If the engine oil has been drained from the oil pan, the new oil must be added to the engine oil pan before starting. DO NOT use the oil in the reserve tank to fill an empty engine with oil. After an oil change, both engine and reserve tank must be full of oil before starting the engine.

Reserve Oil Tank Filling Procedure (Remote fill)

1. Connect the pressure supply hose from the new oil supply to the quick coupler on the truck. Open valve on supply hose to apply pressure.
2. Pull out on switch (2) to turn the system ON.
3. Push start switch (3). The "Valve Open" light (5) should illuminate and the filling process will begin.
4. When tank is full, the "Valve Open" light will turn OFF and the FULL light (4) will illuminate.
5. Close the oil supply valve in the fill hose.
6. Press and hold start switch (3) for several seconds.
7. Disconnect the new oil supply hose.
8. Push switch (2) in to turn system power OFF

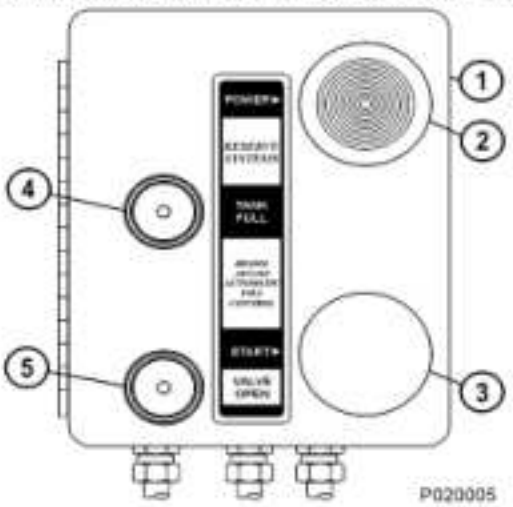
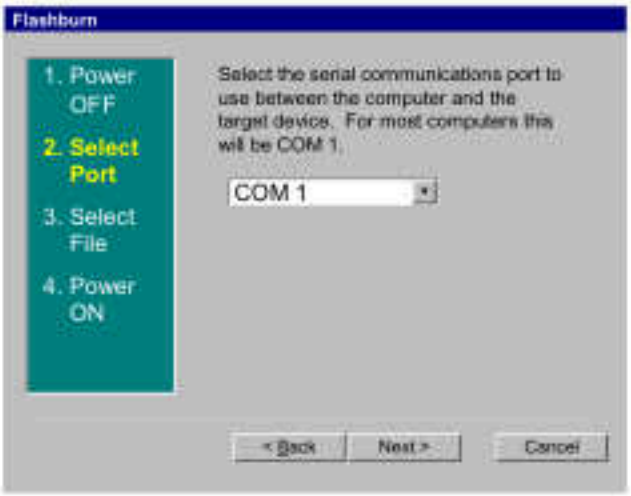


FIGURE 2-1. RESERVE SYSTEM CONTROL

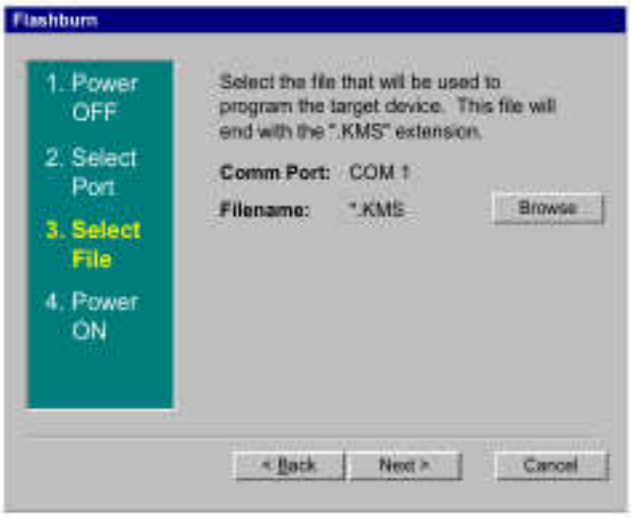
1. Remote Control Box
2. System Switch
3. Start Switch
4. "Full" Light
5. "Valve Open" LighT

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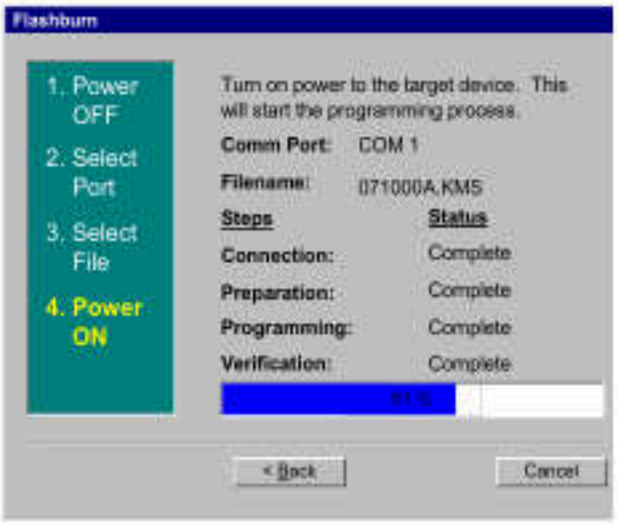
4. Confirm the proper communications port for the programming laptop. This is usually COM 1. Press "NEXT".



5. Press "BROWSE" and select the ".kms" file to program into the payload meter. Press "NEXT".



6. When instructed, turn the keyswitch ON in order to power-up the payload meter. The PC will begin to reprogram the payload meter. This process takes approximately 5 minutes.



7. After successful programming, turn the key witch OFF.
8. Wait 20 seconds and turn the keyswitch ON.
9. The payload meter will need to be configured as instructed in the manual using the Payload Data Manager software on the laptop computer.

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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 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

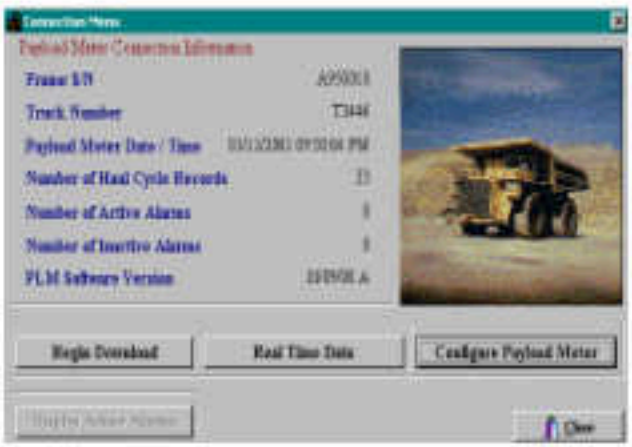
Long Tons: Payload is displayed in long tons, distances and speeds are displayed in Miles

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

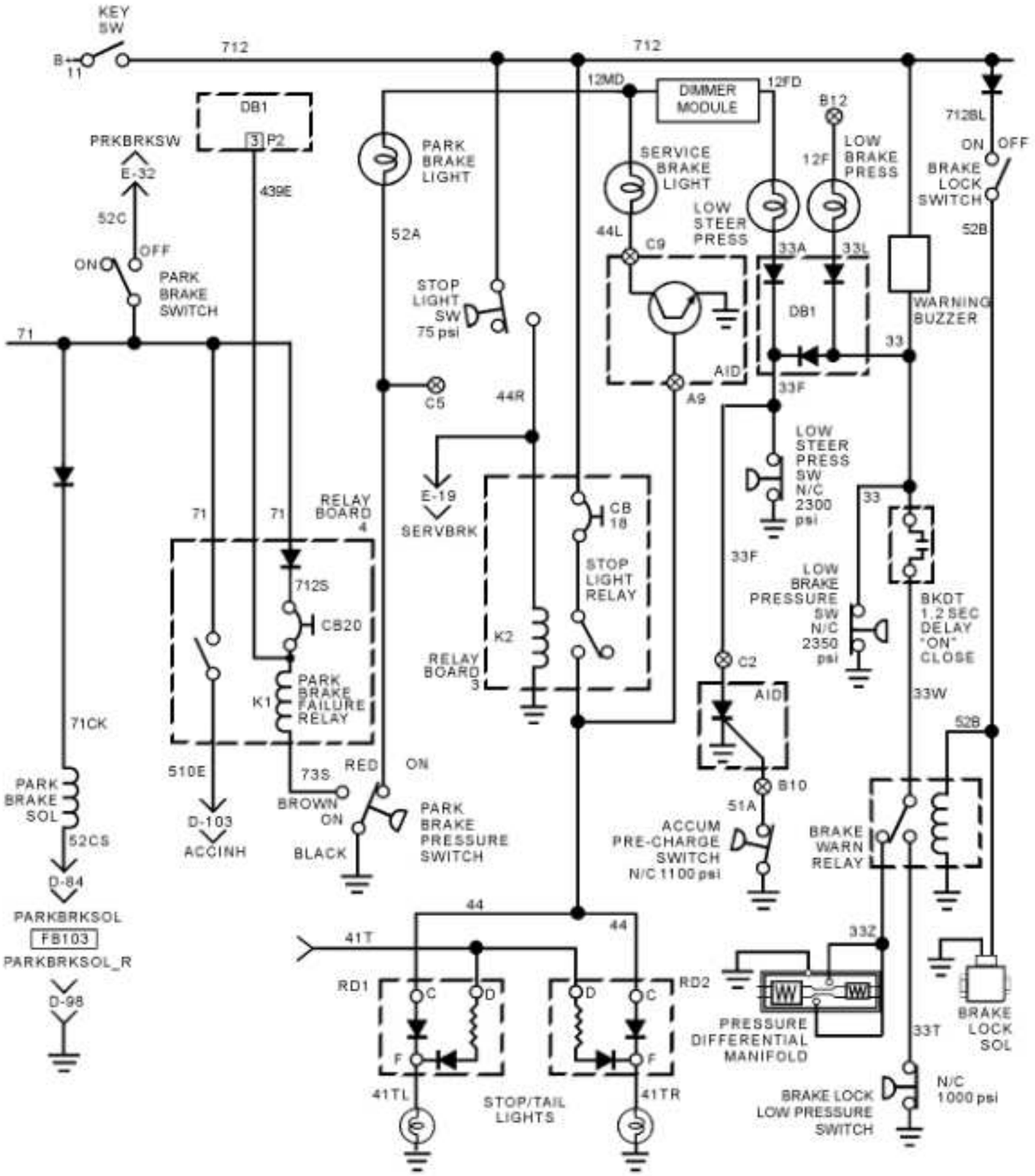


The connection screen displays basic system information to the user.

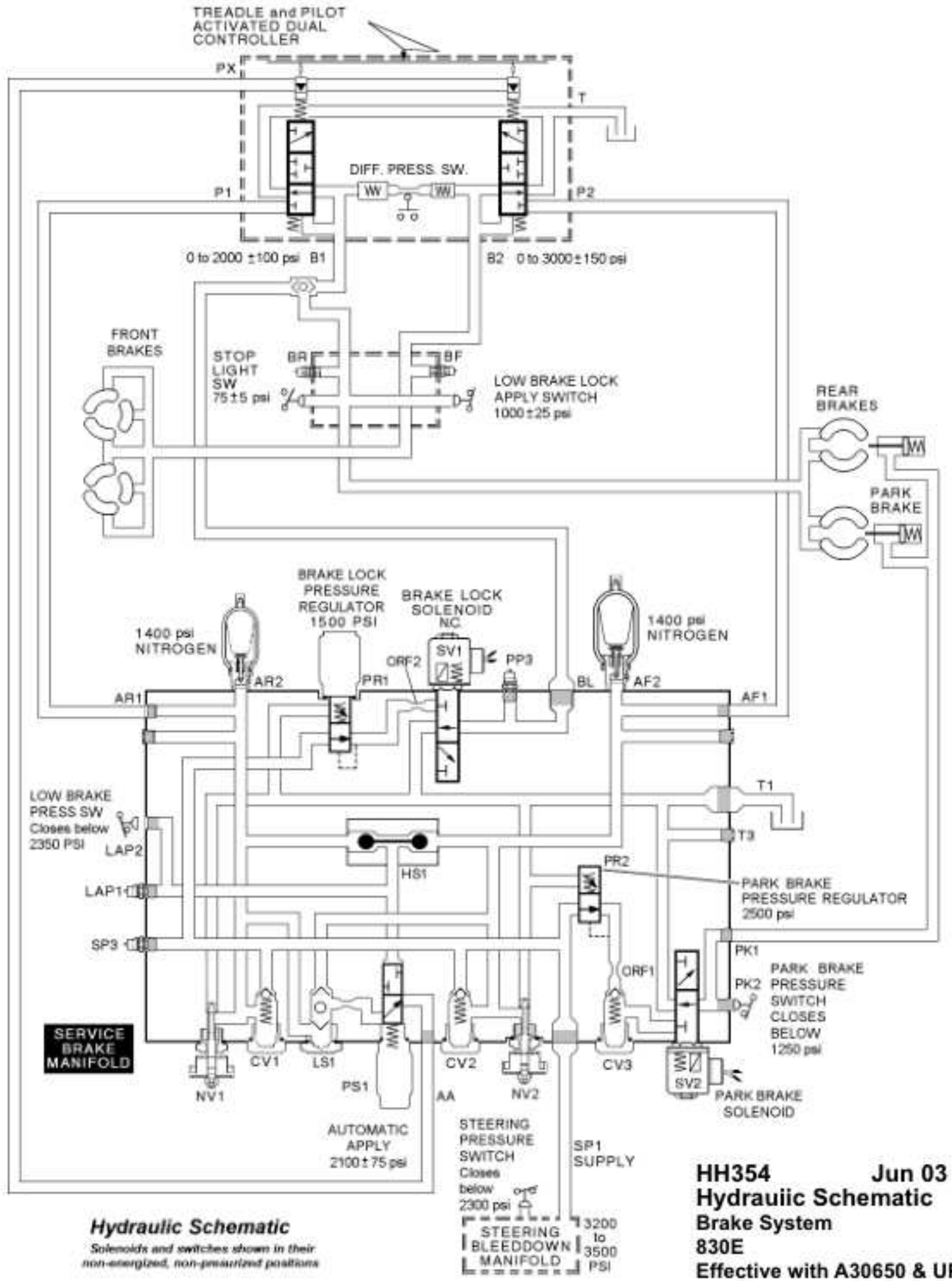
- Frame S/N should agree with the truck serial number from the serial plate located on the truck frame.
- Truck Number is an ID number assigned to the truck by the mine.
- The Payload Meter Date / Time values come from the payload meter at the moment of connection.
- Number of Haul Cycle Records is the 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 system on the truck.

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Electrical Schematic



Hydraulic Schematic

Solenoids and switches shown in their non-energized, non-pressurized positions

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Hydrauiic Schematic
Brake System
830E
Effective with A30650 & UP

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