Shop Manual

CEBM008501



730E

DUMP TRUCK
with TROLLEY ASSIST

SERIAL NUMBER **A30197 - A30200**

KOMATSU®

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STATEX III ELECTRICAL SYSTEM CHECKOUT PROCEDURE

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d. From 74N to 710:

- ❑ Read .09 ±.10 vdc.

3. With retard pedal depressed just until retard contactors pick up, measure the voltage between the following circuits:

a. From 74N to 710:

- ❑ Read 0.20 ±.20 vdc. If out of tolerance replace RET card.

b. From 54N to 710:

- ❑ Read 2.60 ±.50 vdc. If out of tolerance, replace retard pedal potentiometer.

c. DDEC equipped trucks only:

- ❑ Use the DDR to read PTO counts or measure voltages at circuits 510(+) to 952(-) shown in the following table:

ACC CARD	VOLTS	PTO COUNTS	ACTION IF OUT OF TOLERANCE
TZ6661	2.77 (approx.)	150 ±2	Replace ACC card
EB2635	3.63 (approx.)	162 ±2	Replace ACC card
EC1806	3.04 (approx.)	162 ±2	Adjust Pot P2 on ACC card

4. With retard pedal fully depressed, measure the voltage between the following circuits:

a. From 74N to 710:

- ❑ Read 15.50 ±.25 vdc. If out of tolerance replace RET card.

b. From 54N to 710:

- ❑ Read 12.50 vdc minimum. If out of tolerance replace retard pedal resistor.

c. DDEC equipped trucks only:

- ❑ Use the DDR to read PTO counts or measure voltages at circuits 510(+) to 952(-) shown in the following table:

ACC CARD	VOLTS	PTO COUNTS	ACTION IF OUT OF TOLERANCE
TZ6661	2.77 (approx.)	150 ±2	Replace ACC card
EB2635	3.63 (approx.)	162 ±2	Replace ACC card
EC1806	3.04 (approx.)	162 ±2	Adjust Pot P2 on ACC card

5. Depress the throttle pedal fully, and again read the PTO Counts. If values change replace ACC Card. Release throttle and retard pedals.

1.2.2 Electronic Retard Pedal; Fuel Saver Equipped Trucks and Current Production.

- Refer to Section 1.1.2 for both, accelerator and retard pedal setup instructions.

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OIL AND NITROGEN SPECIFICATIONS CHART

HYDRAIR® II OIL SPECIFICATIONS			
Ambient Temperature Range	**Part No.**	**Approved Sources**	
-30°F & above (-34.5°C & above)	VJ3911 (need to add 6% of AK3761)	Mobil 424 Mobil D.T.E. 15 Texaco TDH Oil AMOCO ULTIMATE Motor Oil 5W-30	Sunfleet TH Universal Tractor Fluid Chevron Tractor Hydraulic Fluid- Conoco Power Tran III FluidPetro Canada Duratran Fluid Shell Canada Donax TDL
	AK4063	Suspension Oil (premixed with 6% Friction Modifier)	5 Gallon container
	AK4064		55 Gallon container
-55°F & above (-48.5°C & above)	VJ5925 (need to add 6% of AK3761)	Emery 2811, SG-CD, 5W-30 Mobil Delvac I, 5W-30	Petro Canada Super Arctic Motor Oil, 0W-30 Conoco High Performance Synthetic Motor Oil, 5W-30
	AK4065	Suspension Oil (premixed with 6% Friction Modifier)	5 Gallon container
	AK4066		55 Gallon container
NOTE: *VJ3911 and VJ5925 oils are not compatible and must not be mixed in a suspension. VJ3911 and VJ5925 oils are supplied in 5 gallon (19 Liter) cans.*			

FRICTION MODIFIER	FRICTION MODIFIER Mixing Instructions (94% Suspension oil, 6% Friction Modifier)	
Part Number	**Suspension Oil**	**Amount of Friction Modifier to add**
AK3761 (5 Gallon container of 100% Friction Modifier)	1 gallon of suspension oil	add 7.7 oz.
	5 gallons of suspension oil	add 38.4 oz.
	55 gallons of suspension oil	add 3.3 gal.

NITROGEN GAS (N_2)SPECIFICATIONS		
	Property	**Value**
Nitrogen gas used in HYDRAIR® II Suspension Cylinders must meet or exceed CGA specification G-10.1 for Type 1, Grade F Nitrogen Gas	Nitrogen	99.9% Minimum
	Water	32 PPM Maximum
	Dew Point	-68°F (-55°C) Maximum
	Oxygen	0.1% Maximum

FIGURE 4-5. SPECIFICATIONS CHART

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TROUBLE: Engine runs cold, Fan runs continously at engine speed

POSSIBLE CAUSES	SUGGESTED CORRECTIVE ACTION
Control pressure line restricted, not allowing oil to exhaust from clutch.	Relieve Restriction.
Cooling system bypassing excessive water.	Repair in accordance with engine manufacturer's recommendations.
Thermostat seal leaking.	Replace seal and/or thermostat.
Thermostat stuck open.	Replace thermostat.
Compressor override system (If vehicle is equipped with air conditioning and override controls).	Check components of the system to insure false signal is not being sent to solenoid causing full lockup.

TROUBLE: Fan drive cycles off and on continuously at abnormally high rate.

POSSIBLE CAUSES	SUGGESTED CORRECTIVE ACTION
Coolant level low.	Fill radiator to proper level.
Radiator partially plugged internally or externally causing too much heat retention.	Clean radiator.
Heat range setting of thermostat and thermal sensor not compatible.	Replace either thermostat or thermal sensor with correct temperature setting to obtain proper sequential operation. (Refer to Parts Catalog).

TROUBLE: Noisy operation

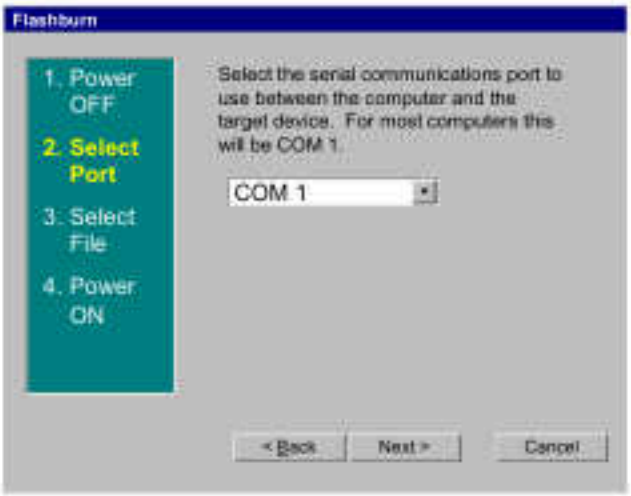
POSSIBLE CAUSES	SUGGESTED CORRECTIVE ACTION
Noise originating elsewhere, but "telegraphing" to appear as though fan clutch is noisy.	On some engines, a severe noise originates in the air conditioner compressor and telegraphs thru belts to be heard in fan clutch. Check using steps below. If OK, fan clutch is OK.
Internal wear.	Move fan blade tip in and out between engine and radiator. There should be no forward-rearward movement of the fan mounting hub. If movement exists, replace or repair fan drive. With clutch locked up by an external oil pressure source, rotate fan tip clockwise-counterclockwise. OK if within specs shown in item 9b page M6-5. If excessive movement is found, replace or repair fan drive. Excessive wear has occurred between tangs of steel plates and driving slots in bearing retainer.

TROUBLE: Fan clutch squeals as it engages

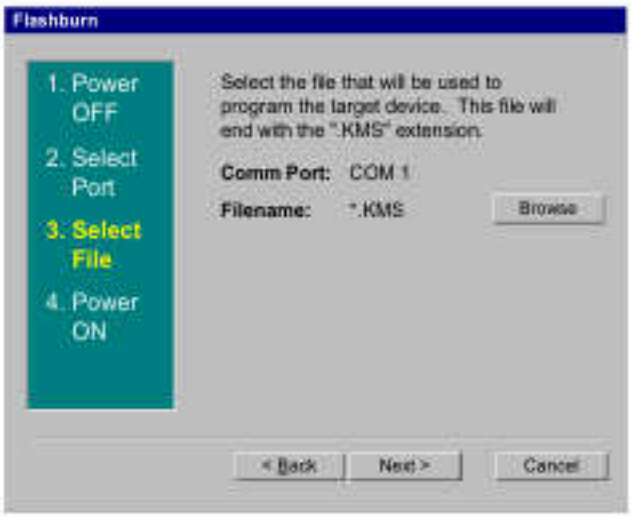
POSSIBLE CAUSES	SUGGESTED CORRECTIVE ACTION
Bolts securing fan to fan mounting hub too long and contacting front retainer.	Remove and replace with bolts of proper length. Grade 8 bolts required. Check to insure bearings in clutch are not damaged.
Check for forward-reverse and axial movement on fan. If movement exists	Replace or repair fan clutch. Bearings may be failed. Determine cause of oil starvation.

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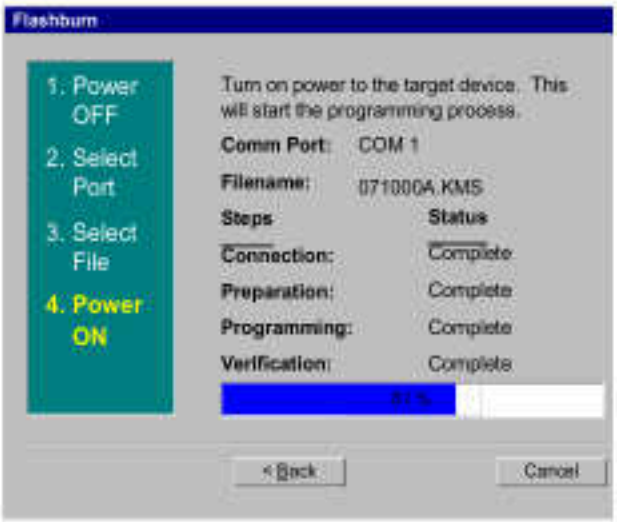
4. Confirm the proper communications port for the programming laptop. This is usually COM 1. Press "NEXT".



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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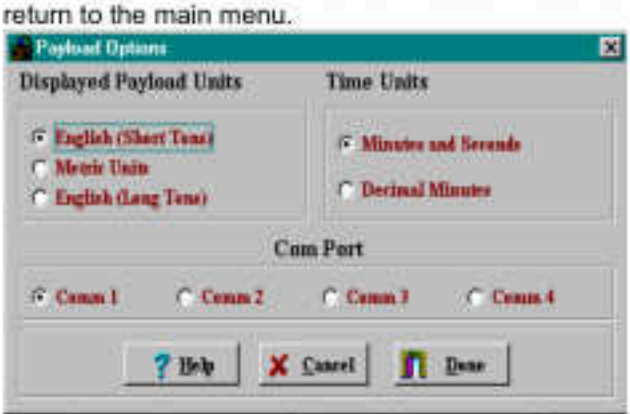
PLMIII System Configuration

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

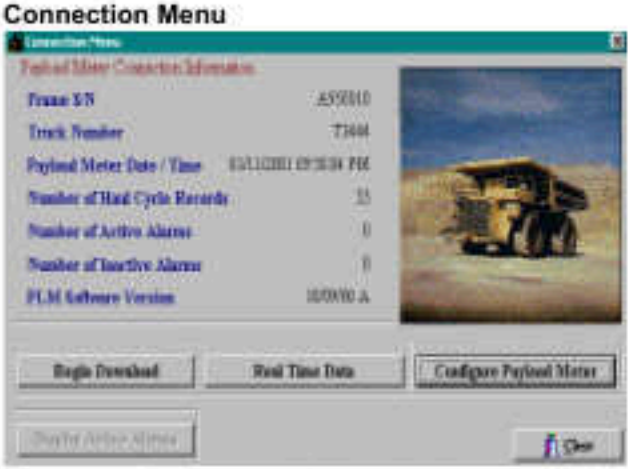
Metric Tons: Payload is displayed in metric tons, distances and speeds are displayed in Kilometers

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

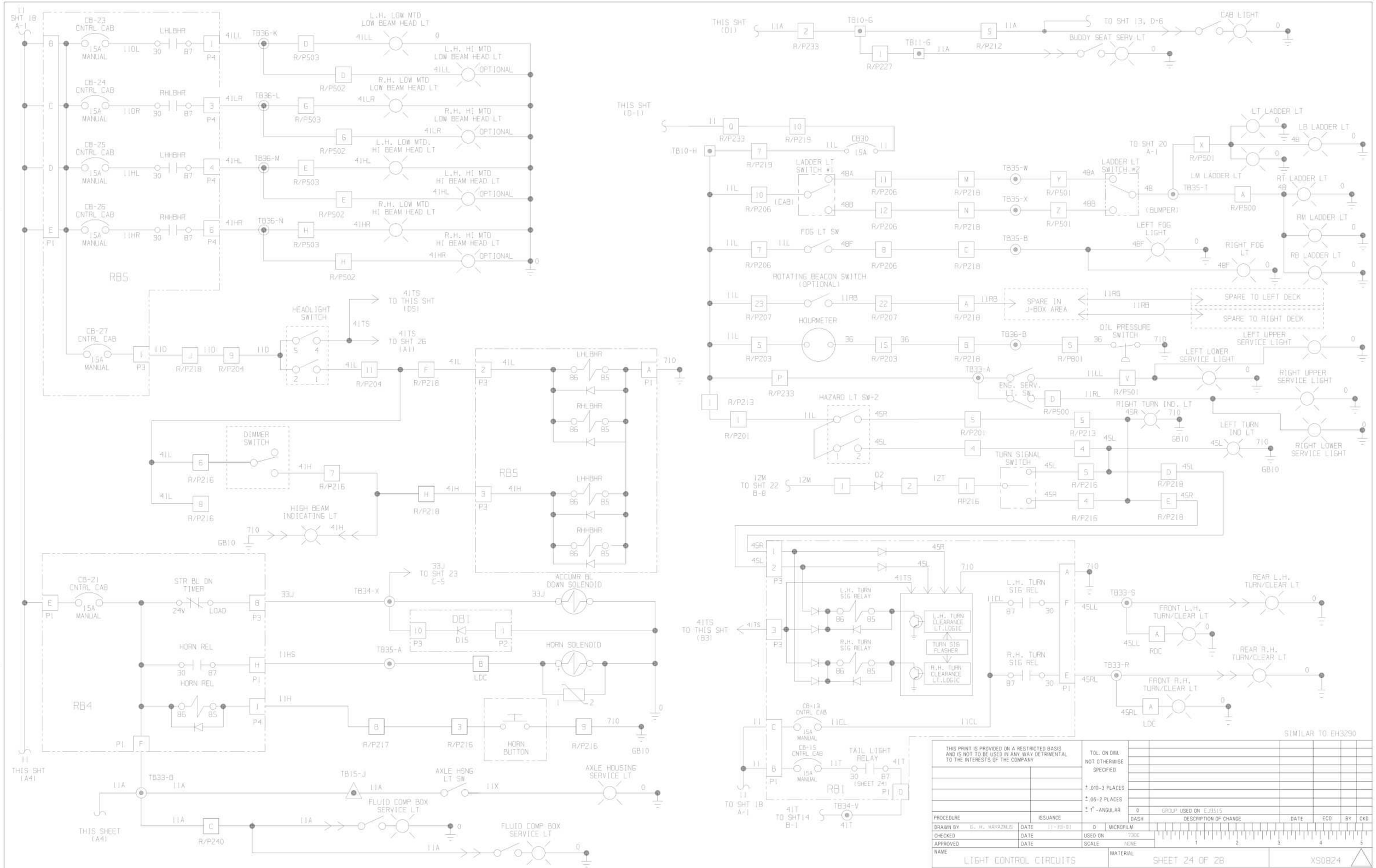


The connection screen displays basic system information to the user.

- 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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TOL. ON DIM. NOT OTHERWISE SPECIFIED
± .010-3 PLACES
± .06-2 PLACES
± 1°-ANGULAR

PROCEDURE	ISSUANCE

DASH	DESCRIPTION OF CHANGE	DATE	ECO	BY	CKD
0	GROUP USED ON EJ515				

DRAWN BY	E. H. HARAZMUS	DATE	11-19-01
CHECKED		DATE	
APPROVED		DATE	

D MICROFILM
USED ON 730E
SCALE NONE

NAME: LIGHT CONTROL CIRCUITS
MATERIAL: SHEET 24 OF 28
XS0824

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