DG744

Shop Manual



330M

DUMP TRUCK

SERIAL NUMBERS **A10212 - A10223**

KOMATSU®

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SECTION A

GENERAL INFORMATION

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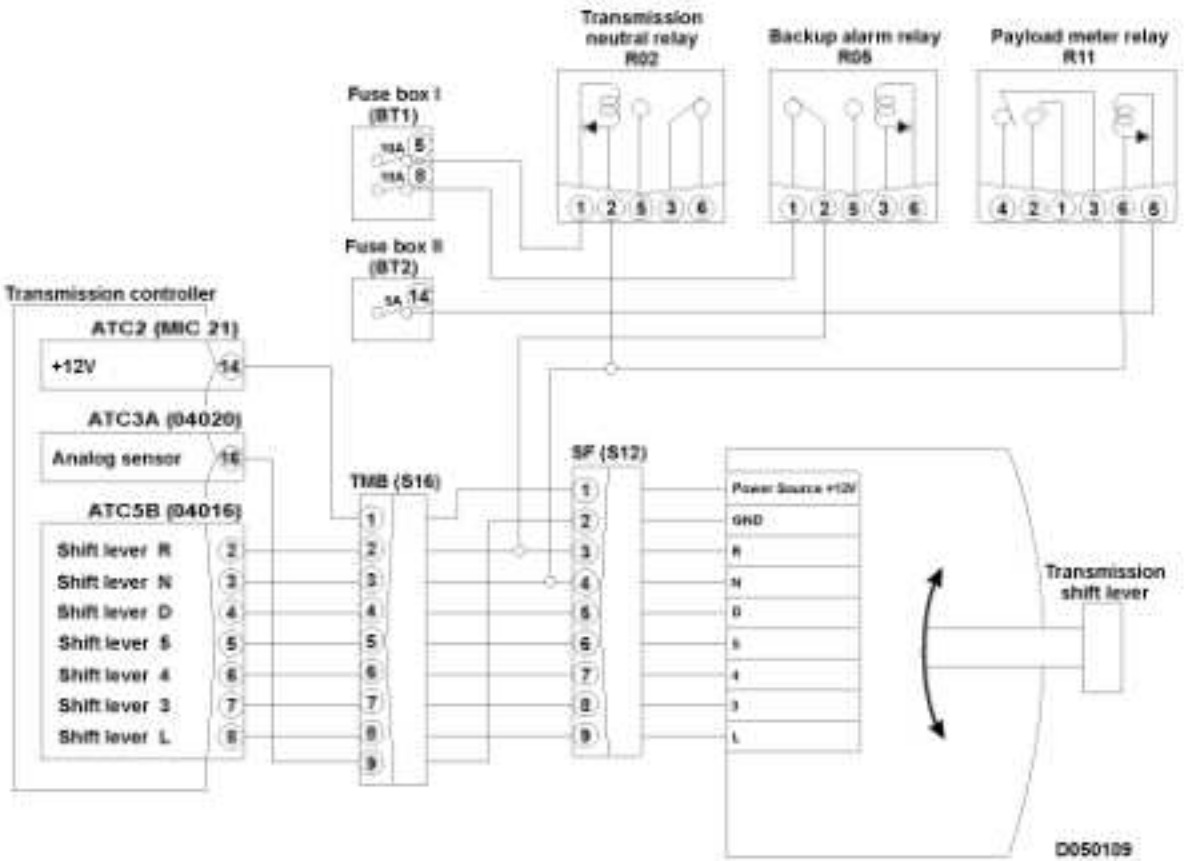
STANDARD VALUE TABLES A6-1

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Table 1.

Abnormal system	System with failed wiring harness
N	SF (4) - ATC5B (3) - transmission neutral relay R02 (2) - payload meter relay R11 (6)
R	SF (3) - ATC5B (2) - backup alarm relay R06 (2)
D	SF (5) - ATC5B (4)
5	SF (6) - ATC5B (5)
4	SF (7) - ATC5B (6)
3	SF (8) - ATC5B (7)
2	SF (9) - ATC5B (8)

A-11 b) Related electrical circuit diagram



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FAULT CODE LAMP	PID (P) SID (S)	SPN FMI	REASON	EFFECT (Only when fault code is active)
172 Red	S023	638 6	Fuel control rack is stuck in a position commanding excessive fueling to the engine	Engine shutdown
173 Yellow	S023	638 7	Fuel control rack is stuck in a position providing adequate, or less than adequate, fueling to the engine.	No action is taken by the ECM.
184 Red	S233	609 2	Primary and/or secondary ECM identification error.	Module identification at powerup will fail, both modules will run as slaves.
221 Yellow	P108	108 3 or 4	More than 4.78 volts is detected at the ambient air pressure signal pin 32 of the engine harness.	No action is taken by the ECM.
222 Yellow	P108	108 4	Less than 0.20 volts is detected at the ambient air pressure signal pin 32 of the engine harness.	No action is taken by the ECM.
231 Yellow	P109	109 3	More than 4.72 volts is detected at the coolant pressure sensor signal pin 24 of the engine harness.	Engine protection for coolant pressure is disabled.
232 Yellow	P109	109 3	Less than 0.33 volts is detected at the coolant pressure sensor signal pin 24 of the engine harness.	Engine protection for coolant pressure is disabled.
233 Blue	P109	109 1	Low coolant pressure has been detected. Voltage signal at coolant pressure siganl pin 24 of the engine harness indicates coolant pressure lower than 28 kPa (4 psi) at 800 rpm; 41 kPa (6psi) at 13000 rpm; 76 kPa (11psi) at 1800 rpm kPa (15 psi) above 2100 rpm.	Calibration dependent progressive power and speed derate and engine shutdown with increasing time after alert.
234 Red	P190	190 0	Engine speed signals on pin 17 of the engine harness indicate an engine speed greater than 2650 rpm.	The EHAB (fuel shutoff valve) is de-energized, (closed). The EHAB (fuel shutoff valve) is reenergized (opened) when engine speed falls below 2130 rpm.
235 Blue	P111	111 1	Low coolant level has been detected. Voltage signal on the coolant level signal pin 37 of the engine harness indicates low radiator coolant level in the vehicle.	Calibration-dependent progressive power and speed derate, and engine shutdown with increasing time after alert.
252 Yellow	P098	098 2	Low voltage detected at the lubricating oil level sensor supply pin 49 of the engine harness.	No action taken by the ECM.
253 Blue	P098	98 1	Voltage signal on the oil level signal pin 49 of the engine harness indicates low oil level in the engine.	Engine will not start.
254 Red	S017	632 4	Less than 16.5 volts detected at fuel shutoff valve solenoid supply pin 43 of the engine harness.	No action is taken by the ECM. Low voltage to the EHAB will cause it to stop fuel flow to teh corresponding pump, and shut down that engine bank.
259 Red	S017	632 7	EHAB (fuel shutoff valve) is open and will not close.	ECM commands rack position to xero, which stops fueling corresponding engine bank.
342 Red	S253	630 13	The primary and secondary ECM calibrations do not match.	Engine will not start.
343 Yellow	S254	629 12	Microprocessor communication error internal to the ECM.	Variable; performance will or will not be affected.
346 OFF	S253	630 12	ECM power down internal data store error.	Power down data (which includes maintenance monitoring, current ECM/engine delta times, and past fault data) are lost.
415 Blue	P100	100 1	Very low oil pressure has been detected. Voltage signal at oil pressure signal pin 33 of the engine harness indicates oil pressure lower than 800 rpm; 121 kPa (17.5 psi) at 1200 rpm; 207 kPa (30 psi) at engine speeds greater than 1600 rpm.	Calibration dependent progressive power and speed derate and engine shutdown with increasing time after alert.
422 Yellow	P111	111 2	Voltage detected simultaneously on both the coolant level high and low signal pins 27 and 37 of the OEM interface harness, or no voltage detected on either pin.	No action taken by the ECM.
431 Yellow	P091	091,607 2 or 4	Voltage detected simultaneously on both the idle validation, off-idle and idle-signal pins 25 and 26 of the OEM interface harness.	None on performance.

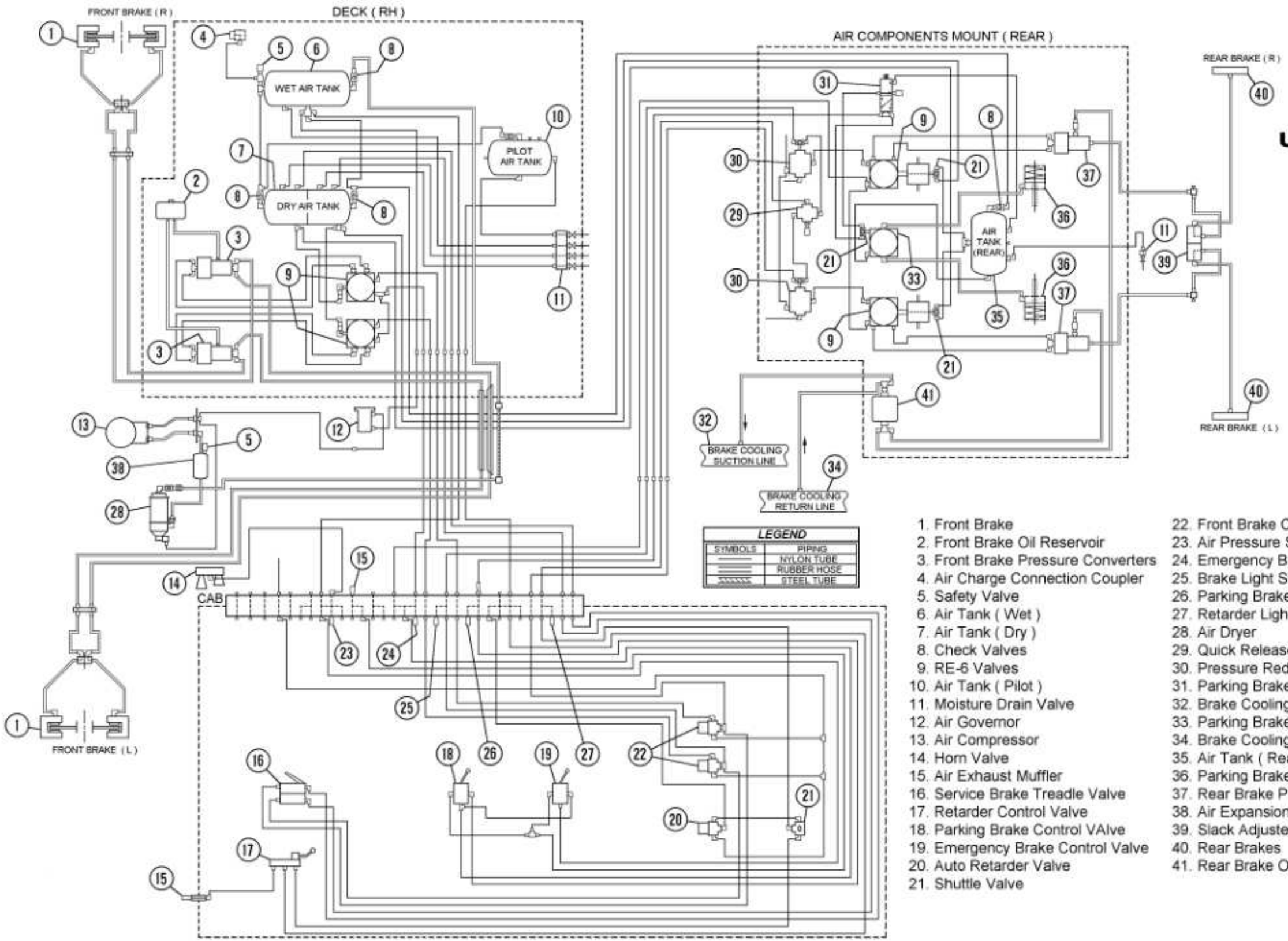
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AIR DRYER TROUBLESHOOTING (Continued)

Problem: Water accumulation in air system (tanks).

Possible Cause	Remedy
Desiccant is contaminated.	Replace desiccant cartridge.
The air compressor capacity is too low for vehicle.	Install larger air compressor and replace desiccant cartridge.
Bleed valve is malfunctioning.	Clean cavity. Replace bleed valve assembly.
The line between the purge tank and the air dryer purge port is missing, leaking, or damaged.	Install or replace the air line, or tighten the fittings.
Line between the compressor and air dryer too short (Insufficient pre-cool) .	Fit new line with a minimum length of 6 ft. (1.83 m) copper line or 12 ft. (3.66 m) of steel braided teflon.

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1. Front Brake
2. Front Brake Oil Reservoir
3. Front Brake Pressure Converters
4. Air Charge Connection Coupler
5. Safety Valve
6. Air Tank (Wet)
7. Air Tank (Dry)
8. Check Valves
9. RE-6 Valves
10. Air Tank (Pilot)
11. Moisture Drain Valve
12. Air Governor
13. Air Compressor
14. Horn Valve
15. Air Exhaust Muffler
16. Service Brake Treadle Valve
17. Retarder Control Valve
18. Parking Brake Control VAlve
19. Emergency Brake Control Valve
20. Auto Retarder Valve
21. Shuttle Valve
22. Front Brake Cut Off Valve
23. Air Pressure Sensor Switch
24. Emergency Brake Switch
25. Brake Light Switch
26. Parking Brake Switch
27. Retarder Light Switch
28. Air Dryer
29. Quick Release Valve
30. Pressure Reducing Valve
31. Parking Brake Relay Valve
32. Brake Cooling Suction Line
33. Parking Brake Relay Valve
34. Brake Cooling Return Line
35. Air Tank (Rear)
36. Parking Brake Actuators
37. Rear Brake Pressure Convertors
38. Air Expansion Tank
39. Slack Adjuster
40. Rear Brakes
41. Rear Brake Oil Reservoir

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