CEBM25604

Shop Manual

KOMATSU®

WA380-7

WHEEL LOADER

SERIAL NUMBERS **WA380-7 A64001 and up**

ENGINE **6D107E-2**

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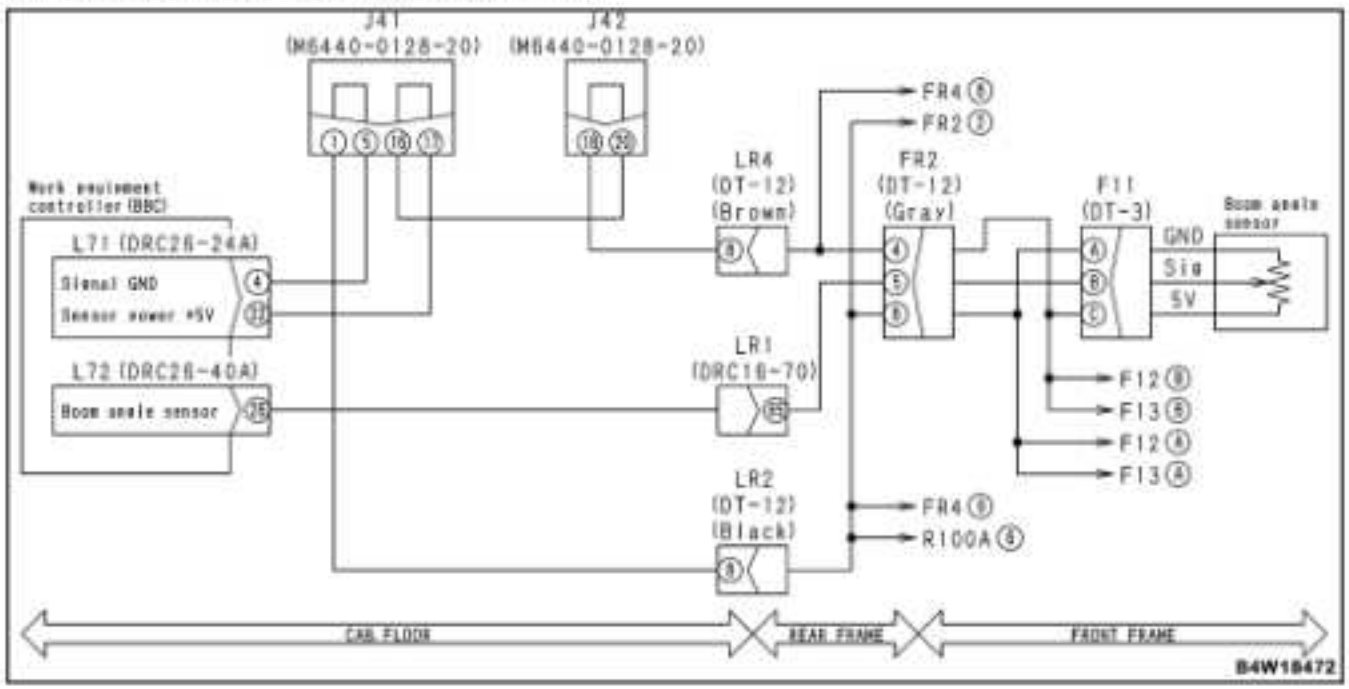
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3. Check before troubleshooting.
   A. Are abnormal symptoms detected in the machine?
   B. Make checks before starting day's work.
   C. Make checks of other items.
   D. Other maintenance items can be checked externally, so check any item that is considered necessary.
4. Confirming the failure.
   A. Confirm the extent of the failure yourself, and judge whether to handle it as a real failure or as a problem with the method of operation, etc.
   B. When operating the machine to reenact the troubleshooting symptoms, do not carry out any investigation or measurement that may make the problem worse.
5. Troubleshooting
   A. Use the results of the investigation and inspection in Steps 2 - 4 to narrow down the causes of the failure, then use the troubleshooting flowchart to pinpoint the position of the failure.
   B. The basic procedure for troubleshooting is as follows.
      i. Start from the simple points.
      ii. Start from the most likely points.
      iii. Investigate other related parts or information.
6. Measures to remove root cause of failure.
   A. Even if the failure is repaired but the root cause of the failure is not repaired, the same failure will occur again.
   B. To prevent this, always investigate why the problem occurred then remove the root cause.

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3	Open circuit in wiring harness (wire breakage or defective contact of connector)	1. Turn starting switch to OFF position. 2. Disconnect connectors L71, L72, and F11, and connect T-adapters to each female side.			
		Resistance	Between F11 (female) (A) and L71 (female) (4)		Max. 1 Ω
			Between F11 (female) (B) and L72 (female) (26)		Max. 1 Ω
			Between F11 (female) (C) and L71 (female) (22)		Max. 1 Ω
4	Ground fault in wiring harness (contact with ground circuit)	1. Turn starting switch to OFF position. 2. Disconnect connectors L71, L72, and F11, and connect T-adapters to female side of any of them.			
		Resistance	Between ground and F11 (female) (B) or L72 (female) (26)		Min. 1 MΩ
5	Defective work equipment controller	If no failure is not found in above checks, work equipment controller is defective. • Reference 1. Turn starting switch to OFF position. 2. Insert T-adapters into connector L72. 3. Turn starting switch to ON position. 4. Operate boom lever to perform troubleshooting.			
		Voltage	Between L72 (26) and ground	Always	1.00 - 4.00 V
				RAISE stroke end	3.50 - 4.00 V
				LOWER stroke end	1.00 - 1.88 V

Circuit Diagram Related to Boom Angle Sensor



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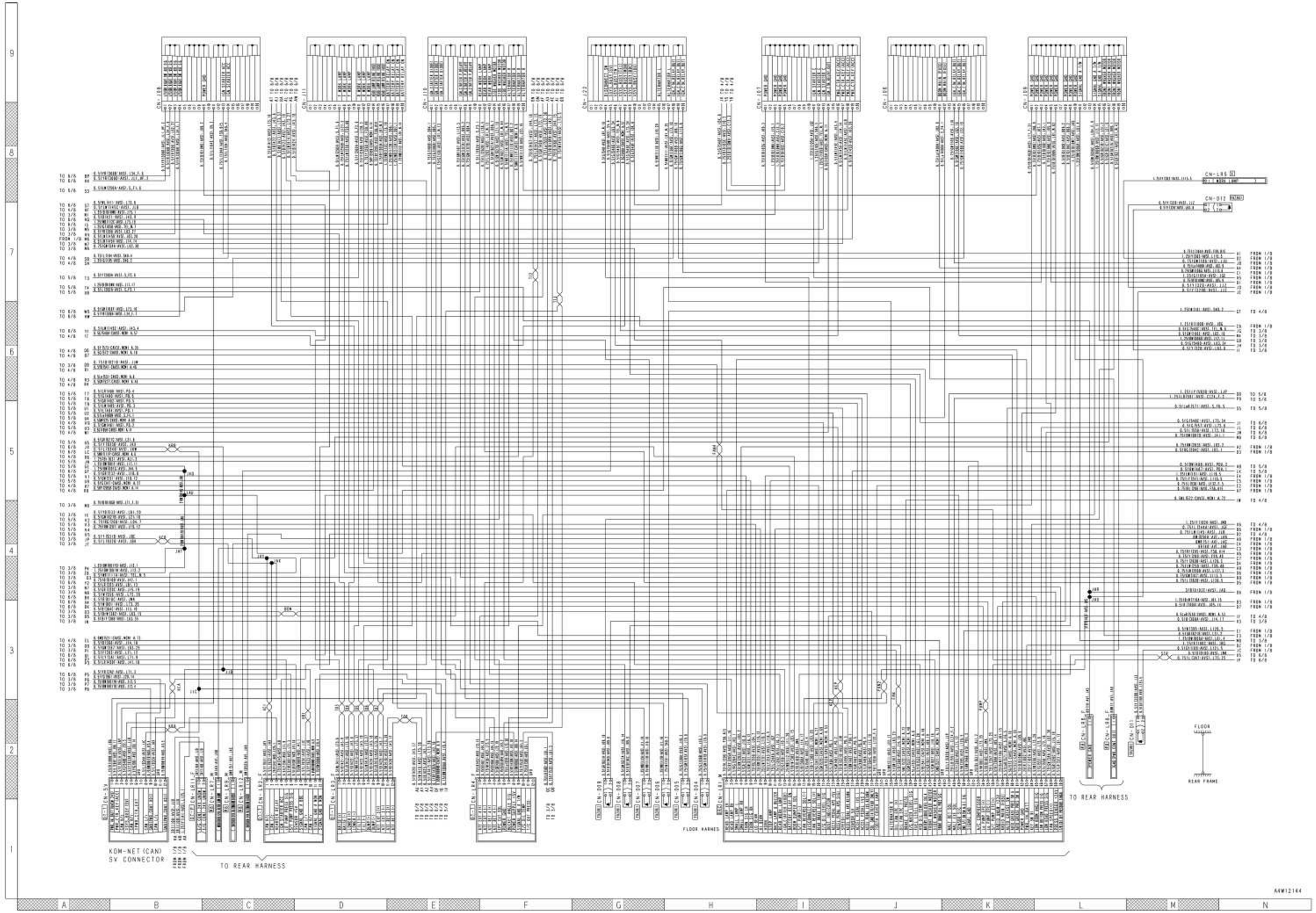
<table>
<tr><td rowspan="9">6</td><td rowspan="9">Defective gear speed clutch ECMV</td><td colspan="4">★ Be ready with engine stopped, then perform troubleshooting with engine running at low idle and 2,000 rpm.</td></tr>
<tr><td>Output pressure of F clutch ECMV</td><td rowspan="7">Gear speed</td><td>F1</td><td>23 ± 1.5 kg/cm² (327 ± 22 psi)</td></tr>
<tr><td>Output pressure of R clutch ECMV</td><td>R1</td><td>23 ± 1.5 kg/cm² (327 ± 22 psi)</td></tr>
<tr><td>Output pressure of 1st clutch ECMV</td><td>F1</td><td>24 ± 1.5 kg/cm² (342 ± 22 psi)</td></tr>
<tr><td>Output pressure of 2nd clutch ECMV</td><td>F2</td><td>24 ± 1.5 kg/cm² (342 ± 22 psi)</td></tr>
<tr><td>Output pressure of 3rd clutch ECMV</td><td>F3</td><td>24 ± 1.5 kg/cm² (342 ± 22 psi)</td></tr>
<tr><td>Output pressure of 4th clutch ECMV</td><td>F4</td><td>24 ± 1.5 kg/cm² (342 ± 22 psi)</td></tr>
<tr><td colspan="4">★ Combination of two gear speed clutches determines gear speed. Check combination of two clutches to be used for selection of gear speed by referring to Table 1.</td></tr>
<tr><td>7</td><td>Defective gear speed clutch</td><td colspan="4">• If measured pressure is low in check on cause (6), oil may leak through clutch seal ring.
• If measured pressure is normal in check on cause (6), clutch may slip.</td></tr>
<tr><td>8</td><td>Defective transmission charge pump</td><td colspan="4">• If measured pressure is unusual in check on cause (3) and main relief valve is normal, disconnect transmission charge pump outlet hose, crank engine, and check that oil flows out.
• Check line filter for foreign materials such as metal particles.</td></tr>
<tr><td>9</td><td>Internal defect of transmission</td><td colspan="4">• If no failure is found by checks on causes 1 to 8, transmission may have internal defect.</td></tr>
<tr><td>10</td><td>Clogged last chance filter</td><td colspan="4">If no failure is found by check on cause (3) but lockup clutch pressure is low or "0", check last chance filter for clogging.</td></tr>
<tr><td>11</td><td>Malfunction of check valve</td><td colspan="4">Check check valve between last chance filter and parking brake solenoid for locking.</td></tr>
<tr><td>12</td><td>Malfunction of parking brake emergency release valve</td><td colspan="4">If turning release valve does not release parking brake, check release valve spool for locking.</td></tr>
<tr><td rowspan="4">13</td><td rowspan="4">Malfunction of parking brake solenoid valve</td><td colspan="4">★ Be ready with engine stopped, then perform troubleshooting with engine at low idle.</td></tr>
<tr><td rowspan="2">Output pressure of parking brake solenoid</td><td rowspan="2">Parking brake switch</td><td>ON</td><td>0 kg/cm² (0 psi)</td></tr>
<tr><td>OFF</td><td>23.1 kg/cm² (329 psi)</td></tr>
<tr><td colspan="4">If oil pressure does not appear with parking brake switch at OFF, check solenoid valve spool for locking.</td></tr>
<tr><td rowspan="2">14</td><td rowspan="2">Defective parking brake</td><td colspan="4">• If no failure is found by check on cause (13), parking brake may be defective.
Check parking brake for worn disc, deformed spring, etc.</td></tr>
<tr><td colspan="3">Parking brake disc thickness</td><td>Min. 2.97 mm (0.12 in)</td></tr>
</table>

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Electric circuit diagram of floor (2/8)

WA380-7

★ This diagram covers optional components that are unavailable in some areas.



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