CEBM002300

Shop Manual

KOMATSU®

WA900-1

WHEEL LOADER

SERIAL NUMBERS **WA900-1LC - A20008** and up

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PRECAUTIONS WHEN TROUBLESHOOTING

1. SAFETY

- Stop the machine on level ground, and check that the safety pins and parking brake are correctly applied, and that the tires are blocked.
- When working in groups, use agreed upon signals and do not allow unauthorized persons near machine.
- Be careful not to get burned by hot parts or get caught in rotating parts.
- Always disconnect the cable from the negative (-) terminals of the battery before disconnecting any wiring.
- Always release the pressure before removing the plugs or caps of any place under hydraulic or air pressure, and connect all measuring tools correctly.

2. METHODS FOR TROUBLESHOOTING

★ Just because a failure occurs, do not immediately start to disassemble the machine.

- The machine may be disassembled in such a way that the problem cannot be located, so the cause of the problem will be unknown.

As a result,

- The customer and operator will lose confidence in you.
- Time will be wasted, and unnecessary costs will be incurred for excess parts and greasing.

To avoid these problems, use the following procedure when troubleshooting.

1) Ask the customer and operator the following questions about the breakdown.

a. Have there been any other problems apart from the one reported?
b. Was there anything unusual before the machine broke down?
c. Did the breakdown occur suddenly, or had there been signs of trouble before?
d. What was the machine doing when break down occurred?
e. Had the machine been repaired before the breakdown? If so, who carried out the repair, and when?
f. Had the same kind of failure occurred before?

2) Check the following items which can be checked simply by visual checks etc.

a. Check oil level.
b. Check for leakage of oil from piping or hydraulic equipment.
c. Check travel of control levers.
d. Check stroke of spool in control valves.

3) Reenact the failure and check the condition of the machine (particular conditions at the time of failure).

a. Ask the user or operator if the decision about the failure was made based on measured values, or by comparison, or by feeling.
b. Compare extent of failure with standard values.
   - Check safety before carrying out any check.
   - Did not make any check or measurement that will make the condition worse.

4) Try to locate the possible causes for the failure.

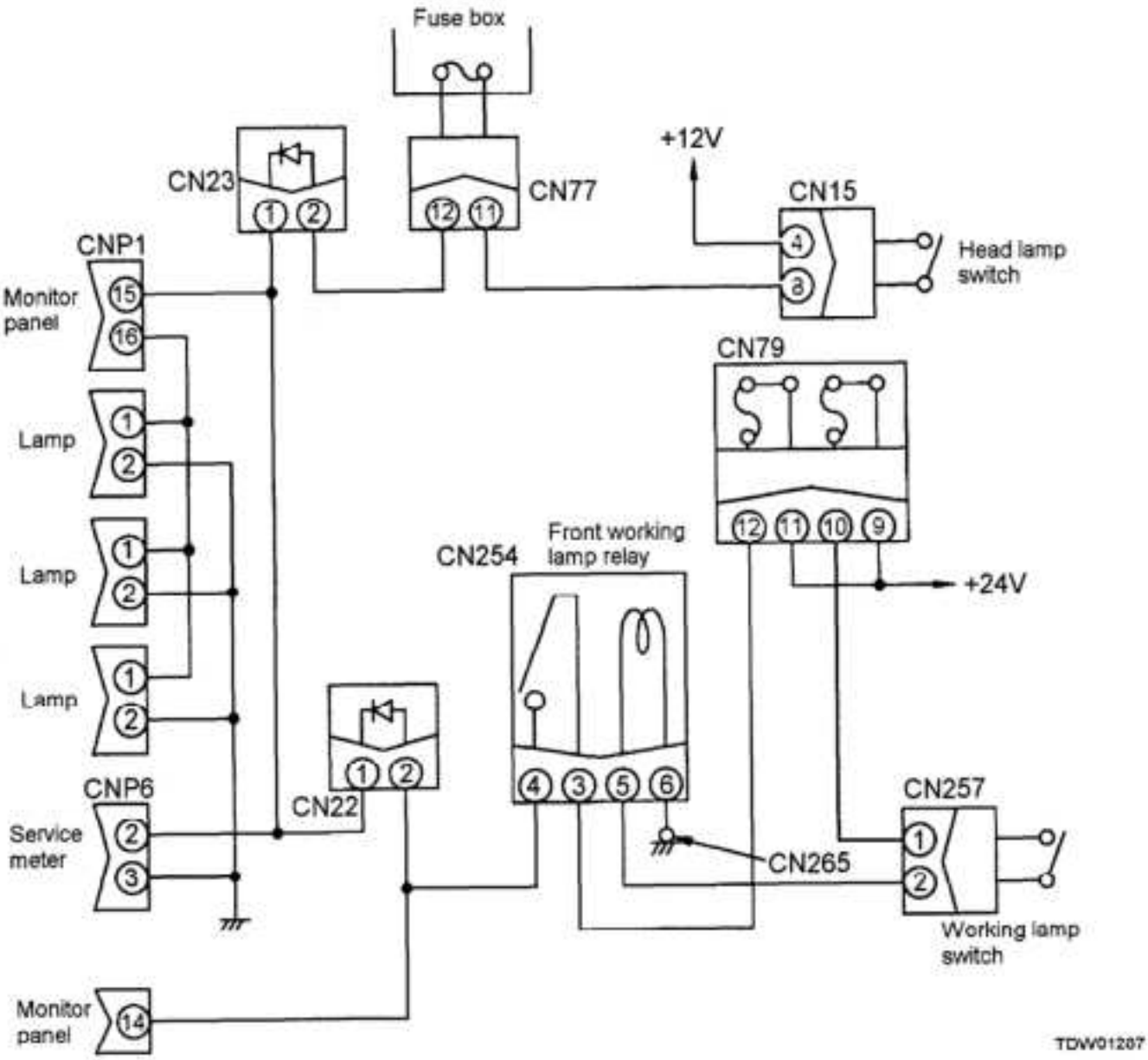
The transmission system consists of the transmission itself, the transmission control valve, and the transmission electrical control.

In particular, when trouble occurs in the transmission system, the probable location of the failure can be divided as follows;

- Transmission itself, or transmission control valve.
- Transmission electric control.

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M-25 Related electrical circuit diagram



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3. Piston rod

1) Install head cover (19) to piston rod (3).
2) Install O-ring (8) and backup rings (7) and (9) to rod.
   ★ Coat the backup ring with grease to prevent it from protruding, and assemble it carefully.

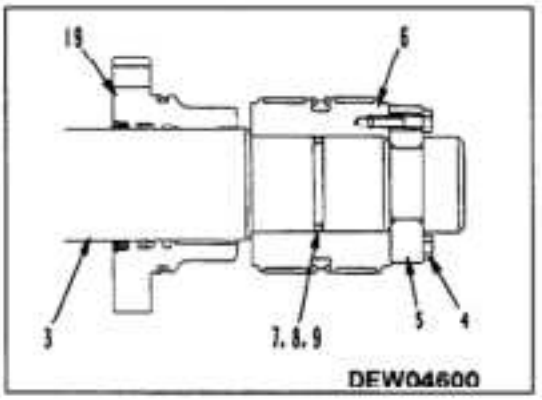
   Backup ring, O-ring: **Grease (G2-LI)**

3) Install piston (6).
4) Set spacer (5) in position, and tighten spacer mounting bolts (4)
   ★ Remove all oil and grease from the mounting bolts and mounting holes.

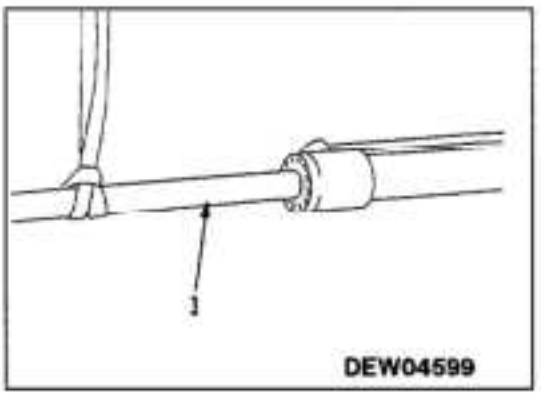
   Mounting bolt: **Adhesive (Locktite 262)**

   Mounting bolt: **110.3 ± 12.3 Nm (11.25 ± 12.3 kgm)**
   (Steering cylinder)

   Mounting bolt: **277.0 ± 31.9 Nm (28.25 ± 3.25 kgm)**
   (Lift, dump cylinder)



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4. Cylinder assembly

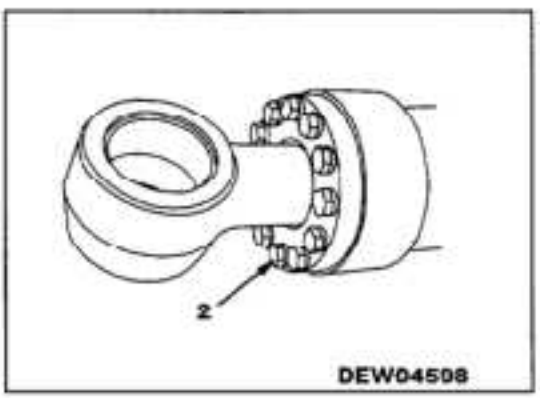
1) Set cylinder in tool **A**.
2) Assemble piston rod (3) in cylinder.
3) Tighten head cover mounting bolts (2).
   ★ Coat the O-ring and backup ring on the cover side with grease.

   Steering cylinder mounting bolt:
   460.9 ± 14.2 Nm (47.0 ± 14.5 kgm)
   (width across flats: 30 mm)

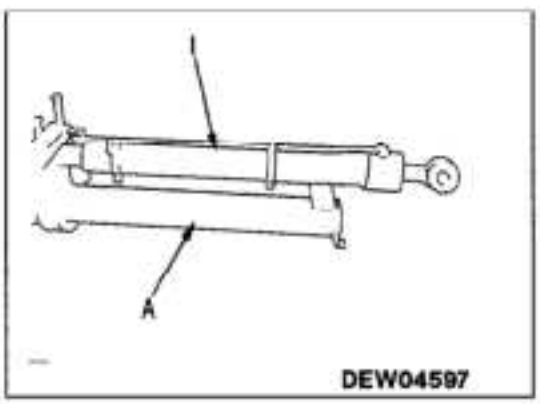
   Dump cylinder mounting bolt:
   2452 ± 245 Nm (250 ± 25 kgm)
   (width across flats: 55 mm)

   Lift cylinder mounting bolt:
   1545 ± 172 Nm (157.5 ± 17.5 kgm)
   (width across flats: 46 mm)

4) Remove cylinder assembly (1) from tool **A**.



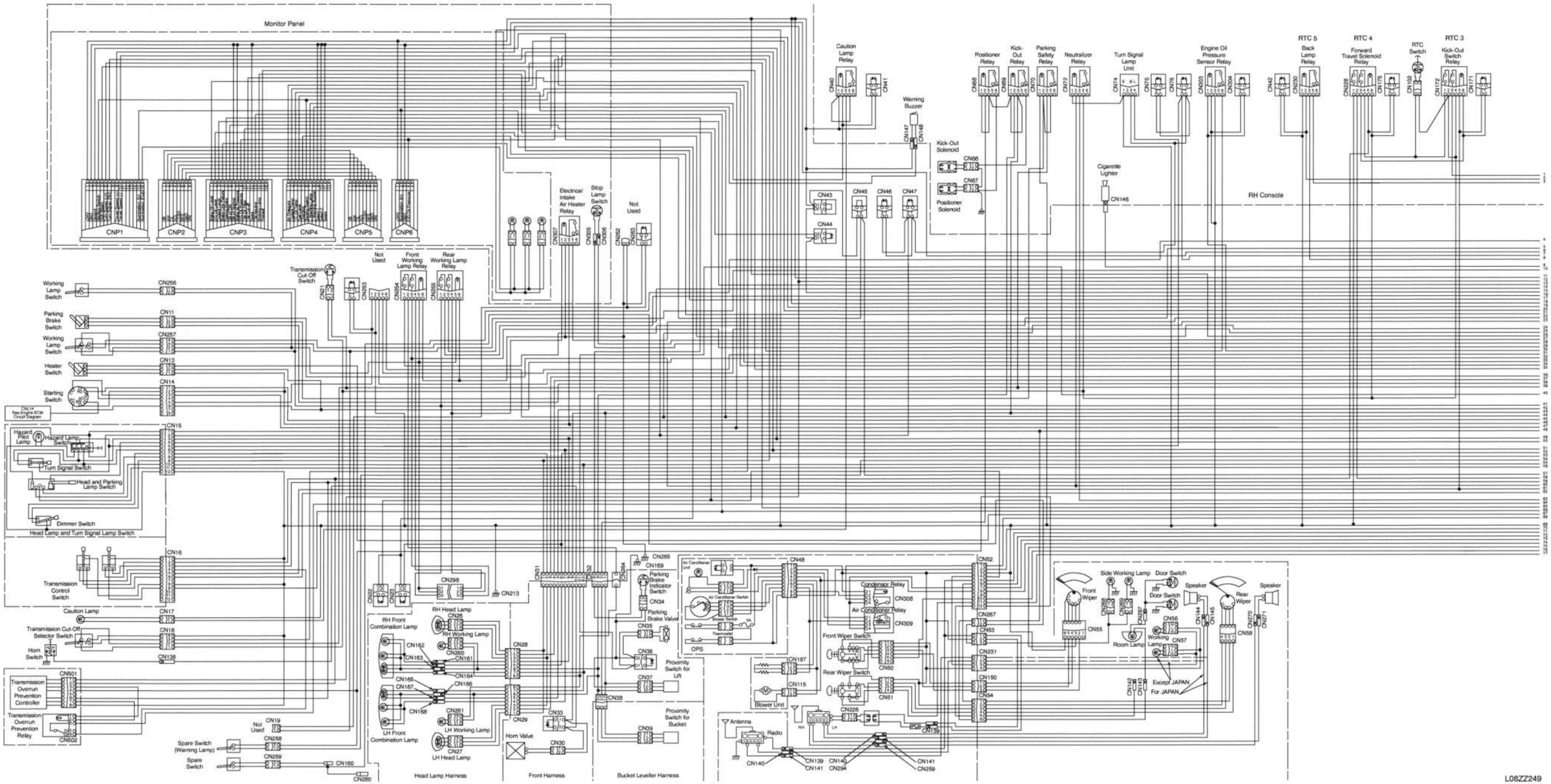
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ELECTRICAL SCHEMATIC (1/3)



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