SEBMA4210108

SHOP MANUAL

KOMATSU®

WA450-1

MACHINE MODEL SERIAL No.

WA450-1 10001 and up

- This shop manual may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.
- WA450-1 mount the S6D125-1 engine.
  For details of the engine, see the 6D125 Series Engine Shop Manual.

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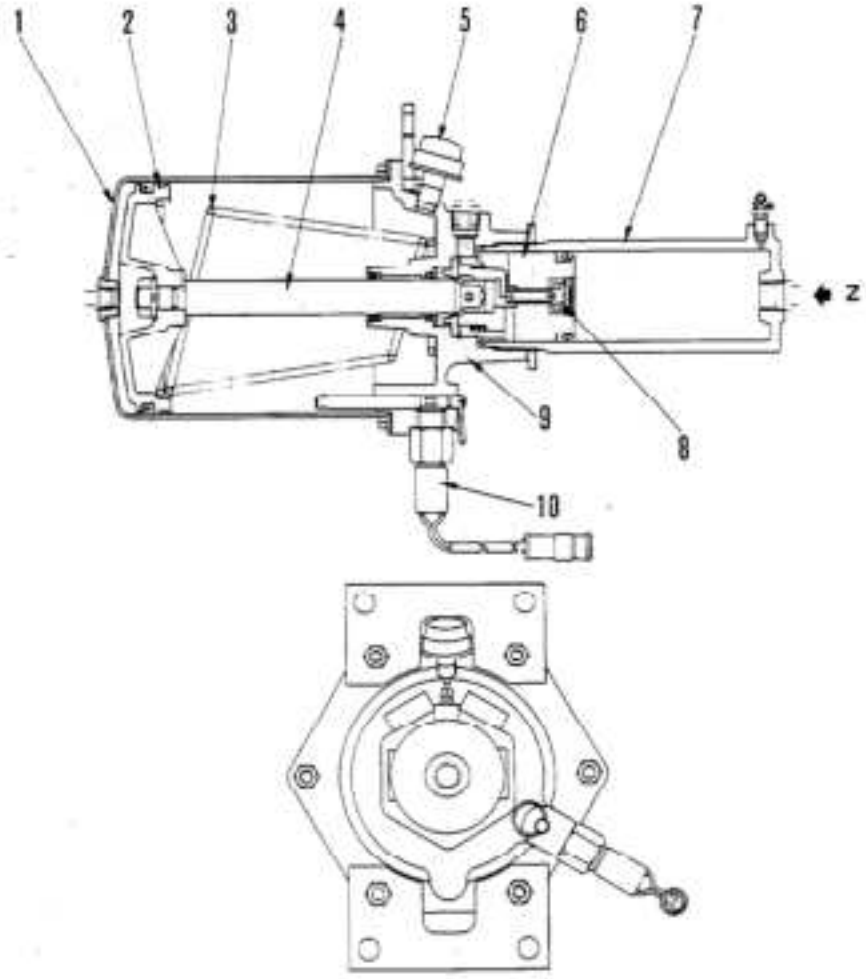
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BRAKE CHAMBER



View Z

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1. Air cylinder
2. Air piston
3. Spring
4. Rod
5. Breather
6. Piston
7. Master cylinder
8. Piston valve
9. Body
10. Sensor

Specifications

Serial No.	10001 – 20000	20001 and up
Air cylinder		
Cylinder bore (mm)	180	180
Stroke (mm)	133.5	85.5
Cylinder capacity (cc)	3,600	2,380
Master cylinder		
Cylinder bore (mm)	68	68
Stroke (mm)	132.5	84.5
Delivery (cc)	472	297

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3. Lift arm movement becomes slow after it reaches a certain height.

Check before troubleshooting
- Visible deformation of lift cylinder.

Cause
- Swollen or internally damaged lift cylinder tube.
- ★ Regarding other faults occurring during lift arm ascent, refer to item 2 "Lift arm moves slowly or does not have sufficient lifting power".

4. Bucket cannot be held down with lift arm cylinder

If the relief pressure in the circuit at the bottom of the lift cylinder is insufficient, refer to item 2 "Lift arm moves slowly or does not have sufficient lifting power".

Checks before troubleshooting
- Is level of oil in the hydraulic tank correct?
- Is stroke of main control valve and lift spool correct?

Cause
- Faulty main control valve or suction valve seat on lift cylinder rod side.
- Oil leakage from lift cylinder piston seal.

5. Lift arm has large hydraulic drift.

Ask the operator the following questions
- Did the hydraulic drift suddenly become large? → Dirt lodged in valve or damaged parts.
- Did the hydraulic drift gradually become large? → Worn parts.

Checks before troubleshooting
- Is the type and temperature of the oil in the hydraulic tank correct?
- Is the lift arm spool in the neutral position? · Seized link bushing, faulty spool detent.

Problem and cause
- When measuring hydraulic drift, internal of lift cylinder produces oil leak noise → Damaged piston packing.

6. Lift arm movement is unsteady during work.

During excavation or ground leveling when the lift arm control lever is in the "Hold" position, the bucket and lift arm move up and down in accordance with the terrain.

Problem and cause

Check the amount of hydraulic drift and whether or not the machine body can be lifted up by the lift cylinder.

1. If the amount of hydraulic drift is greater than the standard value, refer to item 5 "Lift arm has large hydraulic drift".
2. If the machine body can be lifted up by the lift cylinder, refer to item 4 "Bucket cannot be held down with lift cylinder".
3. If the amount of hydraulic drift is normal and the machine body can be lifted up by the lift cylinder after the lift arm is moved several times to cause the lift cylinder to move through its entire stroke → the trouble is due to the generation of a vacuum in the cylinder.
   - ★ If a vacuum is generated frequently, → faulty suction valve on lift cylinder rod side.

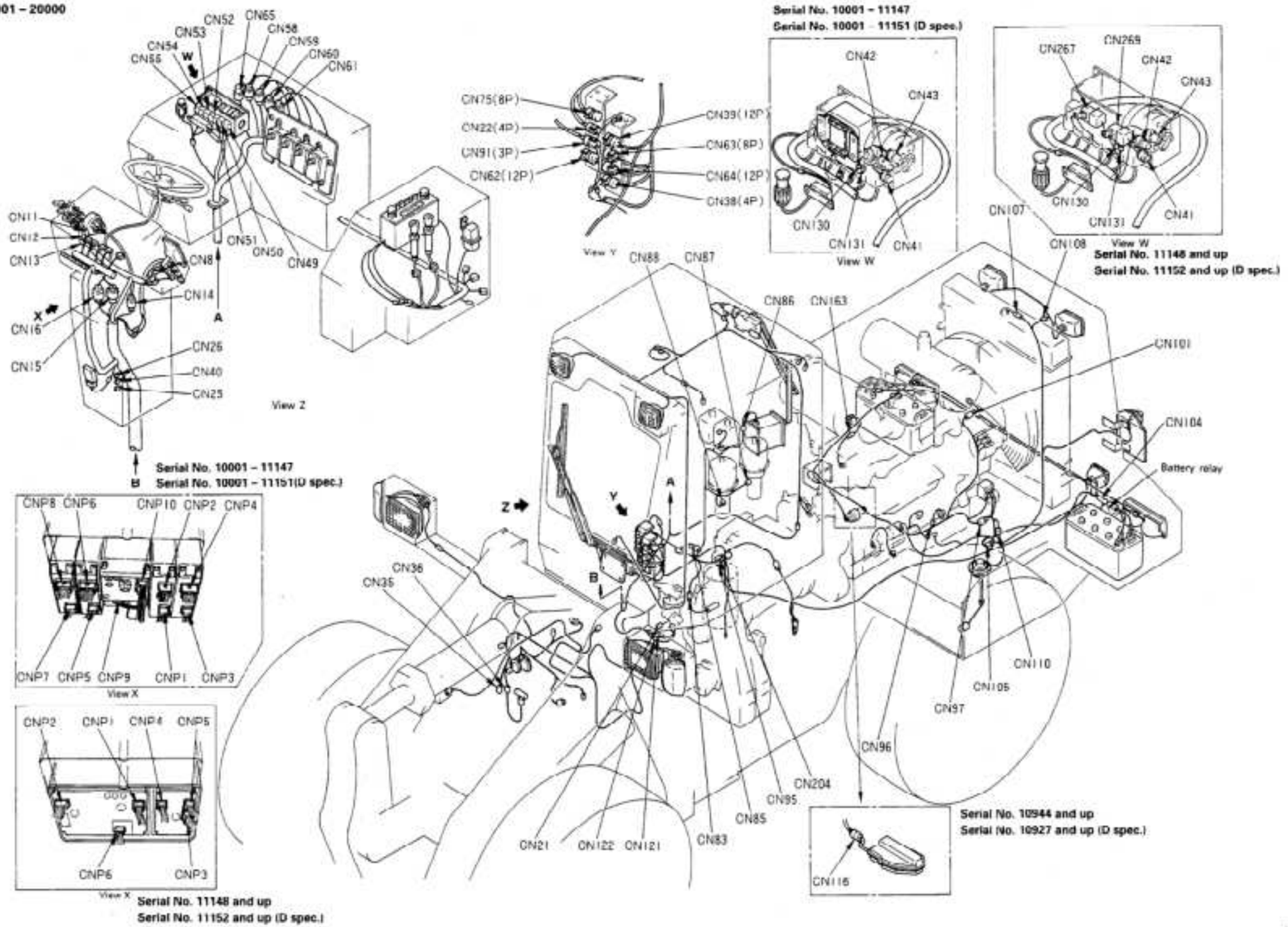
7. Lift arm descends momentarily when control lever is shifted from "Hold" to "Raise".

The lift arm descends momentarily under its own weight when the lift arm control lever is gradually shifted from the "Hold" position to the "Raise" position while the engine is at low idling. When the control lever is put completely into the "Raise" position, the lift arm behaves normally.

Cause
- Faulty seating of main control valve or lift arm load check valve.

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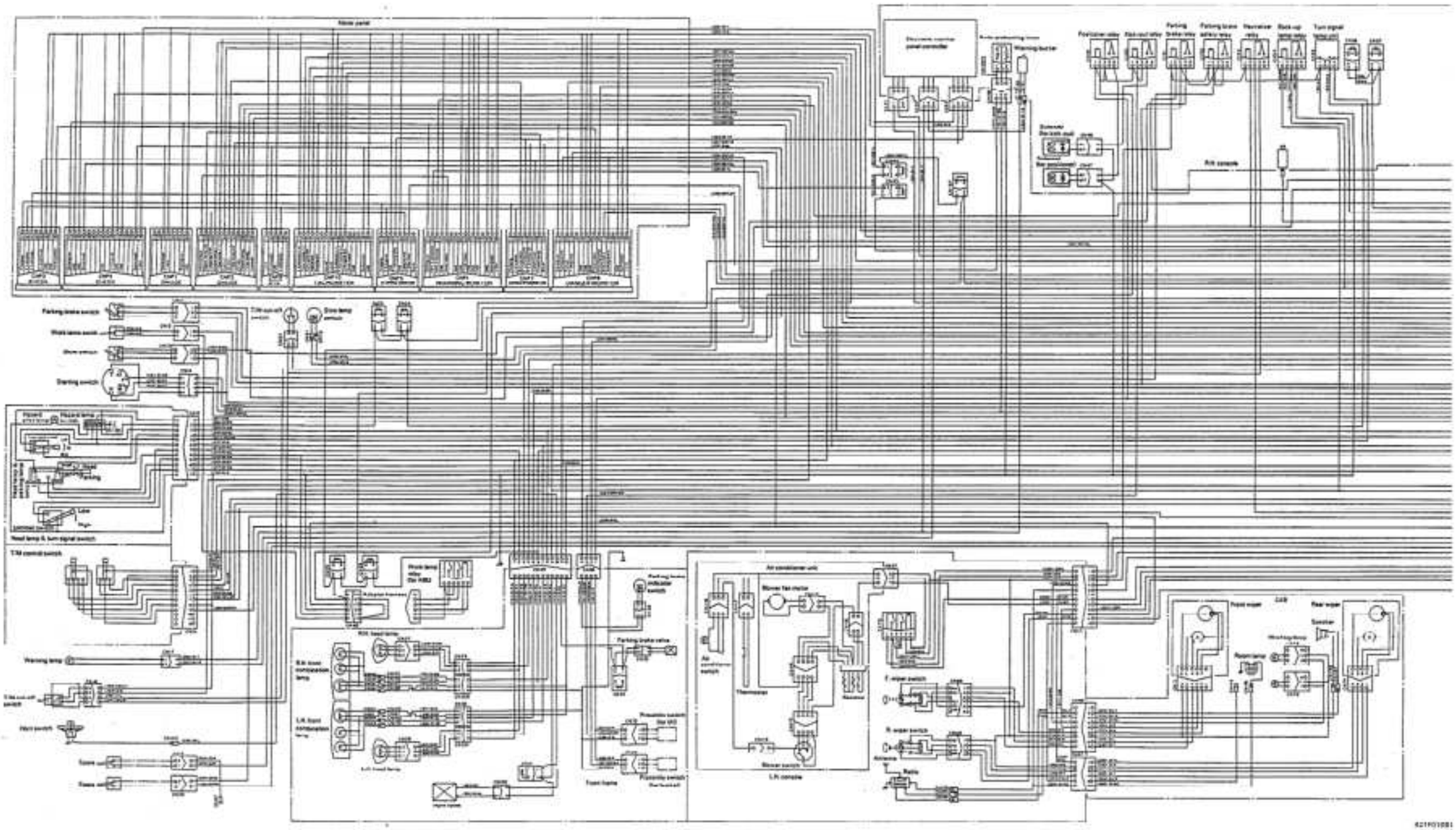
ELECTRICAL WIRING DIAGRAM



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