CEBM009802

Shop Manual

KOMATSU®

WB140-2N
WB150-2N

BACKHOE LOADER

SERIAL NUMBERS	WB140-2N	A20001	and UP
	WB150-2N	A60001	

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Nominal values for the reducing valves of the 7-8 spool control valve

(for other settings, refer to the 6-spool control valve)

Unit: kg/cm²

No. of spools	Cylinder and movement		Port	Setting WB140-2N	Setting WB150-2N
7	Breaker	Left	A7	173.35±7.14	173.35±7.14
		Right ★	B7	—	—
	Telescopic arm	In	A7	—	—
		Out	B7	—	—
8	Breaker	Left	A7	173.35±7.14	173.35±7.14
		Right ★	B7	—	—
	Telescopic arm	In	A8	—	—
		Out	B8	—	—

★ This pressure can be set without modifying the general valve pressure.

★ If valve pressure indications do not correspond to those listed, proceed to the next Step.

★ Set the general valve pressure to the standard value.

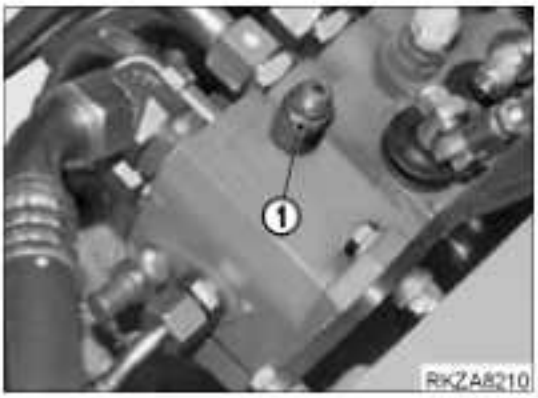
SETTING MAIN AND SECONDARY VALVES

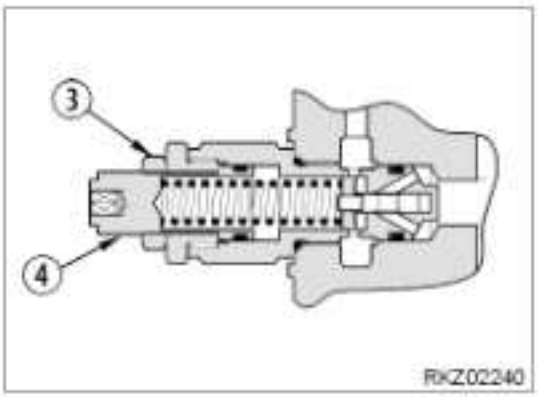
MAIN RELIEF VALVES

- General valves (pressure cut-off valve ①)

WARNING! For adjustments, prepare machine as for pressure testing.

1. Remove safety plug.
2. Loosen lock nut ③.
3. Force the specific control lever to the end of its stroke.
   - Front shovel: Force the front bucket to rise to the end of its stroke.
   - Backhoe: Force the bucket into maximum curl position or force the raising of the boom to the end of its stroke.
4. Adjust pressure with adjusting screw ④.
   - To INCREASE pressure, rotate in CLOCKWISE direction.
   - To DECREASE pressure, rotate in COUNTER CLOCKWISE direction.
5. Tighten locknut ③ to secure the adjustment.
6. Reinstall safety plug.





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Noise while driving	
CAUSES	REMEDY
Excessive backlash between pinion and ring gear	Adjust
Worn out pinion and ring gear	Replace
Worn out pinion bearings	Replace
Pinion bearings loose	Adjust
Excessive axial pinion backlash	Adjust
Worn out differential bearings	Replace
Differential bearings loose	Adjust
Ring gear out of round	Replace
Low oil level	Oil level
Poor or worn oil	Replace
Bent half shaft	Replace

Noise while driving in neutral	
CAUSES	REMEDY
Noises coming from axle are usually heard but not loud when vehicle moves in neutral gear.	Replace or adjust (see above)
Incorrect backlash between pinion and ring (sound heard while decelerating, disappears while increasing speed)	Replace
Pinion or input flange worn out	Adjust

Intermittent noise	
CAUSES	REMEDY
Ring gear damaged	Replace bevel gear set
Differential box bolts loosened	Tighten to torque

Constant noise	
CAUSES	REMEDY
Ring gear teeth or pinion damaged	Replace bevel gear set
Worn out bearings	Replace
Pinion spline worn out	Replace
Bent half shaft	Replace

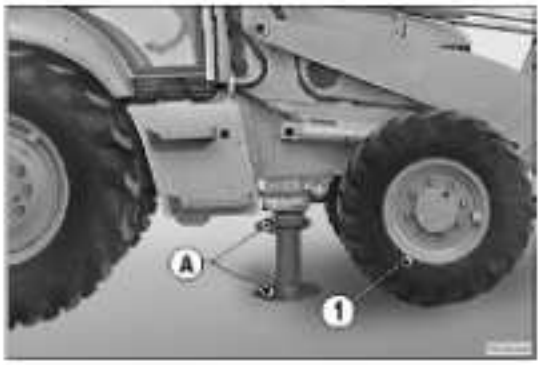
Noise while steering	
CAUSES	REMEDY
Worn out differential gears	Replace
Worn out differential box or spider	Replace
Differential thrust washers worn out	Replace
Half shaft spline worn out	Replace

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FRONT AXLE ASSEMBLY

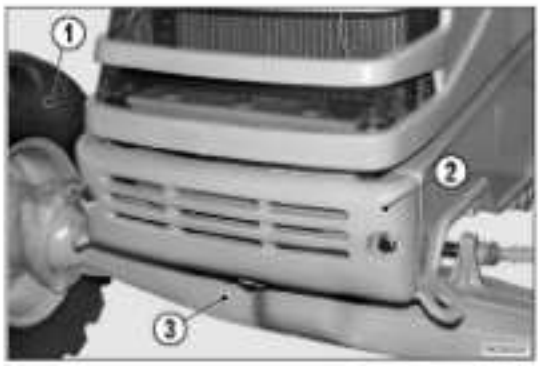
REMOVAL

1. Start engine and use the front bucket to raise the machine and front wheels.
2. Place two stands **"A"** and some blocks beneath the chassis.
3. Slowly lower the machine onto the blocks, checking that the wheels remain at least 5 cm (2 in) above the ground.



WARNING! Fully raise the front working equipment and engage the safety stop, also secure the backhoe.

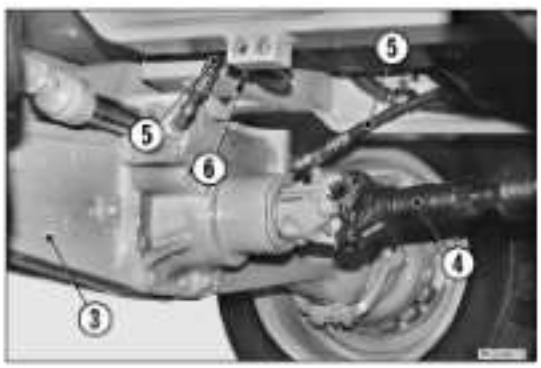
4. Engage the parking brake.
5. Stop the engine and eliminate residual pressure from all circuits. For details, see section 20 "TESTING AND ADJUSTMENT".



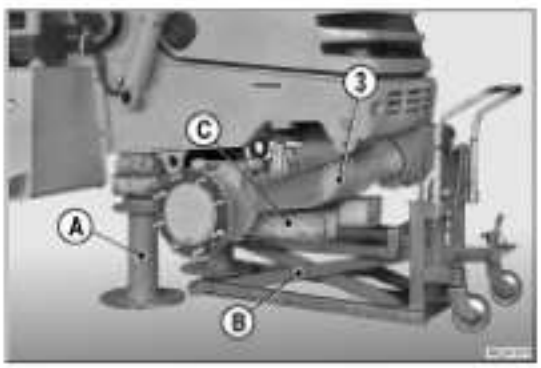
WARNING! Disconnect the cable from battery negative terminal (-).

6. Remove the front wheels (1). ·:·1

kg Wheel: 65 kg (143 lbs)



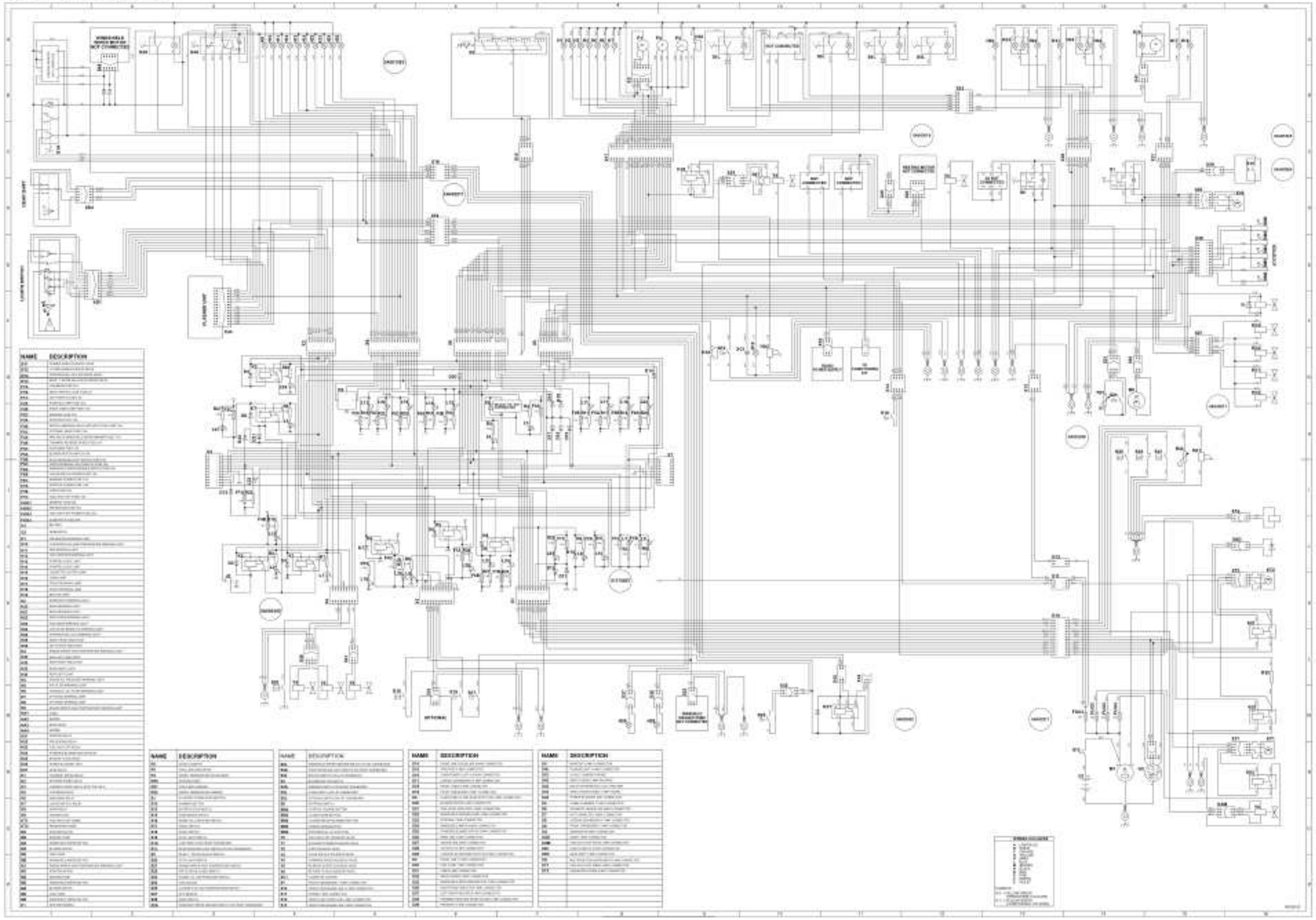
7. Remove front guard (2). (For details, See "FRONT COUNTER-WEIGHT" on page 30-19.). ·:·2
8. Disconnect drive shaft (4) from axle (3).
9. Disconnect lines (5) from the steering cylinder and plug them to prevent entry of impurities. ·:·3



10. Disconnect lubrication tube (6) for axle oscillation pin (7).
11. Position a jack "B" and some blocks "C" beneath the axle. Raise the jack until the blocks under axle arms (3).
    - ★ It should be possible to lower the jack 10 cm (4 in) in order to disengage axle from the fulcrum supports.

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