SHOP MANUAL

WEBM001802

PW95R-2

HYDRAULIC EXCAVATOR

SERIAL NUMBER

PW95R-2 21D0210001 and up

PW95R-2 21D0220001 and up

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AIR BLEEDING FROM HYDRAULIC CIRCUITS

Order for operations and procedure for bleeding air

Nature of work \ Air bleeding item	Air bleeding procedure 1	2	3	4	5	6	7
	Bleeding air from pump	Start engine	Bleeding air from cylinder	Bleeding air from swing motors	Bleeding air from travel motor	Bleeding air from steering unit LS circuit	Start operations
• Replace hydraulic oil • Clean strainer	❍ →	❍ →	❍ →	❍ ★1 →	❍ ★1 →		❍
• Replace return filter element		❍ →					❍
• Replace, repair pump • Remove suction piping	❍ →	❍ →	❍ →				❍
• Replace, repair control valve		❍ →	❍ →		❍ →		❍
• Replace cylinder • Remove cylinder piping		❍ →	❍ →				❍
• Replace swing motor • Remove swing motor piping				❍ →			❍
• Replace travel motor, swivel • Remove travel motor, swivel piping					❍ →		❍
• Replace steering unit or priority valve • Remove steering unit or priority valve piping		❍ →				❍ →	❍

★1 Bleed the air from the swing motors or travel motors only when the oil inside the motor case has been drained.

1. Bleeding air from pump P1

★ When the hydraulic oil tank is drained, or when the main pumps are removed for revision or replacement, air must be bled from the intake circuit as follows:

1 - Loosen air bleed plug (1) from body pump (2).

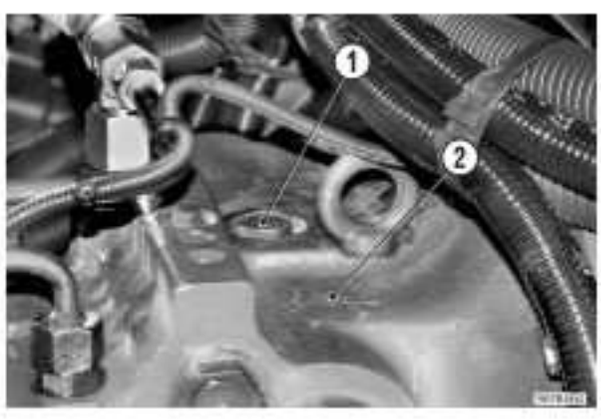
2 - Fill the tank with oil up to the level of the hole in the plug (1).

3 - Tighten plug (1).

Plug: 17.2±2.5 Nm

4 - Continue to fill the tank until the maximum level is reached.

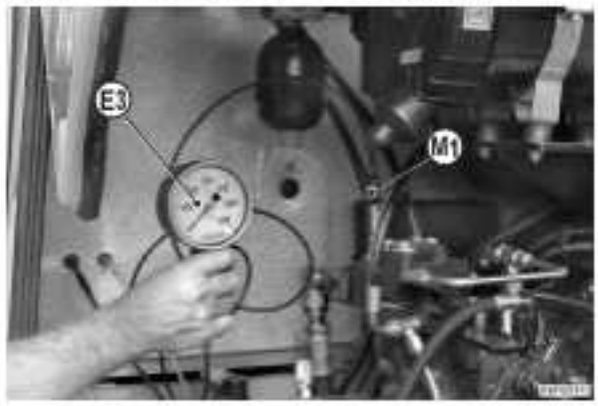
5- Starting the engine and run the engine at low idling for 10 minutes.
(See «Bleeding air from hydraulic cylinders»).



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CHECKING AND ADJUSTING THE AUTOMATIC DISPLACEMENT CONTROL SYSTEM OF THE TRAVEL MOTOR

★ Test conditions:
- Engine at working temperature
- Hydraulic oil: 45–55°C
- Working brakes: engaged



Test

1 - Connect the adapter **M1** to the pressure gauge **E3** (400 bar).

2 - Take off the cap and connect pressure gauge **E4** (600 bar) to the automatic displacement control system (1).

3 - Select the 2nd fast forward gear.

4 - Bring the engine up to a speed of 2200 rpm.

5 - Press lightly on the travel pedal and watch whether the pressure gauge **E4** connected to the control system starts to move when the pressure gauge **E3** connected to the adapter **M1** indicates a pressure of 200 ± 10 bar.

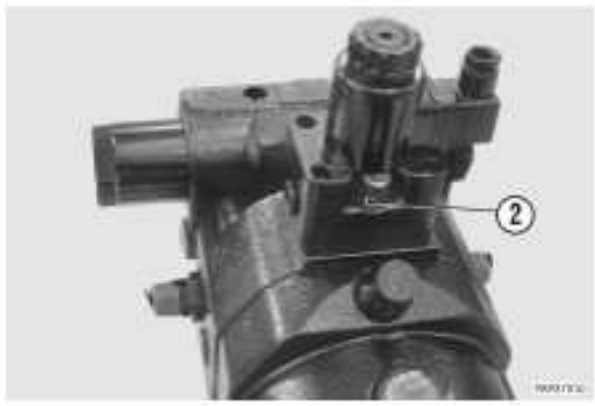


Adjustment

1 - Take off the safety cap (2).

2 - Loosen the nut (3).

3 - Adjust the intervention point with the screw (4).
- ★ Intervention point: 200 ± 10 bar
- To INCREASE pressure turn in a COUNTER-CLOCKWISE direction
- To DECREASE pressure, turn in a CLOCKWISE direction



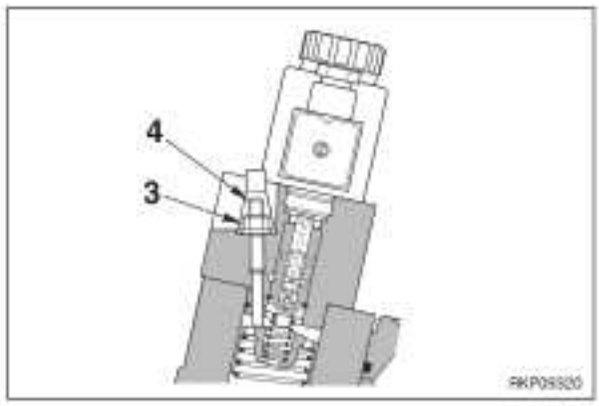
4 - ecure the position of the screw (4) with the nut (3).

Lock nut: 10 Nm

5 - Replace the cap of the control system (1).

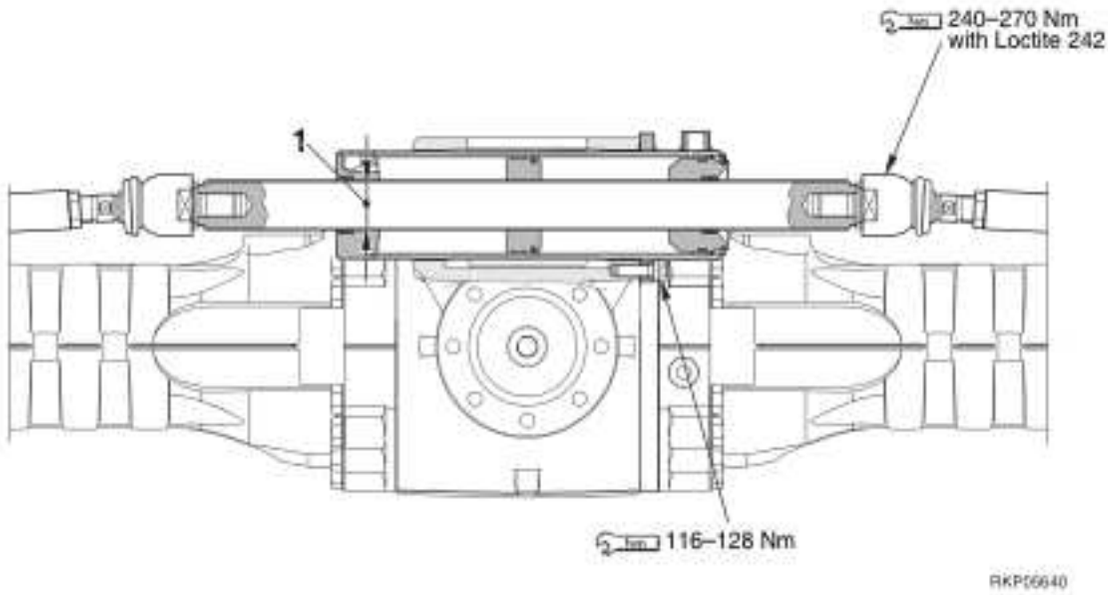
Cap: 30 Nm

6 - Replace the safety cap (2) to protect against unauthorised tampering.



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STEERING CYLINDER

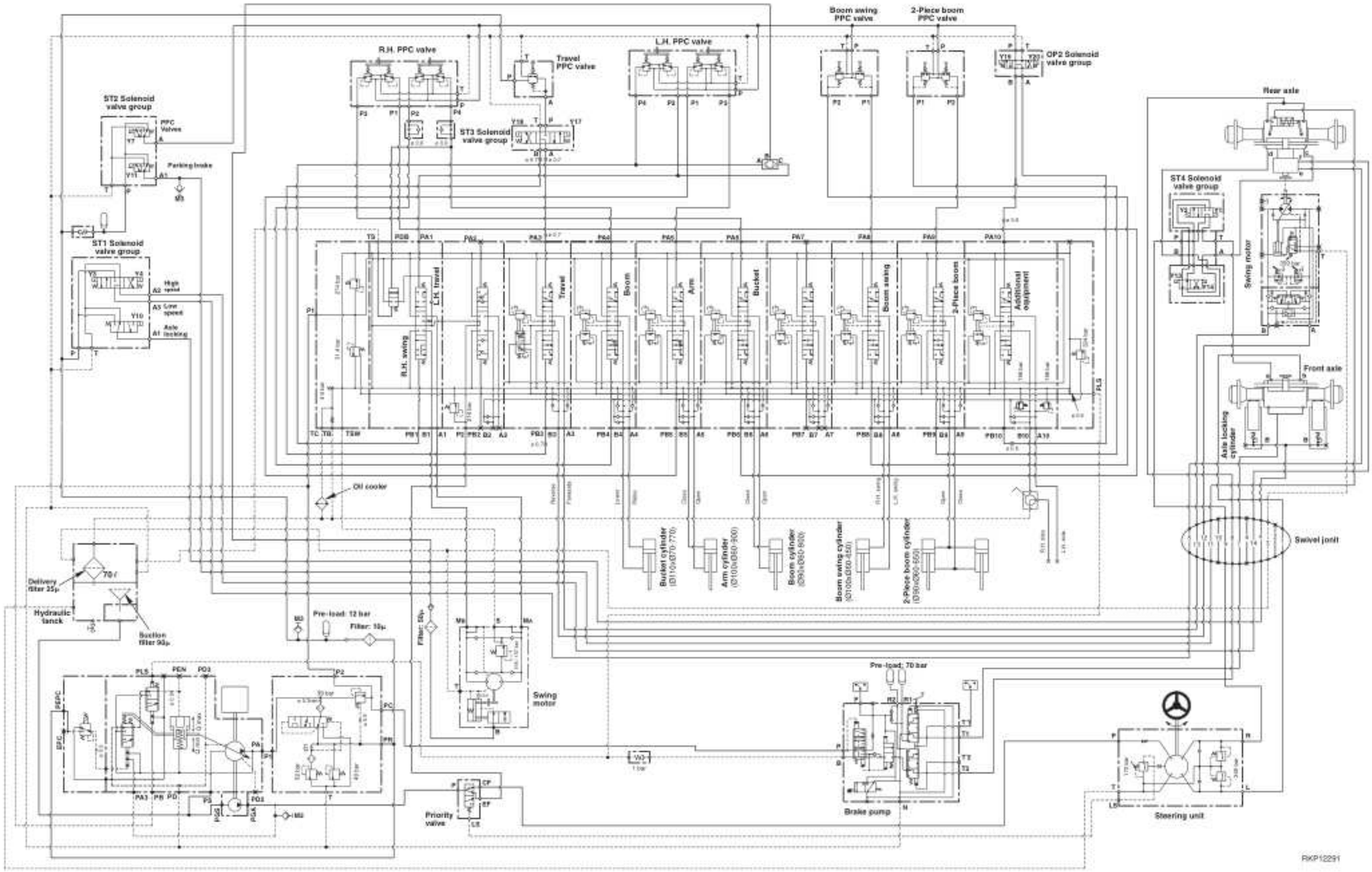


Unit: mm

No.	Check item	Criteria					Remedy
		Standard size	Tolerance		Standard clearance	Clearance limit	
			Shaft	Hole			
1	Clearance between shaft and bushing	45	–	–	–	–	Replace

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HYDRAULIC DIAGRAM STANDARD



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