WEBM003000

Shop Manual

KOMATSU®

PC35R-8
PC45R-8

HYDRAULIC EXCAVATOR

SERIAL NUMBERS PC35R-8 - F20518 and up
PC45R-8 - F20666

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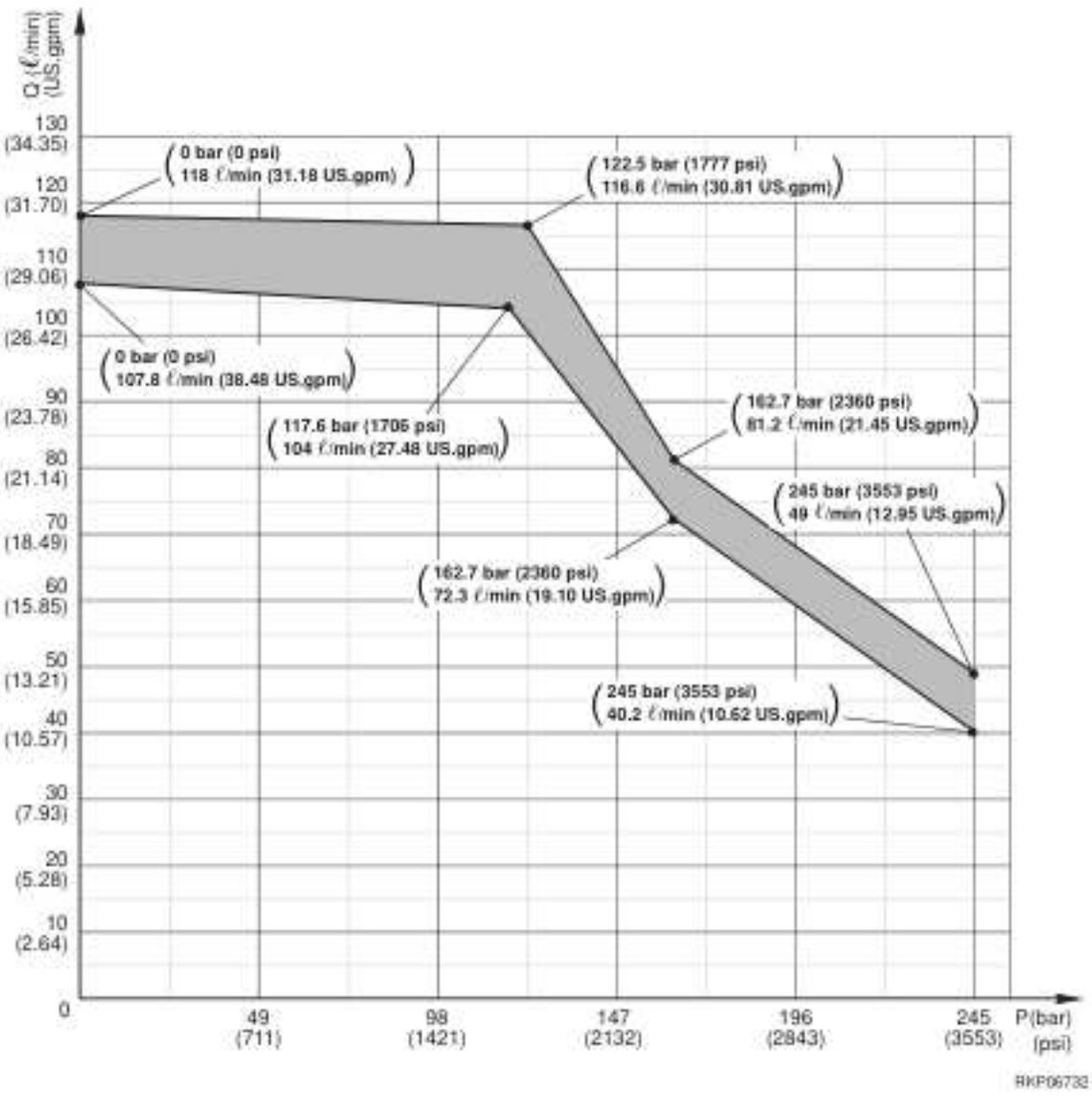
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• FOR THE MACHINE

Machine model				PC45R-8	
Classification	Check item	Test condition	Unit	Standard value	Permissible value
	Gear pump P2	Theoretical flow	cm^3 (cu.in.)	10.5 (0.6405)	
		Motor speed	rpm	2500	
		Test pressure	kg/cm^2 (psi)	200 (2844)	
		Nominal capacity • Hydraulic oil temperature: 45 – 55°C (113 – 131°F)	ℓ/min (US.gpm)	24.5 (6.5)	

- Delivery piston pump P1
- Pump speed: 2500 rpm
- Hydraulic oil temperature: 45 – 55°C (113 – 131°F)
- Gear pump P2: without load

Pump characteristics



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REMOVAL OF SWING MACHINERY

⚠ insert the locked swing, lower the working equipment until it is resting on the ground, and stop the engine.

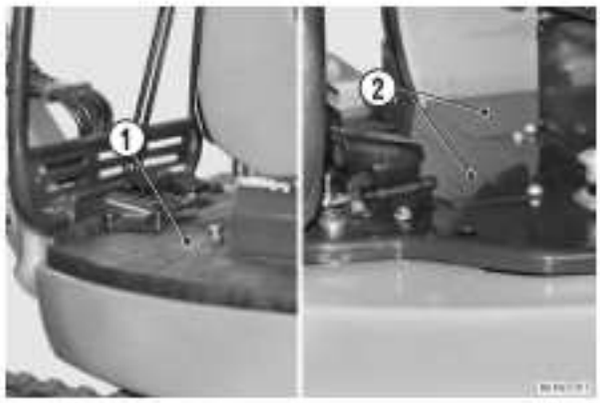
Release all residual pressures from all circuits and from the tank. (For details, see «20. CONTROLS AND ADJUSTMENTS»).

★ Drain out the hydraulic oil.

Hydraulic oil: approx. 33 ℓ (8.7 US.gall)

1 - Remove the canopy or the cab. (For details, see the removal of the each component).

2 - Remove the floor-mat (1) and the covers (2).



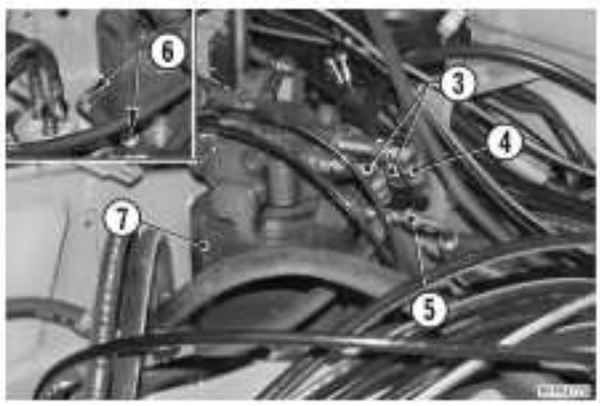
3 - Disconnect the delivery pipe (3), the exhaust pipe (4) and the drainage pipe (5).

★ Mark the tubes to avoid exchanging them during re-assembly.

★ Plug the tubes to prevent entry of impurities.

4 - Take out the screws (6) (N_0. 8) and remove the swing machinery (7). ※1

Swing machinery: 37 kg (81.5 lb.)



INSTALLATION OF SWING MACHINERY

• To install, reverse the removal procedure.

※1

Swing machinery screws: 130 Nm (96 lb.ft.)

Swing machinery screws: Loctite 262

1 - Fill the tank with hydraulic oil up to the maximum level.

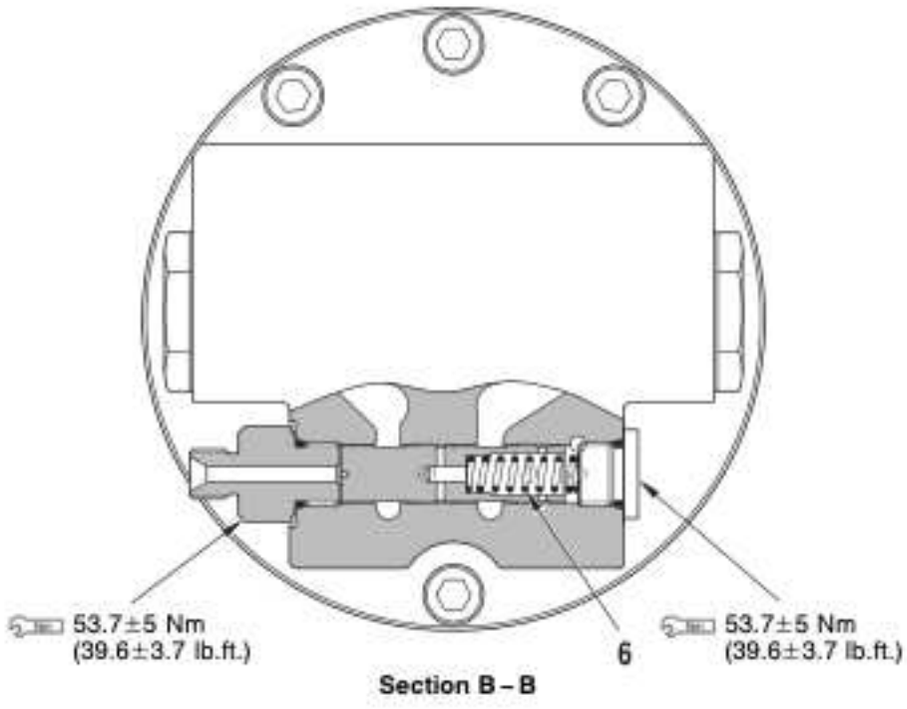
Hydraulic oil needed: approx. 33 ℓ (8.7 US.gall)

2 - Start the engine to circulate the oil and check that there are no leaks.

3 - Stop the engine, check the oil hydraulic level and, if necessary, top it up.

4 - Bleed air from the hydraulic circuits and pressurise the tank. (For details, see «20. CONTROLS AND ADJUSTMENTS»).

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Section B – B

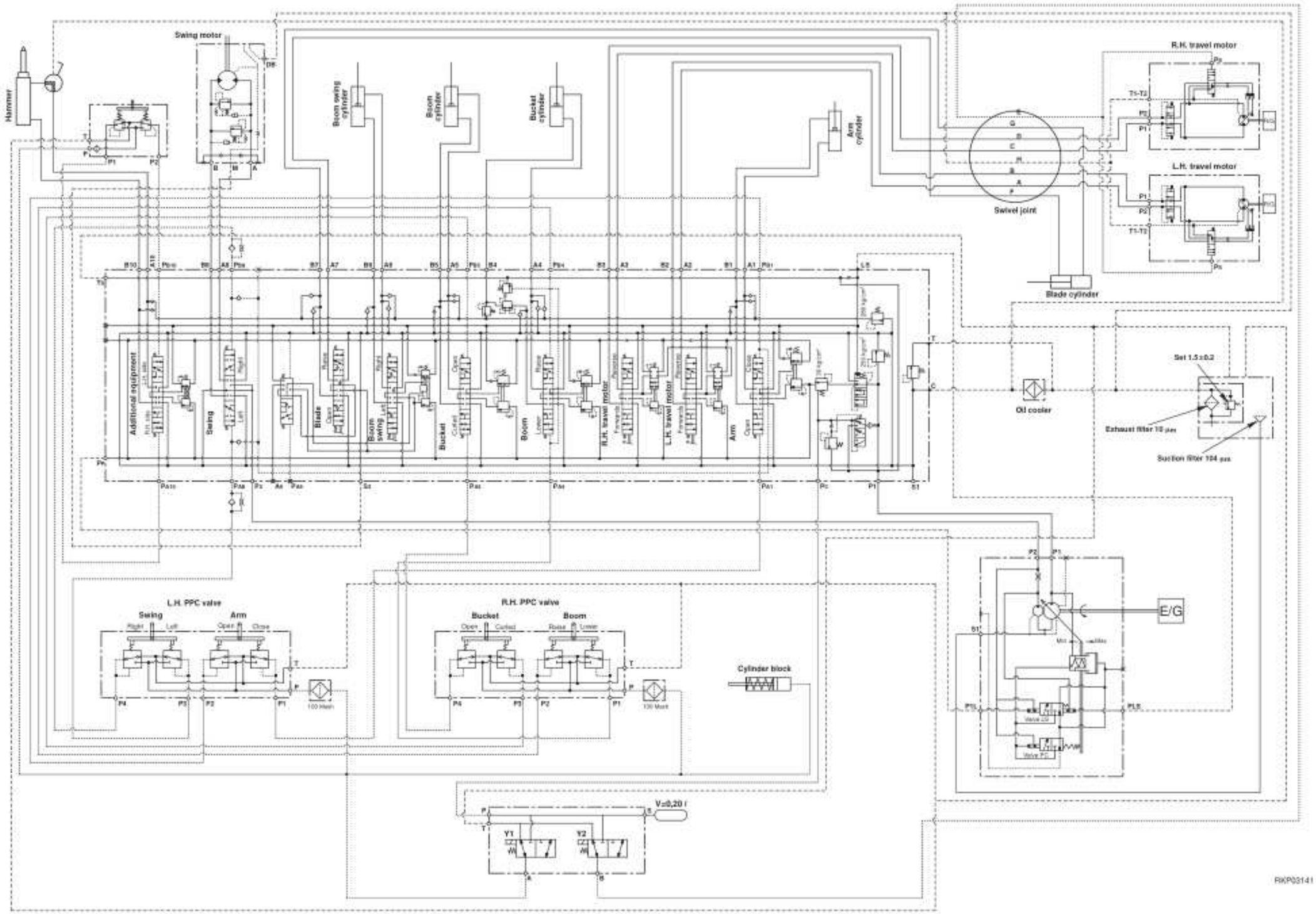
Unit: mm (in.)

No.	Check item	Criteria					Remedy
1	Clearance between piston and cylinder	Standard clearance			Clearance limit		Replace
		0.01 – 0.02 (0.0004 – 0.0008)			0.4 (0.0158)		
2	Clearance between shoe and piston	0.03 – 0.15 (0.0012 – 0.0059)			0.4 (0.0158)		
3	Travel increment piston spring	Standard size			Repair limit		When damage or deformation is found, replace the spring
		Free length	Installed length	Installed load	Free length	Installed load	
		23 (0.906)	15.6 (0.615)	7.8 N	21.5 (0.847)	6.2 N	
4	Braking valve return spring	32.8 (1.292)	24.7 (0.973)	113 N	31.2 (1.230)	90 N	
5	Brake spring	23 (0.906)	20 (0.788)	205 N	22.4 (0.883)	164 N	
6	Travel increment spool return spring	36 (1.418)	29.5 (1.162)	68 N	34.7 (1.367)	54 N	

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HYDRAULIC CIRCUIT DIAGRAM

PC35R



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