SEBM013103

SHOP MANUAL

KOMATSU®

PC12R-8
PC15R-8

MACHINE MODEL	SERIAL NUMBER
PC12R-8	**10001 and up**
PC15R-8	**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.

- PC12R-8, PC15R-8 mount the 3D68E-3 engine.
  For details of the engine, see the 68 Series Engine Shop Manual.

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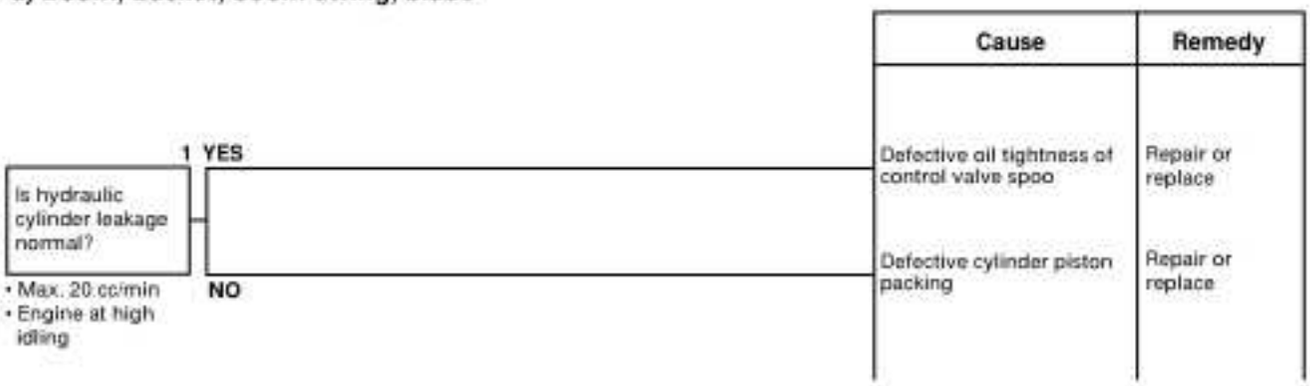
Machine model				PC12R-8	
				Canopy specification	Cab specification
Serial number				10001 and up	
Engine	Model			3D68E-3G	
	Type			4-cycle, water cooled, in-line, turbulence chamber	
	No. of cylinders - bore x stroke		mm	3 – 68 x 72	
	Piston displacement		ℓ{cc}	0.78 {784}	
	Firing order			3 – 1 – 2	
	Performance	Flywheel horsepower	kW/rpm{HP/rpm}	10.3/2,450 {13.8/2,450}	
		Maximum torque	Nm/rpm{kgm/rpm}	47.1/1,800 {4.8/1,800}	
		High idling speed	rpm	2,600	
		Low idling speed	rpm	1,350	
		Min. fuel consumption ratio	g/kWh{g/HPh}	265 {197.8}	
	Starting motor			12V, 1.0 kW	
	Alternator			12V, 20A	
	Battery			12V, 45Ah	
	Radiator type			CD-2	
Undercarriage	Sliding plate			1 on each side	
	Track roller			3 on each side	
	Track shoe			Rubber crawler [assembly type, double grouser, 32 each side]	
Hydraulic system	Hydraulic pump	Type x no.		Gear type 3-pump x 1	
		Delivery	ℓ/min	26.4 + 10.8 + 6.5	
		Set pressure			
		• Travel, work equipment	MPa{kg/cm²}	19 {193.8}	
		• Swing	MPa{kg/cm²}	12.5 {127.5}	
		• PPC	MPa{kg/cm²}	3.5 {35.7}	
	Control valve	Type x no.		9-spool type x 1	
		Control method		Hydraulic assist type (boom, arm, bucket, swing) Direct control type (travel, brade, boom swing)	
	Hydraulic motor	Travel motor		Piston type x 2	
		Swing motor		Orbit-roll type x 1	
	Hydraulic cylinder			Reciprocating piston	
	Hydraulic tank			Box-shaped, close	
	Hydraulic oil filter			Tank return side	
	Hydraulic oil cooler			Air cooled	

[ ] : Steel shoe specification

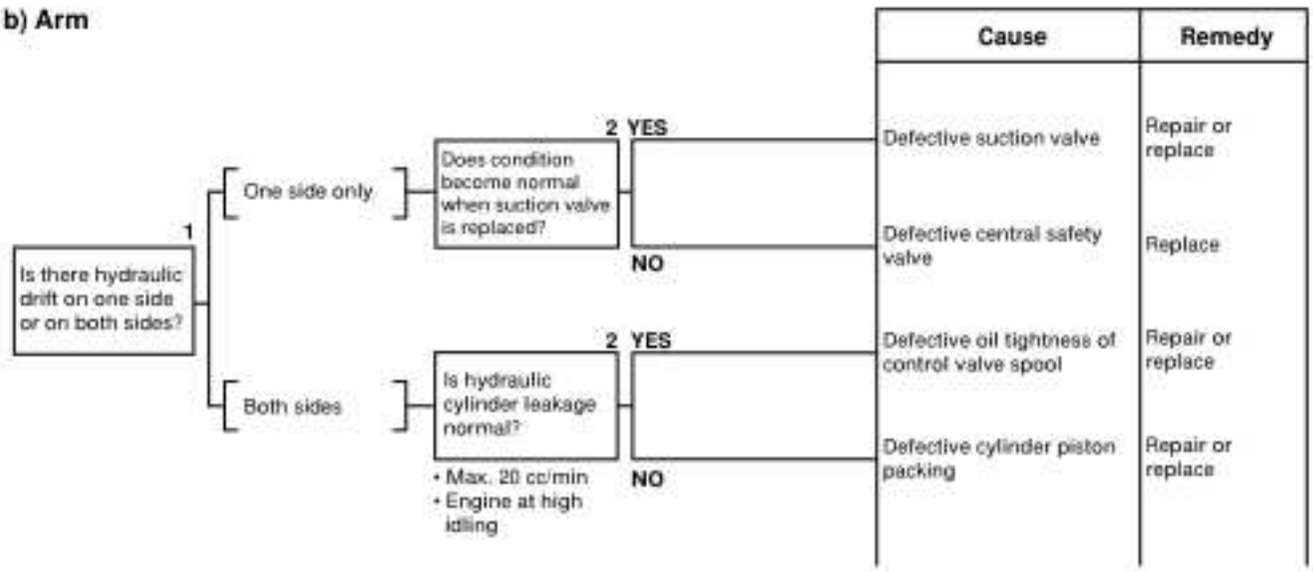
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H-12 Excessive hydraulic drift (boom, arm, bucket, boom swing, blade)

a) Boom, bucket, boom swing, blade



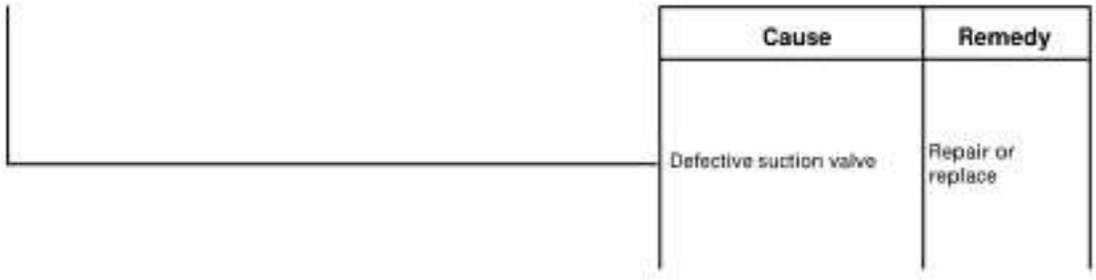
b) Arm



H-13 Excessive time lag (engine at low idling)

★ When work equipment speed is normal.

a) Boom, arm



b) Bucket

★ Carry out troubleshooting for H-8 Bucket is slow or lacks power.

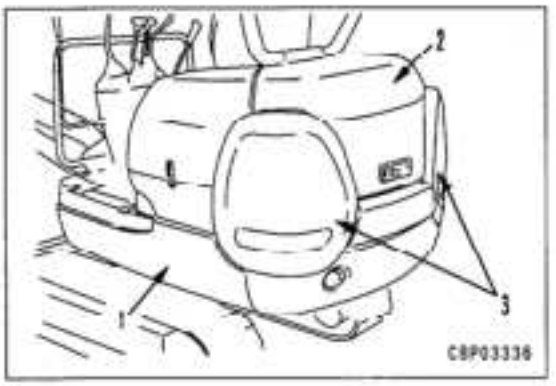
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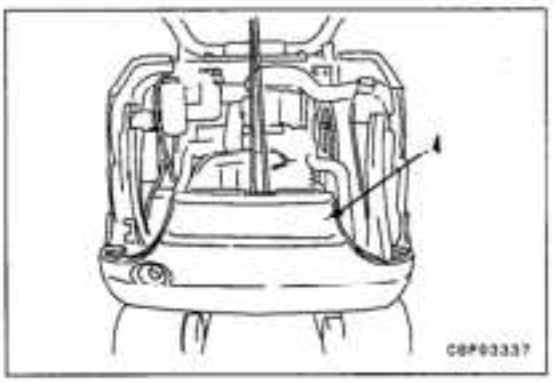
REMOVAL OF ENGINE, HYDRAULIC PUMP ASSEMBLY

⚠ Release the pressure from the hydraulic circuit and hydraulic tank. For details, see TESTING AND ADJUSTING, Releasing remaining pressure from hydraulic circuit and Releasing remaining pressure from hydraulic tank.

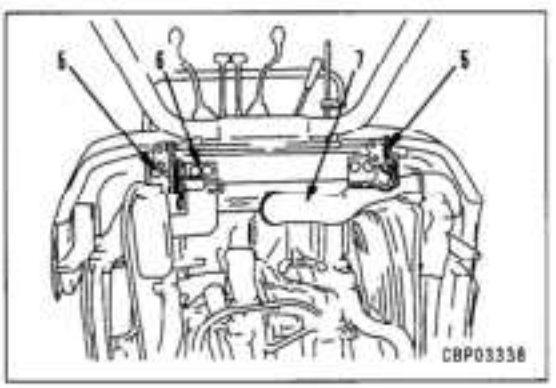
⚠ Disconnect the cable from the negative (–) terminal of the battery.

1. Drain the cooling water.
2. Drain the hydraulic oil.
   Hydraulic tank : **Approx. 12.7 ℓ**
3. Remove left floor cover (1) and engine hood (2).
4. Lift off both protectors (3).
   Both protectors : **30 kg each**
5. Lift off counterweight (4).
   Counterweight : **55 kg**

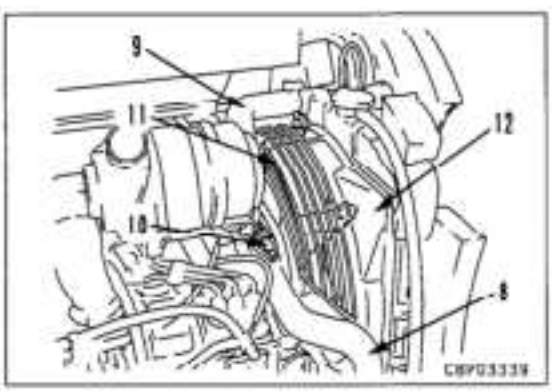




6. Remove both hood stays (5) and reservoir tank bracket assembly (6)
7. Remove air intake hose (7).



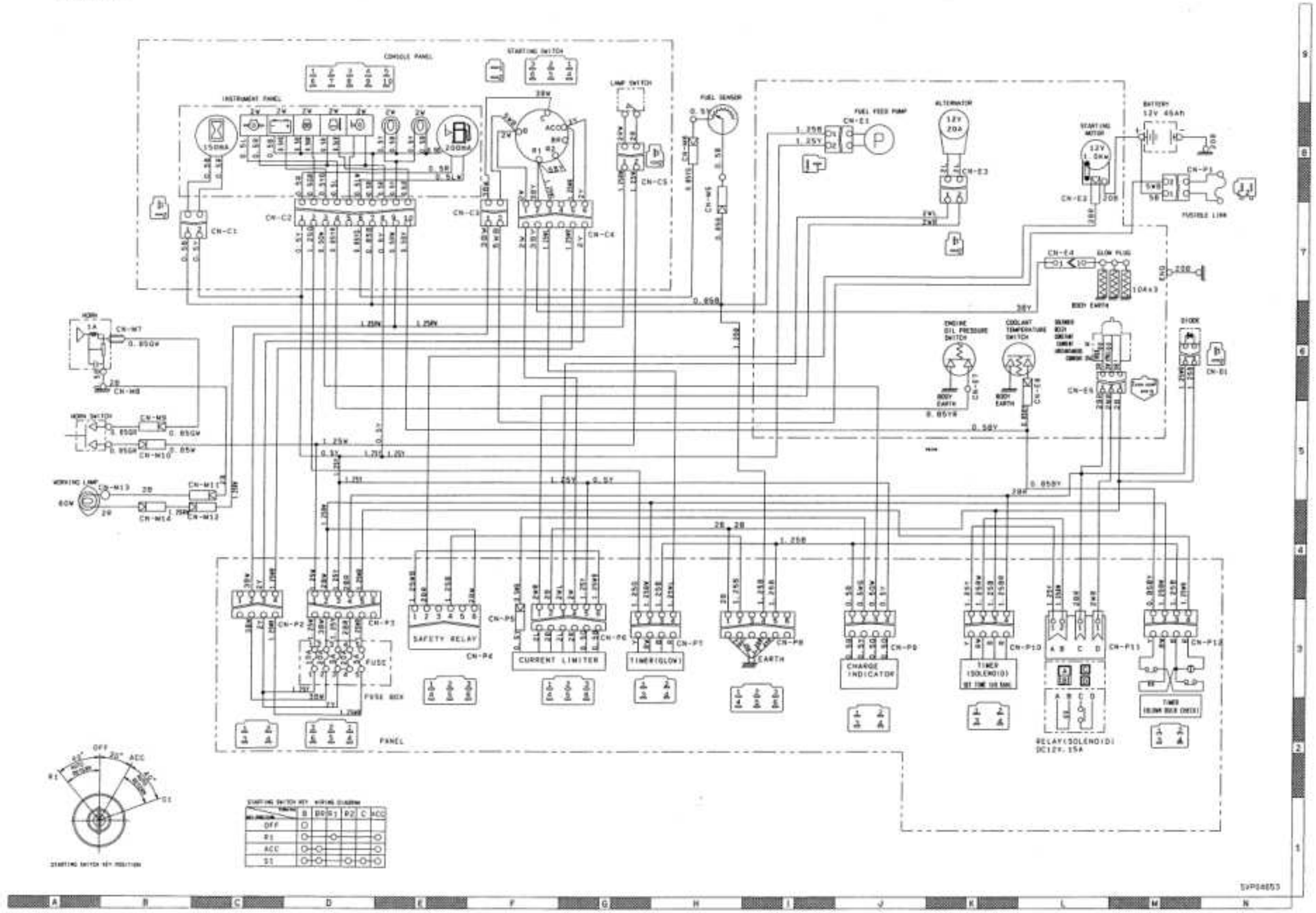
8. Disconnect radiator outlet hose (8) and inlet hose (9).
9. Disconnect water temperature sensor wiring connector **E6** (10).
10. Remove fan guard (11).
11. Disconnect fan shroud (12) and move it toward the engine.



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ELECTRIC CIRCUIT DIAGRAM

PC12R, 15R-8



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