UEAM000702

Operation & Maintenance Manual

PW170ES-6K

HYDRAULIC EXCAVATOR

SERIAL NUMBER
PW170ES-6K - K34001 and up

WARNING

Unsafe use of this machine may cause serious injury or death. Operators and maintenance personnel must read this manual before operating or maintaining this machine. This manual should be kept near the machine for reference and periodically reviewed by all personnel who will come into contact with it.

NOTICE

Komatsu has Operation & Maintenance Manuals written in some other languages. If a foreign language manual is necessary, contact your local distributor for availability.

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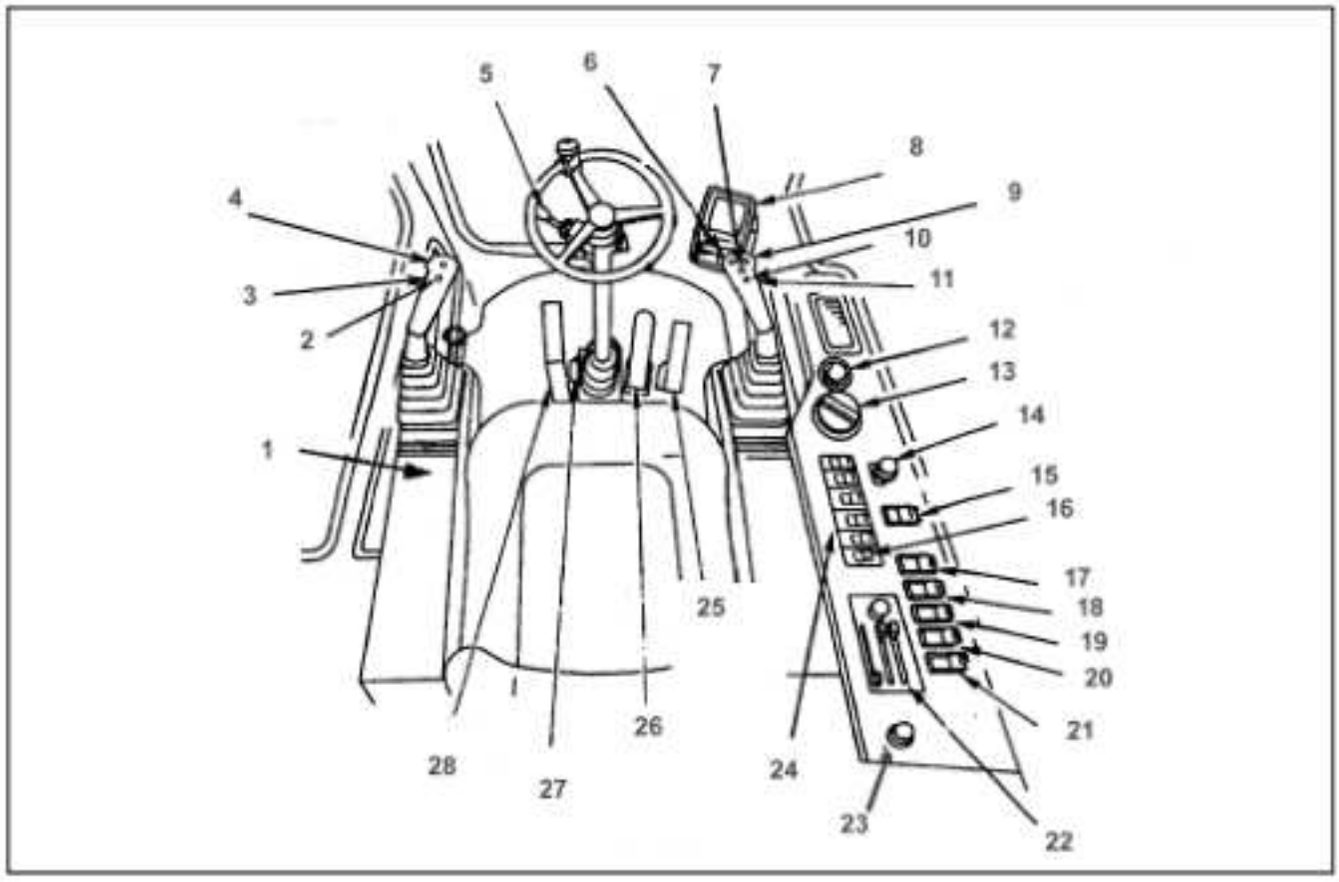
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GENERAL VIEW OF CONTROLS AND GAUGES



1. Control lever pad safety lock	15. Swing lock switch
2. Horn	16. Control lever lock switch
3. Left work equipment control	17. Lamp switch
4. Power max. Button	18. Alarm buzzer stop switch
5. Horn, wiper, washer, dip/main headlights indicators	19. Lower switch
6. L.H. Clamshell rotation switch	20. Beacon switch
7. Boom switch	21. Heated seat switch
8. Machine monitor	22. Heater/Air conditioner control
9. R.H. Clamshell rotation, switch/breaker switch	23. 12 V power supply
10. Undercarriage attachment switch	24. Outriggers L/R, Hazard, park brake, road light, Axle lock switches.
11. Right work equipment control lever	25. Travel pedal
12. Starting switch	26. Brake pedal
13. Fuel control dial	27. Steering column, Release pedal
14. Cigarette lighter	28. 2 piece boom pedal

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USE FUEL, COOLANT AND LUBRICANTS ACCORDING TO AMBIENT TEMPERATURE

PROPER SELECTION OF FUEL, COOLANT AND LUBRICANTS

Reservoir		Kind of fluid	AMBIENT TEMPERATURE		Type OF OIL	CAPACITY	
			Min	Max		Specified	Refill
Engine oil pan		Engine oil (API CE or CF-4)	0°C (32°F) -20° C (-4°F) -15°C (0°F) -30° C (-22°F)	30°C (86°F) 10° C (50°F) 50° C (122°F) 30° C (86°F)	SAE 30 SAE 10W SAE 15W-40 SAE 10W-30	16 liter 4.2 US gal	16 liter 4.2 US gal
Swing machinery case		Engine oil	-20° C (-4°F)	30° C (86°F)	SAE 30	4 liter 1.1 US gal	4 liter 1.1 US gal
Hydraulic system		Bio-oil	-20° C (-25°F)	30° C (104°F)	SAE 10W ISO 46	190 liter 50.2 US gal	135 liter 37.7 US gal
		Hydr-oil API-CD	-20° C (-4°F)	30° C (104°F)	SAE 10W-30		
		Engine oil API-CD	-20° C (-4°F)	50° C (122°F)	SAE 15W-40		
Fuel tank		Diesel fuel	-10° C (14°F) -30° C (-22°F)	40° C (104°F) -10° C (14°F)	ASTM D975 No. 2 ASTM D975 No 1 (for winter use)	250 liter 66.05 US gal	
Cooling system		Water	Add antifreeze			20 liter 5.3 Us gal	
Axles	Front	Multi oil	-30° C (-22°F)	40° C (104°F)	SAE 20W-30	15 liter 4 US gal	
	Rear					20 liter 5.3 US gal	
Transmission						1.1 liter O.3 Us gal	
Transmission clutch						0.5 liter 0.13 Us gal	
Hubs	Front		-30° C (-22°F)	40° C (104°F)	SAE 80W-90	2.5 liter 0.7 Us gal	
	Rear					2.7 liter 0.72 Us gal	

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CHANGE OIL IN ENGINE OIL PAN, REPLACE ENGINE OIL FILTER CARTRIDGE

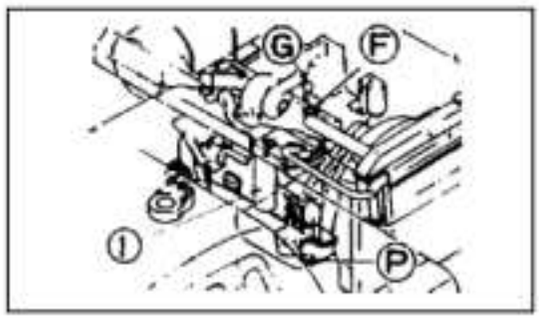
⚠ WARNING

The oil is at high temperature after the engine has been operated, so never change the oil immediately after finishing operations. Wait for the oil to cool down before changing it.

Prepare the following

- Container to catch drained oil: Min 17 liters (4.50 US gal)
- Refill capacity: 16 liters (4,22 US gal)
- Filter wrench

1. Remove the inspection cover of the undercover directly under drain valve (P) under the machine, then place a container to catch the oil.
2. Remove cap from drain valve (P), fit drain hose from machine toolkit and drain oil. After draining oil remove hose and refit cap.
3. Check the drained oil, and if there are excessive metal particles or foreign material, please contact your distributor.
4. Tighten drain valve (P).
5. Using the filter wrench, turn filter cartridge (1) counterclockwise to remove it.
   In particular, if this operation is carried out immediately after stopping the engine, a large amount of oil will come out, so wait for 10 minutes before starting the operation.
6. Clean the filter holder.



REMARK

Confirm that no remnants of old packing still adhere to the filter holder as this may result in oil leakage.

NOTICE

Do not tighten filter or use any tools for installation be cause this can damage the gasket and filter.

7. Fill the new filter with clean oil.
8. Install the new filter by applying a little engine oil to the seal and thread the filter on by hand by turning it clockwise until hand tight.
9. After replacing the filter cartridge, add engine oil through oil filler (F) until the oil level is between the H and L marks on dipstick (G).

   For details of the oil to use, see "USE FUEL, COOLANT AND LUBRICANTS ACCORDING TO AMBIENT TEMPERATURE" on page 175.

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