SERVICE MANUAL

E27B
Tier 3
Compact Hydraulic Excavator

PIN NETN27001 and above

Part number S5HD0003E01
1st edition English
October 2014

NEW HOLLAND CONSTRUCTION

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24.1.6.3 SPECIFICATION

Applicable model					E27B
Model	Travel motor				PHV-3B-35B-PT-9579A
Reduction unit	Output torque			N·m (lbf·ft)	3657 (2697)
	Output speed			min^{-1}	28.8/52.2
	Reduction ratio				1/45.20
Hydraulic motor	Capacity			cm^3/rev (cu·in/rev)	22.1 / 12.2 (1.35 / 0.74)
	Working pressure			MPa (psi)	23.0 (3335)
	Output speed			min^{-1}	1303 / 2361
	Working flow			L/min (gal/min)	28.8 (7.61)
	Two speed switching pressure	Switching pressure		MPa (psi)	3.5 (508)
		Operating pressure	Low speed → High speed	MPa (psi)	15.9±1.0 (2306±145)
			High speed → Low speed	MPa (psi)	17.4±1.0 (2523±145)
	Parking brake		Static friction torque	N·m (lbf·ft)	54.9 (40.5)
			Releasing pressure	MPa (psi)	1.0 (145)
Mass				kg (lb)	36 (79)

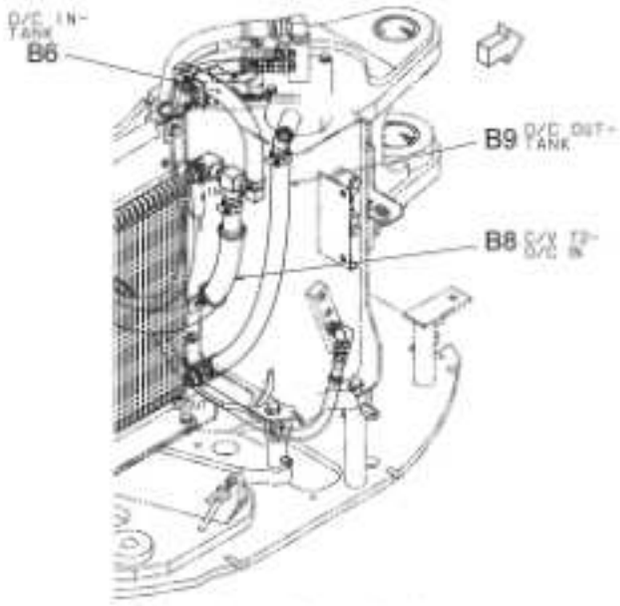
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(2) Draining hydraulic oil in oil cooler
1.
Release the pressure in the hydraulic circuit.
2.
Remove oil cooler hoses (B6), (B8) and (B9) and attach plugs to the outlet and inlet of the oil cooler and hoses.

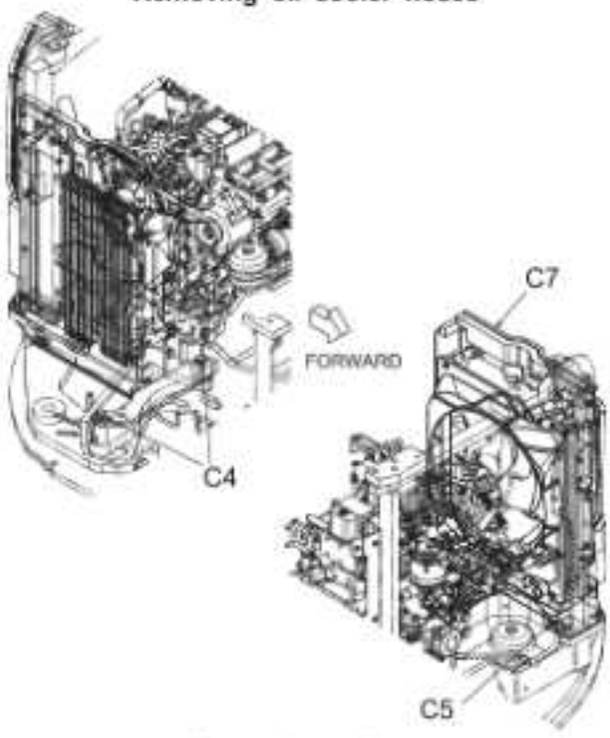
(3) Remove clip (7) from connection hose (5) of reserve tank (3) and remove the hose.

(4) Remove radiator hoses (1) and (2) fixed with clips (10) and (11).
Tools: Pliers, flat-head screwdriver

(5) Removing radiator
Loosen two sems bolts (C4) M12 x 30 and one sems bolt (C5) M12 x 25, and remove radiator assembly (C7).
Tools: Socket: 17mm
Mass: Approximately 21kg (46 lbs)



Removing oil cooler hoses



Removing radiator

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44. TROUBLESHOOTING (ENGINE)

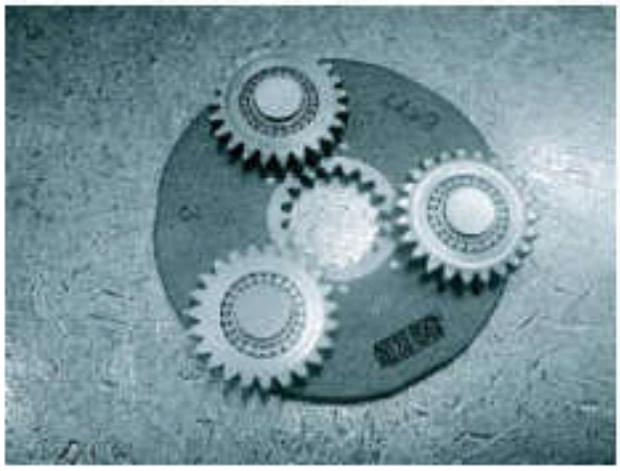
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9. Take out the B2 gears (107) and the needles 2 (112) from the carrier 2 kit.

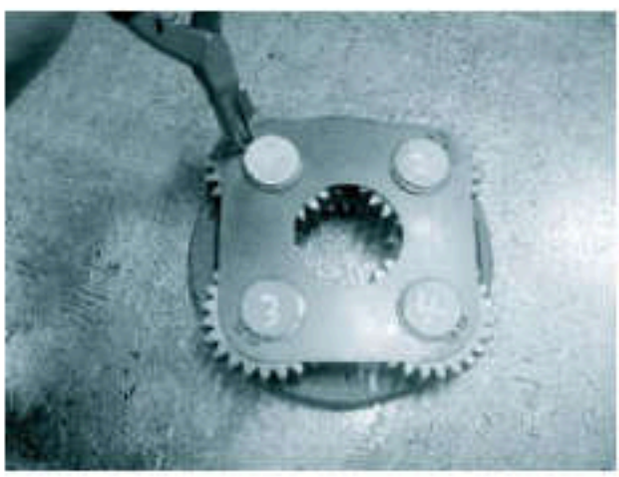


10. Take out the rings 2 (130) and thrust washers 2 (118) from the carrier 2 kit.



11. Take out the thrust plate 1 (115) from the carrier 1 kit.

    Tools: Snap ring plier: 22 dia. For shaft



12. Take out the b1 gears (116) and needles 1 (111) from the carrier 1 kit.



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(5) Color Multi-Display Display Details

The screen for the operator is displayed on the multi-display following the logo mark display, after the key is turned on. The multi-display has the following functions.

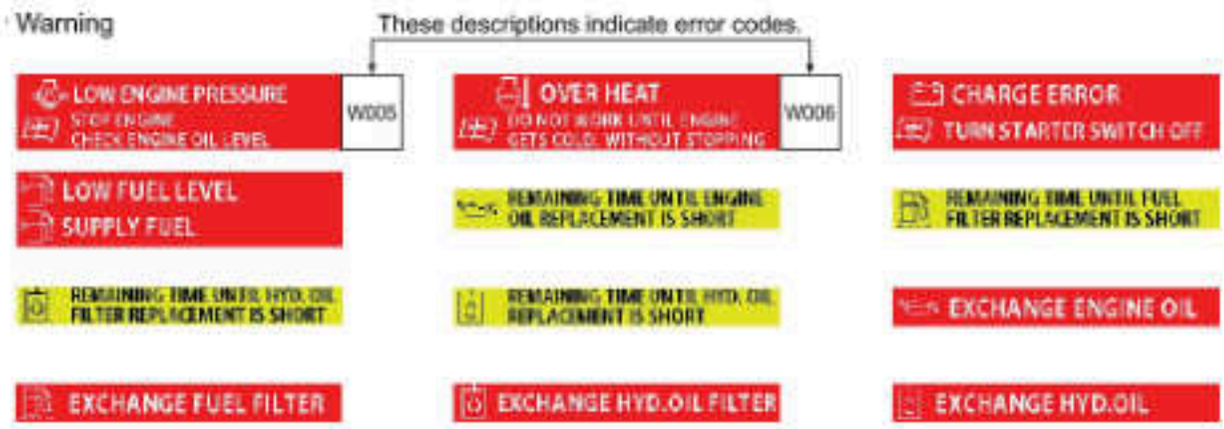


1. Display function for operator·····Normally, this is displayed during operation.

1.1 Time display····Displays the current time.

1.2 Self-diagnosis display·····If a failure is detected in the mechatronic system such as a sensor, the machine status and error code are displayed on the upper part, and the instruction is displayed on the lower part.

1.3 Warning display·····When the machine is in an unsafe condition or a failure occurs, the warning information is displayed with the symbol and text.



Notice

Error codes are stored as a failure history, and are displayed by the failure history display function on the multi-display.

1.4 Shovel status display·····Displays the shovel operating status.

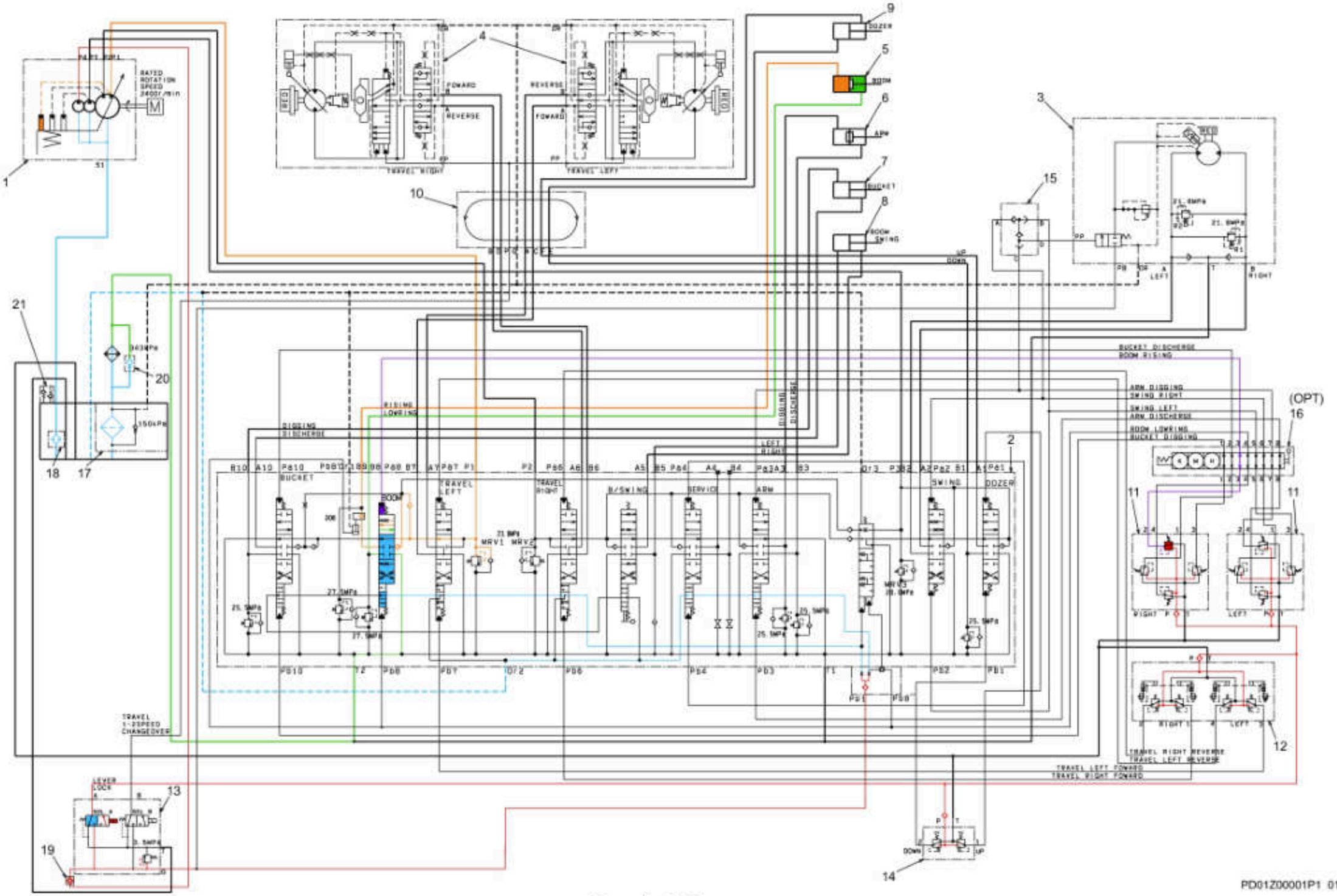
2. Maintenance display function·····The remaining time to the replacement time of the following maintenance items is displayed by pressing the menu switch and selecting "MAINTENANCE" from the user menu.

(1) Engine oil (2) Fuel filter (3) Hydraulic oil filter (4) Hydraulic oil

3. Failure history display·····Displays the stored past failures of mechatro system in the reverse chronological order by operating the starter key switch and buzzer stop switch.

4. Service diagnosis display·····Displays information from the mechatro controller such as a value detected with the pressure sensor by operating the starter key switch and buzzer stop switch.

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Boom circuit: Boom up

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