VEBM440102

Shop Manual

WHEEL LOADER **WA380-6**

SERIAL NUMBERS H60051 and up

ecot3

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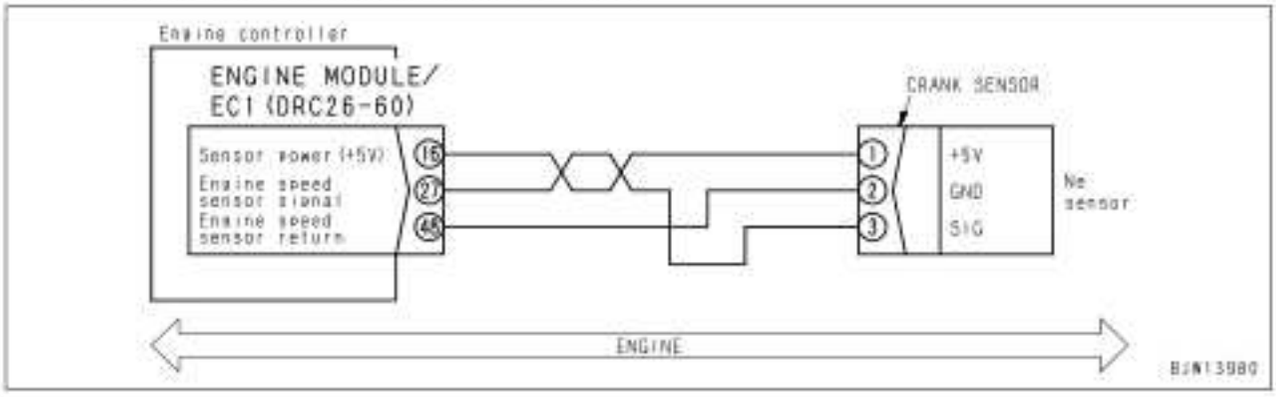
Unit: ℓ

Refill point	WA380-6	
	Specified capacity	Refill capacity
Engine oil pan	25.5	23
Transmission case	47	38
Hydraulic oil system	210	139
Axle (Front/Rear)	40/40	40/40
Cooling system	30.5	—
Fuel tank	300	—

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	Causes		Standard value in normal state/Remarks on troubleshooting		
Possible causes and standard value in normal state	9	Defective wiring harness connector	Connecting parts among engine Ne speed sensor, engine wiring harness, and engine controller are suspected. Inspect them directly. • Loose connector, broken lock, broken seal • Corrosive, bent, broken, forced-in, or extended pin • Humidity in connector, entry of dirt or dust, poor insulation		
	10	Defective engine controller	★ Prepare with starting switch OFF, then turn starting switch ON and carry out troubleshooting.		
			EC1		Voltage
			Between (16) and (48)	Power supply	4.75 – 5.25 V

Circuit diagram related to engine Ne speed sensor



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Failure code [DK5FKA] (Joystick steering EPC lever potentiometer (Main): Disconnection)

Action code	Failure code	Trouble	Joystick steering EPC lever potentiometer (Main): Disconnection (Work equipment controller system)
E03	DK5FKA		
Contents of trouble	• Due to disconnection or grounding fault in the joystick steering EPC lever potentiometer (Main) system, the signal voltage is lower than normal range (Joystick steering EPC lever potentiometer (Main) signal voltage: Max. 0.3 V)		
Action of controller	• If the joystick steering EPC lever potentiometer (Sub) is normal, the Sub potentiometer is in control. • Turns the centralized warning lamp and alarm buzzer ON. • Even if cause of failure disappears, system does not reset itself until the joystick steering EPC lever is set to N (Neutral).		
Problem that appears on machine	• If disconnection occurs, machine turns to left but returns to normal operation in 0.5 seconds.		
Related information	• When the joystick steering ON/OFF switch is set to OFF, this failure code is not displayed. • The input state (voltage) from the joystick steering EPC lever potentiometer (Main) can be checked with the monitoring function (Code: 42004, J/S POT1). • The input state (voltage) from the joystick steering EPC lever potentiometer (Sub) can be checked with the monitoring function (Code: 42005, J/S POT2). • Method of reproducing failure code: Turn the starting switch ON and operate joystick steering lever		

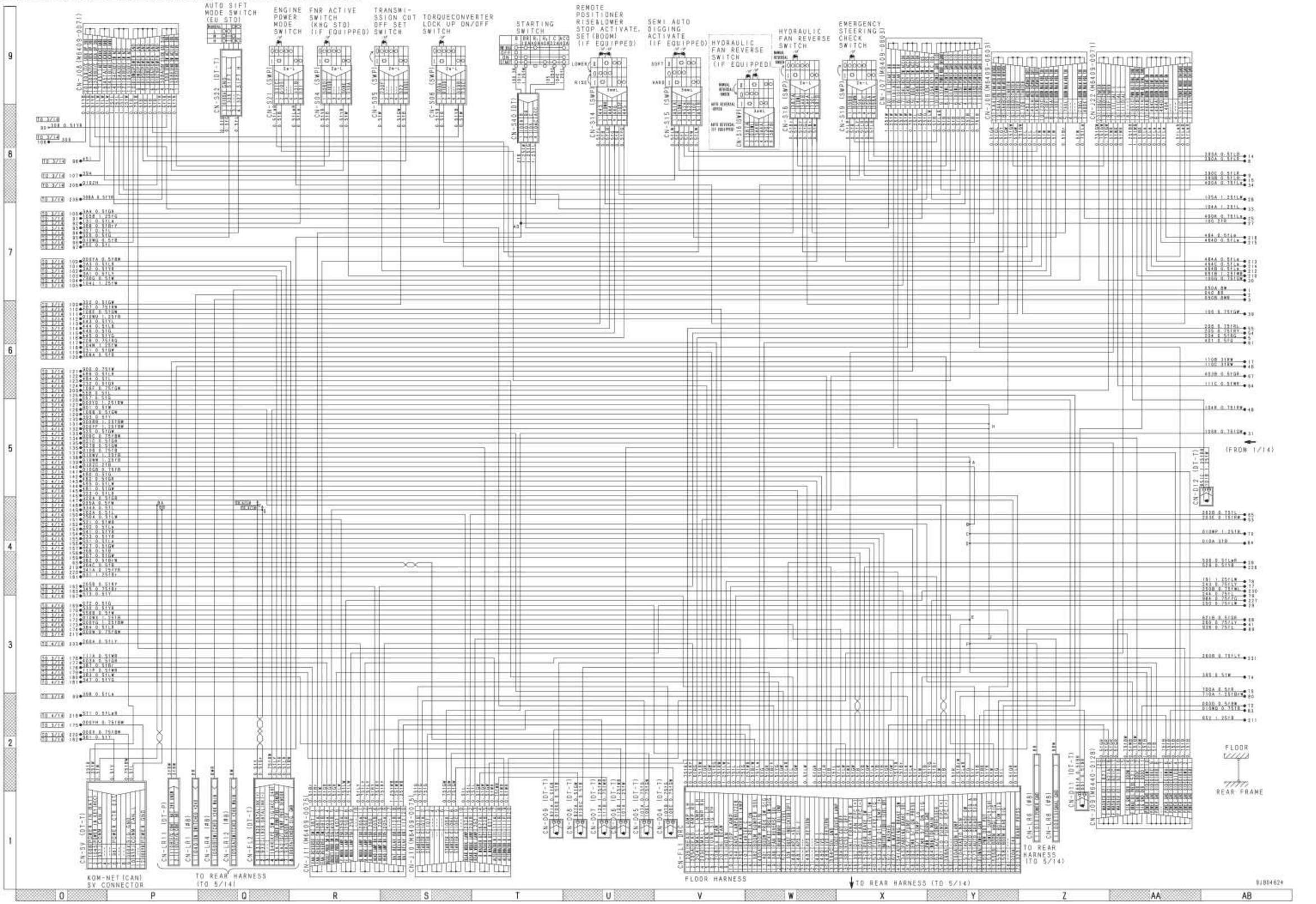
	Causes		Standard value in normal state/Remarks on troubleshooting			
Possible causes and standard value in normal state	1	Defective joystick steering EPC lever potentiometer (Internal disconnection or short circuit)	★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.			
			JS3 (male)		Resistance	
			Between (1) and (4)		3.2 ± 0.64 kΩ	
			Between (1), (2), (3) or (4) and chassis ground		Min. 1 MΩ	
			★ Prepare with starting switch OFF, then turn starting switch ON and carry out troubleshooting.			
			JS3	Joystick steering EPC lever	Voltage	
			Between (4) and (1)	Constant	4.85 – 5.15 V	
			Between (3) and (1)	Lever at neutral	2.40 – 2.60 V	
				Left turning	1.14 – 1.54 V	
				Right turning	3.46 – 3.86 V	
	2	Disconnection in wiring harness (Disconnection in wiring harness or defective contact)	★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.			
			Wiring harness between L71 (female) (9) – JS3 (female) (3)		Resistance	Max. 1 Ω
			Wiring harness between L71 (female) (22) – JS3 (female) (4)		Resistance	Max. 1 Ω
			Wiring harness between JS3 (female) (1) – chassis ground		Resistance	Max. 1 Ω
	3	Grounding fault in wiring harness (Contact with ground circuit)	★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.			
			Wiring harness between L71 (female) (9) – JS3 (female) (3) and chassis ground		Resistance	Min. 1 MΩ
			Wiring harness between L71 (female) (22) – JS3 (female) (4) and chassis ground		Resistance	Min. 1 MΩ

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Electrical circuit diagram (2/14)

Common to WA380-6, WA430-6E0, WA470-6 and WA480-6

★ This figure covers the equipment and devices that are unavailable as optional items in some areas.



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