Manual No. : TT17VE-00

Technical Manual

(Troubleshooting)

ZAXIS

800

HITACHI

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SECTION 4
OPERATIONAL PERFORMANCE TEST



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SENSOR ACTIVATING RANGE

1. Checking Method

- Hydraulic Oil Temperature: 50 ± 5 °C
- Unless specified:

Engine Control Dial	Power Mode Switch	Work Mode Switch	Auto-Idle /Auto-Acceleration Selector
Maximum Speed	P Mode	Digging Mode	OFF

- Monitor each sensor using Dr. EX.

2. Sensor Activating Range

Sensor	Operation	Specification
Engine Control Dial	Minimum Speed	0.3 to 1.0 V
	Maximum Speed	4.0 to 4.7 V
EC Sensor	Minimum Speed	2.5 to 2.7 V
	Maximum Speed (Power Mode Switch: P)	3.3 to 3.7 V
	Maximum Speed (Power Mode Switch: HP)	Maximum Speed (Mode Switch: OFF) +0.2 V or more
Pressure Sensor	Control Lever: Neutral Pilot Control Shut-Off Lever: LOCK	0 to 0.1 MPa (0 to 1.0 kgf/cm^2)
	Control Lever: Full Stroke Pilot Control Shut-Off Lever: UNLOCK	3.3 to 3.9 MPa (34 to 40 kgf/cm^2)
Pump Control Pressure Sensor	Control Lever: Neutral	1.0 to 1.6 MPa (10 to 16 kgf/cm^2)
	Control Lever: Full Stroke	2.9 to 3.9 MPa (30 to 40 kgf/cm^2)
Pump Displacement Angle Sensor	Control Lever: Neutral	*67 cm^3 (3.13 V)
	One Track Jacked-Up, Travel Lever (Raised Track Side): Full Stroke	*278 cm^3
Pump Delivery Pressure Sensor	Control Lever: Neutral	0.3 to 0.5 MPa (3 to5 kgf/cm^2)
	Boom Raised and Cylinder Relieved	32±1.5 MPa (325±15 kgf/cm^2)
N Sensor	25°C (Between Ground to Signal)	2.3±0.2 kΩ

*NOTE: *Reference Valve*

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FAULT CODE 01 (ABNORMAL EEPROM)
FAULT CODE 02 (ABNORMAL RAM)
FAULT CODE 03 (ABNORMAL A/D CONVERSION)

- Check for loose harness connections beforehand.



* Even if any fault codes are still displayed after retrying, as long as the engine and machine operate normally, the machine can be operated as it is.

FAULT CODE 04 (ABNORMAL SENSOR VOLTAGE)

- Check for loose harness connections beforehand.



FAULT CODE 05 (ABNORMAL N SENSOR)

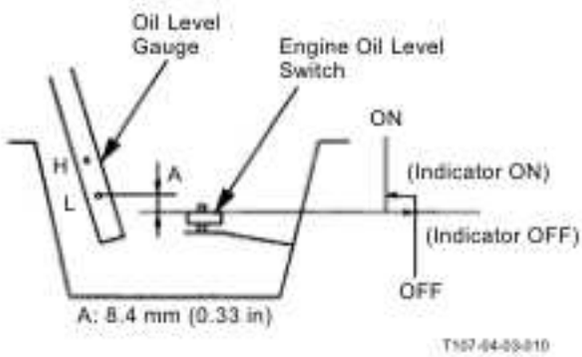
- Fault code 05 is displayed when the engine speed is more than 4000 min^{-1}.
- Even if signals from N sensor are not delivered due to broken circuit or poor sensor installation, few changes in operational performance occur, making troubleshooting difficult. Use monitor function.
- Check for loose harness connections beforehand.



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- Short-circuited harness between engine oil level switch and monitor
- Faulty monitor
- Faulty engine oil level switch

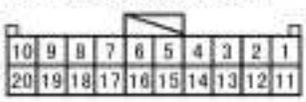
Engine Oil Level Switch



- YES → Faulty monitor
- NO → Broken harness between engine oil level switch and monitor
- Faulty engine oil level switch
- Normal (Lack of engine oil)

Connector (Harness end connector terminals seen from the open end side)

Monitor Connector B (20P)



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