PART NO. TTDCA-EN-01

HITACHI

Reliable solutions

Technical Manual
Troubleshooting

ZX
250LC-5B
250LCN-5B
Hydraulic Excavator

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TODCA-EN
Technical Manual (Troubleshooting)	: Vol. No.TTDCA-EN
Workshop Manual	: Vol. No.WDCA-EN
Engine Manual	: Vol. No.ETDCA-EN, EWDCA-EN

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SECTION 4

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Sensor Activating Range

1. Checking Method

- Hydraulic Oil Temperature: 50±5 °C (122±9 °F)
- Unless specified:

Engine Control Dial	Power Mode	Work Mode	Auto-Idle Switch
Fast Idle	PWR	Digging Mode	OFF

- Monitor each sensor by using MPDr.

2. Sensor Activating Range

Item	Operation	Specification
Engine Control Dial	Slow Idle	0.3 to 1.0 V
	Fast Idle	4.0 to 4.7 V
Pressure Sensor	Control lever: Neutral Pilot Shut-Off Lever: LOCK	0 to 0.1 MPa (0 to 1.0 kgf/cm^2, 0 to 14.5 psi)
	Control lever: Full Stroke Pilot Shut-Off Lever: UNLOCK	3.3 to 3.9 MPa (34 to 40 kgf/cm^2, 479 to 566 psi)
Pump Control Pressure Sensor	Control lever: Neutral	0 to 1 MPa (0 to 10 kgf/cm^2, 0 to 145 psi)
	Control lever: Full Stroke	2.9 to 3.9 MPa (30 to 40 kgf/cm^2, 421 to 566 psi)

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Test Harness

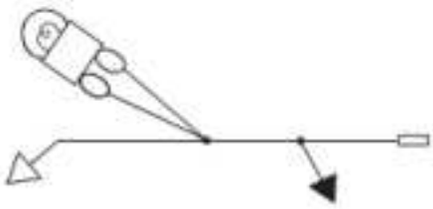
Install a test harness between connectors. Check the circuit condition depending on whether the test harness lamp lights or extinguishes during operation.

- Parts Number 4283594 (ST 7126)

Use in order to check a single-line (discontinuity and/or voltage).

- During Operation: Light is ON.

Parts Number 4283594 (ST 7126)



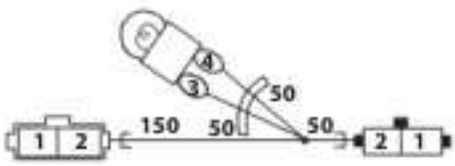
T107-07-05-012

Parts Number (ST 7226)

- Parts Number (ST 7226)

Use in order to check the solenoid valve unit circuits.

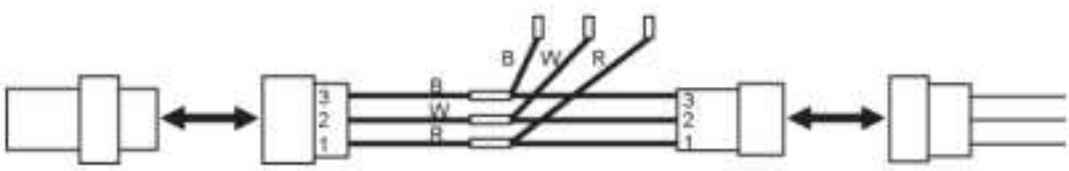
- When the corresponding control lever or switch is operated: Light is ON.



T107-07-06-015

Connect a test harness to the harness end connector of pressure sensor. Check the state of pressure sensor circuit.

- ST 6701 for high-pressure sensor
- ST 6703 for low-pressure sensor



TDAA-05-06-003

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Other Failures

Fault Code	Trouble	Cause	Symptoms in Machine Operation When Trouble Occurs.	Remedy
11458-2	(Auxiliary) Discontinuity of Selector Valve	The circuit of selector valve control solenoid valve is abnormal.	The return circuit connection is not shifted to the hydraulic oil tank.	Check the harness.
11459-2	Discontinuity of Auto Shut-Down Control Power Line	The auto shut-down relay circuit is abnormal.	Auto shut-down is not activated.	Check the harness.
11901-3	Hydraulic Oil Temperature Sensor Circuit High Input	Voltage: more than 4.35 V	When hydraulic oil temperature is less than 0 °C, the auto-warming up control is impossible.	Check the harness.
11901-4	Hydraulic Oil Temperature Sensor Circuit Low Input	Voltage: less than 0.1 V	When hydraulic oil temperature is less than 0 °C, the auto-warming up control is impossible.	Check the harness.
20010-2	Abnormal Muffler Filter	Abnormal pump 1 delivery pressure sensor. Pump 1 and 2 Torque P/S Valve Abnormal FB. Abnormal current feedback of 2-spool solenoid valve unit (SJ). Abnormal current feedback of 2-spool solenoid valve unit (SZ).	The alarm is displayed on the monitor.	Check the harness.
20011-2	Electric Lever System Alarm	Abnormal analog stroke sensor Abnormal electric lever 1 control pressure sensor OPT electric lever 1 center signal fault OPT electric lever 1 abnormal operation	The alarm is displayed on the monitor.	Check the harness.

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Rewrite of Muffler Filter Serial No.

When the muffler filter has been replaced, rewrite the serial No. of muffler filter and upload the data to e-Service.

1. Connect MPDr..
2. Set the key switch to the ON position.
3. Select Functions-Engine/Muffler Filter-Muffler Filter NO. with MPDr..
4. Input the following items of Oxidation Catalyst (DOC) and Filter (CSF).

- ASM
- SUB
- Serial No.

5. After inputting, select Setting.

IMPORTANT: After inputting Muffler Filter Serial No. is completed, upload the data to e-Service.

NOTE: When the input data is uploaded to e-Service, the M-Find product specification and history will be updated.



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