PART NO. TTNEC-EN-00

HITACHI

Reliable solutions

Technical Manual
Troubleshooting

ZW

250-5B
Wheel Loader

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TONEC-EN
Technical Manual (Troubleshooting)	: Vol. No.TTNEC-EN
Workshop Manual	: Vol. No.WNEC-EN
Engine Manual	: Vol. No.ETDDD-EN, EWDDD-EN

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SECTION 4

OPERATIONAL PERFORMANCE TEST

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Test Harness

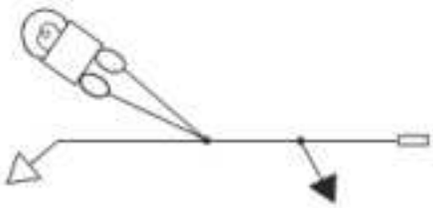
Install a test harness between connectors. Check the circuit condition depending on whether the test harness lamp lights or extinguishes during operation.

- 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)



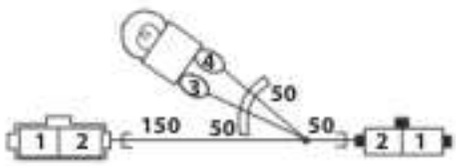
T107-07-05-012

Parts Number (ST 7226)

- Parts Number (ST 7226)

Use in order to check the solenoid valve unit circuits.

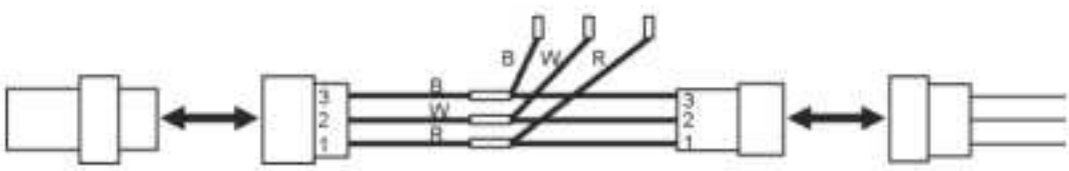
- When the corresponding control lever or switch is operated: Light is ON.



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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Symptoms in Machine Operation When Trouble Occurs.	Assumptive Conditions at Backup
The output power decreases.	Regenerative control is impossible.
The output power decreases.	Regenerative control is impossible.
The output power decreases.	Muffler filter pressure difference is 0 kPa.
The output power decreases.	Muffler filter pressure difference is 0 kPa.
The output power decreases.	Muffler filter pressure difference is 0 kPa.
Abnormal system 1: No backup Abnormal system 2: Accelerator opening amount is limited to 0 %.	The accelerator opening amount signal cannot be used. (The limited value is changed according to the quantity of faulty systems.)
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Abnormal system 1: No backup Abnormal system 2: Accelerator opening amount is limited to 0 %.	The accelerator opening amount signal cannot be used. (The limited value is changed according to the quantity of faulty systems.)
Nothing special.	Engine oil pressure is 120 kPa.
Nothing special.	Engine oil pressure is 120 kPa.
The output power decreases.	Malfunction of VGS turbo
The output power decreases.	Boost pressure is 100 kPa.
The output power decreases.	Boost pressure is 100 kPa.
Nothing special.	Boost temperature is 50 °C.
Nothing special.	Boost temperature is 50 °C.
The output power decreases.	Atmospheric pressure is 95 kPa.
The output power decreases.	Atmospheric pressure is 95 kPa.
There is no influence when operating the machine.	Injection amount is regulated by overheat protection.

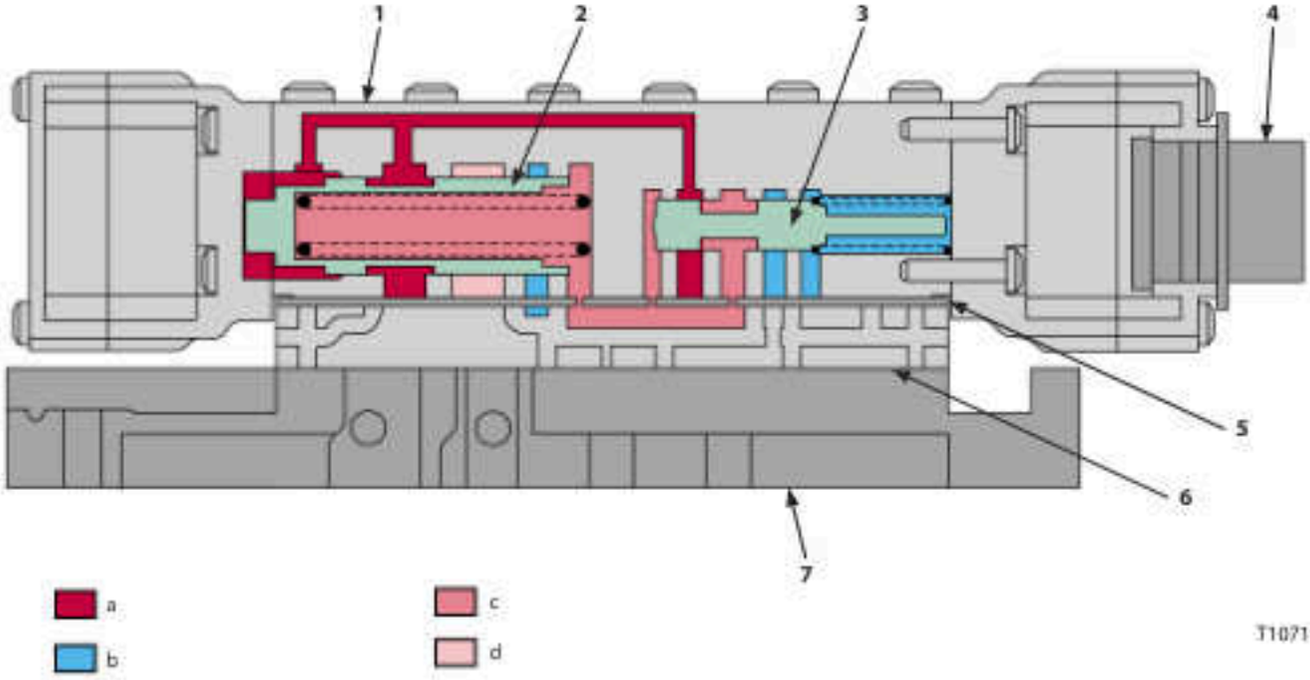
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MC Fault Codes 120008, 120014

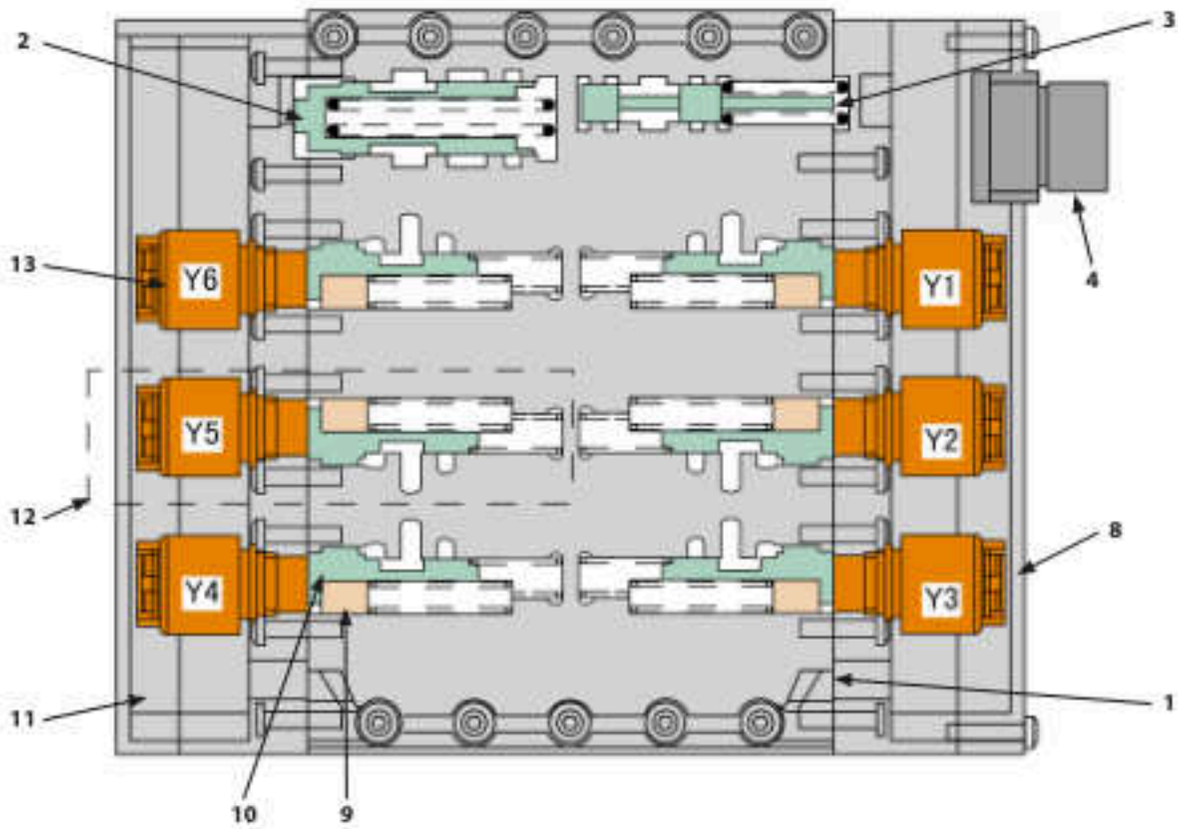
Fault Code	Trouble	Inspection Method	Evaluation	Cause
120008-2	Abnormal Muffler Filter	Diagnose on fault codes of others.	-	-
120014-2	Overrun Alarm	Diagnose on fault codes of TCU.	-	-

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Section of Transmission Control Valve



T107151



T107153

a- System Main Pressure Oil
b- Returning Oil
c- Reduced Pressure Oil
d- Converter Pressure Oil

1- Valve Body
2- Pressure Control Valve
3- Pressure Reducing Valve
4- Connector
5- Middle Plate
6- Channel Plate
7- Plate
8- Cover
9- Damper Valve
10- Spool
11- Housing
12- Modulation Circuit
13- Proportional Solenoid Valve

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