PART NO. TTLBA-EN-00

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Technical Manual
Troubleshooting

ZX
170W-5B
Wheeled Excavator

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TOLBA-EN
Technical Manual (Troubleshooting)	: Vol. No.TTLBA-EN
Workshop Manual	: Vol. No.WLBA-EN
Engine Manual	: Vol. No.ETDCA-EN, EWDCA-EN

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SECTION 4

OPERATIONAL PERFORMANCE TEST

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List of Frequency Distribution Data

Item	Details
Pump Load	Frequency distribution of average pump delivery pressure of pumps 1 and 2
Average Pump Delivery Pressure in Digging Operation	Frequency distribution of average delivery pressure from pumps during digging operation
Average Pump Delivery Pressure in Travel Operation	Frequency distribution of average delivery pressure from pumps during travel operation
Radiator Coolant Temperature (79 °C or less)	Total hours when coolant temperature is less than 80 °C during a day.
Radiator Coolant Temperature (80 to 93 °C)	Total hours when coolant temperature is 80 °C or more and less than 94 °C during a day.
Radiator Coolant Temperature (94 to 104 °C)	Total hours when coolant temperature is 94 °C or more and less than 105 °C during a day.
Radiator Coolant Temperature (105 °C or more)	Total hours when coolant temperature is 105 °C or more during a day.
Hydraulic Oil Temperature (49 °C or less)	Total hours when hydraulic oil temperature is less than 50 °C during a day.
Hydraulic Oil Temperature (50 to 89 °C)	Total hours when hydraulic oil temperature is 50 °C or more and less than 90 °C during a day.
Hydraulic Oil Temperature (90 to 99 °C)	Total hours when hydraulic oil temperature is 90 °C or more and less than 100 °C during a day.
Hydraulic Oil Temperature (100 °C or more)	Total hours when hydraulic oil temperature is 100 °C or more during a day.

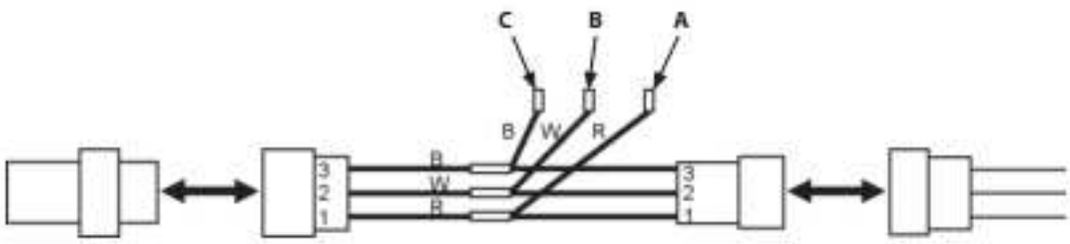
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MC1 Fault Codes 11200, 11202, 11205

Preparation

- Check the wiring connections first.
- Connect the test harness (ST 6701) and dummy sensor equivalent to #4703324.
- Before inspection, set the key switch to the ON position.

Fault Code	Trouble	Inspection Method	Evaluation	Cause
11200-3	Pump 1 Delivery Pressure Sensor Circuit High Input	Retry by using MPDr..	Un-displayed fault code	Faulty sensor.
		Measure voltage between B and body.	Voltage: more than 4.5 V	Shorted circuit in harness #1 and #2.
11200-4	Pump 1 Delivery Pressure Sensor Circuit Low Input	Retry by using MPDr..	Un-displayed fault code	Faulty sensor.
		Measure voltage between A and body.	0 V	Open circuit in harness #1.
		Measure voltage between A and C (GND).	0 V	Open circuit in harness #3.
		-	Normal in above check.	Open circuit in harness #2.
11202-3	Pump 2 Delivery Pressure Sensor Circuit High Input	Retry by using MPDr..	Un-displayed fault code	Faulty sensor
		Measure voltage between B and body.	Voltage: more than 4.5 V	Shorted circuit in harness #1 and #2.
11202-4	Pump 2 Delivery Pressure Sensor Circuit Low Input	Retry by using MPDr..	Un-displayed fault code	Faulty sensor.
		Measure voltage between A and body.	0 V	Open circuit in harness #1.
		Measure voltage between A and C (GND).	0 V	Open circuit in harness #3.
		-	Normal in above check.	Open circuit in harness #2.
11205-3	Steering Pump Delivery Pressure Sensor Circuit High Input	Retry by using MPDr..	Un-displayed fault code	Faulty sensor.
		Measure voltage between B and body.	Voltage: more than 4.5 V	Shorted circuit in harness #1 and #2.
11205-4	Steering Pump Delivery Pressure Sensor Circuit Low Input	Retry by using MPDr..	Un-displayed fault code	Faulty sensor.
		Measure voltage between A and body.	0 V	Open circuit in harness #1.
		Measure voltage between A and C (GND).	0 V	Open circuit in harness #3.
		-	Normal in above check.	Open circuit in harness #2.



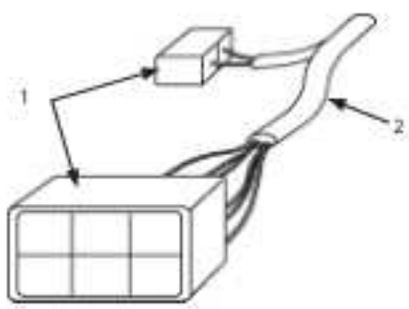
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Troubleshooting B (Machine Diagnosis by Using Troubleshooting Symptom) Procedure

Refer to troubleshooting B procedures for diagnosis by using trouble symptom when no fault codes are displayed.

- Diagnosis Procedure
  - The diagnosis procedures for the displayed fault codes are explained in this group.
  - Perform diagnosis by using MPDr. or the service menu of monitor first.
  - In case any fault code has not been displayed by diagnosis, perform inspection according to the procedures when diagnosing.
  - When the fault code is displayed, refer to the troubleshooting A group and diagnose.
  - On the front section pages of this group, there are the tables indicating the relationship between machine trouble symptoms and related parts which may cause such trouble if failed. Start the troubleshooting with more probable causes selected by referring to these tables.

NOTE: Harness end connector viewed from the open end side by the all connectors image shown in this section.



T6L4-05-03-001

1- Harness End Connector 2- 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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