PART NO. TTLAC50-EN-00

HITACHI

Reliable solutions

Technical Manual

Troubleshooting

ZX

145W-6

Wheeled Excavator

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TOLAC50-EN
Technical Manual (Troubleshooting)	: Vol. No.TTLAC50-EN
Workshop Manual	: Vol. No.WLAC50-EN
Engine Manual	: Vol. No.ETLAB50-EN, EWLAB50-EN

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MC1 Fault Code List

Controller Hardware Failure

Fault Code	Trouble	Cause	Symptoms in Machine Operation When Trouble Occurs.	Remedy
11000-2	Abnormal EEPROM	Faulty MC1	-	Replace MC1.
11001-2	Abnormal RAM	Faulty MC1	-	Replace MC1.
11002-2	Abnormal A/D Converter	Faulty MC1	-	Replace MC1.
11003-3	Abnormal Sensor Voltage	Faulty MC1 Faulty sensor Faulty wire harness.	Although the engine control dial is operated, the engine speed does not change.	Check the sensor connected to MC1. Check the wire harness. Replace MC1.

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MC1 Fault Codes 11006, 11007, 11009 Monitor Controller (Monitor) Fault Codes 13002, 13003, 13005

Preparation

- Check the wiring connections first.
- Check the CAN0 harness between the controllers. (Refer to CAN0 Harness Check.)

Fault Code	Trouble	Inspection Method	Cause
11006-2	(MC) EC Communication Error	Continuity check (open circuit)	Open circuit in wire harness.
		Discontinuity check	Short circuit in wire harness
11007-2	(MC) IC Communication Error 1	Continuity check (open circuit)	Open circuit in wire harness.
		Discontinuity check	Short circuit in wire harness
11009-2	(MC) Monitor Controller Communication Error 1	Continuity check (open circuit)	Open circuit in wire harness.
		Discontinuity check	Short circuit in wire harness
13002-2	(Monitor Controller) Engine Controller Communication Error	Continuity check (open circuit)	Open circuit in wire harness.
		Discontinuity check	Short circuit in wire harness
13003-2	(Monitor Controller) Main Controller Communication Error 1	Continuity check (open circuit)	Open circuit in wire harness.
		Discontinuity check	Short circuit in wire harness
13005-2	(Monitor Controller) ICF Communication Error 1	Continuity check (open circuit)	Open circuit in wire harness.
		Discontinuity check	Short circuit in wire harness

NOTE: IC and ICF are the Information Control Unit of Monitor Controller.

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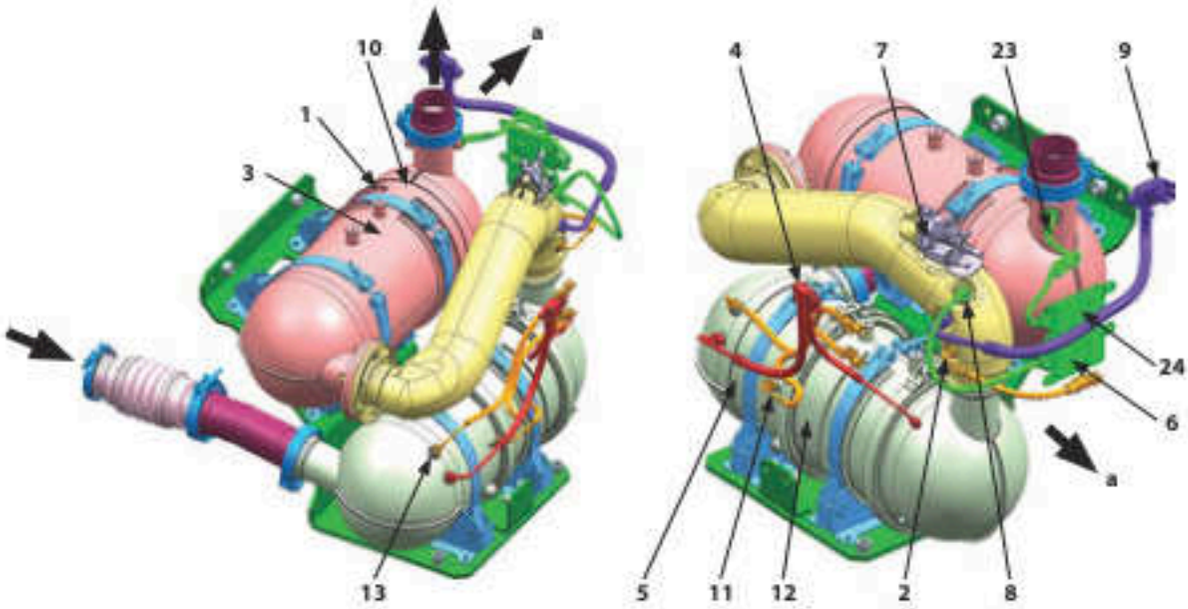
Air Conditioner Controller Fault Codes 11 to 22

Preparation

- Check the wiring connections first.
- Before inspection, set the key switch to the ON position.

Fault Code	Trouble	Procedure	Inspection Method	Evaluation	Cause
11	Open circuit in re-circulated air temperature sensor	1	Measure resistance between sensor #1 and #2.	∞ Ω (Specification: 300 to 430 kΩ)	YES: Faulty sensor.
					NO: Go to Procedure No. 2
		2	Measure voltage between sensor harness end #1 and the body.	0 V	YES: Open circuit in wire harness #1.
					NO: Open circuit in wire harness #2.
12	Short circuit in re-circulated air temperature sensor	1	Measure resistance between sensor #1 and #2.	0 Ω (Specification: 300 to 430 kΩ)	YES: Faulty sensor.
					NO: Short circuit in wire harness #1 and #2.
13	Open circuit in ambient temperature sensor	1	Measure resistance between sensor #1 and #2.	∞ Ω (Specification: 100 to 210 kΩ)	YES: Faulty sensor.
					NO: Go to Procedure No. 2
		2	Measure voltage between sensor harness end #1 and the body.	0 V	YES: Open circuit in wire harness #1.
					NO: Open circuit in wire harness #2.
14	Short circuit in ambient temperature sensor	1	Measure resistance between sensor #1 and #2.	0 Ω (Specification: 100 to 210 kΩ)	YES: Faulty sensor.
					NO: Short circuit in wire harness #1 and #2.
18	Short circuit in solar radiation sensor	1	Check continuity between sensor harness end #1 and #2.	0 Ω	YES: Short circuit in wire harness #1 and #2.
					NO: Faulty sensor
21	Open circuit in frost sensor	1	Measure resistance between sensor #1 and #4.	∞ Ω (Specification: 100 to 115 kΩ)	YES: Faulty sensor.
					NO: Go to Procedure No. 2
		2	Measure voltage between sensor harness end #1 and the body.	0 V	YES: Open circuit in wire harness #1.
					NO: Open circuit in wire harness #2.
22	Short circuit in frost sensor	1	Measure resistance between sensor #1 and #4.	0 Ω (Specification: 100 to 115 kΩ)	YES: Faulty sensor.
					NO: Short circuit in wire harness #1 and #4.

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TLAB-02-03-102

a- Machine Front Side

1- Aftertreatment Device
2- SCR Exhaust Temperature Sensor
3- SCR Catalyst
4- Differential Pressure Sensor
5- Diesel Oxidation Catalyst (DOC) 1
6- Upstream NOx Sensor Controller
7- Dosing Module
8- Upstream NOx Sensor
9- SCR Pressure Sensor
10- Diesel Oxidation Catalyst (DOC) 2
11- DOC Outlet Exhaust Temperature Sensor
12- Filter (CSF)
13- DOC Inlet Exhaust Temperature Sensor
23- Downstream NOx sensor
24- Downstream NOx Sensor Controller

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Rewrite of Aftertreatment Device Serial No.

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

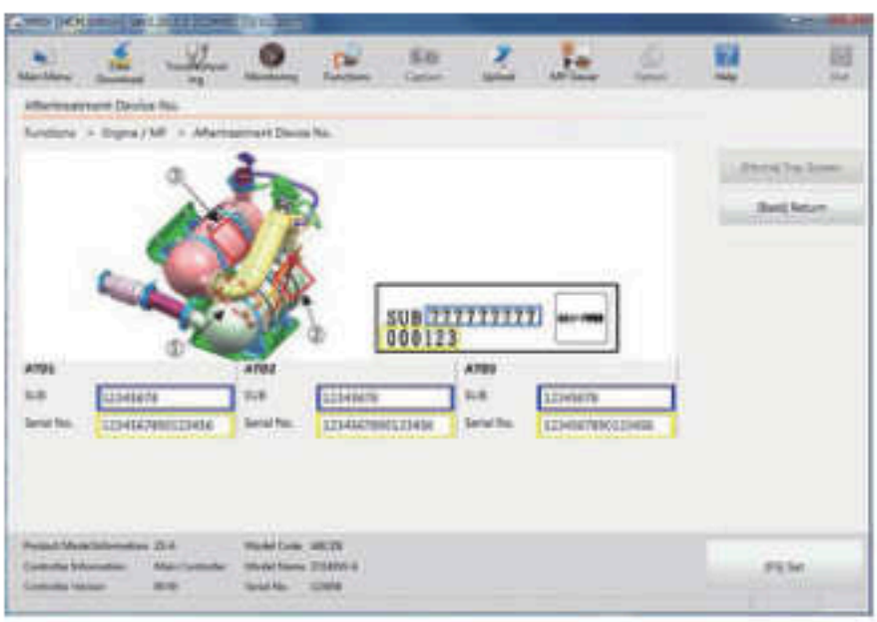
Procedure

1. Connect MPDr..
2. Set the key switch to the ON position.
3. Select Functions-Engine/MF-Aftertreatment Device No. with MPDr..
4. Input the serial No. after the replacement to the following items of Oxidation Catalyst (DOC) and SCR Catalyst.

- ASM
- SUB
- Serial No.

5. After inputting, select Set.
6. Upload the input data to e-Service.

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



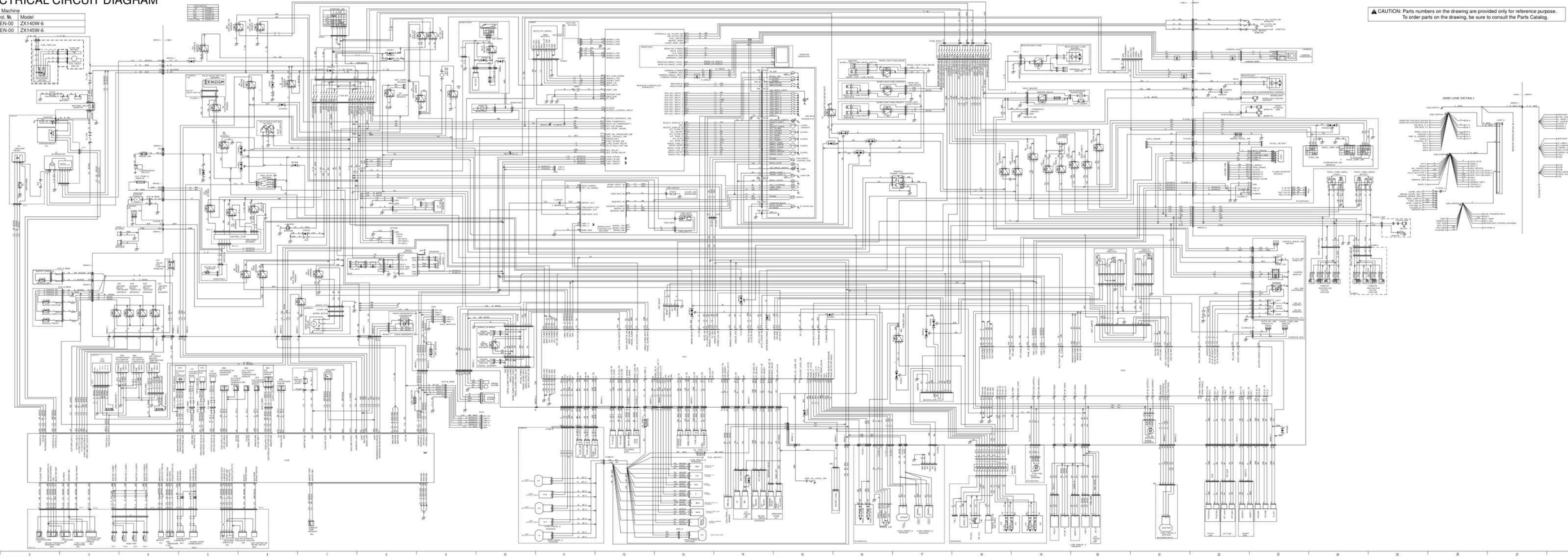
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ELECTRICAL CIRCUIT DIAGRAM

Applicable Machine

Attach to vol. No.	Model
TTLAB50-EN-00	ZX140W-6
TTLAC50-EN-00	ZX145W-6



TTLAC50-EN-00(20170131)

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