PART NO. TTDBG-EN-00

HITACHI

Reliable solutions

Technical Manual
Troubleshooting
ZX160LC-5G
Hydraulic Excavator

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TODBG-EN
Technical Manual (Troubleshooting)	: Vol. No.TTDBG-EN
Workshop Manual	: Vol. No.WDBG-EN
Engine Manual	: Vol. No.EDAG-EN

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SECTION 4

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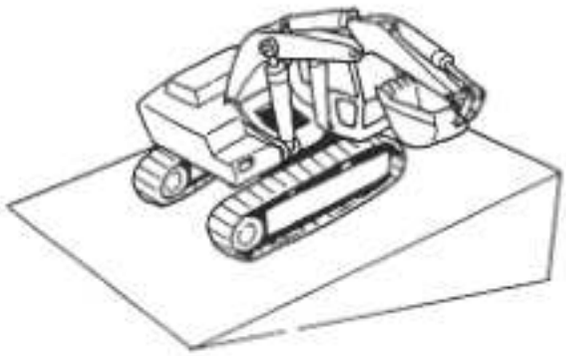
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Swing Motor Leakage

Summary:

1. Measure the upperstructure drift while suspending a load on a specified slope and check the performance of the swing parking brake. (The mechanical brake for the swing parking brake is equipped for the swing device.)



T105-06-03-011

Preparation:

1. Check lubrication of the swing gear and the swing bearing.
2. Load the bucket with either soil or a weight equivalent to the weight standard.

   Weight: 825 kg (1820 lb)
3. With the arm cylinder fully retracted and the bucket cylinder fully extended, hold the bucket so that height of the arm end pin is the same as the boom foot pin.
4. Park the machine on a smooth slope with a gradient of 26.8 % (15°).
5. Climb a slope and swing the upperstructure to position it 90° to the slope. Put the matching marks on the outer circumference of the swing bearing (upperstructure side) and track frame by using the tape.
6. Maintain the hydraulic oil temperature at 50±5 °C (122±9 °F).

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Monitor Controller (Monitor) Fault Code List

Fault Code	Trouble	Cause	Remedy
13000-2	Flash Memory Error 1	Faulty monitor controller	Replace monitor controller
13001-2	Flash Memory Error 2	Faulty monitor controller	Replace monitor controller
13002-2	ECF Communication Error	Faulty monitor controller Faulty CAN0 harness	Check the CAN0 harness. Replace monitor controller.
13003-2	MC Communication Error 1	Faulty monitor controller Faulty CAN0 harness	Check the CAN0 harness. Replace monitor controller.
13004-2	MC Communication Error 2	Faulty monitor controller Faulty CAN1 harness	Check the CAN1 harness. Replace monitor controller.
13005-2	Monitor Controller (Information) Communication Error 1	Faulty monitor controller Faulty CAN0 harness	Check the CAN0 harness. Replace monitor controller.
13006-2	Monitor Controller (Information) Communication Error 2	Faulty monitor controller Faulty CAN1 harness	Check the CAN1 harness. Replace monitor controller.
13007-2	Wiper / Light Controller Communication Error	Faulty monitor controller Faulty CAN1 harness	Check the CAN1 harness. Replace monitor controller.
20113-2	System Failure Alarm	Faulty CAN communication bus line.	Check the CAN harness.

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Air Conditioner Controller Fault Codes 43 to 92

Preparation

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

Fault Code	Trouble	Inspection Method	Evaluation	Cause
43	Abnormal air vent damper servo motor	Measurement of voltage between servo motor harness end 4 and body. (AUTO/OFF switch / blower switch: ON)	0 V	Faulty controller or open circuit in harness between controller and air vent damper servo motor.
		Measurement of voltage between servo motor harness end 4 and 6. (AUTO/OFF switch / blower switch: ON)	0 V	Faulty controller or open circuit in harness between controller and air vent damper servo motor.
		-	Normal in above check.	Faulty air vent damper servo motor.
44	Abnormal air mix damper servo motor	Measurement of voltage between servo motor harness end 4 and body. (AUTO/OFF switch / blower switch: ON)	0 V	Faulty controller or open circuit in harness between controller and air mix damper servo motor.
		Measurement of voltage between servo motor harness end 4 and 6. (AUTO/OFF switch / blower switch: ON)	0 V	Faulty controller or open circuit in harness between controller and air mix damper servo motor.
		-	Normal in above check.	Faulty air mix damper servo motor.
51	Abnormal high/ low refrigerant pressure	Measurement of voltage between high/low pressure switch harness end 1 and 2. (AUTO/OFF switch / blower switch: ON)	0 V	Faulty controller or open circuit in harness between controller and high/low pressure switch.
		-	Normal in above check.	Faulty high/low pressure switch.
91	CAN communication error	Continuity check in CAN1 harness.	Normal	Faulty controller.
			Abnormal	Faulty CAN1 harness.
92	CAN bus off error	Continuity check in CAN1 harness.	Normal	Faulty controller.
			Abnormal	Faulty CAN1 harness.

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