PART NO. TTDAK90-EN-00

HITACHI

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Technical Manual
Troubleshooting

ZX
130-5A
Hydraulic Excavator

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TODAK90-EN
Technical Manual (Troubleshooting)	: Vol. No.TTDAK90-EN
Workshop Manual	: Vol. No.WDAK90-EN
Engine Manual	: Vol. No.EDBL-EN

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SECTION 4

OPERATIONAL PERFORMANCE TEST

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Dig Function Drift Check

- Maximum Reach Position

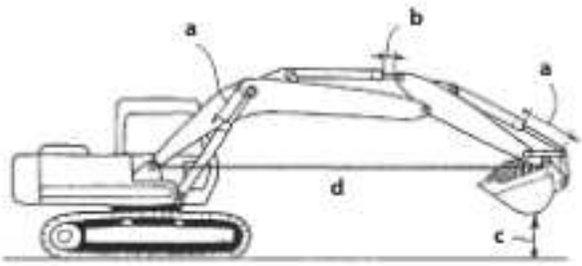
Summary:

1. Measure the dig function drift, which can be caused by oil leakage in the control valve and boom, arm, and bucket cylinders, with the bucket loaded.
2. When measuring the drift just after the cylinder replacement, slowly operate the cylinder for ten minutes and bleed air from the cylinder.

Preparation:

1. Load the bucket with either soil or a weight equivalent to the weight standard.

   Weight: 675 kg (1490 lb)
2. 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.
3. Position the arm cylinder and the bucket cylinder with the rod 50 mm (2 in) away from the full stroke end position.
4. Maintain the hydraulic oil temperature at 50±5 °C (122±9 °F).



T105-06-03-021

a - Retracted Distance
b - Extended Distance
c - Dig Function Drift Amount
d - height is the same as boom foot pin.

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Test Wire Harness

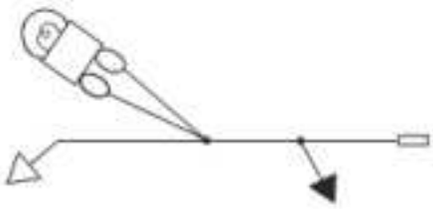
Install a test wire harness between connectors. Check the circuit condition depending on whether the test wire harness lamp lights or extinguishes during operation.

- 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)



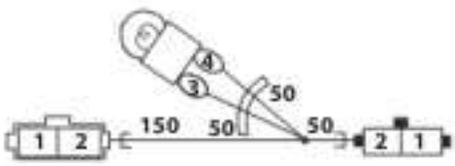
T107-07-05-012

Parts Number (ST 7226)

- Parts Number (ST 7226)

Use in order to check the solenoid valve unit circuits.

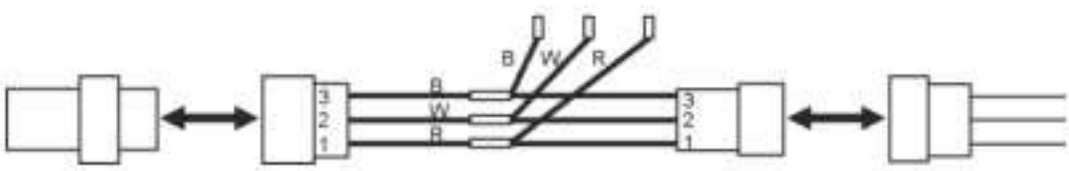
- When the corresponding control lever or switch is operated: Light is ON.



T107-07-06-015

Connect a test wire harness to the wire 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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Monitor Controller (Information) Fault Codes 20100 to 20114

Fault Code	Trouble	Inspection Method	Evaluation	Cause
20100-2 20114-2	Overheat Alarm	Disconnect a connector from the overheat switch. Retry by using MPDr..	Displayed fault code	Faulty monitor controller, or short circuit in wire harness
			Un-displayed fault code	Faulty overheat switch
20101-2	Engine Warning Alarm	Diagnose on fault codes of ECM.	-	-
20102-2	Engine Oil Pressure Alarm	Disconnect a connector from engine oil pressure sensor. Retry by using MPDr..	Displayed fault code	Faulty monitor controller, ECM or short circuit in wire harness
			Un-displayed fault code	Faulty engine oil pressure sensor or ECM
20104-2	Fuel Level Alarm	Refer to Fault Code 13311..	-	-
20105-2	Hydraulic Oil Filter Restriction Alarm	Disconnect a connector from hydraulic oil filter restriction switch. Retry by using MPDr..	Displayed fault code	Faulty monitor controller, or short circuit in wire harness
			Un-displayed fault code	Faulty hydraulic oil filter restriction switch
20106-2	Air Cleaner Restriction Alarm	Disconnect a connector from air filter restriction switch. Retry by using MPDr..	Displayed fault code	Faulty monitor controller, or short circuit in wire harness
			Un-displayed fault code	Faulty air filter restriction switch
20107-2	Water Separator Alarm	Disconnect a connector from the water separator alarm switch. Retry by using MPDr..	Displayed fault code	Faulty monitor controller, or short circuit in wire harness
			Un-displayed fault code	Faulty water separator alarm switch

Connector (Wire harness end)

- Monitor Controller-A Connector



TDAB-05-06-011

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