SERVICE MANUAL

E485B
Crawler Excavators ROPS Tier III

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NEW HOLLAND CONSTRUCTION

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Table 18

Error code	**B043**		
Trouble	Arm-in pressure sensor's wiring is disconnecting.		
Judging condition	The input voltage from arm-in pressure sensor is 0.1 V or less.		
Symptom	Cavitation occurs at independent work of arm-in. Arm horizontal arm pulling can be barely done but if attachment is pulled in the air, arm falls first. Bucket can drag under the condition that the bucket bottom put on the ground.		
Control in the event of failure	Set proportional valve output rate of P1 and P2 pumps to 0 mA. (Hydraulic pump emergency mode) Set output of P1 and P2 unload proportional valve to 0 mA. (Valve emergency mode) Set output of arm 2 arm-in proportional valve to 200 mA.		
Returned in normal condition	It returns automatically in normal condition.		
Service diagnosis checking screen	Screen No.	5	B-4 ARM IN
	Screen No.		
	Screen No.		
Checking object			Checking contents and remedy
1	• Arm-in pressure sensor SE-7		When B043 is cancelled and other error occurs after exchanging the connector with other sensor. Check sensor unit for possible failure. If failure found, replace it.
2	• Wiring between arm-in pressure sensor and controller CN-130F CN-101F		When B043 is displayed after the connector is exchanged with other sensor. Check wiring for possible failure according to the wiring checking procedure and repair it if necessary..
3	• Mechatro controller		Check that the error is corrected after replacement of controller.

Table 19

Error code	**B044**

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Installation

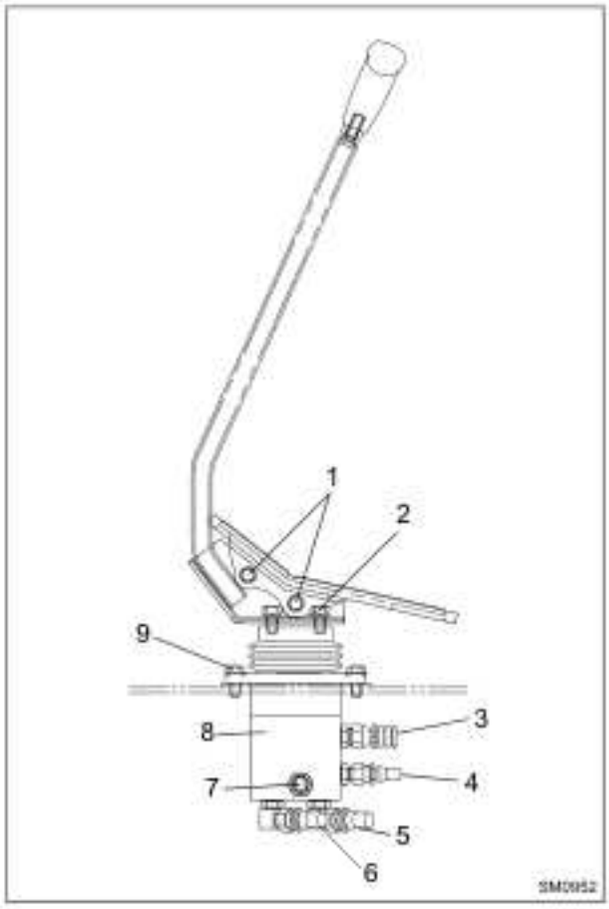
1. Install body (**8**) on the frame tightening securing screws (**9**) complete with washers.
   - : 17 mm
   - : 37 Nm (27.4 lbf·ft)

2. Connect pipes (from **3** through **6**) to body (**8**).
   - : 19 mm
   - : 16.7 Nm (12.3 lbf·ft)
   - : 22 mm
   - : 30 Nm (22.0 lbf·ft)

3. Connect pressure sensors (**7**) to body (**8**).
   - : 24 mm
   - : 16.7 Nm (12.3 lbf·ft)

4. Install the levers tightening securing screws (**2**) and the pedals tightening securing screws (**1**).
   - : 17 mm
   - : 46.1 Nm (34.1 lbf·ft)
   - : 13 mm
   - : 23.5 Nm (17.4 lbf·ft)

5. Install the cover under the cab
   - : 19 mm
   - : 108 Nm (80.0 lbf·ft)

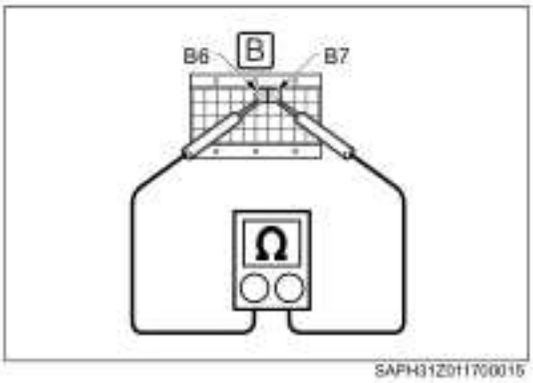


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Engine speed main sensor circuit malfunction (DTC code P0335)

JP31Z01170601004

1	Measurement of resistance between terminals



SAPH31Z011700015

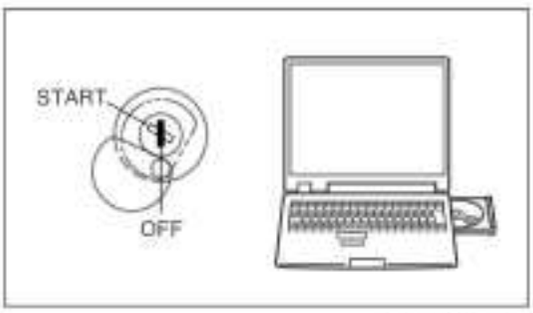
1. Set the starter key to "OFF" and connect the signal check harness.
2. Disconnect the ECU side connector of the signal check harness and measure the resistance between terminal B6 and terminal B7.

Standard value : Approx. 125.5 ± 17 Ω (20 °C{68 °F})

NG → [3] Go to measurement of resistance between sensor terminals.

OK

2	Check of diagnosis code



SAPH31Z011700016

1. Connect the ECU side connector of the signal check harness. After deleting the past failure, Start the engine and confirm that no diagnostic code is put out.

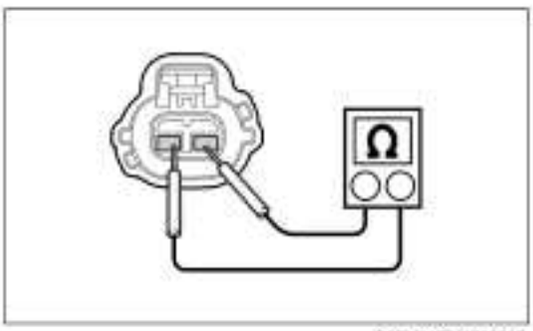
Standard : No diagnostic code

NG → Contact failure of ECU connector, ECU failure, short-circuit of harness

OK

Normal

3	Measurement of resistance between terminals



SAPH31Z011700017

1. Disconnect the connector of the main engine speed sensor and measure the resistance between No. 1 and No. 2 terminals at the sensor.

Standard value : Approx. 125.5 ± 17 Ω (20 °C{68 °F})

NG → Failure of main engine speed sensor

OK

Harness disconnection or connector failure

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Arm cylinder disassembly

Be sure to thoroughly read all the precautions for disassembly/assembly work on page W1-1-1 before starting the disassembly procedure.

The disassembly procedure below starts on the premise that the hydraulic lines and the line securing bands have been removed.

NOTE: *arm cylinder mass: 584 kg (1288 lbs)*

1. Lift and securely place the cylinder on a workbench using a crane. Be sure that the cylinder is placed horizontally. Drain hydraulic oil from the cylinder.

2. Fully extend cylinder rod (**11**). Secure the rod end using a crane. Remove socket bolts (**8**) from cylinder head (**7**).
   : 14 mm

IMPORTANT: *be sure to pull cylinder rod (**11**) straight so as not to damage the sliding surfaces.*

3. Pull out cylinder head (**7**) from cylinder tube (**12**) by tapping with a plastic hammer.

4. Remove set screw (**21**) and loosen nut (**20**).
   : 14 mm



5. Loosen the piston (**15**) using the tool (**A**) then, remove the piston from cylinder rod.
   - Special tool (**A**): (XXXXXXXX)



6. Remove back up ring (**14**), O-ring (**19**), rings (**16**), wear rings (**17**) and O-ring (**18**), from the piston (**15**).

7. Remove cushion bearing (**13**) from cylinder rod (**11**).

8. Remove cylinder head (**7**) from cylinder rod (**11**).

9. Remove O-Rings (**10**) and (**22**), backup rings (**9**) and (**2**) from cylinder head (**7**), then remove wiper ring (**1**), seal (**3**), seal (**4**), snap ring (**6**), and bushing (**5**).

10. If necessary, using a screw driver, remove stopper (**24**) and cushion bearing (**23**) from cylinder rod (**11**).

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