Group:	11-ENGINE
Bulletin No.:	SB-14-007
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SERVICE INFORMATION BULLETIN

PROCEDURE FOR AUTO REGENERATION IS POSSIBLE BUT NOT MANUAL REGENERATION

RELEVANT MODELS:
Hino 2011MY - 2014MY vehicles with a J08E

CONTENTS:
Addition of the troubleshooting procedure for the inspection procedure for auto regeneration is possible but not manual regeneration.

Refer to pages 2/8 to 8/8 for details.

NOTE: This troubleshooting procedure will be added to the workshop manuals for the relevant vehicles in the next revision.

RELEVANT MANUALS:

Hino 238, 258, 268, and 338

MODEL	MANUAL No.	CHAPTER	PAGE No.
USA 2011 MY	S1-UNAE07B DIA	ENGINE CONTROL SYSTEM (J08E)	-
USA 2012 MY	S7-UNAE08A,B	ENGINE CONTROL SYSTEM (J08E)	-
USA 2013 MY	S7-UNAE09A	ENGINE CONTROL SYSTEM (J08E)	-
USA 2014 MY	S7-UNAE10 A,C	ENGINE CONTROL SYSTEM (J08E)	—

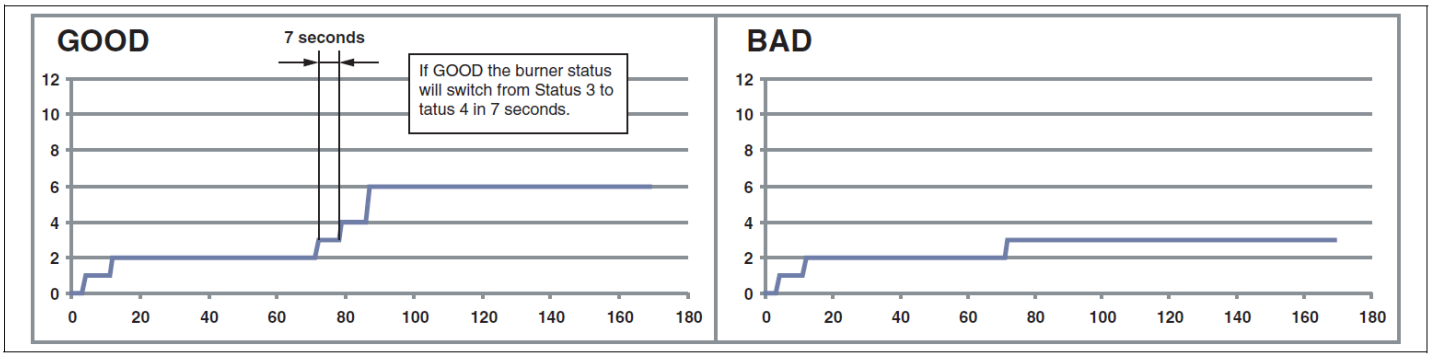
SERVICE INFORMATION BULLETIN

1 Check the Burner operation

Check the BCU status while DPR regeneration is in progress.

1. Set the starter switch to the "LOCK" position.
2. Connect the vehicle to HINO DX II .
3. Set the starter switch to the "ON" position and select [Engine].
4. Write the soot amount value of 2.2 with the DX customization function.
   HINO DX II selection items: [Customization]/[DPR deposit quantity]
5. Start the engine and the burner Data monitor.
6. Press the button DPR and monitor the burner status.
   Move from Status 3 to Status 4.
   HINO DX II selection items:[BCU]/[Data monitor and Active test]/[Data monitor setting]/[Burner state].

NOTICE
If Status 3 "Preparing Regen" does not change into Status 4 after 7 seconds, it means that the "Boost Pressure Value" sent from the engine ECU is too low [the boost pressure is at least 0.5 psi (3.44 kPa) below atmospheric pressure].



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Did the Burner State move from Status 3 to Status 4?

YES → **Go to step 2.**

NO → **Go to step 11.**

2	Check the boost pressure sensor monitor value

1. With the engine stopped, check the monitor values of the boost pressure sensor and barometric pressure sensor (built into ECU) using the DX Data Monitor function.
   HINO DX II selection items:[Engine]/[Data monitor and Active test]/[Data monitor setting]/[Atmospheric pressure] & [Actual boost pressure].

Standard values
Within 5 % pressure error

Are the monitor values within the standard?

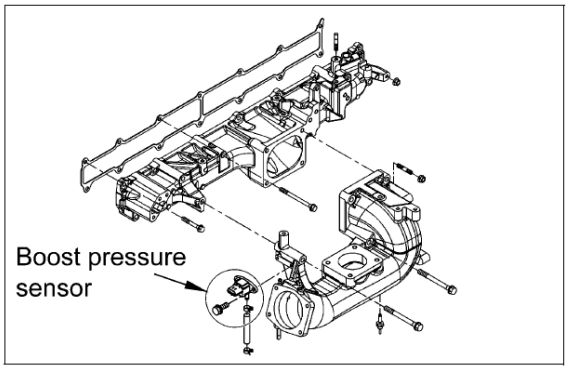
YES

Go to step 7.

NO

Go to step 3.

3	Inspect the boost pressure sensor



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1. Check the connection of the boost pressure sensor connector (looseness and poor contact).
2. Make sure the boost pressure sensor hose is not clogged, ruptured, or cracked.
3. Make sure the pipe on the intake manifold side is not clogged.

Was any failure found?

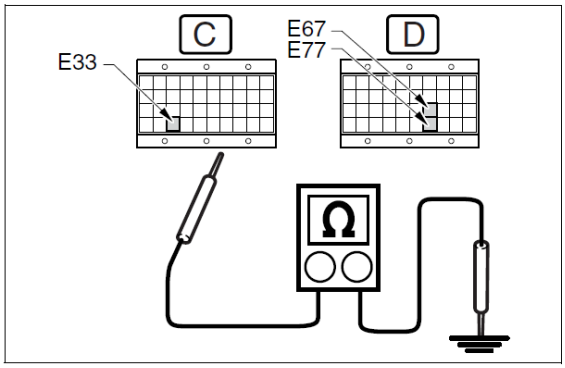
YES

1. Connect securely, repair if needed.
2. Replace the boost pressure sensor hose.
3. Clean the intake manifold pipes.
4. Make sure that manual regeneration is possible.

NO

Go to step 4.

4 Inspect for short-circuits in wire harness of boost pressure sensor



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1. Set the starter switch to the "LOCK" position.
2. Disconnect the boost pressure sensor connector.
3. Connect the signal check harness to the engine ECU vehicle-side harness. (Do not connect harness to the ECU.)
4. Use the electrical tester to measure the resistance between each terminal in the engine ECU (signal check harness) and ground.

Measurement conditions	Tester connections	Standard values
Starter switch: LOCK	**Engine ECU (signal check harness) AVC2(E33) – Ground PIM(E67) – Ground AGD4(E77) – Ground**	∞ Ω

Do the measurements meet the standard value?

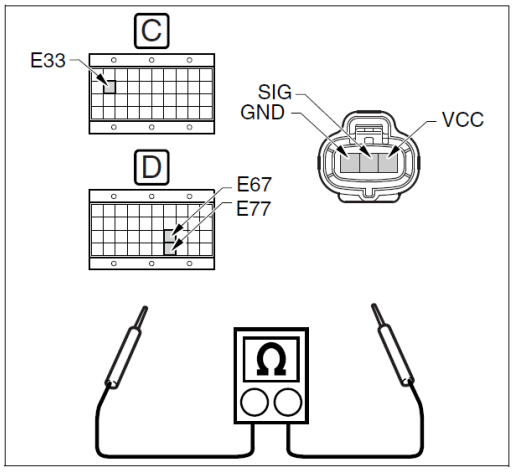
YES

Go to step 5.

NO

Repair or replace the harness. Make sure that manual regeneration is possible.

5 Inspect for disconnection in wire harness of boost pressure sensor



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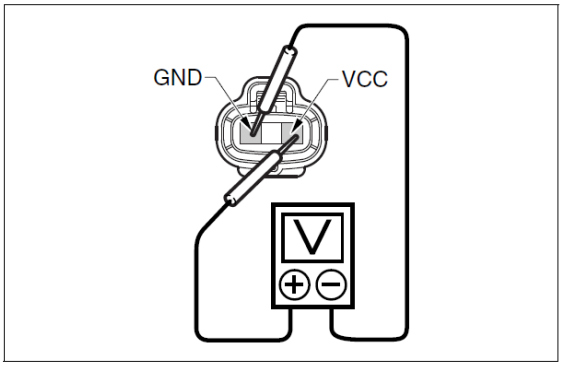
1. Use the electrical tester to measure the resistance between the engine ECU (signal check harness) and boost pressure sensor vehicle-side connector terminals.

Measurement conditions	Tester connections	Standard values
Starter switch: LOCK	**Engine ECU (signal check harness) – boost pressure sensor vehicle-side connector AVC2(E33) – VCC PIM(E67) – SIG AGD4(E77) – GND**	1 Ω

Do the measurements meet the standard value?

YES	NO
Go to step 6.	Repair or replace the harness. Make sure that manual regeneration is possible.

6 Inspect the boost pressure sensor power supply



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1. Connect the engine ECU vehicle-side harness to the engine ECU.
2. Set the starter switch to the "ON" position.
3. Use the electrical tester to measure the voltage between the terminals of the boost pressure sensor vehicle-side connector.

Measurement conditions	Tester connections	Standard values
Starter switch: ON	Boost pressure sensor vehicle-side connector VCC – GND	4.75 – 5.25V

Do the measurements meet the standard value?

YES	NO
Replace the boost pressure sensor. Go to step 7 after replacement.	Check the wire harness and sensor power output values of the engine ECU.

7 Check the air intake system

1. Check if the air cleaner upstream intake duct and the air cleaner are dirty or clogged.
2. Check the intake hose and verify that there are no disconnections, clogging, punctures, or cracks.
3. Check the breather hose and verify that there are no disconnections, clogging, punctures, or cracks.
4. Check the intercooler hose and verify that there are no disconnections, clogging, punctures, or cracks.

Was any failure found?

YES	NO
Unclog the intake system. Repair or replace intake system parts as necessary.	Go to step 8.

8	Inspect the intercooler

1. Check if there is an obstruction due to clogging inside the intercooler.

Was any failure found?

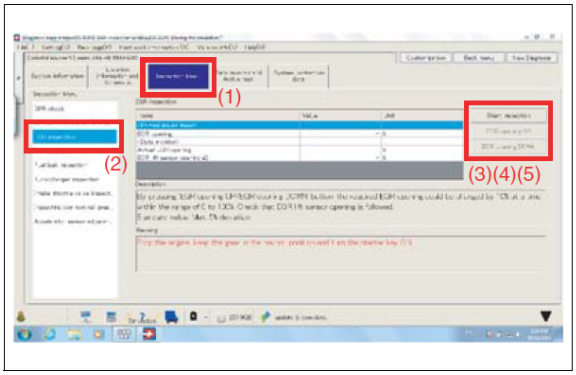
YES

Remove foreign substances and clean the intercooler.
Replace the intercooler if it is damaged.
Go to step 5 after cleaning or replacement.

NO

Go to step 9.

9	Inspect the response delay of the VNT controller [HINO DX II]



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1. Select [Engine] from the screen of HINO DX II .

2. Select [Inspection Menu] from the menu, then inspect the response delay at the Target VNT position and Actual VNT position.

⚠ CAUTION

- **Perform the inspection while the engine is stopped to avoid damages.**

<Inspection procedure>
(1) Select [Inspection Menu].
(2) Select [VNT inspection].
(3) Click [Start inspection].
(4) Select [VNT UP]:

- Inspect the response delay at each step of the Target VNT position and Actual VNT position from 0 to 90 %.
(5) Select [VNT DOWN]:
- Inspect the response delay at each step of the Target VNT position and Actual VNT position from 90 to 0 %.

HINT

- **The VNT opening position changes of around 10 % per step between 0 – 90 %.**

Standard values
From the Target VNT position to the Actual VNT position, the response delay should be within 3 seconds.

Do the measurements meet the standard value?

YES → **Go to step 10.**

NO → **Replace the turbocharger.**

10	Inspect the turbine blade

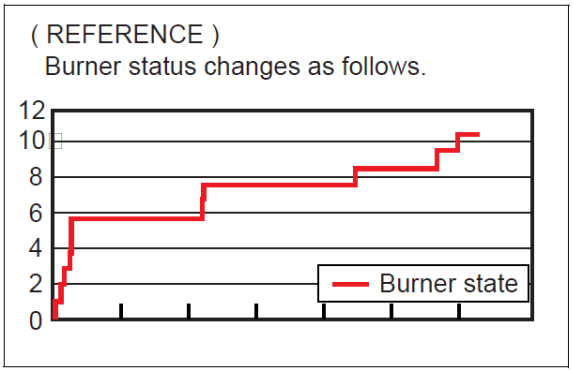
1. Remove air inlet pipe and exhaust pipe on turbocharger.
2. Check the damage of turbine blade, loosen of shaft, etc.

Was any failure found?

YES → **Replace the turbocharger.**

NO → **Return to step 1 and repeat check procedure.**

11	Check the Burner operation



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1. With conditions as described in step 1, check if monitoring of the BCU status continues while DPR manual regeneration is in progress, and if regeneration is completed.

NOTICE

If misfiring is detected during the previous burner operation, Igniter Fuel Cleaning mode (Status 2) is initiated for up to 15 minutes before the next burner operation.

[REFERENCE] Burner status changes as follows.

Was manual regeneration completed?

YES

Check completed. (The longer manual regeneration time due to previous occurrence of misfire was mistaken for failure to initiate manual regeneration.)

NO

Go to step 12.

12	Check CAN between VCS and ECU and CAN harness between ECU and BCU

Check CAN between VCS and ECU and CAN harness between ECU and BCU.

Was any failure found?

YES

Repair or replace the CAN harness.

NO

Replace the VCS and BCU.