Group:	11-ENGINE
Bulletin No.:	SB-14-003
Issue Date:	3/28/2014

SERVICE INFORMATION BULLETIN

REVISION OF INSPECTION PROCEDURE FOR THE DTC P0340 & P0341

The following is to inform you of the revision of the inspection procedure for the DTC's P0340 and P0341. You are kindly requested to attach this service data to the relevant pages of the workshop manuals for maintenance and to use for servicing.

RELEVANT MODELS:
Hino 2005MY - 2014MY vehicles with J05E and J08E engine with common rail fuel injection system

CONTENTS:
Revision of inspection procedure for the DTC P0340 & P0341
(Add the detailed inspection procedure for the engine speed sub sensor/camshaft position sensor installation)

Refer to the page 3/8 to 8/8 for details.

NOTE:
- Example is a diagnosis flow chart for Hino 600 series / 05MY - 10MY
- The workshop manual for each model will be revised at a later date.

RELEVANT MANUALS:

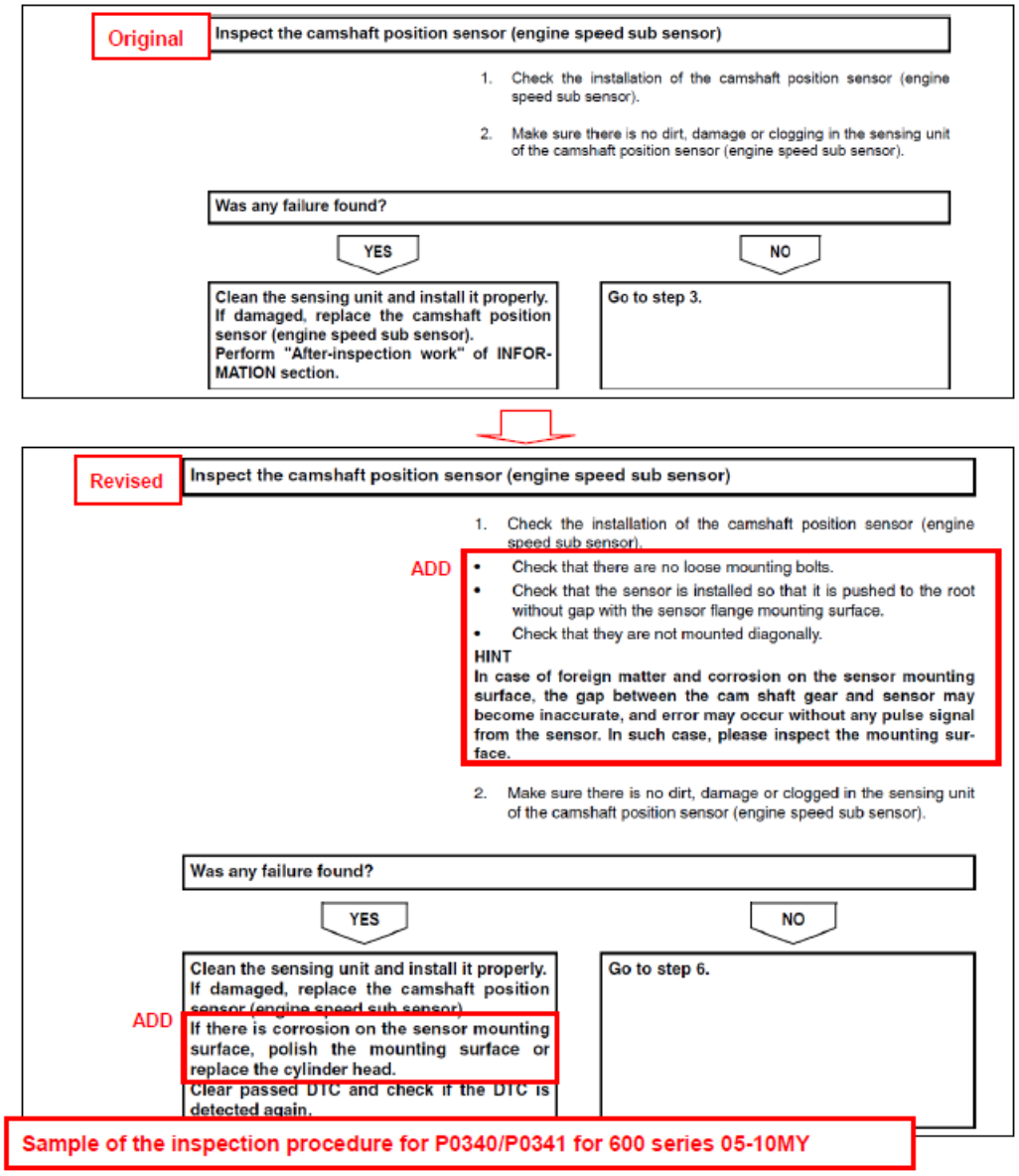
Hino 155, 195, 155h, 195h

MODEL		MANUAL No.	CHAPTER	PAGE No.
2013MY	USA	S7-LXJE01D	ENGINE (J05E)	2-231,232, From 2-234 to 237
2014MY	USA	S7-LXJE03C		From 2-598 to 602 From 2-605 to 612

Vendor Ref.:	SB-A-11-071

Hino 145,165,185, 238, 258, 268, 338, 358

MODEL		MANUAL No.	CHAPTER	PAGE No.
2005MY	USA	S5-UJ05E01B	FUEL CONTROL (J05D)	DN02-28
	USA	S5-UJ08E01B	FUEL CONTROL (J08E)	
2006MY	USA	S5-UJ05E02B	FUEL CONTROL (J05D)	
	USA	S5-UJ08E02B	FUEL CONTROL (J08E)	
2007MY	USA	S5-UJ05E03A	FUEL CONTROL (J05D)	
	USA	S5-UJ08E03A	FUEL CONTROL (J08E)	
2008MY	USA	S5-UJ05E04C	FUEL CONTROL (J05D)	DN02-32
	USA	S5-UJ08E04C	FUEL CONTROL (J08E)	
2009MY	USA	S5-UJ05E05C	FUEL CONTROL (J05D)	
	USA	S5-UJ08E05C	FUEL CONTROL (J08E)	
2010 MY	USA	S5-UJ05E06A	FUEL CONTROL (J05D)	
	USA	S5-UJ08E06A	FUEL CONTROL (J08E)	
2011MY	USA	S1-UNAE07B-DIA	FUEL CONTROL (J08E)	From DN-110 to112
2012MY	USA	S7-UNAE08A		From DN02-291,292, From DN02-295 to 298
2013MY	USA	S7-UNAE09B		From DN02-333,334, From DN02-337 to 340
2014MY	USA	S7-UNAE10C	ENGINE CONTROL SYSTEM (J08E)	From 4-499 to 503, From 4-506 to 511



Sample of the inspection procedure for P0340/P0341 for 600 series 05-10MY

INSPECTION PROCEDURE: P0340

1	Inspect the **camshaft position sensor (engine speed sub sensor) connector**

1. Check the connection of the camshaft position sensor (engine speed sub sensor) connector (Looseness and poor contact).

Was any failure found?

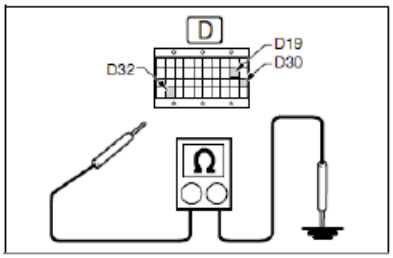
YES

Connect securely, repair if needed.
Clear passed DTC and check if the DTC is detected again.

NO

Go to step 2.

2	Inspect for short-circuit of the **camshaft position sensor (engine speed sub sensor)** harness



1. Set the starter switch to the "LOCK" position.
2. Connect the signal check harness to the engine ECU vehicle-side harness. (Do not connect the harness to the ECU.)
3. Disconnect the camshaft position sensor (engine speed sub sensor) connector.
4. Use the electrical tester to measure the resistance between the terminals of the signal check harness and ground.

Measurement conditions	Tester connections	Standard values
Starter switch: LOCK	D32(GVCC) – Ground D30(GGND) – Ground D19(G3+) – Ground	∞ Ω

Do the measurements meet the standard value?

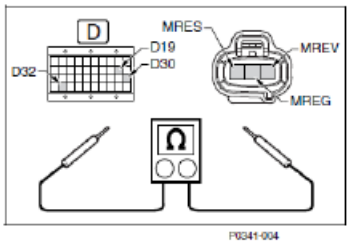
YES

Go to step 3.

NO

Repair or replace the harness.
Clear passed DTC and check if the DTC is detected again.

3	Inspect disconnection of the camshaft position sensor (engine speed sub sensor) harness



P0341-004

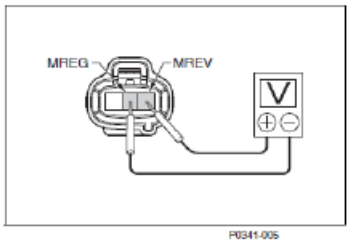
1. Use the electrical tester to measure the resistance between the terminals of the engine ECU (signal check harness) and camshaft position sensor (engine speed sub sensor) vehicle-side connector.

Measurement conditions	Tester connections	Standard values
Starter switch: LOCK	Camshaft position sensor (engine speed sub sensor) vehicle-side connector – Engine ECU (signal check harness) D32(GVCC) – MREV D30(GGND) – MREG D19(G3+) – MRES	Less than 2 Ω

Do the measurements meet the standard value?

YES	NO
Go to step 4.	Repair or replace the harness. Clear passed DTC and check if the DTC is detected again.

4	Inspect the camshaft position sensor (engine speed sub sensor) power supply



P0341-005

1. Set the starter switch to the "LOCK" position.
2. Connect the signal check harness to the engine ECU.
3. Set the starter switch to the "ON" position.
4. Use the electrical tester to measure the voltage between the terminals of the camshaft position sensor (engine speed sub sensor) vehicle-side connector.

Measurement conditions	Tester connections	Standard values
Starter switch: LOCK	Camshaft position sensor (engine speed sub sensor) vehicle-side connector MREV – MREG	4.5 – 5.5 V

Do the measurements meet the standard value?

YES	NO
Go to step 5.	Replace the engine ECU. Clear passed DTC and check if the DTC is detected again.

5	Inspect the camshaft position sensor (engine speed sub sensor)

1. Check the installation of the camshaft position sensor (engine speed sub sensor).
   - Check that there are no loose mounting bolts.
   - Check that the sensor is installed so that it is pushed to the root without gap with the sensor flange mounting surface.
   - Check that they are not mounted diagonally.

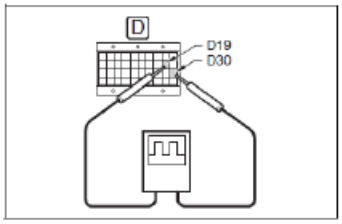
HINT

In case of foreign matter and corrosion on the sensor mounting surface, the gap between the cam shaft gear and sensor may become inaccurate, and error may occur without any pulse signal from the sensor. In such case, please inspect the mounting surface.

2. Make sure there is no dirt, damage or clogged in the sensing unit of the camshaft position sensor (engine speed sub sensor).

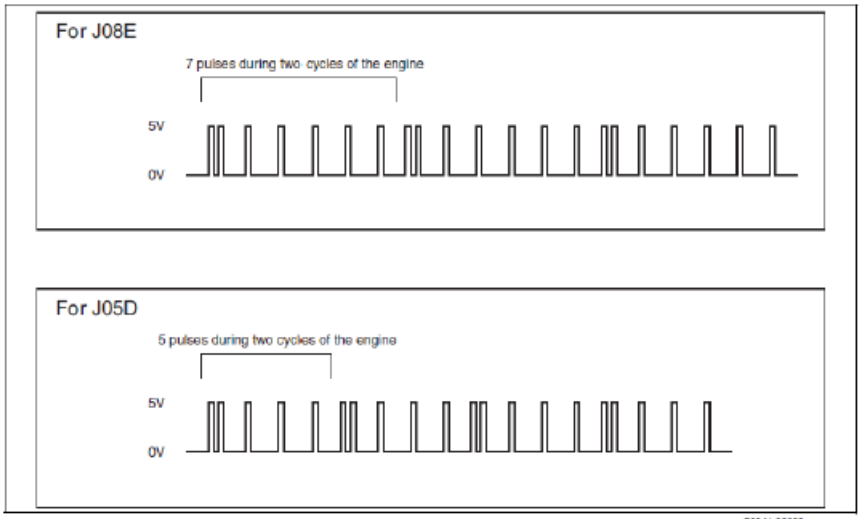
Was any failure found?	
YES	NO
Clean the sensing unit and install it properly. If damaged, replace the camshaft position sensor (engine speed sub sensor). If there is corrosion on the sensor mounting surface, polish the mounting surface or replace the cylinder head. Clear passed DTC and check if the DTC is detected again.	Go to step 6.

6	Inspect the camshaft position sensor (engine speed sub sensor) signal



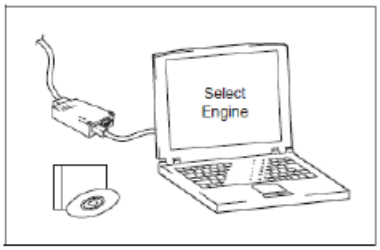
1. Connect the camshaft position sensor (engine speed sub sensor) connector.
2. Start the engine.
3. Use the oscilloscope to measure the signal voltage between the terminals in the engine ECU (signal check harness).

Measurement conditions	Tester connections	Standard values
With engine idling	Engine ECU (signal check harness) D19(G3+) – D30(GGND)	J08E: 7 pulses J05D: 5 pulses



Do the measurements meet the standard value?	
YES	NO
Go to step 7.	Replace the camshaft position sensor (engine speed sub sensor). Clear passed DTC and check if the DTC is detected again.

7	Check the DTC detected (Engine ECU)



P0341-007

1. Perform an engine warm-up. (engine coolant temperature: 80 °C {176 °F} or more)
2. Stop the engine and set the starter switch to the "LOCK" position.
3. Connect the vehicle to Hino-DX.
4. Set the starter switch to the "ON" position.
5. Select [Engine] and check if ~~P0340~~ has been detected in [Fault Information].

P0340 or P0341

Has DTC ~~P0340~~ been detected?

P0340 or P0341 — YES

Replace the engine ECU.
Clear passed DTC and check if the DTC is detected again.

NO

Procedure completed.
Clear passed DTC and check if the DTC is detected again.