

SERVICE MANUAL INFORMATION

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| Group: | SERVICE MANUAL UPDATE |
| Bulletin No: | SB-16-025 |
| Issue Date: | 9-9-2016 |

Subject: CORRECTION OF WORKSHOP MANUAL FOR HINO300 SERIES Correction of Clutch Learning

RELEVANT MODEL: COE Trucks with Hybrid

The following is to inform you of the above caption. This service data should be attached to the relevant pages of the workshop manuals for maintenance and to use for servicing.

OVERVIEW:

Addition of vehicle condition to confirm at the time of clutch learning.

RELEVANT MANUALS:

| MANUAL No. | CHAPTER |
|------------|------------------------------|
| S1-LXZE06C | TRANSMISSION/TROUBLESHOOTING |



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4. CLUTCH LEARNING

Use the following step to allow the ECU to learn and memorize the stroke sensor values of partial clutch engagement and torque transmission characteristics in order to compensate for the variations in the clutch discs.

NOTICE

- Clutch learning may be improved when performed when there is response delay or shock at startup.

1. CLUTCH LEARNING PROCEDURES

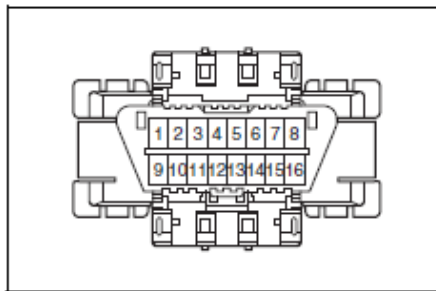
⚠ CAUTION

- This operation is available only when the engine water temperature is 40 °C or above and the idling speed is 750 rpm or less. Before the operation, warm up the engine fully and turn off the air conditioner.
- This operation is allowed only when the indicator light is illuminating with "N". If the indicator light is not illuminating with "N", perform "Neutral and select position learning procedures (at ECU initialization or reset)" or "Shift position learning procedures".

ADD

- Before starting this learning, make sure that the conditions in the following table are met.

| No. | Conditions |
|-----|--|
| 1 | PTO is not in operation. |
| 2 | Accelerator opening is 0%. |
| 3 | Parking brake is actuated. |
| 4 | Idling revolution speed is 750 r/min or less. |
| 5 | Engine coolant temperature is 40 °C or more. |
| 6 | During this learning, the indicator alternately indicates "C" and "0", and then the select lever is in the "N" position. |
| 7 | Before starting this learning, the transmission case assembly is in "N". (The indicator indicates "N".) |



SHTS04GG0000022

- (1) Set the starter key to the "LOCK" position. Use the SST to create a short-circuit between the 13th and 4th terminals of the DLC3 located on the lower right side of the instrument panel under the driver's seat.

SST: 09843-18040

NOTICE

- Short-circuit between the 4th and 13th terminals of DLC3 for 3 minutes or longer will initialize the engine injection (supply) pump learning. In such case, perform pump learning after this learning is completed.



TRUCKS

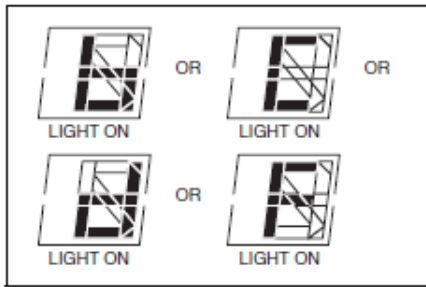
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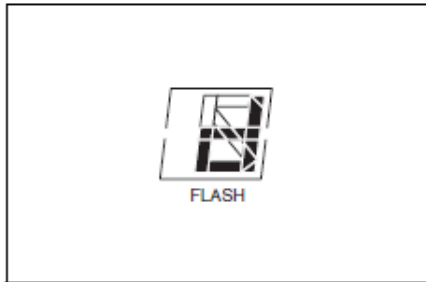
TRANSMISSION/TROUBLESHOOTING

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SHTS04G/GG0800023

- (2) Stop the vehicle and set the select lever in the "N" position. After starting the engine, press the select lever against "+" for at least 5 seconds without pressing the brake pedal, to check that the indicator stops lighting up "N" and flashes "b," "C," "d" or "F."

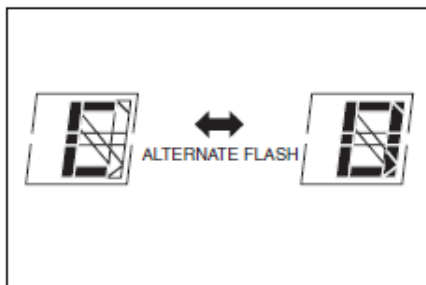


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- (3) Check that the indicator shows "b", "C", "d", or "F" and return the select lever to "N". Then, depress the brake and push the select lever toward "+" for 1 second or more to check if the indicator flashes "d".

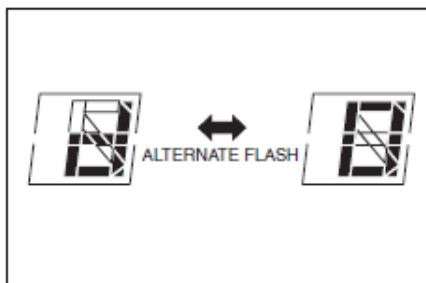
⚠ CAUTION

In this learning, driving force is generated by engaging the clutch automatically. Keep depressing the brake securely after this step.



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- (4) After confirming that the indicator starts flashing "d," operate the select lever to the "N" position. After that, confirm that the indicator lights up "C" and "0" alternately.



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- (5) About 20 seconds after, make sure that the indicator light starts displaying "d" and "0" repeatedly.



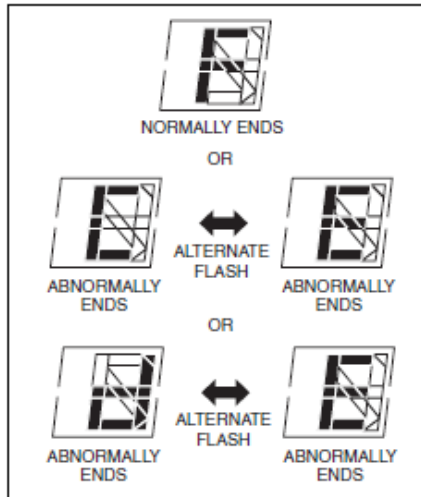
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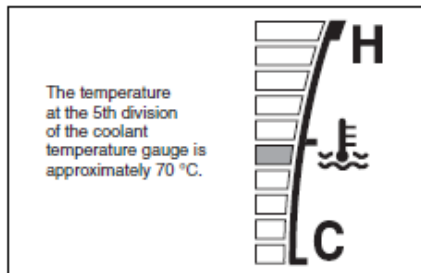
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TRANSMISSION/TROUBLESHOOTING



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- (6) About 2 minutes after, make sure that the indicator light starts illuminating with "F" and set the starter key to the "LOCK" position. Release short-circuit between the 4th and 13th terminals of DLC3.

NOTICE

- The learning completes successfully and the indicator light illuminates with "F".
- The learning completes in 2 minutes after repeated display of "C" and "0" is started.
- If there is any abnormality, the indicator light starts displaying "C" and "E" or "d" and "E" repeatedly.
- In the event of any failure, perform learning again from the Step (1).
- If clutch learning is performed when an engine coolant temperature is low, engine stall may occur on rare occasions. In such case, raise the engine coolant temperature to 70 °C or more and re-execute clutch learning.

2. RESETTING THE CLUTCH LEARNING

- (1) If response delay and shock at startup are not eliminated after clutch learning, reset the clutch learning by following steps described below.

Procedure for resetting clutch learning values:
Turn the clutch learning status flag OFF.



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