3.5L GTDI - FUEL ODOR FROM ENGINE OIL AND/OR ENGINE OIL LEVEL OVERFULL	TSB 14-0014

SB-10054928-8717

FORD:

2011-2014 F-150

ISSUE

Some 2011-2014 F-150 vehicles equipped with a 3.5L Gasoline Turbocharged Direct Injection (GTDI) engine may exhibit a raw fuel odor from the engine oil and/or an engine oil level indication overfull.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

1. Is the vehicle equipped with a heater in the thermostat housing? Refer to Workshop Manual (WSM), Section 303-03.
   a. Yes - remove and discard the heater and cord. Refer to WSM, Section 303-03. Proceed to Step 2.
   b. No - proceed to Step 2.
2. Remove the left hand (LH) Turbocharger. Refer to WSM, Section 303-04.
3. Install the Block Heater Kit.
   a. Installation instructions are provided in the kit.
4. Install the LH Turbocharger. Refer to WSM, Section 303-04.
5. Change the engine oil and oil filter.
6. Replace the Positive Crankcase Ventilation Valve (PCV) . Refer to WSM, Section 303-08.
7. Determine the vehicle build date. Refer to WSM, Section 100-01.
   a. a. If the vehicle build date is on or before 10/24/2011, proceed to Step 7.
   b. b. If the vehicle build date is after 10/24/2011, proceed to Step 11.
8. Remove and discard brake booster vacuum hose. (Figure 1)

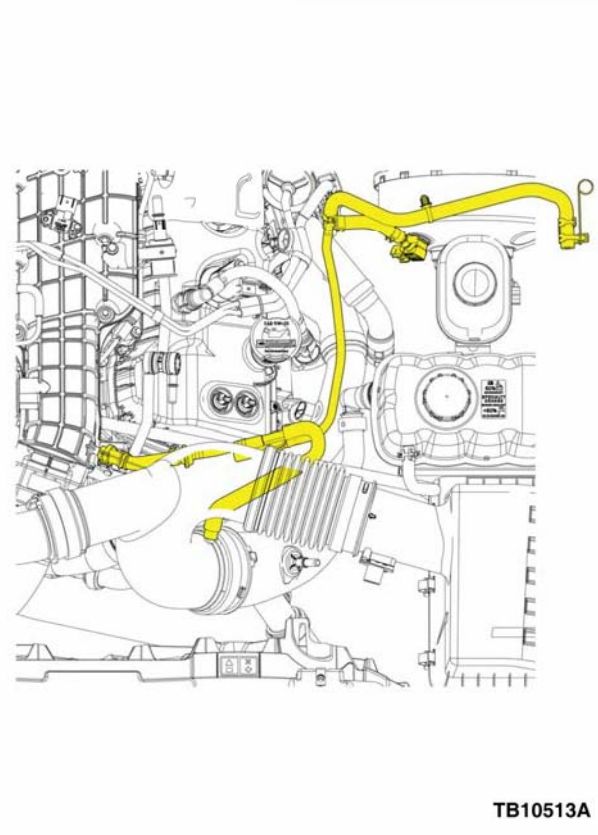

Figure 1 - Article 14-0014

9. Install the new brake booster vacuum hose. (Figure 2)

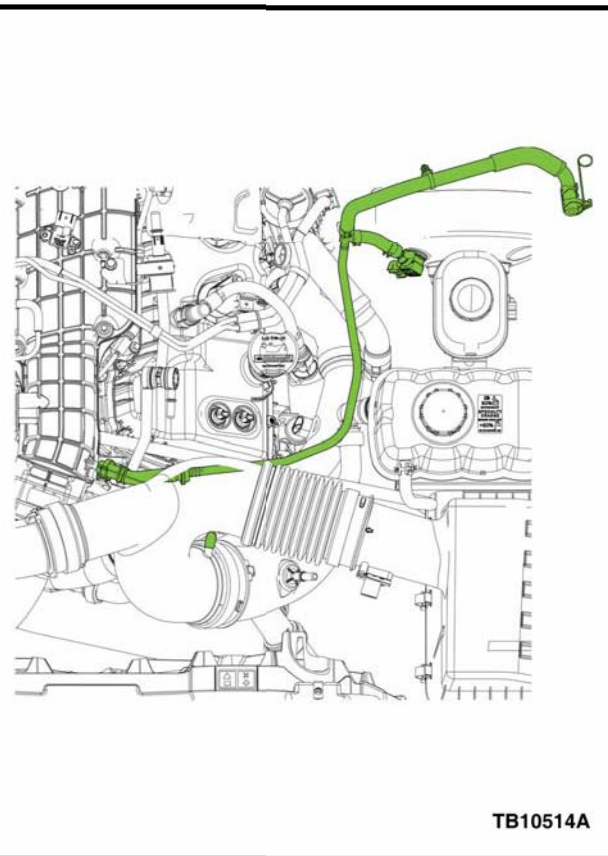

Figure 2 - Article 14-0014

10. Install the cap on the air intake. (Figure 2)
11. Reprogram the Anti-lock Brake System (ABS) Module to the latest calibration using IDS release 88.02A and higher. Calibration files may also be obtained at www.motorcraft.com.
12. Reprogram the powertrain control module (PCM) to the latest calibration using IDS release 88.02A and higher. Calibration files may also be obtained at www.motorcraft.com.
13. **NOTE:**
    PLEASE ADVISE THE CUSTOMER THAT THIS VEHICLE IS EQUIPPED WITH AN ADAPTIVE TRANSMISSION SHIFT STRATEGY WHICH ALLOWS THE VEHICLE'S COMPUTER TO LEARN THE TRANSMISSION'S UNIQUE PARAMETERS AND IMPROVE SHIFT QUALITY. WHEN THE ADAPTIVE STRATEGY IS RESET, THE COMPUTER WILL BEGIN A RE-LEARNING PROCESS. THIS RE-LEARNING PROCESS MAY RESULT IN FIRMER THAN NORMAL UPSHIFTS AND DOWNSHIFTS FOR SEVERAL DAYS.

    Print customer information sheet and provide to customer.

    a. Advise the customer that the block heater should be plugged in at -15 °C (0 °F) or less to improve fuel-in-oil symptoms.

PART NUMBER	PART NAME
DL3Z–6D008-A	Block Heater
W520514-S440	Exhaust Nut (4 Req)
BL3Z-6N652-B	Turbo Oil Line Gasket
AA5Z-00815-C	Oil Line O-Ring
CL3Z-9450-B	Gasket - Exhaust Man

PART NUMBER	PART NAME
AA5Z-6A666-D	PCV
CL3Z-9C490-B	Vacuum Hose
W716372-S300	Vacuum Cap
W715673-S900	Bolt - Turbocharger (3 Req)
VC-3-B	Motorcraft® Orange Antifreeze/Coolant Concentrated
FL-500S	Motorcraft® Oil Filter
XO-5W30-QSP	Motorcraft® SAE 5W-30 Premium Synthetic Blend Motor Oil

OPERATION	DESCRIPTION	TIME
140014A	2011-2014 F-150 4X2, 2013-2014 F-150 4X4 3.5L GTDI: Install Block Heater And PCV Valve Includes Time To Remove And Install Left Bank Turbo Charger, Reprogram The PCM/ABS Modules And Replace The Brake Booster Brake Booster Vacuum Hose If Necessary (Do Not Use With Any Other Labor Operations)	3.7 Hrs.
140014A	2011-2012 F-150 4X4 3.5L GTDI: Install Block Heater And PCV Valve Includes Time To Remove And Install Left Bank Turbo Charger, Reprogram The PCM/ABS Modules And Replace The Brake Booster Brake Booster Vacuum Hose If Necessary (Do Not Use With Any Other Labor Operations)	3.8 Hrs.
140014B	2011-2014 F-150 4X2, 2013-2014 F-150 4X4 3.5L GTDI: Remove Existing Block Heater Per Procedure, Install Block Heater And PCV Valve Includes Time To Remove And Install Left Bank Turbo Charger, Reprogram The PCM/ABS Modules And Replace The Brake Booster Brake Booster Vacuum Hose If Necessary (Do Not Use With Any Other Labor Operations)	3.9 Hrs.
140014B	2011-2012 F-150 4X4 3.5L GTDI: Remove Existing Block Heater Per Procedure, Install Block Heater And PCV Valve Includes Time To Remove And Install Left Bank Turbo Charger, Reprogram The PCM/ABS Modules And Replace The Brake Booster Brake Booster Vacuum Hose If Necessary (Do Not Use With Any Other Labor Operations)	4.0 Hrs.

WARRANTY STATUS:
Eligible Under Provisions Of New Vehicle Limited Warranty Coverage And Emissions Warranty Coverage
Warranty/ESP coverage limits/policies/prior approvals are not altered by a TSB. Warranty/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

DEALER CODING

BASIC PART NO.	CONDITION CODE
6A666	42

Customer Information Sheet

Some owners of 3.5L Ecoboost equipped F-150 vehicles have observed a fuel odor when checking their engine oil level. The direct injection combustion process may result in slightly elevated fuel odor. This is normal for direct injection engines and does not pose long term durability concerns for the engine.

In colder climates (near or below -18 C° or 0 F°) the fuel odor may be more noticeable if the vehicle is used for short trips where the engine does not reach full operating temperature. In an effort to assist this small number of owners that operate their vehicle under these conditions, we have installed an engine block heater and positive crankcase ventilation valve (PCV). Additionally, we reprogrammed the powertrain control module (PCM). The vehicle driving characteristics will be unchanged.

Owners who operate the vehicle in temperatures at or below -18 C° or 0 F° or can reduce the potential for increased fuel odor in the engine oil by utilizing the engine block heater overnight or during extended times of non-operation. To use the block heater, see the Owner's Guide Section - "Starting and Stopping the Engine."

TB10515A

Figure 3 - Article 14-0014