# 2.7L GTDI - OIL CONSUMPTION WITH DTC P0524 AND/OR P06DD, ROUGH IDLE, MISFIRE AND/OR WHITE OR BLUE EXHAUST SMOKE - BUILT ON 1-APR-2016 AND THROUGH 1-OCT-2016

TSB 17-0007

#### FORD:

2016 F-150

#### **ISSUE**

Some 2016 F-150 vehicles equipped with a 2.7L gasoline turbocharged direct injection (GTDI) engine and built on 1-Apr-2016 and through 1-Oct-2016 may exhibit white or blue smoke from the exhaust, rough idle in neutral or park at normal operating temperature or after a hot restart. The vehicle may also exhibit diagnostic trouble code (DTC) P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0316, P0524 and/or P06DD with the excessive oil consumption. Oil consumption may be 1 Liter (1 quart) in less than 4,800 km (3,000 miles).

#### **ACTION**

Follow the Service Procedure steps to correct the condition.

#### **SERVICE PROCEDURE**

- Connect the Ford Integrated Diagnostic System (IDS) service tool or equivalent scan tool to the data link connector (DLC). Check for DTC P0524 and/or P06DD with any misfire codes stored in the powertrain control module (PCM) memory?
  - a. Yes replace the engine long block assembly. Refer to Workshop Manual (WSM), Section 303-01.
  - b. No replace the cylinder heads. Refer to WSM, Section 303-01.

| PART NUMBER  | PART NAME  |
|--------------|--|
|              | Replacing Engine Assembly - Long Block - Unique Parts  |
| FL3Z-6006-F  | Engine Assembly - Long Block                           |
| 7L1Z-4B496-C | Bolt - Front CV to Pinion (2 Required)                 |
| 7L1Z-4B496-D | Bolt - Rear CV to Pinion (3 Required)                  |
| W520111-S440 | Nut - Transmission Cooler Line Bracket                 |
| W520113-S440 | Nut - Sway Bar Mount (4 Required)                      |
| W520514-S440 | Nut - Catalytic Converter (4 Required)                 |
| W713244-S439 | Bolt - Engine Mount to Frame                           |
| W714689-S437 | Nut - Torque Converter (1 Package of 4 Required)       |
| W714717-S439 | Bolt - Y pipe To Catalytic Converter (2 Required)      |
| W715211-S439 | Bolt - Left Side Engine Mount                          |
| W716530-S440 | Nut And Washer Assembly - Right Side Engine Mount      |
| N808684-S101 | Steering Shaft Bolt                                    |
|              | Replacing Engine Cylinder Head Assembly - Unique Parts |
| FL3Z-6049-J  | Left Side Cylinder Head Assembly                       |
| FL3Z-6049-K  | Right Side Cylinder Head Assembly                      |
| FL3Z-6079-D  | Kit - Cylinder Head Gasket                             |
| FL3Z-6675-B  | Engine Oil Pan Assembly                                |

NOTE: The information contained in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford, Lincoln, or Mercury dealership to determine whether the bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supercede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

| PART NUMBER   | PART NAME  |
|---------------|--|
| CP9Z-6279-C   | Bolt - Variable Camshaft Timing                          |
|               | Parts Common To Both Repairs                             |
| W714870-S430F | Nut - Turbo Mount (4 Required)                           |
| W716117-S437  | Bolt - Turbo Mounting (2 Required)                       |
| W716383-S437  | Stud - Turbo Mounting                                    |
| BL3Z-6C683-A  | Filter Assembly  |
| DS7Z-19B596-A | Kit Assembly A/C - O-rings)                              |
| FL3Z-5C226-A  | Exhaust Gasket (2 Required)                              |
| FT4Z-6A340-A  | Bolt - Crank Pulley                                      |
| FT4Z-9J323-A  | High Pressure Fuel Rail                                  |
| FT4Z-9J323-B  | High Pressure Fuel Rail                                  |
| FT4Z-8507-A   | Gasket - Water Pump                                      |
| FT4Z-12A648-B | Sensor - Cylinder Head Temperature                       |
| FT4Z-6731-A   | Filter Engine Oil Assembly                               |
| CYFS-092-YPFC | Spark Plug (6 Required)                                  |
| CU7Z-19B508-A | Flange Sealant   |
| PM-4-A        | Motorcraft® Metal Brake Parts Cleaner                    |
| TA-24-B       | Motorcraft® Thread Sealant with PTFE                     |
| YN-12-D       | Motorcraft® PAG Refrigerant Compressor Oil               |
| XL-2          | Motorcraft® High Temperature Nickel Anti-Seize Lubricant |
| TA-357        | Motorcraft® High Performance Engine RTV Silicone         |
| ZC-30-A       | Motorcraft® Silicone Gasket Remover                      |
| ZC-31-B       | Motorcraft® Metal Surface Prep Wipes                     |
| VC-3-B        | Motorcraft® Orange Concentrated Antifreeze/Coolant       |
| XO-5W30-QSP   | Motorcraft® SAE 5W-30 Premium Synthetic Blend Motor Oil  |

| OPERATION | DESCRIPTION  | TIME      |
|-----------|--|-----------|
| 170007A   | 2016 F-150 4X2 2.7L GTDI: Retrieve DTCs And Replace Both (2) Cylinder Heads (Do Not Use With Any Other Labor Operations) | 20.9 Hrs. |
| 170007B   | 2016 F-150 4X2 2.7L GTDI: Retrieve DTCs And Replace Long Block Assembly (Do Not Use With Any Other Labor Operations)     | 16.0 Hrs. |
| 170007C   | 2016 F-150 4X4 2.7L GTDI: Retrieve DTCs And Replace Both (2) Cylinder Heads (Do Not Use With Any Other Labor Operations) | 21.3 Hrs. |
| 170007D   | 2016 F-150 4X4 2.7L GTDI: Retrieve DTCs And Replace Long Block Assembly (Do Not Use With Any Other Labor Operations)     | 16.4 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.

# TSB 17-0007 (Continued)

### **DEALER CODING**

| BASIC PART NO. | CONDITION CODE |
|----------------|----------------|
| 6049           | 42             |