



**TECHNICAL SERVICE BULLETIN**  
**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-Jan-2017**

**17-2077**  
02 May 2017

This article supersedes TSB 17-0007 to update the vehicle model years, production fix date, Service Procedure and Part List

This bulletin supersedes TSB 17-0007. Reason for update: Concern carry over to a New Model year, update the production fix date, Service Procedure and Part List.

**Model:**

<b>Ford</b>	Build Date: 1-Apr-2016-1-Jan-2017
2016-2017 F-150	Engine: 2.7L

**Issue:** Some 2016-2017 F-150 vehicles equipped with a 2.7L gasoline turbocharged direct injection (GTDI) engine and built on 1-Apr-2016 and through 1-Jan-2017 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 an illuminated malfunction indicator lamp (MIL) and diagnostic trouble codes (DTCs) 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 this condition.

**Parts**

Part Number	Description	Quantity
-	Replacing Engine Assembly - Long Block - Unique Parts	-
-	-	-
FL3Z-6006-F	Engine Assembly - Long Block	1
7L1Z-4B496-C	Bolt - Front CV to Pinion	2
7L1Z-4B496-D	Bolt - Rear CV to Pinion	3
W520111-S440	Nut - Transmission Cooler Line Bracket	1
W520113-S440	Nut - Sway Bar Mount	4
W520514-S440	Nut - Catalytic Converter (4 Required)	4
W713244-S439	Bolt - Engine Mount to Frame	1
W714689-S437	Nut - Torque Converter (1 Package of 4 Required)	1
W714717-S439	Bolt - Y pipe To Catalytic Converter	2
W715211-S439	Bolt - Left Side Engine Mount	1
W716530-S440	Nut And Washer Assembly - Right Side Engine Mount	3
N808684-S101	Bolt - Steering Shaft	1
-	-	-
-	Replacing Engine Cylinder Head Assembly - Unique Parts	-
-	-	-
FL3Z-6049-J	Left Side Cylinder Head Assembly	1
FL3Z-6049-K	Right Side Cylinder Head Assembly	1
FL3Z-6079-D	Kit - Cylinder Head Gasket	1
FL3Z-6675-B	Engine Oil Pan Assembly	1
CP9Z-6279-C	Bolt - Variable Camshaft Timing	4
-	-	-
-	Parts Common To Both Repairs	-
-	-	1
BL3Z-9229-C	Fuel Injector O-ring Kit	2
CYFS-092-YPT	Spark Plug	6
W714870-S430	Nut - Turbo Mount	4
W716117-S437	Bolt - Turbo Mounting	2
W716383-S437	Stud - Turbo Mounting	1
BL3Z-6C683-A	Filter Assembly	1
DS7Z-19B596-A	Kit Assembly A/C - O-rings	1
FL3Z-5C226-A	Exhaust Gasket	2
FT4Z-6A340-A	Bolt - Crank Pulley	1
FT4Z-9J323-A	High Pressure Fuel Rail	1
FT4Z-9J323-B	High Pressure Fuel Rail	1
FT4Z-8507-C	Gasket - Water Pump	1
FT4Z-12A648-B	FT4Z-12A648-B - Sensor - Cylinder Head Temperature	1
FT4Z-6731-A	Filter Engine Oil Assembly	1
CU7Z-19B508-A	Flange Sealant	1
PM-4-A	Motorcraft® Metal Brake Parts Cleaner	1
TA-24-B	Motorcraft® Thread Sealant with PTFE	1
YN-12-D	Motorcraft® PAG Refrigerant Compressor Oil (2016 F-150)	1
YN-35	Motorcraft® R-1234yf Refrigerant PAG Oil (2017 F-150 )	1
XL-2	Motorcraft® High Temperature Nickel Anti-Seize Lubricant	1
TA-357	Motorcraft® High Performance Engine RTV Silicone	1
ZC-30-A	Motorcraft® Silicone Gasket Remover	1

ZC-31-B	Motorcraft® Metal Surface Prep Wipes	1
VC-3-B	Motorcraft® Orange Concentrated Antifreeze/Coolant	1
XO-5W30-QSP	Motorcraft® SAE 5W-30 Synthetic Blend Motor Oil (up to 10 quarts)	10

**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.

#### Labor Times

Description	Operation No.	Time
2016-2017 F-150 4X2 2.7L GTDI: Retrieve DTCs And Replace Both (2) Cylinder Heads Includes Time To Perform Road Tests (Do Not Use With Any Other Labor Operations)	172077A	21.5 Hrs.
2016-2017 F-150 4X2 2.7L GTDI: Retrieve DTCs And Replace Long Block Assembly Includes Time To Perform Road Tests (Do Not Use With Any Other Labor Operations Except E)	172077B	16.5 Hrs.
2016-2017 F-150 4X4 2.7L GTDI: Retrieve DTCs And Replace Both (2) Cylinder Heads Includes Time To Perform Road Tests (Do Not Use With Any Other Labor Operations)	172077C	21.8 Hrs.
2016-2017 F-150 4X4 2.7L GTDI: Retrieve DTCs And Replace Long Block Assembly Includes Time To Perform Road Tests (Do Not Use With Any Other Labor Operations Except E)	172077D	17.0 Hrs.
2016-2017 F-150 2.7L: Additional Time When Prior Approval Is Required For Long Block Replacement (Can Be Claimed With Operations B Or D)	172077E	0.3 Hr.

#### Repair/Claim Coding

Causal Part:	6049
Condition Code:	42

#### Service Procedure

- Check the vehicle build date. Was the vehicle built on 1-Apr-2016 and through 1-Jan-2017?
  - Yes - proceed to step 2.
  - No - this article does not apply. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for normal diagnostics.
- Connect the Ford Integrated Diagnostic System (IDS) service tool or equivalent scan tool to the data link connector (DLC) and check for DTCs. Are DTCs P0524 and/or P06DD stored in the powertrain control module (PCM) memory?
  - Yes - proceed to Step 3.
  - No - replace the cylinder heads. Refer to Workshop Manual (WSM), Section 303-01. The repair is complete.
- Check the engine oil level on the engine oil level indicator. Refer to WSM, Section 303-01. Is the oil level within the minimum and maximum marks on the indicator?
  - Yes - proceed to Step 4.
  - No - add engine oil as needed to achieve correct oil level on indicator. Proceed to Step 4.
- Run the engine until it reaches normal operating temperature. Using IDS, monitor the engine oil pressure. Refer to WSM, Section 303-01. Is oil pressure within the specification?
  - Yes - replace the cylinder heads. Refer to WSM, Section 303-01.
  - No - replace the long block engine assembly. Refer to WSM, Section 303-01.

Prior approval and cost cap must be completed as required. However, follow the diagnostic repair procedure in this article to determine correct repair.

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