



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

Model:

Ford 2016-2017 F-150	Build Date: 1 April 2016 – 1 January 2017 Engine: 2.7L
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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
	172077A	

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)		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

1. Check the vehicle build date. Was the vehicle built on 1-Apr-2016 and through 1-Jan-2017?
 - (1). Yes - proceed to step 2.
 - (2). No - this article does not apply. Refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual for normal diagnostics.
2. 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?
 - (1). Yes - proceed to Step 3.
 - (2). No - replace the cylinder heads. Refer to Workshop Manual (WSM), Section 303-01. The repair is complete.
3. 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?
 - (1). Yes - proceed to Step 4.
 - (2). No - add engine oil as needed to achieve correct oil level on indicator. Proceed to Step 4.
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?
 - (1). Yes - replace the cylinder heads. Refer to WSM, Section 303-01.
 - (2). 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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NOTE: The information 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 or Lincoln 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 supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.