



TECHNICAL SERVICE BULLETIN

5.0L - Engine Oil Leak From The Engine Block - Built On 23-Aug-2022 And Through 29-Mar-2024

24-2166

24 May 2024

This bulletin supersedes 24-2054. Reason for update: to add 2024 models and update the production fix date.

Model:

Ford 2022-2024 F-150	Engine: 5.0L V8 Built On 23-Aug-2022 And Through 29-Mar-2024
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Markets: North American markets only

Issue: Some 2022-2024 F-150 vehicles built on 23-Aug-2022 and through 29-Mar-2024 equipped with a 5.0L engine may exhibit an oil leak from the oil filter adaptor to engine block mounting area. This may be due to block porosity just below the oil filter adapter near the main bearing cap outer bolt. To correct the condition, follow the Service Procedure to inspect the engine block for a porosity leak.

Action: Follow the Service Procedure to correct the condition on vehicles that meet all of the following criteria:

- 2022-2024 F-150
- 5.0L engine
- Built on 23-Aug-2022 and through 29-Mar-2024
- Oil leak from the oil filter adaptor area

Parts

Service Part Number	Claim Quantity	Package Order Quantity	Number in Package	Description
ML3Z-6009-D	1	1	1	Engine Short Block Assembly
BR3Z-6A340-A	1	1	1	Crankshaft Pulley Bolt And Washer
JR3Z-6065-C	20	20	1	Cylinder Head Bolt
W714735-S439	6	2	4	Engine Mount Bracket-to-Engine Bolt
JL3Z-6379-A	8	8	1	Flexplate to Crankshaft Bolt
W715211-S439	1	1	4	Left Engine Mount Through Bolt
W713244-S439	3	1	4	Left Engine Mount-to-Frame Bolt
7L1Z-4B496-C	2	2	1	Front Driveshaft-to-Pinion Flange Bolt and Washer Assembly
AA5Z-6714-A	1	1	1	Engine Oil Filter
ML3Z-6584-D	1	1	1	Right Camshaft and Carrier Assembly Gasket
ML3Z-6584-E	1	1	1	Left Camshaft and Carrier Assembly Gasket
ML3Z-6584-B	1	1	1	Right Valve Cover Gasket
ML3Z-6584-C	1	1	1	Left Valve Cover Gasket
ML3Z-6051-H	1	1	1	Right Cylinder Head Gasket
ML3Z-6051-G	1	1	1	Left Cylinder Head Gasket
ML3Z-6020-G	1	1	1	Front Engine Cover Gasket - Right
ML3Z-6020-H	1	1	1	Front Engine Cover Gasket - Center
ML3Z-6020-J	1	1	1	Front Engine Cover Gasket - Left

W520514-S440	4	4	1	Catalytic Converter-to-Exhaust Manifold Nut
W716530-S440	2	1	4	RH Engine Mount-to-Frame Nut
W520113-S440	4	1	4	Stabilizer Bar Bracket Nut
W715618-S437	4	1	4	Torque Converter-to-Flexplate Nut
ML3Z-6A642-D	1	1	1	Oil Cooler Assembly
F1VY-8507-A	1	1	5	Coolant Pump O-ring Seal
JT4Z-9E583-A	1	1	1	High Pressure Fuel Pump O-ring Seal
GK2Z-6700-A	1	1	1	Front Crankshaft Oil Seal Assembly
ML3Z-9J323-B	1	1	1	High Pressure Fuel Pump-to-Fuel Rail Tube Assembly
ML3Z-9J323-C	1	1	1	High Pressure Fuel Rail-to-Fuel Rail Tube Assembly
ML3Z-3B478-A	1	1	1	Front Driveshaft CV Joint Boot Clamp
ML3Z-3B478-B	1	1	1	Rear Driveshaft CV Joint Boot Clamp
BR3Z-8255-A	1	1	1	Thermostat Housing Seal
JR3Z-6701-A	1	1	1	Rear Crankshaft Seal
W714870-S430	16	4	4	Exhaust Manifold Nut
FR3Z-9448-A	2	2	1	Exhaust Manifold Gasket
W714869-S901	16	4	4	Exhaust Manifold Stud
W702600-S439	1	1	1	Steering Shaft Bolt
W718644-S439	6	2	4	Frame to Cab Mounting Bolt
DL3Z-19B596-B	1	1	1	A/C Compressor O Ring and Gasket
DS7Z-19B596-A	1	1	1	A/C Compressor Seal
BC3Z-8590-F	1	1	1	Lower Radiator to Radiator Hose Seal
VC-13-G	As Needed (Up To 14)	As Needed (Up To 14)	1	Motorcraft® Yellow Prediluted Antifreeze/Coolant (All Markets Except Canada)
CVC-13-G	As Needed (Up To 14)	As Needed (Up To 14)	1	Motorcraft® Yellow Concentrated Antifreeze/Coolant (Canada Only)
XO-5W30-Q1SP	As Needed (Up To 6)	As Needed (Up To 6)	1	Motorcraft® SAE 5W-30 Synthetic Blend Motor Oil (All Markets Except Canada)
CXO-5W30-LSP6	As Needed (Up To 6)	As Needed (Up To 6)	1	Motorcraft® SAE 5W-30 Super Premium Motor Oil (Canada Only)
PM-20	As Needed (Up To 1)	As Needed (Up To 1)	1	Motorcraft® DOT 4 LV High Performance Motor Vehicle Brake Fluid

Parts - Parts To Inspect And Replace Only If Necessary

Service Part Number	Claim Quantity	Package Order Quantity	Number in Package	Description
JR3Z-12A227-A	Only If Necessary (Up To 1)	Only If Necessary (Up To 1)	1	Crankshaft Position Sensor Ring
JL3Z-9439-A	Only If Necessary (Up To 8)	Only If Necessary (Up To 8)	1	Intake Manifold Gasket
AA5Z-9C587-A	Only If Necessary (Up To 1)	Only If Necessary (Up To 1)	1	Fuel Pump Assembly Tappet

Claim Quantity refers to the total number of individual pieces required to repair the vehicle.

Package Order Quantity refers to the amount of the service part number package(s) required to repair the vehicle.

Number In Package refers to the number of individual pieces included in a service part number package.

As Needed indicates the amount of the part may vary and/or is not a whole number. Parts can be billed out as non-whole numbers, including less than 1.

Only If Necessary indicates the part is not mandatory.

Warranty Status: Eligible under provisions of New Vehicle Limited Warranty (NVLW)/Service Part Warranty (SPW)/Service Part New Vehicle (SPNV)/Extended Service Plan (ESP) coverage. Limits/policies/prior approvals are not altered by a TSB. NVLW/SPW/SPNV/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

Labor Times

Description	Operation No.	Time
2022-2024 F-150 4X2 5.0L: Inspect And Replace The Engine Short Block Following The Service Procedure (Do Not Use With Any Other Labor Operations)	242166A	Actual Time Up To 18.3 Hrs.
2022-2024 F-150 4X4 5.0L: Inspect And Replace The Engine Short Block Following The Service Procedure (Do Not Use With Any Other Labor Operations)	242166B	Actual Time Up To 18.8 Hrs.

Repair/Claim Coding

Causal Part:	6009
Condition Code:	D1

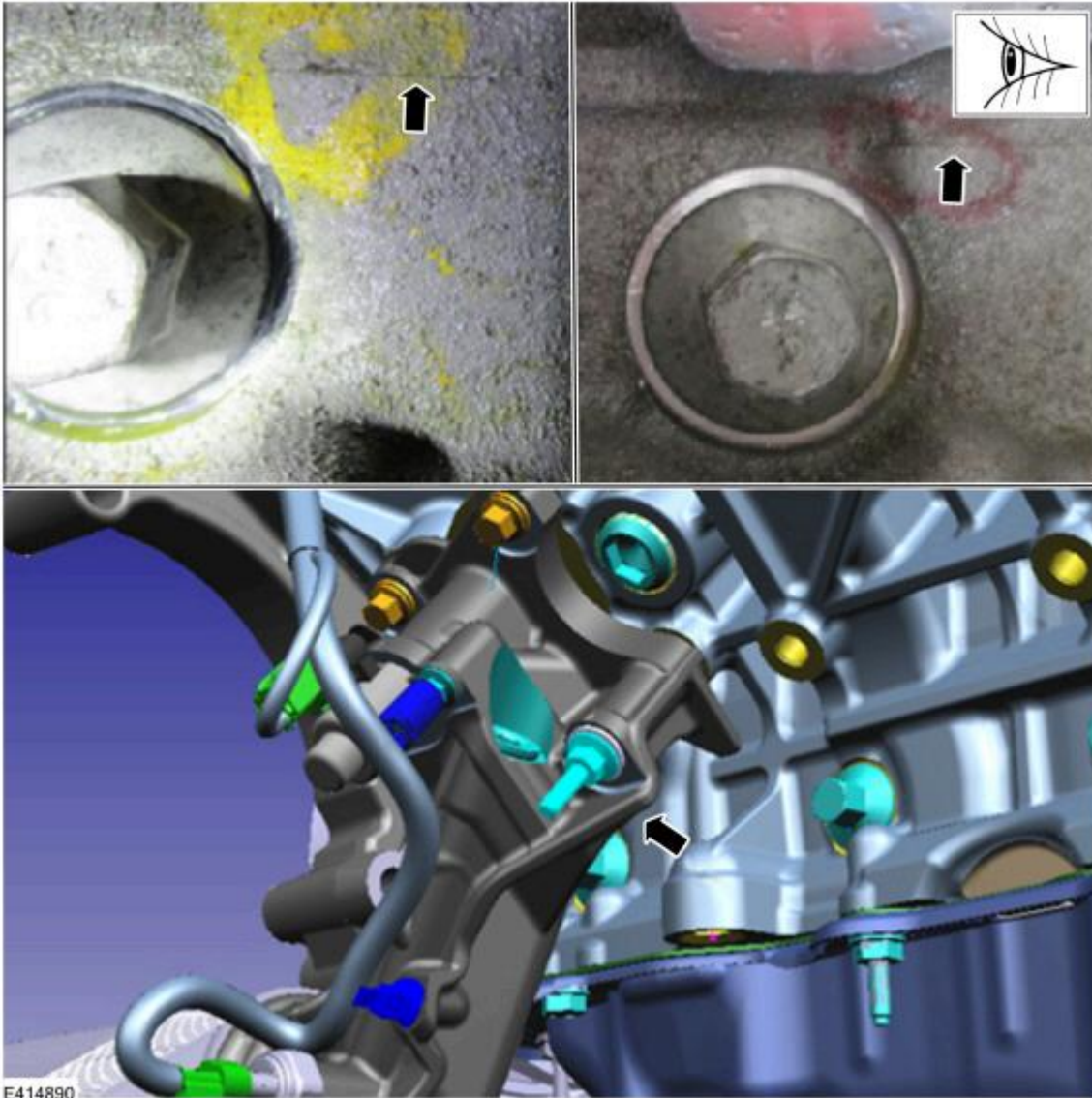
Service Procedure

1. Inspect the engine block just below the oil filter adaptor mounting area near the main bearing cap outer bolt. Does the location show signs of oil leaking at the engine block? (Figure 1)

(1). Yes - proceed to Step 2.

(2). No - this article does not apply. Refer to WSM, Section 300-00, Oil Leak Inspection.

Figure 1



2. Replace the engine short block. Refer to the [WSM](#), Section 303-01, Removal > Disassembly > Engine.

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