



TECHNICAL SERVICE BULLETIN

2.0L EcoBoost - Coolant In Cylinders, White Exhaust Smoke And/Or Illuminated MIL

19-2346
19 December 2019

This bulletin supersedes 19-2208. Reason for update: Replace Awareness/Interim Message

Model:

Ford
2015-2018 Edge
2017-2019 Escape
2017-2019 Fusion
Lincoln
2017-2019 MKC
2017-2019 MKZ

Summary

This article supersedes TSB 19-2208 to update the parts list.

Issue: Some 2015-2018 Edge and 2017-2019 Fusion/MKZ/Escape/MKC vehicles equipped with a 2.0L EcoBoost engine may exhibit a low coolant level, white exhaust smoke and/or a runs rough condition with or without an illuminated malfunction indicator lamp (MIL). Diagnostic trouble codes (DTCs) may include P0300, P0301-P0304, P0316, P0217, P1285 and/or P1299 stored in powertrain control module (PCM). This may be due to coolant intrusion into the cylinder. To correct the condition, follow the Service Procedure steps to replace the long block engine assembly.

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

- One of the following vehicles:
 - 2015-2018 Edge
 - 2017-2019 Fusion/MKZ built on or before 8-Apr-2019
 - 2017-2019 Escape built on or before 16-May-2019
 - 2017-2019 MKC built on or before 18-Apr-2019
- 2.0L EcoBoost engine
- Presence of coolant in the engine cylinders, white exhaust smoke and/or a runs rough condition with or without an illuminated MIL

NOTE: Part availability for this TSB is initially limited and Dealers may experience temporary backorders that will be filled as quickly as possible. Dealers are requested to order parts only when required to complete a customer vehicle repair.

NOTE: Parts listed below, other than fluids and chemicals, come in a package of 1 and require 1 individual piece unless otherwise stated.

Parts

Part Number		Description	Quantity
6006	-		1

		Engine Long Block - Refer To The Parts Catalog For The VIN Specific Application	
W715618-S437	Package Contains 4 Pieces, 4 Pieces Required	Torque Converter Nuts	1
EJ7Z-9448-B	-	Turbo Gasket (All Models)	1
BE8Z-6731-AC	-	Oil Filter Kit (All Models)	1
W716457-S439	Package Contains 4 Pieces, 4 Pieces Required	Subframe Bolts (Edge/Fusion/MKZ)	1
7N5Z-00812-A	Package Contains 1 Piece, 2 Pieces Required	Subframe Bolts (Escape/MKC)	2
W713095-S403	Package Contains 4 Pieces, 4 Pieces Required	Turbo Heat Shield Nuts (All Models)	1
W520103-S403	Package Contains 4 Pieces, 2 Pieces Required	Tailpipe Fastener (Escape)	1
W520103-S442	Package Contains 4 Pieces, 2 Pieces Required	Tailpipe Fastener (MKC/Fusion/MKZ)	1
W714265-S442	Package Contains 4 Pieces, 4 Pieces Required	Catalytic Converter Fastener (All Models)	1
CV6Z-9450-E	-	Tailpipe Gasket (All Models)	1
EJ7Z-6L612-A	-	Turbo To Catalytic Converter Gasket (All Models)	1
W713212-S300	Package Contains 2 Pieces, 2 Pieces Required	Turbo Coolant Tube Washers (All Models)	1
FT4Z-6N652-D	Package Contains 1 Piece, 5 Pieces Required	Turbo Coolant Tube O-Ring (All Models)	5
F2GZ-6K679-A	-	Turbo Oil Supply Tube Washers (Edge) (Part Of Oil Feed Pipe Kit)	1
W715323-S300	Package Contains 2 Pieces, Escape/MKC Require 2, Fusion/MKZ Require 4	Turbo Oil Supply Tube Washers (Escape/MKC/Fusion/MKZ)	Escape/MKC 1, Fusion/MKZ 2
BB5Z-6C683-A	-	Turbocharger Oil Filter (All Models)	1
EJ7Z-6N652-A	-	Turbo Oil Return Tube Gasket (All Models)	1
FT4Z-6N652-E	-	Turbo Oil Return Tube O-ring (All Models)	1
W520214-S442	Package Contains 1 Piece, 3 Pieces Required	Engine Mount Nut (Fusion/MKZ)	3
W520214-S440	Package Contains 2 Pieces, 3 Pieces Required	Engine Mount Nut (Escape/Edge)	2
W520204-S442	Package Contains 4 Pieces, 3 Pieces Required	Engine Mount Nut (Escape/MKC)	1
W710807-S442	Package Contains 4 Pieces, 1 Piece Required	Engine Mount Nut (All Models)	1

W717674-S439	Package Contains 4 Pieces, 2 Pieces Required	Engine Mount Bolt (All Models)	1
W716136-S442	Package Contains 4 Pieces, 2 Pieces Required	Engine Mount Bolt (Escape)	1
W716516-S442	Package Contains 4 Pieces, 2 Pieces Required	Engine Mount Bolt/Stud Assembly Fastener (MKC)	1
W712961-S450B	-	Steering Column Fastener (Edge And 2017-2019 Fusion/MKZ Only)	1
W711137-S442	Package Contains 4 Pieces, 1 Piece Required	Steering Column Fastener (Escape/MKC)	1
5F9Z-4682-AA	Package Contains 1 Piece, Escape/MKC/Fusion Require 6, Edge Require 3	PTU Bolt And Washer Assembly (AWD Only)	Escape/MKC/Fusion 6, Edge 3
F2GZ-4682-A	Package Contains 1 Piece, 3 Pieces Required	RDU Bolt And Washer Assembly (Edge AWD Only)	3
W712154-S439	Package Contains 4 Pieces, 2 Pieces Required	Center Bearing Fastener (Fusion/MKZ/Edge - AWD Only)	1
W711806-S442	Package Contains 4 Pieces, 4 Pieces Required	Center Bearing Fastener, Bracket To Body (Escape/MKC - AWD Only)	1
W500020-S442	Package Contains 4 Pieces, 2 Pieces Required	Center Bearing Fastener, Bracket To Center Bearing (Escape/MKC - AWD Only)	1
W712503-S440	Package Contains 1 Piece, 2 pieces Required	Stabilizer Bar Fastener (Fusion/MKZ/Edge)	2
W715135-S440	Package Contains 4 Pieces, 2 Pieces Required	Stabilizer Bar Fastener (Escape/MKC)	1
W715623-S439	Package Contains 4 Pieces, 4 Pieces Required	Front Brake Caliper Bolts (Fusion/MKZ/Edge)	1
W715295-S439	Package Contains 4 Pieces, 4 Pieces Required	Shock Mount Bolt (Edge Only)	1
W715490-S442	Package Contains 4 Pieces, 2 Pieces Required	Shock Mount Bolt (Escape/MKC Only)	2
W520216-S440	Package Contains 4 Pieces, 4 Pieces Required	Shock Mount Nut (Edge Only)	1
DL3Z-19B596-B	-	A/C Compressor Gasket And O-Ring (All Models)	1
DS7Z-19B596-A	-	A/C Compressor Gasket And O-Ring (All Models)	1
CCPZ-3B477-B	Package Contains 1 Piece, 2 Pieces Required	Wheel Bearing Hub Nut (Fusion/MKZ/Edge)	2
CCPZ-3B477-G	Package Contains 1 Piece, 2 Pieces Required	Wheel Bearing Hub Nut (Escape FWD/MKC)	2
CCPZ-3B477-C	Package Contains 1 Piece, 2 Pieces Required	Wheel Bearing Hub Nut (Escape AWD)	2
W500545-S439	Package Contains 4 Pieces, 2 Pieces Required	Ball Joint Pinch Bolt (Fusion/MKZ/Edge)	1

W520214-S442	Package Contains 1 Piece, 2 Pieces Required	Lower Ball Joint Nut (Fusion)	2
W520214-S440	Package Contains 2 Pieces, 2 Pieces Required	Ball Joint Pinch Nut (Edge/MKZ)	1
4S4Z-3N324-AA	-	Halfshaft Retaining Strap (Fusion/MKZ/Edge)	1
DG9Z-7G273-B	Package Contains 1 Piece, 2 Pieces Required	Halfshaft Washer (All Models)	2
W718507-S439	Package Contains 4 Pieces, 4 Pieces Required	Transmission Support Insulator Bolts (Edge Only)	1
W520205-S440	Package Contains 4 Pieces, 1 Piece Required	Transmission Support Insulator Nuts (Edge Only)	1
W716200-S437	Package Contains 4 Pieces, 1 Pieces Required	Transmission Fluid Cooler Tube Bolts (Edge Only)	1
W712146-S437	Package Contains 4 Pieces, 1 Pieces Required	Transmission Fluid Cooler Tube Bolts (Fusion/MKZ/Edge Only)	1
W520215-S440	Package Contains 4 Pieces, 2 Pieces Required	Tie Rod End Nut (Fusion/MKZ/Edge)	1
W716075-S442	Package Contains 4 Pieces, 2 Pieces Required	Ball Joint Pinch Bolt (Escape/MKC)	1
W520415-S442	Package Contains 4 Pieces, 2 Pieces Required	Ball Joint Pinch Nut (Escape/MKC)	1
EJ7Z-9J323-B	-	High Pressure Fuel Tube	1
W718059-S442	Package Contains 2 Pieces, 2 Pieces Required	High Pressure Fuel Pump Fasteners	1
AG9Z-9P847-A	Package Contains 1 Piece, 4 Pieces Required	Fuel Injector Clips	4
AA5Z-9E583-A	-	High Pressure Fuel Pump O-ring	1
W500313-S437	Package Contains 4 Pieces, 5 Pieces Required	Fuel Rail Fasteners	2
BG9Z-9229-A	Kit Contains 4 Pieces, 4 Pieces Required	Injector Teflon Seals/O-rings	1
9L8Z-6G004-E	-	CHT2 Sensor	1
1L5Z-6379-AA	Contains 4 Pieces, 6 Pieces Required	Flex Plate Fasteners	2
W716841-S900	Package Contains 4 Pieces, 2 Pieces Required	Engine Dowel (Engine To Transmission Interface)	1
XO-5W30-Q1SP	-	Motorcraft® SAE 5W-30 Premium Synthetic Blend Motor Oil (All Markets Except Canada)	As Required
CXO-5W30-LSP6	-	Motorcraft® SAE 5W-30 Super Premium Motor Oil (Canada Only)	As Required
VC-3-B	-	Motorcraft® Orange Concentrated Antifreeze/Coolant (All Markets Except Canada)	As Required

CVC-3-B2	-	Motorcraft® Orange Concentrated Antifreeze/Coolant (Canada Only)	As Required
TA-26	-	Motorcraft® Threadlock 262	As Required
W520204-S440	Package Contains 4 Pieces, 3 Pieces Required	Engine Mount Nut (MKC)	1
W520102-S442	Package Contains 4 Pieces, 2 Pieces Required	Halfshaft Retaining Strap Nut (All Models)	1
W718250-S439	Package Contains 5 Pieces, 5 Pieces Required	Upper PTU Bolt (AWD Only)	1
BB5Z-1S177-C	-	Halfshaft Seal (FWD)	1
9L8Z-1177-C	-	Halfshaft Seal (AWD)	1
CV6Z-7086-A	-	PTU Compression Seal (AWD Only)	1
BB5Z-4B422-C	-	Halfshaft Retaining Circlip (All Models)	1
YS4Z-3N324-AA	-	Halfshaft Retaining Strap (Escape/MKC)	1
CN1Z-7H424-B	-	Intermediate Shaft Seal (AWD Only)	1
Replace Only If Necessary			
CM5Z-12029-K	Package Contains 1 Piece	Ignition Coil	As Needed
AA5Z-9C587-A	Package Contains 1 Piece	High Pressure Pump Roller Tappet	As Needed
EJ7Z-9276-B	Package Contains 1 Piece	High Pressure Pump Drive Gasket	As Needed
BB5Z-2A572-B	Package Contains 1 Piece	Brake Vacuum Pump Gasket	As Needed
CJ5Z-9439-A	Package Contains 4 Pieces	Intake Manifold Gasket	As Needed
W704474-S437	Package Contains 4 Pieces	Turbo Stud	As Needed
W712458-S900	Package Contains 4 Pieces	Turbo To Exhaust Stud	As Needed
F2GZ-63600A58-A	Package Contains 1 Piece	Intermediate Shaft Bushing (AWD Only)	As Needed
W714753-S442	Package Contains 4 Pieces	Front Brake Caliper Bolts (Escape/MKC)	As Needed
W520203-S442	Package Contains 4 Pieces	Tie Rod End Nut (Escape/MKC)	As Needed
CJ5Z-8255-A	Package Contains 1 Piece	Coolant Outlet Adapter O-ring	As Needed
1S7Z-6B752-AA	Package Contains 1 Piece	Crankcase Oil Vent Separator Gasket (All Models)	As Needed
3M4Z-8255-A	Package Contains 1 Piece	Thermostat Gasket (All Models)	As Needed

Warranty Status: Eligible under provisions of New Vehicle Limited Warranty (NVLW)/Emissions Warranty/Service Part Warranty (SPW)/Special Service Part (SSP)/Extended Service Plan (ESP) coverage. Limits/policies/prior approvals are not altered by a TSB. NVLW/Emissions Warranty/SPW/SSP/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool. For repairs covered by the NVLW, completion of the procedure outlined in this TSB does not require obtaining Prior Approval or completion of a Cost Cap.

Labor Times

Description	Operation No.	Time
2017-2019 MKC AWD 2.0L EcoBoost: Diagnose And Replace The Engine Long Block (Do Not Use With Any Labor Operations Outside Of This Article)	DR192346A	14.7 Hrs.
2017-2019 MKC FWD 2.0L EcoBoost: Diagnose And Replace The Engine Long Block (Do Not Use With Any Labor Operations Outside Of This Article)	DR192346B	13.6 Hrs.
2017-2019 Escape 4X4 2.0L EcoBoost: Diagnose And Replace The Engine Long Block (Do Not Use With Any Labor Operations Outside Of This Article)	DR192346C	15.3 Hrs.
2017-2019 Escape 4X2 2.0L EcoBoost: Diagnose And Replace The Engine Long Block (Do Not Use With Any Labor Operations Outside Of This Article)	DR192346D	13.6 Hrs.
2015-2018 Edge AWD 2.0L EcoBoost: Diagnose And Replace The Engine Long Block (Do Not Use With Any Labor Operations Outside Of This Article)	DR192346E	15.0 Hrs.
2015-2018 Edge FWD 2.0L EcoBoost: Diagnose And Replace The Engine Long Block (Do Not Use With Any Labor Operations Outside Of This Article)	DR192346F	13.3 Hrs.
2017-2019 Fusion/MKZ AWD 2.0L EcoBoost: Diagnose And Replace The Engine Long Block (Do Not Use With Any Labor Operations Outside Of This Article)	DR192346G	14.9 Hrs.
2017-2019 Fusion/MKZ FWD 2.0L EcoBoost: Diagnose And Replace The Engine Long Block (Do Not Use With Any Labor Operations Outside Of This Article)	DR192346H	12.9 Hrs.
Vehicles Without Lane Departure: Additional Time To Check And Correct Front Toe (Can be Claimed With Operation A-H Only)	DR192346J	0.6 Hrs.
Vehicles With Lane Departure: Additional Time To Check And Correct Front Toe (Can be Claimed With Operation A-H Only)	DR192346K	0.8 Hrs.

Repair/Claim Coding

Causal Part:	6009
Condition Code:	D8

Service Procedure

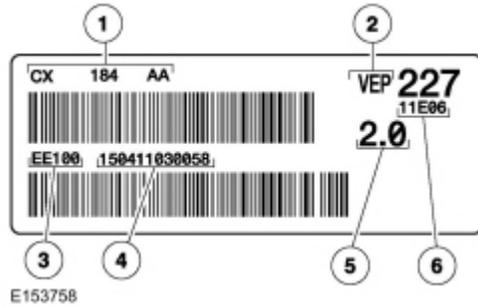
For repairs covered by the New Vehicle Limited Warranty, completion of the procedure outlined in this TSB does not require obtaining Prior Approval or completion of a Cost Cap.

NOTE: Part availability for this TSB is initially limited and Dealers may experience temporary backorders that will be filled as quickly as possible. Dealers are requested to order parts only when required to complete a customer vehicle repair.

1. For Edge/Escape vehicles, proceed to Step 3. For Fusion/MKZ/MKC vehicles, inspect the engine code information label located on the end of the cam cover. Refer to Figure 1 Callout 1 for the engine part number. Verify that the engine base part number matches the following requirements:

- (1). Fusion/MKZ - engine base part number is 910
- (2). MKC - engine base part number is 206

Figure 1



Item	Description
1	Engine part number

Figure 2



2. Does the engine base part number match the requirements listed in Step 1?

(1). Yes - proceed to Step 3.

(2). No - this article does not apply. Refer to the Powertrain Control/Emission Diagnosis (PC/ED) Manual for normal diagnostics.

3. With the engine at normal operating temperature, pressurize the cooling system to 138 kPa (20 psi) and hold for 5 hours. Refer to the coolant pressure test in Workshop Manual (WSM), Section 303-03A and check for cooling system combustion gases.

4. Did coolant system pressure drop more than 27.57 kPa (4 psi) after 5 hours?

(1). Yes - proceed to Step 5.

(2). No - this article does not apply. Refer to the PC/ED Manual for normal diagnostics.

5. Remove the spark plugs. Using a borescope or equivalent, inspect and determine if coolant has entered the cylinders.

6. Is coolant present in any cylinder?

(1). Yes - remove the engine and replace the long block. Refer to WSM, Section 303-01.

- NOTE: Advise the customer that some odor may be present after the repair has been completed until the residual coolant dissipates from the exhaust.

(2). No - this article does not apply. Refer to WSM, Section 303-01 for normal diagnostics.

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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.