



TECHNICAL SERVICE BULLETIN

2.7L EcoBoost - Cold Start Ticking/Tapping Or Rattle Type Noise

23-2049

28 March
2023

This bulletin supersedes 22-2376.

Model:

Ford 2019-2023 Edge	Engine: 2.7L EcoBoost
Lincoln 2019-2023 Nautilus	Engine: 2.7L EcoBoost

Summary

This TSB supersedes TSB 22-2376 to update the model years affected.

Issue: Some 2019-2023 Edge/Nautilus vehicles equipped with a 2.7L EcoBoost engine may exhibit a ticking/tapping or rattle type noise from the top front cover area of the engine on initial start-up after a cold soak of 6 hours or more that may last for 2-5 seconds. This may be due to stuck internal components of the variable cam timing (VCT) unit. To correct the condition, follow the Service Procedure to replace the VCT units.

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

- 2019-2023 Edge/Nautilus
- 2.7L EcoBoost engine
- Customer symptom of ticking/tapping or rattle noise from the front cover area after a cold start

NOTE: Dealers should only order parts for customer vehicles that require repairs. Because of part constraints, dealers may experience situational short-term backorders on some parts. Customers should continue to drive vehicles while parts are on order.

Parts

All Vehicles - Required Parts

Service Part Number	Quantity	Description	Unit of Issue	Piece Quantity
CP9Z-6279-C	4	VCT Unit Bolts	1	4
FT4Z-6A340-A	1	Crankshaft Pulley Bolt	1	1
KU2Z-6731-A	1	Engine Oil Filter	1	1
JT4Z-6710-A	1	Oil Pan Press-In-Place Gasket	1	1
KT4Z-6710-A	1	Oil Pan Gasket	1	1
FT4Z-6626-A	1	Oil Pump Seal	1	1
FT4Z-6020-G	1	Coolant Pump Gasket	1	1
FT4Z-8507-C	1	Coolant Pump Seal	1	1
XW4Z-6700-B	1	Crankshaft Front Oil Seal	1	1
FT4Z-6020-K	1	Engine Front Cover Gasket 1	1	1
FT4Z-6020-H	1	Engine Front Cover Gasket 2	1	1
FT4Z-6020-J	1	Engine Front Cover Gasket 3	1	1
FT4Z-6020-A	1	Engine Front Cover Gasket 4	1	1
FT4Z-00815-C	1	Oil Gallery Seal	1	1

L1MZ-6256-C	2	VCT Unit - Intake	1	2
L1MZ-6C525-C	2	VCT Unit - Exhaust	1	2
BL3Z-9450-A	2	Catalytic Converter Gasket	1	2
FT4Z-6584-D	1	Left Valve Cover Gasket	1	1
FT4Z-6584-B	1	Right Valve Cover Gasket	1	1
FT4Z-6584-C	1	Left Valve Cover Gasket	1	1
FT4Z-6584-E	1	Right Valve Cover Gasket	1	1
1X4Z-9E936-AA	1	Throttle Body Gasket	1	1
DL3Z-19B596-B	1	A/C O-Ring Kit	1	1
DS7Z-19B596-A	1	A/C Gasket Kit	1	1
W712334-S440	2	Engine Mount Bracket-To-Engine Nuts	3	4
W717674-S439	1	Engine Mount-To-Frame Bolts	4	2
W710807-S442	1	Engine Mount-To-Frame Nut	4	1
W716457-S439	1	Subframe Bolts	4	2
W712458-S900	1	Exhaust Studs	4	4
W714265-S442	1	Catalytic Converter To Turbo Flange Nuts	4	4
VC-13DL-G	As Needed	Motorcraft® Yellow Prediluted Antifreeze/Coolant (All Markets Except Canada)		
CVC-13DL-G	As Needed	Motorcraft® Yellow Prediluted Antifreeze/Coolant (Canada Only)		
XO-5W30-Q1SP	As Needed	Motorcraft® SAE 5W-30 Synthetic Blend Motor Oil (All Markets Except Canada)		
CXO-5W30-LSP6	As Needed	Motorcraft® SAE 5W-30 Super Premium Motor Oil (Canada Only)		
XL-2	As Needed	Motorcraft® High Temperature Nickel Anti-Seize Lubricant		
ZC-37-A	As Needed	Motorcraft® Wheel and Tire Cleaner		
XL-1	As Needed	Motorcraft® Penetrating and Lock Lubricant		
TA-26	As Needed	Motorcraft® Threadlock 262		
YN-35	As Needed	Motorcraft® R-1234yf Refrigerant PAG Oil		
TA-357	As Needed	Motorcraft® High Performance Engine RTV Silicone		

Parts

Nautilus Only Parts

Service Part Number	Quantity	Description	Unit of Issue	Piece Quantity
W712961-S450B	1	Steering Shaft Coupler Bolt	4	1
W520215-S440	1	Tie Rod Nut	4	2
W712503-S440	2	Stabilizer Bar Nuts	1	2
W520214-S440	1	Ball Joint Nut	2	2
W500545-S439	1	Ball Joint Stud	4	2
W717016-S439	1	Rearward Subframe Bolt	4	2

Parts

All Vehicles - Parts To Inspect And Replace Only If Necessary

Service Part Number	Quantity	Description	Unit of Issue
FT4Z-6A832-C	If Needed	Oil Filter Housing And Stem	1
BR3Z-6C535-B	If Needed	Spark Plug Seals	1

Quantity refers to the amount of the service part number required to repair the vehicle.

Unit of Issue refers to the number of individual pieces included in a service part number package.

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

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.

If Needed indicates the part is not mandatory.

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.

Labor Times

Description	Operation No.	Time
2019-2023 Edge AWD 2.7L EcoBoost, Nautilus FWD/AWD 2.7L EcoBoost: Replace All 4 VCT Units (Do Not Use With Any Other Labor Operations)	232049A	14.7 Hrs.

Repair/Claim Coding

Causal Part:	6C525
Condition Code:	42

Service Procedure

1. Replace all 4 VCT units. Refer to Workshop Manual (WSM), Section 303-01. Do not replace any additional VCT or engine timing-related components not included in the Parts List.

(1). All the VCT solenoid and spark plug tube seals require inspection, but not all require replacement.

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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.