



TECHNICAL SERVICE BULLETIN

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

22-2376

21 October
2022

Model:

Ford 2019-2022 Edge	Engine: 2.7L EcoBoost
Lincoln 2019-2022 Nautilus	Engine: 2.7L EcoBoost

Issue: Some 2019-2022 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:

- 2019-2022 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-A	2	VCT Unit - Intake	1	2
L1MZ-6C525-A	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
F2GZ-3A130-A	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

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
2019-2022 Edge AWD 2.7L EcoBoost, Nautilus FWD/AWD 2.7L EcoBoost: Replace All 4 VCT Units (Do Not Use With Any Other Labor Operations)	222376A	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 Part List.

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

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