



TECHNICAL SERVICE BULLETIN Torque Converter Shudder

This bulletin supersedes 26-2171. Reason for update: update the Parts list to add a note to clarify the application of the part numbers W520102-S442 and 4S4Z-3N324-AA "FWD Only".

Model:	
Ford 2019-2024 Edge	Transmission: 8F35
Lincoln 2019-2023 Nautilus	Transmission: 8F35

Markets: North American markets only

Issue: Some of the vehicles listed in the Model statement above may exhibit all of the following conditions:

- Shudder condition, most noticeable at speeds below 60 mph (100 km/h).
- No relevant DTCs present.
- Traceable shudder event with IDS/ FDRS reading. Refer to Figure 1.

This condition may be perceived/felt as an engine misfire. This may be due to a concern with the output planetary assembly.

Action: For vehicles that meet all of the criteria in the Issue and Model statements, follow the Service Procedure to perform the replacement of the torque converter and output planetary assembly.

Parts - All Vehicles

Service Part Number	Claim Quantity	Description	Note
JMSZ-7902-FTC	1	Torque Converter	
JMSZ-1S177-A	FWD Requires 2 pieces. AWD Requires 1 Piece	Axle Seal	
W712661-S450B	1	Steering Shaft Bolt	
JMSZ-7F396-A	1	Main Control Cover Gasket	
W716457-S439	4	Subframe Bolts	
W520215-S440	2	Tie Rod Nuts	
W705606-S440	2	Front Stabilizer Bar Nut	
W520545-S439	2	Ball Joint Bolts	
W520214-S440	2	Ball Joint Nuts	
CCPZ-3B477-B	2	Front Halfshaft Wheel Hub Nuts	
BB5Z-4B422-C	1	Front Halfshaft Retainer Circlip	
W520102-S442	2	Halfshaft Retainer Strap Nuts	FWD Only
4S4Z-3N324-AA	1	Halfshaft Retaining Strap	FWD Only
W719518-S437	4	Torque Converter Nuts	
JMSZ-7N265-E	2	Transmission Pump Assembly Seals	
JMSZ-7N142-A	1	Chain Snubber Seal	
JMSZ-7N142-Q	1	Chain Snubber Seal	
JMSZ-7N265-G	3	Transmission Pump Assembly Seals	
JMSZ-7G007-A	6	Solenoid Retainers	
W712658-S439	2	Solenoid Retainer Bolts	
JMSZ-7N473-C	1	Planetary Assembly	
JMSZ-7A248-E	1	Torque Converter Hub Seal	
JMSZ-7A098-A	1	Transmission Fluid Pump Filter	
JMSZ-7Z302-A	1	Transmission Pump Assembly Filter Grommet	
JMSZ-7B301-A	1	Transmission Filter	

Parts - Edge/Nautilus AWD Vehicles

Service Part Number	Claim Quantity	Description
K2GZ-7Z775-B	1	RH Axle Circlip And O-ring
W719767-S439	2	Intermediate Shaft Mounting Bolts
K2GZ-7086-A	1	Intermediate Shaft Bearing O-Ring Seal
W719766-S900	5	PTU Bolts
W714385-S442	5	Catalytic Converter And Tailpipe Nuts
K2GZ-6L812-A	1	Upper Exhaust Gasket
F2GZ-4682-A	3	PTU Bolts And Retaining Straps
CV8Z-9450-E	1	Lower Exhaust Gasket
JMSZ-7H260-A	1	RH Halfshaft Seal

Parts - Parts To Inspect And Replace Only If Necessary

Service Part Number	Claim Quantity	Description	Note
W701350-S437	Only If Necessary (Up To 1)	Dowel Pins	
K2GZ-6758-H	Only If Necessary (Up To 1)	Vapor Tube	
K2GZ-6758-G	Only If Necessary (Up To 1)	Vapor Tube W/Sensor If Equipped	
JMSZ-7Z490-B	Only If Necessary (Up To 1)	Main Control Lower Plate	
JMSZ-7Z490-D	Only If Necessary (Up To 1)	Main Control Upper Plate	
W712458-S900	Only If Necessary (Up To 3)	Exhaust Studs	
JMSZ-7H274-A	Only If Necessary (Up To 1)	Accumulator Body Seal	
JMSZ-7D308-A	Only If Necessary (Up To 2)	Accumulator Body Seal O-Ring	
JMSZ-7G091-A	Only If Necessary (Up To 1)	Stator Support Seal	
JMSZ-7J135-A	Only If Necessary (Up To 1)	Main Control Tube Assembly	
K2GZ-7H469-D	Only If Necessary (Up To 1)	PTU Seal Kit	AWD Only

Parts - Chemicals and Lubricants

Service Part Number	Claim Quantity	Description	Note
XI-75985-QL	As Needed	Motorcraft® SAE 75W-85 Premium Synthetic Hypoid Gear Lubricant	AWD Only
VC-13-G	As Needed	Motorcraft® Yellow Concentrated Antifreeze/Coolant	All Markets Except Canada
CVC-13-G	As Needed	Motorcraft® Yellow Concentrated Antifreeze/Coolant	Canada Only
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
XT-12-QLULV	As Needed	Motorcraft® MERCON® ULV Automatic Transmission Fluid	
XL-5-A	As Needed	Motorcraft® Multi-Purpose Grease Spray	
XG-3-A	As Needed	Motorcraft® Silicone Brake Caliper Grease and Dielectric Compound	
PM-4-A	As Needed	Motorcraft® Brake Parts Cleaner - Low VOC Compliant Formula	All Markets Except Canada
PM-4-B	As Needed	Motorcraft® Metal Brake Parts Cleaner - Not Compliant With Low Volatile Organic Compound Requirements	All Markets Except Canada
CPM-4-A	As Needed	Motorcraft® Brake Parts Cleaner - VOC Compliant	Canada Only
XL-2	As Needed	Motorcraft® High Temperature Nickel Anti-Seize Lubricant	
TA-29	As Needed	Motorcraft® Ultra Silicone Sealant	
ZC-37-A	As Needed	Motorcraft® Wheel and Tire Cleaner	

NOTE: All other parts instructed by the WSM to inspect and replace as necessary should be claimed outside of this article.

Claim Quantity refers to the total number of individual pieces required to repair the vehicle. This may differ from the number of service part number packages due to the unit of issue (UOI).

As Needed indicates the part is necessary but 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. Refer to the Service Procedure to determine the inspection/inclusion criteria.

Warranty Status: Warranty coverage limits and policies are not altered by a TSB. Warranty coverage limits are determined by the identified causal part.

Labor Times

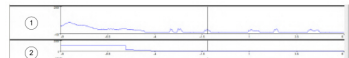
Description	Operation No.	Time
2019-2024: Edge AWD: Retrieve DTCs, Replace The Output Planetary Carrier Assembly, Both Fluid Filters, Torque Converter And Seal. Includes time to Overhaul Main Control, R&I Transmission, And Reprogram The PCM (Can Be Claimed With Operations E, F, G, H, J)	262341A	15.2 Hrs
2019-2024: Edge FWD: Retrieve DTCs, Replace The Output Planetary Carrier Assembly, Both Fluid Filters, Torque Converter And Seal. Includes time to Overhaul Main Control, R&I Transmission, And Reprogram The PCM (Can Be Claimed With Operations E, F, G, H)	262341B	13.5 Hrs
2019-2023: Nautilus AWD: Retrieve DTCs, Replace The Output Planetary Carrier Assembly, Both Fluid Filters, Torque Converter And Seal. Includes time to Overhaul Main Control, R&I Transmission And Reprogram The PCM (Can Be Claimed With Operations E, F, G, H, J)	262341C	15.1 Hrs
2019-2023: Nautilus FWD: Retrieve DTCs, Replace The Output Planetary Carrier Assembly, Both Fluid Filters, Torque Converter And Seal. Includes time to Overhaul Main Control, R&I Transmission And Reprogram The PCM (Can Be Claimed With Operations E, F, G, H)	262341D	13.3 Hrs
Additional Time To Check And Adjust Front Toe (Can Be Claimed With Operations A, B, C, or D)	262341E	0.8 Hrs
Additional Time To Check And Adjust Front Toe If Equipped With Active/Adaptive Steering (Can Be Claimed With Operations A, B, C, or D)	262341F	0.9 Hrs
Additional Time To Check And Adjust Front Toe If Equipped With Lane Departure (Can Be Claimed With Operations A, B, C, or D)	262341G	0.9 Hrs
Additional Time To Check And Adjust Front Toe If Equipped With Active/Adaptive Steering and Lane Departure (Can Be Claimed With Operations A, B, C, or D)	262341H	1.0 Hrs
Additional Time If Equipped With Power Transfer Unit Oil-to-Coolant Cooler (Can Be Claimed With Operations A Or C)	262341J	0.2 Hrs

Repair/Claim Coding

Causal Part:	7N473
Condition Code:	42

Service Procedure

Figure 1 - IDS/FDRS - Shudder event reading



640293

Item	Description
1	TC_SLIPACT
2	TC_SLIPDSO

1. Remove the transmission. Refer to the [WSM](#), Section 307-01A > Removal.

2. Remove and discard the torque converter. Refer to the [WSM](#), Section 307-01A > Overhaul.

- Special Service Tool: 307-091 Handle Torque Converter.

3. Remove the main control valve body. Refer to the [WSM](#), Section 307-01A

4. Disassemble the transmission only far enough to access the output planetary carrier assembly. Refer to the [WSM](#), Section 307-01A > Overhaul > perform Steps 36-68.

NOTE: The transmission range sensor removal is not required for this procedure.

5. Remove and discard the output planetary carrier assembly.

6. Remove and discard both internal transmission fluid filters and the torque converter hub seal. Refer to the [WSM](#), Section 307-01A > Overhaul > perform Steps 94, 102, 104 and 109.

7. Install the new output planetary carrier assembly.

8. Reverse the removal procedure to reassemble the transmission.

9. Overhaul and thoroughly clean the main control valve body. Refer to the [WSM](#), Section 307-01 > Overhaul > Main Control.

10. Reinstall the main control valve body. Refer to the [WSM](#), Section 307-01A.

11. Install a new torque converter hub seal. Refer to the [WSSM](#) Section 307-01A > Overhaul > perform Steps 153-154.
- Special Service Tools: 307-760 Installer Converter Seal, 205-199 Installer Spindle/Axle Shaft.
12. Install a new torque converter. Refer to the [WSSM](#) Section 307-01A > Overhaul.
- Special Service Tools: 307-091 Handle Torque Converter, 307-566 Retainer Torque Converter, 307-764 Installer/Sizer, Stator Teflon Seal
13. Reinstall the transmission. Refer to the [WSSM](#) Section 307-01A > Installation.
14. Reprogram the [FSD](#) using the latest software level of the appropriate Ford diagnostic scan tool if available.
- NOTE: Advise the customer this vehicle is equipped with an adaptive transmission shift strategy which allows the vehicle's computer to learn the transmission's unique parameters and improve shift quality. When the adaptive strategy is reset, the computer will begin a relearning process. This relearning process may result in firmer than normal upshifts and downshifts for several days.