



TECHNICAL SERVICE BULLETIN

2.3L - Vibration/Rough Idle In Drive (D) Or Reverse (R), Lack Of Engine RPM/Acceleration On Take-Off, Shudder While Driving

22-2287

15 July 2022

This bulletin supersedes 20-2271.

Model:

Ford 2016-2019 Explorer	Engine: 2.3L
Lincoln 2015-2019 MKC	Engine: 2.3L

Summary

This article supersedes TSB 20-2271 to update the Parts List.

Issue: Some 2015-2019 MKC and 2016-2019 Explorer vehicles equipped with a 2.3L engine may exhibit a vibration/rough idle when the vehicle is in drive (D) or reverse (R). The vehicle may also exhibit a lack of engine revolutions per minute (RPM), lack of acceleration on take off and/or shudder while driving. This may be due to the torque converter overheating causing damage to the torque converter as well as possible internal damage to the transmission. To correct this condition, follow the Service Procedure to replace the torque converter and specified internal transmission components that may have been damaged.

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

- One of the following vehicles:
 - 2015-2019 MKC
 - 2016-2019 Explorer
- 2.3L EcoBoost
- One or more of the following symptoms:
 - Customer concern of a vibration or rough idle in drive (D) or reverse (R)
 - Shudder while driving
 - Lack of engine RPM
 - Low performance, lack of acceleration on take off

Parts

Service Part Number	Quantity	Description	Unit of Issue	Piece Quantity
W505277-S439	1	Stabilizer Bar Bracket-To-Front Subframe Bolts (Explorer)	4	4
W520215-S440	1	Tie Rod End Nuts (Explorer)	4	2
W714890-S440	1	Lower Ball Joint Nuts (Explorer)	4	2
W712961-S439	1	Steering Column Shaft Bolt (Explorer)	2	1
W710999-S439	1	Subframe Bracket Bolts (Explorer)	4	4
W717859-S439	1	Rear Subframe Bolts (Explorer)	4	2
W714470-	1	Front Subframe Bolts (Explorer)	4	2

S439				
BE8Z-6731-AB	1	Engine Oil Filter	1	1
W715618-S437	1	Torque Converter Nuts	4	4
W712435-S439	1	Right Wheel Hub Nut (Explorer AWD)	2	1
W701731-S439	1	Halfshaft Retaining Nuts (Explorer)	4	2
W790063-S900	1	Driveshaft To PTU Bolt and Washer Assembly (Explorer AWD)	3	3
CV6Z-7086-B	1	PTU Compression Seal (AWD)	1	1
BB5Z-4B422-C	1	Left Hafshaft Circlip (Explorer)	1	1
W712146-S437	1	Cooler Lines To Case Bolts	4	2
BB5Z-7153-K	1	Seal Kit	1	1
EJ7Z-6840-A	1	Oil Filter Adaptor Gasket (MKC)	1	1
CCPZ-3B477-G	1 For 2WD, 2 for AWD	Wheel Hub Nut (MKC)	1	1 Piece Required For 2WD, 2 Pieces Required for AWD
W716075-S442	1	Lower Ball Joint Bolt (MKC)	4	2
W520415-S442	1	Lower Ball Joint Nut (MKC)	4	2
BB5Z-4B422-B	1	Left Circlip (MKC)	1	1
EJ7Z-7902-J	1	Torque Converter	1	1
W520203-S442	1	Right Tie Rod End Nut (MKC)	4	1
YS4Z-3N324-AA	1	Right Halfshaft Bracket (MKC)	1	1
W520102-S442	1	Right Halfshaft Bracket Nuts (MKC)	4	2
EJ7Z-6L612-A	1	Exhaust Gasket, Front Of Converter (AWD)	1	1
W714265-S442	1	Exhaust Nuts, Front Of Converter (MKC AWD)	4	2
CV6Z-9450-D	1	Flex Pipe Exhaust Gasket (MKC AWD Built On Or Before 8-Jan-2019)	1	1
CV6Z-9450-E	1	Flex Pipe Exhaust Gasket (MKC AWD Built On Or After 9-Jan-2019)	1	1
W520103-S442	1	Exhaust Nuts, Rear Of Converter (MKC AWD)	4	2
5F9Z-4682-AA	3	Driveshaft Bolts (MKC AWD)	1	3
W714265-S441	1	Exhaust Nuts (Explorer AWD)	4	4

7T4Z-9450-AA	1	Flex Pipe Exhaust Gasket (Explorer AWD)	1	1
CN1Z-7H424-B	1	PTU Intermediate Seal (Explorer AWD)	1	1
W500635-S439	5	PTU Bolts (MKC AWD)	1	5
CV6Z-7G391-A	1	Solenoid Body	1	1
CV6Z-7A100-B	1	Main Control Assembly	1	1
9L8Z-7A248-F	1	Torque Converter Hub Seal	1	1
W715931-S437	1	Transmission Fluid Auxiliary Pump Bolts (MKC)	4	3
FR3Z-6L092-C	1	Turbocharger Oil Return Tube (Explorer)	1	1
BT4Z-7H322-B	1	Cooler Bypass Valve (Explorer)	1	1
DG9Z-7H322-A	1	Cooler Bypass Valve (MKC)	1	1
XL-5-A	As Needed	Motorcraft® Multi-Purpose Grease Spray		
XT-10-QLVC	As Needed	Motorcraft® MERCON® LV Automatic Transmission Fluid (All Markets Except Canada)		
CXT-10-LV6	As Needed	Motorcraft® MERCON® LV Automatic Transmission Fluid (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)		
TA-25-B	As Needed	Motorcraft® Threadlock and Sealer		
XL-2	As Needed	Motorcraft® High Temperature Nickel Anti-Seize Lubricant		
ZC-37-A	As Needed	Motorcraft® Wheel and Tire Cleaner		
TA-29	As Needed	Motorcraft® Ultra Silicone Sealant		
ZC-31-B	As Needed	Motorcraft® Metal Surface Prep Wipes		

Parts

Parts To Inspect And Replace Only If Necessary

Service Part Number	Quantity	Description	Unit of Issue
FB5Z-6840-A	If Needed	Oil Filter Adapter Gasket (Explorer)	1
9L8Z-7B070-F	If Needed	Forward Clutch Wave Spring (MKC Built On 21-Apr-2014 And Through 14-Jun-2015)	1
F2GZ-7B070-A	If Needed	Forward Clutch Wave Spring (MKC Built On Or After 15-Jun-2015, All Explorer)	1
9L8Z-7B442-A	If Needed	Forward Clutch Steel Plates	2

CV6Z-7B164-B	If Needed	Forward Clutch Friction Plates	2
9L8Z-7B066-D	If Needed	Forward Clutch Pressure Plate (MKC Built On Or After 21-Apr-2014, Explorer Built On 4-May-2015 And Through 4-Jan-2017)	1
F2GZ-7B066-A	If Needed	Forward Clutch Pressure Plate (Explorer Built On Or After 4-May-2014)	1
9L8Z-7E085-C	If Needed	Low/Reverse Wave Spring	1
9L8Z-7B442-C	If Needed	Low/Reverse Steel Plates	3
BB5Z-7B164-C	If Needed	Low/Reverse Friction Plates	3
9L8Z-7B066-A	If Needed	Low/Reverse Pressure Plate	1
9L8Z-7A089-E	If Needed	Low One-Way Clutch	1
CV6Z-7E085-A	If Needed	Intermediate Clutch Wave Spring	1
9L8Z-7B442-B	If Needed	Intermediate Clutch Steel Plates	2
CV6Z-7B164-C	If Needed	Intermediate Friction Plates (MKC Built On 21-Apr-2014-And Through 14-Jun-2015)	2
F2GZ-7B164-A	If Needed	Intermediate Friction Plates (MKC Built On Or After 15-Jun-2015, All Explorer)	1
9L8Z-7B442-E	If Needed	Overdrive Steel Plates	5
CV6Z-7B164-A	If Needed	Overdrive Friction Plates	5
9L8Z-7B066-C	If Needed	Overdrive Pressure Plate	1
9L8Z-7B070-E	If Needed	Direct Clutch Wave Spring	1
9L8Z-7B442-D	If Needed	Direct Clutch Steel Plates	3
CV6Z-7B164-D	If Needed	Direct Clutch Friction Plates (MKC Built On 21-Apr-2014 And Through 14-Jun-2015)	3
FB5Z-7B164-B	If Needed	Direct Clutch Friction Plates (MKC Built On And After 15-Jun-2015, All Explorer)	1
CV6Z-7B066-A	If Needed	Direct Clutch Pressure Plate	1
CV6Z-7A130-B	If Needed	Clutch Support Tower	1
9L8Z-7A103-J	If Needed	Pump Assembly	1
9L8Z-7F213-A	If Needed	Turbine Shaft	1
9L8Z-7G384-A	If Needed	Clutch Cylinder	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.

Labor Times

Description	Operation No.	Time
2015-2019 MKC AWD 2.3L: Reprogram The PCM, Replace The Torque Converter, Main Control Valve Body And Solenoid Body Includes Time To Disassemble And Clean The Transmission Following The Service Procedure (Do Not Use With Any Other Labor Operations)	222287A	16.2 Hrs.
2016-2019 Explorer FWD 2.3L: Reprogram The PCM, Replace The Torque Converter, Main Control Valve Body And Solenoid Body Includes Time To Disassemble And Clean The Transmission Following The Service Procedure (Do Not Use With Any Other Labor Operations)	222287B	13.4 Hrs.
2016-2019 Explorer AWD 2.3L: Reprogram The PCM, Replace The Torque Converter, Main Control Valve Body And Solenoid Body Includes Time To Disassemble And Clean The Transmission Following The Service Procedure (Do Not Use With Any Other Labor Operations)	222287C	15.4 Hrs.

Repair/Claim Coding

Causal Part:	7902
Condition Code:	42

Service Procedure



CAUTION: The programming is required to prevent reoccurrence.

1. Reprogram the PCM using the latest software level of the appropriate Ford scan tool.

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.

2. Remove the transmission. Refer to Workshop Manual (WSM), Section 307-01.

3. Remove and discard the torque converter.

4. Remove and discard the main control valve body and solenoid body, Refer to WSM, Section 307-01.

5. Replace the main control valve body and solenoid body. Follow the instructions included with the solenoid module kit to verify the new solenoid body strategy is downloaded to the powertrain control module (PCM).

6. Completely disassemble the transmission and clean any contaminants from the internal components. Refer to WSM, Section 307-01.

7. Thoroughly inspect all of the clutch packs. Replace the friction plates, steel plates, pressure plates, or wave springs if the clutch end clearance cannot be achieved or those components are damaged. Refer to WSM, Section 307-01.

8. Remove the transmission fluid pump assembly and discard the fluid filter. Refer to WSM, Section 307-01 > Overhaul > Transmission > Steps 107-118 for Explorer, Steps 101-113 for MKC.

9. Perform the fluid pump assembly inspection. Refer to WSM, Section 307-01 > Overhaul > Transmission > Steps 119-132 for Explorer, Steps 114-127 for MKC.

10. Does the transmission fluid pump assembly pass inspection?

(1). Yes - reassemble the transmission fluid pump assembly. Refer to WSM, Section 307-01. Proceed to Step 11.

(2). No - replace the transmission fluid pump assembly. Proceed to Step 11.

11. Reassemble the transmission. Refer to WSM, Section 307-01.

12. Carry out the transmission fluid cooler backflushing and cleaning. Clean the transmission-mounted transmission fluid cooler tubes by hand. Refer to WSM, Section 307-02.

13. Install the transmission. Refer to WSM, Section 307-01.

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