



TECHNICAL SERVICE BULLETIN

2.3L - Vibration/Rough Idle In DRIVE Or REVERSE, Lack Of Engine RPM/Acceleration On Take Off And/Or Shudder While Driving

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December
2020

Model:

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

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 or REVERSE. 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 steps 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 or REVERSE
 - Shudder while driving
 - Lack of engine RPM
 - Low performance, lack of acceleration on take off

NOTE: Part quantity refers to the number of that service part number required, which may be different than the number of individual pieces. Service part numbers contain 1 piece unless otherwise stated. "As Needed" indicates the part is required but the number may vary 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.

Parts

Part Number		Description	Quantity
W505277-S439	Package Contains 4 Pieces, 4 Pieces required	Stabilizer Bar Bracket-To-Front Subframe Bolts (Explorer)	1
W520215-S440	Package Contains 4 Pieces, 2 Pieces Required	Tie Rod End Nuts (Explorer)	1
W714890-S440	Package Contains 4 Pieces, 2 Pieces Required	Lower Ball Joint Nuts (Explorer)	1

W712961-S439	Package Contains 2 Pieces, 1 Piece Required	Steering Column Shaft Bolt (Explorer)	1
W710999-S439	Package Contains 4 Pieces, 4 Pieces required	Subframe Bracket Bolts (Explorer)	1
W717859-S439	Package Contains 4 Pieces, 2 Pieces Required	Rear Subframe Bolts (Explorer)	1
W714470-S439	Package Contains 4 Pieces, 2 Pieces Required	Front Subframe Bolts (Explorer)	1
BE8Z-6731-AB	-	Engine Oil Filter	1
W715618-S437	Package Contains 4 Pieces, 4 Pieces required	Torque Converter Nuts	1
W712435-S439	Package Contains 2 Pieces, 1 Piece Required	Right Wheel Hub Nut (Explorer AWD)	1
W701731-S439	Package Contains 4 Pieces, 2 Pieces Required	Halfshaft Retaining Nuts (Explorer)	1
W790063-S900	Package Contains 3 Pieces, 3 Pieces Required	Driveshaft To PTU Bolt and Washer Assembly (Explorer AWD)	1
CV6Z-7086-B	-	PTU Compression Seal (AWD)	1
BB5Z-4B422-C	-	Left Halfshaft Circlip (Explorer)	1
W712146-S437	Package Contains 4 Pieces, 2 Pieces Required	Cooler Lines To Case Bolts	1
BB5Z-7153-K	-	Seal Kit	1
EJ7Z-6840-A	-	Oil Filter Adaptor Gasket (MKC)	1
CCPZ-3B477-G	Package Contains 1 Piece, 1 Piece Required For 2WD, 2 Pieces Required for AWD	Wheel Hub Nut (MKC)	1 For 2WD, 2 for AWD
W716075-S442	Package Contains 4 Pieces, 2 Pieces Required	Lower Ball Joint Bolt (MKC)	1
W520415-S442	Package Contains 4 Pieces, 2 Pieces Required	Lower Ball Joint Nut (MKC)	1
BB5Z-4B422-B	-	Left Circlip (MKC)	1
EJ7Z-7902-J	-	Torque Converter	1
W520203-S442	Package Contains 4 Pieces, 1 Piece Required	Right Tie Rod End Nut (MKC)	1
YS4Z-3N324-AA	-	Right Halfshaft Bracket (MKC)	1
W520102-S442	Package Contains 4 Pieces, 2 Pieces Required	Right Halfshaft Bracket Nuts (MKC)	1
EJ7Z-6L612-A	-	Exhaust Gasket, Front Of Converter (AWD)	1

W714265-S442	Package Contains 4 Pieces, 2 Pieces Required	Exhaust Nuts, Front Of Converter (MKC AWD)	1
CV6Z-9450-D	-	Flex Pipe Exhaust Gasket (MKC AWD Built On Or Before 8-Jan-2019)	1
CV6Z-9450-E	-	Flex Pipe Exhaust Gasket (MKC AWD Built On Or After 9-Jan-2019)	1
W520103-S442	Package Contains 4 Pieces, 2 Pieces Required	Exhaust Nuts, Rear Of Converter (MKC AWD)	1
5F9Z-4682-AA	Package Contains 1 Piece, 3 Pieces Required	Driveshaft Bolts (MKC AWD)	3
W714265-S441	Package Contains 4 Pieces, 4 Pieces Required	Exhaust Nuts (Explorer AWD)	1
7T4Z-9450-AA	-	Flex Pipe Exhaust Gasket (Explorer AWD)	1
CN1Z-7H424-B	-	PTU Intermediate Seal (Explorer AWD)	1
W500635-S439	Package Contains 1 Piece, 5 Pieces Required	PTU Bolts (MKC AWD)	5
CV6Z-7G391-A	-	Solenoid Body	1
CV6Z-7A100-B	-	Main Control Assembly	1
9L8Z-7A248-F	-	Torque Converter Hub Seal	1
W715931-S437	Package Contains 4 Pieces, 3 Pieces Required	Transmission Fluid Auxiliary Pump Bolts (MKC)	1
FR3Z-6L092-C	-	Turbocharger Oil Return Tube (Explorer)	1
XL-5-A	-	Motorcraft® Multi-Purpose Grease Spray	As Needed
XT-10-QLVC	-	Motorcraft® MERCON® LV Automatic Transmission Fluid (All Markets Except Canada)	As Needed
XO-5W30-Q1SP	-	Motorcraft® SAE 5W-30 Synthetic Blend Motor Oil (All Markets Except Canada)	As Needed
TA-25-B	-	Motorcraft® Threadlock and Sealer	As Needed
CXT-10-LV6	-	Motorcraft® MERCON® LV Automatic Transmission Fluid (Canada Only)	As Needed
CXO-5W30-LSP6	-	Motorcraft® SAE 5W-30 Super Premium Motor Oil (Canada Only)	As Needed
XL-2	-	Motorcraft® High Temperature Nickel Anti-Seize Lubricant	As Needed
ZC-37-A	-	Motorcraft® Wheel and Tire Cleaner	As Needed
Parts To Inspect And Replace Only If Necessary			
FB5Z-6840-A	-	Oil Filter Adapter Gasket (Explorer)	If Needed
	-		If Needed

9L8Z-7B070-F		Forward Clutch Wave Spring (MKC Built On 21-Apr-2014 And Through 14-Jun-2015)	
F2GZ-7B070-A	-	Forward Clutch Wave Spring (MKC Built On Or After 15-Jun-2015, All Explorer)	If Needed
9L8Z-7B442-A	Package Contains 2 Pieces, 2 Pieces Required	Forward Clutch Steel Plates	If Needed
CV6Z-7B164-B	Package Contains 2 Pieces, 2 Pieces Required	Forward Clutch Friction Plates	If Needed
9L8Z-7B066-D	-	Forward Clutch Pressure Plate (MKC Built On Or After 21-Apr-2014, Explorer Built On 4-May-2015 And Through 4-Jan-2017)	If Needed
F2GZ-7B066-A	-	Forward Clutch Pressure Plate (Explorer Built On Or After 4-May-2014)	If Needed
9L8Z-7E085-C	-	Low/Reverse Wave Spring	If Needed
9L8Z-7B442-C	Package Contains 3 Pieces	Low/Reverse Steel Plates	If Needed
BB5Z-7B164-C	Package Contains 3 Pieces	Low/Reverse Friction Plates	If Needed
9L8Z-7B066-A	-	Low/Reverse Pressure Plate	If Needed
9L8Z-7A089-E	-	Low One-Way Clutch	If Needed
CV6Z-7E085-A	-	Intermediate Clutch Wave Spring	If Needed
9L8Z-7B442-B	Package Contains 2 Pieces	Intermediate Clutch Steel Plates	If Needed
CV6Z-7B164-C	Package Contains 2 Pieces	Intermediate Friction Plates (MKC Built On 21-Apr-2014-And Through 14-Jun-2015)	If Needed
F2GZ-7B164-A	Package Contains 1 Piece	Intermediate Friction Plates (MKC Built On Or After 15-Jun-2015, All Explorer)	If Needed
9L8Z-7B442-E	Package Contains 5 Pieces	Overdrive Steel Plates	If Needed
CV6Z-7B164-A	Package Contains 5 Pieces	Overdrive Friction Plates	If Needed
9L8Z-7B066-C	-	Overdrive Pressure Plate	If Needed
9L8Z-7B070-E	-	Direct Clutch Wave Spring	If Needed
9L8Z-7B442-D	Package Contains 3 Pieces	Direct Clutch Steel Plates	If Needed
CV6Z-7B164-D	Package Contains 3 Pieces	Direct Clutch Friction Plates (MKC Built On 21-Apr-2014 And Through 14-Jun-2015)	If Needed
FB5Z-7B164-B	Package Contains 1 Piece	Direct Clutch Friction Plates (MKC Built On And After 15-Jun-2015, All Explorer)	If Needed
CV6Z-7B066-A	-	Direct Clutch Pressure Plate	If Needed

CV6Z-7A130-B	-	Clutch Support Tower	If Needed
9L8Z-7A103-J	-	Pump Assembly	If Needed
9L8Z-7F213-A	-	Turbine Shaft	If Needed
9L8Z-7G384-A	-	Clutch Cylinder	If Needed

Warranty Status: Eligible under provisions of New Vehicle Limited Warranty (NVLW)/Service Part Warranty (SPW)/Special Service Part (SSP)/Extended Service Plan (ESP) coverage. Limits/policies/prior approvals are not altered by a TSB. NVLW/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
2015-2019 MKC AWD 2.3L: Reprogram The PCM, Replace The Torque Convertor, 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)	202271A	16.0 Hrs.
2016-2019 Explorer FWD 2.3L: Reprogram The PCM, Replace The Torque Convertor, 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)	202271B	13.3 Hrs.
2016-2019 Explorer AWD 2.3L: Reprogram The PCM, Replace The Torque Convertor, 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)	202271C	15.3 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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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.