



TECHNICAL SERVICE BULLETIN

2.0L EcoBoost - Rattle Noise And Cracked Flexplate

19-2236
06 August 2019

Model:

Ford 2015-2018 Edge

Issue: Some 2015-2018 Edge vehicles equipped with a 2.0L EcoBoost engine may exhibit a rattle. This may be more noticeable at idle. This may be due to a flexplate crack around the crankshaft. To correct the condition, follow the Service Procedure steps to replace the flexplate, transmission fluid pump, and torque converter.

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

- 2015-2018 Edge
- 2.0L EcoBoost engine
- Rattle noise from the bellhousing area

Parts

Part Number	Description	Quantity
F2GZ-6009-D	Engine Short Block	1
1S7Z-6375-D	Flexplate	1
W712961 S450B	Steering Column Fastener	1
W520215- S440	Tie Rod End Nut	1
W712503- S440	Stabilizer Bar Fastener	2
W500545- S439	Ball Joint Pinch Bolt	1
W520214- S440	Ball Joint Pinch Nut	1
W716457- S439	Subframe Bolts	1
4S4Z-3N324- AA	Halfshaft Retaining Strap	1
DG9Z- 7G273-B	Halfshaft Washer	1
W520102- S442	Halfshaft Retaining Strap Nuts	1
CCPZ- 3B477-B	Wheel Bearing Hub Nut	2
CN1Z- 7H424-B	Intermediate Shaft Seal	1

5F9Z-4682-AA	PTU Bolt And Washer Assembly	3
F2GZ-4682-A	RDU Bolt And Washer Assembly	3
W718250-S439	PTU Bolts	1
CV6Z-7086-B	PTU Compression Seal	1
BB5Z-4B422-C	Halfshaft Retaining Circlip	1
BE8Z-6731-AC	Oil Filter Kit	1
W715618-S437	Torque Converter Nuts	1
W718507-S439	Transmission Support Insulator Bolts	1
W520205-S440	Transmission Support Insulator Nuts	1
W716200-S437	Transmission Fluid Cooler Tube Bolts	1
W712146-S437	Transmission Fluid Cooler Tube Bolts	1
9L8Z-1177-G	Halfshaft Seal	1
1L5Z-6379-AA	Flexplate Bolts	2
9L8Z-7A103-J	Transmission Fluid Pump Assembly	1
1S7Z-6K301-BA	Crankshaft Seal	1
1S7Z-6K301-BA	Crankshaft Rear Seal	1
9L8Z-7A248-B	Small Case Seal (13 mm)	1
9L8Z-7A248-C	Large Case Seal (21 mm)	1
DG9Z-7902-G	Torque Converter	1
AG9Z-6065-A	Cylinder Head Bolt	1
1S7Z-6A340-AA	Crankshaft Bolt	1
XL-5-A	Motorcraft® Multi-Purpose Grease Spray	1
XT-10-QLVC	Motorcraft® Mercon LV Automatic Transmission Fluid (All Markets Except Canada)	12
CXT-10-LV6	Motorcraft® Mercon LV Automatic Transmission Fluid (Canada Only)	12
XO-5W30-Q1SP	Motorcraft® SAE 5W-30 Synthetic Blend Motor Oil (All Markets Except Canada)	5.4L (5.7 qt)
CXO-5W30-LSP6	Motorcraft® SAE 5W-30 Super Premium Motor Oil (Canada Only)	5.4L (5.7 qt)
VC-3-B	Motorcraft® Orange Concentrated Antifreeze/Coolant (All Markets Except Canada)	System Holds 7.7L (8.1 Qt) - With Aux Heater Core Holds 9.0L (9.5 Qt)
CVC-3-B2	Motorcraft® Orange Concentrated Antifreeze/Coolant (Canada Only)	System Holds 7.7L (8.1 Qt) - With Aux Heater Core Holds 9.0L (9.5 Qt)

YN-19	Motorcraft® R134a Refrigerant (All Markets Except Canada)	0.68 kg
CYN-19-R	R134a Refrigerant (Canada Only)	0.68 kg
Inspect And Replace Only If Necessary		
F2GZ-63600A58-A	Intermediate Shaft Bushing	1
5L7Z-7D285-A	Transmission Fluid Cooler Line Seals	2
5L7Z-7J324-A	Transmission Fluid Cooler Line Ring	2
W716841-S900	Dowel Pins	As Needed
FB5Z-6840-A	Oil Filter Adaptor Gasket	1

Warranty Status: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage Warranty/ESP coverage limits/policies/prior approvals are not altered by a TSB. Warranty/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

Labor Times

Description	Operation No.	Time
2015-2018 Edge FWD 2.0L EcoBoost: Diagnose Noise, Remove Transmission And Inspect Flexplate And Crankshaft Mounting Face For Damage (Pass), Replace The Torque Converter, Flexplate, Flexplate Bolts And Transmission Front Pump (Can Be Claimed With Operation E Or F) (Do Not Use With Any Labor Operations Outside Of This Article)	192236A	9.3 Hrs.
2015-2018 Edge FWD 2.0L EcoBoost: Diagnose Noise, Remove Transmission And Inspect Flexplate And Crankshaft Mounting Face For Damage (Fail), Replace The Torque Converter, Flexplate, Flexplate Bolts, Transmission Front Pump And Engine Short Block (Can Be Claimed With Operation E Or F) (Do Not Use With Any Labor Operations Outside Of This Article)	192236B	18.5 Hrs.
2015-2018 Edge AWD 2.0L EcoBoost: Diagnose Noise, Remove Transmission And Inspect Flexplate And Crankshaft Mounting Face For Damage (Pass), Replace The Torque Converter, Flexplate, Flexplate Bolts And Transmission Front Pump (Can Be Claimed With Operation E Or F) (Do Not Use With Any Labor Operations Outside Of This Article)	192236C	10.6 Hrs.
2015-2018 Edge AWD 2.0L EcoBoost: Diagnose Noise, Remove Transmission And Inspect Flexplate And Crankshaft Mounting Face For Damage (Fail), Replace The Torque Converter, Flexplate, Flexplate Bolts, Transmission Front Pump And Engine Short Block (Can Be Claimed With Operation E Or F) (Do Not Use With Any Labor Operations Outside Of This Article)	192236D	19.7 Hrs.
Vehicles Without Lane Departure: Additional Time To Check And Correct Front Toe (Can be Claimed With Operation A-D Only)	192236E	0.6 Hrs.
Vehicles With Lane Departure: Additional Time To Check And Correct Front Toe (Can be Claimed With Operation A-D Only)	192236F	0.8 Hrs.

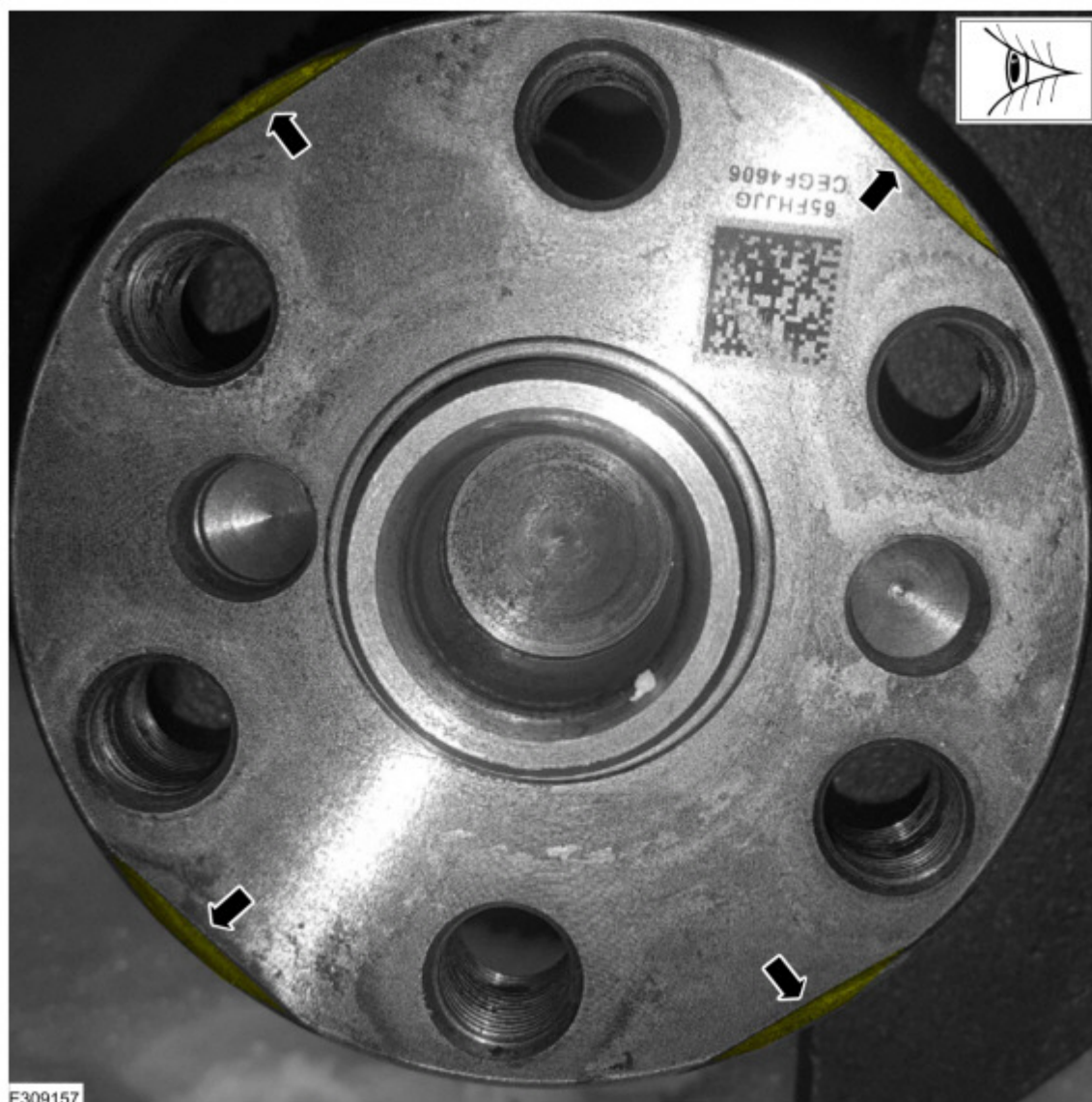
Repair/Claim Coding

Causal Part:	6375
Condition Code:	01

Service Procedure

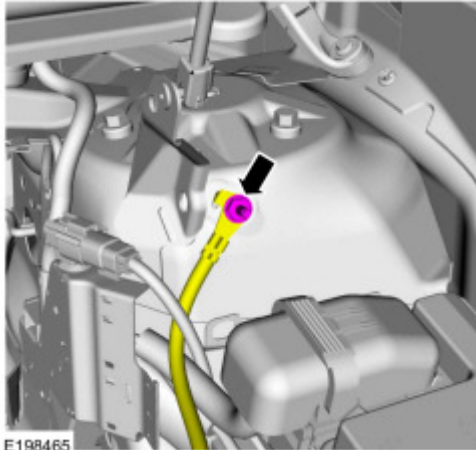
1. Does the vehicle exhibit a rattle noise that has been isolated to the bellhousing?
 - (1). Yes - proceed to Step 2.
 - (2). No - this article does not apply. Refer to WSM, Section 100-01 for further diagnostics.
2. Release the fuel system pressure. Refer to Workshop Manual (WSM), Section 310-00A.
3. Remove the transmission and inspect the engine block mounting face for the presence of dowel pins. If the dowel pins are not present in the engine block, inspect the transmission. If the dowel pins are present in the transmission, remove the dowel pins and reinstall into the engine block prior to transmission installation. Refer to WSM, Section 307-01A.
4. Remove the flexplate and inspect the crankshaft mounting face for damage. Are indentations present on the edges of the crankshaft? (Figure 1)
 - (1). Yes - replace the torque converter, flexplate, flexplate bolts, and transmission front pump. Refer to WSM, Section 307-01A. If dowel pins are damaged or missing, replace as needed. Proceed to Step 5.
 - (2). No - replace the torque converter, flexplate, flexplate bolts, and transmission front pump. Refer to WSM, Section 307-01A. If dowel pins are damaged or missing, replace as needed. Proceed to Step 46.

Figure 1



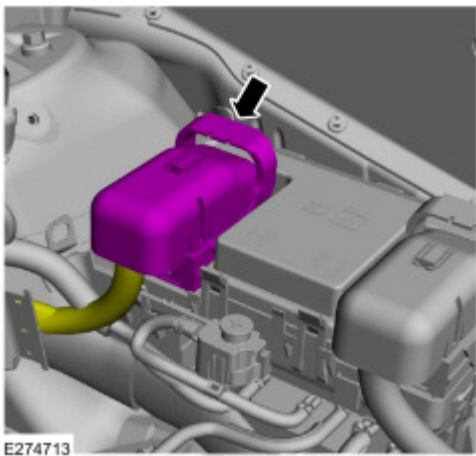
5. Evacuate the A/C system. Refer to WSM, Section 412-00.
6. Drain the cooling system. Refer to WSM, Section 303-03A.
7. Remove the degas bottle. Refer to WSM, Section 303-03A.
8. Remove the ground cable stud bolt. (Figure 2)

Figure 2



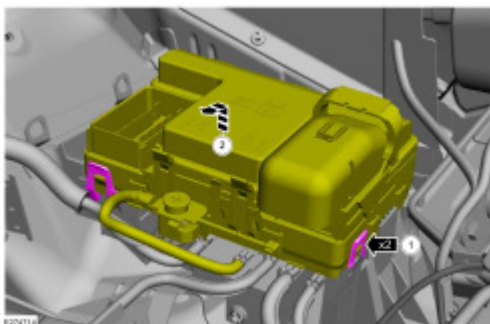
9. Disconnect the junction box electrical connector. (Figure 3)

Figure 3



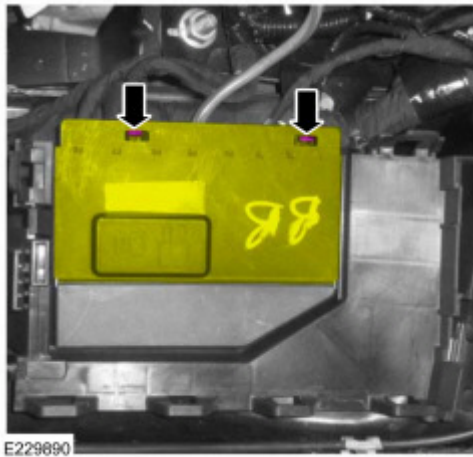
10. Release the tabs. Lift and position the top part of junction box aside. (Figure 4)

Figure 4



11. Release the tabs and open the cover. (Figure 5)

Figure 5



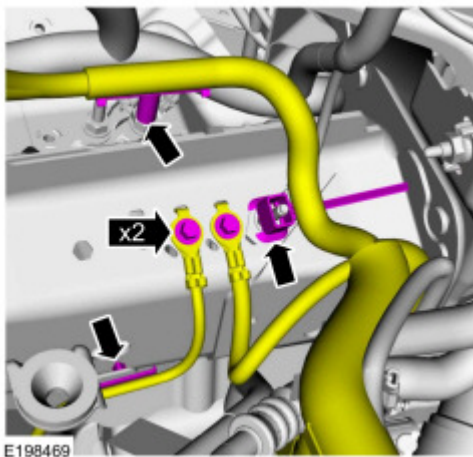
12. Remove the nuts and disconnect the wiring harness cables. (Figure 6)

Figure 6



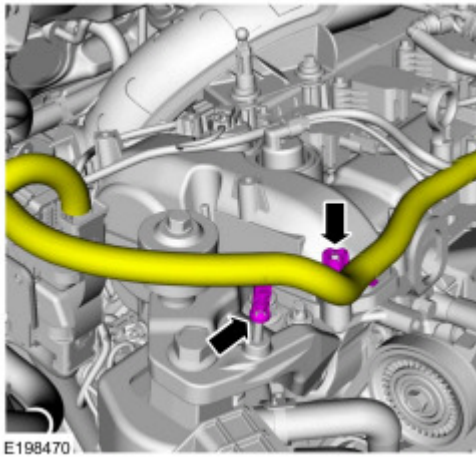
13. Remove the bolts and detach the wiring harness retainers. (Figure 7)

Figure 7



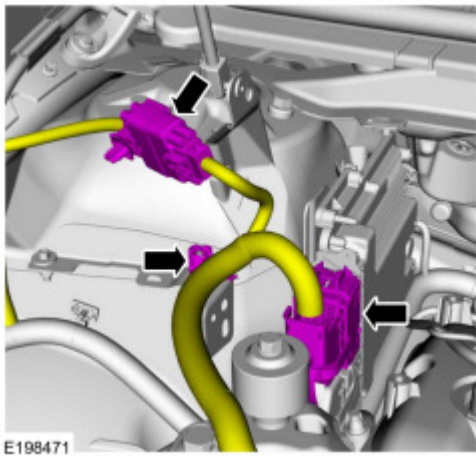
14. Detach the wiring harness retainers from the engine mount and valve cover stud bolt. (Figure 8)

Figure 8



- 15.** Disconnect the powertrain control module (PCM) electrical connector, engine harness electrical connector and retainer. (Figure 9)

Figure 9

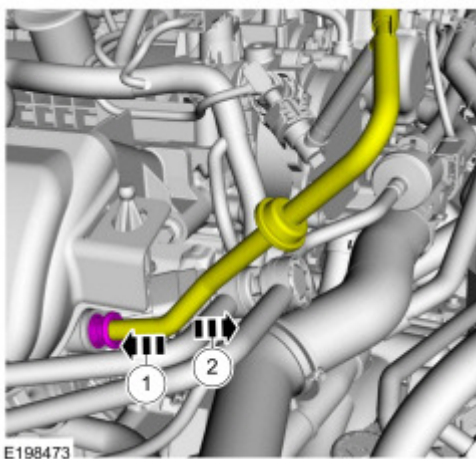


- 16.** Detach the coolant tube return hose retainer.

(1). Disconnect the lower radiator hose from the thermostat housing.

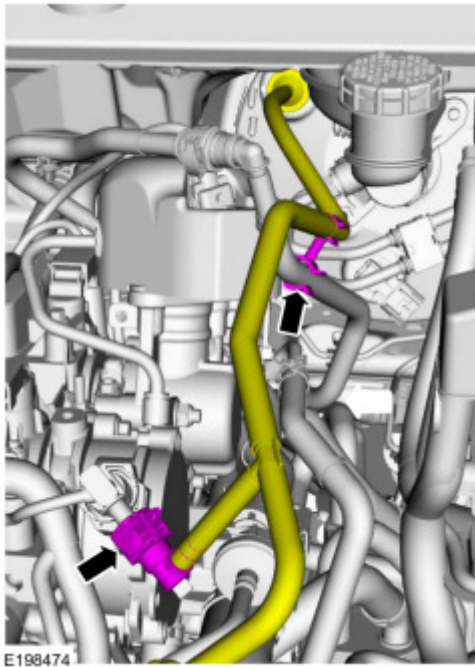
- 17.** Push the intake manifold retainer in. Disconnect and position the brake vacuum tube aside. (Figure 10)

Figure 10



18. Disconnect the vacuum tube at the brake vacuum pump and retainer. (Figure 11)

Figure 11



19. Disconnect the coolant hoses.

- (1). For vehicles without an auxiliary heater, disconnect the coolant hose quick connect coupling. (Figure 12)
- (2). For vehicles with an auxiliary heater, detach the upper radiator hose retainer. (Figure 13)

Figure 12

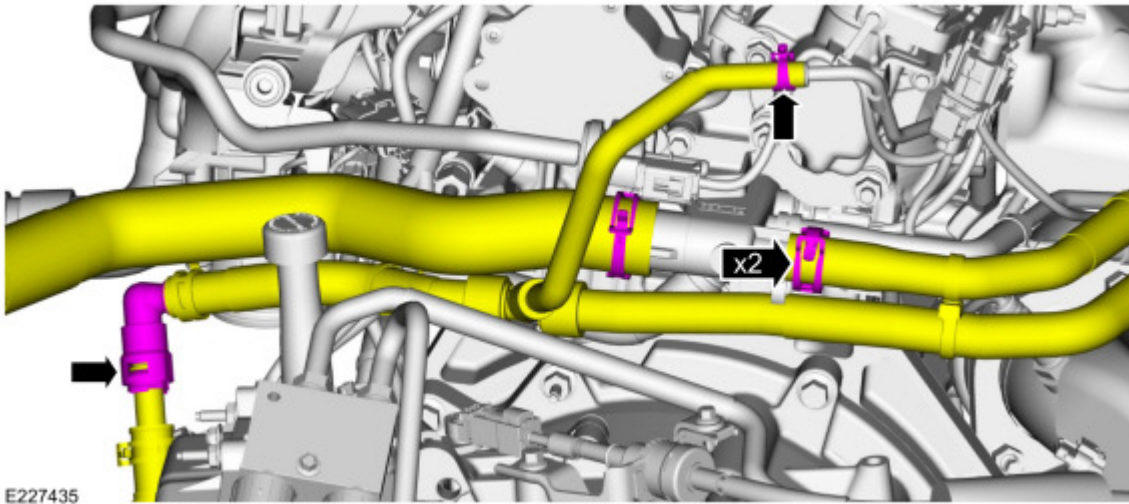
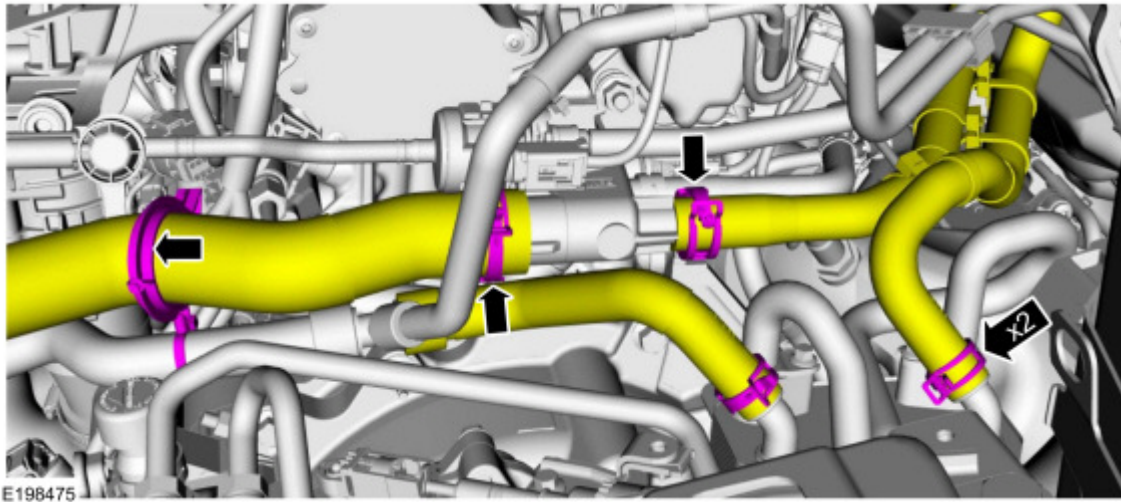
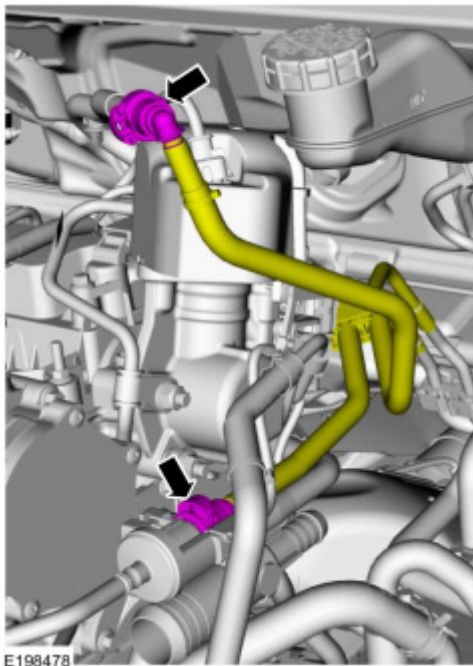


Figure 13



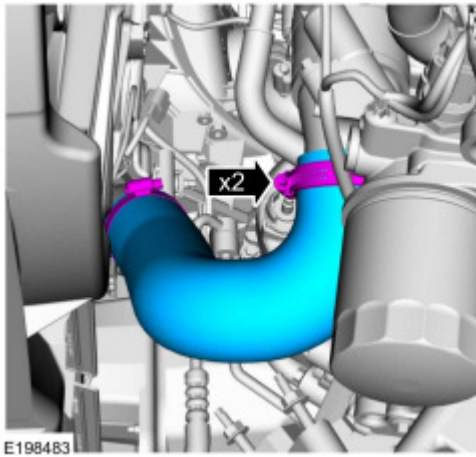
20. Disconnect the fuel tube and EVAP canister purge valve quick release couplings. (Figure 14)
Figure 14



21. Loosen the clamp and remove the charge air cooler (CAC) tube. (Figure 15)

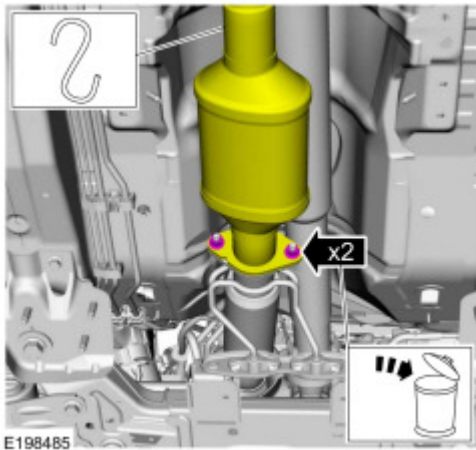
NOTE: When removing any turbocharger air intake system components, make sure to cover any open ports to prevent debris from entering the system. The turbocharger compressor vanes can be damaged by even the smallest particles. All components need to be inspected and cleaned prior to installation or reassembly.

Figure 15



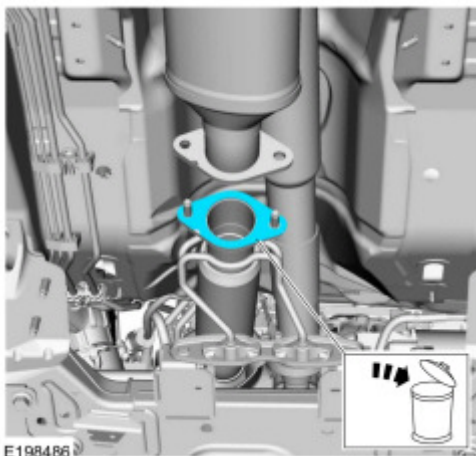
22. Disconnect the tailpipe and position aside. Discard the tailpipe fasteners. (Figure 16)

Figure 16



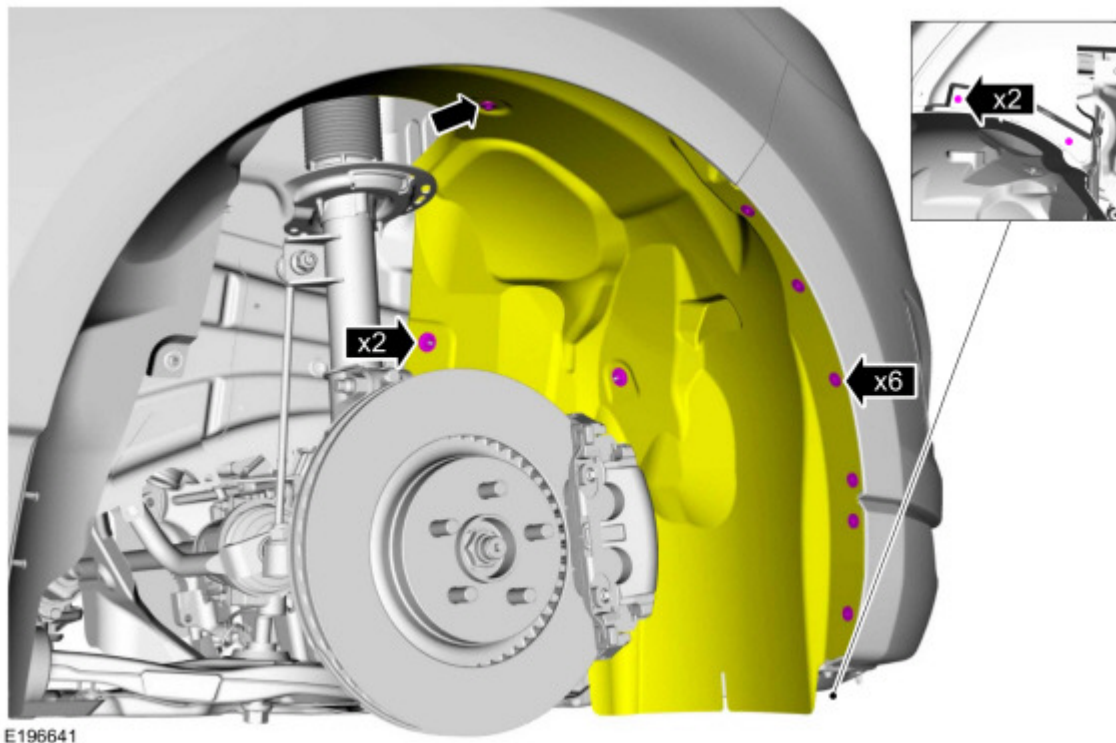
23. Remove and discard the exhaust gasket. Make sure the mating faces are clean and free of foreign material. (Figure 17)

Figure 17



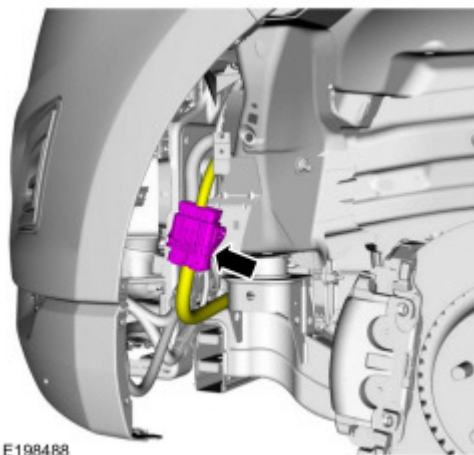
24. Remove the fasteners and position the fender splash shield aside on both sides of the vehicle. (Figure 18)

Figure 18



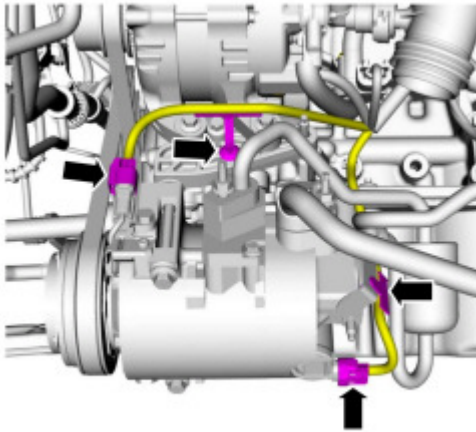
25. Detach and disconnect the engine harness electrical connector. (Figure 19)

Figure 19



26. Disconnect the A/C compressor electrical connectors and wiring harness retainers. (Figure 20)

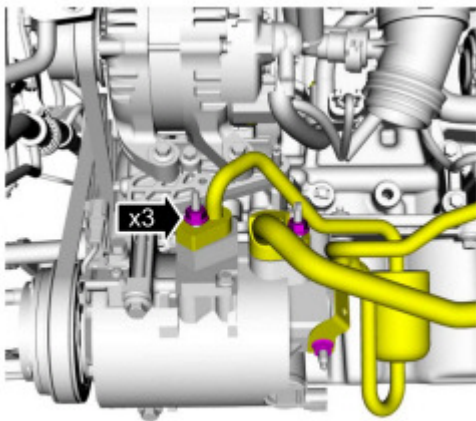
Figure 20



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27. Remove the nuts and disconnect the A/C lines. (Figure 21)

Figure 21

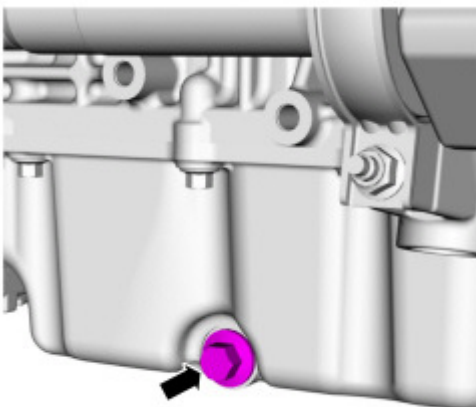


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28. Remove the A/C compressor belt. Refer to WSM, Section 303-05A.

29. Drain the oil and install the drain plug. (Figure 22)

Figure 22



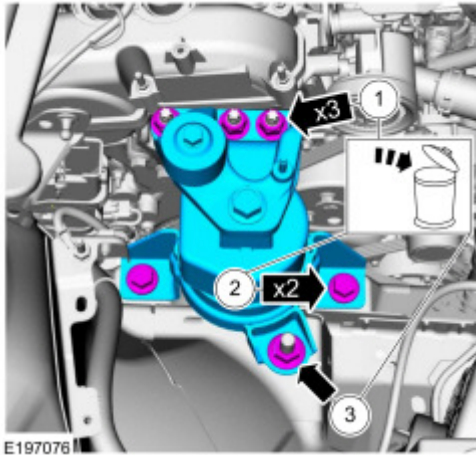
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30. Using a lifting table, support and secure the engine. Use General Equipment Powertrain Jack and wooden block as needed.

31. Disconnect special service tool 303-F070, Support Bar, Engine.

32. Remove the front engine mount. (Figure 23)

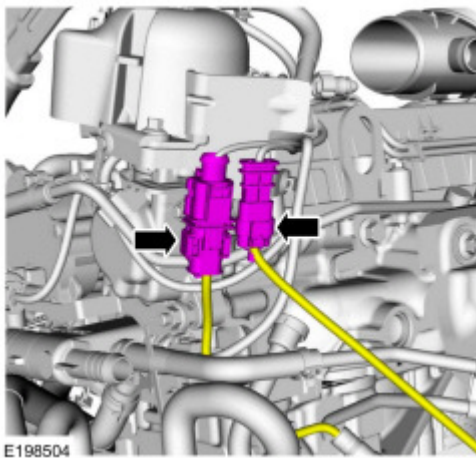
Figure 23



33. Lower the engine.

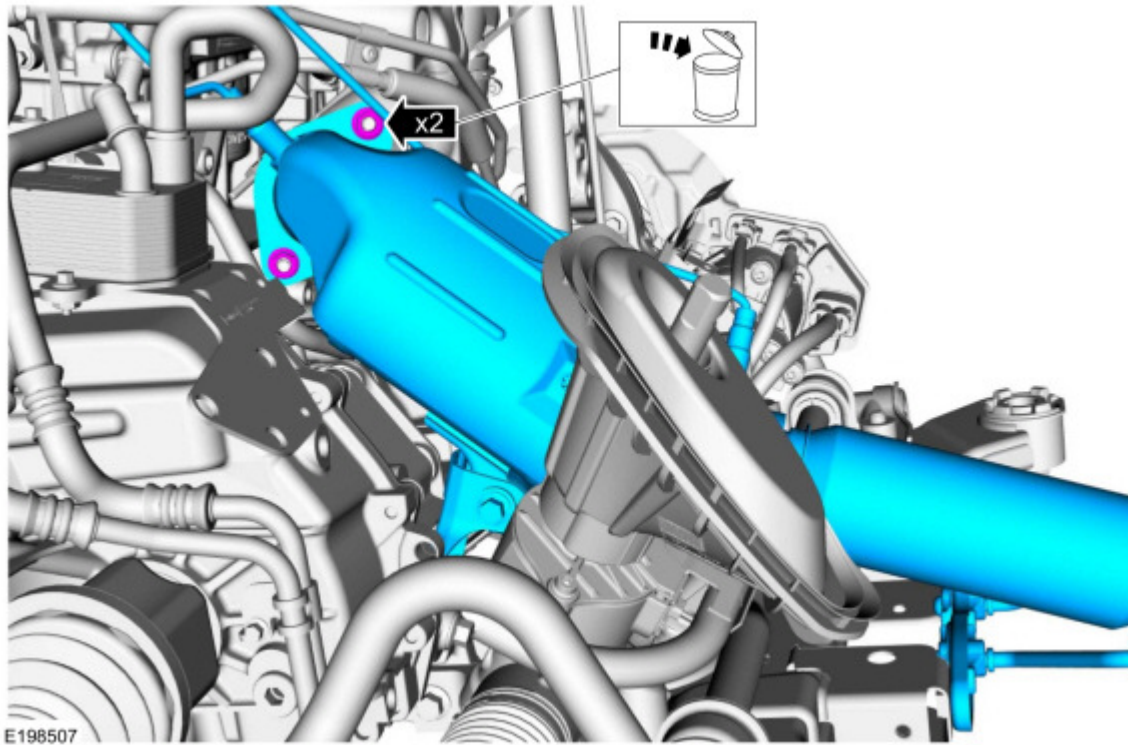
34. Disconnect the heated oxygen sensor (H02S) and catalyst monitor sensor connectors. (Figure 24)

Figure 24



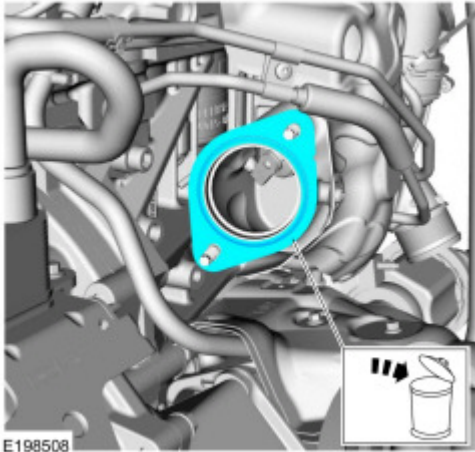
35. Remove the nuts and the catalytic converter. Discard the nuts. (Figure 25)

Figure 25



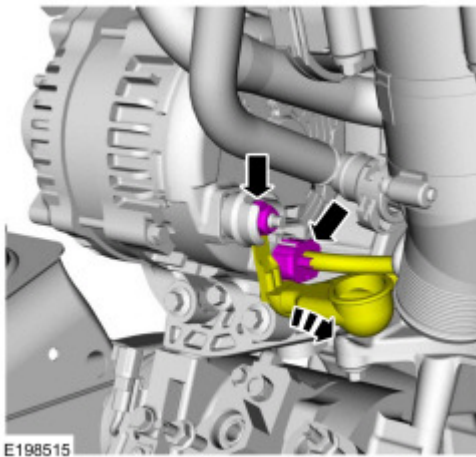
36. Discard the catalytic converter gasket. Make sure the mating faces are clean and free of foreign material. (Figure 26)

Figure 26



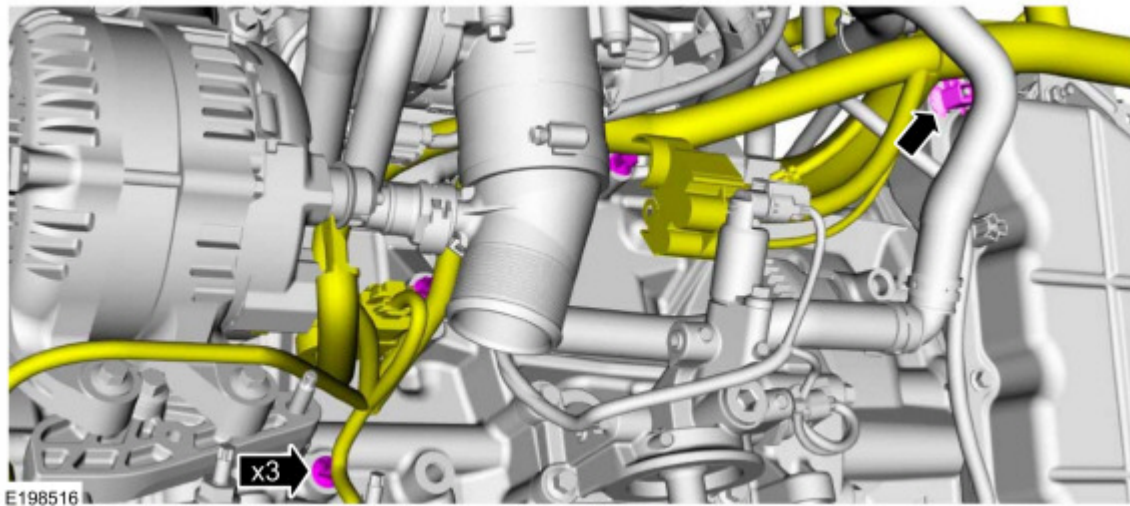
37. Position the cover aside and remove the nut and the positive battery cable. Disconnect the generator electrical connector. (Figure 27)

Figure 27



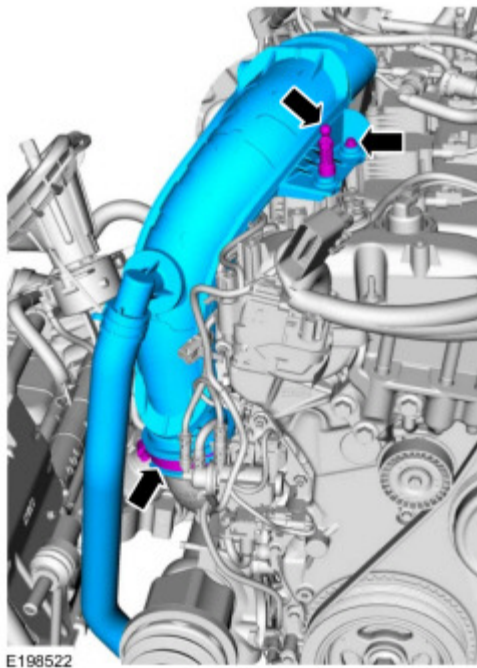
38. Detach the generator wiring harness retainers and position the harness on the transmission. (Figure 28)

Figure 28



39. Loosen the turbocharger inlet pipe clamp. Remove the engine appearance cover stud, bolt, and turbocharger inlet pipe. (Figure 29)

Figure 29



40. If necessary, install special service tool 303-050 (T70P-6000) Lifting Bracket, Engine. (Figure 30-31)
Figure 30

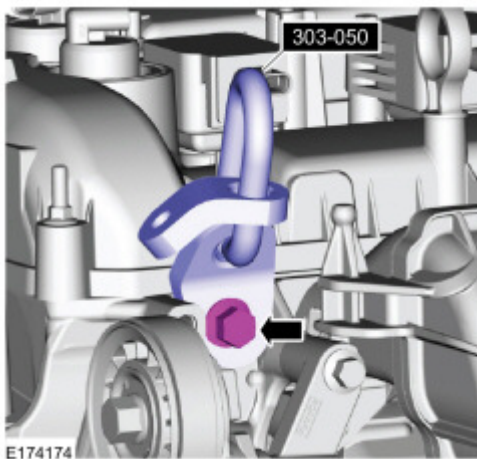
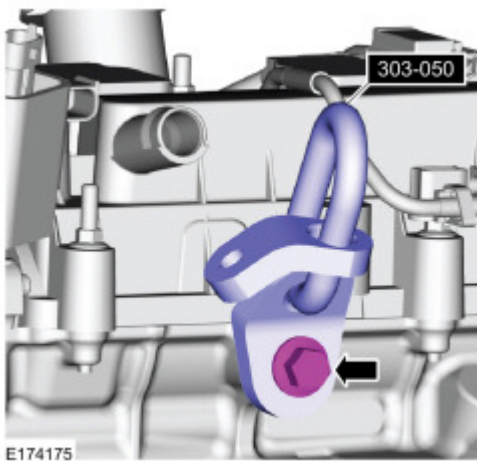


Figure 31



- 41.** Install the engine lift equipment.
- 42.** Remove the adjustable mounting arm and/or engine support if installed.
- 43.** Mount the engine to the engine stand.
- 44.** Replace the short block. Refer to WSM, Section 303-01A.
- 45.** To install the engine, reverse the removal procedure in this article. If dowel pins are damaged or missing, replace as needed.
- 46.** Apply Motorcraft® Multi-Purpose Grease Spray to the torque converter pilot hub prior to reassembly.
- 47.** Install the transmission. Refer to WSM, Section 307-01A.

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