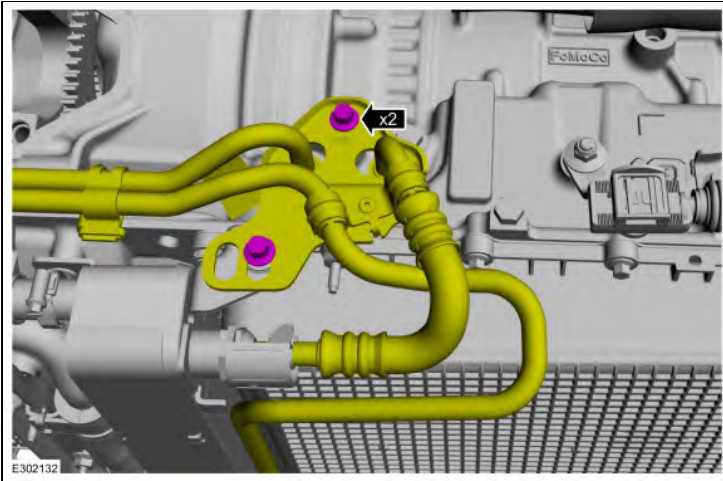
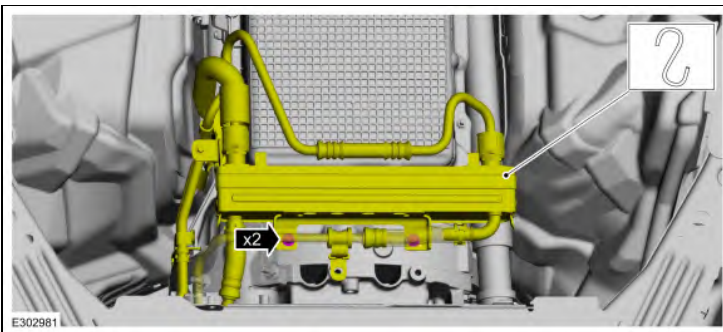
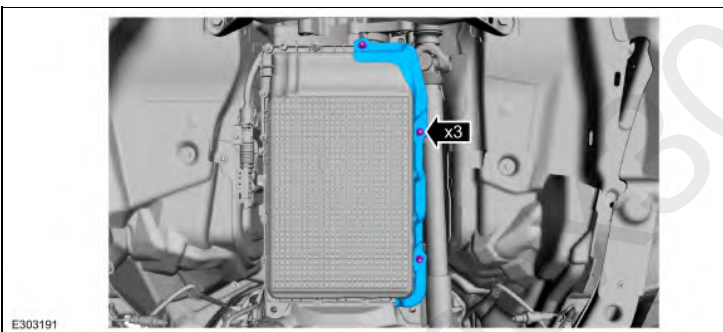




11. Remove the transmission fluid cooler bolts, position aside and support the cooler assembly.



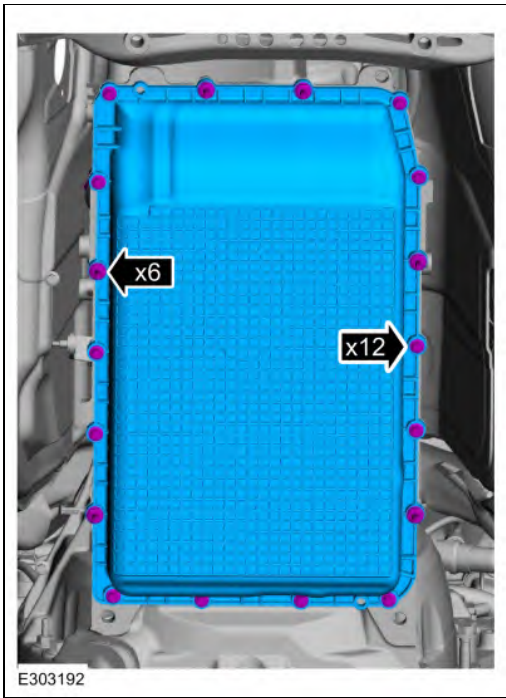
12. Remove the retainers and the heat shield.



13. **NOTE:** If transmission disassembly or installation of a new transmission is necessary, drain the transmission fluid.

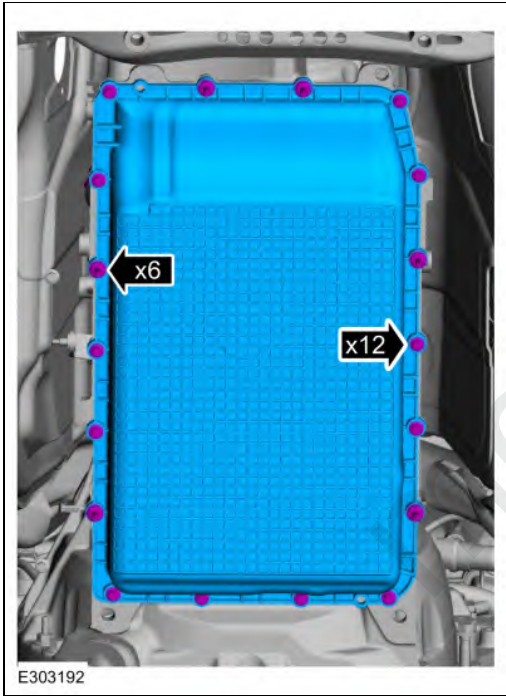
NOTE: Note the location of the bolts and studbolts for assembly.

Remove the bolts, studbolts and the transmission fluid pan.

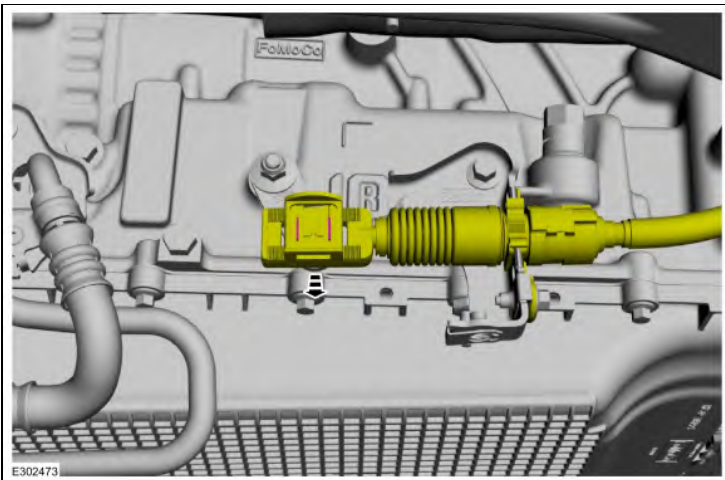


14. **NOTE:** *It is not necessary to torque transmission fluid pan bolts at this time.*

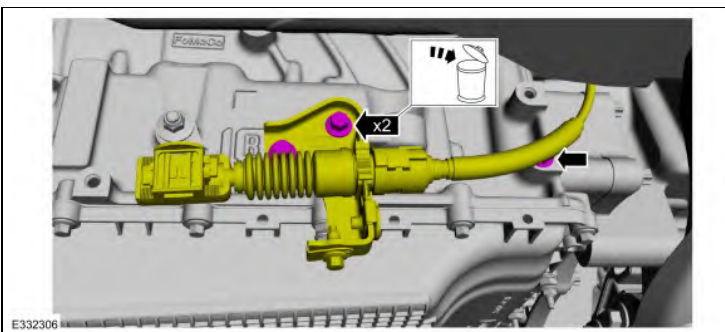
Install the transmission fluid pan and the bolts.



15. Disconnect the selector lever cable from the transmission manual lever.



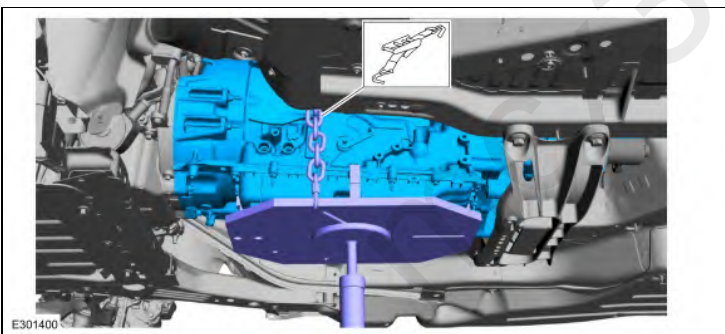
16. Remove and discard the bolts, disconnect the cable retainer and position aside the selector lever cable.



17. **NOTICE:** Secure the transmission to the transmission jack with a safety strap.

NOTICE: Make sure the transmission jack makes contact on the outer ribs of the transmission fluid pan.

Using a high-lift transmission jack, support the transmission.
Use the General Equipment: Transmission Jack

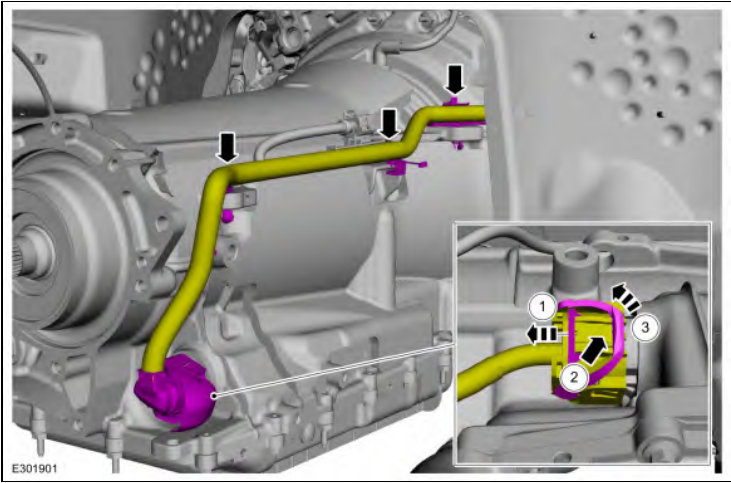


18. Remove the front driveshaft assembly.
Refer to: Front Driveshaft (205-01 Driveshaft, Removal and Installation).

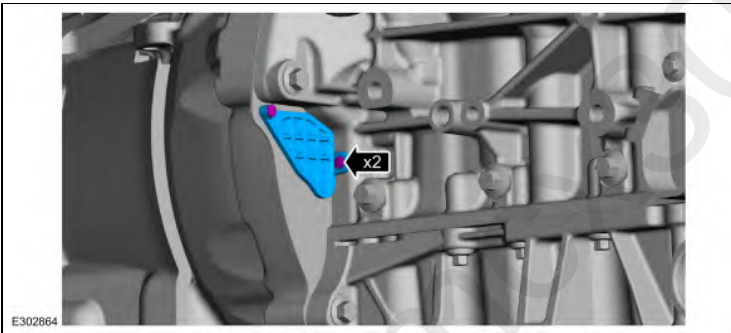
19. **NOTICE:** Do not pull on the wire harness to disconnect/connect the connector or damage to the connector/wire harness will occur.

Disconnect the electrical connector, wiring harness retainers and position aside the wiring harness.

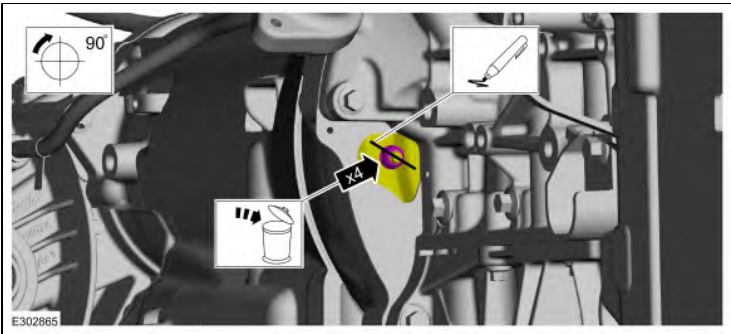
1. Slide the safety lock out.
2. Press the connector tab in.
3. Rotate the locking arm up and disconnect the transmission electrical connector.



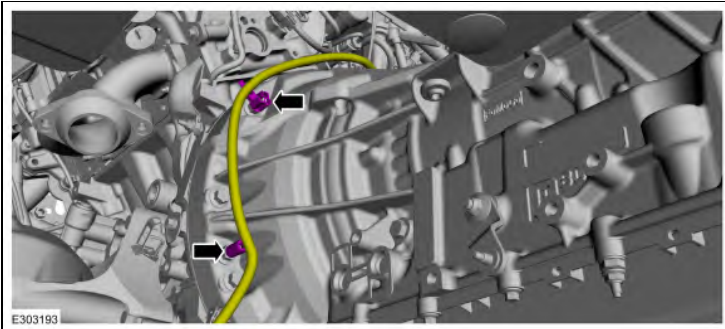
20. Remove the retainers and the torque converter nut access cover.



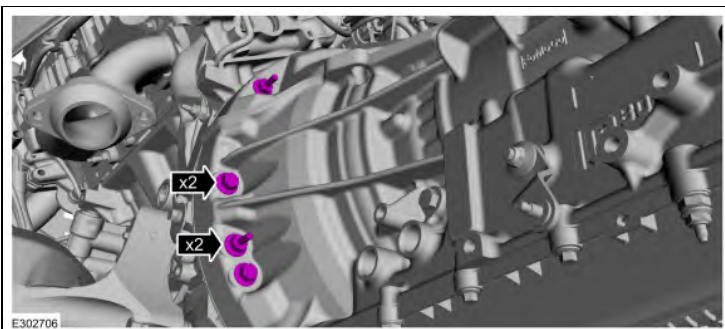
21. **NOTE:** Only rotate the crankshaft in a clockwise direction.
NOTE: Index mark one stud and the flexplate for assembly reference.
 Using a magnetic socket, remove and discard the torque converter nuts.
 Use the General Equipment: Magnetic Socket



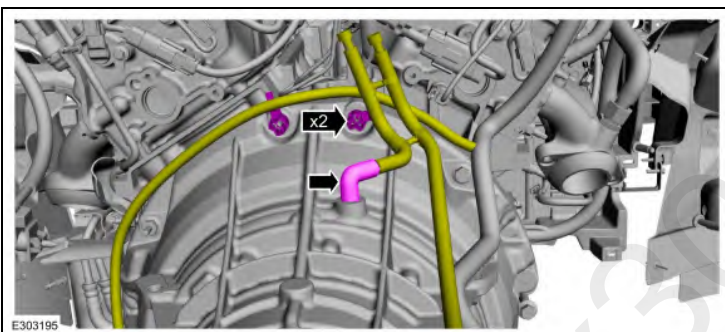
22. Disconnect the wiring harness retainers from the studbolts.



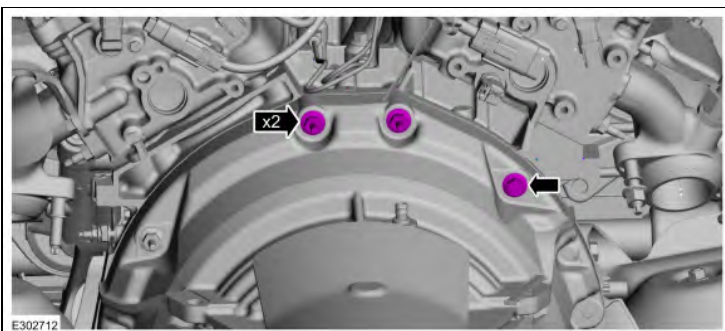
23. Remove the LH bellhousing bolts and studbolts.



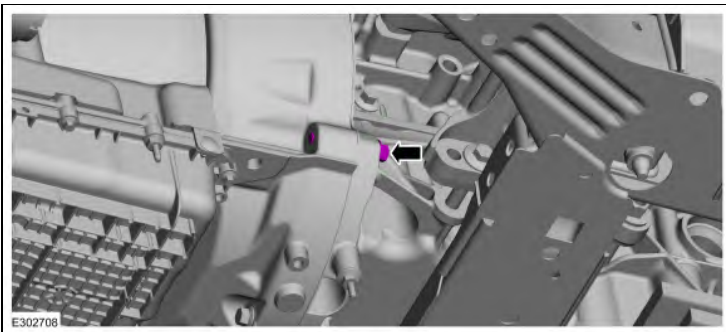
24. Disconnect the wiring harness and vent tube.



25. Remove the upper bellhousing studbolts and bolt.

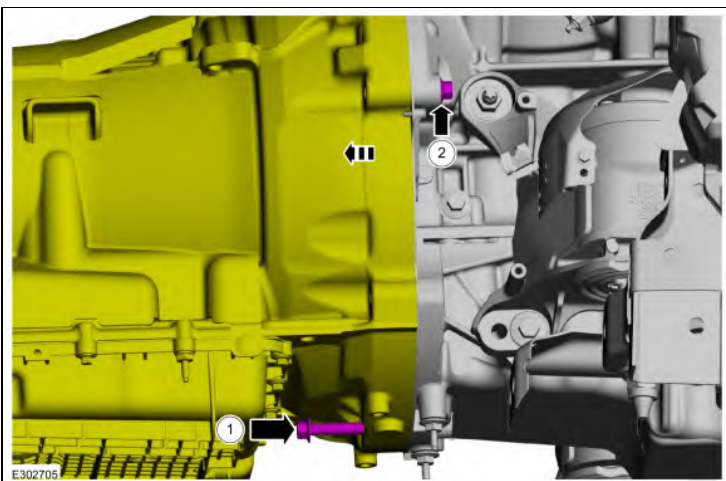


26. Remove the RH bellhousing bolt.

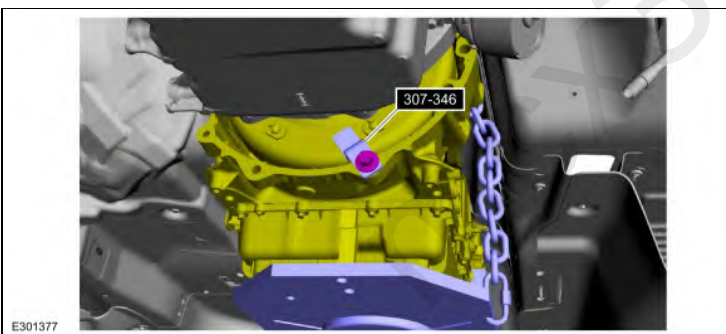


27.

1. Loosen the lower bellhousing bolt far enough to be used as guide pins.
 2. Loosen the upper bell housing bolt and move the transmission rearward. While moving the transmission rearward, continue to loosen the upper bellhousing bolt until the bolt is removed from the bellhousing.
- Remove the lower bellhousing bolt.



28. Slide the transmission back enough to install the special tool and remove the transmission from the vehicle.
Use Special Service Tool: 307-346 (T97T-7902-A) Retainer, Torque Converter.



29. **NOTICE: Failure to clean the transmission fluid cooler tubes can result in transmission failure.**

If the transmission is to be overhauled or if installing a new or re-manufactured transmission, carry out the transmission fluid cooler backflushing and cleaning procedure.
Refer to: Transmission Fluid Cooler - Backflushing and Cleaning (307-02B Transmission Cooling - 10-Speed Automatic Transmission & 10R80, General Procedures).

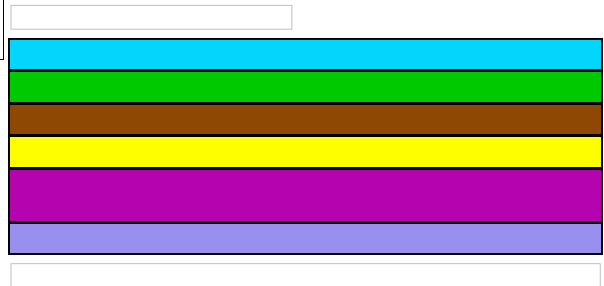
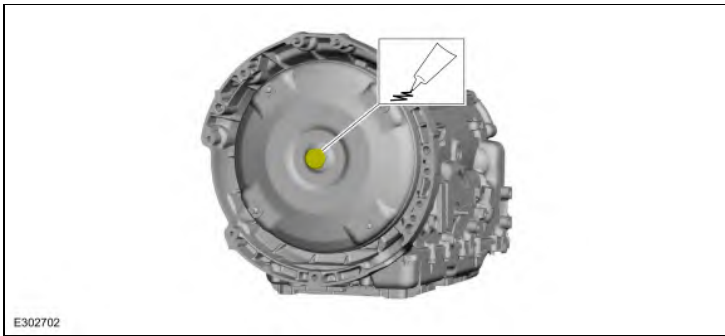
Installation

NOTE: Prior to installing a new transmission or an overhauled transmission with a new main control, record the solenoid strategy identification tag. If a new main control was installed, install the replacement solenoid body tag over the original identification tag.

1. **NOTICE:** Prior to installation of the transmission, lubricate the torque converter pilot hub or damage to the torque converter or the engine crankshaft can occur.

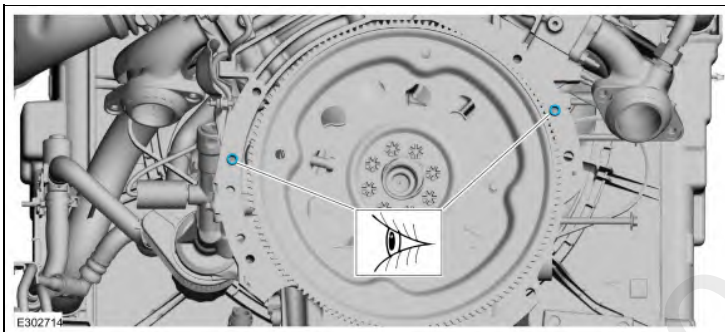
Lubricate the torque converter pilot hub with multi-purpose grease.

Material: Motorcraft® Multi-Purpose Grease Spray / XL-5-A (ESB-M1C93-B)



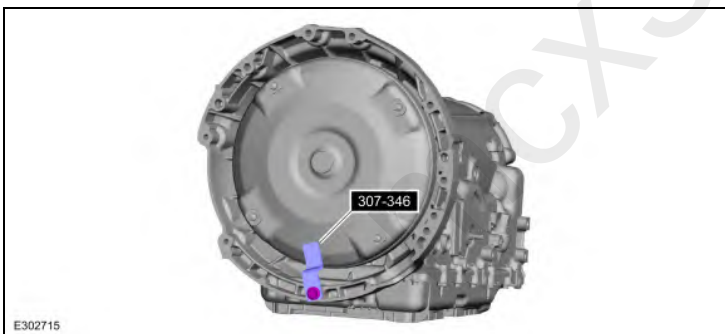
2. **NOTICE:** If the transmission is not positioned on the dowel pins, damage to the transmission may occur.

If the dowel pins were pulled out of the engine block during removal, install new dowel pins in the engine block.



3. Install the special tool.

Use Special Service Tool: 307-346 (T97T-7902-A) Retainer, Torque Converter.

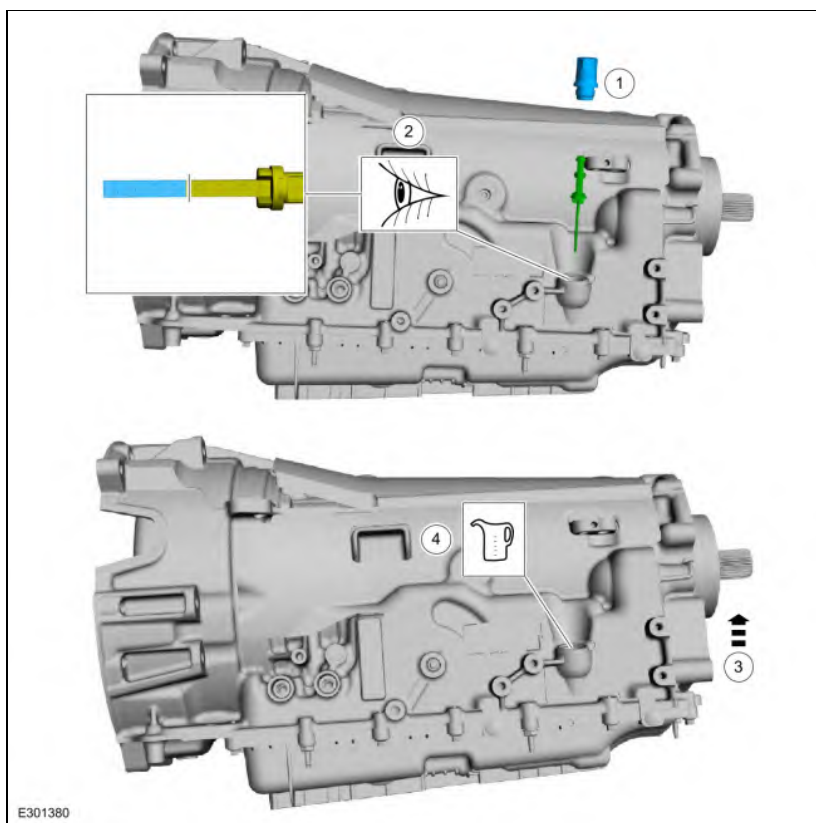


4. **NOTE:** If transmission is being replaced, remove the transmission fluid fill plug and verify that the transmission is filled with transmission fluid.

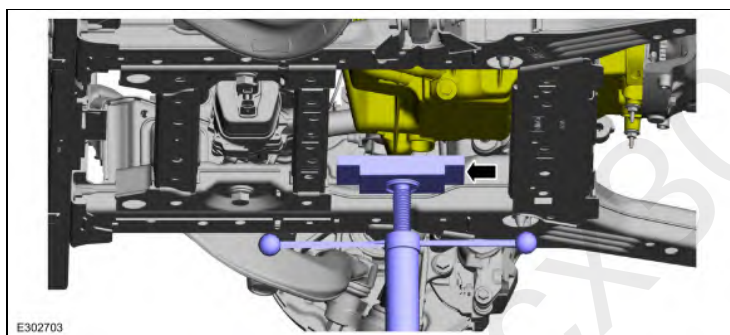
NOTE: If transmission was disassembled, add transmission fluid to the transmission.

NOTE: Rear Wheel Drive (RWD) shown, Four-Wheel Drive (4WD) similar.

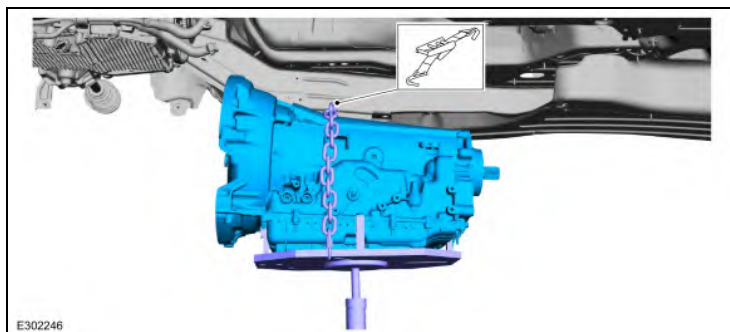
1. Remove the transmission fluid fill plug transmission fluid level indicator assembly.
2. Verify transmission is filled with transmission fluid.
3. Slightly tilt the transmission rearward.
4. If the transmission was disassembled, add 11.9 L (12.6 qt) of transmission fluid to the transmission through the transmission fluid fill hole.
 Material: Motorcraft® MERCON® ULV Automatic Transmission Fluid / XT-12-QULV (WSS-M2C949-A,) (MERCON® ULV)
 - Loosely install the transmission fluid fill plug when finished.



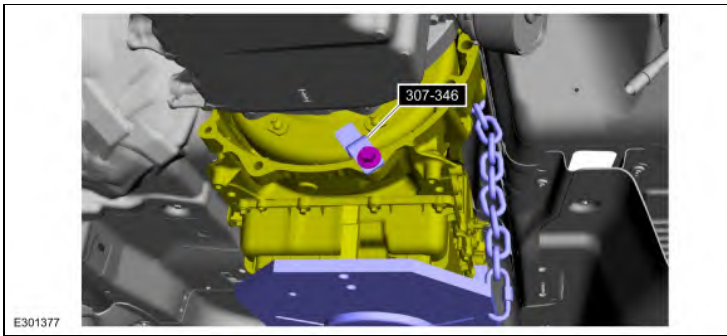
5. Support the front of the engine with a jack stand and block of wood.
Use the General Equipment: Wooden Block



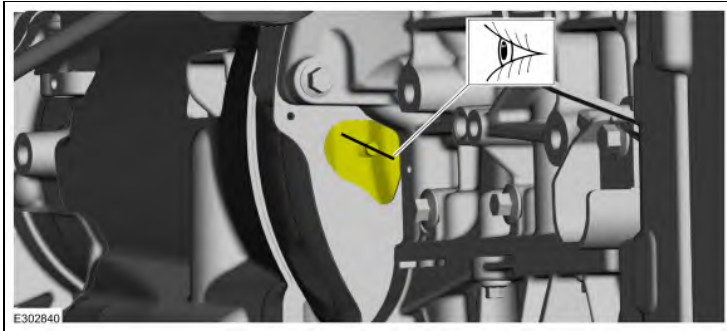
6. **NOTICE:** Secure the transmission to the transmission jack with a safety strap.
- NOTICE:** Make sure the transmission jack makes contact on the outer ribs of the transmission fluid pan.
- Using a high-lift transmission jack, position the transmission in the vehicle.
Use the General Equipment: Transmission Jack
Use the General Equipment: Retaining Strap



7. Remove the special tool.
Use Special Service Tool: 307-346 (T97T-7902-A) Retainer, Torque Converter.

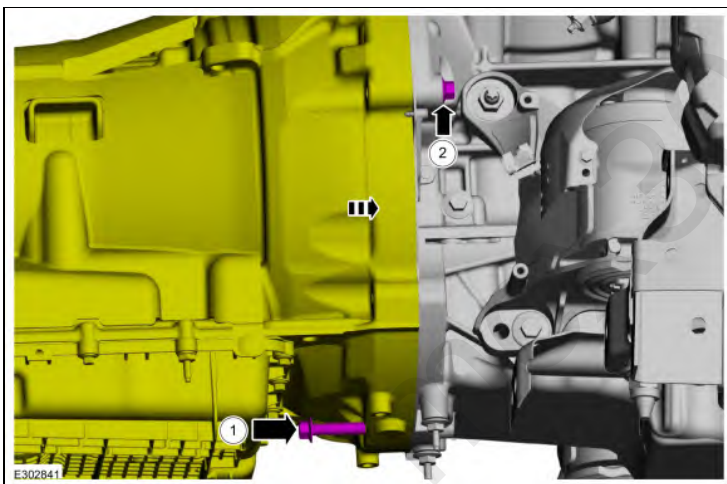


8. Align the index-mark made during removal.

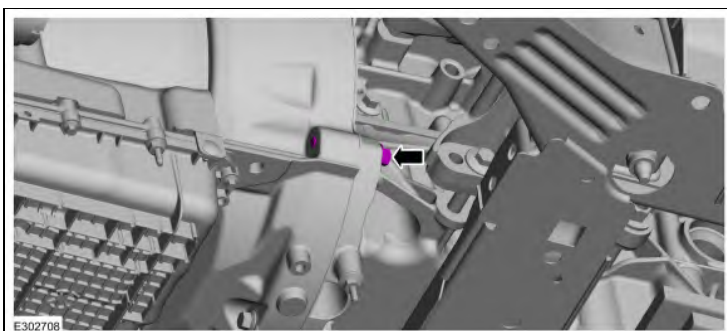


9. **NOTE:** Make sure the torque converter is fully seated in the transmission before aligning the transmission to the engine.

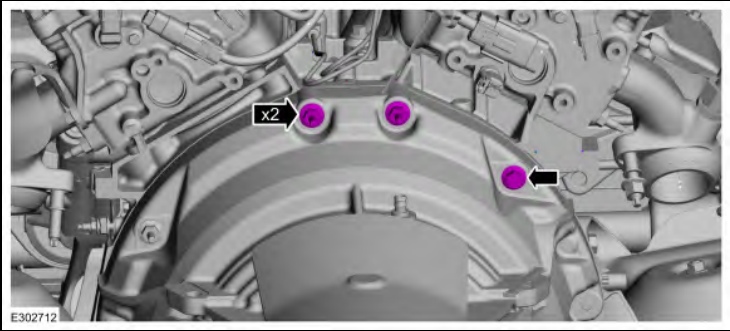
1. Install the lower bellhousing bolt far enough to be used as guide pins.
 2. Install the upper bell housing bolt and tighten until the transmission bellhousing contacts the engine.
- Tighten the bellhousing bolts.
- Torque: 35 lb.ft (48 Nm)



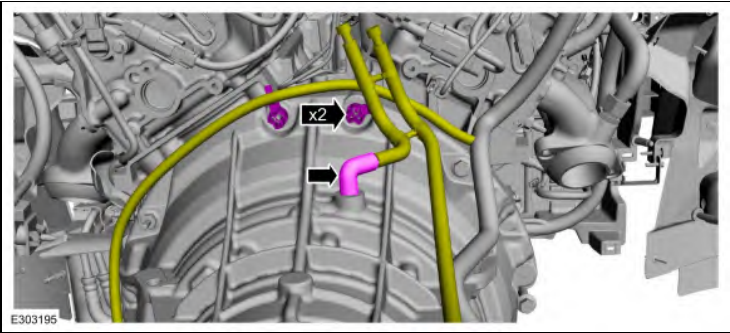
10. Install the RH bellhousing bolt.
Torque: 35 lb.ft (48 Nm)



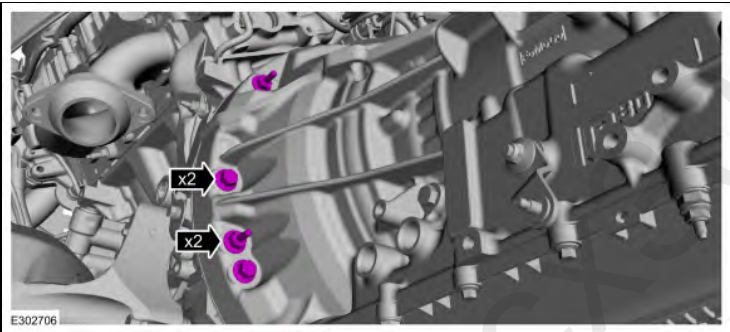
11. Install the upper bellhousing studbolts and bolt.
Torque: 35 lb.ft (48 Nm)



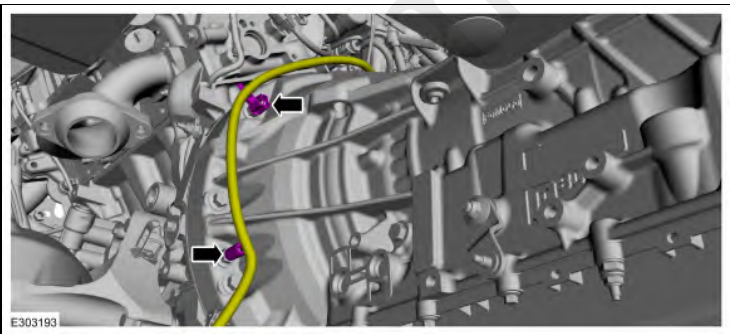
12. Connect the wiring harness retainers and the vent tube.



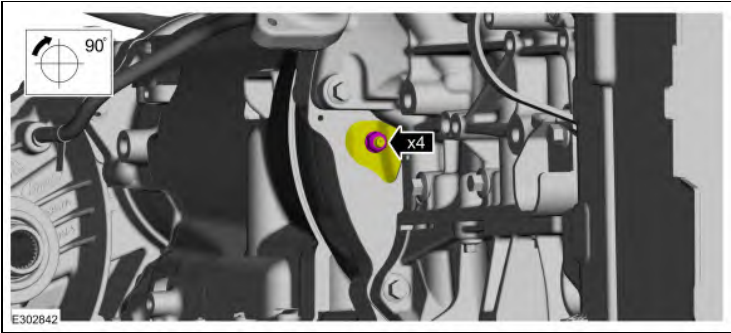
13. Install the LH bellhousing studbolts and bolt.
Torque: 35 lb.ft (48 Nm)



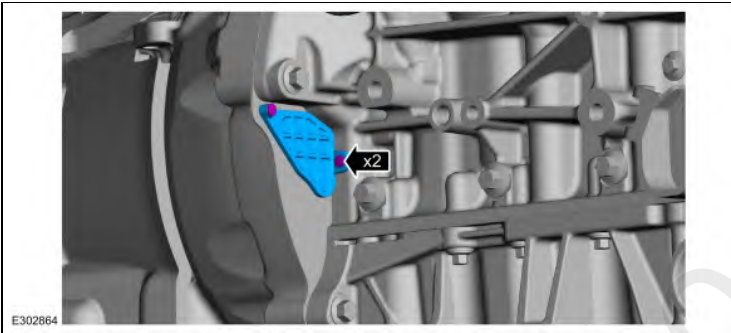
14. Connect the wiring harness retainers on the studbolts.



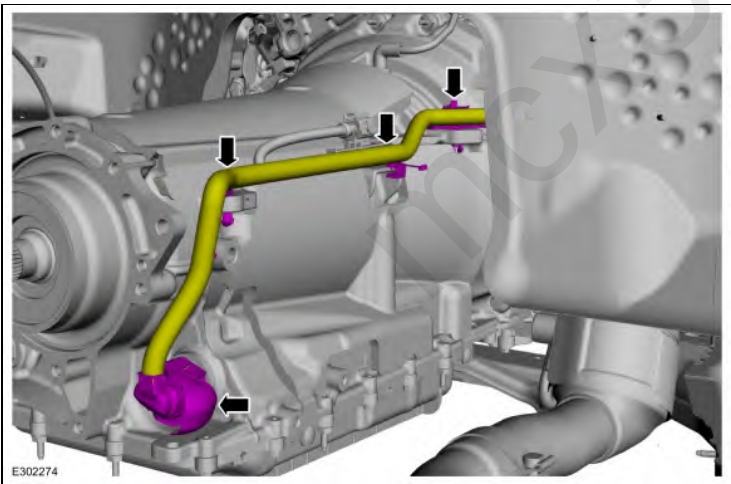
15. **NOTE:** Only rotate the crankshaft in a clockwise direction.
Using a magnetic socket , install the new torque converter nuts.
Use the General Equipment: Magnetic Socket
Torque: 35 lb.ft (48 Nm)



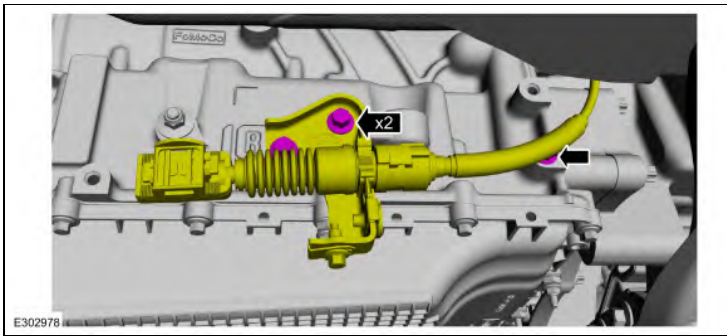
16. Install the torque converter nut access cover and the retainers.



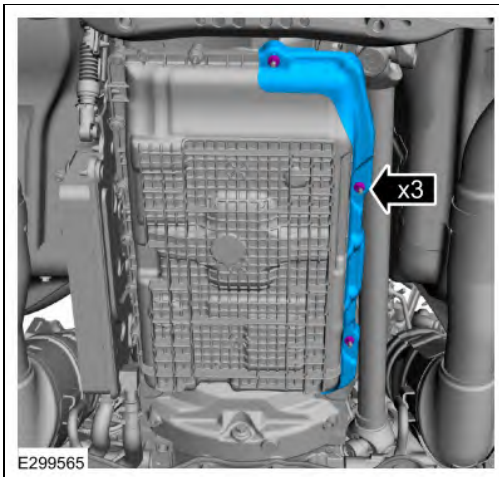
17. Connect the transmission electrical connector and the retainers.



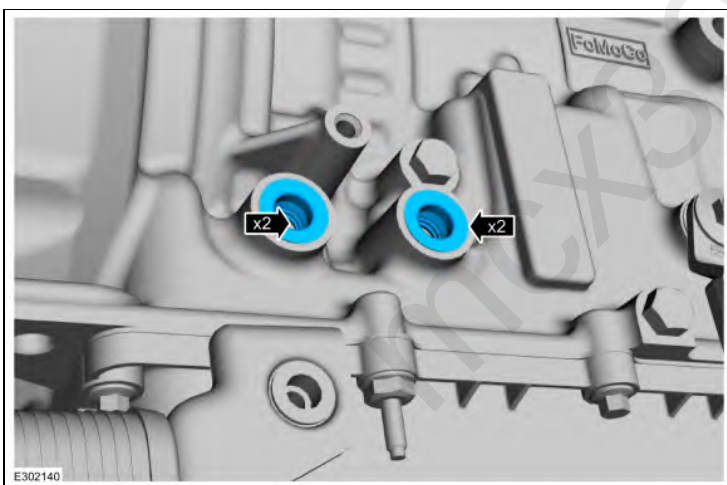
- 18. Install the front driveshaft assembly.
Refer to: Front Driveshaft (205-01 Driveshaft, Removal and Installation).
- 19. Position back the selector lever cable, install the new bolts and attach the cable retainer.
Torque: 97 lb.in (11 Nm)



20. Install the heat shield and the retainers..
Torque: 80 lb.in (9 Nm)

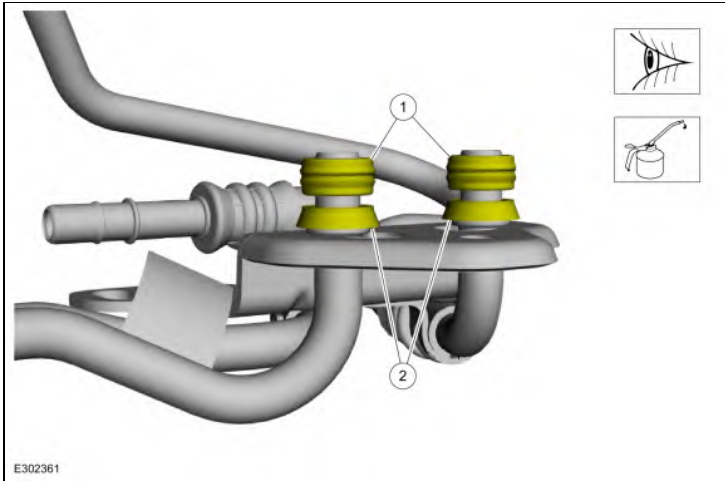


21. Inspect the transmission to be sure the transmission fluid tube seals and backing rings were removed with the transmission fluid tubes and are not stuck in the transmission. If the transmission fluid tube seals or backing rings are stuck in the transmission, remove the seals and backing rings.

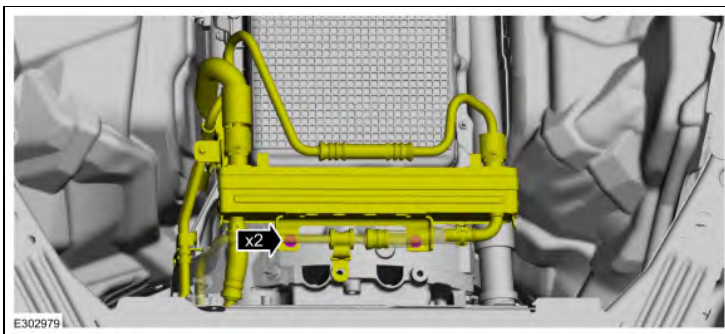


22.
 Inspect and lubricate the band seals and backing rings. Install new band seals and backing rings if necessary.
 1. Seal (7D285).
Material: Motorcraft® MERCON® ULV Automatic Transmission Fluid / XT-12-QULV (WSS-M2C949-A,) (MERCON® ULV)

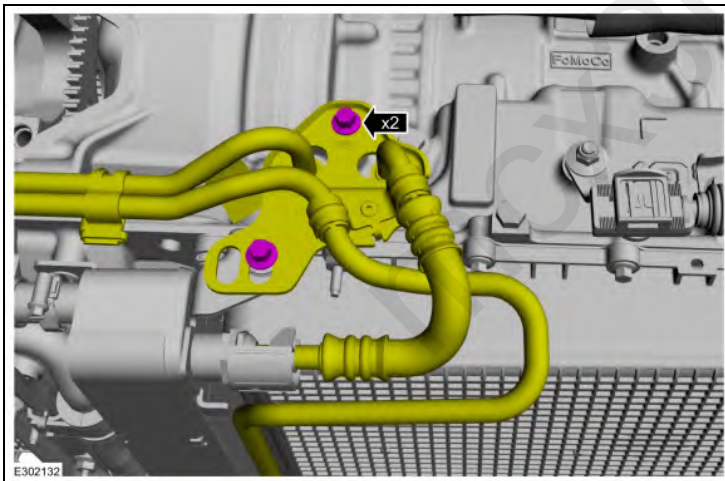
2. Backing ring (7J324).



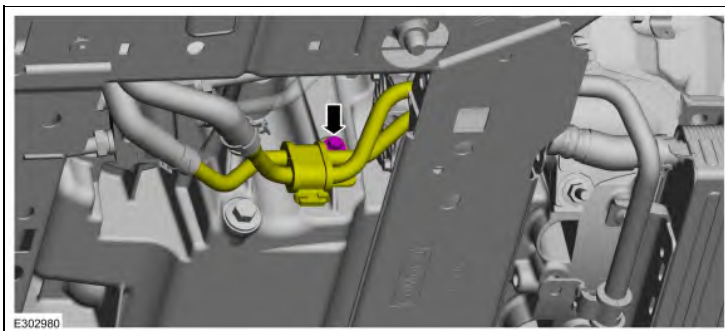
23. Position back the transmission cooler assembly and install the bolts.
Torque: 177 lb.in (20 Nm)



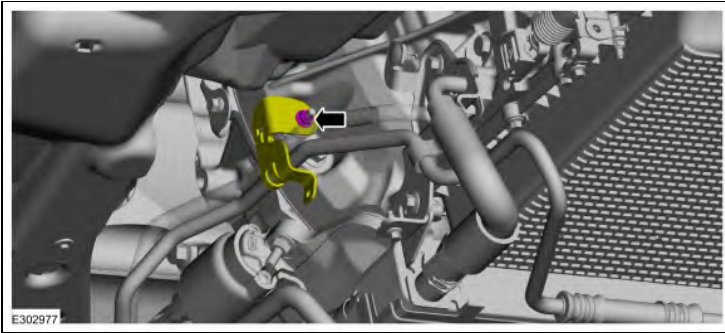
24. Connect the transmission fluid cooler tubes to the transmission and install the bolts.
Torque: 177 lb.in (20 Nm)



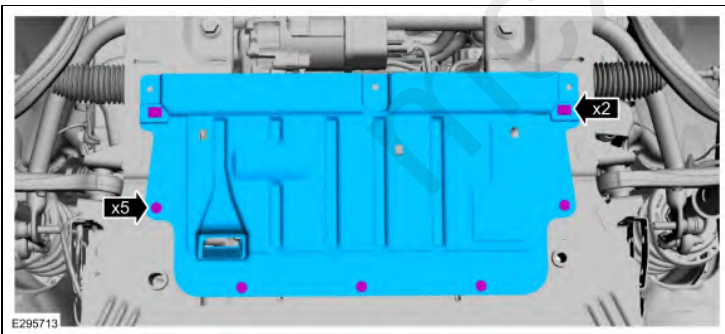
25. Install the engine coolant tube bracket bolt.
Torque: 89 lb.in (10 Nm)



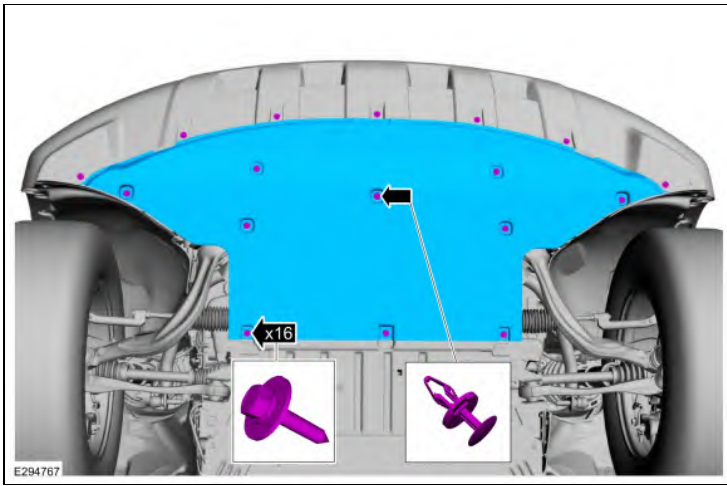
26. Install the transmission fluid cooler tube bracket nut.
Torque: 89 lb.in (10 Nm)



27. Install the starter motor.
Refer to: Starter Motor (303-06C Starting System - 3.3L Duratec-V6, Removal and Installation).
28. Install the RH catalytic converter.
Refer to: Catalytic Converter RH (309-00C Exhaust System - 3.3L Duratec-V6, Removal and Installation).
29. Install the LH catalytic converter.
Refer to: Catalytic Converter LH (309-00C Exhaust System - 3.3L Duratec-V6, Removal and Installation).
30. Adjust the selector lever cable.
Refer to: Selector Lever Cable Adjustment (307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission â€” 10R80, General Procedures).
31. After completing the repairs, perform the Misfire Monitor Neutral Profile Correction procedure using a diagnostic scan tool.
32. If a new transmission or a new main control was installed, the solenoid body strategy must be updated.
Refer to: Transmission Strategy Download (307-01 Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€” 10R80) .
33. If the transmission was overhauled, the adaptive drive cycle must be updated.
Refer to: Adaptive Learning Drive Cycle (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€” 10R60, General Procedures).
34. While driving the vehicle, use the scan tool to verify that the TFT has reached a temperature of 96Â°C-101Â°C (206Â°F-215Â°F). This will circulate the transmission fluid through the torque converter and the transmission fluid cooling system, eliminating any trapped air in the transmission fluid cooling system.
35. Check the transmission fluid level
Refer to: Transmission Fluid Level Check (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€” 10R80, General Procedures).
36. Install the rear underbody shield, bolts and the pin-type retainers.
Torque: 22 lb.in (2.5 Nm)



37.
 1. Install the underbody shield and the bolts.
Torque: 22 lb.in (2.5 Nm)
 2. Install pin-type retainer.



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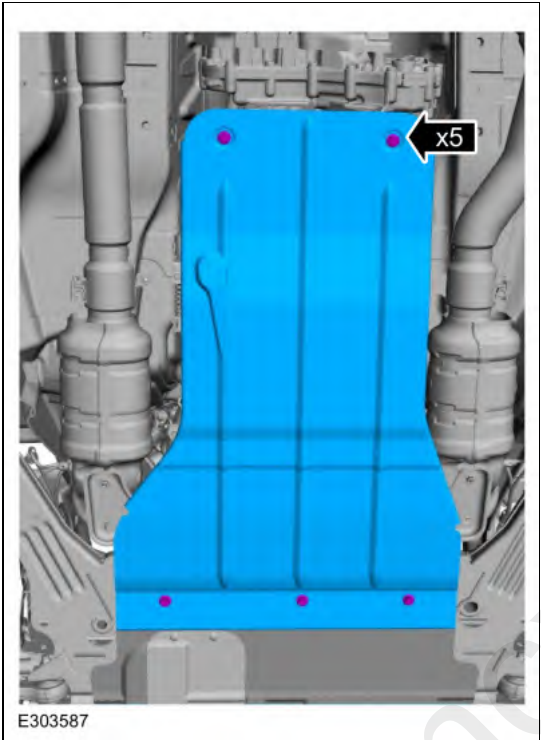
Transmission Fluid Pan, Gasket and Filter

Materials

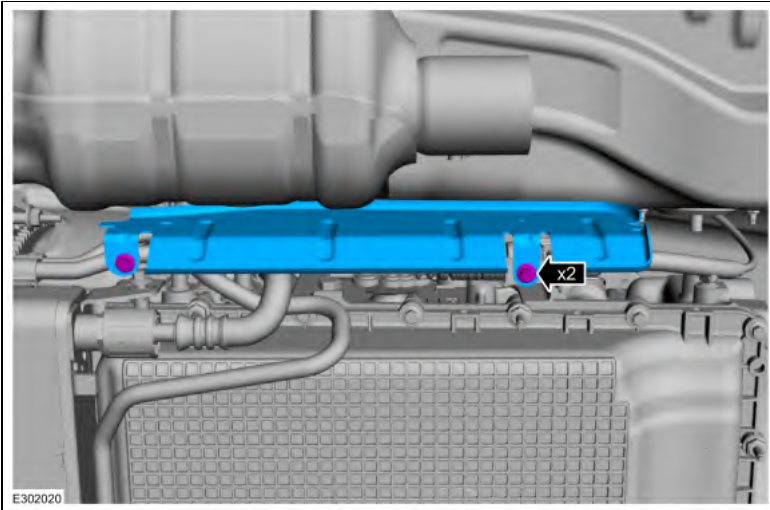
Name	Specification
Motorcraft® MERCON® ULV Automatic Transmission Fluid XT-12-QULV	WSS-M2C949-A, MERCON® ULV

Removal

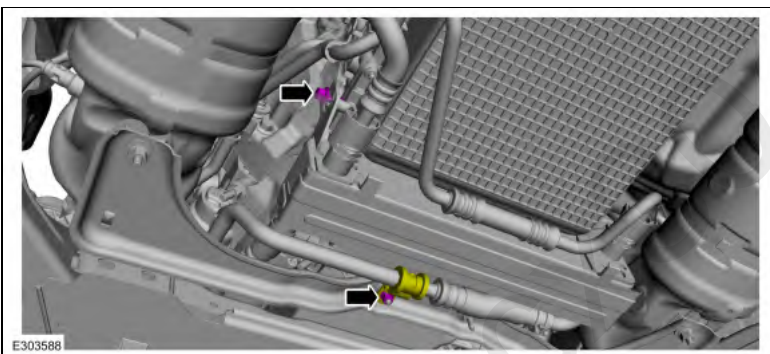
- With the vehicle in NEUTRAL, position it on a hoist.
Refer to: Jacking and Lifting - Overview (100-02 Jacking and Lifting, Description and Operation).
- If equipped, remove the retainers and the underbody shield.



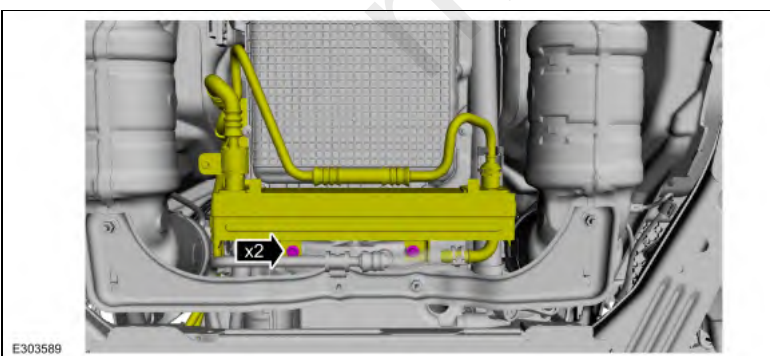
- Remove the bolts and the heatshield.



4. Remove the transmission cooler tube bolt and the engine coolant tube nut.



5. Remove the transmission fluid cooler bolts and position aside the cooler assembly.



6. Remove the retainers and heatshield.