

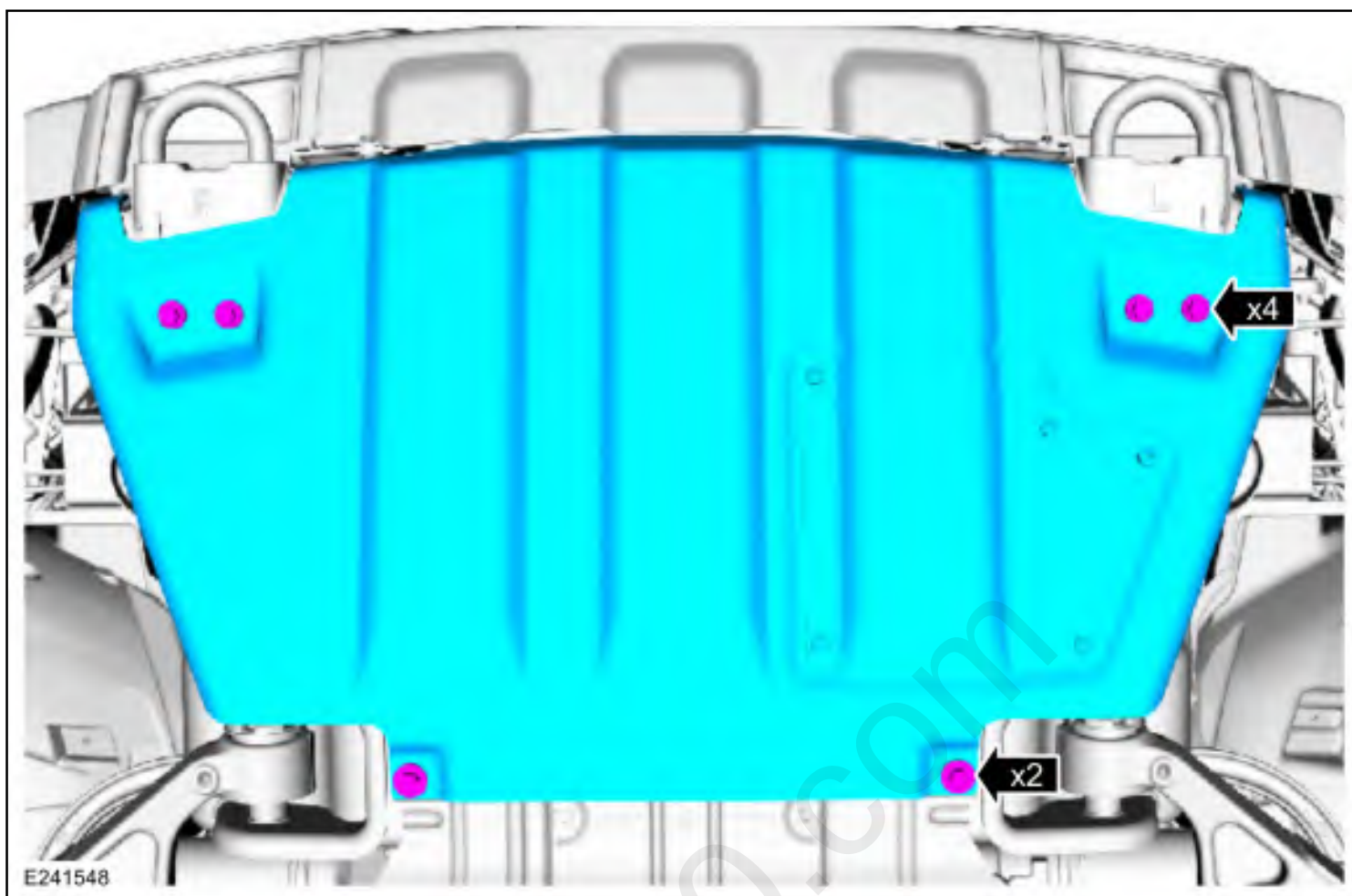
Transmission Fluid Cooler Tubes - Raptor

Materials

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

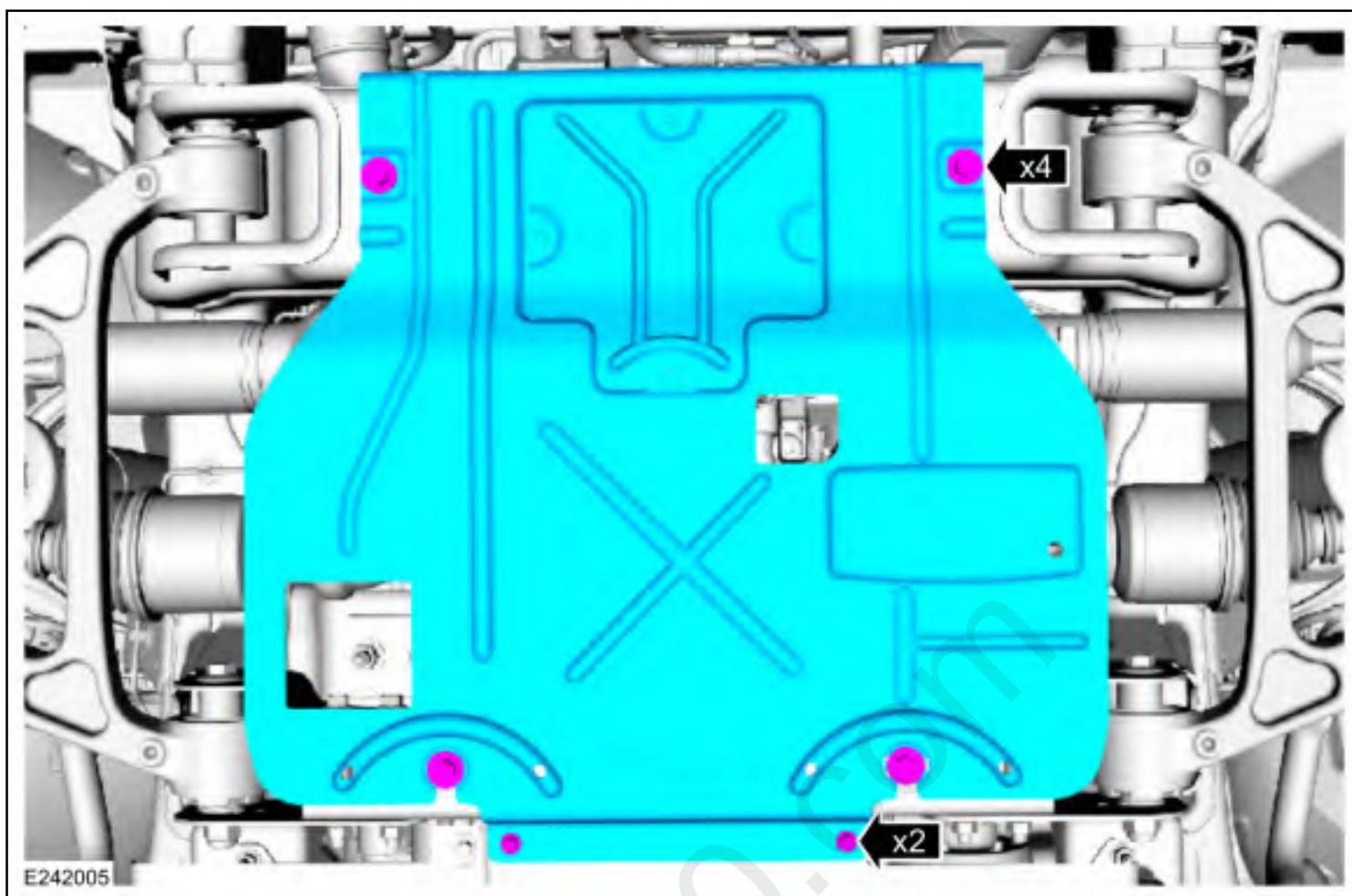
Removal

1. With the vehicle in N, position it on a hoist.
Refer to: [Jacking and Lifting - Overview](#) (100-02 Jacking and Lifting, Description and Operation).
2. If equipped, remove the bolts and the skid plate.

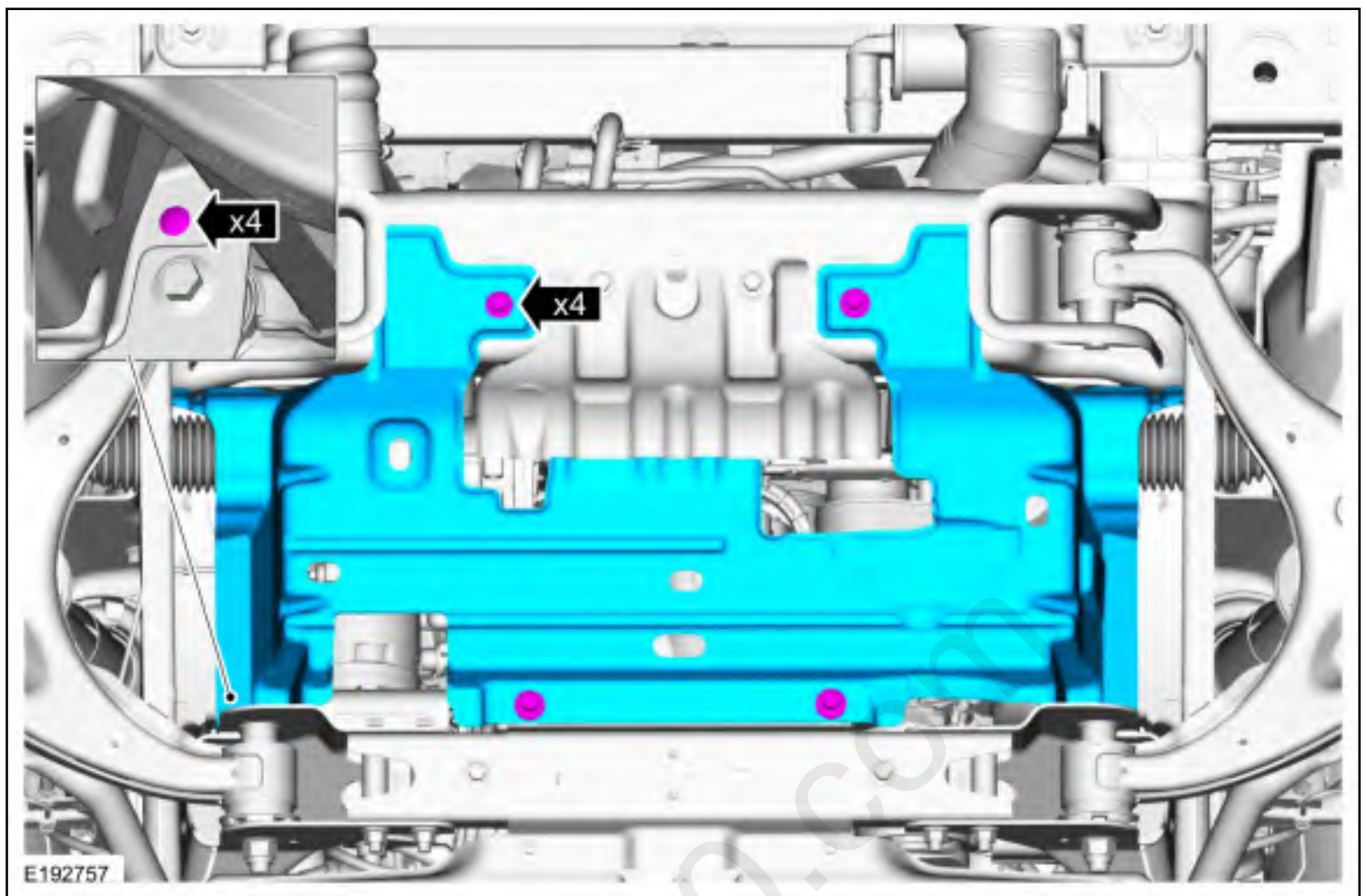


NOTE: Vehicles are equipped with either a skid plate or a splash shield.

3. If equipped, remove the bolts and the skid plate.

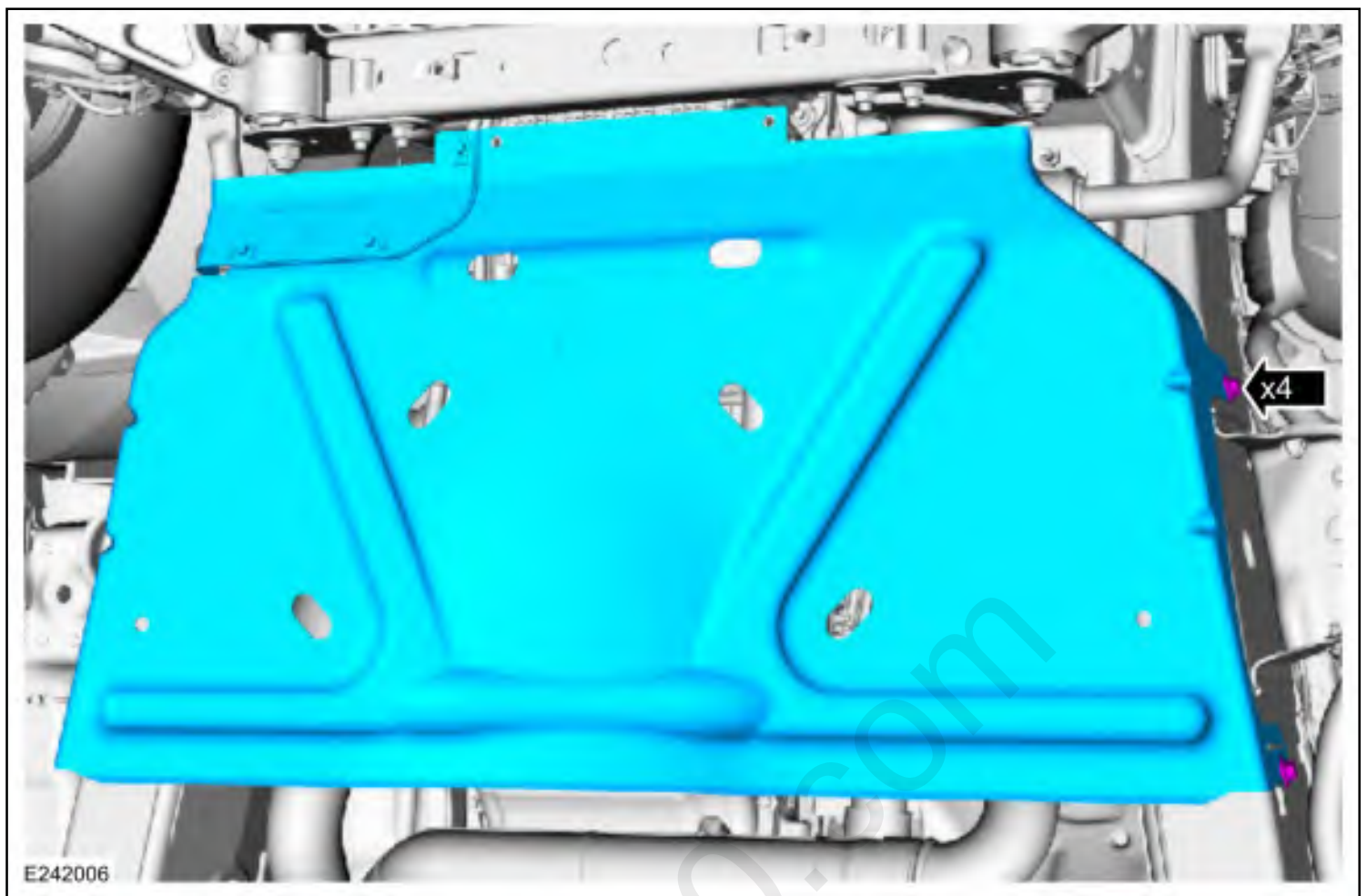


4. If equipped, remove the pushpins, the bolts and the splash shield.

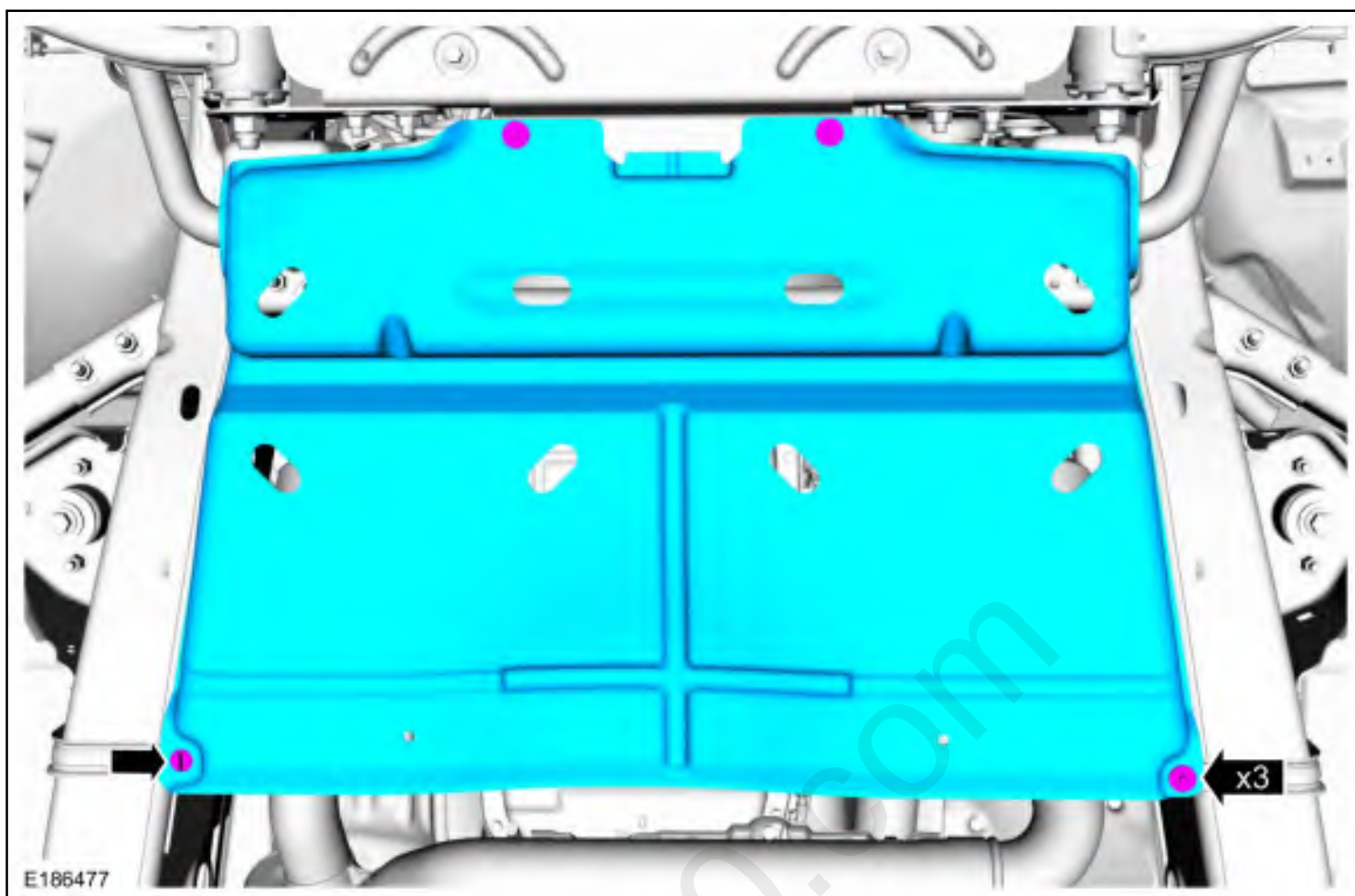


NOTE: Vehicles are equipped with either a skid plate or a transmission shield.

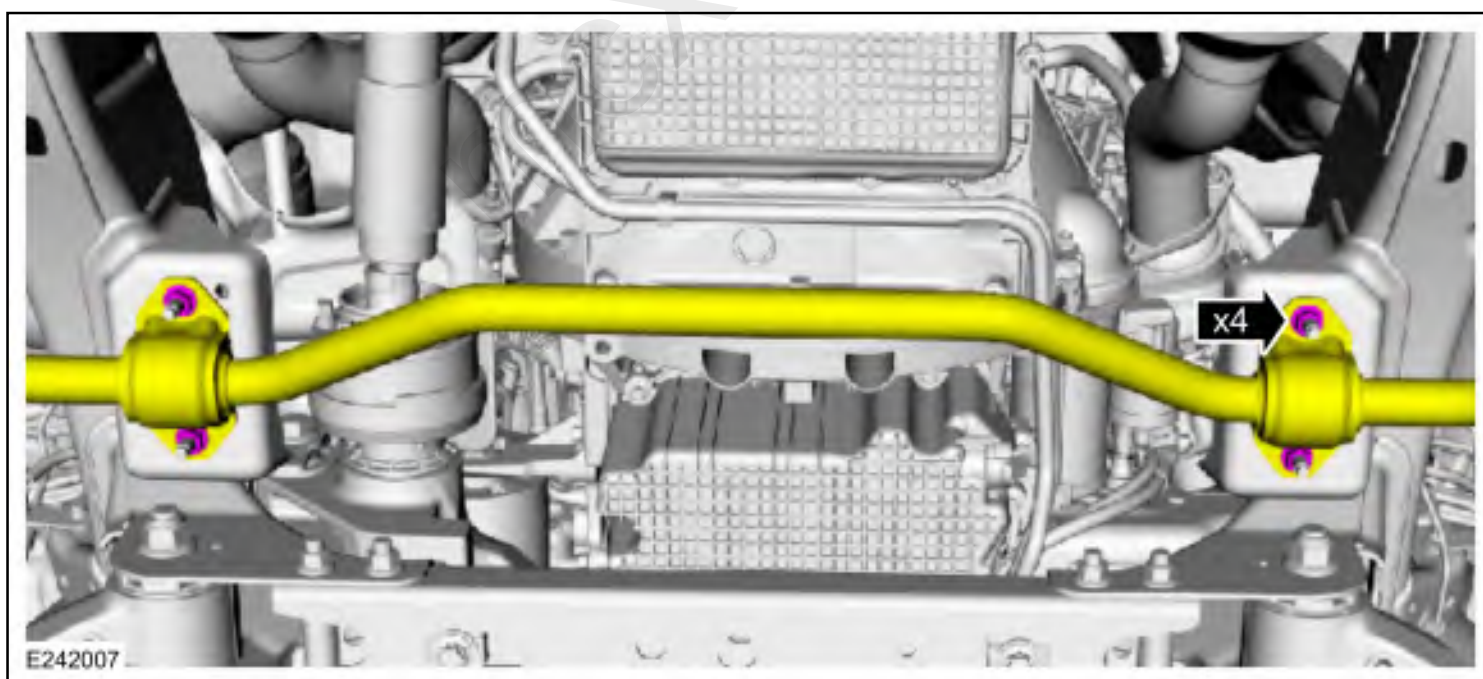
5. If equipped, remove the bolts and the skid plate.



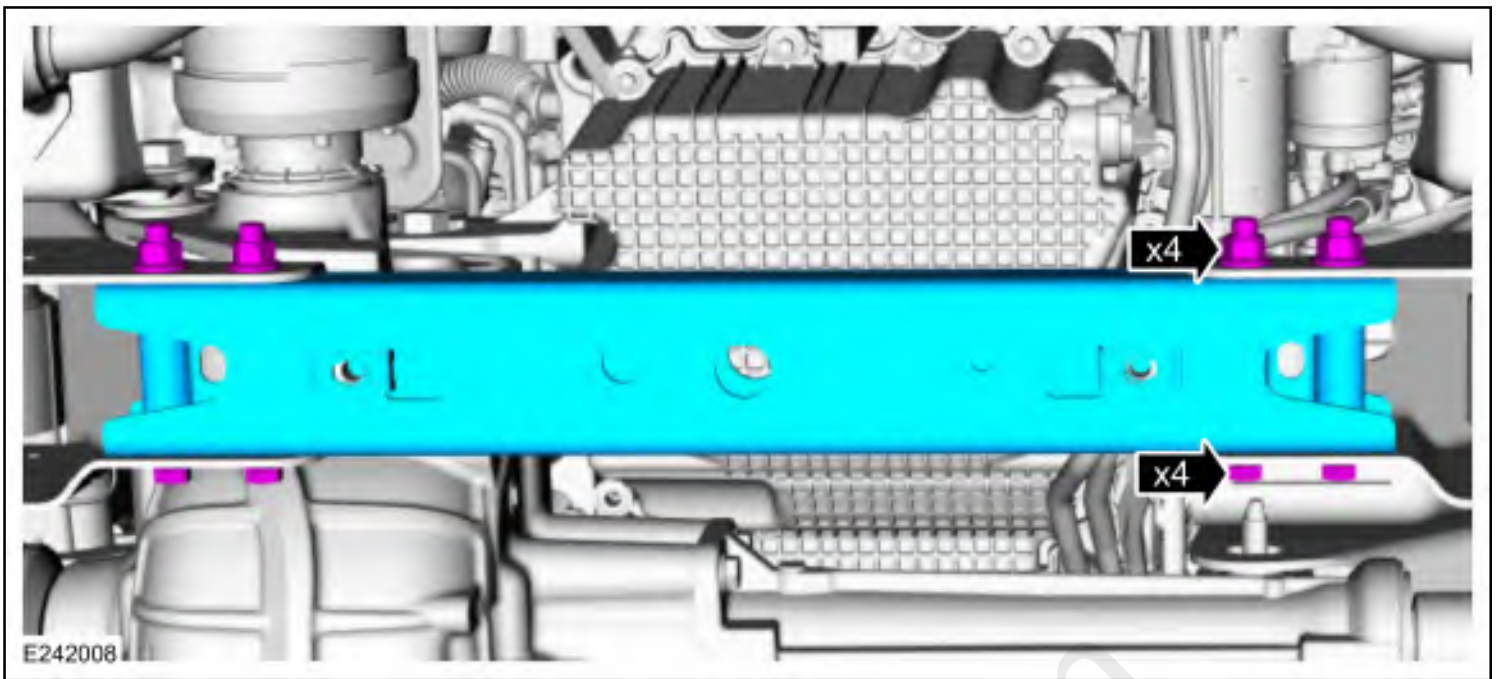
6. If equipped, remove the bolts, turn the 1/4 turn retainer and remove the transmission shield.



7. Remove the stabilizer bar bracket nuts and position the stabilizer bar aside.

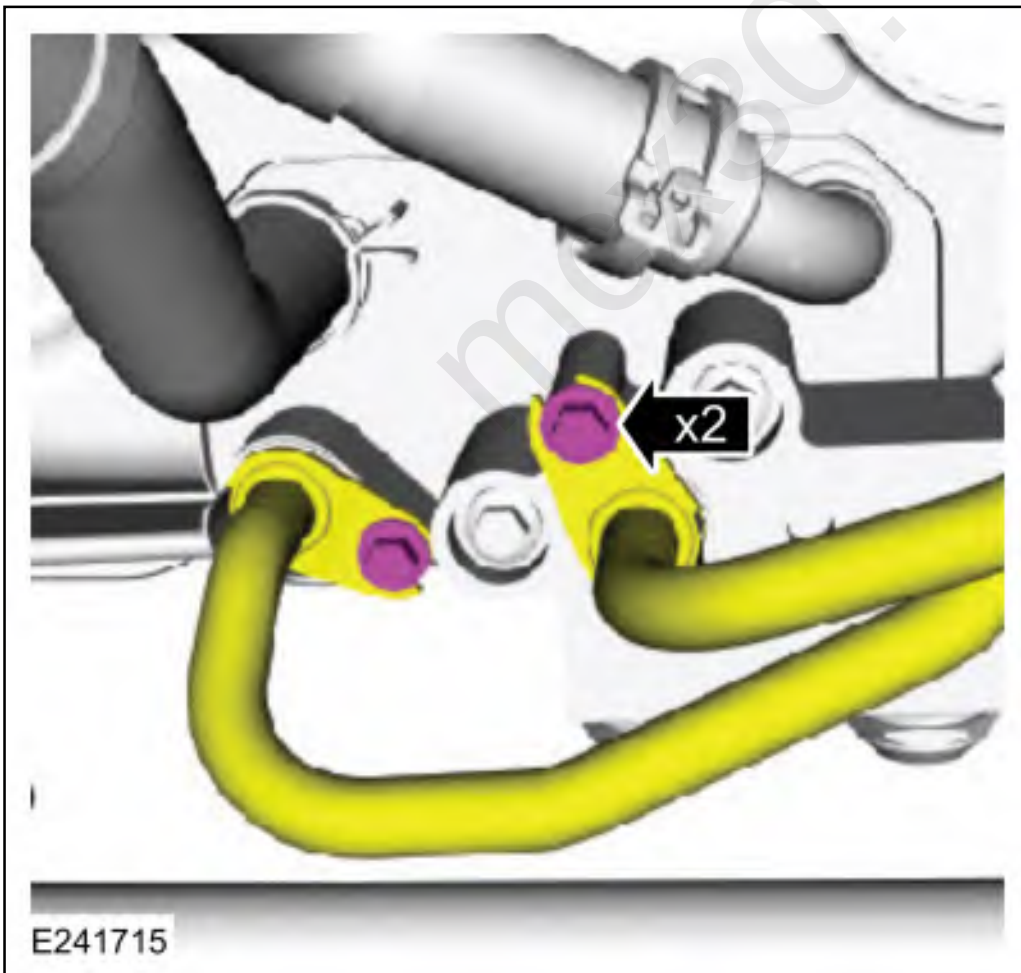


8. Remove the nuts, the bolts and the crossmember.



9. **NOTE:** *Be prepared to collect escaping fluid.*

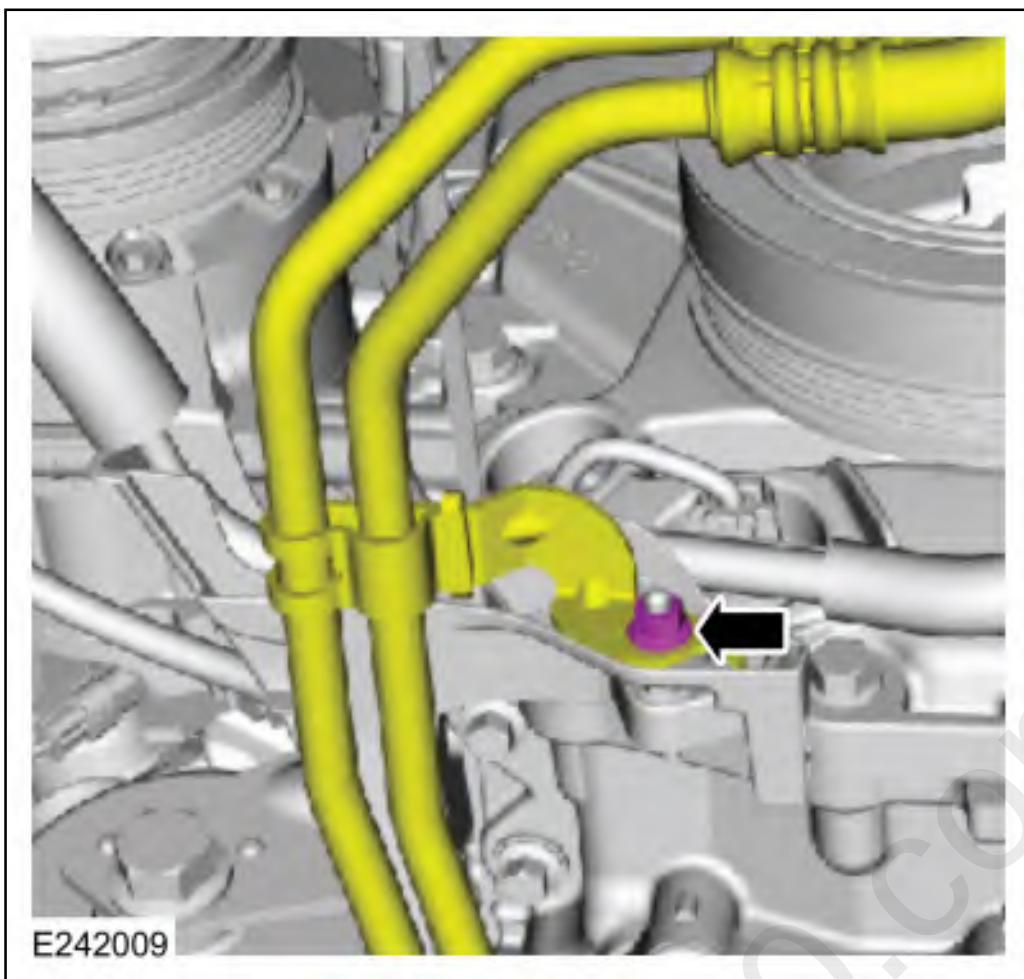
Remove the bolts and disconnect the transmission fluid cooler tubes.



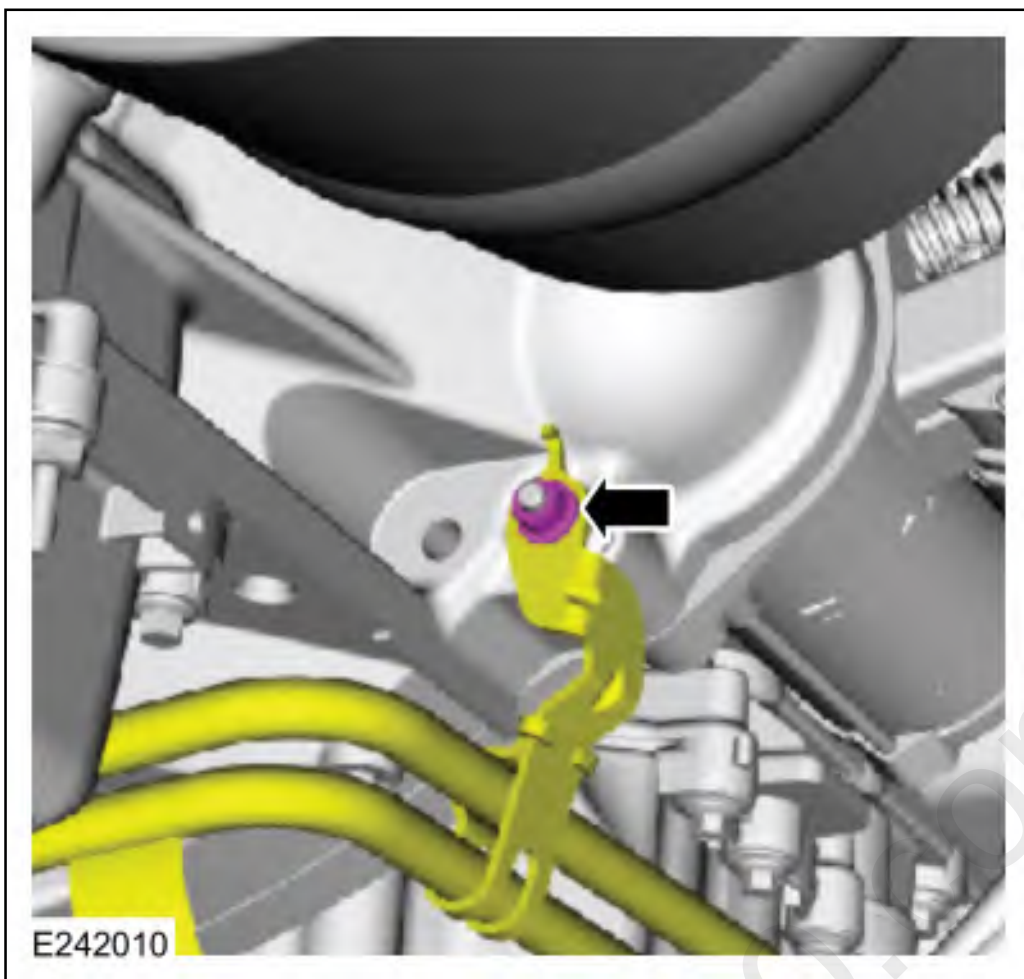
10. Inspect the cooler bypass valve and the transmission fluid warmer to be sure the transmission fluid tube seals and backing rings were removed with the transmission fluid tube and are not stuck in the cooler bypass valve or the transmission fluid warmer. If the transmission fluid tube seals or backing rings are stuck in the cooler bypass valve or the transmission fluid warmer, remove the seals and backing rings.



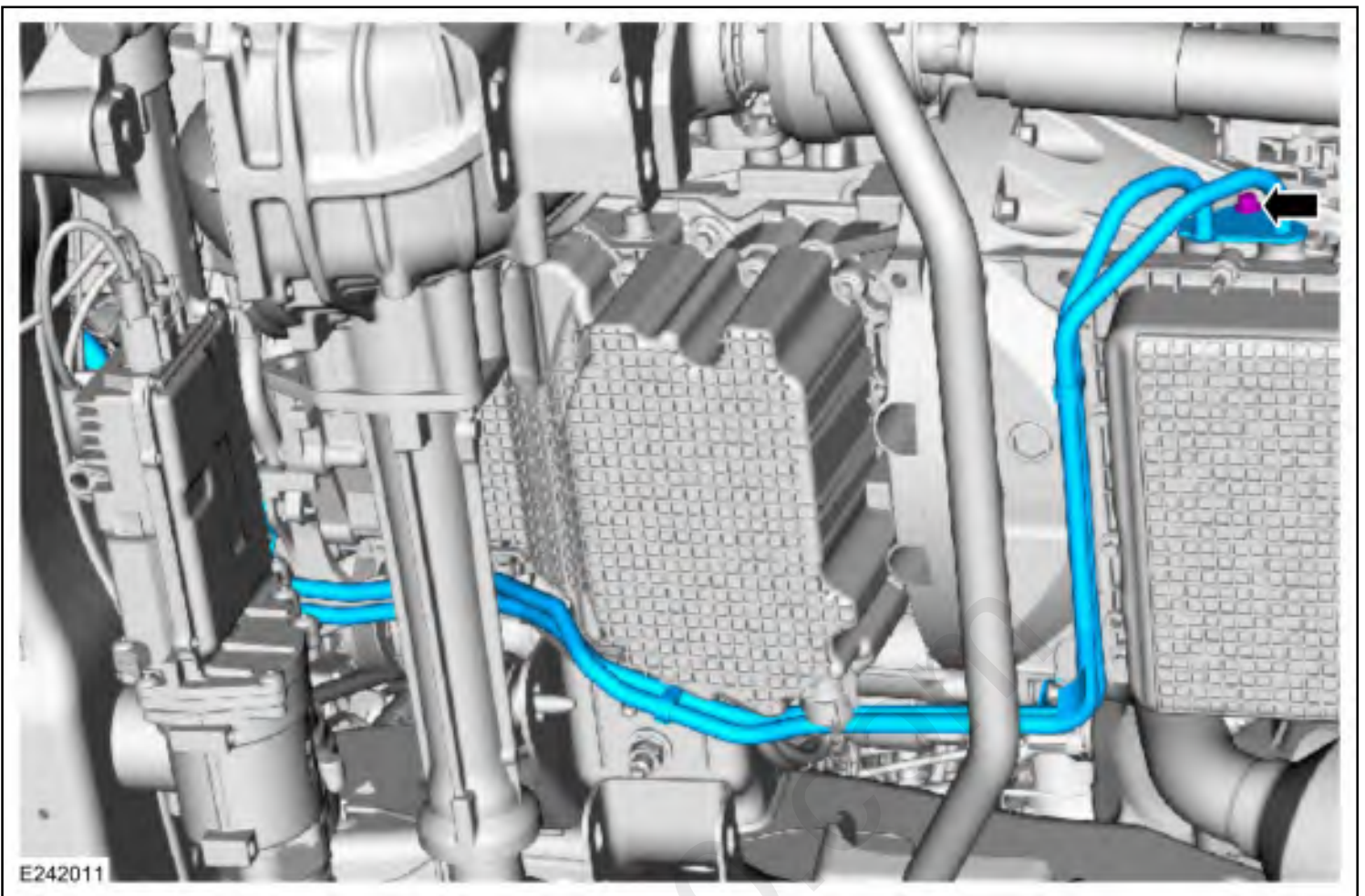
11. Remove the transmission fluid cooler tubes bracket nut.



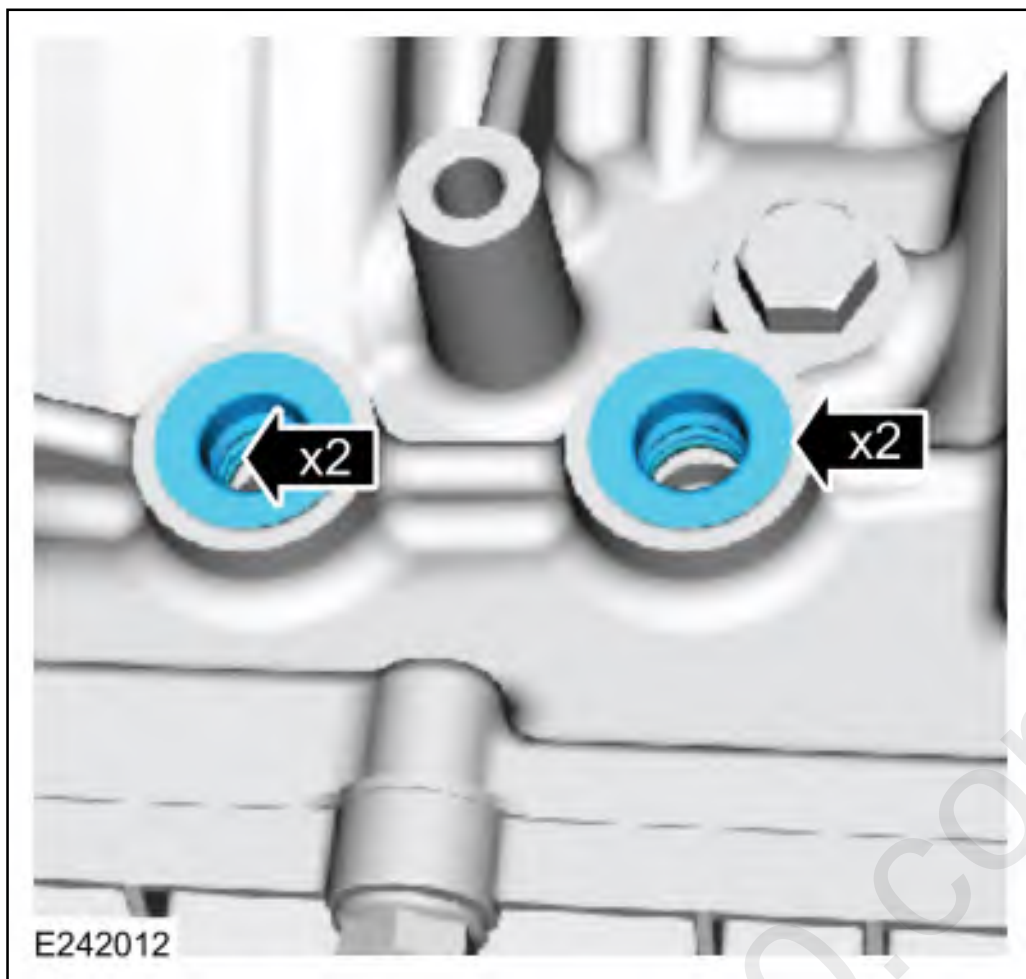
12. Remove the transmission fluid cooler tubes bracket nut.



13. Remove the bolt and the transmission fluid cooler tubes.



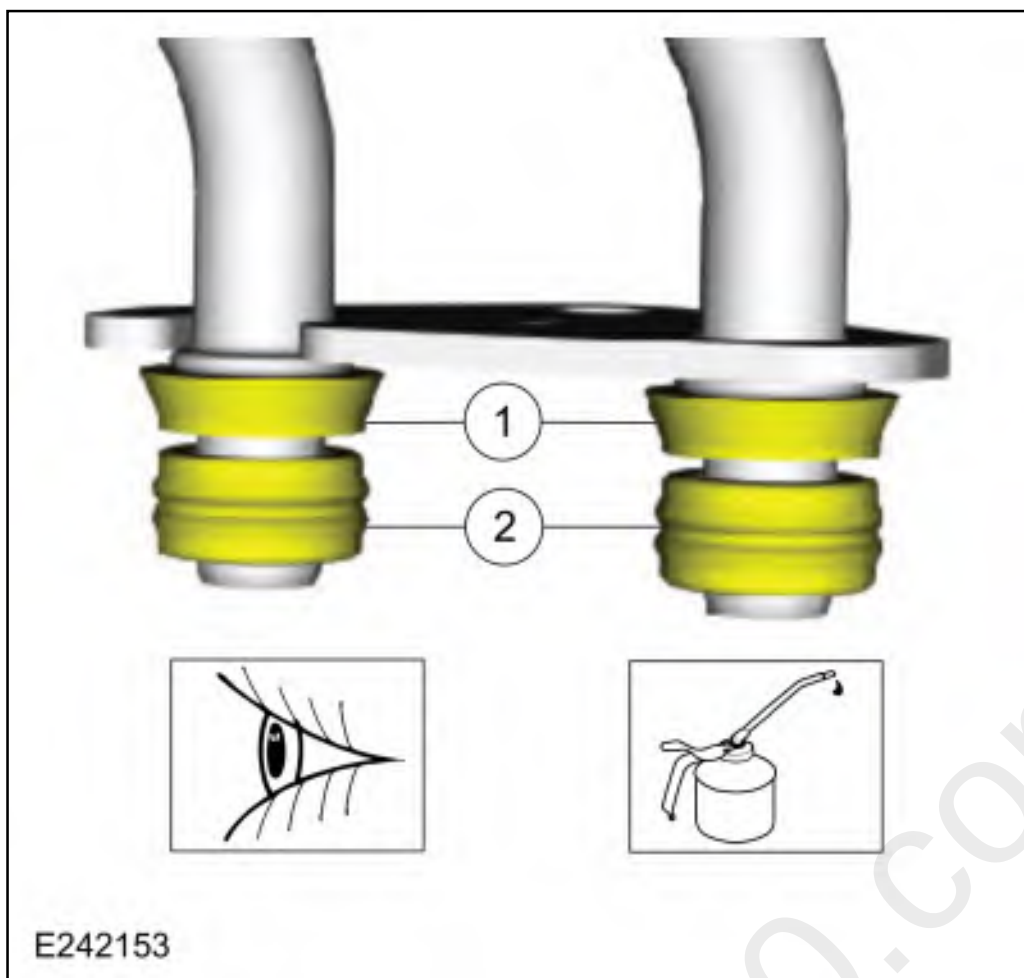
14. Inspect the transmission to be sure the transmission fluid tube seals and backing rings were removed with the transmission fluid tubes and are not stuck in the transmission. If the transmission fluid tube seals or backing rings are stuck in the transmission, remove the seals and backing rings.



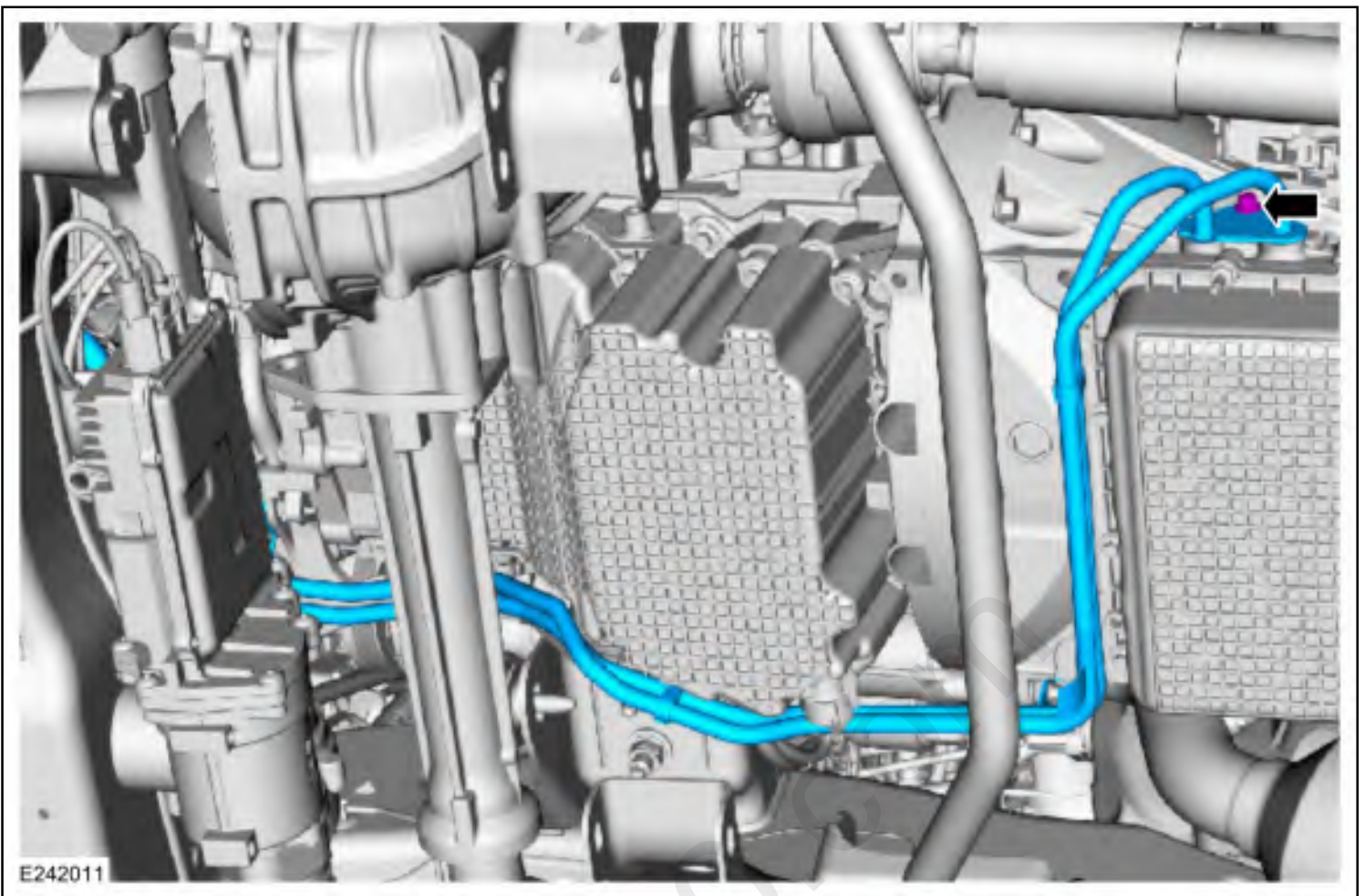
Installation

1. Inspect and lubricate the band seals and backing rings. Install new band seals and backing rings if necessary.
 1. Backing ring (7J324).
 2. Seal (7D285).

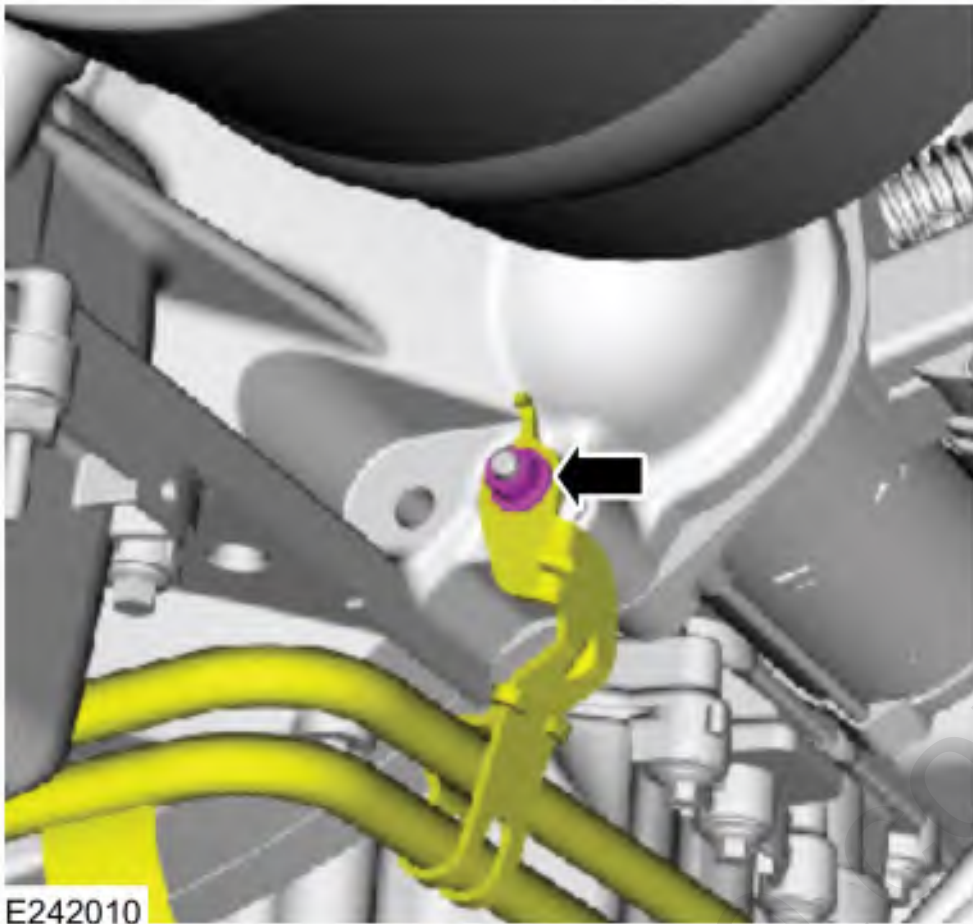
Material: Motorcraft® MERCON® ULV Automatic Transmission Fluid / XT-12-QULV (MERCON® ULV) (WSS-M2C949-A)



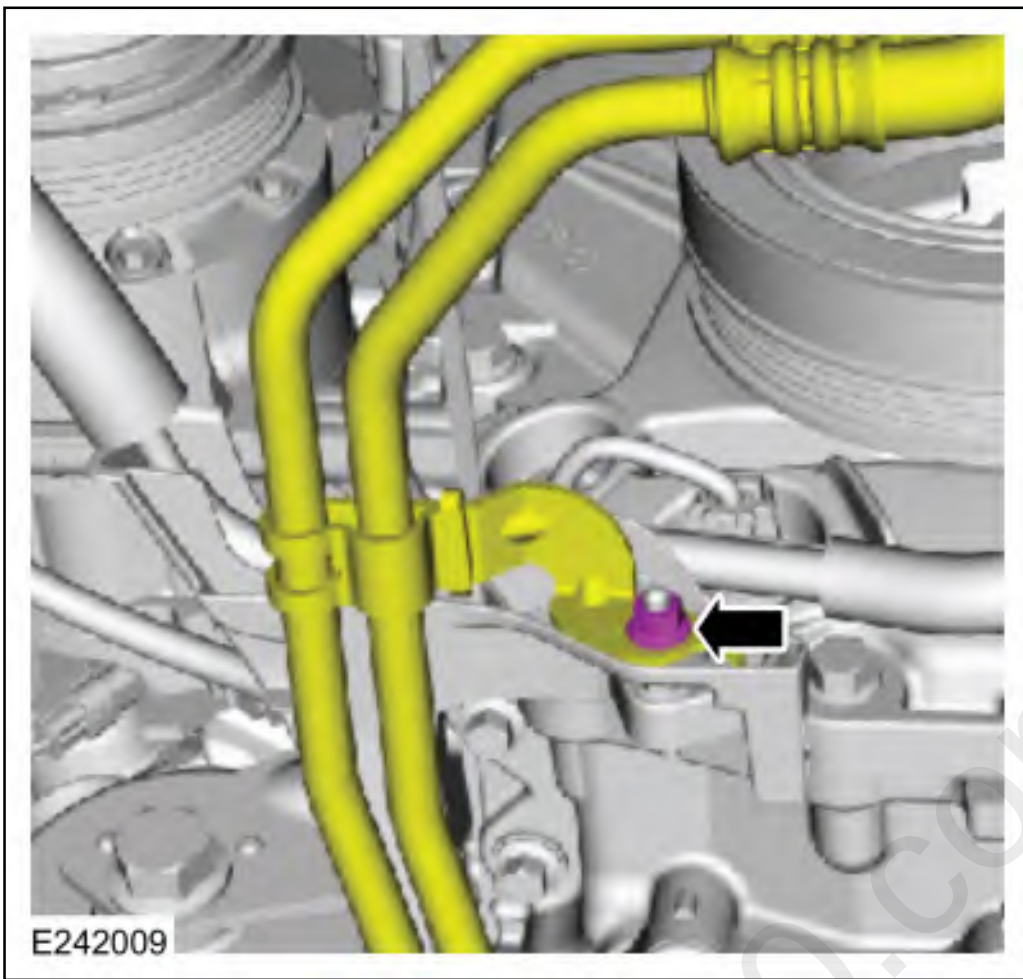
2. Install the transmission fluid cooler tubes and the bolt.
Torque: 22 lb.ft (30 Nm)



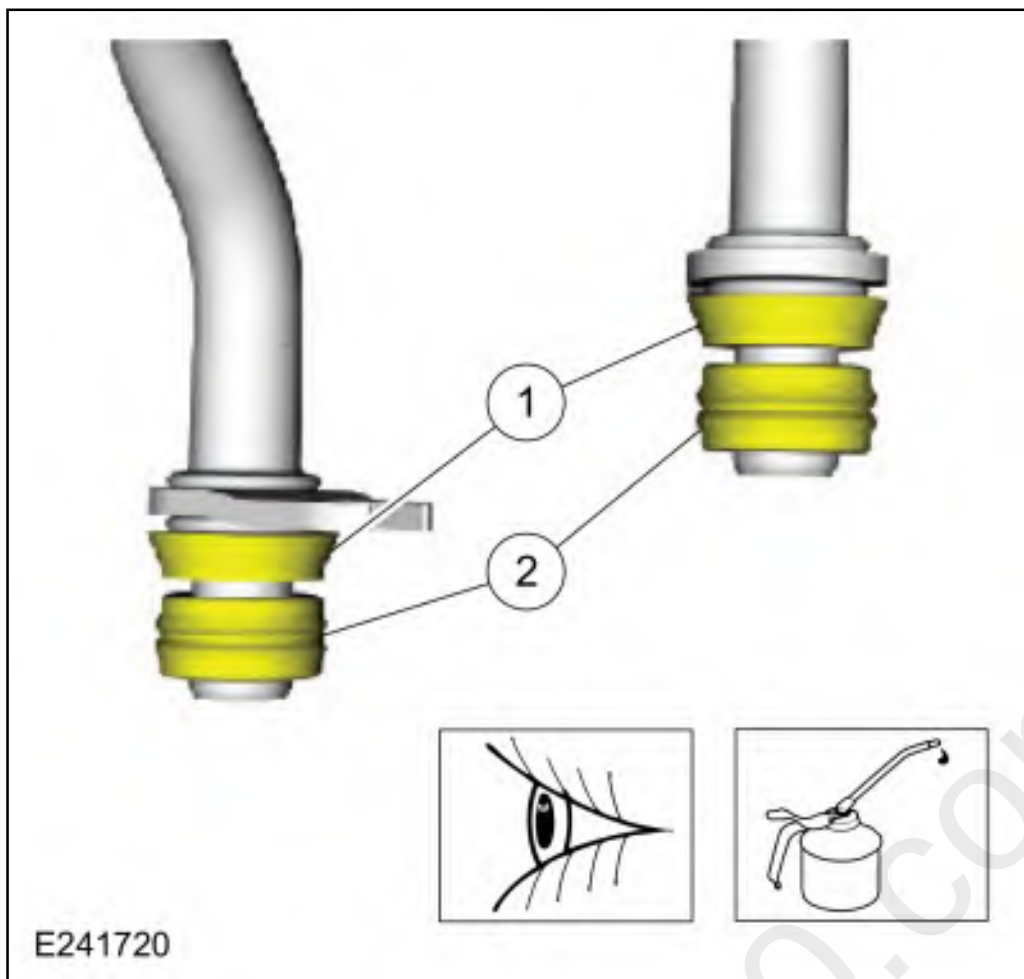
3. Install the transmission fluid cooler tubes bracket nut.
Torque: 106 lb.in (12 Nm)



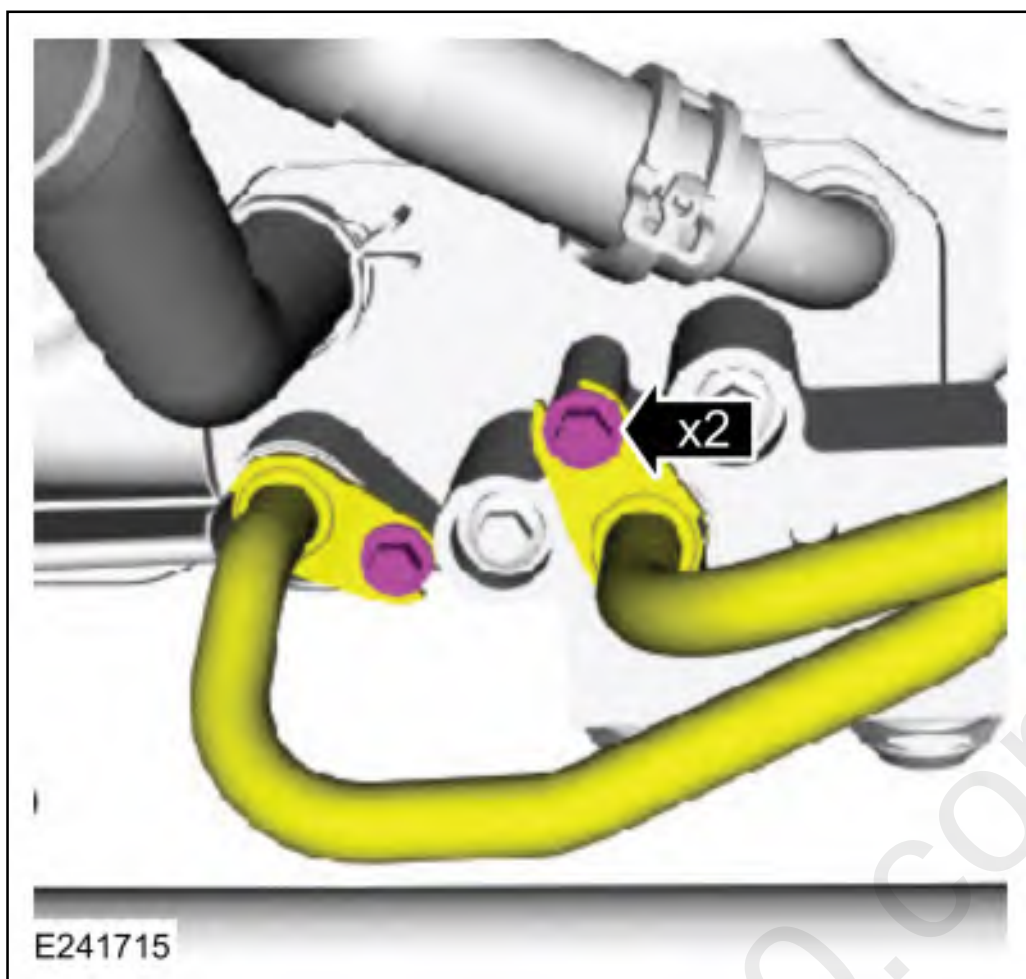
4. Install the transmission fluid cooler tubes bracket nut.
Torque: 106 lb.in (12 Nm)



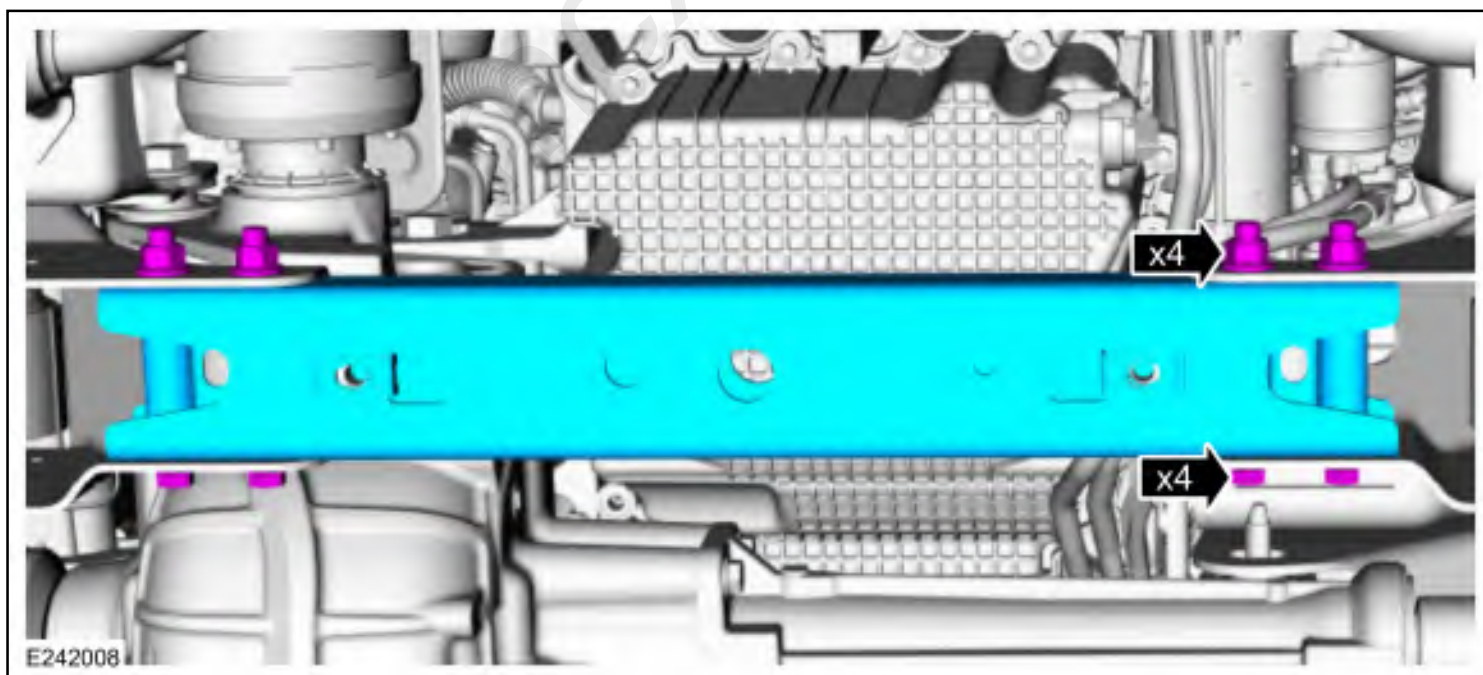
5. Inspect and lubricate the band seals and backing rings. Install new band seals and backing rings if necessary.
1. Backing ring (7J324).
 2. Seal (7D285).
- Material:* Motorcraft® MERCON® ULV Automatic Transmission Fluid / XT-12-QULV (MERCON® ULV) (WSS-M2C949-A)



6. Connect the transmission fluid cooler tubes and install the bolts.
Torque: 89 lb.in (10 Nm)

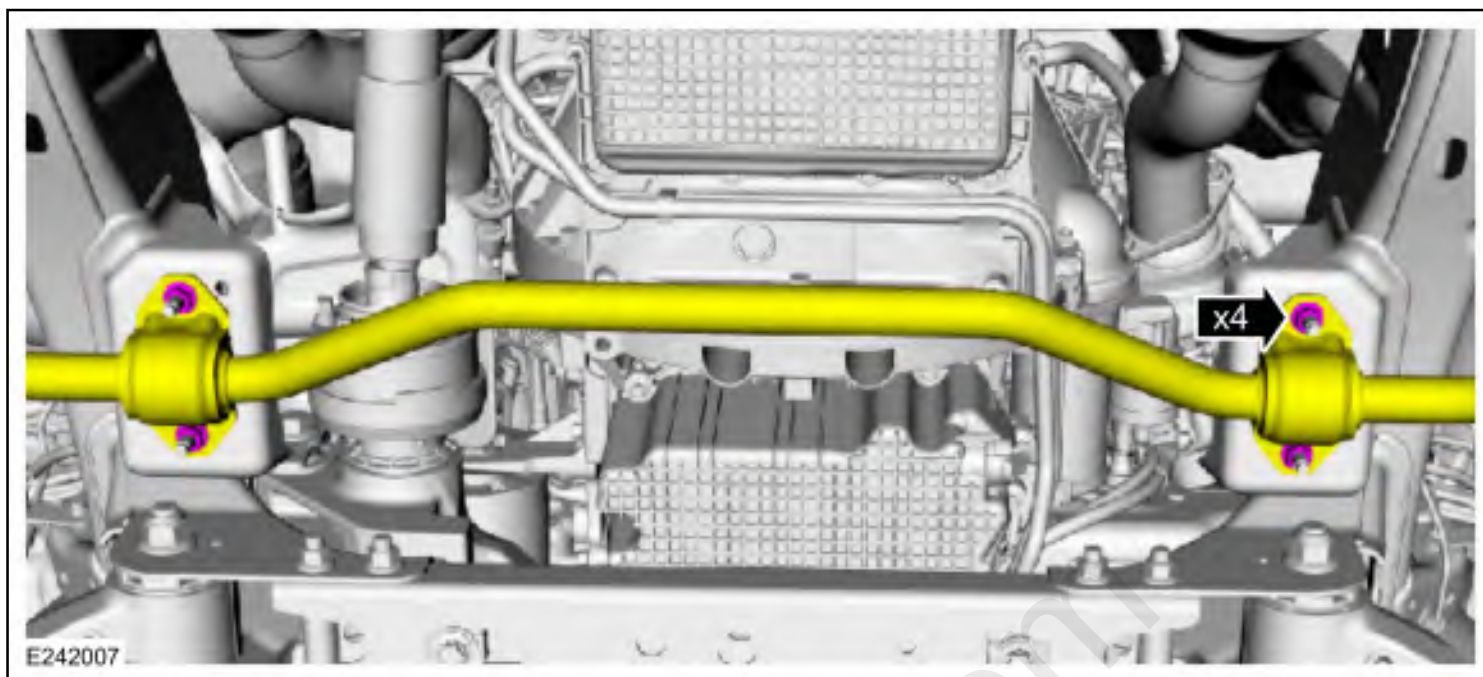


7. Install the bolts, the nuts and the crossmember.
Torque: 66 lb.ft (90 Nm)



8. Position the stabilizer bar and install the stabilizer bar bracket nuts.

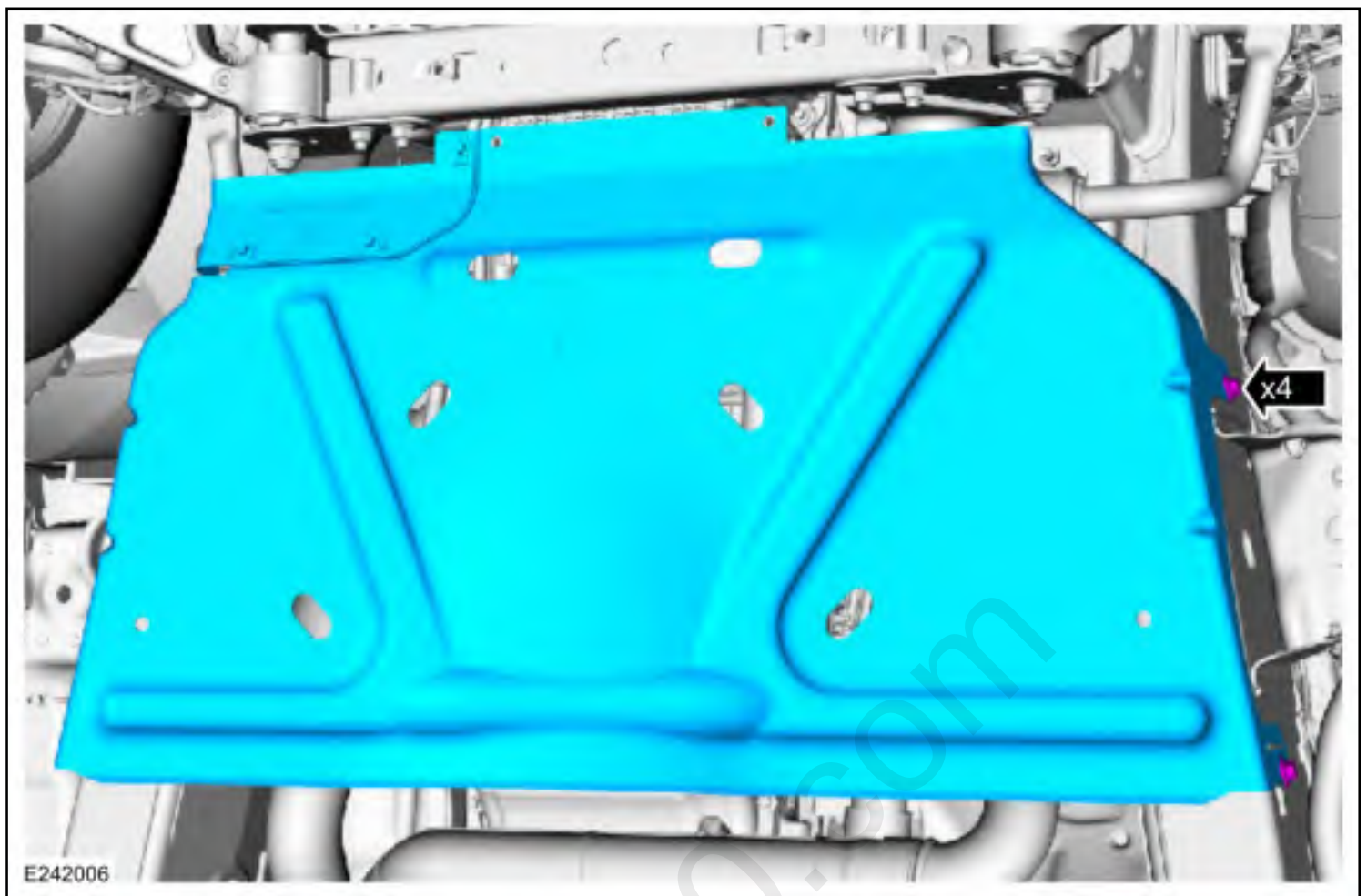
Torque: 46 lb.ft (63 Nm)



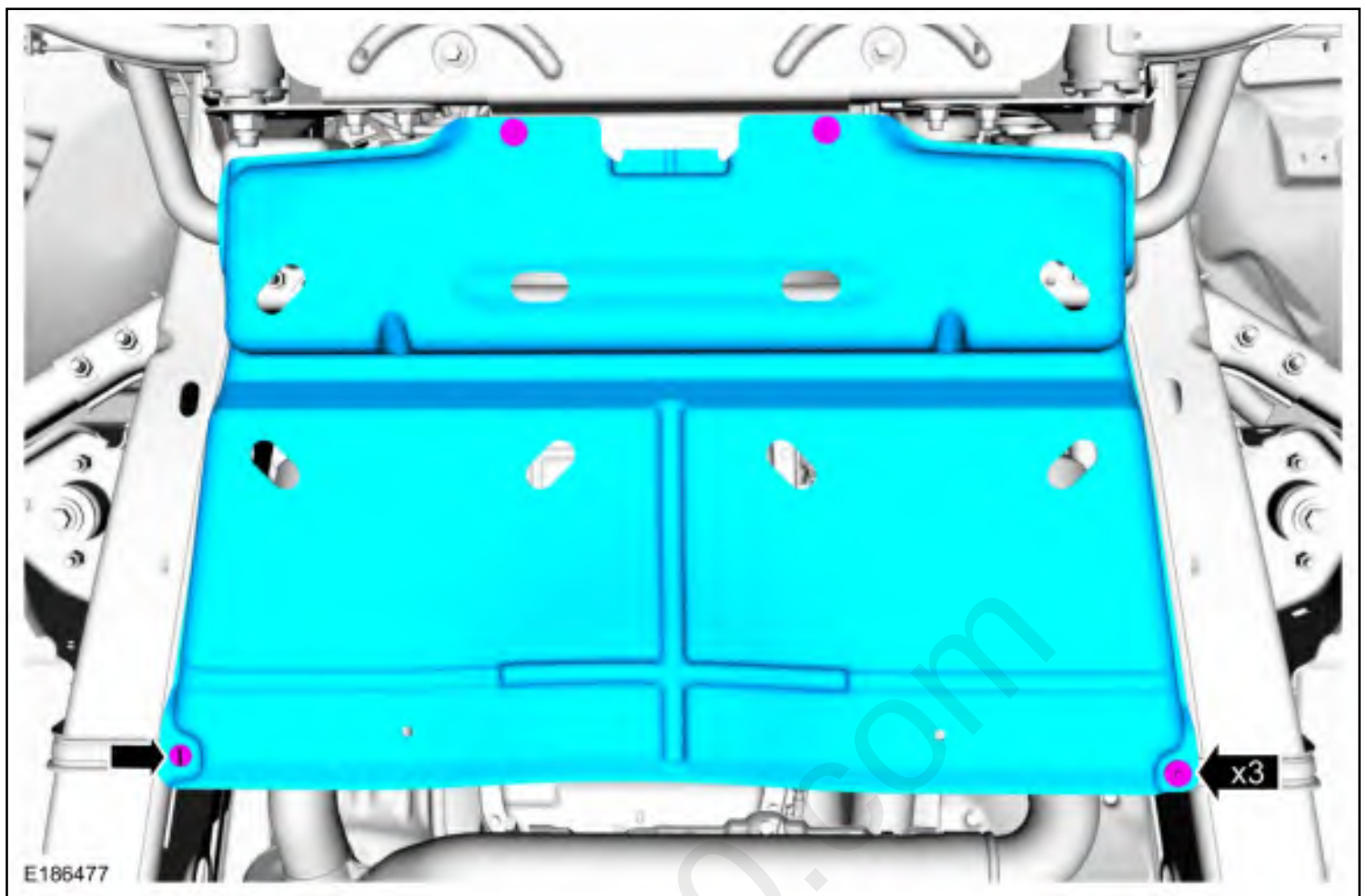
NOTE: Vehicles are equipped with either a skid plate or a transmission shield.

9. If equipped, install the skid plate and the bolts.

Torque: 22 lb.ft (30 Nm)

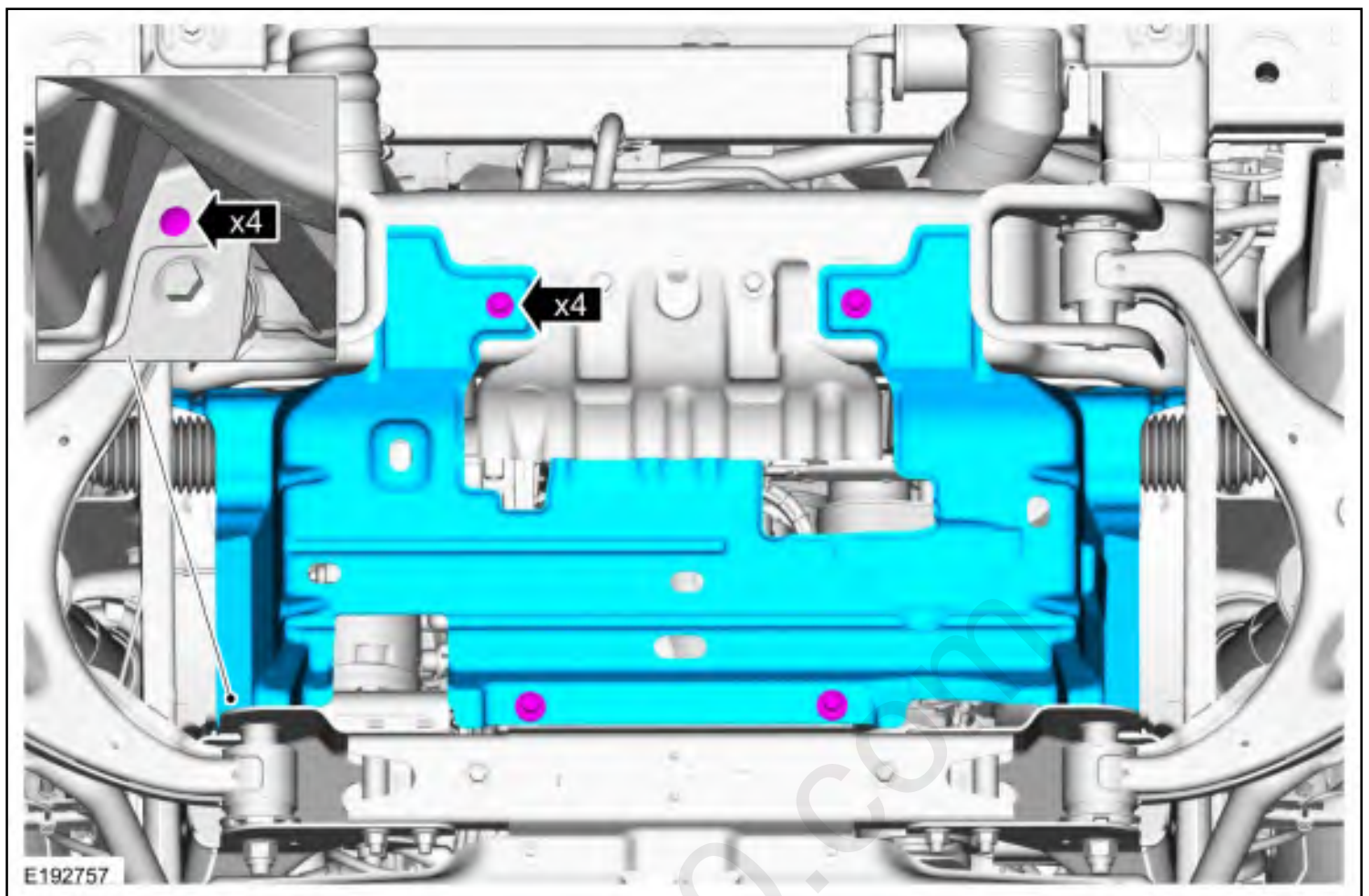


10. If equipped, install the transmission shield, turn the 1/4 turn retainer and install the bolts.
Torque: 62 lb.in (7 Nm)



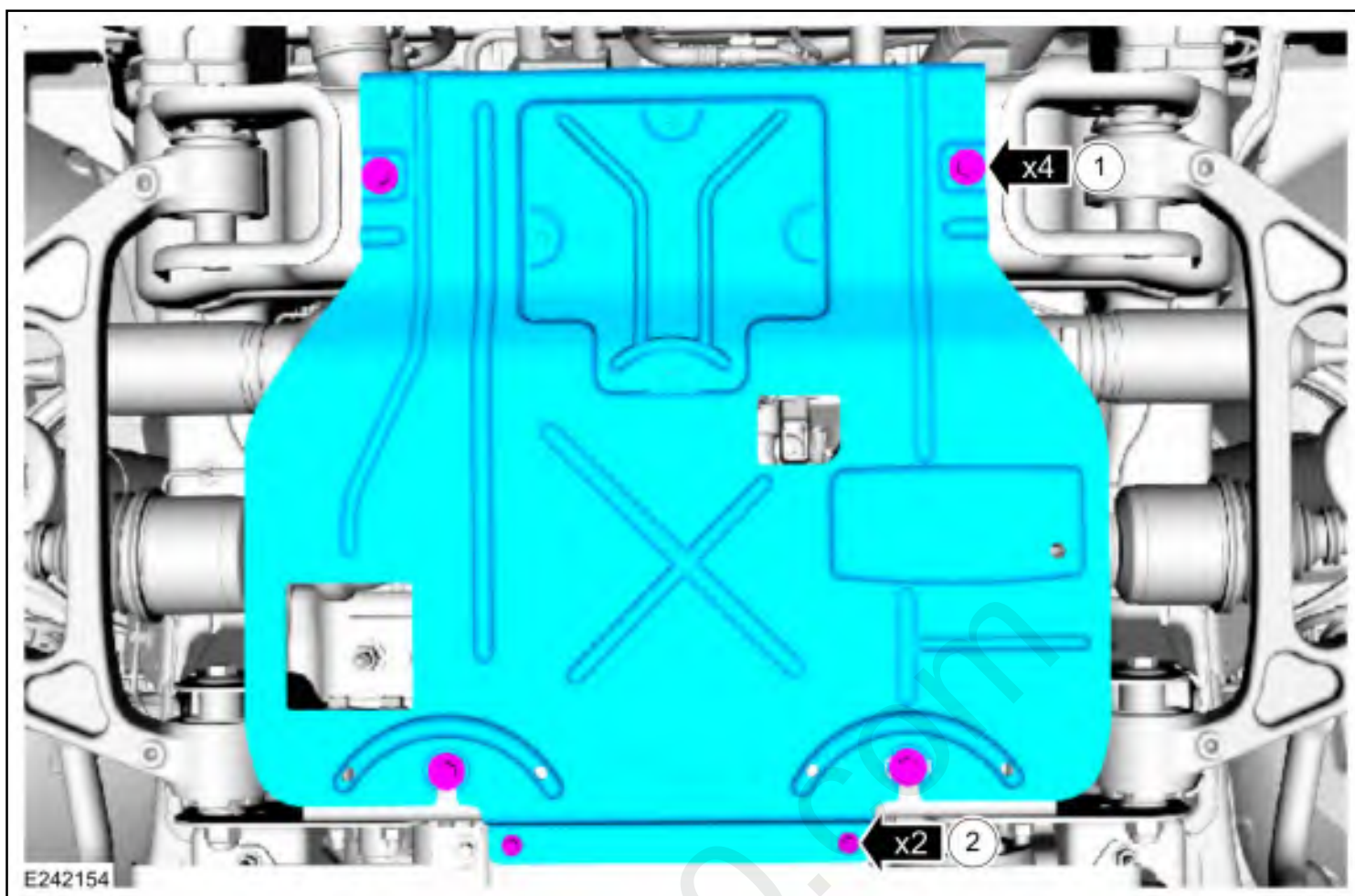
NOTE: Vehicles are equipped with either a splash shield or a skid plate.

11. If equipped, install the splash shield, the pushpins and the bolts.
Torque: 22 lb.ft (30 Nm)

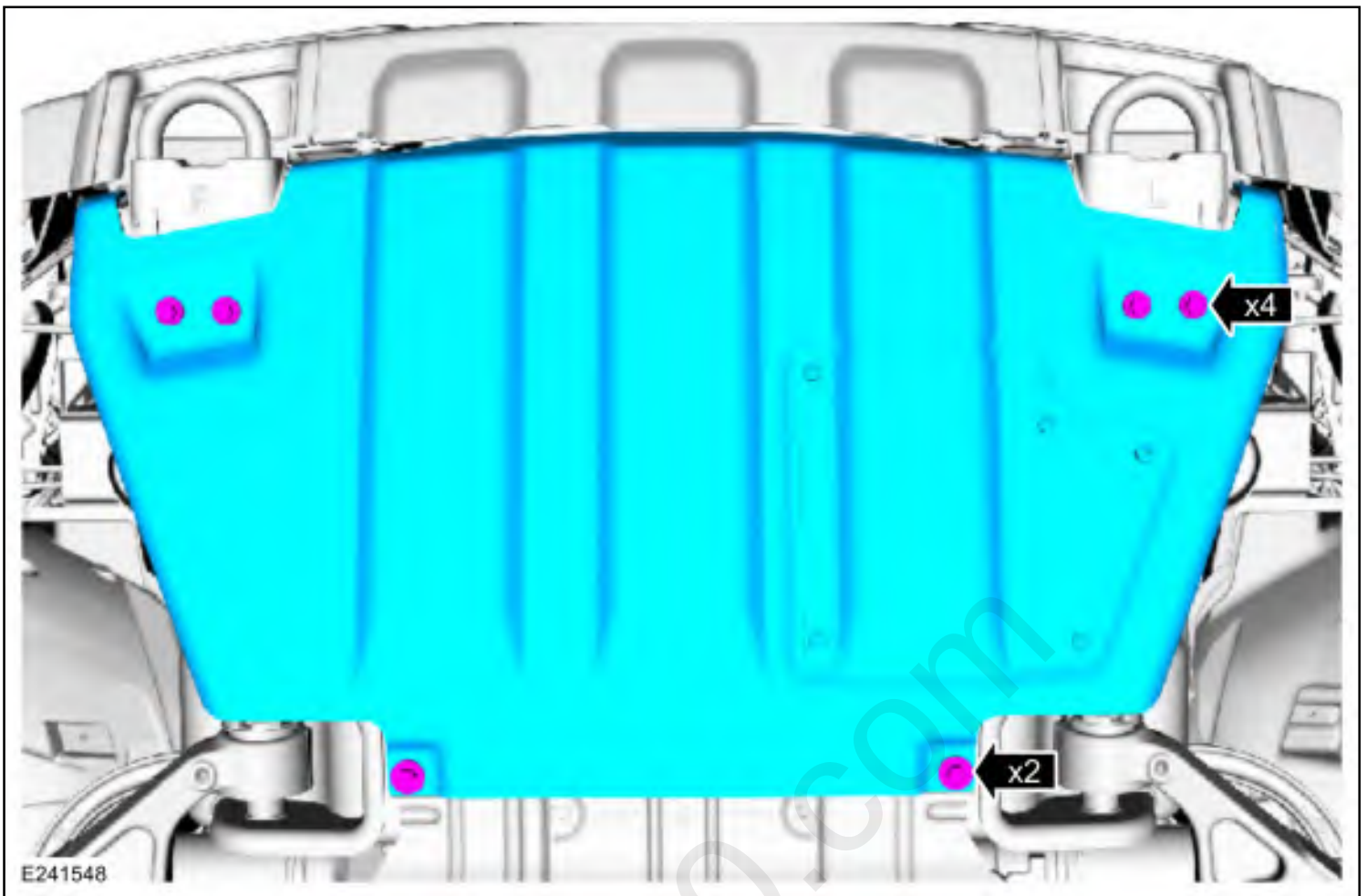


12. If equipped, install the skid plate and the bolts.

- *Torque:* 22 lb.ft (30 Nm)
- *Torque:* 106 lb.in (12 Nm)



13. If equipped, install the skid plate and the bolts.
Torque: 22 lb.ft (30 Nm)



14. Check the transmission fluid level and adjust as necessary.

Refer to: [Transmission Fluid Level Check](#) (307-01B Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).