

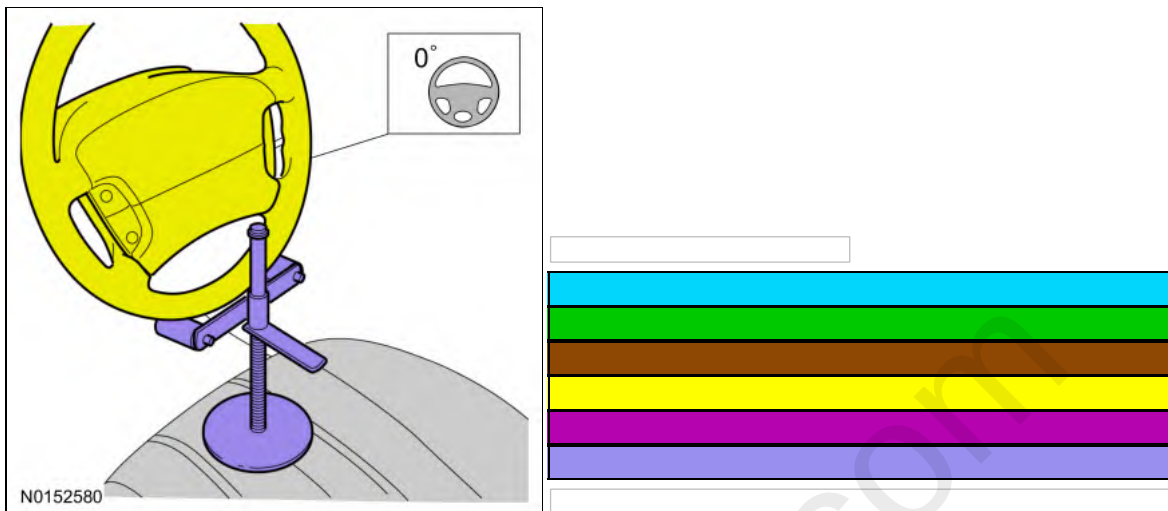
Exhaust Manifold LH

Removal

1. With the vehicle in NEUTRAL, position it on a hoist.
Refer to: Jacking and Lifting - Overview (100-02 Jacking and Lifting, Description and Operation).

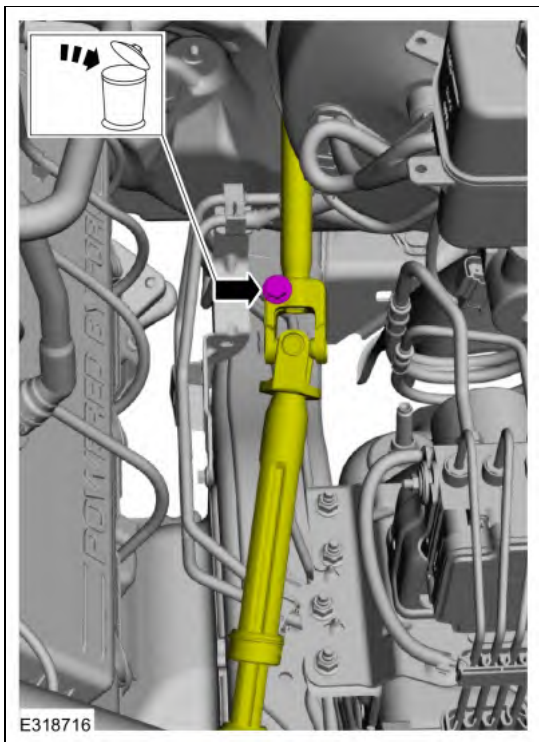
2. **NOTE:** Use a steering wheel holding device, such as Hunter[®] 28-75-1 or equivalent.

Using a suitable holding device, hold the steering wheel in the straight-ahead position.

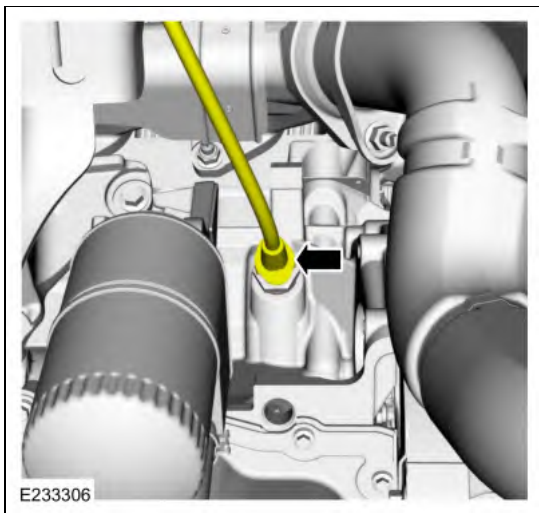


3. Remove the LHF front splash shield.
Refer to: Fender Splash Shield (501-02 Front End Body Panels, Removal and Installation).
4. **NOTICE:** Do not allow the steering column shaft to rotate while the intermediate shaft is disconnected or damage to the clockspring can result. If there is evidence that the shaft has rotated, the clockspring must be removed and recentered. For additional information, refer to Section 501-20B.

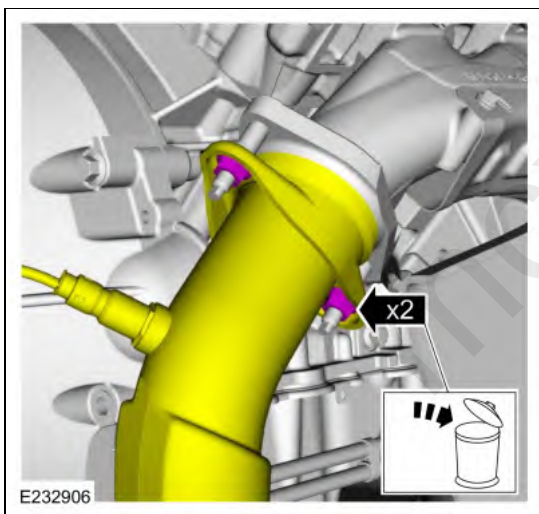
Remove and discard the upper steering column shaft-to-steering column bolt and disconnect the upper steering column shaft from the steering column.



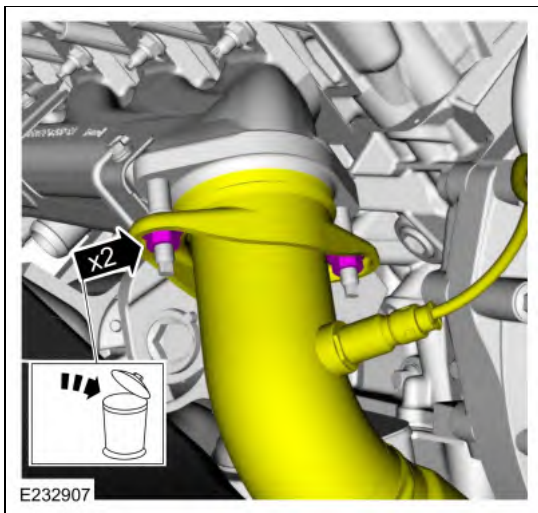
5. If equipped with an engine block heater, disconnect the engine block heater electrical connector and position the wiring harness aside.



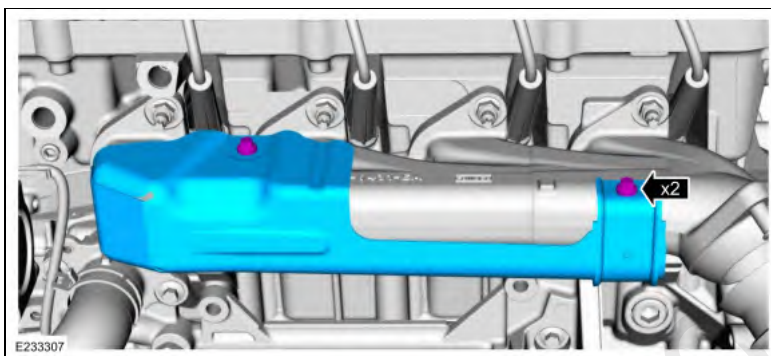
- 6.
- Remove the RH catalytic converter pipe-to-manifold nuts and discard.
 - Make sure that the mating faces are clean and free of foreign material.



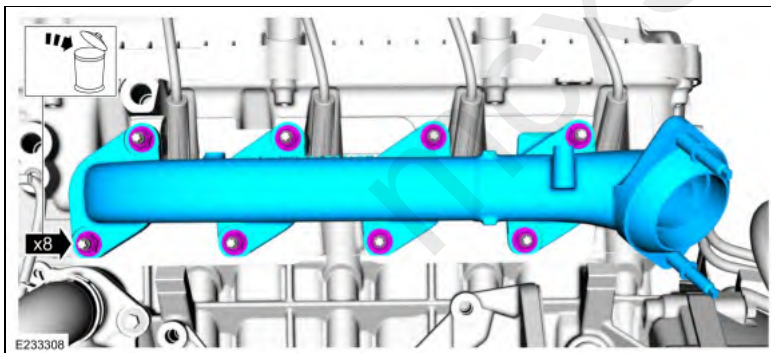
- 7.
- Remove the LH catalytic converter pipe-to-manifold nuts and discard.
 - Make sure that the mating faces are clean and free of foreign material.



8. Remove the bolts and the exhaust manifold heat shield.



- 9.
- Remove the nuts and the exhaust manifold.
 - Discard the nuts.



10. Remove and discard the exhaust manifold gaskets and studs.



11. **NOTICE:** Do not use metal scrapers, wire brushes, power abrasive discs or other abrasive means to clean the sealing surfaces. These may cause scratches and gouges resulting in leak paths.

Clean and inspect the exhaust manifold.

Refer to: Exhaust Manifold Cleaning and Inspection (303-00 Engine System - General Information, General Procedures).

Installation

1.
 - Install the new exhaust manifold studs.
Torque: 18 lb.ft (25 Nm)
 - Install the new exhaust manifold gaskets.



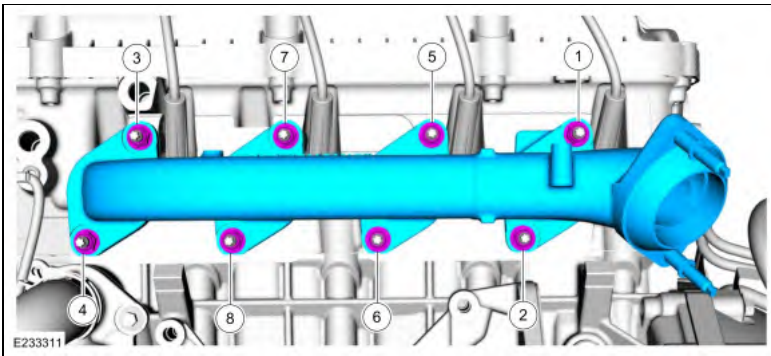
2.
 - Install the exhaust manifold and the new nuts finger-tight.
 - **NOTE:** *Torque sequence must be performed twice.*

Tighten the exhaust manifold nuts in sequence shown.

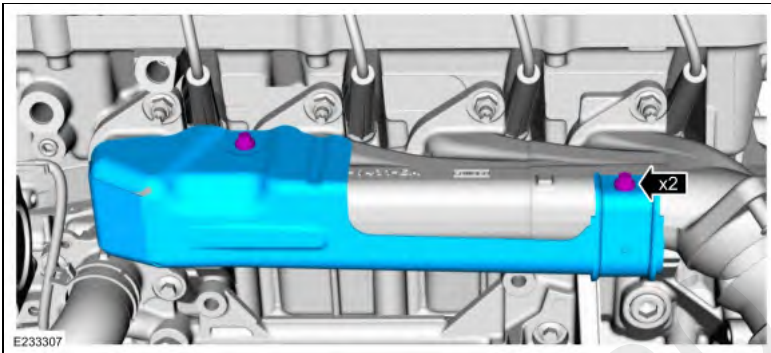
Torque:

Stage 1: 18 lb.ft (24 Nm)

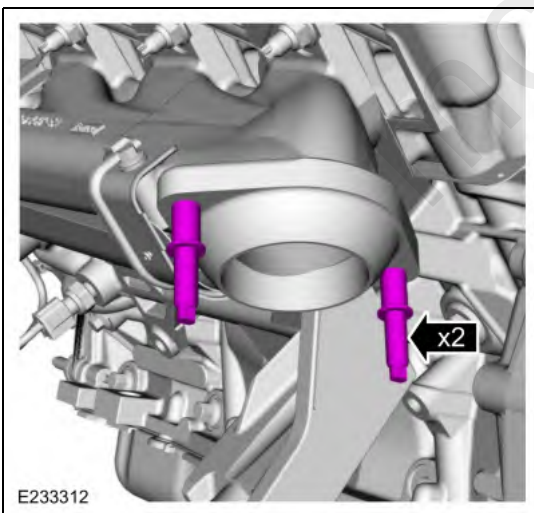
Stage 2: 23 lb.ft (31 Nm)



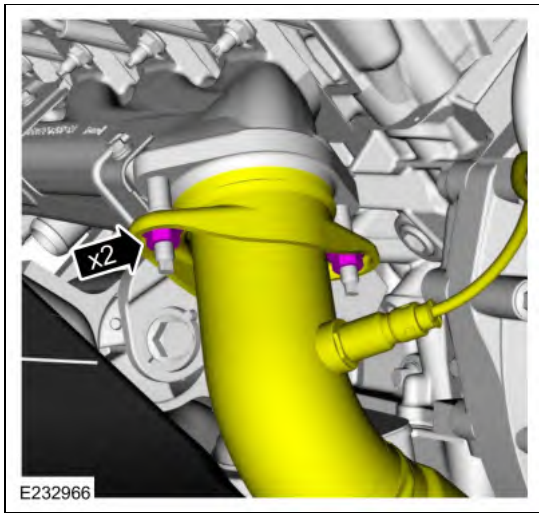
3. Position the exhaust manifold heat shield and install the bolts.
Torque: 106 lb.in (12 Nm)



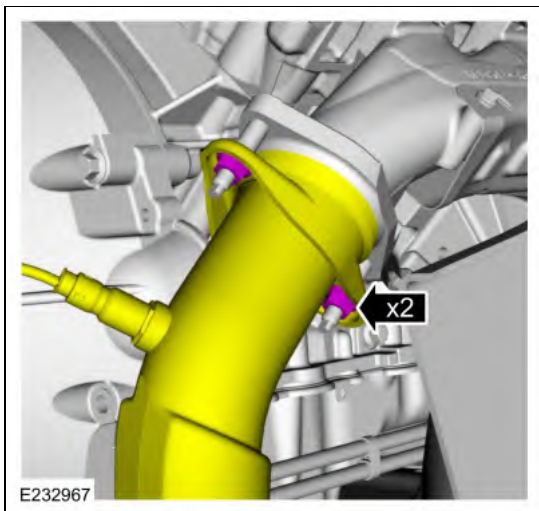
4. **NOTE:** Some replacement exhaust manifolds do not come with studs.
 If necessary, install new studs.
Torque: 30 lb.ft (40 Nm)



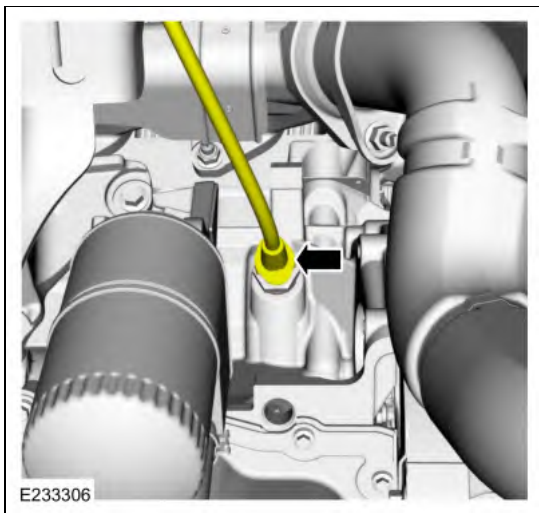
5. Install the new LH catalytic converter pipe-to-manifold nuts.
Torque: 30 lb.ft (40 Nm)



6. Install the new RH catalytic converter pipe-to-manifold nuts.
Torque: 30 lb.ft (40 Nm)



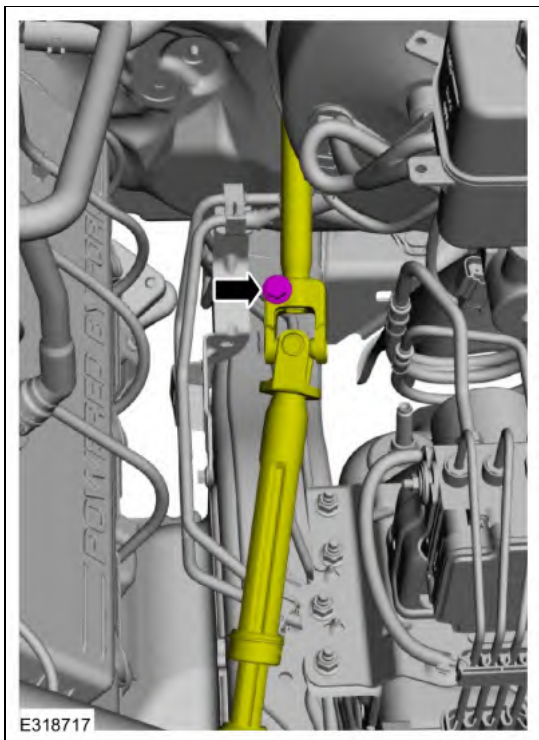
7. If equipped with an engine block heater, position the wiring harness and connect the engine block heater electrical connector.



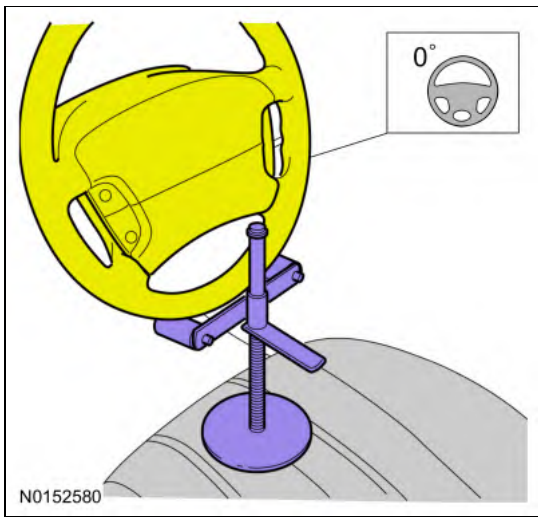
8. **NOTICE:** Do not allow the steering column shaft to rotate while the intermediate shaft is disconnected or damage to the clockspring can result. If there is evidence that the shaft has rotated, the clockspring must be removed and recentered. For additional information, refer to Section 501-20B.

Connect the upper steering column shaft to the steering column and install a new upper steering column shaft-to-steering column bolt.

Torque: 21 lb.ft (28 Nm)



9. Install the LHF front splash shield.
Refer to: Fender Splash Shield (501-02 Front End Body Panels, Removal and Installation).
10. Remove the holding device.



11. Start the engine and check the exhaust for leaks.

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