
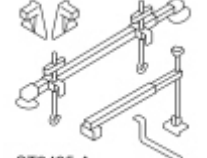


Exhaust Manifold — LH

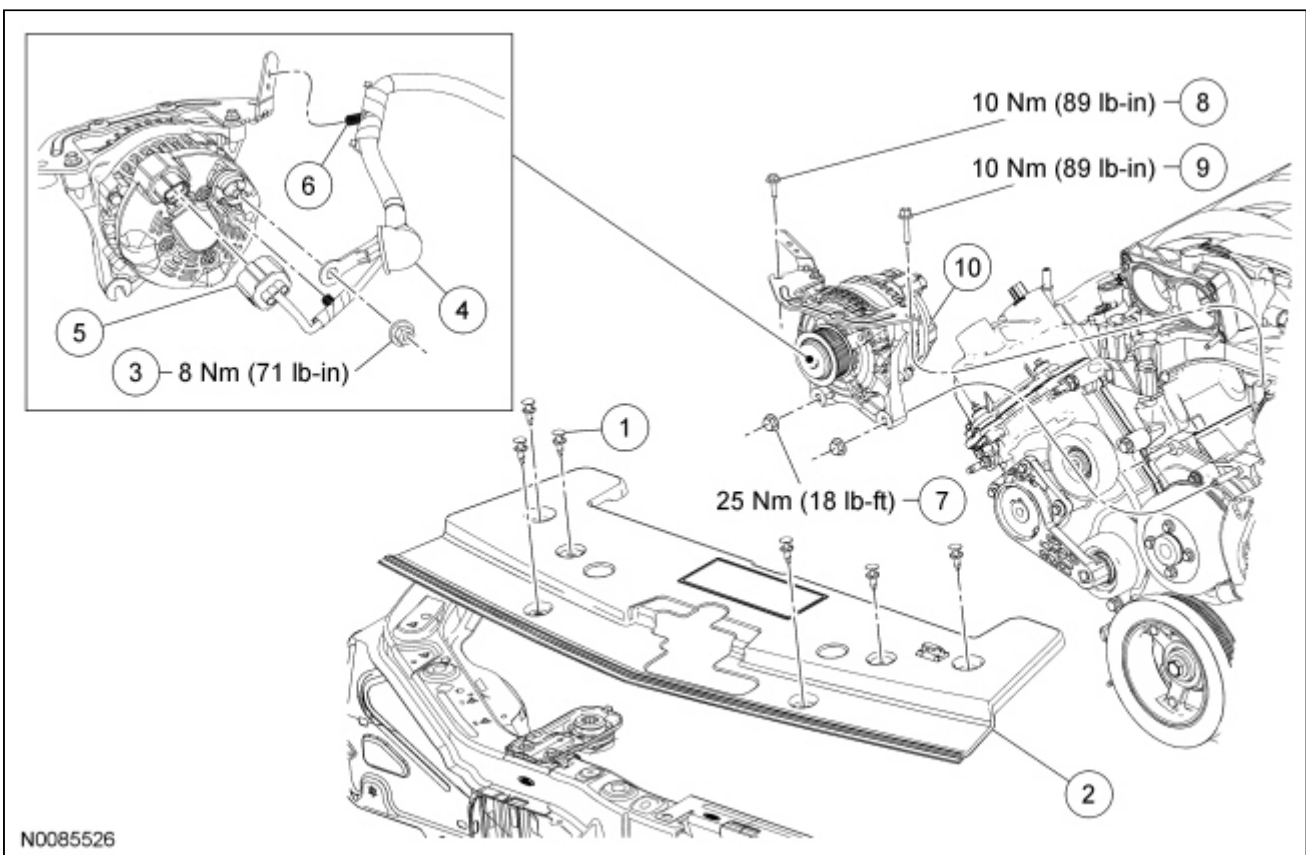
Special Tool(s)

 <p>ST1595-A</p>	Lifting Bracket, Engine 303-050 (T70P-6000)
 <p>ST2425-A</p>	Support Bar, Engine 303-F072

Material

Item	Specification
Motorcraft® Metal Surface Prep ZC-31-A	—

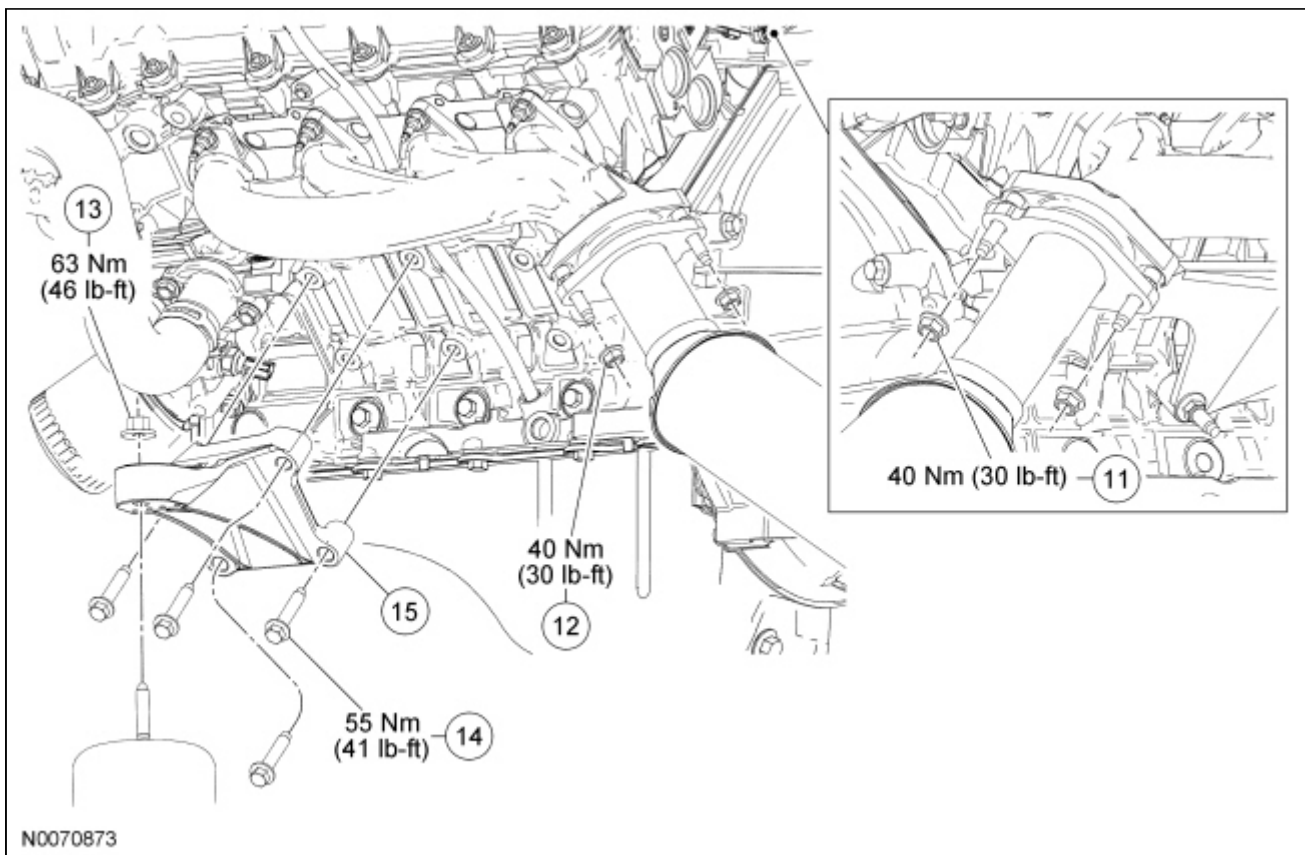
Generator and Radiator Sight Shield



Item	Part Number	Description
1	—	Pin-type retainer

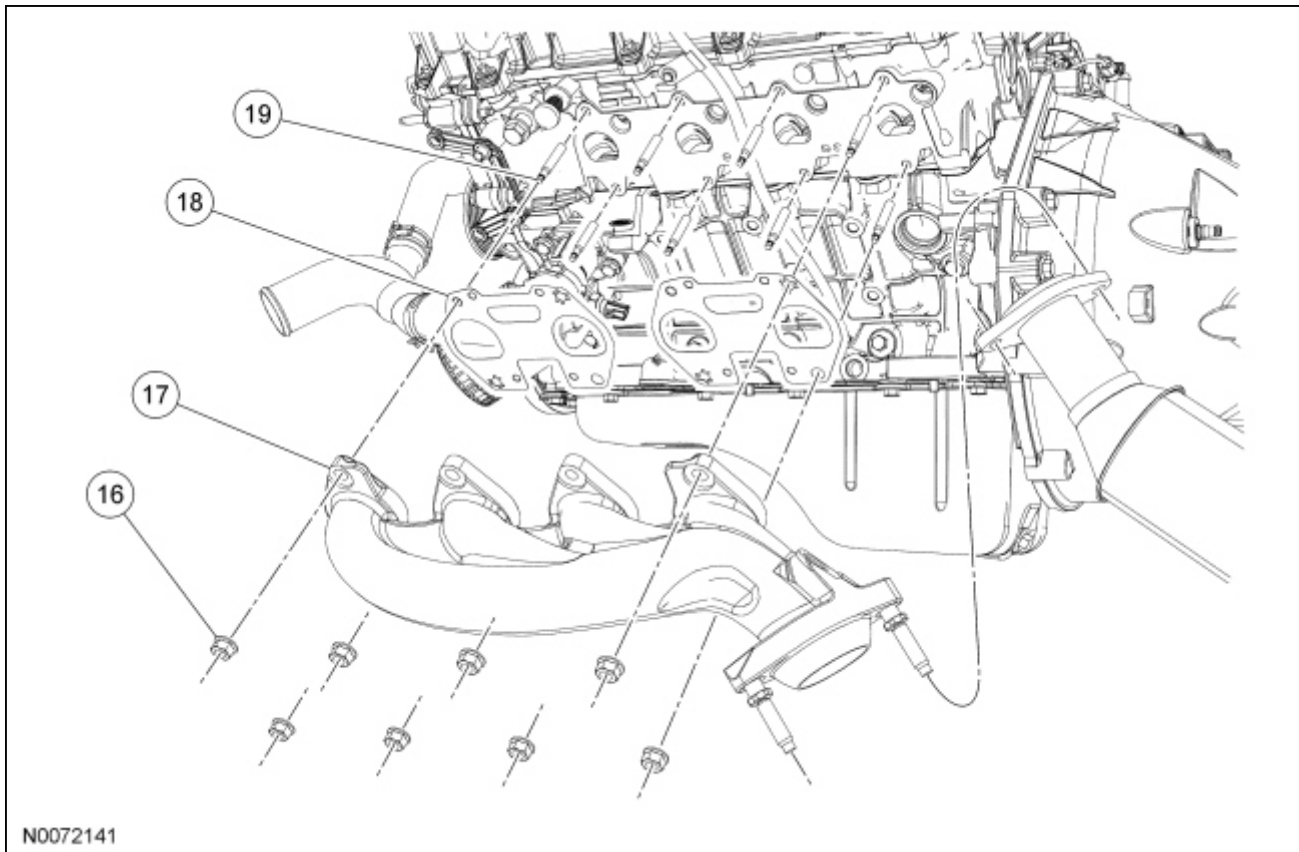
2	8C291	Radiator sight shield
3	W705790	B+ terminal nut
4	—	B+ terminal cover (part of 14305)
5	14A4644	Generator electrical connector (part of 14305)
6	—	Wiring harness pin-type retainer (2 required) (part of 14305)
7	N804758	Generator nut (2 required)
8	N807309	Generator bracket bolt
9	W704682	Generator bracket bolt
10	10300	Generator

LH Engine Support Insulator and RH/LH Catalytic Converter Fasteners



Item	Part Number	Description
11	W701706	RH catalytic converter-to-exhaust manifold nut (2 required)
12	W701706	LH catalytic converter-to-exhaust manifold nut (2 required)
13	N621943	LH engine support insulator nut
14	W500721	LH engine support insulator bracket bolt (4 required)
15	6B033	LH engine support insulator bracket

LH Exhaust Manifold

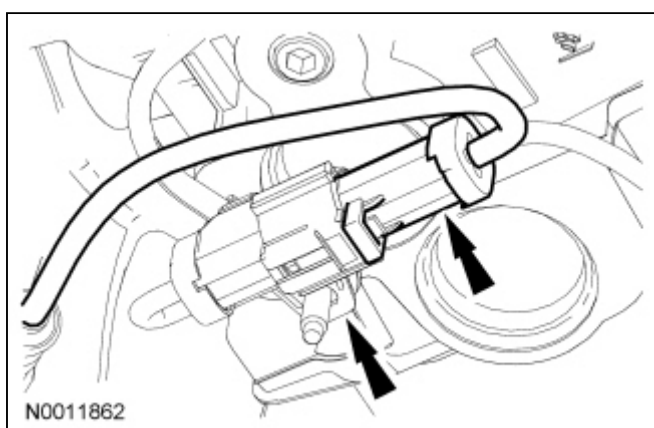


N0072141

Item	Part Number	Description
16	W701706	LH exhaust manifold nut (8 required)
17	9431	LH exhaust manifold
18	9Y431	LH exhaust manifold gasket (2 required)
19	W707747	LH exhaust manifold stud (8 required)

Removal

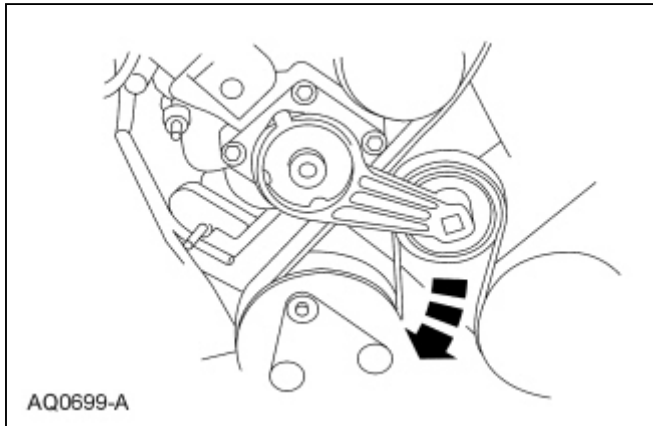
1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to [Section 100-02](#).
2. Disconnect the battery ground cable. For additional information, refer to [Section 414-01](#).
3. Remove the Air Cleaner (ACL) assembly. For additional information, refer to [Section 303-12](#).
4. Remove the Throttle Body (TB) For additional information, refer to [Section 303-04B](#).
5. Disconnect the LH Heated Oxygen Sensor (HO2S) electrical connector and wiring retainer.



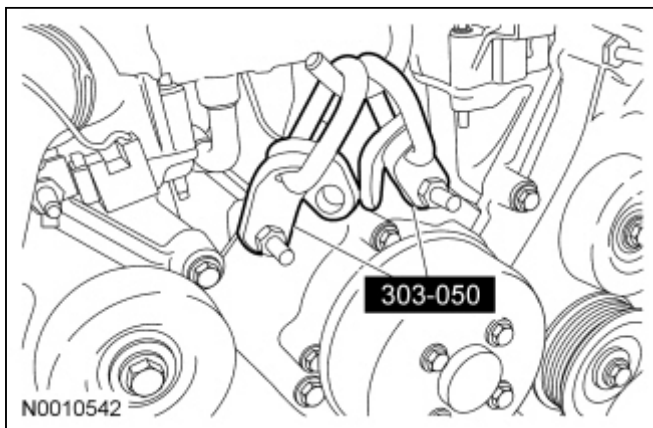
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6. Remove the 2 RH catalytic converter-to-exhaust manifold nuts.

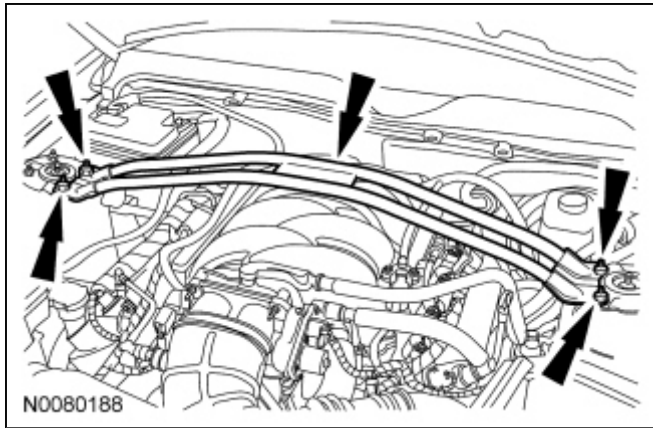
7. Remove the 2 LH catalytic converter-to-exhaust manifold nuts.
8. Remove the 6 pin-type retainers and the radiator sight shield.
9. Using a suitable belt tensioner release tool, rotate the accessory drive belt tensioner clockwise and position the accessory drive belt aside from the generator pulley.



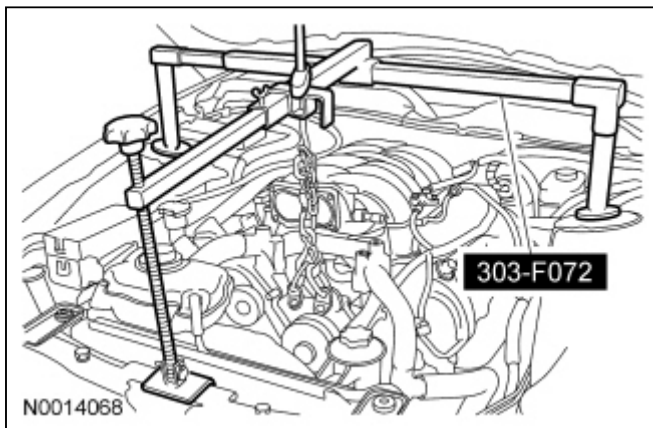
10. Remove the 2 outer generator bracket bolts.
11. Remove the 2 lower generator nuts.
12. Disconnect the generator electrical connector and pin-type retainers.
13. Position the B+ terminal cover aside and remove the B+ terminal nut.
 - Remove the generator.
14. Install the Engine Lifting Brackets.



15. If equipped, remove the 4 nuts and the strut tower cross brace.



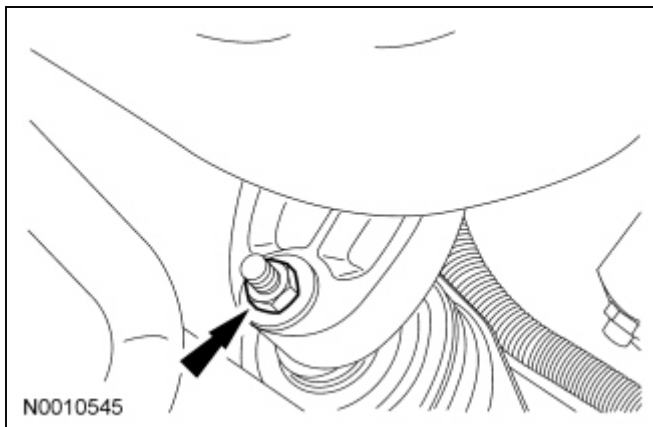
16. Install the Engine Support Bar.



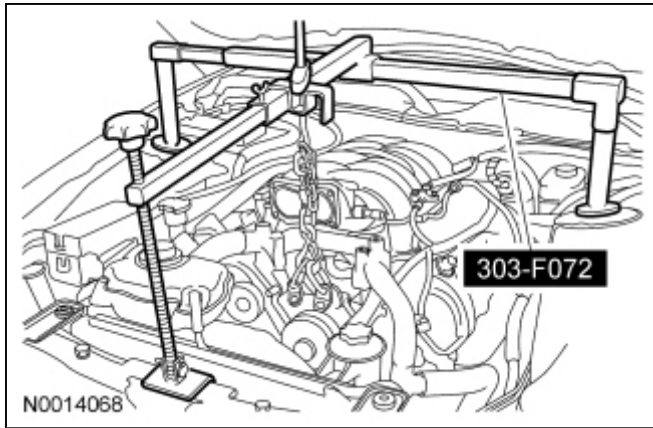
17. **NOTE:** Both the RH and LH engine support insulator nuts must be removed to allow the engine to be raised.

NOTE: RH shown, LH similar.

Remove the RH and LH engine support insulator nuts.

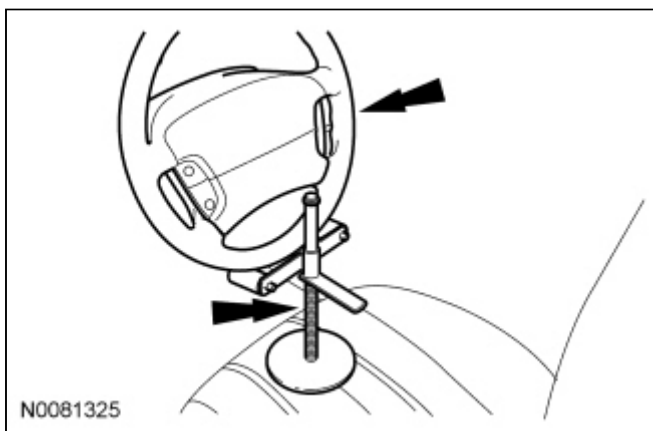


18. Using the Engine Support Bar, raise the engine 40 mm (1.57 in).



19. **NOTE:** Use a steering wheel holding device (such as Hunter® 28-75-1 or equivalent).

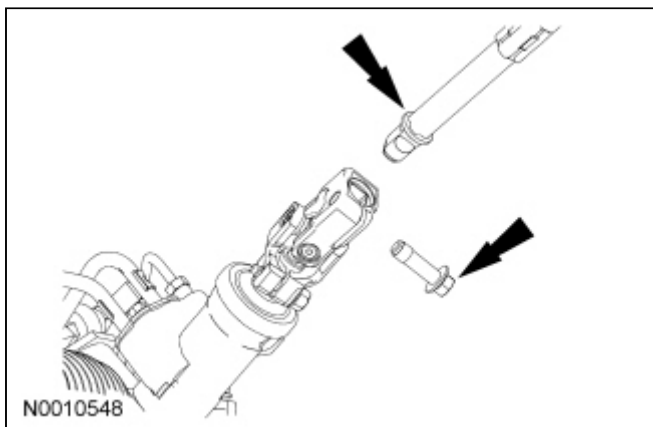
Using a suitable holding device, hold the steering wheel in the straight-ahead position.



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

Remove the bolt and disconnect the steering coupling.

- Discard the bolt.



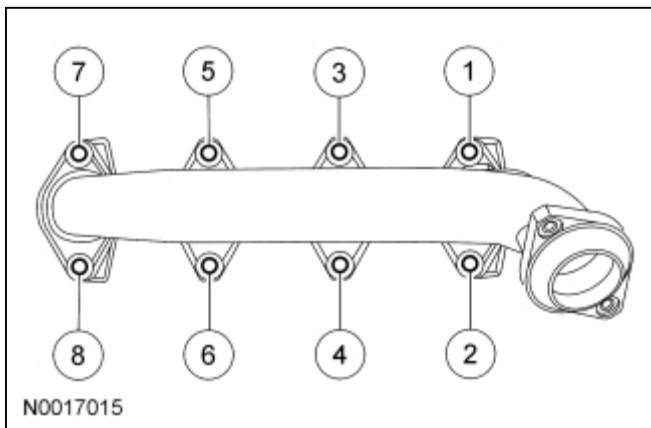
21. Remove the 4 bolts and the LH engine support insulator bracket.
22. Remove the 8 nuts and the exhaust manifold.
- Discard the nuts and gaskets.
23. Clean and inspect the LH exhaust manifold. For additional information, refer to [Section 303-00](#).

24. Remove and discard the 8 LH exhaust manifold studs.
25. **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. Use a plastic scraper to clean the sealing surfaces.**

Clean the sealing surfaces with metal surface prep. Follow the directions on the packaging.

Installation

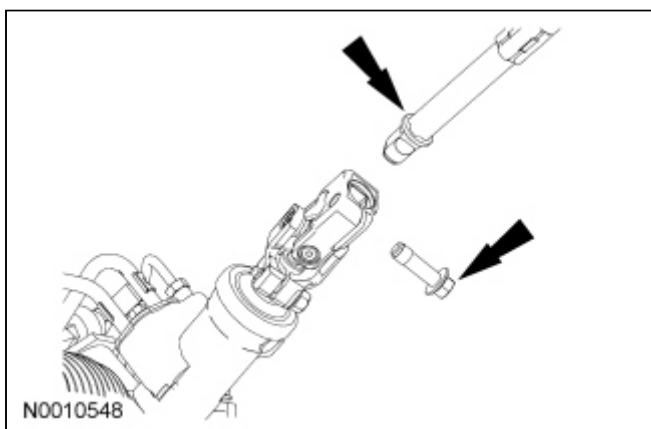
1. Install 8 new LH exhaust manifold studs.
 - Tighten to 12 Nm (106 lb-in).
2. Install new exhaust manifold gaskets.
3. Install the exhaust manifold and 8 new nuts.
 - Tighten the nuts in the sequence shown to 25 Nm (18 lb-ft).



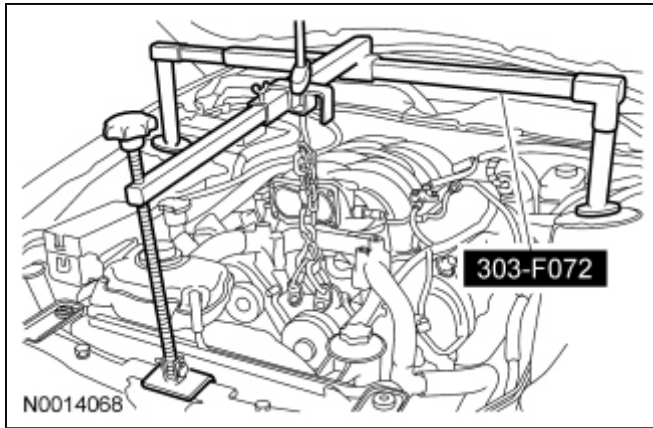
4. Install the LH engine support insulator bracket and the 4 bolts.
 - Tighten to 55 Nm (41 lb-ft).
5. **NOTICE: Do not allow the steering wheel to rotate while the steering column intermediate shaft is disconnected or damage to the clockspring can result. If there is evidence that the wheel has rotated, the clockspring must be removed and recentered. For additional information, refer to [Section 501-20B](#).**

Connect the steering coupling and install the new bolt.

- Tighten to 25 Nm (18 lb-ft).



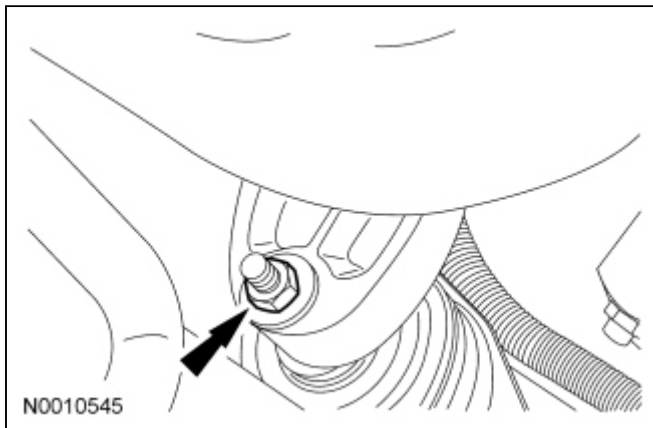
6. Using the Engine Support Bar, lower the engine.



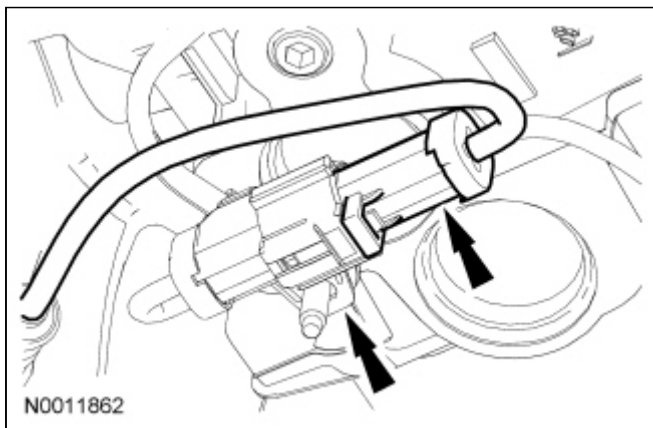
7. If equipped, install the strut tower cross brace and the 4 nuts.
 - Tighten to 35 Nm (26 lb-ft).
8. **NOTE:** RH shown, LH similar.

Install the RH and LH engine support insulator nuts.

- Tighten to 63 Nm (46 lb-ft).



9. Install the 2 LH catalytic converter-to-exhaust manifold nuts.
 - Tighten to 40 Nm (30 lb-ft).
10. Install the 2 RH catalytic converter-to-exhaust manifold nuts.
 - Tighten to 40 Nm (30 lb-ft).
11. Connect the LH [HO2S](#) electrical connector and wiring retainer.

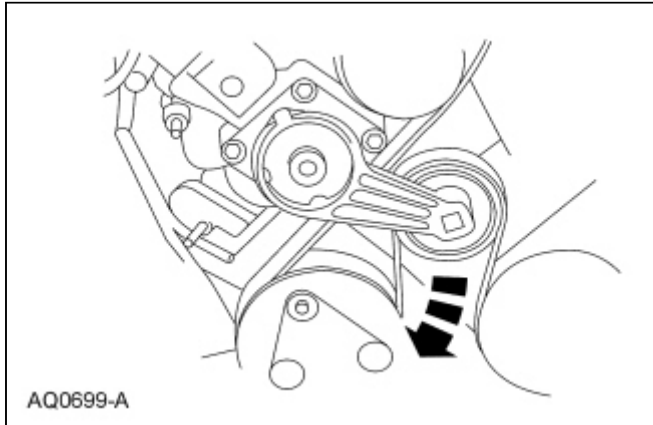


12. **NOTE:** Make sure the B+ cable is positioned close to the generator when the nut is being tightened.

Position the generator and install the B+ terminal and nut.

- Tighten to 8 Nm (71 lb-in).

13. Connect the generator electrical connector and pin-type retainers.
14. Install the 2 lower generator nuts.
 - Tighten to 25 Nm (18 lb-ft).
15. Install the 2 outer generator bracket bolts.
 - Tighten to 10 Nm (89 lb-in).
16. Using a suitable belt tensioner release tool, rotate the accessory drive belt tensioner clockwise and position the accessory drive belt onto the generator pulley.



17. Install the radiator sight shield and 6 pin-type retainers.
 18. Install the [TB](#). For additional information, refer to [Section 303-04B](#).
 19. Install the [ACL](#) assembly. For additional information, refer to [Section 303-12](#).
 20. Connect the battery ground cable. For additional information, refer to [Section 414-01](#).
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