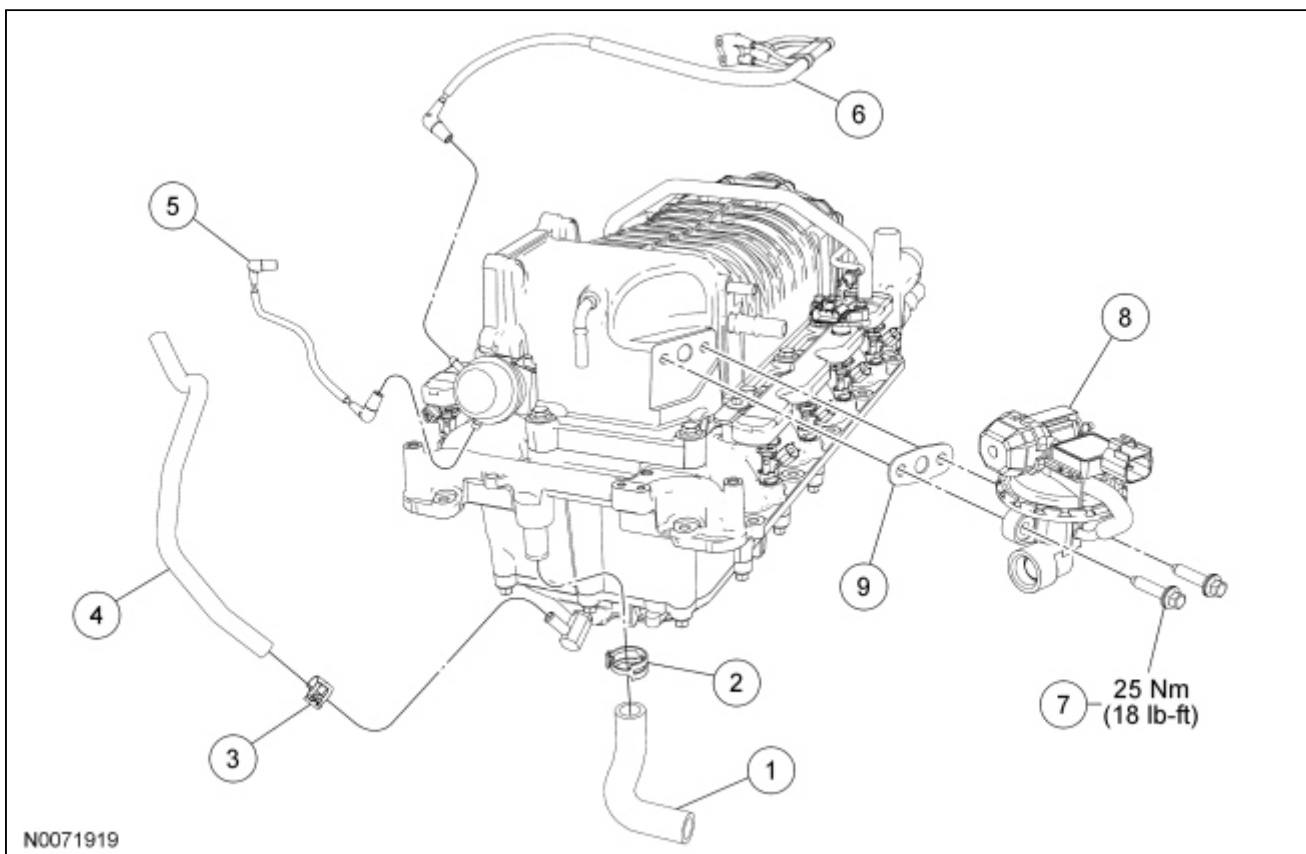


Intake Manifold Assembly

Material

Item	Specification
Motorcraft® Premium Gold Engine Coolant with Bittering Agent (bittered in US only) VC-7-B (US); CVC-7-A (Canada); or equivalent (yellow color)	WSS-M97B51-A1
Motorcraft® SAE 5W-50 Full Synthetic Motor Oil XO-5W50-QGT or equivalent	WSS-M2C931-B
Threadlock and Sealer TA-25	WSK-M2G351-A5

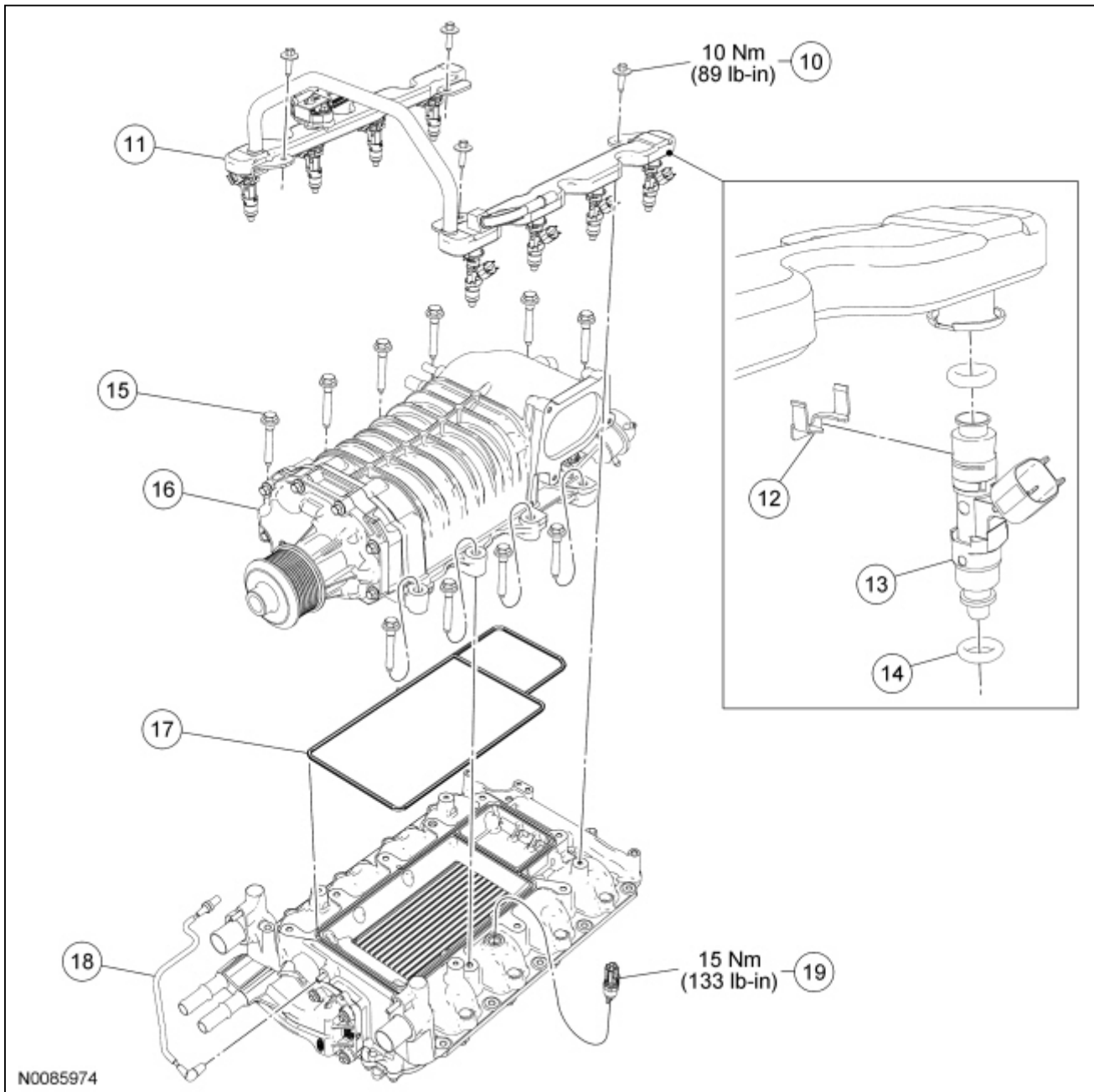
Intake Manifold Assembly (View 1 of 3)



Item	Part Number	Description
1	18C553	Heater hose
2	—	Heater hose clamp (part of 18C553)
3	W527352	Supercharger (SC) bubbler hose clamp
4	6C324	SC bubbler hose
5	9E498	Lower SC bypass actuator vacuum tube
6	9E498	Upper SC bypass actuator vacuum tube
7	W701232	EGR system module bolt (2 required)

8	9Y456	EGR system module
9	9D476	EGR system module gasket

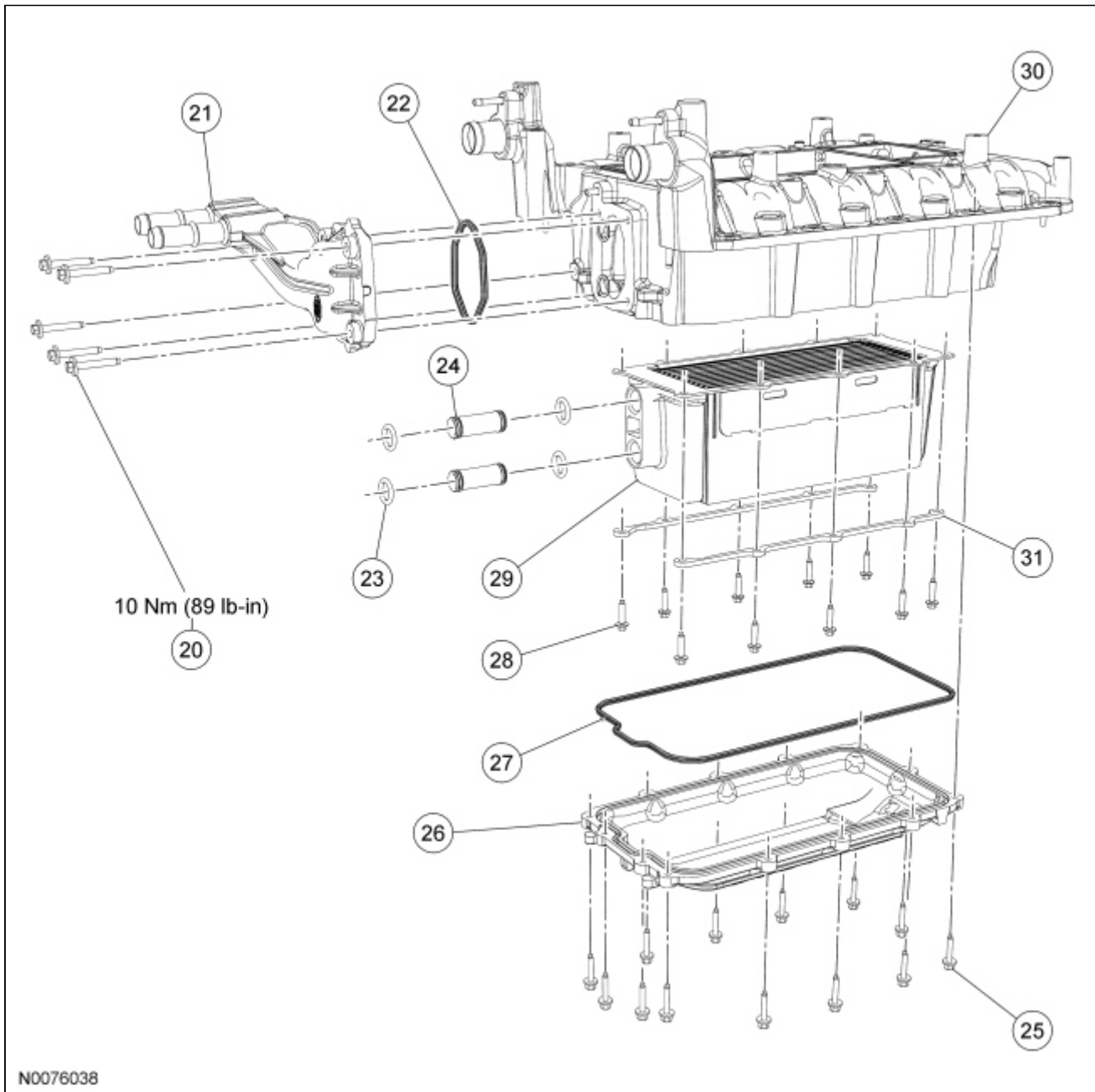
Intake Manifold Assembly (View 2 of 3)



Item	Part Number	Description
10	N804394	Fuel rail bolt (4 required)
11	9F792	Fuel rail
12	9F907	Fuel injector clip (8 required)
13	9F593	Fuel injector (8 required)
14	9229	Fuel injector O-ring (16 required)
15	N806177	SC bolt (10 required)
16	6F066	SC
17	9H486	SC gasket

18	9E498	Fuel rail and pressure and temperature sensor vacuum tube
19	12A697	Intake Air Temperature 2 (IAT2) sensor

Intake Manifold Assembly (View 3 of 3)



Item	Part Number	Description
20	N807071	Charge Air Cooler (CAC) coolant tube assembly bolt (5 required)
21	9N491	CAC coolant tube assembly
22	9L438	CAC coolant tube assembly gasket
23	N802927	CAC tube O-ring seal (4 required)
24	9L442	CAC coolant connector tube (2 required)
25	W704682	Lower intake manifold cover bolt (13 required)
26	9S455	Lower intake manifold cover

27	9E436	Lower intake manifold cover gasket
28	N605893	CAC bolt (10 required)
29	6K775	CAC
30	9424	Upper intake manifold
31	6K808	CAC rail support (2 required)

Disassembly

1. Remove the heater hose.
2. Remove the Supercharger (SC) bubbler hose.
3. Remove the upper and lower [SC](#) bypass actuator vacuum tubes.
4. Remove the 2 bolts and the EGR system module.
 - Discard the gasket.
5. Disconnect the vacuum tube from the fuel rail and pressure temperature sensor.
6. Remove the 4 fuel rail bolts.
 - Remove the fuel rail and injectors as an assembly.
7. **NOTE:** The fuel injector clip can be reused if it is not damaged during removal.

Remove the clips and the fuel injectors from the fuel rail.

8. **NOTICE:** Use O-ring seals that are made of special fuel-resistant material. Use of ordinary O-ring seals can cause the fuel system to leak. Do not reuse the O-ring seals.

Remove and discard the fuel injector O-ring seals.

9. Remove the 10 bolts and the [SC](#).
 - Discard the gasket.
10. Remove the vacuum tube.
11. Remove the Intake Air Temperature 2 (IAT2) sensor.
12. Remove the 5 bolts and the Charge Air Cooler (CAC) tube assembly.
 - Discard the gasket.
13. Remove the 2 [CAC](#) coolant connector tubes.
 - Discard the O-ring seals.
14. Remove the 13 bolts and the lower intake manifold cover.
 - Discard the gasket.
15. Remove the 10 bolts, the 2 [CAC](#) rail supports and the [CAC](#).

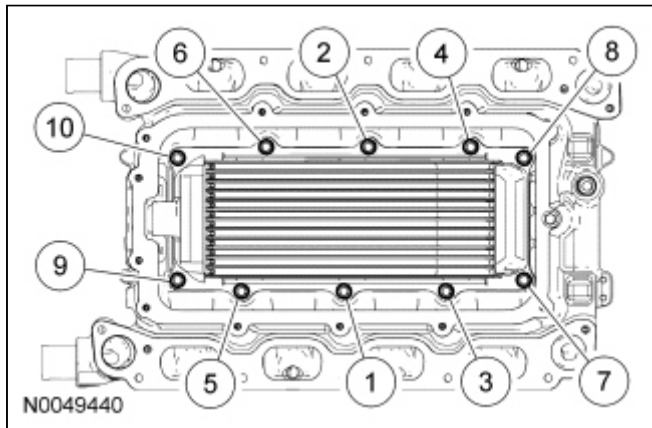
Assembly

1. **NOTICE:** If the engine is repaired or replaced because of upper engine failure, typically including valve or piston damage, check the intake manifold for metal debris. If metal debris is found, install a new intake manifold. Failure to follow these instructions can result in engine damage.

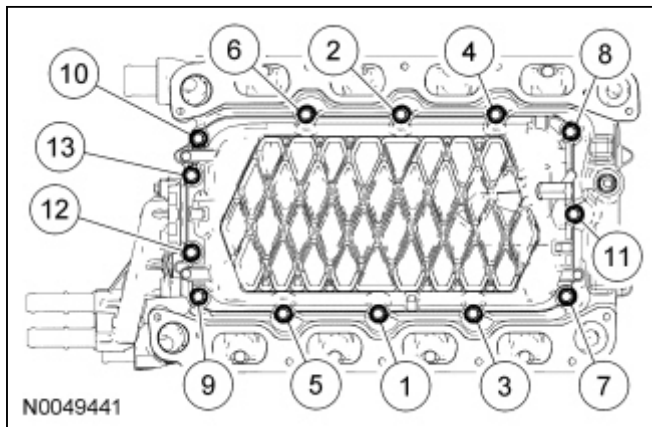
NOTE: Apply threadlock and sealer to the [CAC](#) bolts prior to installation.

Position the [CAC](#), the 2 [CAC](#) rail supports and install the 10 bolts.

- Tighten the bolts in the sequence shown in 2 stages:
 - Stage 1: Tighten to 2 Nm (18 lb-in).
 - Stage 2: Tighten to 10 Nm (89 lb-in).



2. Install a new gasket, the lower intake manifold cover and the 13 bolts.
 - Tighten in the sequence shown to 10 Nm (89 lb-in).



3. **NOTE:** Apply clean engine coolant to the new **CAC** coolant connector tube O-ring seals.

Install new O-ring seals on the **CAC** coolant connector tubes.

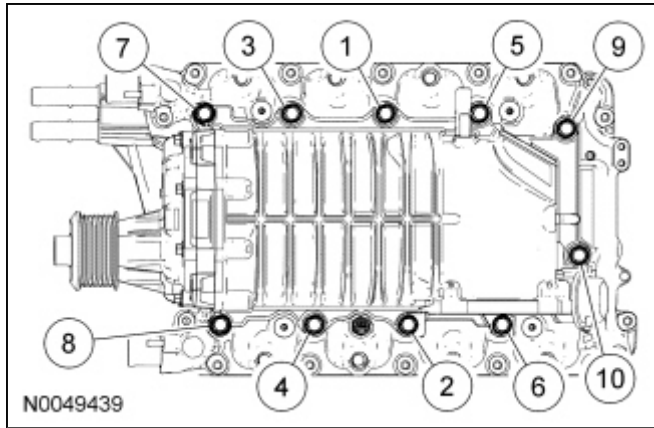
- Install the **CAC** coolant connector tubes.

4. Install a new gasket, the **CAC** coolant tube assembly and the 5 bolts.
 - Tighten to 10 Nm (89 lb-in).

5. Install the **IAT2** sensor.
 - Tighten to 15 Nm (133 lb-in).

6. Install the vacuum tube.

7. Install a new gasket, the **SC** and the 10 bolts.
 - Tighten the bolts in the sequence shown in 2 stages:
 - Tighten to 5 Nm (44 lb-in).
 - Tighten to 25 Nm (18 lb-ft).



8. **NOTE:** Lubricate the new O-ring seal with clean engine oil prior to installation.
Install new O-ring seals on each of the fuel injectors.
 9. Install the fuel injectors onto the fuel rail and install the locking clips.
 10. Install the fuel rail and fuel injector assembly onto the intake manifold.
 11. Install the 4 fuel rail bolts.
 - Tighten to 10 Nm (89 lb-in).
 12. Connect the vacuum tube to the fuel rail and pressure temperature sensor.
 13. Install a new gasket, the EGR system module and the 2 bolts.
 - Tighten to 25 Nm (18 lb-ft).
 14. Install the upper and lower SC bypass actuator vacuum tubes.
 15. Install the SC bubbler hose.
 16. Install the heater hose.
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