

303-01 Engine - 2.3L EcoBoost (201kW/273PS)
Removal and Installation

2019 Ranger
Procedure revision date: 01/4/2019

Oil Cooler

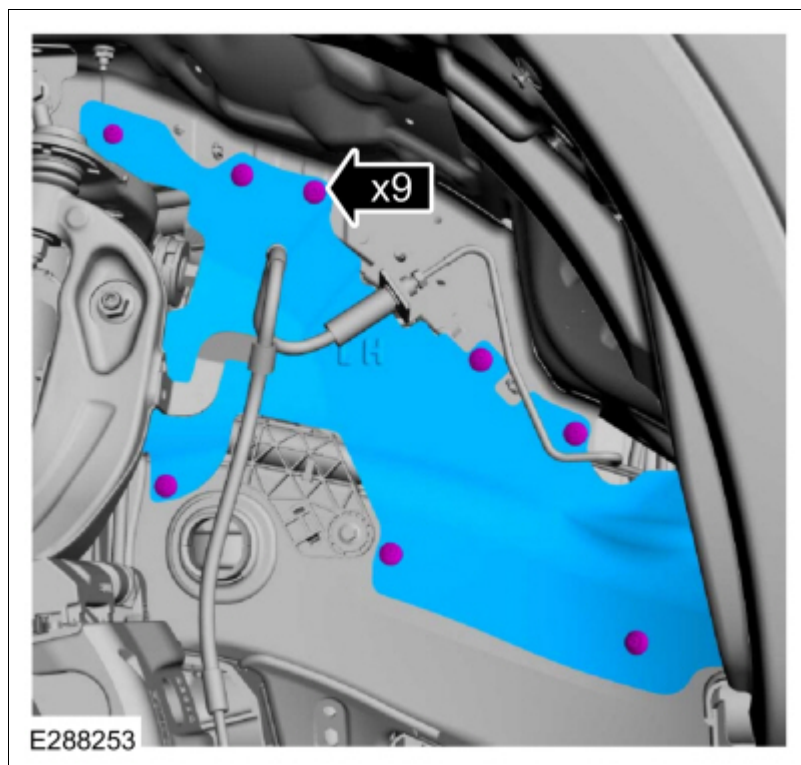
Special Tool(s) / General Equipment

Hose Clamp Remover/Installer
Locking Pliers

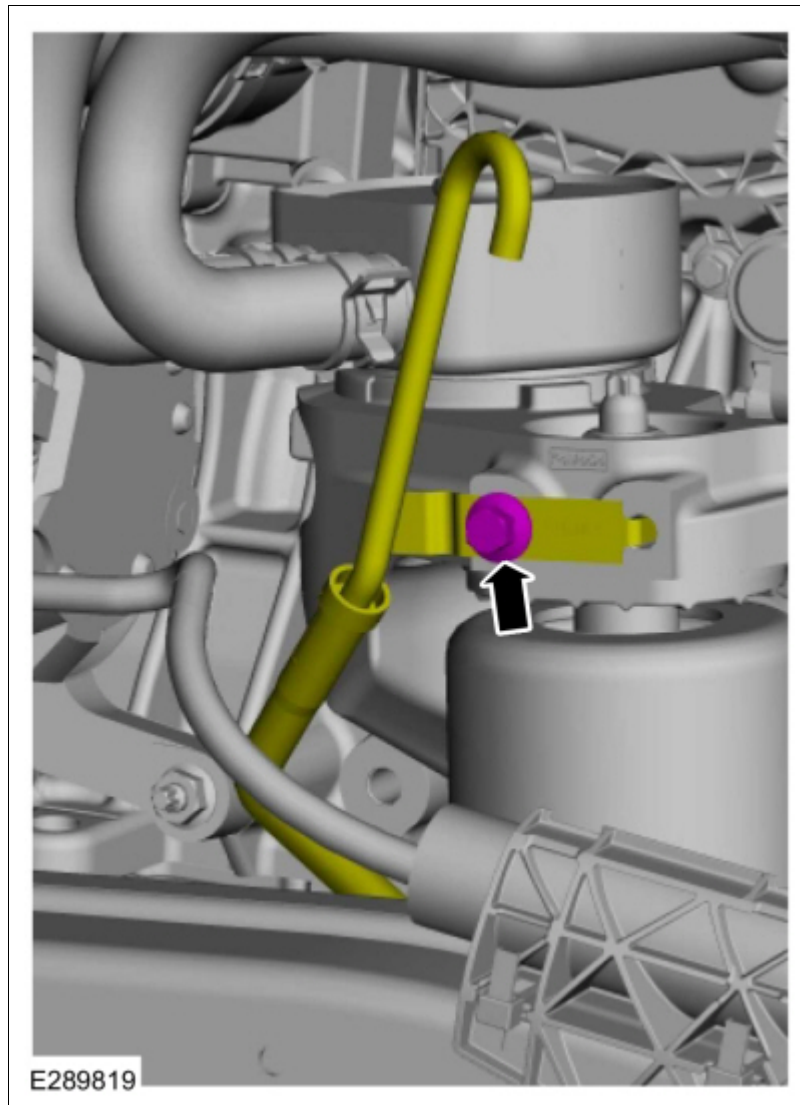
Removal

NOTE: During engine repair procedures, cleanliness is extremely important. Any foreign material (including any material created while cleaning gasket surfaces) that enters the oil passages, coolant passages or the oil pan can cause engine failure.

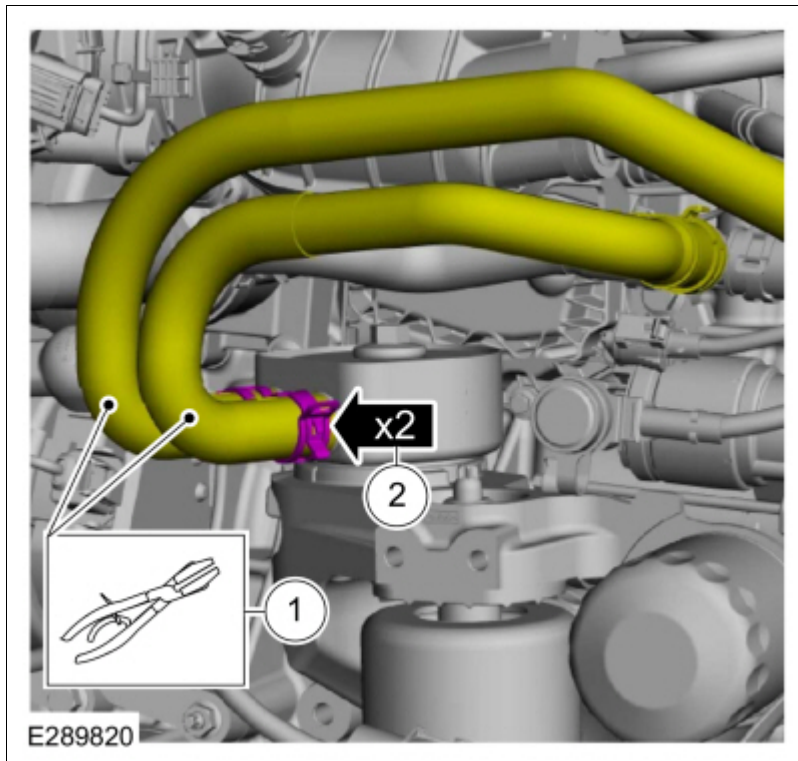
1. With the vehicle in NEUTRAL, position it on a hoist.
Refer to: [Jacking and Lifting](#) (100-02 Jacking and Lifting, Description and Operation).
2. Remove LH front wheel and tire.
Refer to: [Wheel and Tire](#) (204-04A Wheels and Tires, Removal and Installation).
3. Remove the retainers LH fender splash shield.



4. If equipped with 4x4, remove the bolt from the LH engine mount bracket and position the axle vent tube aside.



5.
 1. Using hose locking pliers, clamp the oil cooler coolant hoses.
Use the General Equipment: Locking Pliers
 2. Using the hose clamp remover, remove the coolant hoses.
Use the General Equipment: Hose Clamp Remover/Installer

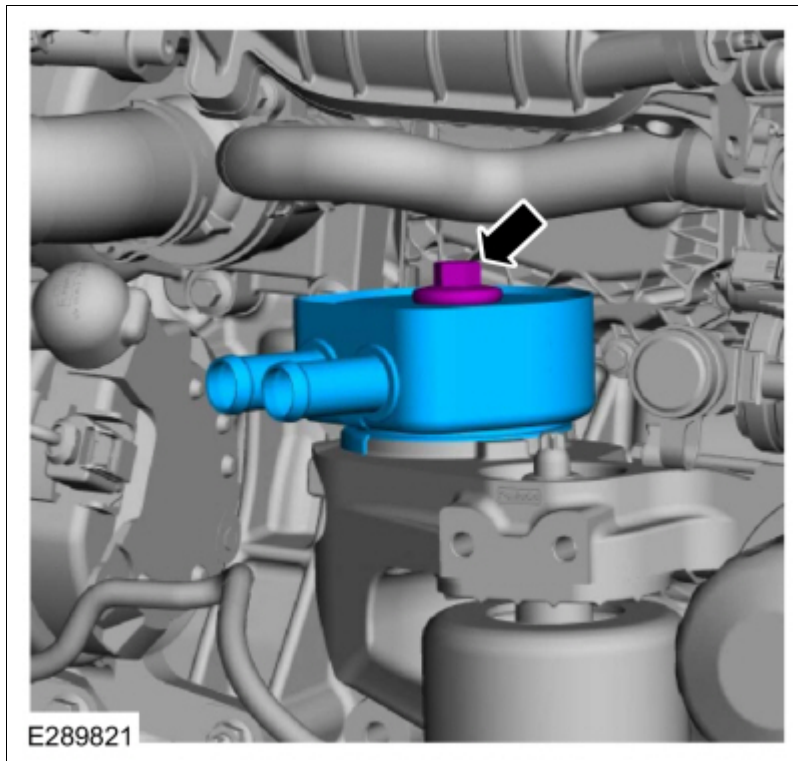


6.

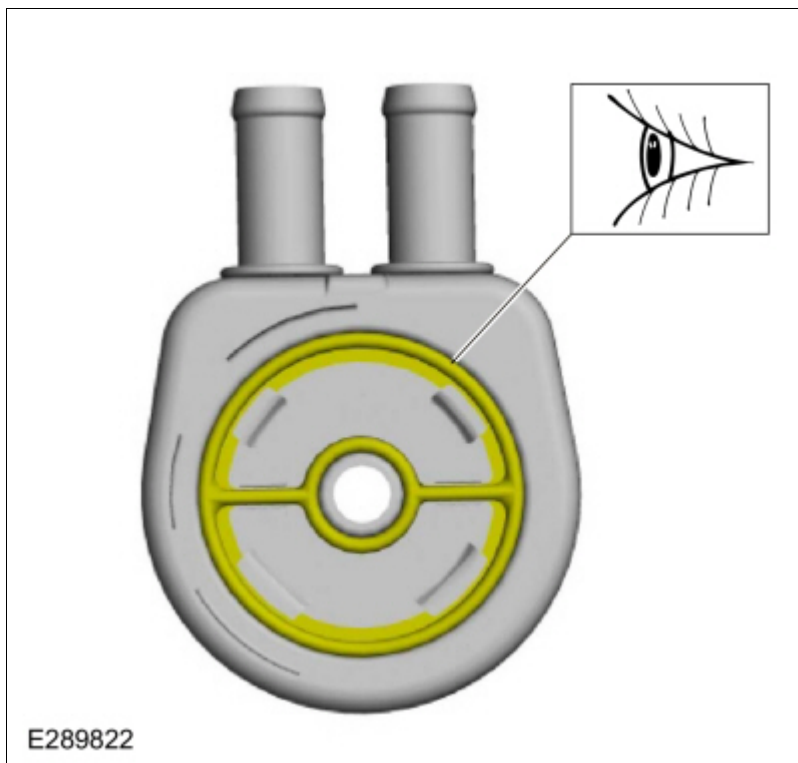
- Remove the bolt and the oil cooler.
- **NOTICE:** If metal or aluminum material is present in the oil cooler, mechanical concerns exist. Failure to correct these concerns may cause engine failure.

To diagnose mechanical concerns.

Refer to: [Engine](#) (303-00 Engine System - General Information, Diagnosis and Testing).



7. Inspect and replace the oil cooler gasket, if damaged.



Installation

1. Install the oil cooler and the bolt.

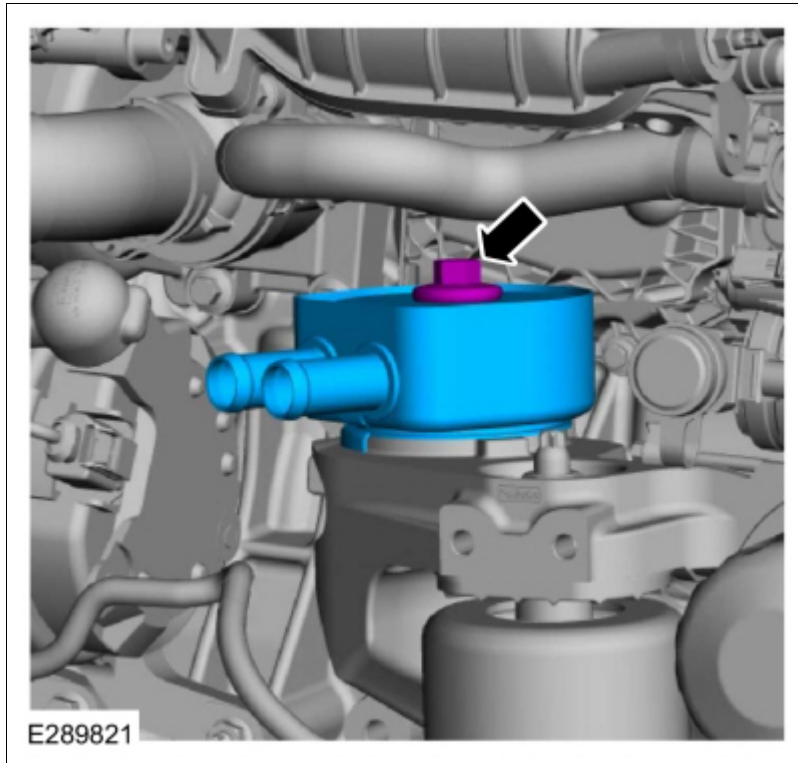
Torque:

Stage 1: 17 lb.ft (22.5 Nm)

Stage 2: 75°

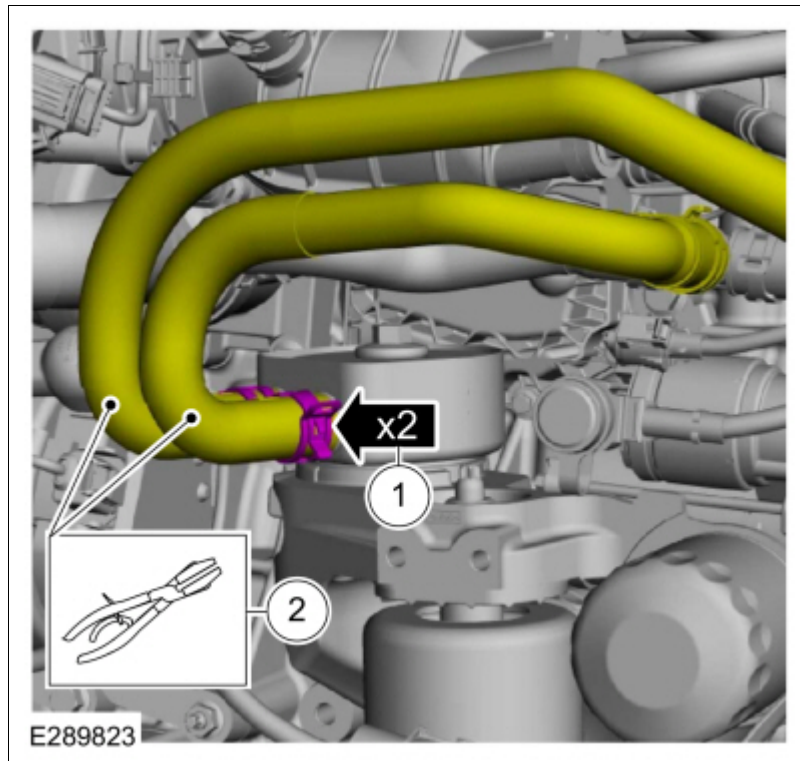
Stage 3: Wait 2s

Stage 4: 15°



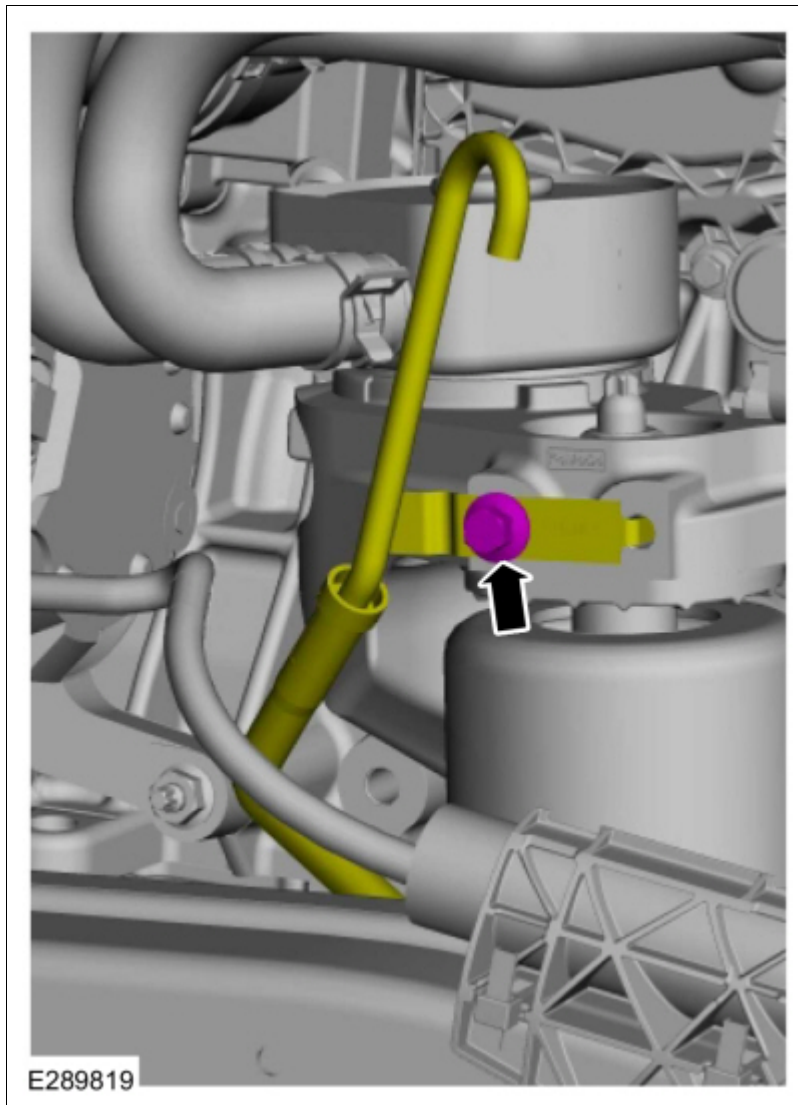
- 2.

1. Using the hose clamp installer, install the coolant hoses.
Use the General Equipment: Hose Clamp Remover/Installer
2. Remove the hose locking pliers.



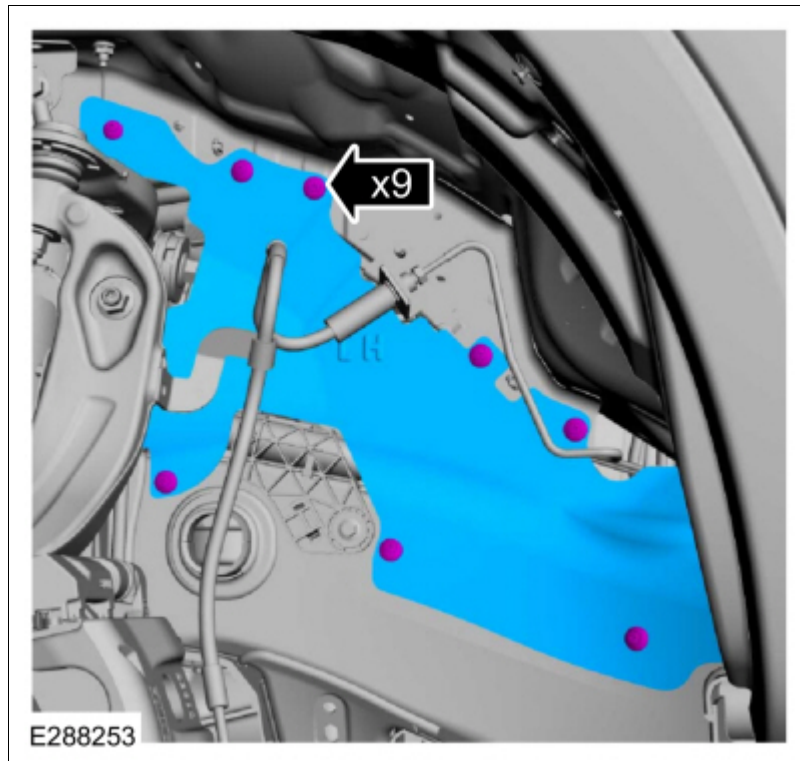
3. If equipped with 4x4, position the axle vent tube and install the bolt to the LH engine mount bracket.
Torque: 17 lb.ft (23 Nm)





4. Install the LH fender splash shield and the retainers.





5. Install LH front wheel and tire.
Refer to: [Wheel and Tire](#) (204-04A Wheels and Tires, Removal and Installation).

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