

303-04B Fuel Charging and Controls - Turbocharger - 2.3L EcoBoost
(201kW/273PS)

2019 Ranger

Removal and Installation

Procedure revision date:
12/5/2018

Turbocharger Oil Return Tube

Materials

Name	Specification
Motorcraft® Metal Brake Parts Cleaner PM-4-A, PM-4-B	-

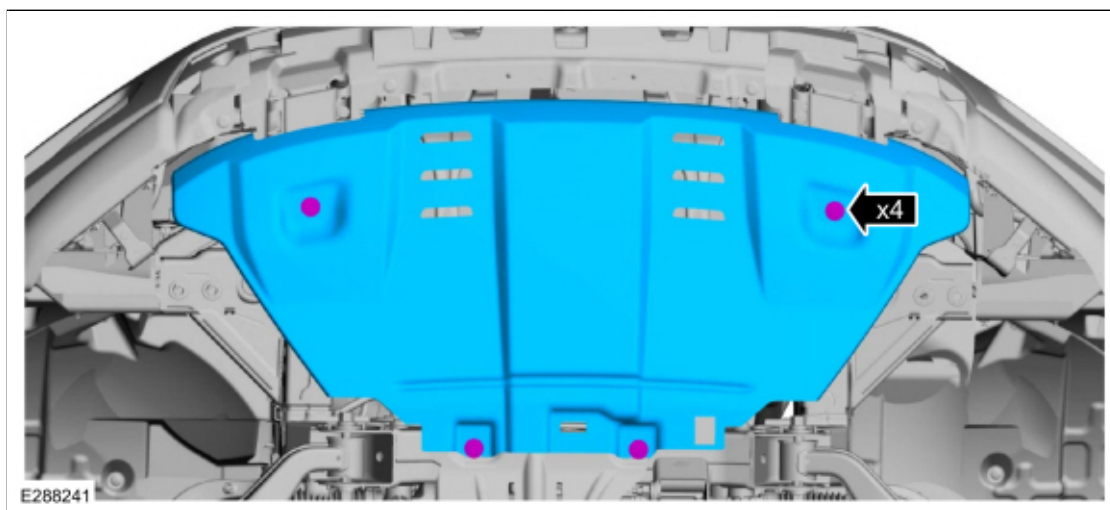
Removal

NOTICE: The turbocharger compressor vanes can be damaged by even the smallest particles. When removing any turbocharger or engine air intake system component, ensure that no debris enters the system. Failure to do so may result in damage to the turbocharger.

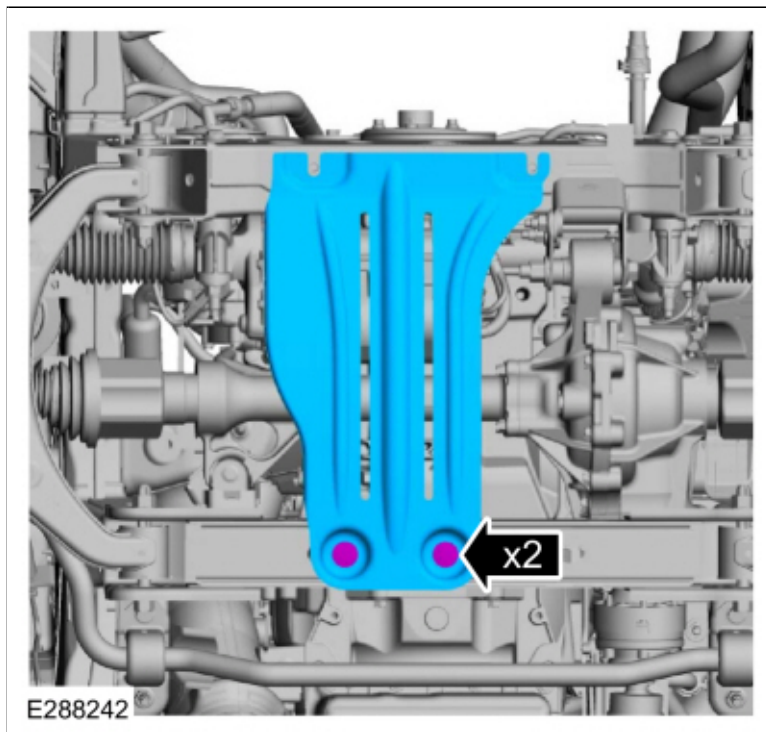
NOTICE: Special attention needs to be given to the sealing ports for the oil supply, the oil return, and the coolant tubes, on turbocharged engines. The sealing ports must be totally clean and free from O-ring residue, have no damage to the sealing surface and the tubes to ensure that there are no leaks or repeat repairs.

1. **NOTE:** Off road package shown, others are similar.

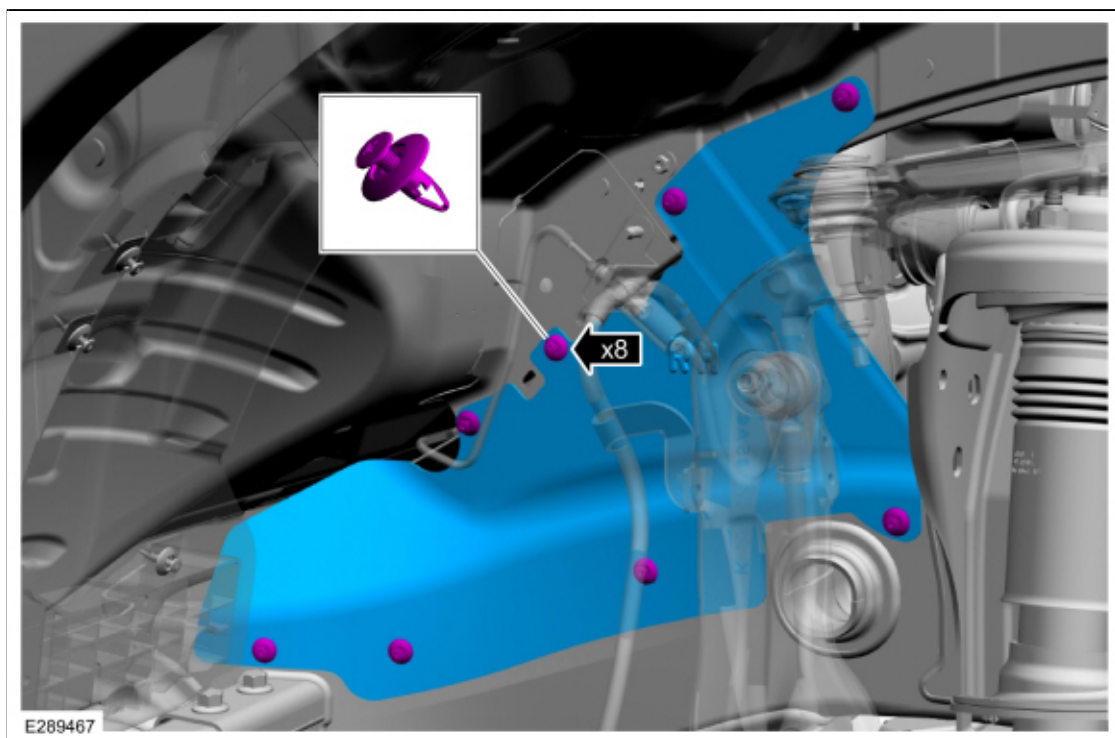
Remove the bolts and the front skid plate.



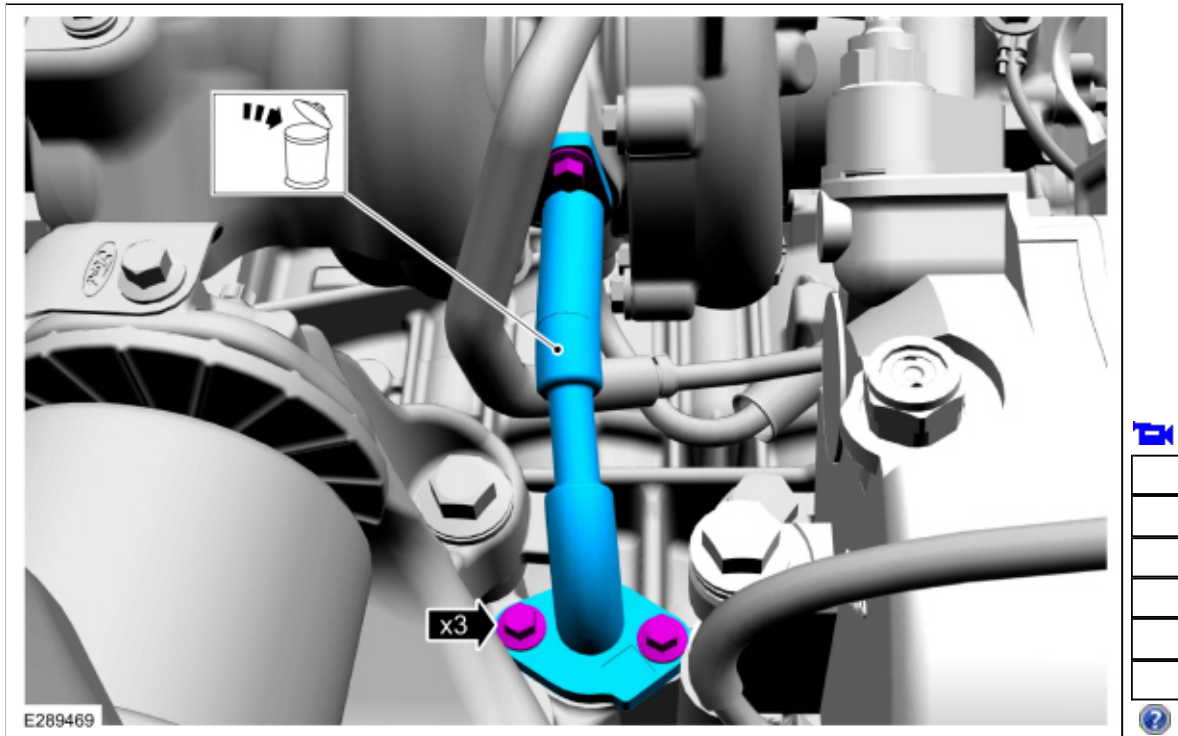
2. Remove the bolts and the rear skid plate.



3. Remove the right front wheel and tire.
Refer to: [Wheel and Tire](#) (204-04A Wheels and Tires, Removal and Installation).
4. Remove the retainers and the right fender splash shield.



5. Remove the bolts, then remove and discard the turbocharger oil return tube.



Installation

1. **NOTICE:** Ensure that a new turbocharger oil return tube O-ring and gasket are used.

Install a new turbocharger oil return tube O-ring seal and a new turbocharger oil return tube gasket if not already installed. Lubricate the new turbocharger oil return tube O-ring seal with clean engine oil. Refer to: [Specifications](#) (303-01 Engine - 2.3L EcoBoost (201kW/273PS), Specifications).

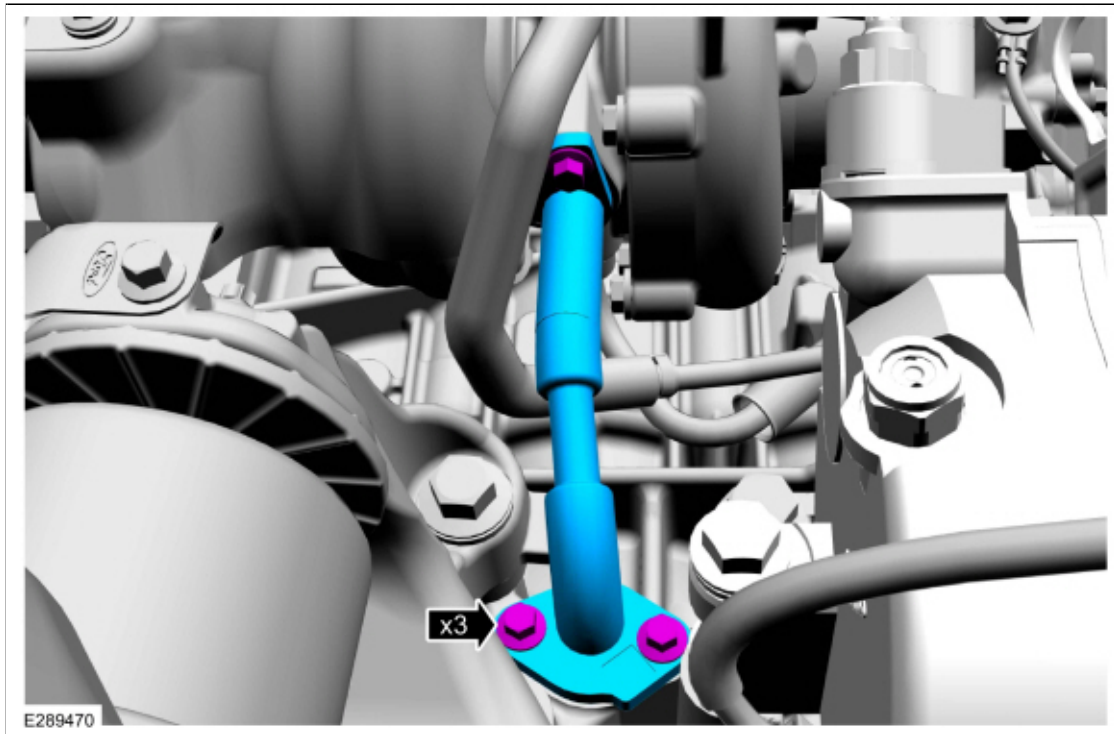


2. **NOTICE:** Do not use a metal brush, damage to sealing area will result in leaks.

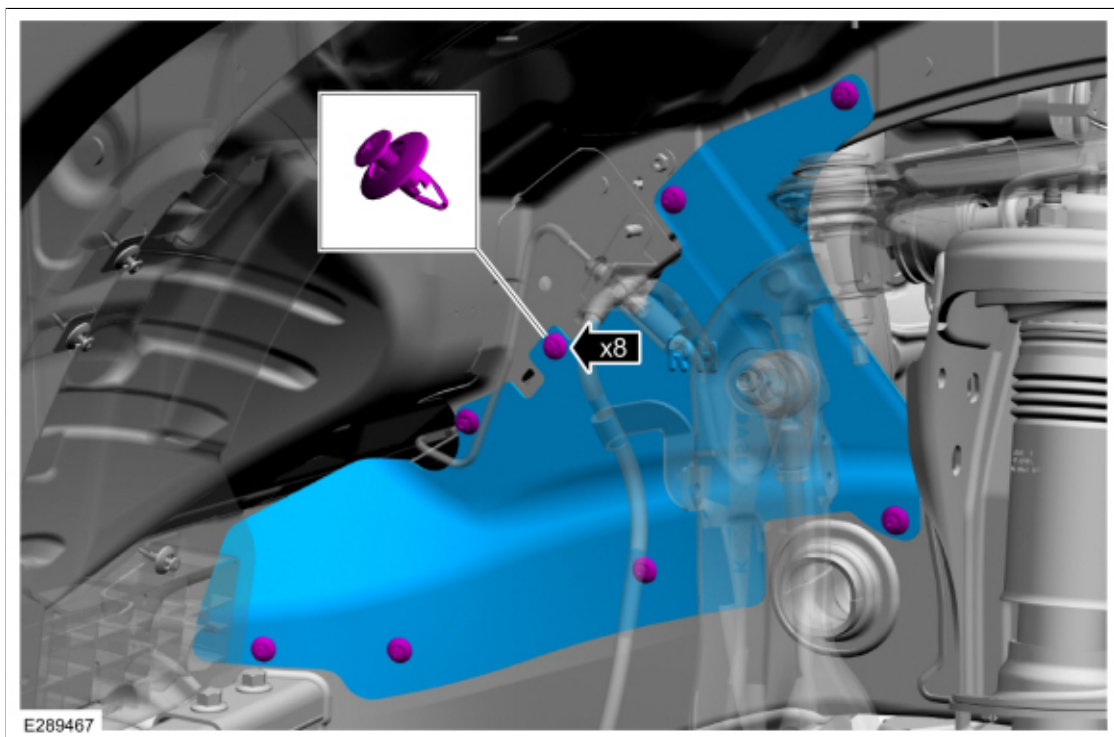
NOTE: The oil return tube must be fully seated prior to fastener rundown.

- Carefully use a nylon brush to remove the old O-ring residue, use brake cleaner to rinse the O-ring residue out of the turbocharger tube O-ring bore. Inspect the area for deep scratches and gouges. Install new components if needed.
1. Install the turbocharger oil return tube, then install and tighten the turbocharger oil return tube bolts.
Material: Motorcraft® Metal Brake Parts Cleaner / PM-4-A, PM-4-B
Torque: 97 lb.in (11 Nm)



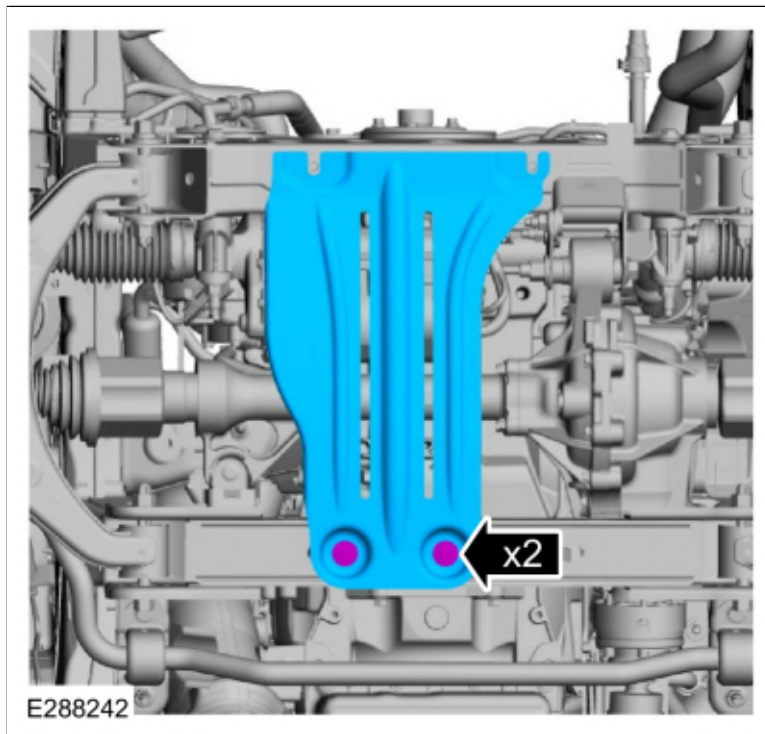


3. Install the right fender splash shield and the retainers.



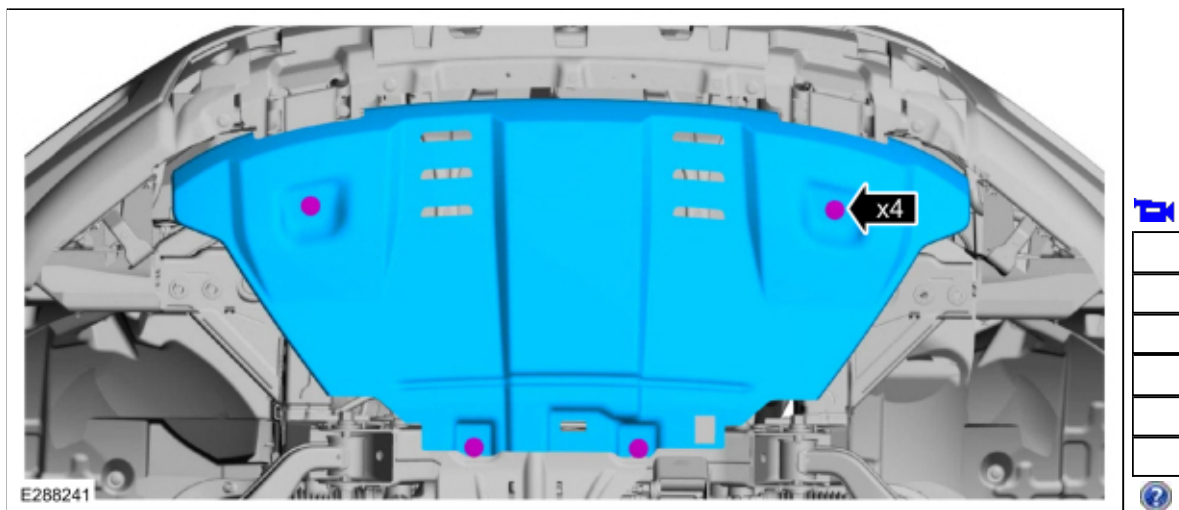
4. Install the right front wheel and tire.
Refer to: [Wheel and Tire](#) (204-04A Wheels and Tires, Removal and Installation).
5. Install the rear skid plate and the bolts.

Torque: 22 lb.ft (30 Nm)



6. **NOTE:** Off road package shown, others are similar.

Install the front skid plate and the bolts.
Torque: 22 lb.ft (30 Nm)



7. Check the engine oil level and fill as needed.
Refer to: [Specifications](#) (303-01 Engine - 2.3L EcoBoost (201kW/273PS), Specifications).

