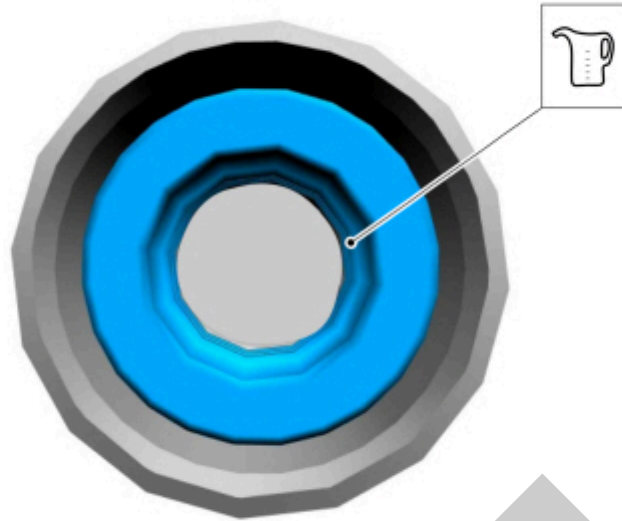


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2024 Ford E-Transit Service and Repair Manual

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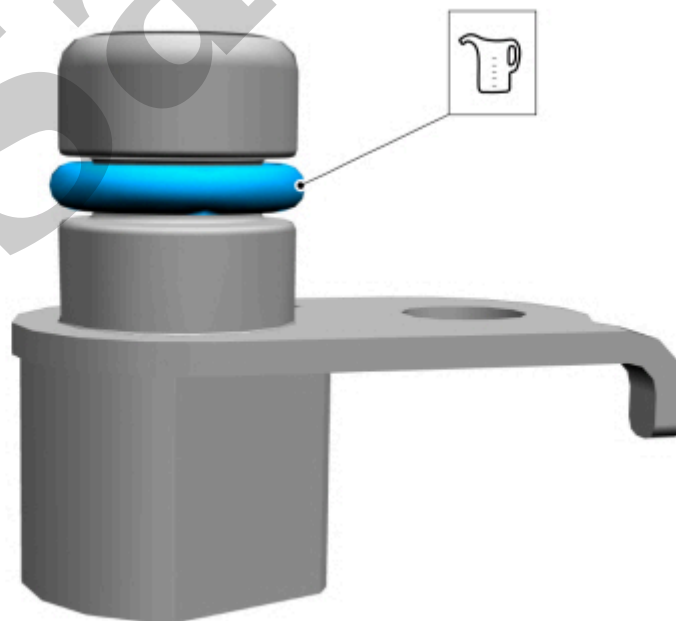


E337905

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2. Install a new turbocharger coolant return tube O-ring seal. Lubricate the new O-ring seal with clean engine coolant.

Refer to: [Specifications](#)(303-03D Engine Cooling - 3.5L V6 PowerBoost (CN), Specifications).



E337908



Turbocharger Coolant Supply Tube RH

| | |
|---|---|
| 303-04G Fuel Charging and Controls - Turbocharger - 3.5L EcoBoost (BM) | 2022 F-150 |
| Removal and Installation | Procedure revision date: 10/1/2020 |

Turbocharger Coolant Supply Tube RH

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.

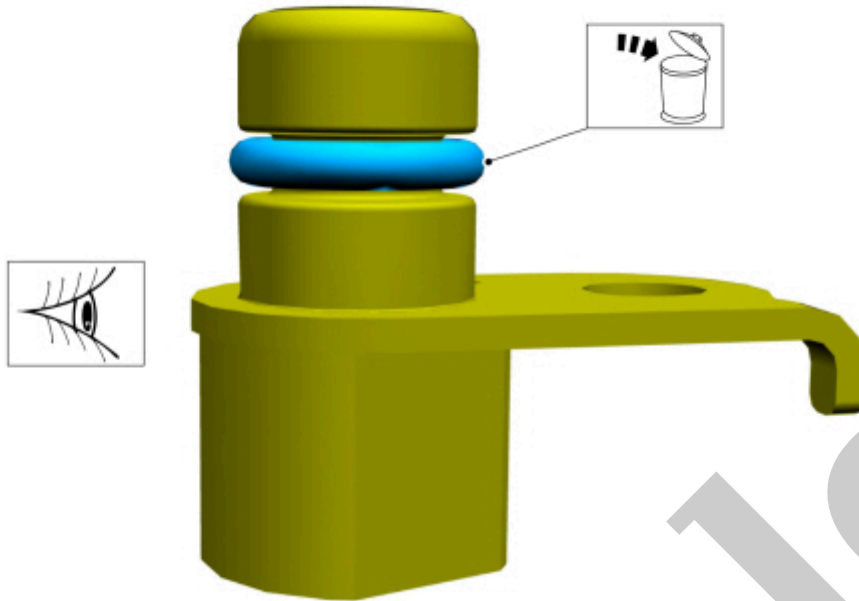
NOTICE

Special attention needs to be given to the sealing ports for the oil feed, the oil drain, 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. Remove the turbocharger coolant return tube RH.

Refer to: [Turbocharger Coolant Return Tube RH](#)(303-04H Fuel Charging and Controls - Turbocharger - 3.5L V6 PowerBoost (CN), Removal and Installation).

2. **NOTICE**



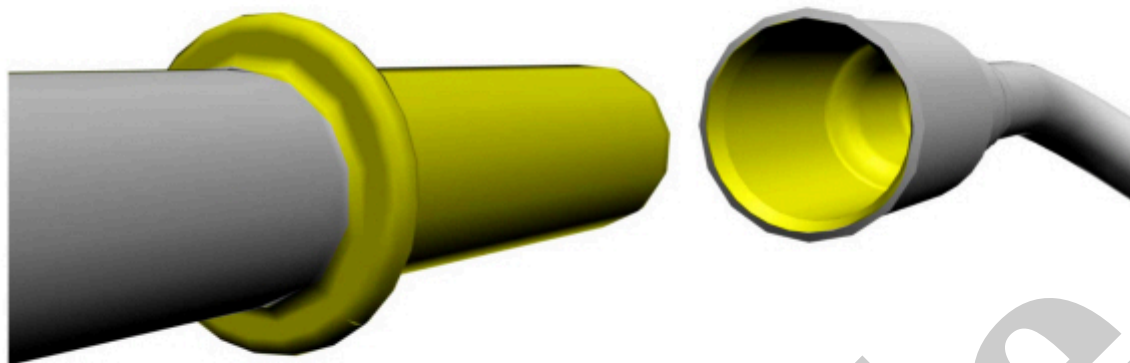
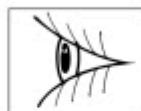
E337907

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4. NOTICE

If the 2 piece turbocharger cooling tubes were separated or the rubber gasket is leaking, then the rubber gasket must be replaced.

If needed, then remove and discard the rubber gasket.



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Installation

1. If needed, then install the turbocharger cooling tube rubber gasket. After installing the new rubber gasket, lubricate with clean engine coolant.

Refer to: [Specifications](#)(303-03D Engine Cooling - 3.5L V6 PowerBoost (CN), Specifications).

[Click here to learn about symbols, color coding, and icons used in this manual.](#)

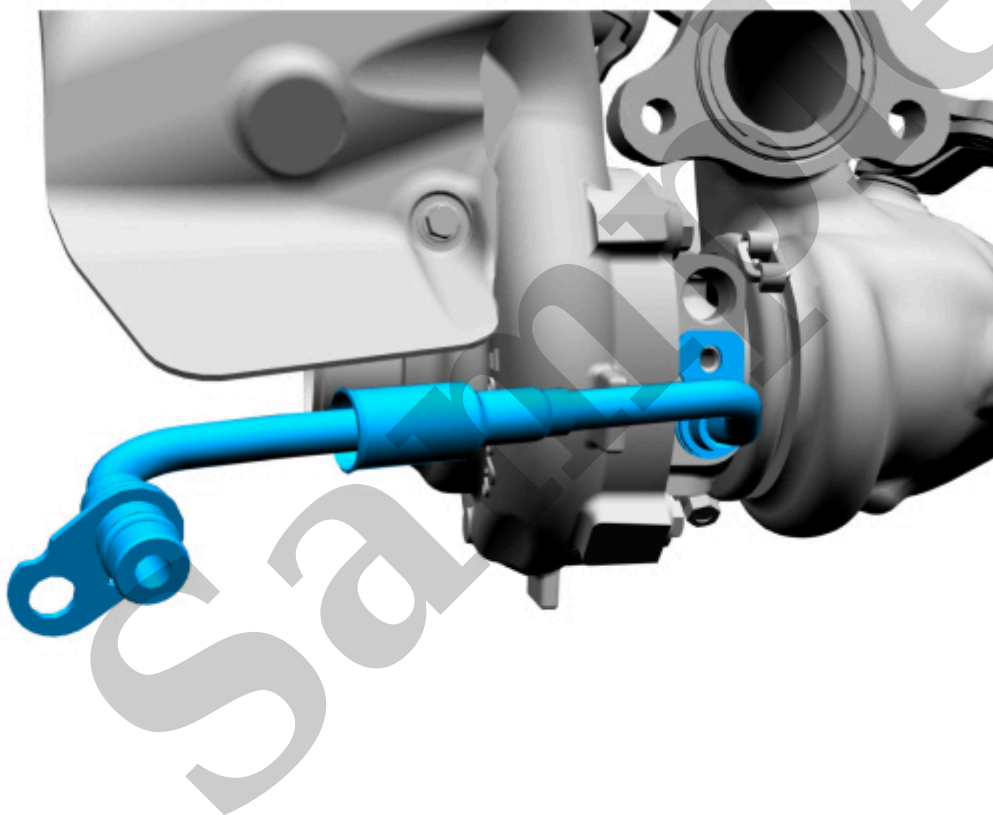
3. 1. **NOTICE**

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

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 necessary.

2. Install the turbocharger coolant tube.

Material : Motorcraft® Metal Brake Parts Cleaner / PM-4-A, PM-4-B



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4. Install the turbocharger coolant return tube RH.

Refer to: [Turbocharger Coolant Return Tube RH](#)(303-04H Fuel Charging and Controls - Turbocharger - 3.5L V6 PowerBoost (CN), Removal and Installation).

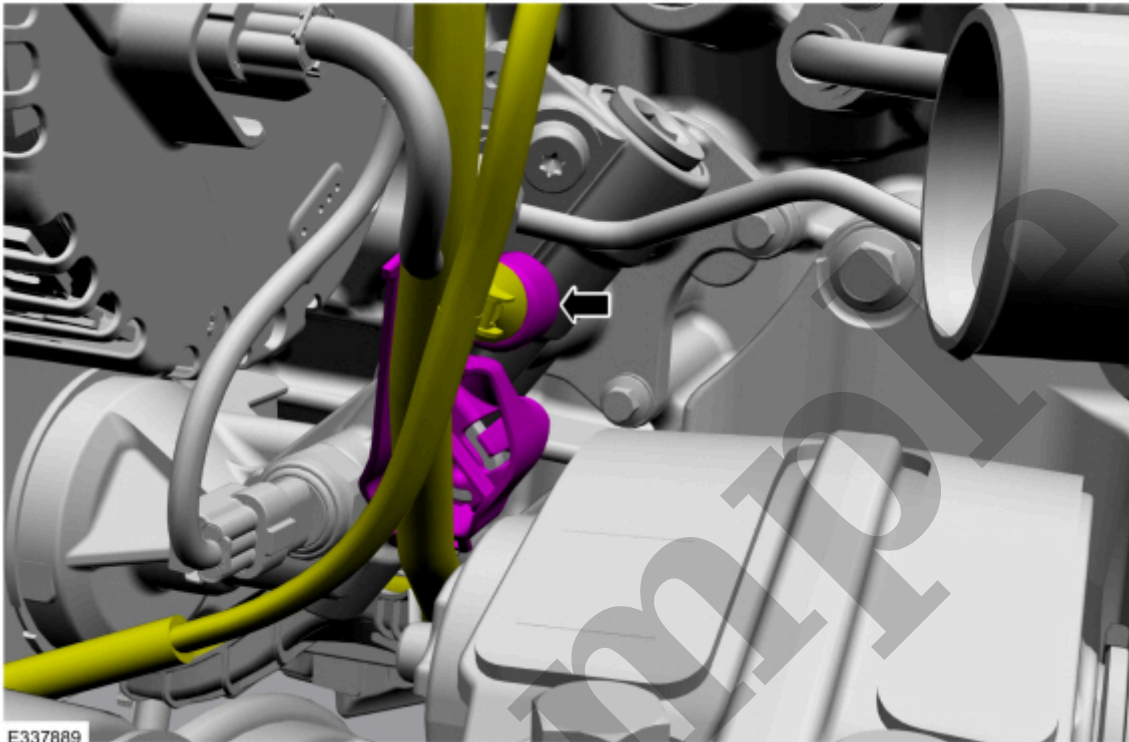
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Refer to: [Fender Splash Shield](#)(501-02 Front End Body Panels, Removal and Installation).

4. Remove the charge air cooler intake pipe - left side.

Refer to: [Charge Air Cooler \(CAC\) Intake Pipe](#)(303-12D Intake Air Distribution and Filtering - 3.5L V6 PowerBoost (CN), Removal and Installation).

5. Detach the harness retainer, then move the harness out of the way.



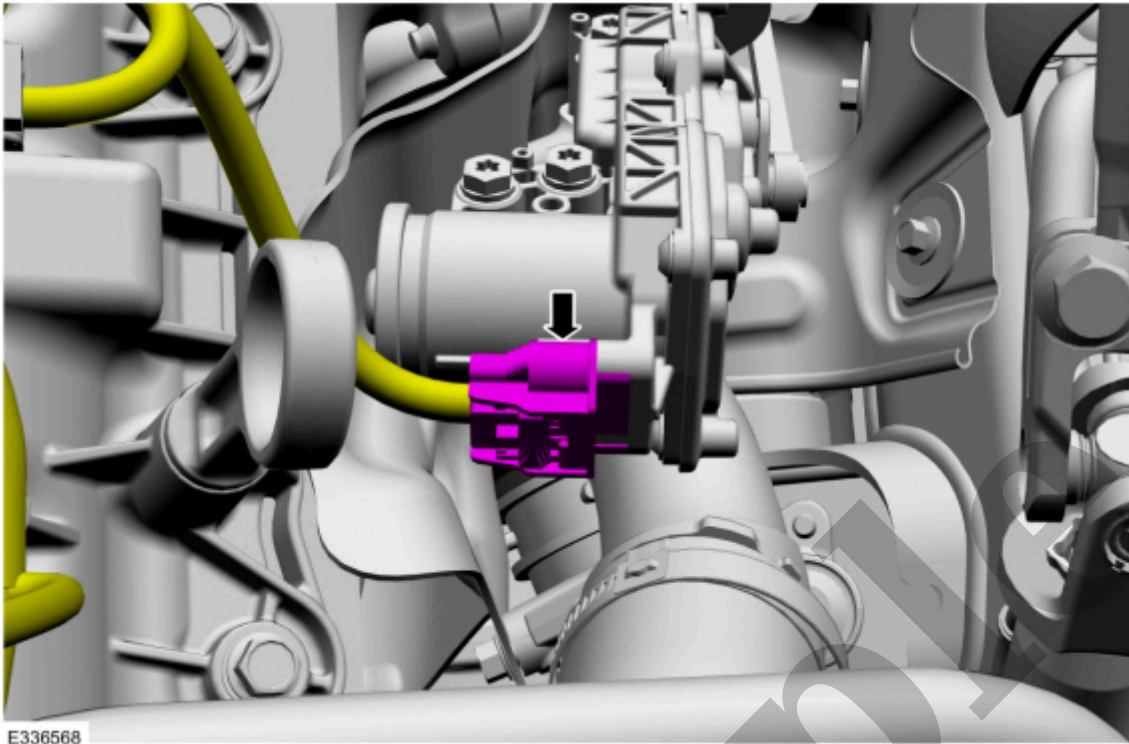
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6. **NOTE**

The left turbocharger oil supply tube does not have a turbocharger oil supply filter.

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

8. Disconnect the wastegate control actuator electrical connector.



[Click here to learn about symbols, color coding, and icons used in this manual.](#)

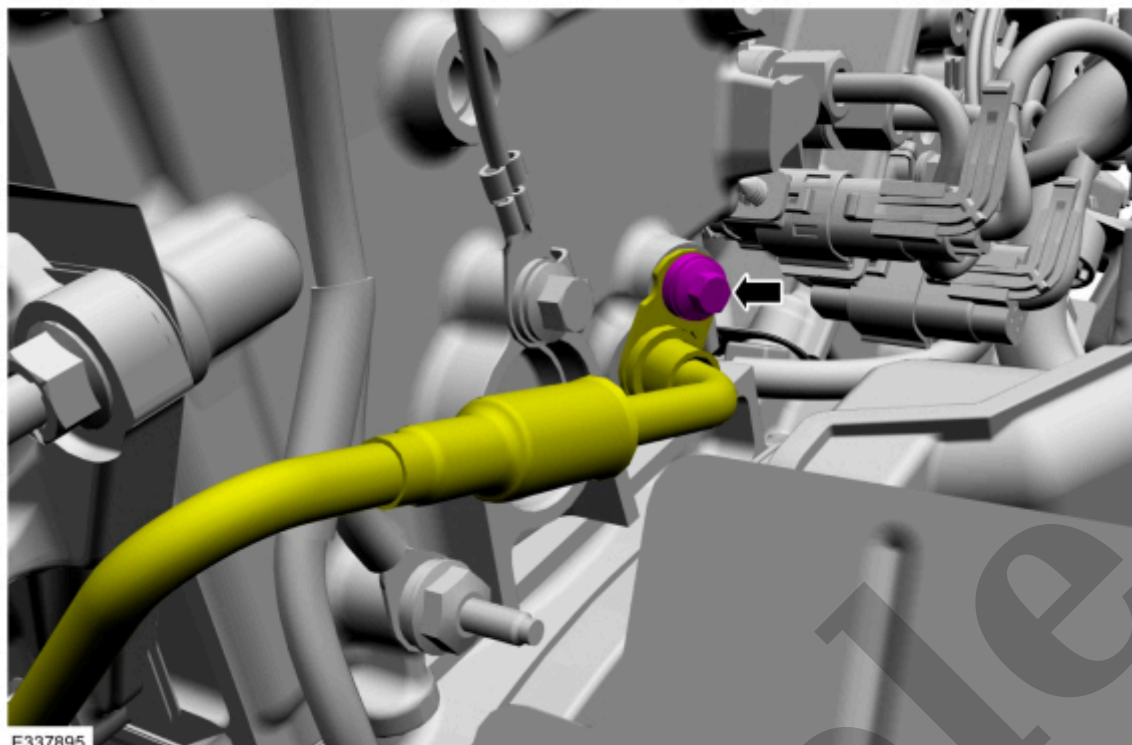
9. Remove the catalytic converter LH.

Refer to: [Catalytic Converter LH](#)(309-00D Exhaust System - 3.5L V6 PowerBoost (CN), Removal and Installation).

10. **NOTICE**

If the 2 piece turbocharger cooling tubes are separated or the rubber gasket is leaking, then the rubber gasket must be replaced.

Remove the turbocharger coolant supply tube bolt, then disconnect the turbocharger coolant supply tube from the engine.

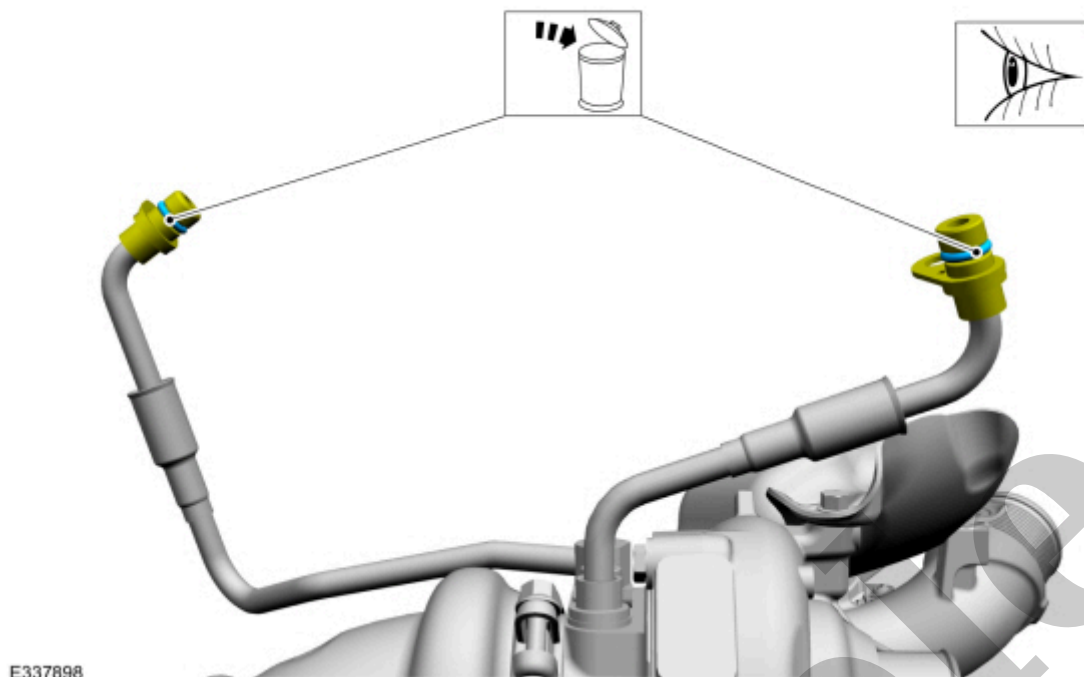


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12. **NOTE**

Remove the coolant tubes with the turbocharger. If the 2 piece turbocharger cooling tubes are separated, then the rubber gasket must be replaced.

Remove and discard the turbocharger retainers, then remove the turbocharger.



[Click here to learn about symbols, color coding, and icons used in this manual.](#)

14. NOTICE

If the 2 piece turbocharger cooling tubes were separated or the rubber gasket is leaking, then the rubber gasket must be replaced.

If needed, then remove and discard the rubber gasket.