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2018 Ford Taurus Service and Repair Manual

[Go to manual page](#)



Charge Air Cooler (CAC) Cleaning

303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS)	2022 F-150
General Procedures	Procedure revision date: 09/16/2014

Charge Air Cooler (CAC) Cleaning

Cleaning

1. Remove the Turbocharger Boost Pressure Sensor from the CAC (charge air cooler) .

2. **NOTE**

Do not use a high-pressure power washer to clean the CAC (charge air cooler) or damage to the CAC (charge air cooler) may occur.

NOTE

Drain all contaminants such as coolant, fuel and oil prior to cleaning the CAC (charge air cooler) .

NOTE

Thoroughly clean the joint clamp areas as well as the turbocharger connection, engine connection and the CAC (charge air cooler) connections, using metal brake parts cleaner.

Lay the CAC (charge air cooler) flat with the inlet and outlet ports pointing up.

3. **NOTE**

personal injury.

Slowly apply air pressure.

Pressure : 21.8 psi (150 kPa)

15. Let the CAC (charge air cooler) stand for a few minutes and note any loss in pressure.
16. Release the air pressure.
17. Repeat Steps 14 through 16 as many times as necessary to verify the readings. The reading is considered verified when 3 consecutive tests show approximately the same pressure drop.
18. If the pressure loss exceeds 10 kPa (1.5 psi) per minute, install a new CAC (charge air cooler) .

Refer to: [Charge Air Cooler \(CAC\)\(303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost \(238kW/324PS\), Removal and Installation\)](#).

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The clamp can be accessed through the fender splash shield.

1. Disconnect the quick connectors.

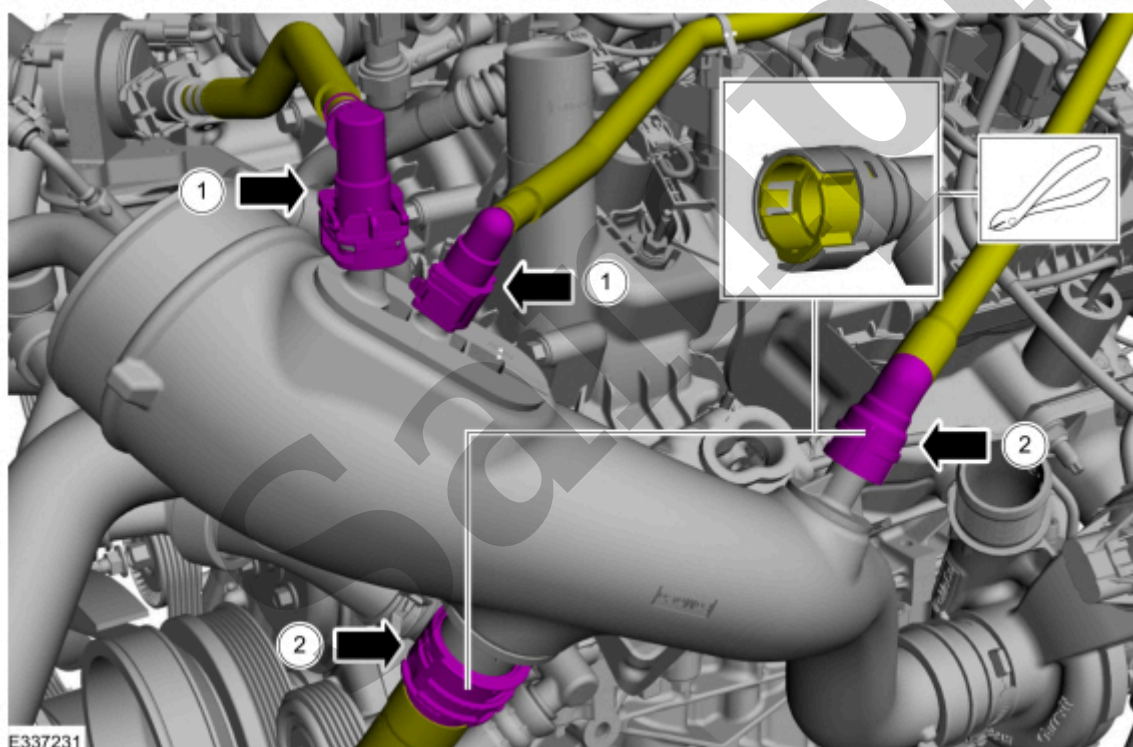
2. **NOTE**

The crankcase vent tube may have either a permanent or quick connect connector at one or both ends. If the tube needs to be removed for any reason, the permanent connector(s) must be cut to remove the tube. The tube will then need to be replaced.

- If necessary, cut the lock tab.

Use the General Equipment: Side Cutter Pliers

- If either crankcase vent tube connector was cut, remove and discard the crankcase vent tube.



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

4. 1. Remove the clamp at the turbocharger inlet.

Torque : 48 lb.in (5.4 Nm)

2. Remove the air cleaner outlet pipe.



Air Cleaner Outlet Pipe RH

303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS)	2022 F-150
Removal and Installation	Procedure revision date: 12/14/2017

Air Cleaner Outlet Pipe 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.

NOTE

Removal steps in this procedure may contain installation details.

1. With the vehicle in NEUTRAL, position it on a hoist.

Refer to: [Jacking and Lifting - Overview](#)(100-02 Jacking and Lifting, Description and Operation).

2. Remove the air cleaner outlet pipe.

Refer to: [Air Cleaner Outlet Pipe](#)(303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS), Removal and Installation).

3. **NOTE**



Air Cleaner Outlet Pipe

303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS)	2022 F-150
Removal and Installation	Procedure revision date: 12/14/2017

Air Cleaner Outlet Pipe

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.

NOTE

Removal steps in this procedure may contain installation details.

1. Loosen the 3 clamps and disconnect the IAT (intake air temperature) sensor electrical connector. Remove the air cleaner outlet pipe.

Torque : 48 lb.in (5.4 Nm)

Air Cleaner

303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS)	2022 F-150
Removal and Installation	Procedure revision date: 12/14/2017

Air Cleaner

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.

NOTE

Removal steps in this procedure may contain installation details.

1.
 - Loosen the clamp, position aside the air cleaner outlet pipe.
Torque : 48 lb.in (5.4 Nm)
 - Detach the 2 wiring harness retainers on the air cleaner housing.
 - Remove the bolt and the 2 push pin retainers.
Torque : 177 lb.in (20 Nm)
 - Remove the air cleaner assembly.



Charge Air Cooler (CAC) Intake Pipe

303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS)	2022 F-150
Removal and Installation	Procedure revision date: 12/14/2017

Charge Air Cooler (CAC) Intake Pipe

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.

NOTE

Removal steps in this procedure may contain installation details.

1. With the vehicle in NEUTRAL, position it on a hoist.

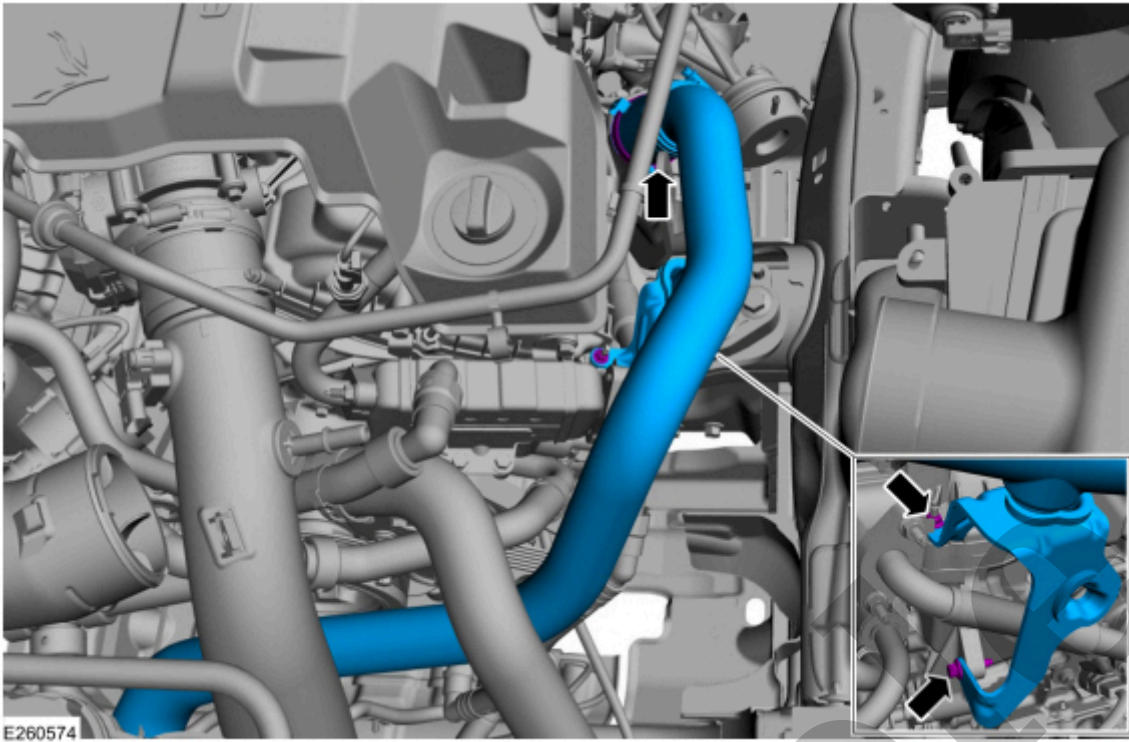
Refer to: [Jacking and Lifting - Overview](#)(100-02 Jacking and Lifting, Description and Operation).

Charge air cooler (CAC) intake pipe - Left side

2. Remove the LH (left-hand) air cleaner outlet pipe.

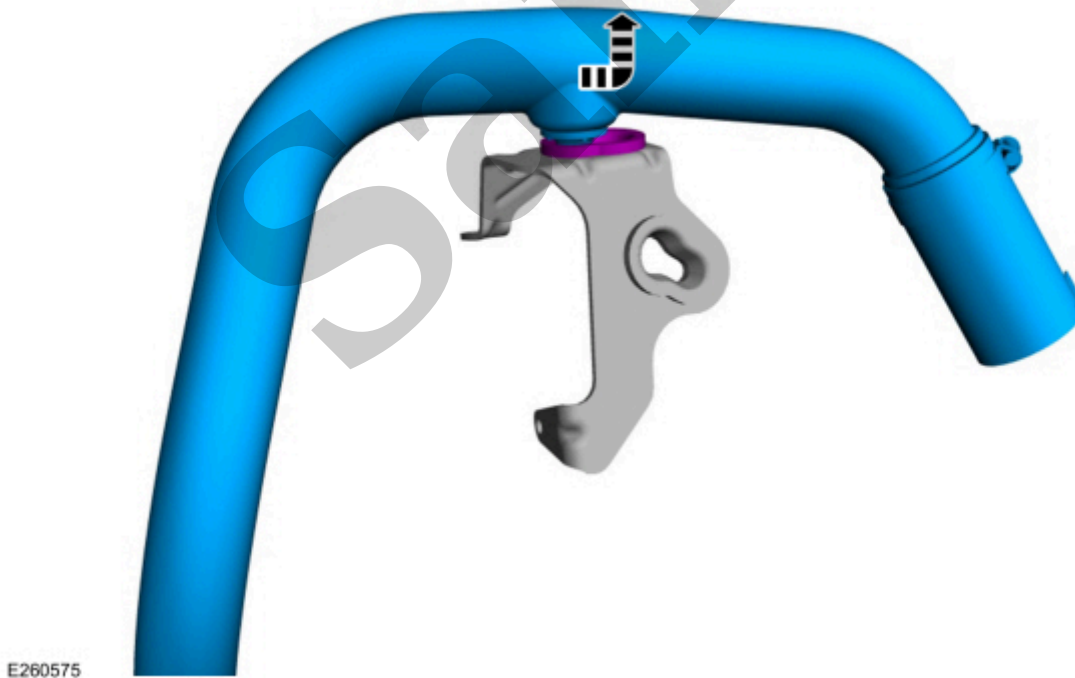
Refer to: [Air Cleaner Outlet Pipe LH](#)(303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS), Removal and Installation).

3. Loosen the clamp and position the CAC (charge air cooler) intake pipe.



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

5. Release the lock and remove the CAC (charge air cooler) intake pipe.



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

Charge air cooler (CAC) intake pipe - Right side



Charge Air Cooler (CAC) Outlet Pipe

303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS)	2022 F-150
Removal and Installation	Procedure revision date: 12/14/2017

Charge Air Cooler (CAC) Outlet Pipe

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.

NOTE

Removal steps in this procedure may contain installation details.

1. With the vehicle in NEUTRAL, position it on a hoist.
Refer to: [Jacking and Lifting - Overview](#)(100-02 Jacking and Lifting, Description and Operation).
2. Remove the CAC (charge air cooler) outlet pipe from the CAC (charge air cooler) .