

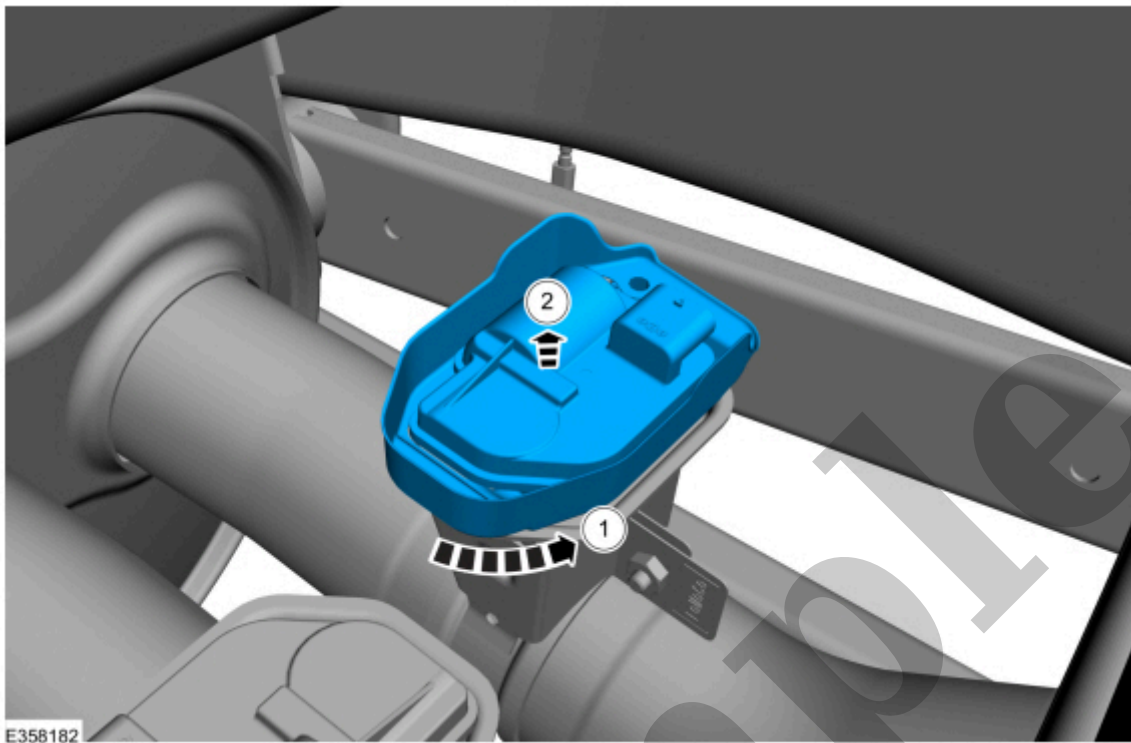
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## 2017 Ford Escape Service and Repair Manual

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4. 1. Rotate actuator counterclockwise to unlock from the assembly.
2. Remove the exhaust tailpipe actuator.



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

#### All vehicles

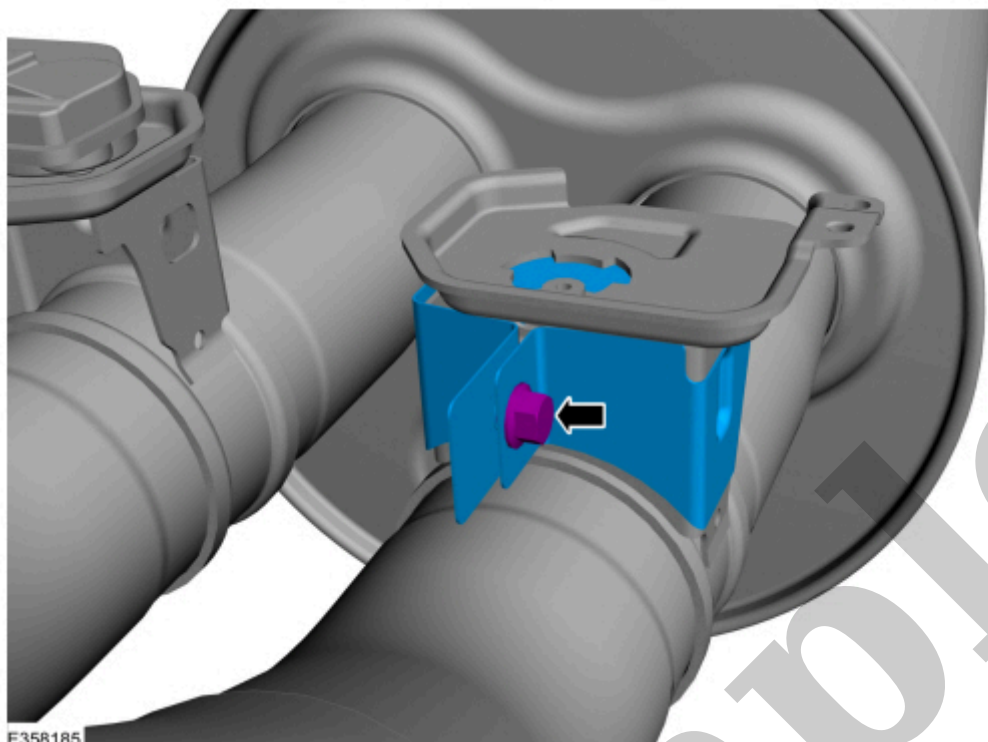
#### NOTE

Make sure that exhaust actuator valve is open to 30% before actuator spring removal.

5. Remove the muffler assembly.  
Refer to: [Muffler - Raptor\(309-00C Exhaust System - 3.5L EcoBoost \(BM\), Removal and Installation\)](#).
6. Remove the actuator stud bolt.

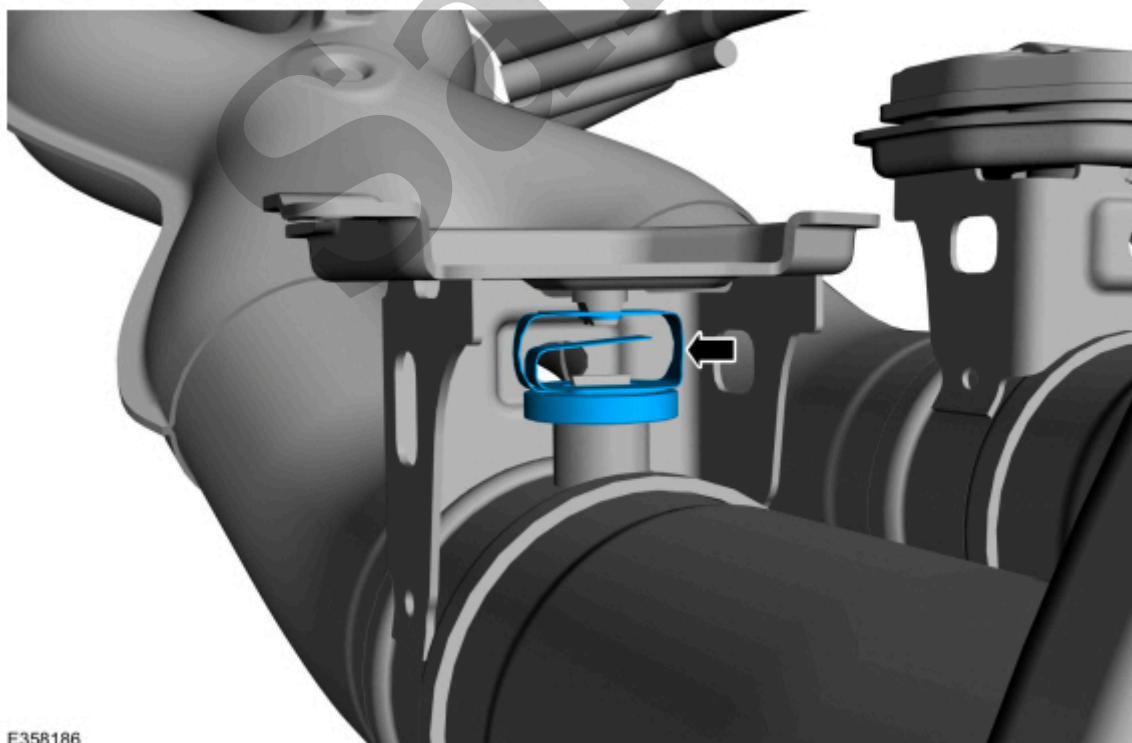
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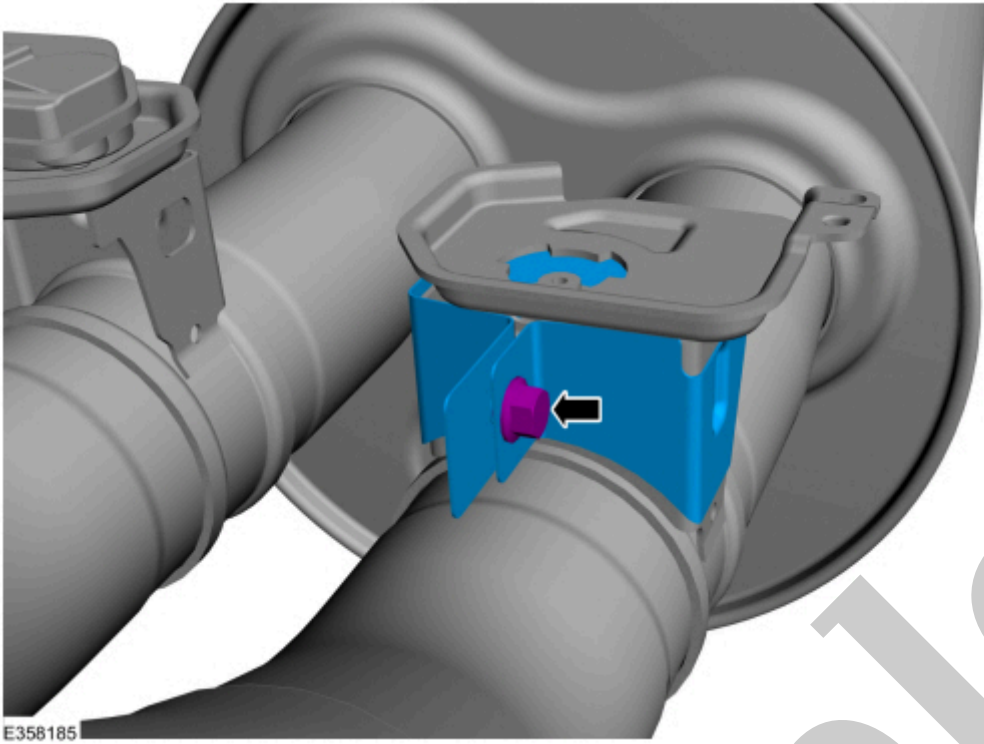
8. Remove the bolt and the actuator shield.



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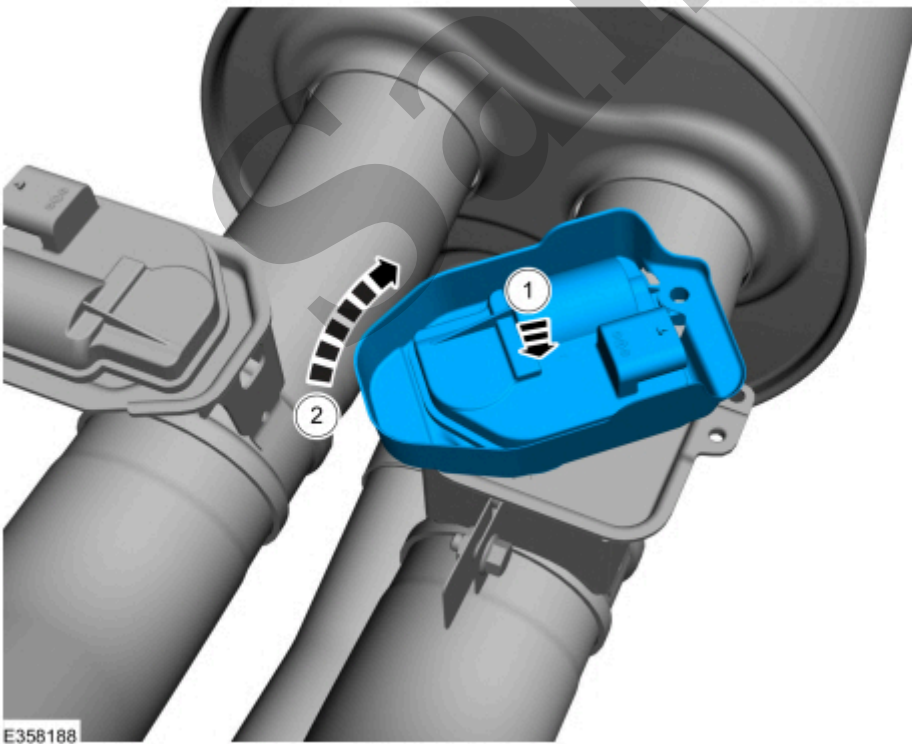
9. Remove the spring from the actuator.

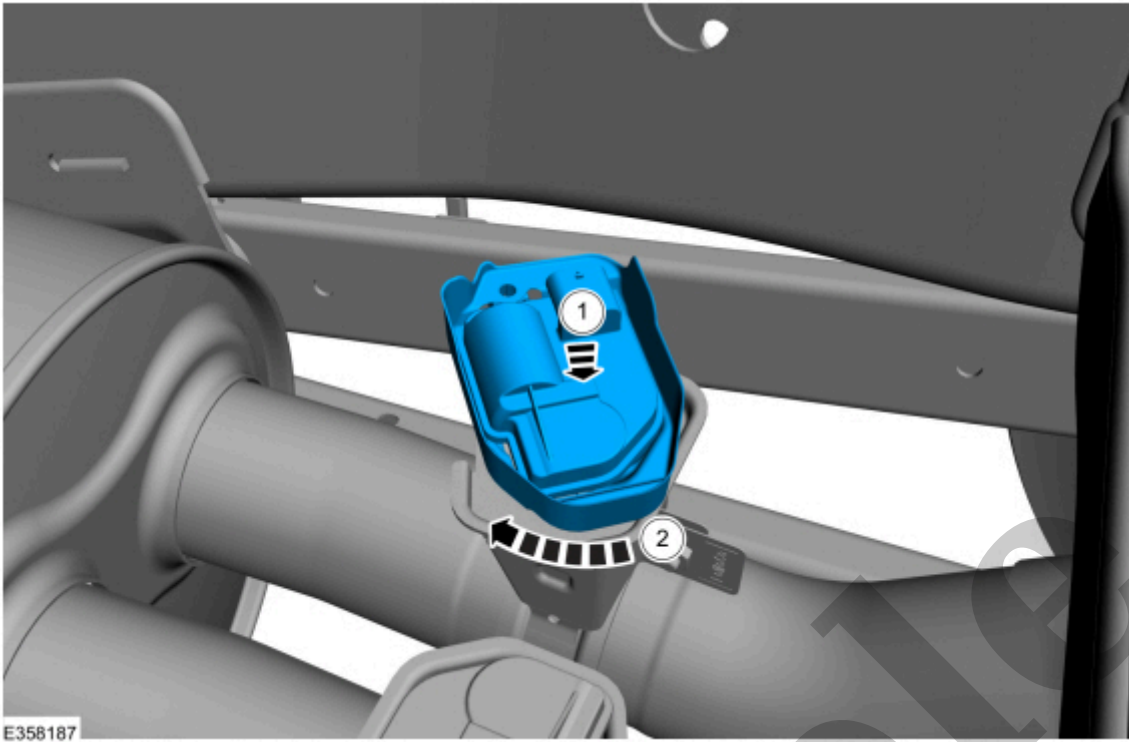




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5. 1. Install the exhaust tailpipe actuator.
2. Slightly press downward and rotate clockwise to lock the actuator in the assembly.

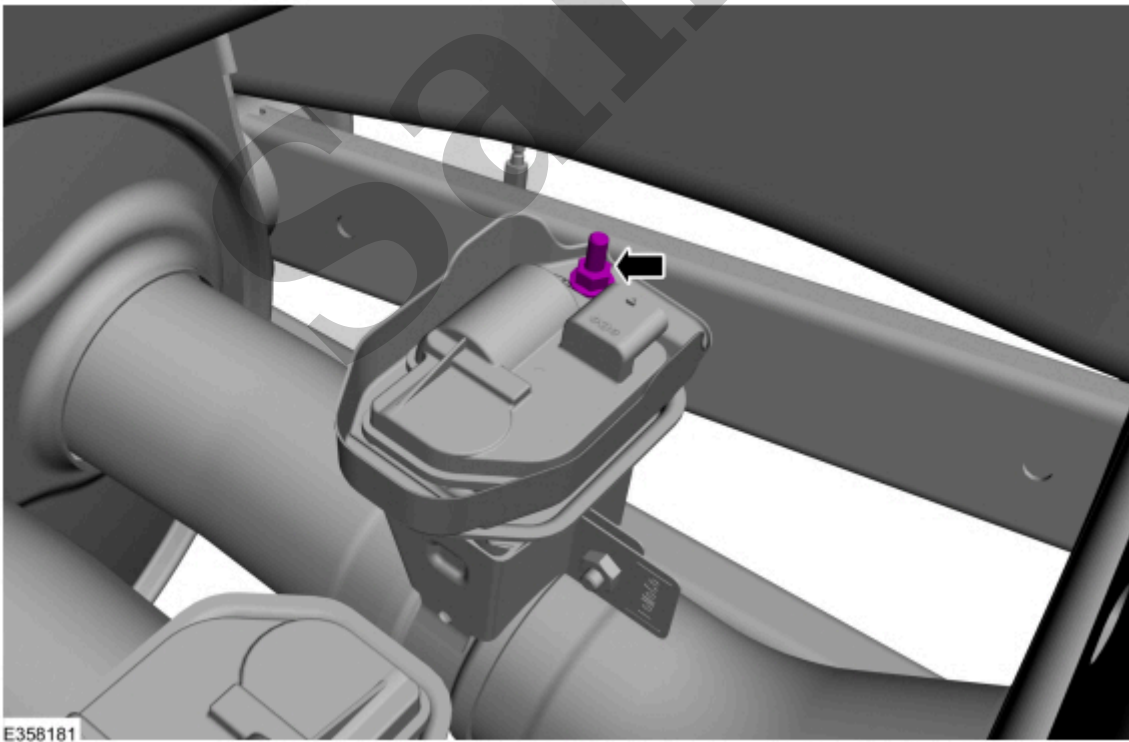




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10. Install the actuator stud bolt.

**Torque** : 89 lb.in (10 Nm)



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5. The actuator will rotate to the fully open and closed position.
6. Change the Exhaust mode setting any mode that was not previously selected (i.e. Quiet--> Sport or Track--> Normal etc.) and select OK from the steering wheel. Check EXTUN related DTC or default messages.
7. If there is no EXTUN related DTC or there is no "Exhaust mode not available" cluster message then the valve learning was successful. Otherwise repeat steps 1-5 one more time.

8. **NOTE**

: If there is an EXTUN related DTC or the "Exhaust mode not available" cluster message after repeating the steps 1-5 then mount a new actuator and try again.

Turn off the vehicle. After Key-Off, when the vehicle is asleep, tighten the screw completely up to the specified torque.

9. For more information 303-14 Electronic Engine Controls 3.5L EcoBoost.

10. **NOTE**

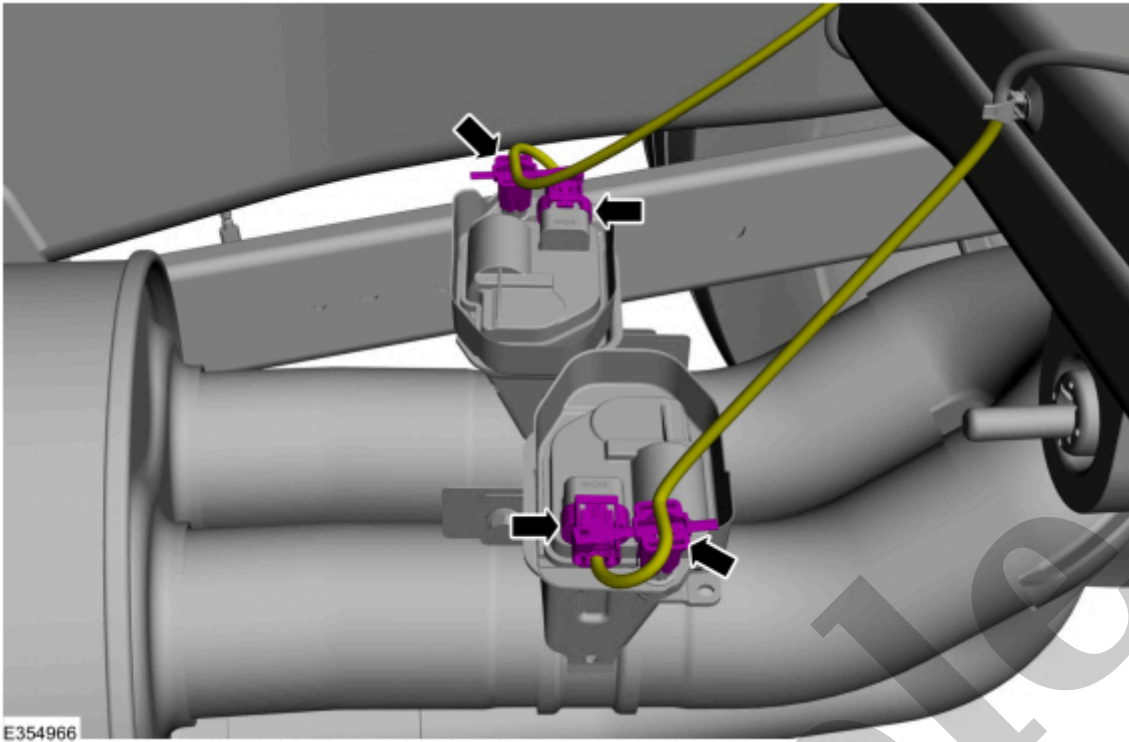
Make sure the exhaust tailpipe actuator valve inspection is completed with the engine running.

After installation of the exhaust tailpipe actuator valve, start the engine KOER (key on, engine running) and then activate the drive modes via steering wheel or centre console mounted exhaust switch on certain models and visually inspect the operation of the valves inside of the exhaust tips.

11. In normal/weather drive mode (or quiet exhaust mode) both valves should be almost fully closed.
12. In sport/track/dragstrip drive mode (or sports exhaust mode) both valves should be fully open.
13. During the transition between modes, an audible difference in exhaust tone should be heard. 303-14 Electronic Engine Controls 3.5L EcoBoost.
14. Perform a drive test for a period of no less than 10 minutes, whilst continually changing the drive modes to make sure the exhaust tailpipe actuator valves are working correctly.
15. Check the exhaust system for leaks.

This process teaches the actuator to learn the closed and open 'end stop' positions.

13. Check the exhaust system for leaks.



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

1. Loosen the clamp.

**Torque** : 41 lb.ft (55 Nm)

2. Loosen the clamp and release the clamp from the tab.

**Torque** : 41 lb.ft (55 Nm)

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

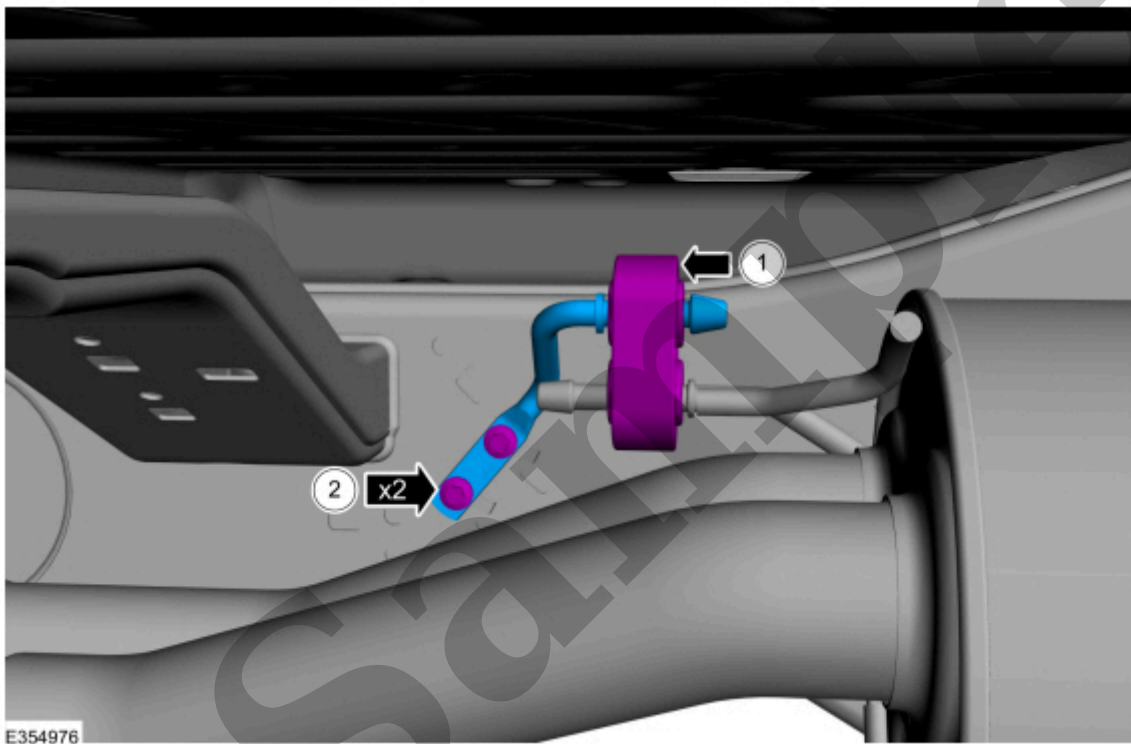
## Isolator hanger bracket

### NOTE

The below following steps are only necessary, if you are replacing the isolator hanger bracket.

6. 1. Release the isolator.
2. Remove the bolts and the bracket.

**Torque** : 22 lb.ft (30 Nm)



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

7. Remove the bolt and the isolator hanger bracket.

**Torque** : 22 lb.ft (30 Nm)



## Muffler - Tremor

<b>309-00C Exhaust System - 3.5L EcoBoost (BM)</b>	<b>2022 F-150</b>
<b>Removal and Installation</b>	<b>Procedure revision date: 09/30/2020</b>

### Muffler - Tremor

#### Removal

##### NOTE

Muffler inlet pipes will vary in configuration with different wheelbases and powertrains. Typical application shown.

##### 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 tailpipes.

Refer to: [Tailpipe - Tremor](#)(309-00C Exhaust System - 3.5L EcoBoost (BM), Removal and Installation).

3. 1. Loosen the muffler clamp.

**Torque** : 41 lb.ft (55 Nm)

2. Release the isolator and remove the isolator bracket bolt.

**Torque** : 22 lb.ft (30 Nm)

## Muffler and Tailpipe

<b>309-00C Exhaust System - 3.5L EcoBoost (BM)</b>	<b>2022 F-150</b>
<b>Removal and Installation</b>	<b>Procedure revision date: 07/24/2020</b>

### Muffler and Tailpipe

#### Removal

##### NOTE

Muffler and tailpipe assemblies will vary in configuration with different wheelbases and powertrains. Typical application shown.

##### 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. Loosen the clamp.

**Torque** : 41 lb.ft (55 Nm)