


303-14 Electronic Engine Controls - 2.3L EcoBoost (201kW/273PS)
Removal and Installation

2019 Ranger
Procedure revision date: 10/30/2018

Heated Oxygen Sensor (HO2S)

Base Part Number: 9F472

Special Tool(s) / General Equipment

 <p>E172696</p>	<p>303-476 (T94P-9472-A) Socket, Exhaust Gas Oxygen Sensor TKIT-1994-LM/M TKIT-1994-F TKIT-1994-FLM/FM</p>
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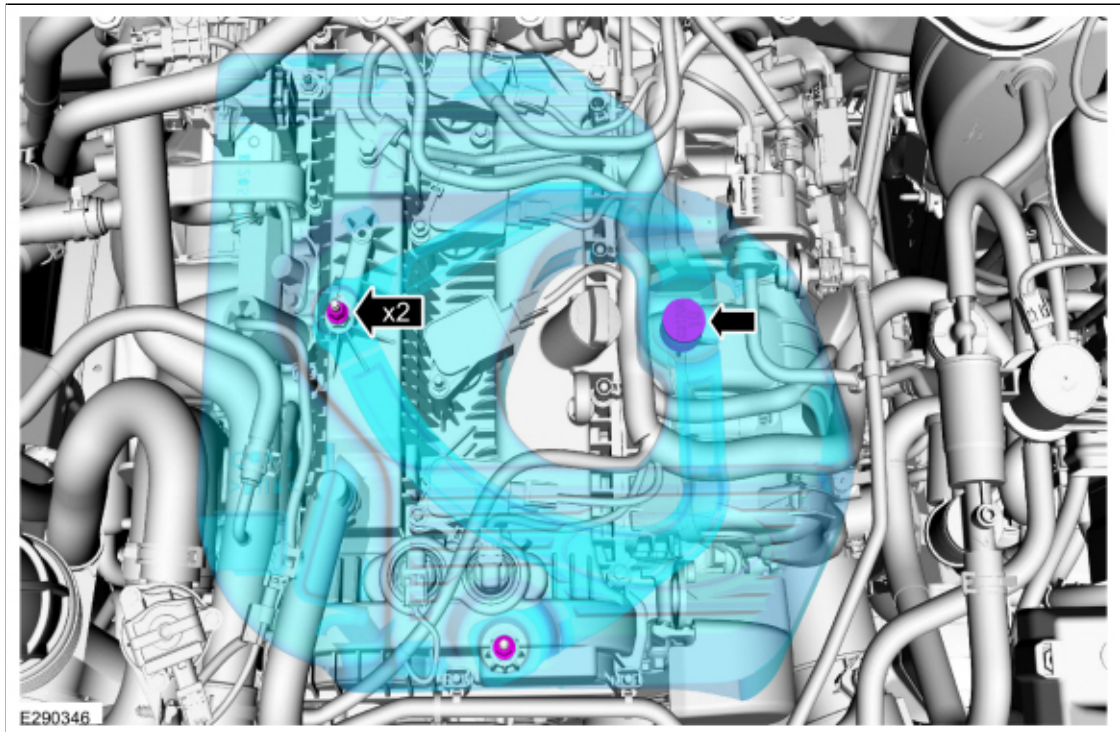
Materials

Name	Specification
Motorcraft® High Temperature Nickel Anti-Seize Lubricant XL-2	-
Motorcraft® Penetrating and Lock Lubricant XL-1	-
Motorcraft® Silicone Brake Caliper Grease and Dielectric Compound XG-3-A	ESE-M1C171-A

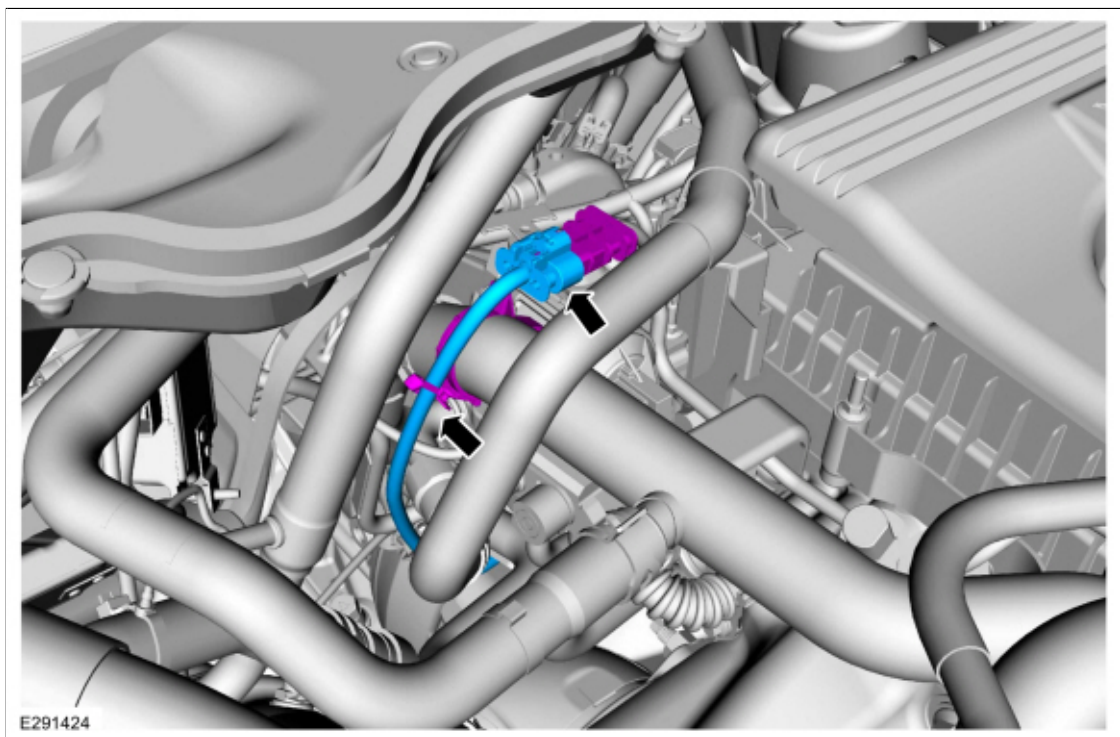
Removal

NOTE: Removal steps in this procedure may contain installation details.

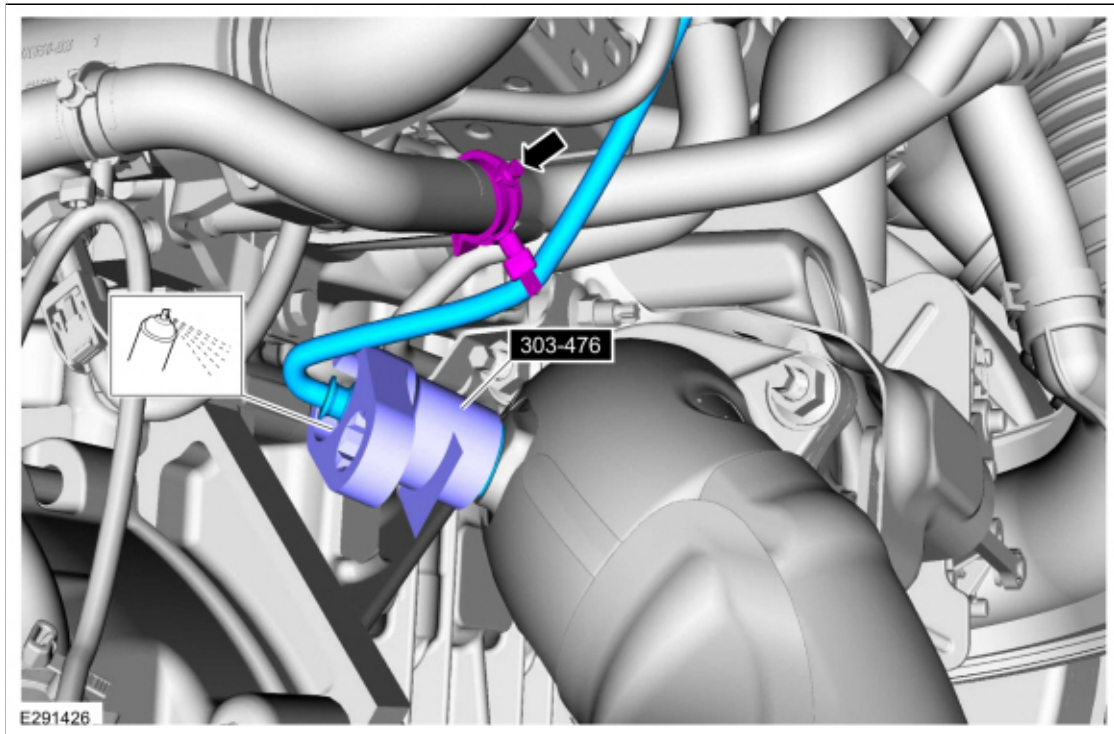
1. With the vehicle in NEUTRAL, position it on a hoist.
Refer to: [Jacking and Lifting](#) (100-02 Jacking and Lifting, Description and Operation).
2. **NOTICE: Do not pull the engine appearance cover forward or sideways to remove. Failure to press straight upward on the underside of the cover at the attachment points may result in damage to the cover or engine components.**
 1. Remove the engine appearance cover nut.
 2. Place your hand under the engine appearance cover at each grommet location and pull straight up to release each grommet from the studs.
 3. After all of the grommets have been released from the studs, remove the appearance cover from the engine.

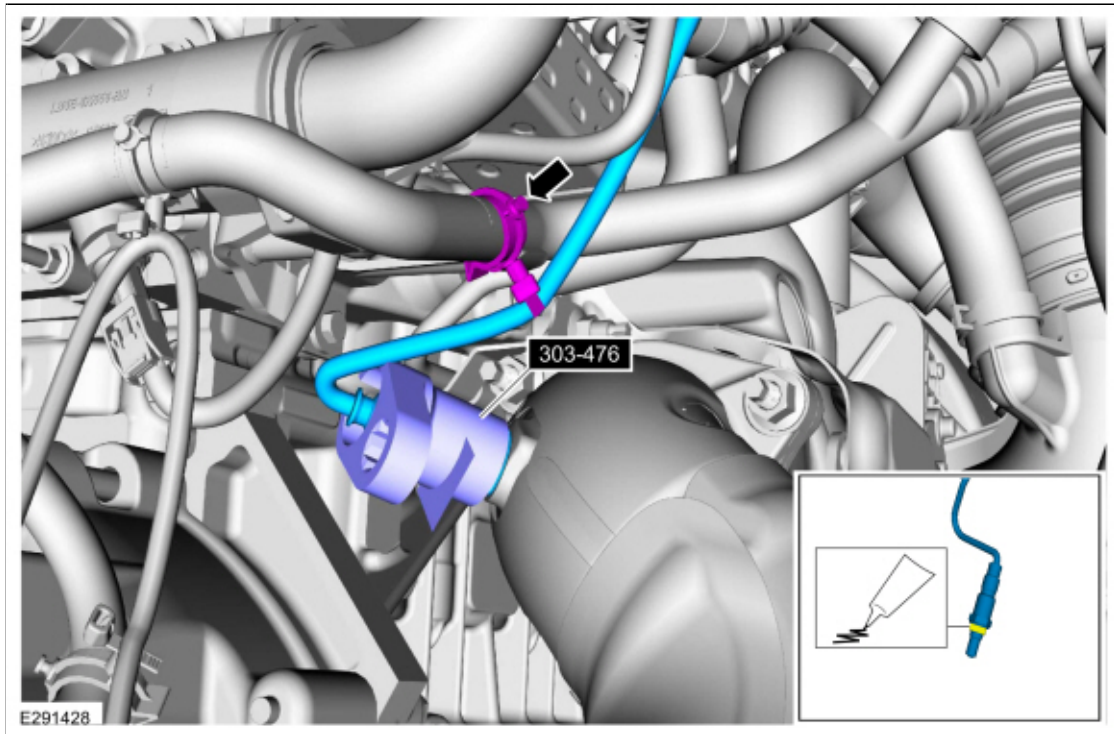


3. Disconnect the HO2S harness retainer and electrical connector.



4. Disconnect the harness retainer. Apply penetrating oil to sensor, using the special tool remove the HO2S.
 Use Special Service Tool: [303-476 \(T94P-9472-A\) Socket, Exhaust Gas Oxygen Sensor](#).
 Use Suggested Tool: [303-476 \(T94P-9472-A\) Socket, Exhaust Gas Oxygen Sensor](#). Tool shown or a commercially available equivalent can be used.
Material: Motorcraft® Penetrating and Lock Lubricant / XL-1





3.

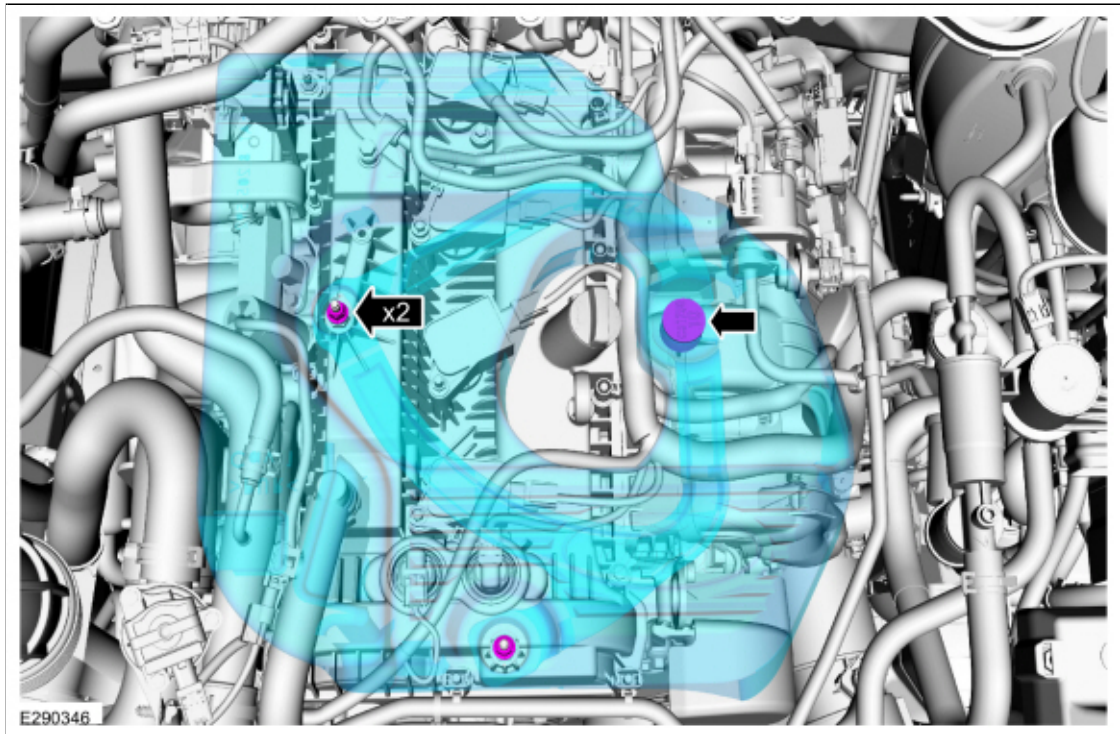
1. **NOTE:** Lubricating the grommets with silicone grease will aid in the installation of the engine appearance cover, and any future removal and installation of the cover.

Lubricate each grommet with silicone grease.

Material: Motorcraft® Silicone Brake Caliper Grease and Dielectric Compound / XG-3-A (ESE-M1C171-A)

2. Position the engine appearance cover onto engine with the grommets aligned with the studs.
3. Press down on the engine appearance cover at each grommet location to attach the grommets onto the studs.
4. Install the engine appearance cover nut.
Torque: 44 lb.in (5 Nm)
5. If the engine appearance cover stud bolt is loosened or removed, it must be installed/tightened into the valve cover.
Torque: 62 lb.in (7 Nm)





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