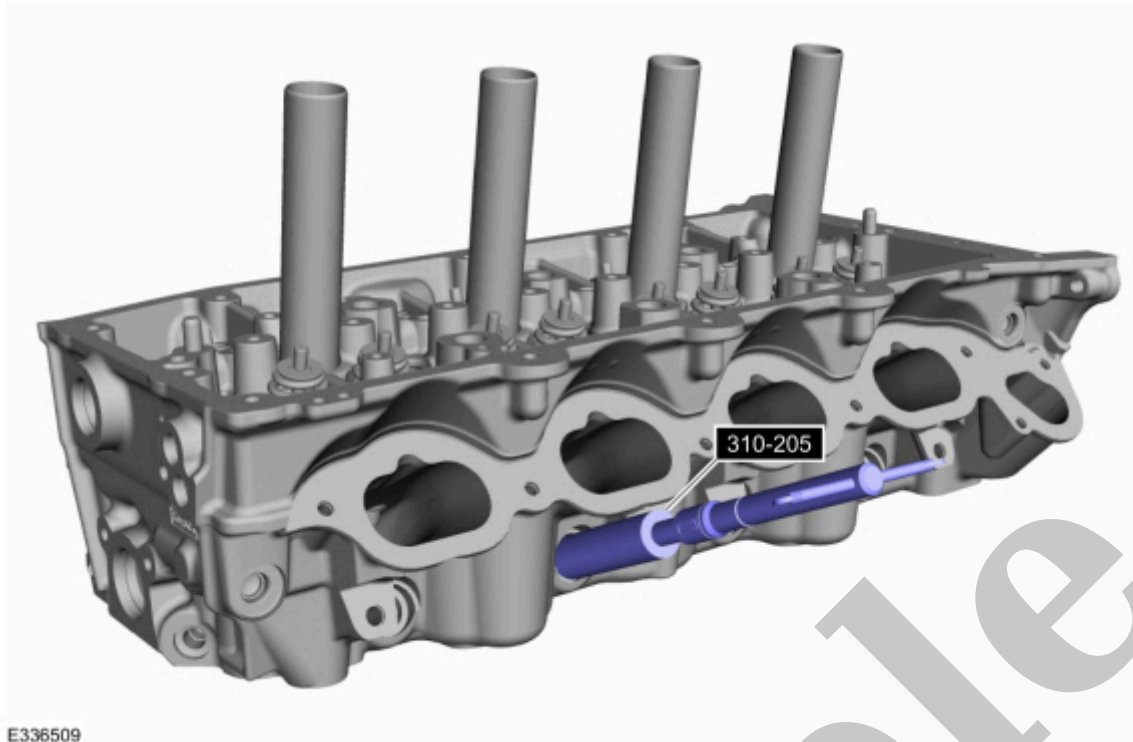


Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2015 Ford Transit-150 Service and Repair Manual

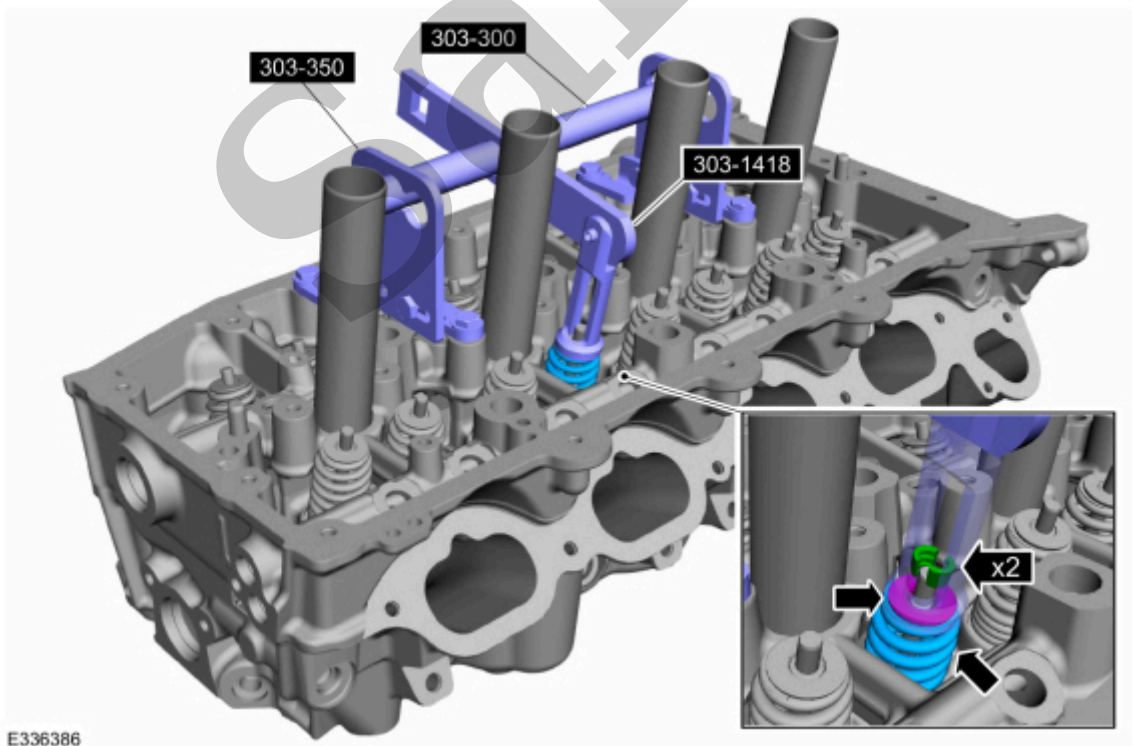
[Go to manual page](#)

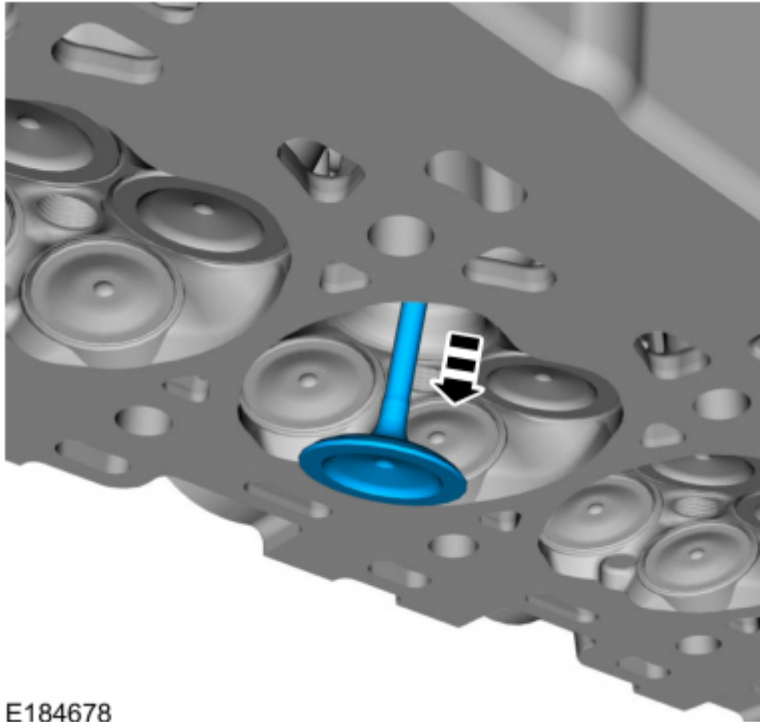


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10. Using the special tools, remove the keys, retainer and spring.

Use Special Service Tool : 303-300 (T87C-6565-A) Set, Valve Spring Compressor , 303-350 (T89P-6565-A) Compressor, Valve Spring , 303-1418 Compressor, Valve Spring





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13. Repeat the previous steps for each of the remaining valves.

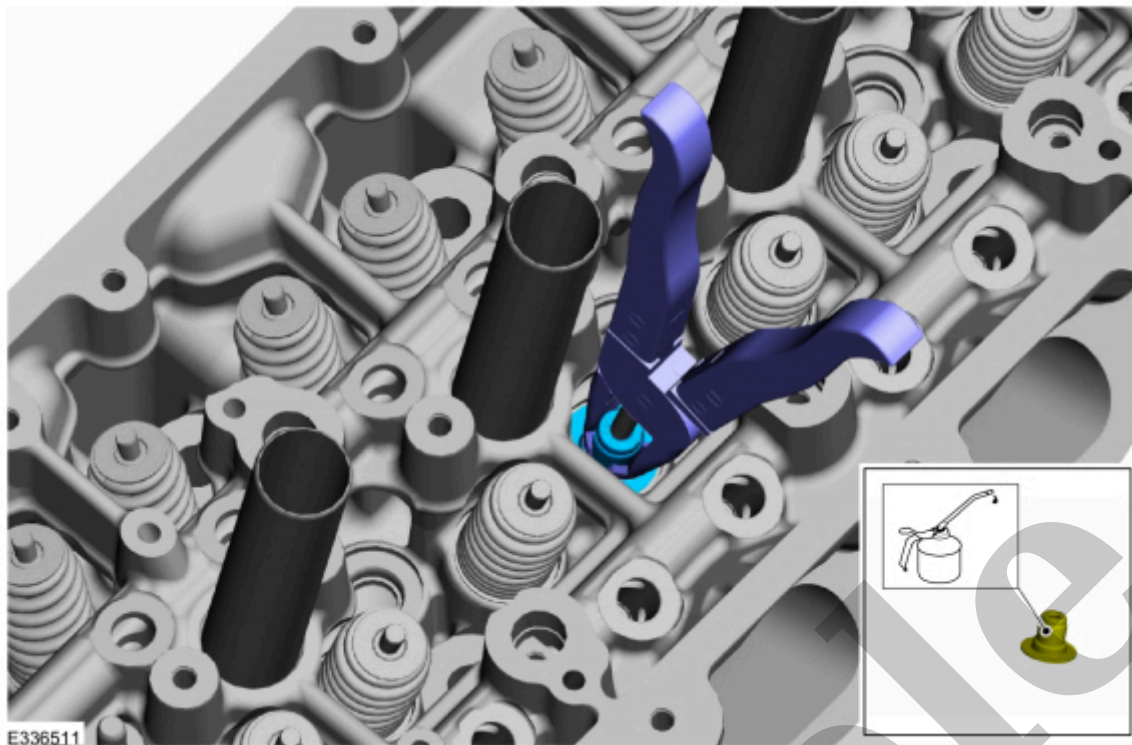
ASSEMBLY

All cylinder heads

NOTE

LH (left-hand) cylinder head shown, RH (right-hand) similar.

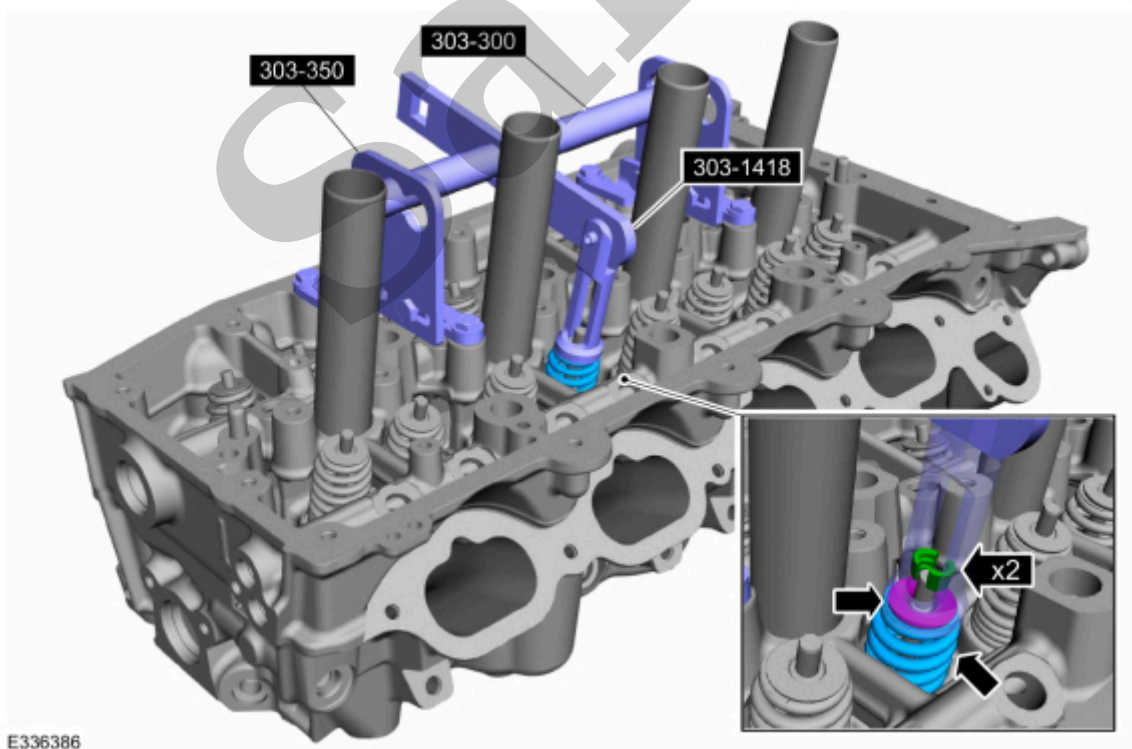
1. Install the valve into the cylinder head.



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3. Using the special tools, install the spring, retainer and keys.

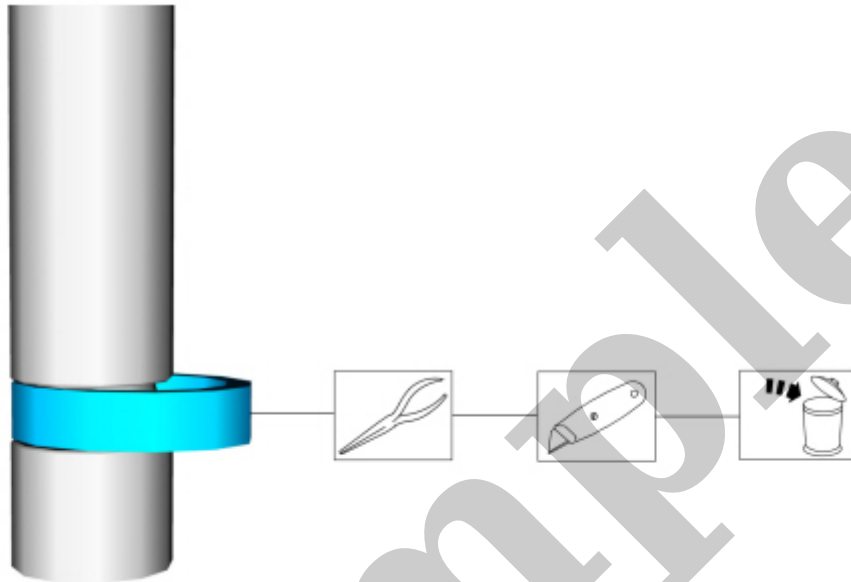
Use Special Service Tool : 303-300 (T87C-6565-A) Set, Valve Spring Compressor , 303-350 (T89P-6565-A) Compressor, Valve Spring , 303-1418 Compressor, Valve Spring



NOTICE

Do not attempt to cut the lower Teflon® seal without first pulling it away from the fuel injector or damage to the injector may occur.

1. Pull the lower Teflon® seal away from the injector.
2. Carefully cut and discard the lower fuel injector Teflon® seal.



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7. NOTICE

Do not lubricate the NEW lower Teflon® fuel injector seals.

1. Install the Teflon® Seal Guide onto the fuel injector tip.

Use Special Service Tool : 310-207 Installer, Fuel Injector Seal Assembly

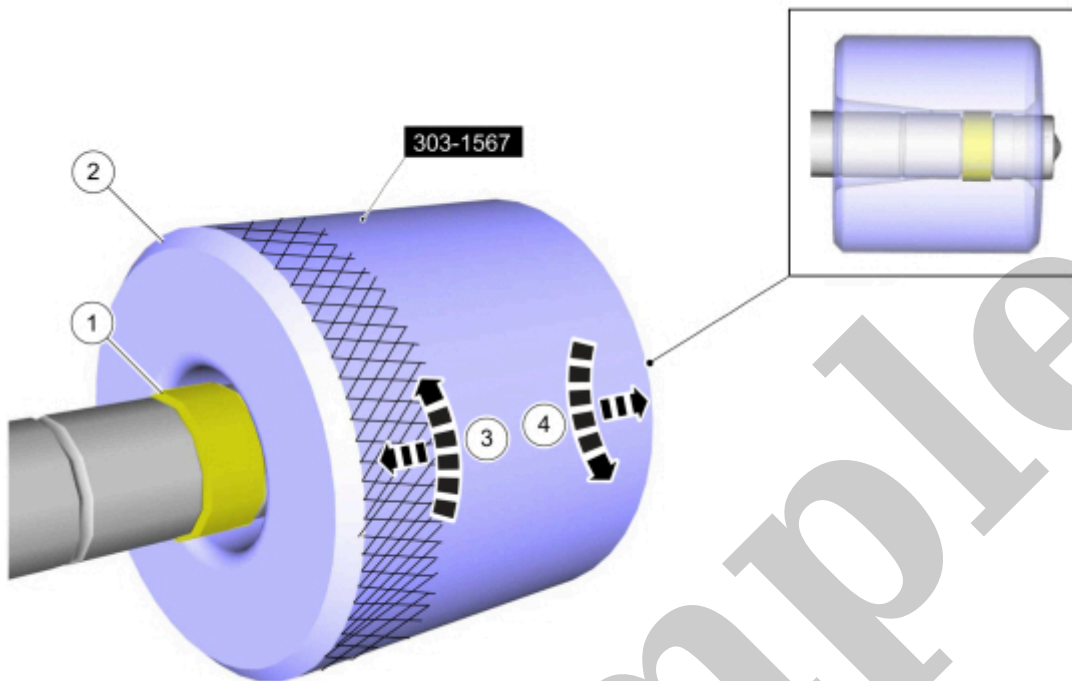
2. NOTICE

Once the Teflon® seal is installed on the Teflon® Seal Guide, it should immediately be installed onto the fuel injector to avoid excessive expansion of the Teflon® seal.

NOTE

Use Special Service Tool : 303-1567 Sizer, Teflon Seal

3. Once the Teflon® seal sizer tool is installed, check and make sure the Teflon® seal is in the sizing portion of the Teflon® seal sizer tool.
4. After one minute, turn the Teflon® seal sizer tool back 180 degrees and remove.



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9. **NOTE**

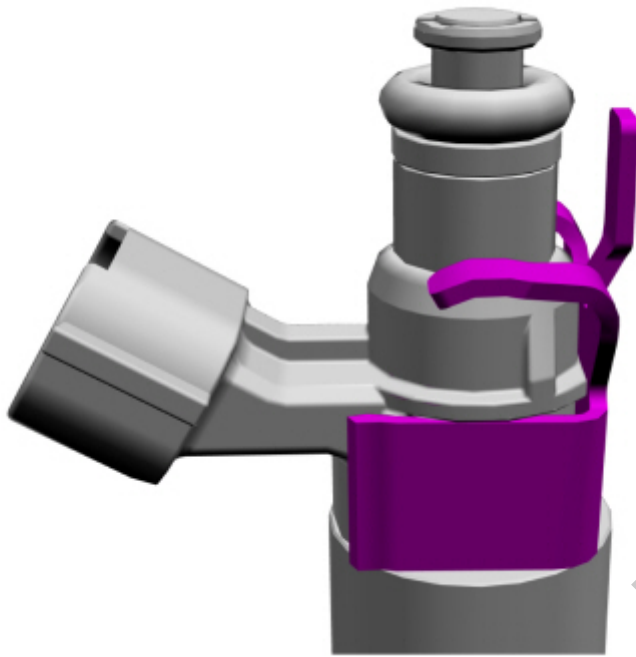
Make sure that NEW fuel injector support rings and NEW fuel injector O-ring seals are installed.

1. Install the new fuel injector O-rings. The O-rings are pre-lubricated, NO ADDITIONAL lubricant is required.

2. **NOTICE**

The NEW the fuel injector support rings must be installed in the correct orientation with the wide surface area facing up against the fuel injector O-ring seals. Improperly installed support rings may cause the fuel system to leak.

Install the NEW the fuel injector support rings.



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11. **NOTE**

The anti-rotation finger of the fuel injector clip must slip into the groove of the fuel rail cup.

Install the fuel injectors to the fuel rail and then connect the fuel injector electrical connectors.

13. • **NOTE**

Do not lubricate the NEW lower Teflon® fuel injector seals.

Install the fuel rail, push down on the fuel rail above the injectors.

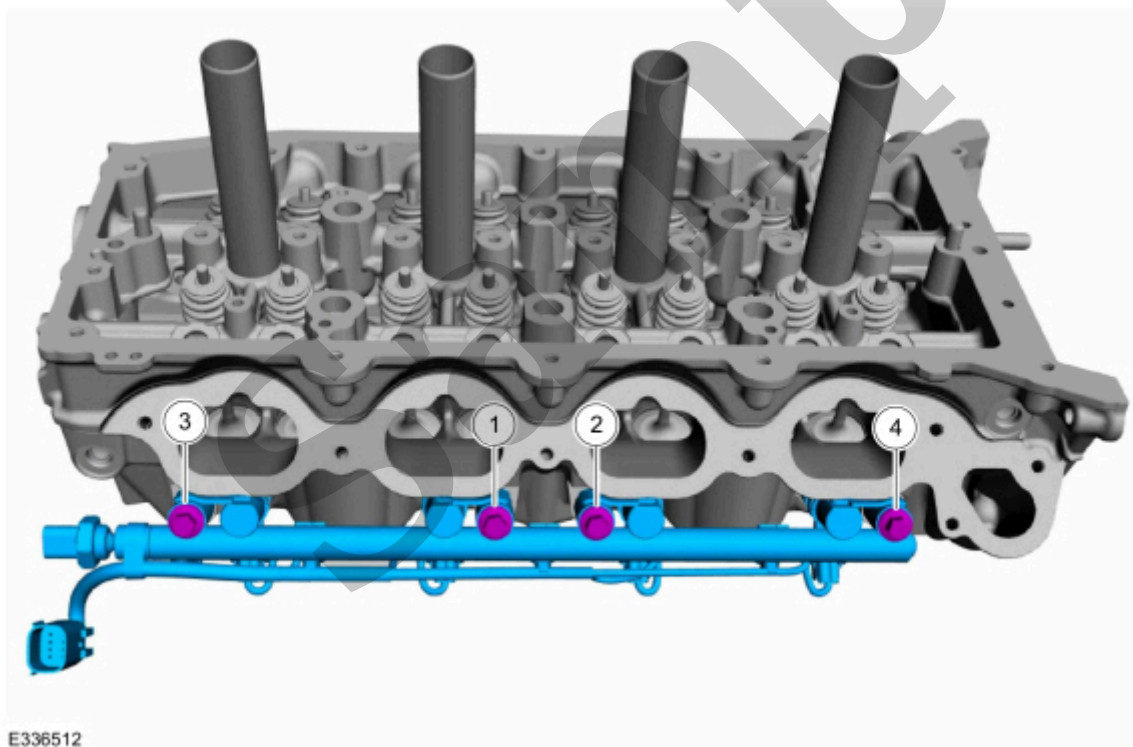
- Hand start all of the fuel rail bolts and finger tighten the fuel rail bolts so they are uniformly in light contact with fuel rail bosses.
- Tighten the fuel rail bolts approximately 90 degrees, in the sequence shown. Repeat to evenly draw down the fuel rail, until the fuel rail bosses are in contact with the cylinder head.

Torque :

Stage 1: Tighten the fuel rail bolts in the sequence shown to : 89 lb.in (10 Nm)

Stage 2: Tighten the fuel rail bolts in the sequence shown to : 21 lb.ft (28 Nm)

Stage 3: Tighten the fuel rail bolts in the sequence shown an additional : 25°

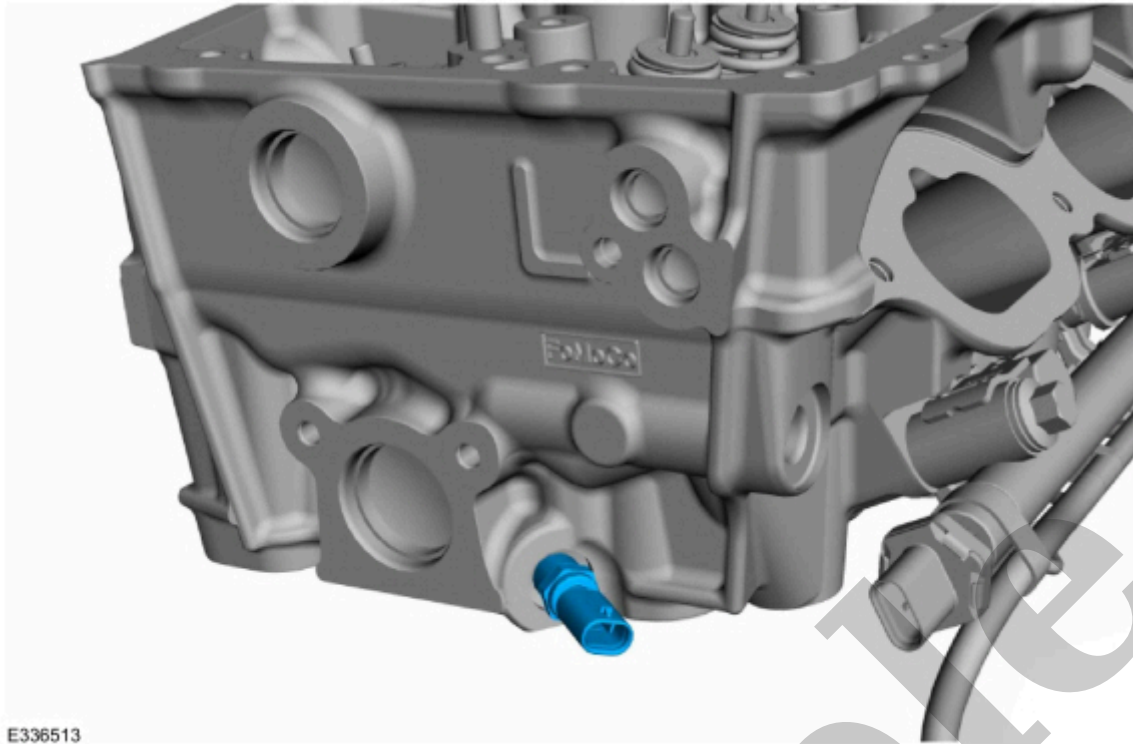


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RH cylinder heads

14. Install a new O-ring seal and lubricate with clean engine coolant.

- Install the coolant outlet and the bolt.



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16. If equipped, install a new gasket, the coolant outlet and the bolts.

Torque :

Stage 1: 89 lb.in (10 Nm)

Stage 2: 45°



Piston

<i>303-01E Engine - 5.0L 32V Ti-VCT</i>	<i>2022 F-150</i>
<i>Disassembly and Assembly of Subassemblies</i>	<i>Procedure revision date: 10/1/2020</i>

Piston

DISASSEMBLY

1. Remove and discard the piston rings.



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2. Remove and discard the piston pin retainers.
 - Remove the piston pin.