

PUBLISHED: 30-AUG-2019
2020.0 DEFENDER (LE), 315-00

TRANSFER CASE

TRANSFER CASE REAR OUTPUT SHAFT BEARING

[G2413351]

mcx30.com

SPECIAL TOOL(S)

205-726



E87692

205-726

Remover/Installer, Wheel Hub Bearing

303-1119

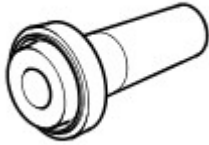


E54542

303-1119

Installer, Camshaft Seal

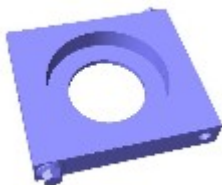
308-637



E55697

308-637

Installer



E158795

JLR-308-927

Support Tool, Transfer Case

GENERAL EQUIPMENT

EQUIPMENT NAME

Jaguar Land Rover approved diagnostic equipment

PART(S)

STEP	PART NAME	QUANTITY
Installation Step 4	Transfer case rear output shaft oil seal	1
Installation Step 6	Circlip	1
Installation Step 8	Circlip	1

REMOVAL

NOTE:

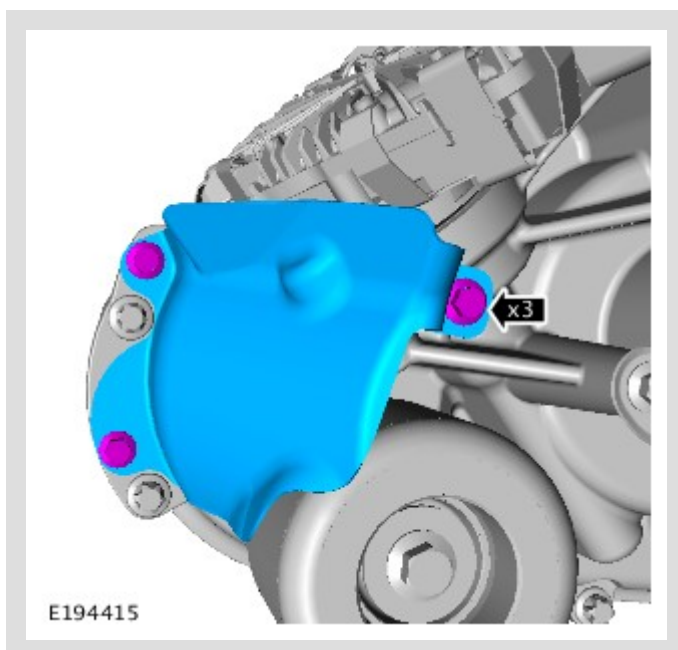
- This procedure contains illustrations showing certain components removed to provide extra clarity.
- This procedure contains some variation in the illustrations depending on the vehicle specification, but the essential information is always correct.

1. Raise and support the vehicle on a suitable 2 post lift.
Refer to: [Jacking and Lifting](#) (100-02 Jacking and Lifting, Description and Operation).
2. Disconnect the startup battery ground cable.
Refer to: [Startup Battery Disconnect and Connect](#) (414-00 Battery and Charging System - General Information, General Procedures).
3. Drain the transfer case.
Refer to: [Transfer Case Draining and Filling](#) (315-00 Transfer Case, General Procedures).
4. Remove the transfer case.
Refer to: [Transfer Case](#) (315-00 Transfer Case, Removal).
5. With assistance, secure the transfer case with its transmission mating face down on a flat surface.

6.

 NOTE:

If equipped.

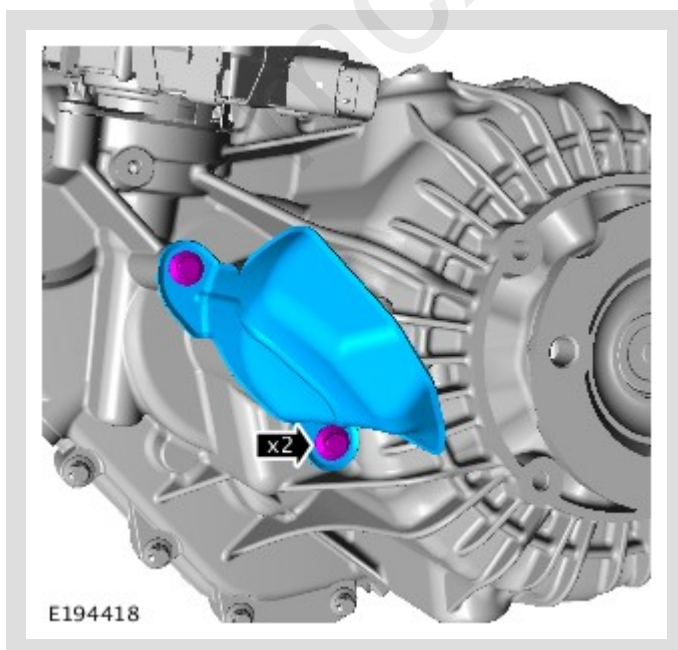


- Remove the 3 bolts.
- Remove the heatshield.

7.

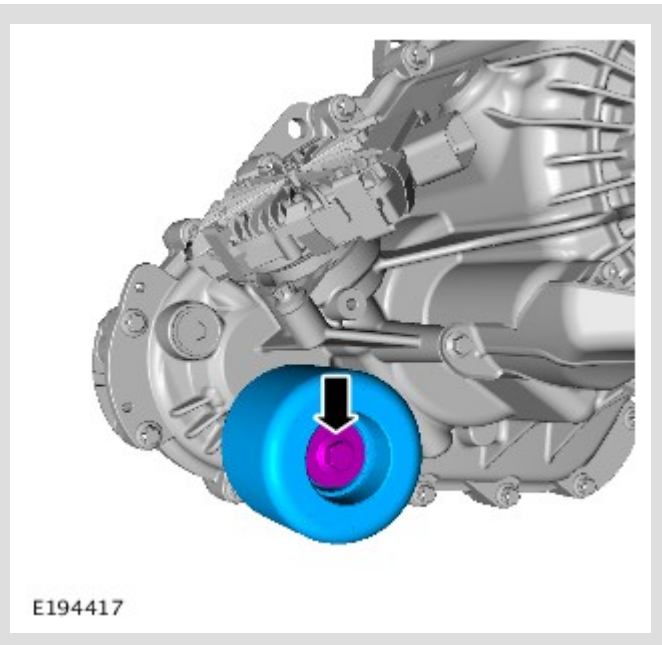
 NOTE:

If equipped.



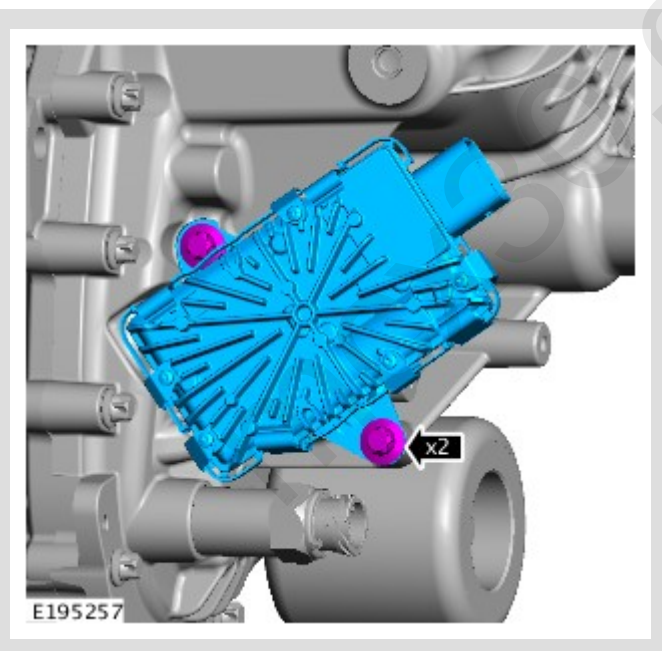
- Remove the 2 bolts.
- Remove the heatshield.

8.



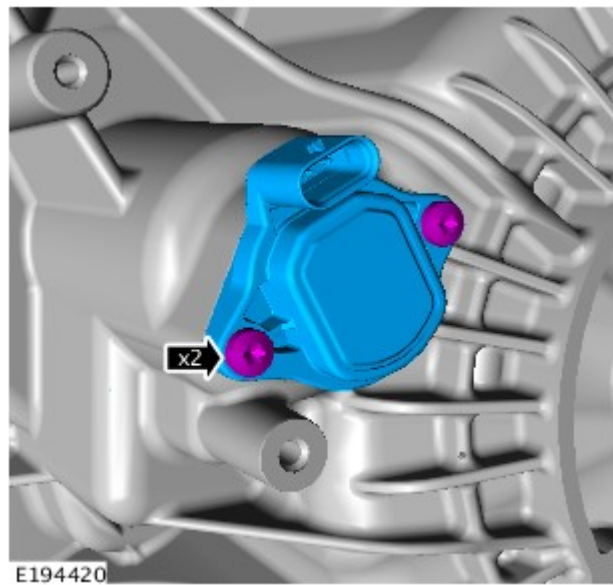
- Remove the bolt.
- Remove the Noise, Vibration and Harshness (NVH) damper.

9.



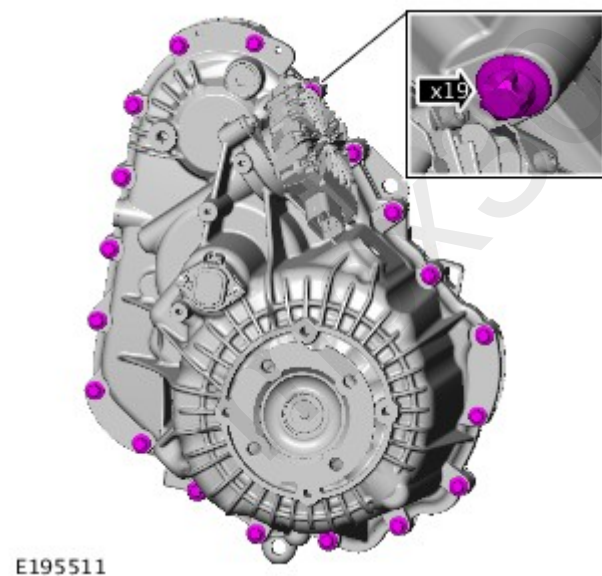
- Remove the 2 bolts.
- Remove the Transmission Control Module (TCM).

10.



- Remove the 2 bolts.
- Remove the sensor.

11.



Remove the 19 transfer case bolts.

12.

ⓘ CAUTION:

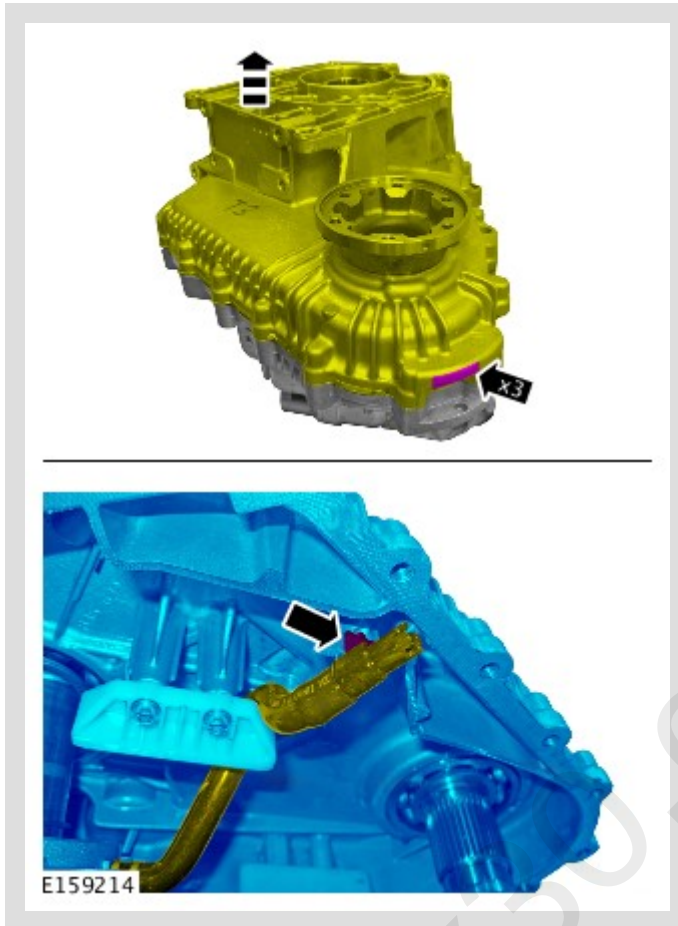
Care must be taken when turning the transfer case over. The transfer case halves must not be allowed to separate.

With assistance, release the transfer case and secure with the rear face of the transfer case facing down on a flat surface.

13.

ⓘ CAUTION:

Care must be taken to avoid damage to the mating surfaces.



Using a soft faced mallet, release the front casing.

14.

Clean the component mating faces.

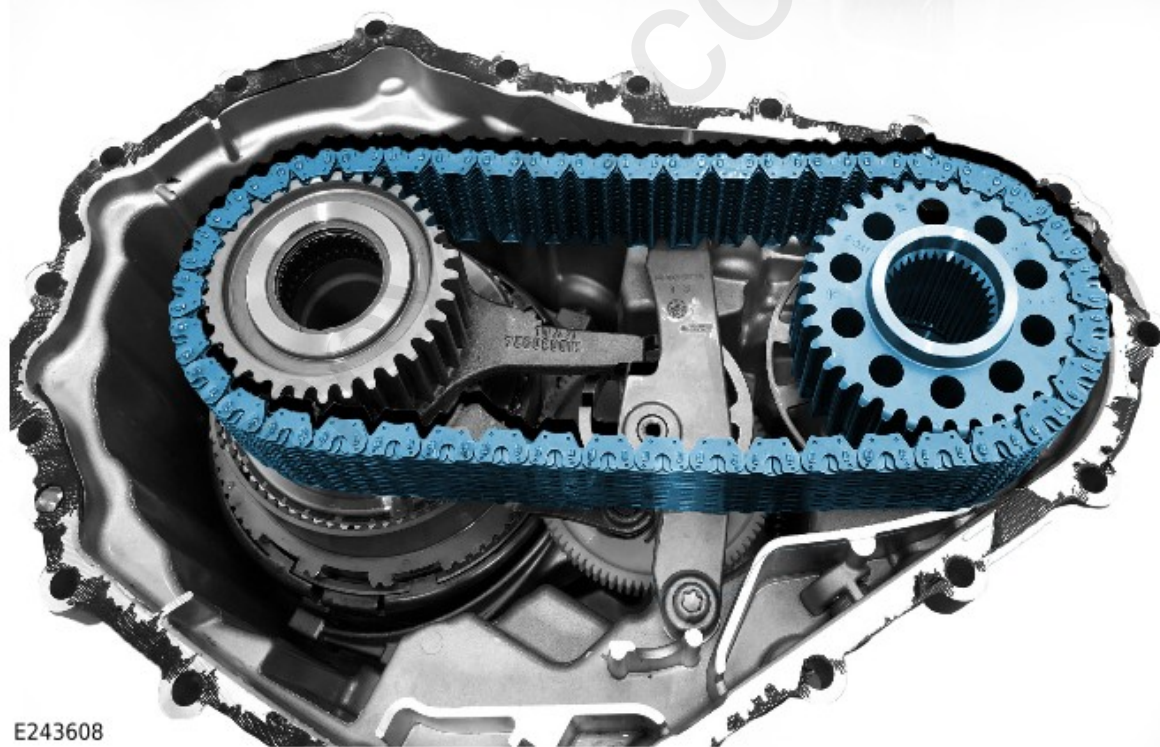
15.



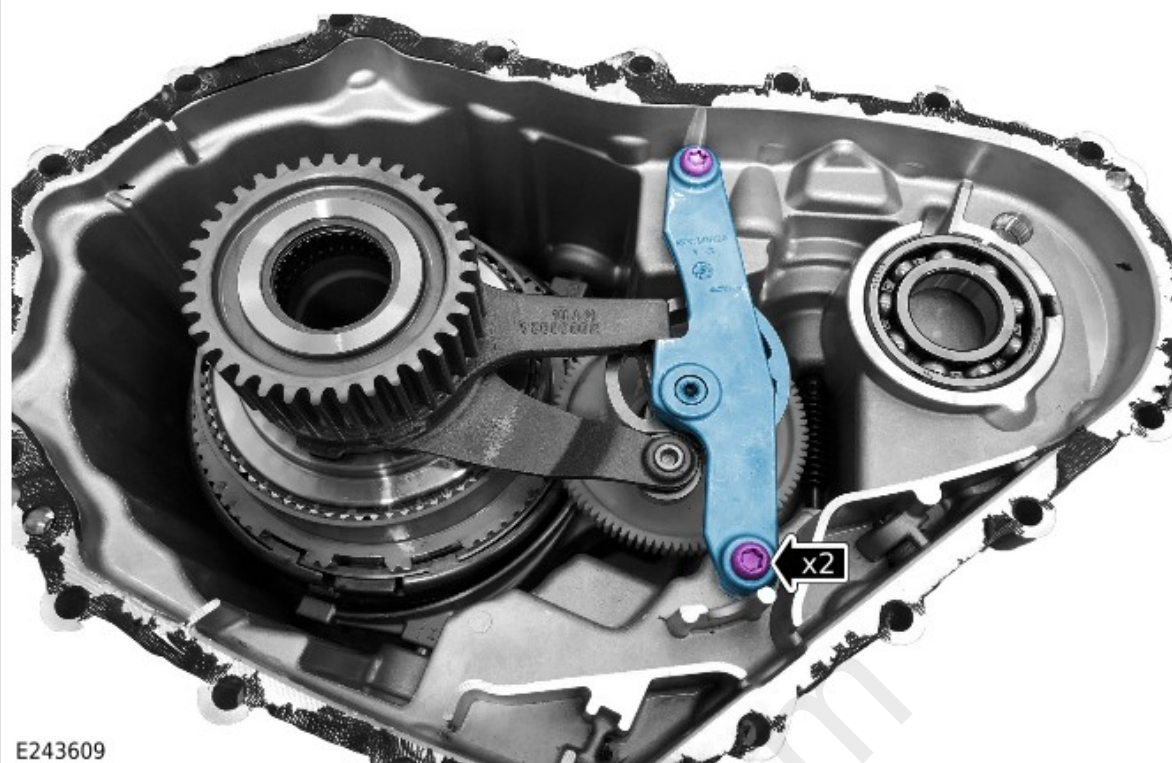
E159213

Locate the magnetic filter. The filter may have dropped into the front housing in the previous step.

16.



Remove the transfer case chain assembly.



- Remove the 2 bolts.
- Remove the bracket.

ⓘ CAUTION:

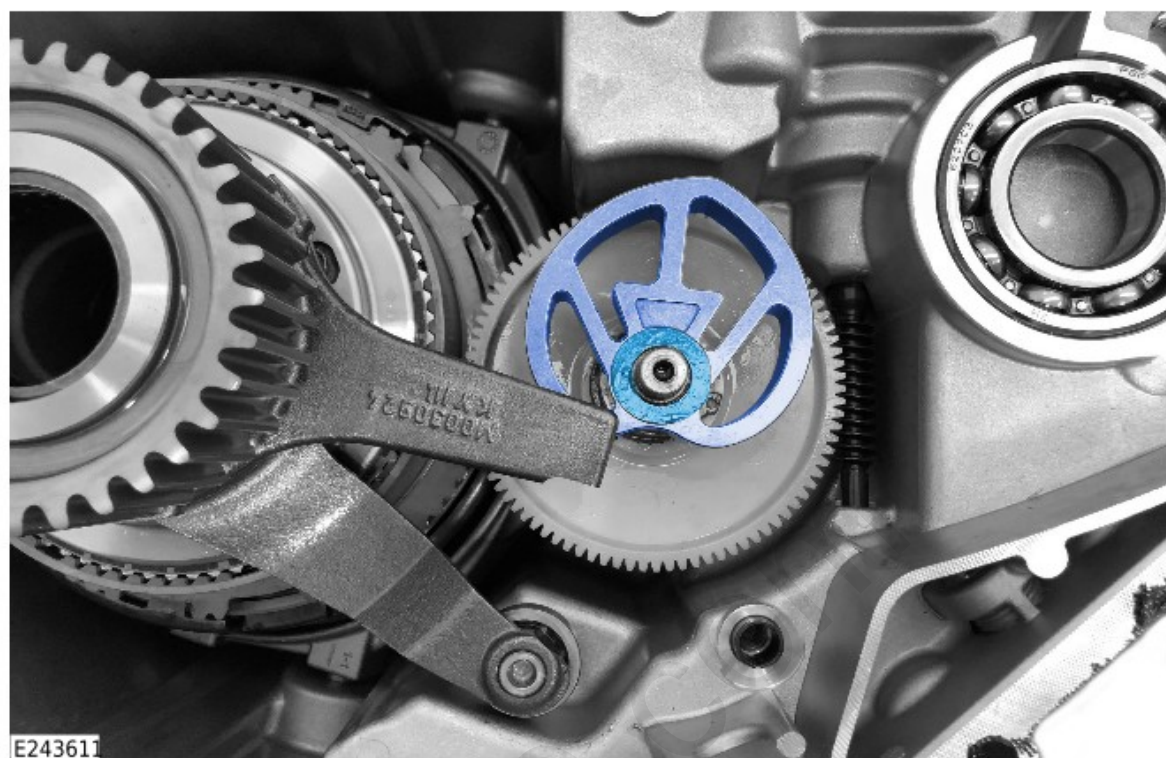
Note the installed position of the component prior to removal.



Rotate the transfer differential assembly to the position shown in the illustration.

ⓘ CAUTION:

Note the installed position of the component prior to removal.



- Remove the washer.
- Remove the components.



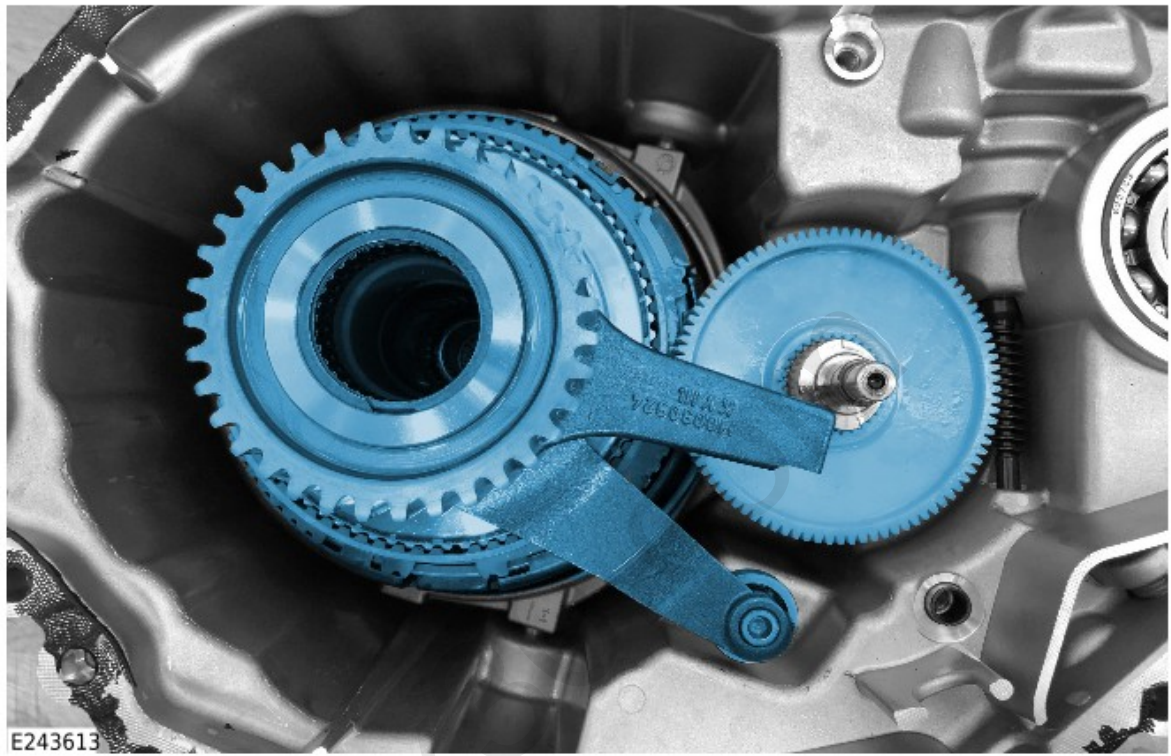
Remove and discard the circlip.

⚠ CAUTION:

Note the installed position of the component prior to removal.

⚠ NOTE:

Remove both components at the same time.



- Remove the transfer differential assembly.
- Remove the gear.

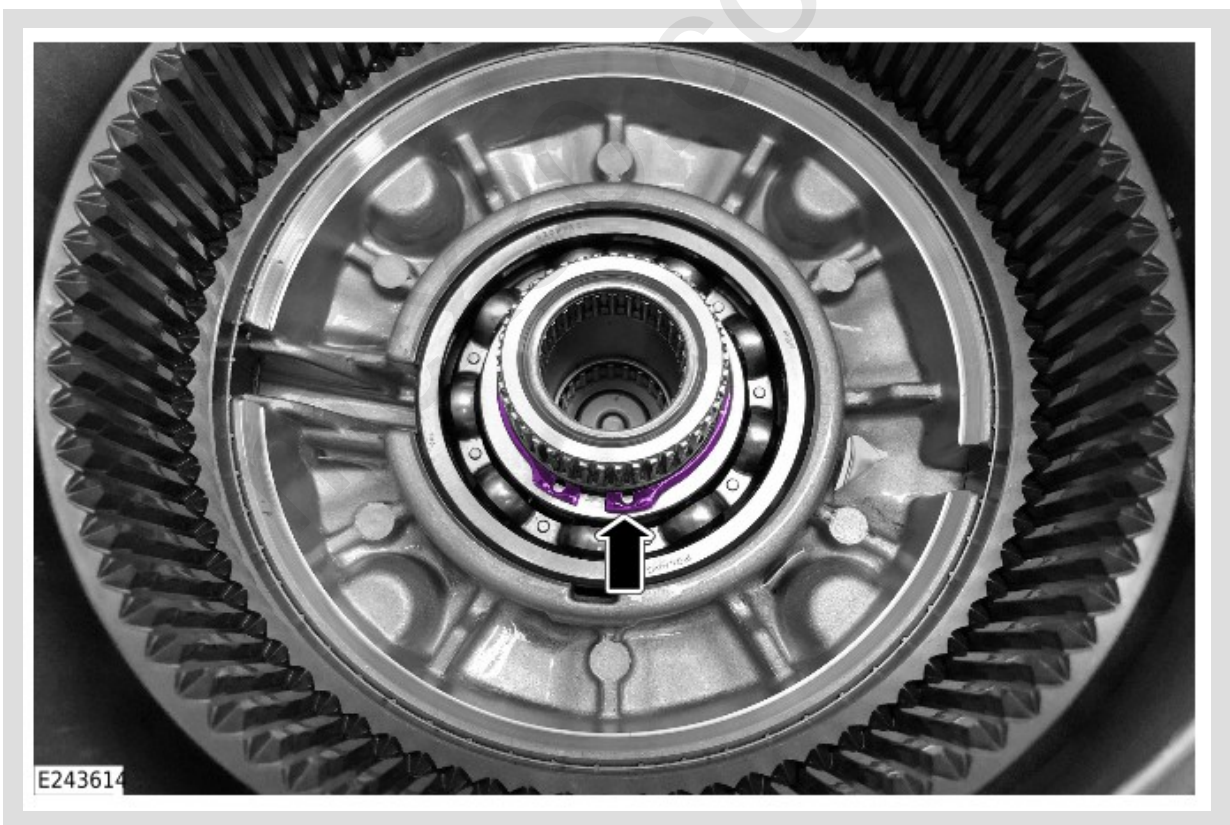
22.



Install the special tool.

Special Tool(s): [JLR-308-927](#)

23.



Remove and discard the circlip.

24.

ⓘ CAUTION:

Do not use excessive force when removing the flange assembly.



Remove the rear output shaft flange.

25.



- Use the special tool to remove the bearings.
Special Tool(s): [303-1119](#)
- Discard the bearing.



Remove and discard the seal.

INSTALLATION

1.



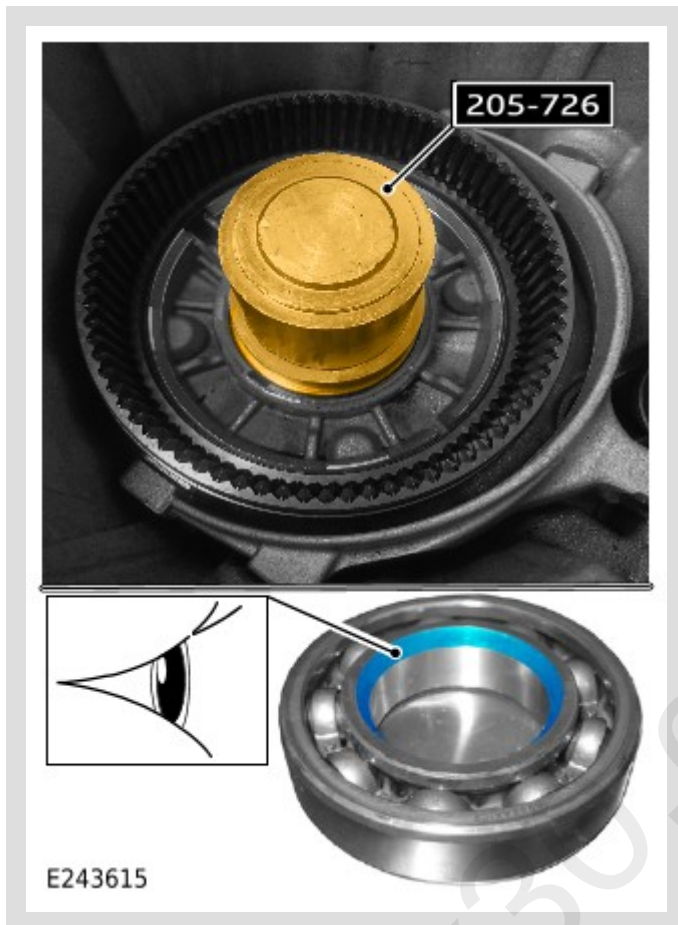
Position the special tool as shown, to support the transfer case during the next step.

Special Tool(s): [JLR-308-927](#)

2.

⚠ CAUTION:

The chamfer on the bearing inner track must face the seal.



Use the special tool to install the new bearing.

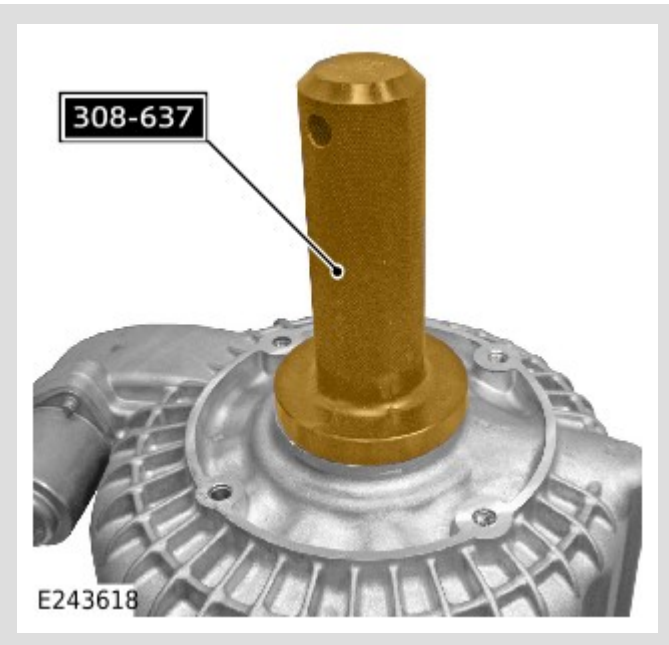
Special Tool(s): [205-726](#)

3.

Remove the special tool.

Special Tool(s): [JLR-308-927](#)

4.



Use the special tool to install a new seal.

Special Tool(s): [308-637](#)

Renew Part: [Transfer case rear output shaft oil seal](#) *Quantity:* 1.

5.



Make sure the transfer case flange seal cover is install on the flange.

6.

 NOTE:

Check that the circlip is fully engaged.



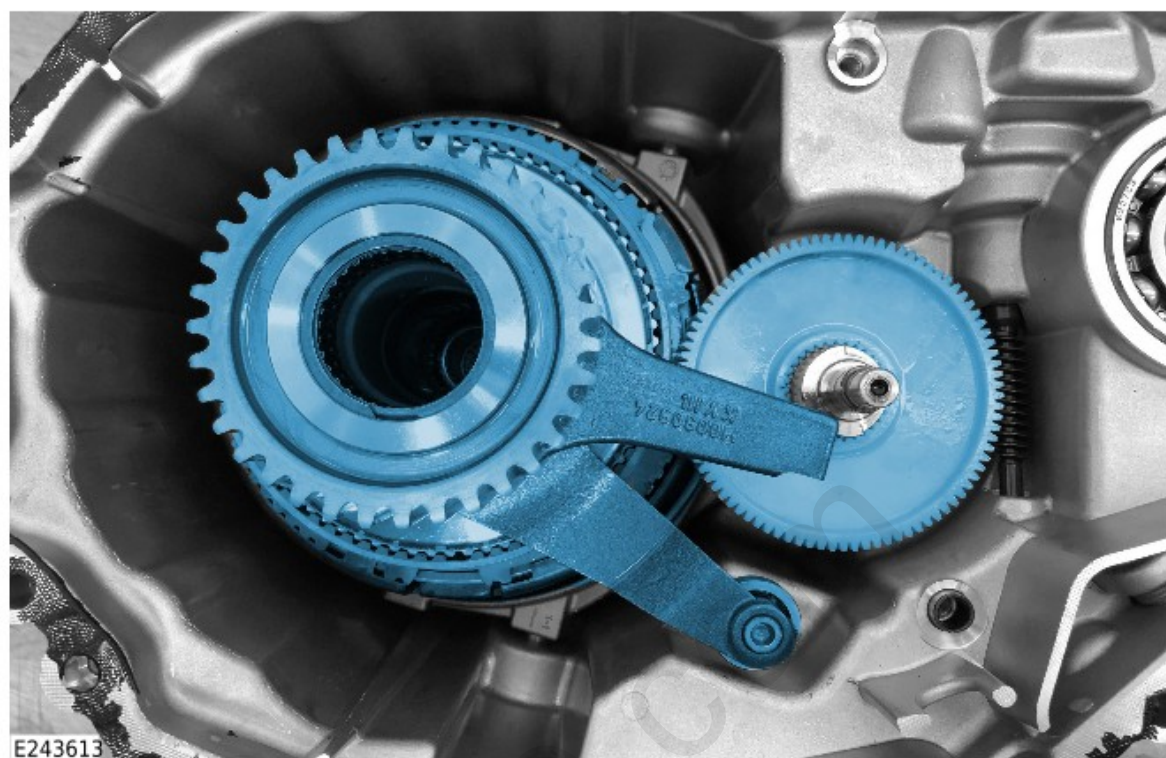
Install a new circlip.

Renew Part: [Circlip](#) Quantity: [1](#).

7.

 NOTE:

Rotate the differential to engage the splines.



Install the transfer differential assembly.

8.

 NOTE:

Check that the circlip is fully engaged.

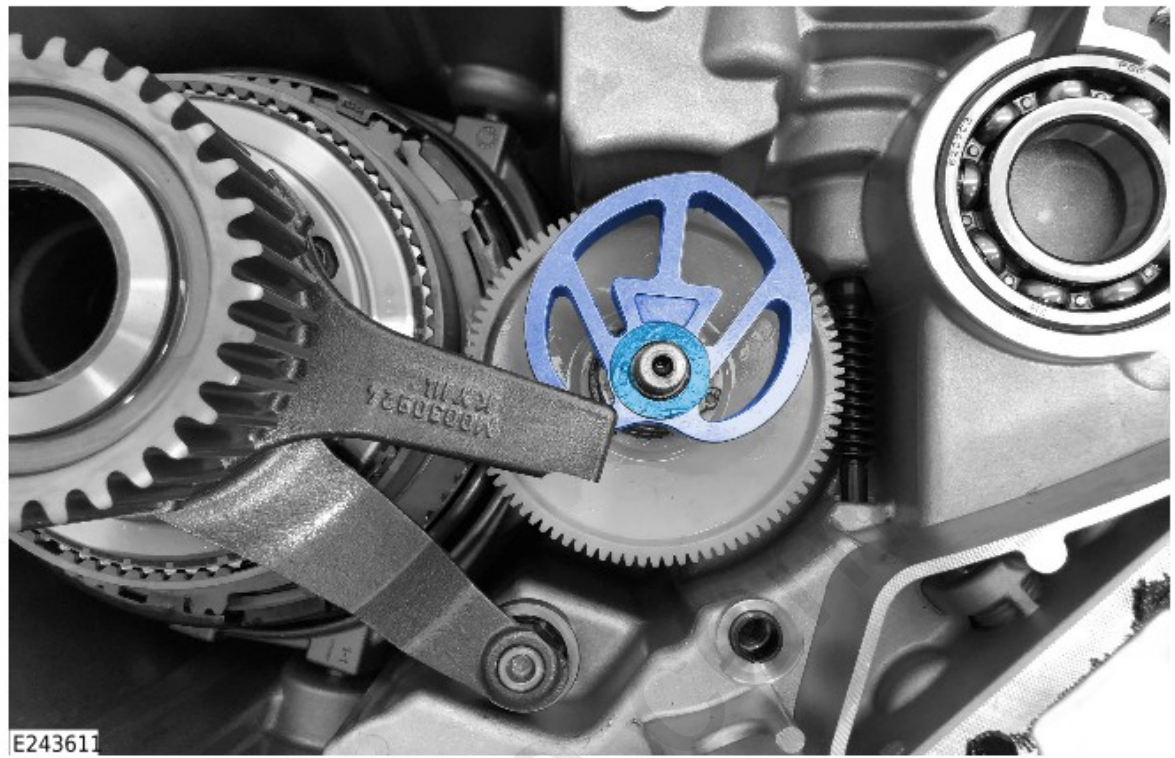


Install a new circlip.

Renew Part: [Circlip](#) Quantity: [1](#).

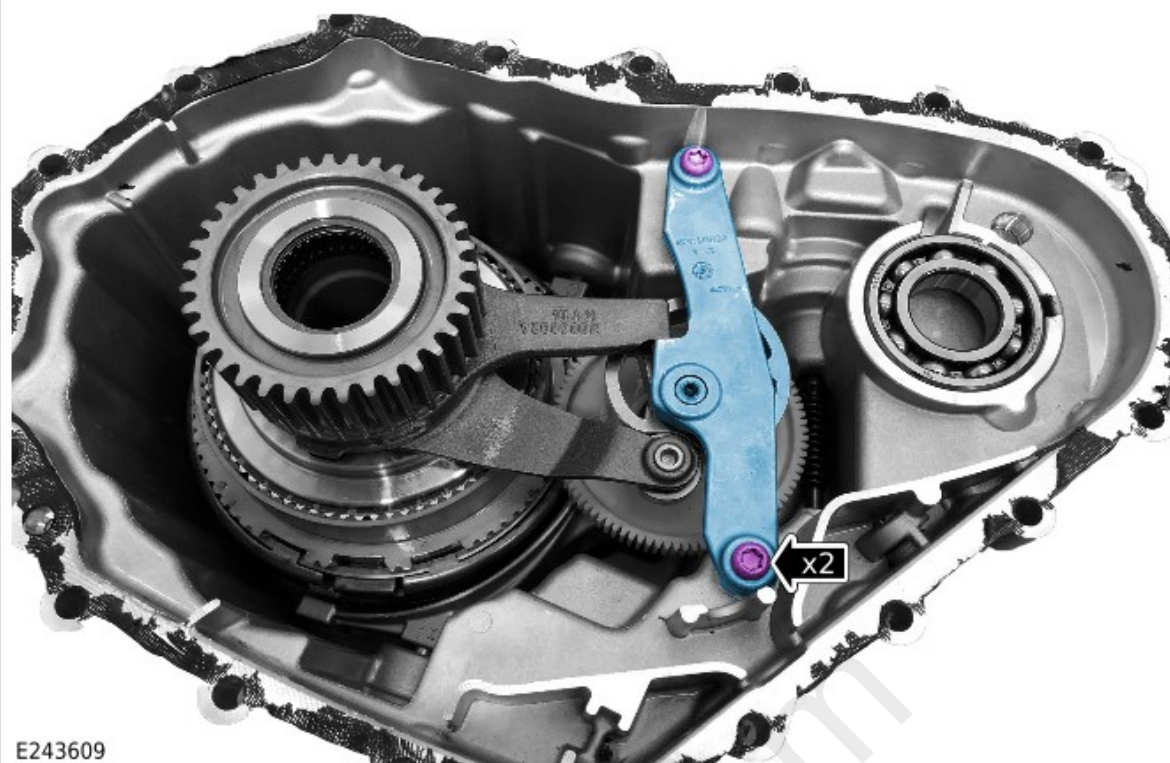
 NOTE:

Make sure that the component is installed to the noted removal position.



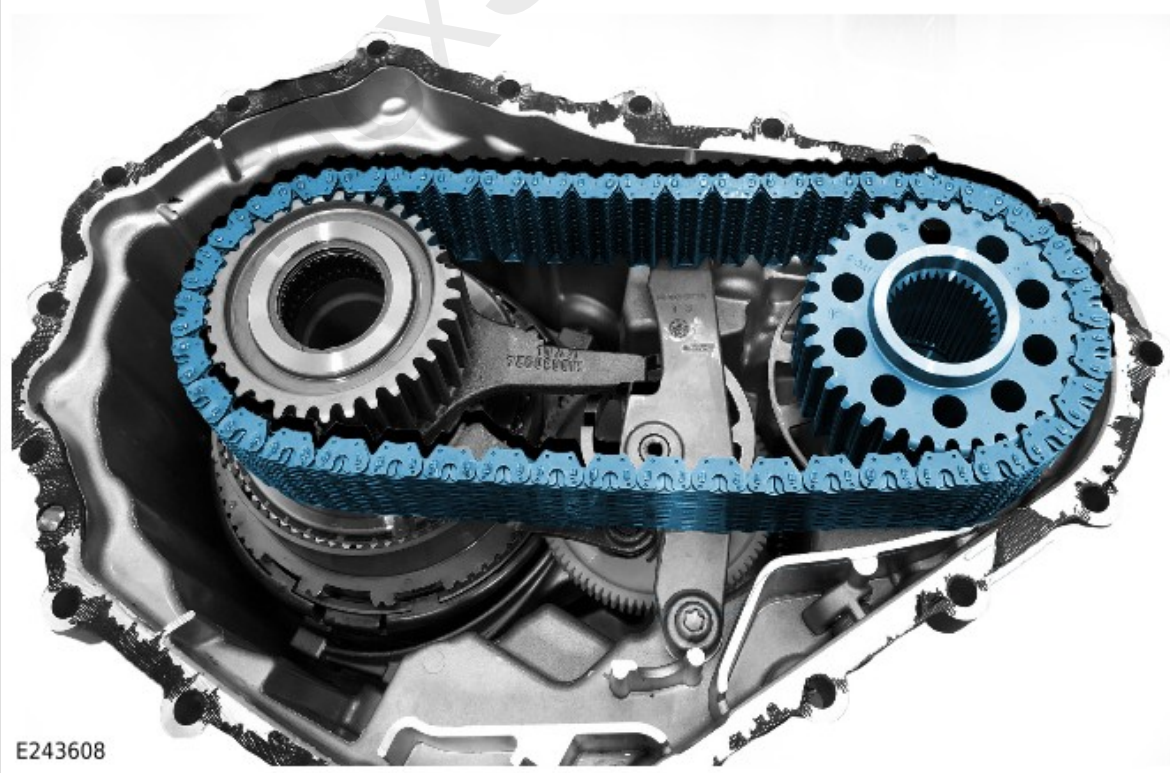
- Install the component.
- Install the washer.

10.



- Install the bracket.
 - Install and tighten the 2 bolts.
- Torque: 15Nm*

11.

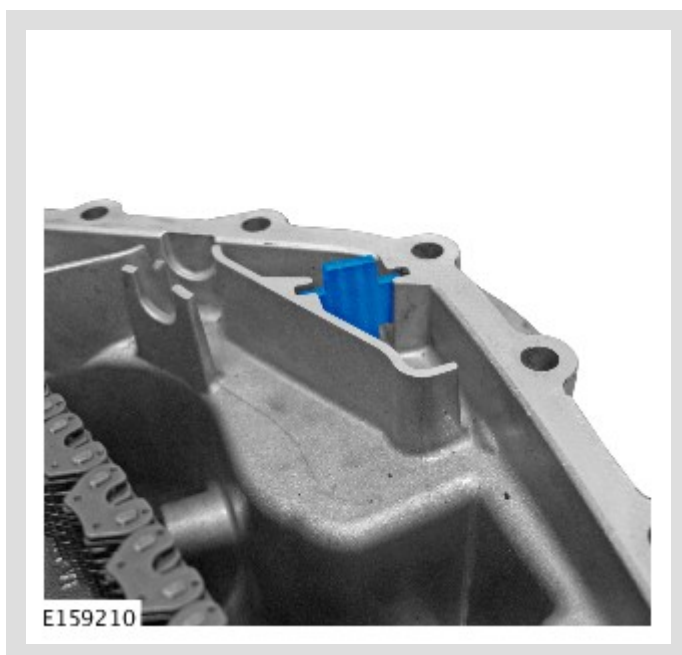


Install the transfer case chain assembly.

12.

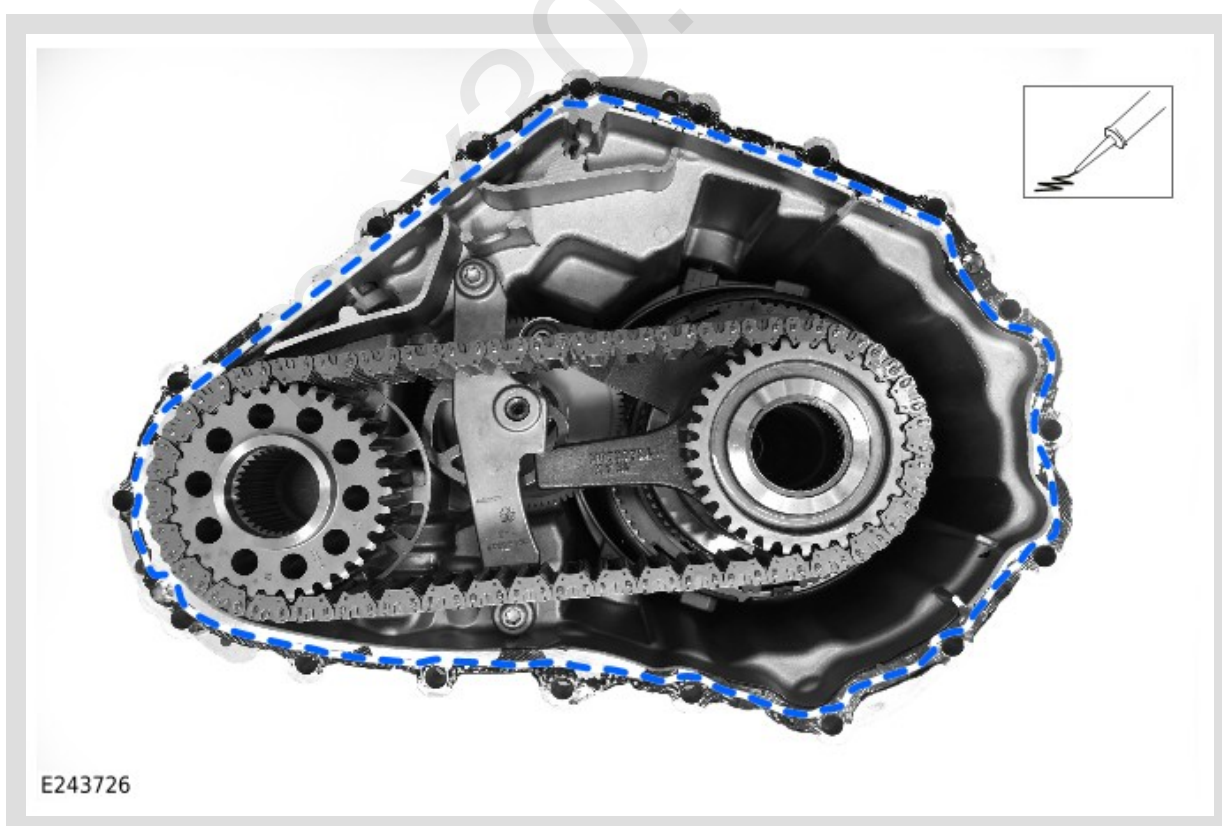
ⓘ CAUTION:

Make sure that the component is clean and free of foreign material.



Install the magnetic filter.

13.



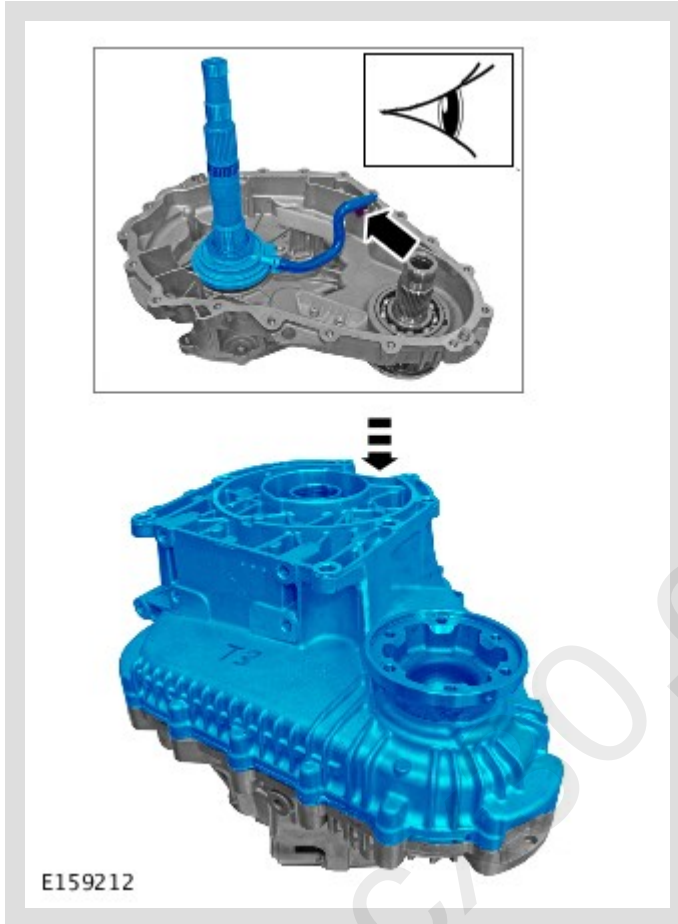
Apply a 2 mm bead of sealant to one surface of the transfer case mating face, as shown.

Refer to: [Specifications](#) (315-00 Transfer Case, Specifications).

14.

⚠ CAUTION:

- Make sure that the input shaft spacer is located correctly.
- The input shaft and fluid pump assembly must be supported and held in place by hand, until it is located securely into the clutch assembly.



Install the front half of the transfer case.

15.

⚠ CAUTION:

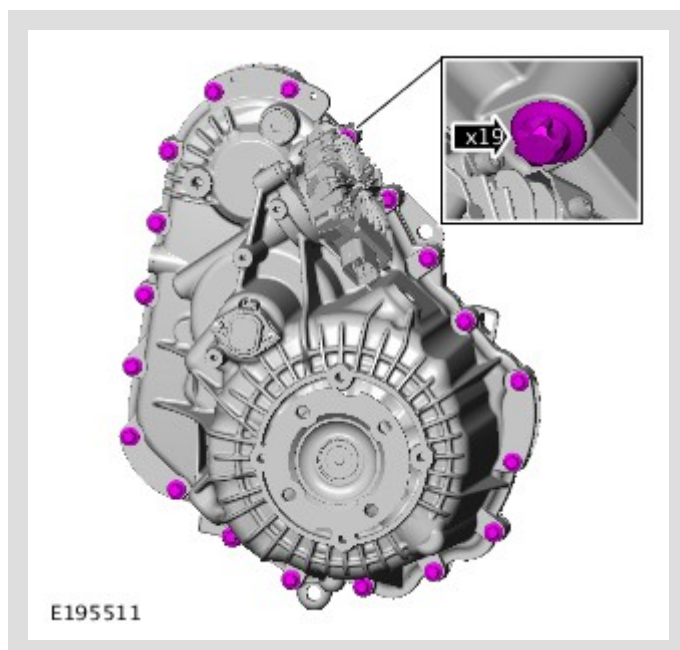
Care must be taken when turning the transfer case over. The transfer case halves must not be allowed to separate.

With assistance, release the transfer case and secure with its transmission mating face down on a flat surface.

16.

⚠ CAUTION:

Only tighten the bolts finger-tight at this stage.



Install and tighten the 19 bolts finger tight.

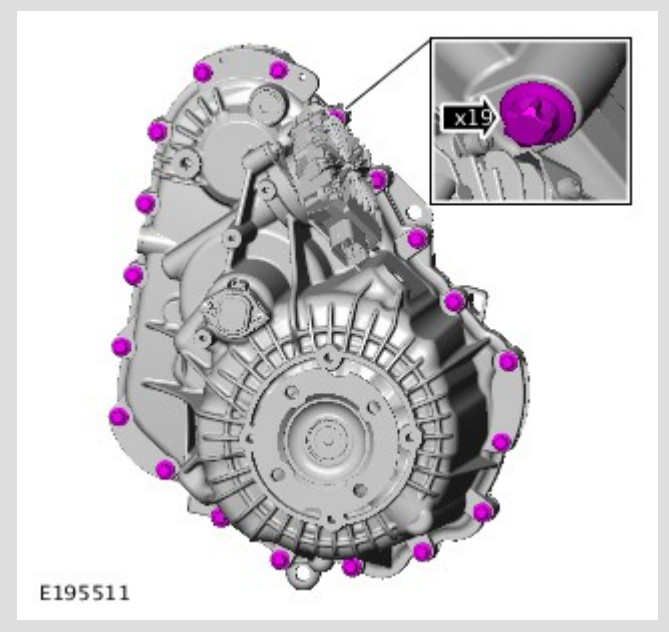
17.



Tighten the 2 bolts to the correct torque.

Torque: 10Nm

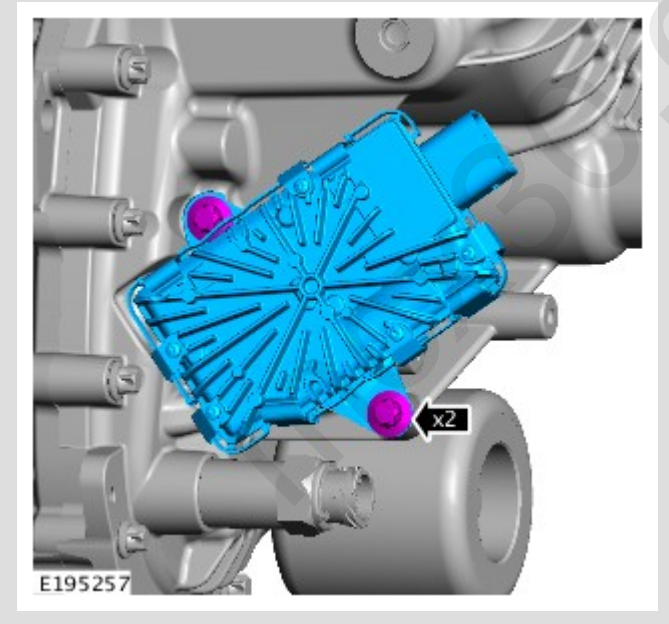
18.



Fully tighten the 19 bolts.

Torque: 35Nm

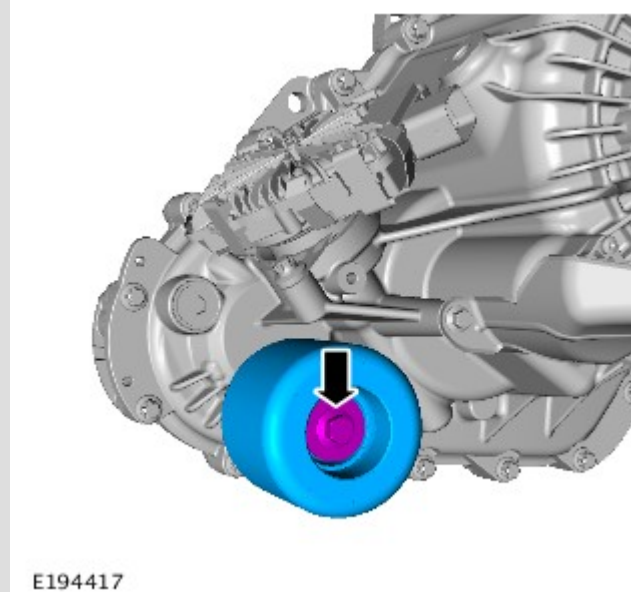
19.



- Install the Transmission Control Module (TCM).
- Install and tighten the 2 bolts.

Torque: 35Nm

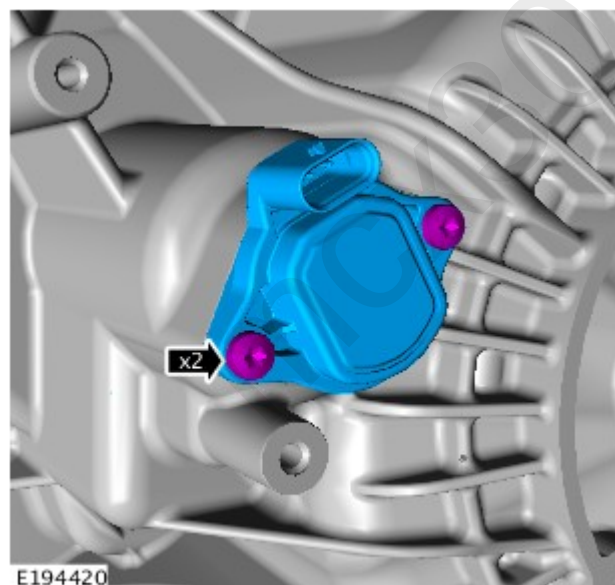
20.



- Install the Noise, Vibration and Harshness (NVH) damper.
- Install and tighten the bolt.

Torque: 75Nm

21.

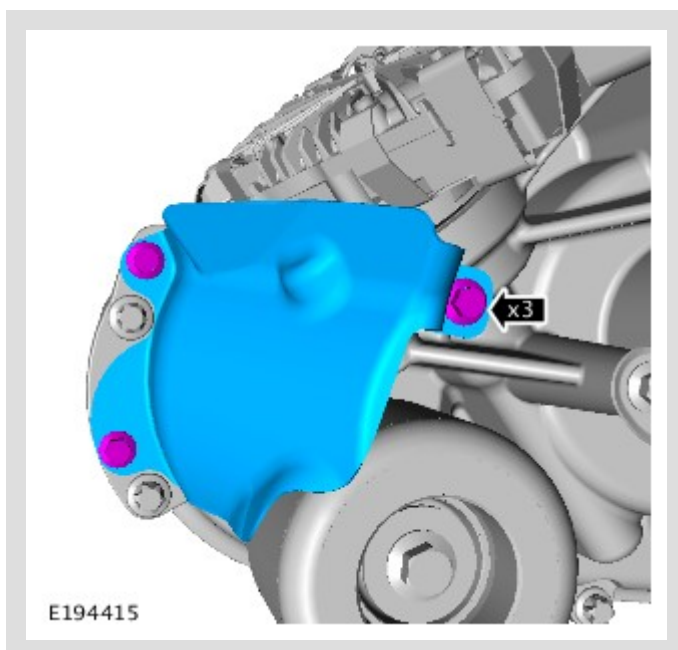


- Install the sensor.
- Install and tighten the 2 bolts.

Torque: 5Nm

 NOTE:

This step is only required if previously removed.



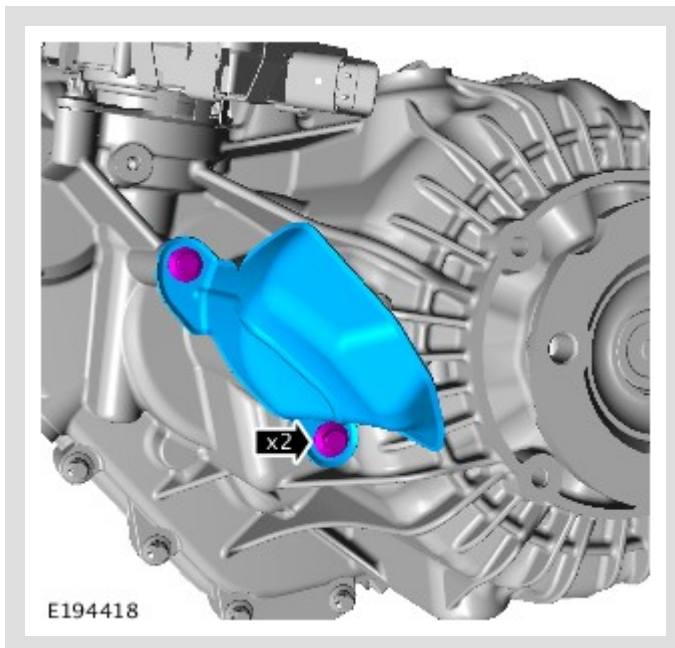
- Install the heatshield.
- Install and tighten the 3 bolts.

Torque: 8Nm

23.

 NOTE:

This step is only required if previously removed.



- Install the heatshield.
- Install and tighten the 2 bolts.

Torque: 8Nm

24. With assistance, release the transfer case from the flat surface.

25. Install the transfer case.

Refer to: [Transfer Case](#) (315-00 Transfer Case, Installation).

26. Fill the transfer case.

Refer to: [Transfer Case Draining and Filling](#) (315-00 Transfer Case, General Procedures).

27. Connect the startup battery ground cable.

Refer to: [Startup Battery Disconnect and Connect](#) (414-00 Battery and Charging System - General Information, General Procedures).

28.

- Connect the Jaguar Land Rover approved diagnostic equipment.
General Equipment: [Jaguar Land Rover approved diagnostic equipment](#)
- Start the diagnostic service function "transfer case-transfer case control module replacement".
- Start the service function "transfer case-absolute position sensor replacement".
- Clear any Diagnostic Trouble Codes (DTCs) after calibration and check for correct operation.

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