

Transfer Case -

Lubricants, Fluids, Sealers and Adhesives

Item	Land Rover Part No.
Input shaft splines grease	6G92M1C27AA
Power transfer unit fluid - vehicles with 3.2 petrol and 2.2 diesel	LR003137
Power transfer unit fluid - vehicles with 2.0 petrol	LR003136

Capacities

Description	Lubricant	Capacity (liters/pints/US quarts)
Power transfer unit	BOT 118 PLUS 75W-90	0.75/1.3/0.79

General Specification

Item	Ratio
3.2 Petrol auto	3.750:1
2.2 Diesel manual	4.533:1
2.2 Diesel auto	3.329:1
2.0 Petrol auto	2.583:1

Torque Specifications

Description	Nm	lb-ft
Axle mounting bracket bolts	24	18
Oil drain plug	35	26
Oil filler plug	35	26
Pinion nut	48	35
Power transfer unit front mounting bracket heat shield	10	7
Power transfer unit bracket to engine block bolts	65	48
Power transfer unit bracket to power transfer unit bolts	65	48
Power transfer unit to transmission housing bolts	65	48

Transfer Case - Transfer Case

Description and Operation

For additional information, refer to: [Four-Wheel Drive Systems](#) (308-07A Four-Wheel Drive Systems, Description and Operation).

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Transfer Case - Transfer Case

Diagnosis and Testing

Principles of Operation

For additional information.

REFER to: [Manual Transaxle and Clutch](#) (308-00 Manual Transmission/Transaxle and Clutch - General Information, Diagnosis and Testing).

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Transfer Case - Transfer Case Fluid Level Check

General Procedures



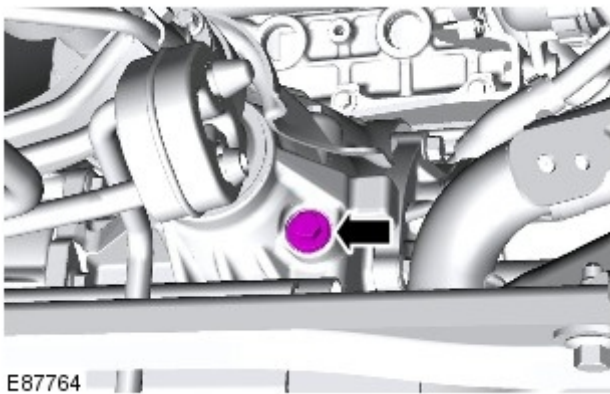
CAUTION: The fluid filler plug is not a fluid level plug.

1.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise the vehicle on a lift.

2. Remove the engine undershield.

Refer to: [Engine Undershield](#) (501-02 Front End Body Panels, Removal and Installation).



3.  **CAUTION:** Make sure that the area around the component is clean and free of foreign material.

4.  **CAUTION:** The fluid filler plug is not a fluid level plug.

Top-up the transfer case with recommended fluid, until the fluid is level with bottom of filler plug hole. Remove 120 ml for correct fluid capacity as shown in Specification section.

Refer to: [Specifications](#) (308-07B Transfer Case, Specifications).

5.  **CAUTION:** Replace the washer.

Install the fluid filler plug.

Torque: 35 Nm

6. Install the engine undershield.

Refer to: [Engine Undershield](#) (501-02 Front End Body Panels, Removal and Installation).

Transfer Case - Power Transfer Unit I6 3.2L Petrol

Removal and Installation

Removal

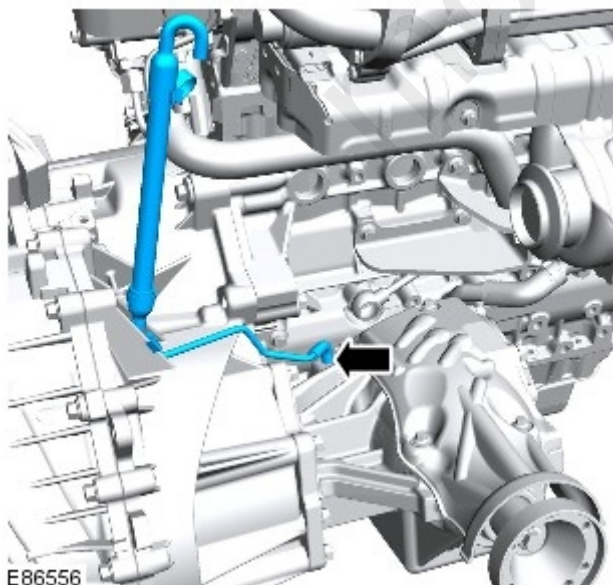
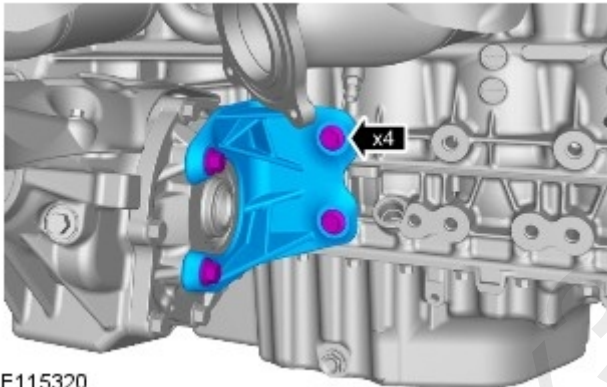
- NOTE: Removal steps in this procedure may contain installation details.

1.  **WARNING:** Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

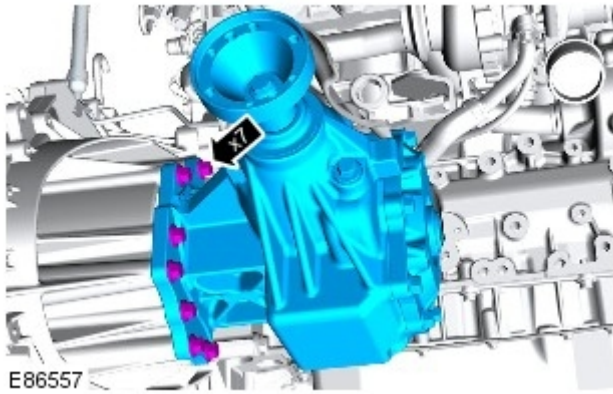
Raise and support the vehicle.

2. Refer to: [Driveshaft - Vehicles Without Diesel Particulate Filter \(DPF\)](#) (205-01 Driveshaft, Removal and Installation).
3. Refer to: [Catalytic Converter](#) (309-00A Exhaust System - I6 3.2L Petrol, Removal and Installation).
4. Refer to: [Front Halfshaft RH](#) (205-04 Front Drive Halfshafts, Removal and Installation).

5. Torque: 65 Nm

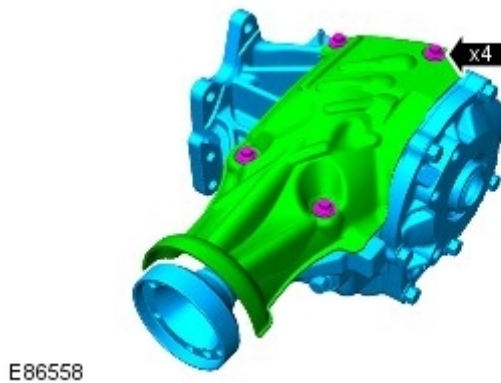


- 6.



7. **7. NOTE:** This step requires the aid of another technician.

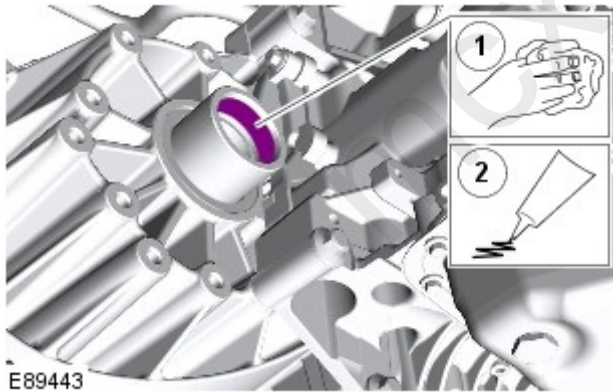
Torque: 60 Nm



8. *Torque:* 10 Nm

Installation

1. To install, reverse the removal procedure.



2. **2. ⚠ CAUTION:** Make sure that the component is clean, free of foreign material and lubricant.

• **NOTE:** Apply the required quantity of grease the correct specification.

Refer to: [Specifications](#) (308-07B Transfer Case, Specifications).

Transfer Case - Power Transfer Unit TD4 2.2L Diesel, Vehicles With: M66 6-Speed Manual Transmission AWD

Removal and Installation

Removal

1.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise the vehicle on a lift.

2. Remove the driveshaft.

Refer to: [Driveshaft - Vehicles Without: Diesel Particulate Filter \(DPF\)](#) (205-01 Driveshaft, Removal and Installation).

3. Remove the catalytic converter.

Refer to: [Catalytic Converter - Vehicles Without: Diesel Particulate Filter \(DPF\)](#) (309-00B Exhaust System - TD4 2.2L Diesel, Removal and Installation).

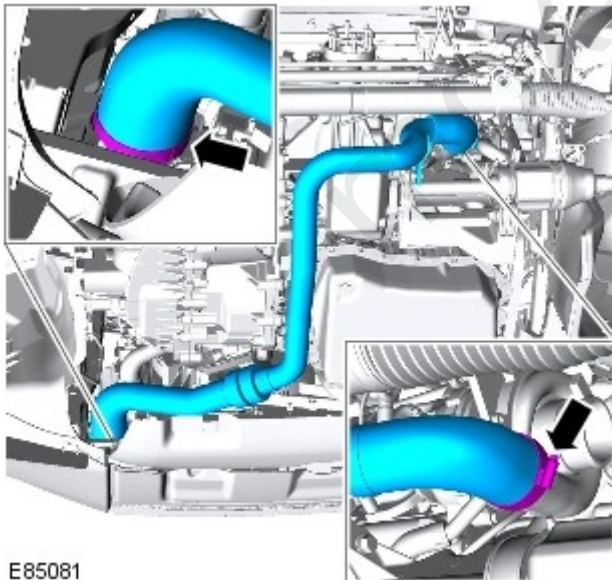
4. Remove the lower engine stabilizer bar.

Refer to: [Engine Lower Support Insulator](#) (303-01A Engine - I6 3.2L Petrol, Removal and Installation).

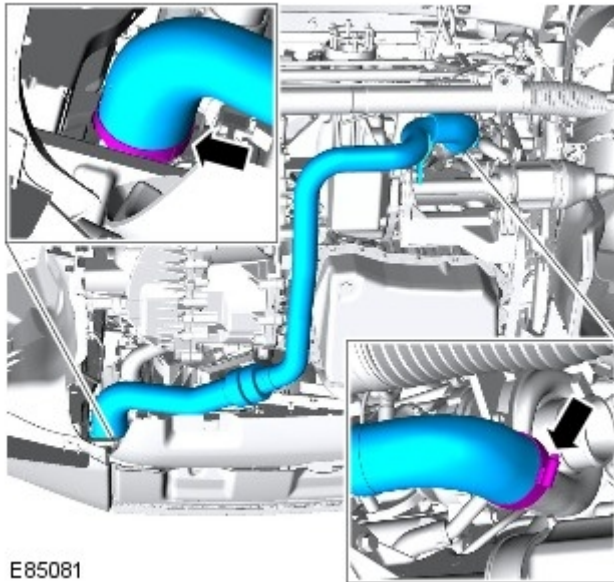
5. Remove the RH halfshaft.

Refer to: [Front Halfshaft RH](#) (205-04 Front Drive Halfshafts, Removal and Installation).

6.

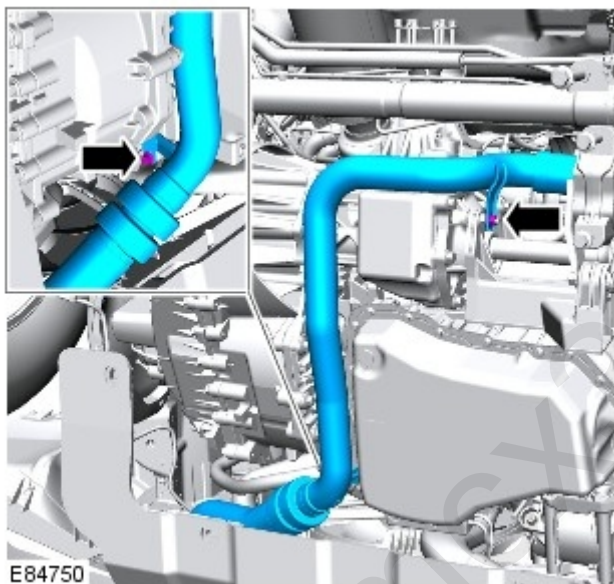


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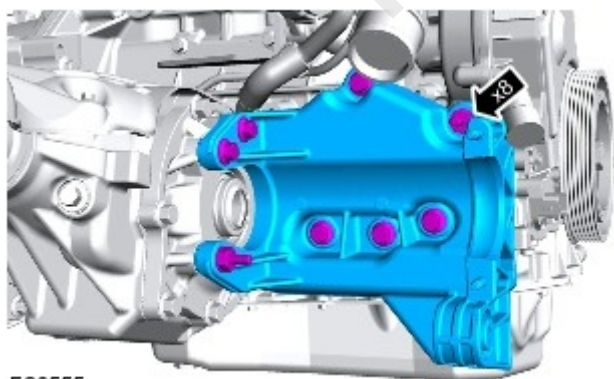
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7. Torque: 25 Nm



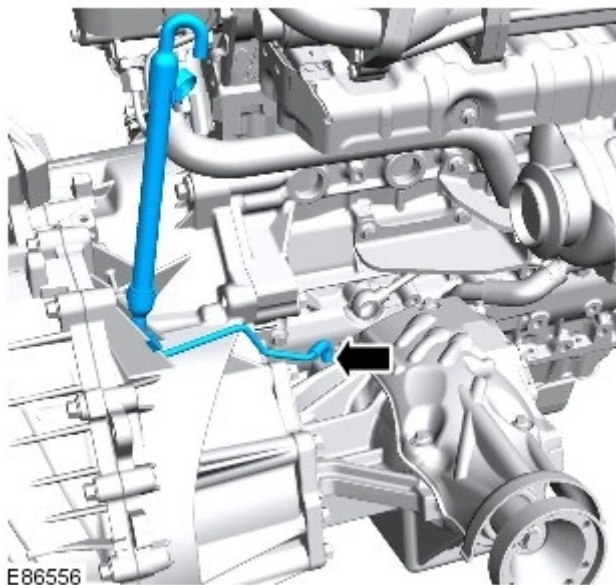
E84750

8. Torque: 10 Nm

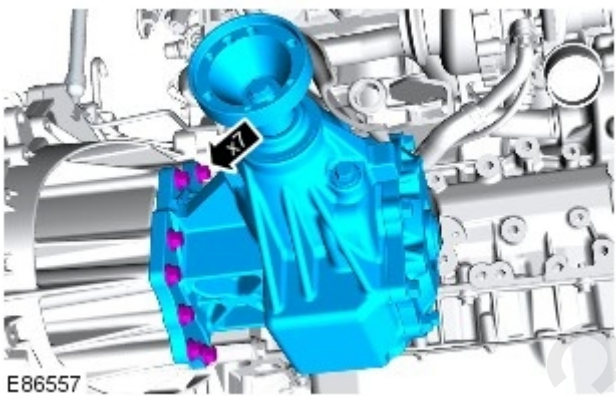


E86555

9. Torque: 65 Nm

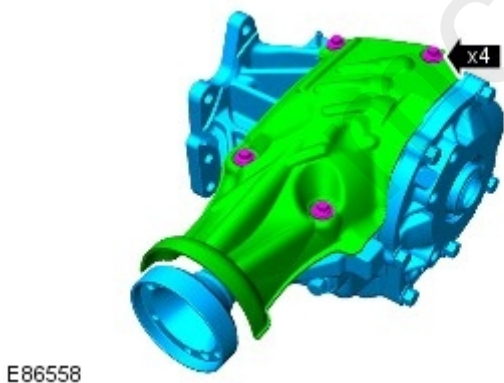


10.



11. **11.** NOTE: This step requires the aid of another technician.

Torque: 60 Nm



12. *Torque:* 10 Nm

Installation

1. To install, reverse the removal procedure.

Transfer Case - Power Transfer Unit TD4 2.2L Diesel, Vehicles With: M66 6-Speed Manual Transmission AWD

Removal and Installation

Removal

1. Raise the vehicle on a lift.

2. Remove the driveshaft.

Refer to: [Driveshaft - Vehicles Without: Diesel Particulate Filter \(DPF\)](#) (205-01 Driveshaft, Removal and Installation).

3. Remove the catalytic converter.

Refer to: [Catalytic Converter - Vehicles Without: Diesel Particulate Filter \(DPF\)](#) (309-00B Exhaust System - TD4 2.2L Diesel, Removal and Installation).

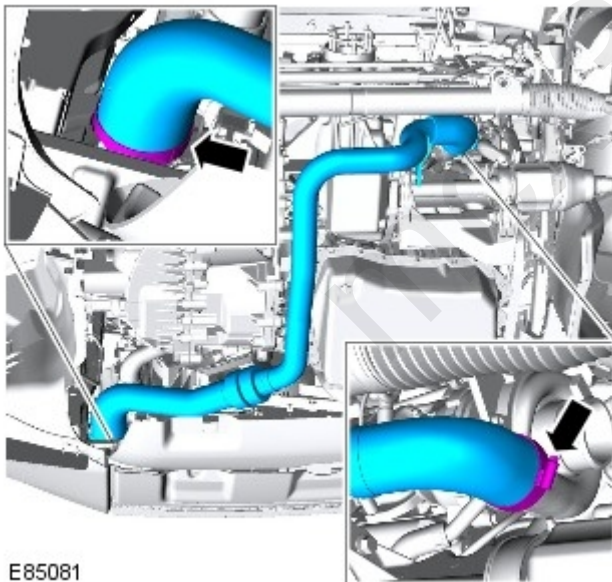
4. Remove the lower engine stabilizer bar.

Refer to: [Engine Lower Support Insulator](#) (303-01A Engine - I6 3.2L Petrol, Removal and Installation).

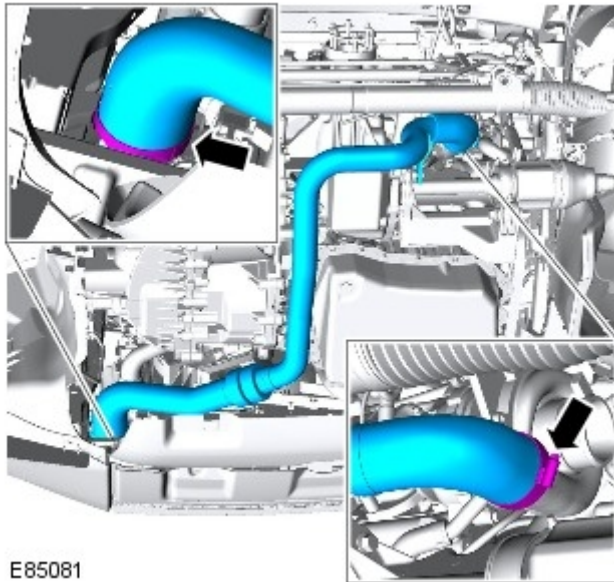
5. Remove the RH halfshaft.

Refer to: [Front Halfshaft RH](#) (205-04 Front Drive Halfshafts, Removal and Installation).

6.

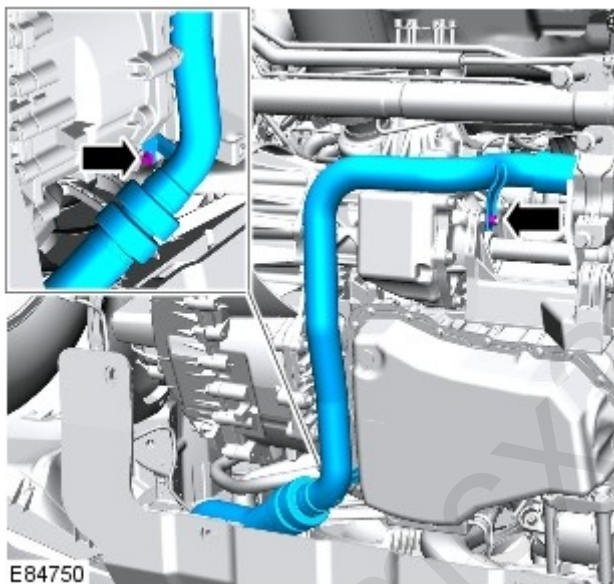


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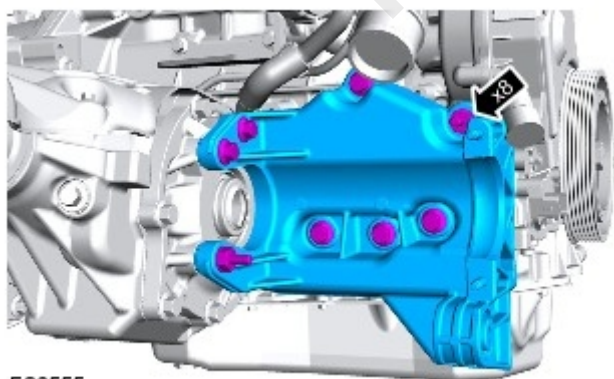
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7. Torque: 25 Nm



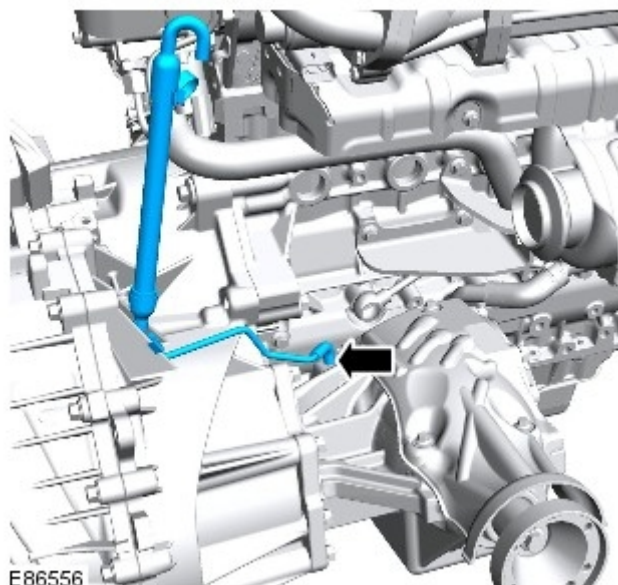
E84750

8. Torque: 10 Nm

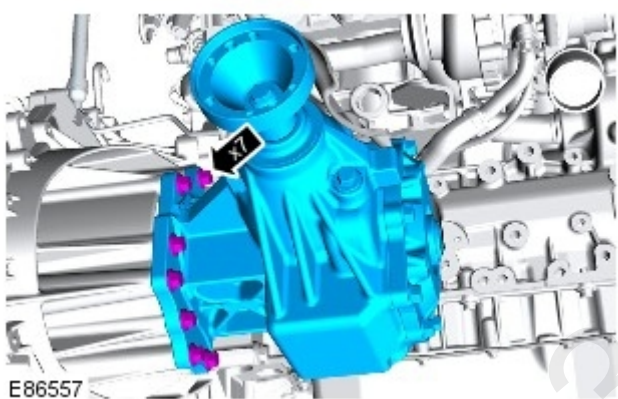


E86555

9. Torque: 65 Nm

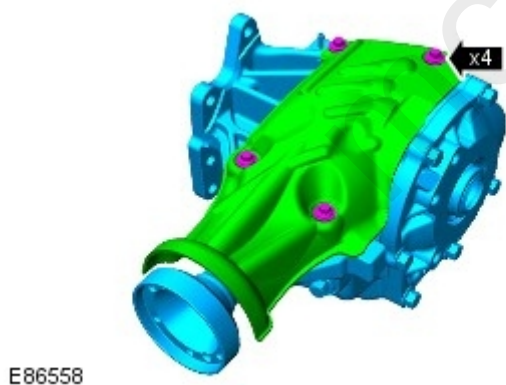


10.



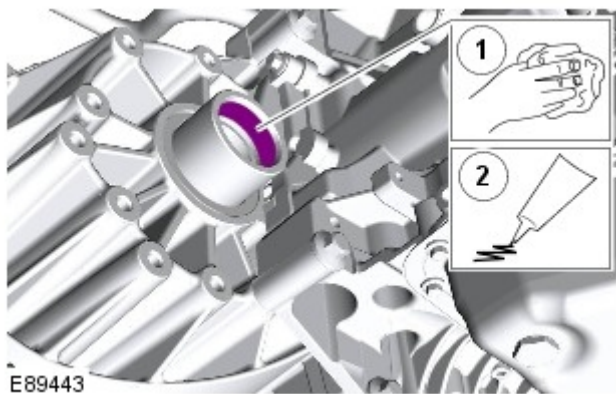
11. **11.** NOTE: This step requires the aid of another technician.

Torque: 60 Nm



12. *Torque:* 10 Nm

Installation



1.  **CAUTION:** Make sure that the component is clean, free of foreign material and lubricant.
 - **NOTE:** Apply the required quantity of grease the correct specification.

For fluid specification, refer to the specification's section.

2. To install, reverse the removal procedure.

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Transfer Case - Transfer Case Connecting Sleeve Seals

Removal and Installation

Special Tool(s)

 100-012 Slide Hammer E54135	100-012 Slide Hammer
 303-538 Remover/Installer, Crankshaft Oil Seal E46616	303-538 Remover/Installer, Crankshaft Oil Seal
 307-594 Installer, Seal E88237	307-594 Installer, Seal
 308-615 Remover, Seals E86871	308-615 Remover, Seals

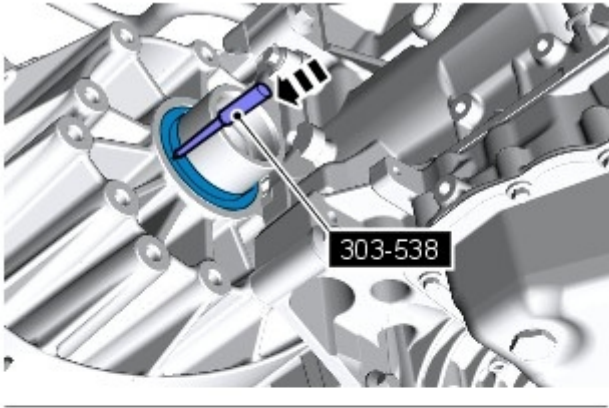
Removal

1.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

2. Remove the power transfer unit.

Refer to: [Power Transfer Unit - TD4 2.2L Diesel, Vehicles With: M66 6-Speed Manual Transmission AWD](#) (308-07B Transfer Case, Removal and Installation).

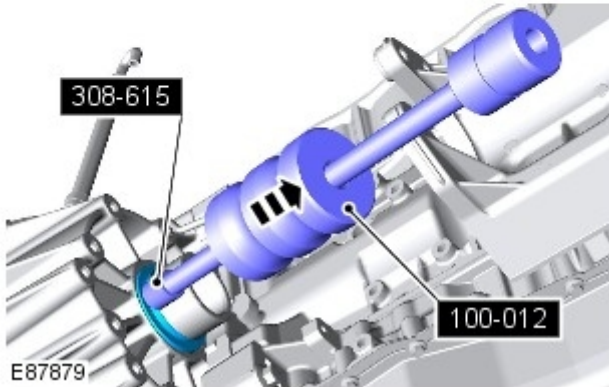


3. CAUTIONS:

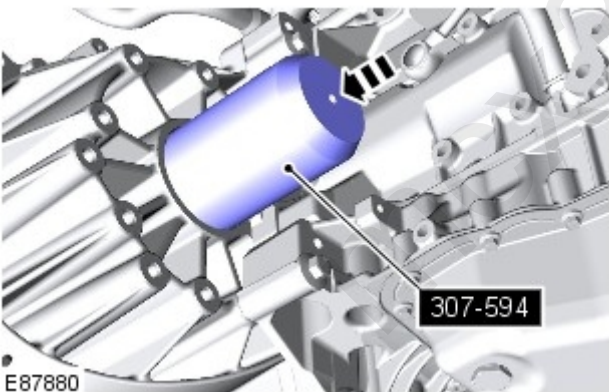
 Make sure that the area around the component is clean and free of foreign material.

 Take extra care not to damage the mating faces.

Special Tool(s): [303-538](#), [308-615](#), [100-012](#)



Installation



1.  CAUTION: Take extra care not to damage the seal.

Special Tool(s): [307-594](#)

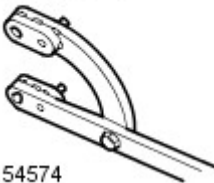
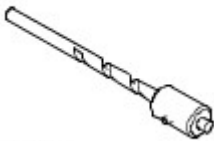
2. Install the power transfer unit.

Refer to: [Power Transfer Unit - TD4 2.2L Diesel, Vehicles With: M66 6-Speed Manual Transmission AWD](#) (308-07B Transfer Case, Removal and Installation).

Transfer Case - Transfer Case Rear Seal

Removal and Installation

Special Tool(s)

 100-012 Slide Hammer E54135	100-012 Slide Hammer
 205-053 Retainer, Drive Flange E54574	205-053 Retainer, Drive Flange
 205-871 Installer, Transfer Case Rear Seal E91954	205-871 Installer, Transfer Case Rear Seal
 308-615 Remover, Seals E86871	308-615 Remover, Seals
 308-617 Depth Drill, Seal Remover E91957	308-617 Depth Drill, Seal Remover

Removal

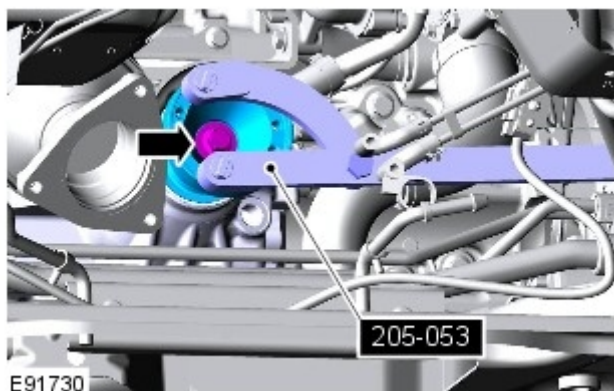
1.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

2. Remove the driveshaft.

Refer to: [Driveshaft - Vehicles Without: Diesel Particulate Filter \(DPF\)](#) (205-01 Driveshaft, Removal and Installation).

Refer to: [Driveshaft - Vehicles With: Diesel Particulate Filter \(DPF\)](#) (205-01 Driveshaft, Removal and Installation).

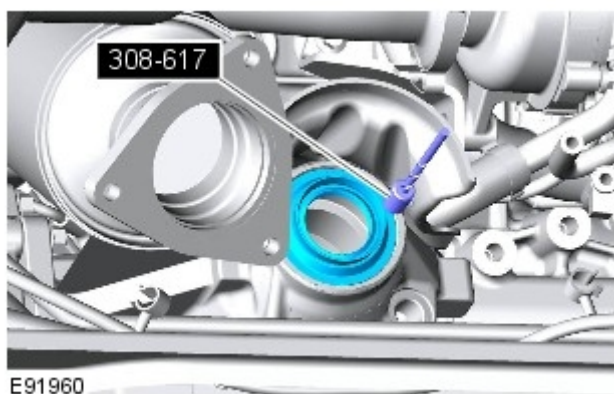


3. **3.**  **CAUTION:** Make sure that a new bolt is installed.

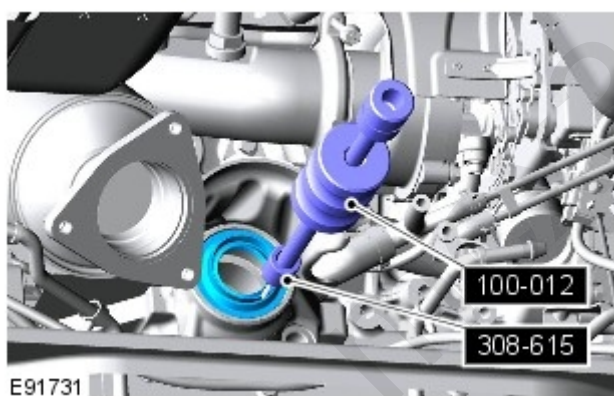
- **NOTE:** Position cloth to collect fluid spillage.

Special Tool(s): [205-053](#)

Torque: 48 Nm



4. *Special Tool(s):* [308-617](#)



5. **5.** **CAUTIONS:**

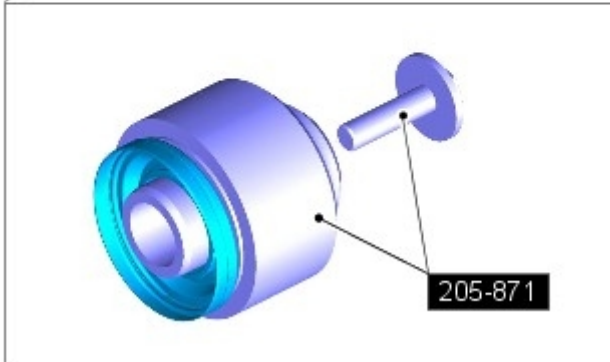
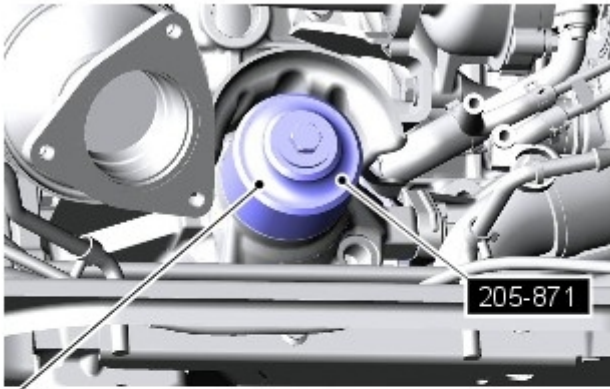
 Make sure that the area around the component is clean and free of foreign material.

 Take extra care not to damage the mating faces.

Special Tool(s): [308-615](#), [100-012](#)

Installation

1. Special Tool(s): [205-871](#)



E91733

2. To install, reverse the removal procedure.
3. Install the driveshaft.

Refer to: [Driveshaft - Vehicles Without: Diesel Particulate Filter \(DPF\)](#) (205-01 Driveshaft, Removal and Installation).
Refer to: [Driveshaft - Vehicles With: Diesel Particulate Filter \(DPF\)](#) (205-01 Driveshaft, Removal and Installation).

4. Check and top-up the transfer case fluid level.

Refer to: [Transfer Case Fluid Level Check](#) (308-07B Transfer Case, General Procedures).

Transfer Case - Transfer Case Seal LH

Removal and Installation

Special Tool(s)

 100-012 Slide Hammer E54135	100-012 Slide Hammer
 205-873/1 Remover/Installer, Transfer Case Seal E91644	205-873/1 Remover/Installer, Transfer Case Seal
 205-873/2 Protector, Transfer Case Seal E91645	205-873/2 Protector, Transfer Case Seal
 205-873/3 Punch/Screws, Transfer Case Seal E91646	205-873/3 Punch/Screws, Transfer Case Seal

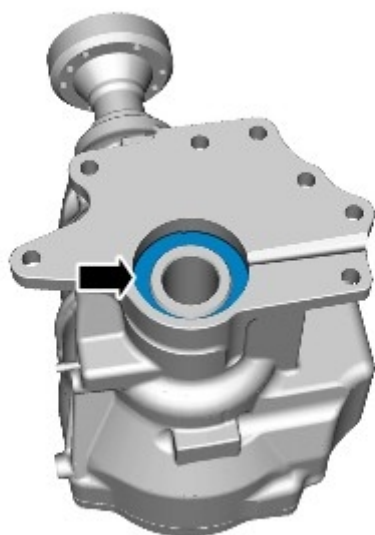
Removal

1.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

2. Remove the power transfer unit.

Refer to: [Power Transfer Unit - TD4 2.2L Diesel, Vehicles With: M66 6-Speed Manual Transmission AWD](#) (308-07B Transfer Case, Removal and Installation).



E90022

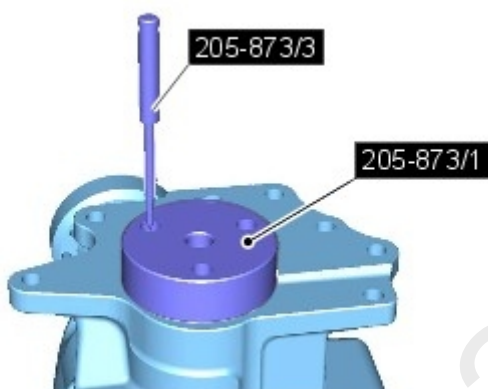
3. 3. CAUTIONS:



Take extra care not to damage the seal.



Inspect the seal, replace if damaged



E90023

4. 4. CAUTIONS:

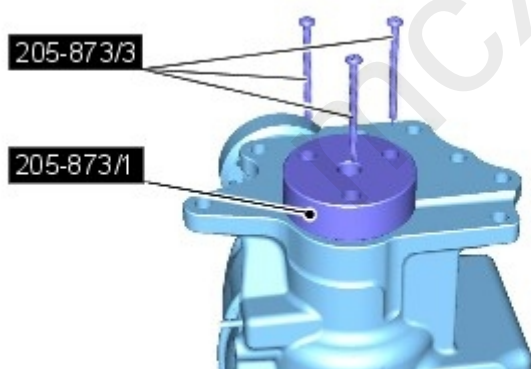


Make sure that the area around the component is clean and free of foreign material.



Take extra care not to damage the mating faces.

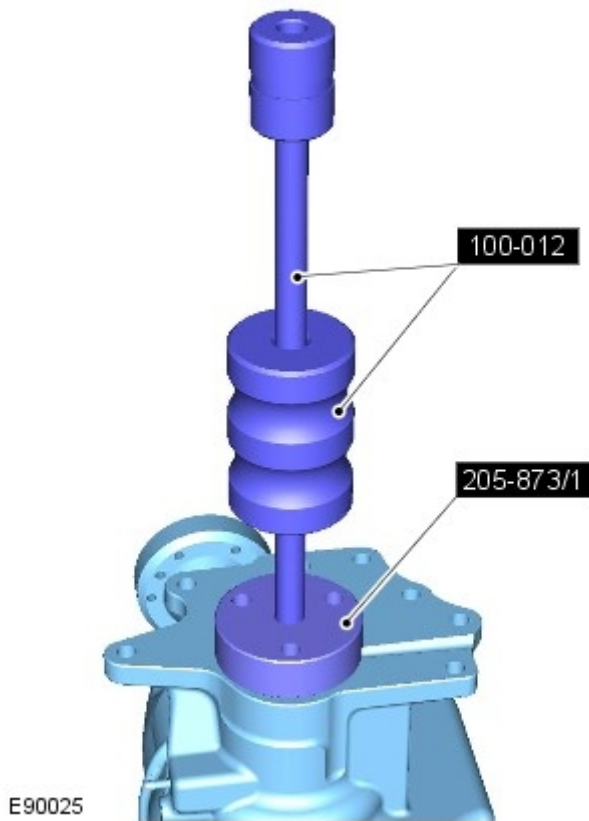
Special Tool(s): [205-873/1](#), [205-873/3](#)



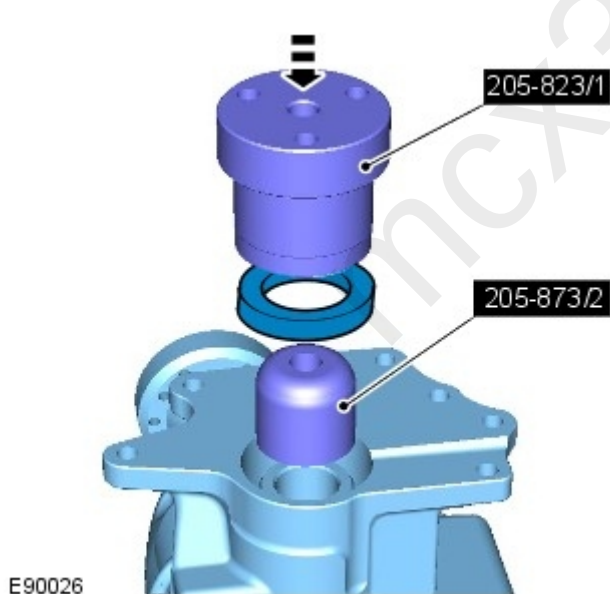
E90024

5.

6. *Special Tool(s):* [100-012](#)



Installation



1.  **CAUTION:** A soft faced hammer should be used to avoid damaging the special tool and creating debris.

Special Tool(s): [205-873/2](#)

2. To install, reverse the removal procedure.

3. Install the power transfer unit.

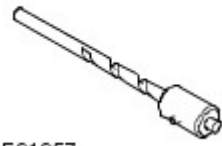
Refer to: [Power Transfer Unit - TD4 2.2L Diesel, Vehicles With: M66 6-Speed Manual Transmission AWD](#) (308-07B Transfer Case, Removal and Installation).

4. Check and top-up the transfer case fluid level.

Transfer Case - Transfer Case Seal RH

Removal and Installation

Special Tool(s)

 E54135	100-012 Slide Hammer
 E91955	205-872 Installer, Transfer Case Seal
 E86871	308-615 Remover, Seals
 E91957	308-617 Depth Drill, Seal Remover

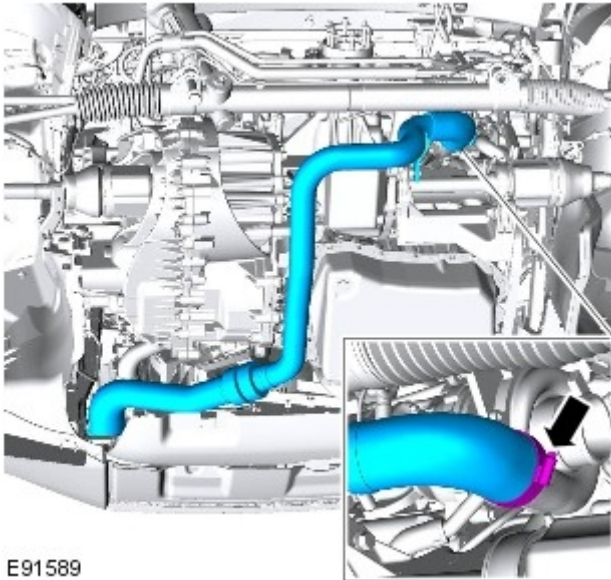
Removal

1.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

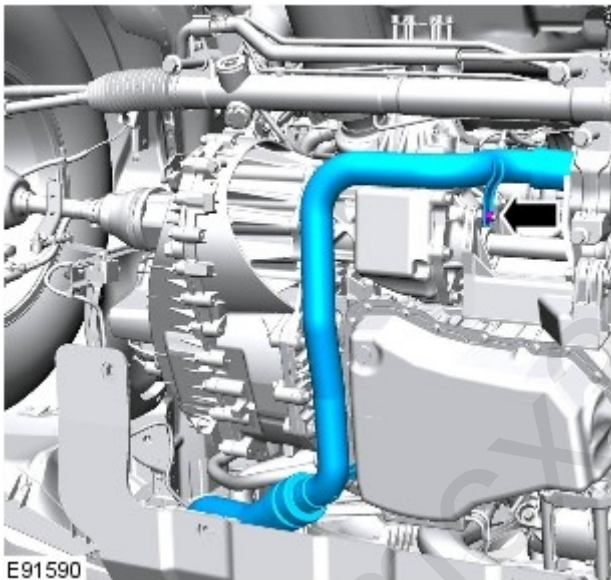
2. Remove the RH front halfshaft seal.

Refer to: [Halfshaft Seal RH](#) (308-03 Manual Transmission/Transaxle, Removal and Installation).



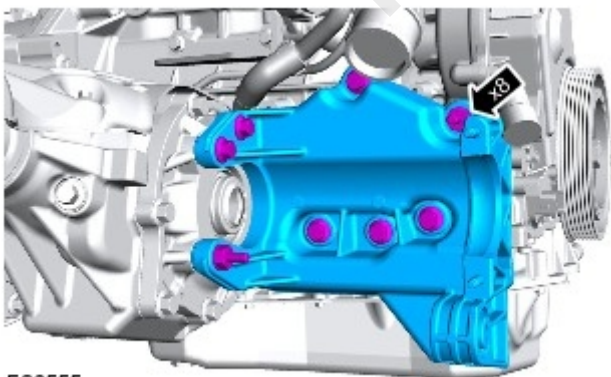
E91589

3.



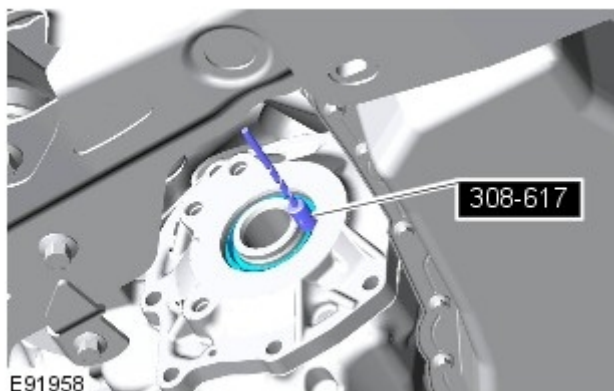
E91590

4. Torque: 25 Nm

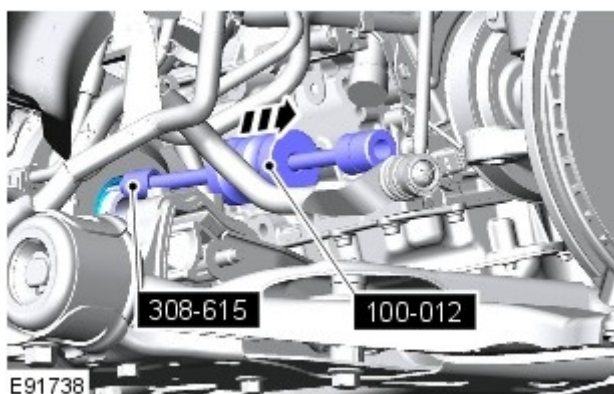


E86555

5. Torque: 65 Nm



6. *Special Tool(s):* [308-617](#)



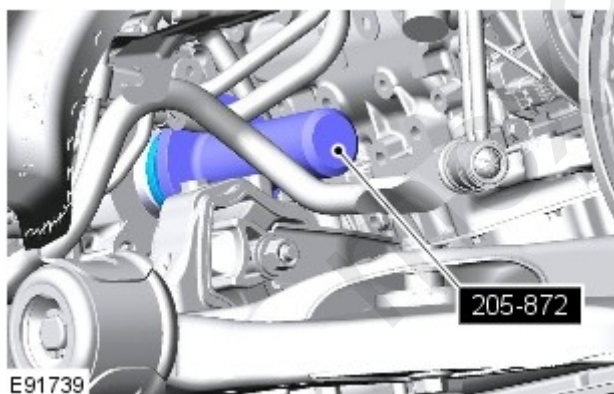
7. **7. CAUTIONS:**

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

 Take extra care not to damage the mating faces.

Special Tool(s): [308-615](#), [100-012](#)

Installation



1. *Special Tool(s):* [205-872](#)

2. To install, reverse the removal procedure.

3. Check and top-up the transfer case fluid level.

Refer to: [Transfer Case Fluid Level Check](#) (308-07B Transfer Case, General Procedures).

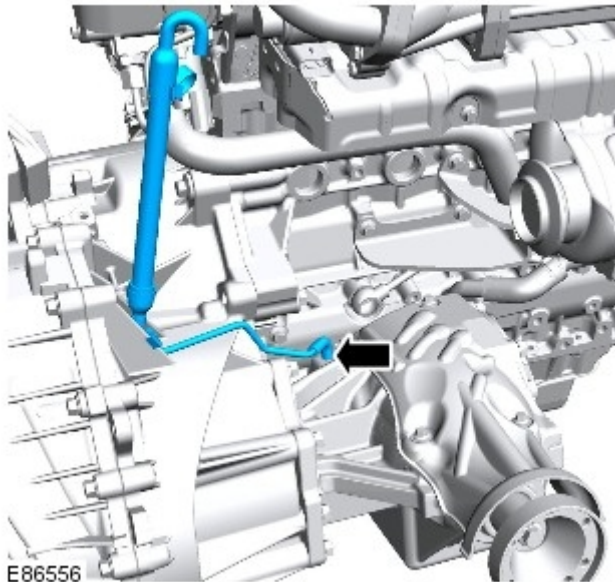
Transfer Case - Transfer Case Vent

Removal and Installation

Removal

1.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.



2.  **CAUTION:** Make sure that the area around the component is clean and free of foreign material.

Installation

1. To install, reverse the removal procedure.