

HAUPTANLEITUNG

PUBLISHED: 30-MAR-2017
2017.0 DISCOVERY (LR), 307-01

AUTOMATIC TRANSMISSION/TRANSAXLE - VEHICLES WITH: 8HP70 8-SPEED
AUTOMATIC TRANSMISSION AWD

TRANSMISSION - TDV6 3.0L DIESEL

(G1976209)

REMOVAL

44.20.01	GEARBOX - RENEW	3000 CC, TDV6, WITH PARTICULATE FILTER, WITH DIESEL EXHAUST FLUID	7.4	USED WITHINS
44.20.01	GEARBOX - RENEW	3000 CC, TDV6, WITH PARTICULATE FILTER, WITHOUT DIESEL EXHAUST FLUID	6.7	USED WITHINS

REMOVAL

SPECIAL TOOL(S)

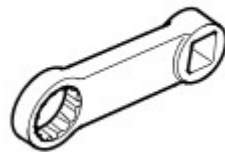


303-021

303-021

Engine support bracket

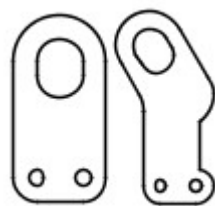
303-1069



E53727

303-1069

Adapter, Wrench



E54554

303-1129

Engine Lifting Brackets



PART(S)

STEP	PART NAME	QUANTITY
Step 19	Transmission casing O-ring seals	1
Step 21	Torque converter bolts	1
Step 41	Transfer case connecting sleeve O-ring seal	1

NOTE:

- Some variation in the illustrations may occur, but the essential information is always correct.
- Some illustrations may show the transmission removed for clarity.

All vehicles

1. Raise and support the vehicle on a suitable 2 post lift.
Refer to: Jacking and Lifting (100-02, Description and Operation).

2. Disconnect the startup battery ground cable.

BEILAGE A

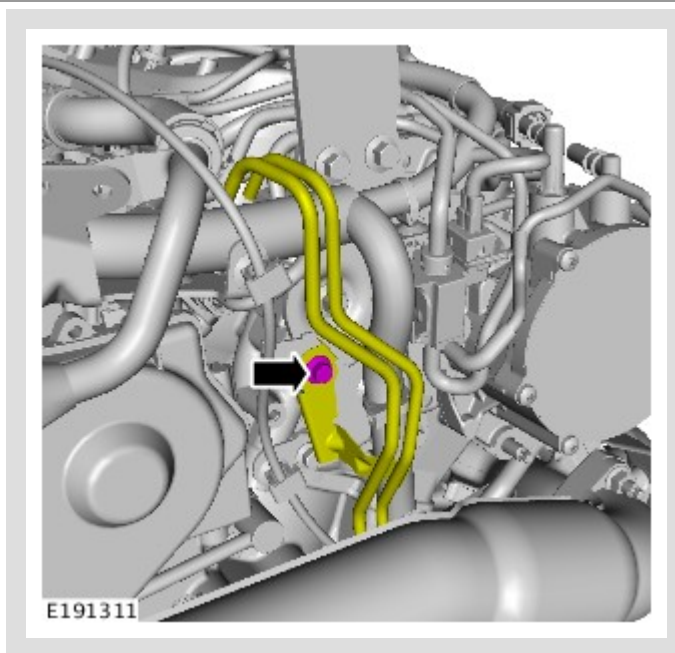
Refer to: Specifications (414-00 Battery and Charging System - General Information, Specifications).

3. Remove the secondary bulkhead panel.

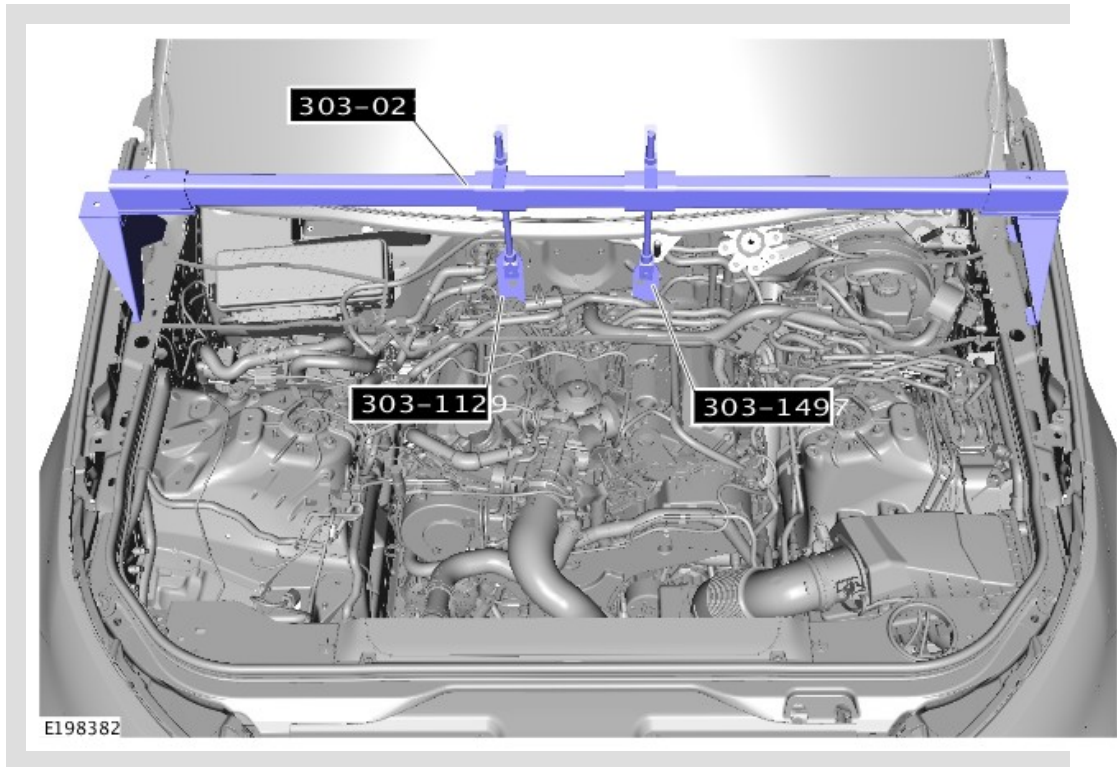
Refer to: Secondary Bulkhead Centre Panel - TDV6 3.0L Diesel (501-02 Front End Body Panels, Removal and Installation).

BEILAGE B

- 4.



5.



Special Tool(s): [303-021](#) , [303-1129](#) , [303-1497](#)

6.

Remove the front driveshaft.

Refer to: Front Driveshaft - TDV6 3.0L Diesel (205-01 Driveshaft, Removal and Installation).

BEILAGE C

7.

Remove the rear driveshaft.

Refer to: Rear Driveshaft - TDV6 3.0L Diesel (205-01 Driveshaft, Removal and Installation).

BEILAGE D

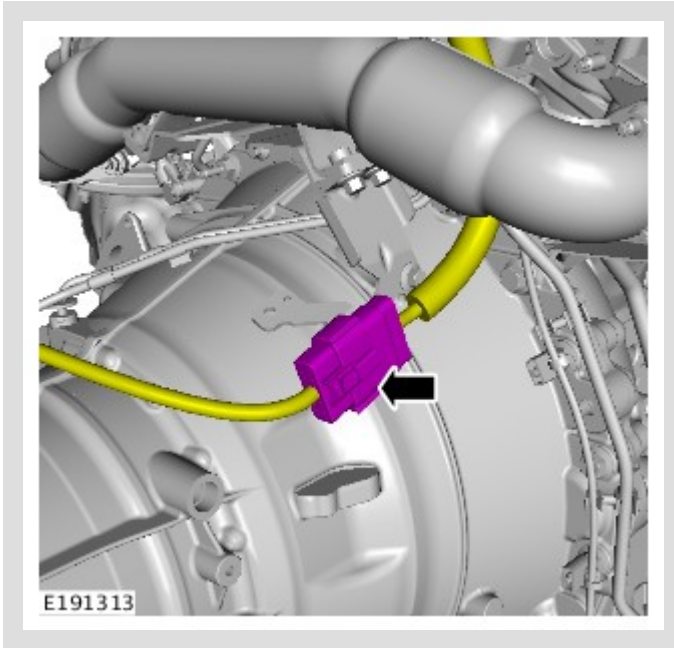
8.

Remove the starter motor.

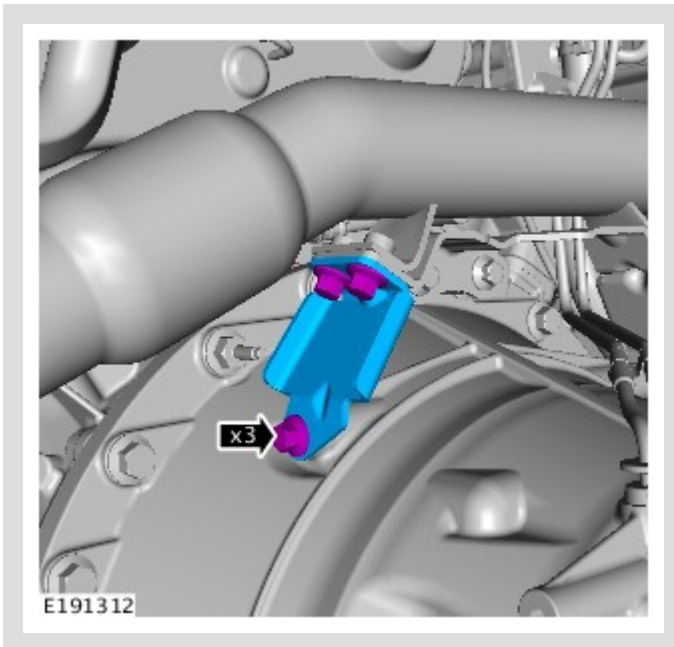
Refer to: Starter Motor (303-06 Starting System - TDV6 3.0L Diesel, Removal and Installation).

BEILAGE E

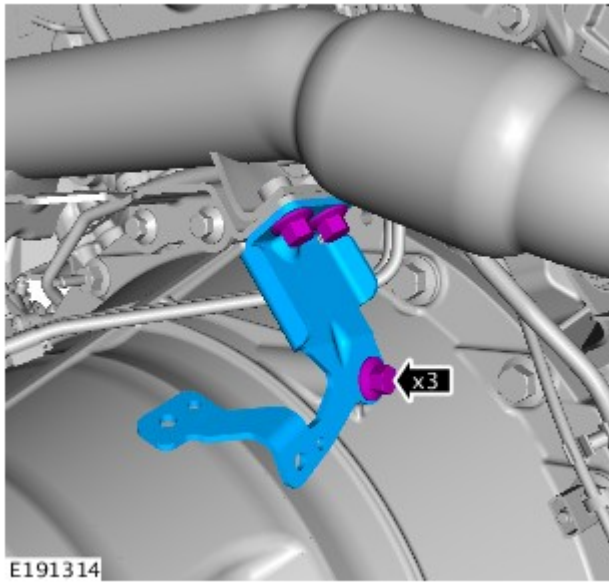
9.



10.

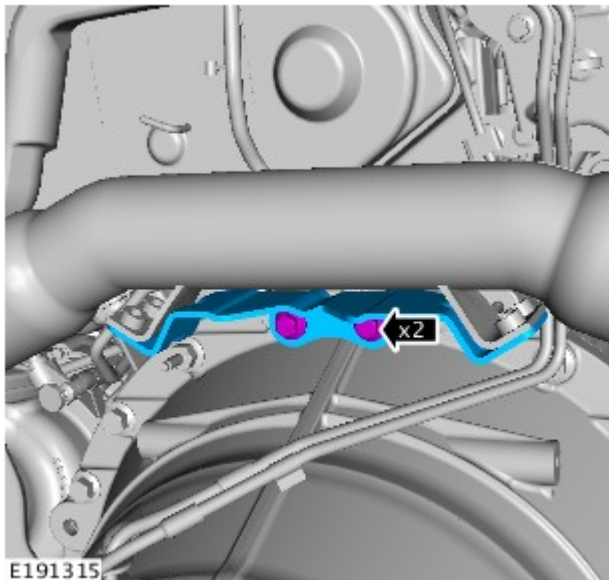


11.



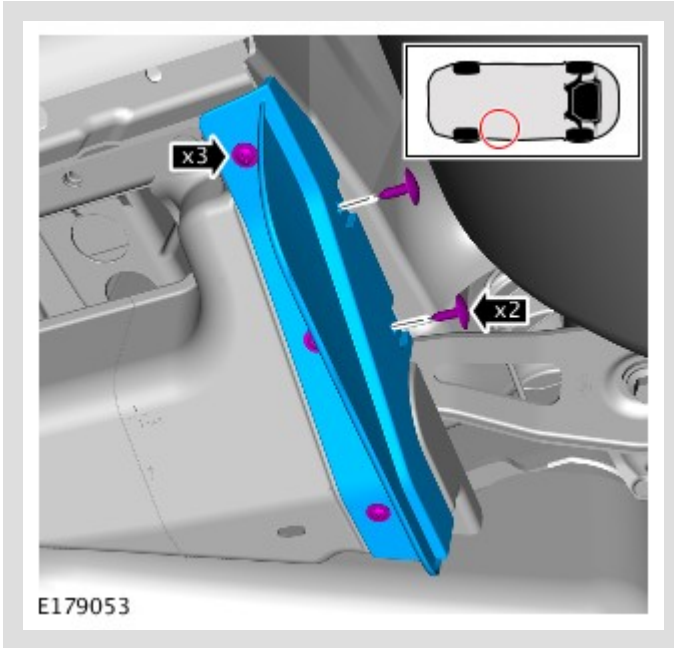
E191314

12.

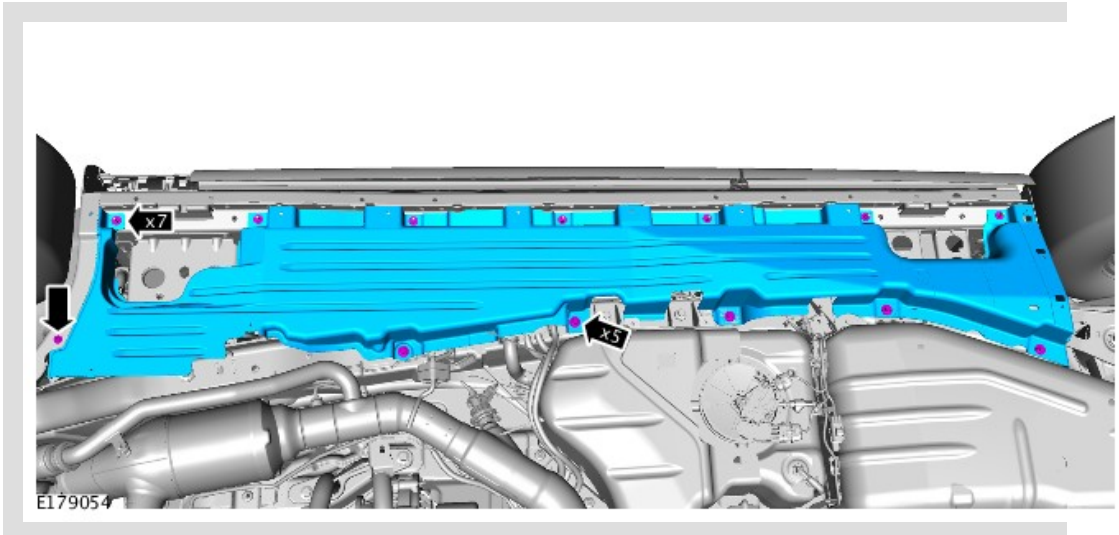


E191315

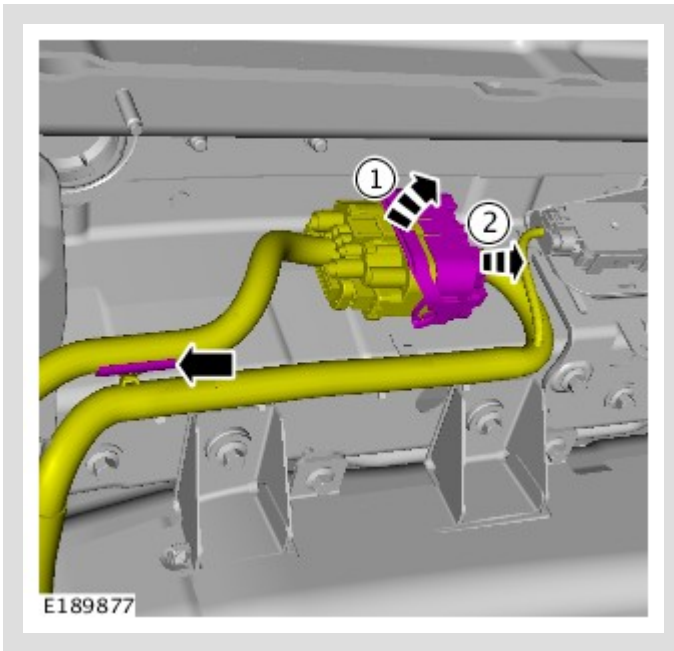
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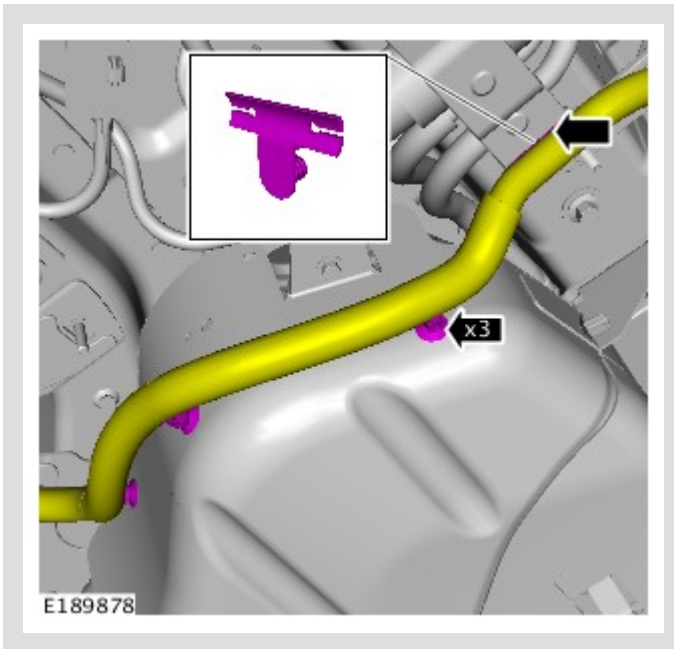
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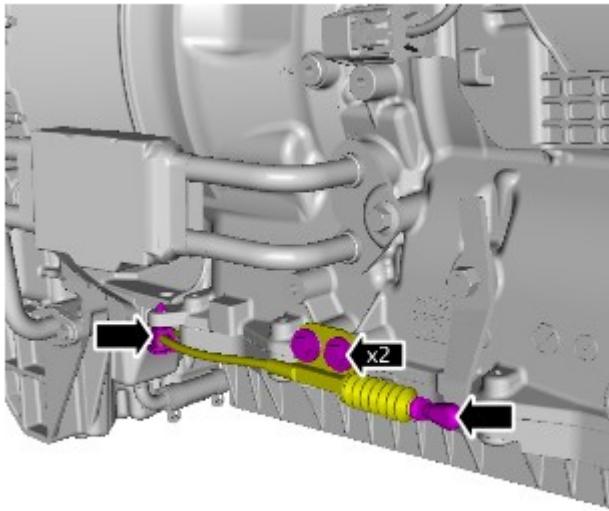
15.



16.




17.

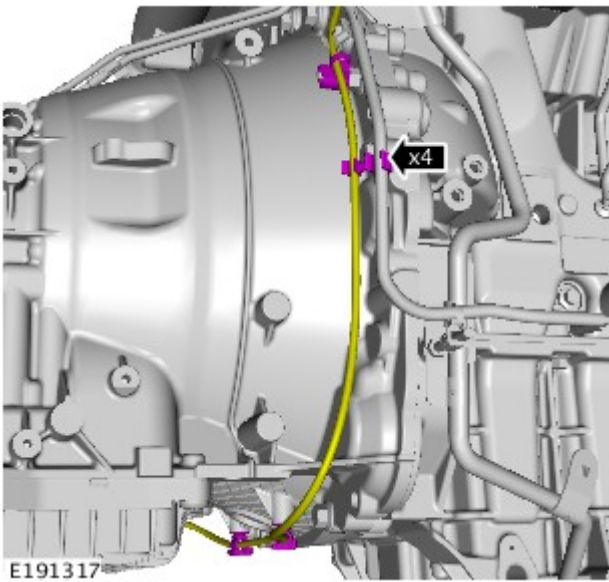


E191316

18.

 NOTE:

Secure with cable ties.



E191317

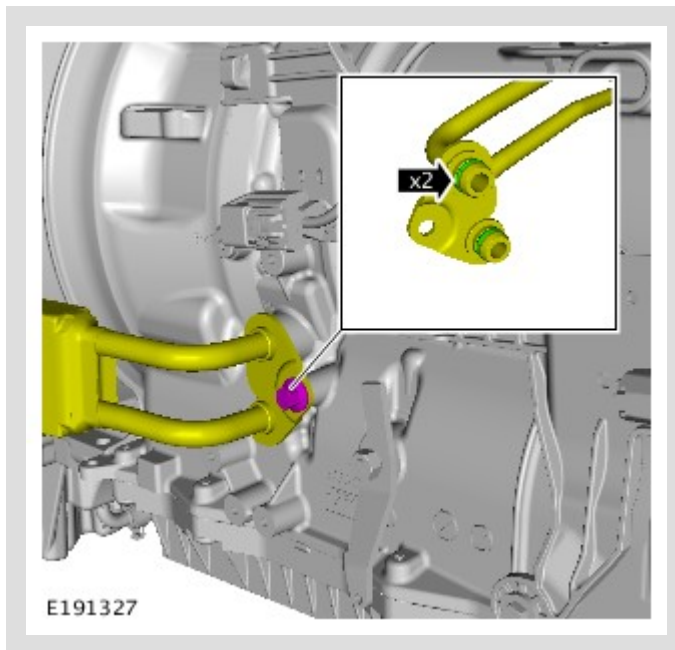
19.

WARNING:

Be prepared to collect escaping fluid.

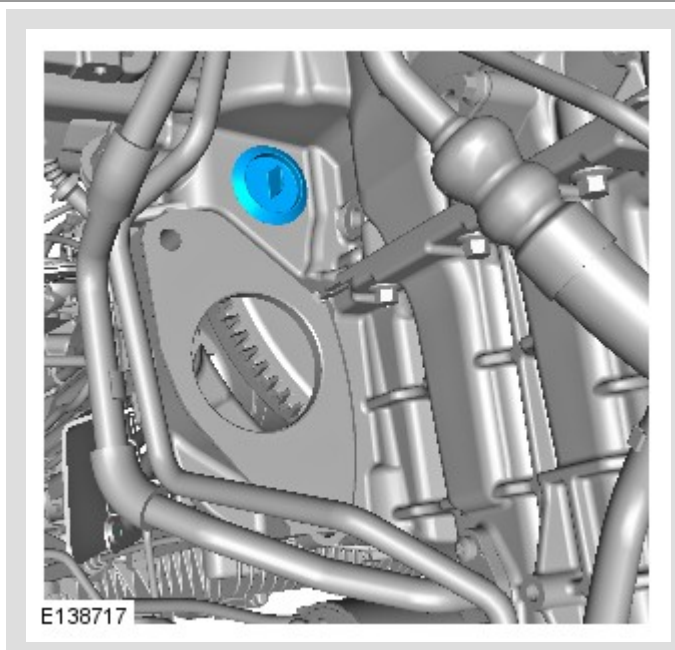
CAUTION:

Remove and discard the 2 O-ring seals.



Renew Part: *Transmission casing O-ring seals* Quantity: 1 .

20.



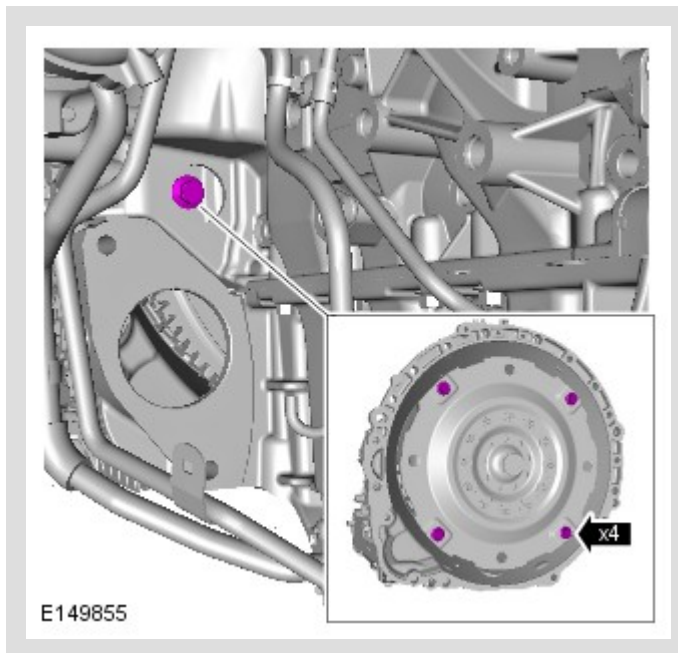
21.

⚠ CAUTION:

Only rotate the crankshaft clockwise.

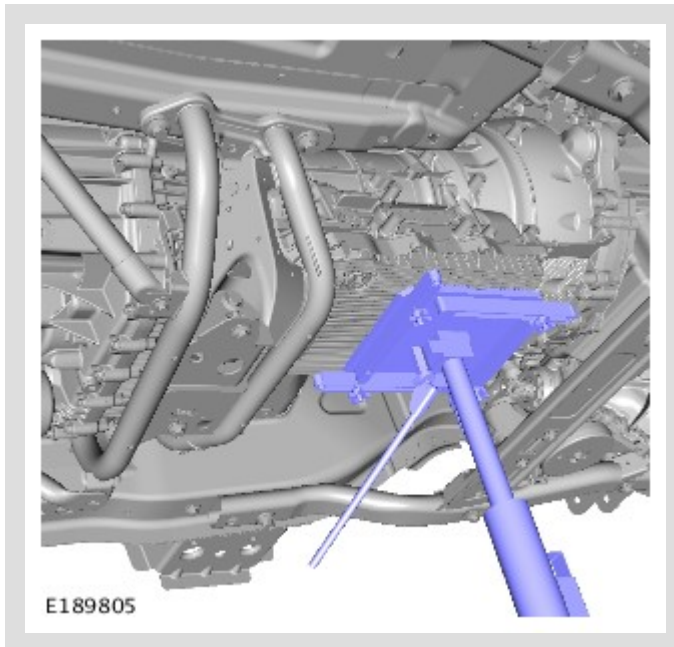
△ NOTE:

Discard the bolts.



Renew Part: *Torque converter bolts* Quantity: 1 .

22.



Using a transmission jack, support the transmission.

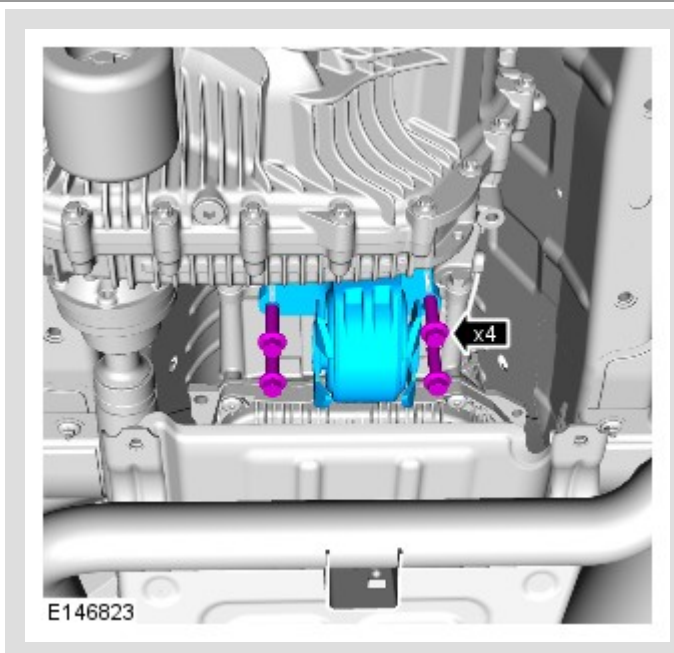
23.

Remove the transmission support crossmember.

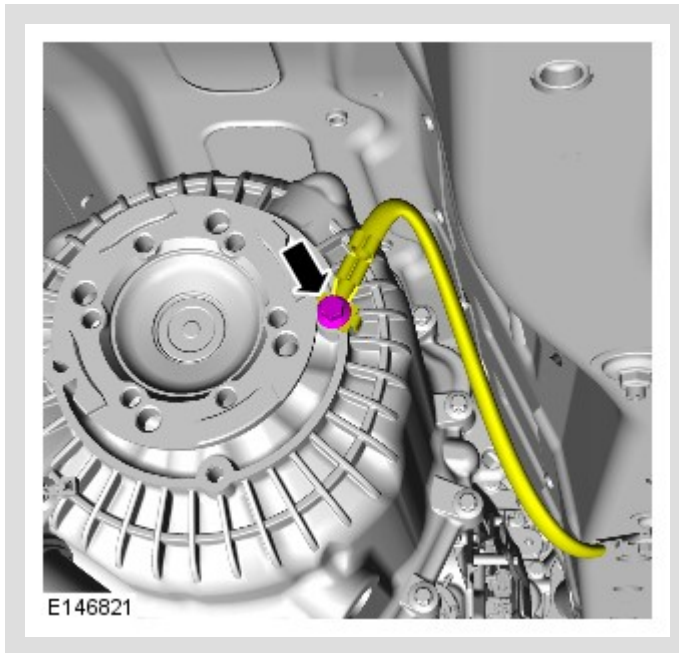
Refer to: Transmission Support Crossmember - TDV6 3.0L Diesel (502-02 Full Frame and Body Mounting, Removal and Installation).

BEILAGE F

24.



25.

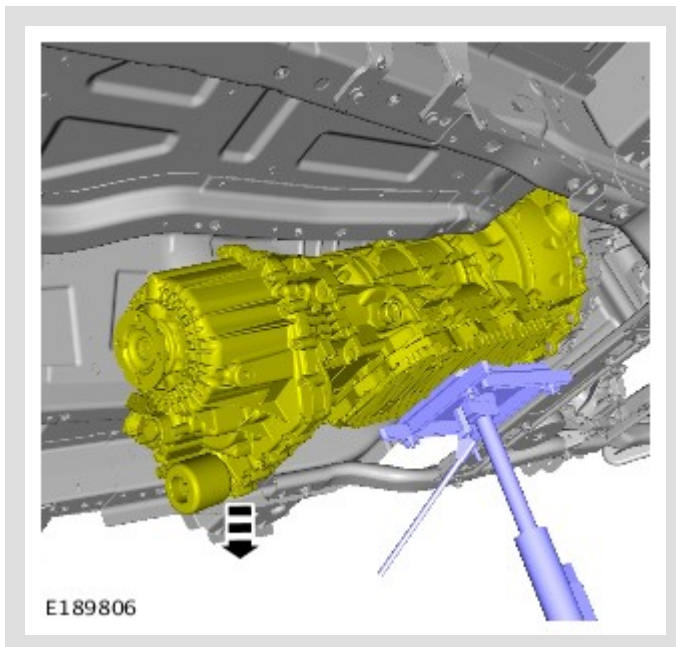


26.



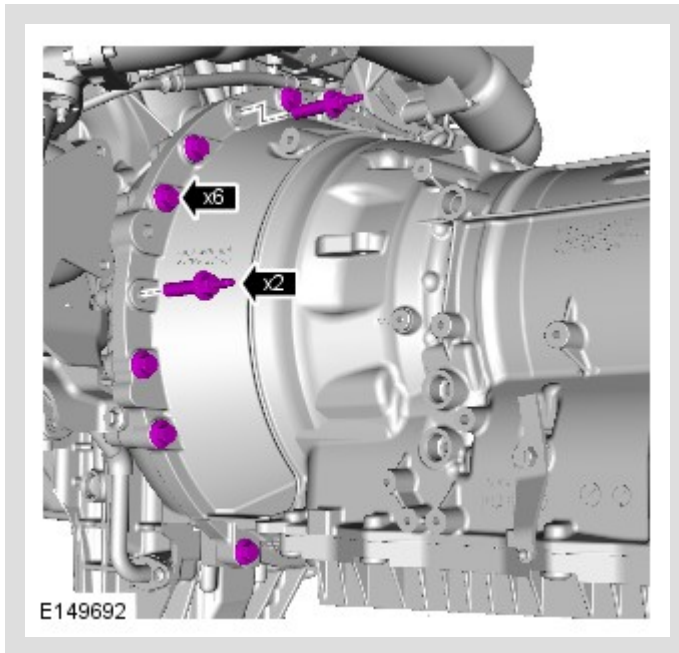
WARNING:

Make sure that the transmission is secured with suitable retaining straps.



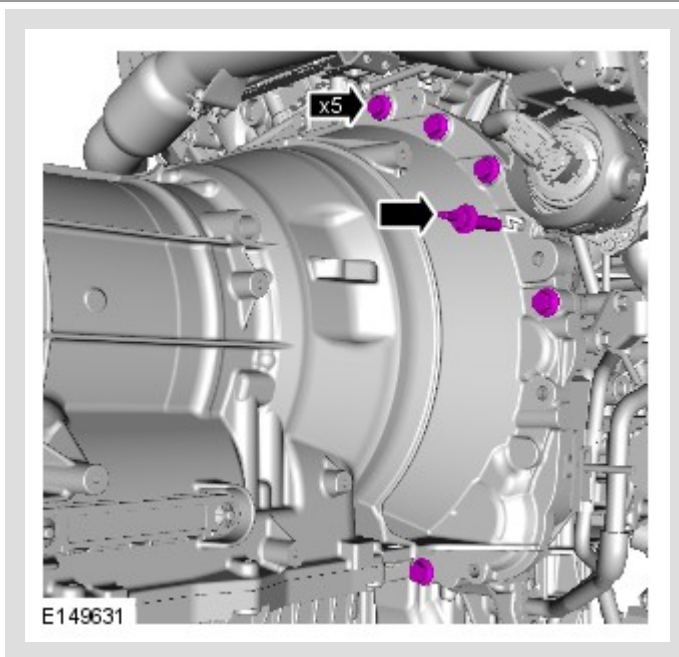
Lower the rear of the transmission for access.

27.



Note the location of the bolts prior to removal.

28.



WARNING:

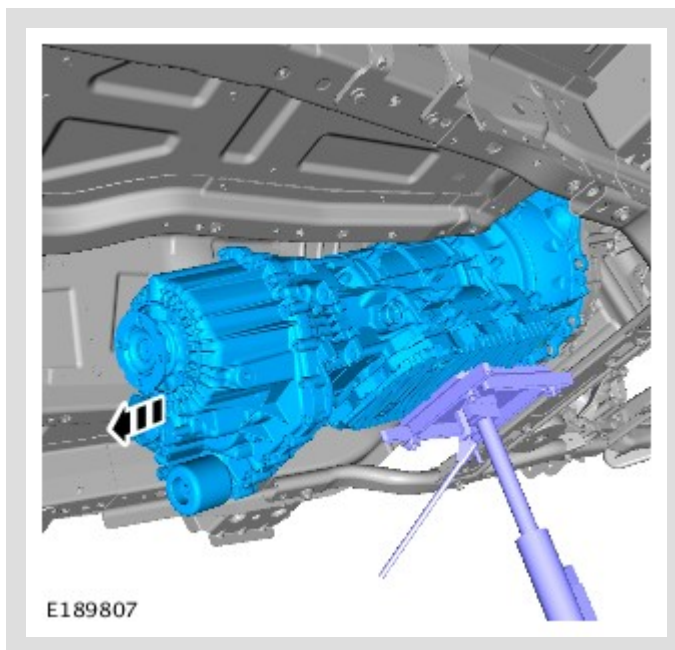
This step requires the aid of another technician.

CAUTION:


Make sure that the torque converter remains in the transmission.

NOTE:

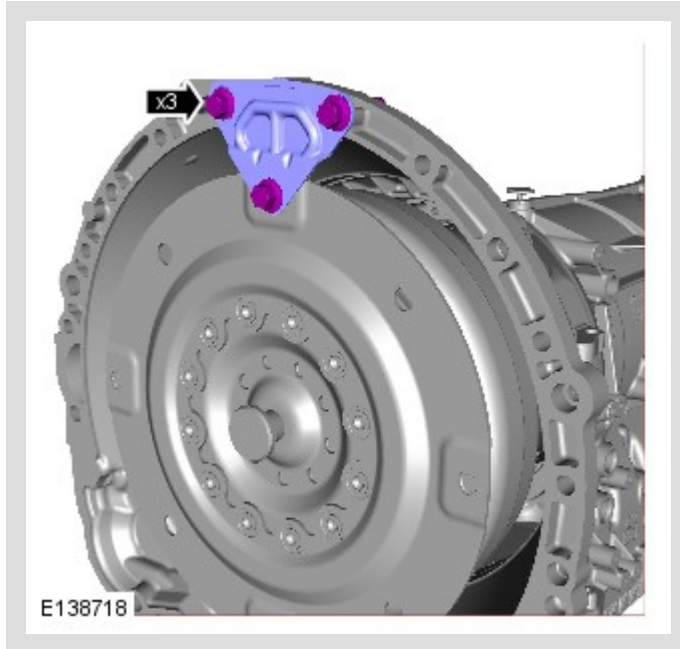
Do not disassemble further if the component is removed for access only.



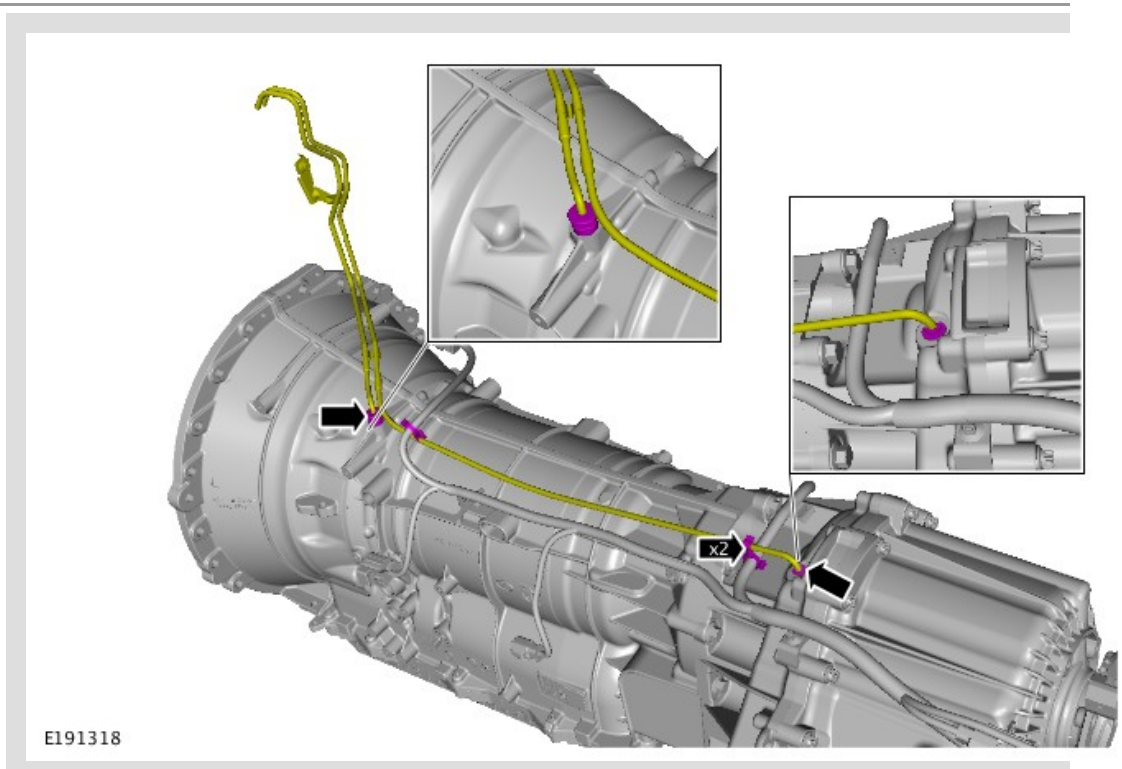
30.

 NOTE:

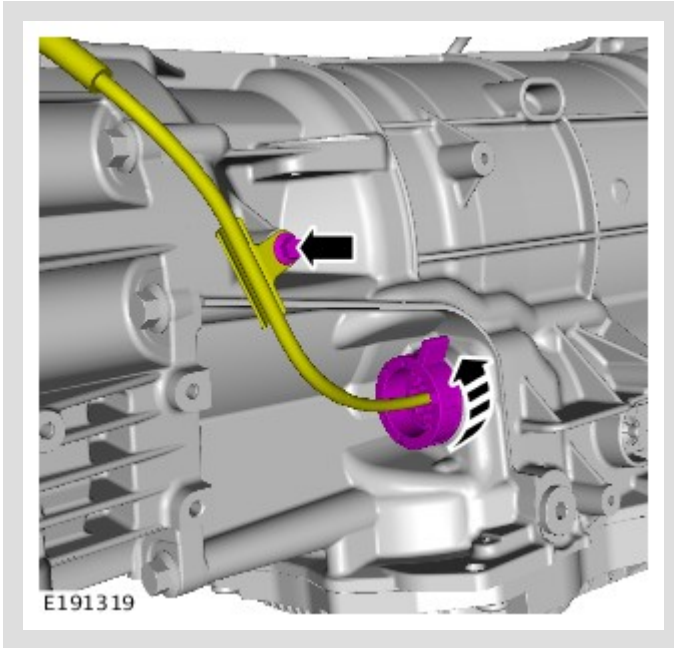
Secure the torque converter to the transmission using a suitable retainer.



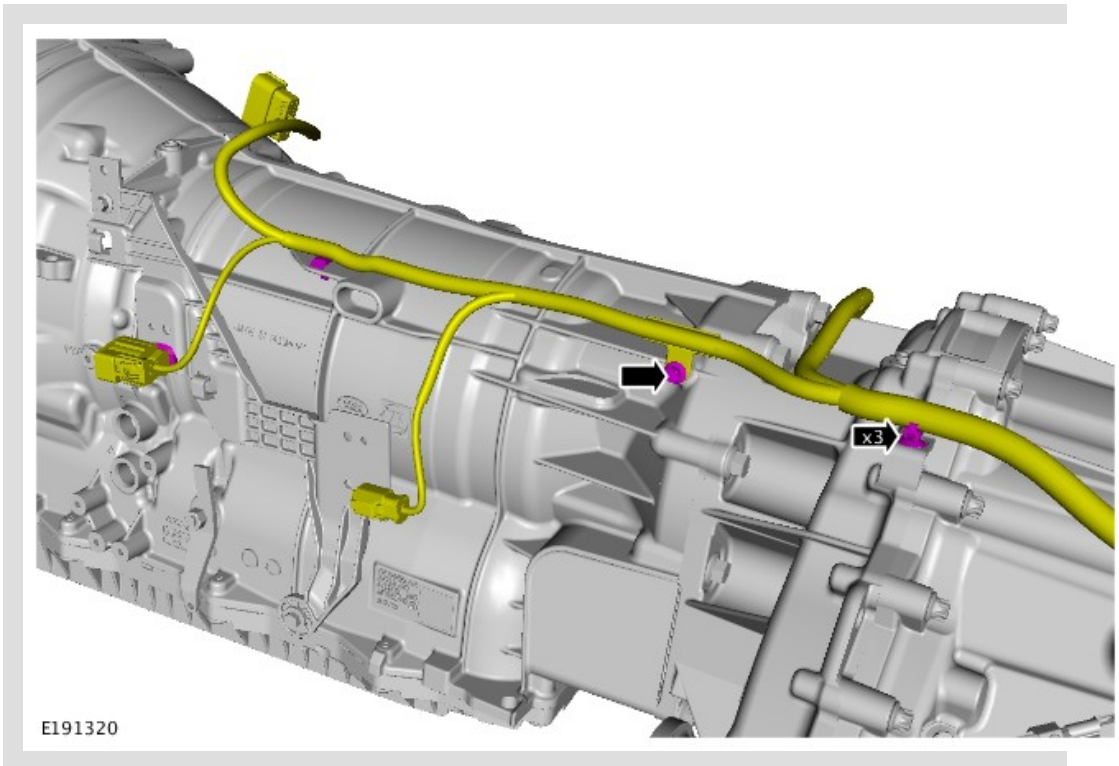
31.



32.

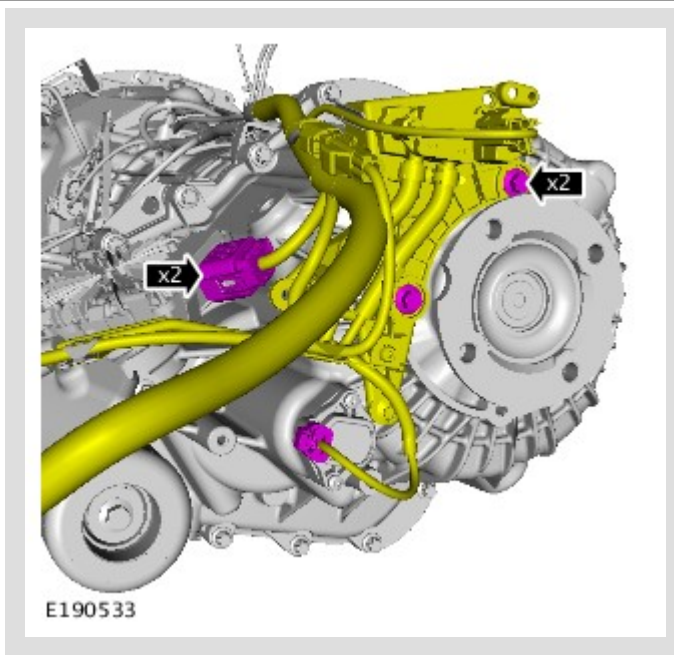


33.



Vehicles with twin speed transfer case

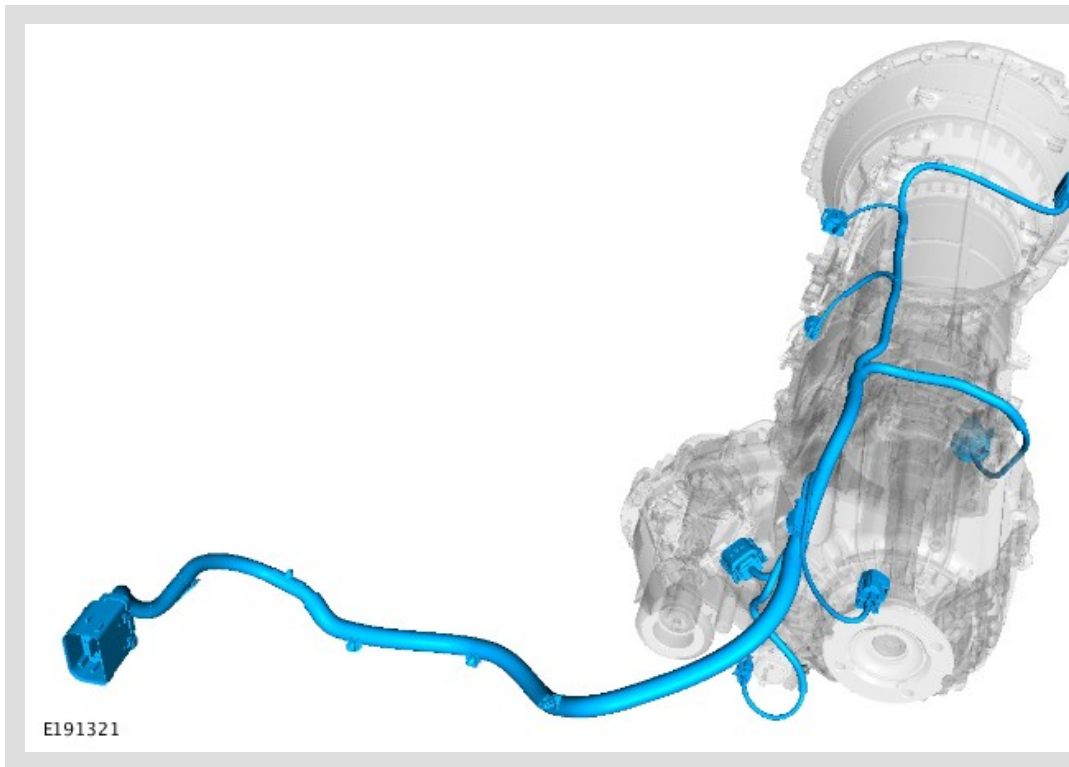
1.



2.

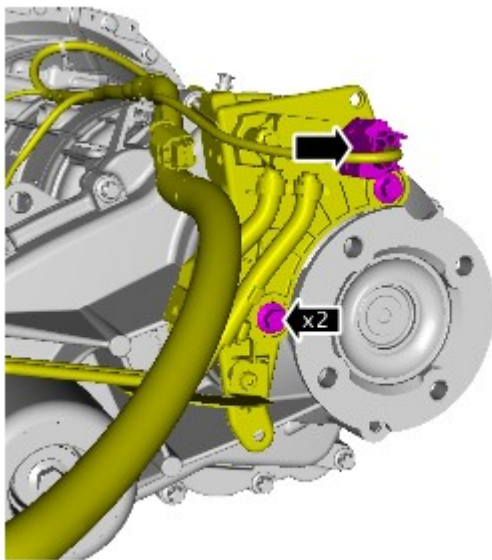
⚠ NOTE:

Note the routing of the transmission wiring harness.



Vehicles with single speed transfer case

1.

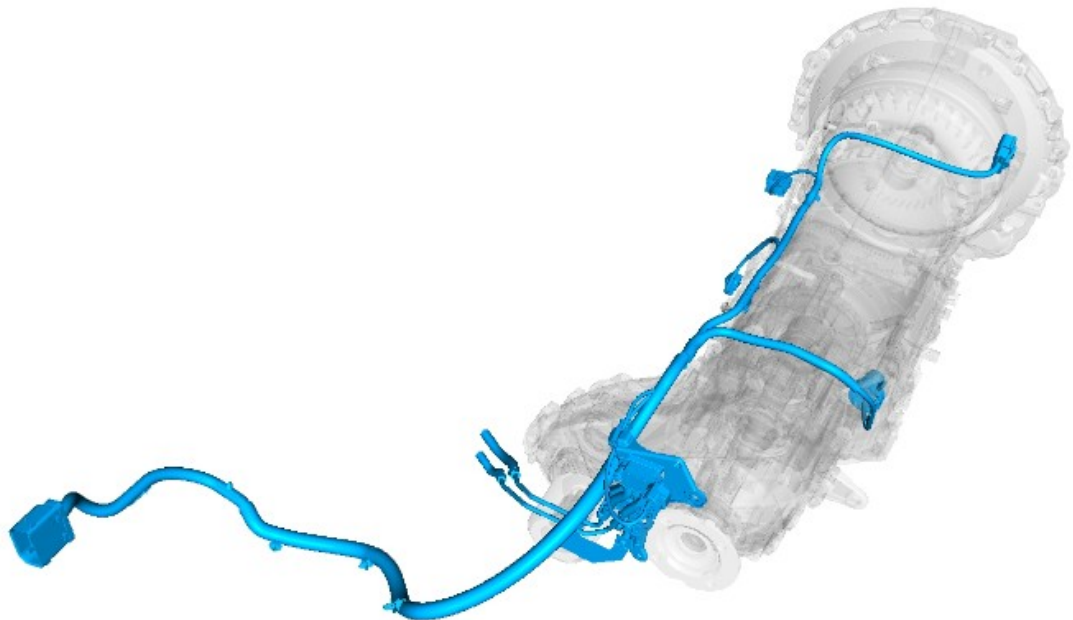


E191590

2.

△ NOTE:

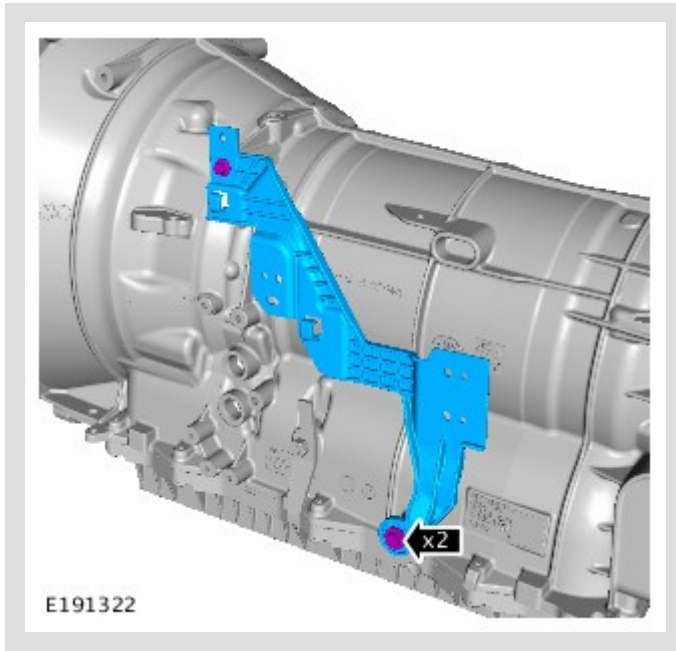
Note the routing of the transmission wiring harness.



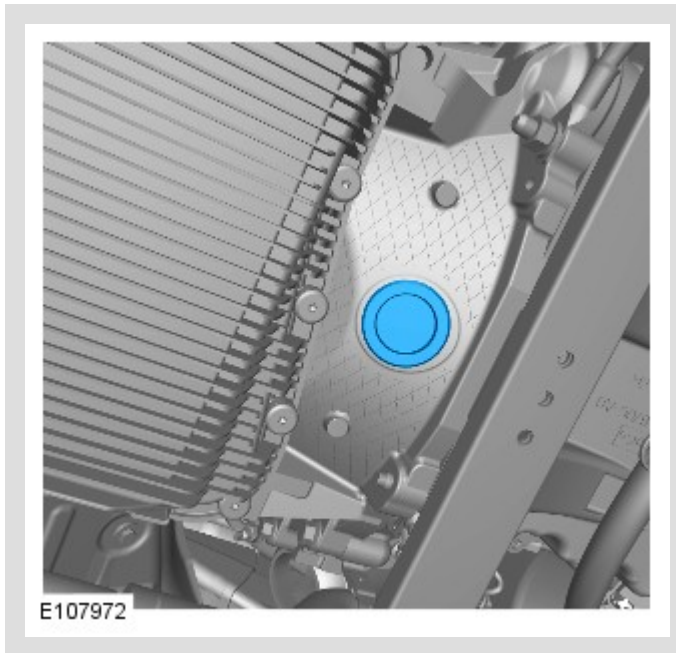
E191591

All vehicles

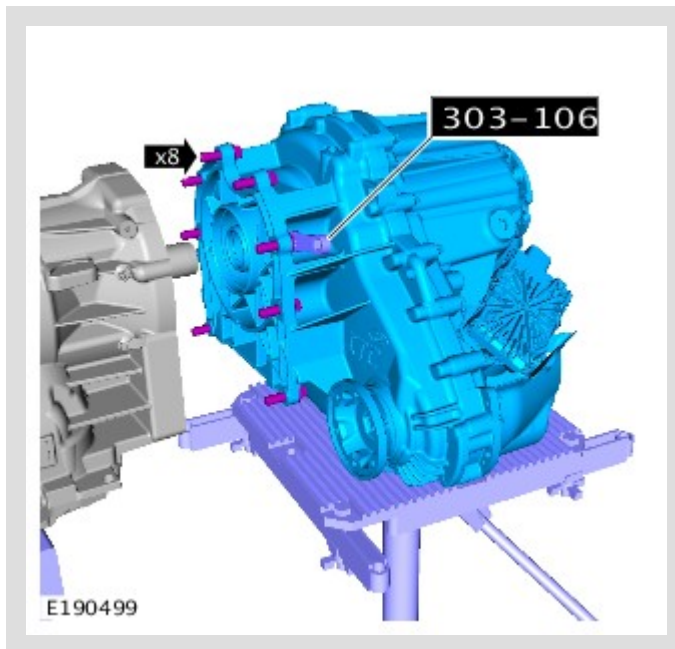
1.



2.



3.

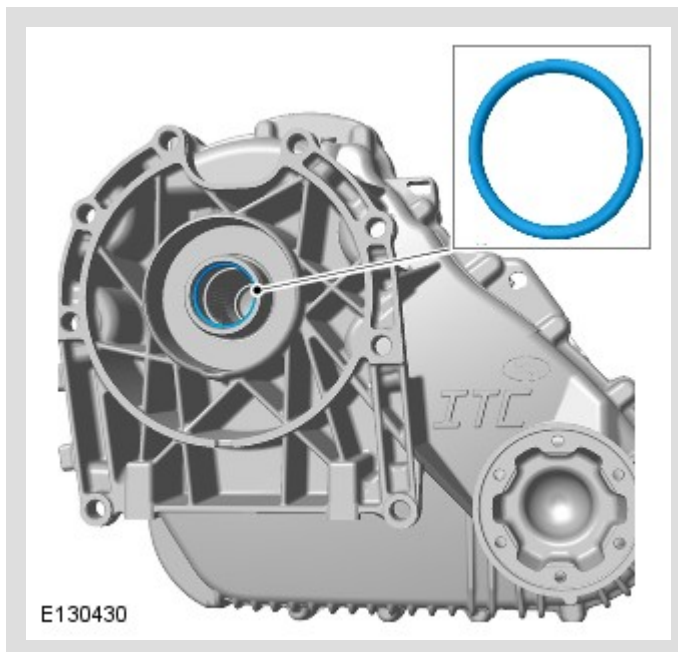


Special Tool(s): 303-1069

4.

⚠ CAUTION:

Do not carry out this step if a new transfer box is to be installed.



Renew Part: Transfer case connecting sleeve O-ring seal Quantity: 1 .

PUBLISHED: 21-NOV-2016
2017.0 DISCOVERY (LR), 414-00

BATTERY AND CHARGING SYSTEM - GENERAL INFORMATION

SPECIFICATIONS

Primary battery

ITEM	SPECIFICATIONS
Type	Absorbed glass mat (AGM)
Capacity	90 Ah
Cold cranking amps	850 CCA
Reserve capacity	150 minutes

Primary battery disconnect/connect

CAUTION:

The vehicle status and battery condition must be established before attempting battery disconnect/connect. Reference must then be made to the following table to establish the relevant procedure to be followed.

NOTE:

If there is insufficient capacity in the battery to disarm the alarm, the alarm may sound on connection of the battery - turning the ignition key to position II will disarm the alarm.

Vehicle status	Battery charged	Battery discharged
-	Procedure	Procedure
Vehicles without Telematics	-	-

Engine running	1	-
Vehicle powered down, locked and alarmed	2	3
Vehicle unlocked	4	5
Vehicles with Telematics	-	-
Engine running	6	-
Vehicle powered down, locked and alarmed	7	8
Vehicle unlocked	9	10

Procedure 1

Disconnect the battery	Connect the battery
1. If possible, apply the parking brake or chock the wheels.	1. Make sure that all the electrical systems and ignition are switched OFF .
2. Set the ignition to the OFF position.	2. Connect the battery GROUND cable.
3. Wait 2 minutes for the engine management system to POWER DOWN .	3. Reset electric window one-touch facility. Power window up to hard stop, release switch, reapply and hold for 1 second, (relay in door will click). One touch should now work.
4. Disconnect the battery GROUND cable.	4. Using suitable Land Rover diagnostic equipment calibrate the electric park brake and tailgate. Check the clock and navigation settings.

Procedure 2

Disconnect the battery	Connect the battery
1. Unlock the vehicle and disarm the alarm using the UNLOCK button on the key fob.	1. Make sure that all the electrical systems and ignition are switched OFF .
2. Enter the vehicle. Set the ignition to the ON position. Apply the parking brake or chock the wheels and then set the ignition to the OFF position.	2. Connect the battery GROUND cable.
3. Wait 2 minutes for the engine management system to POWER DOWN .	3. Reset electric window one-touch facility. Power window up to hard stop, release switch, reapply and hold for 1 second, (relay in door will click). One touch should now work.
4. Disconnect the battery GROUND cable.	4. Using suitable Land Rover diagnostic equipment calibrate the electric park brake and tailgate. Check the clock and navigation settings.

Procedure 3

Disconnect the battery	Connect the battery
------------------------	---------------------

<p>1. Unlock the vehicle from the driver's door using the key.</p>	<p>1. Make sure that all the electrical systems and ignition are switched OFF .</p>
<p>2. Enter the vehicle. Apply the parking brake or chock the wheels.</p>	<p>2. Connect the battery GROUND cable.</p>
<p>3. Disconnect the battery GROUND cable.</p>	<p>3. Set the ignition to the ON position.</p>
	<p>4. Reset electric window one-touch facility. Power window up to hard stop, release switch, reapply and hold for 1 second, (relay in door will click). One touch should now work.</p>
	<p>5. Using suitable Land Rover diagnostic equipment calibrate the electric park brake and tailgate. Check the clock and navigation settings.</p>

Procedure 4

Disconnect the battery	Connect the battery
<p>1. Enter the vehicle. Set the ignition to the ON position. Apply the parking brake or chock the wheels and then set the ignition to the OFF position.</p>	<p>1. Make sure that all the electrical systems and ignition are switched OFF .</p>
<p>2. Wait 2 minutes for the engine management system to POWER DOWN .</p>	<p>2. Connect the battery GROUND cable.</p>
<p>3. Disconnect the battery GROUND cable.</p>	<p>3. Reset electric window one-touch facility. Power window up to hard stop, release switch, reapply and hold for 1 second, (relay in door will click). One touch should now work.</p>
	<p>4. Using suitable Land Rover diagnostic equipment calibrate the electric park brake and tailgate. Check the clock and navigation settings.</p>

Procedure 5

Disconnect the battery	Connect the battery
<p>1. Enter the vehicle. Apply the parking brake or chock the wheels.</p>	<p>1. Make sure that all the electrical systems and ignition are switched OFF .</p>
<p>2. Disconnect the battery GROUND cable.</p>	<p>2. Connect the battery GROUND cable.</p>
	<p>3. Set the ignition to the ON position.</p>
	<p>4. Reset electric window one-touch facility. Power window up to hard stop, release switch, reapply and hold for 1 second, (relay in door will click). One touch should now work.</p>
	<p>5. Using suitable Land Rover diagnostic equipment calibrate the electric park brake and tailgate. Check the clock and navigation settings.</p>


Procedure 6

Disconnect the battery	Connect the battery
1. Make sure the customer has placed stolen vehicle tracking into Service Mode , (if equipped).	1. Make sure that all the electrical systems and ignition are switched OFF .
2. If possible, apply the parking brake or chock the wheels.	2. Connect the battery GROUND cable.
3. Set the ignition to the OFF position.	3. Reset electric window one-touch facility. Power window up to hard stop, release switch, reapply and hold for 1 second, (relay in door will click). One touch should now work.
4. Wait 2 minutes for the engine management system to POWER DOWN .	4. Using suitable Land Rover diagnostic equipment calibrate the electric park brake and tailgate. Check the clock and navigation settings.
5. Disconnect the battery GROUND cable.	5. Request stolen vehicle tracking removed from Service Mode , (if equipped).

Procedure 7

Disconnect the battery	Connect the battery
1. Make sure the customer has placed stolen vehicle tracking into Service Mode , (if equipped).	1. Make sure that all the electrical systems and ignition are switched OFF .
2. Unlock the vehicle and disarm the alarm using the UNLOCK button on the key fob.	2. Connect the battery GROUND cable.
3. Enter the vehicle. Set the ignition to the ON position. Apply the parking brake or chock the wheels and then set the ignition to the OFF position.	3. Reset electric window one-touch facility. Power window up to hard stop, release switch, reapply and hold for 1 second, (relay in door will click). One touch should now work.
4. Wait 2 minutes for the engine management system to POWER DOWN .	4. Using suitable Land Rover diagnostic equipment calibrate the electric park brake and tailgate. Check the clock and navigation settings.
5. Disconnect the battery GROUND cable.	5. Request stolen vehicle tracking removed from Service Mode , (if equipped).

Procedure 8

 **CAUTION:**

Battery discharge may have activated the stolen vehicle tracking, check with customer if equipped.


Disconnect the battery	Connect the battery
------------------------	---------------------

1. Make sure the customer has placed stolen vehicle tracking into Service Mode , (if equipped).	1. Make sure that all the electrical systems and ignition are switched OFF .
2. Unlock the vehicle from the driver's door using the key.	2. Connect the battery GROUND cable
3. Enter the vehicle. Apply the parking brake or chock the wheels.	3. Set the ignition to the ON position.
4. Disconnect the battery GROUND cable.	4. Reset electric window one-touch facility. Power window up to hard stop, release switch, reapply and hold for 1 second, (relay in door will click). One touch should now work.
	5. Using suitable Land Rover diagnostic equipment calibrate the electric park brake and tailgate. Check the clock and navigation settings.
	6. Request stolen vehicle tracking removed from Service Mode , (if equipped).

Procedure 9

Disconnect the battery	Connect the battery
1. Make sure the customer has placed stolen vehicle tracking into Service Mode , (if equipped).	1. Make sure that all the electrical systems and ignition are switched OFF .
2. Enter the vehicle. Set the ignition to the ON position. Apply the parking brake or chock the wheels and then set the ignition to the OFF position.	2. Connect the battery GROUND cable.
3. Wait 2 minutes for the engine management system to POWER DOWN .	3. Reset electric window one-touch facility. Power window up to hard stop, release switch, reapply and hold for 1 second, (relay in door will click). One touch should now work.
4. Disconnect the battery GROUND cable.	4. Using suitable Land Rover diagnostic equipment calibrate the electric park brake and tailgate. Check the clock and navigation settings.
	5. Request stolen vehicle tracking removed from Service Mode , (if equipped).

Procedure 10


 **CAUTION:**

Battery discharge may have activated the stolen vehicle tracking, check with customer if equipped.


Disconnect the battery	Connect the battery
------------------------	---------------------

1. Make sure the customer has placed stolen vehicle tracking into Service Mode , (if equipped).	1. Make sure that all the electrical systems and ignition are switched OFF .
2. Enter the vehicle. Apply the parking brake or chock the wheels.	2. Connect the battery GROUND cable.
3. Disconnect the battery GROUND cable.	3. Set the ignition to the ON position.
	4. Reset electric window one-touch facility. Power window up to hard stop, release switch, reapply and hold for 1 second, (relay in door will click). One touch should now work.
	5. Using suitable Land Rover diagnostic equipment calibrate the electric park brake and tailgate. Check the clock and navigation settings.
	6. Request stolen vehicle tracking removed from Service Mode , (if equipped).

Vehicle Jump (Emergency) Starting - Using Another Vehicle

 **WARNING:**

Take care when working near rotating parts of the engine.

 **CAUTION:**

Make sure that there is no physical contact between the donor and disabled vehicles other than the booster cables.

Vehicle status	Procedure
Vehicles without Telematics	1
Vehicles with Telematics	2

Procedure 1

CARRY OUT THE FOLLOWING OPERATIONS IN THE SEQUENCE GIVEN

1. Connect one end of the RED (+) booster cable to the POSITIVE (+) jump start terminal of the **DONOR** vehicle
2. Connect the other end of the RED (+) booster cable to the POSITIVE (+) jump start terminal of the **DISABLED** vehicle
3. Connect one end of the BLACK (-) booster cable to the GROUND (-) jump start terminal of the **DONOR** vehicle


PUBLISHED: 21-NOV-2016
2017.0 DISCOVERY (LR), 501-02

FRONT END BODY PANELS

SECONDARY BULKHEAD CENTRE PANEL - TDV6 3.0L DIESEL (G1971314)

REMOVAL AND INSTALLATION

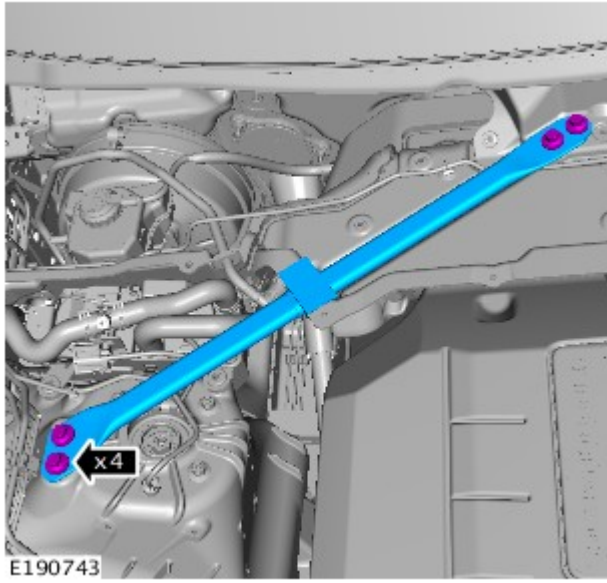
76.11.35	UNDERSHIELD - BODY - RIGHT - RENEW	ALL DERIVATIVES	1.1	USED WITHINS
76.10.94	CLOSING PANEL - ENGINE COMPARTMENT - FIREWALL - RENEW	3000 CC, TDV6	0.4	USED WITHINS

REMOVAL **NOTE:**

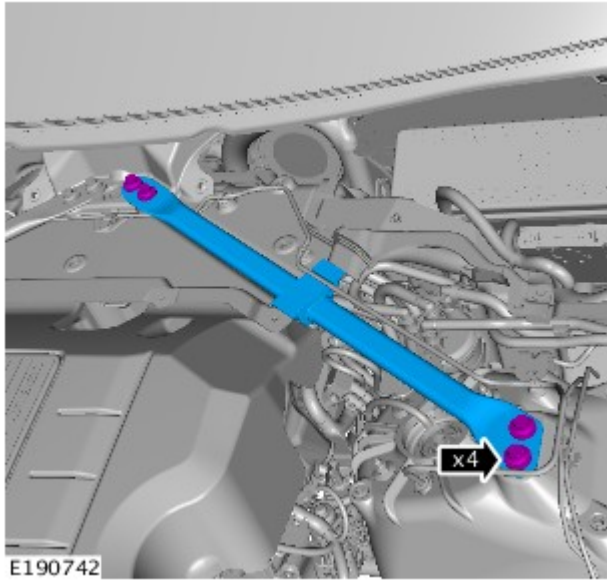
Some components shown removed for clarity.

1. Remove the cowl panel grille.
Refer to: Cowl Panel Grille (501-02 Front End Body Panels, Removal and Installation).

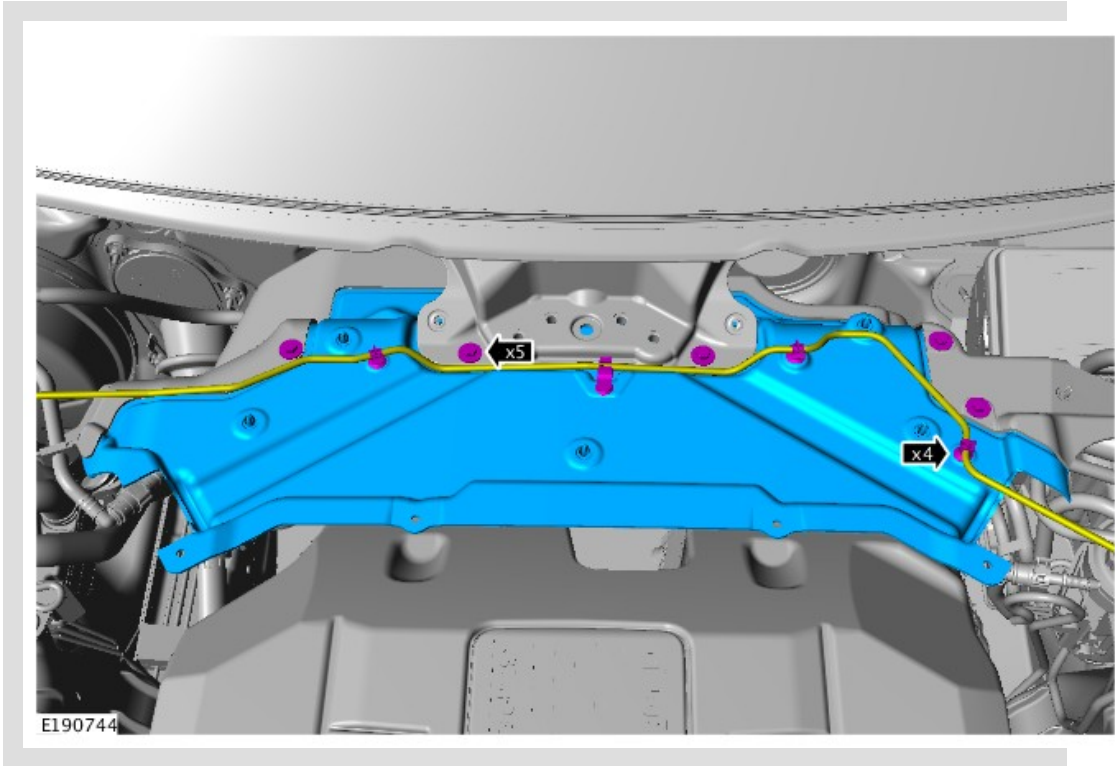
2.



3.

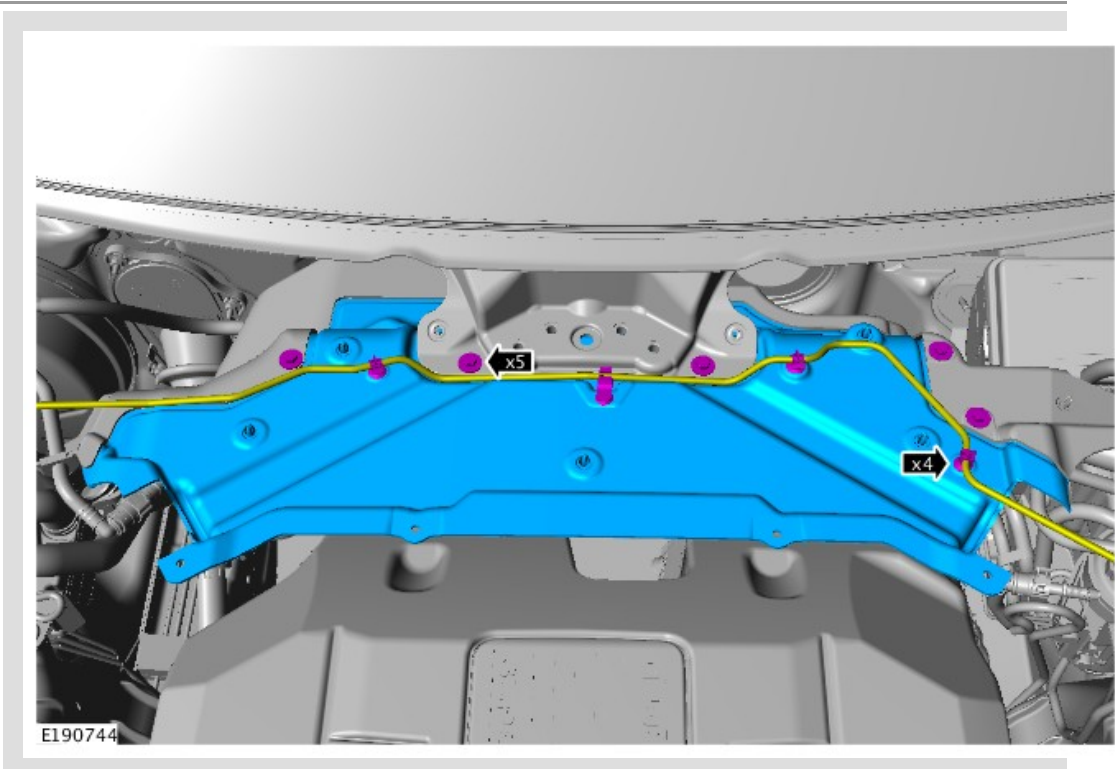


4.



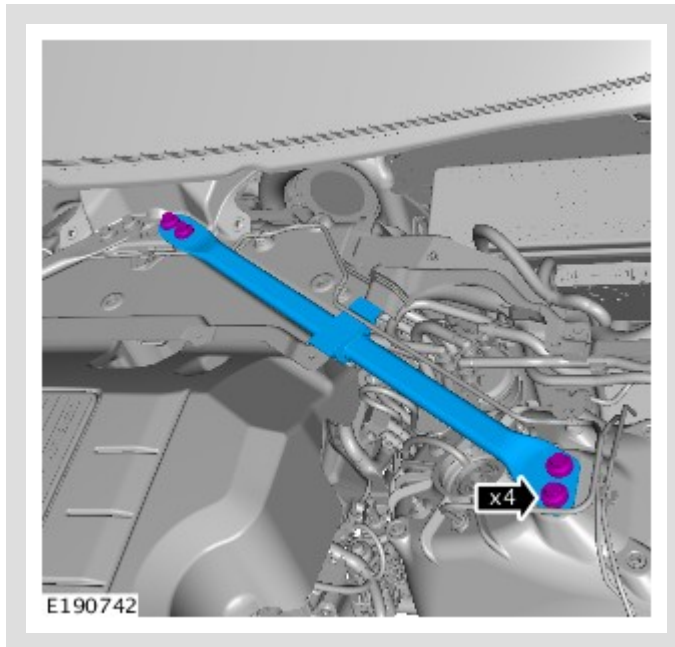
INSTALLATION

1.



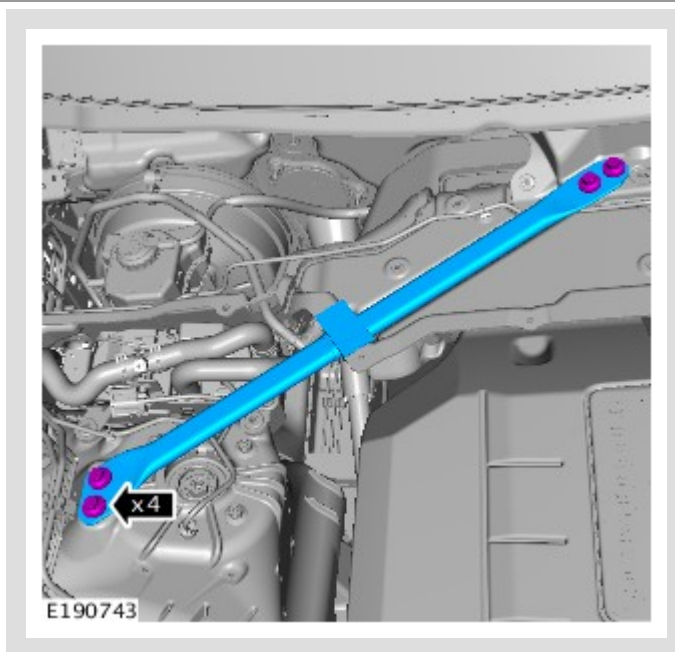
Torque: 6 Nm

2.



Torque: 55 Nm

3.



Torque: 55 Nm

4.

Install the cowl panel grille.

Refer to: Cowl Panel Grille (501-02 Front End Body Panels, Removal and Installation).

BEILAGE C

PUBLISHED: 22-FEB-2017
2017.0 DISCOVERY (LR), 205-01

DRIVESHAFT

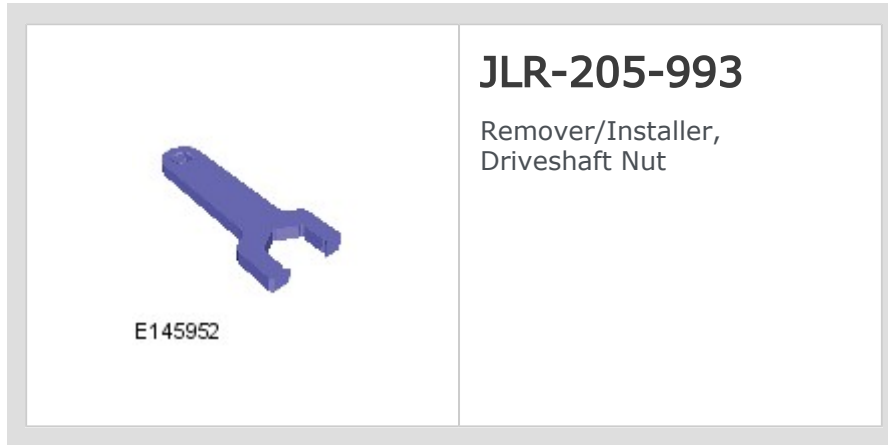
FRONT DRIVESHAFT - TDV6 3.0L DIESEL (G1947959)

REMOVAL AND INSTALLATION

47.15.02	DRIVESHAFT - FRONT - RENEW	3000 CC, TDV6	1.4	USED WITHINS
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SPECIAL TOOL(S)





JLR-205-993

Remover/Installer,
Driveshaft Nut

E145952

PART(S)

STEP	PART NAME	QUANTITY
Installation Step 3	Driveshaft to front output flange bolts	1

REMOVAL

NOTE:

Some variation in the illustrations may occur, but the essential information is always correct.

1.



WARNING:

Make sure to support the vehicle with axle stands.

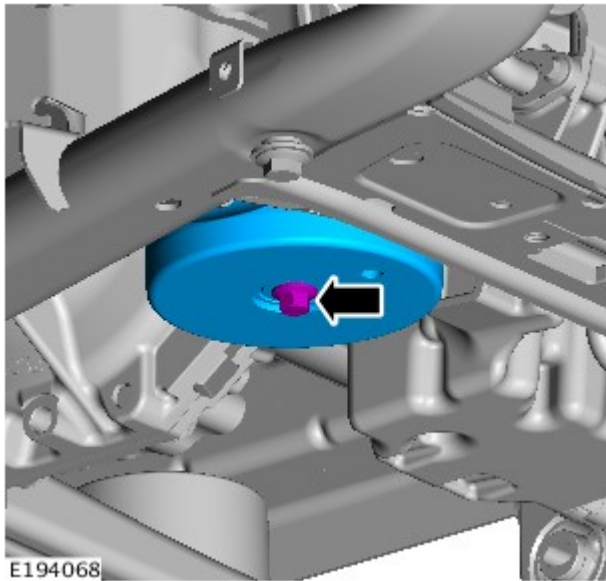
Raise and support the vehicle.

2.

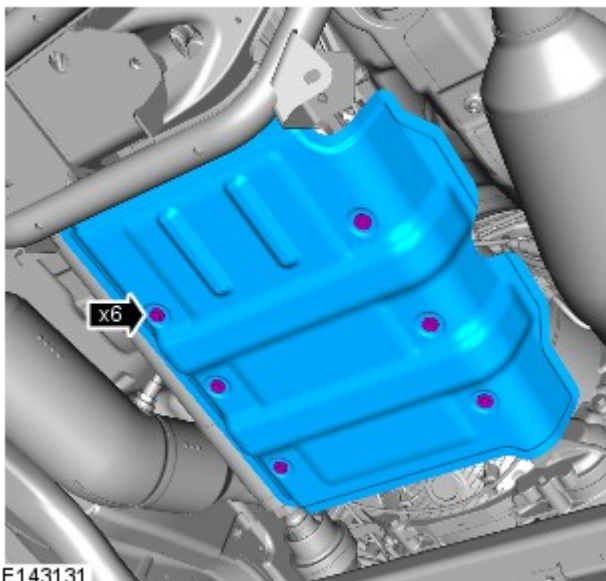
Remove the engine undershield.

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

3.



4.



5. Remove the chassis cross member.

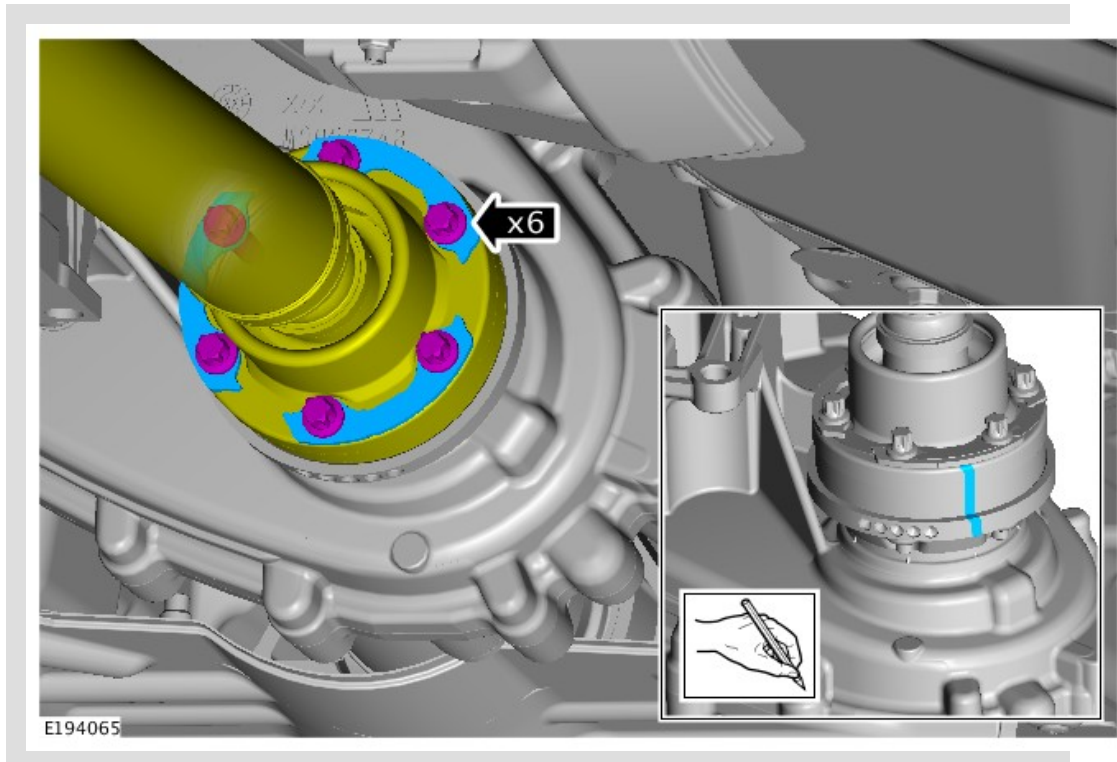
Refer to: Transmission Support Crossmember - TDV6 3.0L Diesel (502-02 Full Frame and Body Mounting, Removal and Installation).

BEILAGE F

6.

ⓘ CAUTION:

To avoid damage to the joint or gaiter, do not allow the driveshaft to hang.



Remove and discard the bolts.

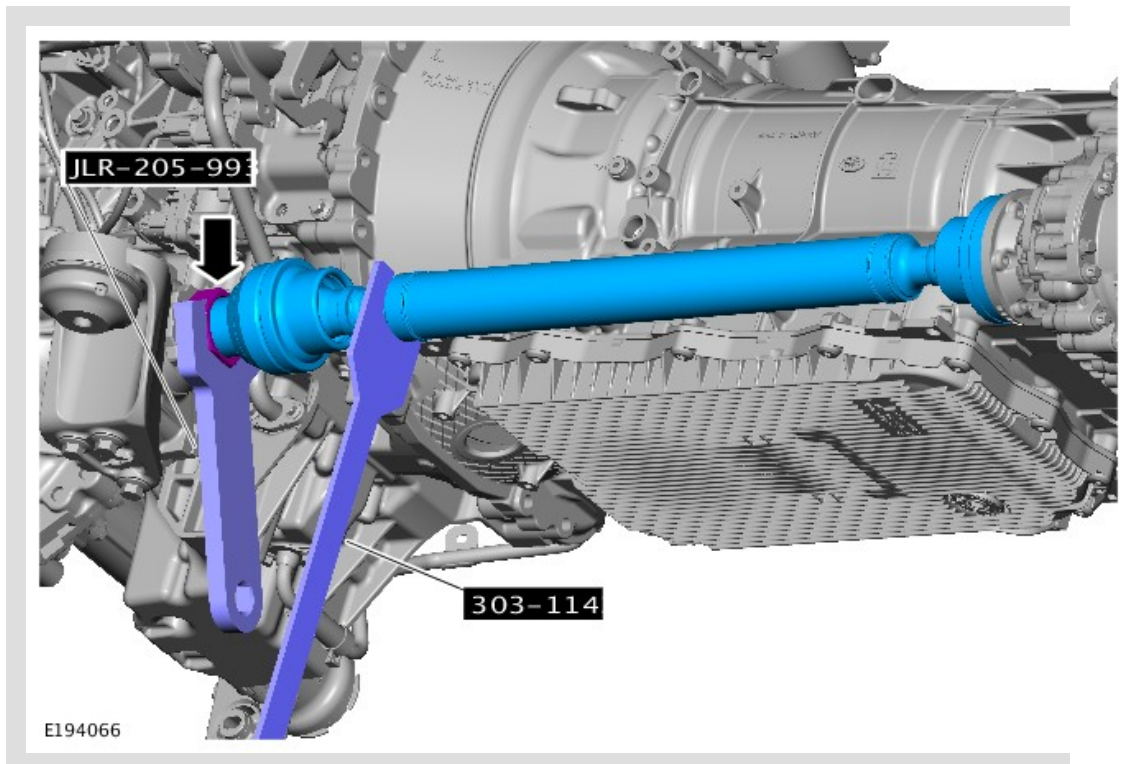
7.

⚠ CAUTION:

To avoid damage to the joint or gaiter, do not allow the driveshaft to hang.

△ NOTE:

This step requires the aid of another technician.



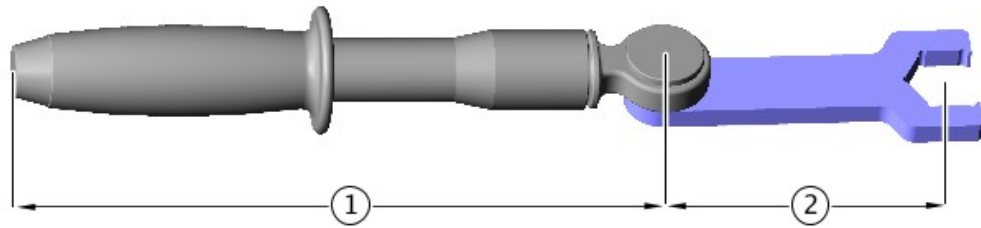
- *Special Tool(s):* 303-1142 , JLR-205-993

INSTALLATION

1.

⚠ CAUTION:

Make sure the torque wrench setting procedure is followed correctly.
Failure to follow this instruction may result in damage to the vehicle.



E190843

- Calculate the setting for the torque wrench.
 - Stage 1: Multiply the required torque by the effective length of the torque wrench (1).
 - Stage 2: Add the effective length of the special tool (2) to the effective length of the torque wrench.
 - Stage 3: Divide the total of stage 1 by the total of stage 2.
 - Stage 4: Set the torque wrench to the figure arrived at in stage 3.
-

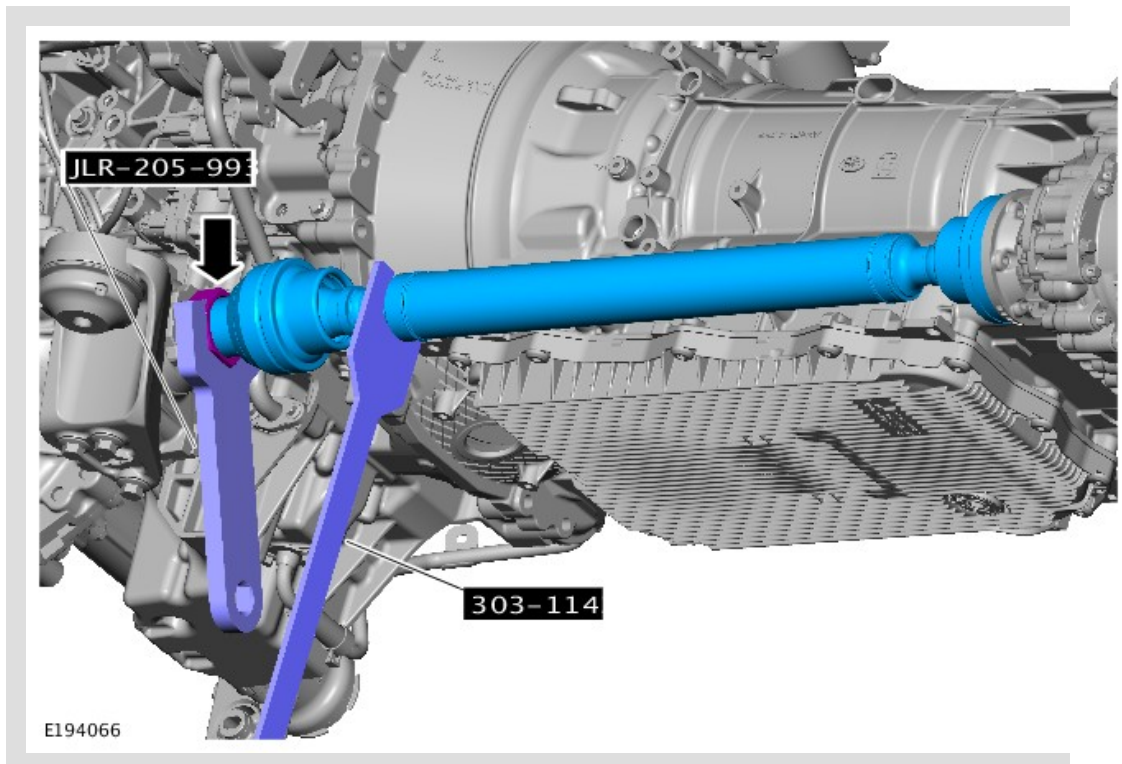
2.

⚠ CAUTION:

Make sure the torque wrench setting procedure is followed correctly.
Failure to follow this instruction may result in damage to the vehicle.

△ NOTE:

This step requires the aid of another technician.



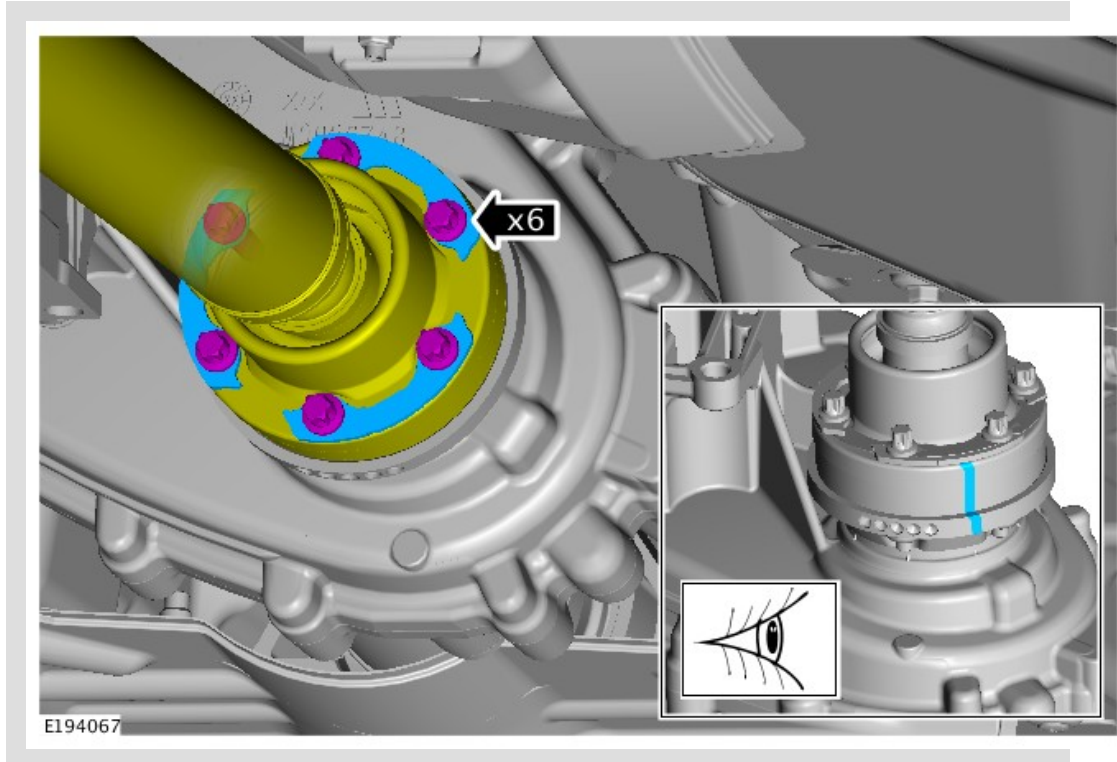
Special Tool(s): JLR-205-993 , 303-1142

Torque: 150 Nm

3.

⚠ CAUTION:

If original driveshaft installed, make sure to align with noted position in removal steps.



Install new bolts.

Renew Part: Driveshaft to front output flange bolts Quantity: 1 .

Torque:

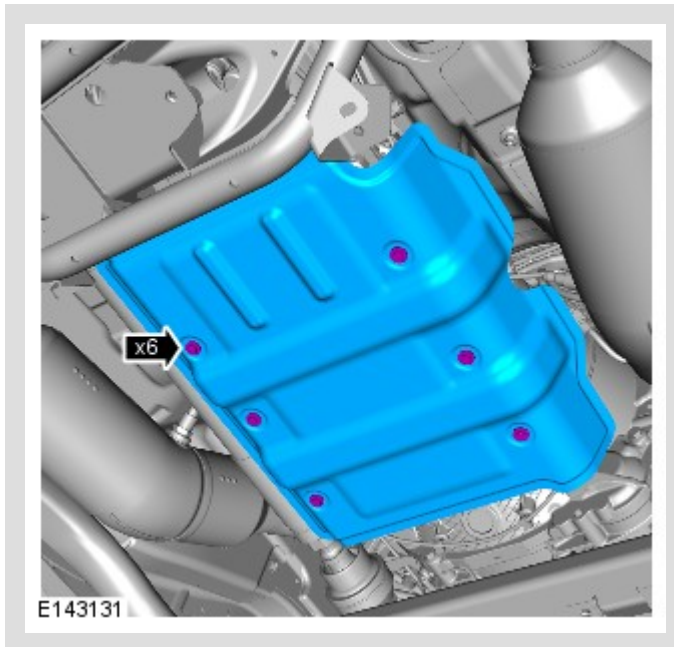
Stage 1 **45 Nm**

Stage 2 **90°**

4. Install the chassis cross member.

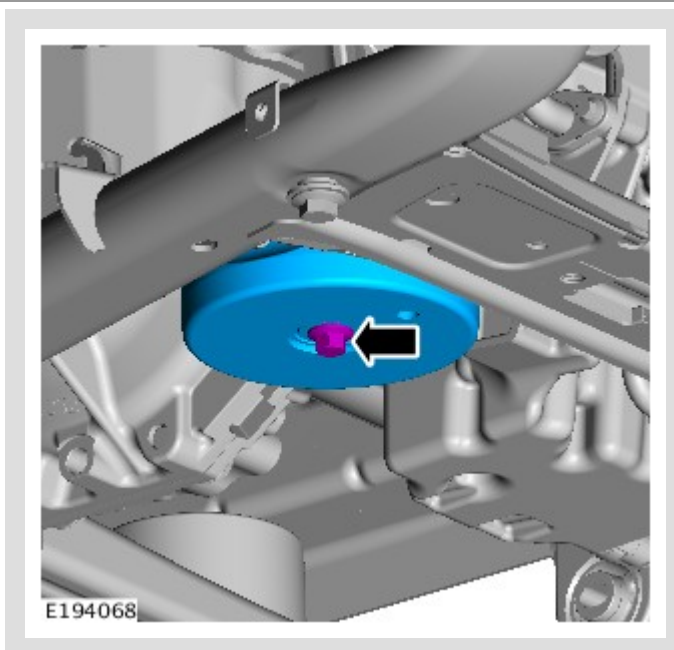
Refer to: Transmission Support Crossmember - TDV6 3.0L Diesel (502-02 Full Frame and Body Mounting, Removal and Installation).

5.



Torque: 10 Nm

6.



7. Install the engine undershield.

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

PUBLISHED: 19-JAN-2017
2017.0 DISCOVERY (LR), 205-01

DRIVESHAFT**REAR DRIVESHAFT - TDV6 3.0L
DIESEL** (G1947961)**REMOVAL AND INSTALLATION**

47.15.03	DRIVESHAFT - REAR - RENEW	3000 CC, TDV6, WITH PARTICULATE FILTER, WITH DIESEL EXHAUST FLUID	2.6	USED WITHINS
47.15.03	DRIVESHAFT - REAR - RENEW	3000 CC, TDV6, WITH PARTICULATE FILTER, WITHOUT DIESEL EXHAUST FLUID	2.5	USED WITHINS

SPECIAL TOOL(S)



PART(S)

STEP	PART NAME	QUANTITY
Installation Step 2	Rear driveshaft constant velocity joint bolts	1
Installation Step 3	Driveshaft flange bolts	1

REMOVAL

⚠ CAUTION:

To avoid damage to the joint or gaiter, do not allow the driveshaft to hang.

⚠ NOTE:

This procedure requires the vehicle in the Neutral position, with the parking brake system released.

1.



WARNING:

Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

2.

Remove the exhaust system for access.

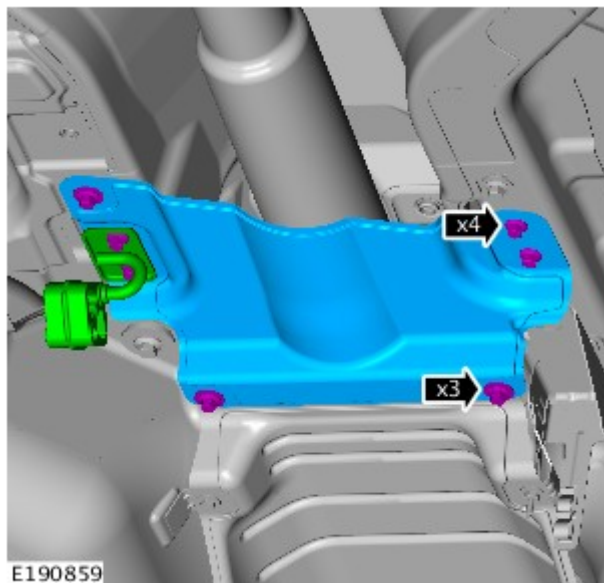
Refer to: Exhaust System - Vehicles With: Diesel Exhaust Fluid (309-00 Exhaust System - TDV6 3.0L Diesel, Removal and Installation).

Refer to: Exhaust System - Vehicles With: Diesel Particulate Filter (DPF) (309-00 Exhaust System - TDV6 3.0L Diesel, Removal and Installation).

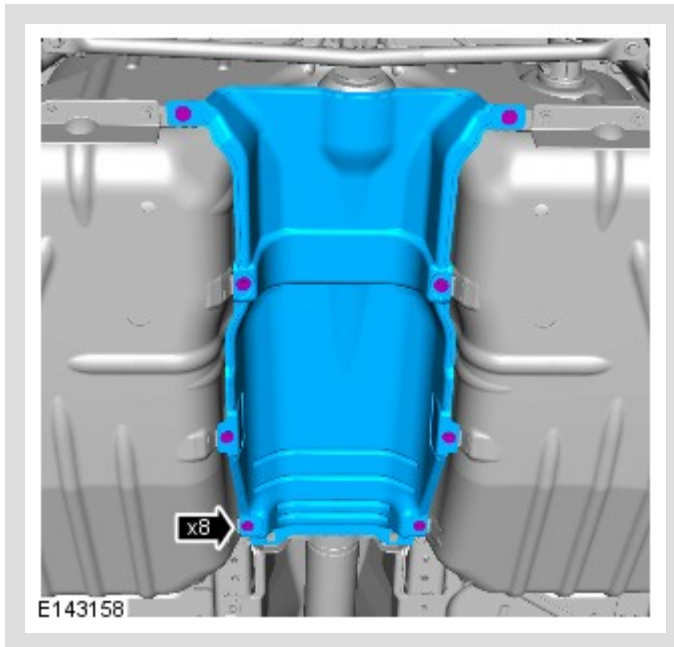
Refer to: Exhaust System - Vehicles Without: Diesel Particulate Filter (DPF) (309-00 Exhaust System - TDV6 3.0L Diesel, Removal and Installation).

BEILAGDE D-1

3.



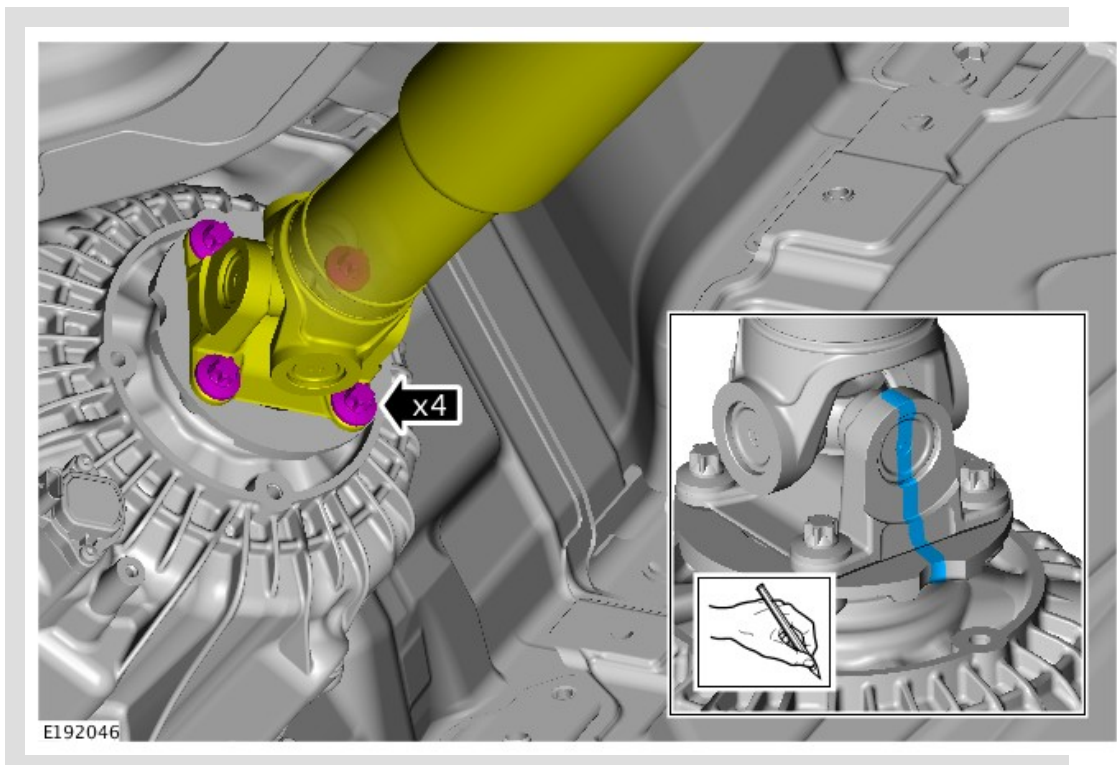
4.



5.

⚠ CAUTION:

If original driveshaft is to be installed, mark the position of the driveshaft flange in relation to the drive pinion flange.



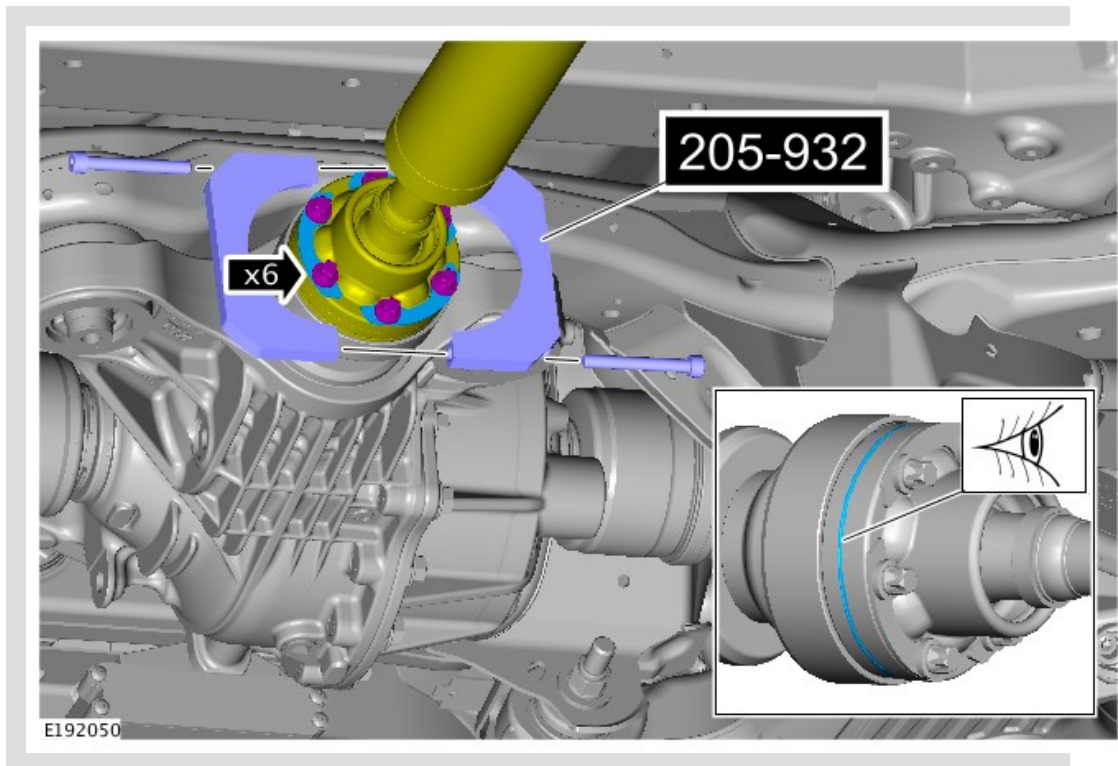
6.

⚠ CAUTION:

Discard the bolts.

📌 NOTE:

Make sure that the special tool is correctly installed to the recess on the driveshaft.

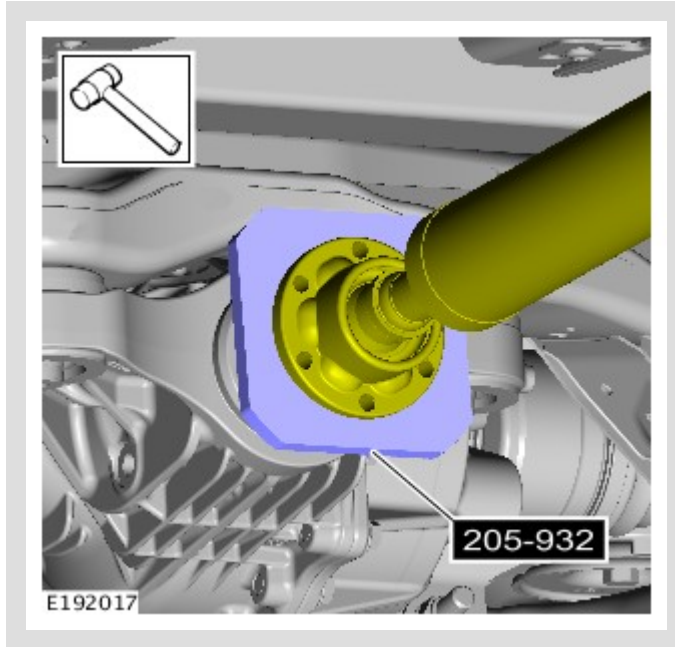


Install the special tool as shown.

7.

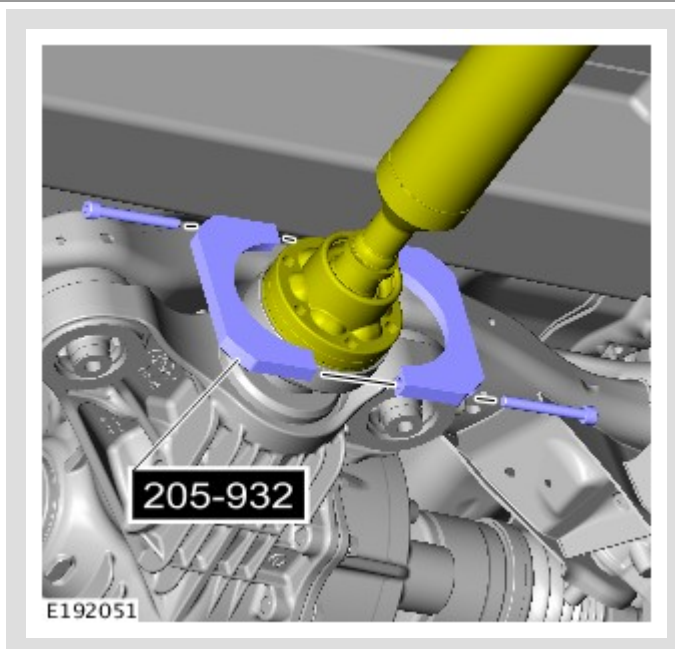
⚠ CAUTION:

Using a suitable hammer and drift, make sure to only hit the corner edges of the special tool to remove the driveshaft.



Special Tool(s): [205-932](#)

8.



Remove the special tool.

9.



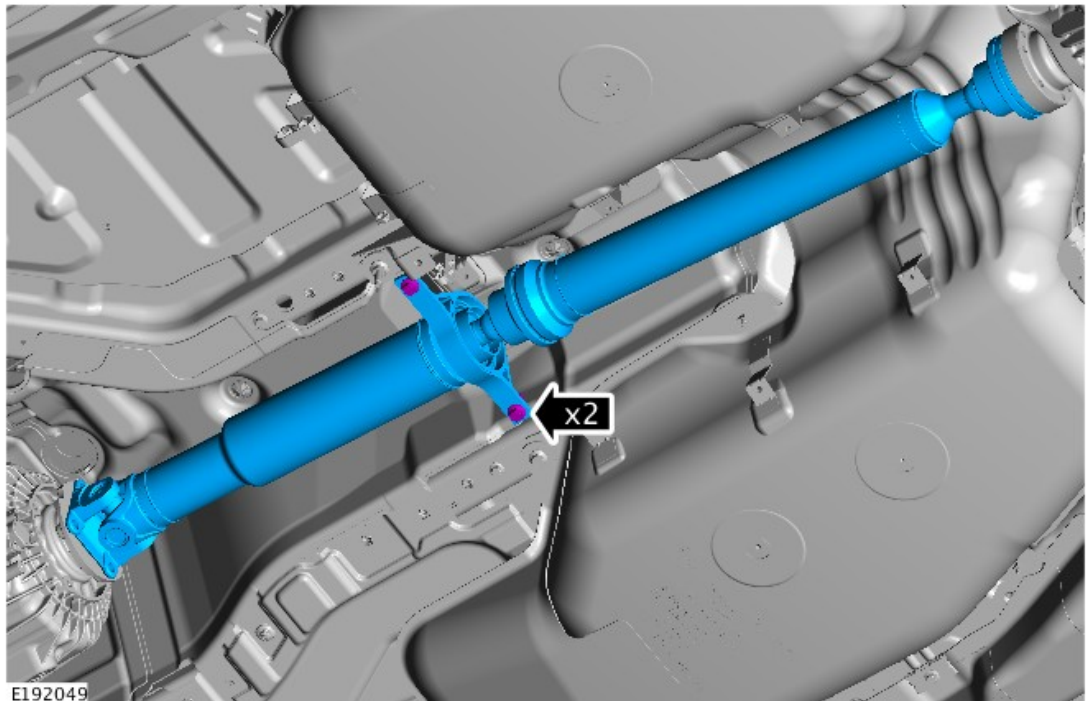
WARNING:

This step requires the aid of another technician.



CAUTION:

Note the installed position of the component(s) prior to removal.



INSTALLATION

1.



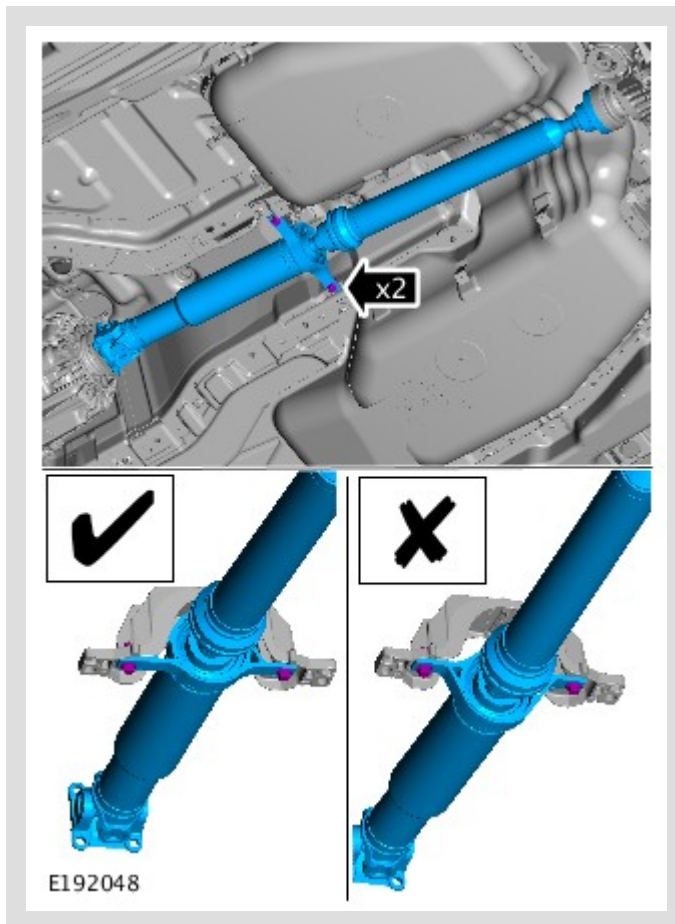
WARNING:

This step requires the aid of another technician.



CAUTION:

Make sure that the components are installed to the noted position in the removal steps.

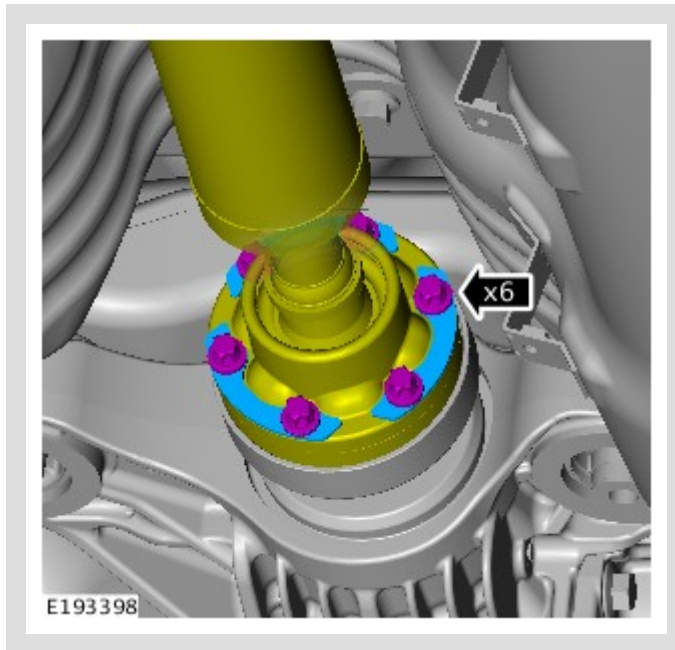


Torque: 48 Nm

2.

⚠ CAUTION:

Make sure that new bolts are installed.



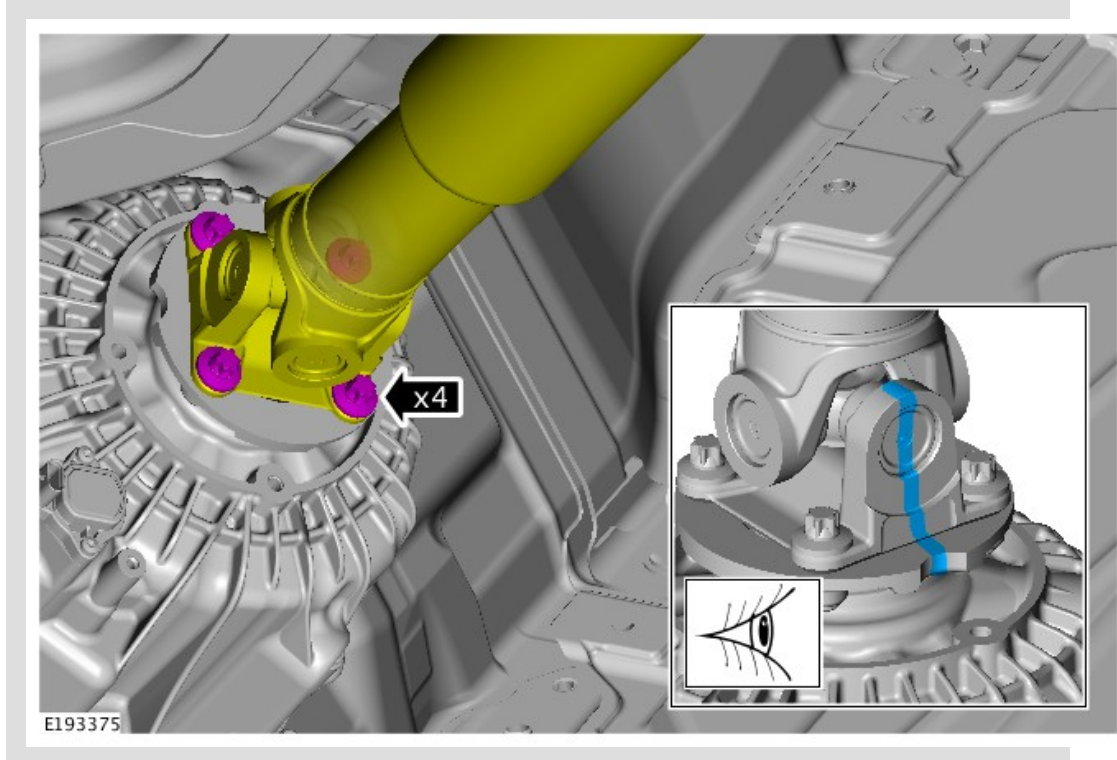
Renew Part: *Rear driveshaft constant velocity joint bolts* Quantity: 1 .

Torque: 73 Nm

3.

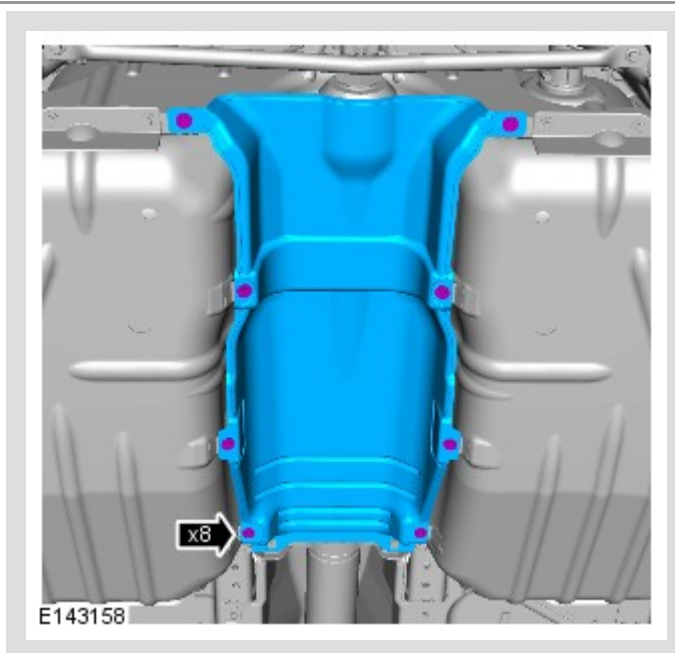
⚠ CAUTION:

If original driveshaft installed, make sure to align with noted position in removal steps.



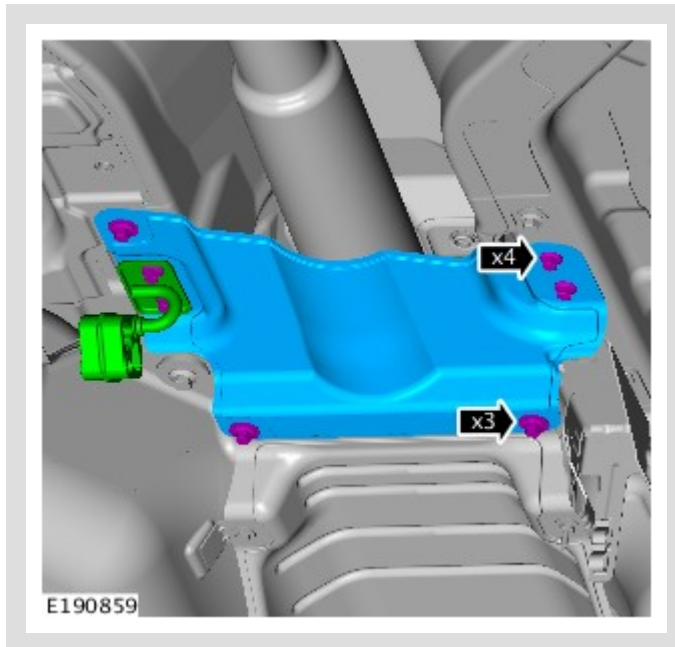
Renew Part: *Driveshaft flange bolts* Quantity: 1 .
Torque: 150 Nm

4.



Torque: 5 Nm

5.



Torque:

M8 27 Nm

M6 5 Nm

6. Install the exhaust system.

Refer to: Exhaust System - Vehicles With: Diesel Exhaust Fluid (309-00 Exhaust System - TDV6 3.0L Diesel, Removal and Installation).

Refer to: Exhaust System - Vehicles With: Diesel Particulate Filter (DPF) (309-00 Exhaust System - TDV6 3.0L Diesel, Removal and Installation).

Refer to: Exhaust System - Vehicles Without: Diesel Particulate Filter (DPF) (309-00 Exhaust System - TDV6 3.0L Diesel, Removal and Installation).

BEILAGDE D-1

BEILAGE D-1

PUBLISHED: 28-NOV-2016
2017.0 DISCOVERY (LR), 309-00

EXHAUST SYSTEM - TDV6 3.0L DIESEL

EXHAUST SYSTEM - VEHICLES WITH: DIESEL PARTICULATE FILTER (DPF)

(G1972540)

REMOVAL AND INSTALLATION

30.10.01	EXHAUST SYSTEM - RENEW	3000 CC, TDV6, WITH PARTICULATE FILTER, WITH DIESEL EXHAUST FLUID	2.1	USED WITHINS
30.10.01	EXHAUST SYSTEM - RENEW	3000 CC, TDV6, WITH PARTICULATE FILTER, WITHOUT DIESEL EXHAUST FLUID	1.9	USED WITHINS

SPECIAL TOOL(S)



PART(S)

STEP	PART NAME	QUANTITY
Installation Step 8	Exhaust pipe to turbocharger gasket	1

REMOVAL



WARNING:

Observe due care when working near a hot exhaust system.



NOTE:

Some variation in the illustrations may occur, but the essential information is always correct.

1.



WARNING:

Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

2.

Remove the engine undershield.

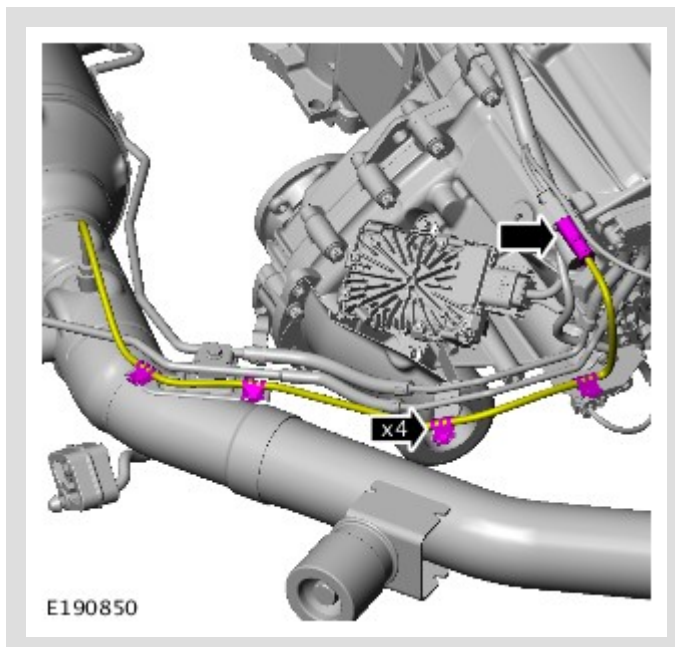
Refer to: Engine Undershield (501-02, Removal and Installation).

3.

Remove the front driveshaft.

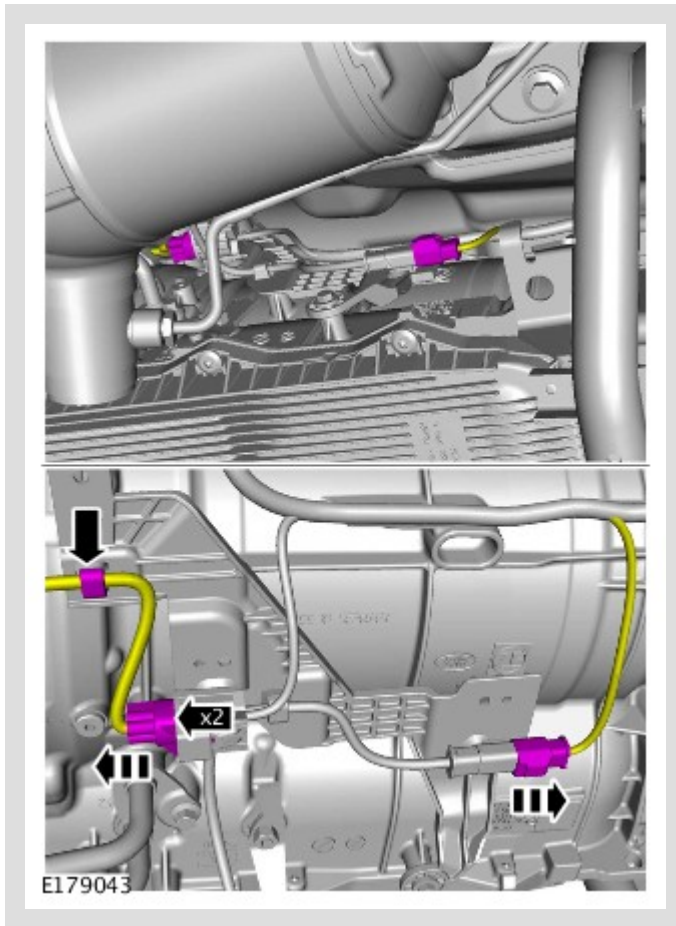
Refer to: Front Driveshaft - TDV6 3.0L Diesel (205-01, Removal and Installation).

4.



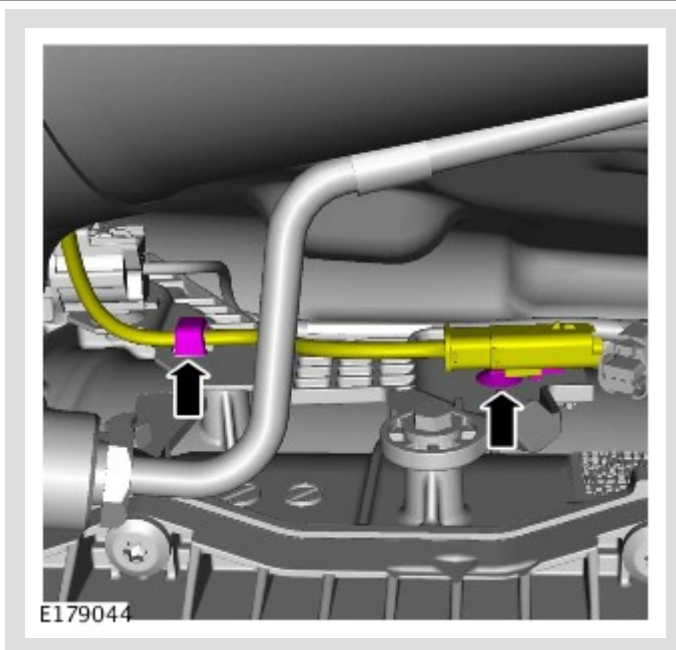
- Disconnect the electrical connector.
- Release the wiring harness from the 4 clips.

5.



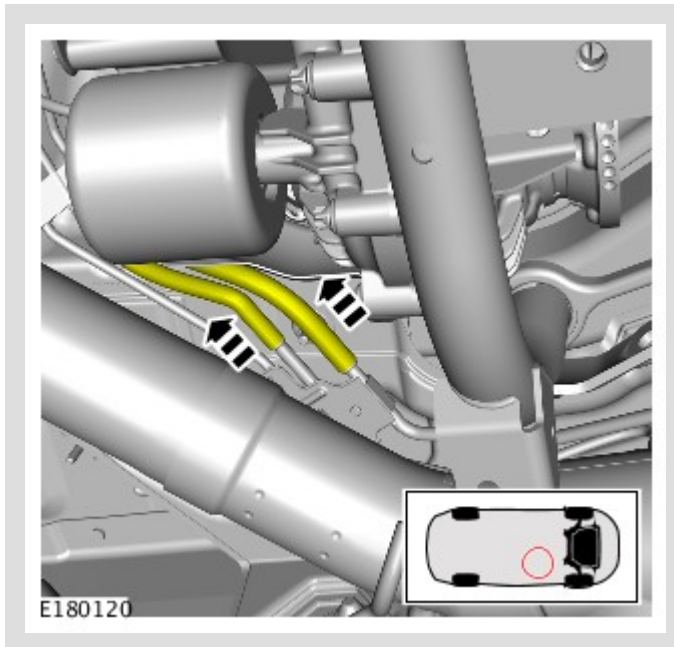
Disconnect the 2 electrical connectors and release the wiring harness from the retaining clip.

6.



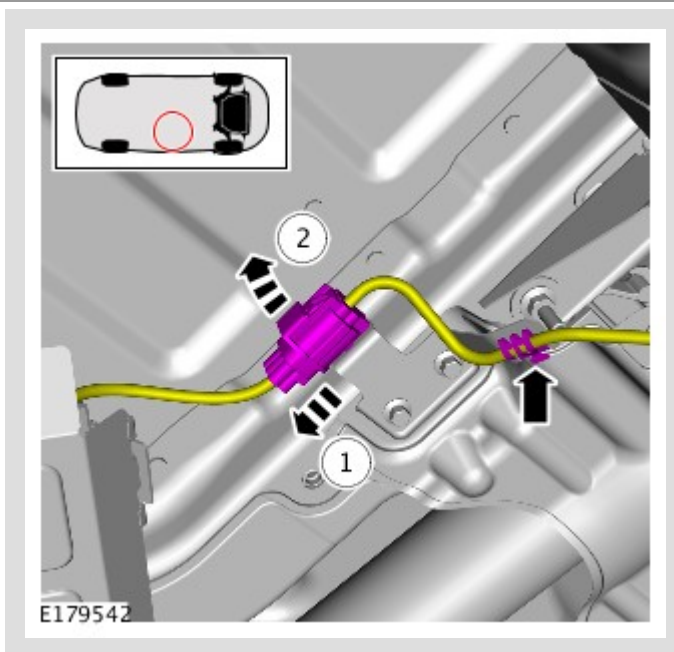
Release the wiring harness from the 2 retaining clips.

7.



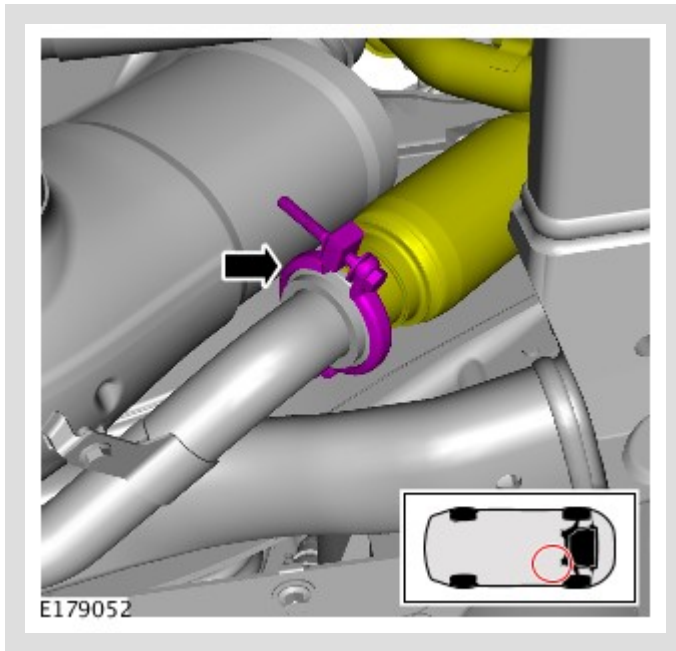
Release the 2 pressure monitoring pipes.

8.




Disconnect the electrical connector and release the wiring harness from the retaining clip.

9.

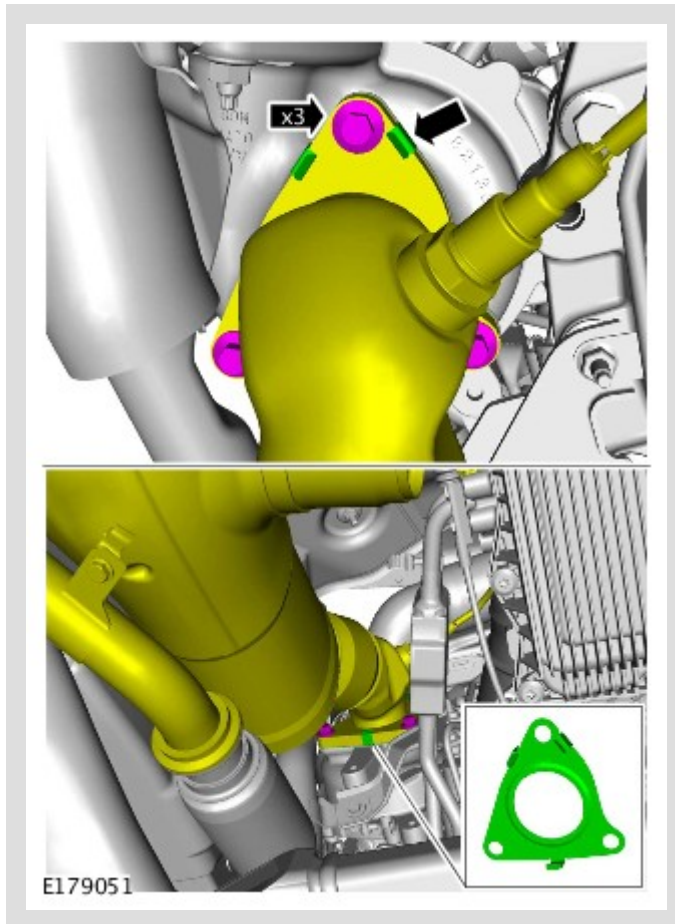


Release the clamp.

10.

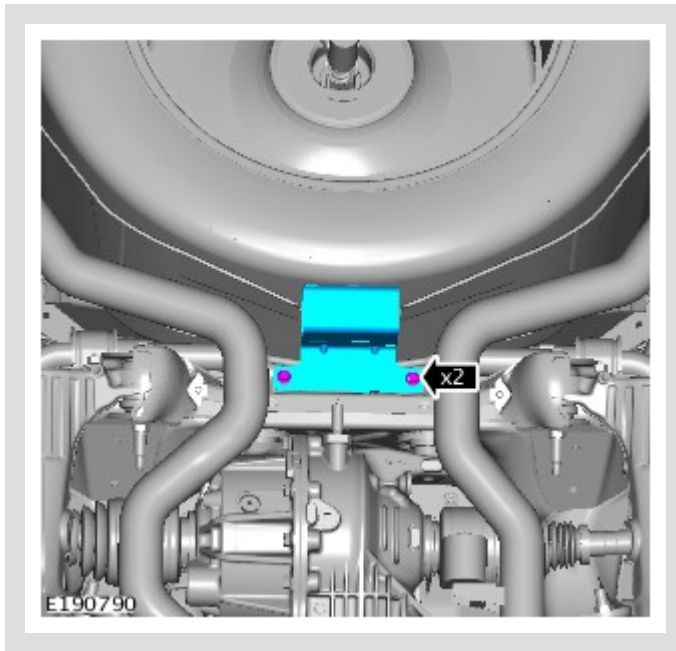
 NOTE:

Discard the gasket.



Remove the 3 nuts and remove and discard the gasket..

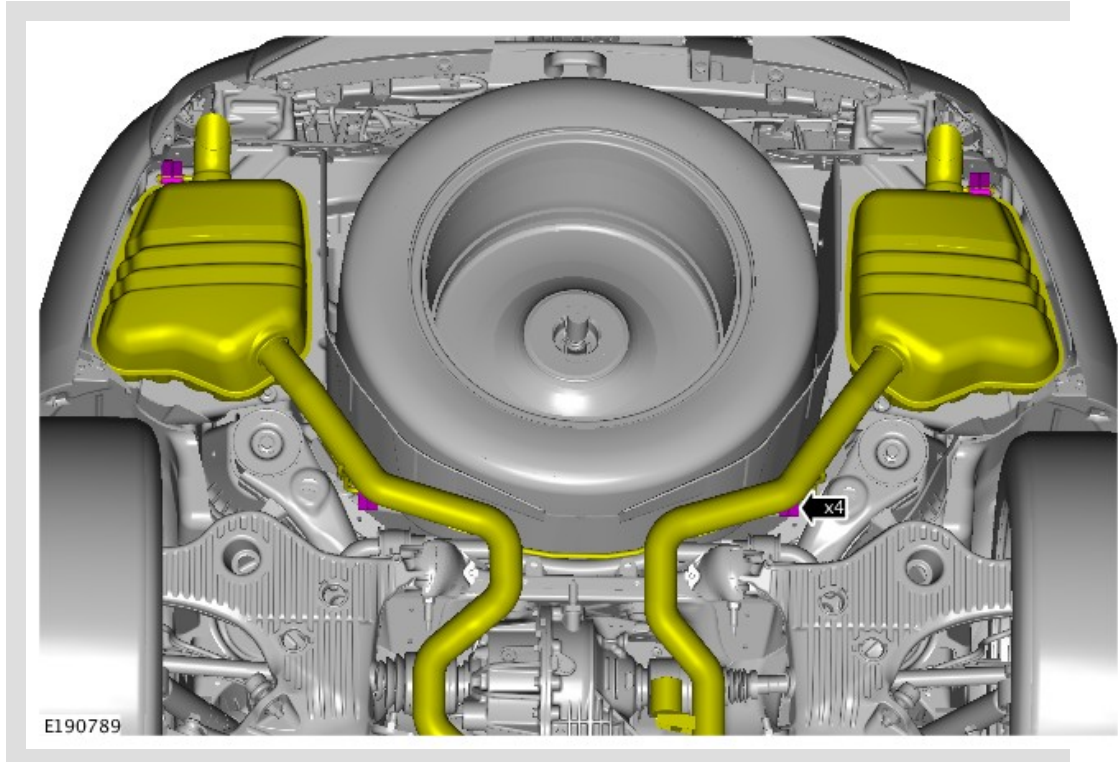
11.



Remove the spare wheel supporting bracket.

⚠ CAUTION:

Make sure that the exhaust system is supported with suitable retaining straps.



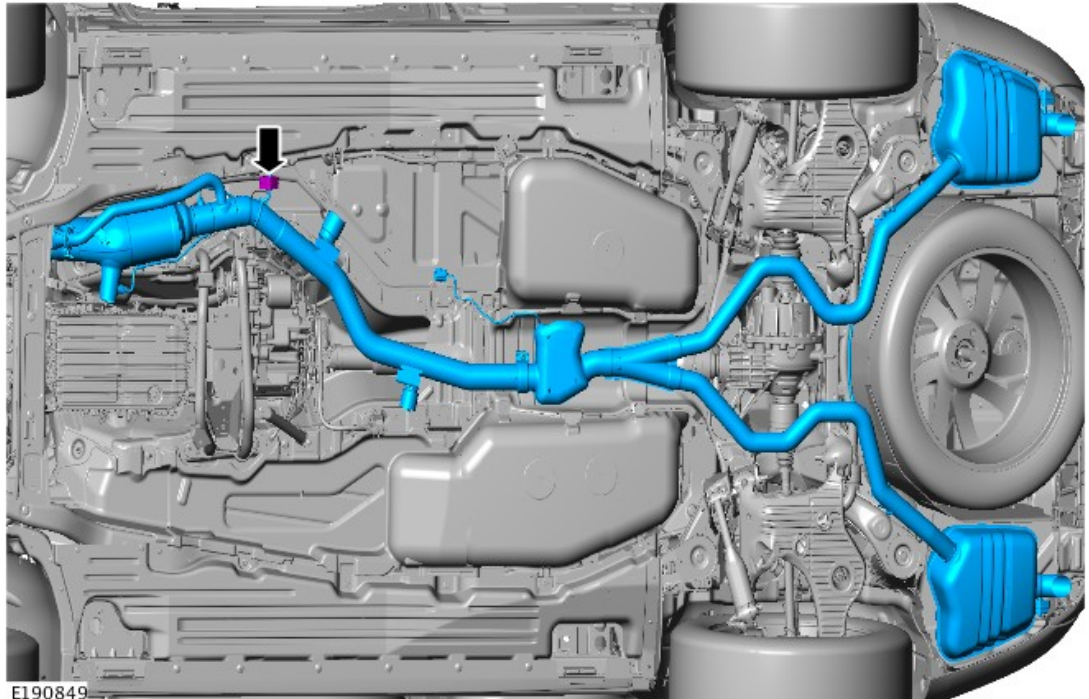
- Remove the 4 rubber exhaust hanger brackets.
 - With the aid of another technician make sure that the exhaust system is always supported.
-

13.




WARNING:

This step requires the aid of another technician.

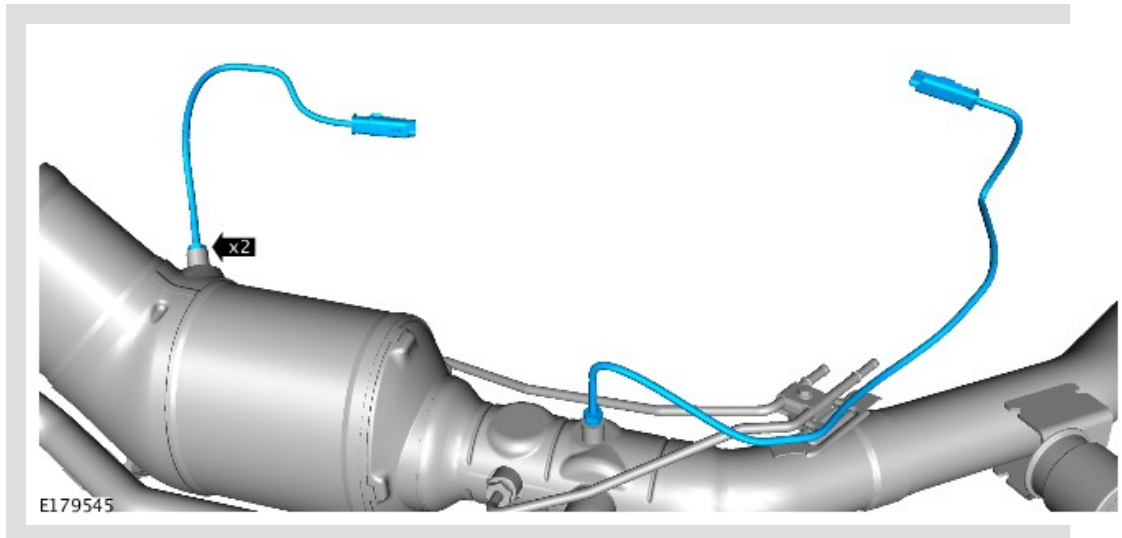


- Release the rubber exhaust hanger bracket.
 - Carefully remove the exhaust assembly with the aid of another technician.
-

14.

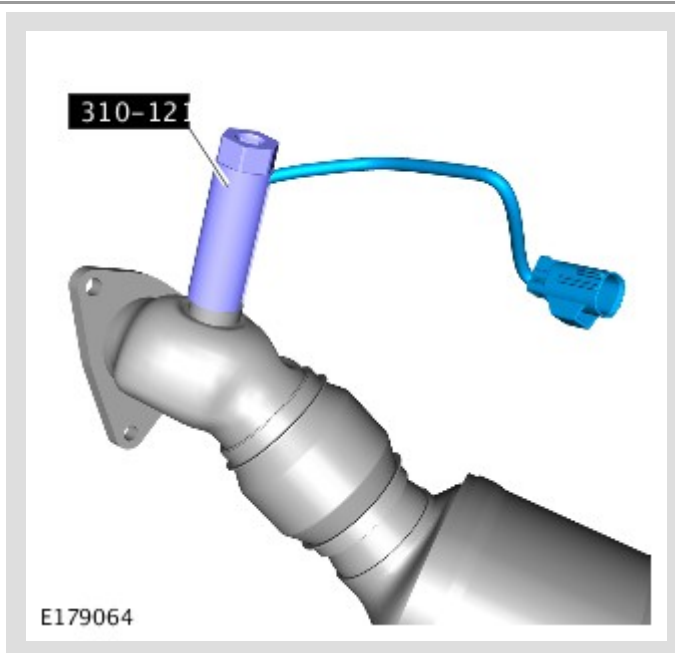
 NOTE:

Do not disassemble further if the component is removed for access only.



Remove the 2 exhaust sensors from the exhaust assembly.

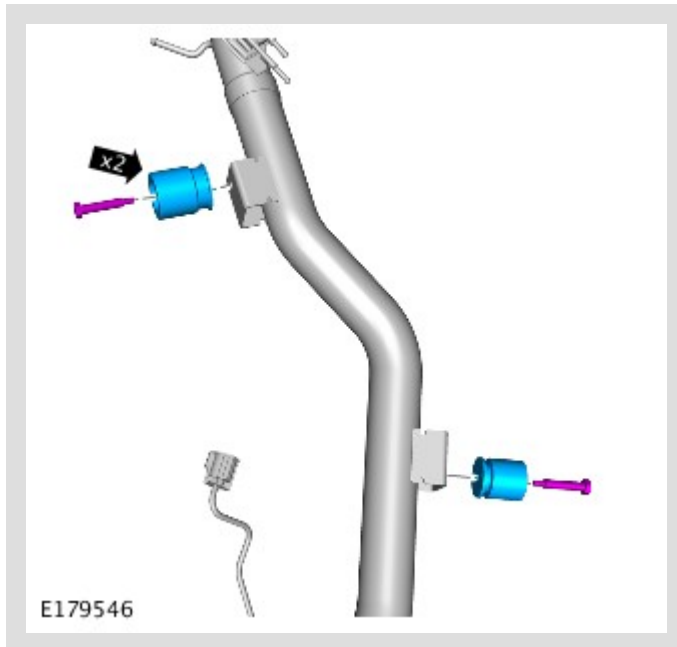
15.



Remove the heated oxygen sensor using the special tool.

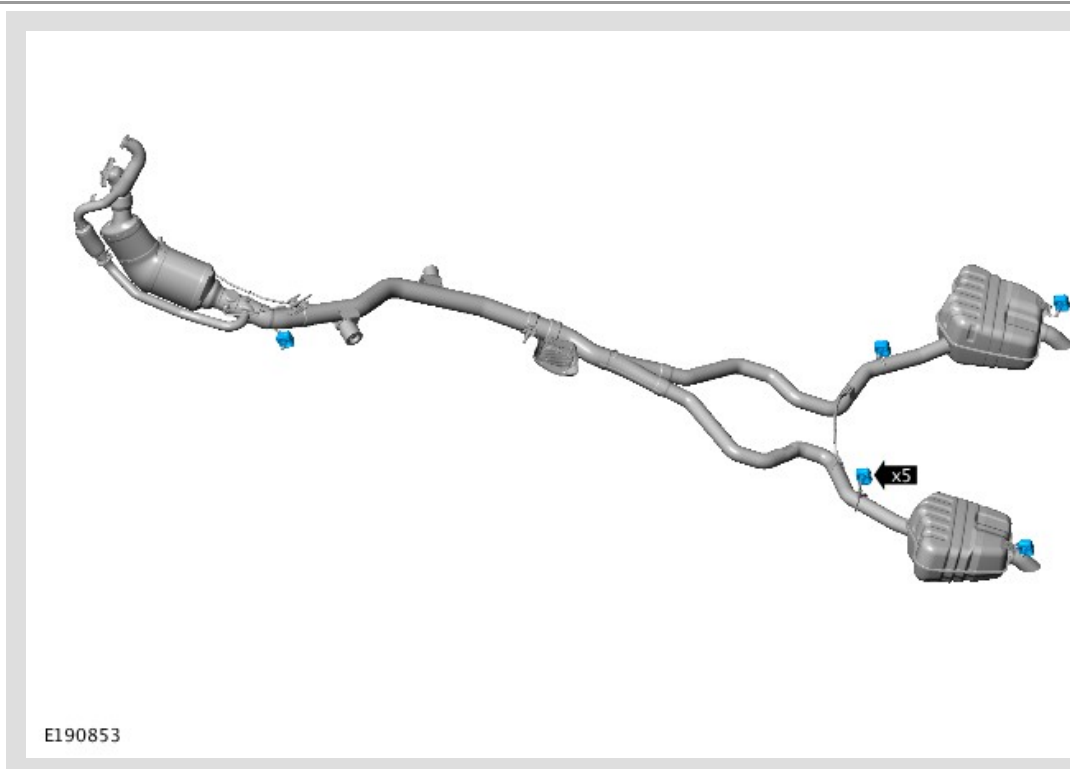
Special Tool(s): [310-121](#)

16.



Remove the 2 exhaust dampers.


17.



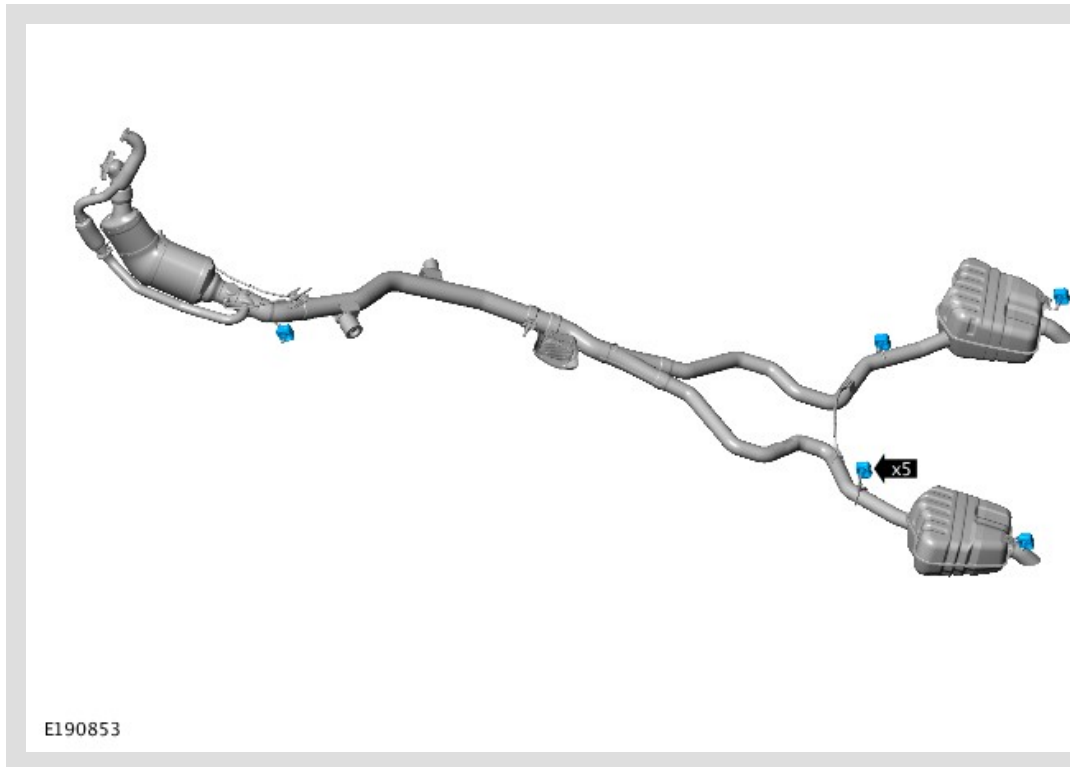
Remove the 5 rubber exhaust hanger brackets.

INSTALLATION

1.


 NOTE:

Only carry out this step if previously removed.

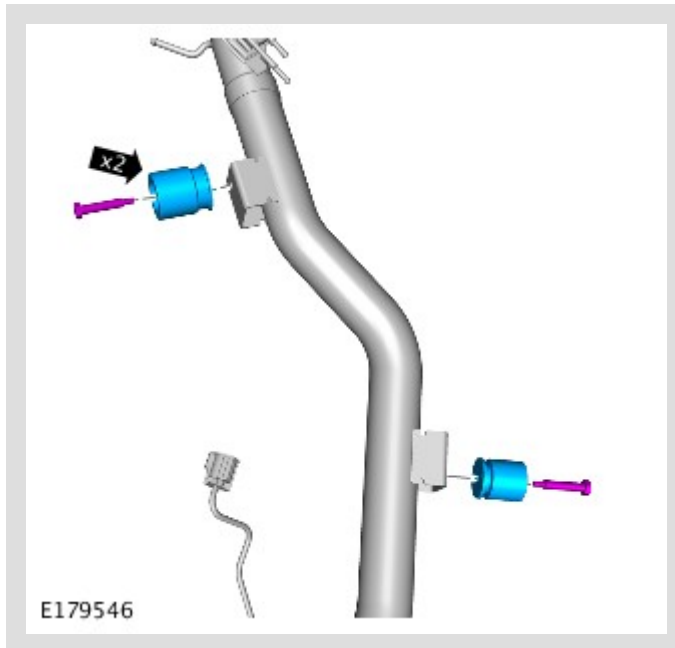


Install the 5 rubber exhaust hanger brackets.

2.

 NOTE:


Only carry out this step if previously removed.



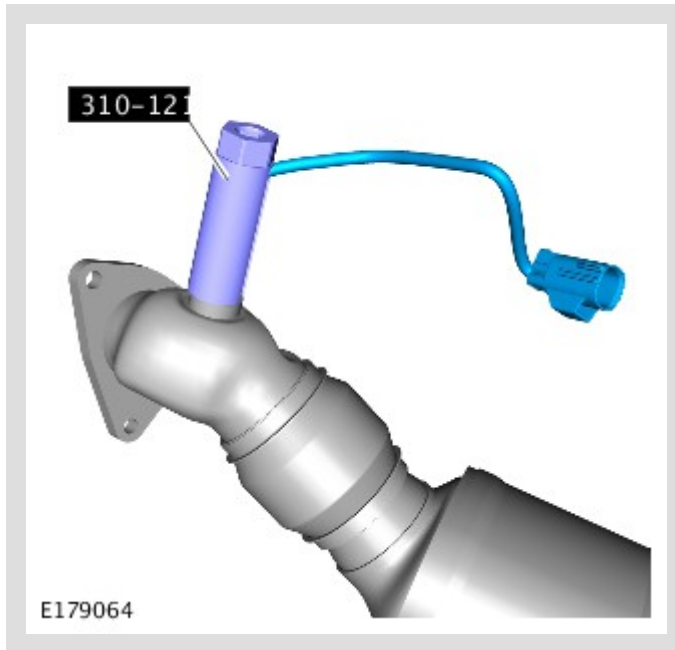
Install the 2 exhaust dampers.

Torque: 22 Nm

3.

 NOTE:

Only carry out this step if previously removed.




Install the heated oxygen sensor using the special tool.

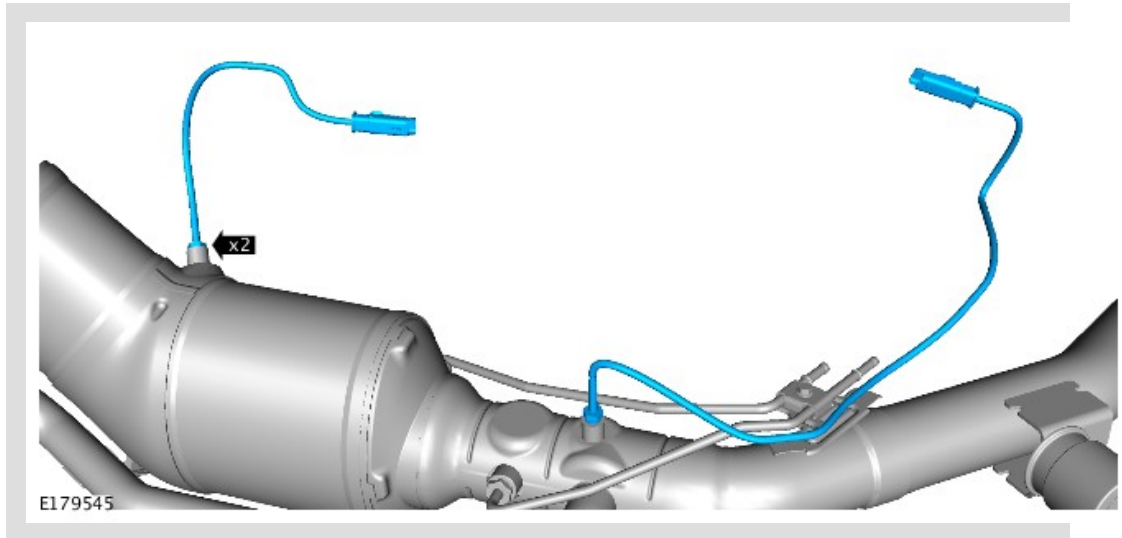
Special Tool(s): [310-121](#)

Torque: **48 Nm**

4.

 NOTE:

Only carry out this step if previously removed.



Install the 2 exhaust sensors and tighten to the correct torque.

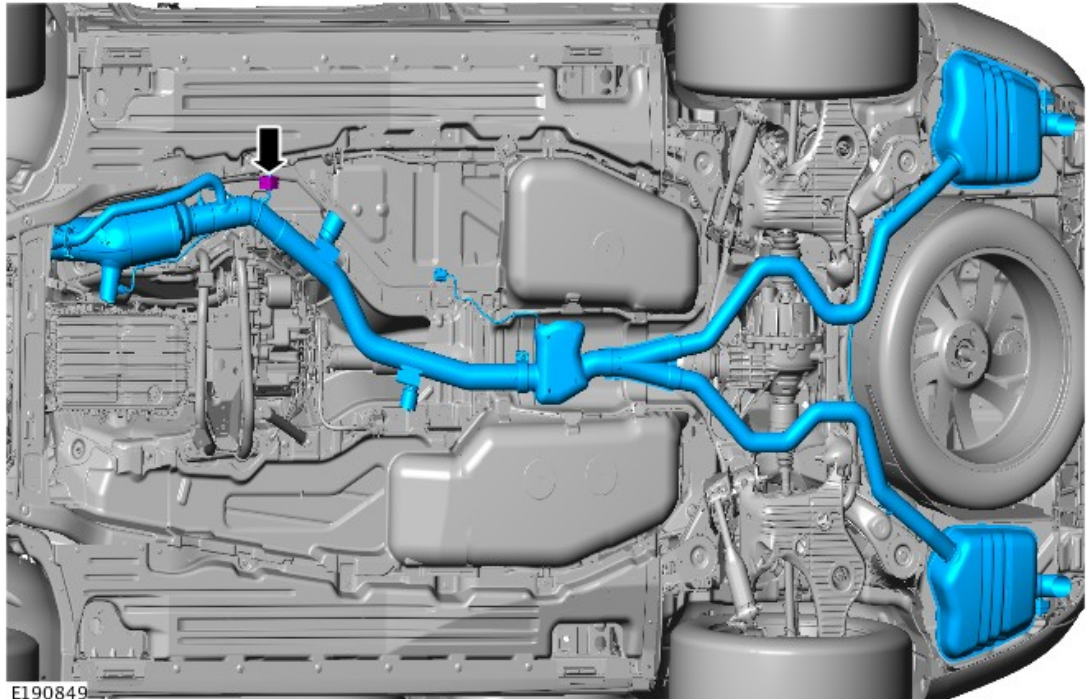
Torque: 35 Nm

5.



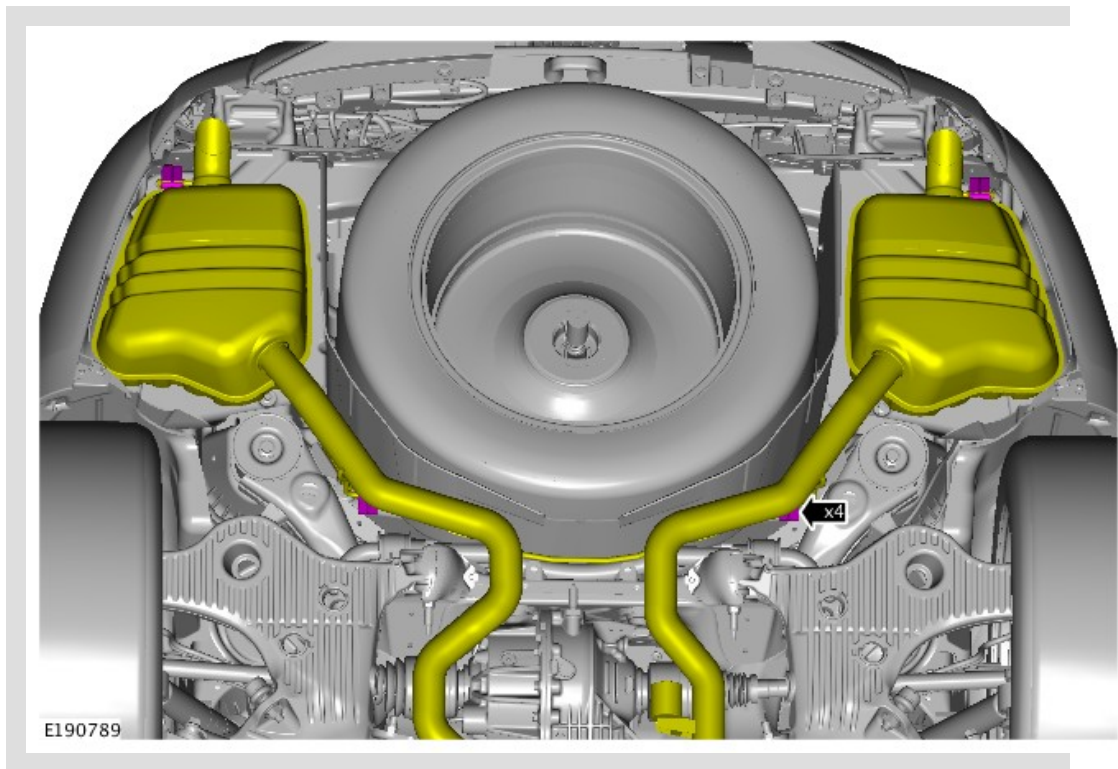
WARNING:

This step requires the aid of another technician.



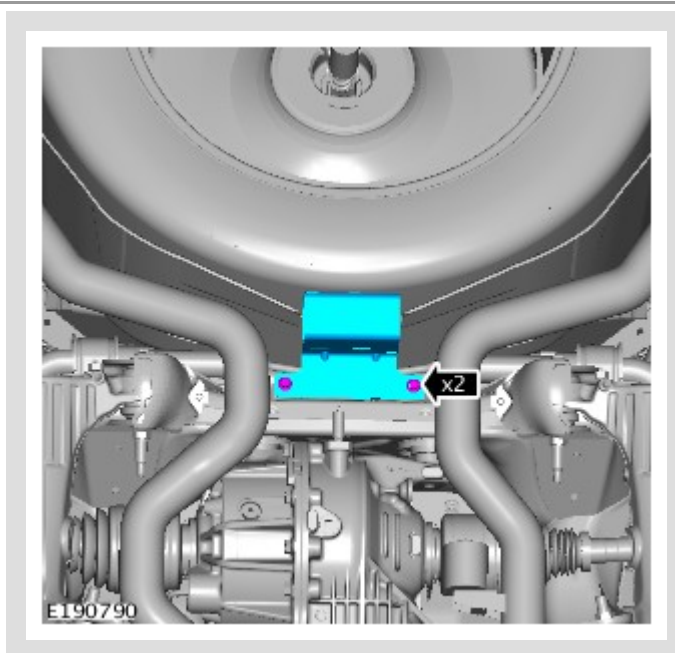
- Carefully install the exhaust assembly with the aid of another technician.
 - Install the rubber exhaust hanger bracket.
 - Support the exhaust system with the aid of another technician.
-

6.



Install the 4 rubber exhaust hanger brackets.


7.



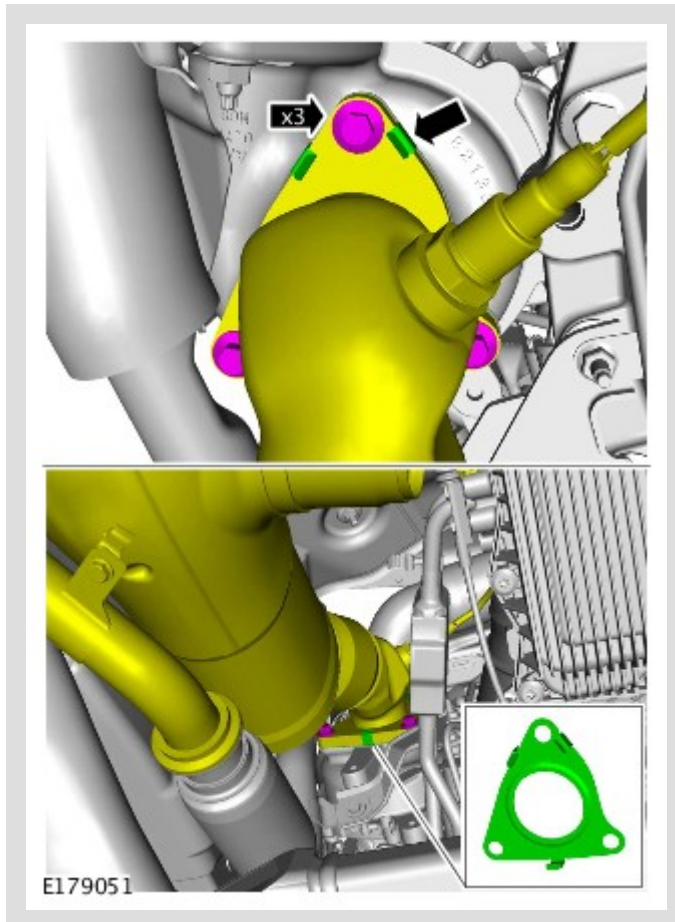
Install the spare wheel supporting bracket.

Torque: 10 Nm

8.

 NOTE:

Install a new gasket.

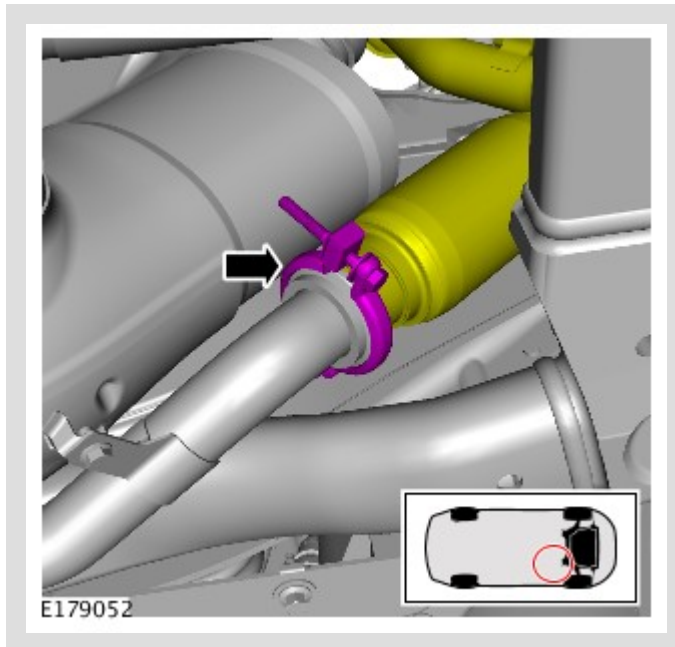


Install a new gasket and then install the 3 nuts and tighten to the correct torque.

Renew Part: *Exhaust pipe to turbocharger gasket* Quantity: 1 .

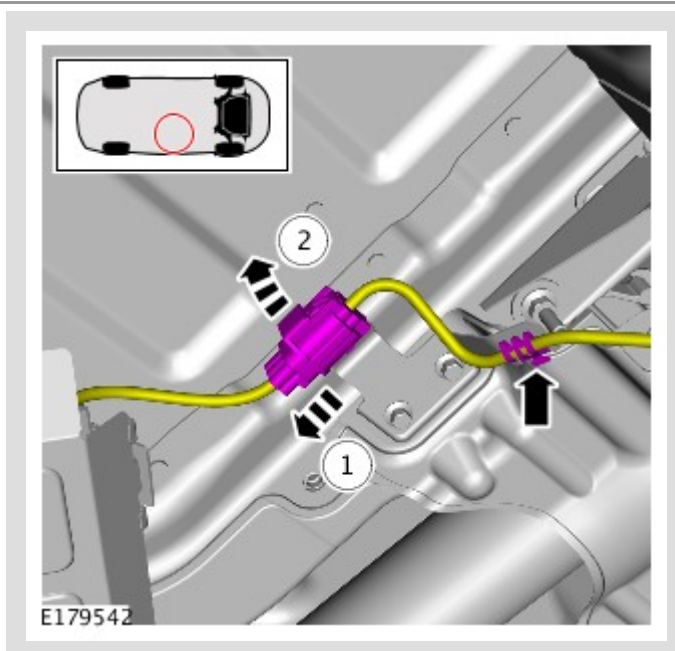
Torque: 47 Nm

9.



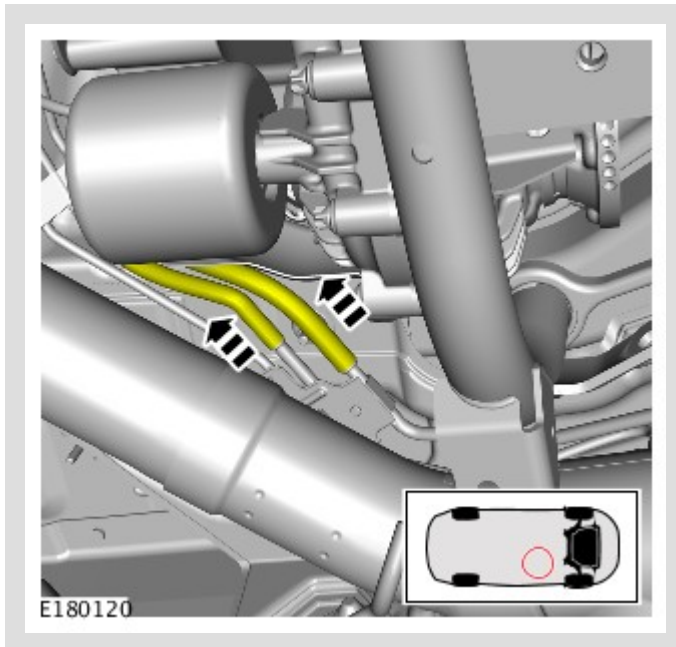
Install the clamp and tighten to the correct torque.
Torque: 9 Nm

10.



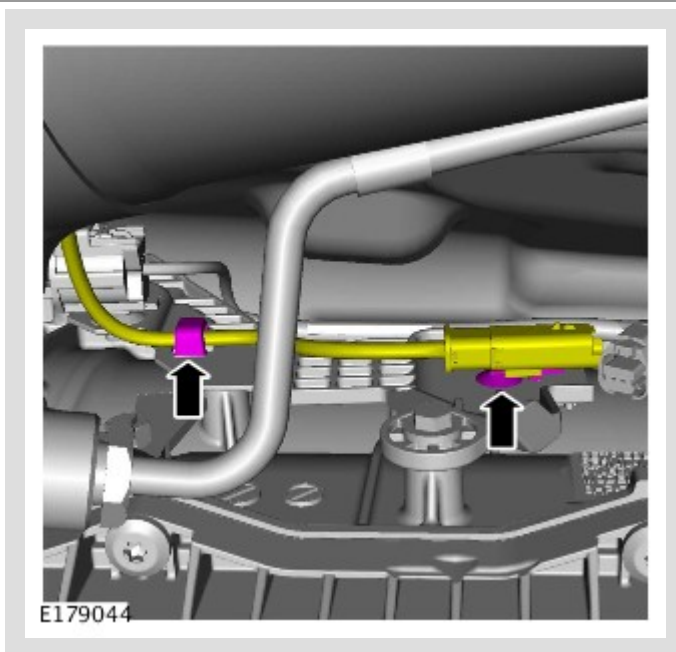
Connect the electrical connector and install the wiring harness into the retaining clip.

11.



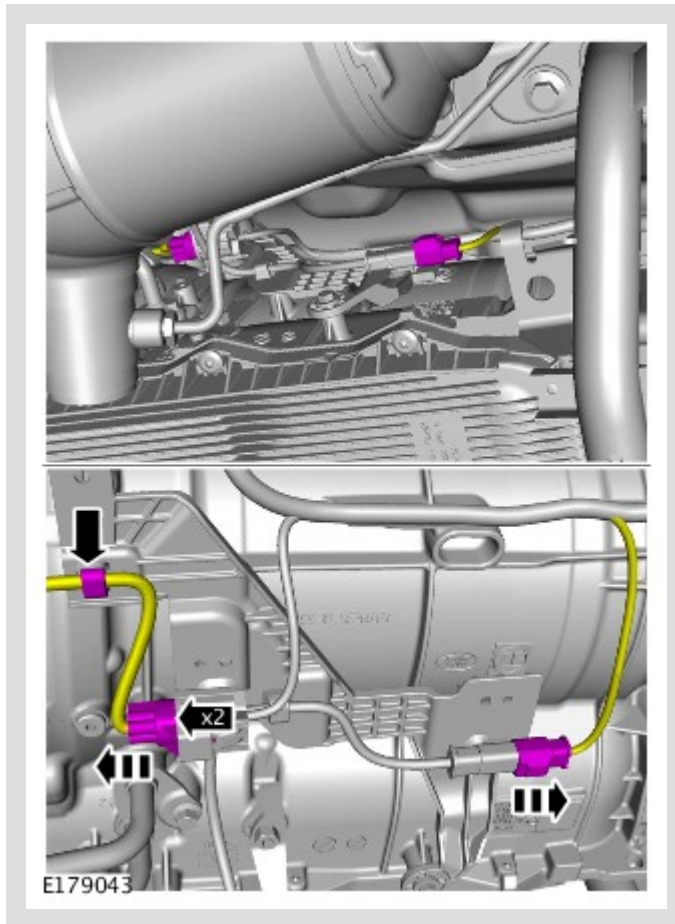
Install the 2 pressure monitoring pipes.

12.



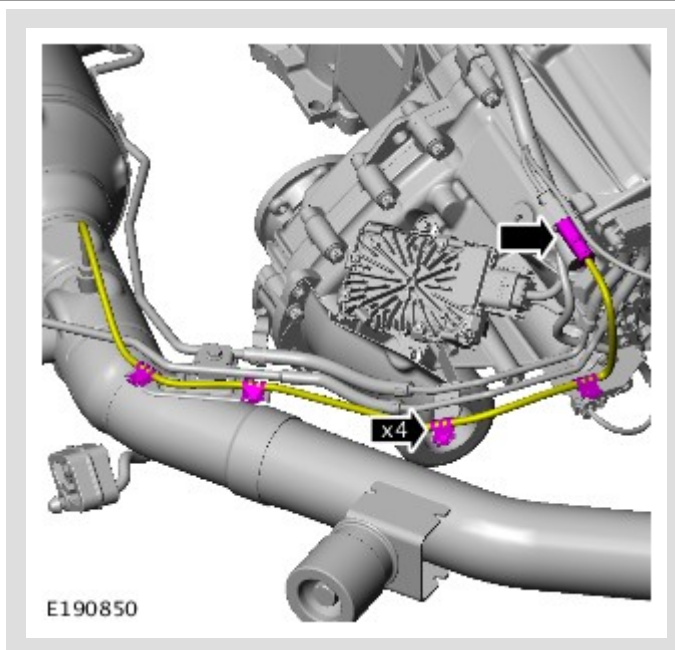
Install the wiring harness and secure in the retaining clip and connect the electrical connector.

13.



Connect the 2 electrical connectors and install the wiring harness into the retaining clip.

14.



- Install the wiring harness and secure with the 4 retaining clips.
- Connect the electrical connector.

15. Install the front driveshaft.

Refer to: Front Driveshaft - TDV6 3.0L Diesel (205-01, Removal and Installation).

16. Remove the engine undershield.

Refer to: Engine Undershield (501-02, Removal and Installation).

BEILAGE E

PUBLISHED: 21-NOV-2016
2017.0 DISCOVERY (LR), 303-06

STARTING SYSTEM - TDV6 3.0L DIESEL

STARTER MOTOR (G1948082)

REMOVAL AND INSTALLATION

86.60.01	STARTER MOTOR - RENEW	3000 CC, TDV6	0.8	USED WITHINS
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REMOVAL

NOTE:

Removal steps in this procedure may contain installation details.

1. Disconnect the battery ground cable.
Refer to: Specifications (414-00, Specifications).

BEILAGE A

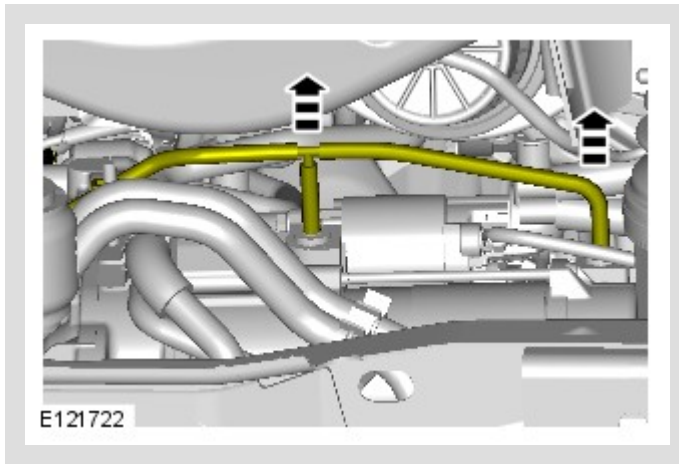
2.  **WARNING:**

Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

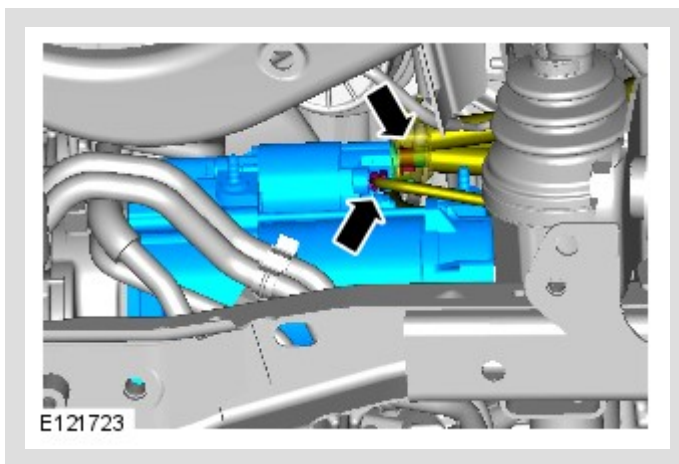
3. Remove the engine undershield.
Refer to: Engine Undershield (501-02, Removal and Installation).

4.



Disconnect the breather pipe.

5.



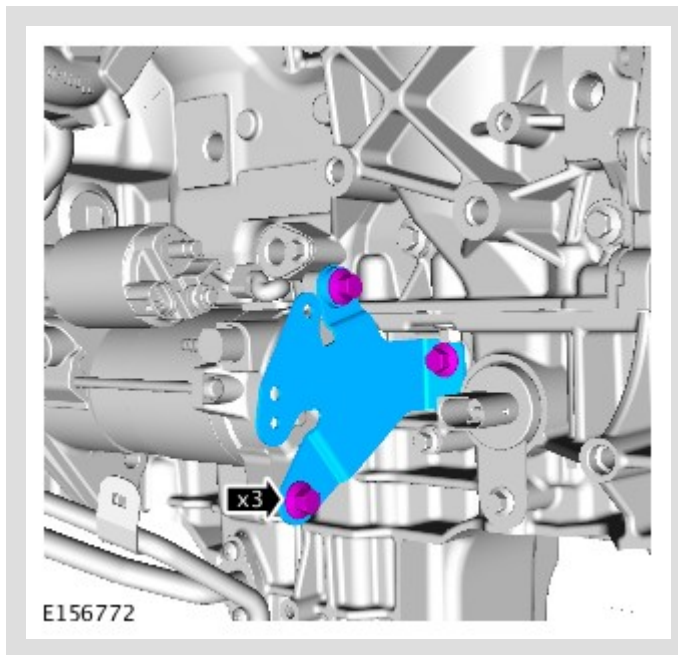
Remove the nuts.

Torque:

M8 10 Nm

M6 7 Nm


6.



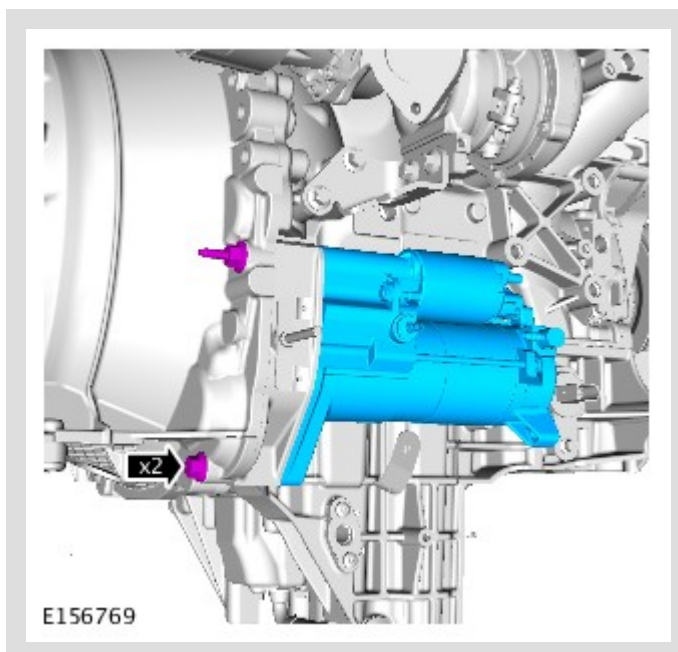
Remove the support bracket.

Torque: 47 Nm

7.

 **NOTE:**

Components removed for clarity.



Remove the starter motor.

Torque: 47 Nm

INSTALLATION

1. To install, reverse the removal procedure.

PUBLISHED: 10-JAN-2017
2017.0 DISCOVERY (LR), 502-02

FULL FRAME AND BODY MOUNTING

TRANSMISSION SUPPORT CROSSMEMBER - TDV6 3.0L DIESEL

(G1947989)

REMOVAL AND INSTALLATION

76.10.92	CROSSMEMBER - CHASSIS - REMOVE AND REFIT	3000 CC, TDV6	0.9	USED WITHINS
----------	---------------------------------------------------	------------------	-----	-----------------

REMOVAL

NOTE:

Removal steps in this procedure may contain installation details.

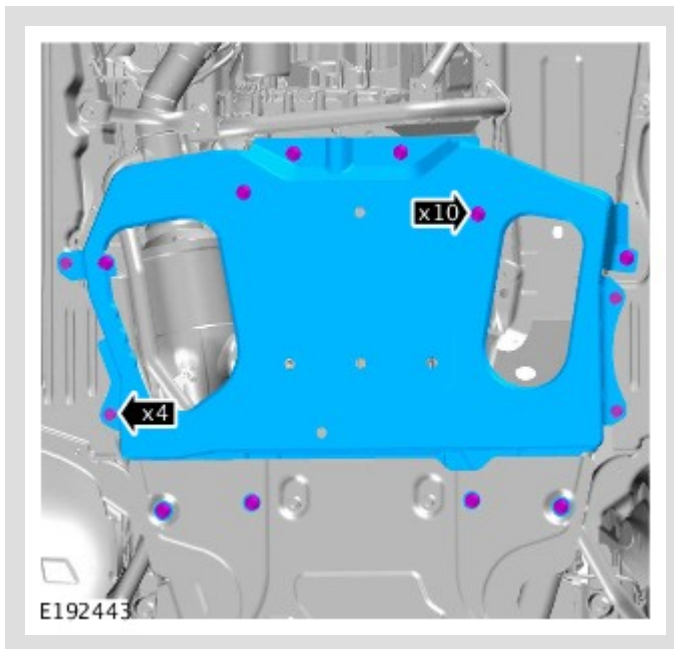
1.

CAUTION:

Make sure to support the vehicle with axle stands

Raise and support the vehicle.

2.



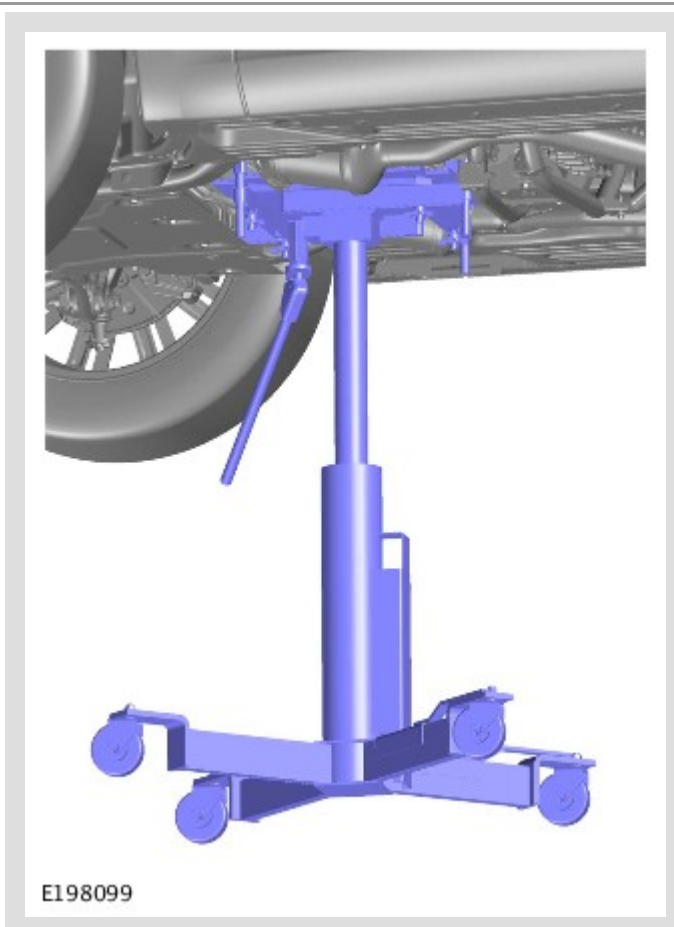
- Remove transmission undershield.

Torque:

M10 60 Nm

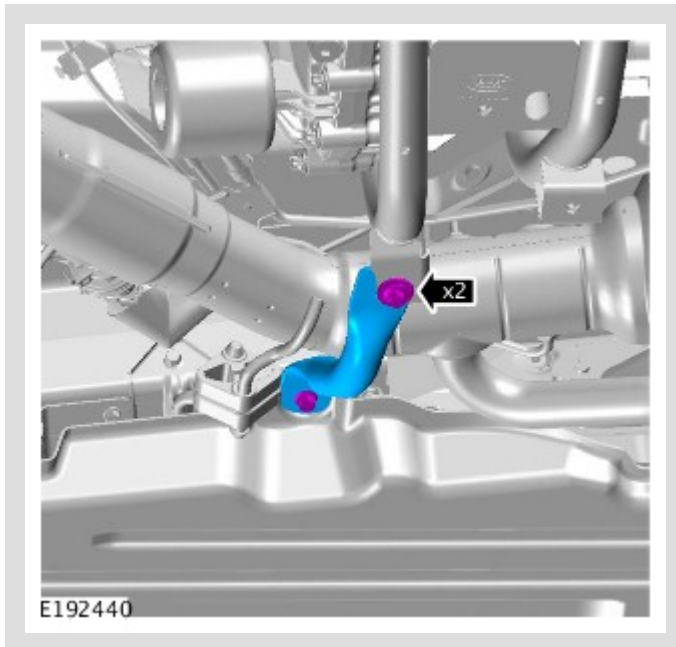
M6 10 Nm

3.



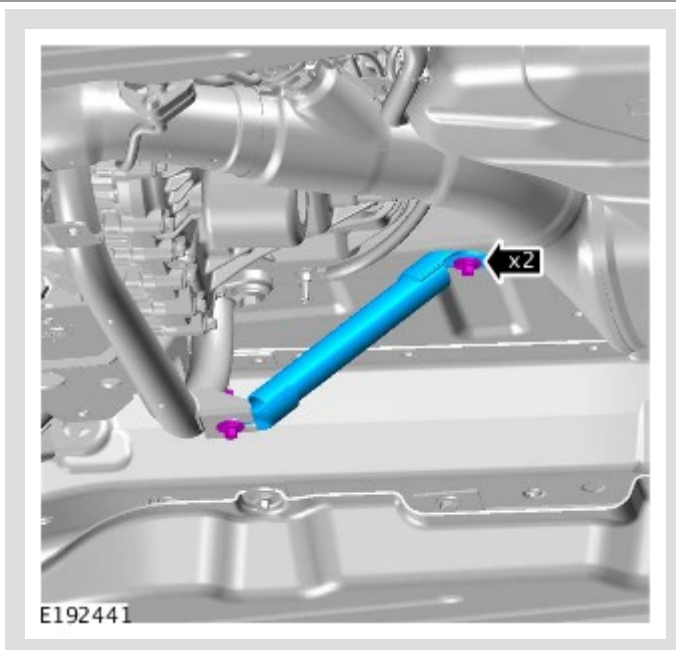
Using a transmission jack, support the transmission.

4.



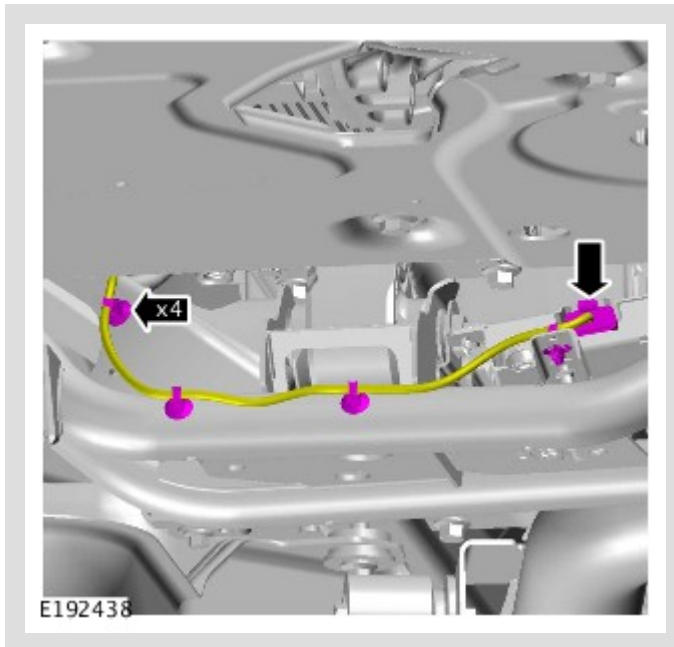
- Remove the support brace.
Torque: 24 Nm

5.



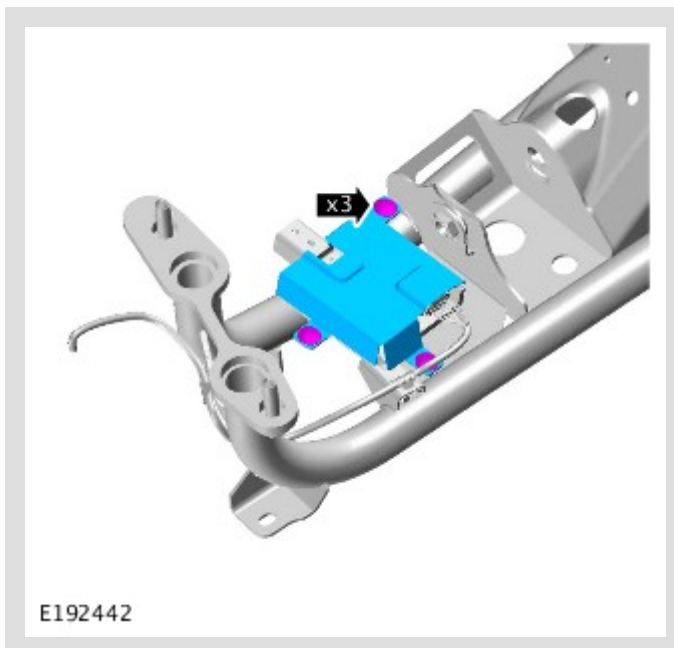
- Remove the support brace.
Torque: 24 Nm

6.



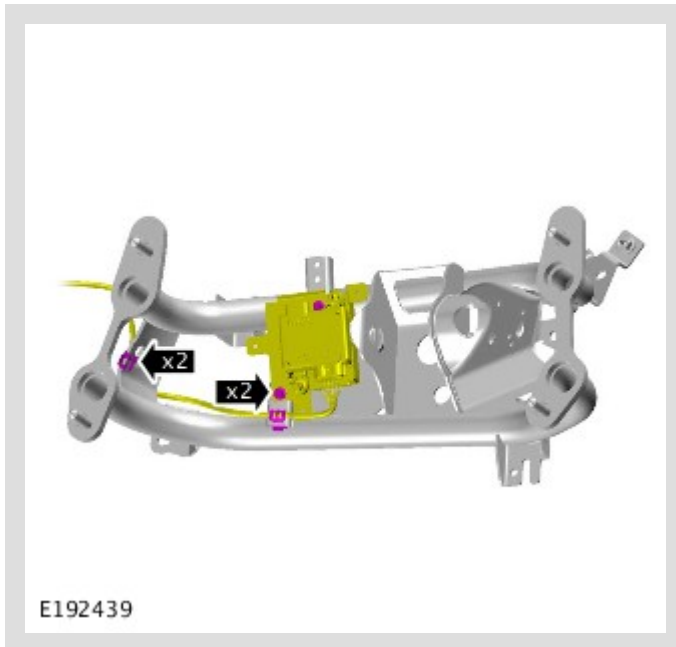
- Release the retaining clips.
- Disconnect the electrical connection.

7.



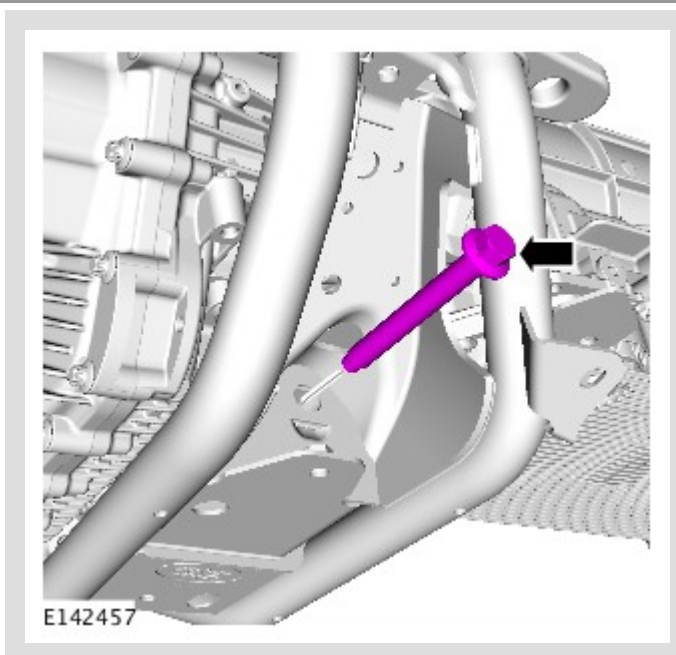
- Remove the retaining clips.
- Remove the heat shield.

8.



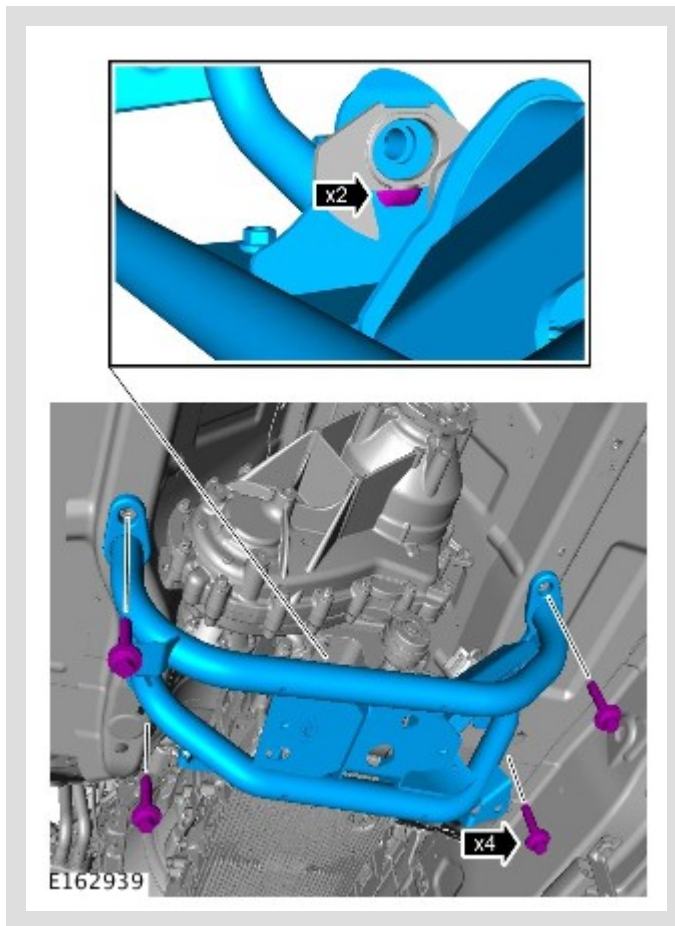
- Release the clips.
- Remove the component.
Torque: 10 Nm

9.



- Remove the transmission mounting securing bolt.
Torque: 175 Nm

10.



- Remove the transmission support cross member.
Torque: 110 Nm

INSTALLATION

1. To install, reverse the removal procedure.