



© Jaguar Land Rover North America, LLC

NOTE: The information in Technical Bulletins is intended for use by trained, professional Technicians with the knowledge, tools, and equipment required to do the job properly and safely. It informs these Technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by 'do-it-yourselfers'. If you are not a Retailer, do not assume that a condition described affects your vehicle. Contact an authorized Land Rover service facility to determine whether this bulletin applies to a specific vehicle.

INFORMATION

SECTION:

310-00

SUBJECT /CONCERN:

Fuel Vapor Smell in Passenger Compartment

AFFECTED VEHICLE RANGE:

MODEL:	MODEL YEAR:	VIN:	ASSEMBLY PLANT:	APPLICABILITY:
Range Rover (LK)	2022-2023	000001-089538	Solihull	V8 T/C 4.4L Petrol
Range Rover Sport (L1)	2023	000001-157098	Solihull	V8 T/C 4.4L Petrol
Range Rover (LK)	2022 Onwards	000001 Onwards	Solihull	INGENIUM I6 3.0L Petrol

MODEL:	MODEL YEAR:	VIN:	ASSEMBLY PLANT:	APPLICABILITY:
Range Rover Sport (L1)	2023 Onwards	000001 Onwards	Solihull	INGENIUM I6 3.0L Petrol

MARKETS:

NORTH AMERICA except Canada

CONDITION SUMMARY:

SITUATION:

The smell of fuel vapor is evident within the passenger compartment during high ambient temperatures.

CAUSE:

Carbon canister saturation and resulting in fuel vapor bleed through.

Suggested customer concern code - **MB6**

ACTION:

Follow the instruction(s) below.

PARTS:

NOTE:

An allowance equivalent to £10.00 has been allocated to locally source reinforced aluminum tape.

PART NUMBER	DESCRIPTION	QUANTITY
Range Rover		
ZZZ001	Reinforced aluminum tape	£10.00
LR181646	Fuel tank insulation pad kit	1
LR179491	Exhaust clamp (pair) - V8 T/C 4.4L Petrol	2

PART NUMBER	DESCRIPTION	QUANTITY
LR181089	Exhaust clamp - INGENIUM I6 3.0L Petrol	1
LR158254	M6 x 24 mm Bolt - To PA084754 - INGENIUM I6 3.0L Petrol	1
LR180955	M6 x 21 mm Bolt - From PA084755 - INGENIUM I6 3.0L Petrol	1
LR117476	Fuel pump O-ring	1
LR189116	Transmission undershield - Left - V8 T/C 4.4L Petrol	1
LR189115	Transmission undershield - Right - V8 T/C 4.4L Petrol	1
LR189114	Transmission undershield - Center - V8 T/C 4.4L Petrol	1
523123618	Transmission undershield - Left - INGENIUM I6 3.0L Petrol	1
523123617	Transmission undershield - Right - INGENIUM I6 3.0L Petrol	1
523123619	Transmission undershield - Center - INGENIUM I6 3.0L Petrol	1
Range Rover Sport		
ZZZ001	Reinforced aluminum tape	£10.00
LR181646	Fuel tank insulation pad kit	1
LR179491	Exhaust clamp (pair) - V8 T/C 4.4L Petrol	2
LR181089	Exhaust clamp - INGENIUM I6 3.0L Petrol	1
LR158254	M6 x 24 mm Bolt - To PA151707 - INGENIUM I6 3.0L Petrol	1
LR180955	M6 x 21 mm Bolt - From PA151708 - INGENIUM I6 3.0L Petrol	1
LR117476	Fuel pump O-ring	1
LR189116	Transmission undershield - Left - V8 T/C 4.4L Petrol	1
LR189115	Transmission undershield - Right - V8 T/C 4.4L Petrol	1
LR189114	Transmission undershield - Center - V8 T/C 4.4L Petrol	1
523123618	Transmission undershield - Left - INGENIUM I6 3.0L Petrol	1
523123617	Transmission undershield - Right - INGENIUM I6 3.0L Petrol	1
523123619	Transmission undershield - Center - INGENIUM I6 3.0L Petrol	1

WARRANTY:**△ NOTE:**

* When submitting your Warranty claim within the Warranty portal, use the Condition Code list shown to select the Condition Code which best describes the vehicle defect.

△ NOTES:

- Repair procedures are under constant review, and therefore times are subject to change; those quoted here must be taken as guidance only. Use TOPIx to obtain the latest repair time.
- The JLR claims submission system requires the use of causal part numbers. Labor only claims must show the causal part number with a quantity of zero.

DESCRIPTION	SRO	TIME (HOURS)	CONDITION CODE	CAUSAL PART
Range Rover - V8 T/C 4.4L Petrol - JLRTB - Install fuel tank insulation - With fuel tank drain - Without executive seats	99.01.87	4.3	*	LR174036
Range Rover Sport - V8 T/C 4.4L Petrol - JLRTB - Install fuel tank insulation - With fuel tank drain - Without executive seats	99.01.87	4.0	*	LR174036
Range Rover - INGENIUM I6 3.0L Petrol - JLRTB - Install fuel tank insulation - With fuel tank drain - Without executive seats	99.01.87	3.6	*	LR174036
Range Rover Sport - INGENIUM I6 3.0L Petrol - JLRTB - Install fuel tank insulation - With fuel tank drain - Without executive seats	99.01.87	3.6	*	LR174036
Range Rover - V8 T/C 4.4L Petrol - JLRTB - Install fuel tank insulation - With fuel tank drain - With executive seats	99.01.88	4.6	*	LR174036
Range Rover - INGENIUM I6 3.0L Petrol - JLRTB - Install fuel tank insulation - With fuel tank drain - With executive seats	99.01.88	4.0	*	LR174036

DESCRIPTION	SRO	TIME (HOURS)	CONDITION CODE	CAUSAL PART
Range Rover - V8 T/C 4.4L Petrol - JLRTB - Install fuel tank insulation - Without fuel tank drain	99.01.89	3.1	*	LR174036
Range Rover Sport - V8 T/C 4.4L Petrol - JLRTB - Install fuel tank insulation - Without fuel tank drain	99.01.89	2.8	*	LR174036
Range Rover - INGENIUM I6 3.0L Petrol - JLRTB - Install fuel tank insulation - Without fuel tank drain	99.01.89	2.5	*	LR174036
Range Rover Sport - INGENIUM I6 3.0L Petrol - JLRTB - Install fuel tank insulation - Without fuel tank drain	99.01.89	2.5	*	LR174036

 **NOTE:**

Normal Warranty procedures apply.

SERVICE INFORMATION:

1. The fuel tank insulation pad kit is packaged in 2 separate labeled bags. Each bag contains 5 numbered self adhesive insulation pads.
 - The bag with the **GREEN** label contains the insulation pads for the left side of the fuel tank.
 - The bag with the **RED** label contains the insulation pads for the right side of the fuel tank.

SERVICE INSTRUCTION:

All vehicles

NOTES:

- Some components shown removed for clarity.
- Some variation in the illustrations may occur, but the essential information is always correct.
- This technical bulletin can only be completed if the vehicles fuel level is lower than half full.

1. Check the vehicles fuel level.

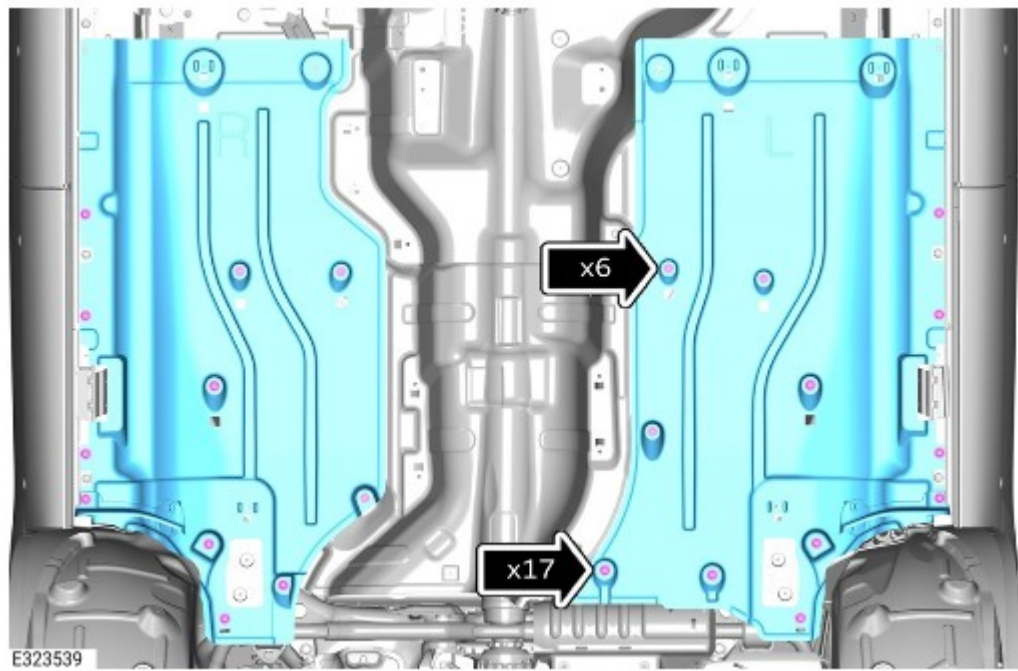
- If the vehicles fuel level is more than half full, drain the fuel from the fuel tank until the level is under half before continuing to step 2 (see TOPIx Workshop Manual section 310-00: Fuel System - General Information - General Procedures - Fuel Tank Draining).
- If the vehicles fuel level is half full or lower, continue step 2.

V8 T/C 4.4L Petrol vehicles only

2. Remove the exhaust system (see TOPIx Workshop Manual section 309-00C: Exhaust System - V8 T/C 4.4L Petrol - Removal and Installation - Exhaust System).

- Discard the transmission undershield when removed.
- Discard the front midfloor undershield when removed.
- Discard the front midfloor undershield bracket when removed.

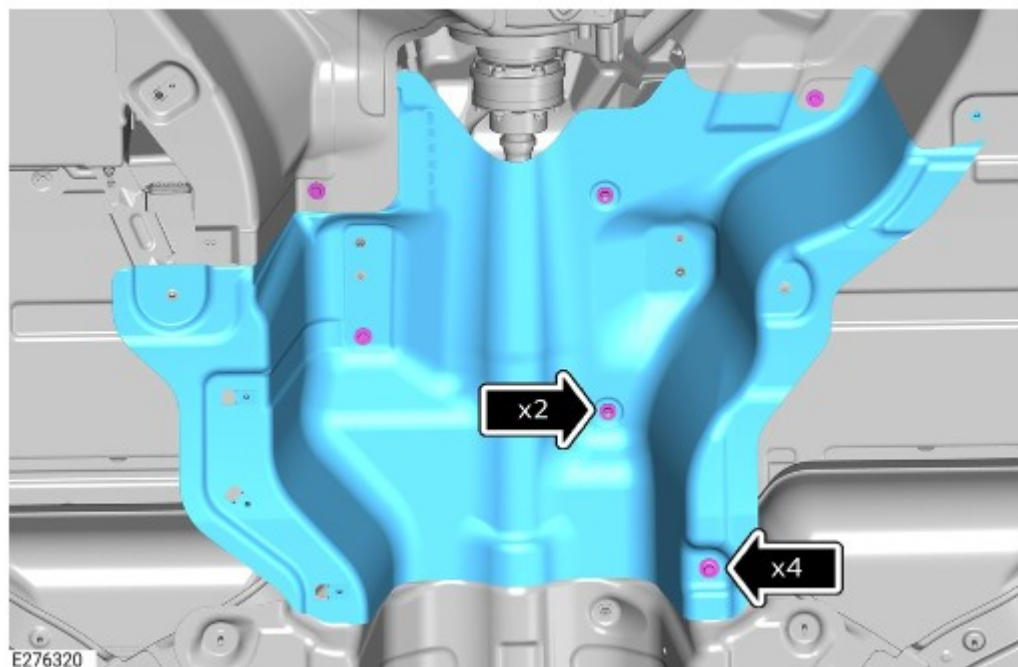
3.



Remove the left and right undershields.

- Remove the 6 nuts.
- Remove the 17 bolts.

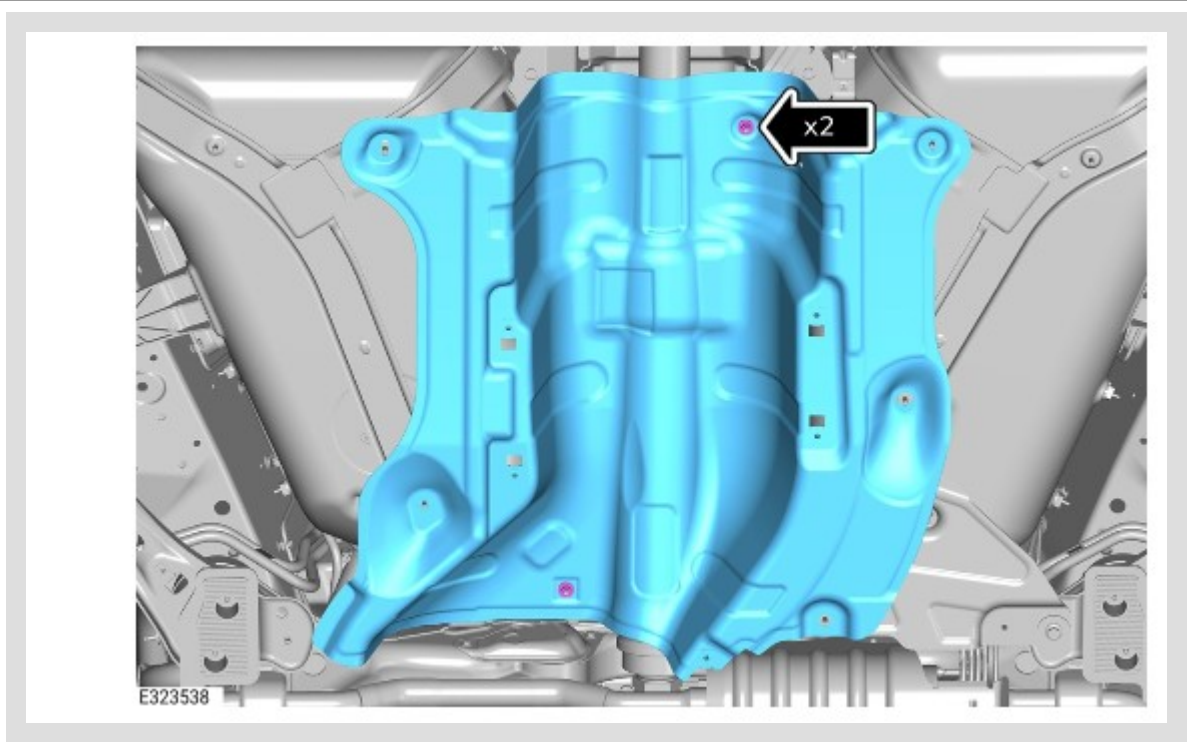
4.



Remove the center exhaust heatshield.

- Remove the 2 nuts.
- Remove the 4 bolts.

5.



Remove the center rear exhaust heatshield.

- Remove the 2 nuts.

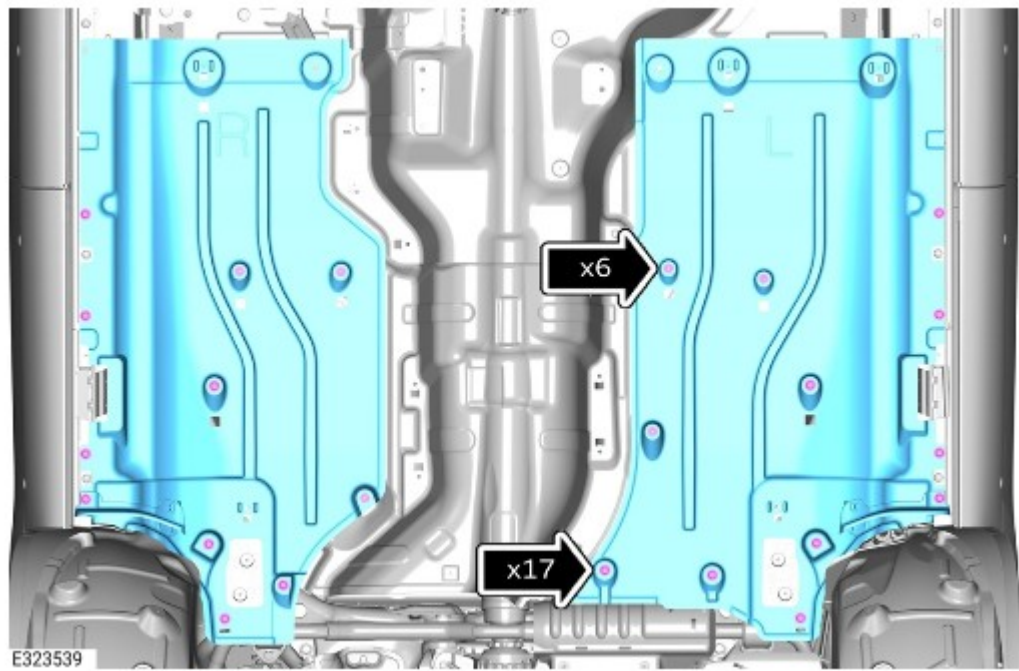
INGENIUM I6 3.0L Petrol vehicles only

6.

Remove the exhaust system (see TOPIx Workshop Manual section 309-00B: Exhaust System - INGENIUM I6 3.0L Petrol - Removal and Installation - Exhaust System).

- Discard the transmission undershield when removed.
- Discard the front midfloor undershield when removed.
- Discard the front midfloor undershield bracket when removed.

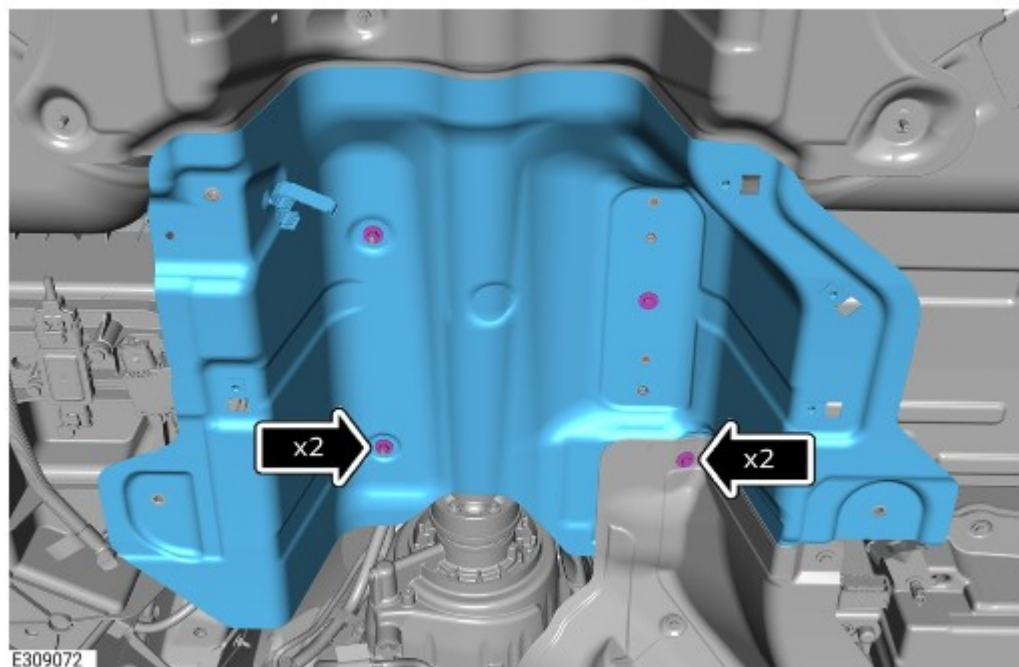
7.



Remove the left and right undershields.

- Remove the 6 nuts.
- Remove the 17 bolts.

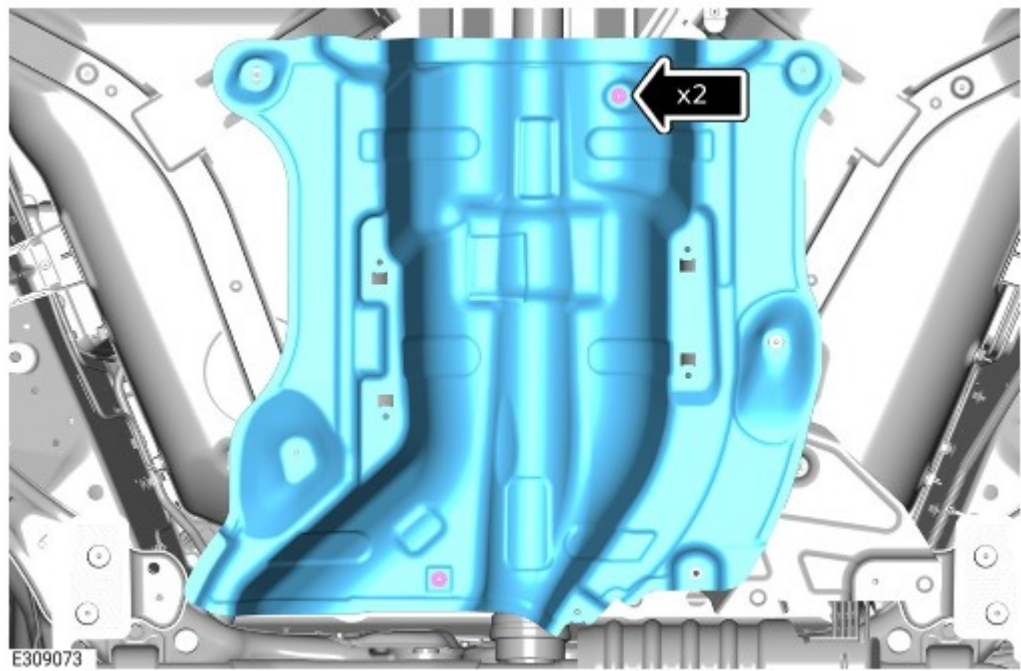
8.



Remove the center exhaust heatshield.

- Remove the 2 nuts.
- Remove the 2 bolts.

9.

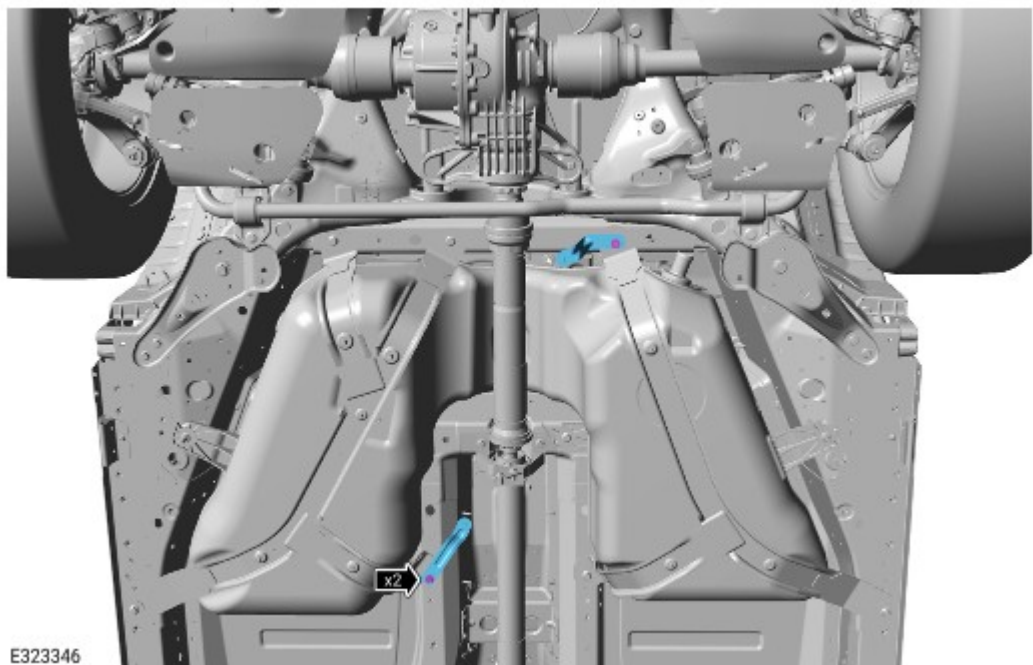


Remove the center rear exhaust heatshield.

- Remove the 2 nuts.

All vehicles

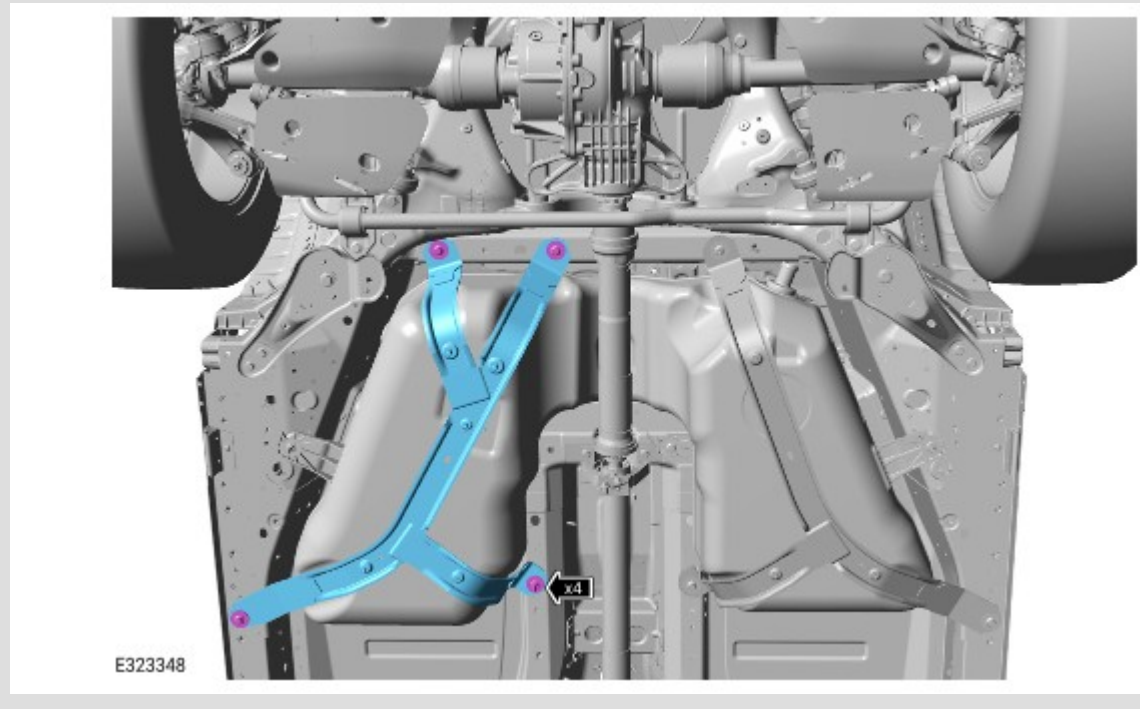
10.



Remove the 2 heatshield supporting brackets.

- Remove the 2 nuts.

11.



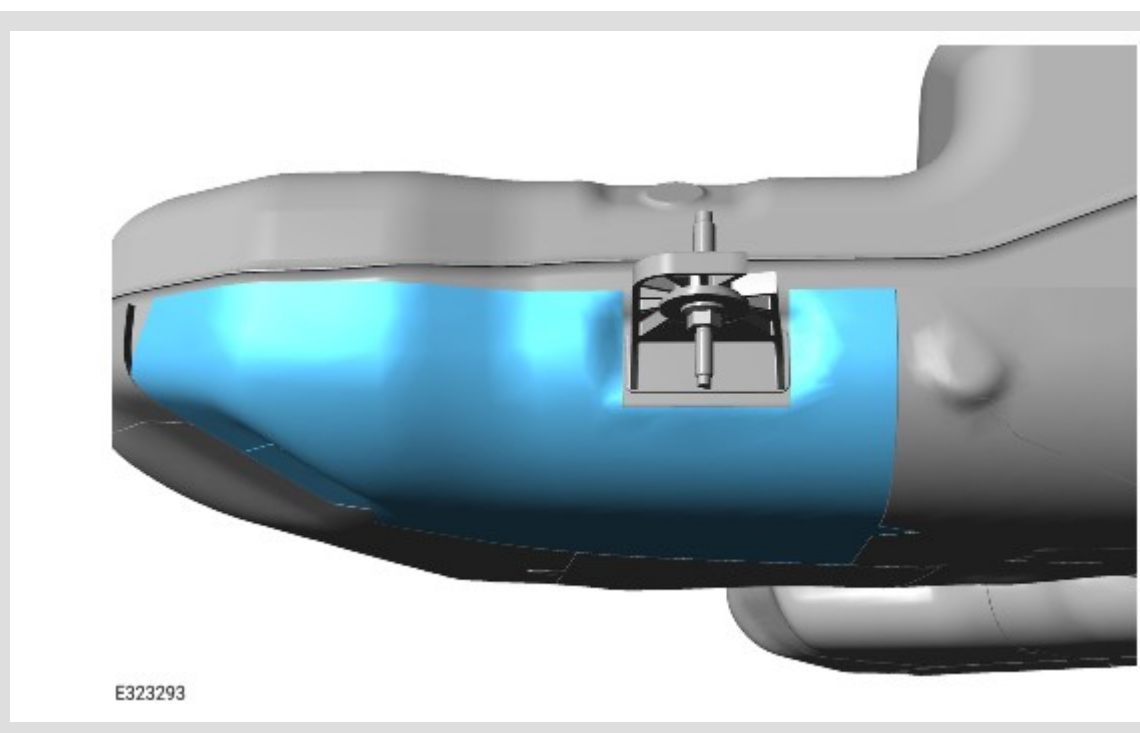
Remove the left fuel tank support strap.

- Remove the 4 bolts.

12.

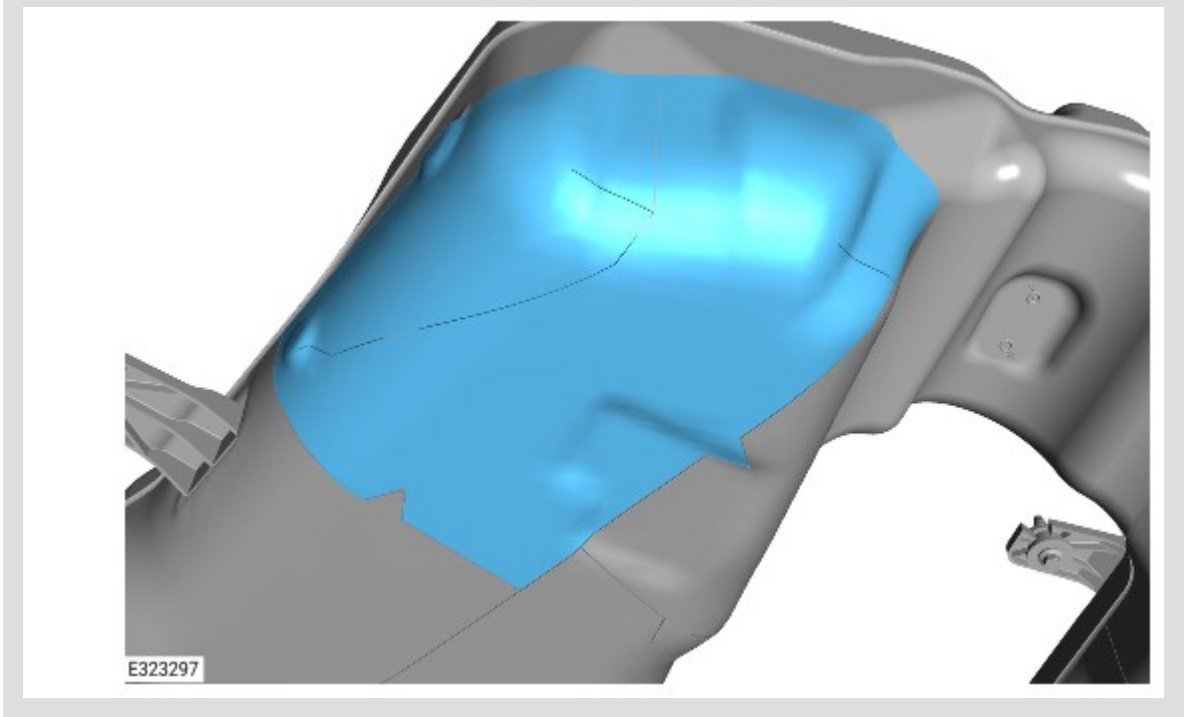
Make sure the fuel tank is clean and free from contamination before continuing to step 13.

13.



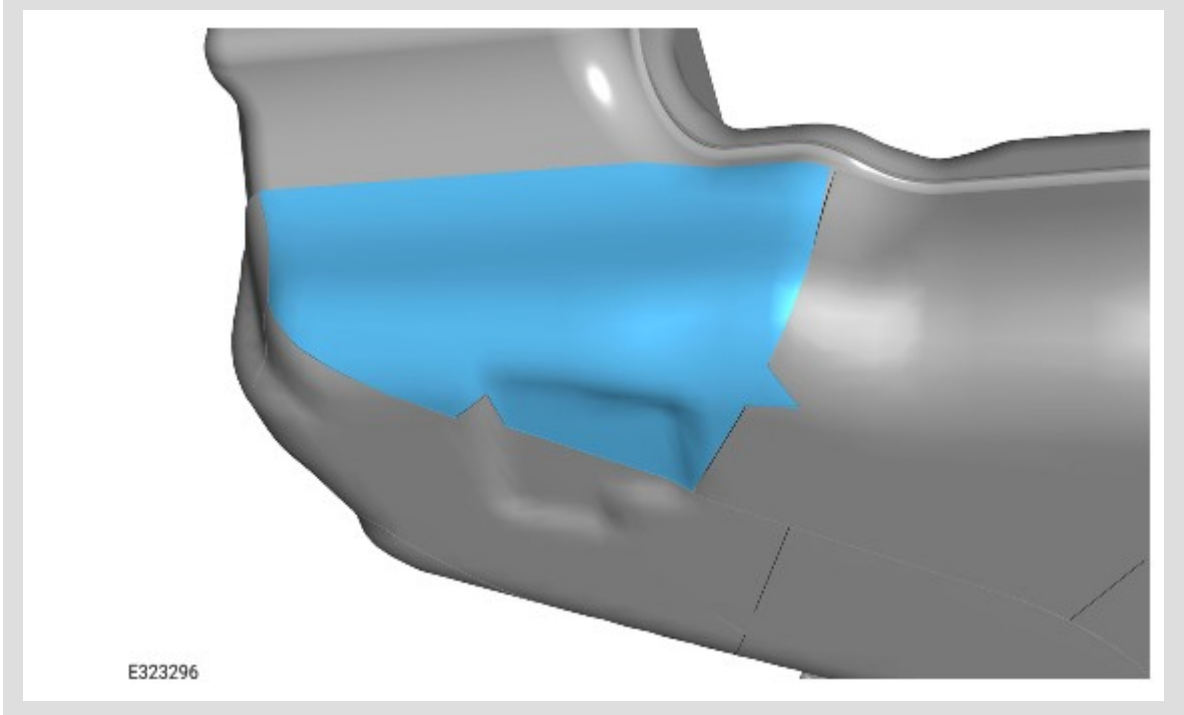
Apply adhesive insulation pad **L01** to the left side of the fuel tank in the location shown in the illustration.

14.



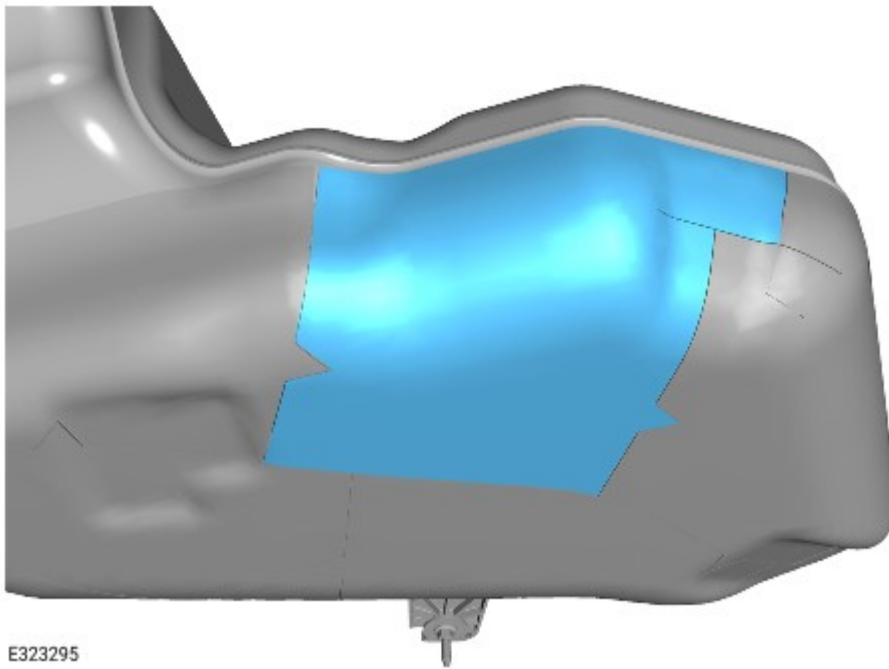
Apply adhesive insulation pad **L02** to the left side of the fuel tank in the location shown in the illustration.

15.



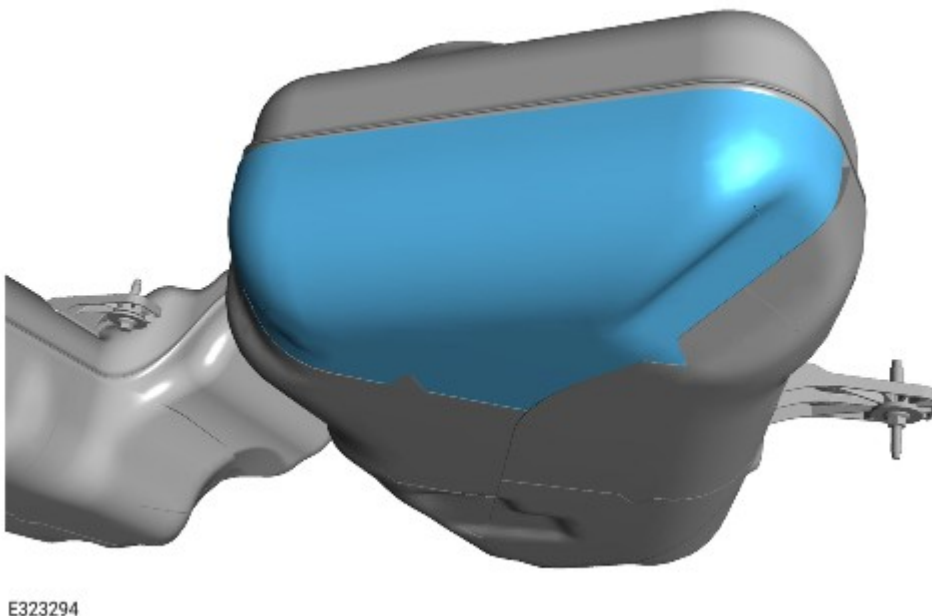
Apply adhesive insulation pad **L03** to the left side of the fuel tank in the location shown in the illustration.

16.



Apply adhesive insulation pad **L04** to the left side of the fuel tank in the location shown in the illustration.

17.



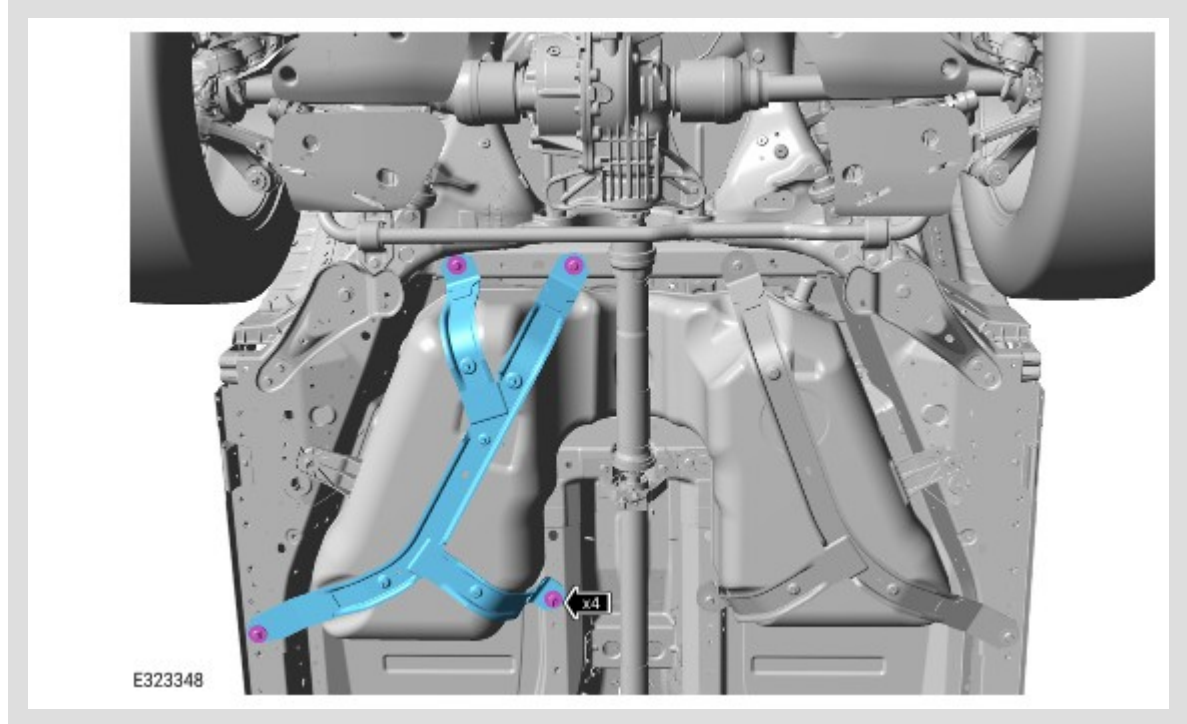
Apply adhesive insulation pad **L05** to the left side of the fuel tank in the location shown in the illustration.

18.

Apply reinforced aluminum tape to each join line between the adhesive insulation pads.

19. Apply reinforced aluminum tape along the upper edge of the adhesive insulation pads, around the left side of the fuel tank.

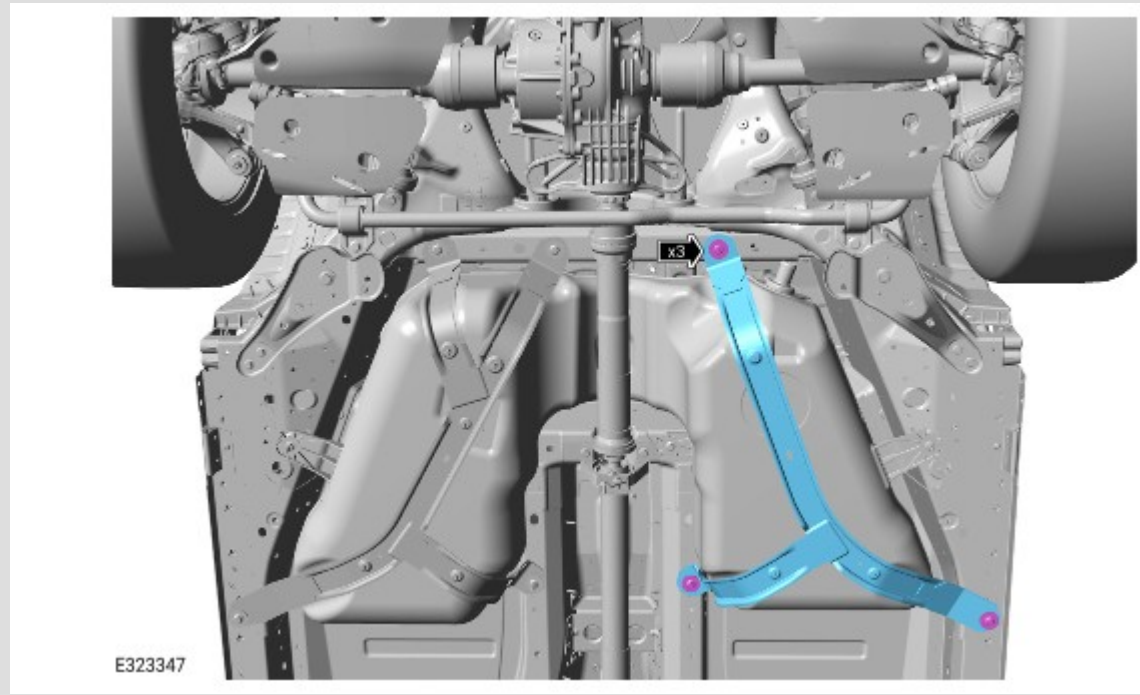
20.



Install the left fuel tank support strap.

- Install the 4 bolts.
 - Torque: **45 Nm**

21.



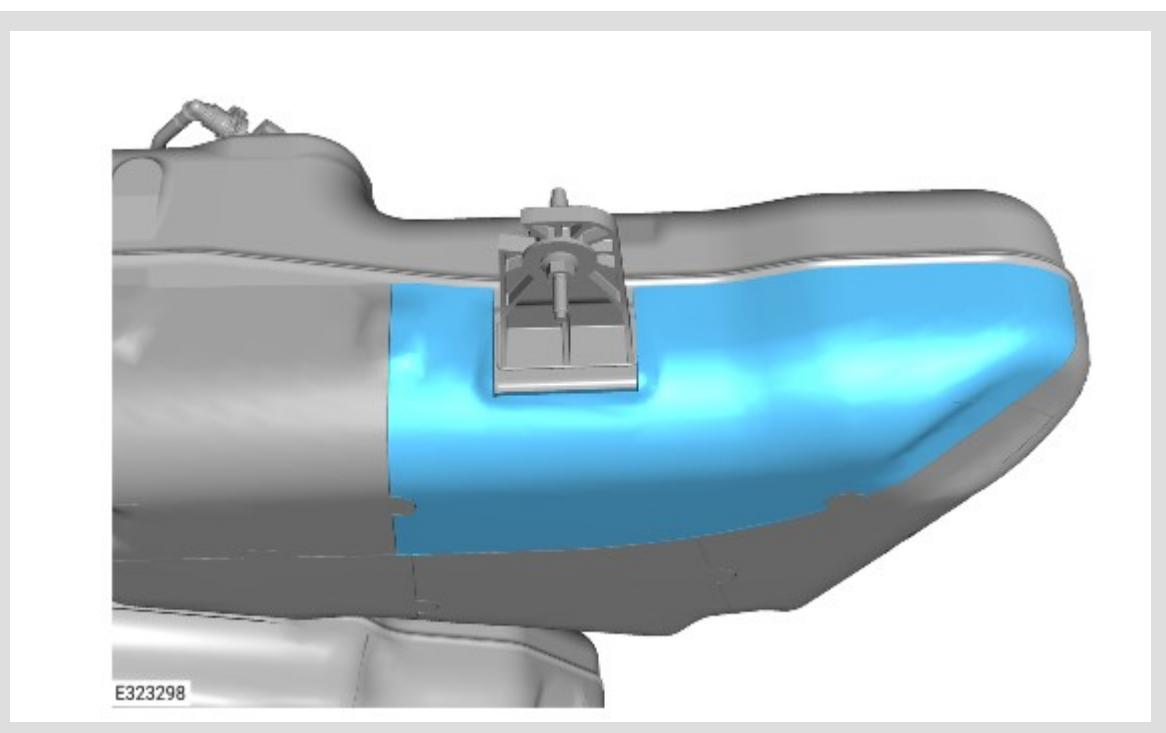
Remove the right fuel tank support strap.

- Remove the 3 bolts.

22.

Make sure the fuel tank is clean and free from contamination before continuing to step 23.

23.



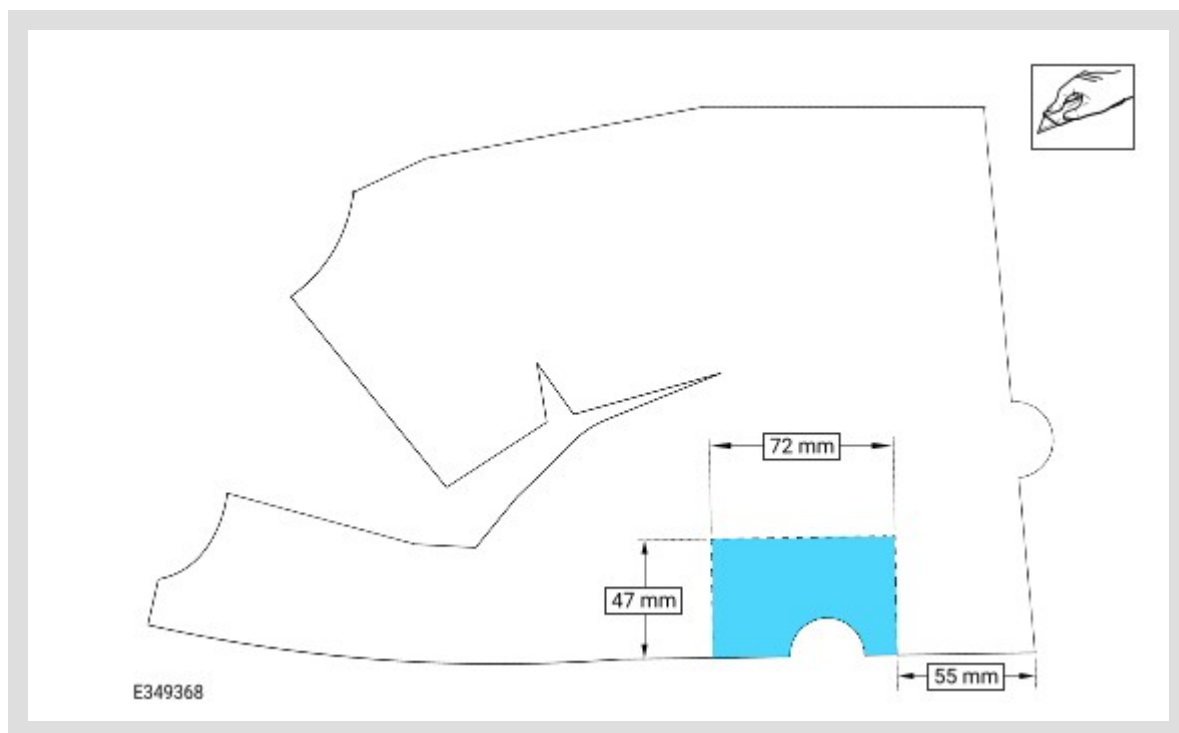
Apply adhesive insulation pad **R01** to the right side of the fuel tank in the locations shown in the illustration.

China vehicles only

△ NOTE:

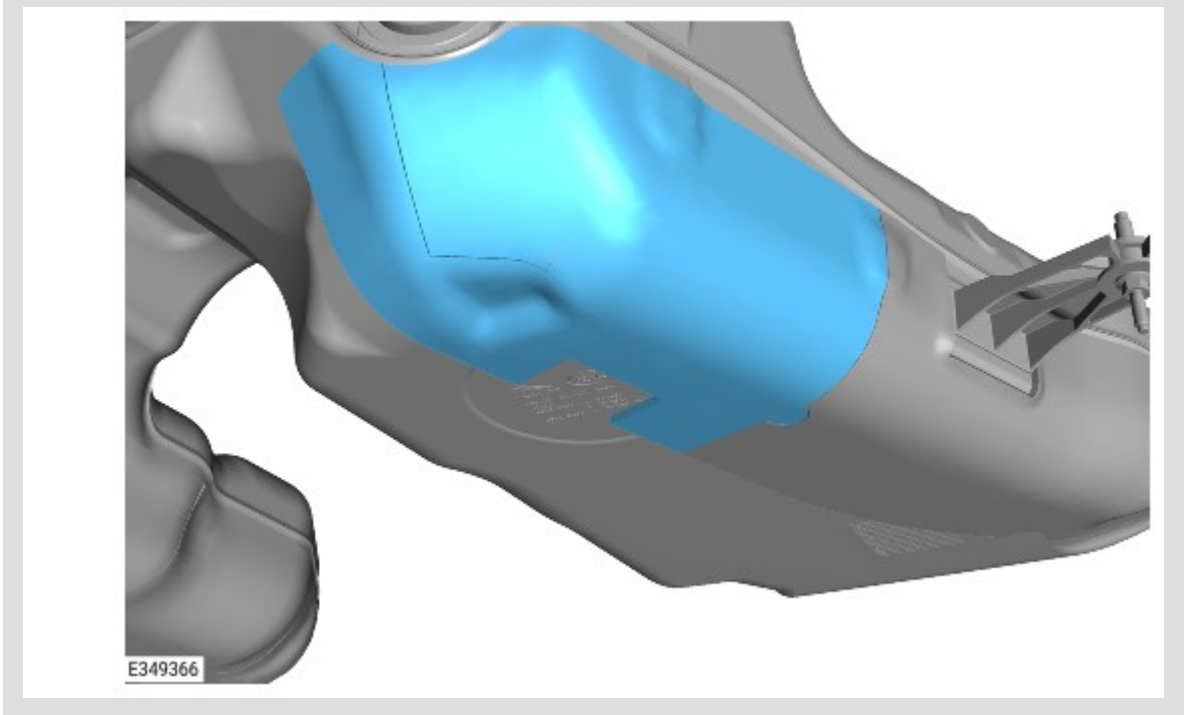
Only China vehicles must complete steps 24 to 27 to modify the adhesive insulation pads to allow visibility of the fuel tank information.

24.



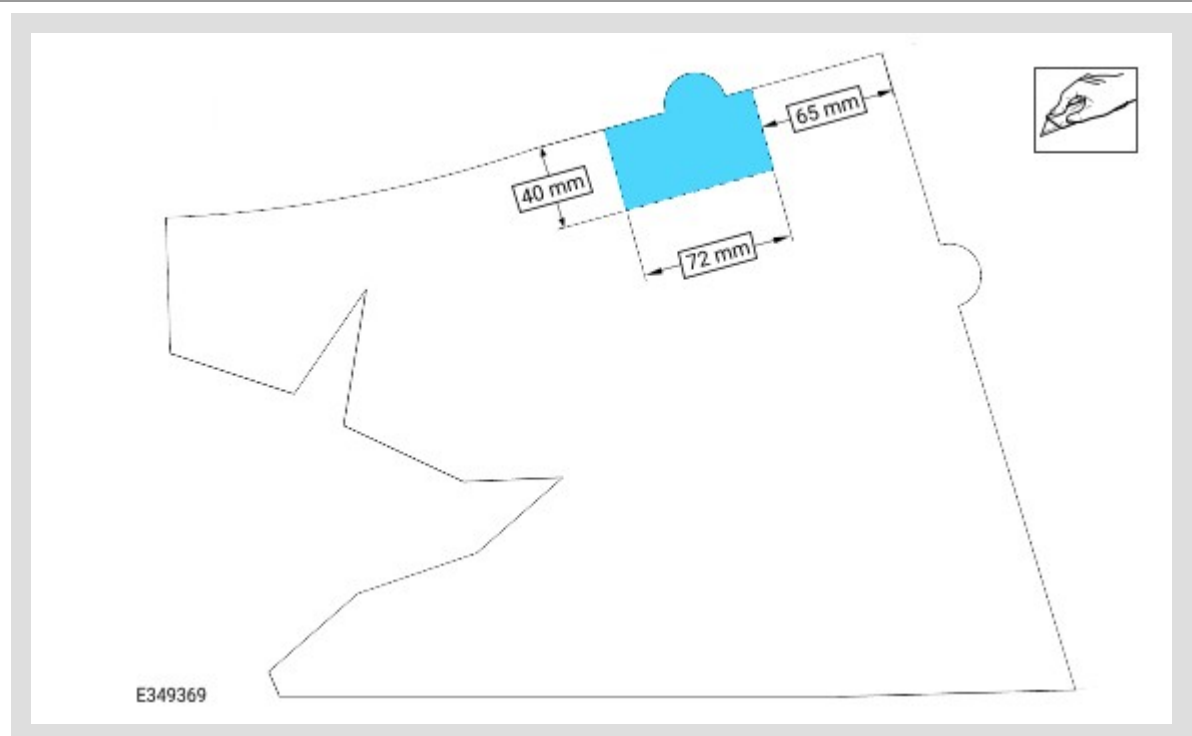
R02 - Using the measurements shown in the illustration, remove the section of adhesive insulation pad **R02** shown highlighted.

25.



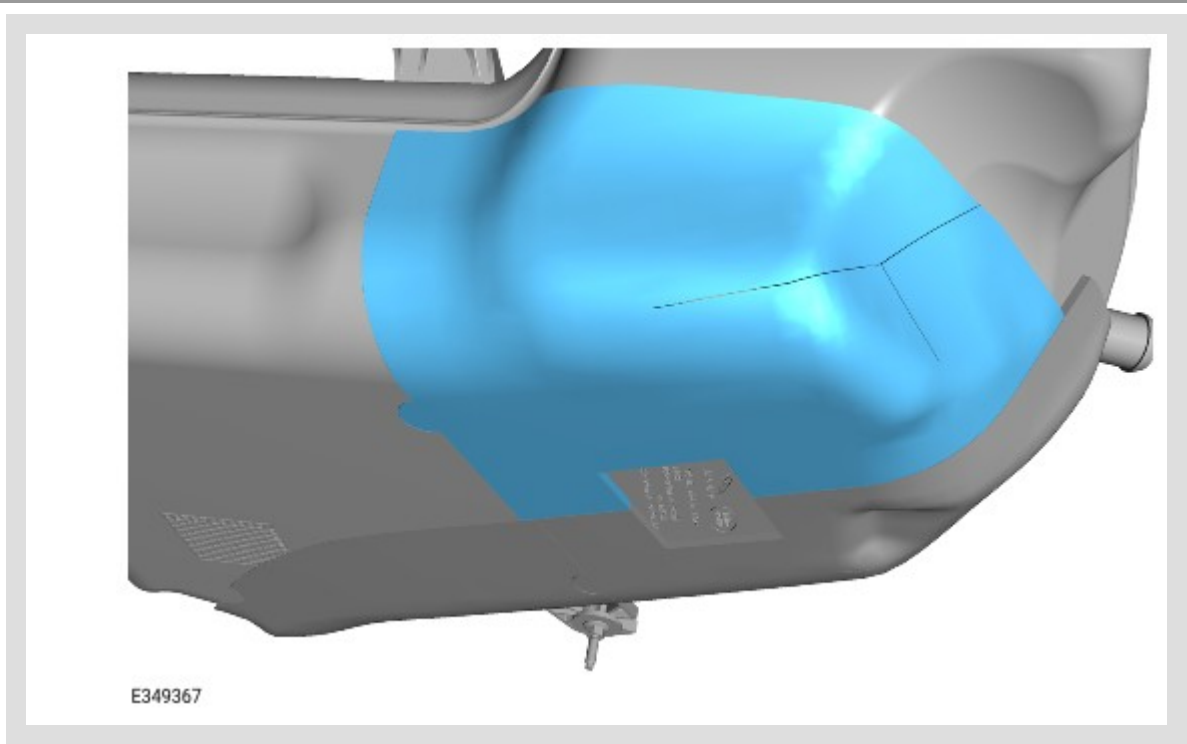
Apply adhesive insulation pad **R02** to the right side of the fuel tank in the locations shown in the illustration.

26.



R03 - Using the measurements shown in the illustration, remove the section of adhesive insulation pad **R03** shown highlighted.

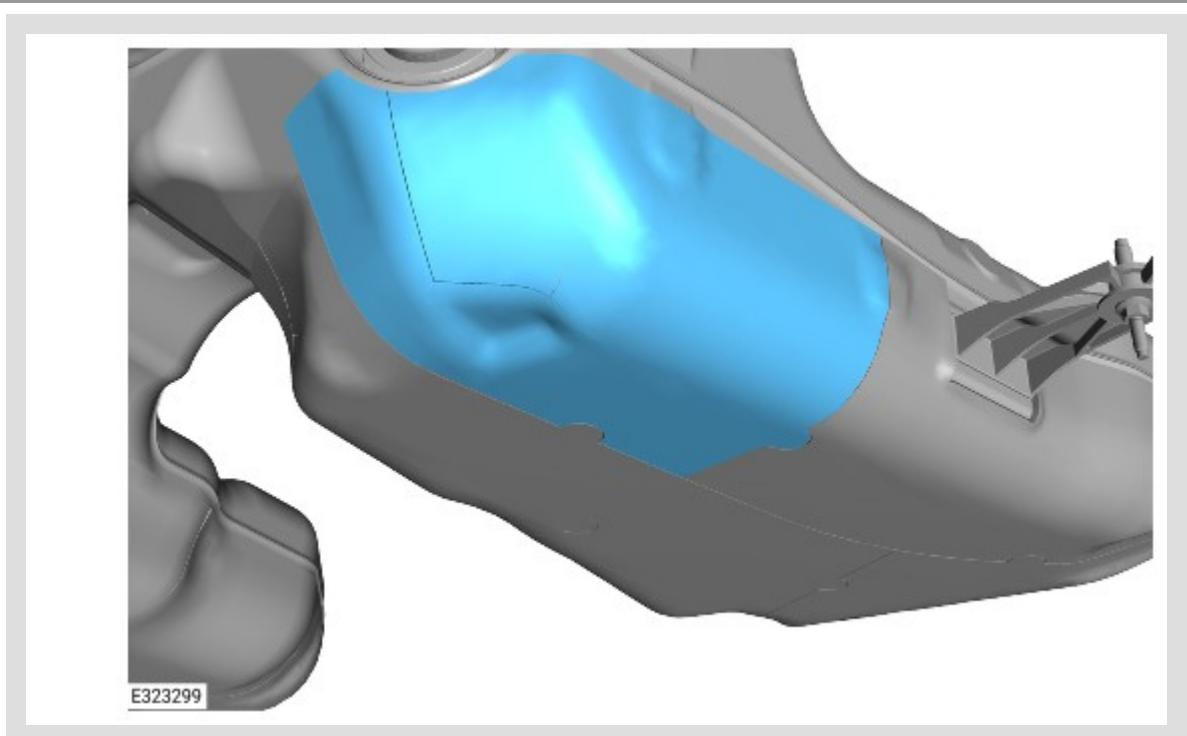
27.



Apply adhesive insulation pad **R03** to the right side of the fuel tank in the locations shown in the illustration.

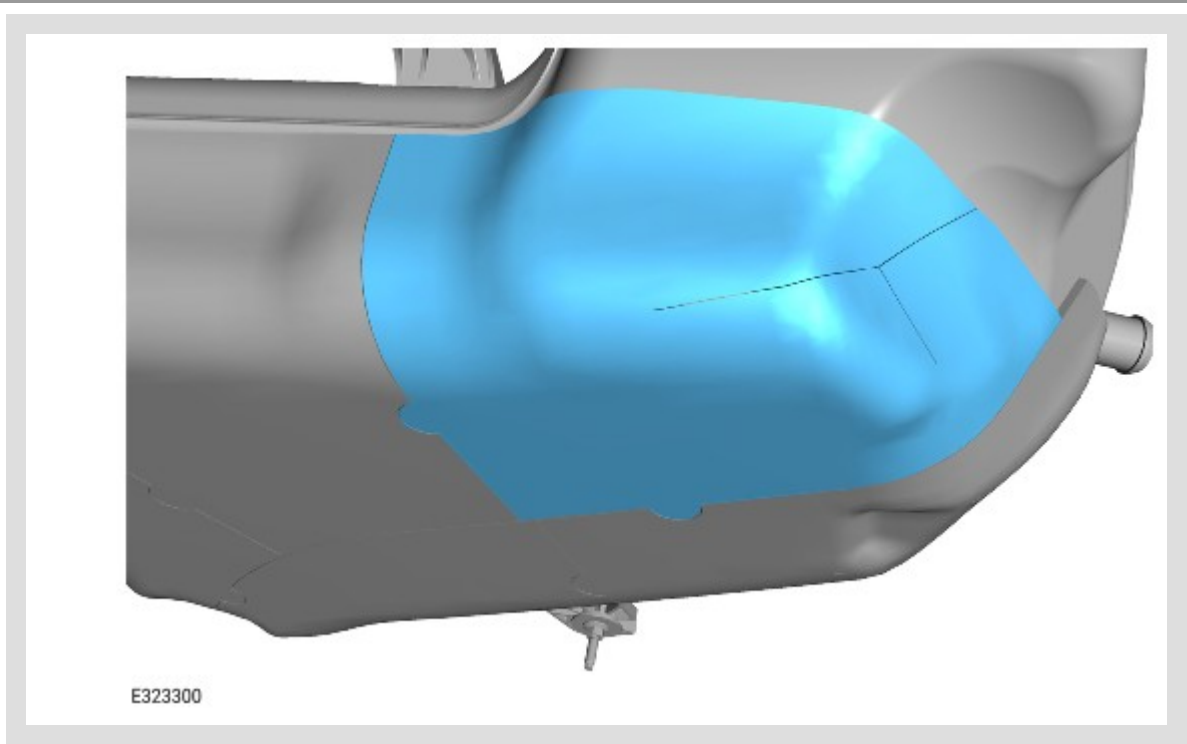
All except China vehicles

28.



Apply adhesive insulation pad **R02** to the right side of the fuel tank in the locations shown in the illustration.

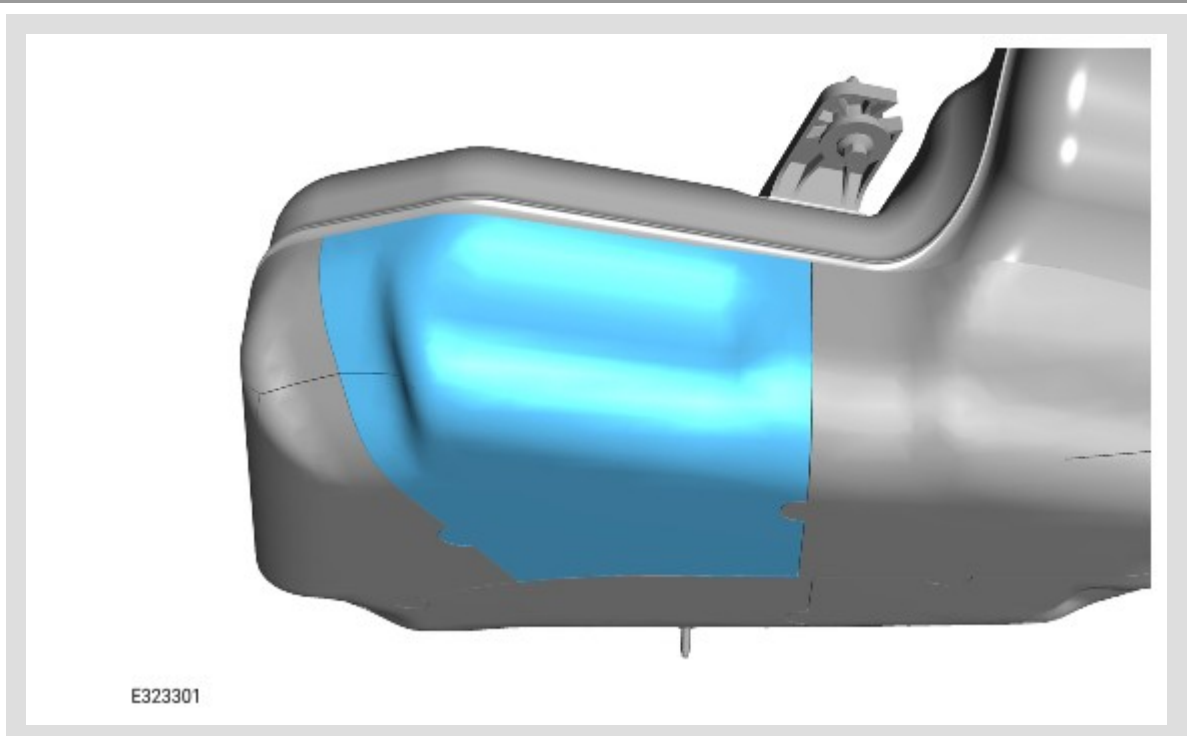
29.



Apply adhesive insulation pad **R03** to the right side of the fuel tank in the locations shown in the illustration.

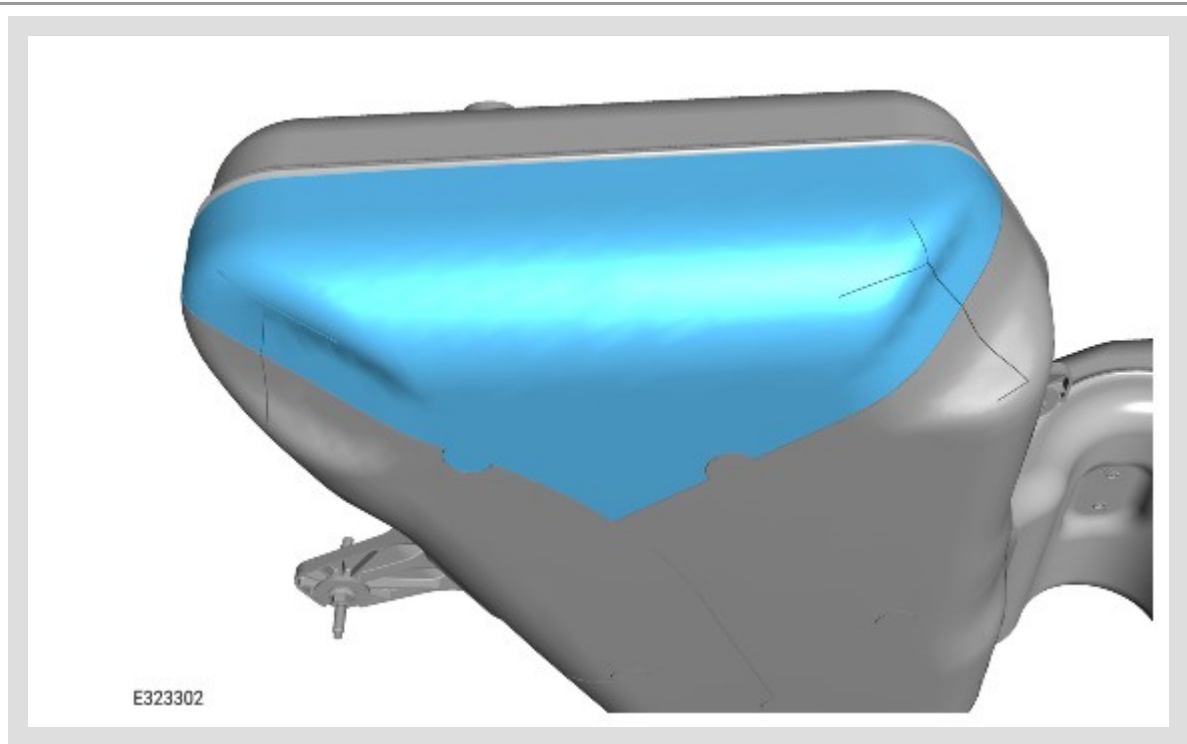
All vehicles

30.



Apply adhesive insulation pad **R04** to the right side of the fuel tank in the locations shown in the illustration.

31.

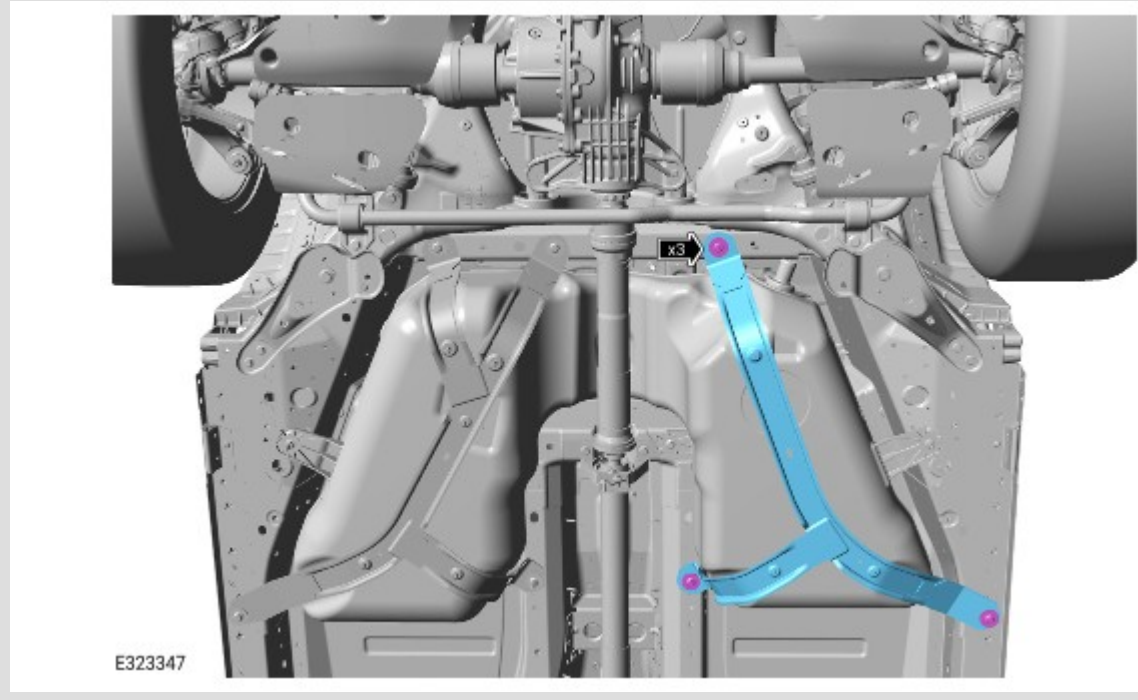


Apply adhesive insulation pad **R05** to the right side of the fuel tank in the locations shown in the illustration.

32. Apply reinforced aluminum tape to each join line between the adhesive insulation pads.

33. Apply reinforced aluminum tape along the upper edge of the adhesive insulation pads, around the right side of the fuel tank.

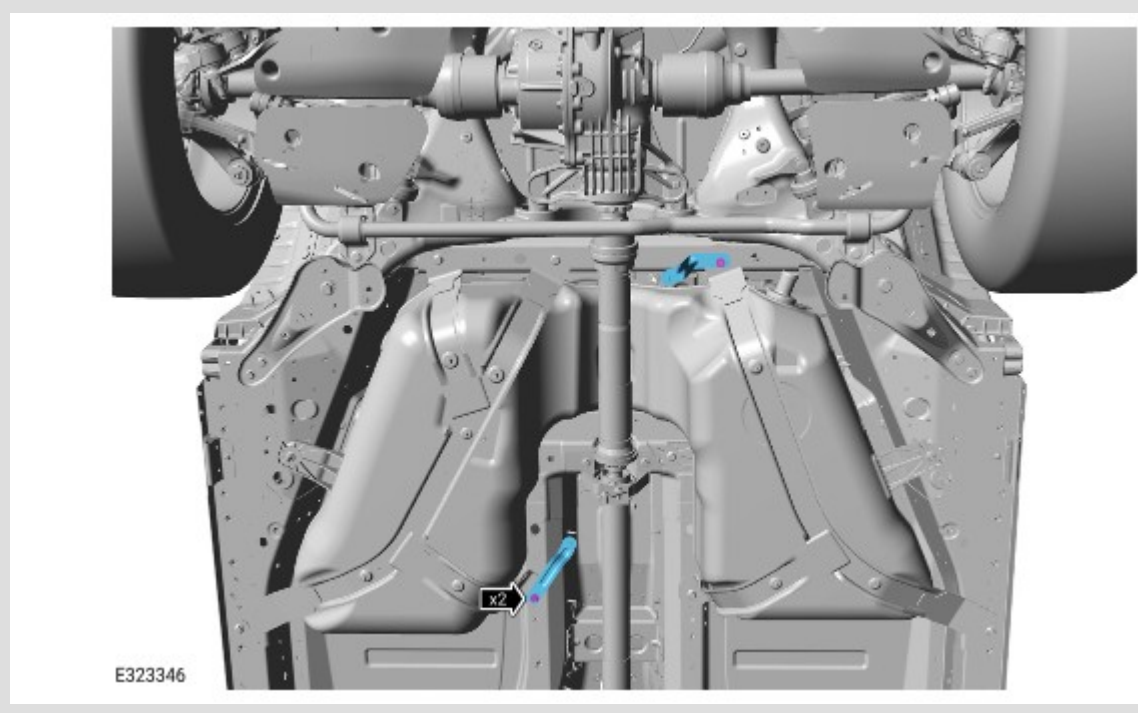
34.



Install the right fuel tank support strap.

- Install the 3 bolts.
 - Torque: **45 Nm**

35.

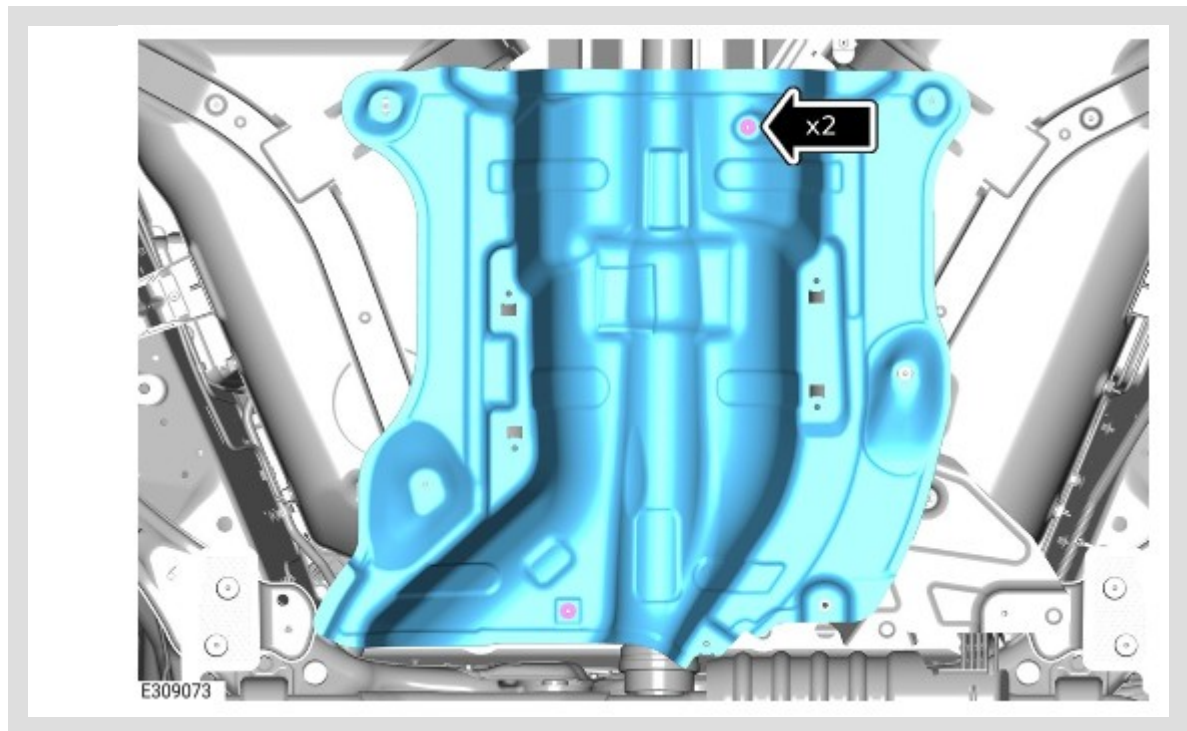


Install the 2 heatshield supporting brackets.

- Install the 2 nuts.
 - Torque: **10 Nm**

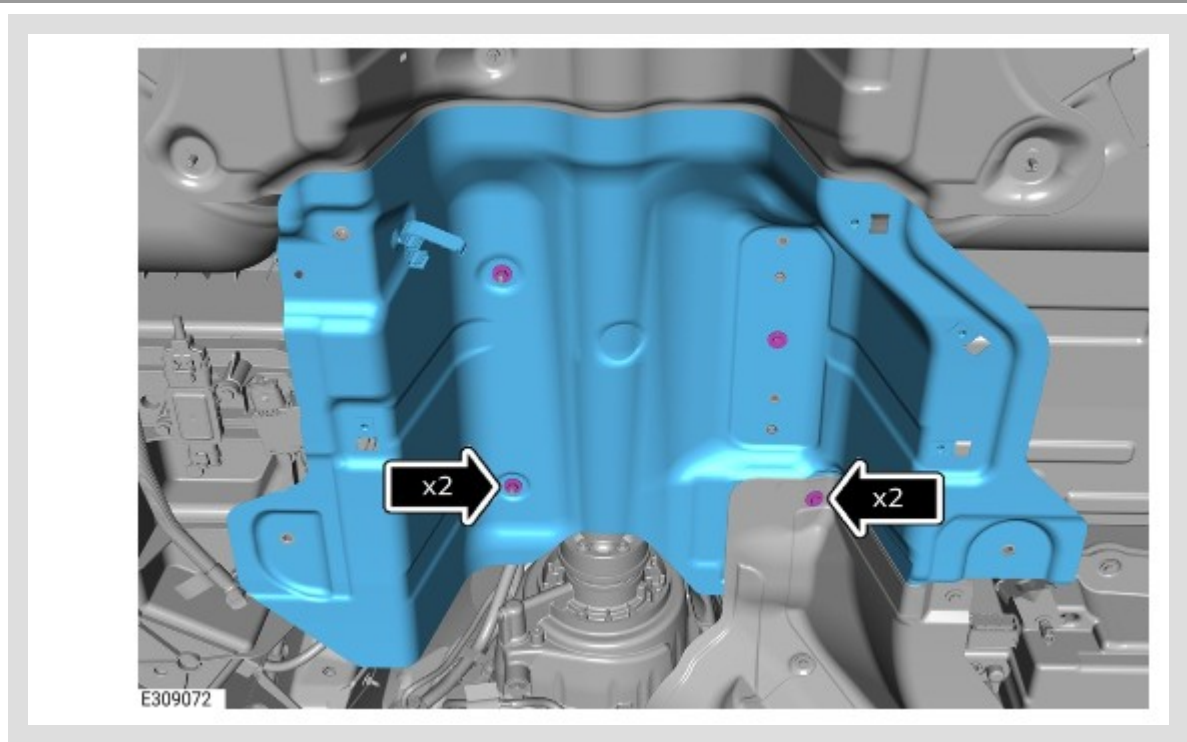
INGENIUM I6 3.0L Petrol vehicles only

36.



Install the center rear exhaust heatshield.

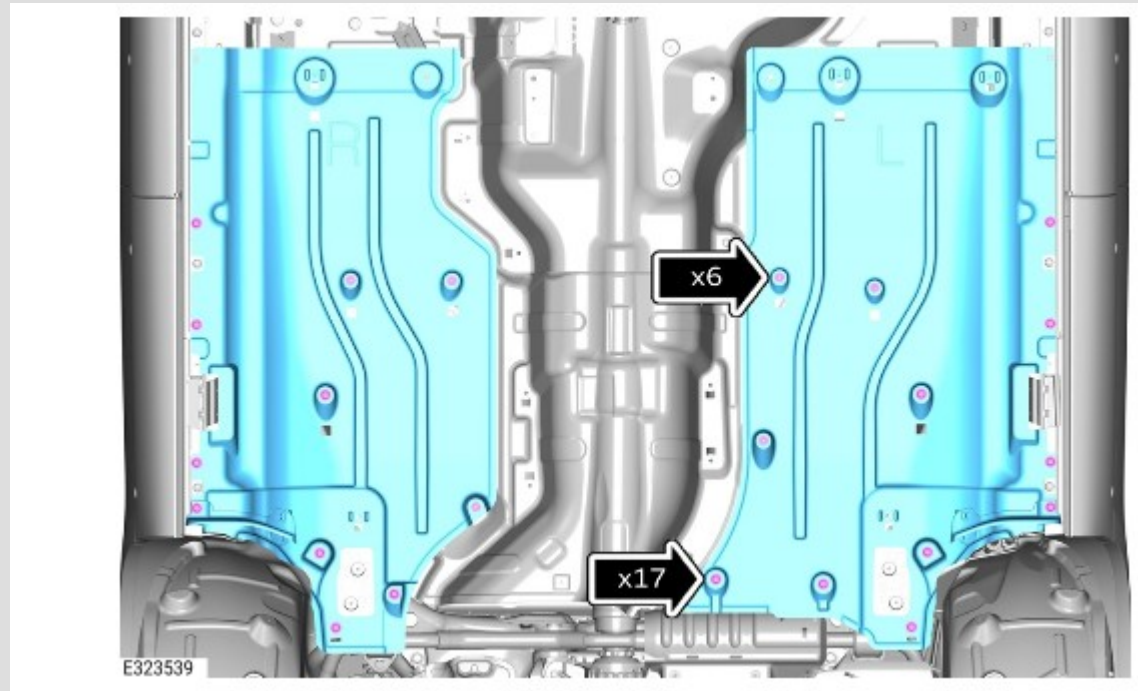
- Install and tighten the 2 nuts.
 - Torque: **5.4 Nm**



Install the center exhaust heatshield.

- Install and tighten the 2 nuts.
 - Torque: **5.4 Nm**
- Install and tighten the 2 bolts.
 - Torque: **5.4 Nm**

38.



Install the left and right undershields.

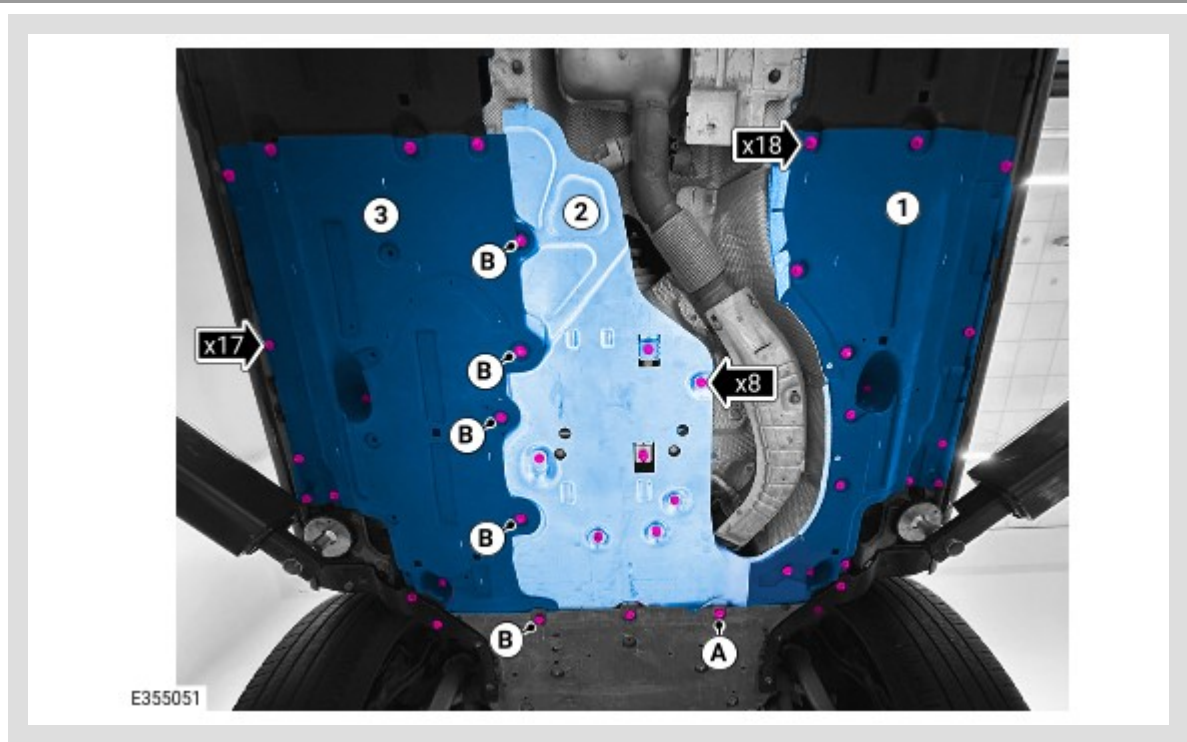
- Install and tighten the 6 nuts.
 - Torque: **5.4 Nm**
- Install and tighten the 17 bolts.
 - Torque: **5.4 Nm**

39.

NOTE:

Do not install the transmission undershield during this step as a new transmission undershield is to be installed.

Install the exhaust system (see TOPIx Workshop Manual section 309-00B: Exhaust System - INGENIUM I6 3.0L Petrol - Removal and Installation - Exhaust System).



Install the new 3 piece transmission undershield.

 **NOTE:**

Do not install the bolt(s) marked 'A' in the illustration at this stage.

Install the right transmission undershield section.

- Install the 18 bolts.
 - Torque: **5.4 Nm**

 **NOTES:**

- Do not install the bolt(s) marked 'B' in the illustration at this stage.
- Install the bolt(s) marked 'A' in the illustration at this stage.

Install the center transmission undershield section.

- Install the 8 bolts.
 - Torque: **5.4 Nm**

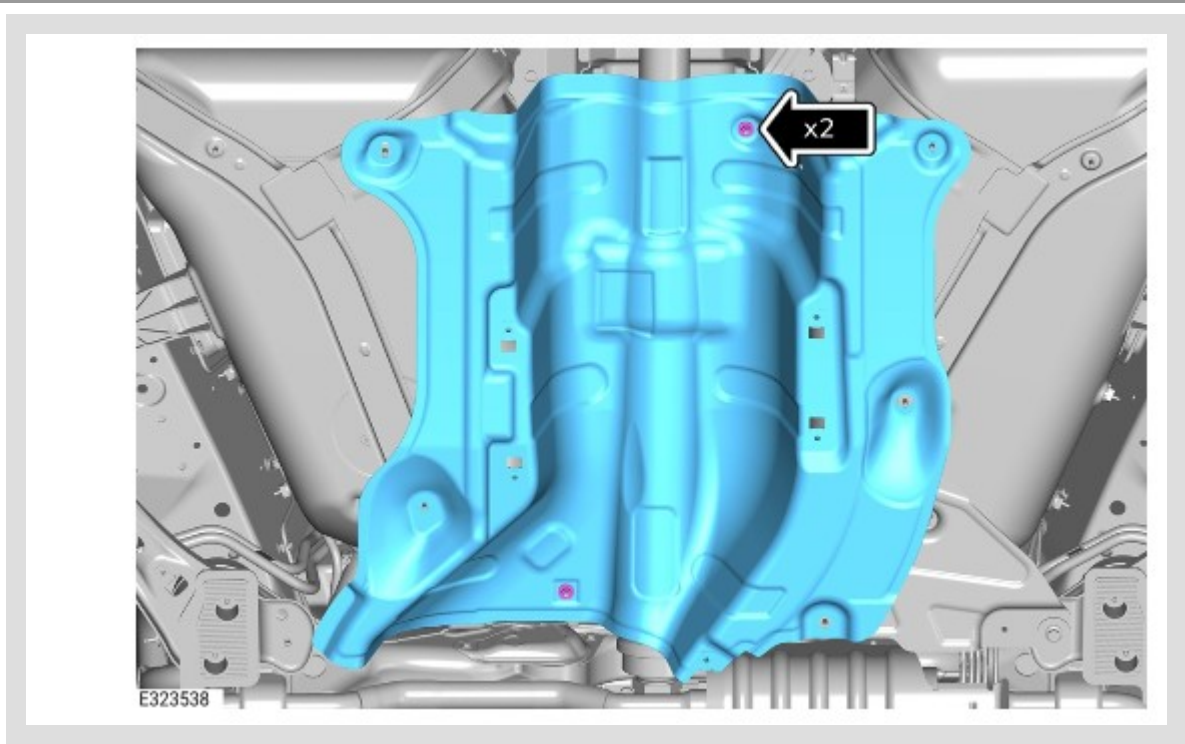
 **NOTE:**

Install the bolt(s) marked 'B' in the illustration at this stage.

Install the left transmission undershield section.

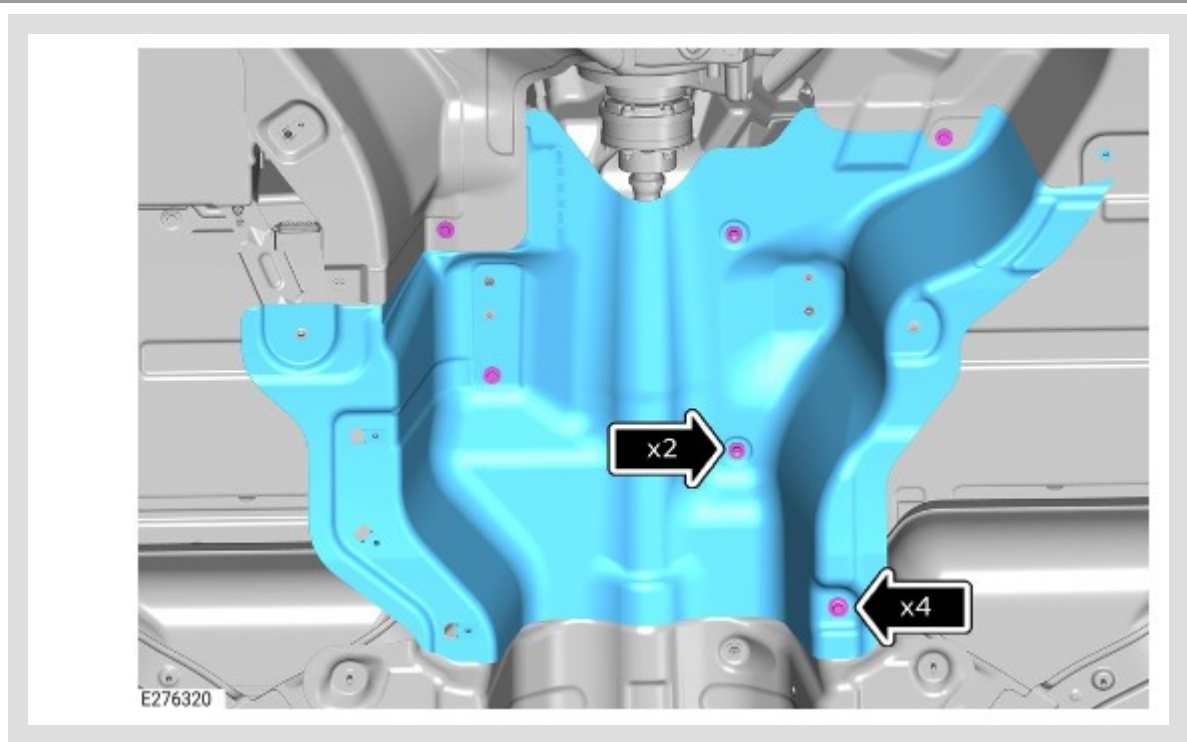
- Install the 17 bolts.
 - Torque: **5.4 Nm**

V8 T/C 4.4L Petrol vehicles only



Install the center rear exhaust heatshield.

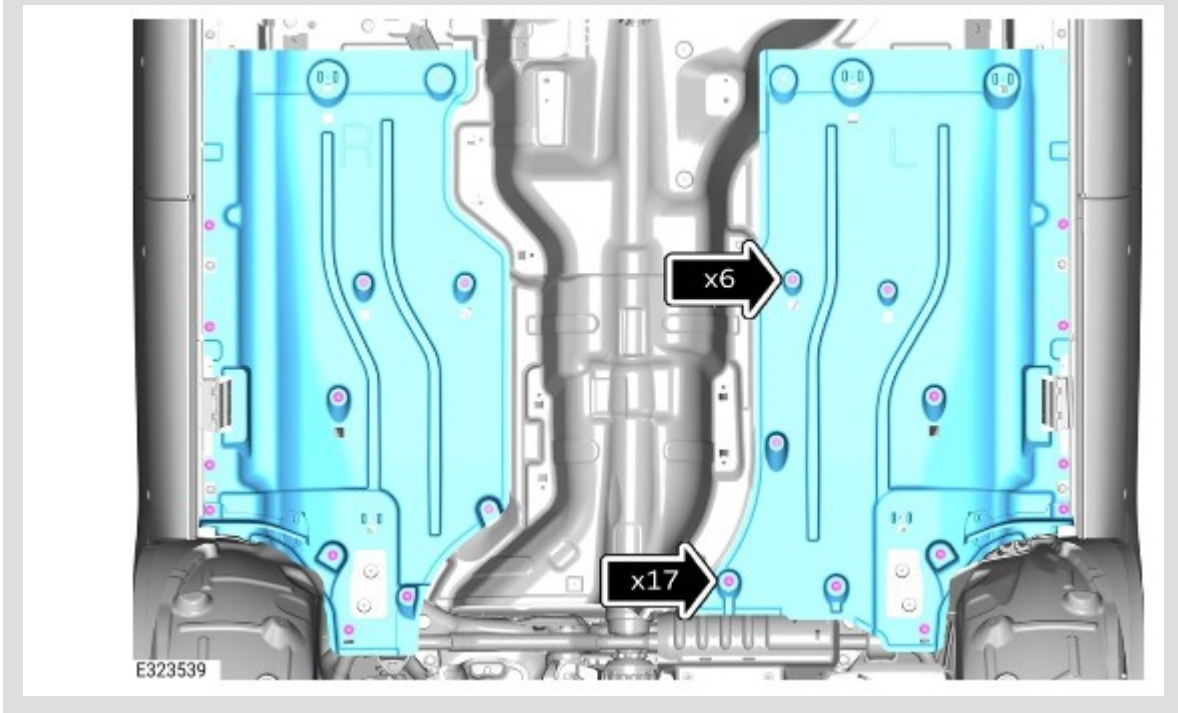
- Install and tighten the 2 nuts.
 - Torque: **5.4 Nm**



Install the center exhaust heatshield.

- Install and tighten the 2 nuts.
 - Torque: **5.4 Nm**
- Install and tighten the 4 bolts.
 - Torque: **5.4 Nm**

43.



Install the left and right undershields.

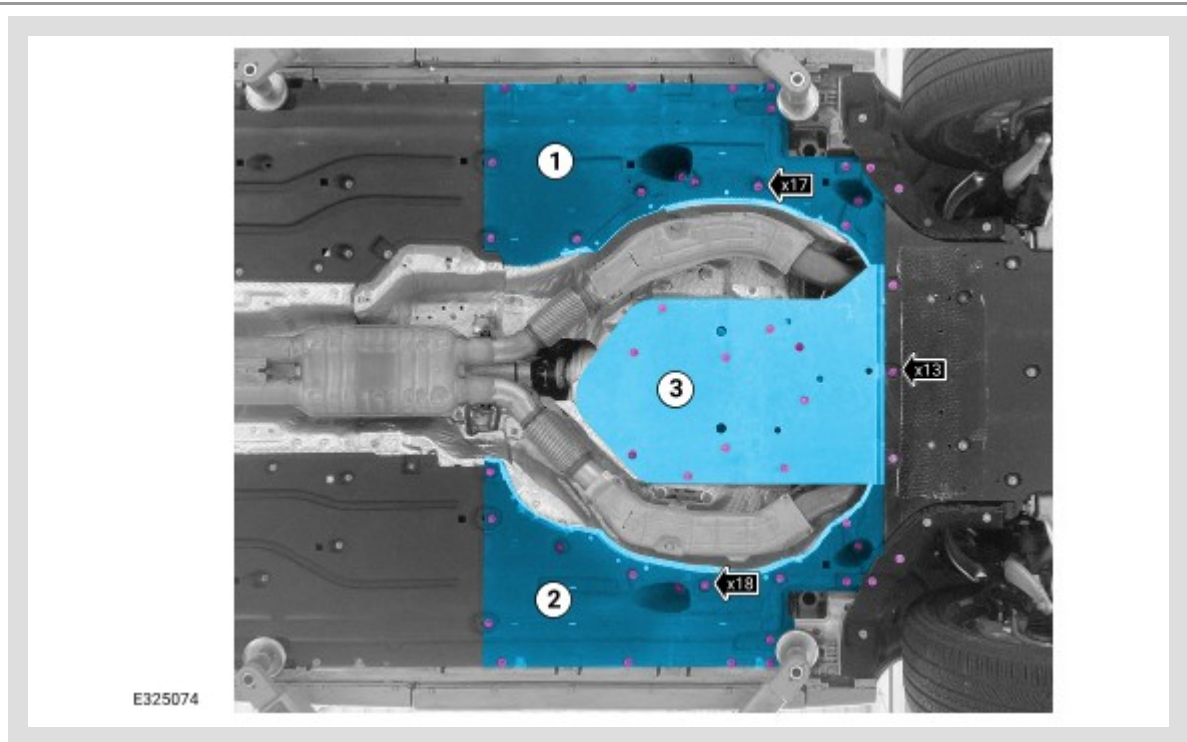
- Install and tighten the 6 nuts.
 - Torque: **5.4 Nm**
- Install and tighten the 17 bolts.
 - Torque: **5.4 Nm**

44.

NOTE:

Do not install the transmission undershield during this step as a new transmission undershield is to be installed.

Install the exhaust system (see TOPIx Workshop Manual section 309-00C: Exhaust System - V8 T/C 4.4L Petrol - Removal and Installation - Exhaust System).



Install the new 3 piece transmission undershield.

1. Install the right transmission undershield section.
 - Install the 17 bolts.
 - Torque: **5.4 Nm**
2. Install the left transmission undershield section.
 - Install the 18 bolts.
 - Torque: **5.4 Nm**
3. Install the center transmission undershield section.
 - Install the 13 bolts.
 - Torque: **5.4 Nm**