# TECHNICAL BULLETIN



02 NOV 2020

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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** 

This bulletin supersedes TSB JLRTB02060NAS1/2020 dated 07 OCT 2020, which should either be destroyed or clearly marked to show it is no longer valid (e.g. with a line across the page). Only refer to the electronic version of this Technical Bulletin in TOPIx.

# Changes are highlighted in blue

SECTION:	
204-01	
	_
SUBJECT/CONCERN:	
Knocking Noise From Front Suspension Lower Control Arms	

MODEL:	MODEL YEAR:	VIN:	ASSEMBLY PLANT:
New Range Rover Evoque (LZ)	2020 Onwards	000120 Onwards	Halewood
Discovery Sport (LC)	2020 Onwards	830147 Onwards	Halewood

**AFFECTED VEHICLE RANGE:** 

MARKETS:

## **NORTH AMERICA**

**CONDITION SUMMARY:** 

#### SITUATION:

A knocking noise from the front suspension when driving over uneven road surfaces or speed bumps, at speeds of up to 40 km/h (25 mph) may be evident.

## **CAUSE:**

The hydrabush fluid circulating within the front lower control arm rear hydrabush can be heard as a knocking noise from within the passenger compartment. This has no effect on the operation of the suspension system.

#### **ACTION:**

Follow the service instructions below.

**PARTS:** 

#### **NOTE:**

An allowance equivalent to \$13.00 has been allocated to locally source a 100 ml syringe and a 12 inch length of tube with a 4 mm outside diameter (see the 'Service Information' section for an example).

PART NUMBER DESCRIPTION		QUANTITY	
ZZZ001	Syringe and tube	£10.00	

**WARRANTY:** 

## **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
JLRTB - Front lower control arm hydrabush modification - Pair - With wheel balance	99.01.33	1.5	42	LR114248/9

#### NOTE:

Normal Warranty procedures apply.

#### **SERVICE INFORMATION:**







The illustration shows an example of the 100 ml syringe and 4 mm outside diameter tube that should be locally sourced.



0:00

For vehicles where the fill port is located at the top of the hydrabush, watch the demonstration video which shows how to drill through the fill port.

#### **SERVICE INSTRUCTION - WHEEL BALANCE:**

- Raise and support the vehicle on a suitable 2 post lift (see TOPIx Workshop Manual section 100-02: Jacking and Lifting Description and Operation Jacking and Lifting).
- Remove all 4 road wheel and tire assemblies (see TOPIx Workshop Manual section 204-04: Wheels and Tires Removal and Installation Wheel and Tire).
- Balance all 4 wheel and tire assemblies.
- Install the 2 rear road wheel and tire assemblies (see TOPIx Workshop Manual section 204-04: Wheels and Tires Removal and Installation Wheel and Tire).
- 5. Continue to 'Service Instruction Modification'.

**SERVICE INSTRUCTION - MODIFICATION:** 

#### **WARNING:**

You must wear protective gloves and eye protection when completing this service instruction. Failure to follow this instruction may result in personal injury.

#### **NOTES:**

- This procedure contains some variation in the illustrations depending on the vehicle specification, but the essential information is always correct.
- This procedure contains illustrations showing certain components removed to provide extra clarity.
- It is important to diagnose the customer concern before completing this technical bulletin.

Remove the engine undershield (see TOPIx Workshop Manual section 501-02: Front End Body Panels - Removal and Installation - Engine Undershield).

2.

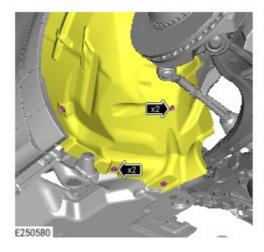
## **CAUTION:**

Take extra care not to damage the component.

# NOTE:

Repeat this step for the front left wheel arch liner.





Reposition the front right wheel arch liner.

- Remove the 2 screws.
- Remove the 2 fasteners.

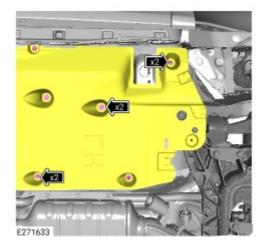
# **CAUTION:**

Take extra care not to damage the component.

## NOTE:

Repeat this step for the left body undershield.

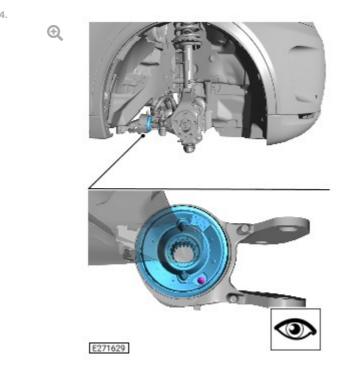




Lower the front section of the right body undershield.

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

# Fill port located at the BOTTOM of the Hydrabush



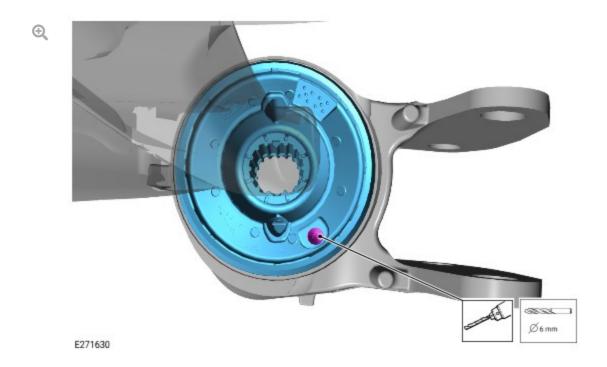
Locate the fill port on the rear hydrabush of the front lower control arm, as shown in the illustration.

## **CAUTIONS:**

- Do not drill deeper than 23 mm, failure to follow this instruction will result in damage to the component.
- Be prepared to collect escaping fluid.

## NOTE:

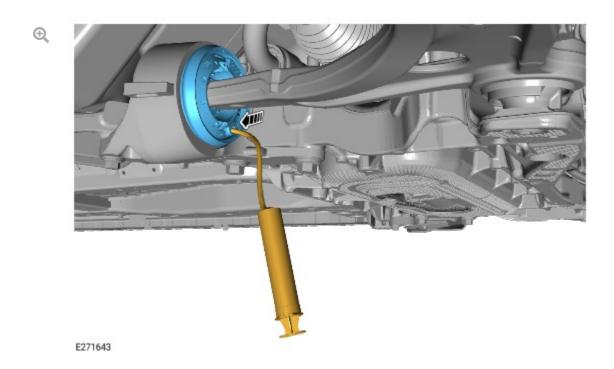
A suitable sized drill must be used to complete this step.



Drill a hole through the rear hydrabush fill port using a 6 mm diameter drill bit, to a depth of no more than 23 mm.

# NOTE:

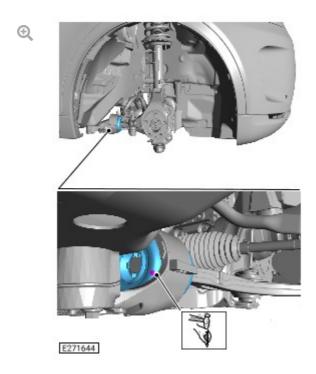
Make sure the tube is fully inserted into the hydrabush and is not kinked.



Insert the syringe and length of tube into the fill port.

# **NOTE:**

The center punch location shown in the illustration is an example only.



Using a center punch, mark the drill location on the back of the hydrabush casing. This will assist with drilling the hole in the step.

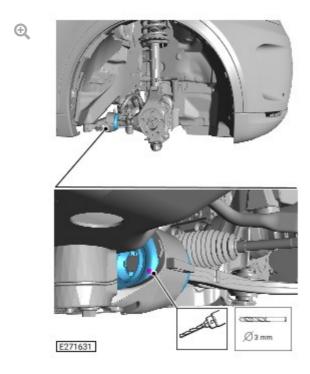
8

## **CAUTIONS:**

- Do not drill further than the thickness of the hydrabush casing, failure to follow this instruction will result in damage to the component.
- Be prepared to collect escaping fluid.

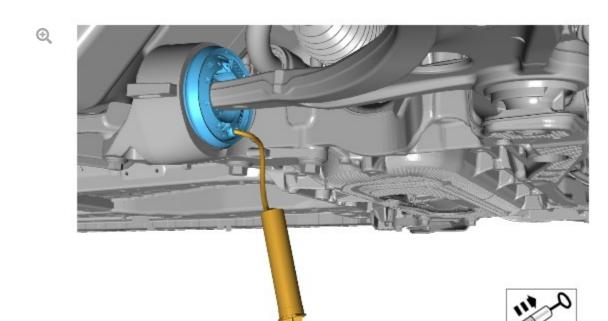
## NOTE:

A suitable sized drill must be used to complete this step.



Drill a hole through the back of the hydrabush casing using a 3 mm diameter drill bit, this will assist with the removal of the hydrabush fluid in the next step.

• The hydrabush casing is 3 mm thick. When a hole has been drilled through the hydrabush casing, **do not** drill any further.



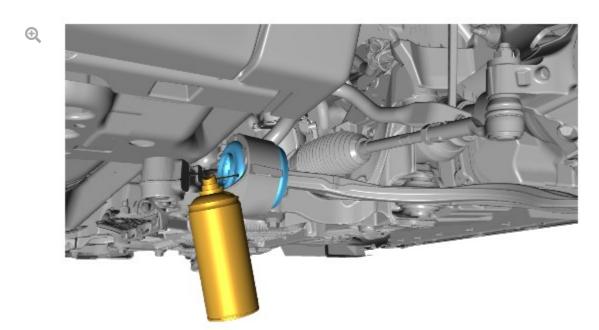
Using the syringe and length of tube, remove as much hydrabush fluid as possible through the hole created in the fill port. A minimum of **50 ml** of hydrabush fluid must be removed before continuing to step 9.

 If it becomes difficult to remove a minimum of 50 ml of hydrabush fluid, reposition the length of tube forward and backward within the hydrabush, while activating the syringe.

E271632

# **CAUTION:**

Be prepared to collect escaping fluid.

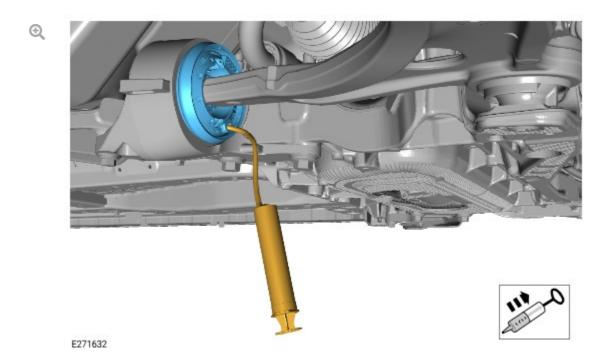


E271635

Remove the syringe and length of tube and flush the hydrabush using a suitable aerosol degreaser until the fluid is clear.

# NOTE:

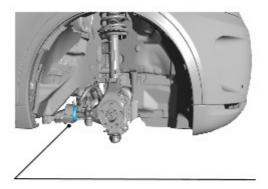
Make sure the tube is fully inserted into the hydrabush and is not kinked.

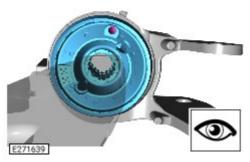


Using the syringe and length of tube, remove any excess degreaser/hydrabush fluid through the hole created in the fill port.

# Fill port located at the TOP of the Hydrabush







Locate the fill port on the rear hydrabush of the front lower control arm, as shown in the illustration.

- <sup>13.</sup> Turn the steering into the full lock position.
  - If the fill port is at the top of the left hydrabush, turn the steering into the full left lock posotion.
  - If the fill port is at the top of the right hydrabush, turn the steering into the full right lock posotion.

## **CAUTIONS:**

- Do not drill deeper than 23 mm, failure to follow this instruction will result in damage to the component.
- Be prepared to collect escaping fluid.

## **NOTES:**

- A suitable sized drill must be used to complete this step.
- Due to the location of the fill port access is reduced.
- Make sure you have watched the demonstration video in the 'Service Information' section before completing this step.

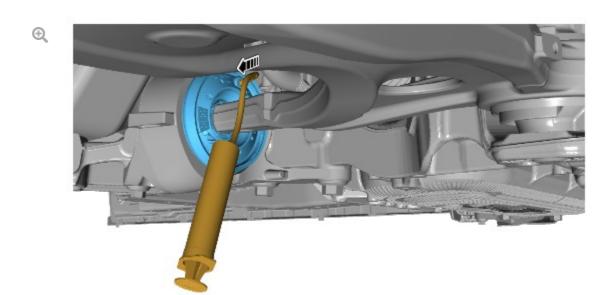


Drill a hole through the rear hydrabush fill port using a 6 mm diameter drill bit, to a depth of no more than 23 mm.

 The drill will be used offset from the center of the hole, as shown in the illustration and demonstration video.

# **NOTES:**

- Make sure the tube is fully inserted into the hydrabush and is not kinked.
- Make sure enough tube is inserted to reach lower area of the hydrabush.

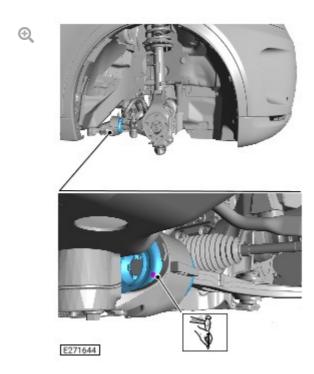


E271642

Insert the syringe with a length of tube into the fill port.

# NOTE:

The center punch location shown in the illustration is an example only.



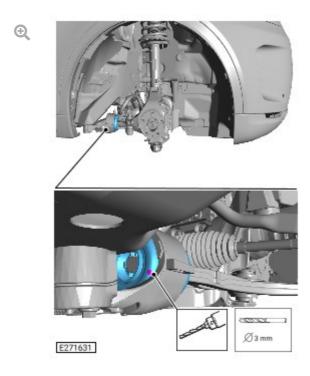
Using a center punch, mark the drill location on the back of the hydrabush casing. This will assist with drilling the hole in the step.

## **CAUTIONS:**

- Do not drill further than the thickness of the hydrabush casing, failure to follow this instruction will result in damage to the component.
- Be prepared to collect escaping fluid.

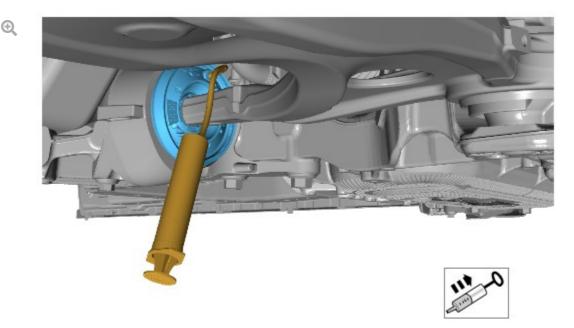
## NOTE:

A suitable sized drill must be used to complete this step.



Drill a hole through the back of the hydrabush casing using a 3 mm diameter drill bit, this will assist with the removal of the hydrabush fluid in the next step.

• The hydrabush casing is 3 mm thick. When a hole has been drilled through the hydrabush casing, **do not** drill any further.



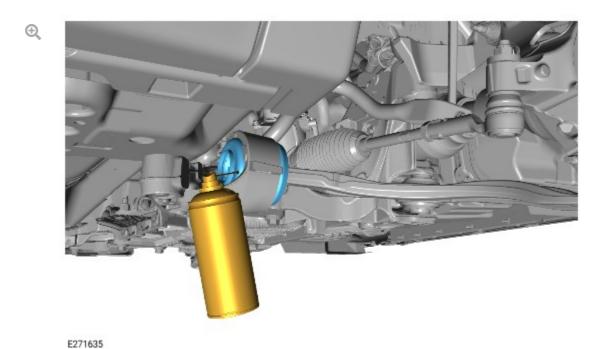
E271641

Using the syringe and length of tube, remove as much hydrabush fluid as possible through the hole created in the fill port. A minimum of **50 ml** of hydrabush fluid must be removed before continuing to step 17.

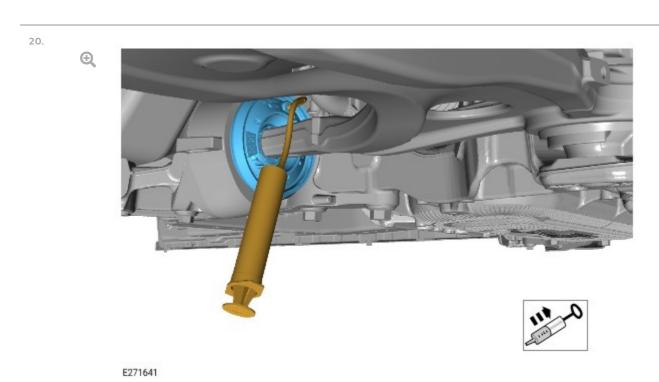
 If it becomes difficult to remove a minimum of 50 ml of hydrabush fluid, reposition the length of tube forward and backward within the hydrabush, while activating the syringe.

# **CAUTION:**

Be prepared to collect escaping fluid.



Remove the syringe and length of tube and flush the hydrabush using a suitable aerosol degreaser until the fluid is clear.



Using a syringe and a length of tube, remove any excess degreaser/hydrabush fluid through the hole created in the fill port.

- Repeat **either** steps **4 to 11** or **12 to 20** for the rear hydrabush of the other front lower control arm.
- Install the 2 front road wheel and tire assemblies (see TOPIx Workshop Manual section 204-04: Wheels and Tires Removal and Installation Wheel and Tire).
- Repeatedly lower the vehicle to the floor and raise it again to articulate the front lower control arms. (see TOPIx Workshop Manual section 100-02: Jacking and Lifting Description and Operation Jacking and Lifting).
  - This steps makes sure all of the hydrabush fluid has been removed from the hydrabush.

#### NOTE:

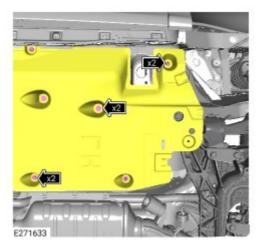
Make sure there is no evidence of hydrabush fluid under the vehicle before continuing to step 25.

Clean any residual hydrabush fluid from under the vehicle.

# NOTE:

Repeat this step for the left body undershield.





Install the right body undershield in the original position.

• Install and tighten the 2 nuts.

o ■ Torque: 6 Nm

• Install and tighten the 2 bolts.

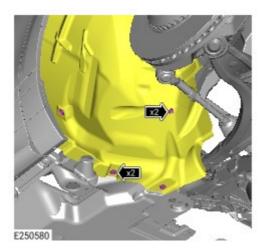
o ■ Torque: 6 Nm

• Install the 2 fasteners.

## **NOTE:**

Repeat this step for the front left wheel arch liner.





Install front right wheel arch liner in the original position.

- Install and tighten the 2 screws.
- Install the 2 fasteners.
- Install the engine undershield (see TOPIx Workshop Manual section 501-02: Front End Body Panels Removal and Installation Engine Undershield).
- Lower the vehicle (see TOPIx Workshop Manual section 100-02: Jacking and Lifting Description and Operation Jacking and Lifting).