



Technical Service Bulletin

51 Cracking noises in right rear roof area during steering thrust

51 20 14 2060145/1 July 24, 2020.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
Q8,	2019 - 2020	All	Not Applicable
RSQ8	2020	All	Not Applicable

Condition

Customer states:

- They hear a noise specifically in the right rear roof area of the cabin with an abrupt steering thrust or when the vehicle is flexed.
- The noise is characterized as a 'cracking' or 'snap' type of noise.

Workshop findings:

- The noise is diagnosed as being from the right rear-most area of the sunroof opening, specifically in the roof structure.

Technical Background

The current structural tolerances between the roof panel and the roof support sheet metal can generate these noises intermittently under driving conditions that cause the body to flex such as during an acute steering maneuver.

Production Solution

Not applicable.



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Service



Note:

Ask the customer if they could duplicate the symptom by accompanying them for a test drive. If the noise cannot be duplicated during a test drive with the customer do not perform the repair in this TSB. Be certain that the noise type and location is clearly attributable to the issue described in the *Technical Background* in this TSB. The following work procedure must only be carried out if the symptom described has been duplicated and the source of the noise is as described in the *Technical Background*.

In spite of the noise source coming from the right rear of the sunroof opening, the following work procedure is to be performed to the corresponding side on the left rear-most area of the sunroof opening as well.

1. Remove the headliner and sliding sunroof assembly. Figure 1 shows the area to be reworked in the rear of the sunroof opening, beginning with the right rear.



Figure 1. Right rear area of sunroof opening to be reworked.

2. A 10 mm diameter hole is to be drilled in the spot marked with the red dot shown in Figure 2.



Figure 2. The red dot shows the location of the 10 mm hole to be drilled.



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Note:

The penetration depth of the drill bit must not exceed 3 mm. If this depth is exceeded irreparable damage can be done to the roof structure requiring replacement.

3. There are a number of methods for limiting the drill depth. Among them is the use of a drill bit depth stop (Figure 3).



Figure 3. 10 mm drill bit with a depth stop installed.

4. Drill the 10 mm hole no deeper than 3 mm (Figure 4). Make certain to contain the drilling shavings so they can be removed from the cabin.



Figure 4. Drilling the 10 mm hole.



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5. Figure 5 shows the drilled hole.



Figure 5. Hole drilled.

6. 2K insert foam D 506 KD1 A3 – or- D 506 KD1 A4 will be needed for the rework procedure. Shake the can for two full minutes plus an additional 20 shakes to ensure a homogenized mixture (Figure 6).



Figure 6. Foam to be used in the rework procedure.



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7. The canister must be held vertically with the nozzle pointing down whenever the foam is ejected. Before injecting the foam the nozzle and tube must be purged of air released (Figure 7). Blow out about a 20 cm stream of foam.

Remember to hold the can vertically with the nozzle pointing down. When the trigger is fully pulled, about 0.25 liters of foam is ejected per second. The foam will expand up to 100%.



Figure 7. Purging air from the nozzle in preparation of the cavity fill.

8. The shaded area in Figure 8 is the area on each side where the foam is to be injected. To do this the foam must fill the cavity by first inserting the hose in the 'B' direction to a length of 2 cm, then inserted in the 'A' direction 3 – 4 cm and filling for 1 full second of trigger activation per hose direction shown in Figure 8. This should fill the area with the appropriate volume. Do not exceed 1 full second of trigger pulse per fill as the volume of foam injected will be too great.

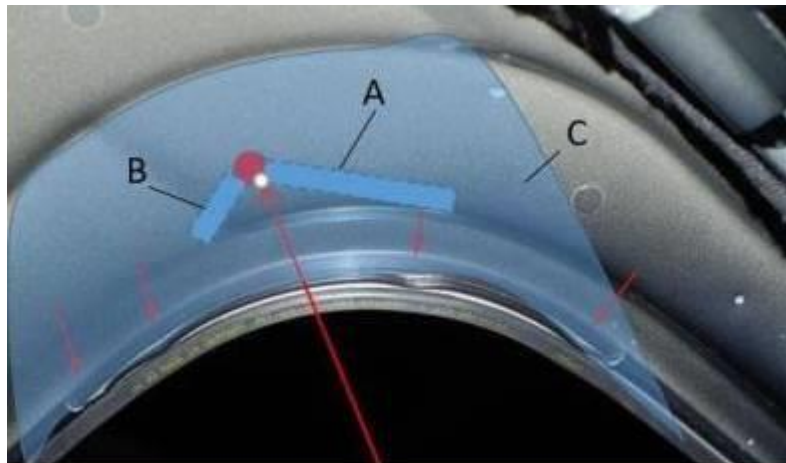
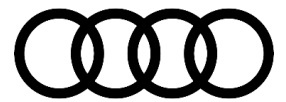


Figure 8. Foam nozzle hose positioning and cavity fill area.



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9. Figure 9 illustrates the hose as it will be inserted in the 'B' direction.



Figure 9. Hose insertion simulation in the 'B' direction.

10. Figure 10 illustrates the hose as it will be inserted in the 'A' direction.



Figure 10. Hose insertion simulation in the 'A' direction.



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11. Fill the cavity (Figure 11).



Figure 11. Filling the cavity with foam.

12. Cavity filled with the correct volume of foam (Figure 12). Allow the foam to cure for 12 hours.



Figure 12. A filled cavity.

Again, perform this procedure to both rear corners. Test drive the vehicle thoroughly and ensure that the noises have been eliminated.



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Remember to set the sunroof panel and rollershade end stop adaptation after reassembly using the sunroof panel and rollershade switches. Refer to TSB 2054505: *60 Sunroof glass panel or sunroof rollershade do not operate* for instructions.

Warranty


Claim Type:	<ul style="list-style-type: none">• 110 up to 48 Months/50,000 Miles.• If the vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	5103		
Damage Code:	0020		
Labor Operations:	Headliner remove and reinstall	7084 1900	See SRT with associated operations
	Sunroof frame remove and reinstall	6028 1950	See SRT with associated operations
	Perform roof rework	5103 9999	30 TU
Diagnostic Time:	GFF	No allowance	0 TU
	Road test prior to the service procedure	0121 0002	10 TU
	Road test after the service procedure	0121 0004	10 TU
Claim Comment:	As per TSB #2060145/1		

All warranty claims submitted for payment must be in accordance with the *Audi Warranty Policies and Procedures Manual*. Claims are subject to review or audit by Audi Warranty.



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Required Parts and Tools

Always check with your Parts Department and/or ETKA for the latest information and parts bulletins.		
Part Number	Part Description	Quantity
D 506KD1A3 Or D 506KD1A4	 2K-Insert Foam	01
See ETKA	Fasteners, Bolts, Nuts, and Screws as needed per the Repair Manual	See ETKA/ELSA

Additional Information

The following Technical Service Bulletin(s) will be necessary to complete this procedure:

- TSB 2054505, *60 Sunroof glass panel or sunroof rollershade do not operate.*

All parts and service references provided in this TSB (2060145) are subject to change and/or removal.

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