Technical Service Bulletin

50 Creaking noises heard when body twists during braking or steering maneuvers - A6 and A7

50 20 04 2061716/1 December 17, 2020.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A6, A7, S6, and S7	2014 - 2018	All	Not Applicable
RS 7	2016 - 2018	All	Not Applicable

Condition

Customer states:

- A creaking type noise is heard in the floor area.
- The noise can be generated during strong braking or steering maneuvers where the vehicle body is twisted.

Workshop findings:

- Diagnosis locates the source of the noise from the floor area specifically radiating from the footwell to the area under the seat.

Technical Background

During a cornering or hard braking maneuver the longitudinal members can make contact with their internal support plates.

Production Solution

None. The production period for the models covered in this TSB has ended.

Service

Note:

While the following procedure can be performed in a standard workshop setting it may be preferable to complete this operation at an authorized Audi Collision Center as it requires specific training, equipment and materials that would be more accessible in such a facility.

1. Duplicate the noise on a test drive preferably with the customer so that the conditions under which this symptom presents are clearly identified.

If this noise is duplicated on the test drive confirmation that the source of the noise is from the longitudinal member and that the repair described in this TSB will be effective can be achieved as follows.

2. Begin your diagnosis by loosening the front most bolt on the subframe mounting as indicated in Figure 1. The bolt only needs to be loosened several turns but not removed.

Figure 1. *Front most bolt on subframe to be loosened.*

Note:

As specified in the repair manual, it is necessary to replace all loosened subframe bolts at the conclusion of the entire repair.

3. In many cases an audible 'cracking' noise can be heard in the course of loosening and tightening the subframe bolt (Figure 2).

Figure 2. *Loosening the front most subframe bolt*

4. Test drive the vehicle. If no change or elimination of the noise is achieved during this diagnostic step, the repair in this TSB will not be effective and diagnosis must continue outside the scope of this repair procedure. If the noise characteristics do, in fact, change or if the noise is eliminated proceed as follows.

5. Duplication of this noise is difficult when the vehicle is cold. If you suspect that the cold is preventing duplication of this symptom warm up the longitudinal member/body in the area of the rear transverse link bolted connection with a hot air blower set for an outlet temp of approximately 550 °C (Figure 3).

Figure 3. *Warming the area of the body near the rear transverse link.*

6. Warm the surface to approximately 65 °C (Figure 4).

Figure 4. *Surface temperature warmed to 65° C.*

7. Allow the surface temperature to cool to approximately 30 °C then test drive the vehicle again (Figure 5).

Figure 5. *Surface temperature cooled to approximately 30° C.*

8. Merely lowering the vehicle from the hoist can immediately elicit the noise symptom after this warming process.

   Remove the subframe. Thread in a bolt partially and lock it with a nut as shown in Figure 6.

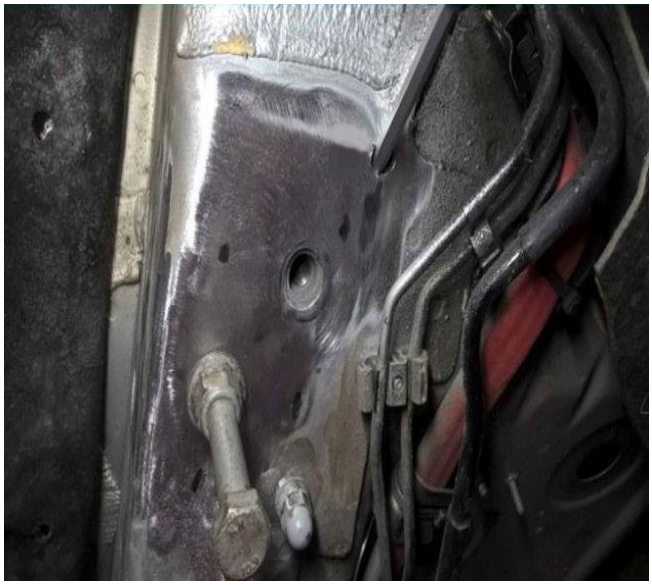

Figure 6. *Bolt and nut installation.*

9. Fit a pipe with an inside diameter larger than the bolt and move it side to side (Figure 7). It should be possible to reproduce the noise using this method.

Figure 7. *Attempt to move not plate to elicit noise.*

10. Scribe a diagonal line through the center of each threaded hole. Drill a hole with a diameter of 10 mm into the longitudinal member 47 mm from the center of the outer threaded hole (Figure 8).

Figure 8. *Measuring for the hole's location.*

11. Figure 9 shows the dimensions over a drawing.

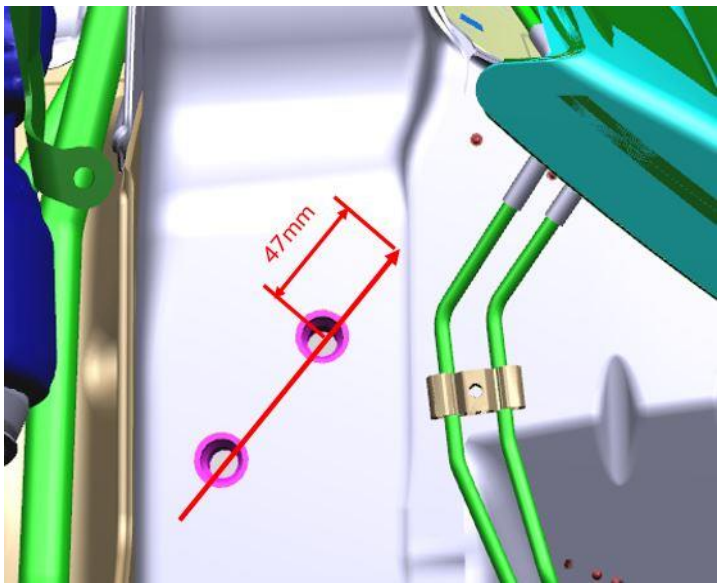

Figure 9. *Dimensions on drawing.*

12. Figure 10 shows the dimensions over a cut away drawing exposing the threaded plate that will be modified.

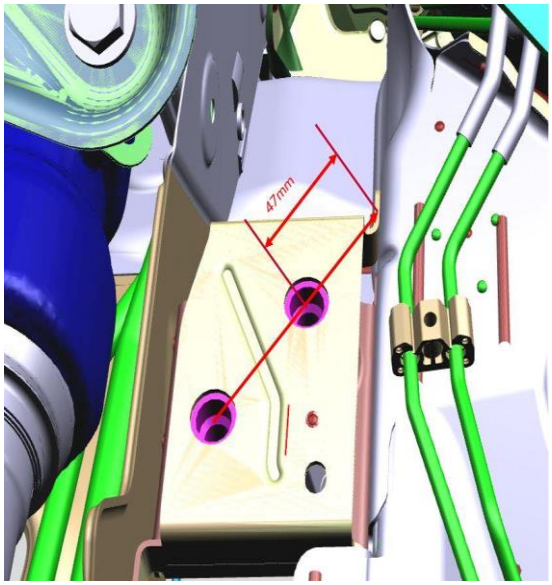

Figure 10. *Cut-away view.*

13. Figure 11 shows the 10mm hole drilled.

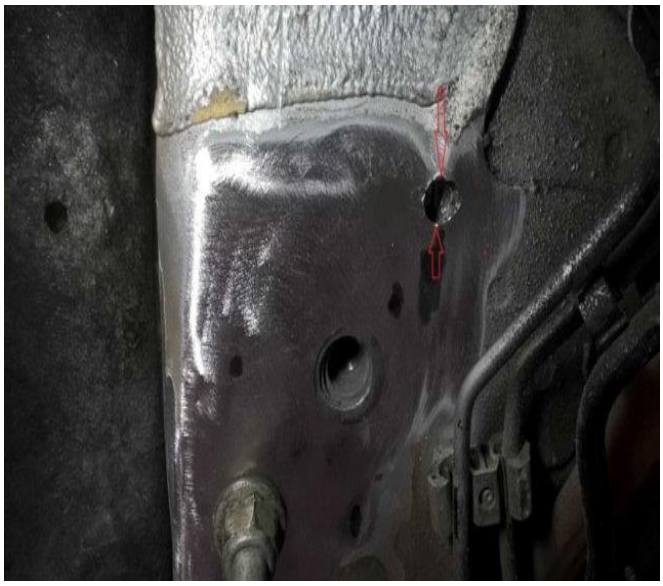

Figure 11. *Access hole drilled in correct location.*

14. The arrow in Figure 12 shows a lip that will need to be bent with a punch in order to achieve a gap between this lip and the nut plate.

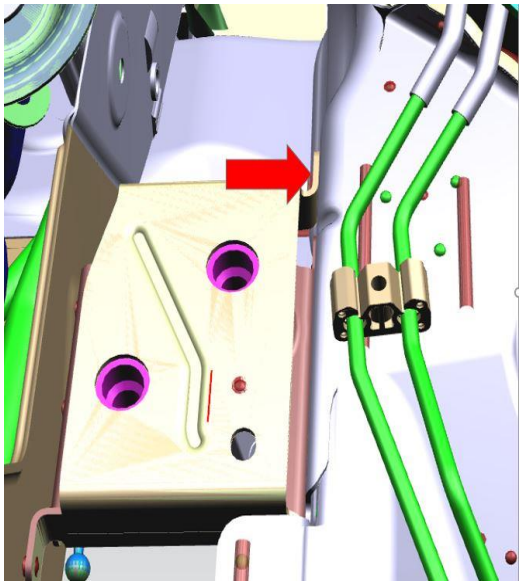

Figure 12. *Cut-away drawing showing longitudinal member structure.*

15. Guide a punch with a diameter less than 10mm through the drilled hole until it rests against the nut plate. Strike the punch moving the nut plate enough to create a gap between the nut plate and the lip in the longitudinal member (Figure 13).

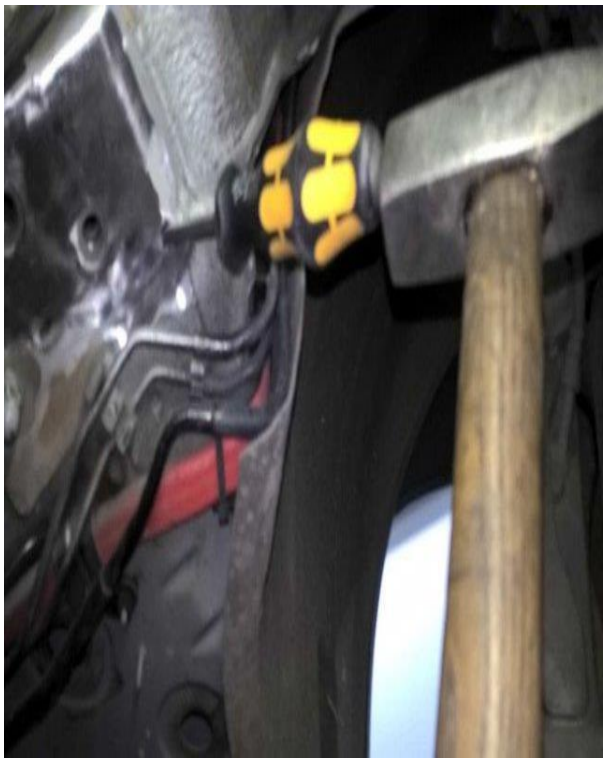

Figure 13. *Striking the punch on the nut plate.*

16. Figure 14 shows the correct positioning of the punch.

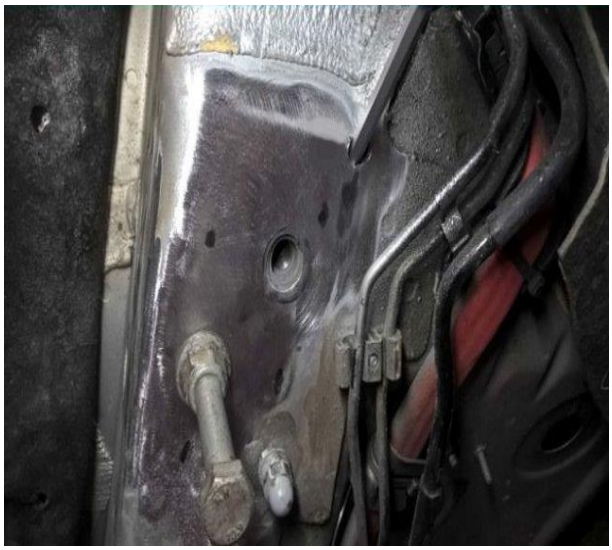

Figure 14. *Correct punch positioning.*

17. Through the drilled hole visually confirm that a gap has now been created between the lip in the longitudinal member and the nut plate (Figure 15).

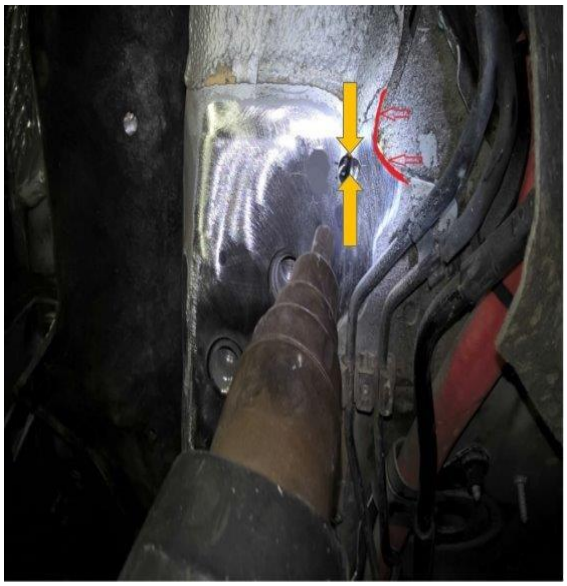

Figure 15. *Gap will be visually apparent through the access hole.*

18. Again, fit a pipe over the bolt and repeat the previous diagnostic step to ensure that the noise can no longer be reproduced (Figure 16).

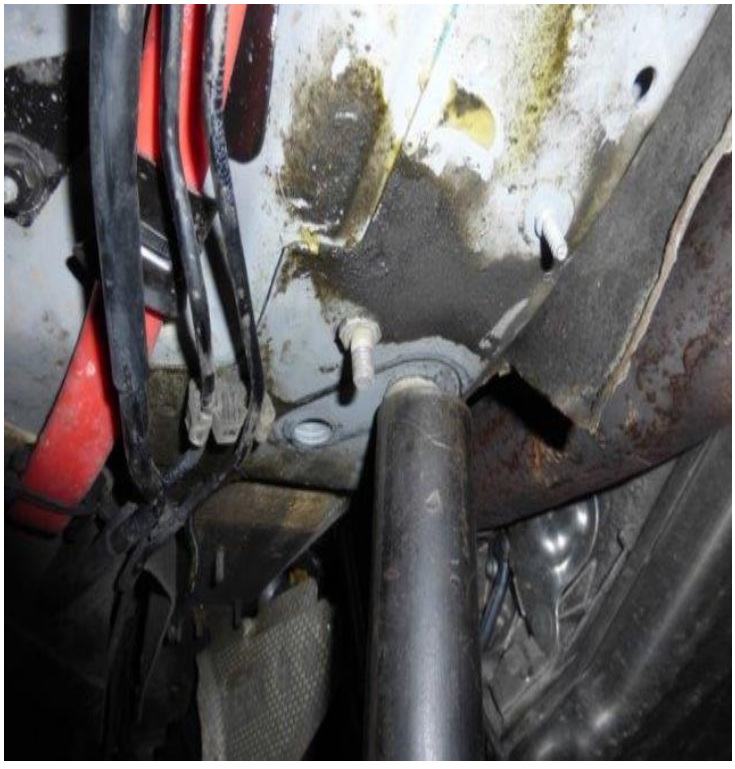

Figure 16. *Confirm repair efficacy.*

19. The drilled hole must be welded closed (Figure 17).

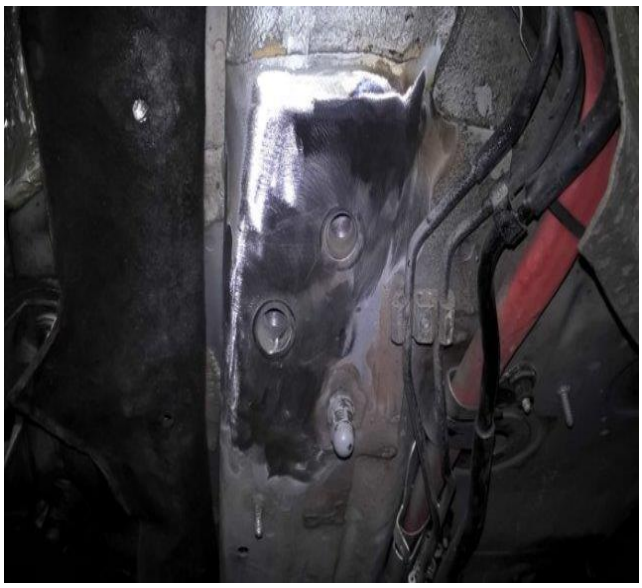

Figure 17. *Weld drilled hole closed.*

20. All corrosion protection must be restored to the modified area using 2k wash primer and filler as necessary. Conservation wax must be applied to the inside of the longitudinal member as well using **D 032M16M2** with a VAG 1379, VAG 1538 or alternative generic sprayer (Figure 18).

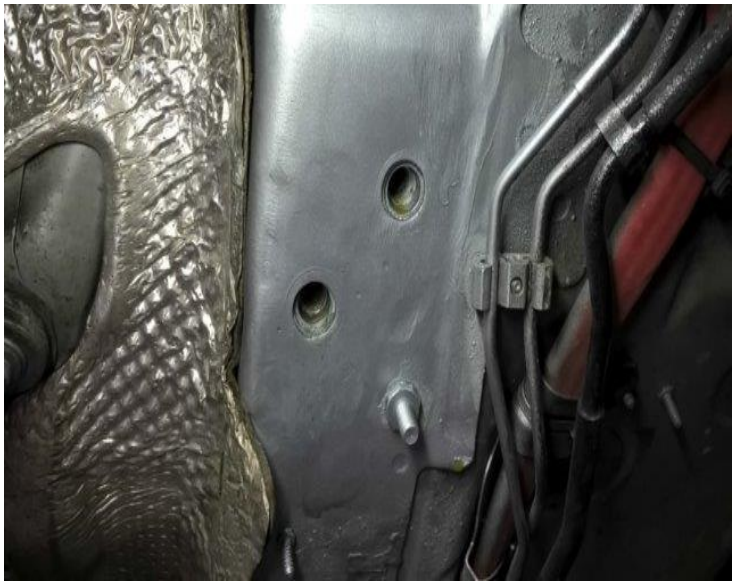

Figure 18. *Corrosion protection restored.*

21. Reinstall the subframe. Replace the removed subframe bolts as specified in the repair manual.

22. Perform a final test drive to confirm elimination of the noise by duplicating the driving conditions specified by the customer. Ensure that the noise has been eliminated to the customer's satisfaction by driving with the customer at the time they take possession of the vehicle after repair.

Technical Service Bulletin

Warranty

Claim Type:	• 110 up to 48 Months/50,000 Miles. • If the vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	5079		
Damage Code:	0010		
Labor Operations:	Subframe remove and reinstall	4007 1950	See SRT with associated operations
	Modify longitudinal members (includes metal finishing and restoration of corrosion protection)	5079 9999	160 TU
	Body seal coat cavity	5101 7550	See SRT with associated operations
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 #2061716/1		

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.

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**
See ETKA	Fasteners, Bolts, Nuts, and Screws as needed per the Repair Manual	See ETKA/ELSA

Technical Service Bulletin

D 321M16M2	 Anti-Corrosion Wax	0.3

Tool Number	Tool Description
VAG 1379 (or alternative generic sprayer)	 Spray Gun
VAG 1538 (or alternative generic sprayer)	 Suction Feed Spray Gun

Technical Service Bulletin

Additional Information

All parts and service references provided in this TSB (2061716) are subject to change and/or removal.