



Body Repairs **Audi A3 Cabriolet 2015 ➤** Edition 12.2018

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Repair Group overview for Body Repairs

Repair Group

00 - Technical data

50 - Body - front

51 - Body - centre

53 - Body - rear



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Technical information should always be available to the foremen and mechanics, because their careful and constant adherence to the instructions is essential to ensure vehicle road-worthiness and safety. In addition, the normal basic safety precautions for working on motor vehicles must, as a matter of course, be observed.



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00 – Technical data

1 Vehicle identification data

(AKI000267; Edition 12.2018)

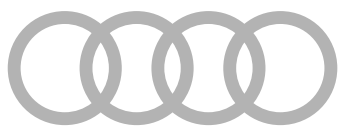
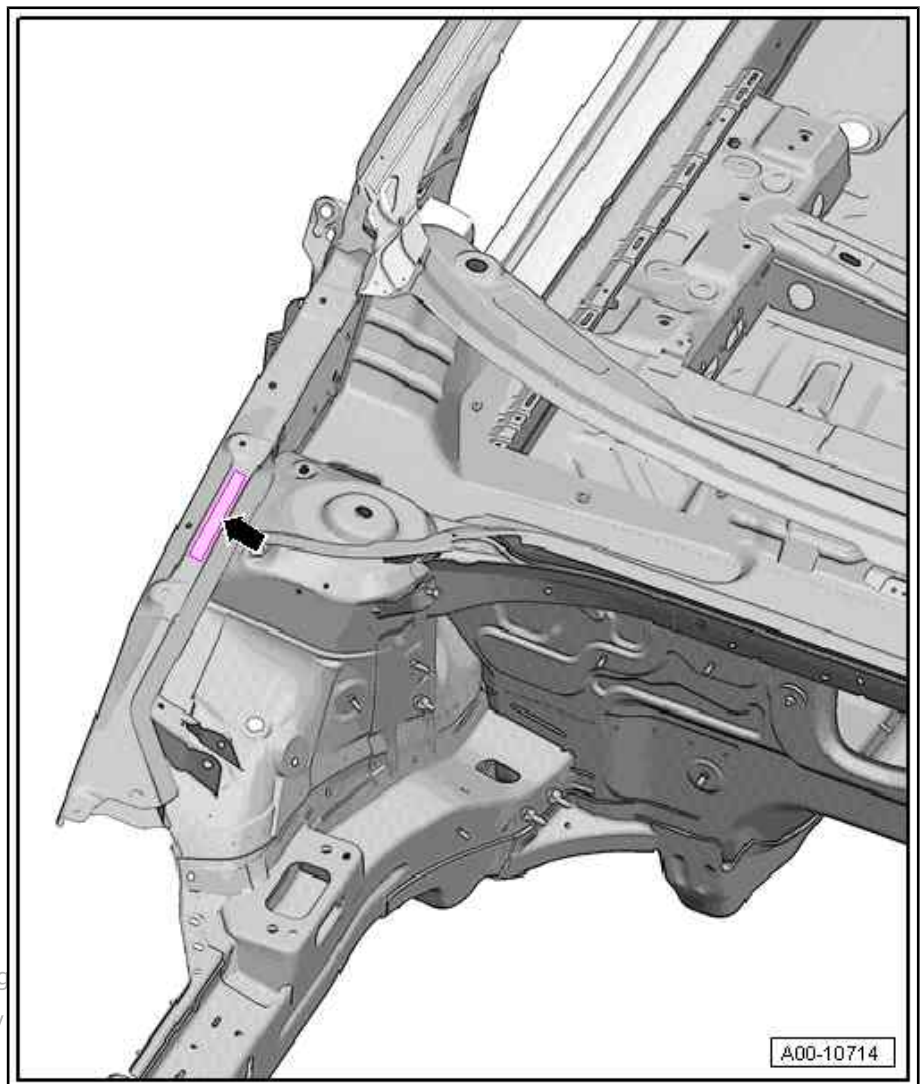
1.1 Vehicle identification number



Note

If the upper longitudinal member is renewed, the repairs must be documented according to the relevant national legislation.

The vehicle identification number (chassis number) -arrow- is located on the upper longitudinal member on the right side in the direction of travel.



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NOTICE

If a component with the vehicle identification number is renewed due to damage, the repairs must be documented according to the market-specific legislation.

Please make sure to comply with the market-specific legislation when renewing a component with the vehicle identification number.

Before installing the new component, stamp the vehicle identification number on using stamped numbers - VAS 6939- and punched letters - VAS 6940- .

1.2 Type plate

The type plate is located on the passenger-side door pillar. Vehicles for certain export countries have no type plate.

1.3 Vehicle data sticker

The vehicle data sticker is located in the spare wheel well under the luggage compartment floor (left-side in direction of travel).

SORT.NR.			
FAHRZG.-IDENT-NR. VEHICLE-IDENT-NO.			
TYP/TYPE			
MOTORKB./GETR.KB			
ENG.CODE/TRANS.CODE			
LACKNR./INNENAUSST.			
PAINT NO./INTERIOR			
M.-AUSST/ OPTIONS			
V53-1283			



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2 Important notes

This Manual describes only selected repair operations. Where repair operations are not described: separate original joint and repair with replacement panel. Repairs requiring a method different from that used in production are described specifically.

Where sub-parts are available for a repair, they should be matched up and butt-welded in place (SG continuous seam), unless otherwise described.

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3 Safety precautions

Always use an extraction system when performing welding and grinding operations.

Welding and grinding must never be performed simultaneously in the same working area.

Working area must be cleaned at regular intervals as necessary to remove dust.

Compressed air must NOT be used to blow out dust deposits.

The extraction system must be cleaned at regular intervals.

In addition, the relevant country-specific accident prevention and industrial safety regulations must be observed.



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4 Galvanised body panels, high-strength and extra-high strength steel



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Repairs must always be made according to the manufacturer's instructions in the respective Workshop Manual. Ultra-high-strength and hot-formed steel body panels may only be repaired using modern inverter technology, otherwise maximum occupant protection will not be achieved after repairs. Hot-stamped steel panels are used in areas under extreme loading. These panels offer significantly greater strength than conventional high-strength panels for less weight.



Note

- ◆ *For lightweight construction, Audi employs several different types of steel: soft steel, high-strength steel, modern high-strength steel, ultra-high strength steel and hot-formed ultra-high strength steel.*
- ◆ *Cutting and joining of these components by butt welding is only permissible at the specified locations. There is a stipulated repair method for this repair work.*
- ◆ *Spot welding is only permissible using resistance spot welders approved by AUDI AG.*

The body of the vehicle is predominantly manufactured from galvanised steel panels.

The following illustrations show the various types of steel in different colours, ranging from soft steel to hot-formed steel (see table below).



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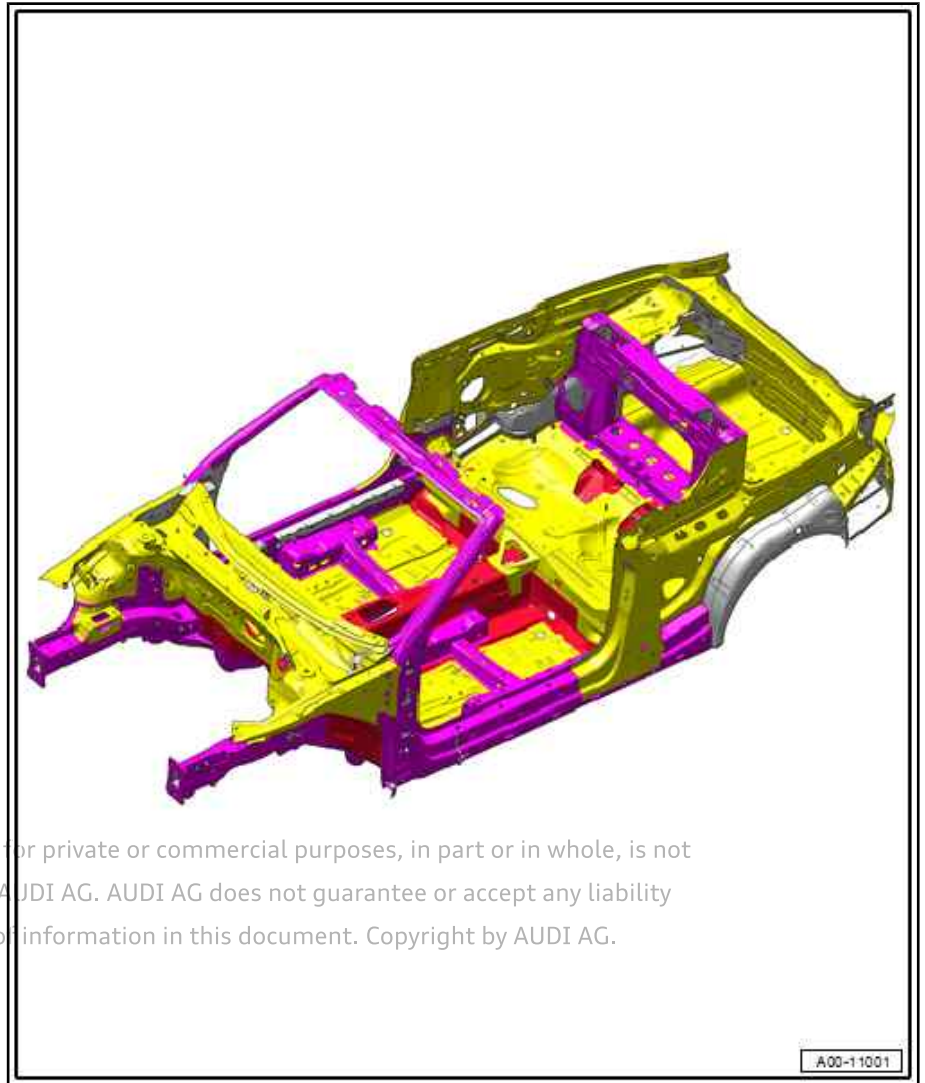
N00-10676

	Colour	Type of steel	Tensile strength / minimum yield strength in MPa
1	Grey	Soft	< 350
2	Yellow	High-strength steel	300 - 590
3	Magenta	Modern high-strength steel	500 - 980
4	Blue	Ultra-high-strength steel	980 - 1150
5	Red	Ultra-high-strength steel (hot-formed)	> 1400

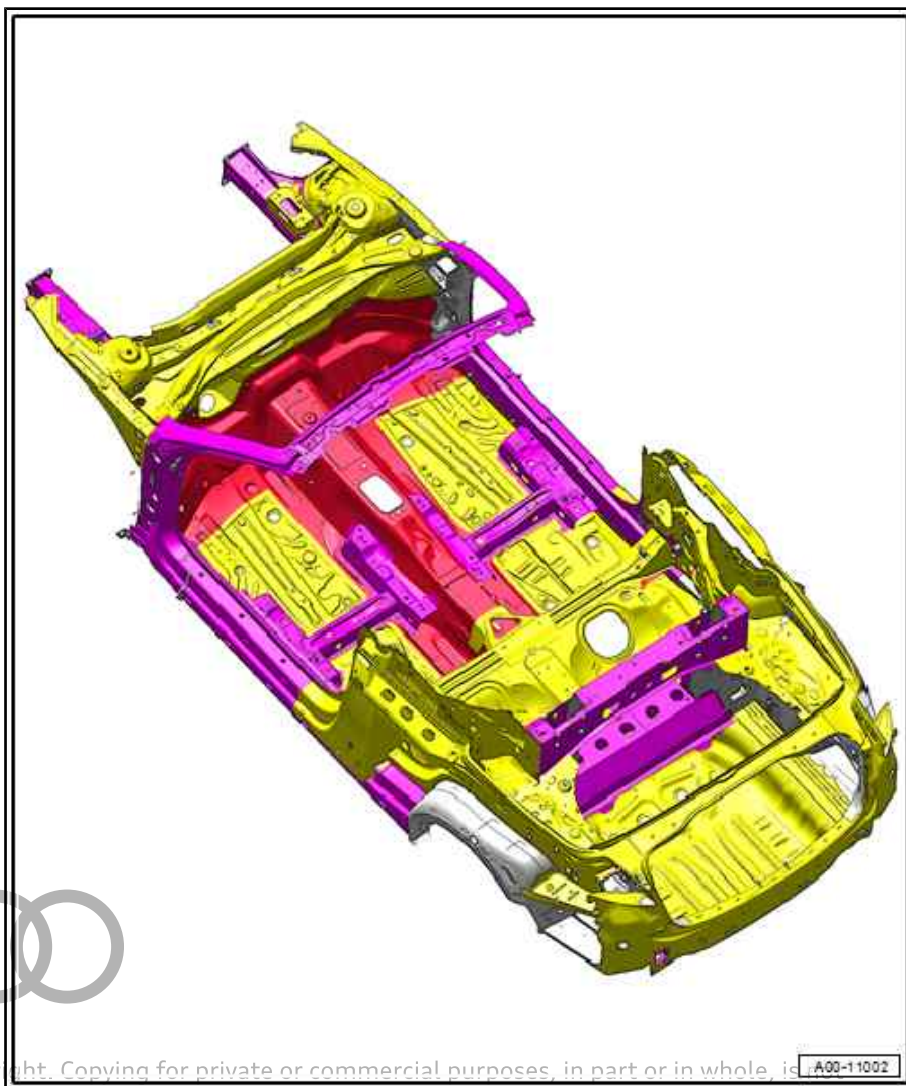
The outer side panel and roof are removed to give a clearer illustration. These panels consist of »normal« sheet metal.



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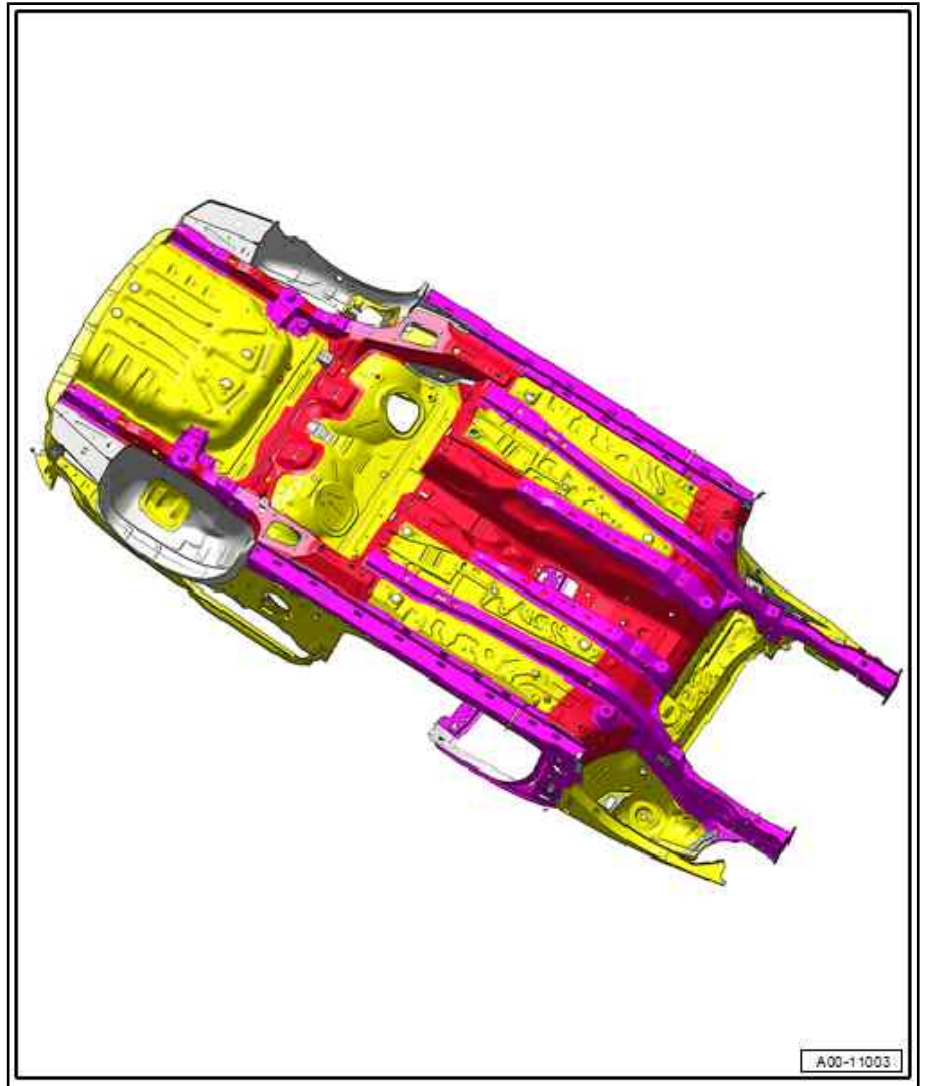


The outer side panel is removed to give a clearer illustration.
These panels consist of »normal« sheet metal.



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The outer side panel is removed to give a clearer illustration. These panels consist of »normal« sheet metal.



4.1 Aluminium panels

The hang-on parts of this vehicle are made of aluminium.



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1



2



3



4



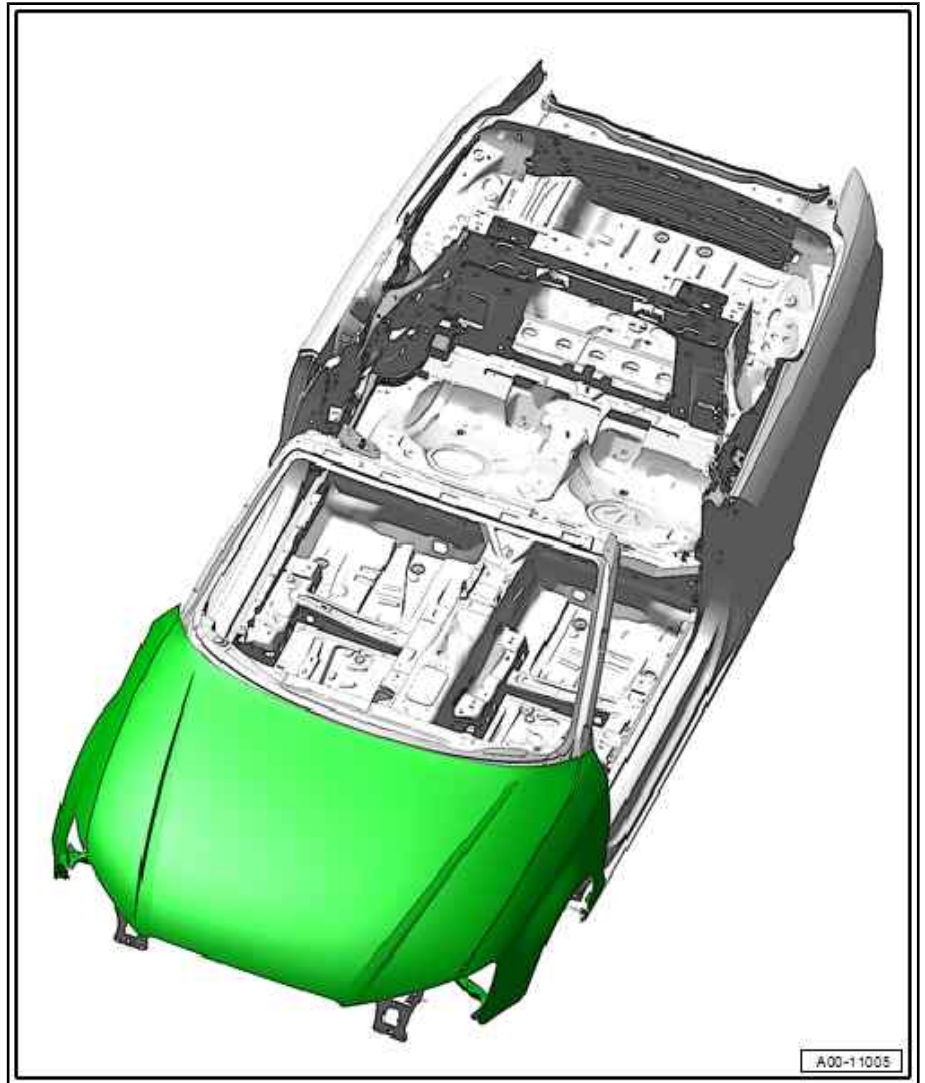
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A00-10518

	Colour	Aluminium
1	Green	Aluminium sheet panels
2	Blue	Aluminium extrusions
3	Brown	Cast aluminium profiles

Audi A3 Cabriolet



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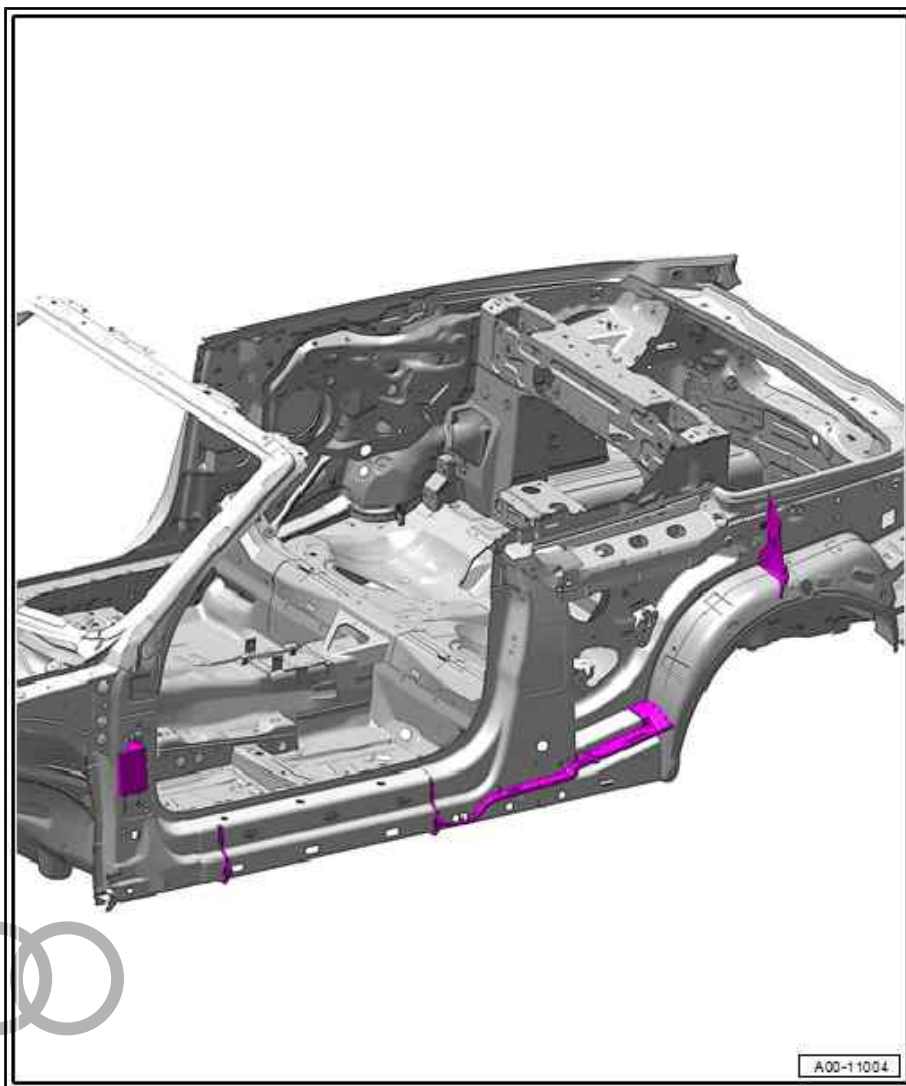


5 Moulded foam inserts

On this vehicle, various body cavities are fitted with moulded foam inserts.

The foam inserts reduce the noise transmitted to the interior when driving.

These pre-moulded parts are fitted during body manufacture and subsequently increase their volume in the paint shop drying oven at approx. 180 °C after priming.



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CAUTION

The moulded foam inserts expand only after reaching approx. 180 °C. For this reason, a 2-component filler foam is used when performing repairs.

The material required for workshop repairs is 2-component filler foam - D 506 KD1 A3 - .

Since the temperature necessary for the foam inserts to expand cannot be achieved under normal workshop conditions, proceed as follows:



Remove residue of foam material on vehicle.

Restore paint coating; apply two coats (wet on wet) of glass/paint primer - D 009 200 02- if necessary, flash-off time approx. 10 minutes.

Requirement

Before continuing with this procedure, ensure that the replacement panel is ready for installation, i.e. cut to shape, matched up to the vehicle, corrosion protection applied.

Renewing moulded foam insert

Fix moulded foam insert to vehicle.

Apply 2-component filler foam -D 506 KD1 A3- to replacement part.

Secure the new part in position, gently pressing in the new part in the area of the moulded foam insert, and weld in.

The foam hardens within 25 minutes.

Do not weld (SG) within 15 mm of the foam insert (on either side).

After painting the vehicle the repaired area must be cavity-sealed.



6 Laser welding

The laser welding technique employs a high-energy light beam directed onto the weld by means of optical lenses or fibre optics.

During the welding process the upper panel is fused onto the partially molten lower panel, creating a weld joint with no additional material.

When performing repairs, the laser weld seams are replaced by SG plug weld seams or RP spot weld seams.



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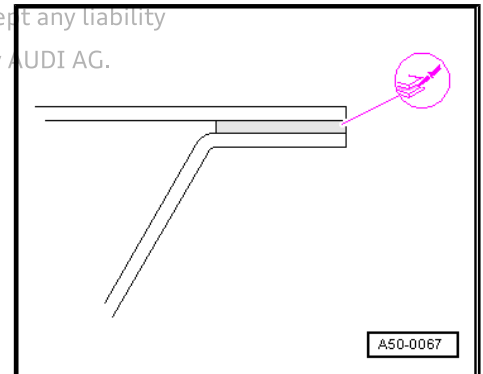
7 Bonded joints

The body of the Audi A3 features bonded joints and spot-welded bonded joints for increased rigidity and strength.

7.1 Bonded joints

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In the case of adhesive-bonded joints, the joint between the sheet metal parts is formed only by the adhesive.



7.2 Inspecting and repairing bonded joints

Particular attention should be given to these joints when diagnosing accident damage and performing body repairs.

Note the following points: Do not use a chisel to test the strength of a joint or relieve stresses by hammering as this will cause irreparable damage to the bonded joint.

These joints should be inspected particularly closely when diagnosing accident damage and after performing straightening work on the body.

If the joint is not accessible with pop rivets, it must be repaired with an arc-welded seam (SG). In this case the complete area must be repaired as the heat generated by welding destroys the adhesive joint. The SG seams should be welded working from the thin to the thick panel. Always use a fume extractor.



8 Repair methods for replacing body parts

When making repairs, welded joints can be used in place of all spot-welded bonded joints and certain bonded joints if no suitable body adhesive is available.

Do not make the repair with only the same spot welds or seams as originally used in production. These alone are not adequate for a proper joint.

The repair methods are shown in detail on the following pages.



Note

- ◆ *If the instructions call for additional spot welds, these should be applied in a single operation.*
- ◆ *Do not place new spot welds in-between the original spot welds.*
- ◆ *SG plug welding should only be performed after spot welding.*
- ◆ *This avoids any increased shunt current when spot welding.*

Ensure good root penetration at all joints.

Seal off repaired joint flanges and apply cavity sealing.



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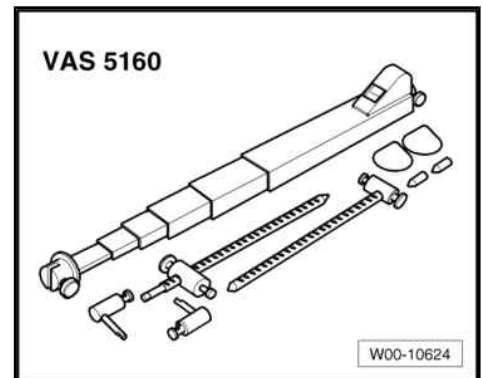


9 Body dimensions



Note

- ◆ Dimensions are only given for checking purposes. Correct dimensions are defined by the alignment bracket set.
- ◆ Bolts, screws, plugs, trim panels and attached components must be removed before starting the measuring process.
- ◆ The body dimensions should be measured using the telescopic gauge - VAS 5159- or the telescopic gauge - VAS 5160-.
- ◆ To avoid inaccurate measurements, make sure the measuring rods are always of equal length.



Body - front



NOTICE

These dimensions only serve as a check. Correct dimensions are defined by the alignment bracket set.

9.1 Body - front

A - 1345 mm ± 2.0 mm

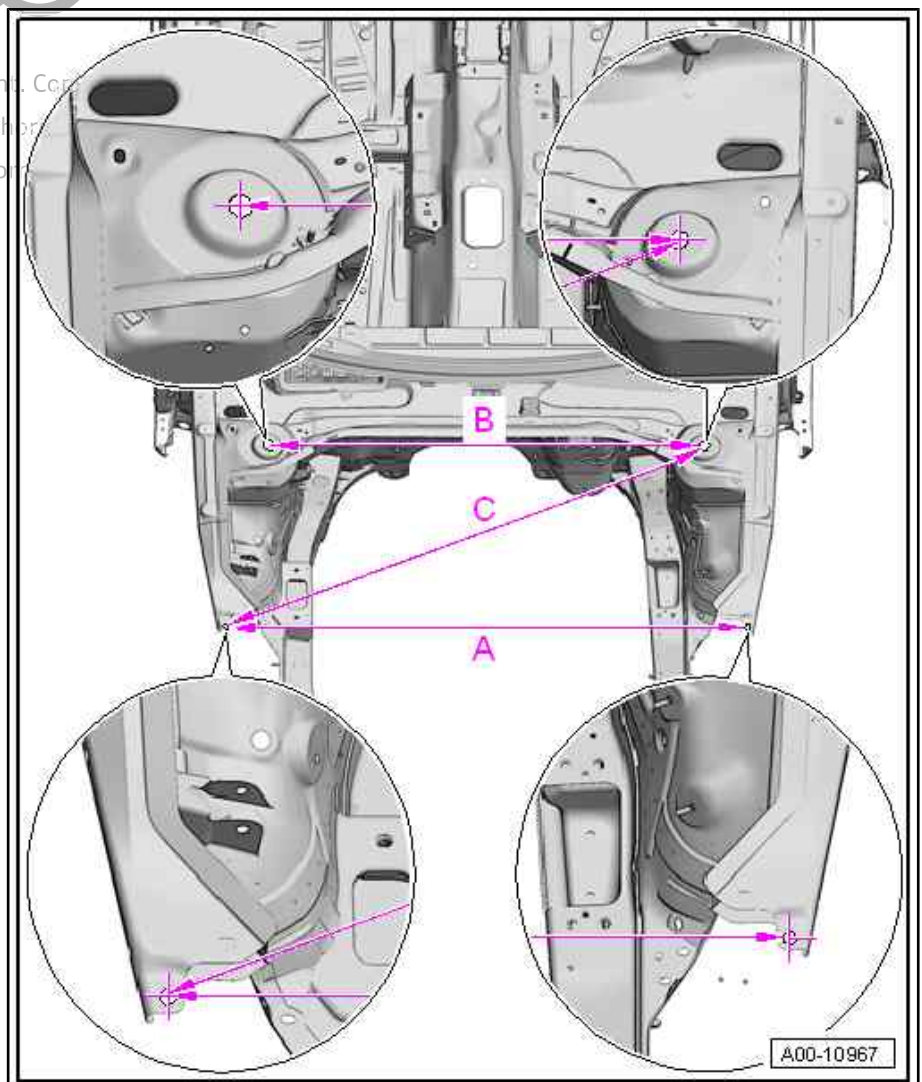
Distance between wing panel mountings

B - 1123 mm ± 2.0 mm

Distance between suspension strut mountings

C - 1326 mm ± 2.0 mm

Diagonal distance between





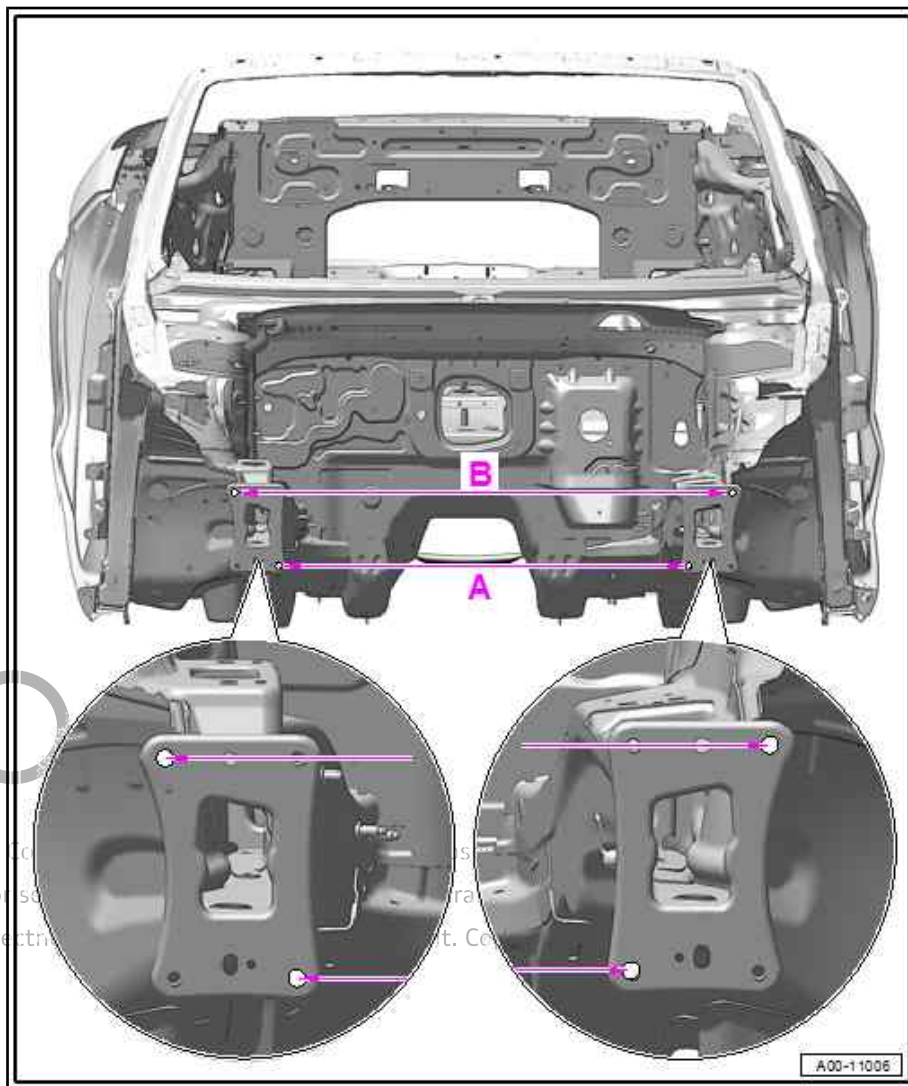
suspension strut mountings

A - 878 mm $\pm$ 2.0 mm

Distance between impact
damper mountings

B - 1072 mm $\pm$ 2.0 mm

Distance between impact
damper mountings



9.2 Body - centre

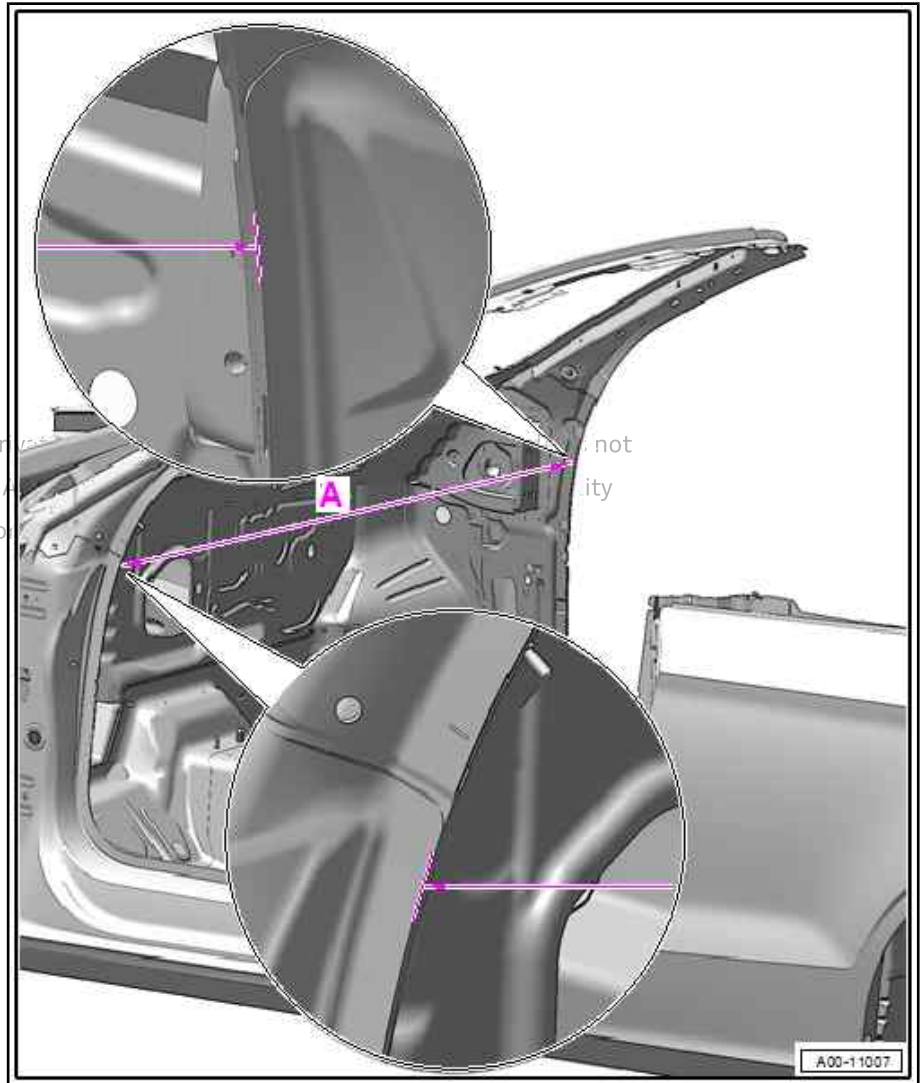
Distance between A-pillars



A - 1407 mm ± 2.0 mm
Distance between A-pillars



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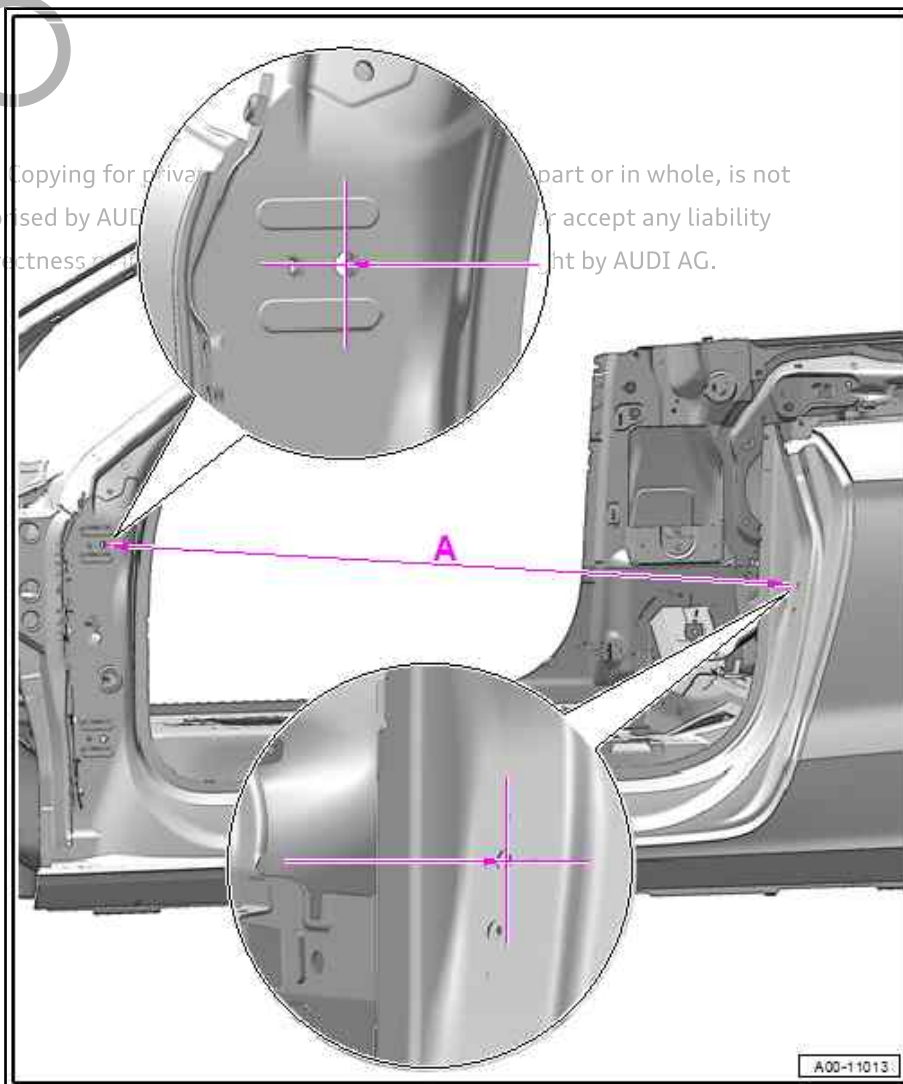
Door opening



A - 1221 mm ± 2.0 mm

Distance between A-pillar and
B-pillar

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9.3 Floor group

A - 874 mm ± 2.0 mm

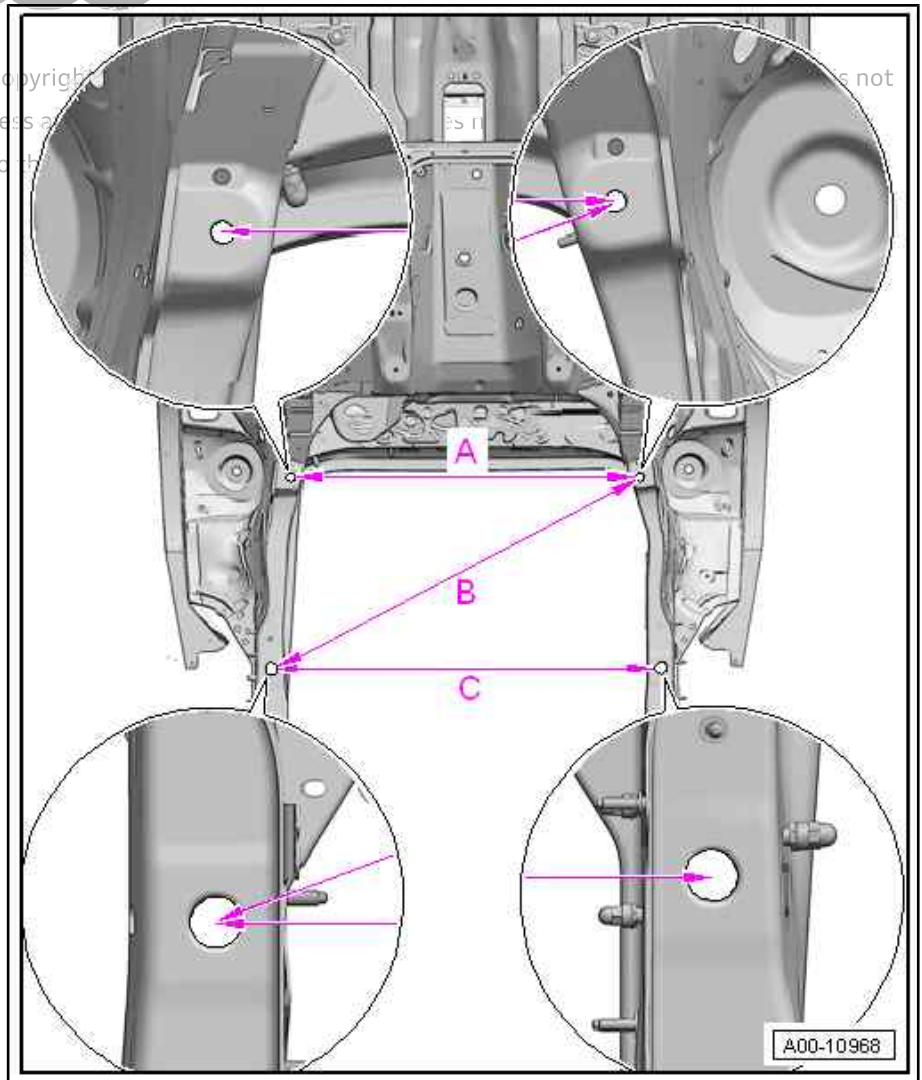
Distance between suspension
strut mountings

B - 1,040 mm ± 2.0 mm

Diagonal distance between
front longitudinal members

C - 970 mm ± 2.0 mm

Distance between front longi-
tudinal members





A - 403 mm ± 2.0 mm

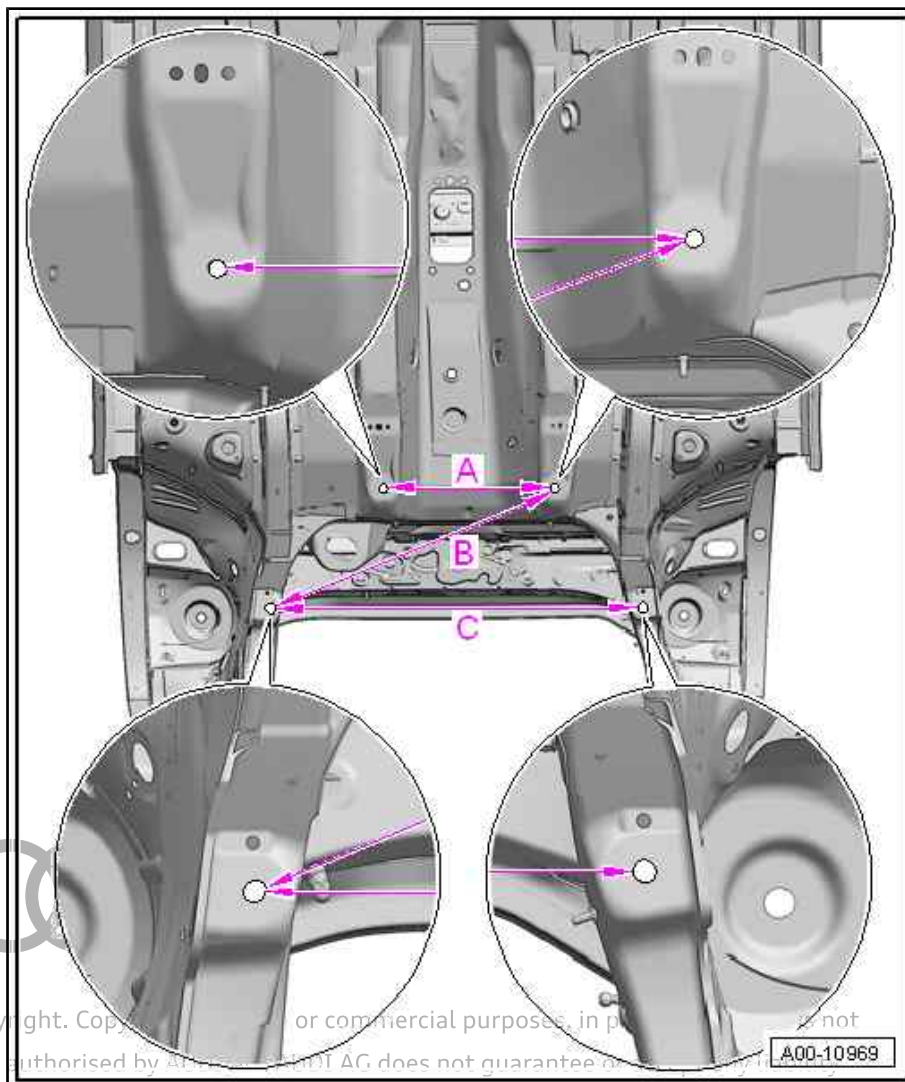
Distance between subframe attachment points

B - 731 mm ± 2.0 mm

Diagonal distance between subframe attachment points

C - 874 mm ± 2.0 mm

Distance between subframe attachment points



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A - 1000 mm ± 2.0 mm

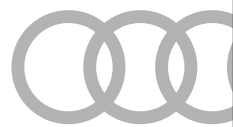
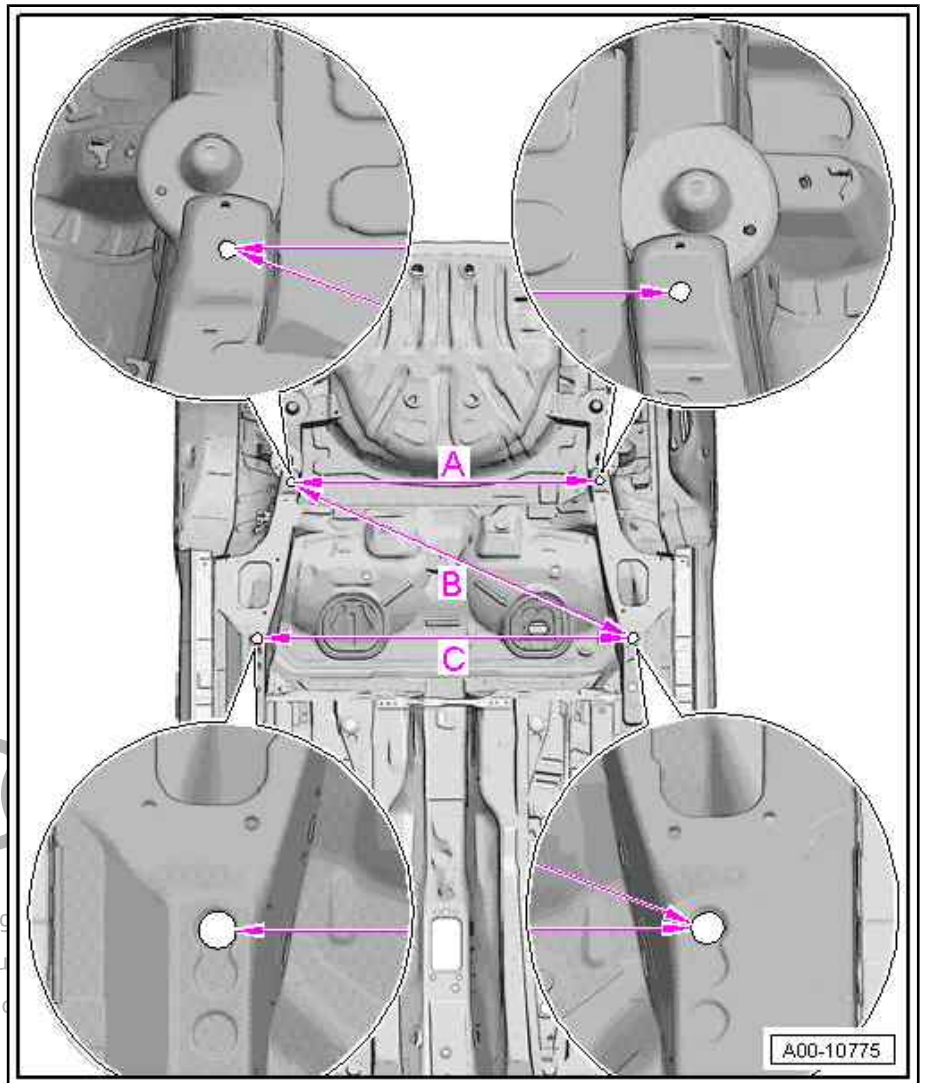
Distance between rear axle mountings

B - 1246 mm ± 2.0 mm

Diagonal distance between longitudinal members and axle mountings

C - 1220 mm ± 2.0 mm

Distance between rear axle mountings



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A - 987 mm ± 2.0 mm

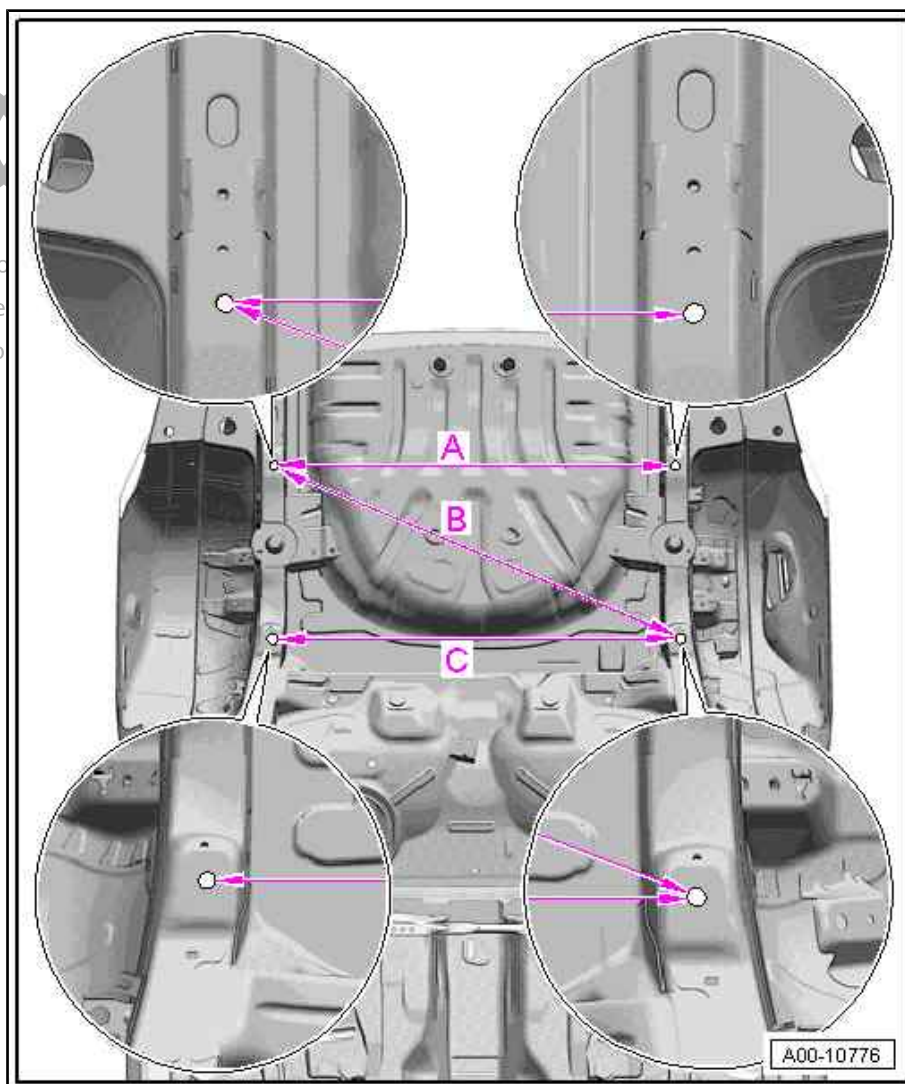
Distance between rear axle
mountings

B - 1085 mm ± 2.0 mm

Diagonal distance between
longitudinal members and axle
mountings

C - 1000 mm ± 2.0 mm

Distance between rear axle
mountings





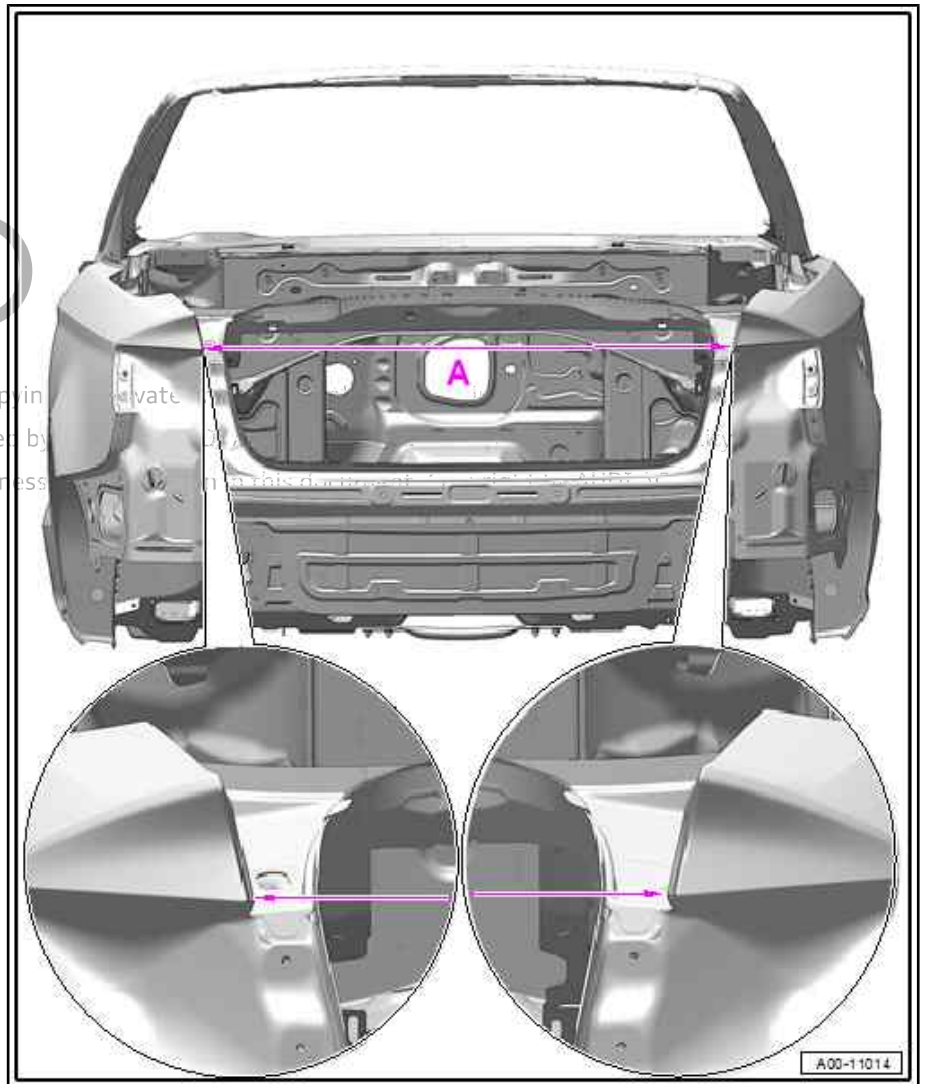
9.4 Body - rear

A - 1138 mm ± 2.0 mm

Distance between side panels



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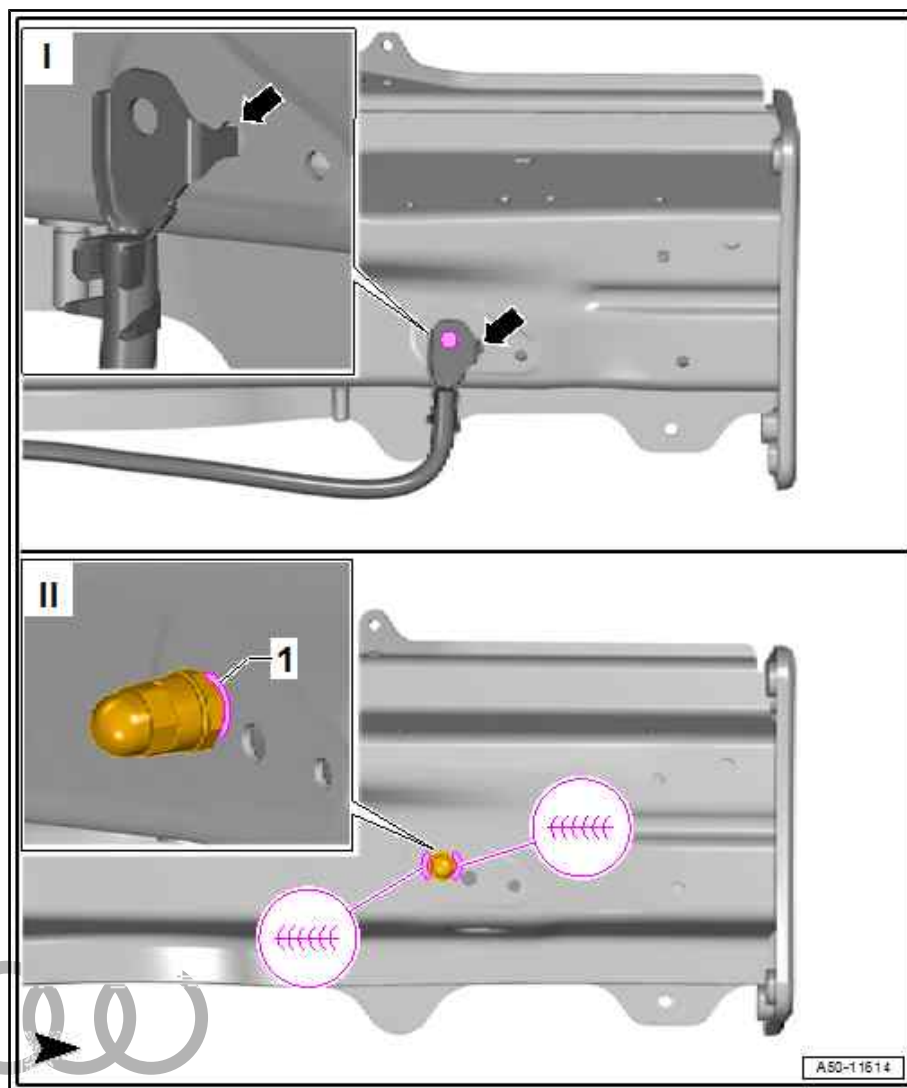


RO: 50 80 55 00

10 Renewing studs

The procedure for renewing weld screws, studs and weld studs with cap nut is described as an example.

This procedure should be used appropriately for all types of studs, screws etc.

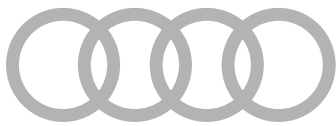


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- Take installation position of stud from old part or mark it using appropriate aids (e.g. earth cable tab -arrow-).
 - Weld stud with 2 weld seams on either side -1- using shielded arc welding equipment : SG continuous seam.
 - To ensure adequate electrical conductivity, the length of the weld seams must be at least 12 mm on each side of the stud.
 - Clean contact surface of stud after welding work is complete.



11 Thread repair for M6 pop rivet nut

If the thread-forming screws WHT 002 605 or WHT 002 612 should fail to hold or are otherwise damaged, the repair screws WHT 006 778 can be used as a substitute. It is then not necessary to drill holes and set the pop rivet nuts.



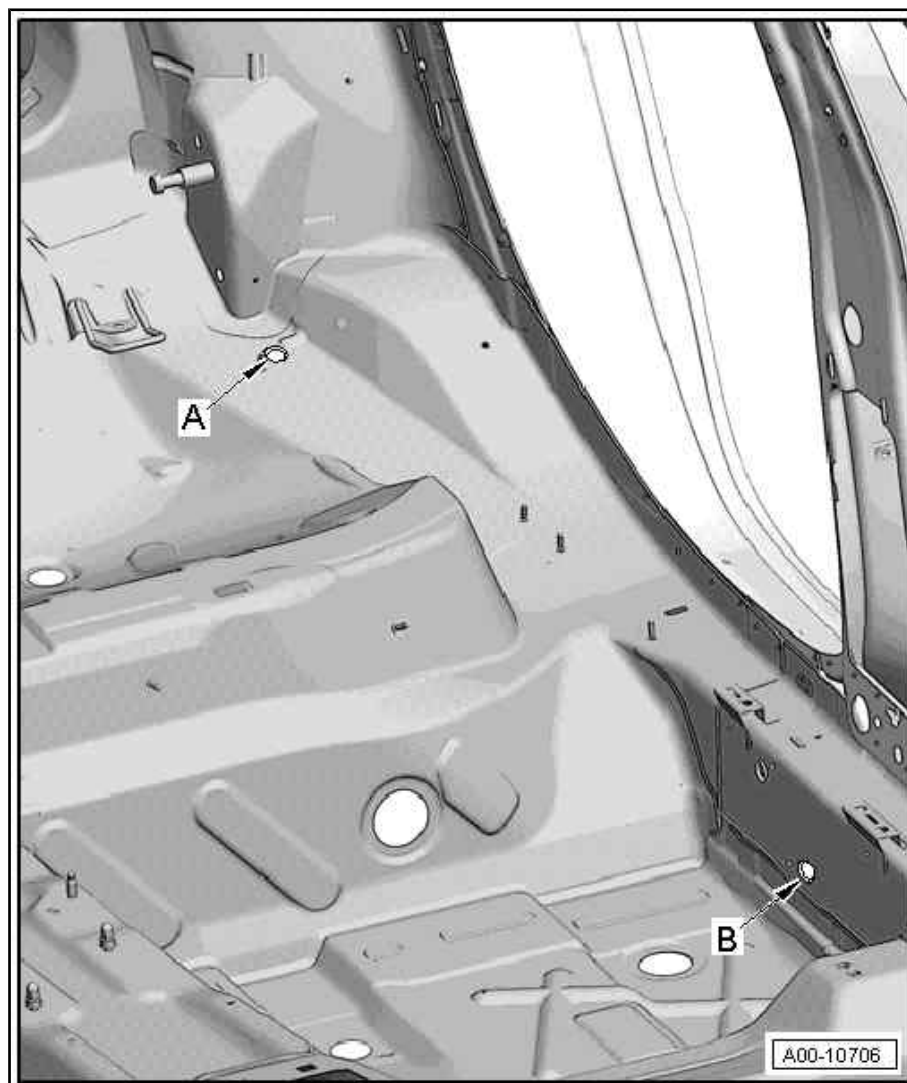
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12 Repairing thread for seat belt anchorage

The procedure for repairing the thread is described in the installation instructions supplied with the repair set for belt anchorage - VAS 6733- .

- The rear seat belt anchorage -A- and the front seat belt anchorage -B- can be repaired with the repair set for belt anchorage - VAS 6733- .



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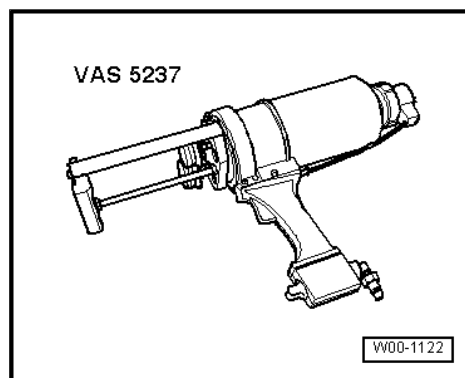
13 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder - VAS 6239 A-
- ◆ Resistance spot welder - VAS 6525-
- ◆ Resistance spot welder - VAS 6530-
- ◆ Resistance spot welder - VAS 6535-
- ◆ Resistance spot welder - VAS 6545-
- ◆ Shielded arc welding equipment - V.A.G 1959 A-
- ◆ Shielded arc welding equipment - VAS 6044 A-
- ◆ Shielded arc welding equipment - VAS 6045 A-
- ◆ MAG welding system, analogue - VAS 6672-
- ◆ MAG welding system, analogue - VAS 6681-
- ◆ Aluminium shielded arc welding equipment - VAS 2001 C-
- ◆ Socket for flow-drill screws - VAS 852 007-
- ◆ Hole finder - VAS 6631-
- ◆ Measuring and alignment system - VAS 6526- , basic
- ◆ Measuring and alignment system - VAS 6527- , professional
- ◆ Measuring and alignment system - VAS 6528- , professional plus
- ◆ Body saw - VAS 882 003-
- ◆ Body saw - VAS 6780-
- ◆ Tin snips - VAS 5356-
- ◆ Tin snips - VAS 5357-
- ◆ Compact angle grinder - VAS 5167 A-
- ◆ Compact angle grinder - VAS 5167 B-
- ◆ Belt grinder - VAS 881 003-
- ◆ Compressed-air gun - VAS 6648-
- ◆ Rivet pliers - VAS 6759-
- ◆ Rivet pliers - VAS 6967-
- ◆ Spot weld breaker - VAS 882001-
- ◆ Compact booster - VAS 6790-
- ◆ Brush grinder - VAS 6446-
- ◆ Drill - VAS 5144-
- ◆ Drill - VAS 6267 A-
- ◆ Compact angle grinder - VAS 5167-
- ◆ Double cartridge gun - VAS 6453-

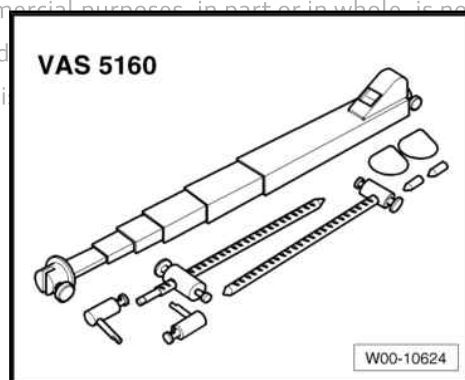


- ◆ Double cartridge gun - VAS 5237-

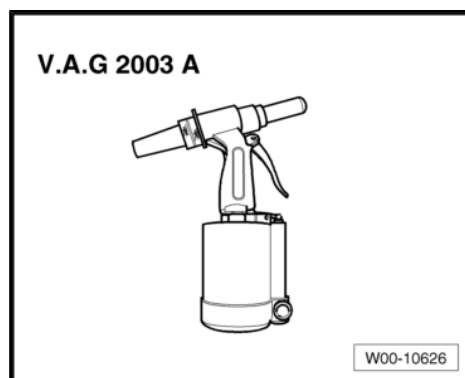


- ◆ Telescopic gauge - VAS 5159- or telescopic gauge - VAS 5160- .

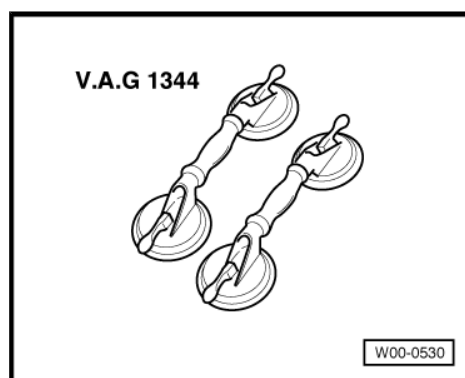
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- ◆ Pneumatic pop riveter - V.A.G 2003 A-



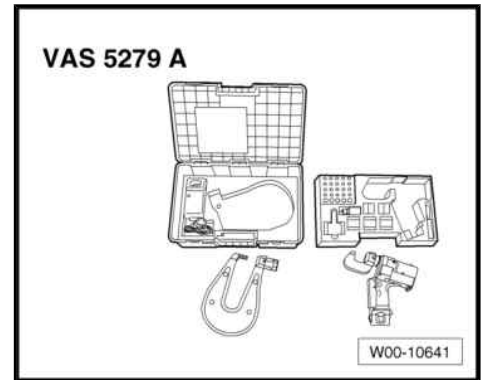
- ◆ Suction lifter - V.A.G 1344- or magnet - VAS 6739-



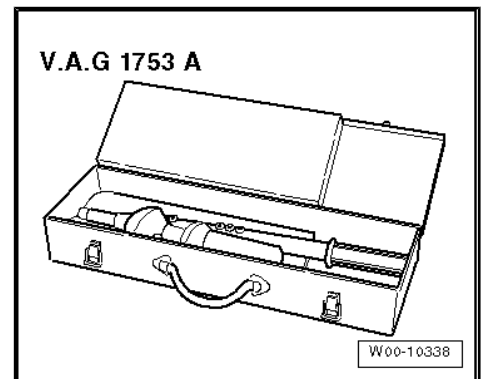
- ◆ Compact booster - VAS 6790-



- ◆ Alternatively, you can use the new rechargeable riveter - VAS 5279 B-. This is a complete set.

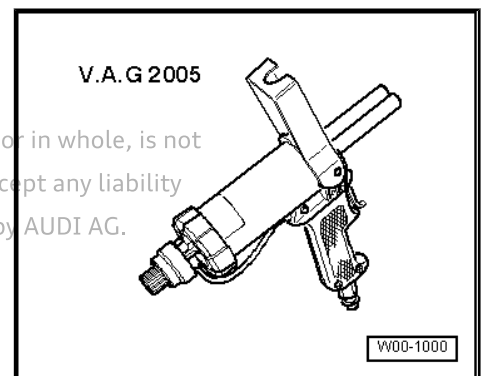


- ◆ Pop rivet pliers - 1753 A-

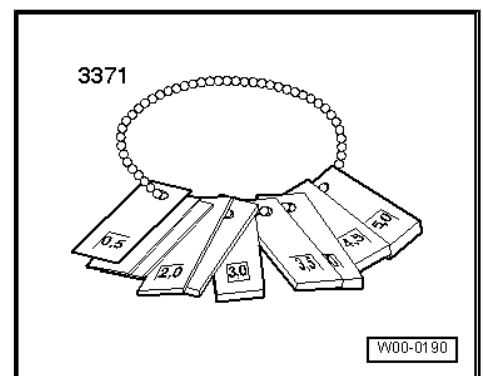


- ◆ Pneumatic glue gun - V.A.G 2005 B-

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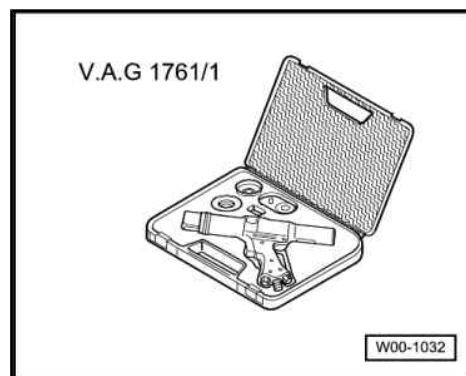


- ◆ Setting gauge - 3371-



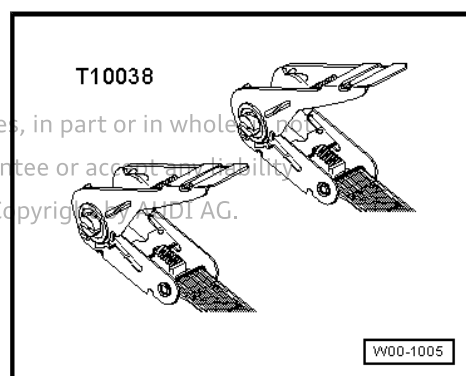


- ◆ Compressed-air gun - V.A.G 1761/1-

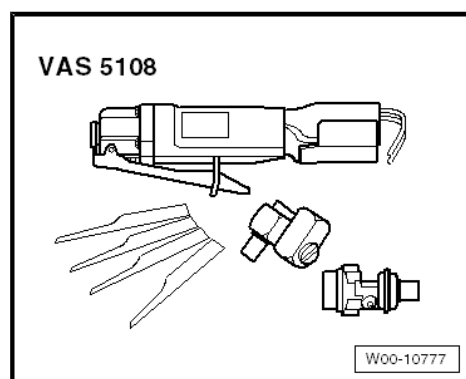


- ◆ Tensioning strap - T 10038-

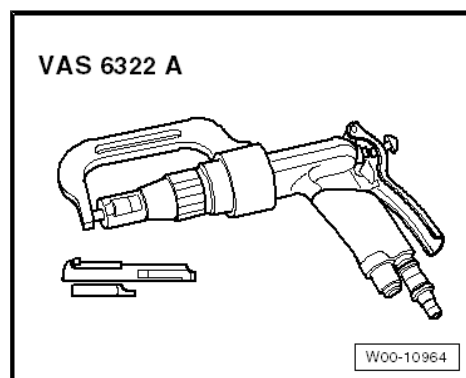
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- ◆ Body saw - VAS 5108 - or - VAS 6598 - or -VAS 6780-

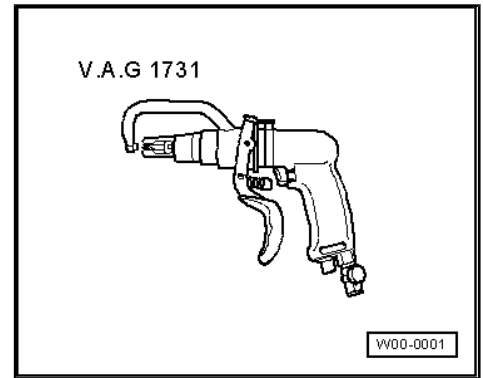


- ◆ Spot weld breaker - VAS 6322 A- or

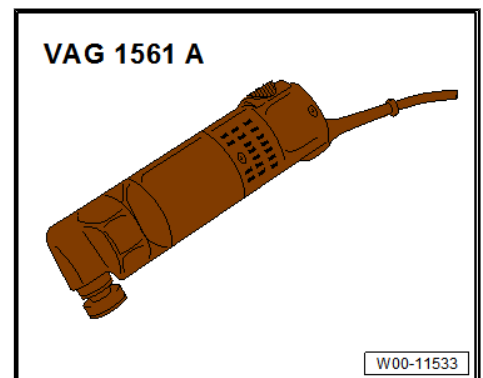




- ◆ Spot weld breaker - V.A.G 1731 - or



- ◆ Electric cutter - V.A.G 1561 A-



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14 Matching the surface contour

Repaired areas must be prepared so that all surfaces, swage lines and panel edges are accurately aligned with the surrounding body contour.

The following requirements must be met:

- ◆ After body repair work such as dent removal, welding and filling, etc., the repaired areas and parts must be dry-sanded with a grit size of at least P 80.
- ◆ The repaired surfaces must be prepared so that the required paint finish can be achieved in no more than two stages.

For the required surface contour use the following body fillers:

For vehicles with steel body

2-component steel filler set - DA 787 300 A2 -

For vehicles with aluminium body

2-component "diamond" filler aluminium powder - DA 004 200 A2
- and hardener - DA 004 201 A1-



NOTICE

The use of body solder containing lead is prohibited as of 1st January 2003.



Note

Lead-free body solder is not approved by AUDI AG.



15 Straightening jig



Note

- ◆ *The item numbers in the illustrations are identical with the end numbers on the alignment bracket mountings.*
- ◆ *The item numbers of the alignment bracket mountings marked with a circle are for checking the body with mechanical units installed.*
- ◆ *The required basic set size is given for the alignment bracket mountings.*

Alignment bracket set: alignment bracket set for Audi A3, 2013 - VAS 6789-

- Detailed information on setting up the alignment bracket set can be found in the setup plan enclosed with the equipment.

15.1 Procedure for repairing structural body damage on Audi vehicles

- If there is reason to believe that a vehicle has suffered structural body damage, if the body dimensions do not conform to the specifications in the Workshop Manual and/or if there is visible damage to structural components, the vehicle must be mounted on an Audi-approved straightening jig system in order to check the body dimensions.

Definition of structural body damage:

Damage (denting, buckling, rupture, etc.) to and/or displacement of a structural component of the vehicle body.

All body components with the exception of outer skin panels or bolt-on parts must be regarded as structural components.

Notwithstanding the above, the bolt-on longitudinal members of an aluminium vehicle are also structural components.

If the body dimensions differ from the specifications, the vehicle must be repaired according to the instructions in the Workshop Manual.



Note

Detailed information on setting up the alignment bracket set can be found with the equipment.



Note

- ◆ *The item numbers in the illustrations are identical with the end numbers on the alignment bracket mountings.*
- ◆ *The item numbers of the alignment bracket mountings marked with a circle are for checking the body with mechanical units installed.*
- ◆ *The required basic size is given for the alignment bracket mountings.*



50 – Body - front

RO: 50 40 55 50

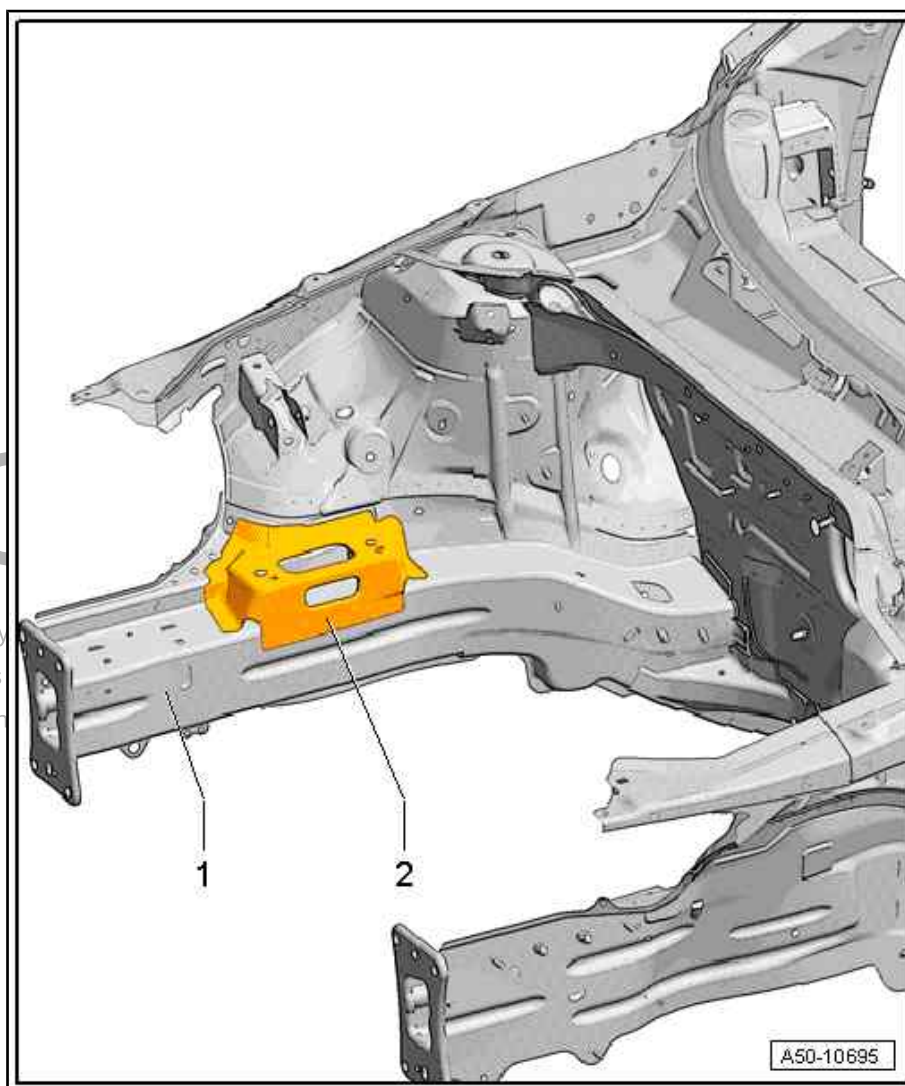
1 Engine console (right-side) - Renewal

1 - Longitudinal member

2 - Engine console



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1.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

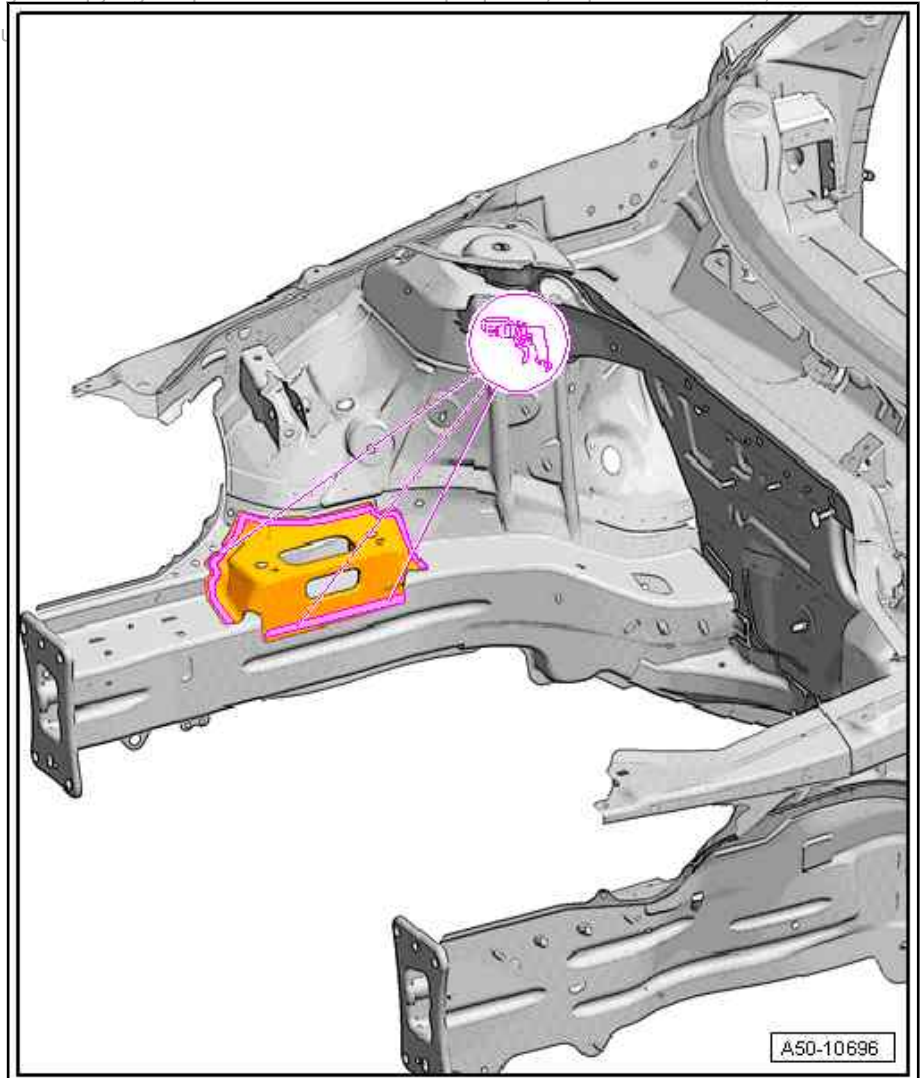


1.2 Procedure

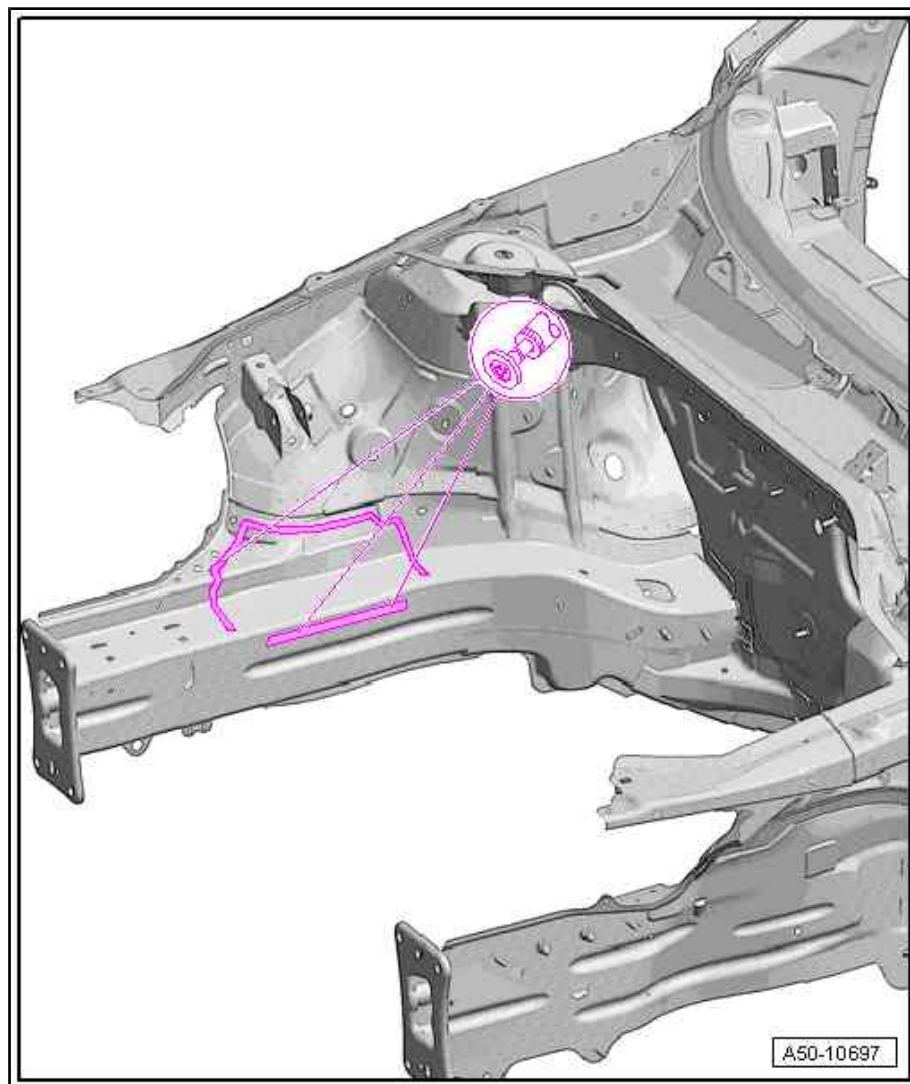
Cutting locations

- Separate original joint using spot weld breaker .

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- Remove remaining material using compact angle grinder .



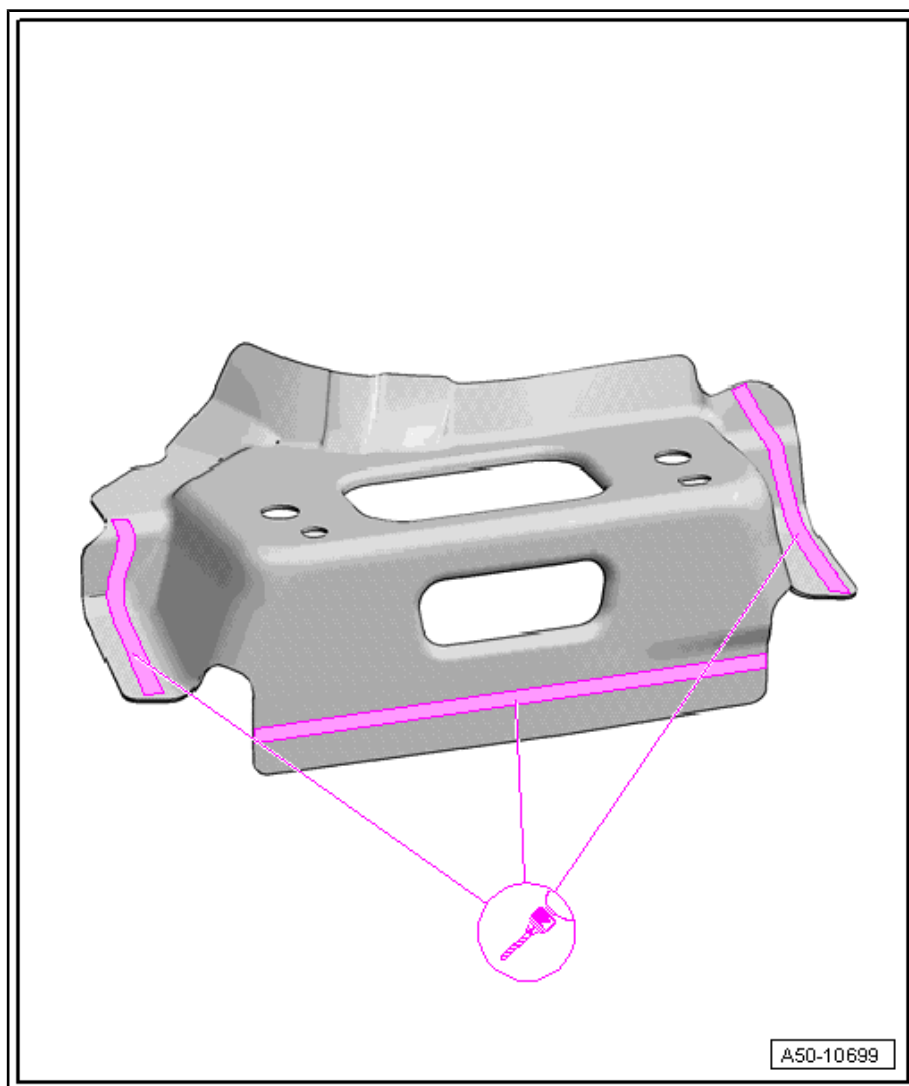
Replacement part

- ◆ Engine console (right side)
- Match up new part with vehicle positioned on alignment bracket set and fix in place.

Preparing new parts

- Drill holes for SG plug weld seam, 8 mm Ø using drill.

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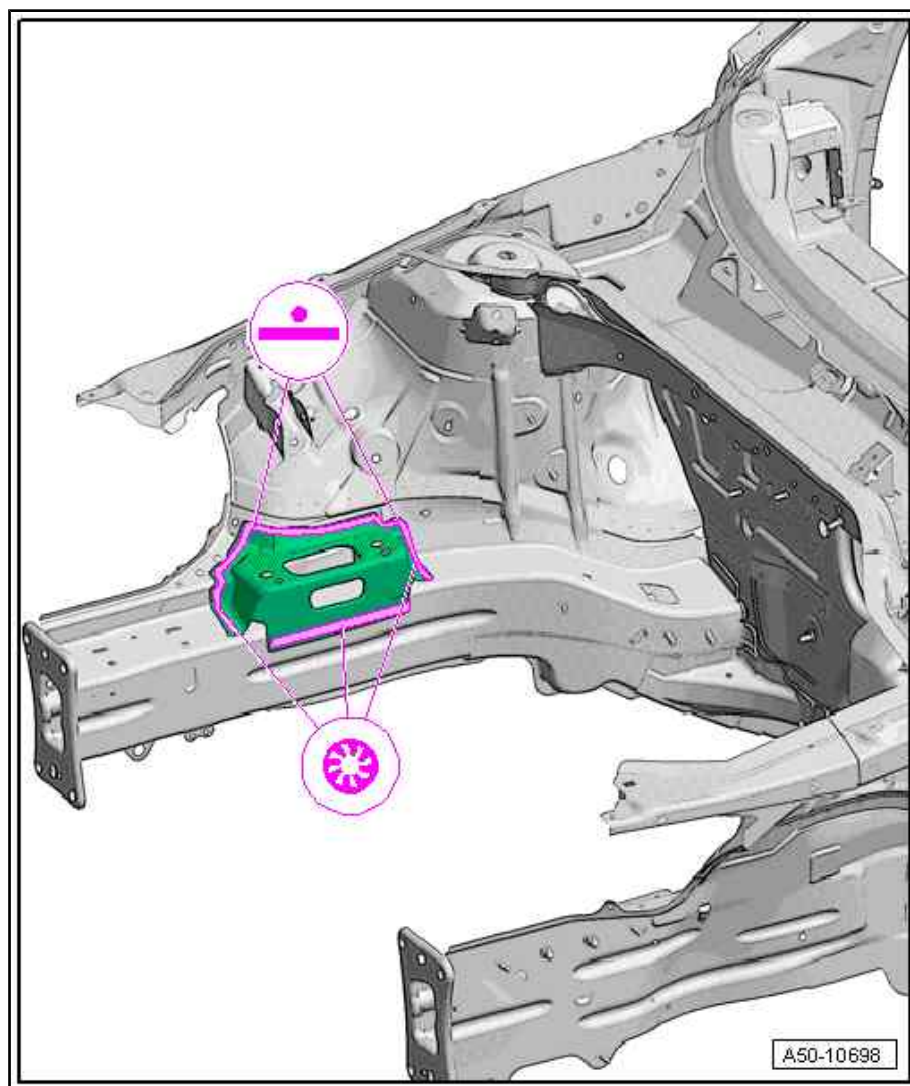
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Weld in support bracket using resistance spot welder : RP spot weld seam.
- Weld in support bracket using shielded arc welding equipment : SG plug weld seam.



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RO: 50 43 55 00

2 Mounting bracket (for subframe) - Renewal

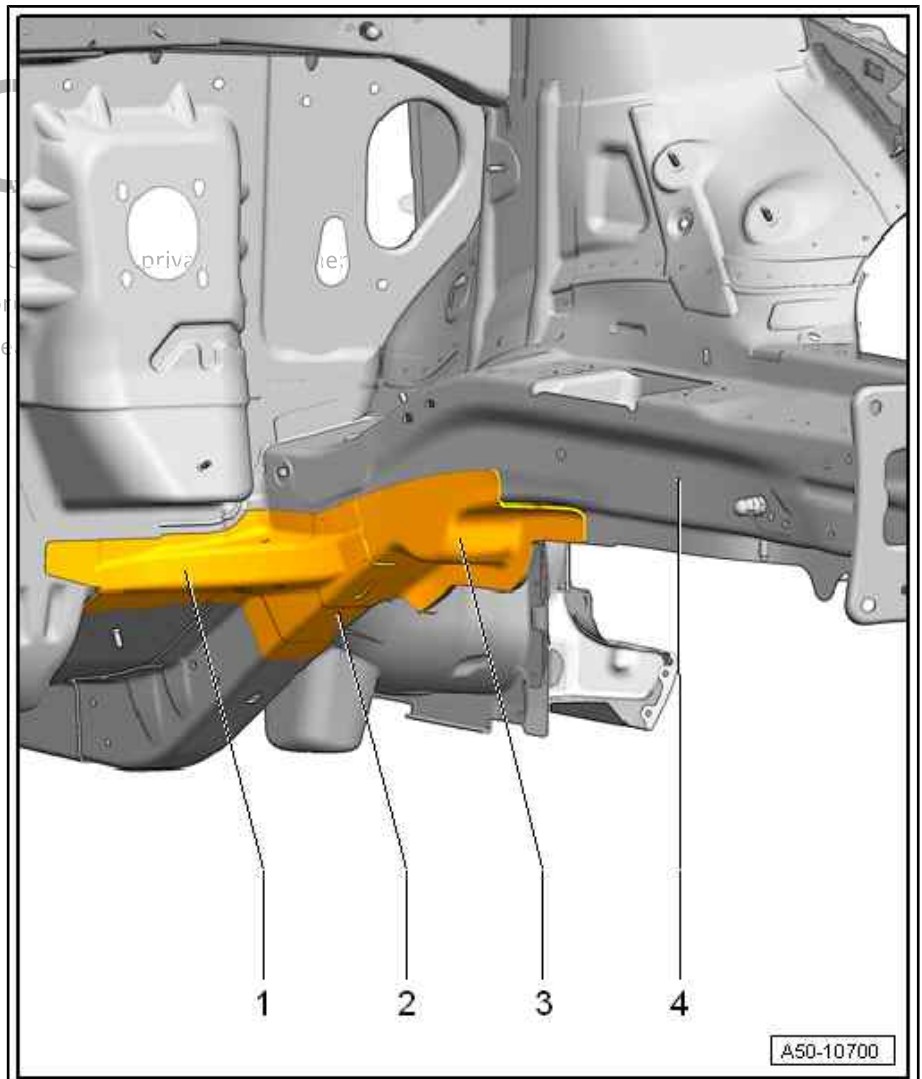
1 - Longitudinal member reinforcement

2 - Cover for longitudinal member

3 - Mounting bracket for subframe

4 - Longitudinal member

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2.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Compact angle grinder
- ◆ Drill
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work [⇒ page 29](#) .



2.2 Procedure

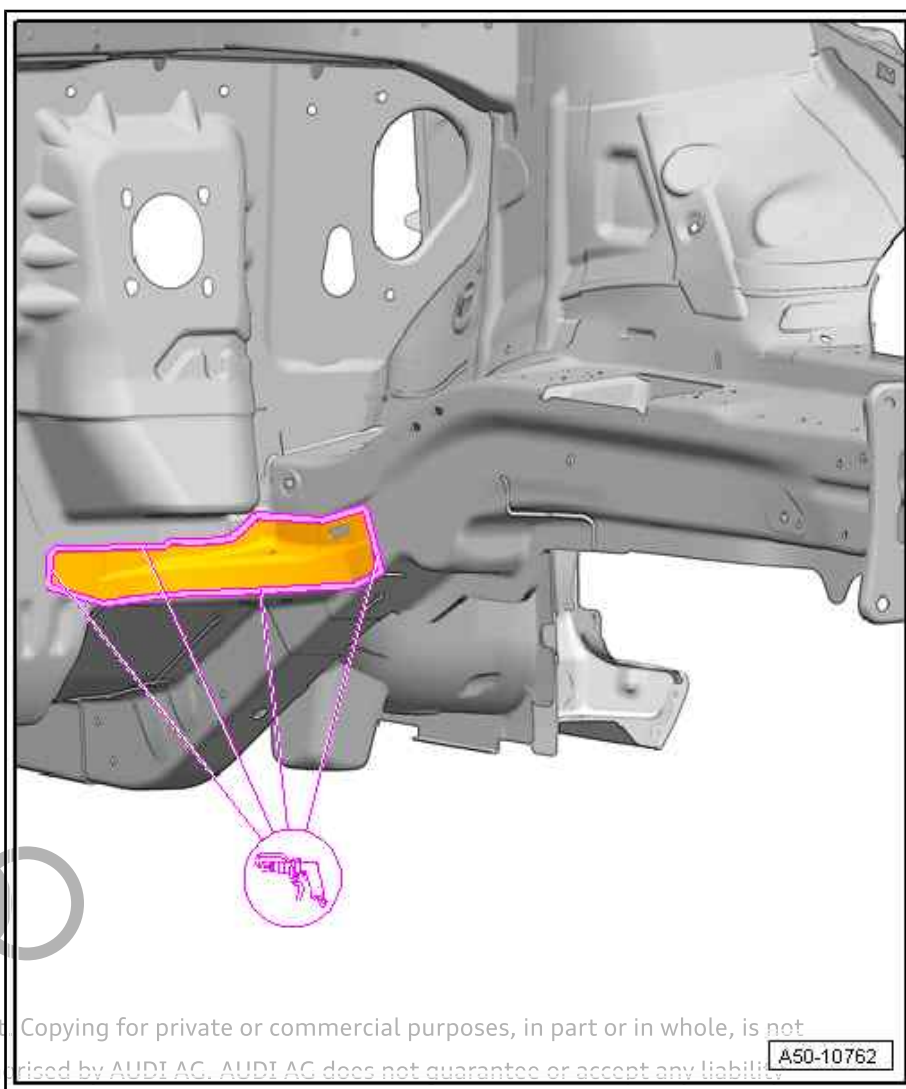


Note

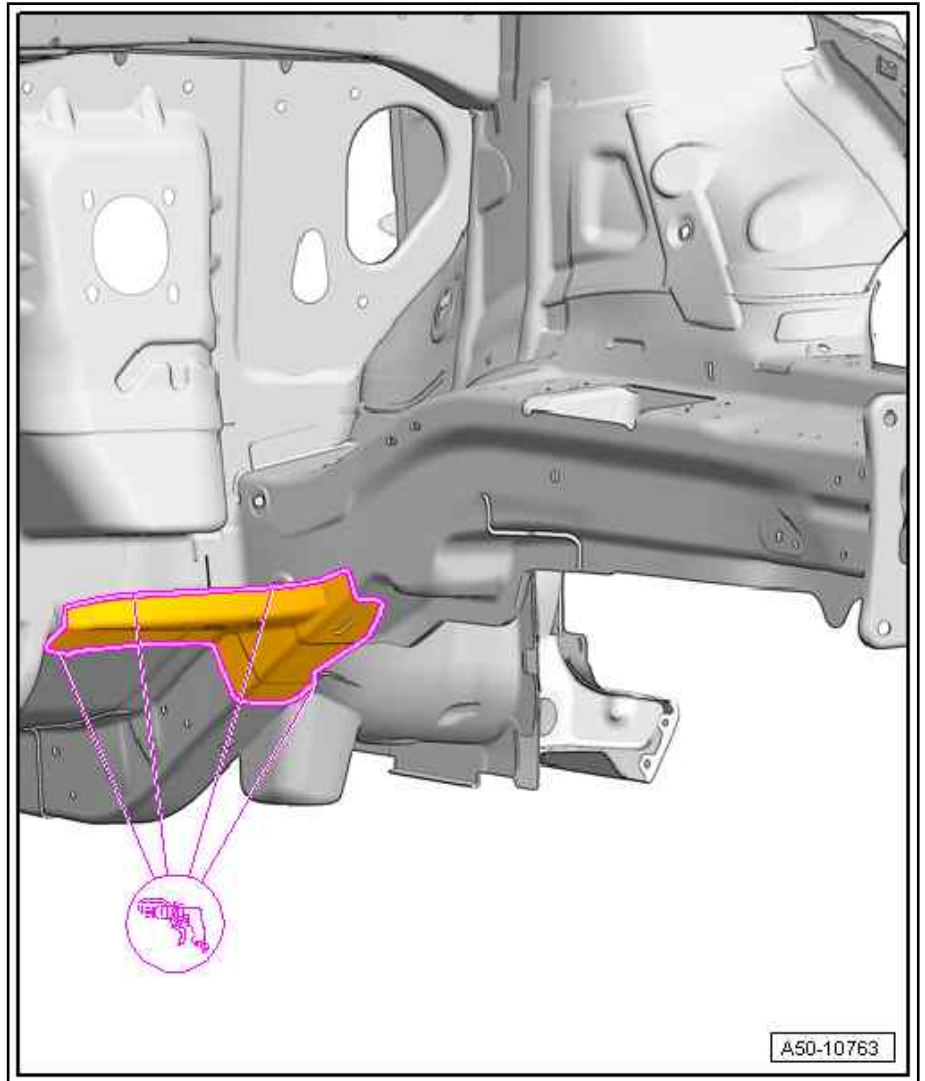
The procedure for renewal of the subframe mounting bracket is described on this vehicle for the front left mounting bracket. The procedure for the other mounting brackets is similar (if required).

Cutting locations

- Separate original joint at longitudinal member reinforcement using spot weld breaker .



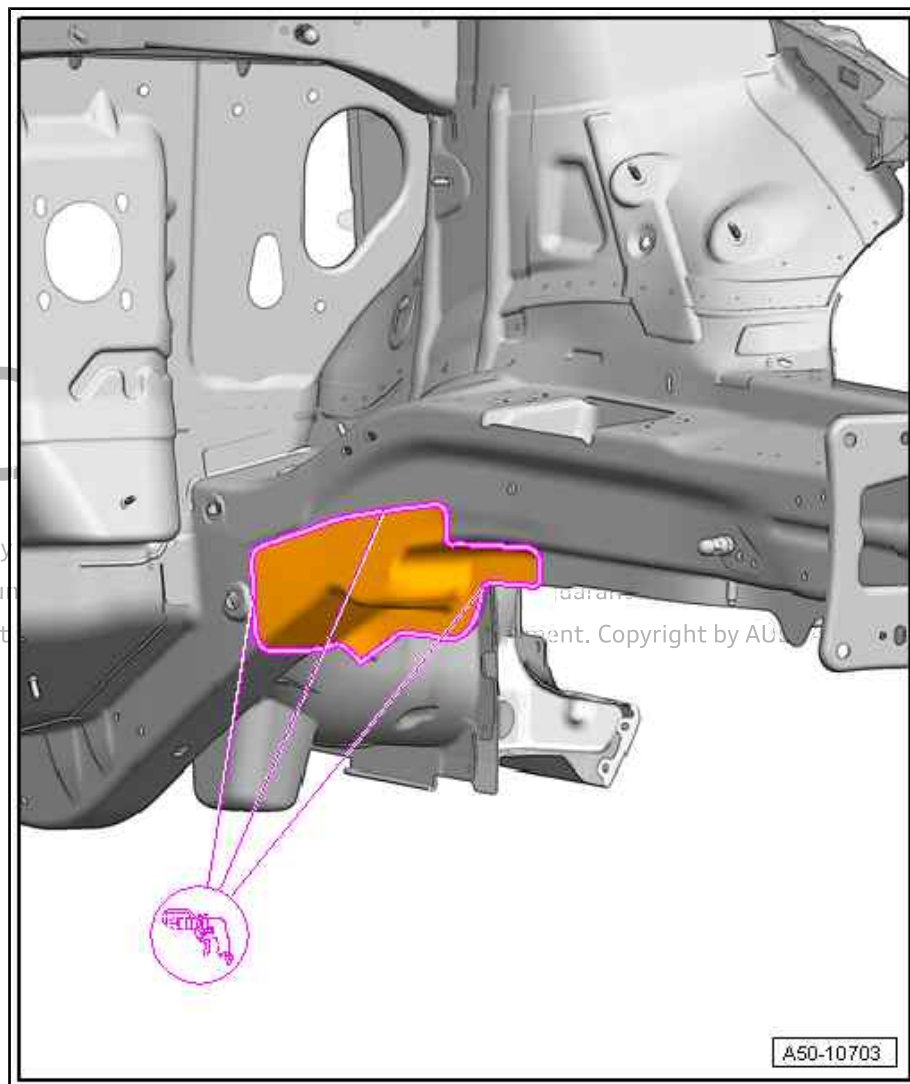
- Separate original joint at cover for longitudinal member using spot weld breaker .



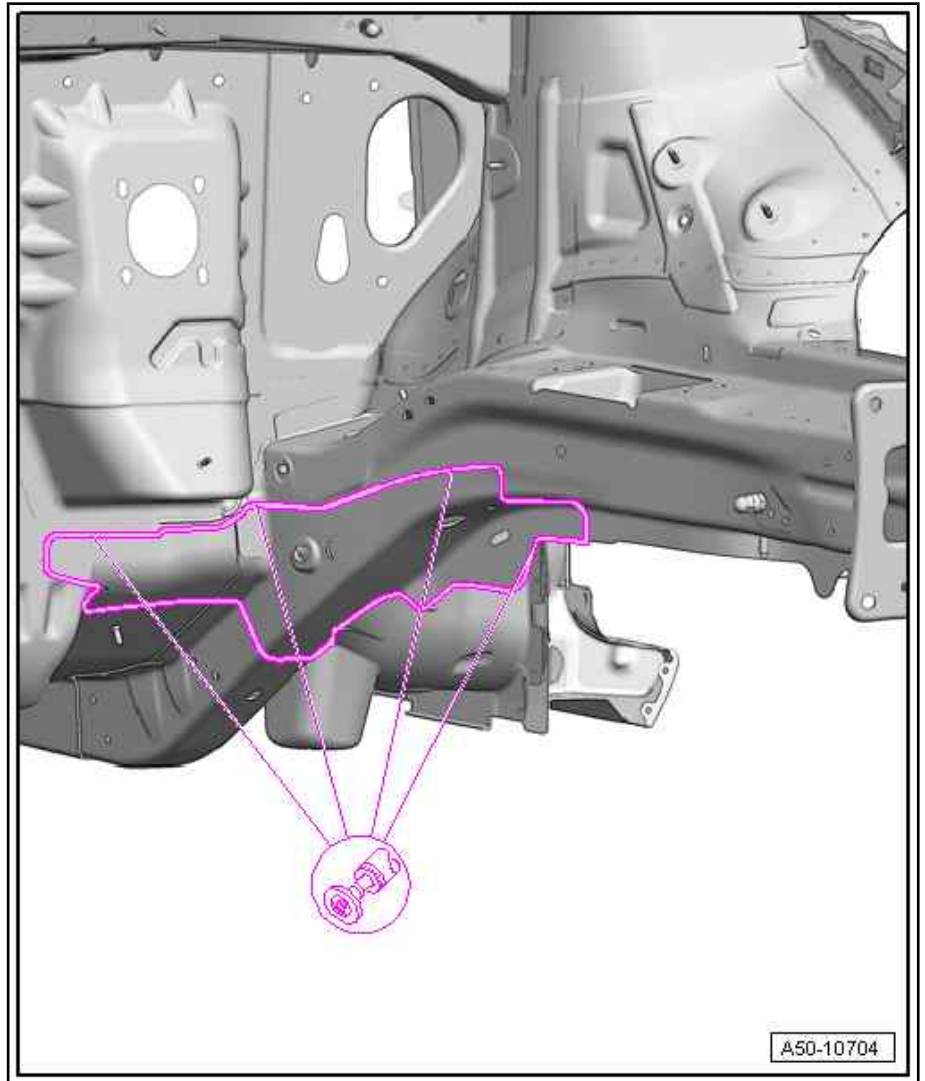
- Separate original joint at subframe mounting bracket using spot weld breaker .



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- Remove remaining material using compact angle grinder .



Replacement part

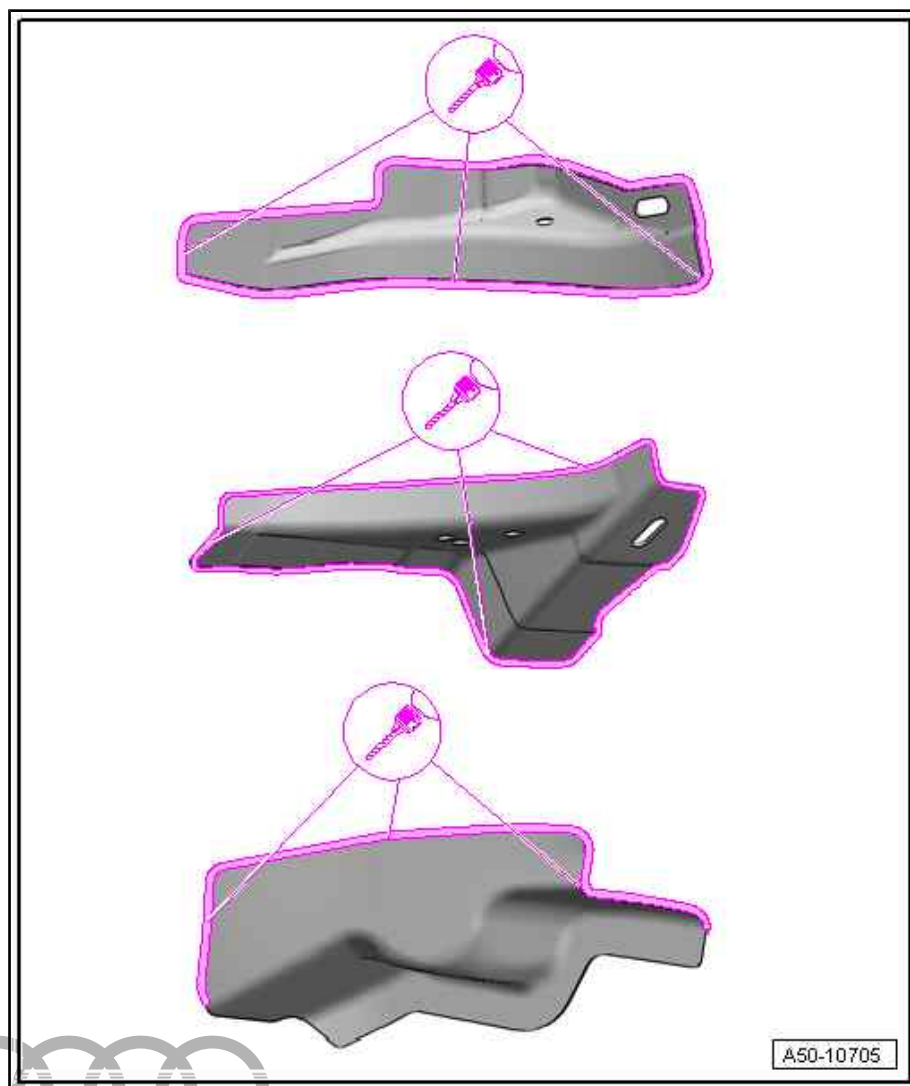
- ◆ Front mounting bracket for subframe
- ◆ Longitudinal member reinforcement
- ◆ Cover for longitudinal member

Preparing new part

- Drill holes for SG plug weld seam, 8 mm Ø using drill .



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NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

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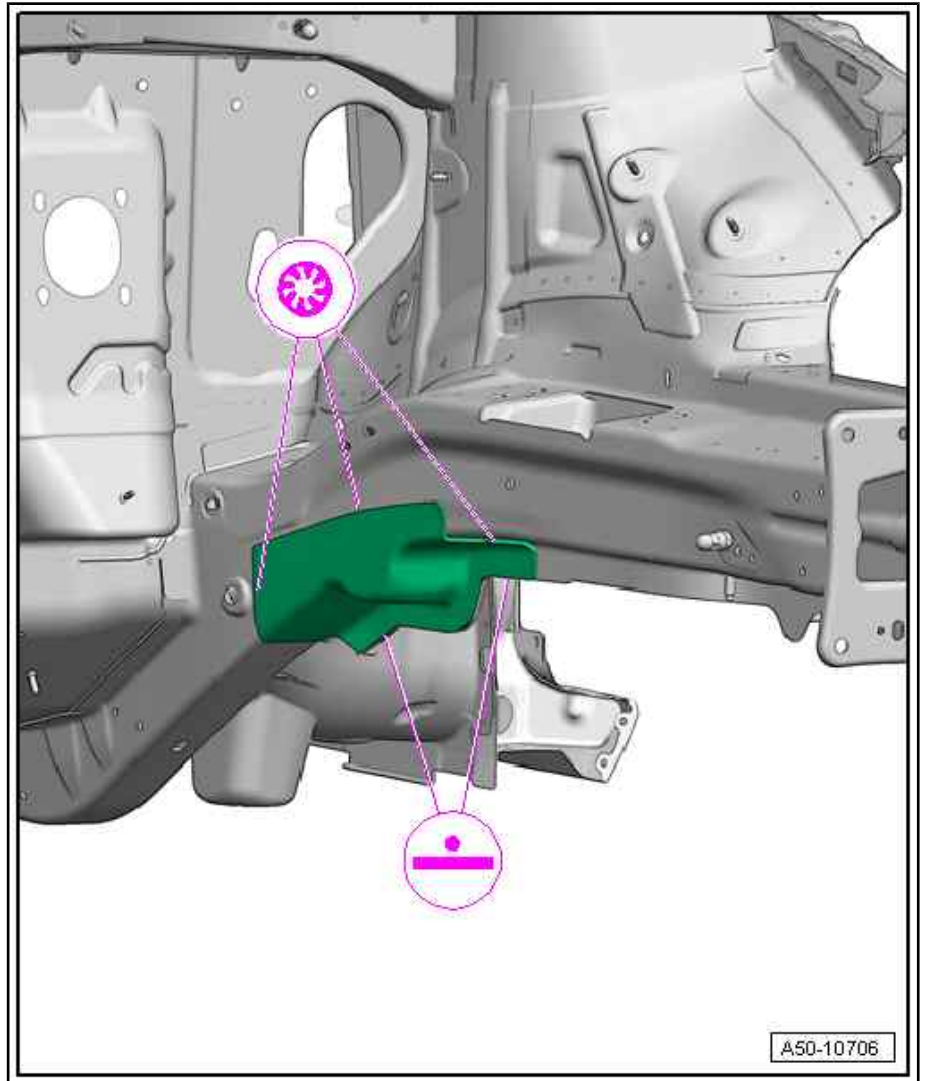


Note

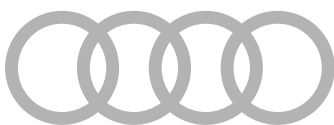
- Match up front mounting bracket for subframe with vehicle positioned on alignment bracket set and fix in place.

Welding in

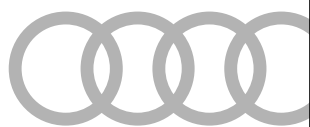
- Weld in mounting bracket for subframe using shielded arc welding equipment : SG plug weld seam.
- Weld in mounting bracket for subframe using resistance spot welder : RP spot weld seam.



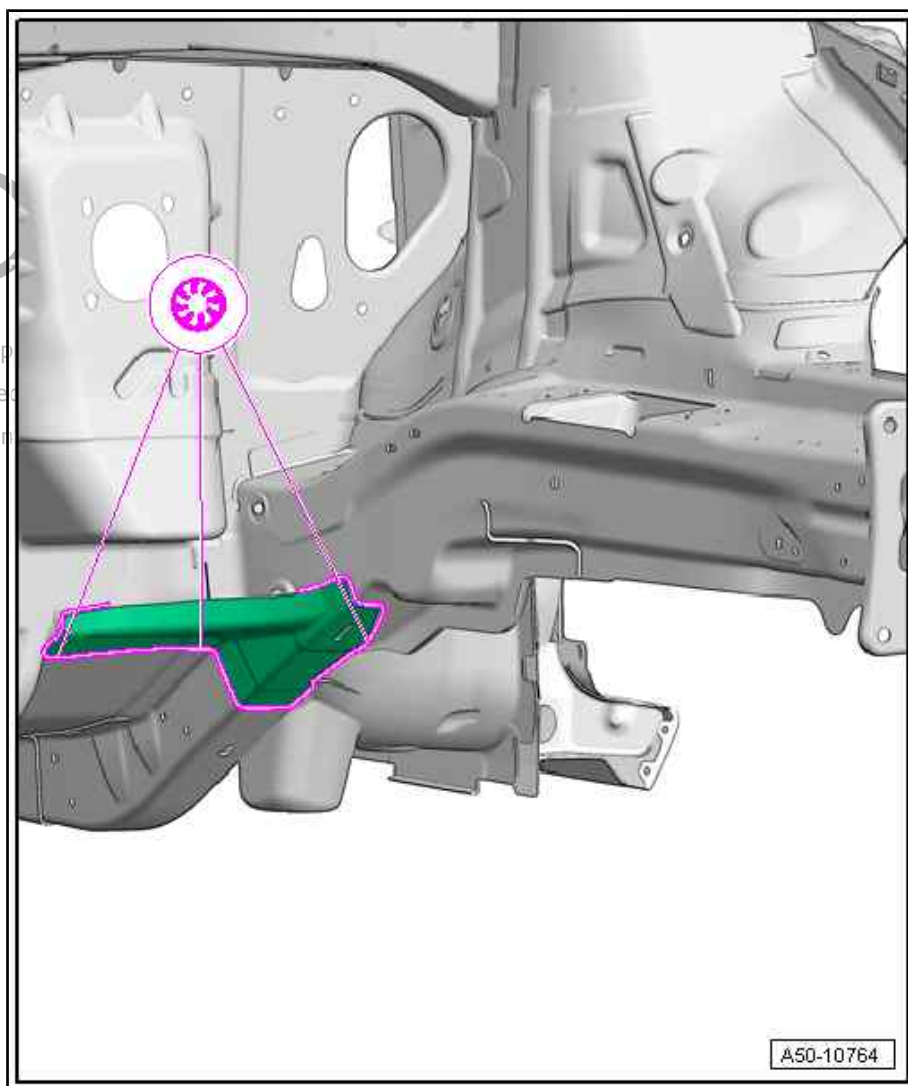
- Weld in longitudinal member reinforcement using shielded arc welding equipment : SG plug weld seam.



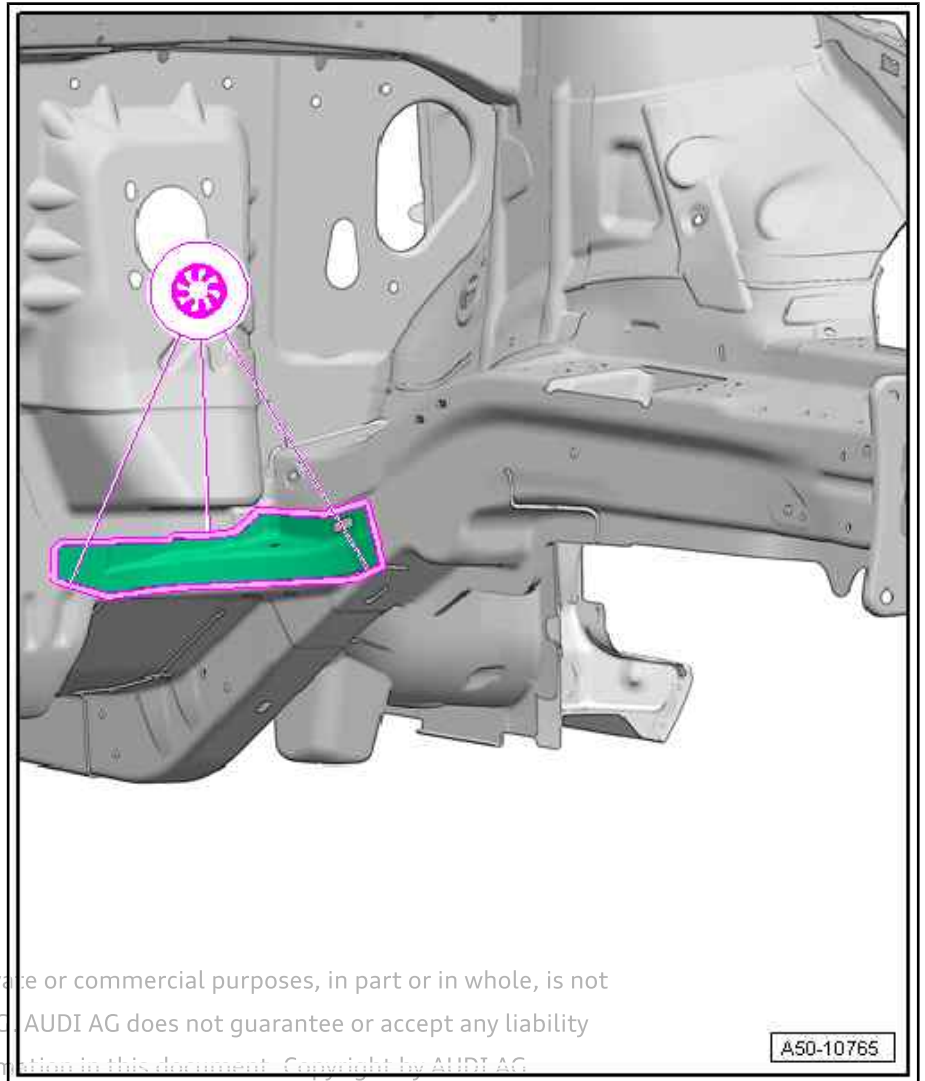
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- Weld in cover for longitudinal member using shielded arc welding equipment : SG plug weld seam.



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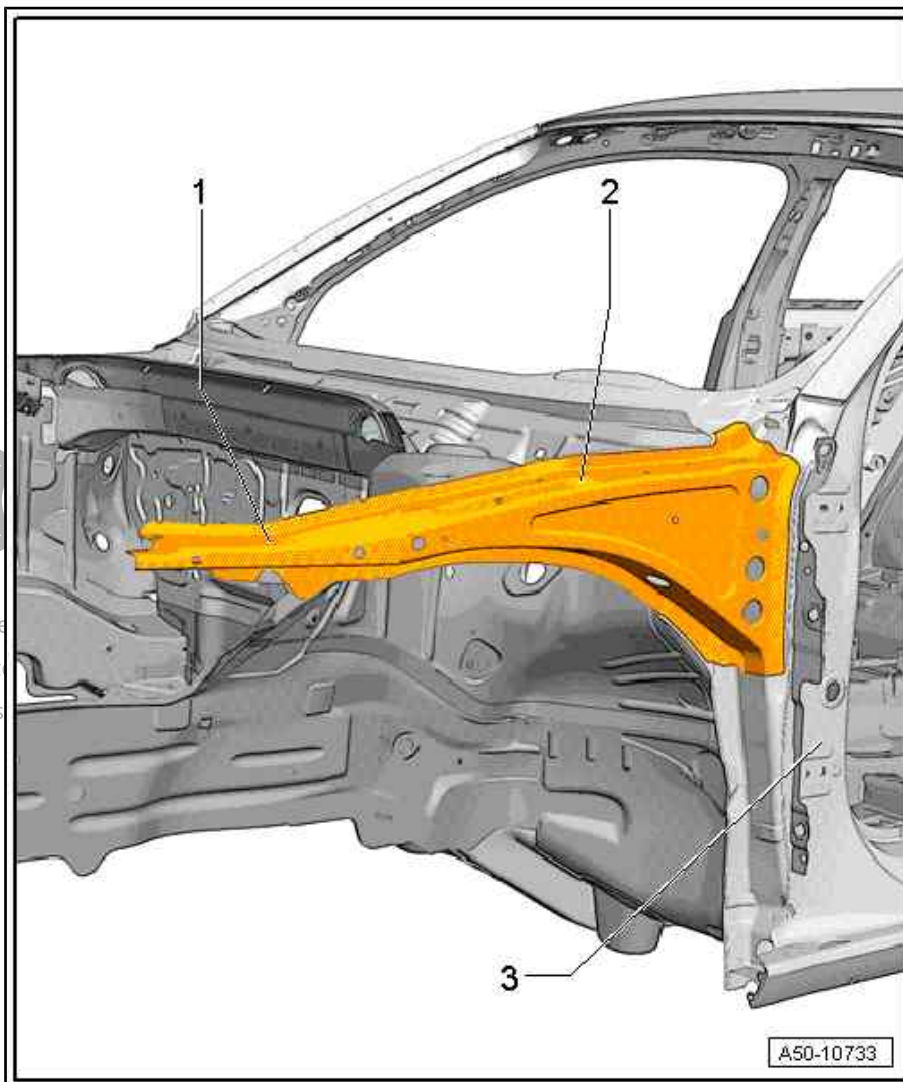
3 Upper wheel housing longitudinal member - Renewal

Includes: upper outer longitudinal member and wheel housing longitudinal member

1 - Closure plate for upper longitudinal member

2 - Upper outer longitudinal member

3 - Outer A-pillar



3.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker



Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

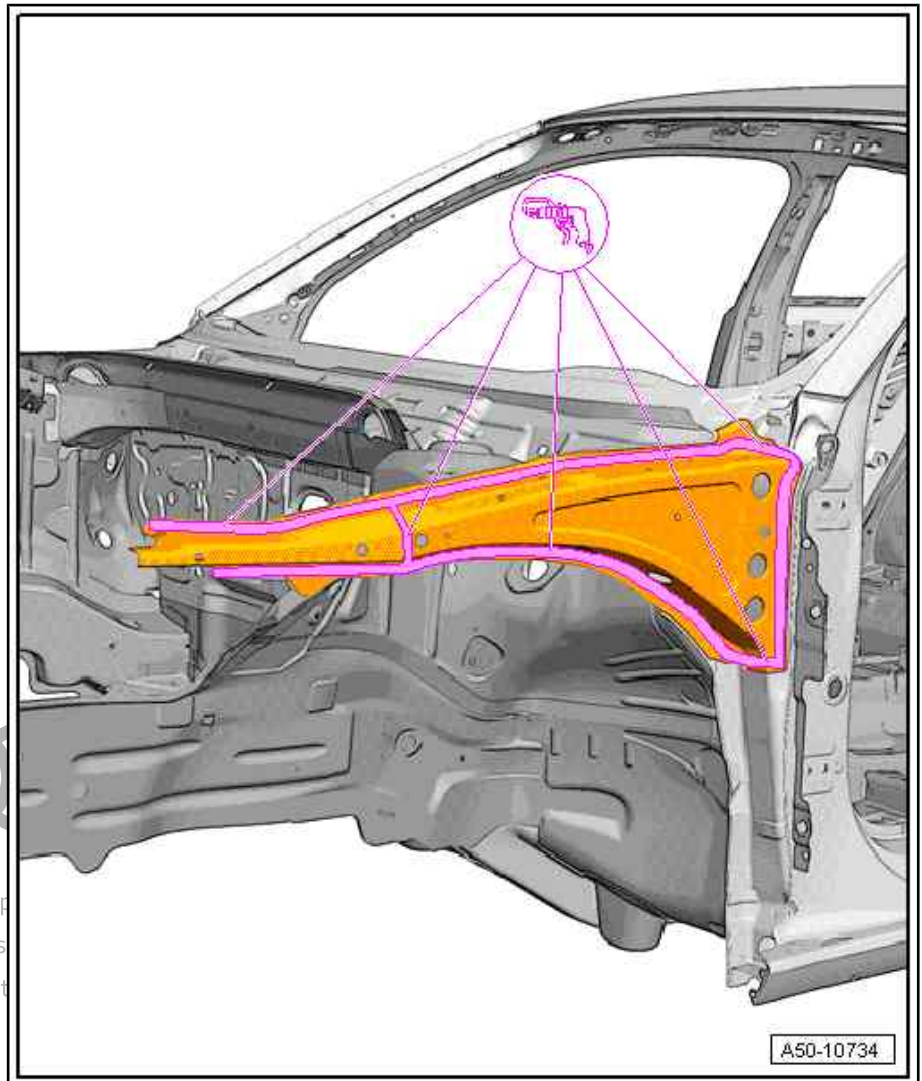
3.2 Procedure

Cutting locations

- Drill out original joint using spot weld breaker .



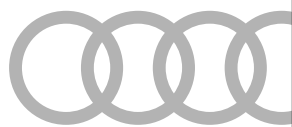
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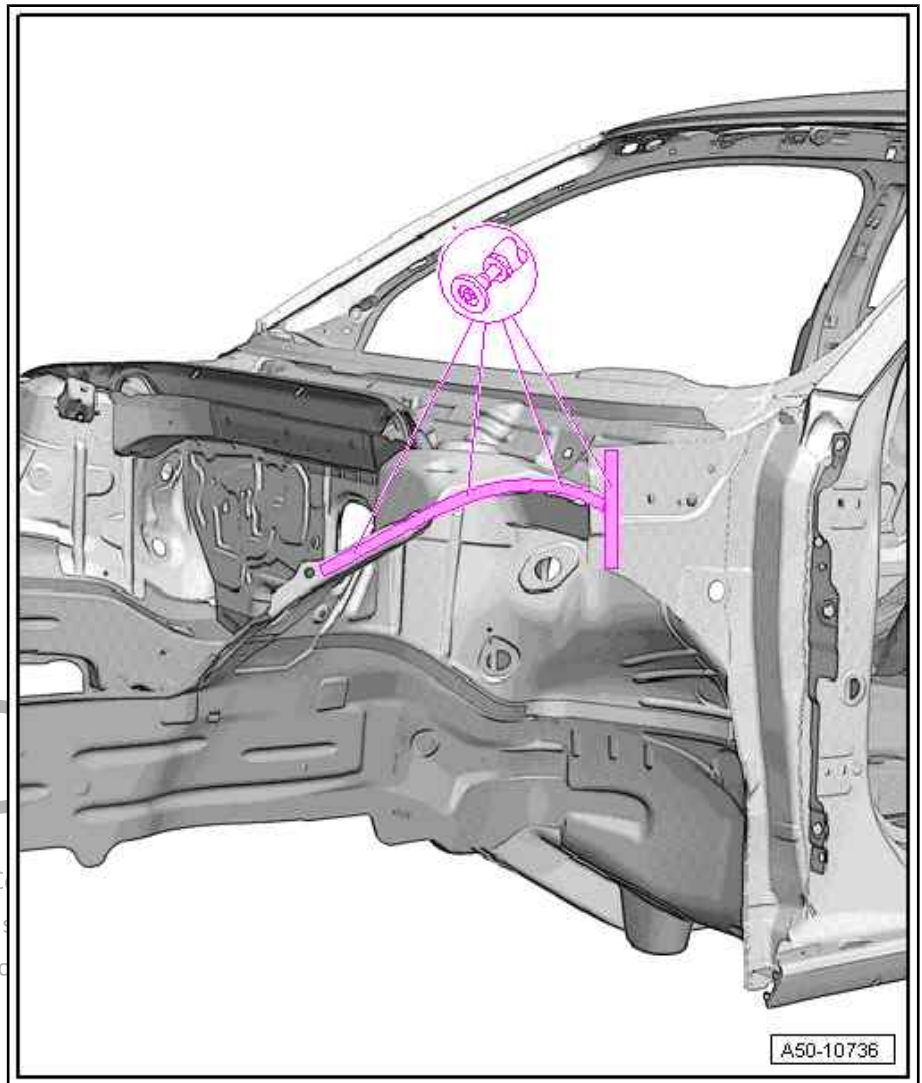
- Drill out original joint using spot weld breaker .
- Part section repair is possible using separating cut -a-.



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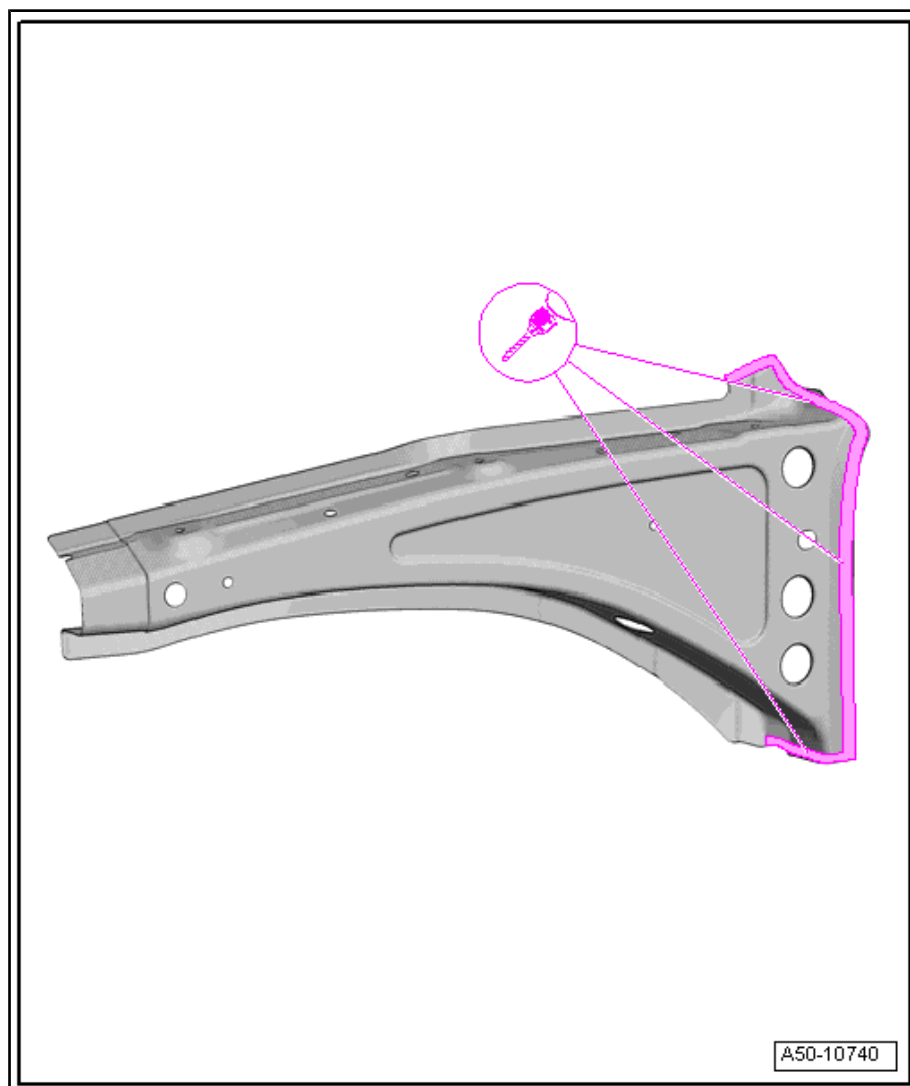


Replacement part

- ◆ Upper inner longitudinal member
- ◆ Upper longitudinal member

Preparing new part

Drill holes for SG plug weld seam, 8 mm Ø using drill .



NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

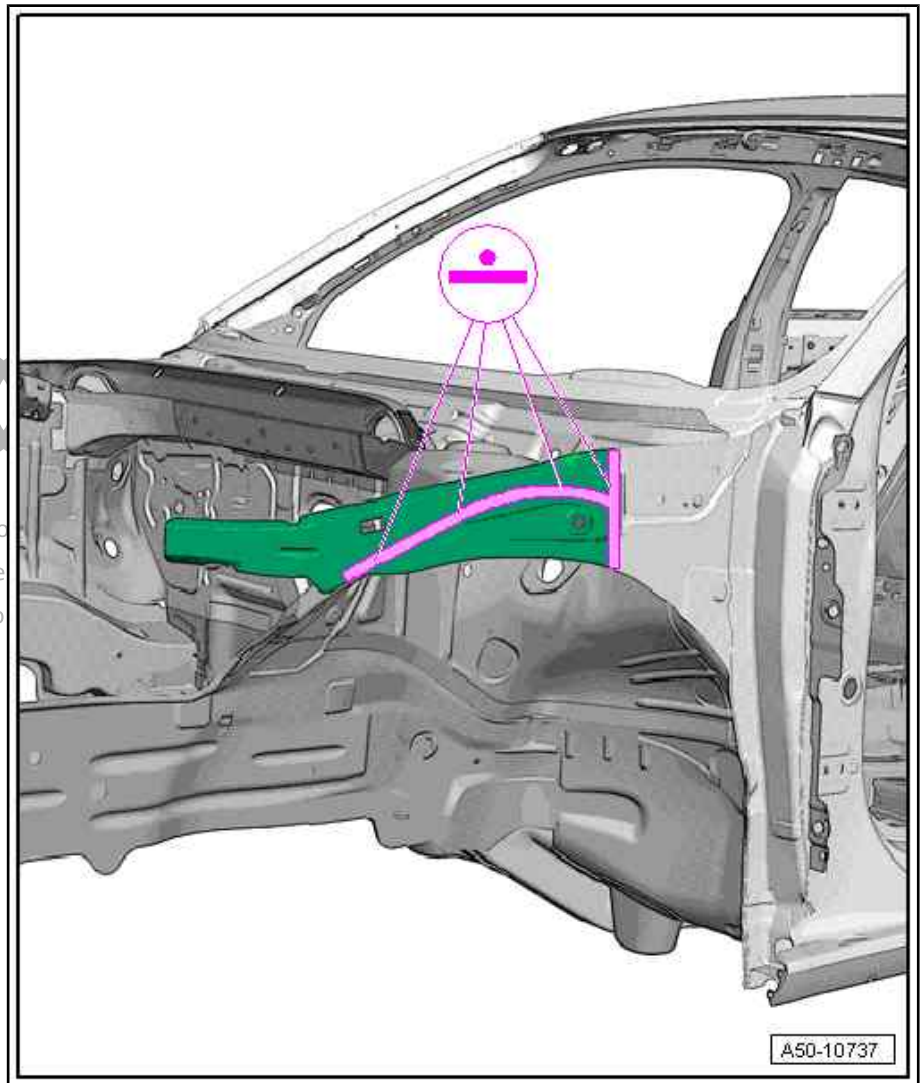
- Weld in upper inner longitudinal member at suspension turret using resistance spot welder : RP spot weld seam.
- Weld in at separating cut using shielded arc welding equipment : SG continuous seam.



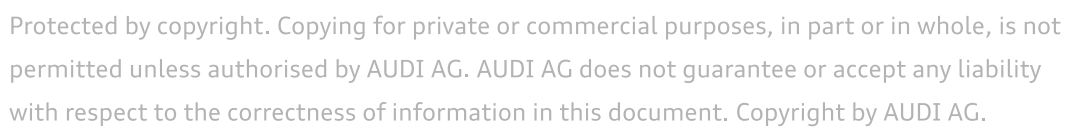
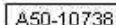
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- Weld in upper inner longitudinal member using shielded arc welding equipment : SG plug weld seam.
- Weld in upper longitudinal member for wheel housing using resistance spot welder : RP spot weld seam.

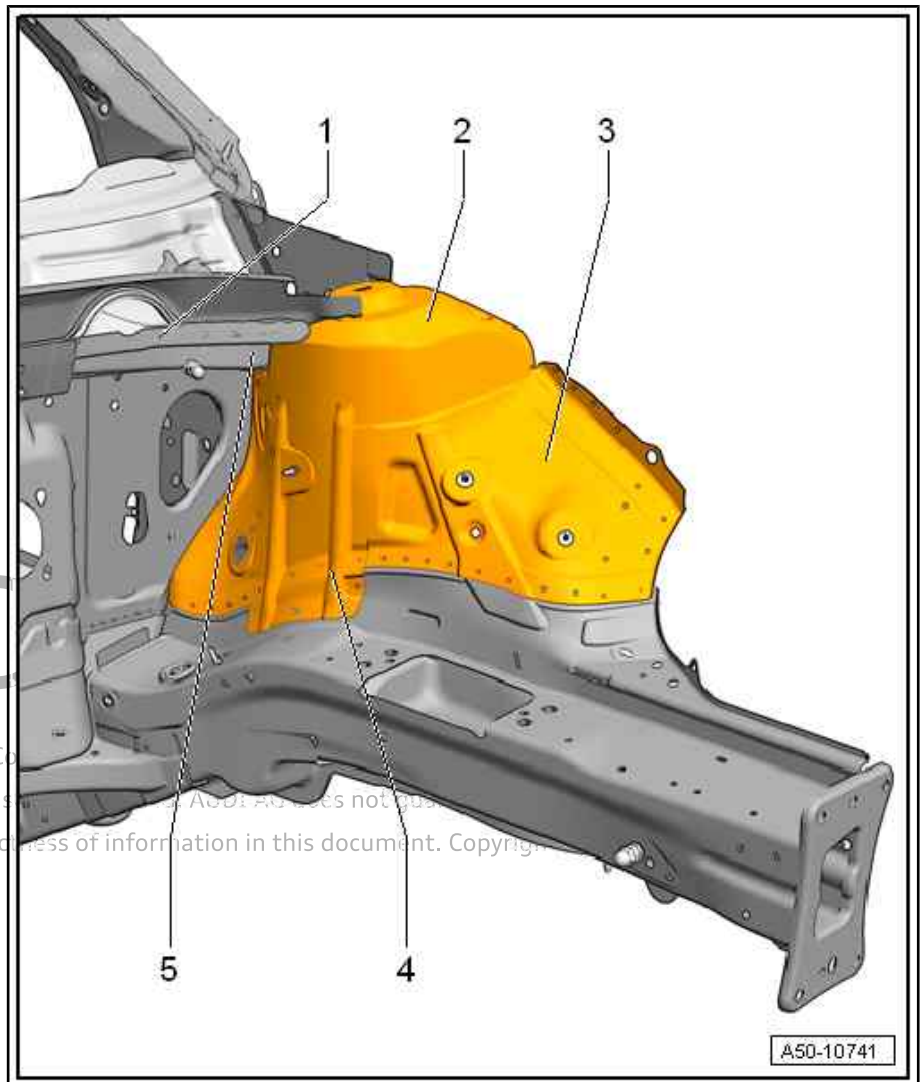




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4 Front wheel housing - Renewal

- 1 - Plenum chamber
- 2 - Suspension strut mounting
- 3 - Front wheel housing
- 4 - Wheel housing reinforcement
- 5 - Flange plate



4.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work [⇒ page 29](#) .

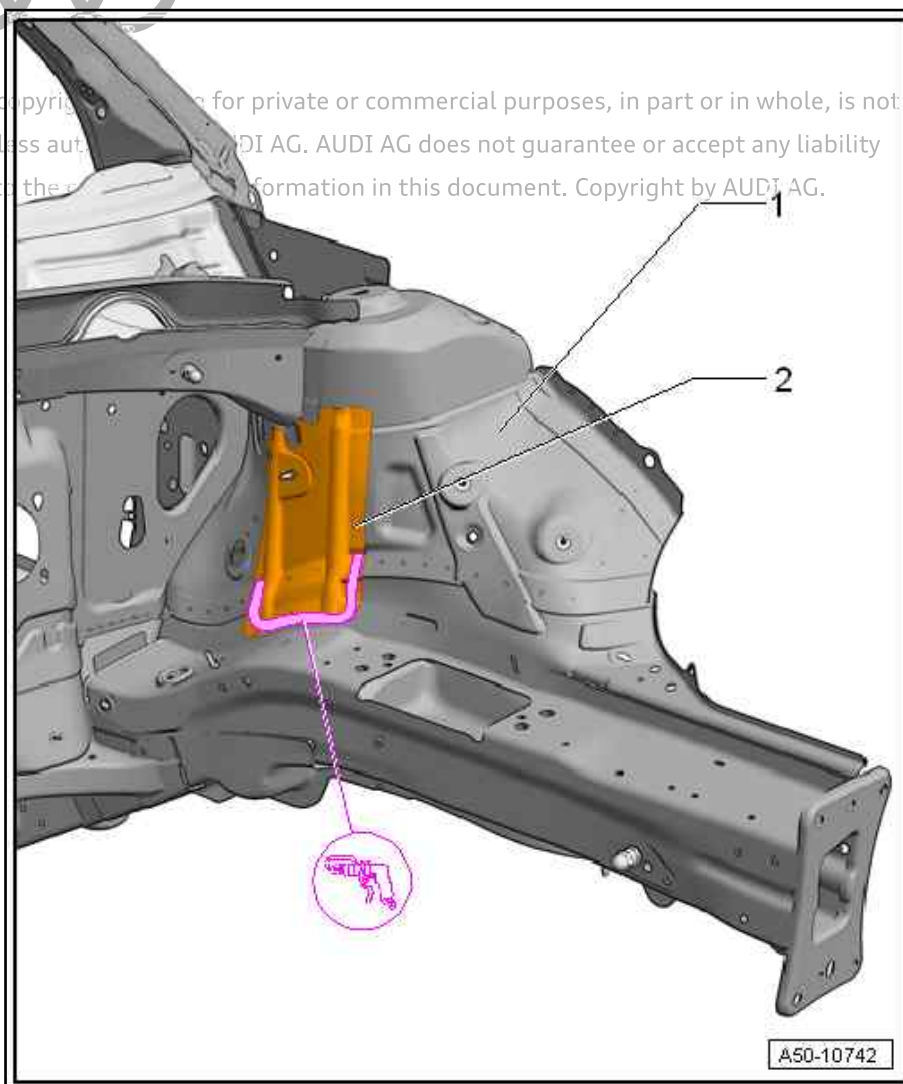


4.2 Procedure

Cutting locations

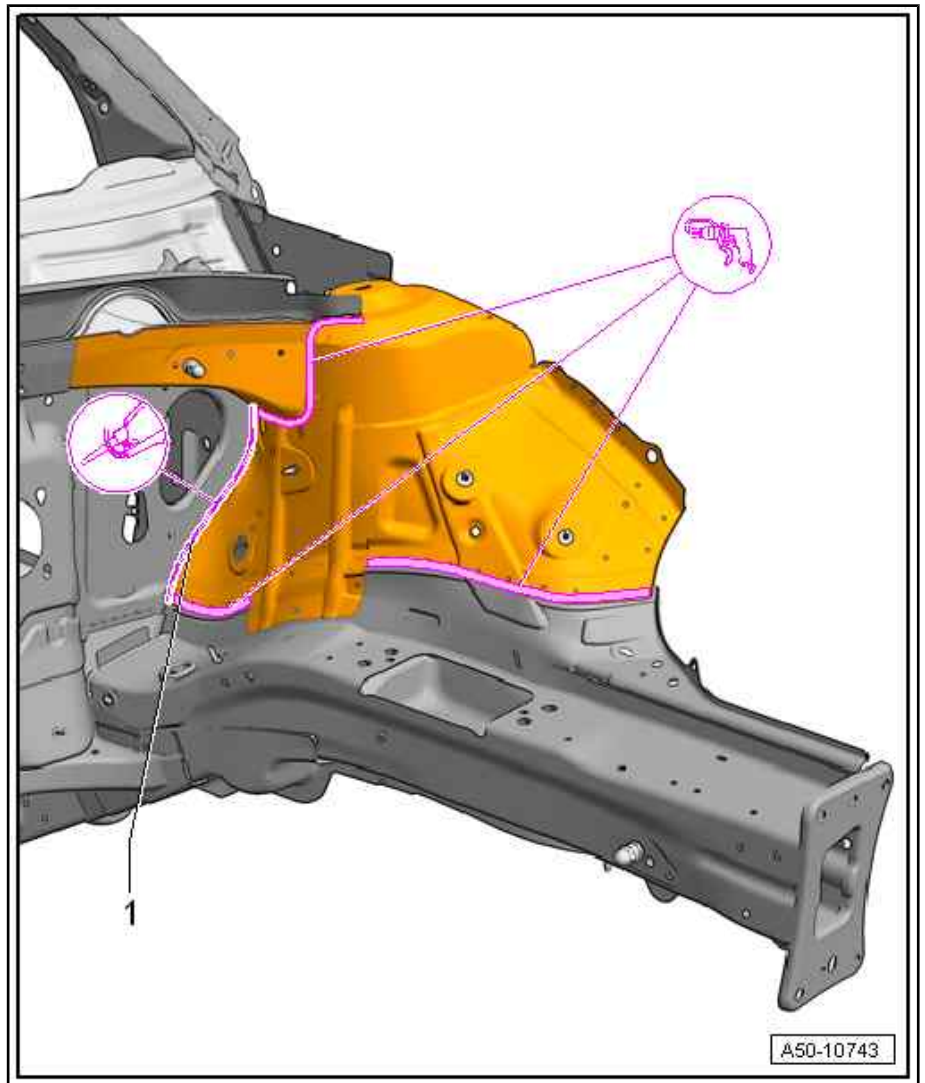
- Upper longitudinal member removed ⇒ [page 50](#)
- Separate original joint between wheel housing reinforcement -2- and wheel housing -1- using spot weld breaker .

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- Separate original joint between wheel housing, cover plate for longitudinal member and bulkhead using body saw .
- Separate original joint using spot weld breaker .

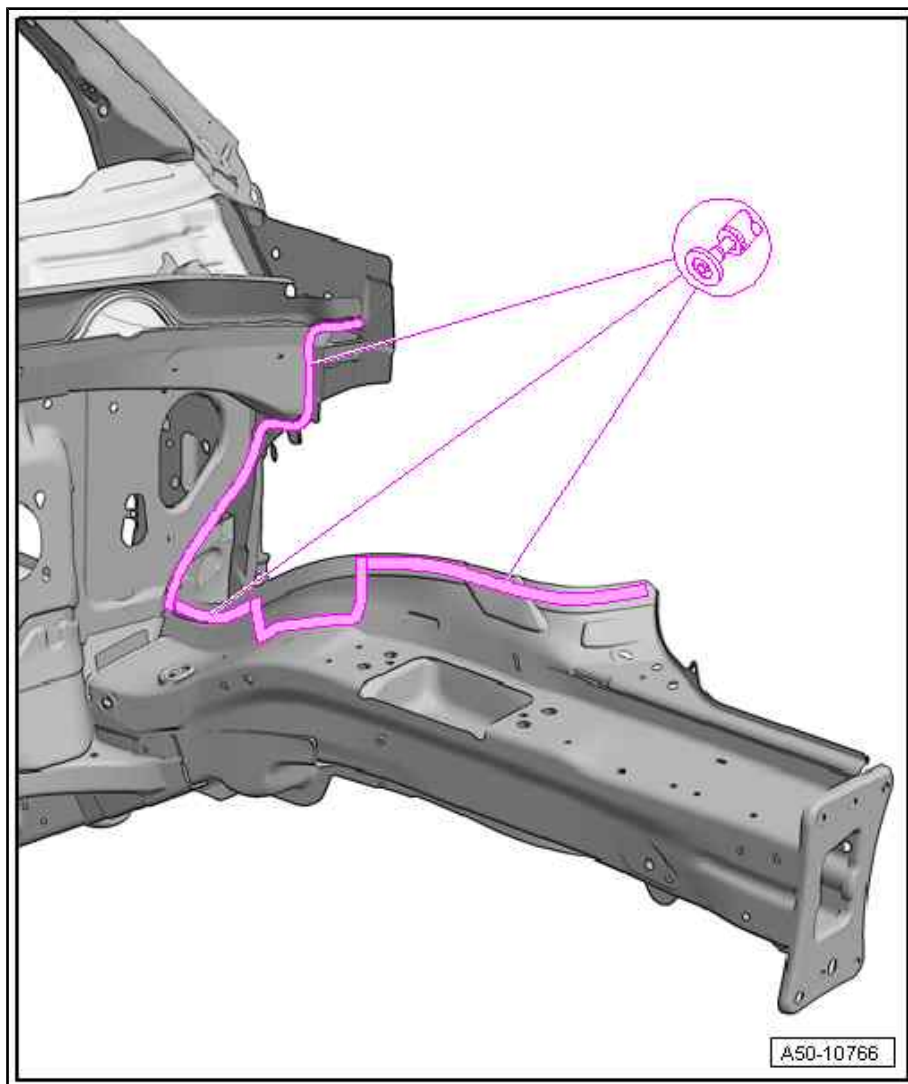
Part section repair is possible using separating cut -1-.



- Remove remaining material using compact angle grinder .



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Replacement parts

- ◆ Wheel housing
- ◆ Flange plate



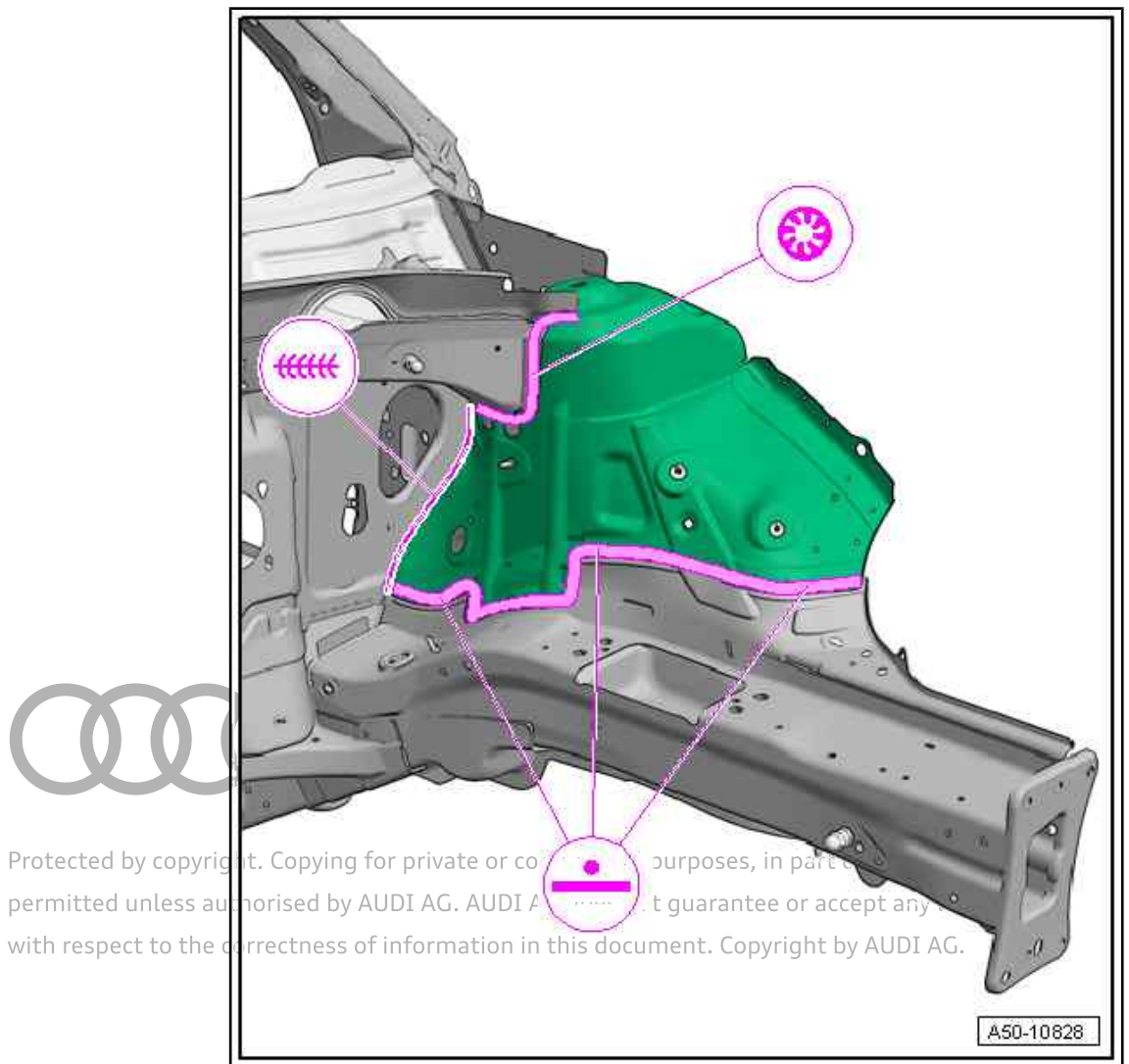
NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Match up new parts with alignment bracket mountings and adjacent parts and fix in position.
- Weld in wheel housing using resistance spot welder : RP spot weld seam.
- Weld in wheel housing using shielded arc welding equipment : SG plug weld seam.
- Weld at separating cut using shielded arc welding equipment : SG continuous seam.

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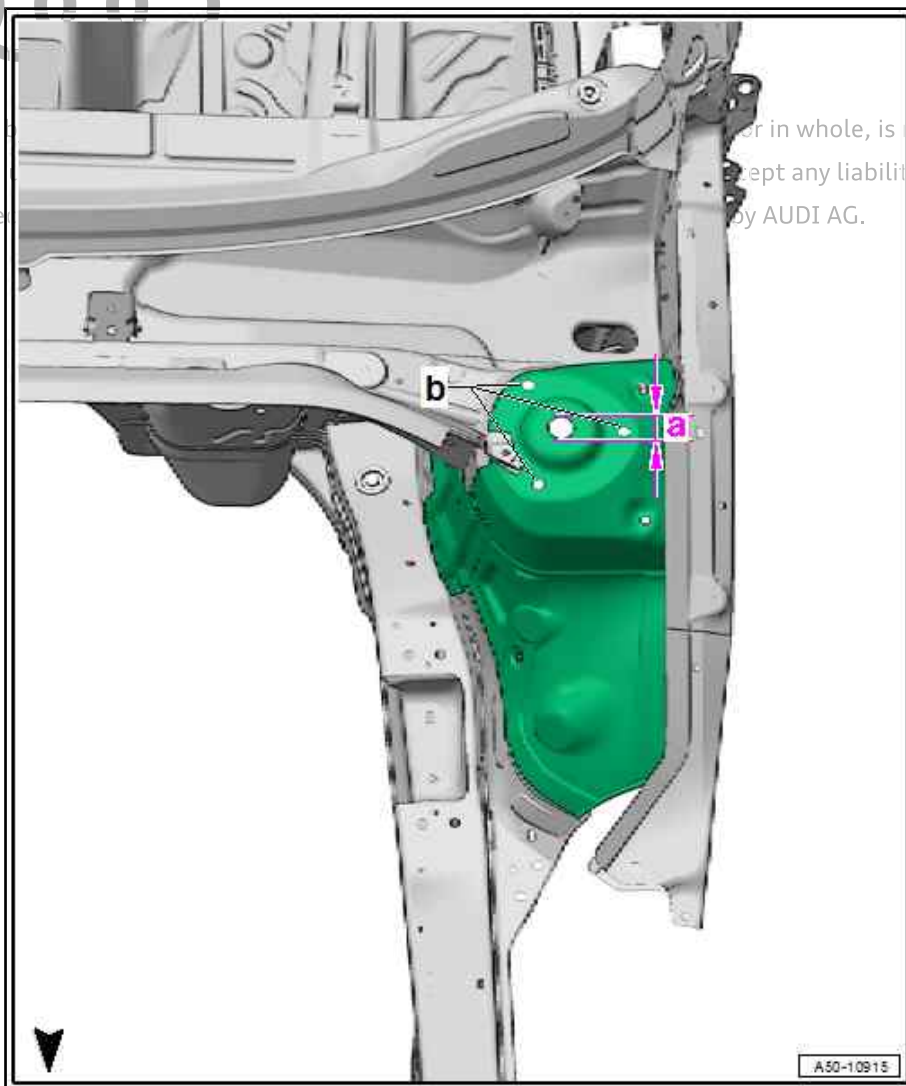
- Drill out suspension turret to dimension -a- using a step drill (commercially available).
- Drill out suspension turret to dimension -b- using alignment bracket set for Audi A3 - VAS 6789 - .

Dimension -a- = 34 mm

Dimension -a- = 10 mm



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- Welding in upper longitudinal member ⇒ [page 50](#)



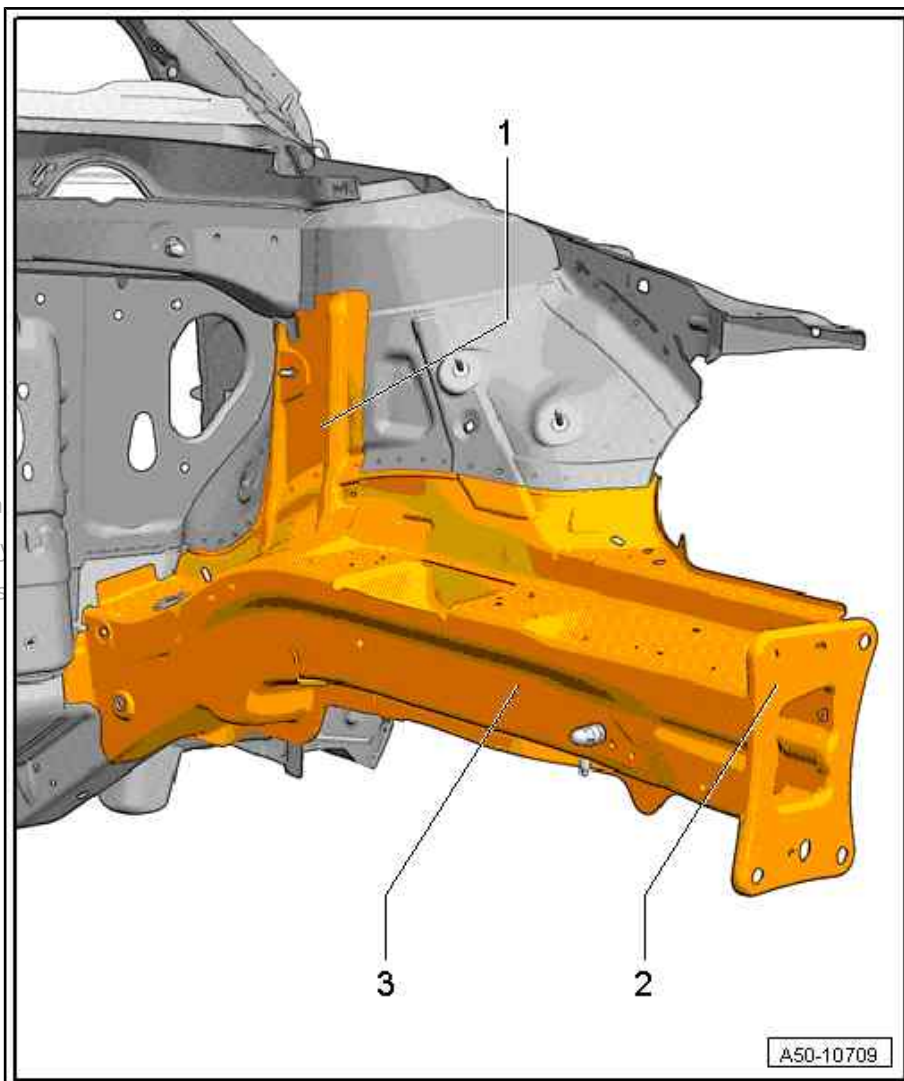
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5 Front longitudinal member - Renewal

- 1 - Front wheel housing reinforcement
- 2 - Bumper bracket
- 3 - Front longitudinal member



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5.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Compact angle grinder
- ◆ Drill
- ◆ Spot weld breaker

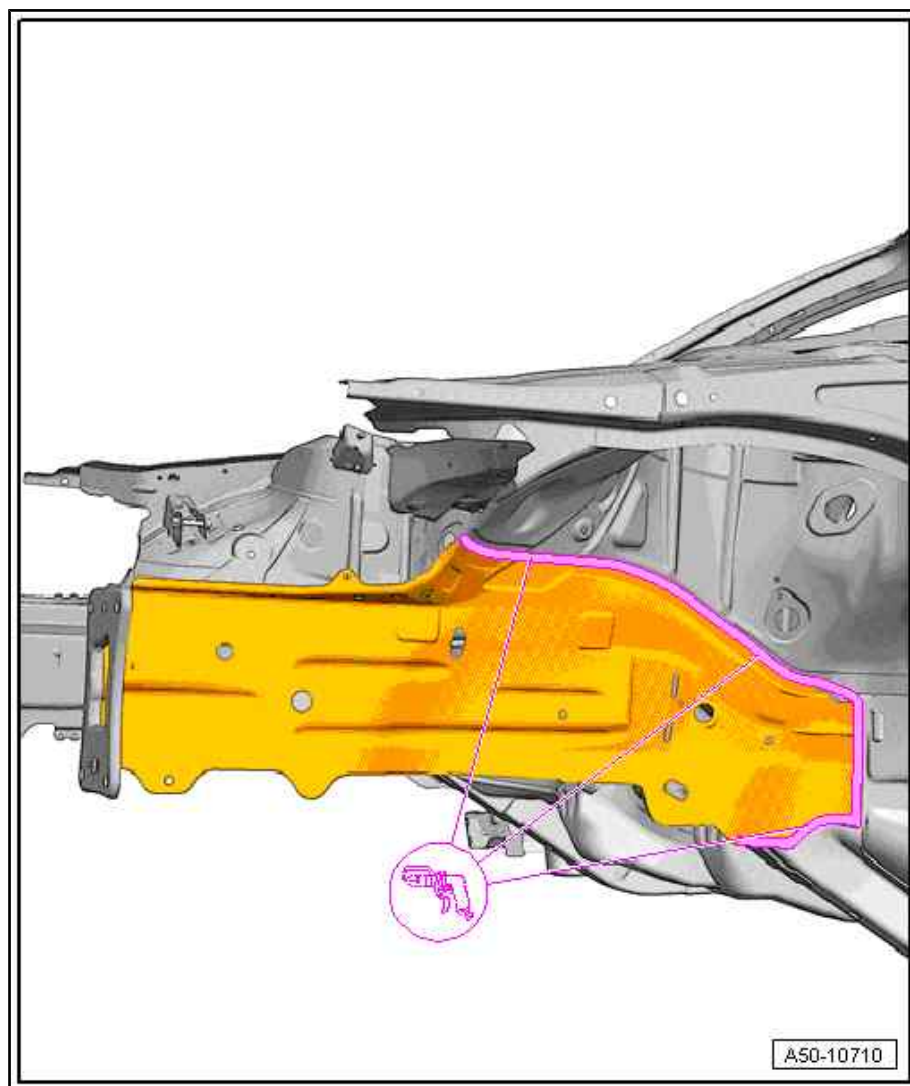
Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .



5.2 Procedure

Cutting locations

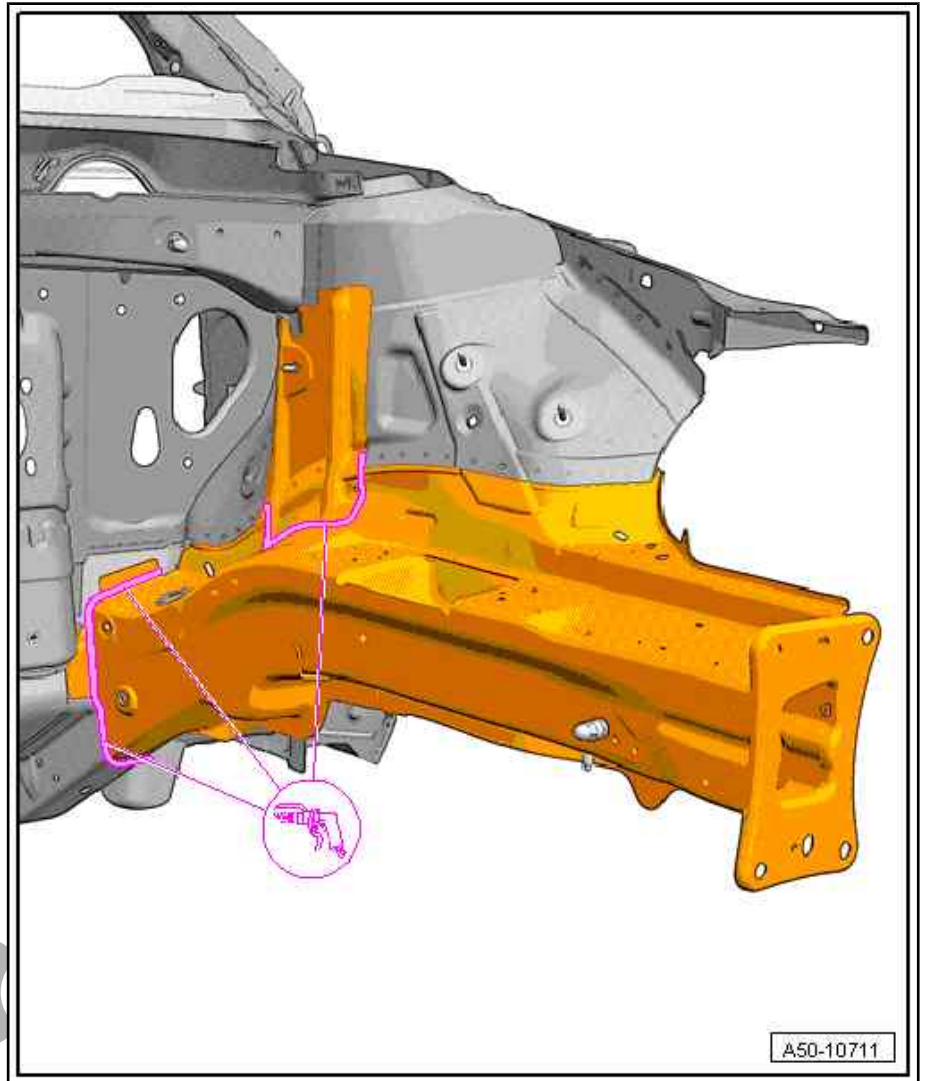
- Mounting bracket for subframe removed ⇒ [page 41](#)
- Separate original joint using spot weld breaker .



- Separate original joint using spot weld breaker .



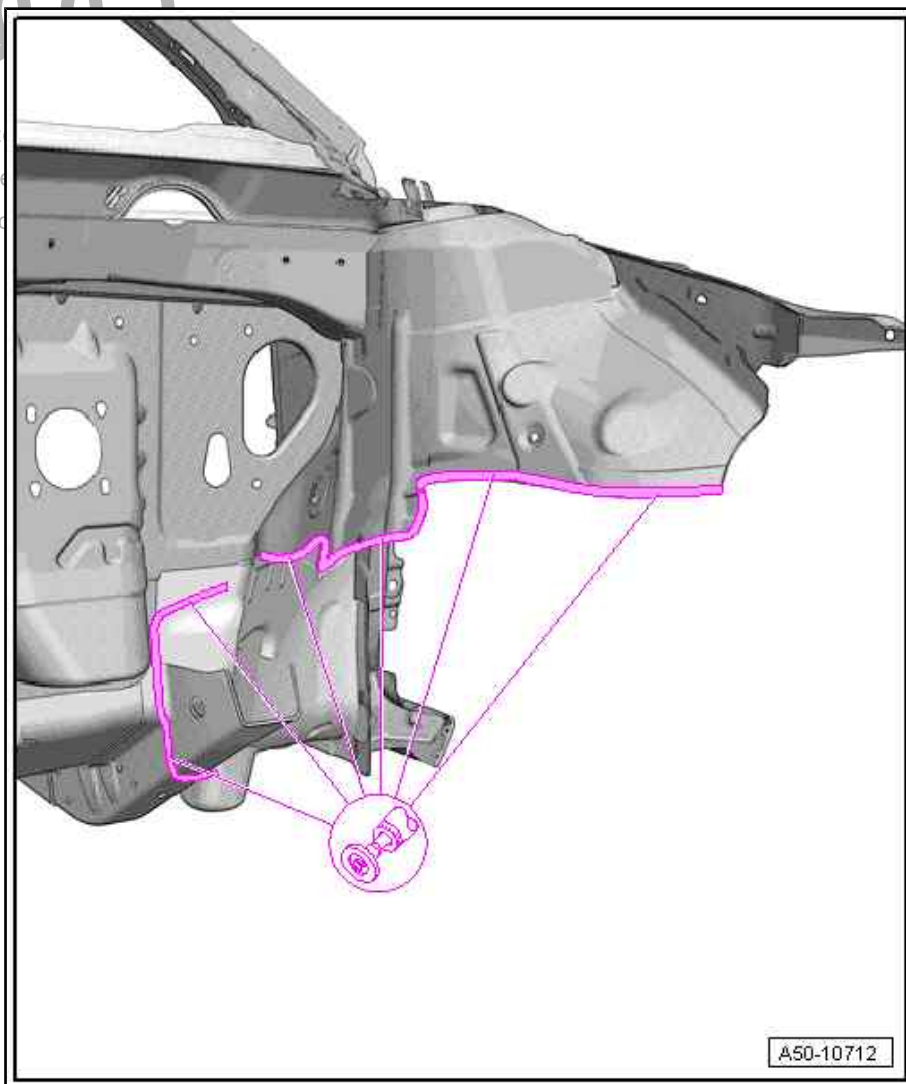
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- **Remove remaining material using compact angle grinder**



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Replacement parts

- ◆ Sub-part - front longitudinal member

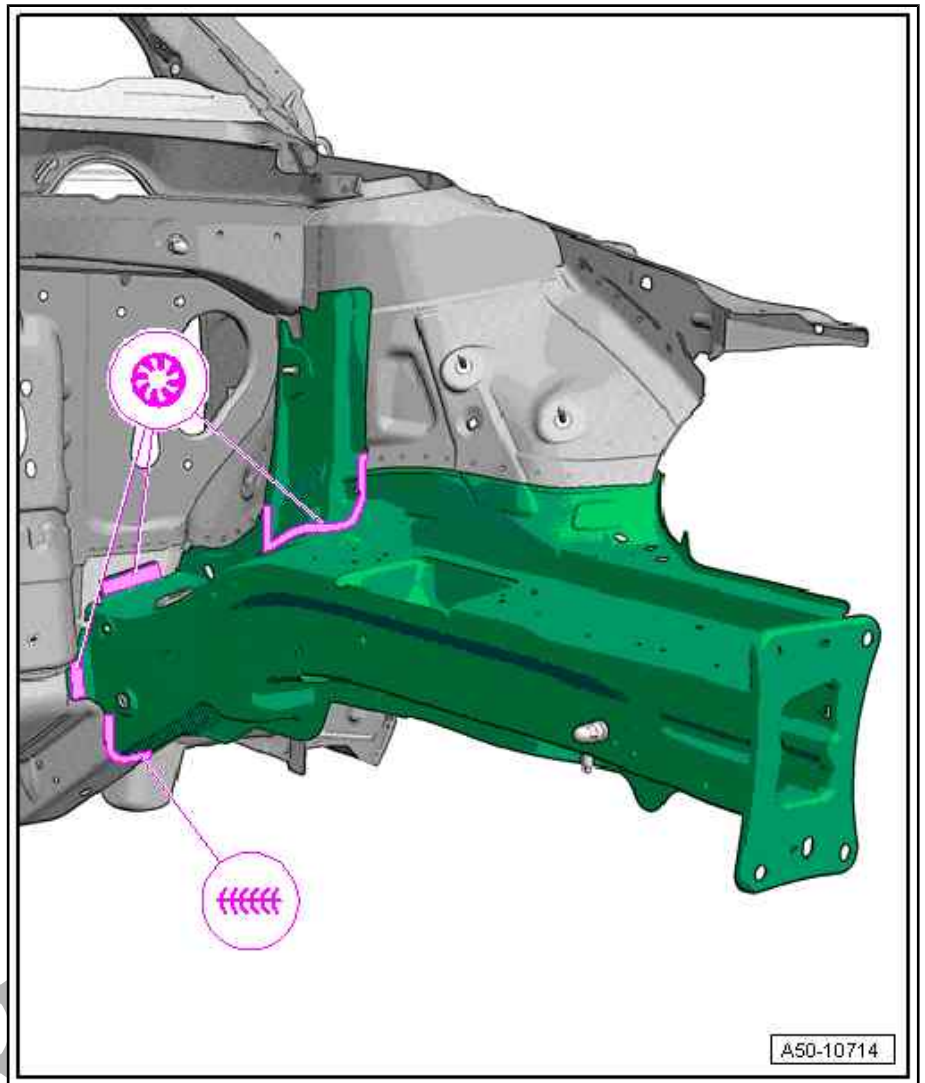


NOTICE

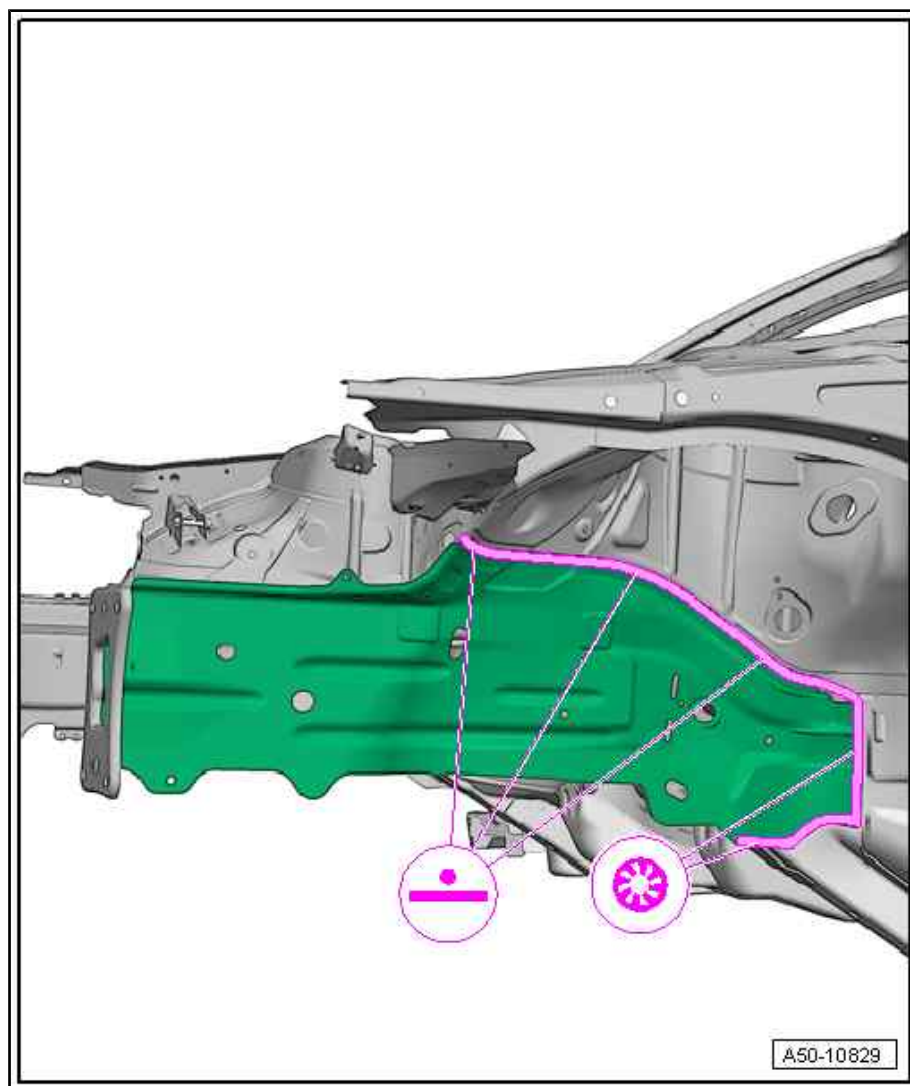
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- With vehicle standing on alignment bracket set, match up new part and fix in position.
- Check fit with adjacent parts.
- Weld in longitudinal member using shielded arc welding equipment : SG continuous seam.
- Weld in longitudinal member using shielded arc welding equipment : SG plug weld seam.



- Weld in wheel housing using resistance spot welder : RP spot weld seam.
- Remake original joint at wheel housing using shielded arc welding equipment : SG plug weld seam.



- Welding in mounting bracket for subframe ⇒ [page 41](#)



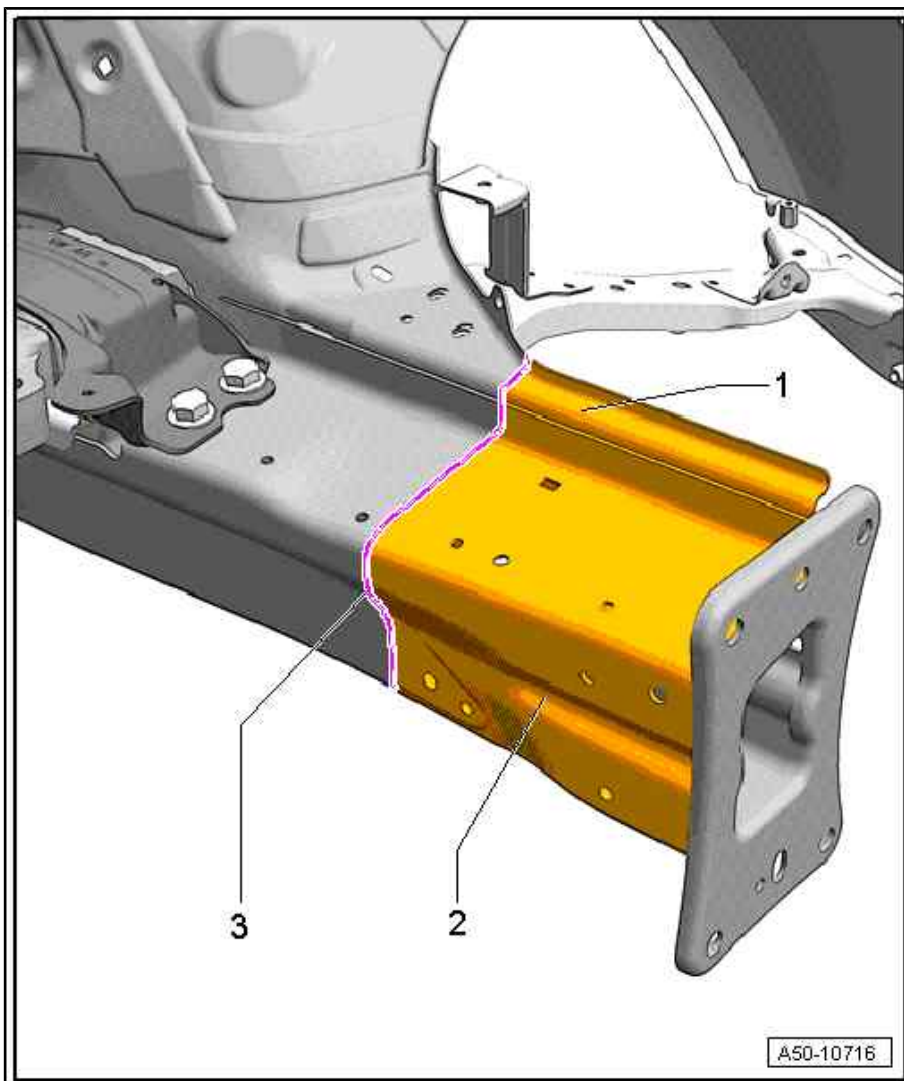
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RO: 50 79 55 02

6 Front longitudinal member (left-side) - Partial renewal

- 1 - Cover plate for longitudinal member
- 2 - Front longitudinal member
- 3 - Separating cut



6.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder

◆ Compact angle grinder

◆ Body saw

◆ Spot weld breaker

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Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .



6.2 Procedure

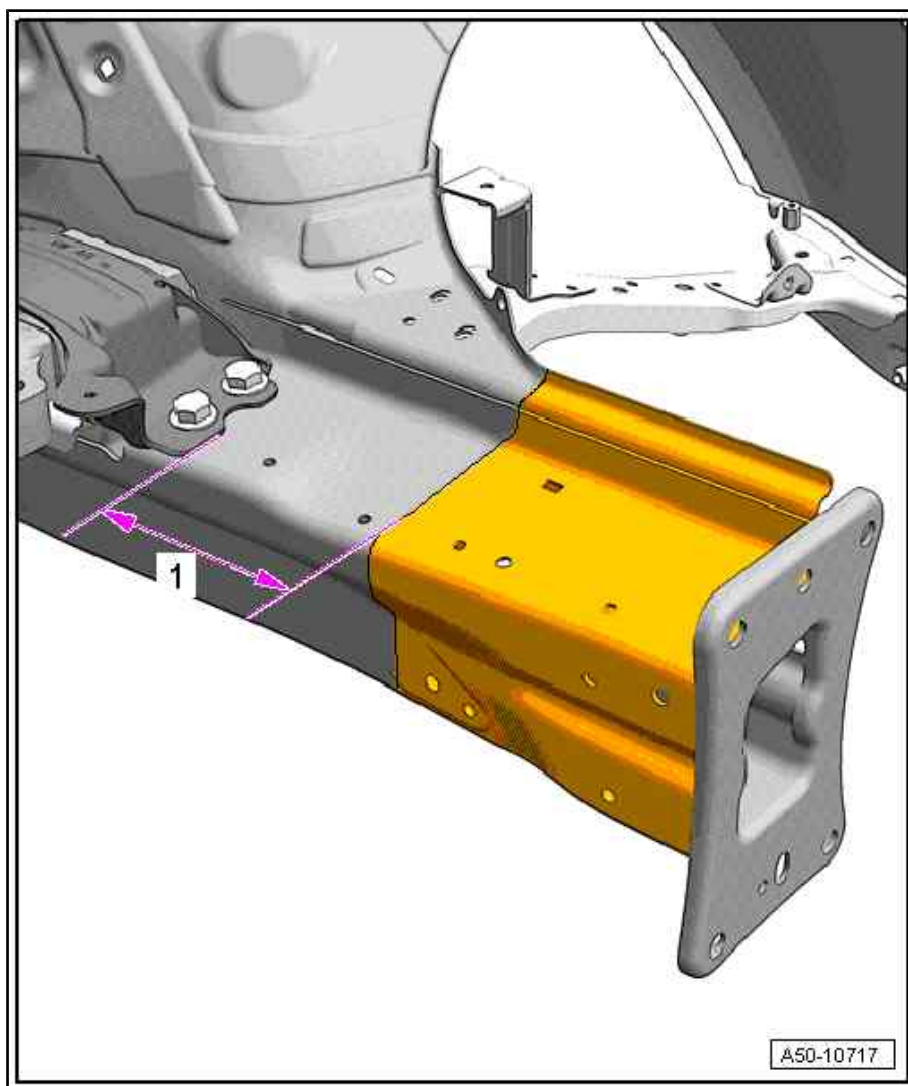
Cutting locations

CAUTION

This separating cut on the longitudinal member may only be made in the area shown. If damage to the longitudinal member extends further it must be renewed completely.

- Cut through longitudinal member completely using body saw (important: keep to dimension -1- for separating cut).

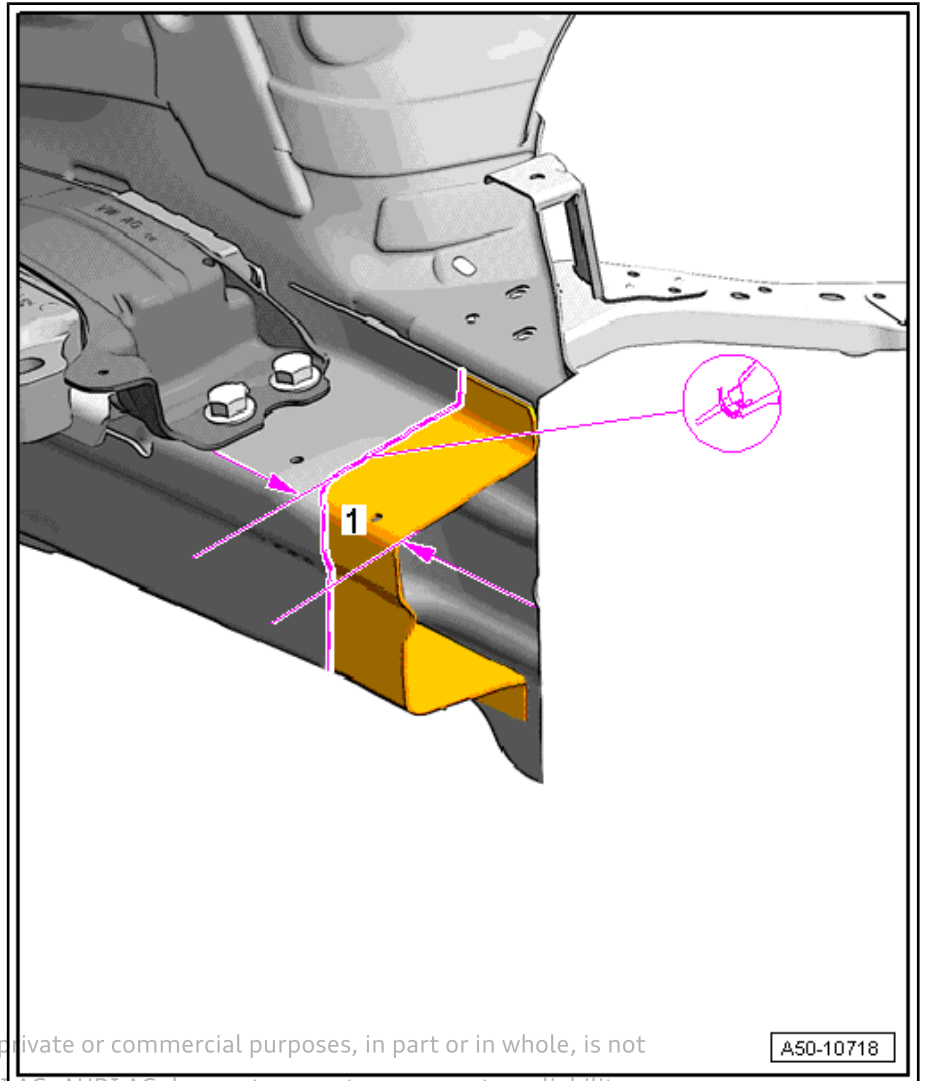
Dimension -1- = 110 mm



- To obtain a step, cut only longitudinal member according to dimension -1- using body saw (keep to indicated dimension).

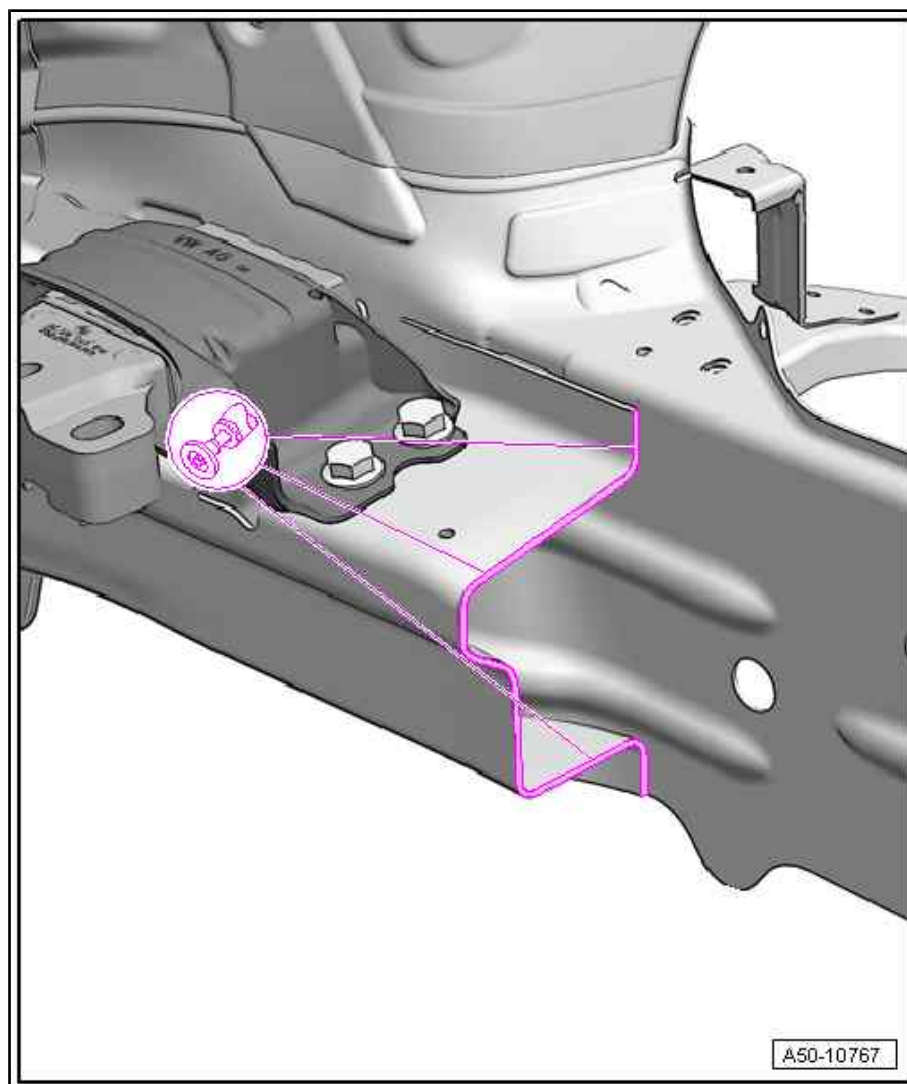
Dimension -1- = 25 mm

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- Remove remaining material using compact angle grinder .



Replacement parts

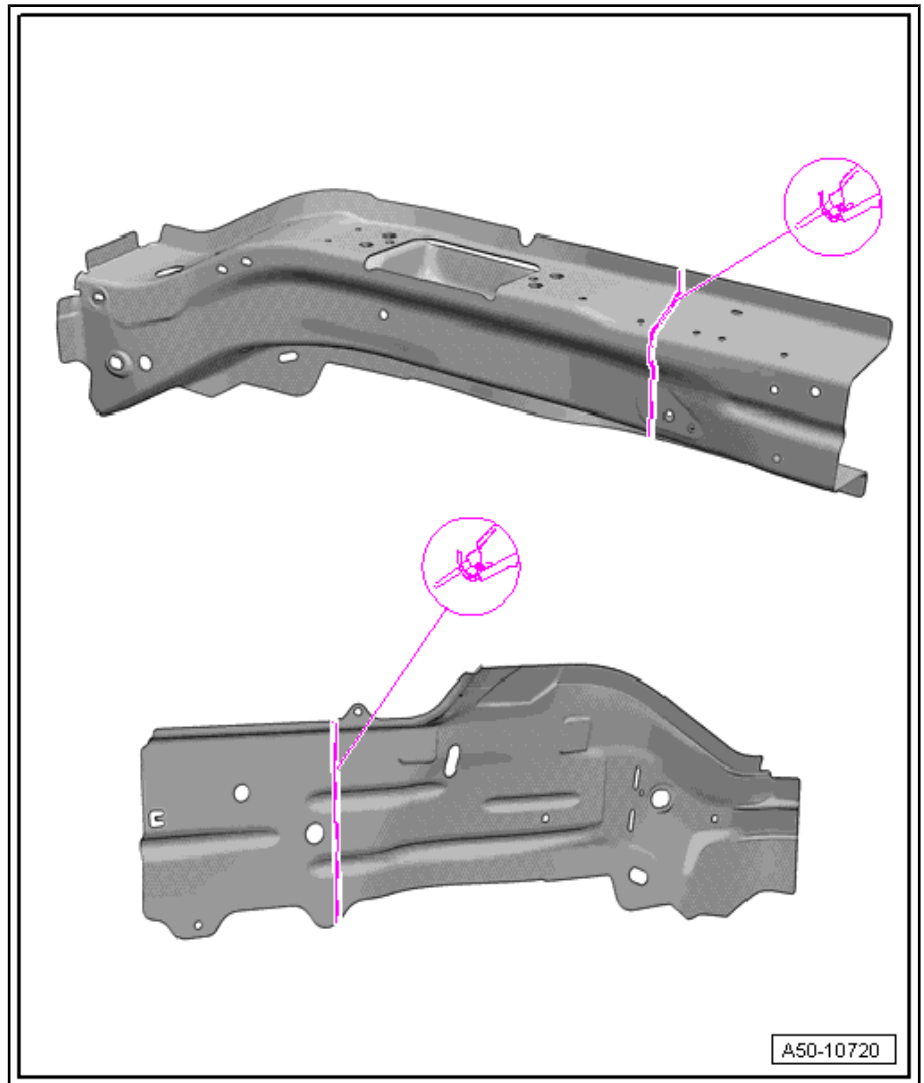
- ◆ Cover plate for longitudinal member
- ◆ Front longitudinal member

Preparing new part

- Transfer separating cuts to longitudinal member and to cover plate for front longitudinal member and cut parts to shape using body saw .



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! NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

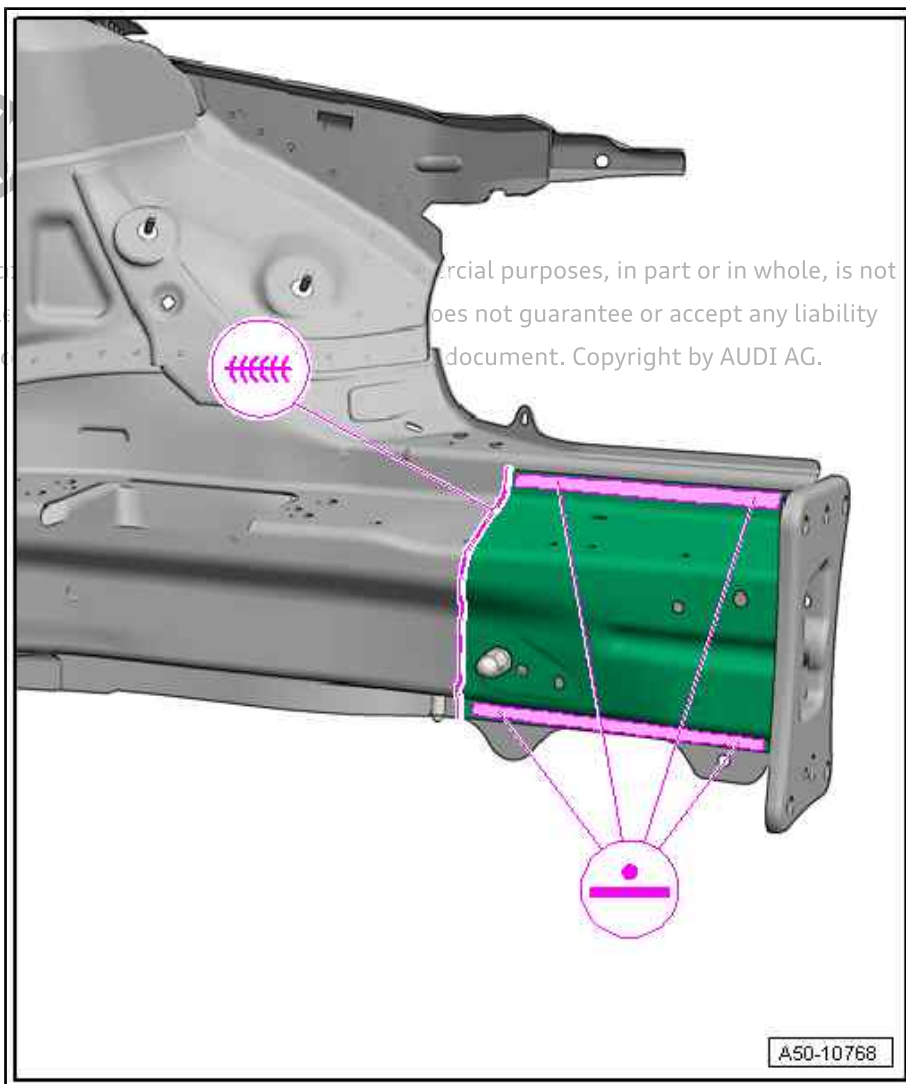
Welding in

- With vehicle standing on alignment bracket set, match up new part and fix in position.
- Check fit relative to adjacent parts.
- Weld front longitudinal member all round at separating cut using shielded arc welding equipment : SG continuous seam.
- Weld in longitudinal member (part section) using resistance spot welder : RP spot weld seam.

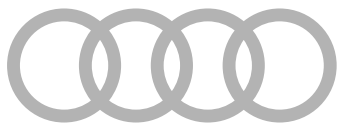
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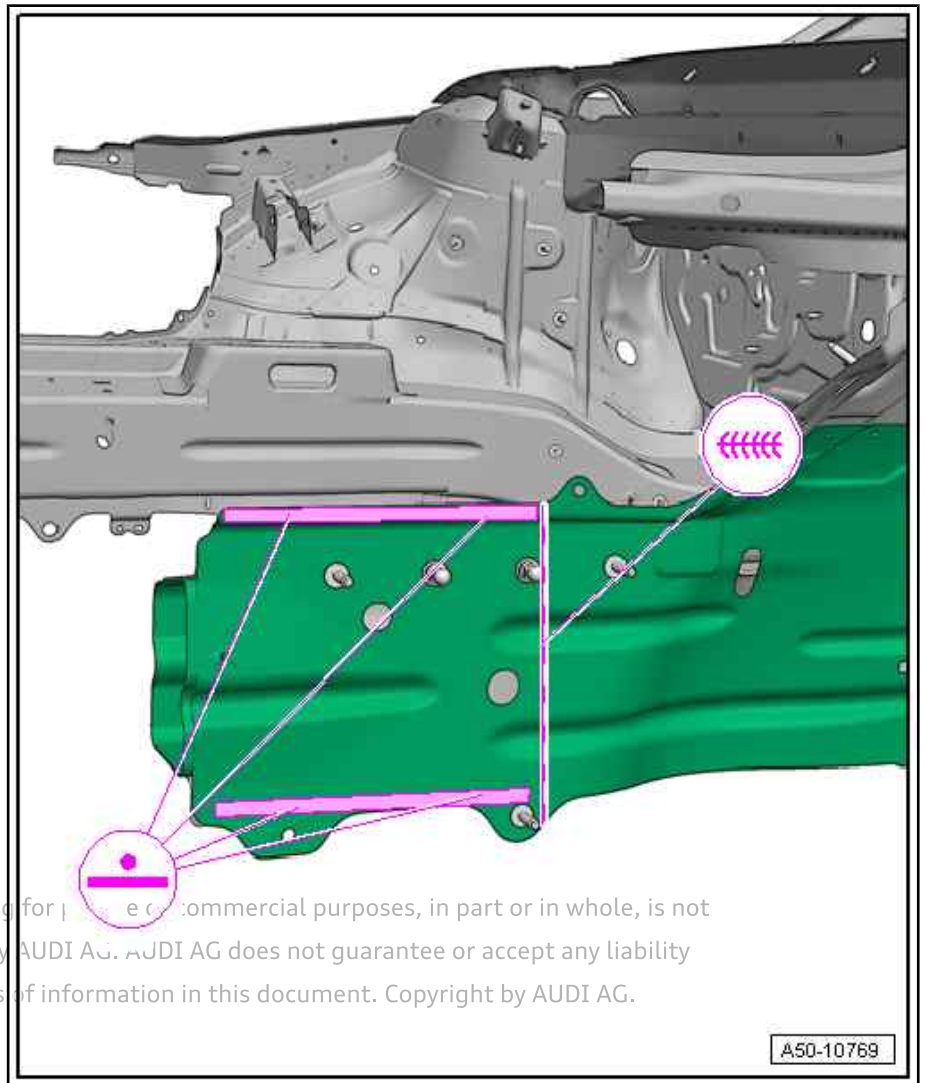
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- Weld cover plate for longitudinal member using shielded arc welding equipment : SG continuous seam.
- Weld in cover plate for longitudinal member using resistance spot welder : RP spot weld seam.



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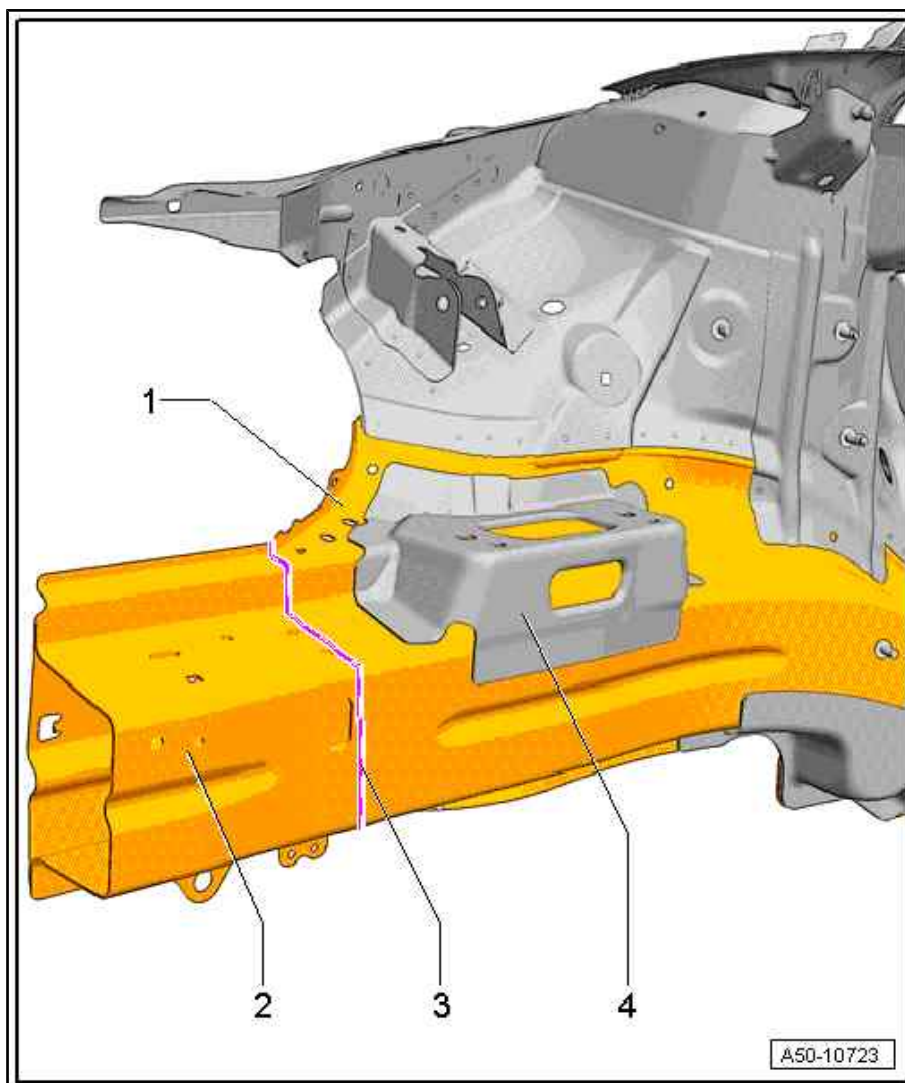




RO: 50 79 55 02

7 Front longitudinal member (right-side) - Partial renewal

- 1 - Cover piece for longitudinal member (front right)
- 2 - Front longitudinal member
- 3 - Separating cut for longitudinal member
- 4 - Engine console



7.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work → [page 29](#).

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7.2 Procedure

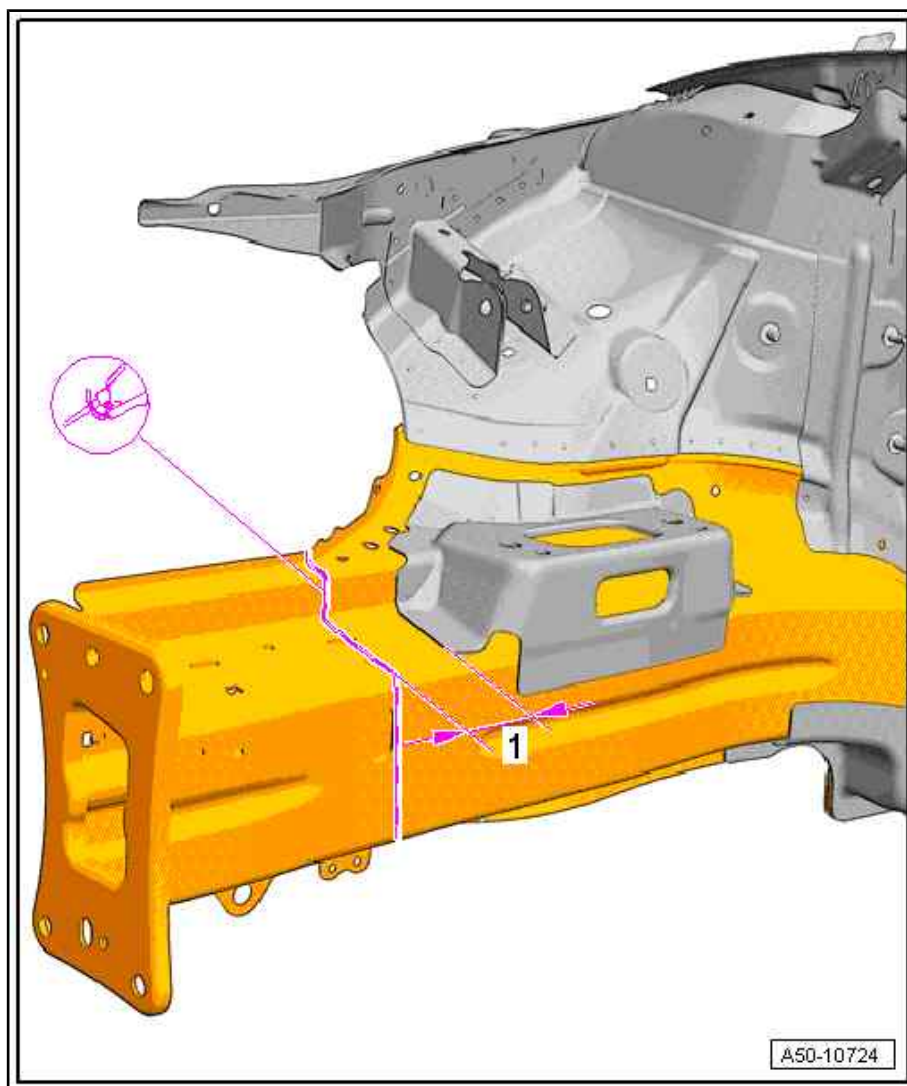
Cutting locations

CAUTION

This separating cut on the longitudinal member may only be made in the area shown. If damage to the longitudinal member extends further it must be renewed completely.

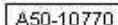
- Cut through longitudinal member completely using body saw (important: keep to dimension -1- for separating cut).

Dimension -1- = 40 mm



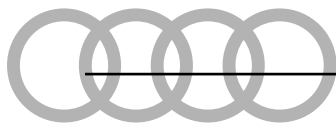
- To obtain a step, cut only longitudinal member according to dimension -1- using body saw (keep to indicated dimension).

Dimension -1- = 25 mm

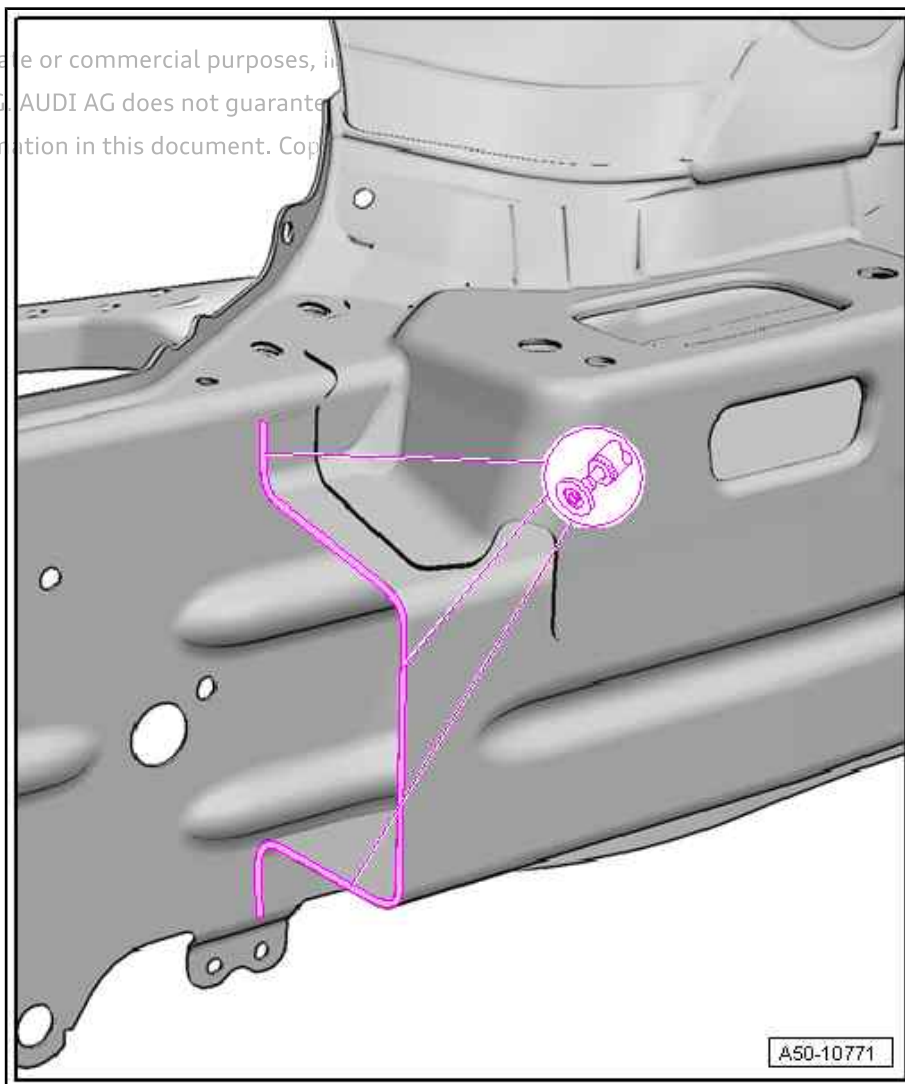


-

78 Rep. gr.50 - Body - front



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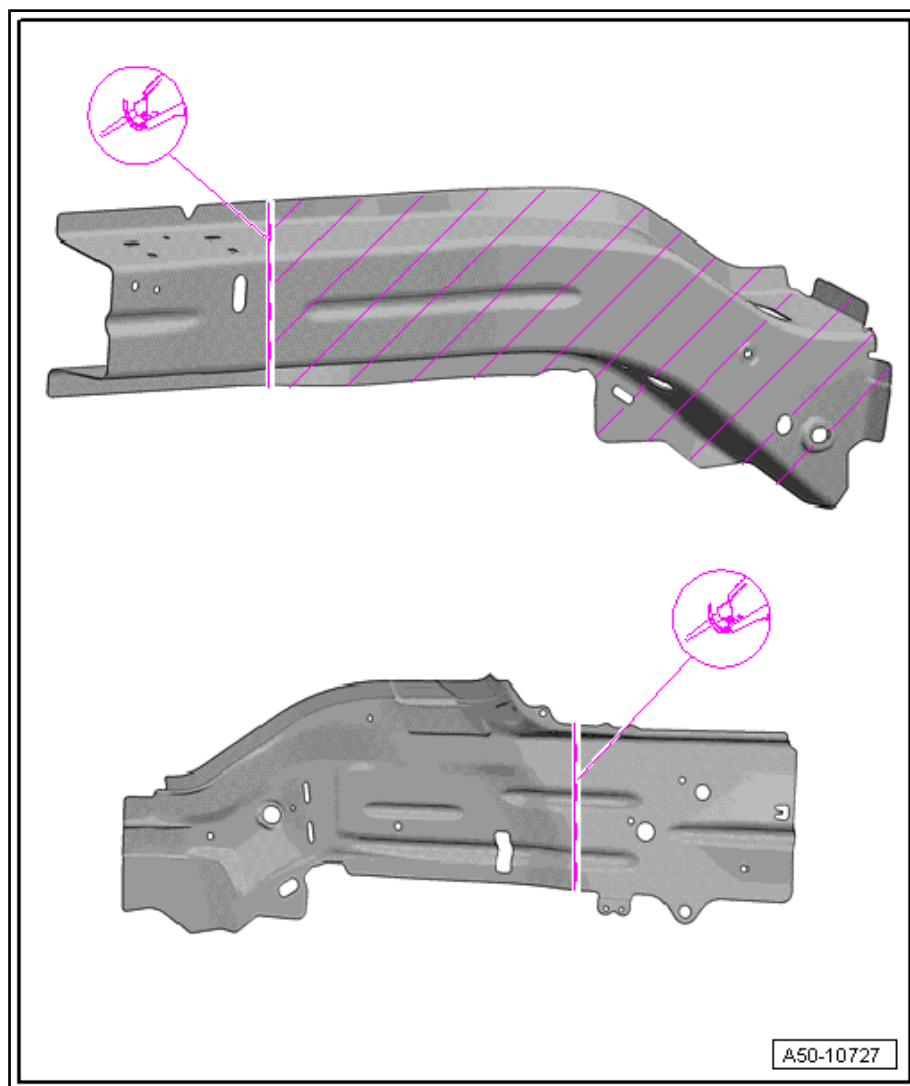


Replacement parts

- ◆ Cover plate for longitudinal member (front right)
- ◆ Bumper bracket extension
- ◆ Front longitudinal member

Preparing new part

- Transfer separating cuts to longitudinal member and to cover plate for front longitudinal member and cut parts to shape using body saw .



NOTICE

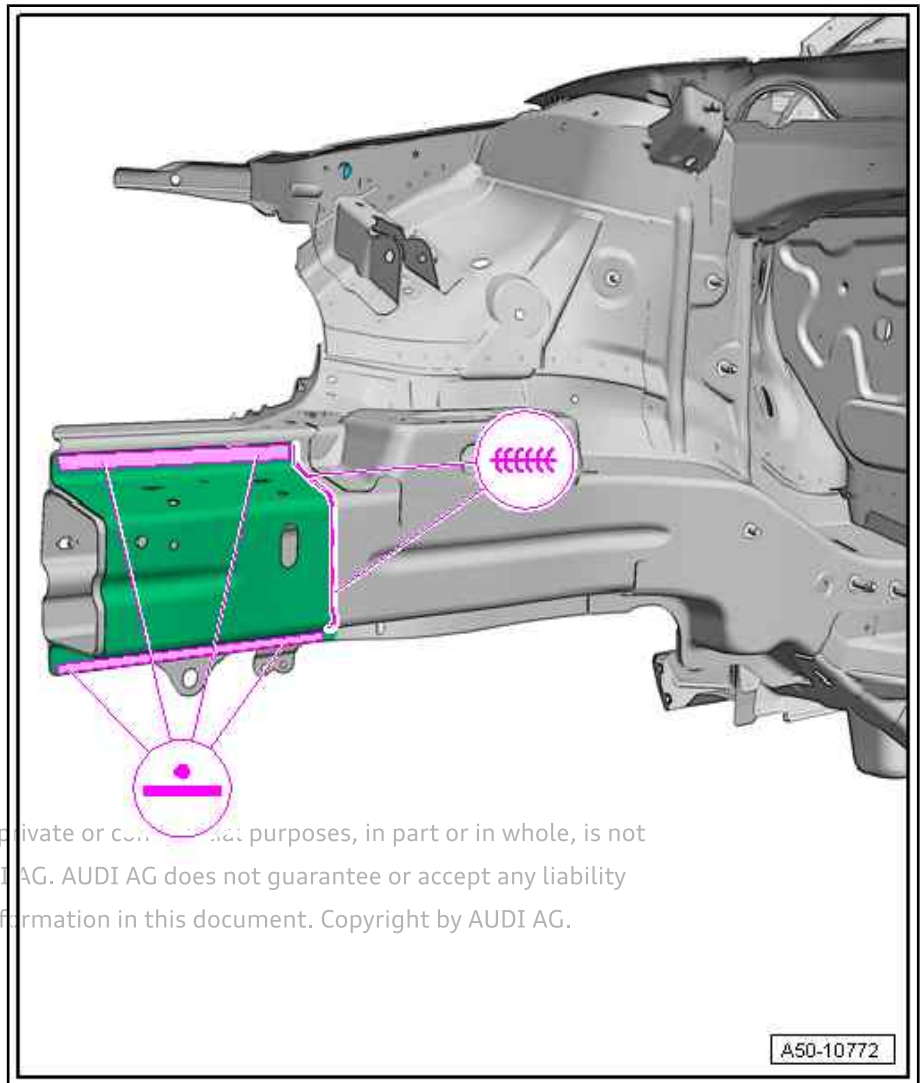
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

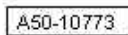
- With vehicle standing on alignment bracket set, match up new part and fix in position.
- Check fit relative to adjacent parts.
- Weld front longitudinal member all round at separating cut using shielded arc welding equipment : SG continuous seam.
- Weld in longitudinal member using resistance spot welder : RP spot weld seam.

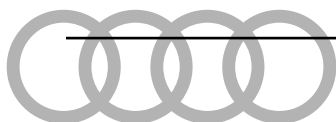


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- Weld in cover plate for longitudinal member at separating cut using shielded arc welding equipment : SG continuous seam.
- Weld in longitudinal member using resistance spot welder : RP spot weld seam.





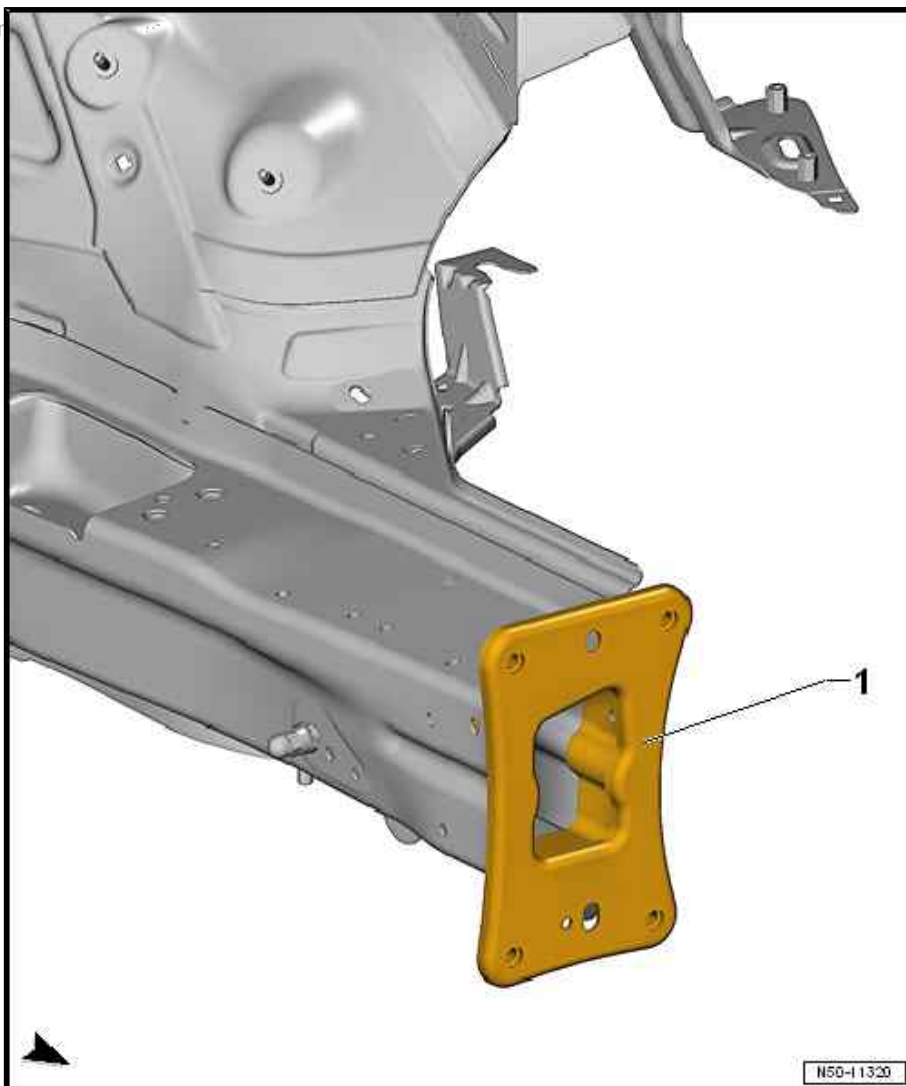
RO: 50 65 55 00

8 Impact damper plate - Renewal

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1 - Bumper bracket



8.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Drill
- ◆ Brush grinder
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker

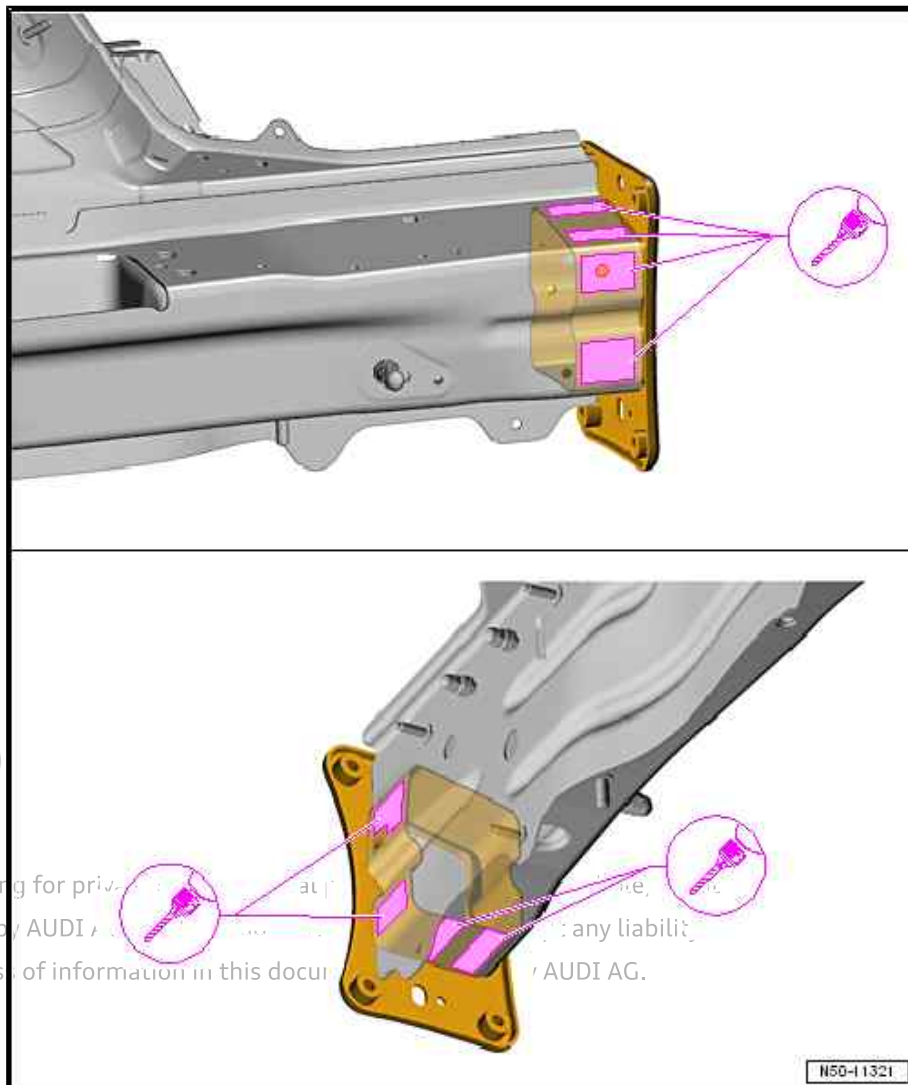
Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .



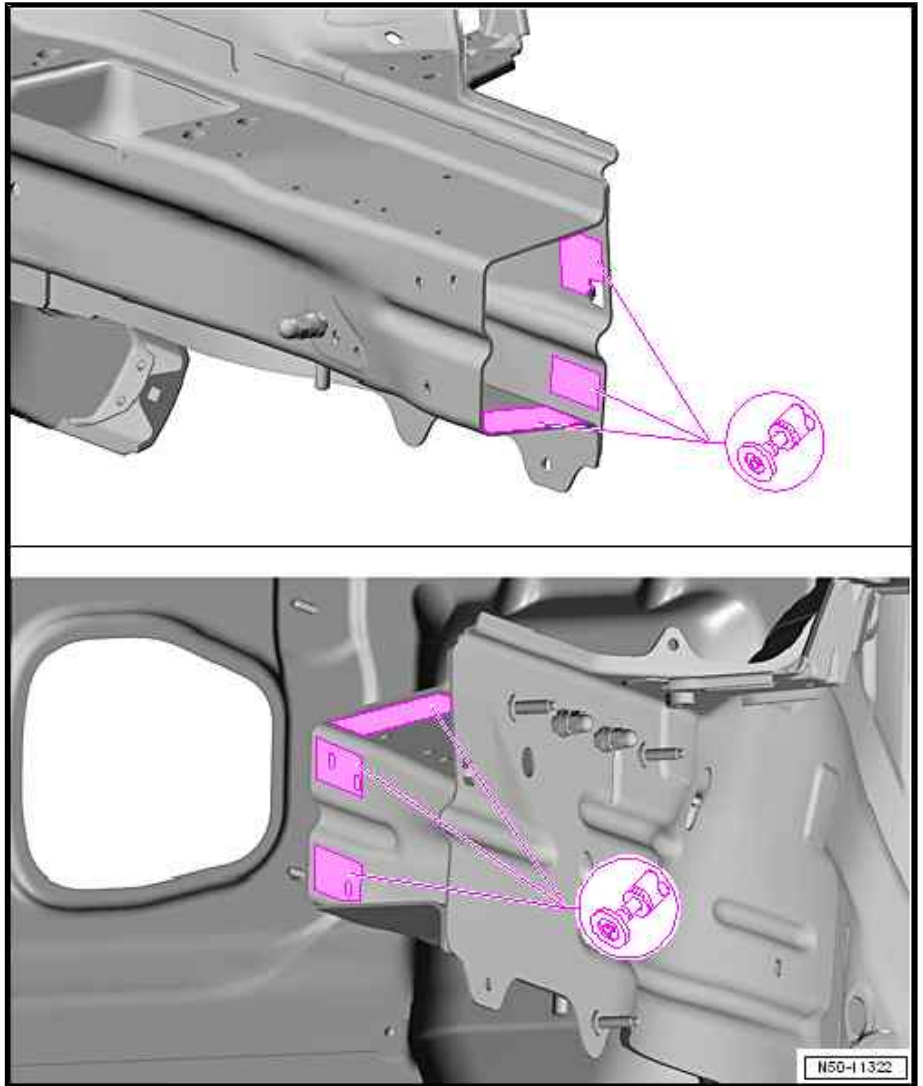
8.2 Procedure

Cutting locations

- Separate original joint using spot weld breaker .



- Remove remaining material using compact angle grinder .



Replacement part

- ◆ Impact damper plate



NOTICE

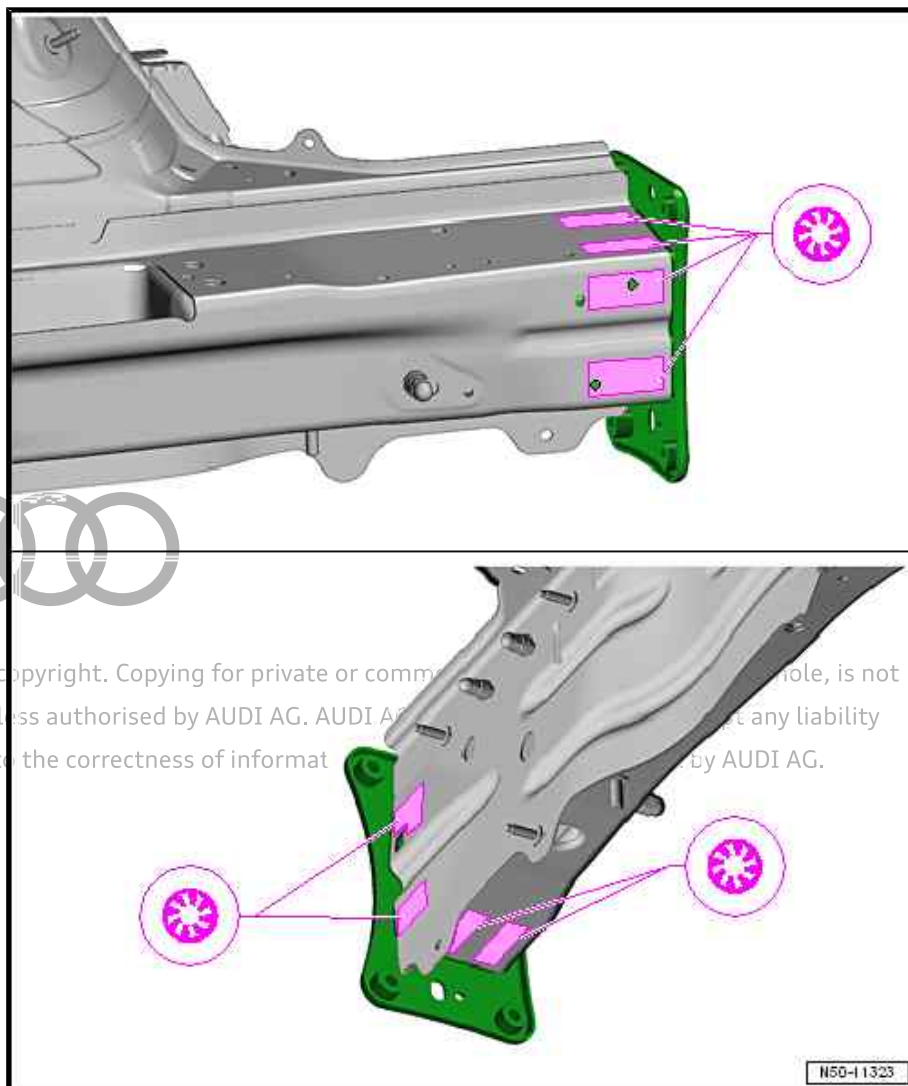
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Match up new part with vehicle positioned on alignment bracket set and fix in place.
- Weld in impact damper plate using shielded arc welding equipment : SG plug weld seam.



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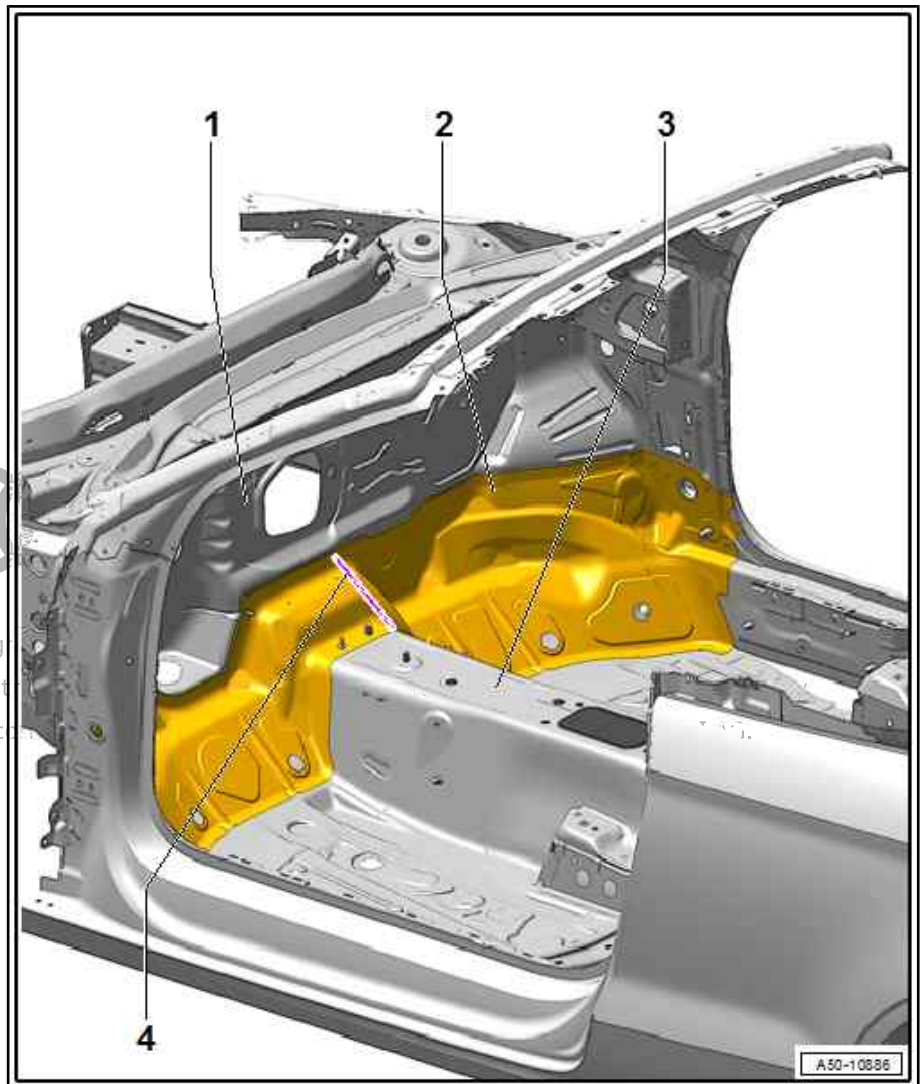
9 Upper footwell cross member - Renewal

1 - Bulkhead

2 - Upper footwell cross member

3 - Tunnel

4 - Separating cut in cross member



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9.1 Tools

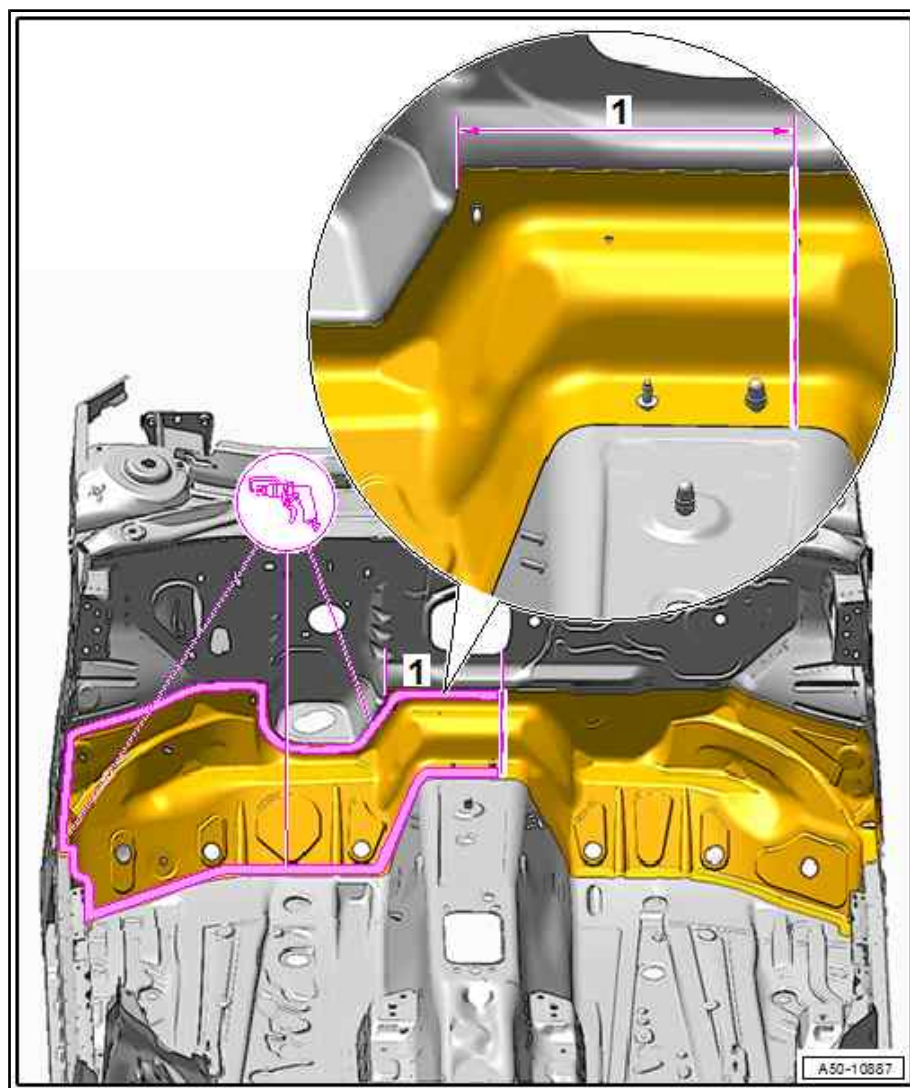
Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

9.2 Procedure

Cutting locations



- Separate original joint using spot weld breaker .
- Make separating cut -1- in cross member as shown using compact angle grinder .

Dimension -1- = 210 mm

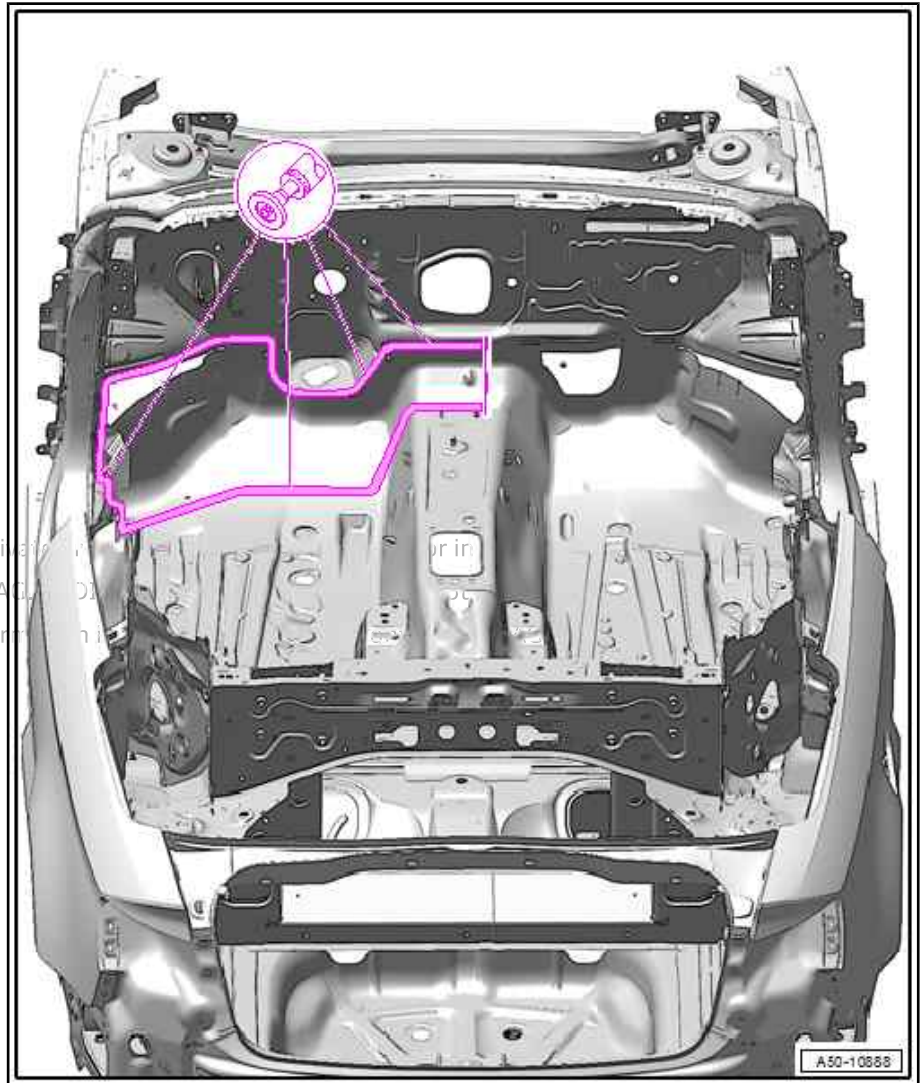
- Remove remaining material using compact angle grinder .



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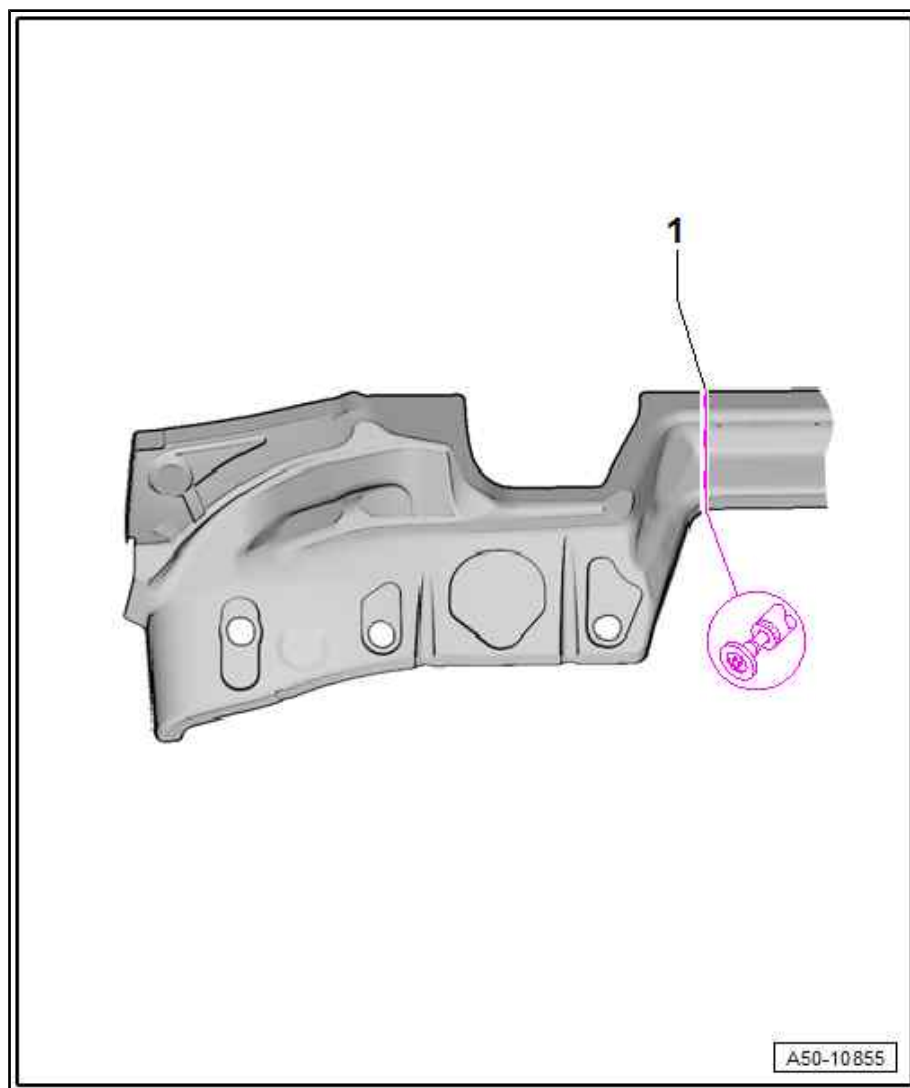
Replacement parts

- ◆ Upper footwell cross member

Preparing new part

- Make up backing plate from old part.
- Keep to separating cut -1- for backing plate.

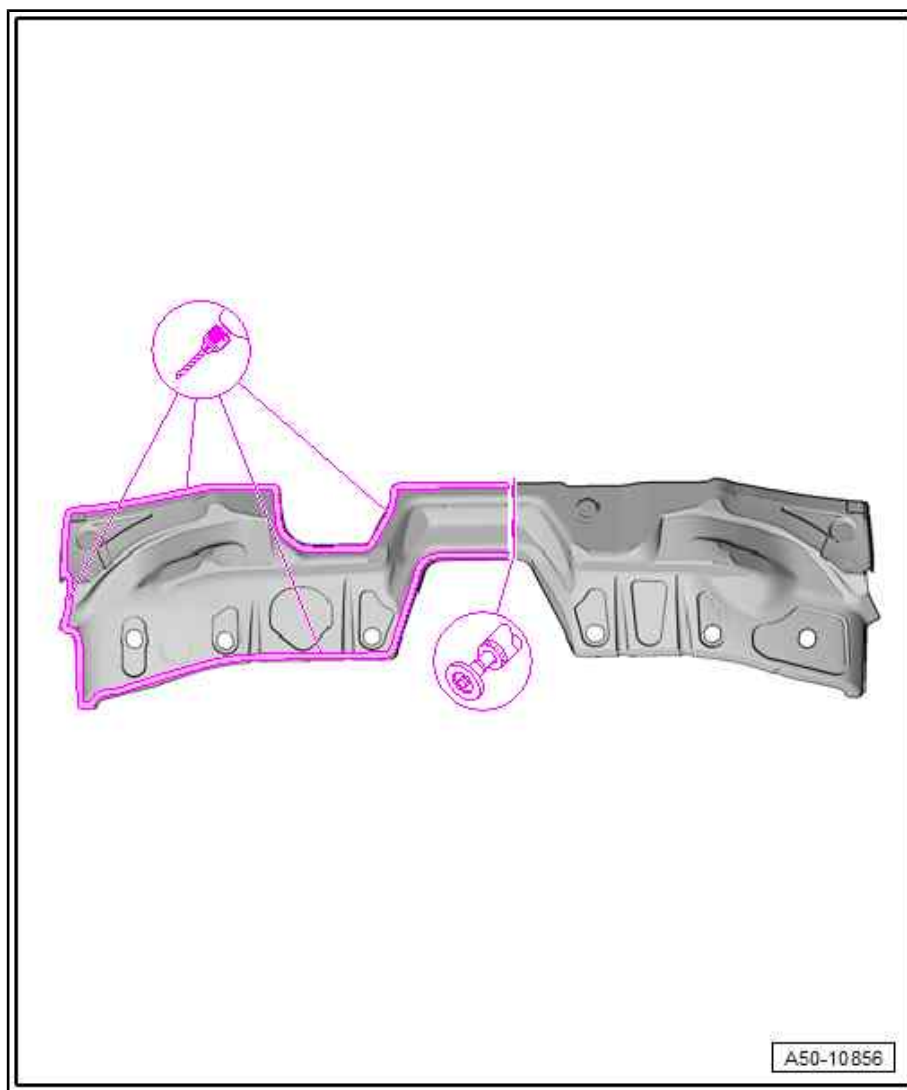
Dimension -2- = 80 mm



- Make separating cut -1- in cross member as shown using compact angle grinder .
- Drill holes for SG plug weld seam, 8 mm Ø using drill .



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Welding in

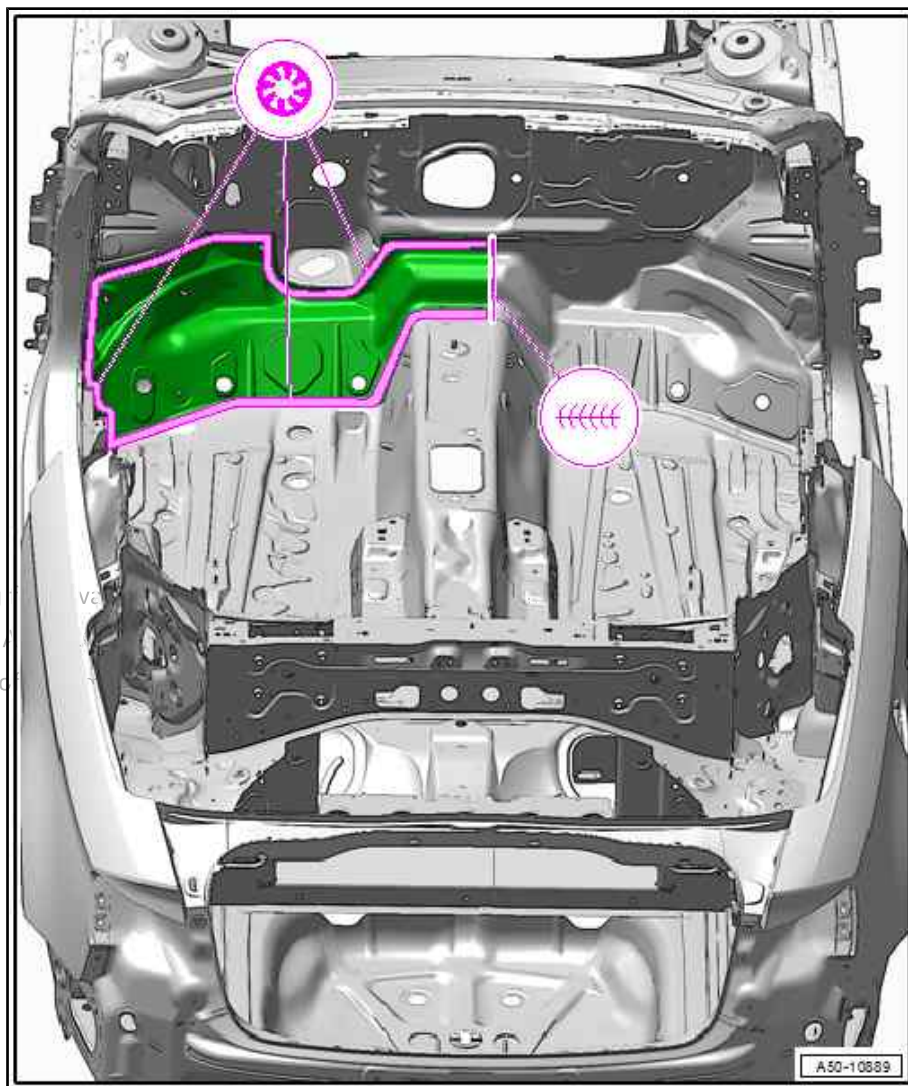
- Weld in cross member using shielded arc welding equipment : SG plug weld seam.
- Weld in at separating cut using shielded arc welding equipment : SG continuous seam.



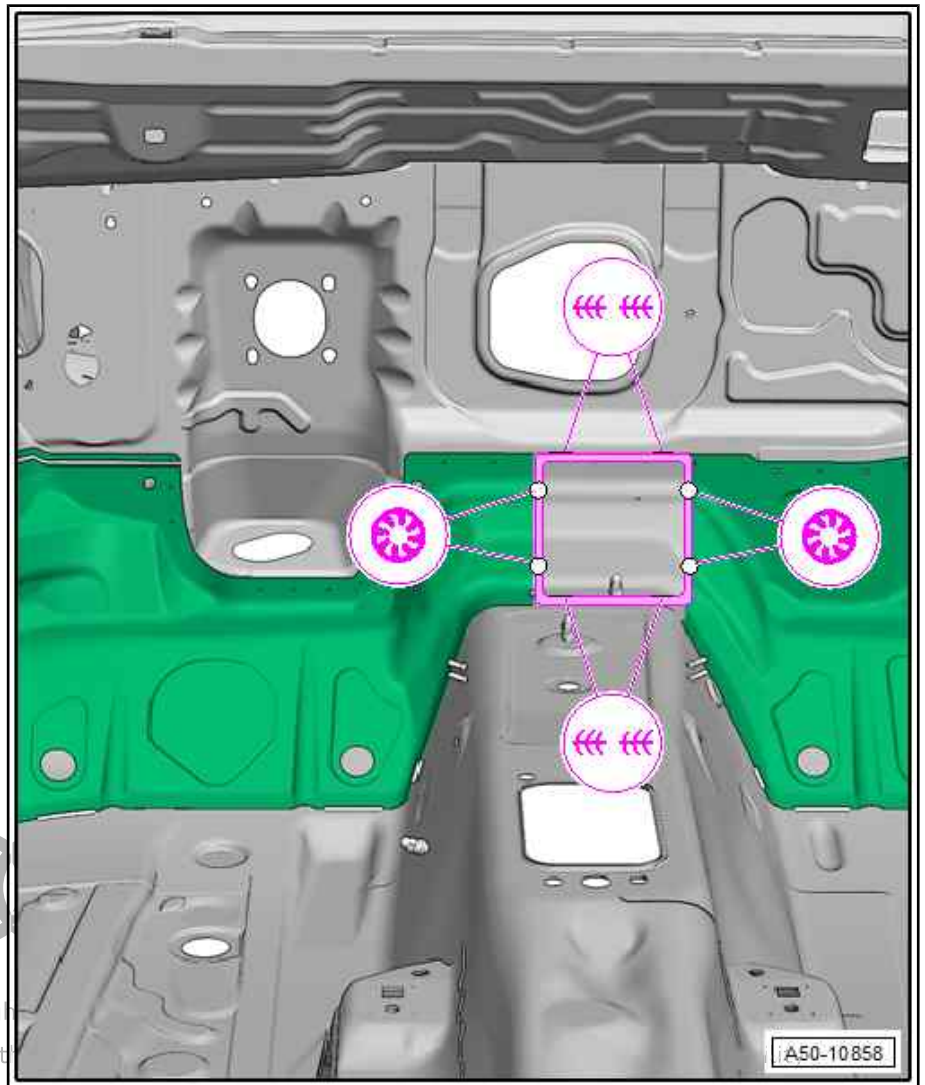
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- Weld in backing plate for cross member using shielded arc welding equipment : 2x SG plug weld seam (left and right).
- Weld in cross member at top and bottom using shielded arc welding equipment : 2 x 20 mm SG continuous seam (staggered - with gaps).



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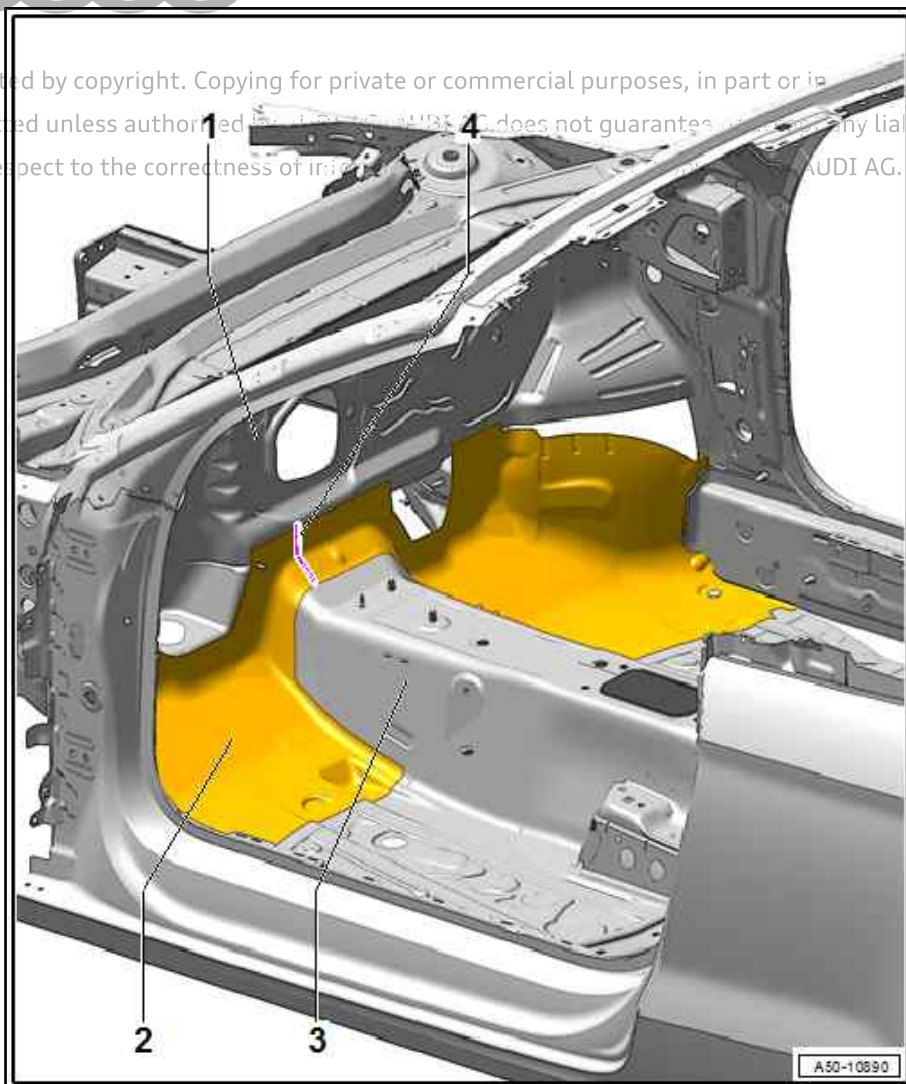
10 Outer footwell cross member - Partial renewal

1 - Bulkhead

2 - Outer footwell cross member

3 - Tunnel

4 - Separating cut in outer cross member



10.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ -VAS 5167-
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

10.2 Procedure

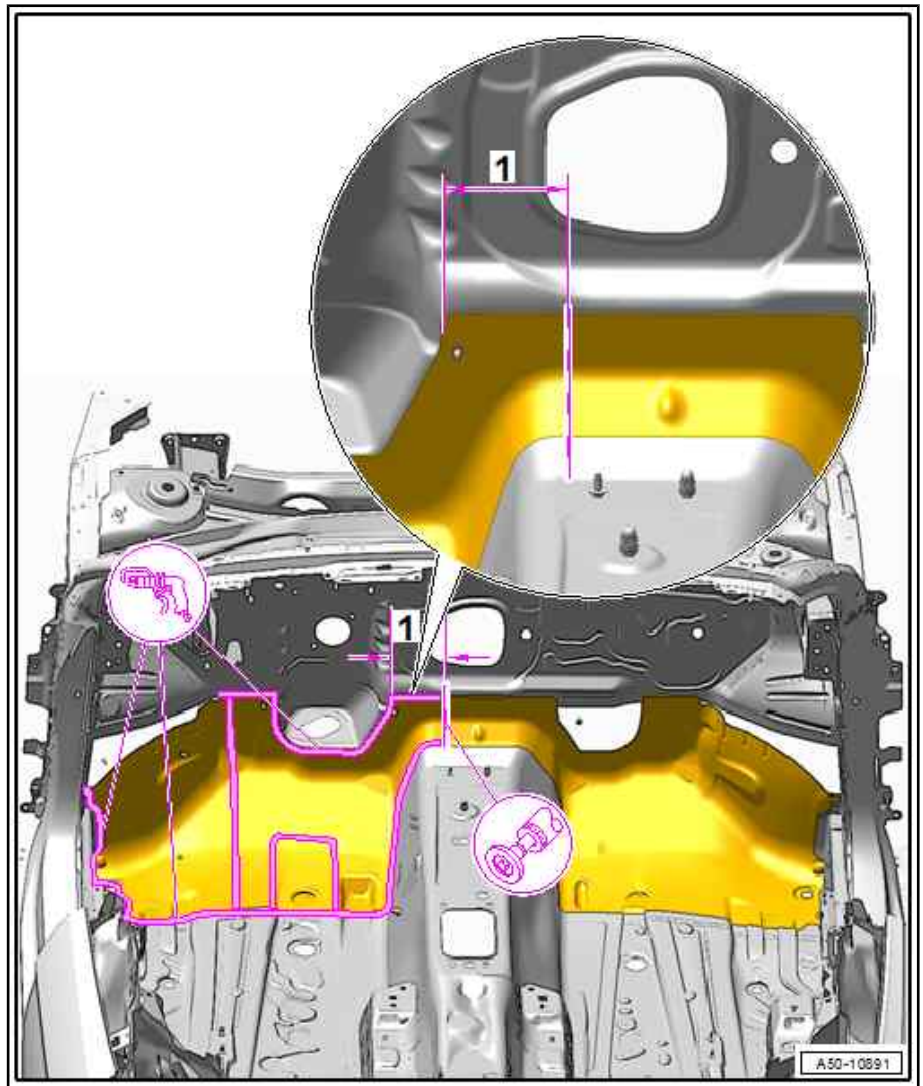
- Inner footwell cross member removed ⇒ [page 87](#)



Cutting locations

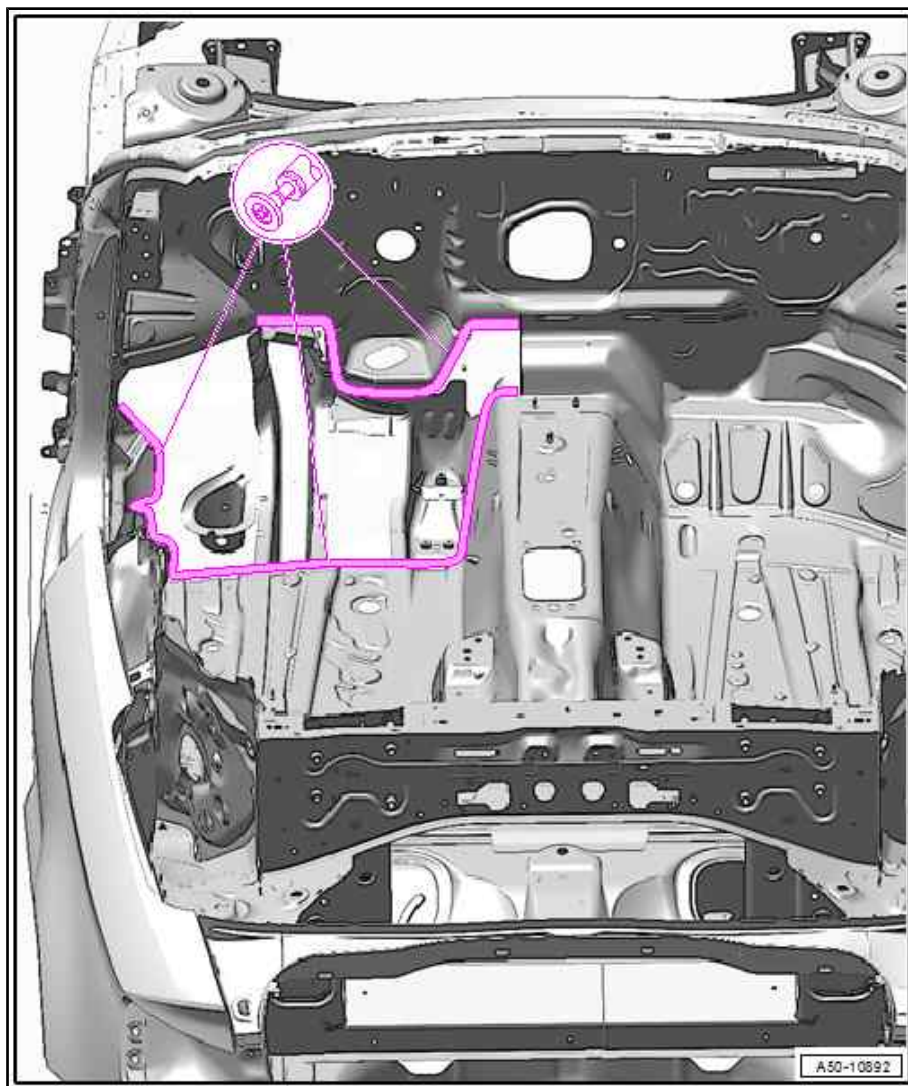
- Separate original joint using spot weld breaker .
- Make separating cut -1- in cross member as shown using compact angle grinder .

Dimension -1- = 110 mm



- Remove remaining material using compact angle grinder .

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Replacement parts

- ◆ Inner footwell cross member

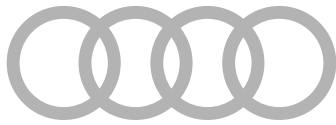
Preparing new part

- Transfer separating cut for outer cross member -1- to new part and cut to size using compact angle grinder .
- Make up backing plate from old part; keep to dimension -a-.

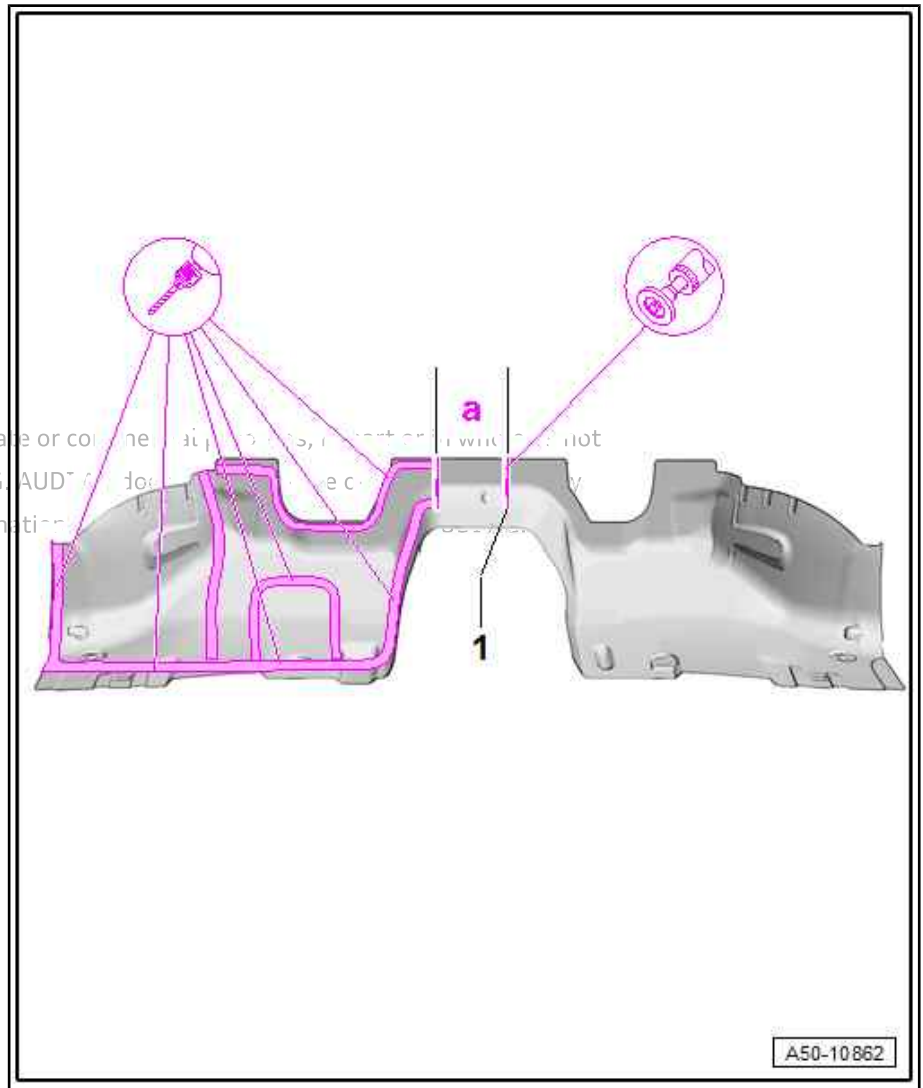
Dimension -a- = 80 mm

- Drill holes for SG plug weld seam, 8 mm Ø using drill .

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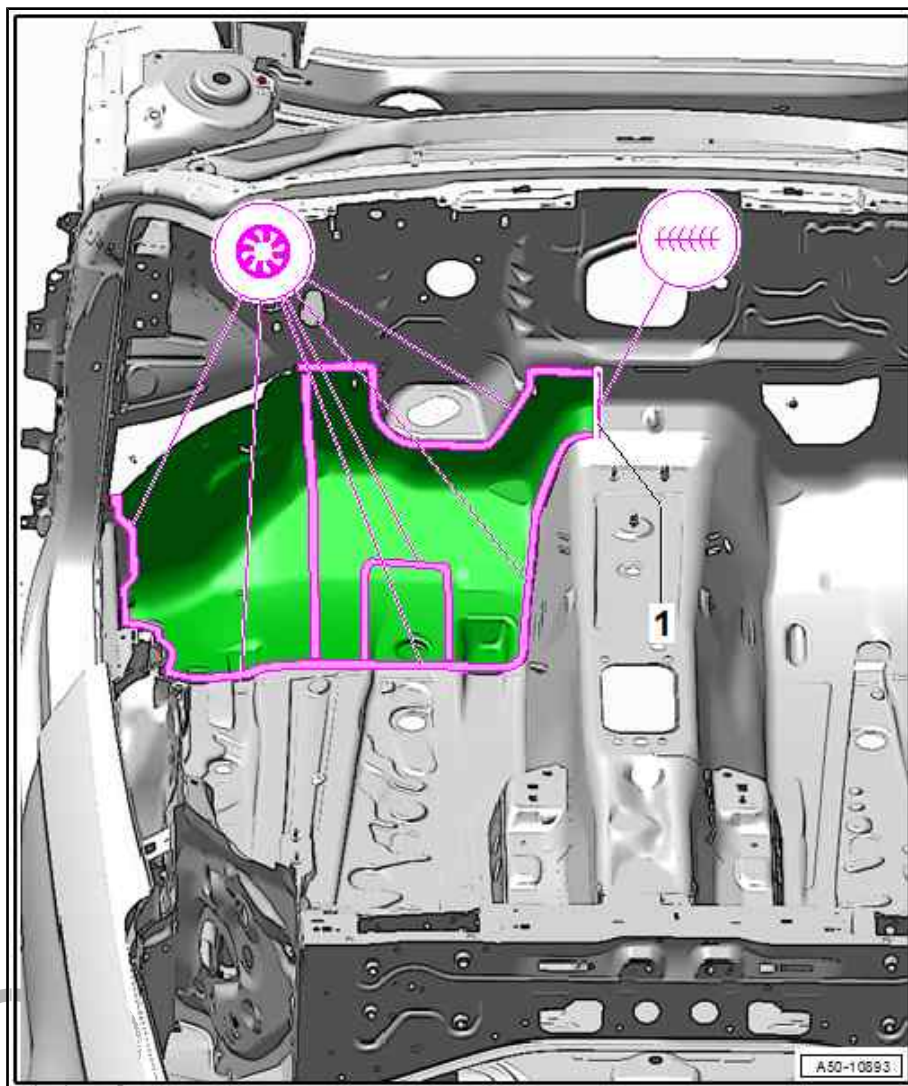


! NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

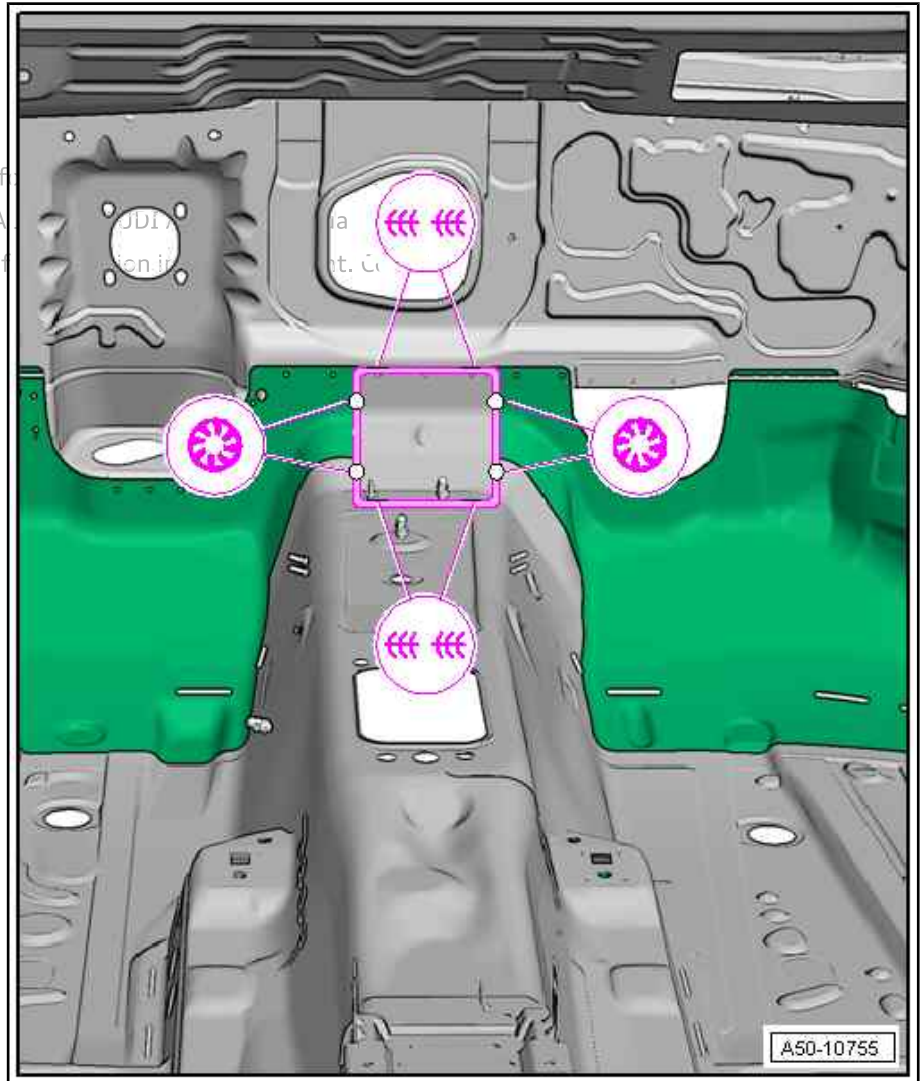
- Weld in cross member using shielded arc welding equipment : SG plug weld seam.
- Weld in at separating cut -1- using shielded arc welding equipment : SG continuous seam.



- Weld in backing plate for outer cross member using shielded arc welding equipment : 2x SG plug weld seam (left and right).
- Weld in cross member at top and bottom using shielded arc welding equipment : 2 x 20 mm SG continuous seam (staggered - with gaps).



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- Welding in inner footwell cross member ⇒ [page 87](#)



RO: 50 79 49 50

11 Repairing threads for attachment of subframe

- Subframe removed ⇒ Running gear, axles, steering; Rep. gr. 40 ; Subframe, anti-roll bar, suspension links



Note

The following description shows the thread repair for the front subframe attachment; the procedure for the other attachments is basically the same.

11.1 Tools

Special tools and workshop equipment required

- ◆ Thread repair kit M12x1.5 - VAS 6058-
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .



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1 - Threaded plate (welded into subframe)



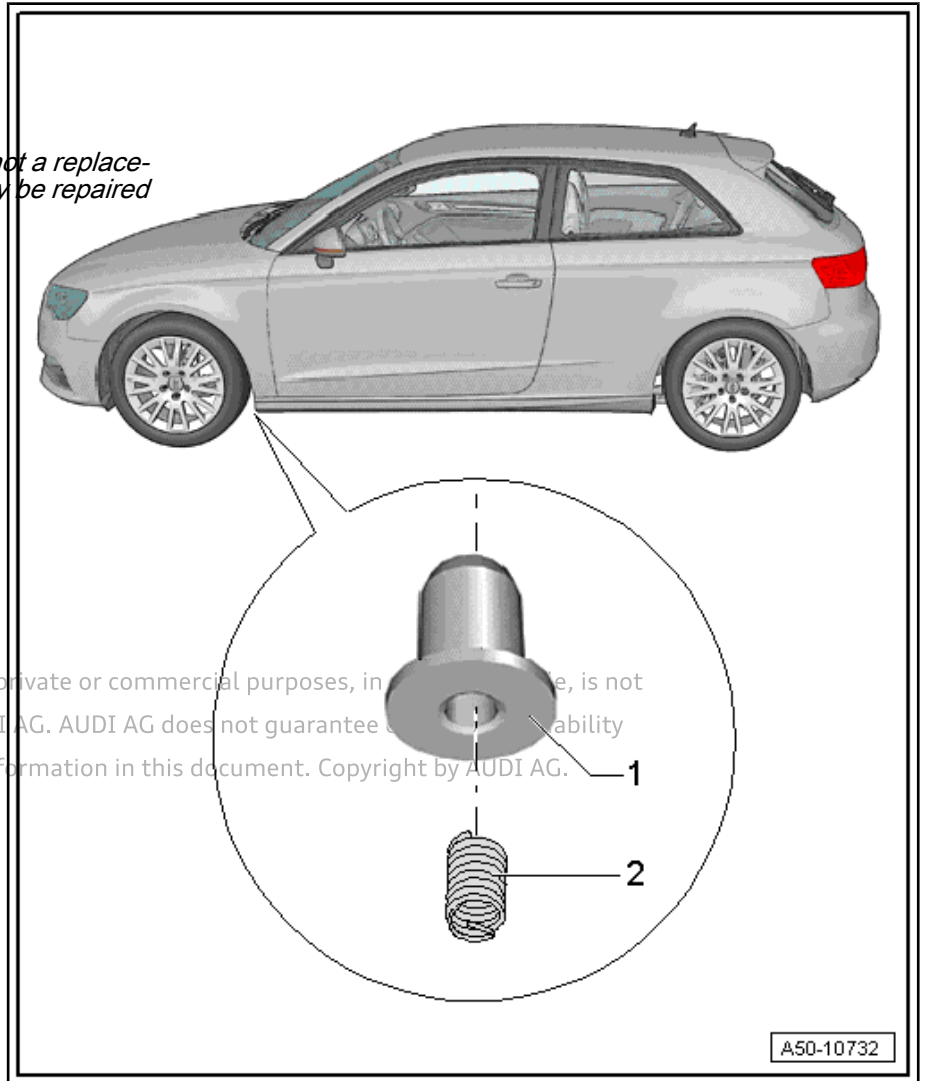
Note

The threaded plate is not a replacement part and may only be repaired once if damaged.

2 - Helicoil thread insert



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A50-10732

Contents of thread repair kit



1 - Drill bit Ø 12.5 mm

2 - Thread tap M 12 x 1.5

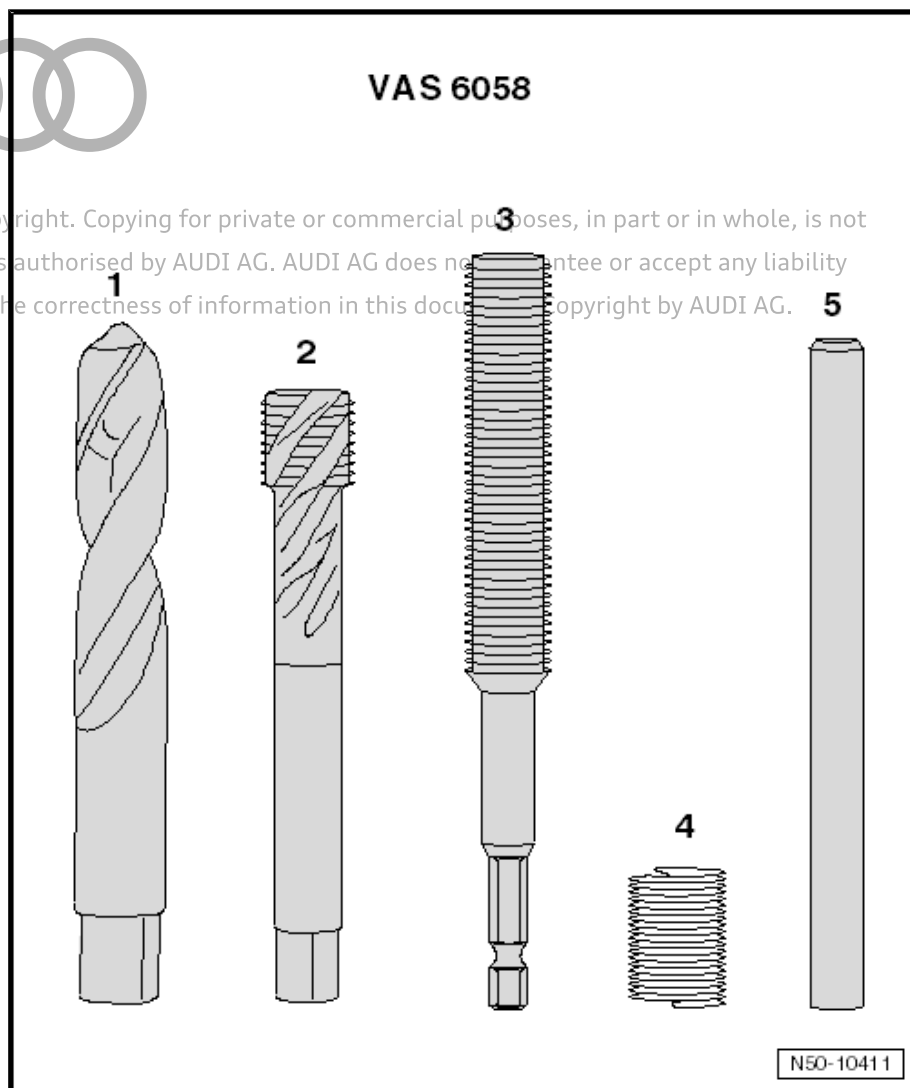
3 - Fitting spindle

4 - Thread insert M 12 x 1.5 x 24 (-VAS 6058/1-)

5 - Pin breaker with magnetic tip

VAS 6058

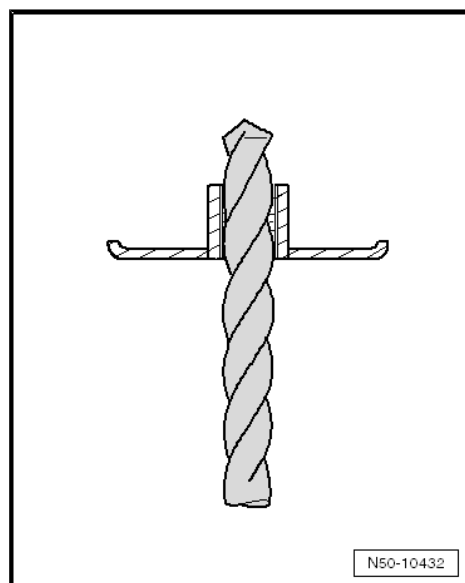
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Repairing thread

Making drilling for thread

- Drill hole for thread using drill bit (twist drill).

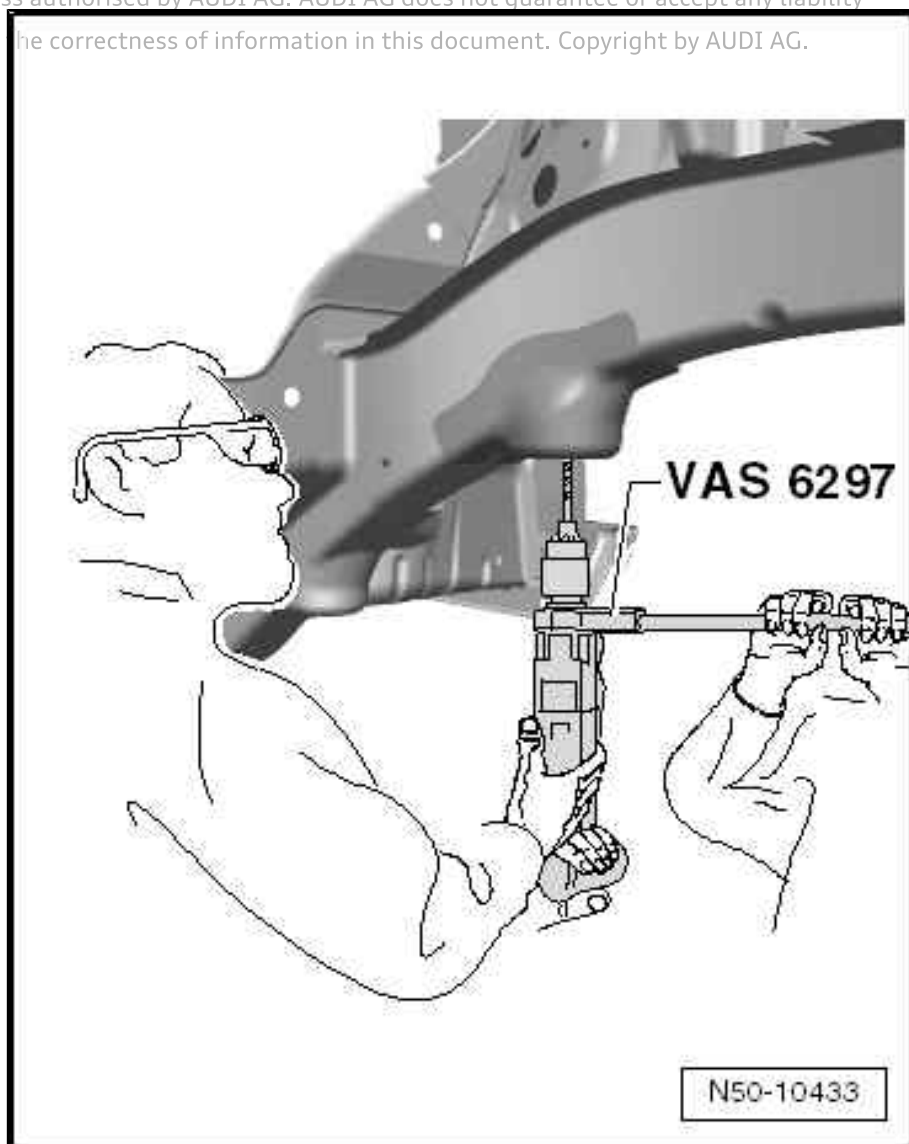




Note

- ◆ Use drill - VAS 6297- for drilling and cutting.
- ◆ The drill must be supported by a second mechanic using the additional handle.
- ◆ Take care to keep the drill straight.

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Cutting thread



CAUTION

Always wear eye protection when cutting the thread and blowing out the threaded drilling.

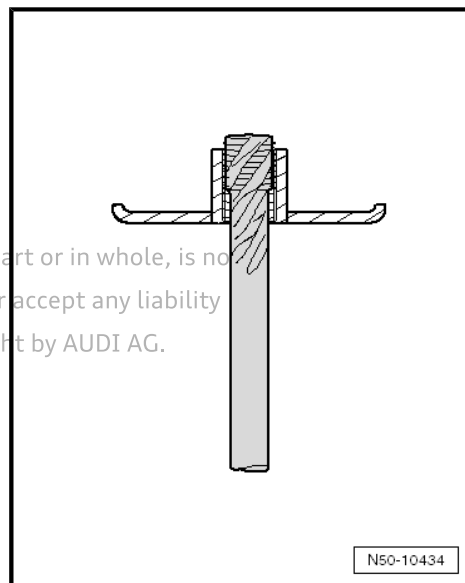


- Cut thread using thread tap.

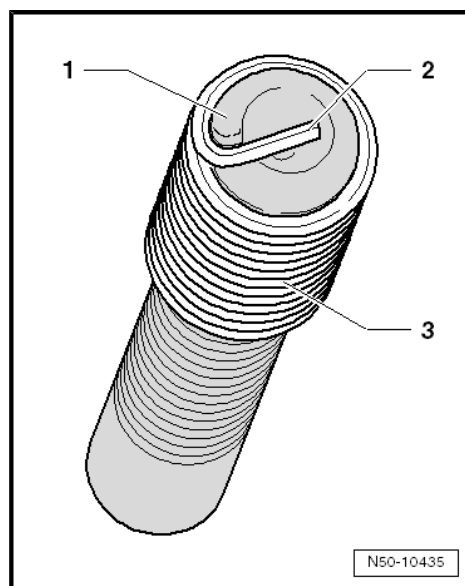
Fitting thread insert



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- Screw thread insert -3- onto fitting spindle until driving pin -2- on thread insert makes contact with driving lug -1- on fitting spindle.



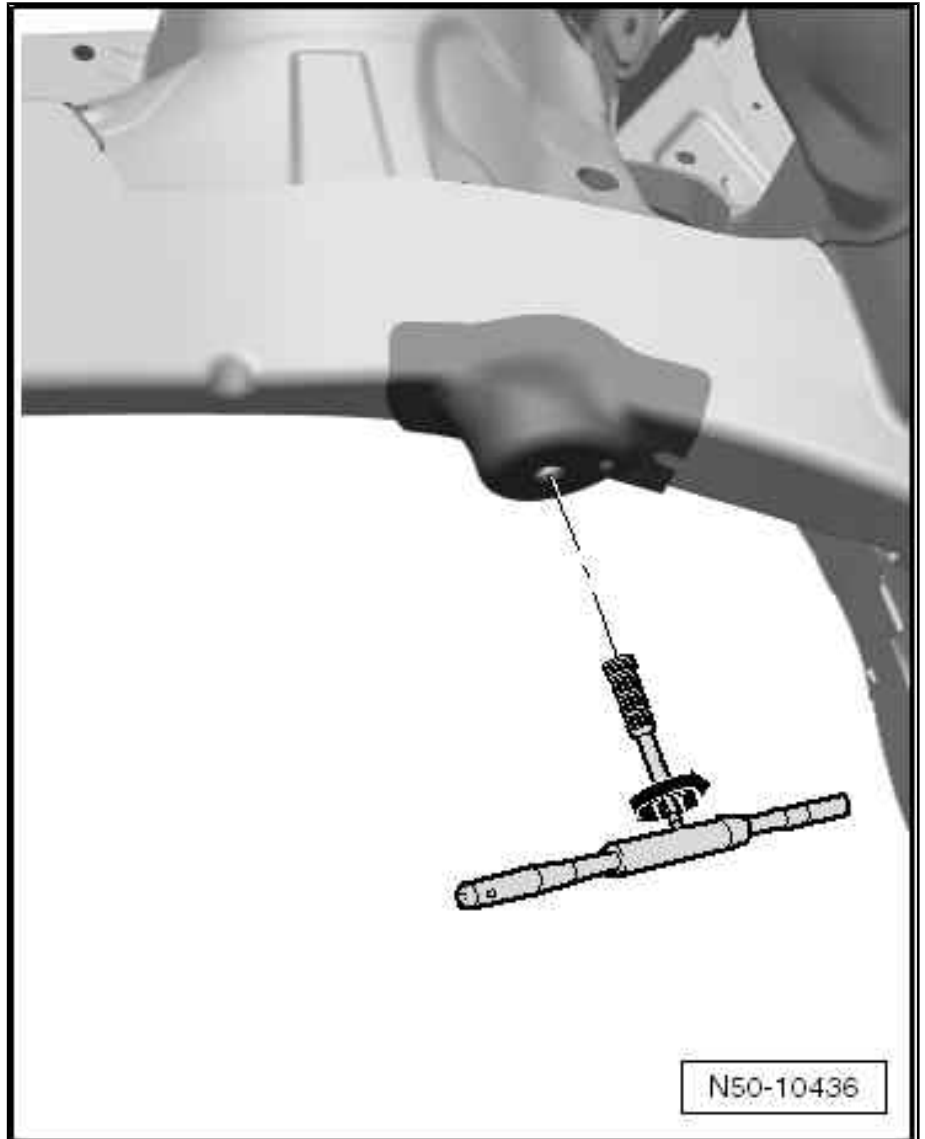
- Blow out threaded drilling with compressed air.



Note

The thread insert should screw in easily.

- Screw thread insert into threaded plate until it is flush with outside of threaded plate (visual check).



- Install subframe and tighten to specified torque ⇒ Running gear, axles, steering; Rep. gr. 40 ; Subframe, anti-roll bar, suspension links .



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51 – Body - centre

1 Permitted separating cuts on complete side panel

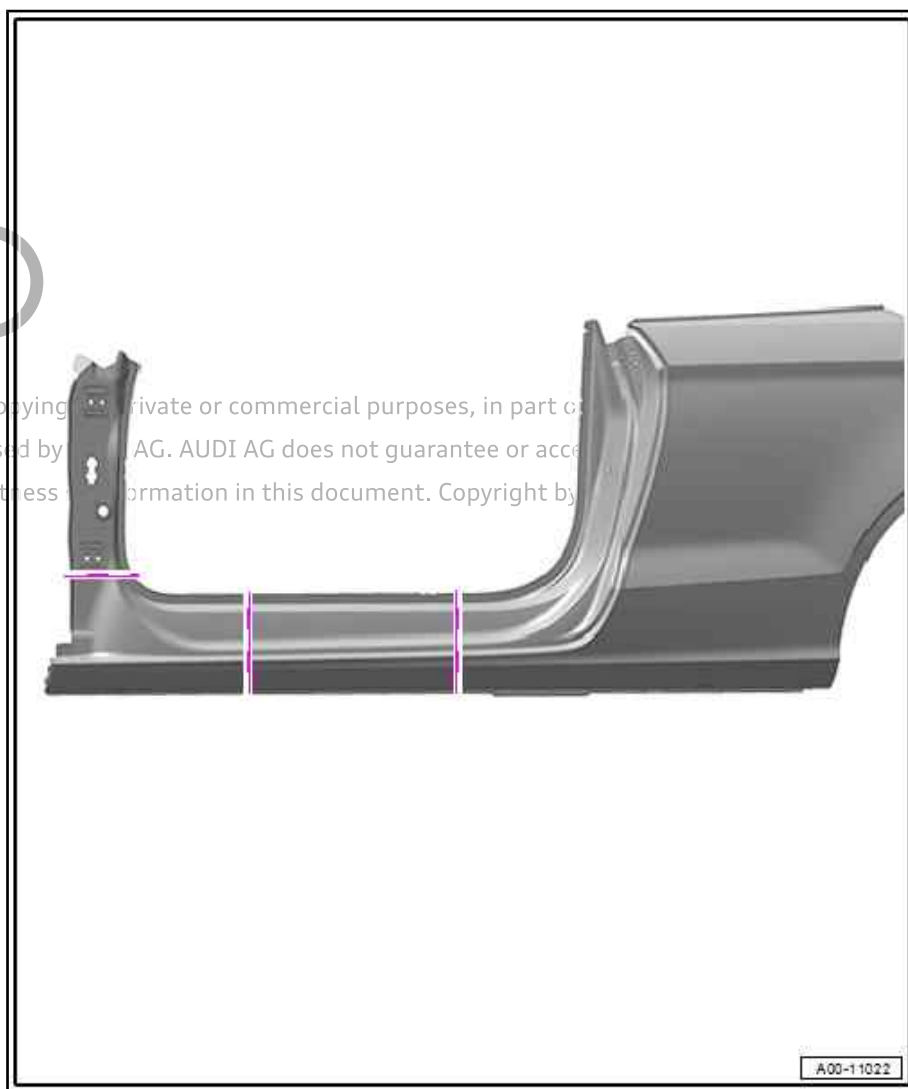


Note

- ◆ Use only welding equipment approved by AUDI AG.
- ◆ SG continuous weld seams are approved for the separating cuts shown in the illustration.



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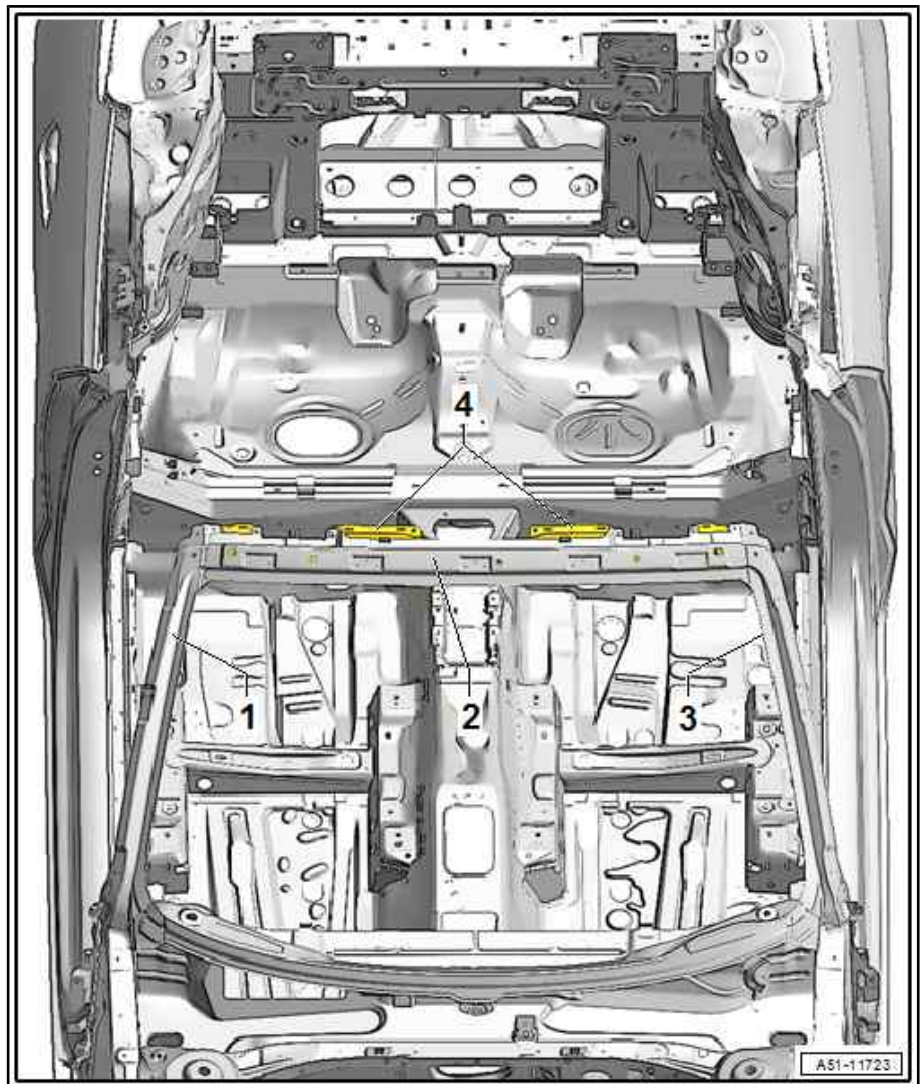
A00-11022



RO: 51 07 55 50

2 Front roof cross member - Renewal

- 1 - Outer A-pillar (left-side)
- 2 - Front roof frame
- 3 - Outer A-pillar (right-side)
- 4 - Front inner roof frame



2.1 Tools

Special tools and workshop equipment required

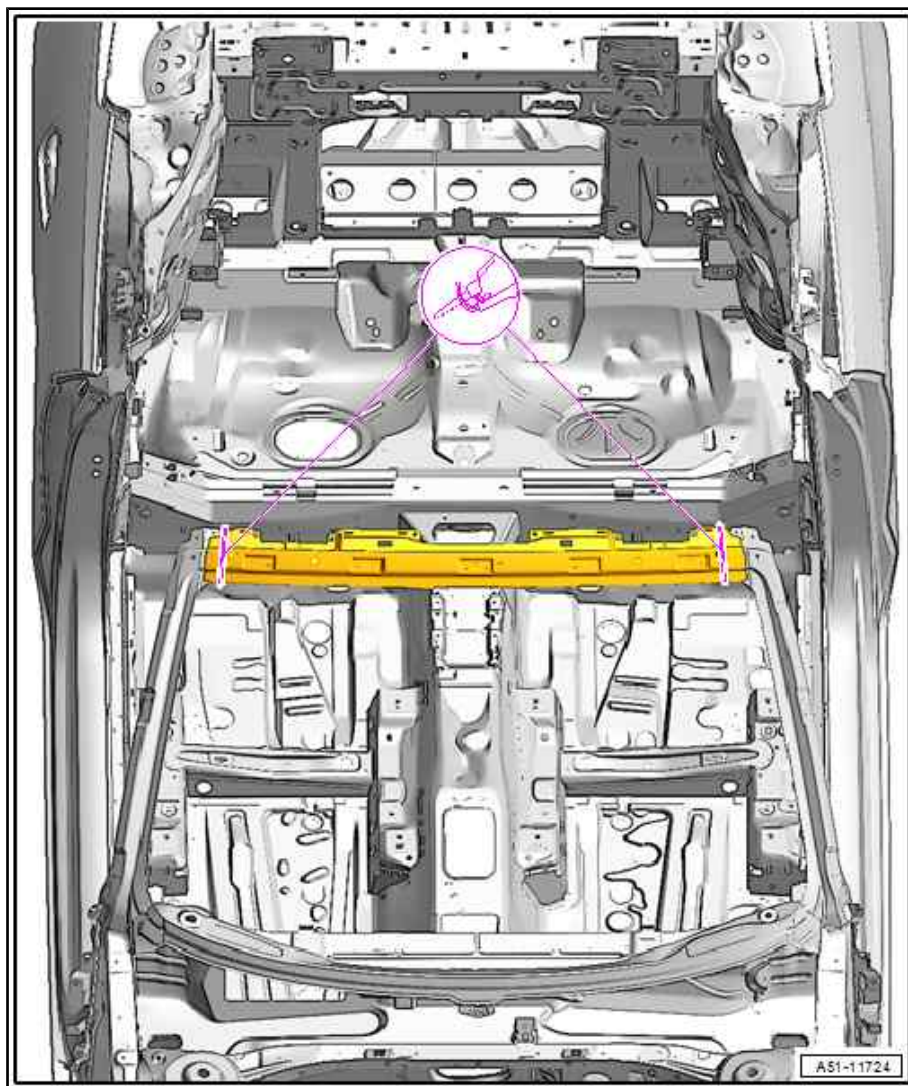
- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Compact angle grinder
- ◆ Brush grinder
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work. ⇒ [page 29](#)

2.2 Procedure

Cutting locations

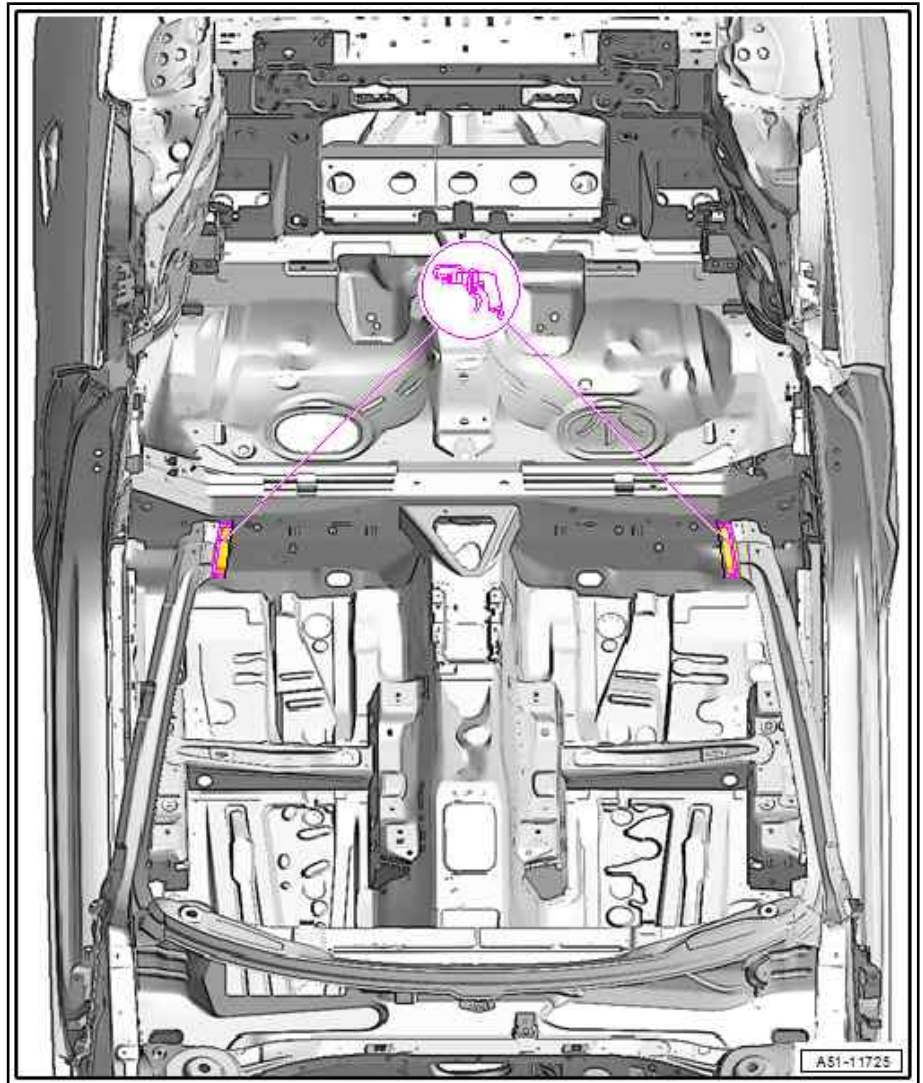
- Make separating cut at front roof frame and front inner roof frame using body saw .



- Separate original joint using spot weld breaker .



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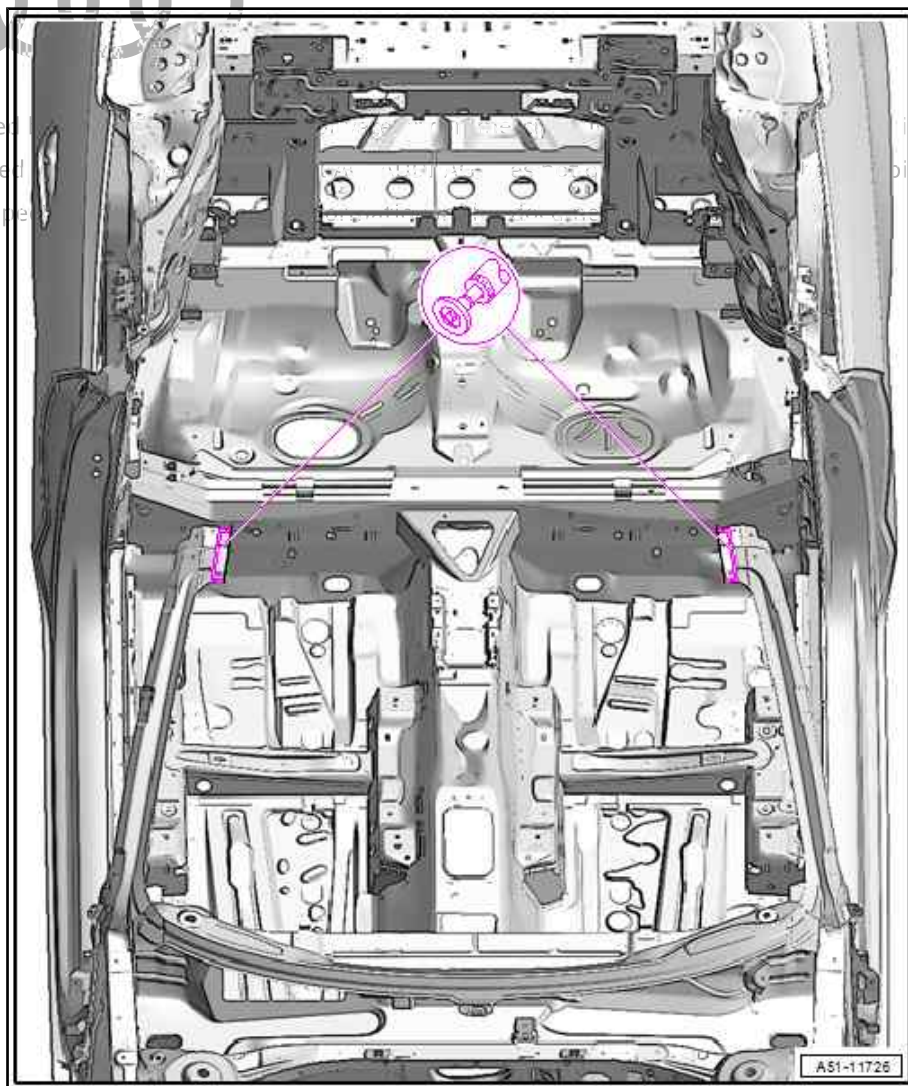
- Remove remaining material using compact angle grinder .

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Replacement part

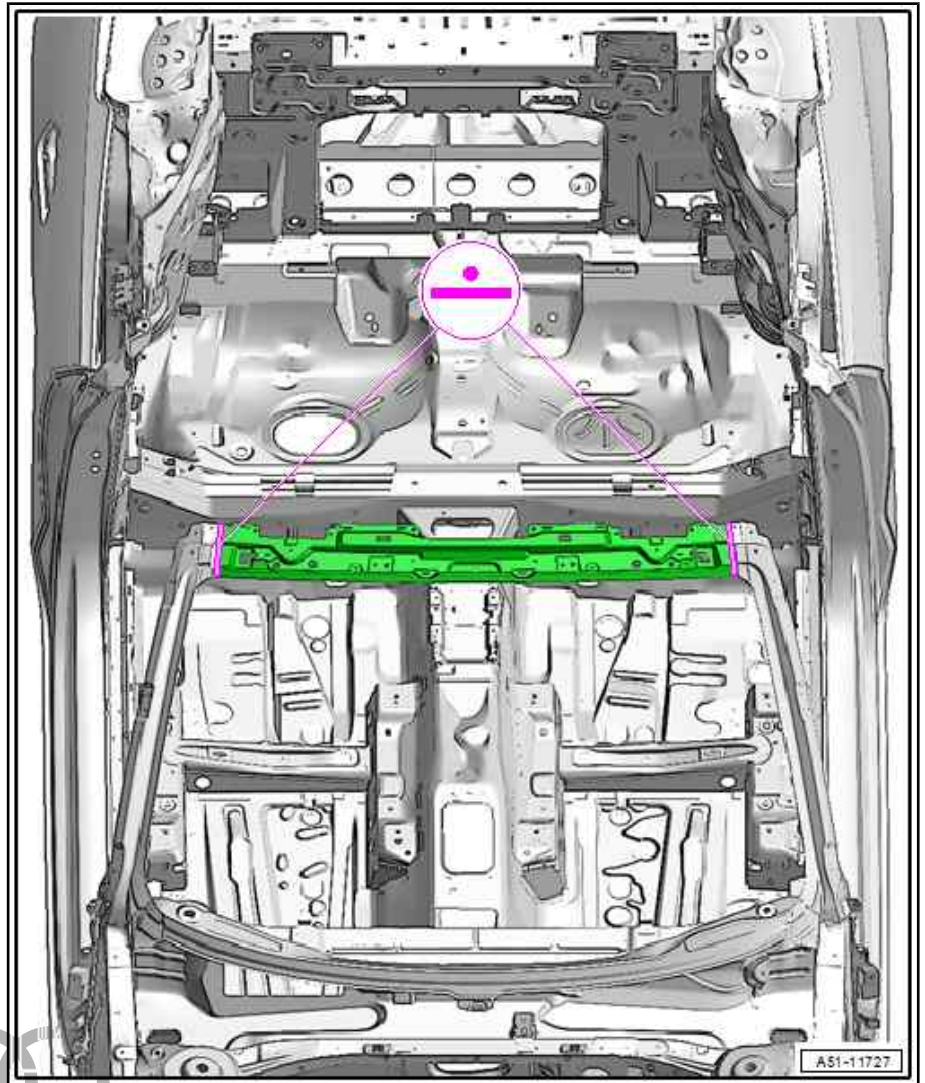
- ◆ Front roof frame
- ◆ Inner roof frame

! NOTICE

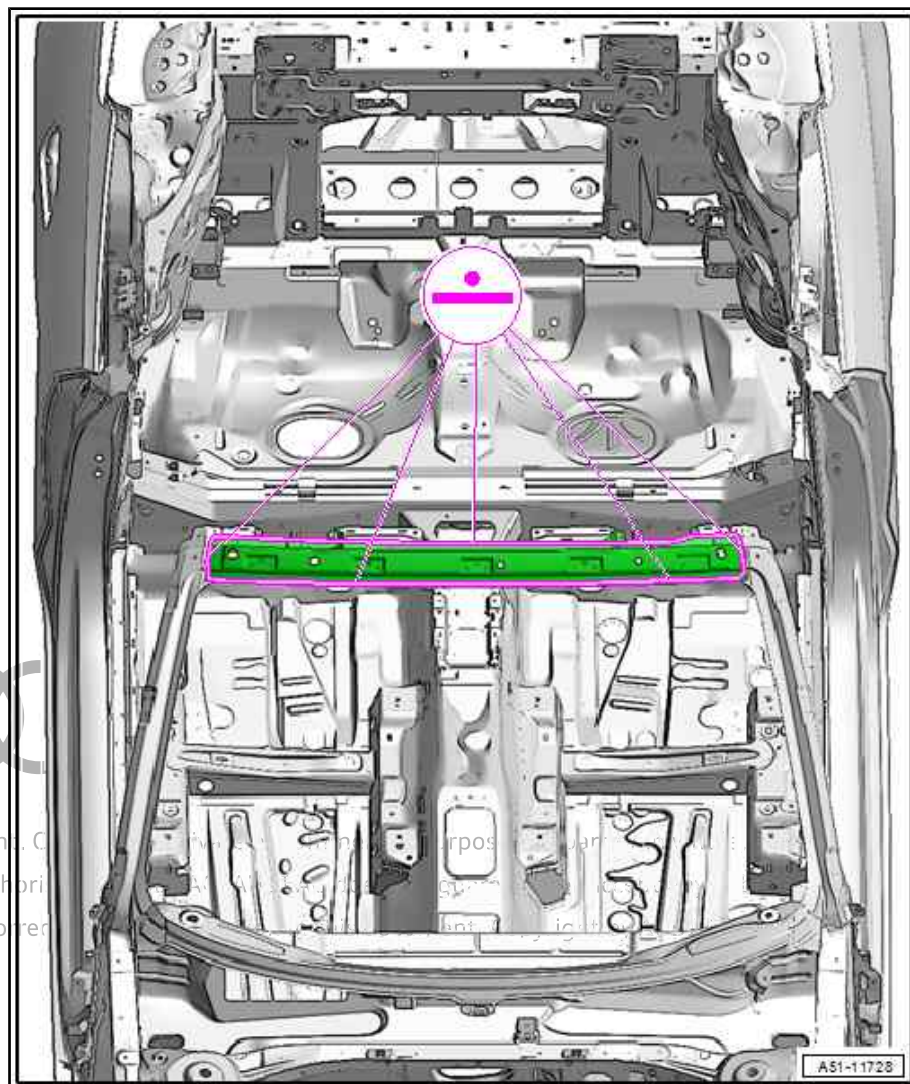
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Match up and fix new part in position.
- Weld in inner roof frame using resistance spot welder : RP spot weld seam.



- Match up and fix new part in position.
 - Weld in front roof frame using resistance spot welder: RP spot weld seam.
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RO: 51 37 55 00

3 Outer A-pillar - Renewal

1 - Outer A-pillar

2 - Separating cut for partial renewal

Partial renewal

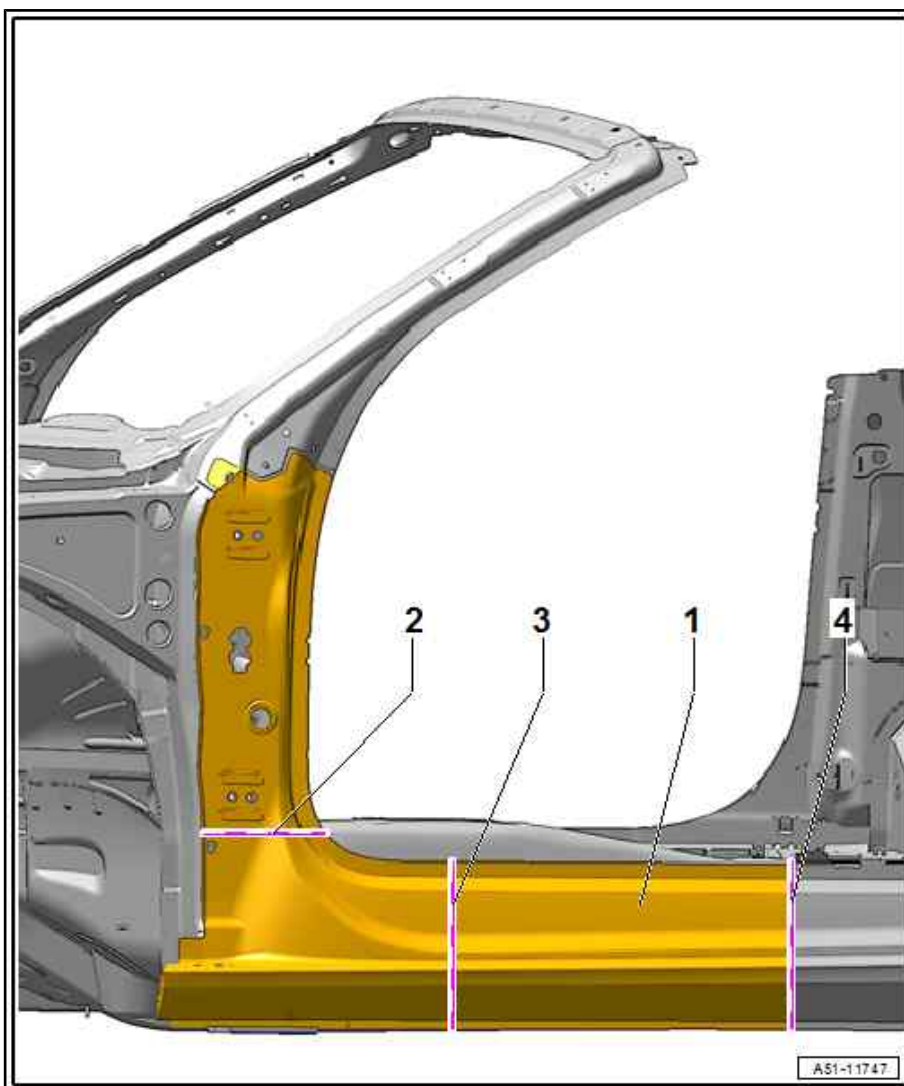
Partial renewal of the A-pillar is possible using this separating cut.

3 - Separating cut for partial renewal

Partial renewal

Partial renewal of the A-pillar is possible using this separating cut.

4 - Separating cut in side member



3.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact booster
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker



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- ◆ Alternatively, you can use the new rechargeable riveter - VAS 5279 B- . This is a complete set.



Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

3.2 Procedure

Cutting locations

Permitted separating cuts on side frame ⇒ [page 106](#)

The punch-riveted joint is only used for the production mounting. Use SG plug weld seam for workshop repair.

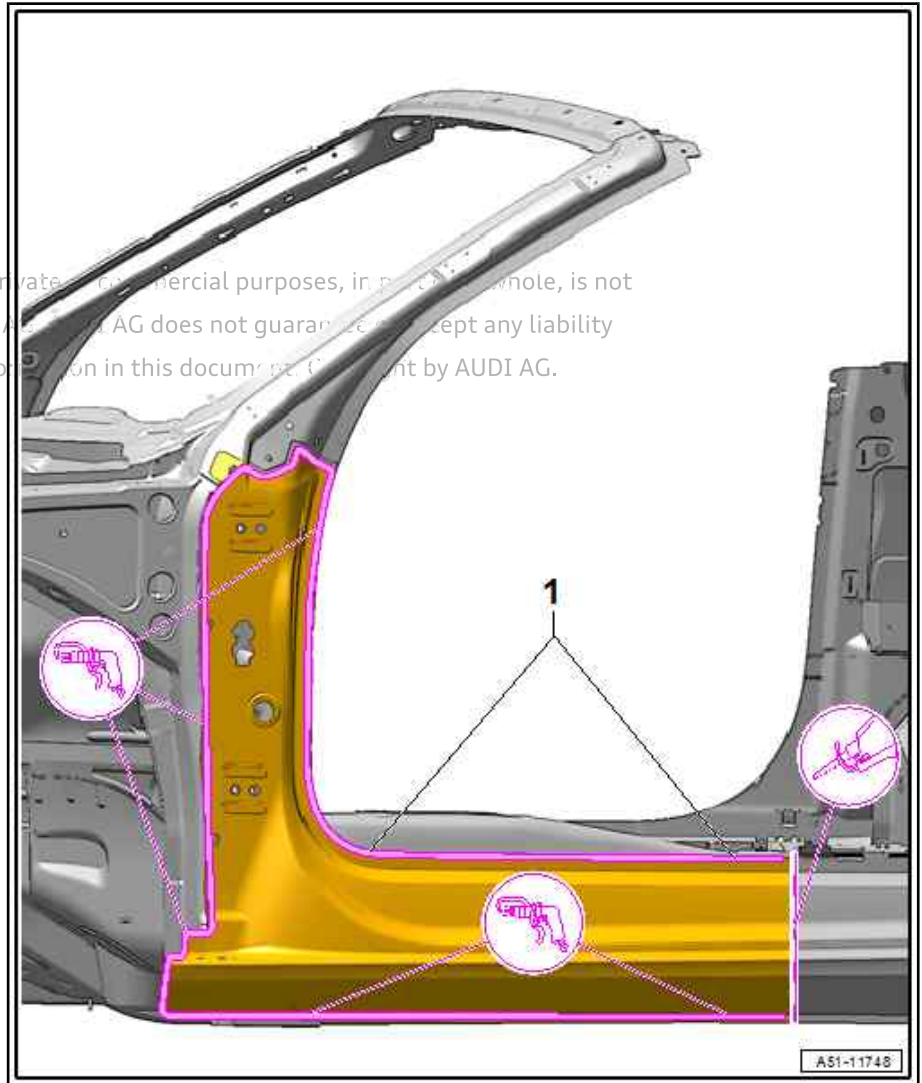
- Make separating cuts on outer A-pillar according to extent of damage using body saw .
- Separate original joint using spot weld breaker .
- Remove punch rivets from wheel housing connecting piece using rechargeable riveter - VAS 5279A- or compact booster - VAS 6790- and detach part.



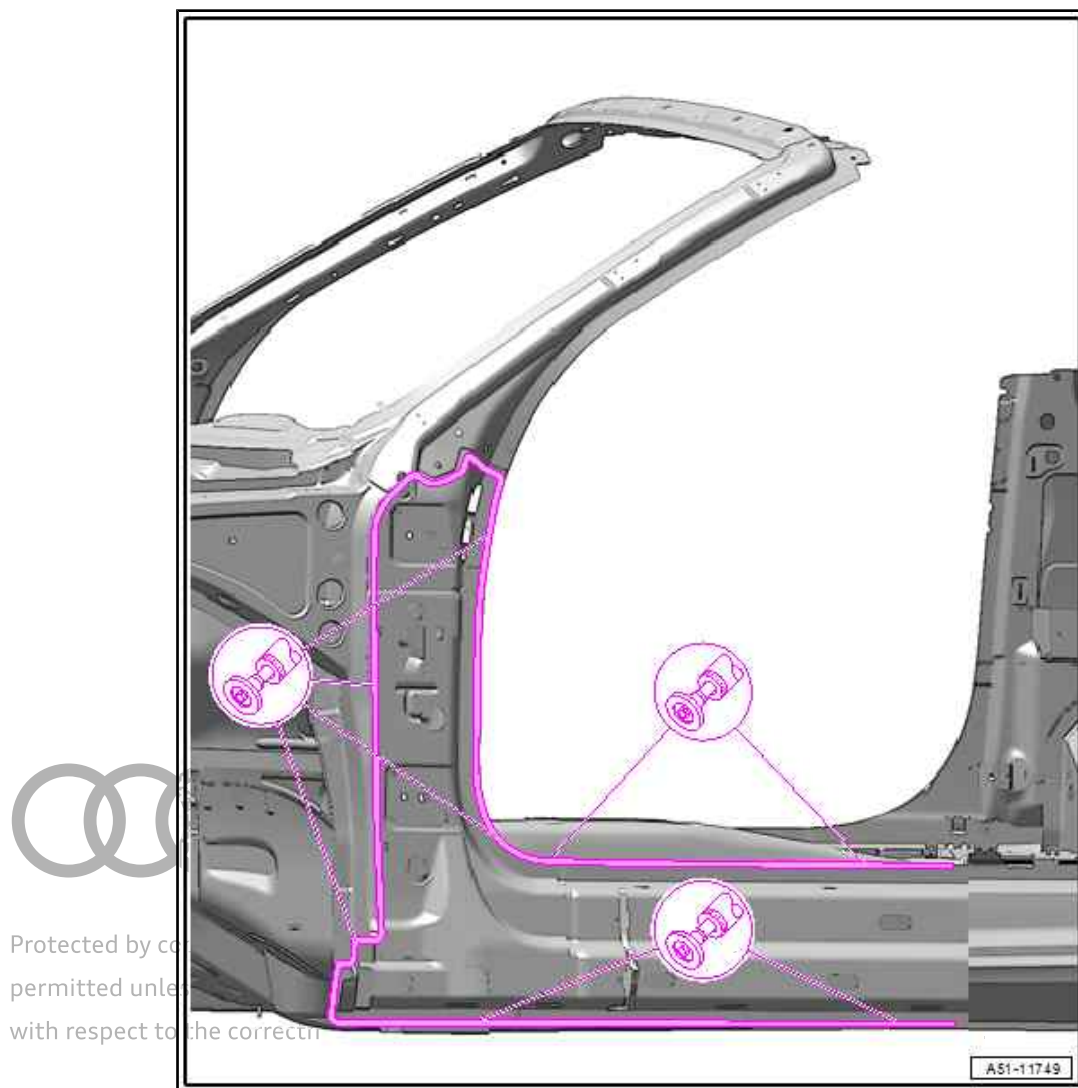
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- Remove remaining material using compact angle grinder .

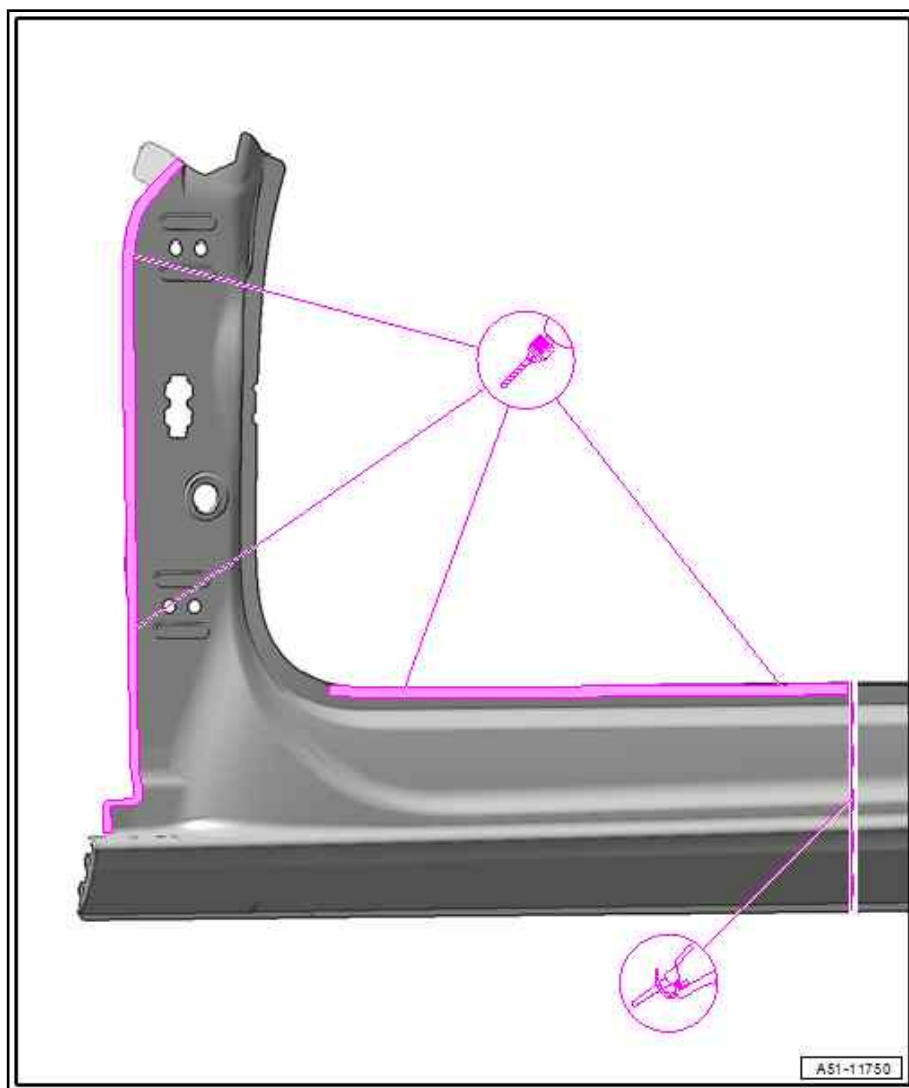


Replacement part

- ◆ A-pillar (sub-part)

Preparing new part

- Transfer separating cut to new part and cut to size using body saw .
- Drill holes for SG plug weld seam, 8 mm Ø using drill .



! NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

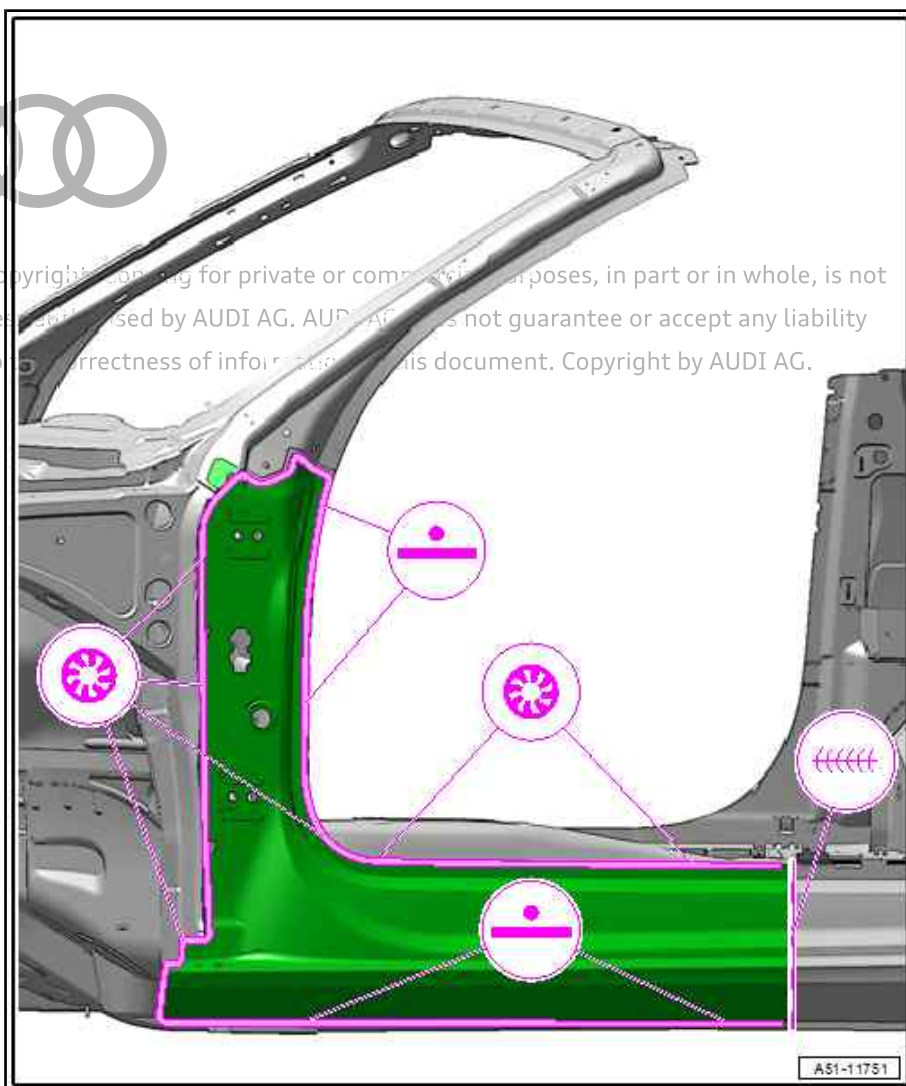
- Butt weld at separating cuts using shielded arc welding equipment : SG continuous seam.
- Weld in A-pillar using resistance spot welder : RP spot weld seam.
- Weld in A-pillar using shielded arc welding equipment : SG plug weld seam.



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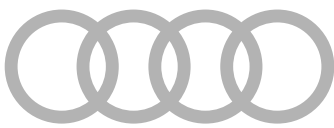




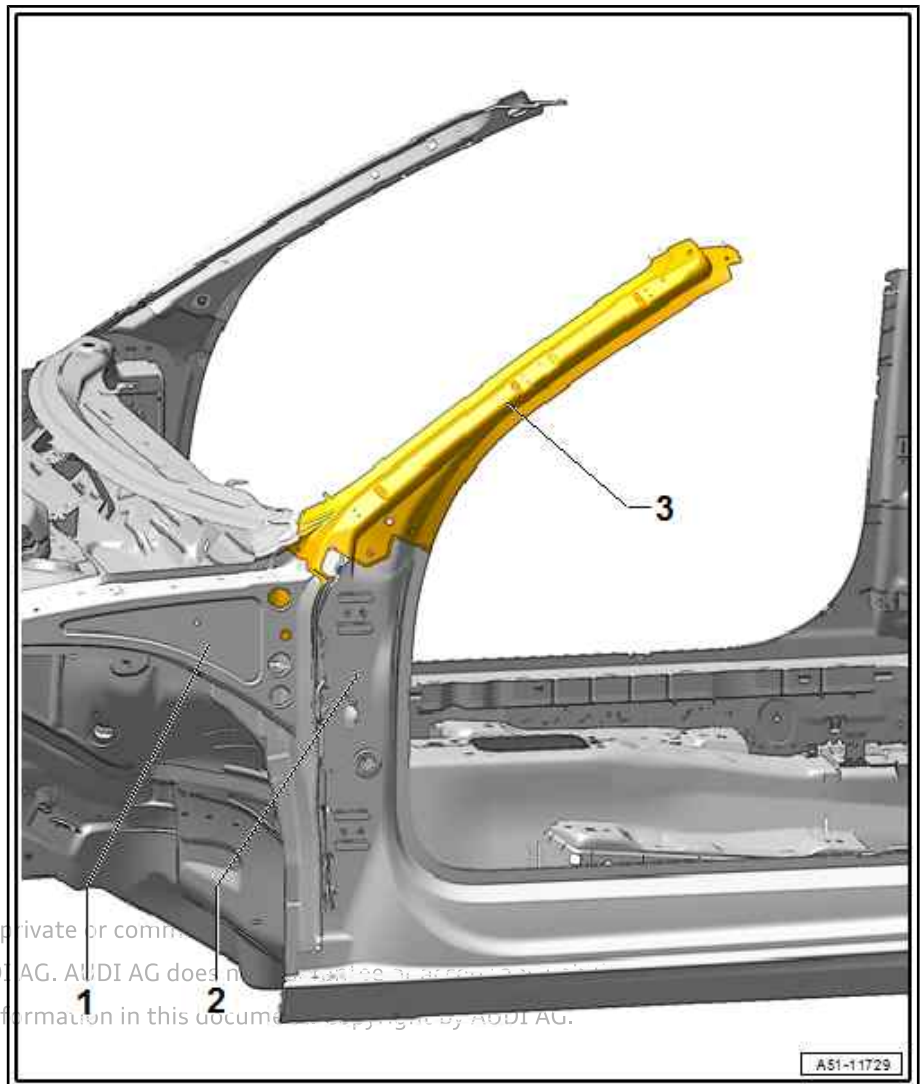
RO: 51 37 55 00

4 Upper outer A-pillar - Partial renewal

- 1 - Upper wheel housing longitudinal member
- 2 - Side panel
- 3 - Outer A-pillar



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4.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker

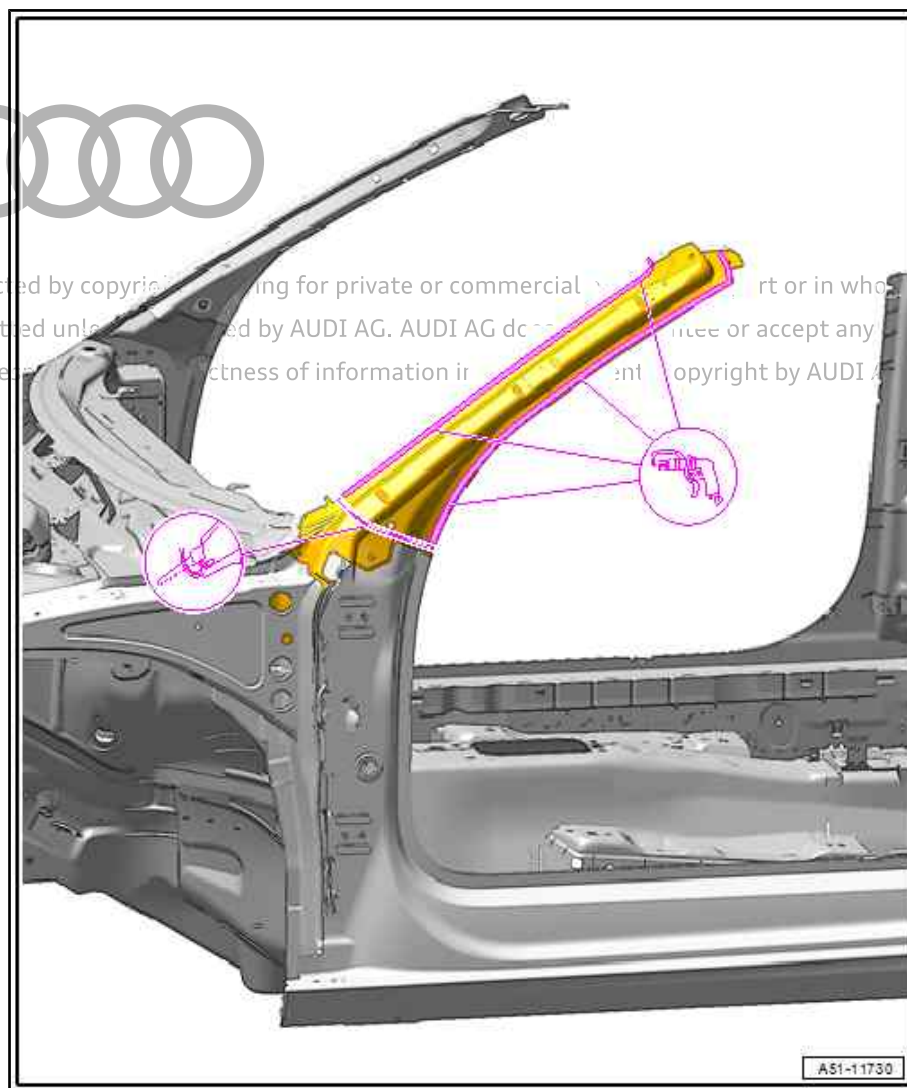
Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .



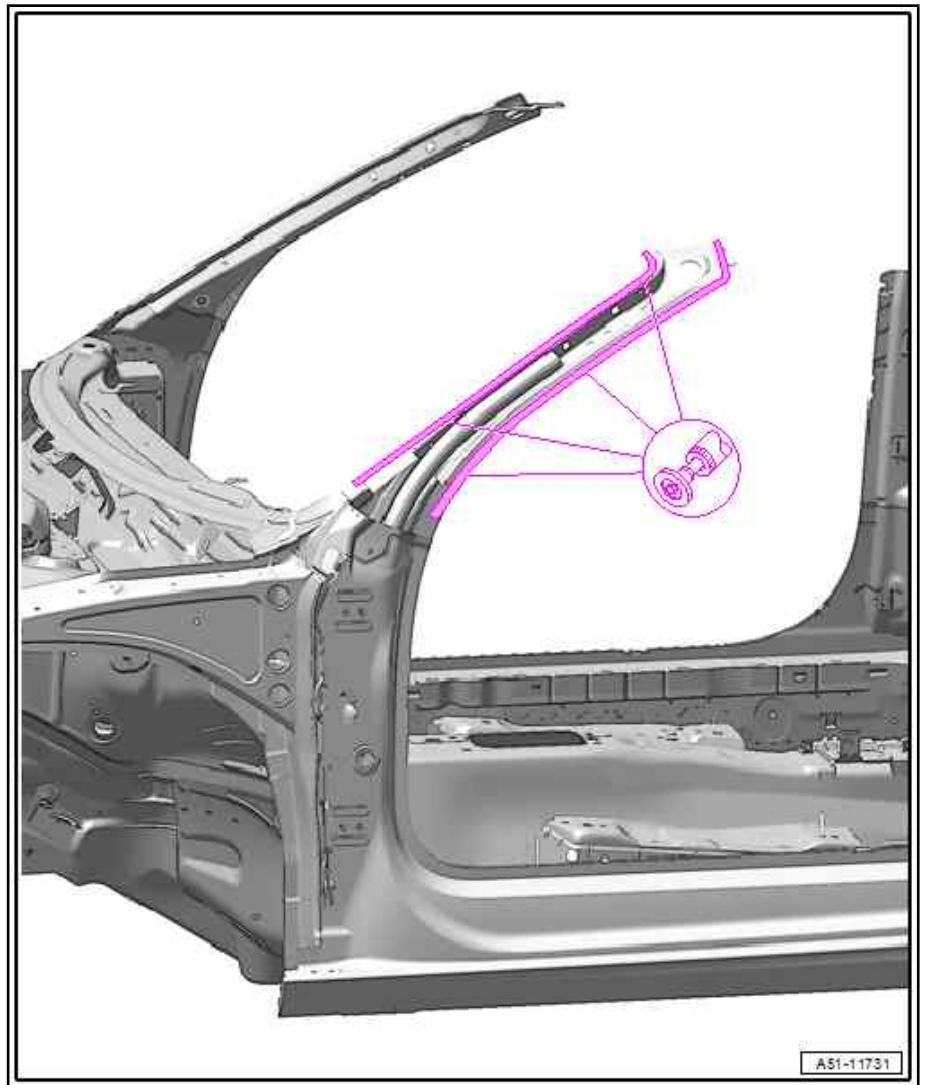
4.2 Procedure

Cutting locations

- Make separating cut in outer A-pillar using body saw .
- Drill out original joint using spot weld breaker .



- Remove remaining material using compact angle grinder .



Replacement part

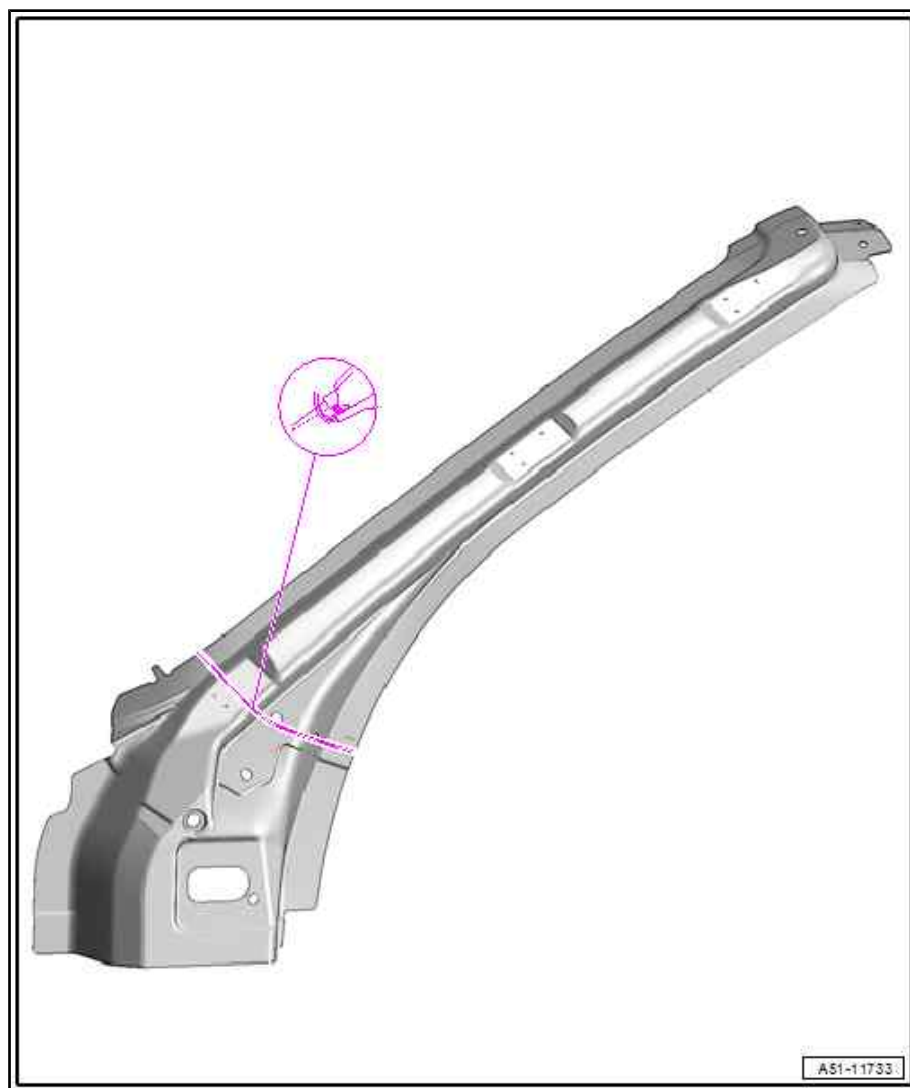
- ◆ A-pillar (sub-part)

Preparing new part

- Transfer separating cuts to new part and cut to size using body saw .



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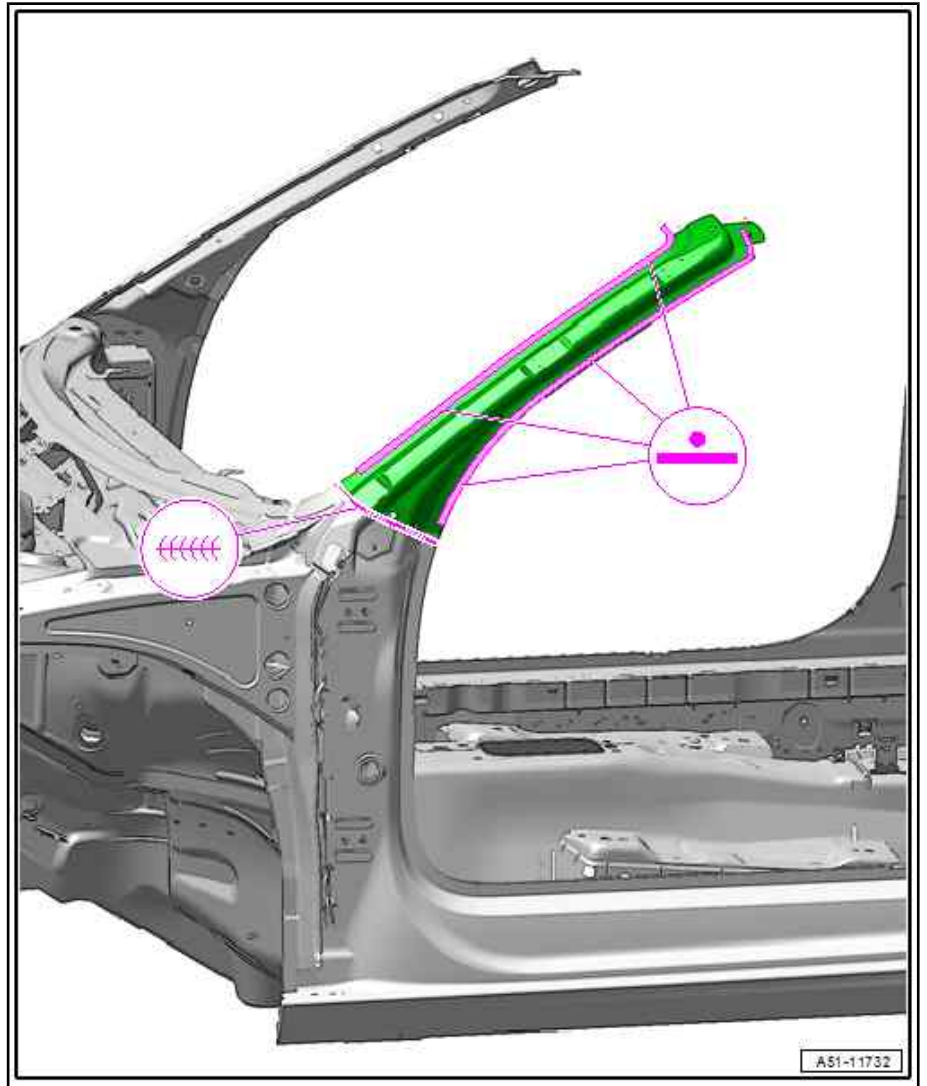
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Butt weld at separating cuts using shielded arc welding equipment : SG continuous seam.
- Weld in outer A-pillar using resistance spot welder : RP spot weld seam.



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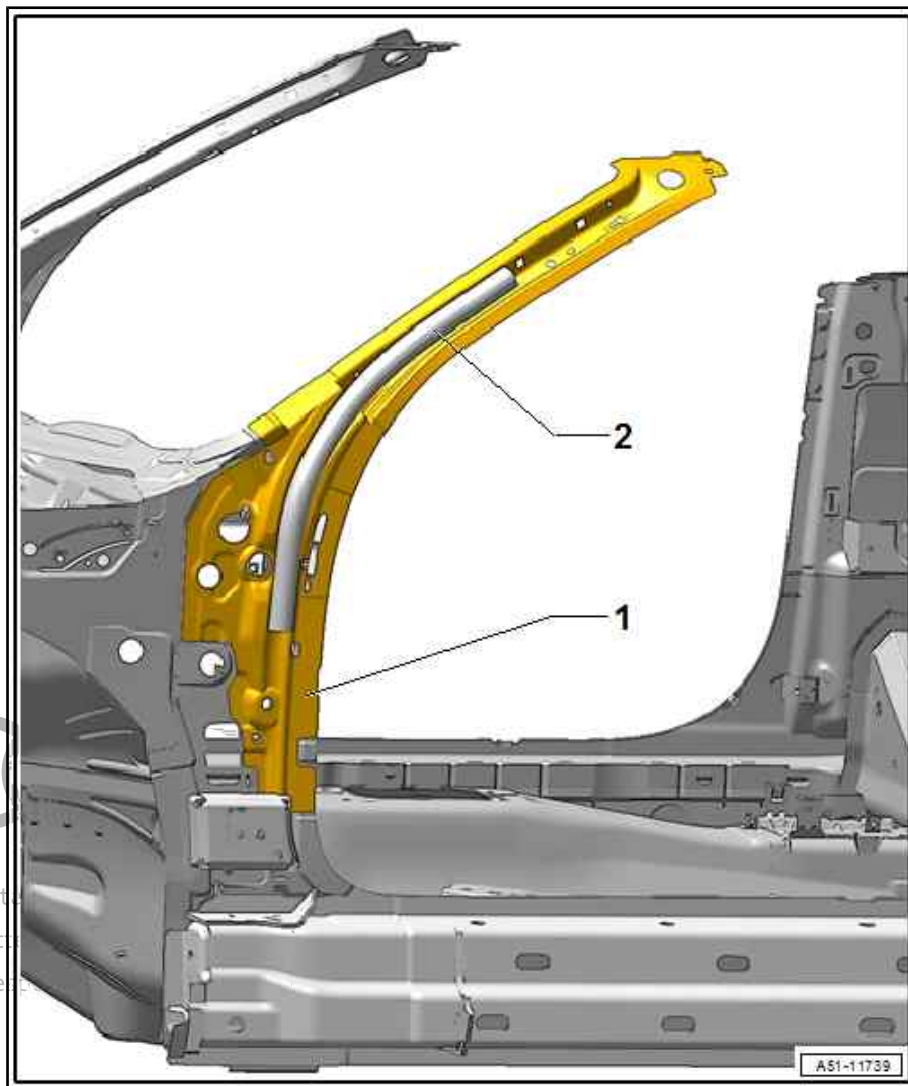
RO: 51 38 55 50

5 Upper inner A-pillar - Renewal

Includes: reinforcement tube

1 - Inner A-pillar

2 - Reinforcement tube



5.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

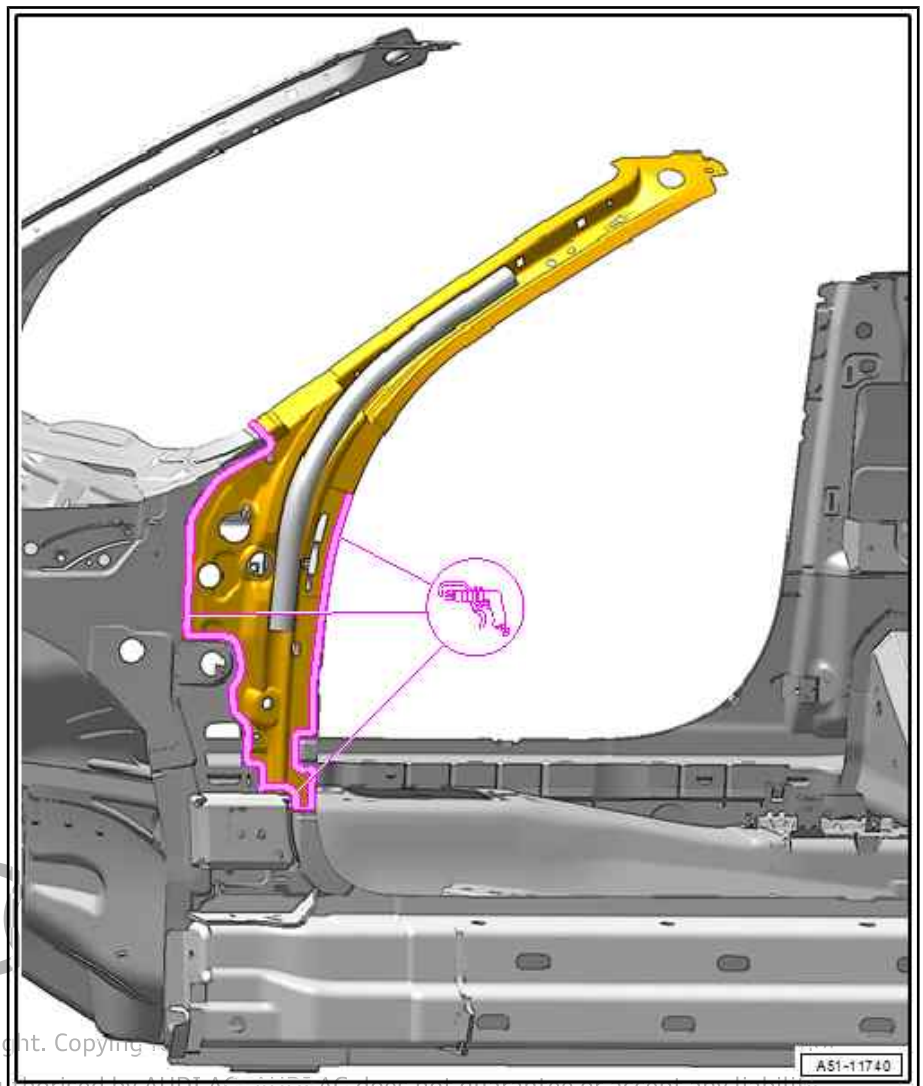


5.2 Procedure

- Outer A-pillar removed ⇒ [page 113](#)
- Upper outer A-pillar removed ⇒ [page 119](#)
- Lower inner A-pillar removed (partial renewal) ⇒ [page 128](#)
- Upper wheel housing longitudinal member removed
⇒ [page 50](#)
- Roof cross member removed ⇒ [page 107](#)

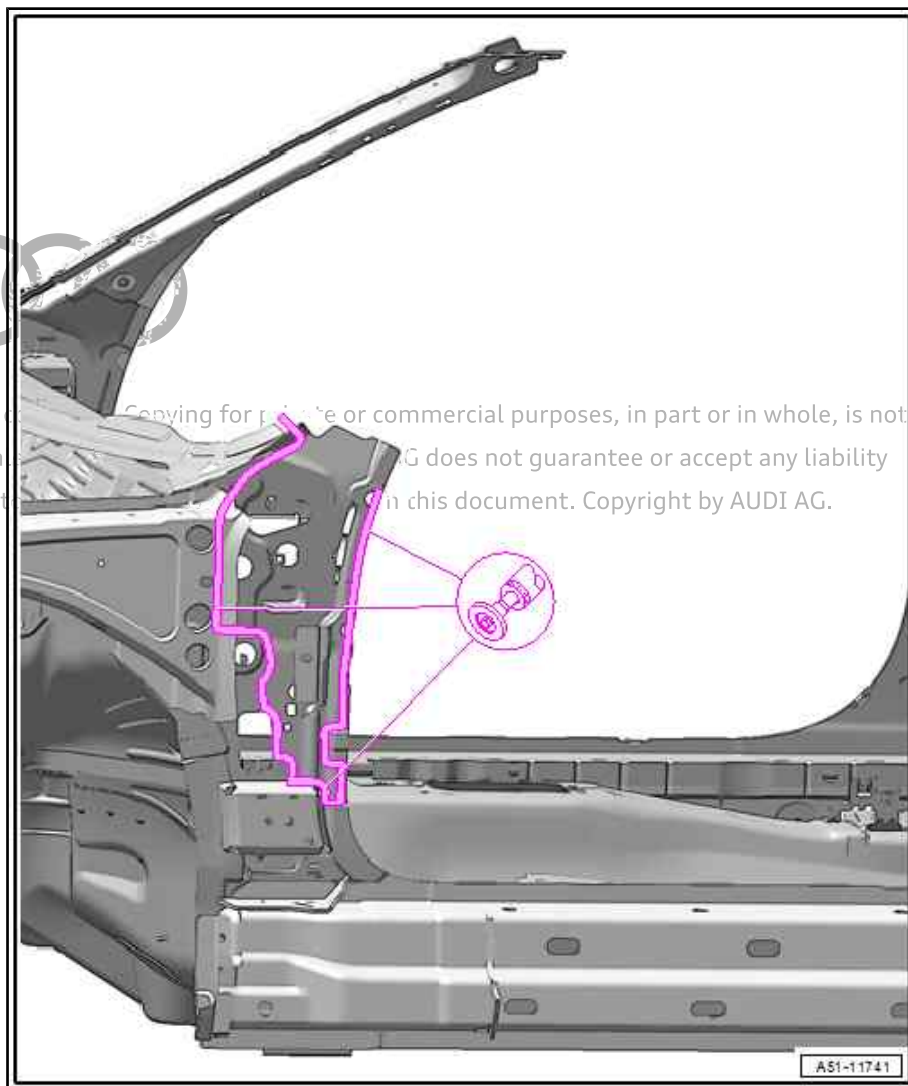
Cutting locations

- Drill out original joint using spot weld breaker .



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- Remove remaining material using compact angle grinder .



Replacement parts

- ◆ Upper inner A-pillar

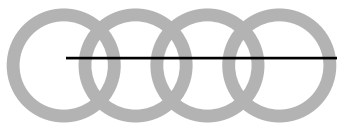


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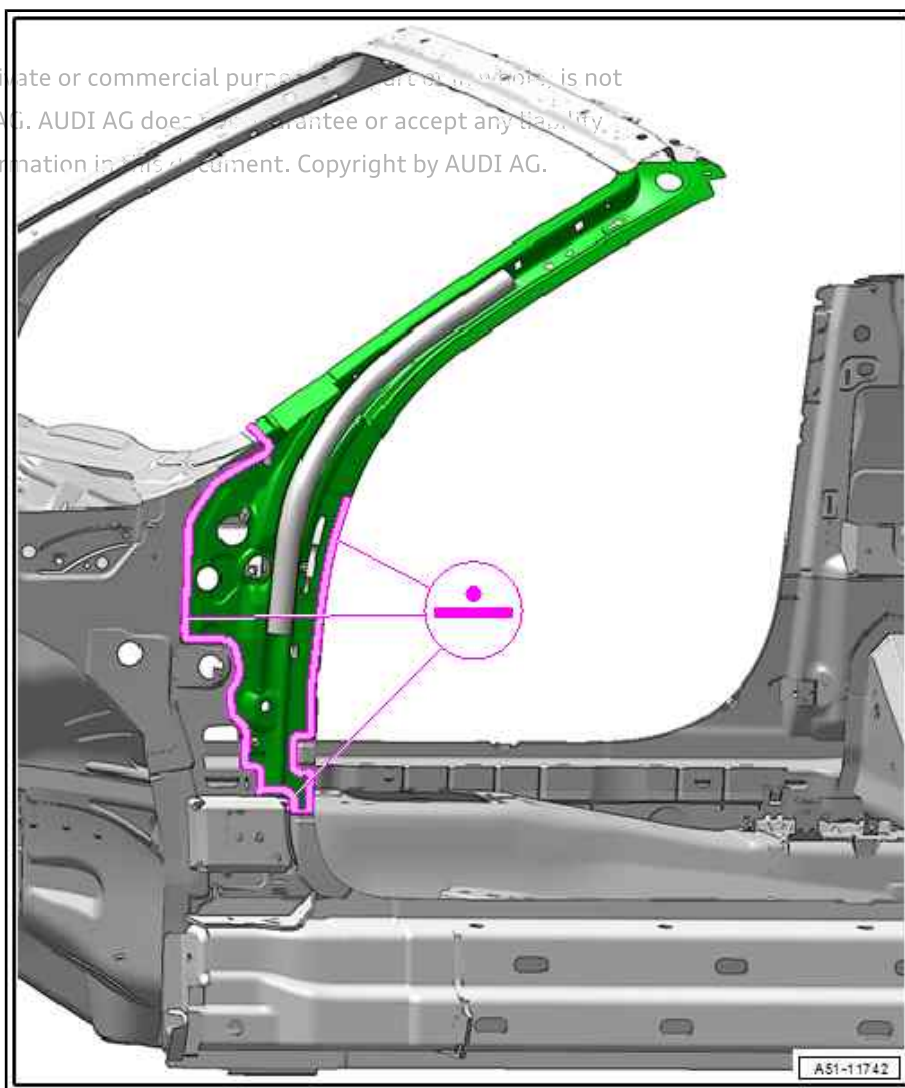
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Weld in inner A-pillar using resistance spot welder



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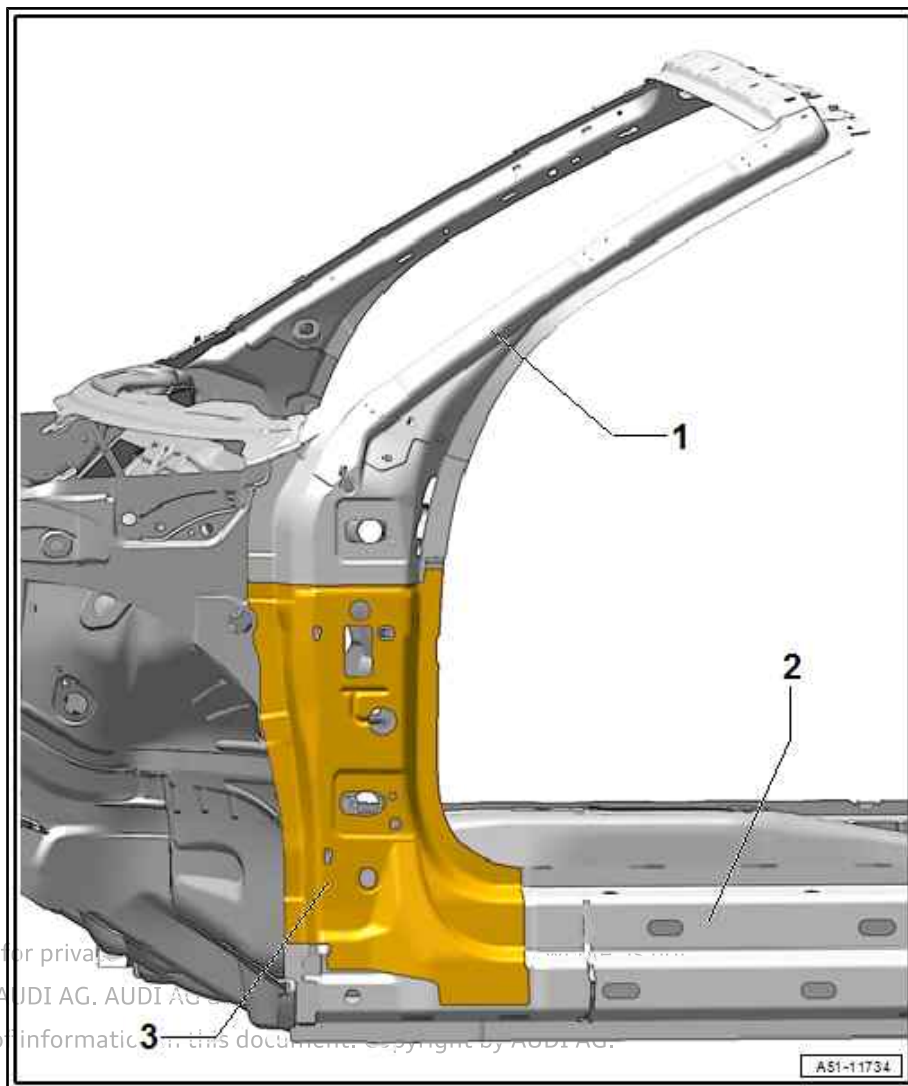
- Welding in outer A-pillar ⇒ [page 113](#)
- Welding in outer upper A-pillar ⇒ [page 119](#)
- Welding in lower inner A-pillar (partial renewal) ⇒ [page 128](#)
- Welding in upper wheel housing longitudinal member
⇒ [page 50](#)
- Welding in roof cross member ⇒ [page 107](#)



RO: 51 38 55 50

6 Lower inner A-pillar - Partial renewal

- 1 - Upper inner A-pillar
- 2 - Inner side member
- 3 - Lower inner A-pillar



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6.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

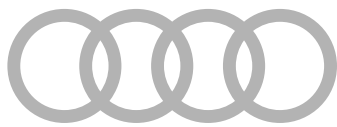


6.2 Procedure

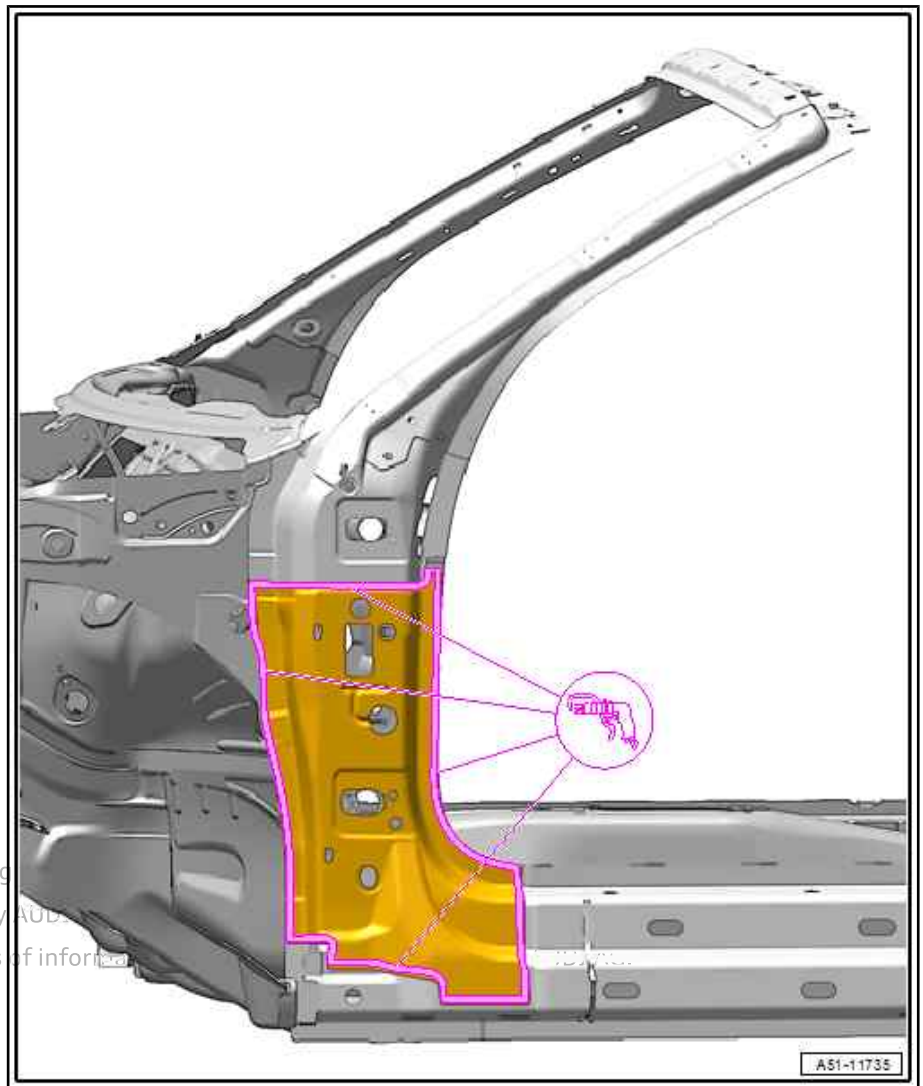
- Outer A-pillar removed ⇒ [page 113](#)
- Upper wheel housing longitudinal member removed
⇒ [page 50](#)

Cutting locations

- Drill out original joint using spot weld breaker .



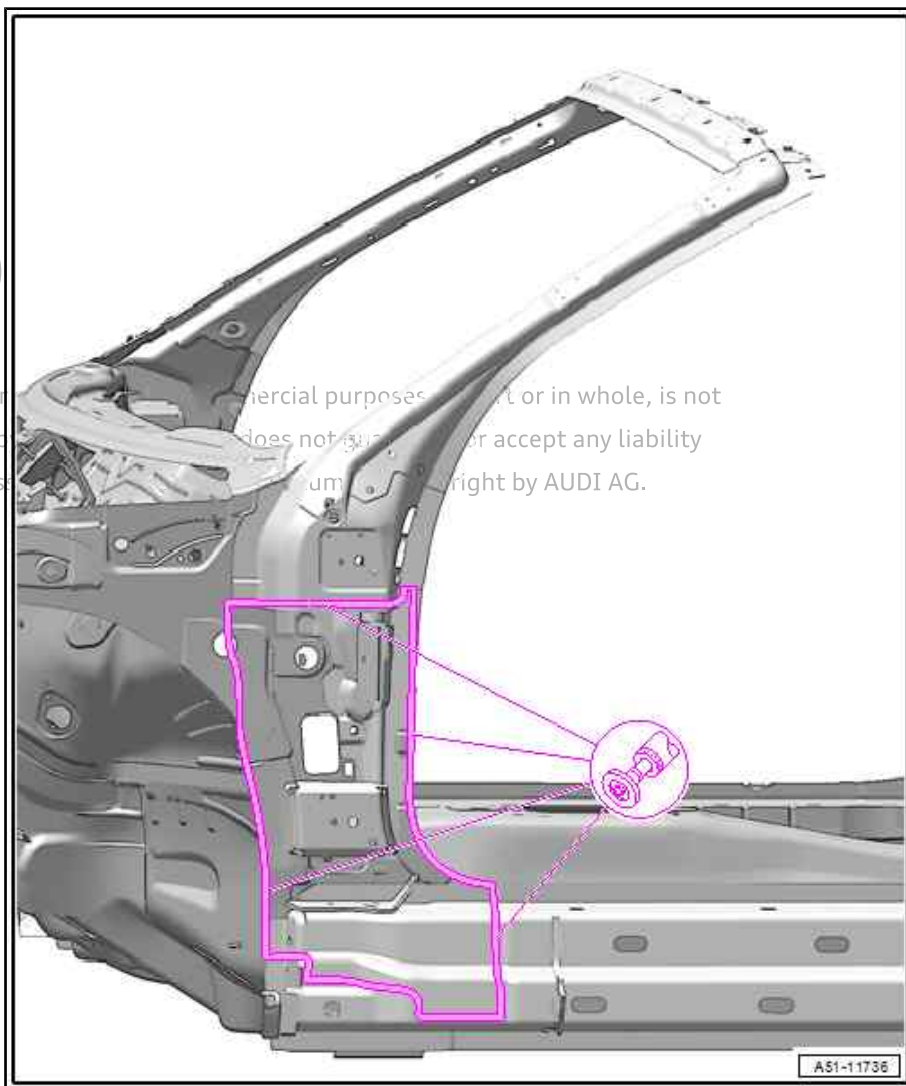
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- Remove remaining material using compact angle grinder .



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Replacement part

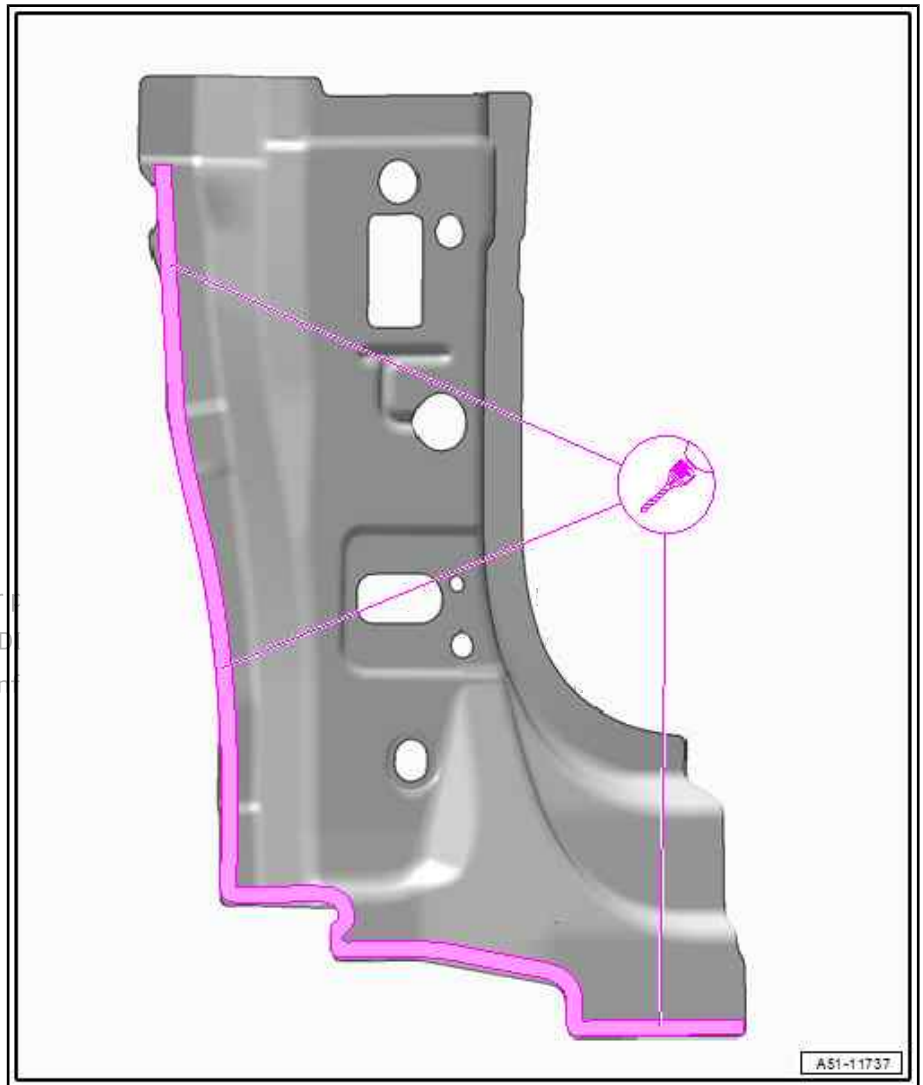
- ◆ Lower inner A-pillar

Preparing new part

- Drill holes for SG plug weld seam, 8 mm Ø using drill .



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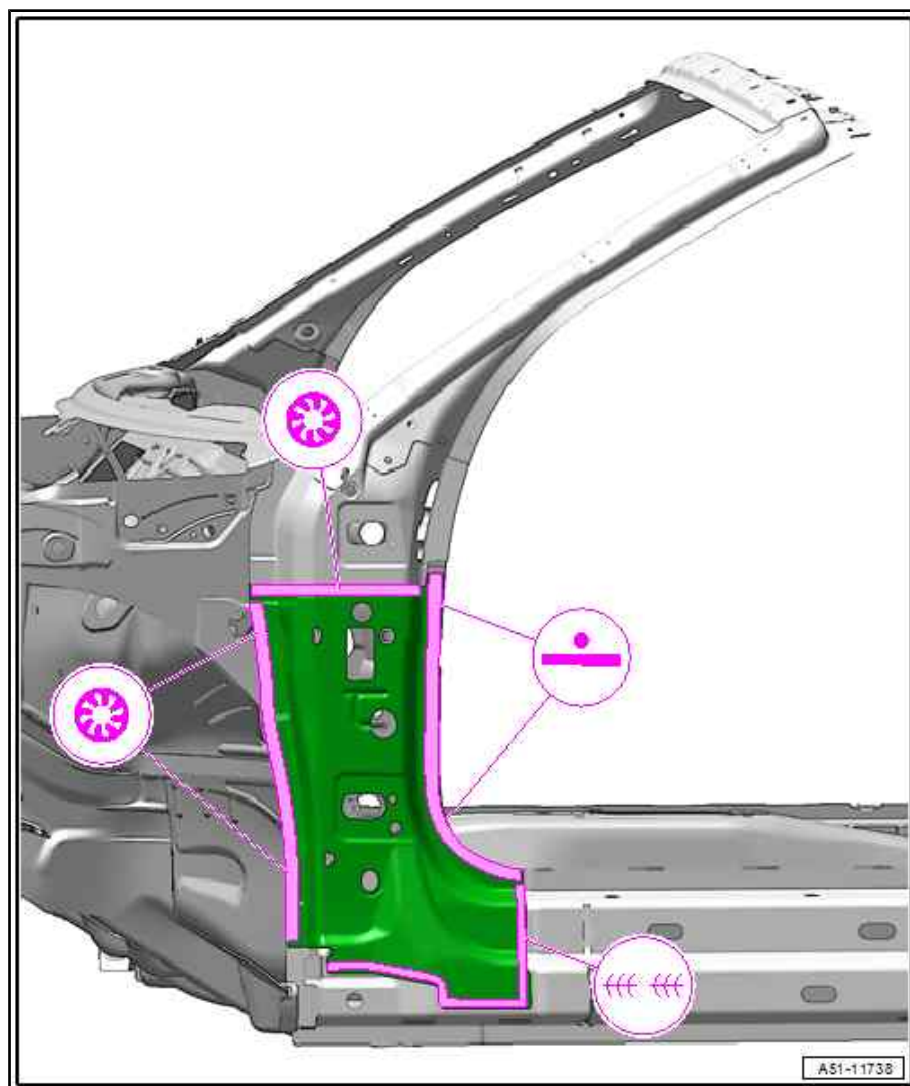


! NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Weld in inner A-pillar using shielded arc welding equipment : SG plug weld seam.
- Weld in inner A-pillar using shielded arc welding equipment : SG continuous seam (staggered - with gaps).
- Weld in inner A-pillar using resistance spot welder : RP spot weld seam.



- Welding in outer A-pillar ⇒ [page 113](#)
- Welding in upper wheel housing longitudinal member
⇒ [page 50](#)



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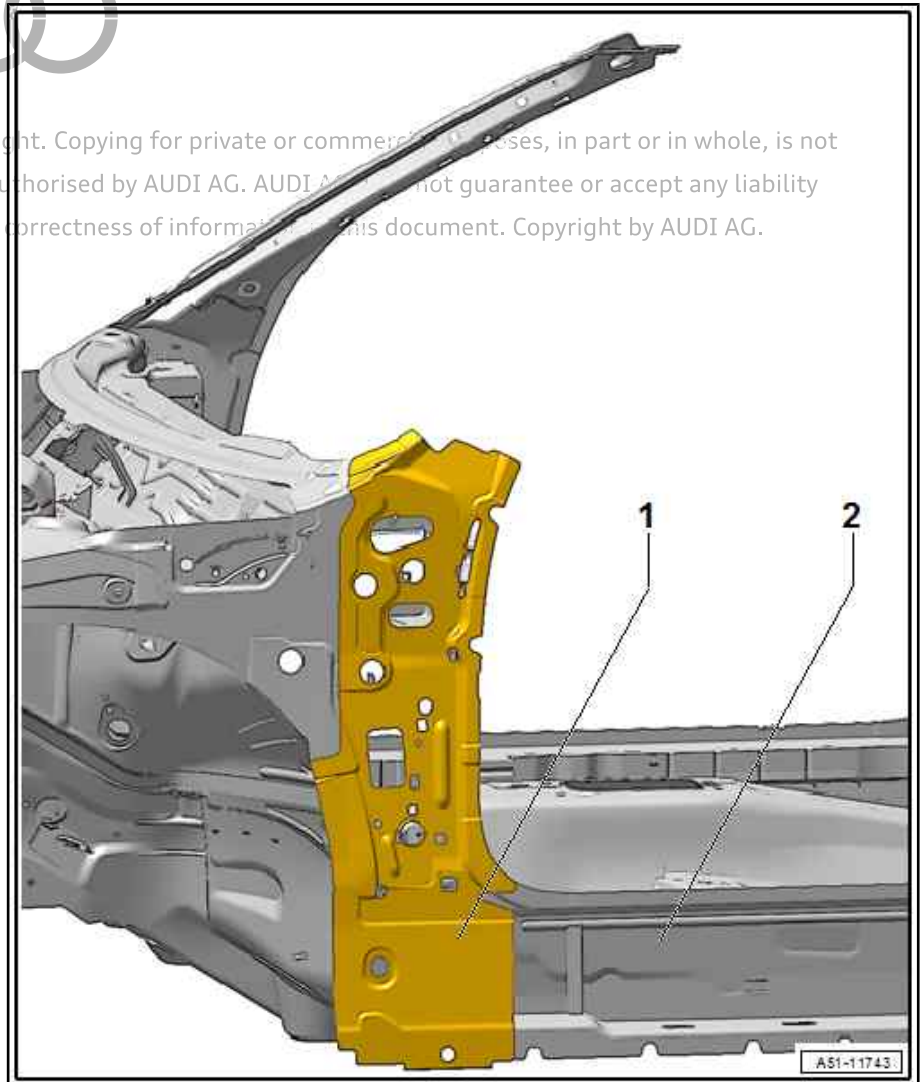
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7 Inner A-pillar reinforcement - Renewal

1 - Inner A-pillar reinforcement

2 - Inner side member

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7.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Drill
- ◆ Brush grinder
- ◆ Compact angle grinder
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

7.2 Procedure

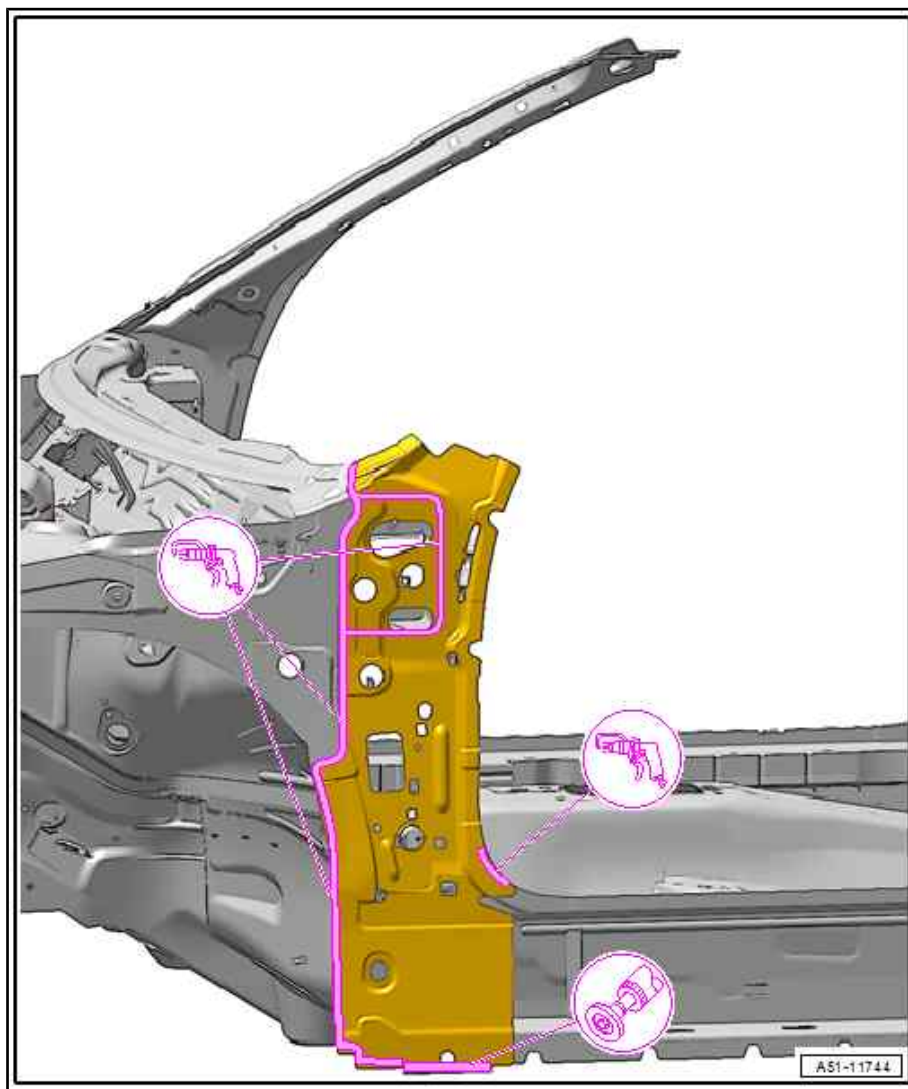
- Outer A-pillar removed ⇒ [page 113](#)



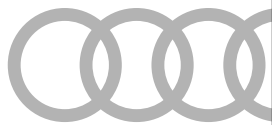
- Lower inner A-pillar removed ⇒ [page 128](#)
- Upper inner A-pillar removed ⇒ [page 124](#)
- Upper wheel housing longitudinal member removed ⇒ [page 50](#)

Cutting locations indicated unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

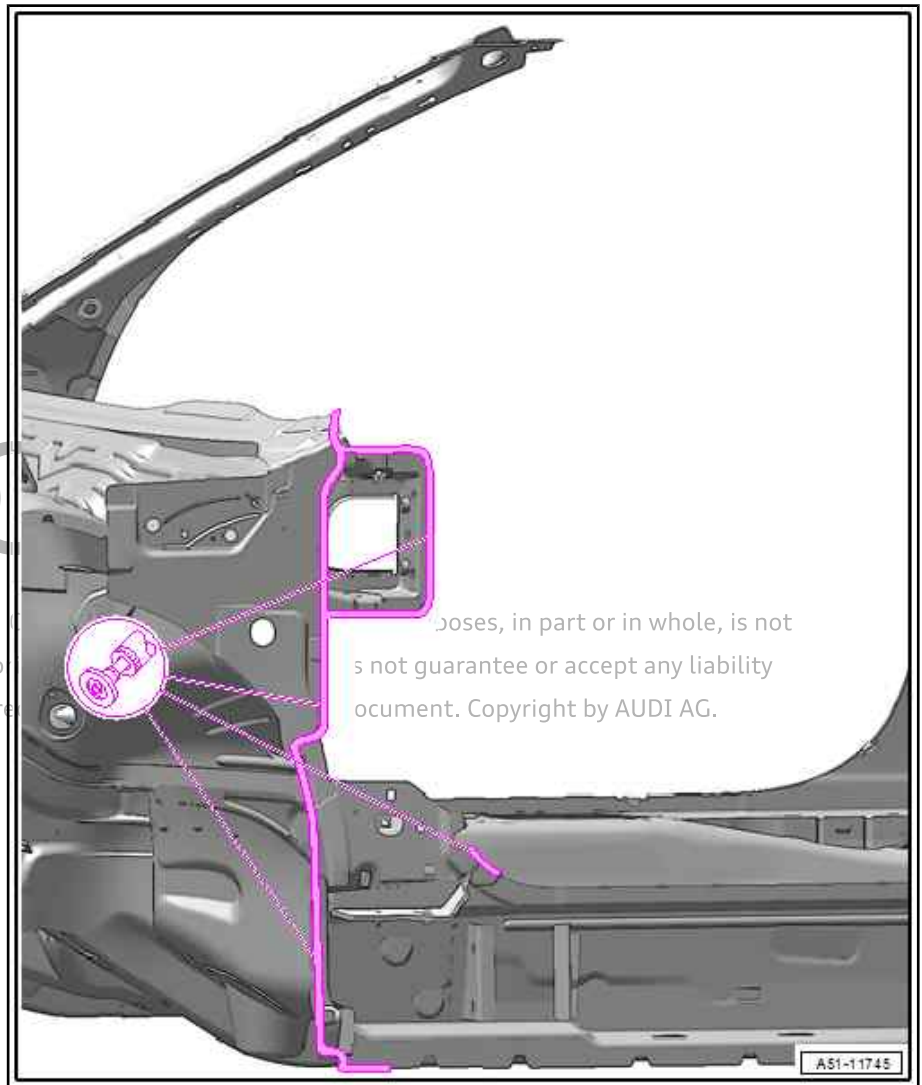
- Separate original joint using **spot weld breaker**.
- Separate flange joint between lower inner A-pillar and inner side member using compact angle grinder - VAS 5167- .



- Remove remaining material using compact angle grinder .



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Replacement parts

- ◆ Inner A-pillar reinforcement



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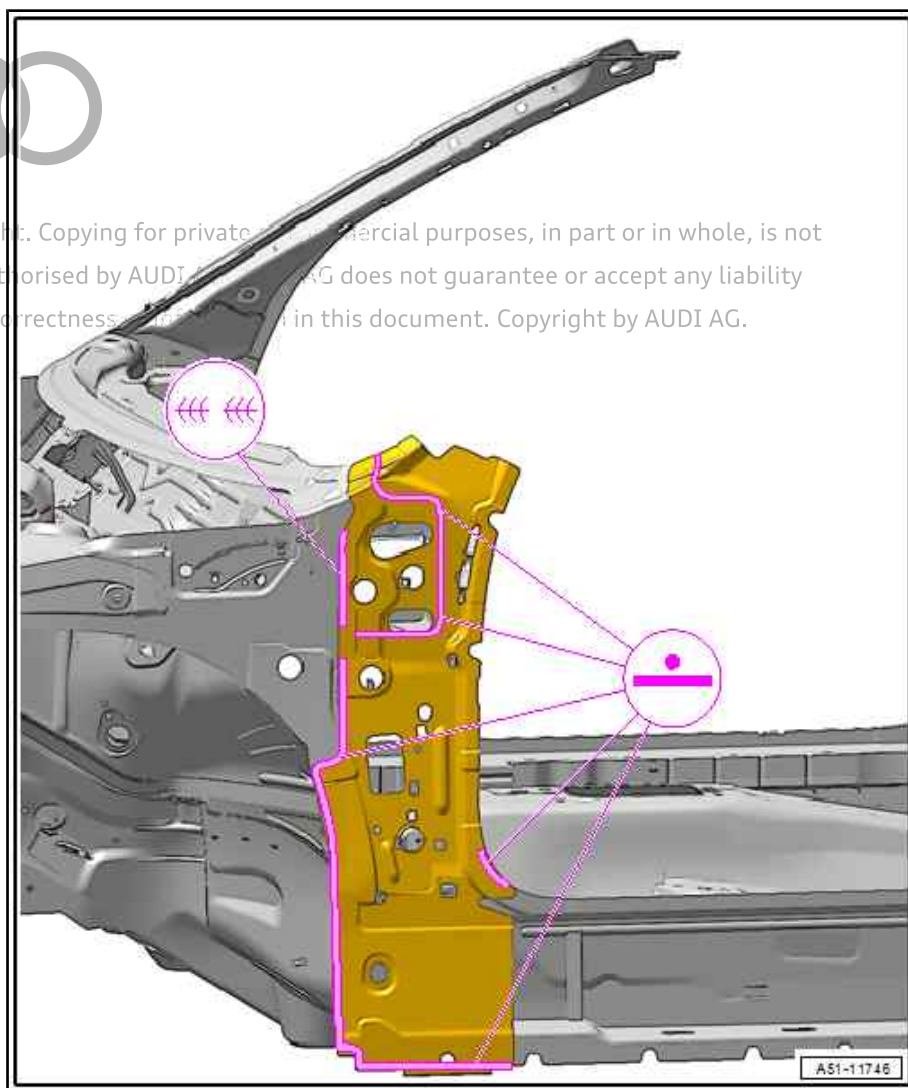
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Weld in inner A-pillar reinforcement using resistance spot welder : RP spot weld seam.
- Weld inner A-pillar reinforcement using shielded arc welding equipment : SG continuous seam (staggered - with gaps).



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- Welding in outer A-pillar ⇒ [page 113](#)
- Welding in lower inner A-pillar ⇒ [page 128](#)
- Welding in upper A-pillar ⇒ [page 124](#)
- Welding in upper wheel housing longitudinal member
⇒ [page 50](#)



RO: 51 46 55 00

8 Mounting for seat cross member (outer) - Renewal



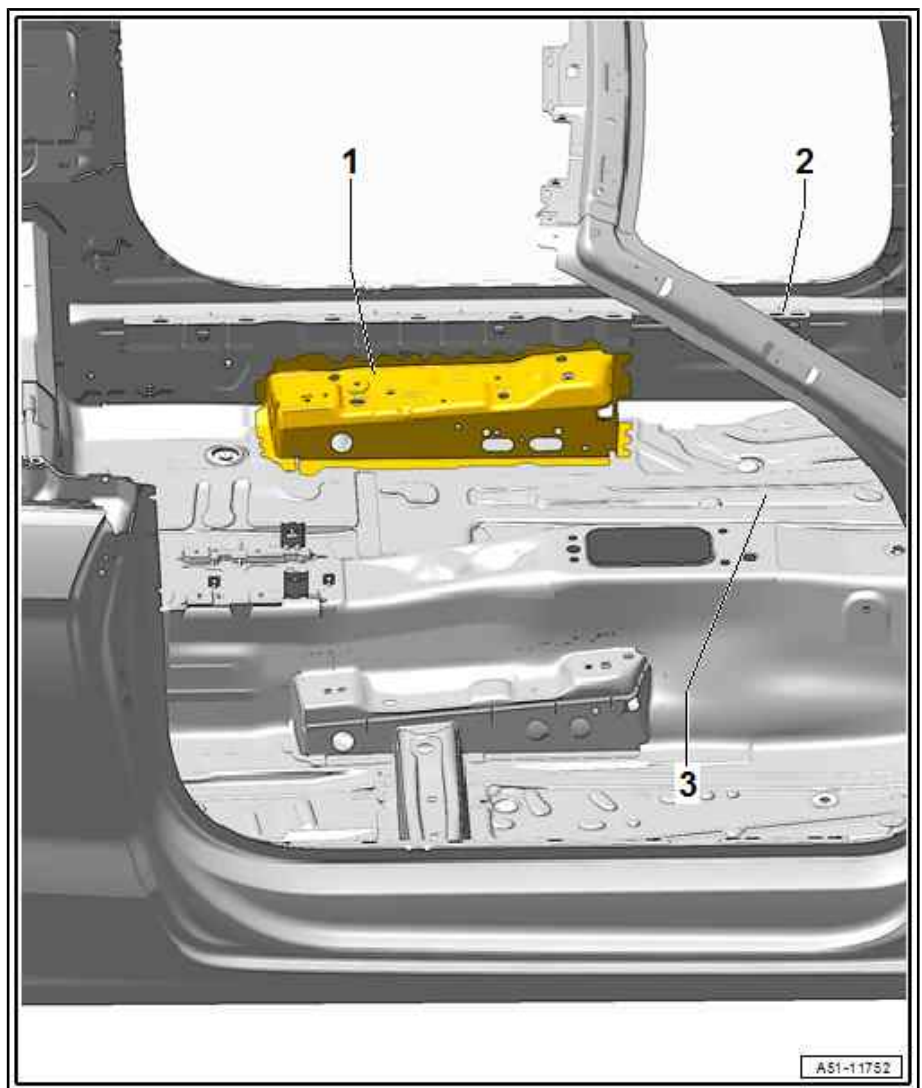
Note

- ◆ If one of the threads in the mounting for the seat cross member (outer) is damaged, the component must be renewed.
- ◆ If the mounting for the seat cross member (outer) is renewed, the repairs must be documented according to the relevant national legislation.

1 - Mounting for seat cross member (outer)

2 - Inner side member

3 - Floor panel



8.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder

- ◆ Shielded arc welding equipment

- ◆ Brush grinder

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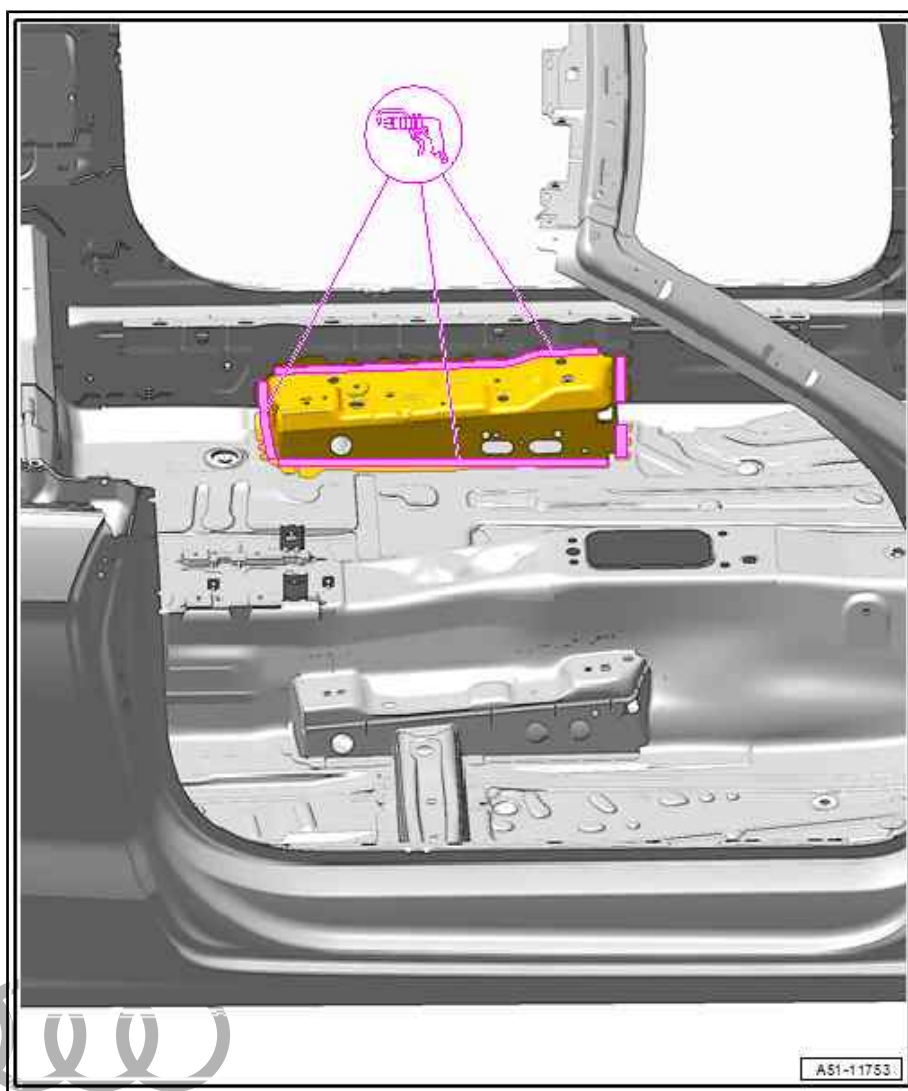
- ◆ Drill
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

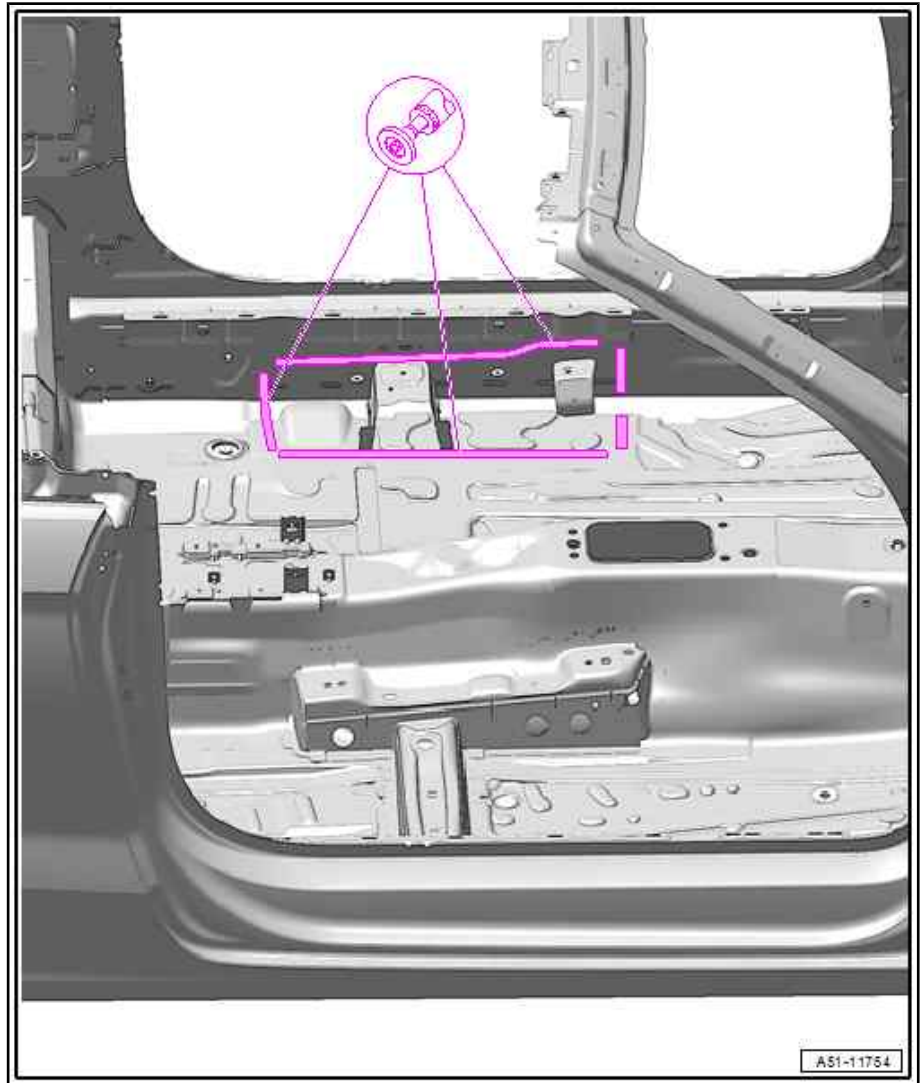
8.2 Procedure

Cutting locations

- Centre seat cross member removed ⇒ [page 142](#) .
- Separate original joint to inner side member and floor panel using spot weld breaker .



- Remove remaining material using compact angle grinder .
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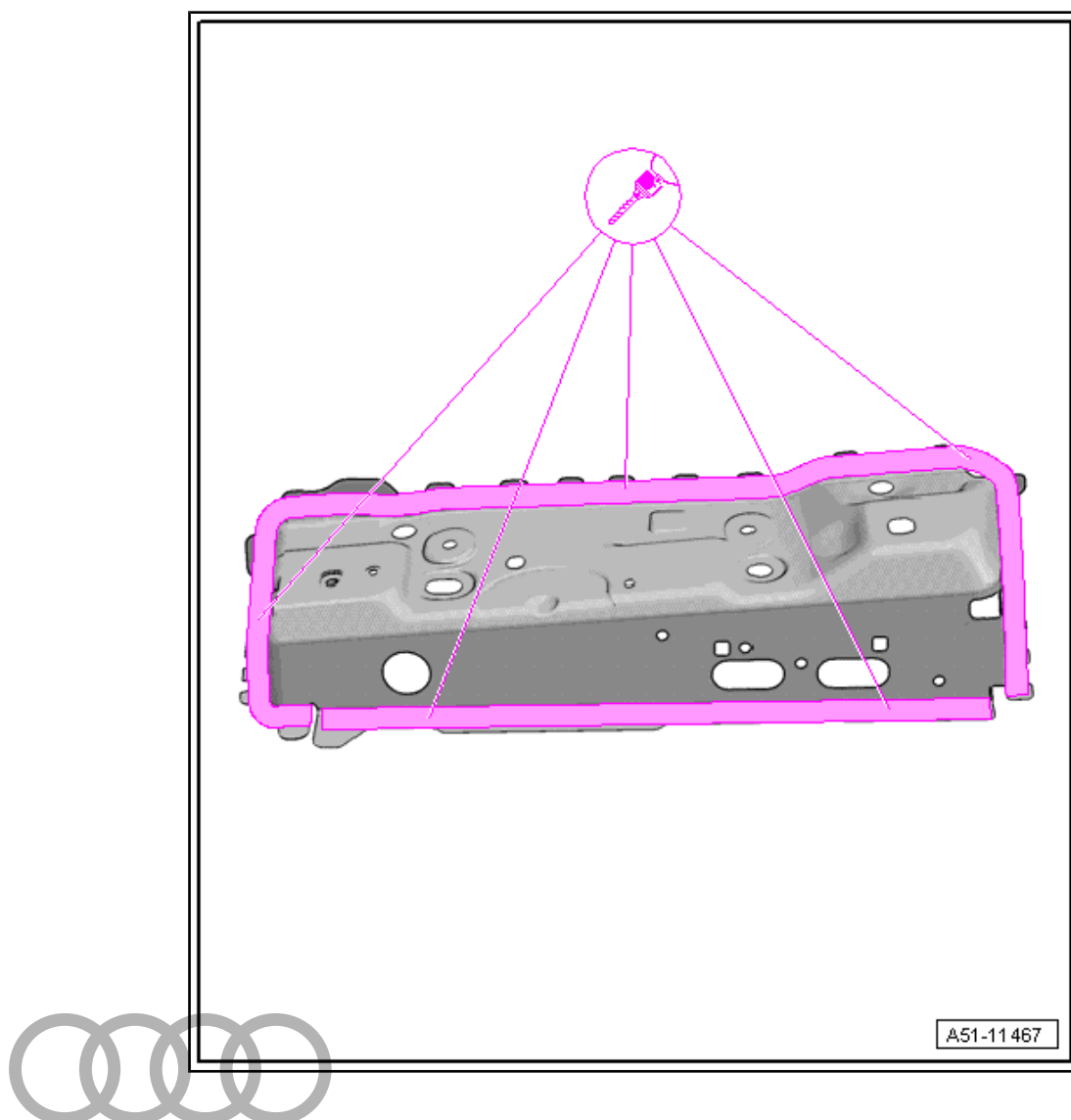
Replacement part

- ◆ Mounting for seat cross member (outer)

Preparing new parts

- Drill holes for SG plug weld seam, 8 mm Ø using drill .

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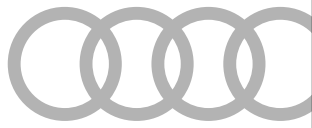
- Match up and fix new part in position.
- Check fit relative to seat.

! NOTICE

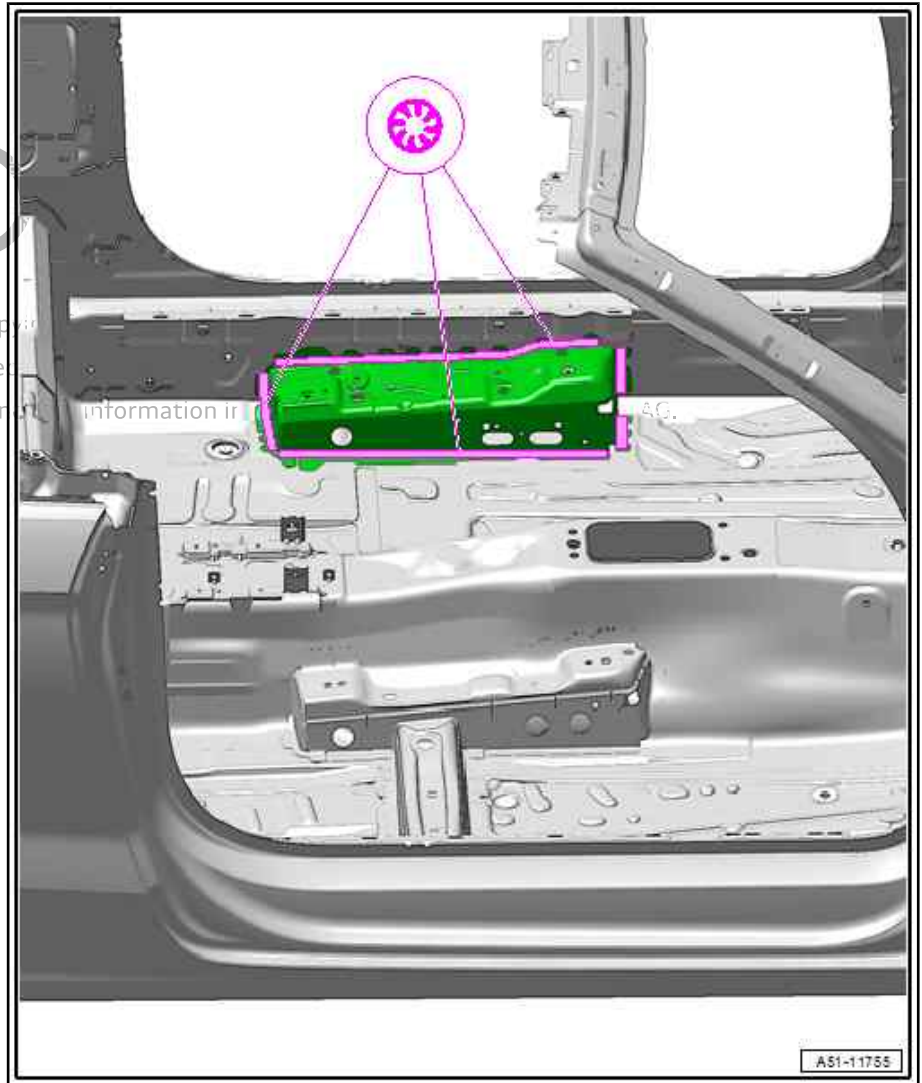
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed must be used to ensure correct results when spot welding.

Welding in

- Weld mounting for seat cross member (outer) to inner side member and floor panel using shielded arc welding equipment : SG plug weld seam.



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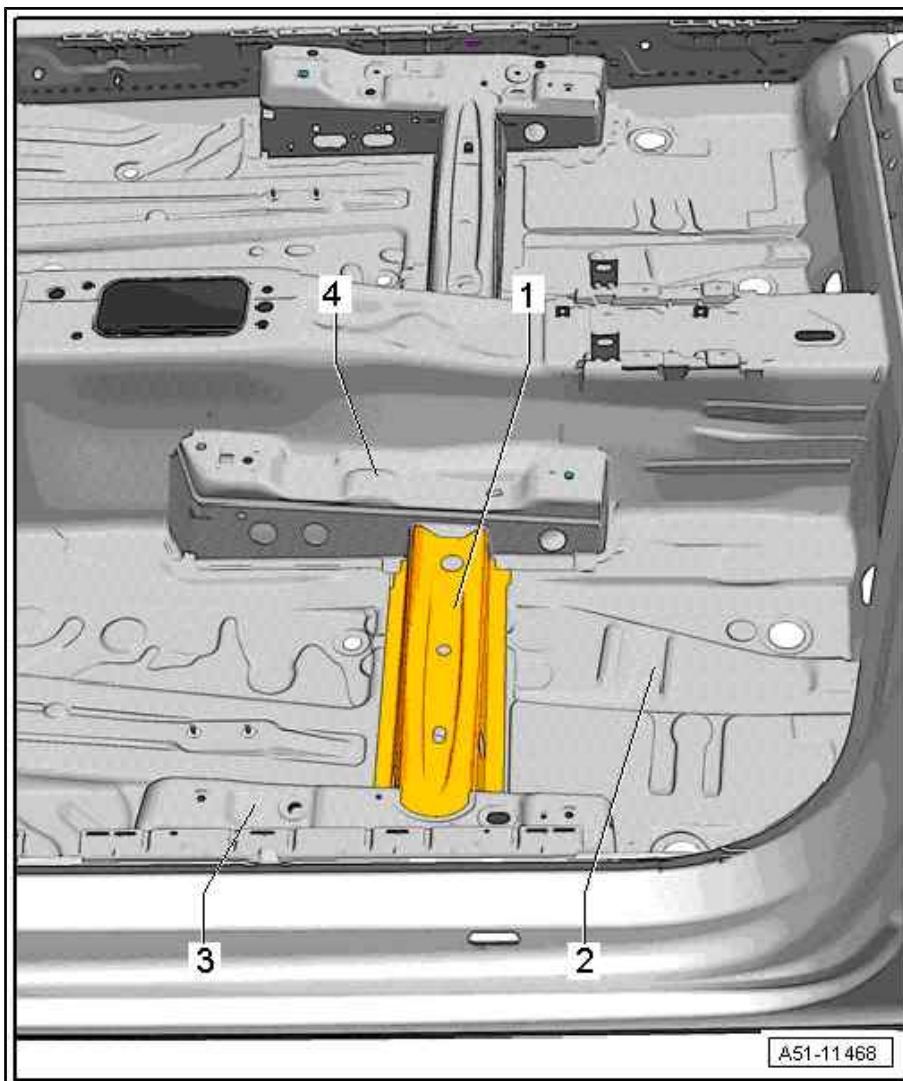
- Welding in centre seat cross member ⇒ [page 142](#)



RO: 51 87 55 00

9 Centre seat cross member - Renewal

- 1 - Centre seat cross member
- 2 - Floor panel
- 3 - Outer seat cross member
- 4 - Inner seat cross member



9.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#).

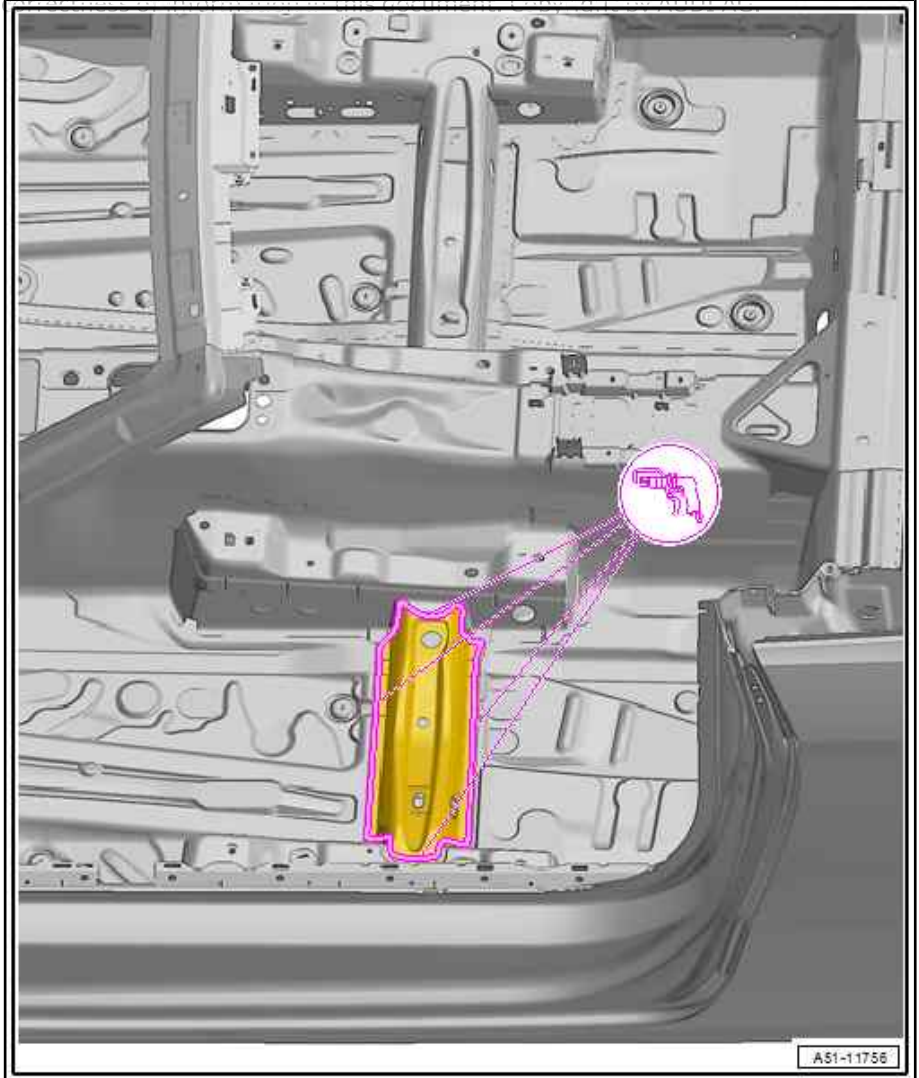
9.2 Procedure

Cutting locations

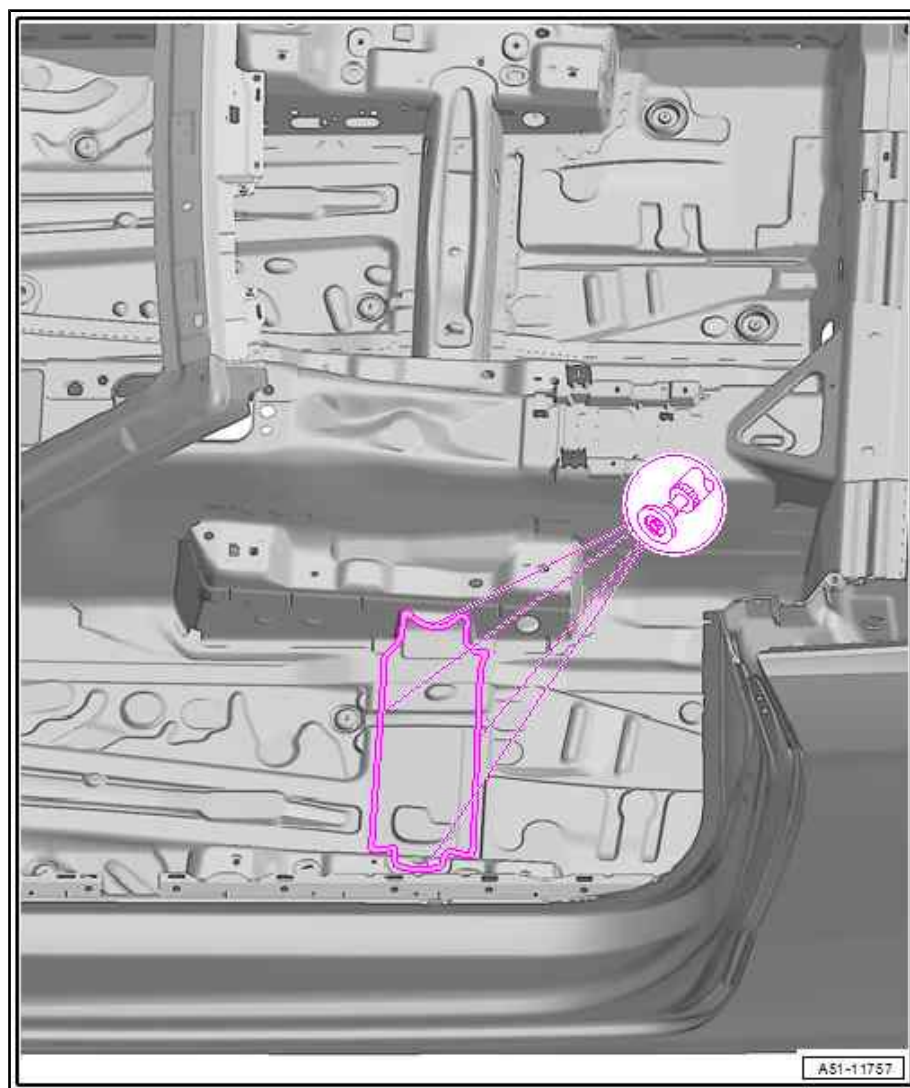
- Separate original joint at mounting for seat cross member (inner) and floor panel using spot weld breaker.



- Separate joint at mounting for seat cross member (inner) using spot weld breaker .
 - Pull seat cross member out of mounting for seat cross member (inner).
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- Remove remaining material using compact angle grinder .



Replacement part

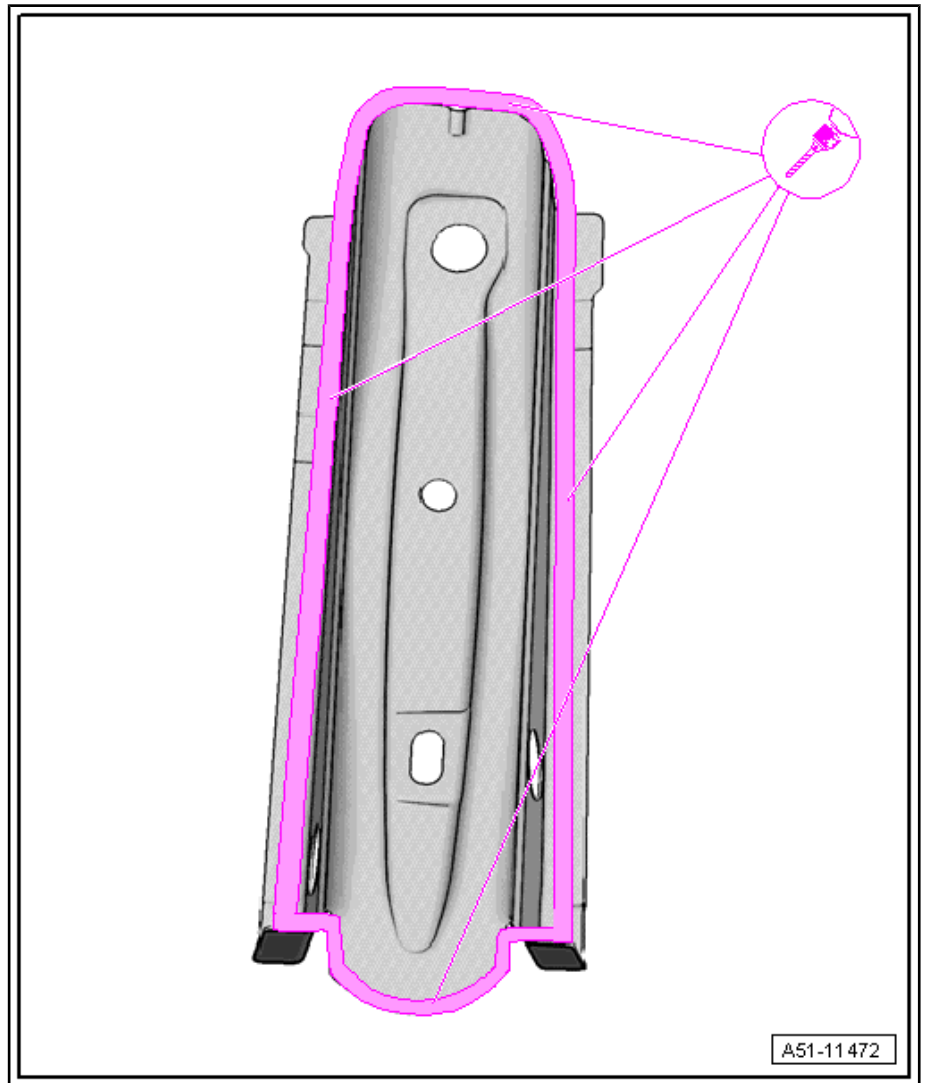
- ◆ Seat cross member

Preparing new part

- Drill holes for SG plug weld seam, 8 mm Ø using drill .



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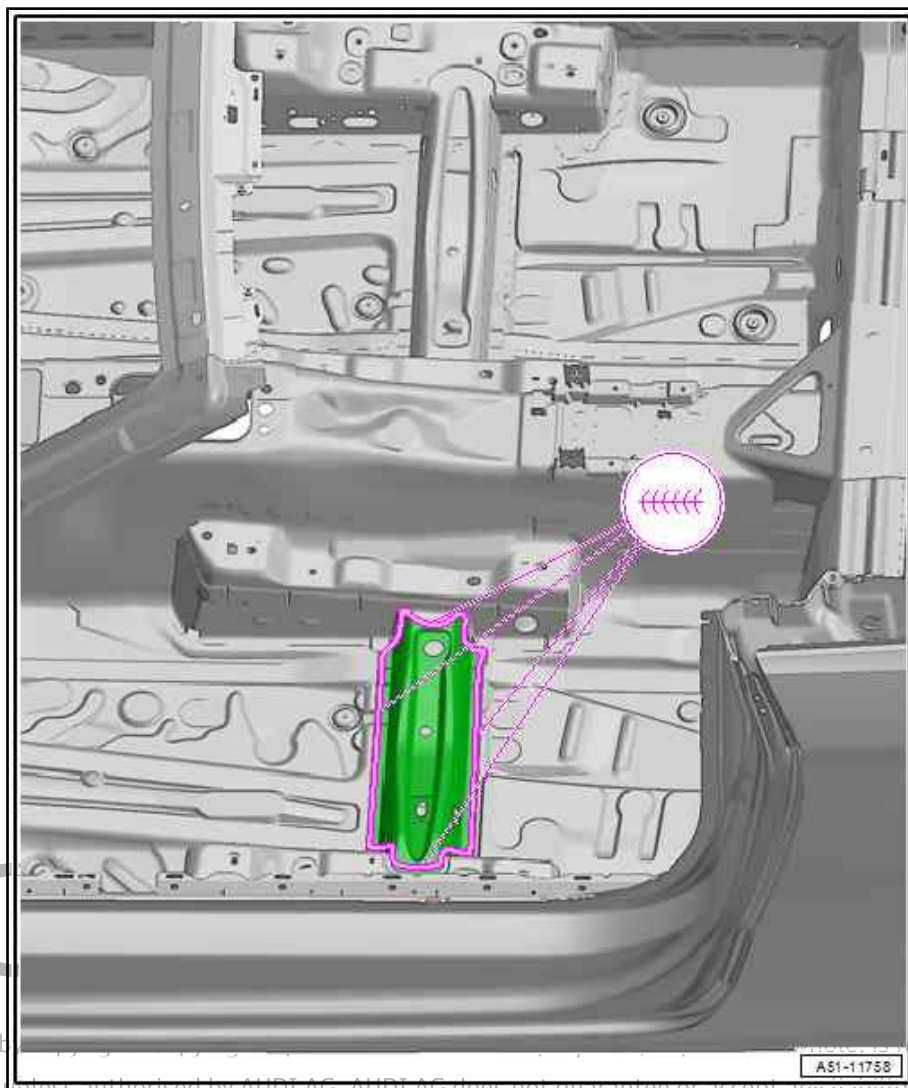


! NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed must be used to ensure correct results when spot welding.

Welding in

- Match up new parts and fix in position.
- Weld seat cross member to mounting for seat cross member (inner) and floor panel using shielded arc welding equipment : SG plug weld seam.



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RO: 51 46 55 58

10 Mounting for seat cross member (inner) - Renewal



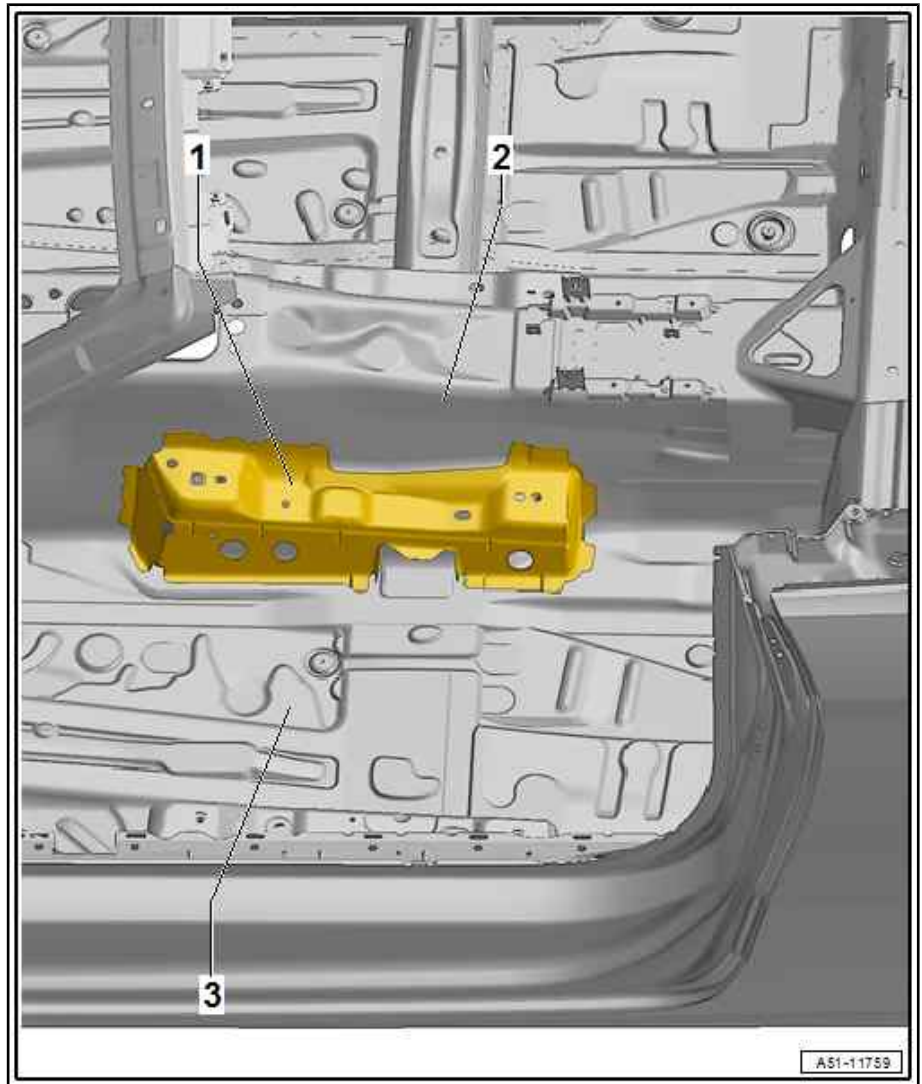
Note

If one of the threads in the mounting for the seat cross member is damaged, the component must be renewed.

1 - Mounting for seat cross member (inner)

2 - Centre tunnel

3 - Floor panel



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10.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Compact angle grinder
- ◆ Drill



◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

10.2 Procedure

- Centre seat cross member removed ⇒ [page 142](#) .

Cutting locations

- Separate original joint to centre tunnel and floor panel using spot weld breaker .



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- Remove remaining material using compact angle grinder .



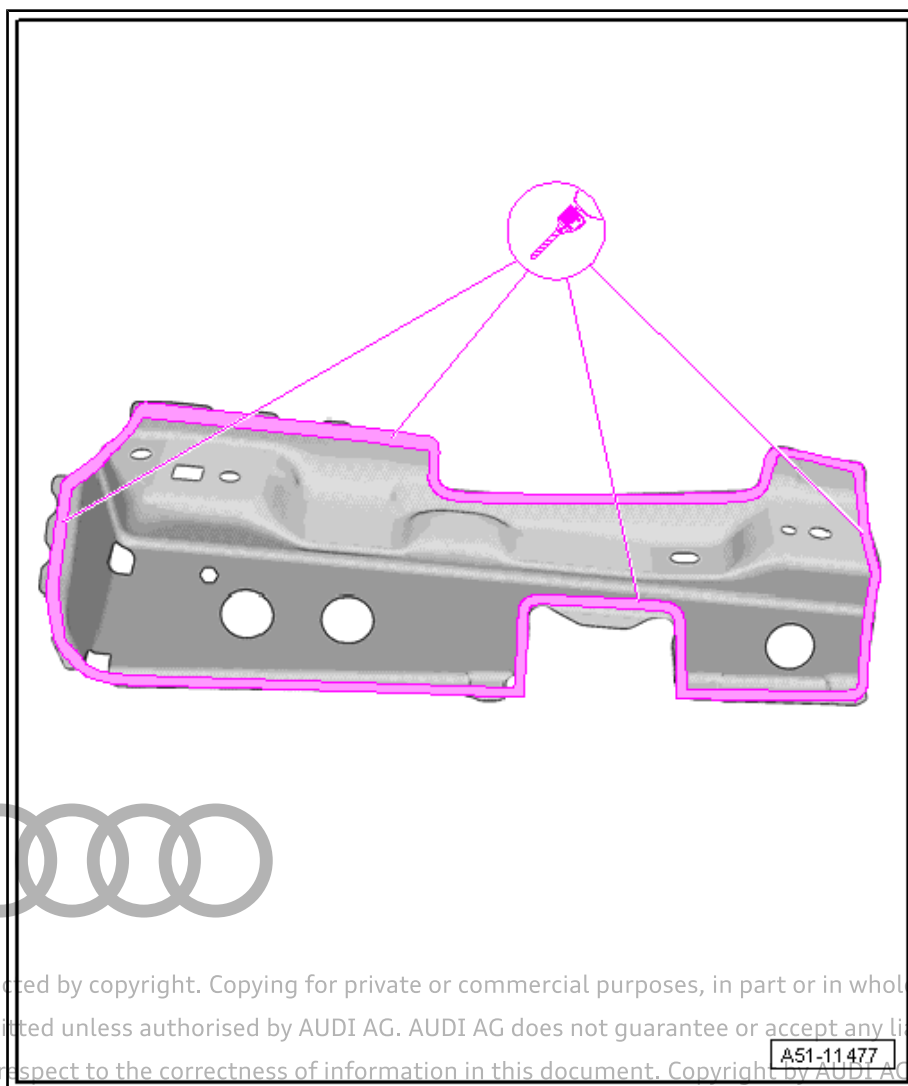
Replacement part

- ◆ Mounting for seat cross member (inner)

Preparing new part

- Drill holes for SG plug weld seam, 8 mm Ø using drill .

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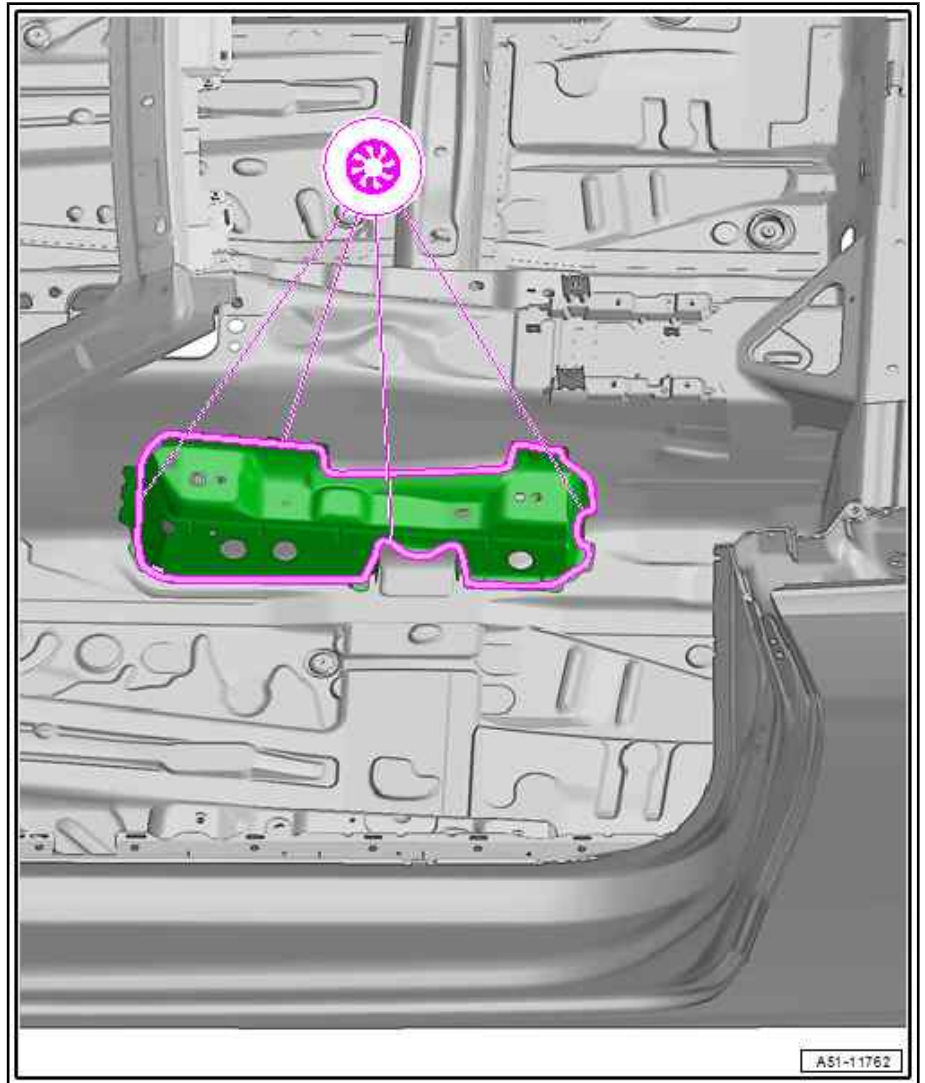
! NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed must be used to ensure correct results when spot welding.

- Match up new parts and fix in position.
- Check fit relative to seat.

Welding in

- Weld mounting for seat cross member (inner) to centre tunnel and floor panel using shielded arc welding equipment : SG plug weld seam.



- Welding in centre seat cross member ⇒ [page 142](#)



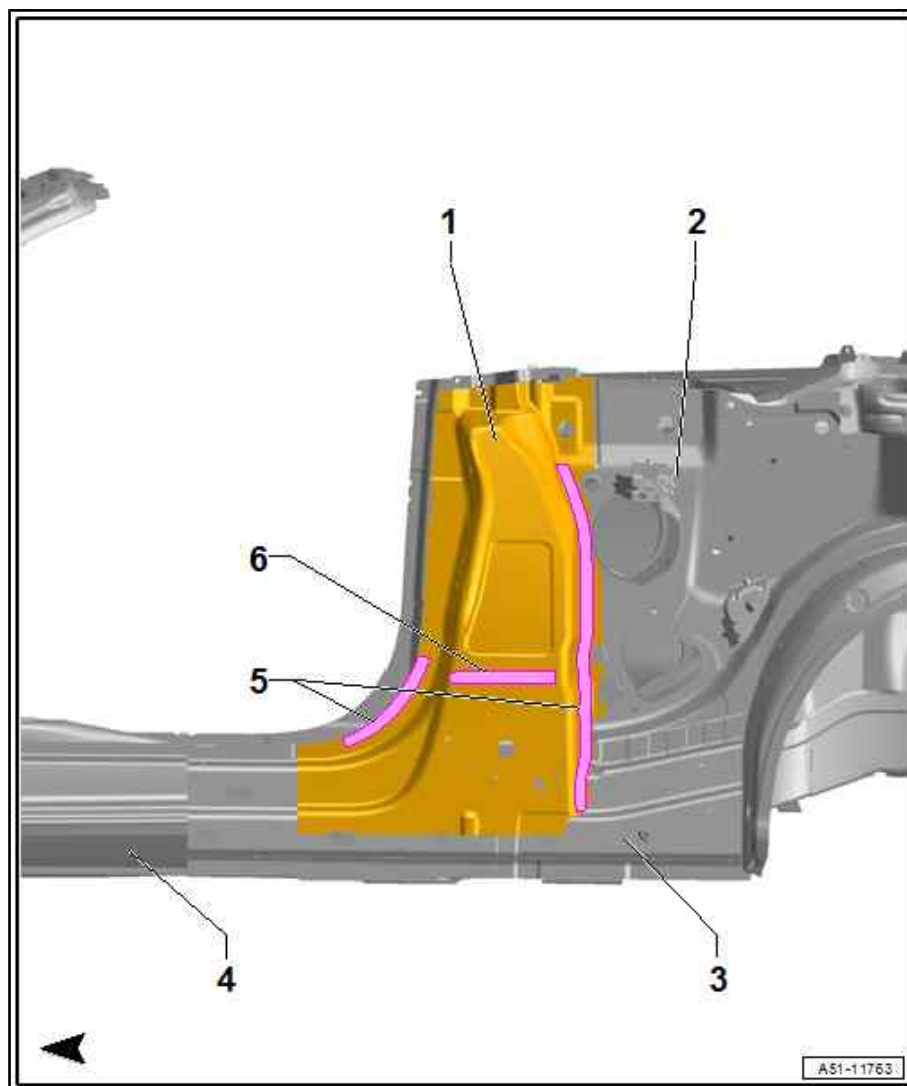
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RO: 51 42 55 50

11 B-pillar reinforcement - Renewal

- 1 - B-pillar reinforcement
- 2 - Rear inner side frame
- 3 - Side member reinforcement
- 4 - Outer side member
- 5 - Bonded area
- 6 - Moulded foam insert



11.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Drill
- ◆ Brush grinder
- ◆ Compact angle grinder
- ◆ Pneumatic glue gun
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#).

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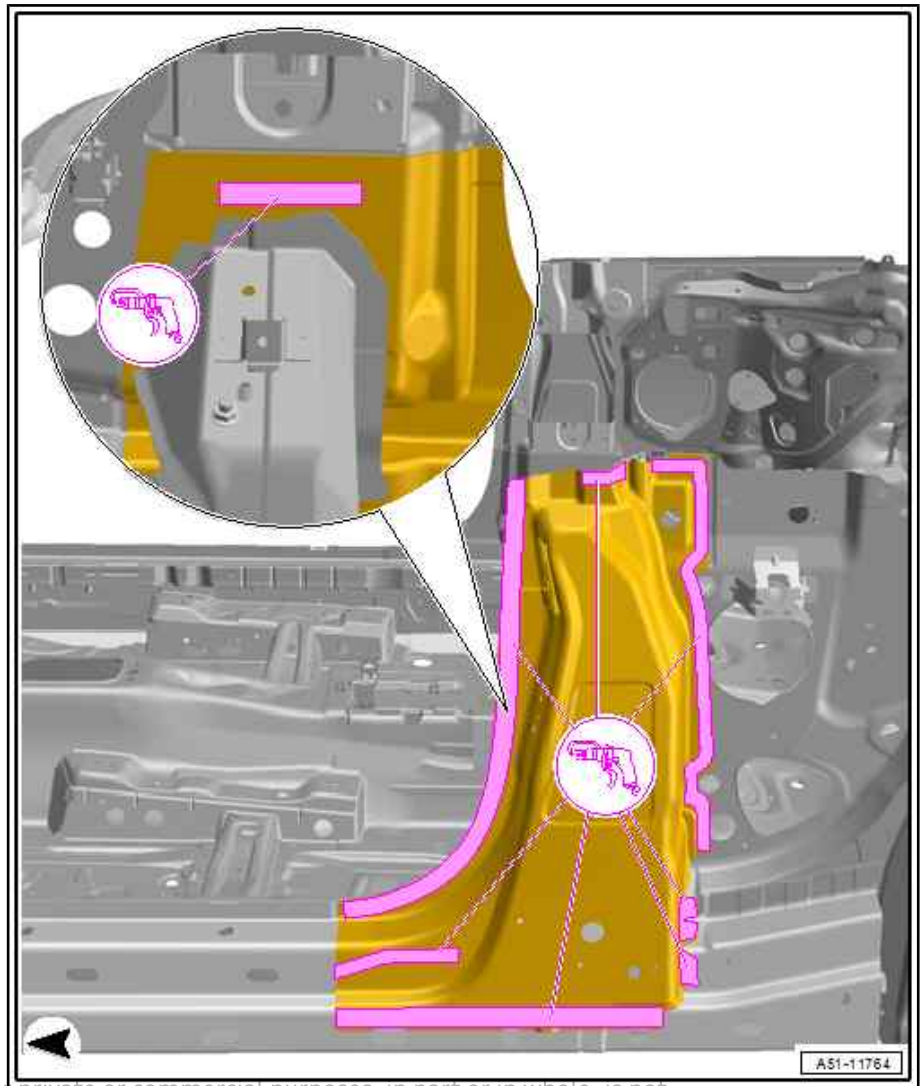


11.2 Procedure

- Side panel removed ⇒ [page 190](#)

Cutting locations

- Separate original joint using spot weld breaker .



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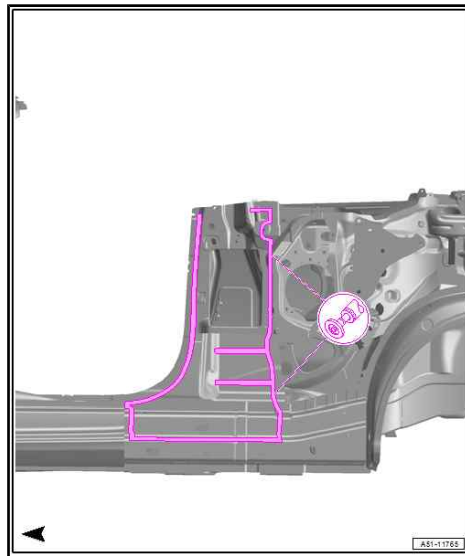


- Remove remaining material and adhesive using compact angle grinder .

Replacement parts

- ◆ B-pillar reinforcement
- ◆ 2-component epoxy adhesive - DA 001 730 A2-

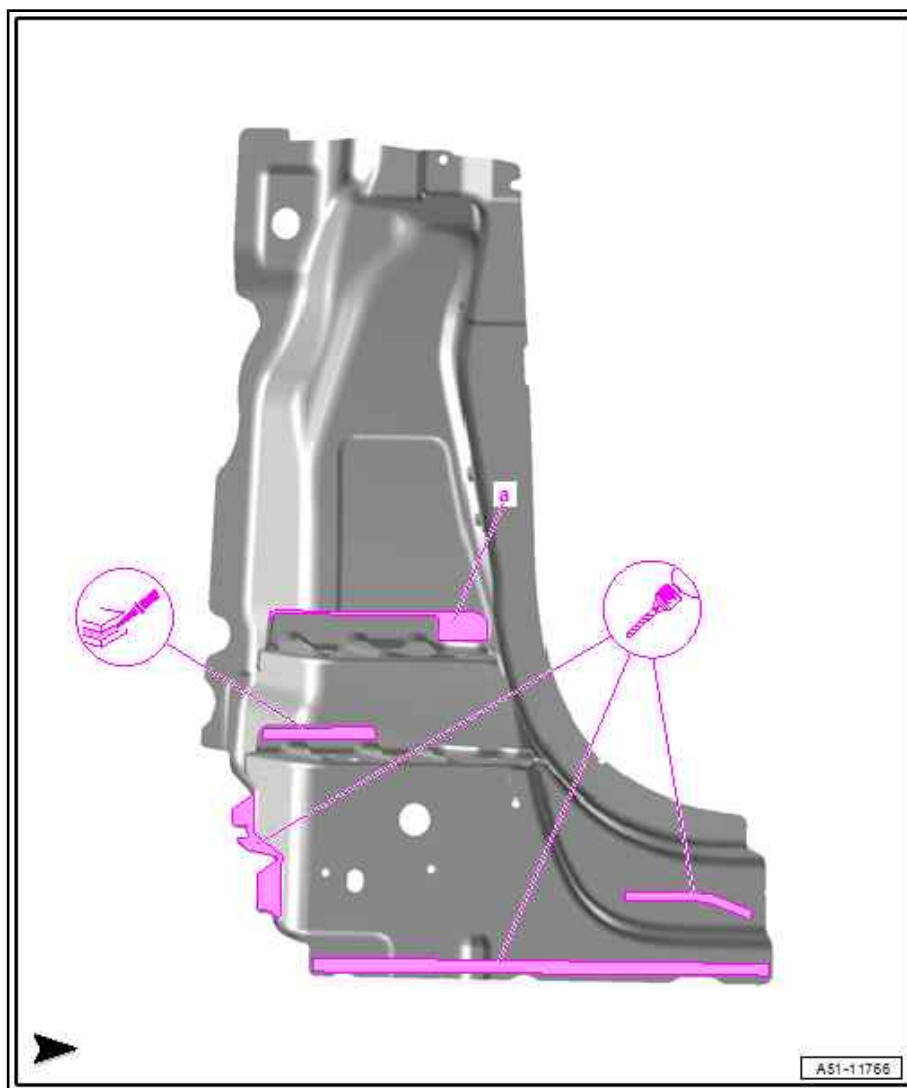
Preparing new part



- Drill holes for SG plug weld seam, 8 mm Ø using drill .
- Inserting moulded foam insert -a- → [page 12](#)
- Apply 2-component epoxy adhesive - DA 001 730 A2- to lower bulkhead plate in area of original adhesive joints used in production (1 bead of adhesive, approx. 4 mm); use pneumatic glue gun - V.A.G 2005 B- .



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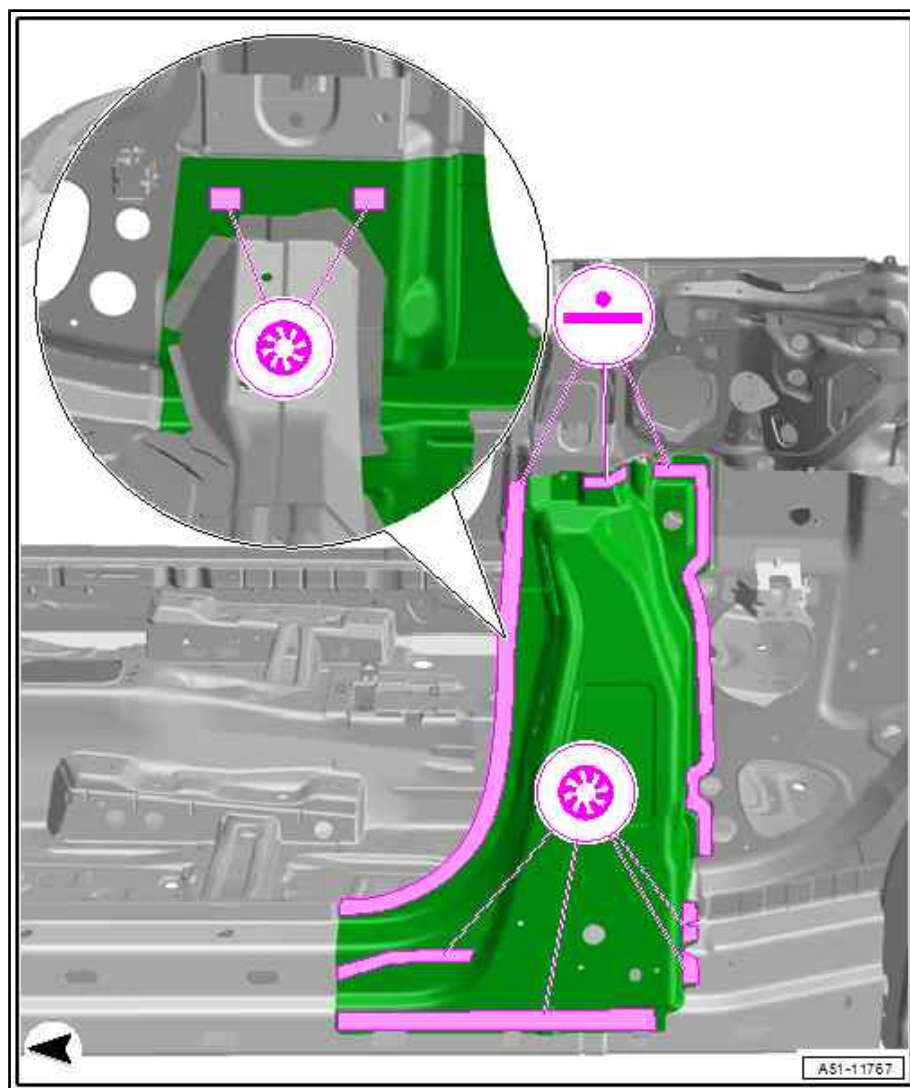
! NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Match up B-pillar reinforcement and side panel on portal gauge and fix in position.
- Remove side panel.
- Weld in B-pillar reinforcement using resistance spot welder : RP spot weld seam.
- Weld in B-pillar reinforcement using shielded arc welding equipment : SG plug weld seam.

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- Welding in side panel ⇒ [page 190](#)



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RO: 51 47 55 50

12 Inner side member - Renewal

- 1 - Inner A-pillar
- 2 - Inner side member
- 3 - Rear inner side frame
- 4 - Rear wheel housing



12.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

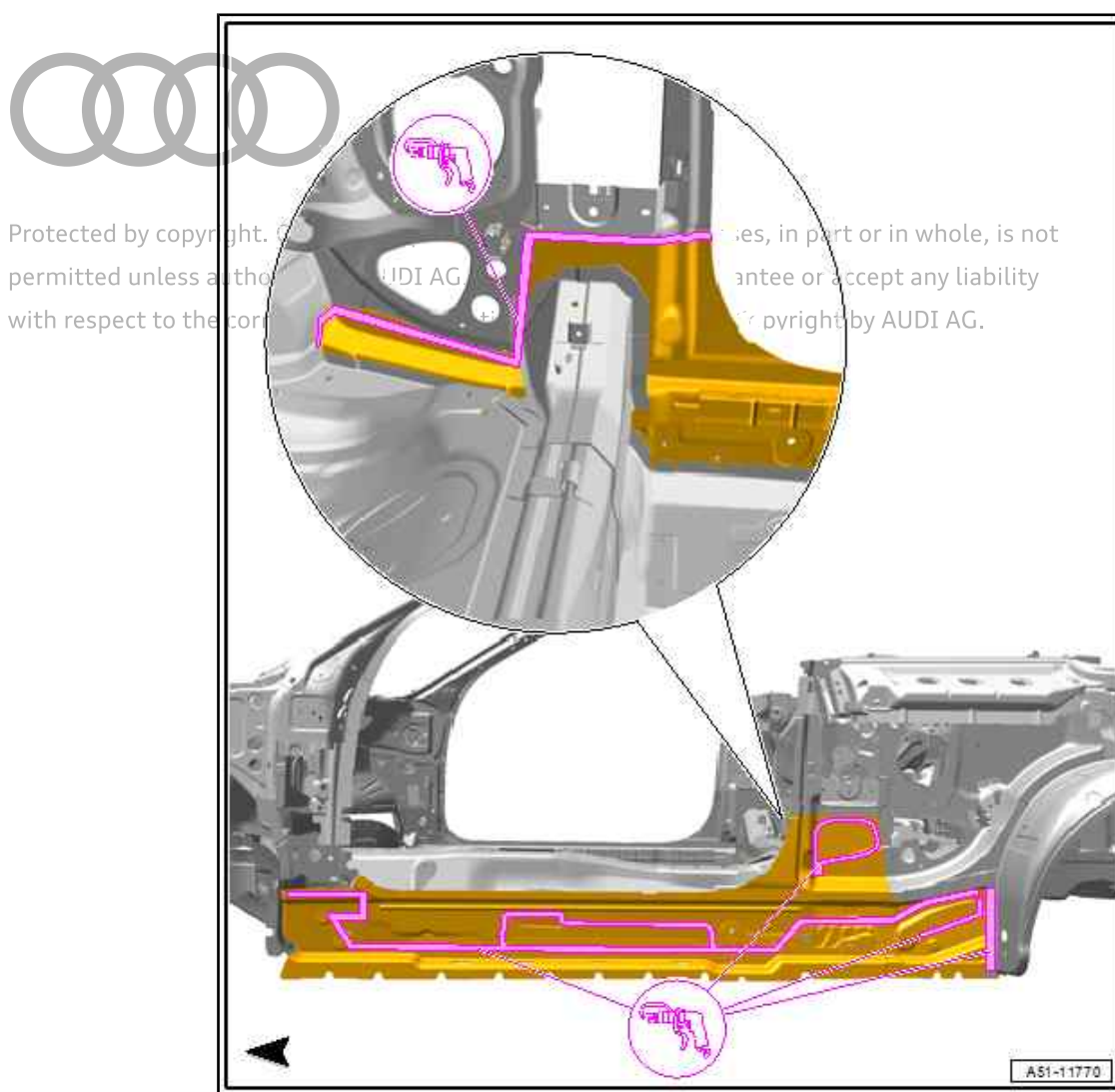


12.2 Procedure

- Side panel removed ⇒ [page 190](#)
- Inner B-pillar reinforcement removed ⇒ [page 152](#)
- Outer A-pillar removed ⇒ [page 113](#)
- Lower inner A-pillar removed ⇒ [page 128](#)
- Inner A-pillar reinforcement removed ⇒ [page 133](#)

Cutting locations

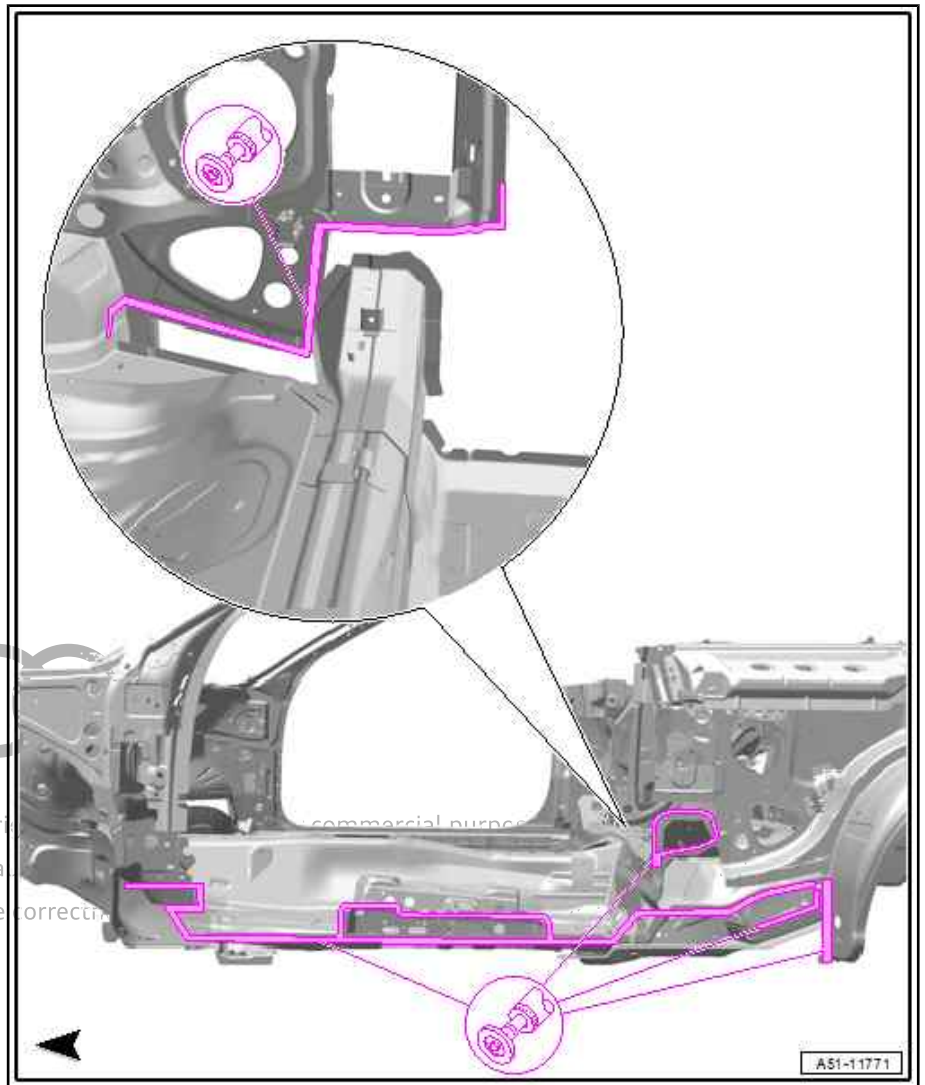
- Separate original joint using spot weld breaker .



- Remove remaining material using compact angle grinder .



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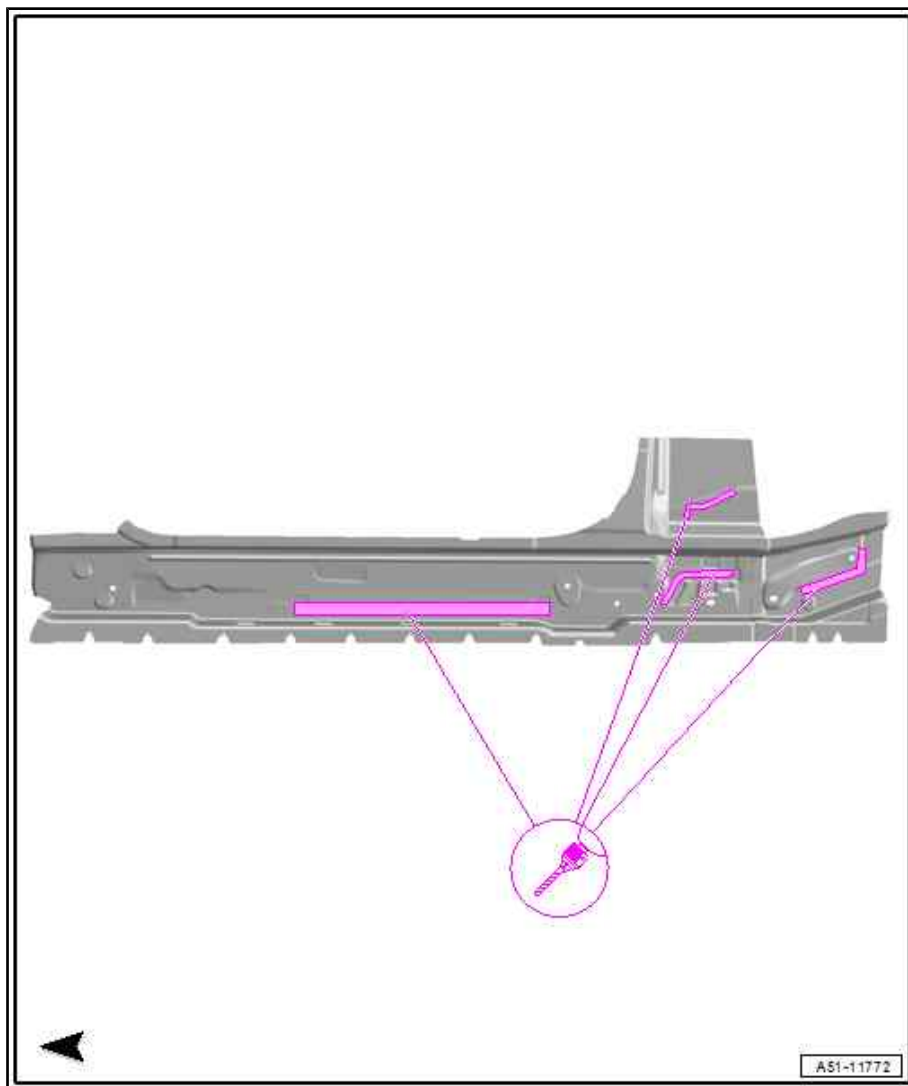


Replacement part

- ◆ Inner side member

Preparing new part

- Drill holes for SG plug weld seam, 8 mm Ø using drill .

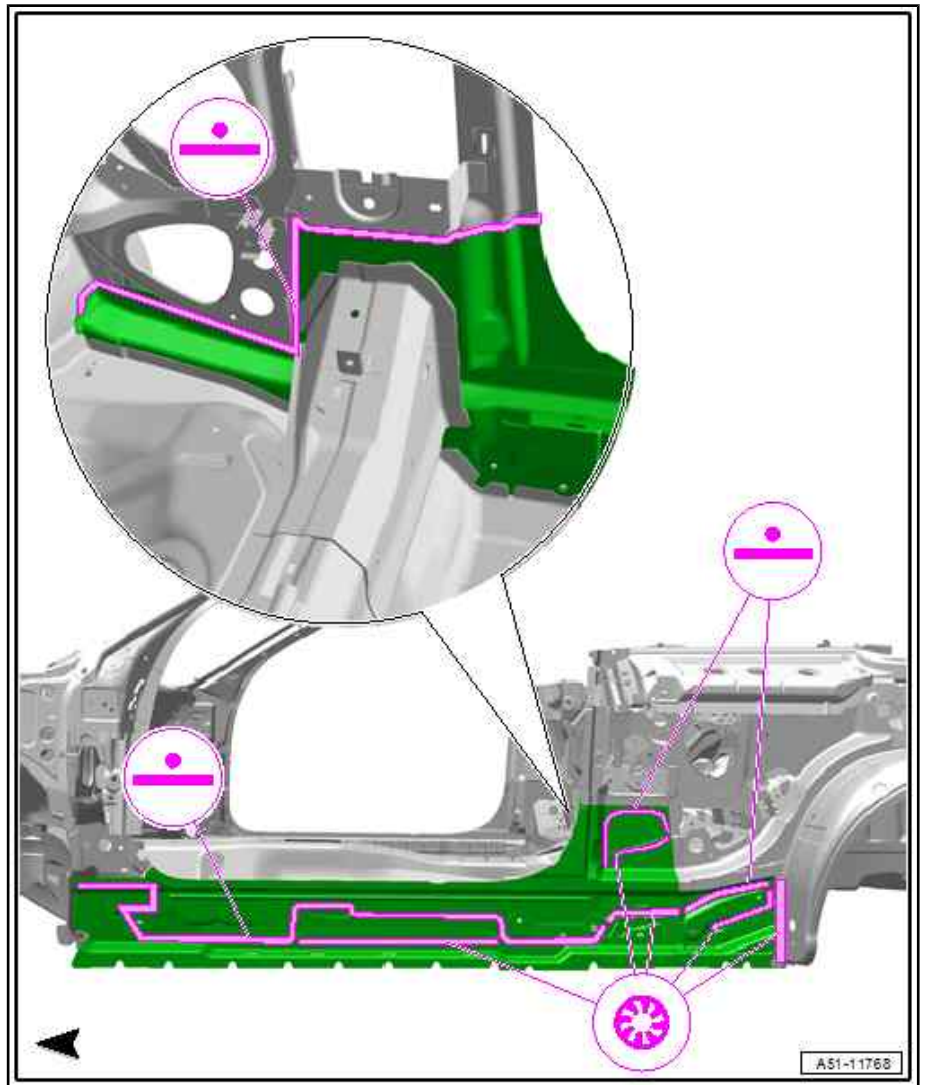


NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Weld in inner side member using shielded arc welding equipment : SG plug weld seam.
- Weld in inner side member using resistance spot welder : RP spot weld seam.



- Welding in side panel ⇒ [page 190](#)
- Welding in inner B-pillar reinforcement ⇒ [page 152](#)
- Welding in outer A-pillar ⇒ [page 113](#)
- Welding in lower inner A-pillar ⇒ [page 128](#)
- Welding in inner A-pillar reinforcement ⇒ [page 133](#)



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RO: 51 49 55 50

13 Side member reinforcement - Renewal

1 - Side member reinforcement

2 - Rear inner side frame

3 - Rear wheel housing

4 - Separating cut

Partial renewal

Partial renewal is possible with this separating cut.

5 - Moulded foam insert

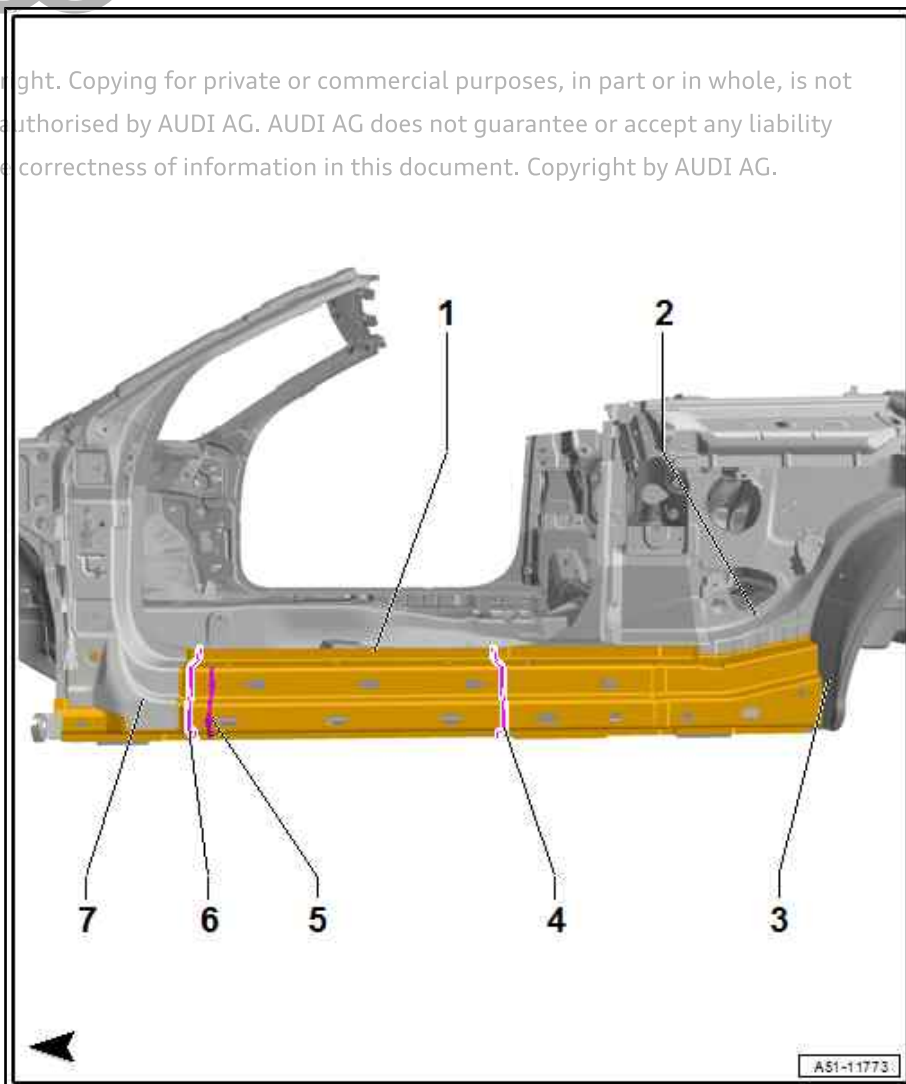
6 - Separating cut

Partial renewal

Partial renewal is possible with this separating cut.

Make separating cuts according to extent of damage.

7 - Lower inner A-pillar



13.1 Tools

Special tools and workshop equipment required

- ◆ Shielded arc welding equipment
- ◆ Compact angle grinder
- ◆ Brush grinder
- ◆ Body saw
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#).

13.2 Procedure

- Side panel removed ⇒ [page 190](#)
- Inner B-pillar removed ⇒ [page 152](#)



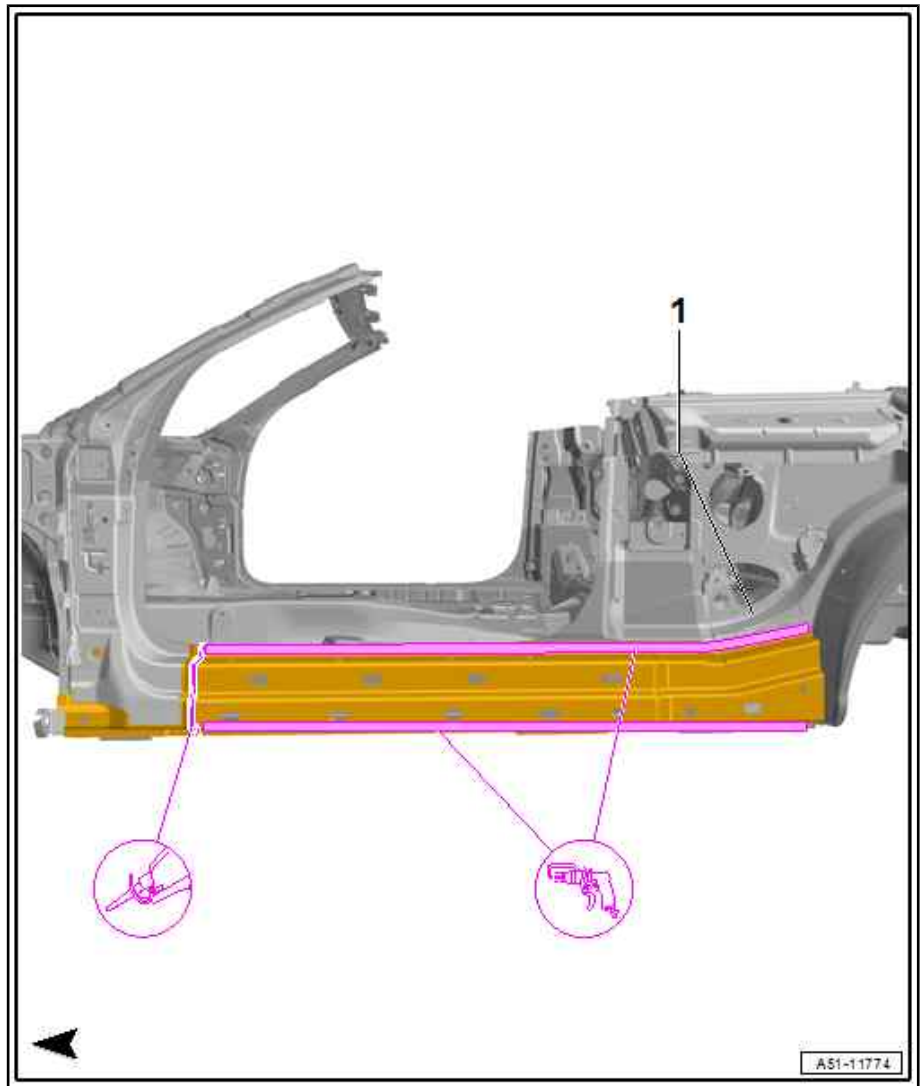
Cutting locations

- Make separating cuts according to extent of damage using body saw .

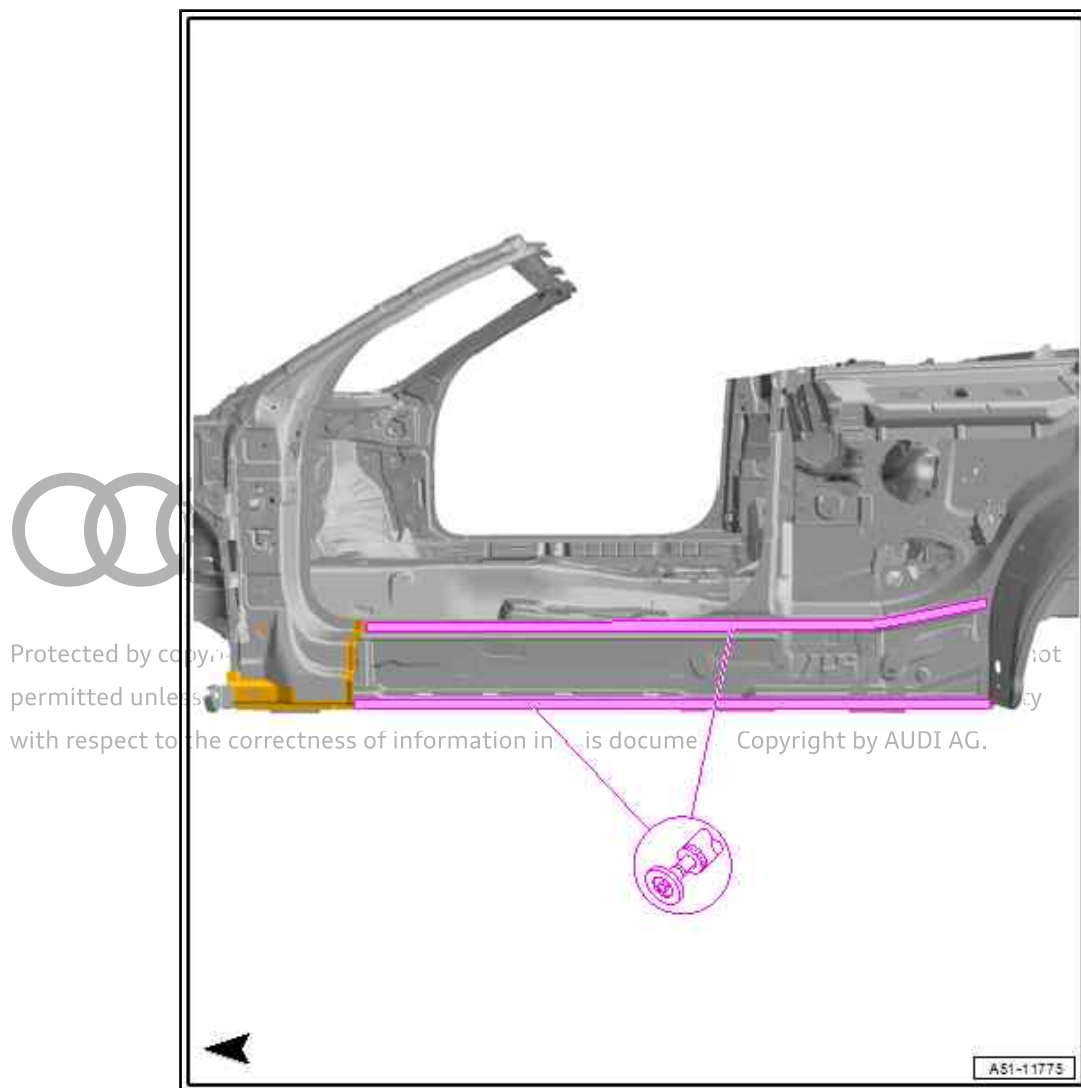
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- Separate original joint using spot weld breaker .
- Detach welded flange at rear inner side frame -1-

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- Remove remaining material using compact angle grinder .

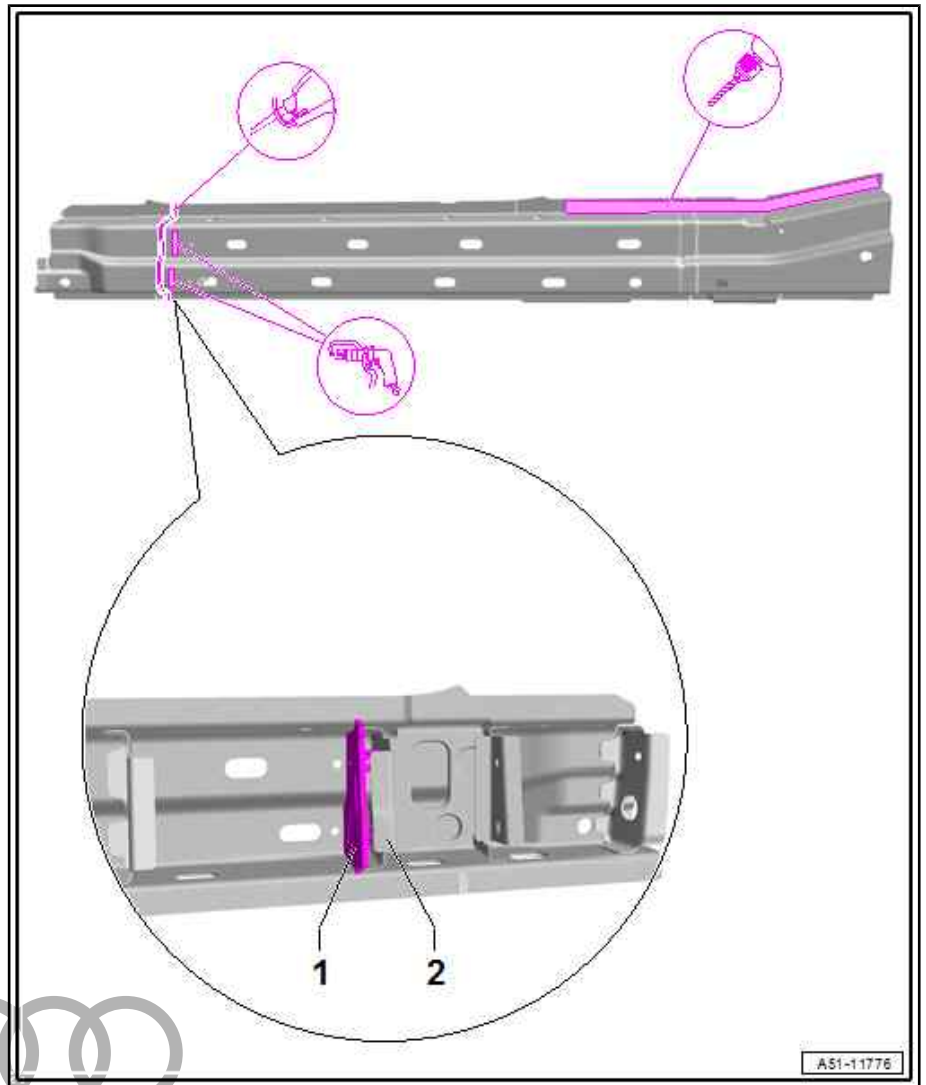


Replacement part

- ◆ Side member reinforcement

Preparing new part

- Separate front web plate -2- using spot weld breaker .
- Transfer separating cuts to new part and cut to size using body saw .
- Insert moulded foam insert -1- ⇒ [page 12](#) .



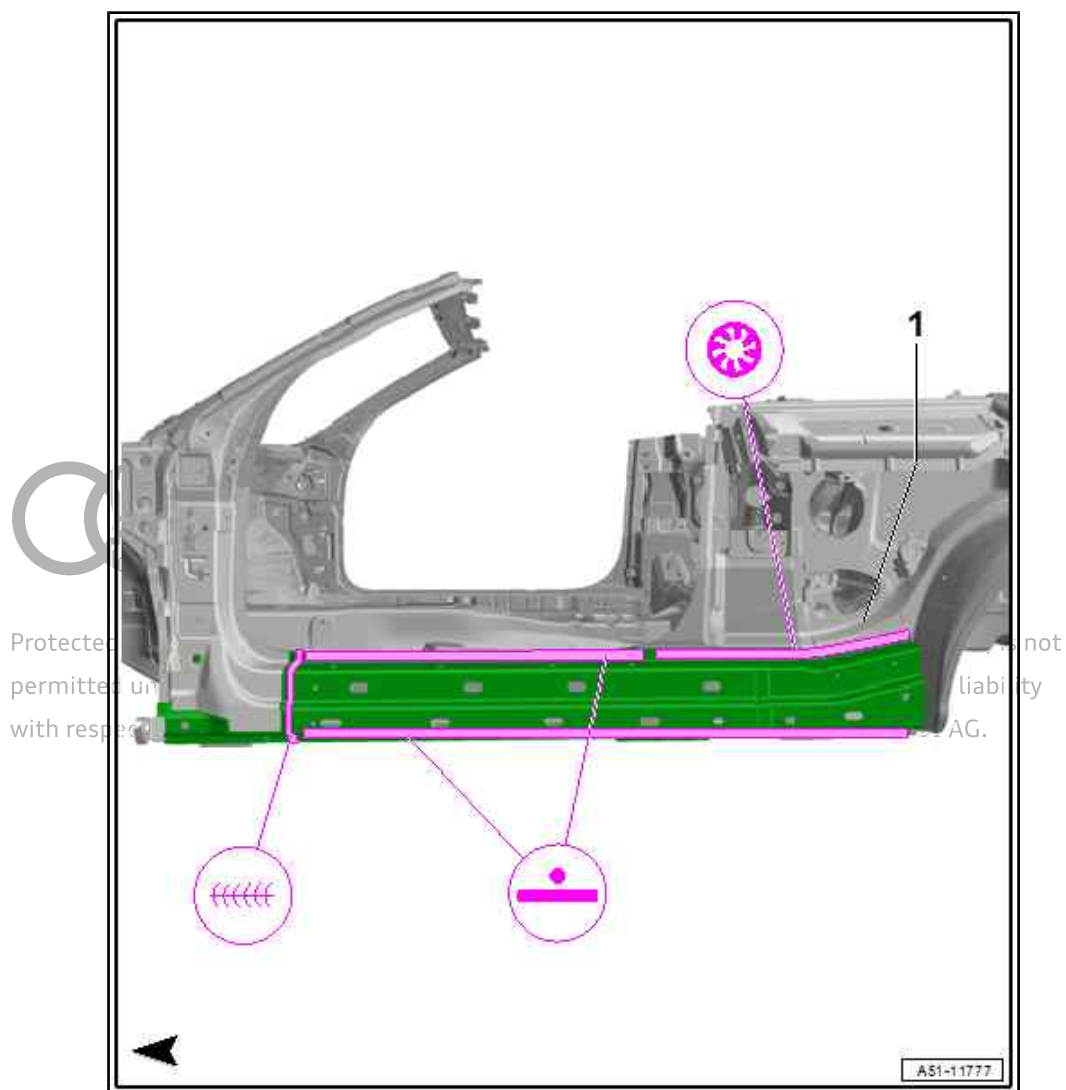
! NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

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Welding in

- Match up new part with adjoining panels.
- Bend back welded flange at rear inner side frame -1- into position.
- Weld on side member reinforcement using shielded arc welding equipment : SG plug weld seam.
- Weld in side member reinforcement using resistance spot welder : RP spot weld seam.
- Weld separating cut using shielded arc welding equipment : SG continuous seam.



- Welding in inner B-pillar ⇒ [page 153](#)
- Welding in side panel ⇒ [page 190](#)



53 – Body - rear

1 Permitted separating cuts on complete side panel

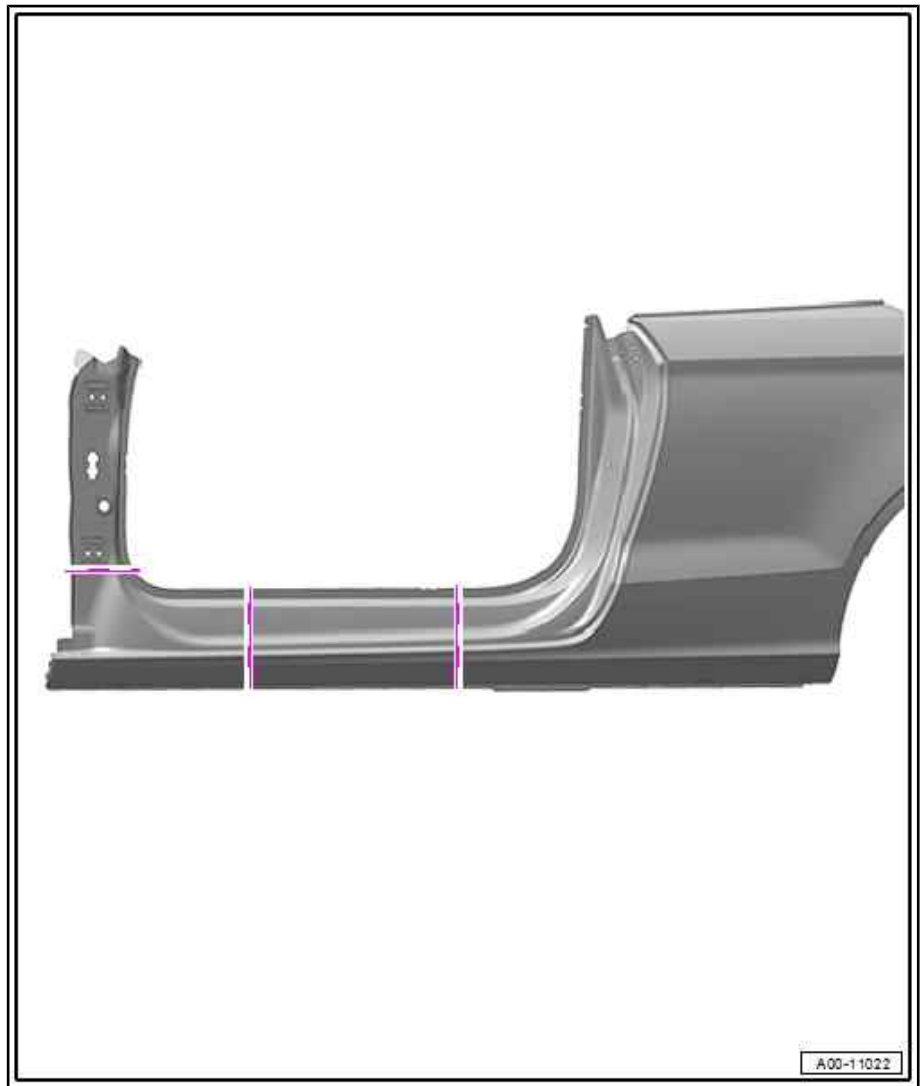
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- ◆ Use only welding equipment approved by AUDI AG.
- ◆ SG continuous weld seams are approved for the separating cuts shown in the illustration.



A00-11022



RO: 53 16 55 00

2 Rear upper cross panel - Renewal

1 - Separating cuts in cross panel

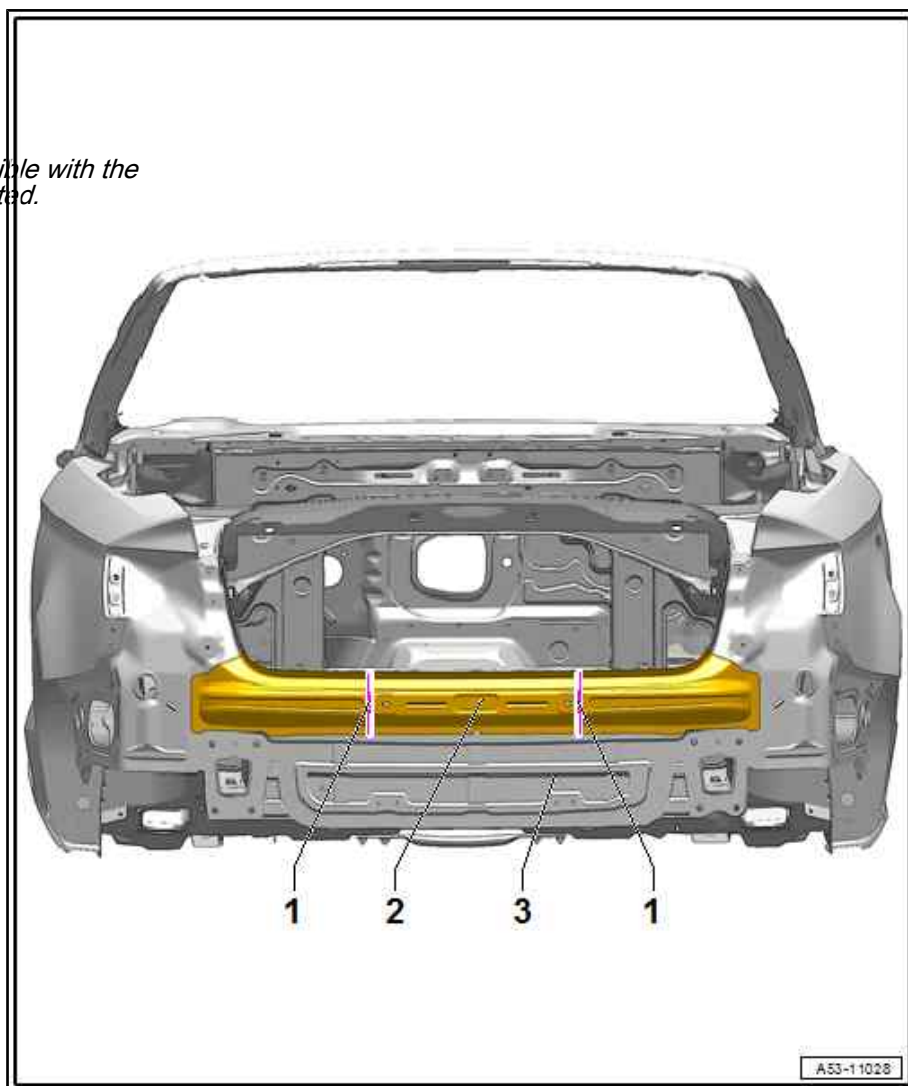


Note

Partial renewal is possible with the separating cuts illustrated.

2 - Rear upper cross panel

3 - Lower cross panel



2.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Drill
- ◆ Brush grinder
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker

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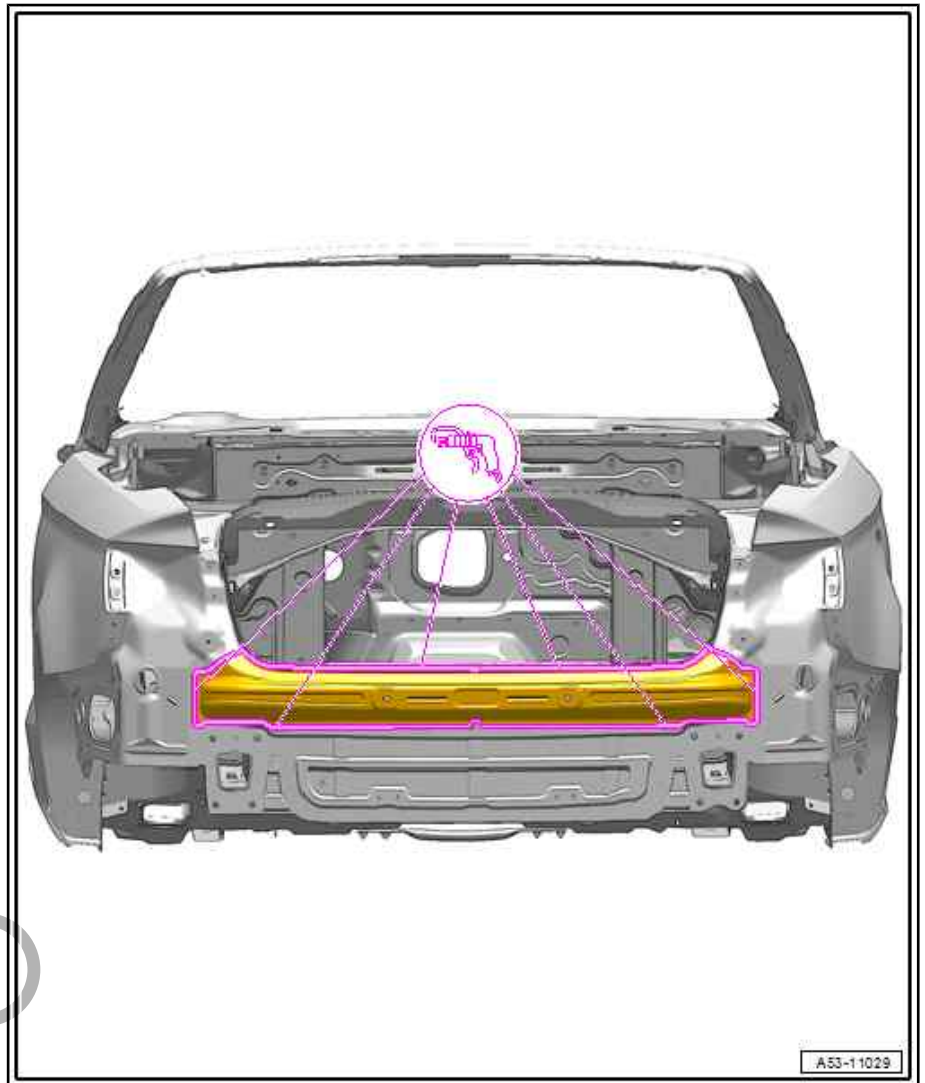
Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .



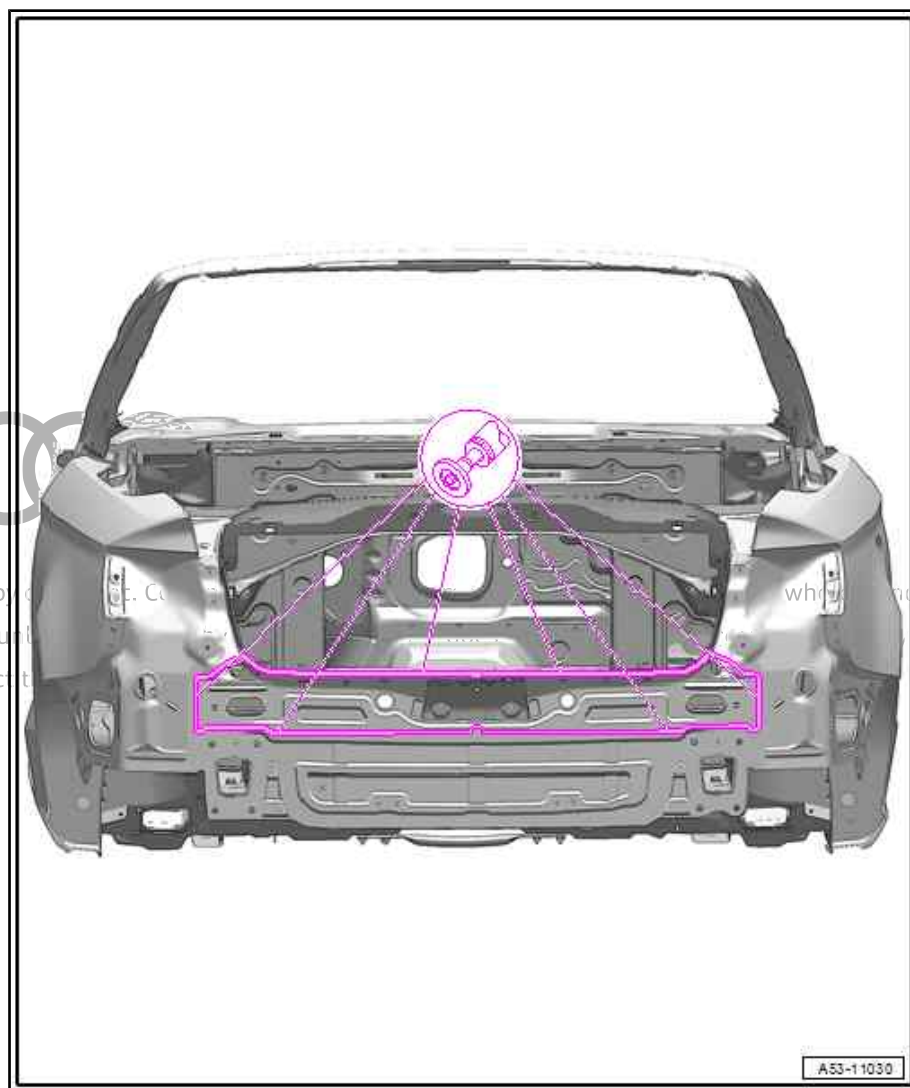
2.2 Procedure

Cutting locations

- Separate original joint using spot weld breaker .



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- **Remove remaining material using compact angle grinder .**

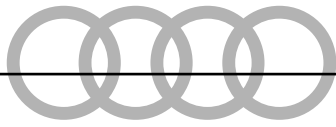


Replacement part

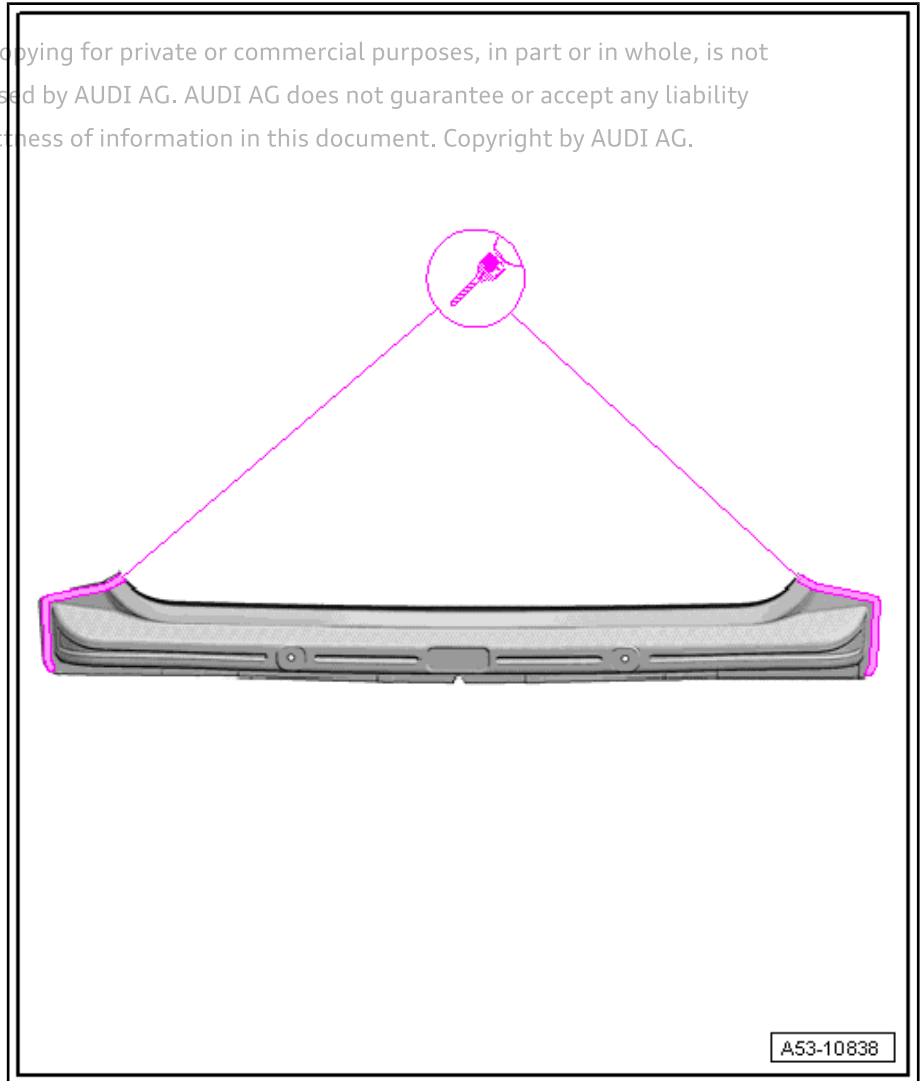
- ◆ Rear upper cross panel

Preparing new part

- Drill holes for SG plug weld seam, 8 mm Ø using drill .



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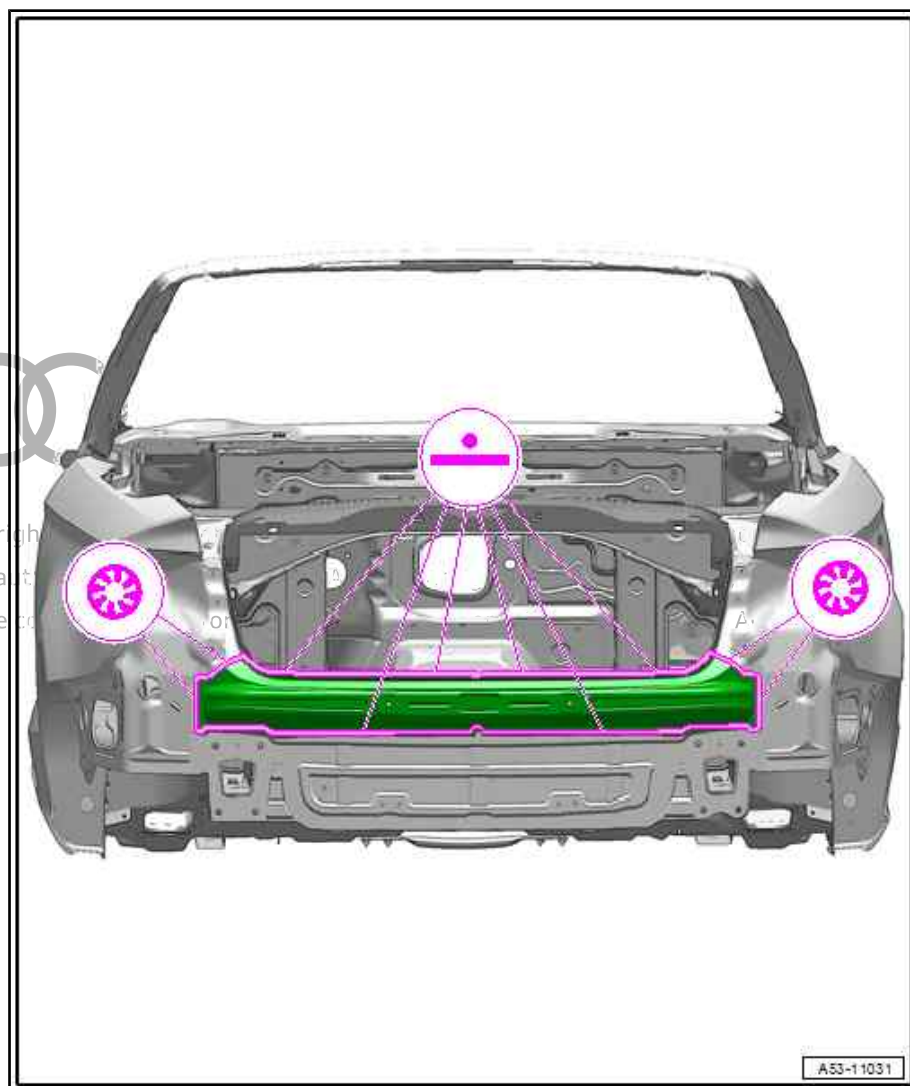
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Weld in cross panel using resistance spot welder : RP spot weld seam.
- Weld in cross panel using shielded arc welding equipment : SG plug weld seam.



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RO: 53 09 55 50

3 Rear cross panel - Renewal

1 - Tail light mounting (left and right)

2 - Cross panel

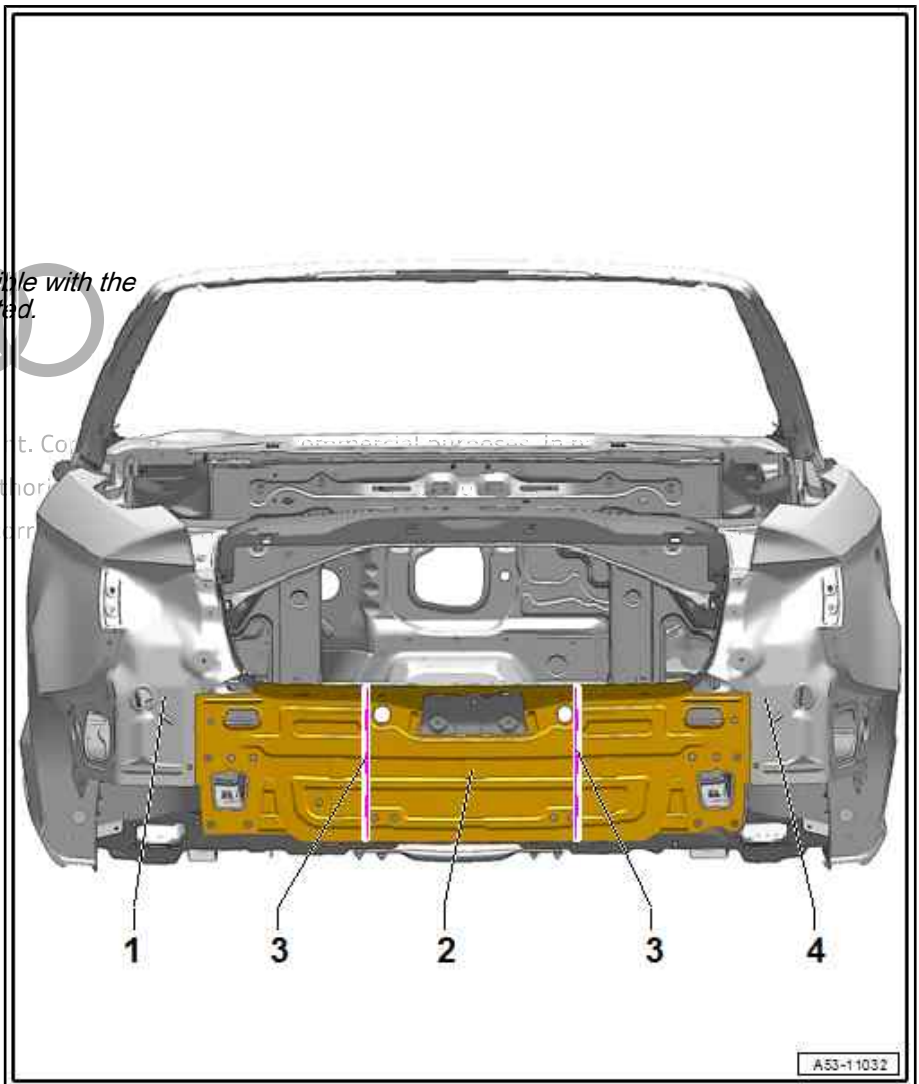
3 - Separating cuts in cross panel



Note

Partial renewal is possible with the separating cuts illustrated.

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3.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Drill
- ◆ Brush grinder
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .



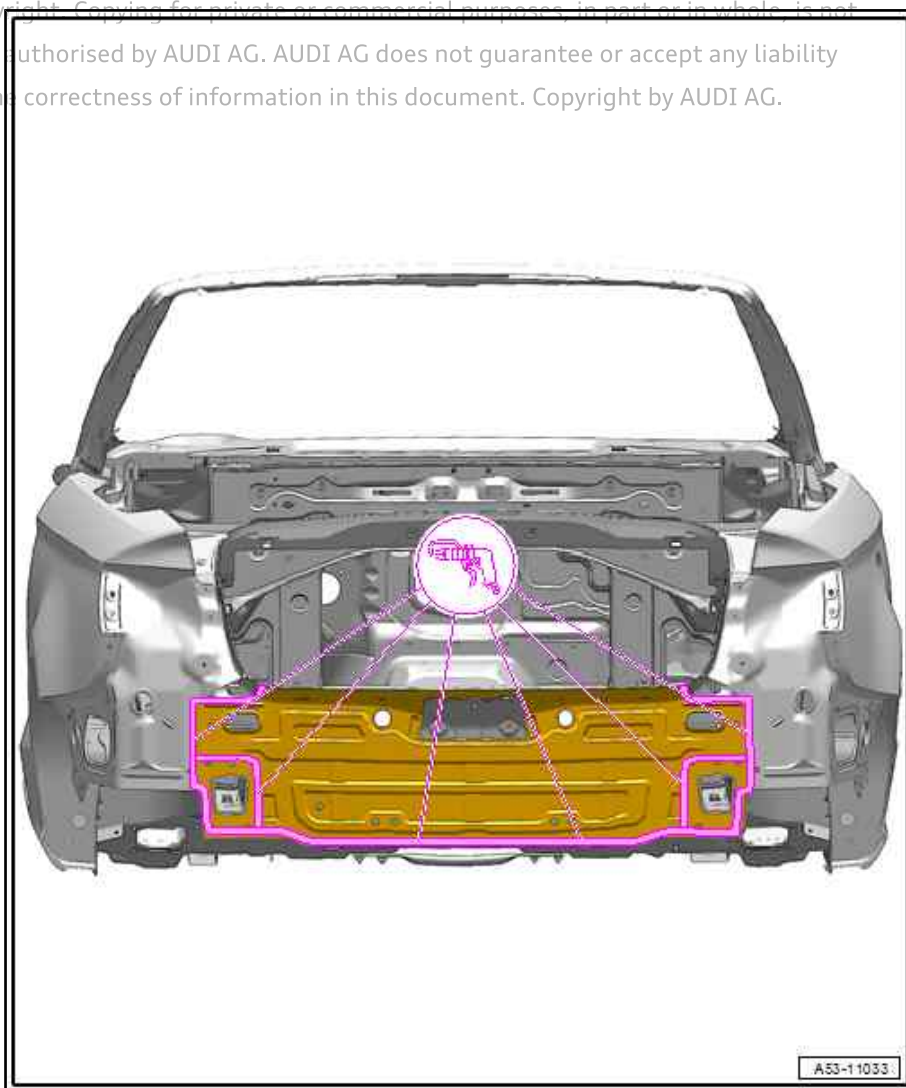
3.2 Procedure

- Rear upper cross panel removed ⇒ [page 168](#)

Cutting locations

- Separate original joint using spot weld breaker .

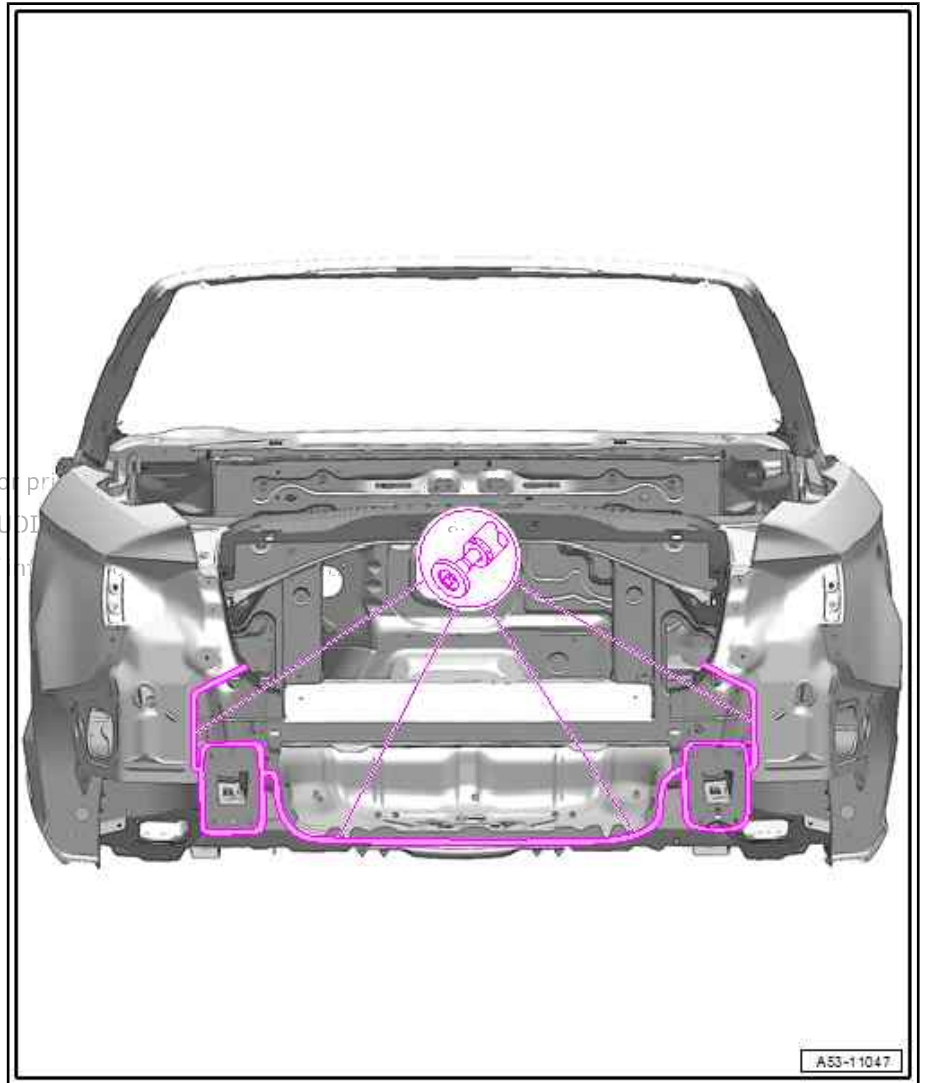
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- Remove remaining material using compact angle grinder .



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Replacement part

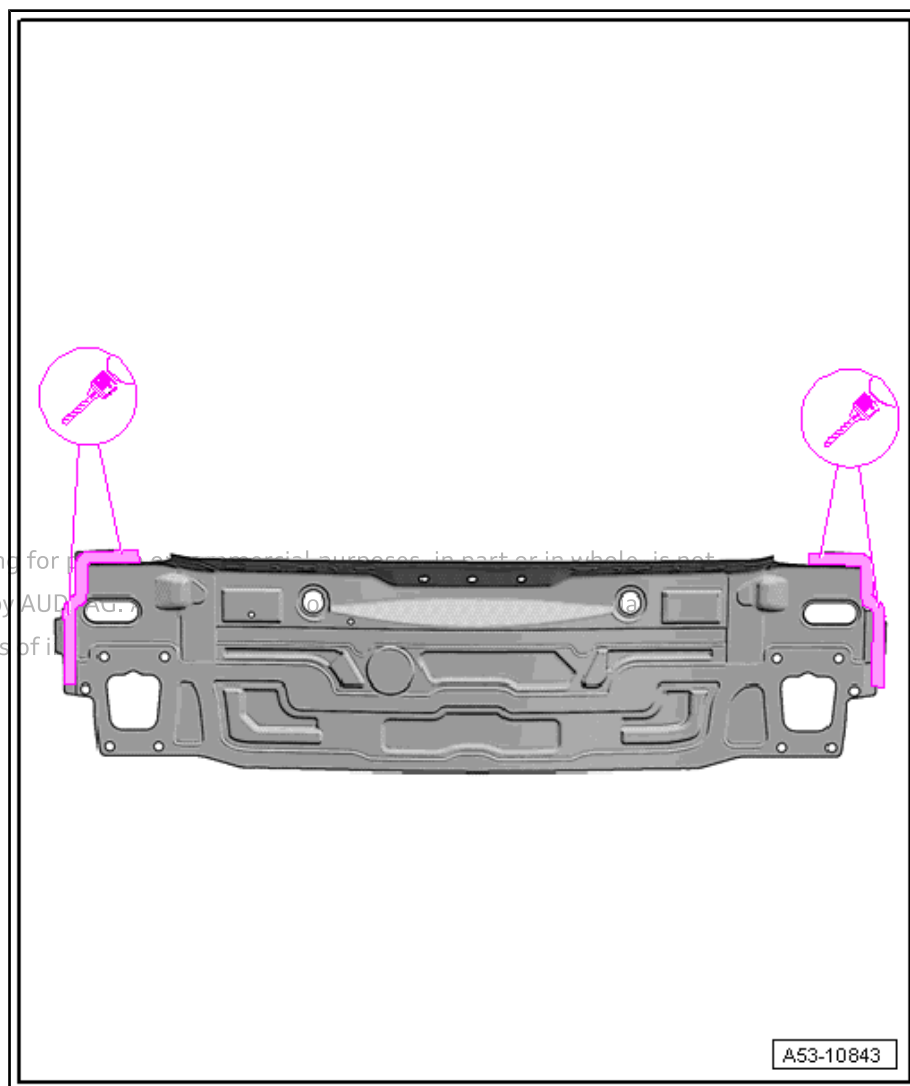
- ◆ Rear cross panel

Preparing new part

- Drill holes for SG plug weld seam, 8 mm Ø using drill .



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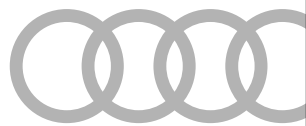


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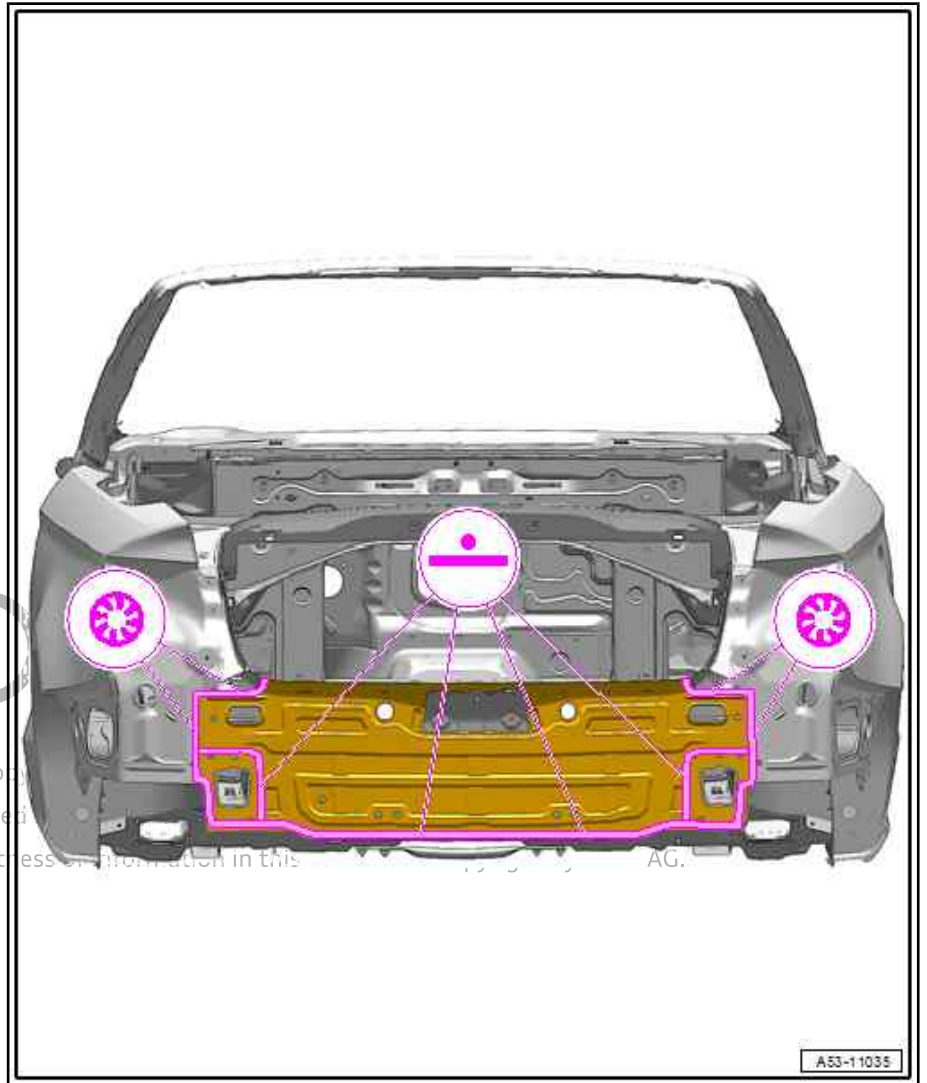
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Weld in cross panel using resistance spot welder : RP spot weld seam.
- Weld in cross panel using shielded arc welding equipment : SG plug weld seam.



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- Welding in rear upper cross panel ⇒ [page 168](#)



RO: 53 48 55 52

4 Rear longitudinal member - Partial renewal

⚠ CAUTION

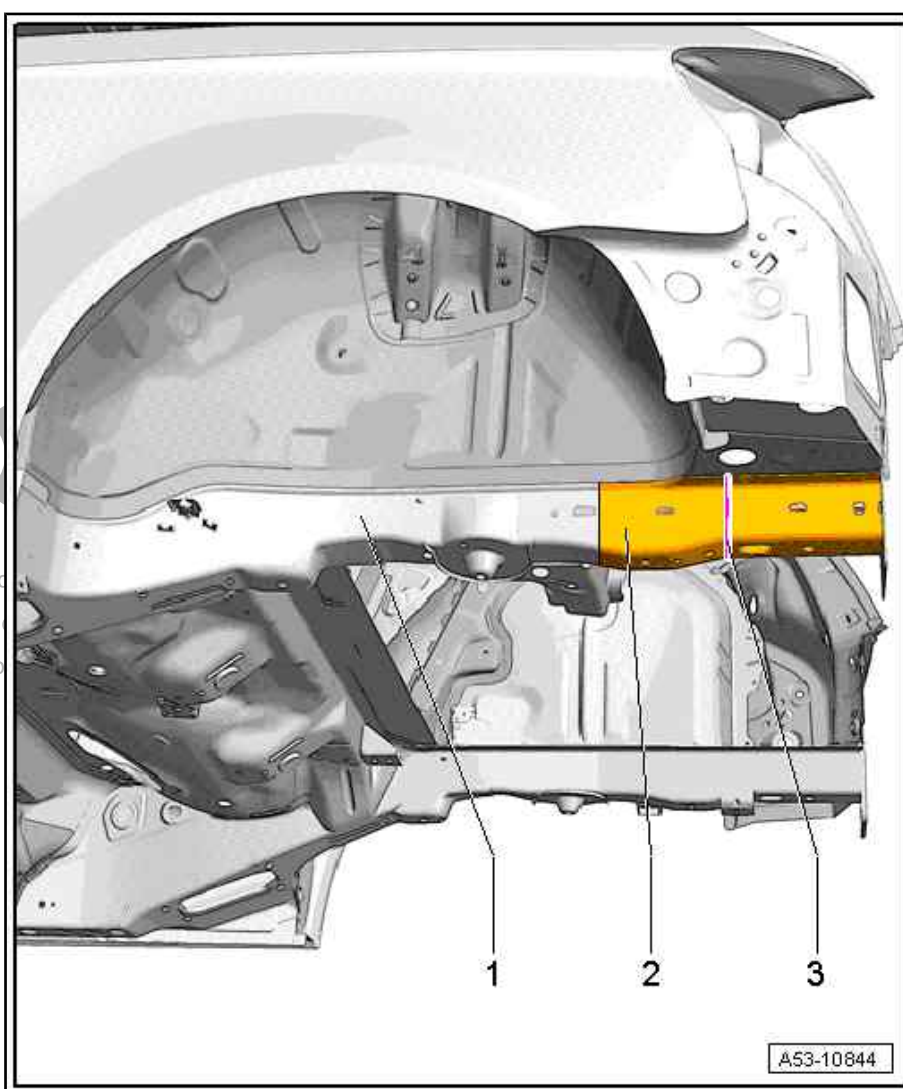
Fuel tank and fuel pipes

Take extreme care when performing sanding and welding work near the fuel tank or other components carrying fuel. If in doubt, always remove these components.

1 - Section made of ultra-high-strength hot-formed steel

2 - Non-tempered section of rear longitudinal member

3 - Separating cut for rear longitudinal member



4.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Compact angle grinder



- ◆ Body saw
- ◆ Spot weld breaker

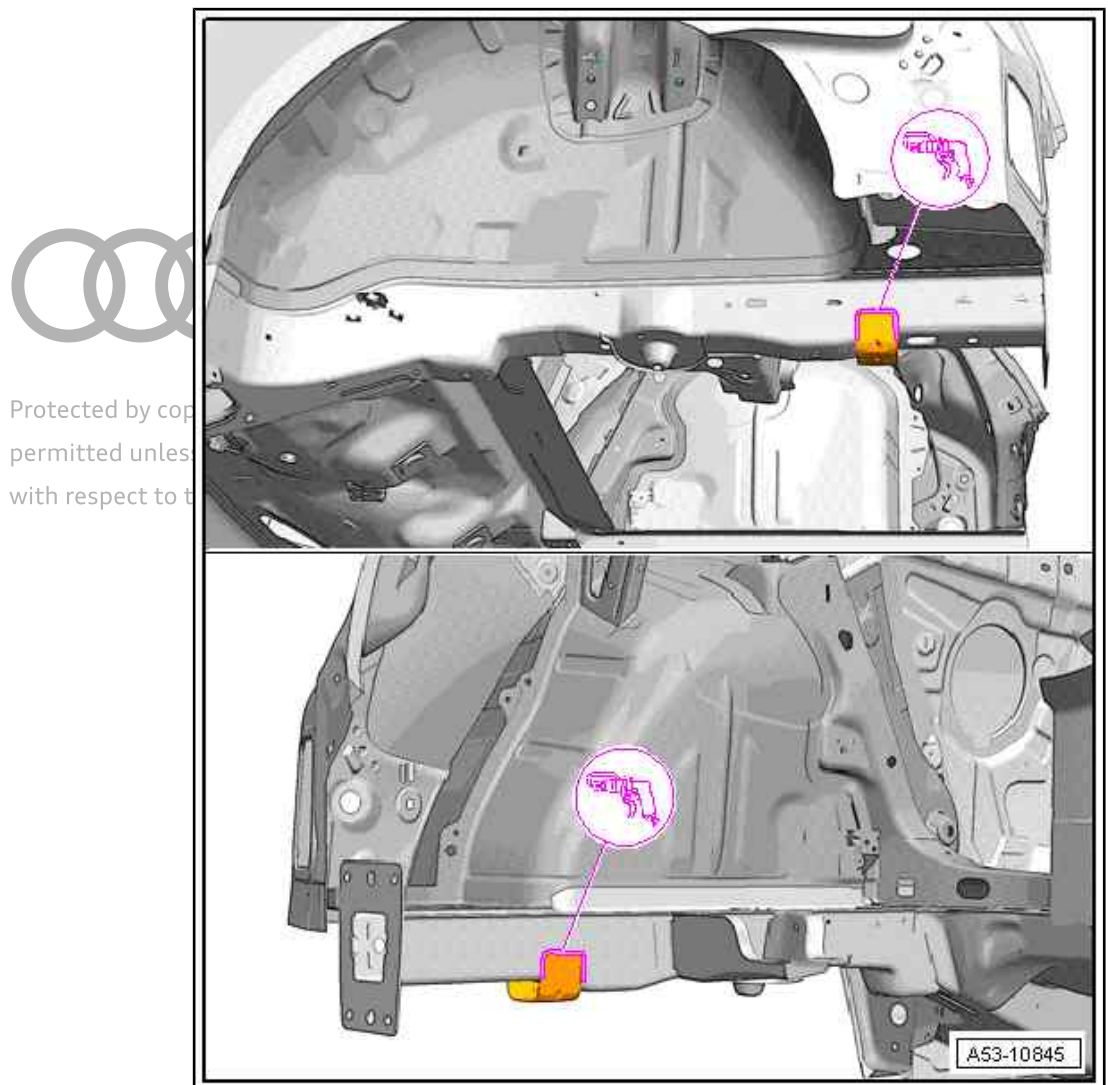
Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work [⇒ page 29](#) .

4.2 Procedure

- Rear upper cross panel removed [⇒ page 168](#)
- Cross panel removed [⇒ page 173](#)

Cutting locations

- Separate original joint between bracket and longitudinal member using spot weld breaker .

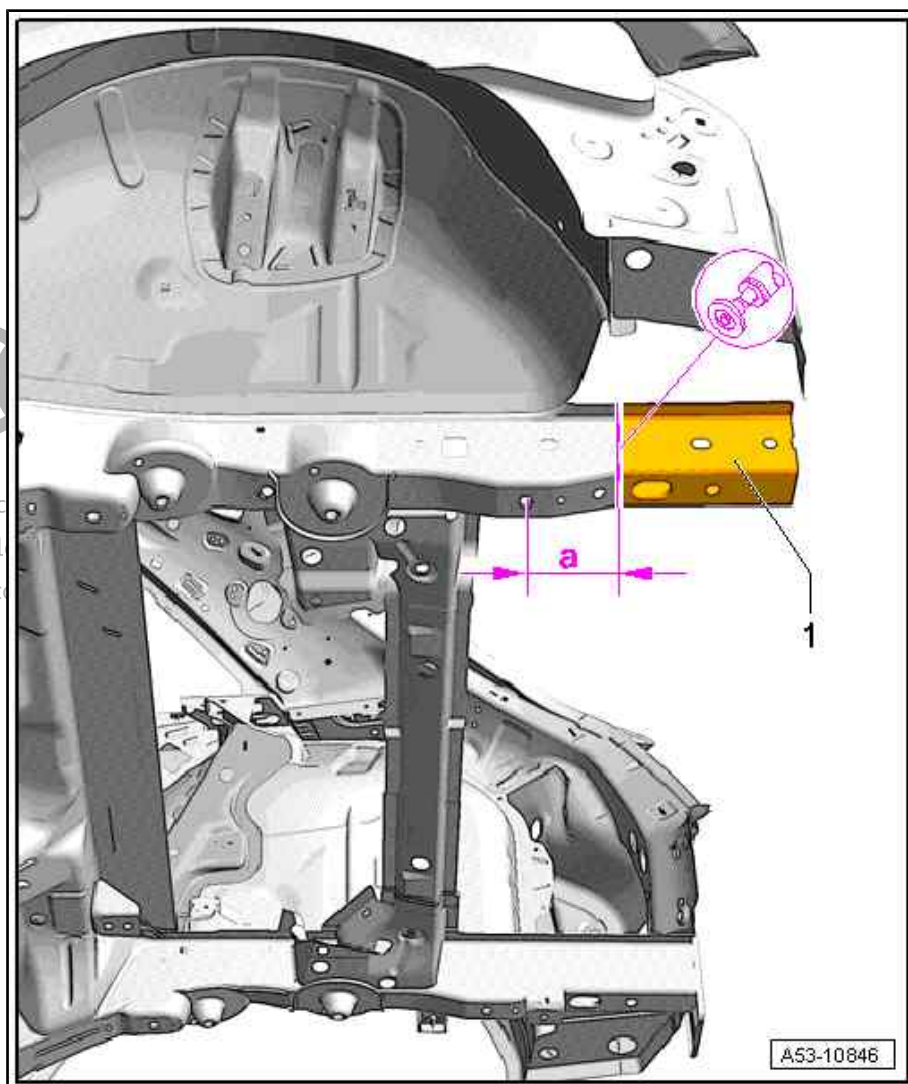


- Make separating cuts in longitudinal member from outside
-1- using compact angle grinder .

Dimension -a- = 73 mm



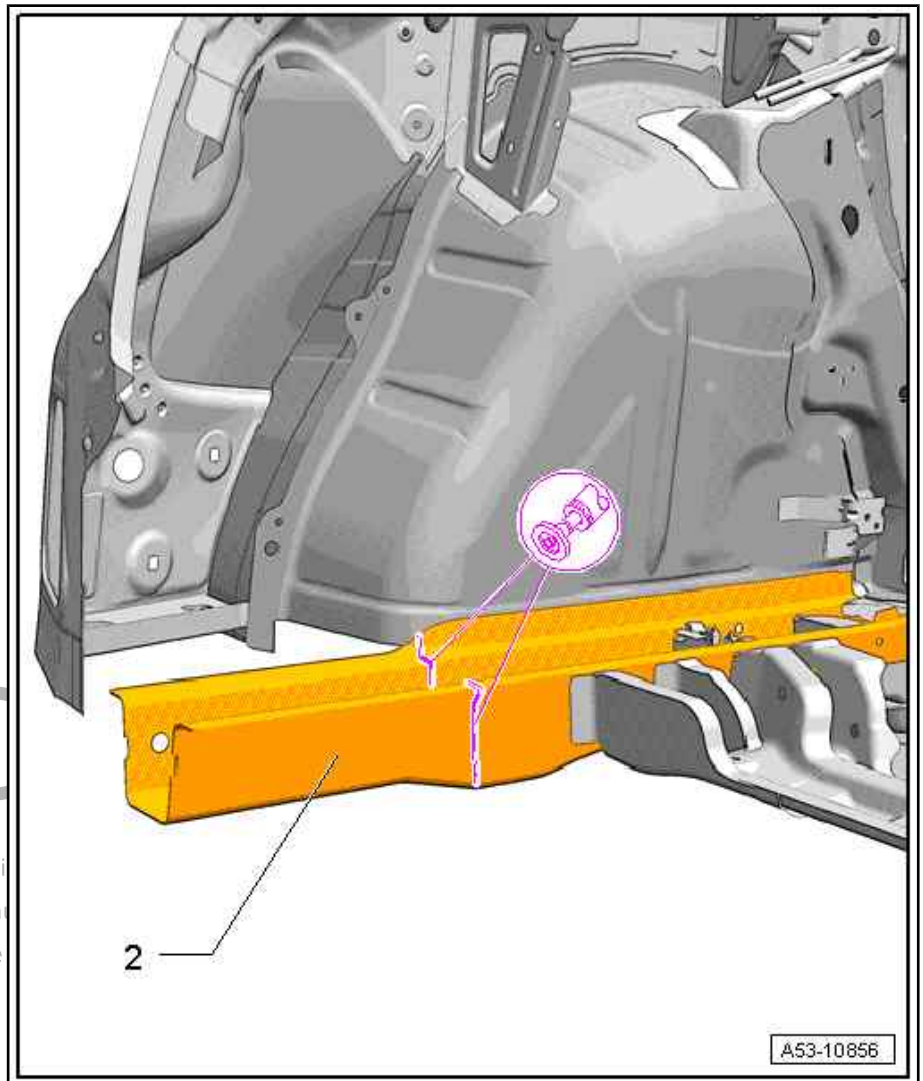
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- Make separating cuts in longitudinal member from inside -2- using compact angle grinder .



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Replacement part

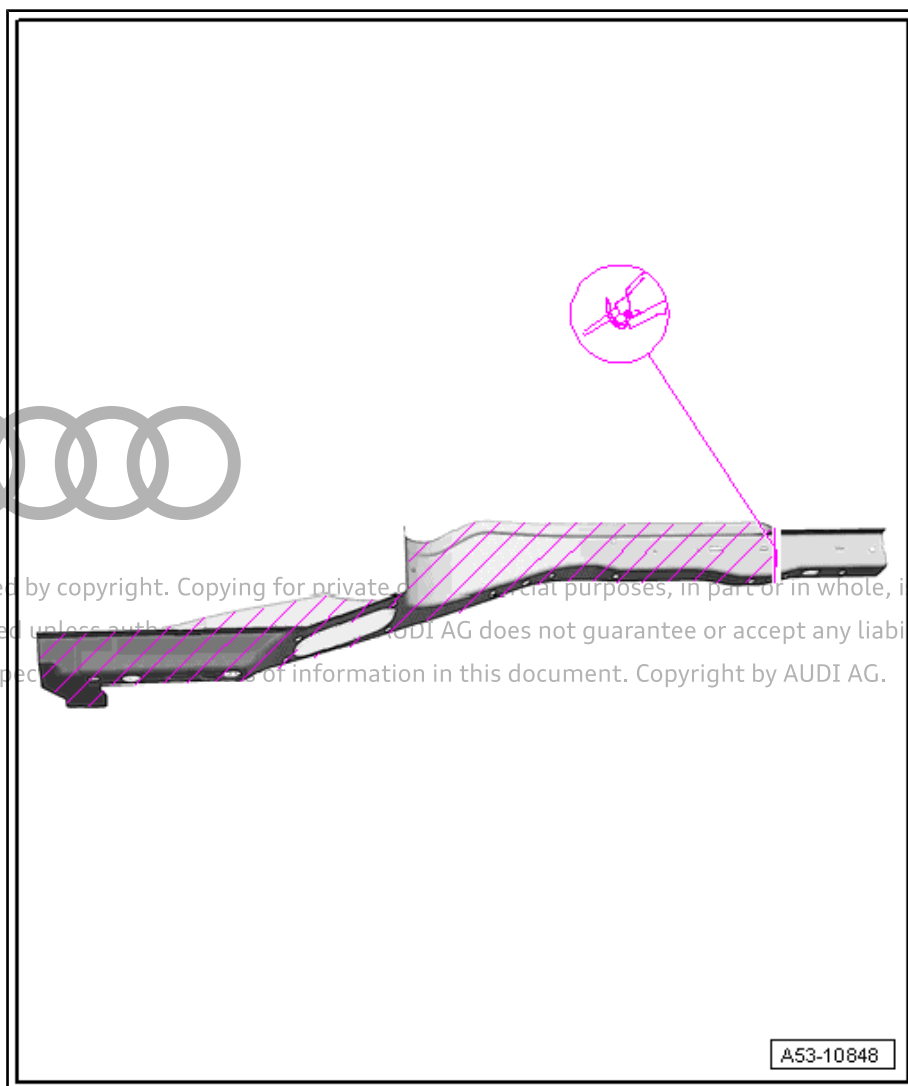
- ◆ Rear longitudinal member

Preparing new part

- Transfer separating cuts to new part and cut to size using body saw .



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- With vehicle standing on alignment bracket set, match up new parts using cross panel and fix in position.

NOTICE

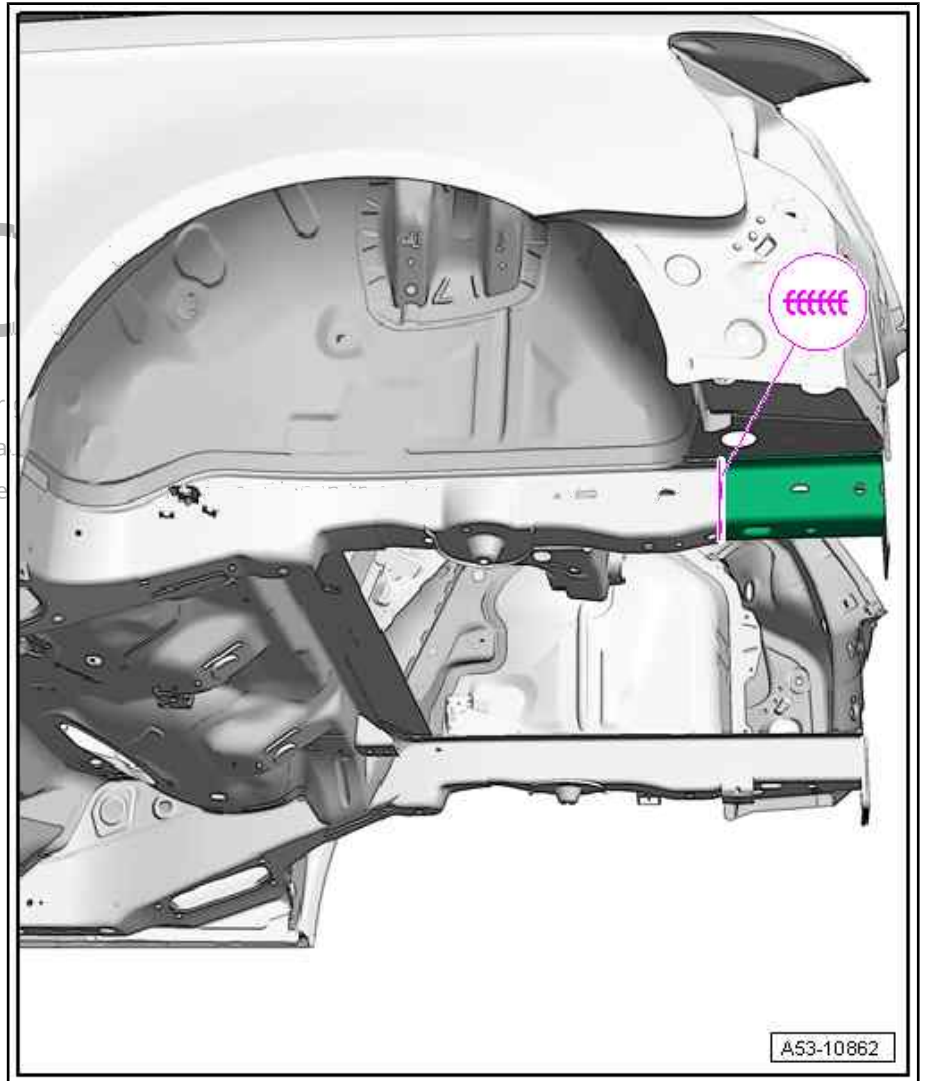
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Check fit relative to adjacent parts.
- Weld in longitudinal member using shielded arc welding equipment : SG continuous seam all round.



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- Welding in rear upper cross panel ⇒ [page 168](#)
- Welding in cross panel ⇒ [page 173](#)



RO: 53 48 55 52

5 Connecting piece for rear longitudinal member - Renewal

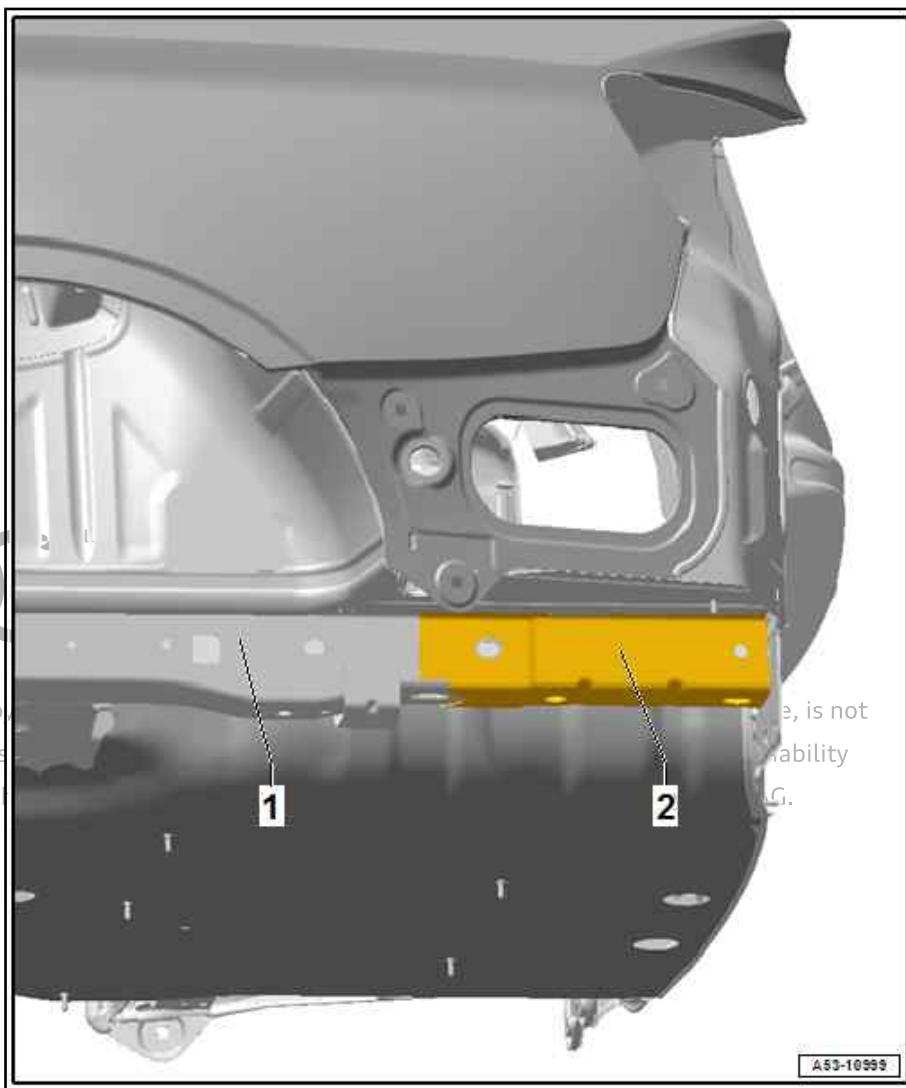
⚠ CAUTION

Fuel tank and fuel pipes

Take extreme care when performing sanding and welding work near the fuel tank or other components carrying fuel. If in doubt, always remove these components.

1 - Rear longitudinal member

2 - Connecting piece for rear longitudinal member



5.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill



- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker
- ◆ Pneumatic glue gun

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

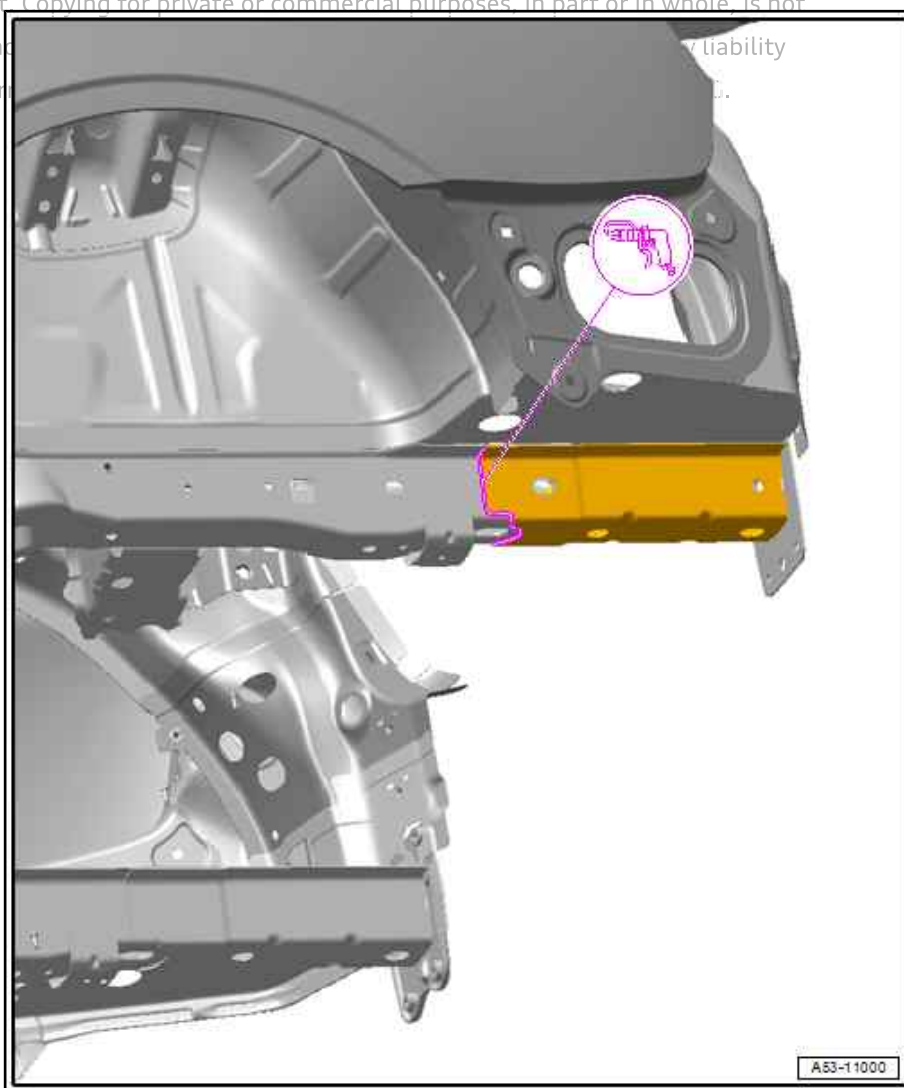
5.2 Procedure

- Rear upper cross panel removed ⇒ [page 168](#)
- Cross panel removed ⇒ [page 173](#)

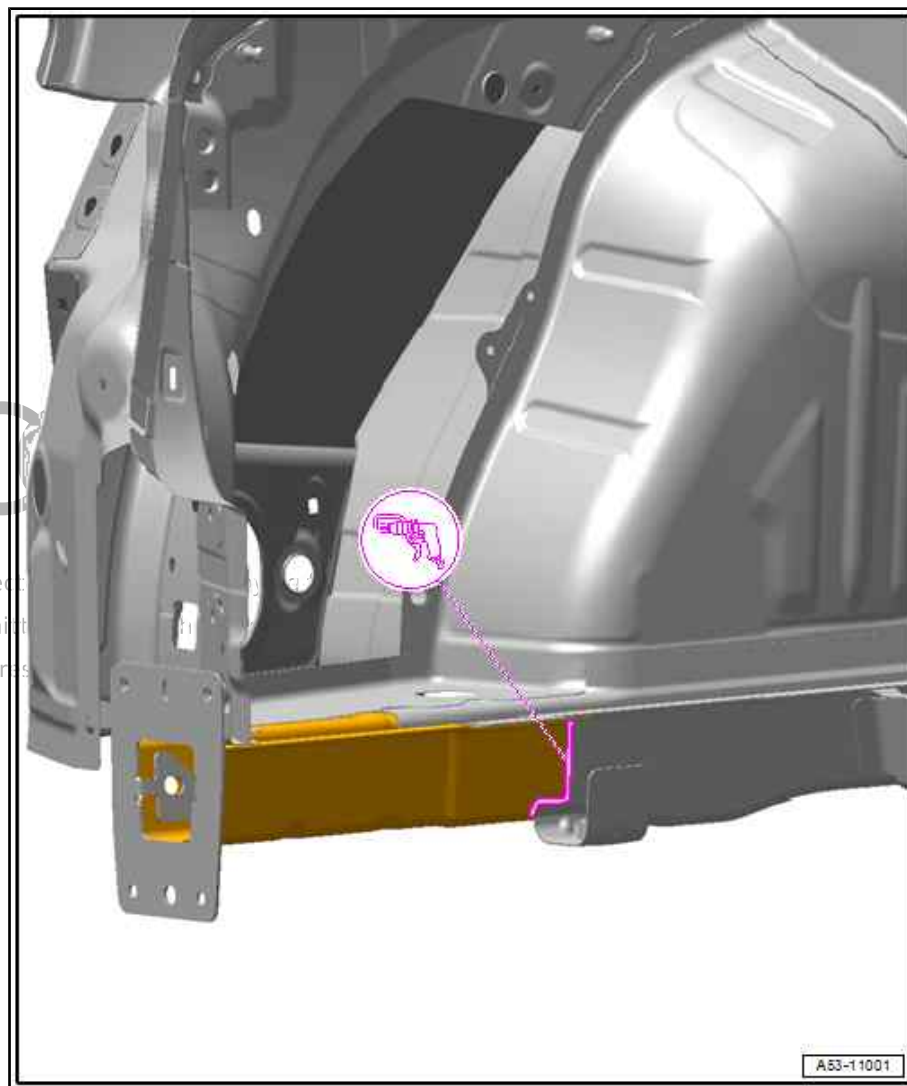
Cutting locations

- Separate original joint using spot weld breaker .

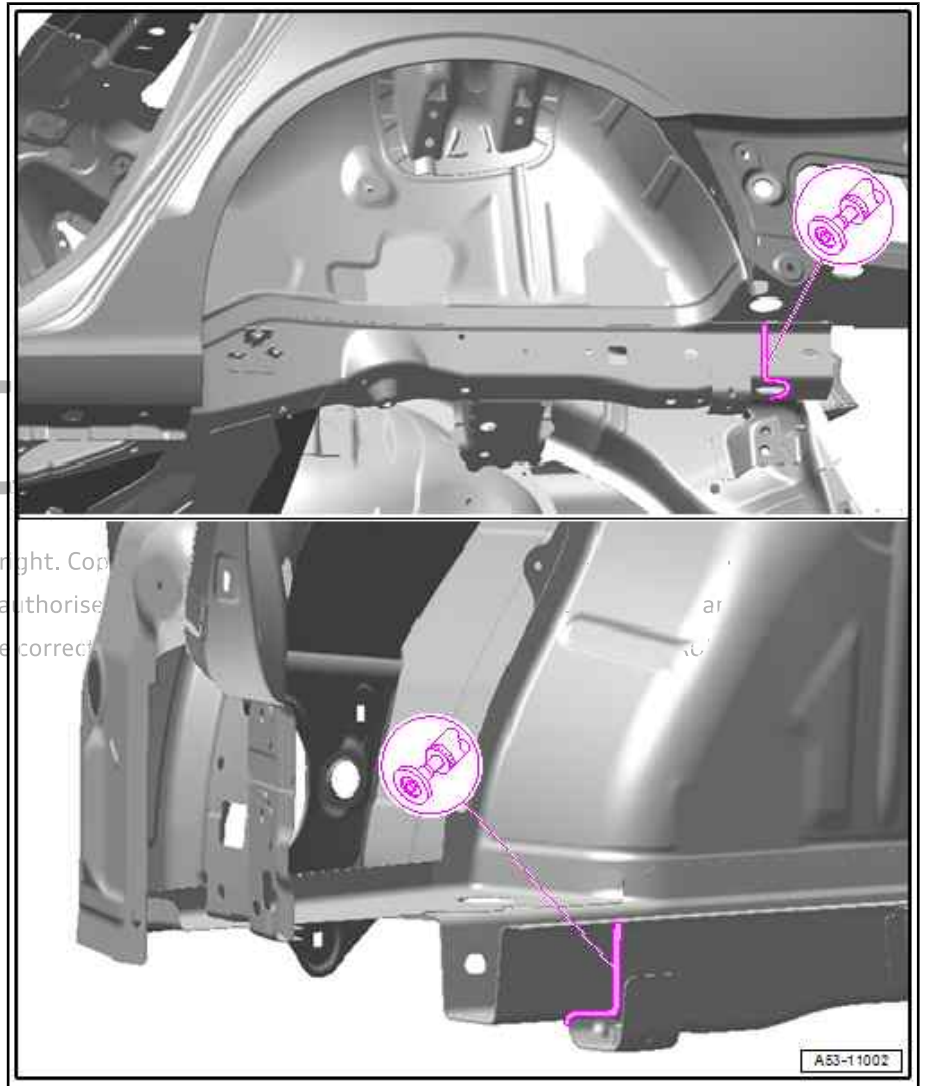
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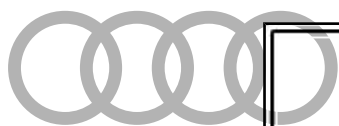
- Separate original joint using spot weld breaker .



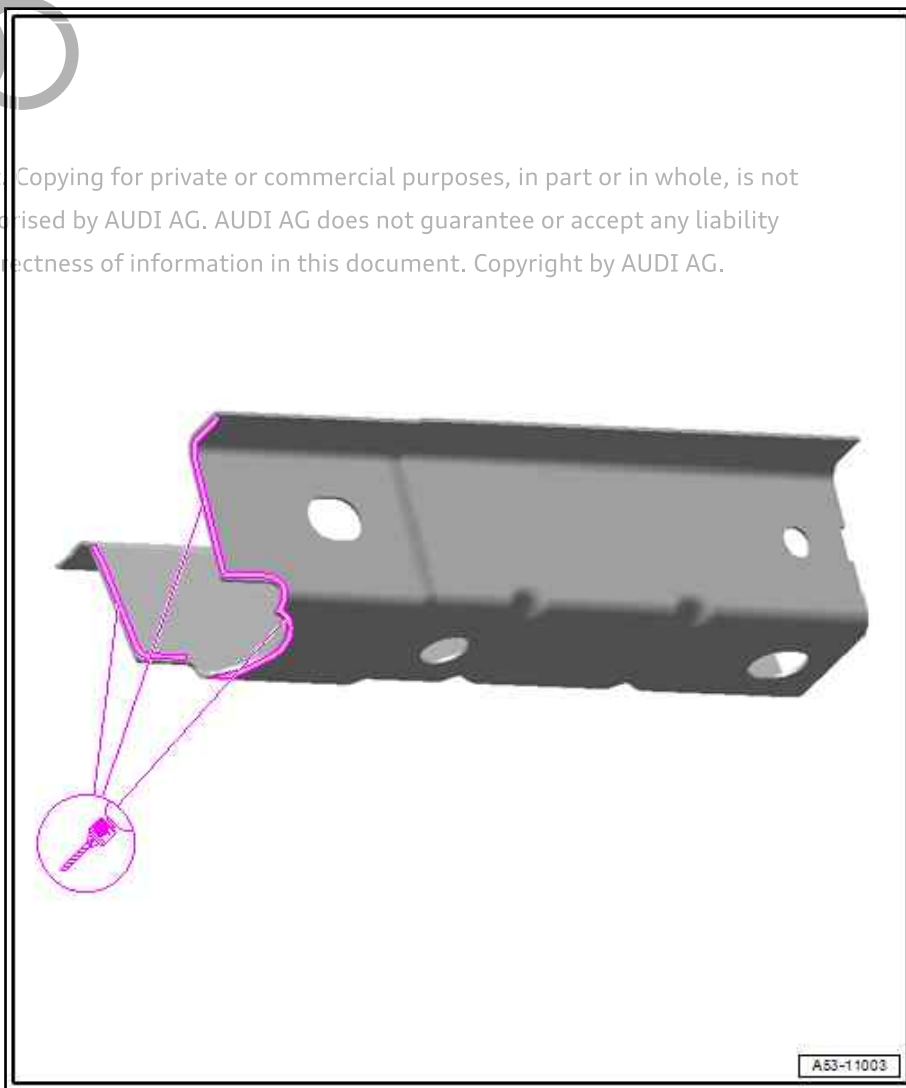
- Remove remaining material using compact angle grinder .



- Drill holes for SG plug weld seam, 8 mm Ø using drill .



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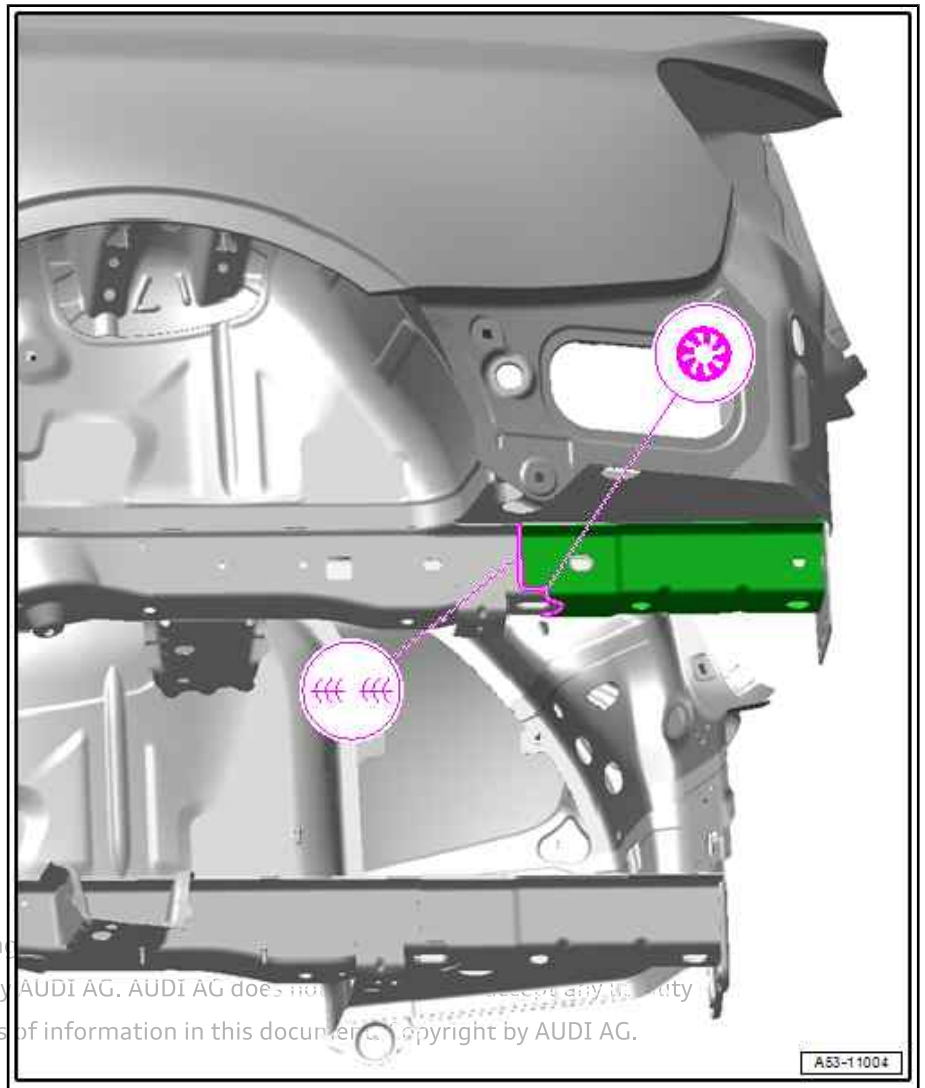
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Check fit relative to adjacent parts.
- Weld in longitudinal member using shielded arc welding equipment : SG plug weld seam.
- Additionally weld in longitudinal member using shielded arc welding equipment : SG continuous seam all round (staggered - with gaps).



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- Welding in rear upper cross panel ⇒ [page 168](#)
- Welding in cross panel ⇒ [page 173](#)



RO: 53 55 55 00

6 Side panel - Renewal

Includes rain channel and tail light mounting

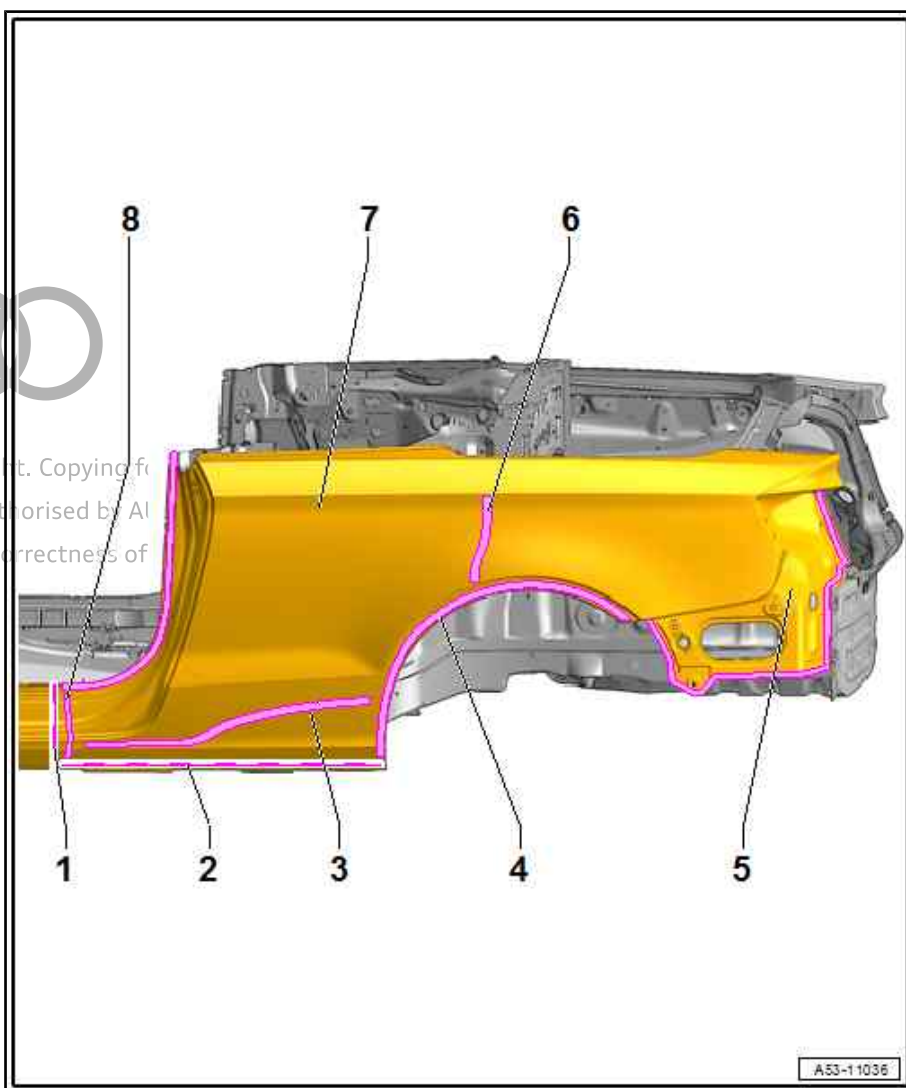
⚠ CAUTION

Fuel tank and fuel pipes

Take extreme care when performing sanding and welding work near the fuel tank or other components carrying fuel. If in doubt, always remove these components.

- 1 - Separating cut in A-pillar
- 2 - Separating cut in side member
- 3 - Moulded foam insert
- 4 - Bonded area
- 5 - Tail light mounting
- 6 - Moulded foam insert
- 7 - Side panel
- 8 - Moulded foam insert, side member

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6.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill



- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker
- ◆ Pneumatic glue gun

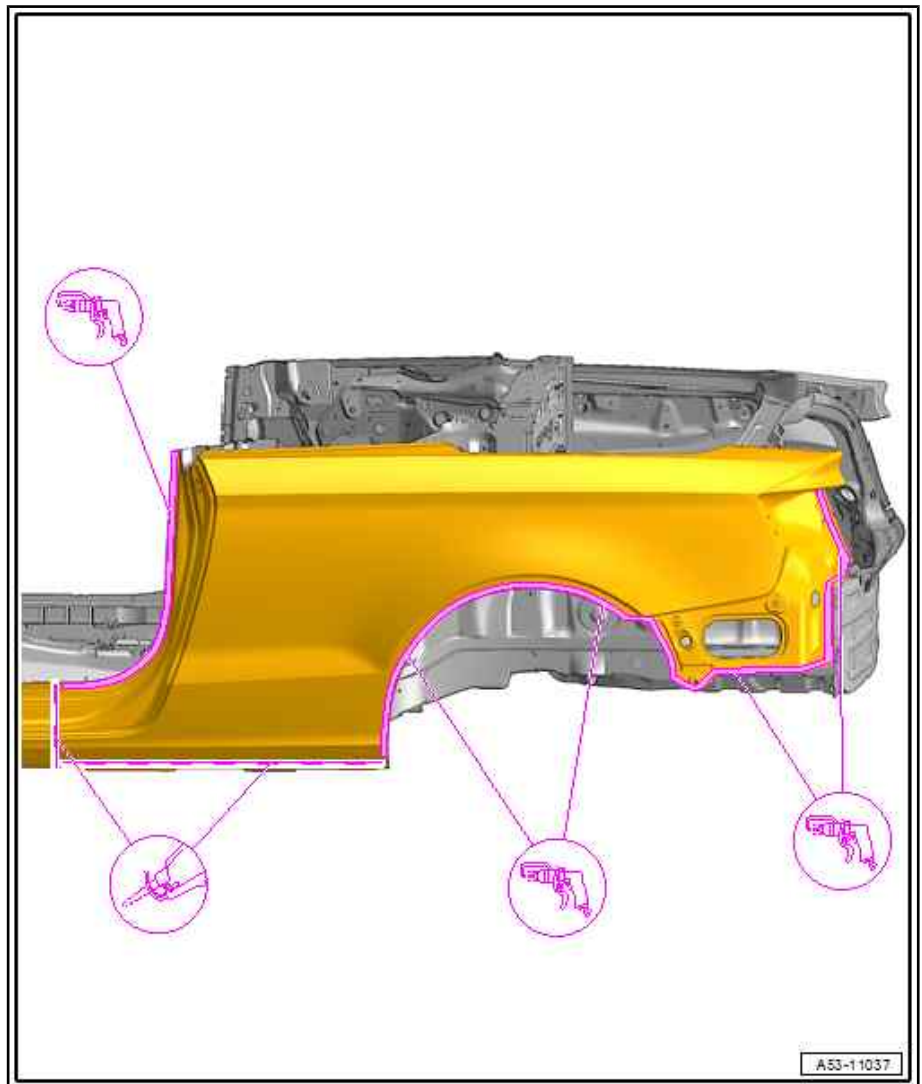
Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

6.2 Procedure

Cutting locations

Permitted separating cuts on complete side panel ⇒ [page 167](#) .

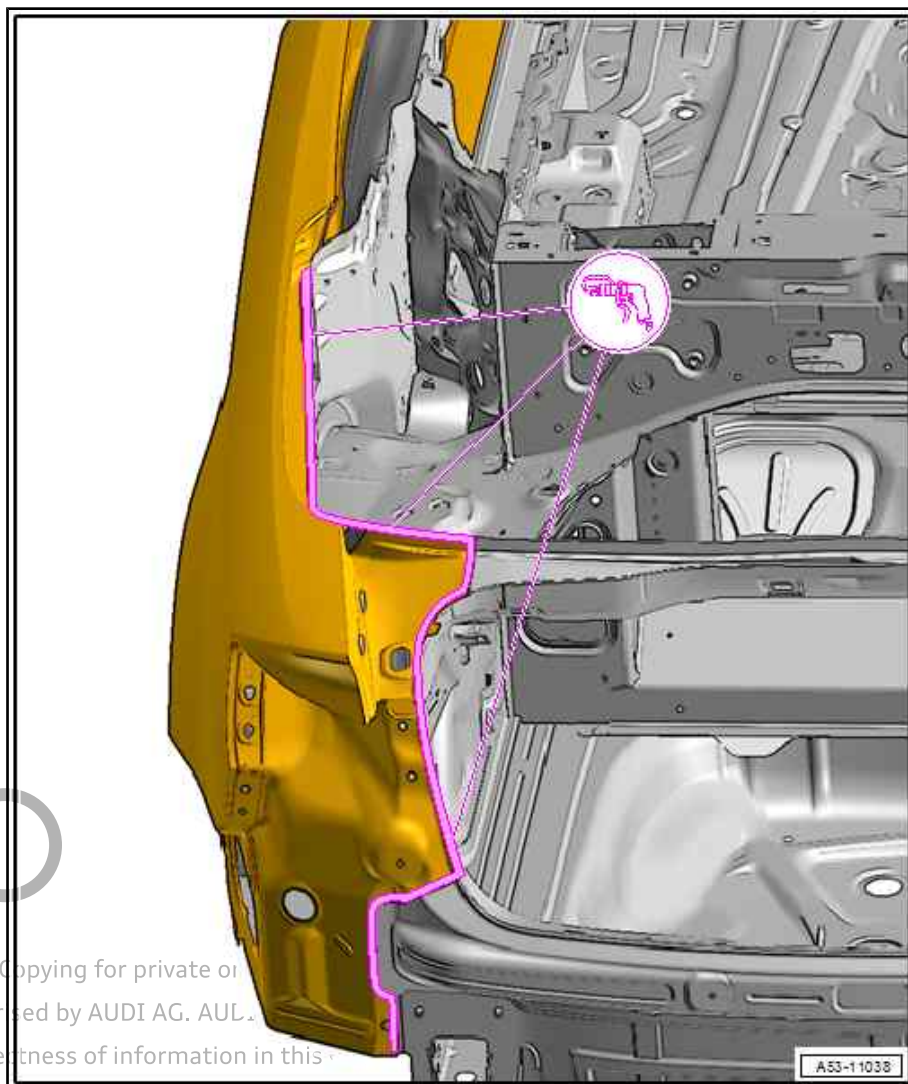
- Separate original joint using spot weld breaker .
- Grind through outer edge at wheel arch using compact angle grinder .
- Make separating cuts as shown using body saw .
- Roughly cut out lower side panel using body saw .



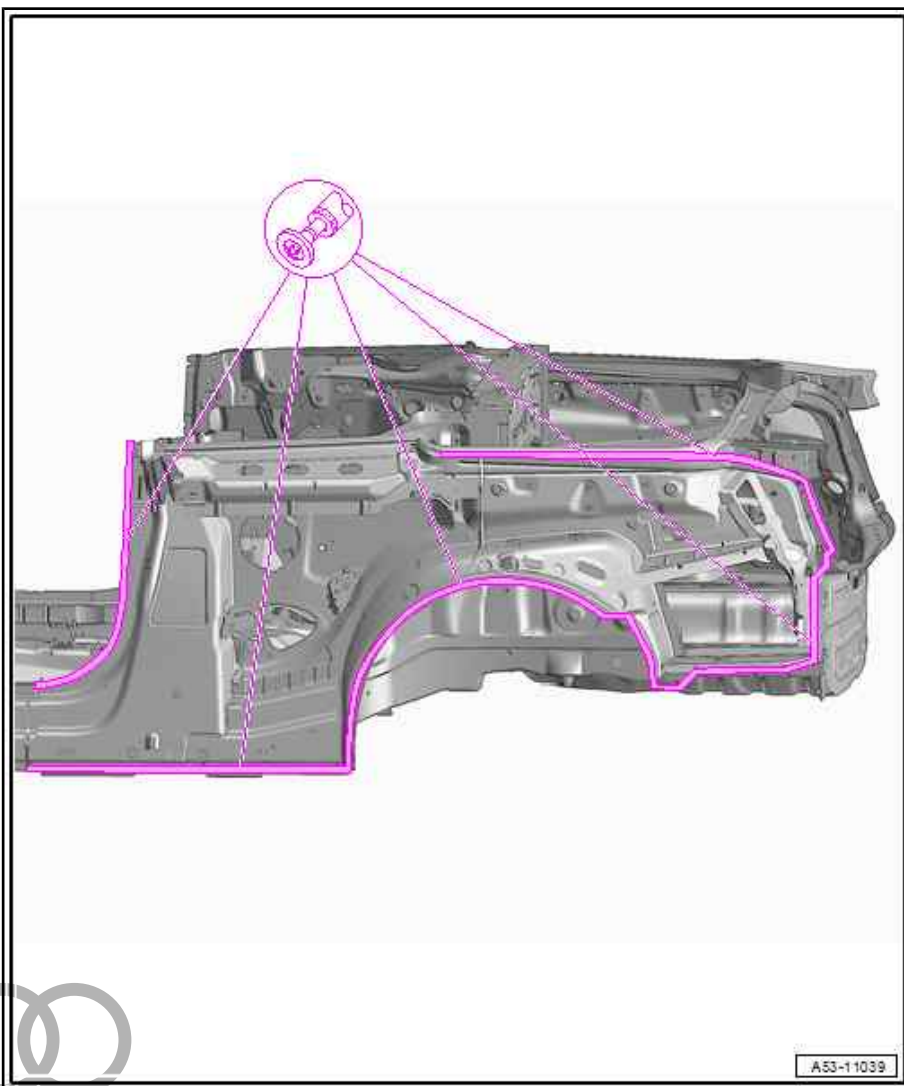
- Separate original joint using spot weld breaker .



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- Remove remaining material using compact angle grinder .
- Remove remaining adhesive completely and sand bonding surfaces down to bare metal.

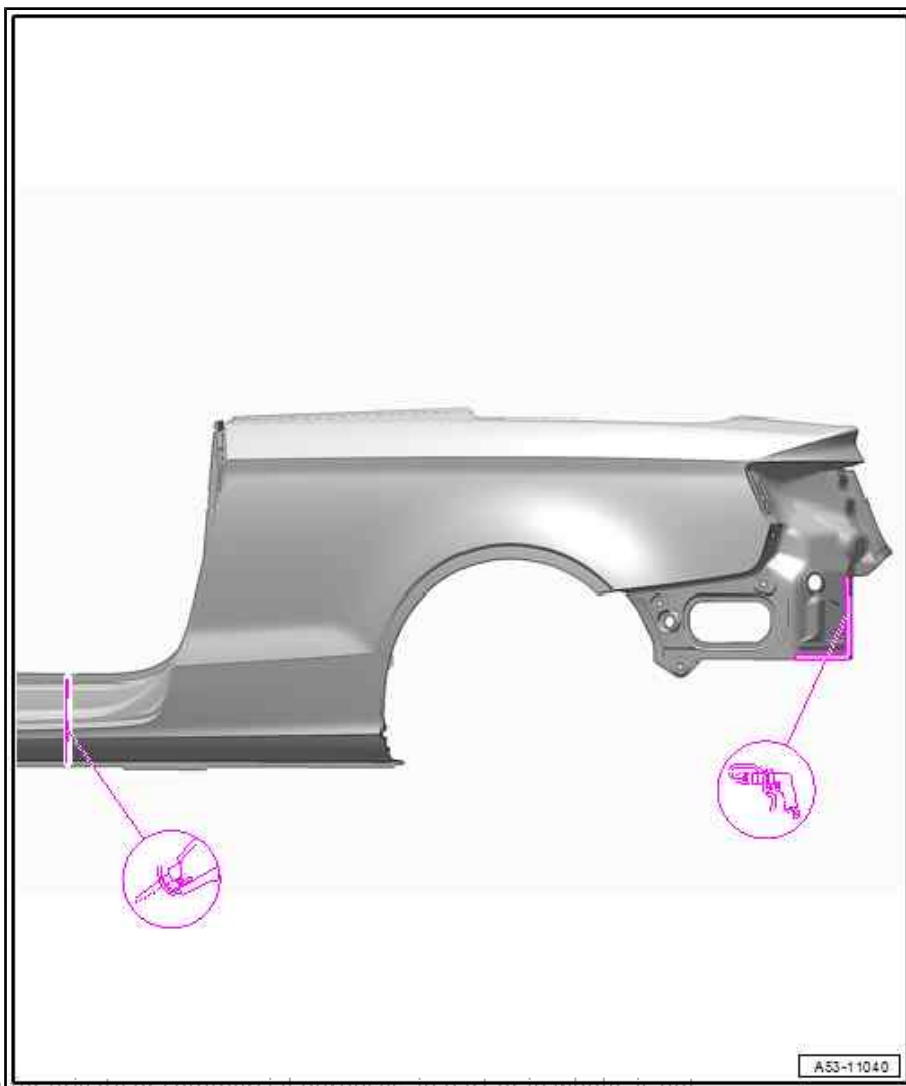


Replacement parts

- ◆ Side panel
- ◆ Moulded foam inserts
- ◆ 2-component epoxy adhesive - DA 001 730 A2- , 1 set of cartridges
- ◆ Cleaning solution - D 009 401 04-

Preparing new part

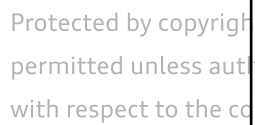
- Clean bonding area with cleaning solution - D 009 401 04- (it must be free of dust and grease).
- Clean beaded flange with cleaning solution - D 009 401 04- (it must be free of dust and grease).
- Transfer separating cut to new part and cut off hatched area using body saw .
- Drill holes for SG plug weld seam, 8 mm Ø using drill .



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Fit moulded foam inserts - a - [page 12](#)

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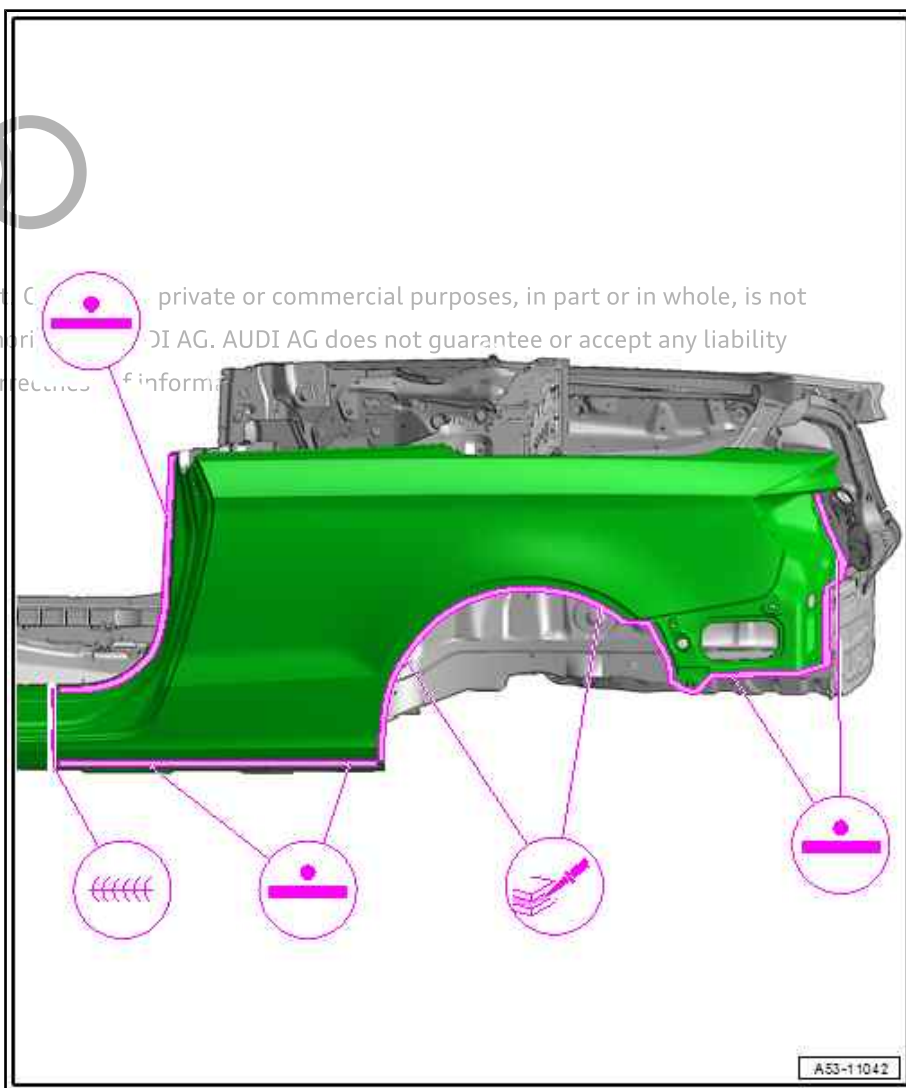
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Match up side panel on portal gauge and fix in position.

- Apply 2-component epoxy adhesive - DA 001 730 A2- to side panel and flange area on wheel housing using pneumatic glue gun - V.A.G 2005 B- .
- Weld in at separating cut using shielded arc welding equipment : SG continuous seam.
- Weld in side panel using resistance spot welder : RP spot weld seam.



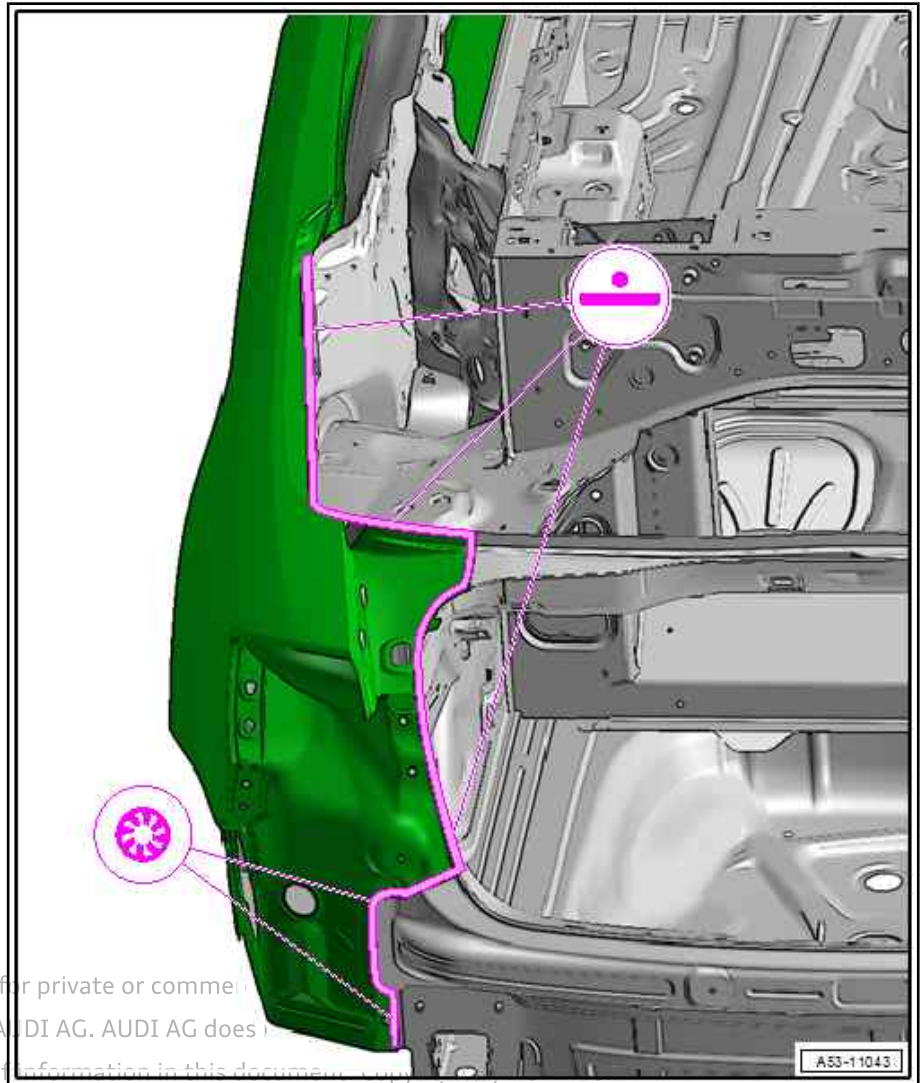
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- Weld in side panel using resistance spot welder : RP spot weld seam.
- Weld in side panel using shielded arc welding equipment : SG plug weld seam.



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RO: 53 65 55 50

6.3 Rear inner side frame - Renewal

CAUTION

Fuel tank and fuel pipes

Take extreme care when performing sanding and welding work near the fuel tank or other components carrying fuel. If in doubt, always remove these components.



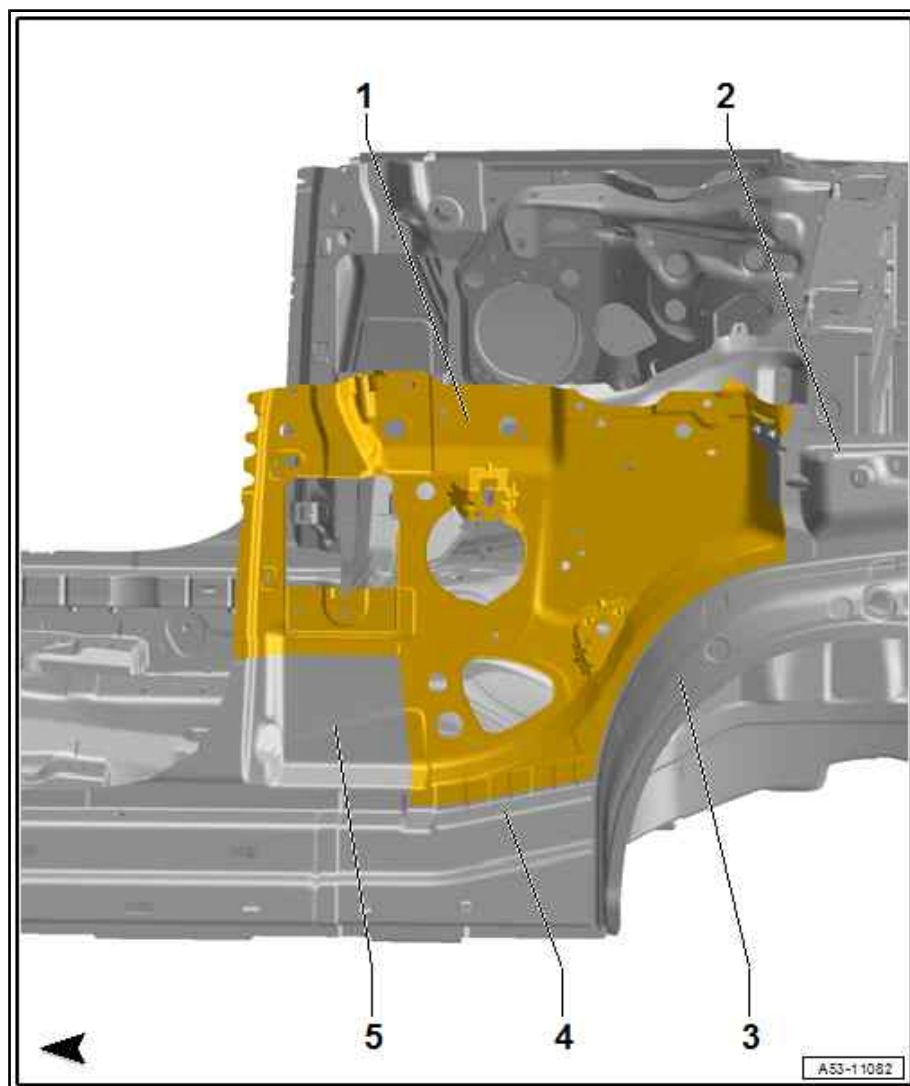
1 - Rear inner side frame

2 - Side panel for convertible
roof compartment

3 - Wheel housing

4 - Side member reinforcement

5 - Inner side member



6.3.1 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Spot weld breaker
- ◆ Pneumatic glue gun

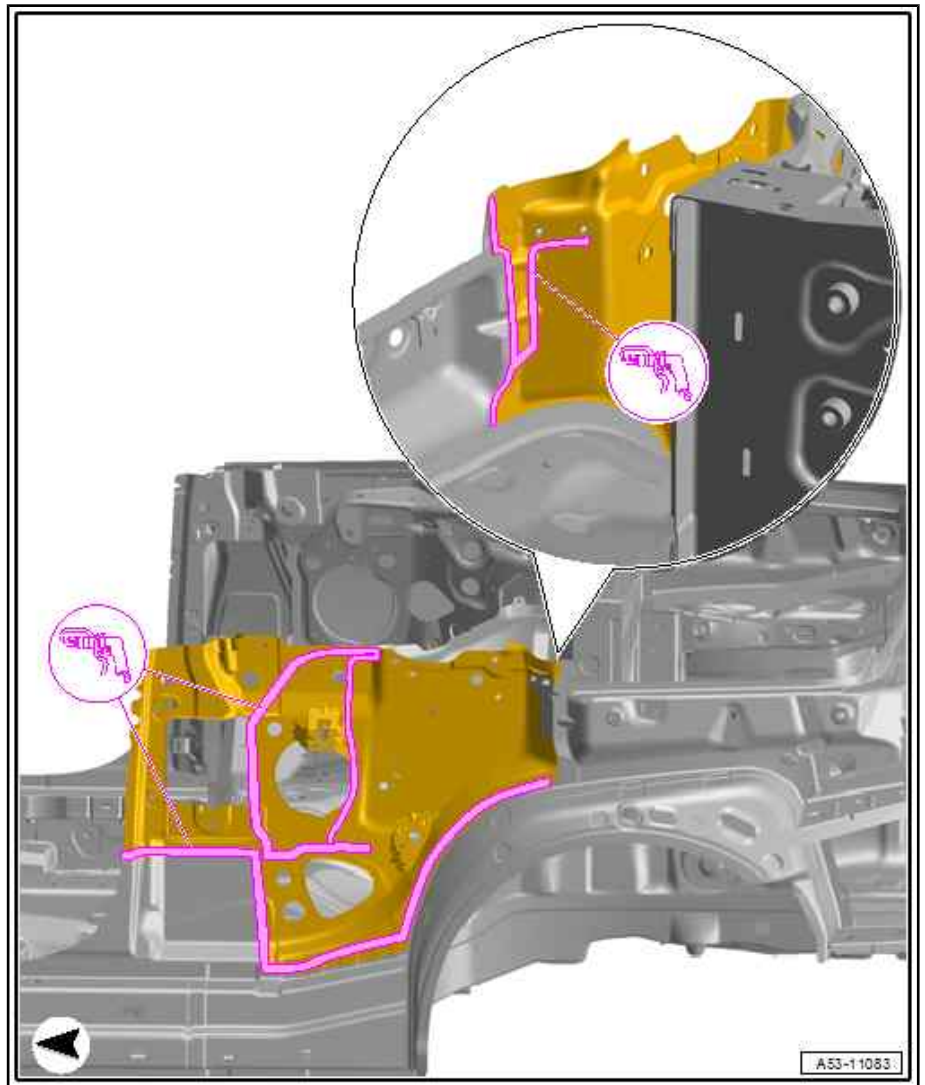
Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#).

6.3.2 Procedure

- Side panel removed ⇒ [page 190](#)
- B-pillar reinforcement removed ⇒ [page 152](#)

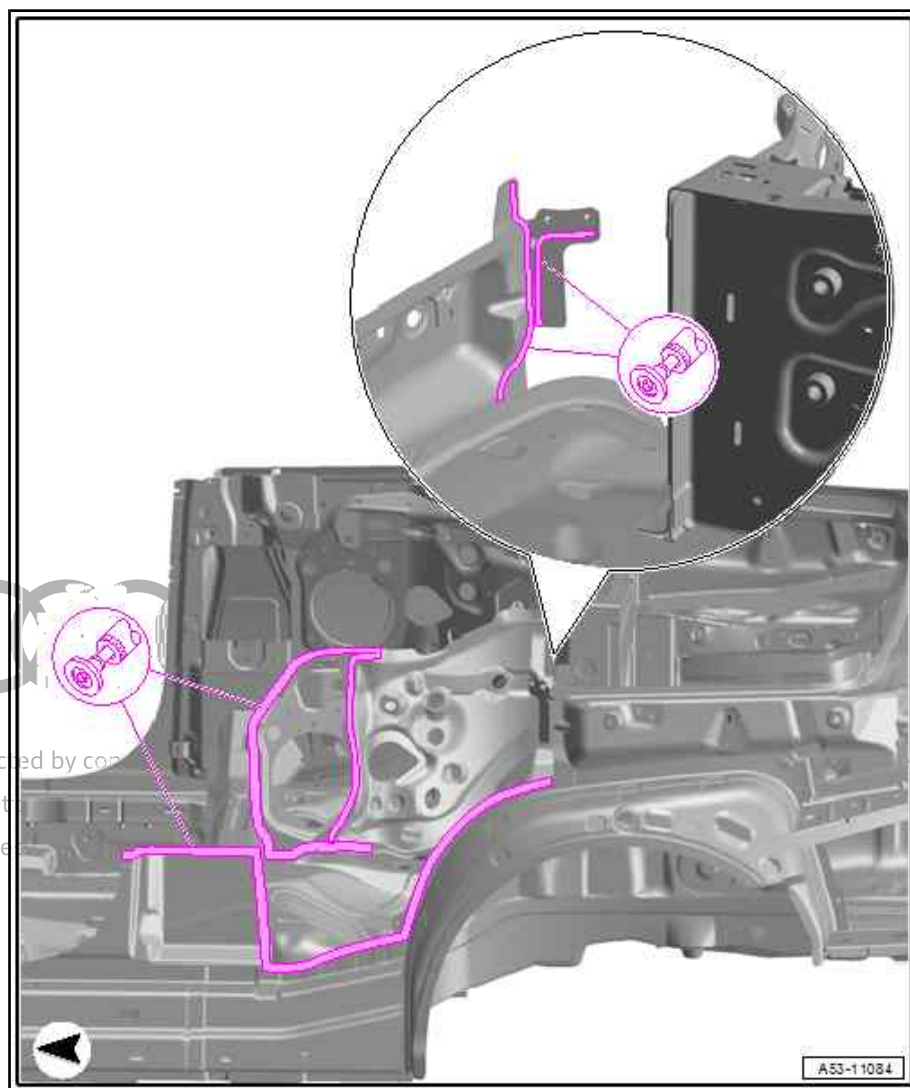
Cutting locations

- Separate original joint using spot weld breaker .



- Remove remaining material using compact angle grinder .

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Replacement parts

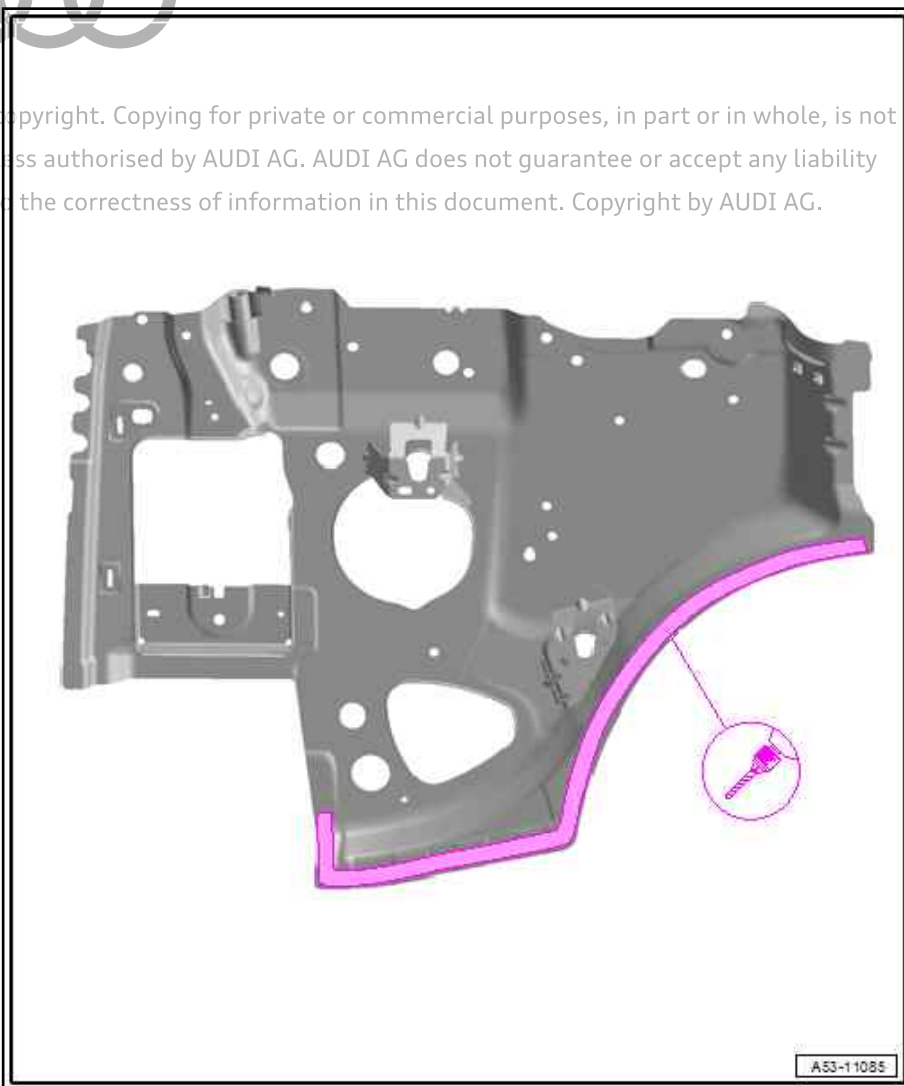
- ◆ Rear inner side frame

Preparing new part

- Drill holes for SG plug weld seam, 8 mm Ø using drill .



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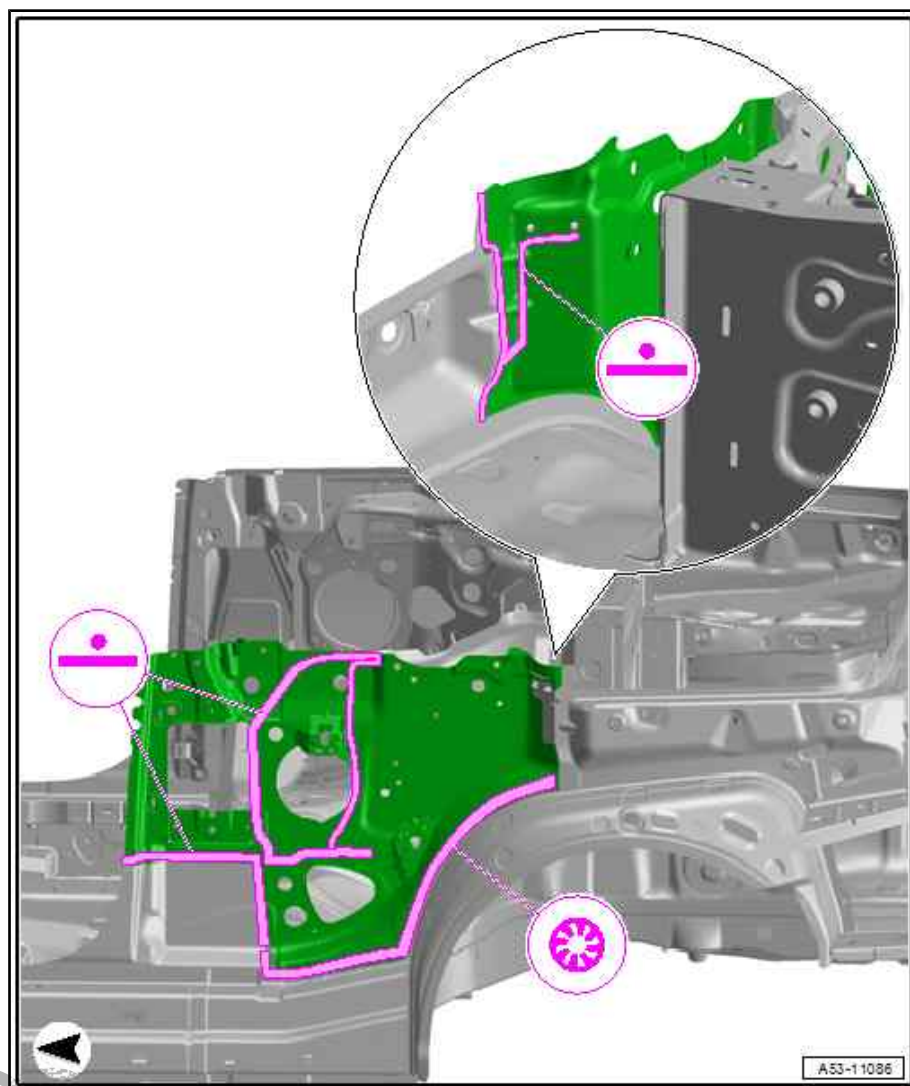
! NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

Match up side frame with adjoining panels on portal gauge and fix in position.

- Weld in side frame using resistance spot welder : RP spot weld seam.
- Weld in side frame using shielded arc welding equipment : SG plug weld seam.



- Welding in B-pillar reinforcement ⇒ [page 153](#)
- Welding in side panel ⇒ [page 191](#)

RO: 53 65 55 50

6.4 Side section of convertible roof compartment - Renewal

CAUTION

Fuel tank and fuel pipes

Take extreme care when performing sanding and welding work near the fuel tank or other components carrying fuel. If in doubt, always remove these components.



1 - Sealing channel

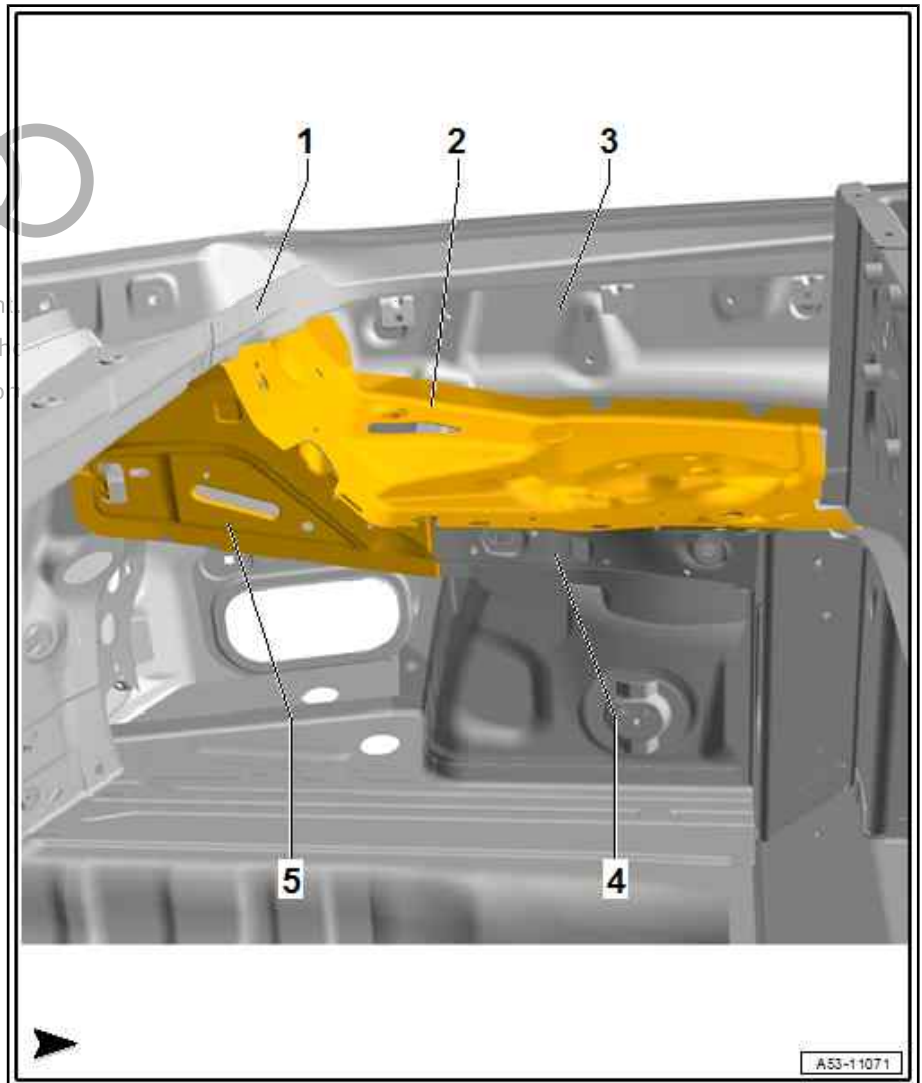
2 - Side section of convertible
roof compartment

3 - Rear inner side frame

4 - Wheel housing

5 - Reinforcement for converti-
ble roof compartment

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6.5 Tools

Special tools and workshop equipment required

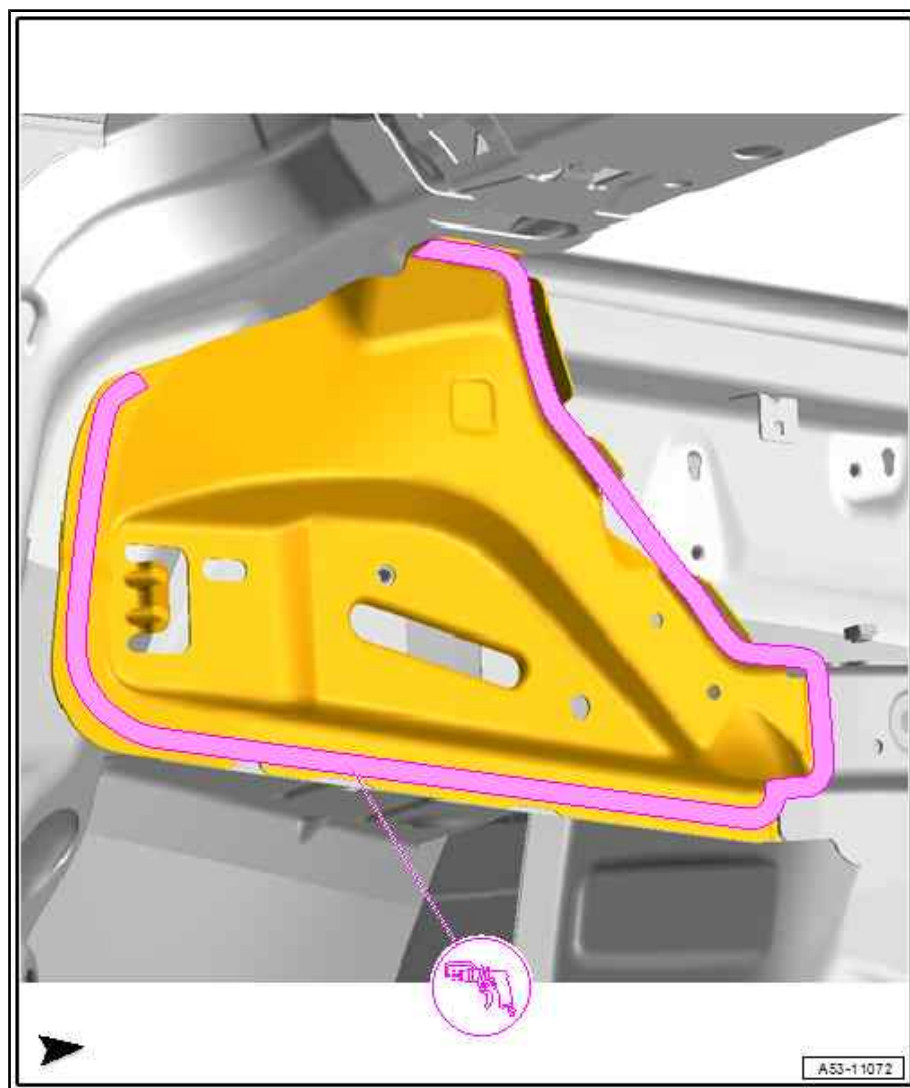
- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker
- ◆ Pneumatic glue gun

Tools approved by AUDI AG must be used to ensure correct re-
sults when carrying out repair work ⇒ [page 29](#) .

6.6 Procedure

Cutting locations

- Separate original joint using spot weld breaker .



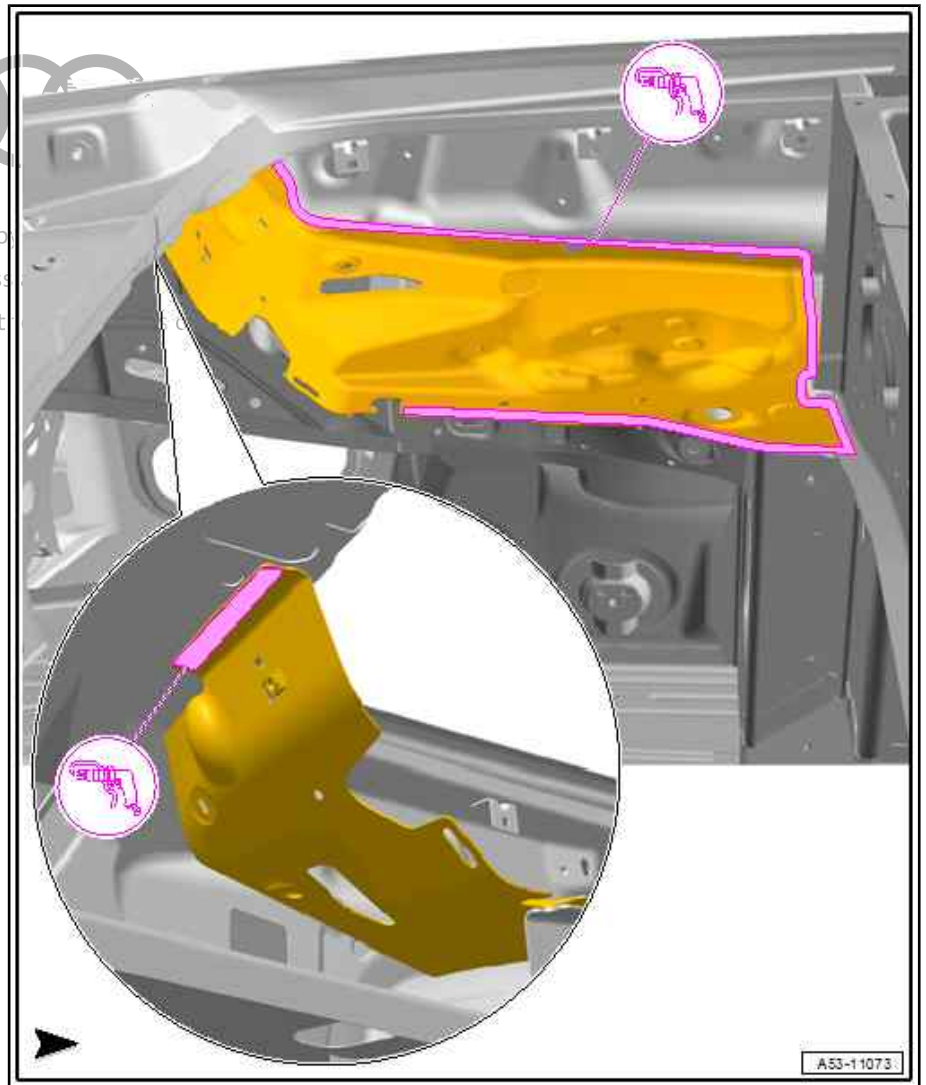
- Separate original joint using spot weld breaker .



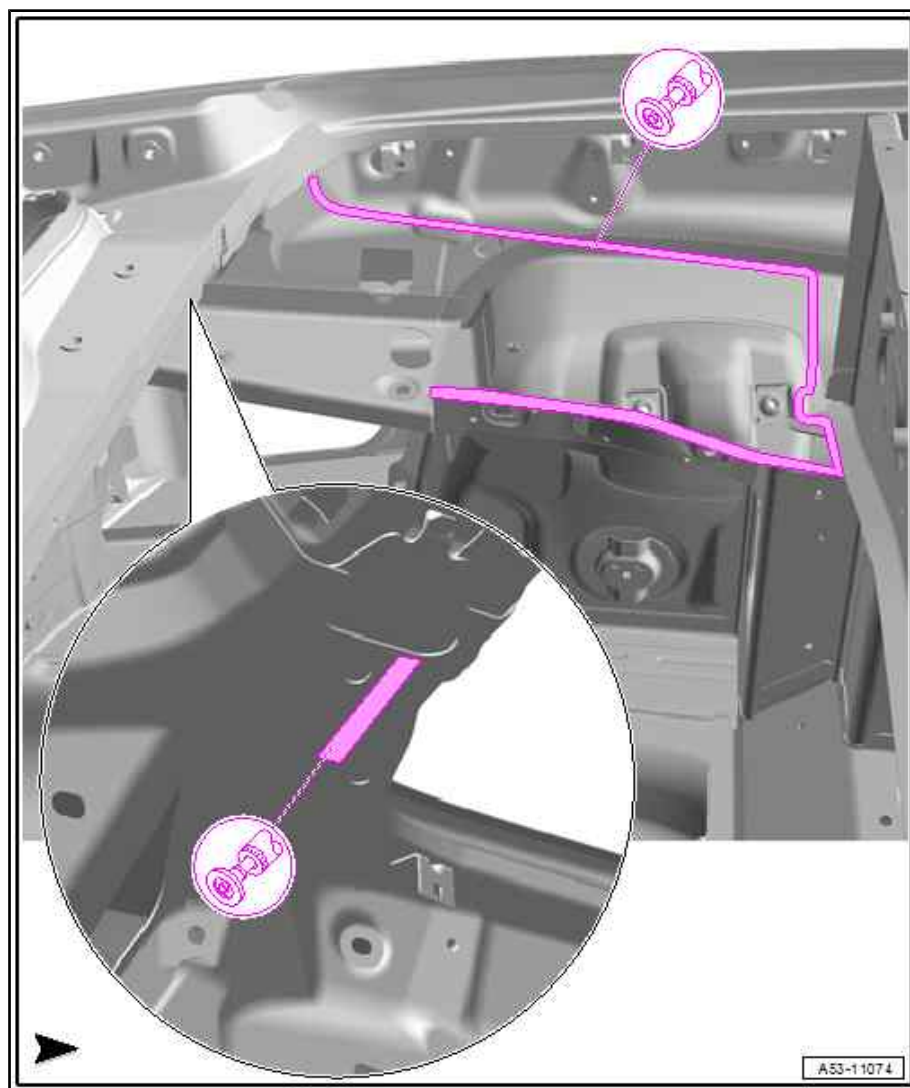
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- Remove remaining material using compact angle grinder .



Replacement part

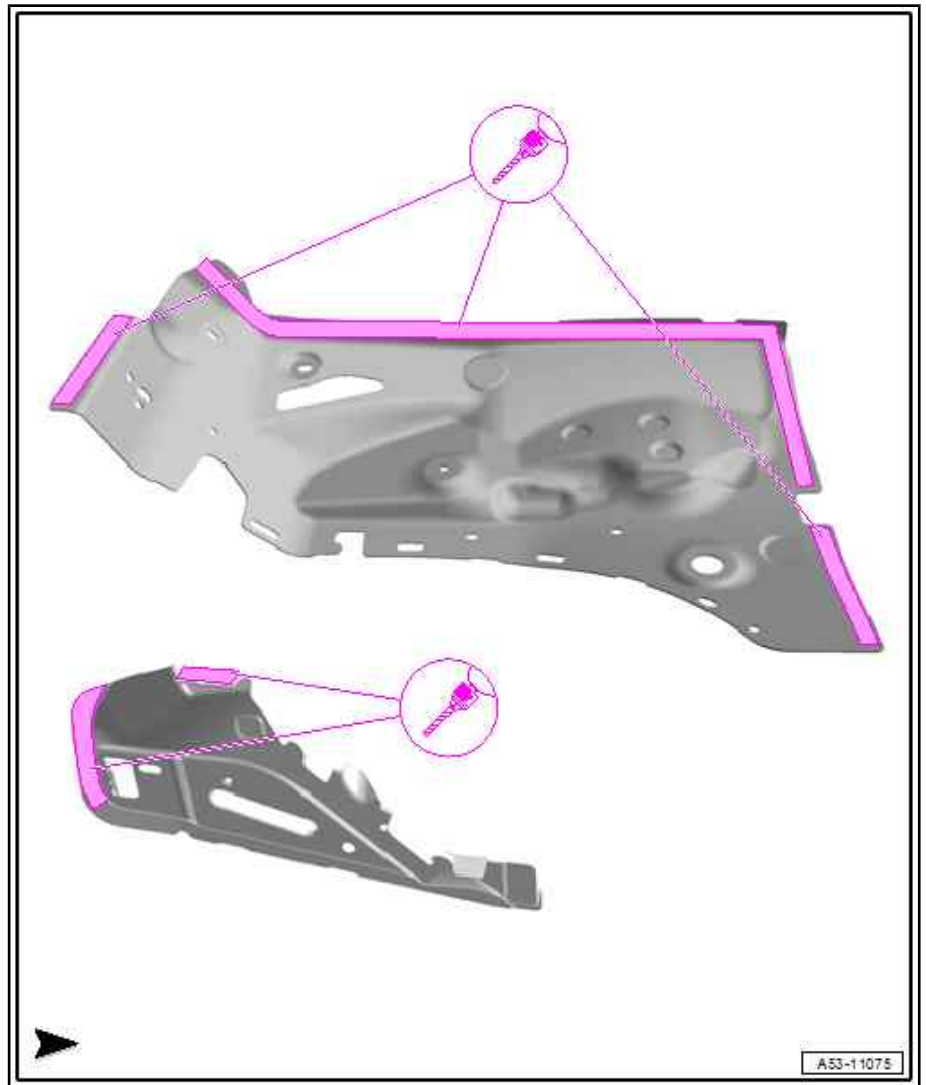
- ◆ Side section of convertible roof compartment
- ◆ Reinforcement for convertible roof compartment

Preparing new part

- Drill holes for SG plug weld seam, 8 mm Ø using drill .



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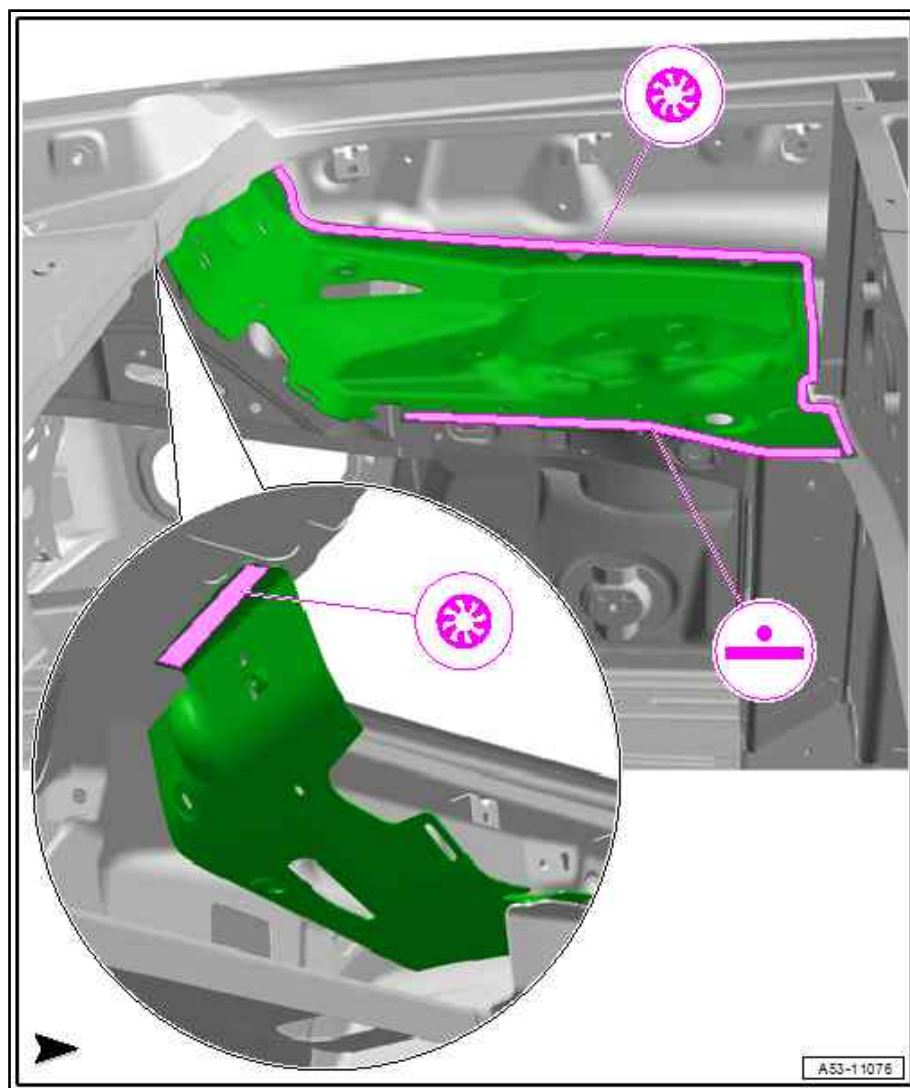


NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Check fit relative to adjacent parts.
- Weld in convertible roof compartment using shielded arc welding equipment : SG plug weld seam.
- Weld in convertible roof compartment using resistance spot welder : RP spot weld seam.



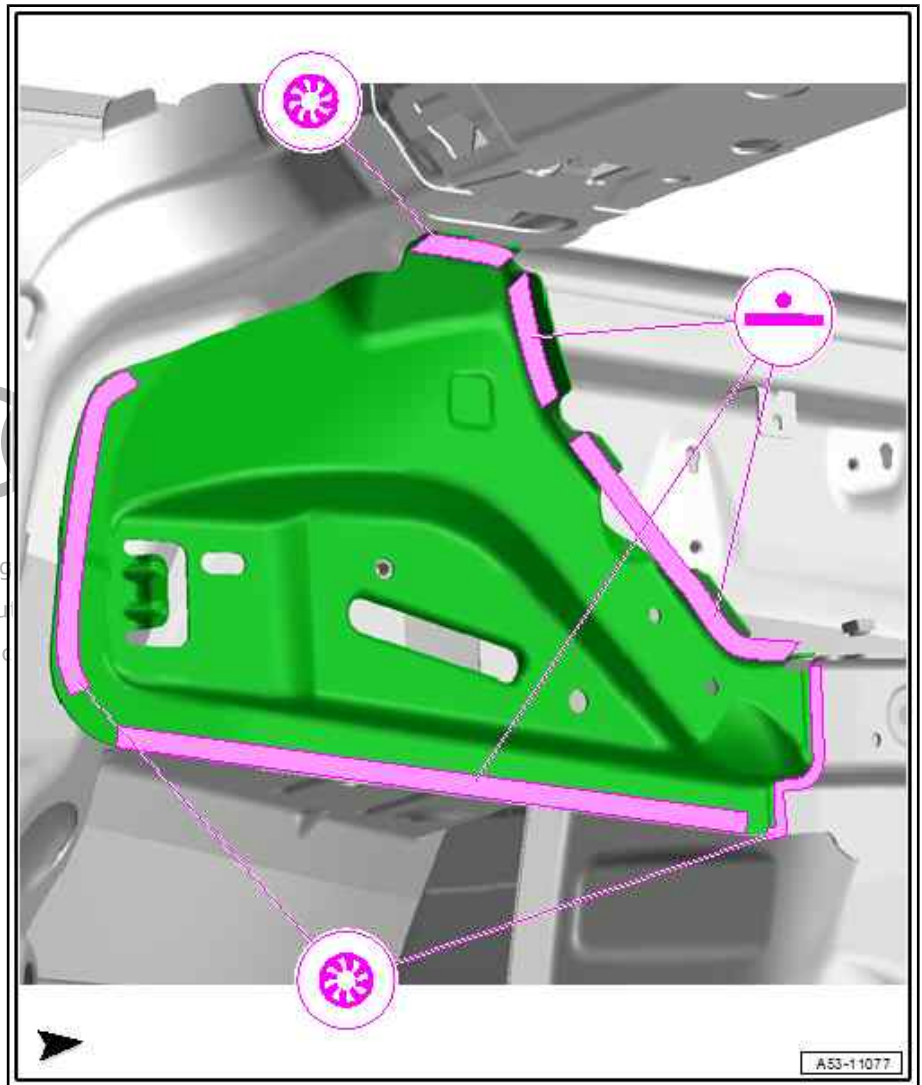
- Weld in reinforcement for convertible roof compartment using shielded arc welding equipment : SG plug weld seam.
- Weld in reinforcement for convertible roof compartment using resistance spot welder : RP spot weld seam.



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RO: 53 65 55 52

6.7 Side panel for convertible roof compartment - Renewal

CAUTION

Fuel tank and fuel pipes

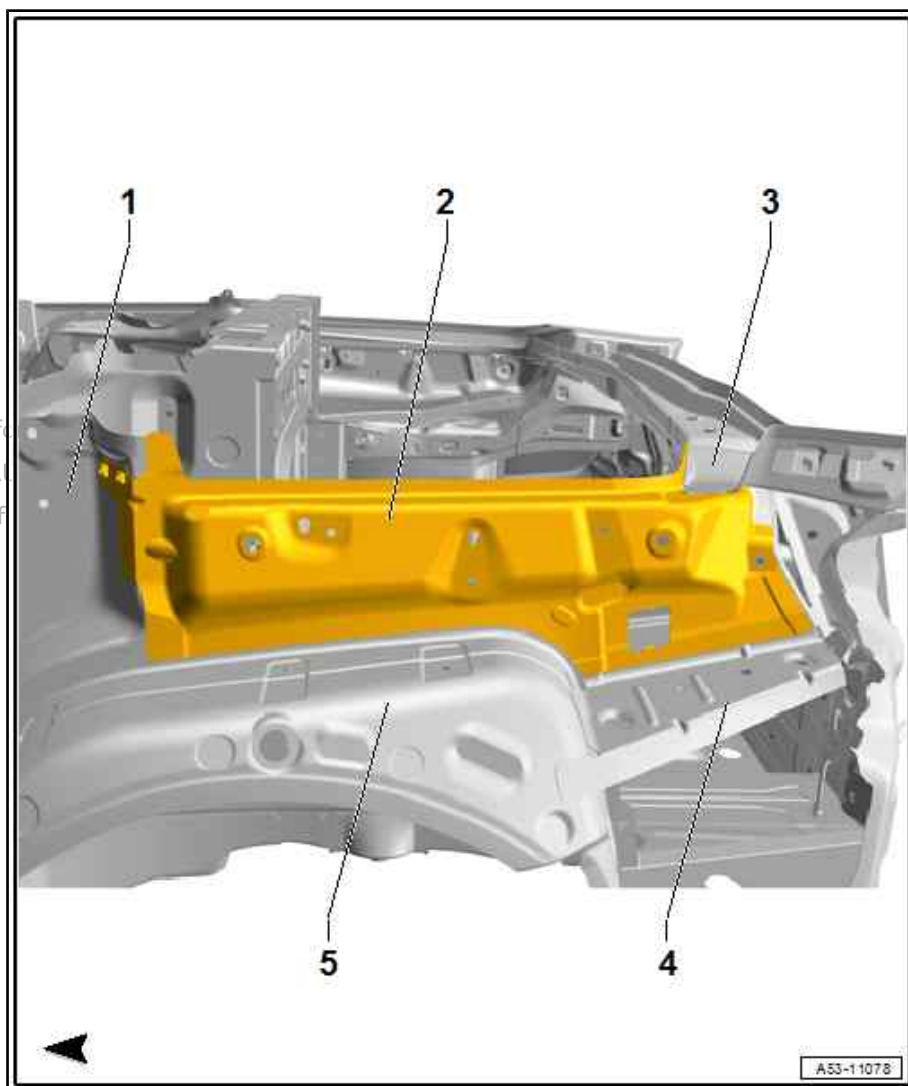
Take extreme care when performing sanding and welding work near the fuel tank or other components carrying fuel. If in doubt, always remove these components.



- 1 - Rear inner side frame
- 2 - Side panel for convertible roof compartment
- 3 - Sealing channel
- 4 - Bulkhead plate
- 5 - Outer wheel housing



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6.8 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Compact angle grinder
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

6.9 Procedure

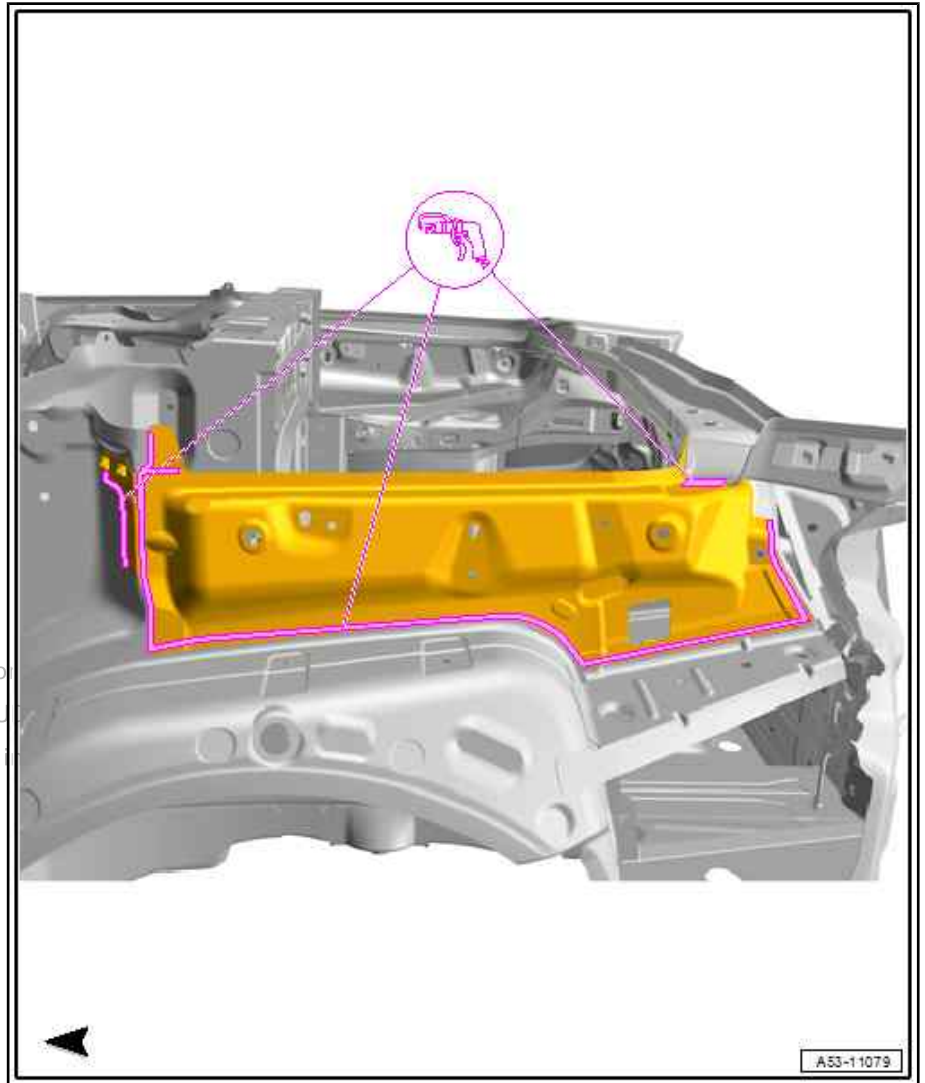
- Side panel removed ⇒ [page 190](#)

Cutting locations

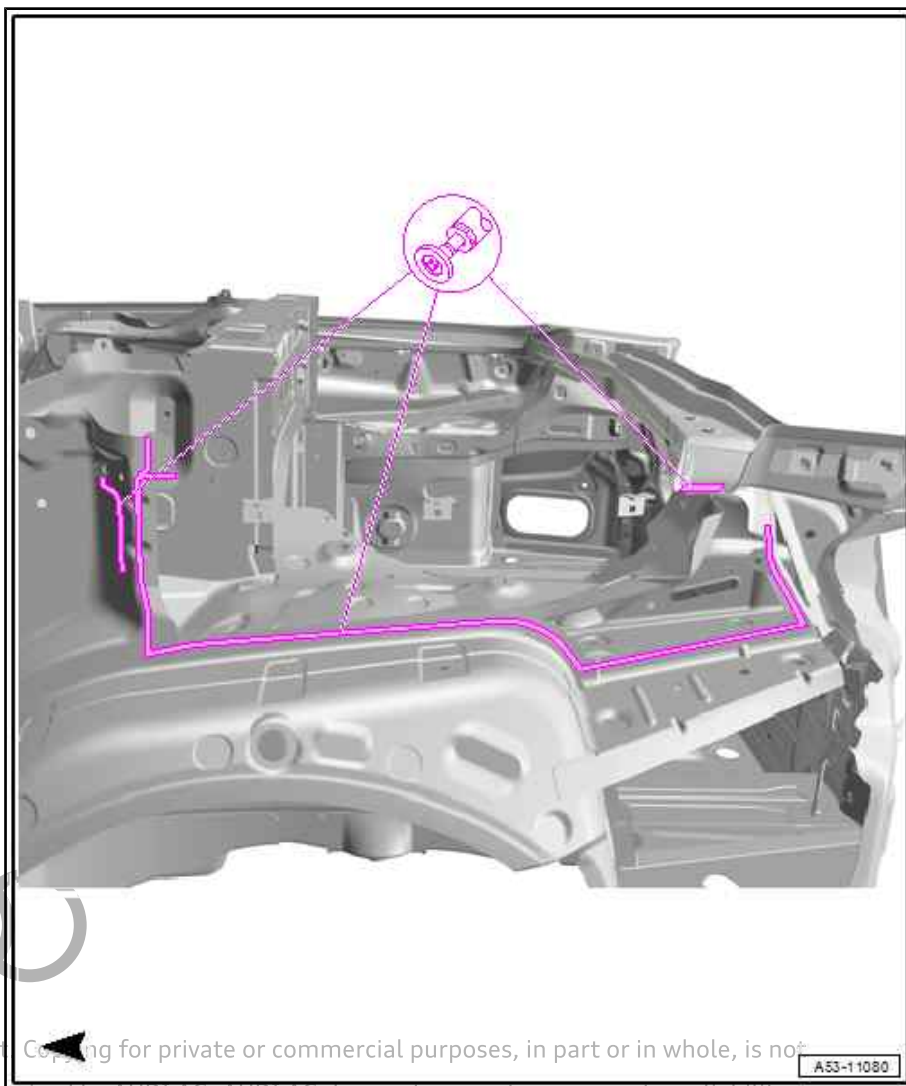
- Separate original joint using spot weld breaker .



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- Remove remaining material using compact angle grinder .



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Replacement part

- ◆ Side panel for convertible roof compartment

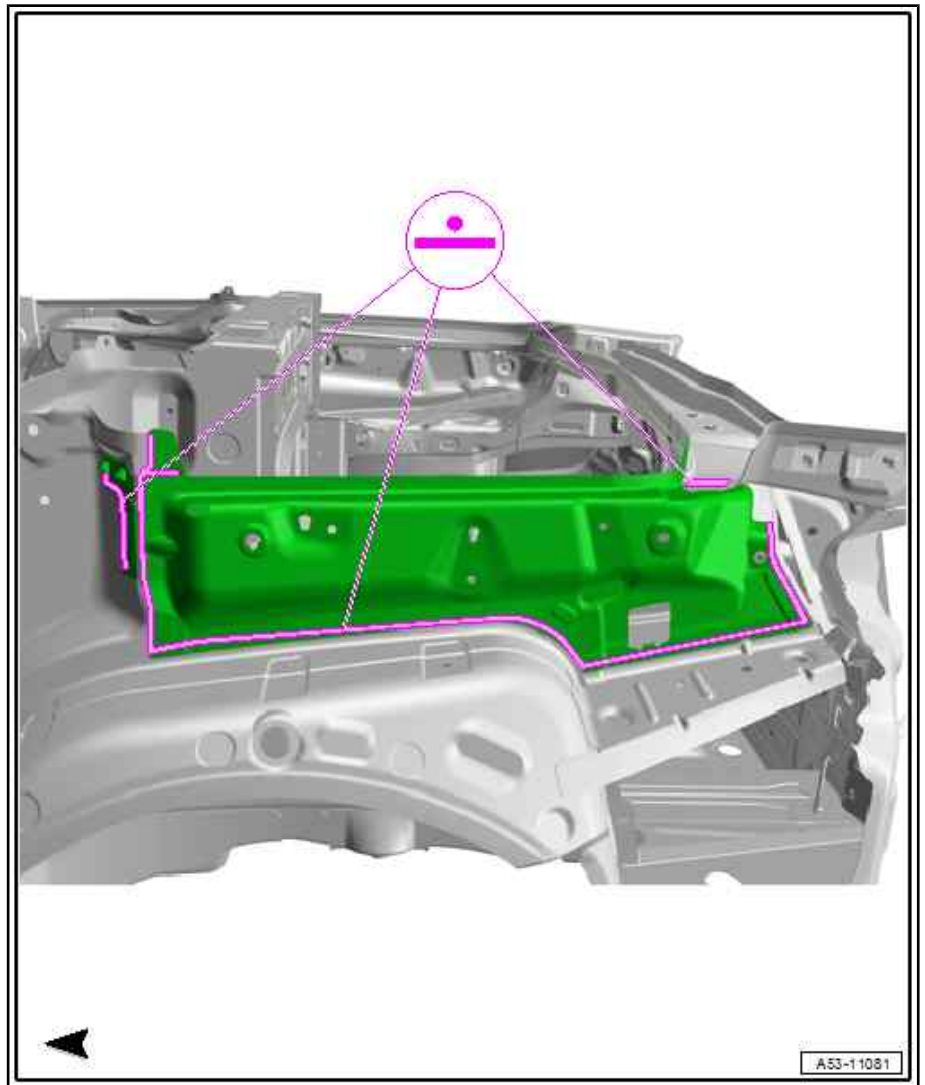


NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Check fit relative to adjacent parts.
- Weld in side panel for convertible roof compartment using resistance spot welder : RP spot weld seam.



- Welding in side panel ⇒ [page 190](#)

RO: 53 80 55 50

6.10 Spare wheel well - Partial renewal

CAUTION

Fuel tank and fuel pipes

Take extreme care when performing sanding and welding work near the fuel tank or other components carrying fuel. If in doubt, always remove these components.



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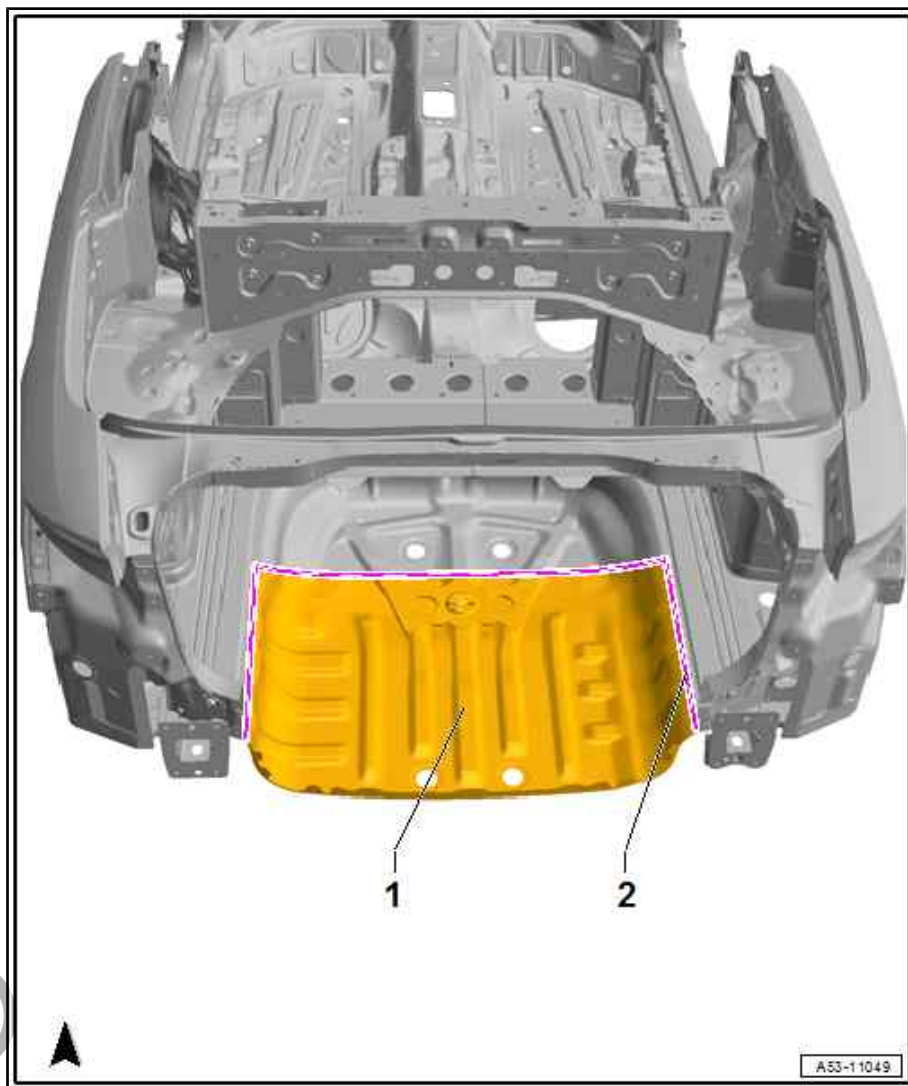


1 - Spare wheel well

2 - Separating cut

Partial renewal

Partial renewal of the spare wheel well is possible using this separating cut.



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6.11 Tools

Special tools and workshop equipment required in this document. Copyright by AUDI AG.

- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Body saw

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work [⇒ page 29](#) .

6.12 Procedure

- Rear upper cross panel removed [⇒ page 168](#)
- Cross panel removed [⇒ page 173](#)



Cutting locations

CAUTION

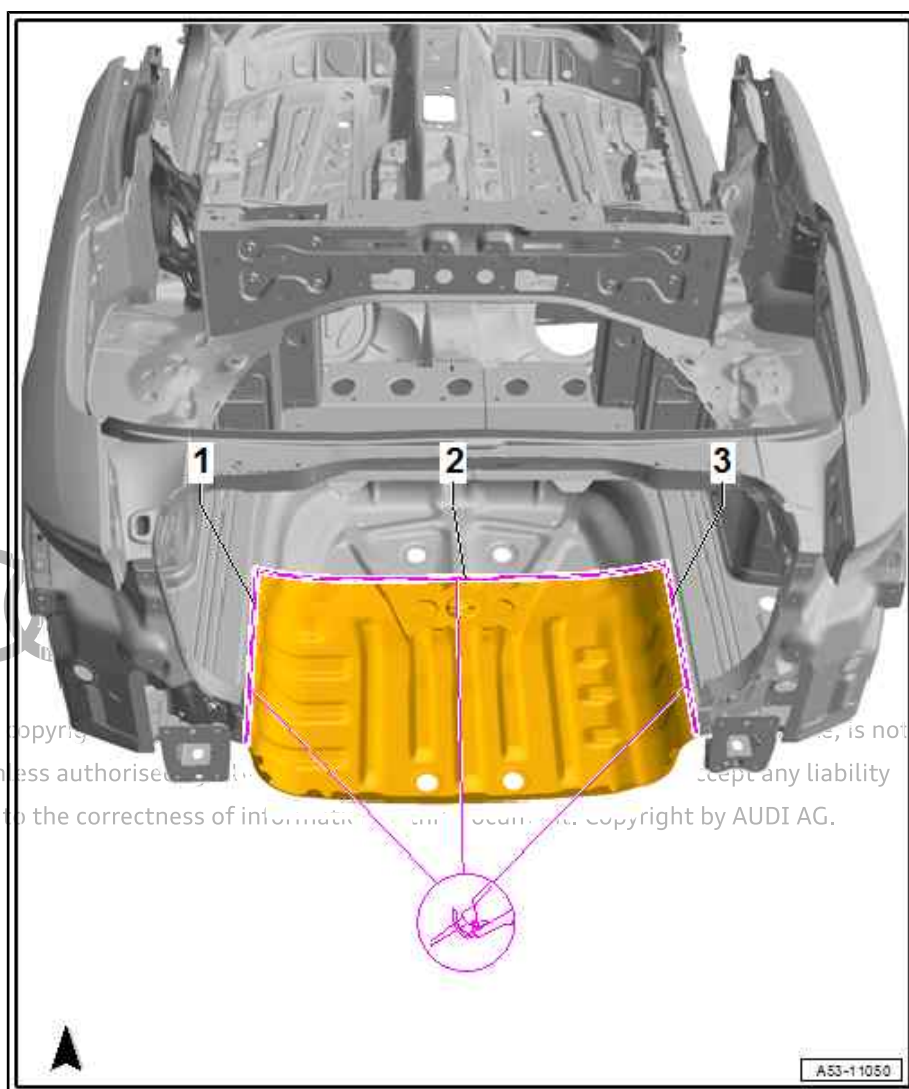
Take care not to damage welding flanges on longitudinal members.

- ◆ The separating cuts along the longitudinal members must be made next to the welding flanges.

Take care not to damage reinforcement for spare wheel well.

- ◆ The separating cut must be made between the spare wheel mounting and the reinforcement below the spare wheel well.

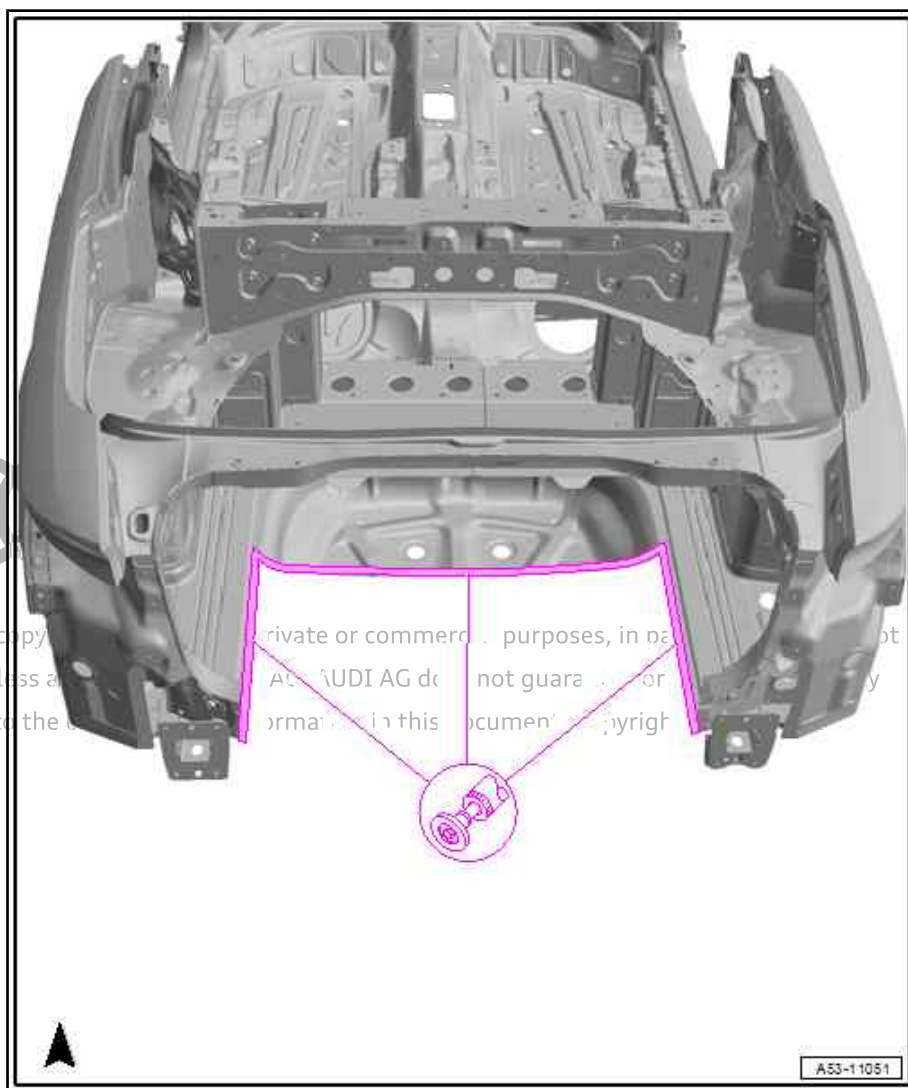
- Make separating cuts -1- and -3- along longitudinal members as shown using body saw .
- Make separating cut -2- in front of spare wheel mounting as shown using body saw .



- Remove remaining material using compact angle grinder .



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Replacement part

- ◆ Spare wheel well

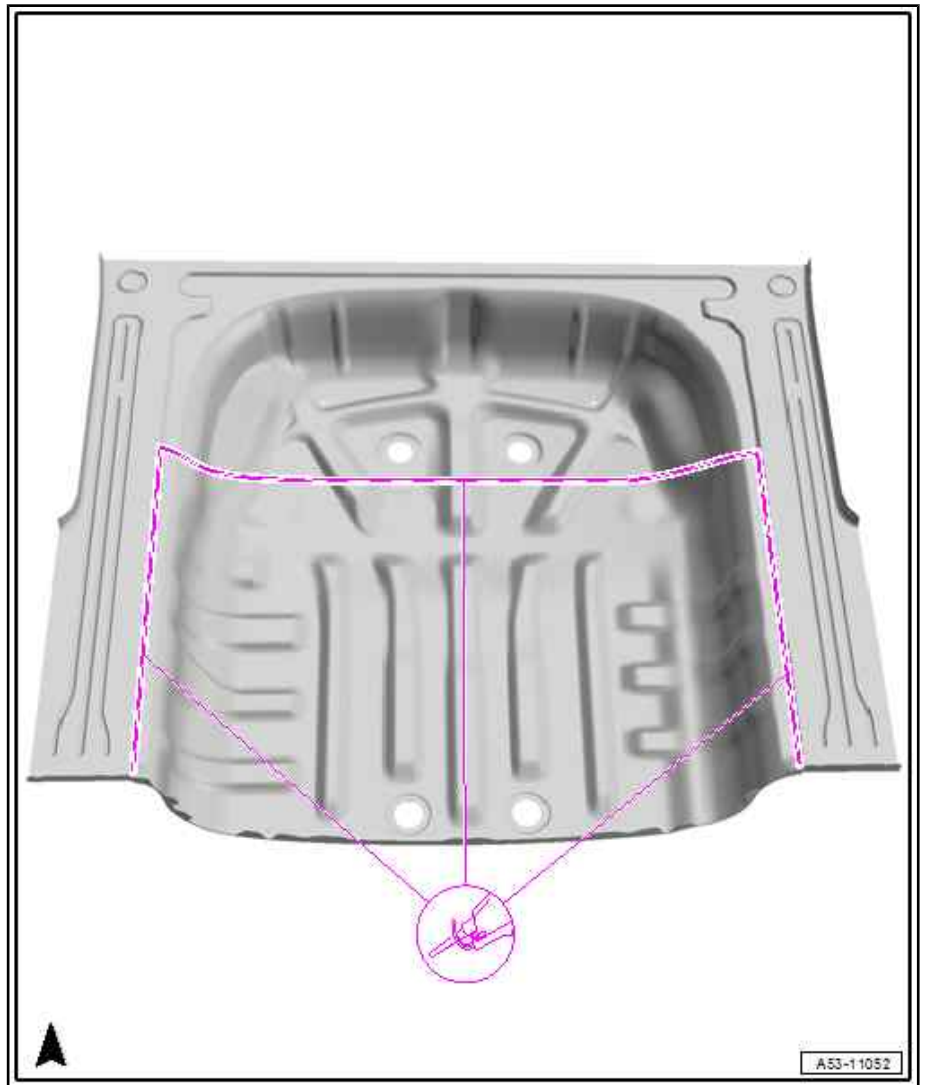
Preparing new part



Note

Add approx. 10 mm material for overlap when cutting the new part.

- Transfer separating cuts to new part and cut to size using body saw.



- Match up spare wheel well with vehicle standing on its wheels or on alignment bracket set and fix in position.
- Check fit relative to cross panel.

! NOTICE

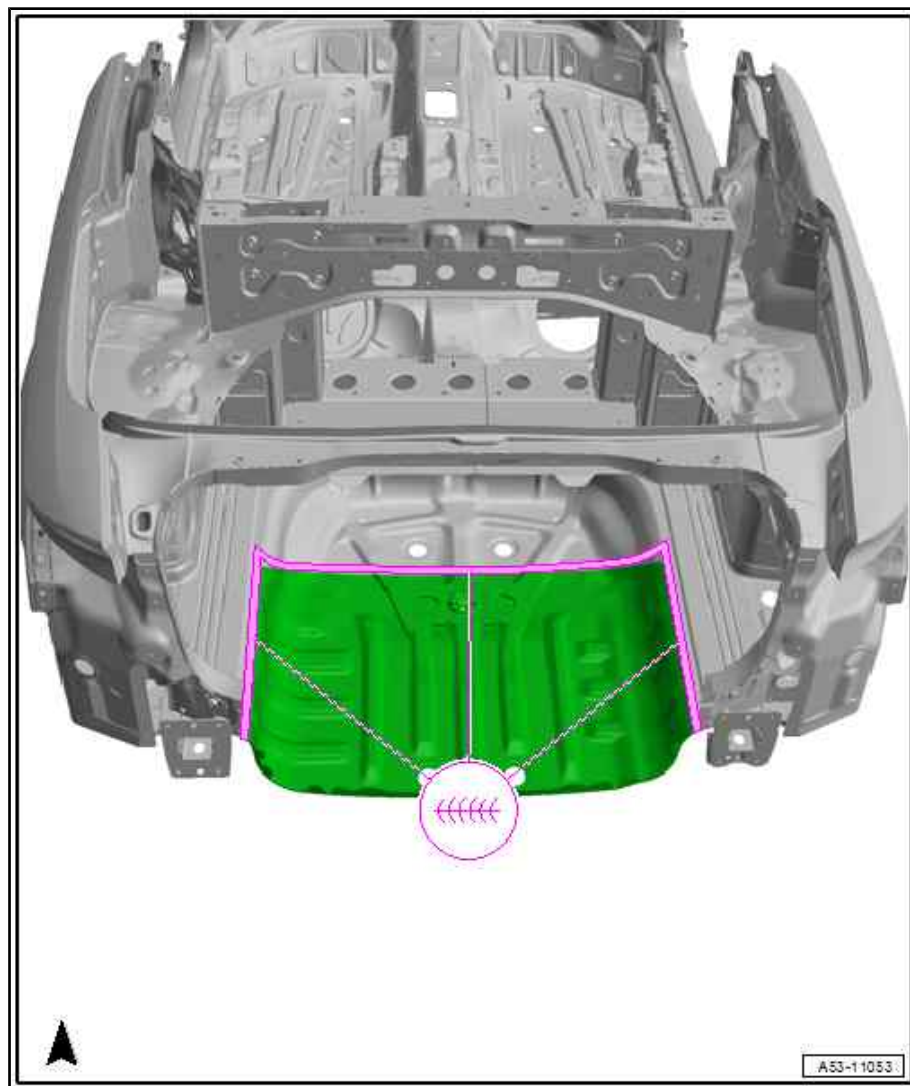
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Weld in spare wheel well with overlap using shielded arc welding equipment : SG continuous seam.



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- Welding in rear upper cross panel ⇒ [page 168](#)
- Welding in cross panel ⇒ [page 173](#)

RO: 53 80 55 50

6.13 Rear spare wheel well - Renewal

CAUTION

Fuel tank and fuel pipes

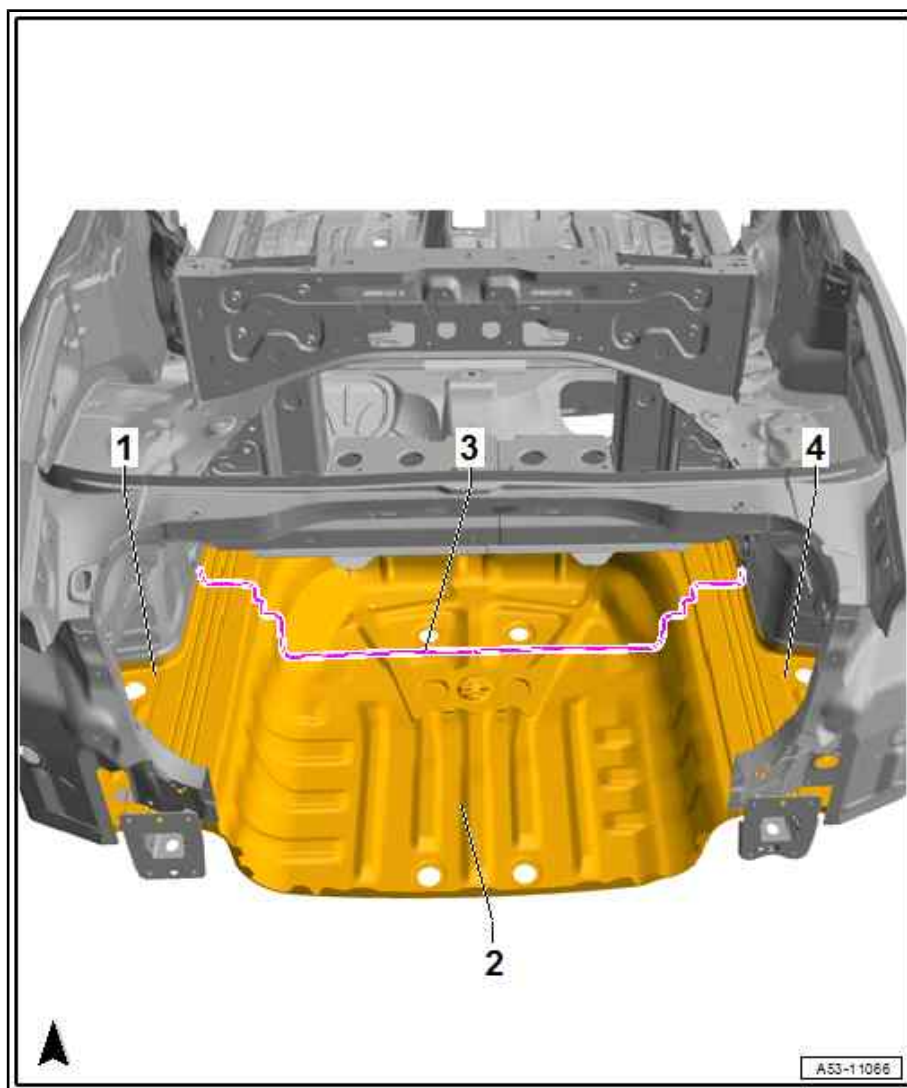
Take extreme care when performing sanding and welding work near the fuel tank or other components carrying fuel. If in doubt, always remove these components.



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- 1 - Floor panel (left-side)
- 2 - Spare wheel well
- 3 - Separating cut
- 4 - Floor panel (right-side)



6.14 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Drill
- ◆ Compact angle grinder
- ◆ Brush grinder
- ◆ Body saw
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work [⇒ page 29](#).

6.15 Procedure

- Rear upper cross panel removed [⇒ page 168](#)

- Cross panel removed [⇒ page 173](#)
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Cutting locations

⚠ CAUTION

Take care not to damage welding flanges on longitudinal members.

- ◆ The separating cuts along the longitudinal members must be made next to the welding flanges.

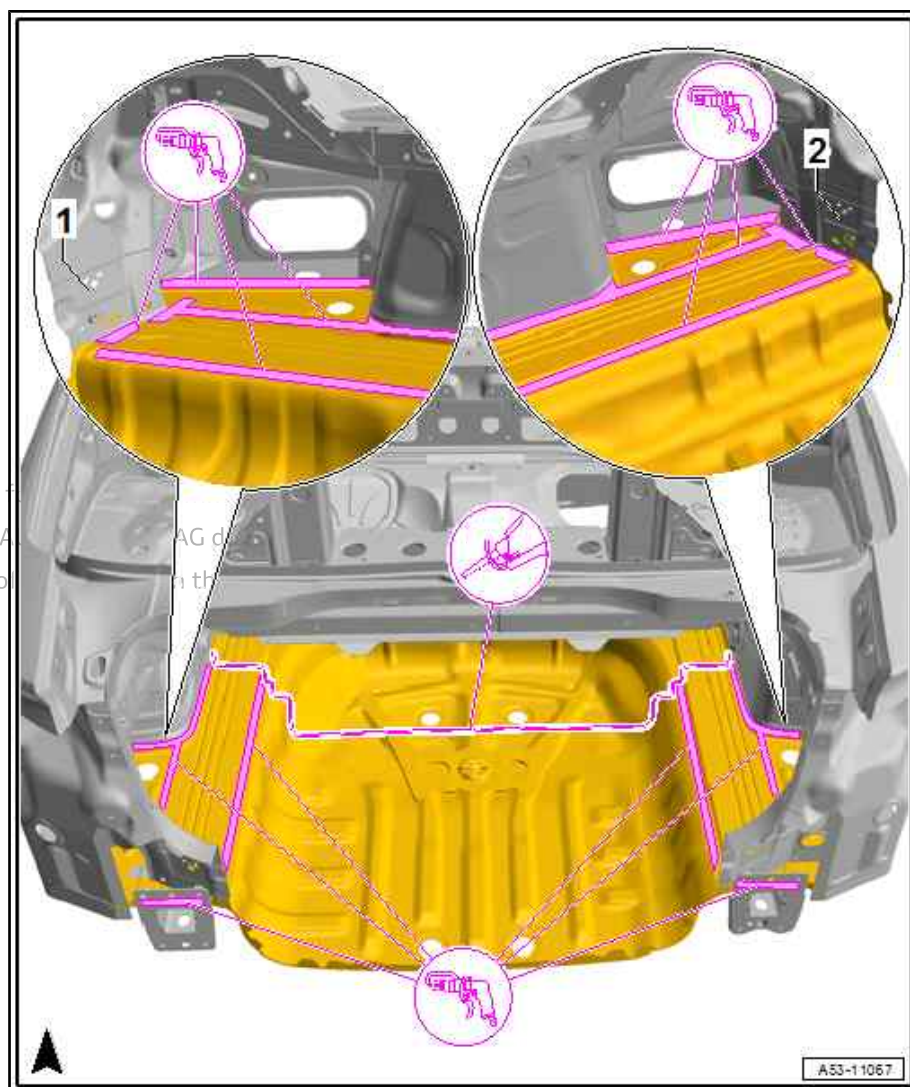
Take care not to damage reinforcement for spare wheel well.

- ◆ The separating cut must be made between the spare wheel mounting and the reinforcement below the spare wheel well.

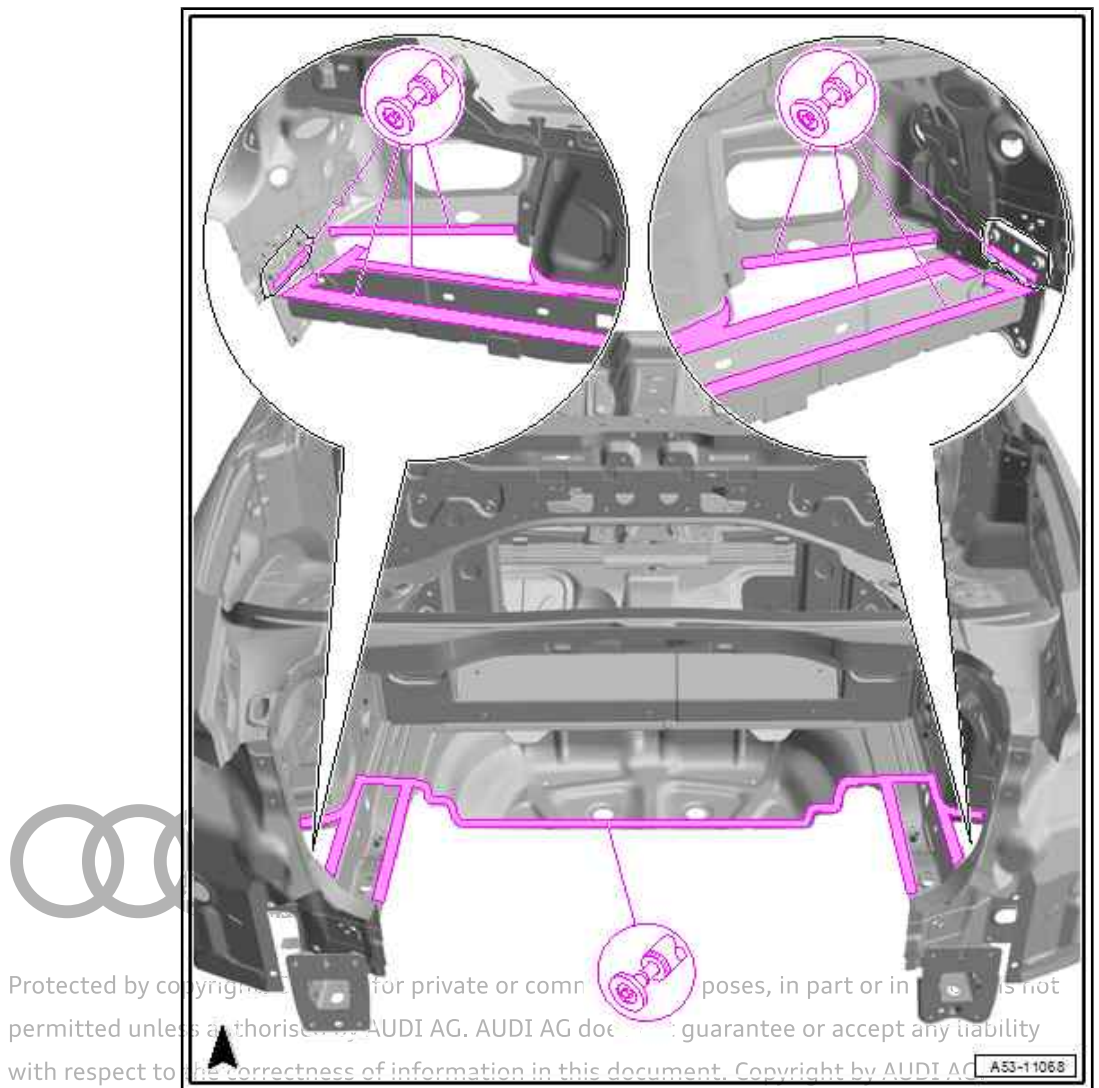
- Make separating cut as shown using body saw .
- Separate original joint using spot weld breaker .
- Carefully bend up connecting pieces -1- and -2-.



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- Remove remaining material using compact angle grinder .



Replacement part

- ◆ Spare wheel well
- ◆ Floor panel (left-side)
- ◆ Floor panel (right-side)

Preparing new part



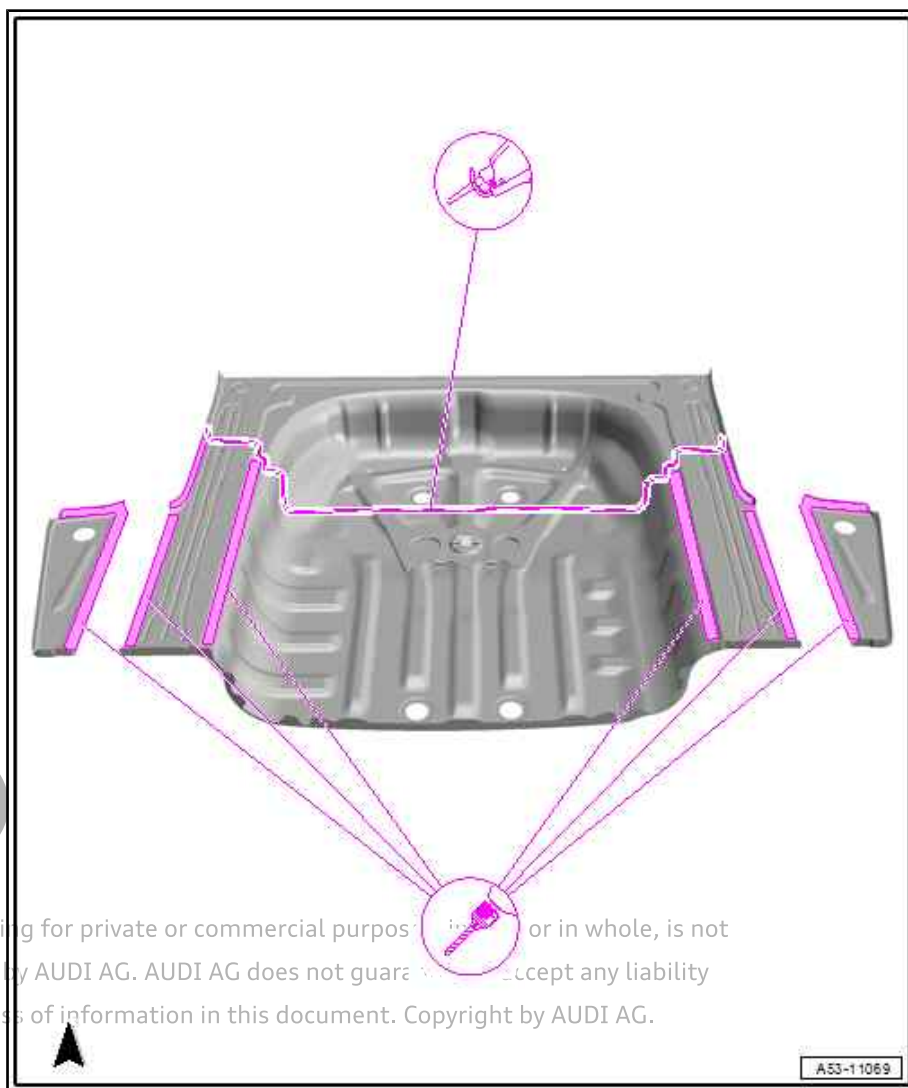
Note

Add approx. 10 mm material for overlap when cutting the new part.

- Transfer separating cut to new part and cut to size using body saw .
- Drill holes for SG plug weld seam, 8 mm Ø using drill .



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NOTICE

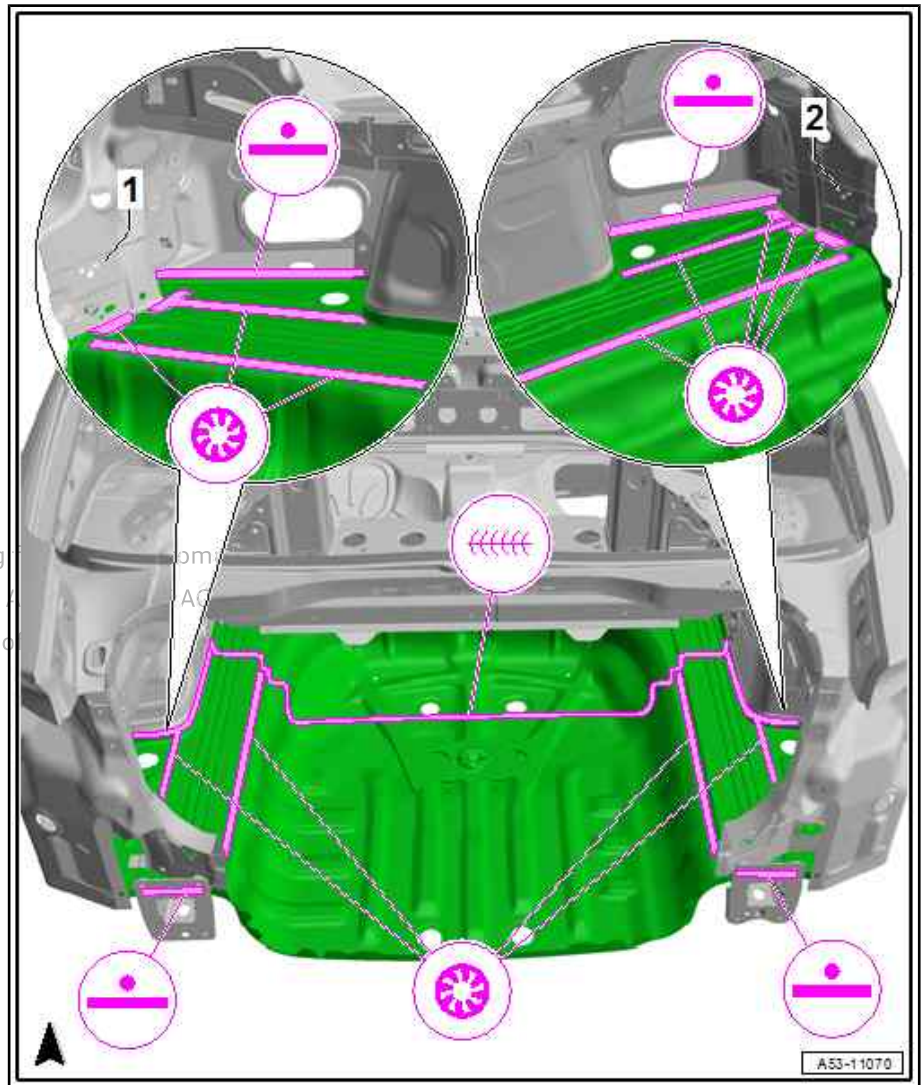
Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Match up spare wheel well with vehicle standing on its wheels or on alignment bracket set and fix in position.
- Check fit relative to cross panel.
- Bend back connecting pieces -1- and -2-.
- Weld in spare wheel well with overlap using shielded arc welding equipment : SG continuous seam.
- Weld in spare wheel well using shielded arc welding equipment : SG plug weld seam.
- Weld in spare wheel well using resistance spot welder : RP spot weld seam.



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- Welding in rear upper cross panel ➔ [page 168](#)
- Welding in cross panel ➔ [page 173](#)

RO: 53 69 55 52

6.16 Outer rear wheel housing - Renewal

CAUTION

Fuel tank and fuel pipes

Take extreme care when performing sanding and welding work near the fuel tank or other components carrying fuel. If in doubt, always remove these components.



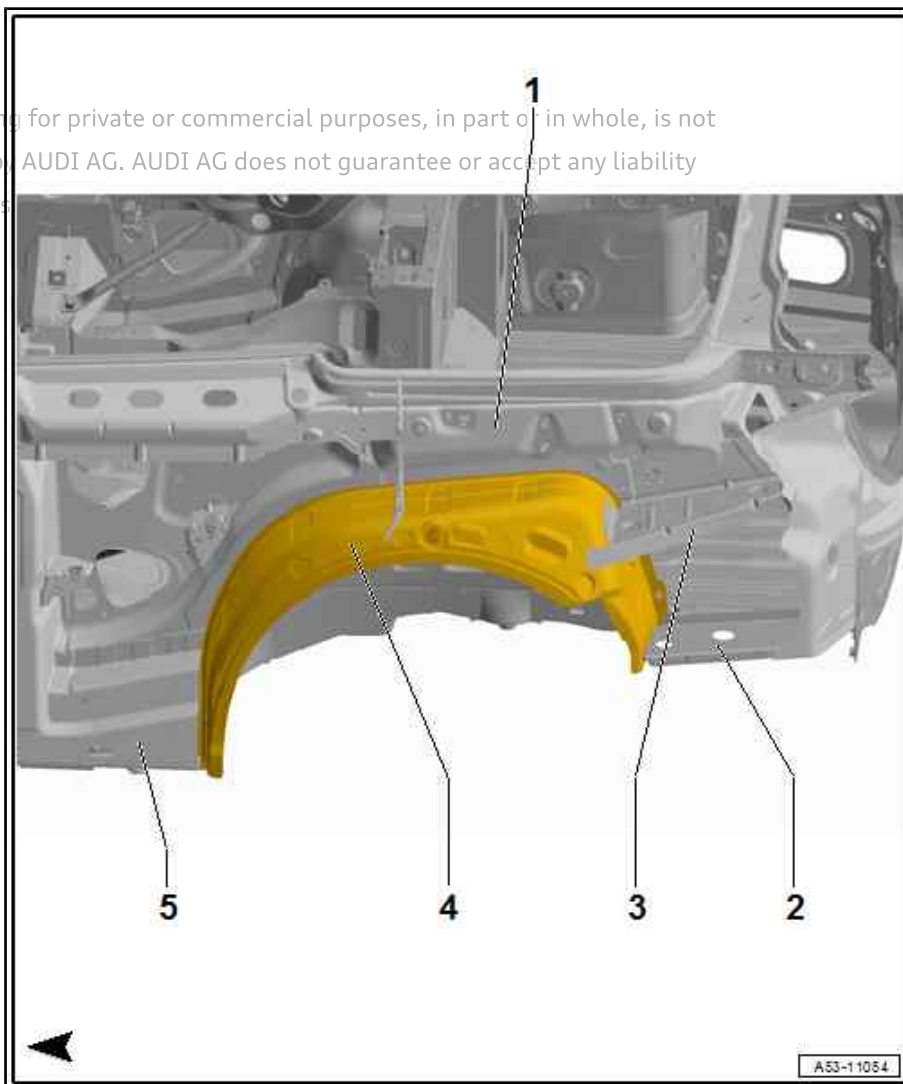
1 - Rear inner side frame

2 - Floor panel connecting plate

3 - Bulkhead plate

4 - Rear outer wheel housing

5 - Side member reinforcement



6.17 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work ⇒ [page 29](#) .

6.18 Procedure

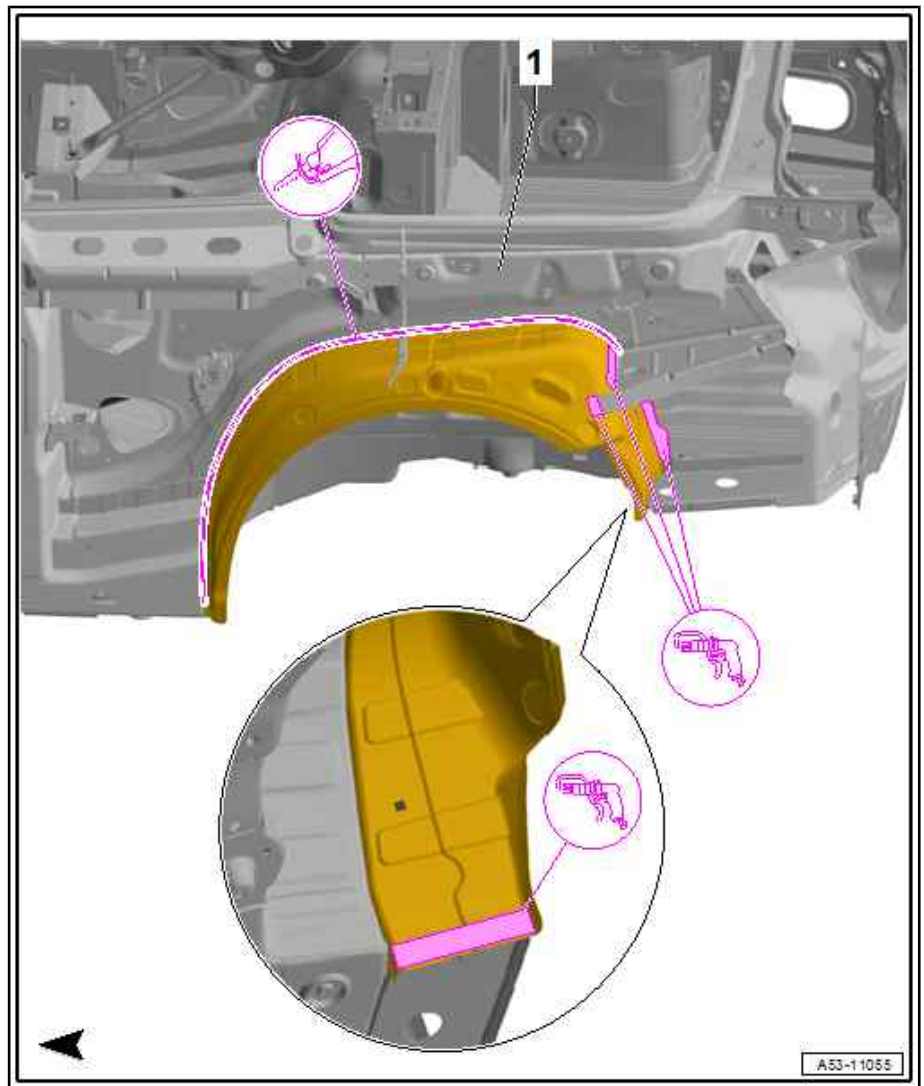
- Side panel removed ⇒ [page 190](#)

Cutting locations

- Make separating cut parallel to rear inner side frame -1- as shown using body saw .



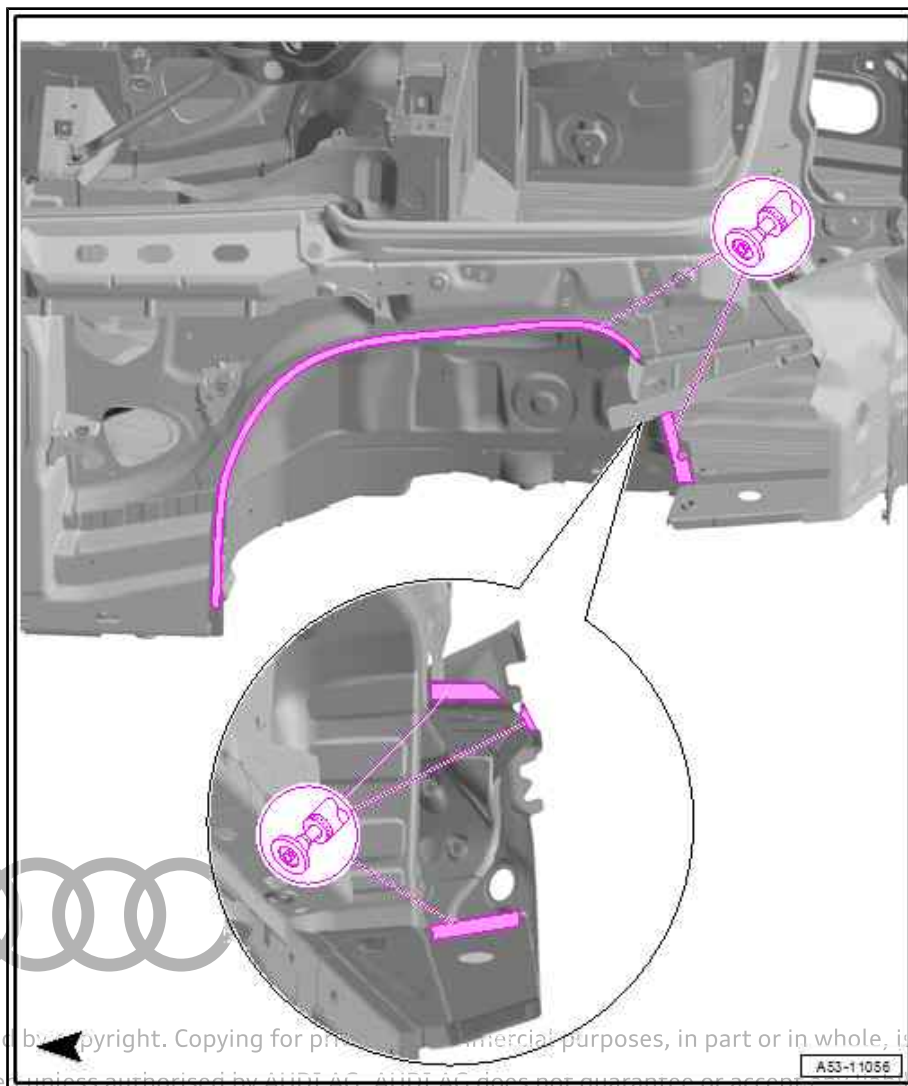
- Separate original joint using spot weld breaker .



- Remove remaining material using compact angle grinder .



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Replacement part

- ◆ Rear wheel housing liner

Preparing new part



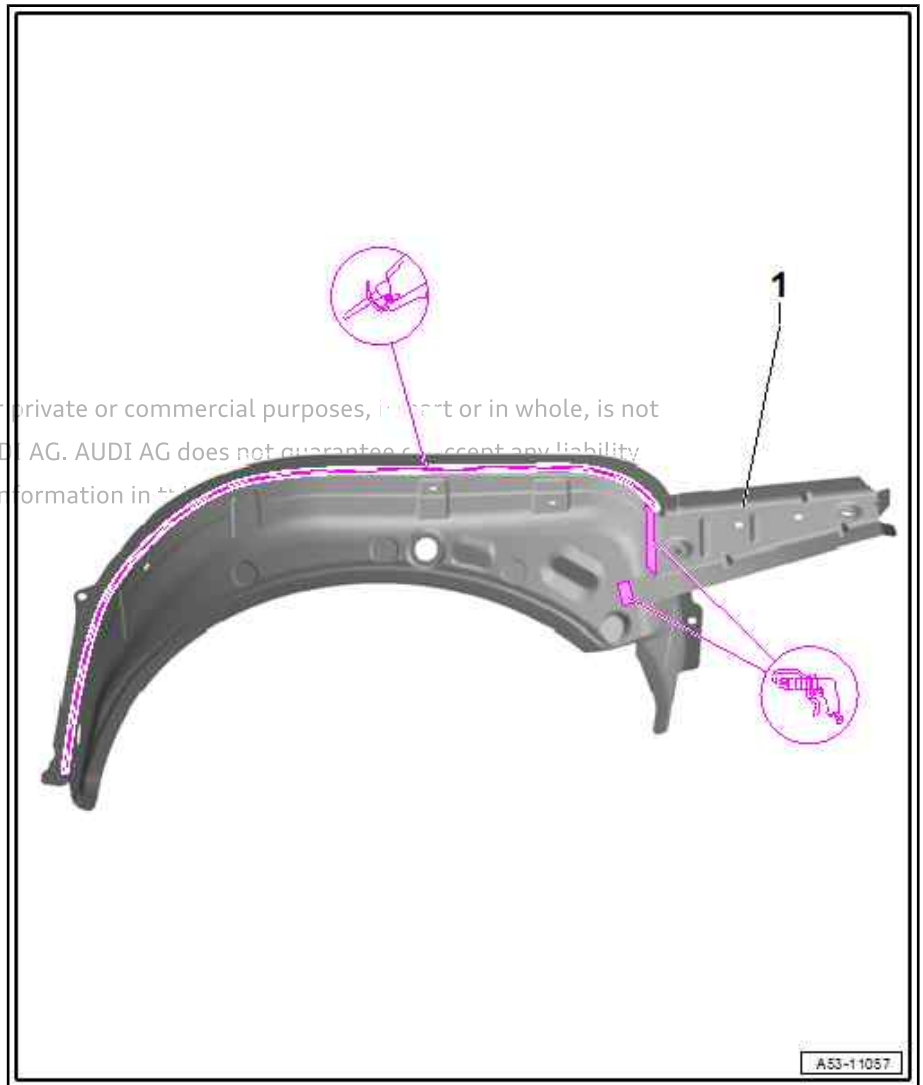
Note

Add approx. 10 mm material for overlap when cutting the new part.

- Transfer separating cut to new part and cut to size using body saw .
- Separate original joint at bulkhead plate -1- using spot weld breaker .



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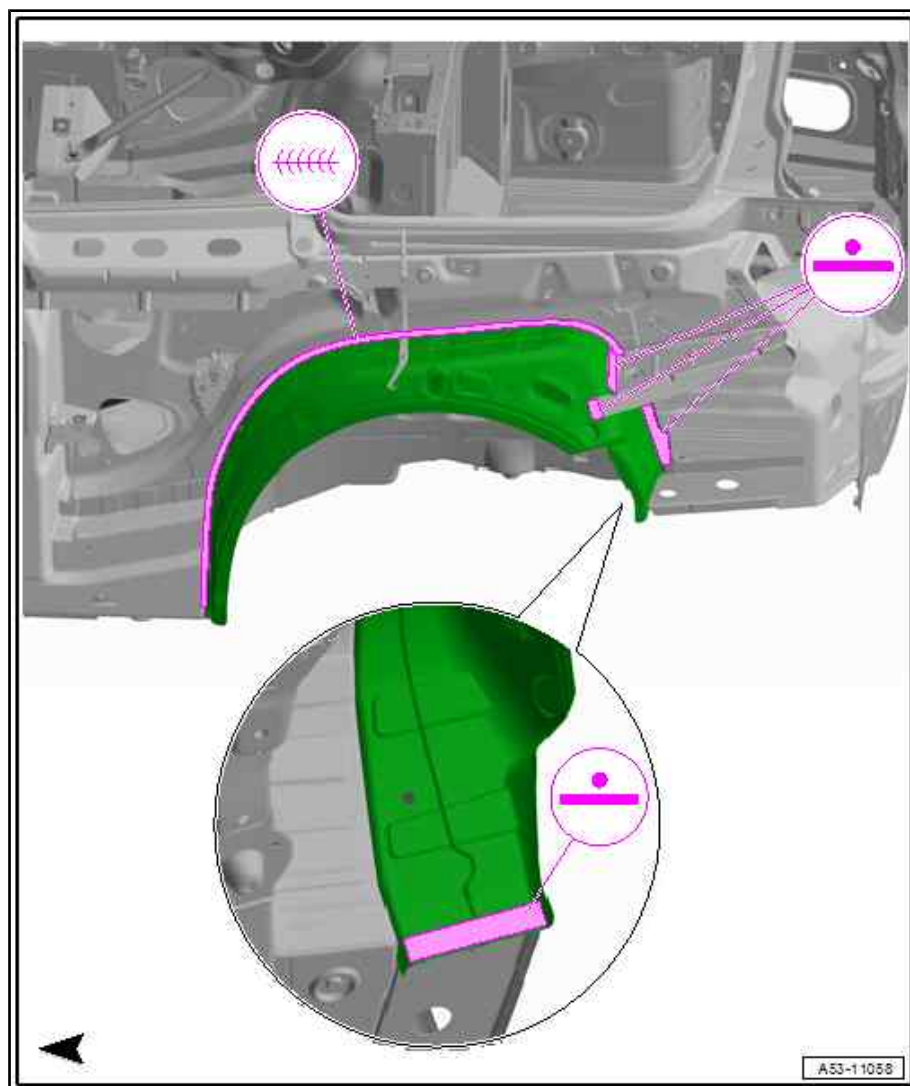


! NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

- Weld in wheel housing using resistance spot welder : RP spot weld seam.
- Weld in at separating cut using shielded arc welding equipment : SG continuous seam.



- Welding in side panel ⇒ [page 190](#)

RO: 53 69 55 00

6.19 Inner rear wheel housing - Renewal

CAUTION

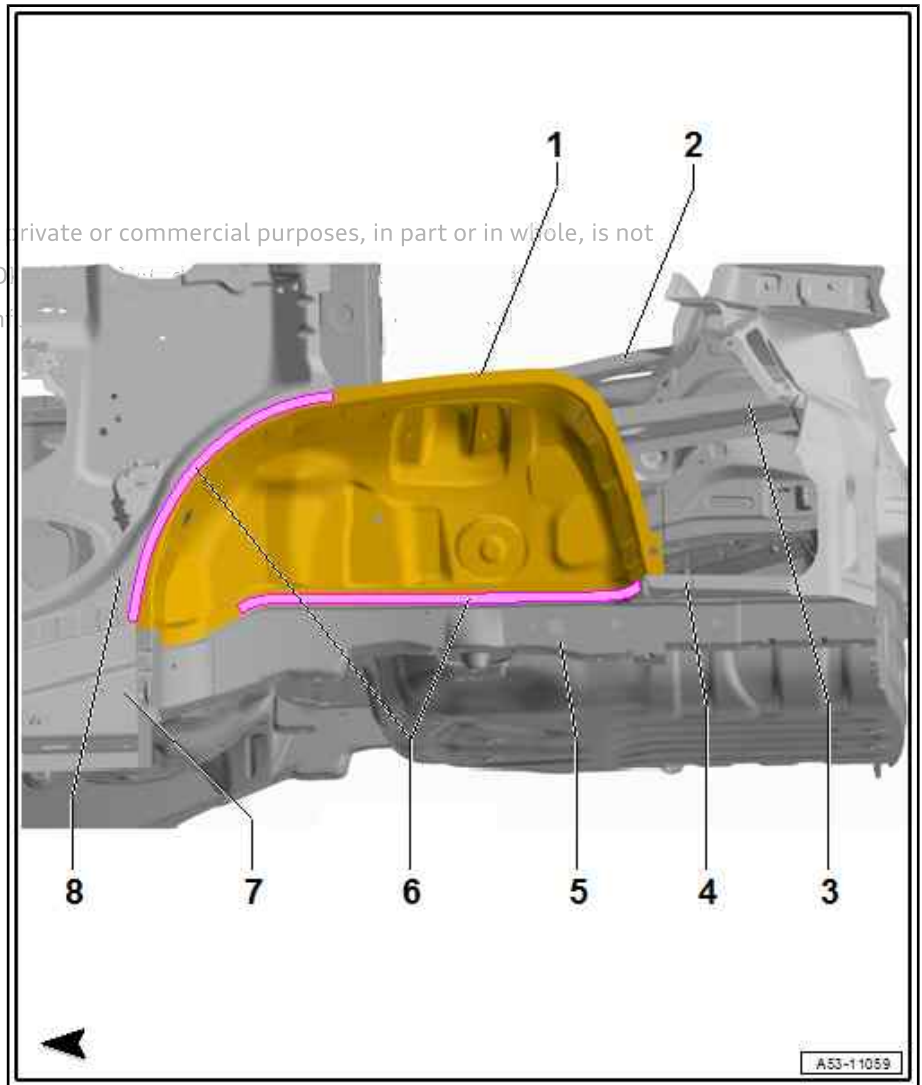
Fuel tank and fuel pipes

Take extreme care when performing sanding and welding work near the fuel tank or other components carrying fuel. If in doubt, always remove these components.

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- 1 - Inner wheel housing
- 2 - Convertible roof compartment
- 3 - Bulkhead plate
- 4 - Floor panel connecting piece
- 5 - Longitudinal member
- 6 - Bonded area
- 7 - Side member reinforcement
- 8 - Rear inner side frame



6.20 Tools

Special tools and workshop equipment required

- ◆ Resistance spot welder
- ◆ Shielded arc welding equipment
- ◆ Brush grinder
- ◆ Compact angle grinder
- ◆ Body saw
- ◆ Spot weld breaker

Tools approved by AUDI AG must be used to ensure correct results when carrying out repair work [⇒ page 29](#).

6.21 Procedure

- Side panel removed [⇒ page 190](#)
- Outer wheel housing removed [⇒ page 223](#)

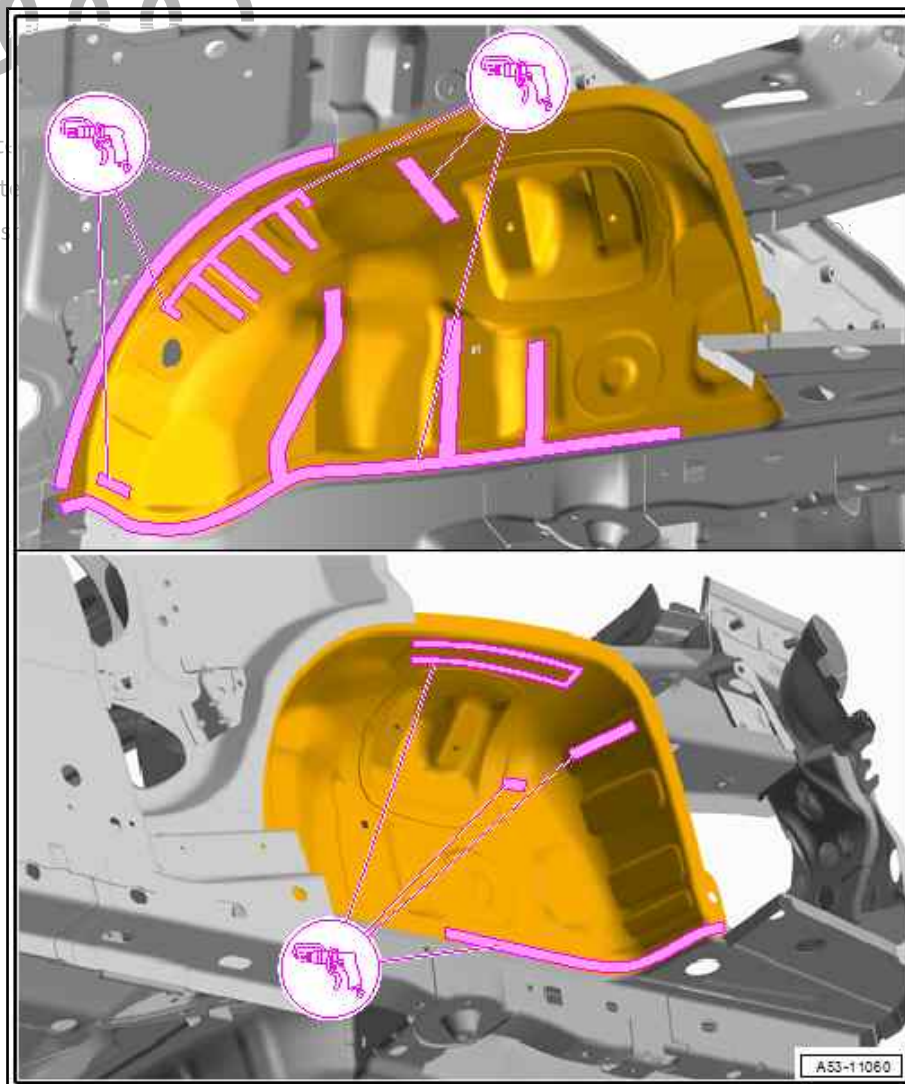
Cutting locations

- Separate original joint using spot weld breaker.

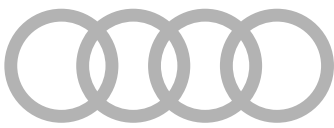


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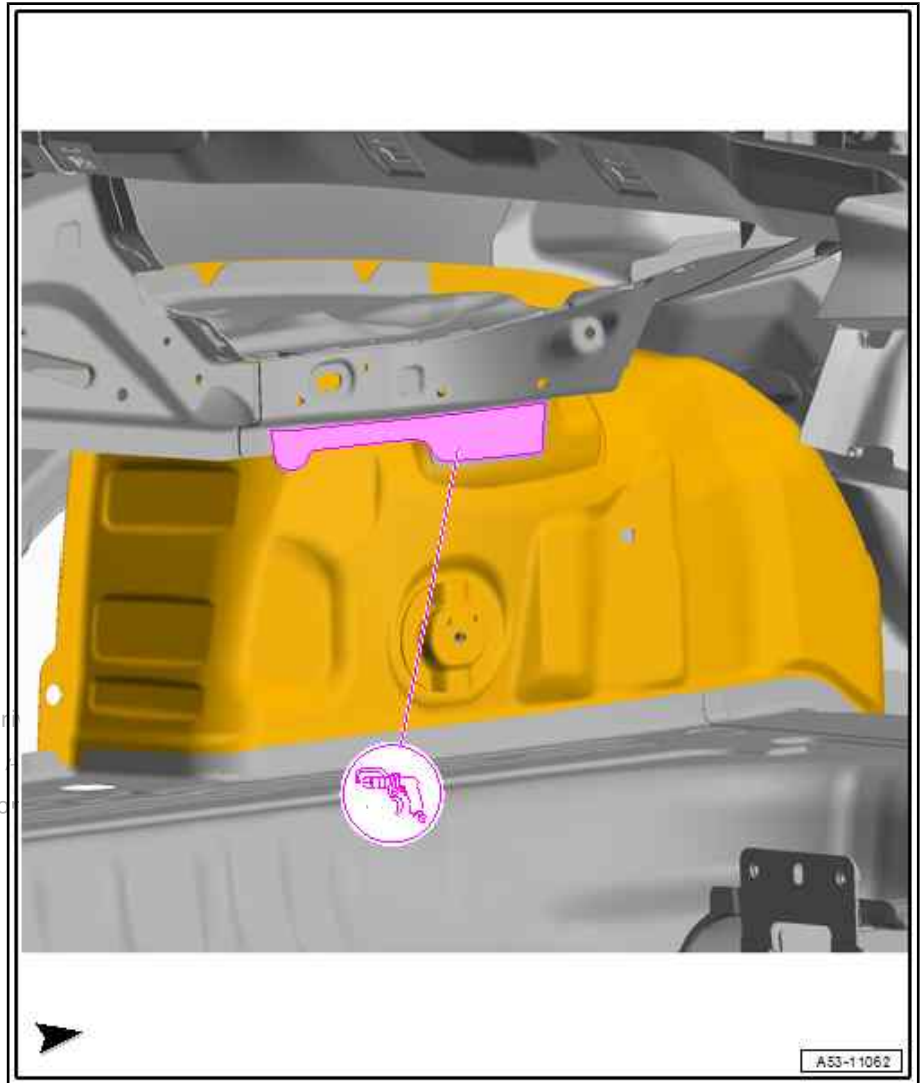
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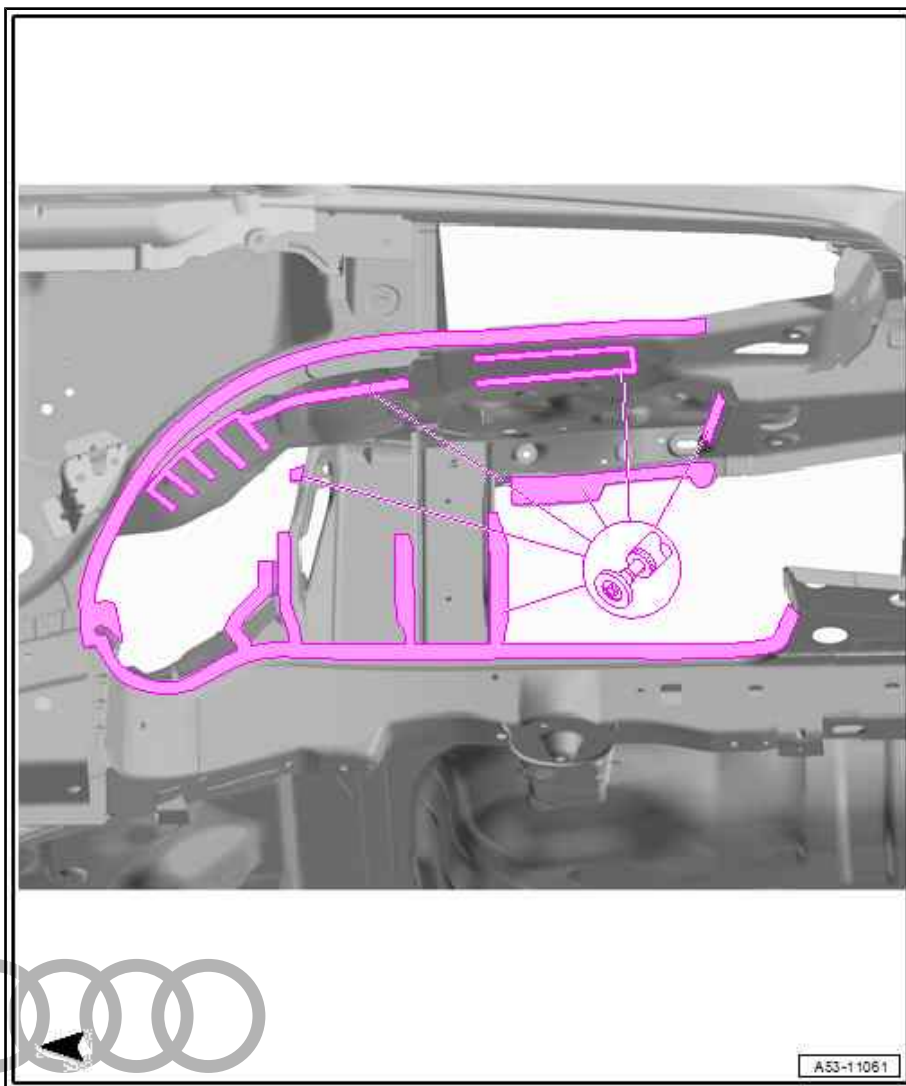
- Separate original joint using spot weld breaker .



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- Remove remaining material using compact angle grinder .



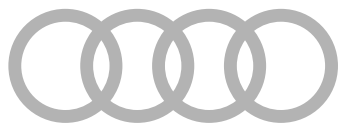
Replacement part

- ◆ Rear inner wheel housing liner

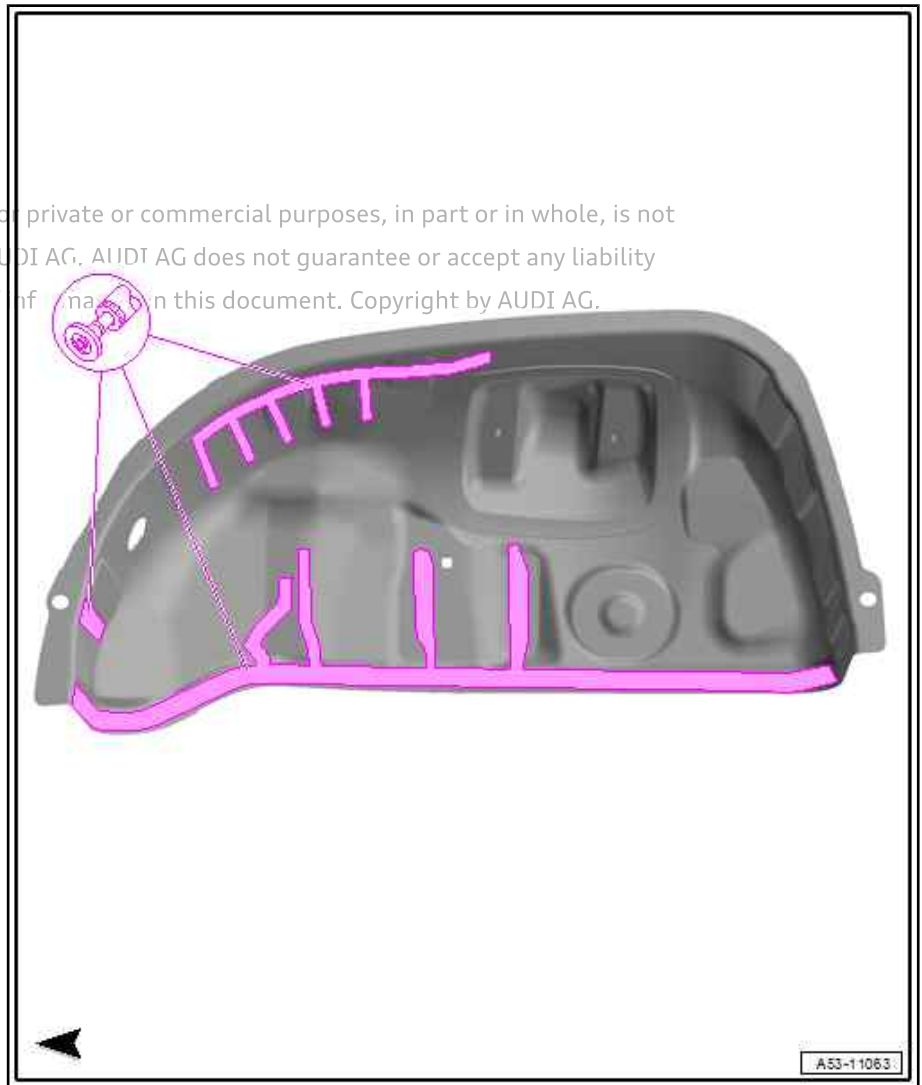
Preparing new part

- Match up new part and mark areas for SG plug weld seam from inside of vehicle.
- Drill holes for SG plug weld seam, 8 mm Ø using drill .

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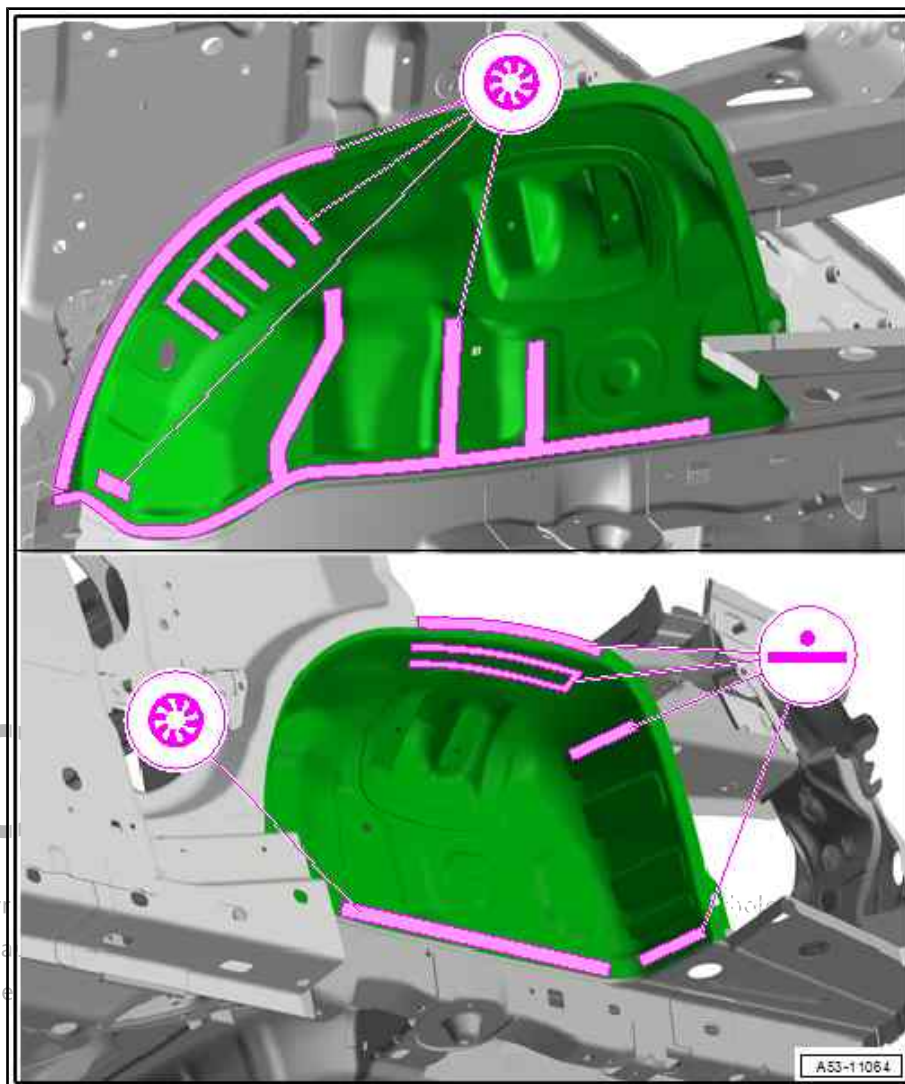


! NOTICE

Due to the different types of steel and panel thicknesses employed, one of the welding units (inverters) listed under "Tools" must be used to ensure correct results when spot welding.

Welding in

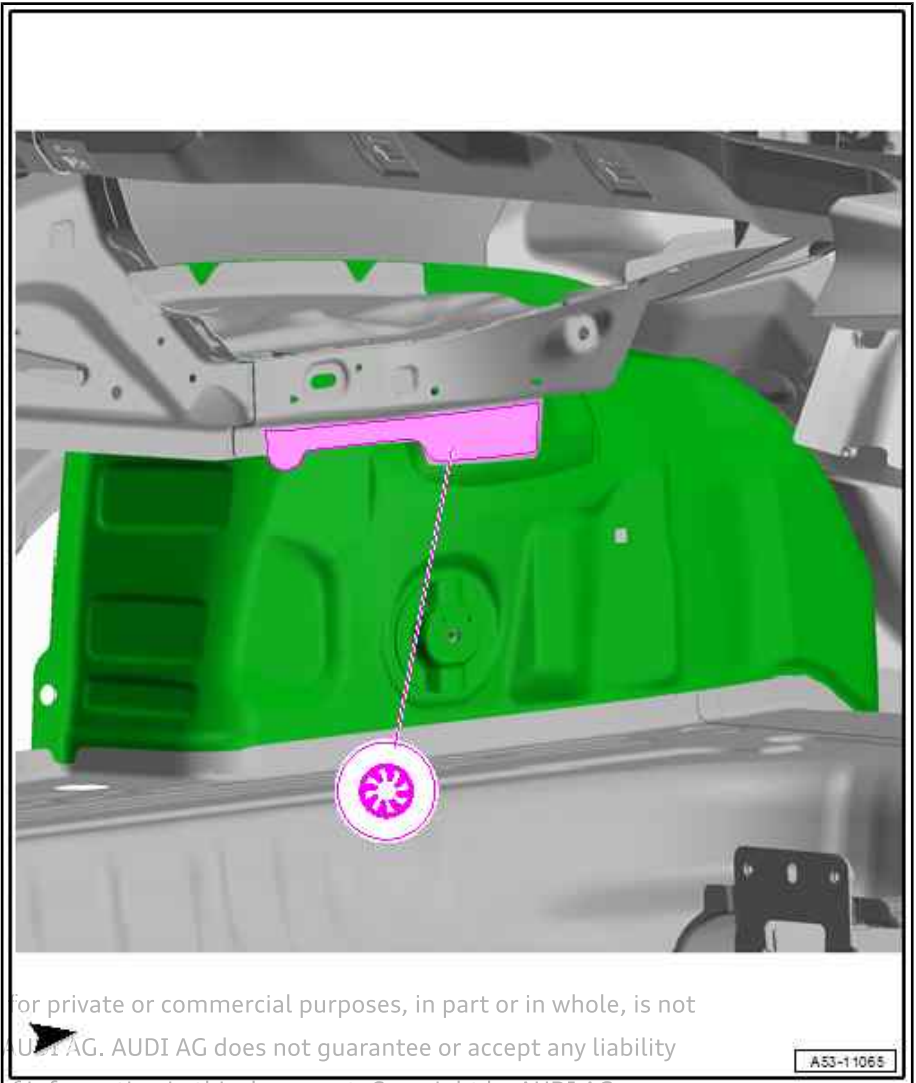
- With vehicle standing on alignment bracket set, match up wheel housing and fix in position.
- Weld in wheel housing using shielded arc welding equipment : SG plug weld seam.
- Weld in wheel housing using resistance spot welder : RP spot weld seam.



- Weld in wheel housing using shielded arc welding equipment :
SG plug weld seam.



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- Welding in side panel for convertible roof compartment
⇒ [page 202](#)
- Welding in outer wheel housing ⇒ [page 223](#)
- Welding in side panel ⇒ [page 190](#)