

Body Repair Audi TT 2007 >

Edition 09.2009



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Repair Group overview for Body Repairs

Repair Group

00 - General, Technical Data

50 - Body Front

51 - Body Center, Chassis, Roof

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 – General, Technical Data

1 General Information

⇒ [“1.1 General Information”, page 1](#)

⇒ [“1.2 Vehicle Data”, page 1](#)

⇒ [“1.3 Molded Foam Inserts”, page 3](#)

⇒ [“1.4 Aluminum Repairs”, page 4](#)

⇒ [“1.5 Steel Repairs”, page 4](#)

⇒ [“1.6 Body Construction”, page 5](#)

⇒ [“1.7 Corrosion Protection”, page 6](#)

⇒ [“1.8 Bonded Joints”, page 6](#)

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1.1 General Information

This repair manual only describes selected labor operations. Repairs using methods that differ from the original manufacturing process are described.

For labor items not described: cut the original joint and recreate it with the replacement part.

If sub-parts are delivered, fit them and butt weld them using a gas-shielded arc continuous weld seam.

Follow the information in ⇒ General Information; Body Repairs, Body Collision Repair I.

1.2 Vehicle Data

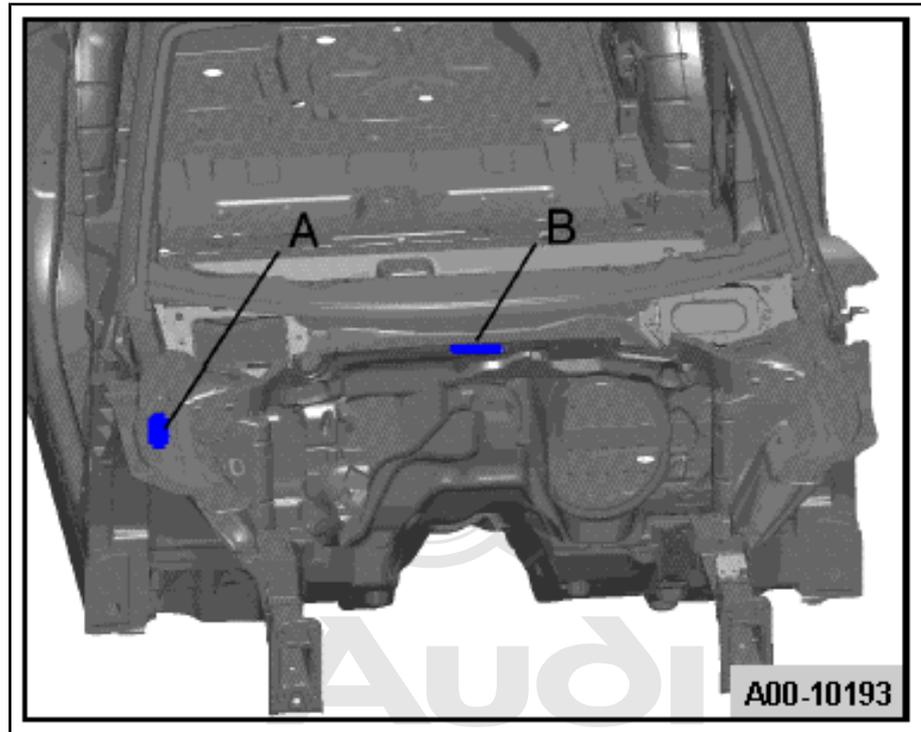
⇒ [“1.2.1 Type Plate/VIN”, page 1](#)

⇒ [“1.2.2 Vehicle Data Label”, page 2](#)

1.2.1 Type Plate/VIN

The VIN -B- is stamped into the plenum chamber bar piece.

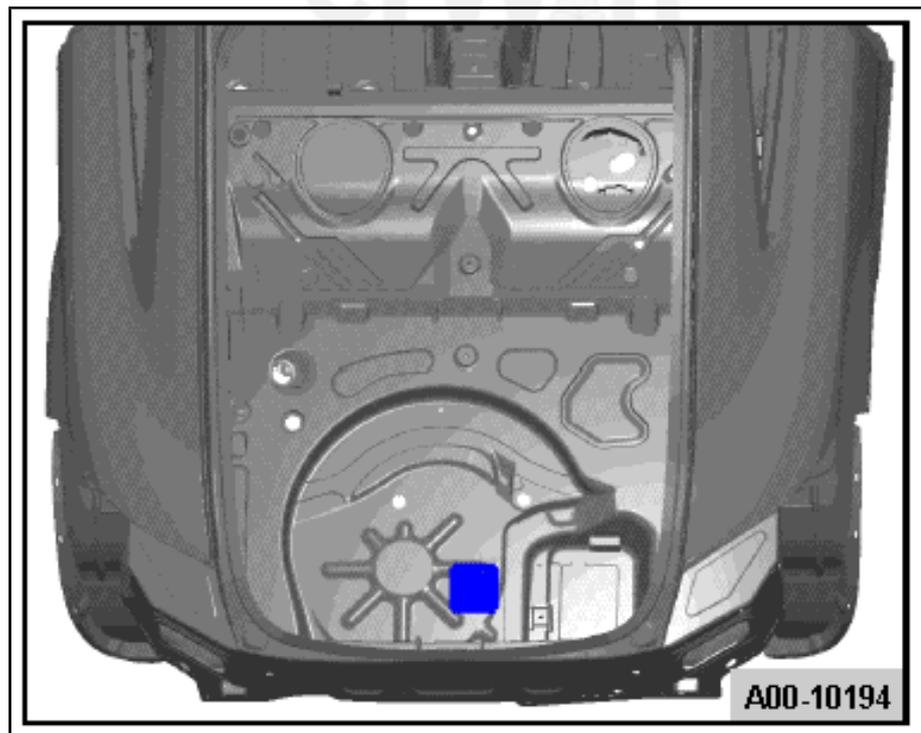
The type plate -A- is secured on the right fender mounting flange.



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1.2.2 Vehicle Data Label

The vehicle data label is located at the rear in the spare wheel well.



1.3 Molded Foam Inserts

On the Audi TT 2007, various hollow body spaces are equipped with molded foam parts.

The transfer of driving noises into the passenger compartment are reduced by molded foam parts.

Molded pieces are installed in the body shell work and increase in volume after priming in the paint drying-oven from approx. 356° F (180° C).



Caution

Replacement expanded foam inserts expand only after reaching 356° F (180° C). Because of this, filler foam is used for repairs.

Use spray foam D 506 KG1 A3 for these repairs.

Since this temperature is not reached under workshop conditions, proceed as follows:

Remove excess foam from vehicle.

Recreate paint structure, if necessary coat twice wet-on-wet with glass/paint primer D 009 200 02 - drying time approx. 10 min.

Precondition

Before these steps, body panel to be replaced must be prepared for installation, for example, cut, fitted, corrosion protection measures.

Replacing molded foam part

Install molded foam insert in vehicle.

Apply D 506 KG1 A3 foam to the replacement part.

Secure new part by gently press new part in foam area until it makes contact and then welding in.

The foam hardens within 25 minutes.

Do not gas-shield weld within 15 mm of foam

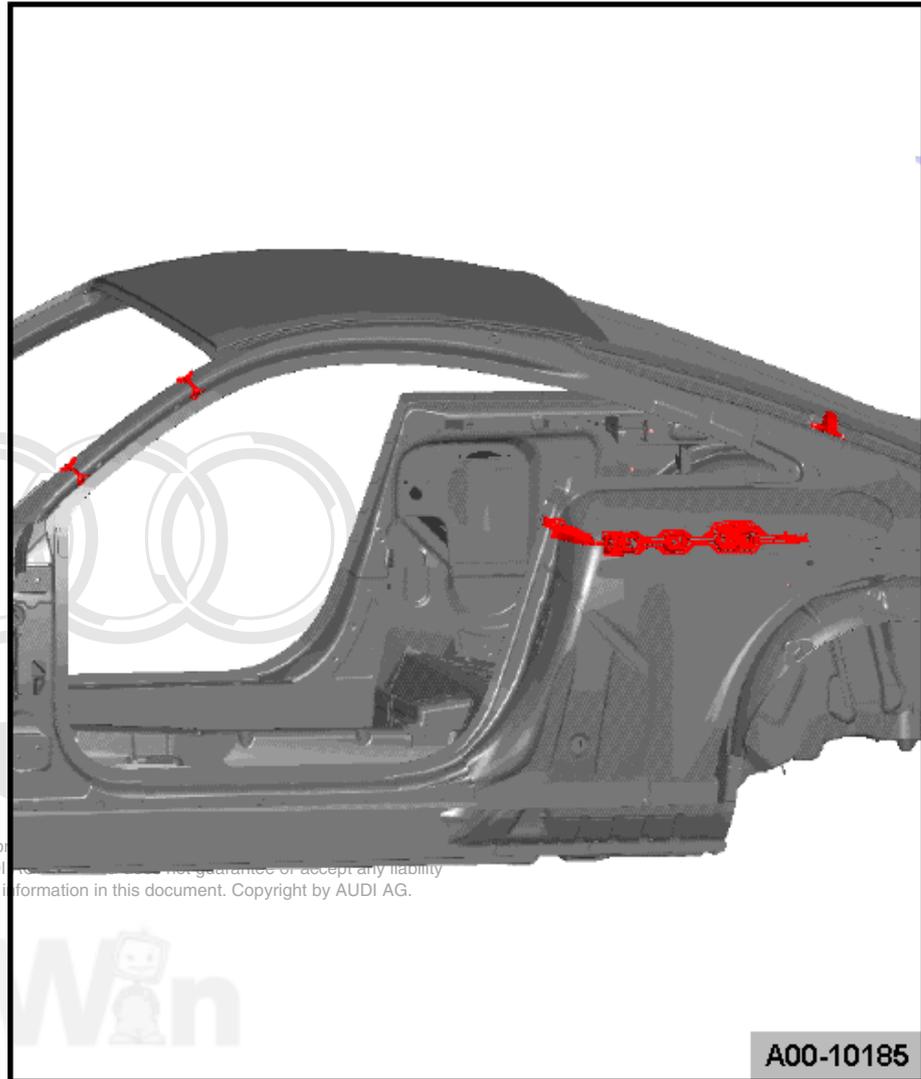
After painting vehicle, seal cavities in the area of the repair.

Placing expanded foam inserts



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1.4 Aluminum Repairs

The repair concept for the pure aluminum body components is similar to the repair procedures used on previous Audi aluminum vehicles.

New joining technology

Flow drill bolts

Flow drill bolts can be loosened easily in service and replaced with new bolts. If threads are damaged, there are oversize bolts. When inserting in new parts, they must be drilled first.

1.5 Steel Repairs



Note

We recommend performing the repairs in an Audi aluminum support center.

Basically, a repair of this type corresponds to the procedure on all steel vehicles. However, due to the risk of contact corrosion on aluminum body components, special precautionary measures must be taken. Sanding dust from steel parts, especially flying sparks generated by separating or welding work, must not fall

onto aluminum components. That also applies to painted aluminum components! Glowing steel parts can damage the paint and the steel part can come into contact with the aluminum body component which can lead to contact corrosion on the undamaged aluminum body. Therefore, the entire body must be carefully protected when carrying out steel repairs. This is done by using suitable cover mats and adhesive. In addition, separating work must only be done with the body repair saw or shears. If sanding cannot be avoided, it must be done with sanding discs that generate no or only minimal sparks.

1.6 Body Construction

The Audi TT 2007 is an ASF aluminum-steel body.

The repair concept is based on the familiar aluminum repair concept in which the combination of aluminum and steel requires new procedures.

This Workshop Manual describes standard repairs and repairs carried out using repairs methods which deviate from the original manufacturing process.

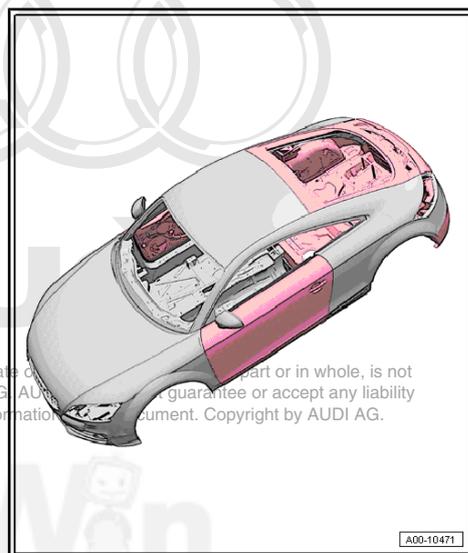
Note the following for any repairs which are not described:

Separate original joint with original replacement parts. Recreate original joint, refer to ⇒ General Information; Body Repairs, Body Collision Repair

Aluminum Panels

Hood, plenum chamber, front end center areas of the body marked with gray are made of aluminum.

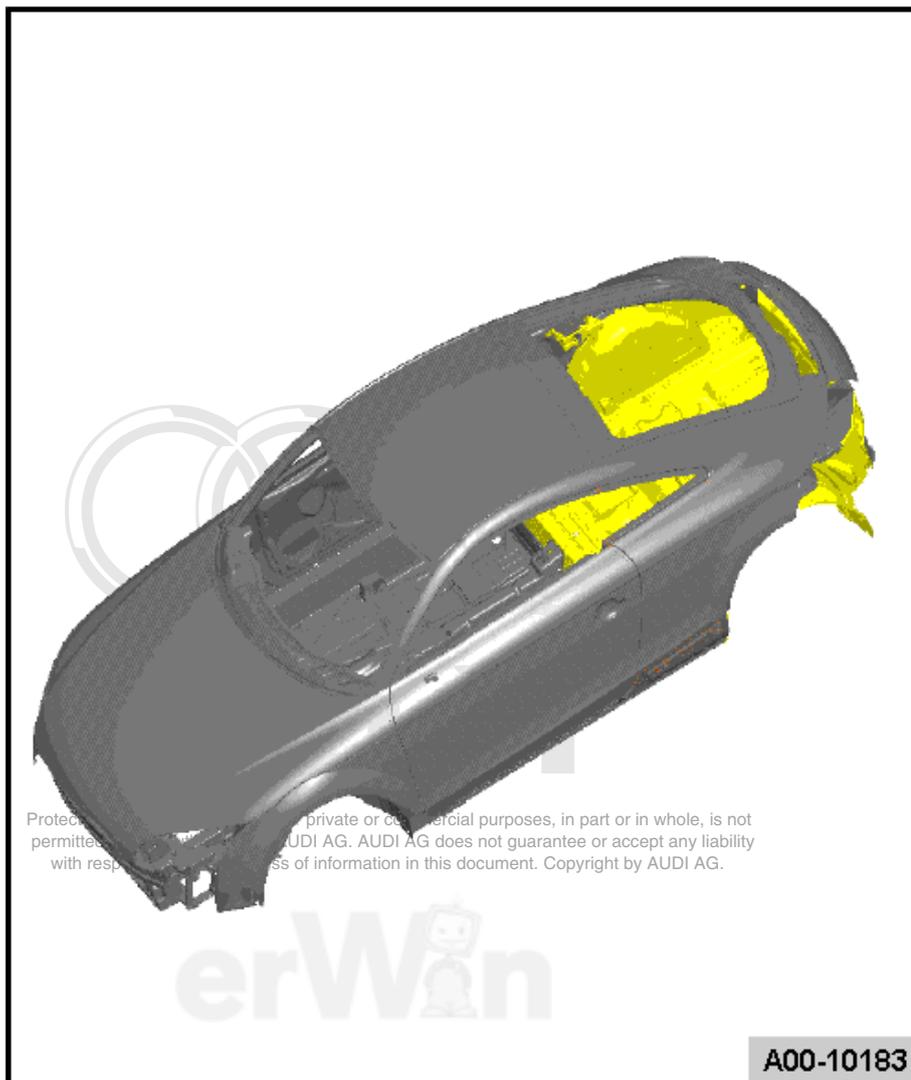
High-Strength Body Panels



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In the following areas of the body, high-strength body panels are utilized:

Steel marked in yellow has a tensile strength of 340 — 500 N / mm



1.7 Corrosion Protection

The rear of the vehicle is made of panels galvanized on both sides. Certain areas are cavity-sealed and must be re-sealed after completing repair work.

1.8 Bonded Joints

⇒ ["1.8.1 Bonded Joints", page 7](#)

⇒ ["1.8.2 Spot-Welded Bonded Joints", page 7](#)

⇒ ["1.8.3 Bonded Joints, Inspecting and Repairing", page 7](#)

⇒ ["1.8.4 Repair Methods for Removing and Installing Body Components", page 7](#)



Note

On the Audi TT, adhesive and spot weld points are placed on the body to increase strength.

1.8.1 Bonded Joints

In bonded joints, the sheet metal parts are only bonded by adhesive.

1.8.2 Spot-Welded Bonded Joints

In spot-welded bonded joints, an electrically conductive adhesive is used between the panels, allowing good root penetration for spot welding.

The welding current must not be increased for spot-weld bonding operations. The pre-press period must be extended to approximately 30 - 50 cycles because of the displacement of the adhesive. The fumes produced must be exhausted.

Spot-weld bonding is not performed in the service sector.

1.8.3 Bonded Joints, Inspecting and Repairing

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

Note the following points: Do not use a chisel to test the strength of a joint and do not relieve stresses by hammering, as this will destroy the bonded joint.

These areas should be inspected particularly closely when diagnosing collision damage and after performing straightening work.

If the joint is not accessible with pop rivets, it must be repaired with a gas-shielded arc weld seam. In this case, the entire area of the joint must be welded again, as the heat produced by welding destroys the adhesive in the bonded joint. The gas-shielded arc weld seams should be welded working from the thinner to the thicker panel. When doing so, the fumes must be exhausted.

1.8.4 Repair Methods for Removing and Installing Body Components

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 welded seams as originally used in production, because 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 weld points, these should be applied in a single operation.*
- ◆ *Do not place new spot welds in between the original spot welds.*
- ◆ *Gas-shielded arc plug welding should only be performed after spot-welding.*
- ◆ *This prevents any increased shunt current when spot-welding.*

Ensure good root penetration at all joints.

Seal off repaired joint flanges and apply cavity sealant.

2 Specifications

⇒ "2.1 Body Gap Dimensions", page 8

⇒ "2.2 Body Panel Dimensions", page 10

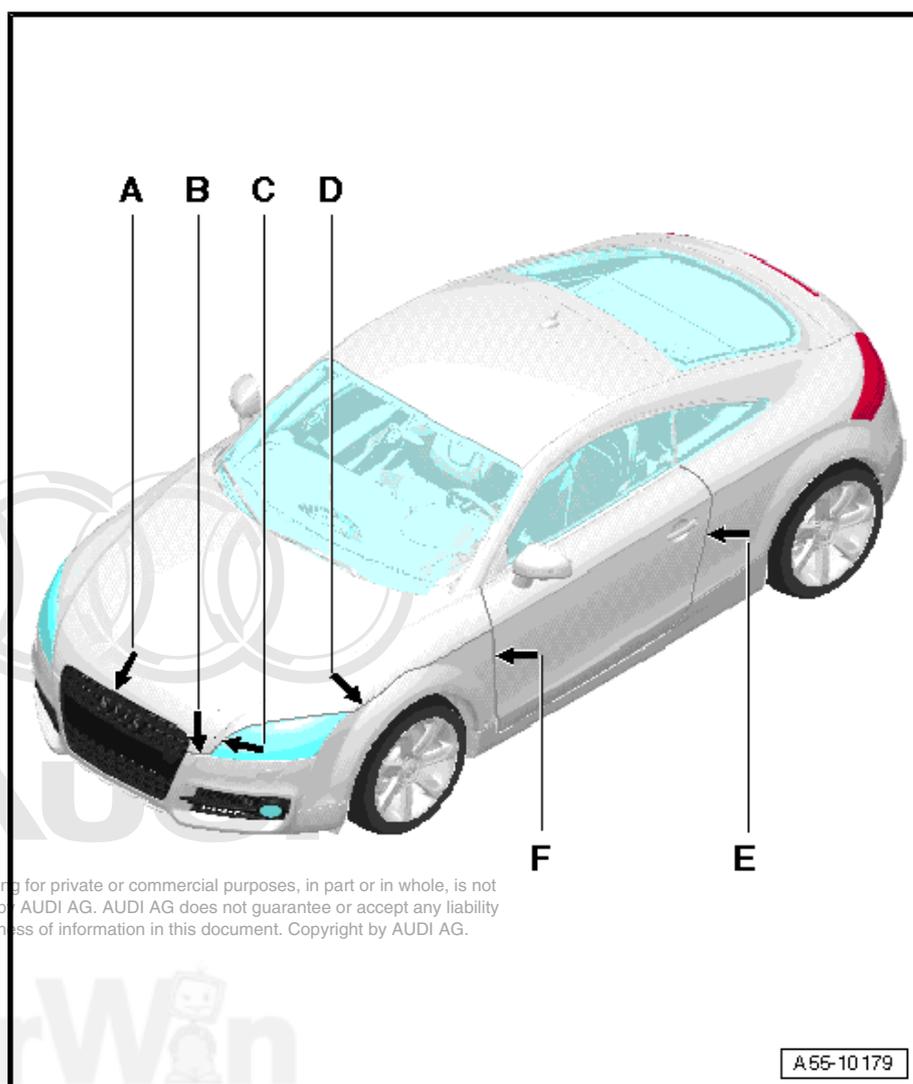
2.1 Body Gap Dimensions

Special tools and workshop equipment required

- ◆ Adjusting gauge -3371-

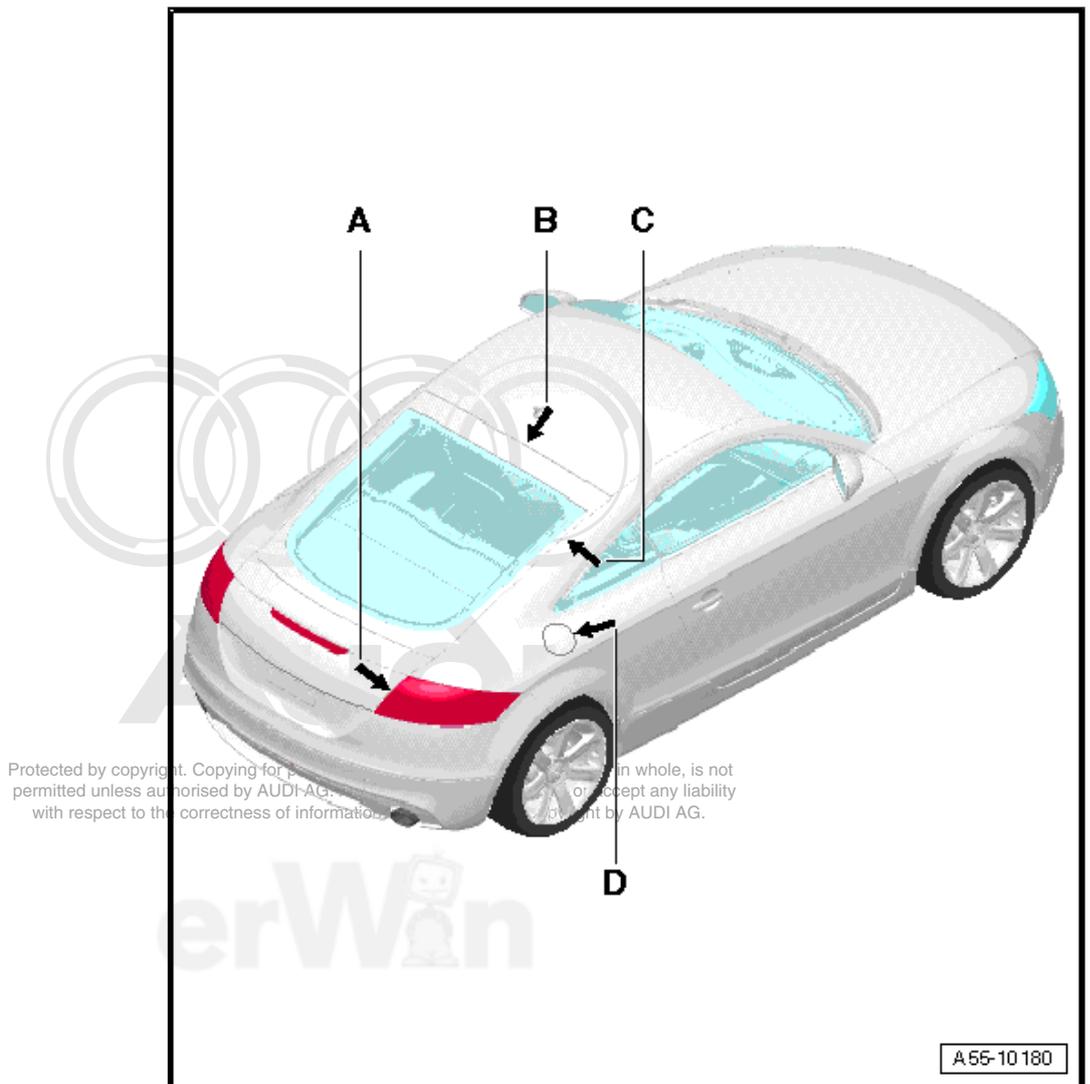
Body, Front and Center

- ◆ Dimension A = 4.5 mm ± 0.5 mm
- ◆ Dimension B = 4.5 mm ± 0.5 mm
- ◆ Dimension C = 3.5 mm ± 0.5 mm
- ◆ Dimension D = 3.5 mm ± 0.5 mm
- ◆ Dimension E = 3.5 mm ± 0.5 mm
- ◆ Dimension F = 3.5 mm ± 0.5 mm
- ◆ Make sure all gaps are parallel to body



Body, Rear

- ◆ Dimension A = 4.0 mm ± 0.5 mm
- ◆ Dimension B = 4.5 mm ± 0.5 mm
- ◆ Dimension C = 3.5 mm ± 0.5 mm
- ◆ Dimension D = 2.0 mm ± 0.5 mm
- ◆ Make sure all gaps are parallel to body



2.2 Body Panel Dimensions

⇒ [“2.2.1 Front Floor Assembly”, page 10](#)

⇒ [“2.2.2 Rear Floor Assembly”, page 11](#)

⇒ [“2.2.3 Body, Front”, page 12](#)

⇒ [“2.2.4 Body, Center”, page 14](#)

⇒ [“2.2.5 Body, Rear”, page 15](#)

2.2.1 Front Floor Assembly

Distance between rear attachment points of front suspension

-a- 836 ± 2 mm

Distance between front longitudinal members (front)

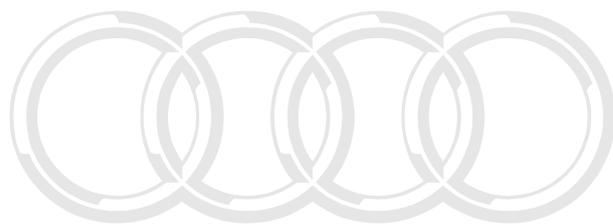
-b- 899 ± 2 mm

Distance between front attachment points of front suspension

-c- 873 ± 2 mm

Diagonal dimension between front longitudinal member and attachment points of front suspension

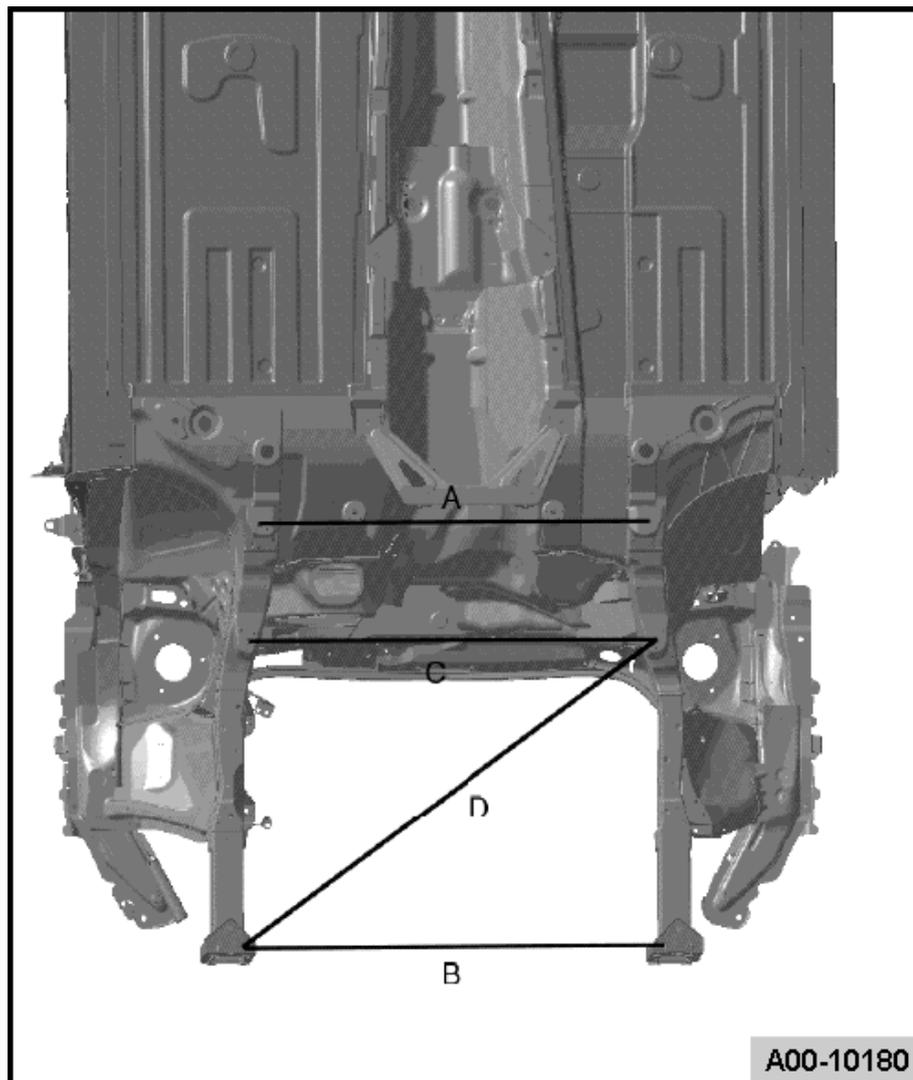
-d- 1084 ± 2 mm



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A00-10180

2.2.2 Rear Floor Assembly

Distance between rear longitudinal members (rear)

-a- 978 ± 2 mm

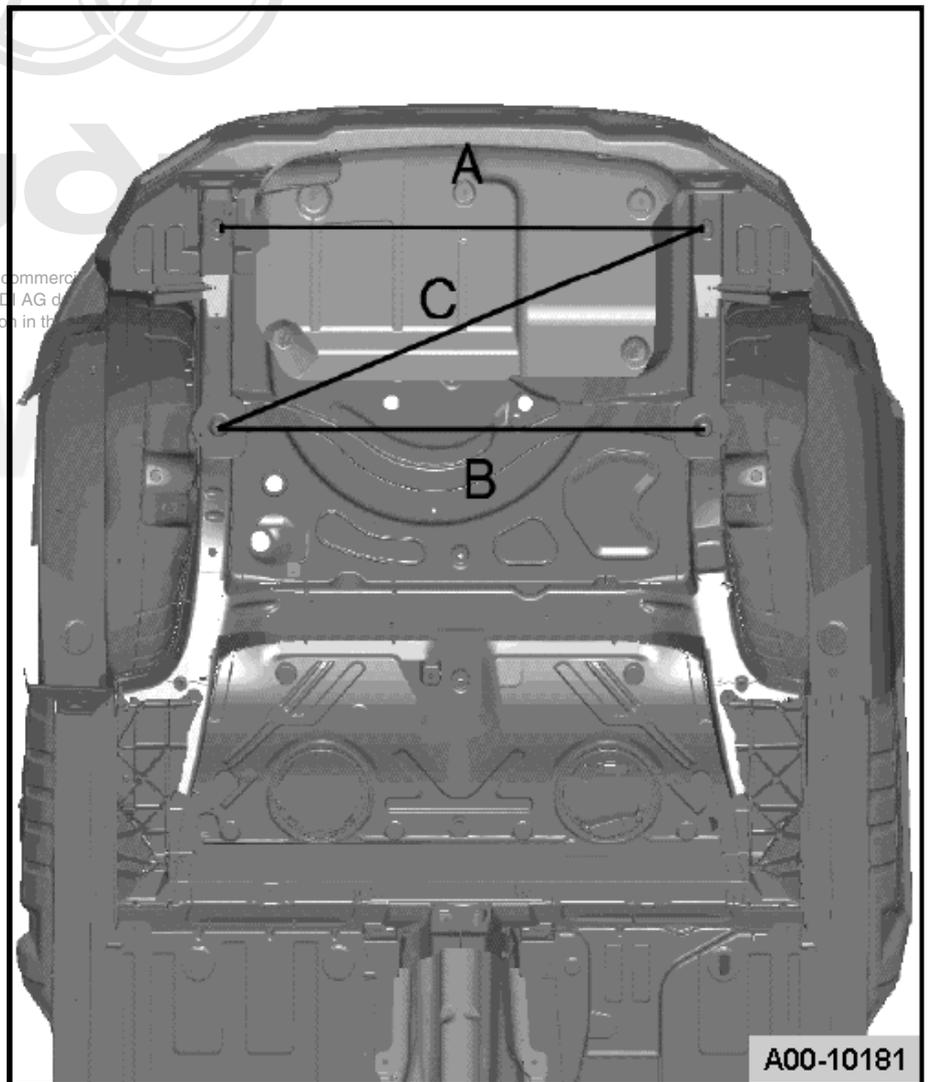
Distance between rear longitudinal members (front)

-b- 980 ± 2 mm

Diagonal dimension between longitudinal member (front) and longitudinal member (rear)

-c- 1049 ± 2 mm

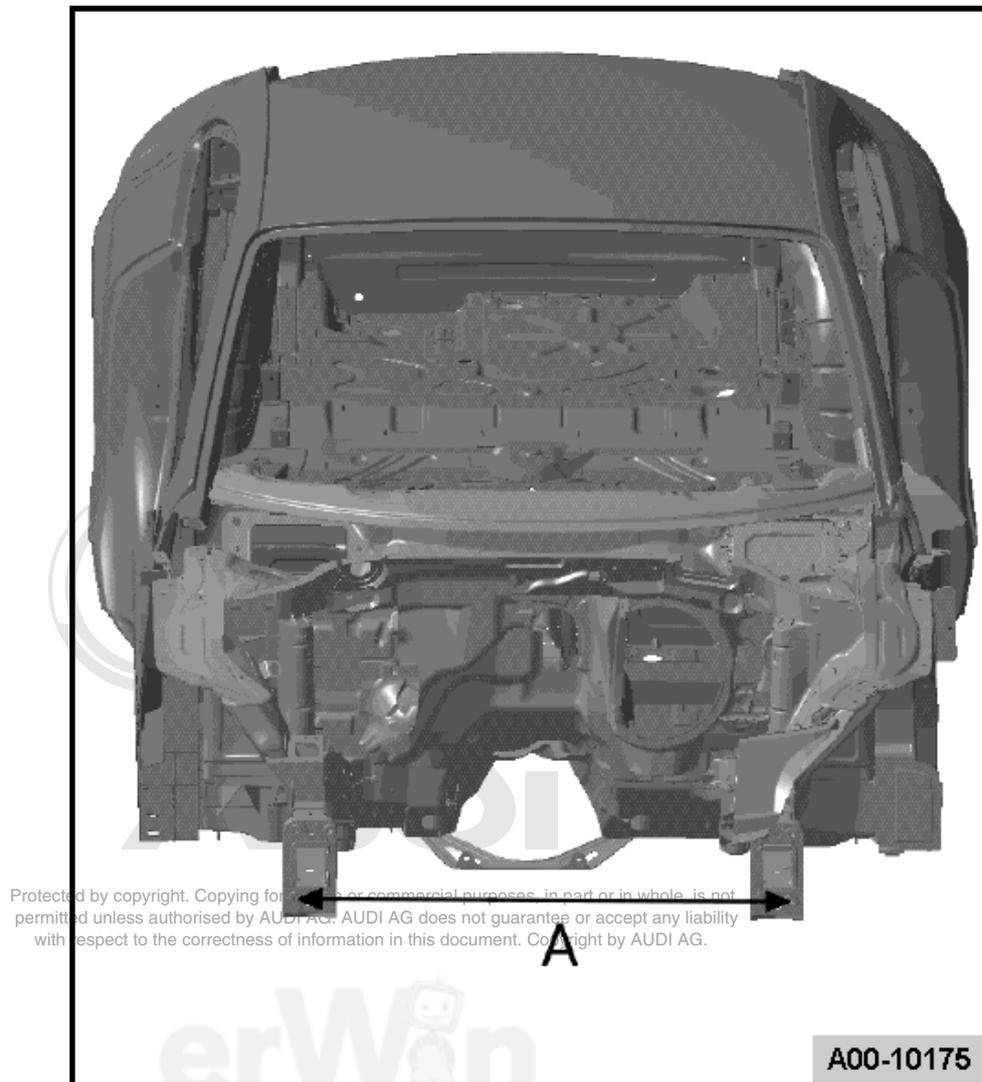
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2.2.3 Body, Front

Distance between front longitudinal members

-a- 1018 ± 2 mm



Distance between suspension strut mountings

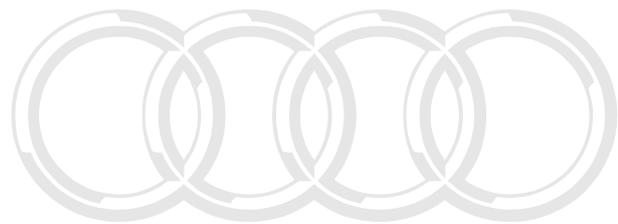
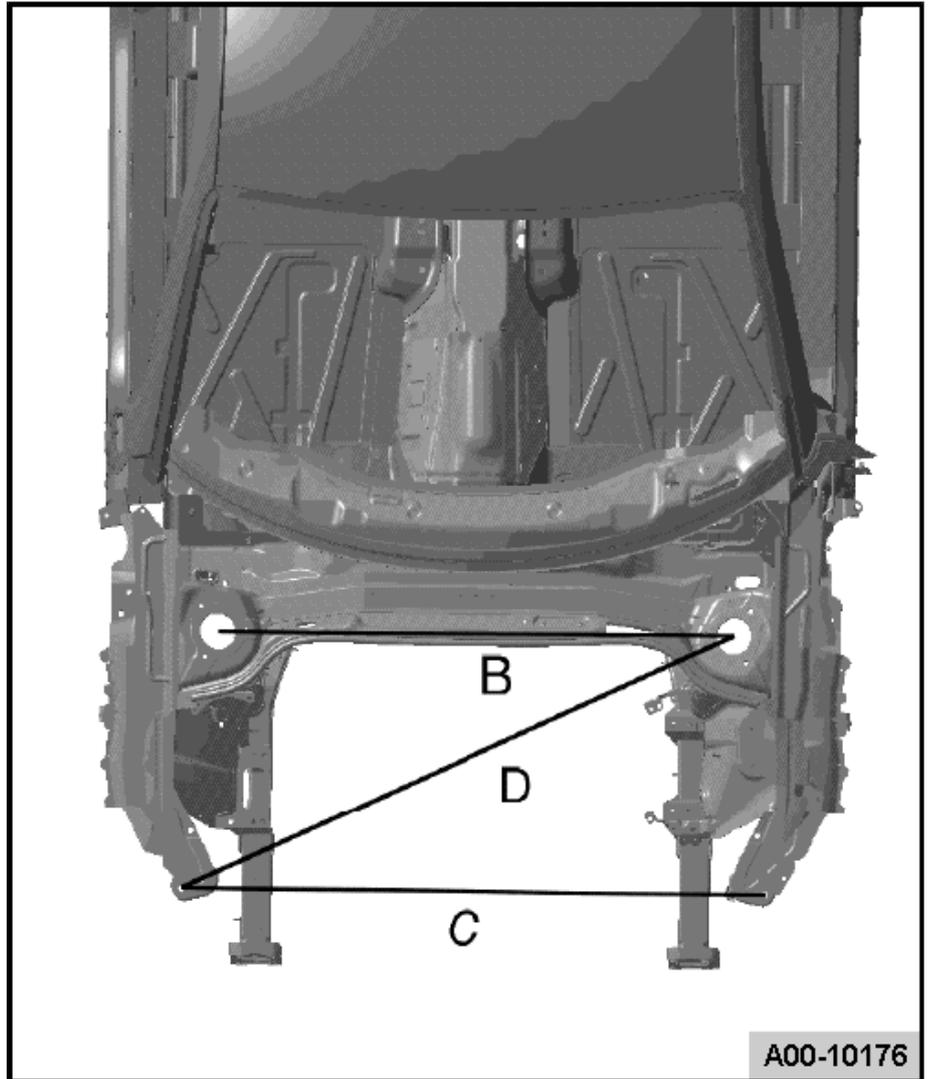
-b- 1129 ± 2 mm

Distance between fender mountings

-c- 1271 ± 2 mm

Diagonal dimension between suspension strut mounts and fender mount

-d- 1317 ± 2 mm



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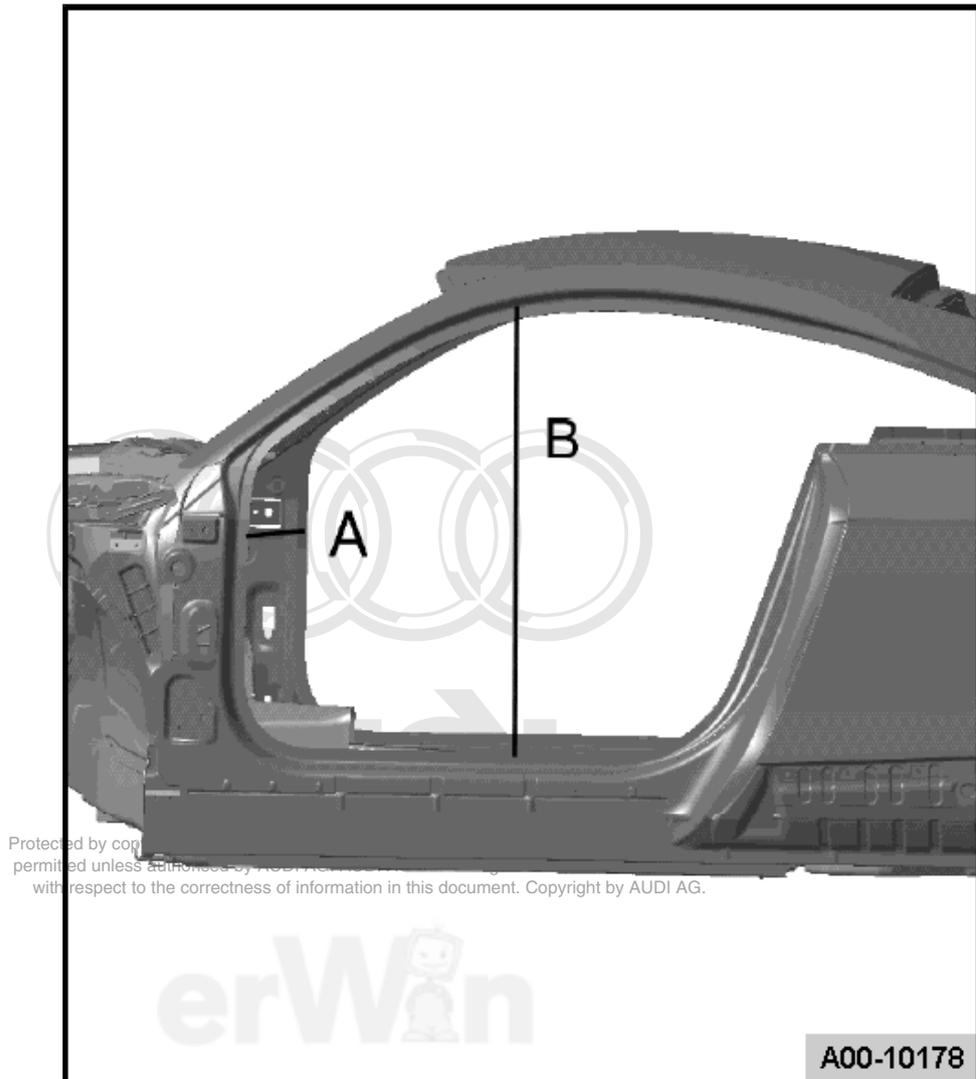
2.2.4 Body, Center

Distance between A-pillars

-a- 1534 ± 2 mm

High door opening

-b- 935 ± 2 mm



2.2.5 Body, Rear

Distance between rear longitudinal members

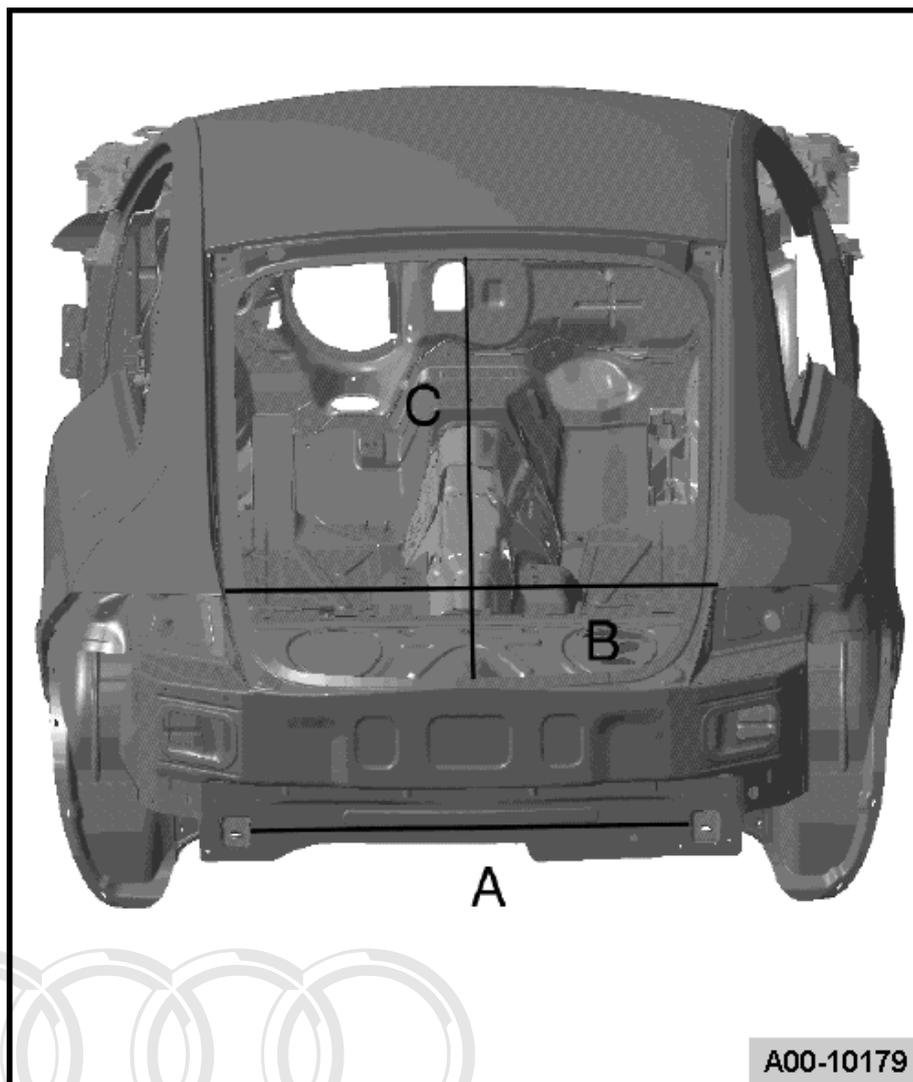
-a- 1044 ± 2 mm

Distance between side panels

-b- 913 ± 2 mm

Distance between rear cross panel flange and roof flange

-c- 1269 ± 2 mm



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3 Special Tools

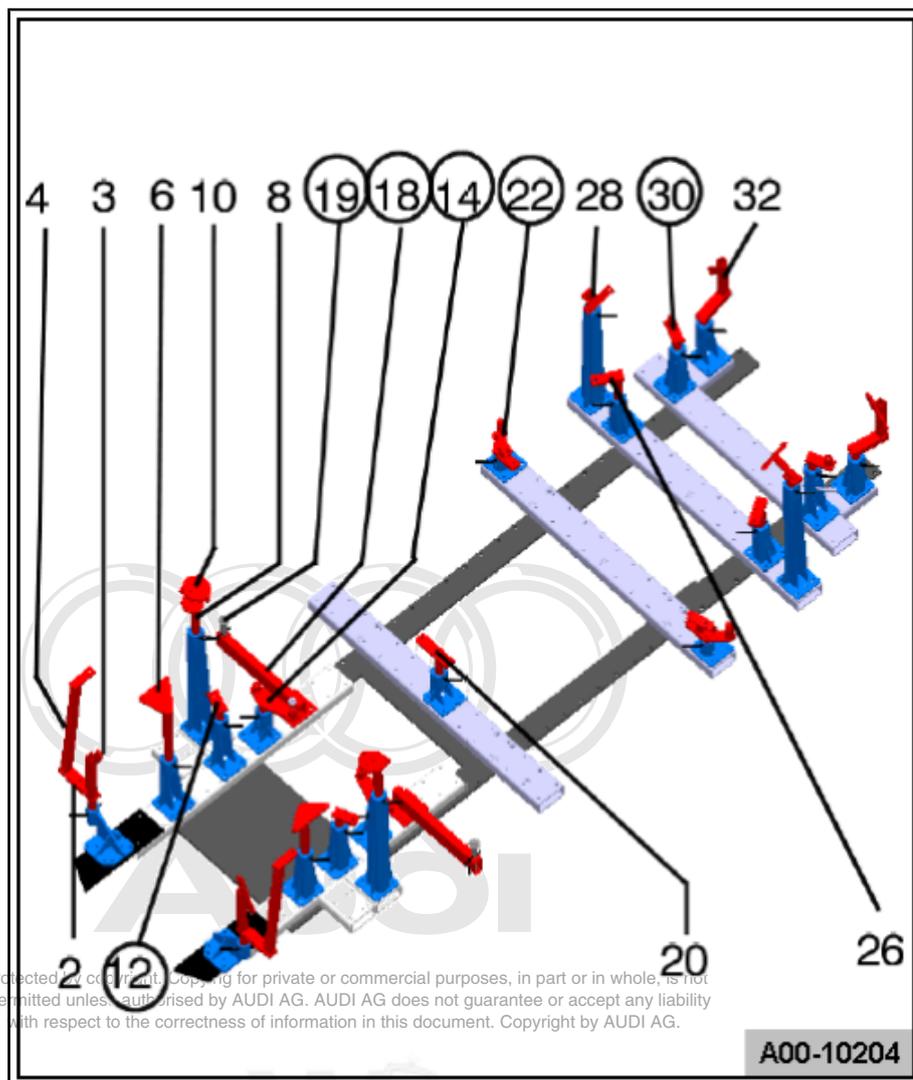
⇒ "3.1 Straightening Rack", page 16

3.1 Straightening Rack

⇒ "3.1.1 Overview", page 16

⇒ "3.1.2 Portal Gauge", page 29

3.1.1 Overview



 **Note**

- ◆ *The position numbers in the illustrations are identical to the end numbers on the alignment bracket mountings.*
- ◆ *The position numbers of the alignment bracket mountings are circled for checking the body with and without the assembly.*
- ◆ *Check alignment bracket clearance before positioning on straightening rack. If necessary, adjoining components should be loosened or removed.*
- ◆ *The required basic size is indicated for the alignment bracket mountings.*

Audi TT -VAS 6384- alignment bracket set

2 - MZ 142 and TV 400

3 - Spacer

4 - MZ 142 and alignment bracket mounting

6 - MZ 260

8 - MZ 602

10 - Spacer

12 - MZ 260

14 - MZ 140

16 - Centering piece, same on left and right

18 - Bracket without MZ and alignment bracket mounting

20 - MZ 140

22 - MZ 080

24 - MZ 080 and 22

25 - Spacer

26 - MZ 200

28 - MZ 602

30 - MZ 260

32 - MZ 200

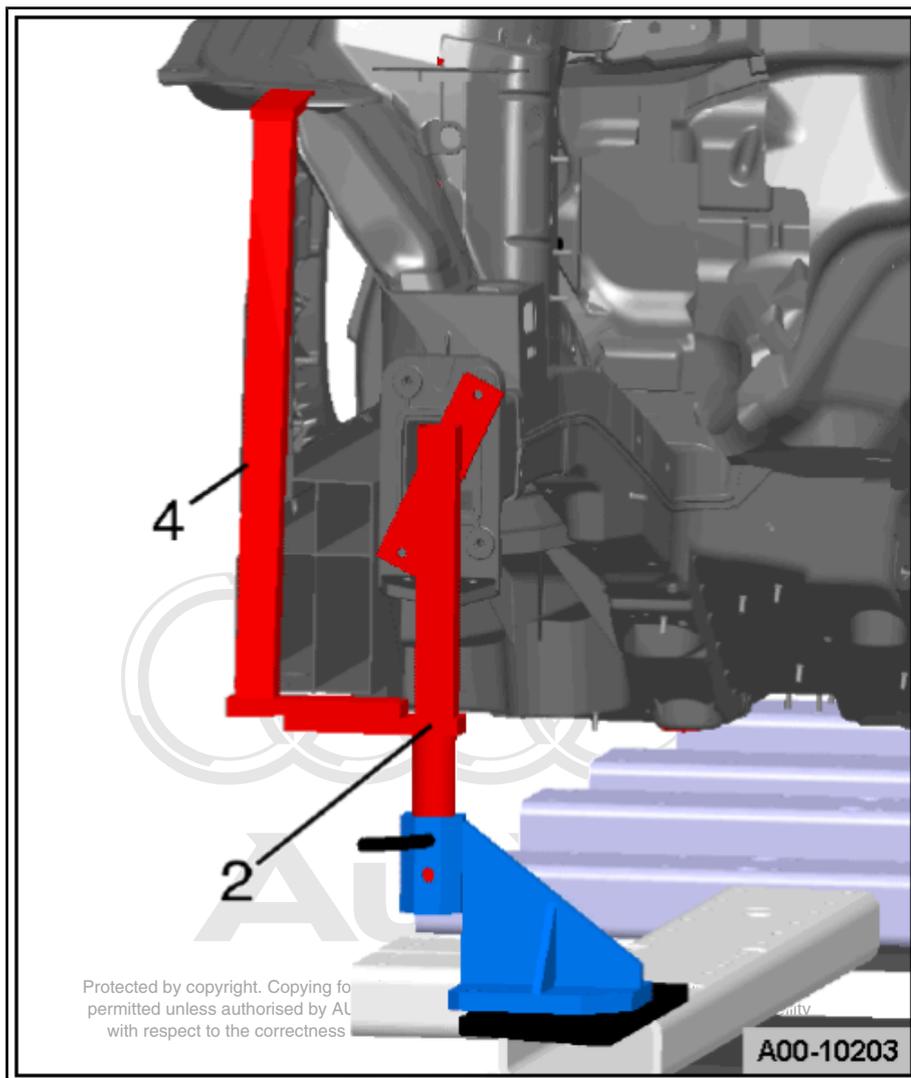
Overview of alignment bracket positions with MZ elements for vehicles with installed assemblies.

Overview of front alignment bracket positions


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2 - Front longitudinal member

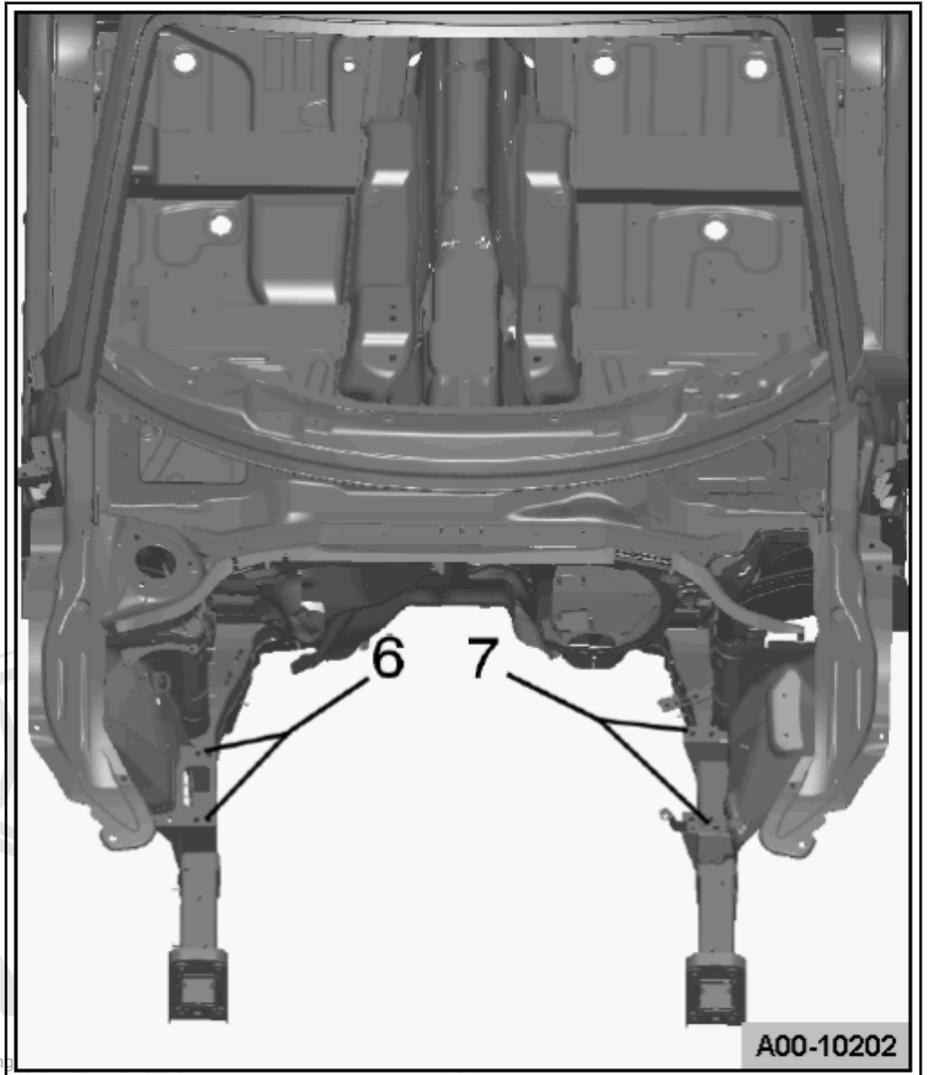
When checking, bolt on MZ last, because position of impact damper mounting varies several millimeters in the longitudinal direction due to production tolerances. It may be necessary to work without the MZ.

3 - Front longitudinal member / Wheel housing (top)

Overview of front alignment bracket positions

6 - Engine carrier mounting

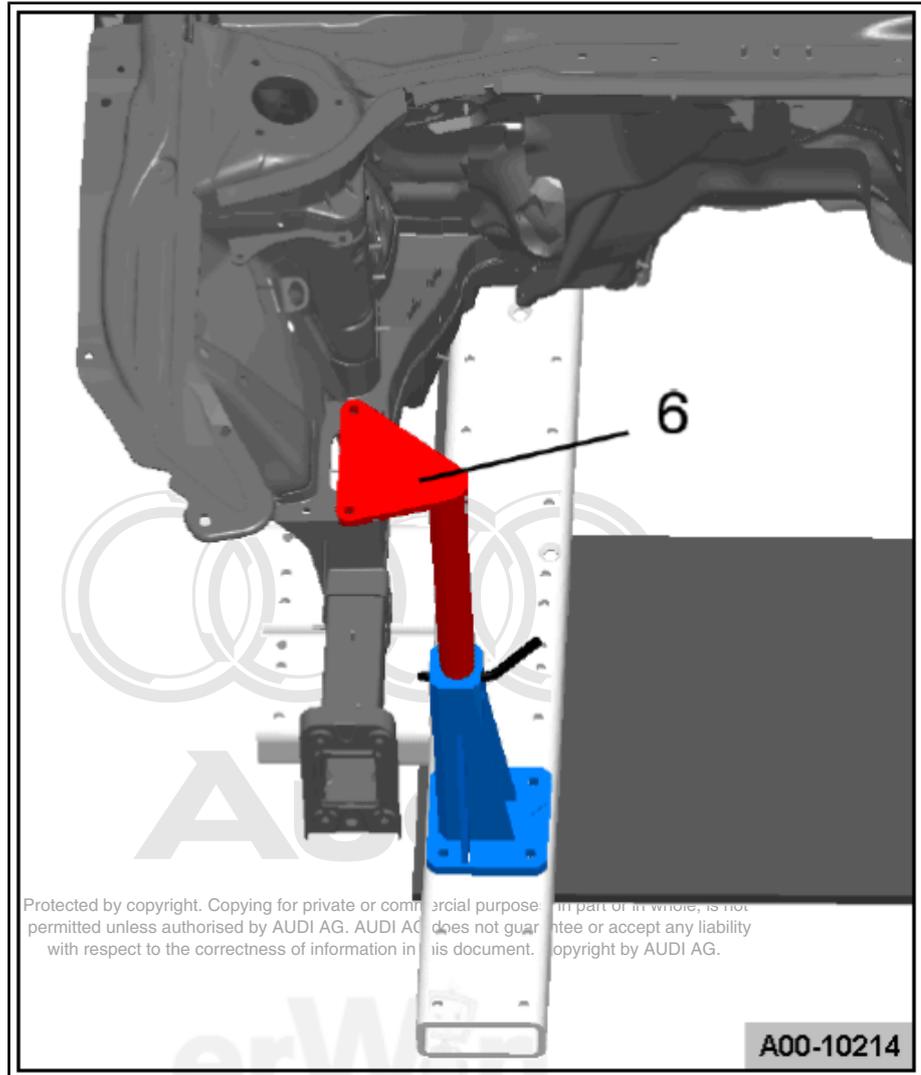
7 - Engine carrier mounting



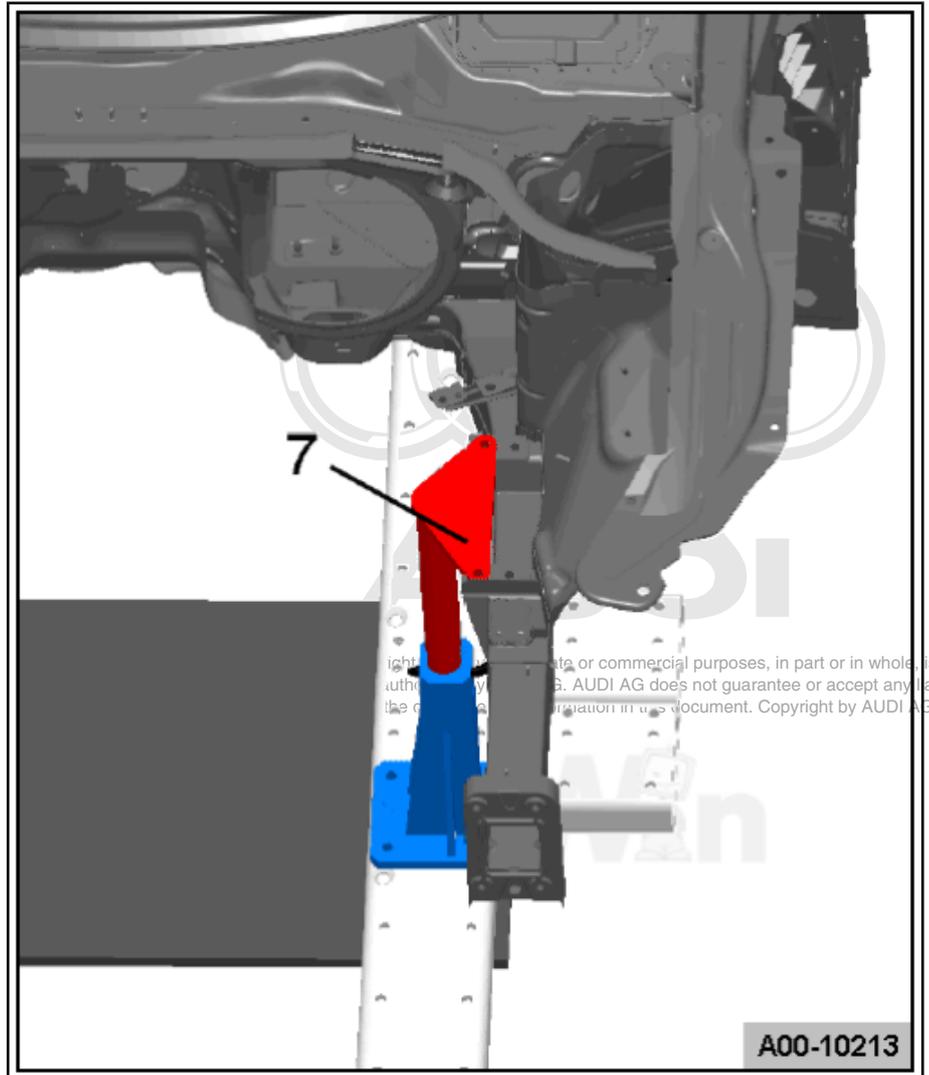
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Overview of front alignment bracket positions



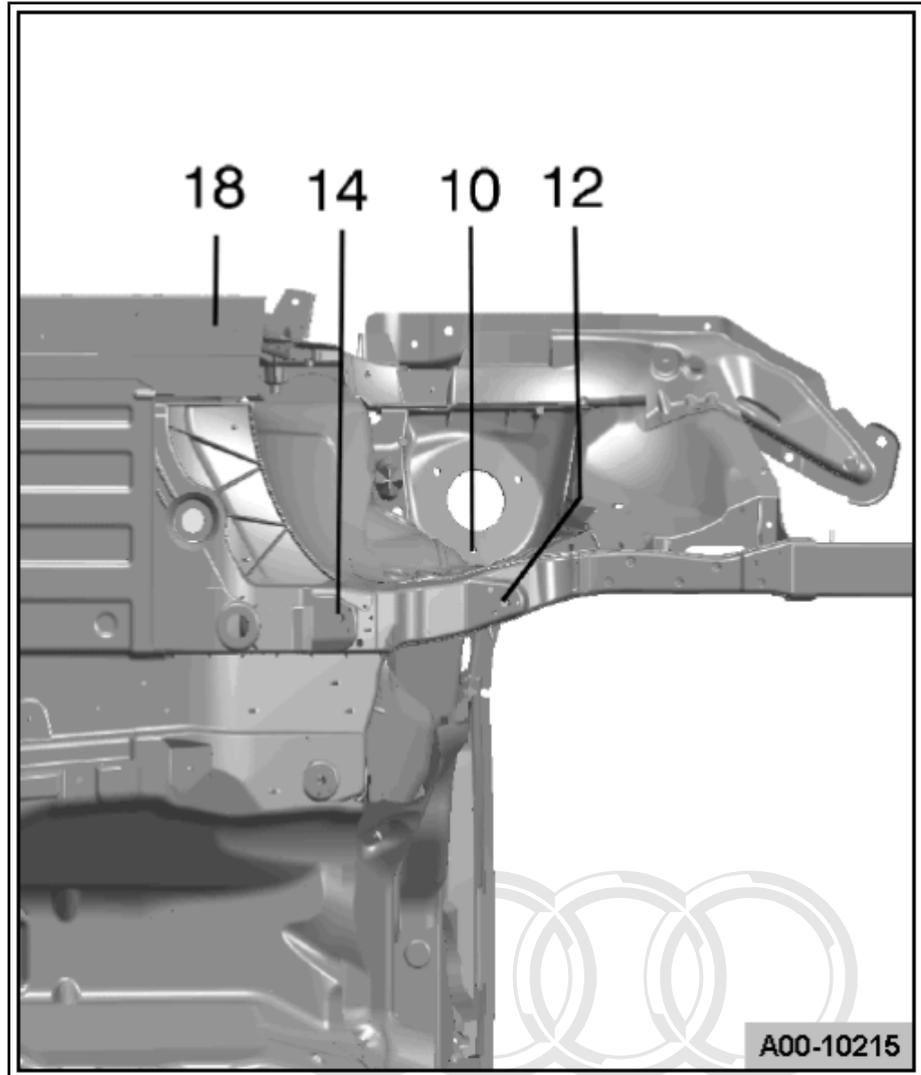


6 - Transmission console



7 - Engine console

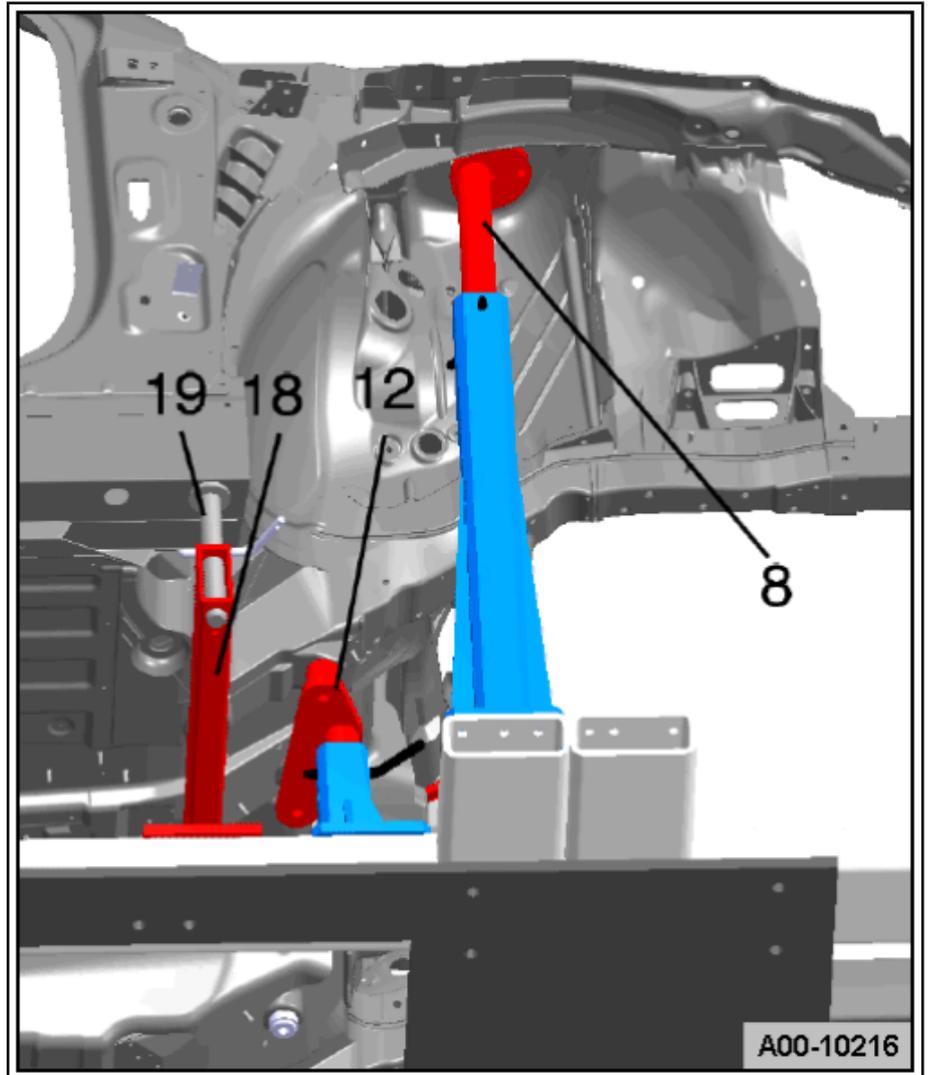
Overview of front alignment bracket positions



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8 - Suspension strut mounting

12 - Subframe mounting

18 - Side member mounting

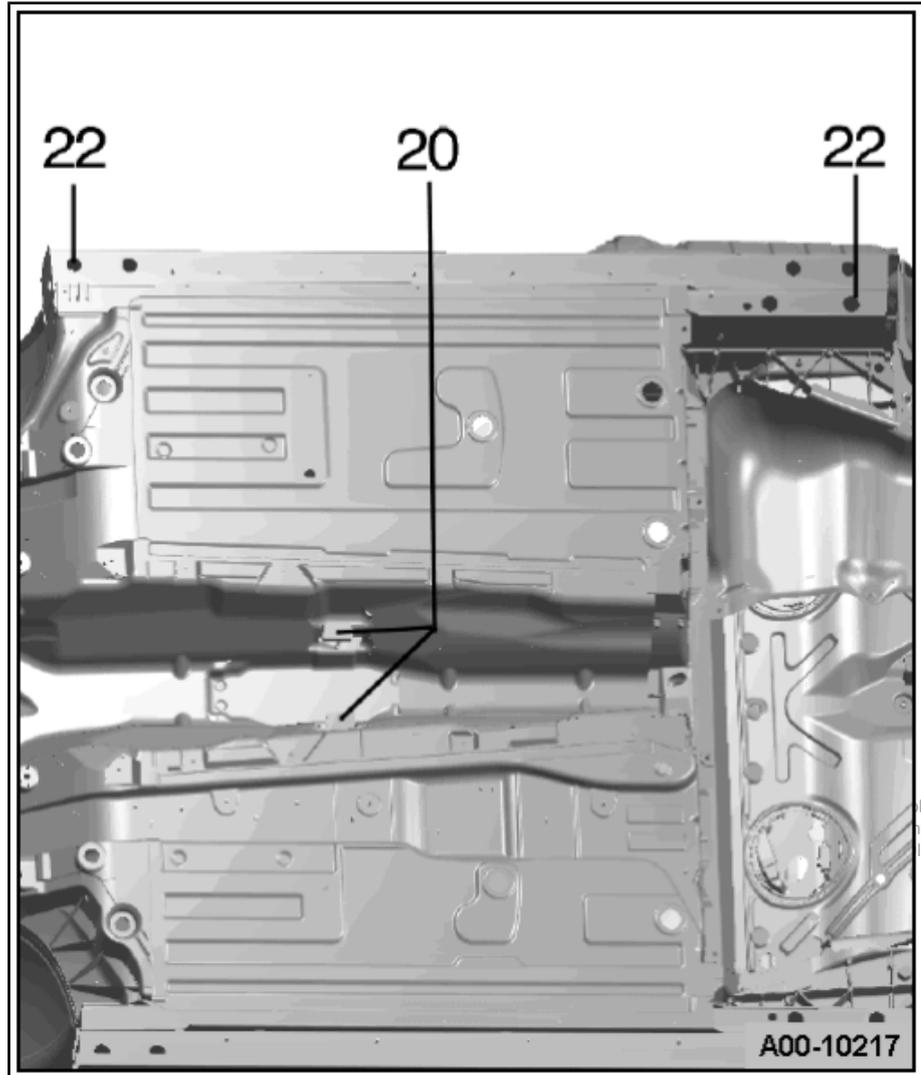
Overview of central alignment bracket positions



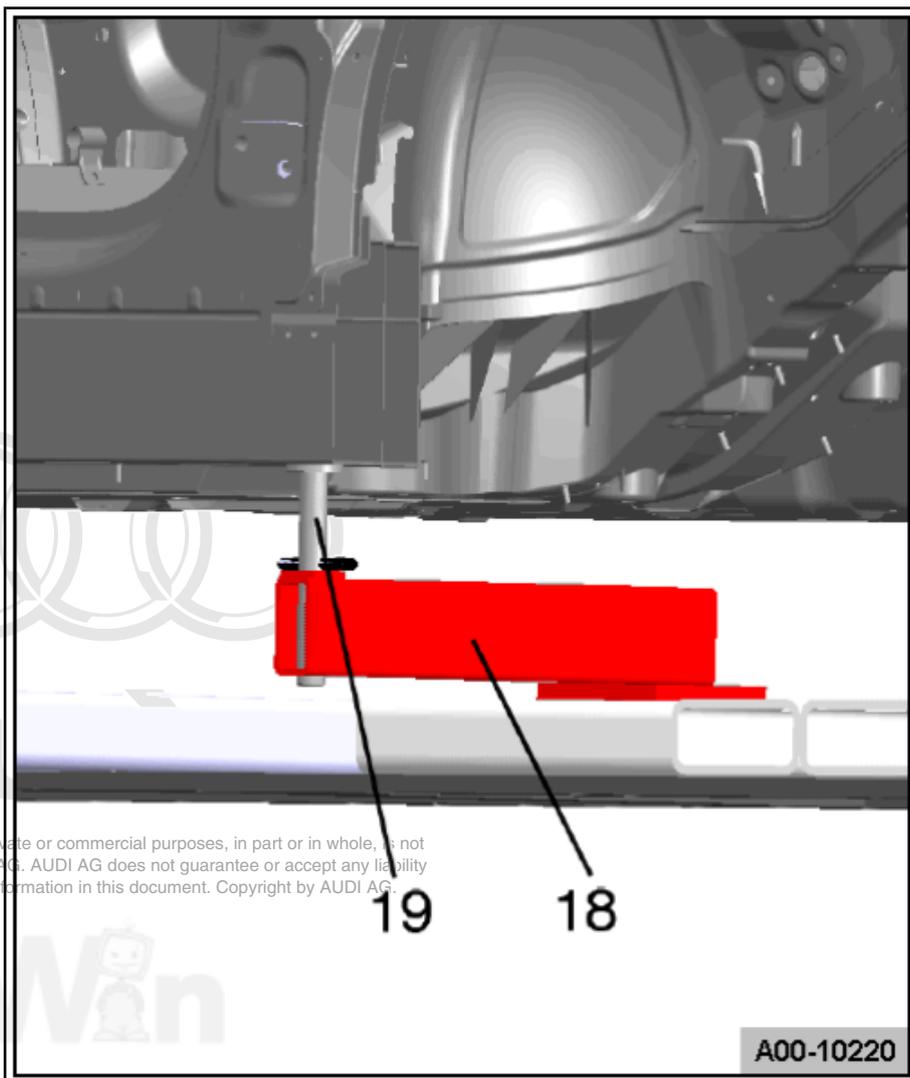
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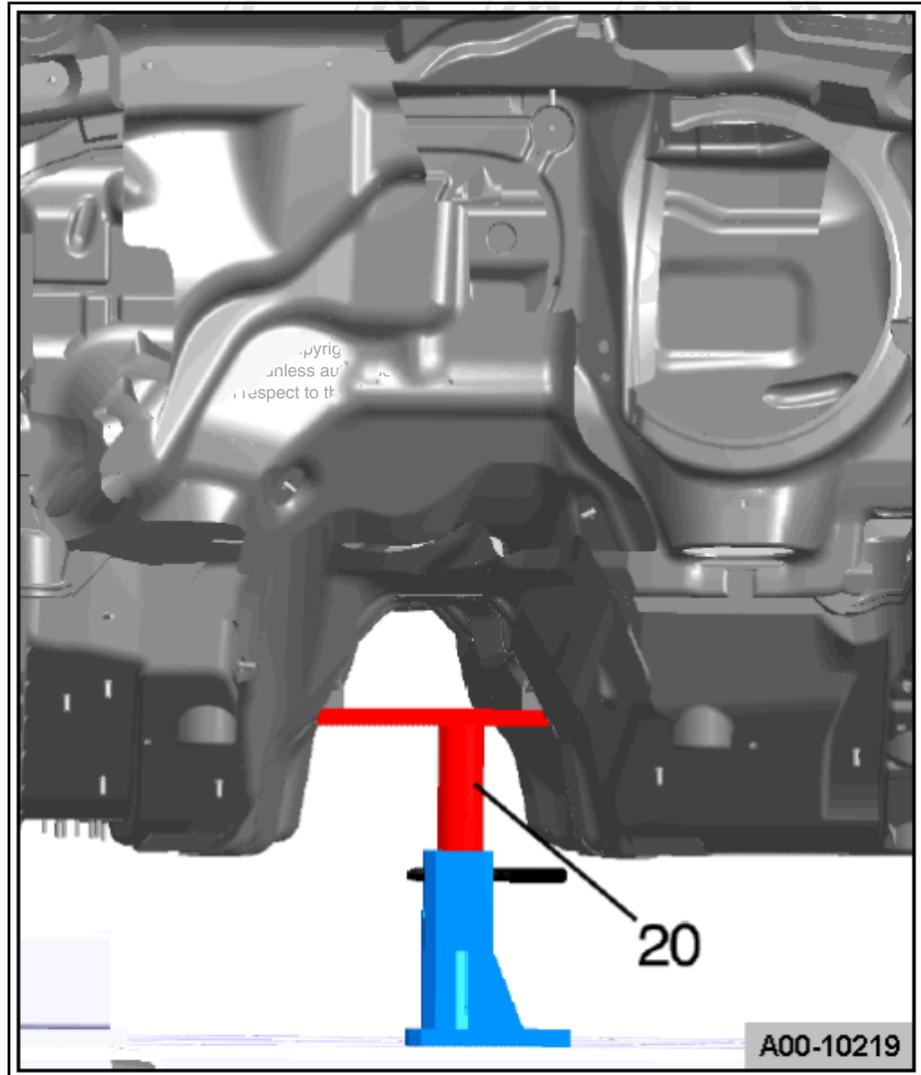




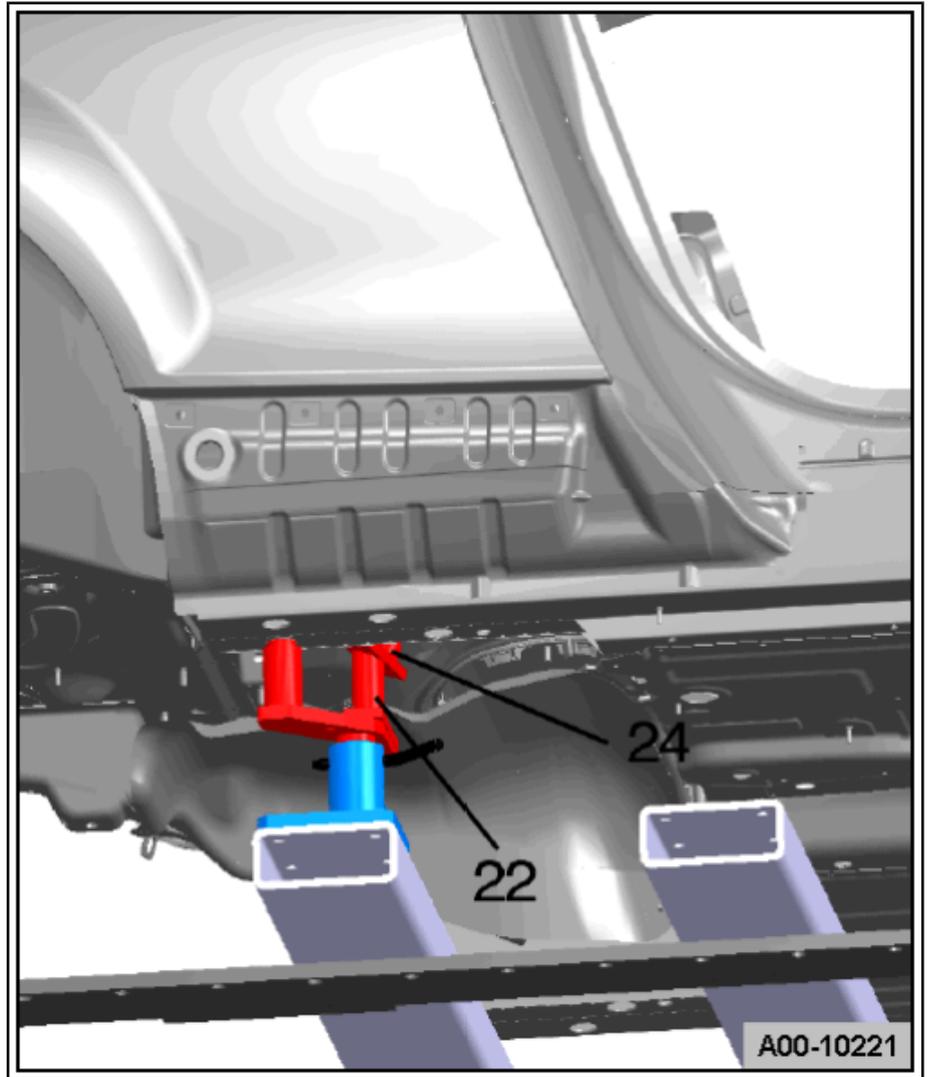
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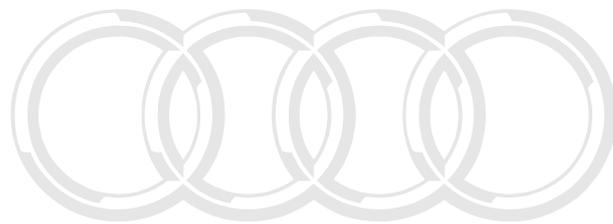
- 18 - Side member mounting
- 19 - Spacer, same on left and right



20 - Driveshaft mount



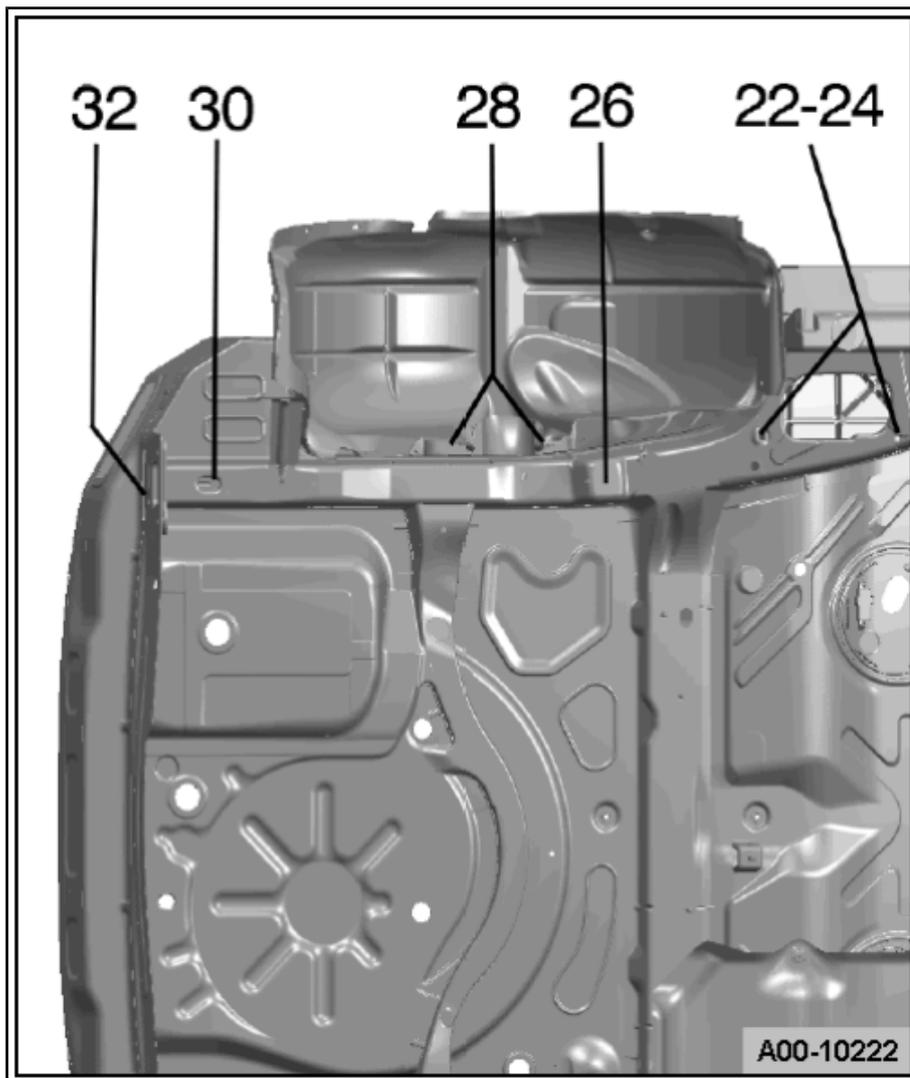
22 -24 - Rear suspension strut mount
Overview of rear alignment bracket positions



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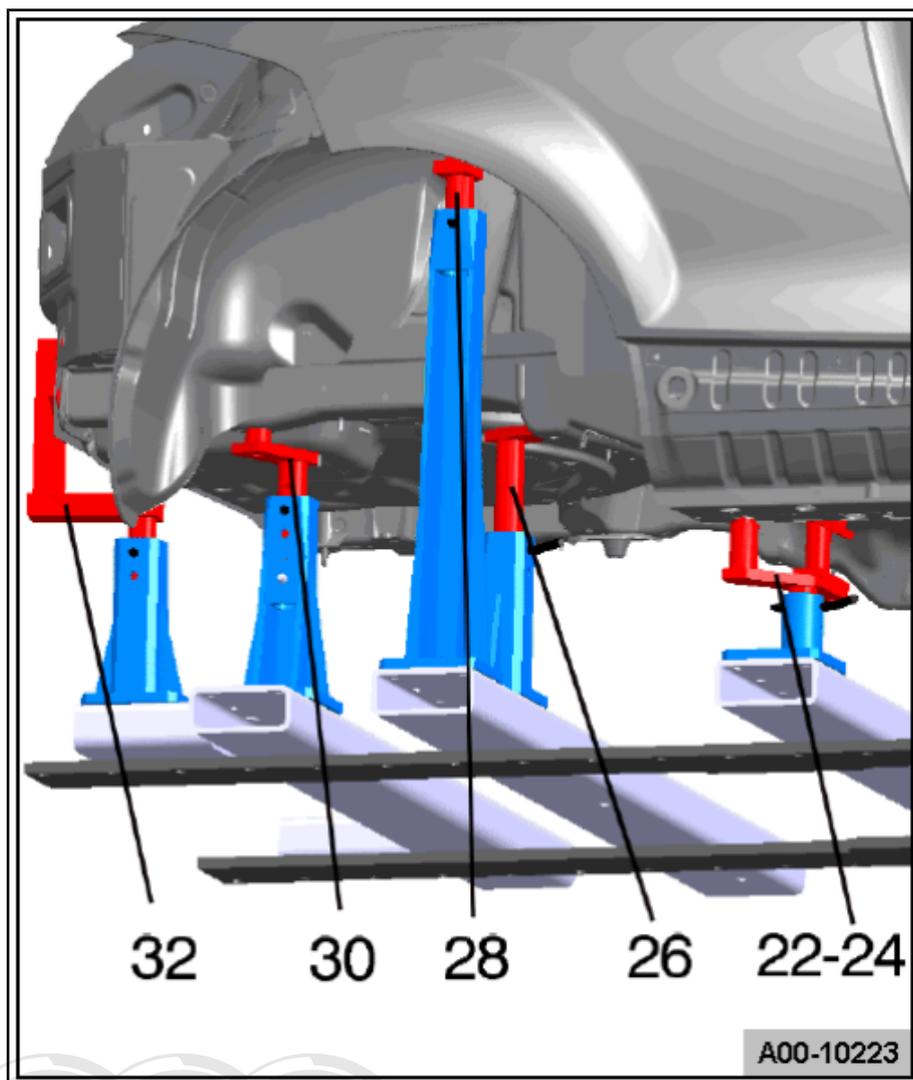
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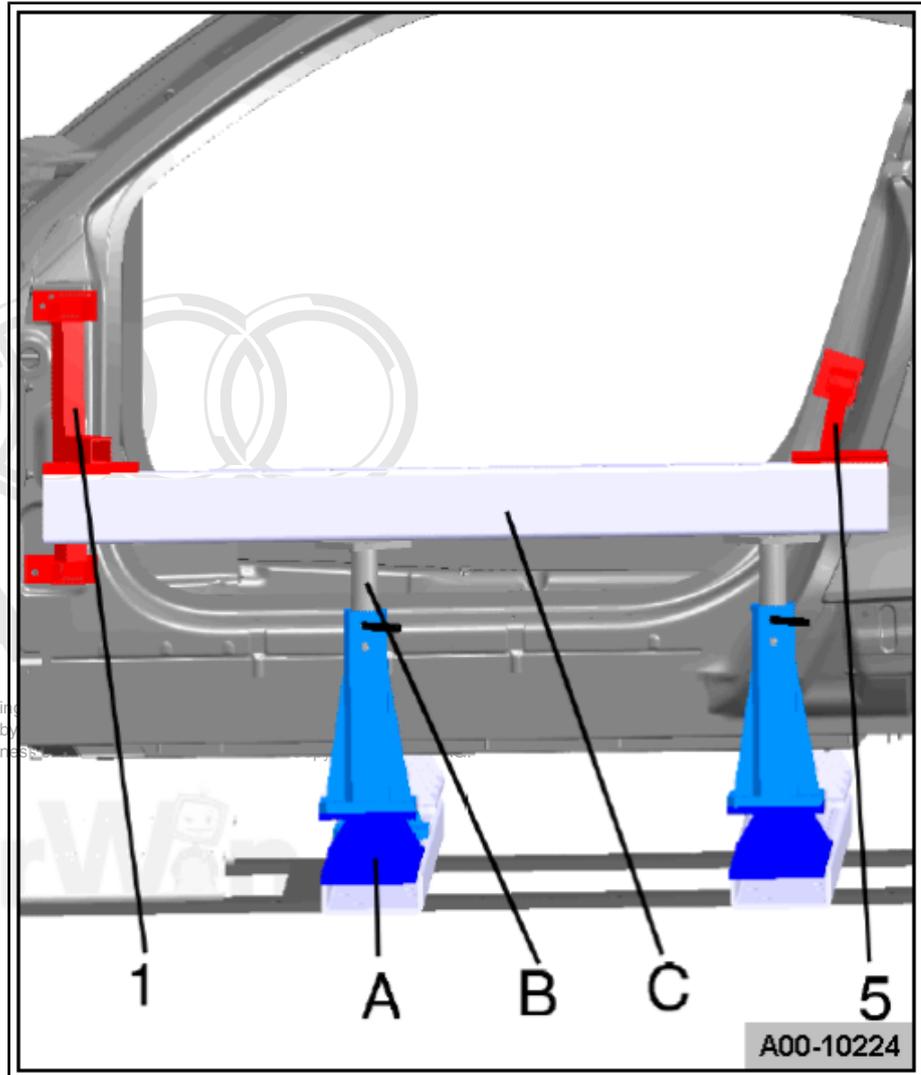
- 22 - Rear axle mount
- 24 - Spacer, same on left and right
 - Mark holes according to illustration.
- 26 - Hole in longitudinal member
- 28 - Suspension strut mount
- 30 - Hole in longitudinal member
- 32 - Rear longitudinal member mount

3.1.2 Portal Gauge

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Portal Gauge Supplement, Audi TT >2007 -VAS 5007/30- .

- A - Extension
- B - Telescoping column
- C - Cross bar 1200 mm
- 1 - A-pillar mount
- 5 - B-pillar mount



50 – Body Front

1 Removal and Installation

⇒ [“1.1 Upper Part of Longitudinal Member with Console”, page 31](#)

⇒ [“1.2 Left Support”, page 36](#)

⇒ [“1.3 Right Support”, page 38](#)

⇒ [“1.4 Upper Wheel Housing Longitudinal Member”, page 41](#)

⇒ [“1.5 Suspension Strut Mount”, page 44](#)

⇒ [“1.6 Upper Inner Wheel Housing Longitudinal Member”, page 49](#)

⇒ [“1.7 Front Longitudinal Member”, page 51](#)

⇒ [“1.8 Front Longitudinal Member Partial Section”, page 55](#)

⇒ [“1.9 Front Part of Longitudinal Member”, page 57](#)

1.1 Upper Part of Longitudinal Member with Console



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

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Special tools and workshop equipment required

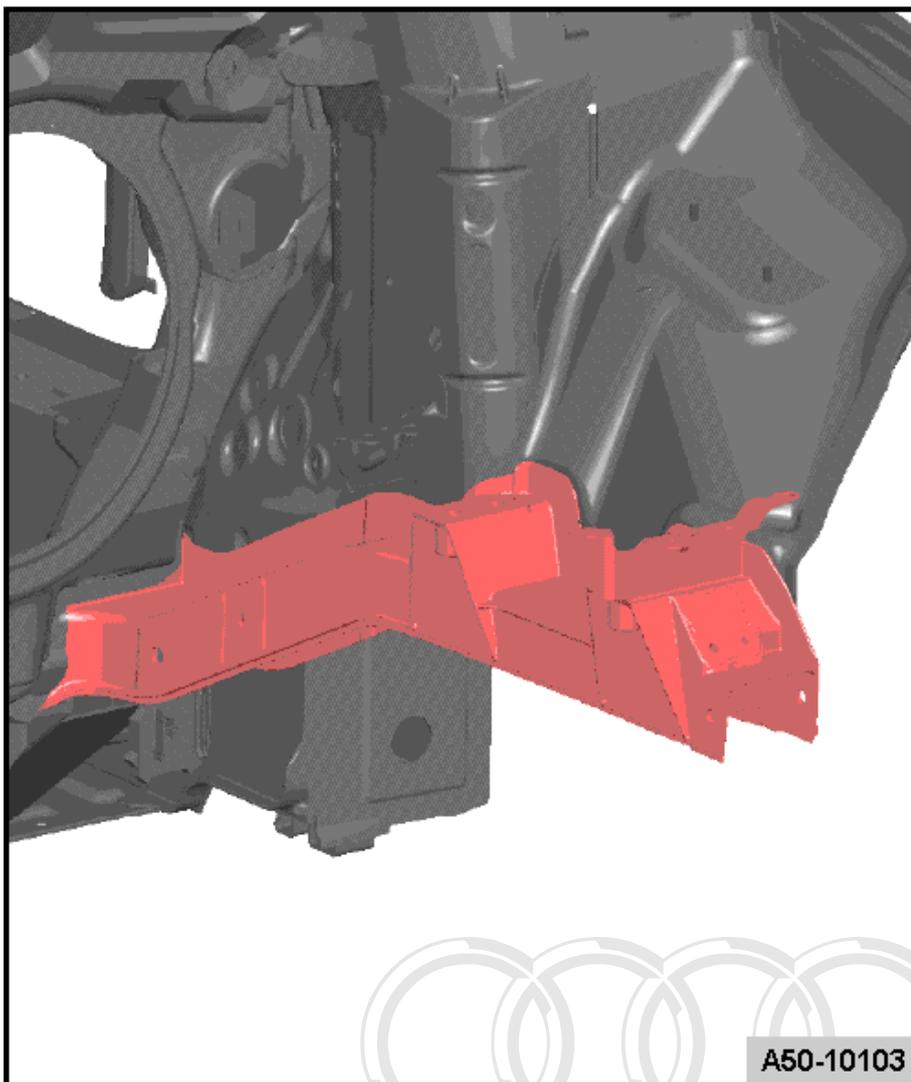
- ◆ Single hand angle grinder -VAS 5167-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-

Separating areas

- Lower longitudinal member already removed.

Engine console

- Cut the original joint with an rechargeable riveter -VAS 5279B- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .
- Remove the remainder using the single hand angle grinder -VAS 5167- .



Replacement part

- ◆ Engine console
- ◆ Body adhesive DA 001 730 A2

Preparing New Parts

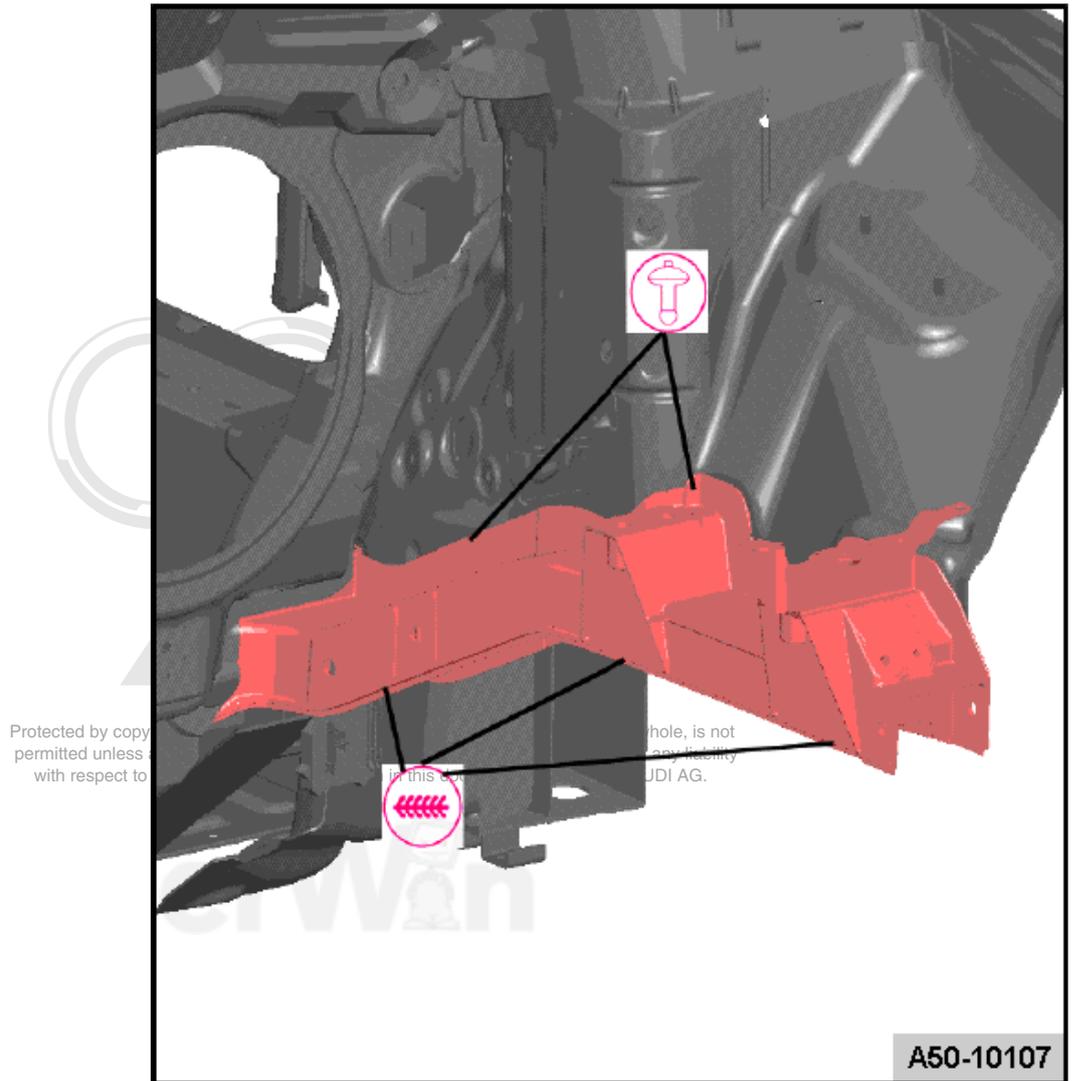
- Prepare flange on body and new part for welding.

Welding in

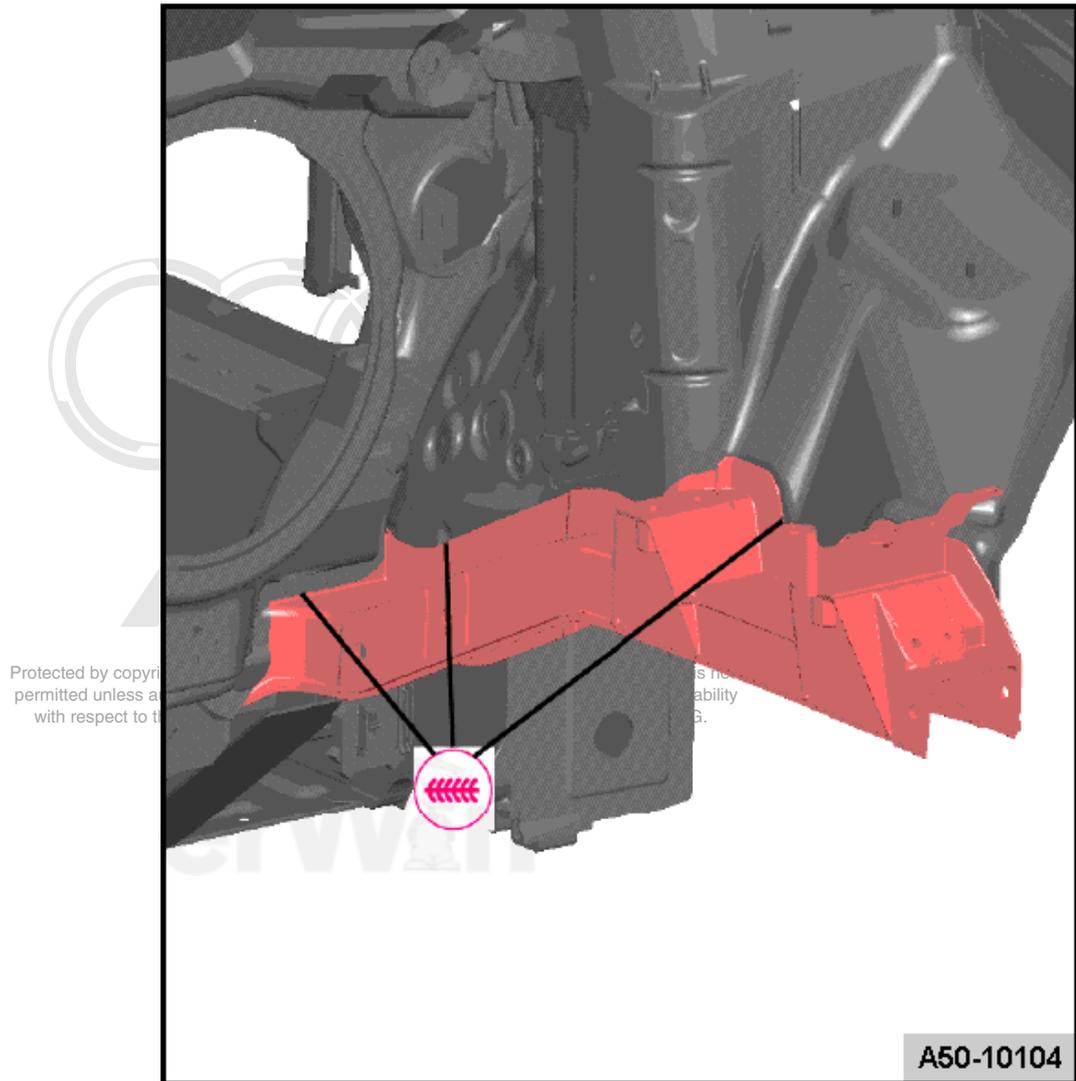
- Install new part using straightening bracket.
- Weld the engine bracket with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .
- Rivet in the new part using the rechargeable riveter -VAS 5279B- .

Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .

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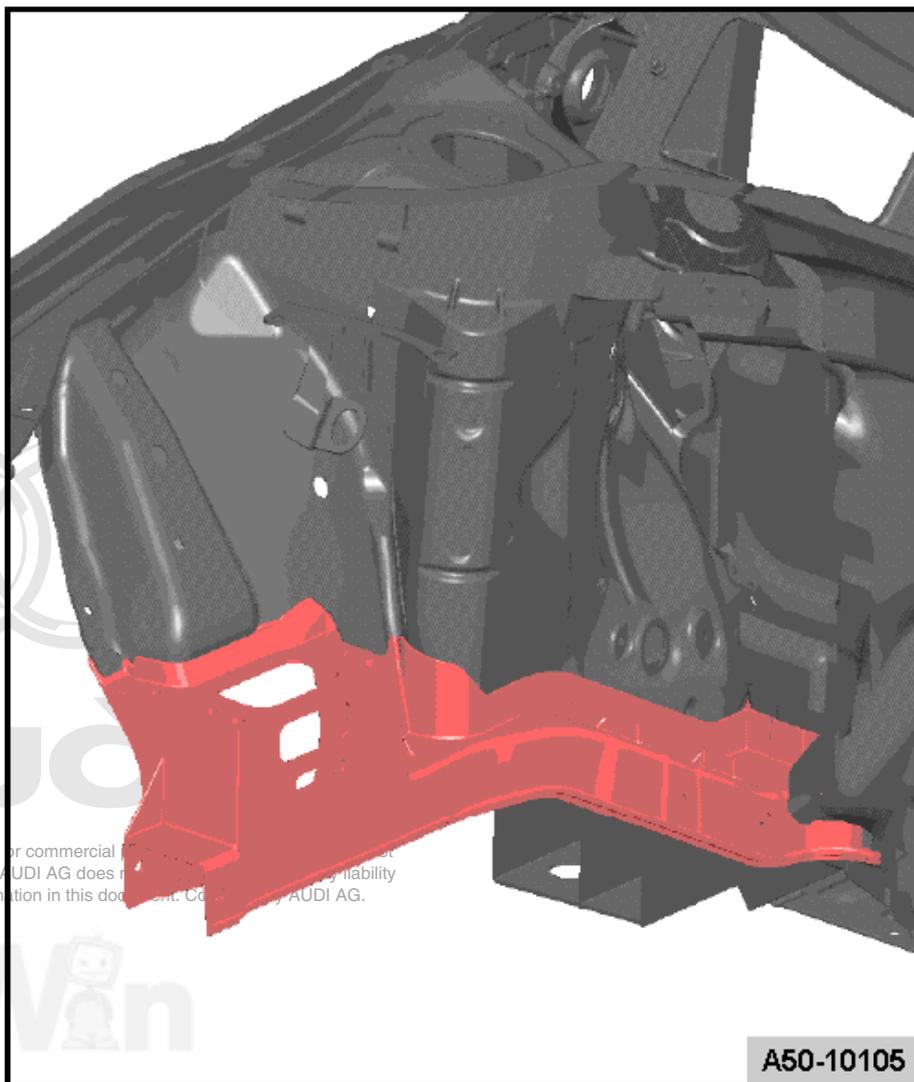


- Weld the engine bracket with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .



Transmission console

- Cut the original joint with a rechargeable riveter -VAS 5279B- .



Replacement part

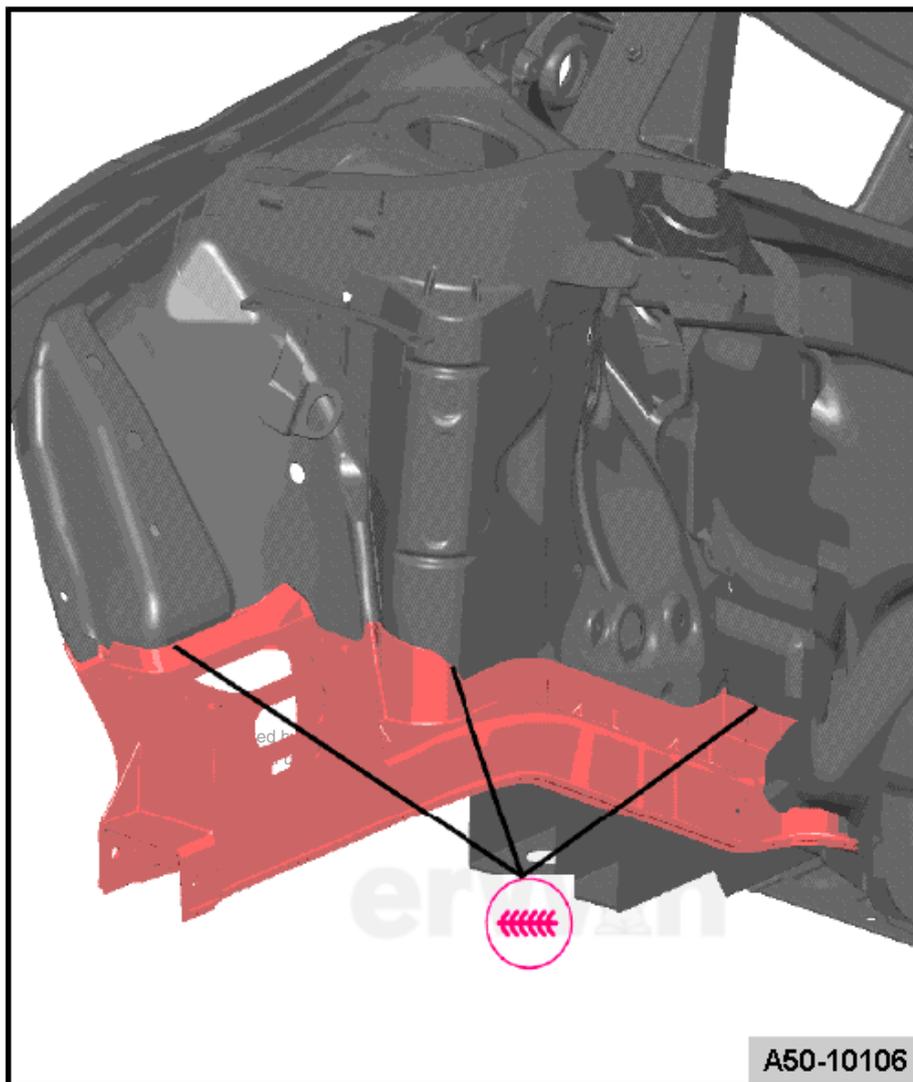
- ◆ Transmission console
- ◆ Body adhesive DA 001 730 A2

Preparing New Parts

- Prepare flange on body and new part for welding.

Welding in

- Install new part using straightening bracket.
- Weld the transmission bracket with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .



1.2 Left Support



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

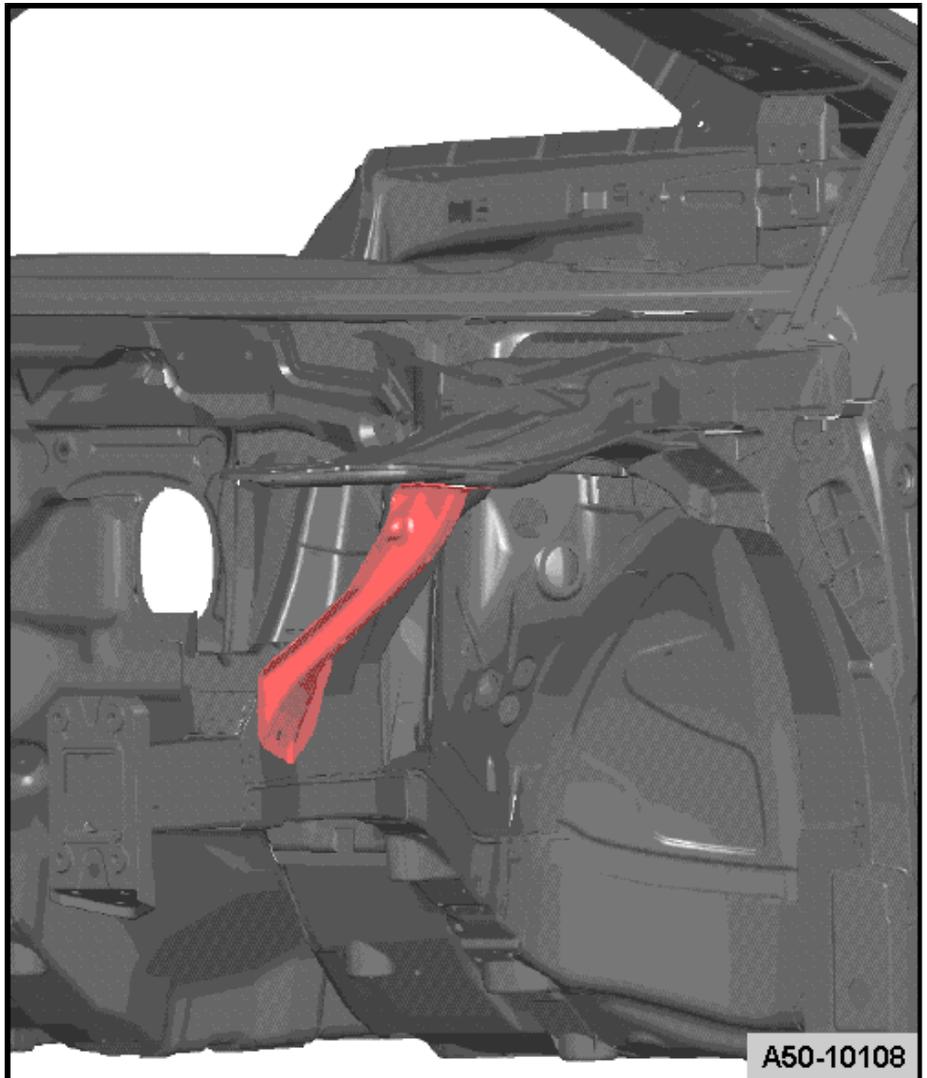
Special tools and workshop equipment required

- ◆ Single hand angle grinder -VAS 5167-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-

Separating areas

- Cut the original joint with an rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .

- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .
- Remove the remainder using the single hand angle grinder - VAS 5167- .



Replacement Parts

- ◆ Punch rivet
- ◆ Support
- ◆ Body adhesive DA 001 730 A2

Preparing New Parts

- Prepare flange on body and new part for welding.

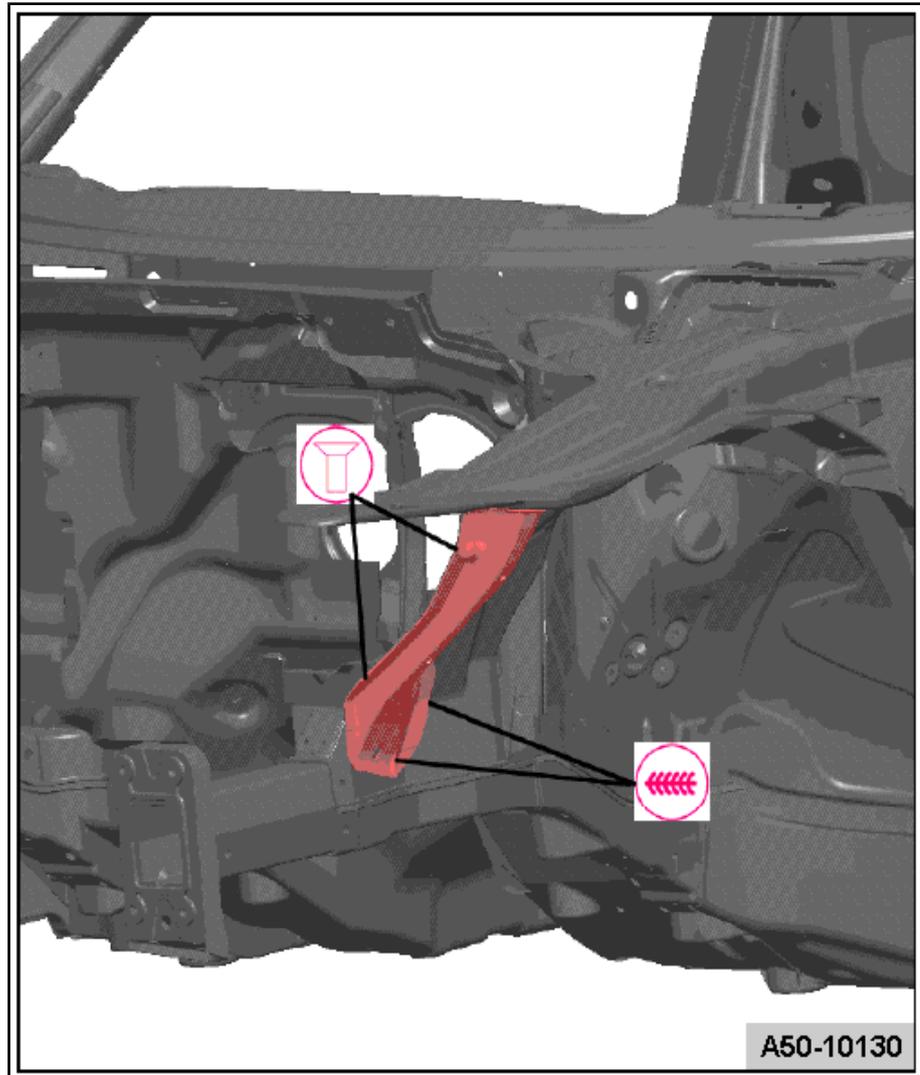
Riveting

- Rivet the support with a rechargeable riveter -VAS 5279A- .

Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .

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- Weld the support with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .



1.3 Right Support



WARNING

Observe safety precautions. Refer to → General Information; Body Repairs, Body Collision Repair ; Safety precautions

Special tools and workshop equipment required

- ◆ Single hand angle grinder -VAS 5167-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

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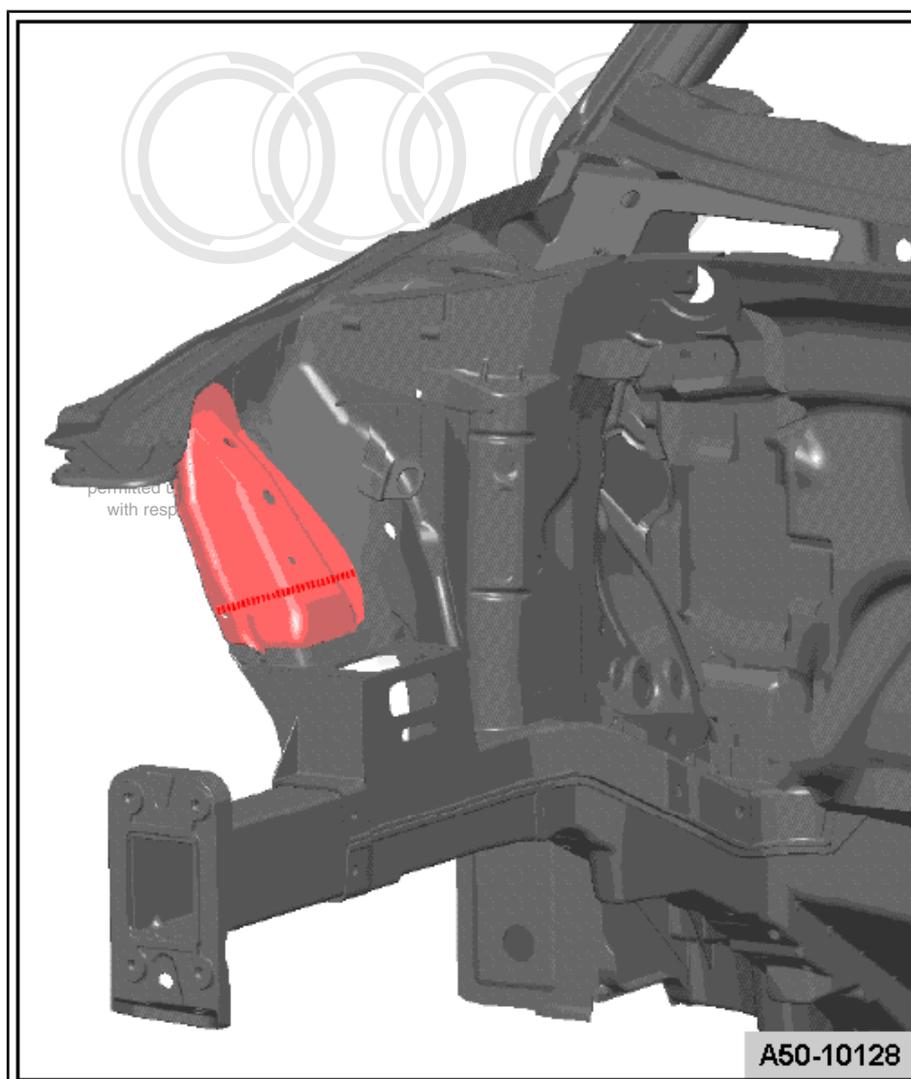
Separating areas



Note

A partial replacement is possible with the separating cut shown. Place an additional thickness of the same material behind the joint and make gas-shielded arc continuous weld seam.

- Loosen the original joint with an rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .
- Remove the remainder using the single hand angle grinder -VAS 5167- .



Replacement Parts

- ◆ Punch rivet

- ◆ Support
- ◆ Body adhesive DA 001 730 A2

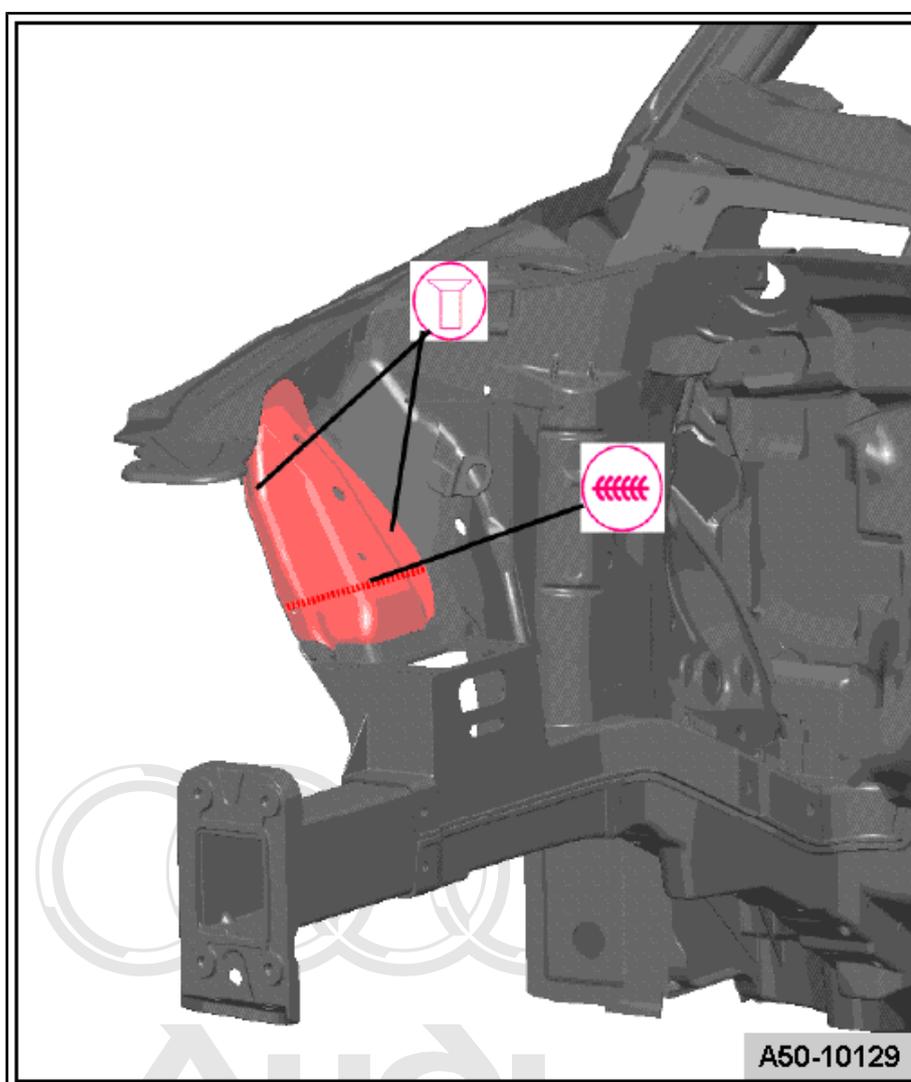
Preparing New Parts

- Prepare flange on body and new part for welding.

Riveting

- Rivet the support with a rechargeable riveter -VAS 5279A- .
- Weld the support with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .

Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .



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1.4 Upper Wheel Housing Longitudinal Member



WARNING

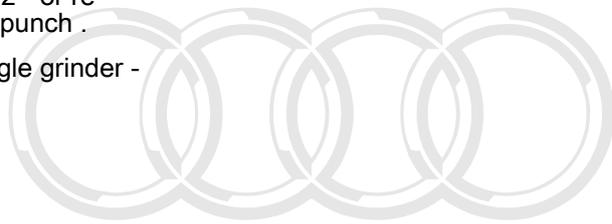
Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair ; Safety precautions

Special tools and workshop equipment required

- ◆ Single hand angle grinder -VAS 5167-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

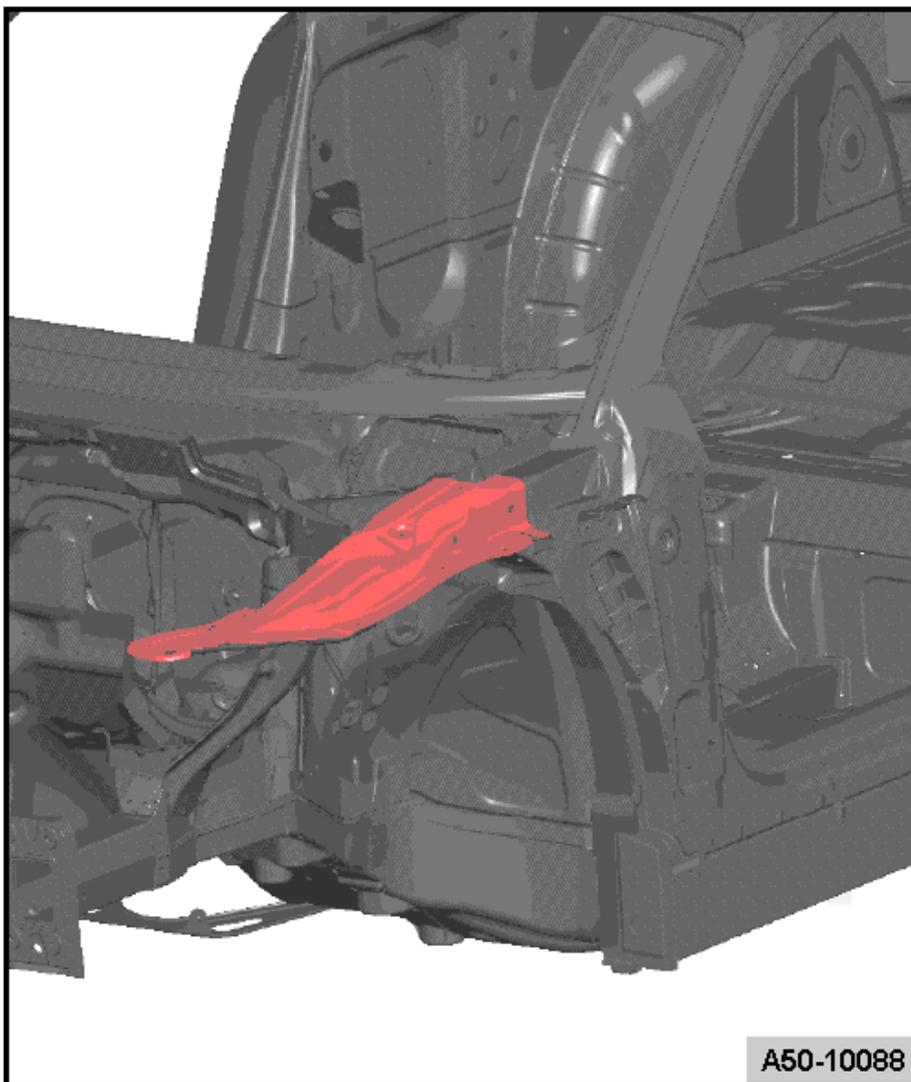
- Cut the part out roughly using the body repair saw -V.A.G 1523A- .
- Cut the original joint with an rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .
- Remove the remainder using the single hand angle grinder -VAS 5167- .



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Replacement Parts



Use a 4 mm aluminum bolt if a hole is created when pushing out the old rivets.

Parts

- ◆ 3.35 x 5 mm punch rivet
- ◆ Upper wheel housing longitudinal member
- ◆ Body adhesive DA 001 730 A2

Preparing New Parts

- Prepare flange on body and new part for welding.

Riveting

- Apply 2K adhesive DA 001 730 A2 over the area to be riveted using the compressed air adhesive pistol -V.A.G 2005 B- .

Rivet in new part.

- Position the new part and fix it in place.

 Note

The holes must be imprinted before riveting.

Secure new part to alignment bracket set.

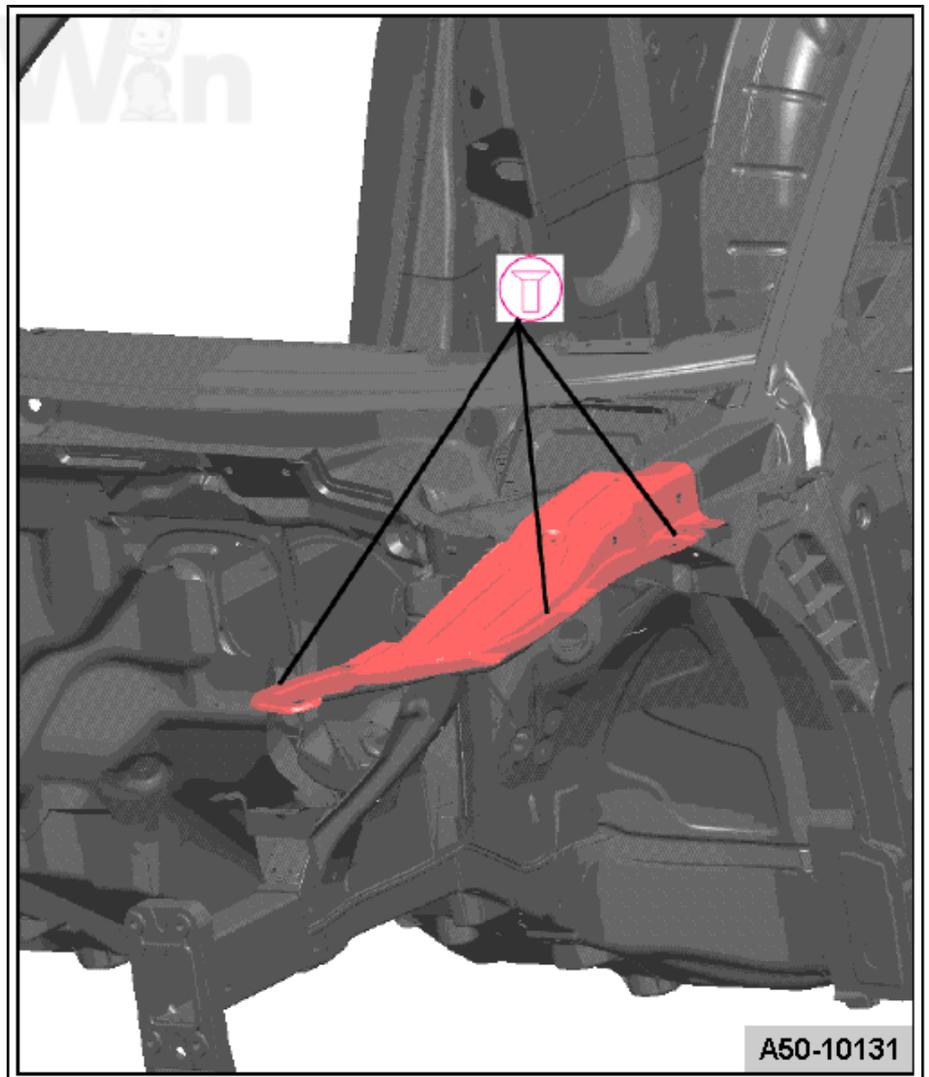
- Rivet in the new part using the rechargeable riveter -VAS 5279A- .

Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .

 Note

Use a 4 mm aluminum bolt if a hole is created when pushing out the old rivets.

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- Attach the connection to the A-pillar using an M5 x 18 flange bolt.

**Note**

- ◆ *It is possible the new parts will not have the holes for the threaded connections.*
- ◆ *If this is the case, then it will be necessary to drill holes into the new parts.*

**Note**

5.3 x 5 mm punch rivets were used in the area around the suspension strut tower mount. A stitch weld is used in this area instead of punch rivets.

- Make a stitch weld near the suspension strut tower mount.

1.5 Suspension Strut Mount

**WARNING**

Observe safety precautions. Refer to → General Information; Body Repairs, Body Collision Repair ; Safety precautions

Special tools and workshop equipment required

- ◆ Single hand angle grinder -VAS 5167-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

- Upper longitudinal member already removed.

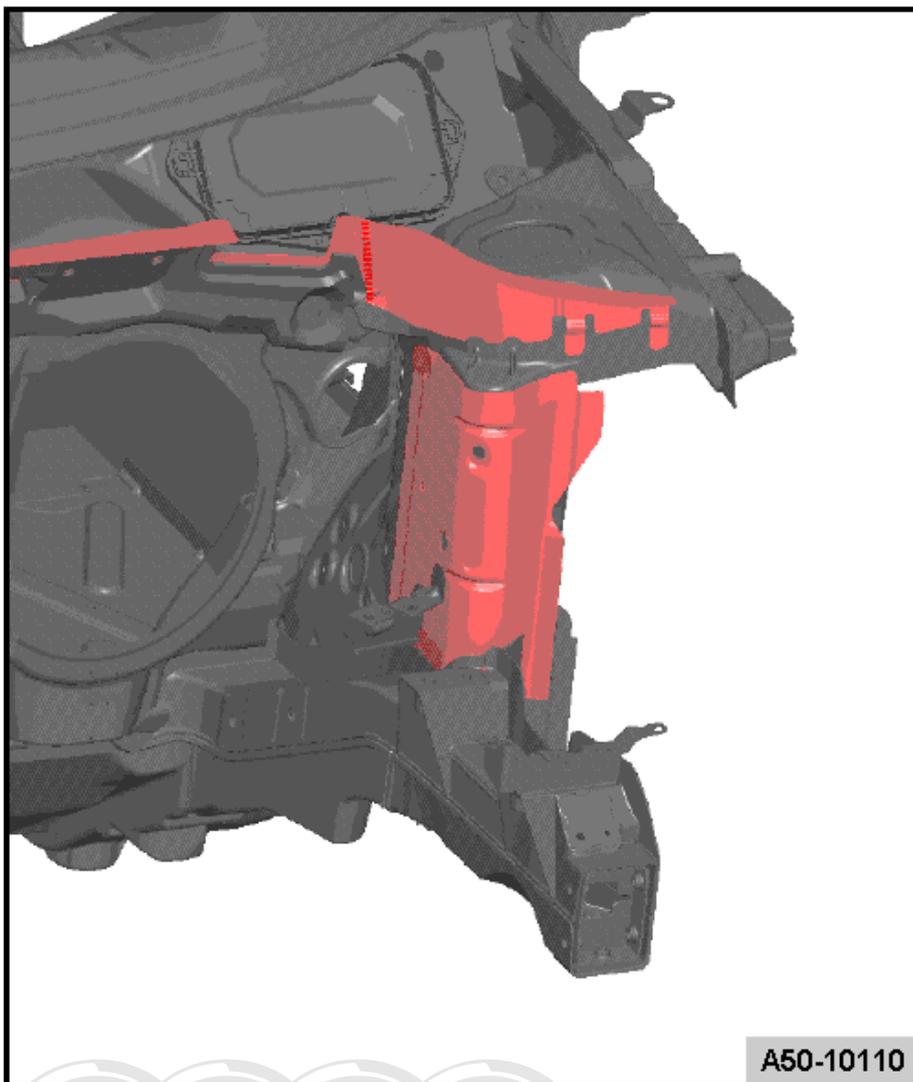
**WARNING**

Do not damage adjacent cast parts.

**Note**

Observe general notes for aluminum with punch rivets accessible from one side.

- Make the separating cut on the bar piece plenum chamber using a body saw -V.A.G 1523A- .
- Cut the original joint on the suspension strut tower mount support with an rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .

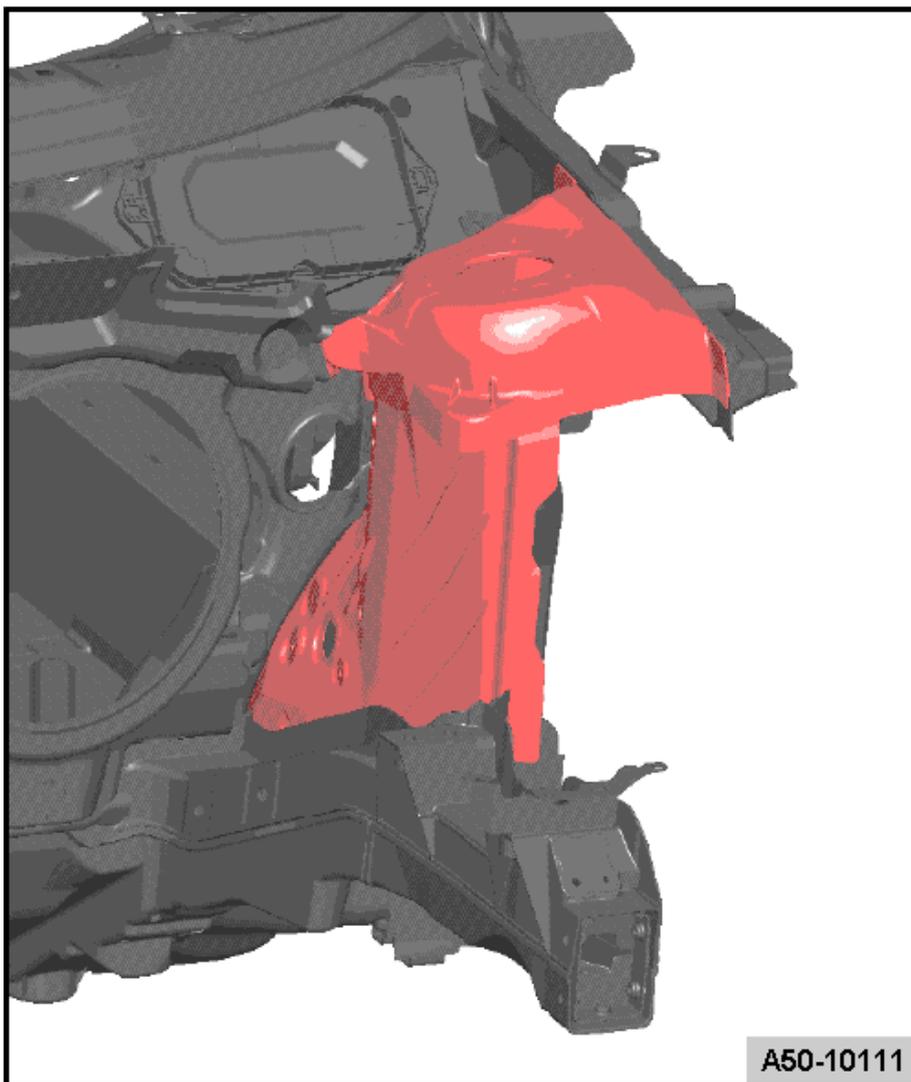


i Note

Observe general notes for aluminum with punch rivets accessible from one side.

- Loosen rivet to inner A-pillar that is accessible on one side.
- Cut the original joint with a rechargeable riveter -VAS 5279A- .

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Replacement Parts

- ◆ Pop rivet
- ◆ Punch rivets
- ◆ Suspension strut mounting
- ◆ Body adhesive DA 001 730 A2

 **Note**

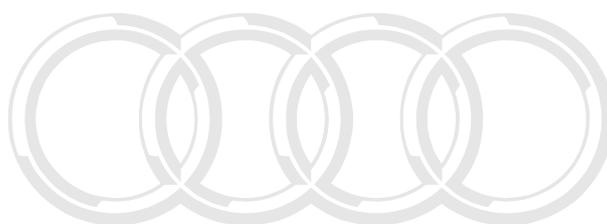
Observe general notes for adhesive connections.

Preparing New Parts

- Prepare flange on body and new part for **welding**.
- Prepare flange on body and new part for **riveting**.

Welding in

- Install new part using straightening bracket.



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 **Note**

Welding with gas-shielded arc continuous weld seam can be done instead of riveted connections.

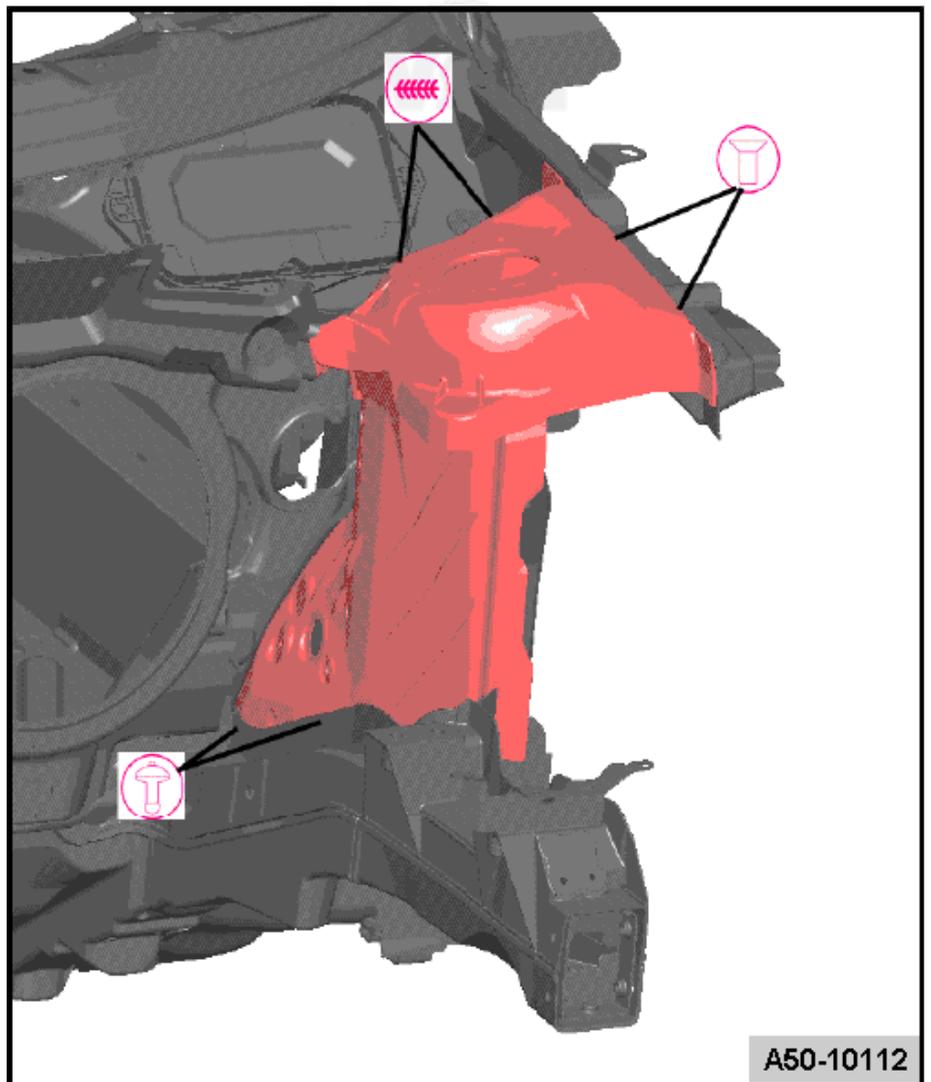
Riveting

- Weld the window crossmember to the suspension strut tower mount with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .
- Rivet the suspension strut tower mount to the upper longitudinal member using the rechargeable riveter -VAS 5279A- .
- Rivet the suspension strut tower mount to the longitudinal member using the rechargeable riveter -VAS 5279A- .

Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .

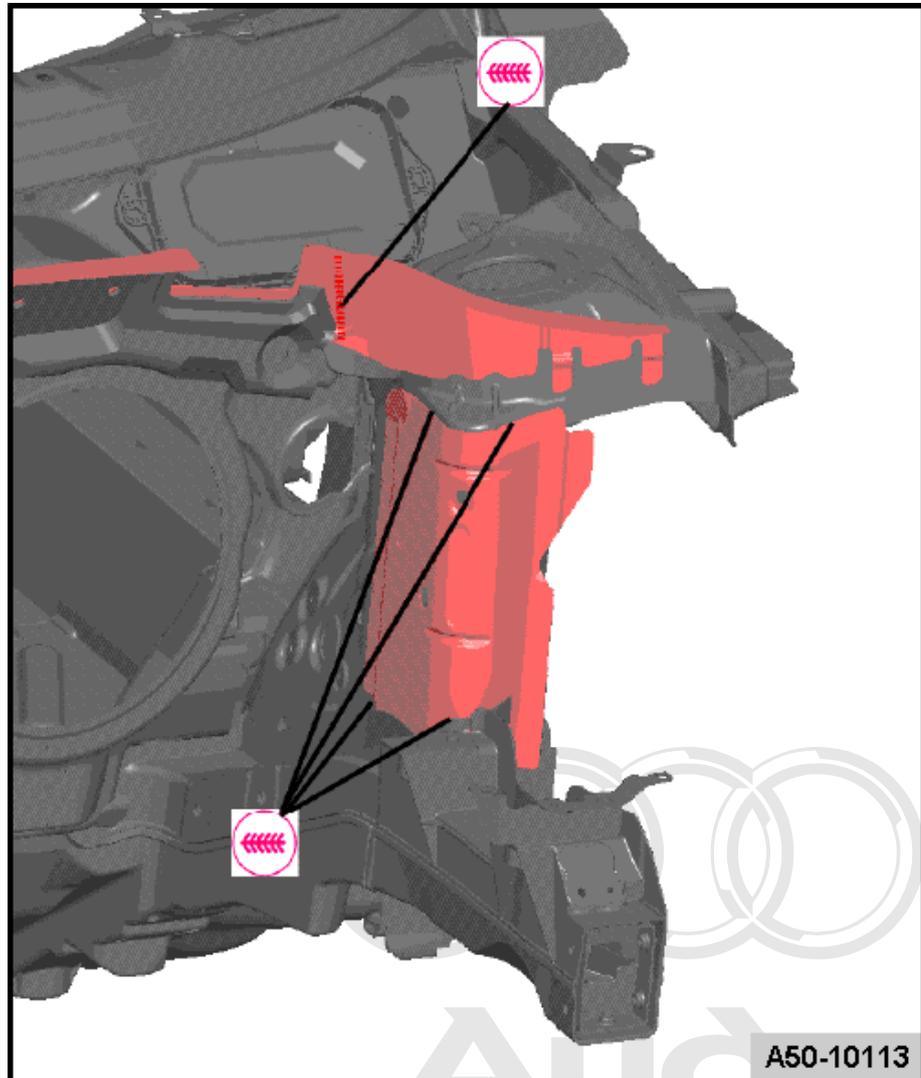
- Weld the new part with a gas-shielded arc continuous weld seam using the gas-shielded welder 250A -VAS 6388-

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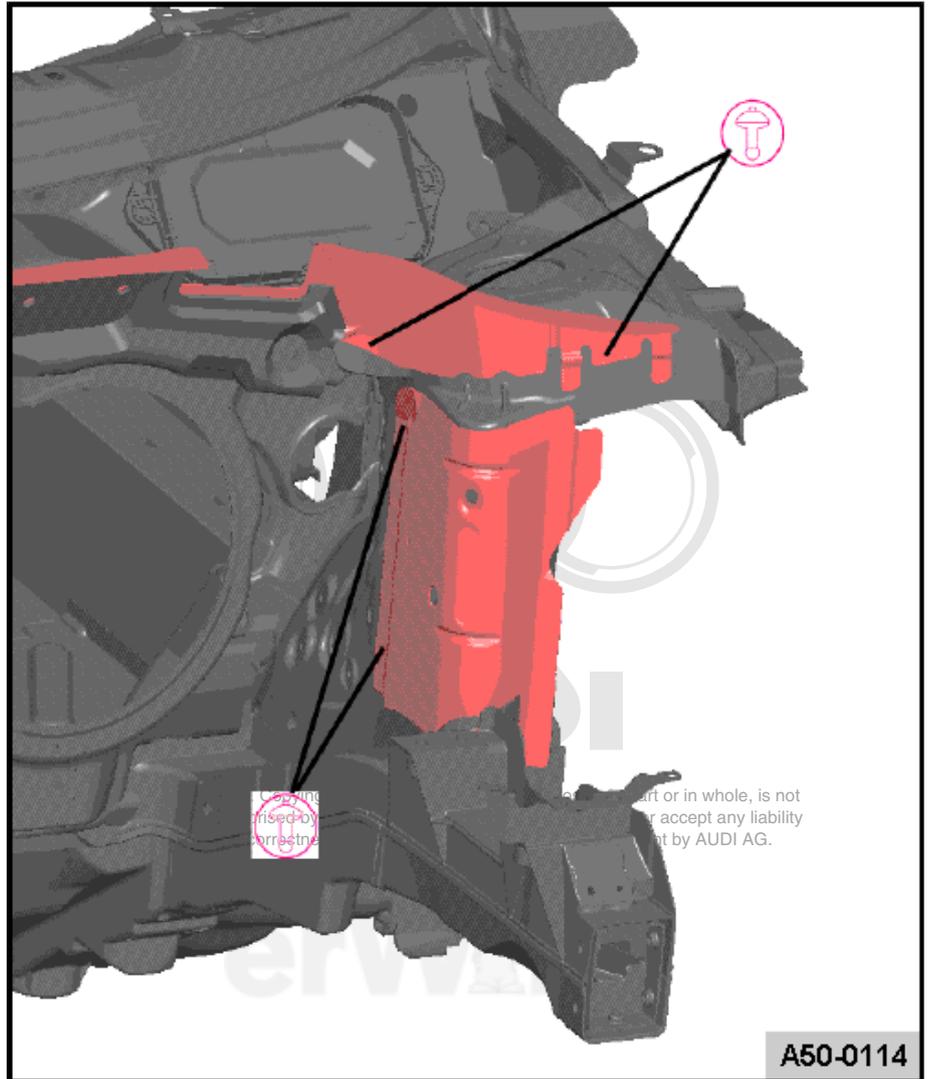
- Weld the separation cut in the plenum chamber bulkhead with a gas-shielded arc continuous weld seam using the gas-shielded welder 250A -VAS 6388- .
- Weld the new part with a gas-shielded arc continuous weld seam using the gas-shielded welder 250A -VAS 6388- .



Rivet the remainder of the joint with a rechargeable riveter -VAS 5279A- .

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Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .



1.6 Upper Inner Wheel Housing Longitudinal Member



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair ; Safety precautions

Special tools and workshop equipment required

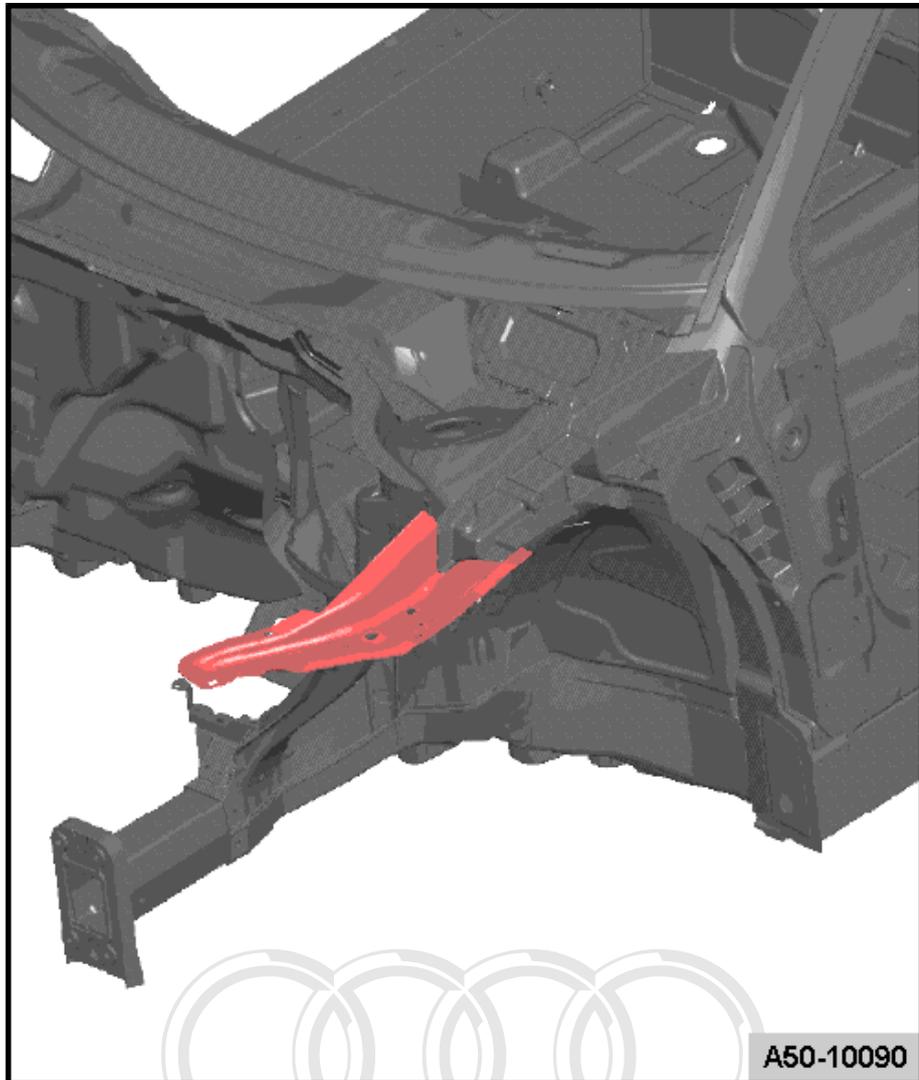
- ◆ Single hand angle grinder -VAS 5167-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-

Separating areas

- Cut the original joint with an rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .



- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .
- Remove the remainder using the single hand angle grinder - VAS 5167- .



Replacement part

- ◆ Upper wheel housing longitudinal member



Note

Riveted and bonded connections can be used instead of the welded connection.

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Welding in

- Weld the upper wheel housing longitudinal member with a gas-shielded arc continuous weld seam, for example, using the gas-shielded welder 250A -VAS 6388- .



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1.7 Front Longitudinal Member



WARNING

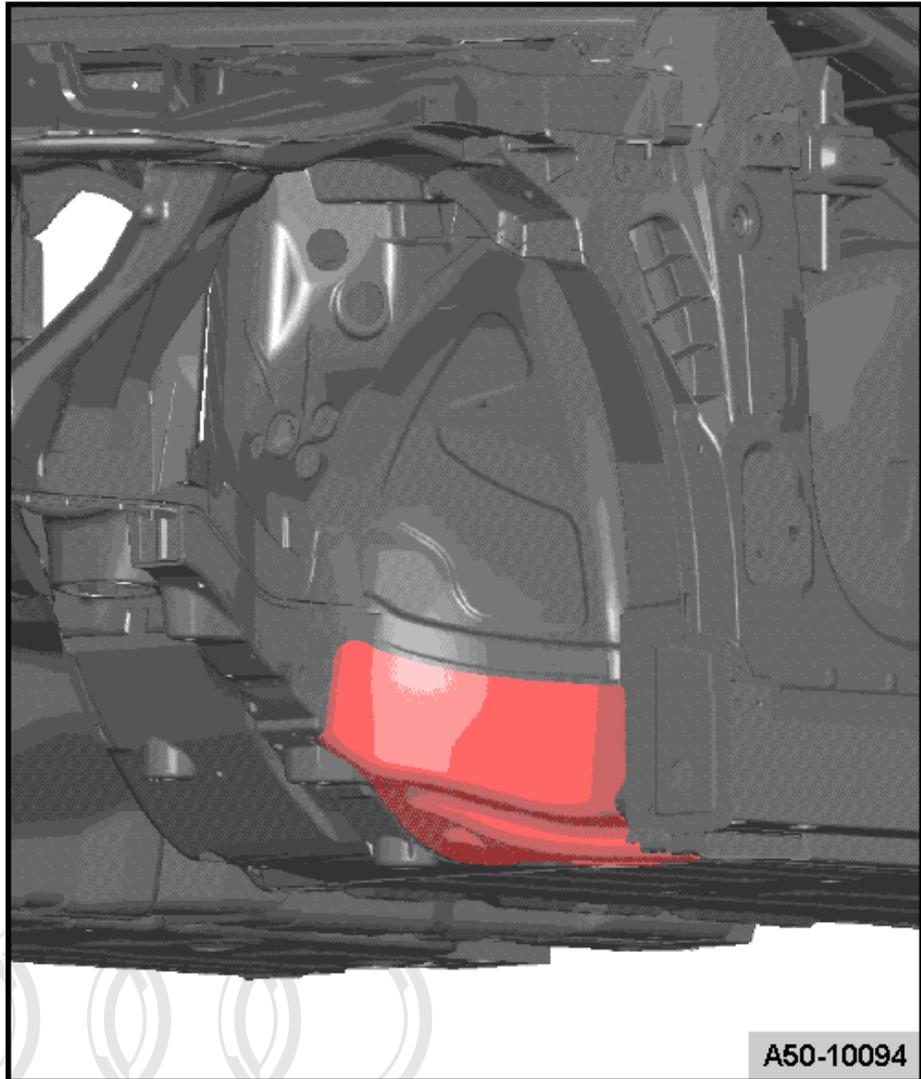
Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

Special tools and workshop equipment required

- ◆ Single hand angle grinder -VAS 5167-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-

Separating areas

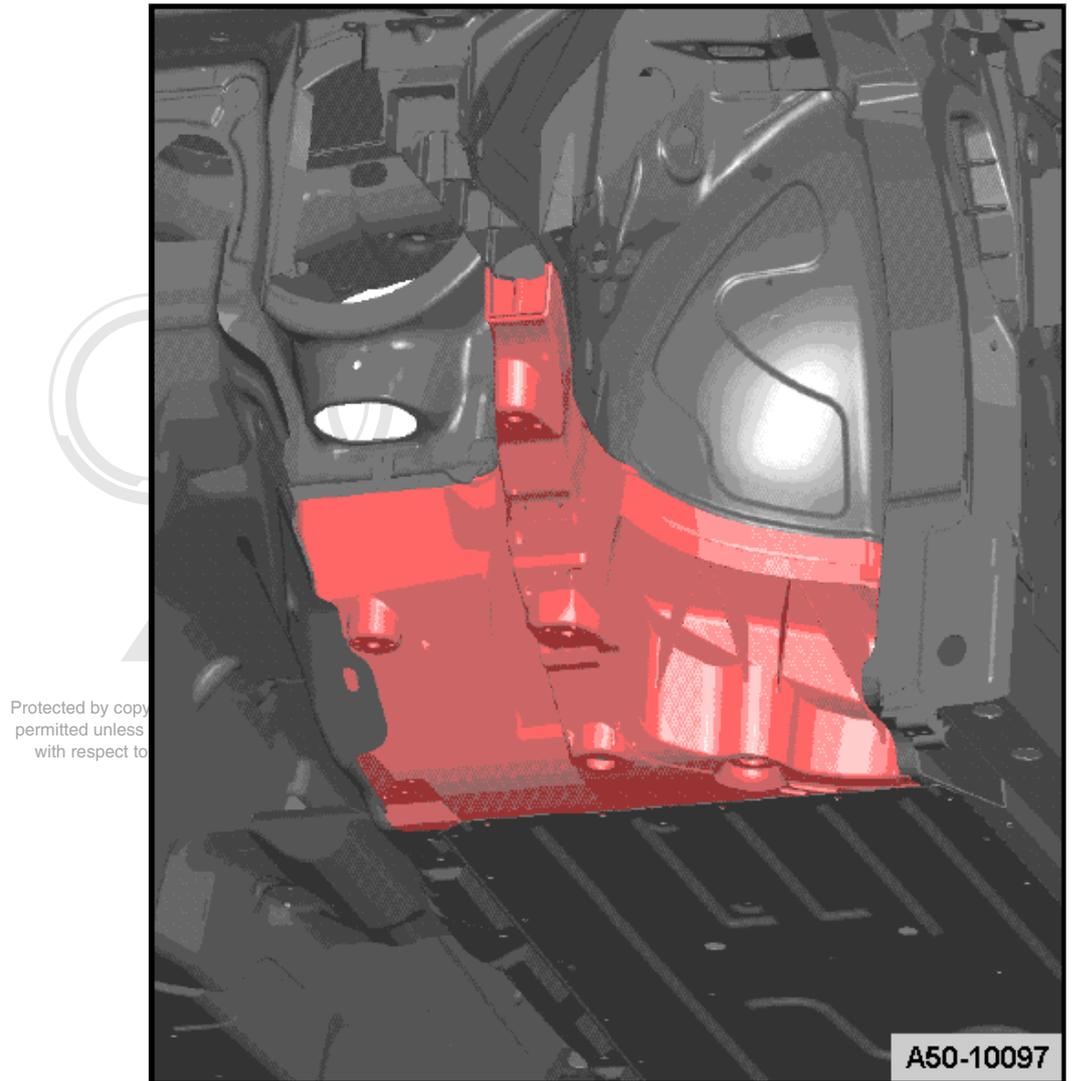
- Cut the original joint using the single hand angle grinder -VAS 5167- .
- Remove the remainder using the single hand angle grinder -VAS 5167- .



- Cut the original joint using the single hand angle grinder -VAS 5167- .
- Remove the remainder using the single hand angle grinder -VAS 5167- .

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Replacement part

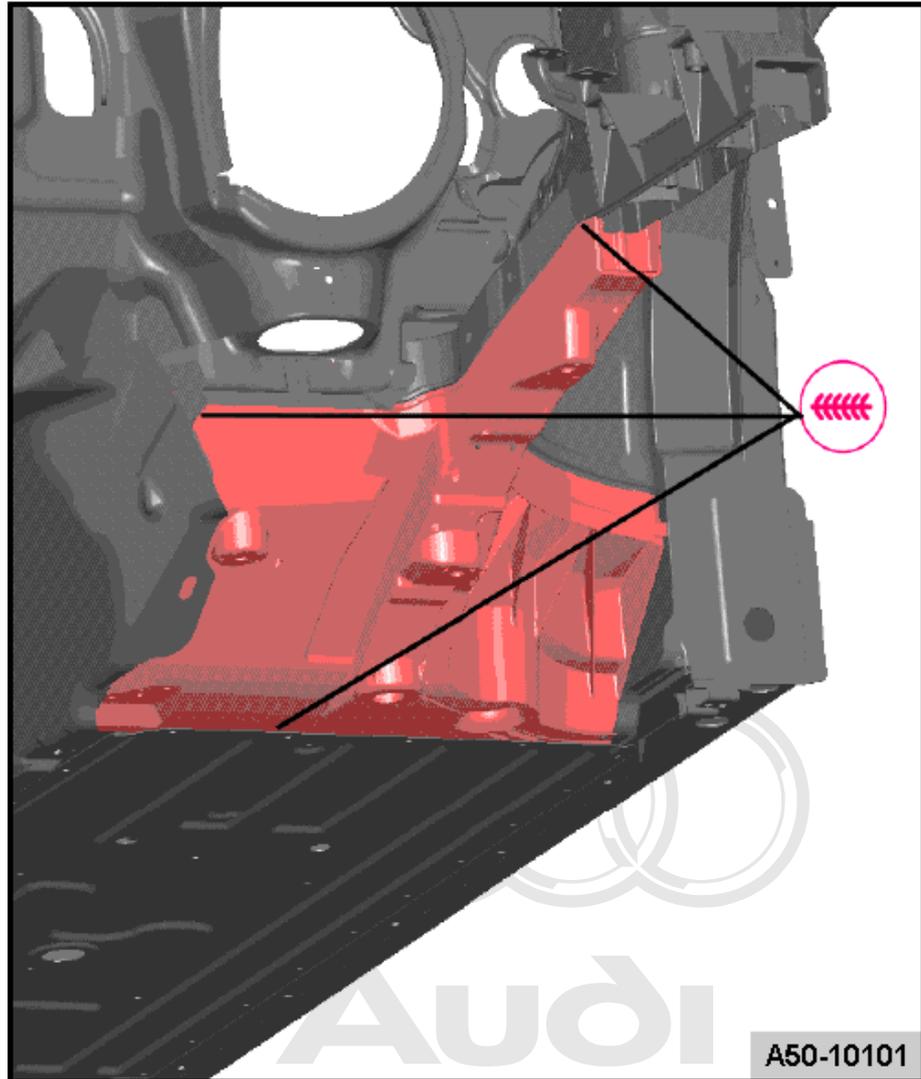
- ◆ Longitudinal member

Preparing New Parts

- Prepare flange on body and new part for welding.

Welding in

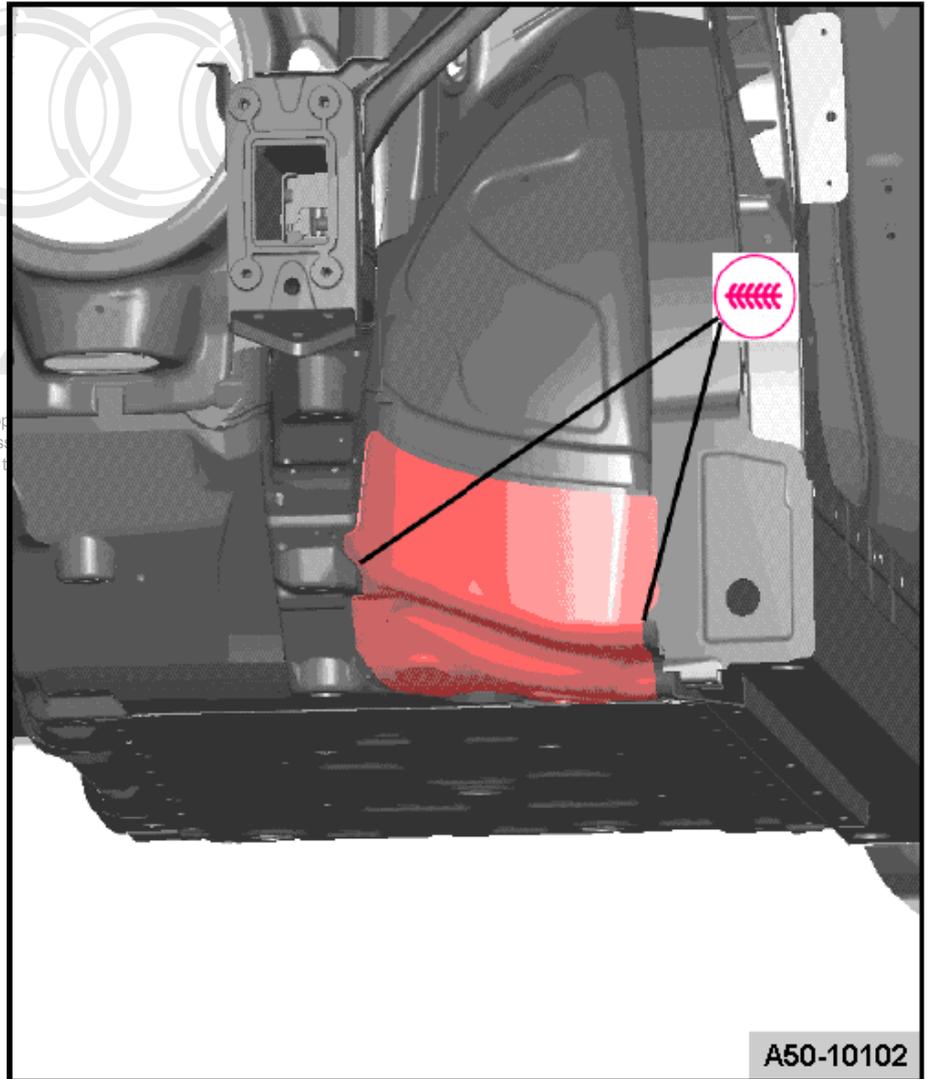
- Weld the longitudinal member with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .



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- Weld the new part with the alignment bracket with a gas-shielded arc continuous weld seam using the gas-shielded welder 250A -VAS 6388- .
- Weld in connecting piece with gas-shielded welder 250A -VAS 6388- , recreate original joint, gas-shielded arc continuous weld seam.

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1.8 Front Longitudinal Member Partial Section



WARNING

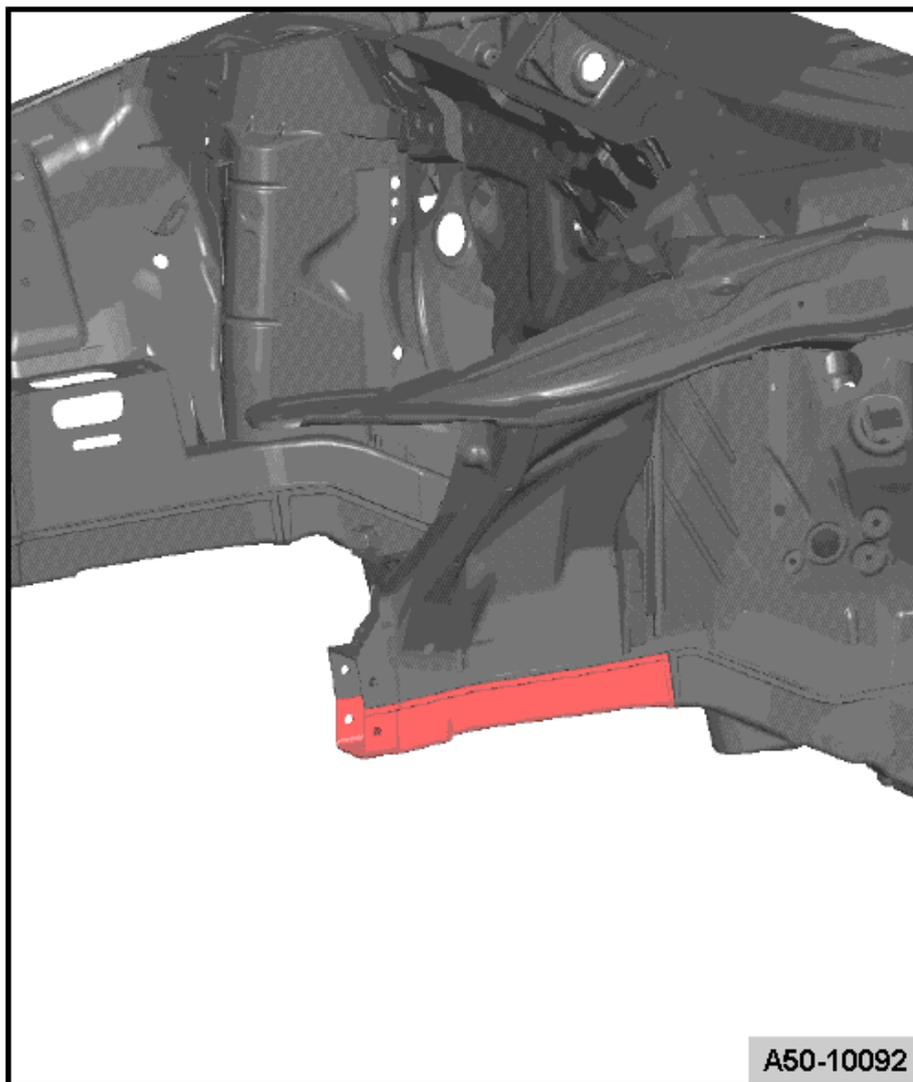
Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

Special tools and workshop equipment required

- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

- Cut the original joint using the single hand angle grinder -VAS 5167- .
- Remove the remainder using the single hand angle grinder -VAS 5167- .



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Replacement part

- ◆ Lower longitudinal member partial section

Preparing New Parts

- Prepare flange on body and new part for welding.

Welding in

- Weld in the front longitudinal member with a gas-shielded arc continuous weld seam, for example, using the gas-shielded welder 250A -VAS 6388- .

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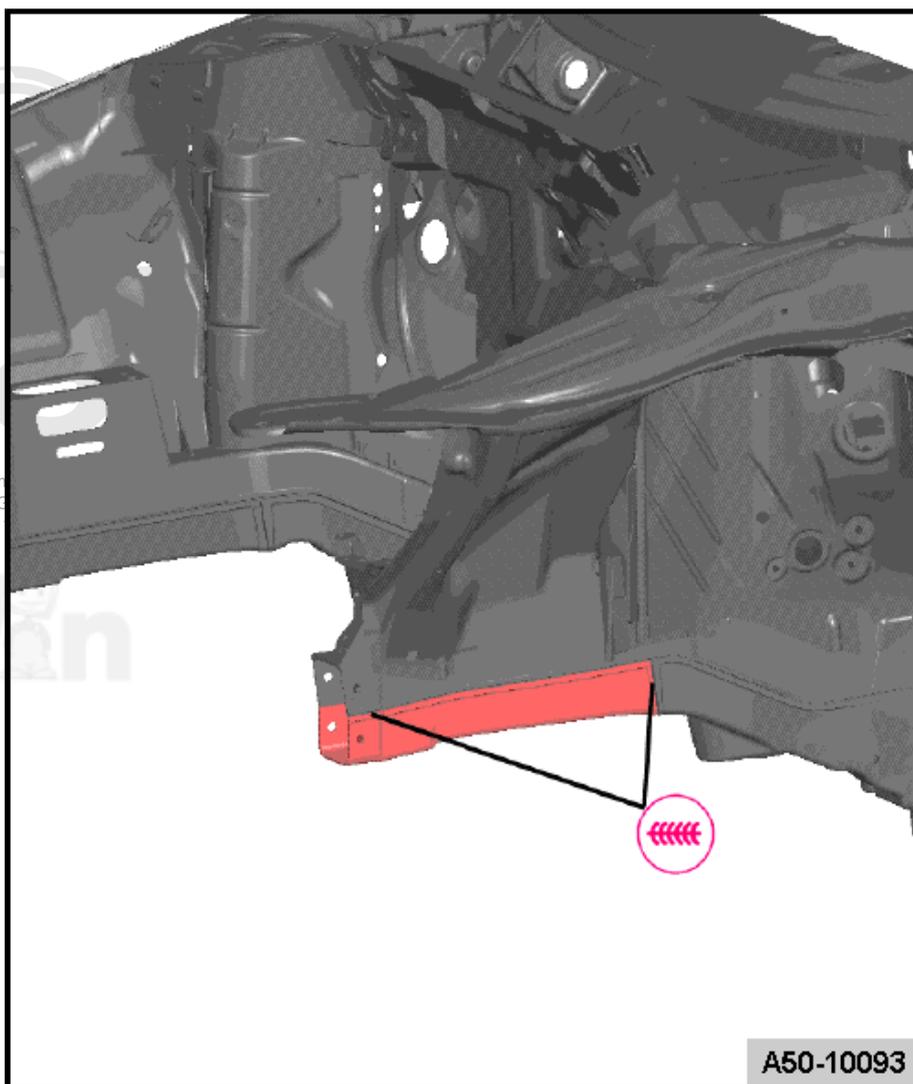
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1.9 Front Part of Longitudinal Member

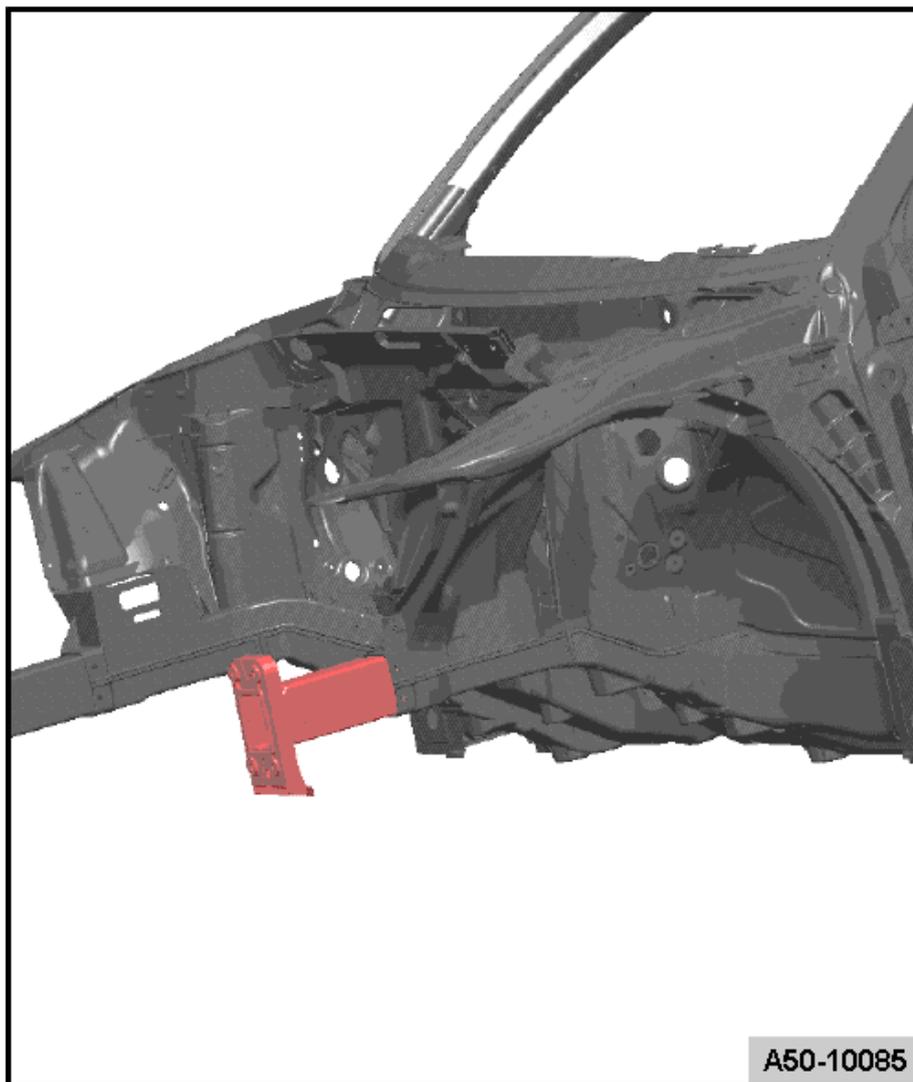


WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

Special tools and workshop equipment required

- ◆ Body repair saw -V.A.G 1523A-
- Remove part.

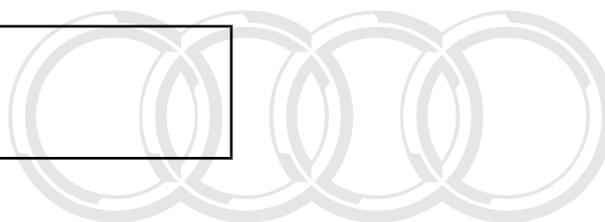


WARNING

Do not damage cast joints.

Replacement Parts

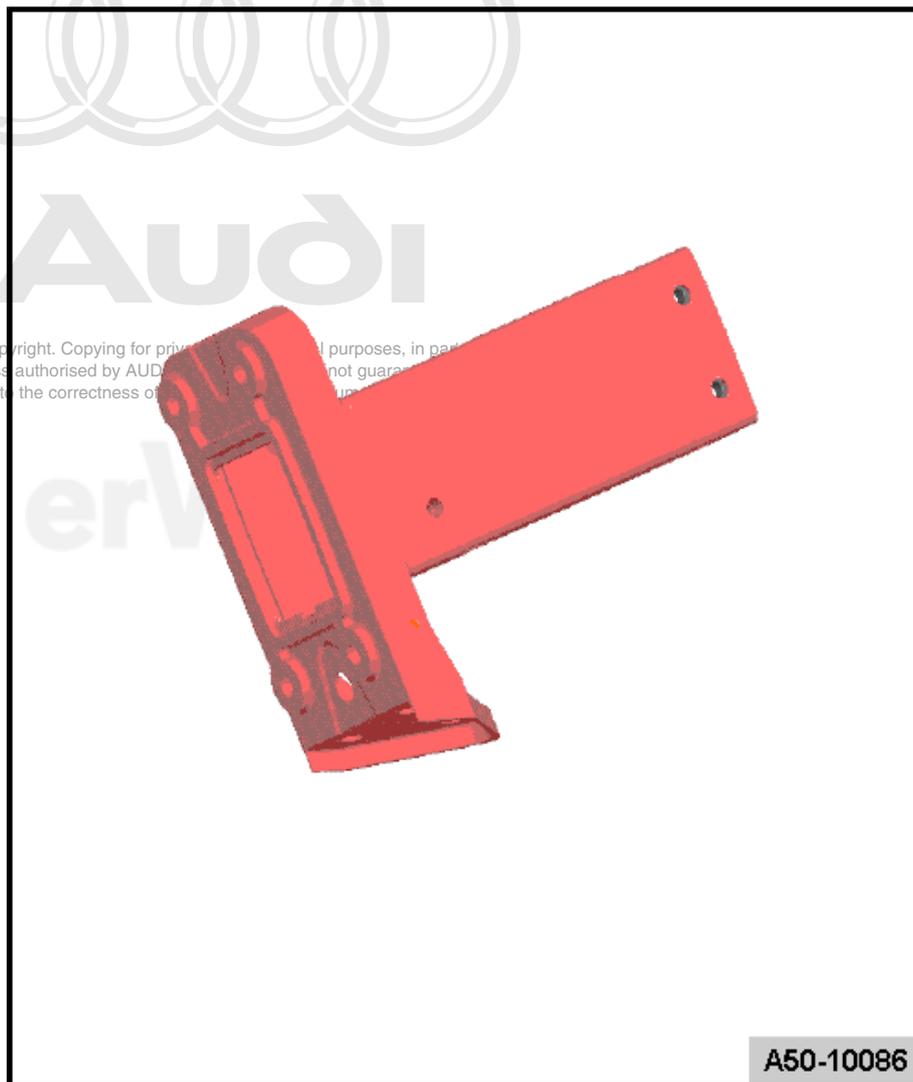
- ◆ Front longitudinal member
- ◆ Ring fittings with bolts



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Bolting in

- Adjust length if necessary. At least 1 mm distance to cast joint.

Preparing New Parts

 Note

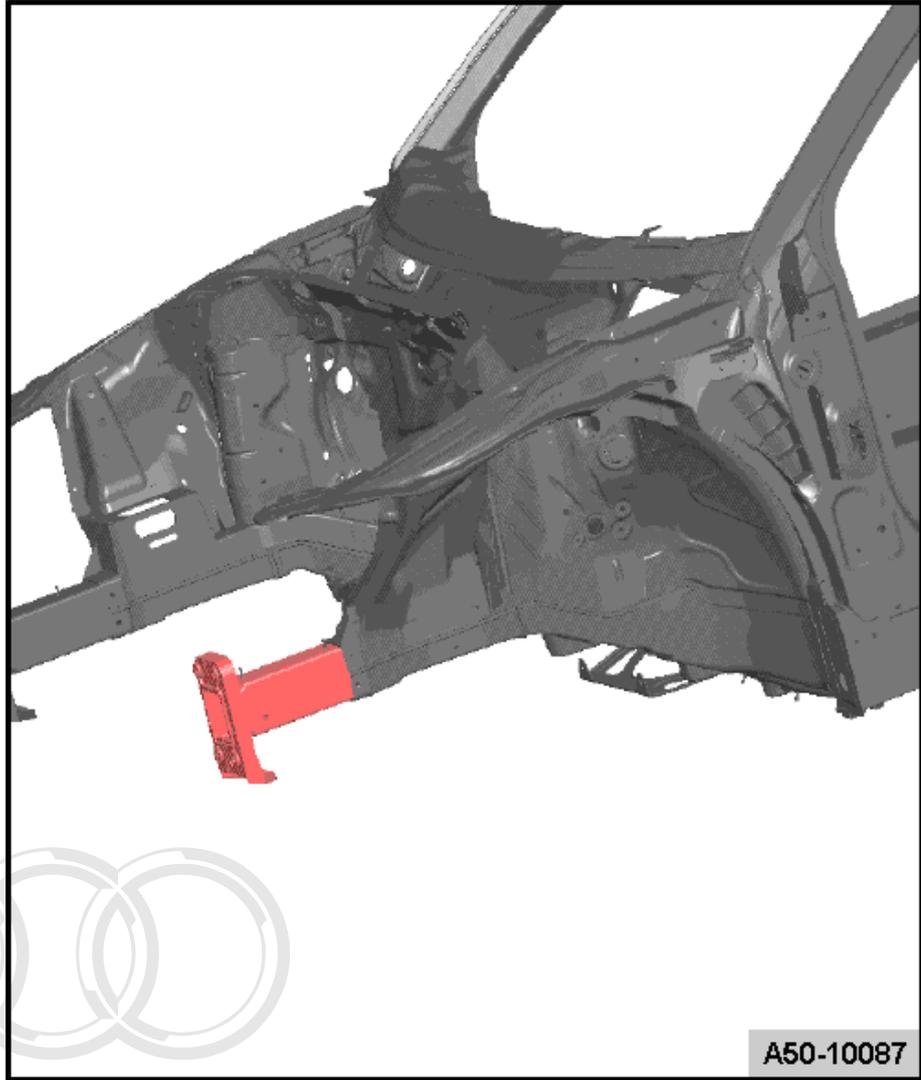
Threads must be free of paint and grease.

- Insert longitudinal member with threaded ring in cast joint.

 Note

Align longitudinal member with components.

- Tighten bolts by hand.
- Tighten bolts 1 - 5. (Tightening specification 24 Nm).
- Seal longitudinal member to cast joint connection point.



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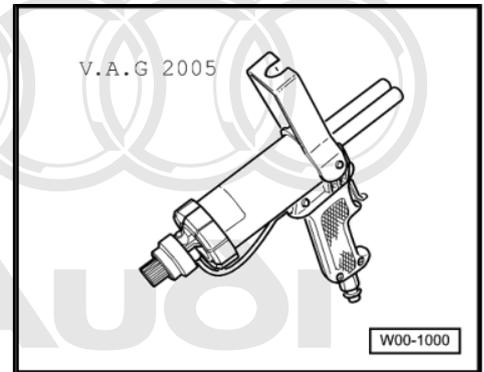
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2 Special Tools

Special tools and workshop equipment required

- ◆ Single hand angle grinder -VAS 5167-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-

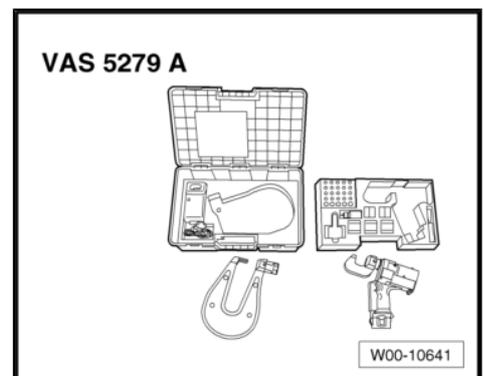


- ◆ Gas-shielded welder 250A -VAS 6388-

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- ◆ Rechargeable Riveter -VAS 5279A-



51 – Body Center, Chassis, Roof

1 Removal and Installation

⇒ [“1.1 Roof”, page 62](#)

⇒ [“1.2 Roof Pillar”, page 71](#)

⇒ [“1.3 Outer Roof Frame, Roadster”, page 84](#)

⇒ [“1.4 Front Roof Cross Member”, page 88](#)

⇒ [“1.5 Rear Roof Frame”, page 90](#)

⇒ [“1.6 Outer A-pillar”, page 93](#)

⇒ [“1.7 Reinforcement Tube and Inner A-pillar, Roadster”, page 100](#)

⇒ [“1.8 Inner A-pillar”, page 105](#)

⇒ [“1.9 Inner B-pillar, Roadster”, page 110](#)

⇒ [“1.10 Outer Sill Panel”, page 114](#)

⇒ [“1.11 Inner Side Member Partial Section”, page 120](#)

⇒ [“1.12 Inner Side Pillar, Roadster”, page 124](#)

⇒ [“1.13 Floor Panel”, page 133](#)

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1.1 Roof



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

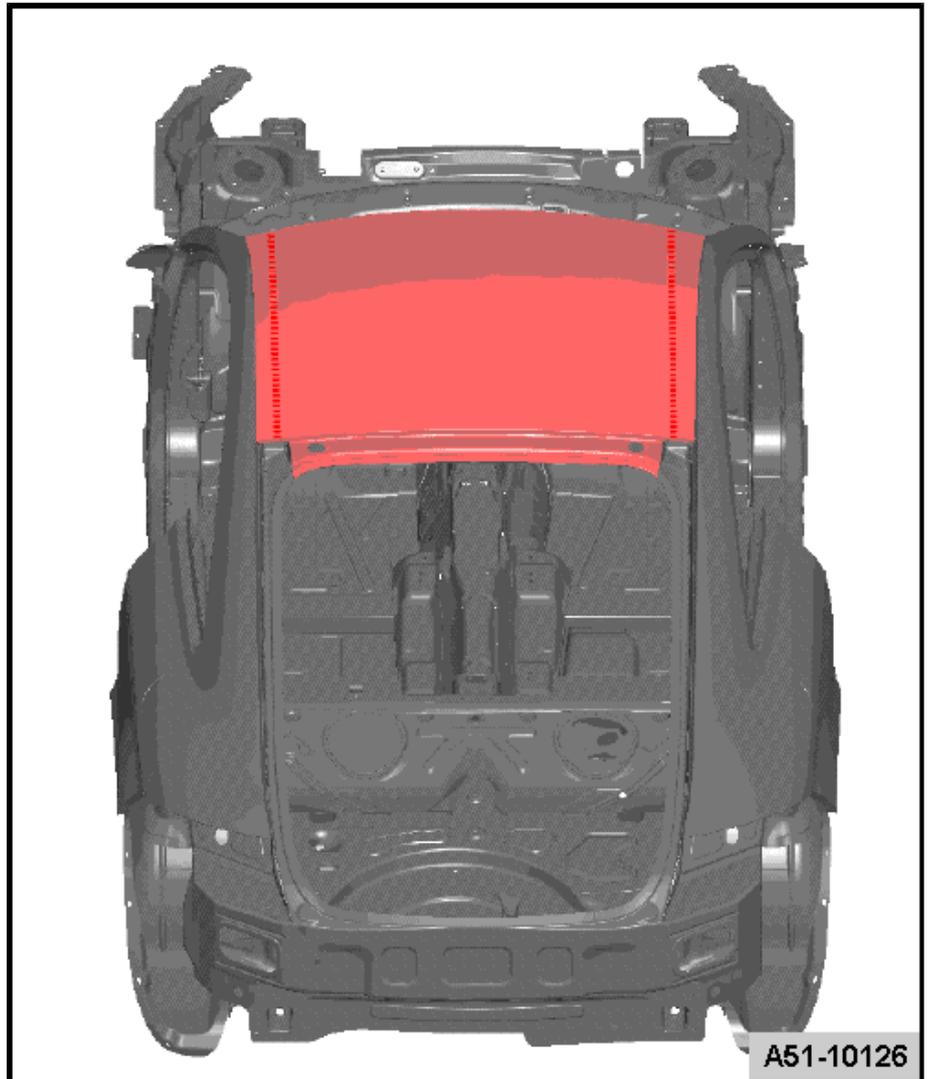
Special tools and workshop equipment required

- ◆ Single hand angle grinder -VAS 5167-
- ◆ Drill -VAS 5830-
- ◆ Straight sander -VAS 5170-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Tensioning strap -T10038-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

- Roughly cut out the roof using the body repair saw -V.A.G 1523A- .
- Cut the original joint with an rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .

- Carefully bend open the half sections of roof until brazed joint breaks.
- Remove remaining material.



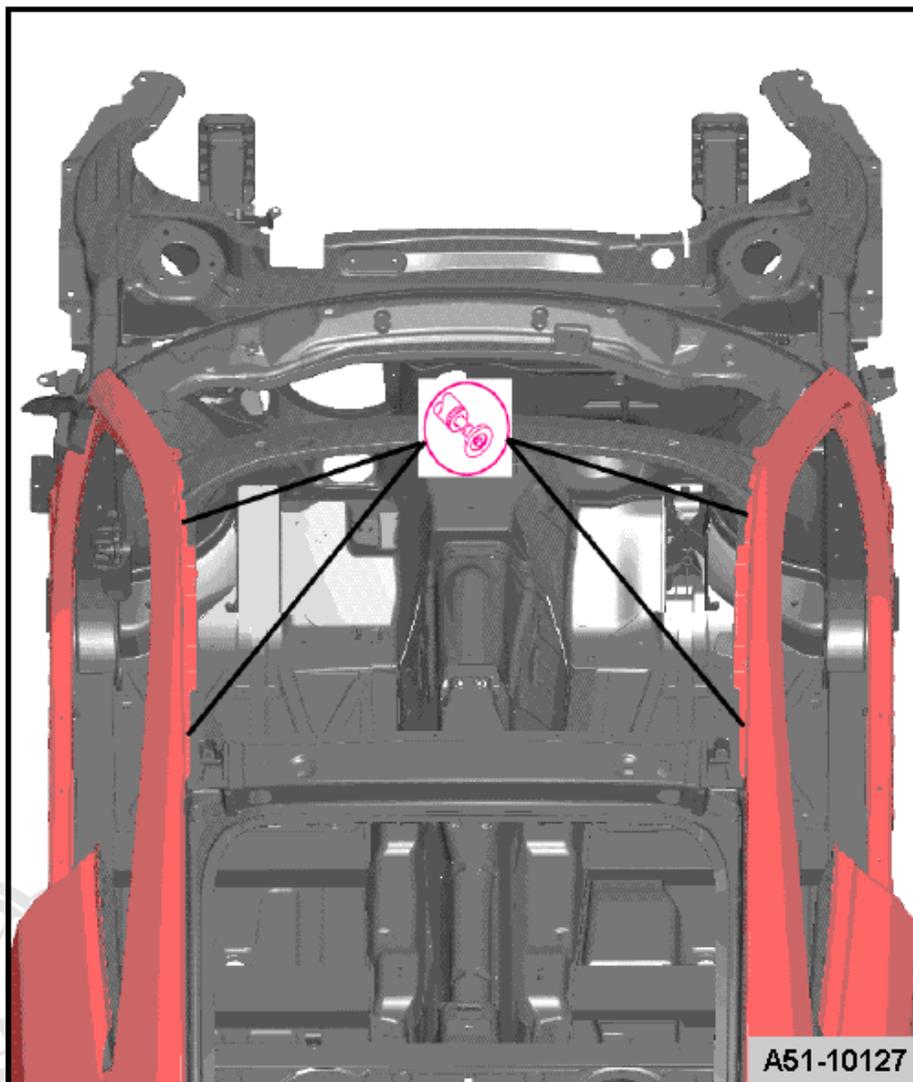
- Remove the remainder on the roof frame using the single hand angle grinder -VAS 5167- .



Caution

Be careful not to damage the roof frame with removing and remaining pieces with the single hand angle grinder -VAS 5167- .

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Replacement Parts

- ◆ Roof
- ◆ Four clamping screws
- ◆ Silicon remover LSE 020 100 A3
- ◆ Body adhesive DA 001 730 A2
- ◆ Punch rivets

Note

- ◆ *In order to guarantee problem-free and long lasting roof repair, the following work procedure must always be followed.*
- ◆ *Bonded areas must not be treated with filler before bonding in center roof section.*

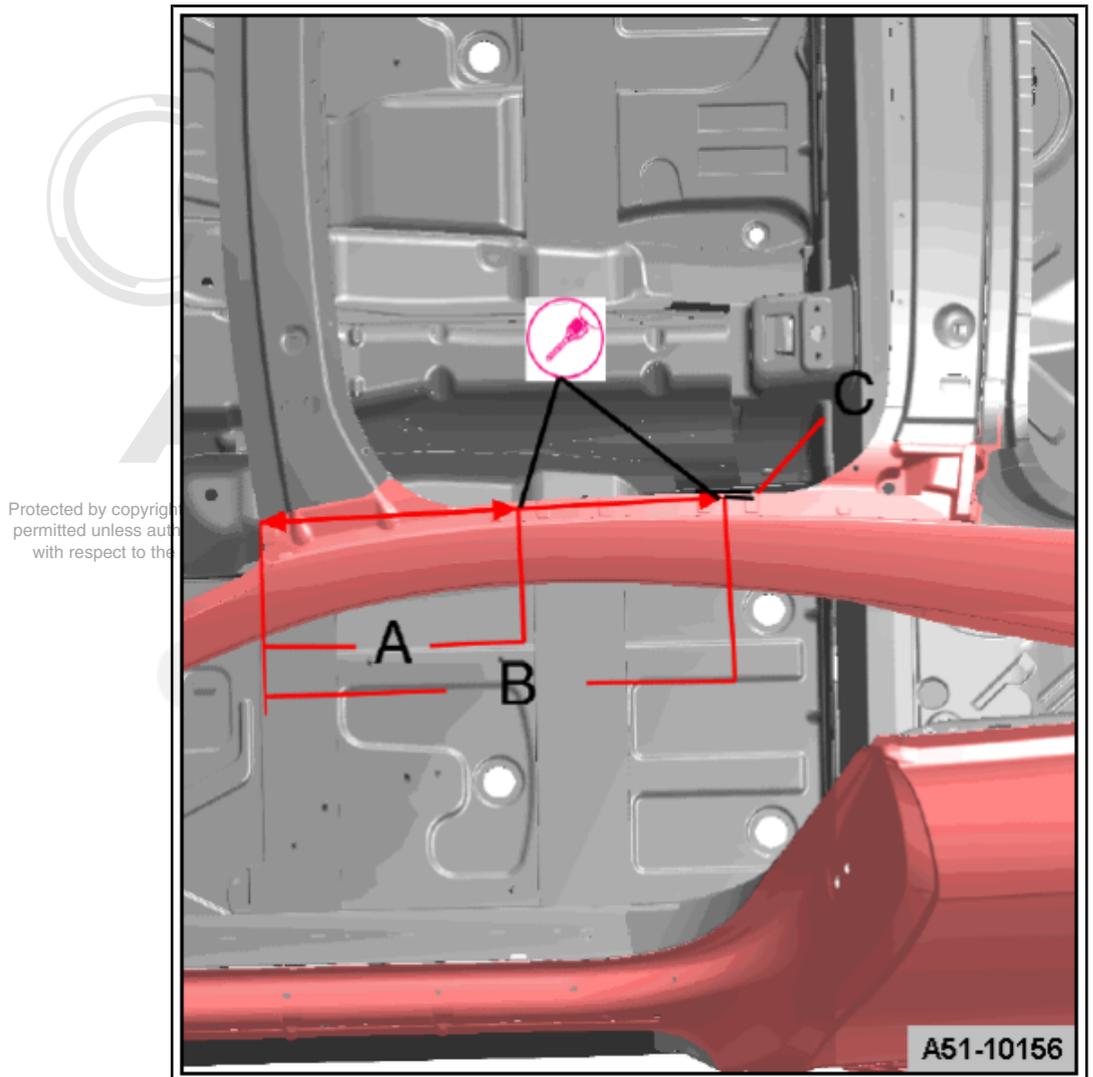
Roof edge as basis for dimension A + B

Dimension A = 311 mm

Dimension B = 571 mm

Dimension C = 11.3 mm from inside of roof frame.

- Remove the rivets with the rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .
- Drill \varnothing 6.5 mm holes for the roof bracket using the drill -VAS 5830- .

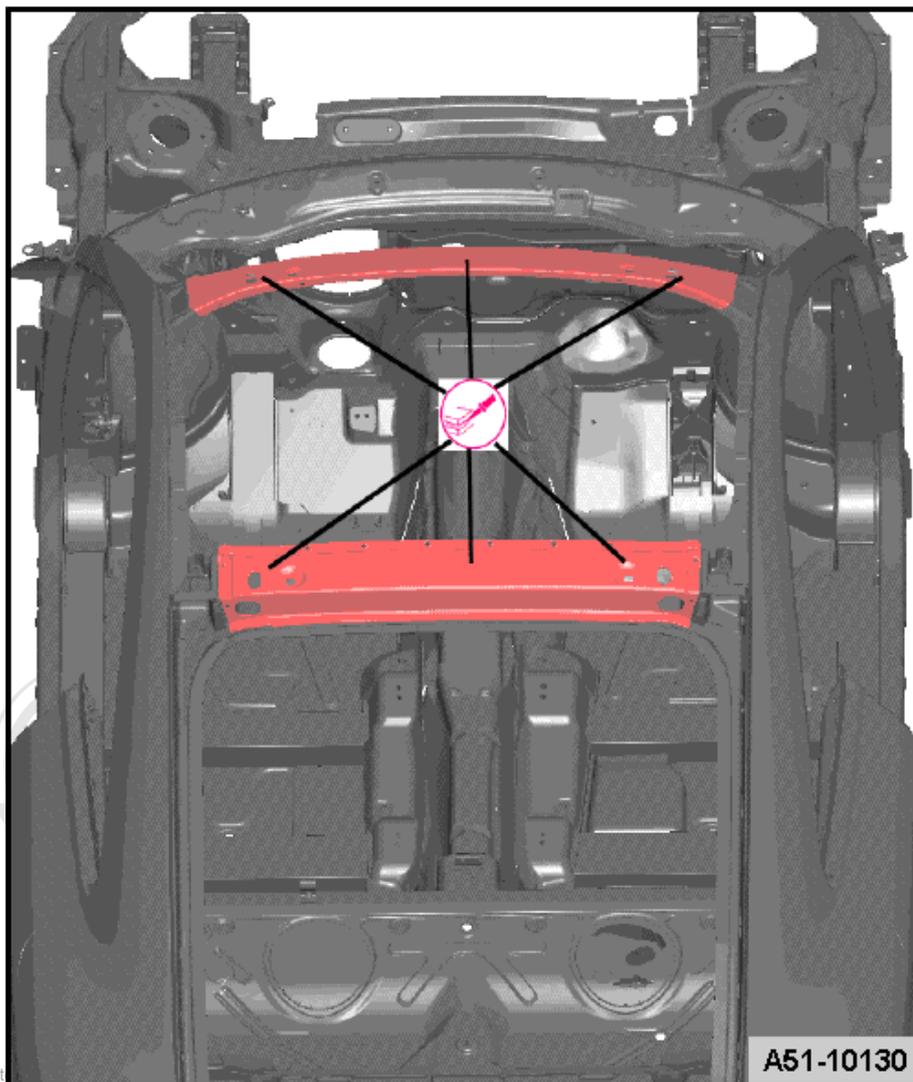


Preparing New Parts

- Clean roof pillars and new roof panel (replacement part) with silicon remover LSE 020 100 A3.

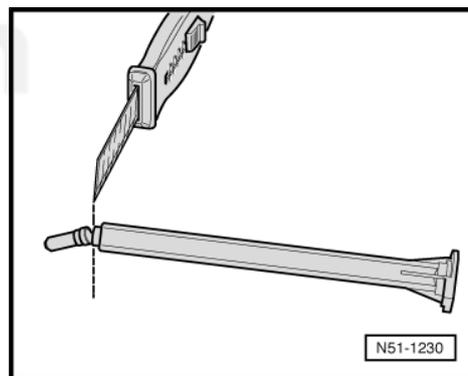
Roof, Bonding

- Mask roof pillar a connection to roof with adhesive tape to avoid unnecessary sanding.
- Replacement part - tape off roof at connection to roof pillars with adhesive tape to avoid unnecessary sanding.
- Apply adhesive -DA 001 730 A2- to the front and back of the roof crossmember.

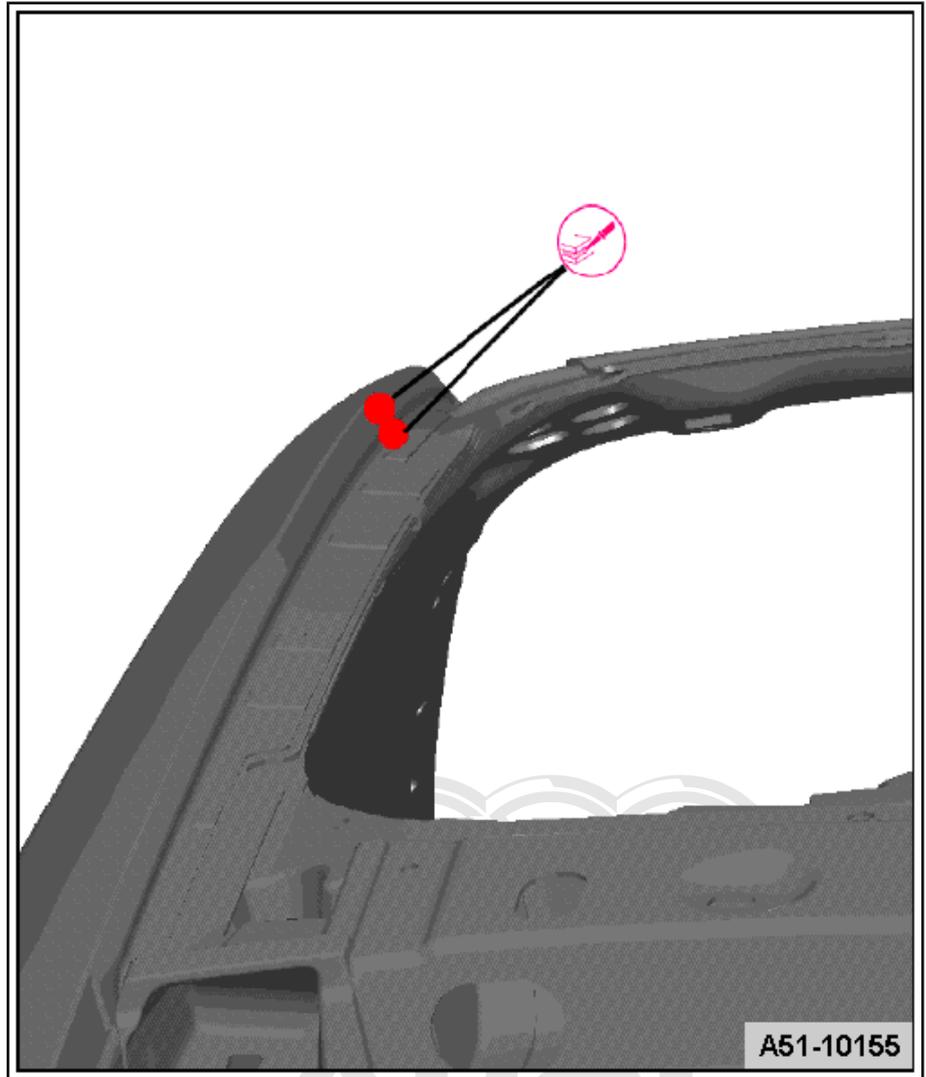


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- Prepare adhesive cartridges
- Cut static mixer of adhesive set -DA 001 730 A2- down to the 4th notch to obtain the required bead cross-section.



- Apply the adhesive beads to the roof pillars using the compressed air adhesive pistol -V.A.G 2005 B- .

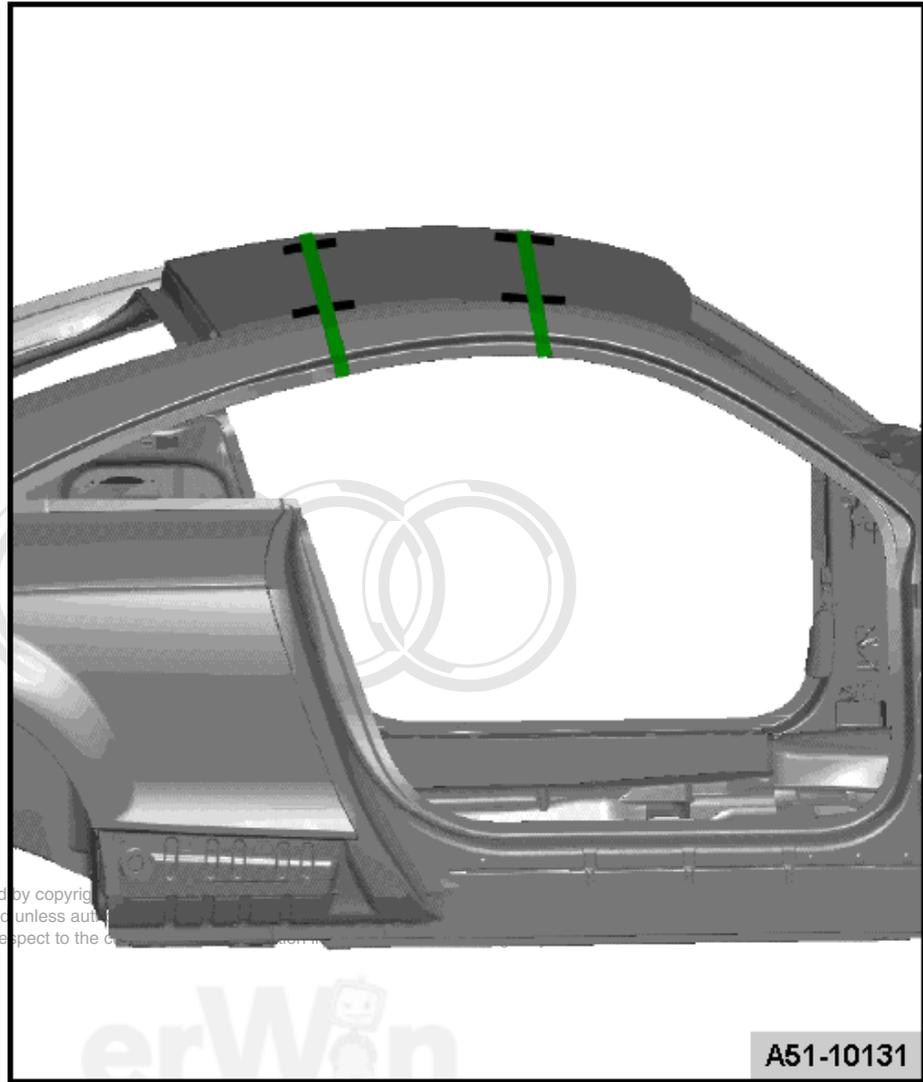


- Tighten the two tensioning straps -T10038- diagonally over the roof.
- Use a plastic wedge to obtain the required depth.

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i Note

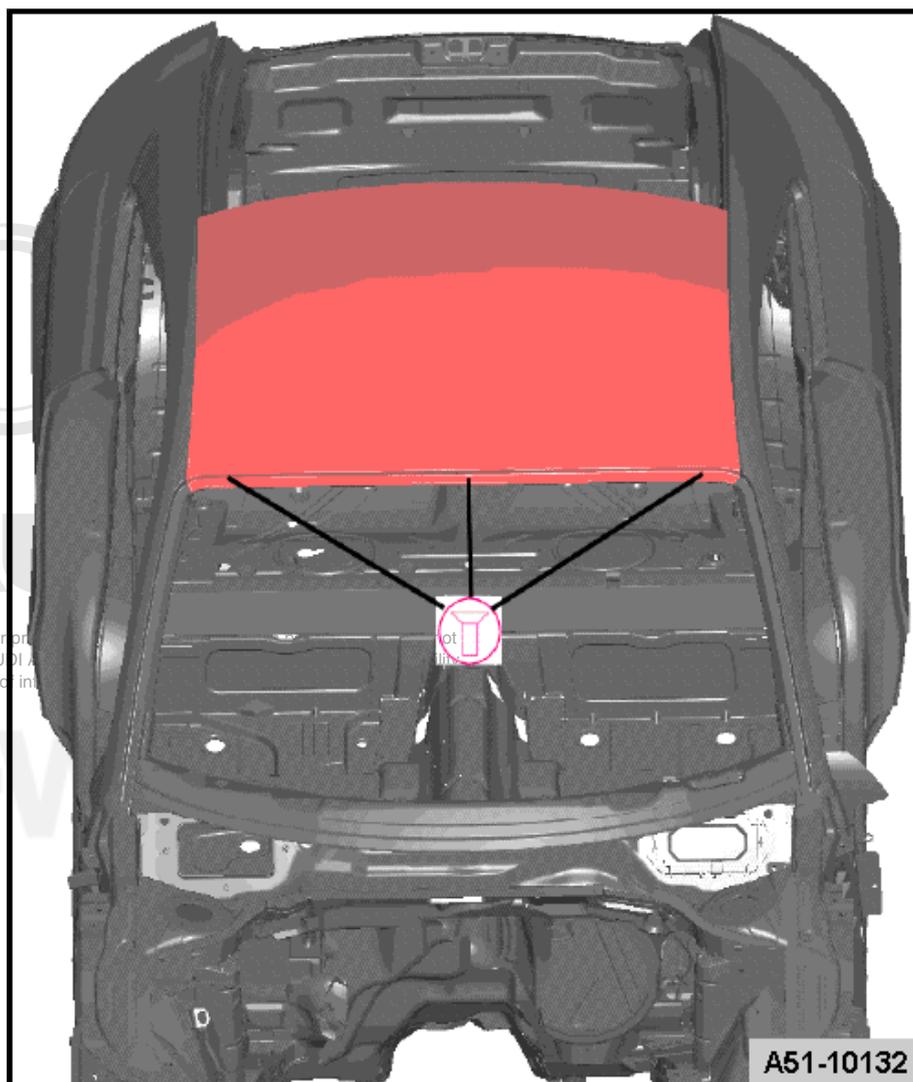
The tensioning straps may not be overtightened to avoid damages to the roof center part and side wall frames



- Rivet the front of the roof with a rechargeable riveter -VAS 5279A- .

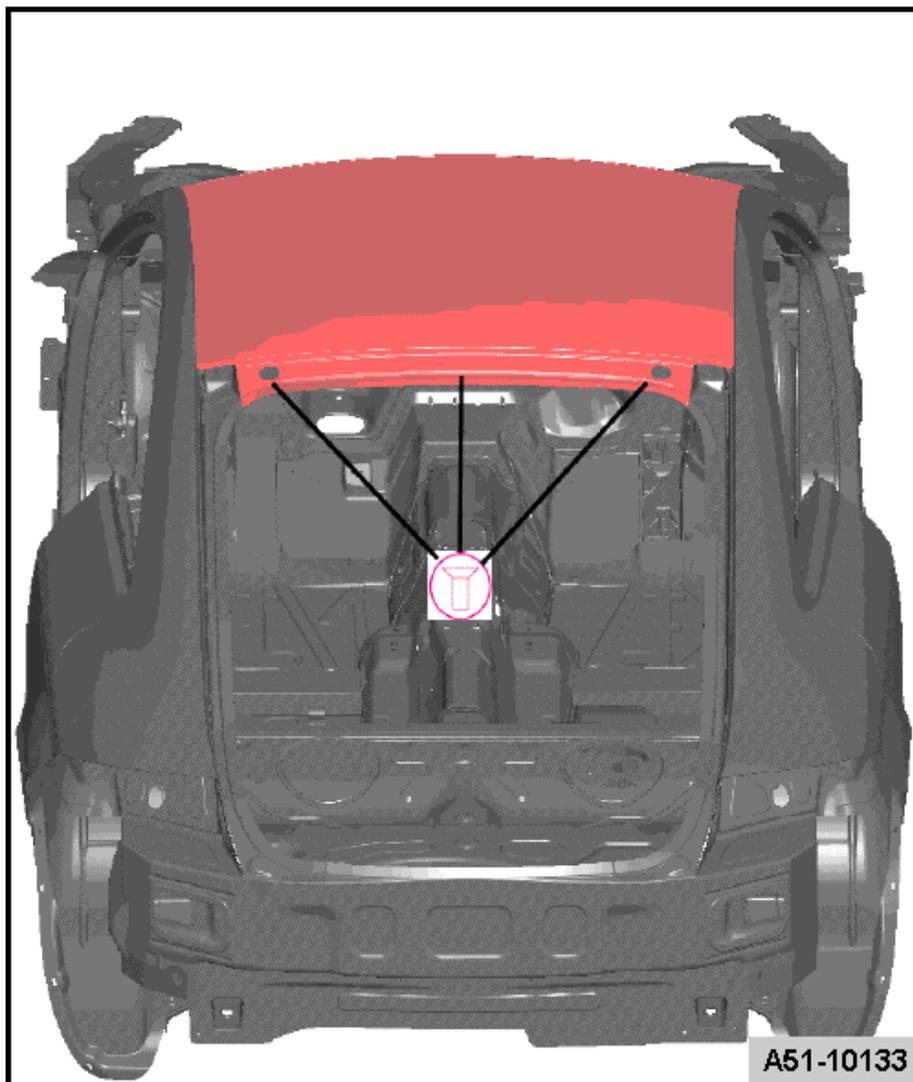
Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .

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- Rivet the back of the roof with a rechargeable riveter -VAS 5279A- .

Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .

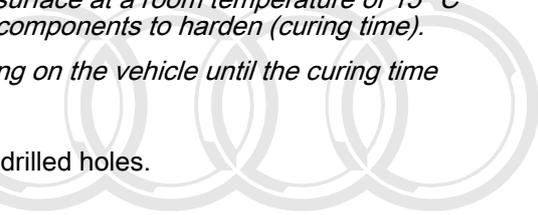


A51-10133

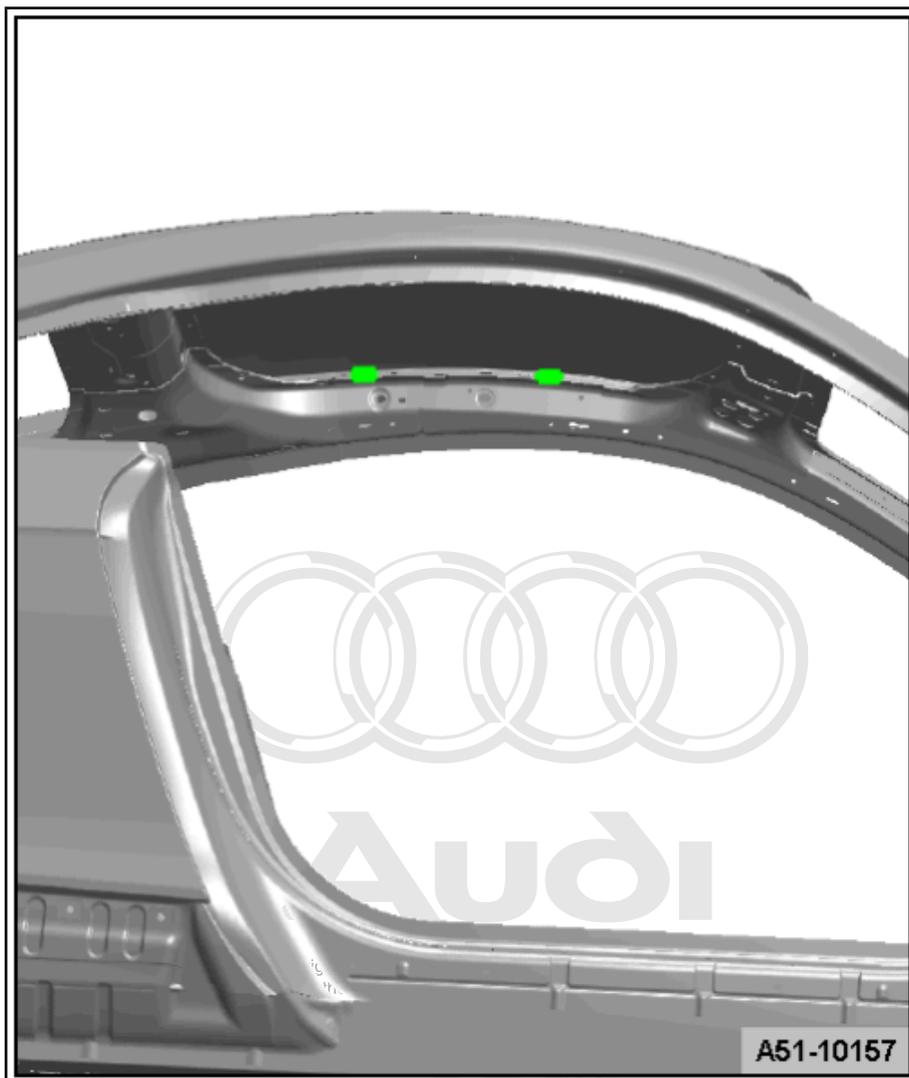
 **Note**

- ◆ *After completing the riveting, the vehicle must be left standing for 8 hours on a level surface at a room temperature of 15° C to allow the adhesive components to harden (curing time).*
- ◆ *Do not continue working on the vehicle until the curing time has elapsed.*

Install roof bracket in pre-drilled holes.


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1.2 Roof Pillar



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

Enter the repair to the roof pillar in the customer Maintenance booklet under workshop proof.



WARNING

When replacing the roof pillar, is it necessary to use structure foam to reinforce the roof rack on vehicles through VIN TRUZZZ8JZ81044000.

Always maintain the curing time.



Note

- ◆ *After applying the foam, the vehicle must be left standing for 24 hours on a level surface at a room temperature of 15° C to allow the epoxy foam to harden (curing time).*
- ◆ *Do not continue working on the vehicle until the curing time has elapsed.*

Special tools and workshop equipment required

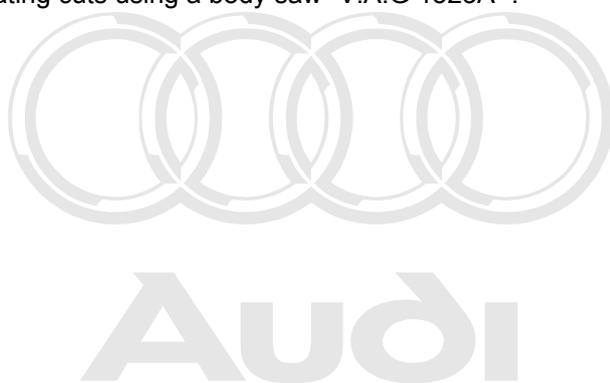
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

Left roof pillar injected with foam: yes / no

Right roof pillar injected with foam: yes / no

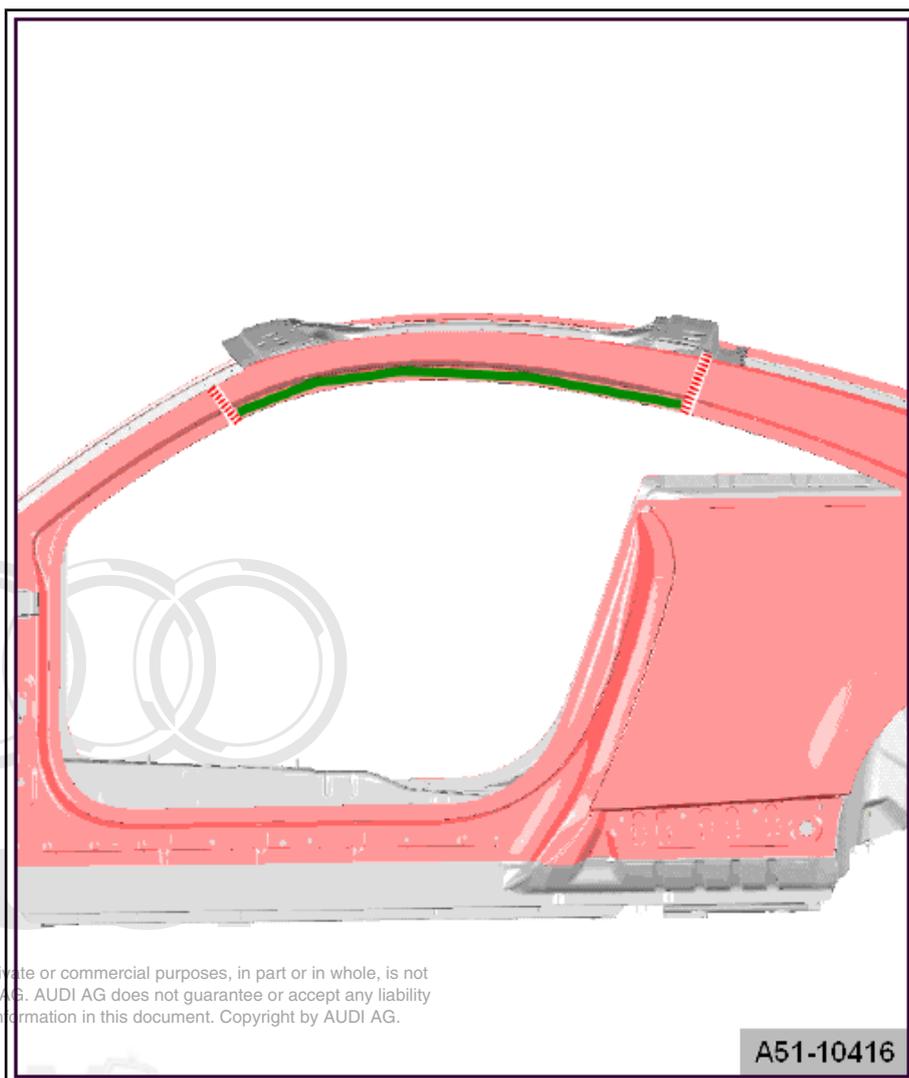
Separating areas

- Cut the original joint with an rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .
- Make the separating cuts using a body saw -V.A.G 1523A- .



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Replacement part

- ◆ Roof pillar (sub-part)

Preparing New Parts

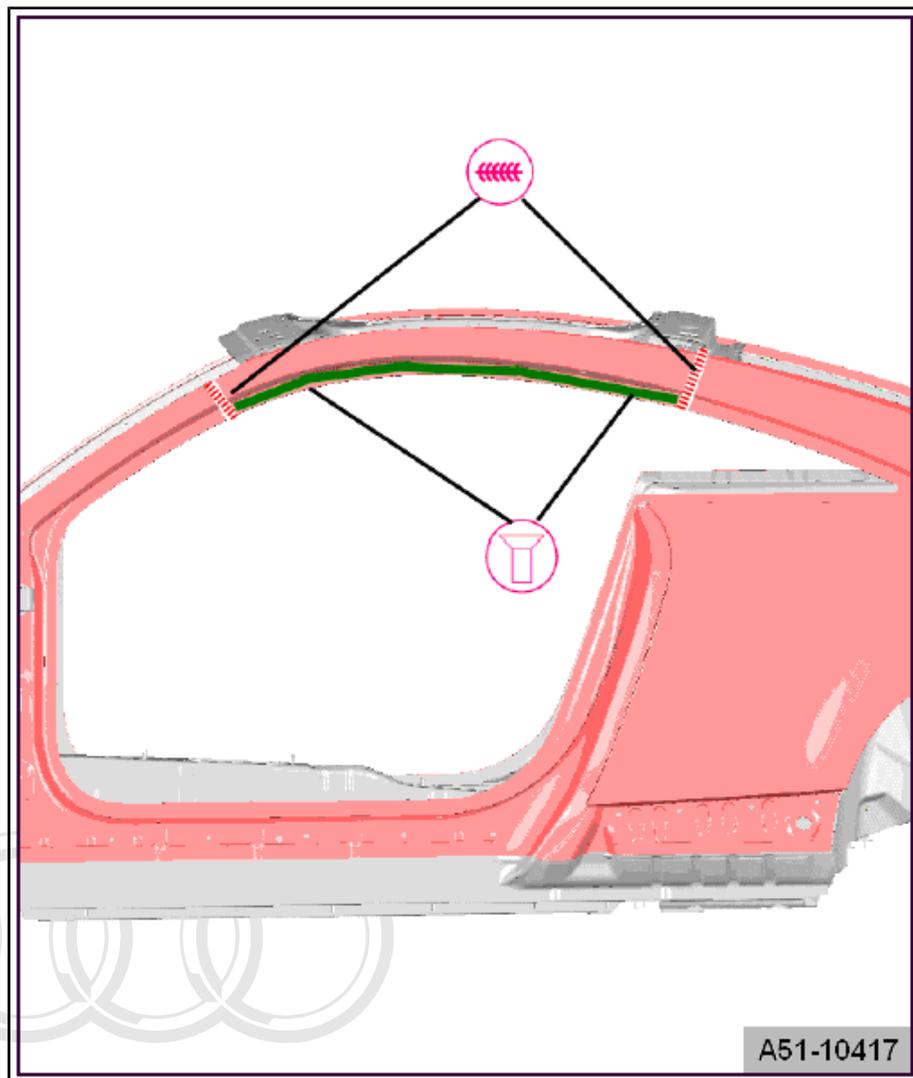
Prepare new part for riveting procedure.

Riveting

- Rivet the roof pillar with a rechargeable riveter -VAS 5279A- .

Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .

- Weld the roof pillar with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .



Roof pillar, filling with foam

Enter the repair to the roof pillar in the customer Maintenance booklet under workshop proof.

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Left roof pillar injected with foam: yes / no

Right roof pillar injected with foam: yes / no



Note

- ◆ After riveting, the vehicle must be left standing for 24 hours on a level surface at a room temperature of 15° C to allow the adhesive components to harden (curing time).
- ◆ Do not continue working on the vehicle until the curing time has elapsed.



Note

The procedure is described for the left side of the vehicle. The procedure for the right side is identical.

Always follow the work procedure:

Warm the foam cartridge to approximately 140°F (60 °C) in hot water for 30 minutes.

If available, the cartridge can be warmed up to 140°F (60 °C) in a warming oven.

Remove the inner A-pillar.

Remove the roof trim molding.

Seal off the holes for the rivets with tape.

Prepare the static mixer for applying the foam.

Inject foam in the holes and then install the bolts immediately.

Install the inner A-pillar.

Install the roof trim molding.

Replacement Parts

- ◆ 4 x 2 K epoxy foam -D 506 110 A2-
- ◆ Blind rivet N 910 197 01, quantity: 22

Special tools and workshop equipment required

- ◆ Drill -VAS 5830-
- ◆ Trim removal wedge -3409-
- ◆ Cartridge gun -VAG 1628-
- ◆ Pop rivet pliers -VAS 5072-

– Warm the foam cartridge to approximately 140°F (60 °C) in hot water for 30 minutes.

If available, the cartridge can be warmed up to 140°F (60 °C) in a warming oven.

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1 - 2K - foam cartridge

- Open the seal.

2 - Static mixer

3 - Extension hose

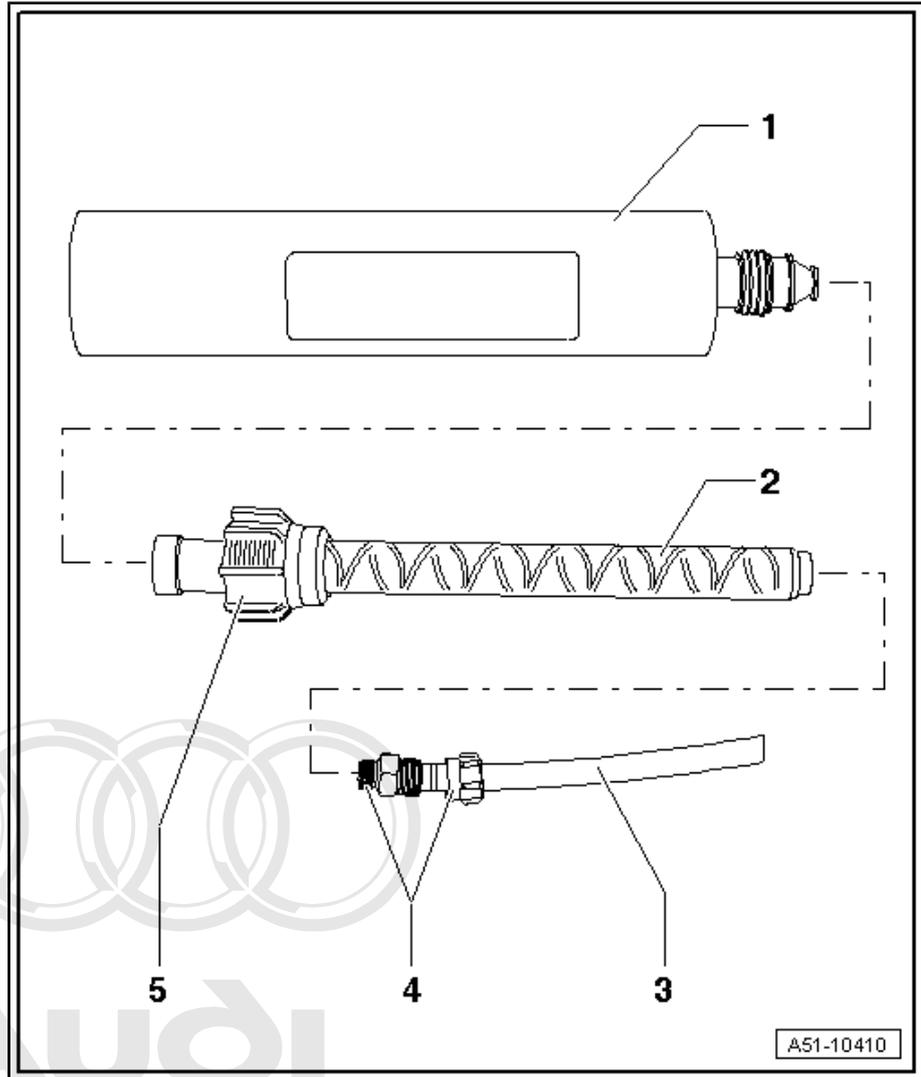
4 - Adapter



Note

5 - Union nut

- Connect the static mixer -2- to the foam cartridge -1-.

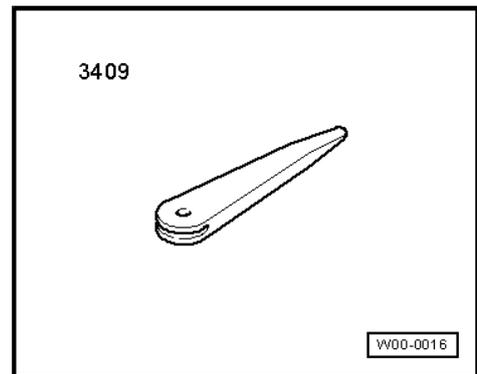


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Remove upper A-pillar

Special tools and workshop equipment required

- ◆ Trim removal wedge -3409-



Removing

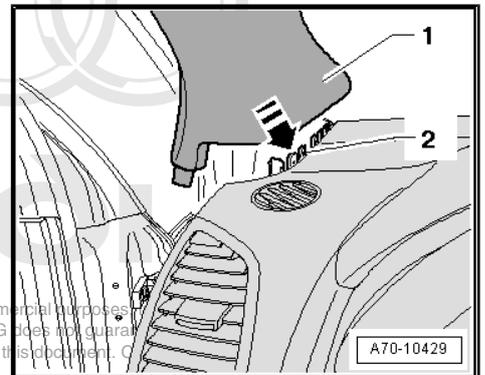
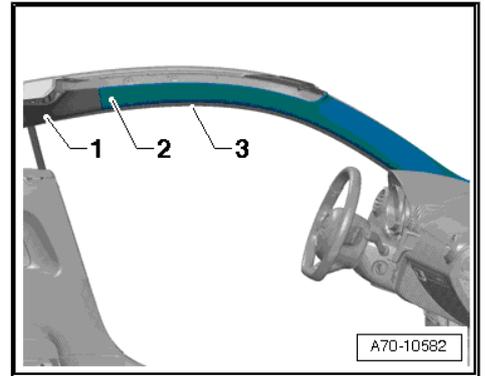
- Unclip C-pillar trim -1- near the top of the A-pillar -2-.
- Unclip upper A-pillar trim -2- beginning at top using Trim Removal Wedge -3409- .
- Remove upper A-pillar trim -2- upward.

Installation

Installation is in reverse order of removal, noting the following:

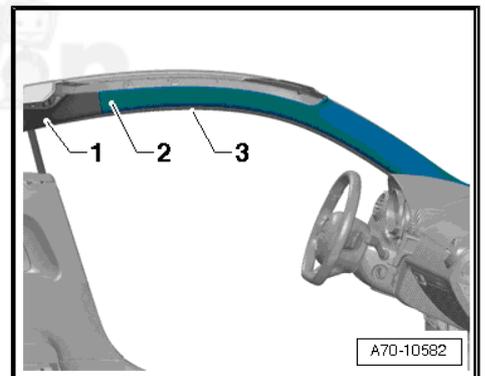
Note

- ◆ *If trim clamps remain in body mounting points, remove these and insert them in trim.*
 - ◆ *Check clamps for damage or deformation, replace if necessary.*
- First insert upper A-pillar trim -1- in ribbed instrument panel ridge -2- in -direction of arrow-.



- Clip upper A-pillar trim -2- in and stretch lip of door seal -3- over upper A-pillar trim -2-.

Removing the roof trim molding



Note

To remove roof trim molding, it is not necessary to remove the side window.

1 - Roof trim molding

 **Note**

- Remove door seals from body flange in roof trim molding area.
- Drill off rivet heads of pop rivets, strike rivet shafts through and remove roof trim molding.
- Carefully pry roof trim molding out of clips and remove.

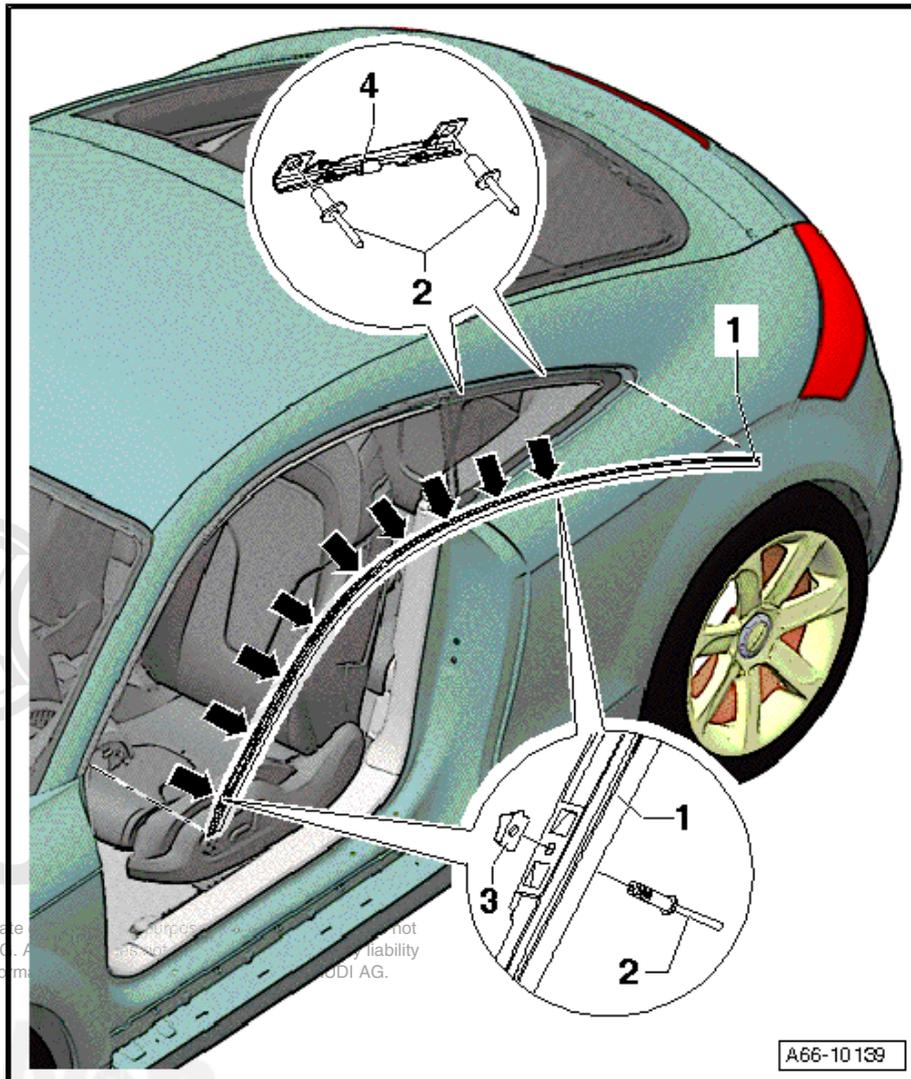
2 - Pop rivet

- Quantity: 11

3 - Side panel

4 - Retaining clip

- Quantity: 4



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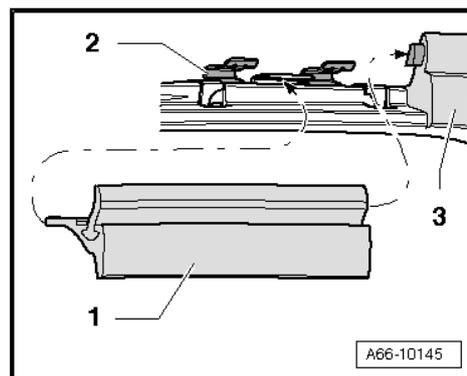
Roof trim molding end piece

- When installing, first slide roof trim molding -1- into window molding -2- on side window, then press into clips -2-.

Structure foam, applying

 **Note**

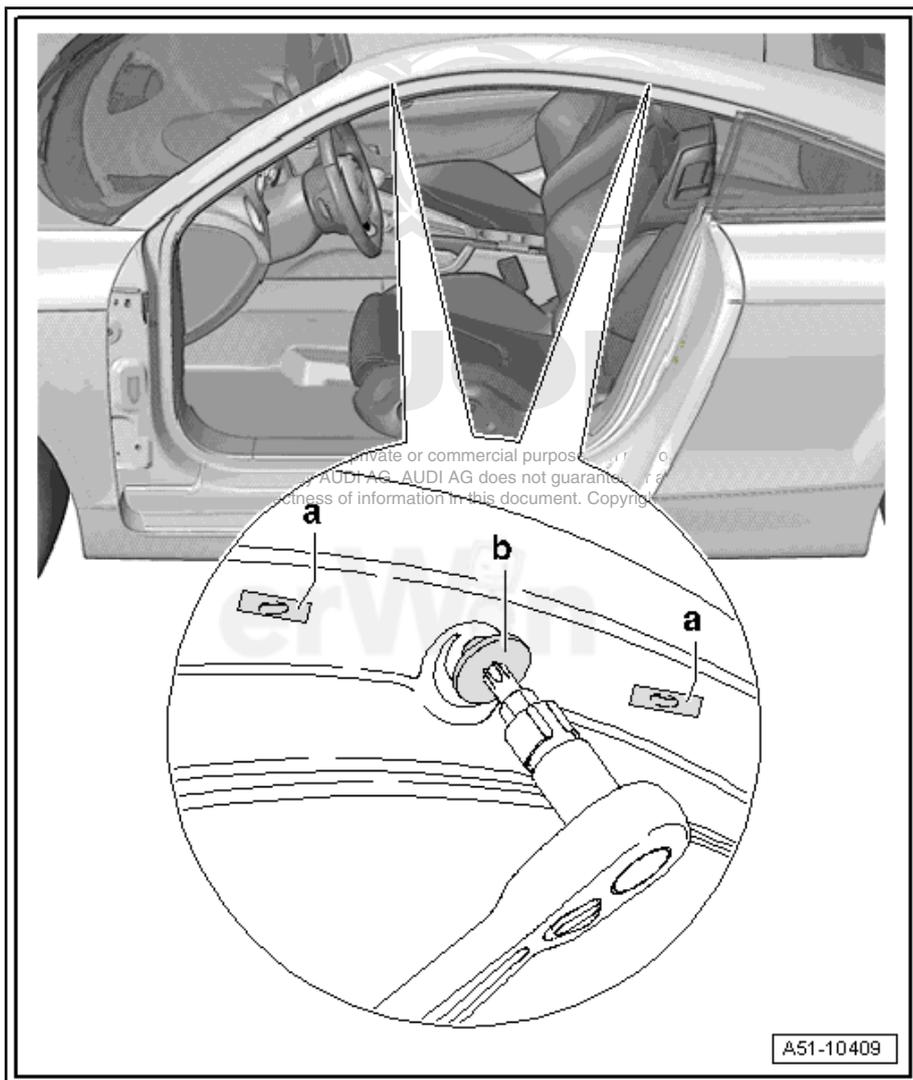
Use one static mixer tube for all four openings.



A66-10145

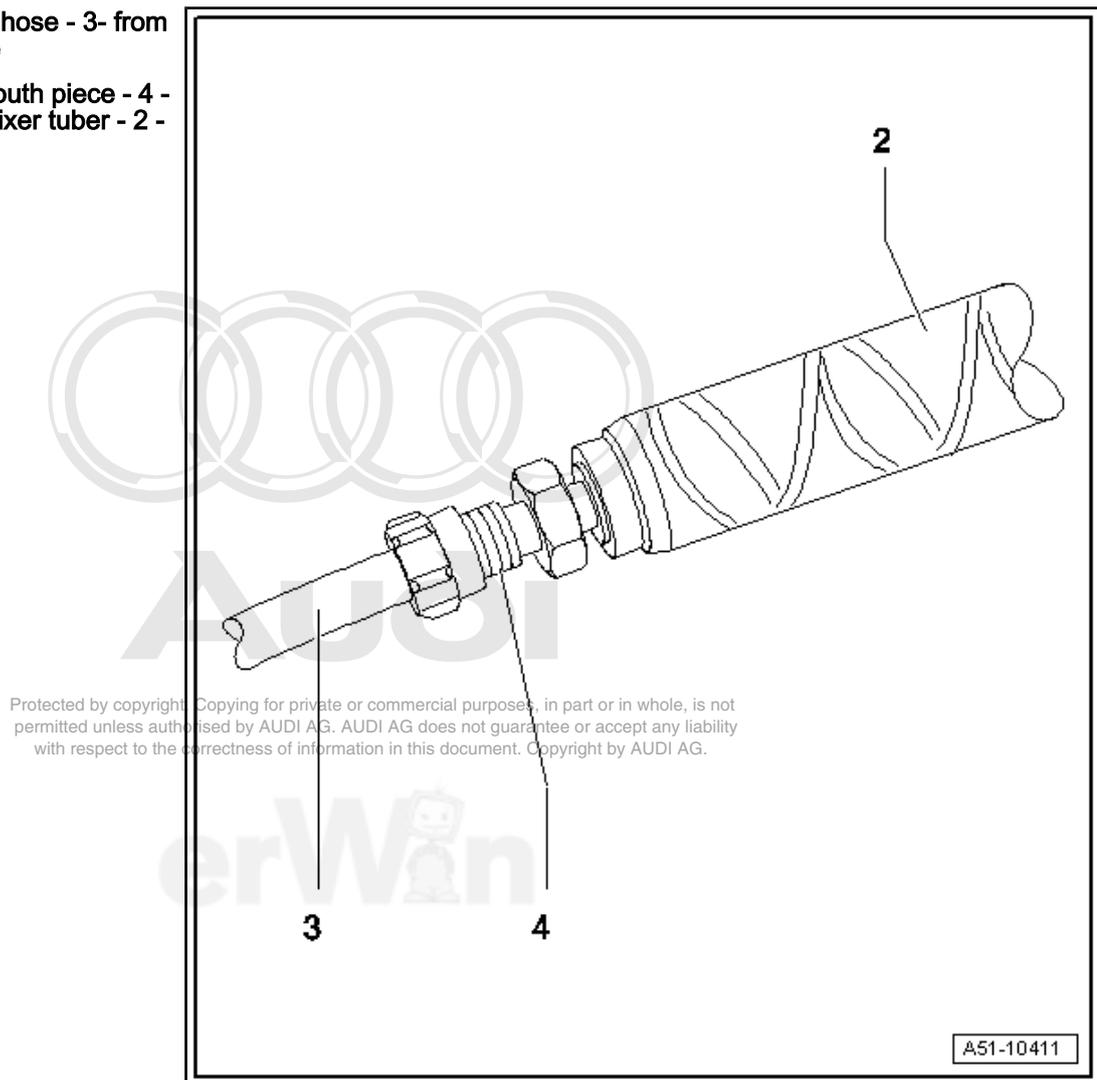
Remove the bolts from the roof pillar- b -.

Seal off the rivet holes - a - with tape.

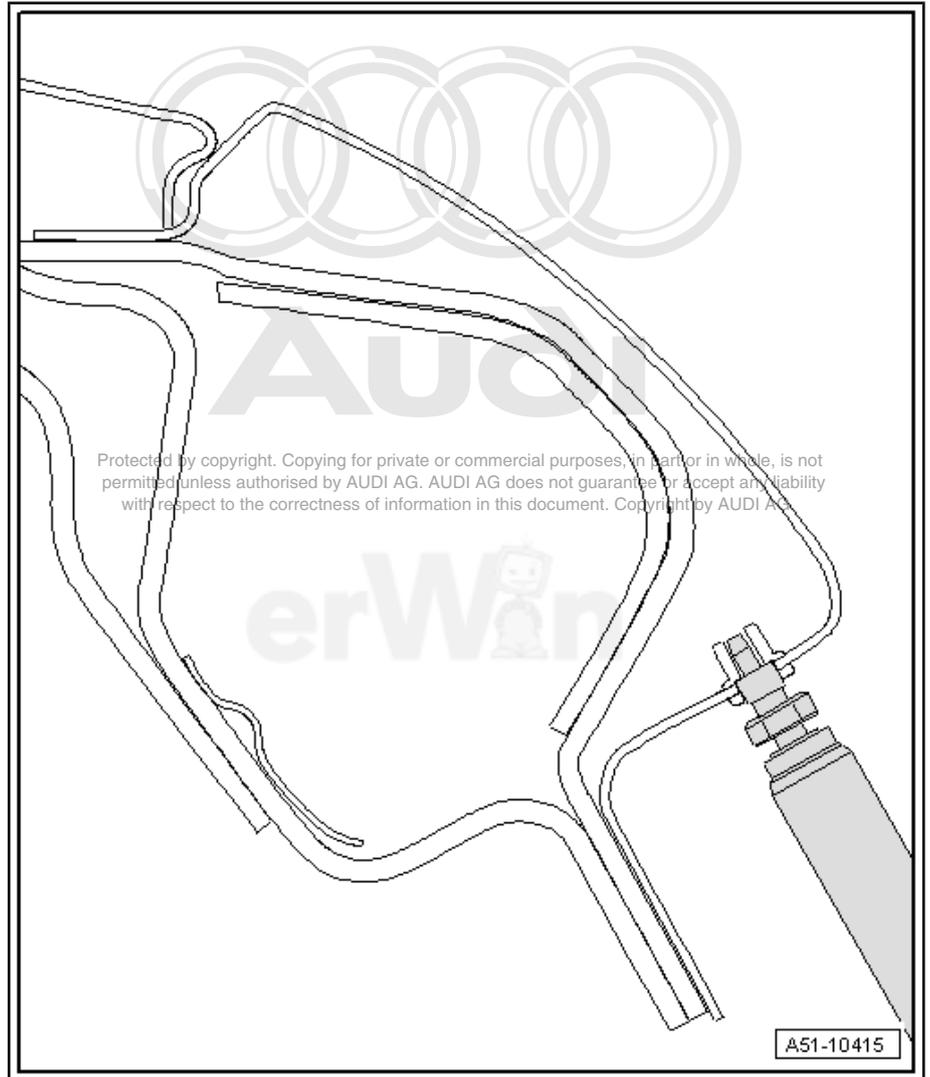


1 - Remove the hose - 3- from the mouth piece

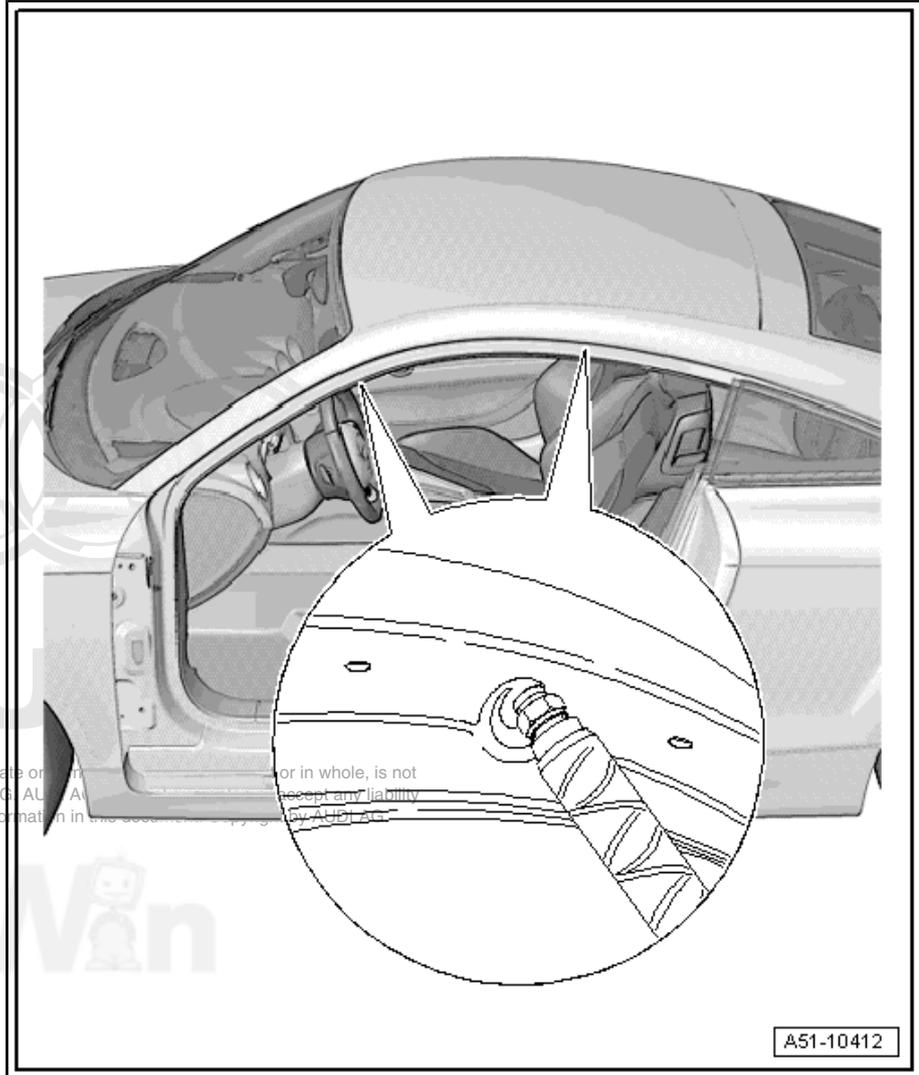
2 - Install the mouth piece - 4 - into the static mixer tuber - 2 -



– Hold the cartridge gun -V.A.G 1628- vertical to the roof pillar.



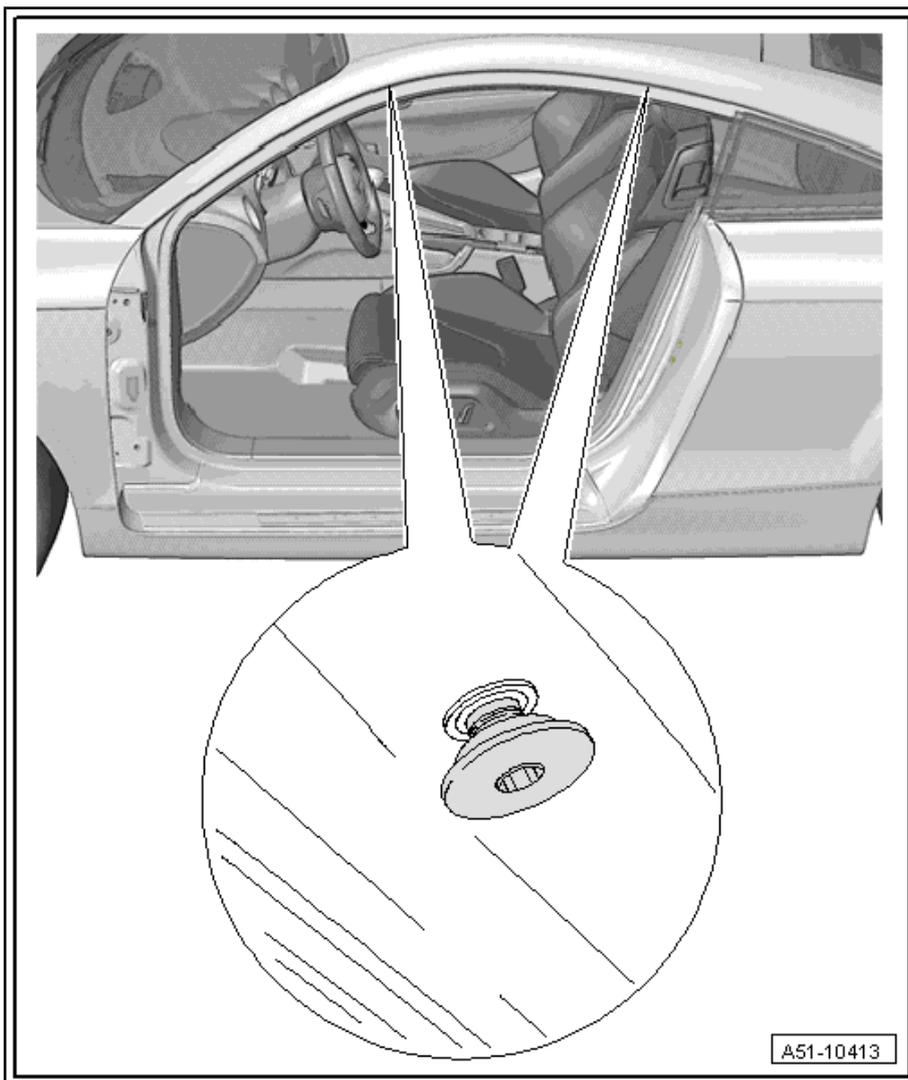
- Insert one 2K epoxy foam cartridge into the openings for the bolts.



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A51-10412

1 - Install the bolts immediately



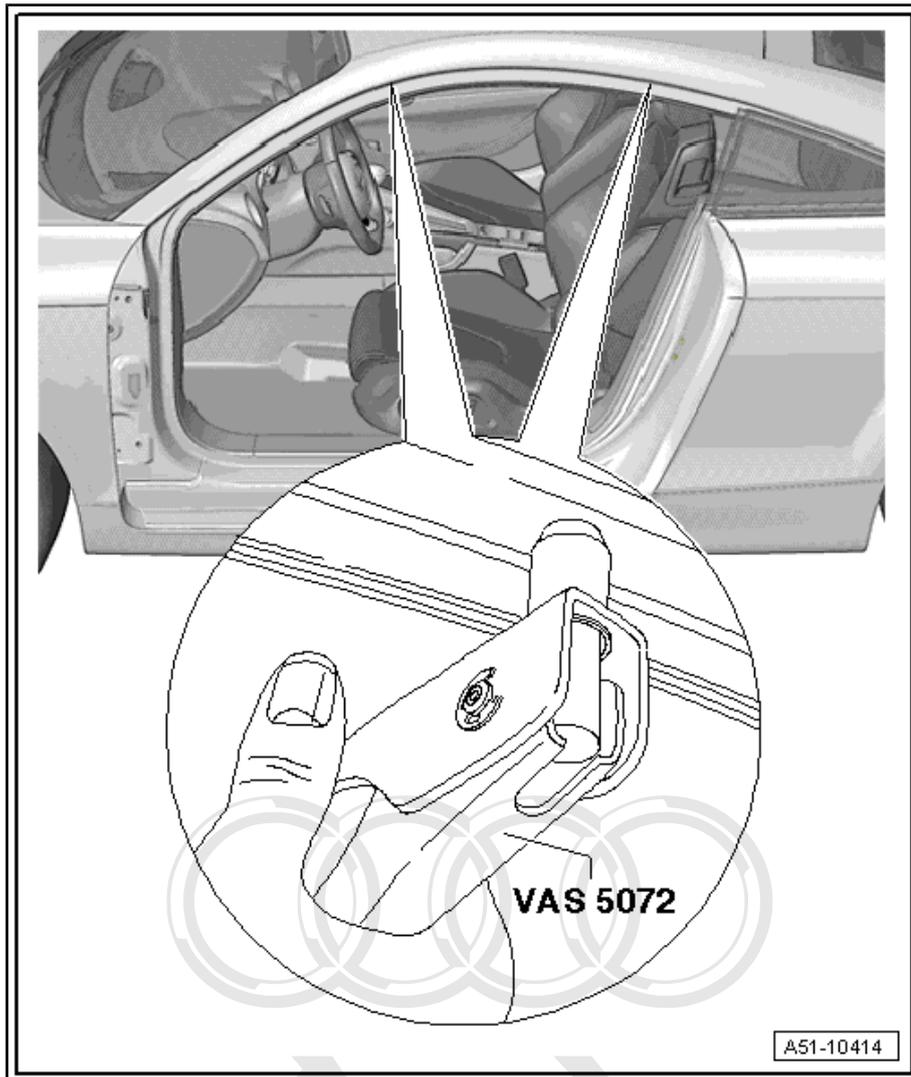
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erWin 



1 - After filling, rivet the roof trim molding using the pop rivet pliers -VAS 5072-



Note

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- ◆ *After riveting, the vehicle must be left standing for 24 hours on a level surface at a room temperature of 15° C to allow the adhesive components to harden (curing time).*
- ◆ *Do not continue working on the vehicle until the curing time has elapsed.*

1.3 Outer Roof Frame, Roadster



WARNING

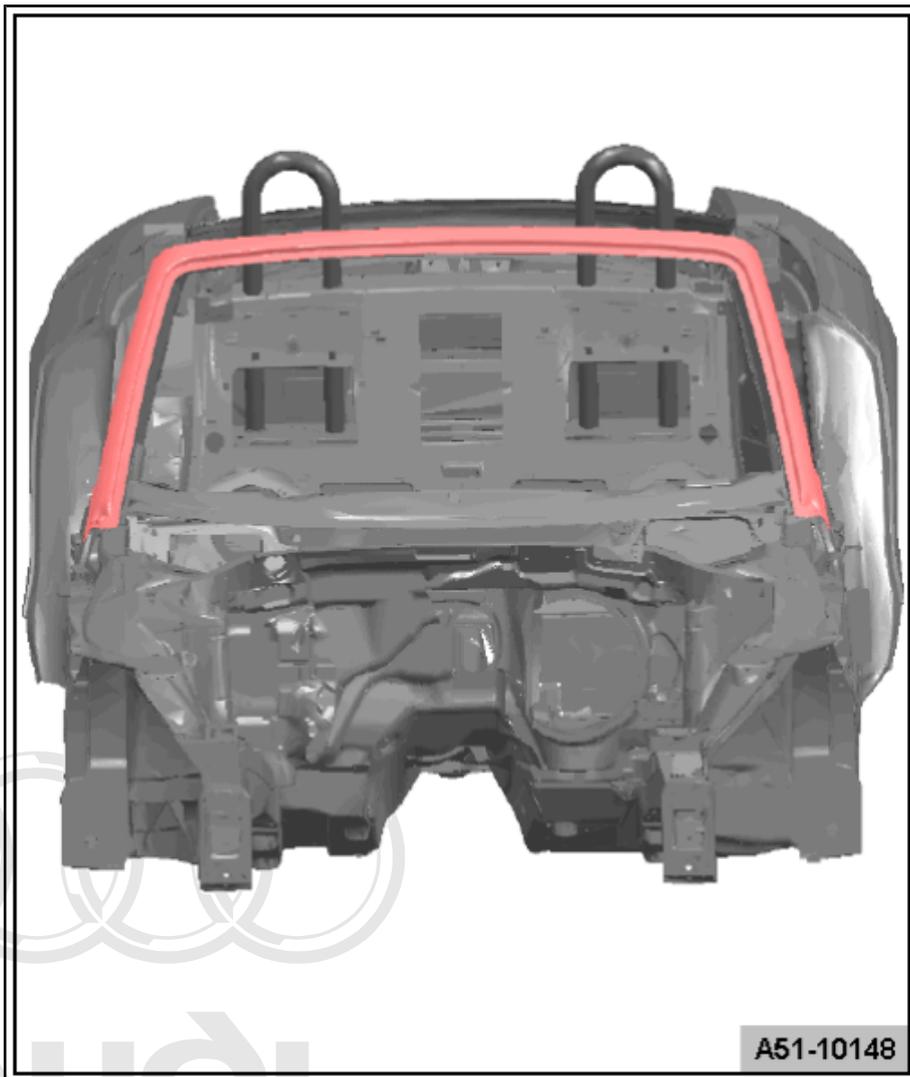
Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

Special tools and workshop equipment required

- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-

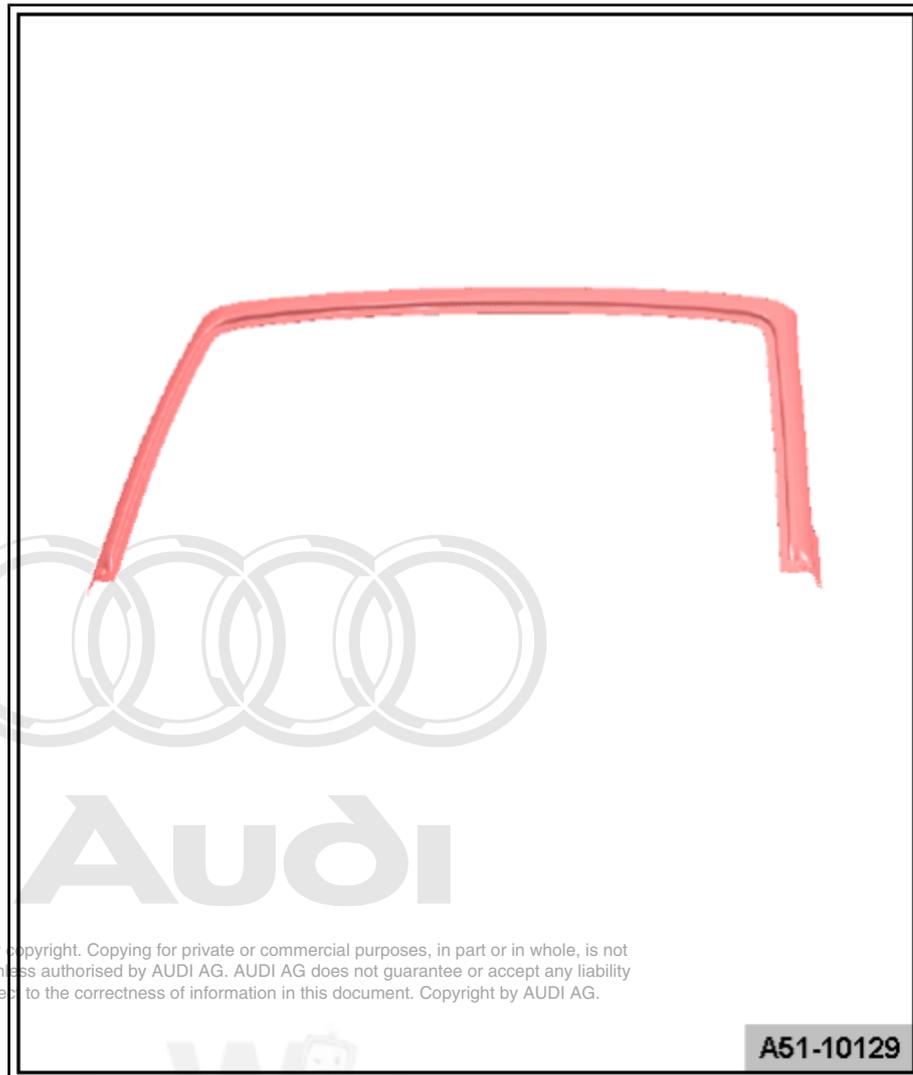
Separating areas

- Cut the original joint with a rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .



Replacement part

- ◆ Outer roof frame
- ◆ Punch rivets
- ◆ Body adhesive DA 001 730 A2



Preparing New Parts

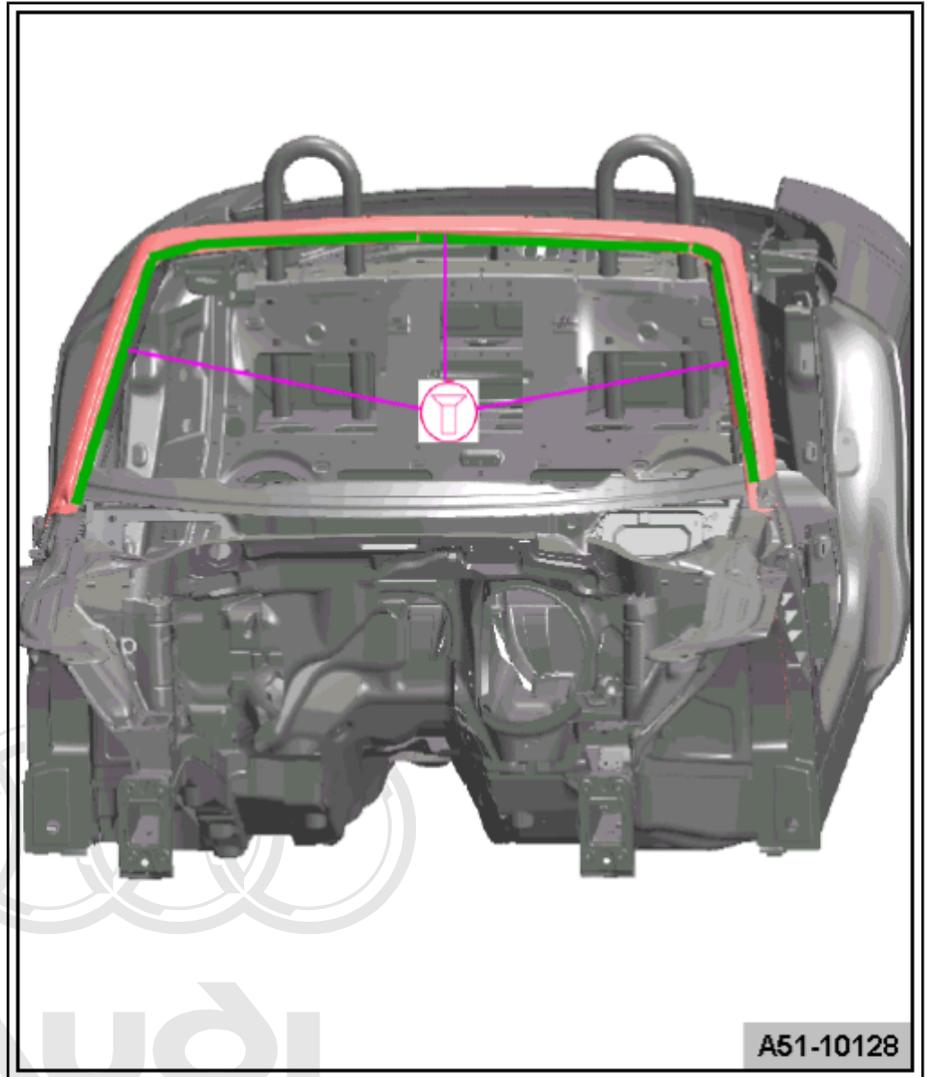
- Apply aluminum primer DA 009 801 using a paint brush.
- Apply 2K adhesive DA 001 730 A2 all over the riveting area.

Prepare new part for riveting procedure.

Riveting

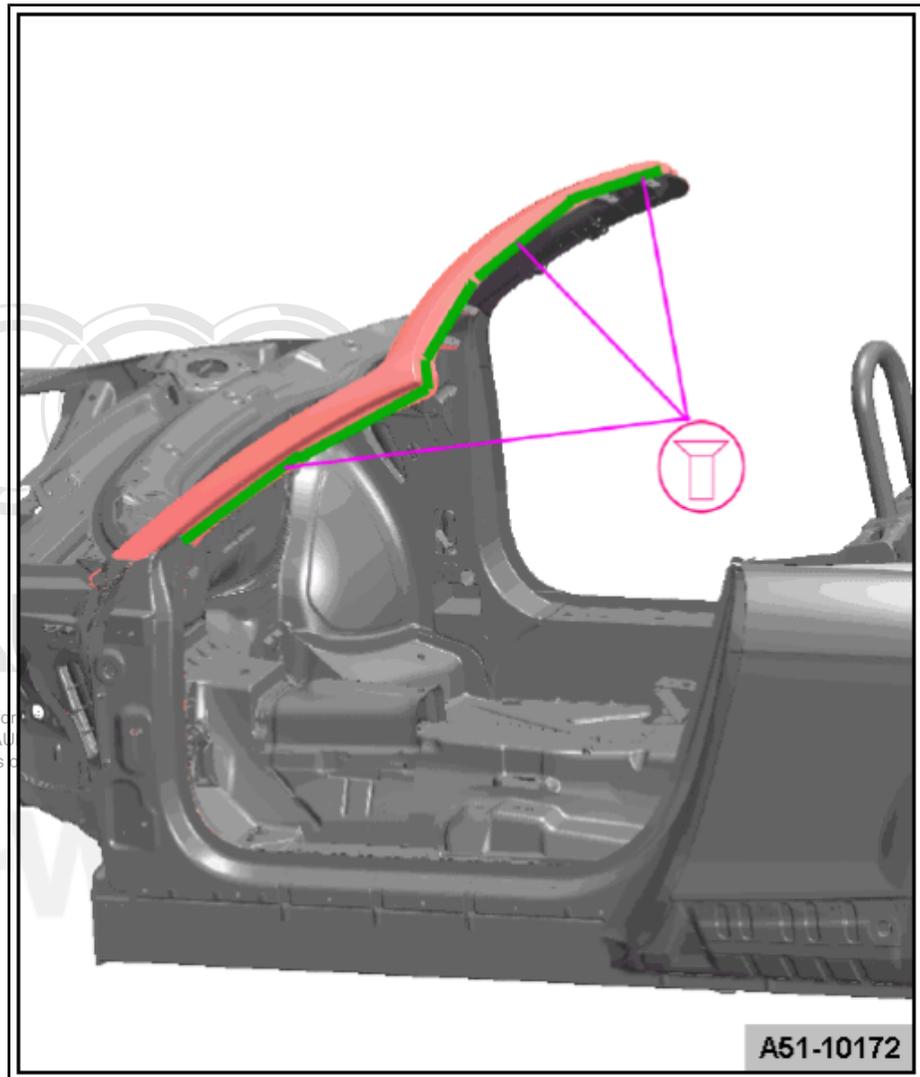
Rivet the front of the roof frame with the rechargeable riveter -VAS 5279A- .

Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .



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Rivet the roof frame with a rechargeable riveter -VAS 5279A-
Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .



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1.4 Front Roof Cross Member



WARNING

*Observe safety precautions. Refer to ⇒ General Information;
Body Repairs, Body Collision Repair*

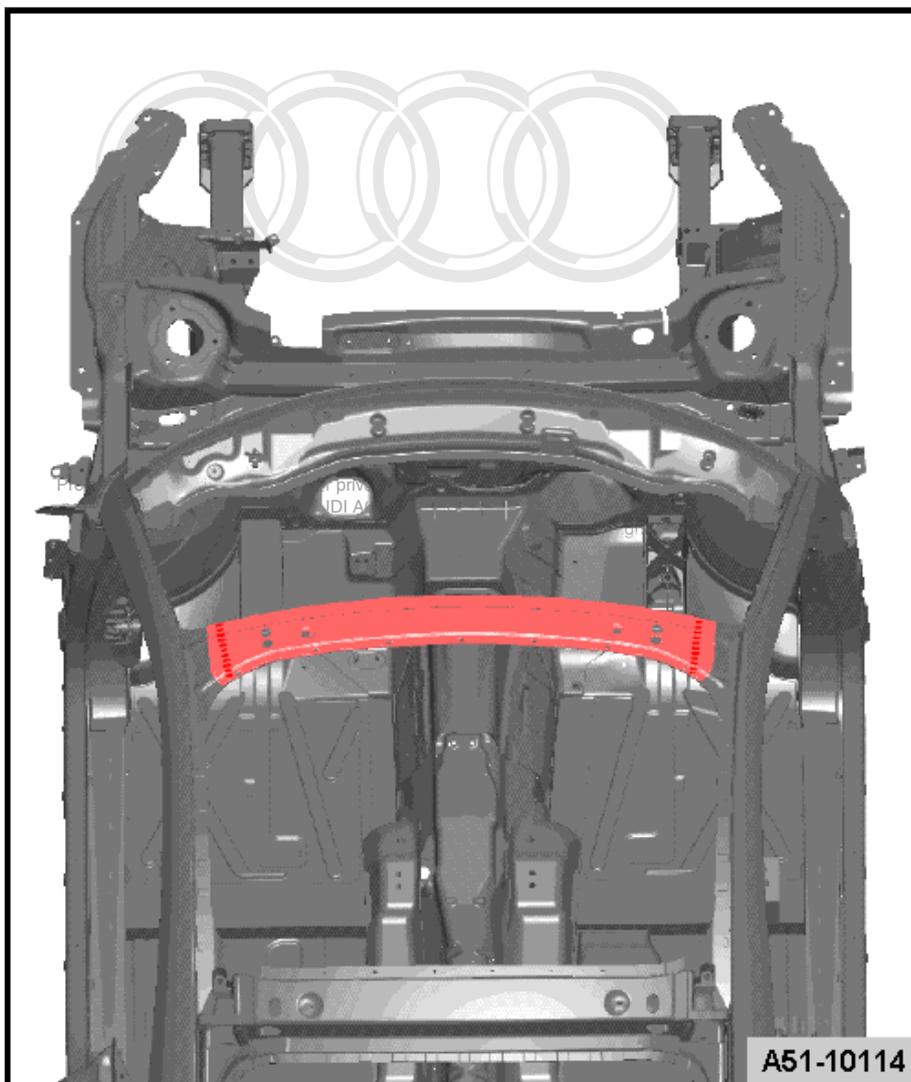
Special tools and workshop equipment required

- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

- Roof already removed
- Roughly cut out the crossmember using the body repair saw -V.A.G 1523A- .
- Cut the original joint with an rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .

- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .
- Remove residual material.



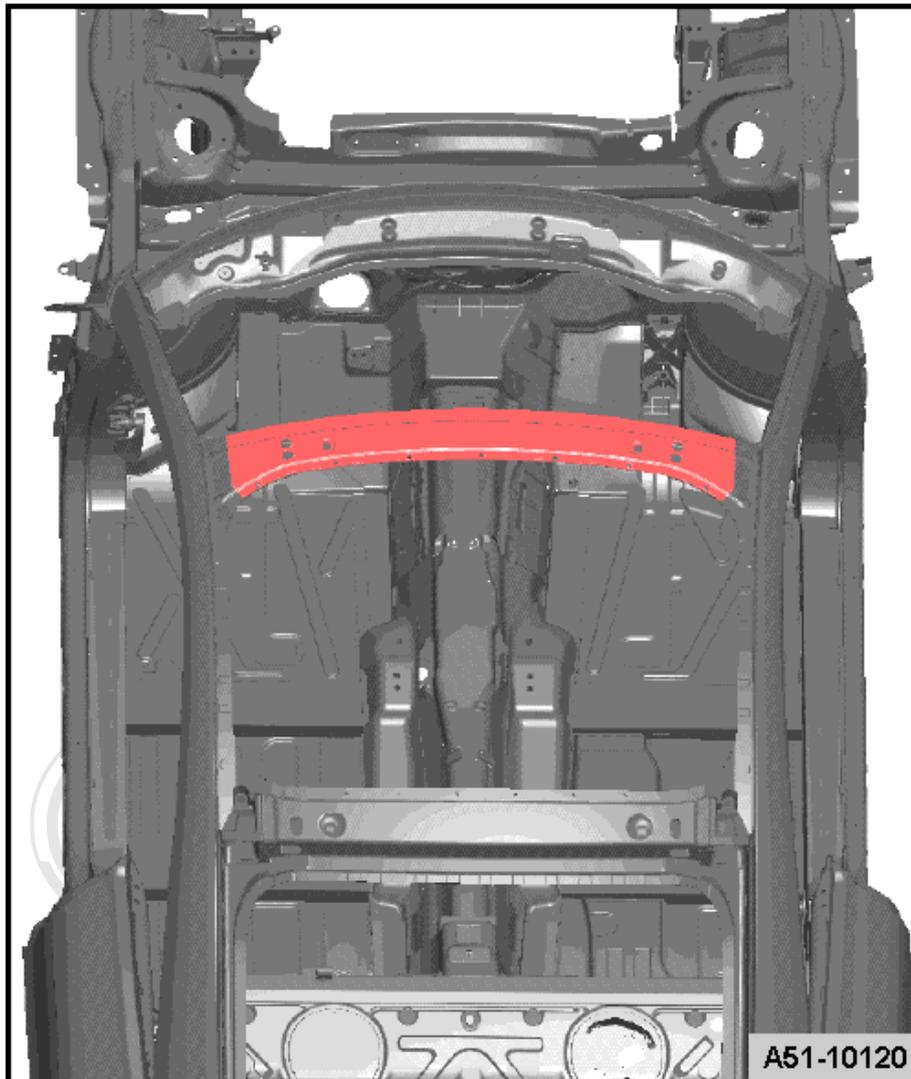
Replacement Parts

- ◆ Roof Crossmember
 - ◆ Body adhesive DA 001 730 A2
 - Apply aluminum primer DA 009 801 using a paint brush.
 - Apply 2K adhesive DA 001 730 A2 all over the riveting area.
- Prepare new part for riveting procedure.

Riveting

- Align the new part and fix it in place.
- Rivet in the roof crossmember using the rechargeable riveter -VAS 5279A- .

Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .



1.5

Rear Roof Frame

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WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair; Safety precautions

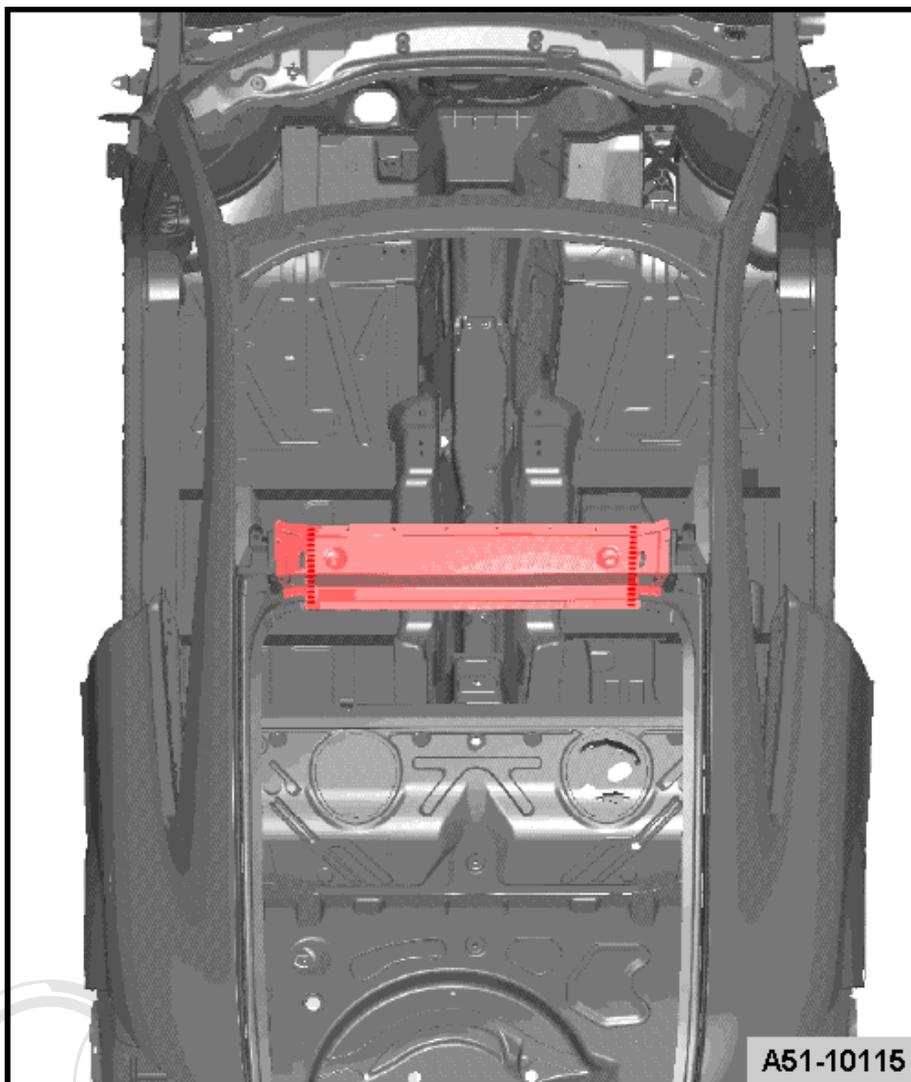
Special tools and workshop equipment required

- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

- Roof already removed
- Cut the original joint with an rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .

- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .
- Roughly cut out the back of the roof frame using body repair saw -V.A.G 1523A- .
- Remove the remainder using the single hand angle grinder -VAS 5167- .



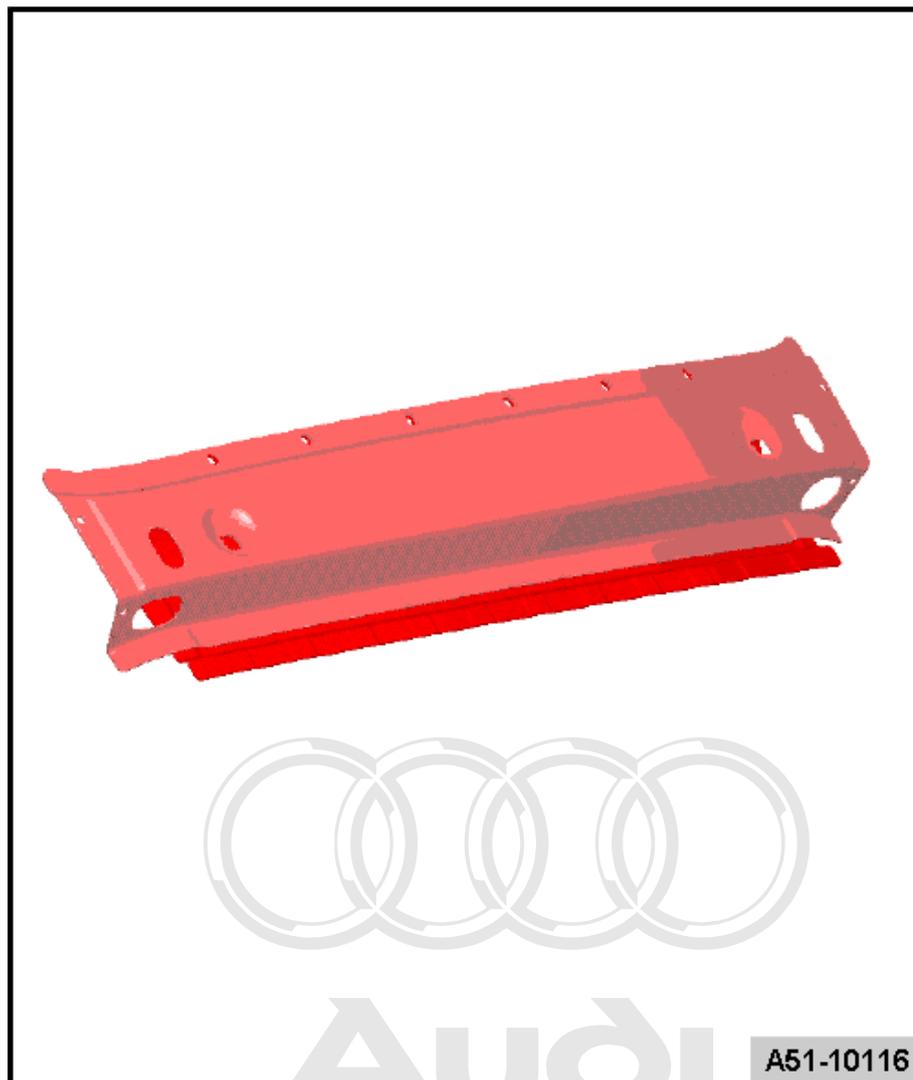
Replacement Parts

- ◆ Body adhesive DA 001 730 A2
- ◆ Roof frame


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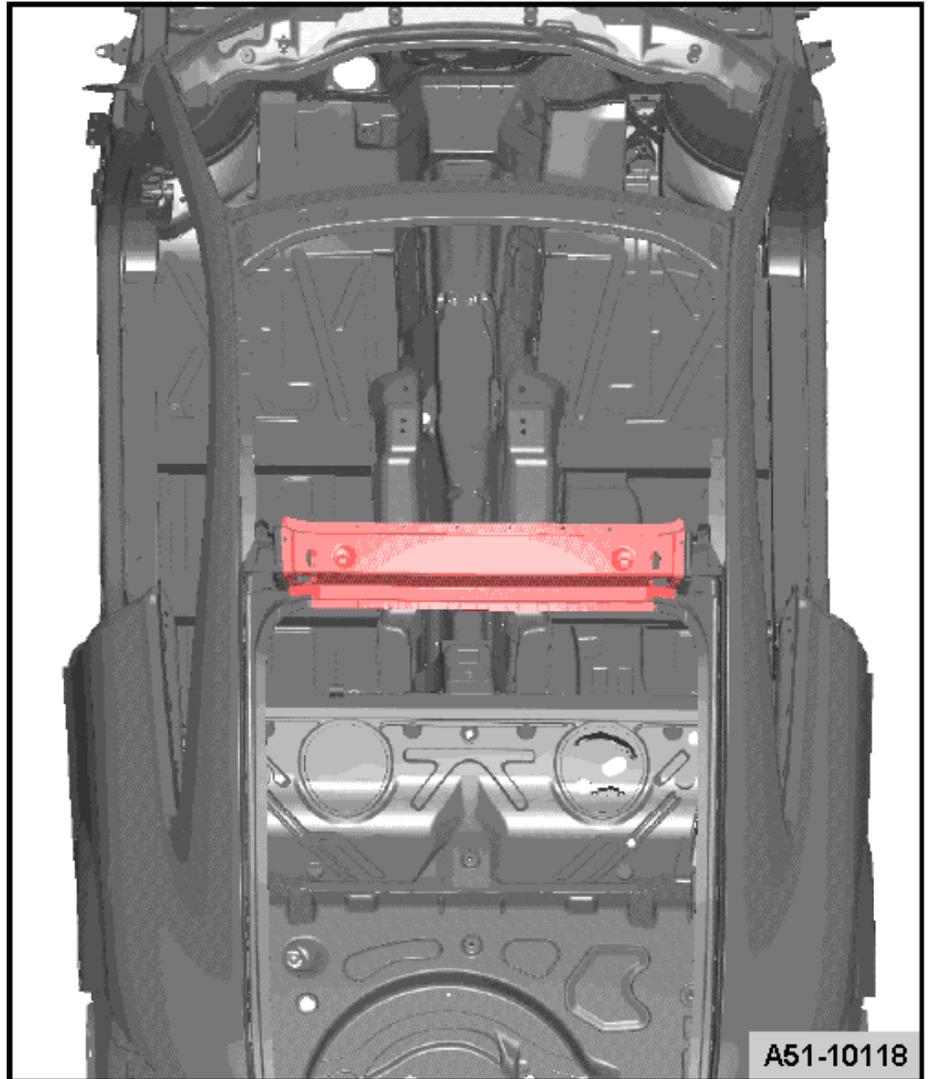


- Apply aluminum primer DA 009 801 using a paint brush.
- Apply 2K adhesive DA 001 730 A2 all over the riveting area.

Riveting

- Align the new part and fix it in place.
- Rivet the roof frame with a rechargeable riveter -VAS 5279A-.

Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .



1.6 Outer A-pillar



WARNING

Observe safety precautions. Refer to → General Information; Body Repairs, Body Collision Repair

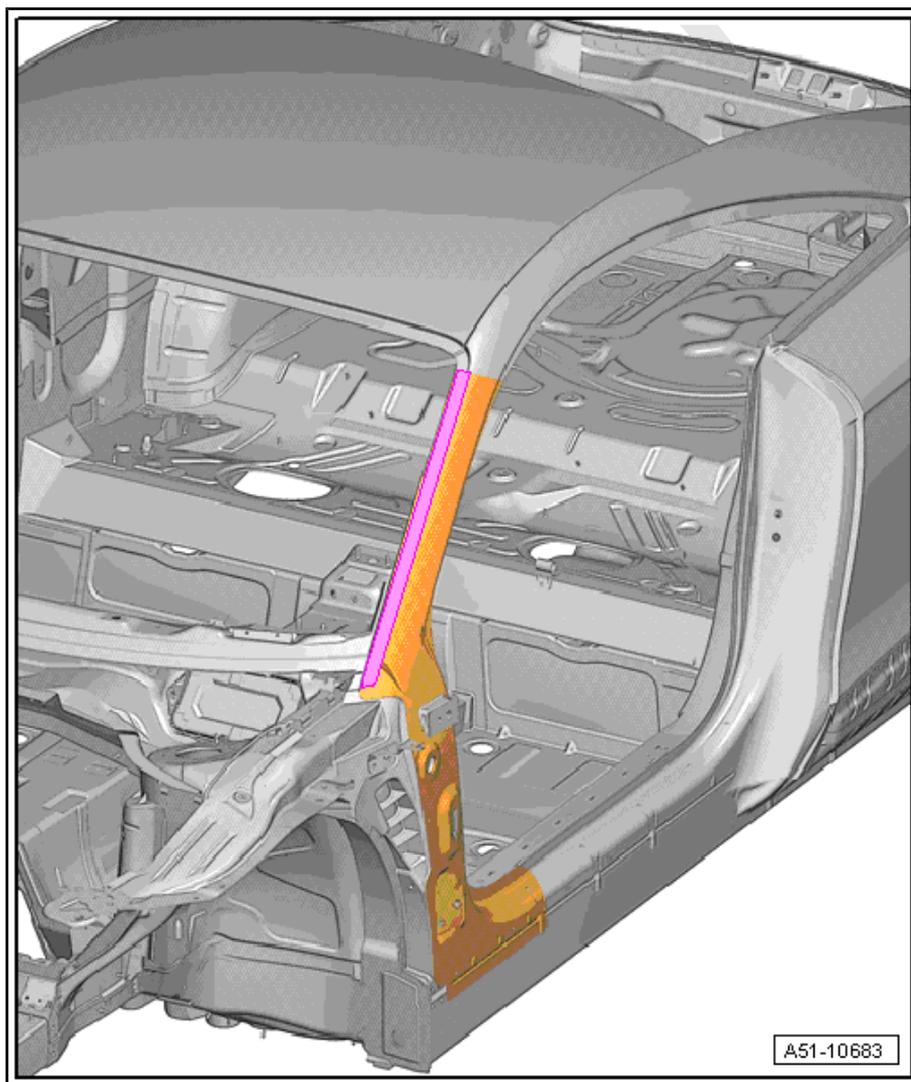
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Special tools and workshop equipment required

- ◆ Laser Weld Seam Drill -VAS 6319-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ The punch -VAS 5279/2 - must also be used when using the rechargeable riveter -VAS 5279A- .
- ◆ The new rechargeable riveter -VAS 5279B- can also be used as an alternative. This set is complete.
- ◆ Body repair saw -V.A.G 1523A-

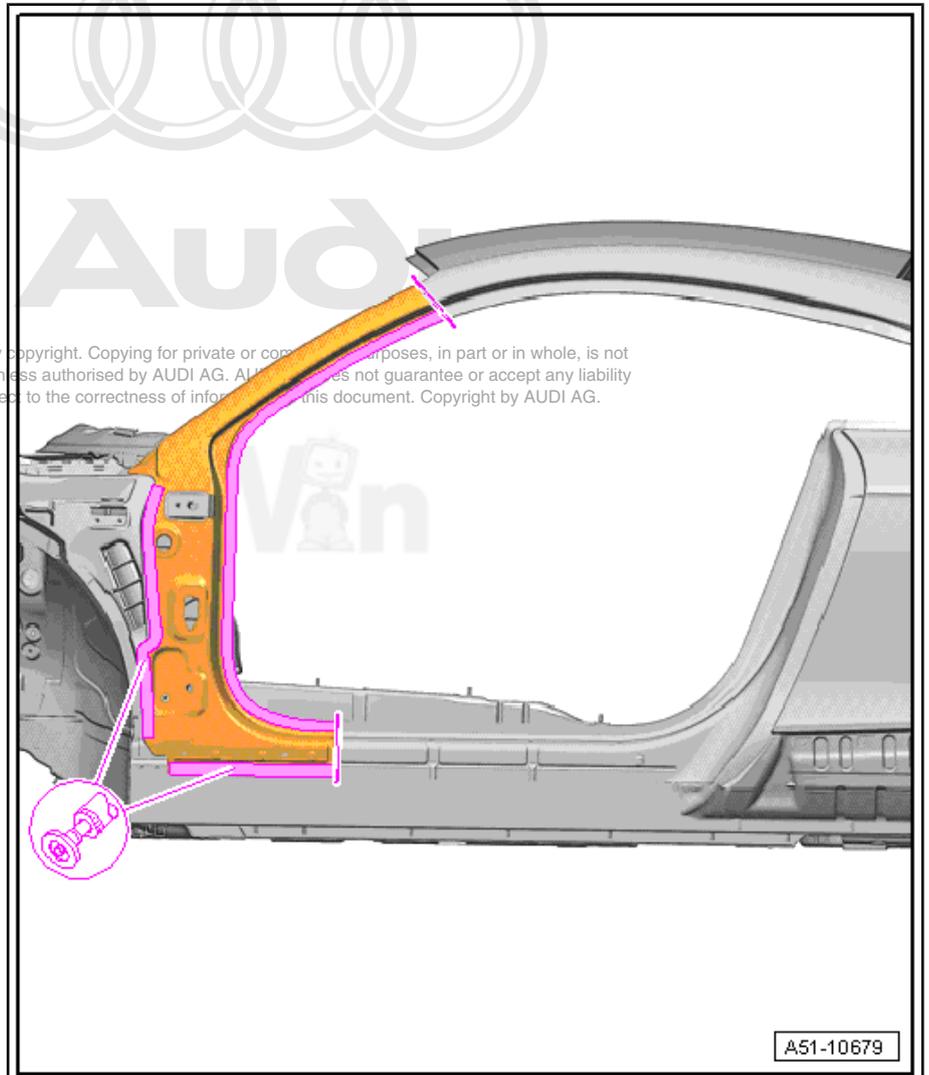
Separating areas

- Cut the original joint with an rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .
- Remove the remainder using the single hand angle grinder -VAS 5167- .



- Cut the original joint with an rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .

- Make the separating cuts using the body repair saw -V.A.G 1523A- as shown.
- Remove the remainder using the single hand angle grinder - VAS 5167- .
- Grind the laser seal near the sill panel strip with the laser weld seam drill -VAS 6319- .



- Carefully remove the A-pillar using a flat chisel from the vehicle.
- Remove the A-pillar from the vehicle.



Caution

Do not cut too deep. Any parts still in the vehicle may get damaged or may crack.

Preparing New Parts

- With the vehicle unloaded, position the new part and then secure it with locking pliers.
- Remove new part.



- Sand the new part down to the bare metal in the weld area.
- Clean the new part.

Preparing the body.

- Sand the body down to the bare metal.
- Install the welding liner retainer on the separating points.

Installing the new part

- Prepare and clean the adhesion area silicate stone DA 009 800.
- Apply aluminum primer DA 009 801 using a paint brush.
- Apply 2K adhesive DA 001 730 A2 all over the riveting area and in the wheel housing.
- Position the new part and fix it in place.
- Position the new part and secure it with a gantry gauge.
- Drill 5 mm holes from the inside toward the outside near the aluminum bolts.
- Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .
- Press the riveting area flat. Use the rechargeable riveter -VAS 5279A- D8 or D17 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D8 or D17 punch .

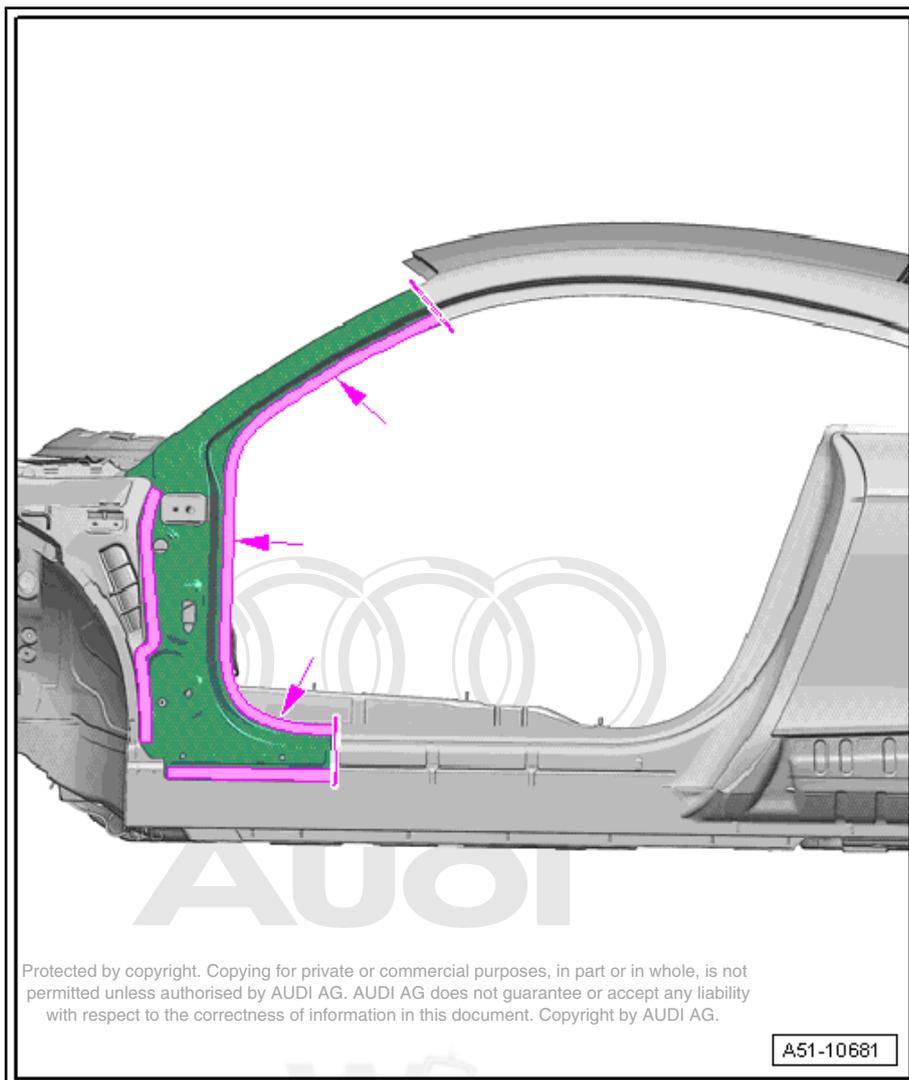
Rivet the new part -arrows- solid rivet with 6 x 12 mm rivet



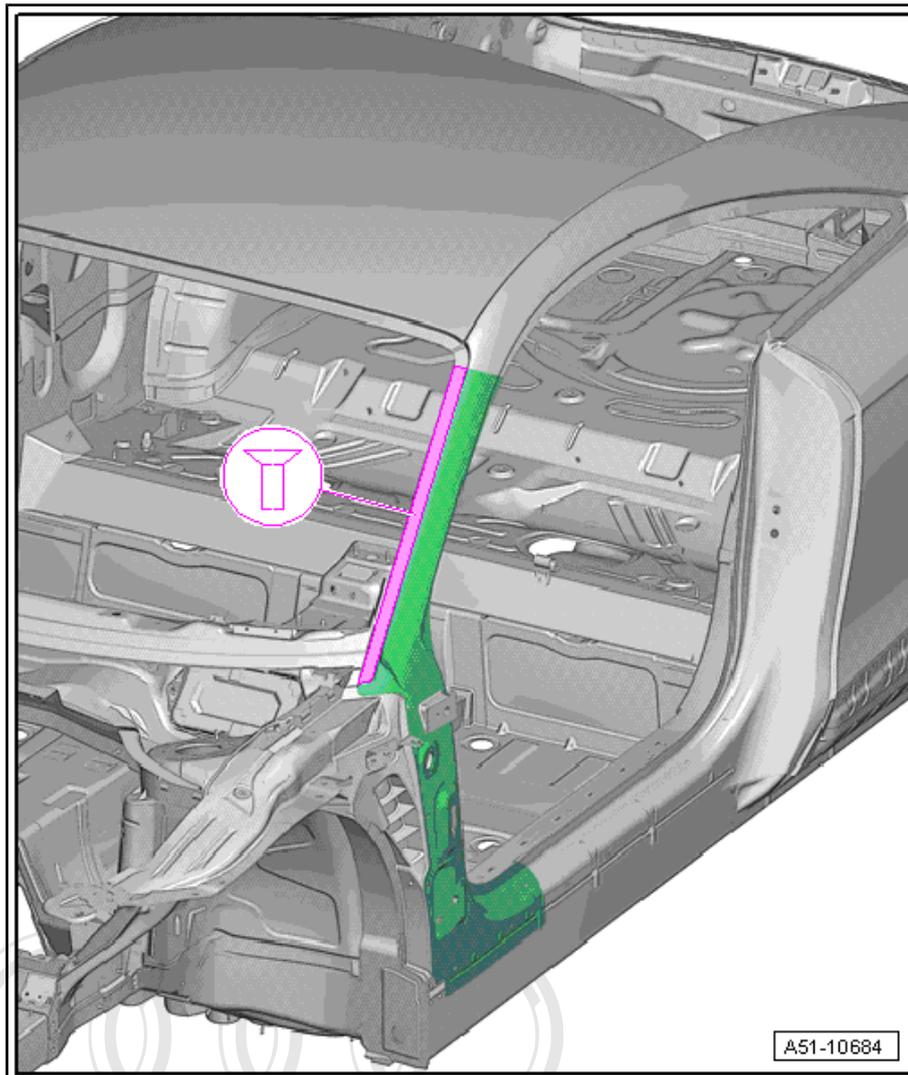
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- Press the riveting area flat. Use the rechargeable riveter -VAS 5279A- D8 or D17 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D8 or D17 punch .

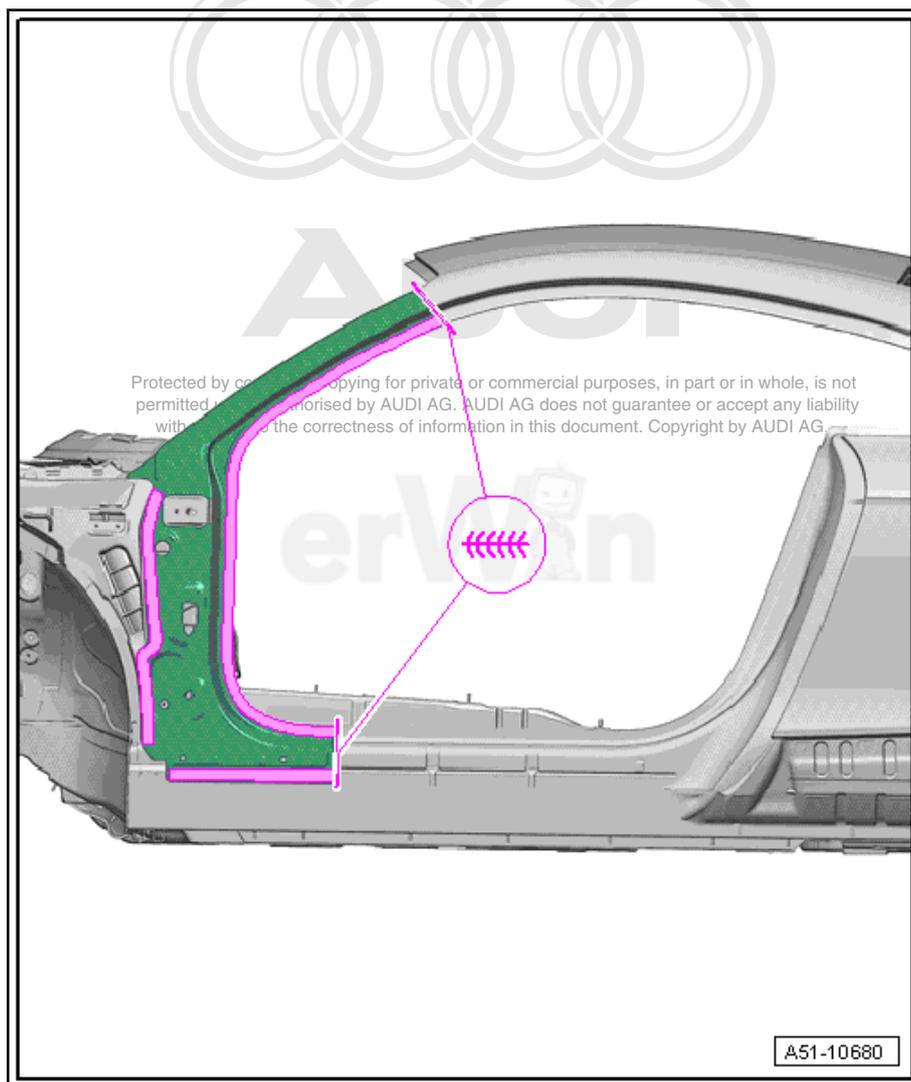
**Caution**

If the roof frame is being replaced, then perform the repair only with 5.3 x 7.5 punch rivets.

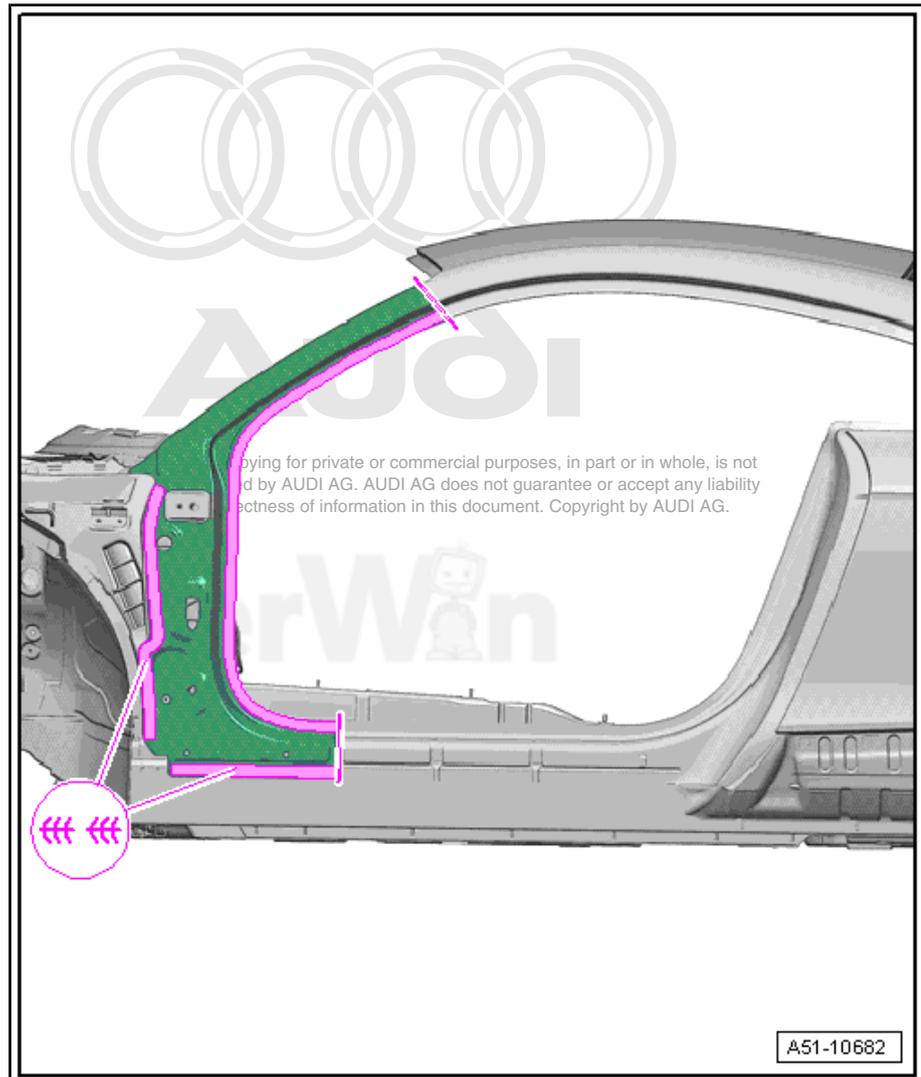
Welding in the new part

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- Weld the separating cuts a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .



- Weld in the A-pillar with a gas-shielded arc continuous weld seam (staggered) using the gas-shielded welder 250A -VAS 6388- .



1.7 Reinforcement Tube and Inner A-pillar, Roadster



WARNING

Observe safety precautions. Refer to → General Information; Body Repairs, Body Collision Repair

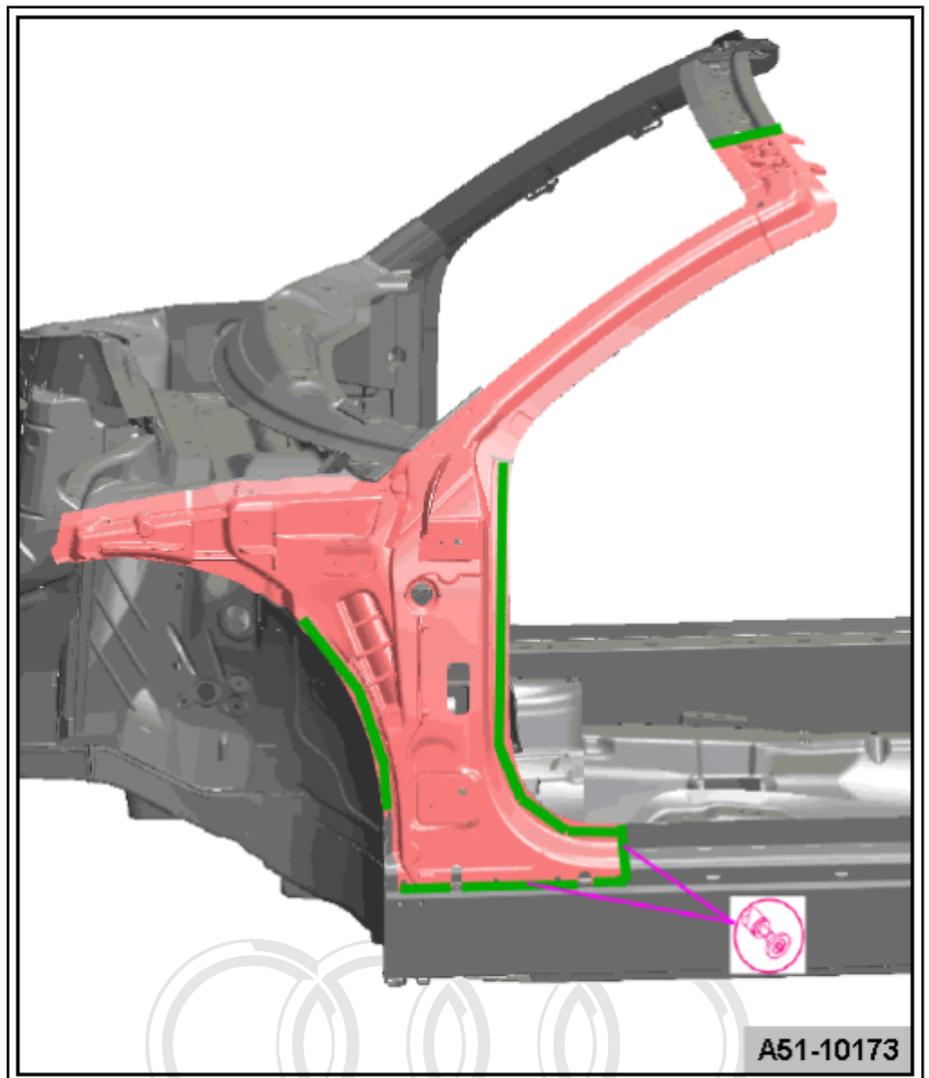
Special tools and workshop equipment required

- ◆ Straight sander -VAS 5170-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-

Separating areas

- Outer roof frame already removed.
- Inner roof frame already removed.
- Outer A-pillar already removed.

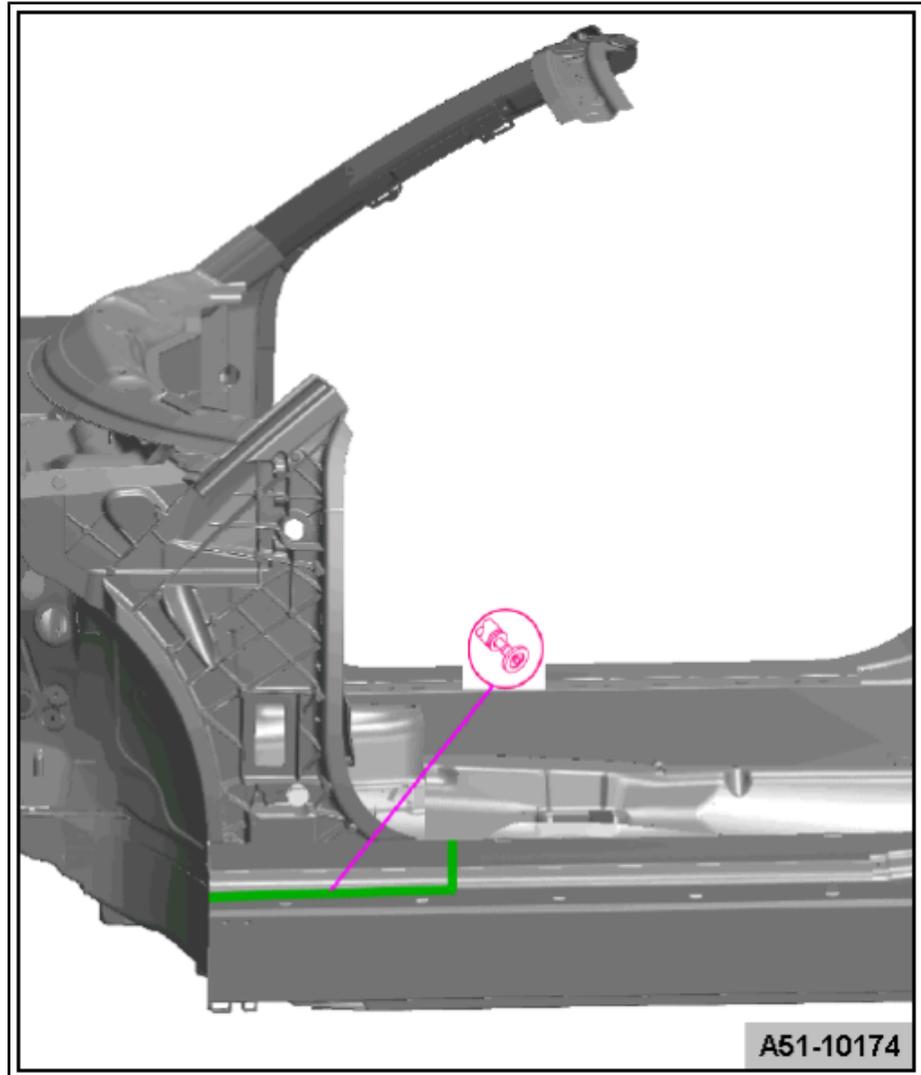
- Fender flange already removed.
- Sand the weld seams with straight sander -VAS 5170- .
- Cut the original joint with an rechargeable riveter -VAS 5279A- .
- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .



- Remove any pieces using the straight sander -VAS 5170- .

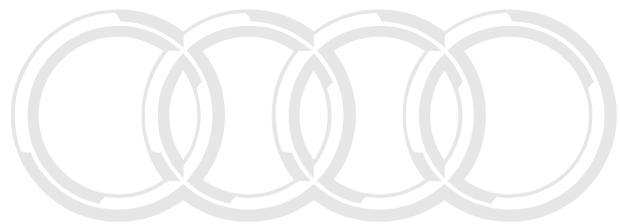
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Replacement part

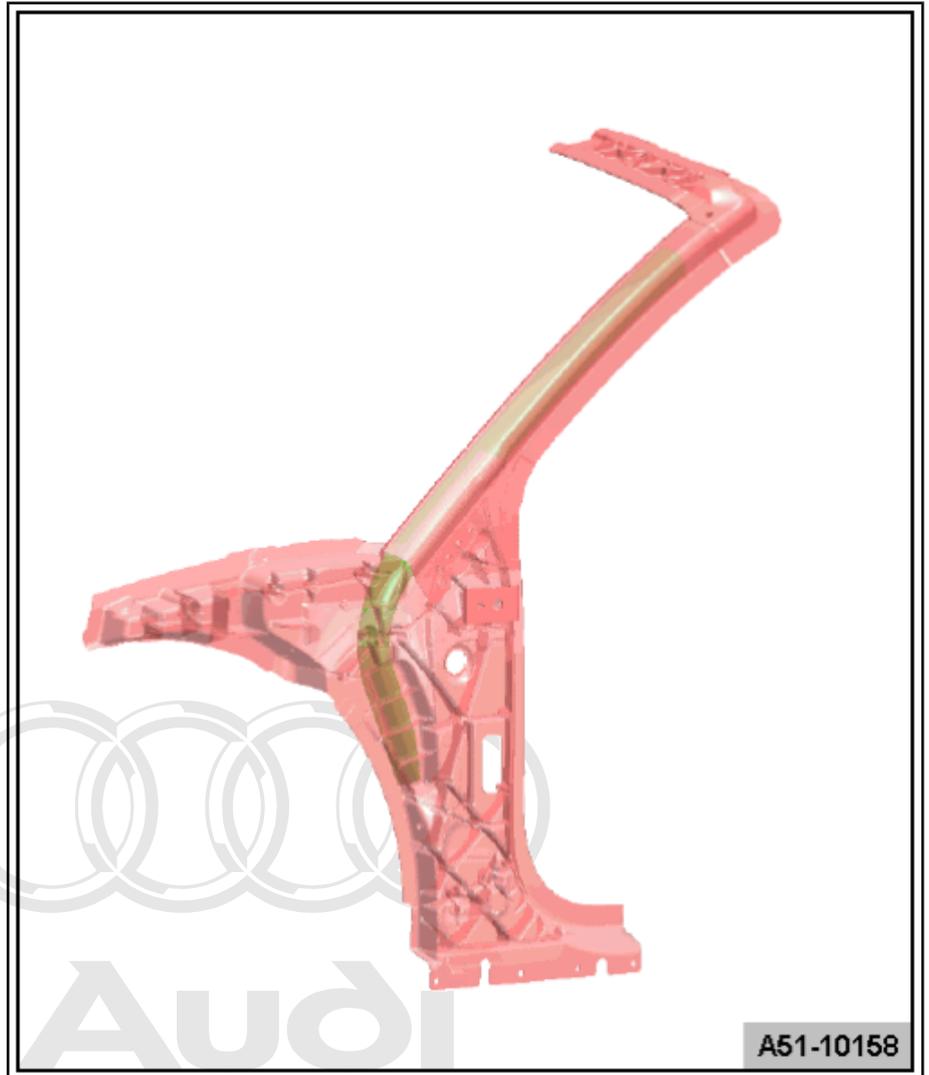
- ◆ A-pillar with reinforcement tube
- ◆ Punch rivets
- ◆ Body adhesive DA 001 730 A2



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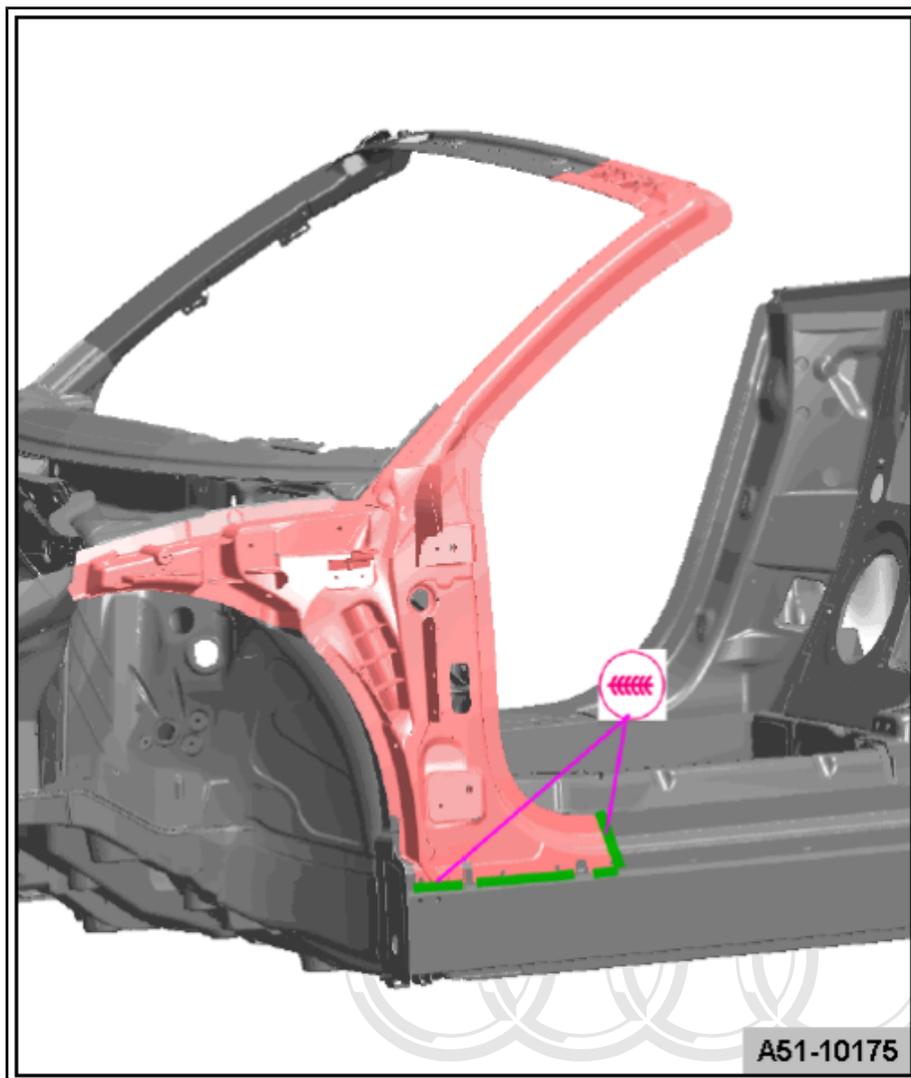
Preparing New Parts

- Prepare new part for riveting and welding

Welding in

Affix A-pillar on portal gauge.

- Weld the new part with a gas-shielded arc continuous weld seam using the gas-shielded welder 250A -VAS 6388- .

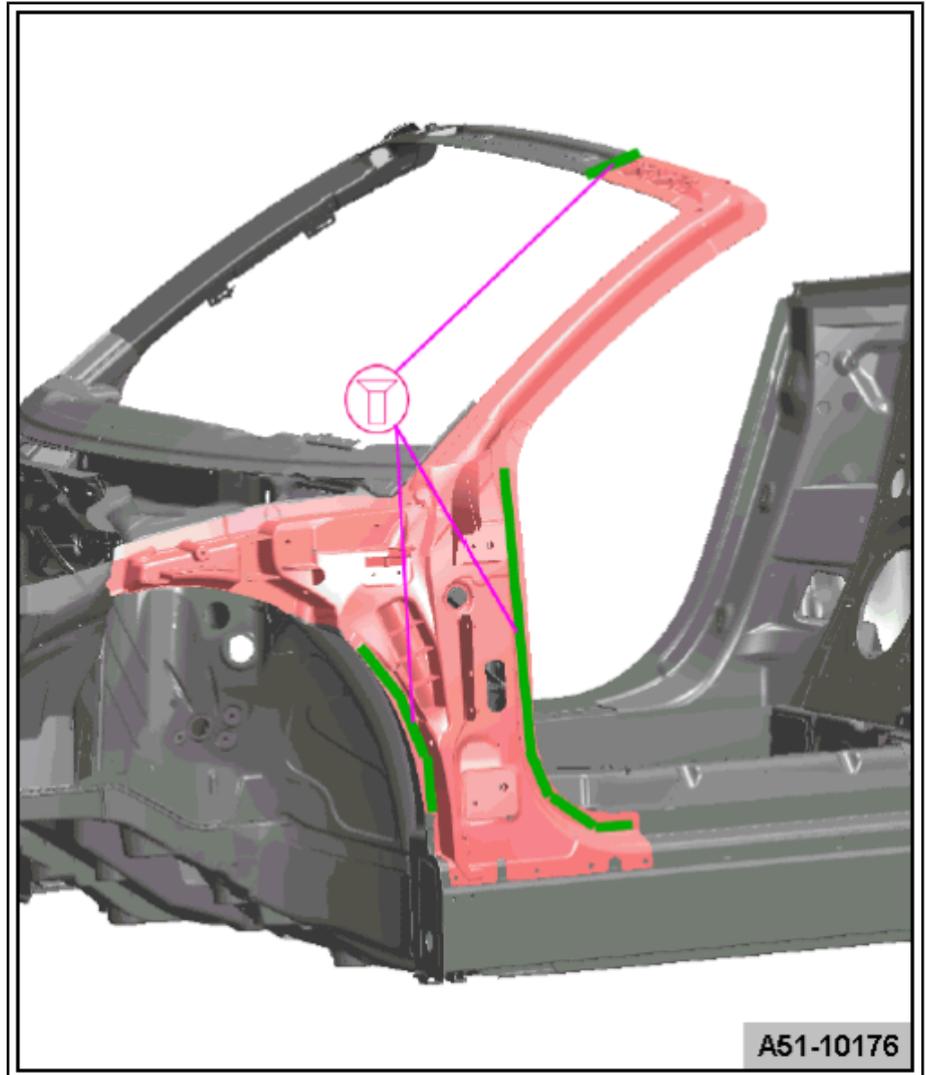


Riveting in

- Rivet in the new part using the rechargeable riveter -VAS 5279A- .
- Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .

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1.8 Inner A-pillar



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

Special tools and workshop equipment required

- ◆ Drill -VAS 5830-
- ◆ Straight sander -VAS 5170-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

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Separating areas

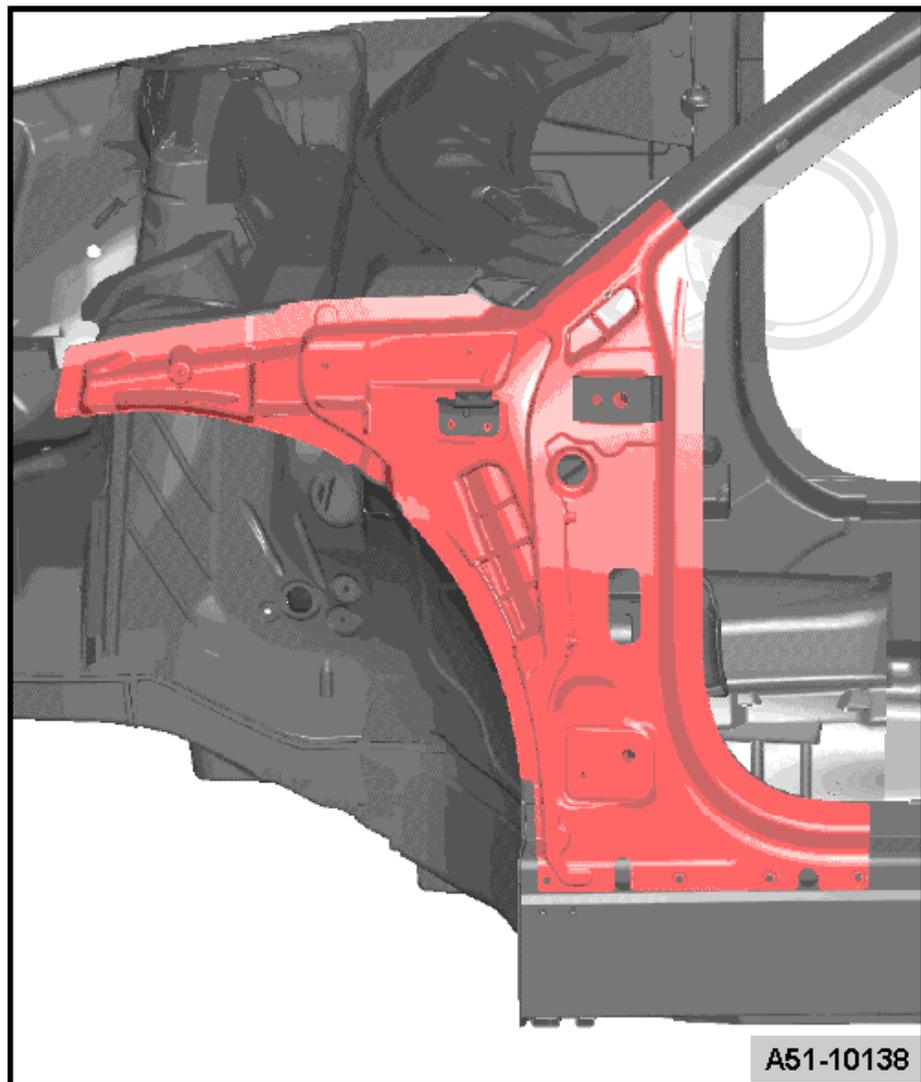
- Outer A-pillar already cut out
- Upper longitudinal member already removed.

- Cut the original joint with a rechargeable riveter -VAS 5279A- .

Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .

Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .

- Remove any pieces using the straight sander -VAS 5170- .
- Drive off bolts from outside.



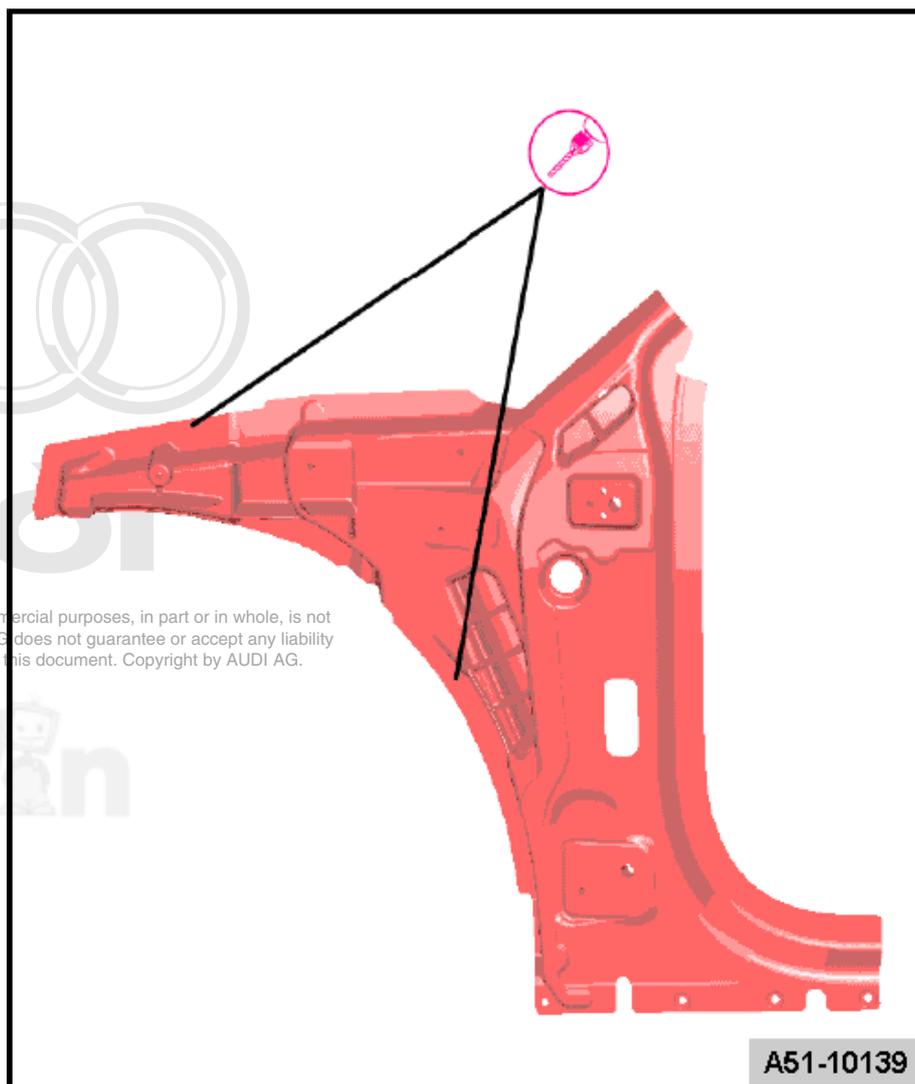
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Replacement part

- ◆ Inner A-pillar

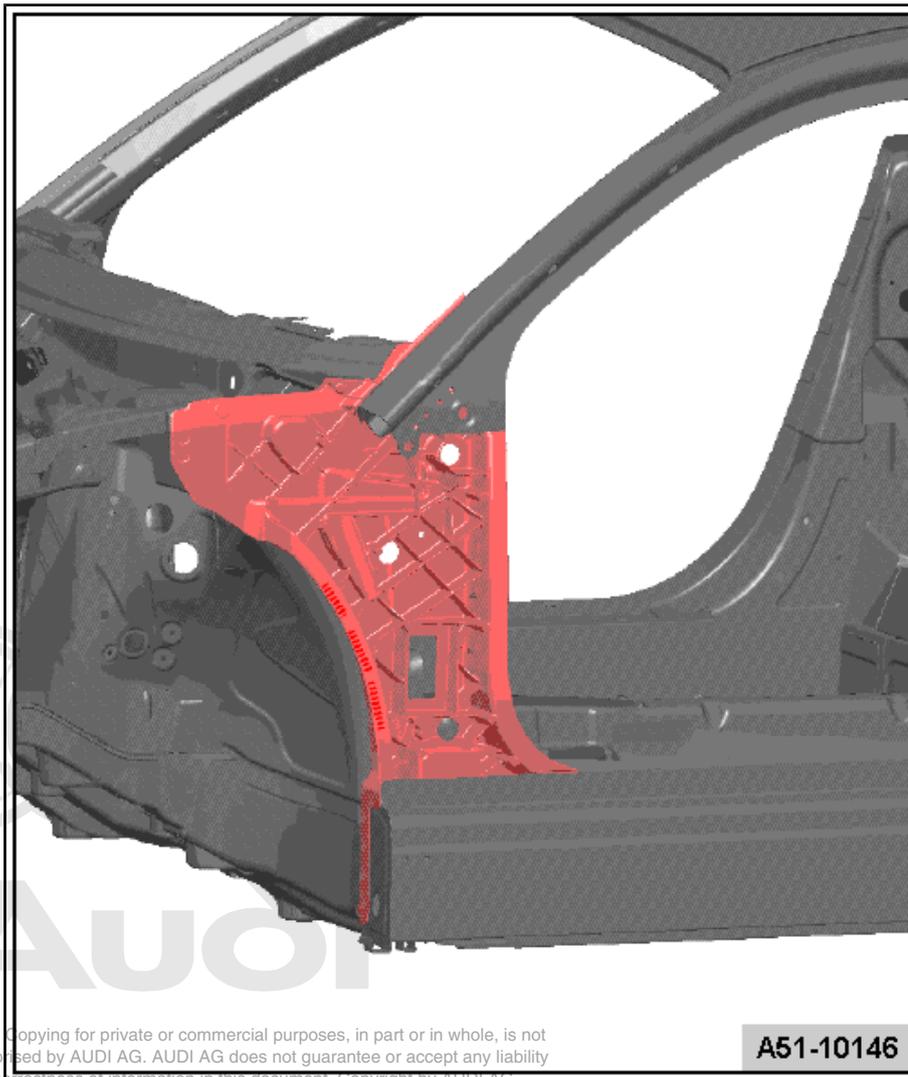
Preparing New Parts

Drill the holes for the rivets using the drill -VAS 5830- .



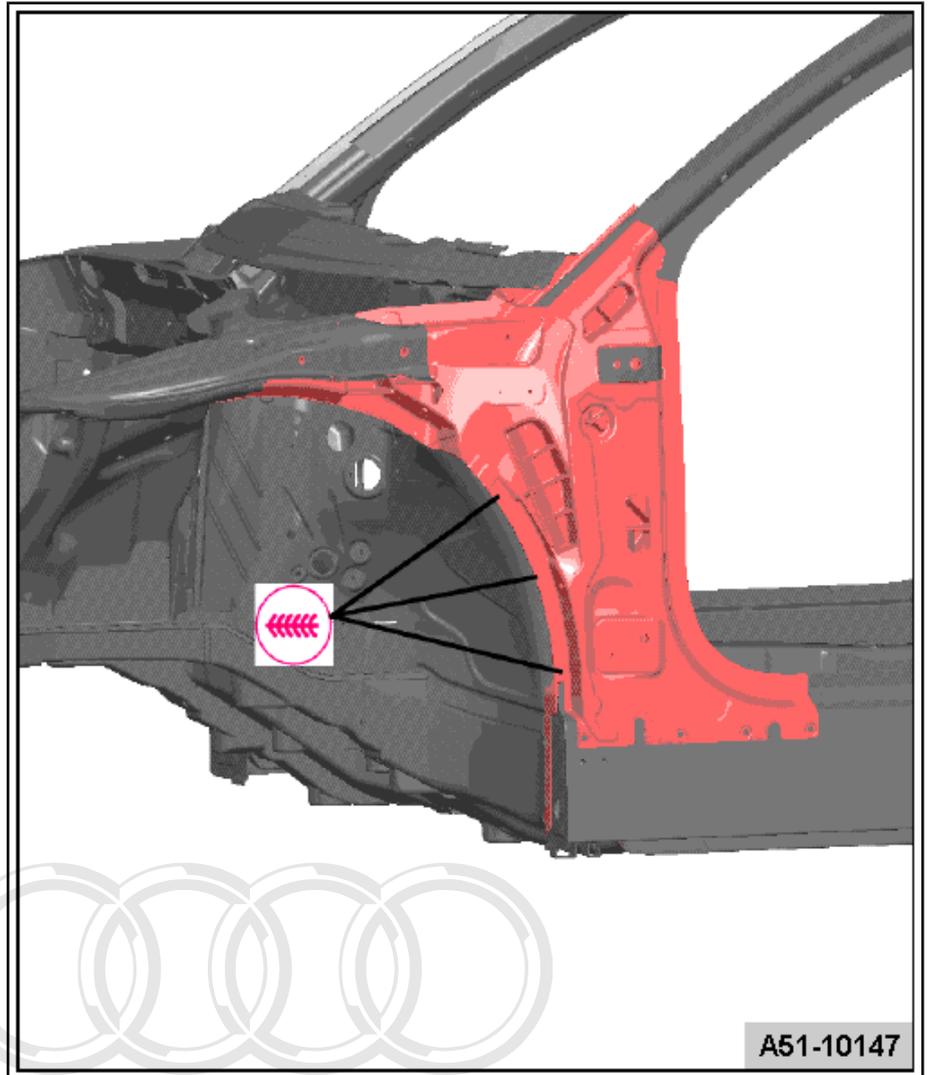
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Prepare inner A-pillar reinforcement slotted holes for gas-shielded arc continuous weld seam.



Weld in the inner A-pillar to the A-pillar reinforcement with a gas-shielded arc continuous weld seam using the gas-shielded welder 250A -VAS 6388- .

- Insert M5 pop rivet nuts in bolt holes.

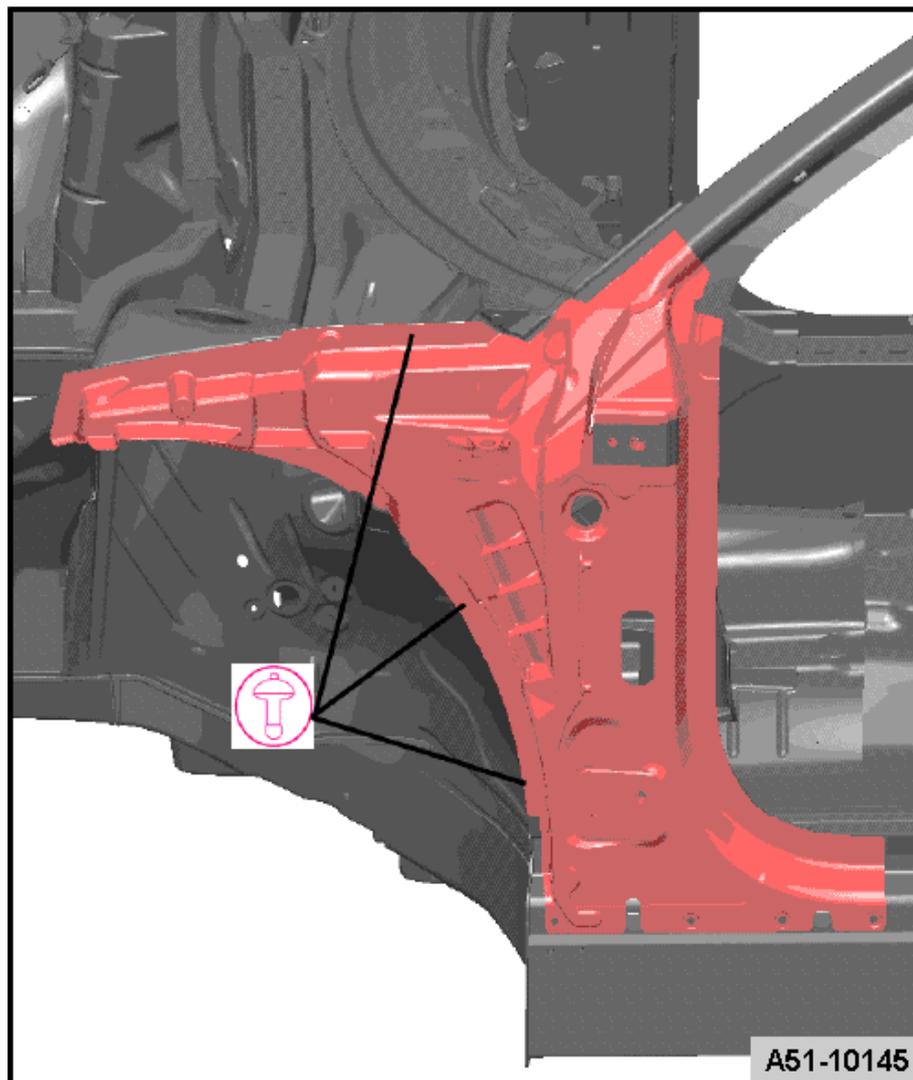


Riveting

- Position the new part and secure it with a gantry gauge.

Rivet in the new part using the rechargeable riveter -VAS 5279A- .

- Imprint the drilled holes from the outside toward the inside.
Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .



1.9 Inner B-pillar, Roadster



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

Special tools and workshop equipment required

- ◆ Drill -VAS 5830-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

- Side panel already removed.
- Cut the B-pillar roughly using the body repair saw -V.A.G 1523A- .



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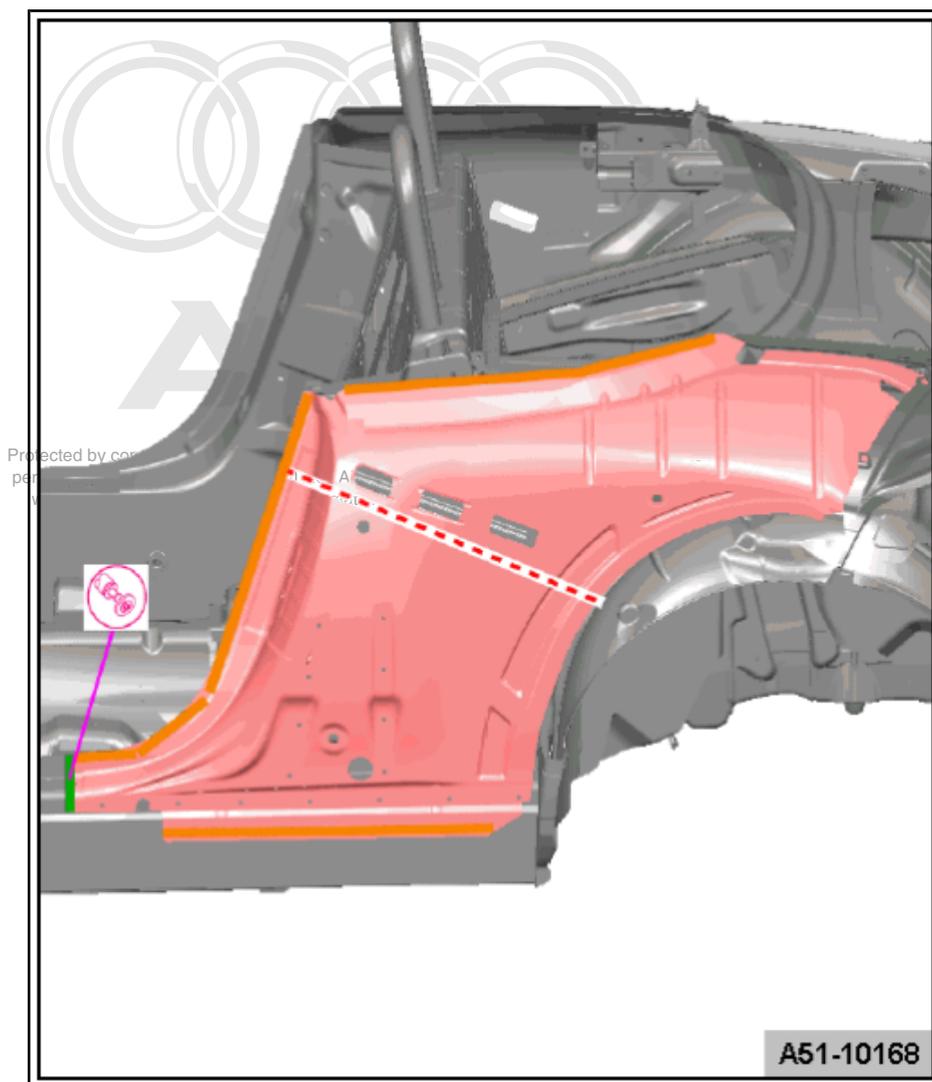
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- Cut the original joint with a rechargeable riveter -VAS 5279A- .

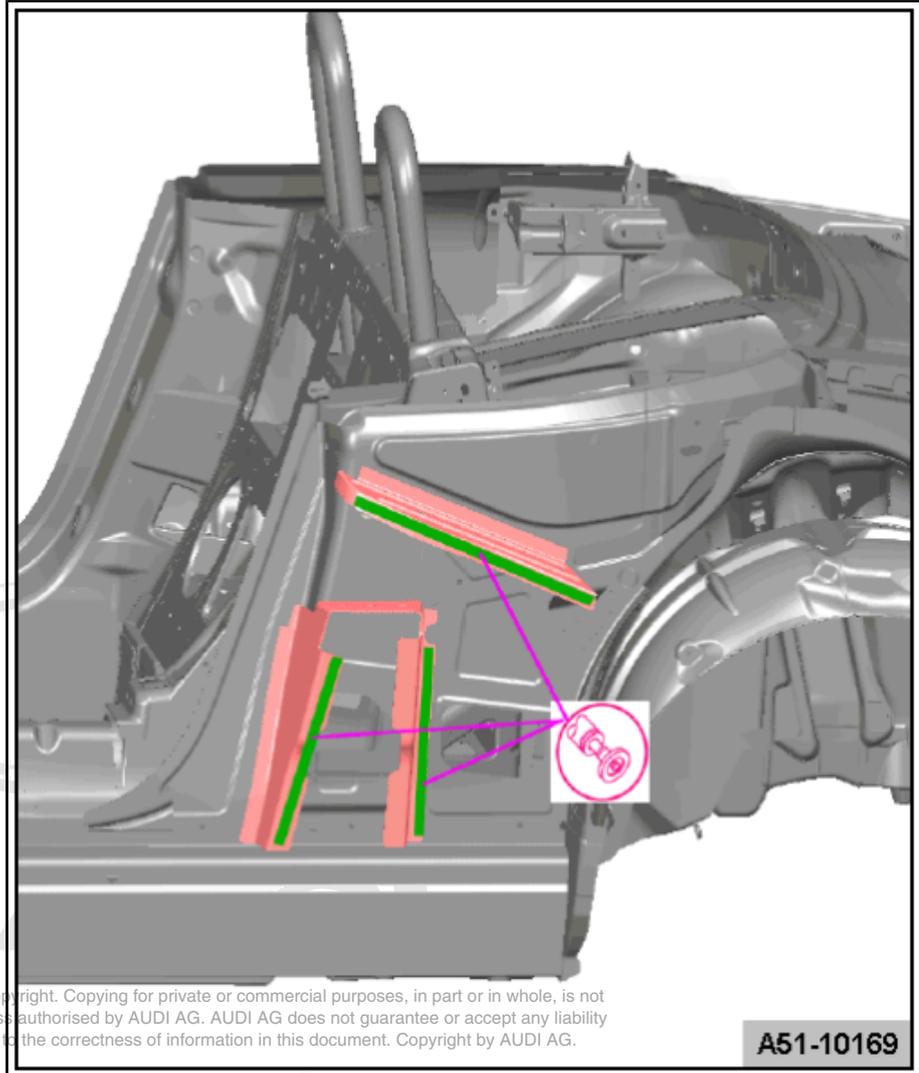
Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .

Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .

- Cut the weld seams using the single hand angle grinder -VAS 5167- .
- Remove part.



- Remove the remainder using the single hand angle grinder -VAS 5167- .

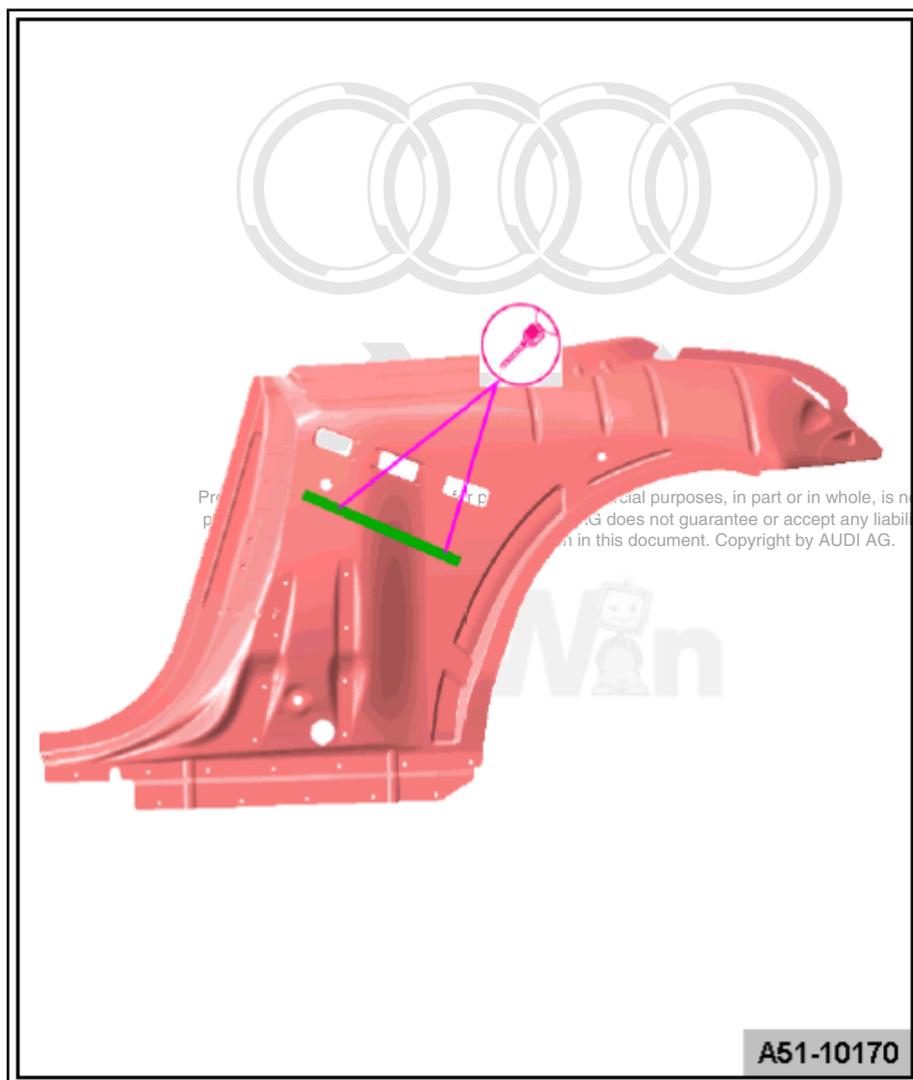


Replacement part

- ◆ B-pillar
- ◆ Pop rivet
- ◆ Punch rivets
- ◆ Body adhesive DA 001 730 A2

Preparing New Parts

- Drill the holes for the rivets using the drill -VAS 5830- .



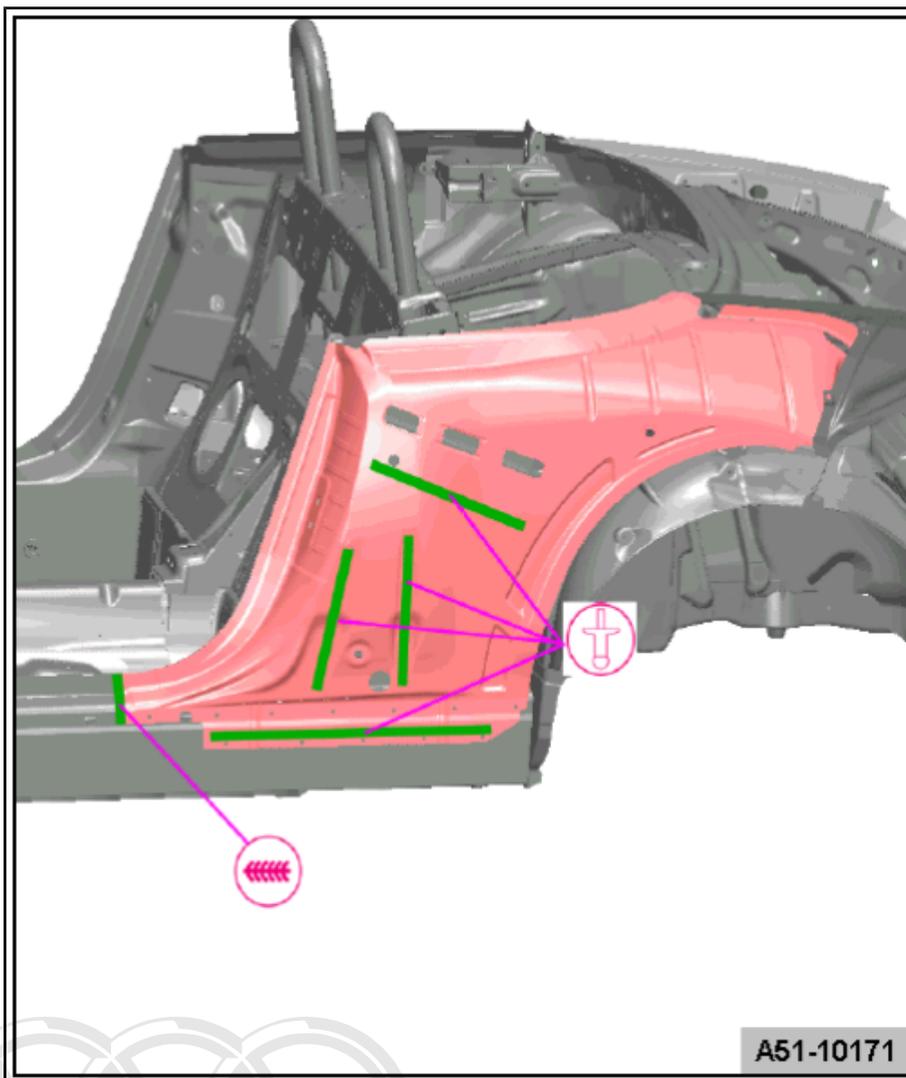
Riveting

- Position the new part and secure it with a gantry gauge.
- Rivet in new part.

 **Note**

Rivet the new part with a 4.8 x 9 mm aluminum blind rivet

- Weld the new part with a gas-shielded arc continuous weld seam using the gas-shielded welder 250A -VAS 6388- .



1.10 Outer Sill Panel



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

Special tools and workshop equipment required

- ◆ Laser Weld Seam Drill -VAS 6319-
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- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ The punch -VAS 5279/2 - must also be used when using the rechargeable riveter -VAS 5279A- .
- ◆ The new rechargeable riveter -VAS 5279B- can also be used as an alternative. This set is complete.
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .

Note

- ◆ *Use the C-bracket from the rechargeable riveter -VAS 5279A- or the rechargeable riveter -VAS 5279B- for hard to reach places.*
- ◆ *First insert the extension and then bring the C-bracket into position.*
- Make the separating cut using a body saw -V.A.G 1523A- .

 **Caution**

Do not cut too deep. Any parts still in the vehicle may get damaged or may crack.

- Grind the laser seal near the sill panel strip with the laser weld seam drill -VAS 6319- .
- Carefully separate the sill panel strip using a flat chisel from the vehicle.
- Remove the sill panel strip from the vehicle.

Welding in the new part

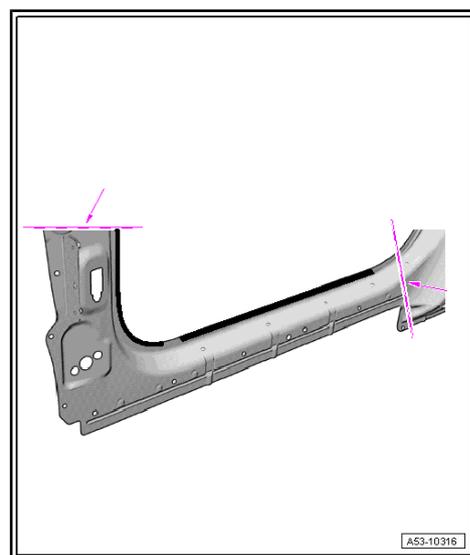
Rivet the new part with a 6 x 12 mm aluminum rivet.

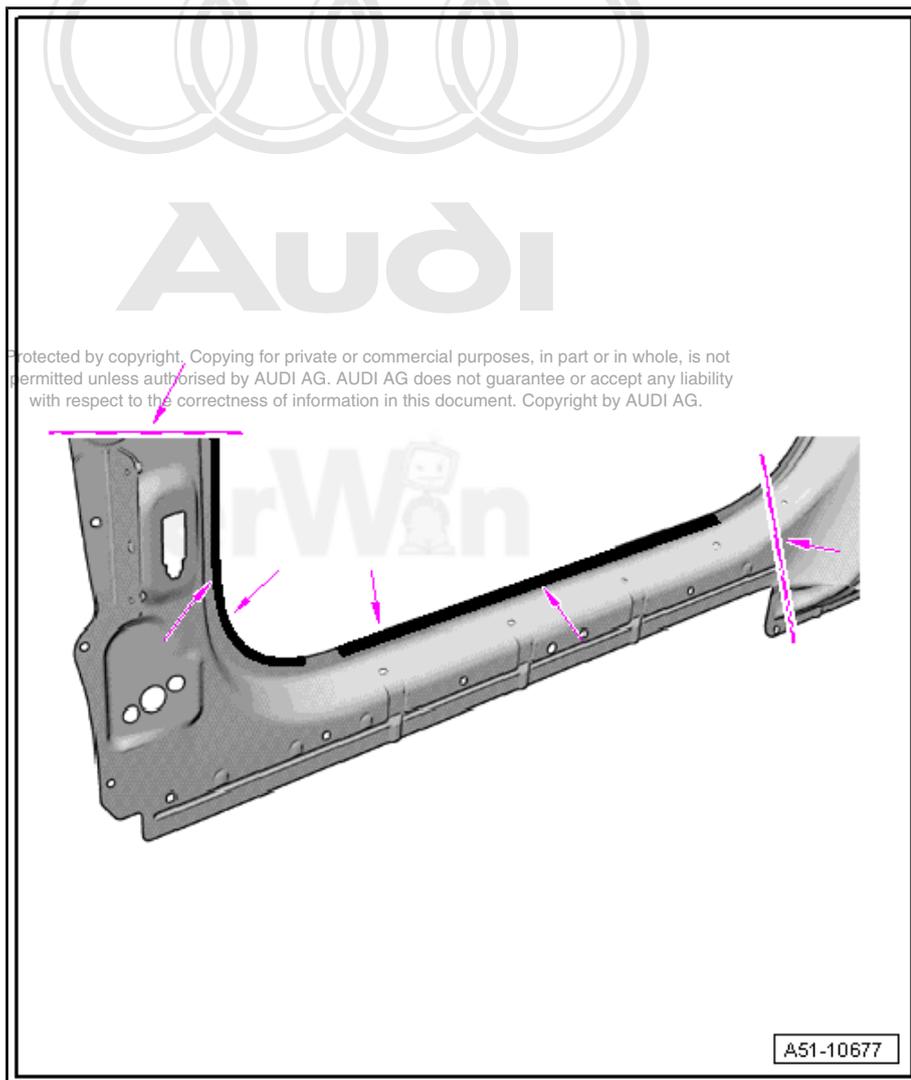
- Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .

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Note

- ◆ *The standard rivets are replaced by 12 mm solid rivets.*
- ◆ *Attach two cast shells to the A-pillar with punch rivets before installing the sill panel strip.*





Preparing New Parts

- With the vehicle unloaded, position the new part and then secure it with locking pliers.
- Transfer and mark the separating line from the new part onto the body.

 **Note**

This prevents a gap from forming between both parts.

- Remove new part.
- Sand the new part down to the bare metal in the weld area.
- Clean the new part.
- Make the final separation cuts as previously marked on the body



Caution

Do not cut too deep. Any parts still in the vehicle may get damaged or may crack.

Preparing the body.

- Install the welding liner retainer on the separating points.

Installing the new part



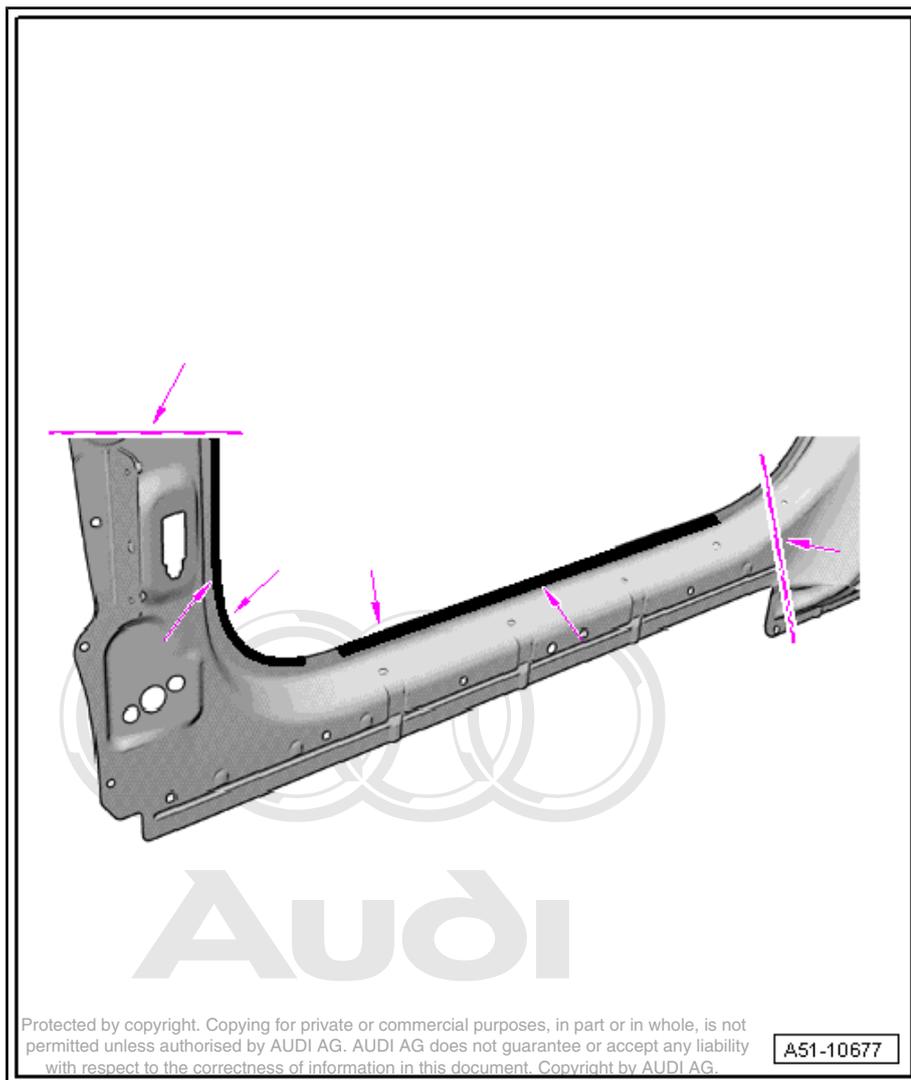
Note

Attach two cast shells to the A-pillar with punch rivets before installing the sill panel strip.

- Position the new part and fix it in place.
- Drill 5 mm holes from the inside toward the outside near the aluminum bolts.
- Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch.
- Remove new part.
- Apply aluminum primer DA 009 801 using a paint brush.
- Apply 2K adhesive DA 001 730 A2 all over the riveting area and in the wheel housing.
- Position the new part and fix it in place.

Rivet the new part with a 6 x 12 mm aluminum rivet.

- Press the riveting area flat. Use the rechargeable riveter -VAS 5279A- D8 or D17 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D8 or D17 punch .

**Note**

Attach two cast shells to the A-pillar with punch rivets before installing the sill panel strip.

**Note**

Imprint the holes.

**Note**

- ◆ Use the C-bracket from the rechargeable riveter -VAS 5279A- or the rechargeable riveter -VAS 5279B- for hard to reach places.
- ◆ First insert the extension and then bring the C-bracket into position.

Welding in the new part

 Note

As an alternative to welding, the new part can be riveted at the separation cuts with 4.8 x 9 mm aluminum blind rivets.



WARNING

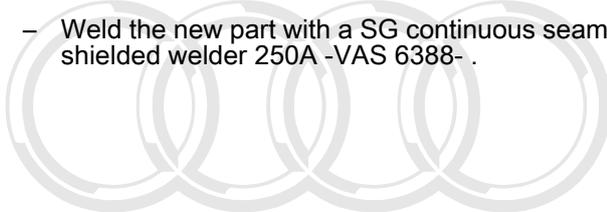
The body is made of aluminum and steel bond. The aluminum parts must be carefully covered and protected in the area where the two materials come together during welding. This will prevent contact corrosion on the aluminum parts caused by the welding beads and dust particles.

 Note

As an alternative to welding, the new part can be riveted at the separation cuts with 4.8 x 9 mm aluminum blind rivets.

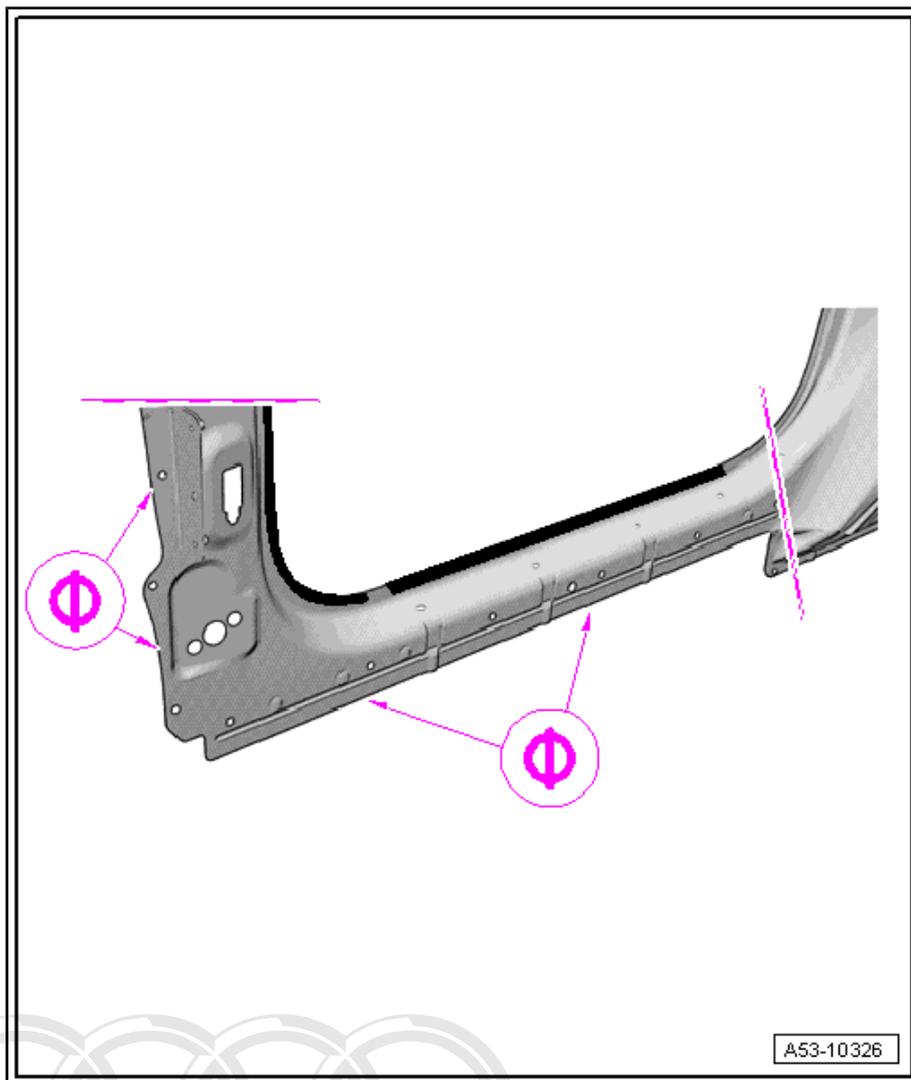
Make a stitch weld seam near the sill panel strip.

- Weld the new part with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .


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1.11 Inner Side Member Partial Section



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair ; Safety precautions

Special tools and workshop equipment required

◆ Air pressure adhesive pistol -V.A.G 2005 B-

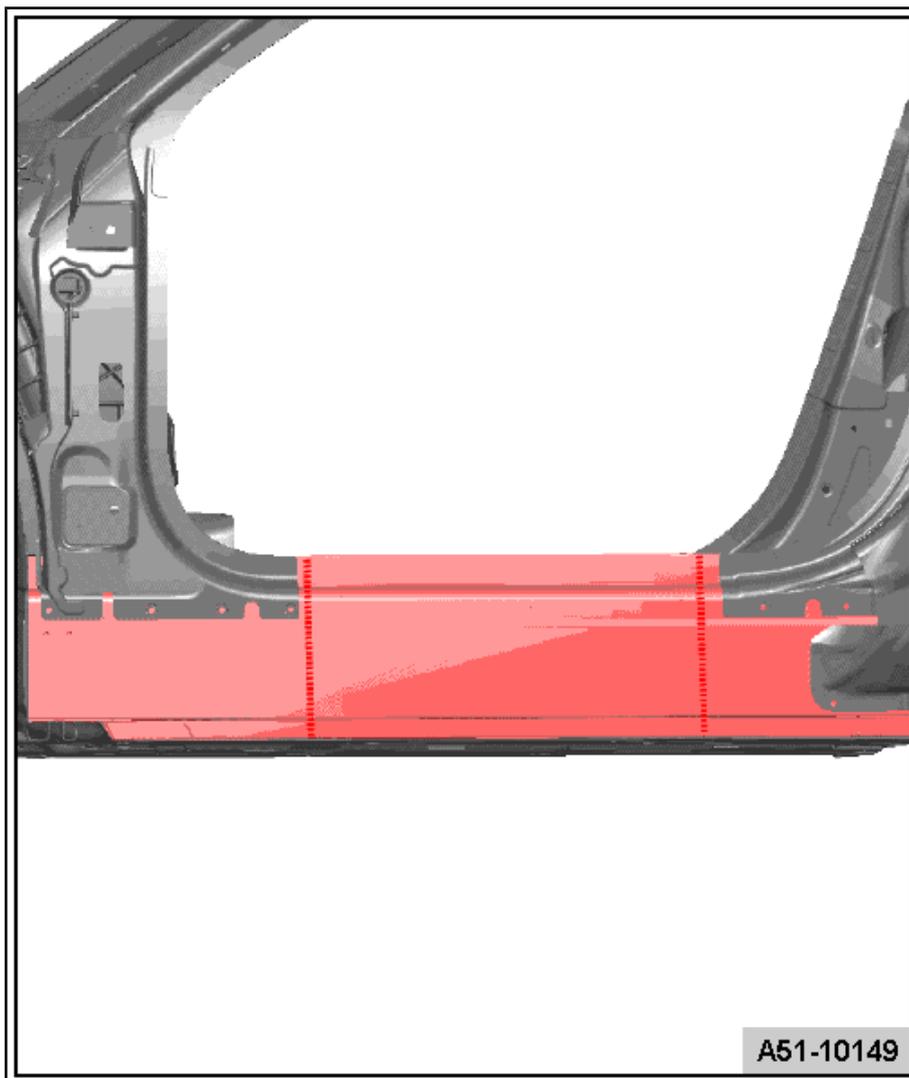
◆ Gas-shielded welder 250A -VAS 6388-

◆ Rechargeable Riveter -VAS 5279A-

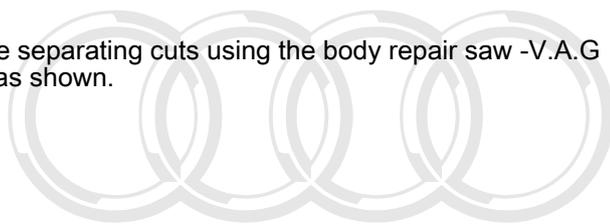
◆ Body repair saw -V.A.G 1523A-

Separating areas

- Outer sill panel already cut out
- Make the separating cuts using the body repair saw -V.A.G 1523A- as shown.



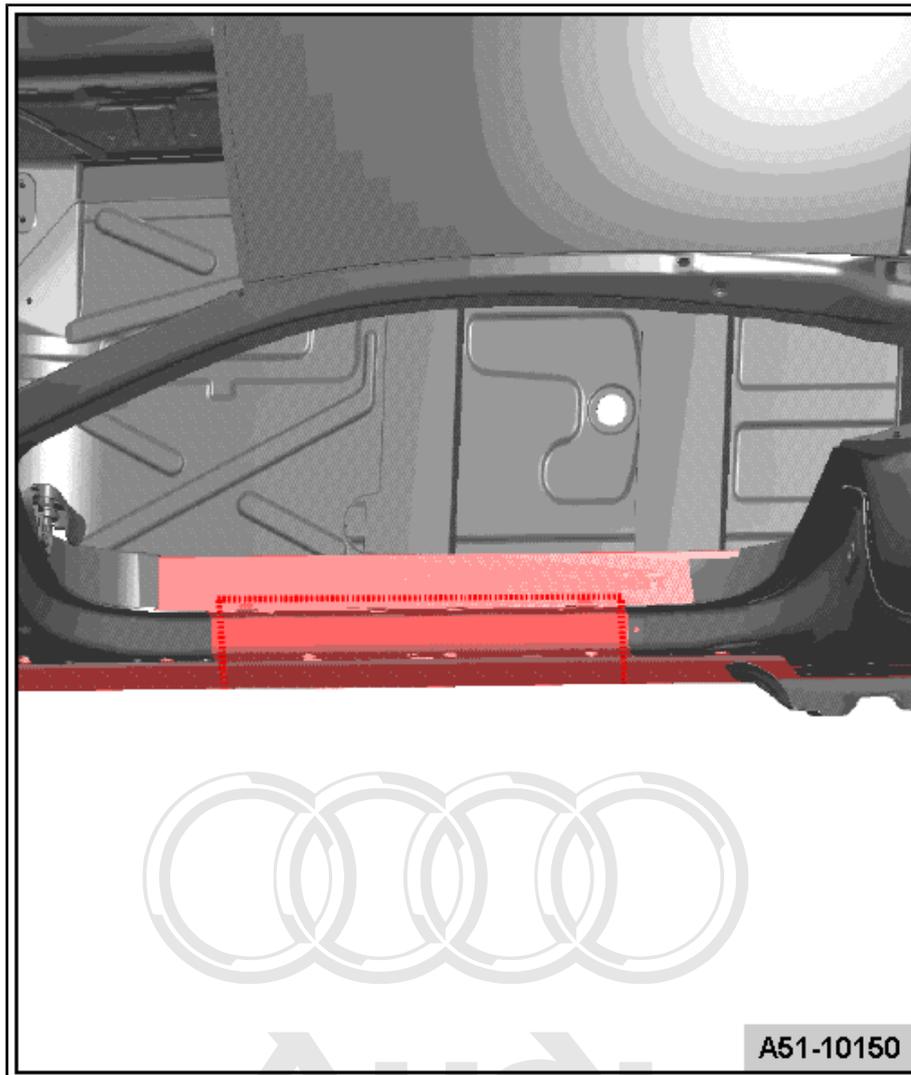
- Make the separating cuts using the body repair saw -V.A.G 1523A- as shown.



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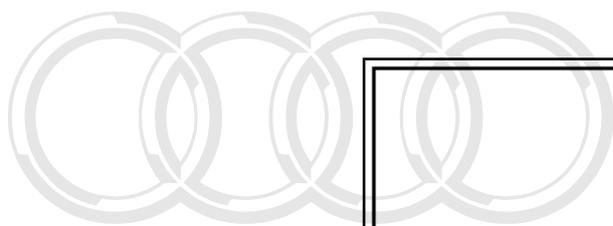


- Prepare sub-part for welding.

Replacement part

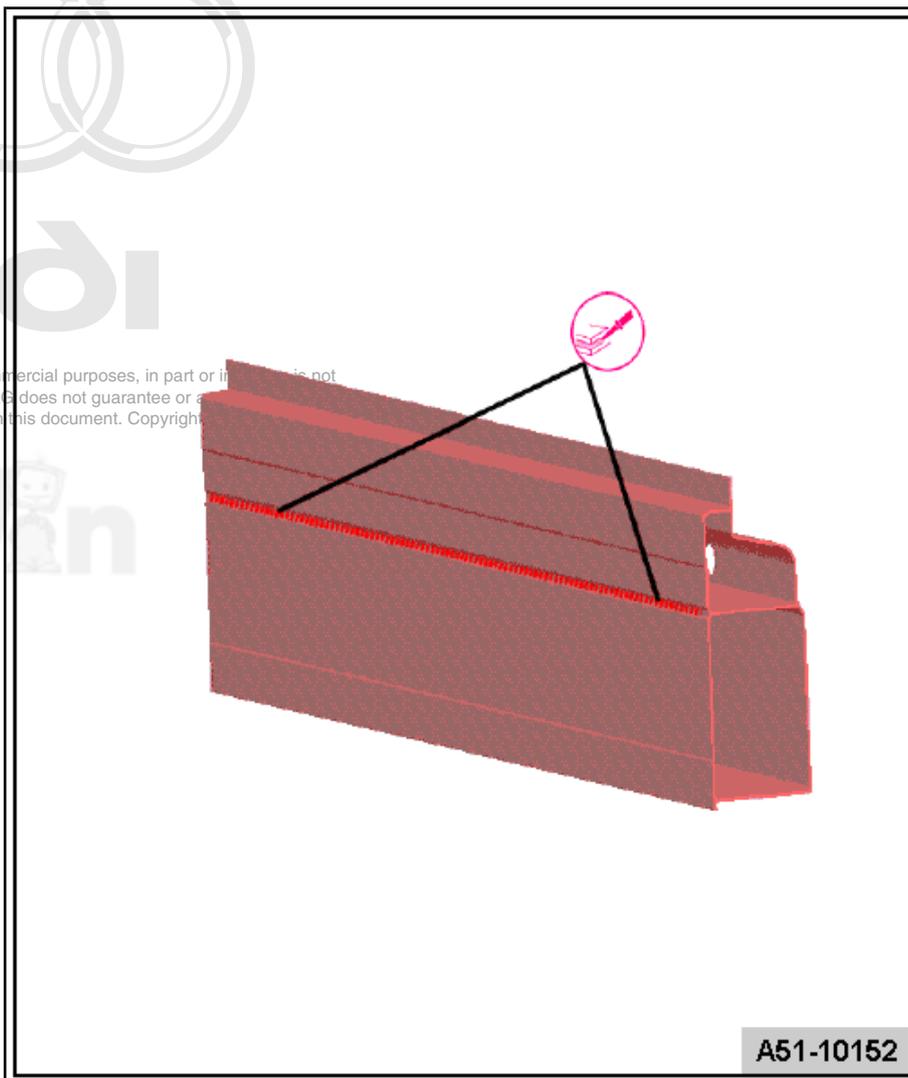
- ◆ 2K-body adhesive -DA 180 A00 A2-
- ◆ Inner side member sub-part
- Apply 2K body adhesive -DA 180 A00 A2- using a compressed air adhesive pistol -V.A.G 2005 B- .

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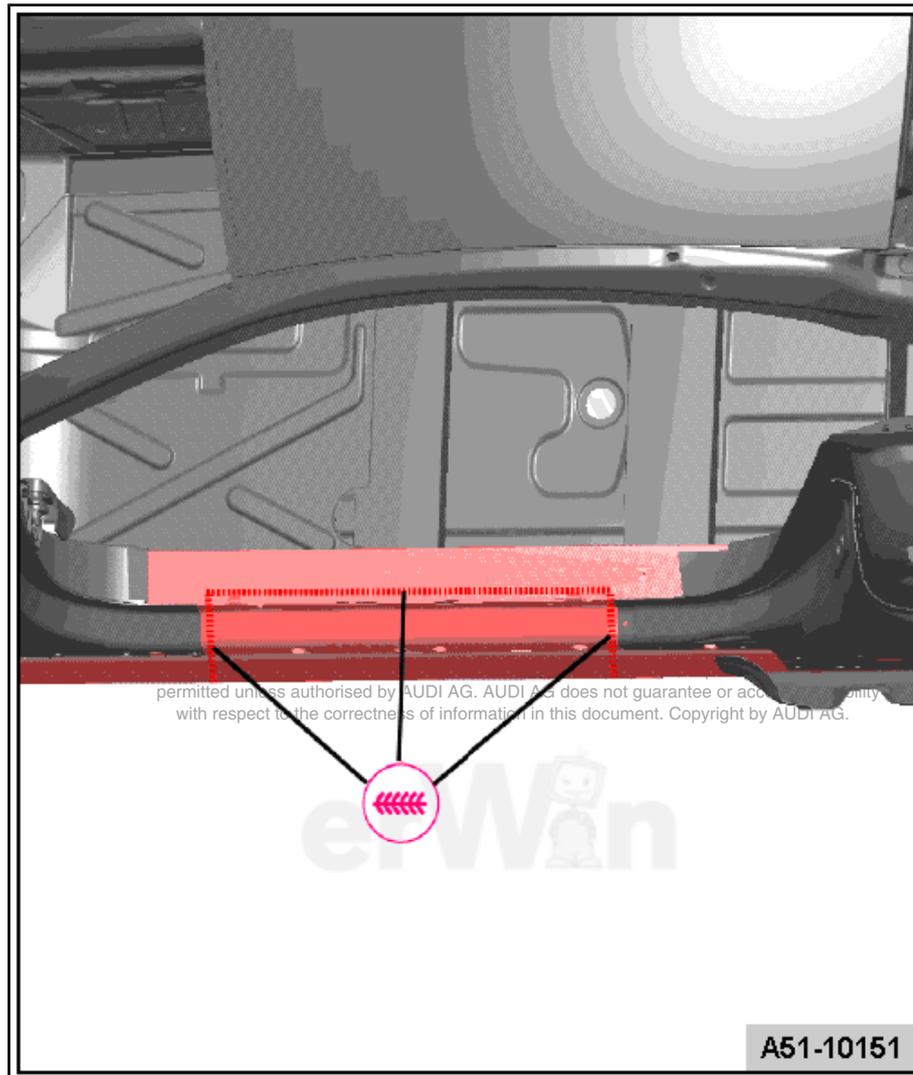
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Welding in

- Weld the sill panel strip inner sub-part with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .



1.12 Inner Side Pillar, Roadster



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

Special tools and workshop equipment required

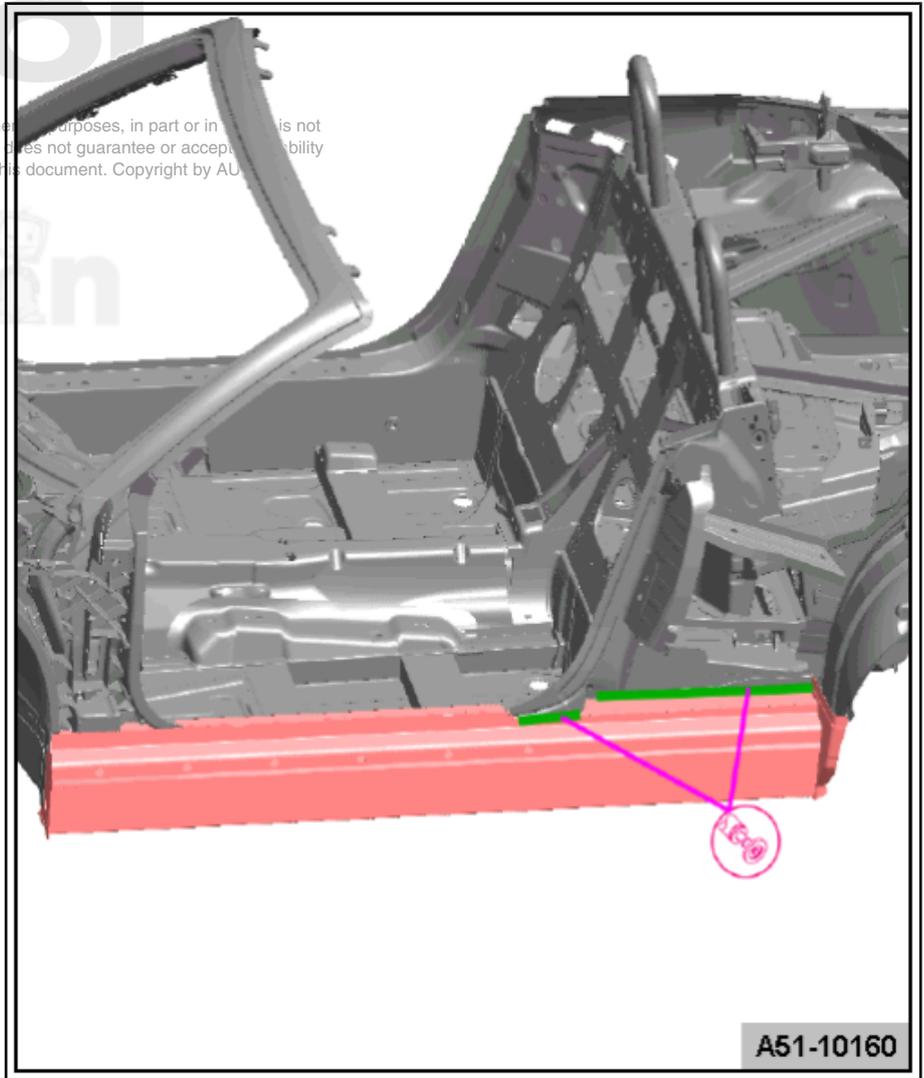
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

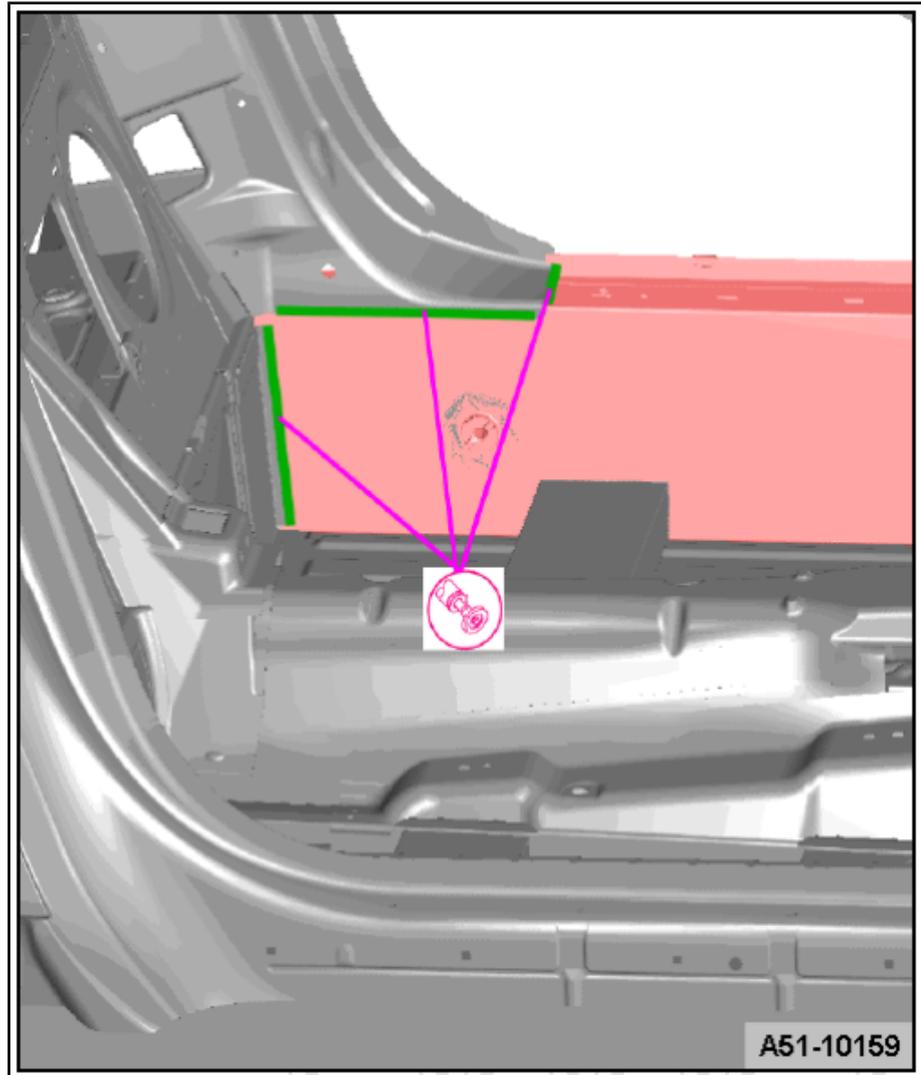
- Outer sill panel already cut out
- Outer A-pillar already removed.
- Inner A-pillar already removed.
- Inner floor panel already removed.

- The outer floor panel is already removed.
- Side panel already removed.
- B-pillar already removed.
- Remove the original joint using the straight sander -VAS 5170- .

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- Remove the sill panel strip inner original joint using the straight sander -VAS 5170- .

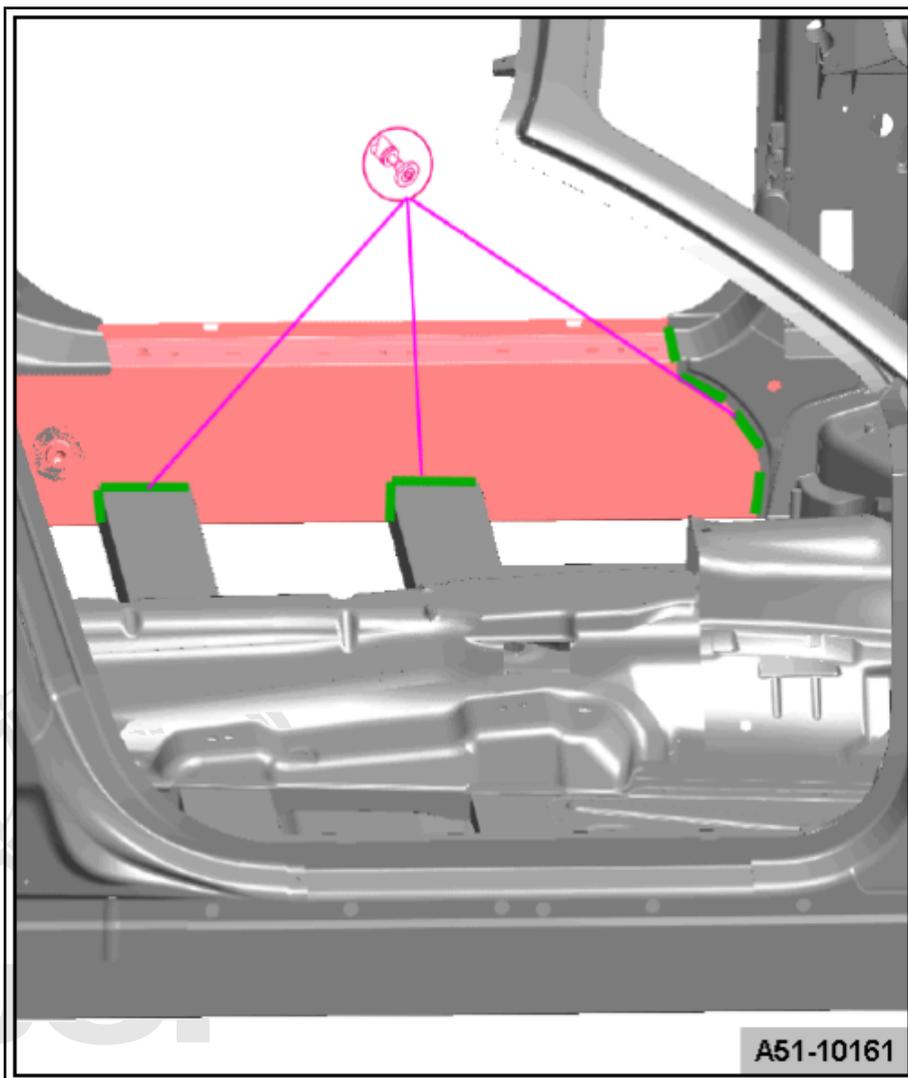


- Remove the sill panel strip inner original joint using the straight sander -VAS 5170- .

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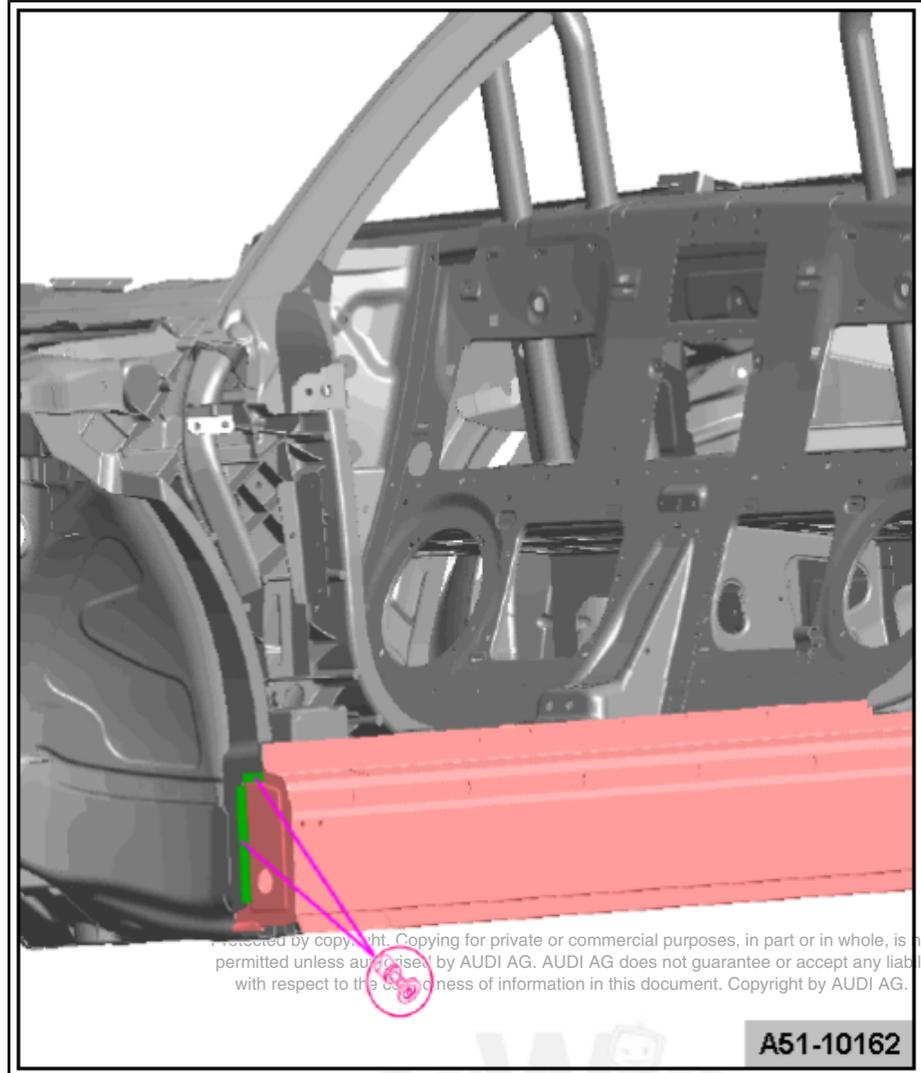
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erWin



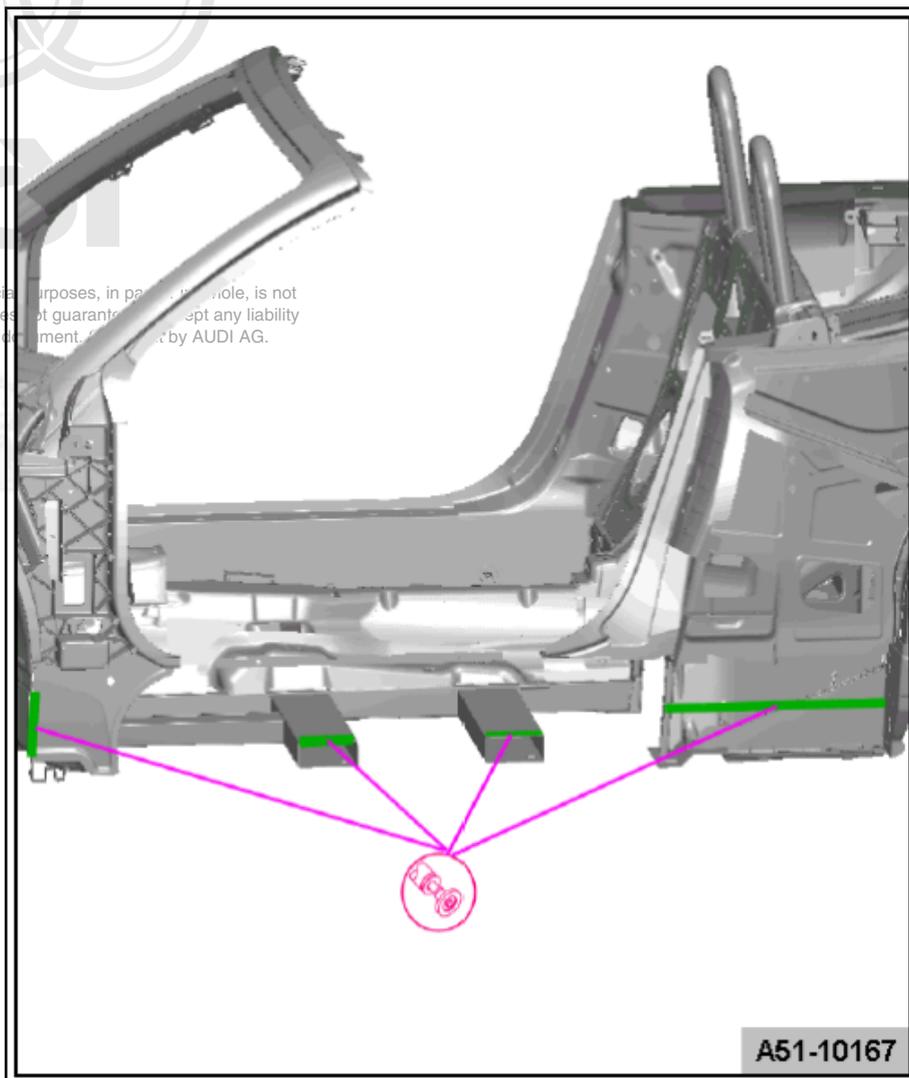
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- Remove the sill panel strip inner original joint using the straight sander -VAS 5170- .



- Remove part.
- Remove any remaining material with the straight sander -VAS 5170- .

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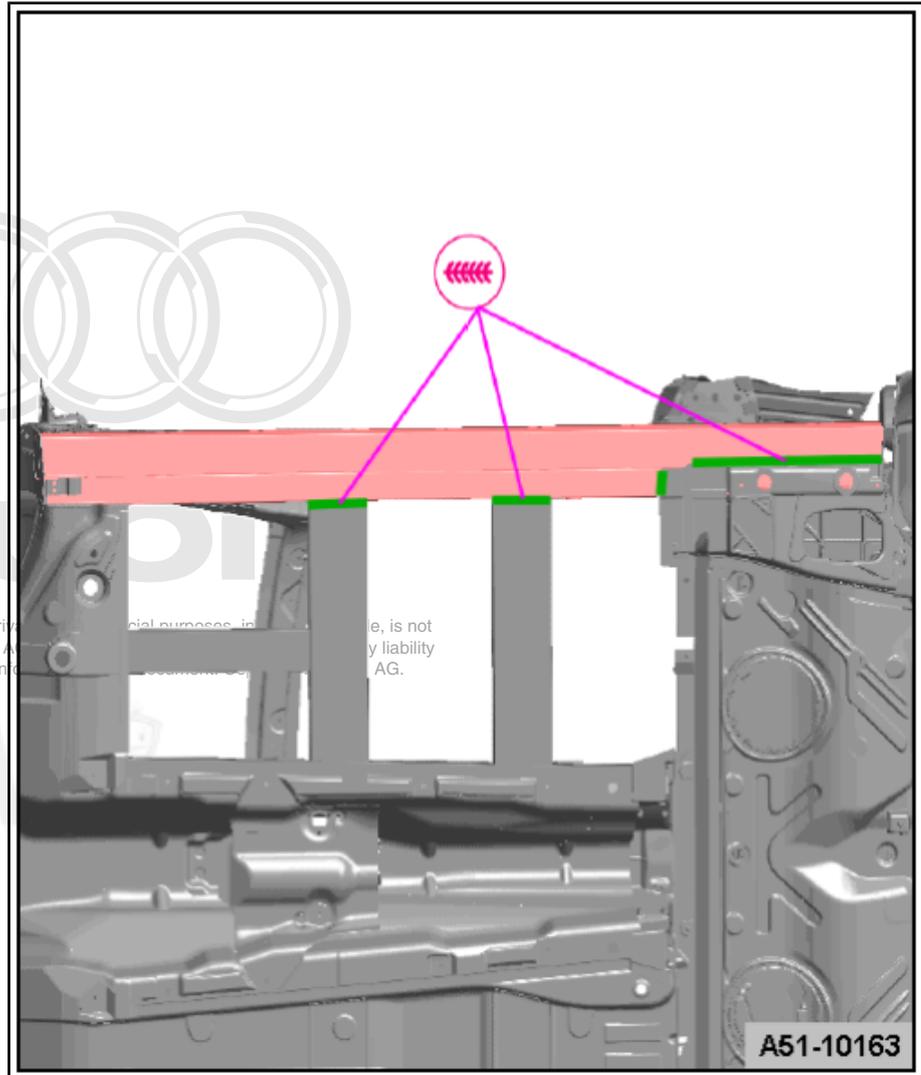


Replacement part

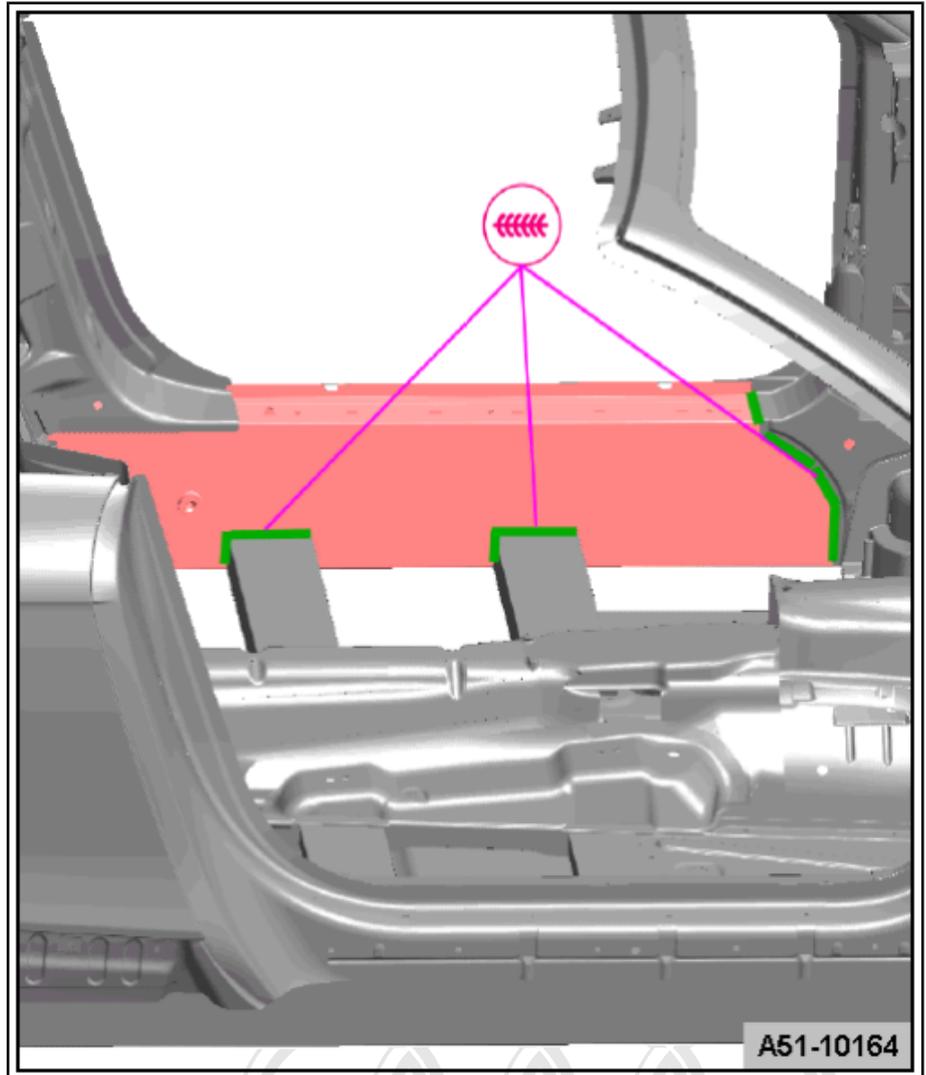
- ◆ Longitudinal panel

Welding in

- Install new part using straightening bracket.
- Weld the inner lower sill panel with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .



- Weld the inner lower sill panel with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .

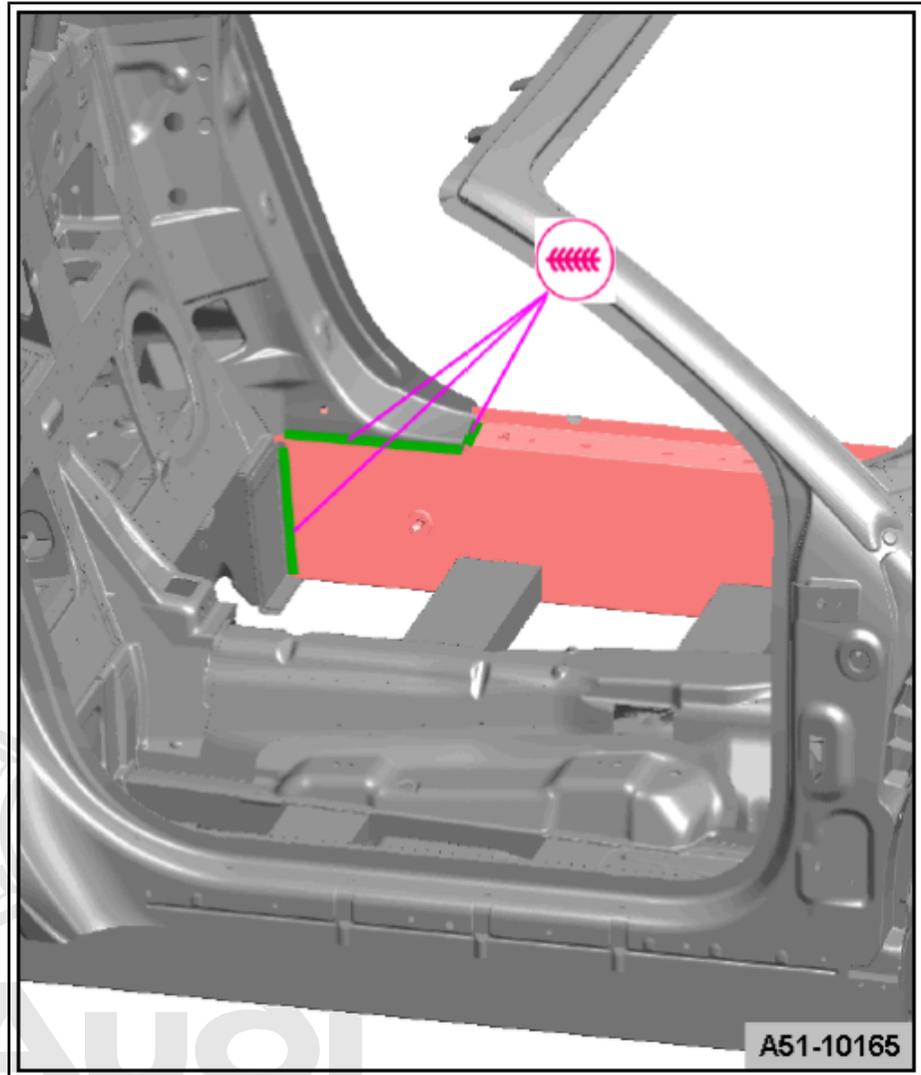


- Weld the inner lower sill panel with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .

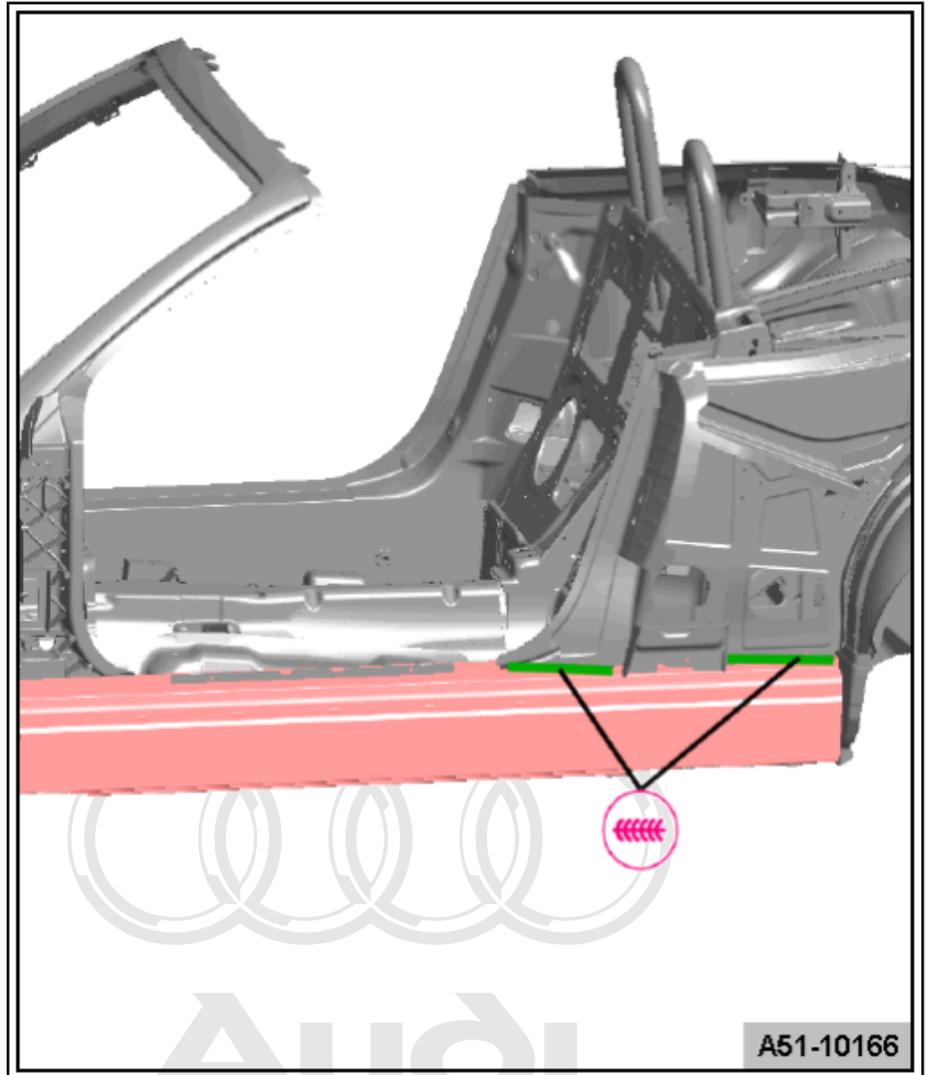
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- Weld the inner lower sill panel with a SG continuous seam using the gas-shielded welder 250A - VAS 6388.



1.13 Floor Panel

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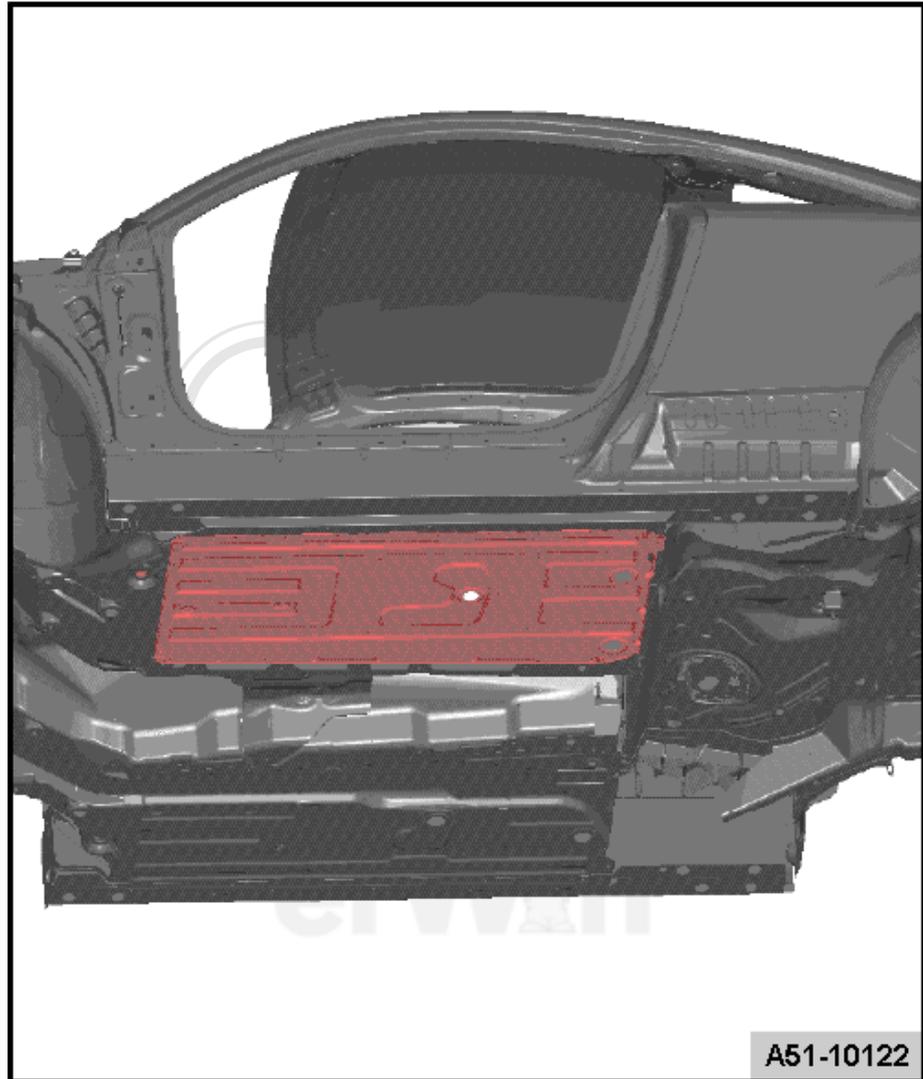


WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

Special tools and workshop equipment required

- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- Loosen bolted connections.



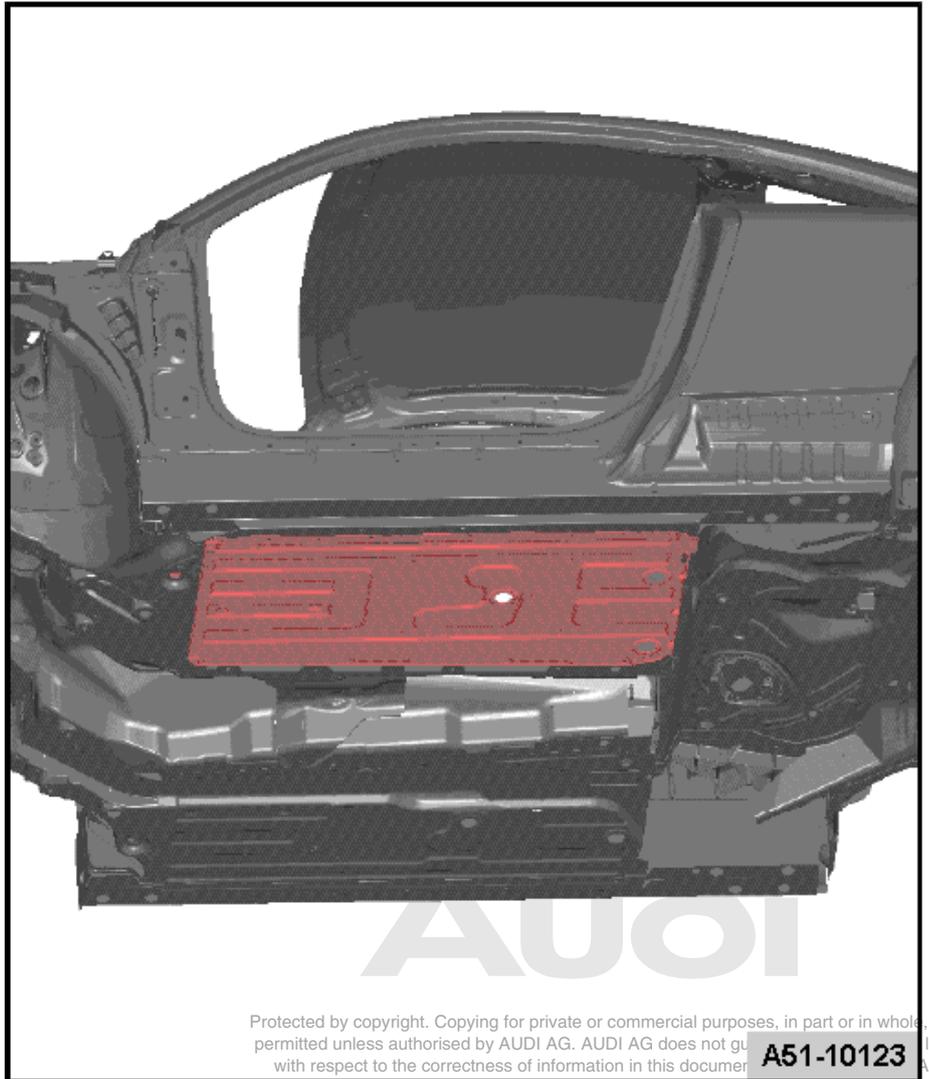
Replacement part

- ◆ Front floor panel

Installation

Align the new part and fix it in place.

- Tighten the new part to 8 Nm.

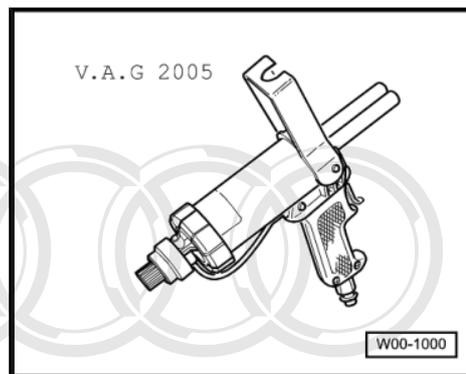


erWin 

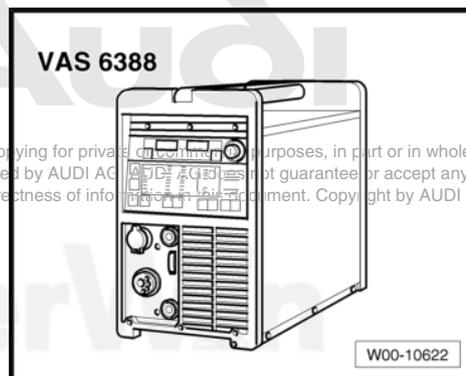
2 Special Tools

Special tools and workshop equipment required

- ◆ Single hand angle grinder -VAS 5167-
- ◆ Drill -VAS 5830-
- ◆ Straight sander -VAS 5170-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-

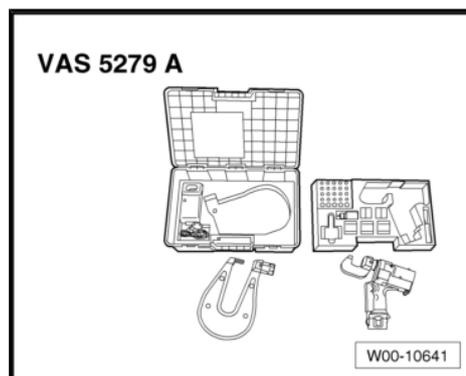


- ◆ Gas-shielded welder 250A -VAS 6388-

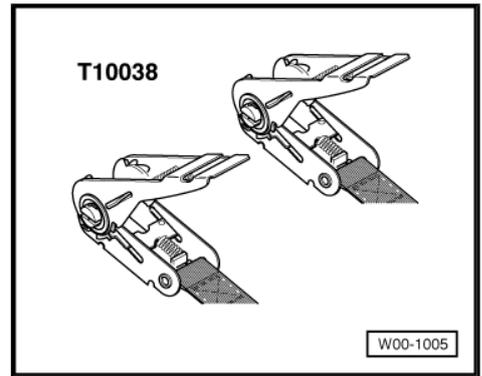


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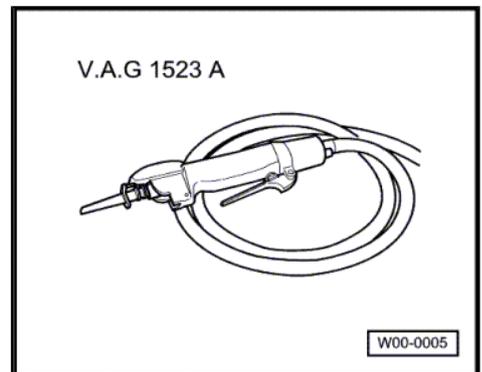
- ◆ Rechargeable Riveter -VAS 5279A-



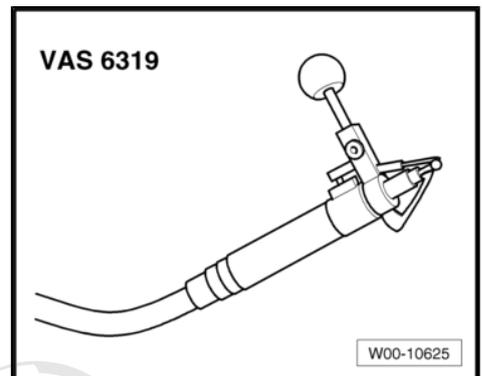
◆ Tensioning strap -T10038-



◆ Body repair saw -V.A.G 1523A-



◆ Laser Weld Seam Drill -VAS 6319-



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53 – Body Rear

1 Removal and Installation

⇒ ["1.1 Upper Rear Cross Panel", page 138](#)

⇒ ["1.2 Inner Cross Panel", page 141](#)

⇒ ["1.3 Water Drain Channel Partial Replacement", page 144](#)

⇒ ["1.4 Rear Suspension Strut Mount", page 148](#)

⇒ ["1.5 Rear Longitudinal Member Partial Section", page 151](#)

⇒ ["1.6 Side Panel, Coupe", page 153](#)

⇒ ["1.7 Side Panel, Roadster", page 165](#)

⇒ ["1.8 Inner Side Panel", page 173](#)

⇒ ["1.9 Rear Wheel Housing Partial Section", page 177](#)

⇒ ["1.10 Rear Wheel Housing", page 180](#)

⇒ ["1.11 Spare Wheel Well Partial Section", page 183](#)

⇒ ["1.12 Spare Wheel Well", page 186](#)

1.1 Upper Rear Cross Panel



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Observe safety precautions. Refer to → General Information; Body Repairs, Body Collision Repair ; Safety precautions

Special tools and workshop equipment required

- ◆ resistance spot welder -VAS 6239 A- or
- ◆ resistance spot welder -VAS 6525- or
- ◆ resistance spot welder -VAS 6530- or
- ◆ resistance spot welder -VAS 6535- or
- ◆ Resistance spot welder -VAS 6545-
- ◆ Gas-shielded welder 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Spot weld breaker -V.A.G 1731-
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas



Note

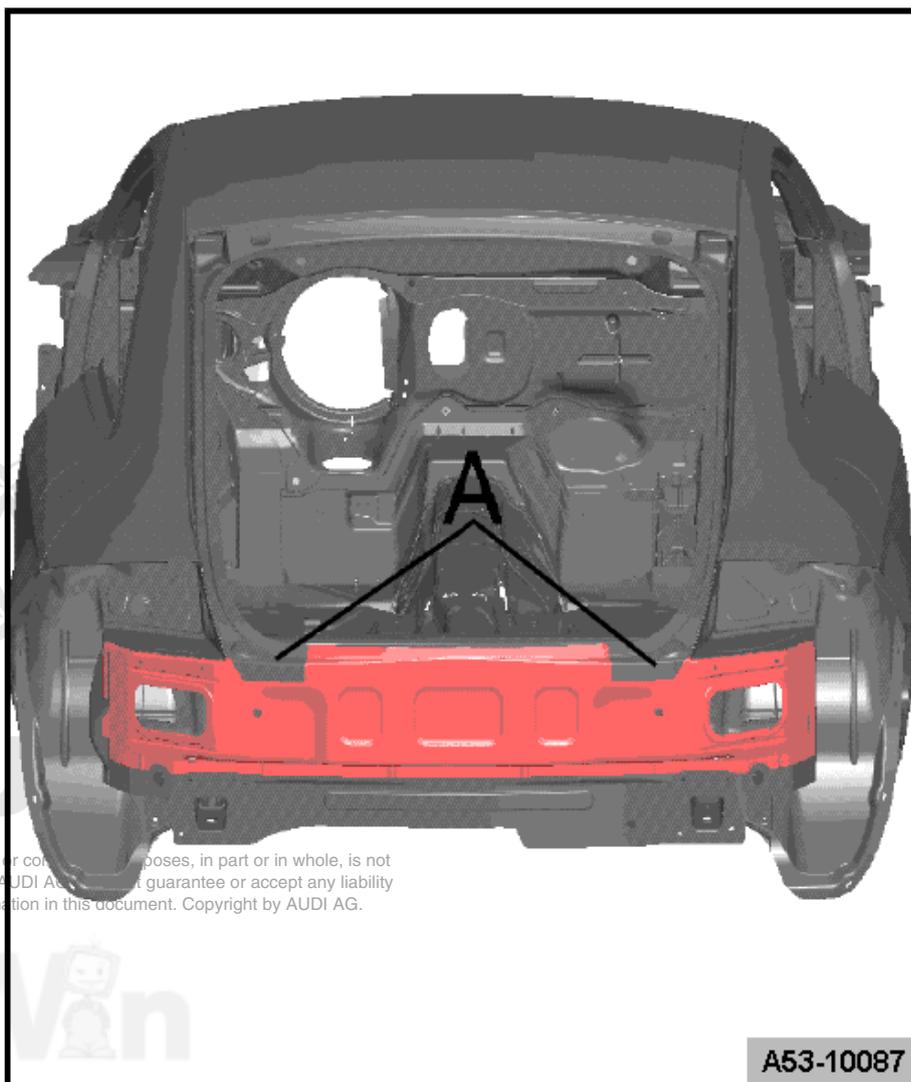
Sufficiently protect adjacent aluminum parts from welding and grinding sparks. Tape off or cover if necessary.

- A - Loosen rain water drain channel rivet connection using the rechargeable riveter -VAS 5279A- .

Remove the large punch rivets. Use the rechargeable riveter - VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .

Remove the small punch rivets. Use the rechargeable riveter - VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .

- Cut the original joint using a spot weld remover -V.A.G 1731- .
- Remove part.
- Remove any remaining material with the straight sander -VAS 5170- .



 Note

*A partial replacement is possible with the separating cuts shown.
Gas-shielded arc continuous butt weld seam in the separated areas.*

Replacement part

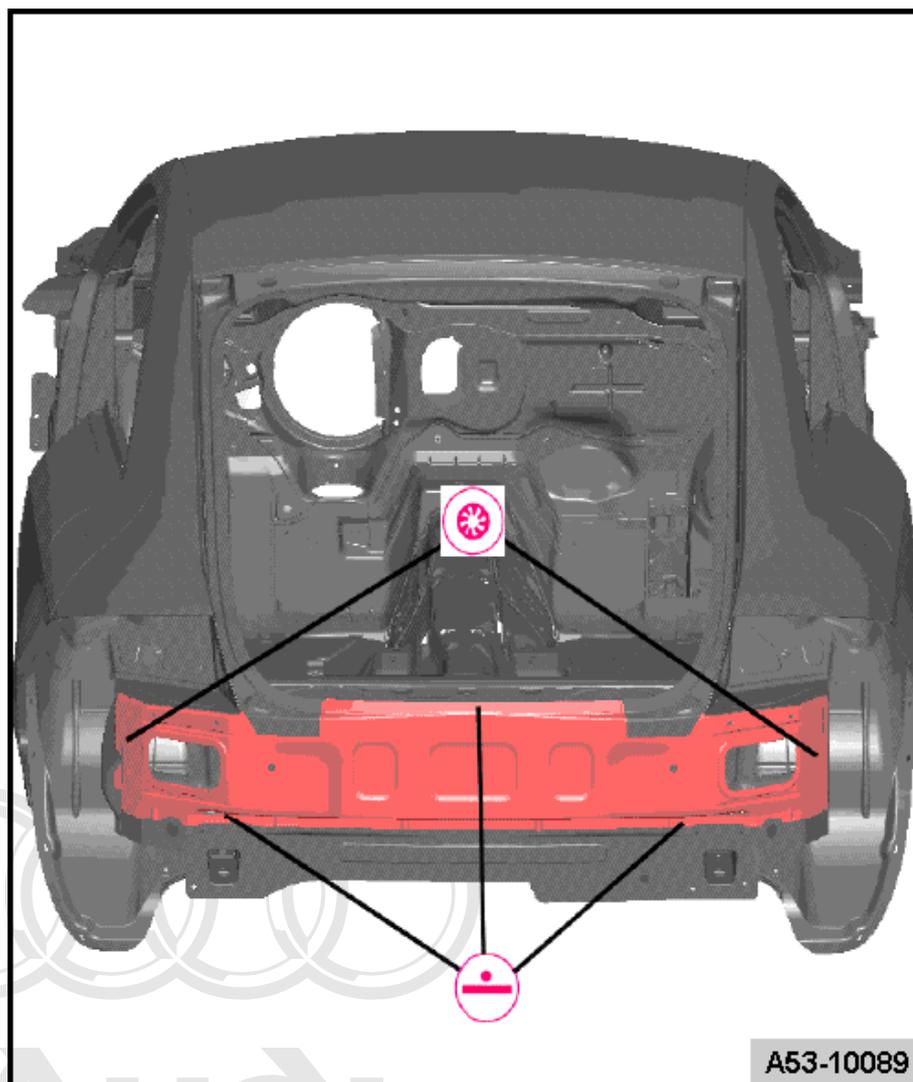
- ◆ Upper rear cross panel

Preparing New Parts

Drill \varnothing 7 mm holes for the gas-shielded arc plug weld seam using the body saw -V.A.G 1523A- .

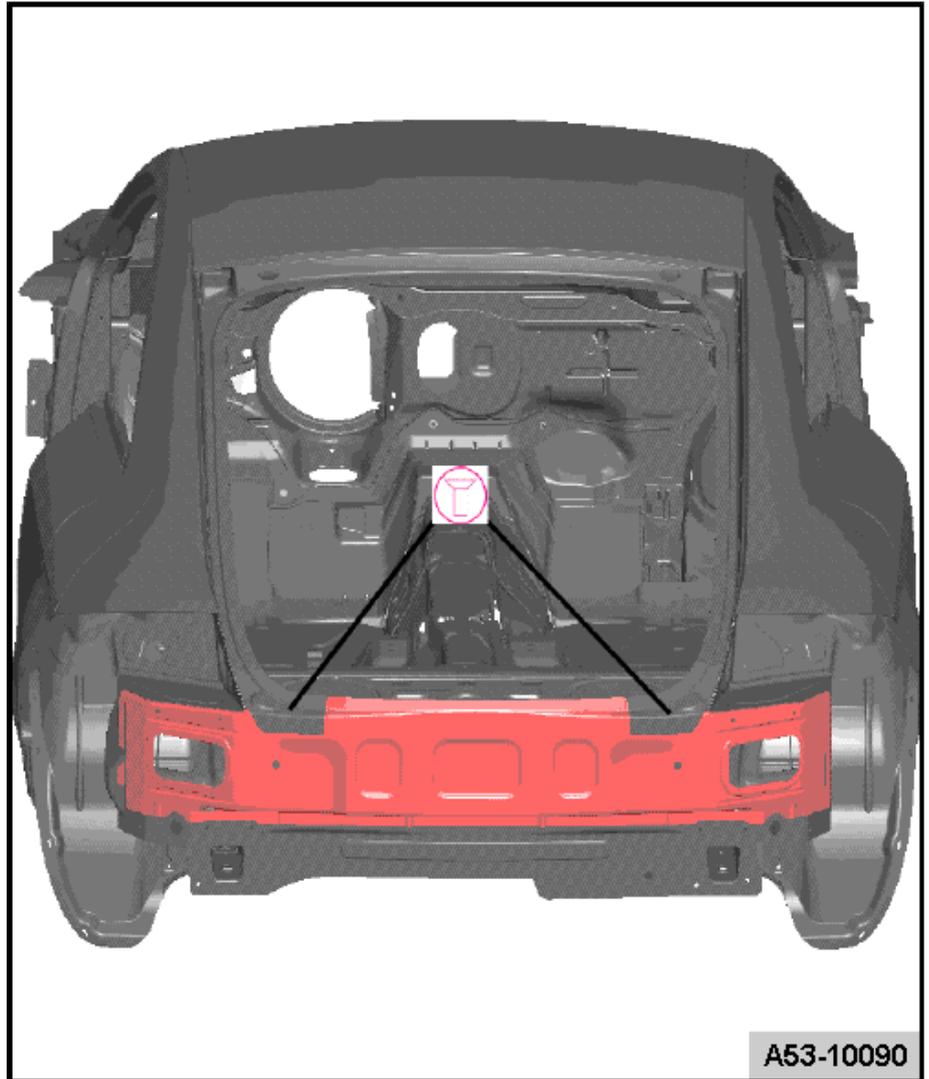
Welding in

- Spot weld the back panel with a straight-line spot weld seam using a resistance spot welder -VAS 6239 A- .
- Weld the end panel with a gas-shielded arc plug weld seam using the gas-shielded welder 250A -VAS 6045A- .



Riveting

- Rivet in the end panel to the rain water drain channel using a rechargeable riveter -VAS 5279A- .
- Use the rechargeable riveter -VAS 5279A- D17 and D17 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D17 and D17 punch .



1.2 Inner Cross Panel



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

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-
- ◆ Gas-shielded welder 250A -VAS 6045A-

- ◆ Spot weld breaker -V.A.G 1731-

- ◆ Body repair saw -V.A.G 1523A-

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Separating areas

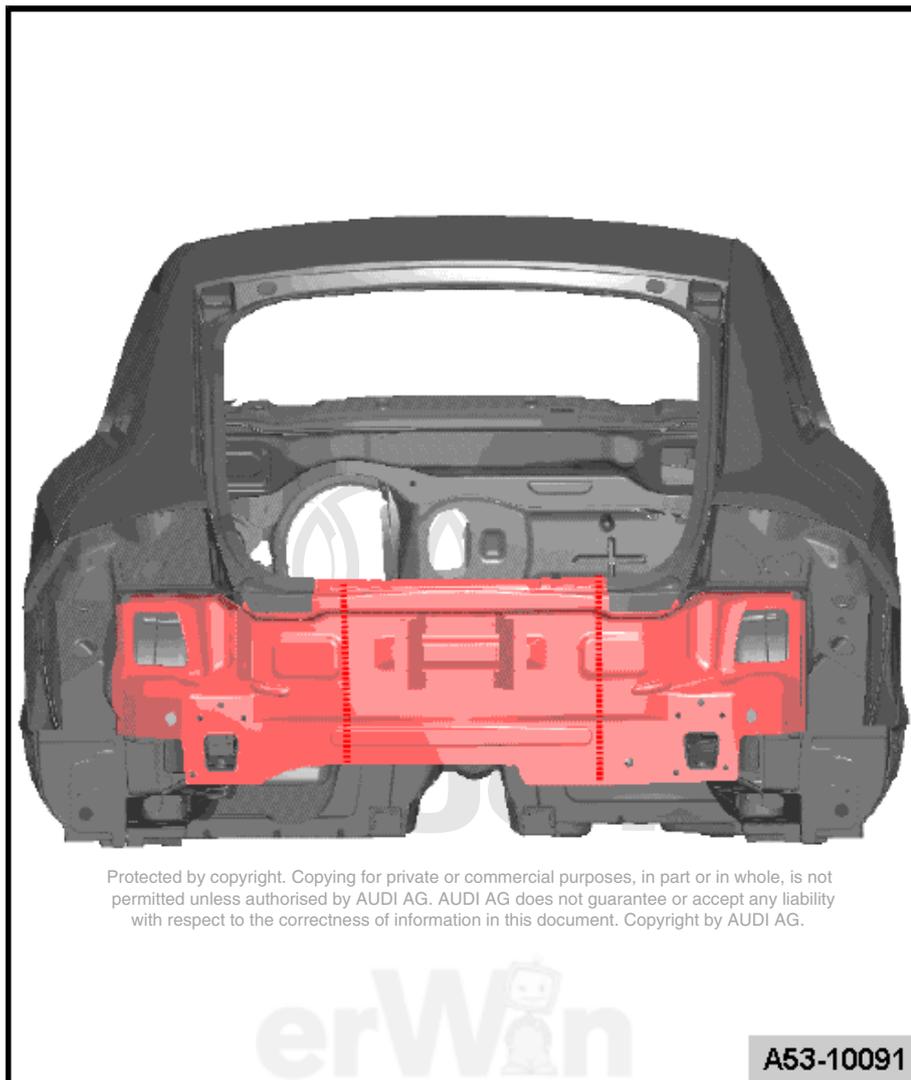
- Top section of rear cross panel already removed.

Note

Sufficiently protect adjacent aluminum parts from welding and grinding sparks. Tape off or cover if necessary.

A partial replacement is possible with the separating cuts shown.

- Cut the original joint spot weld breaker -V.A.G 1731- .
- Remove any remaining material with the straight sander -VAS 5170- .

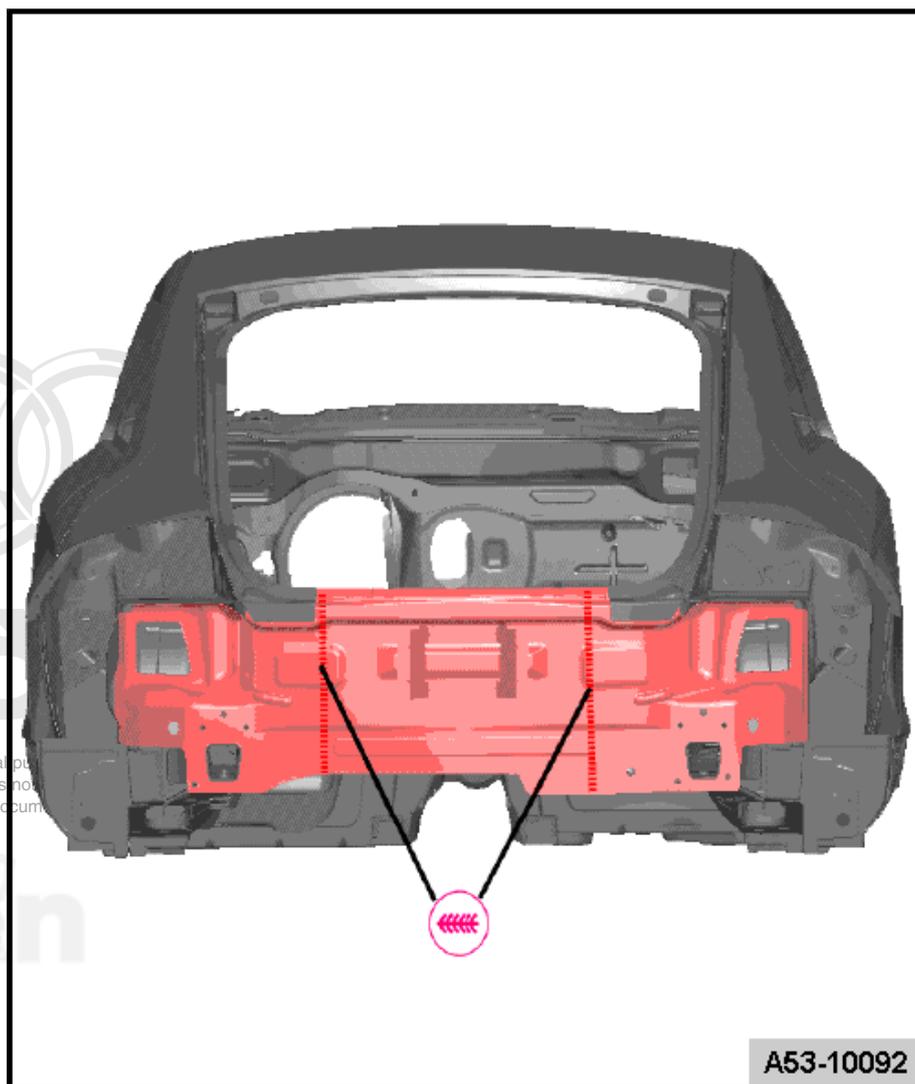


Replacement part

- ◆ Inner cross panel

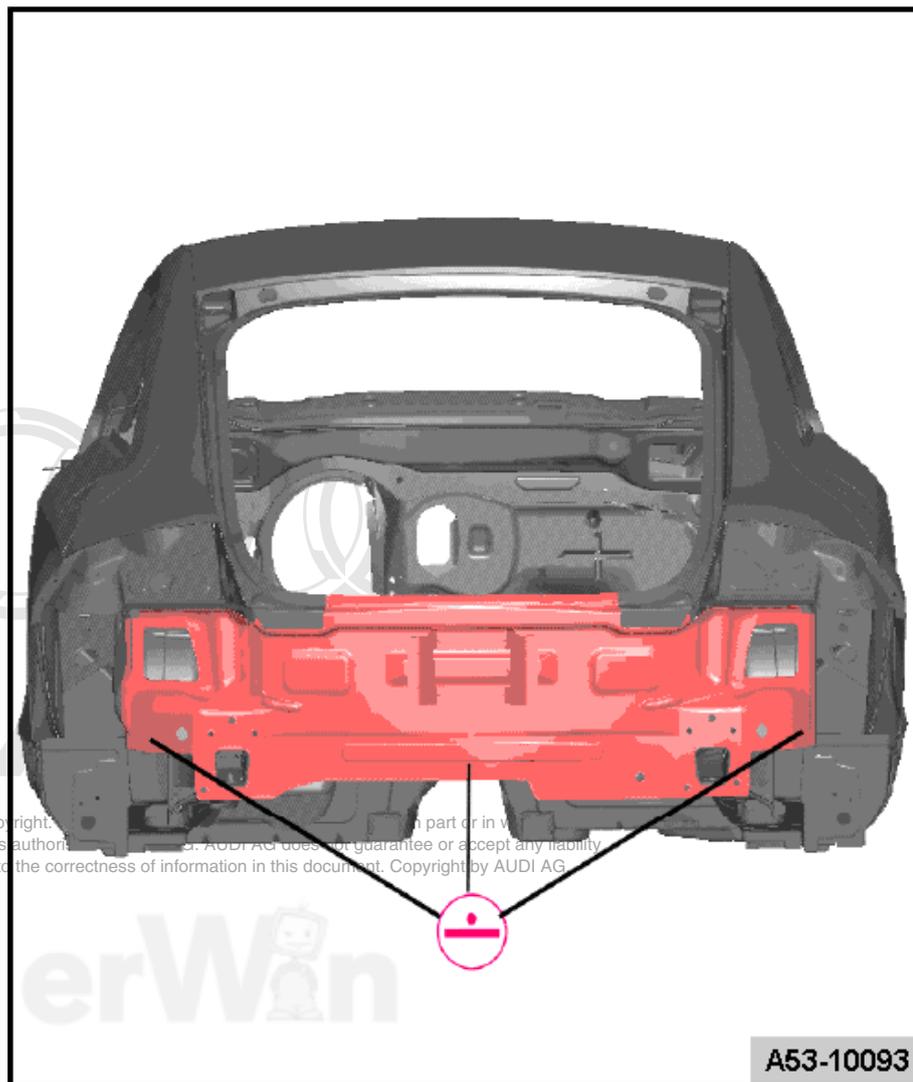
Welding in

- Weld the separating cuts with a gas-shielded arc continuous weld seam using the gas-shielded welder 250A -VAS 6045A- .



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- Spot weld the back panel with a straight-line spot weld seam using a resistance spot welder -VAS 6239 A- .



1.3 Water Drain Channel Partial Replacement



WARNING

Observe safety precautions. Refer to → General Information; Body Repairs, Body Collision Repair

Special tools and workshop equipment required

- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

Note

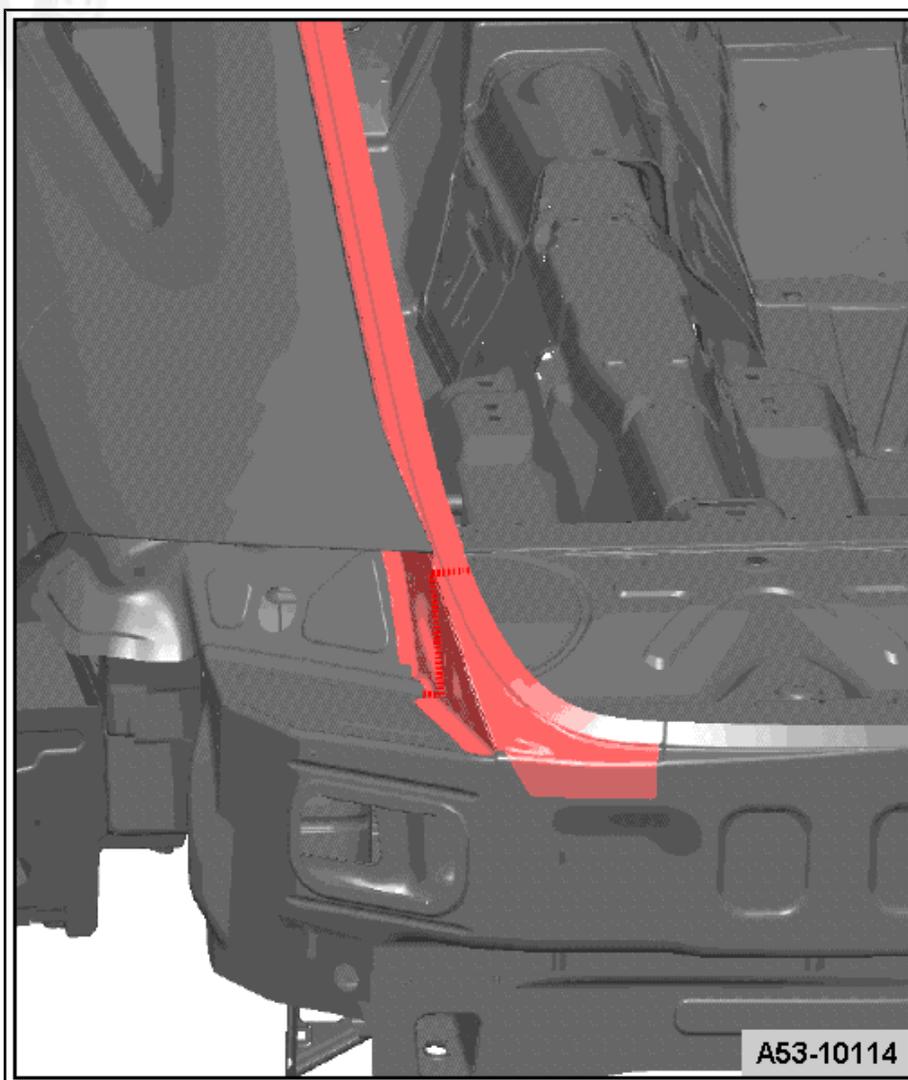
Sufficiently protect adjacent aluminum parts from welding and grinding sparks. Tape off or cover if necessary.

- Cut the original joint with a rechargeable riveter -VAS 5279A- .

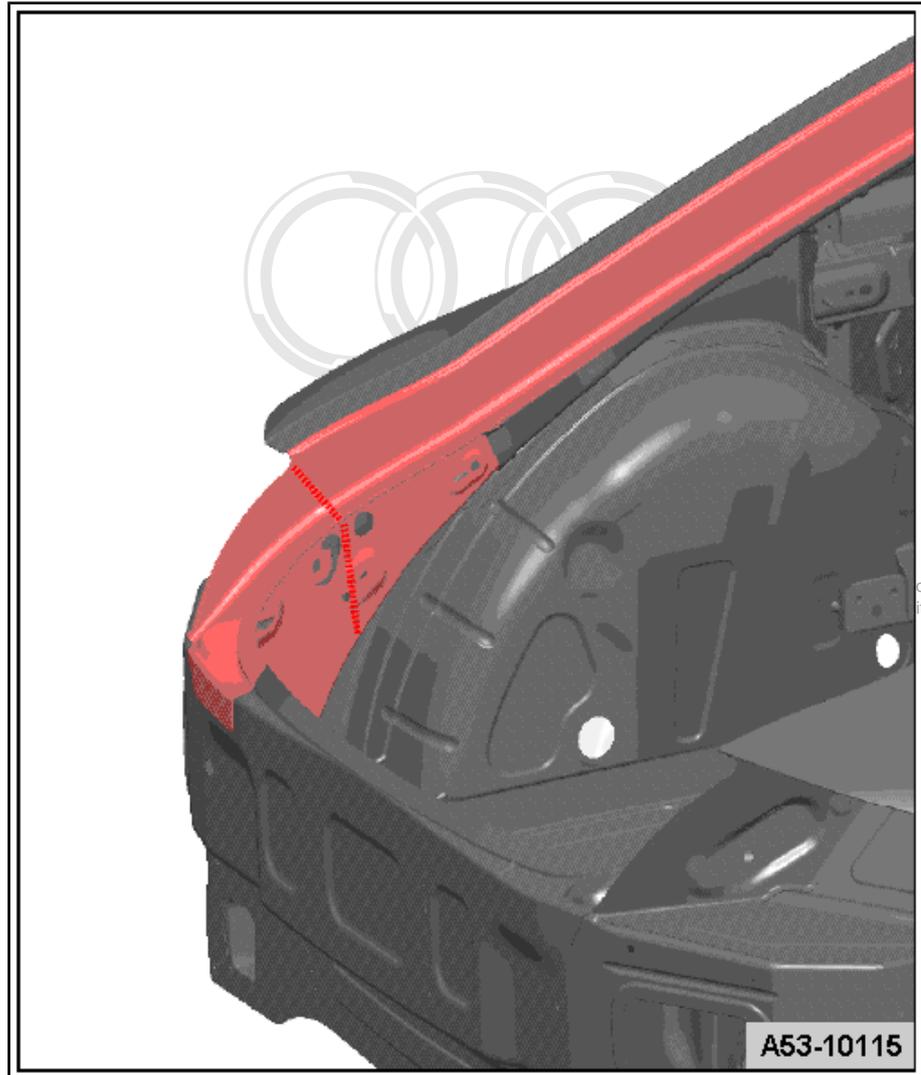
Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .

Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .

- Make the separating cuts using the body repair saw -V.A.G 1523A- as shown.



- Make the separating cuts using the body repair saw -V.A.G 1523A- as shown.



Replacement part

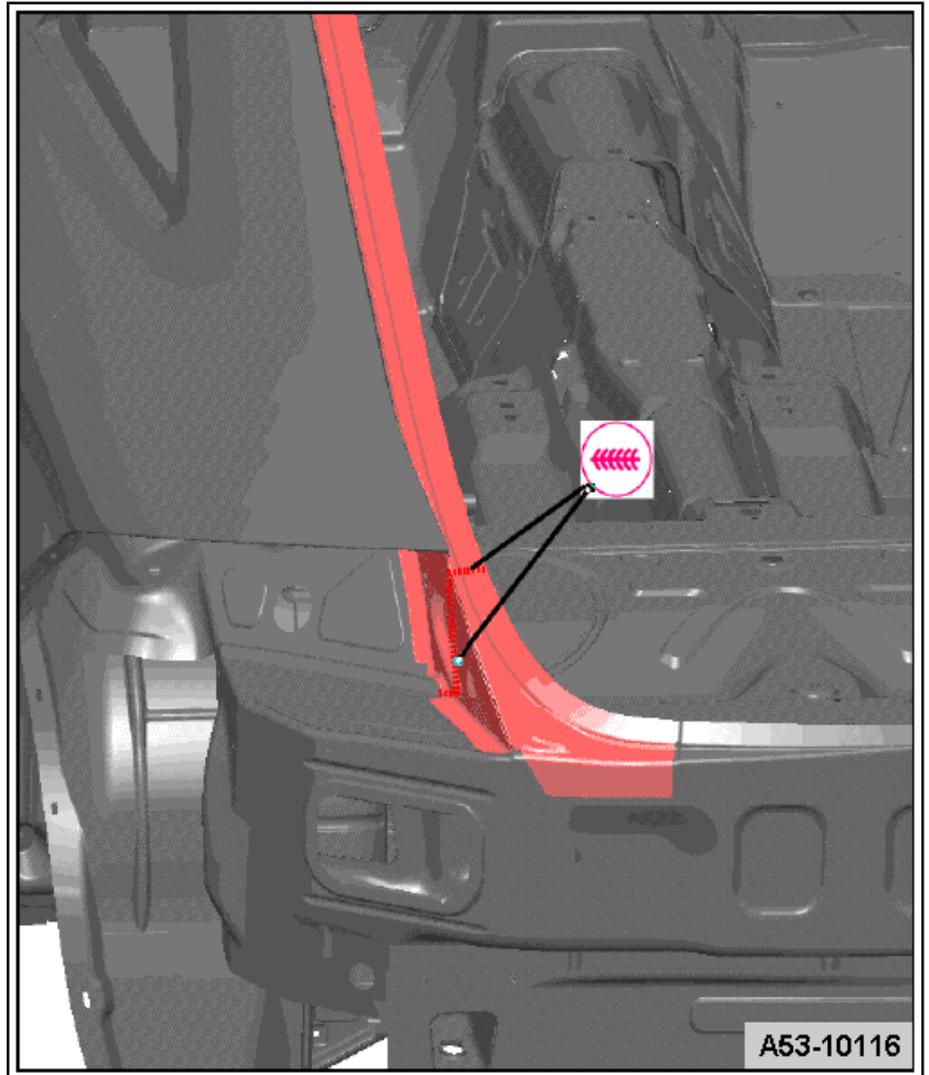
- ◆ Tail light insert
- ◆ Water channel
- ◆ Water channel reinforcement

Preparing New Parts

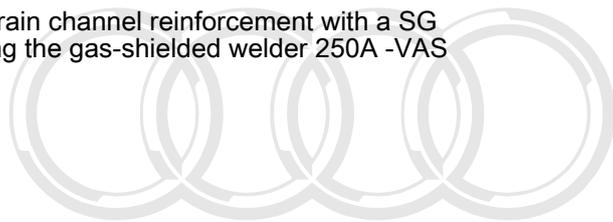
- Prepare new part for bonding and welding

Welding in

- Weld the water drain channel with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .
- Weld the tail lamp replacement part with a gas-shielded arc continuous weld seam using the gas-shielded welder 250A -VAS 6388- .



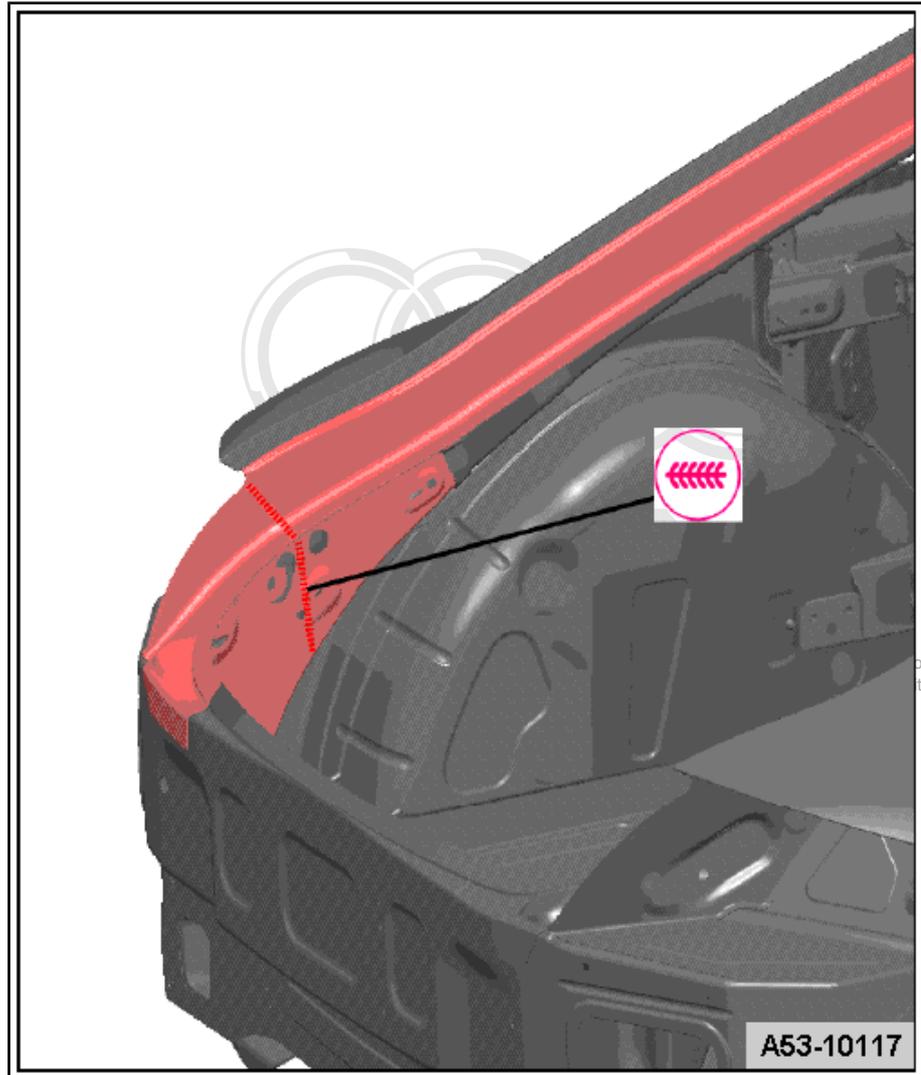
- Weld the rain water drain channel reinforcement with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .



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1.4 Rear Suspension Strut Mount



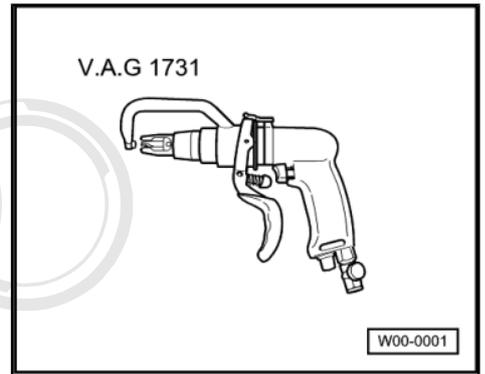
WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

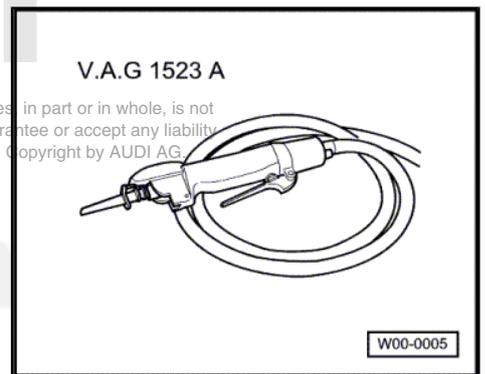
Special tools and workshop equipment required

- ◆ 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-
- ◆ Gas-shielded welder 250A -VAS 6045A-
- ◆ Single hand angle grinder -VAS 5167-

◆ Spot weld breaker -V.A.G 1731-



◆ Body repair saw -V.A.G 1523A-



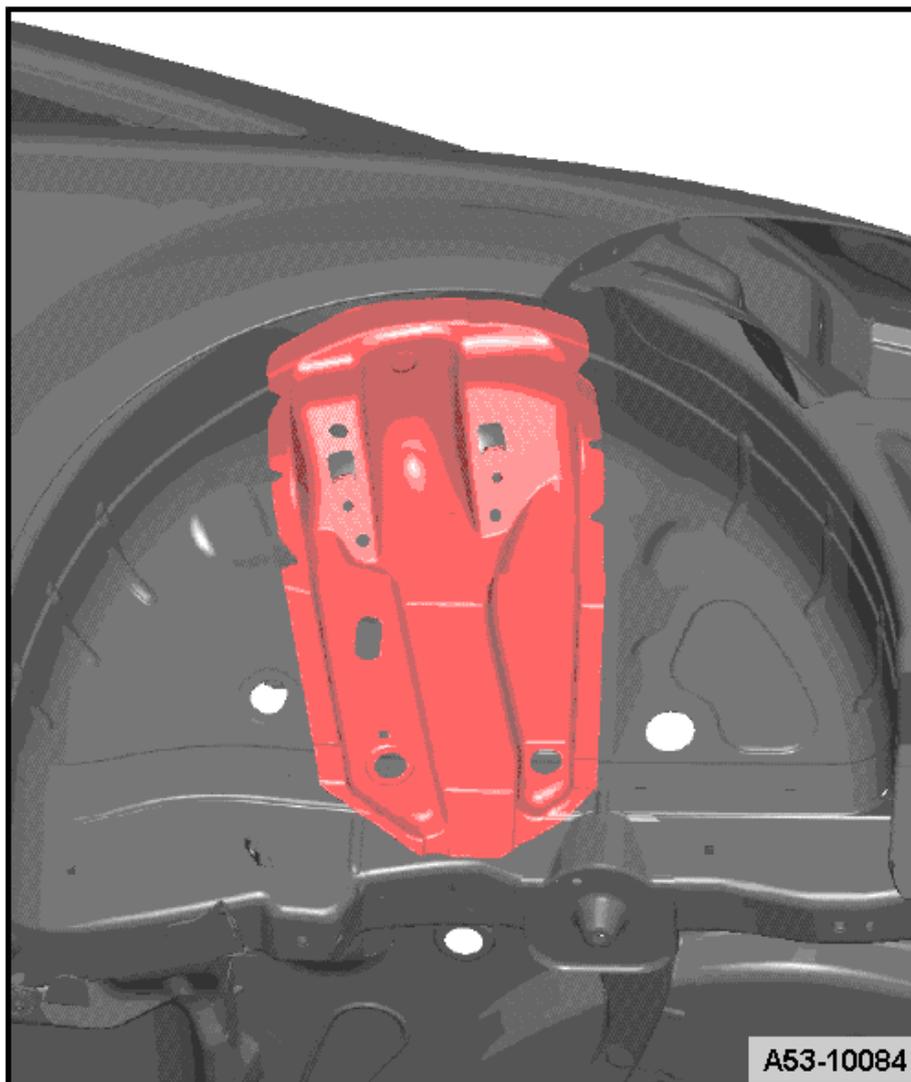
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Separating areas

 **Note**

Sufficiently protect adjacent aluminum parts from welding and grinding sparks. Tape off or cover if necessary.

- Cut the original joint using a spot weld remover -V.A.G 1731- .
- Remove the remainder using the single hand angle grinder -VAS 5167- .



Replacement part

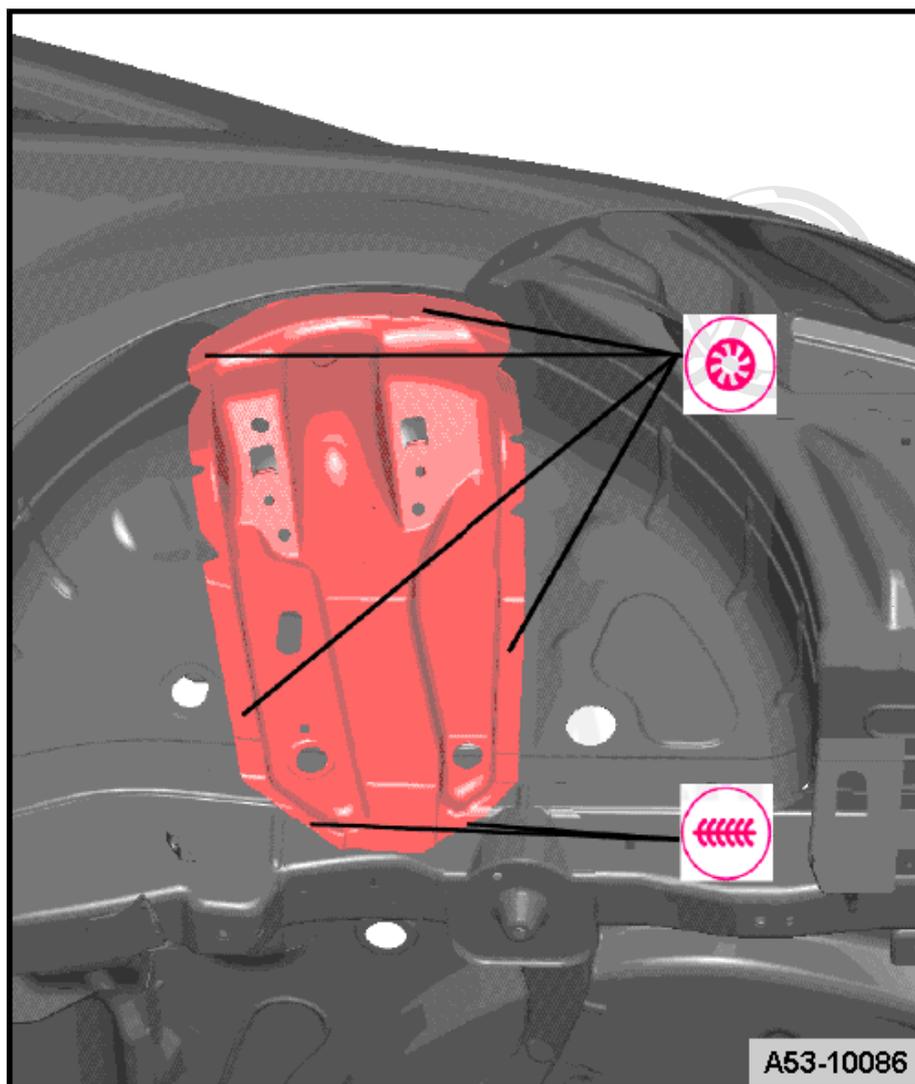
- ◆ Rear suspension strut mount

Welding in

- Position the new part and secure it with a gantry gauge.
- Weld the suspension strut tower mount with a SG continuous seam using the gas-shielded welder 250A -VAS 6045A- .
- Weld the suspension strut tower mount with a straight-line spot weld seam using the resistance spot welder .

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1.5 Rear Longitudinal Member Partial Section



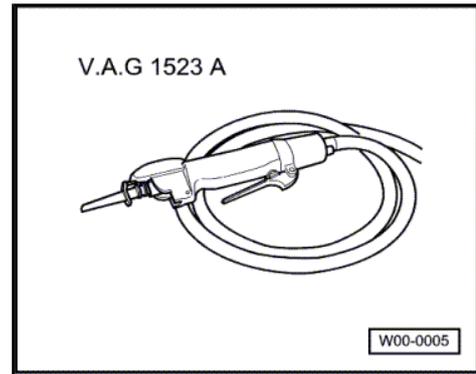
WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

Special tools and workshop equipment required

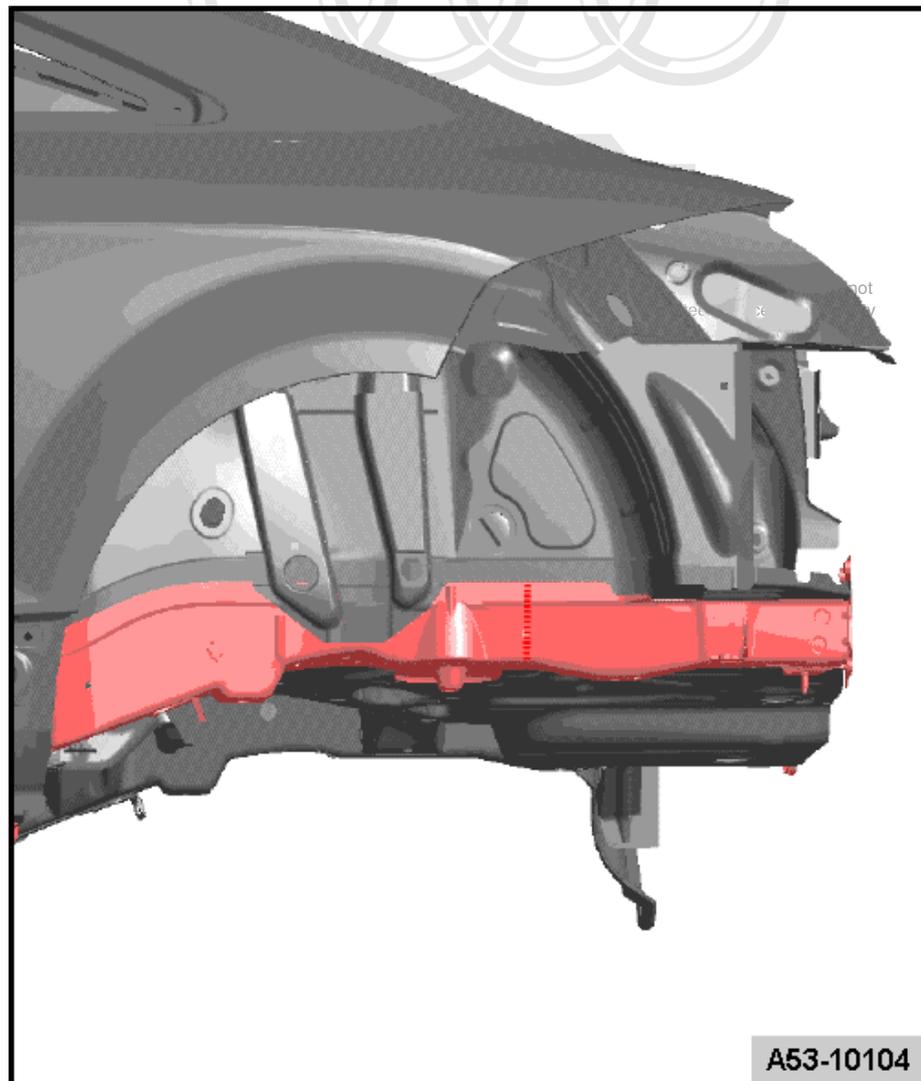
- ◆ resistance spot welder -VAS 6239 A- or
- ◆ resistance spot welder -VAS 6525- or
- ◆ resistance spot welder -VAS 6530- or
- ◆ resistance spot welder -VAS 6535- or
- ◆ Resistance spot welder -VAS 6545-
- ◆ Gas-shielded welder 250A -VAS 6045A-

- ◆ Body repair saw -V.A.G 1523A-



Separating areas

- Rear cross panel sections and mounting panel already removed
- Cut out the longitudinal member partial section using the body repair saw -V.A.G 1523A- .
- Cut the original joint using a spot weld remover -V.A.G 1731- .

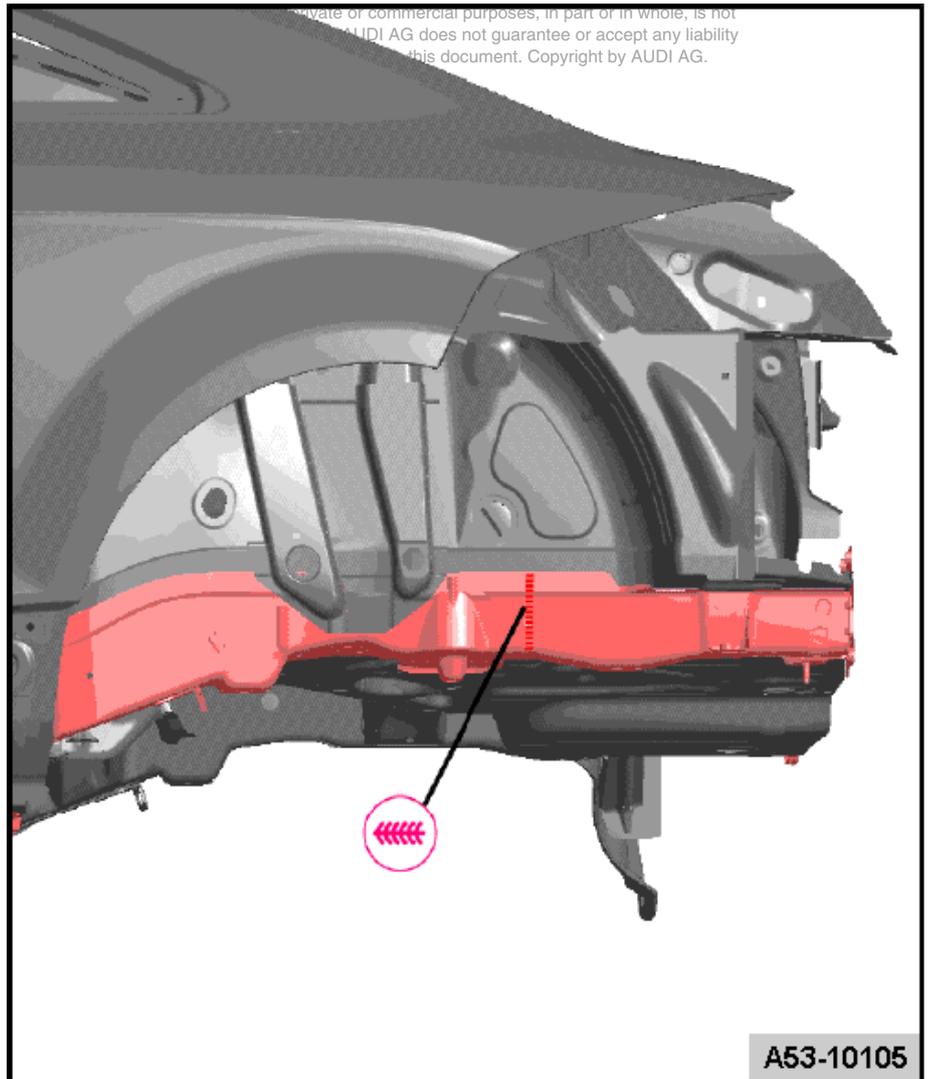


Replacement part

- ◆ Longitudinal member, partial section

Welding in

- Locate and secure section of longitudinal member on alignment bracket.
- Butt weld the longitudinal member with a gas-shielded arc continuous weld seam using the gas-shielded welder 250A - VAS 6045A- .



1.6 Side Panel, Coupe

Includes rain channel and tail light mount



WARNING

*Observe safety precautions. Refer to ⇒ General Information;
Body Repairs, Body Collision Repair*

Special tools and workshop equipment required

- ◆ Laser Weld Seam Drill -VAS 6319-



- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ The new rechargeable riveter -VAS 5279B- can also be used as an alternative. This set is complete.
- ◆ Body repair saw -V.A.G 1523A-

Separating areas



WARNING

The body is made of aluminum and steel bond. The aluminum parts must be carefully covered and protected in the area where the two materials come together during sanding, sawing and welding. This will prevent contact corrosion on the aluminum parts caused by the welding beads and dust particles.

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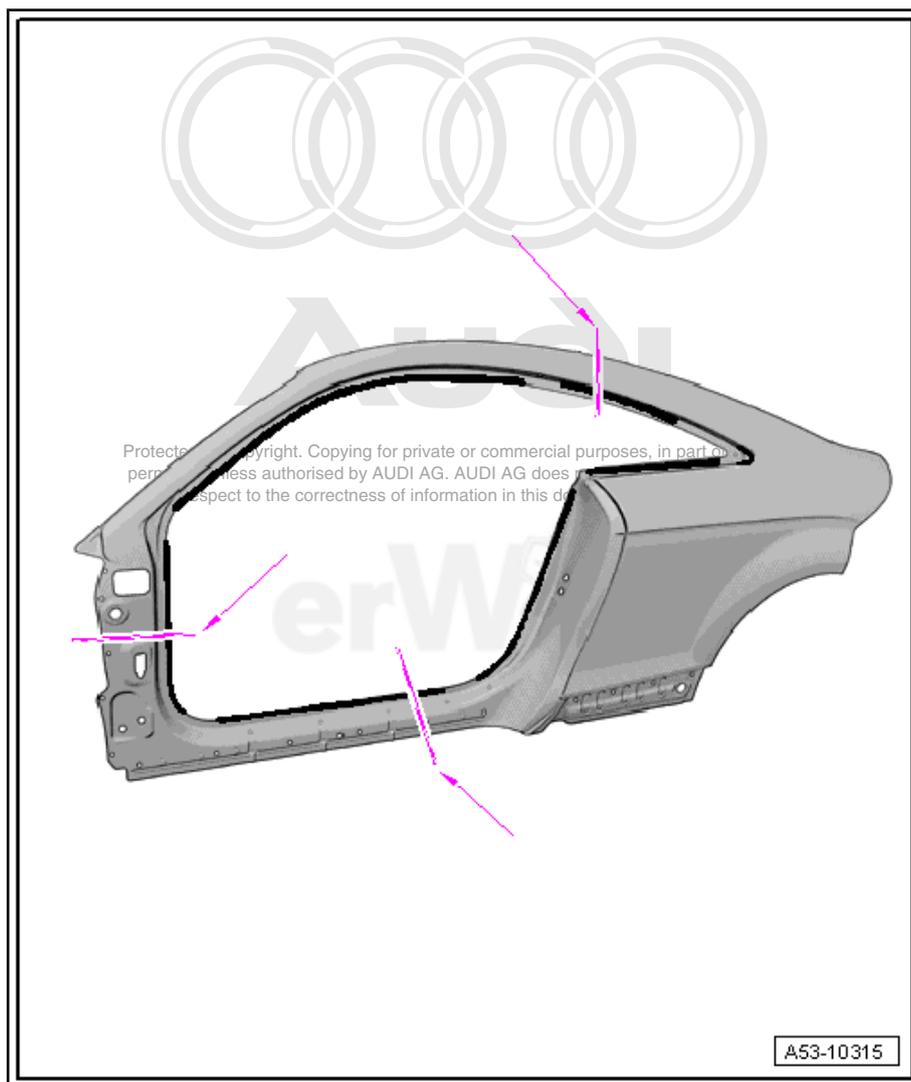
Separating areas



Note

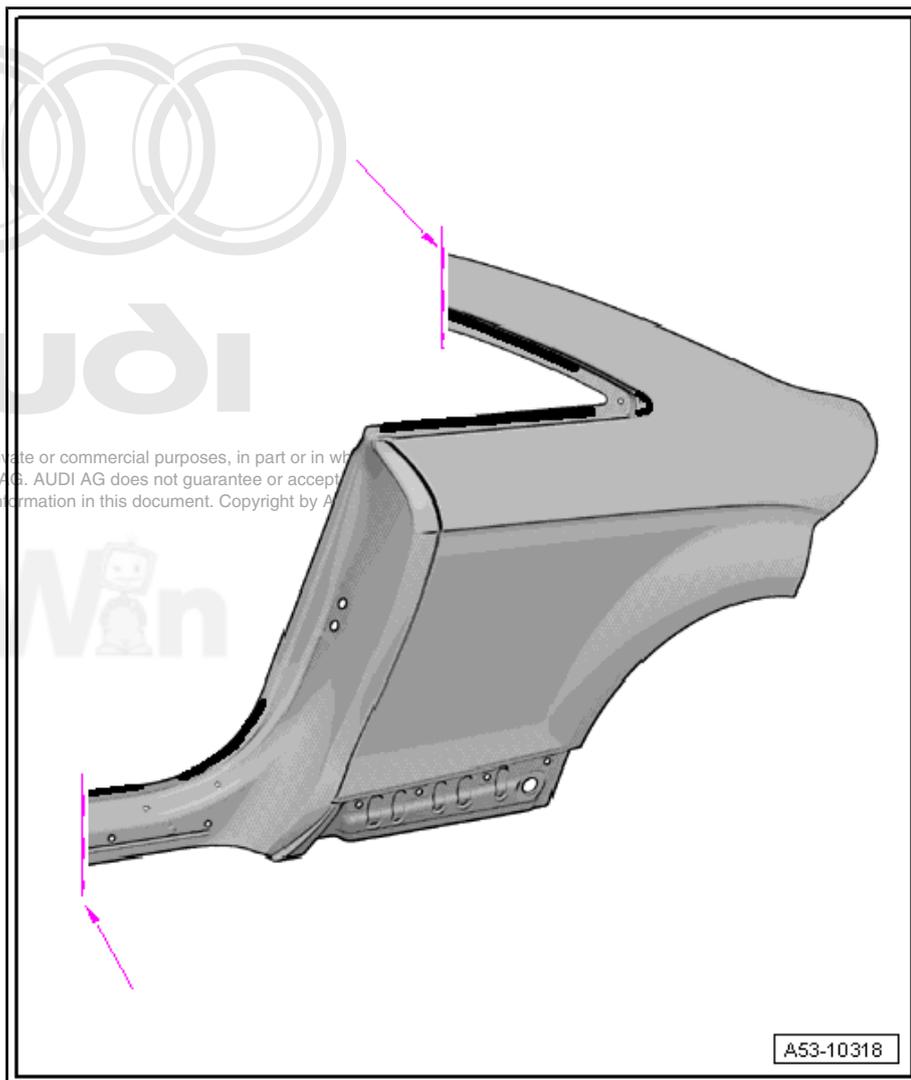
Measure the replacement part before determining the separation cuts so that it fits into the body after removing the old part.

- Transfer separating cut to new part and cut using the body saw -V.A.G 1523A-



Rear side panel separating points

- Transfer separating cut to new part and cut using the body saw
-V.A.G 1523A-



Separating areas

- Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punch from the -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D13 and D14 punch .
- Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punch .

Note

- ◆ Use the C-bracket from the rechargeable riveter -VAS 5279A- or the rechargeable riveter -VAS 5279B- for hard to reach places.
- ◆ First insert the extension and then bring the C-bracket into position.



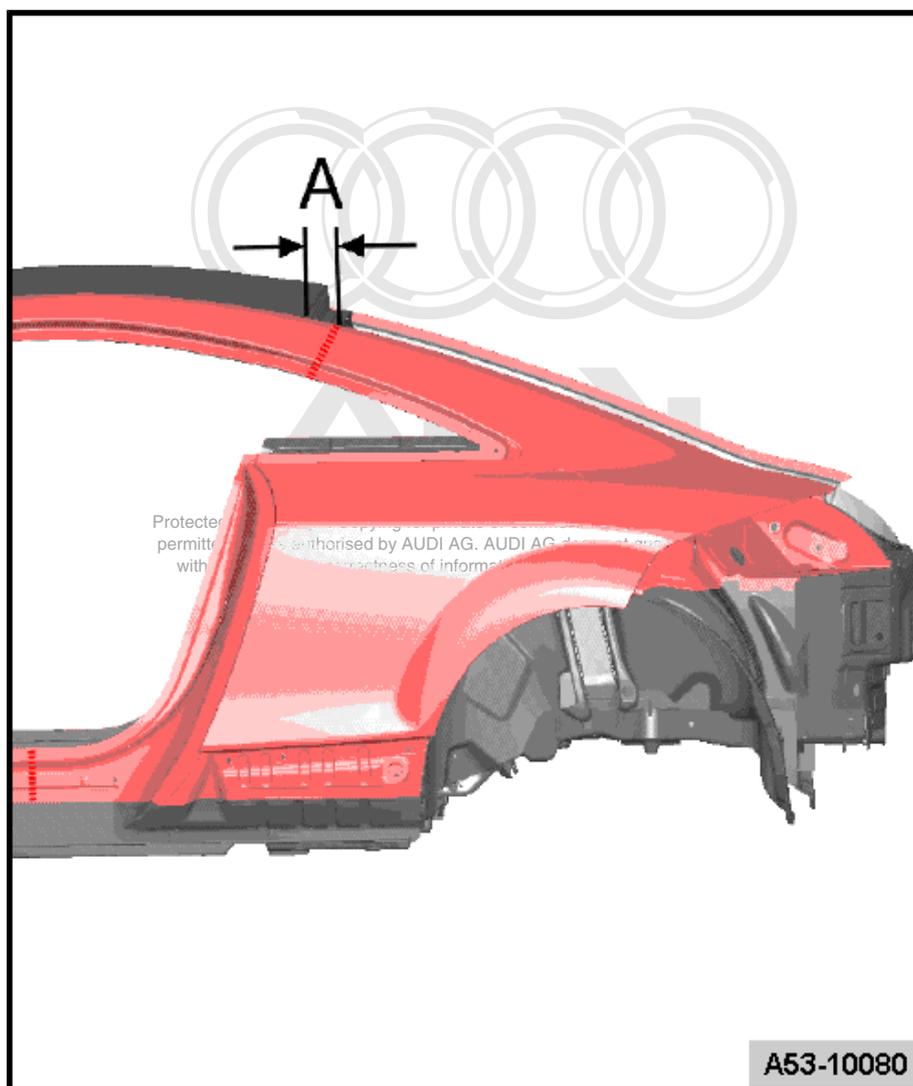
Caution

Do not cut too deep. Any parts still in the vehicle may get damaged or may crack.

 Note

Lubricate the blade of the body saw -V.A.G 1523A- with DA 009 802. This way the teeth on the saw will not jam on the aluminum.

- Mark the separation cut approximately 80 mm -A- under the edge of the roof so that the inner reinforcement does not get damaged.
- Grind the laser seal near the sill panel strip with the laser weld seam drill -VAS 6319- .
- Grind the flanged seam on the wheel housing using the single hand angle grinder -VAS 5167- .



 Note

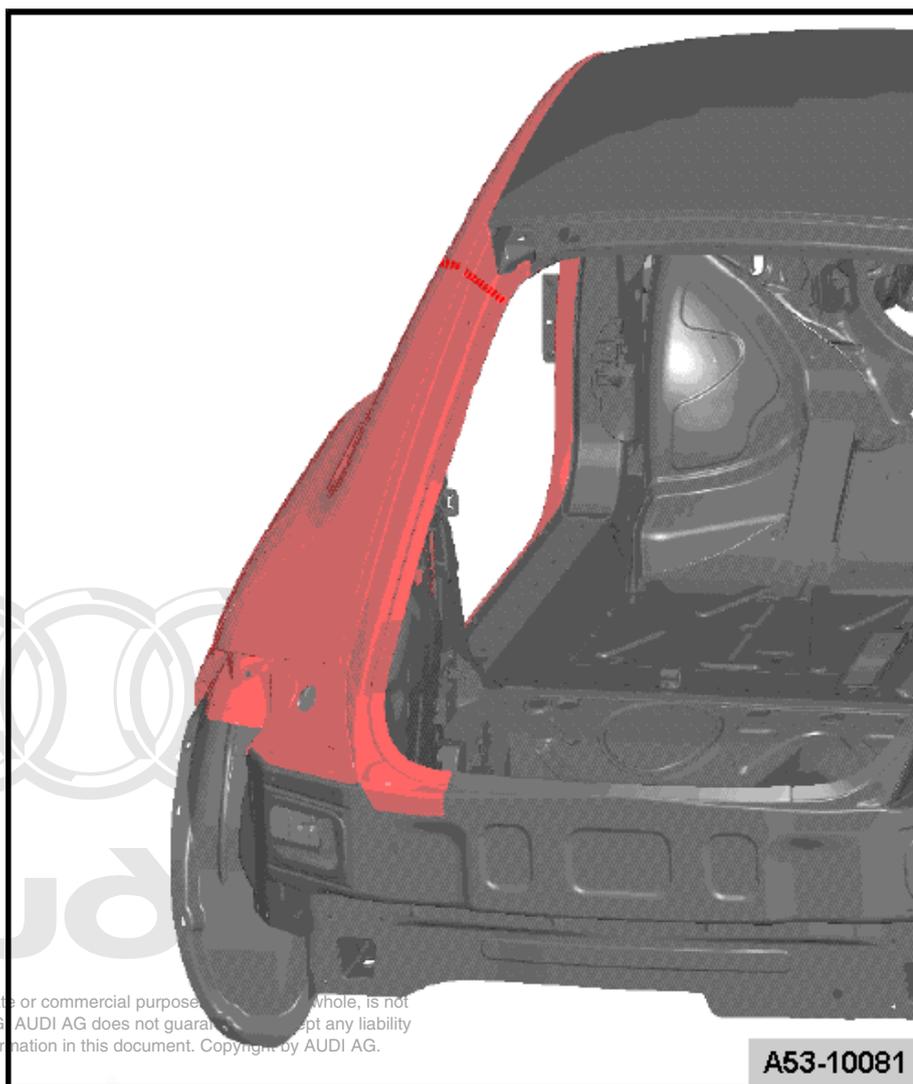
In order to make a perpendicular separation cut, tape off the marking parallel.

- Make the separation cut under the edge of the roof with the body saw -V.A.G 1523A- so that the inner reinforcement does not get damaged.

 **Note**

Warm the body where the foam parts are with a hot air blower for 2 to 5 minutes to make it easier to remove the side panel.

- Carefully separate the side panel using a flat chisel from the vehicle.
- Remove the side panel from the vehicle.
- Remove the remainder using the single hand angle grinder - VAS 5167- .

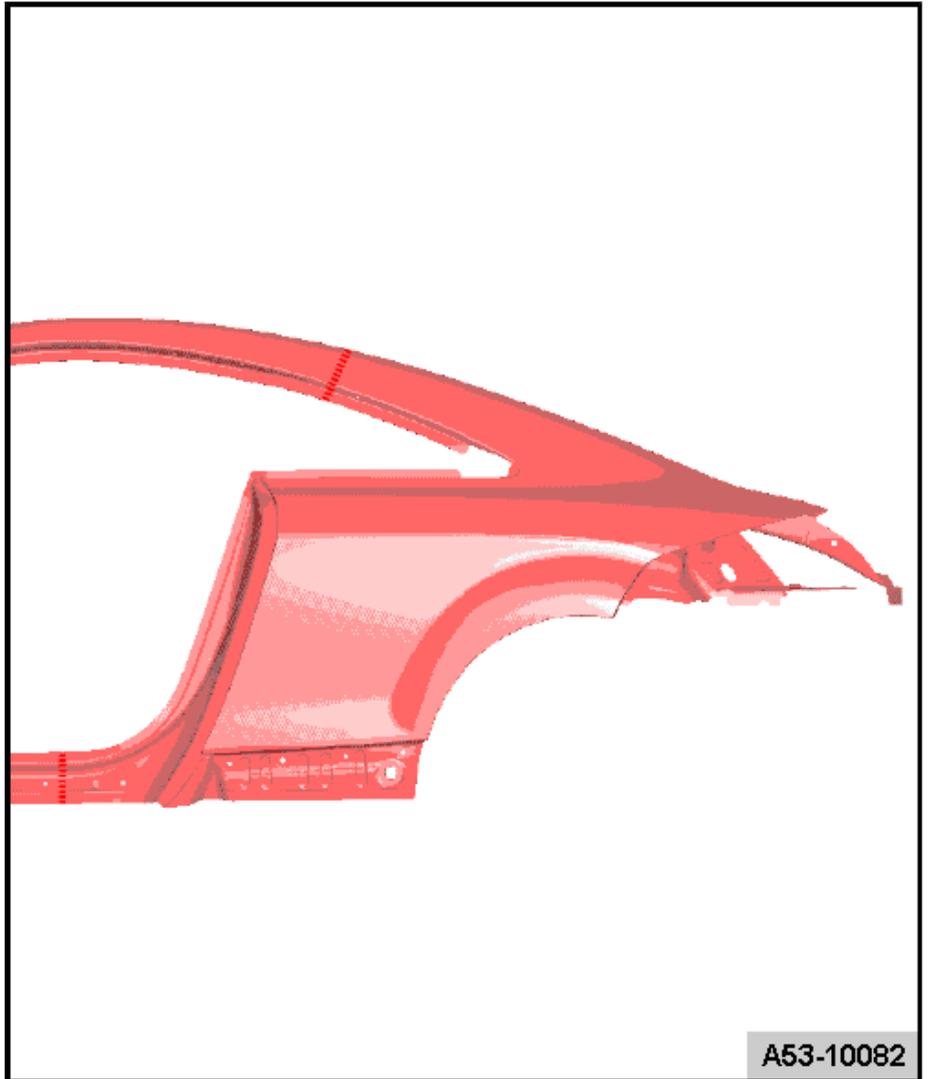


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Preparing New Parts

- Sand the new part down to the bare metal in the weld area.
- Make the separating cut using a body saw -V.A.G 1523A- .
- Apply body adhesive DA 001 730 A1 with a compressed air adhesive pistol -V.A.G 2005 B- in the area around the wheel housing.



Riveting



WARNING

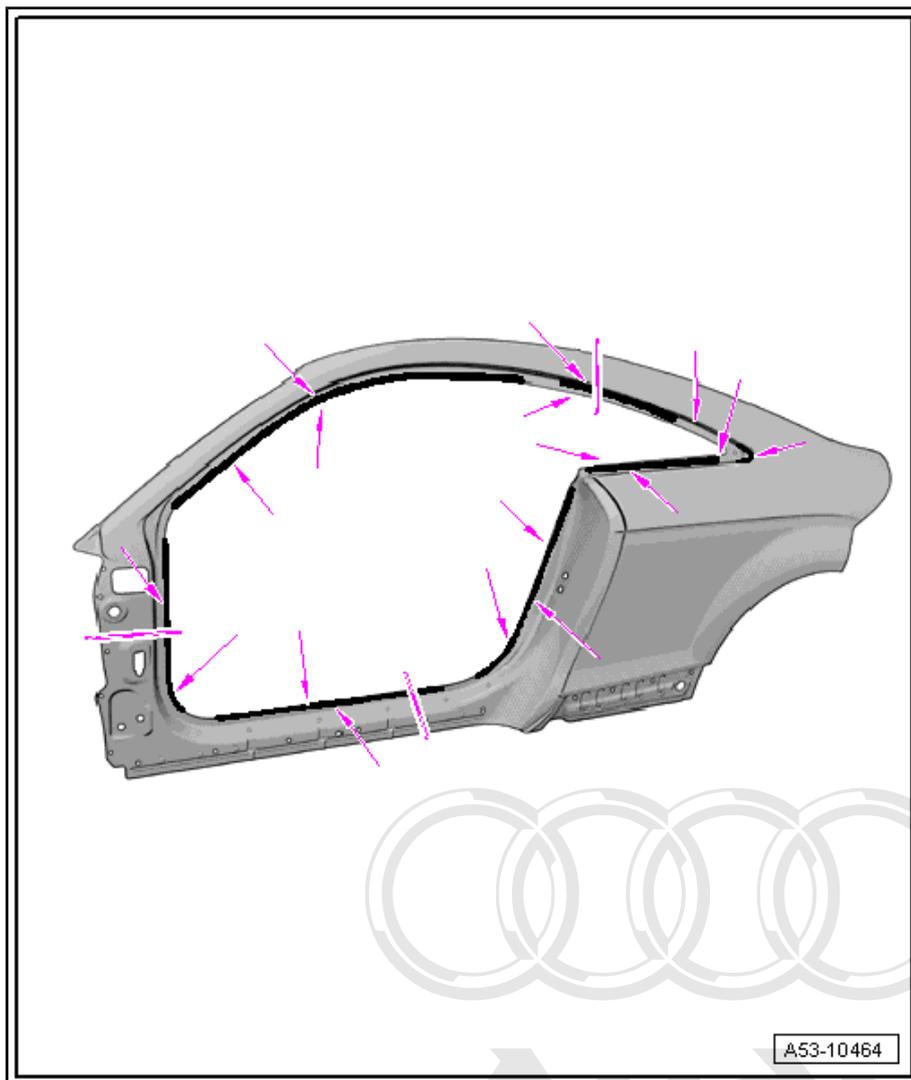
The body is made of aluminum and steel bond. The aluminum parts must be carefully covered and protected in the area where the two materials come together during sanding, sawing and welding. This will prevent contact corrosion on the aluminum parts caused by the welding beads and dust particles.



Note

The standard rivets are replaced by 10 mm solid rivets.

- Rivet the new part in the area near the side panel with a 6 x 10 mm solid rivet -arrows-
- Rivet the new part in the area near the sill panel strip and A-pillar with a 6 x 12 mm solid rivet -arrows-



Preparing the body.

- Press the riveting area flat. Use the rechargeable riveter -VAS 5279A- D8 or D17 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D8 or D17 punch .
- Sand the body down to the bare metal.
- Install the welding liner retainer on the separating points.

Installing the new part

- With the vehicle unloaded, position the new part and then secure it with locking pliers.
- Drill 5 mm holes from the inside toward the outside near the aluminum bolts.
- Imprint the drilled holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punch from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D15 and D16 punch .
- Remove new part.
- Install the rivet nuts for the rear lid damper.

Rivet in new part.

- Apply aluminum primer DA 009 801 using a paint brush.

- Apply 2K adhesive DA 001 730 A2 all over the riveting area and in the wheel housing.
- Apply the 2K filler foam D 506 KG1 A3 on the rest of the filler foam pieces.

 **Note**

Insert the filler foam pieces and apply 2K filler foam D 506 KG1 A3 before welding.

- Locate and secure side panel on portal gauge.

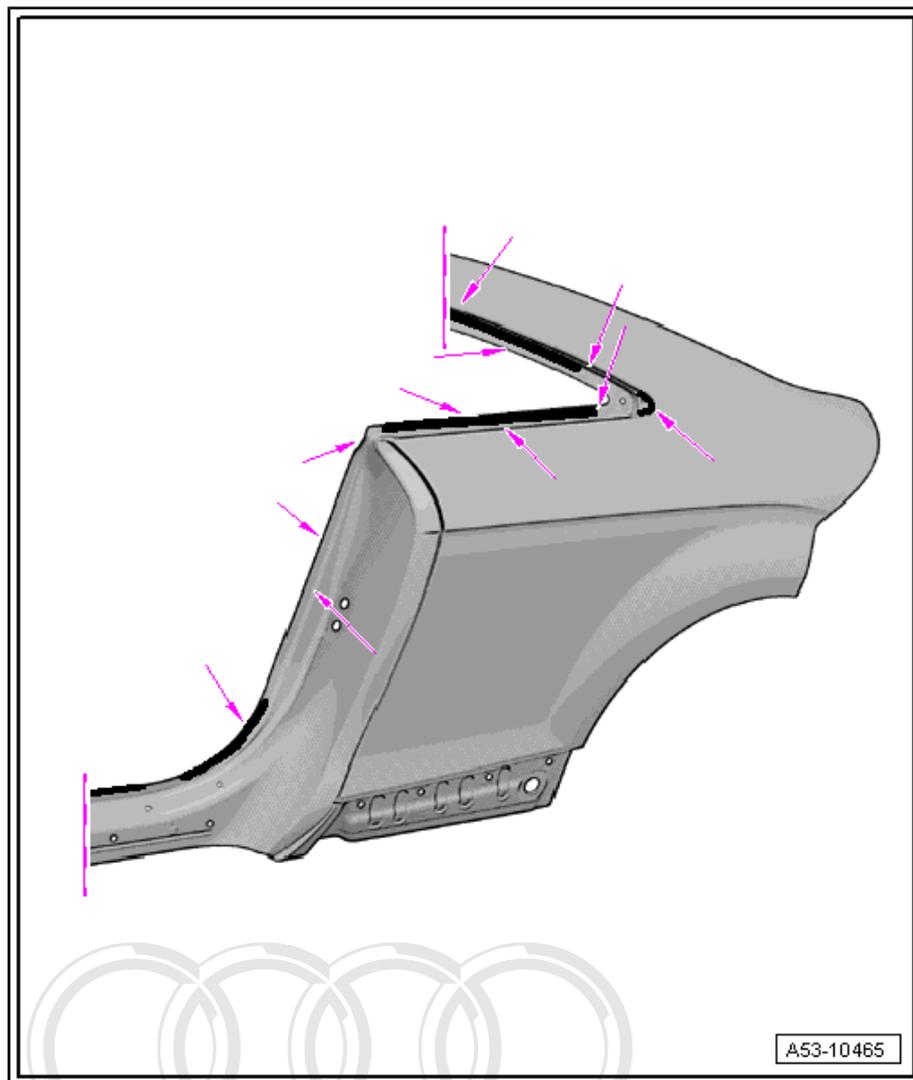
 **Note**

- ◆ *Use the C-bracket from the rechargeable riveter -VAS 5279A- or the rechargeable riveter -VAS 5279B- for hard to reach places.*
- ◆ *First insert the extension and then bring the C-bracket into position.*
- Rivet the new part with a 6 x 10 mm solid rivet -arrows-
- Use the rechargeable riveter -VAS 5279A- D17 and D17 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D17 and D17 punch .



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**Note**

Remove any remaining adhesive on the punch.

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- ◆ Use the C-bracket from the rechargeable riveter -VAS 5279A- or the rechargeable riveter -VAS 5279B- for hard to reach places.
- ◆ First insert the extension and then bring the C-bracket into position.

**Note**

- ◆ Use a new 3.35 x 4 mm punch rivet in an undamaged hole.
- ◆ Use a 4 mm aluminum bolt if a hole is created when pushing out the old rivets.

- Rivet the rain water drain channel with a 3.35 x 4 mm punch rivet using the rechargeable riveter -VAS 5279A- .



Welding in



WARNING

The body is made of aluminum and steel bond. The aluminum parts must be carefully covered and protected in the area where the two materials come together during welding. This will prevent contact corrosion on the aluminum parts caused by the welding beads and dust particles.



Note

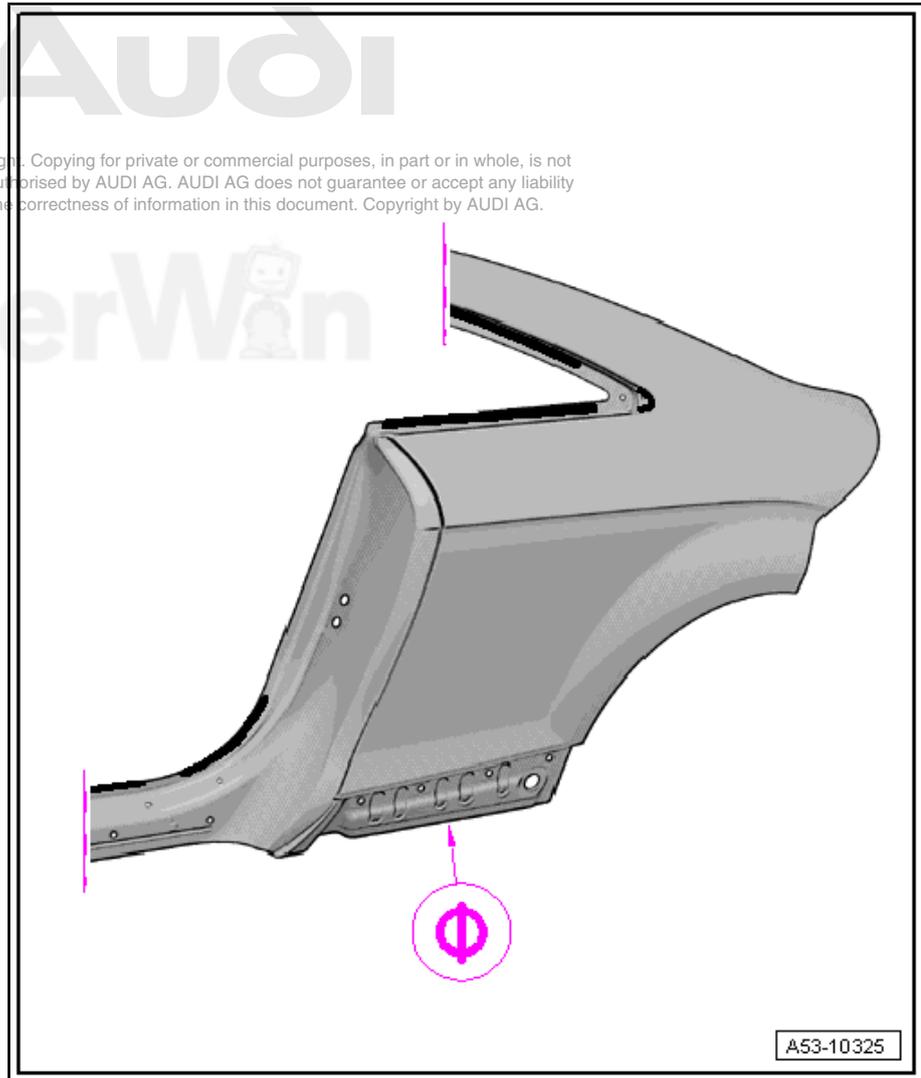
Insert the filler foam pieces and apply 2K filler foam D 506 KG1 A3 before welding. Refer to ["1.3 Molded Foam Inserts", page 3](#) .



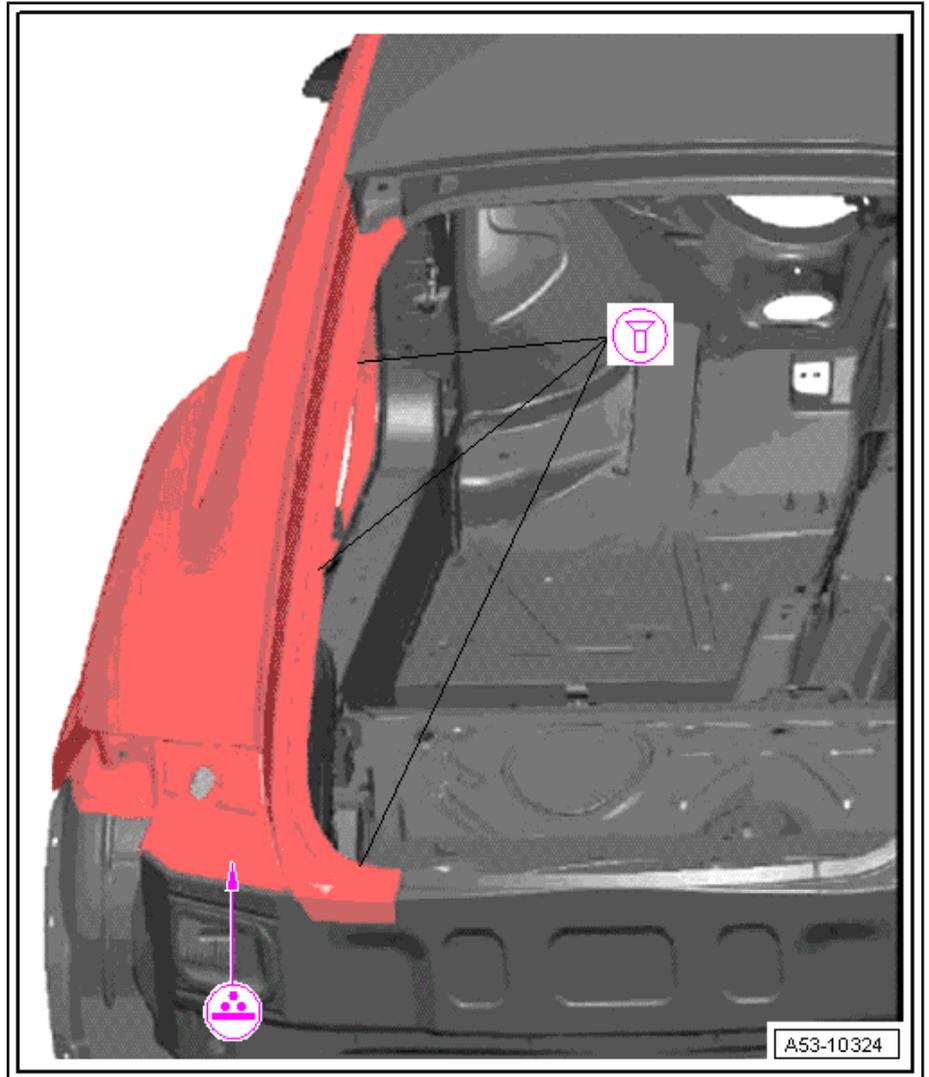
- Weld the side panel at the separating points with a SG continuous seam using the gas-shielded welder 250A -VAS 6388- .

Weld the connection between the side panel and the sill panel strip with a gas-shielded arc stitch weld seam using the gas-shielded welder 250A -VAS 6388- -arrow-.

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- Weld the components in near the rear lid with a straight-line spot weld seam -arrow- using the resistance spot welder -VAS 6239 A- .
- Rivet the rain water drain channel with the rechargeable riveter -VAS 5279A- D17 and D17 punch from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D17 and D17 punch .



- Crimp the wheel housing with the fold crimping tool -V.A.G 1585- .

i Note

After crimping, leave any 2K adhesive coming out so that a good seal is formed.

1.7 Side Panel, Roadster

Includes rain channel and tail light mount



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The body is made of aluminum and steel bonded together. Protect any aluminum parts during welding wherever the two materials come together. This will prevent the aluminum parts from corroding caused by welding beads and dust particles.

**WARNING**

*Observe safety precautions. Refer to → General Information;
Body Repairs, Body Collision Repair*

Special tools and workshop equipment required

- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

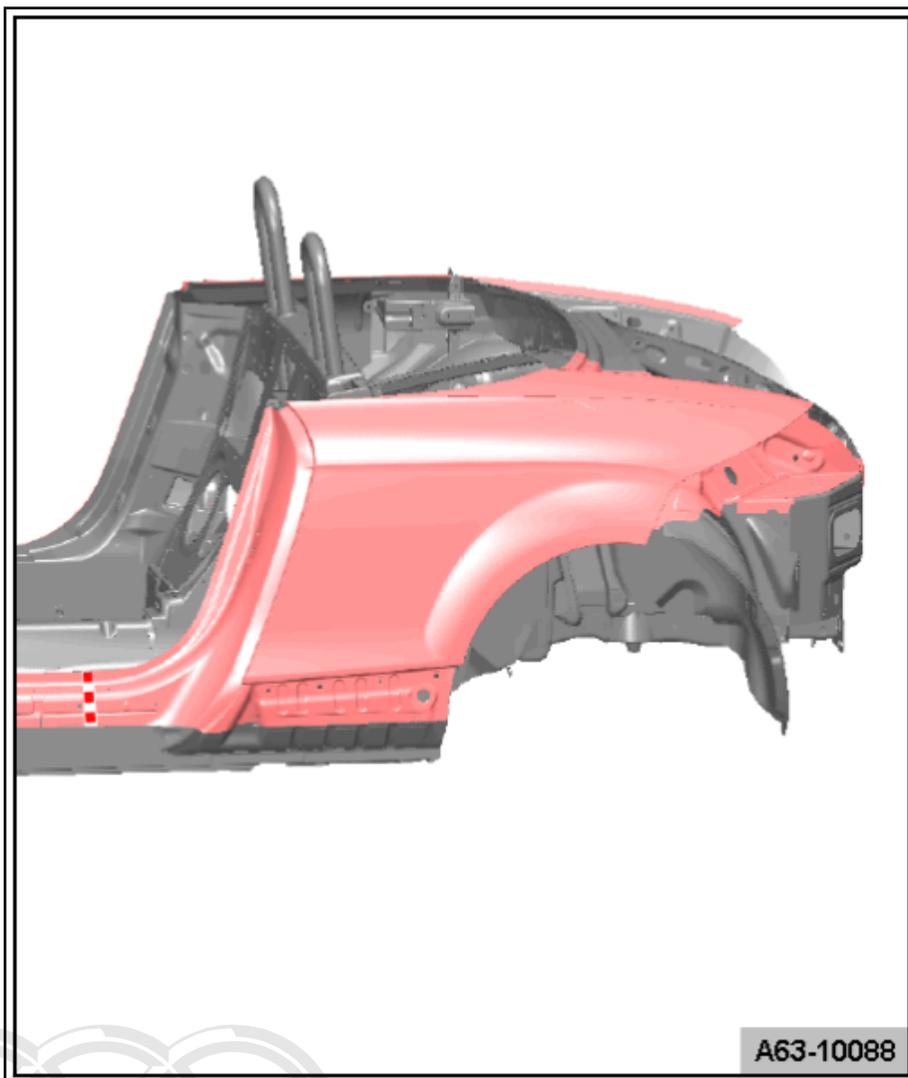
- Cut the side panel roughly using the body repair saw -V.A.G 1523A- .
- Grind through the outer edge on the top of the side panel using the single hand angle grinder -VAS 5167- .
- Grind through the outer edge of the wheel housing using the single hand angle grinder -VAS 5167- .
- Do not damage inner reinforcement when making separating cut in sill.
- Loosen the original joint with an rechargeable riveter -VAS 5279A- .

Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punches from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D13 and D14 punches .

Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punches from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punches .

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- Loosen the original joint with an rechargeable riveter -VAS 5279A- .

Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punches from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D13 and D14 punches .

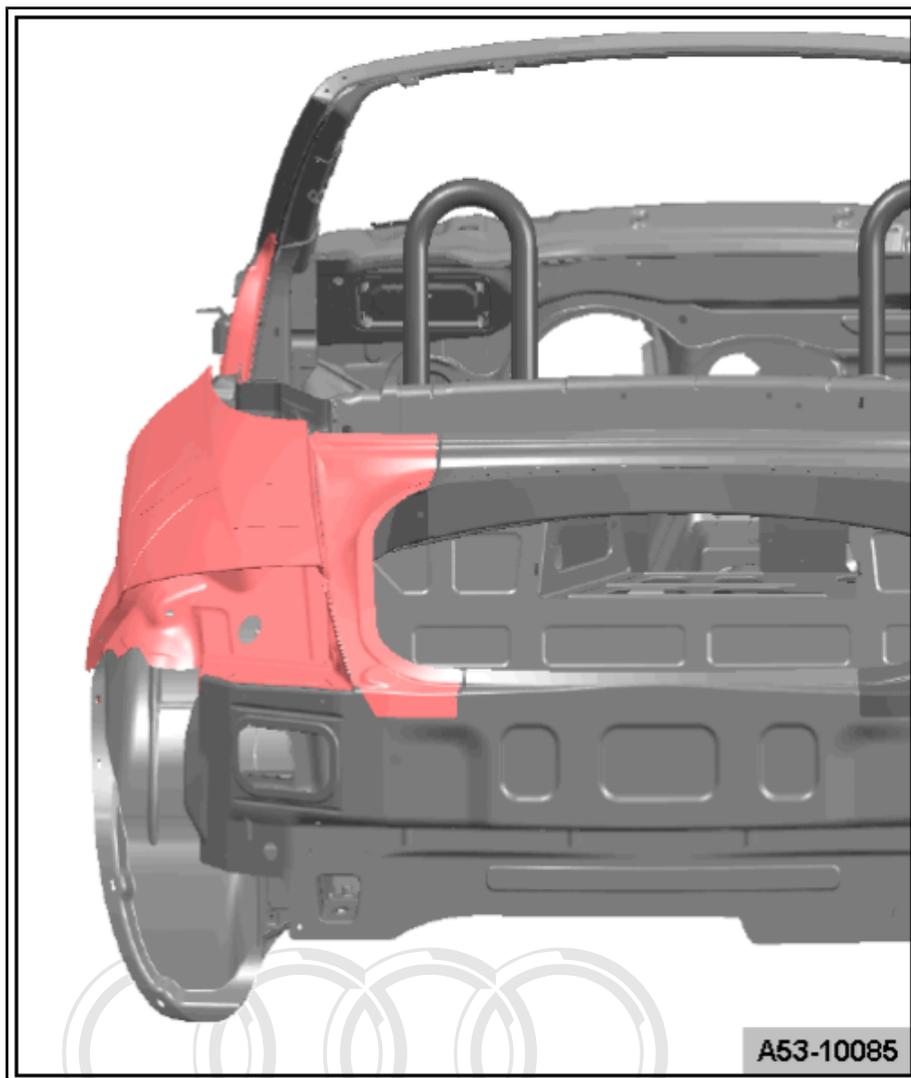
Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punches from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punches .

- Remove part.

- Remove the remainder using the single hand angle grinder -VAS 5167- .

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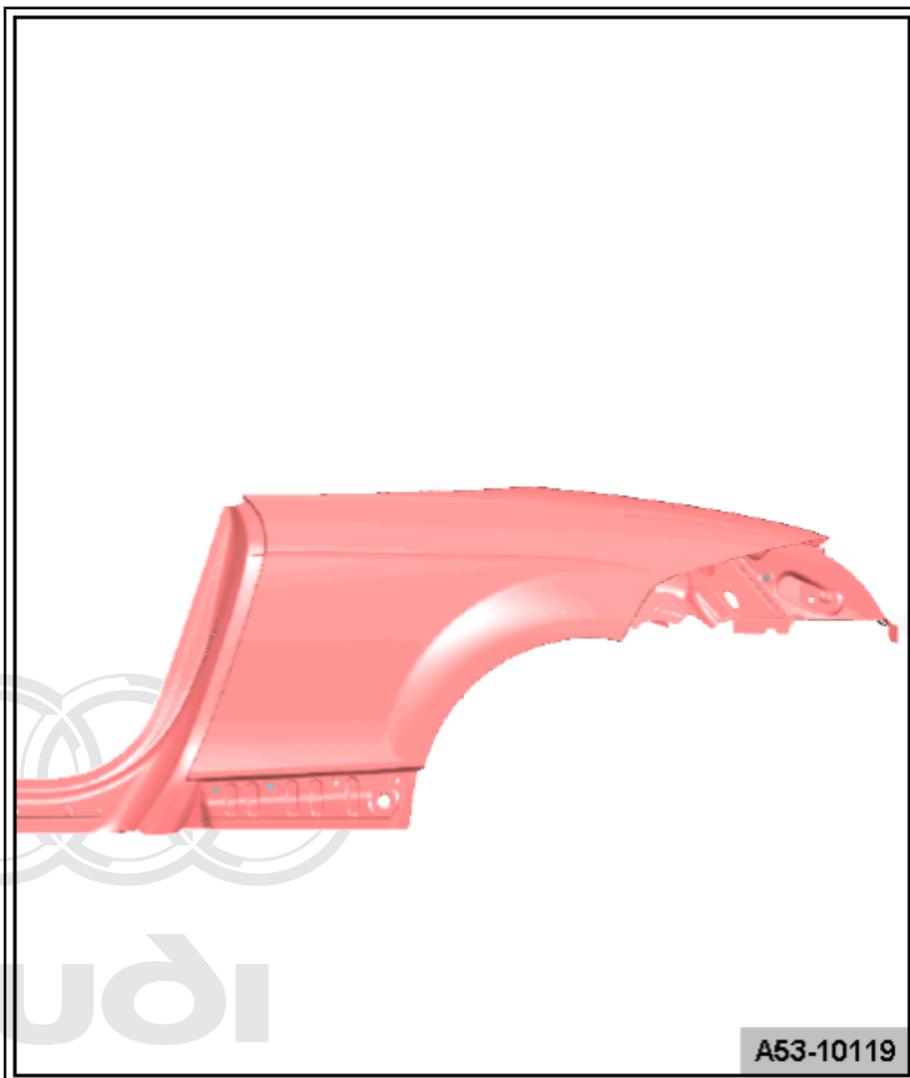
Replacement Parts

- ◆ Side panel sub-part
- ◆ Body adhesive DA 001 730 A2

Preparing New Parts

- Transfer the separating cut to the new part, using the body repair saw -V.A.G 1523A- .
- Clean the flange area so it is free of dust and grease.

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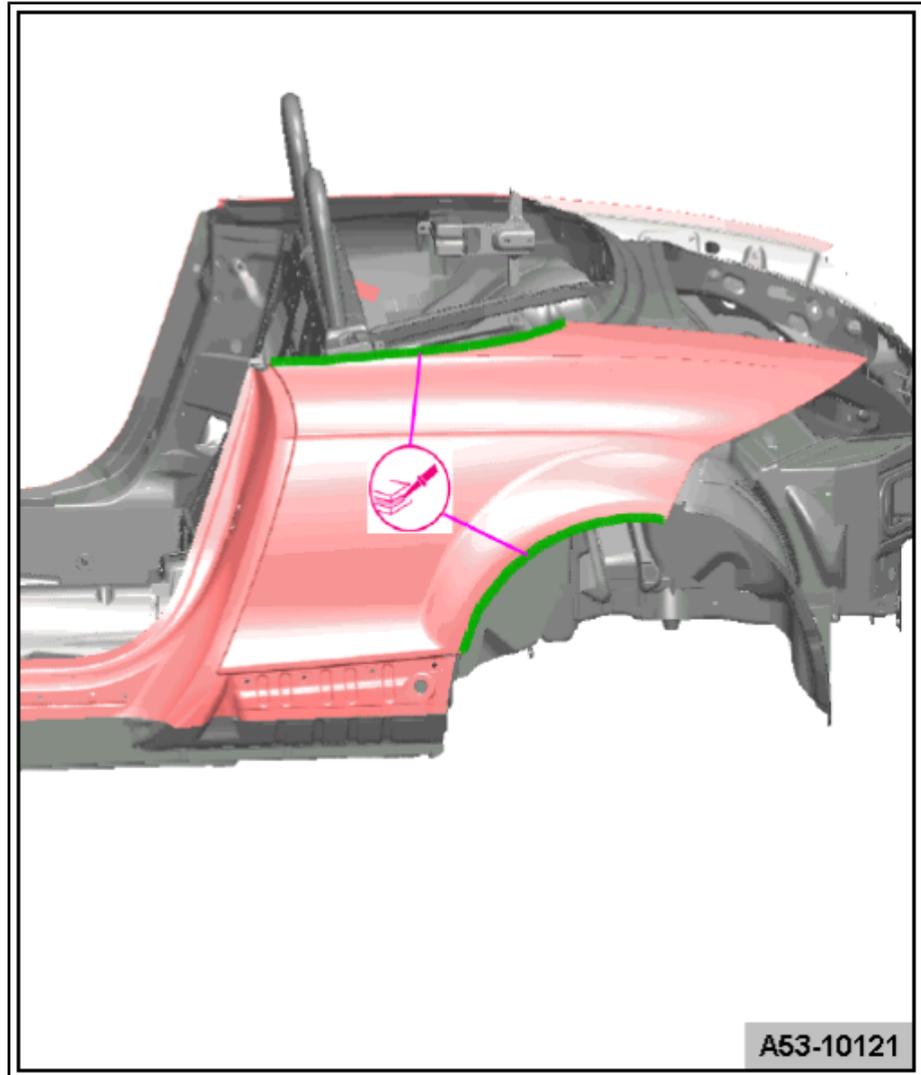
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 **Note**

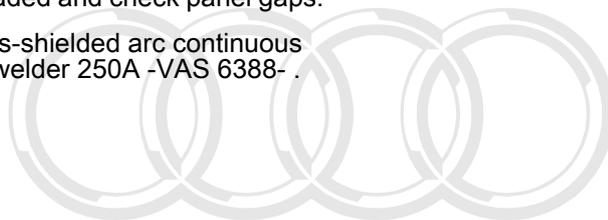
Insert the molded foam inserts before welding. See the expanded foam inserts chapter. Refer to ⇒ ["1.3 Molded Foam Inserts", page 3](#).

Welding in

- Apply aluminum primer DA 009 801 on the adhesive surfaces using a paint brush.
- Apply 2K adhesive DA 001 730 A2 over the area to be riveted and wheel housing using the compressed air adhesive pistol -V.A.G 2005 B- .
- Apply two beads of adhesive, 3.5 mm diameter, to the area around the crimping.
- When flanging, wipe off escaping adhesive and seal wheel well.
- Side panel, bead over flange. Wipe off escaping adhesive and seal joint.



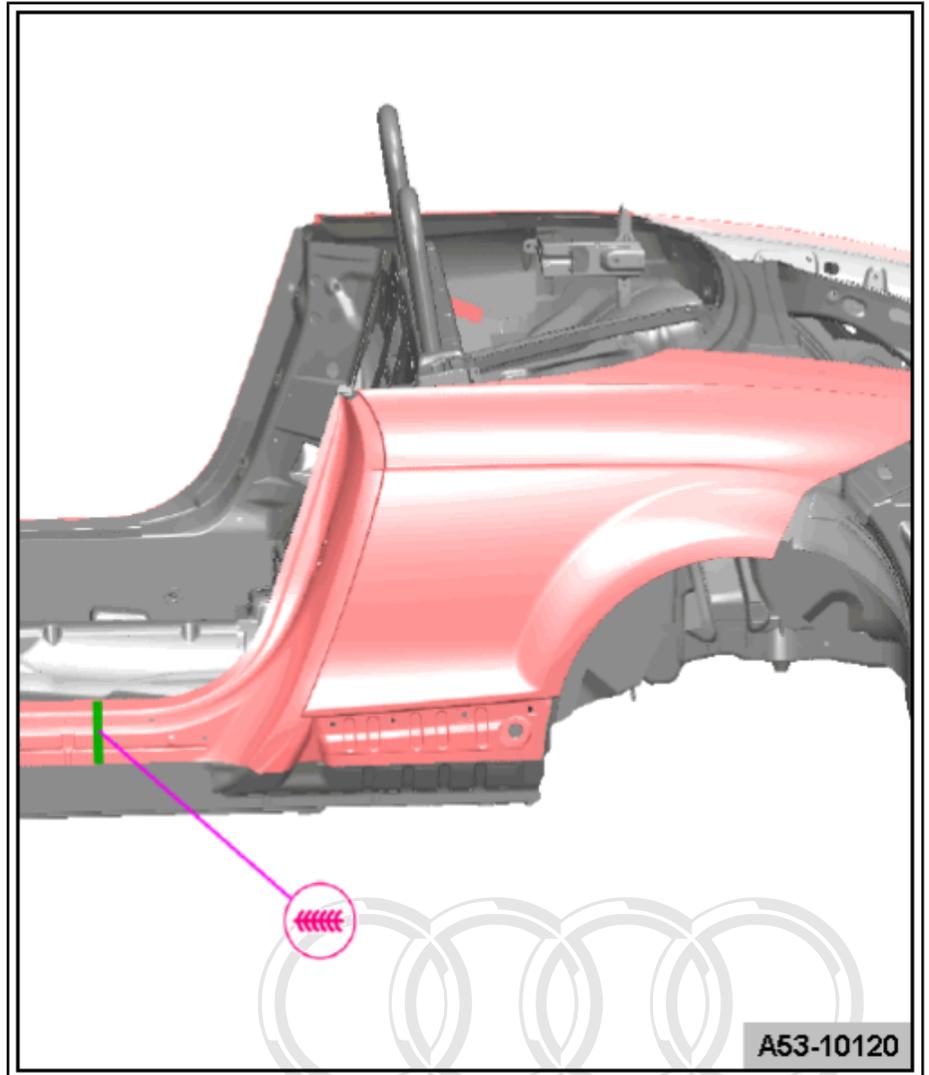
- Locate and secure side panel on portal gauge.
- Align side panel with vehicle unloaded and check panel gaps.
- Weld the separating cut with a gas-shielded arc continuous weld seam using a gas-shielded welder 250A -VAS 6388- .



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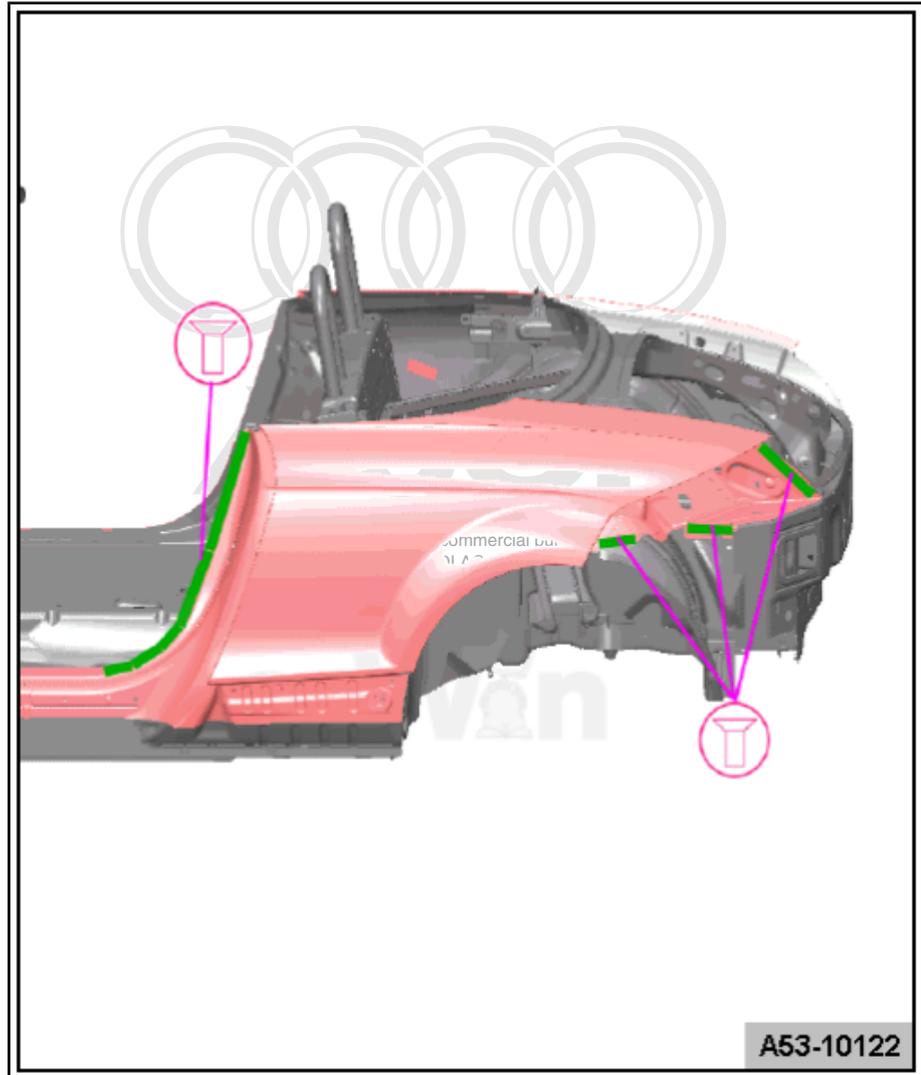
Riveting

- Rivet in the side panel using a rechargeable riveter -VAS 5279A- .

Imprint the holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punches from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D15 and D16 punches .

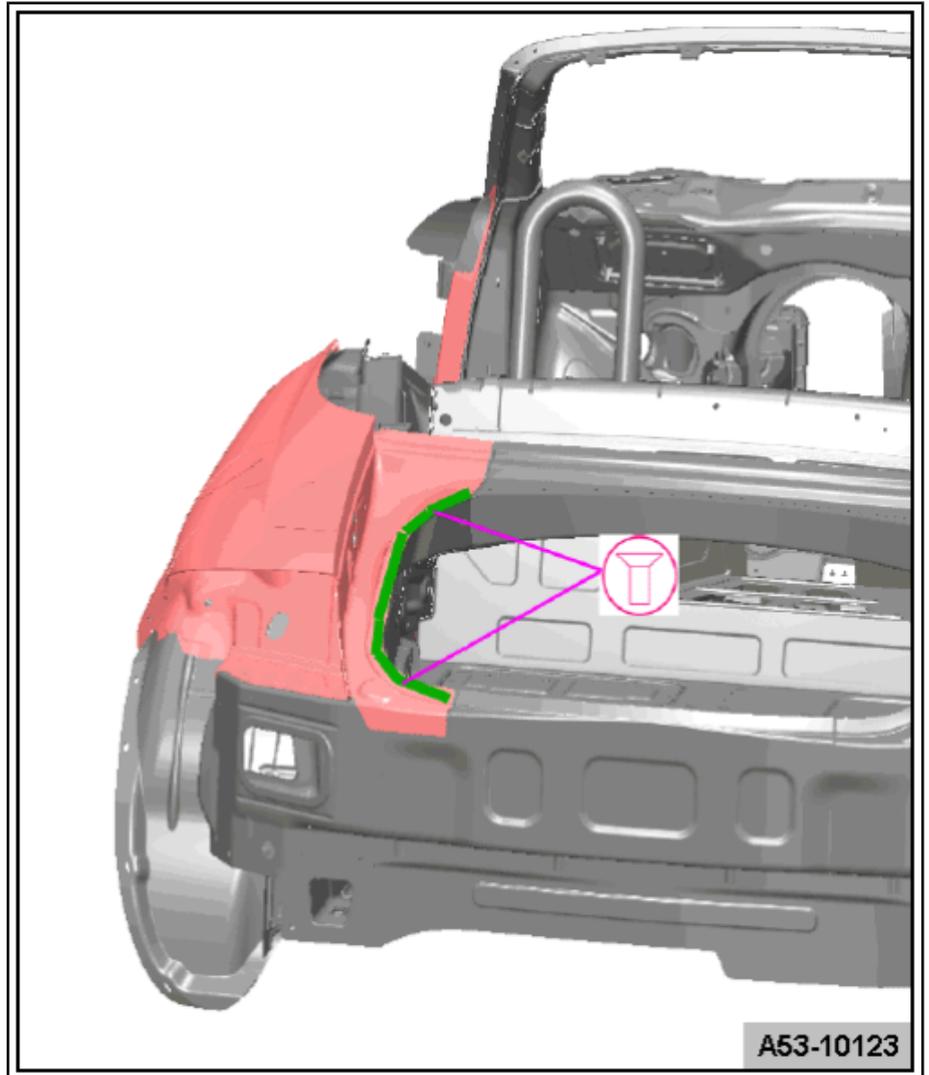
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- Rivet in the rain water drain channel using the rechargeable riveter -VAS 5279A- .

Imprint the holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punches from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D15 and D16 punches .



1.8 Inner Side Panel



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair ; Safety precautions

Special tools and workshop equipment required

- ◆ Air pressure adhesive pistol -V.A.G 2005 B-
- ◆ Gas-shielded welder 250A -VAS 6388-
- ◆ Rechargeable Riveter -VAS 5279A-

- ◆ Body repair saw -V.A.G 1523A-

Separating areas

- Outer side panel already removed
- The side panel reinforcement already removed.

 **Note**

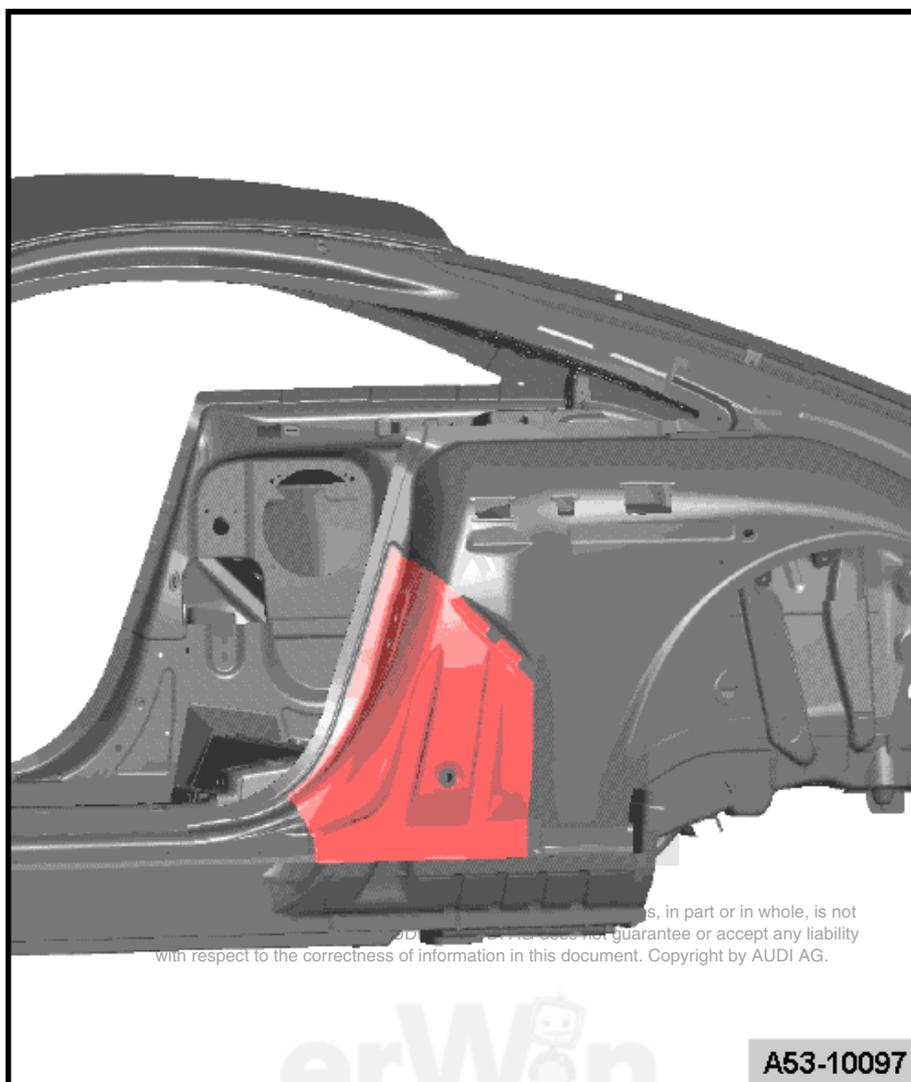
Sufficiently protect adjacent aluminum parts from welding and grinding sparks. Tape off or cover if necessary.

- Loosen the original joint with an rechargeable riveter -VAS 5279A- .

Remove the large punch rivets. Use the rechargeable riveter -VAS 5279A- D13 and D14 punches from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D13 and D14 punches .

Remove the small punch rivets. Use the rechargeable riveter -VAS 5279A- S1 and E2 punches from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punches .

- Remove part.



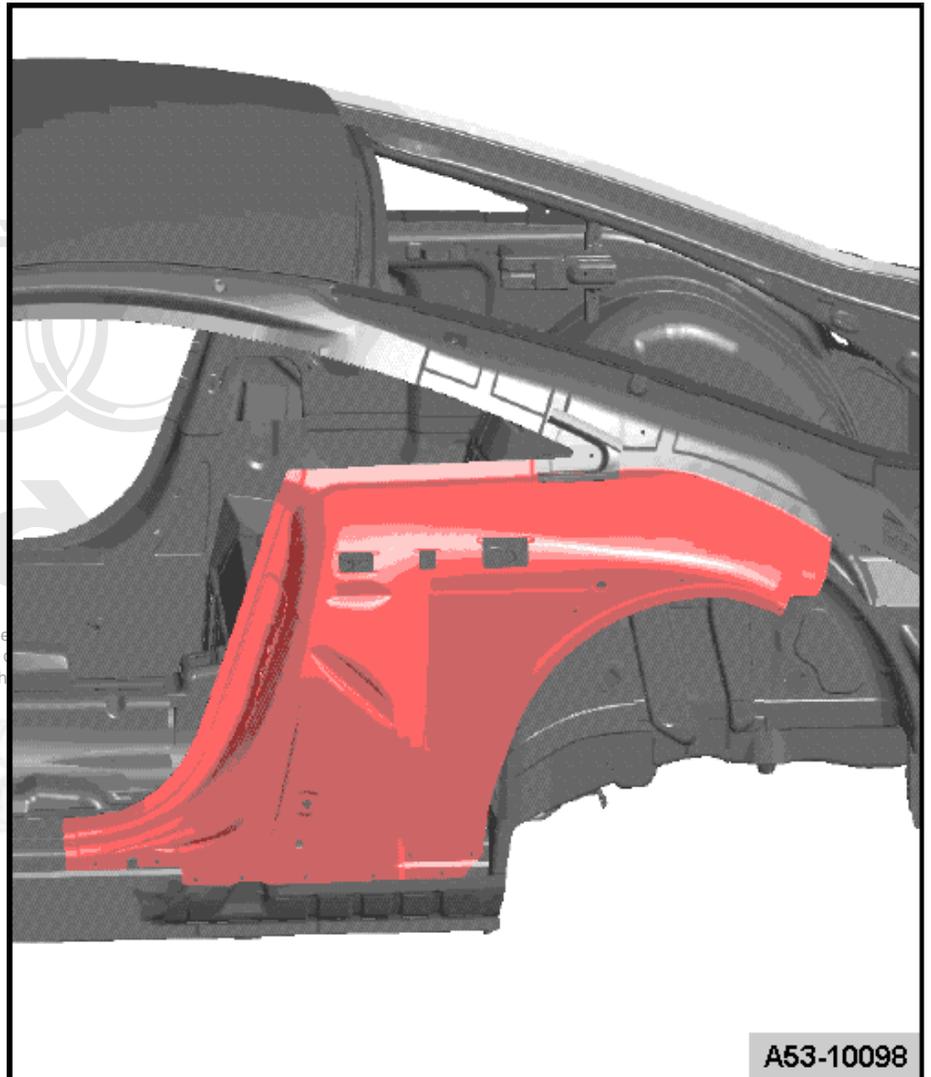
Lay out separating cuts as necessary

- Loosen the original joint with an rechargeable riveter -VAS 5279A- .

Remove the large punch rivets. Use the rechargeable riveter - VAS 5279A- D13 and D14 punches from -VAS 5279/2 - or the rechargeable riveter -VAS 5279B- with D13 and D14 punches .

Remove the small punch rivets. Use the rechargeable riveter - VAS 5279A- S1 and E2 punches from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with S1 and E2 punches .

- Remove part.
- Remove the remainder using the single hand angle grinder - VAS 5167- .



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Replacement Parts

- ◆ Inner side panel
- ◆ Inner side panel reinforcement.
- ◆ Body adhesive DA 001 730 A2

Preparing New Parts

- Prepare new part for bonding
- Apply aluminum primer DA 009 801 on the adhesive surfaces using a paint brush.

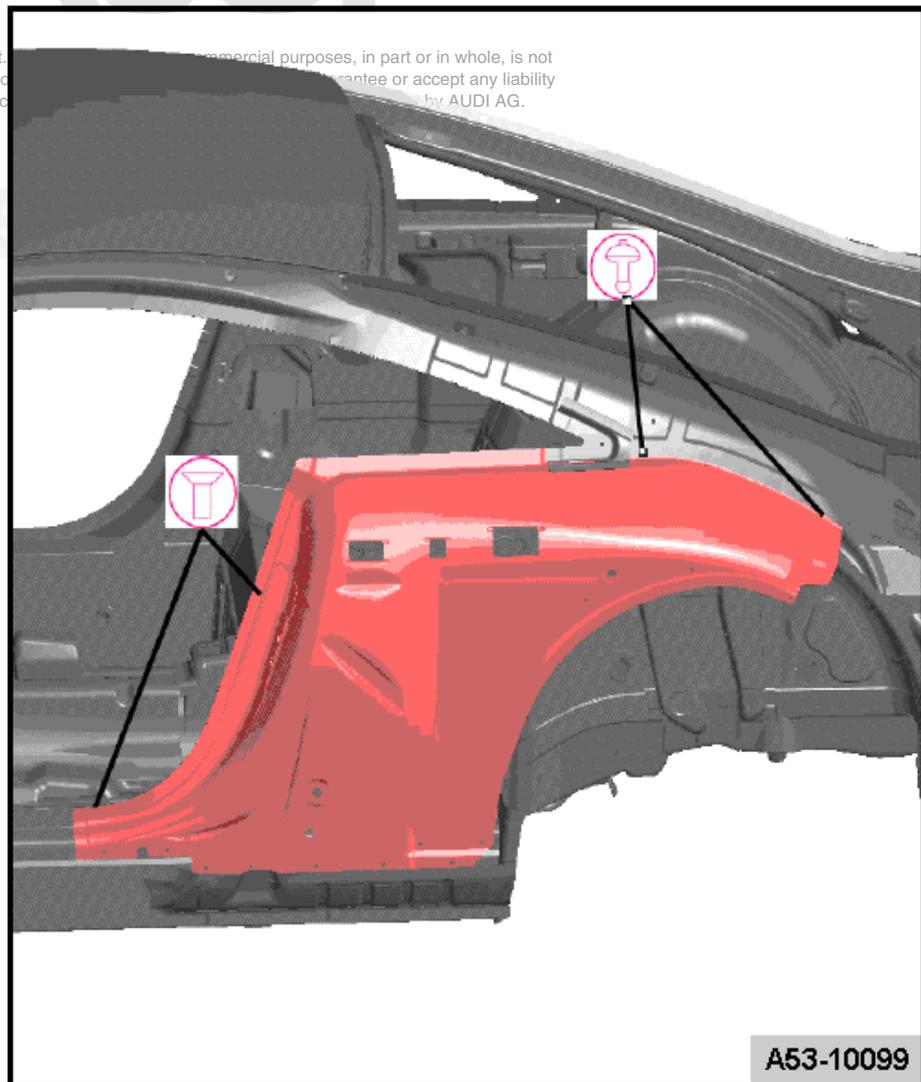
- Apply 2K adhesive DA 001 730 A2 over the area to be riveted using the compressed air adhesive pistol -V.A.G 2005 B- .

Riveting

- Position the new part and secure it with a gantry gauge.
- Align side panel with vehicle unloaded and check panel gaps.
- Rivet in the new part using the rechargeable riveter -VAS 5279A- .

Imprint the holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punches from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D15 and D16 punches .

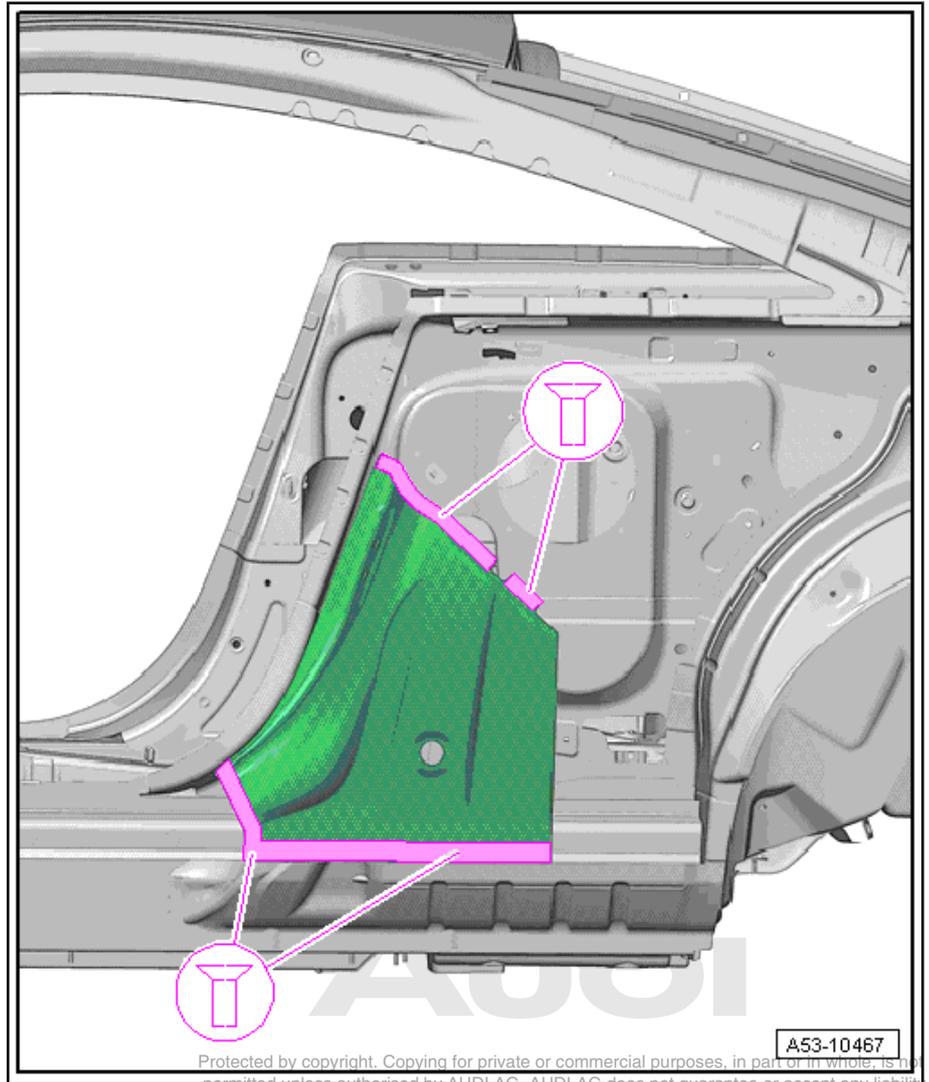
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- Re-create bolted connections.
- Rivet in the new part using the rechargeable riveter -VAS 5279A- .

Imprint the holes from the outside toward the inside. Use the rechargeable riveter -VAS 5279A- D15 and D16 punches from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with D15 and D16 punches .



1.9 Rear Wheel Housing Partial Section



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair



Note

Sufficiently protect adjacent aluminum parts from welding and grinding sparks. Tape off or cover if necessary.

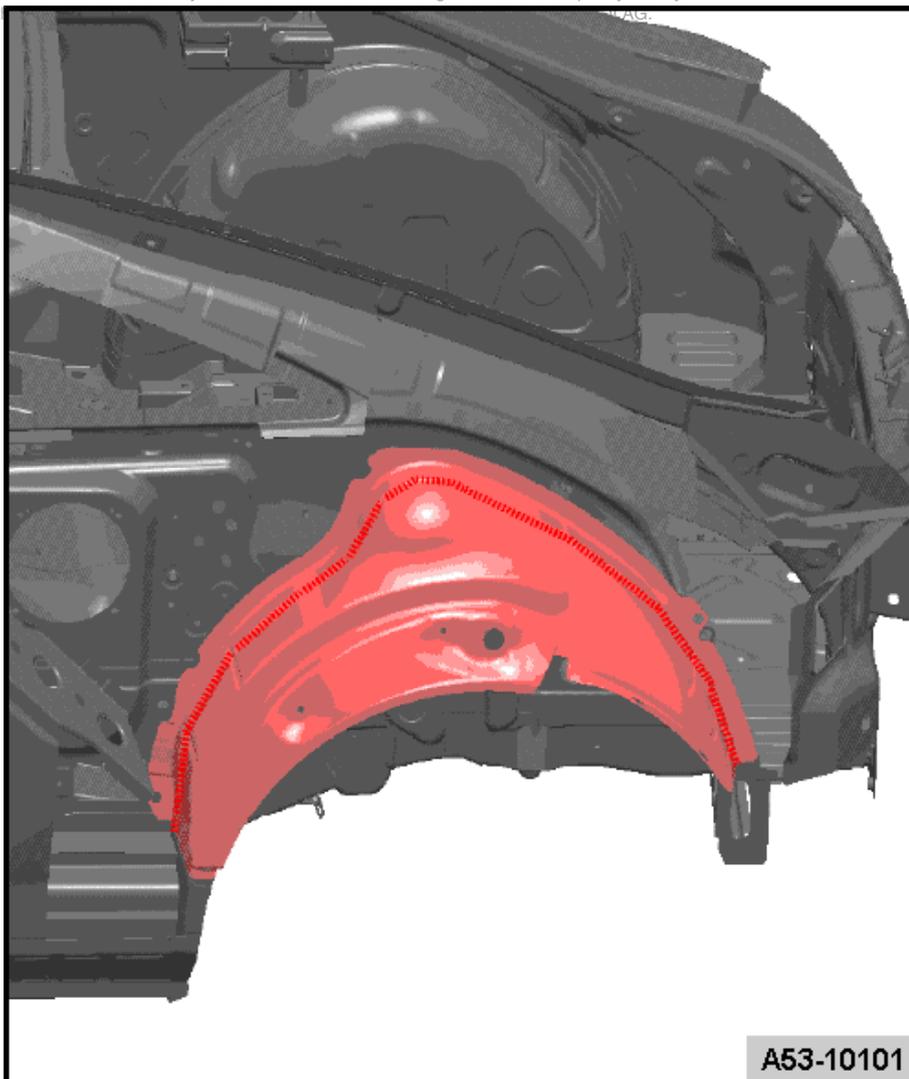
Special tools and workshop equipment required

- ◆ Gas-shielded welder 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Spot weld breaker -V.A.G 1731-
- ◆ Compressed air punch pliers and edge setter -VAS 1996-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

- Side panel already removed
- Make the separation cut using the body saw -V.A.G 1523A- so that body side of joint can be detached.
- Loosen the original joint using a spot weld remover -V.A.G 1731- .
- Perform separating cut from below to avoid having to drill off inside of side panel.

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Replacement part

- ◆ Wheel housing liner

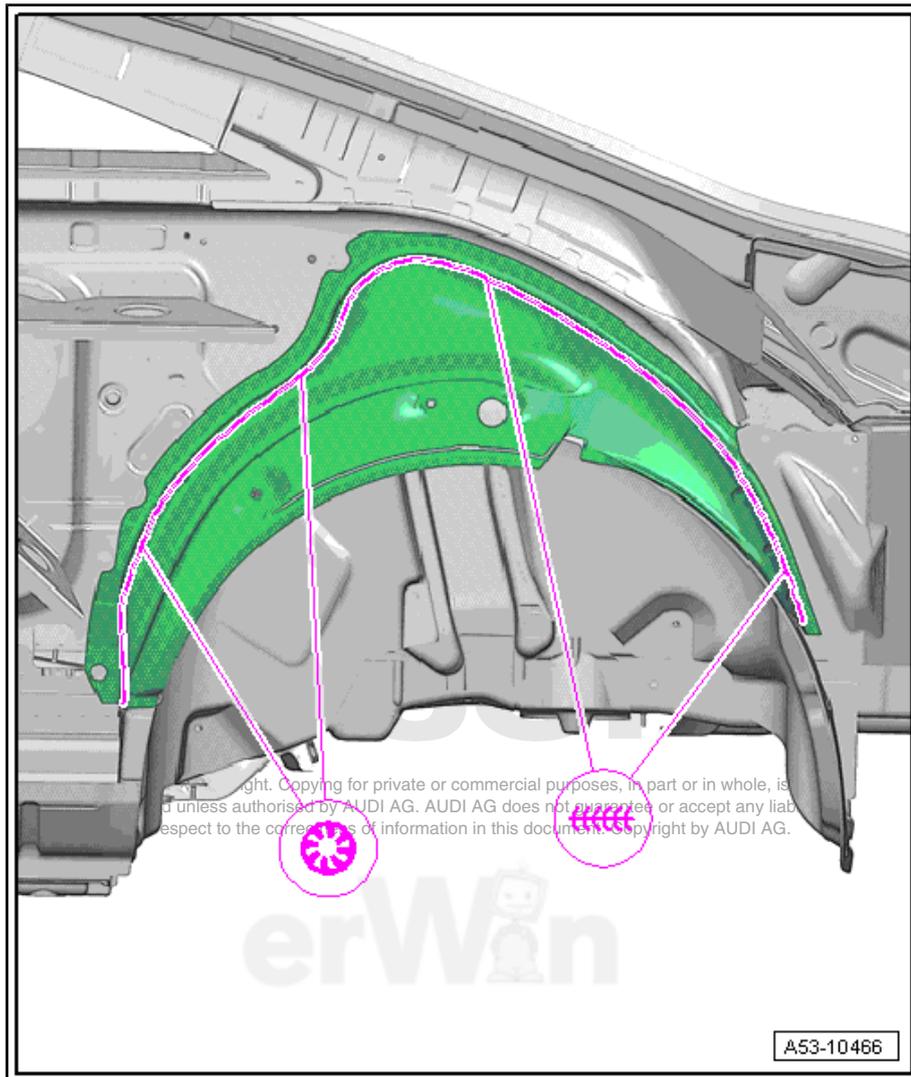
Preparing New Parts

- Make the separating cut on the body side with the compressed air punch pliers and edge setter -VAS 1996-
- Transfer separating cut to new part, plus 15 mm for overlap, and cut off hatched area.
- Drill the holes for the gas-shielded arc plug weld seam using the drill -VAS 5830- .



Welding in

- Weld the new part with a gas-shielded arc continuous weld seam using the gas-shielded welder 250A -VAS 6045A- .
- Weld the new part from the inside with a gas-shielded arc plug weld seam using the gas-shielded welder 250A -VAS 6045A- .



1.10 Rear Wheel Housing



WARNING

Observe safety precautions. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

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-
- ◆ Drill -VAS 5830-
- ◆ Spot weld breaker -V.A.G 1731-
- ◆ Body repair saw -V.A.G 1523A-

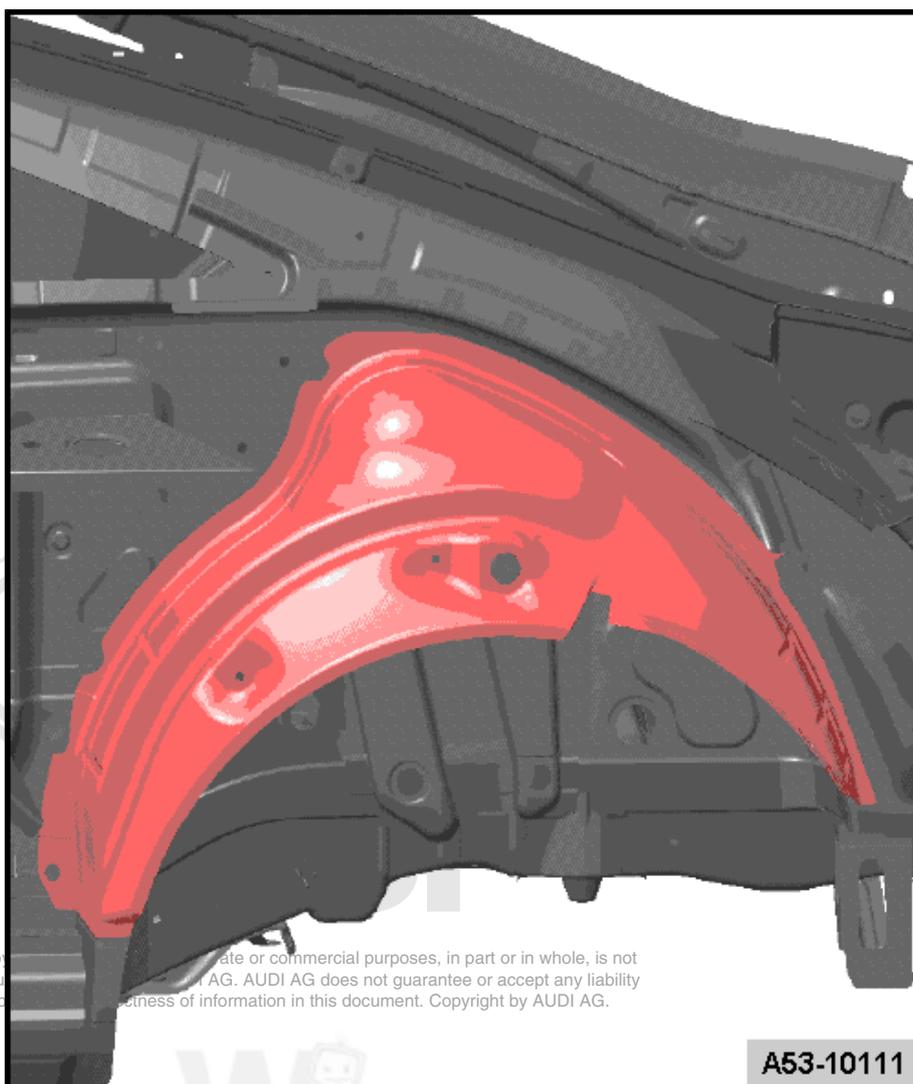
Separating areas

- Outer side panel already cut out.
- Inner side panel already cut out.

Note

Sufficiently protect adjacent aluminum parts from welding and grinding sparks. Tape off or cover if necessary.

- Loosen the original joint using a spot weld remover -V.A.G 1731- .

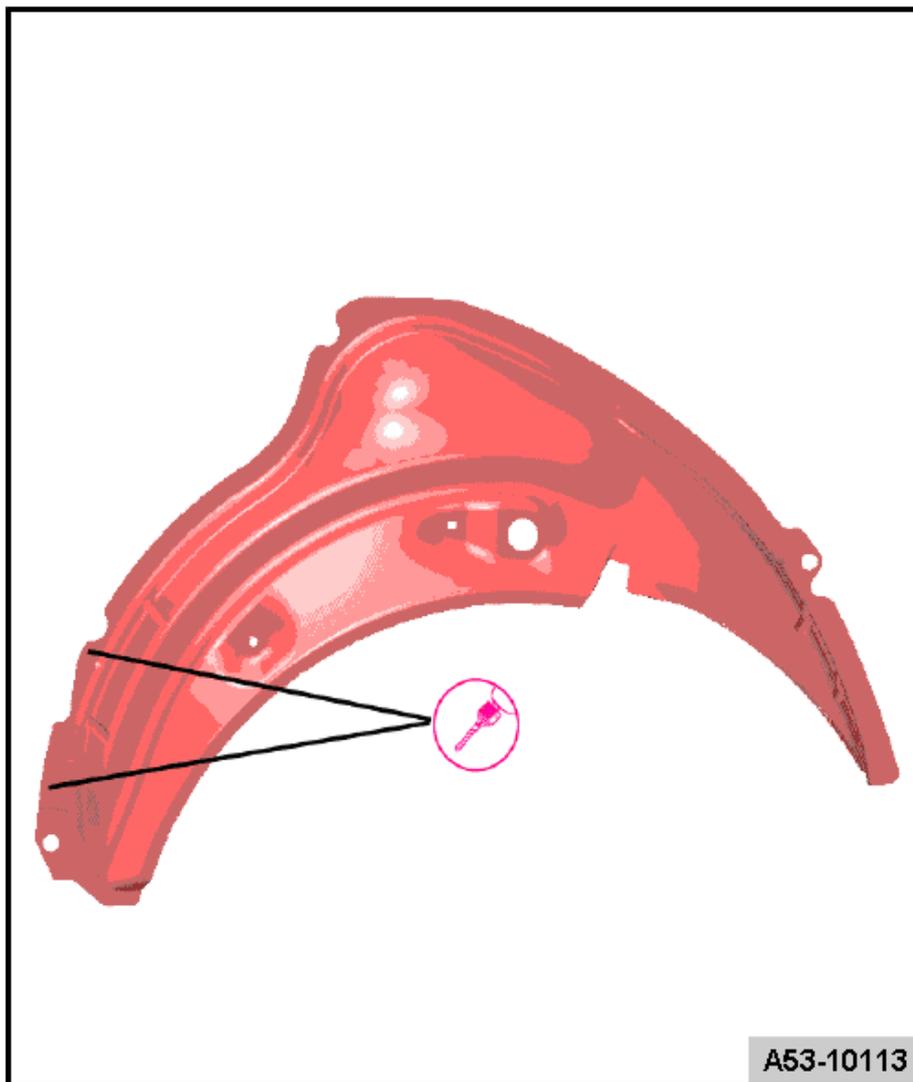


Replacement part

- ◆ Wheel housing liner

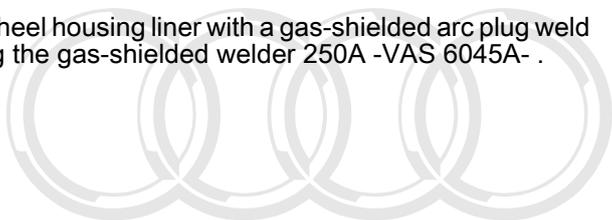
Preparing New Parts

- Drill the holes for the gas-shielded arc plug weld seam spot weld breaker -V.A.G 1731- , 7 mm Ø.



Welding in

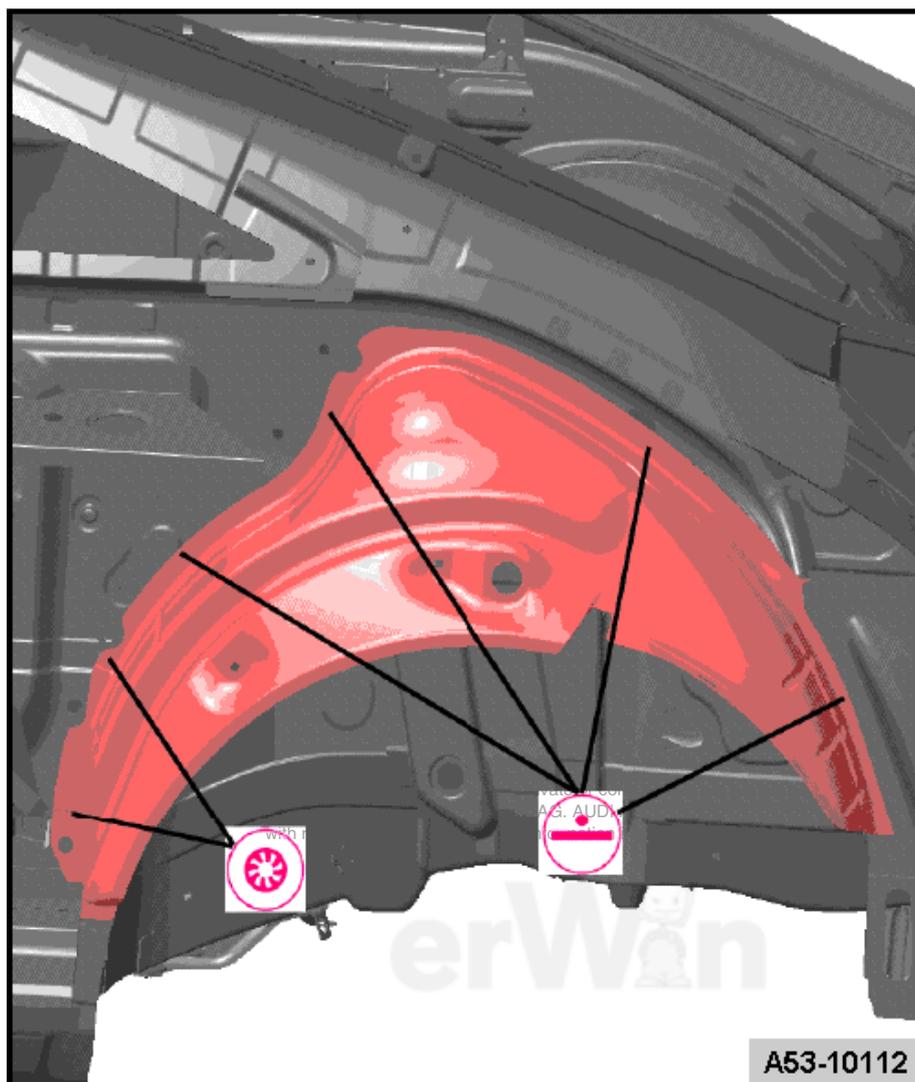
- Spot weld the wheel housing liner with a straight-line spot weld seam using a resistance spot welder -VAS 6239 A- .
- Weld the wheel housing liner with a gas-shielded arc plug weld seam using the gas-shielded welder 250A -VAS 6045A- .



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1.11 Spare Wheel Well Partial Section



WARNING

Observe safety precautions. Refer to → General Information; Body Repairs, Body Collision Repair



Note

Sufficiently protect adjacent aluminum parts from welding and grinding sparks. Tape off or cover if necessary.

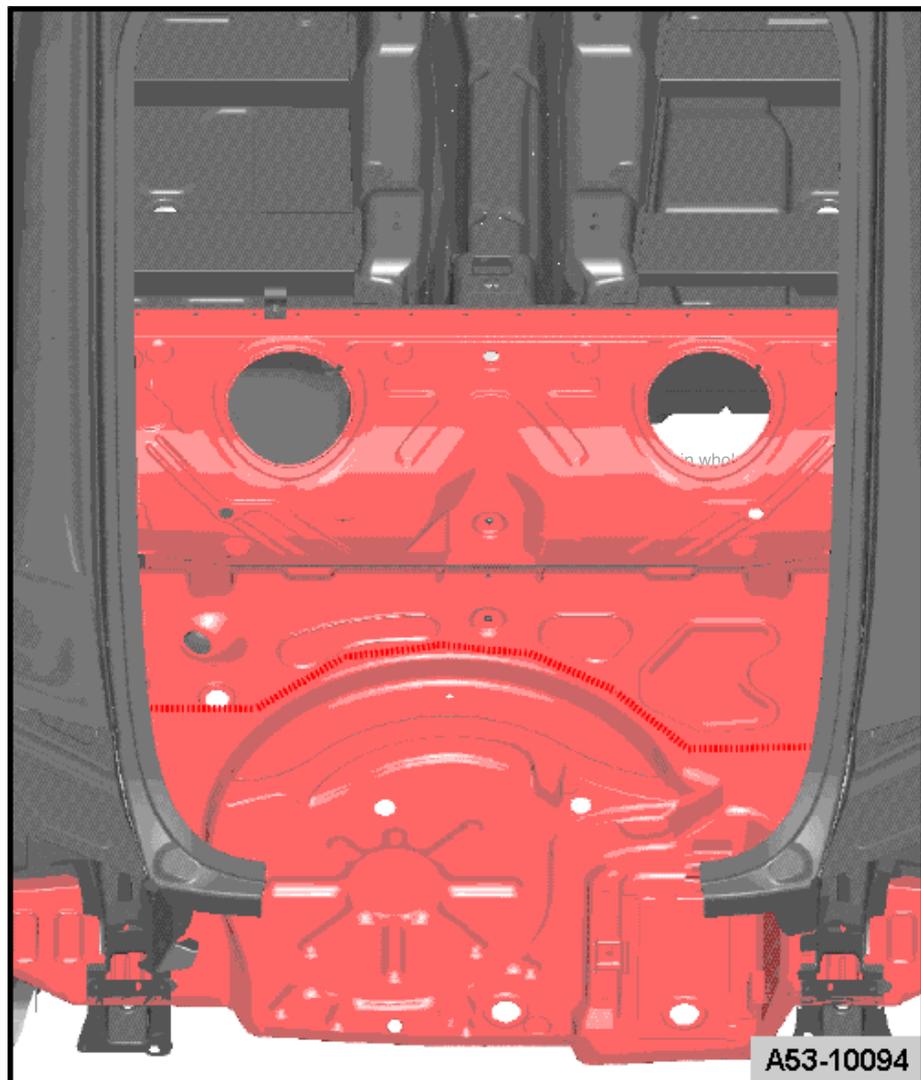
Special tools and workshop equipment required

- ◆ 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-

- ◆ Gas-shielded welder 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compressed air punch pliers and edge setter -VAS 1996-
- ◆ Spot weld breaker -V.A.G 1731-
- ◆ Body repair saw -V.A.G 1523A-

Separating areas

- Outer cross panel already cut out
- Inner cross panel already removed
- Make the separation cut using the body saw -V.A.G 1523A- so that body side of joint can be detached.
- Loosen the original joint using a spot weld remover -V.A.G 1731- .

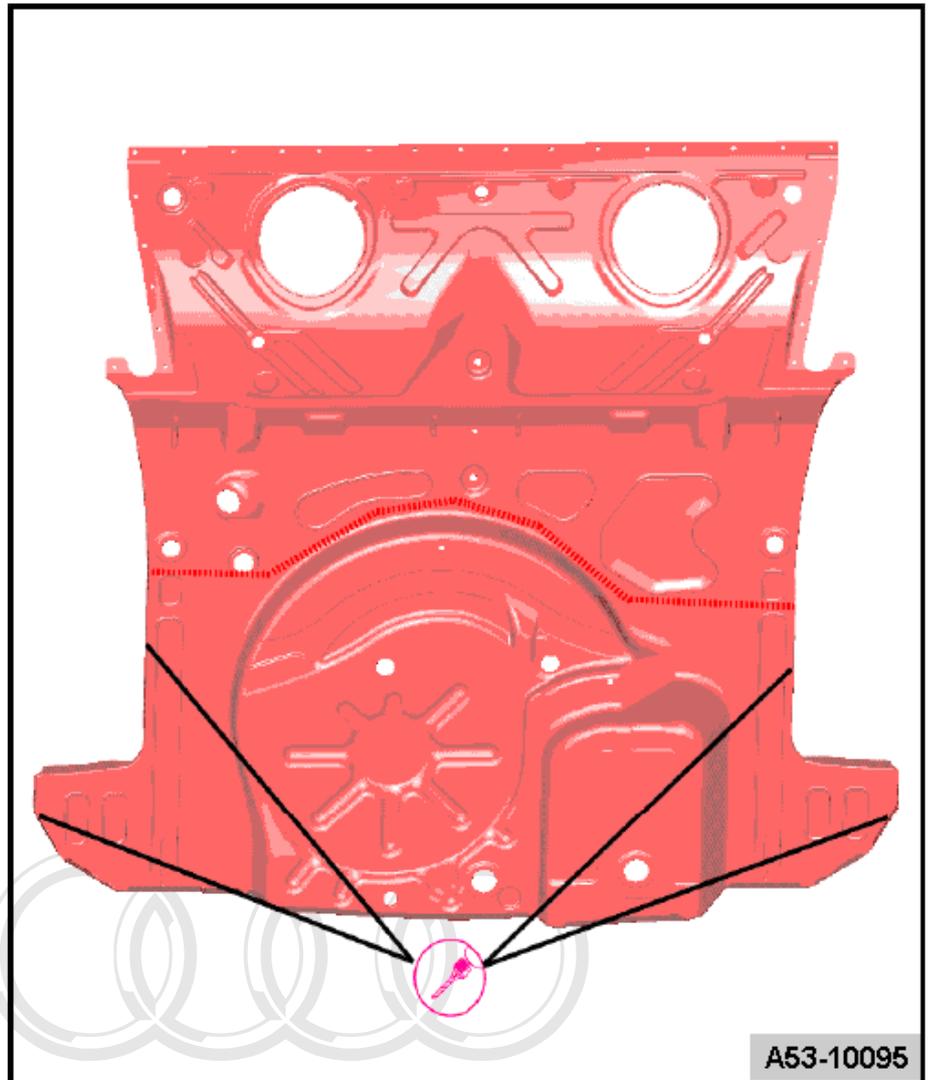


Replacement part

- ◆ Spare wheel well

Preparing New Parts

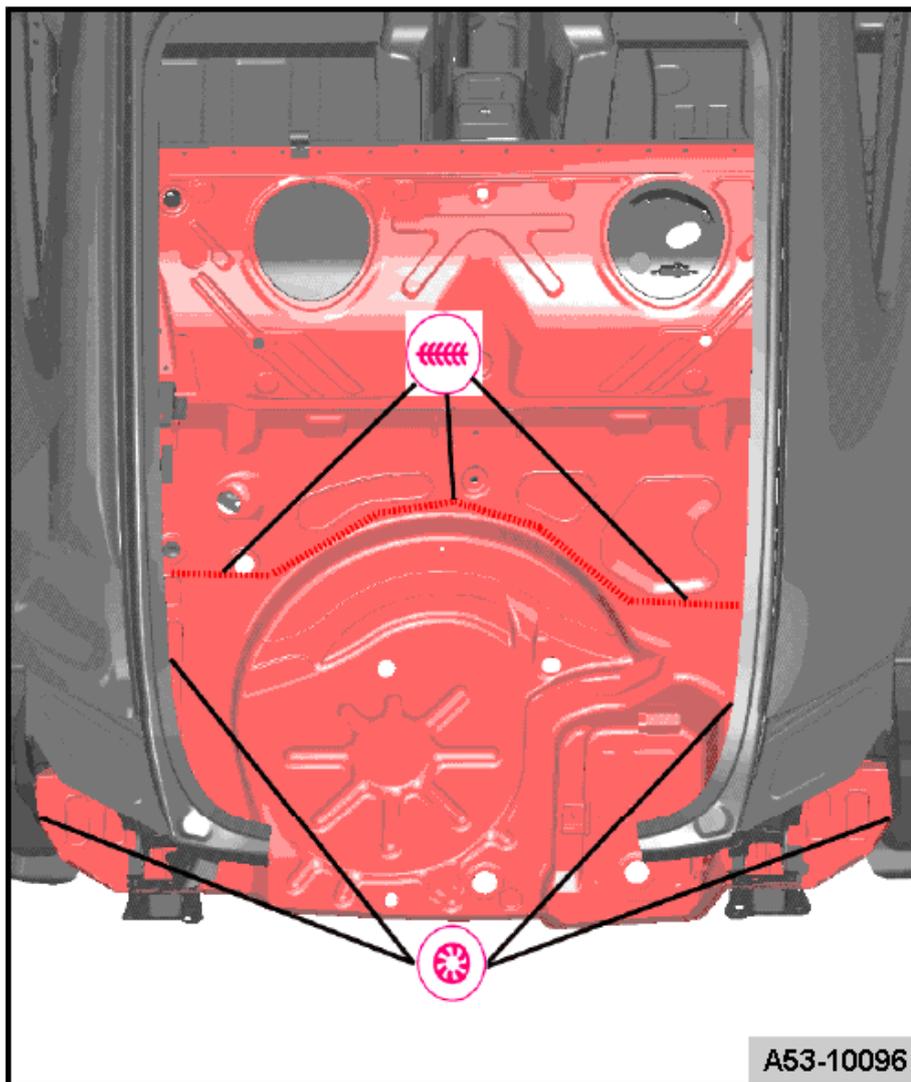
- Make the separating cut on the body side with the compressed air punch pliers and edge setter -VAS 1996-
- Transfer separating cut plus 15 mm for overlapping on the new part.
- Drill the holes for the gas-shielded arc plug weld seam using a 7 mm diameter drill -VAS 5830- .



Welding in

- Weld the spare wheel well with a gas-shielded arc plug weld seam using the gas-shielded welder 250A -VAS 6045A- .
- Weld the separating cut with a gas-shielded arc continuous weld seam using a gas-shielded welder 250A -VAS 6045A- .

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1.12 Spare Wheel Well



WARNING

Observe safety precautions. Refer to ⇒ *General Information; Body Repairs, Body Collision Repair*



Note

Sufficiently protect adjacent aluminum parts from welding and grinding sparks. Tape off or cover if necessary.

Special tools and workshop equipment required Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted without the prior written consent of Audi AG. Audi AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by Audi AG.

- ◆ 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-

- ◆ Gas-shielded welder 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Spot weld breaker -V.A.G 1731-

Separating areas

- Upper cross panel already cut out.
- Inner cross panel already removed
- Loosen the original joint using a spot weld remover -V.A.G 1731- .
- Loosen bolted connections.



Replacement part

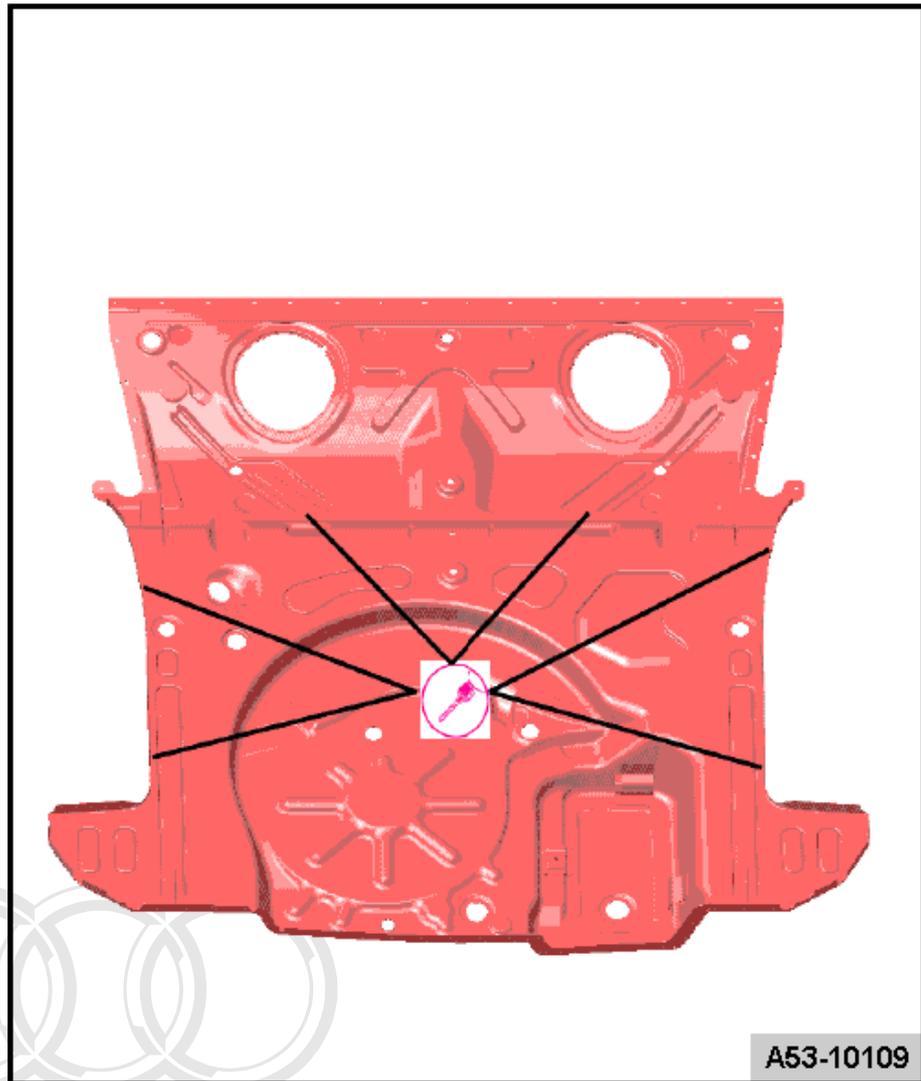
- ◆ Spare wheel well

Preparing New Parts

- Drill the holes for the gas-shielded arc plug weld seam spot weld breaker -V.A.G 1731- ; 7 mm Ø.

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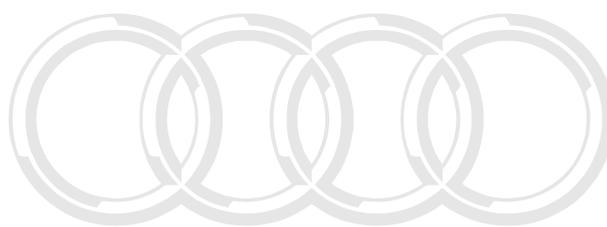
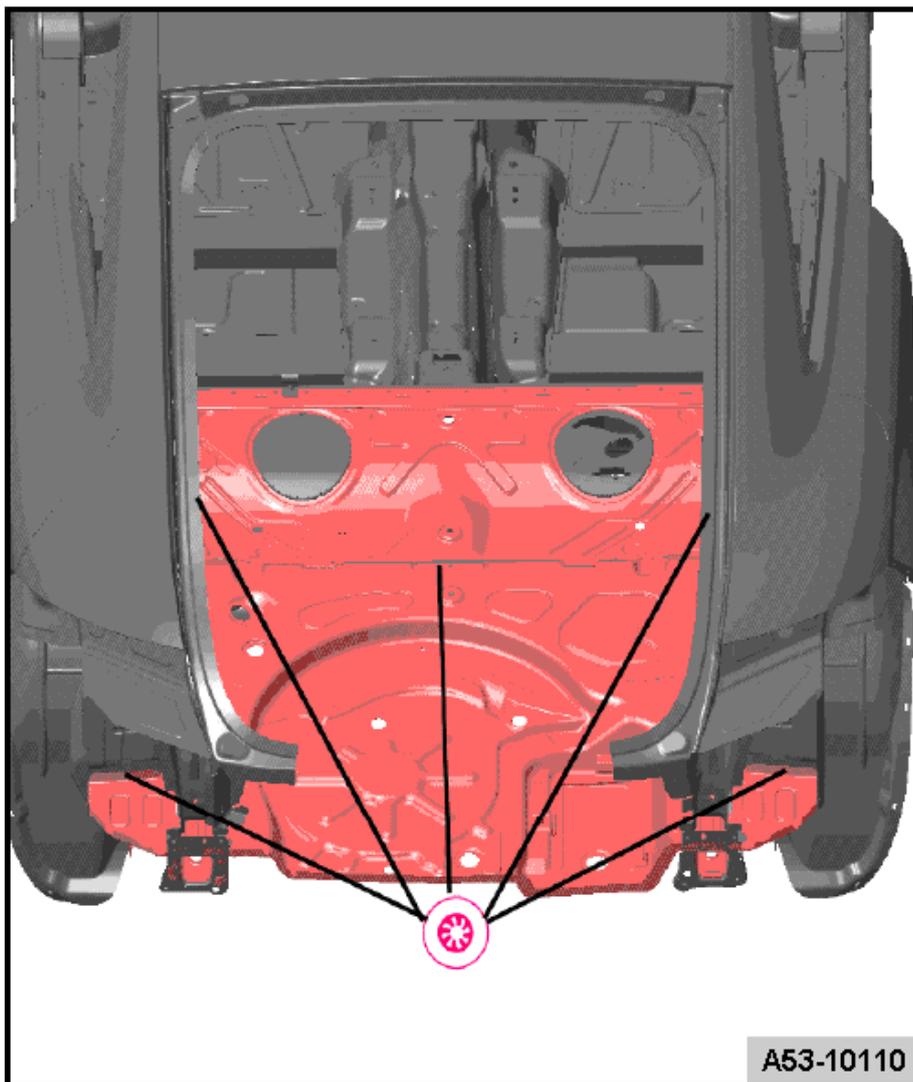
erWin



Welding in

- Weld the spare wheel well with a gas-shielded arc plug weld seam using the gas-shielded welder 250A -VAS 6045A- .
- Re-create bolted connections, tightening specification 8 Nm

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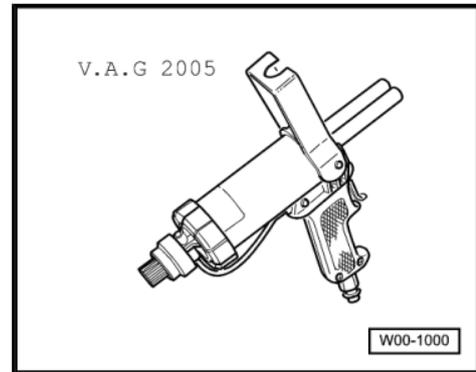
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erWin

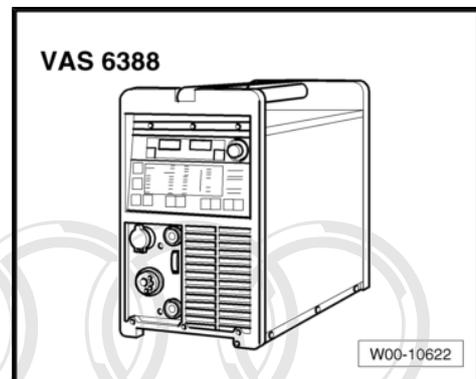
2 Special Tools

Special tools and workshop equipment required

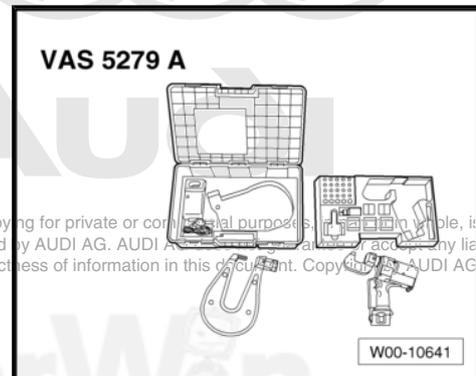
- ◆ Air pressure adhesive pistol -V.A.G 2005 B-



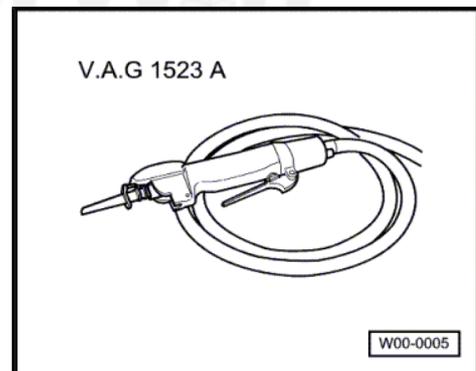
- ◆ Gas-shielded welder 250A -VAS 6388-



- ◆ Rechargeable Riveter -VAS 5279A-



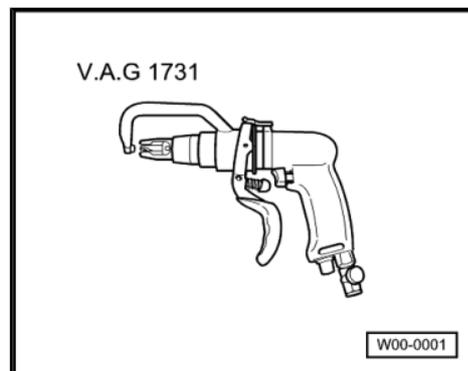
- ◆ Body repair saw -V.A.G 1523A-



- ◆ Resistance spot welder -VAS 6239 A-
- ◆ Resistance spot welder -VAS 6525-

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- ◆ Resistance spot welder -VAS 6530-
- ◆ Resistance spot welder -VAS 6535-
- ◆ Resistance spot welder -VAS 6545-
- ◆ Gas-shielded welder 250A -VAS 6045A-
- ◆ Spot weld breaker -V.A.G 1731-



Edition 06102010



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Cautions & Warnings

Please read these WARNINGS and CAUTIONS before proceeding with maintenance and repair work. You must answer that you have read and you understand these WARNINGS and CAUTIONS before you will be allowed to view this information.

- If you lack the skills, tools and equipment, or a suitable workshop for any procedure described in this manual, we suggest you leave such repairs to an authorized Audi retailer or other qualified shop. We especially urge you to consult an authorized Audi retailer before beginning repairs on any vehicle that may still be covered wholly or in part by any of the extensive warranties issued by Audi.
- Disconnect the battery negative terminal (ground strap) whenever you work on the fuel system or the electrical system. Do not smoke or work near heaters or other fire hazards. Keep an approved fire extinguisher handy.
- Audi is constantly improving its vehicles and sometimes these changes, both in parts and specifications, are made applicable to earlier models. Therefore, part numbers listed in this manual are for reference only. Always check with your authorized Audi retailer parts department for the latest information.
- Any time the battery has been disconnected on an automatic transmission vehicle, it will be necessary to reestablish Transmission Control Module (TCM) basic settings using the VAG 1551 Scan Tool (ST).
- Never work under a lifted vehicle unless it is solidly supported on stands designed for the purpose. Do not support a vehicle on cinder blocks, hollow tiles or other props that may crumble under continuous load. Never work under a vehicle that is supported solely by a jack. Never work under the vehicle while the engine is running.
- For vehicles equipped with an anti-theft radio, be sure of the correct radio activation code before disconnecting the battery or removing the radio. If the wrong code is entered when the power is restored, the radio may lock up and become inoperable, even if the correct code is used in a later attempt.
- If you are going to work under a vehicle on the ground, make sure that the ground is level. Block the wheels to keep the vehicle from rolling. Disconnect the battery negative terminal (ground strap) to prevent others from starting the vehicle while you are under it.
- Do not attempt to work on your vehicle if you do not feel well. You increase the danger of injury to yourself and others if you are tired, upset or have taken medicine or any other substances that may impair you or keep you from being fully alert.
- Never run the engine unless the work area is well ventilated. Carbon monoxide (CO) kills.
- Always observe good workshop practices. Wear goggles when you operate machine tools or work with acid. Wear goggles, gloves and other protective clothing whenever the job requires working with harmful substances.
- Tie long hair behind your head. Do not wear a necktie, a scarf, loose clothing, or a necklace when you work near machine tools or running engines. If your hair, clothing, or jewelry were to get caught in the machinery, severe injury could result.

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Cautions & Warnings

- Do not re-use any fasteners that are worn or deformed in normal use. Some fasteners are designed to be used only once and are unreliable and may fail if used a second time. This includes, but is not limited to, nuts, bolts, washers, circlips and cotter pins. Always follow the recommendations in this manual - replace these fasteners with new parts where indicated, and any other time it is deemed necessary by inspection.
- Illuminate the work area adequately but safely. Use a portable safety light for working inside or under the vehicle. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.
- Friction materials such as brake pads and clutch discs may contain asbestos fibers. Do not create dust by grinding, sanding, or by cleaning with compressed air. Avoid breathing asbestos fibers and asbestos dust. Breathing asbestos can cause serious diseases such as asbestosis or cancer, and may result in death.
- Finger rings should be removed so that they cannot cause electrical shorts, get caught in running machinery, or be crushed by heavy parts.
- Before starting a job, make certain that you have all the necessary tools and parts on hand. Read all the instructions thoroughly, do not attempt shortcuts. Use tools that are appropriate to the work and use only replacement parts meeting Audi specifications. Makeshift tools, parts and procedures will not make good repairs.
- Catch draining fuel, oil or brake fluid in suitable containers. Do not use empty food or beverage containers that might mislead someone into drinking from them. Store flammable fluids away from fire hazards. Wipe up spills at once, but do not store the oily rags, which can ignite and burn spontaneously.
- Use pneumatic and electric tools only to loosen threaded parts and fasteners. Never use these tools to tighten fasteners, especially on light alloy parts. Always use a torque wrench to tighten fasteners to the tightening torque listed.
- Keep sparks, lighted matches, and open flame away from the top of the battery. If escaping hydrogen gas is ignited, it will ignite gas trapped in the cells and cause the battery to explode.
- Be mindful of the environment and ecology. Before you drain the crankcase, find out the proper way to dispose of the oil. Do not pour oil onto the ground, down a drain, or into a stream, pond, or lake. Consult local ordinances that govern the disposal of wastes.
- The air-conditioning (A/C) system is filled with a chemical refrigerant that is hazardous. The A/C system should be serviced only by trained automotive service technicians using approved refrigerant recovery/recycling equipment, trained in related safety precautions, and familiar with regulations governing the discharging and disposal of automotive chemical refrigerants.
- Before doing any electrical welding on vehicles equipped with anti-lock brakes (ABS), disconnect the battery negative terminal (ground strap) and the ABS control module connector.
- Do not expose any part of the A/C system to high temperatures such as open flame. Excessive heat will increase system pressure and may cause the system to burst.

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Cautions & Warnings

- When boost-charging the battery, first remove the fuses for the Engine Control Module (ECM), the Transmission Control Module (TCM), the ABS control module, and the trip computer. In cases where one or more of these components is not separately fused, disconnect the control module connector(s).
- Some of the vehicles covered by this manual are equipped with a supplemental restraint system (SRS), that automatically deploys an airbag in the event of a frontal impact. The airbag is operated by an explosive device. Handled improperly or without adequate safeguards, it can be accidentally activated and cause serious personal injury. To guard against personal injury or airbag system failure, only trained Audi Service technicians should test, disassemble or service the airbag system.
- Do not quick-charge the battery (for boost starting) for longer than one minute, and do not exceed 16.5 volts at the battery with the boosting cables attached. Wait at least one minute before boosting the battery a second time.
- Never use a test light to conduct electrical tests of the airbag system. The system must only be tested by trained Audi Service technicians using the VAG 1551 Scan Tool (ST) or an approved equivalent. The airbag unit must never be electrically tested while it is not installed in the vehicle.
- Some aerosol tire inflators are highly flammable. Be extremely cautious when repairing a tire that may have been inflated using an aerosol tire inflator. Keep sparks, open flame or other sources of ignition away from the tire repair area. Inflate and deflate the tire at least four times before breaking the bead from the rim. Completely remove the tire from the rim before attempting any repair.
- When driving or riding in an airbag-equipped vehicle, never hold test equipment in your hands or lap while the vehicle is in motion. Objects between you and the airbag can increase the risk of injury in an accident.

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I have read and I understand these Cautions and Warnings.