

Body Repairs Audi TT 2007 ➤ Edition 09.2009



Service

## Repair Group overview for Body Repairs

### Repair Group

00 - Technical data

50 - Body - front

51 - Body - centre

53 - Body - rear



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

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.

## Contents

00 -	- Lechi	nical data	1
	1	General notes	1
	2	Vehicle identification data	2
	2.1	Type plate and vehicle identification number	2
	2.2	Vehicle data sticker	3
	3	Expanded foam inserts	4
	4	General notes on repairs to aluminium parts	6
	5	General notes on repairs to steel parts	7
	6	Body construction	8
	6.1	Aluminium panels	8
	7	Corrosion protection	10
	8	Bonded joints	11
	8.1	Bonded joints	11
	8.2	Spot-welded/bonded joints	11
	8.3	Inspecting and repairing bonded joints	11
	8.4	Repair methods for replacing body parts	11
	9	Body panel gaps/shut lines	<b>12</b> 12
	9.1	Body - front and centre	
	<b>10</b> 10.1	Body dimensions	<b>15</b> 15
	10.1	Floor group, rear	16
	10.3	Body - front	17
	10.4	Body - centre	19
	10.5	Body - rear	20
	11	Straightening jig	21
	11.1	Overview	21
	11.2	Portal gauge	34
50 ·	- Bodv	- front  Protected by copyright. Copying for private or commercial purposes, in part or in v permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept	v <b>36</b> is not
	1	Longitudinal member, upper part with console (Coupe and Roadster identical) ument. Copyright by A	t any liability U <b>36</b> G.
	1.1	Tools	
	1.2	Procedure	37
	2	Support, left-side - Renewal (Coupé and Roadster identical)	43
	2.1	Tools	43
	2.2	Procedure	44
	3	Support, right-side - Renewal (Coupé and Roadster identical)	46
	3.1	Tools	46
	3.2	Procedure	47
	4	Upper longitudinal member for wheel housing - Renewal (Coupé and Roadster identical)	50
	4.1	Tools	50 50
	4.2	Procedure	51
	5	Suspension strut mounting - Renewal (Coupé and Roadster identical)	55
	5.1	Tools	55
	5.2	Procedure	56
	6	Longitudinal member for wheel housing, upper, inner - Renewal (Coupé and Roadster	
	0.4	identical)	62
	6.1 6.2	Tools	62 63
			65
	7	Front longitudinal member - Renewal (Coupé and Roadster identical)	00

	7.1 7.2	Tools	
	8	Front longitudinal member - Partial renewal (Coupé and Roadster identical)	
	8.1	Tools	
	8.2	Procedure	. 71
	9	Longitudinal member (front section) - Renewal (Coupé and Roadster identical)	. 73
	9.1	Tools	
	9.2	Procedure	
51 -	- Body	- centre	77
	1	Roof - Renewal	
	1.1	Tools	
	1.2	Procedure	
	2	Roof side member - Renewal	
	2.1	Tools	
	2.2 2.3	Procedure Protected by copyright. Copying for private or commercial purposes, in part or in whole,	is no 89
		Foam-filling roof side member permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any light with respect to the correctness of information in this document. Copyright by AUDI AG.	3.
	3	Outer roof frame - Renewal (Roadster)	
	3.1 3.2	Tools  Procedure	
	4	Front roof cross member - Renewal	
	<del>4</del> 4.1	Tools	
	4.2	Procedure	
	5	Rear roof frame - Renewal	
	5.1	Tools	
	5.2	Procedure	
	6	Outer A-pillar - Renewal	114
	6.1	Tools	
	6.2	Procedure	115
	7	Reinforcement tube and inner A-pillar - Renewal (Roadster)	122
	7.1	Tools	122
	7.2	Procedure	123
	8	Inner A-pillar - Renewal (Coupé and Roadster)	
	8.1	Tools	
	8.2	Procedure	
	9	Inner B-pillar - Renewal (Roadster)	
	9.1	Tools	
	9.2	Procedure	
	10	Outer side member - Renewal	
	10.1	Tools	
	10.2		
	<b>11</b> 11.1	Inner side member - Partial renewal (old part section)	
	11.1	Procedure	
	12	Inner side member - Renewal (Roadster)	
	12.1	Tools	
	12.1	Procedure	
	13	Floor panel - Renewal (Coupé and Roadster identical)	
	13.1	Tools	
53		- rear	
JJ .	. •	Rear cross panel (top section) - Renewal (Coupé and Roadster identical)	
	<b>1</b> 1.1	Tools	

1.2	Procedure	169
2	Cross panel (inner section) - Renewal (Coupé and Roadster identical)	
2.1	Tools	
2.2	Procedure	
3	Rain channel - Partial renewal	
3.1	Tools	
3.2	Procedure	
4	Rear suspension strut mounting - Renewal (Coupé and Roadster identical)	
4.1	Tools	
4.2	Procedure	
5	Rear longitudinal member - Partial renewal (Coupé and Roadster identical)	
5.1 5.2	Tools	
6	Side panel - Renewal (Coupé)	
6.1 6.2	Tools  Procedure	
7		
7 7.1	Side panel - Renewal (Roadster)	
7.1 7.2	Procedure	
8	Inner side panel - Renewal	
8.1	Tools	
8.2	Procedure	
9	Rear wheel housing - Partial renewal (Coupé and Roadster identical)	
9.1	Tools	
9.2	Procedure	
10	Rear wheel housing - Renewal (Coupé and Roadster identical)	222
10.1	Tools	
10.2	Procedure	222
11	Spare wheel well - Partial renewal (Coupé and Roadster identical)	226
11.1	Tools Protected by copyright. Copyring for private or commercial purposes, in part or in whole, is not	226
11.2	TOCCHUPermitted unless authorised by AUDI AG: AUDI AG does not quarantee or accept any liability	
12	Spare wheel well - Renewal (Coupe and Roadster)	230
12.1	Tools	
12.2	Procedure	230



## 00 – Technical data

## 1 General notes

This Manual describes only selected repair operations. A description is given where the repair method differs from the original manufacturing process.

Where the repair operation is not described: Separate the original joint and repair using a replacement part.

If no description is given for any sub-parts supplied, these should be matched up and butt welded with an SG continuous seam.

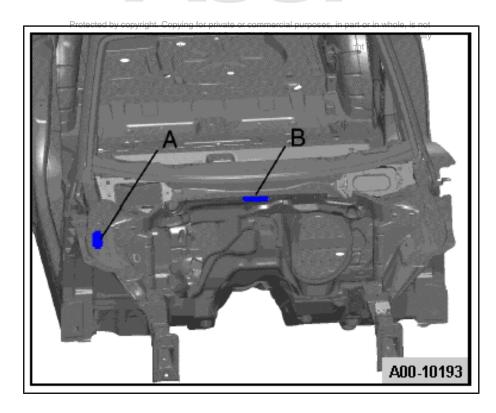
Please refer to the information in the Workshop Manual ⇒ General Information; Body Repairs, General Body Repairs.

## 2 Vehicle identification data

## 2.1 Type plate and vehicle identification number

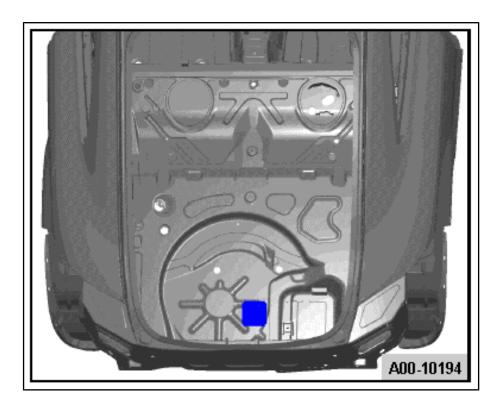
The vehicle identification number -B- (chassis number) is stamped on the flange in the plenum chamber.

The type plate -A- is attached to the wing mounting flange (right-side).



## 2.2 Vehicle data sticker

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





## 3 Expanded foam inserts

Various body cavities of the Audi TT 2007 are fitted with expanded foam inserts.

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

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



### Caution

The replacement foam inserts expand only after reaching about 180°C. For this reason, an additional filler foam is used when performing repairs.

Filler foam required for repairs: D 506 KG1 A3.

As the required temperatures cannot be achieved under normal workshop conditions, proceed as follows:

Remove residue of foam material on vehicle.

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

### Requirement

Before continuing with this procedure, ensure that the replacement panel is ready for installation, i.e. cut to shape, matched up to the vehicle; pcorrosion; protection applied urposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

Renewing expanded foam inserttion in this document. Copyright by AUDI AG.

Fix expanded foam insert to vehicle.

Apply filler foam D 506 KG1 A3 to replacement panel.

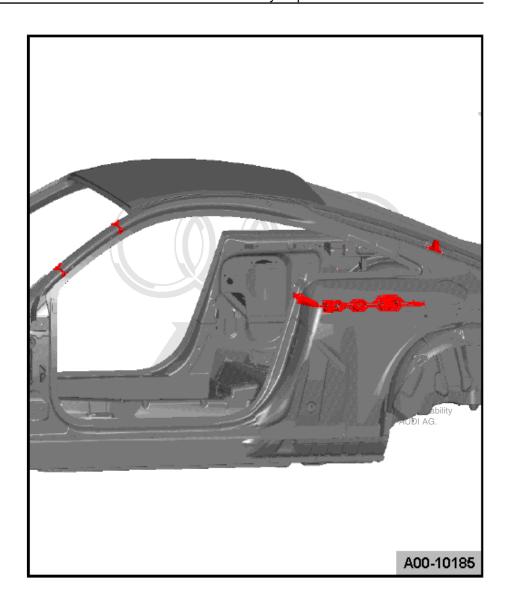
Secure new part in position. Gently press in new part in vicinity of expanded foam insert until it makes contact, and then weld into place.

The foam hardens within 25 minutes.

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

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

Location of expanded foam parts



## 4 General notes on repairs to aluminium parts

The repair methods required for the purely aluminium body parts are similar to the established procedures for the other Audi models with aluminium body.

### New joining technique

Flow-drill screws

Flow-drill screws can be easily released in the workshop and replaced with new screws. Oversize screws are available for damaged threads. New panels have to be pre-drilled to take these screws



# 5 General notes on repairs to steel parts



### Note

We recommend that repairs should be performed in a specialist Audi workshop for aluminium.

These repairs are essentially the same as for vehicles with an all-steel body. However, special precautions are required due to the risk of contact corrosion occurring on the aluminium parts of the body. The dust produced when sanding or grinding steel parts, and in particular sparks from cutting and welding operations, must not be allowed to drop onto aluminium parts. This also applies to painted aluminium panels. The glowing steel particles can damage the paint and come into contact with the aluminium, which can cause contact corrosion on the undamaged aluminium body. For these reasons, the entire body must be carefully protected with suitable covers and masking while steel repairs are being performed. Similarly, cutting operations may only be carried out with mechanical tools (body saw or nibbler). Where sanding or grinding is unavoidable, use non-sparking sanding/grinding discs (or such that produce only a minimum amount of sparking).



## 6 Body construction

The Audi TT 2007 employs the ASF (Audi Space Frame) construction in an aluminium/steel body.

The repair methods are basically the same as the familiar aluminium repair methods, except that the combination of aluminium and steel requires a number of new procedures.

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

Note the following for any repairs which are not described:

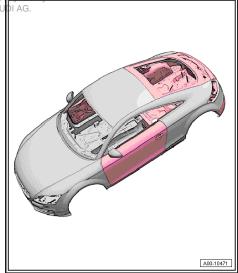
Separate at original joint; repair original joint using only genuine replacement parts: see ⇒ General information; Body repairs, General body repairs; Safety notes .

## 6.1 Aluminium panels

The areas of the body marked in grey - bonnet, plenum chamber, front end and middle section are made of aluminium purposes, in part or in whole, is not

⇒ Workshop Manual, General information; chapter on Work projet by AUDI AG does not quarantee or accept cedures

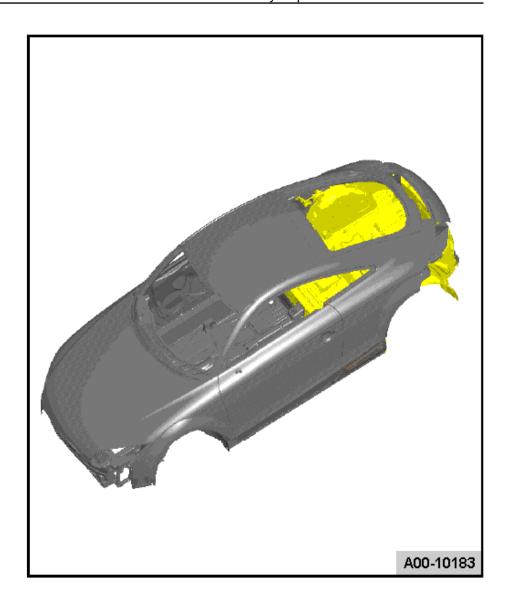
Extra-high-strength body panels



Extra-high-strength body panels are used in the following areas:

The steel panels marked in yellow have a tensile strength of 340 – 500 N/mm<sup>2</sup>.

 $\Rightarrow$  Workshop Manual, General information; chapter on Work procedures





## 7 Corrosion protection

The rear section of the body is manufactured from panels galvanised on both sides. Certain areas are cavity-sealed and have to be re-sealed after completing repair work.



#### 8 Bonded joints

Bonded and spot-welded bonded joints are employed on the Audi TT for increased body strength.

#### 8.1 Bonded joints

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

### Spot-welded/bonded joints

In spot welded bonded joints an electrically conductive adhesive is used between the panels, which allows 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 about 30 – 50 cycles because of the displacement of the adhesive. Always use a fume extractor.

Spot-weld bonding is not carried out in the service sector.

#### 8.3 Inspecting and repairing bonded joints

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

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

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

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

#### 8.4 Repair methods for replacing body parts

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

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

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



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability Noteth respect to the correctness of information in this document. Copyright by AUDI AG.

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

Ensure good root penetration at all joints.

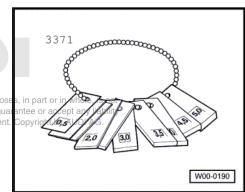
Seal off repaired joint flanges and apply cavity sealing.

## 9 Body panel gaps/shut lines

### Special tools and workshop equipment required

♦ Setting gauge -3371-

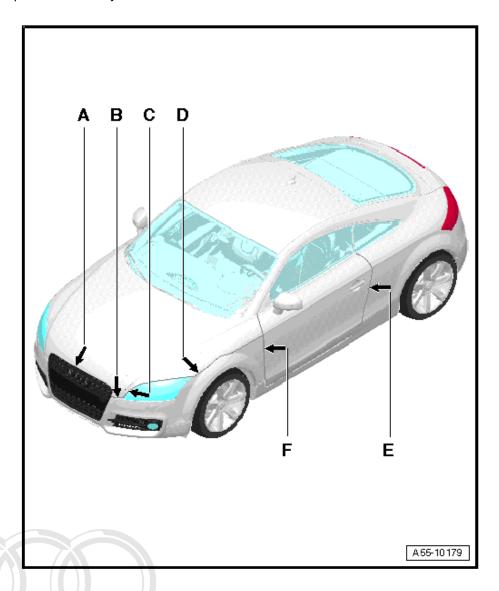
Protected by copyright. Copying for private or commercial purpose permitted unless authorised by AUDI AG. AUDI AG does not guarawith respect to the correctness of information in this document.



## 9.1 Body - front and centre

- ♦ 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

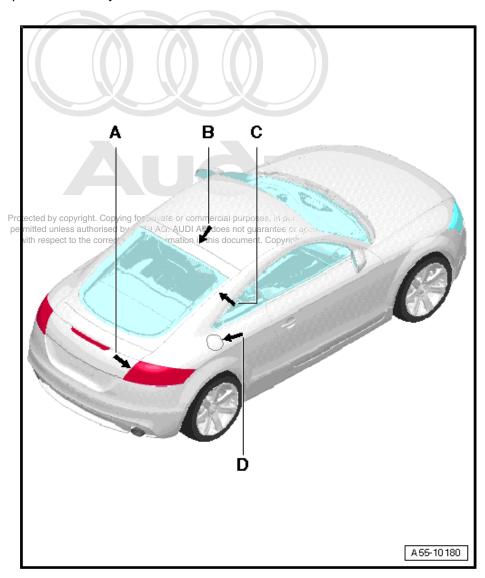
## ♦ Check that panel gaps are parallel with body lines



#### 9.1.1 Body - rear

- ♦ Dimension A = 4.0 mm ± 0.5 mm
- ♦ Dimension B = 4.5 mm ± 0.5 mm
- Dimension C =  $3.5 \text{ mm} \pm 0.5 \text{ mm}$
- ♦ Dimension D = 2.0 mm ± 0.5 mm

Check that panel gaps are parallel with body lines



## 10 Body dimensions

## 10.1 Floor group, front

Distance between rear attachment points of front suspension

-a- 836 ± 2 mm

Distance between front longitudinal members (front)

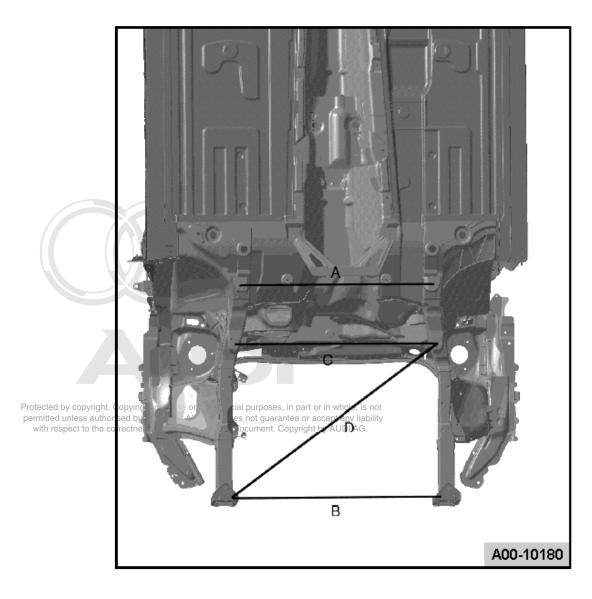
 $-b-899 \pm 2 \text{ mm}$ 

Distance between front attachment points of front suspension

 $-c-873 \pm 2 \text{ mm}$ 

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

-d- 1084 ± 2 mm



## 10.2 Floor group, rear

Distance between rear longitudinal members (rear)

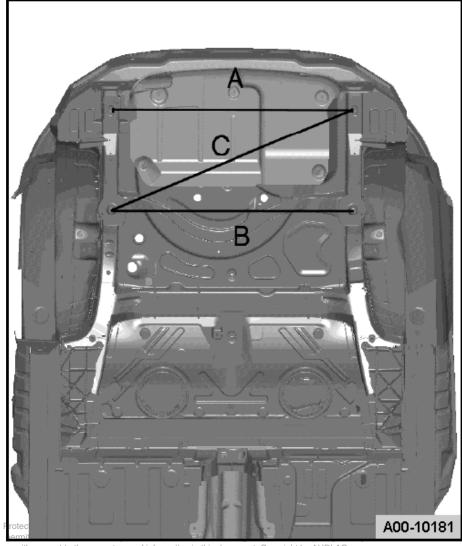
-a- 978 ± 2 mm

Distance between rear longitudinal members (front)

 $-b-980 \pm 2 \text{ mm}$ 

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

-c- 1049 ± 2 mm

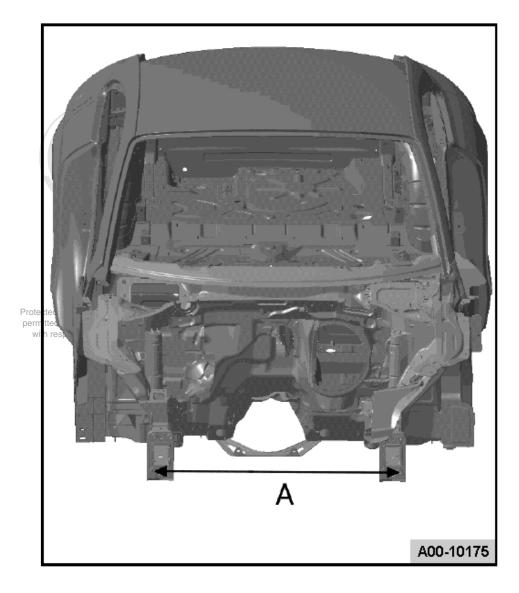


with respect to the correctness of information in this document. Copyright by AUDI AG.

#### Body - front 10.3

Distance between front longitudinal members

-a- 1018 ± 2 mm



Distance between suspension strut mountings

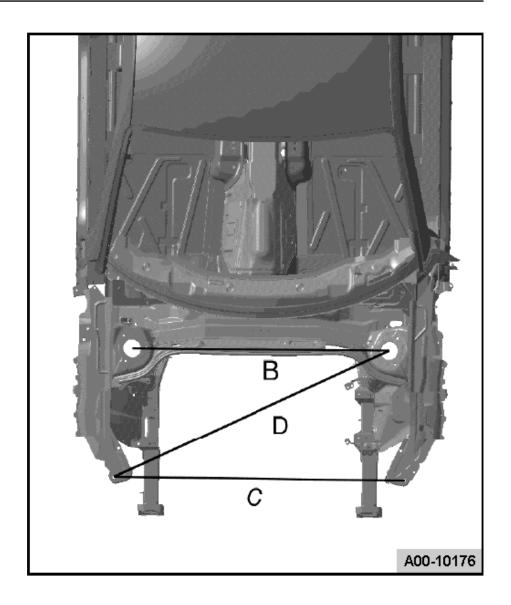
-b- 1129 ± 2 mm

Distance between wing panel mountings

-c- 1271 ± 2 mm

Diagonal distance between suspension strut mounting and wing panel mounting

-d- 1317 ± 2 mm





### Body - centre 10.4

Distance between A-pillars

-a- 1534 ± 2 mm

Height of door opening

-b-  $935 \pm 2 \text{ mm}$ 



## 10.5 Body - rear

Distance between rear longitudinal members

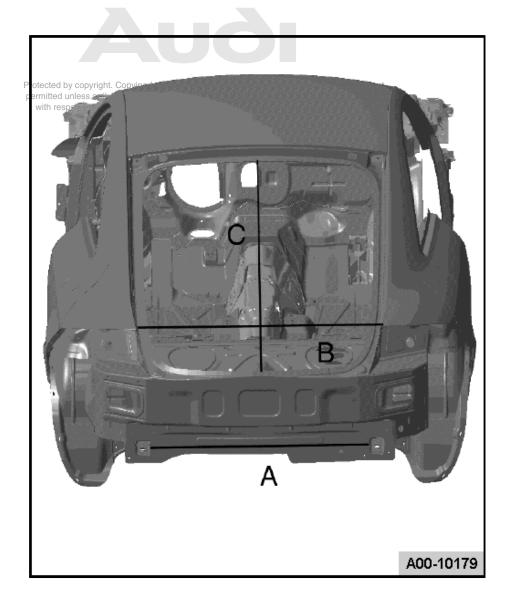
-a- 1044 ± 2 mm

Distance between side panels

 $-b-913 \pm 2 \text{ mm}$ 

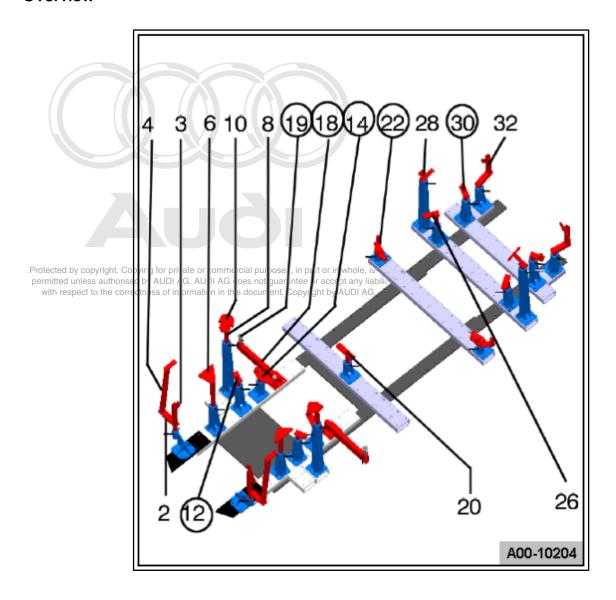
Distance between rear cross panel flange and roof flange

-c- 1269 ± 2 mm



#### Straightening jig 11

#### 11.1 Overview





### Note

- The item numbers in the illustrations are identical with the end numbers on the alignment bracket mountings.
- The item numbers of the alignment bracket mountings marked with a circle are for checking the body with mechanical units installed.
- Check the clearance of the alignment brackets before placing them on the straightening jig. Any obstructing components should be detached or removed.
- The required basic set size is given for the alignment bracket mountings.

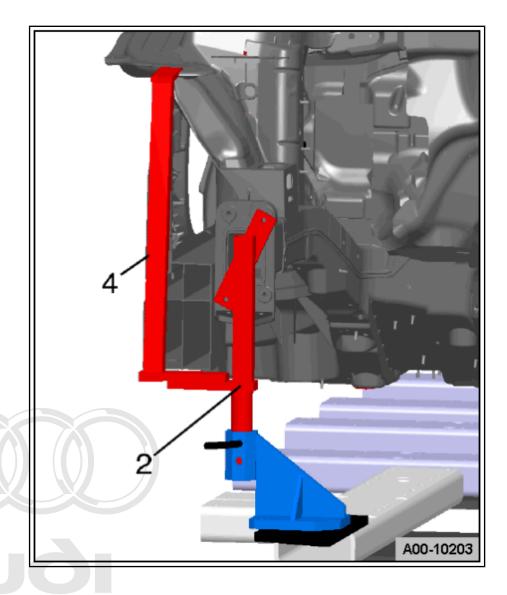
Alignment bracket set Audi TT -VAS 6384-

- 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 Left and right centring piece identical
- 18 Bracket without MZ and alignment bracket
- 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 mechanical units installed

Overview of front alignment brackets





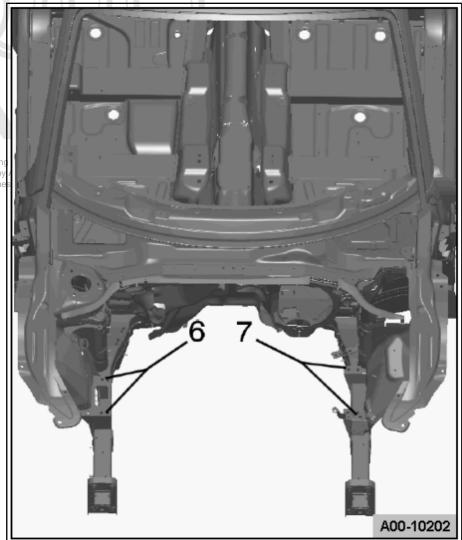
## 2 - Front longitudinal member

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not When checking, bolt on MZ last, as the longitudinal position of the impact absorber mounting can vary by several mm/due to production tolerances - if necessary do not bolt down.

3 - Front longitudinal member / top of wheel housing

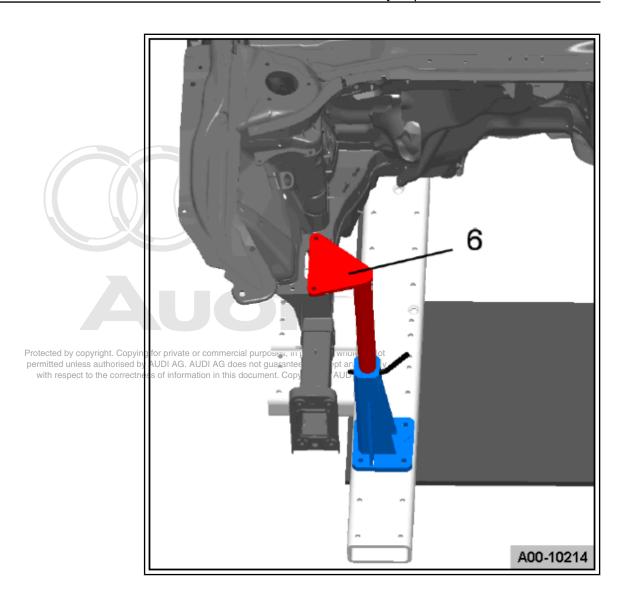
### Overview of front alignment brackets

- 6 Engine carrier mounting
- 7 Engine carrier mounting

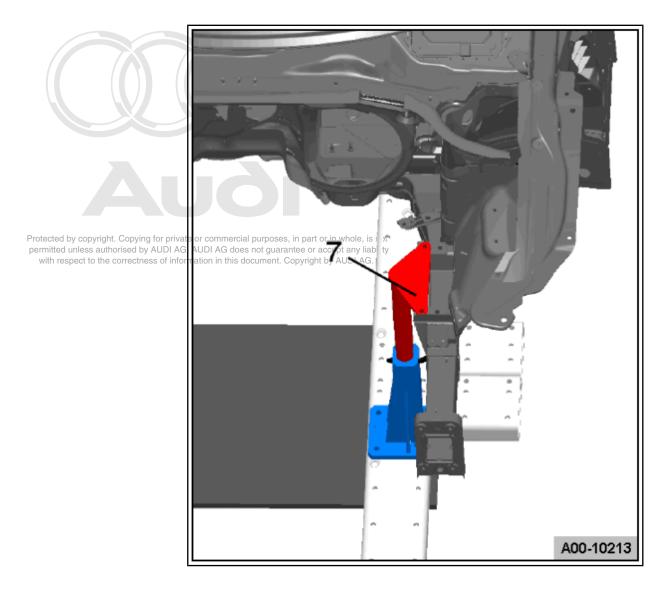


Protected by copyright. Copyin permitted unless authorised by with respect to the correctness

Overview of front alignment brackets

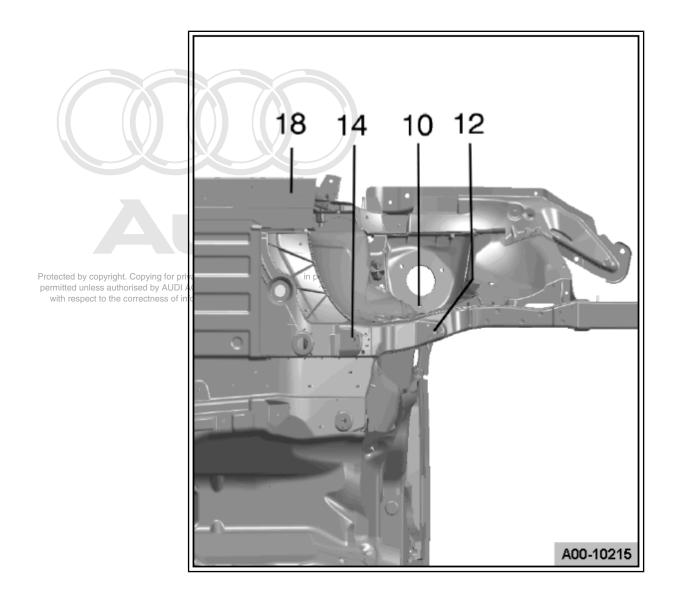


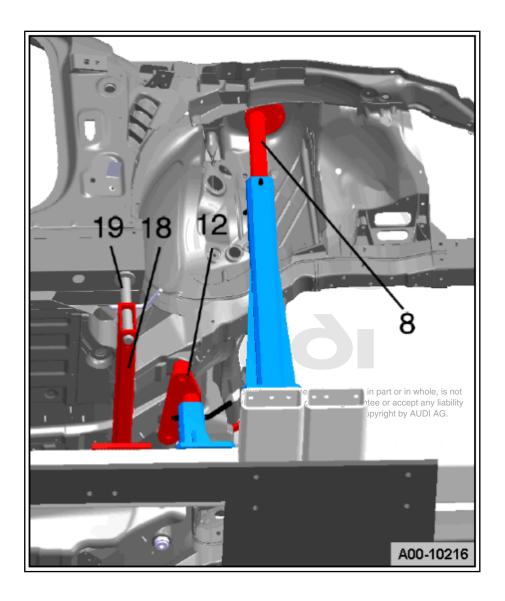
## 6 - Gearbox console



### 7 - Engine console

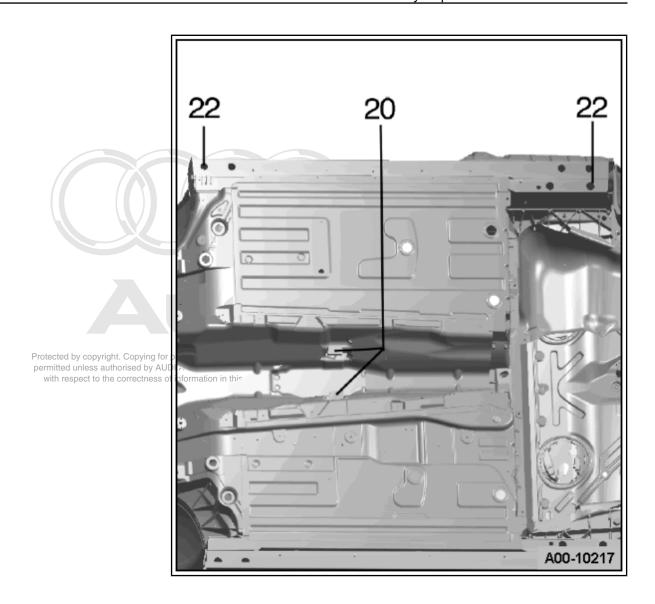
## Overview of front alignment brackets

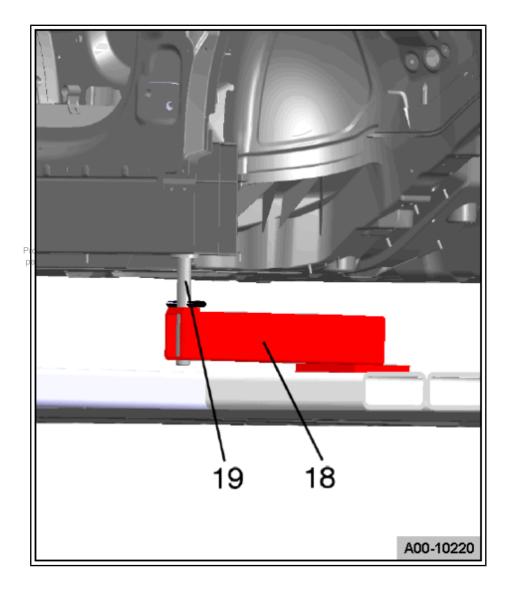




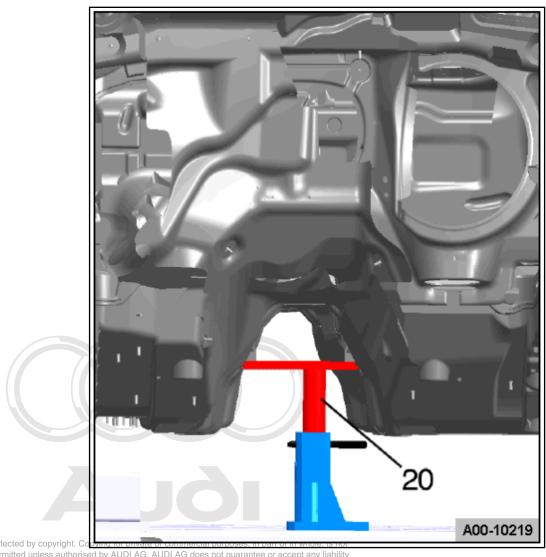
- 8 Suspension strut mounting
- 12 Mounting for subframe
- 18 Mounting for side member

Overview of centre alignment brackets



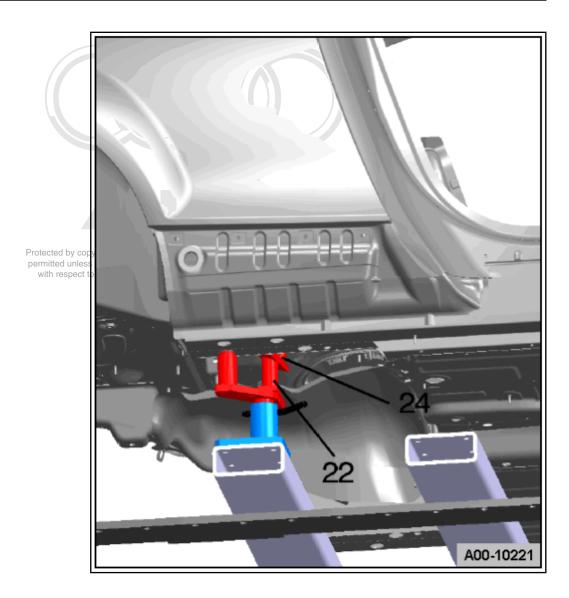


- 18 Mounting for side member
- 19 Spacer, identical on left and right sides



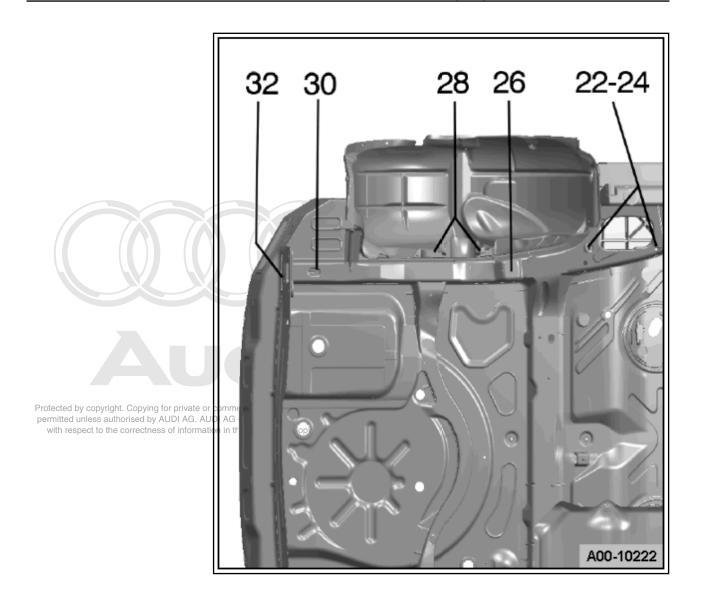
Protected by copyright. Countries of commercial purposes, in part of in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

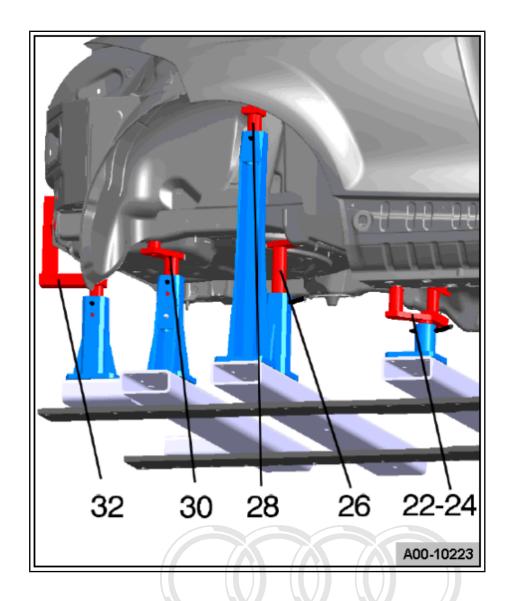
20 - Mounting for propshaft



22 -24 - Rear suspension strut mounting

Overview of rear alignment brackets





- 22 Mounting for rear axle
- 24 Spacer, identical on left and right sides
- Line up with holes as shown.
- 26 Drilling in longitudinal member
- 28 Suspension strut mounting
- 30 Drilling in longitudinal member
- 32 Mounting for rear longitudinal member

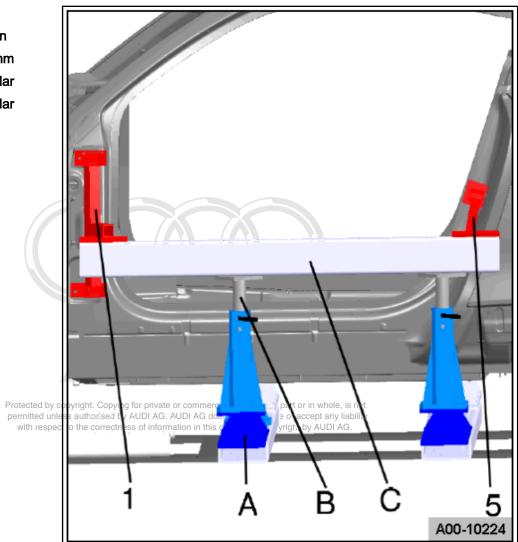


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

# 11.2 Portal gauge

Portal gauge supplement Audi TT/TT Roadster -VAS 5007/30-

- A Extension
- B Telescopic column
- C Cross bar 1200 mm
- 1 Mounting for A-pillar
- 5 Mounting for B-pillar



# 50 – Body - front

RO: 50 40 55 00

 Longitudinal member, upper part with console (Coupé and Roadster identical)



**WARNING** 

Always observe safety precautions.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

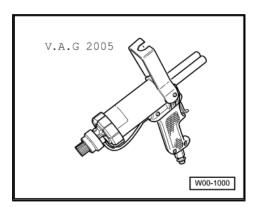
with respect to the correctness of information in this document. Copyright by AUDI AG.

Safety notes  $\Rightarrow$  General Information; Body Repairs, General Body Repairs; Safety notes .

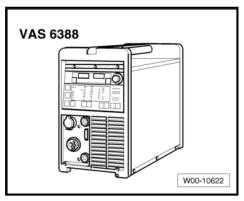
#### 1.1 Tools

#### Special tools and workshop equipment required

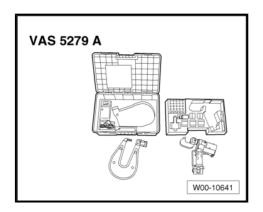
- ◆ Compact angle grinder -VAS 5167-
- ♦ Pneumatic glue gun -V.A.G 2005 B-



♦ Shielded arc welding equipment 250A -VAS 6388-



♦ Rechargeable riveter -VAS 5279A-



#### 1.2 **Procedure**

#### **Cutting locations**

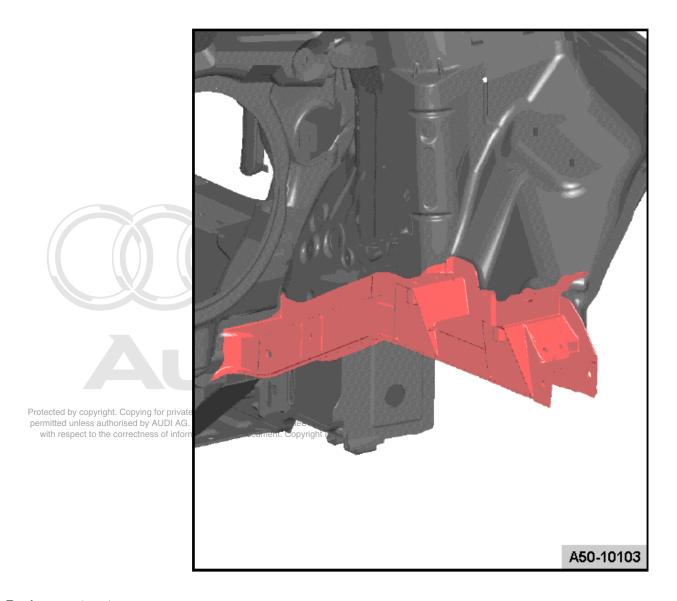
· Longitudinal member (bottom section) already removed

#### Engine console

- Separate original joint with rechargeable riveter -VAS 5279B-.
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and D14.
- Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments S1 and E2 .
- Remove remaining material using compact angle grinder -VAS 5167- .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.



#### Replacement part

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

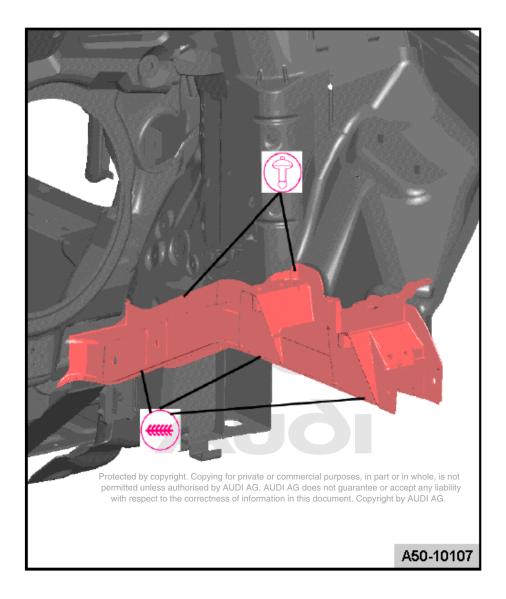
#### Preparing new part

Prepare flanges on body and new parts for welding.

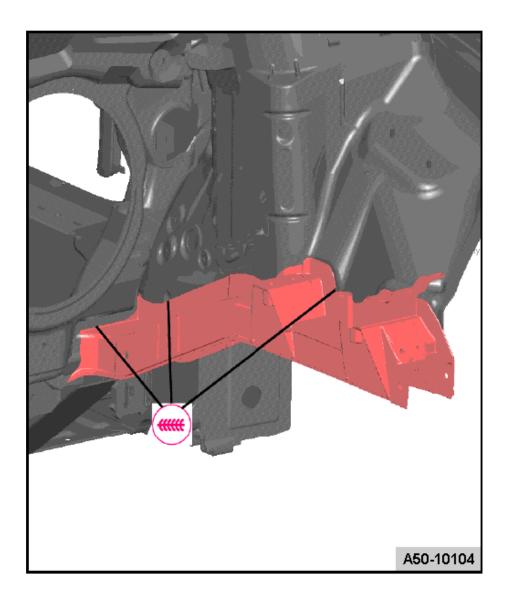
#### Welding in

- Fix new part in position with alignment bracket.
- Weld in engine console using shielded arc welding equipment 250A -VAS 6388-: SG continuous seam.
- Rivet in new part using rechargeable riveter -VAS 5279B- .

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16.

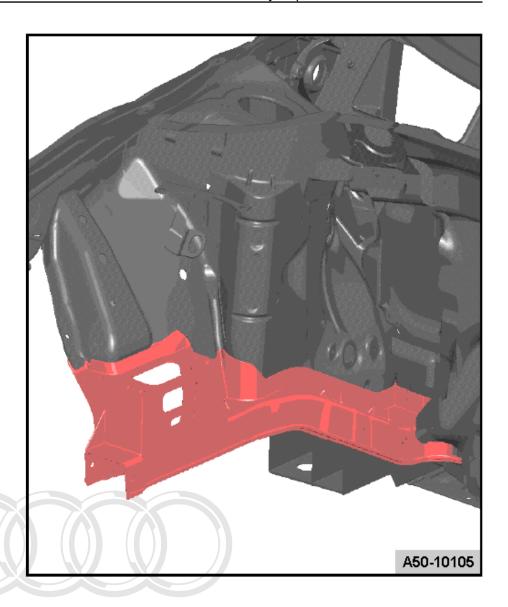


Weld in engine console using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.



## Gearbox console

- Separate original joint with rechargeable riveter -VAS 5279B- .



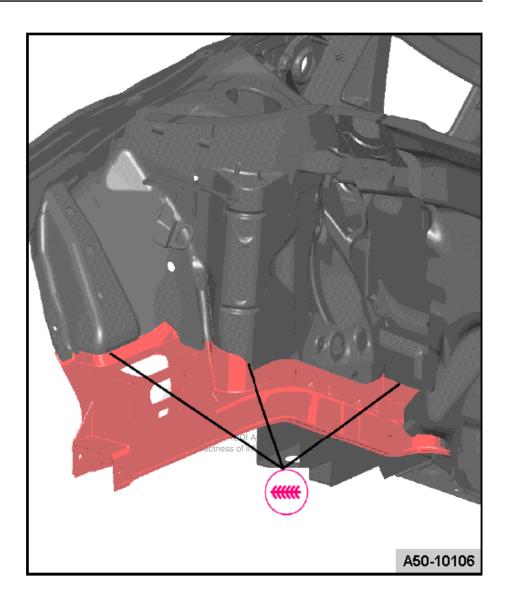
#### Replacement part

- ♦ Gearbox console
- ♦ Body adhesive DA 001 730 A2

#### Preparing new part

- Prepare flanges on body and new parts for weldingses, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability
   Welding in

  Welding in
- Fix new part in position with alignment bracket.
- Weld in gearbox console using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.



RO: 50 22 55 50

# 2 Support, left-side - Renewal (Coupé and Roadster identical)



**WARNING** 

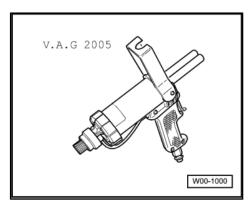
Always observe safety precautions.

Safety notes  $\Rightarrow$  General Information; Body Repairs, General Body Repairs; Safety notes .

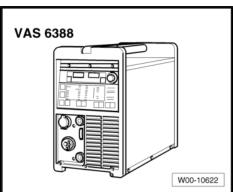
#### 2.1 Tools

#### Special tools and workshop equipment required

- ◆ Compact angle grinder -VAS 5167-
- ♦ Pneumatic glue gun -V.A.G 2005 B-



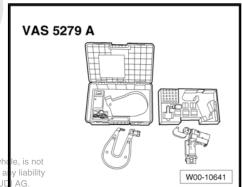
♦ Shielded arc welding equipment 250A -VAS 6388-



♦ Rechargeable riveter -VAS 5279A-



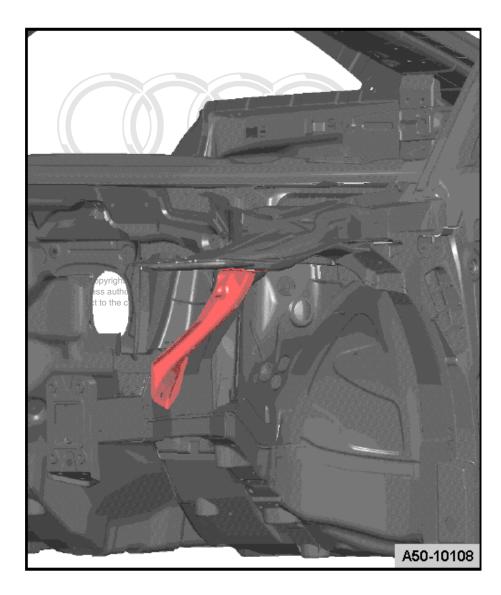
Protected by copyright. Copying for private or commercial purposes, in part or in who permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept a with respect to the correctness of information in this document. Copyright by AUDI



## 2.2 Procedure

#### **Cutting locations**

- Separate original joint with rechargeable riveter -VAS 5279A-.
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and D14.
- Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments S1 and E2
- Remove remaining material using compact angle grinder -VAS 5167- .



#### Replacement parts

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

#### Preparing new part

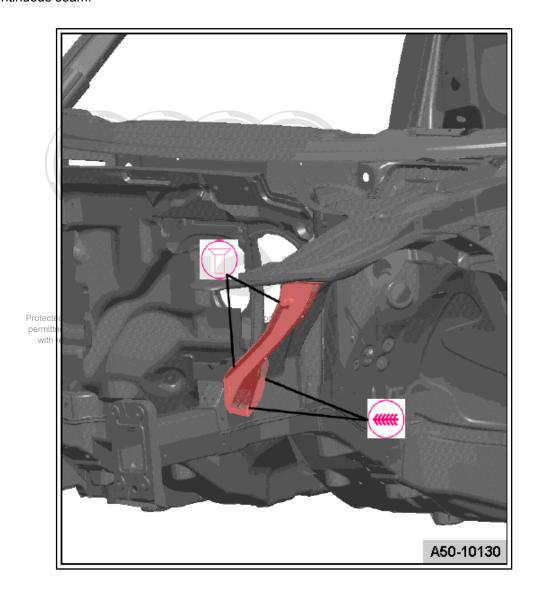
- Prepare flanges on body and new parts for welding.

#### Riveting in

- Rivet in support using rechargeable riveter -VAS 5279A- .

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from - VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16 .

 Weld in support using shielded arc welding equipment 250A -VAS 6388-: SG continuous seam.



RO: 50 22 55 50

# 3 Support, right-side - Renewal (Coupé and Roadster identical)



**WARNING** 

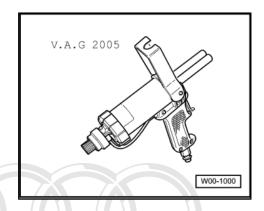
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes .

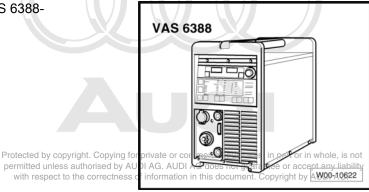
#### 3.1 Tools

#### Special tools and workshop equipment required

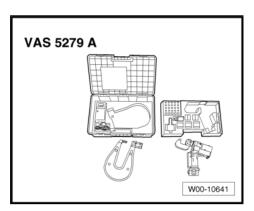
- ♦ Compact angle grinder -VAS 5167-
- ♦ Pneumatic glue gun -V.A.G 2005 B-



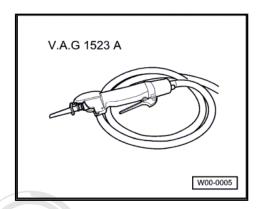
Shielded arc welding equipment 250A -VAS 6388-



Rechargeable riveter -VAS 5279A-



♦ Pneumatic sabre saw -V.A.G 1523A-



#### 3.2 Procedure

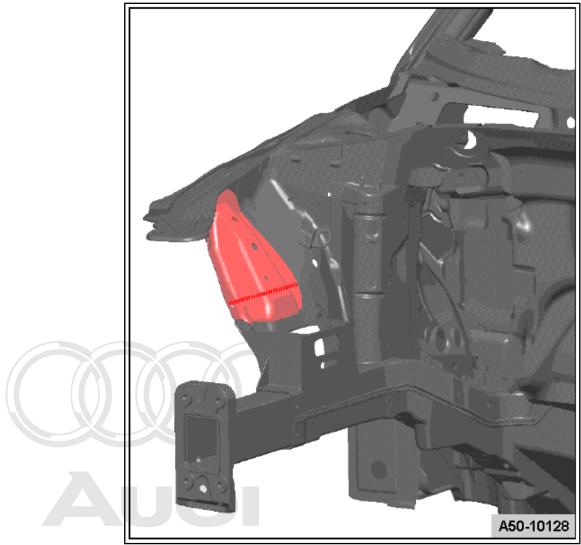
**Cutting locations** 



Note

Partial renewal is possible with the separating cut shown. Place a backing plate of the same material behind the joint and make SG continuous seam.

- Separate original joint with rechargeable riveter -VAS 5279A-.
- Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not Remove large punch rivets: Use rechargeable riveter. VASoes not guarantee or accept any liability 5279A- with attachments D13 and D14 from VAS 5279/2 for occument. Copyright by AUDI AG. rechargeable riveter -VAS 5279B- with attachments D13 and D14.
- Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments S1 and E2.
- Remove remaining material using compact angle grinder -VAS 5167- .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability to the correctness of information in this document. Copyright by AUDI AG. Replacement parts

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

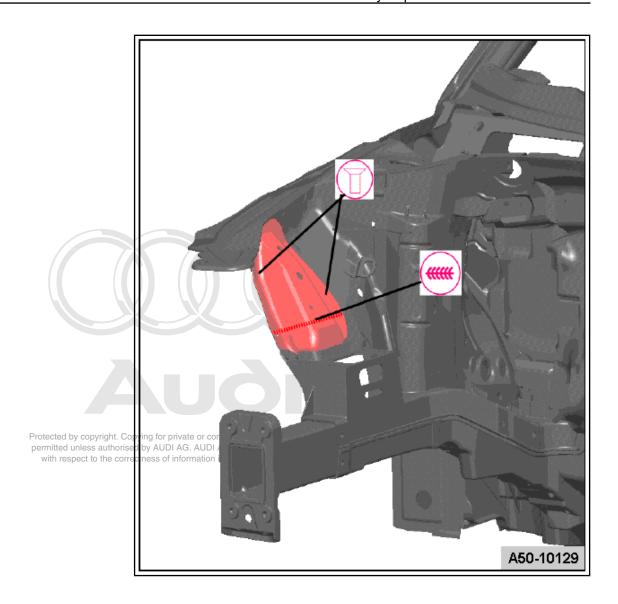
#### Preparing new part

- Prepare flanges on body and new parts for welding.

#### Riveting in

- Rivet in support using rechargeable riveter -VAS 5279A-.
- Weld in support using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16.



RO: 50 72 55 00

# 4 Upper longitudinal member for wheel housing - Renewal (Coupé and Roadster identical)



**WARNING** 

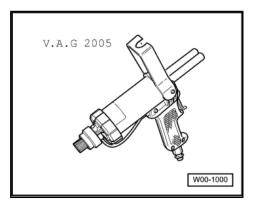
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes .

#### 4.1 Tools

#### Special tools and workshop equipment required

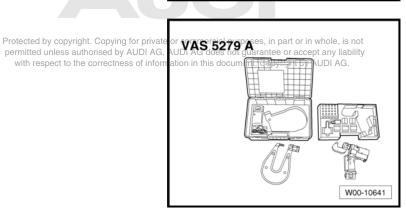
- ♦ Compact angle grinder -VAS 5167-
- ♦ Pneumatic glue gun -V.A.G 2005 B-



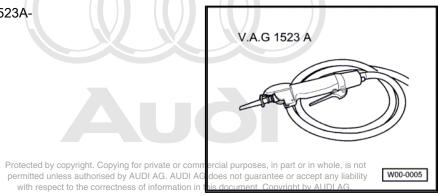
♦ Shielded arc welding equipment 250A -VAS 6388-



♦ Rechargeable riveter -VAS 5279A-



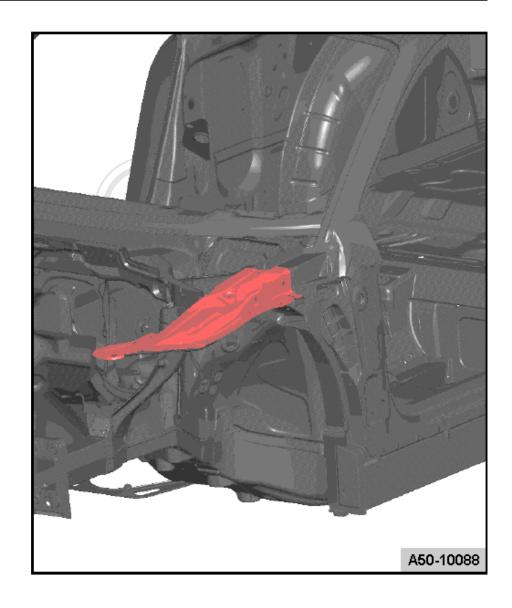
◆ Pneumatic sabre saw -V.A.G 1523A-



#### 4.2 **Procedure**

#### **Cutting locations**

- Roughly cut out part using pneumatic sabre saw -V.A.G 1523A- .
- Separate original joint with rechargeable riveter -VAS 5279A-.
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and D14.
- Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments S1 and
- Remove remaining material using compact angle grinder -VAS 5167-.



#### Replacement parts



#### Note

Use a 4 mm aluminium solid rivet if pressing out the old rivets created a hole.

#### **Parts**

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

#### Preparing new part

- Prepare flanges on body and new parts for welding.

#### Riveting in

 Apply 2-component adhesive DA 001 730 A2 to entire riveting area using pneumatic glue gun -V.A.G 2005 B- .

#### Riveting in new part

Position new part and fix in place.



Holes must be stamped prior to riveting on.

Secure new part on bracket set.

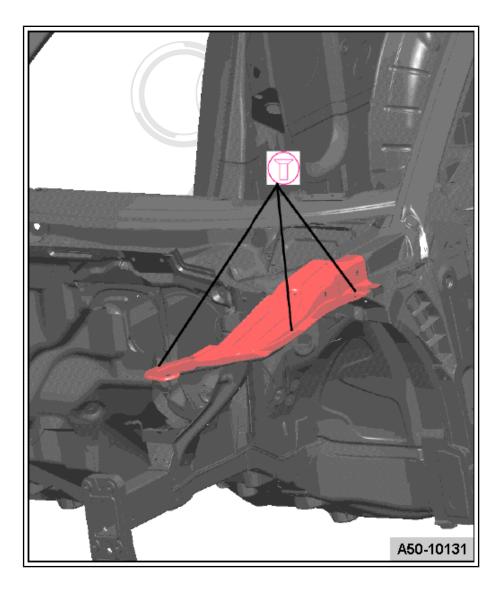
- Rivet in new part using rechargeable riveter -VAS 5279A- .

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16.



#### Note

Use a 4 mm aluminium solid rivet if pressing out the old rivets created a hole.



Secure to A-pillar with an M5 x 18 flange bolt.



#### Note

- The new parts may not be provided with the holes for the bolted connections.
- In this case the new parts have to be drilled out for the bolted connections.



#### Note

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

5.3 x 5 mm punch rivets were previously fitted in the area of the finformation in this document. Copyright by AUDI AG. suspension strut mounting. A stepped seam (stitch seam) must be made here instead of the punch rivets.

 Make stepped seam (stitch seam) in area of suspension strut mounting. RO: 50 74 55 50

#### Suspension strut mounting - Renew-5 al (Coupé and Roadster identical)



**WARNING** 

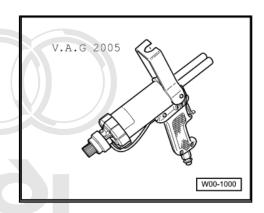
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.

#### 5.1 Tools

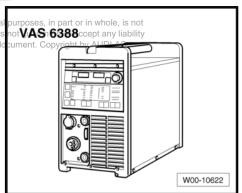
#### Special tools and workshop equipment required

- ◆ Compact angle grinder -VAS 5167-
- ♦ Pneumatic glue gun -V.A.G 2005 B-

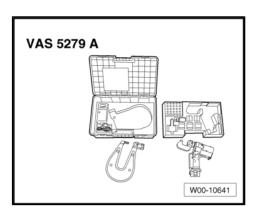


Shielded arc welding equipment 250A -VAS 6388-Protected by copyright. Copying for private or commercial

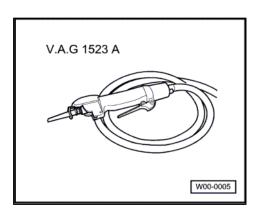
permitted unless authorised by AUDI AG. AUDI AG doe with respect to the correctness of information in this de



♦ Rechargeable riveter -VAS 5279A-



Pneumatic sabre saw -V.A.G 1523A-



#### 5.2 Procedure

#### **Cutting locations**

· Longitudinal member (top section) already removed



#### **WARNING**

Do not damage adjoining castings.



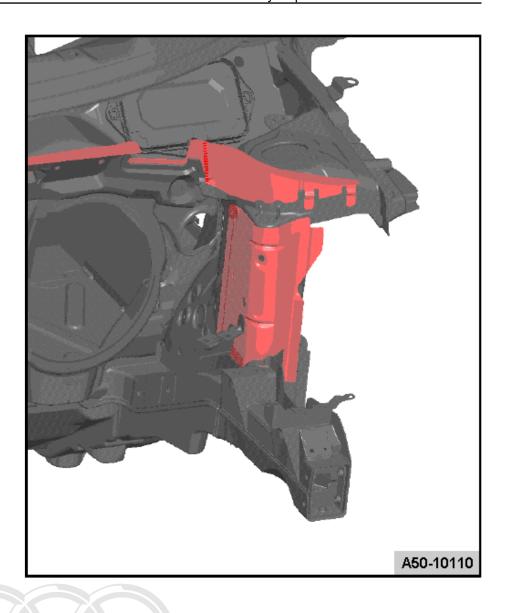
#### Note

Refer to General information on aluminium regarding punch rivets with one-sided access.

- Make separating cut in plenum chamber flange using pneumatic sabre saw -V.A.G 1523A- .
- Separate original joint at support for suspension strut mounting using rechargeable riveter -VAS 5279A- .
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and D14.
- Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments S1 and E2.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.



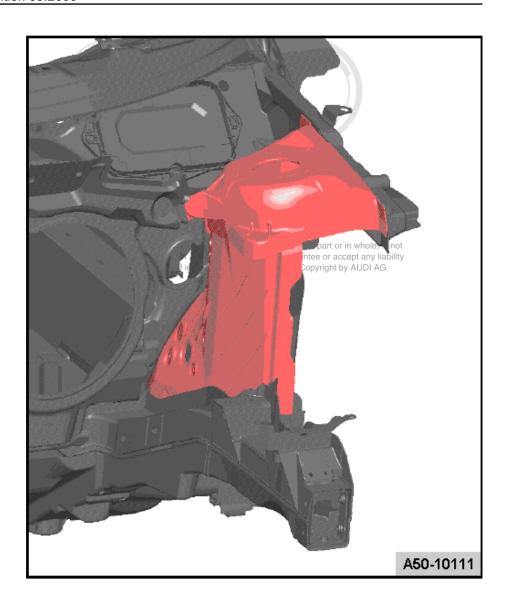


# Note

Refer to General information on aluminium regarding punch rivets with one-sided access.

- Separate punch rivet with one-sided access at A-pillar (inner).
- Separate original joint with rechargeable riveter -VAS 5279A-.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.



#### Replacement parts

- ♦ Pop rivets
- Punch rivets (self-piercing rivets)
- Suspension strut mounting
- ♦ Body adhesive DA 001 730 A2



#### Note

Refer to General information on bonding.

#### Preparing new part

- Prepare flanges on body and new parts for welding.
- Prepare flanges on body and new parts for riveting.

## Welding in

- Fix new part on alignment bracket.



#### Note

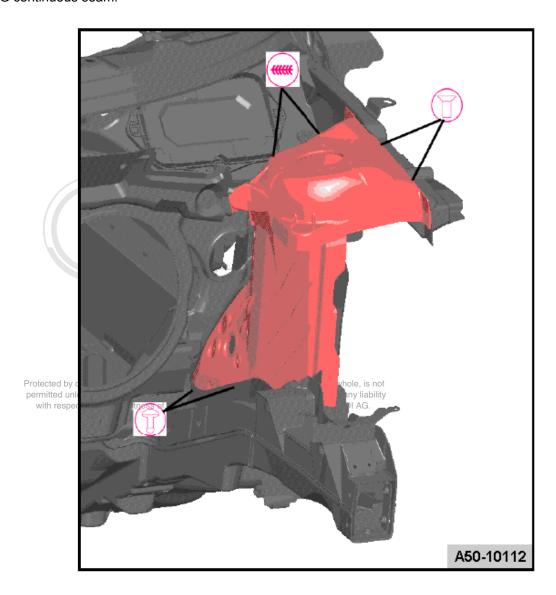
SG continuous weld seam can also be used in place of riveted joints.

#### Riveting in

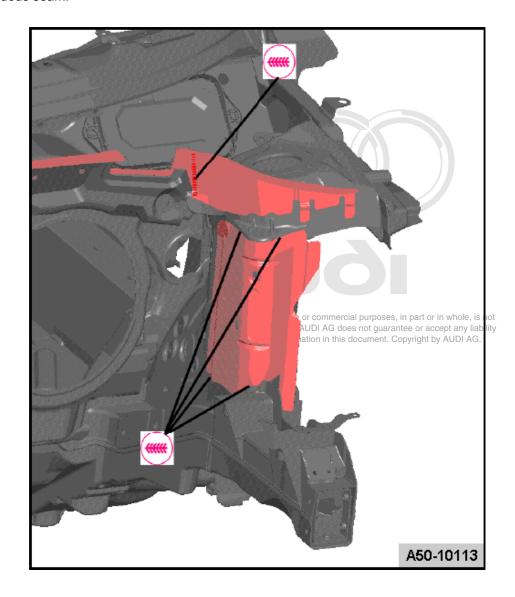
- Weld windscreen cross member to suspension strut mounting using shielded arc welding equipment 250A -VAS 6388- : SĞ continuous seam.
- Rivet suspension strut mounting to longitudinal member (top section) using rechargeable riveter -VAS 5279A- .
- Rivet suspension strut mounting to longitudinal member using rechargeable riveter -VAS 5279A- .

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16.

Weld in new part using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.

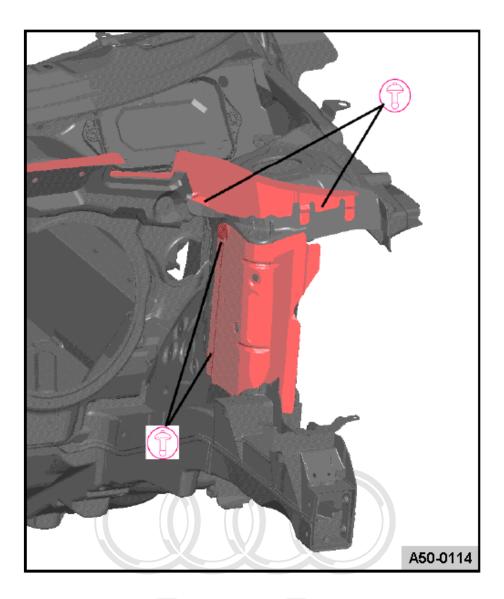


- Weld in at separating cut on plenum chamber using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.
- Weld in new part using shielded arc welding equipment 250A
   -VAS 6388-: SG continuous seam.



Rivet in remaining joint using rechargeable riveter -VAS 5279A-.

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from - VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16 .





Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

RO: 50 52 55 50

6 Lo

Longitudinal member for wheel housing, upper, inner - Renewal (Coupé and Roadster identical)



**WARNING** 

Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes .

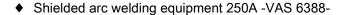
#### 6.1 Tools

Special tools and workshop equipment required

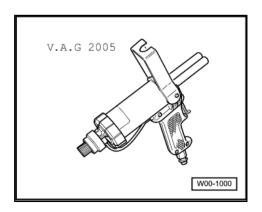
- ♦ Compact angle grinder -VAS 5167-
- ◆ Pneumatic glue gun -V.A.G 2005 B-

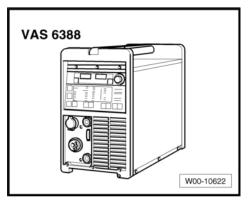


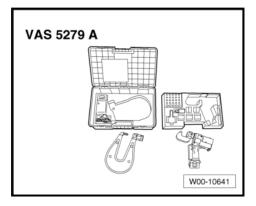
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.







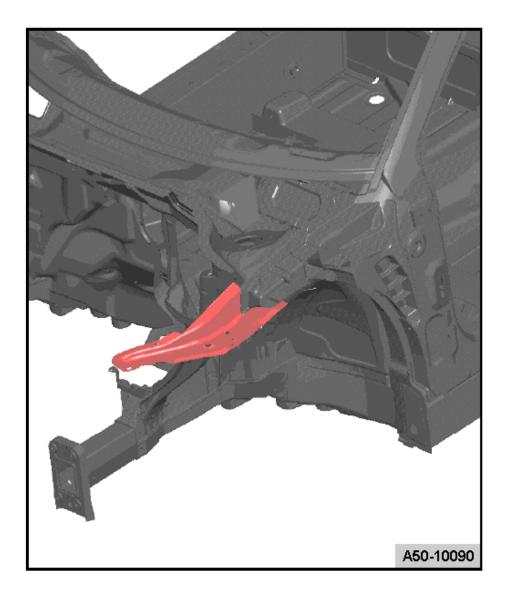




#### 6.2 **Procedure**

#### **Cutting locations**

- Separate original joint with rechargeable riveter -VAS 5279A-.
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 or rechargeable riveter -VAS 5279B- with attachments D13 and
- Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 100 miles S15270/2019 or private or commercial purposes, in part or in whole, is not rechargeable riveter -VAS 5279B- with attachments S1 and or mation in this document. Copyright by AUDI AG.
- Remove remaining material using compact angle grinder -VAS 5167-.



#### Replacement part

◆ Upper wheel housing longitudinal member

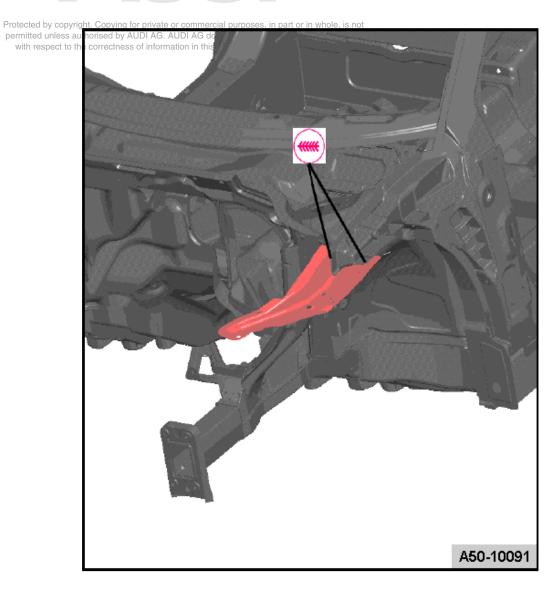


## Note

Riveted/bonded joint can also be used in place of weld seam.

#### Welding in

 Weld in upper wheel housing longitudinal member using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam



RO: 50 79 55 00

#### Front longitudinal member - Renewal 7 (Coupé and Roadster identical)



**WARNING** 

Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.

#### 7.1 Tools

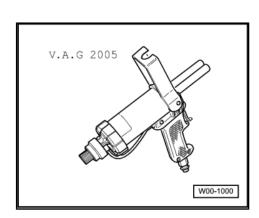
#### Special tools and workshop equipment required

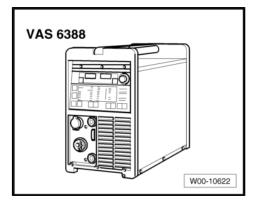
- ◆ Compact angle grinder -VAS 5167-
- ♦ Pneumatic glue gun -V.A.G 2005 B-



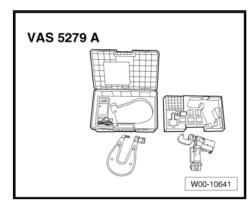
Shielded arc welding equipment 250A -VAS 6388-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.





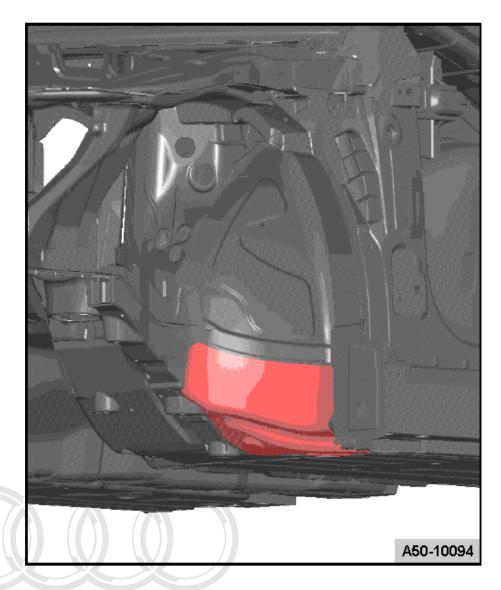
♦ Rechargeable riveter -VAS 5279A-



# 7.2 Procedure

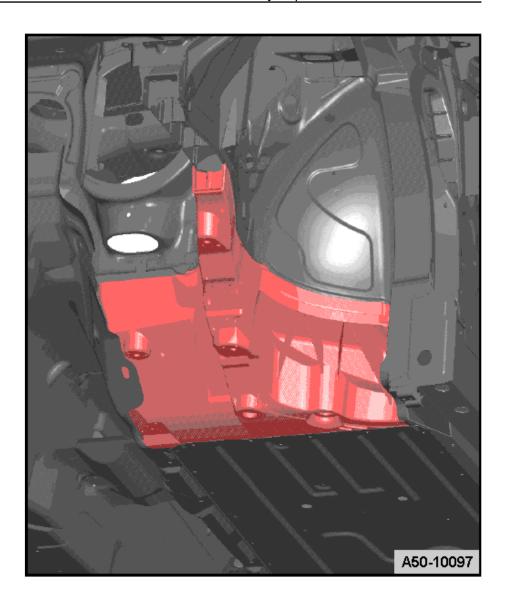
#### **Cutting locations**

- Separate original joint using compact angle grinder -VAS 5167- .
- Remove remaining material using compact angle grinder -VAS 5167- .



- Separate original joint using compact angle grinder -VAS 5167- .
- Remove remaining material using compact angle grinder -VAS 5167- .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.



#### Replacement part

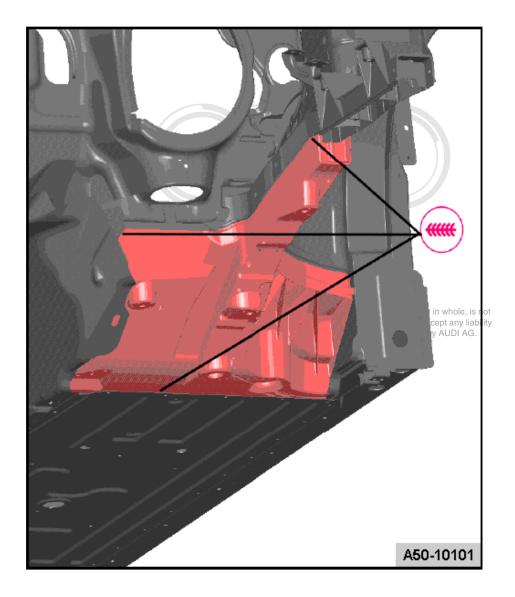
♦ Longitudinal member

#### Preparing new parts

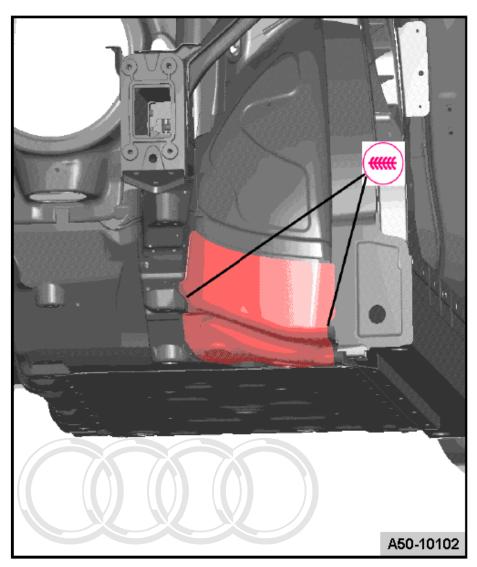
- Prepare flanges on body and new parts for welding.

#### Welding in

Weld in longitudinal member using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.



- Weld in new part on bracket set using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.
- Weld in connecting bracket using shielded arc welding equipment 250A -VAS 6388-; re-establish original joint: SG continuous seam.





RO: 50 79 55 02

# 8 Front longitudinal member - Partial renewal (Coupé and Roadster identical)



**WARNING** 

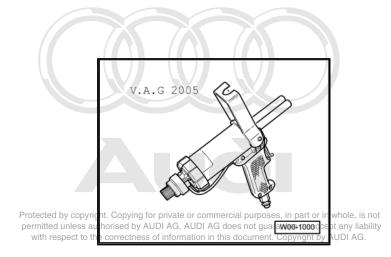
Always observe safety precautions.

Safety notes  $\Rightarrow$  General Information; Body Repairs, General Body Repairs; Safety notes .

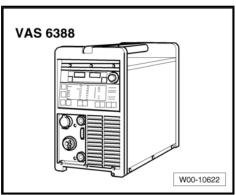
#### 8.1 Tools

#### Special tools and workshop equipment required

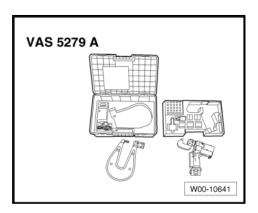
♦ Pneumatic glue gun -V.A.G 2005 B-



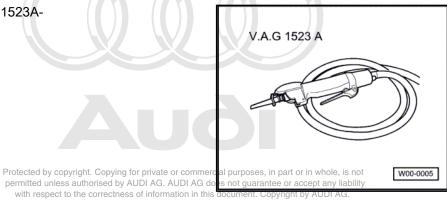
Shielded arc welding equipment 250A -VAS 6388-



♦ Rechargeable riveter -VAS 5279A-



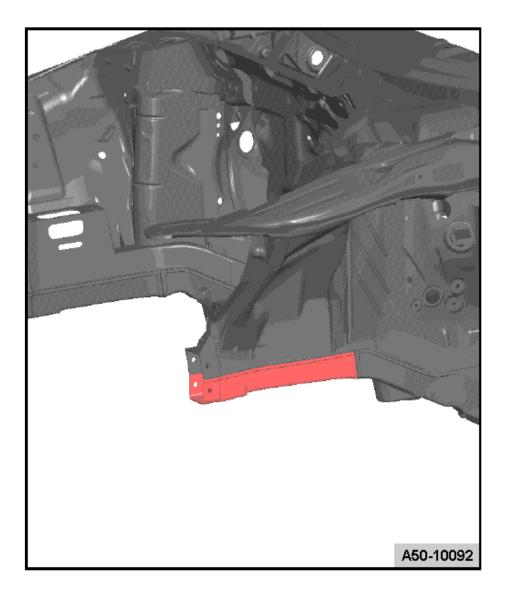
♦ Pneumatic sabre saw -V.A.G 1523A-



#### 8.2 **Procedure**

#### **Cutting locations**

- Separate original joint using compact angle grinder -VAS 5167- .
- Remove remaining material using compact angle grinder -VAS 5167-.



#### Replacement part

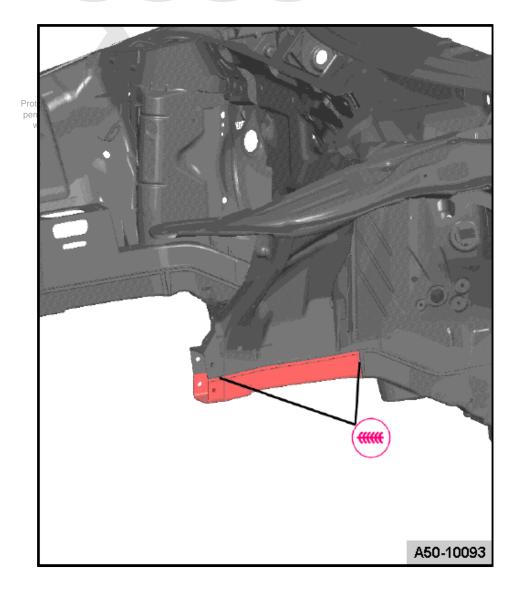
♦ Longitudinal member (bottom section): part section

#### Preparing new parts

- Prepare flanges on body and new parts for welding.

#### Welding in

Weld in longitudinal member at front using shielded arc weld-ing equipment 250A -VAS 6388- : SG continuous seam.



RO: 50 80 55 00

Longitudinal member (front section) -9 Renewal (Coupé and Roadster identical)



WARNING

Always observe safety precautions.

Safety notes  $\Rightarrow$  General Information; Body Repairs, General Body Repairs; Safety notes .

#### 9.1 **Tools**

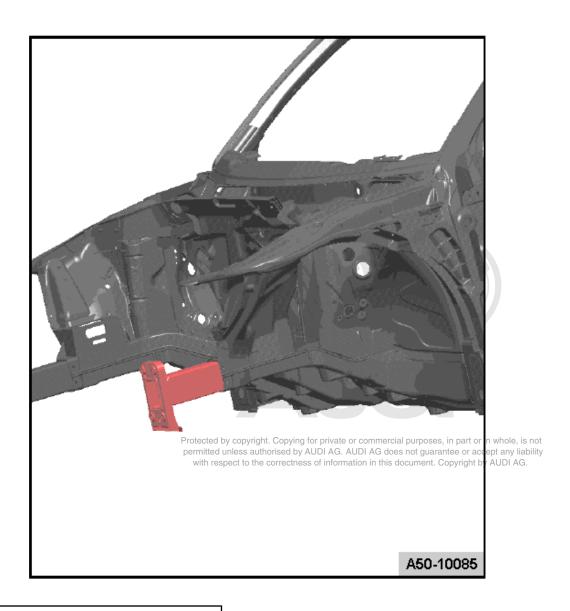
## Special tools and workshop equipment required

♦ Pneumatic sabre saw -V.A.G 1523A-



# 9.2 Procedure

- Detach part.



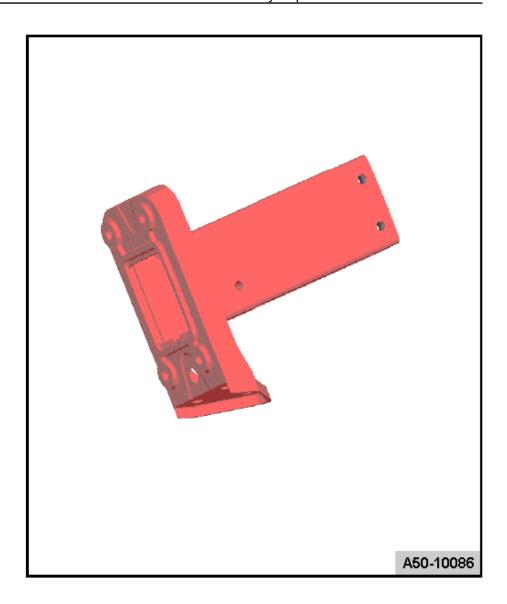


#### **WARNING**

Take care not to damage aluminium node castings.

#### Replacement parts

- ◆ Front longitudinal member
- ♦ Connecting collar with bolts



#### **Bolting** on

- Match length if necessary. Distance from node casting at least 1 mm.

#### Preparing new parts



Note

Threads must be free of paint and grease.

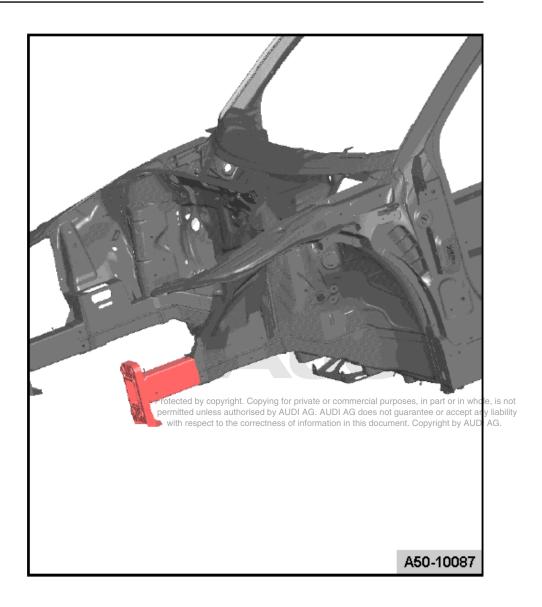
Insert longitudinal member with connecting collar in node casting.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not normalized by 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.

Align longitudinal member with bolted-on parts.

- Hand-tighten bolts.
- Tighten bolts 1 5. (Tightening torque 24 Nm).
- Seal joint between longitudinal member and node casting.



# Body - centre

RO: 51 03 55 00

1 Roof - Renewal



**WARNING** 

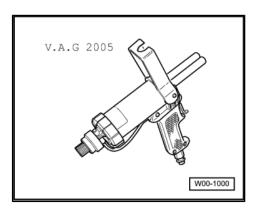
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.

#### 1.1 **Tools**

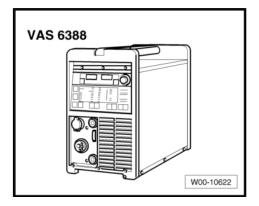
#### Special tools and workshop equipment required

- ♦ Compact angle grinder -VAS 5167-
- ♦ Drill -VAS 5830-
- ♦ Grinder -VAS 5170-
- ♦ Pneumatic glue gun -V.A.G 2005 B-

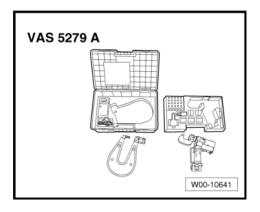


- Shielded arc welding equipment 250A -VAS 6388-

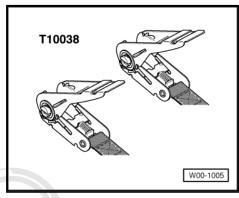




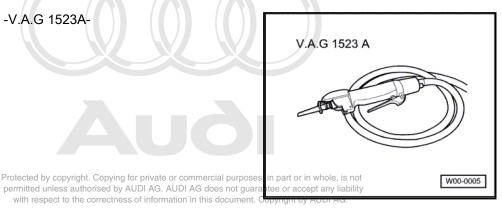
Rechargeable riveter -VAS 5279A-



◆ Tensioning strap -T10038-



Pneumatic sabre saw -V.A.G 1523A-



# 1.2 Procedure

#### **Cutting locations**

- Roughly cut out roof using pneumatic sabre saw -V.A.G 1523A-
- Separate original joint with rechargeable riveter -VAS 5279A- .
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and D14.
- Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments S1 and E2.
- Carefully bend open half-sections of roof until brazed joint breaks.
- Remove remaining material.

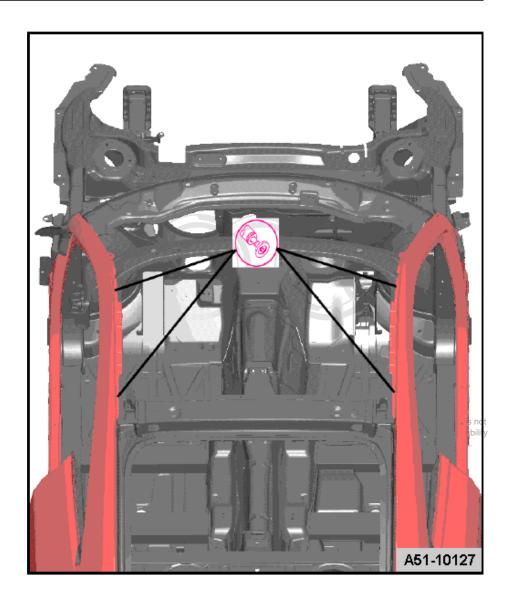


Remove remaining material on roof frame using compact angle grinder -VAS 5167
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this opcument. Copyright by AUDI AG.



#### Caution

Take care not to damage the roof frame when removing remaining material with the compact angle grinder -VAS 5167- .



#### Replacement parts

- ♦ Roof
- ♦ 4 Clamping bolts
- ♦ Silicone remover LSE 020 100 A3
- ♦ Body adhesive DA 001 730 A2
- ◆ Punch rivets (self-piercing rivets)



## Note

- ♦ It is important to keep to the following procedure to ensure a satisfactory and effective roof repair.
- Bonded areas must not be treated with filler coat before bonding in centre roof section.

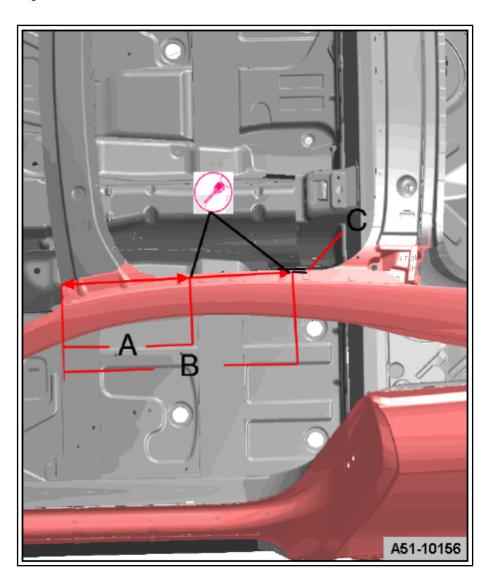
Reference for dimensions A + B is edge of roof.

Dimension A = 311 mm

Dimension B = 571 mm

Dimension C = 11.3 mm from inner roof frame

- Press out rivets at this location with rechargeable riveter -VAS 5279A-.
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 or rechargeable riveter -VAS 5279B- with attachments D13 and D14 .
- Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 or rechargeable riveter -VAS 5279B- with attachments S1 and
- Drill holes for roof support using drill -VAS 5830- , Ø6.5 mm.



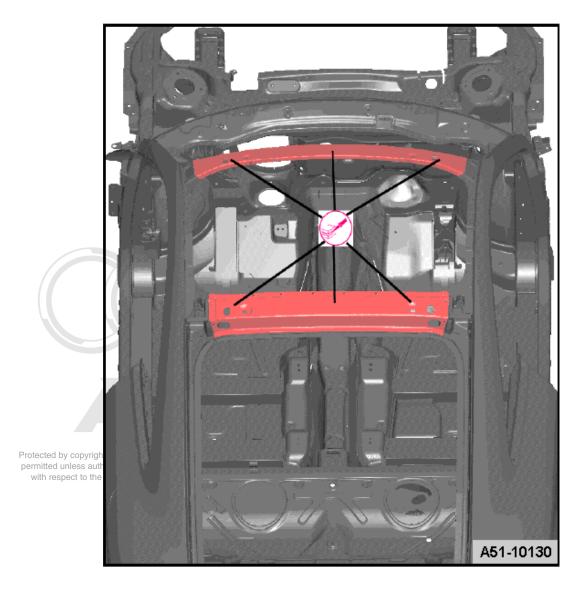
#### Preparing new part

Clean roof side members and new roof panel (replacement part) with silicone remover LSE 020 100 A3.

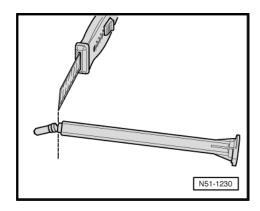
#### Bonding in roof

- Mask off roof side members with adhesive tape at joint with roof panel to avoid unnecessary sanding.
- Mask off replacement roof panel with adhesive tape at joint with roof side members to avoid unnecessary sanding.

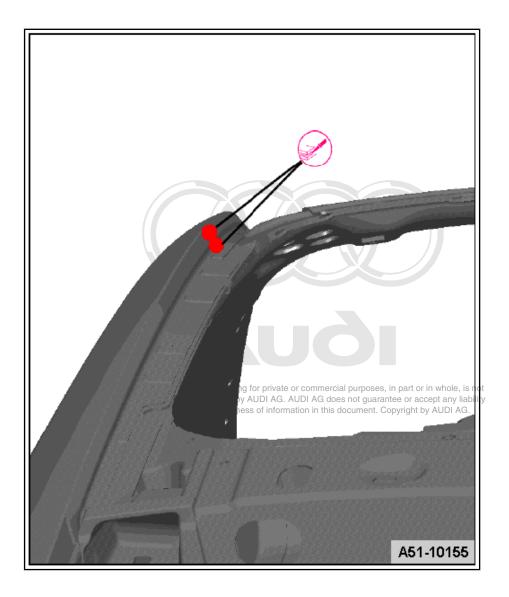
Apply body adhesive -DA 001 730 A2- to roof cross members at front and rear.



- Prepare adhesive cartridges required for bonding.
- Cut static mixer from body adhesive set -DA 001 730 A2- down to 4th notch to obtain required bead cross-section.



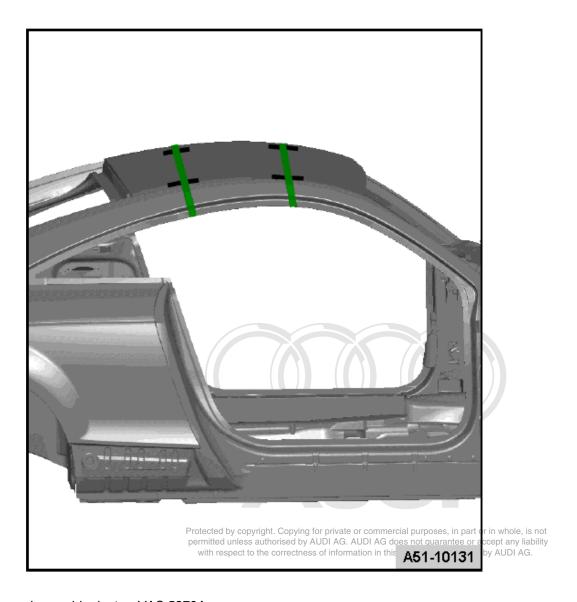
Apply adhesive beads to roof side members with pneumatic glue gun -V.A.G 2005  $\mbox{\ensuremath{B}\xspace}$  .



- Tension two tensioning straps -T10038- across the roof.
- Use a plastic wedge to obtain the required depth.

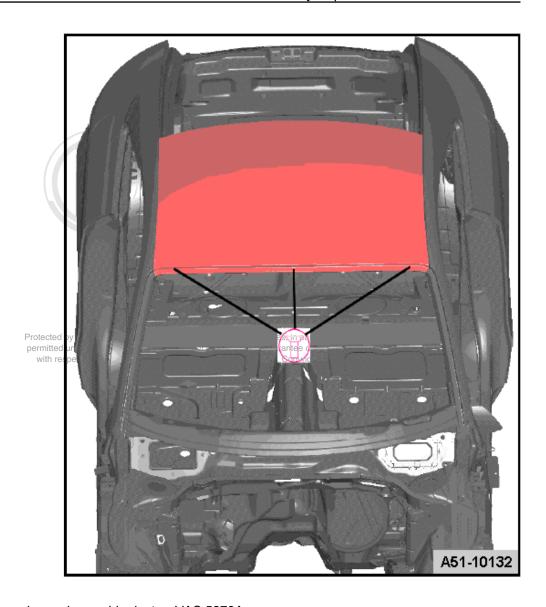


To avoid damage to the centre roof section or side panel frame, the tensioning straps should not be too tight.



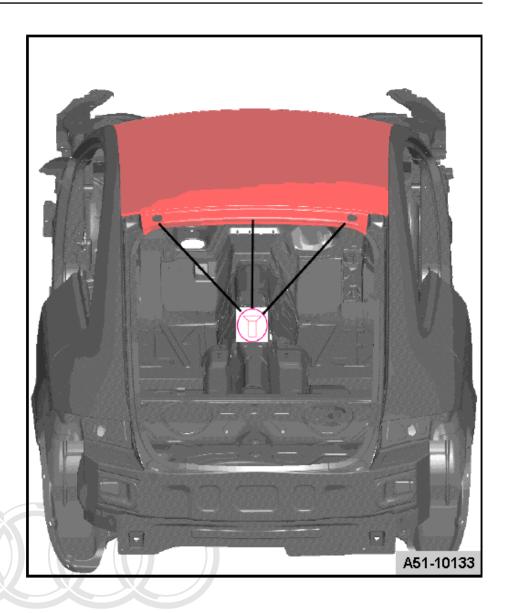
Rivet in roof at front using rechargeable riveter -VAS 5279A-.

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from - VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16 .



- Rivet in roof at rear using rechargeable riveter -VAS 5279A- .

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from - VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16 .





# Note

- After completing the riveted joint, 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).

  Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not 

  Do not continue working on the vehicle until the curing time any liability 
  with respect to the contentess of information in this document. Copyright by AUDI AG. has elapsed.

Fit roof support in pre-drilled holes.





RO: 51 35 55 00

#### 2 Roof side member - Renewal



#### WARNING

Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.

The repair "Foam-filling roof side member" must be entered in the Service record section of the Service Schedule under Workshop remarks.

#### 2.1 Tools



#### **WARNING**

When renewing the roof side member, a structural foam must be applied on vehicles up to chassis number TRUZZZ8JZ81044000 to provide reinforcement for a roof carrier.

It is important to keep exactly to the specified sequence.

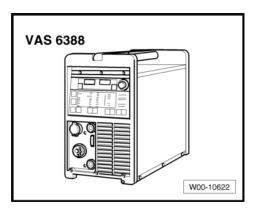


#### Note

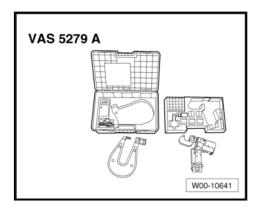
- ♦ After applying the foam fill, the vehicle must be left standing for private or commercial purposes, in part or in whole, is not on a flat surface for 24 hours at a room temperature of 15 b (AUDI AG. AUDI AG does not guarantee or accept any liability to allow the epoxy hard foam to harden (curring time) e correctness of information in this document. Copyright by AUDI AG.
- ♦ Do not continue working on the vehicle until the curing time has elapsed.

#### Special tools and workshop equipment required

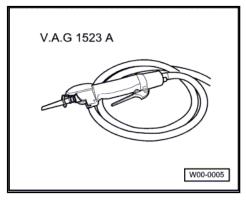
Shielded arc welding equipment 250A -VAS 6388-



♦ Rechargeable riveter -VAS 5279A-



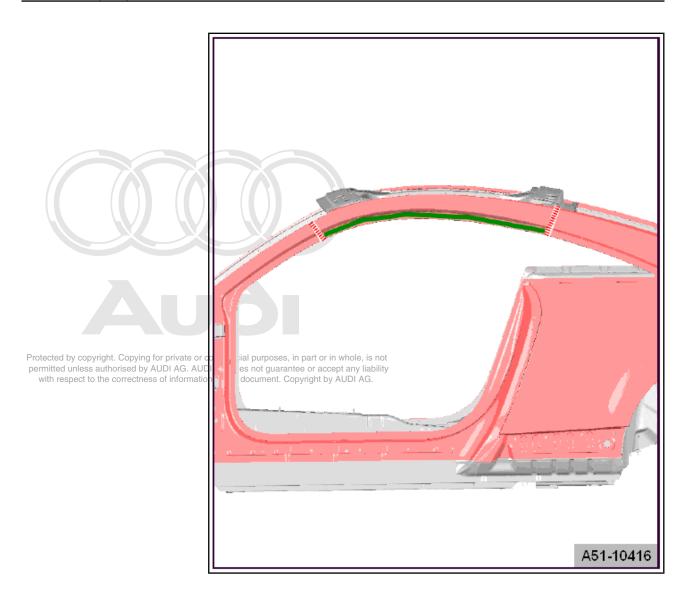
♦ Pneumatic sabre saw -V.A.G 1523A-



#### 2.2 Procedure

Left roof side member foam-filled: yes / no Right roof side member foam-filled: yes / no Cutting locations

- Separate original joint with rechargeable riveter -VAS 5279A-.
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and D14.
- Remove small punch rivets. Use rechargeable riveter -VAS
   5279A- with attachments S1 and E2 from -VAS 5279/2 or
   rechargeable riveter -VAS 5279B- with attachments is an expected by copyright. Copying for private or commercial purposes, in part or in whole, is not rechargeable riveter -VAS 5279B- with attachments is an expected by AUDI AG. AUDI AG does not guarantee or accept any liability E2.
- Make separating cuts using pneumatic sabre saw -V.A.G 1523A- .



#### Replacement part

◆ Roof side member (sub-part)

#### Preparing new part

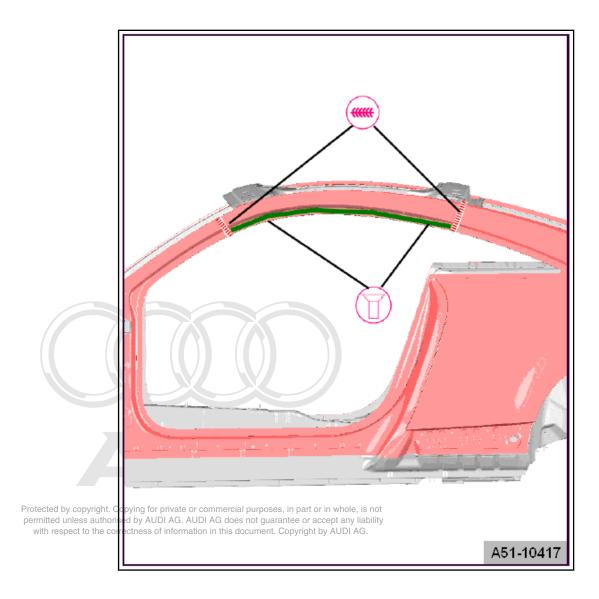
Prepare new part for riveting.

#### Riveting in

Rivet in roof side member using rechargeable riveter -VAS 5279A- .

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16 .

Weld in roof side member using shielded arc welding equipment 250A -VAS 6388-: SG continuous seam.



# 2.3 Foam-filling roof side member

## 2.3.1 Procedure

The repair "Foam-filling roof side member" must be entered in the Service record section of the Service Schedule under Workshop remarks.

Left roof side member foam-filled: yes / no Right roof side member foam-filled: yes / no



#### Note

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



#### Note

The instructions listed here apply to the left side of the vehicle. The procedure for the right side is similar.

#### It is important to keep exactly to the procedure as described:

Heat the cartridge of structural foam material for 30 minutes in a water bath at a constant temperature of approx. 60 °C.

The cartridge can also be heated at 60° C in a suitable oven, if available.

Remove inner A-pillar trim.

Remove roof trim strips.

Mask rivet holes with commercially available adhesive tape.

Prepare static mixer for foaming operation.

Fill holes with foam and then immediately re-fit bolts.

Install inner A-pillar trim.

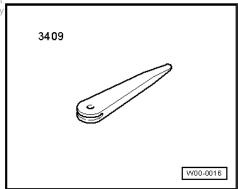
Install roof trim strips.

#### Replacement parts

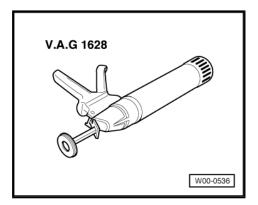
- ♦ 4 x 2-component epoxy hard foam -D 506 110 A2-
- ♦ 22x pop rivet N 910 197 01

#### Special tools and workshop equipment required

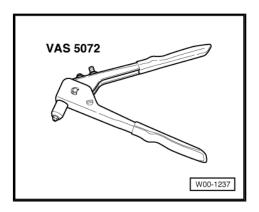
- Drill -VAS 5830-
- Copying for private or commercial purposes, in part or in whole, is not
- Removalitwedge a 34091 by AUDI AG. AUDI AG does not guarantee or accept any liability the correctness of information in this document. Copyright by AUDI AG.



Hand-cartridge gun -V.A.G 1628-



♦ Pop rivet pliers -VAS 5072-



 Heat the cartridge of structural foam material for 30 minutes in a water bath at a constant temperature of approx. 60 °C.

The cartridge can also be heated at  $60^{\circ}$  C in a suitable oven, if available.

# 1 - Cartridge of 2-component structural foam material

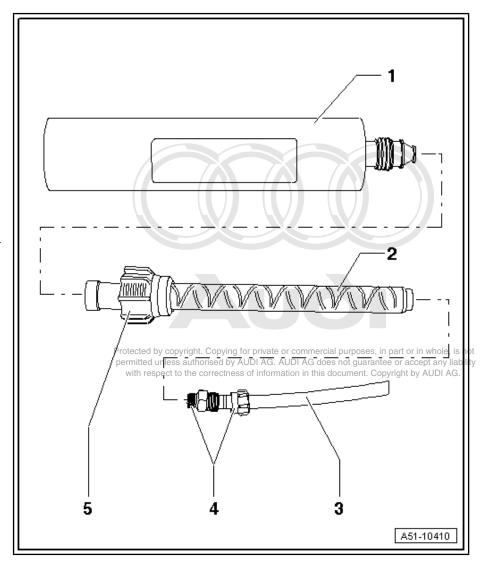
- Open cap.
- 2 Static mixer
- 3 Extension hose
- 4 Adapter



Note

#### 5 - Union nut

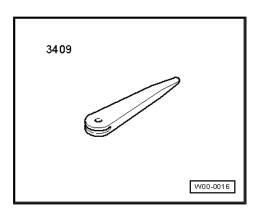
 Screw onto structural foam cartridge -1- together with static mixer -2-.



Removing upper A-pillar trim

Special tools and workshop equipment required

♦ Removal wedge -3409-



#### Removing

- Unclip C-pillar trim -1- in area adjacent to upper A-pillar trim -2-.
- Starting at top, unclip upper A-pillar trim -2- using removal wedge -3409- .
- Lift out upper A-pillar trim -2-.

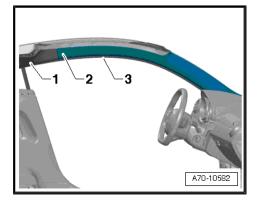
#### Installing

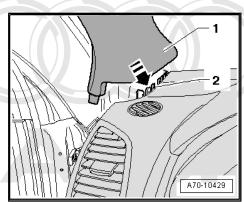
Install in reverse sequence. Note the following:



#### Note

- ♦ If any trim clips remain seated in the body mounting points, they should be removed and re-fitted in the trim.
- Check the clips for damage or deformation and renew if necessary.
- Start by inserting upper A-pillar trim -1- in ribbed section of dash panel -2- in direction of -arrow-.

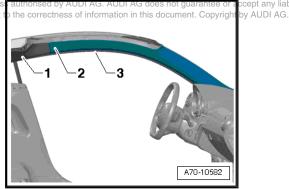




Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not partially authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

 Clip upper A-pillar trim -2- into place and fold lip of door sealted unle -3- over upper A-pillar trim -2-.

#### Removing roof trim strip





Removal of the roof trim strip does not involve removing the side window.

#### 1 - Roof trim strip



#### Note

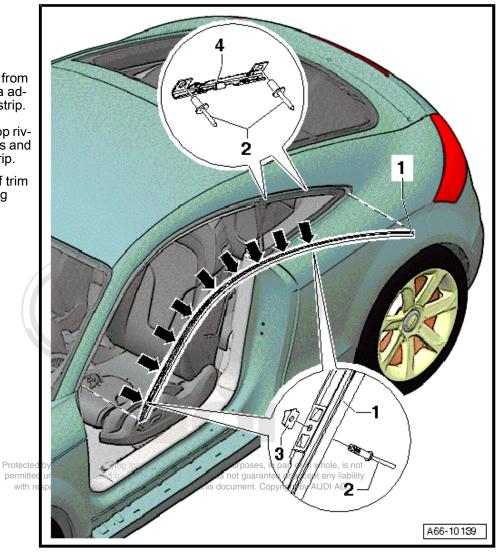
- Detach door seals from body flange in area adjacent to roof trim strip.
- Drill off heads of pop rivets, knock out rivets and detach roof trim strip.
- ☐ Carefully prise roof trim strip out of retaining clips and detach.

#### 2 - Pop rivet

- □ 11x
- 3 Side panel

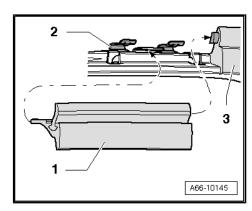
#### 4 - Retaining clip

□ 4x



#### End piece for roof trim strip

When fitting, first slide roof trim strip -1- into moulding on side window and then press into retaining clip -2-.



#### 2.3.2 Injecting structural foam

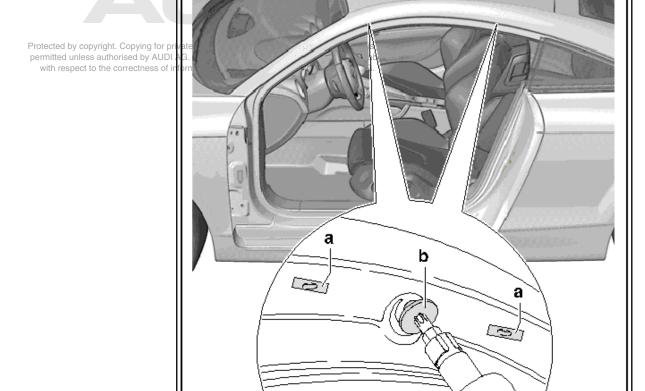


Note

Use 1 static mixer tube for all 4 openings.

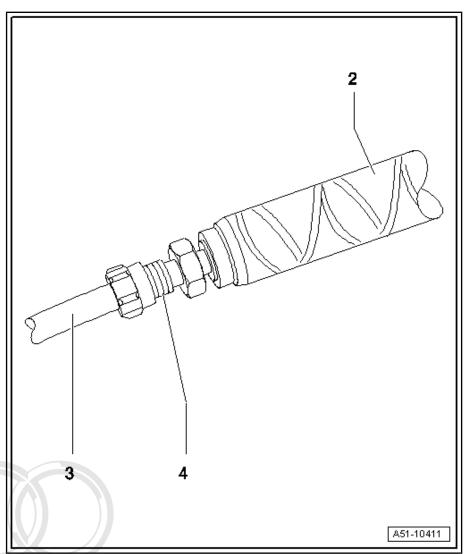
Remove screws -b- from roof side member.

Mask off adjacent rivet holes with commercially available adhesive tape -a-.

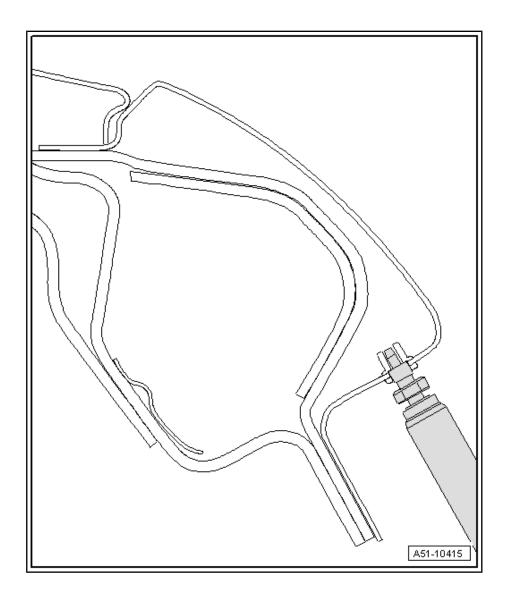


A51-10409

- 1 Remove hose -3- (supplied with cartridge) from nozzle.
- 2 Screw nozzle -4- into static mixer tube -2-.

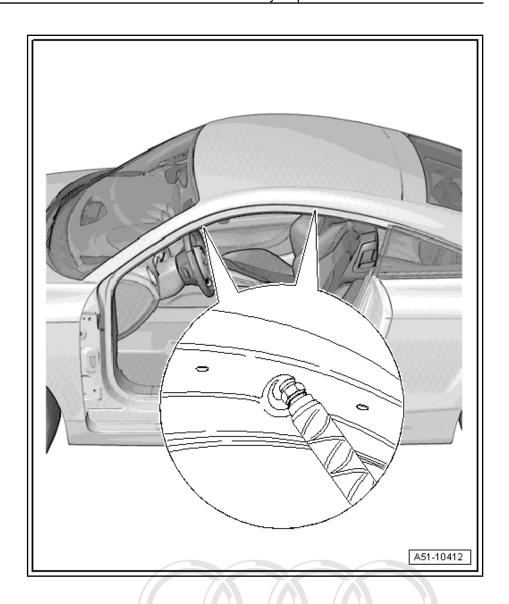


 Apply hand cartridge gun -V.A.G 1628- perpendicular to roof side member.



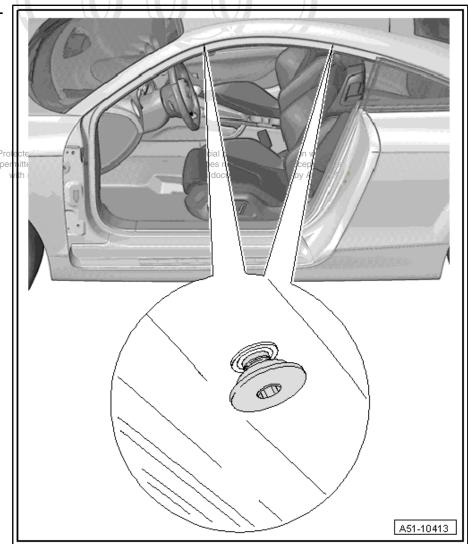
Inject the contents of one 2-component epoxy hard foam cartridge into each bolt hole.



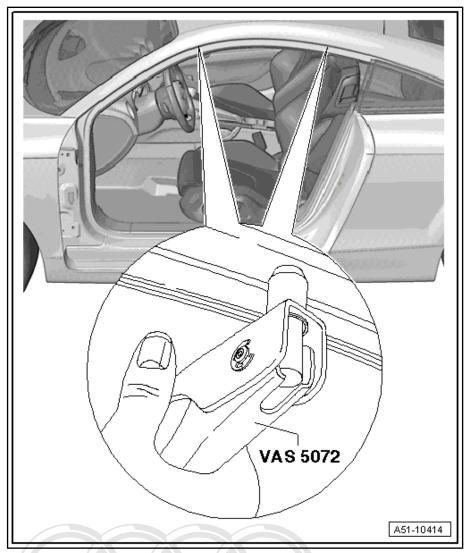




1 - Re-fit bolts immediately after filling with foam.



1 - After filling, rivet in roof trim strip using pop rivet pliers -VAS 5072- .





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

RO: 51 06 55 00

#### 3 Outer roof frame - Renewal (Roadster)



**WARNING** 

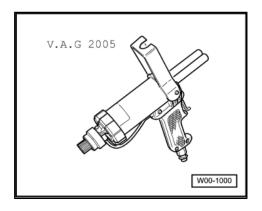
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.

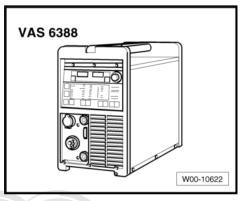
#### 3.1 **Tools**

#### Special tools and workshop equipment required

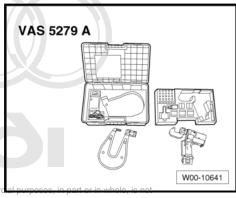
♦ Pneumatic glue gun -V.A.G 2005 B-



Shielded arc welding equipment 250A -VAS 6388-



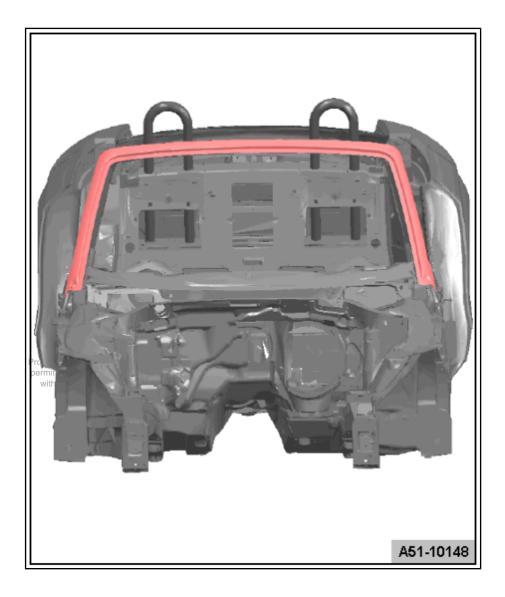
Rechargeable riveter -VAS 5279A-



#### 3.2 **Procedure**

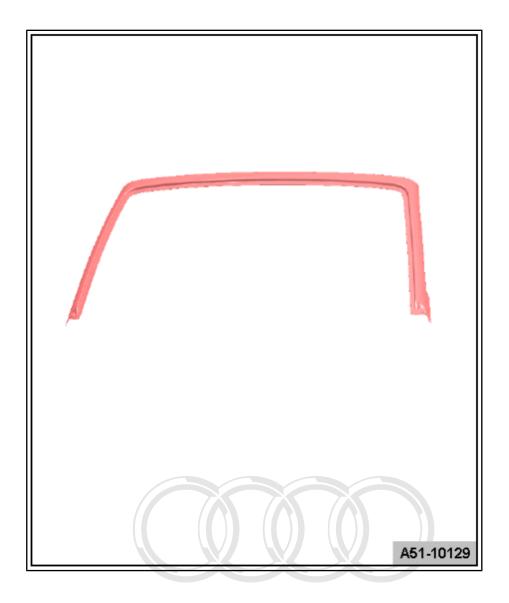
### **Cutting locations**

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



#### Replacement part

- Outer roof frame
- Punch rivets (self-piercing rivets)
- ♦ Body adhesive DA 001 730 A2



### Preparing new part

- Use a brush to apply aluminium primer DA 009 801 to bonding locations.
- Apply 2-component adhesive DA 001 730 A2 to entire riveting area.

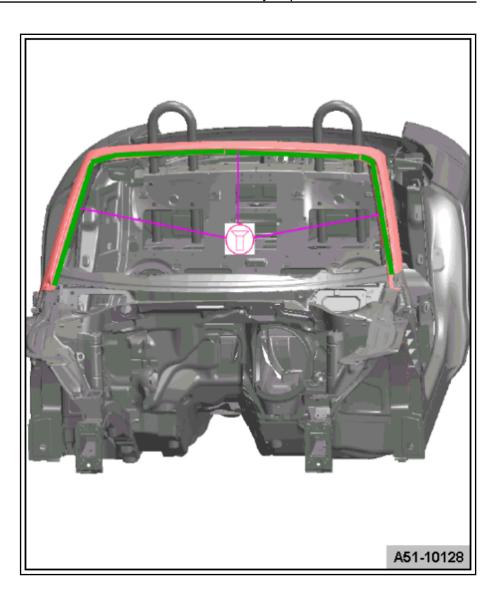
Prepare new part for riveting.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

### Riveting in

Rivet in roof frame at front using rechargeable riveter -VAS 5279A- .

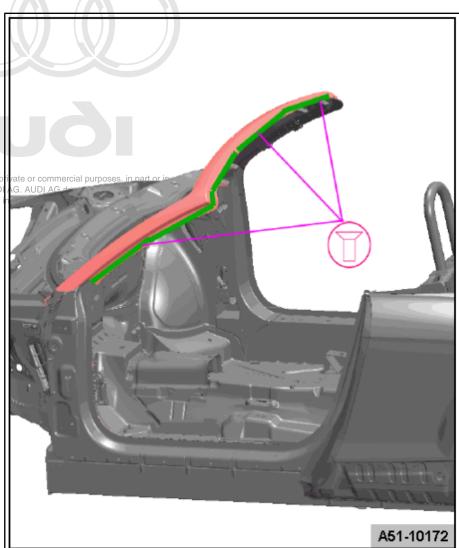
Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from - VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16 .



Rivet in roof frame using rechargeable riveter -VAS 5279A- .

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from - VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16 .





RO: 51 07 55 50

# 4 Front roof cross member - Renewal



WARNING

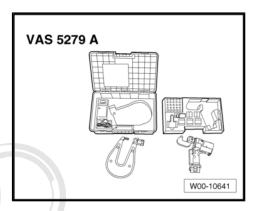
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.

#### 4.1 Tools

Special tools and workshop equipment required

♦ Rechargeable riveter -VAS 5279A-



◆ Pneumatic sabre saw -V.A.G 1523A-



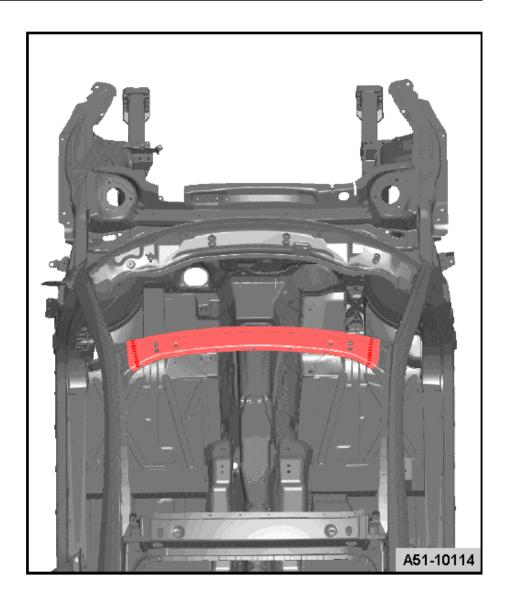
Protected by copyright. Copying for private or commercial purposes, permitted unless authorised by AUDI AG. AUDI AG does not guaran with respect to the correctness of information in this document. Co



# 4.2 Procedure

#### **Cutting locations**

- · Roof already removed
- Roughly cut out cross member using pneumatic sabre saw -V.A.G 1523A- .
- Separate original joint with rechargeable riveter -VAS 5279A-.
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and D14.
- Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments S1 and F2
- Remove remaining material.



## Replacement parts

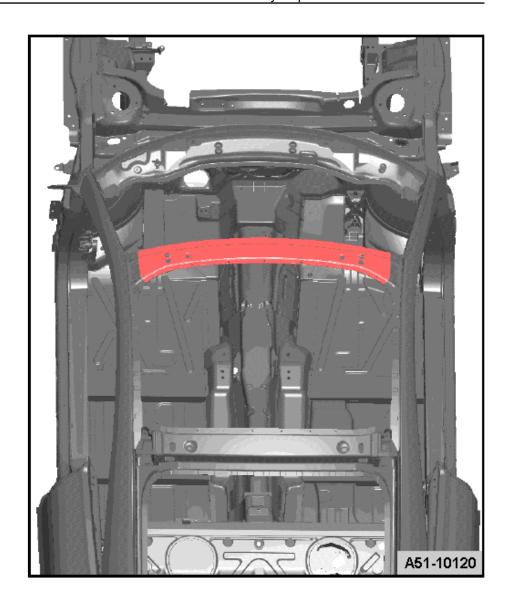
- Roof cross member
- Body adhesive DA 001 730 A2
- Use a brush to apply aluminium primer DA 009 801 to bonding locations.
- Apply 2-component adhesive DA 001 730 A2 to entire riveting

Prepare new part for riveting.

#### Riveting in

- Match up and fix new part in position.
- Rivet in roof cross member using rechargeable rivetent. VASIg for private or commercial purposes, in part or in whole, is not 5279A-. permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability t to the correctness of information in this document. Copyright by AUDI AG.

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from - VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16.



RO: 51 09 55 50

# 5 Rear roof frame - Renewal



#### **WARNING**

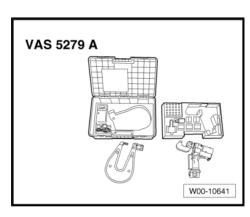
Always observe safety precautions.

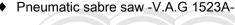
Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes .

# 5.1 Tools

#### Special tools and workshop equipment required

♦ Rechargeable riveter -VAS 5279A-

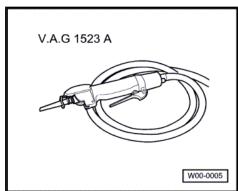


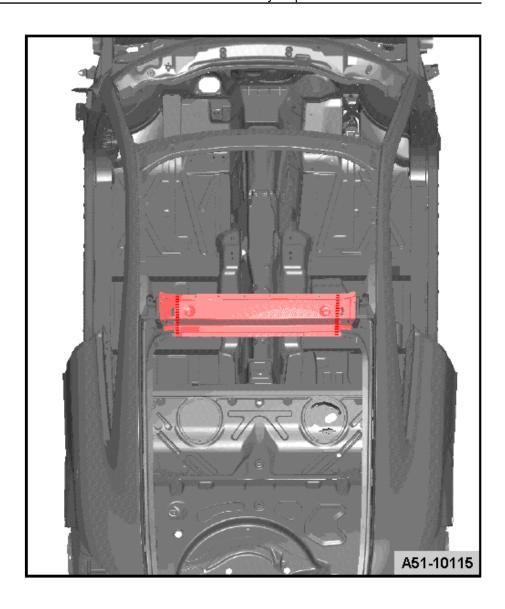






- · Roof already removed
- Separate original joint with rechargeable riveter -VAS 5279A-.
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and D14.
- Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 or rechargeable riveter -VAS 5279B- with attachments S1 and E2.
- Roughly cut out rear roof frame using pneumatic sabre saw -V.A.G 1523A- .
- Remove remaining material using compact angle grinder -VAS 5167- .

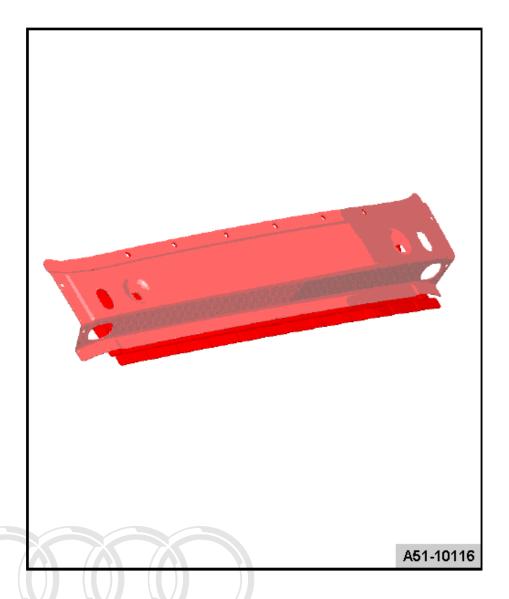




# Replacement parts

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



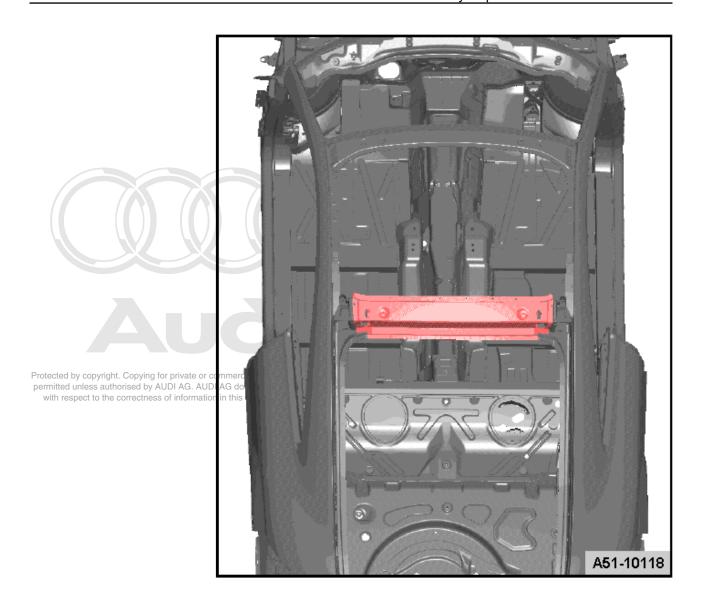


- Use a brush to apply aluminium primer DA 009 801 to bonding locations.
- Apply 2-component adhesive DA 001 730 A2 to entire riveting area.

#### Riveting in

- Match up and fix new part in position.
- Rivet in roof frame using rechargeable riveter -VAS 5279A- .

Countersink holes working inwards from outside Use recharge or accept any liability able riveter -VAS 5279A with attachments D15 and D16 from vight by AUDI AG. VAS 5279/2 - D15 and D16 from vight by AUDI AG. attachments D15 and D16.



RO: 51 37 55 00

# 6 Outer A-pillar - Renewal



#### **WARNING**

Always observe safety precautions.

Safety notes  $\Rightarrow$  General Information; Body Repairs, General Body Repairs; Safety notes .

### 6.1 Tools

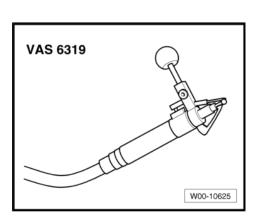
### Special tools and workshop equipment required

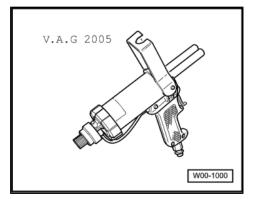
♦ Laser weld seam grinder -VAS 6319-



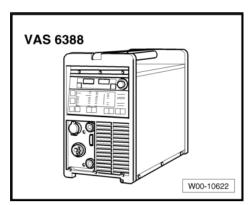
♦ Pneumatic glue gun -V.A.G 2005 B-





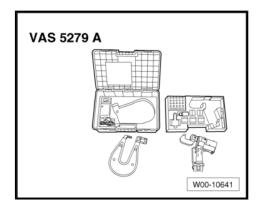


♦ Shielded arc welding equipment 250A -VAS 6388-

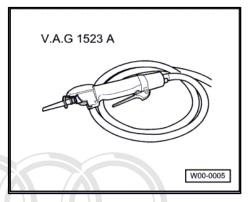


- ♦ Rechargeable riveter -VAS 5279A-
- When using the rechargeable riveter -VAS 5279A-, the attachment set -VAS 5279/2 is also required.

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



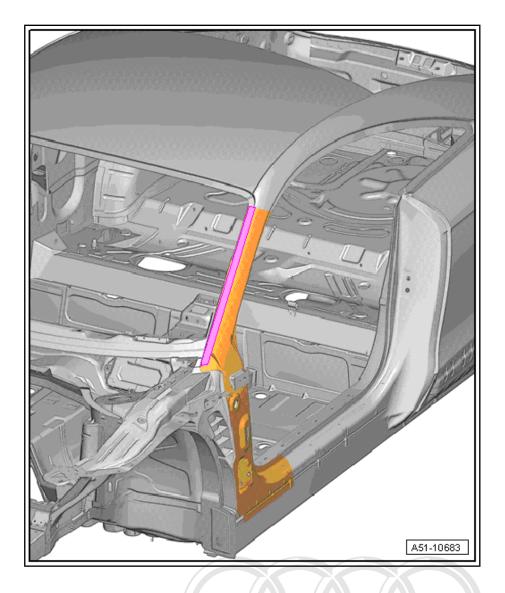
♦ Pneumatic sabre saw -V.A.G 1523A-



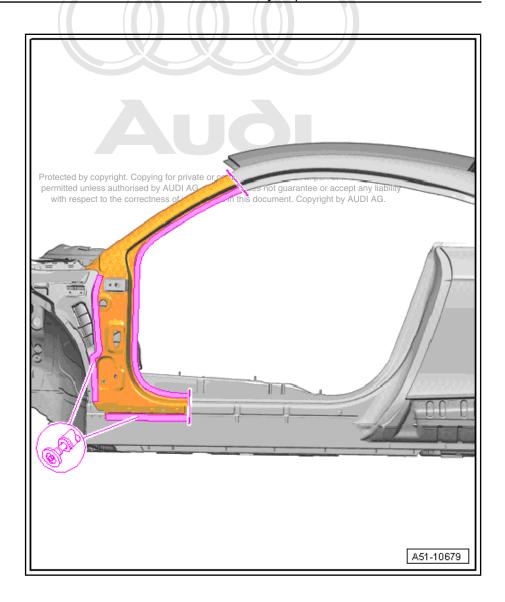
#### 6.2 **Procedure**

### **Cutting locations**

- Separate original joint with rechargeable riveter -VAS 5279A-.
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and
- Remove small punch rivets. Use rechargeable riveter  $VAS_g$  for private or commercial purposes, in part or in whole, is not 5279A- with attachments S1 and E2 from  $VAS_g S279/2 = 0$  by AUDI AG. AUDI AG does not guarantee or accept any liability and the statements S1 and E2 from  $VAS_g S279/2 = 0$  by AUDI AG. AUDI AG does not guarantee or accept any liability and  $VAS_g S279/2 = 0$  by AUDI AG. AU rechargeable riveter -VAS 5279B- with attachments Sarandess of information in this document. Copyright by AUDI AG.
- Remove remaining material using compact angle grinder -VAS 5167-.



- Separate original joint with rechargeable riveter -VAS 5279A-.
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and D14.
- Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 or rechargeable riveter -VAS 5279B- with attachments S1 and E2.
- Make separating cuts as shown using pneumatic sabre saw -V.A.G 1523A- .
  - Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability
- Remove remaining material using compact angle grinder respect to the correctness of information in this document. Copyright by AUDI AG. VAS 5167-.
- Grind open laser weld seams in area around side member using laser weld seam grinder -VAS 6319- .



- Carefully separate A-pillar from vehicle using a flat chisel.
- Take A-pillar out of vehicle.



#### Caution

Avoid making excessively deep cuts. Components remaining in the vehicle could otherwise be damaged or broken off.

### Preparing new part

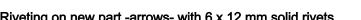
- With no load on vehicle, position and match up new part and clamp in place.
- Detach new part.
- Grind new part down to bare metal in welding area.
- Clean new part.

# Preparing body

- Grind body down to bare metal in welding area.
- Make weld pool backing and insert at cutting locations.

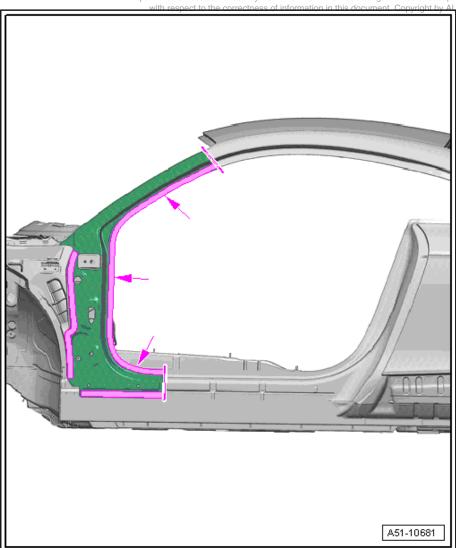
#### Inserting new part

- Prepare bonding area with silicate stone DA 009 800 and clean.
- Use a brush to apply aluminium primer DA 009 801 to bonding locations.
- Apply 2-component adhesive DA 001 730 A2 to entire riveting area and wheel housing.
- Position new part and fix in place.
- Position new part and fix in place with portal gauge.
- Working outwards, make suitable 5 mm holes in area of aluminium solid rivets.
- Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from -VAS 5279/2 - or rechargeable riveter -VAS 5279Bwith attachments D15 and D16.
- Flatten riveting areas. Use rechargeable riveter -VAS 5279Awith attachments D8 or D17 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D8 or D17.

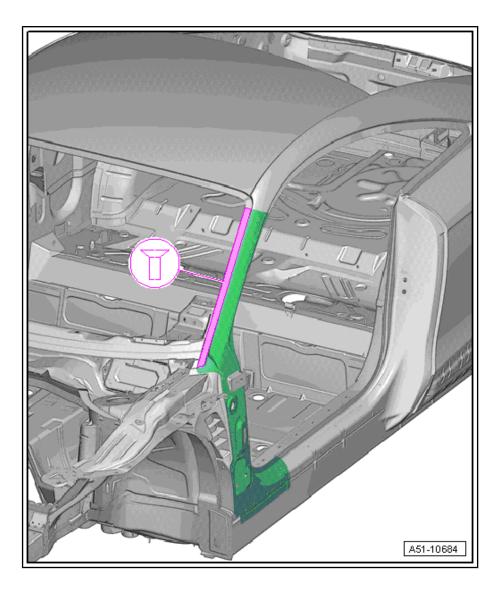


Riveting on new part -arrows- with 6 x 12 mm solid rivets

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability



Flatten riveting areas. Use rechargeable riveter -VAS 5279A-with attachments D8 or D17 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D8 or D17.





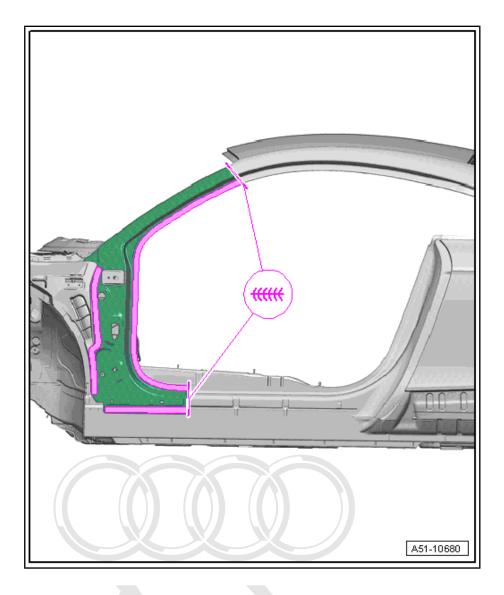
#### Caution

If the roof frame is also being renewed, repair work is performed entirely with 5.3 x 7.5 punch rivets.

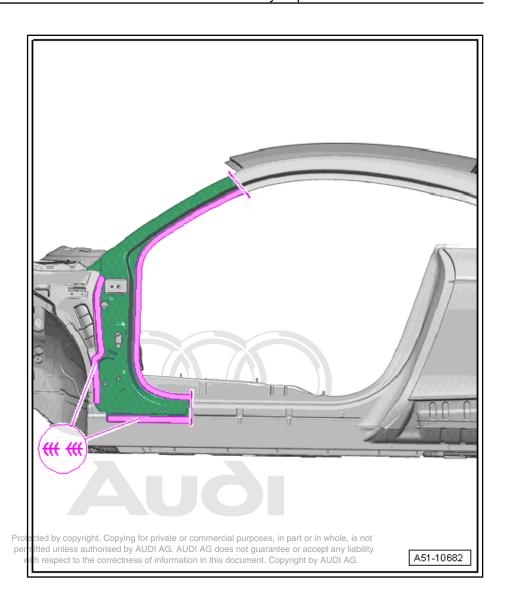
# Welding in new part

Weld in at separating cuts using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.





Weld in A-pillar using shielded arc welding equipment 250A - VAS 6388- : SG continuous seam (staggered - with gaps).



RO: 51 38 55 50

#### Reinforcement tube and inner A-pillar 7 - Renewal (Roadster)



### **WARNING**

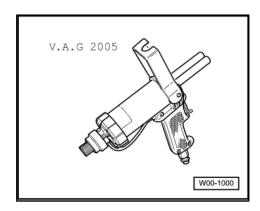
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.

#### 7.1 **Tools**

### Special tools and workshop equipment required

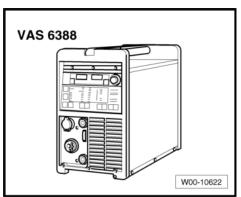
- ♦ Grinder -VAS 5170-
- Pneumatic glue gun -V.A.G 2005 B-

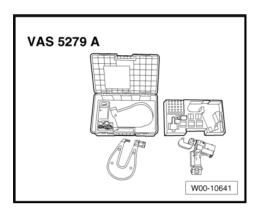


Shielded arc welding equipment 250A -VAS 6388-



Rechargeable riveter -VAS 5279A-

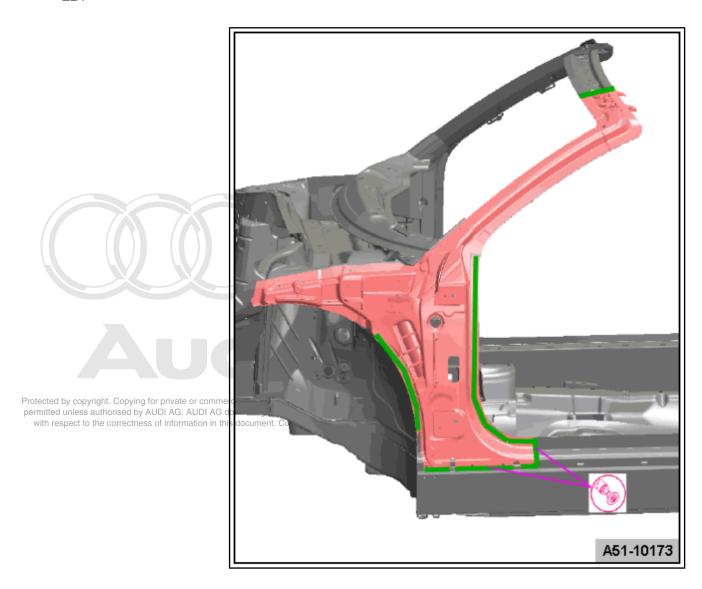




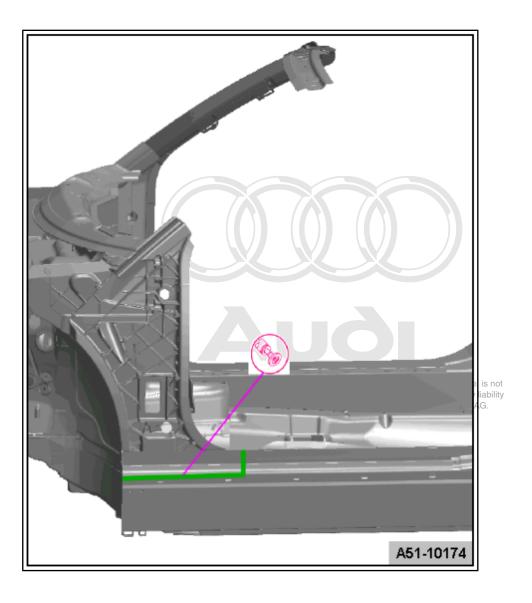
# 7.2 Procedure

#### **Cutting locations**

- · Outer roof frame already removed
- · Inner roof frame already removed
- Outer A-pillar already removed
- · Wing mounting flange already removed
- Grind down weld seams using grinder -VAS 5170- .
- Separate original joint with rechargeable riveter -VAS 5279A-.
- Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and D14.
- Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments S1 and E2.

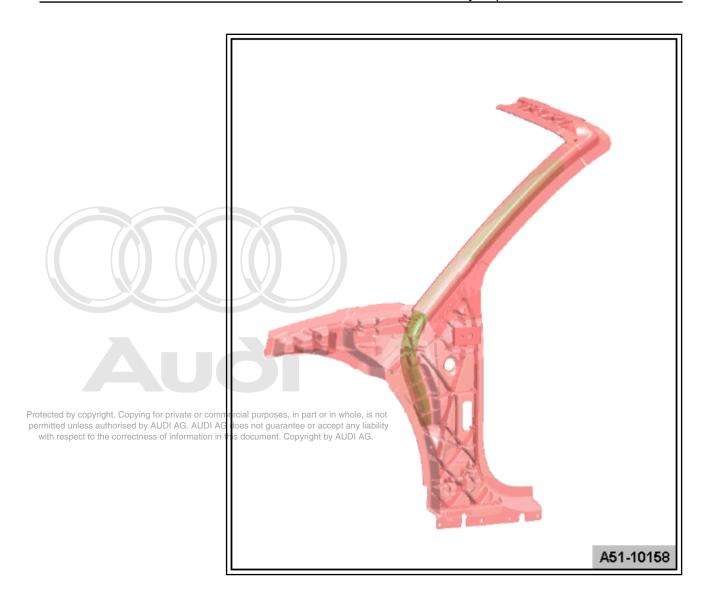


- Remove remaining material using grinder -VAS 5170-.



# Replacement part

- ♦ A-pillar with reinforcement tube
- Punch rivets (self-piercing rivets)
- Body adhesive DA 001 730 A2



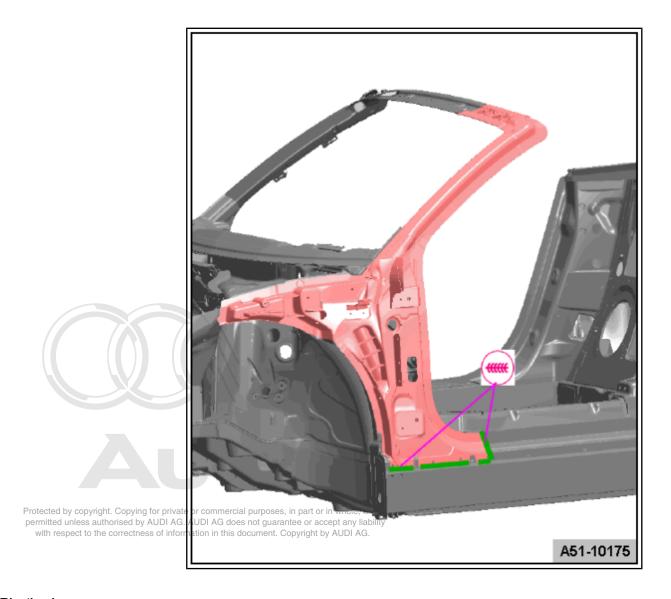
# Preparing new part

- Prepare new part for riveting and welding.

# Welding in

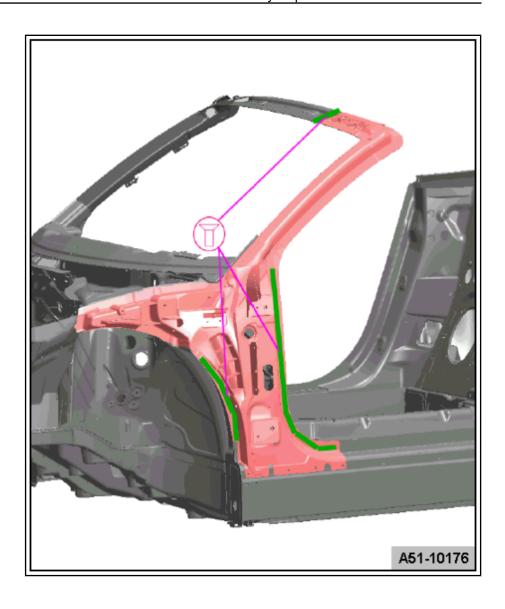
Fix A-pillar on portal gauge.

Weld in new part using shielded arc welding equipment 250A
 -VAS 6388-: SG continuous seam.



# Riveting in

- Rivet in new part using rechargeable riveter -VAS 5279A- .
- Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from -VAS 5279/2 or rechargeable riveter -VAS 5279Bwith attachments D15 and D16.





RO: 51 38 55 50

#### Inner A-pillar - Renewal (Coupé and 8 Roadster)



**WARNING** 

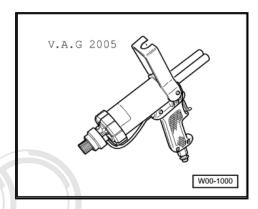
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.

#### 8.1 **Tools**

#### Special tools and workshop equipment required

- ♦ Drill -VAS 5830-
- Grinder -VAS 5170-
- Pneumatic glue gun -V.A.G 2005 B-



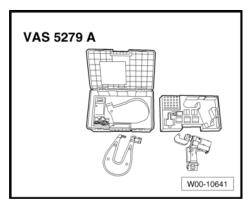
Shielded arc welding equipment 250A -VAS 6388-



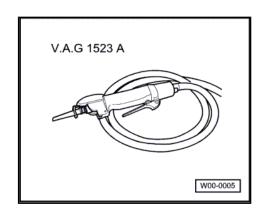
Protected by copyright. Copying for private or commercial purpos permitted unless authorised by AUDI AG. AUDI AG does not gu with respect to the correctness of information in this documen



Rechargeable riveter -VAS 5279A-



♦ Pneumatic sabre saw -V.A.G 1523A-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permanaged by 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.

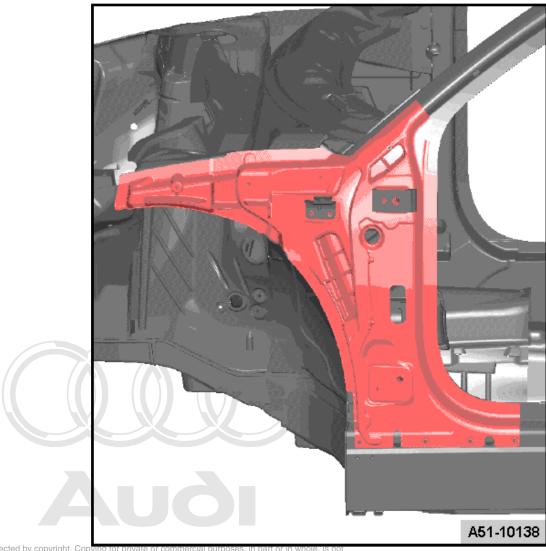
#### **Cutting locations**

- Outer A-pillar already cut out.
- · Longitudinal member (top section) already removed
- Separate original joint with rechargeable riveter -VAS 5279A-.

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

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

- Remove remaining material using grinder -VAS 5170- .
- Knock out bolts from outside.



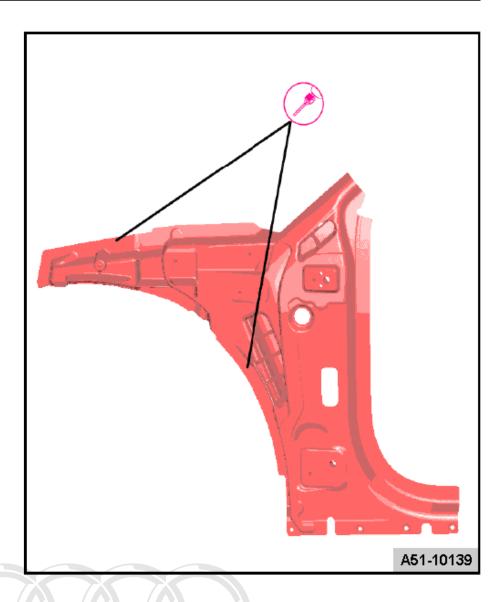
permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

# Replacement part

♦ Inner A-pillar

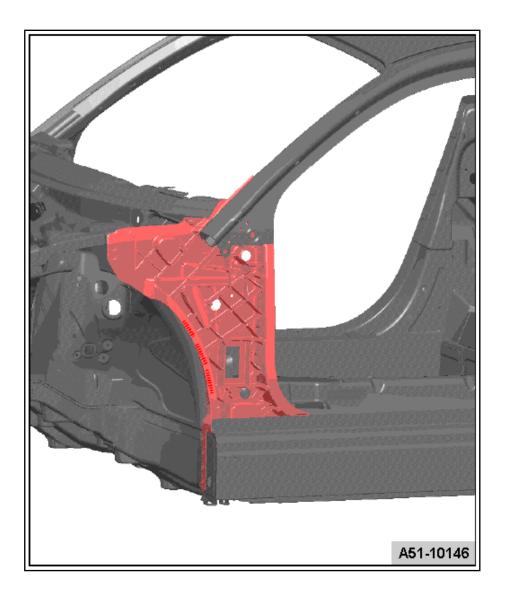
# Preparing new part

Drill holes for rivets using drill -VAS 5830- .



Reinforcement for inner A-pillar: prepare elongated holes for SG continuous seam.

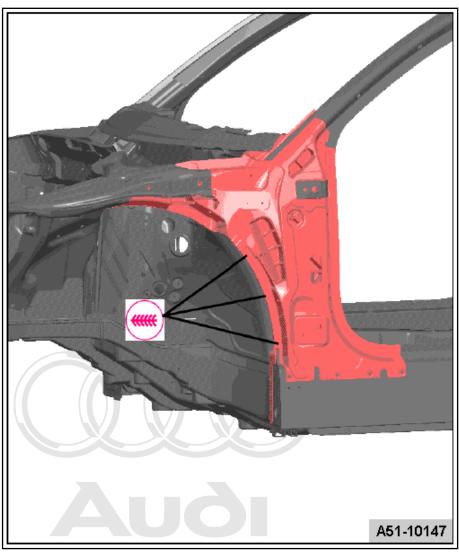




Weld in inner A-pillar at A-pillar reinforcement using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.

Fit pop rivet nuts (M5) in bolt holes.





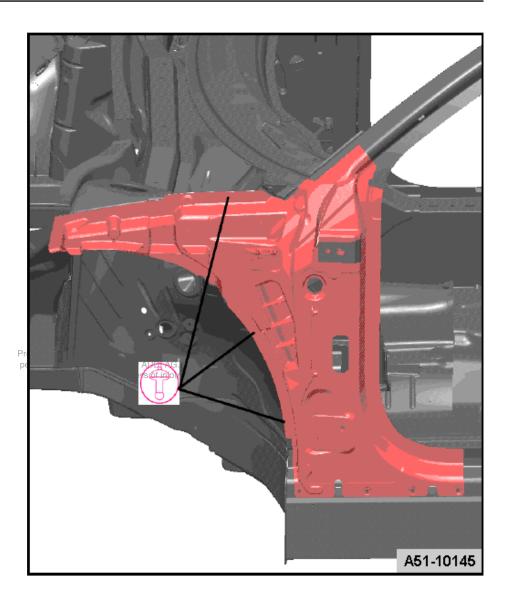
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

# Riveting in

- Position new part and fix in place with portal gauge.

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

 Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from -VAS 5279/2 - or rechargeable riveter -VAS 5279Bwith attachments D15 and D16.



RO: 51 42 55 50

# 9 Inner B-pillar - Renewal (Roadster)



#### **WARNING**

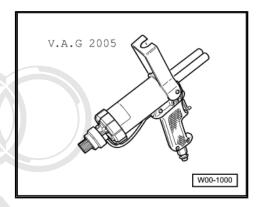
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes .

### 9.1 Tools

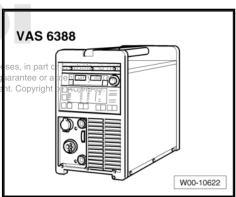
Special tools and workshop equipment required

- ♦ Drill -VAS 5830-
- ♦ Pneumatic glue gun -V.A.G 2005 B-

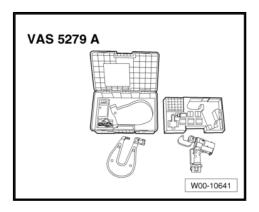


♦ Shielded arc welding equipment 250A -VAS 6388-

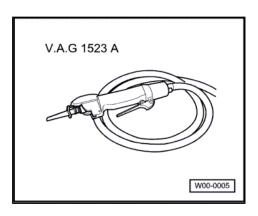
Protected by copyright. Copying for private or commercial purper permitted unless authorised by AUDI AG. AUDI AG does not go with respect to the correctness of information in this document



♦ Rechargeable riveter -VAS 5279A-



♦ Pneumatic sabre saw -V.A.G 1523A-



# 9.2 Procedure

#### **Cutting locations**

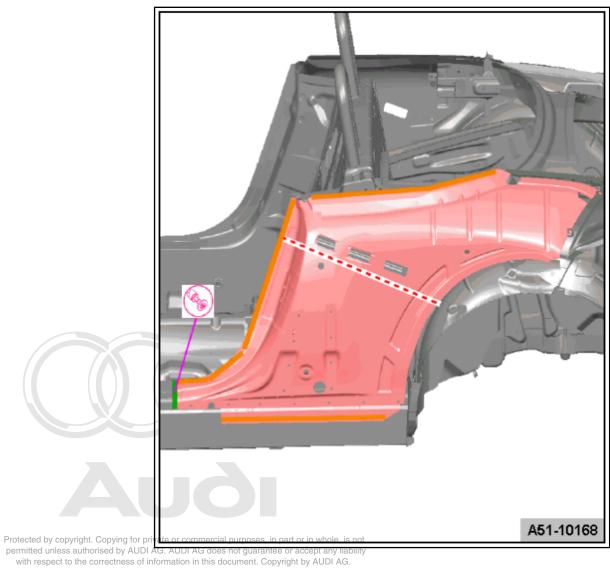
- Side panel already removed
- Roughly cut out B-pillar using pneumatic sabre saw -V.A.G 1523A- .
- Separate original joint with rechargeable riveter -VAS 5279A-.

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

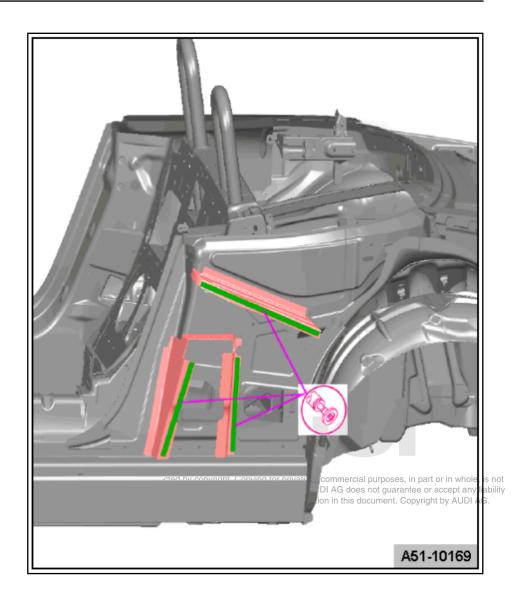
Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments S1 and E2 .

- Separate weld seams using compact angle grinder -VAS 5167- .
- Detach part.





Remove remaining material using compact angle grinder - VAS 5167- .

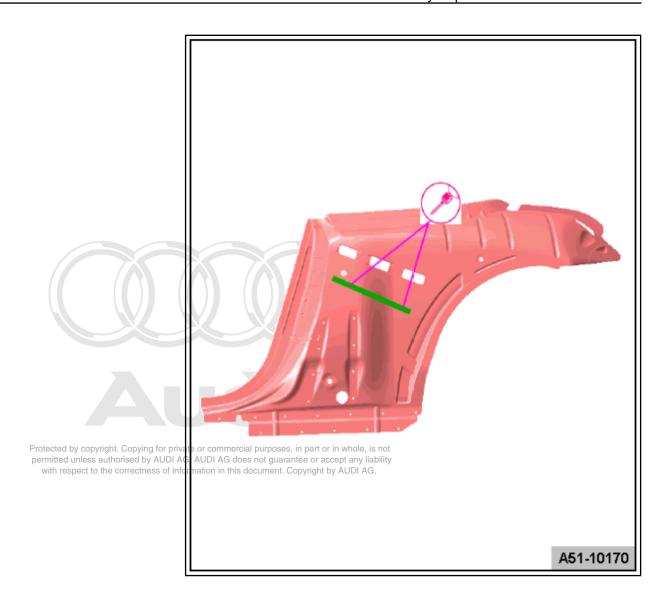


# Replacement part

- ♦ B-pillar
- Pop rivets
- Punch riveting
- Body adhesive DA 001 730 A2

# Preparing new part

Drill holes for rivets using drill -VAS 5830- .



## Riveting in

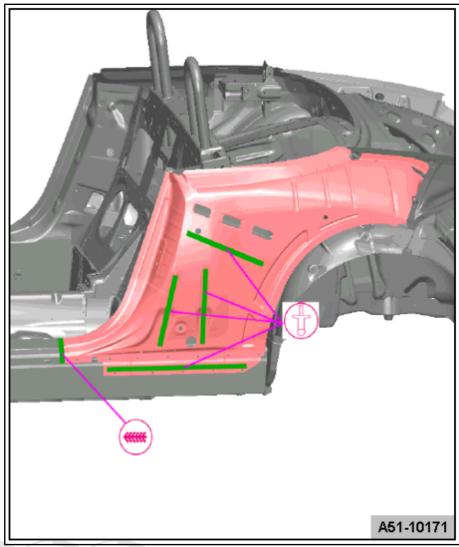
- Position new part and fix in place with portal gauge.
- Rivet in new part.



### Note

Rivet in new part with 4.8 x 9 mm aluminium pop rivets.

Weld in new part using shielded arc welding equipment 250A
 -VAS 6388-: SG continuous seam.





Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

RO: 51 45 55 00

## 10 Outer side member - Renewal



#### **WARNING**

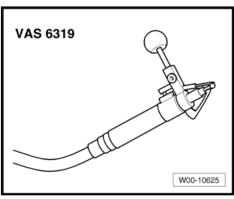
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes .

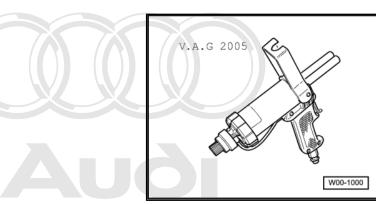
#### 10.1 Tools

### Special tools and workshop equipment required

♦ Laser weld seam grinder -VAS 6319-



♦ Pneumatic glue gun -V.A.G 2005 B-



♦ Shielded arc welding equipment 250 Ad by AST 1388 pying for private or community of the state of the state

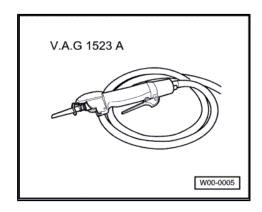


- ♦ Rechargeable riveter -VAS 5279A-
- ♦ When using the rechargeable riveter -VAS 5279A- , the attachment set -VAS 5279/2 is also required.

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



Pneumatic sabre saw -V.A.G 1523A-



#### 10.2 **Procedure**

#### **Cutting locations**

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



#### Note

- For inaccessible locations use C-bracket from rechargeable riveter -VAS 5279A- or rechargeable riveter -VAS 5279B- .
- Move the C-bracket into position before fitting the extension.

Mark out and make separating cuts using pneumatic sabre saw -V.A.G 1523A- .



#### Caution

Avoid making excessively deep cuts. Components remaining in the vehicle could otherwise be damaged or broken off.

- Grind open laser weld seams in area around side member using laser weld seam grinder -VAS 6319- .
- Carefully separate side member from vehicle using flat chisel.
- Take side member off vehicle.

#### Welding in new part

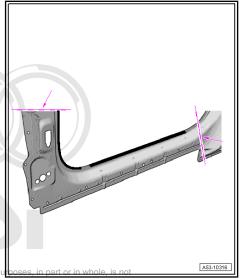
Rivet in new part with 6 x 12 mm aluminium rivets.

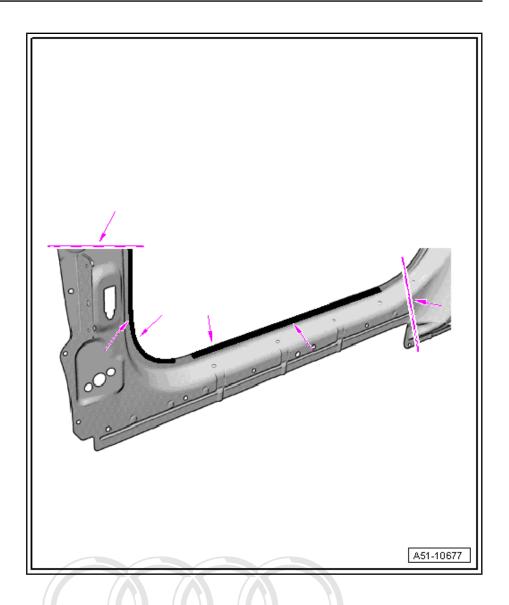
Countersink holes, working inwards from toutside I Use recommercial pu chargeable riveter -VAS 5279Ate with attachments D15/and does not guarantee or accept any liability D16 from -VAS 5279/2 - or rechargeable riveters VAS 5279Bthis document. Copyright by AUDI AG. with attachments D15 and D16.



#### Note

- The standard rivets are replaced with 12 mm solid rivets.
- At the A-pillar the two cast shells are additionally joined with two punch rivets before fitting the side member.





#### Preparing new part

- With no load on vehicle, position and match up new part and clamp in place.
- Transfer cutting lines from new part to body and mark.



#### Note

This prevents a gap forming between the two components.

- Detach new part.
   Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.
- Grind new part down to bare metal in welding area.
- Clean new part.
- Make final separating cuts on body as previously marked.



#### Caution

Avoid making excessively deep cuts. Components remaining in the vehicle could otherwise be damaged or broken off.

#### Preparing body

 Make backing plate of same material and insert at cutting locations.

#### Inserting new part



#### Note

At the A-pillar the two cast shells are additionally joined with two punch rivets before fitting the side member.

- Position new part and fix in place.
- Working outwards, make suitable 5 mm holes in area of aluminium solid rivets.
- Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from -VAS 5279/2 - or rechargeable riveter -VAS 5279Bwith attachments D15 and D16.
- Detach new part.
- Use a brush to apply aluminium primer DA 009 801 to bonding locations.
- Apply 2-component adhesive DA 001 730 A2 to entire riveting area and wheel housing.
- Position new part and fix in place.

#### Rivet in new part with 6 x 12 mm aluminium rivets.

Flatten riveting areas. Use rechargeable riveter -VAS 5279A-with attachments D8 or D17 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D8 or D17.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.





## Note

At the A-pillar the two cast shells are additionally joined with two punch rivets before fitting the side member.



### Note

Countersink the holes.



### Note

- For inaccessible locations use C-bracket from rechargeable riveter -VAS 5279A- or rechargeable riveter -VAS 5279B- .
- Move the C-bracket into position before fitting the extension.

#### Welding in new part



Note

As an alternative to welding, rivet on the new part at the separating cuts with 4.8 x 9 mm aluminium pop rivets.



#### **WARNING**

The body consists of a combination of steel and aluminium panels. In areas where the two materials meet, the aluminium parts must be carefully covered and protected when welding. This prevents contact corrosion caused by weld spatter and dust particles on the aluminium sections.

ite or commercial purposes, in part or in whole, is not a. AUDI AG does not guarantee or accept any liability

with respect to the correctness of information in this document. Copyright by AUDI AG.

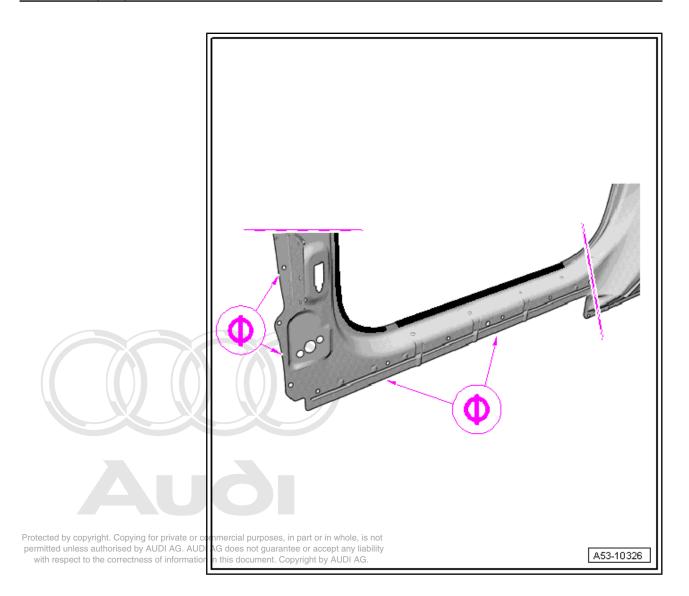


Note

As an alternative to welding, rivet on the new part at the separating cuts with 4.8 x 9 mm aluminium pop rivets.

#### Making stepped seam (stitch seam) in area of side member

 Weld in new part at separating cuts using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.



RO: 51 47 55 50

# 11 Inner side member - Partial renewal (old part section)



**WARNING** 

Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes .

#### 11.1 Tools

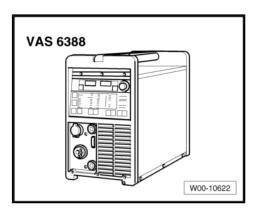
Special tools and workshop equipment required

♦ Pneumatic glue gun -V.A.G 2005 B-

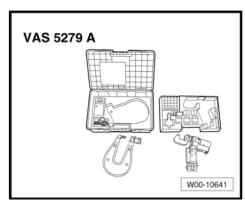
Protected by copyright. Copying for private or commercial purports permitted unless authorised by AUDI AG. AUDI AG does not guith respect to the correctness of information in this docume



♦ Shielded arc welding equipment 250A -VAS 6388-



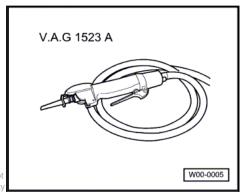
♦ Rechargeable riveter -VAS 5279A-



Pneumatic sabre saw -V.A.G 1523A-



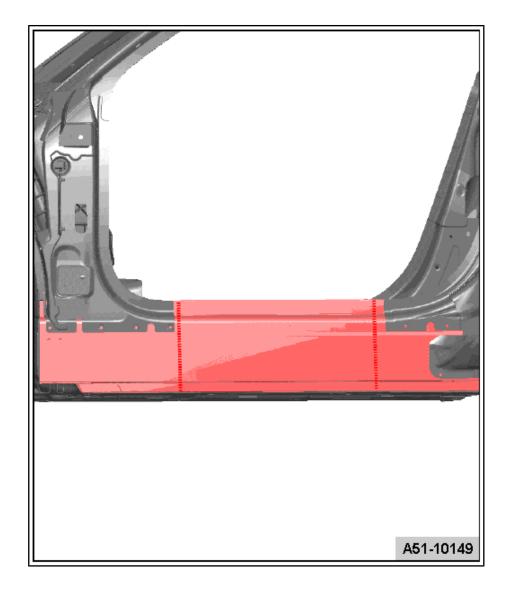
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



## 11.2 Procedure

### **Cutting locations**

- · Outer side member already removed
- Make separating cuts as shown using pneumatic sabre saw -V.A.G 1523A- .



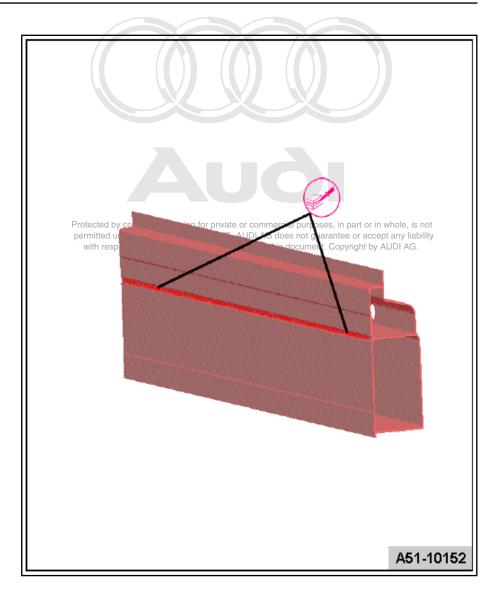
 Make separating cuts as shown using pneumatic sabre saw -V.A.G 1523A- .



- Prepare sub-part for welding.

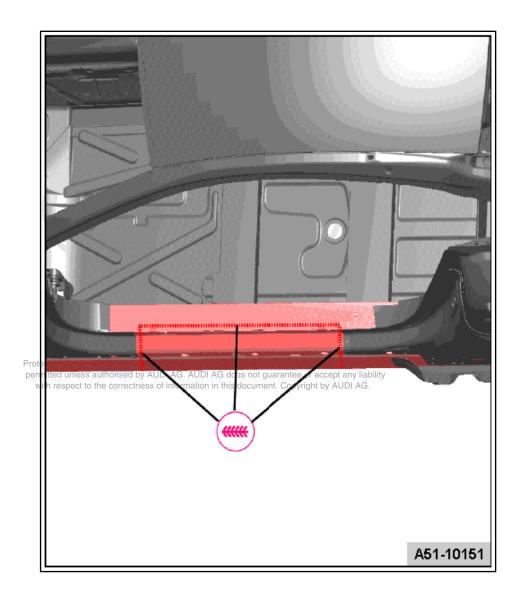
#### Replacement part

- ♦ 2-component body adhesive -DA 180 A00 A2-
- ◆ Inner side member (sub-part)
- Apply 2-component adhesive -DA 180 A00 A2- using pneumatic glue gun -V.A.G 2005 B- .



## Welding in

Weld in inner side member (sub-part) using shielded arc weld-ing equipment 250A -VAS 6388- : SG continuous seam.



RO: 51 47 55 50

# 12 Inner side member - Renewal (Road-ster)



**WARNING** 

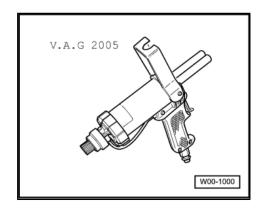
Always observe safety precautions.

Safety notes  $\Rightarrow$  General Information; Body Repairs, General Body Repairs; Safety notes .

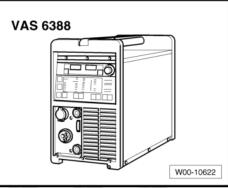
#### 12.1 Tools

#### Special tools and workshop equipment required

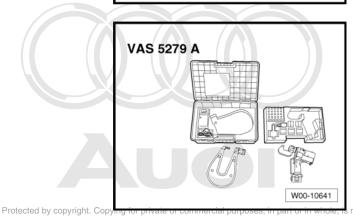
♦ Pneumatic glue gun -V.A.G 2005 B-



Shielded arc welding equipment 250A -VAS 6388-

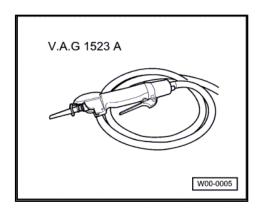


Rechargeable riveter -VAS 5279A-



permitted unless authorised by 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.

♦ Pneumatic sabre saw -V.A.G 1523A-



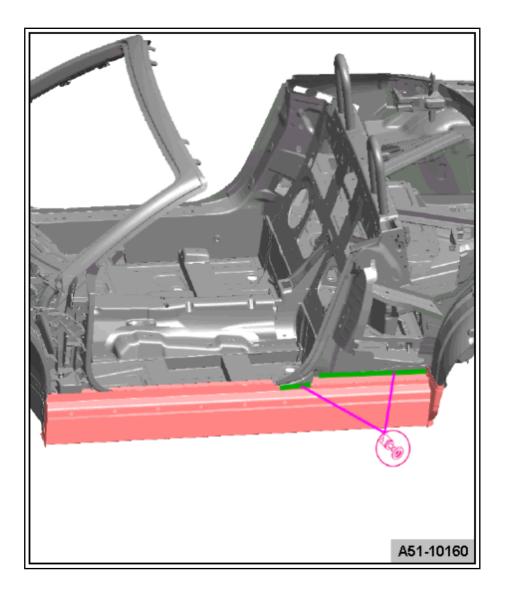
#### 12.2 **Procedure**

## **Cutting locations**

- Outer side member already removed
- Outer A-pillar already removed
- Inner A-pillar already removed
- Inner floor panel already removed
- Outer floor panel already removed
- Side panel already removed
- B-pillar already removed
- Separate original joint at side member using grinder -VAS 5170-.



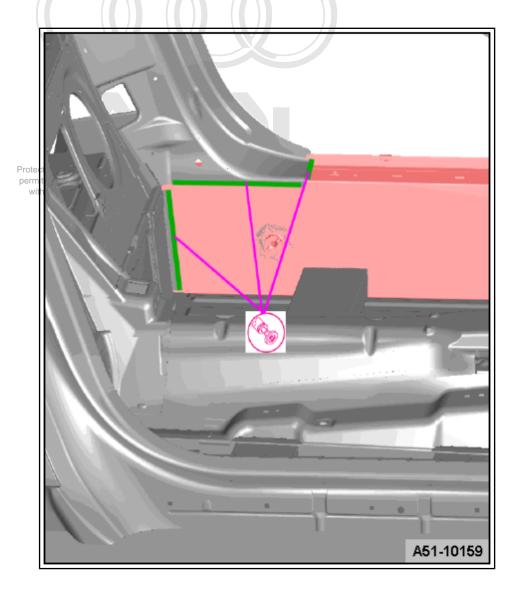
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



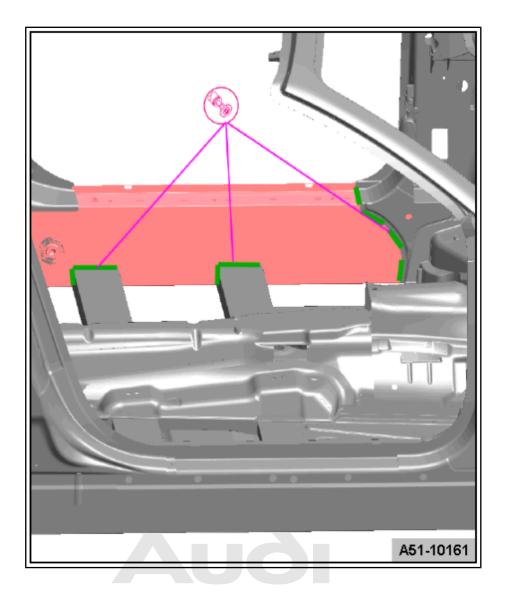
Separate original joint at inner side member using grinder - VAS 5170- .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

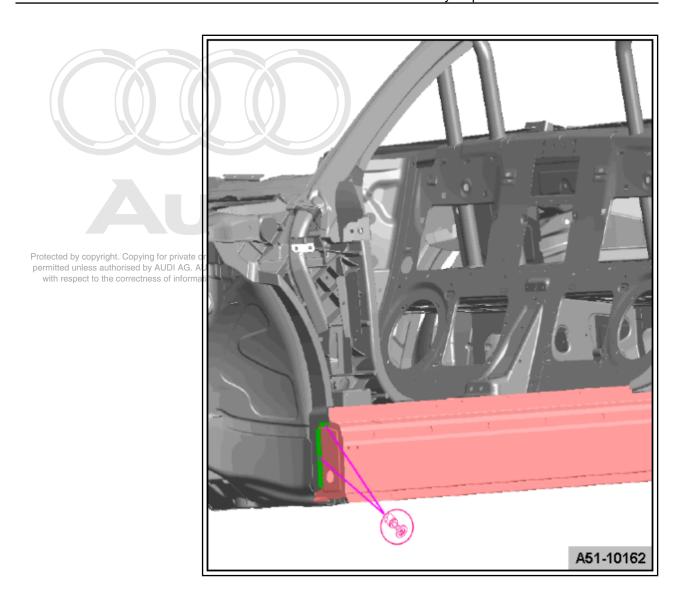


 Separate original joint at inner side member using grinder -VAS 5170- .

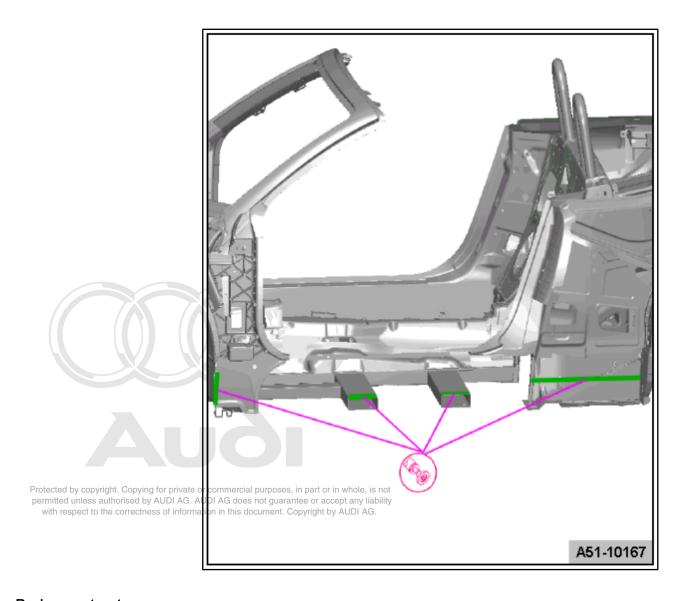


Separate original joint at inner side member using grinder private or commercial purposes, in part or in whole, is not VAS 5170-.

permitted unless authorised by 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.



- Detach part.
- Remove remaining material using grinder -VAS 5170- .

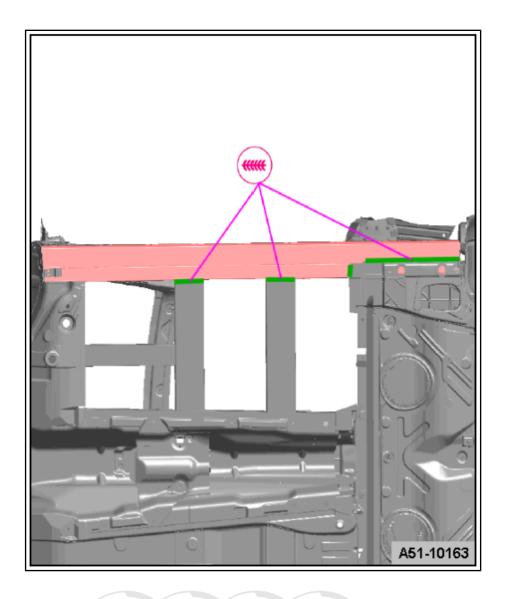


## Replacement part

♦ Side member

#### Welding in

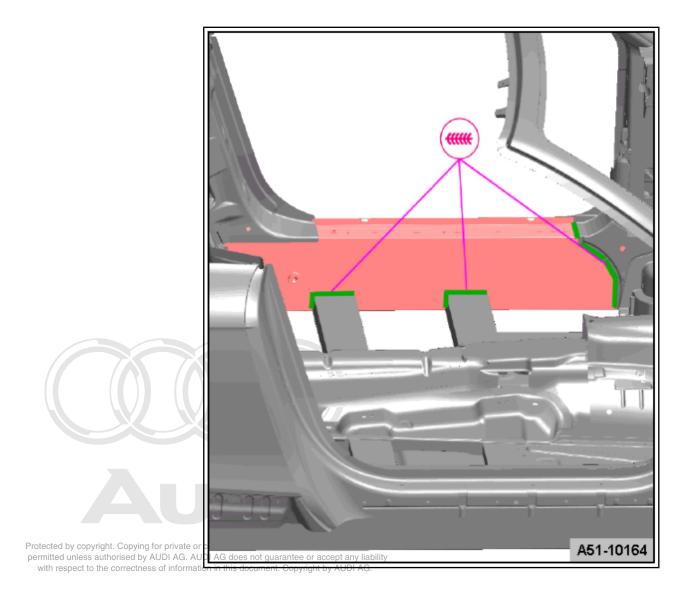
- Fix new part on alignment bracket.
- Weld in lower inner side member using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.



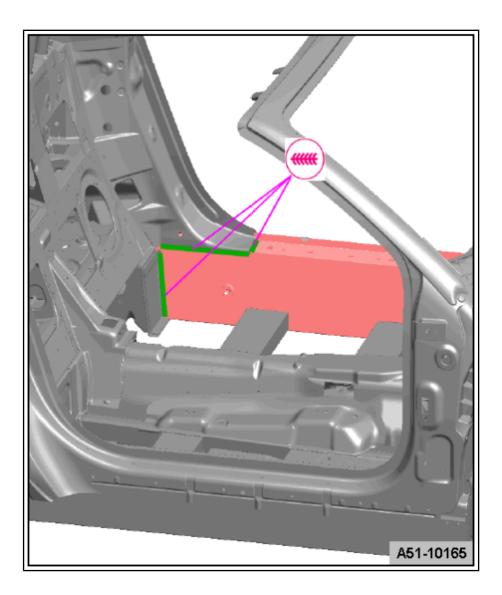
 Weld in lower inner side member using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.



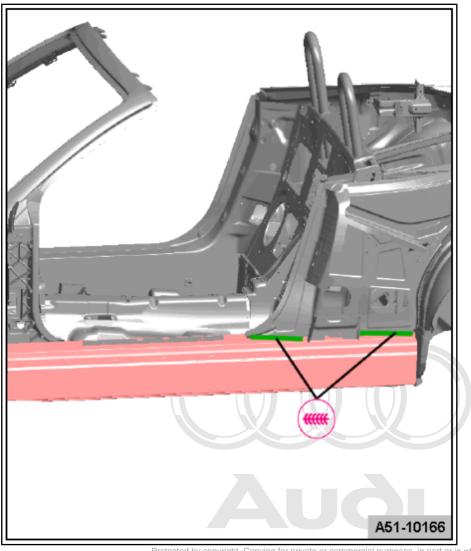
Weld in lower inner side member using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.



 Weld in lower inner side member using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

RO: 51 73 55 00

# 13 Floor panel - Renewal (Coupé and Roadster identical)



**WARNING** 

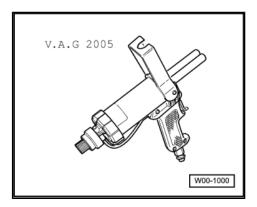
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body
Repairs; Safety notes . Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not

#### 13.1 Tools

Special tools and workshop equipment required

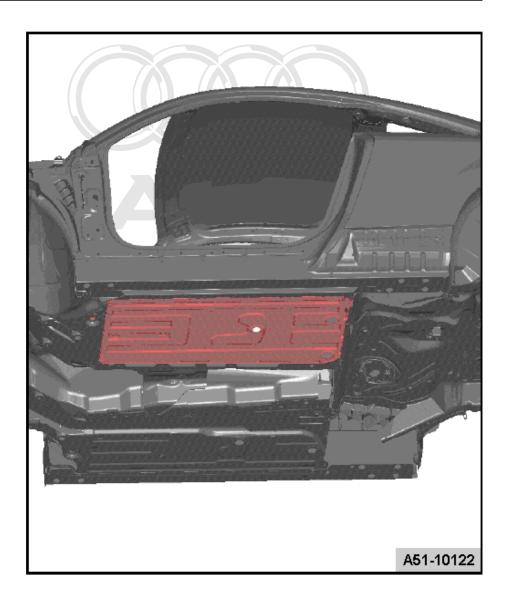
♦ Pneumatic glue gun -V.A.G 2005 B-



permitted unless authorised by 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.

- Detach bolted joints.



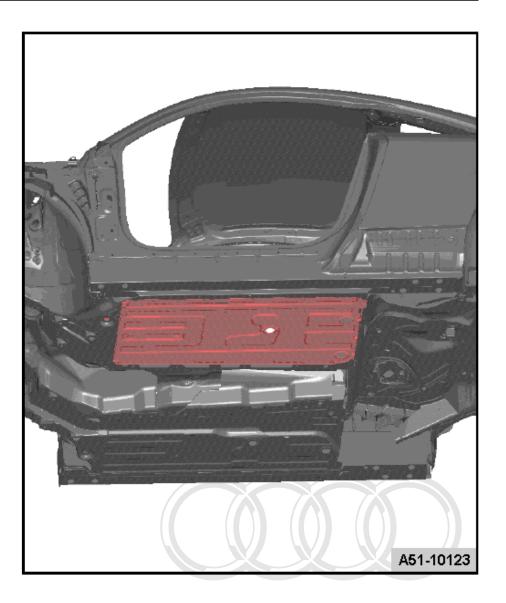
## Replacement part

♦ Front floor panel

## Installing

Match up and fix new part in position.

Secure new part with screws (torque: 8 Nm).





Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

## 53 – Body - rear

RO: 53 05 55 00

Rear cross panel (top section) - Renewal (Coupé and Roadster identical)



**WARNING** 

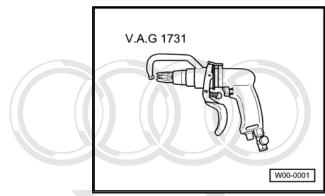
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes .

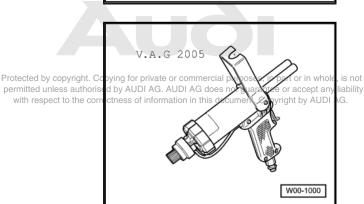
#### 1.1 Tools

#### Special tools and workshop equipment required

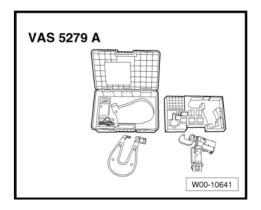
- Resistance spot welder -VAS 6239 A- or
- ♦ Resistance spot welder -VAS 6525- or
- Resistance spot welder -VAS 6530- or
- Resistance spot welder -VAS 6535- or
- ♦ Resistance spot welder -VAS 6545-
- ♦ Shielded arc welding equipment 250A -VAS 6045A-
- ♦ Drill -VAS 5830-
- ♦ Spot weld breaker -V.A.G 1731-



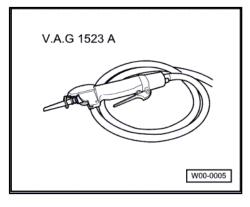
◆ Pneumatic glue gun -V.A.G 2005 B-



♦ Rechargeable riveter -VAS 5279A-



♦ Pneumatic sabre saw -V.A.G 1523A-



#### 1.2 **Procedure**

**Cutting locations** 



Note

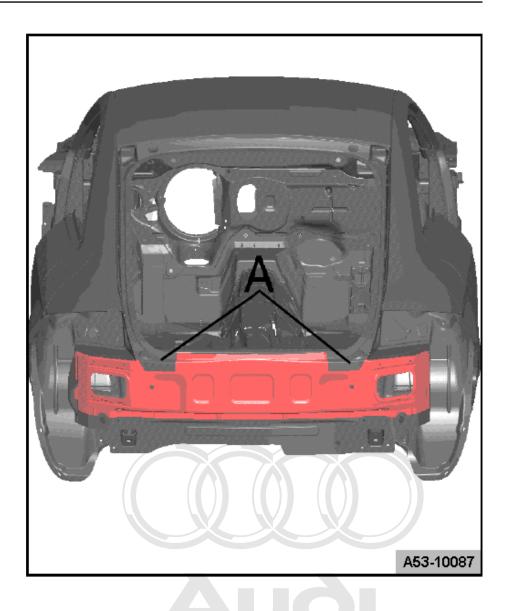
Protect adjacent aluminium parts adequately against sparks from welding and grinding operations; cover up or mask with adhesive tape as necessary.

A - Detach riveted joint at rain channel using rechargeable rivetermine AS 5229A sed by 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. Remove large punch rivets. Use rechargeable riveter -VAS 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and D14.

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

- Separate original joint using spot weld breaker -V.A.G 1731- .
- Detach part.
- Remove remaining material using grinder -VAS 5170- .





## Note

Protected by copyright. Copyring for private or commercial purposes, in part or in whole, is not Partial renewal is possible with the separating outsillustrated of SGy AUDI AG. AUDI AG does not guarantee or accept any liability continuous butt weld in the separated area.

#### Replacement part

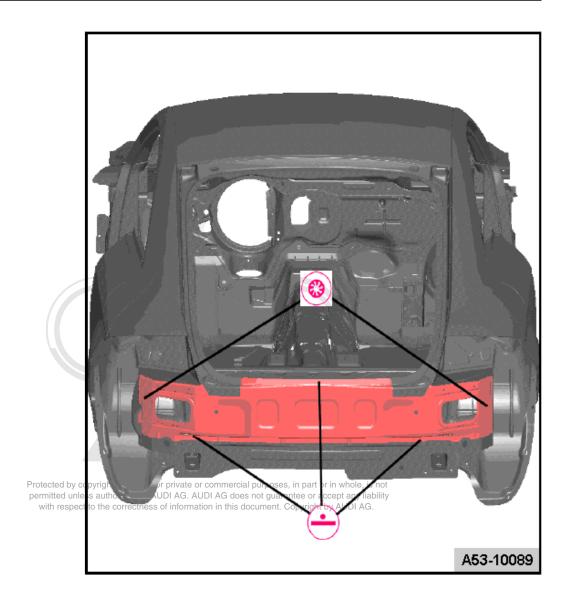
♦ Rear cross panel, top section

#### Preparing new part

Drill 7 mm  $\varnothing$  holes for SG plug weld seam.

#### Welding in

- Weld in cross panel using resistance spot welder -VAS 6239 A-: RP spot weld seam.
- Weld in cross panel using shielded arc welding equipment 250A -VAS 6045A- : SG plug weld seam.



## Riveting in

- Rivet in cross panel at rain channel using rechargeable riveter -VAS 5279A- .
- Use rechargeable riveter -VAS 5279A- with attachments D17 and D17 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D17 and D17.



RO: 53 09 55 50

## Cross panel (inner section) - Renewal (Coupé and Roadster identical)



**WARNING** 

Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes .

#### 2.1 Tools

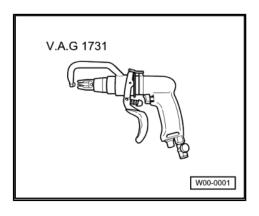
#### Special tools and workshop equipment required

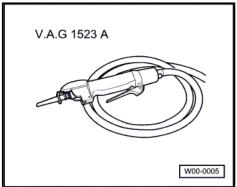
- ♦ Resistance spot welder -VAS 6239 A-
- ♦ Resistance spot welder -VAS 6525-
- ♦ Resistance spot welder -VAS 6530-
- ♦ Resistance spot welder -VAS 6535-
- ♦ Resistance spot welder -VAS 6545-
- ♦ Shielded arc welding equipment 250A -VAS 6045A-
- ♦ Spot weld breaker -V.A.G 1731-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

◆ Pneumatic sabre saw -V.A.G 1523A-





#### 2.2 Procedure

#### **Cutting locations**

· Top section of cross panel already removed



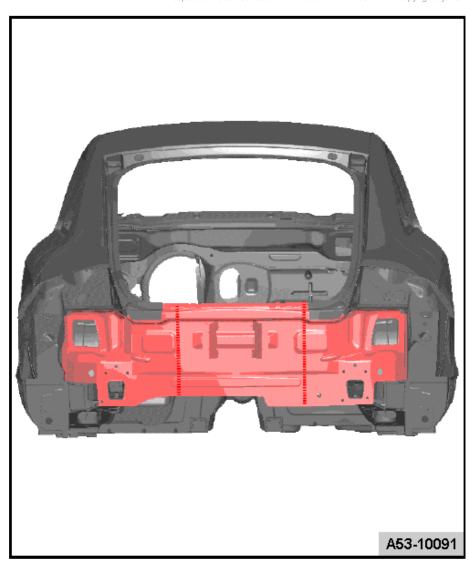
#### Note

Protect adjacent aluminium parts adequately against sparks from welding and grinding operations; cover up or mask with adhesive tape as necessary.

Partial renewal is possible with the separating cuts illustrated.

- Separate original joint using spot weld breaker -V.A.G 1731- .
- Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not 

  Remove remaining material using grinder -VAS 5170 mitted unless authorised by 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.

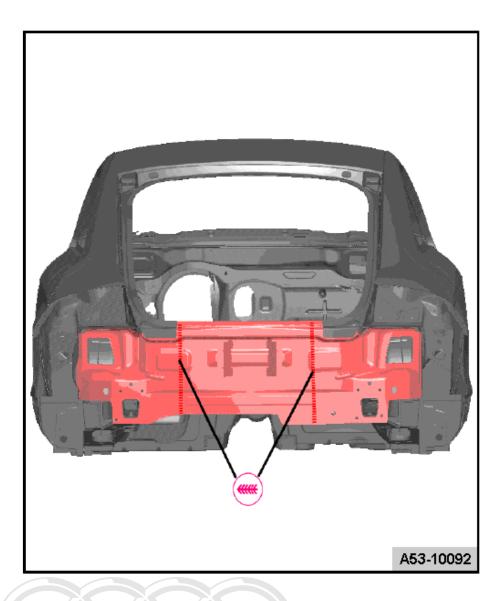


#### Replacement part

◆ Cross panel (inner section)

## Welding in

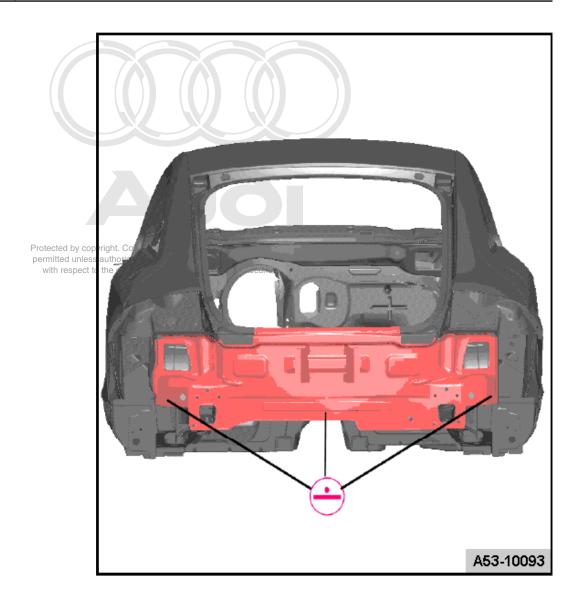
 Weld at separating cuts using shielded arc welding equipment 250A -VAS 6045A-: SG continuous seam.



Weld in cross panel using resistance spot welder -VAS 6239
 A-: RP spot weld seam.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.



RO: 53 14 55 50

# 3 Rain channel - Partial renewal



**WARNING** 

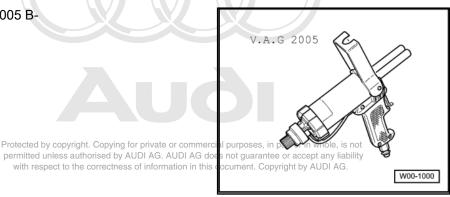
Always observe safety precautions.

Safety notes  $\Rightarrow$  General Information; Body Repairs, General Body Repairs; Safety notes .

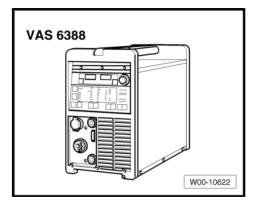
## 3.1 Tools

Special tools and workshop equipment required

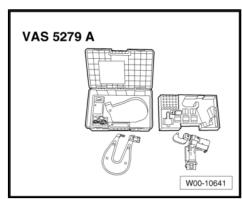
♦ Pneumatic glue gun -V.A.G 2005 B-



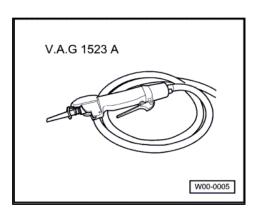
♦ Shielded arc welding equipment 250A -VAS 6388-



♦ Rechargeable riveter -VAS 5279A-



Pneumatic sabre saw -V.A.G 1523A-



# 3.2 Procedure

#### **Cutting locations**



Note

Protect adjacent aluminium parts adequately against sparks from welding and grinding operations; cover up or mask with adhesive tape as necessary.

Separate original joint with rechargeable riveter -VAS 5279A-.

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

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

 Make separating cuts as shown using pneumatic sabre saw -V.A.G 1523A- .



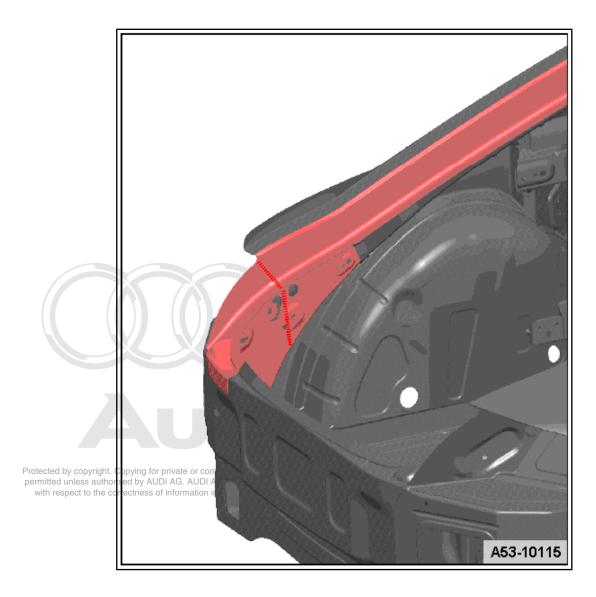
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



 Make separating cuts as shown using pneumatic sabre saw -V.A.G 1523A- .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.



# Replacement part

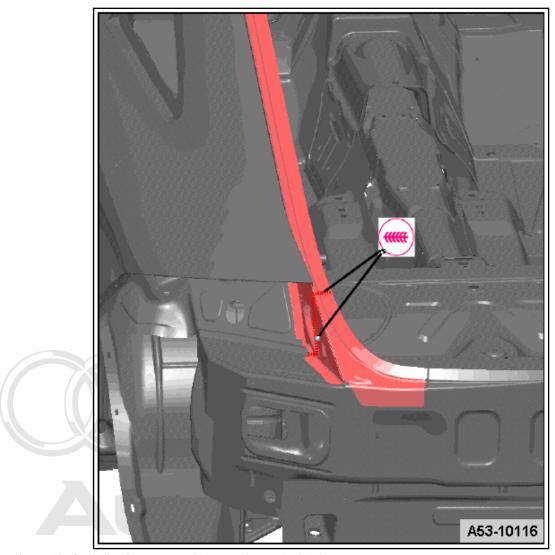
- Metal insert for tail light
- Rain channel
- Rain channel reinforcement

# Preparing new part

- Prepare new parts for bonding and welding.

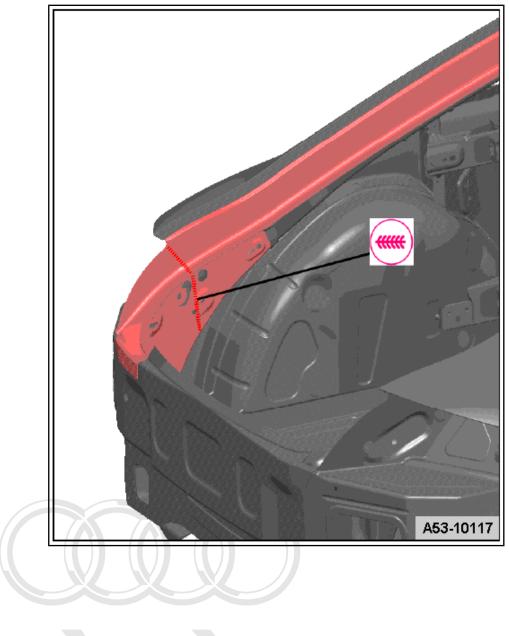
#### Welding in

- Weld in rain channel using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.
- Weld in metal insert for tail light using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

Weld in rain channel reinforcement using shielded arc welding AUDI AG. equipment 250A -VAS 6388- : SG continuous seam.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

RO: 53 42 55 00

# 4 Rear suspension strut mounting - Renewal (Coupé and Roadster identical)



**WARNING** 

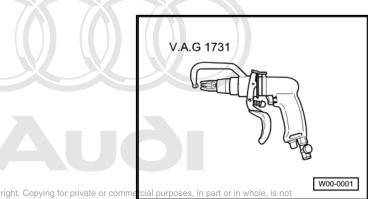
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.

# 4.1 Tools

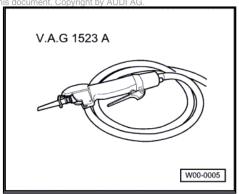
## Special tools and workshop equipment required

- ♦ Resistance spot welder -VAS 6239 A-
- ♦ Resistance spot welder -VAS 6525-
- ♦ Resistance spot welder -VAS 6530-
- ♦ Resistance spot welder -VAS 6535-
- ♦ Resistance spot welder -VAS 6545-
- ♦ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Compact angle grinder -VAS 5167-
- ♦ Spot weld breaker -V.A.G 1731-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any matrix with respect to the correctness of information in this document. Copyright by AUDI AG.

♦ Pneumatic sabre saw -V.A.G 1523A-



# 4.2 Procedure

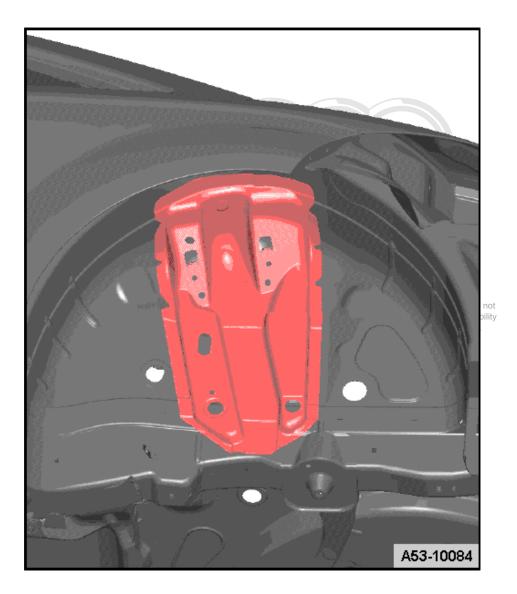
# **Cutting locations**



#### Note

Protect adjacent aluminium parts adequately against sparks from welding and grinding operations; cover up or mask with adhesive tape as necessary.

- Separate original joint using spot weld breaker -V.A.G 1731- .
- Remove remaining material using compact angle grinder VAS 5167- .



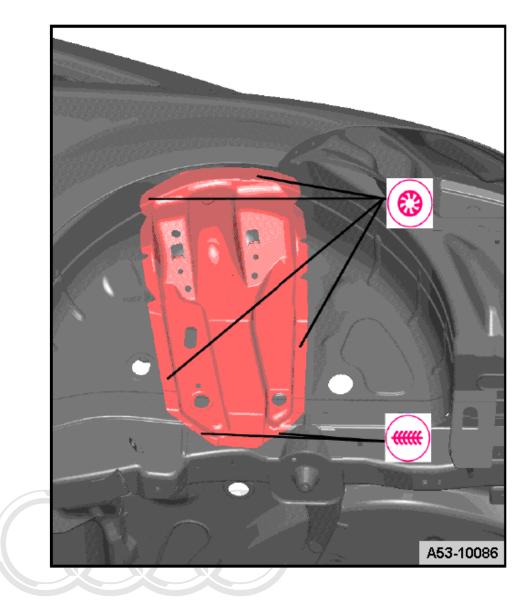
#### Replacement part

♦ Rear suspension strut mounting

# Welding in

- Position new part and fix in place with portal gauge.
- Weld in suspension strut mounting using shielded arc welding equipment 250A -VAS 6045A- : SG continuous seam.

Weld in suspension strut mounting using resistance spot welder: RP spot weld seam.





Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

RO: 53 48 55 52

# Rear longitudinal member - Partial re-5 newal (Coupé and Roadster identical)



**WARNING** 

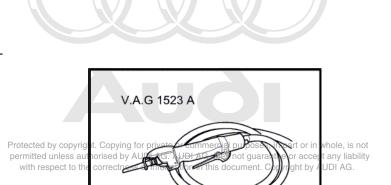
Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.

#### 5.1 **Tools**

#### 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-
- Shielded arc welding equipment 250A -VAS 6045A-
- Pneumatic sabre saw -V.A.G 1523A-

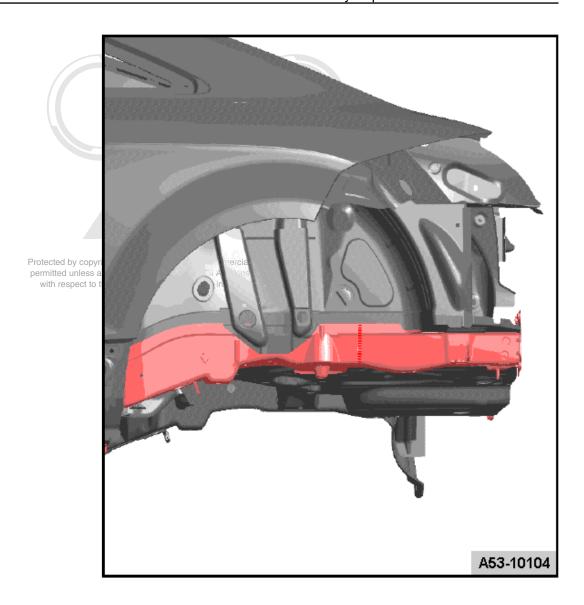


W00-0005

#### 5.2 **Procedure**

#### **Cutting locations**

- Rear cross panel sections and mounting plate already removed
- Cut out part section of longitudinal member using pneumatic sabre saw -V.A.G 1523A- .
- Separate original joint using spot weld breaker -V.A.G 1731-.

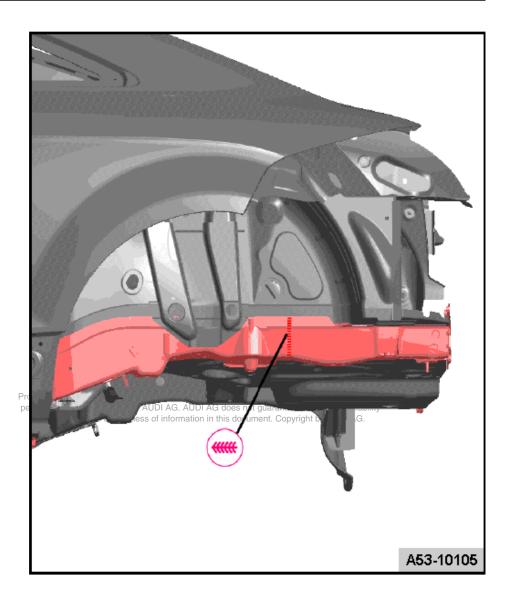


# Replacement part

♦ Longitudinal member part section

# Welding in

- Locate and secure section of longitudinal member on alignment bracket.
- Butt weld longitudinal member using shielded arc welding equipment 250A -VAS 6045A-: SG continuous seam.



RO: 53 55 55 00

# 6 Side panel - Renewal (Coupé)

Includes rain channel and tail light mounting.



**WARNING** 

Always observe safety precautions.

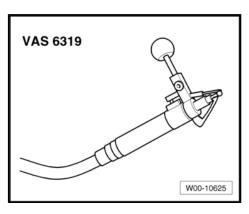
Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.

# 6.1 Tools

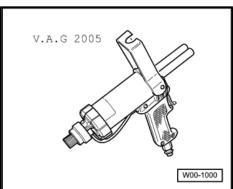
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

# Special tools and workshop equipment required

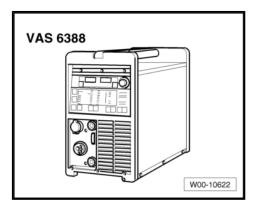
♦ Laser weld seam grinder -VAS 6319-



♦ Pneumatic glue gun -V.A.G 2005 B-

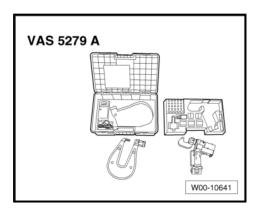


♦ Shielded arc welding equipment 250A -VAS 6388-



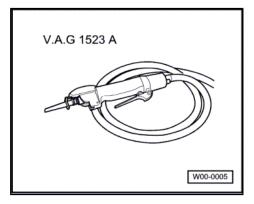
♦ Rechargeable riveter -VAS 5279A-

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



Pneumatic sabre saw -V.A.G 1523A-





#### 6.2 **Procedure**

#### **Cutting locations**



ess authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

WARNING

Story of information in this document. Copyright by AUDI AG.

The body consists of a combination of steel and aluminium panels. In areas where the two materials meet, the aluminium parts must be carefully covered and protected when grinding, sawing, and welding etc. This prevents contact corrosion caused by weld spatter and dust particles on the aluminium sections.

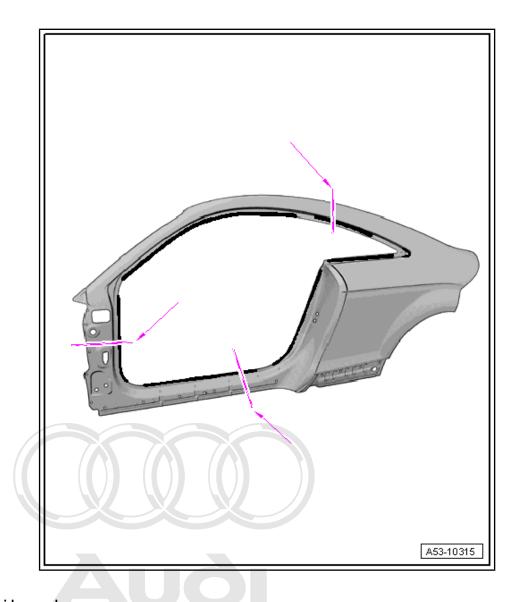
#### **Cutting locations**



Note

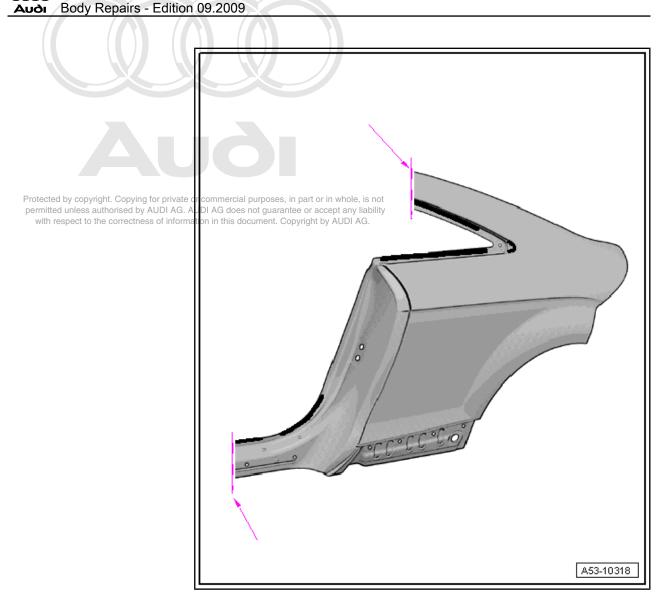
Before deciding on the location of the separating cuts, measure the replacement part to make sure it will fit in the body after removing the old part.

Transfer separating cut to new part and cut to size using pneumatic sabre saw -V.A.G 1523A- .



# Cutting locations at rear side panel

Transfer separating cut to new part and cut to size using pneurposes, in part or in whole, is not matic sabre saw -V.A.G.f.1523A-s authorised by 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.



# **Cutting locations**

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



#### Note

- For inaccessible locations use C-bracket from rechargeable riveter -VAS 5279A- or rechargeable riveter -VAS 5279B- .
- Move the C-bracket into position before fitting the extension.



#### Caution

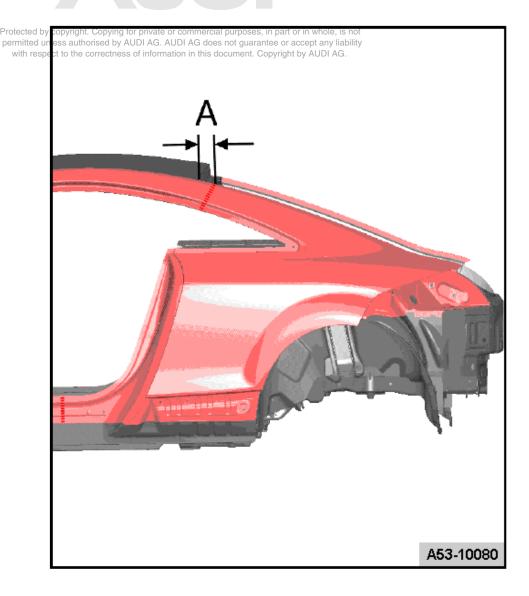
Avoid making excessively deep cuts. Components remaining in the vehicle could otherwise be damaged or broken off.



## Note

Lubricate the blade of the pneumatic sabre saw -V.A.G 1523A-with a cleaning block DA 009 802. This prevents clogging of the saw teeth with aluminium.

- Mark separating cut approx. 80 mm -A- below edge of roof to avoid damaging inner reinforcement.
- Grind open laser weld seams in area around side member using laser weld seam grinder -VAS 6319- .
- Grind through flanged seam of wheel arch using compact angle grinder -VAS 5167- .





## Note

Apply adhesive tape parallel to marking to obtain a perpendicular separating cut.

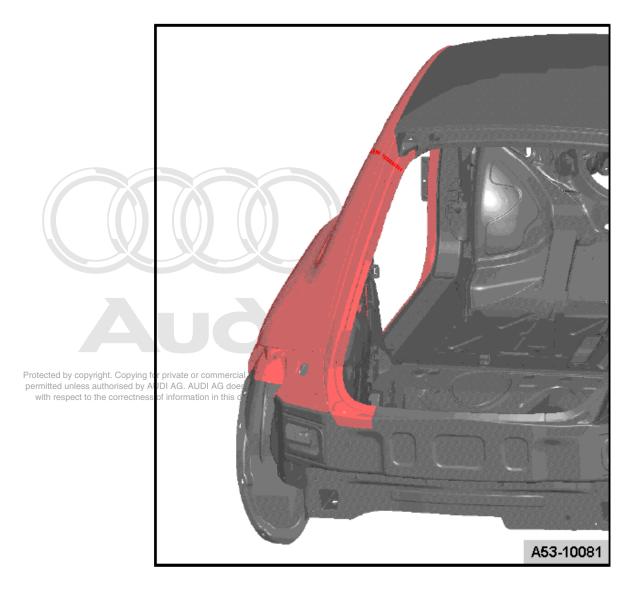
 Make separating cut below edge of roof using pneumatic sabre saw -V.A.G 1523A- to avoid damaging inner reinforcement.



#### Note

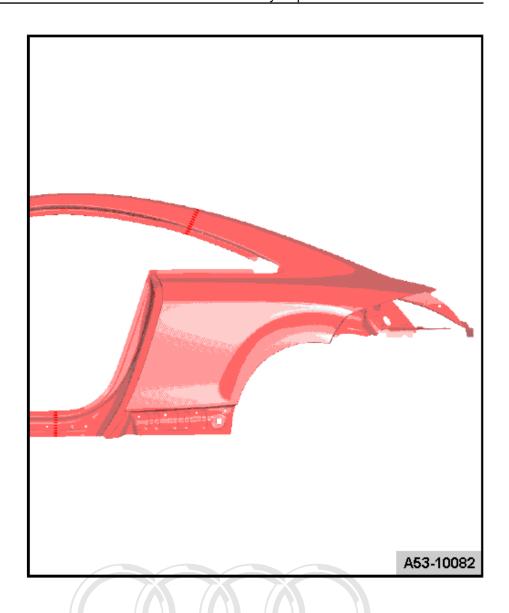
In the area of the internal foam inserts, heat the body with a hot air blower for 2 to 5 minutes to facilitate separation from the side panel.

- Carefully separate side panel from vehicle using a flat chisel.
- Take side panel off vehicle.
- Remove remaining material using compact angle grinder -VAS 5167- .



#### Preparing new part

- Grind new part down to bare metal in welding area.
- Mark out and make separating cuts using pneumatic sabre saw -V.A.G 1523A- .
- Apply body adhesive DA 001 730 A1 in area of wheel housing using pneumatic glue gun -V.A.G 2005 B- .



# Riveting in



# **WARNING**

The body consists of a combination of steel and aluminium panels. In areas where the two materials meet, the aluminium parts must be carefully covered and protected when grinding, sawing, and welding etc. This prevents contact corrosion caused by weld spatter and dust particles on the aluminium sections.

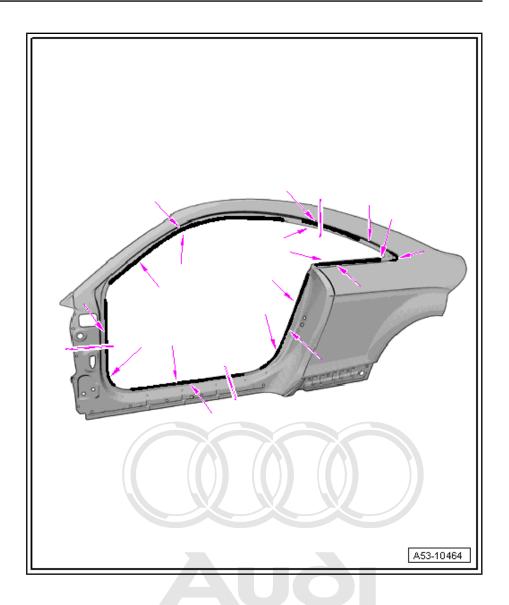
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



#### Note

The standard rivets are replaced with 10 mm solid rivets.

- Rivet on new part in area of side panel with 6 x 10 mm solid rivets -arrows-.
- Rivet on new part in area of side member and A-pillar with 6 x 12 mm solid rivets -arrows-.



# Preparing body

- Flatten riveting areas. Use rechargeable riveter JVAS/15279Aing for private or commercial purposes, in part or in whole, is not with attachments D8 or D17 from -VAS 527979ed tolers attachments D8 or D17 from -VAS 527979ed tolers attachments D8 privator VAS 52798, with attachments D8 privator VAS 52798, with attachments D8 privator VAS 52798. able riveter -VAS 5279B- with attachments D8 or D17.
- Grind body down to bare metal in welding area.
- Make weld pool backing and insert at cutting locations.

#### Inserting new part

- With no load on vehicle, position and match up new part and clamp in place.
- Working outwards, make suitable 5 mm holes in area of aluminium solid rivets.
- Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from -VAS 5279/2 or rechargeable riveter -VAS 5279Bwith attachments D15 and D16.
- Detach new part.
- Screw in securing nut for rear lid damper.

#### Riveting in new part

- Use a brush to apply aluminium primer DA 009 801 to bonding locations.
- Apply 2-component adhesive DA 001 730 A2 to entire riveting area and wheel housing.
- Apply 2-component filler foam D 506 KG1 A3 to remaining material of expanded foam inserts.



#### Note

Always fit the expanded foam inserts and apply the 2-component filler foam D 506 KG1 A3 before welding in.

• Locate and secure side panel on portal gauge.

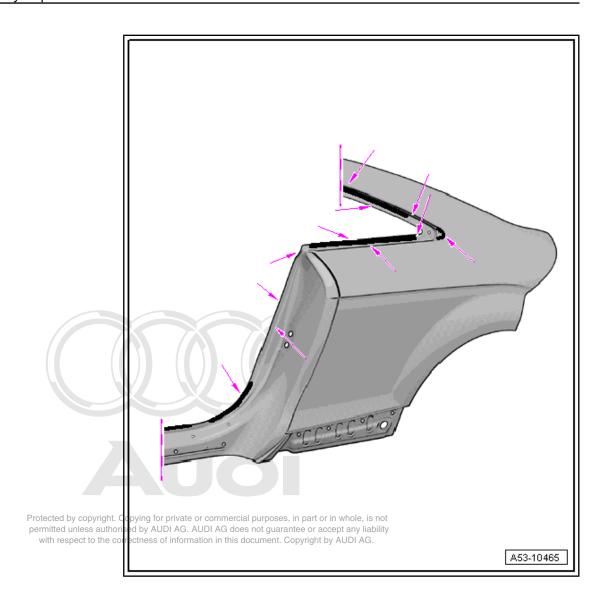


#### Note

- ♦ For inaccessible locations use C-bracket from rechargeable riveter -VAS 5279A- or rechargeable riveter -VAS 5279B- .
- ♦ Move the C-bracket into position before fitting the extension.
- Rivet on new part with 6 x 10 mm solid rivets -arrows-.
- Use rechargeable riveter -VAS 5279A- with attachments D17 and D17 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D17 and D17.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.





# Note

Always remove adhesive residue from the riveter attachment.



#### Note

- ♦ For inaccessible locations use C-bracket from rechargeable riveter -VAS 5279A- or rechargeable riveter -VAS 5279B- .
- ♦ Move the C-bracket into position before fitting the extension.



# Note

- ♦ Use new 3.35 x 4 mm punch rivets at intact holes in the rear lid area.
- ♦ Use a 4 mm aluminium solid rivet if pressing out the old rivets created a hole.
- Rivet in rain channel using rechargeable riveter -VAS 5279A-:
   3.35 x 4 mm punch rivets.





# Welding in



# **WARNING**

The body consists of a combination of steel and aluminium panels. In areas where the two materials meet, the aluminium parts must be carefully covered and protected when welding. This prevents contact corrosion caused by weld spatter and dust particles on the aluminium sections.

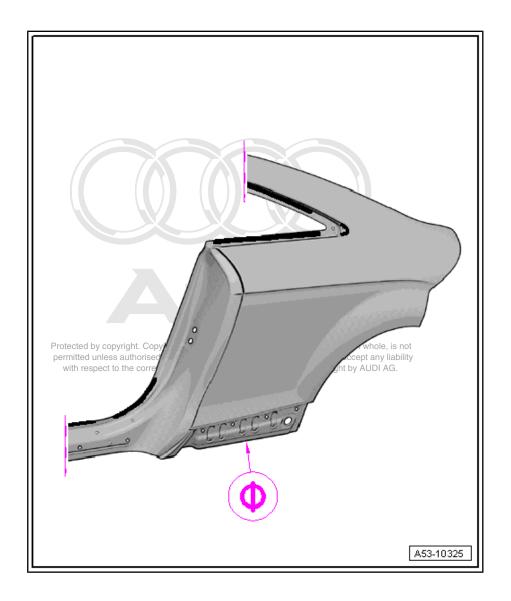


### Note

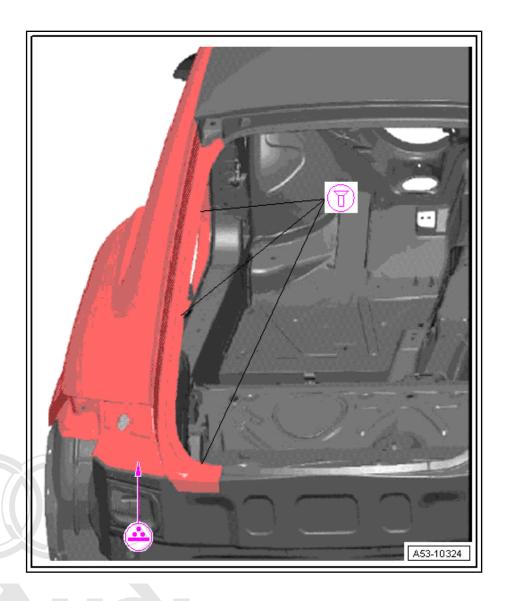
Always fit the expanded foam inserts and apply the 2-component filler foam D 506 KG1 A3 before welding in ⇒ page 4 . ⇒ page 4

Weld in side panel at separating cuts using shielded arc weld- protected in sequipment 250A - VAS 6388-or SG continuous seam.

With respect to the correctness of information in this document. Copyright by AUDLAG with Meld in Joint between side panel and side member using shielded arc welding equipment 250A -VAS 6388-: SG stepped seam (stitch seam) -arrow-.



- Weld in components at rear end -arrow- using resistance spot welder -VAS 6239 A- : RP spot weld seam.
- Rivet in rain channel using rechargeable riveter -VAS 5279A-with attachments D17 and D17 from -VAS 5279/2 or rechargeable riveter -VAS 5279B- with attachments D17 and D17 .



Bead over wheel housing flange using fold crimping tool - V.A.G 1585- .



Note Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

After beading over the flange, spread the emerging 2-component adhesive to make a good seal.

RO: 53 55 55 00

#### Side panel - Renewal (Roadster) 7

Includes rain channel and tail light mounting.



#### **WARNING**

The body consists of a combination of steel and aluminium panels. In areas where the two materials meet, the aluminium parts must be carefully covered and protected when welding. This prevents contact corrosion caused by weld spatter and dust particles on the aluminium sections.



### **WARNING**

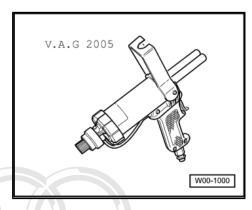
Always observe safety precautions.

Safety notes  $\Rightarrow$  General Information; Body Repairs, General Body Repairs; Safety notes .

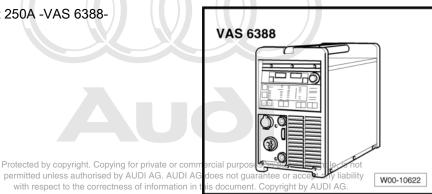
#### 7.1 **Tools**

# Special tools and workshop equipment required

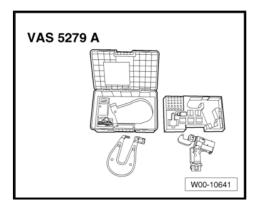
♦ Pneumatic glue gun -V.A.G 2005 B-



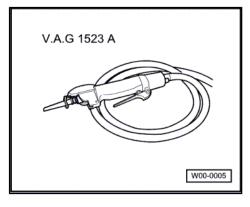
Shielded arc welding equipment 250A -VAS 6388-



♦ Rechargeable riveter -VAS 5279A-



♦ Pneumatic sabre saw -V.A.G 1523A-



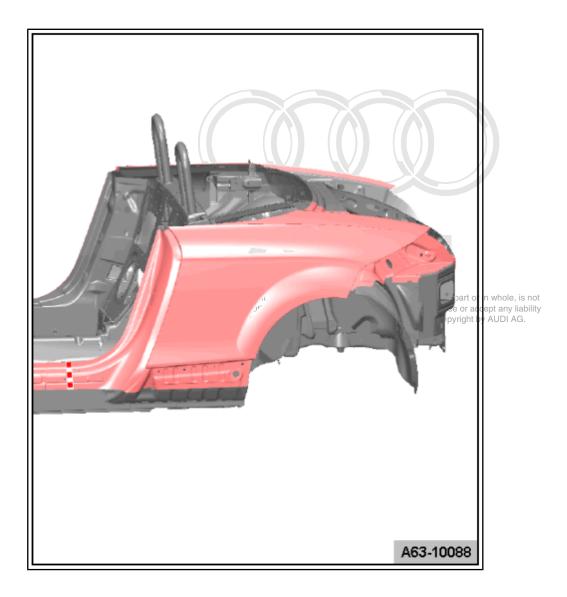
# 7.2 Procedure

#### **Cutting locations**

- Roughly cut out side panel using pneumatic sabre saw -V.A.G 1523A- .
- Grind through outer edge of side panel (top) using compact angle grinder -VAS 5167- .
- Grind through outer edge of wheel arch using compact angle grinder -VAS 5167- .
- Take care not to damage inner reinforcement when making separating cut in sill.
- Separate original joint with rechargeable riveter -VAS 5279A-.

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

Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from VAS 5279/2 and reate or commercial purposes, in part or in whole, is not chargeable riveter -VAS 5279B- with attachments S1 and E2AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

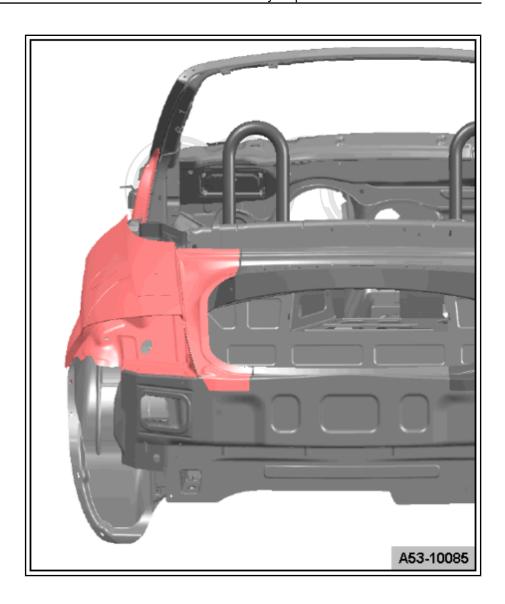


Separate original joint with rechargeable riveter -VAS 5279A- .

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

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

- Detach part.
- Remove remaining material using compact angle grinder VAS 5167- .

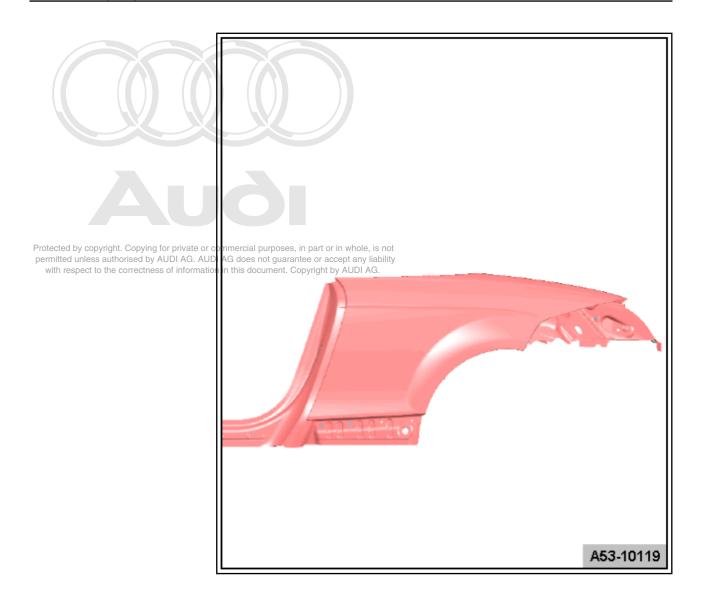


# Replacement parts

- ♦ Side panel (sub-part)
- ♦ Body adhesive DA 001 730 A2

# Preparing new part

- Transfer separating cut to new part using pneumatic sabre saw -V.A.G 1523A- .
- Clean beaded flange (it must be free of dust and grease).



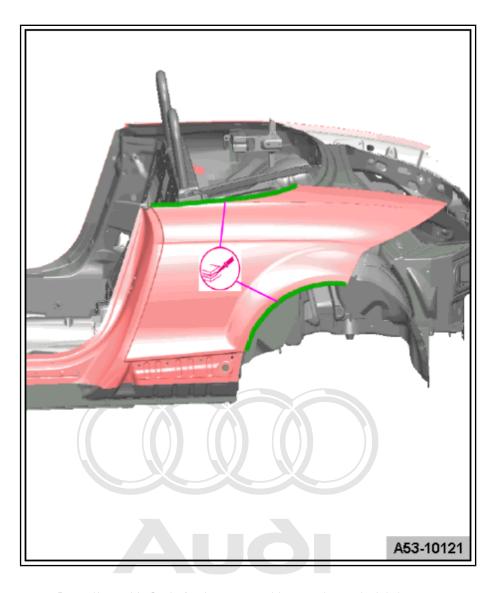


### Note

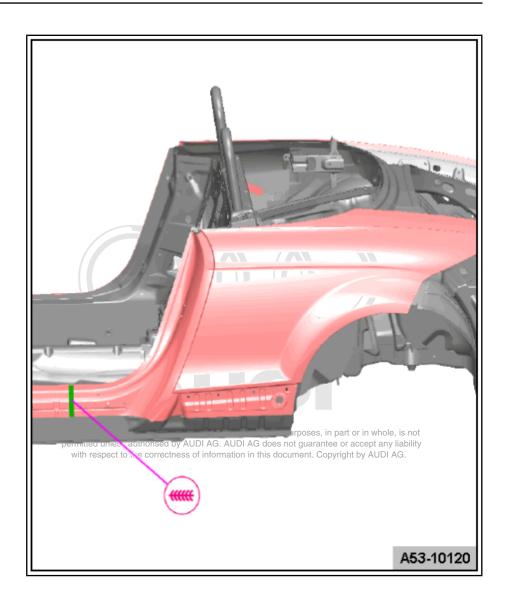
Expanded foam inserts must be fitted before welding. Refer to section on expanded foam inserts ⇒ page 4.

#### Welding in

- Use a brush to apply aluminium primer DA 009 801 to bonding locations.
- Apply 2-component adhesive DA 001 730 A2 to entire riveting area and wheel housing using pneumatic glue gun -V.A.G 2005 B-.
- Apply adhesive to beaded flange. Two beads of adhesive: 3.5 mm diameter.
- Bead over wheel arch flange. Wipe off emerging adhesive and seal joint.
- Bead over side panel flange. Wipe off emerging adhesive and seal joint.



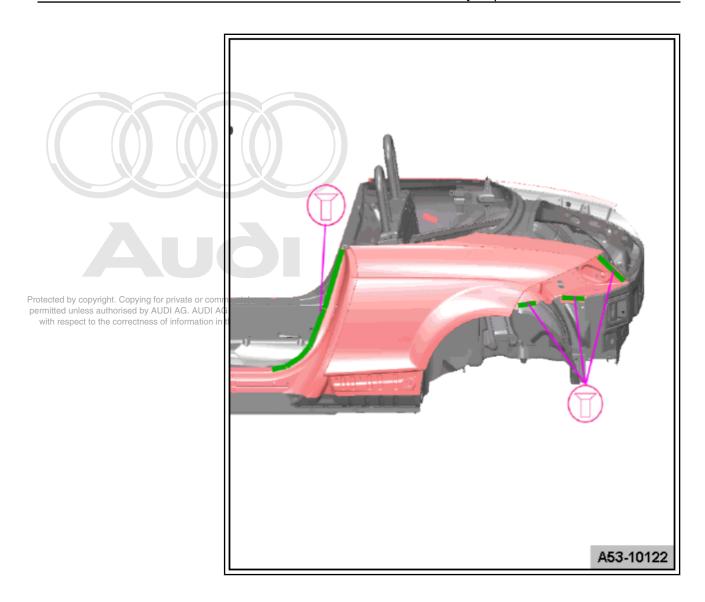
- Locate and secure side panel on portiated by appright. Copying for private or commercial purposes, in part or in whole, is not
  permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability
- Align side panel with no load on vehicle and check panel gaps.
- Weld in at separating cut using shielded arc welding equipment 250A -VAS 6388- : SG continuous seam.



# Riveting in

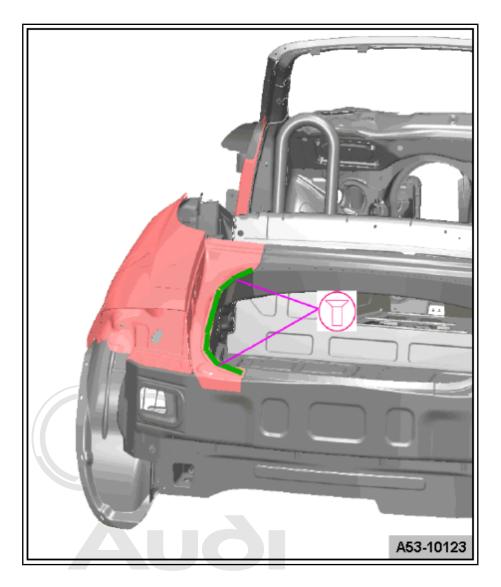
- Rivet in side panel using rechargeable riveter -VAS 5279A-.

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16.



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

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from - VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16 .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

RO: 53 65 55 50

#### Inner side panel - Renewal 8



**WARNING** 

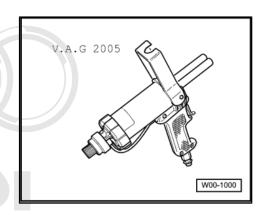
Always observe safety precautions.

Safety notes  $\Rightarrow$  General Information; Body Repairs, General Body Repairs; Safety notes .

#### 8.1 **Tools**

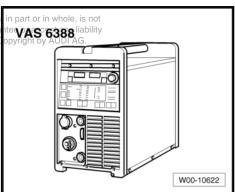
Special tools and workshop equipment required

♦ Pneumatic glue gun -V.A.G 2005 B-

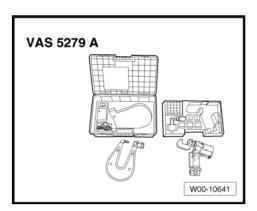


Shielded arc welding equipment 250A JVAS 6388- or commercial purpose

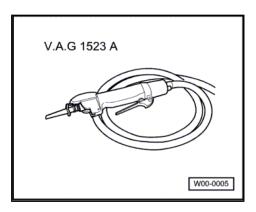
permitted unless authorised by AUDI AG. AUDI AG does not guarwith respect to the correctness of information in this document.



♦ Rechargeable riveter -VAS 5279A-



Pneumatic sabre saw -V.A.G 1523A-



#### 8.2 **Procedure**

#### **Cutting locations**

- Outer side panel already removed
- Side panel reinforcement already removed



## Note

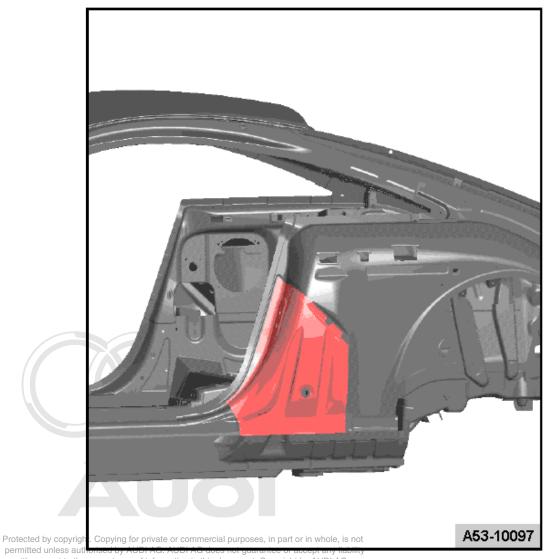
Protect adjacent aluminium parts adequately against sparks from welding and grinding operations; cover up or mask with adhesive tape as necessary.

- Separate original joint with rechargeable riveter -VAS 5279A-.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not Remove large punch rivets. Use rechargeable trivetes a Vas entry to the convergence of information in this document. Copyright by AUDIAG. 5279A- with attachments D13 and D14 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D13 and D14.

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

Detach part.



with respect to the correctness of information in this document. Copyright by AUDI AG.

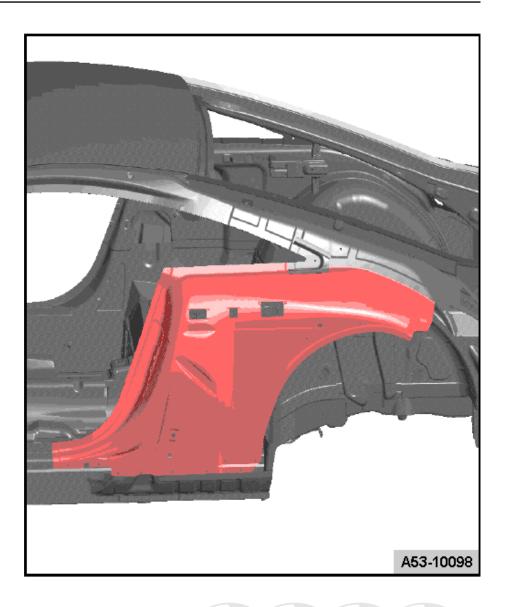
Make separating cuts as required.

- Separate original joint with rechargeable riveter -VAS 5279A-.

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

Remove small punch rivets. Use rechargeable riveter -VAS 5279A- with attachments S1 and E2 from -VAS 5279/2 - or rechargeable riveter -VAS 5279/8- with attachments S1 and E2 .

- Detach part.
- Remove remaining material using compact angle grinder -VAS 5167- .



# Replacement parts

- ♦ Inner side panel
- Inner side panel reinforcement
- ▶ Body adhesive DA 001 730 A2

#### Preparing new part

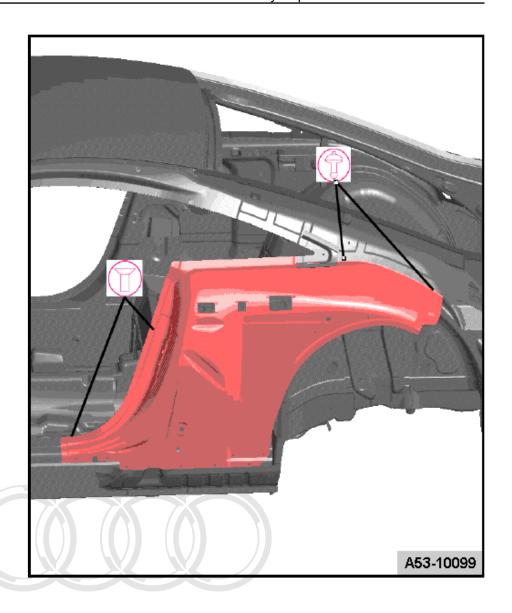
- Prepare new parts for bonding
- Use a brush to apply aluminium primer DA 009 801 to bonding locations.
- Apply 2-component adhesive DA 001 730 A2 to entire riveting area using pneumatic glue gun -V.A.G 2005 B- .

## Riveting in

- Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.
- Position new part and fix in place with portal gauge.
- Align side panel with no load on vehicle and check panel gaps.
- Rivet in new part using rechargeable riveter -VAS 5279A- .

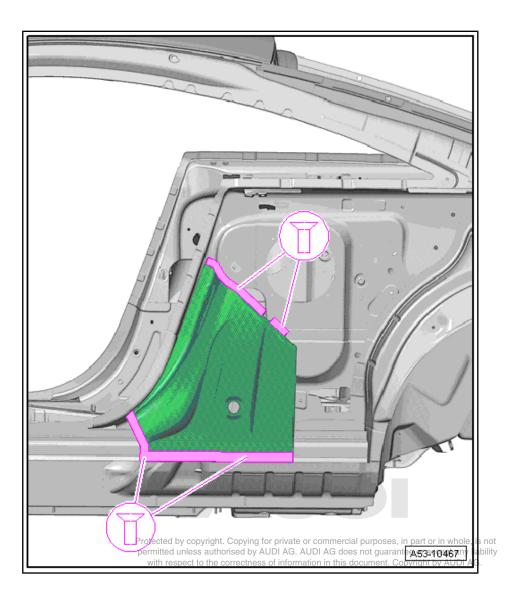
Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from - VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16.





- Re-secure bolted joints.
- Rivet in new part using rechargeable riveter -VAS 5279A-.

Countersink holes, working inwards from outside. Use rechargeable riveter -VAS 5279A- with attachments D15 and D16 from -VAS 5279/2 - or rechargeable riveter -VAS 5279B- with attachments D15 and D16 groups of private or commercial purposes, in part or in whole, is not attachments D15 and D16 groups of private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.



RO: 53 69 55 52

## Rear wheel housing - Partial renewal 9 (Coupé and Roadster identical)



# **WARNING**

Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.



#### Note

Protect adjacent aluminium parts adequately against sparks from welding and grinding operations; cover up or mask with adhesive tape as necessary.

#### 9.1 **Tools**

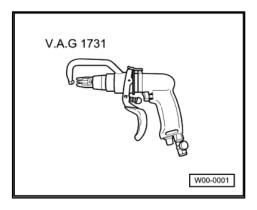
# Special tools and workshop equipment required

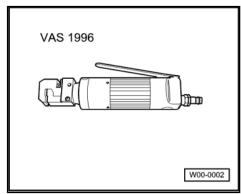
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- Drill -VAS 5830-
- Spot weld breaker -V.A.G 1731-



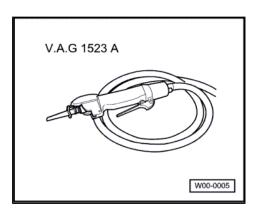
Pneumatic punch and offset tool -VAS 1996-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.





Pneumatic sabre saw -V.A.G 1523A-



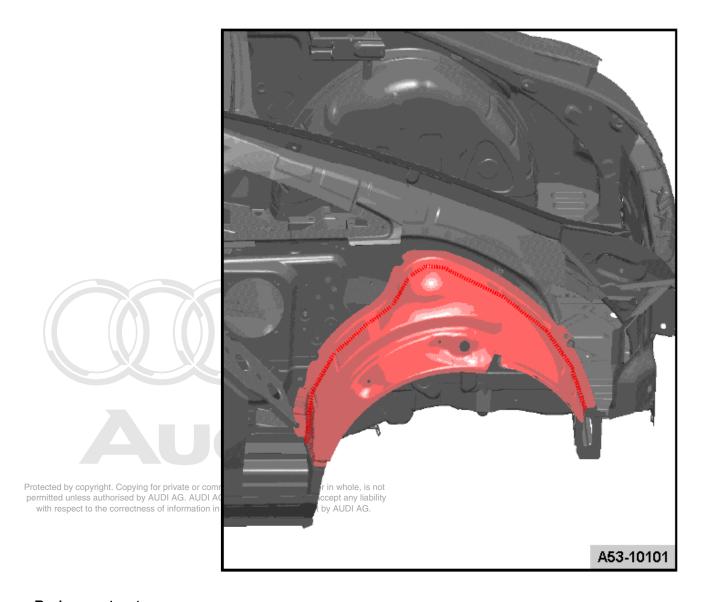
#### 9.2 **Procedure**

# **Cutting locations**

- Side panel already cut out
- Make separating cut with pneumatic sabre saw -V.A.G 1523A-so that body side of joint can be prepared for joddle-joining.
- Separate original joint using spot weld breaker -V.A.G 1731-.
- Make separating cut from below so that inner side panel does not have to be drilled out.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.



# Replacement part

♦ Wheel housing liner

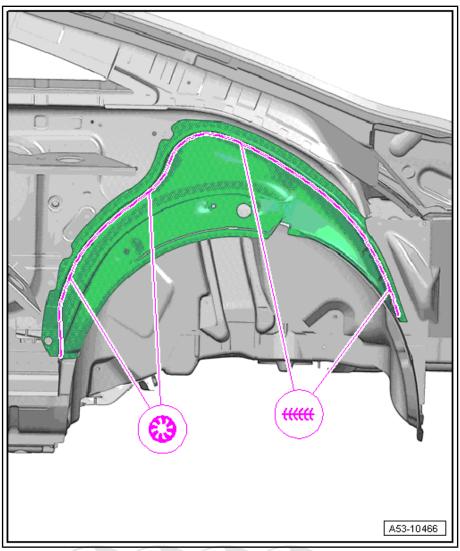
# Preparing new part

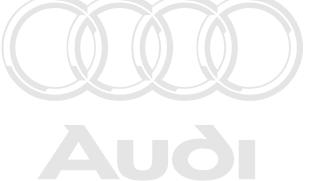
- Prepare joint on body side for joddle-joining using pneumatic punch and offset tool -VAS 1996- .
- Transfer separating cut to new part plus 15 mm for overlap. Cut off hatched area.
- Drill holes for SG plug weld seam using drill -VAS 5830- .



# Welding in

- Weld in new part using shielded arc welding equipment 250A -VAS 6045A-: SG continuous seam.
- Weld in new part from inside using shielded arc welding equipment 250A -VAS 6045A- : SG plug weld seam.





Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

RO: 53 69 55 52

## Rear wheel housing - Renewal 10 (Coupé and Roadster identical)



## **WARNING**

Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.

#### 10.1 **Tools**

## Special tools and workshop equipment required

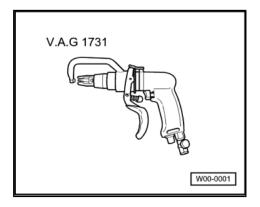
- ♦ Resistance spot welder -VAS 6239 A-
- Resistance spot welder -VAS 6525-
- Resistance spot welder -VAS 6530-
- Resistance spot welder -VAS 6535-
- Resistance spot welder -VAS 6545-
- Drill -VAS 5830-
- Spot weld breaker -V.A.G 1731-

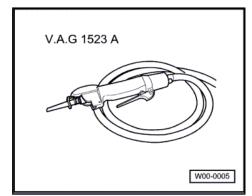


Pneumatic sabre saw -V.A.G 1523A-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.





#### 10.2 **Procedure**

# **Cutting locations**

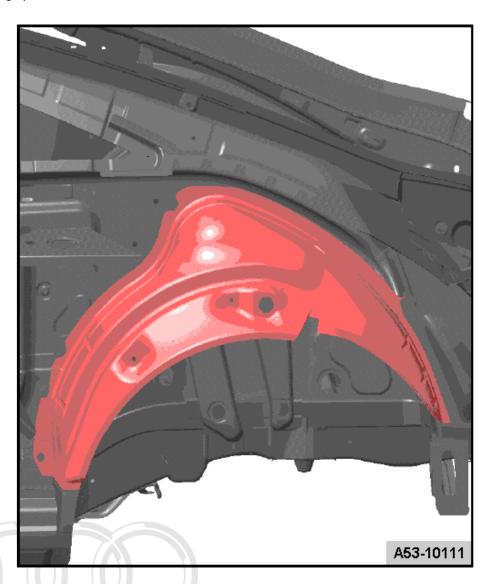
- Outer side panel already cut out.
- Inner side panel already cut out.



# Note

Protect adjacent aluminium parts adequately against sparks from welding and grinding operations; cover up or mask with adhesive tape as necessary.

Separate original joint using spot weld breaker -V.A.G 1731- .



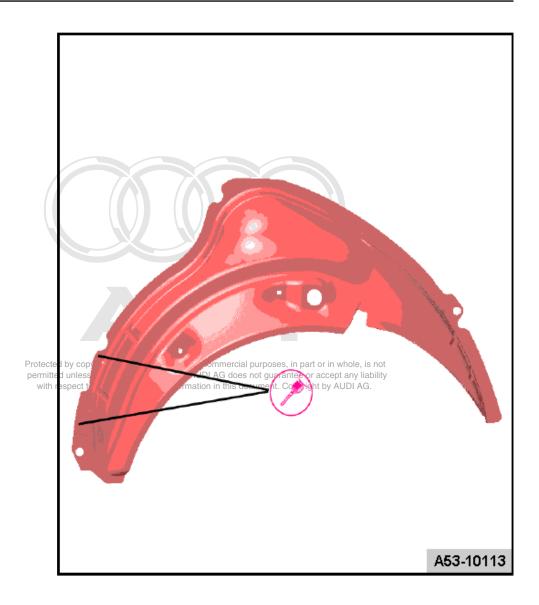
# Replacement part

♦ Wheel housing liner

## Preparing new part

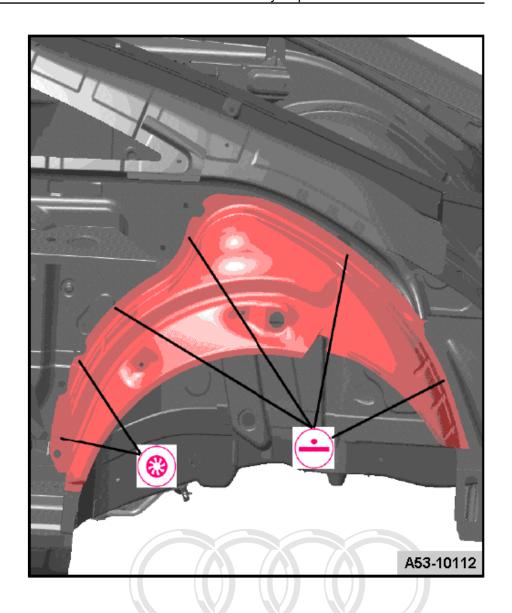
Drill holes for SG plug weld seam using spot weld breaker -V.A.G 1731-.

> Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.



# Welding in

- Weld in wheel housing liner using resistance spot welder -VAS 6239 A- : RP spot weld seam.
- Weld in wheel housing liner using shielded arc welding equipment 250A -VAS 6045A- : SG plug weld seam.





Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.

RO: 53 80 55 50

#### Spare wheel well - Partial renewal 11 (Coupé and Roadster identical)



## **WARNING**

Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes.



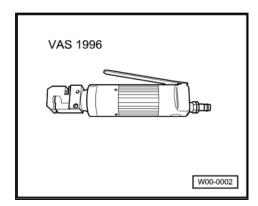
## Note

Protect adjacent aluminium parts adequately against sparks from welding and grinding operations; cover up or mask with adhesive tape as necessary.

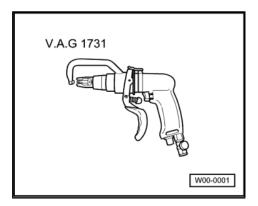
#### 11.1 **Tools**

# Special tools and workshop equipment required

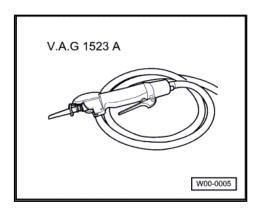
- Resistance spot welder -VAS 6239 A-
- Resistance spot welder -VAS 6525-
- Resistance spot welder MAS/6530 pying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability
- Resistance spot welder WAS 6535 ectness of information in this document. Copyright by AUDI AG.
- Resistance spot welder -VAS 6545-
- Shielded arc welding equipment 250A -VAS 6045A-
- Drill -VAS 5830-
- Pneumatic punch and offset tool -VAS 1996-



Spot weld breaker -V.A.G 1731-



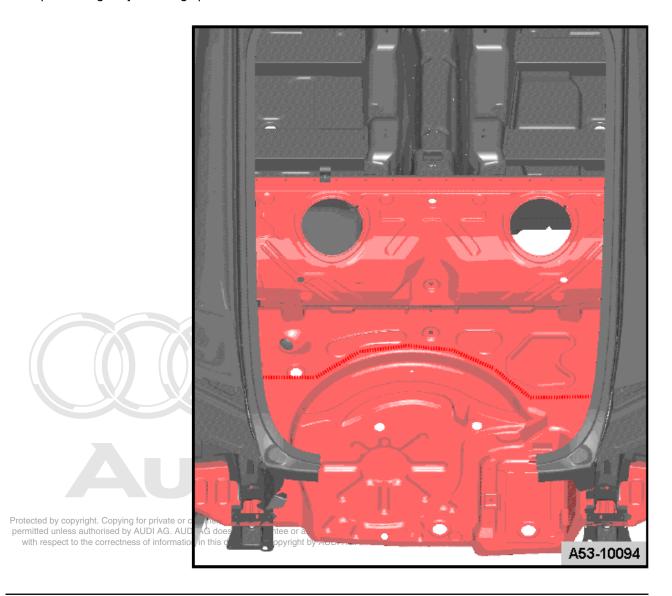
♦ Pneumatic sabre saw -V.A.G 1523A-



#### 11.2 **Procedure**

# **Cutting locations**

- Outer section of cross panel already cut out
- Inner section of cross panel already cut out
- Make separating cut with pneumatic sabre saw -V.A.G 1523A-so that body side of joint can be prepared for joddle-joining.
- Separate original joint using spot weld breaker -V.A.G 1731- .

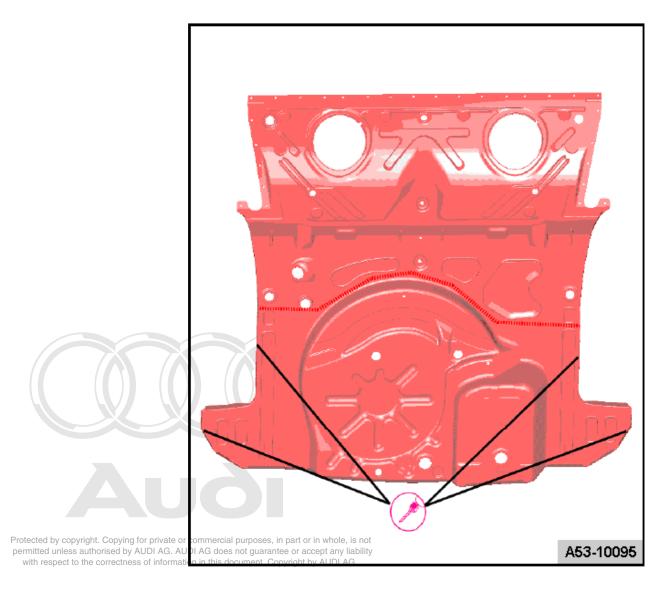


# Replacement part

♦ Spare wheel well

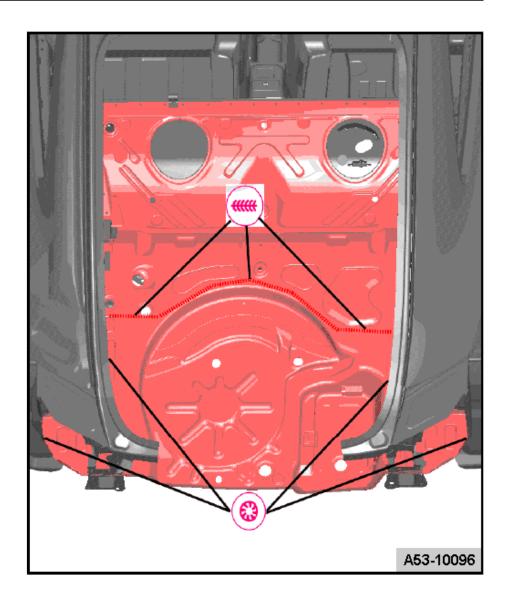
# Preparing new part

- Prepare joint on body side for joddle-joining using pneumatic punch and offset tool -VAS 1996- .
- Transfer separating cut plus 15 mm for overlap to new part.
- Drill 7 mm  $\varnothing$  holes for SG plug weld seam using drill -VAS



# Welding in

- Weld in spare wheel well using shielded arc welding equipment 250A -VAS 6045A- : SG plug weld seam.
- Weld at separating cut using shielded arc welding equipment 250A -VAS 6045A-: SG continuous seam.



RO: 53 80 55 50

# 12 Spare wheel well - Renewal (Coupé and Roadster)



**WARNING** 

Always observe safety precautions.

Safety notes ⇒ General Information; Body Repairs, General Body Repairs; Safety notes .



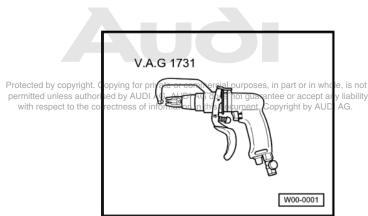
Note

Protect adjacent aluminium parts adequately against sparks from welding and grinding operations; cover up or mask with adhesive tape as necessary.

# 12.1 Tools

# Special tools and workshop equipment required

- Resistance spot welder -VAS 6239 A-
- Resistance spot welder -VAS 6525-
- Resistance spot welder -VAS 6530-
- Resistance spot welder -VAS 6535-
- Resistance spot welder -VAS 6545-
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ♦ Drill -VAS 5830-
- ♦ Spot weld breaker -V.A.G 1731-

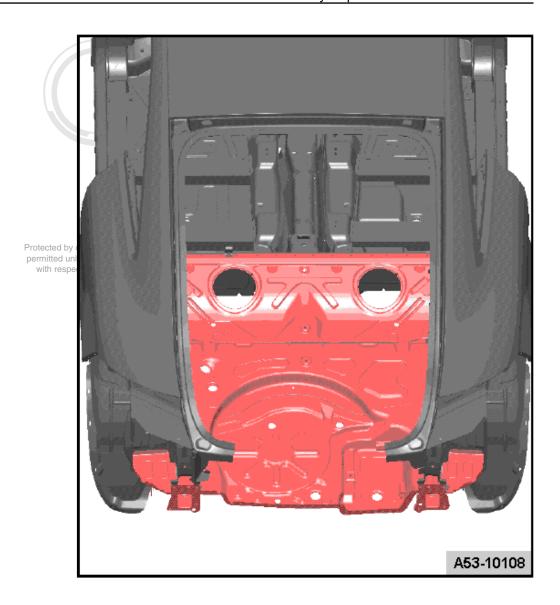


# 12.2 Procedure

# **Cutting locations**

- · Upper section of cross panel already cut out
- · Inner section of cross panel already cut out
- Separate original joint using spot weld breaker -V.A.G 1731- .
- Detach bolted joints.



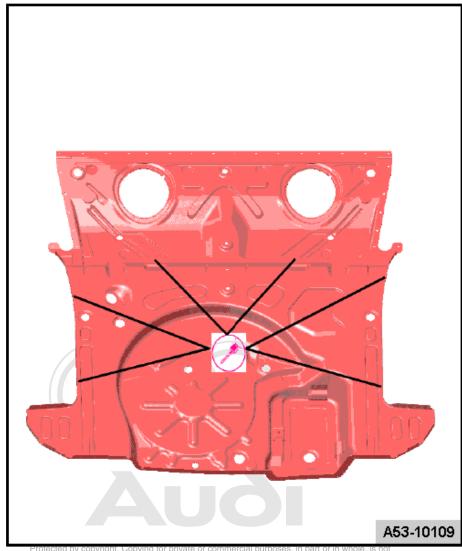


# Replacement part

♦ Spare wheel well

# Preparing new part

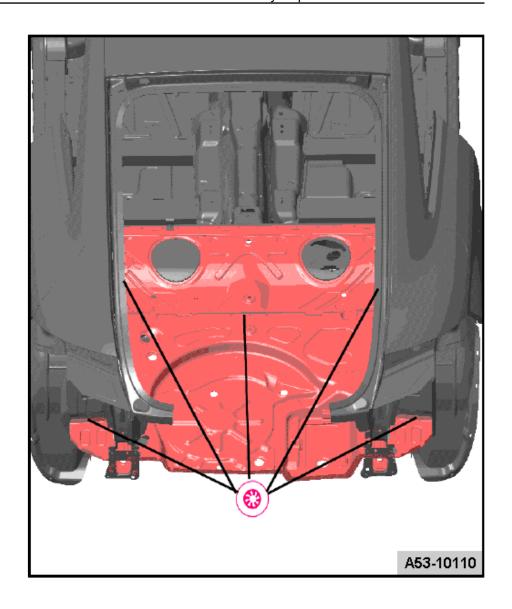
Drill 7 mm  $\varnothing$  holes for SG plug weld seam using spot weld breaker -V.A.G 1731- .



permitted unless authorised by 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.

# Welding in

- Weld in spare wheel well using shielded arc welding equipment 250A -VAS 6045A- : SG plug weld seam.
- Re-secure bolted joints: tightening torque 8 Nm.





Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by 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.