

Body Repairs

Audi A3 Cabriolet 2008 ➤

Edition 05.2009



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Repair Group overview for Body Repairs

Repair Group

00 - Technical data

50 - Body - front

51 - Body - centre

53 - Body - rear



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

Contents

00 - Technical data	1
1 Vehicle identification data	1
1.1 Type plate and vehicle identification number	1
1.2 Vehicle data sticker	1
2 Safety notes	2
3 General notes	3
4 Body dimensions	4
4.1 Floor group, front	5
4.2 Floor group, centre	7
4.3 Floor group, rear	8
4.4 Body - front	9
4.5 Body - centre	11
4.6 Body - rear	14
5 Moulded foam inserts	15
6 Corrosion protection	16
7 Bonded joints	17
7.1 Inspecting and repairing bonded joints	17
7.2 Repair methods for replacing body parts	17
8 Straightening jig	18
50 - Body - front	19
1 Engine console - Renewal	19
1.1 Tools	19
1.2 Procedure	19
2 Upper wheel housing longitudinal member - Renewal	26
2.1 Tools	26
2.2 Procedure	26
3 Upper wheel housing longitudinal member (inner) - Renewal	31
3.1 Tools	31
3.2 Procedure	31
4 Front longitudinal member - Renewal	35
4.1 Tools	35
4.2 Procedure	35
5 Front longitudinal member - Partial renewal	42
5.1 Tools	42
5.2 Procedure	42
51 - Body - centre	47
1 Roof frame - Renewal	47
1.1 Tools	47
1.2 Procedure	47
2 Upper A-pillar - Renewal	52
2.1 Tools	52
2.2 Procedure	52
3 A-pillar and outer side member - Renewal	56
3.1 Tools	56
3.2 Procedure	56
4 Reinforcement tube - Renewal	60
4.1 Tools	60
4.2 Procedure	60



5	Inner A-pillar - Renewal	63
5.1	Tools	63
5.2	Procedure	63
6	Inner B-pillar - Renewal	70
6.1	Tools	70
6.2	Procedure	70
7	Mountings for diagonal struts - Renewal	74
7.1	Tools	74
7.2	Procedure	74
8	Inner side member - Partial renewal	80
8.1	Tools	80
8.2	Procedure	80
9	Inner side member - Renewal	83
9.1	Tools	83
9.2	Procedure	83
53 - Body - rear		87
1	Rear cross panel (top section) - Renewal	87
1.1	Tools	87
1.2	Procedure	87
2	Rear cross panel (inner section) - Renewal	91
2.1	Tools	91
2.2	Procedure	91
3	Tail light mounting - Renewal	94
3.1	Tools	94
3.2	Procedure	94
4	Luggage compartment floor - Renewal	97
4.1	Tools	97
4.2	Procedure	97
5	Rear longitudinal member - Partial renewal	101
5.1	Tools	101
5.2	Procedure	101
6	Side panel - Renewal	105
6.1	Tools	105
6.2	Procedure	106
7	Rear wheel housing - Partial renewal	113
7.1	Tools	113
7.2	Procedure	114

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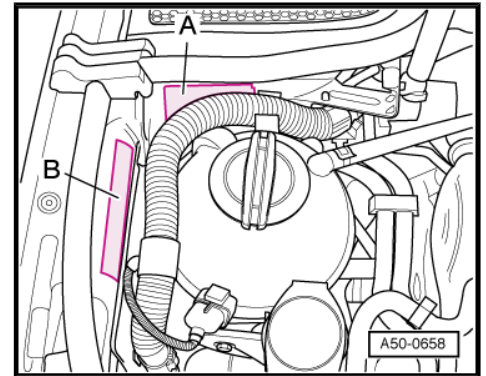
00 – Technical data

1 Vehicle identification data

1.1 Type plate and vehicle identification number

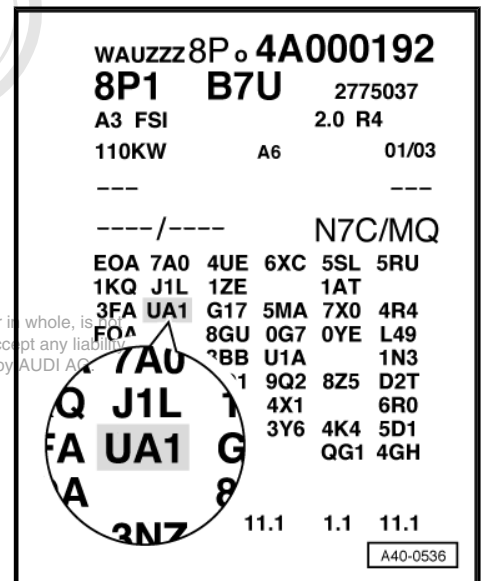
The vehicle identification number -B- (chassis number) is stamped on the top of the longitudinal member (inside).

The type plate -A- is attached to the plenum chamber behind the right suspension turret.



1.2 Vehicle data sticker

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



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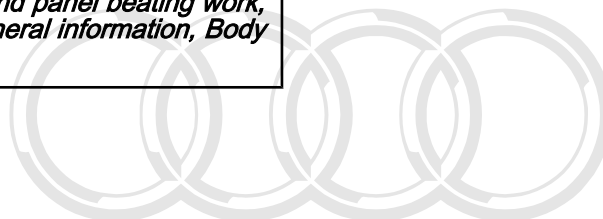


2 Safety notes



WARNING

Before starting cutting, straightening and panel beating work, observe the safety precautions in "General information, Body repairs and General body repairs".



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3 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 .



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4 Body dimensions

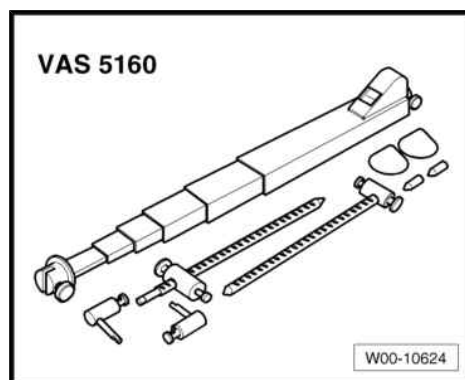


WARNING

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

Special tools and workshop equipment required

- ◆ Measure body dimensions using telescopic gauge -VAS 5160- or telescopic gauge -VAS 5159- .



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4.1 Floor group, front

Distance between front longitudinal members (front)

- A - 956 ± 2 mm

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

- B - 1003 ± 2 mm

Distance between front attachment points of front suspension

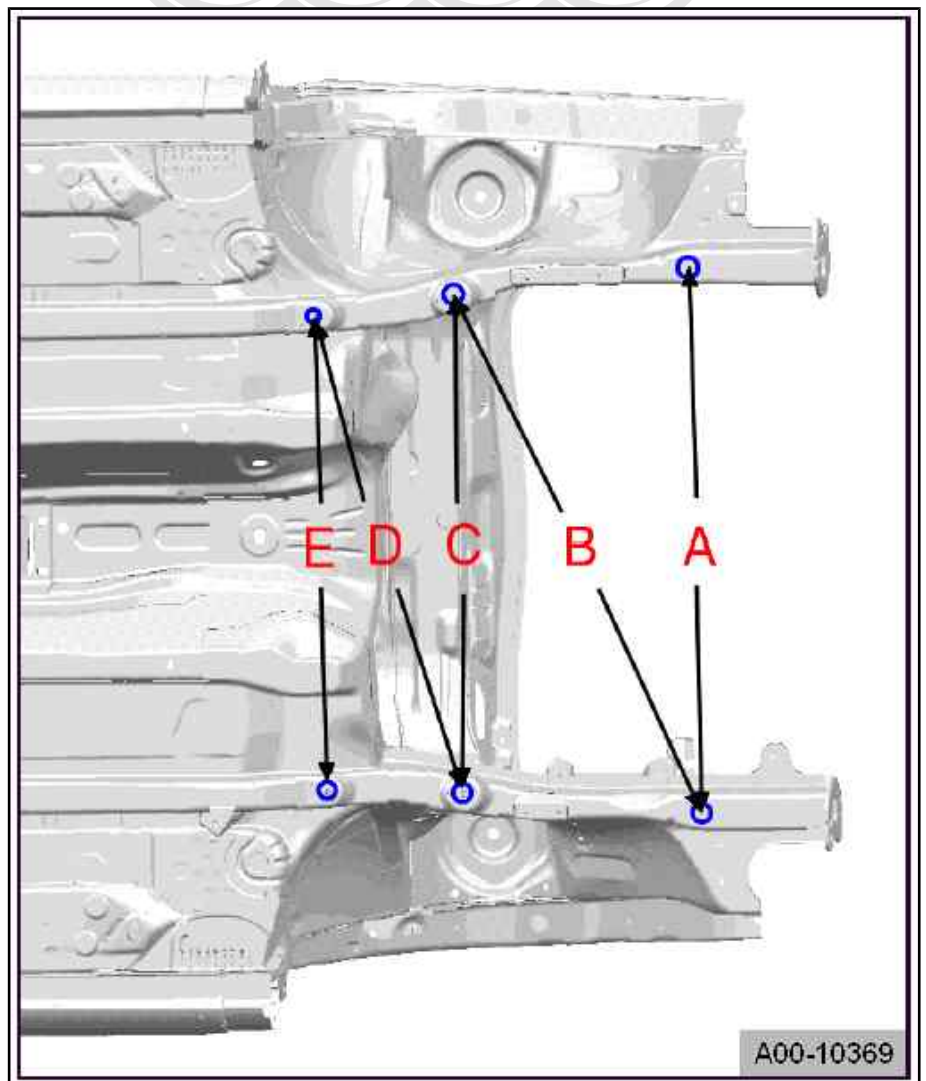
- C - 874 ± 2 mm

Diagonal distance between attachment points of front suspension

- D - 892 ± 2 mm

Distance between rear attachment points of front suspension

- E - 836 ± 2 mm



Distance between front longitudinal members (front)

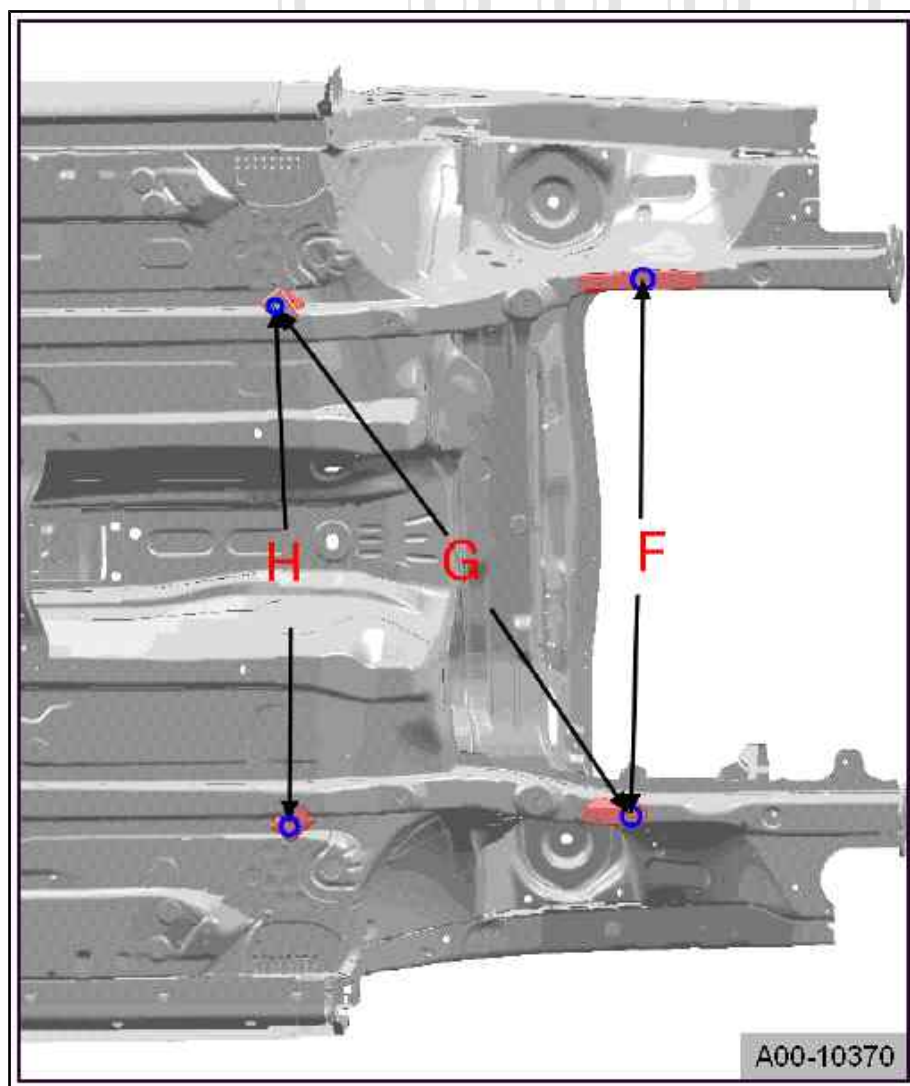
- H - 915 ± 2 mm

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

- G - 1116 ± 2 mm

Distance between front attachment points of front suspension

- F - 944 ± 2 mm



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G.

4.2 Floor group, centre

Diagonal distance between rear attachment points of front axle and rear axle mounting

- F - 2039 ± 2 mm

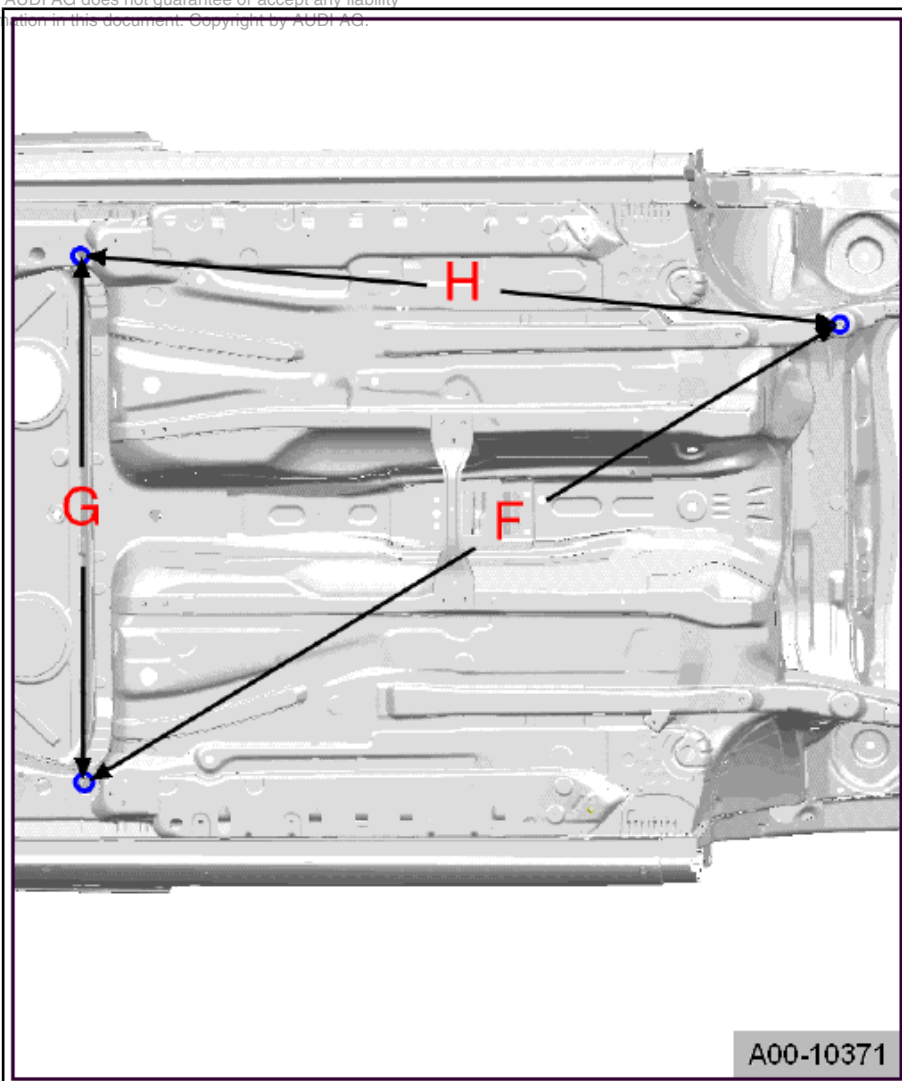
Distance between front longitudinal members (rear)

- G - 1220 ± 2 mm

Distance between rear attachment points of front suspension and rear axle mounting

- H - 1758 ± 2 mm

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4.3 Floor group, rear

Distance between rear longitudinal members (front)

- J - 1075 ± 2 mm

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

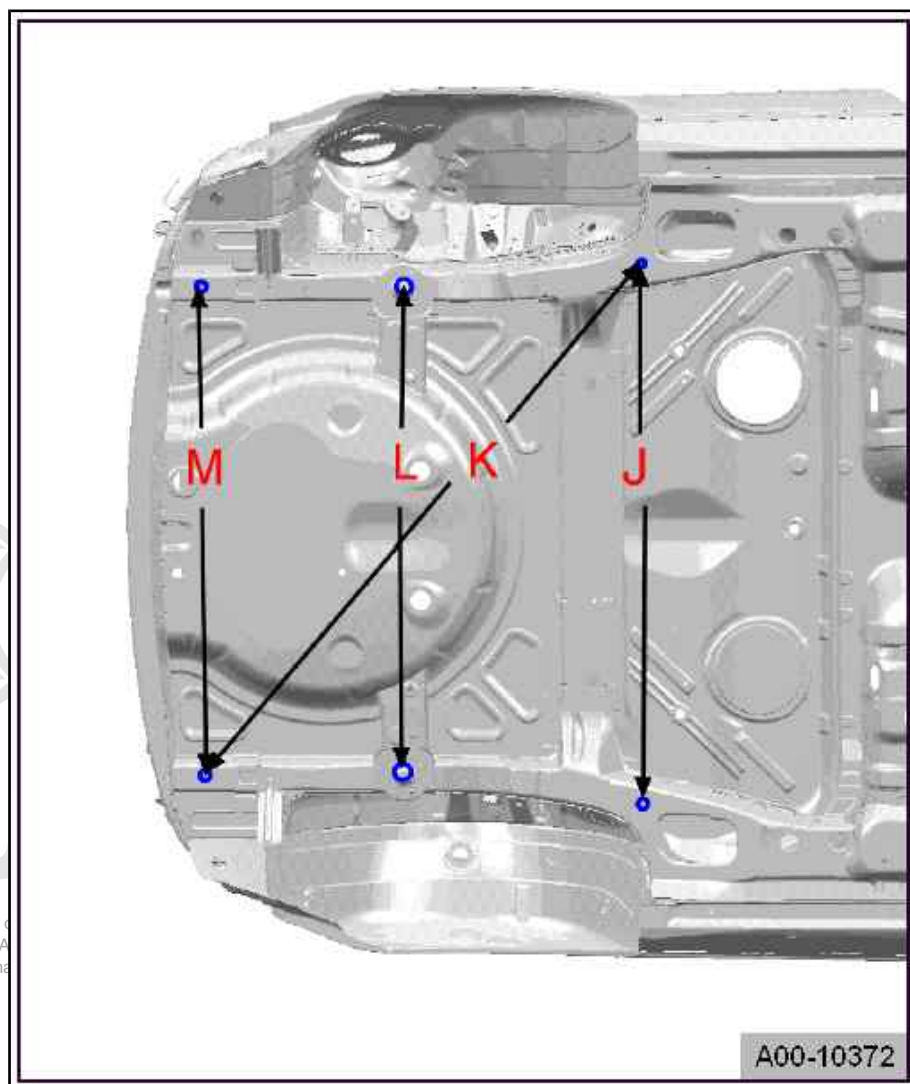
- K - 1326 ± 2 mm

Distance between axle mountings

- L - 980 ± 2 mm

Distance between rear longitudinal members (rear)

- M - 987 ± 2 mm

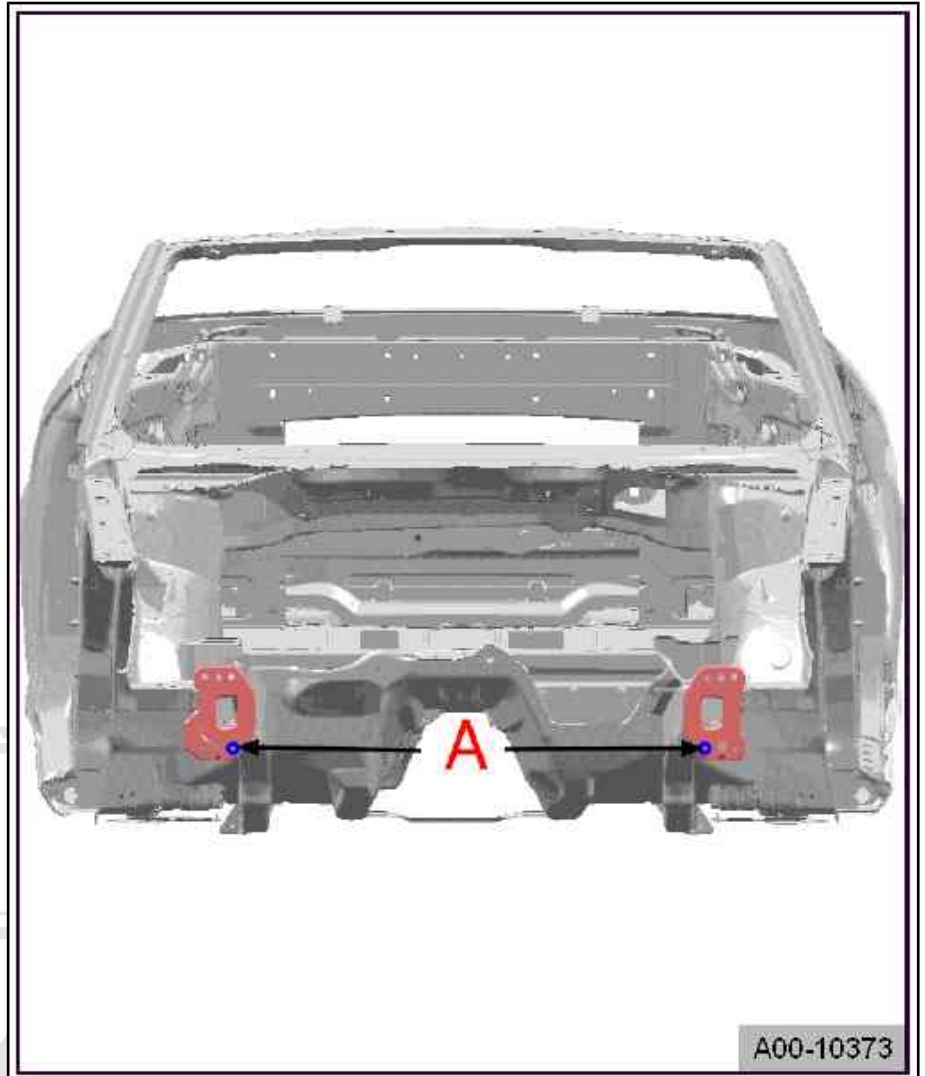


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4.4 Body - front

Distance between front longitudinal members

-a- 940 ± 2 mm



Distance between wing panel mountings

- B - 1335 ± 2 mm

Diagonal distance between hinge mountings and wing panel mountings

- C - 1550 ± 2 mm

Distance between suspension strut mountings

- D - 1119 ± 2 mm

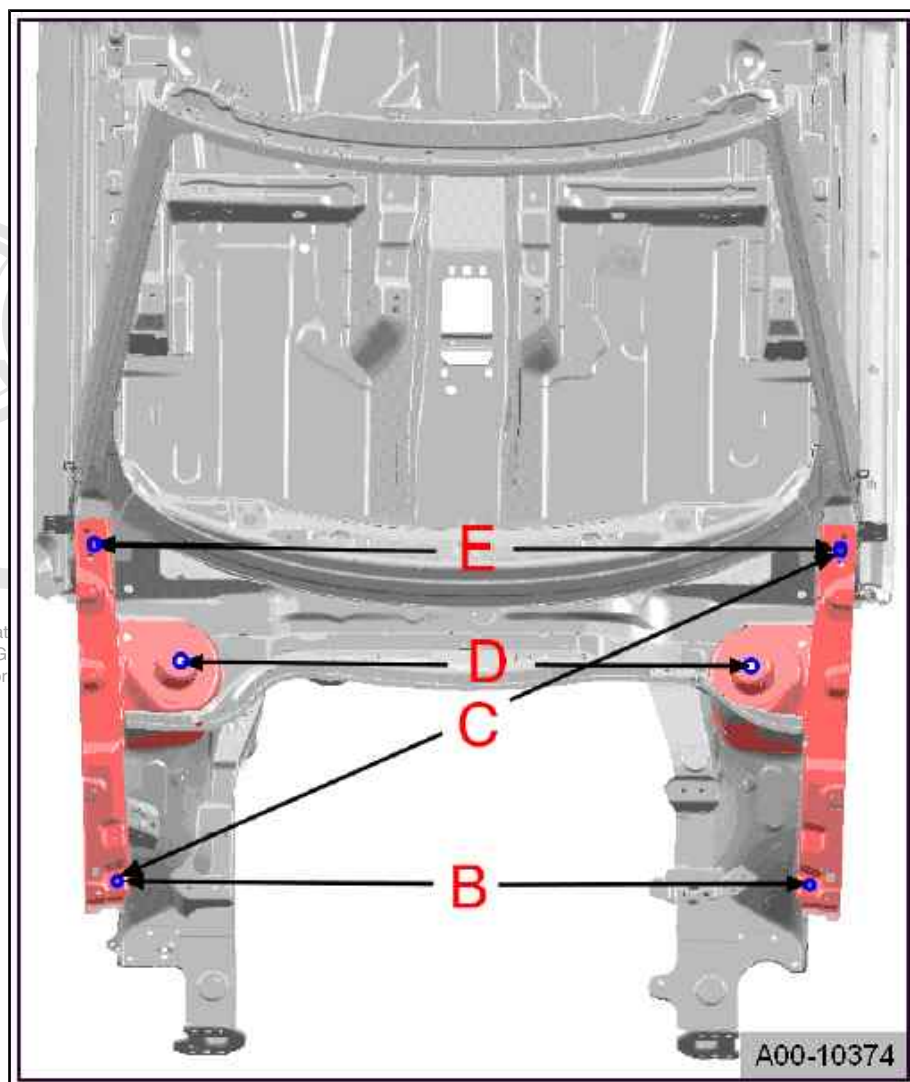
Distance between front hinge mountings

- E - 1466 ± 2 mm

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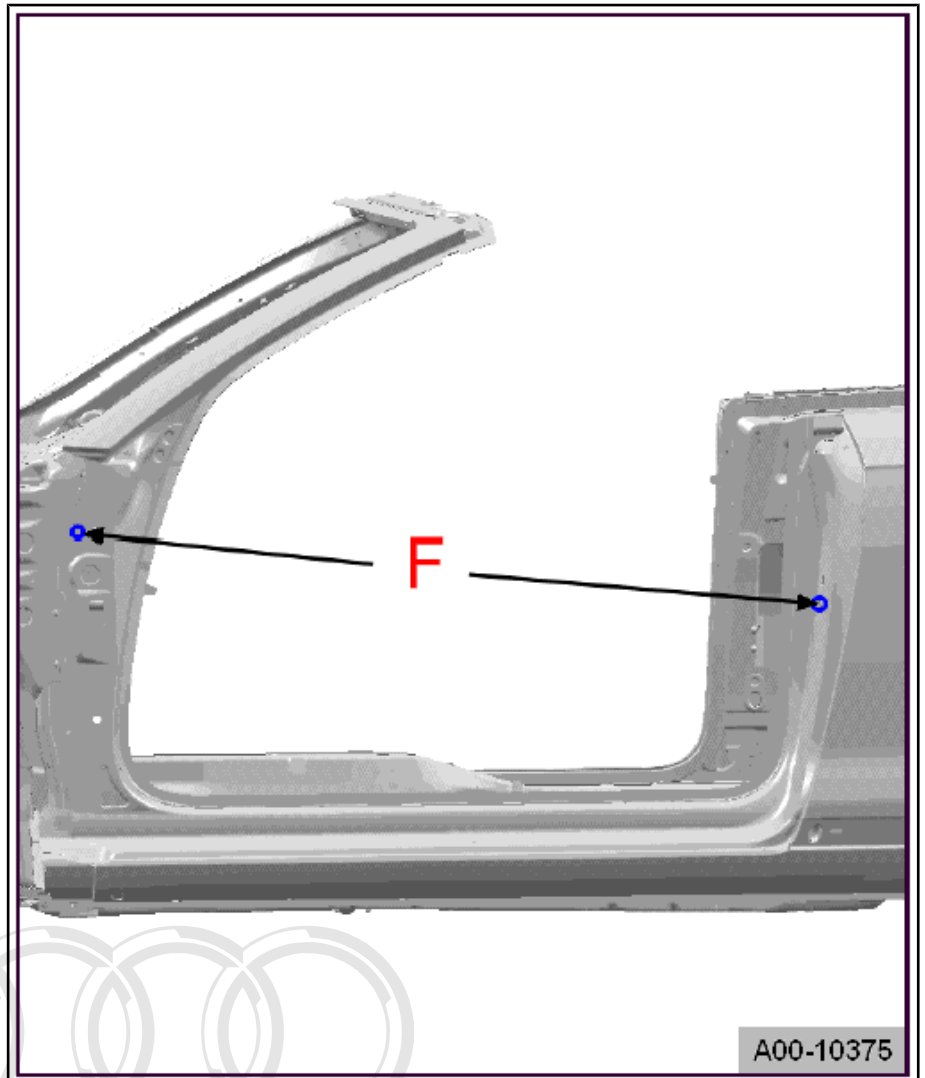
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4.5 Body - centre

Distance between A-pillar and B-pillar

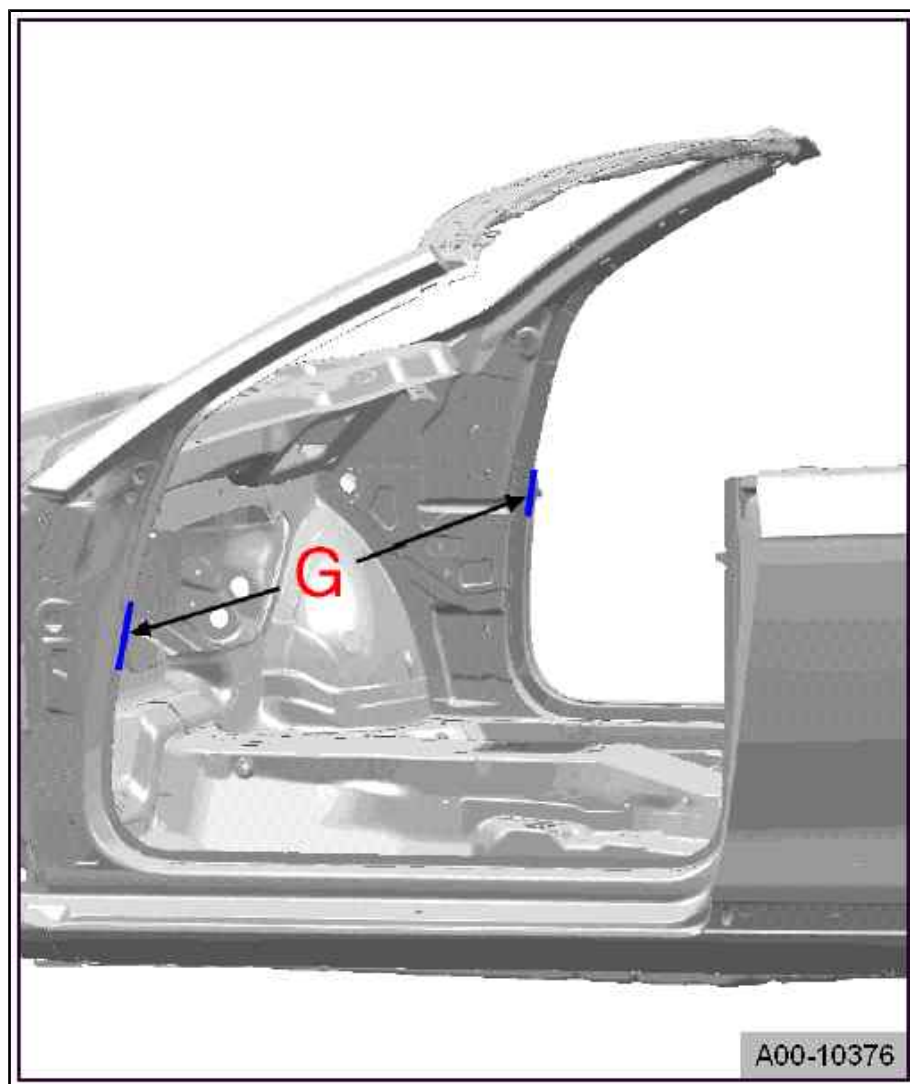
- F - 1187 ± 2 mm



Distance between A-pillars

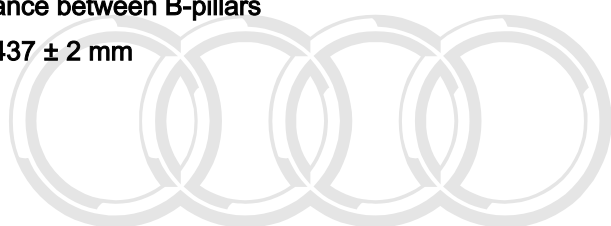
- G - 1437 ± 2 mm

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Distance between B-pillars

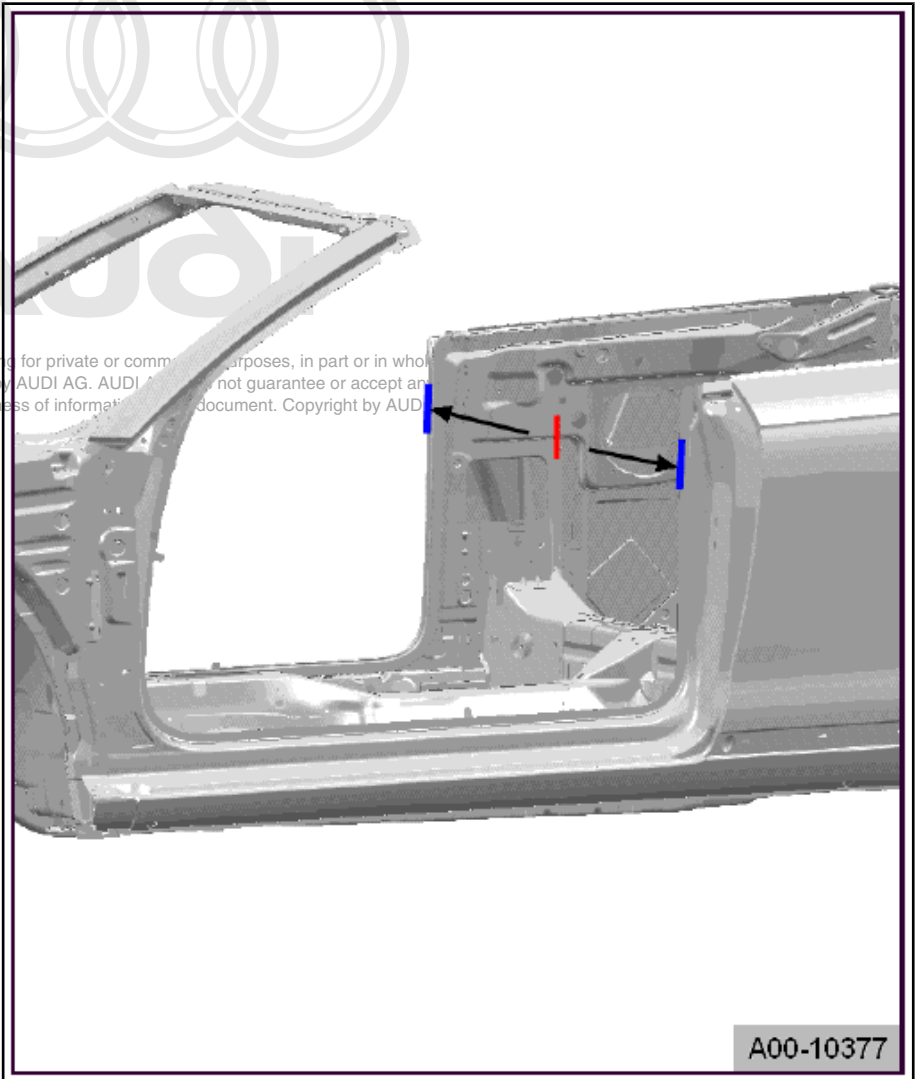
-i- 1437 ± 2 mm



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4.6 Body - rear

Distance between rear longitudinal members

- J - 915 ± 2 mm

Distance between tail lights (bottom)

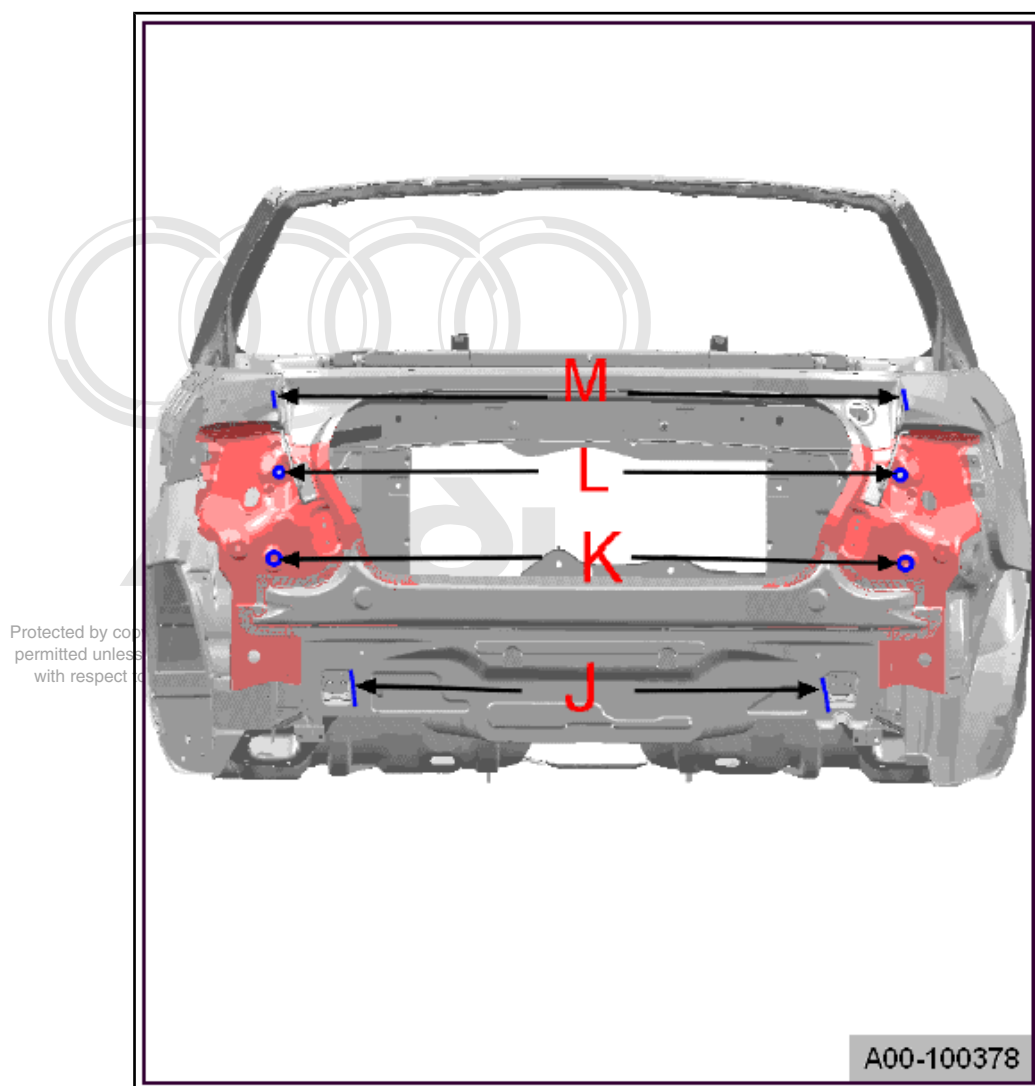
- K - 1240 ± 2 mm

Distance between rear cross panel flange and roof flange

- L - 1215 ± 2 mm

Distance between side panels (top)

- M - 1233 ± 2 mm



5 Moulded foam inserts

Various body cavities of the Audi A3 Cabriolet 2008 are fitted with moulded foam inserts.

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

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



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 506 000 A2.



Note

- ◆ The foam hardens within 25 minutes.
- ◆ No SG weld seams within 15 mm of the filler foam.
- ◆ Before continuing with the following operations, ensure that the replacement panel is ready for installation, e.g. cut to size, matched up to the vehicle and corrosion protection applied.

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

Remove residue of foam material on vehicle.

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

Requirement

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

Renewing moulded foam insert

Fix moulded foam insert to vehicle.

Apply filler foam -D 506 000 A2- to replacement part.

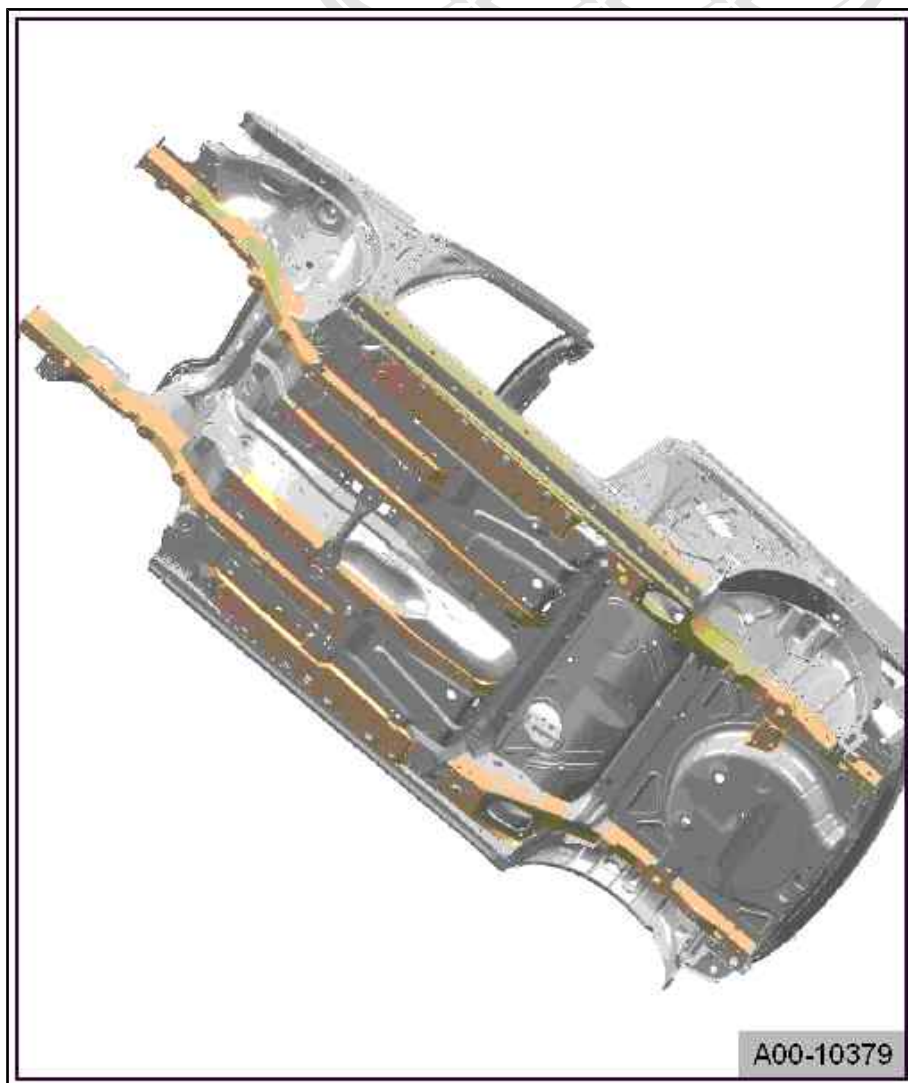
Secure new part in position. Gently press in new part in vicinity of moulded foam insert until it makes contact, and then weld into place.

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

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6 Corrosion protection

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



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7 Bonded joints

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

7.1 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.

7.2 Repair methods for replacing body parts

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

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

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



Note

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

Ensure good root penetration at all joints.

Seal off repaired joint flanges and apply cavity sealing.



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8 Straightening jig



Note

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

Alignment bracket set -VAS 6240-9-

Supplement for portal gauge -VAS 5007/36-

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



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50 – Body - front

RO: 50 40 55 00

1 Engine console - Renewal



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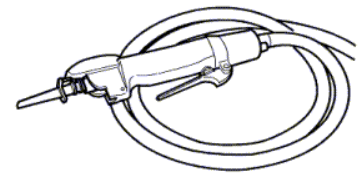
Safety notes ⇒ General Information; Body Repairs, General Body Repairs ; Safety notes .

1.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

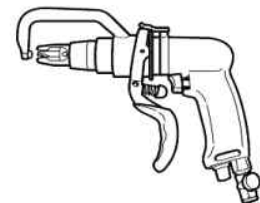
V.A.G 1523 A



W00-0005

- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1731



W00-0001

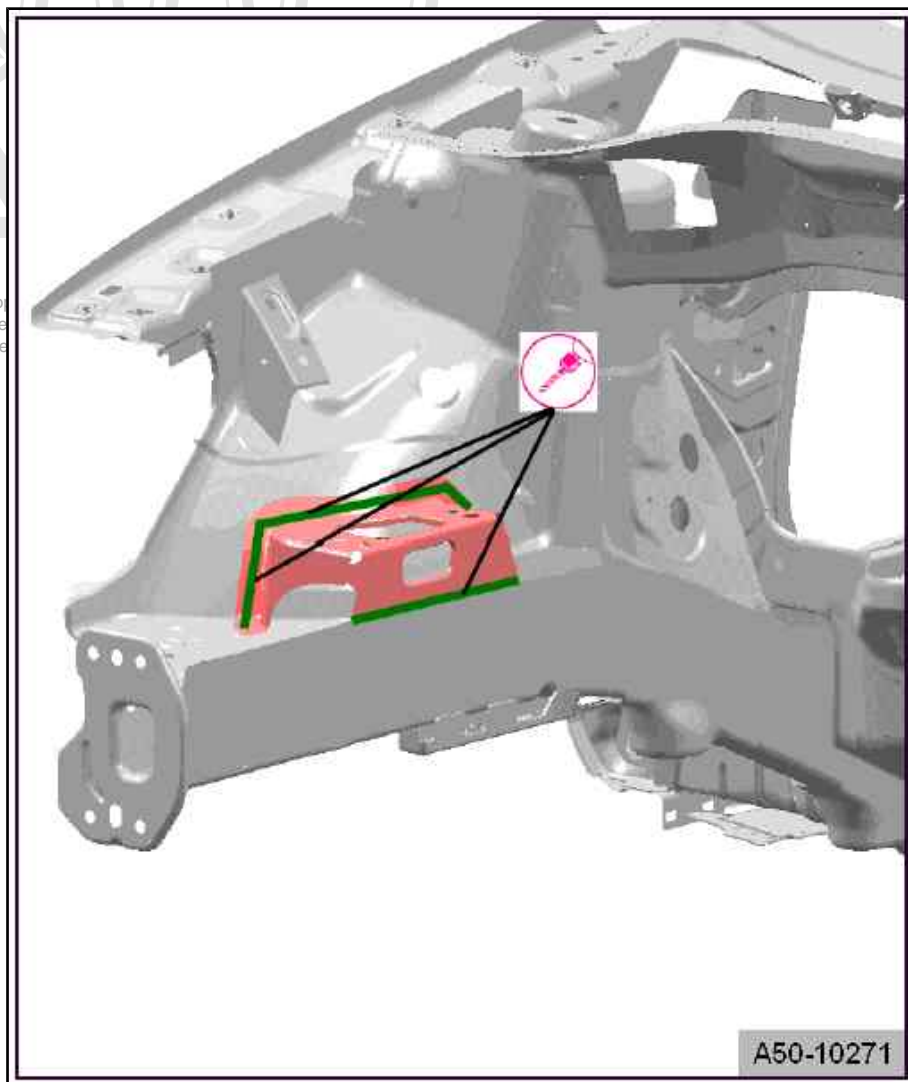
1.2 Procedure

Cutting locations

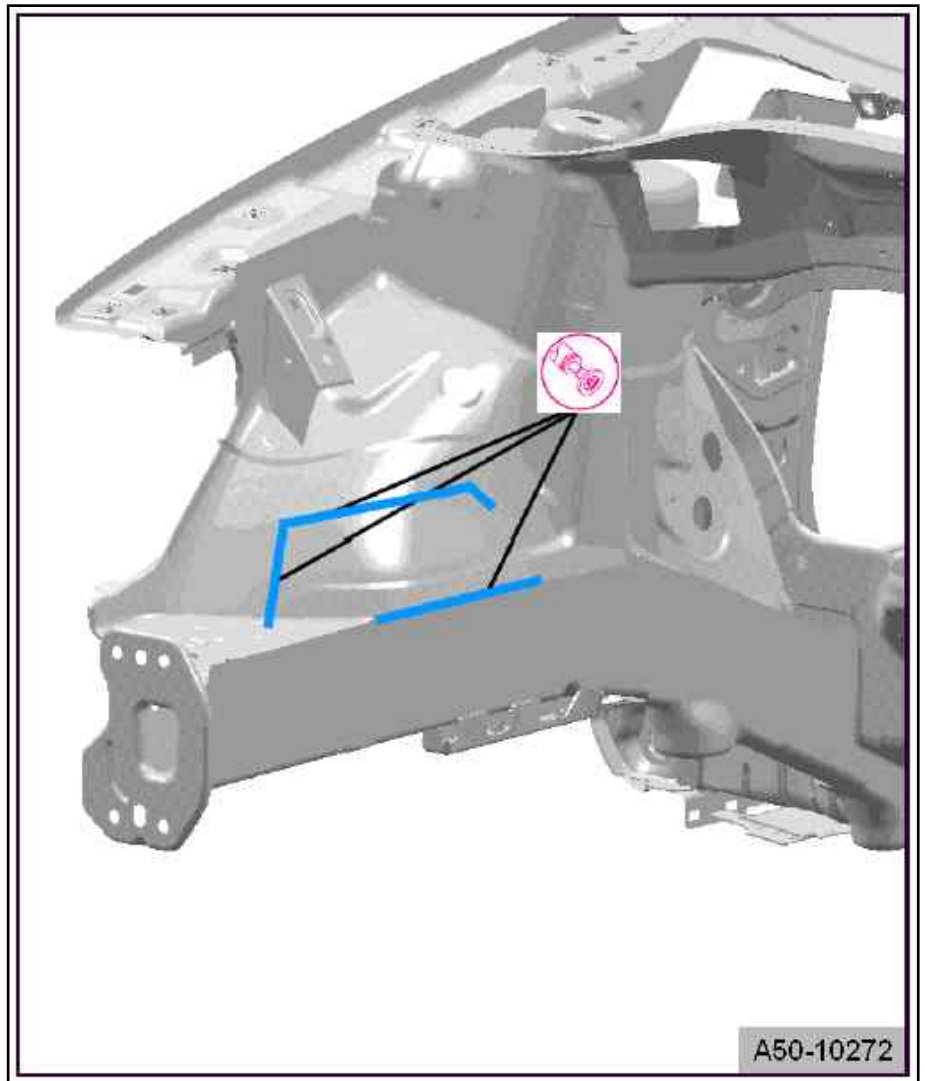
Engine console (right side)

- Separate original joint using drill -VAS 5830- .

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

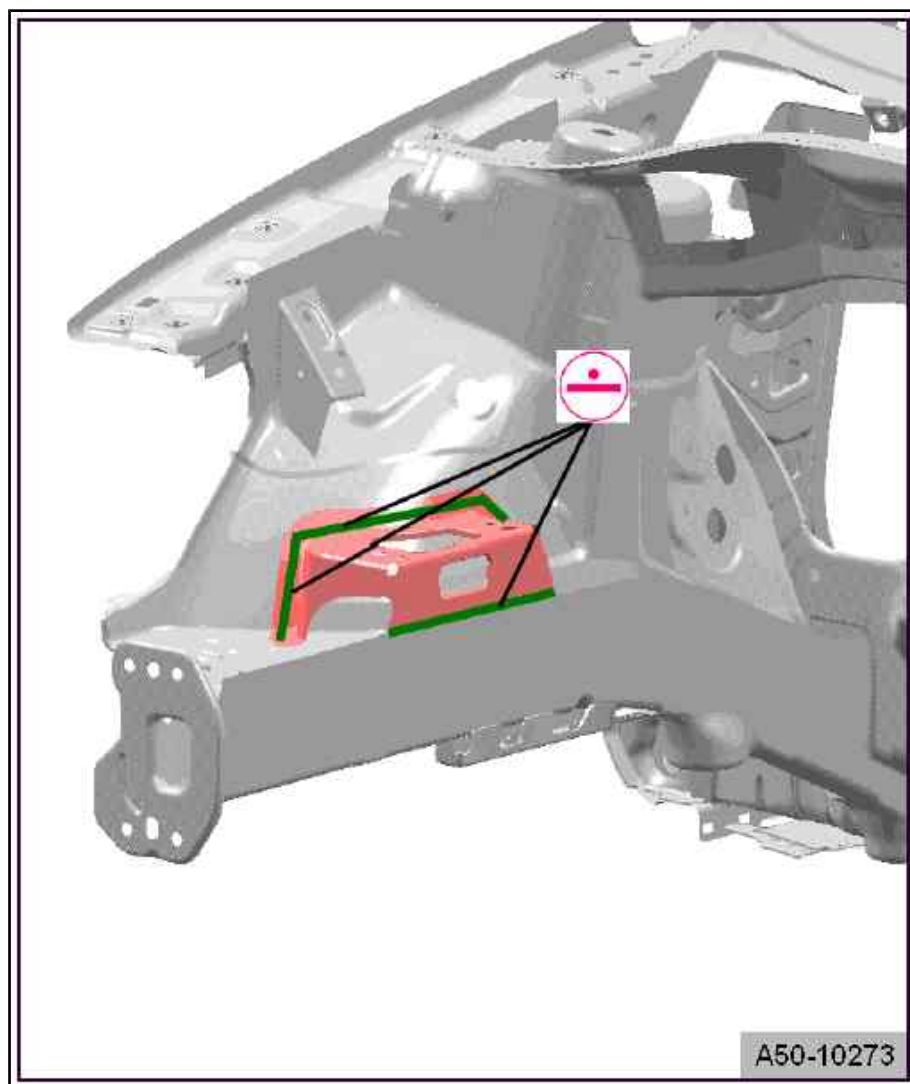


Replacement part

- ◆ Engine console (right side)

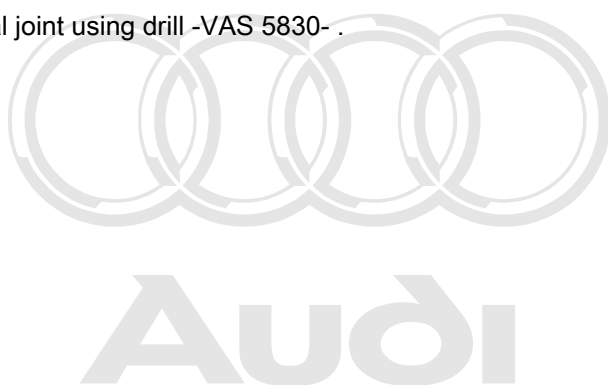
Welding in

- Fix new part in position with alignment bracket.
- Weld in engine console using welding unit (inverter) : RP spot weld seam.

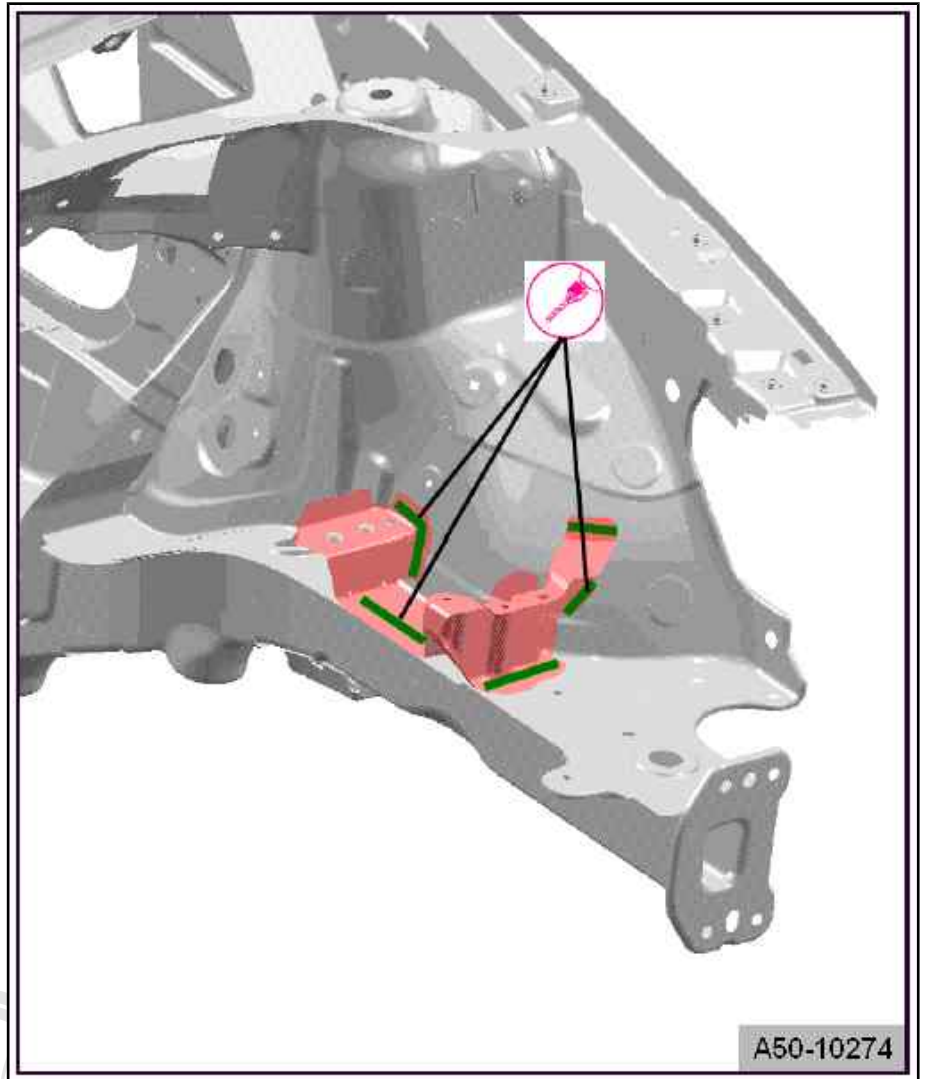


Gearbox console (left-side)

- Separate original joint using drill -VAS 5830- .



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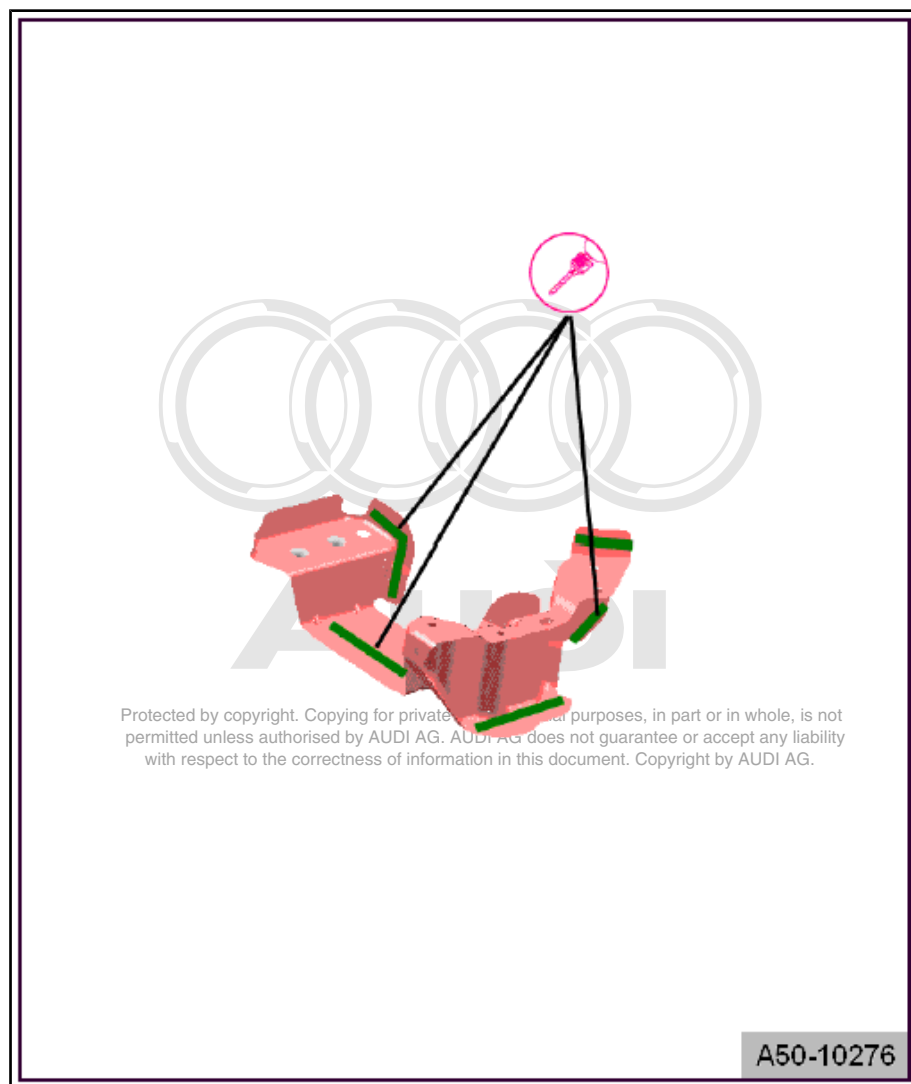
Replacement part

- ◆ Gearbox console

Preparing new part

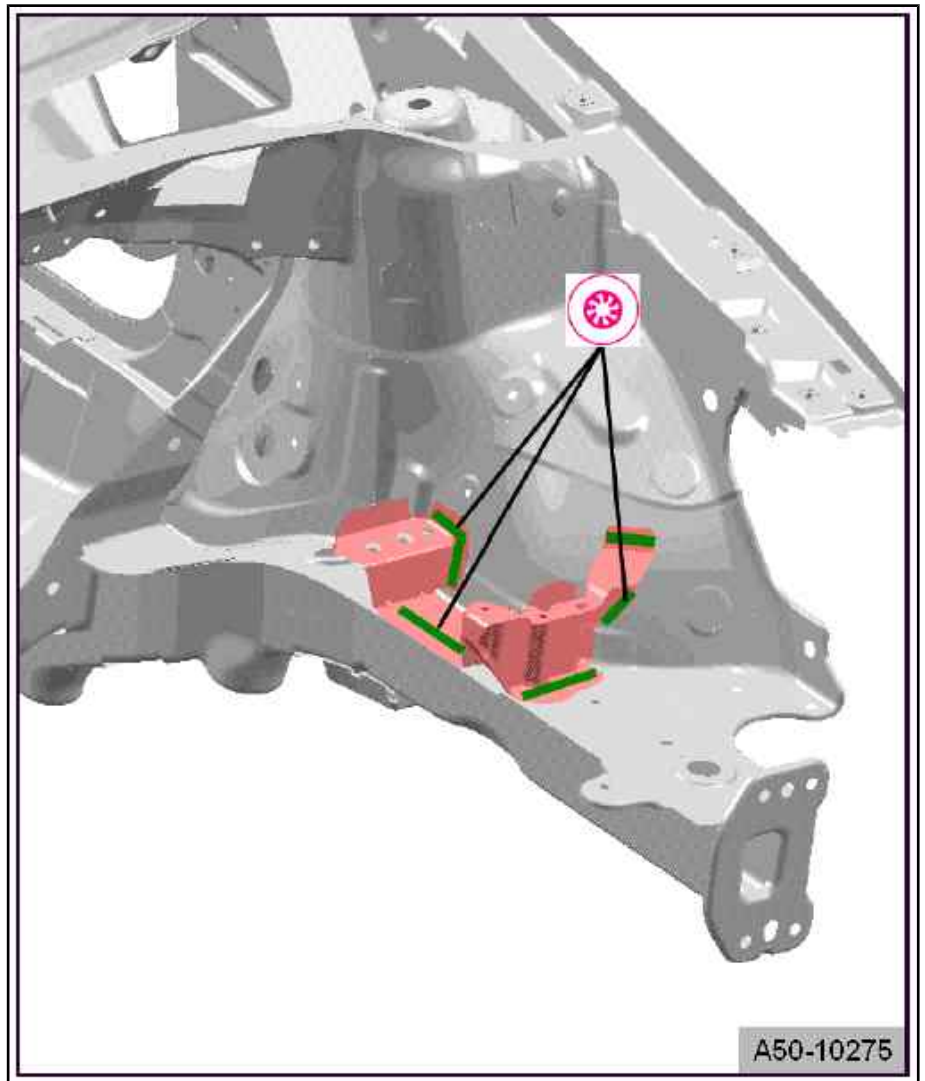
- Drill 7 mm Ø holes for SG plug weld seam using drill -VAS 5830- .

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Welding in

- Fix new part in position with alignment bracket.
- Weld in gearbox console using shielded arc welding equipment 250A -VAS 6045A- : SG plug weld seam.



RO: 50 72 55 50

2 Upper wheel housing longitudinal member - Renewal



WARNING

Always observe safety precautions.

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

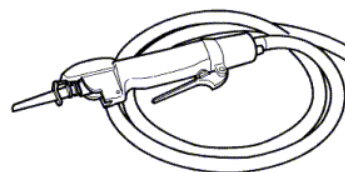
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2.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

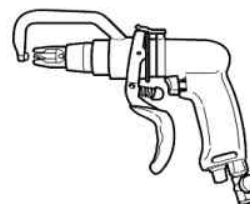
V.A.G 1523 A



W00-0005

- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1731

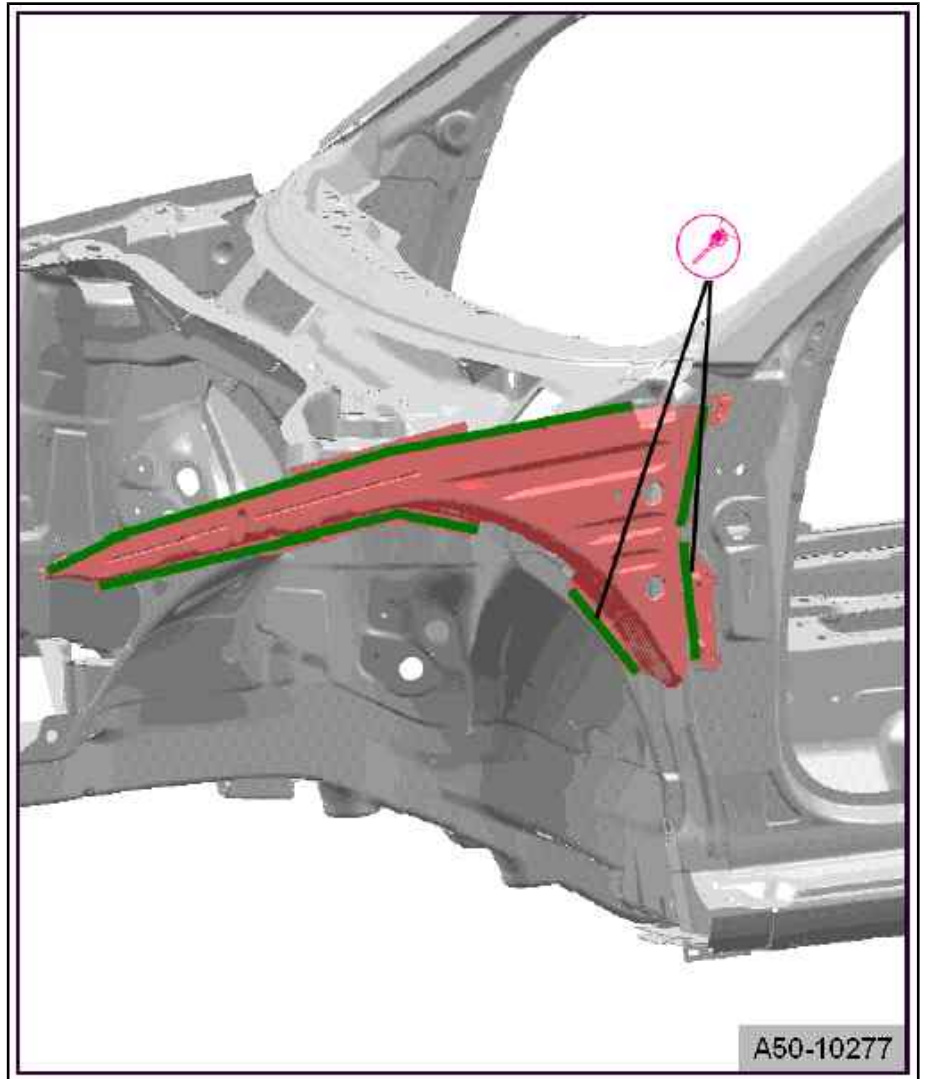


W00-0001

2.2 Procedure

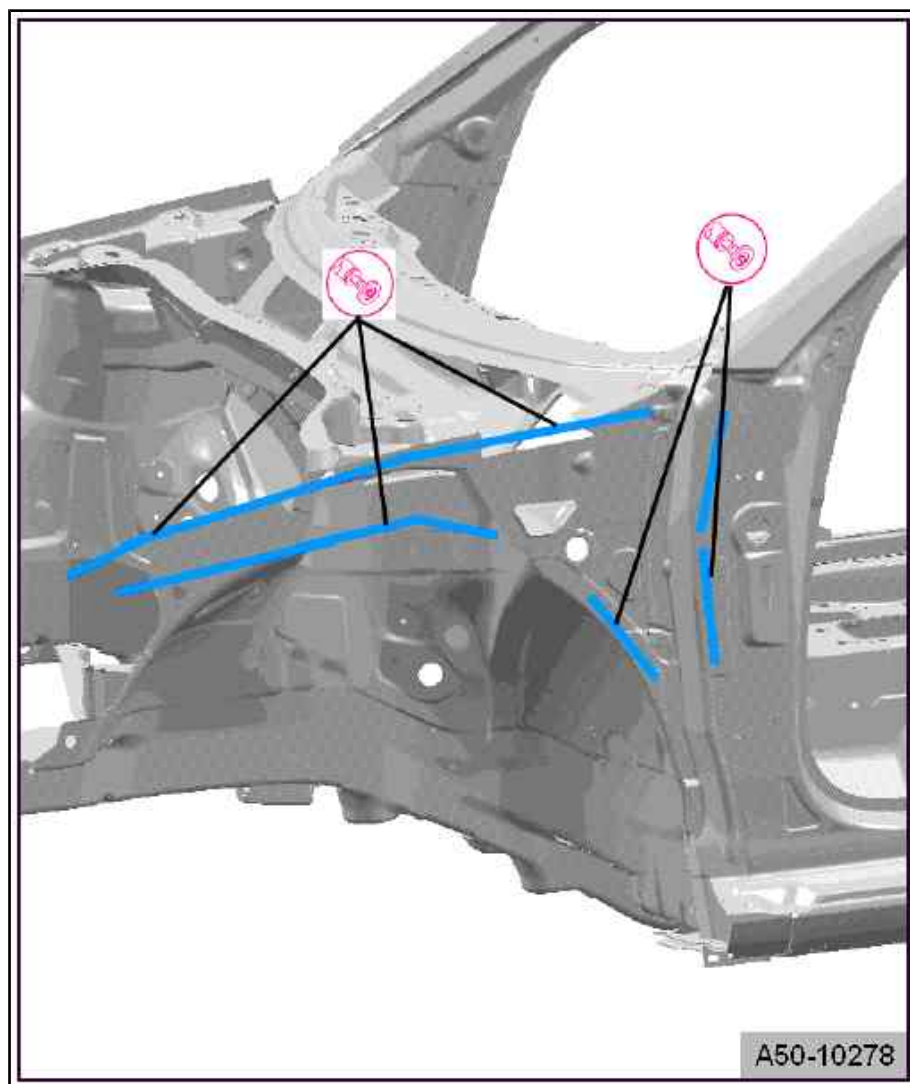
Cutting locations

- Separate original joint using spot weld breaker -V.A.G 1731- .
- Separate remaining joint using drill -VAS 5830- .



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

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Replacement part

- ◆ Upper wheel housing longitudinal member

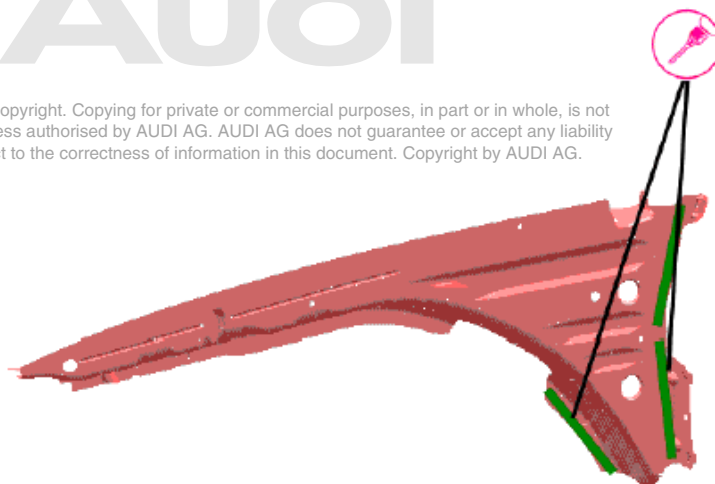
Preparing new part

- Drill holes for SG plug weld seam using drill -VAS 5830- .

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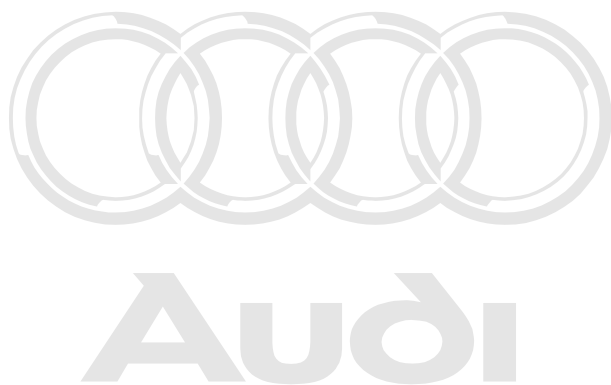
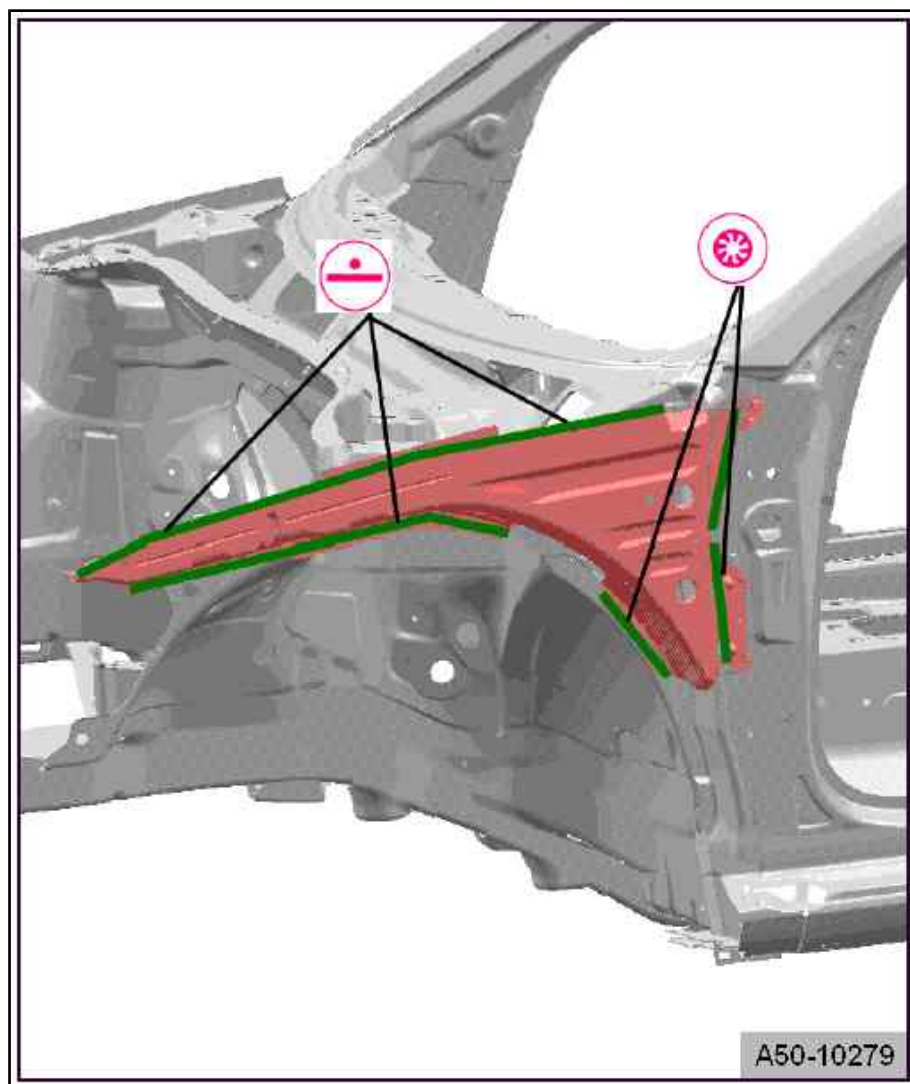
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A50-10280

Welding in

- Weld in upper wheel housing longitudinal member using welding unit (inverter) : RP spot weld seam.
- Weld in upper wheel housing longitudinal member using shielded arc welding equipment 250A -VAS 6045A- : SG plug weld seam.



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RO: 50 72 55 50

3 Upper wheel housing longitudinal member (inner) - Renewal



WARNING

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

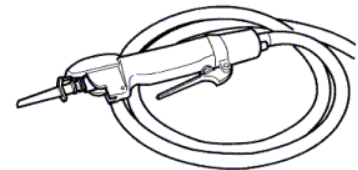
3.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

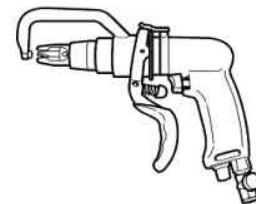
- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1523 A



W00-0005

V.A.G 1731



W00-0001

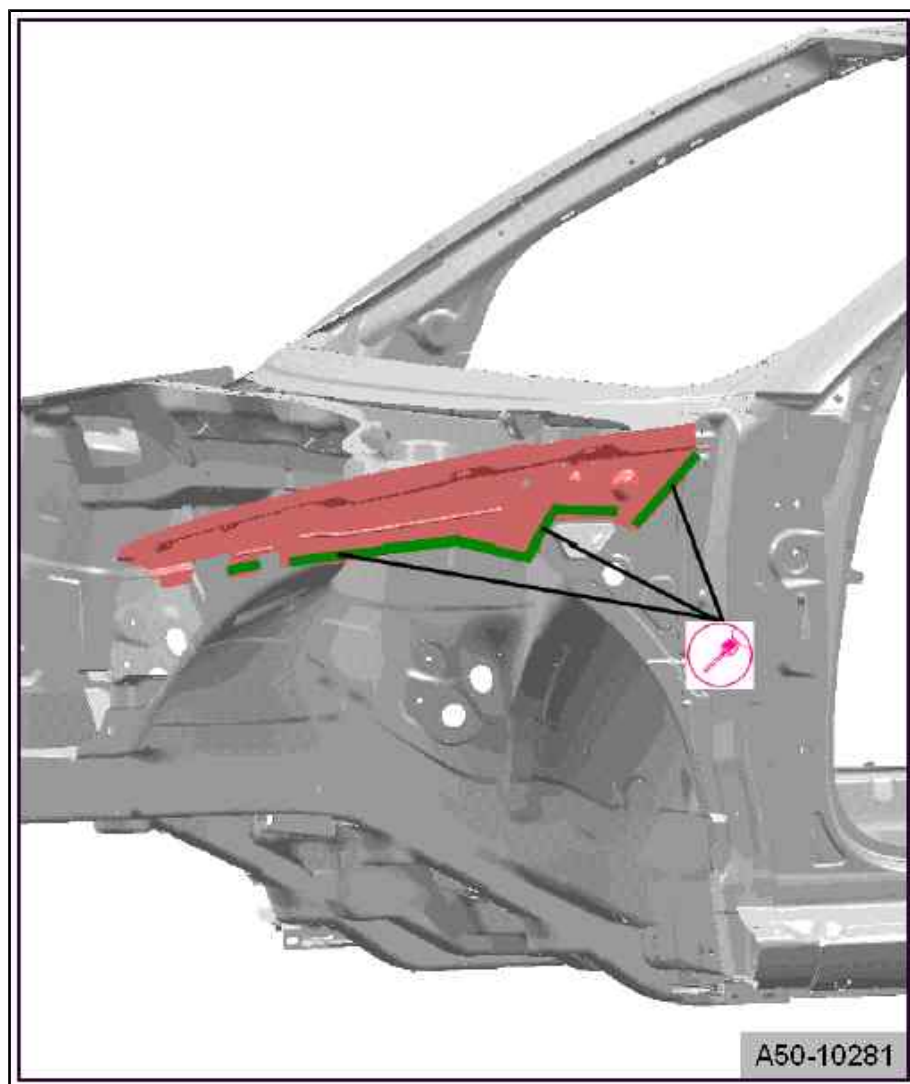
3.2 Procedure

- Upper wheel housing longitudinal member already removed.

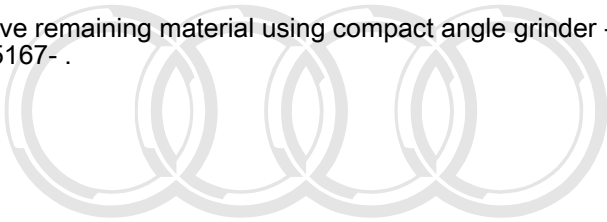
Cutting locations

- Separate original joint using spot weld breaker -V.A.G 1731- .
- Separate remaining joint using drill -VAS 5830- .

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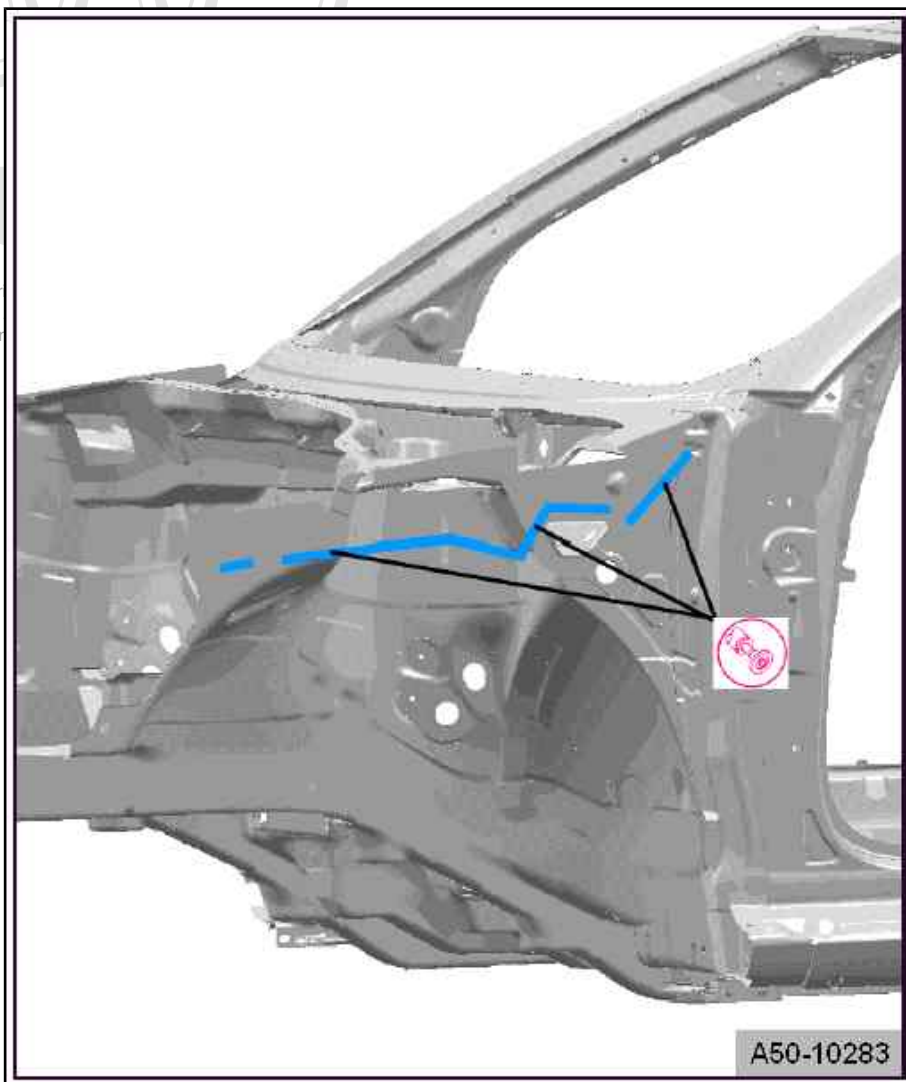


- Remove remaining material using compact angle grinder - VAS 5167- .


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Replacement part

- ◆ Upper wheel housing longitudinal member

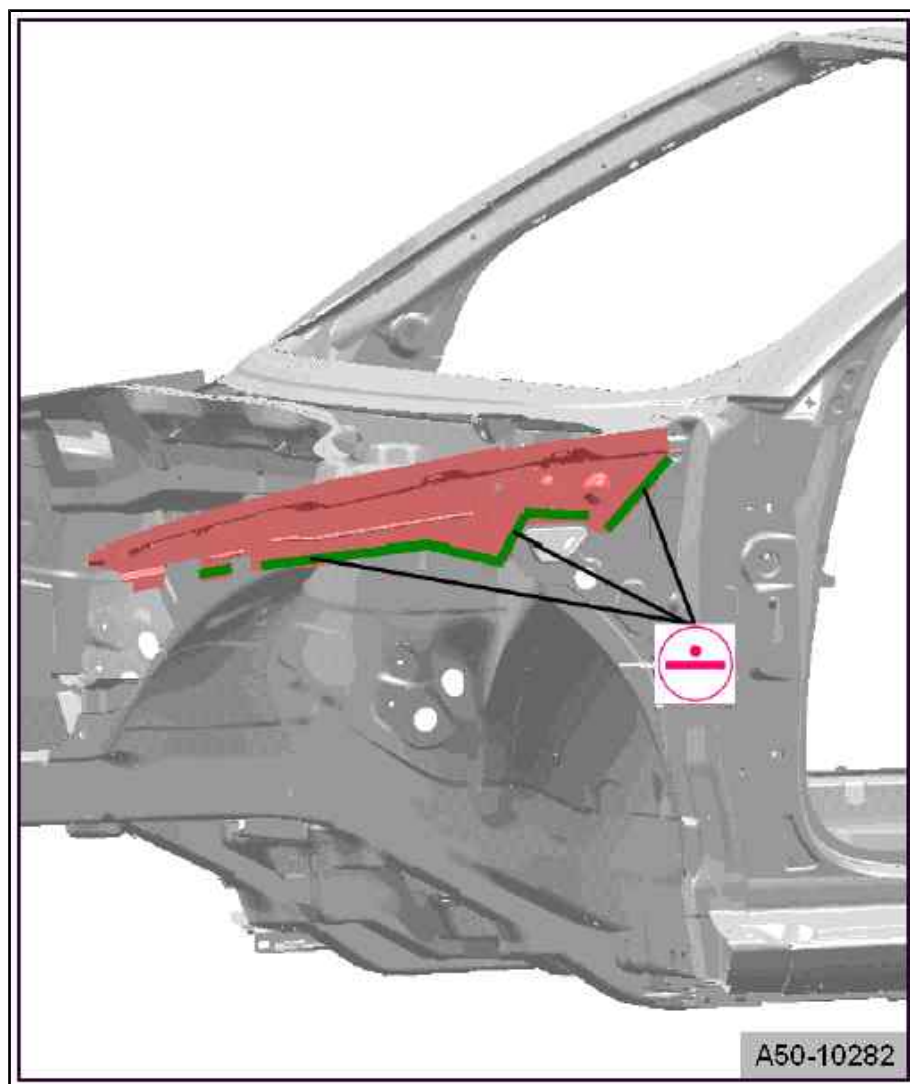


Caution

The VIN number (chassis number) must be fitted before welding.

Welding in

- Weld in upper wheel housing longitudinal member using welding unit (inverter) : RP spot weld seam.



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AG.

RO: 50 79 55 00

4 Front longitudinal member - Renewal



WARNING

Always observe safety precautions.

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

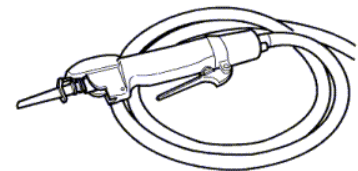
4.1 Tools

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Special tools and workshop equipment required

- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

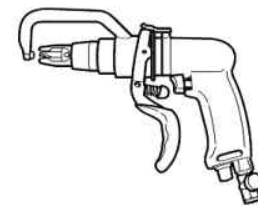
V.A.G 1523 A



W00-0005

- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1731



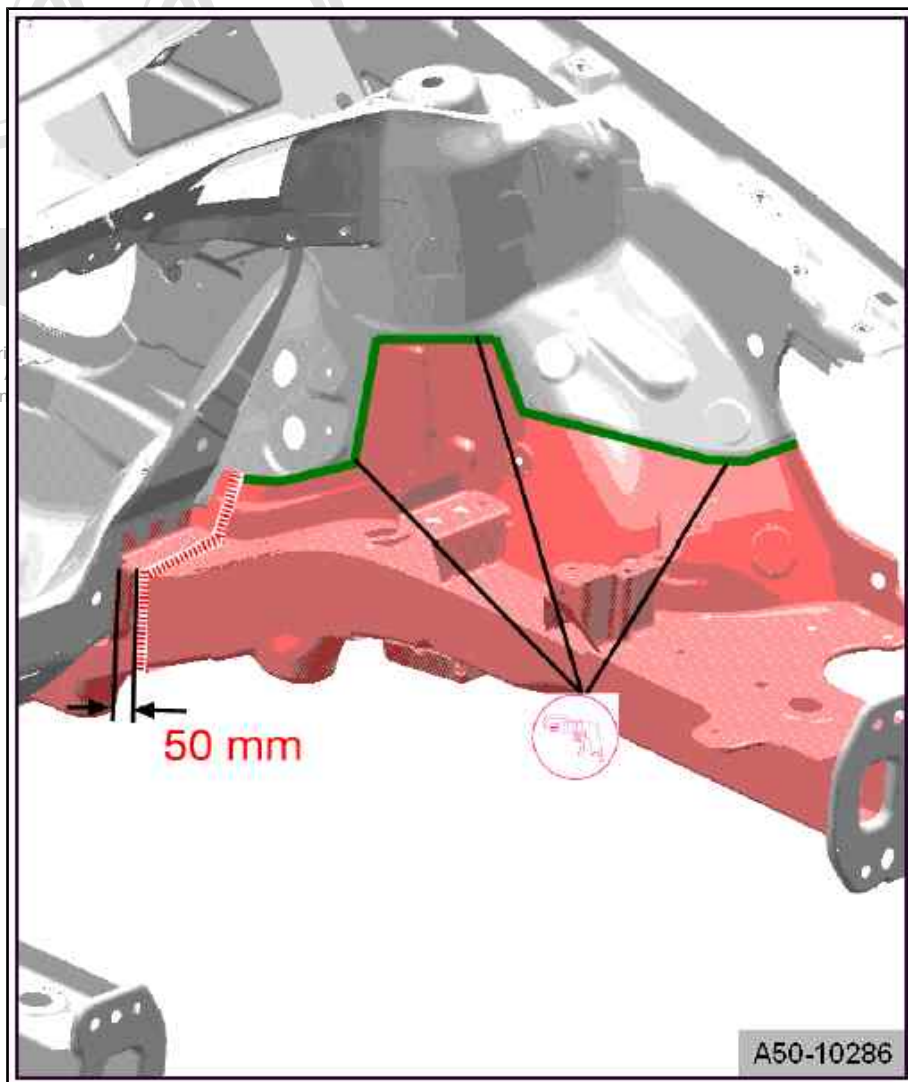
W00-0001

4.2 Procedure

Cutting locations

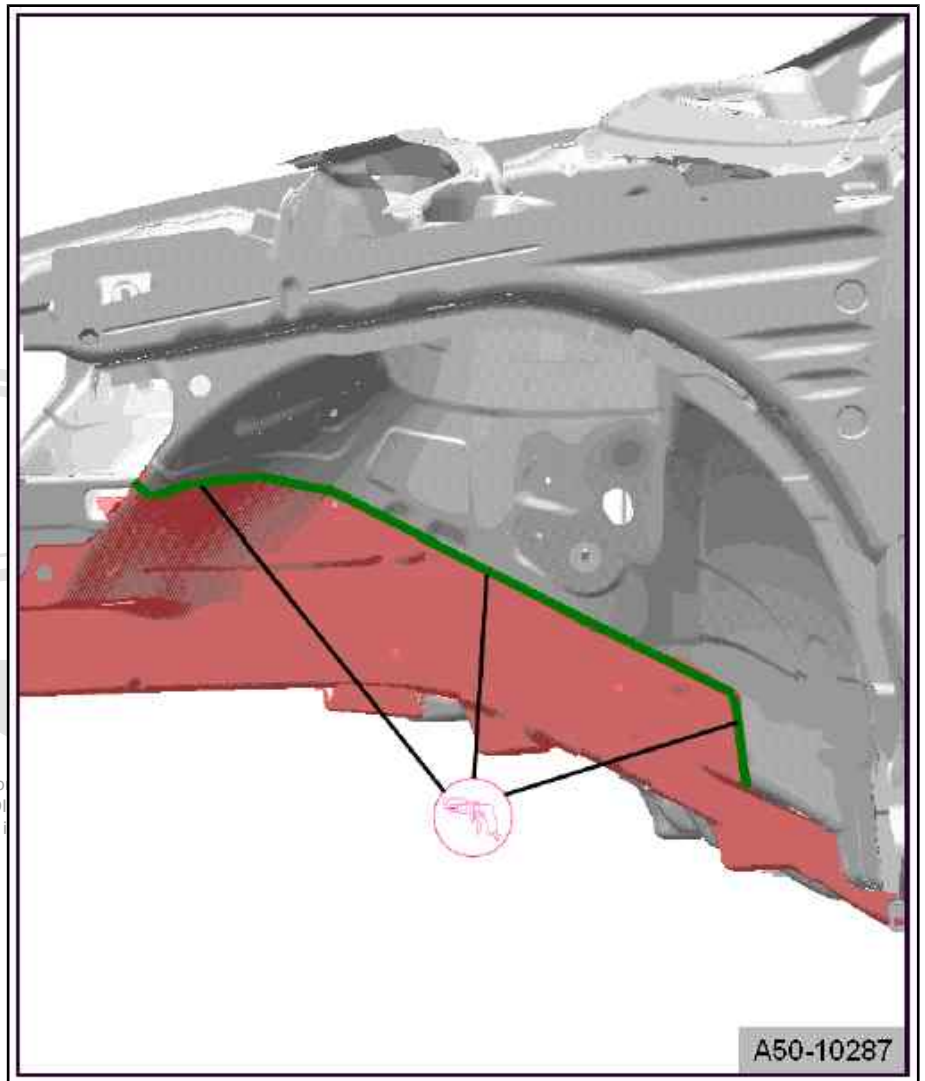
- Make separating cut at longitudinal member as shown using pneumatic sabre saw -V.A.G 1523A- .
- Separate original joint using spot weld breaker -V.A.G 1731- .
- Remove remaining material using compact angle grinder -VAS 5167- .

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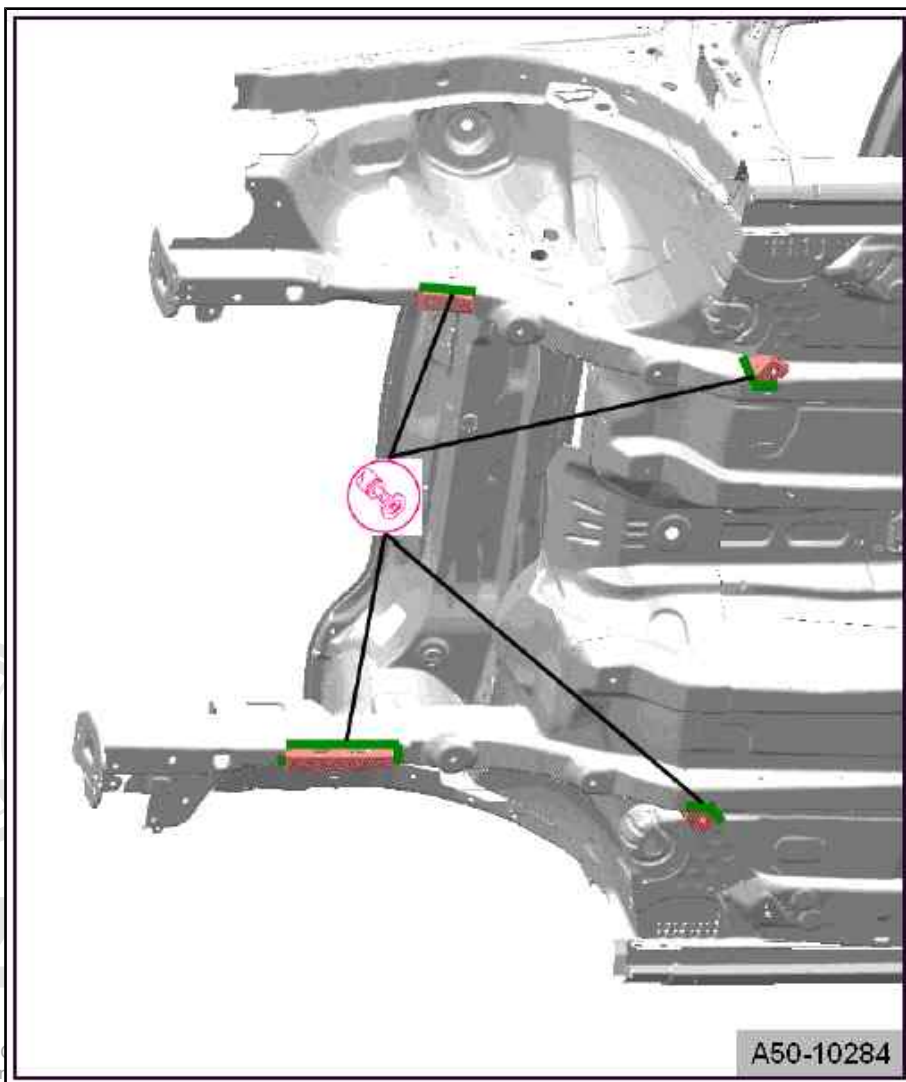
- Separate original joint using spot weld breaker -V.A.G 1731- .

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Renewing mounting plates for diagonal struts

- Separate original joint using compact angle grinder -VAS 5167- .



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Replacement parts

- ◆ Longitudinal member
- ◆ Mountings for diagonal struts

Preparing new parts

- Transfer separating cut to new part (longitudinal member).

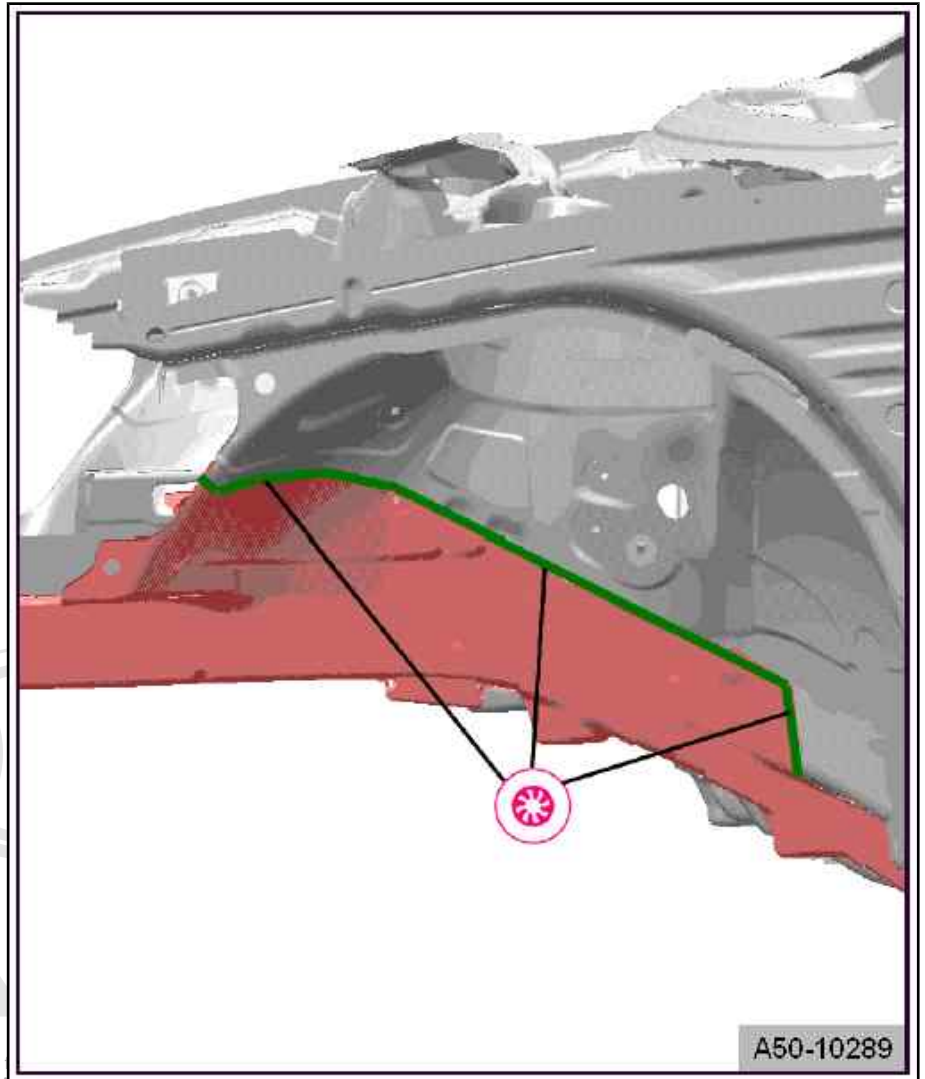
Welding in



Caution

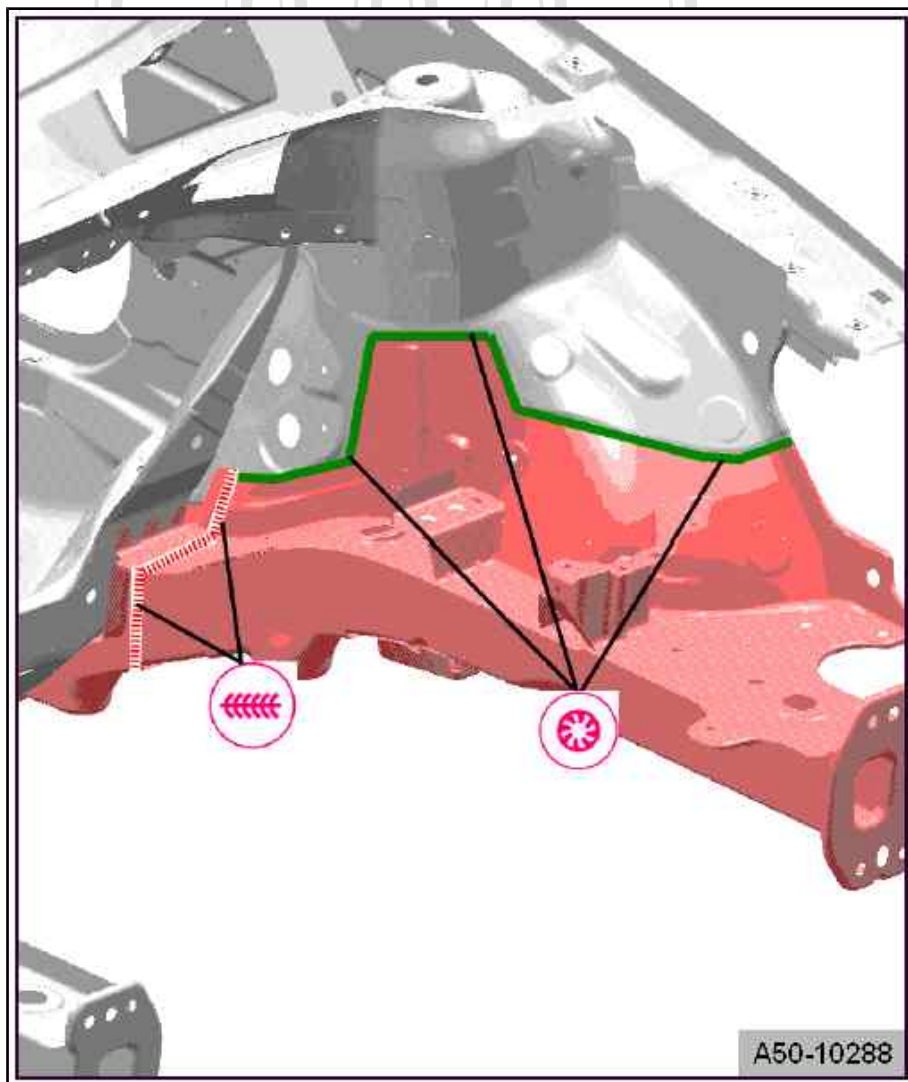
The longitudinal member as supplied from the factory is 5 mm longer. It must therefore be matched up on the alignment bracket and ground down to the correct size using an angle grinder. The separating cut must be a straight line in order to make a continuous SG seam.

- Weld in longitudinal member at front using shielded arc welding equipment 250A : SG plug weld seam.

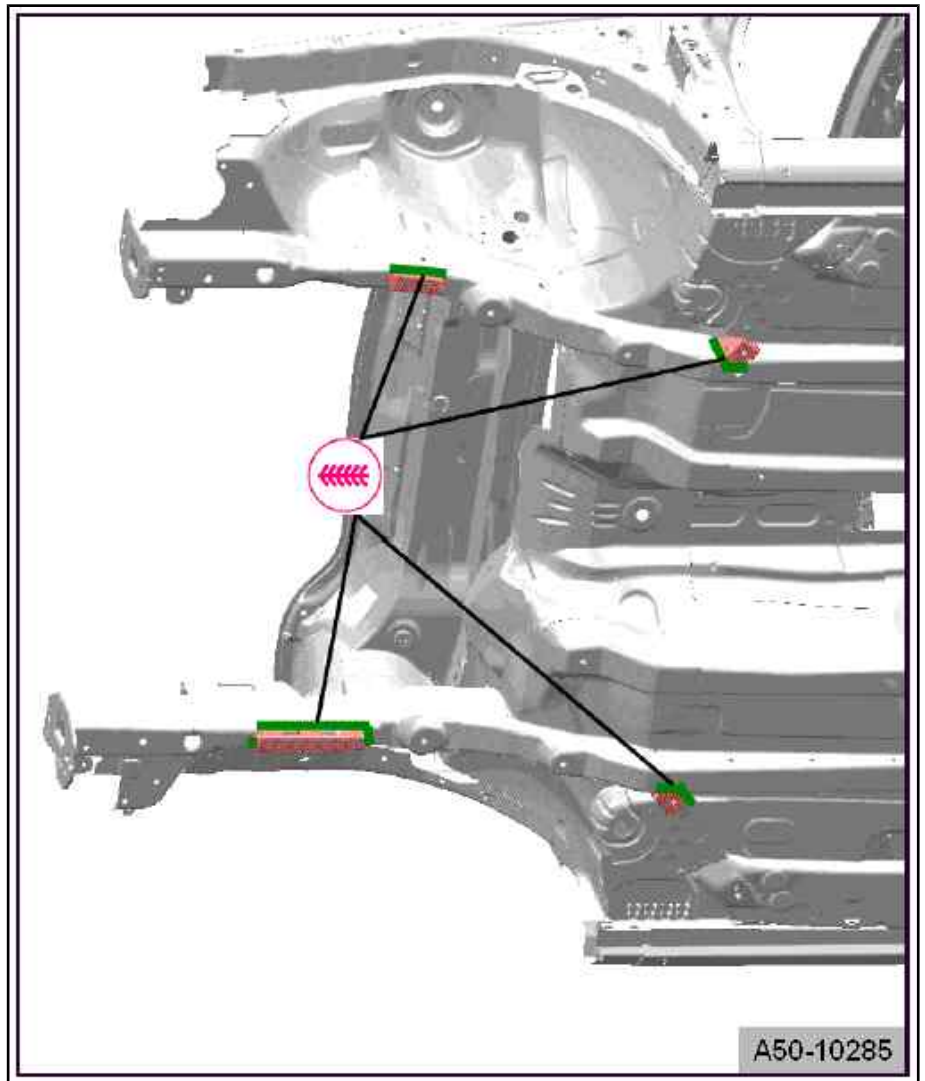


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- Weld at separating cut using shielded arc welding equipment
250A : SG continuous seam.
- Weld in remaining joint using shielded arc welding equipment
250A : SG plug weld seam.
- Fix impact damper mounting in position on bracket set and
weld in using shielded arc welding equipment 250A : SG continuous seam.



- Fix mountings for diagonal struts in position on alignment bracket.
- Weld in mountings for diagonal struts using shielded arc welding equipment 250A .



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RO: 50 79 55 12

5 Front longitudinal member - Partial renewal



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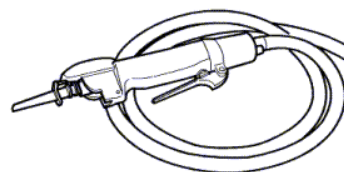
Safety notes ⇒ General Information; Body Repairs, General Body Repairs ; Safety notes .

5.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

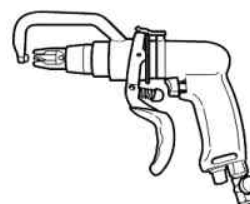
V.A.G 1523 A



W00-0005

- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1731



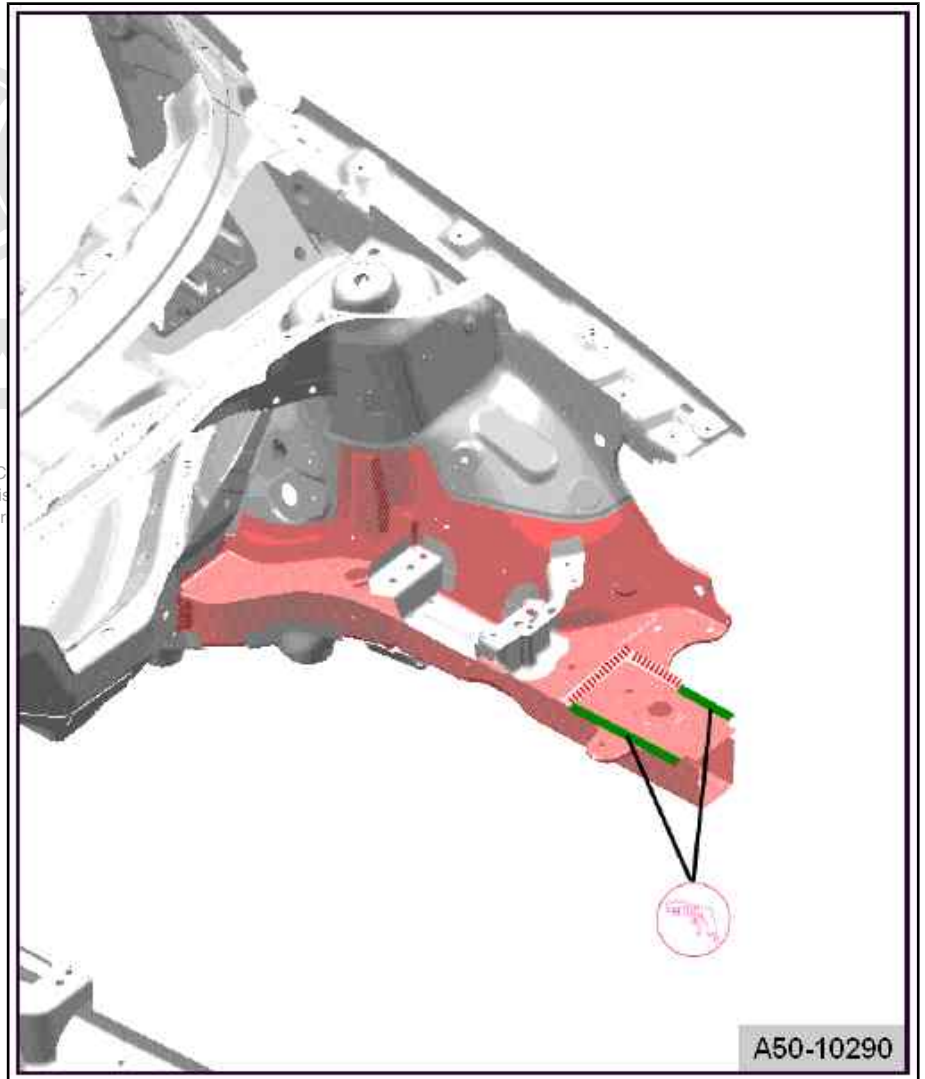
W00-0001

5.2 Procedure

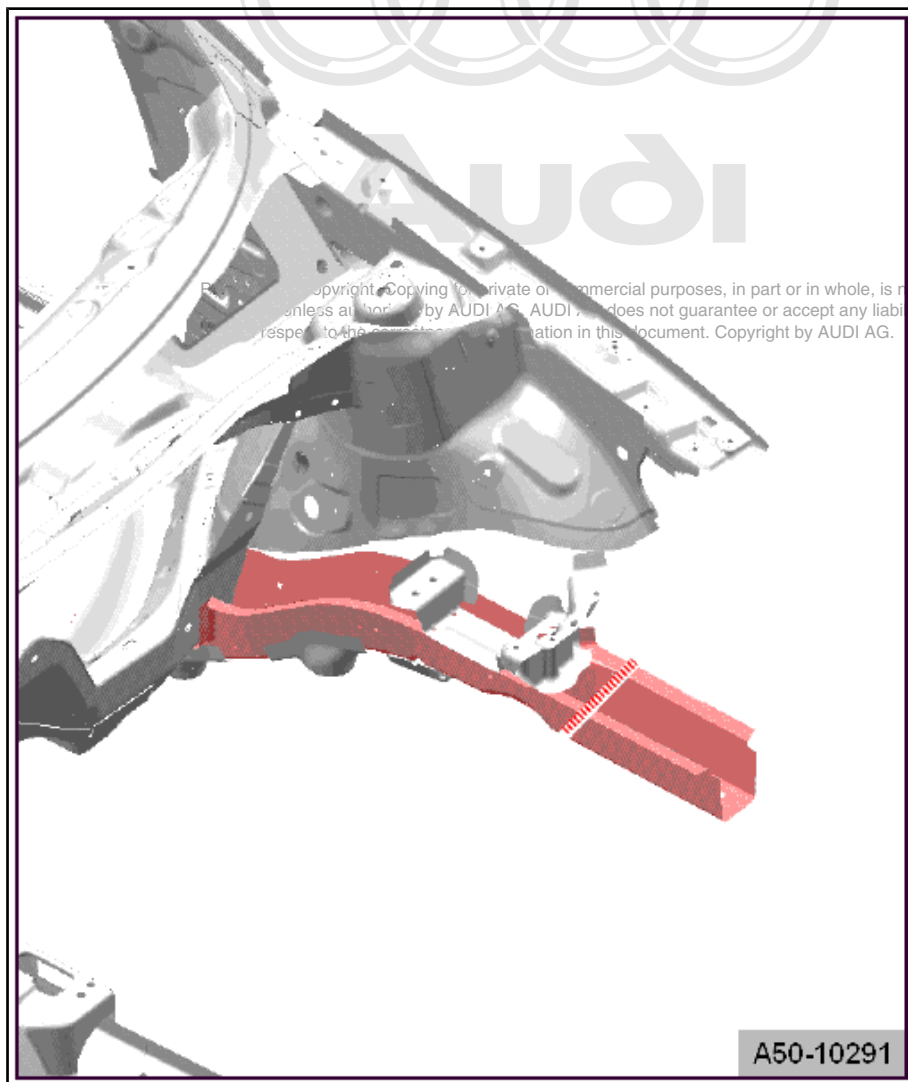
Cutting locations

- Make separating cut at cover plate as shown using pneumatic sabre saw -V.A.G 1523A- .

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- Make separating cut at longitudinal member as shown using pneumatic sabre saw -V.A.G 1523A- .

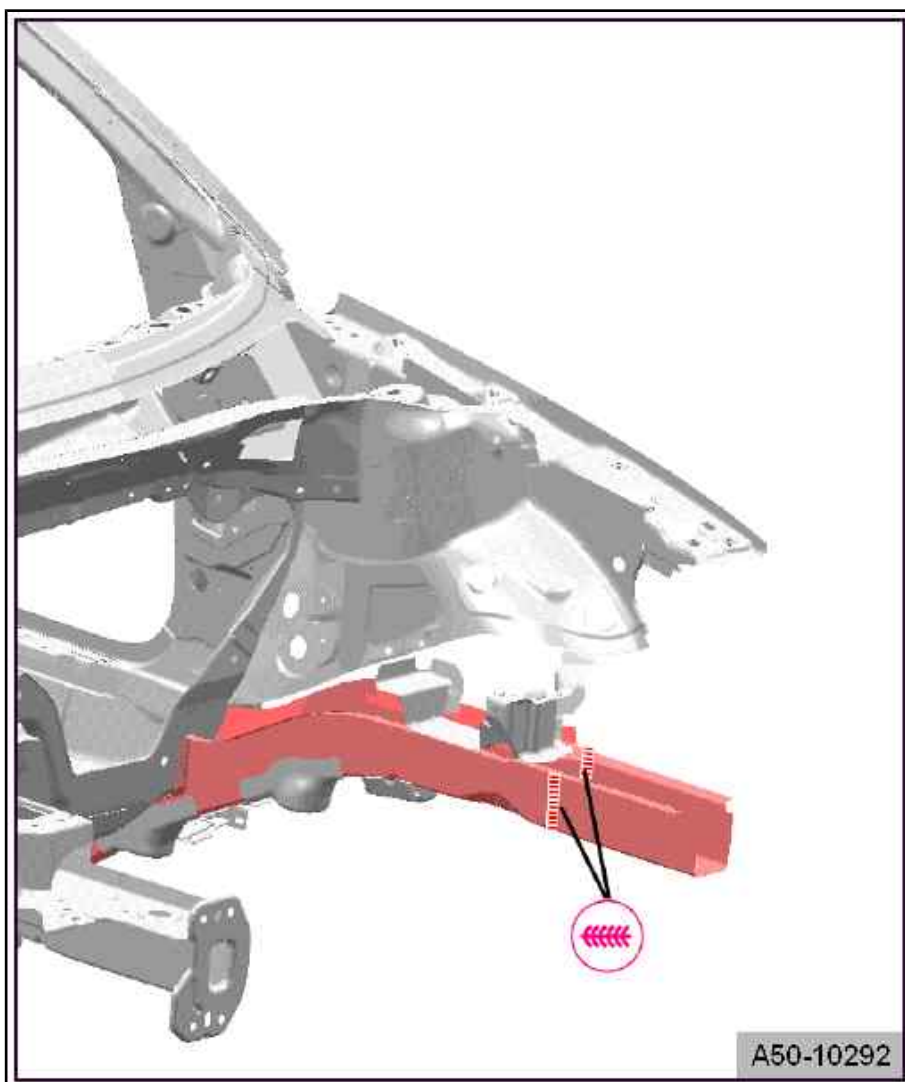


Replacement parts

- Transfer separating cuts to longitudinal member and to cover plate for longitudinal member (front) and cut parts to shape.

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.



- Spot weld cover plate for longitudinal member using welding unit (inverter) : RP spot weld seam.

The spot weld seams must be parallel. It is important to keep to the specified spacings.

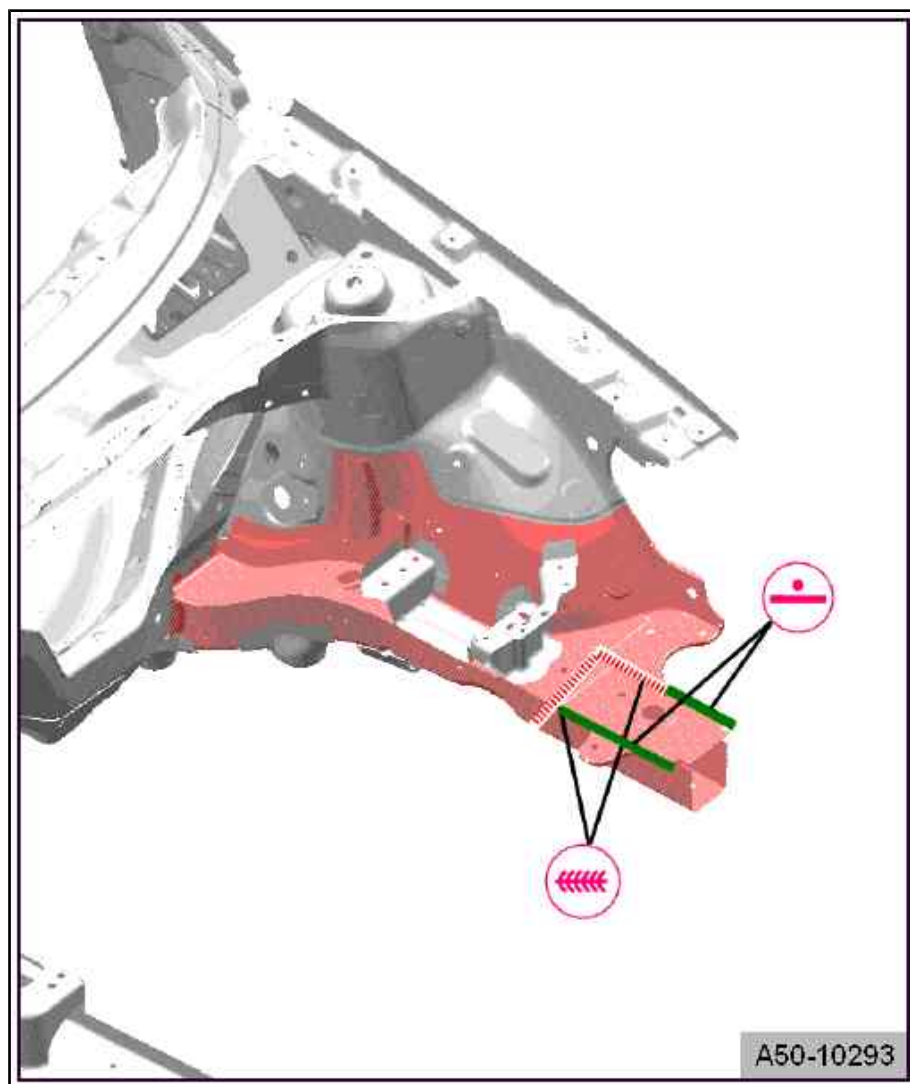


Note

Spacing between spot welds approx. 35 - 40 mm

- Weld in cover plate for longitudinal member using shielded arc welding equipment 250A -VAS 6045A- : SG continuous seam.

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51 – Body - centre

RO: 51 06 55 00

1 Roof frame - Renewal



WARNING

Always observe safety precautions.

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

1.1 Tools

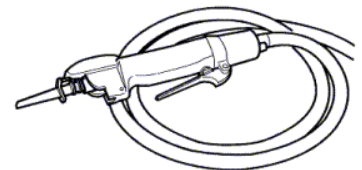
Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

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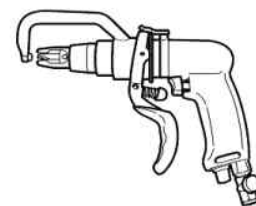
- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1523 A



W00-0005

V.A.G 1731

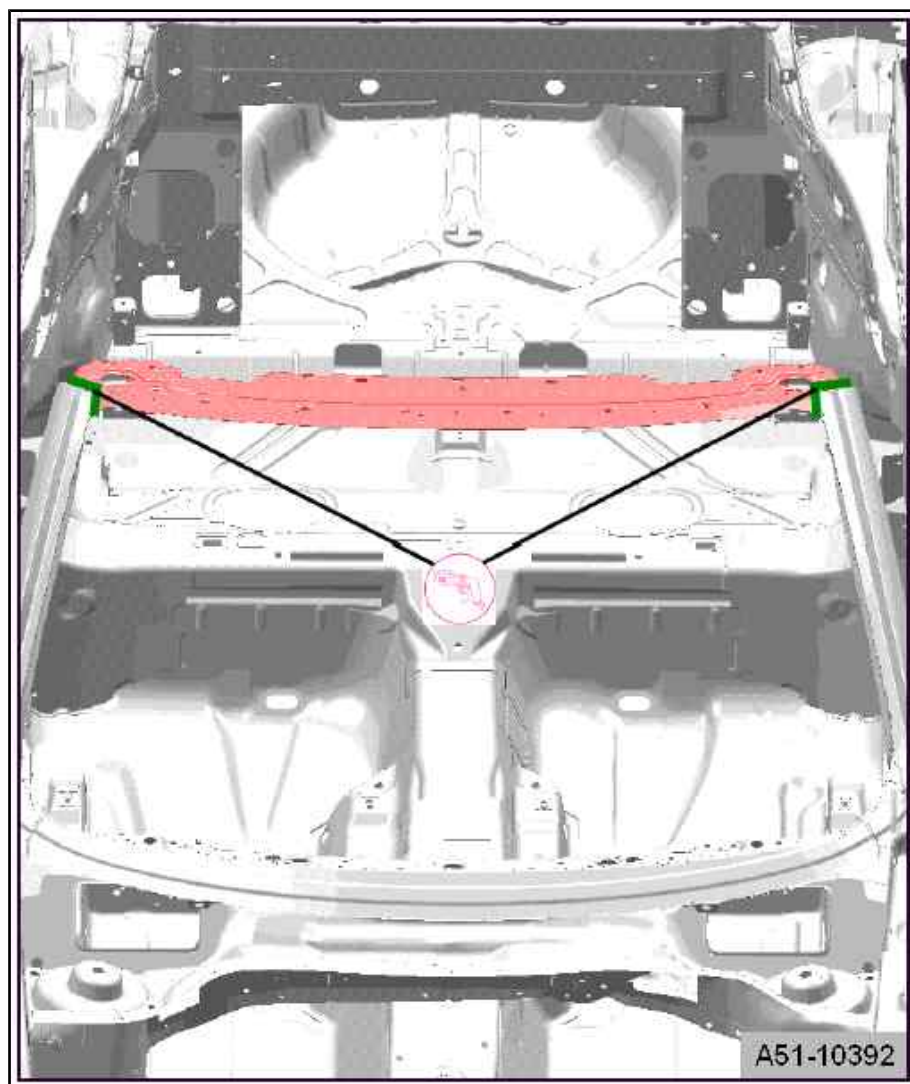


W00-0001

1.2 Procedure

Cutting locations

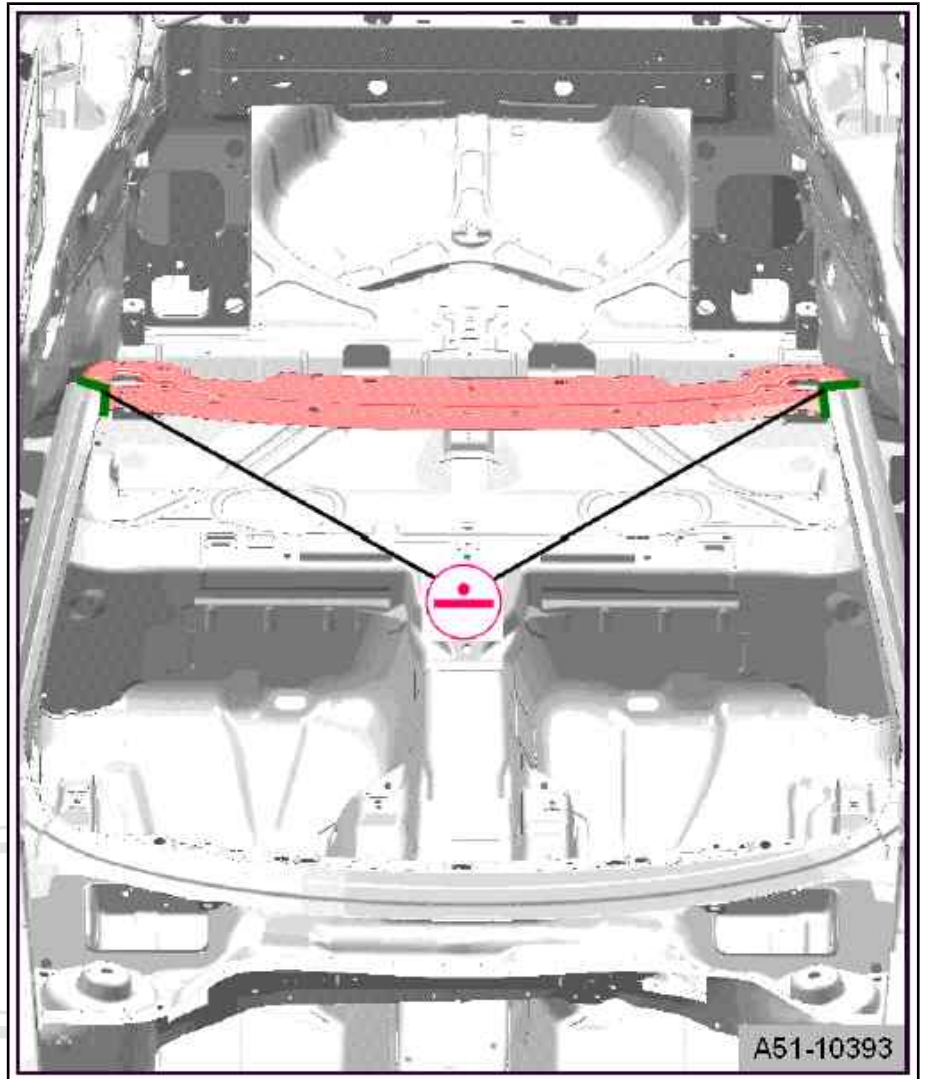
- Separate original joint at roof frame using spot weld breaker - V.A.G 1731 - .



- Fix roof frame in position on bracket set.
- Weld in roof frame using welding unit (inverter) : RP spot weld seam.



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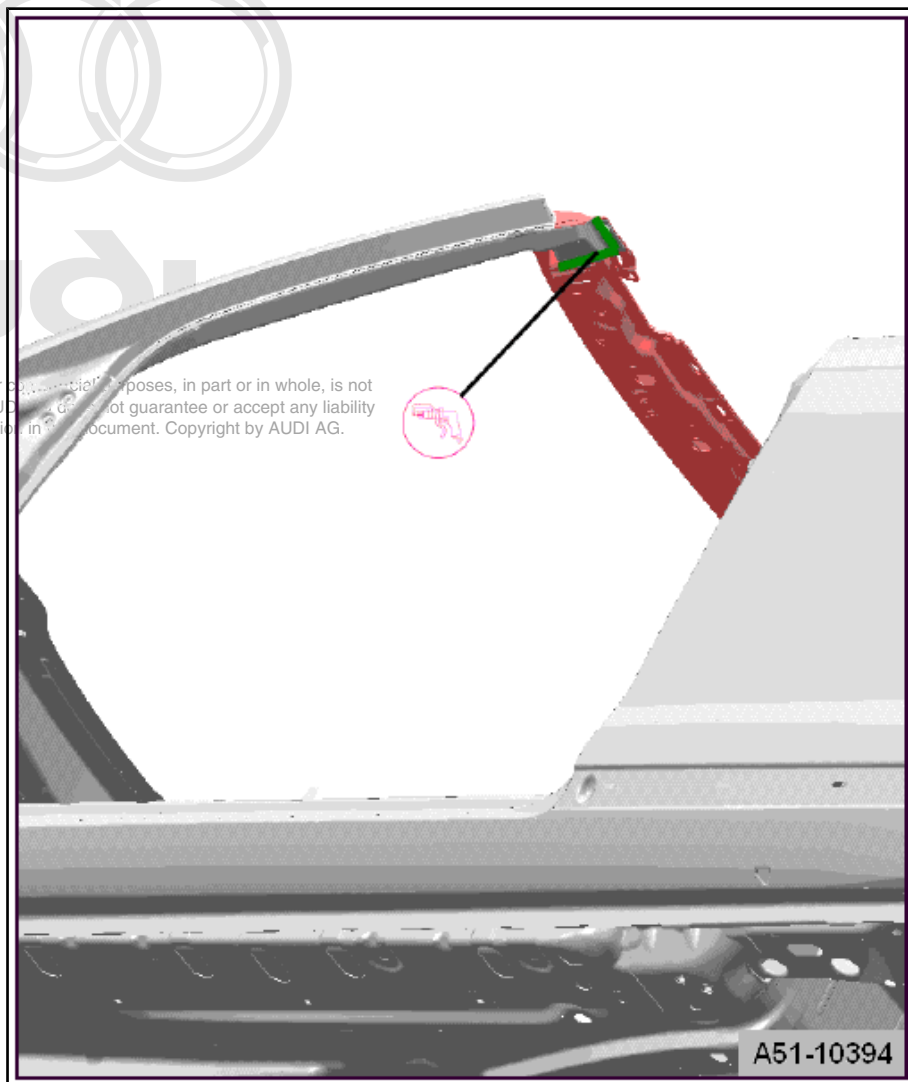


View from below

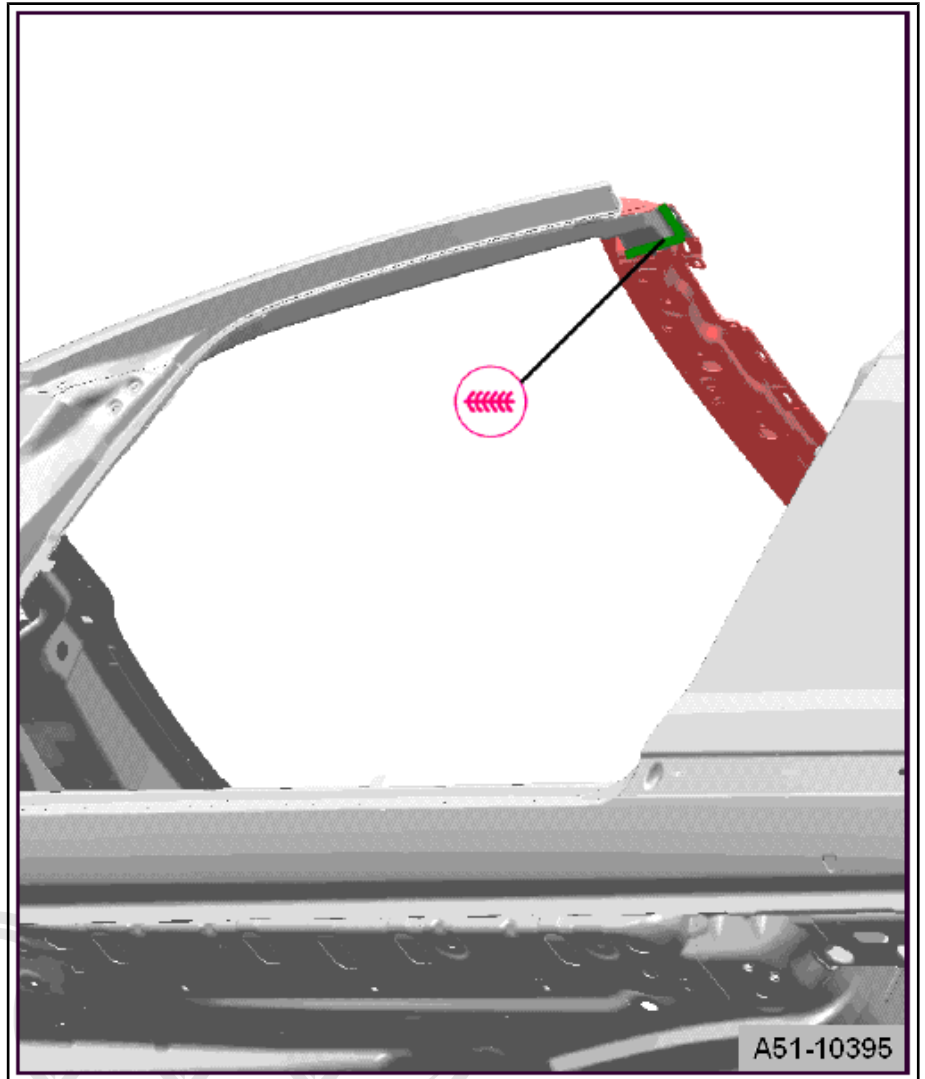
- Separate original joint at roof frame using spot weld breaker - V.A.G 1731 -

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- Weld in roof frame using shielded arc welding equipment 250A
-VAS 6045A- : SG continuous seam.



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RO: 51 37 55 00

2 Upper A-pillar - Renewal



WARNING

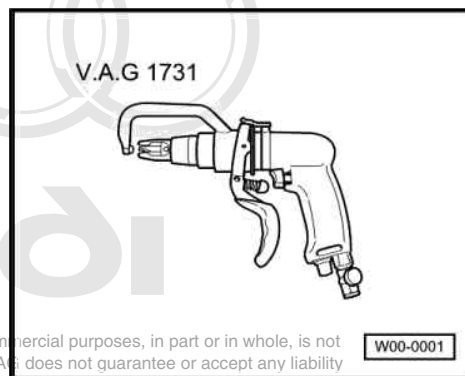
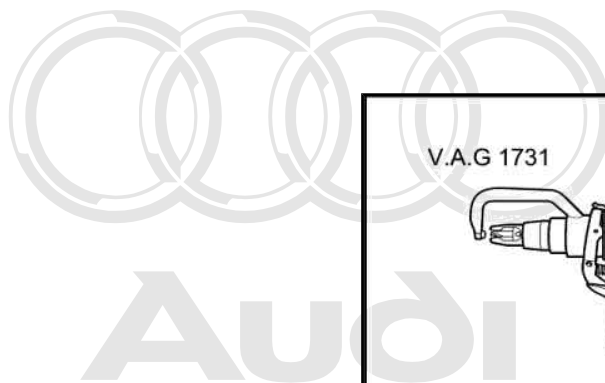
Always observe safety precautions.

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

2.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Spot weld breaker -V.A.G 1731-

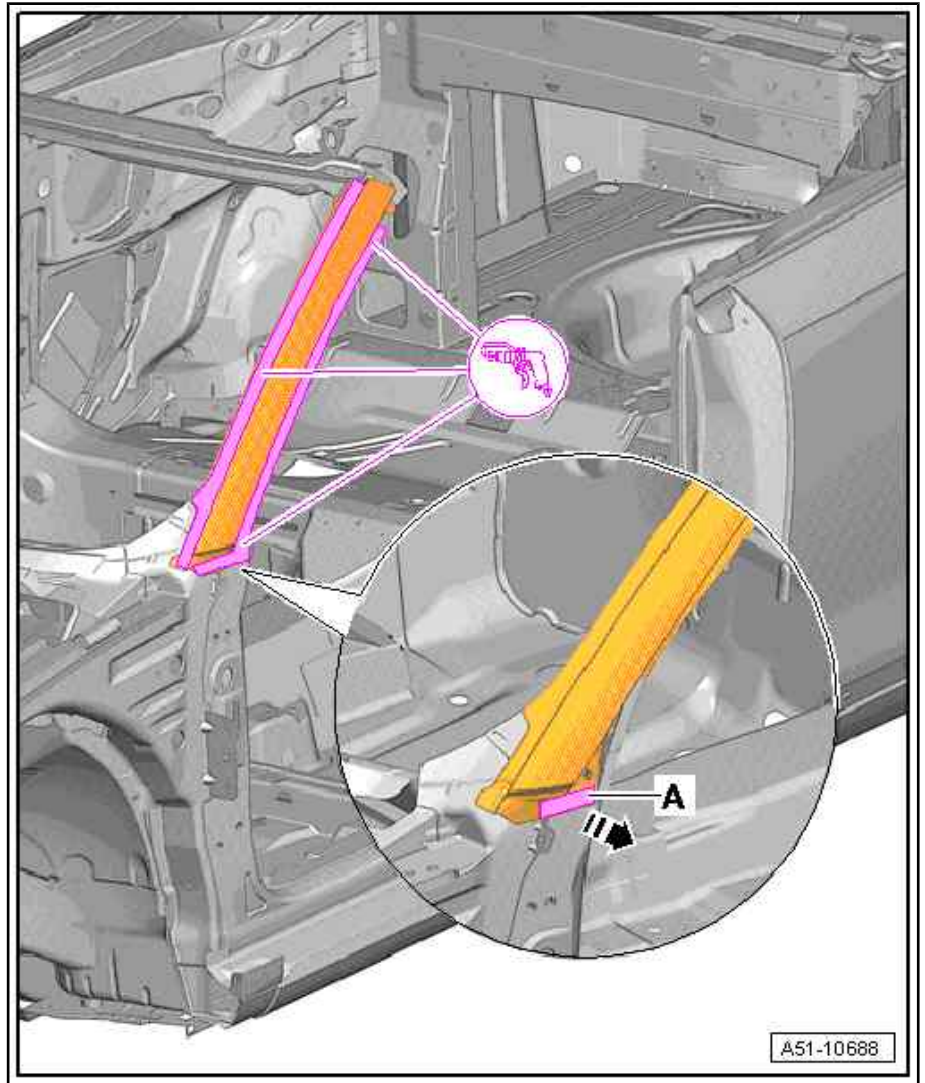


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2.2 Procedure

Cutting locations

- Separate original joint using spot weld breaker -V.A.G 1731- .
- Separate bonded joint at lower A-pillar -A- using a flat chisel and lift out upper A-pillar.

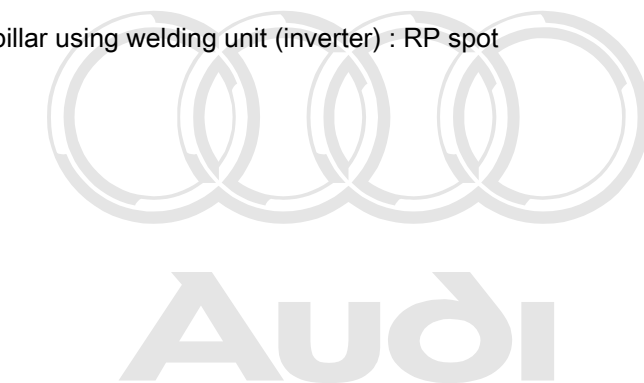


Replacement part

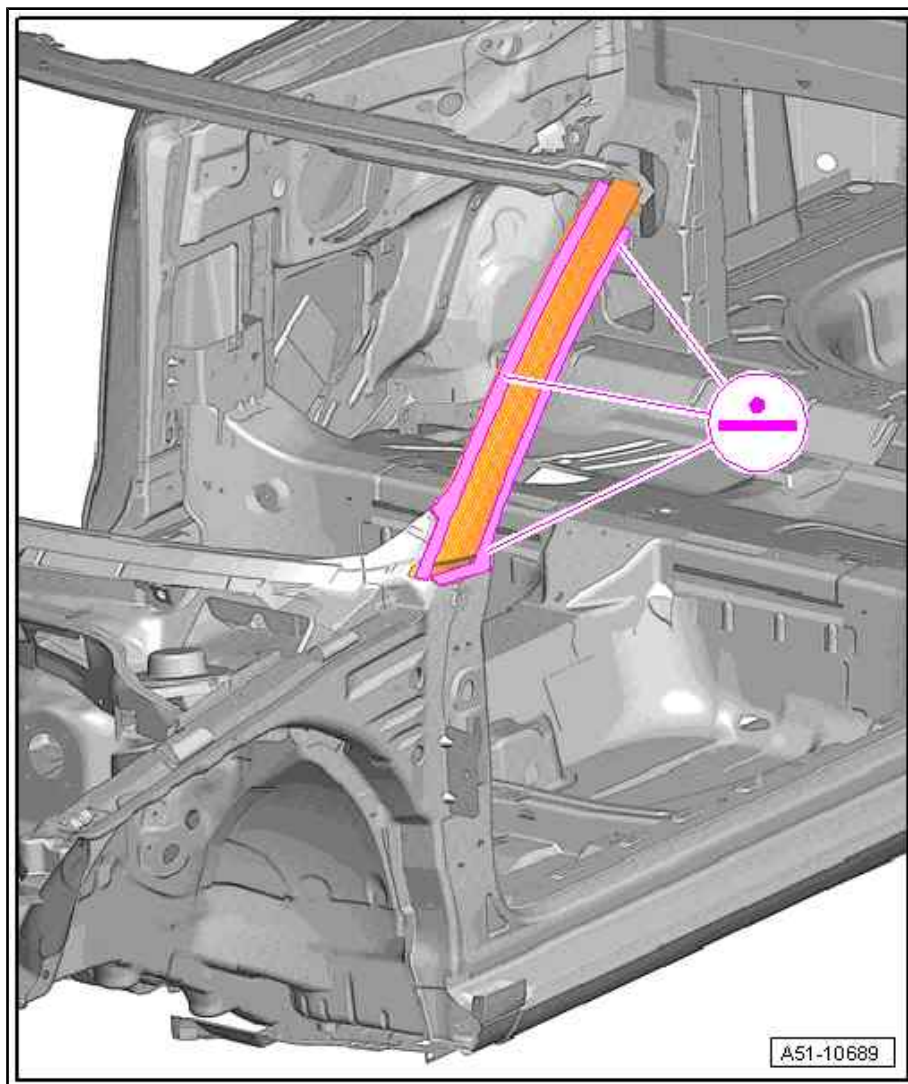
- ◆ Upper A-pillar

Welding in

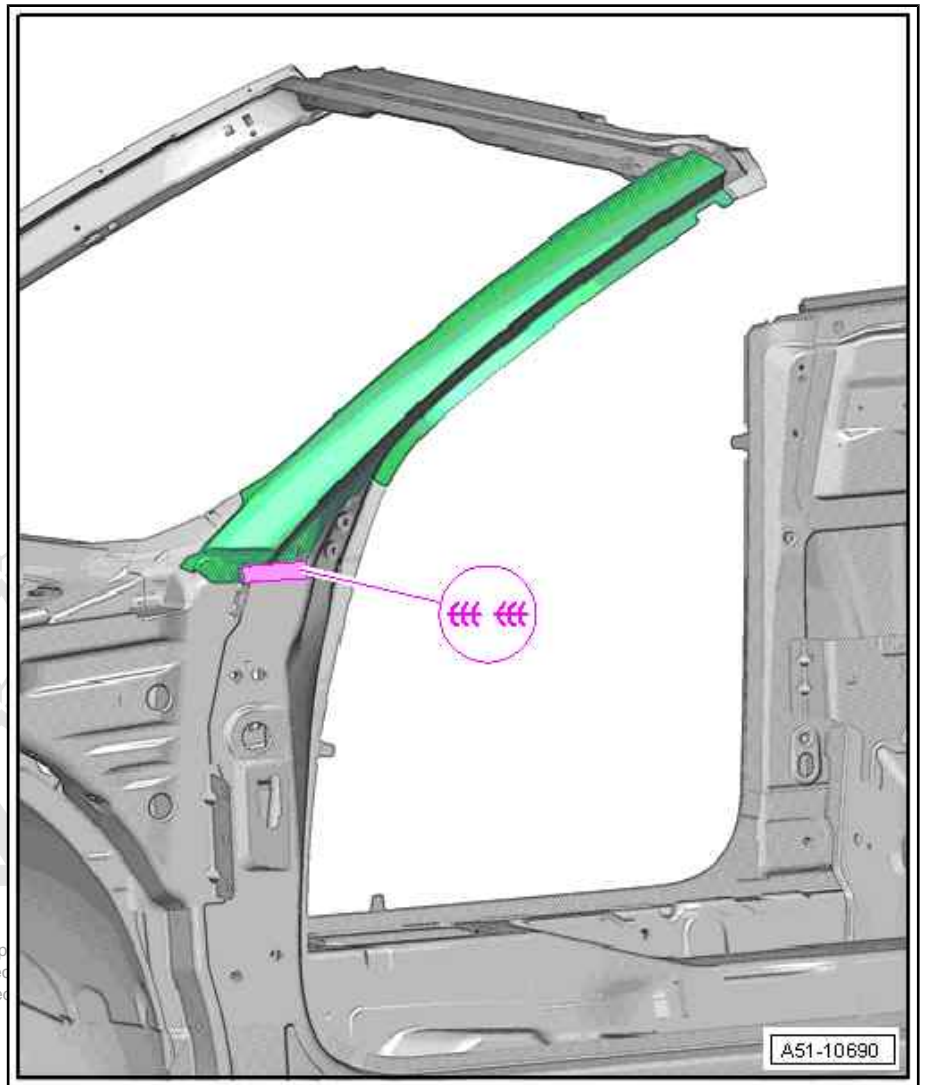
- Weld in upper A-pillar using welding unit (inverter) : RP spot weld seam.



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Weld in lower A-pillar using shielded arc welding equipment 250A
-VAS 6045A- : SG continuous seam (staggered - with gaps).



RO: 51 37 55 00

3 A-pillar and outer side member - Renewal



WARNING

Always observe safety precautions.

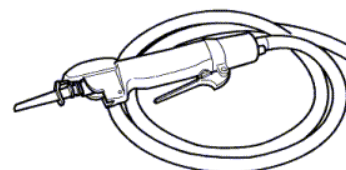
Safety notes ⇒ General Information; Body Repairs, General Body Repairs ; Safety notes .

3.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

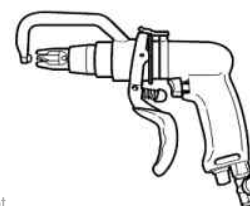
V.A.G 1523 A



W00-0005

- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1731



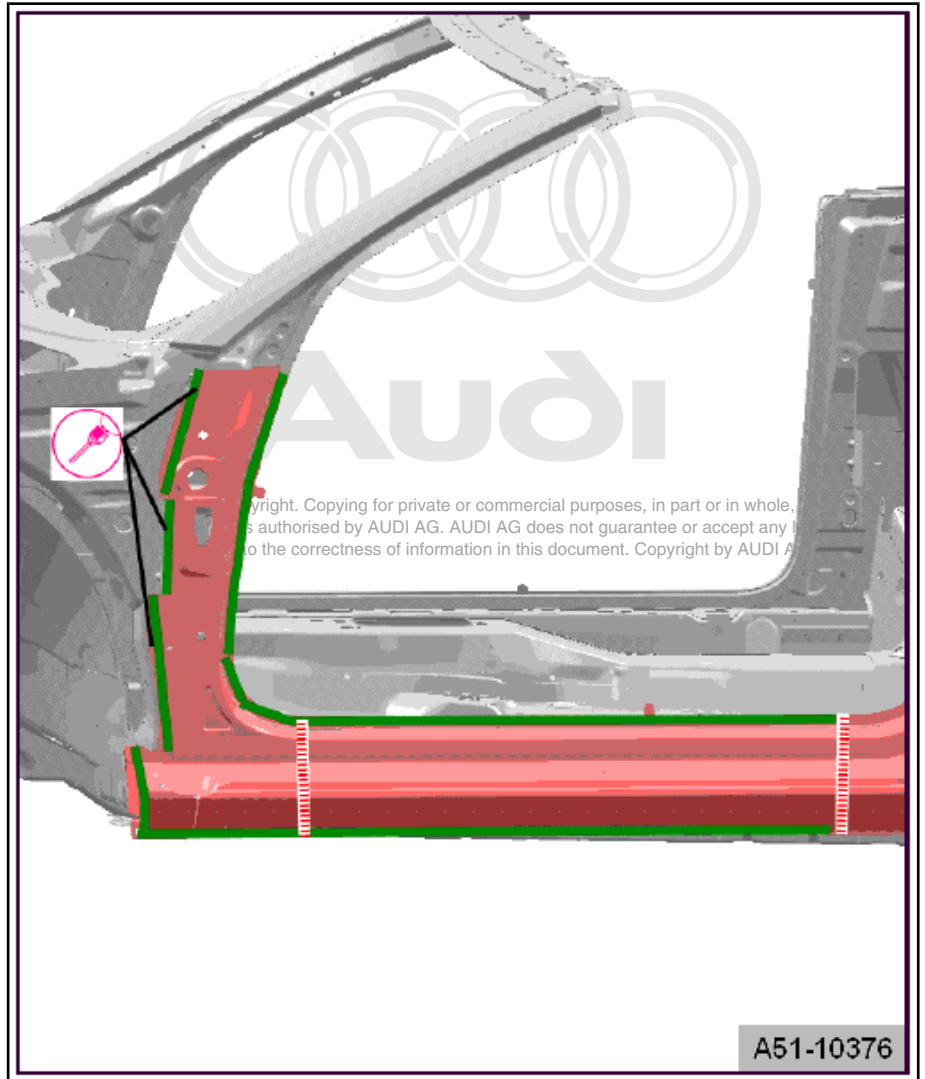
W00-0001

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3.2 Procedure

Cutting locations

- Make separating cut according to extent of damage using pneumatic sabre saw -V.A.G 1523A- .
- Separate original joint using drill -VAS 5830- .
- Separate original joint using spot weld breaker -V.A.G 1731- .

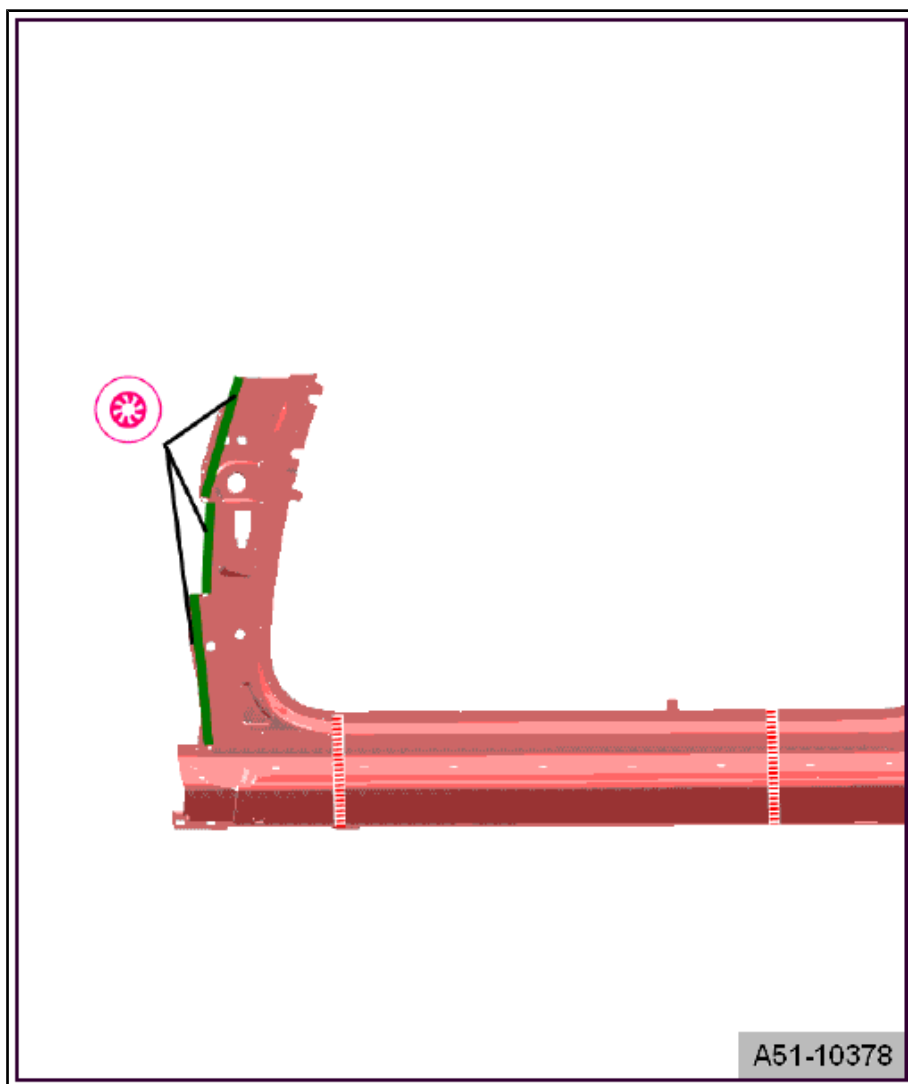


Replacement part

- ◆ A-pillar (sub-part)

Preparing new part

- Drill 7 mm $\varnothing$ holes for SG plug weld seam using drill -VAS 5830- .
- Make separating cuts using pneumatic sabre saw -V.A.G 1523A- .



Welding in

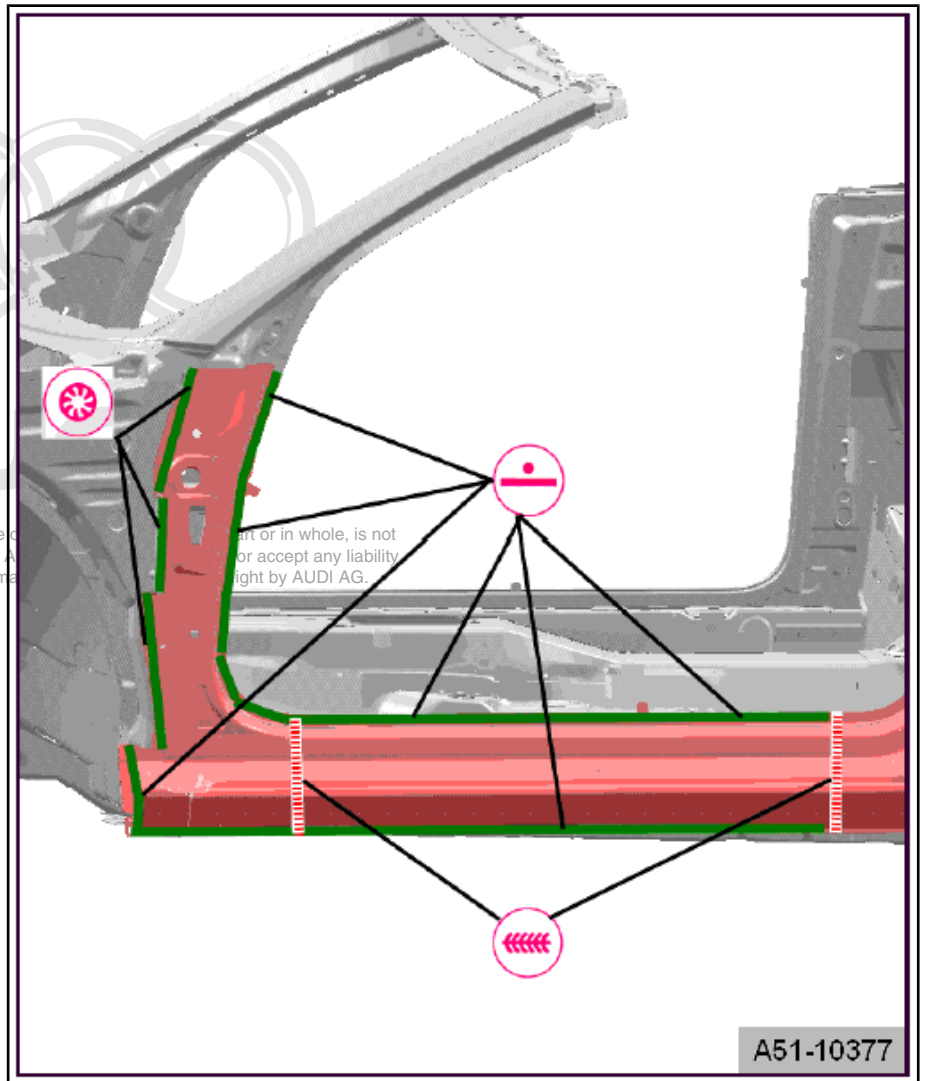
Fix A-pillar on portal gauge.

- Weld in A-pillar using welding unit (inverter) : RP spot weld seam.
- Butt weld at separating cuts using shielded arc welding equipment 250A -VAS 6045A- : SG continuous seam.
- Weld in remaining joint using shielded arc welding equipment 250A -VAS 6045A- : SG plug weld seam.



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RO: 51 38 55 50

4 Reinforcement tube - Renewal



WARNING

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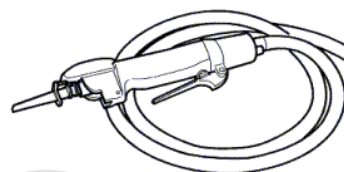
Safety notes ⇒ General Information; Body Repairs, General Body Repairs ; Safety notes .

4.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

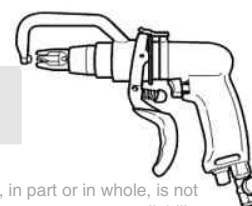
V.A.G 1523 A



W00-0005

- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1731



W00-0001

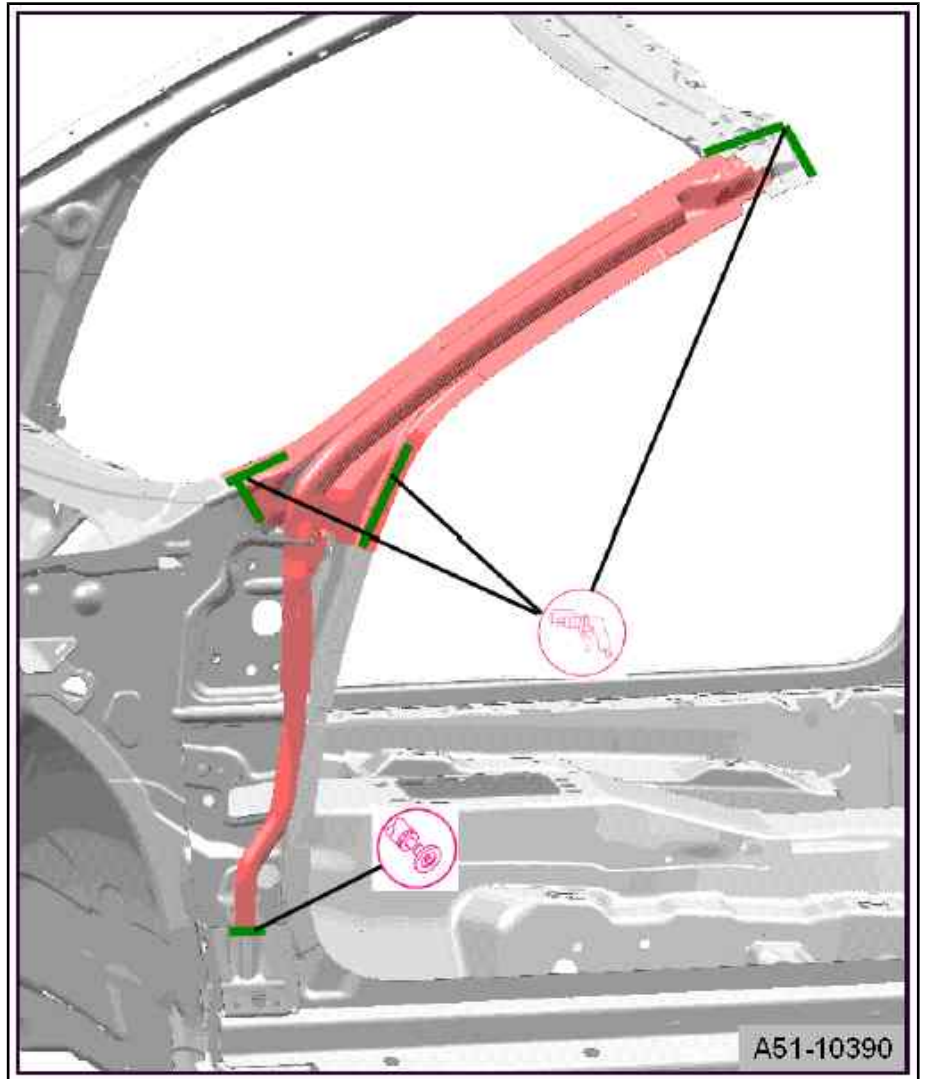
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4.2 Procedure

- Outer A-pillar already cut out.
- Inner A-pillar already cut out.

Cutting locations

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



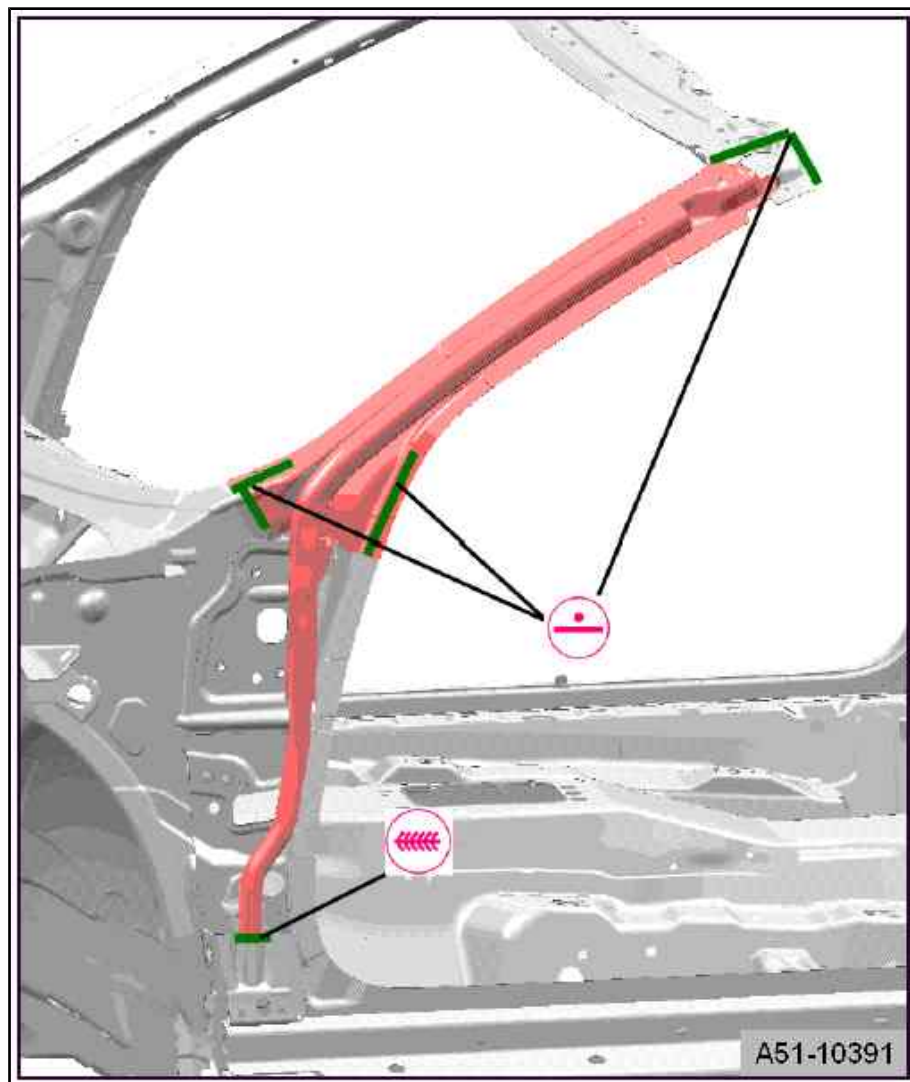
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Replacement part

- ◆ Reinforcement tube

Welding in

- Weld in reinforcement frame using shielded arc welding equipment 250A : SG continuous seam.
- Weld in reinforcement frame using welding unit (inverter) -VAS 6237 L- : RP spot weld seam.



RO: 51 37 55 12

5 Inner A-pillar - Renewal



WARNING

Always observe safety precautions.

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

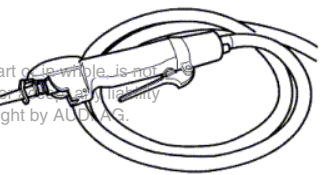
5.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

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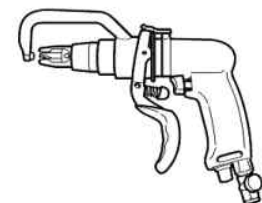
V.A.G 1523 A



W00-0005

- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1731



W00-0001

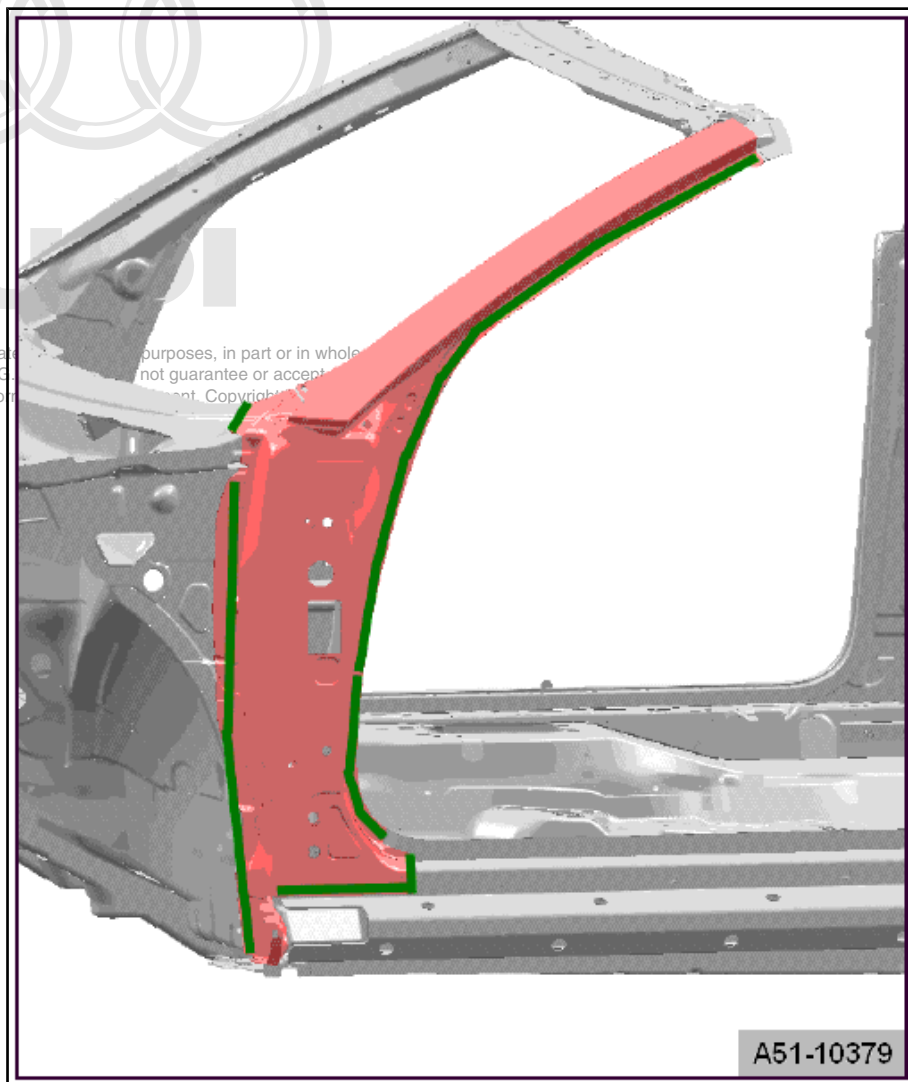
5.2 Procedure

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

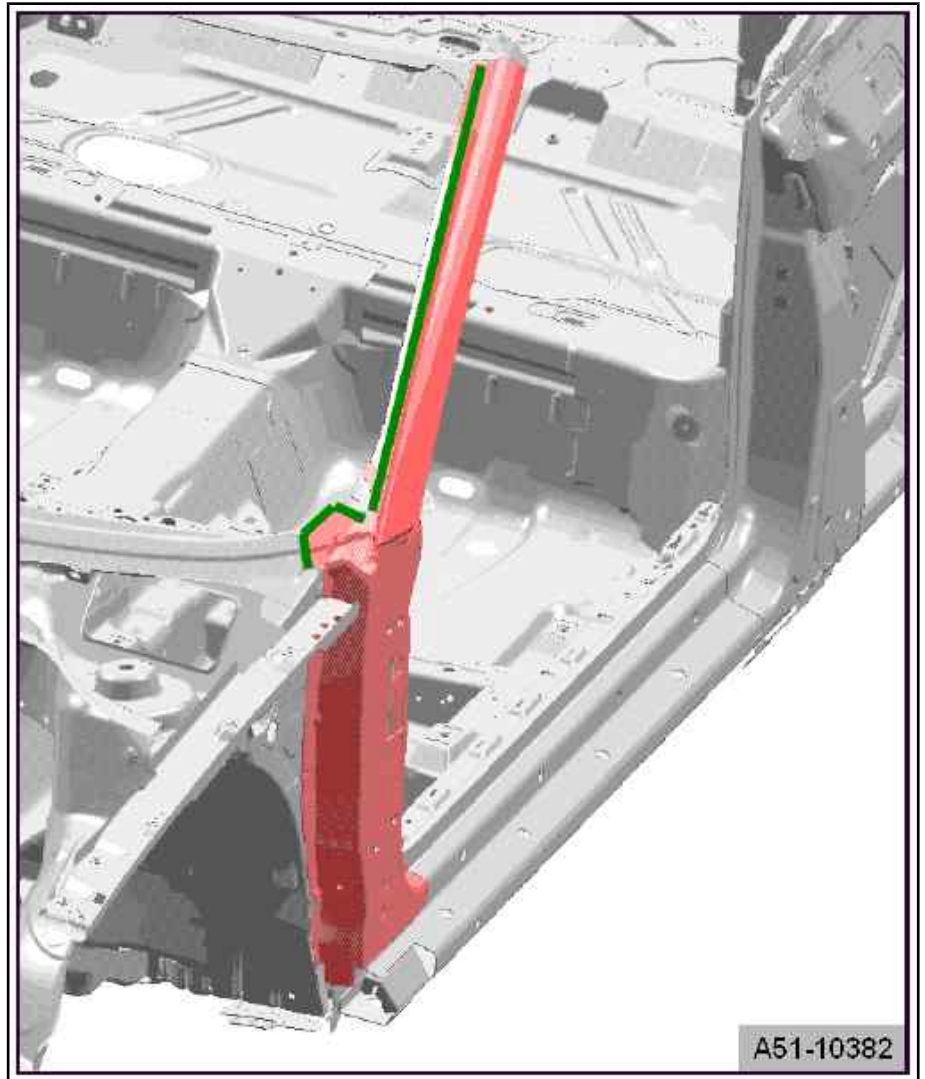
Cutting locations

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

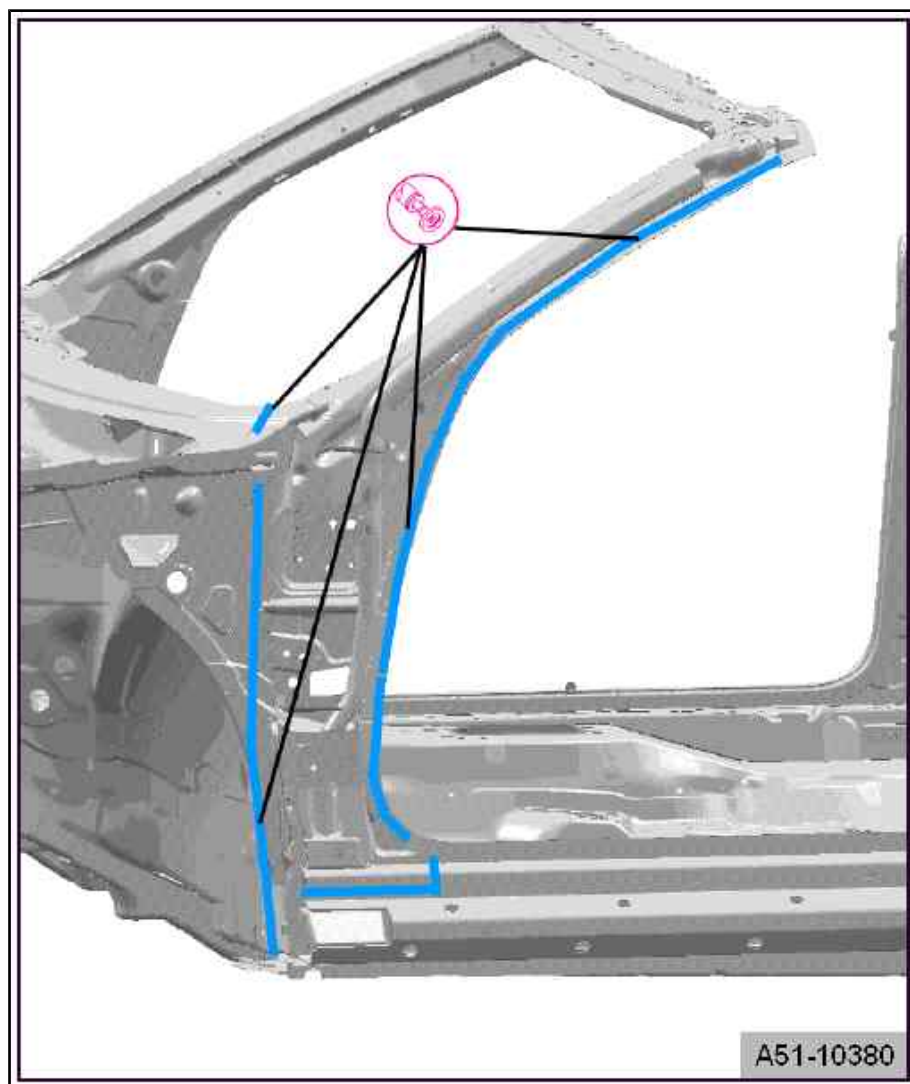
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- Separate original joint using spot weld breaker -V.A.G 1731- .



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



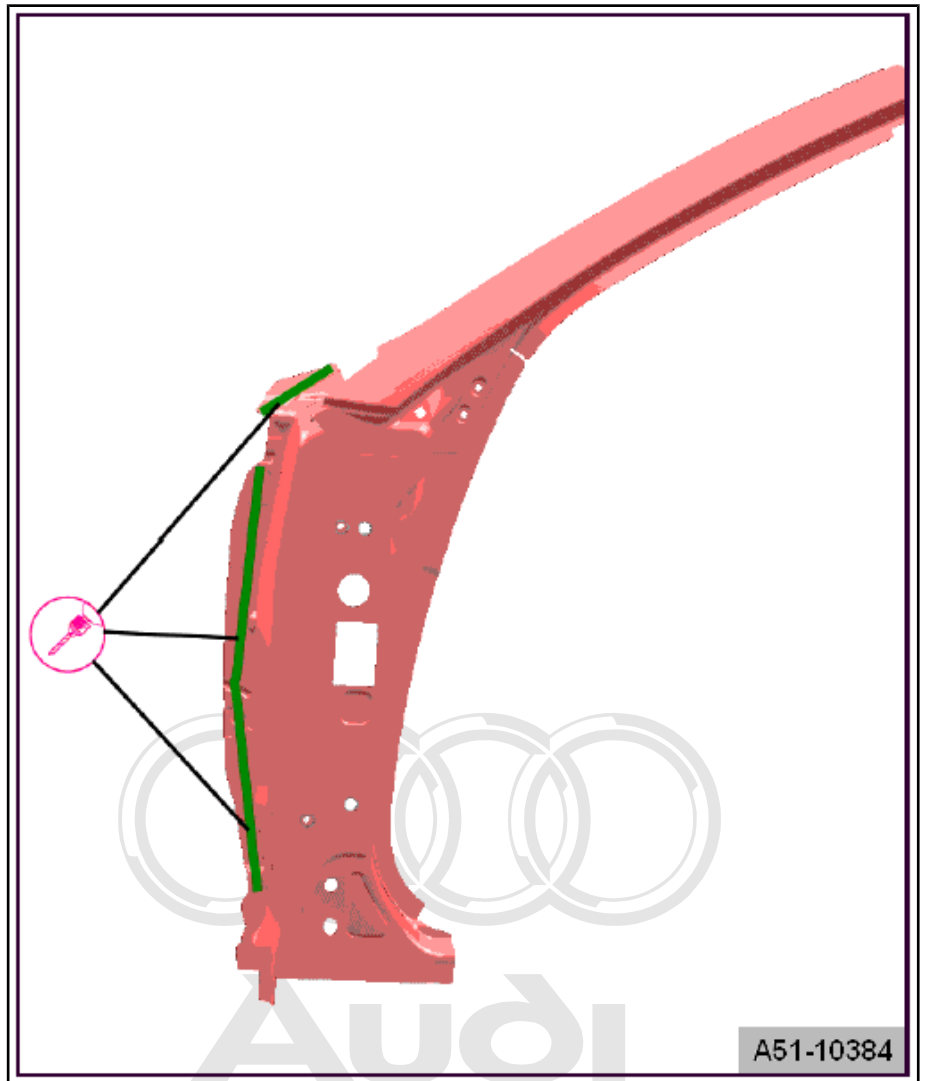
Replacement part

- ◆ Inner A-pillar, outer A-pillar (top)

Preparing new part

- Drill 7 mm Ø holes for SG plug weld seam using drill -VAS 5830- .

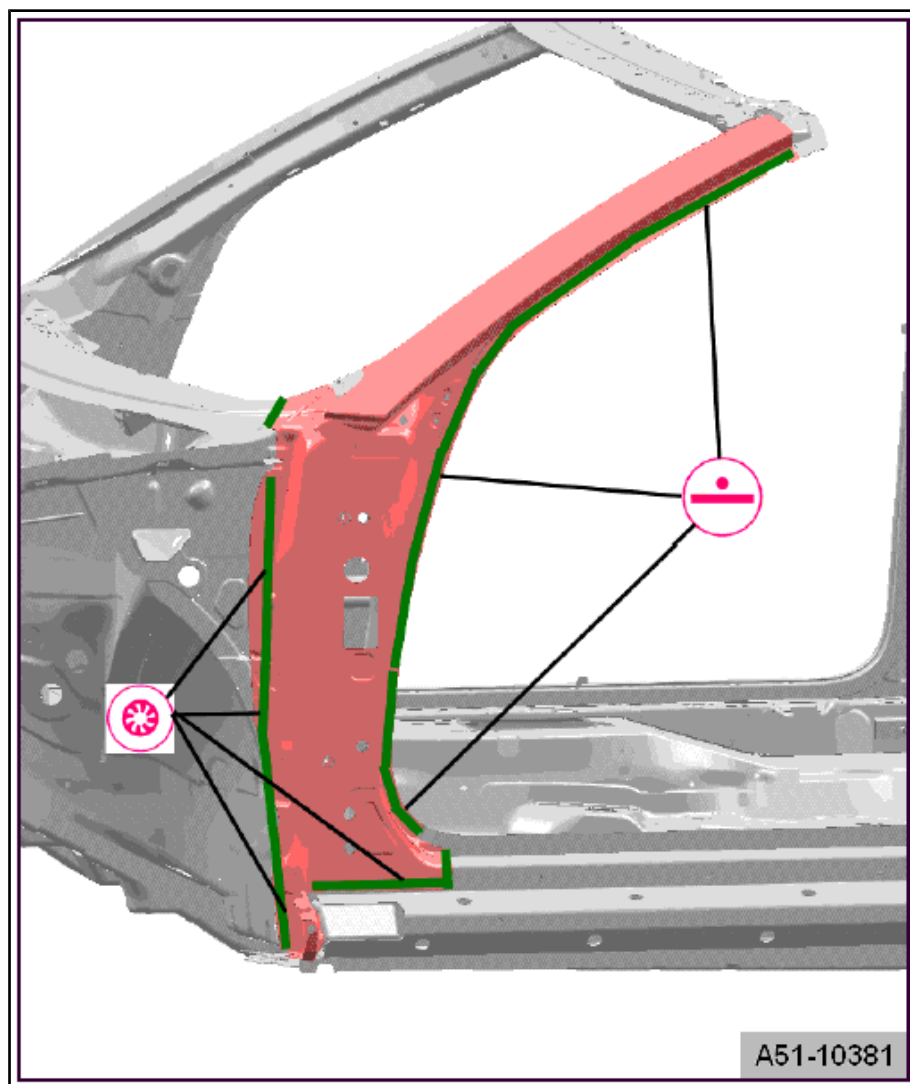
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Welding in

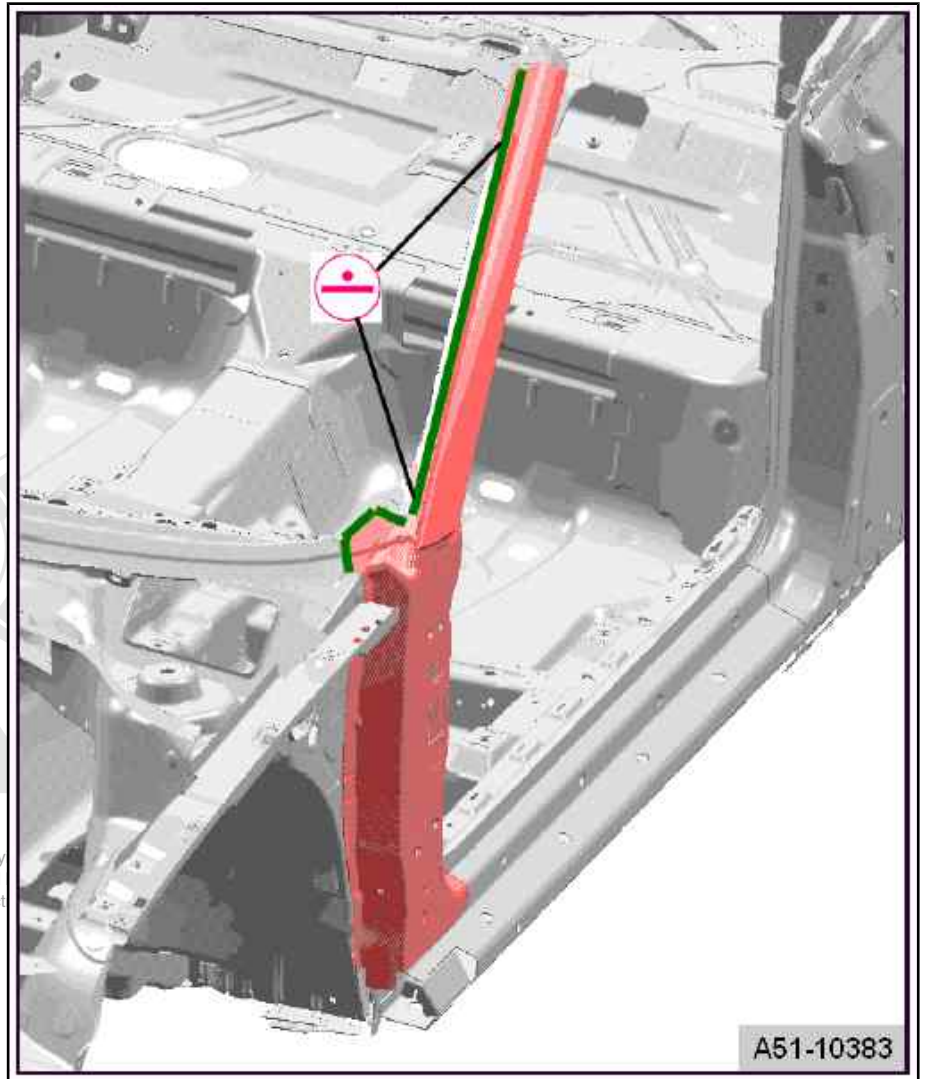
- Weld in inner A-pillar using welding unit (inverter) : RP spot weld seam.
- Weld in A-pillar using shielded arc welding equipment 250A - VAS 6045A- : SG plug weld seam.



- Weld in inner A-pillar using welding unit (inverter) : RP spot weld seam.



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RO: 51 41 55 00

6 Inner B-pillar - Renewal



WARNING

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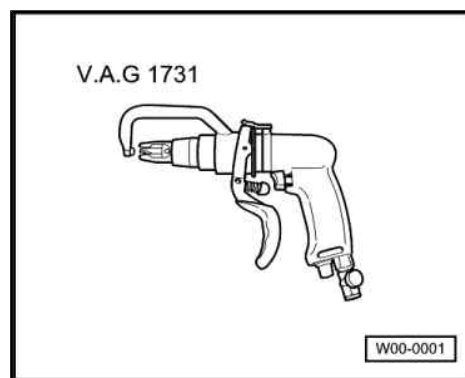
Safety notes ⇒ General Information; Body Repairs, General Body Repairs ; Safety notes .

6.1 Tools

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Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Spot weld breaker -V.A.G 1731-

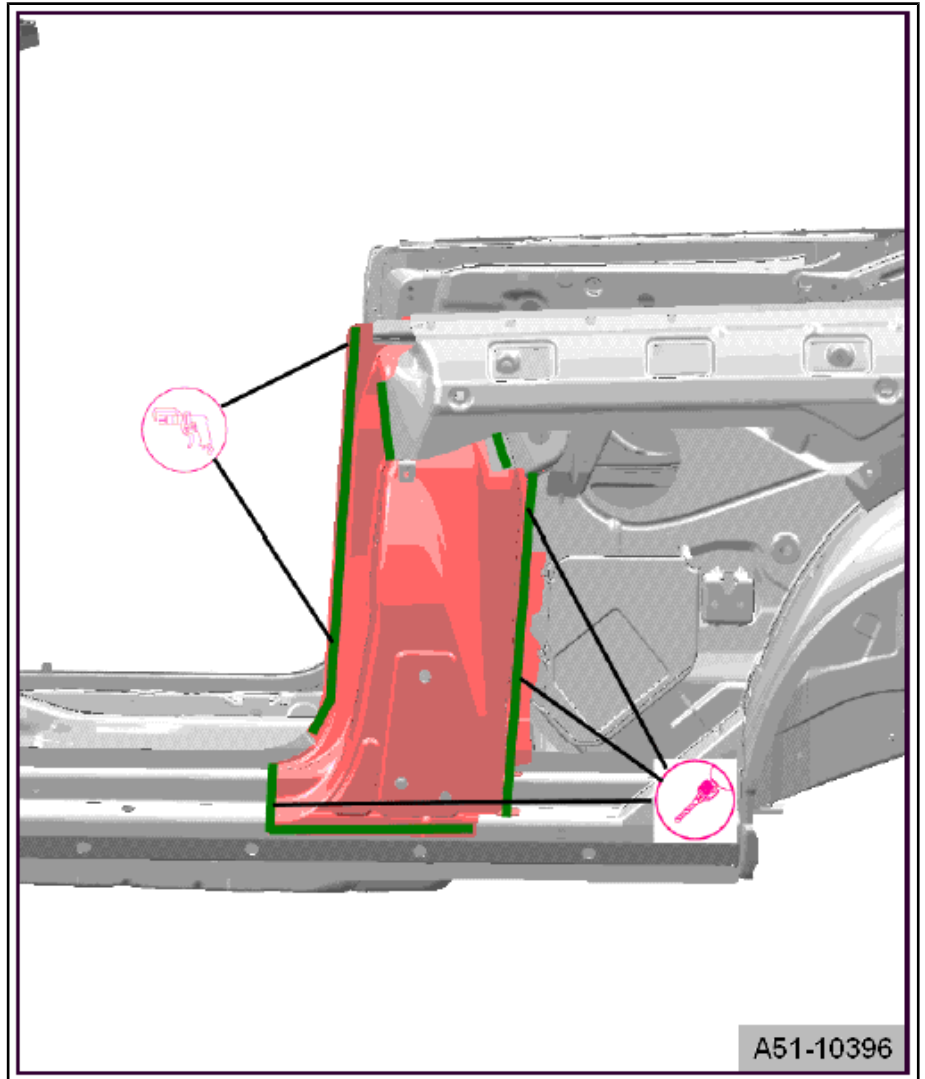


6.2 Procedure

- Side panel already cut out.

Cutting locations

- Separate original joint using spot weld breaker -V.A.G 1731- .
- Separate remaining joint using drill -VAS 5830- .

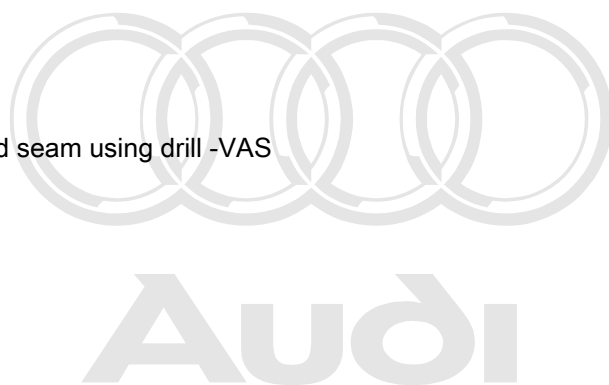


Replacement part

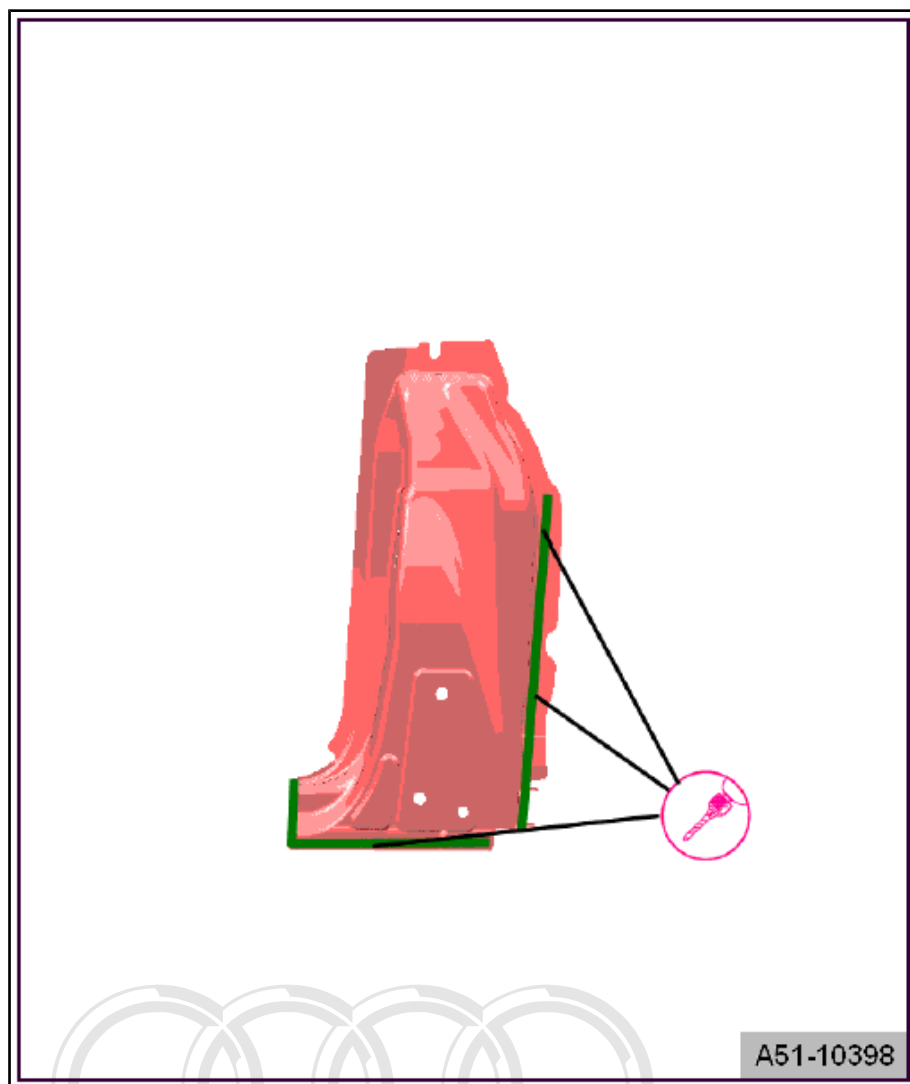
- ◆ Inner B-pillar

Preparing new part

- Drill 7 mm Ø holes for SG plug weld seam using drill -VAS 5830- .



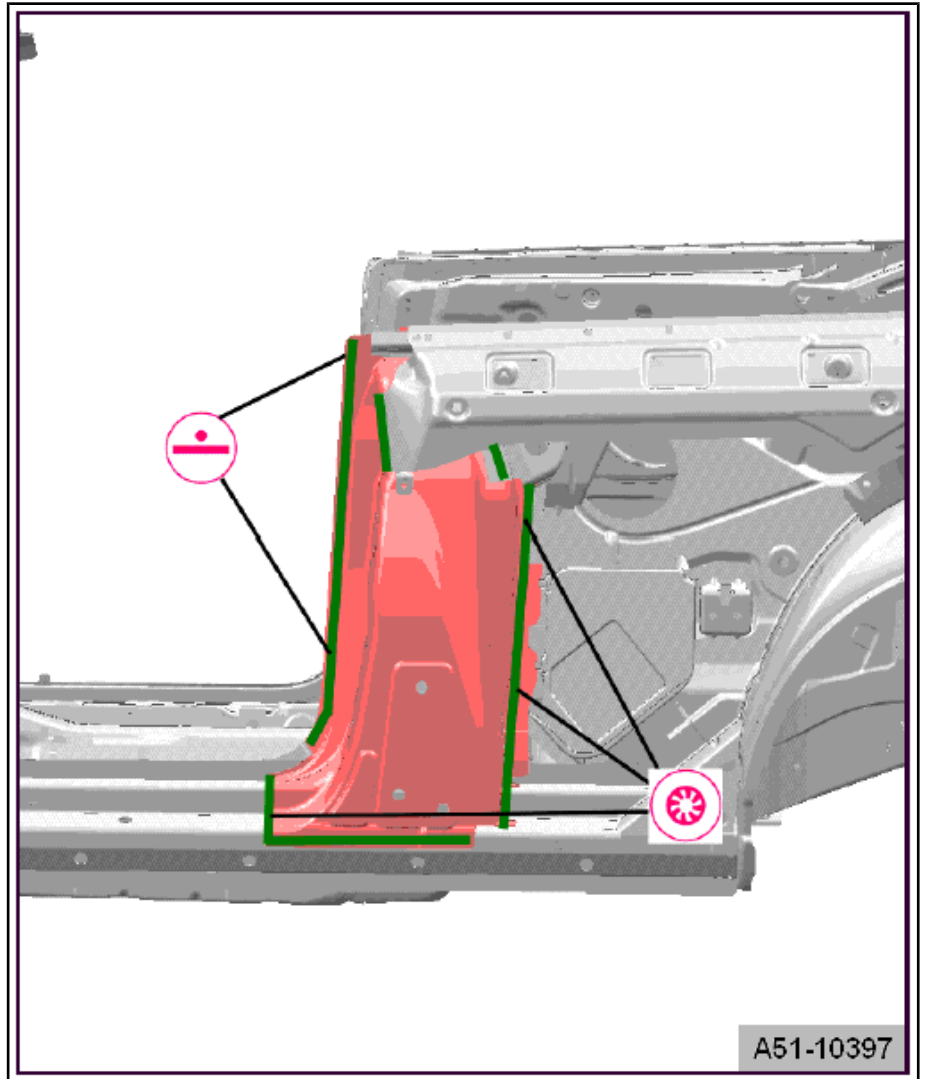
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Welding in

- Weld in inner B-pillar using shielded arc welding equipment 250A -VAS 6045A- : SG plug weld seam.
- Weld in inner B-pillar using welding unit (inverter) : RP spot weld seam.

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RO: 51 45 55 00

7 Mountings for diagonal struts - Renewal



WARNING

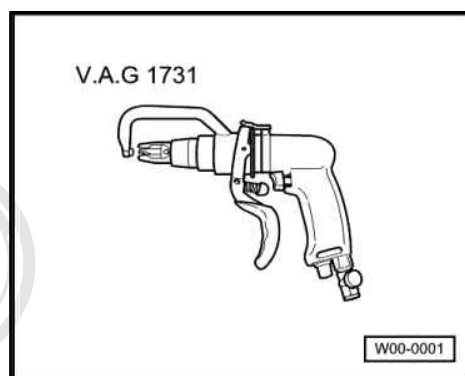
Always observe safety precautions.

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

7.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Spot weld breaker -V.A.G 1731-

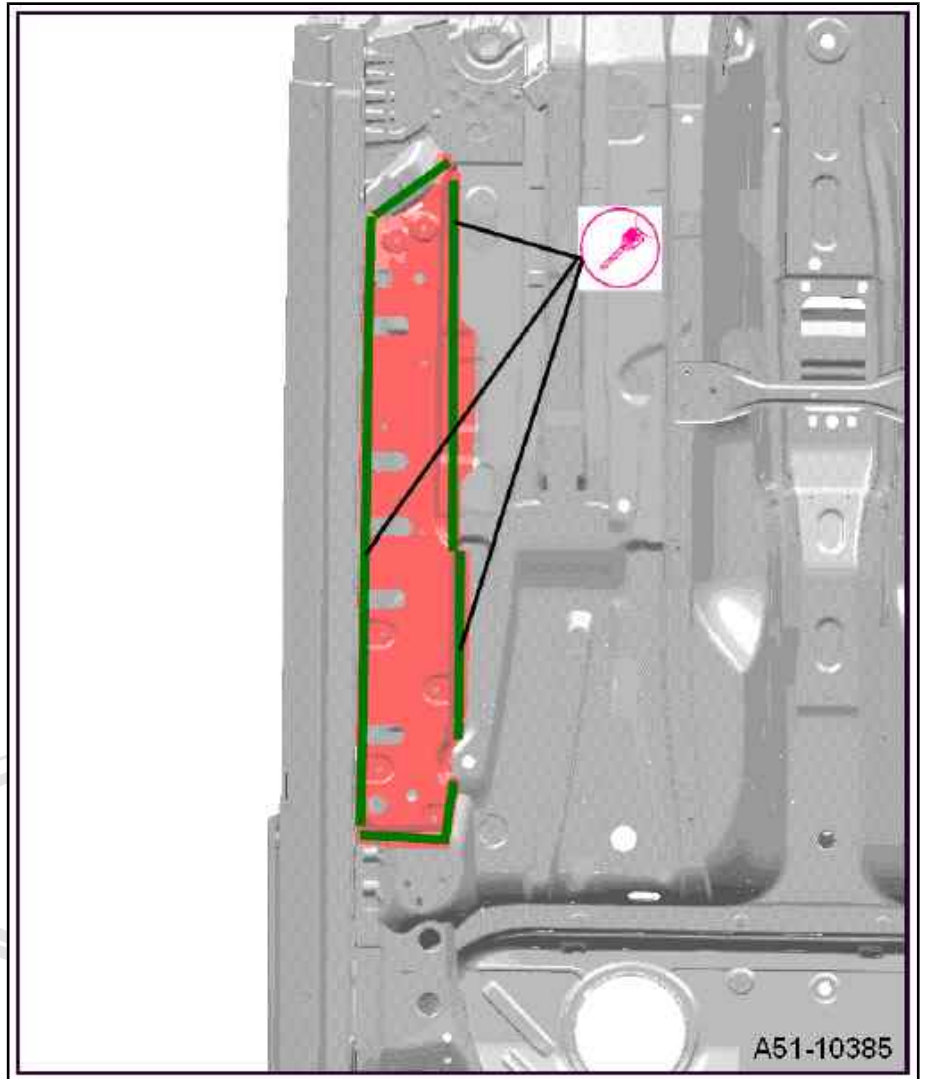


7.2 Procedure

Cutting locations

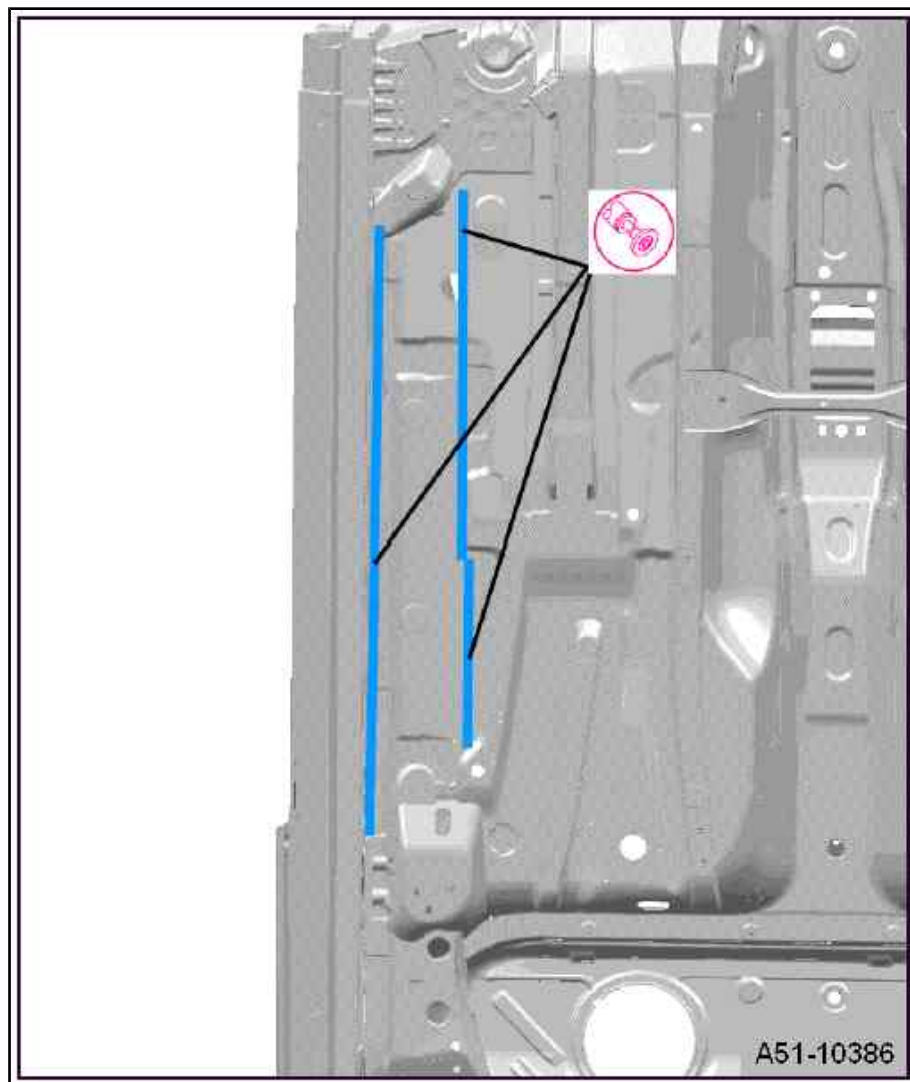
- Separate original joint using drill -VAS 5830- .
- Detach side reinforcements.

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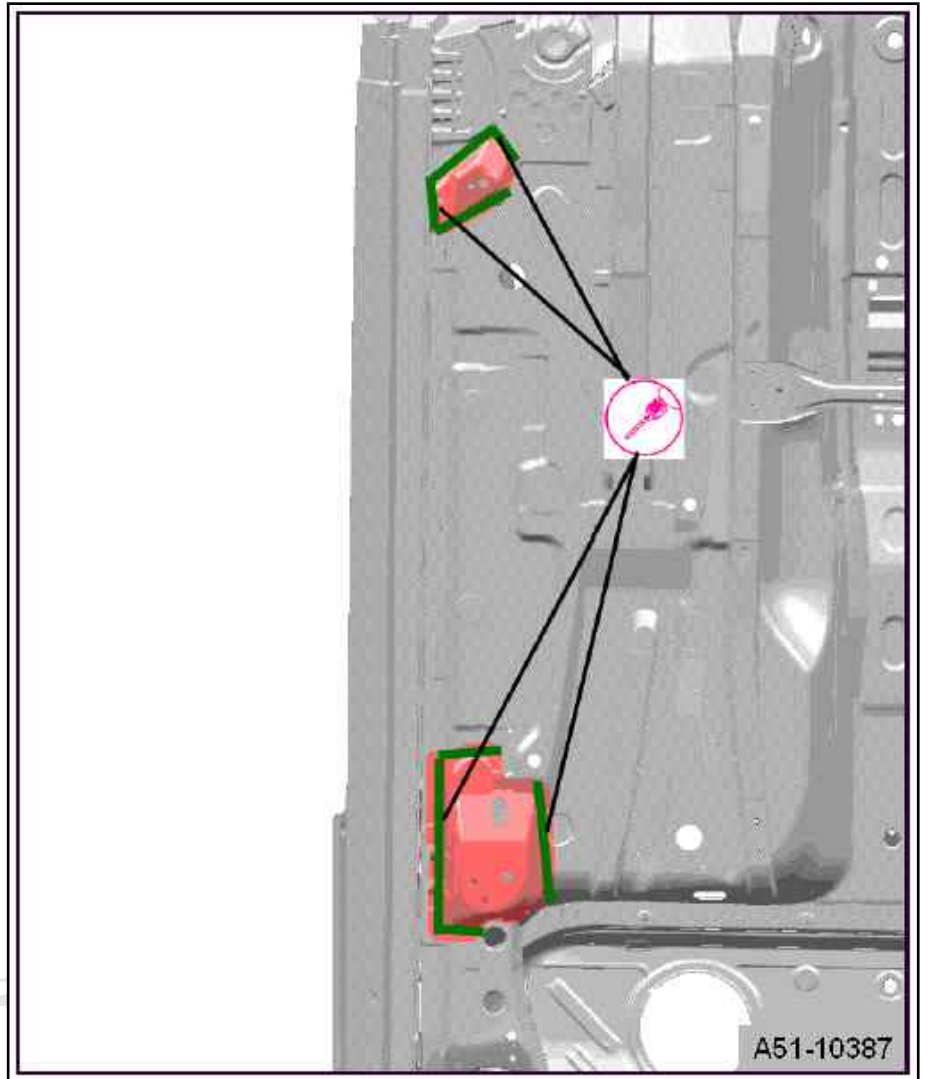


- Remove remaining material using compact angle grinder - VAS 5167- .

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- Separate original joint using drill -VAS 5830- .



Replacement part

- ◆ Mountings for diagonal struts

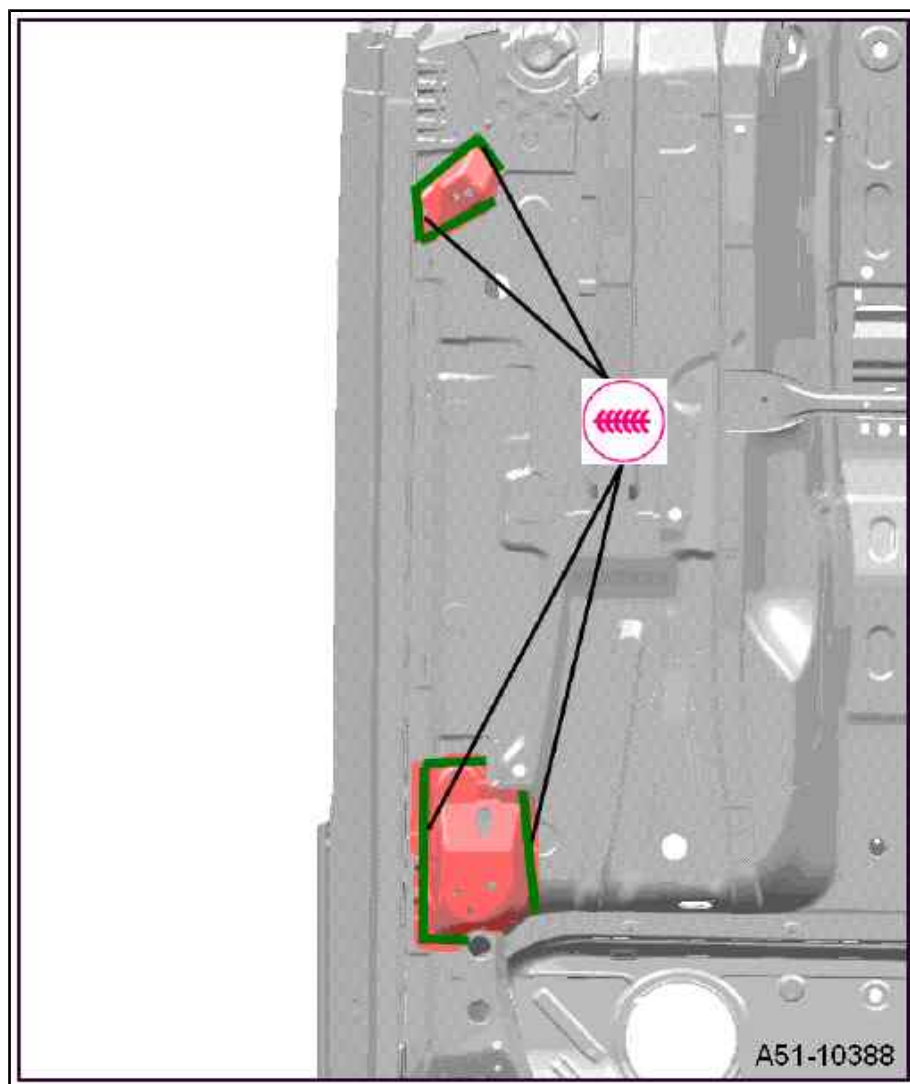
Preparing new part

- Fix mountings for diagonal struts in position on alignment bracket.

Welding in

- Weld in mountings for diagonal struts using shielded arc welding equipment 250A-VAS 6045A - SG continuous seam.

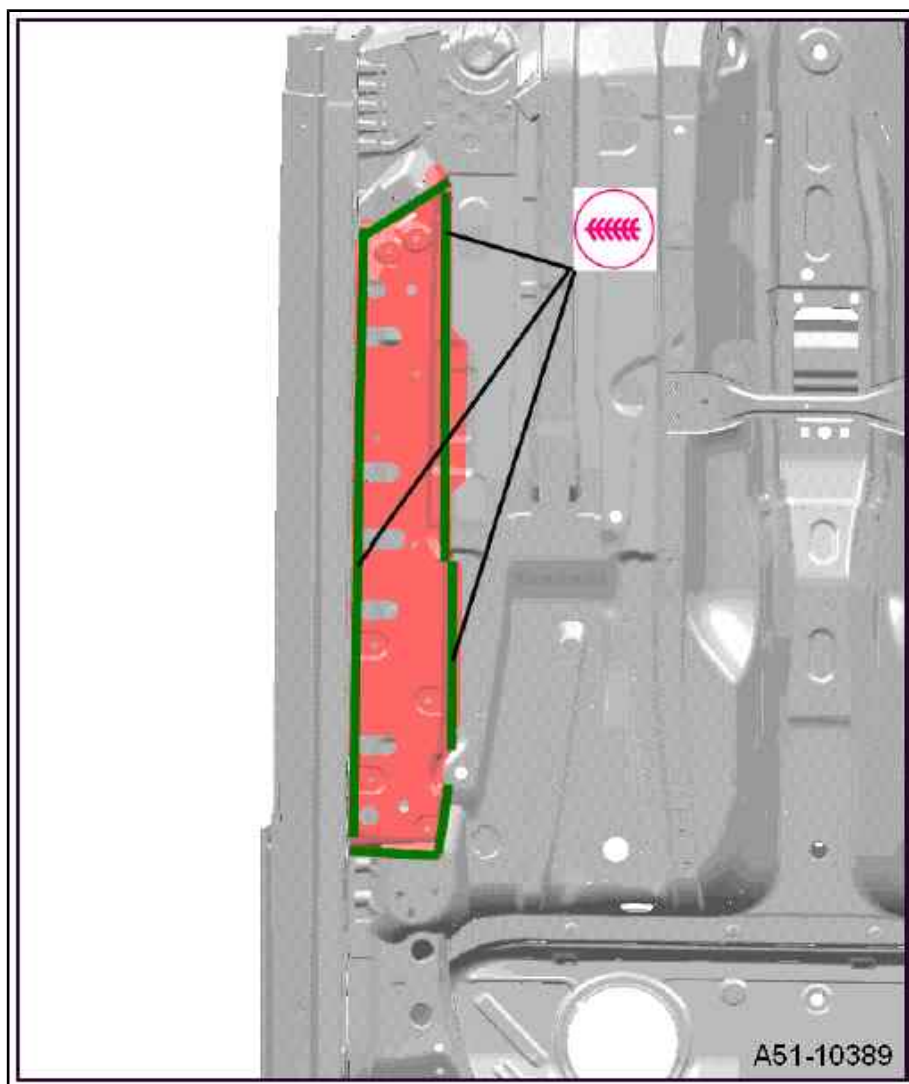
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- Fit reinforcement plate so it is flush and weld in using shielded arc welding equipment 250A -VAS 6045A- : SG continuous seam.



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RO: 51 47 55 50

8 Inner side member - Partial renewal



WARNING

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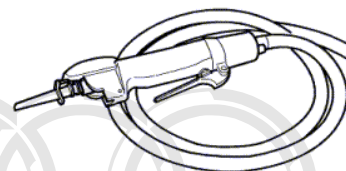
Safety notes ⇒ General Information; Body Repairs, General Body Repairs ; Safety notes .

8.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

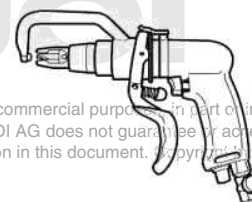
V.A.G 1523 A



W00-0005

- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1731



W00-0001

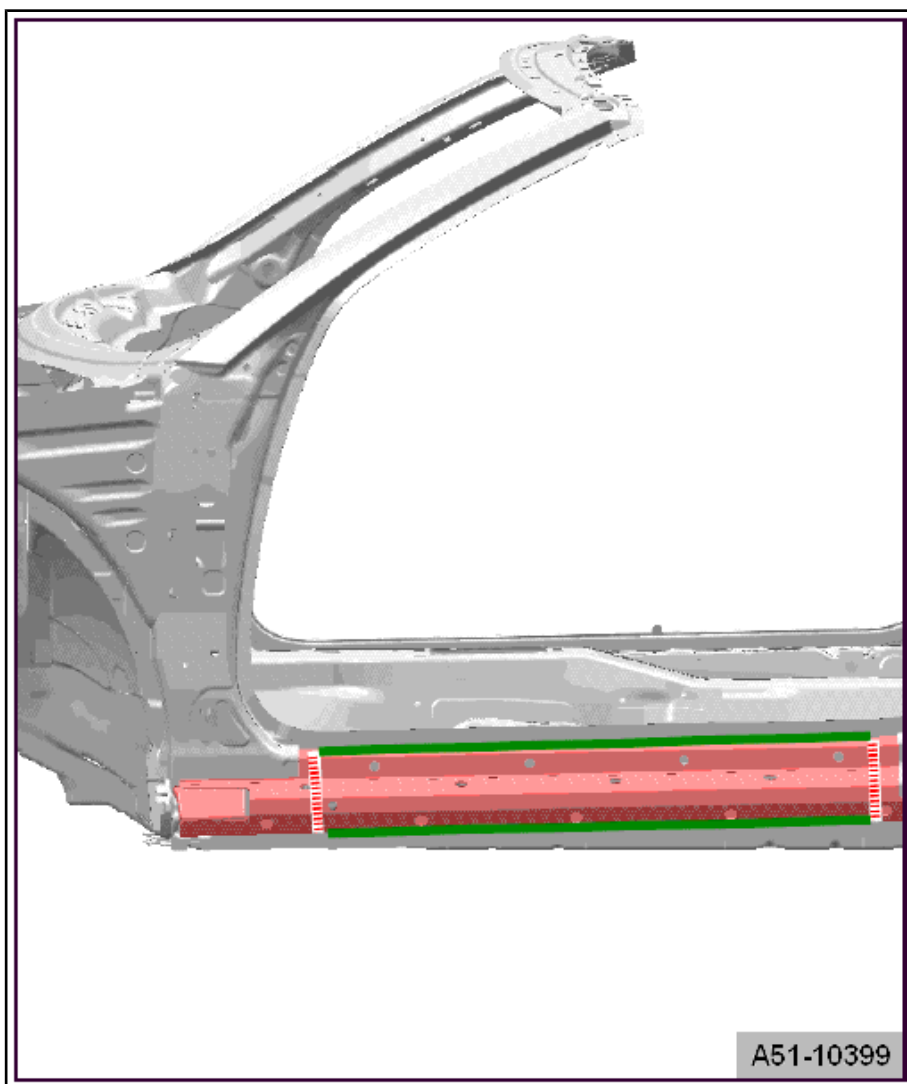
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8.2 Procedure

- Outer side member already cut out

Cutting locations

- Make separating cuts using pneumatic sabre saw -V.A.G 1523A- .
- Separate original joint using spot weld breaker -V.A.G 1731- .



A51-10399



Note

Partial renewal is possible with the separating cuts illustrated. SG continuous butt weld in the separated area.

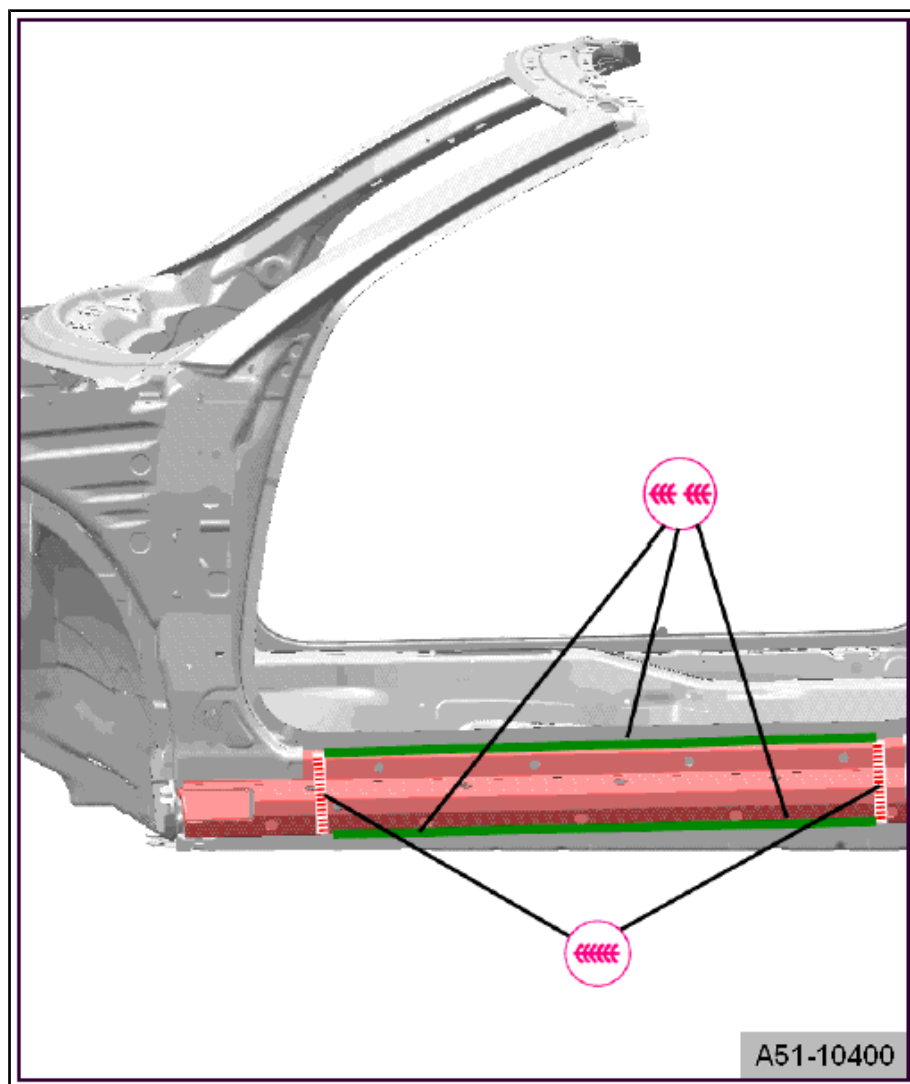
Replacement part

- ◆ Inner side member

Welding in

- Weld in inner side member using shielded arc welding equipment 250A -VAS 6045A- : SG continuous seam in place of laser weld.
- Butt weld at separating cuts using shielded arc welding equipment 250A -VAS 6045A- : SG continuous seam.

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RO: 51 47 55 50

9 Inner side member - Renewal



WARNING

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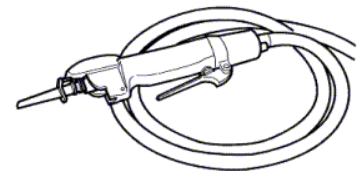
Safety notes ⇒ General Information; Body Repairs, General Body Repairs ; Safety notes .

9.1 Tools

Special tools and workshop equipment required

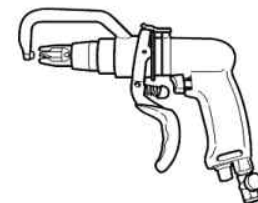
- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

V.A.G 1523 A



W00-0005

V.A.G 1731



W00-0001

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- ◆ Spot weld breaker -V.A.G 1731-

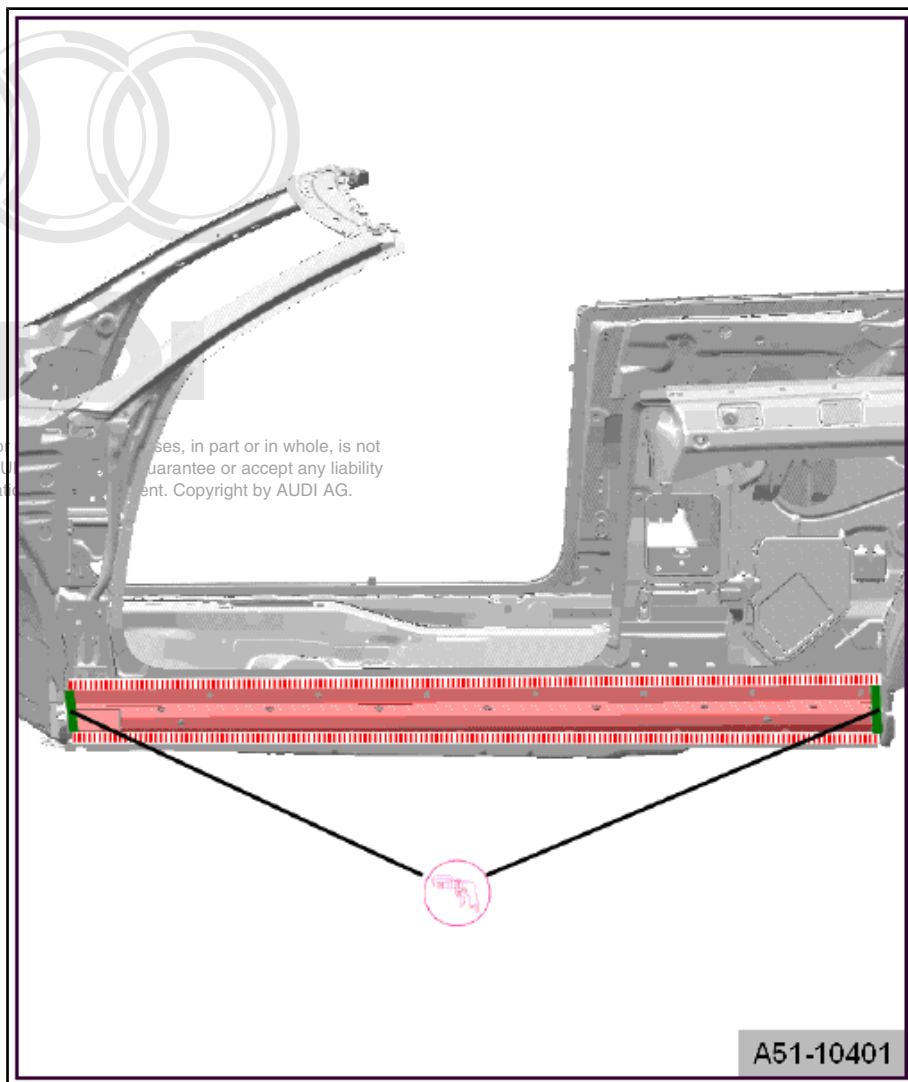
9.2 Procedure

- Outer side member already cut out
- Side panel already cut out.
- Inner A-pillar already cut out.
- B-pillar already cut out.

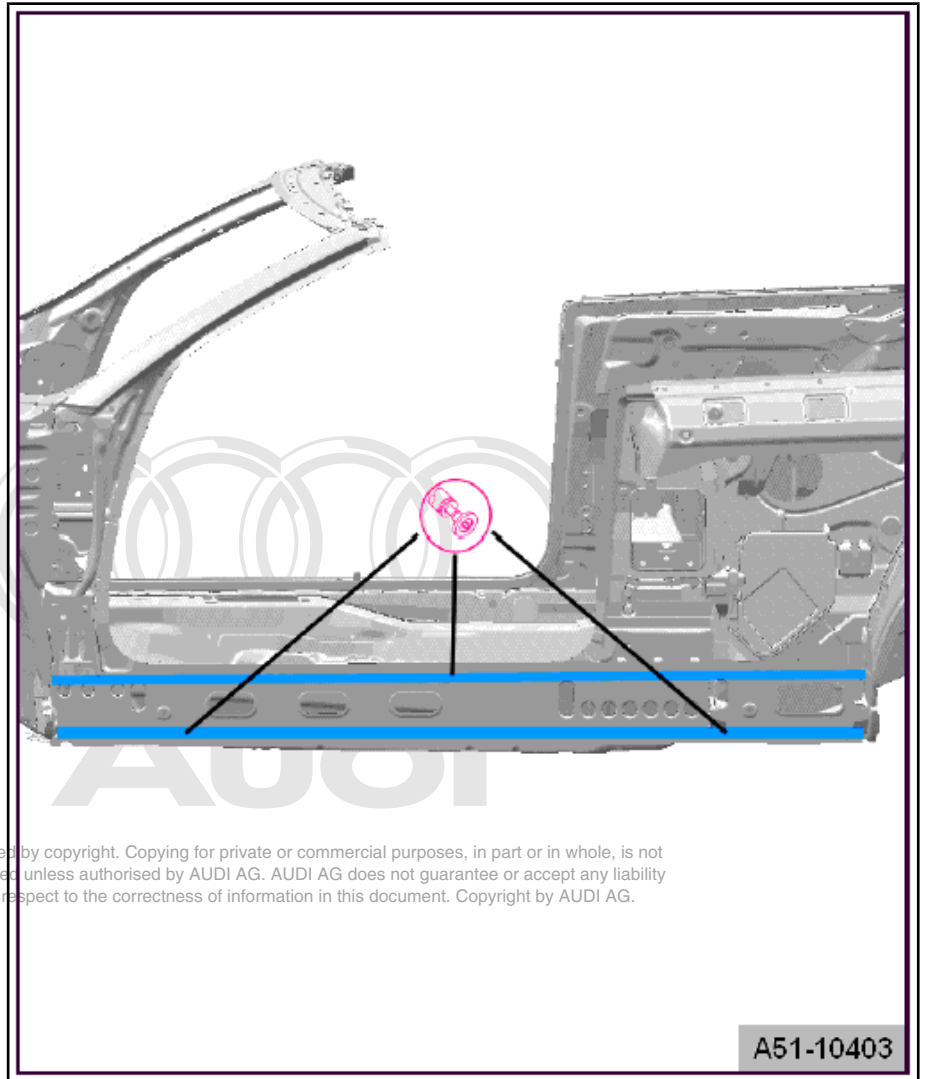
Cutting locations

- Roughly cut out side member using pneumatic sabre saw - V.A.G 1523A- .
- Separate original joint using spot weld breaker -V.A.G 1731- .

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

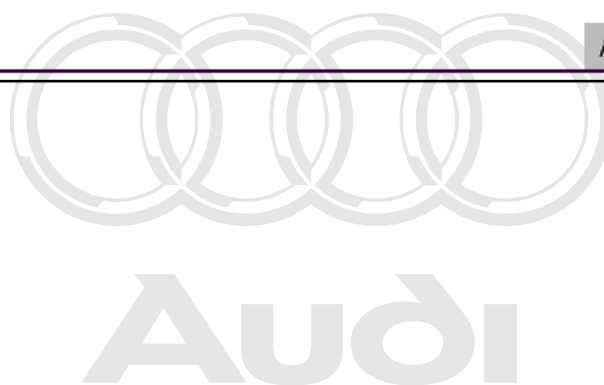
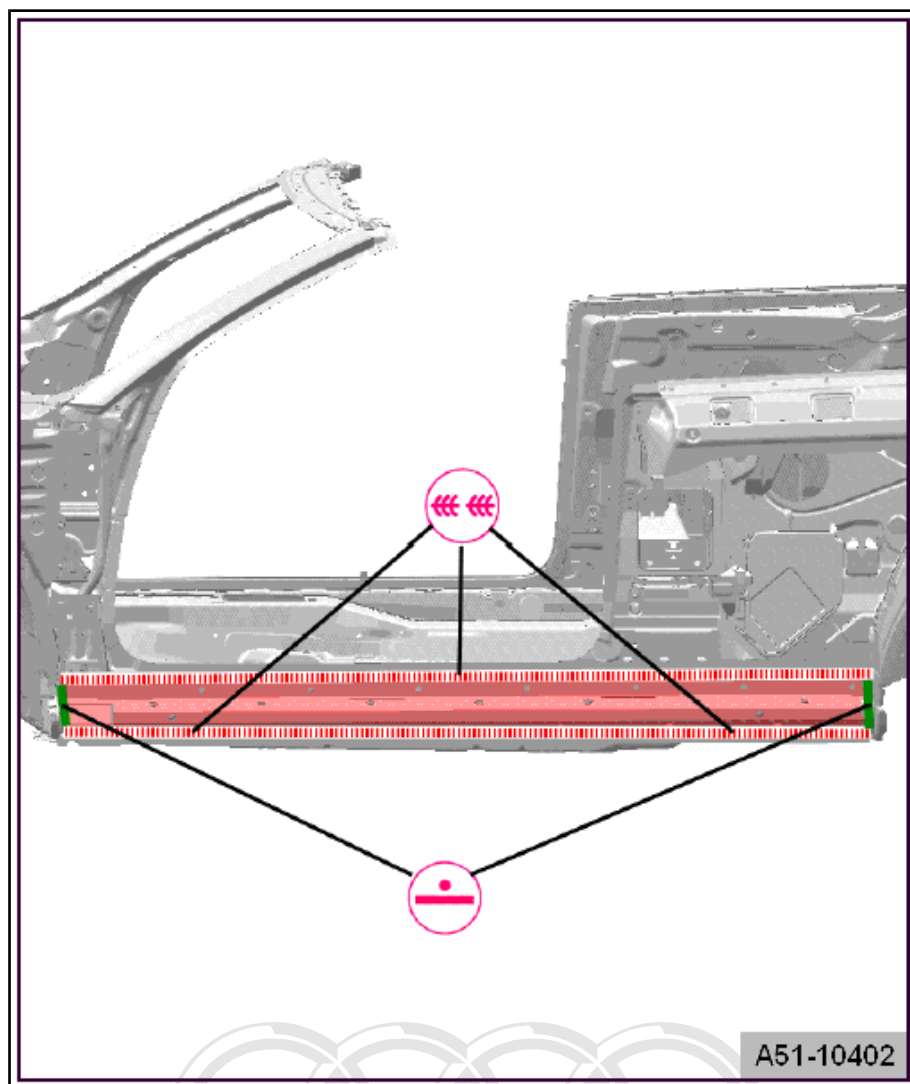


Replacement part

- ◆ Inner side member

Welding in

- Weld in inner side member using shielded arc welding equipment 250A -VAS 6045A- : SG continuous seam in place of laser weld.
- Weld in side member using welding unit (inverter) .



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53 – Body - rear

RO: 53 05 55 00

1 Rear cross panel (top section) - 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

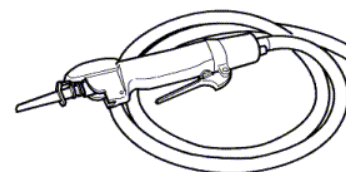
- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Pneumatic sabre saw -V.A.G 1523A-



- ◆ Spot weld breaker -V.A.G 1731-

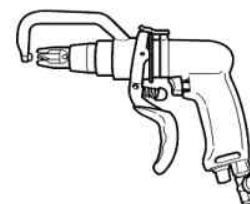
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V.A.G 1523 A



W00-0005

V.A.G 1731



W00-0001

1.2 Procedure

Cutting locations

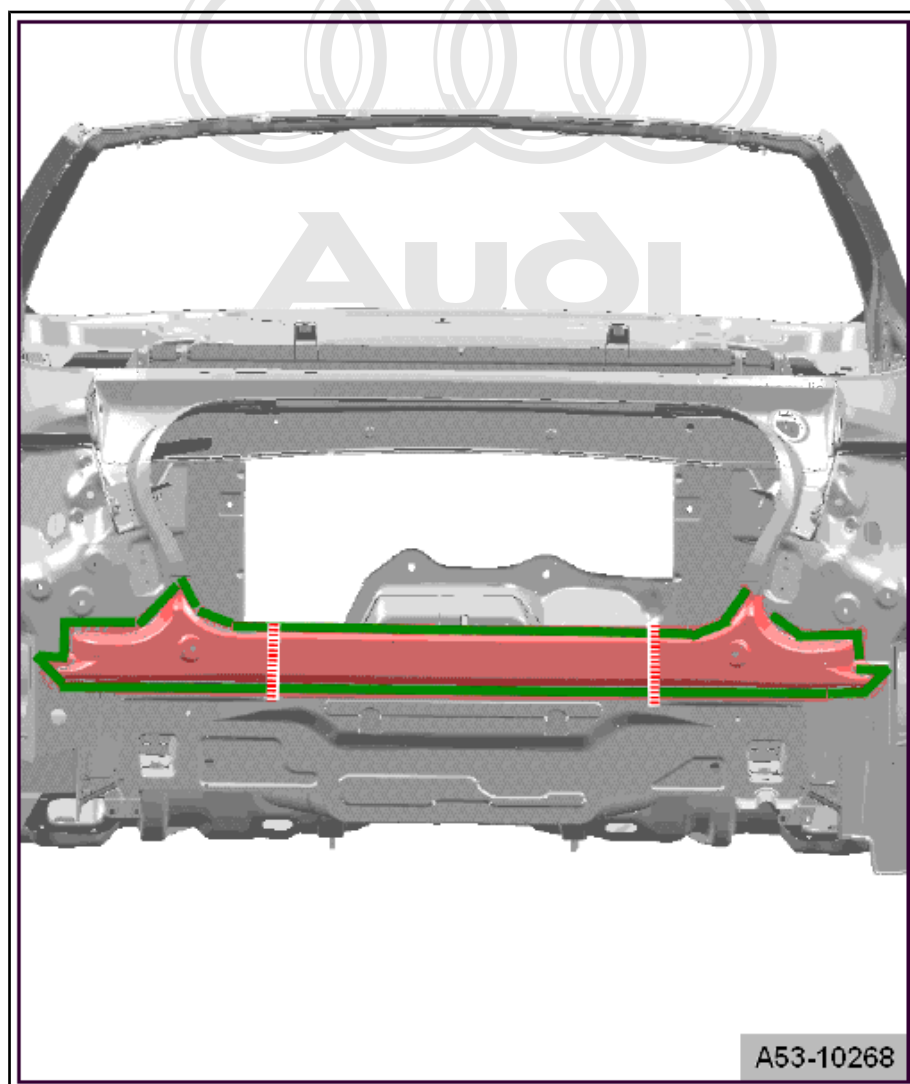


Note

Partial renewal is possible with the separating cuts illustrated.

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

- Detach part.

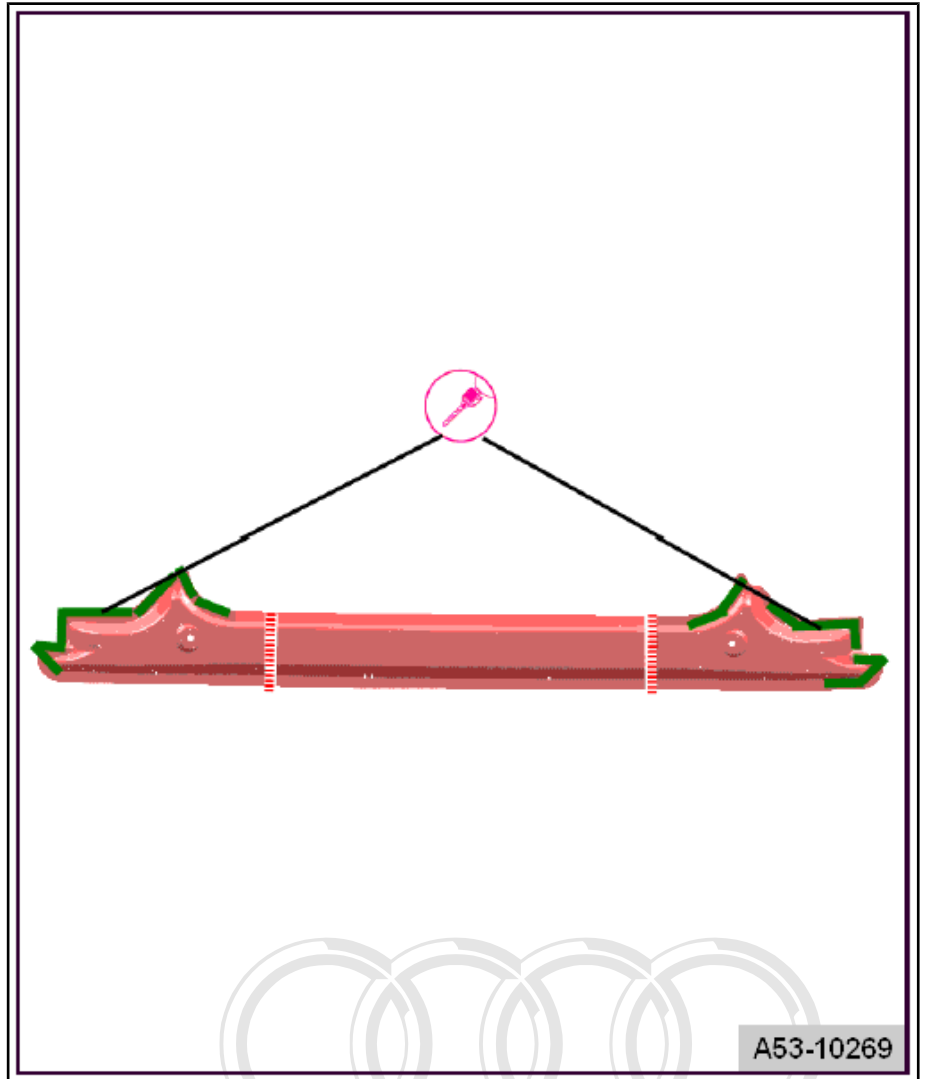


Replacement part

- ◆ Rear cross panel, top section

Preparing new part

Drill 7 mm Ø holes for SG plug weld seam using drill -VAS 5830- .

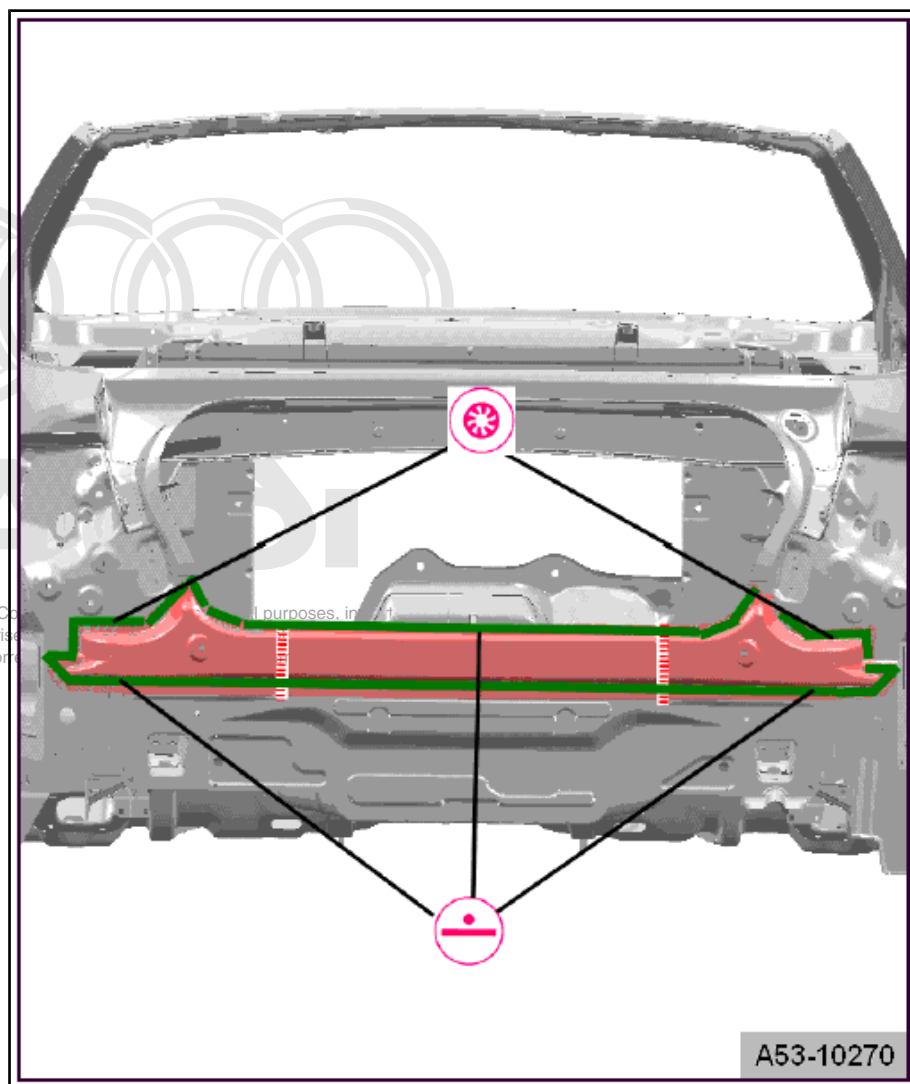


Welding in

- Spot weld cross panel using welding unit (inverter) : RP spot weld seam.
- Weld in cross panel using shielded arc welding equipment 250A : SG plug weld seam.
- Butt weld at separating cuts using shielded arc welding equipment 250A -VAS 6045A- : SG continuous seam.

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RO: 53 05 55 50

2 Rear cross panel (inner section) - Renewal



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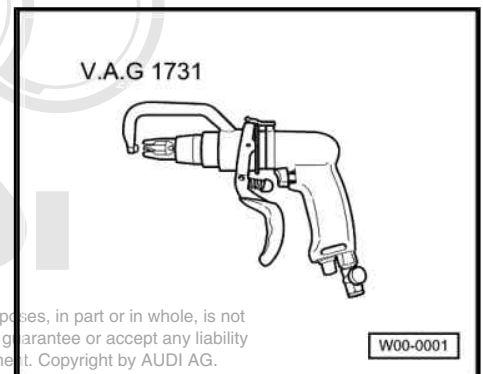
Always observe safety precautions.

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

2.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Spot weld breaker -V.A.G 1731-



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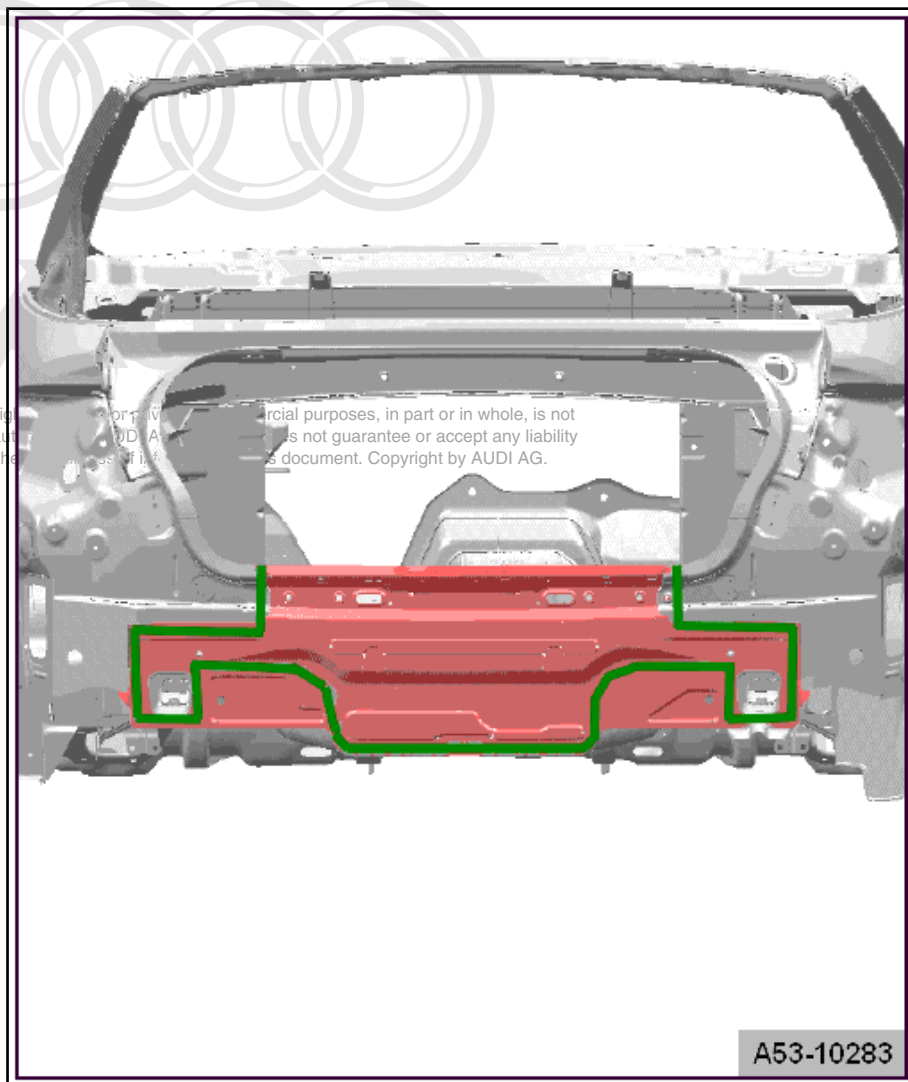
2.2 Procedure

- Top section of rear cross panel already removed

Cutting locations

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

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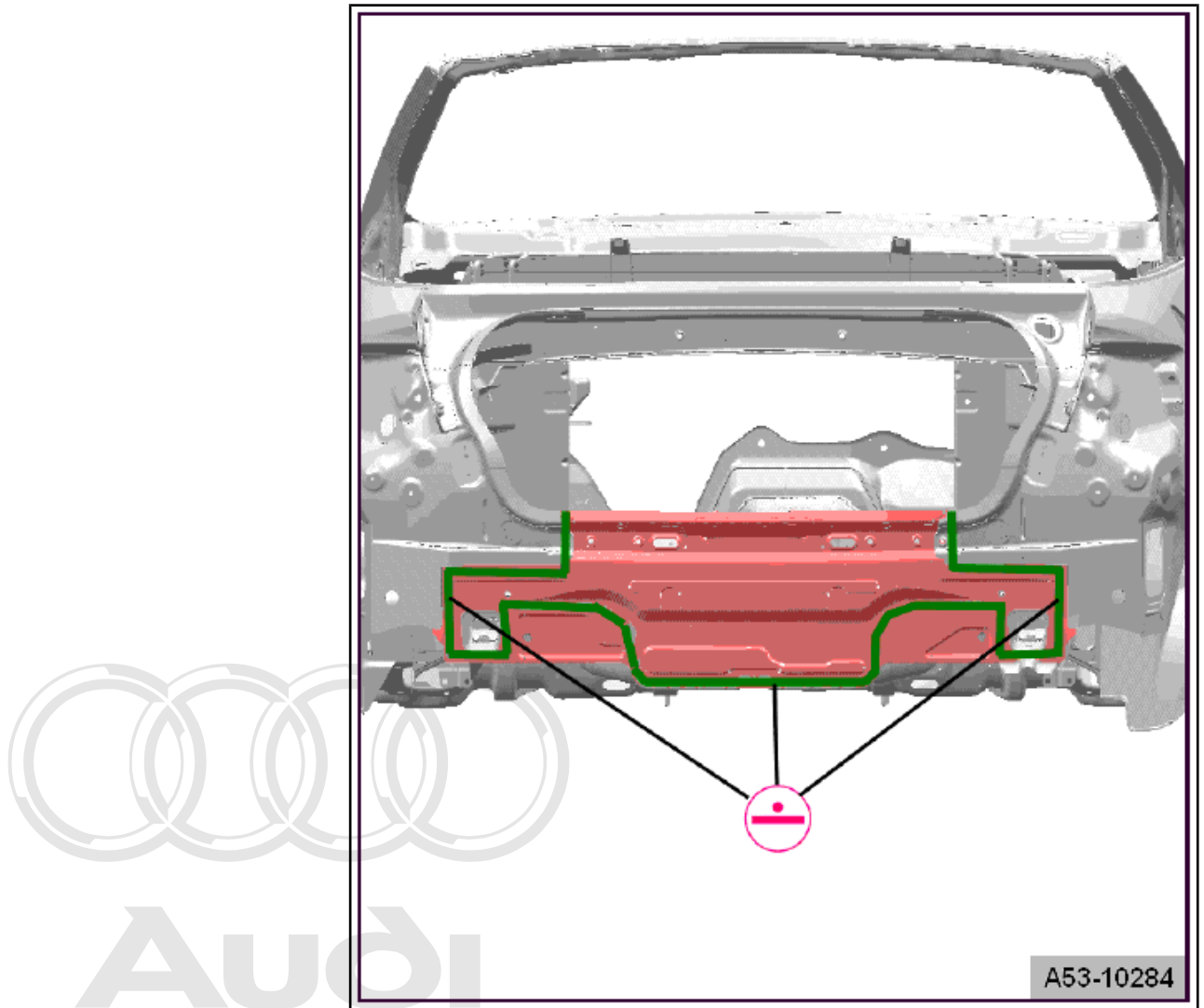


Replacement part

- ◆ Rear cross panel (inner section)

Welding in

- Insert part from below between tail light mounting and bottom reinforcement.
- Spot weld cross panel (inner section) using welding unit (inverter) : RP spot weld seam.



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RO: 53 10 55 00

3 Tail light mounting - Renewal



WARNING

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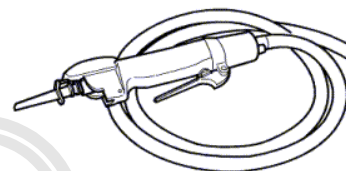
Safety notes ⇒ General Information; Body Repairs, General Body Repairs ; Safety notes .

3.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

V.A.G 1523 A



W00-0005

- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1731



W00-0001

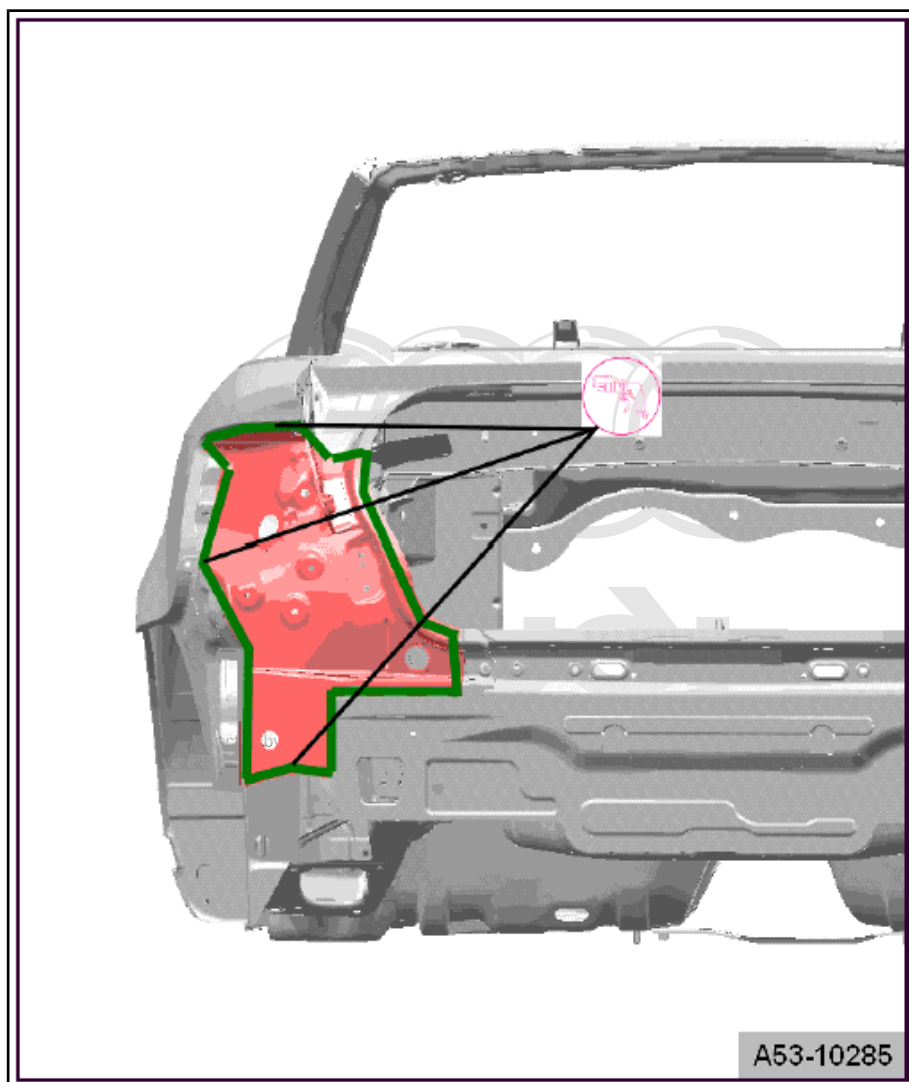
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3.2 Procedure

- Top section of rear cross panel already removed

Cutting locations

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

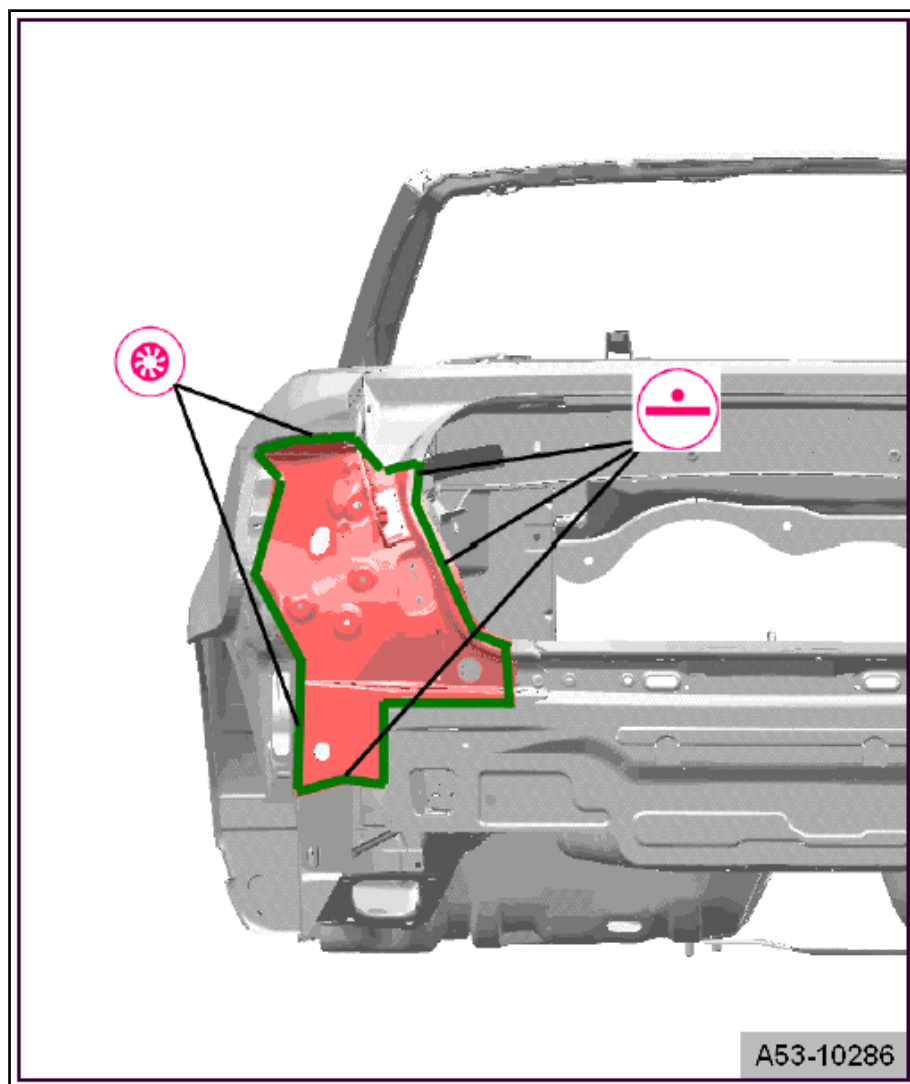


Replacement part

- ◆ Tail light mounting

Welding in

- Insert part. To do this, first guide in from below between side panel and wheel housing and then slide upwards. Align part above hole in longitudinal member.
- Match up and fix new part in position.
- Weld in mounting plate using welding unit (inverter) : RP spot weld seam.
- Weld in remaining joint using shielded arc welding equipment 250A -VAS 6045A- : SG plug weld seam.



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RO: 53 24 55 56

4 Luggage compartment floor - Renewal



WARNING

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

4.1 Tools

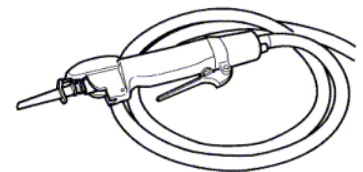
Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

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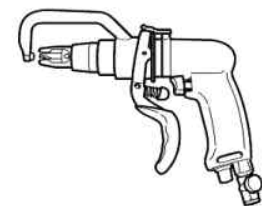
- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1523 A



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V.A.G 1731



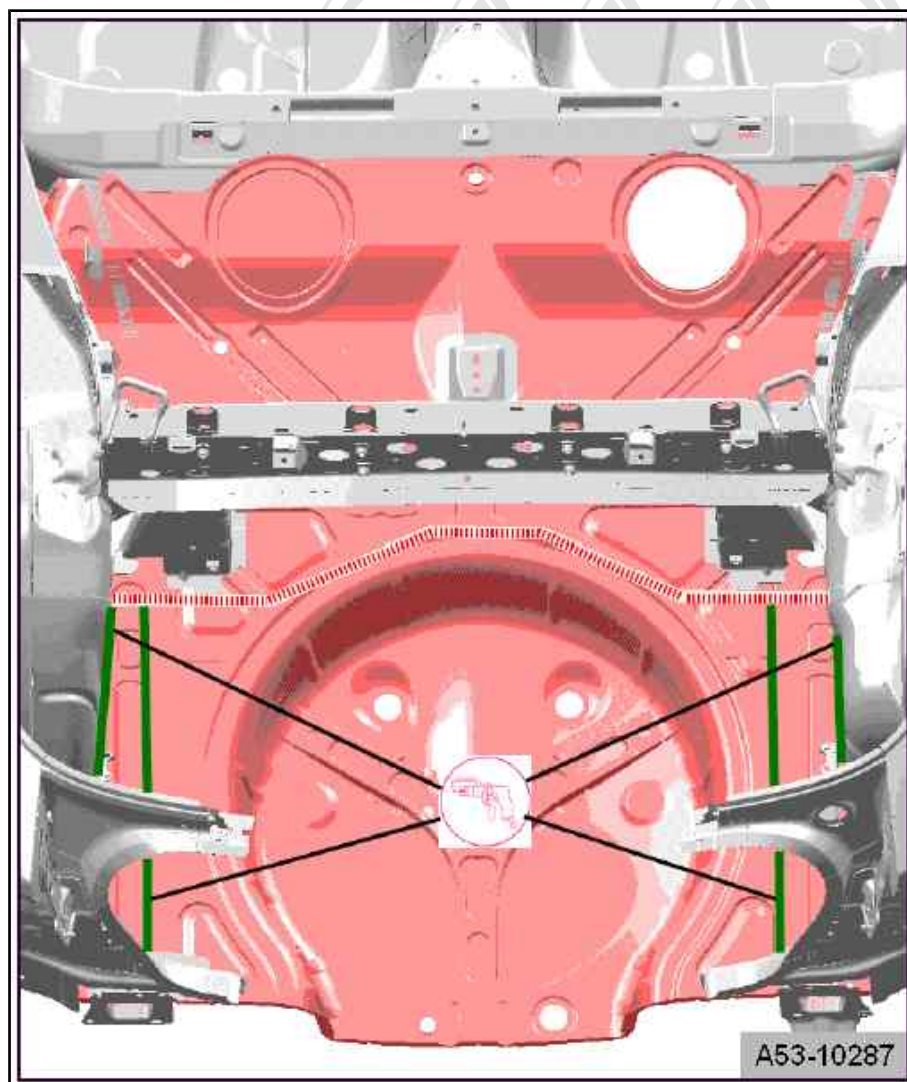
W00-0001

4.2 Procedure

- Rear cross panel and mounting plate already removed.

Cutting locations

- Separate original joint using spot weld breaker -V.A.G 1731- .
- Make separating cut as shown using pneumatic sabre saw - V.A.G 1523A- .



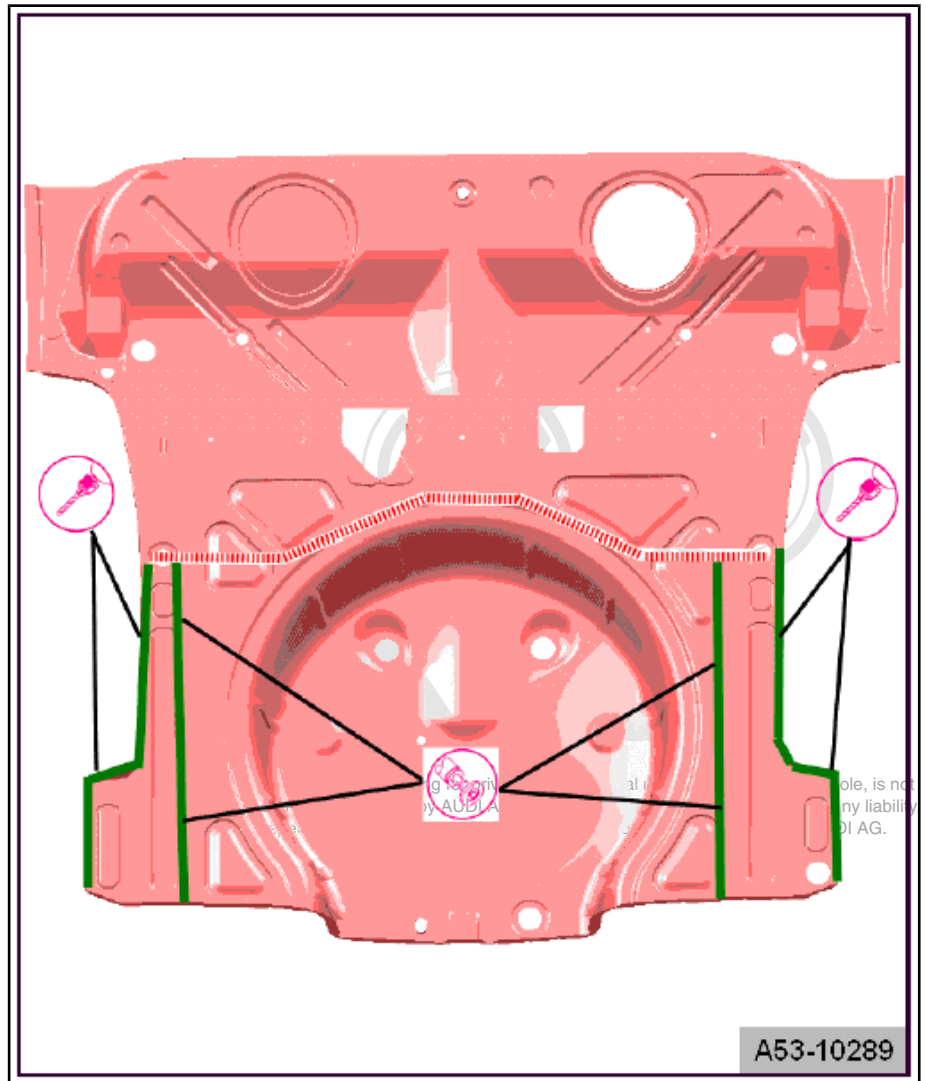
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Replacement part

- ◆ Spare wheel well

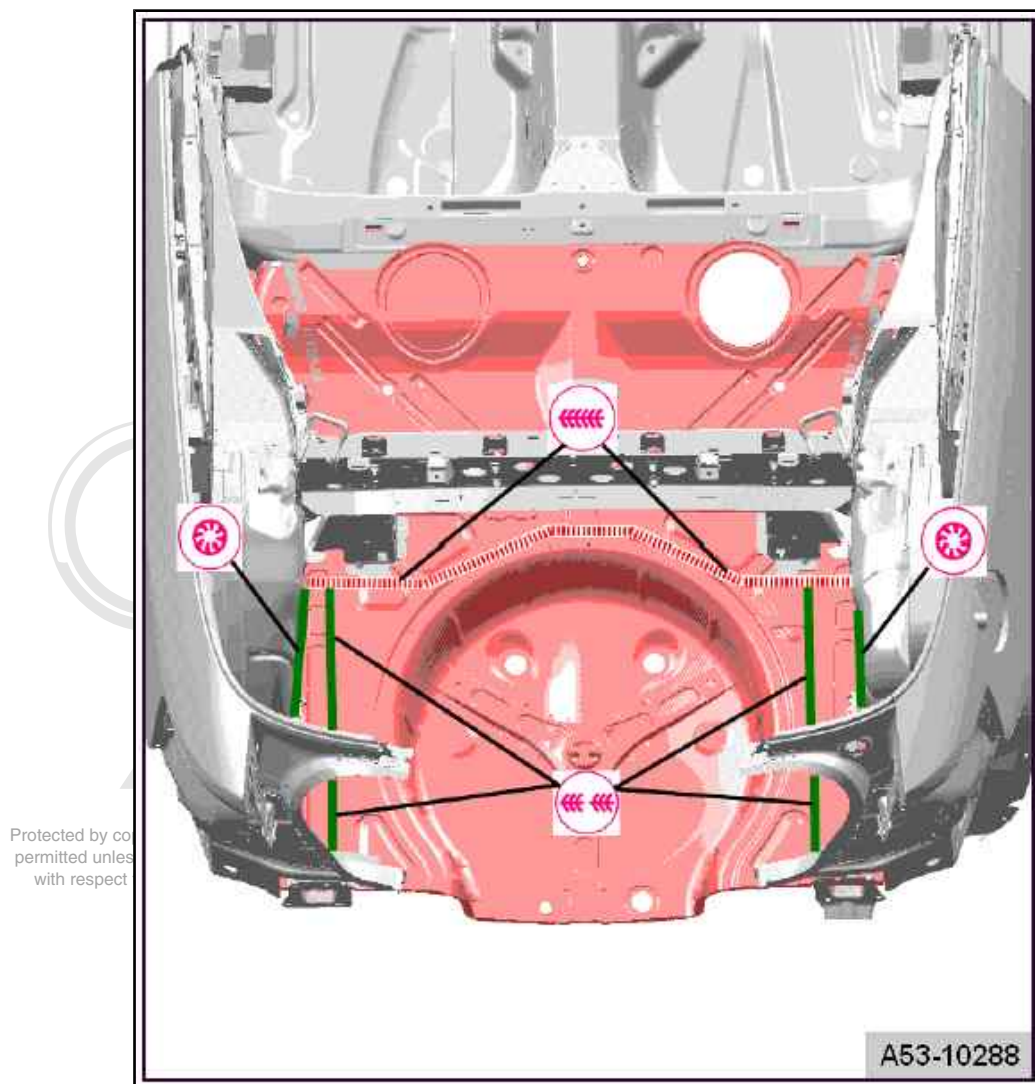
Preparing new part

- Drill 7 mm Ø holes for SG plug weld seam using drill -VAS 5830- .
- Using compact angle grinder -VAS 5167- , grind 40 mm long cuts for SG continuous seams in place of laser weld.



Welding in

- Align luggage compartment floor with no load on vehicle and check panel gaps with rear cross panel and rear lid in position.
- Weld in luggage compartment floor using shielded arc welding equipment 250A -VAS 6045A- : SG continuous seam (staggered - with gaps) in place of laser weld.
- Weld in luggage compartment floor using shielded arc welding equipment 250A -VAS 6045A- : SG plug weld seam.
- Weld in at separating cut using shielded arc welding equipment 250A -VAS 6045A- : SG continuous seam.



RO: 53 48 55 62

5 Rear longitudinal member - Partial renewal



WARNING

Always observe safety precautions.

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

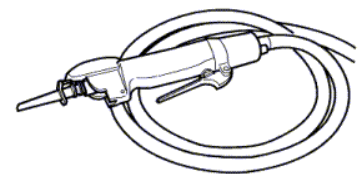
5.1 Tools

Special tools and workshop equipment required

- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

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V.A.G 1523 A

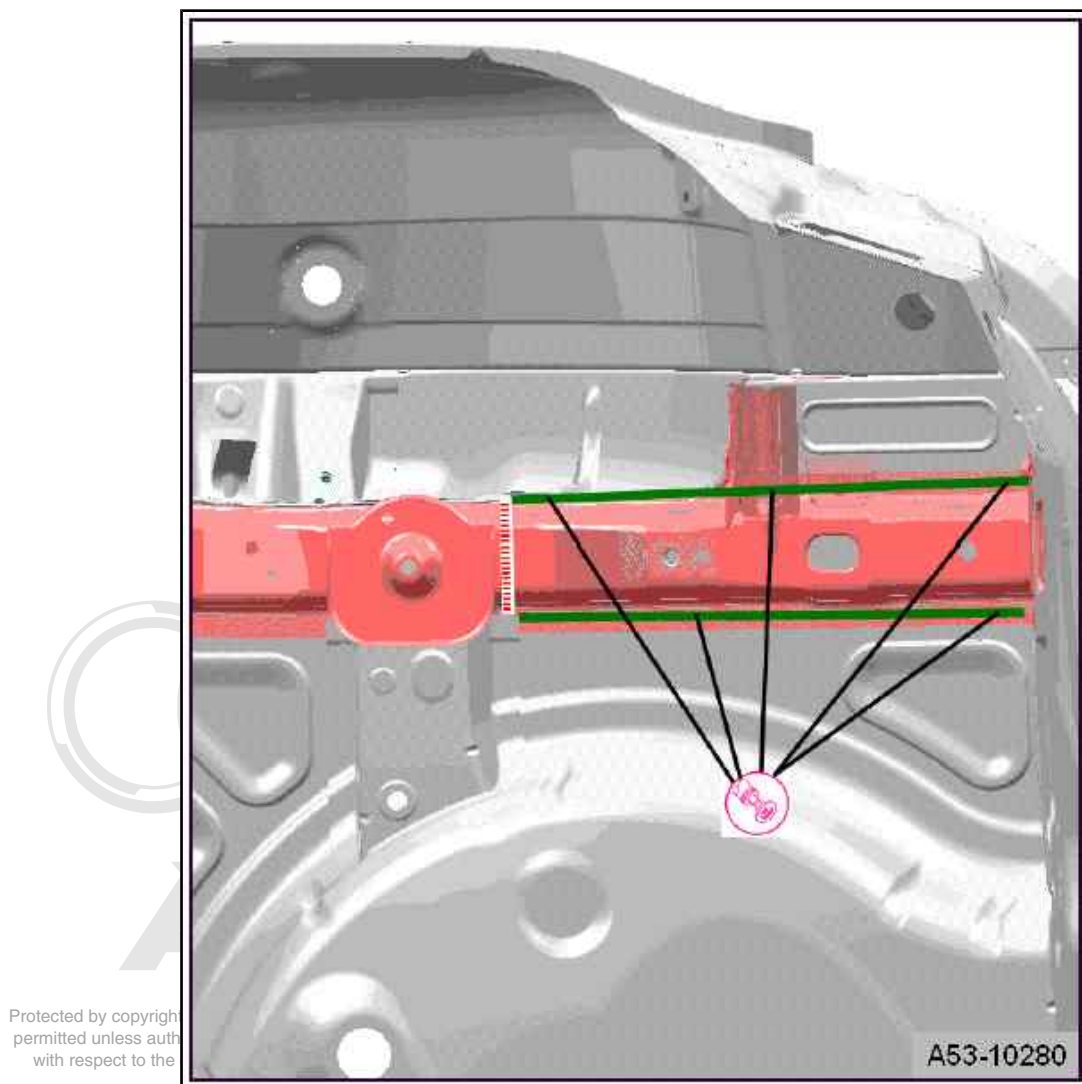


W00-0005

5.2 Procedure

Cutting locations

- Cut out longitudinal member using compact angle grinder - VAS 5167- .
- Make separating cut at longitudinal member section as shown using pneumatic sabre saw -V.A.G 1523A- .

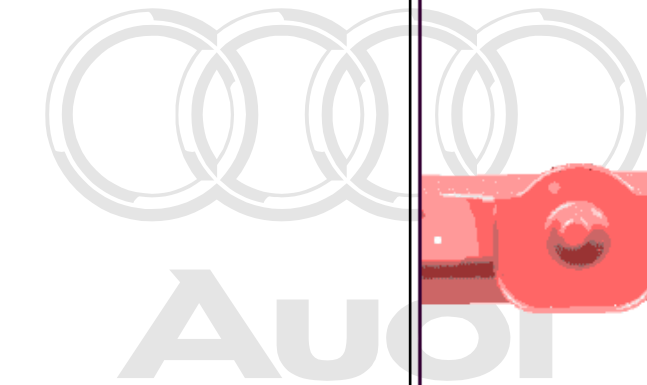


Replacement part

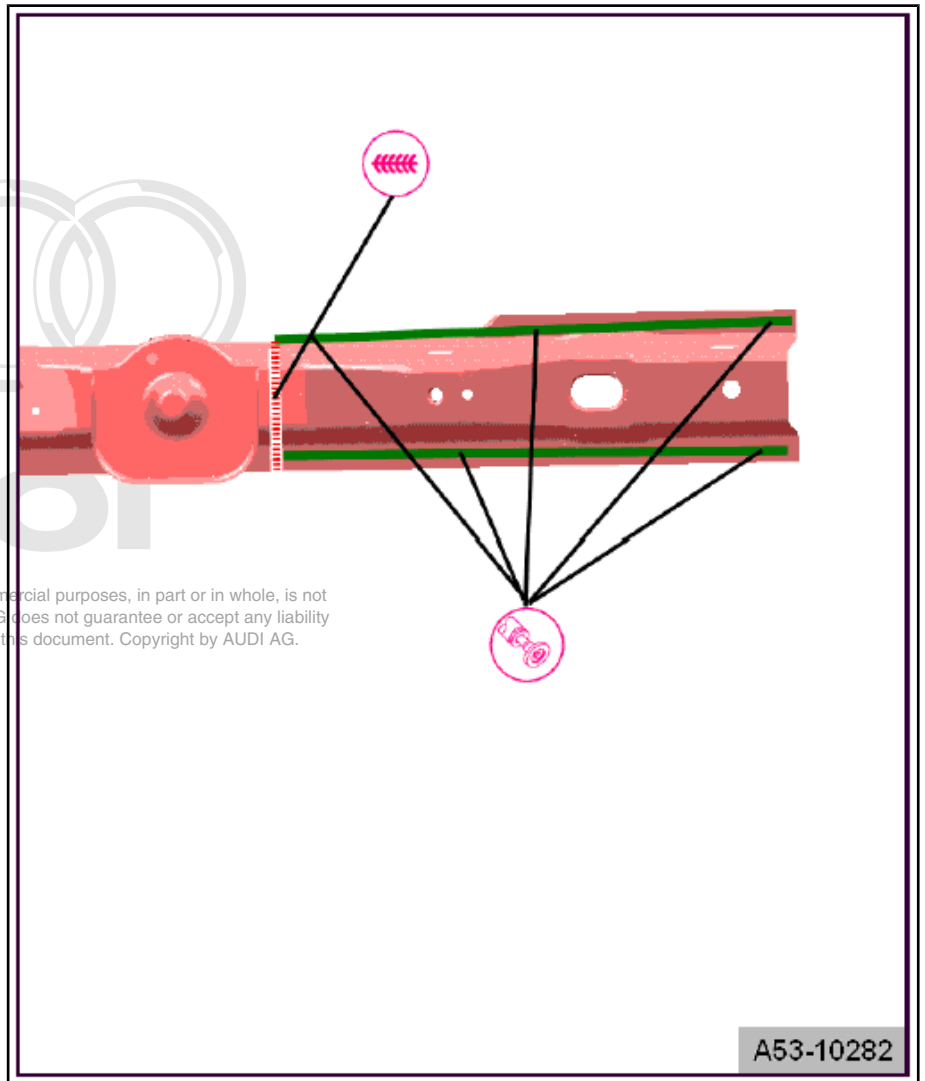
- ◆ Longitudinal member part section

Preparing new part

- Using compact angle grinder -VAS 5167- , grind 30 mm grooves every 40 mm in longitudinal member part section for SG continuous seam (staggered - with gaps) in place of laser weld.

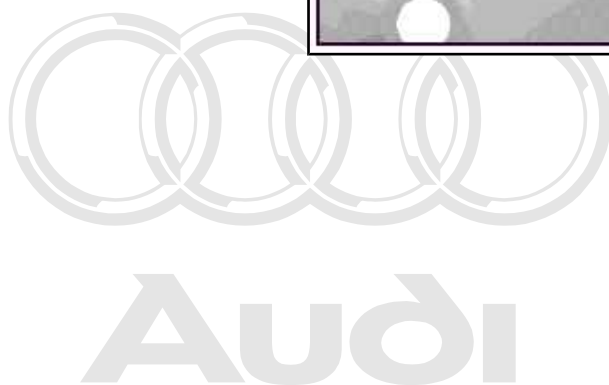
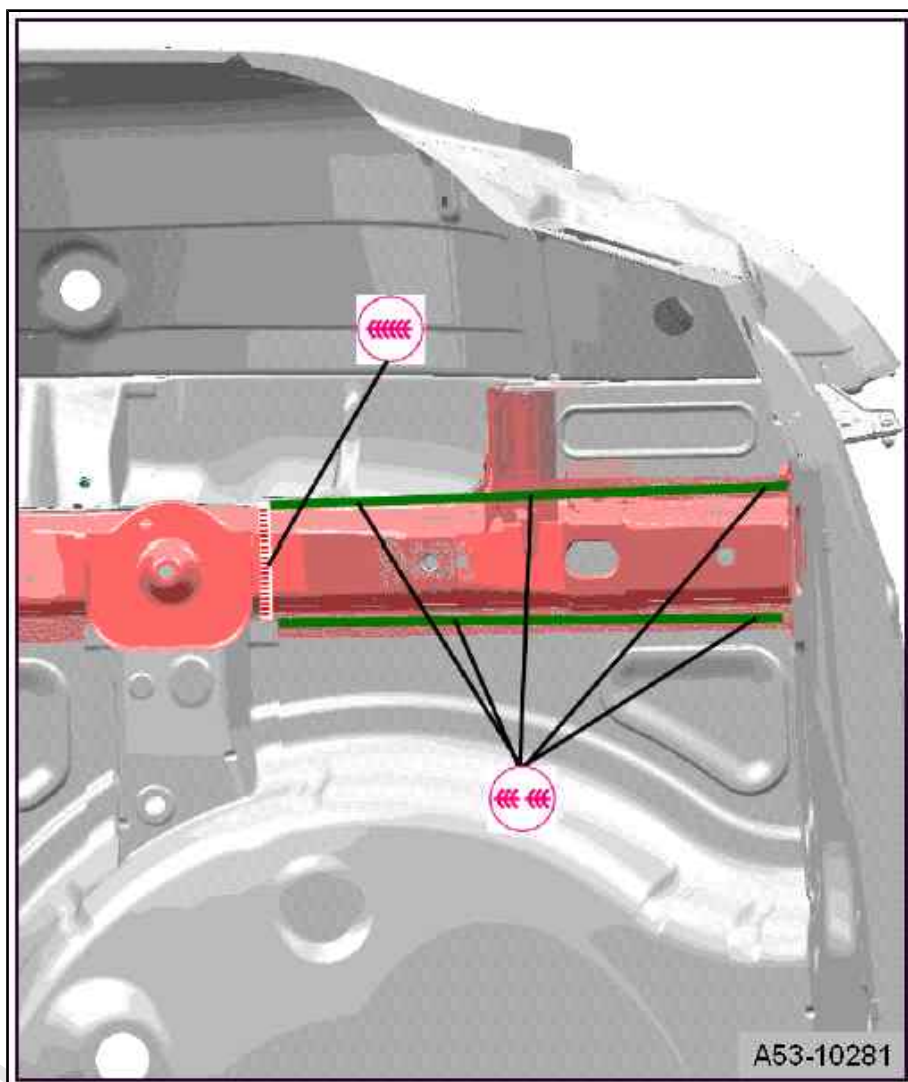


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Welding in

- 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.
- Weld in longitudinal member using shielded arc welding equipment 250A -VAS 6045A- : SG continuous seam (staggered - with gaps).



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RO: 53 55 00

6 Side panel - Renewal



WARNING

Always observe safety precautions.

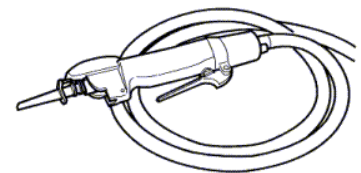
Safety notes ⇒ General Information; Body Repairs, General Body Repairs ; Safety notes .

6.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Drill -VAS 5830-
- ◆ Compact angle grinder -VAS 5167-
- ◆ Pneumatic sabre saw -V.A.G 1523A-

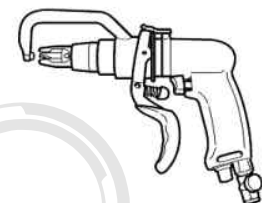
V.A.G 1523 A



W00-0005

- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1731



W00-0001

- ◆ Pneumatic glue gun -V.A.G 2005 B-

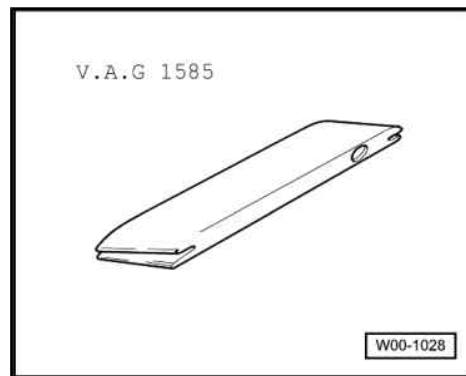
V.A.G 2005



W00-1000

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- ◆ Fold crimping tool -V.A.G 1585-



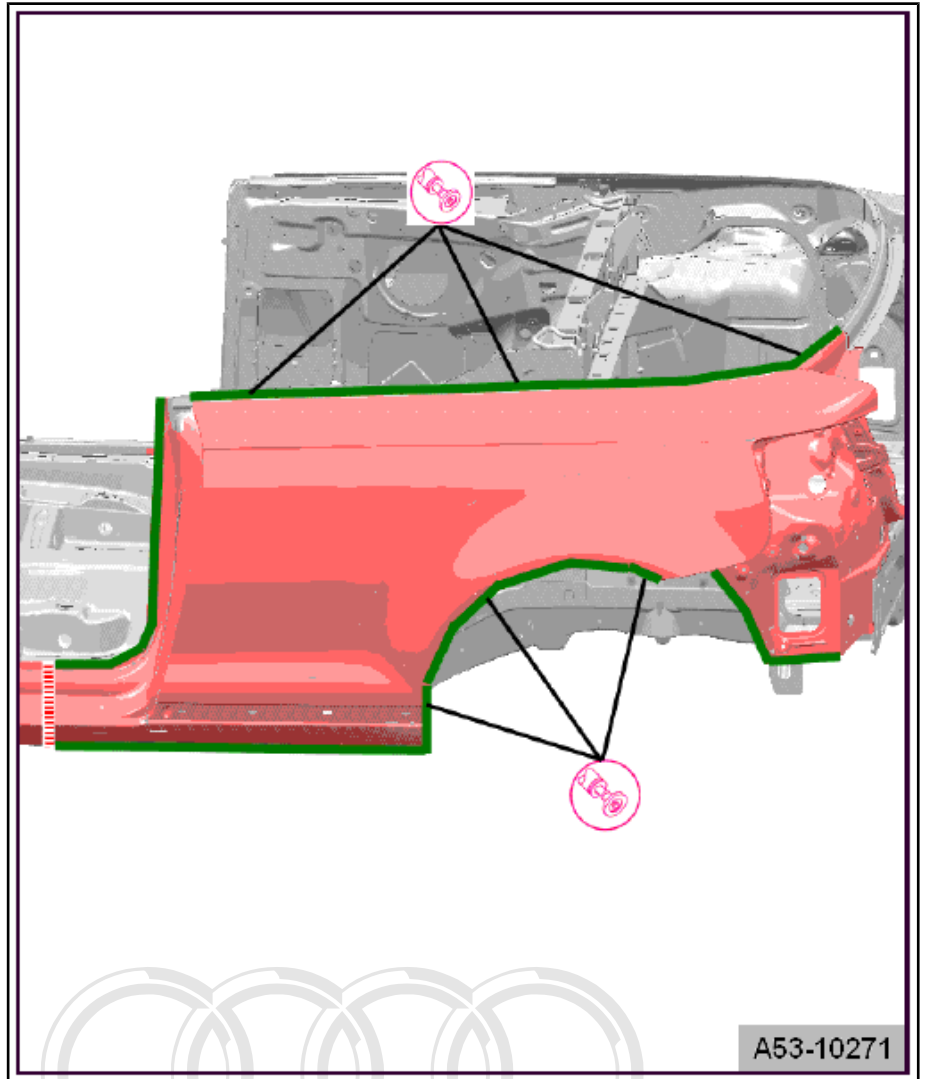
6.2 Procedure

Cutting locations

- Make separating cut as shown using pneumatic sabre saw - V.A.G 1523A- .
- Grind through outer edge of wheel arch using compact angle grinder -VAS 5167- .
- Grind through outer edge of side panel (top) using compact angle grinder -VAS 5167- .
- Separate original joint using spot weld breaker -V.A.G 1731- .



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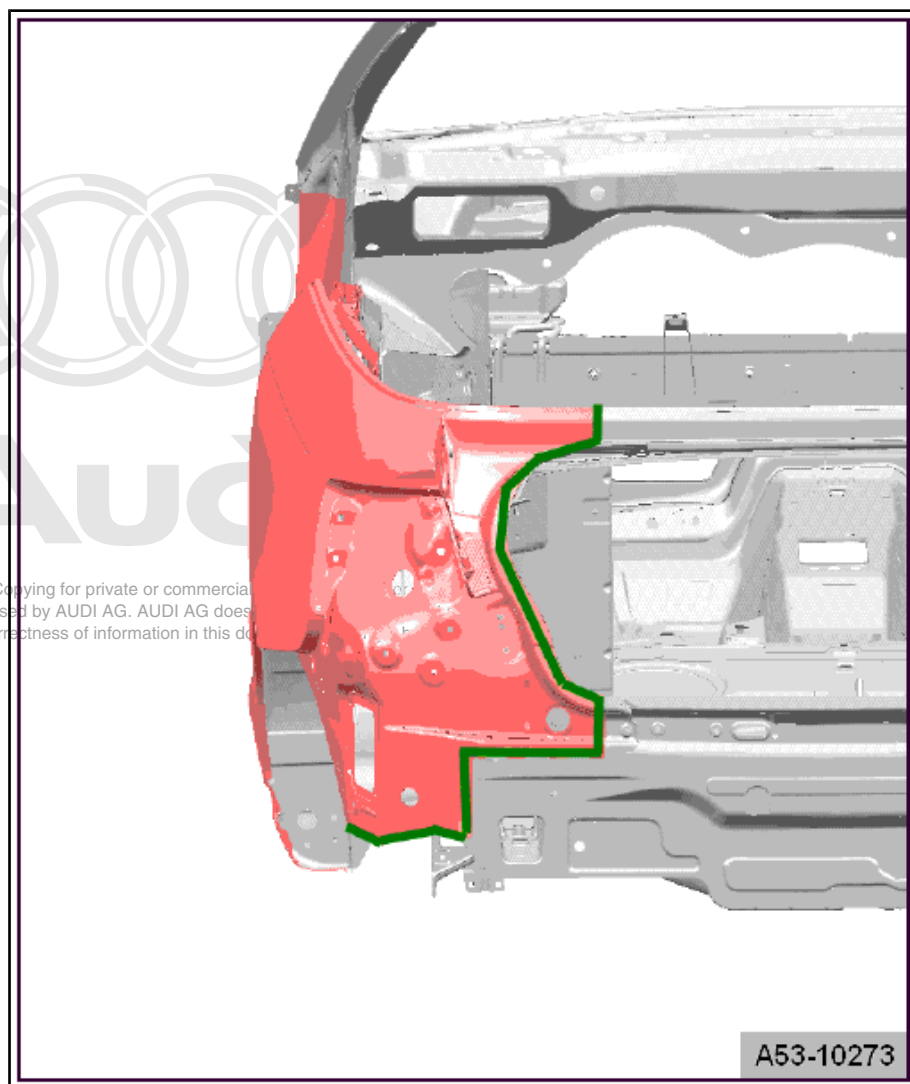


- Separate original joint using spot weld breaker -V.A.G 1731-.

Audi

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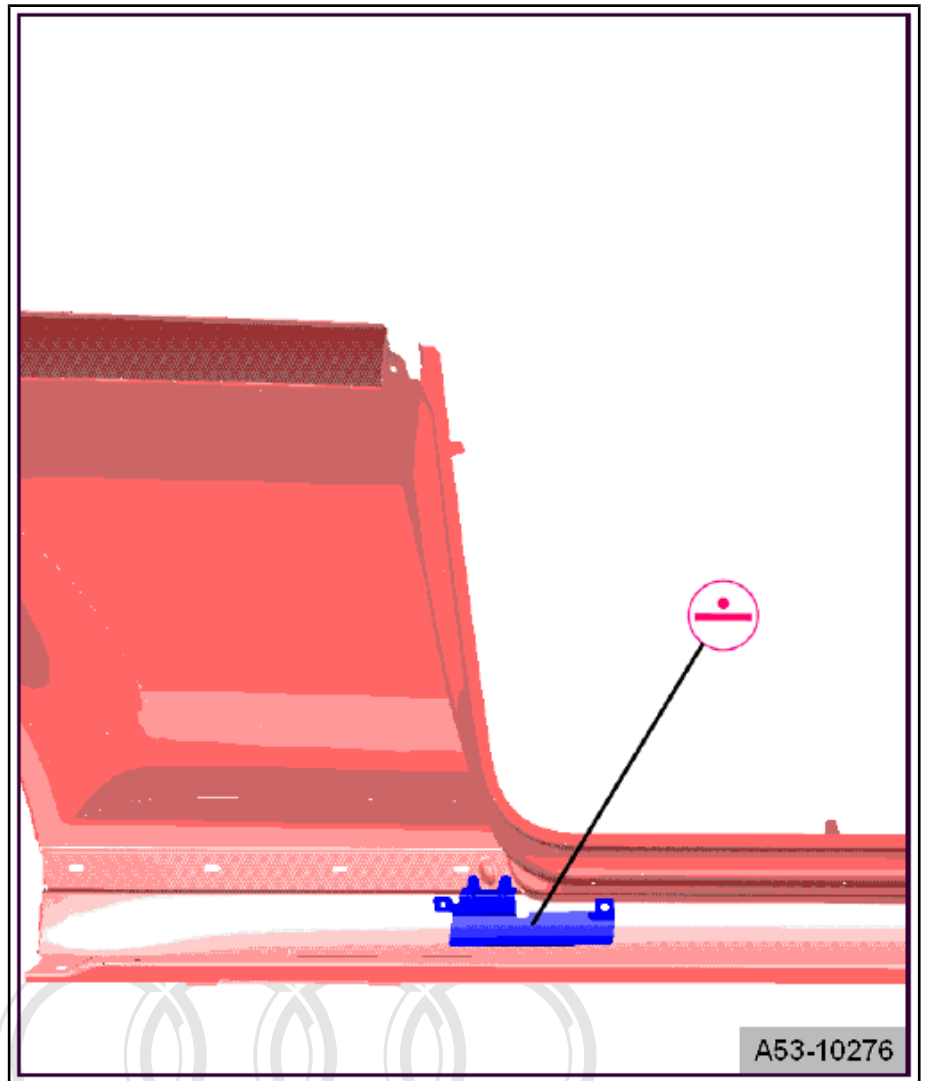


Replacement parts

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

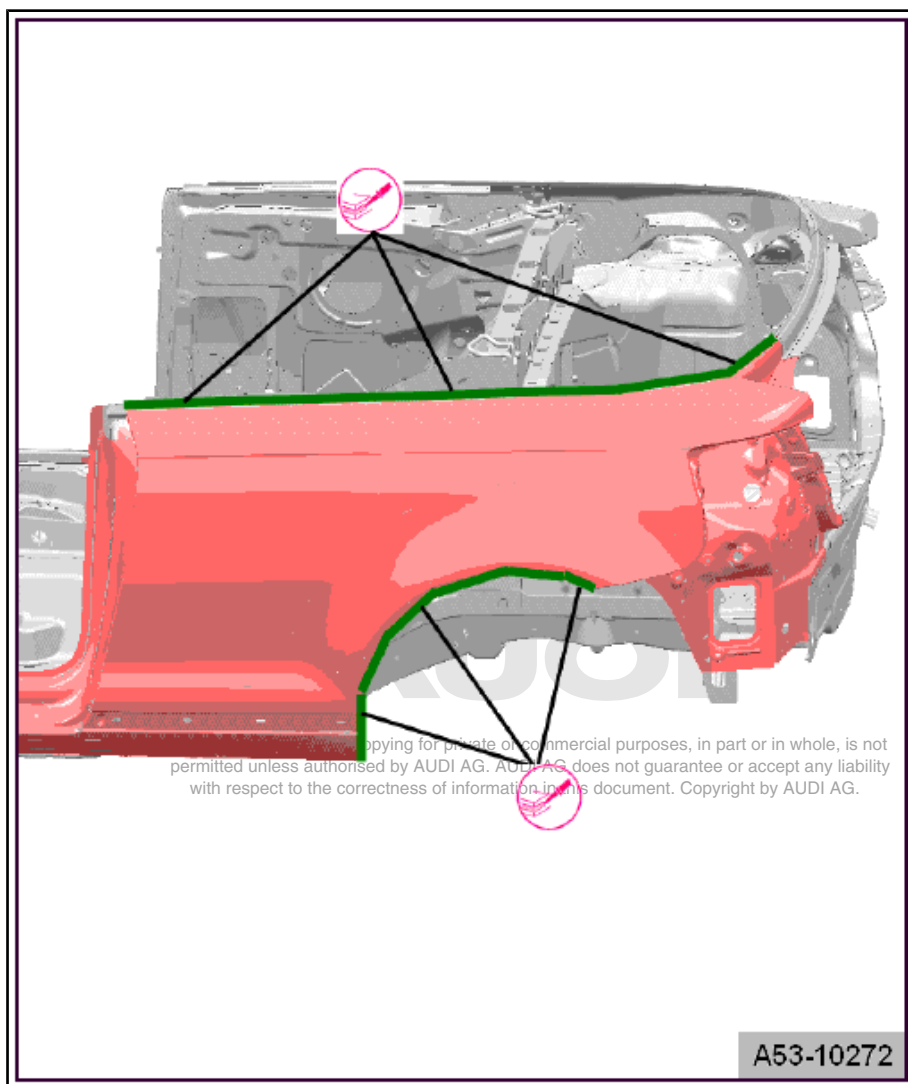
Preparing new part

- Clean beaded flange (it must be free of dust and grease).
- Spot weld backing plate for side panel using welding unit (inverter) : RP spot weld seam.



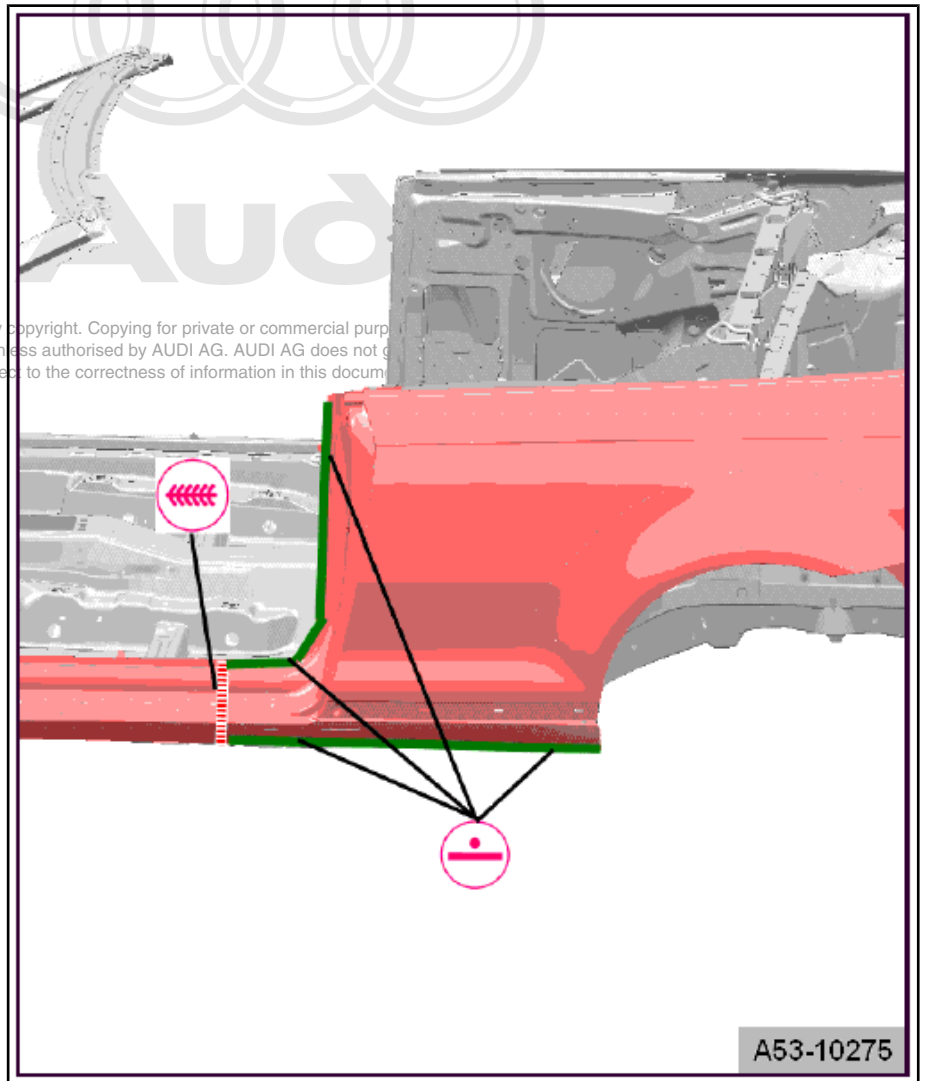
Welding in

- Locate and secure side panel on portal gauge.
 - Clean beaded flange (it must be free of dust and grease).
 - Align side panel with no load on vehicle and check panel gaps.
 - Apply adhesive to beaded flange using pneumatic glue gun - V.A.G 2005 B- . Two beads of adhesive: 3,5 mm diameter.
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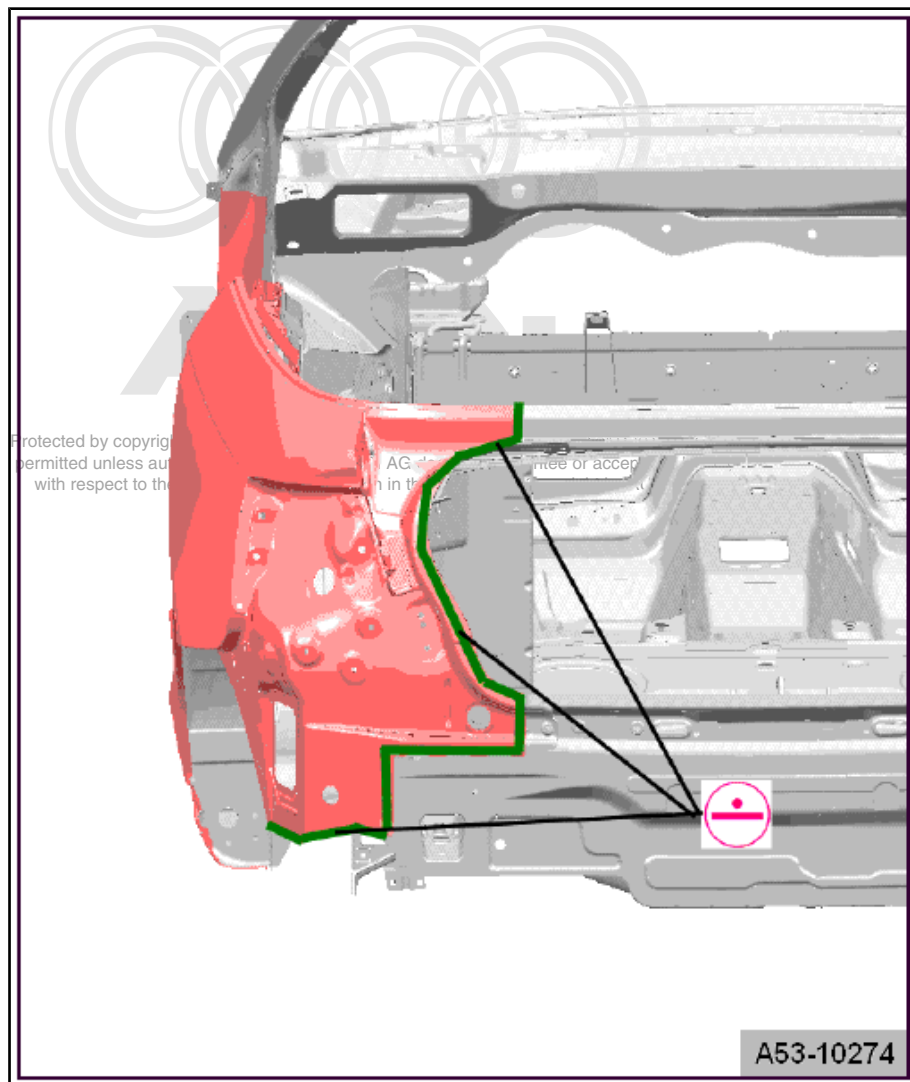


- Weld in side panel using welding unit (inverter) : RP spot weld seam.
- Weld at separating cut using shielded arc welding equipment 250A -VAS 6045A- : SG continuous seam.
- Bead over wheel arch and side panel flange using fold crimping tool -V.A.G 1585- . Wipe off emerging adhesive and seal joint.

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- Weld in joints around tail light and rain channel using welding unit (inverter) : RP spot weld seam.



RO: 53 68 55 62

7 Rear wheel housing - Partial renewal



WARNING

Always observe safety precautions.

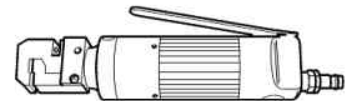
Safety notes ⇒ General Information; Body Repairs, General Body Repairs ; Safety notes .

7.1 Tools

Special tools and workshop equipment required

- ◆ Audi-approved welding unit (inverter)
- ◆ Shielded arc welding equipment 250A -VAS 6045A-
- ◆ Pneumatic punch and offset tool -VAS 1996-

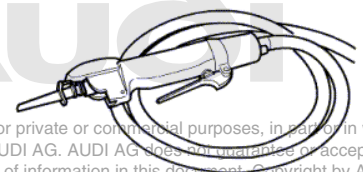
VAS 1996



W00-0002

- ◆ Pneumatic sabre saw -V.A.G 1523A-

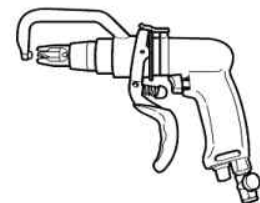
V.A.G 1523 A



W00-0005

- ◆ Spot weld breaker -V.A.G 1731-

V.A.G 1731



W00-0001

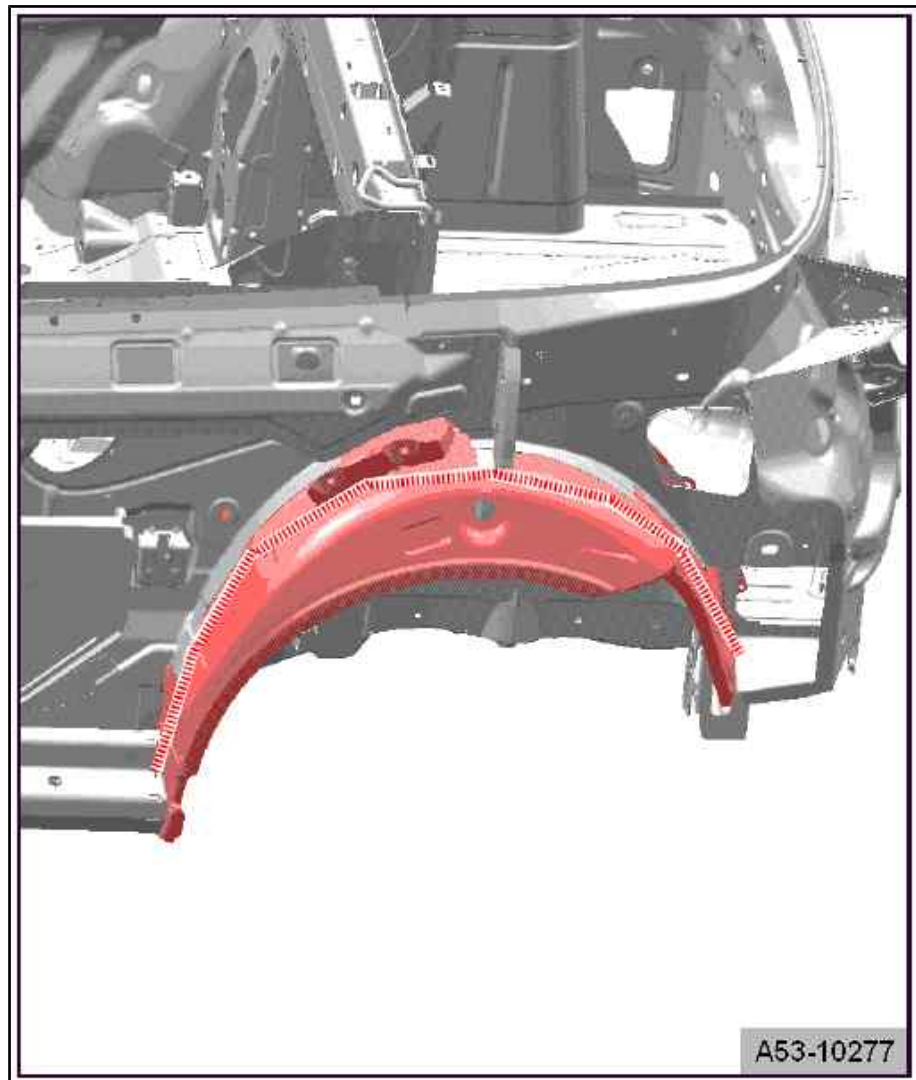
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7.2 Procedure

- Side panel already cut out.

Cutting locations

- Make separating cut so that body side of joint can be prepared for joggle-joining.
- Separate original joint using spot weld breaker -V.A.G 1731- .

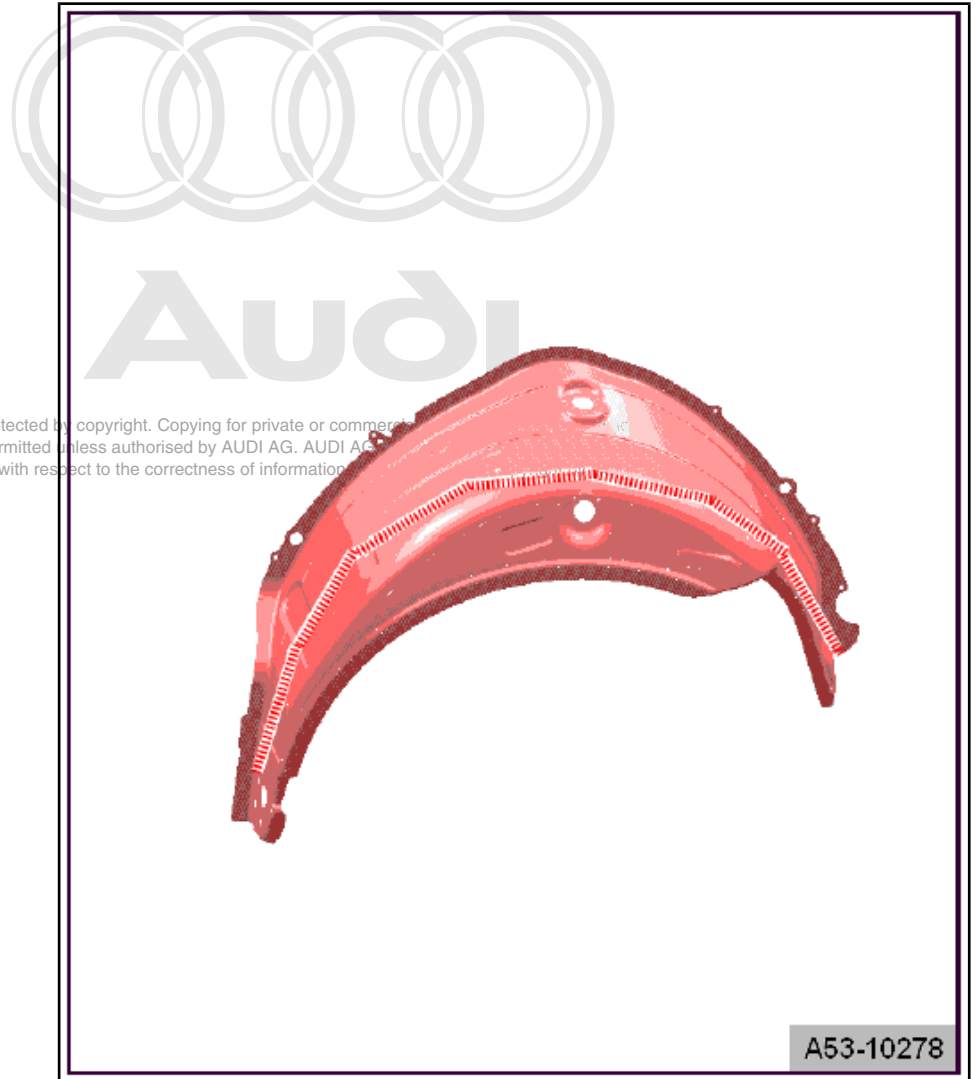


Replacement part

- ◆ Wheel housing liner

Preparing new part

- Prepare joint on body side for joggle-joining using pneumatic punch and offset tool -VAS 1996- .
- Transfer separating cut plus 15 mm for overlap to new part and cut off.



Welding in

- Spot weld wheel housing liner using welding unit (inverter) :
RP spot weld seam.

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