

## Workshop Manual OCTAVIA

### Body Repairs



## List of Supplements to OCTAVIA Workshop Manual

Edition: 04.04

### Body Repairs

Replaces List of Supplements - Edition: 09.03

| Supplement | Edition | Subject                                         | Article Number |
|------------|---------|-------------------------------------------------|----------------|
|            | 08.96   | Basic Edition                                   | S00.5119.50.20 |
| 1          | 03.97   | Supplements to Repair Groups 00, 51, 53         | S00.5119.51.20 |
| 2          | 06.98   | Octavia Estate                                  | S00.5119.52.20 |
| 3          | 03.00   | Octavia Estate 4x4                              | S00.5119.53.20 |
| 4          | 06.00   | Supplements to Repair Groups 00, 51, 53         | S00.5119.54.20 |
| 5          | 01.01   | Octavia RS, Supplements to Repair Groups 00, 51 | S00.5119.55.20 |
| 6          | 02.03   | Modifications to Repair Groups 00 to 53         | S00.5119.56.20 |
| 7          | 09.03   | Supplements to Repair Groups 00 and 53          | S00.5119.57.20 |
| 8          | 04.04   | Supplements to Repair Groups 50 and 53          | S00.5119.58.20 |
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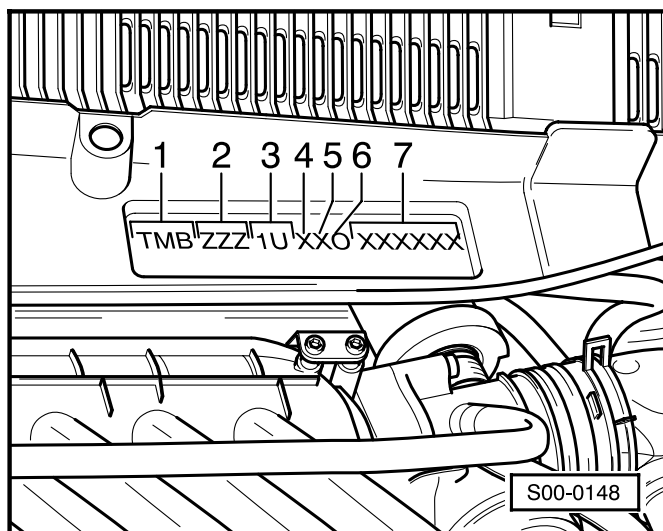
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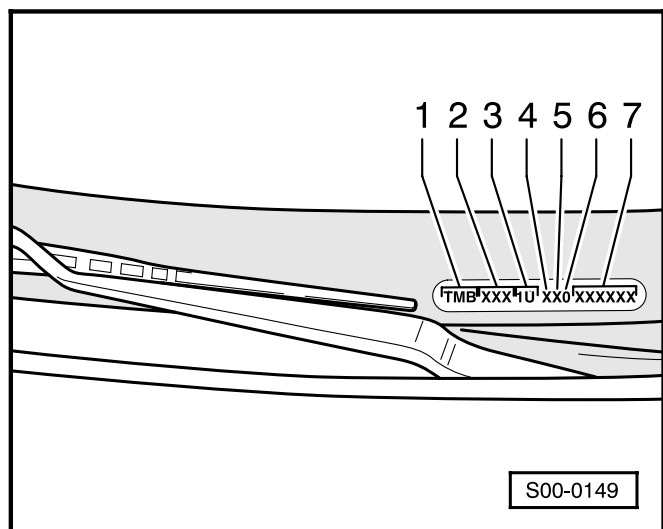
## Vehicle identification data

### Vehicle identification number

#### ► M99



◀ The vehicle identification number is stamped in the rear cross panel of the engine compartment. It is visible through a window in the cover of the plenum chamber.



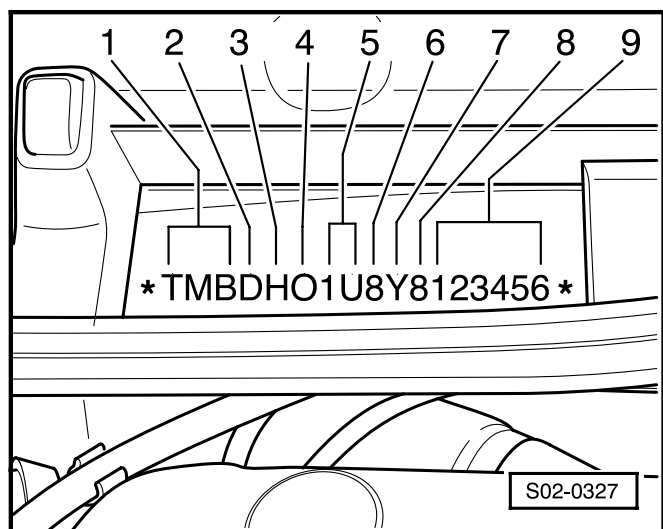
◀ The vehicle identification number from 04.99 is also indicated in the bottom left corner of the windscreen.

- 1 - Manufacturer world code
- 2 - Internal number
- 3 - Model
- 4 - Internal number
- 5 - Model year
- 6 - Manufacturing plant
- 7 - Vehicle body number

#### **Note:**

*For detailed information regarding the individual characters*

⇒ Inspection and Maintenance



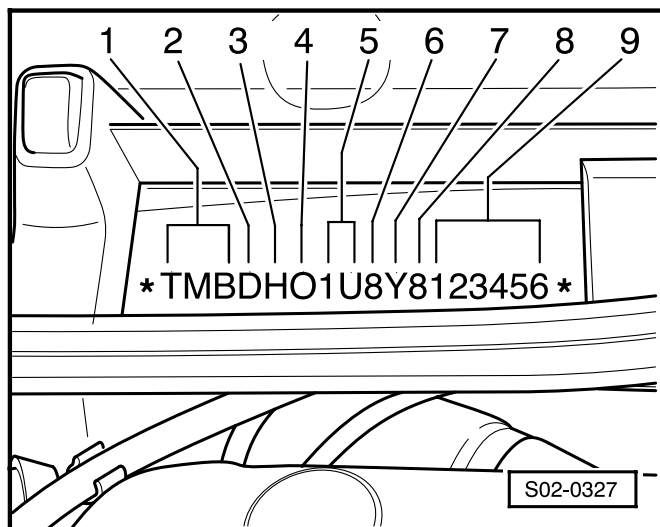
### Vehicle identification number

#### M00 ►

◀ The vehicle identification number is stamped in the rear cross panel of the engine compartment and is visible through a window in the cover of the plenum chamber.

The vehicle identification number is also shown in the bottom left corner of the windscreen.

- 1 - Manufacturer world code

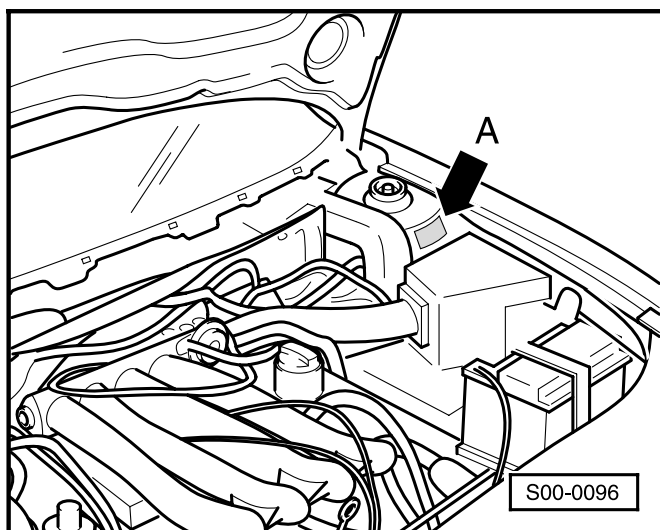


- 2 - Body type and equipment
- 3 - Engine type
- 4 - Airbag system
- 5 - Model
- 6 - Internal code
- 7 - Model year
- 8 - Manufacturing plant
- 9 - Vehicle body number

**Note:**

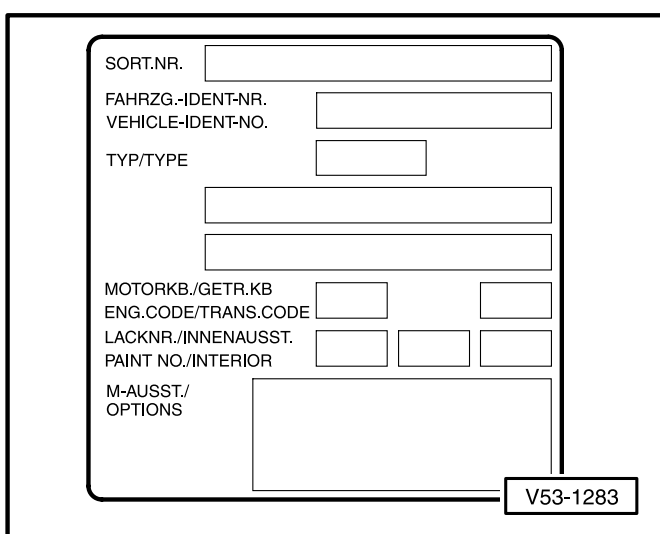
For detailed information regarding the individual characters

⇒ Inspection and Maintenance



**Type plate**

- ◀ Type plate -arrow A- is attached to the front of the left suspension strut dome.



**Vehicle data sticker**

- ◀ The vehicle data sticker is affixed to the rear left of the luggage compartment floor below the tail light.



## Safety measures

### Safety precautions

When performing the works described comply with all country-specific safety regulations. In case of doubt refer to the competent authorities.

### Safety at work measures

For all operations take the legally prescribed personal and general protection measures. This includes e.g. the wearing of safety spectacles, gloves, safety shoes and ear protectors.

### Work on straightening rig

Extremely high forces act upon the body damaged by accident being straightened using hydraulic pressure or traction devices on the straightening bench. Always bear in mind that these forces may suddenly be released e.g. by the sliding of a fastening claw. Therefore make absolutely sure no person is present in or around the danger zone.

### Removing components

Secure the vehicle on the lift platform before its centre of gravity shifts considerably because of successive disassembly operations.

### Battery

Remove the battery before welding.

Always remove the battery before performing spark-generating work close to the battery.

#### **Note:**

*If the battery earth strap is disconnected and connected, carry out additional operations  
⇒ Electrical System; Repair Group 27.*

## Paint, windows, upholstery, trims

It is prohibited to park other vehicles without protection in the premises used to repair the bodies (risk of fire resulting from flying sparks, battery destruction, deterioration of the paint and windows).

## Welding work

### **Warning!**

***As toxic zinc oxide is contained in the fumes produced during steel sheet welding suitable exhaust systems, e.g. V.A.G 1586 must be provided to properly ventilate the workshop and evacuate the gases.***

Before starting welding operations on the vehicle, protect the rest of the vehicle by placing fire-proof blankets or matting around the work area. If this measure is thoroughly implemented, it will not be necessary to remove all the interior vehicle equipment. However, for safety reasons a fire extinguisher must always be within reach during welding operations. If the mechanic performing the welding operation is unable to supervise the inside of the vehicle, a second person must be called upon. The gases during welding are toxic and must be exhausted.

### **Notes:**

- ◆ *Remove battery before all welding operations.*
  - ◆ *Disconnect AC generator and ignition transformer*
  - ◆ *Disconnect the earth connections of the electrical control units*
- ⇒ page 00-5.

## Air conditioning

It is prohibited to weld or hard or soft solder on parts of the filler air conditioning. This also applies for welding and soldering operations on the vehicle if there is any risk that parts of the air conditioning heat up. During paint repairs the temperature of the objects placed in the drying oven or in its pre-heating zone must not exceed 80 °C because heating causes a strong over-pressure that may result in the system exploding.

**Note:**

*The refrigerant circuit must be exhausted, if electrical welding must be carried out close to the refrigerant hoses. During electrical welding invisible ultraviolet rays are produced that penetrate the refrigerant hoses and decompose the refrigerant.*

**Remedial measures:**

Exhaust the refrigerant circuit

⇒ Heating, Air conditioning, Repair Group 87

**Warning!**

**Observe the safety measures for working with air conditioning ⇒ Heating, Air conditioning, Repair Group 87.**

## Fuel tank or piping conveying fuel

Extreme caution is required when carrying out grinding and welding work in the area of the fuel tank or other parts which convey fuel. If doubt exists, such parts should be removed. If the fuel tank and fuel pipes have to be removed from the vehicle, they should be stored in accordance with safety precautions.

## Electronic control units

Remove battery.

Separate earth connections of the electronic control units.

⇒ Current Flow Diagrams, Electrical Fault Finding and Fitting Locations binder

Connect the earth of the electric welding equipment directly to the part to be welded. When doing this, ensure that no electrically insulating parts are located between the earth connections and the welding point.

Do not allow electronic control units and electric cables to come into contact with the earth connection or the welding electrode.

## Airbag system

Safety information

⇒ General Body Repairs, Repair Group 69

Repair information

⇒ General Body Repairs, Repair Group 69

## Safety precautions for seat belt tensioners

Safety information

⇒ General Body Repairs, Repair Group 69

### ***Important!***

***Remove the seat belt tensioner units before commencing any cutting, straightening and panel beating work in the area of these units.***

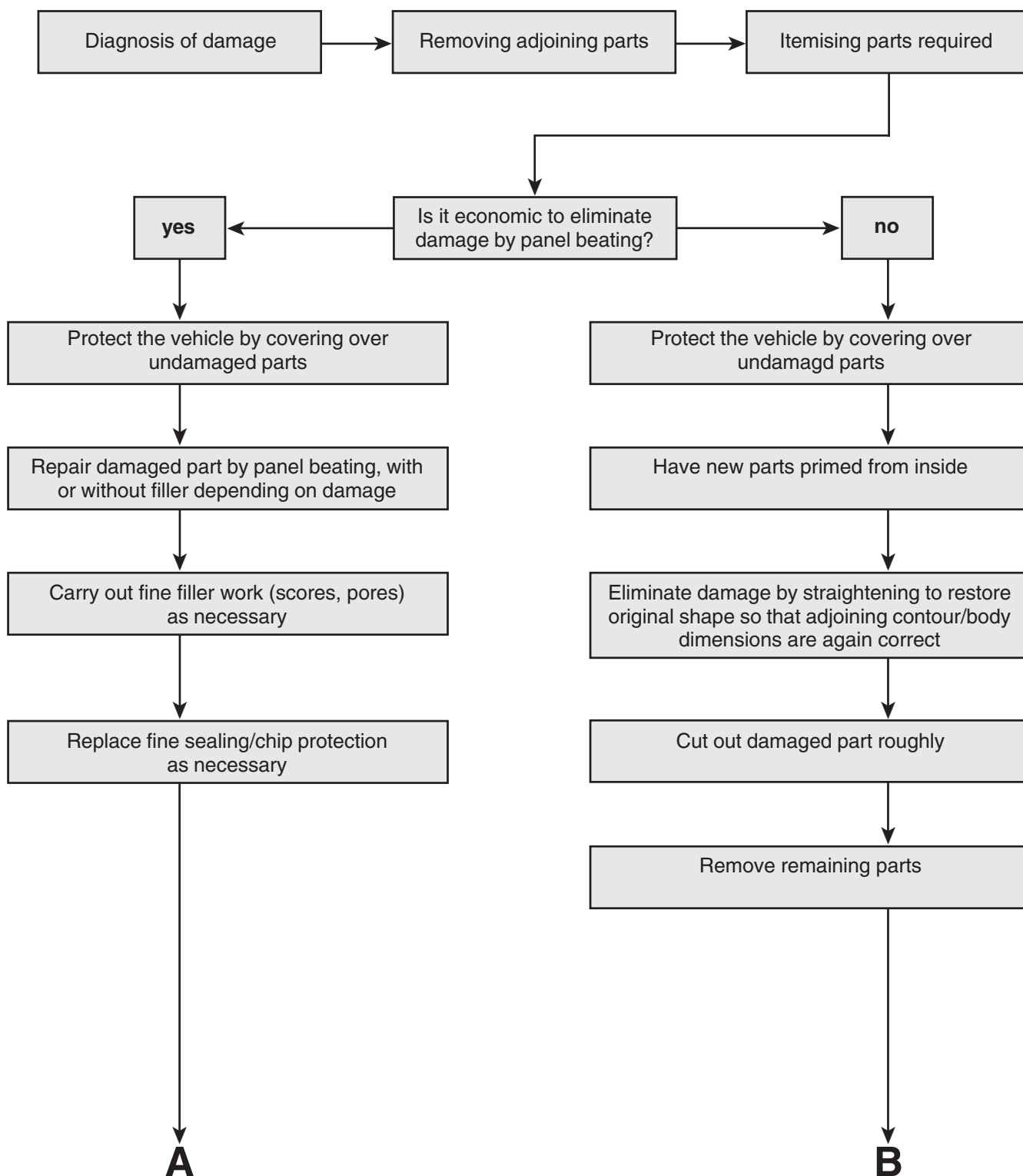
***If one or both seat belt tensioners have been activated in an accident, both seat belts have to be replaced (the seat belts no longer rewind).***

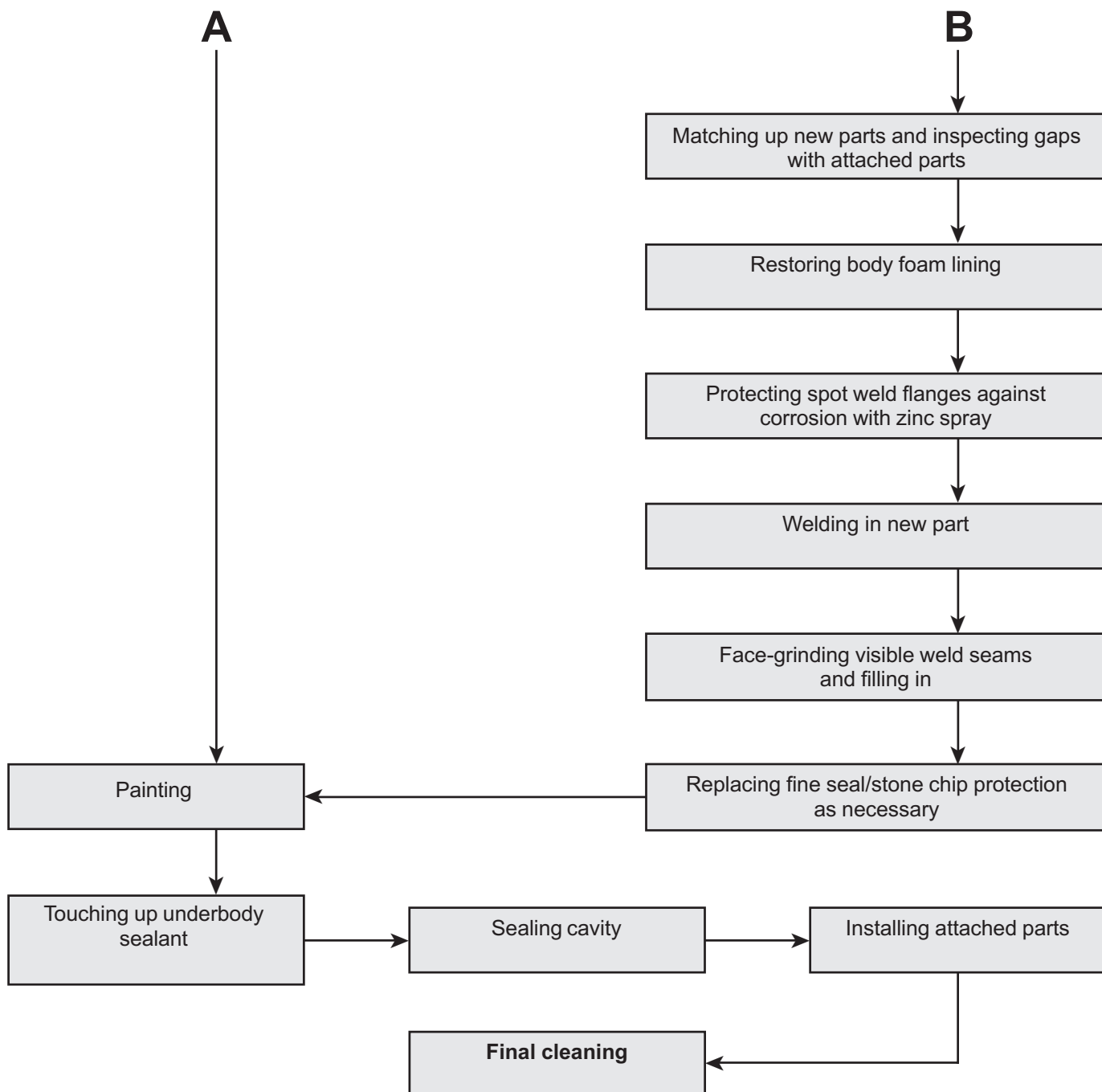
Repair information

⇒ General Body Repairs, Repair Group 69

## Basic information

### Procedure for accident repairs





## Diagnosing vehicles damaged in an accident

When repairing vehicles damaged in an accident, it is sometimes the case that damage to the chassis or components suspension is not discovered and this may subsequently result in severe consequential damage. When inspecting vehicles which have been damaged in an accident where it is suspected that considerable stresses were involved, it is therefore necessary to pay particular attention to the following components - irrespective of the check of the chassis alignment which should always be carried out as well:

- ◆ If it is suspected that the floor assembly has been damaged and/or twisted, the vehicle has to be inspected on the frame straightening rig and straightened, if necessary.
- ◆ Inspect the steering and steering linkage to ensure that they operate properly over the entire movement. Carry out a visual inspection for twisting or cracks.
- ◆ Inspect all components of the running gear such as steering arms, suspension struts, steering knuckles, anti-roll bars, subframe, axle beams and the attachment points of such parts for twisting or cracks.
- ◆ Examine wheels, tyres for signs of damage, concentricity and imbalance. Examine the tyres for cuts to the tread and the side walls. Check the tyre inflation pressure.
- ◆ Examine the suspension of the engine, gearbox, axles and exhaust system for signs of damage.
- ◆ The final step is a reasonable road test after carrying out repairs as an assurance that the vehicle is safe for the road and can be handed over to the customer without hesitation.

### As-delivered condition of body or of single parts for the paint shop

Before handing over a repaired vehicle or a single part to the paint shop, the surface which has been repaired or panel-beaten and treated with filler, as appropriate, has to be prepared with emery paper of a roughness of P 80 to P 100 to ensure that the shape matches the adjoining paintwork.

This preparatory work is part of the operations carried out by the body repair shop and are contained in the time allowance for body repairs.

### Straightening

The body and floor assembly are manufactured in series production from cold-shaped deep-drawn sheets. For this reason, restoring body panels to the original shape after accident damage should be carried out in the same way.

#### Notes:

- ◆ *When straightening sharp-edged buckles, there is a risk of the sheet tearing suddenly.*
- ◆ *If the extent of the damage does not allow the sheet to be restored to its original shape by straightening it in the opposite direction of the accident damage, the damaged part must be cut out only after straightening the adjoining areas.*

### Cuts

Cuts which affect the fatigue strength of the body and thus also the operational and road safety of the vehicle, have to be carried out in accordance with the specifications in this Workshop Manual.

## Welding galvanised body panels

**Important!**

*It is important to ensure proper ventilation of the workbay and extraction of the gases by suitable extraction equipment, e.g. V.A.G 1586, as toxic zinc oxide is produced in the welding fumes when welding galvanised steel panels.*

**Note:**

*As the resistance spot welding method (RP) causes a slight erosion of the zinc layer only in the centre of the weld spot and the zinc protective ring which is produced at the same time around the weld spot, protects it from corrosion, preference should be given to this welding method in contrast to shielded arc welding (SG).*

### Shielded arc welding (SG) of galvanised panels

Pay attention to the following points in order to produce good repair welded joints:

- ◆ The amperage at the welding transformer has to be increased.
- ◆ At the same time, the infeed of the electrode wire has to be adjusted as merely increasing the voltage only produces a greater arc (reduced fusion penetration, more porous weld structure).
- ◆ Use a cylindrical instead of a conical gas nozzle (splatters at a gas nozzle which is too narrow results in formation of pores).
- ◆ Guide torch about 12 mm above the material being welded at a neutral angle or at up to 10°.
- ◆ Use the softest possible wire grades.
- ◆ Both CO<sub>2</sub> as well as mixed gases can be used for shielding.

**Spot welding (RP) galvanised panels**

Pay attention to the following points when resistance spot welding galvanised panels:

**Welding transformer**

- ◆ Increase the welding current by 10% up to a max. of 30%.

If the welding transformer is fitted with a „welding time control“ it is better to extend the welding time.

- Extending welding time related to panel thickness (reference values):
  - ◆ 0.7 mm - min. 7 periods
  - ◆ 0.8 mm - min. 9 periods
  - ◆ 1.0 mm - min. 11 periods

The correct welding time has been selected if the weld spots can be placed without any splatter.

**Electrode holder**

- ◆ Use hard copper electrodes (copper-chrome-zirconium alloy) with resistance to high temperatures (>400 °C).
- ◆ Clean hard copper electrodes frequently or rework side of contact surface diameter to Ø 4 mm.
- ◆ Increase electrode contact force.

**Pull-out test**

The best welding results can be determined by welding specimen sheets followed by a pull-out test.

This is done by unrolling or tearing off the narrow welded specimen strip from the second strip of sheet with a force acting vertically to the surface of the sheet.

If the weld spot has been properly carried out, it will not tear in the contact plane when this is done, but will be pulled out.

## Removing underbody sealant and weld seams

Underbody sealant and weld seams must be removed with a wire brush wheel clamped in the angle grinder or in the compressed air straight grinder.

### **Note**

*It is essential to wear eye protection and protective gloves. The pieces of wire which may fly off are very sharp.*

A further possibility is to heat the underbody sealant or the weld seams with a hot air fan (max. 420 °C) and to remove the softened underbody sealant or the weld seams with the scraper. This procedure is particularly recommended for poorly accessible areas of work.

### **Important!**

***The vapours produced are toxic and should be extracted using suitable extraction equipment, e.g. V.A.G 1586.***

Remove paint and primer with paint remover.

## Body sections and part sections

„Sections“ refer to sections of single parts which are supplied from the Parts Depot already cut to shape.

„Part sections“, in contrast, have to be cut to shape in the body shop from replacement parts.

## Original joint

„Original joint“ refers to the weld joint which was made during the production of the vehicle.

Such weld joints should be re-created to the maximum extent possible during body repairwork.

An important point to note is that the number of weld spots made when carrying out body repairs should not be less than the number in standard production but, for safety reasons, should rather be more if space conditions permit.

Methods and procedures differing from the original joint are described in this Body Repairs Workshop Manual.

## Explanation of symbols

### Explanation of symbols for welding work

◀ Spot weld seam (single row)

Spot weld seam (double row)

Spot weld seam (double row offset)

Shielded arc plug weld

◀ Shielded arc stepped weld (has to be ground off, if necessary, to match shape of body)

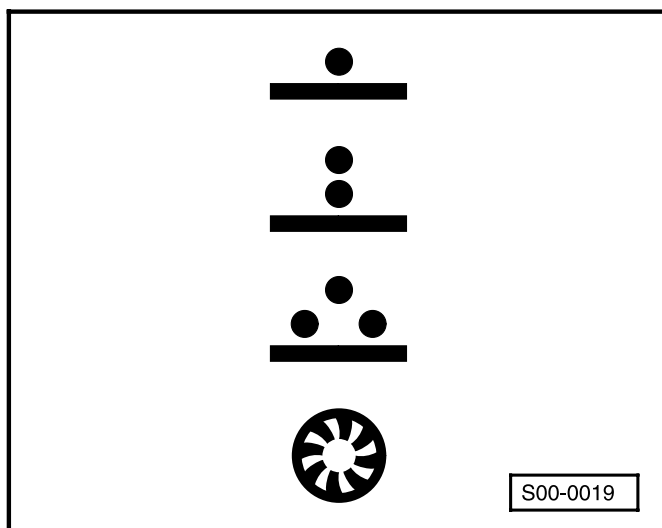
Shielded arc continuous weld (has to be ground off, if necessary, to match the shape of body)

Shielded arc continuous weld, staggered (has to be ground off, if necessary, to match the shape of body)

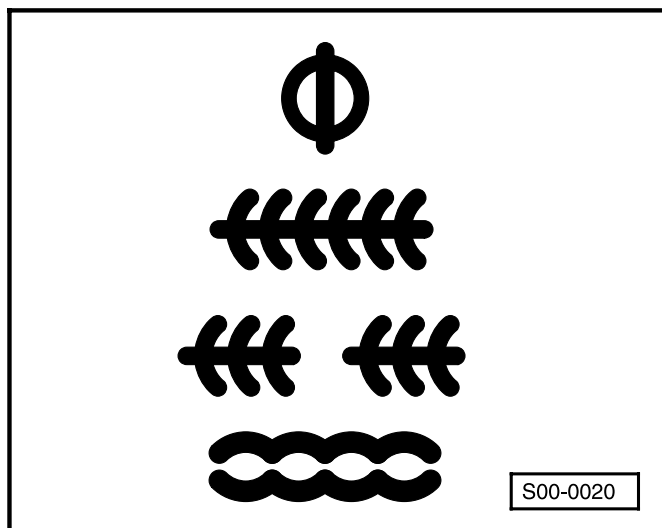
Brazing

#### Notes:

- ◆ *Shielded arc plug weld: (Ø 7 mm holes, spaced 20-30 mm apart, are made in one of the sheets to be connected in the area of connection points, into which a good shielded arc weld spot is placed.*
- ◆ *Shielded arc continuous weld: the weld seam is carried out without any interruption if possible.*
- ◆ *Shielded arc stepped weld: the weld seam is composed of a large number of individual weld spots placed one after the other. The advantage of this method is the lower temperature introduced into the sheet compared to shielded arc continuous welding*
- ◆ *Shielded arc continuous weld (interrupted): the weld seam consists of shielded arc continuous seams about 20 mm long, placed one after the other and separated by equally long intermediate spaces.*



S00-0019



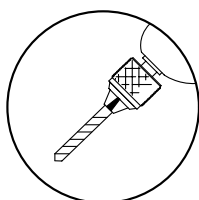
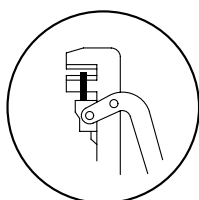
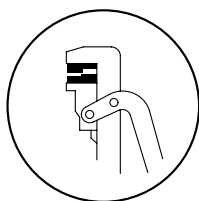
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### Explanation of symbols for methods

◀ Stepping with stepping pliers in order to carry out an overlap weld.

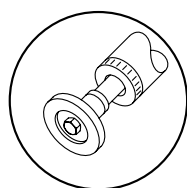
Plugging with plugging pliers in order to carry out subsequent shielded arc plug welding.

Drilling in order to carry out subsequent shielded arc plug welding or to drill out weld spots (original joint).

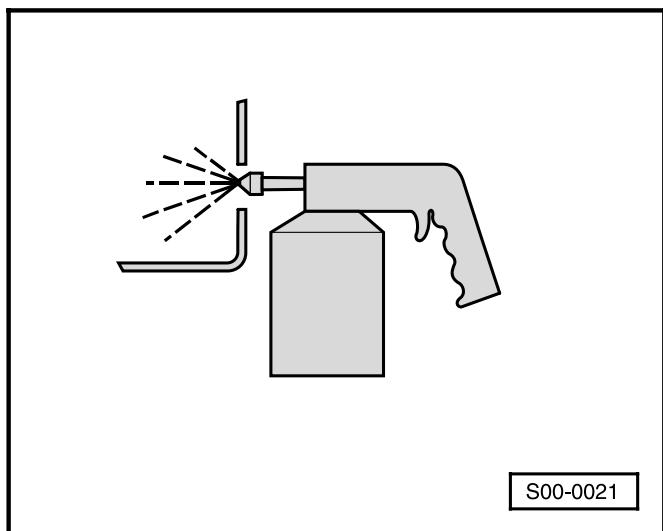


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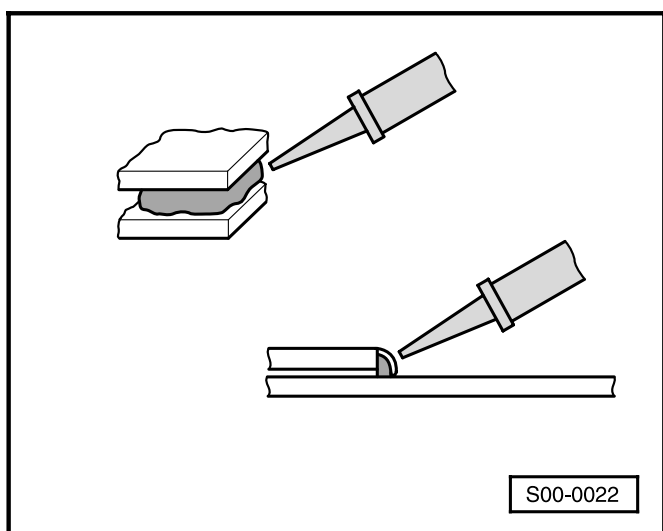
◀ Grinding with straight grinder in order to remove the material applied to the weld seam.



N00-0066



◀ Cavity protection



◀ Bonding

Fine sealing

## Tools

### Tools required

- ◆ Right angle grinder (e.g. EBU 18-E2)
- ◆ One-hand right angle grinder (e.g. WS-125) and wire brush
- ◆ Welding point loosening tool (e.g. Variodrill V.A.G 1731)
- ◆ Sheet metal and body saw (e.g. V.A.G 1523)
- ◆ Welding fume extraction (e.g. V.A.G 1586 A)
- ◆ Body tool carrier (e.g. V.A.G 1439)
- ◆ Door tension adjuster (e.g. V.A.G 1438)
- ◆ Underbody sealant gun (e.g. V.A.G 1379)
- ◆ Burring pliers
  - To burr panels e.g. for overlapping seams
- ◆ Punch pliers (e.g. V.A.G 1329)
  - To punch holes in panels (e.g. for shielded arc plug weld)
- ◆ Panel nibbler
  - To cut out panels without warpage or burring (e.g. when subsequently fitting a glass sun roof)
- ◆ Pneumatic gun (e.g. V.A.G 1761/1)
  - Pneumatic gun to produce seals and apply underbody protection having the same appearance as the original factory finish.
  - Moreover all 310 ml cartridges can be used in this gun
- ◆ Pneumatic gun for 2k window glue (e.g. VAS 5237)
- ◆ Pressure beaker gun for hollow space sealing (e.g. V.A.G 1538)
- ◆ Inert gas shielded welding tool
- ◆ Spot welding and sheet panel machining tool (e.g. V.A.G 1713)
- ◆ Rig alignment bench Celette M85 with aligning device and straightening angle set VAS 5020/1
- ◆ Basic equipment (e.g. V.A.G 1366/3)
- ◆ Rod grinder with wire brush

## Corrosion protection measures

### Corrosion protection

The body is manufactured from sheets galvanised on both sides.

It is essential to re-create the standard corrosion protection after carrying out body repairs using the material specified by the manufacturer as this is a precondition for ensuring the absence of corrosion.

### Long-life body protection

- Prime bright metal sheet parts immediately after carrying out repairs (corrosion protection primer ALN 002 003 10 or ALK 007 003 10).
- Spray outer skin sheets from the inside with top coat before welding in place.
- Always apply zinc spray (D 007 500 04) to both sides of spot welded flanges.

#### **Note**

*Areas which are subsequently shielded arc-welded, must not be pre-treated with zinc spray.*

- Prime weld seam areas from the inside and outside with corrosion protection primer ALN 002 003 04 before sealing.
- Apply sealing compound only to primed sheet metal parts and allow to harden sufficiently before further treatment with paint.
- Seal sheet metal overlaps, sheet edges, butt joint, weld seams etc. completely with sealing compound.
- Re-create the underbody sealant using long-life underbody sealant material.
- Protect all the cavities in the area of the repair after applying the top coat.
- After the cavity protection material has dried, open the water drains.

## **Separating galvanised body parts**

### **Preparatory work**

- Remove underbody sealant and weld seams  
⇒ Basic information, page 00-12.

### **Cutting operation**

- Do not use cutting operations which involve heat, e.g. cutting torch.
- It is best to use mechanical cutting methods, e.g. weld spot milling, body saw, to avoid any damage to the zinc layer in the area of the cut.

### **Welding galvanised body sheets**

- ⇒ Basic information, page 00-10.

## Body foam lining

Various body cavities of this vehicle are lined with foam. The position of the foam linings is indicated at the beginning of the individual repair instructions.

The foam lining is designed to reduce the transmission of running noises into the interior. Plastic moulded parts (sound insulation) are used for the foam lining.

The moulded parts are installed during production of the body shell and enlarge their volume after priming in the drying oven of the paintshop from a temperature of approx. 180 °C.

As this temperature cannot be reached under normal workshop conditions, adopt the following procedure:

### Requirement

#### **Warning!**

***In view of the fact that gases which are particularly harmful to persons and the environment are produced during welding, cutting with tools and equipment which produce sparks, or tin-plating in foam-lined areas, it is prohibited in all cases to use such methods.***

- ◆ Prior to commencing the following steps, prepare the metal part to be replaced ready for installation, e.g. cut to shape, match up, carry out corrosion protection measures.
- Remove any foam residues on the vehicle.
- Restore paint structure, if necessary coat twice wet-in-wet with glass/paint primer D009 200 02 - airing time about 10 min.

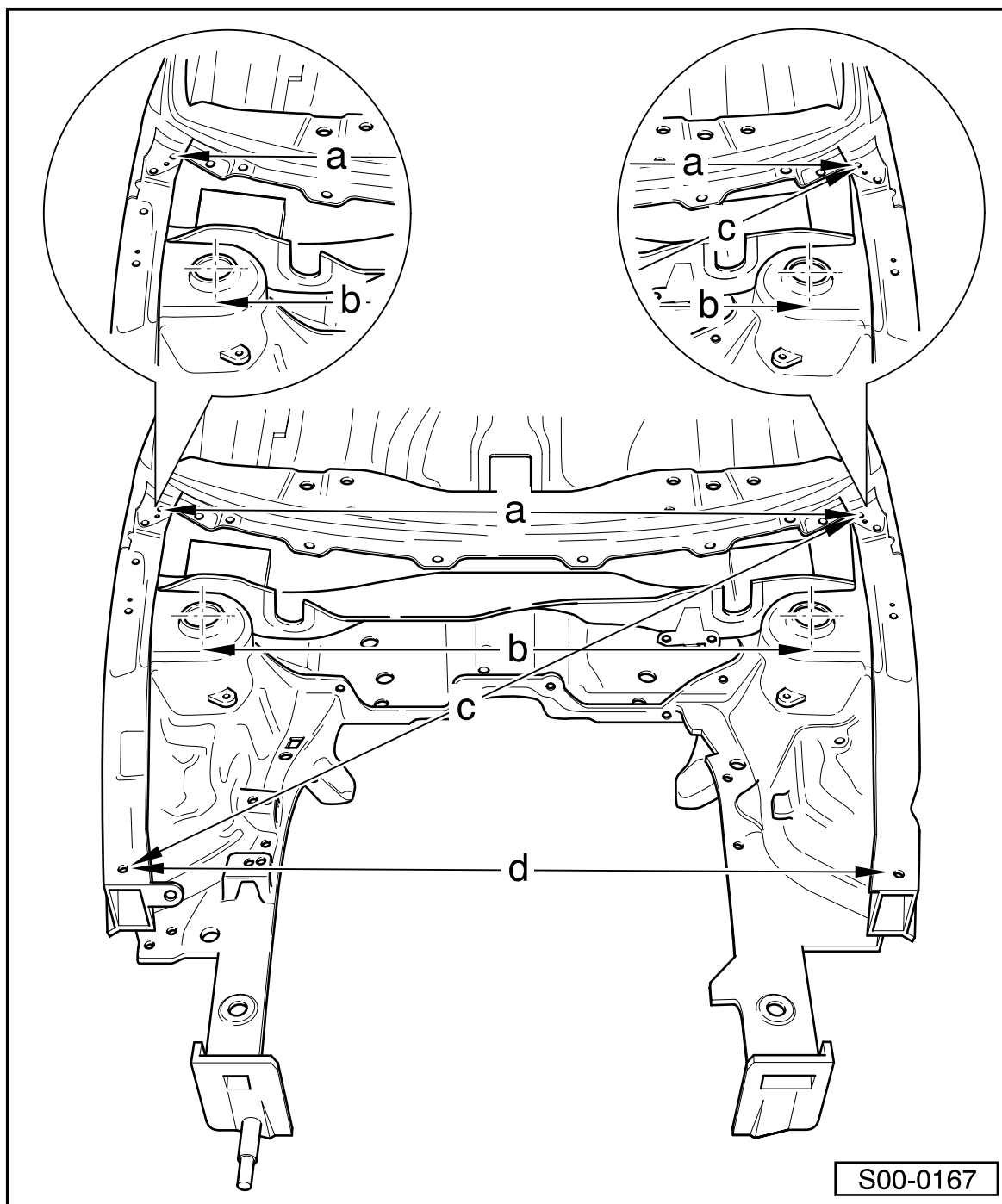
### Replacing noise insulation

- Fit sealing cord AKD 497 010 04 R10 all round the noise insulation panel.
- Install noise insulation in vehicle.
- Fix new part in place (e.g. A pillar), apply gentle pressure to press new part into place in the area of the noise insulation and weld in.
- Do not use shielded arc welding 15 mm next to noise insulation (on both sides).

After painting vehicle, apply cavity protection to repair area.

## Body dimensions

### Front body



**a - 1328 mm**

- ◆ Distance between the hinge attachments.

**b - 1119 mm**

- ◆ Distance between the suspension strut supports.

**c - 1533.5 mm**

- ◆ Diagonal dimension between hinge attachment for engine bonnet - top longitudinal member for wheelhouse.

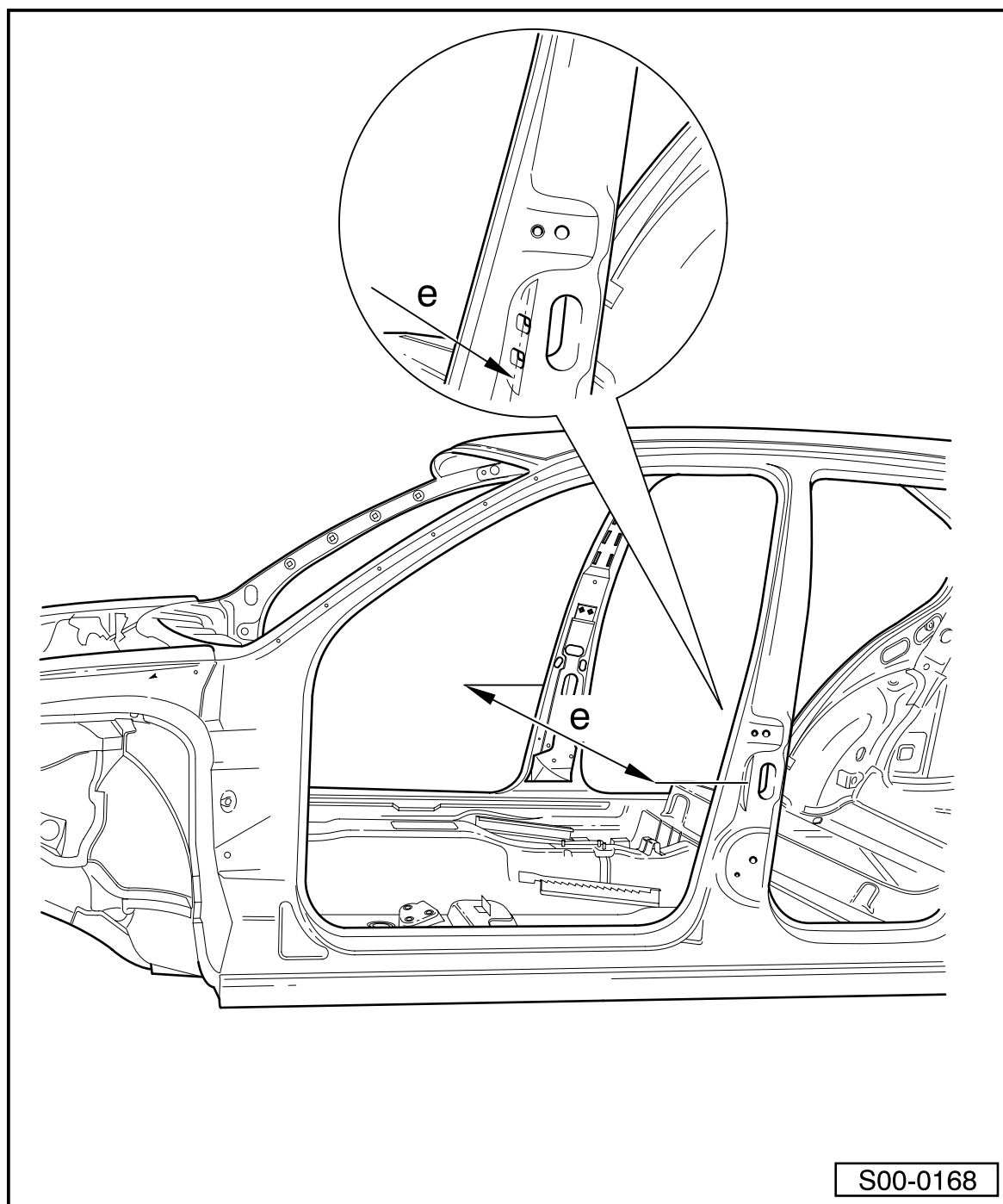
**d - 1316 mm**

- ◆ Distance between top longitudinal members for wheelhouse.

All dimensions are quoted without a tolerance figure  $\pm 2$  mm.

**Note:**

*The quoted dimensions simply serve for checking purposes. The straightening angle set is decisive.*

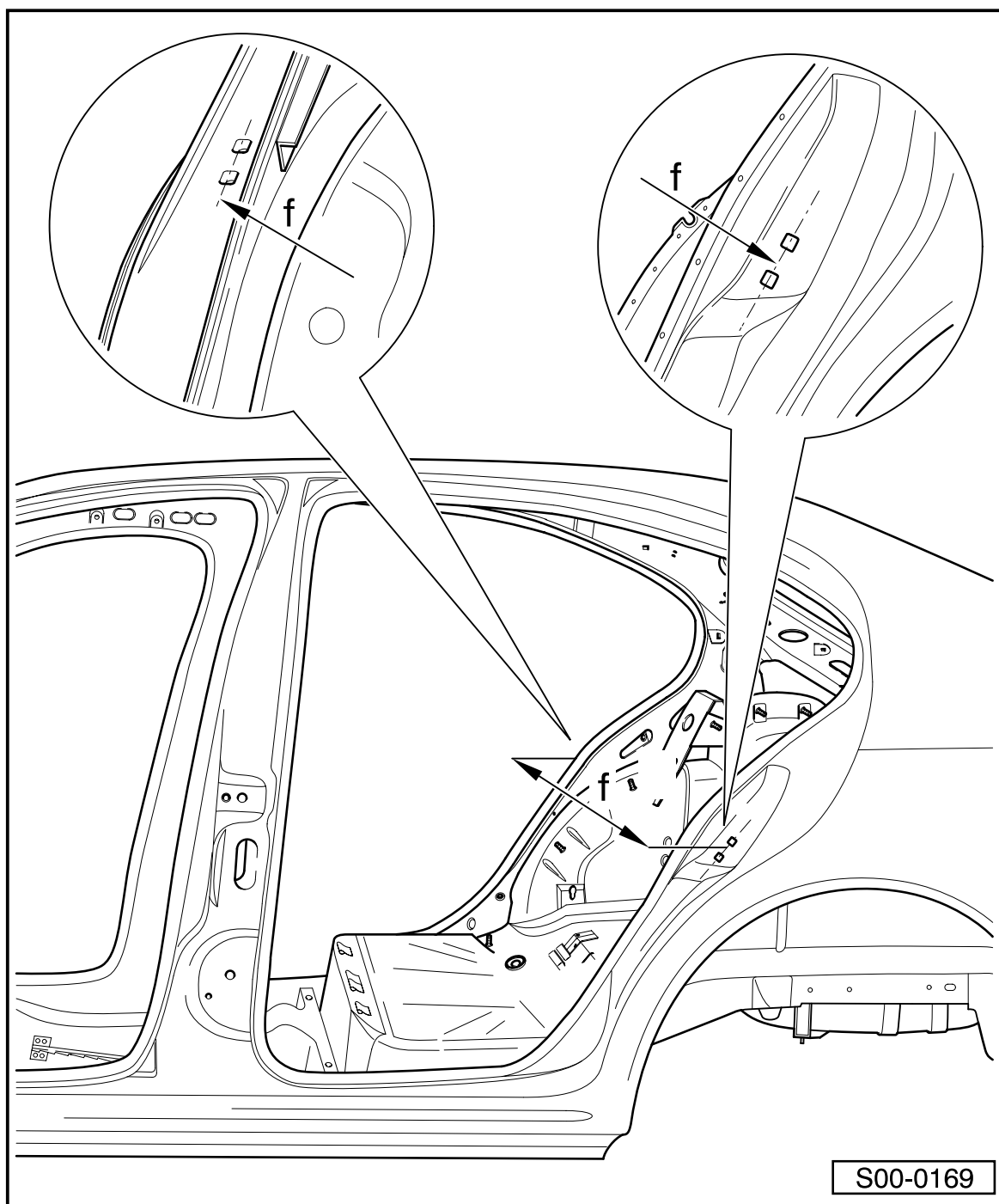
**Middle body****e - 1517 mm**

- ◆ Distance between B pillars, from middle of closing bow opening on right to middle of closing bow opening on left.

All dimensions indicated without tolerance of  $\pm 2$  mm.

**Note:**

*The dimensions stated are used for inspection purposes only. The straightening angle set takes priority.*

**f - 1490.8 mm**

- ◆ Distance between C pillars, from middle of closing bow opening on right to middle of closing bow opening on left.

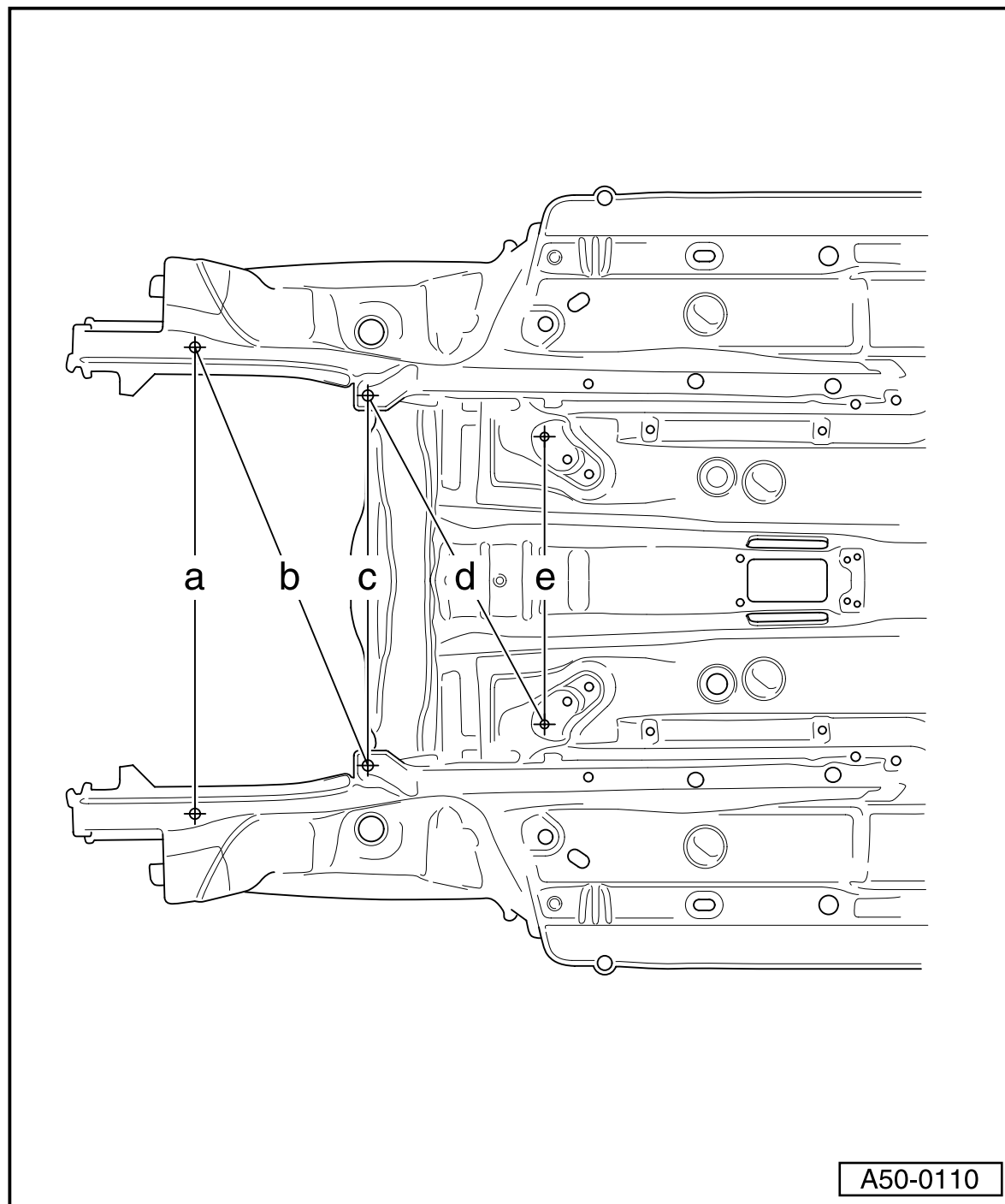
All dimensions indicated without tolerance of  $\pm 2$  mm.

**Note:**

*The dimensions stated are used for inspection purposes only. The straightening angle set takes priority.*

## Body dimensions

### Front floor assembly



A50-0110

**a - 956 mm**

- ◆ Distance between front longitudinal members.

**b - 949 mm**

- ◆ Diagonal distance between front longitudinal member and attachment points of front suspension.

**c - 753 mm**

- ◆ Distance between front attachment points of front suspension.

**d - 777 mm**

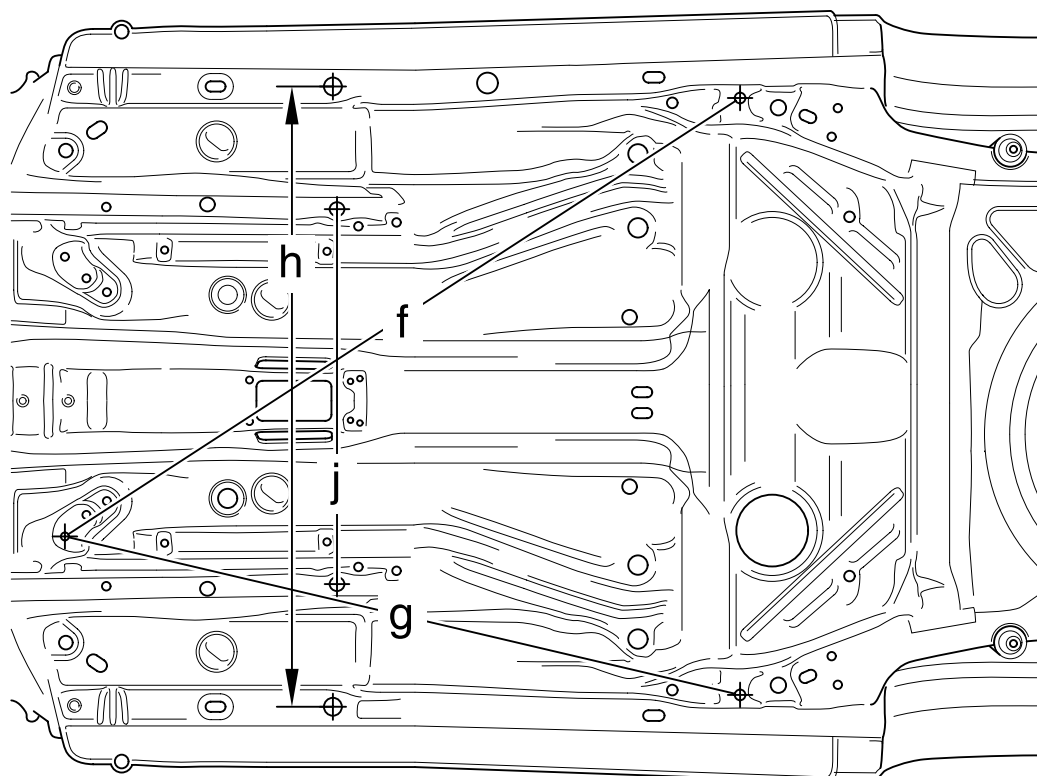
- ◆ Diagonal distance between attachment points of front suspension.

**e - 610 mm**

- ◆ Distance between rear attachment points of front suspension.

All dimensions stated without tolerance of  $\pm 2$  mm.

## Middle floor assembly



A51-0097

**f - 1694 mm**

- ◆ Diagonal distance between rear attachment points of front suspension and inspection points ( $\varnothing$  20 mm) in front of rear axle mount.

**g - 1447 mm**

- ◆ Diagonal distance between rear attachment points of front suspension and inspection points ( $\varnothing$  20 mm) in front of rear axle mount.

**h - 1360 mm**

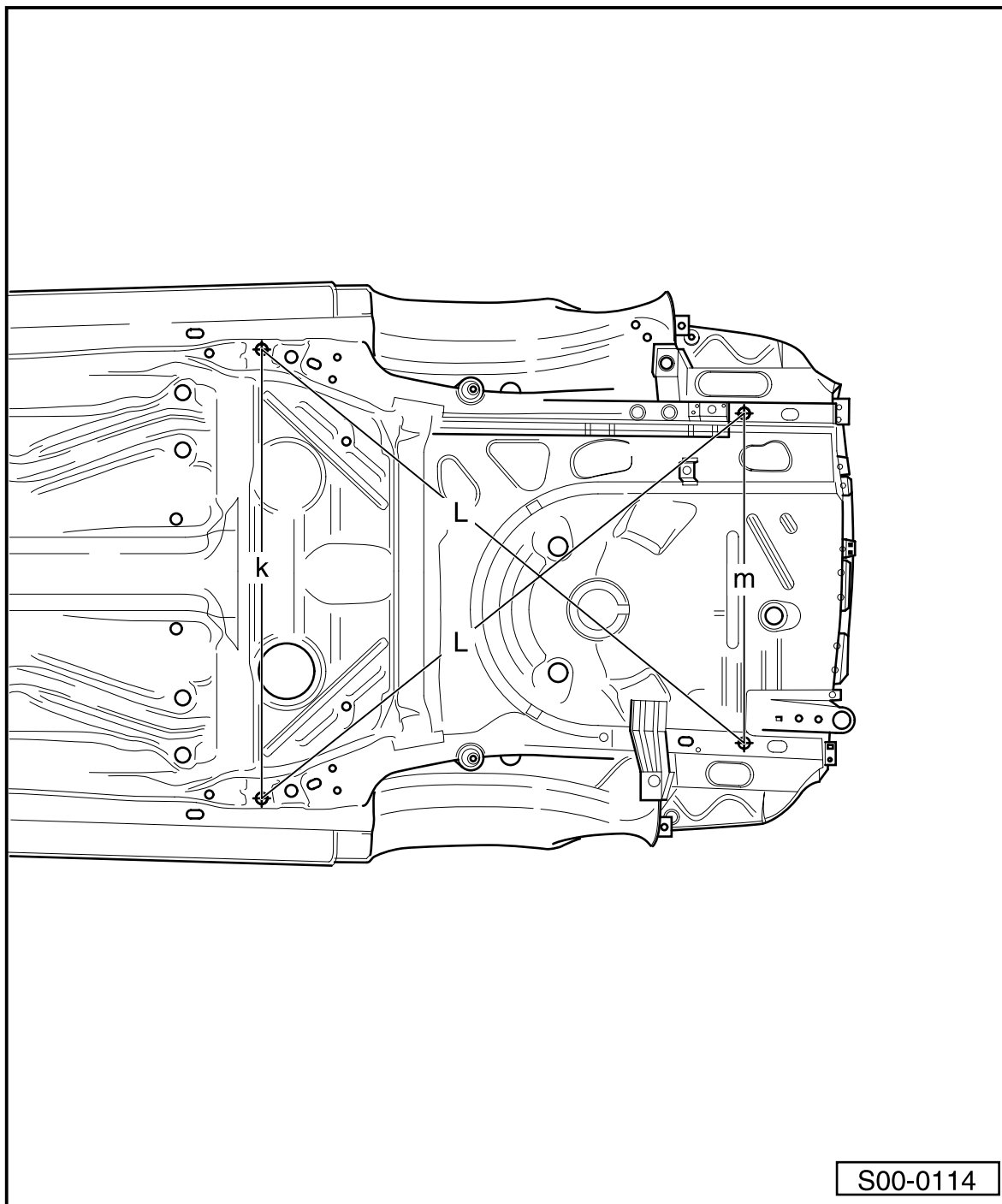
- ◆ Distance between the lower sills.

**j - 830 mm**

- ◆ Distance between front longitudinal members at rear.

All dimensions stated without tolerance of  $\pm$  2 mm.

## Rear floor pan

**k - 1270 mm**

- ◆ Distance between suspension mounts.

**L - 1716 mm**

- ◆ Diagonal dimension between suspension mounts and holes (20 mm Ø) of the rear side members.

**m - 946 mm**

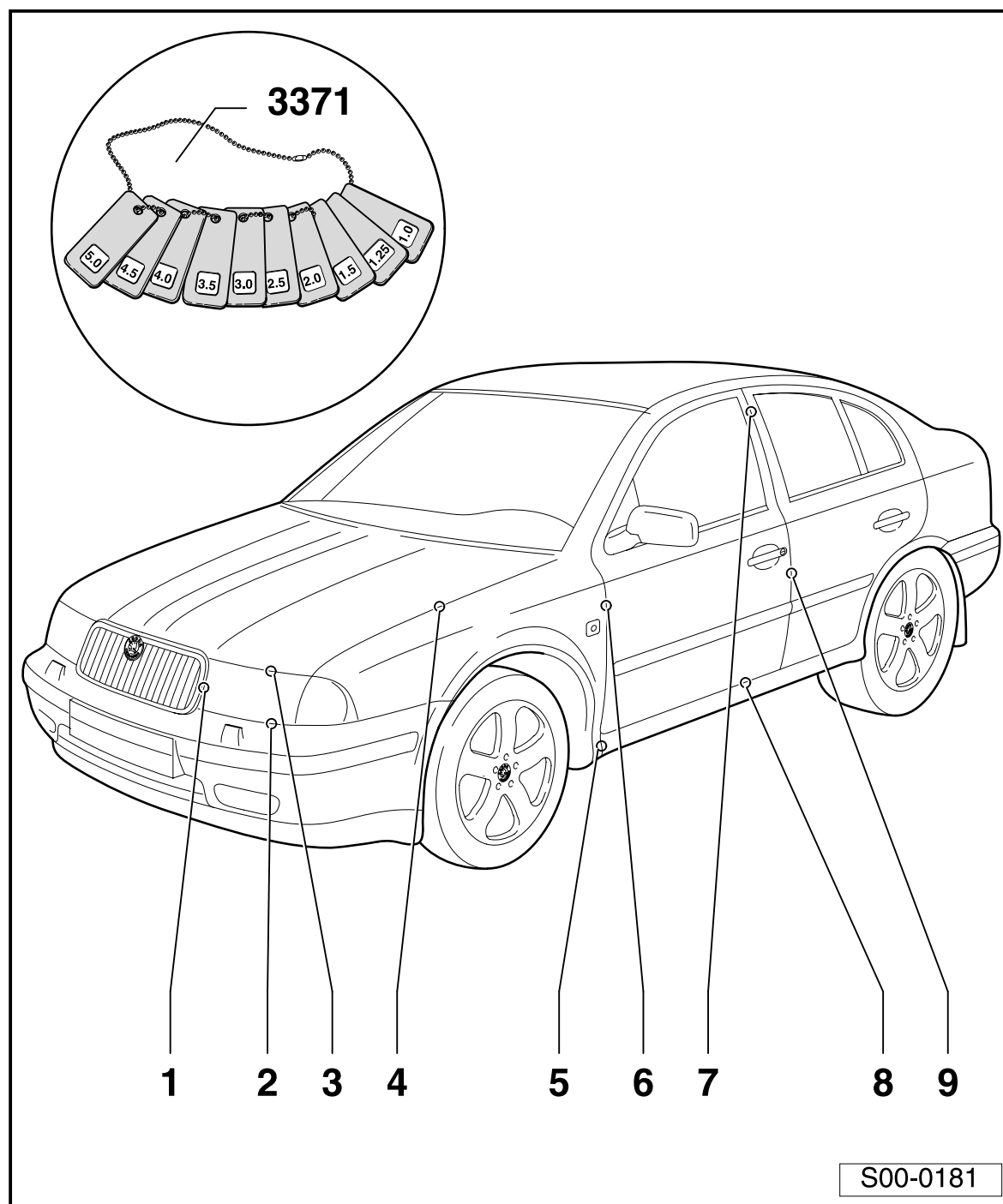
- ◆ Distance between the holes (20 mm Ø) of the rear side members.

All dimensions without indication of tolerance  
± 2 mm.



## Body panel gaps

Front body for Vehicles ► 07.00



Special tool e.g. 3371 can be used for aligning or inspecting.

1 - 6.0 + 1 mm

2 - 3.5 + 1 mm

3 - 4.7 + 1 mm

4 - 2.4 + 1 mm

5 - 2.5 + 1 mm

6 - 3.0 + 1.5 mm

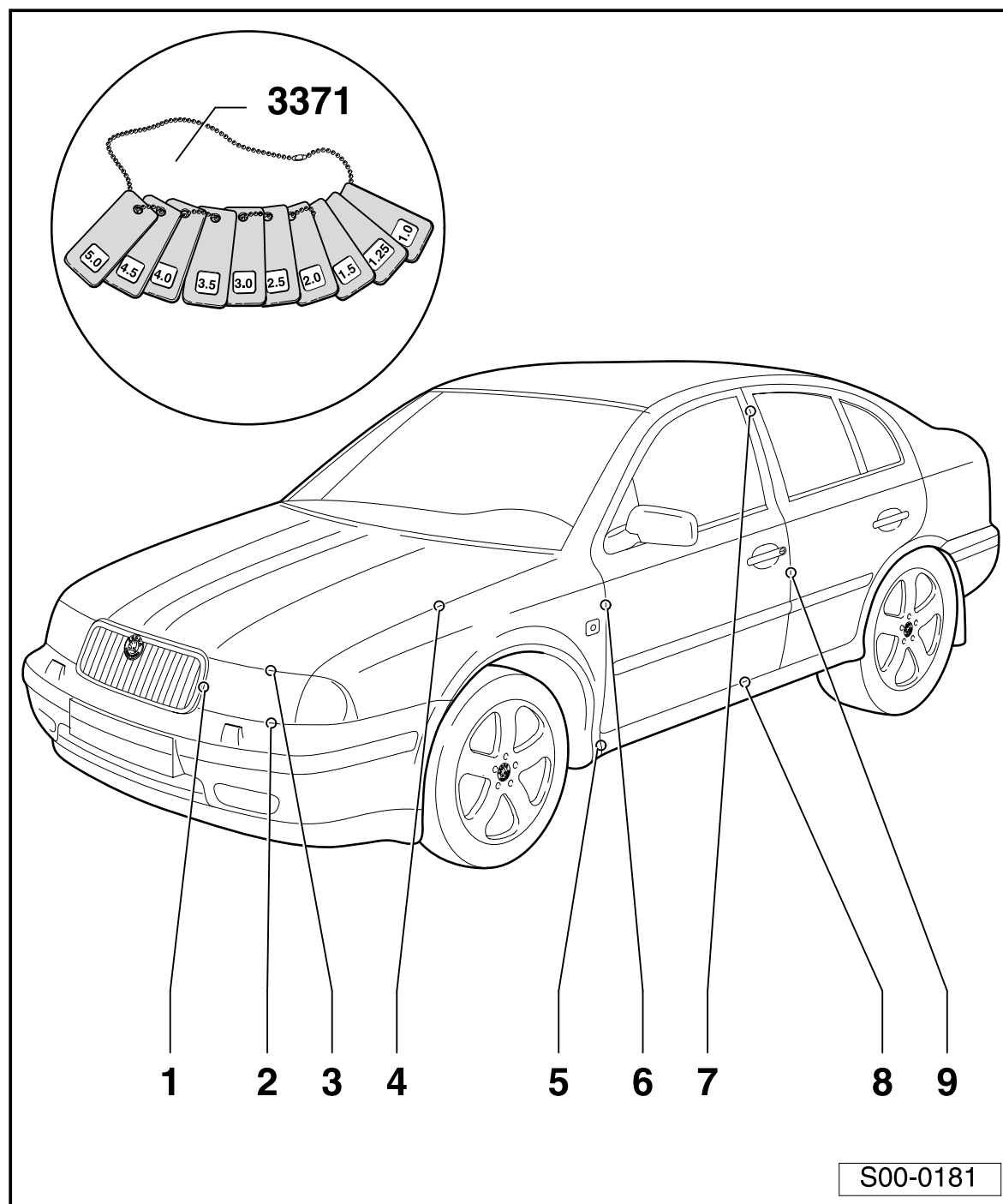
7 - 3.8 + 1.2 mm

8 - 4.8 + 1.5 mm

9 - 3.8 + 1.2 mm

S00-0181

## Front body for Vehicles 08.00 ►



Special tool e.g. 3371 can be used for aligning or inspecting.

1 - 3.0 + 2 mm

2 - 2.8 + 1 mm

3 - 4.7 + 1 mm

4 - 2.4 + 1 mm

5 - 2.5 + 1 mm

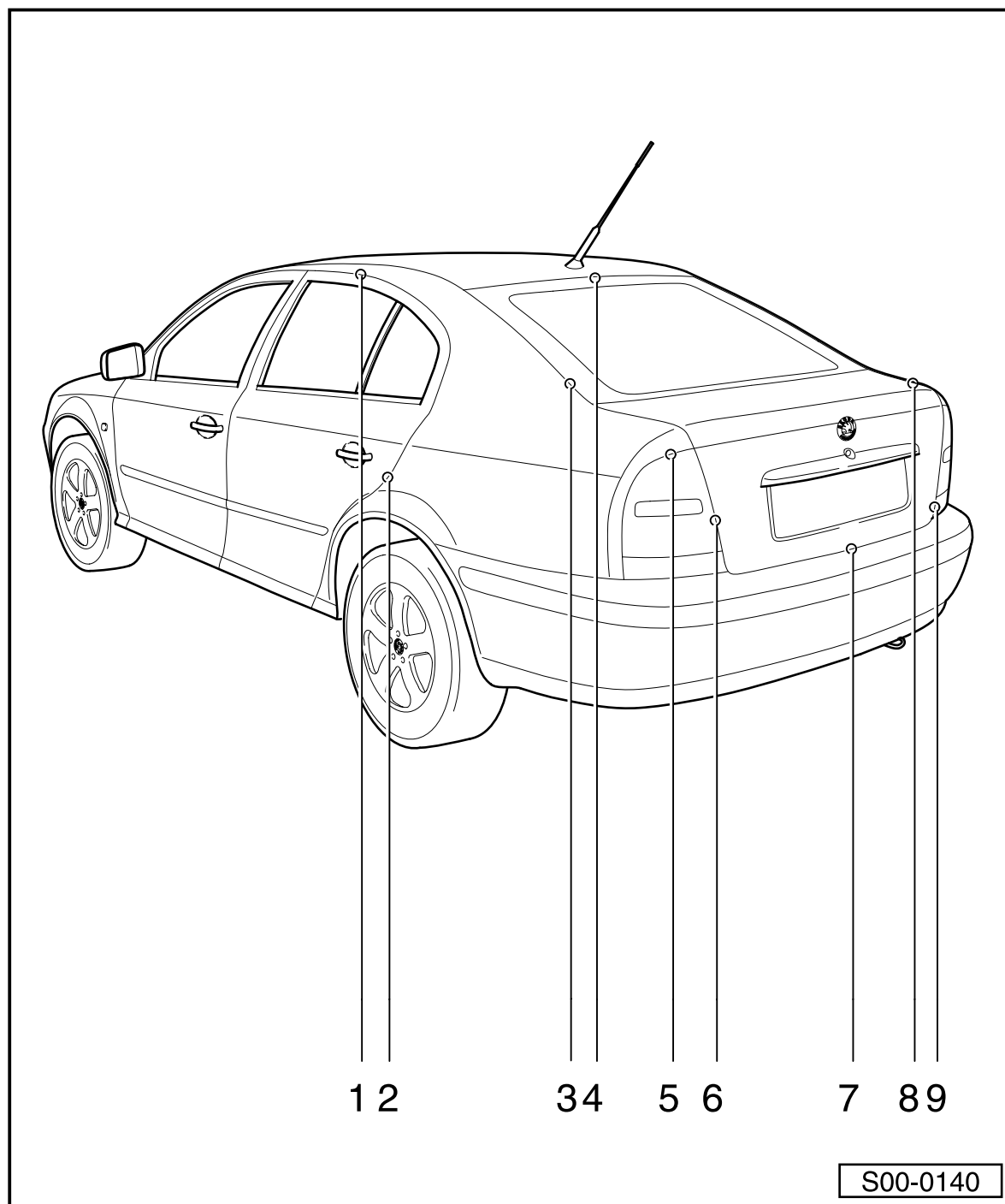
6 - 3.0 + 1.6 mm

7 - 3.8 + 1.2 mm

8 - 4.8 + 1.5 mm

9 - 3.8 + 1.2 mm

## Rear body (Octavia) for Vehicles ► 07.00



Special tool e.g. 3371 can be used for aligning or inspecting.

1 -  $3.0 + 1.6$  mm

2 -  $3.0 + 1.6$  mm

3 -  $3.7 + 1.3$  mm

4 -  $5.7 +2/-1$  mm

5 -  $2.2 + 1$  mm

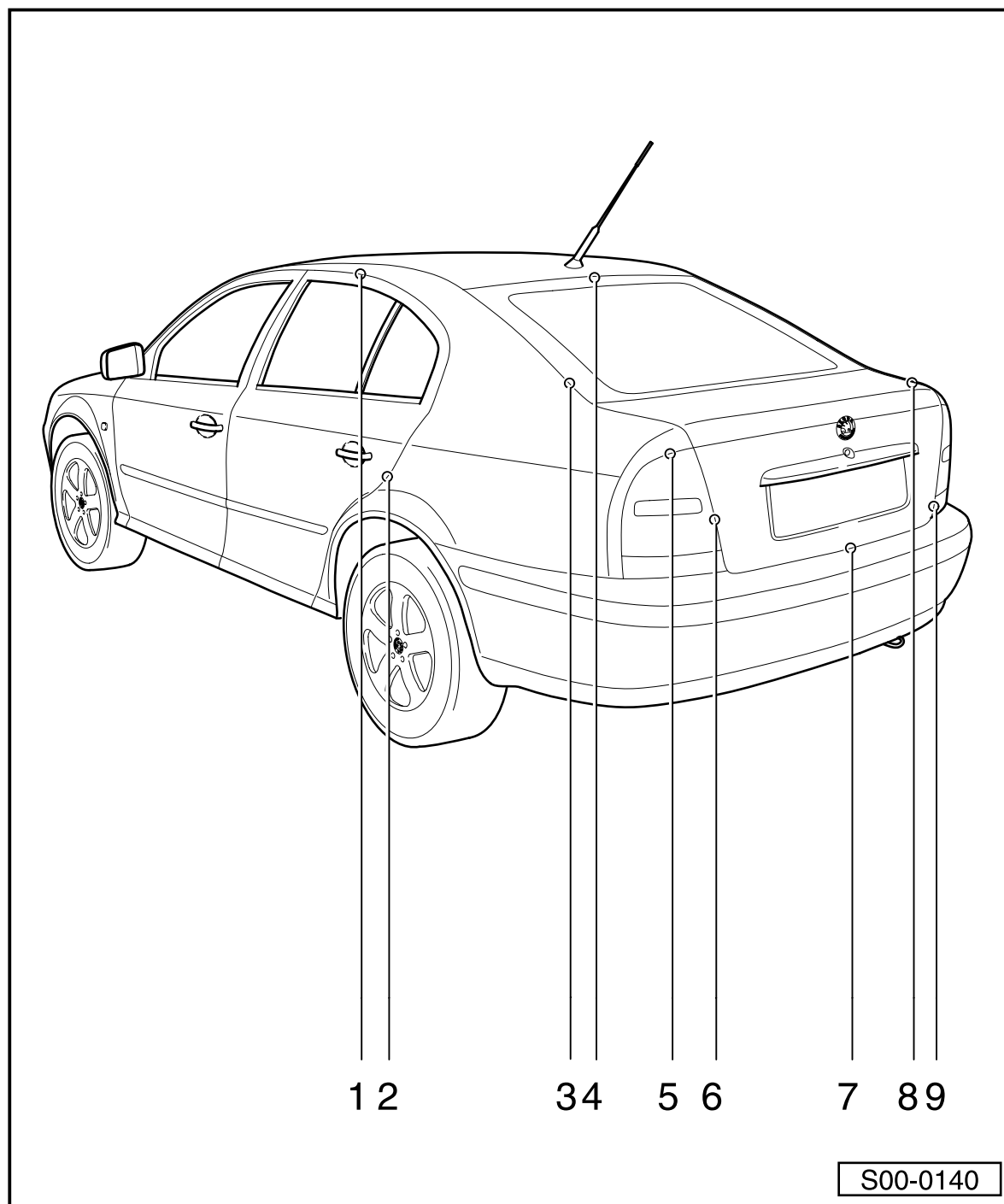
6 -  $3.7 + 1.3$  mm

7 -  $5.7 + 2.4$  mm

8 -  $3.4 + 1.3$  mm

9 -  $3.7 + 1.3$  mm

## Rear body (Octavia) for Vehicles 08.00 ►



Special tool e.g. 3371 can be used for aligning or inspecting.

1 -  $3.0 + 1.6$  mm

2 -  $3.0 + 1.6$  mm

3 -  $3.7 + 1.3$  mm

4 -  $5.7 +2/-1$  mm

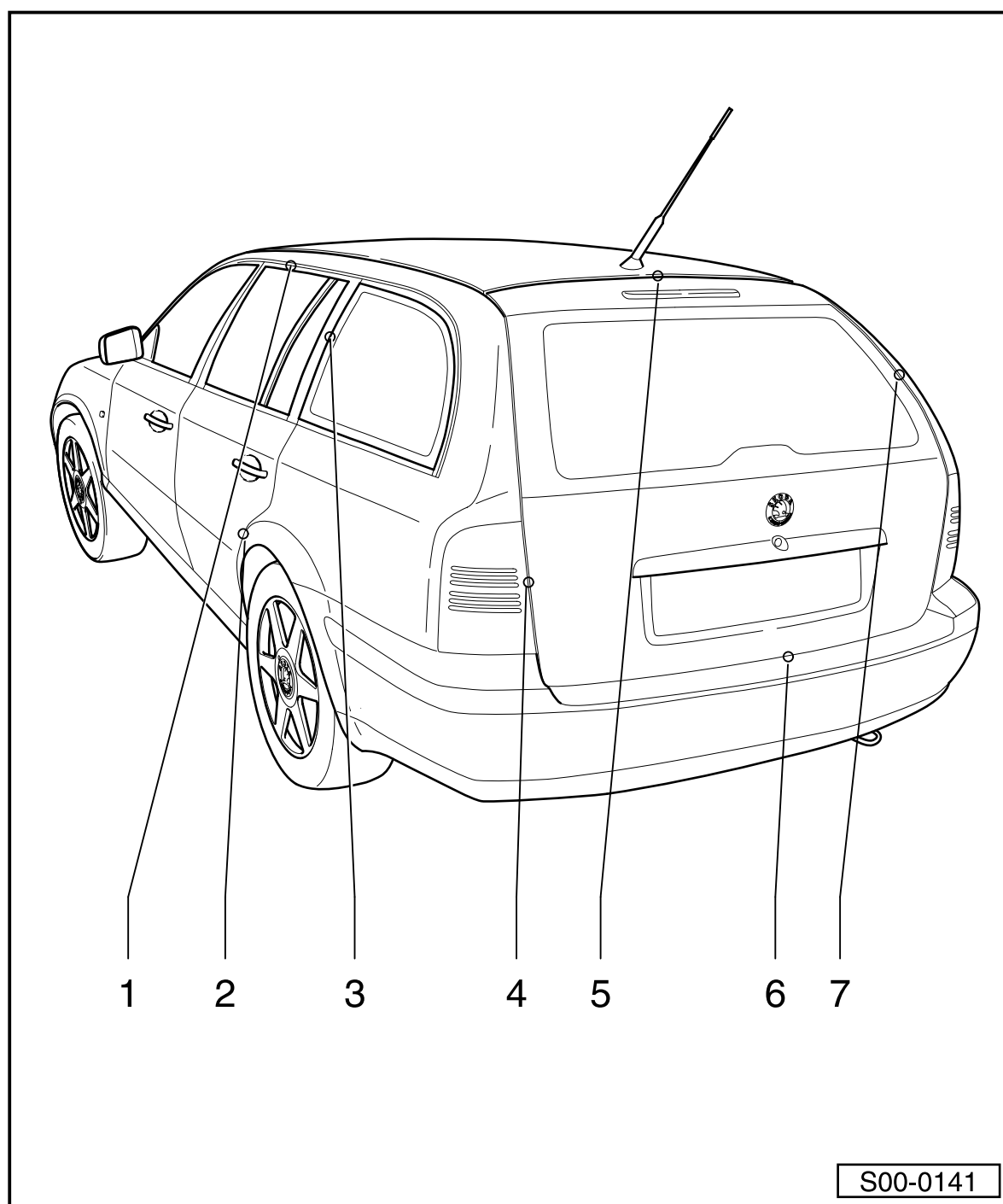
5 -  $1.5 + 1$  mm

6 -  $3.7 + 1.3$  mm

7 -  $4.7 + 2.3$  mm

8 -  $3.4 + 1.3$  mm

9 -  $3.7 + 1.3$  mm

**Rear body (Octavia Estate) for Vehicles ► 07.00**

Special tool e.g. 3371 can be used for aligning or inspecting.

1 - 3.5 + 1.6 mm

2 - 3.5 + 1.6 mm

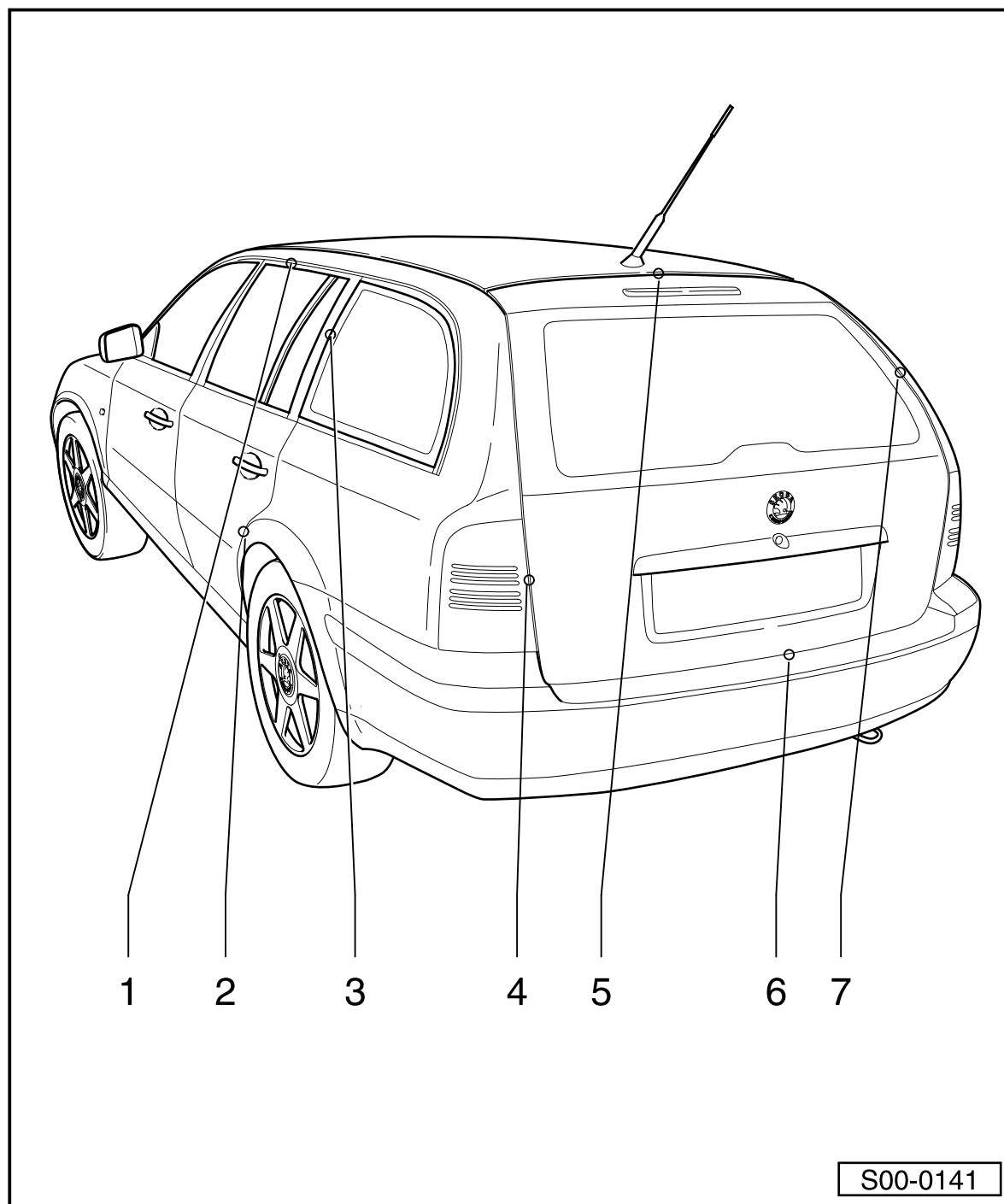
3 - 3.5 + 1.6 mm

4 - 4.0 + 1.5 mm

5 - 4.5 + 1.5 mm

6 - 5.3 + 2.5 mm

7 - 4.0 + 2 mm

**Rear body (Octavia Estate) for Vehicles 08.00 ►**

Special tool e.g. 3371 can be used for aligning or inspecting.

1 - 3.0 + 1.6 mm

2 - 3.0 + 1.6 mm

3 - 3.0 + 1.6 mm

4 - 3.7 + 2 mm

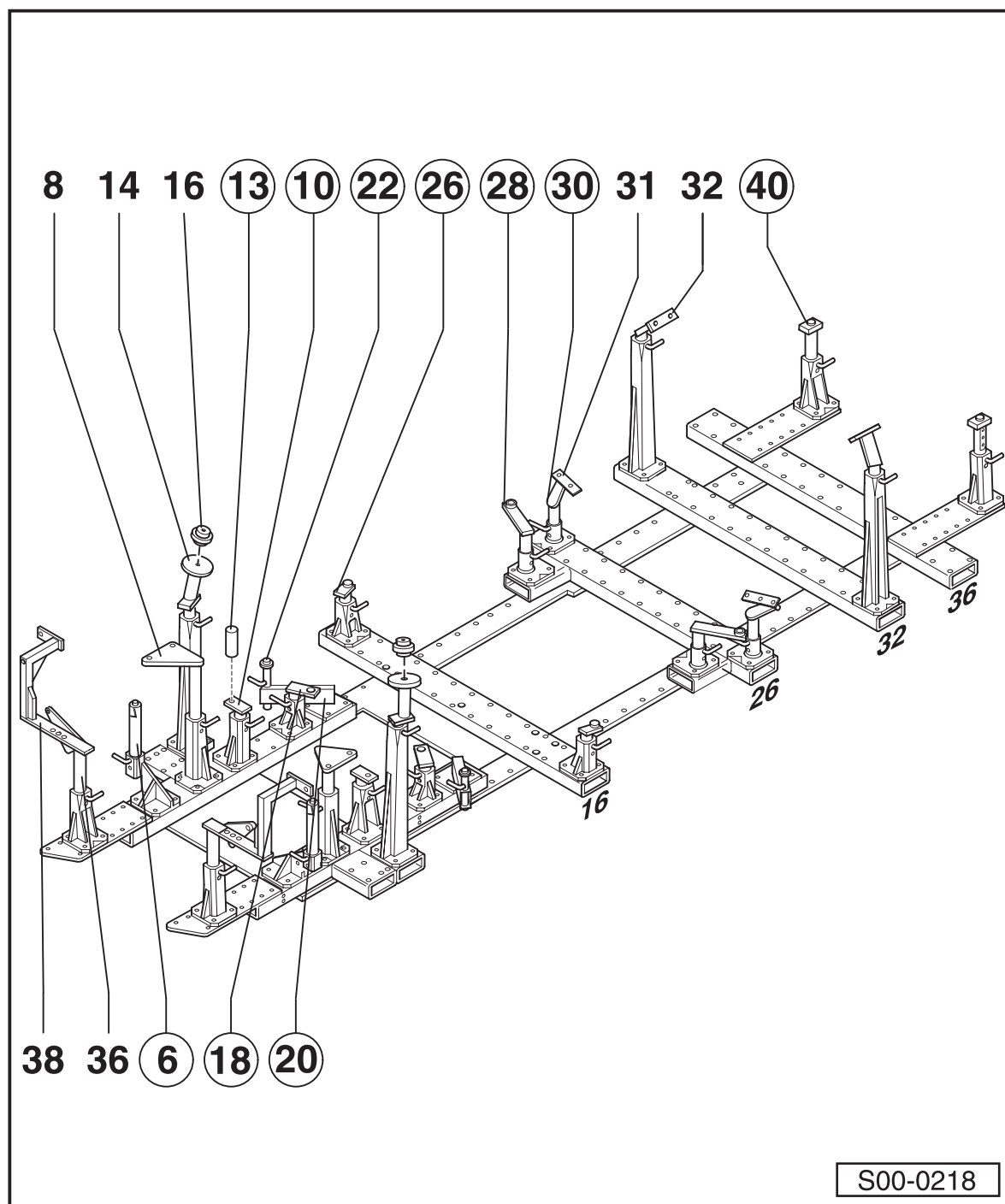
5 - 3.9 + 1.5 mm

6 - 5 - 2.6 mm

7 - 3.7 + 2 mm

## Straightening rig

### General view of Celette with VAS 5020/1

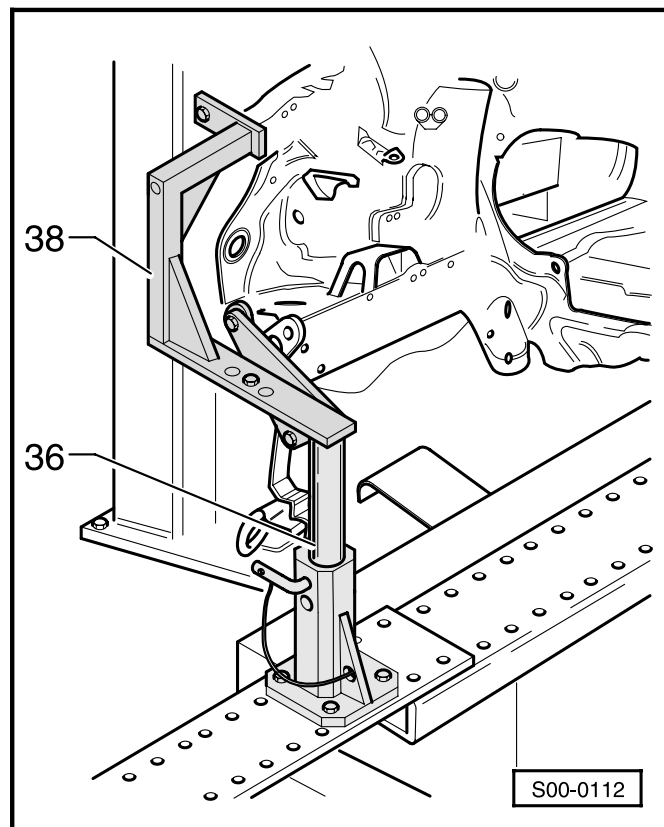


#### Notes:

- ◆ This overview does not replace the detailed design plan from the company Celette.
- ◆ The position numbers in the figures are identical to the final numbers on the alignment bracket supports.
- ◆ The circled position numbers are those of the alignment bracket supports for the superstructure with or without assemblies.
- ◆ The following figures show the right side of the vehicle.

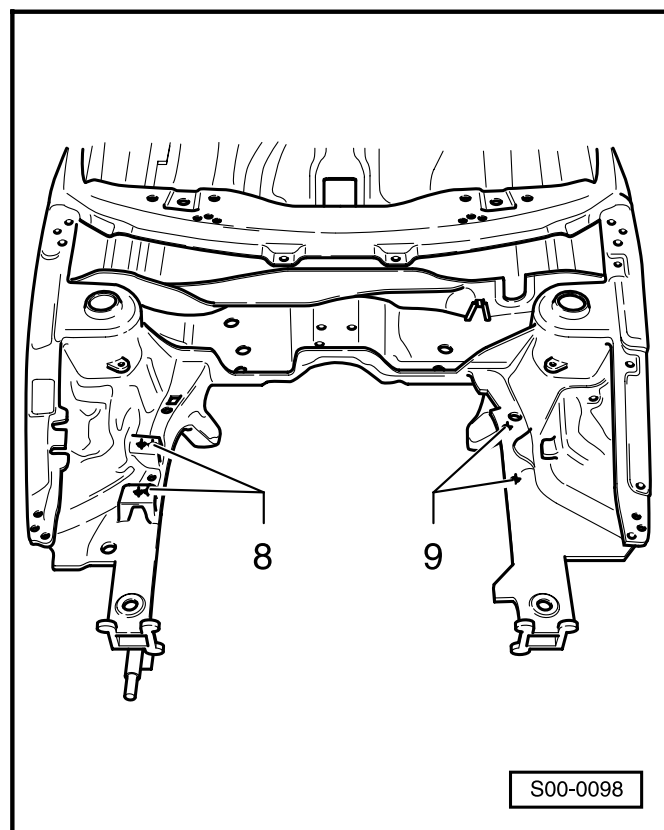
|                                                                                     |                                                             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------|
| 6 - MZ 142                                                                          | 20 - Bracket without MZ and straightening<br>jig mount -22- |
| 8 - MZ 260                                                                          |                                                             |
| 10 - MZ 200 without components; MZ 080<br>with components                           | 22 - Angle mount -20-                                       |
| 13 - Centring piece, identical on left and<br>right, only with components installed | 26 - MZ 140                                                 |
| 14 - MZ 601                                                                         | 28 - MZ 080                                                 |
| 16 - Centring piece, identical on left and<br>right                                 | 30 - MZ 080 and attachment plate -31-                       |
| 18 - MZ 140 without components; MZ 080<br>with components                           | 32 - MZ 602                                                 |
|                                                                                     | 36 - MZ 200 and TV 400                                      |
|                                                                                     | 38 - Straightening jig mount -36-                           |
|                                                                                     | 40 - MZ 200 and TV 400                                      |

### General view of front straightening jig items



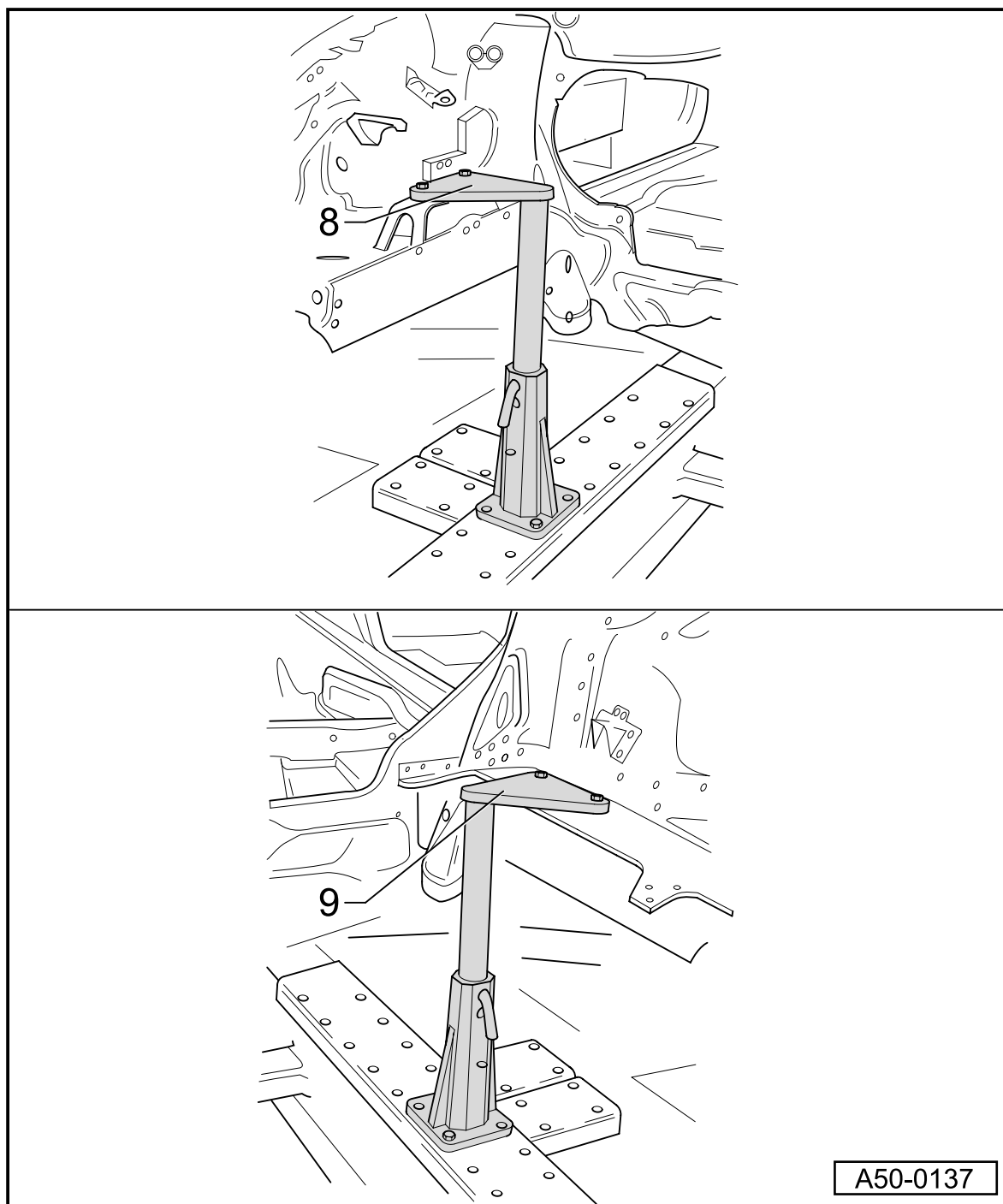
36 - Mount for front side member

38 - Mount for front side member / tip of wheelhouse



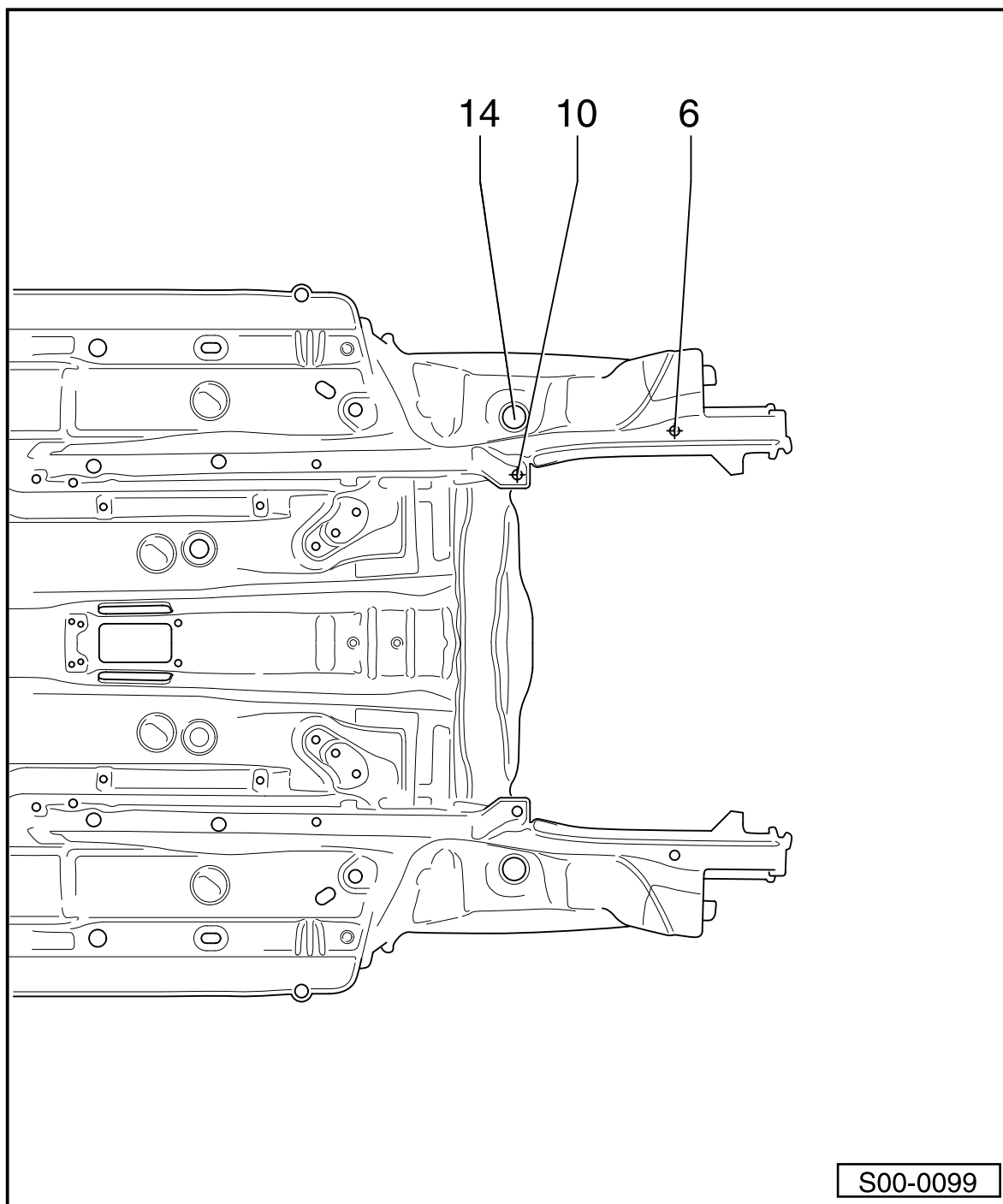
8 - Attachment for engine support

9 - Attachment for gearbox support



**8 - Mount for engine support**

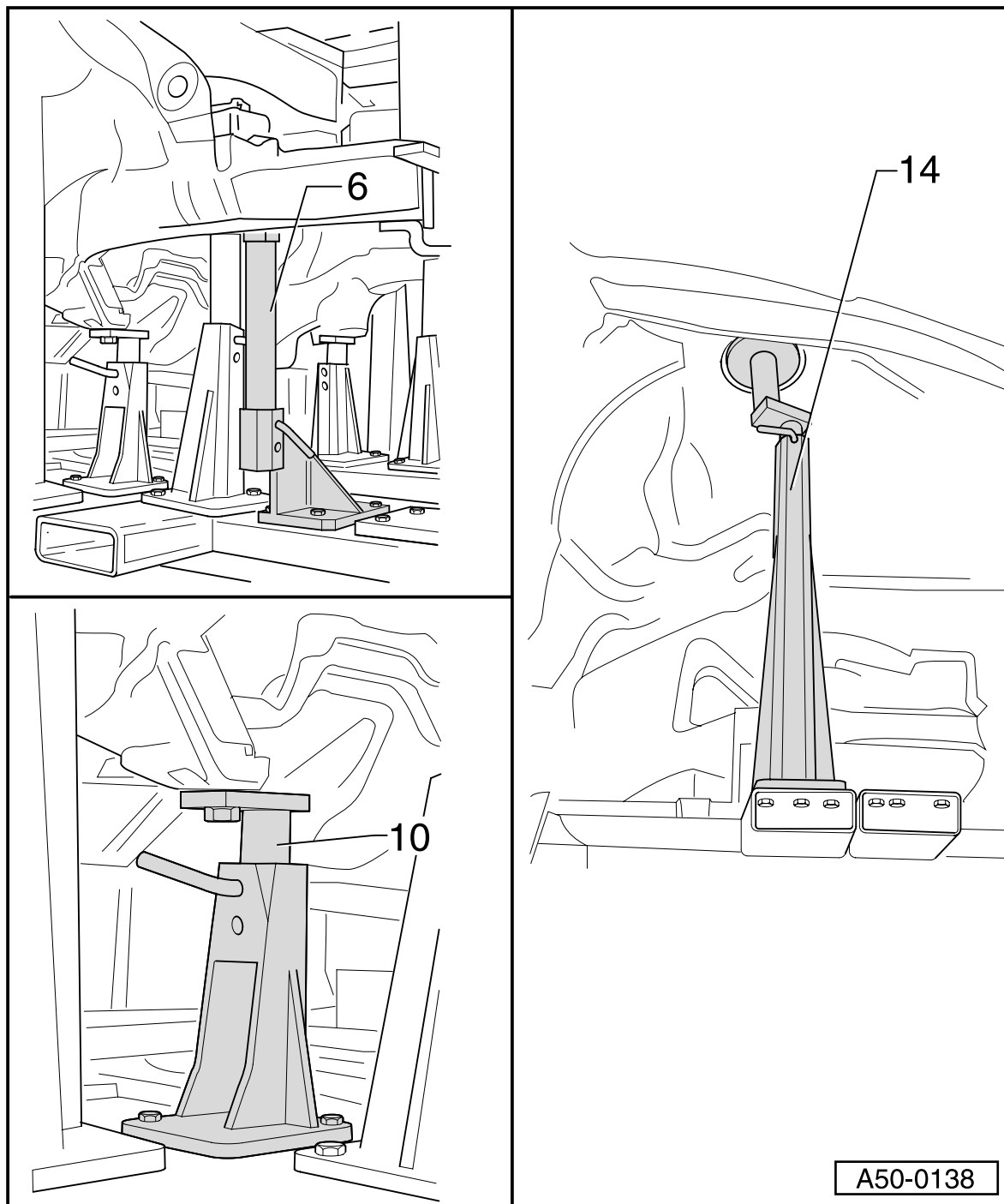
**9 - Mount for gearbox support**



6 - Mounting point of front side member

14 - Mounting point of suspension strut attachment

10 - Mounting point of subframe

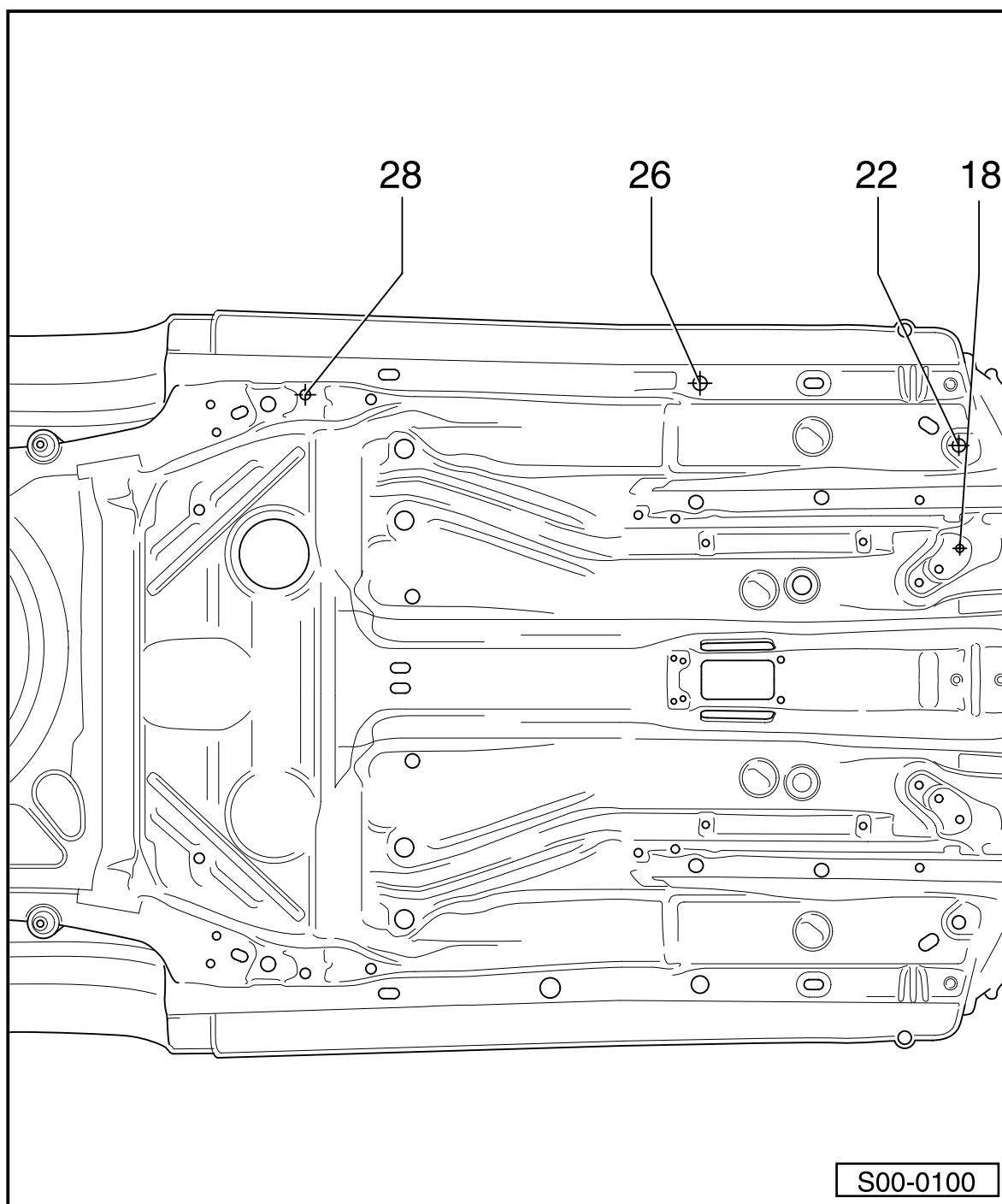


**6 - Mount for front side member**

**10 - Mount for subframe**

**14 - Mount for suspension strut attachment**

## General view of middle straightening jig items

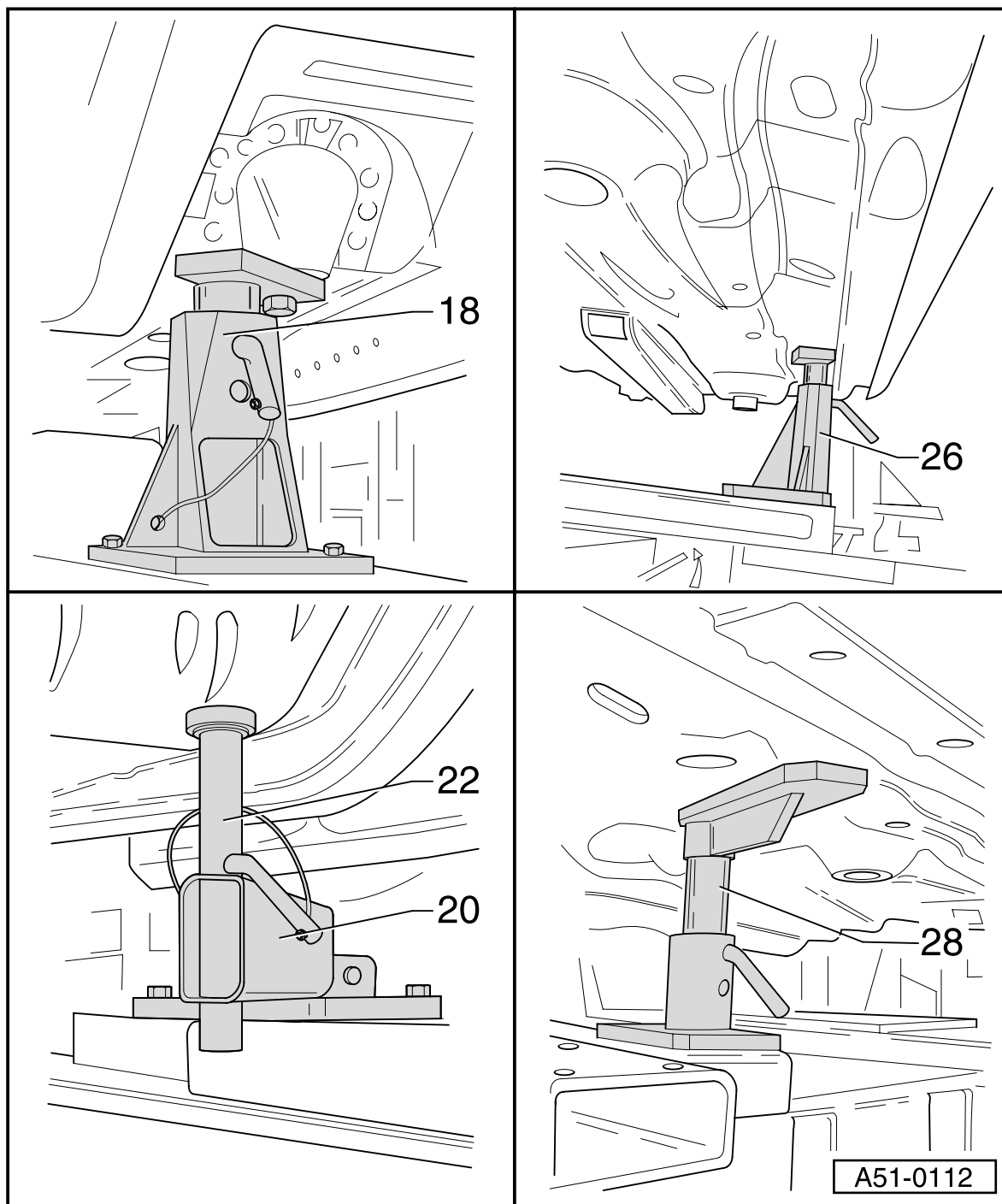


18 - Mounting point of subframe

26 - Mounting point of hole in floor panel

22 - Mounting point of front production mount

28 - Mounting point of hole in side member



**18 - Mount for subframe**

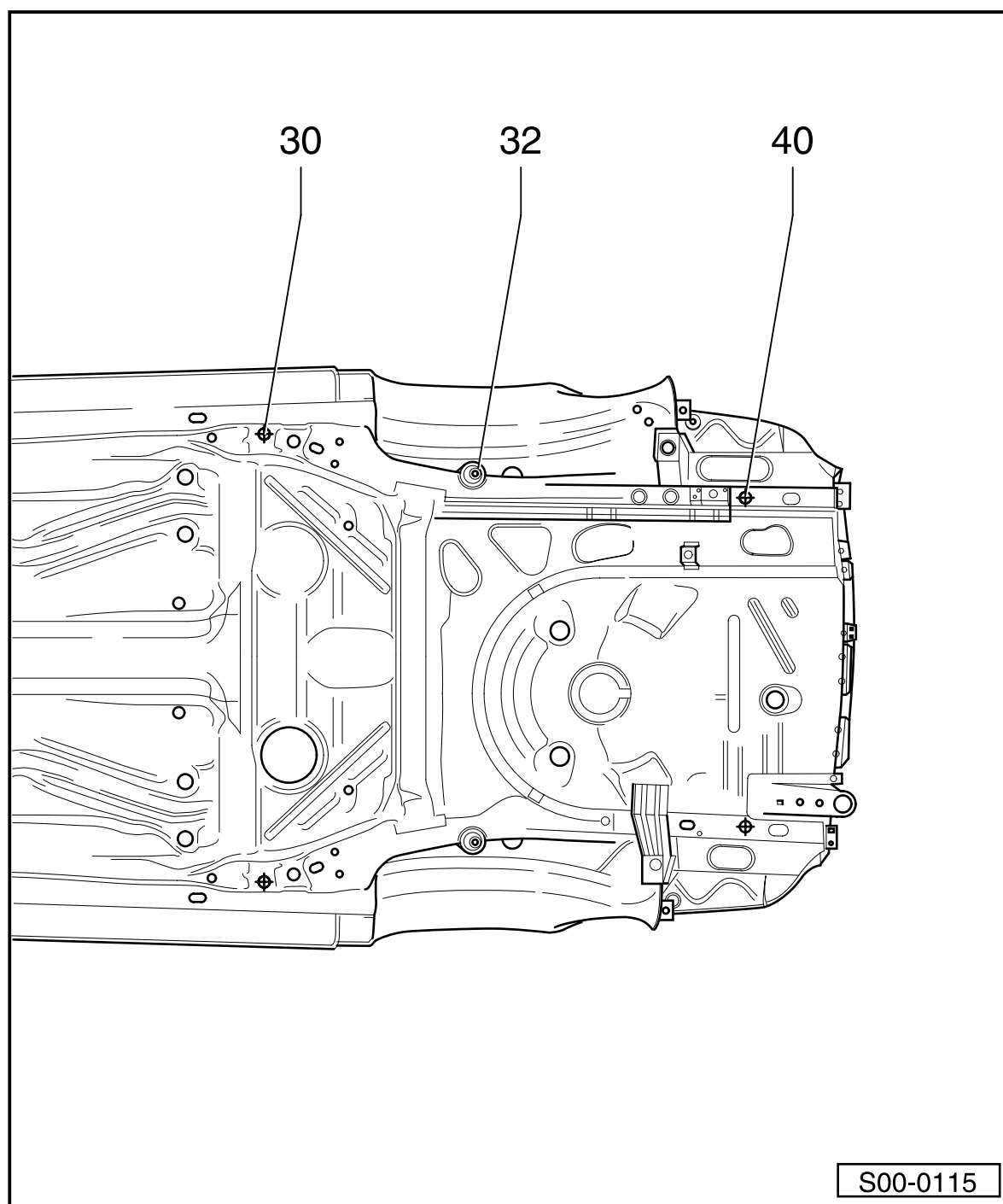
**20 - Bracket for item 22**

**22 - Mount for front production mount**

**26 - Mount for hole in floor panel**

**28 - Mount for hole in side member**

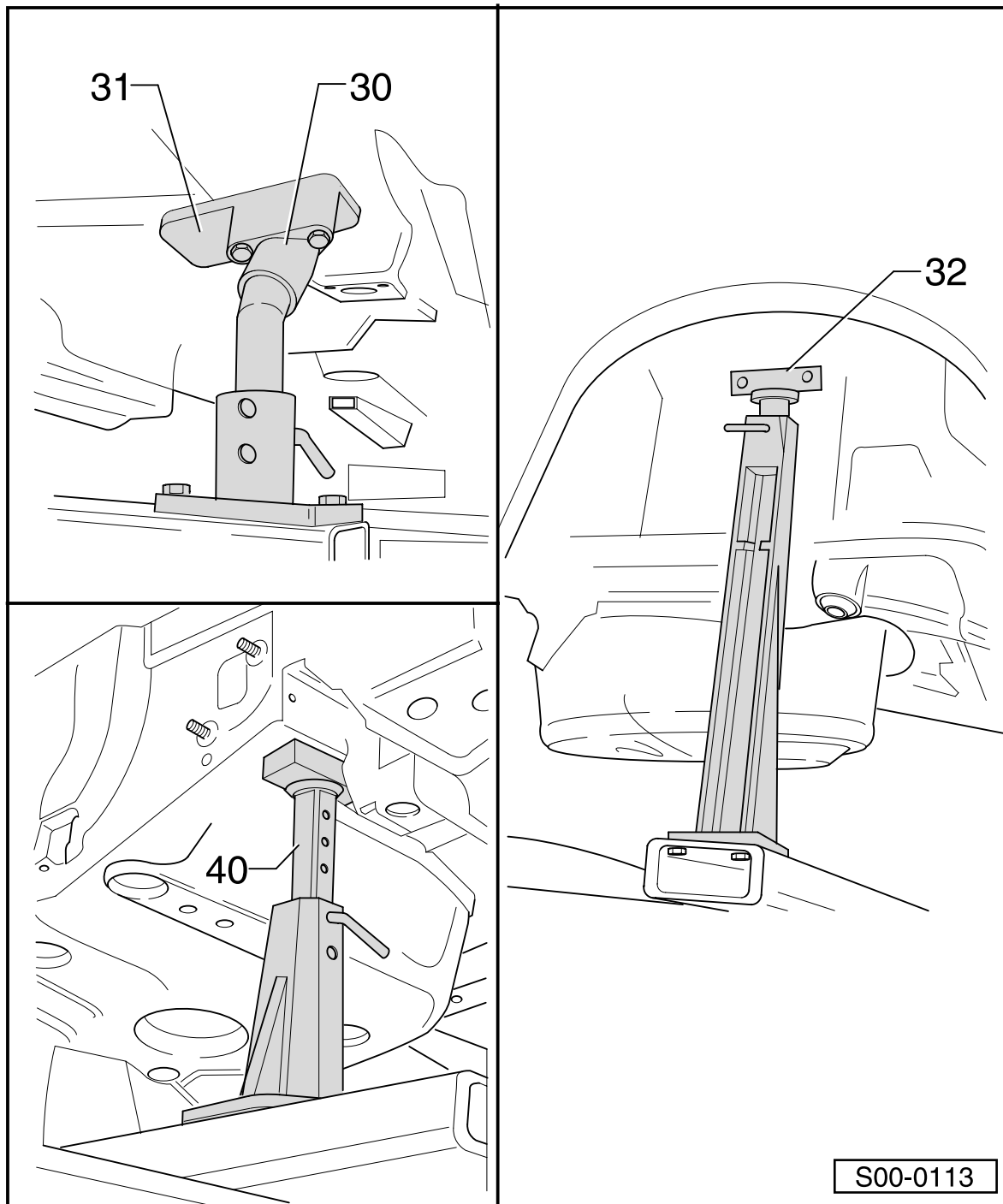
## General view of rear straightening jig positions



30 - Mounting point for rear suspension attachment

40 - Mounting point for hole in side member

32 - Mounting point for suspension strut attachment

**30 - Mount for rear axle attachment**

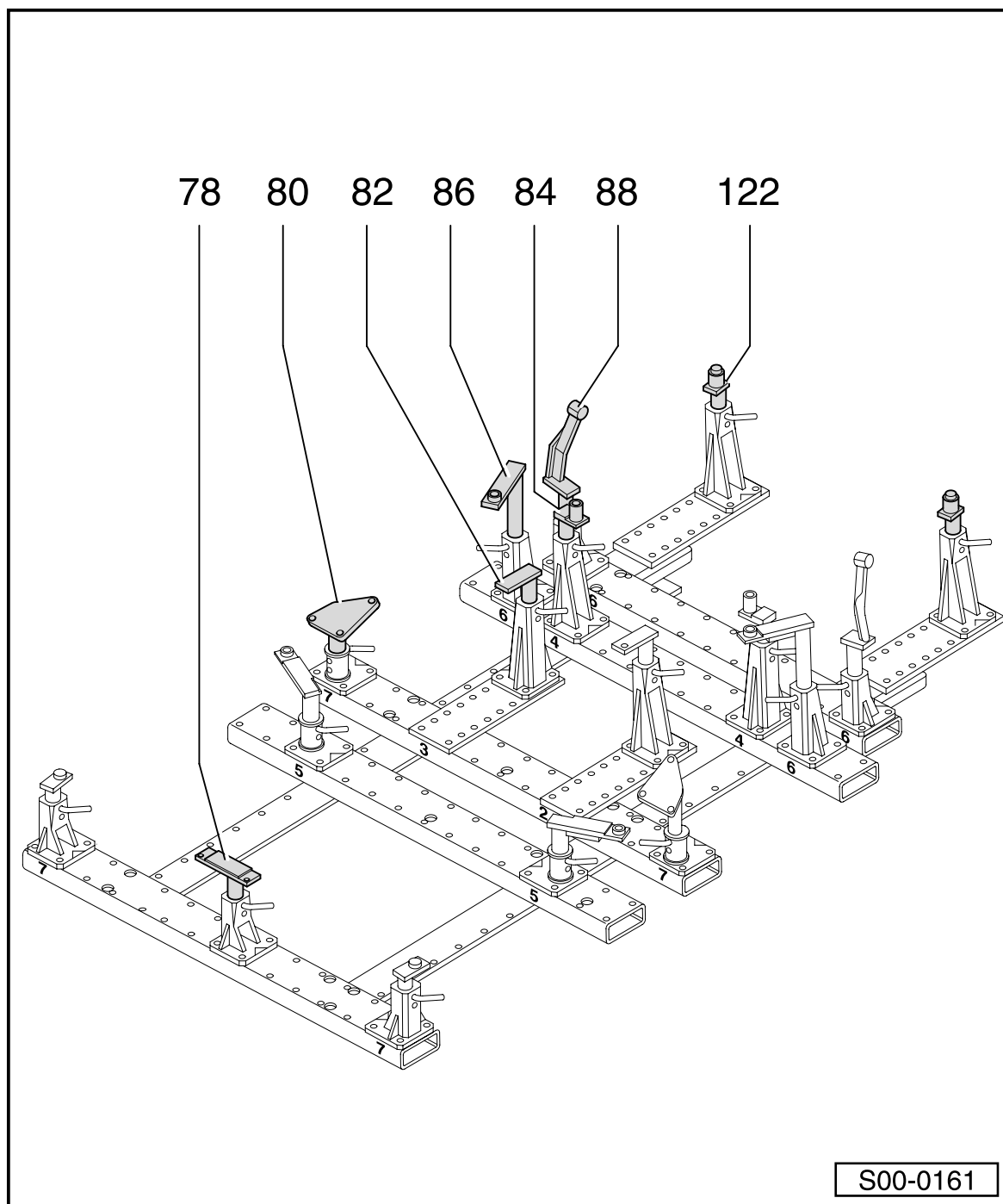
Insert pin only after fitting on the body.

**31 - Spacer, identical on left and right**

Use only if rear suspension removed.

**32 - Mount for suspension strut attachment****40 - Mount for hole in side member**

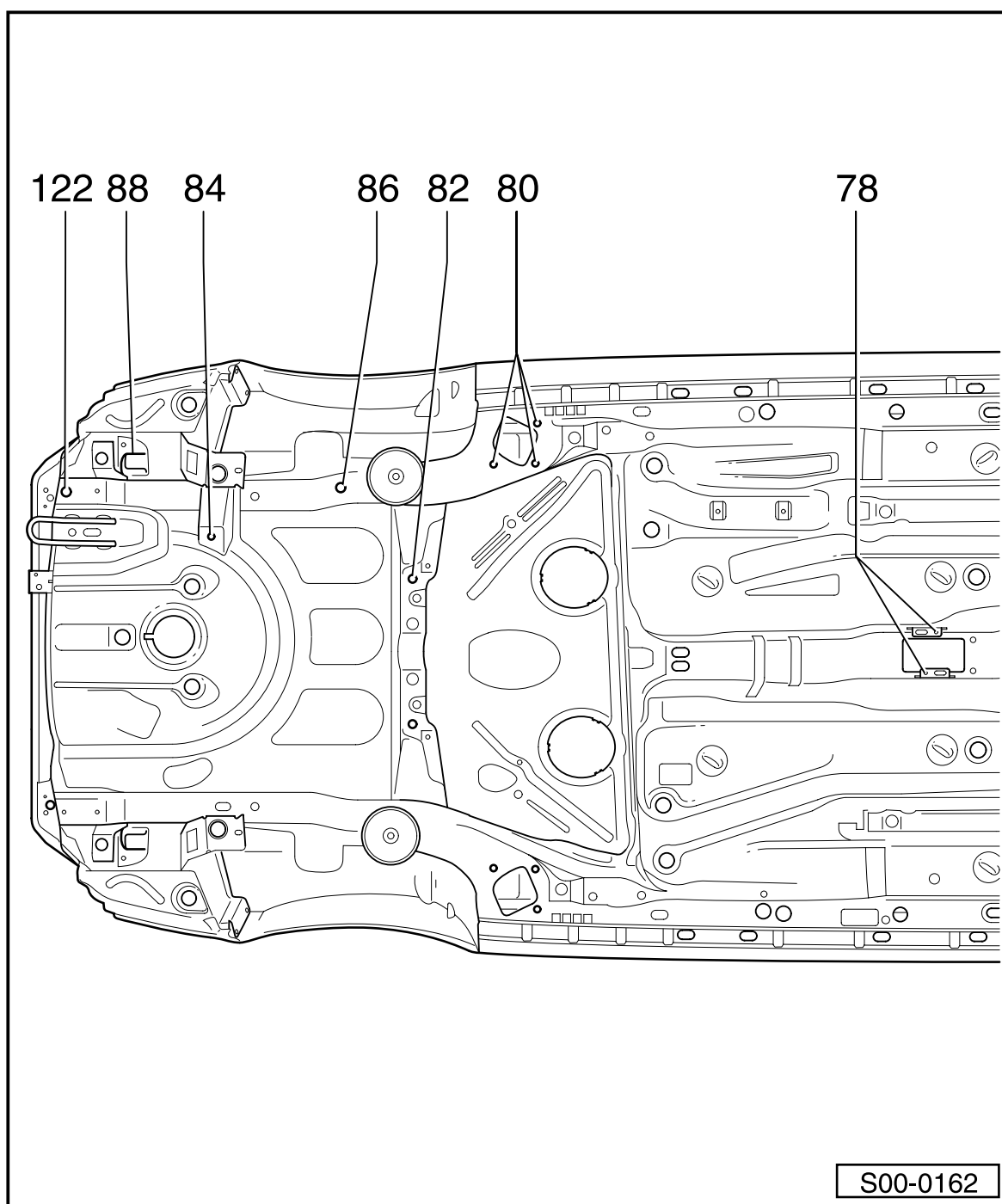
## General view of Celette VAS 5020/8 (Octavia Estate 4x4)

**Notes:**

- ◆ VAS 5020/8 is an additional kit to VAS 5020 /1 and should be used together with the latter.
- ◆ The front area of the Estate 4x4 is identical to the front-wheel-drive version.
- ◆ This overview is not a substitute for the detailed arrangement drawing supplied by Celette.
- ◆ The item numbers in the illustrations are identical with the end numbers on the straightening angle mounts.
- ◆ The item numbers in the case of the straightening angle mounts for the body with and without components, are shown in a circle.
- ◆ The illustrations which follow show the right-hand side of the vehicle.

**78 - MZ 140****86 - MZ 200****80 - MZ 080****88 - MZ 140****82 - MZ 260 and TV 400****122 - MZ 200 and TV 400****84 - MZ 260, or MZ 200 with components**

# General view of straightening angle items at rear (Octavia Estate 4x4)



**78 - Mounting point of propshaft middle bearing**

**80 - Mounting point for rear suspension attachment**

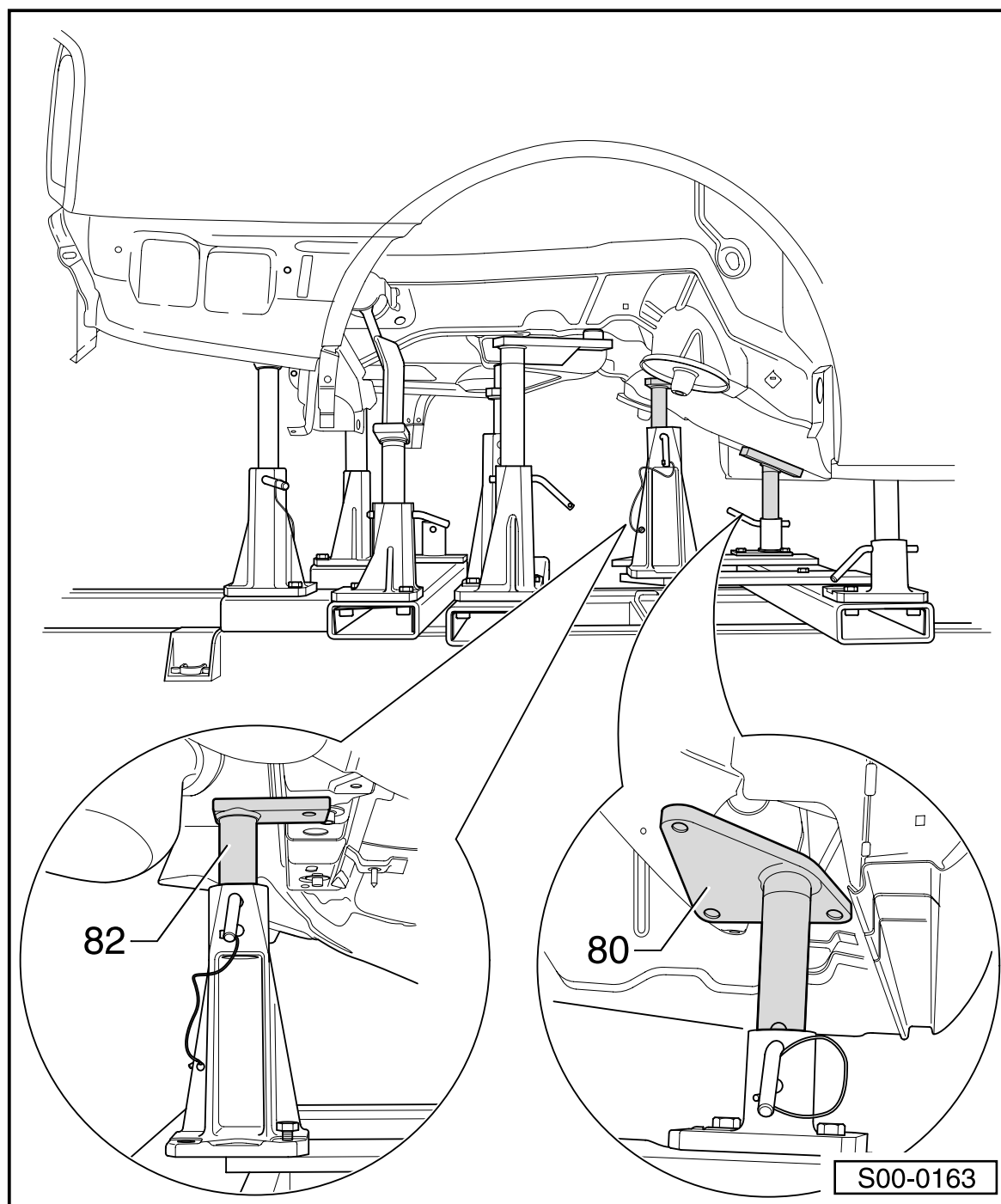
**82 - Mounting point for rear suspension attachment**

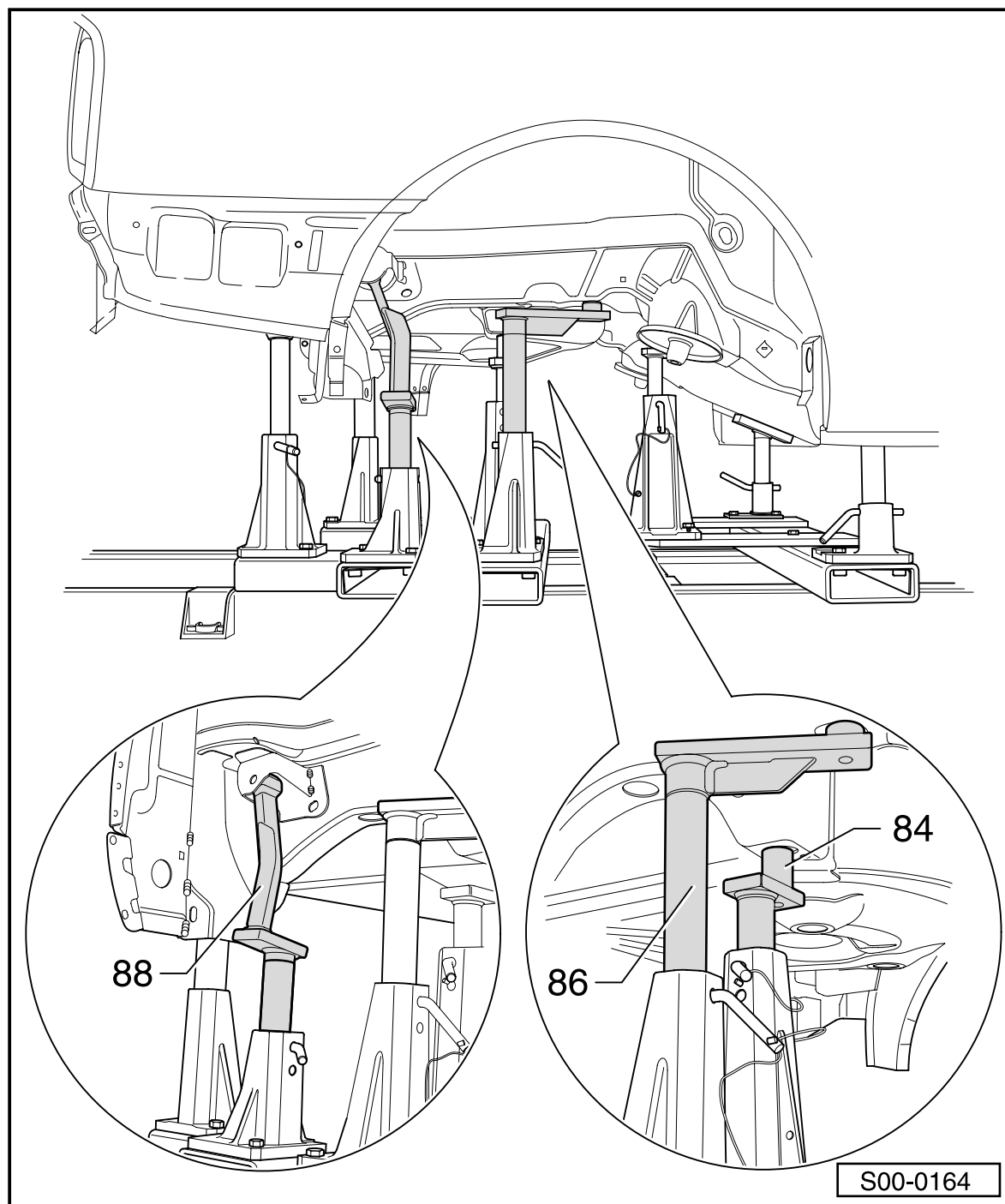
**84 - Mounting point for rear suspension attachment**

**86 - Hole in longitudinal member**

**88 - Mounting point for shock absorber mount**

**122 - Hole in longitudinal member**

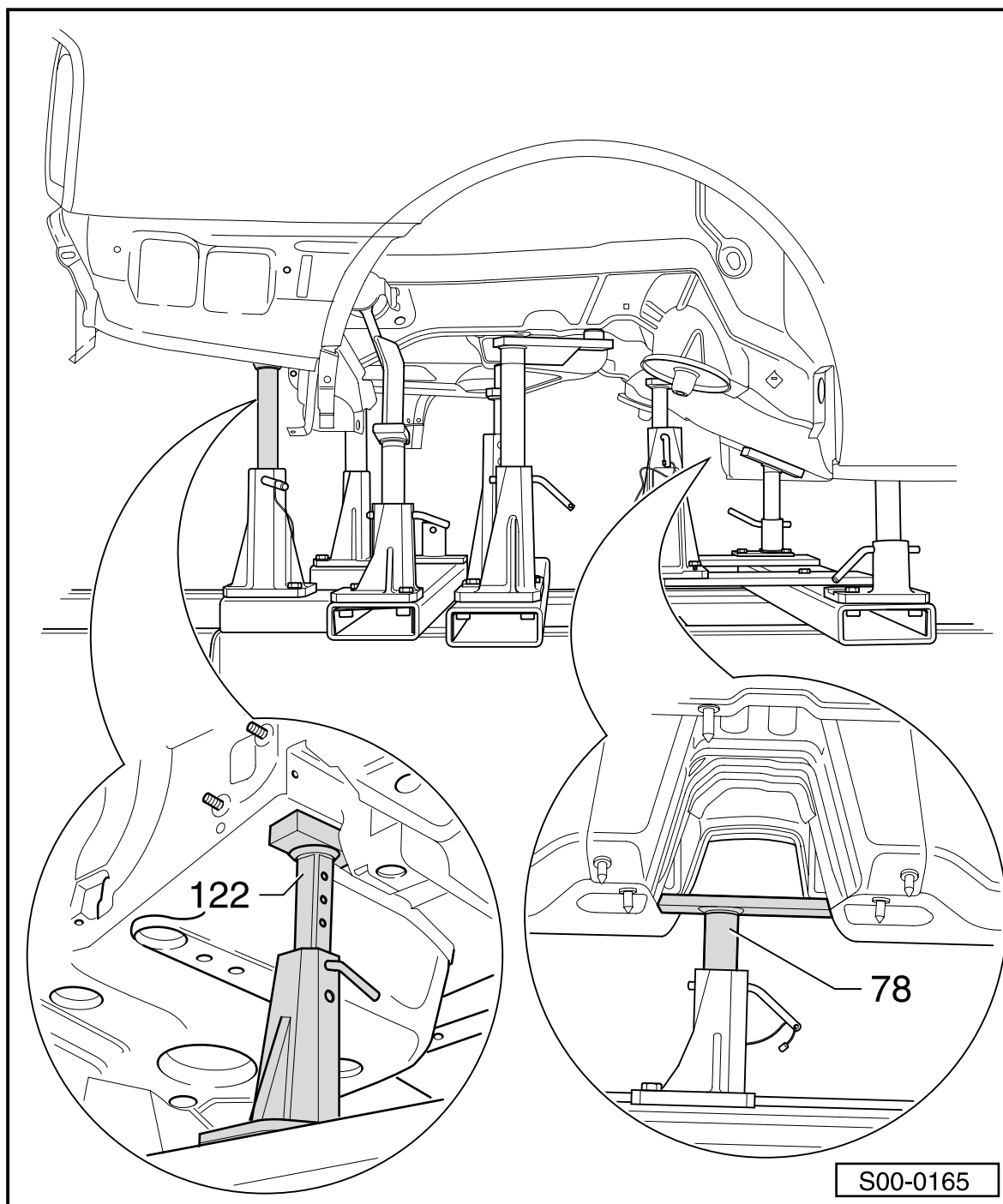
**80 - Mount for rear suspension attachment****82 - Mount for rear suspension attachment**



**84 - Mount for rear suspension attachment**

**88 - Mount for shock absorber mount**

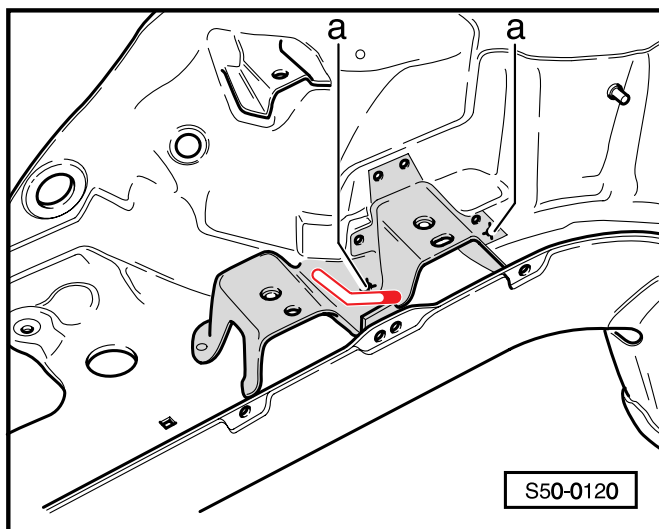
**86 - Mount for hole in longitudinal member**



**78 - Mount of propshaft middle bearing**

**122 - Mount for hole in longitudinal member**





## Repairing front body

### Replacing right engine bracket

#### Separation points of engine brake

- ◀ - Detach original joint, with the exception of weld spot -a-.
- Cut off front part section.
- Drill out weld spot -a- with  $\varnothing 7$  mm drill.
- Take off remaining piece.

#### Replacement part

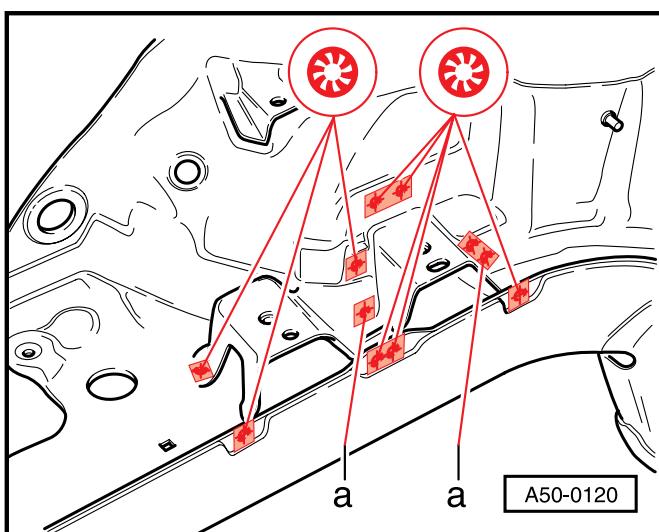
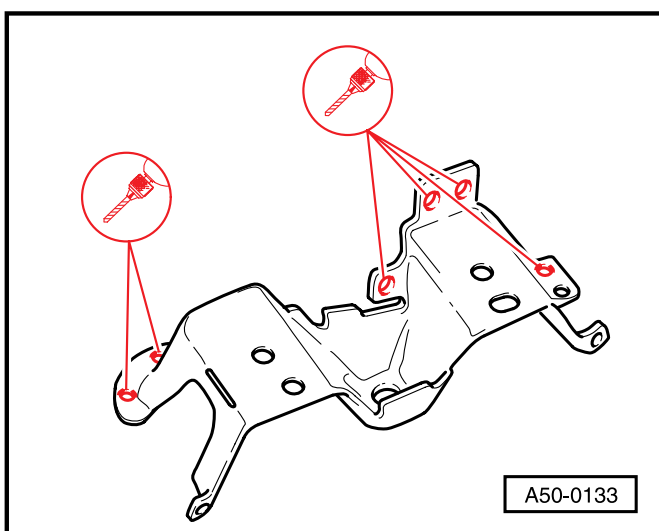
- ◆ Engine bracket

#### Preparing new part

- ◀ - Drill holes for SG plug weld,  $\varnothing 7$  mm.

#### Welding in

- Fit in new part and fix on straightening jig.



- ◀ - Weld in bracket, SG plug weld.
- Weld spots -a- from outside of wheelhouse, SG plug weld.

## Replacing top longitudinal member

### Separation points

- ◀ - Make the separation cut according to the severity of the damage.
- Release original welding at the top and bottom by drilling off the spot weld seams.

### Replacement part

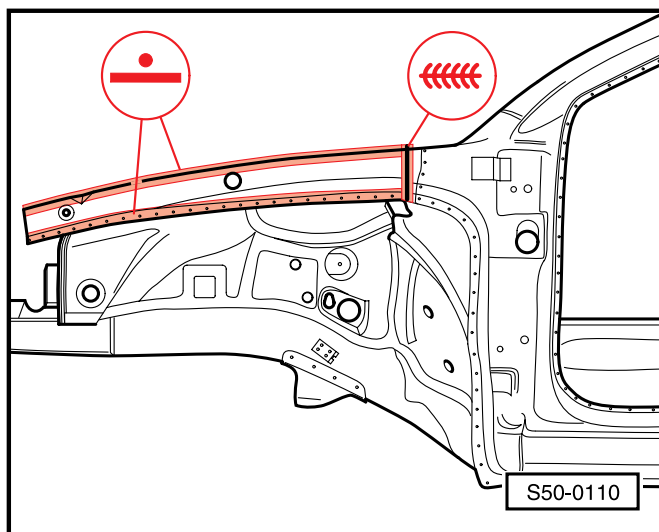
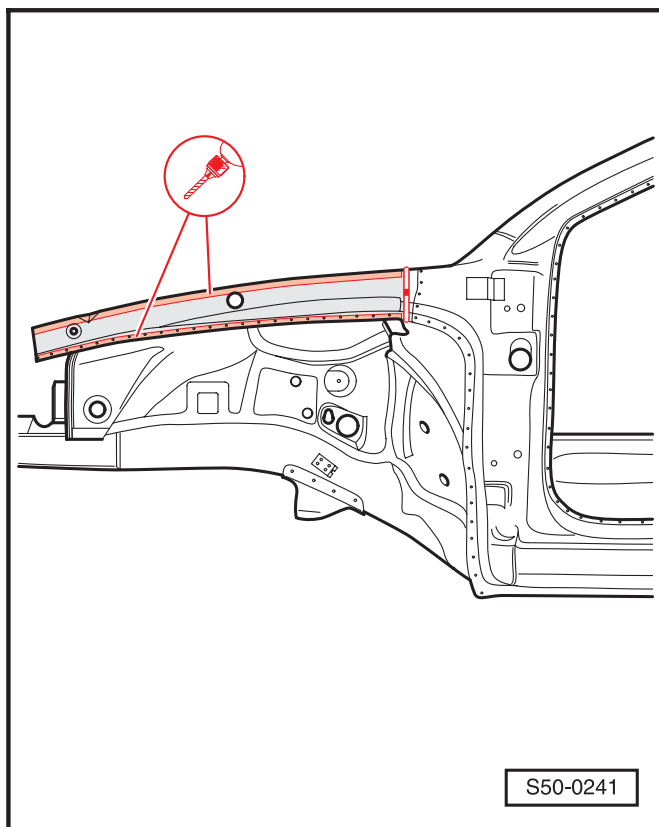
- ◆ Top longitudinal member

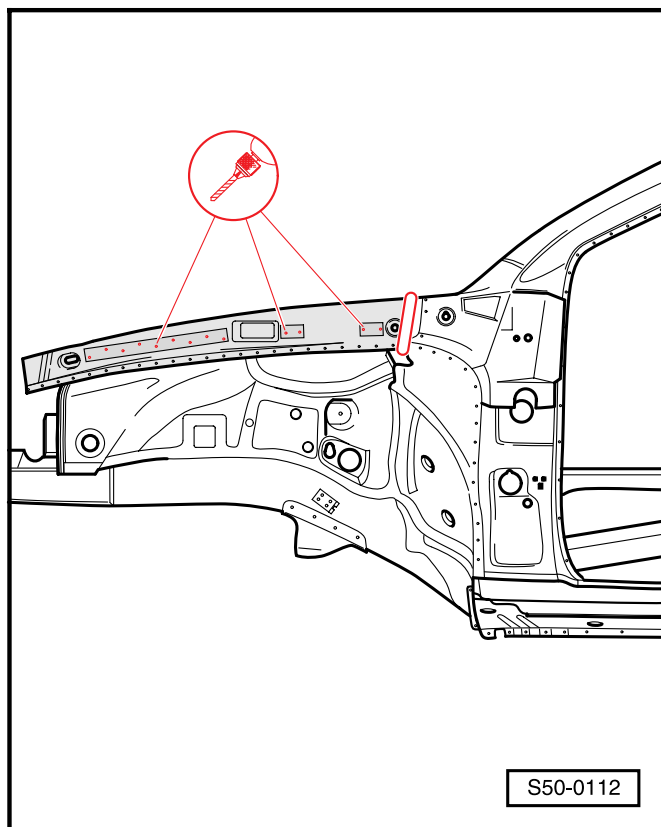
### Preparing new part

- Transfer the separation cut onto the new part and cut to the required dimensions.

### Welding in

- ◀ - Weld top longitudinal member, RP spot seam.
- Butt weld the separation cut as an inert gas shielded full seam.





## Replacing inner part of top longitudinal member

### Separation points

- Longitudinal member has already been separated
- ◀ - Make the separation cut at the inner part of the top longitudinal member according to the severity of the damage.
- Drill off spot weld seams.
- Remove inner part of top longitudinal member.

### Replacement part

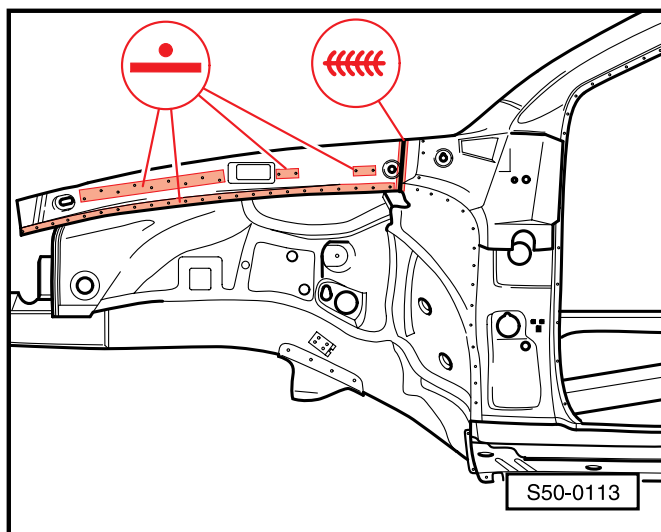
- ◆ Inner part of top longitudinal member

### Preparing new part

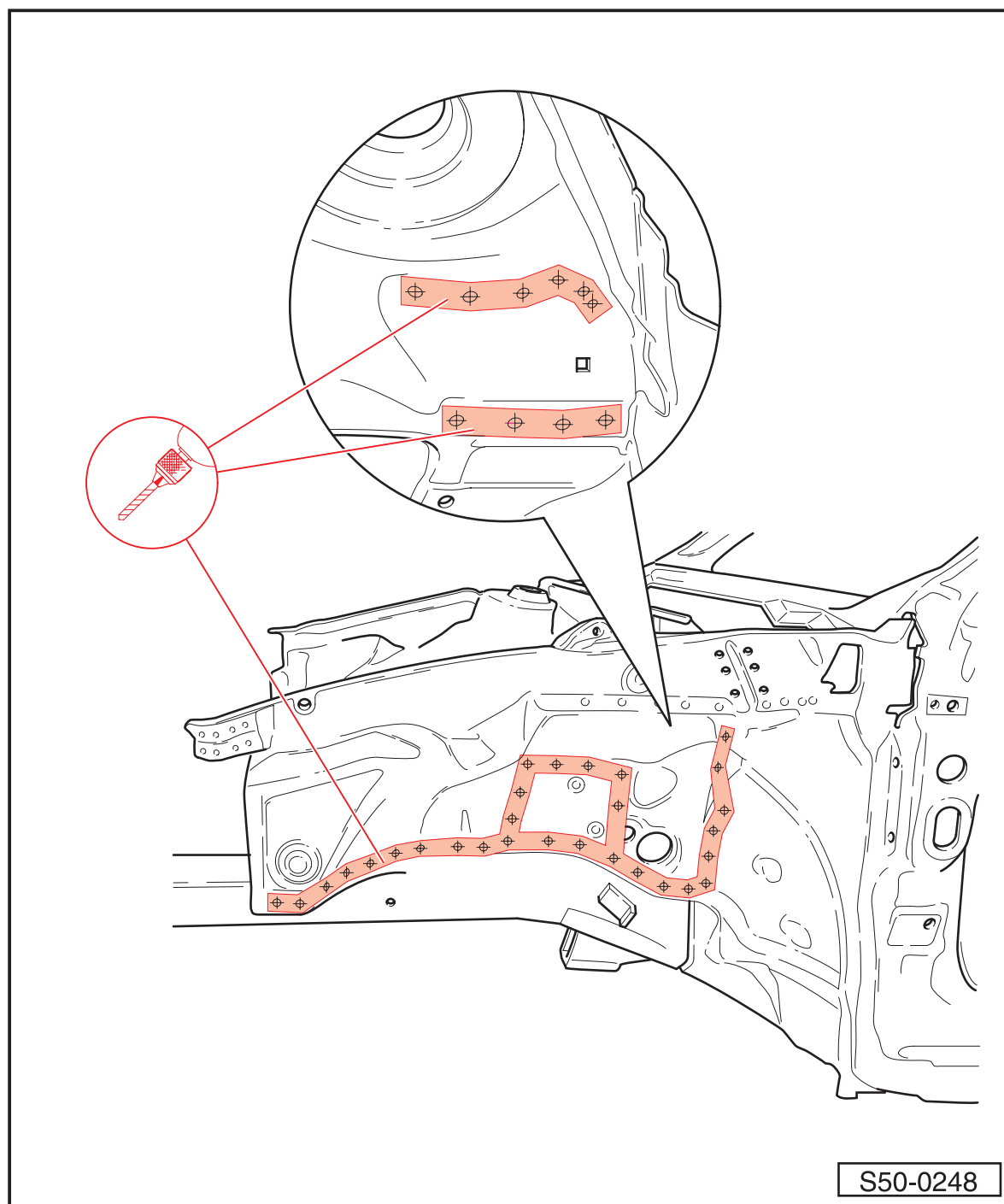
- Transfer the separation cut onto the new part and cut to the required dimensions.

### Welding in

- Fit new part and fix onto a straightening bench.
- ◀ - Weld inner part of top longitudinal member, RP spot seam.
- Butt weld the separation cut as an inert gas shielded full seam.



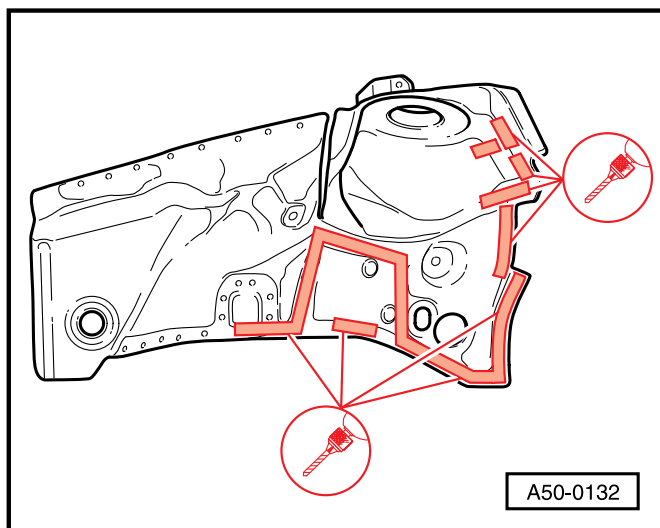
## Replacing front wheelhouse



- Pillar A already cut out.
- Inner part of top longitudinal member already cut out.

### Separation points

- Release the original welding.
- Removing remaining pieces.

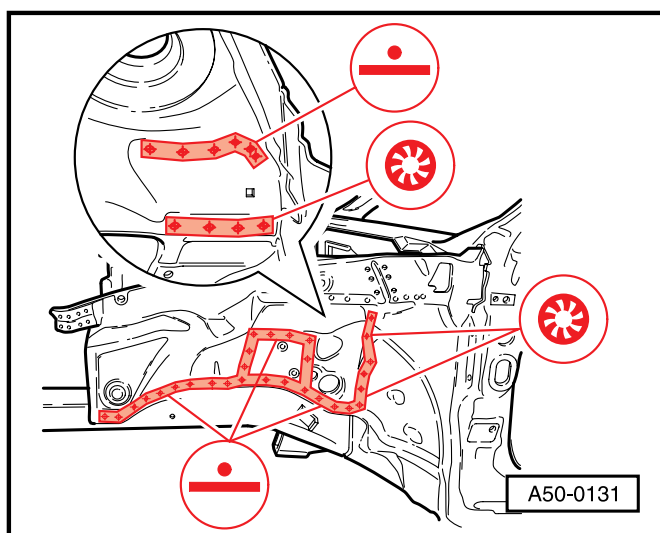


### Replacement part

- ◆ Front wheelhouse
- ◆ Suspension strut mount

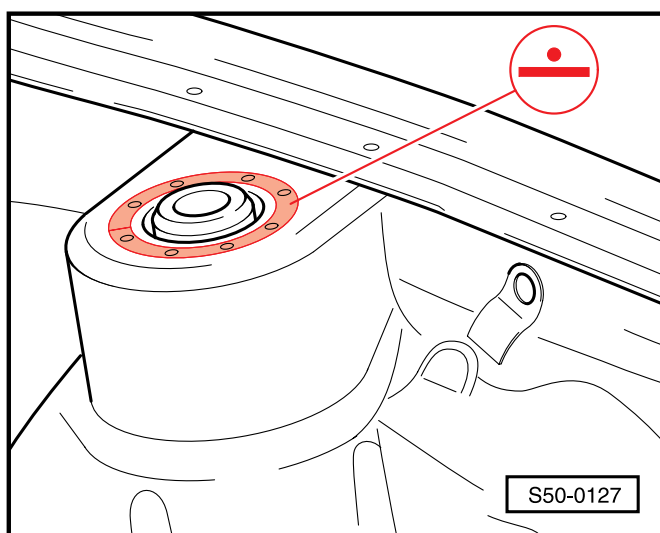
### Preparing new part

- ◀ - Drill holes for shielded arc plug weld, Ø 7 mm.

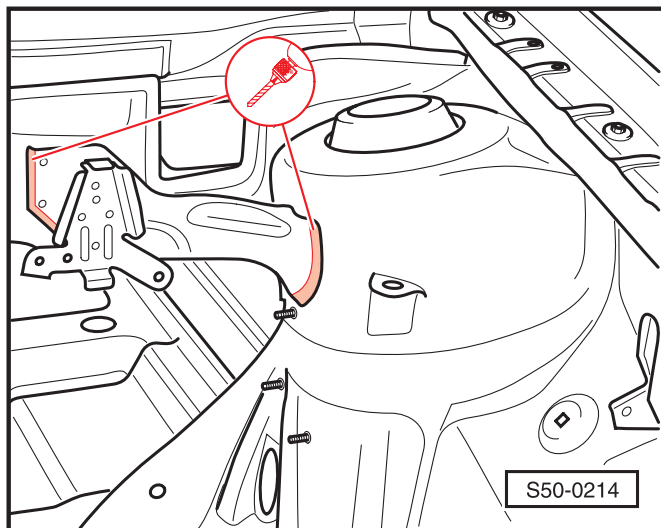


### Welding in

- Match up new parts and fix on straightening angle.
- ◀ - Spot-weld wheelhouse at bottom of longitudinal member, spot weld seam.
- Weld in wheelhouse, shielded arc plug weld.



- ◀ - Weld suspension strut mount to wheelhouse, spot weld seam.



### Replacing front wheelhouse (Octavia RS and 4x4)

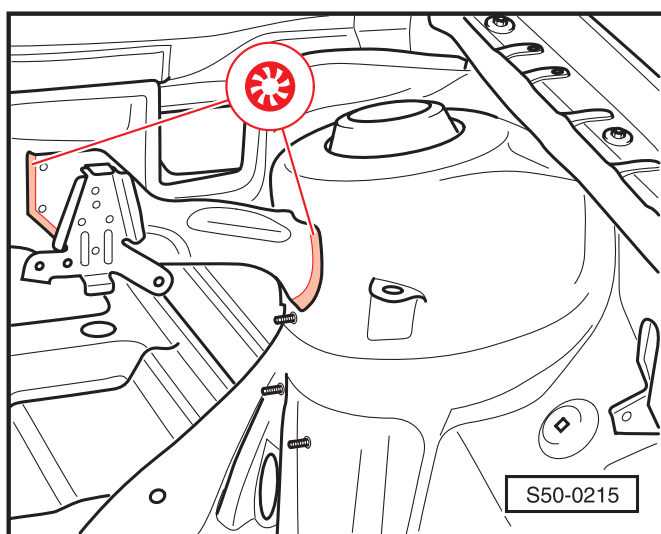
The procedure is basically identical to that for the Octavia ⇒ page 50-4.

#### Carry out additional operations:

- ◀ - Drill off spot weld seams of reinforcement between lock carrier and wheelhouse.

#### Preparing new part

- Drill  $\varnothing$  7 mm holes for shielded arc plug weld.

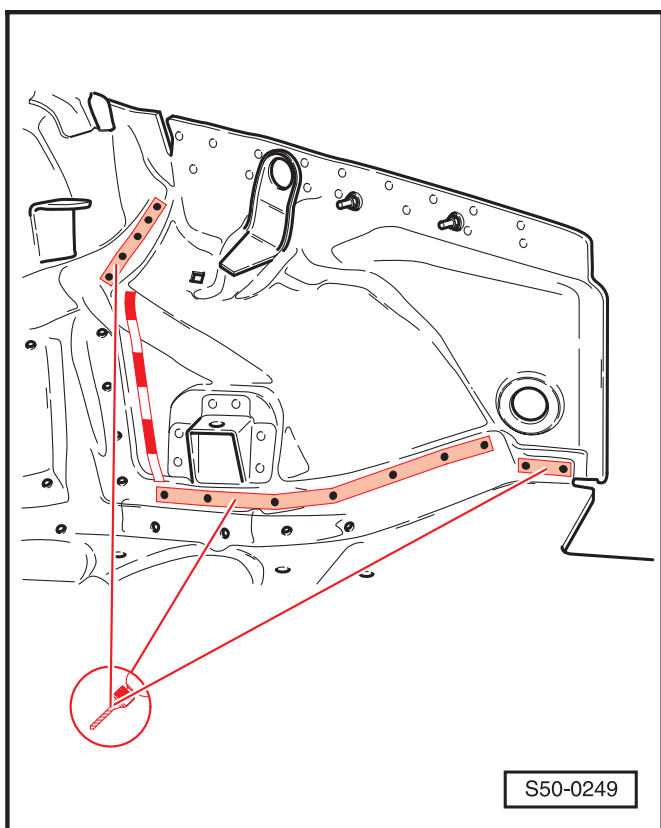


#### Replacement parts

- ◆ Suspension strut reinforcement

#### Welding in

- ◀ - Weld in reinforcement, shielded arc plug weld.



### Replacing wheelhouse part section

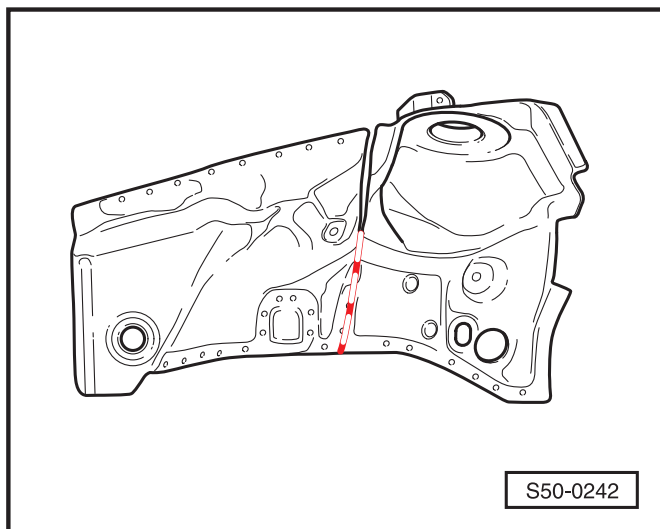
- Inner part of top longitudinal member already cut out.

#### Note:

*If the damage extends beyond the specified separation cut, replace longitudinal member with wheelhouse completely.*

#### Separation points

- Drill off spot weld seams.
- Make the cut point at the wheelhouse according to the severity of the damage.
- Wheelhouse - Remove part.

**Replacement part**

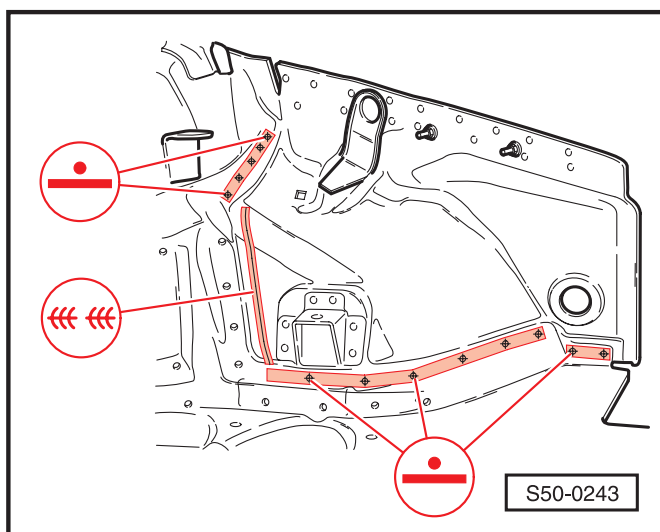
- ◆ Wheelhouse

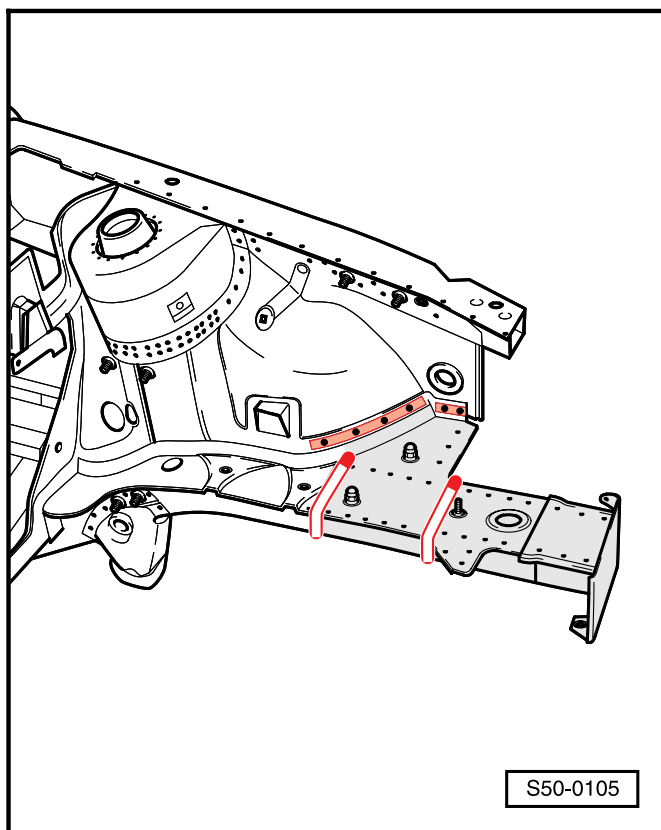
**Preparing new part**

- Transfer the separation cut plus 10 mm for overlapping on the new part and cut to size.
- ◀ - Burr separation cut on the body side.

**Welding in**

- Fit new part and fix onto a straightening bench.
- ◀ - Butt weld the separation cut, an inert gas shielded full seam interrupted.
- Weld in the remaining part, RP spot weld.





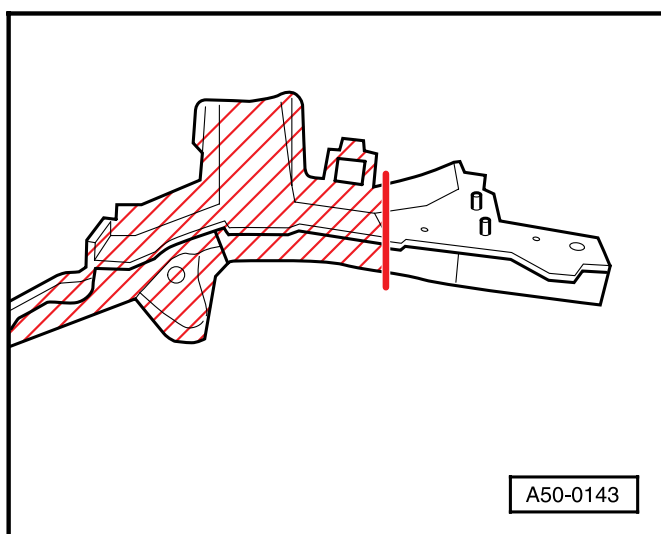
## Front side member part section

### Separation points

- ◀ - Position separating cut at side member depending on damage.

### Notes:

- ♦ If the damage extends beyond the separating point indicated, the side member should be replaced complete.
- ♦ Make a straight separating cut.
- Remove remaining pieces.

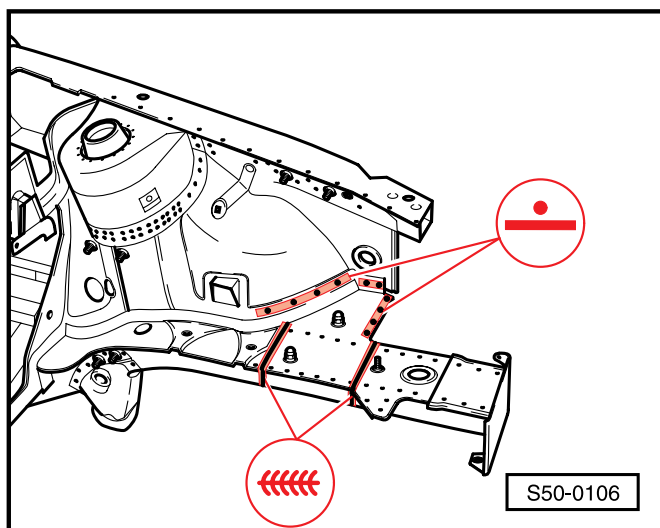


### Replacement parts

- ♦ Side member section
- ♦ Impact shock absorber mount

### Preparing new part

- ◀ - Transfer separating cut to new part and cut off shaded area.

**Welding in**

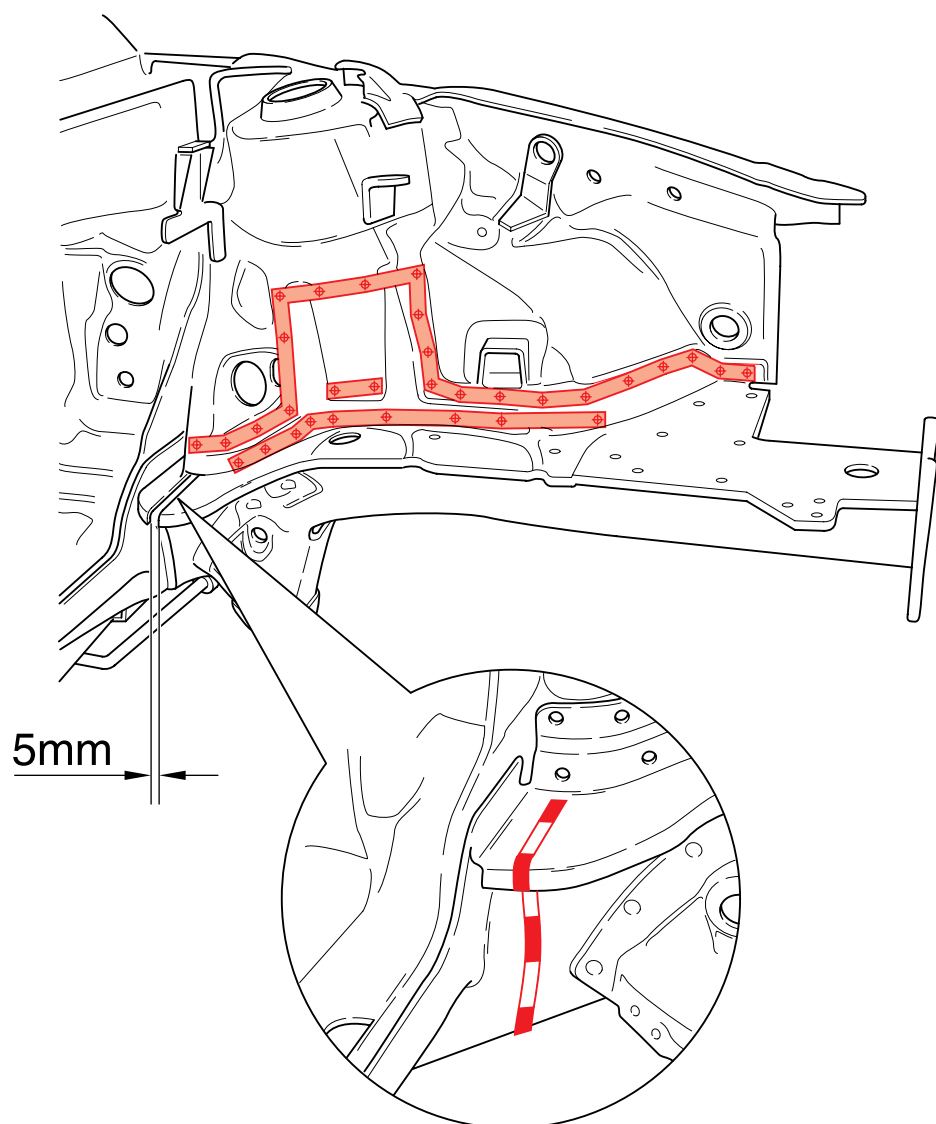
- Fit in new part and fix on straightening jig.
- ◀ - Butt-weld side member, SG continuous weld.
- Spot-weld remaining joint, RP spot weld.

**Note:**

*The weld spots should be positioned parallel to each other. It is essential to maintain the original spacing.*

- Weld in impact shock absorber mount  
⇒ page 50-12.

## Replacing front side member



A50-0123

### Separation points

- Detach original joint.

### Note:

- Take off side member.

*Separating cut of side member 5 mm ahead of original joint.*

**Replacement parts**

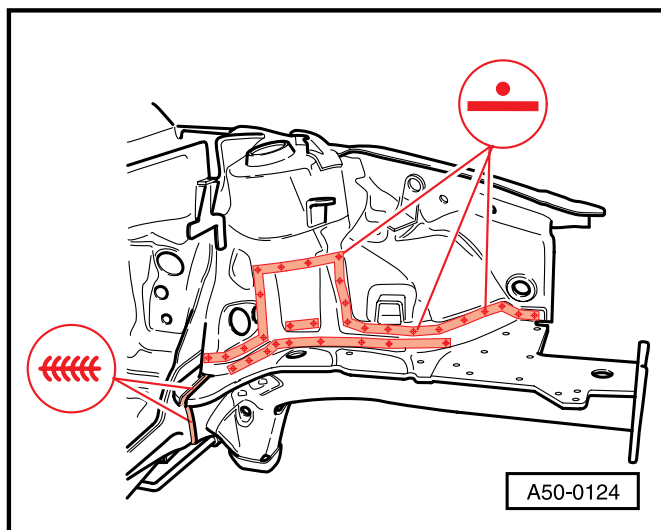
- ◆ Side member
- ◆ Impact shock absorber mount

**Preparing new part**

- Transfer separating cut to new part and cut to shape.

**Welding in**

- Fit in new part and fix on straightening jig.
- ◀ - Weld separating cut, SG continuous weld.
- Spot-weld remaining joint, RP spot weld.



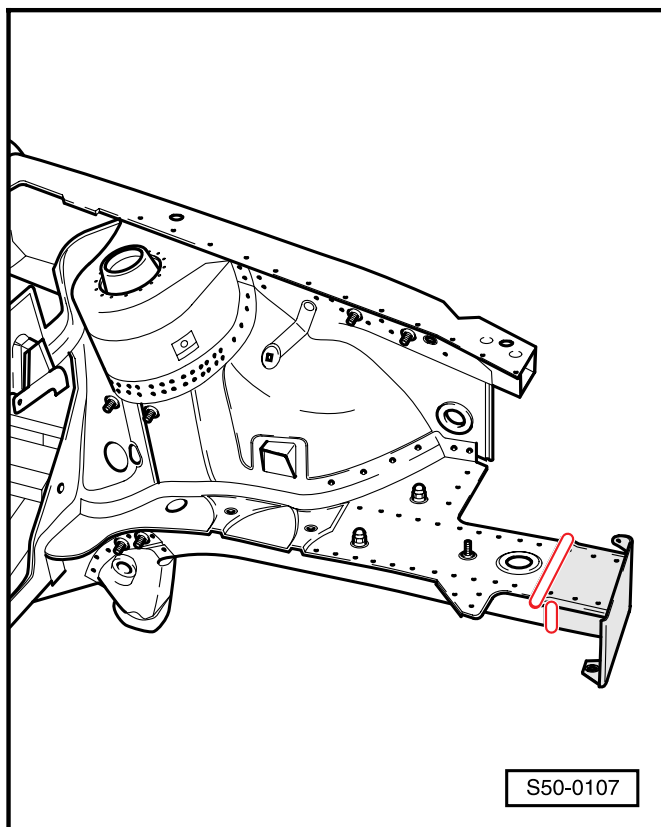
## Replacing metallic impact absorber support

### Separation points

#### Notes:

- ◆ Before replacing the right metallic impact absorber support, first the front towing lug must be removed ⇒ page 50-13.
- ◆ The metallic impact absorber support is welded on all four sides to the longitudinal member.
- ◆ Do not damage the longitudinal member when grinding open the gas shielded full seam.

- ◀ - Release original welding.
- Removing remaining pieces.

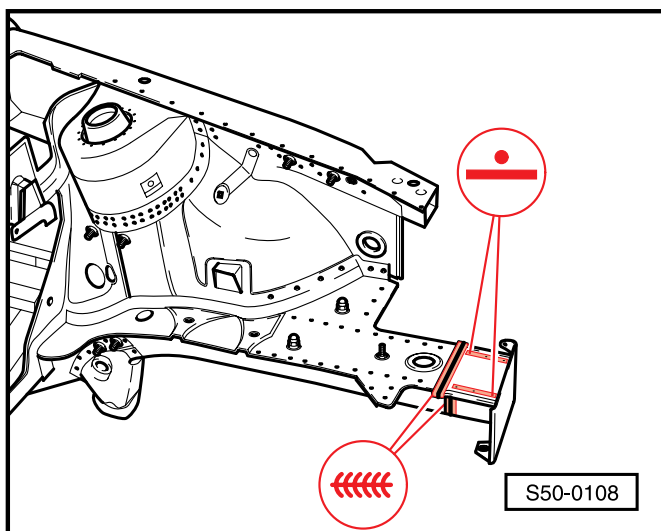


### Replacement part

- ◆ Metallic impact absorber support
- ◆ Cover plate for metallic impact absorber support

### Welding in

- Fit new part and fix onto a straightening bench.
- ◀ - Butt weld the metallic impact absorber support as an inert gas shielded full seam.
- Weld in cover plate, RP spot weld.



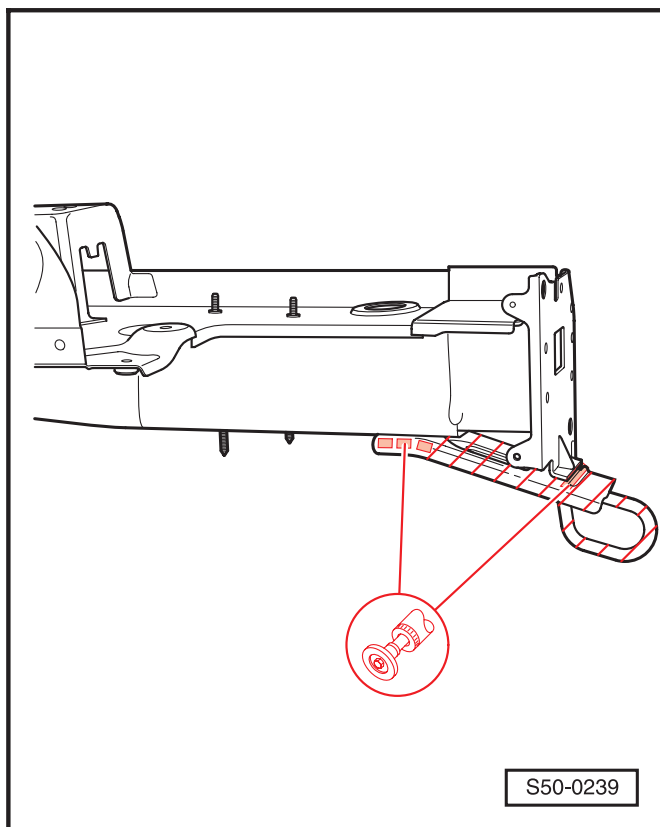
## Replacing front towing lug

### Separation points

- ◄ - Grind off the inert gas shielded full seam interrupted on the connecting surface for the front longitudinal member and the metallic impact absorber support.

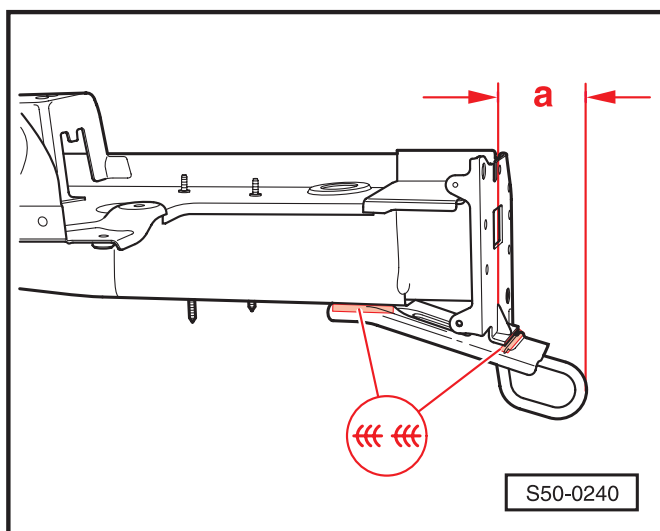
### Replacement part

- ◆ Towing lug



### Welding in

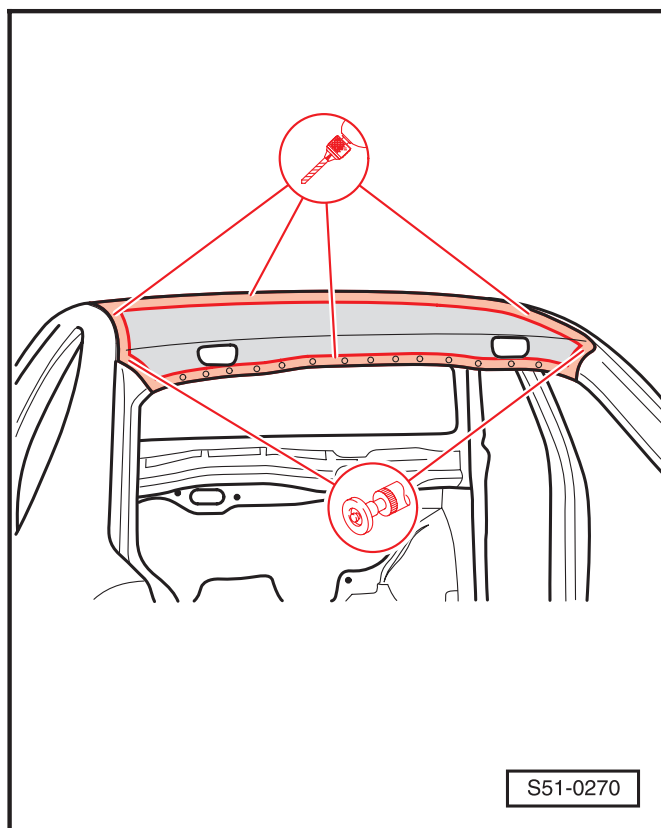
- ◄ - Weld in front towing lug, inert gas shielded full seam interrupted, whereby the measure -a- = 70 mm must be absolutely kept.





## Repairing centre body

### Replacing roof (Octavia)



#### Separation points

- Drill off weld spots.
- Grind open shielded arc continuous seams in the area to the tailgate water channel.

#### **Note:**

*Do not damage roof frames. They must be replaced if they do get damaged.*

### Replacement parts

- ◆ Roof
- ◆ Adhesive DA 001 730 A1

### Welding in

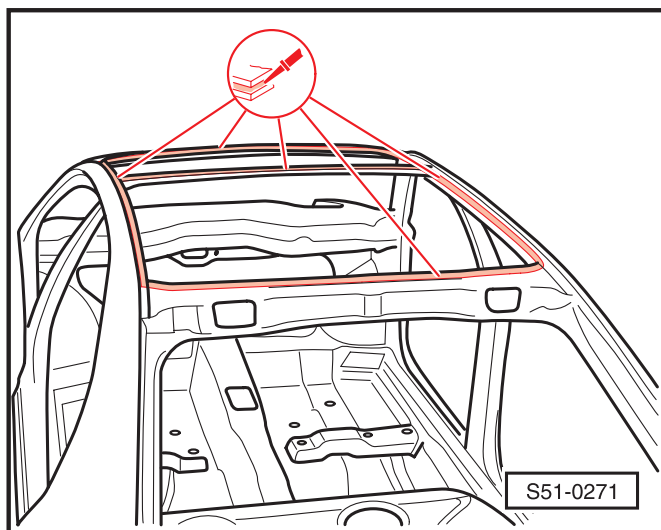
- ◀ - Apply adhesive to the lateral flanges, front, centre and rear cross member.
- Position roof and fix it.

#### Note:

*The new part must be welded within 30 minutes after applying adhesive as otherwise the adhesion may be poor.*

#### Warning!

**Check adjustment with the windscreen and tailgate.**

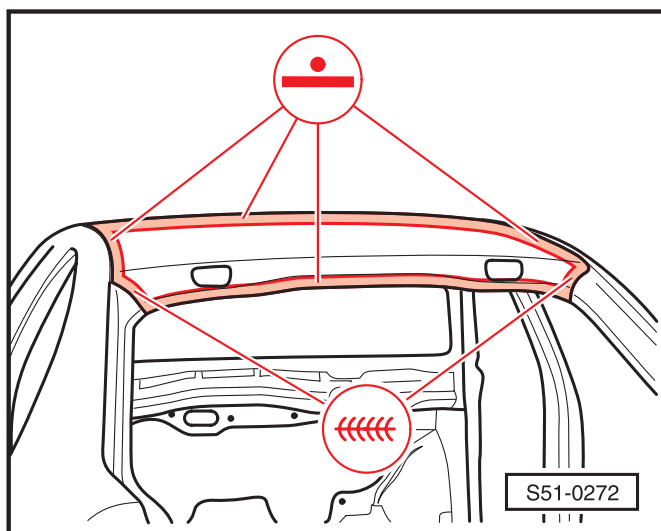


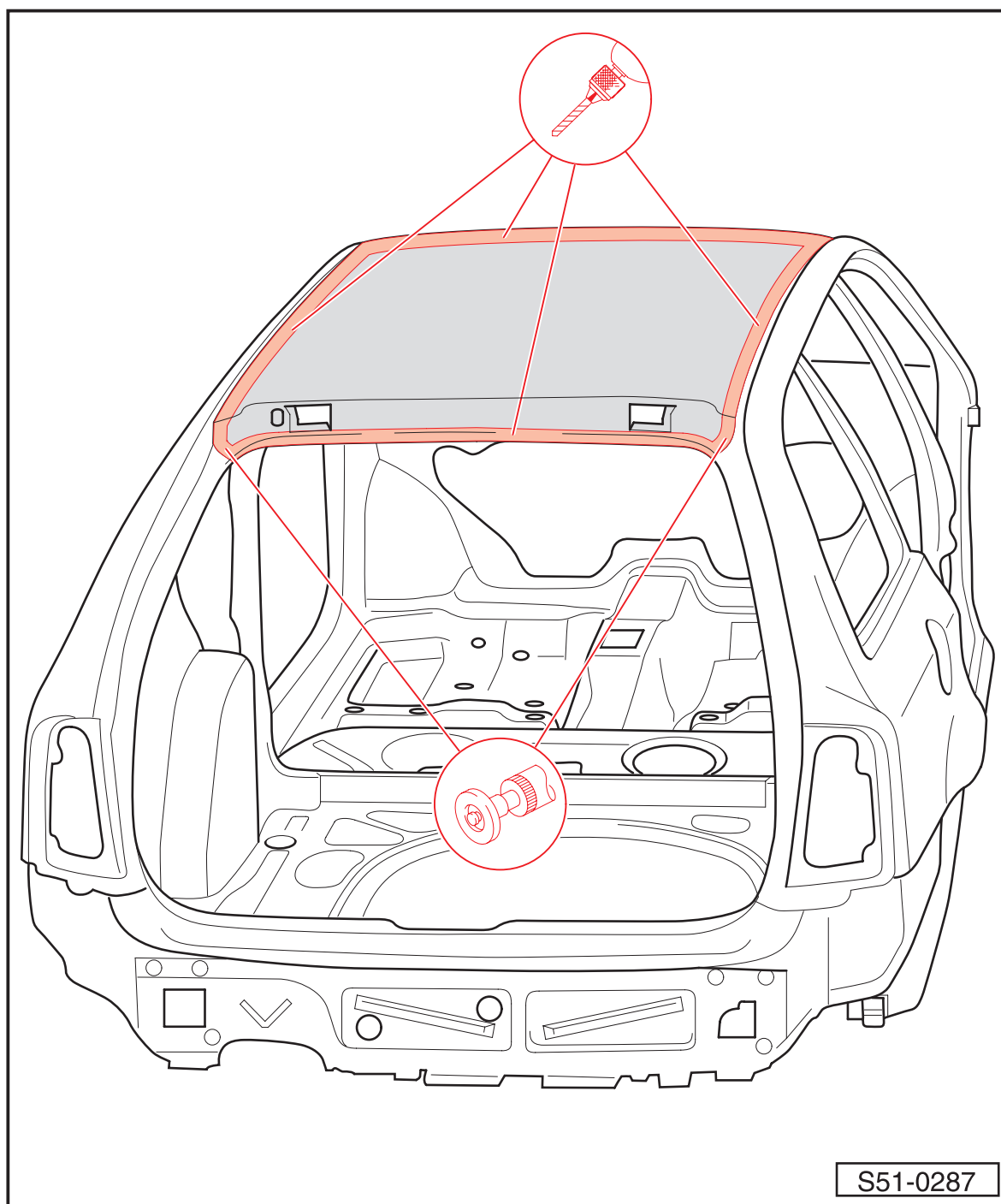
- ◀ - Weld in roof, spot weld seam.

#### Note:

*When welding the longitudinal sides make sure the spot weld tongs are positioned in the recessed surfaces inside the vehicle.*

- Weld roof in the area of the tailgate water channel, shielded arc continuous seam.



**Replacing roof (Octavia Estate)****Separation points**

- Drill off weld spots
- Grind open shielded arc continuous seams in the area to the tailgate water channel.

**Note:**

*Do not damage roof frames. They must be replaced if they do get damaged.*

### Replacement parts

- ◆ Roof
- ◆ Adhesive DA 001 730 A1

### Welding in

- ◀ - Apply adhesive to the lateral flanges, front, centre and rear cross member.

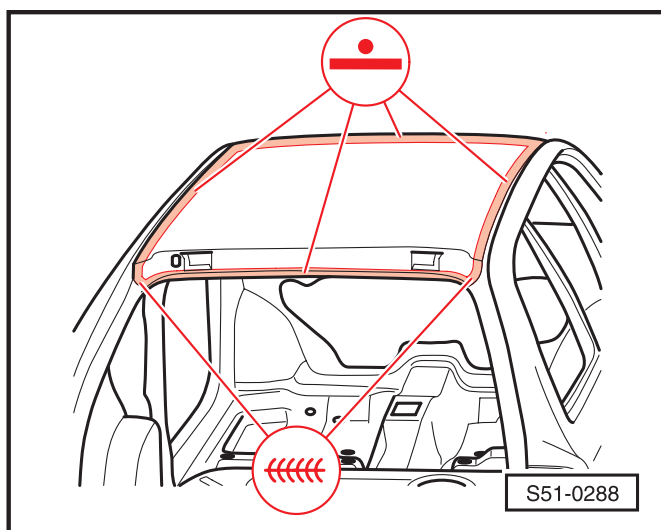
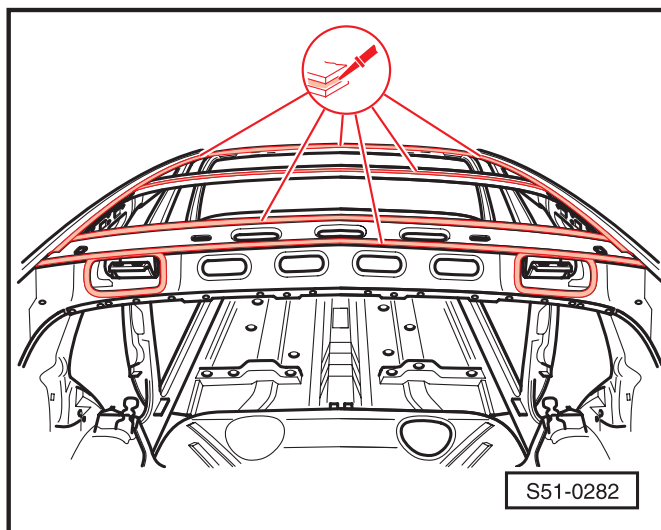
#### Note:

*The new part must be welded within 30 minutes after applying adhesive as otherwise the adhesion may be poor.*

- Position roof and fix it.

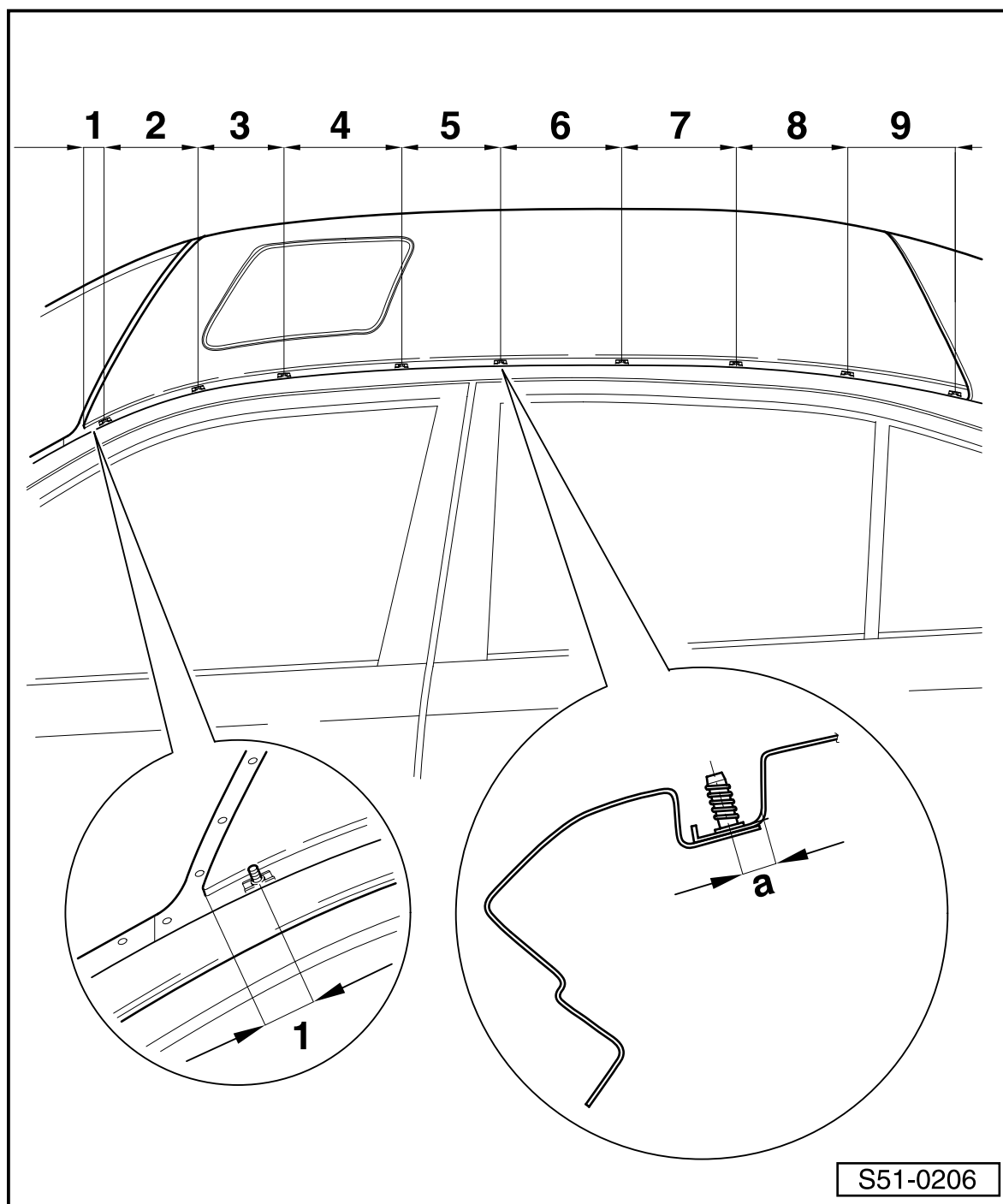
#### Warning!

**Check adjustment with the windscreen and tailgate.**



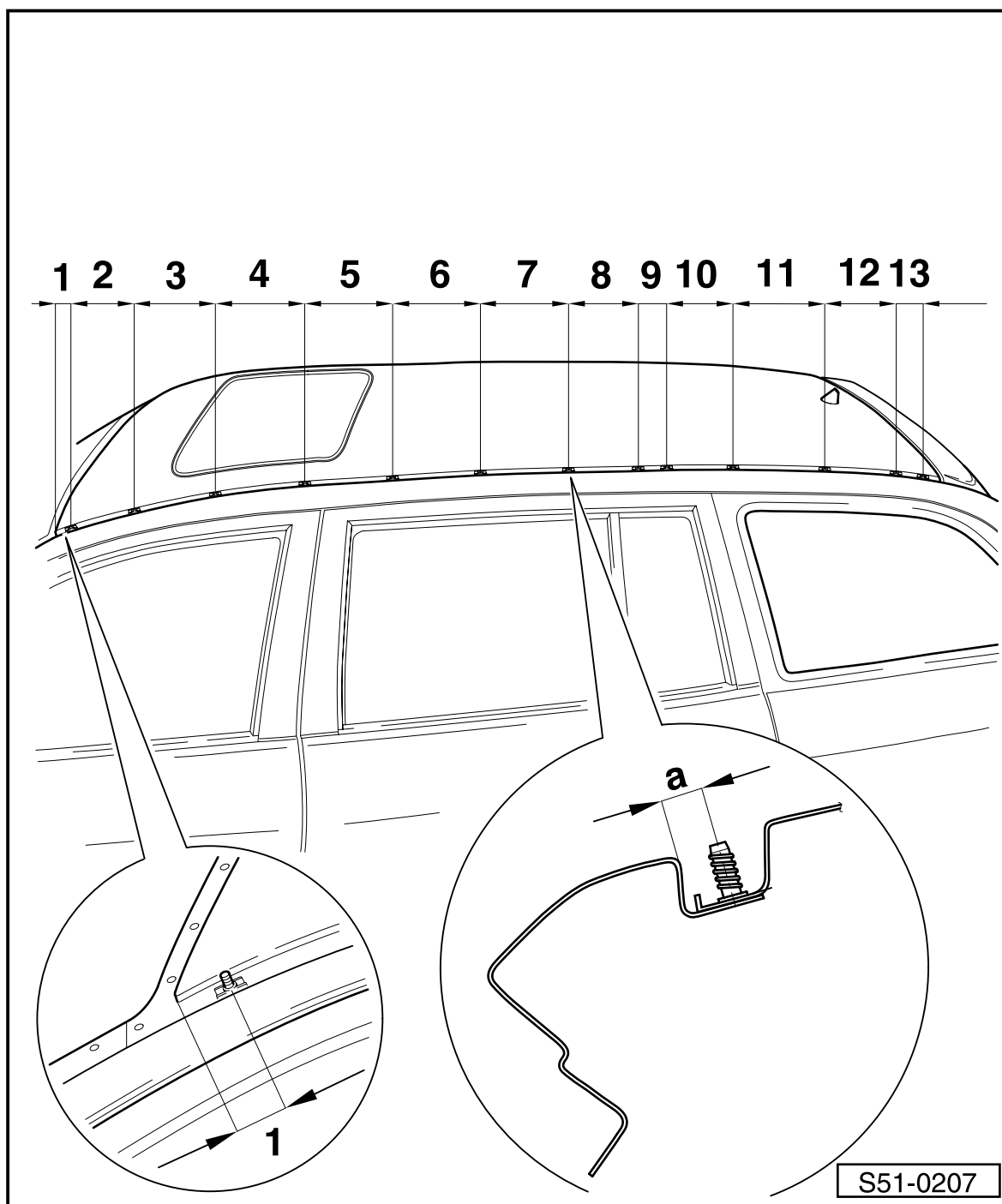
- ◀ - Weld in roof, spot weld seam
- Weld roof in the area of the tailgate water channel, shielded arc continuous seam.

## Welding in T pins (Octavia)

1 -  $45 \pm 2$  mm2 -  $129 \pm 2$  mm3 -  $132 \pm 2$  mm4 -  $186 \pm 2$  mm5 -  $158 \pm 2$  mm6 -  $190 \pm 2$  mm7 -  $180 \pm 2$  mm8 -  $175 \pm 2$  mm9 -  $165 \pm 2$  mmDimension -a- =  $6.7 \pm 2$  mm**Replacement part**

- Weld in T pins N 014 032 3 with sheet metal machining tool V.A.G 1514 A or V.A.G 1713.

## Welding in T pins (Octavia Estate)

1 -  $43 \pm 2$  mm2 -  $140 \pm 2$  mm3 -  $180 \pm 2$  mm4 -  $198 \pm 2$  mm5 -  $195 \pm 2$  mm6 -  $195 \pm 2$  mm7 -  $195 \pm 2$  mm8 -  $155 \pm 2$  mm9 -  $63 \pm 2$  mm10 -  $146 \pm 2$  mm11 -  $204 \pm 2$  mm12 -  $159 \pm 2$  mm13 -  $59 \pm 2$  mmDimension -a- =  $9.7 \pm 0.2$  mm**Replacement part**

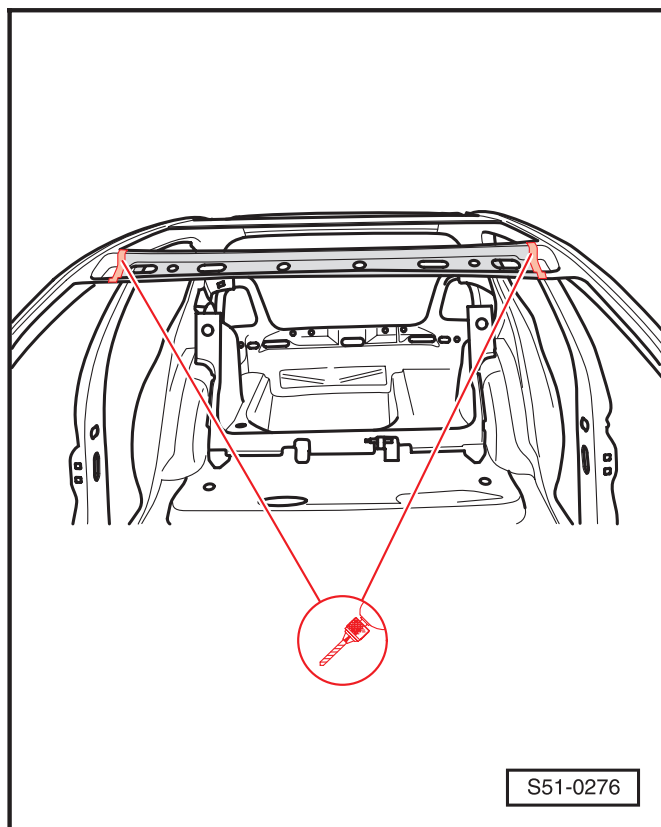
- Weld in T pins N 014 032 3 with sheet metal machining tool V.A.G 1514 A or V.A.G 1713.

## Replacing front roof cross member

- Roof already cut out

### Separation points

- ◄ - Detach original joint.
- Remove cross member.

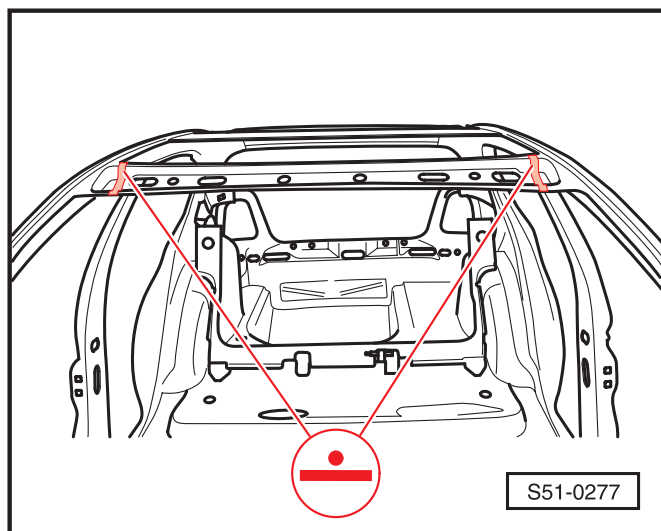


### Replacement part

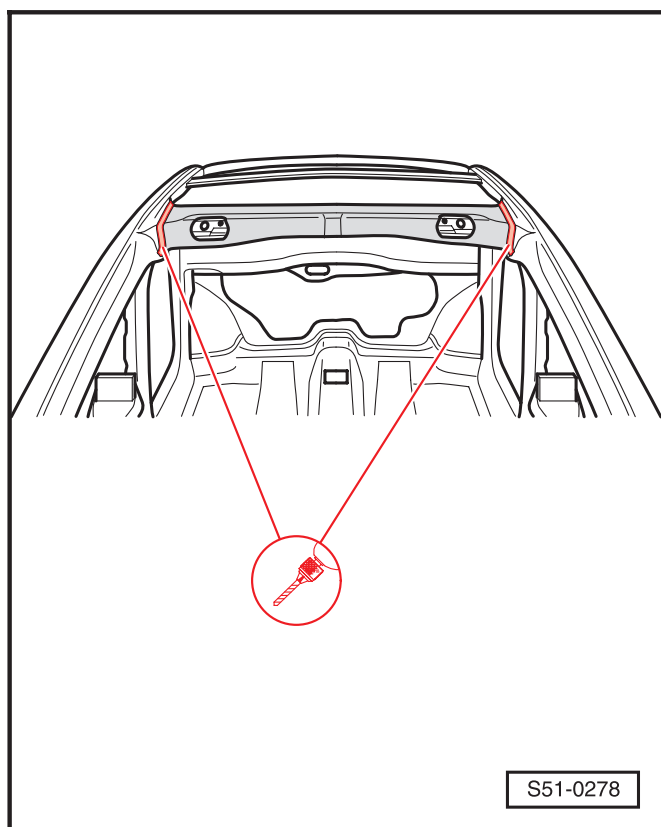
- ◆ Roof cross member

### Welding in

- Fit and fix new part.
- ◄ - Weld in new part, spot weld seam



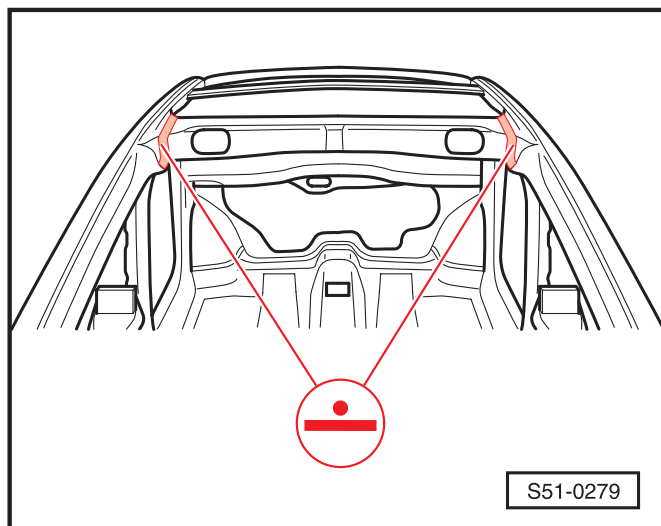
## Replacing rear roof cross member (Octavia)



- Roof already cut out

### Separation points

- Detach original joint.
- Remove cross member.

**Replacement parts**

- ◆ Rear roof frame

**Welding in**

- Fit and fix new part.
- ◀ - Weld in new part, spot weld seam.

## Replacing centre roof cross member (Octavia Estate)

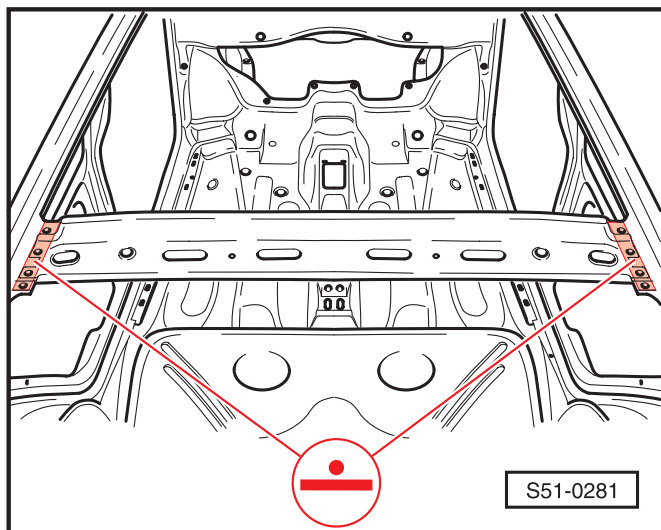
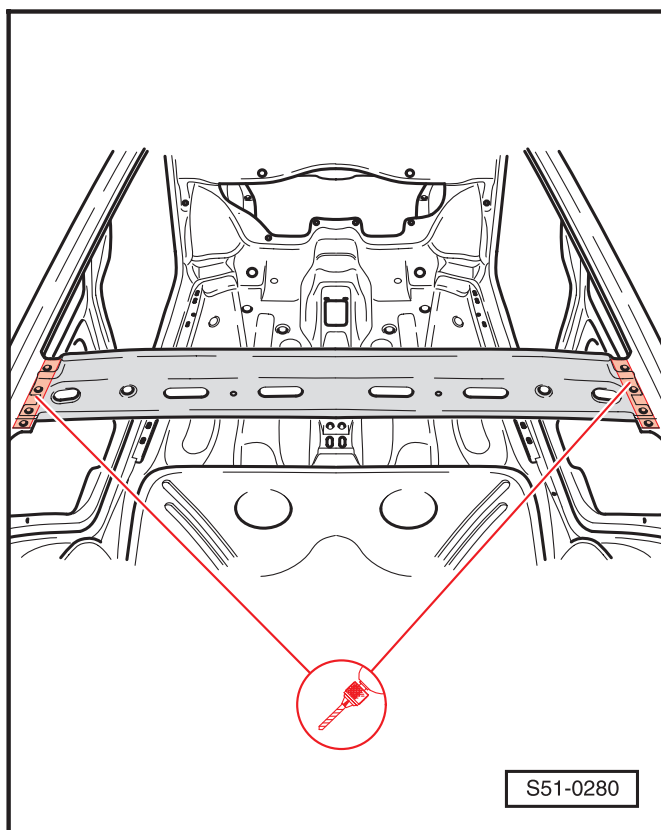
- Roof already cut out

### Separation points

- Detach original joint

### Replacement part

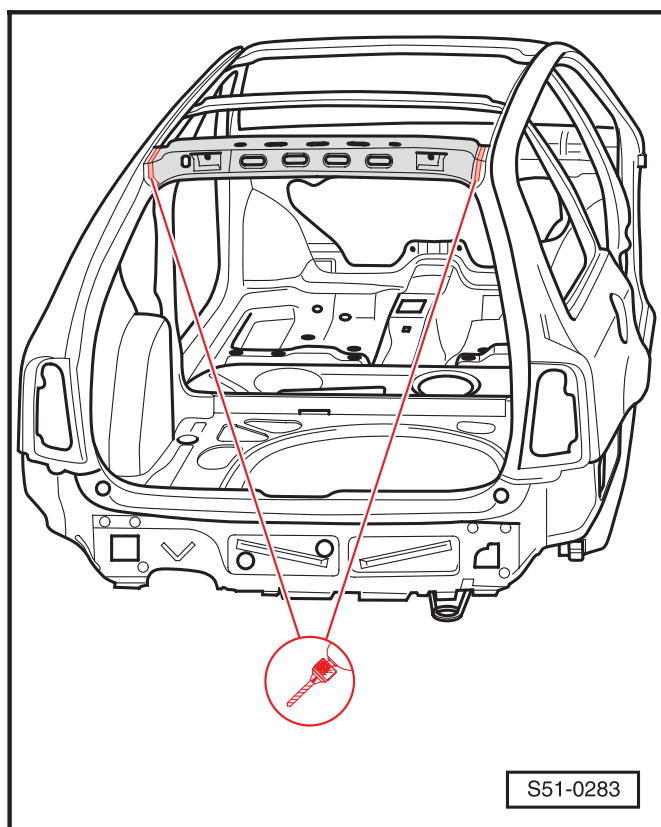
- ◆ Centre cross member



### Welding in

- Fit and fix centre roof cross member.
- ◀ - Weld in centre roof cross member, spot weld seam.

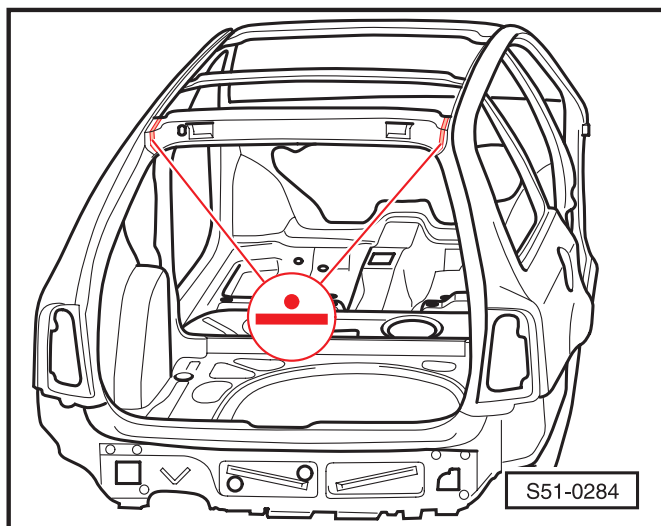
## Replacing rear roof cross member (Octavia Estate)



- Roof already cut out

### Separation points

- Detach original joint.
- Remove rear cross member.

**Replacement parts**

- ◆ Rear roof cross member

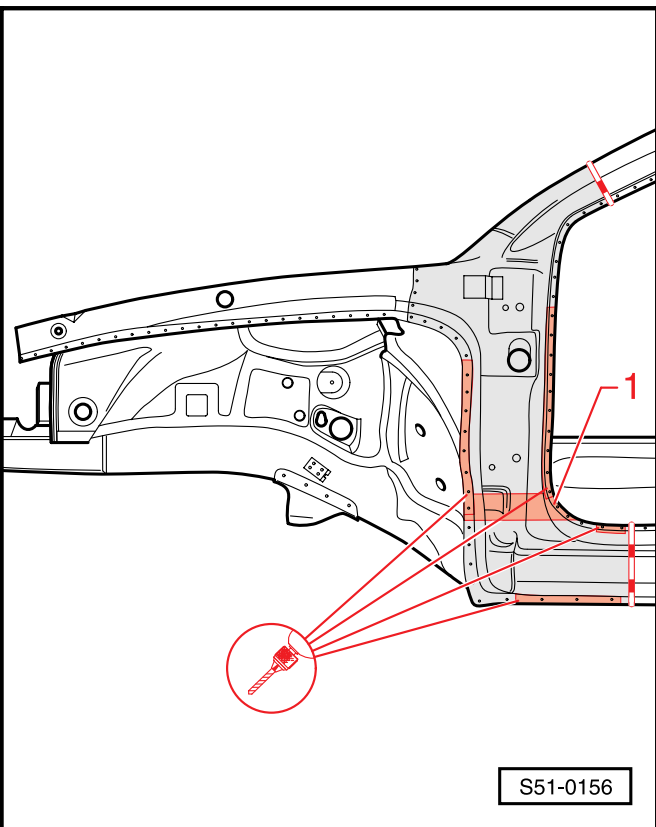
**Welding in**

- Fit and fix rear roof cross member.
- ◀ - Weld in rear roof cross member, spot weld seam.



## Replacing A pillar (Octavia)

### 1 - Foam-lined areas



#### Warning!

*In view of the fact that gases which are particularly harmful to persons and the environment are produced during welding, cutting with tools and equipment which produce sparks, or tin-plating in foam-lined areas, it is prohibited in all cases to use such methods.*

#### Note:

*If the outer lower sill or outer B pillar and possibly also the rear side part are damaged, then the door frames can be used as a spare part without reinforcement (stamped part).*

#### Separation points

- ◀ - Position the separation cuts according to the damage.

#### Notes:

- ◆ Do not damage internal reinforcement of A pillar.
- ◆ Do not cut in the area of the hinge attachments.
- Detach original joint
- Drill off weld spots to lower sill reinforcement in the area of top and bottom lower sill.
- Drill off weld spots to inner A pillar.

#### Replacement part

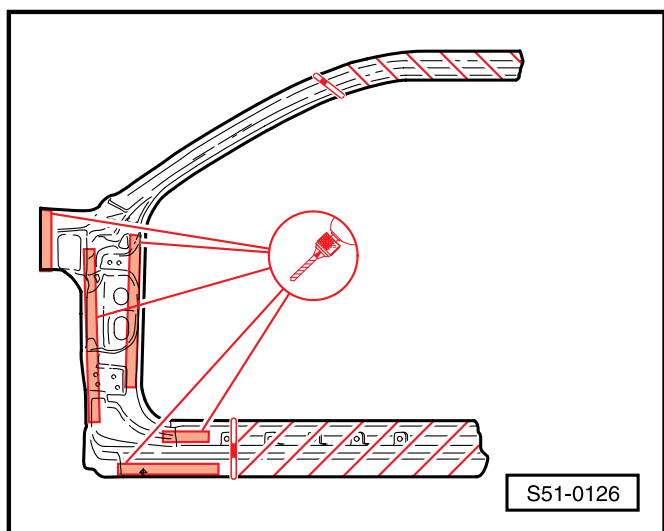
- ◆ Section of A pillar
- ◆ Sound insulation 1UO 864 667 C, 1UO 864 667 D, 1UO 864 667 E

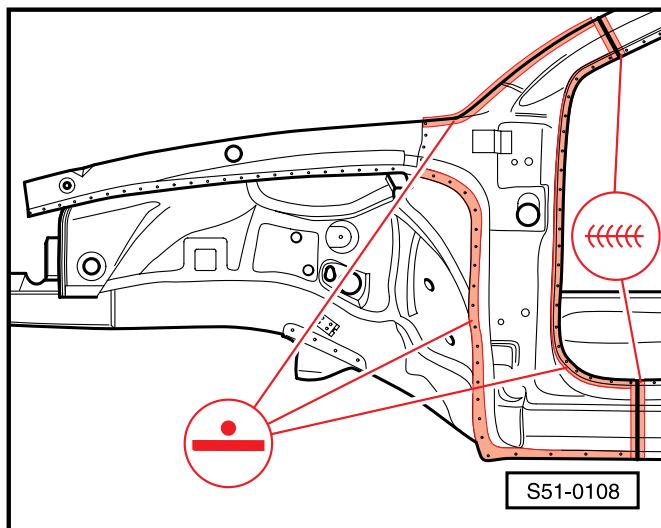
#### Preparing new part

- ◀ - Transfer separation cut to new part and cut to shape
- Prepare new part, drill Ø 7 mm holes.

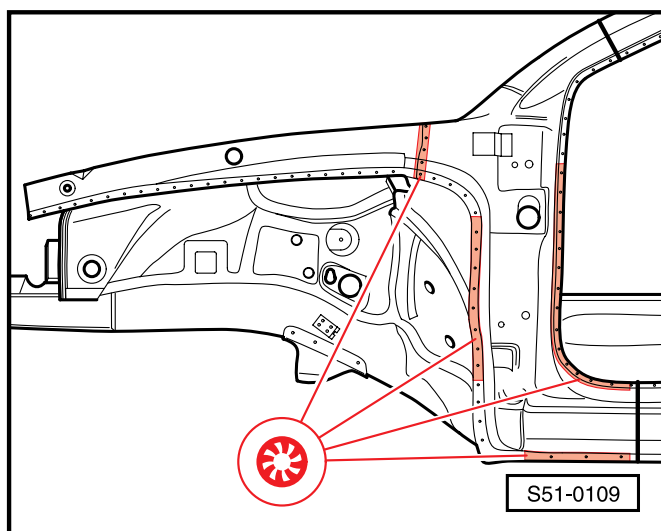
#### Foam lining

- Replace noise insulation ⇒ page 00-19.1.



**Welding in**

- Match up new part and tack-weld with the vehicle standing on its wheels or on the straightening bench set.
- ◀ - Weld in A pillar, spot weld.
- Butt-weld cut areas, shielded arc continuous seam.



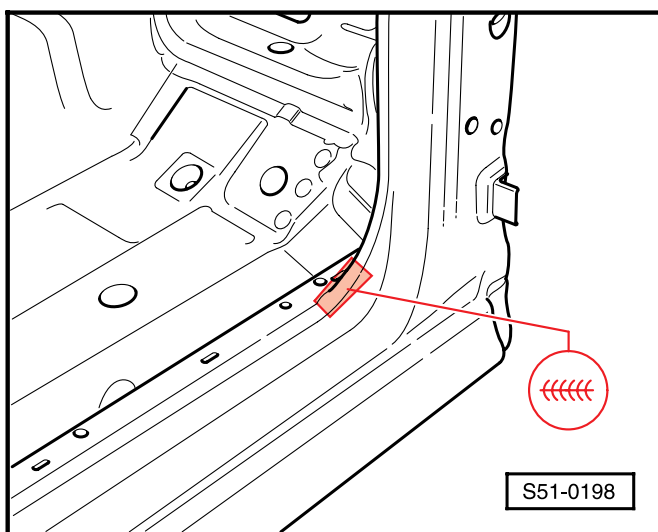
- ◀ - Weld in remaining joint, shielded arc plug weld.

## Replacing A pillar (Octavia RS)

The procedure is basically identical to that for the Octavia ⇒ page 51-6.

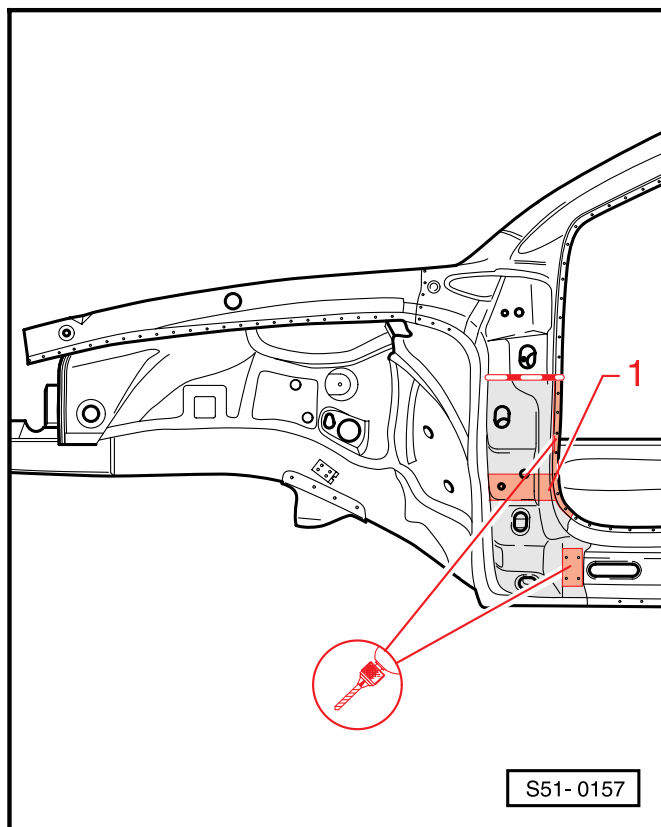
### Pay attention to the following additional information and differences:

The A pillar is additionally shielded arc-welded in the connection to the lower sill in the area of the door weatherseal.



### Welding in A pillar

- ◀ - Weld connection from A pillar to lower sill, shielded arc continuous seam. The weld seam should connect all the panels in this area to each other.



## Replacing inner A pillar

### 1 - Foam-lined area

#### **Warning!**

*In view of the fact that gases which are particularly harmful to persons and the environment are produced during welding, cutting with tools and equipment which produce sparks, or tin-plating in foam-lined areas, it is prohibited in all cases to use such methods.*

- A pillar already cut out

#### Separation points

- ◀ - Position top separation cut according to damage.

#### **Note:**

*Do not cut in the area of the hinge attachments.*

- Detach original joint.

#### Replacement part

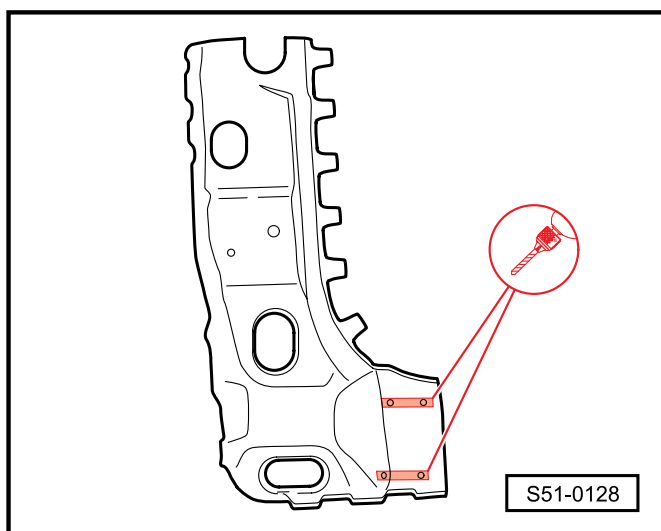
- ◆ Section of inner A pillar
- ◆ Sound insulation 1UO 864 667 A and 1UO 864 667 B

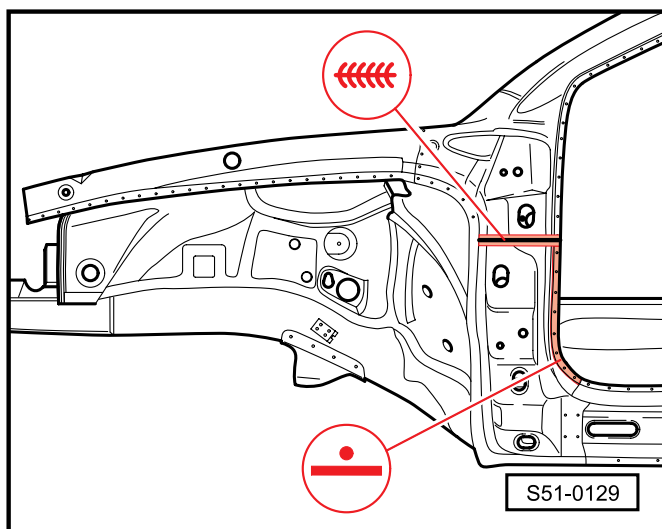
#### Preparing new part

- ◀ - Transfer separation cut to new part and cut to shape.
- Drill  $\varnothing$  7 mm holes in connection area to lower sill.

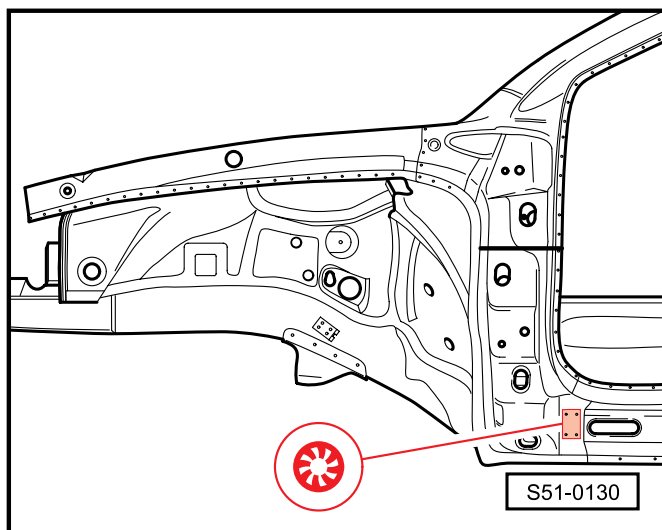
#### Foam linings

- Replace sound insulation  $\Rightarrow$  page 00-19.1.



**Welding in**

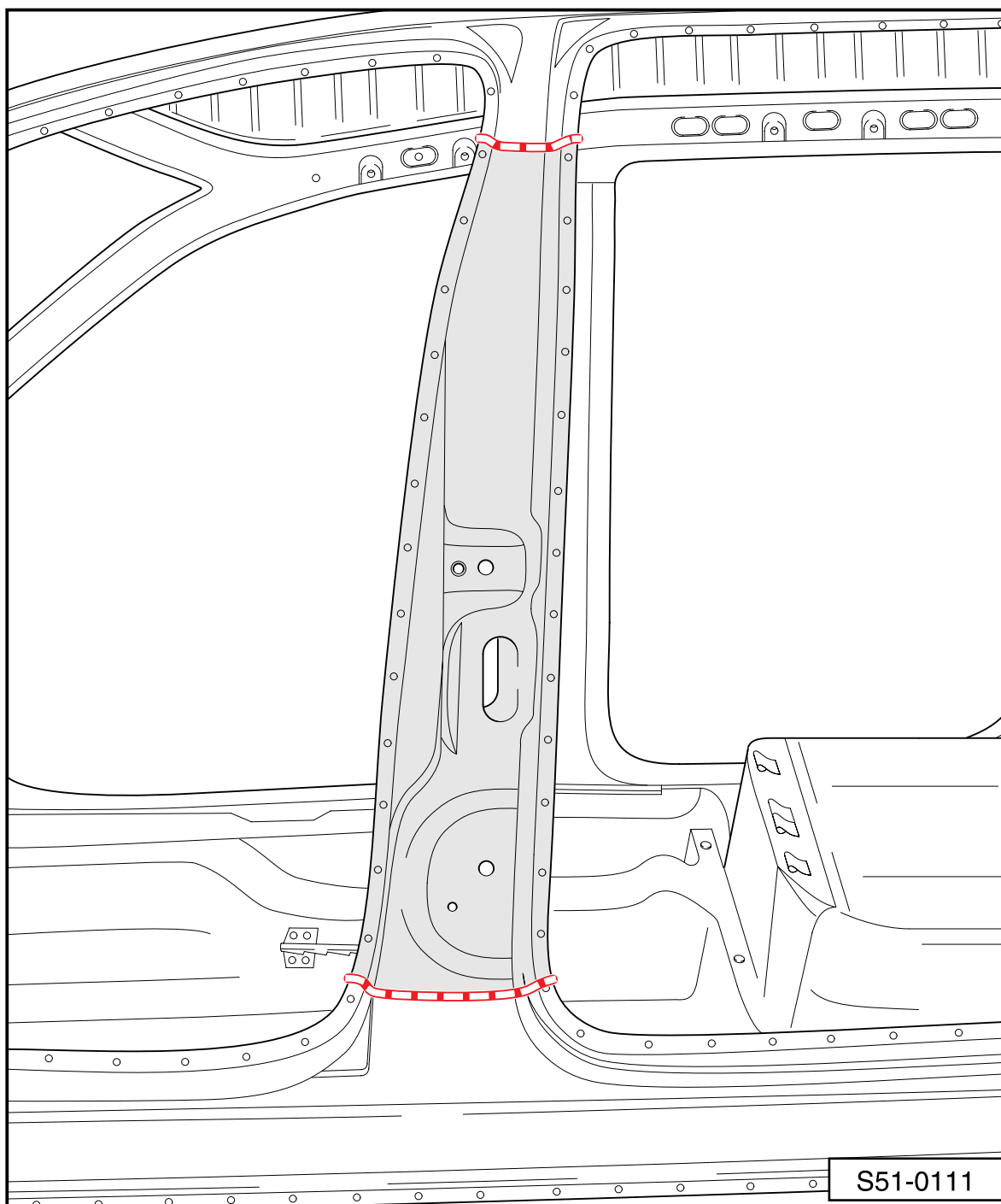
- ◀ - Match up new part and tack-weld with the vehicle standing on its wheels or on the straightening angle set.
- Weld in inner A pillar, spot weld seam.
- Butt-weld cut area, shielded arc continuous seam.



- ◀ - Weld in remaining joint, shielded arc plug weld.



## Replacing outer B pillar



### Separation points

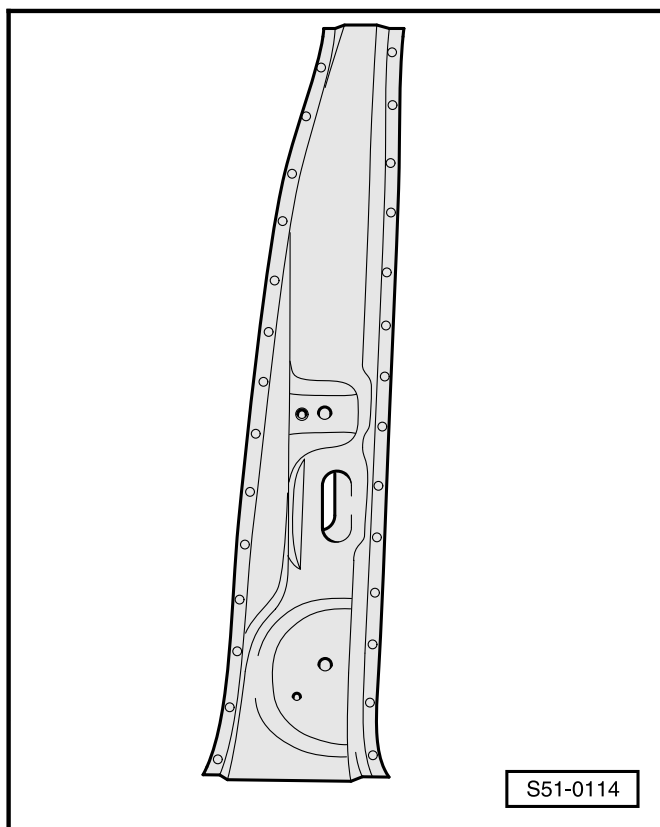
- Position the separation cuts according to the damage.

### Notes:

- ♦ Do not damage internal reinforcement of B pillar.
- ♦ Do not cut in the area of the hinge attachments.

- ♦ If the outer lower sill or outer A pillar and possibly also the rear side part are damaged, then the door frames can be used as a spare part without reinforcement (stamped part).

- Detach original joint.
- Removing remaining pieces.

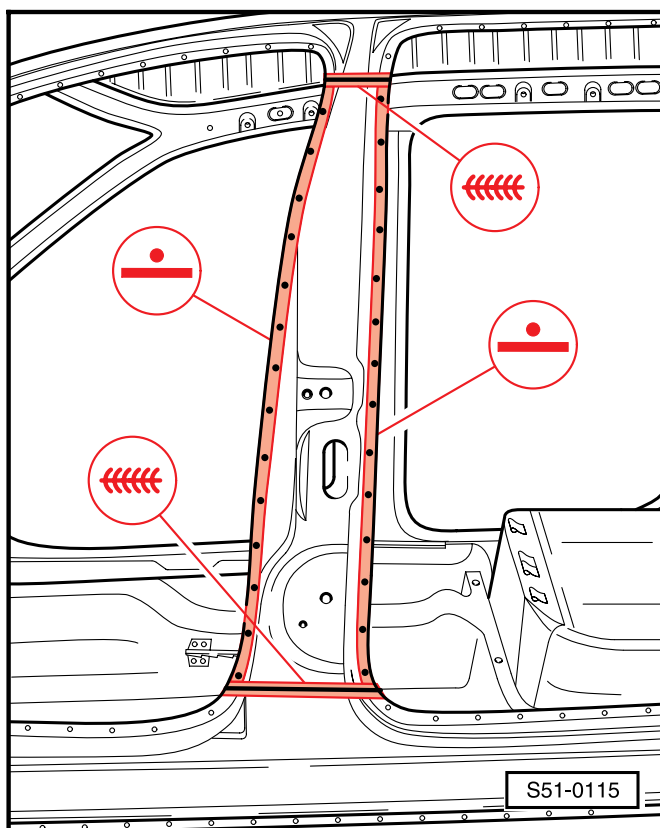


### Replacement part

- ◆ Outer B pillar

### Preparing new part

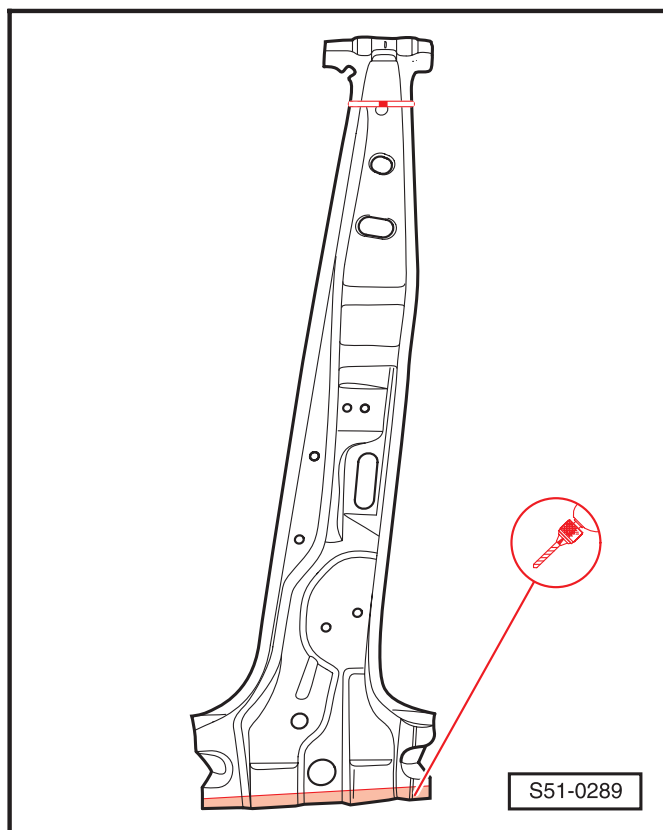
- ◀ - Transfer separation cut to new part and cut to shape.
- Match up new part.



### Welding in

- Match up new part when vehicle standing on its wheels or on straightening angle set, and tack-weld.
- ◀ - Weld in outer B pillar, spot weld seam.
- Weld separation cuts, shielded arc continuous weld.

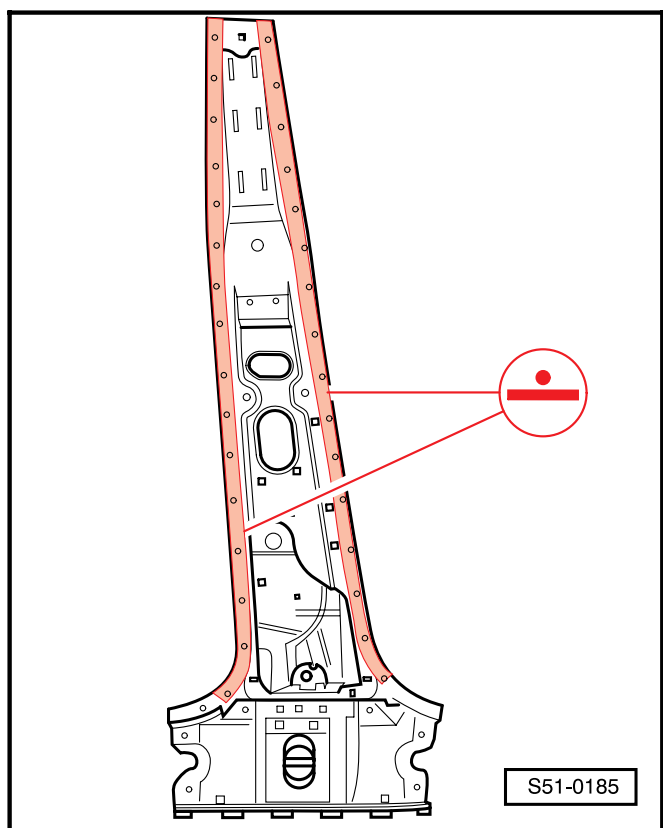


**Replacement parts**

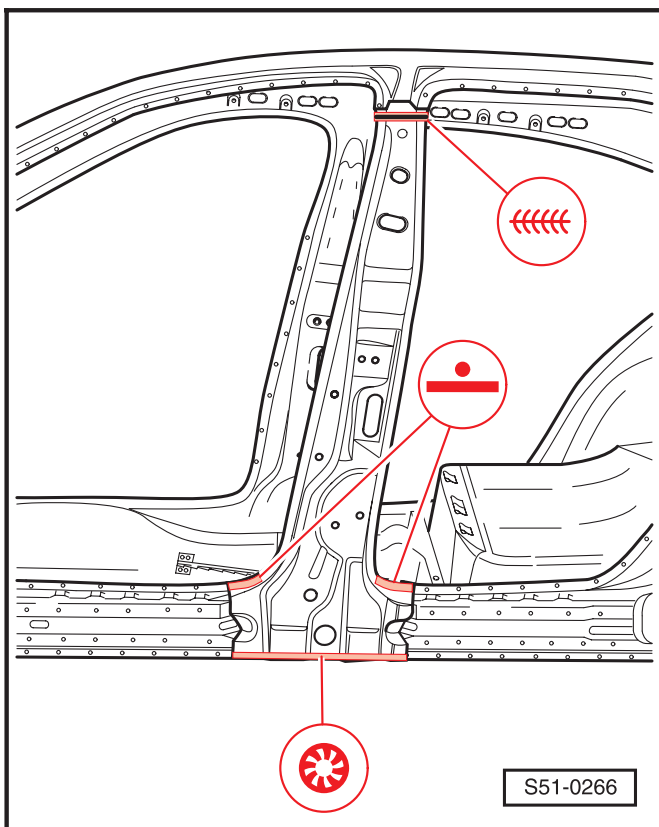
- ◆ Inner B pillar
- ◆ B pillar reinforcements

**Preparing new part**

- ◀ - Transfer separation cut to new part and cut to shape.
- Drill  $\varnothing 7$  mm holes in the connection area to lower sill
- Fit on new part
- Fit on reinforcements for B pillar and cut to shape.



- ◀ - Weld together reinforcements for B pillar and inner B pillar, spot weld seam.



### Welding in

- Match up and tack-weld new part with vehicle standing on its wheels or on straightening angle set.
- ◀ - Weld in inner B pillar, spot weld seam
- Weld connection area to lower sill, shielded arc continuous seam.
- Weld separation cuts, shielded arc continuous seam

### Replacing inner B pillar (Octavia RS)

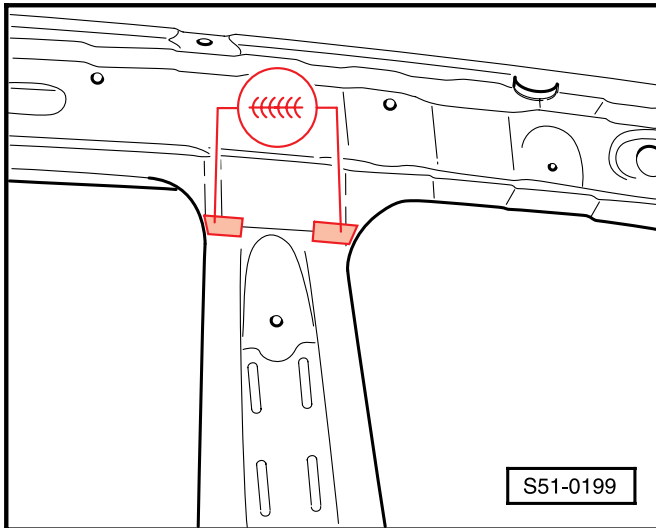
The procedure is basically identical to that for the Octavia ⇒ page 51-9.1

#### Carry out additional operations:

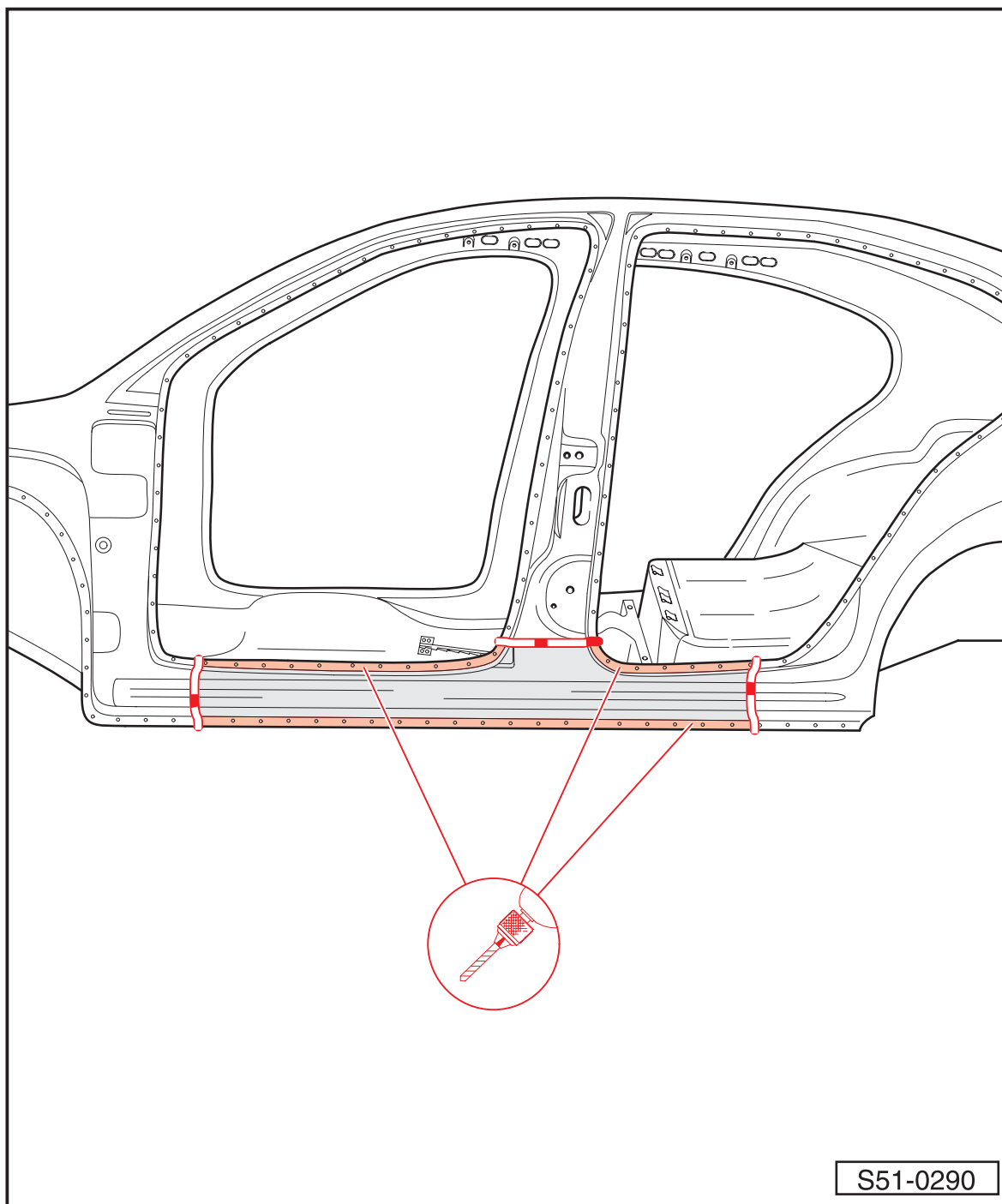
The B pillar is additionally shielded arc-welded in the connection area to the roof reinforcement.

#### Welding in

- ◀ - Make two shielded arc continuous seams each 25 mm long in the connection area.



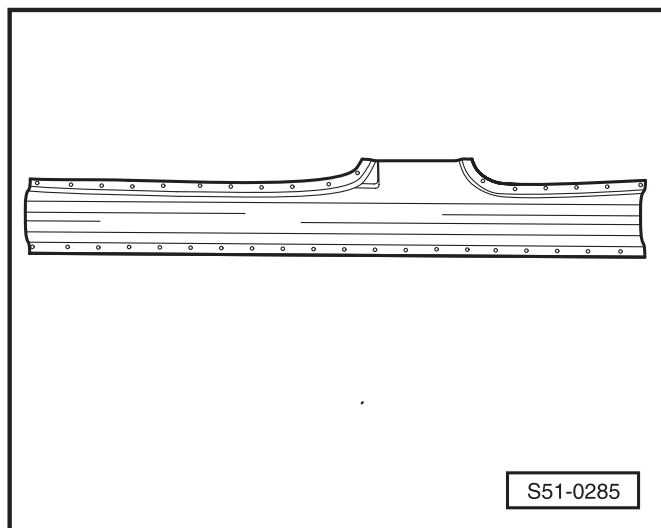
## Replacing outer lower sill



### Separation points

#### Notes:

- ♦ If outer A and B pillars and possibly also the rear side part are damaged, then the door frames can be used as a spare part without reinforcement ( a stamped part).
- ♦ Do not damage internal reinforcement in the lower sill area.
- ♦ Perform the separation cut on a vehicle standing on its wheels or on straightening angles
- Position separation cuts according to the damage.
- Drill off weld spots

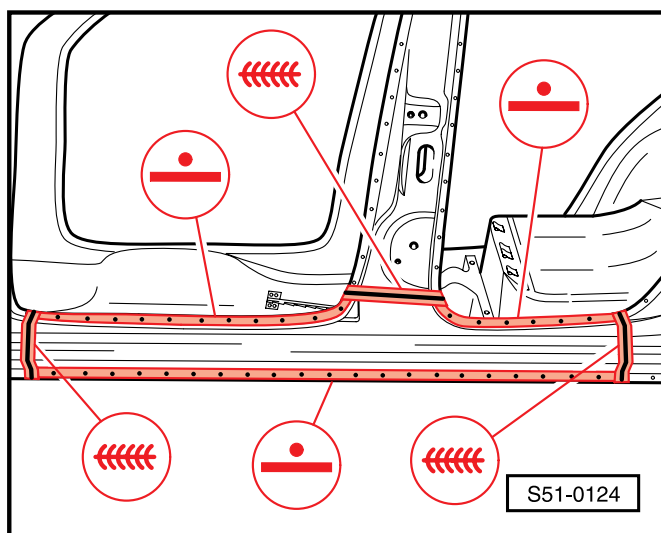


### Replacement part

- ◆ Outer lower sill (a stamped part)

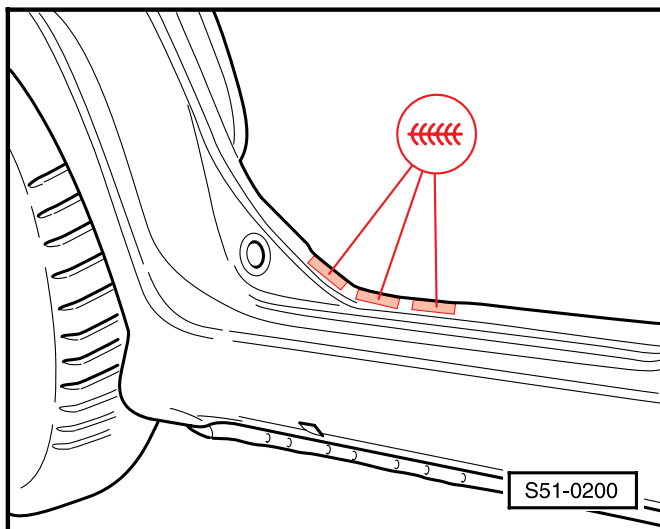
### Preparing new part

- ◀ - Transfer separation cut to new part and cut to shape.



### Welding in

- Match up and tack-weld new part with vehicle standing on its wheels or on straightening angle set.
- ◀ - Weld in outer lower sill, spot weld seam
- Butt-weld cut area, shielded arc continuous seam



## Replacing outer lower sill (Octavia RS)

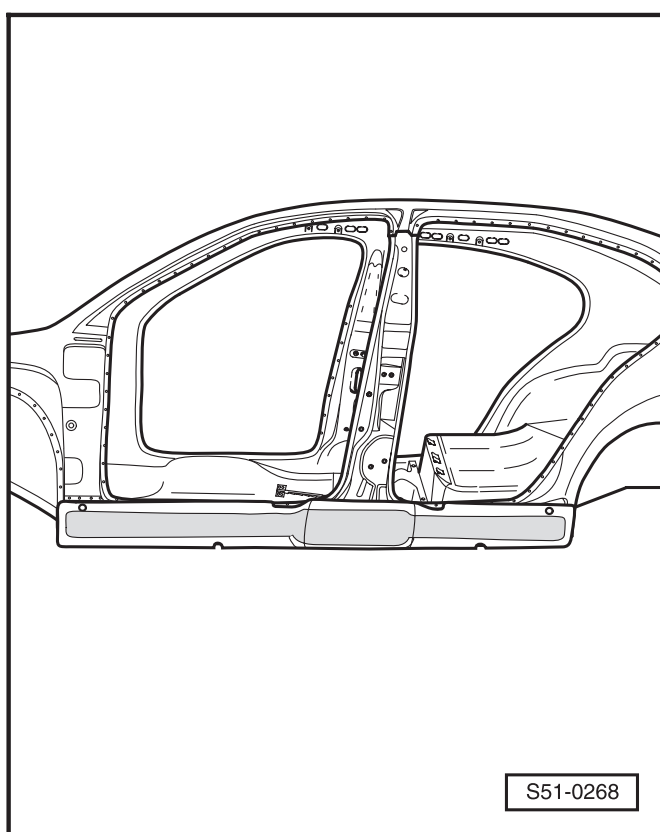
The procedure is basically identical to that for the Octavia ⇒ page 51-10.

**Pay attention to the following additional information and differences:**

The lower sill is additionally shielded arc-welded in the area of the door weatherseal.

### Welding in

- ◀ - Make three shielded arc continuous seams each 25 mm long in the area of the flanges of the lower sill reinforcement. This weld seam should connect all the panels in this area.



## Replace the bottom side rail reinforcement

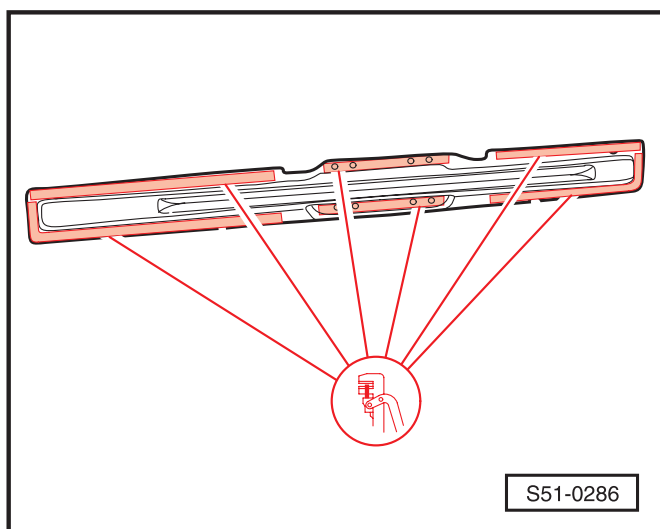
- Outside bottom side rail separated

### Separation points

- ◀ - Detach original joint.

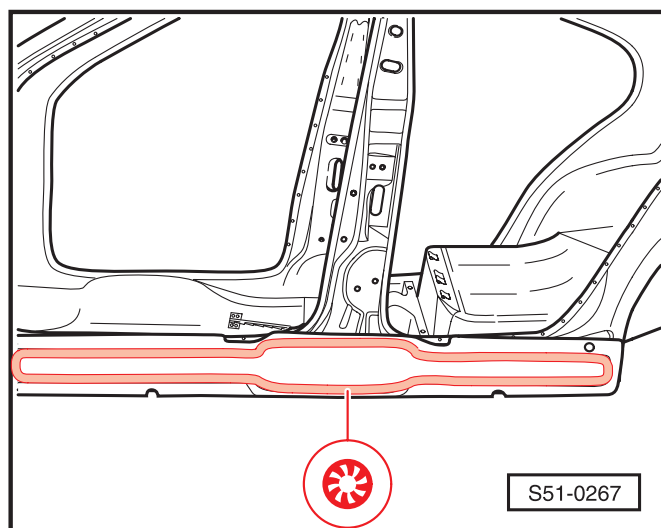
### Replacement parts

- ◆ Lower sill reinforcement.



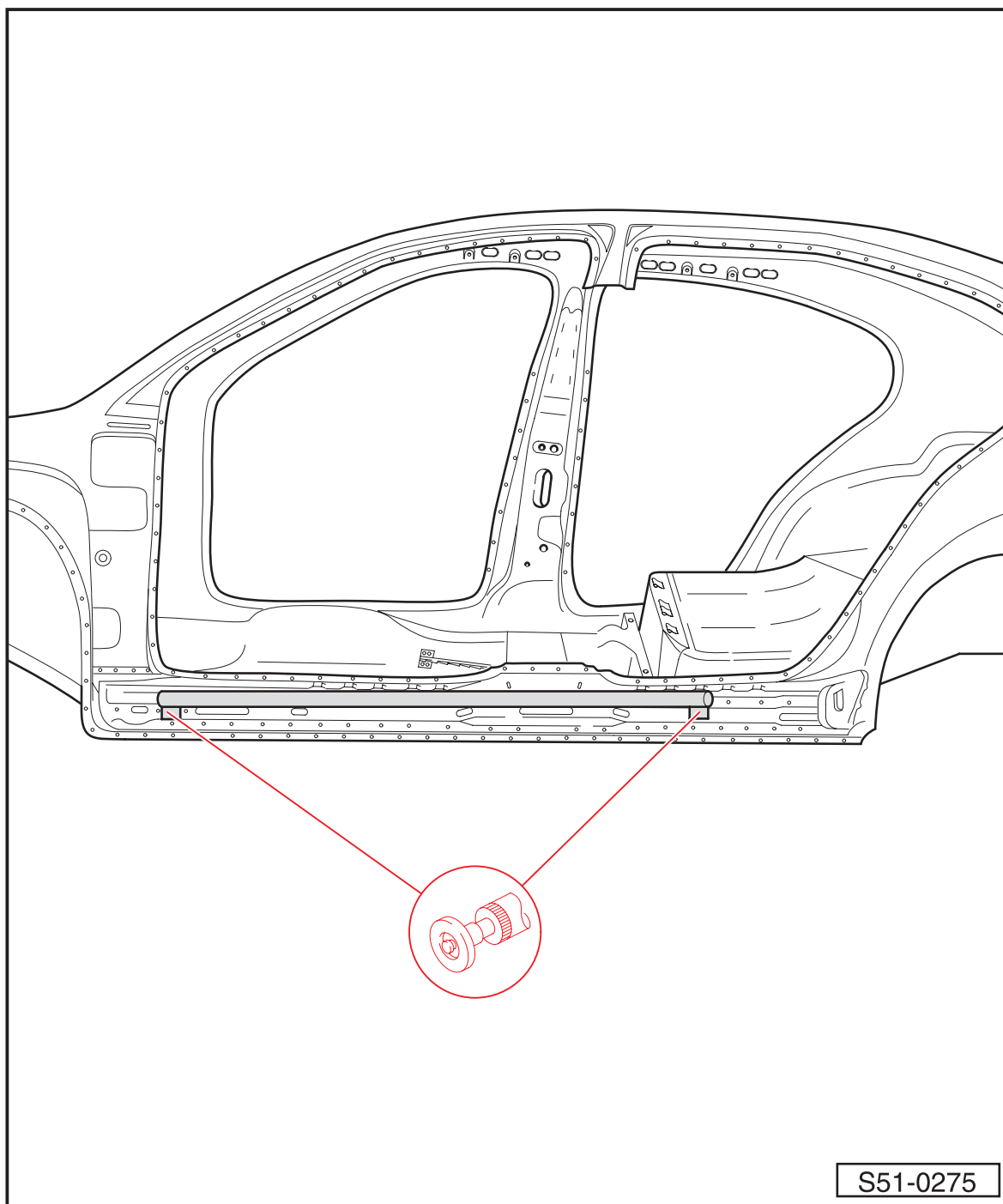
### Preparing new part

- ◀ - Drill lower sill reinforcement with punch pliers

**Welding in**

- Match up and tack-weld new part with vehicle standing on its wheels or on straightening angle set.
- ◀ - Weld in lower sill reinforcement, shielded arc plug weld.

## Replacing lower sill tube reinforcement



● Lower sill reinforcement cut out.

### Separation points

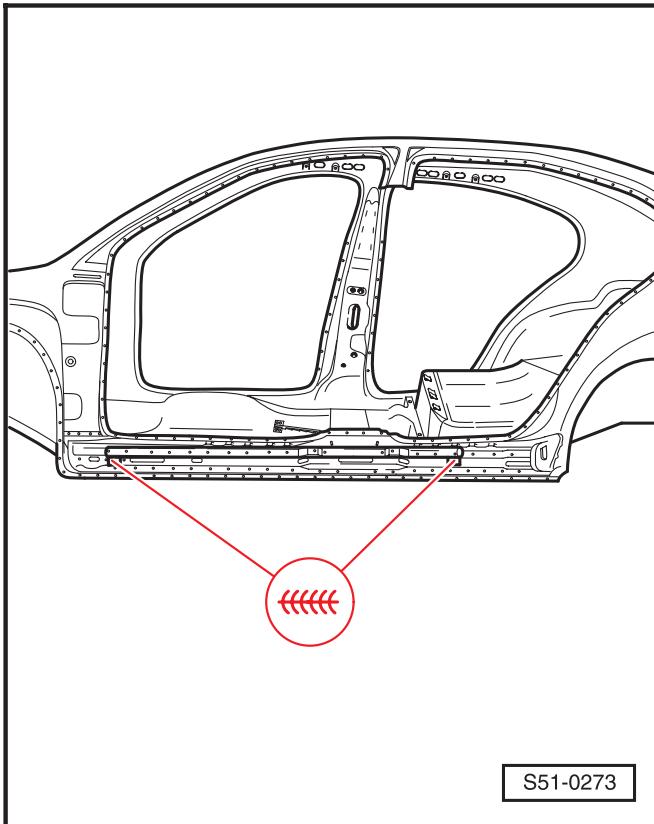
- Grind off lower sill tube reinforcement

**Replacement parts**

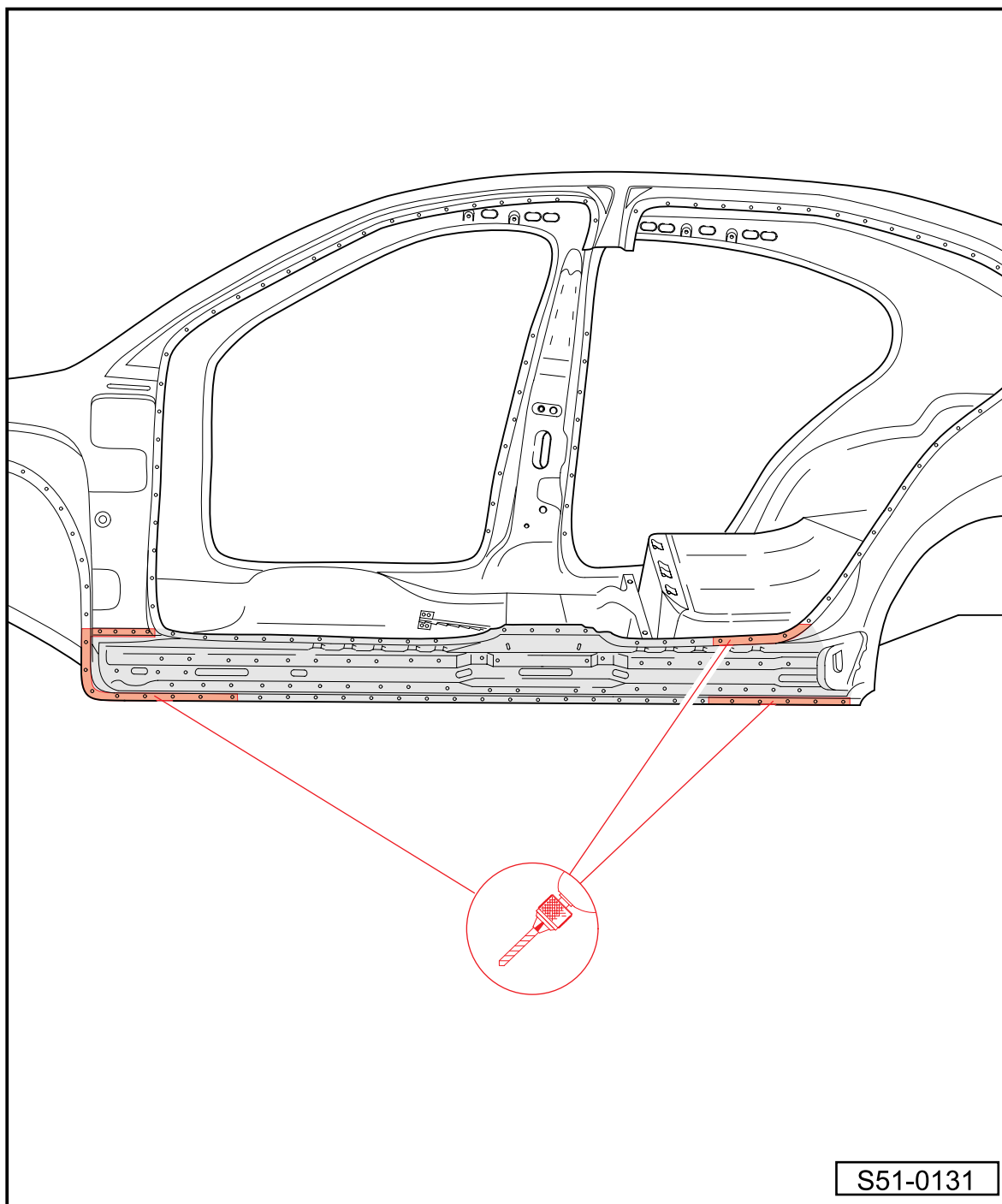
- ◆ Lower sill tube reinforcement

**Welding in**

- Match up and tack-weld new part with vehicle standing on its wheels or on straightening angle set.
- ◀ - Weld in lower sill tube reinforcement, shielded arc plug weld.



## Replacing inner lower sill



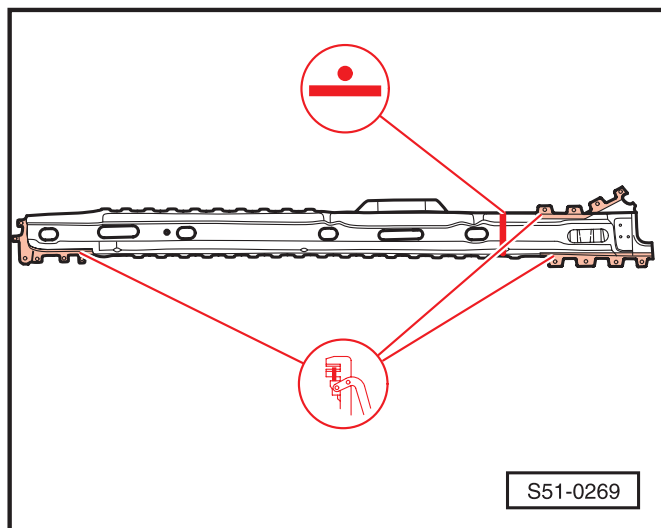
- Inner A pillar already cut out.
- Inner B pillar already cut out.
- Rear side part already cut out.
- Lower sill tube reinforcement already cut out.

### Note:

*If the inner lower sill is only replaced partially, the preliminary operations are reduced accordingly.*

### Separation points

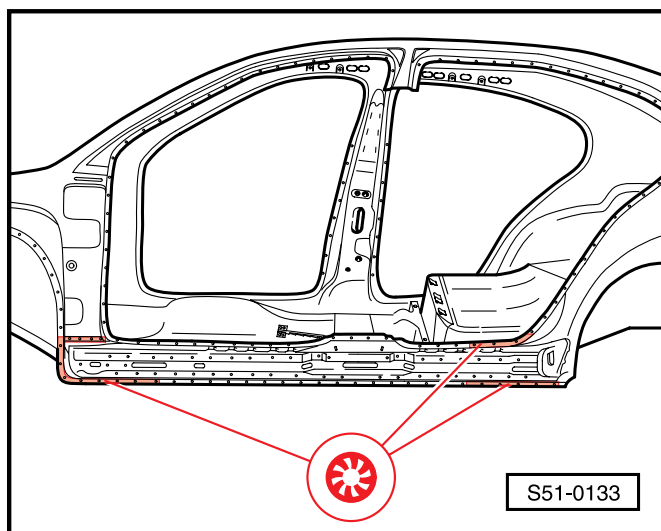
- Drill off weld spots to inner lower sill.

**Replacement part**

- ◆ Inner lower sill
- ◆ Reinforcement for lift platform attachment

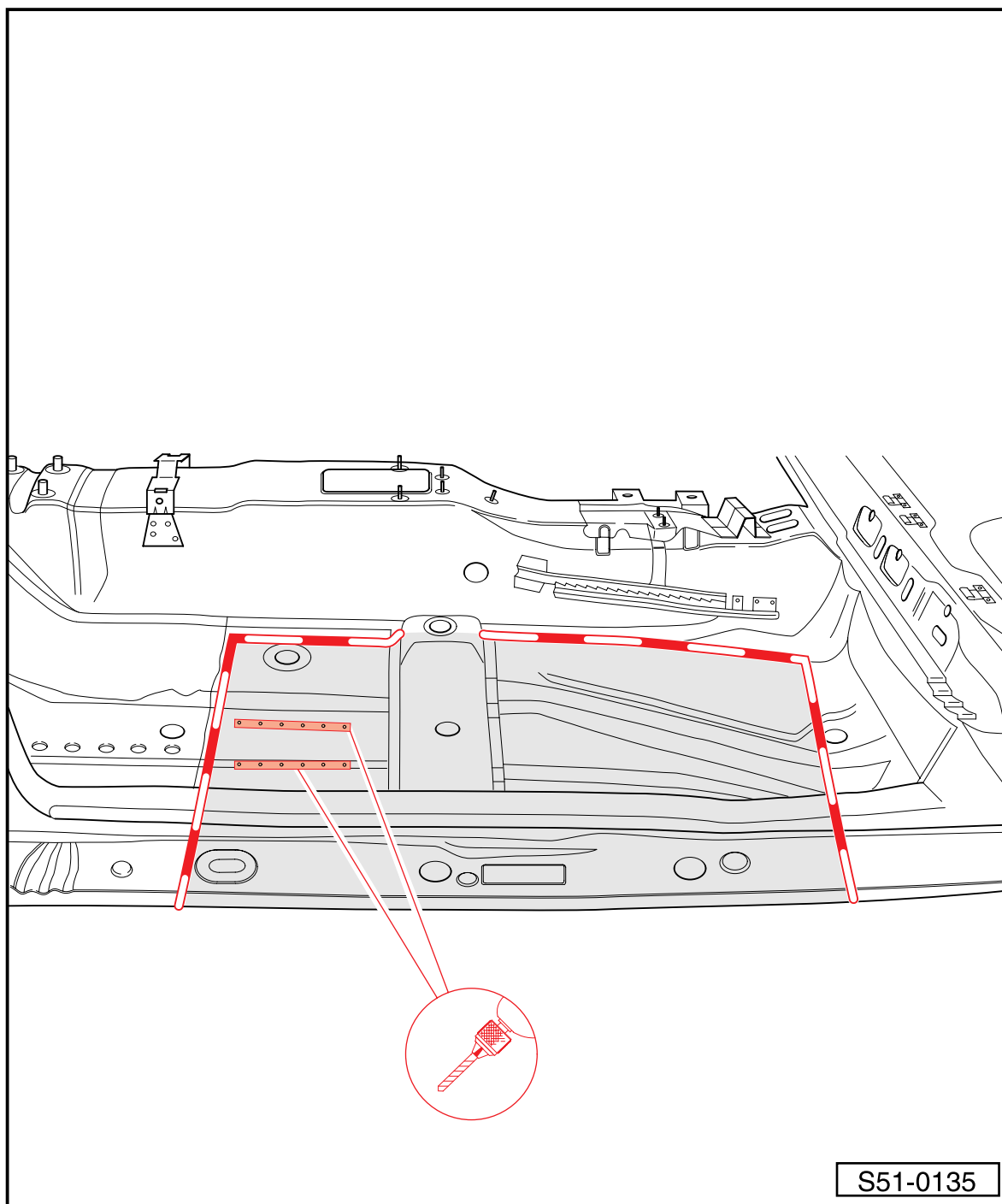
**Preparing new part**

- ◀ - Weld reinforcement with lower sill, spot weld seam.
- Make holes in new part with punch pliers.

**Welding in**

- Match up and tack-weld new part with vehicle standing on its wheels or on straightening angle set.
- ◀ - Weld in inner lower sill, shielded arc plug weld.

## Replacing floor panel part section



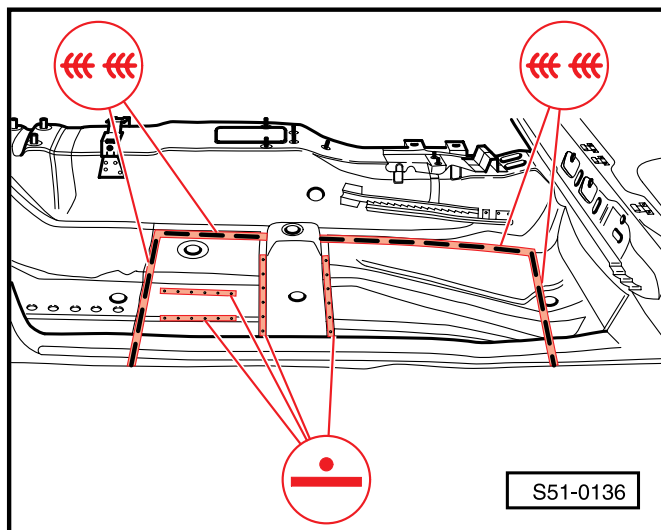
- Outer and inner lower sill already removed.

### Separation points

- Position separation cut according to damage.
- Drill off original joint to side members below front of floor panel.

### Notes:

- ◆ Do not make any separation cuts in the area of the centre tunnel.
- ◆ Seat cross member and runner must always be replaced together with floor panel section.
- Cut out connection panel between lower sill and floor panel.
- Detach original joint.



### Replacement parts

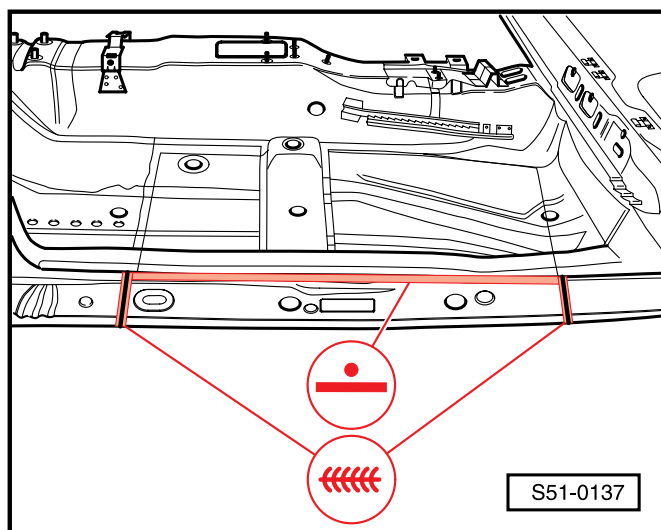
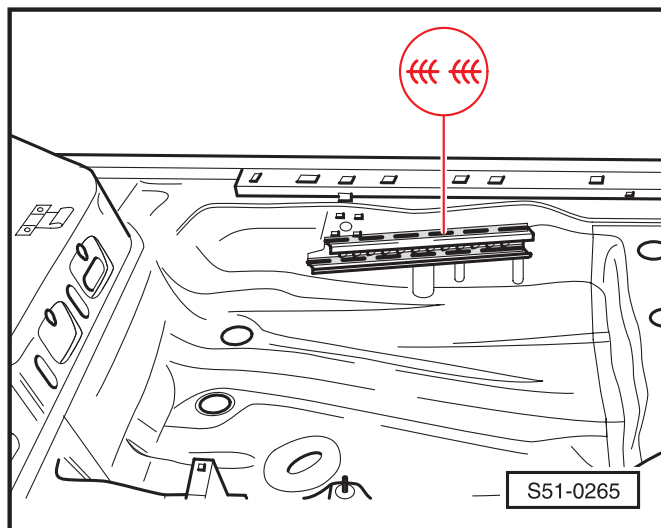
- ◆ Floor panel
- ◆ Connection plate for lift platform attachment

### Preparing new part

- Transfer separation cut plus 10 mm for overlapping on the new part and cut to shape.
- Burr separation cut on the body side

### Welding in

- ◀ - Perform overlapping welding offset on both sides on the separation cut, shielded arc continuous seam interrupted.
- Fit, fix and weld in B-cross member, weld spot seam.
- Weld in connection to longitudinal members below floor panel, weld spot seam
- ◀ - Fit, fix and weld in seat guide rail, shielded arc continuous seam interrupted.



- ◀ - Weld in connection plate of lower sill floor panel, weld spot seam, at separation points shielded arc continuous seam.

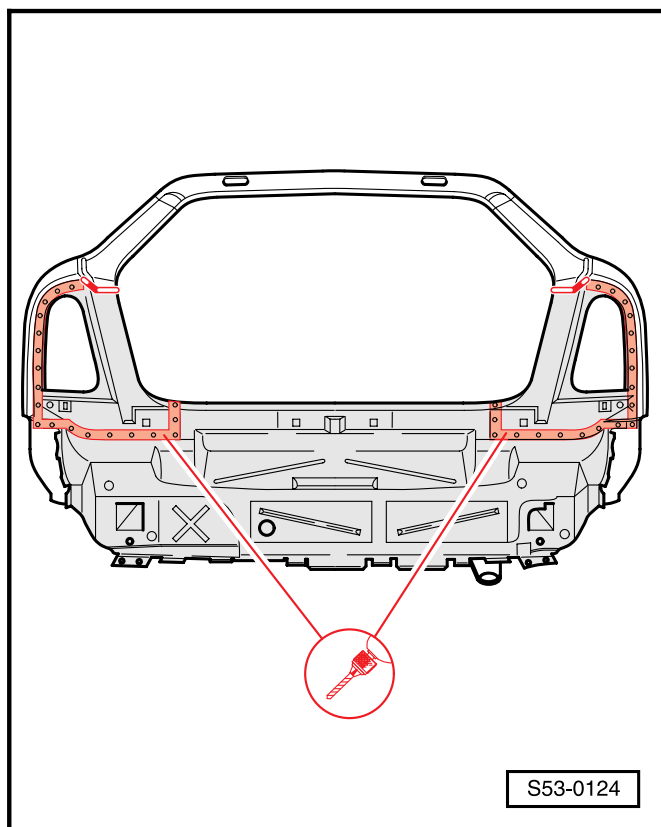


## Repairing rear body

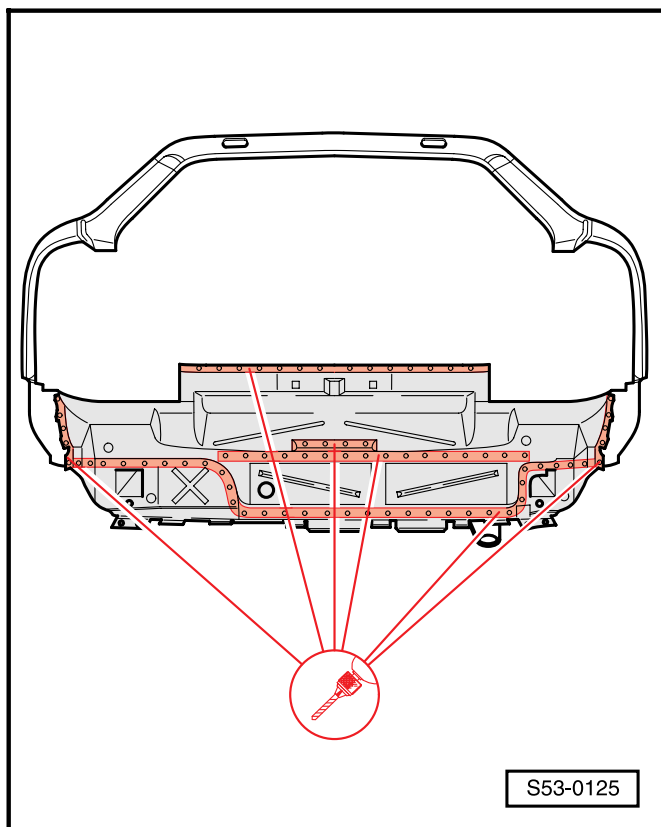
### Replacing rear end panel

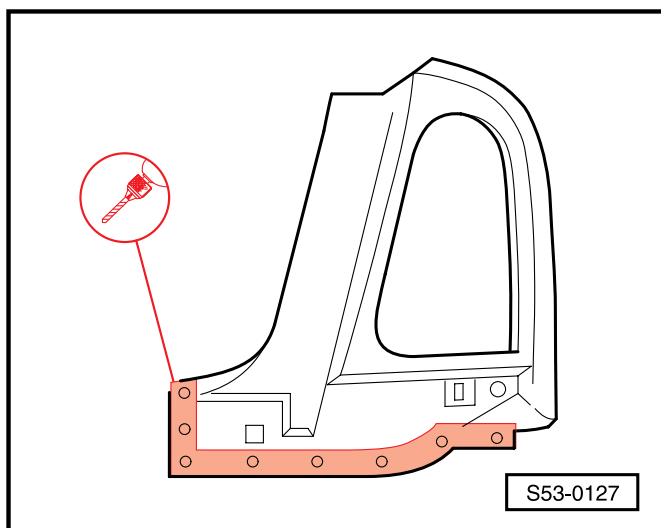
#### Separation points

- ◀ - Detach original joint at left and right of tail light carrier.
- Pull tail light carrier down and forward behind side part and remove.



- ◀ - Detach original joint to boot floor and rear lock carrier.
- Take off rear end panel.





### Replacement parts

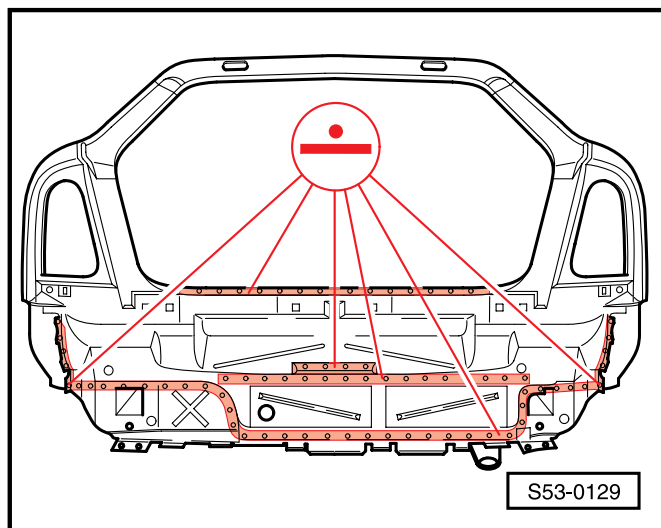
- ◆ Left and right tail light carrier
- ◆ Rear end panel

### Preparing new parts

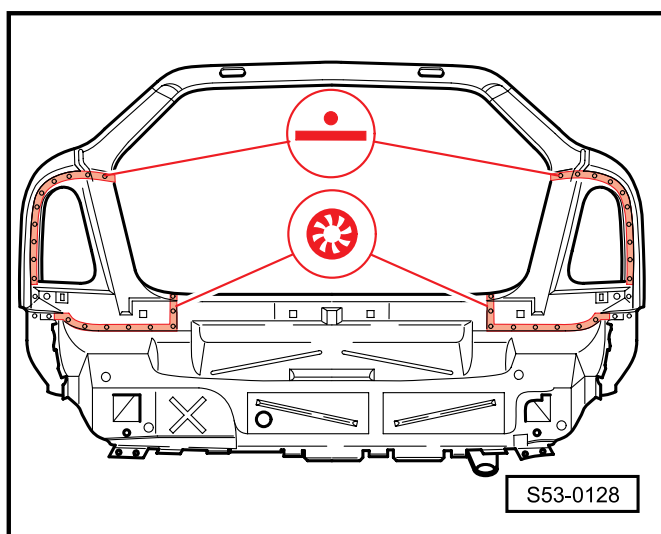
- ◀ - Drill  $\varnothing$  7 mm holes in tail light carrier in connection area to end panel.

### Welding in

- Match up end panel in the assembly with tail light carriers and tack weld.
- Check operation of lock and gaps of tailgate.



- ◀ - Weld in end panel, RP spot weld.



- ◀ - Weld in tail light carriers, RP spot weld.
- Weld in remaining joint, SG plug weld.

## Replacing end panel (Octavia RS)

The procedure is basically identical to that for the Octavia ⇒ page 53-1.

### Pay attention to the following additional information and differences:

The area for attaching the bumper support is reinforced on each side by two additional bolted connections and a retaining plate.

#### Note:

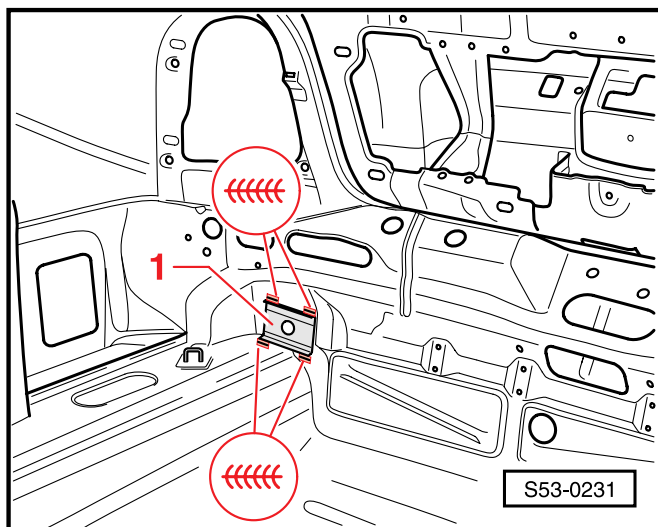
*The retaining plate is welded in on both sides of the end panel.*

#### Replacement part

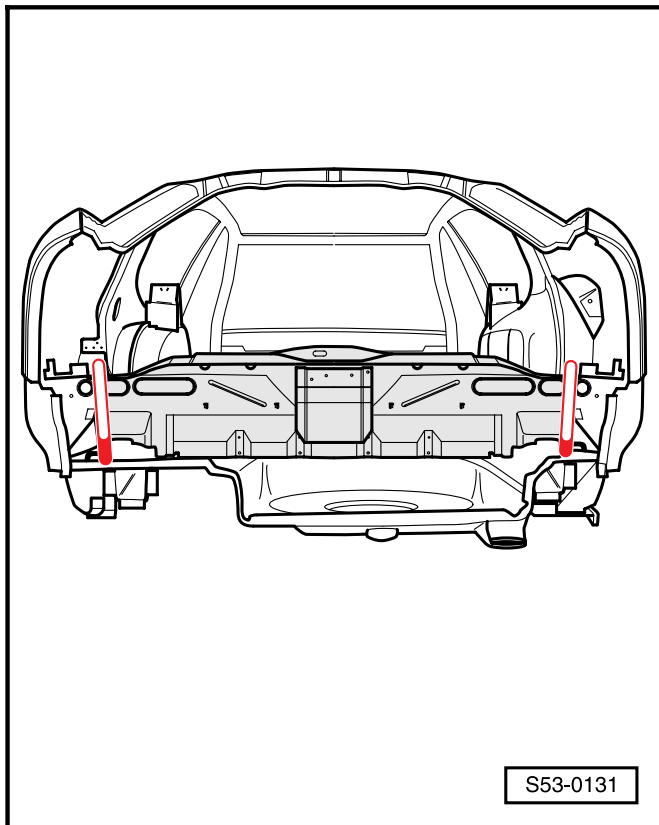
- ◆ 2x retaining plate 1UO 813 283

#### Welding in

- Match up retaining plate -1- and align.
- ◀ - Weld in retaining plate, 4x shielded arc continuous seam.
- Drill two  $\varnothing$  8 mm holes for attaching bumper.







## Replacing rear lock carrier

- End panel already removed.

### Separation points

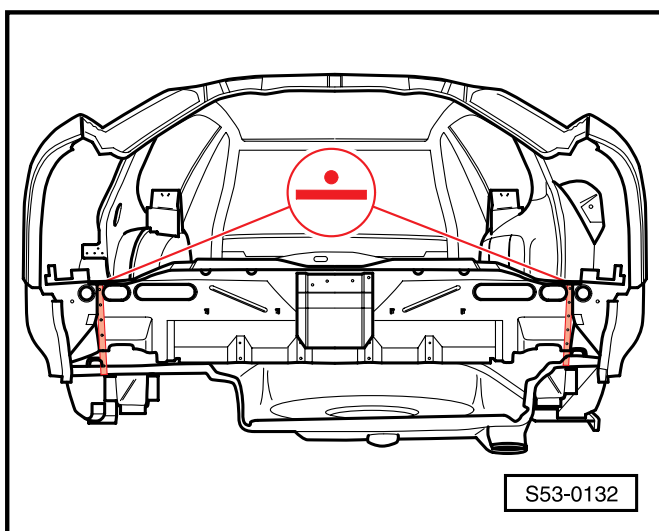
- ◀ - Detach original joint to side reinforcements.

### Note:

*If the side reinforcements are damaged, these have to be straightened or replaced.*

### Replacement part

- ◆ Rear lock carrier



## Welding in

- Match up rear lock carrier together with rear end panel and tack weld.
- Check operation of lock and gaps of tailgate.
- Take off end panel.
- ◀ - Weld in rear lock carrier, RP spot weld.



**Replacement part**

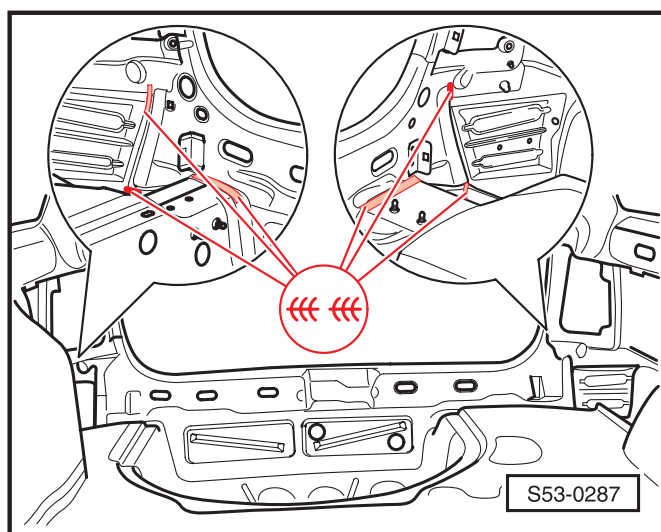
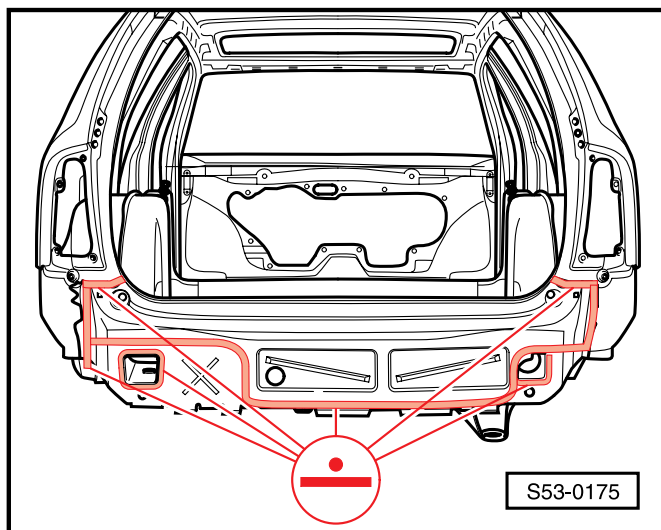
- ◆ Rear end panel

**Preparing new part**

- Match up and tack-weld end panel.
- Check closing and gap dimensions of rear bonnet.

**Welding in**

- ◀ - Weld in end panel, weld spot seam

**Only on Estate 4x4**

- ◀ - Additionally weld shielded arc continuous seam interrupted in the lateral connection area to the luggage compartment floor.

## Replacing rear light supporting panel (Octavia Estate)

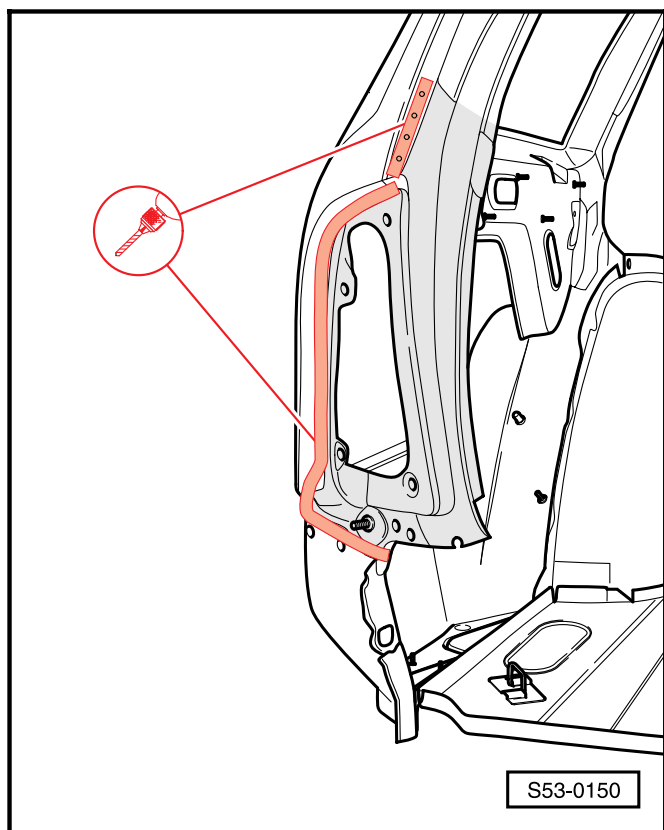
- End panel already cut out.

### Note:

*The rear light supporting panel can only be replaced in connection with water channel part section.*

### Separation points

- ◀ - Detach original joint for side part.



- ◀ - Separate water channel.

### Notes:

- ◆ Place separation cut at least 30 mm above bolted connection for tailgate stop.
- ◆ Do not damage side part and inner side when separating water channel.
- ◆ First of all separate roughly the connection from water channel to side part and then separate from the inside with rod grinder the area situated below the side part.

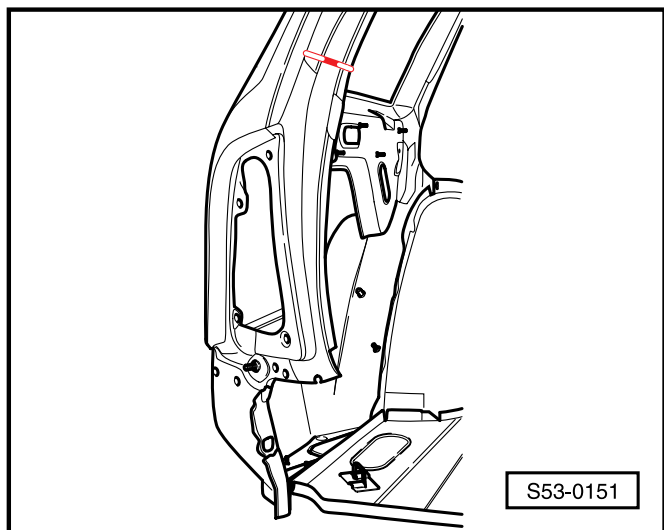
- Detach remaining original joint

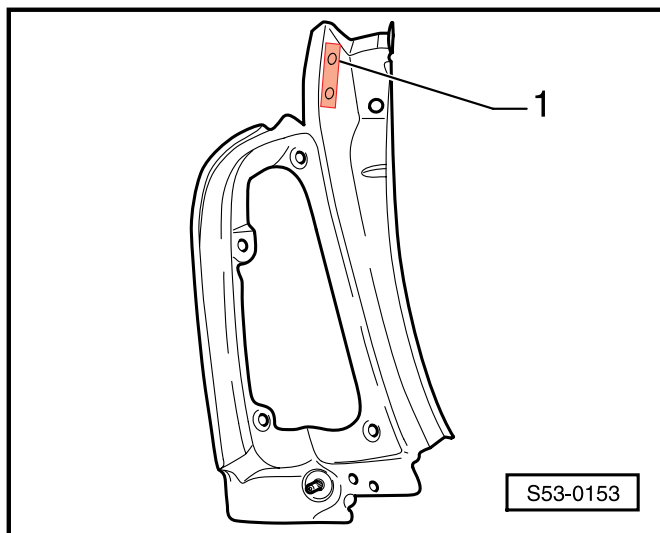
### Replacement parts

- ◆ Rear light supporting panel
- ◆ Water channel
- ◆ Seal 1 U6 809 875

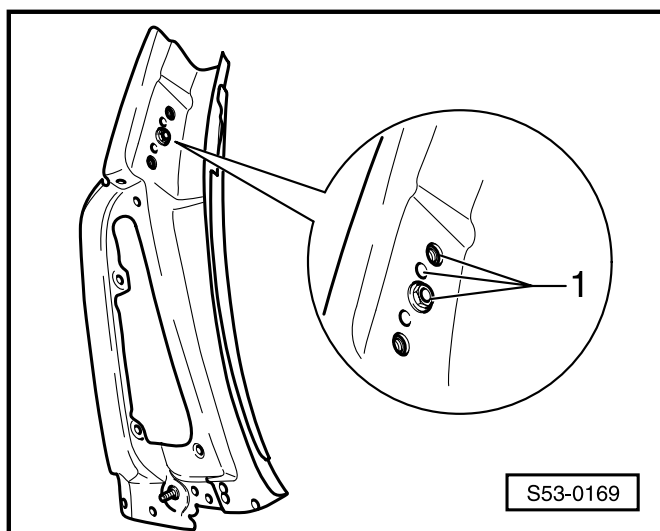
### Preparing new part

- Transfer separation cut to water channel and cut to shape.



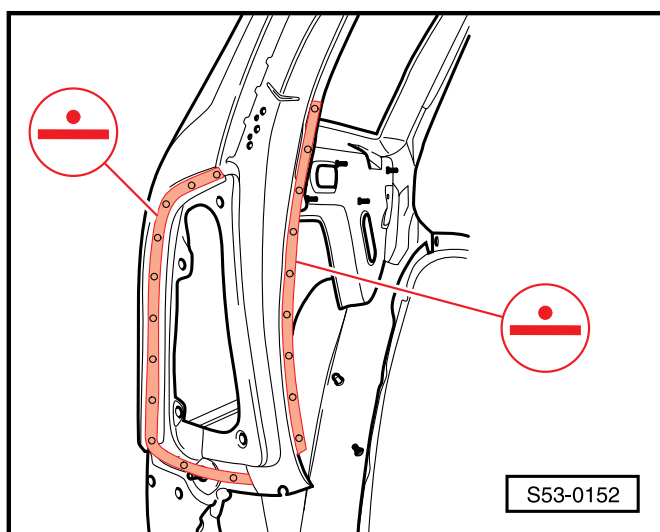


- ◀ - Fit on seal -1- in the area of the holes for attaching tailgate stop.

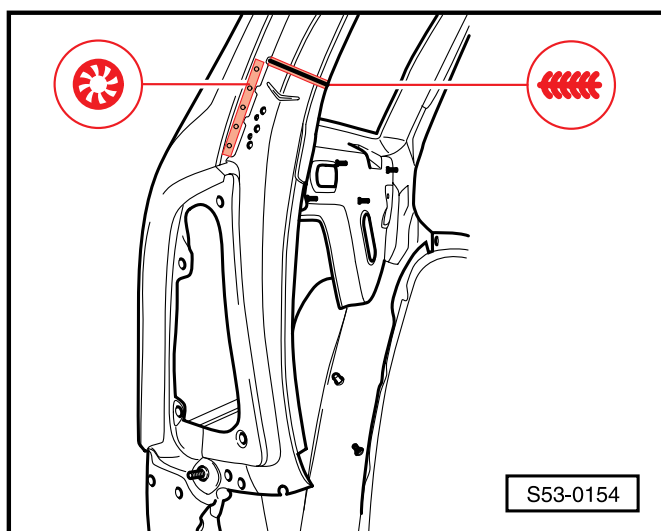


- ◀ - Attach water channel part section e.g. with three screws -1- to tail light supporting panel.

### Welding in

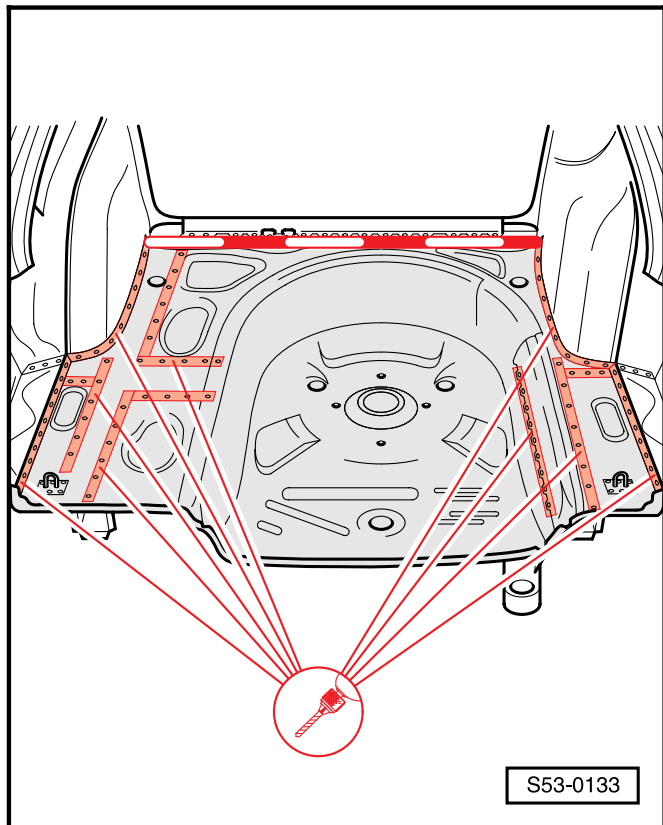


- Match up tail light supporting panel in combination with rear water channel and tack-weld.
- Inspect proper closing and panel gap of tailgate.
- Take off end panel.
- ◀ - Weld in tail light supporting panel, spot weld seam.



- ◀ - Weld in water channel, shielded arc continuous weld.
- Weld in remaining joint, shielded arc plug weld.





## Replacing boot floor

- Rear end panel and lock carrier already removed.

### Separation points

- ◀ - Detach original joint to side members and left reinforcement.
- Position front separation cut about 100 mm behind cross member between wheel-houses.
- Remove remaining pieces.

### Note:

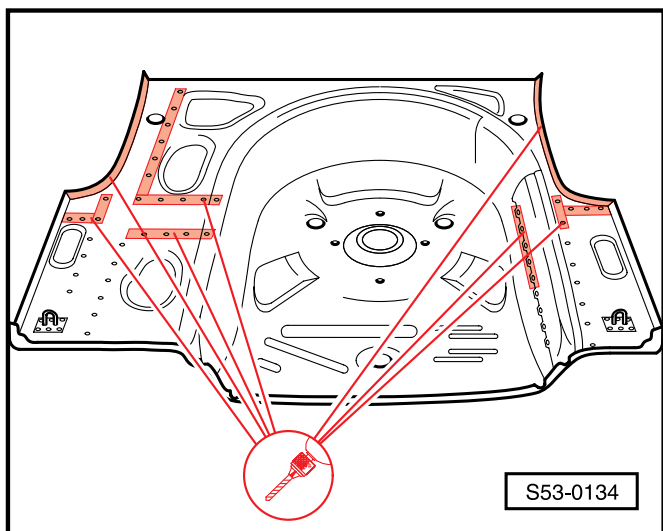
*If the side connection panels are damaged, these have to be straightened or replaced.*

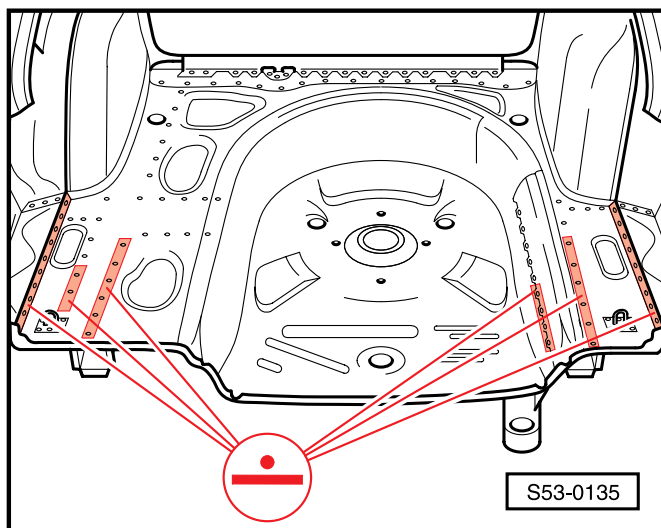
## Replacement parts

- ◆ Boot floor
- ◆ Left boot floor reinforcement

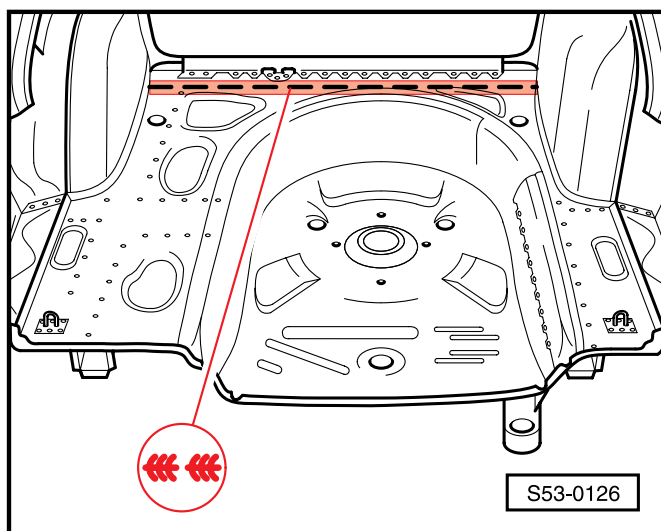
### Preparing new parts

- ◀ - Pierce new part in connection area to wheel-house.
- Drill Ø 7 mm holes in the rear connection area to side members. (RP spot weld in the area of spot weld tongs.)

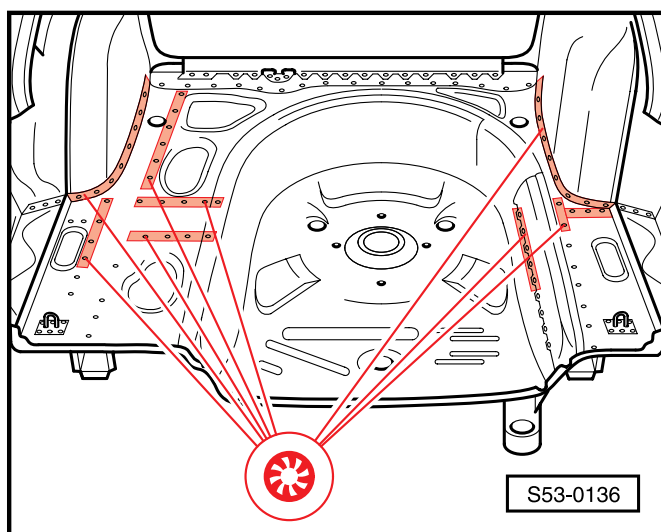


**Welding in**

- Match up boot floor with vehicle standing on its wheels or on straightening rig and check gaps with end panel and tailgate fitted.
- Tack weld boot floor.
- Take off end panel.
- ◀ - Weld in boot floor, RP spot weld.
- Weld in left reinforcement of boot floor, RP spot weld.

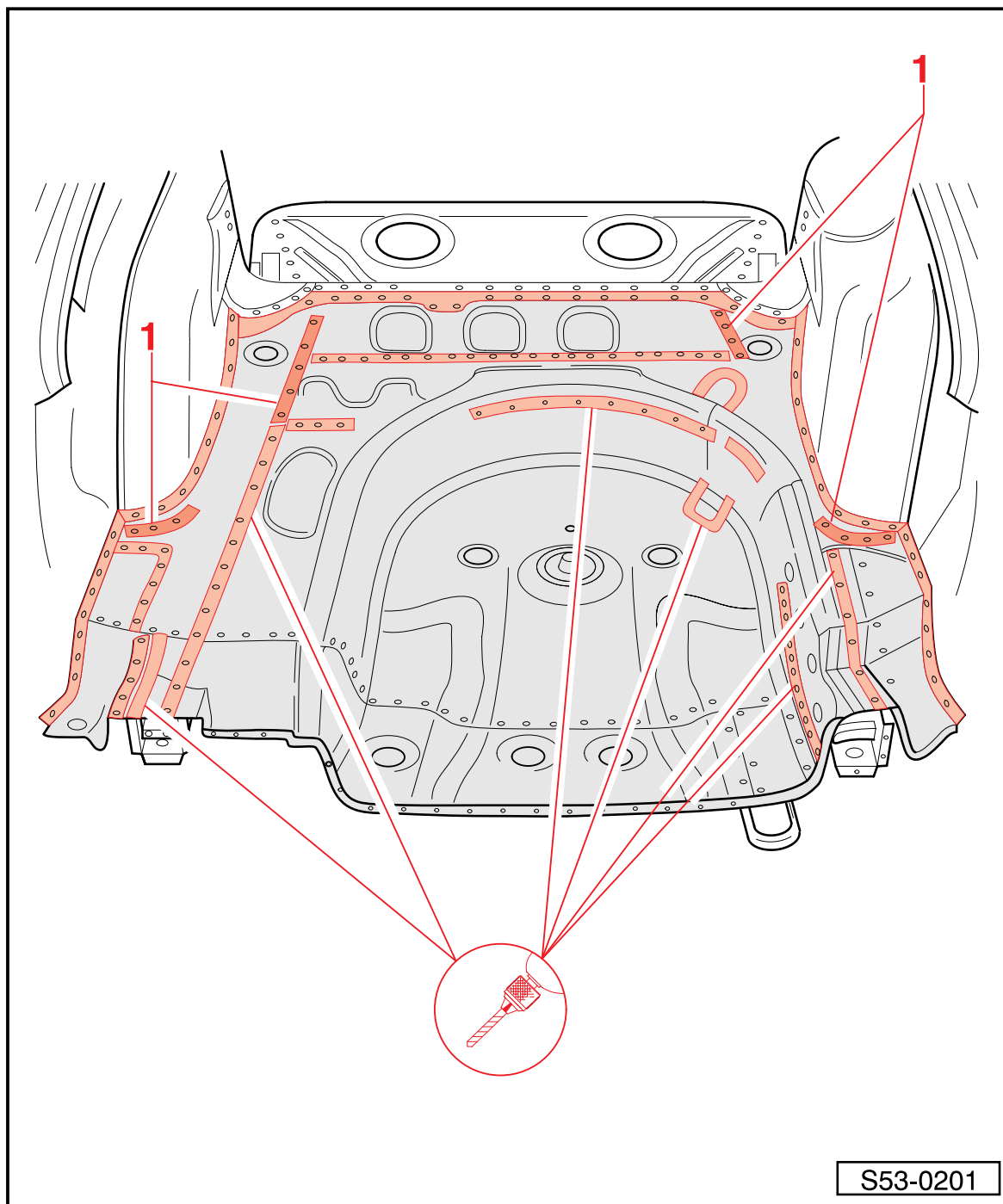


- ◀ - Weld separation cut, SG continuous weld staggered.



- ◀ - Weld in remaining joint, SG plug weld.

## Replacing luggage compartment floor (Octavia Estate 4x4)



- Rear end panel already cut out.

- ◆ 1 - Bonded areas

### Separation points

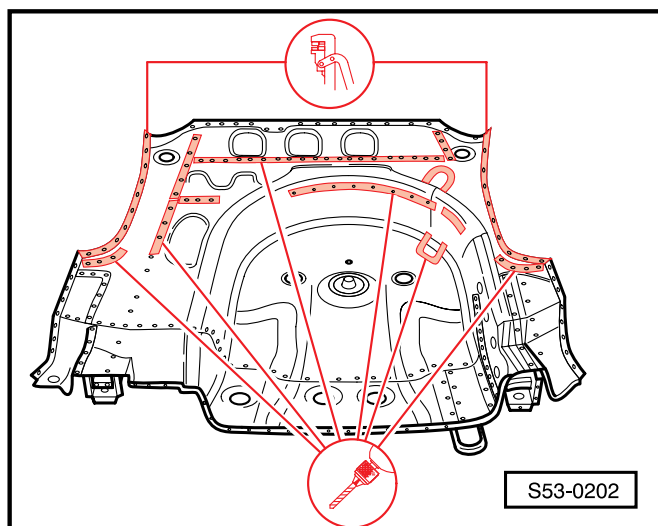
- Detach original joint.
- Remove remaining pieces.

### Note:

*If the side connection panels are damaged, these must be straightened or replaced.*

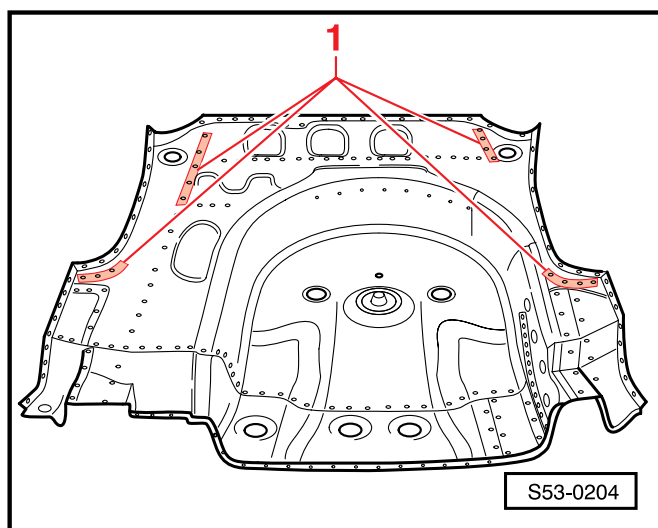
### Replacement parts

- ◆ Luggage compartment floor
- ◆ Left luggage compartment floor reinforcing
- ◆ Adhesive DA 001 730 A1



### Preparing new parts

- ◀ - Perforate new part.
- Drill hole  $\varnothing 7$  mm in the rear connecting area to side members. (The number of holes which require to be drilled depends on the length of the spot weld tool used.)



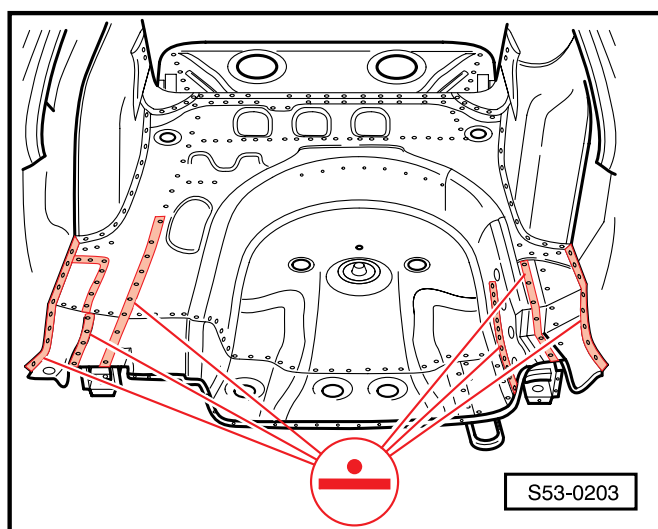
- ◀ - Apply adhesive.

### Note:

*The adhesive must be applied on the underside in the areas -1-.*

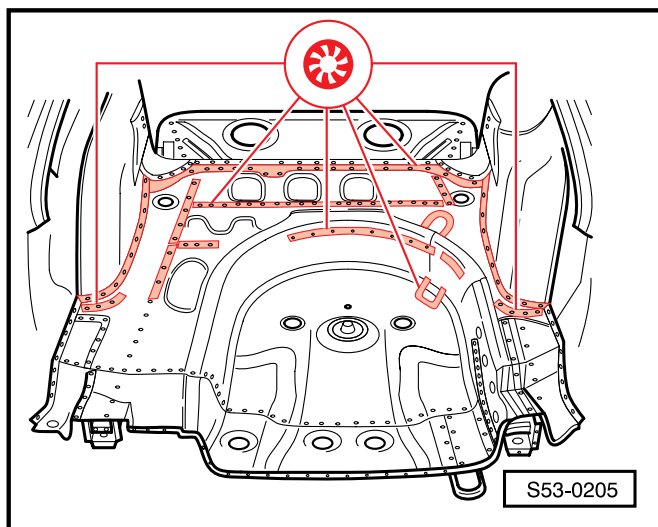
### Note:

*New part must be welded in place within 30 minutes otherwise this will affect the bond of the adhesive.*



### Welding in

- Match up luggage compartment floor with vehicle standing on its wheels or on the straightening angle rig and inspect gaps with end panel and tailgate fitted on.
- Tack-weld luggage compartment floor.
- Take off end panel.
- ◀ - Weld luggage floor in place, spot weld seam.



- ◀ - Weld in remaining joint, shielded arc plug weld.



## Replacing rear side member -attached piece-

- End panel already removed.

### Separation point

- Detach original joint.

Left side only:

- Cut out reinforcement of boot floor.

### Notes:

- ◆ The illustrations show the right-hand side member.
- ◆ The procedure described is basically also the same, however, for the left-hand side member. Only the position of the connection to the boot floor is not identical.

### Replacement part

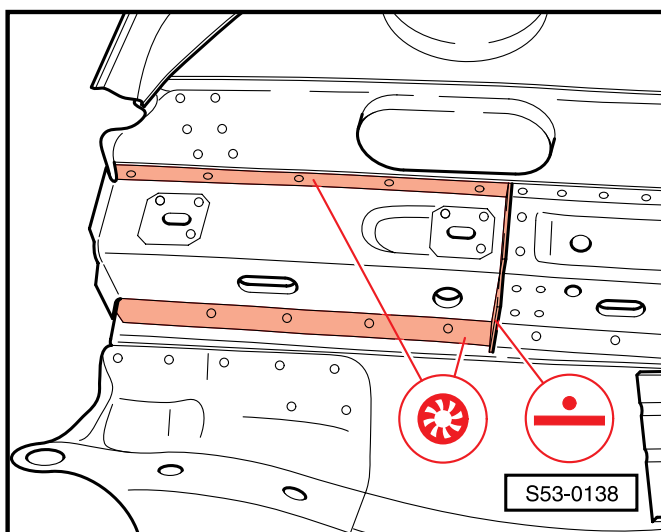
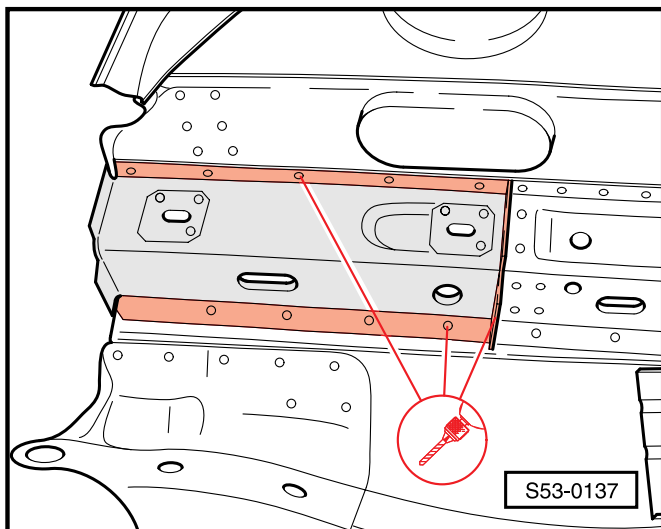
- ◆ Side member attached piece

### Preparing new part

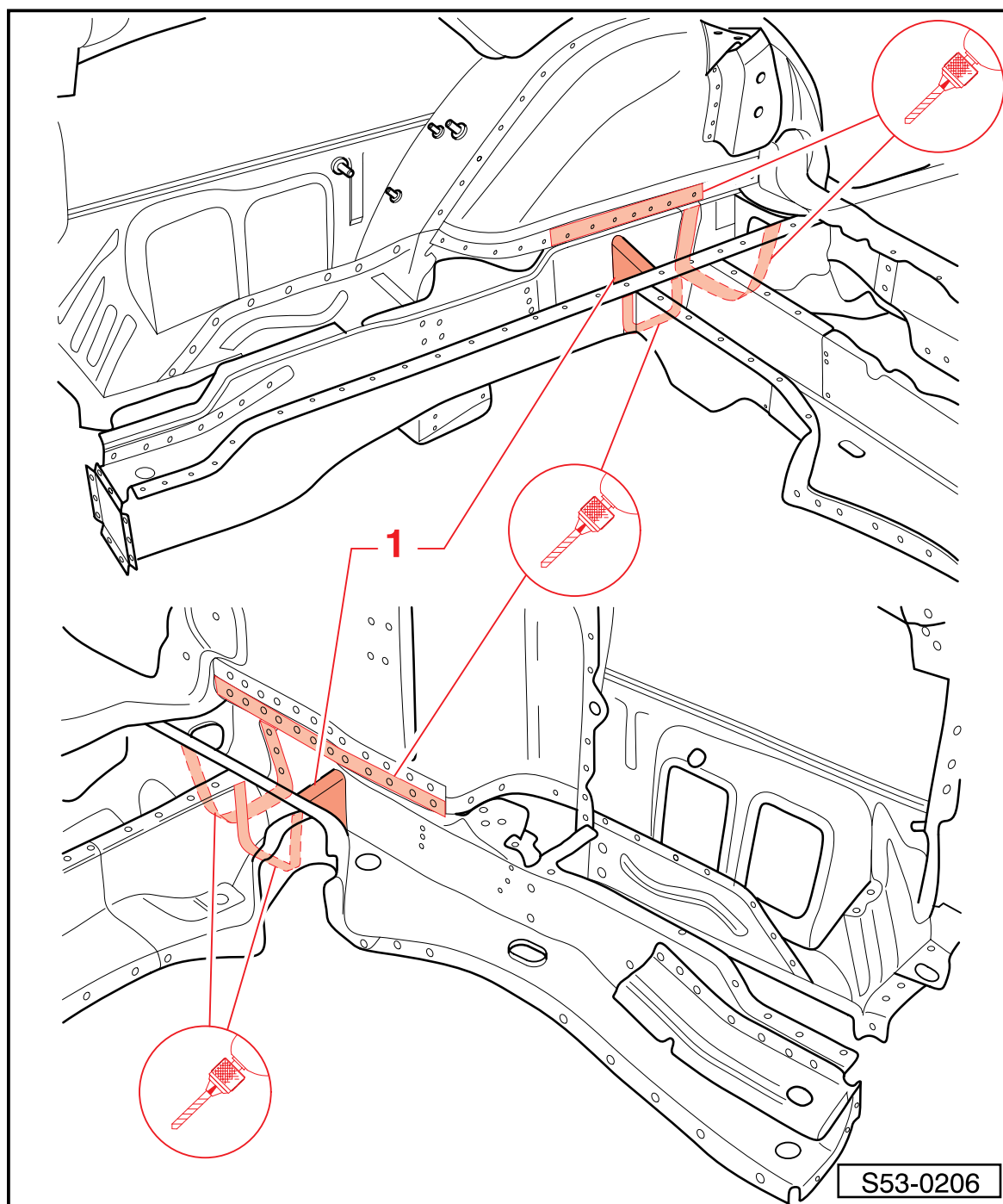
- Match up new part.

### Welding in

- Fix side member attached piece on straightening jig.
- ◀ - Weld in side member, SG plug weld.
- Weld in remaining joint, RP spot weld.



## Replacing rear longitudinal member (Octavia Estate 4x4)



- End panel, tail light carrier and luggage compartment floor already cut out.

### 1 - Foam-coated area

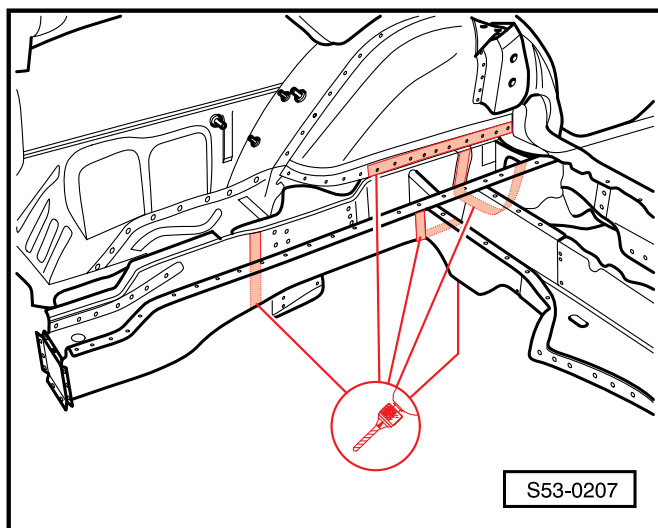
- Before commencing repair work, the remaining foam pieces must be scraped off to the maximum extent possible.

### Note:

The section which follows describes repairs to the left longitudinal member. Repairs on the right-hand side are performed by analogy.

### Warning!

As gases which are particularly harmful for persons and the environment are produced when welding, cutting with spark-producing equipment and tools, or tin-plating in foam-coated areas, such methods must not be used in any case.



### Separation points

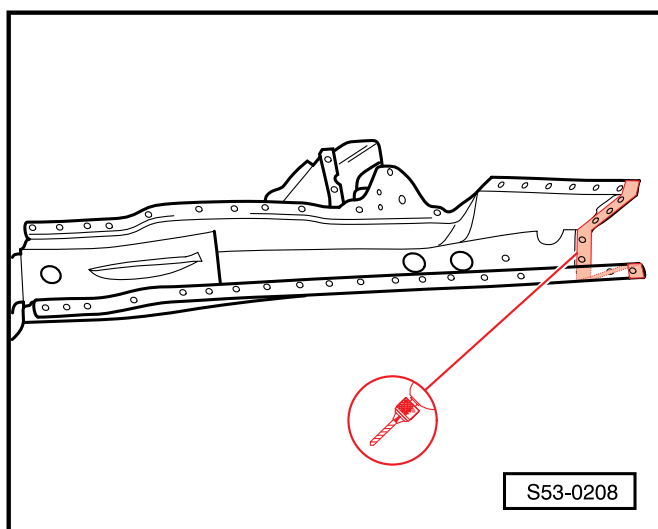
- ◀ - Detach original joint.
- Grind open area to wheelhouse with rod grinder.
- Remove remaining pieces.

### Replacement parts

- ◆ Rear longitudinal member
- ◆ Rear insulation
- ◆ Butyl sealing cord

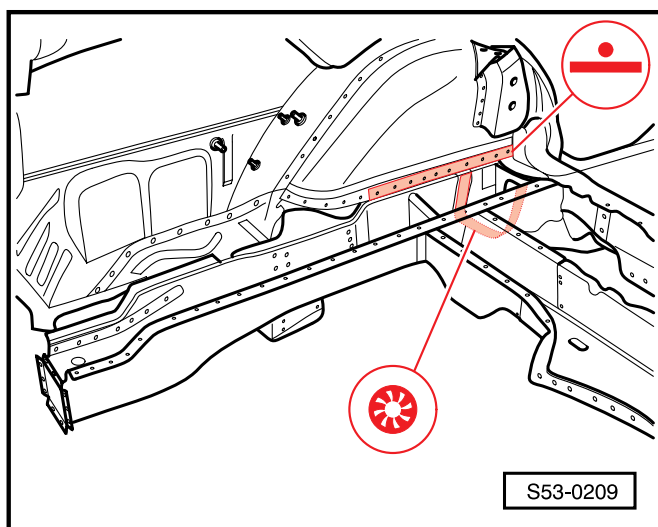
### Preparing new part

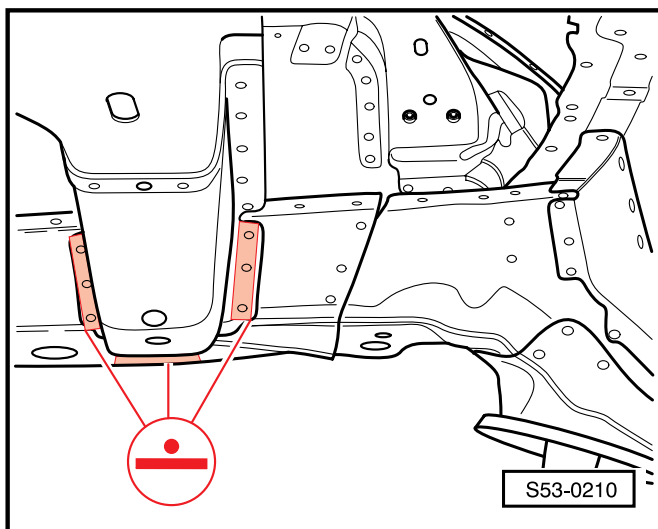
- ◀ - Drill holes for shielded arc plug weld,  $\varnothing$  7 mm.



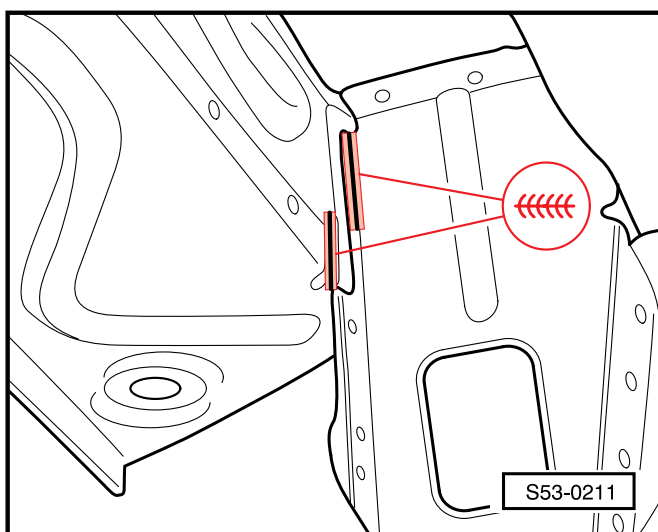
### Welding in

- Position longitudinal member on straightening angle.
- ◀ - Weld in longitudinal member, shielded arc plug weld.
- Spot-weld rear longitudinal member in place, spot weld seam.

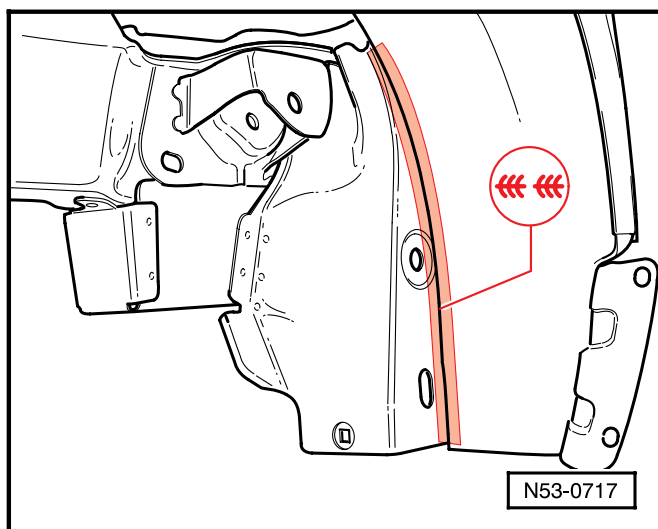




◀ - Weld in cross member, spot weld seam.



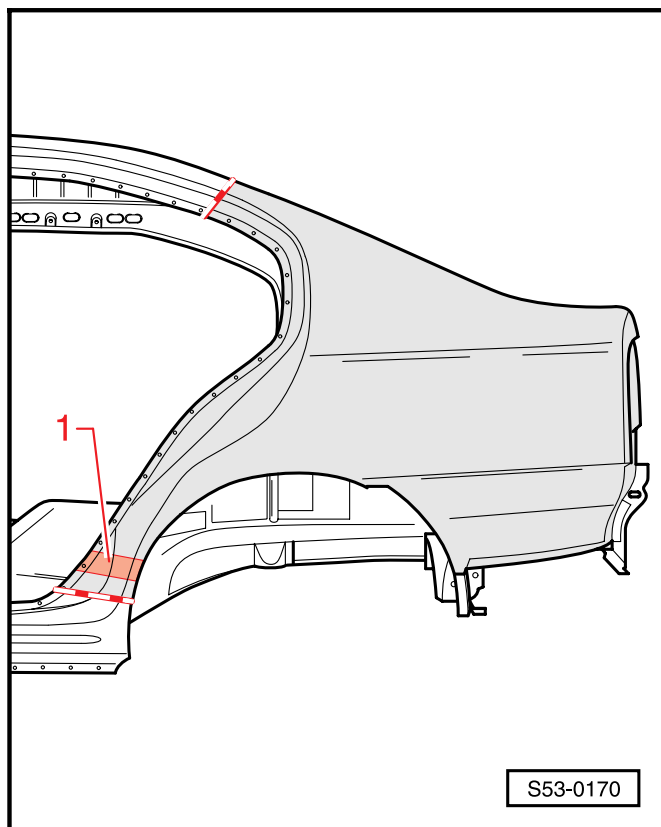
◀ - Weld in longitudinal member at wheelhouse, shielded arc continuous weld.



◀ - Weld in longitudinal member at wheelhouse, shielded arc continuous weld.

**Foam filling ⇒ page 00-19.1.**





## Replacing rear side part (Octavia)

### 1 - Foam-lined area

#### **Warning!**

*In view of the fact that gases which are particularly harmful to persons and the environment are produced during welding, cutting with tools and equipment which produce sparks, or tin-plating in foam-lined areas, it is prohibited in all cases to use such methods.*

#### **Note:**

*If the outer lower sill or outer B pillar and possibly also outer A pillar are damaged, then the door frames can be used as a spare part without reinforcement (a stamped part).*

#### **Separation points**

- Cut out side part roughly
- Grind through outer edge of wheelhouse.

#### **Note:**

*Do not damage inner wheelhouse liner.*

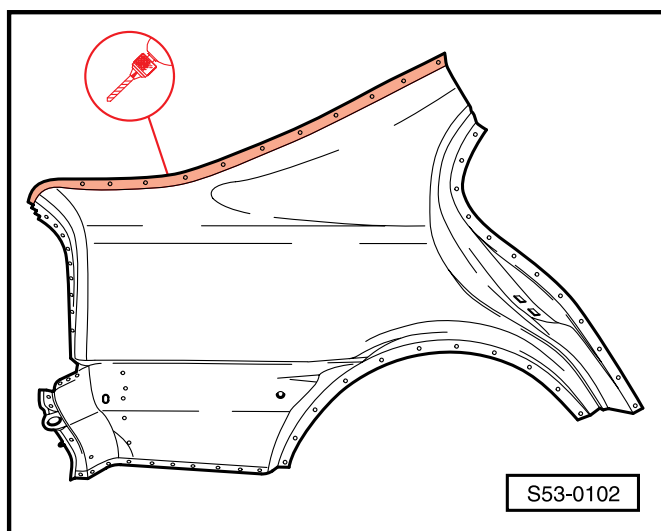
- Detach original joint
- Remove remaining pieces.

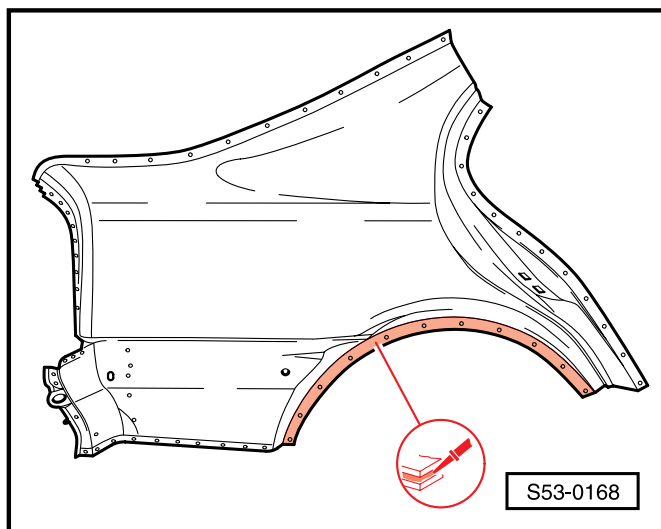
#### **Replacement parts**

- ◆ Side part
- ◆ Adhesive: DA 001 730 A1
- ◆ Sound insulation 1U6 863 665

#### **Preparing new part**

- ◀ - Drill  $\varnothing$  7 mm holes for shielded arc plug weld in the area to tailgate water channel
- Transfer separation cuts to new part and cut to shape.





- Clean flanged area free of dust and grease, e.g. with cleaner D 009 401 04.

- ◀ - Apply adhesive in flange area. 2 beads  $\varnothing$  4 mm (cut nozzle of tube to match).

#### Notes:

- ♦ New part must be welded in within 30 minutes otherwise bond of adhesive will be affected.
- ♦ If the right side part is replaced, adhesive must first of all be applied all round at the fuel tank filler neck before welding in the side part.

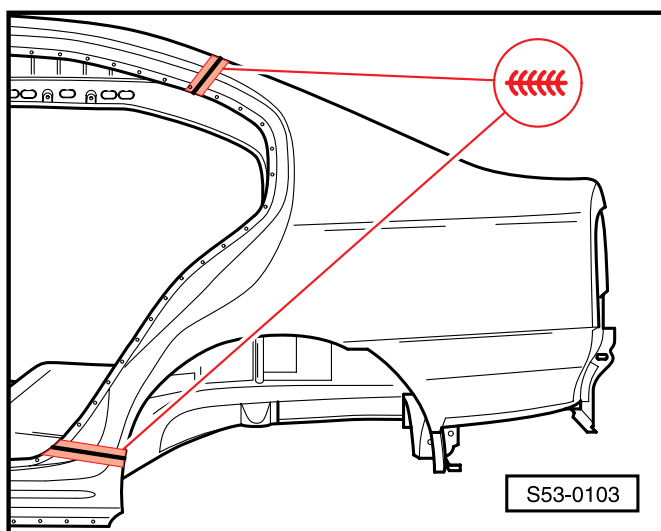
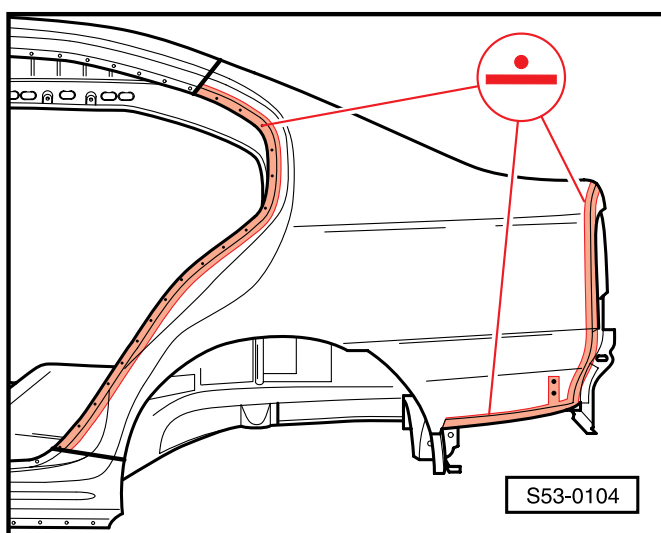
#### Foam lining

- Replace sound insulation  $\Rightarrow$  page 00-19.1.

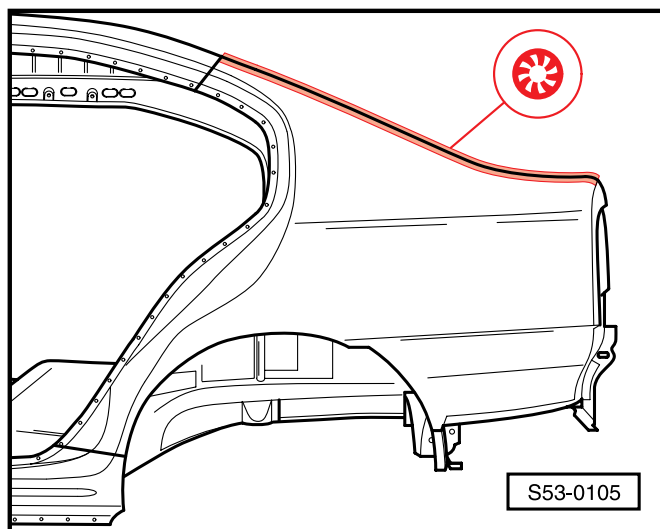
#### Welding in

- Place metal strips behind at the separation points.
- Match up and tack-weld new part with vehicle standing on its wheels or on straightening angle set.

- ◀ - Weld in side part, spot weld seam.



- ◀ - Weld separation cuts, shielded arc continuous seam.



- ◀ - Weld area to tailgate water channel, shielded arc plug weld.
- Flange wheelhouse.
- Wipe off excess adhesive.

## Replacing side part (Octavia RS)

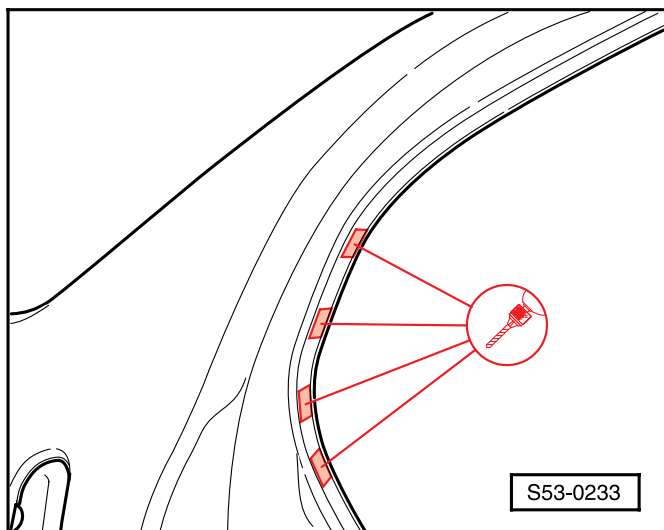
The procedure is basically identical to that for the Octavia  $\Rightarrow$  page 53-7.

### Pay attention to the following additional information and differences:

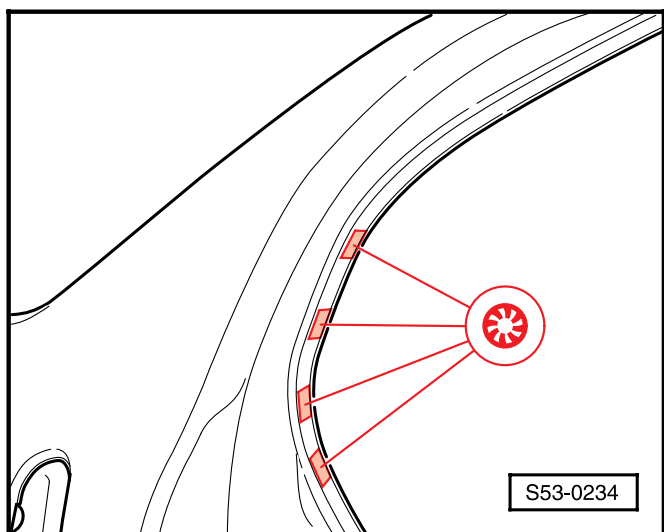
The side part is additionally shielded arc-welded in the area of the door weatherseal.

### Welding in side part

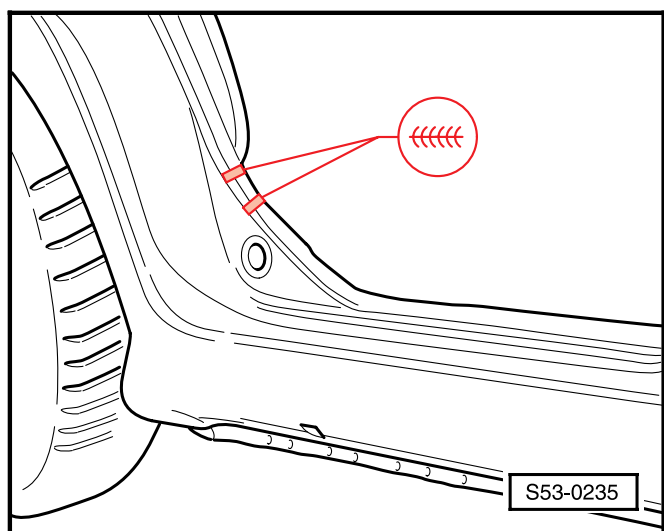
- ◀ - Drill four  $\varnothing$  7 mm holes in the area of the flanges of the side part reinforcement. Do not drill through side part reinforcement.



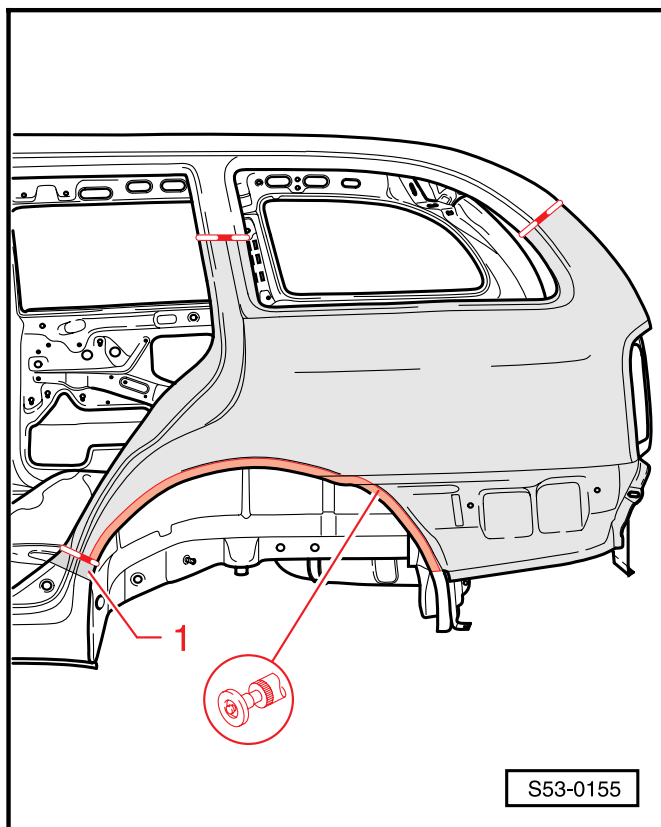
- ◀ - Weld holes with shielded arc plug weld.



- ◀ - Make two shielded arc continuous seams in the area of the end edges of the side part reinforcement and the lower sill reinforcement. The weld seams should connect all the panels together in these areas.







## Replacing rear side part (Octavia Estate)

### 1 - Foam-lined area

#### Warning!

*In view of the fact that gases which are particularly harmful to persons and the environment are produced during welding, cutting with tools and equipment which produce sparks, or tin-plating in foam-lined areas, it is prohibited in all cases to use such methods.*

#### Note:

*If the outer lower sill or outer B pillar and possibly also outer A pillar are damaged, then the door frames can be used as a spare part without reinforcement (a stamped part).*

#### Separation points

- ◀ - Cut out side part roughly
- Grind through outer edge of wheelhouse.

#### Note:

*Do not damage inner wheelhouse liner*

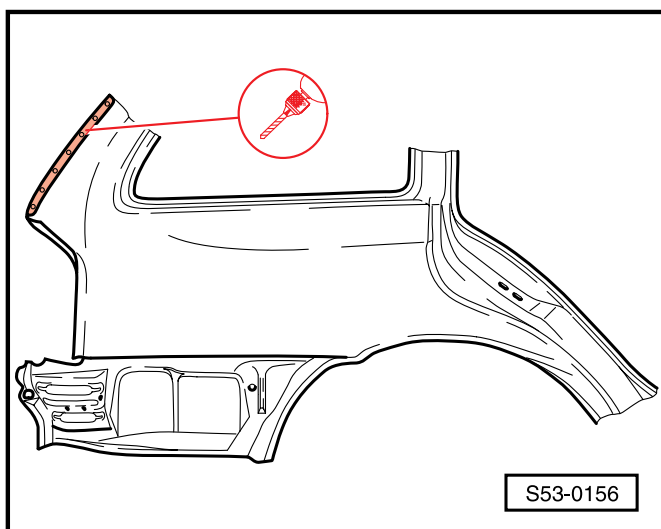
- Release original welding.
- Remove remaining pieces.

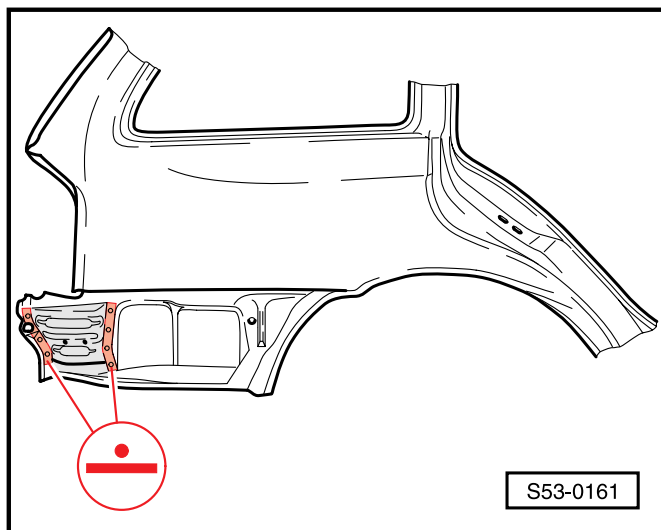
#### Replacement parts

- ◆ Side part
- ◆ Reinforcement for rear side part
- ◆ Adhesive: DA 001 730 A1
- ◆ Sound insulation 1 U6 863 665

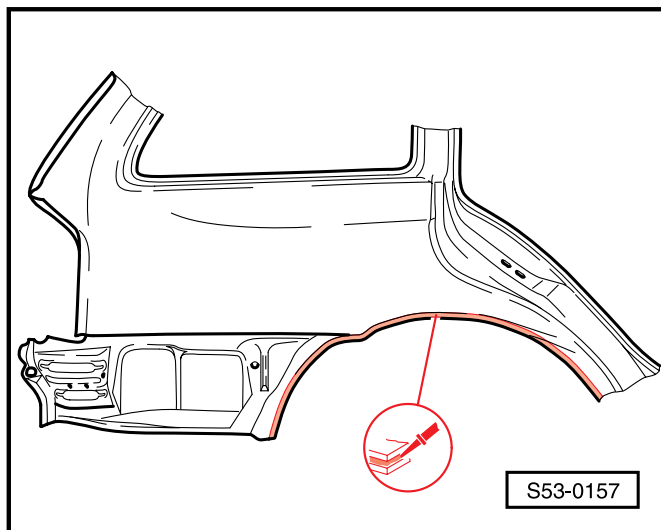
#### Preparing new part

- Transfer separation cuts to new part and cut to shape.
- ◀ - Drill  $\varnothing 7$  mm holes for shielded arc plug weld in the area to the water drainage channel of the tailgate.





- ◀ - Weld in reinforcement for side part, spot weld seam.

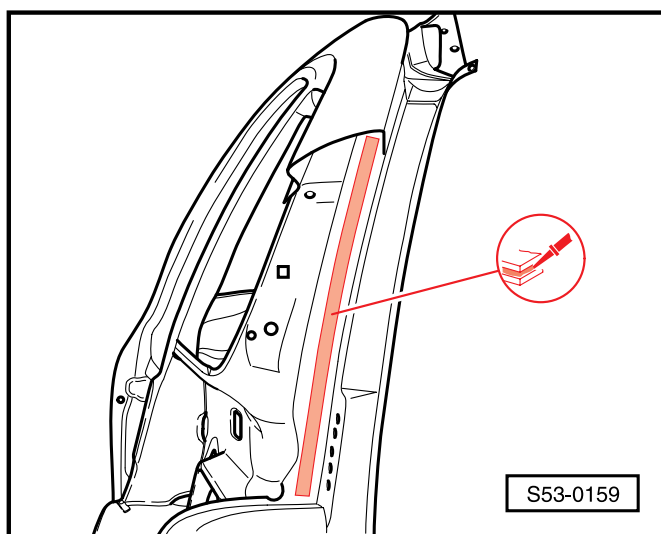


- Clean the flange area free of dust and grease, e.g. with cleaner D 009 401 04.
- ◀ - Apply adhesive in the flange area, 2 beads Ø 4 mm (cut nozzle of applicator to match).

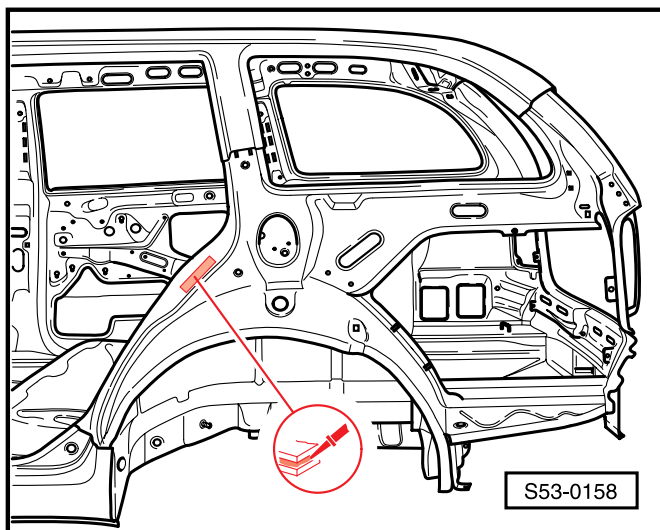
**Notes:**

*New part must be welded in place within 30 minutes otherwise proper bonding of the adhesive will be impaired.*

*If the right-hand side part is replaced, adhesive has to be applied all round at the fuel filler neck before welding the side part in place.*



- ◀ - Apply adhesive to water channel.



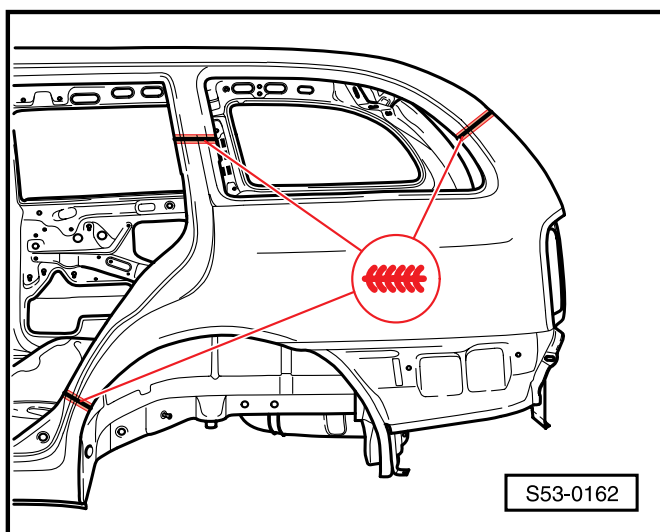
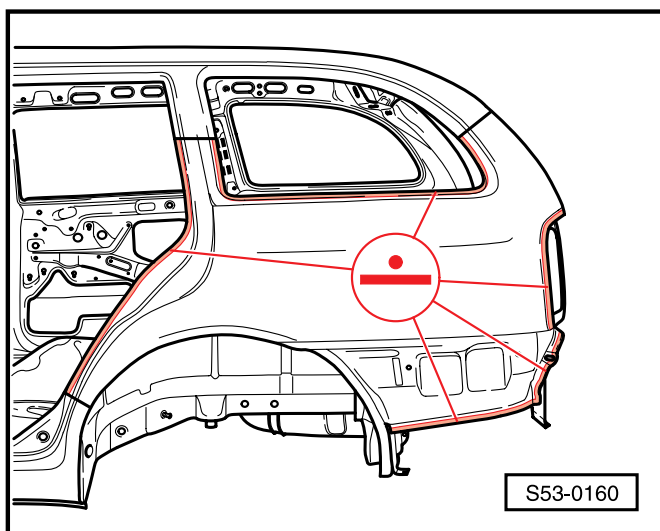
- ◀ - Apply adhesive to wheelhouse in area of door lock.

### Foam-filling

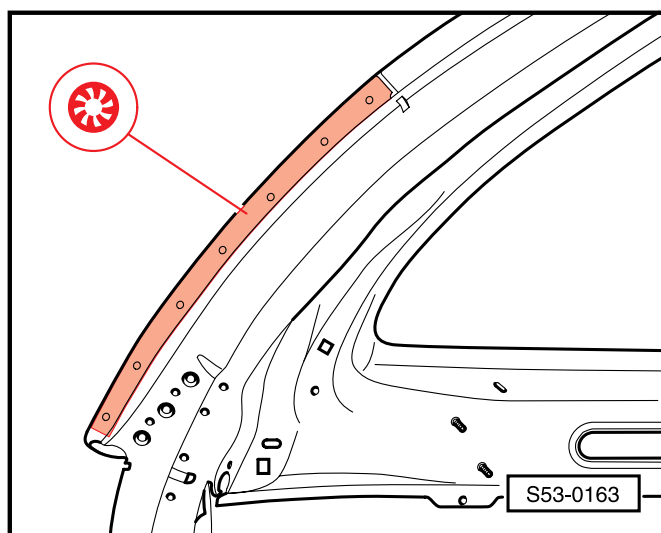
- Foam-filling ⇒ page 00-19.1.

### Welding in

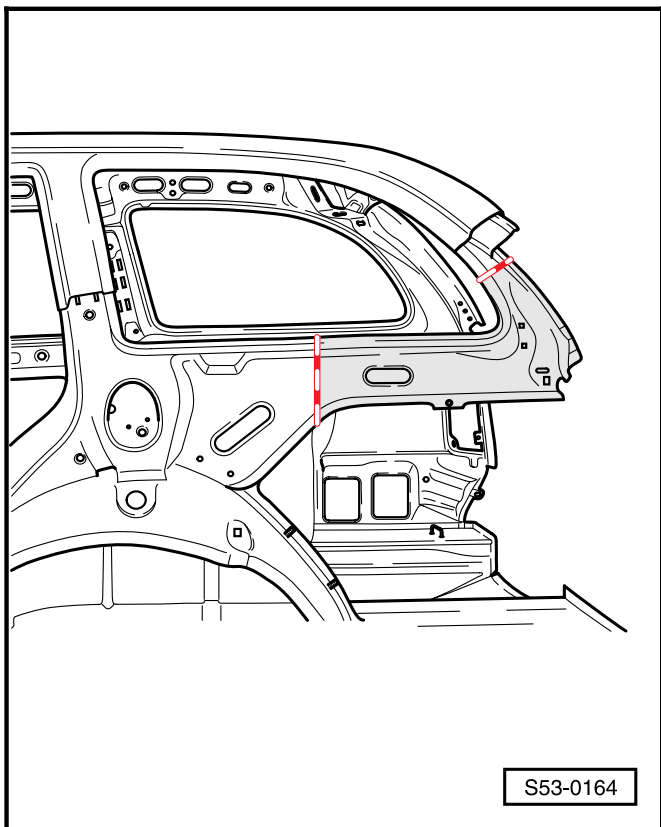
- Place sheet metal strip behind at the separation points.
- Match up new part and tack-weld with the vehicle standing on its wheels or on the straightening rig.
- ◀ - Weld in side part, spot weld seam.



- ◀ - Weld separation cuts, shielded arc continuous weld.



- ◀ - Weld area to tailgate water channel, shielded arc plug weld.
- Bead around wheelhouse.
- Wipe off adhesive which flows out and seal.



### Replacing inner side part (Octavia Estate)

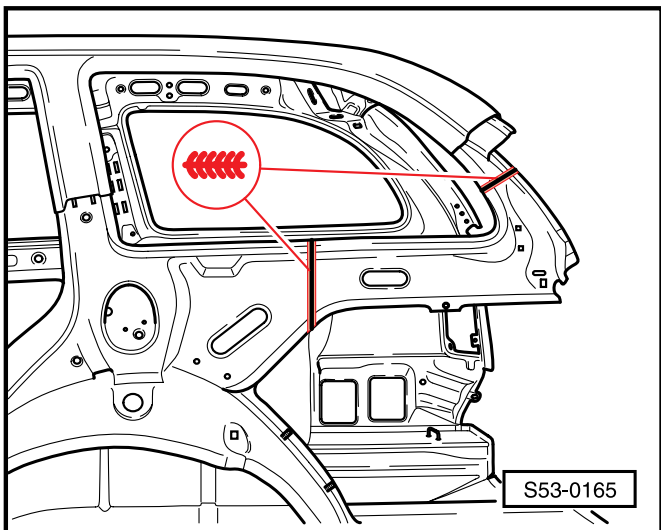
- Side part already cut out.
- Tail light mounting already cut out.

#### Separation points

- ◀ - Position separation cuts depending on damage.

#### Replacement part

- ◆ Inner side part

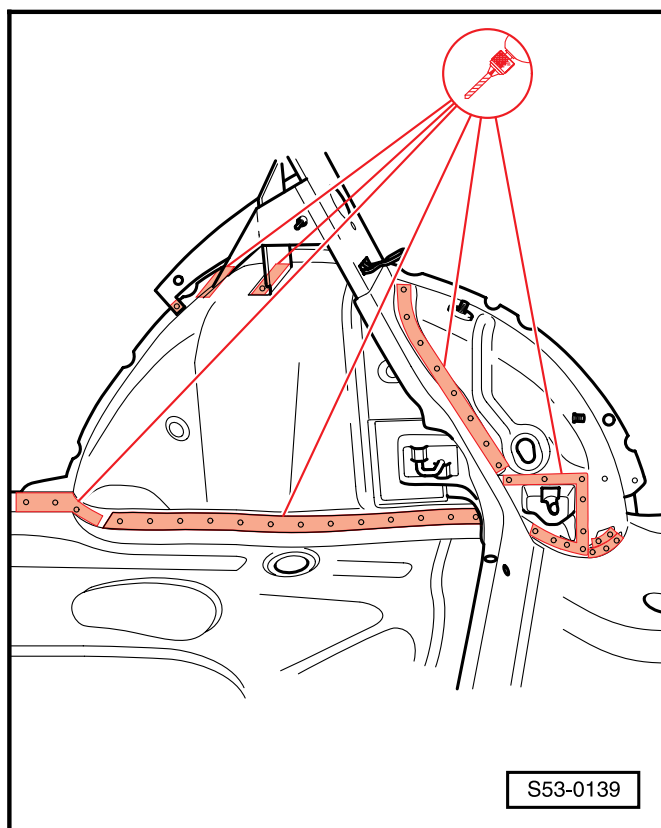


#### Preparing new part

- Transfer separation cuts to new part and execute cuts.

#### Welding in

- ◀ - Weld separation cuts, shielded arc continuous weld.



## Replacing rear wheelhouse

- Side part already cut out.

### Separation points

- Detach original joint of C pillar to wheelhouse liner.
- Drill off original joint of wheelhouse liner to wheelhouse.
- Take off wheelhouse liner.
- Detach original joint of wheelhouse to boot floor from the inside of the wheelhouse.

### Replacement parts

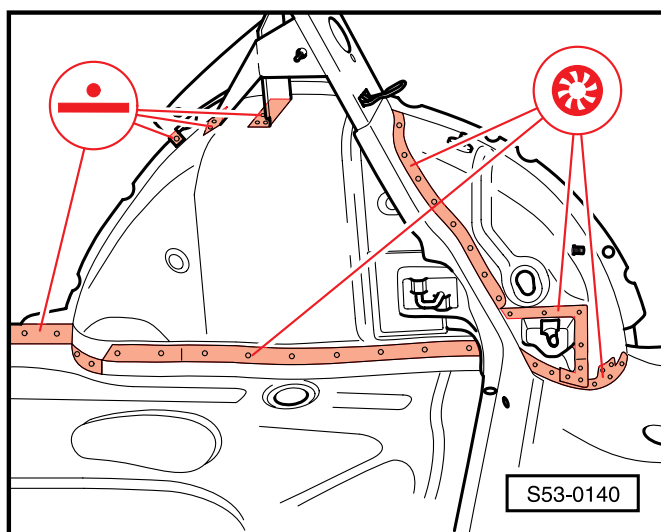
- ◆ Outer wheelhouse liner
- ◆ Wheelhouse

### Preparing new part

- Make holes in wheelhouse in connection area to boot floor and backrest frame.

### Welding in

- Match up wheelhouse and fix on straightening angle.
- ◀ Weld in wheelhouse, spot weld seam.
- Weld in remaining joint from inside of wheelhouse, shielded arc plug weld.
- Weld in wheelhouse liner, spot weld seam and shielded arc plug weld.



## Replacing rear wheelhouse (Octavia RS)

The procedure is basically identical to that for the Octavia ⇒ page 53-15.

### Pay attention to the following additional information and differences:

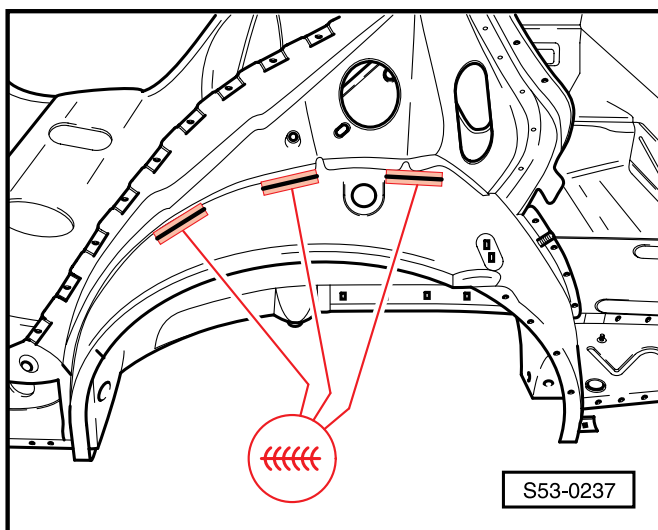
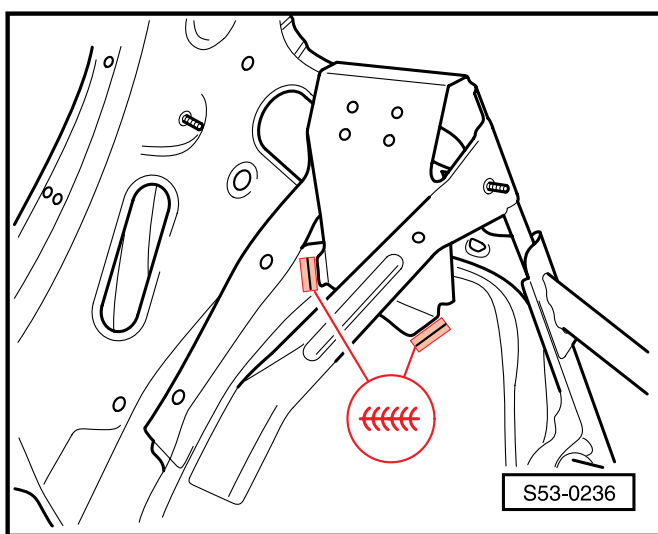
The wheelhouse is additionally shielded arc-welded in the certain areas and reinforced by a reinforcing plate in the area of the luggage compartment cross member.

### Additional replacement parts

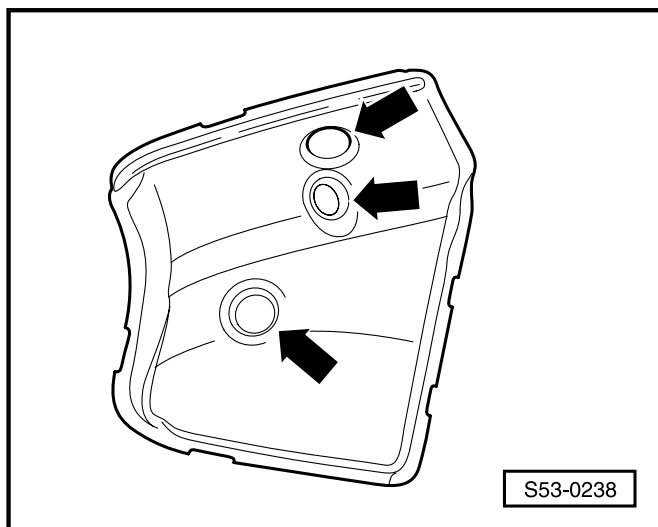
- ◆ Reinforcement plate for wheelhouse

### Welding in wheelhouse

- ◀ - Additional shielded arc weld seams, shielded arc continuous seam.

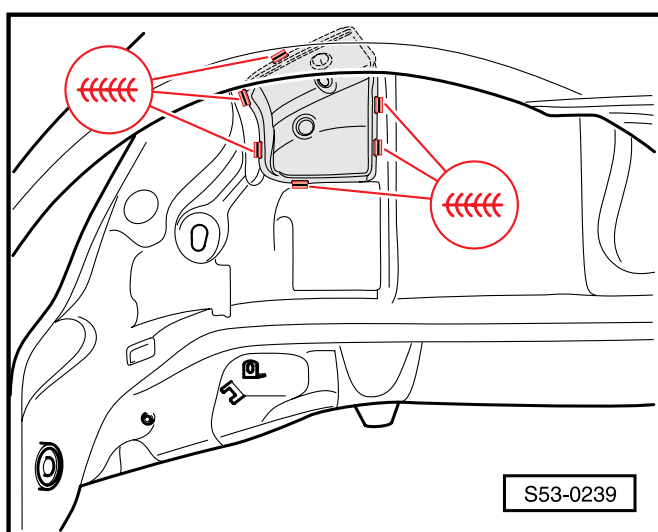


- ◀ - The wheelhouse liner is additionally shielded arc-welded to the wheelhouse, 3 x continuous seam. Welding is performed from the outside in the wheelhouse.

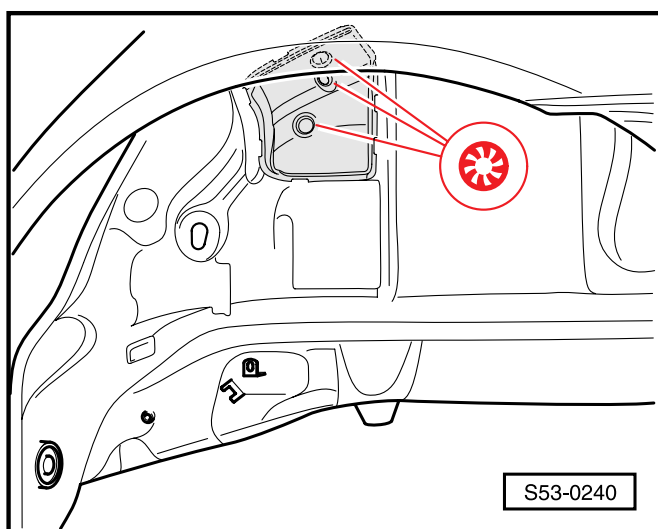


### Welding in reinforcement plate

- ◀ - Apply coloured markings with paint pen or similar to the circular raised areas -arrows- of the reinforcement plate.
- Position reinforcement plate and press onto the wheelhouse and then take off again.
- Drill three  $\varnothing 7$  mm holes at the positions marked in this way in the wheelhouse.
- Place reinforcement plate into installation position again.



- ◀ - Weld reinforcement plate to the wheelhouse in the area of the notched points, shielded arc continuous weld.



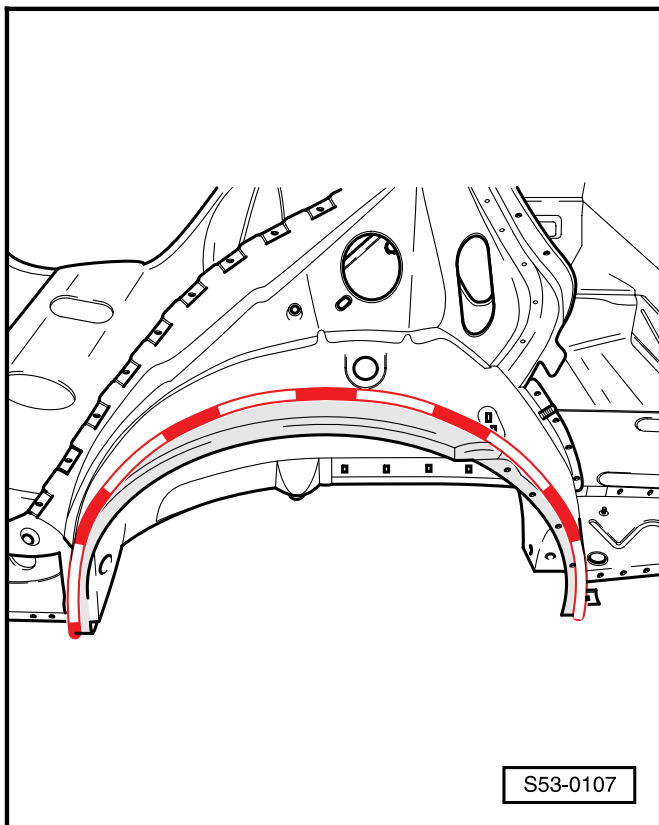
- ◀ - Weld in reinforcement plate, shielded arc plug weld.

## Replacing wheelhouse liner - part section

- Side part already cut out.

### Separation points

- ◀ - Position the separation points to permit off-setting at body side.
- Detach original joint.

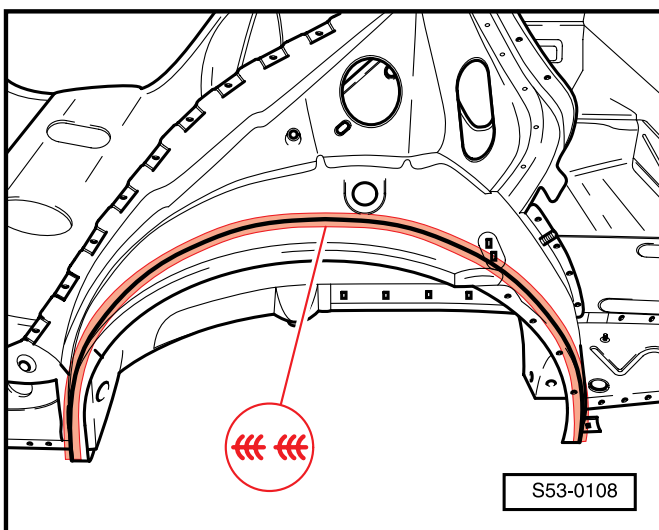


### Replacement part

- ◆ Wheelhouse liner

### Preparing new part

- Transfer separation cut to new part and cut to shape.



### Welding in

- Tack-weld wheelhouse liner.
- Tack-weld side part and check accuracy of fit.
- Take off side part.
- ◀ - Weld in wheelhouse liner, shielded arc continuous seam, staggered.

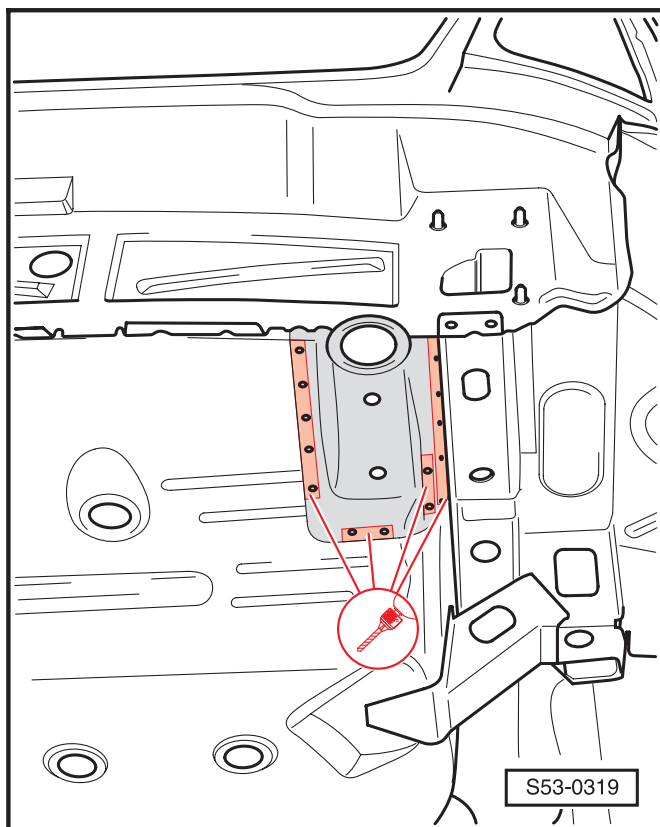
## Replacing towing lug

### Separation points

- ◀ - Drill off spot weld seams.

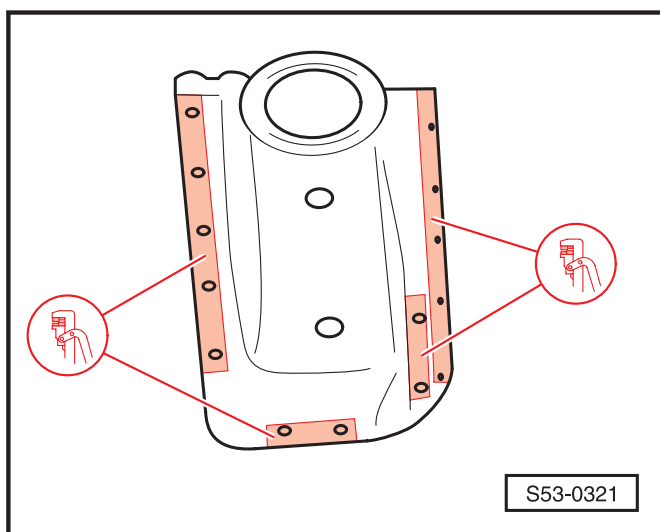
### Replacement parts

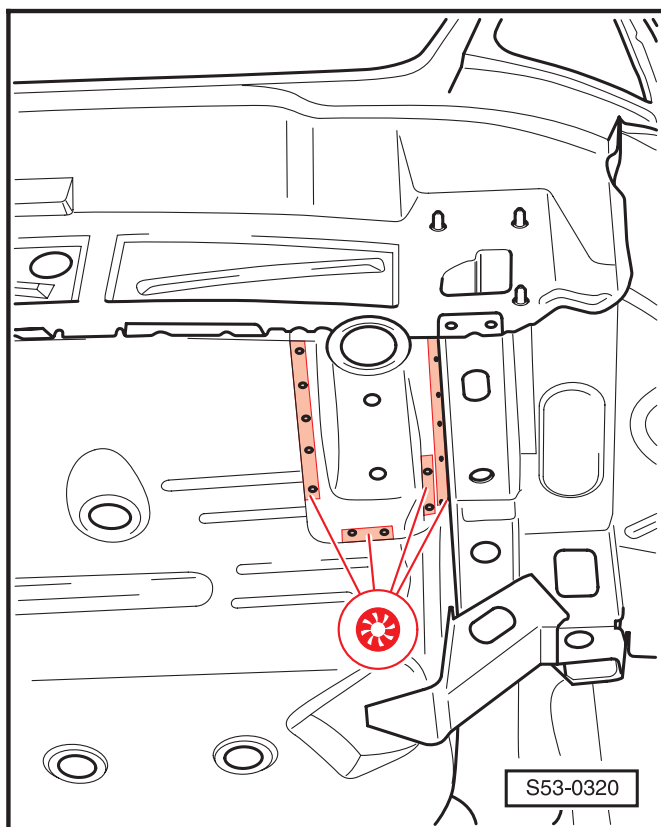
- ◆ Towing lug



### Preparing new part

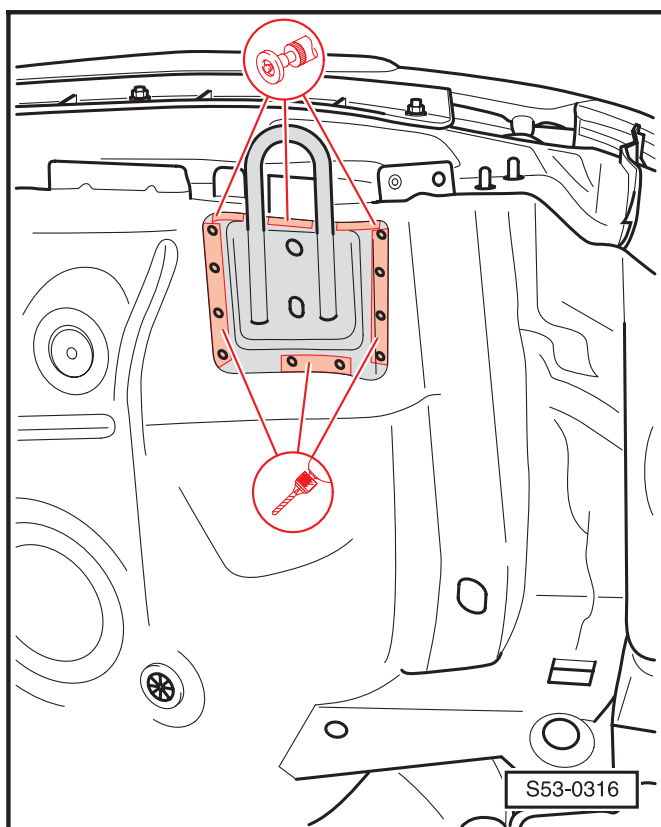
- ◀ - Make holes in the towing lug using punch pliers.





### Welding in

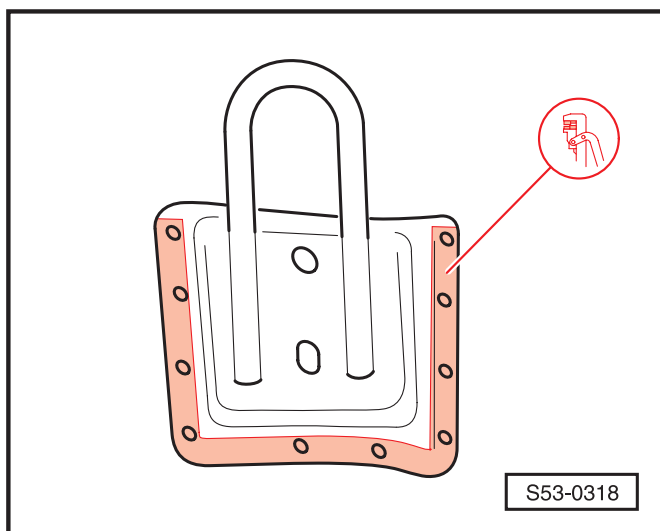
- ◀ - Weld in towing lug, inert gas shielded plug weld.



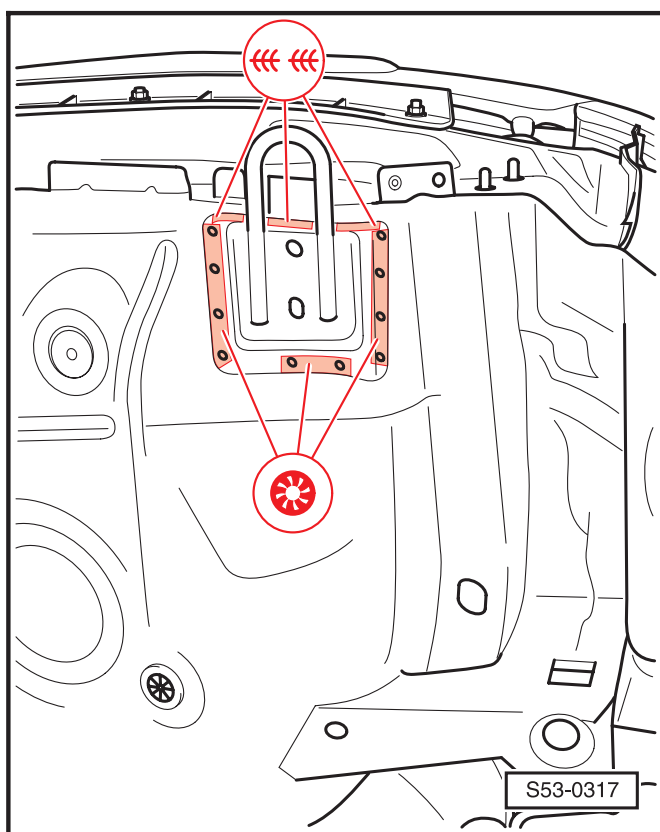
### Replacing towing lug (Octavia 4x4)

#### Separation points

- ◀ - Drill off spot weld seams.
- Grind through inert gas shielded full seam.

**Preparing new part**

- ◀ - Make holes in the towing lug using punch pliers.

**Welding in**

- ◀ - Weld in towing lug, inert gas shielded plug weld and inert gas shielded full seam interrupted.

