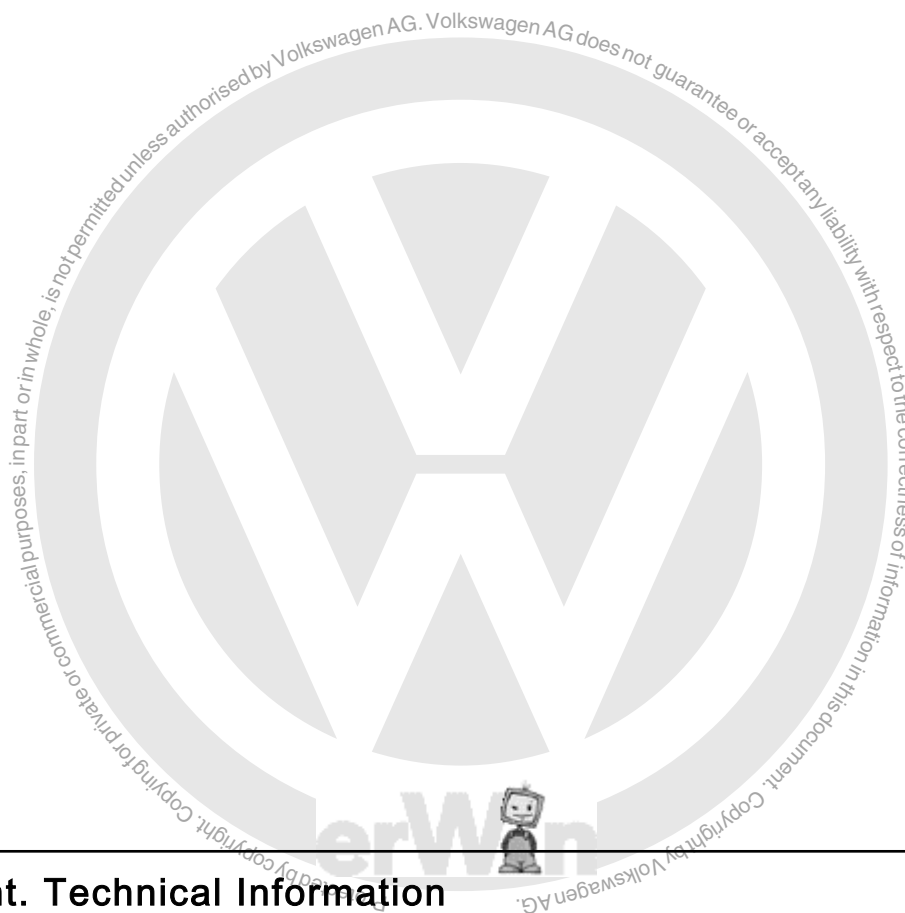




Body Repairs Golf 2013 ➤

Edition 02.2015





Repair Group overview for Body Repairs

Repair Group

- 00 - General, Technical Data
- 50 - Body Front
- 51 - Body Center, Chassis, Roof
- 53 - Body Rear

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



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00 – General, Technical Data

1 General Information

(Edition 02.2015)

This repair manual only describes selected labor operations. If labor operations are not described, proceed as follows: separate the original joint and recreate it with the replacement part. Repairs using methods that differ from the original manufacturing process are described.

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





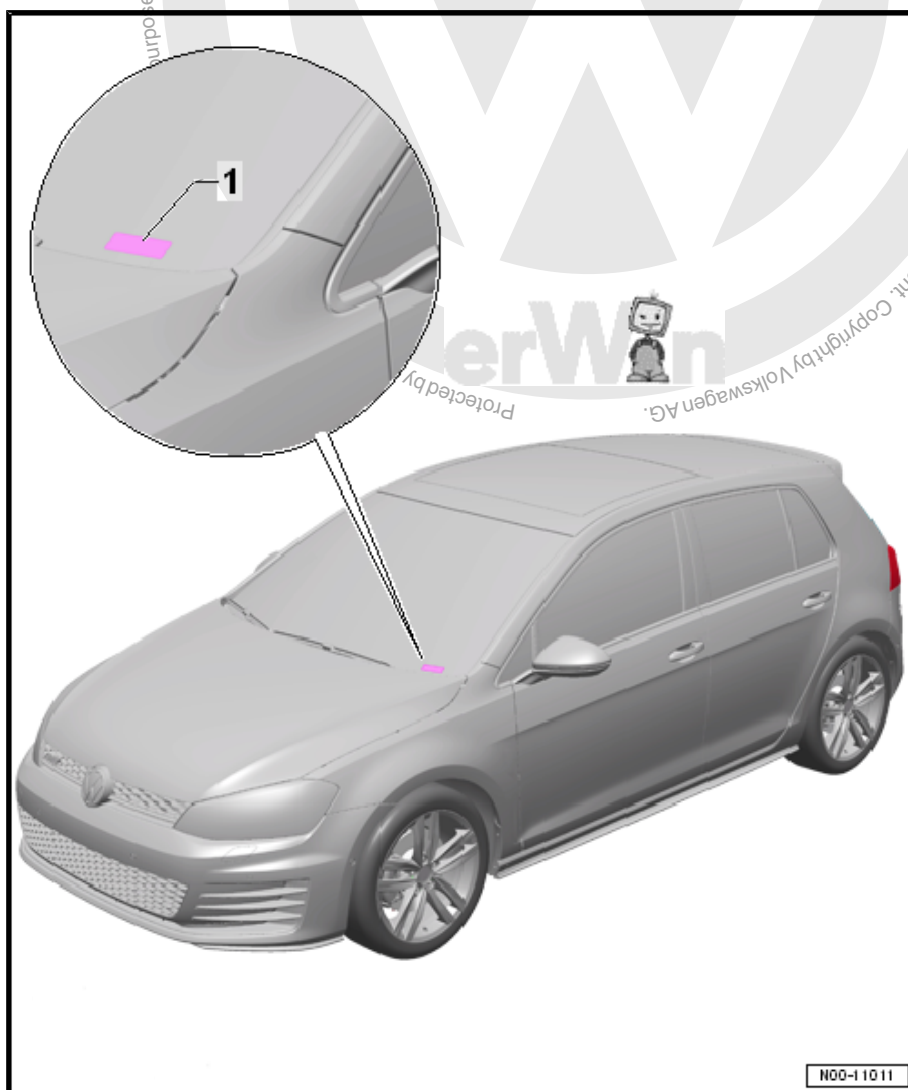
2 Vehicle Data

⇒ "2.1 Vehicle Identification Number", page 2

⇒ "2.2 Type Plate", page 3

⇒ "2.3 Vehicle Data Label", page 3

2.1 Vehicle Identification Number

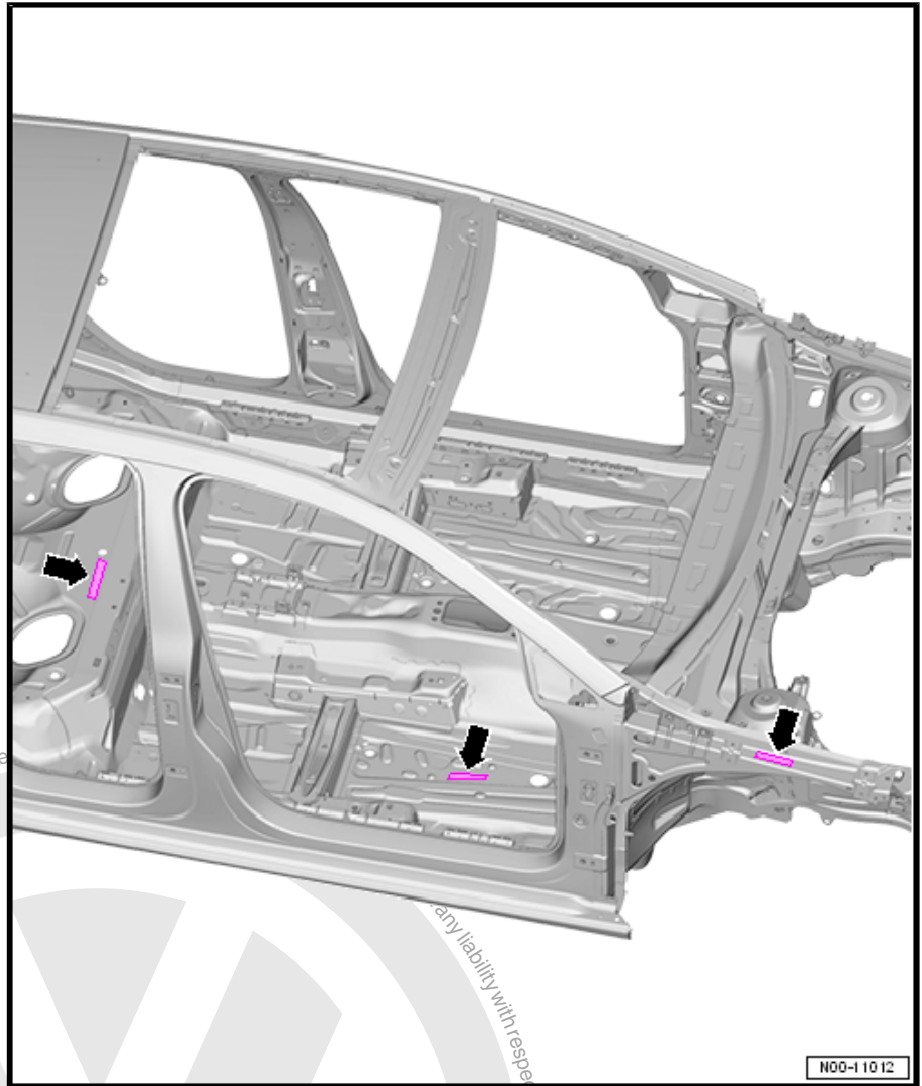


The VIN -1- is in the direction of travel under the windshield on the left side.



Note

- ◆ The VIN is stamped on three additional positions on the vehicle.
- ◆ If the components must be replaced due to damage, service should be documented according to market requirements.



2.2 Type Plate

The type plate is located on the door post on the driver side B-pillar. Vehicles for certain export countries do not have a type plate.

2.3 Vehicle Data Label

The vehicle data label is located in the luggage compartment

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

V53-1283



3 Safety Precautions



WARNING

Before starting any separating work, repairs or bulge corrections, always follow safety precautions in the binder General Notes, Body Collision Repair and Body Repair Manuals. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

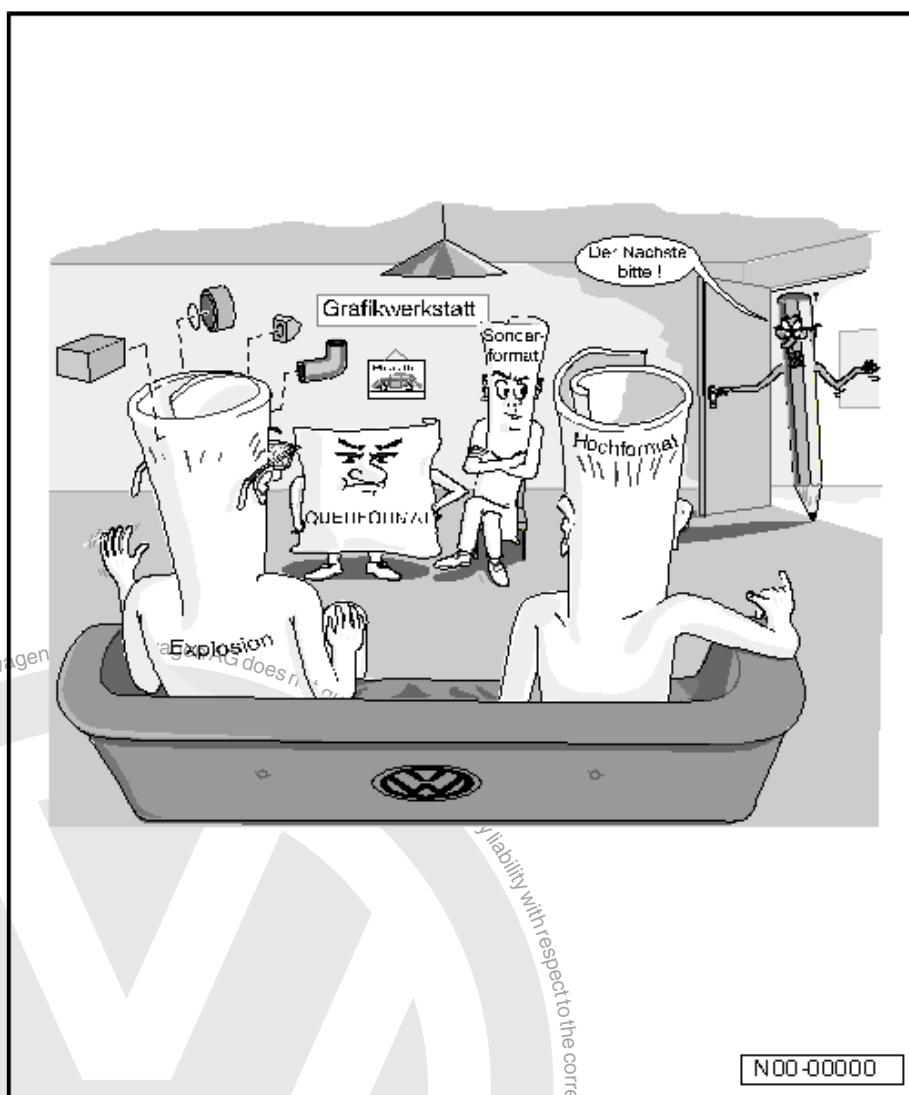


4 Molded Foam Parts

Various hollow body areas are equipped with molded foam parts in this vehicle.

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

Exact positions of molded foam parts are depicted at the beginning of the respective repair descriptions.



Exact positions of molded foam parts are depicted at the beginning of the respective repair descriptions.



Note

Replacement parts made of foam will react and foam only when the temperature is approximately 180 °C. For this reason, use Butyl Sealing Cord - AKL 450 005 05- or 2K Filler Foam - D 506 KD1 A3- for positioning the molded foam parts when performing a repair.

Do the following when performing a repair:



- Remove excess foam from vehicle.
- Apply corrosion protection.

Precondition

Before performing these work steps, the sheet metal to be replaced must be prepared for installation, for example, by cutting, fitting, corrosion protection.

Replacing Molded Foam Part

Either reuse the molded foam part or cut it from the universal Partition - 000 864 663- .

Secure the molded foam part to the body using the Butyl Sealing Cord - AKL 450 005 05- .

Then apply either the Butyl Sealing Cord - AKL 450 005 05- or the 2K Filler Foam - D 506 KD1 A3- to the molded foam part.

Secure new part by gently pressing on it around the molded foam part until it makes contact and then weld it.

The foam hardens within 25 minutes.

Do not perform any gas-shielded welding 15 mm next to the molded foam part.

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



5 Galvanized Body Parts and High-Strength/Highest Strength Hot Formed Body Panels

⇒ [“5.1 Assembly”, page 7](#)

⇒ [“5.2 2-Door Vehicle”, page 9](#)

⇒ [“5.3 4-Door Vehicle”, page 11](#)

5.1 Assembly



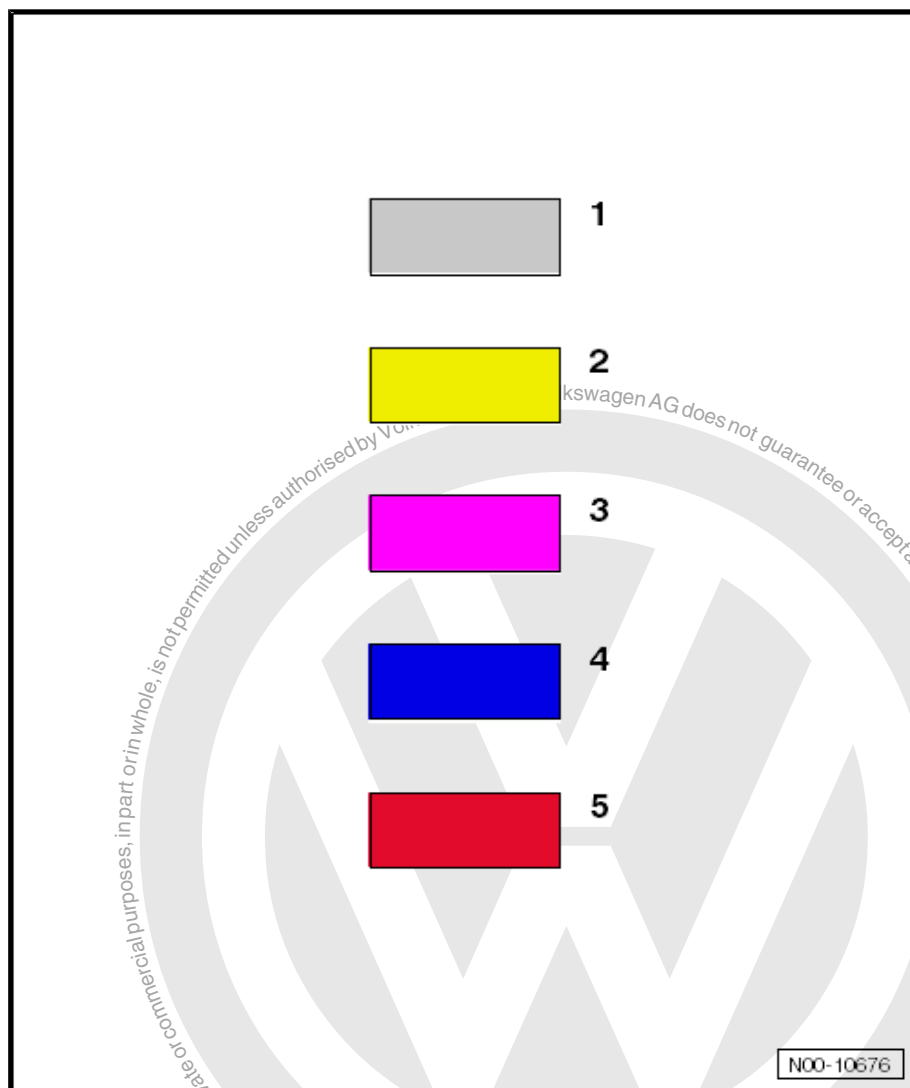
Note

All repairs must be performed according to the manufacturer specifications in the Repair Manual. High-strength and hot-formed steel can be only be repaired with inverter technology for optimum passenger safety after the repair is completed. Body panels, made from hardened steel, are used in areas where there are extreme loads. These body panels, which are light weight, have a much higher strength than conventional high-strength body panels.

General information applies to all work on higher-strength body panels. Refer to ⇒ General Information; Body Repairs, Body Collision Repair .

Vehicle construction is predominantly manufactured from galvanized steel panels.

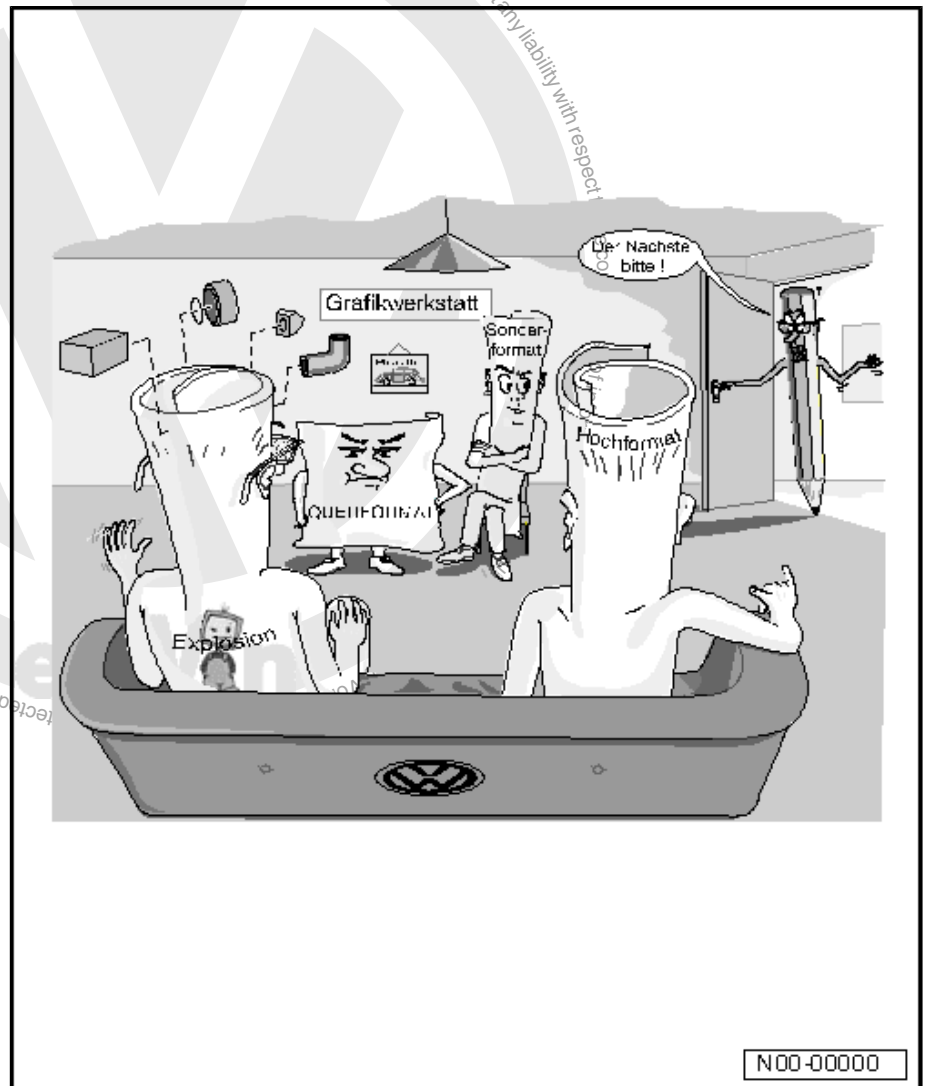
The steel panels, which are made of high strength to hot formed steel, are shown in color in the following illustrations (see Table).



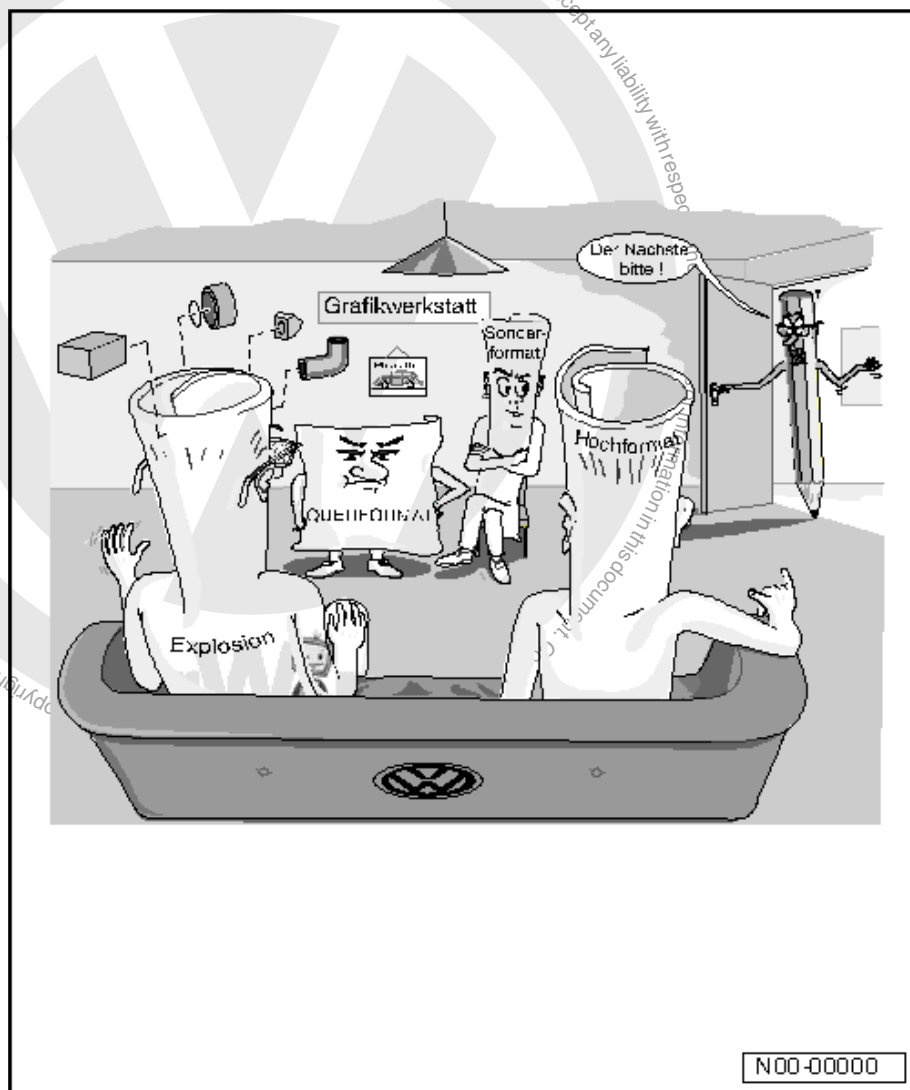
	Color	Type of steel	Tensile strength in MPa
1	Gray	Soft	< 350
2	Yellow	High-strength	300 - 590
3	Magenta	Modern high-strength	500 - 980
4	Blue	Ultra-high strength	980 - 1150
5	Red	Ultra high-strength hot-formed	greater than 1400



5.2 2-Door Vehicle



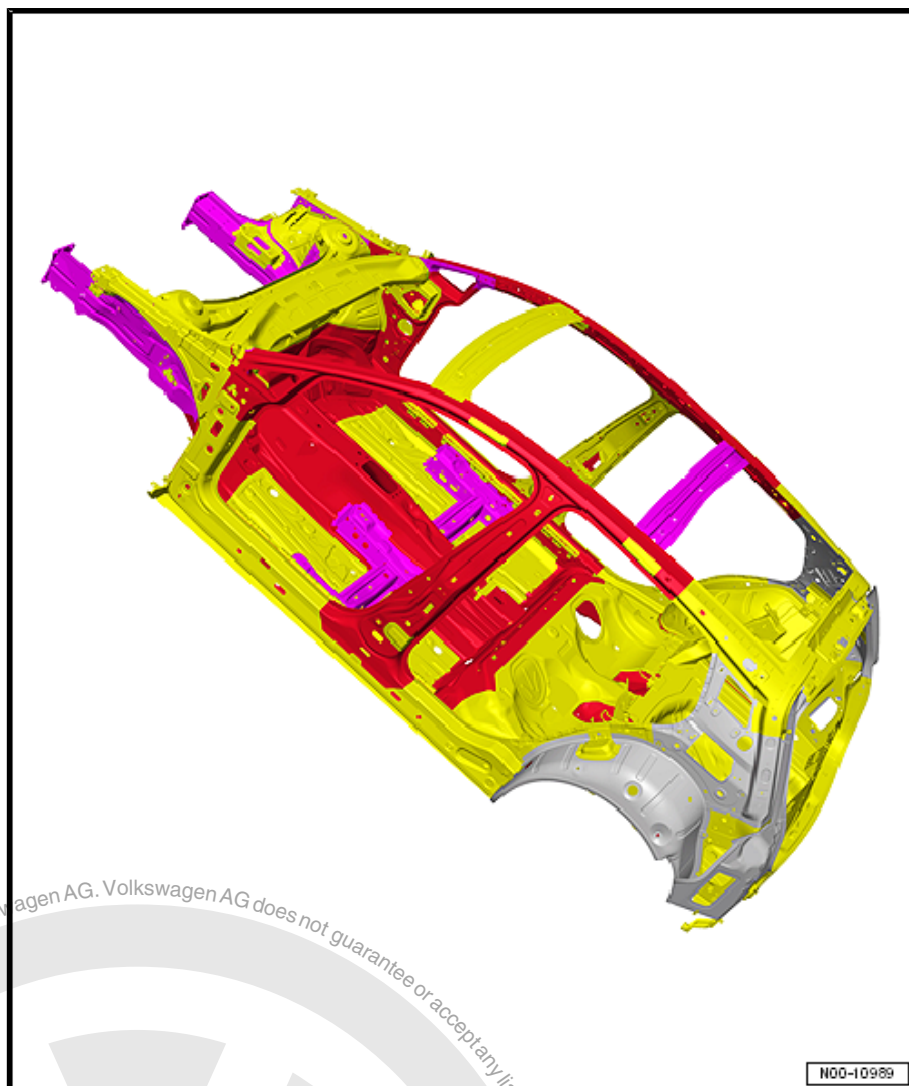
To illustrate the body more clearly, the outer side panel and the roof are not shown in the illustration. These body parts are made out of »standard« body steel.



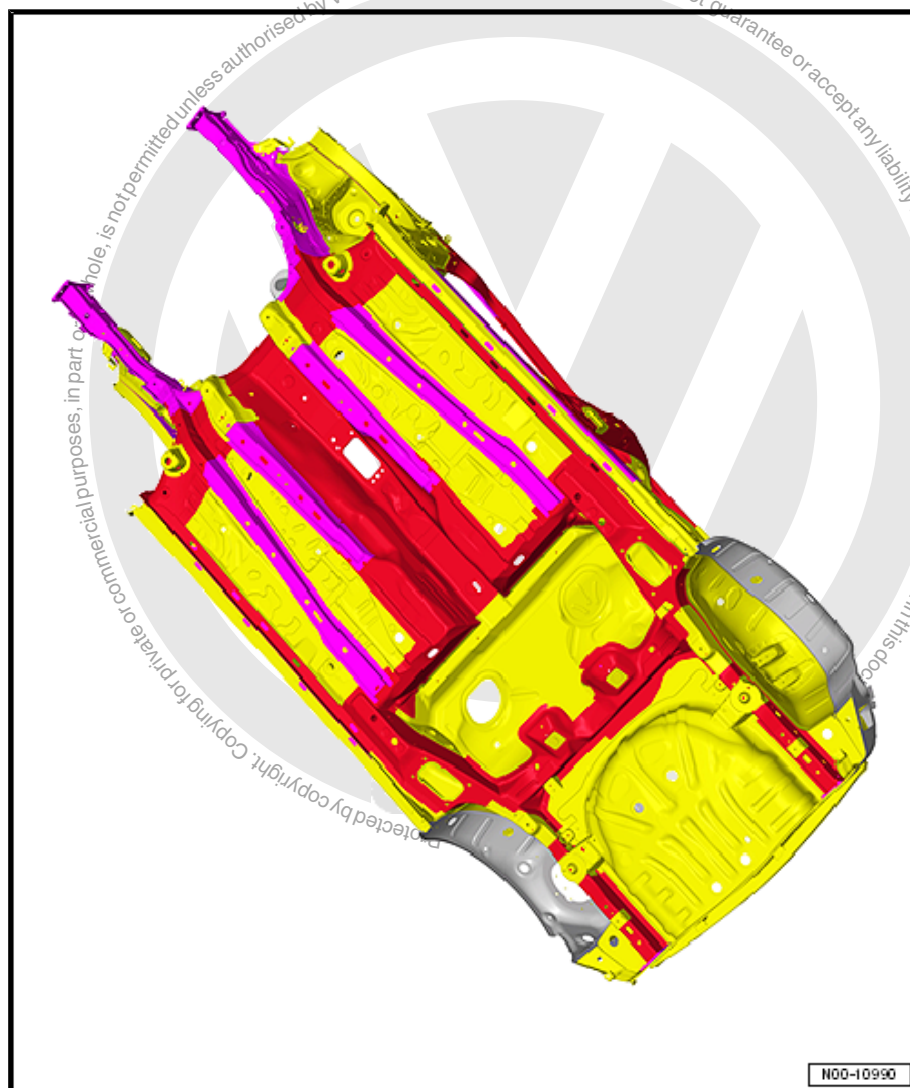
To illustrate the body more clearly, the outer side panel and the roof are not shown in the illustration. These body parts are made out of »standard« body steel.



5.3 4-Door Vehicle



To illustrate the body more clearly, the outer side panel and the roof are not shown in the illustration. These body parts are made out of »standard« body steel.



To illustrate the body more clearly, the outer side panel and the roof are not shown in the illustration. These body parts are made out of »standard« body steel.



6 Laser Welds

On this vehicle, roof and body are partially welded by laser.

In laser welding, a high energy light beam is directed onto the weld points via optical lenses or fiber optics.

During the welding process, the upper plate is melted through and the lower plate is partially melted, thereby forming a weld without using any additional materials.

During repairs (except roof repairs), laser weld seams are replaced by gas-shielded arc continuous weld seams or straight-line spot weld seam.



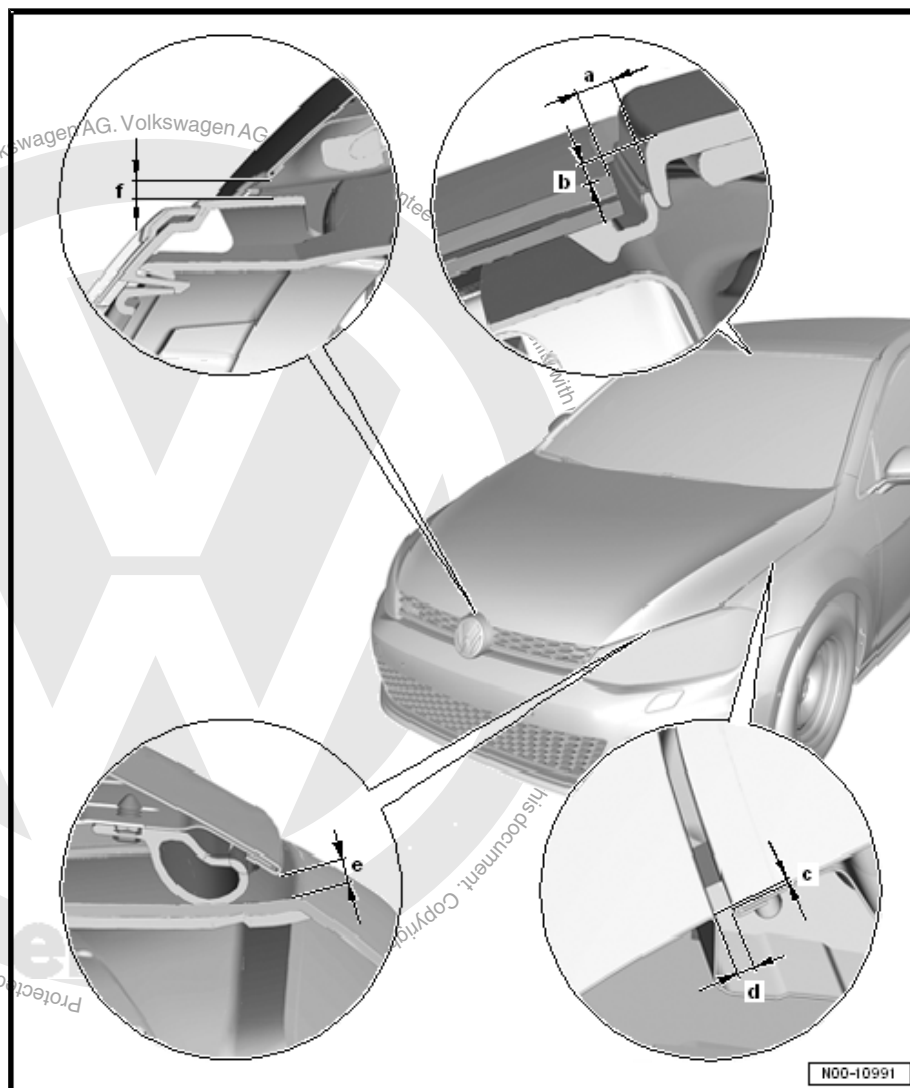
7 Gap Dimensions



Note

- ◆ Use the Gauge - Gap Adjustment - 3371- to adjust or check.
- ◆ Panel gaps are always indicated in mm.

7.1 Body Front





Dimension -a- = $2.5 \text{ mm} \pm 0.5 \text{ mm}$

Dimension -b- = $2.7 \text{ mm} \pm 0.5 \text{ mm}$

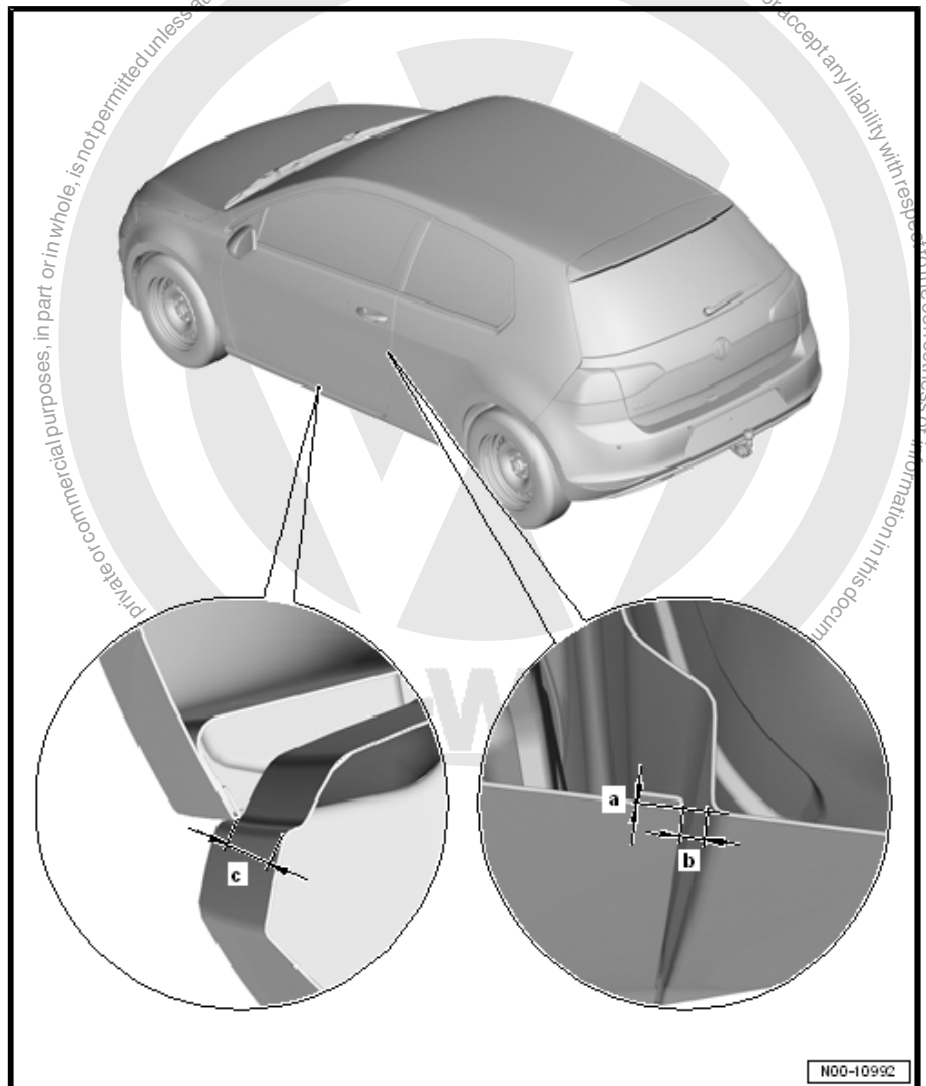
Dimension -c- = $0.6 \text{ mm} \pm 0.5 \text{ mm}$.

Dimension -d- = $3.5 \text{ mm} \pm 0.5 \text{ mm}$

Dimension -e- = $5.0 \text{ mm} \pm 0.5 \text{ mm}$.

Dimension -f- = $4.5 \text{ mm} \pm 0.5 \text{ mm}$

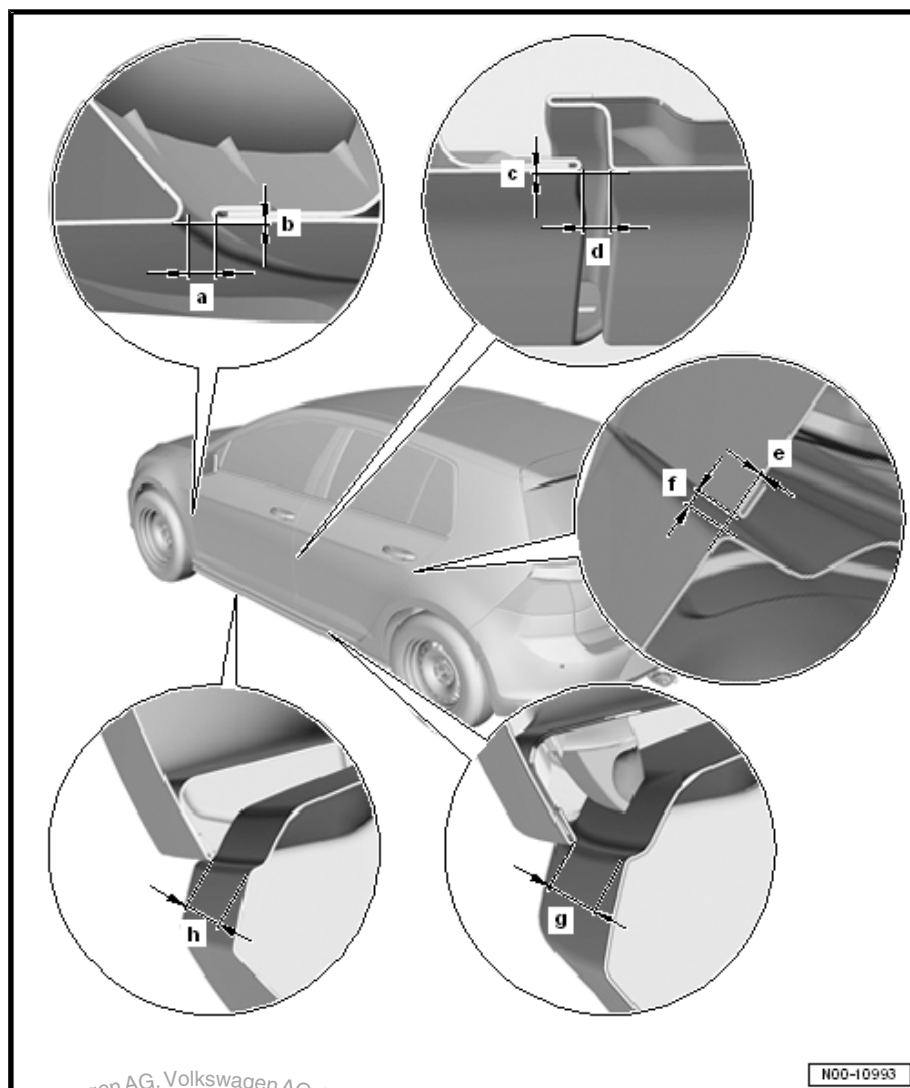
7.2 Body, Center



Dimension -a- = $0.0 \text{ mm} \pm 1.0 \text{ mm}$

Dimension -b- = $3.5 \text{ mm} \pm 0.5 \text{ mm}$

Dimension -c- = $5.4 \text{ mm} \pm 0.8 \text{ mm}$.



N00-10993

Dimension -a- = 3.5 mm ± 0.5 mm

Dimension -b- = 0.0 mm - 1.0 mm

Dimension -c- = 0.0 mm ± 1.0 mm

Dimension -d- = 4.2 mm ± 0.5 mm

Dimension -e- = 0.0 mm ± 1.0 mm

Dimension -f- = 3.5 mm ± 0.5 mm

Dimension -g- = 5.5 mm ± 0.8 mm

Dimension -h- = 5.4 mm ± 0.8 mm





Dimension -a- = 1.8 mm

Dimension -b- = 0.2 mm

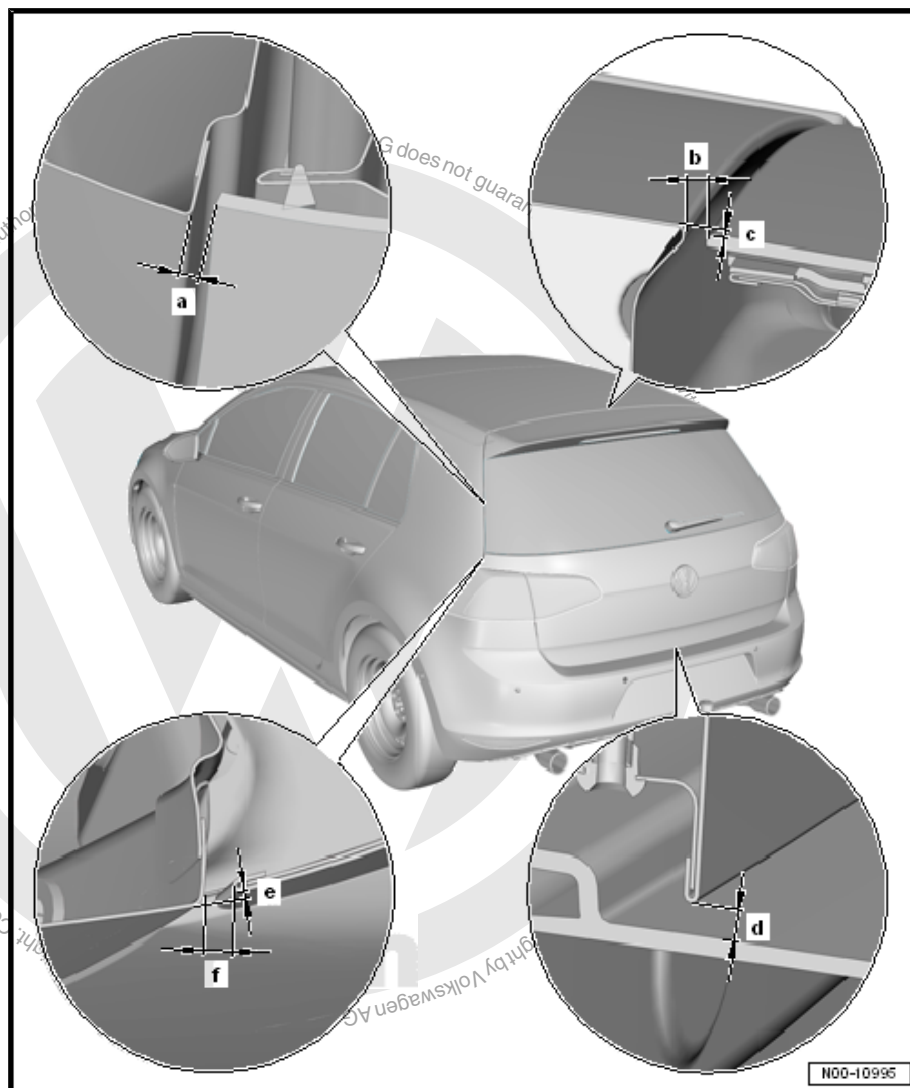
Dimension -c- = 4.9 mm

Dimension -d- = 4.6 mm

Dimension -e- = 0.0 mm

Dimension -f- = 0.6 mm

7.3 Body, Rear



Dimension -a- = 4.0 mm \pm 0.5 mm

Dimension -b- = 5.0 mm \pm 0.5 mm

Dimension -c- = - 1.2 mm \pm 0.8 mm

Dimension -d- = 5.0 mm \pm 0.5 mm

Dimension -e- = 1.4 mm \pm 0.8 mm

Dimension -f- = 4.5 mm \pm 0.5 mm



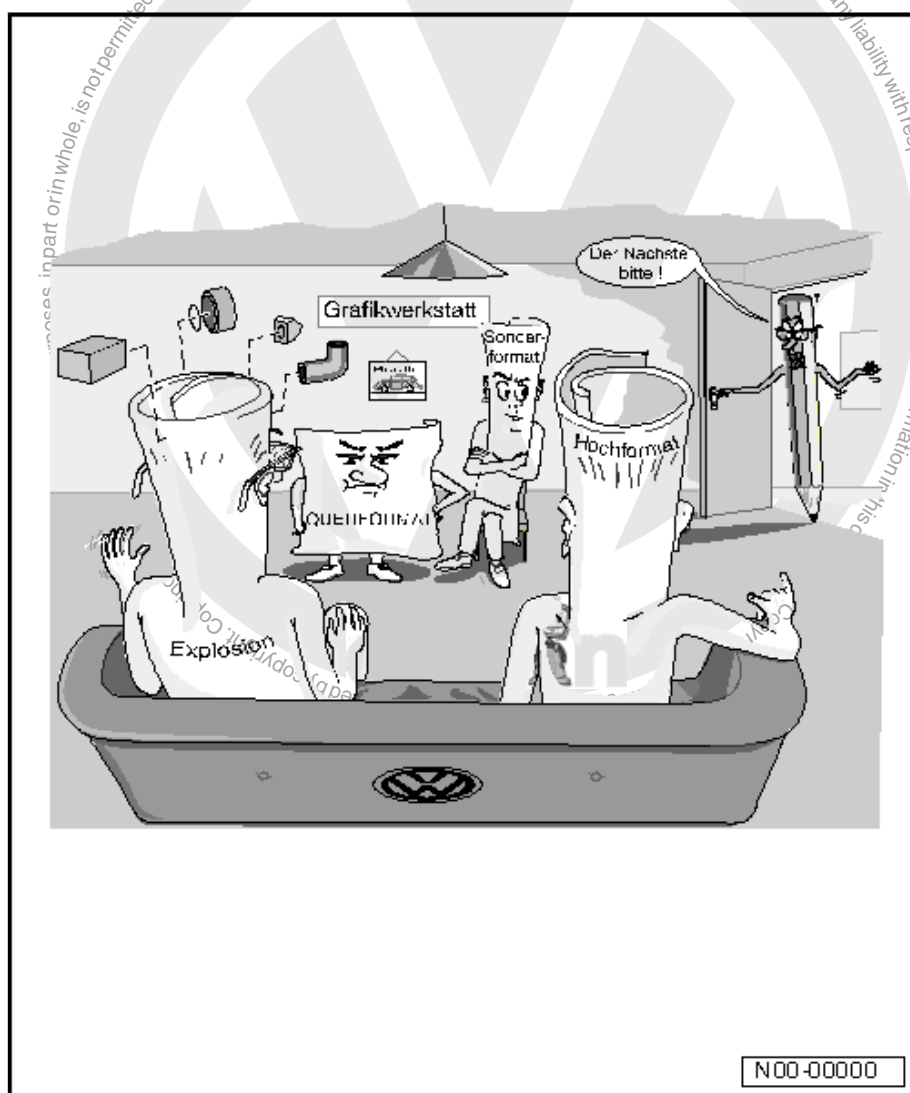
8 Body Panel Dimensions



Note

- ◆ The body dimensions serve only for inspection. The Alignment Bracket Set is standard.
- ◆ Bolts, plugs, trim and attachments must be removed before the measuring procedure.
- ◆ Use the Telescoping Gauge - 41.5-92.5cm - VAS 5159- or the Telescoping Gauge - 92-260cm - VAS 5160- to determine the body dimensions.
- ◆ Ensure measuring points are always the same length to avoid inaccuracy when measuring.

8.1 Body Front





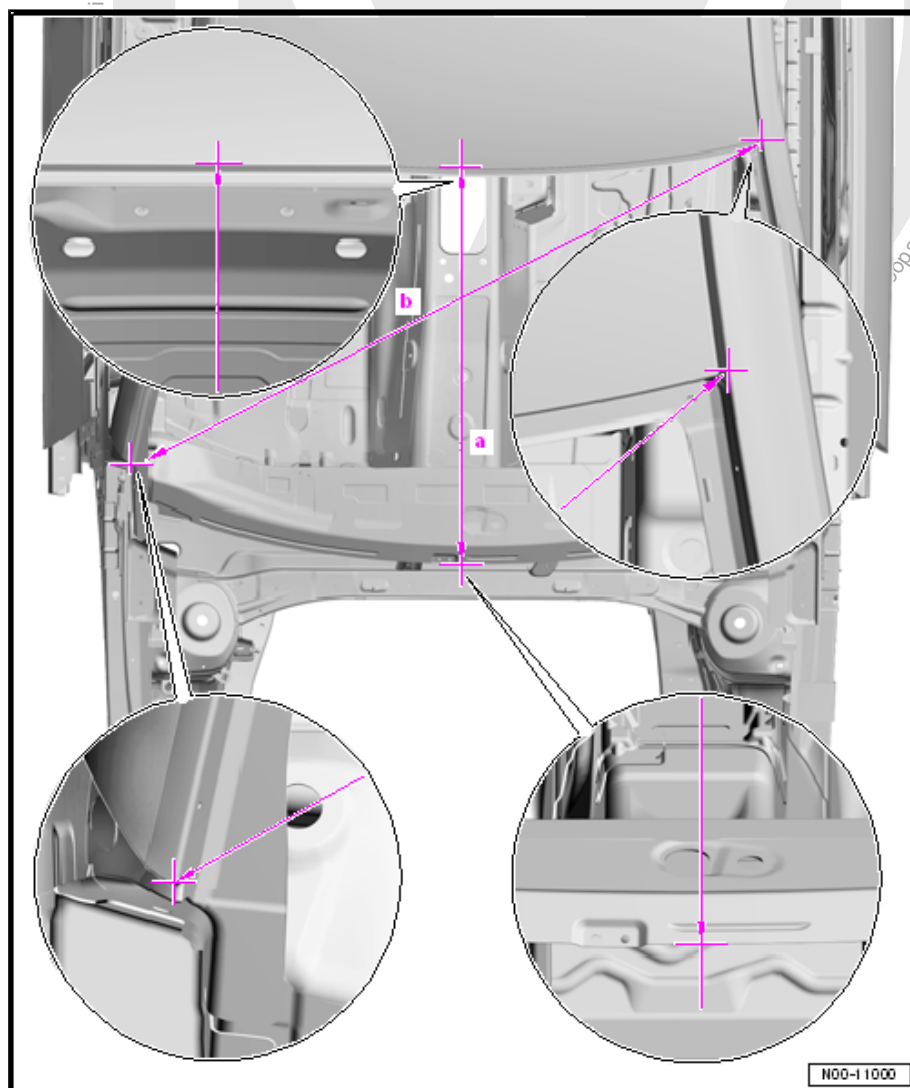
Dimension -a- = 975 mm \pm 2.0 mm

Dimension -b- = 1125 mm \pm 2.0 mm

Dimension -c- = 1310 mm \pm 2.0 mm

Dimension -d- = 1400 mm \pm 2.0 mm

8.2 Body, Center

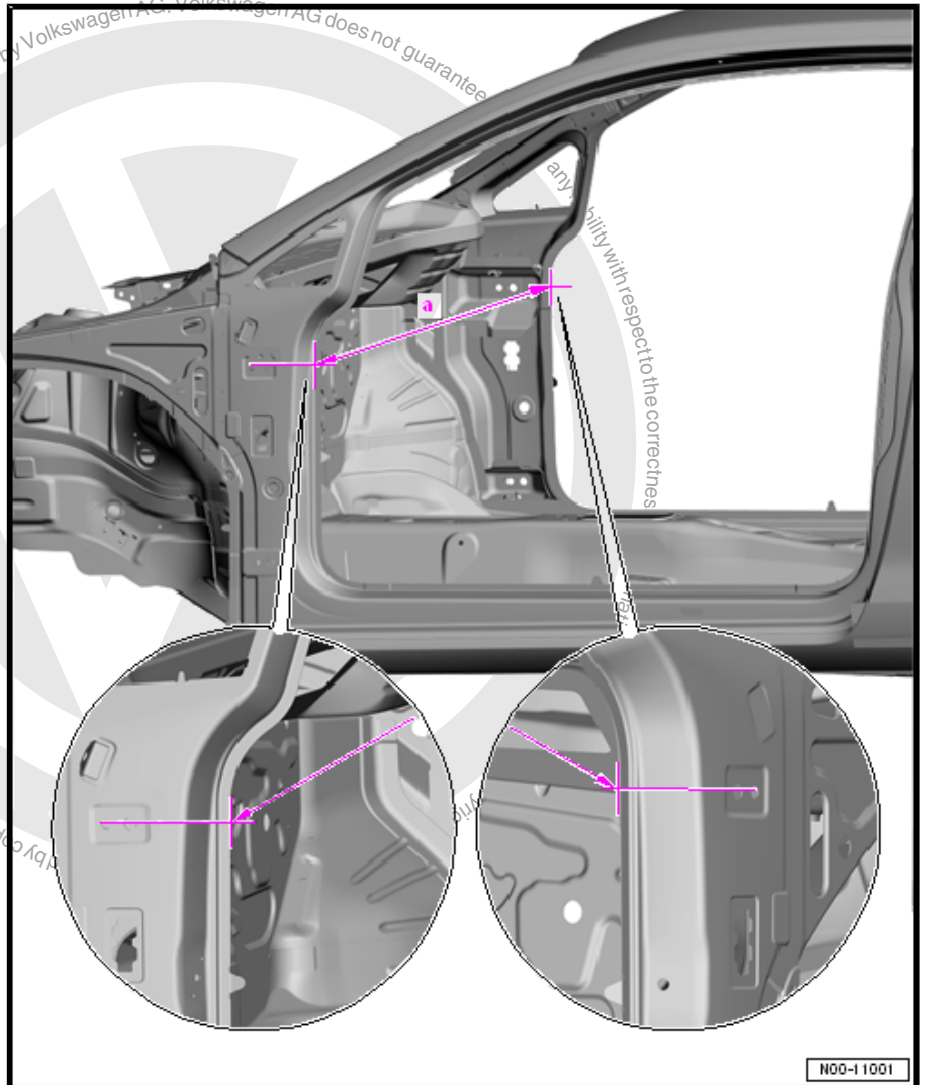




Dimension -a- = 915 mm \pm 2.0 mm

Dimension -b- = 1500 mm \pm 2.0 mm

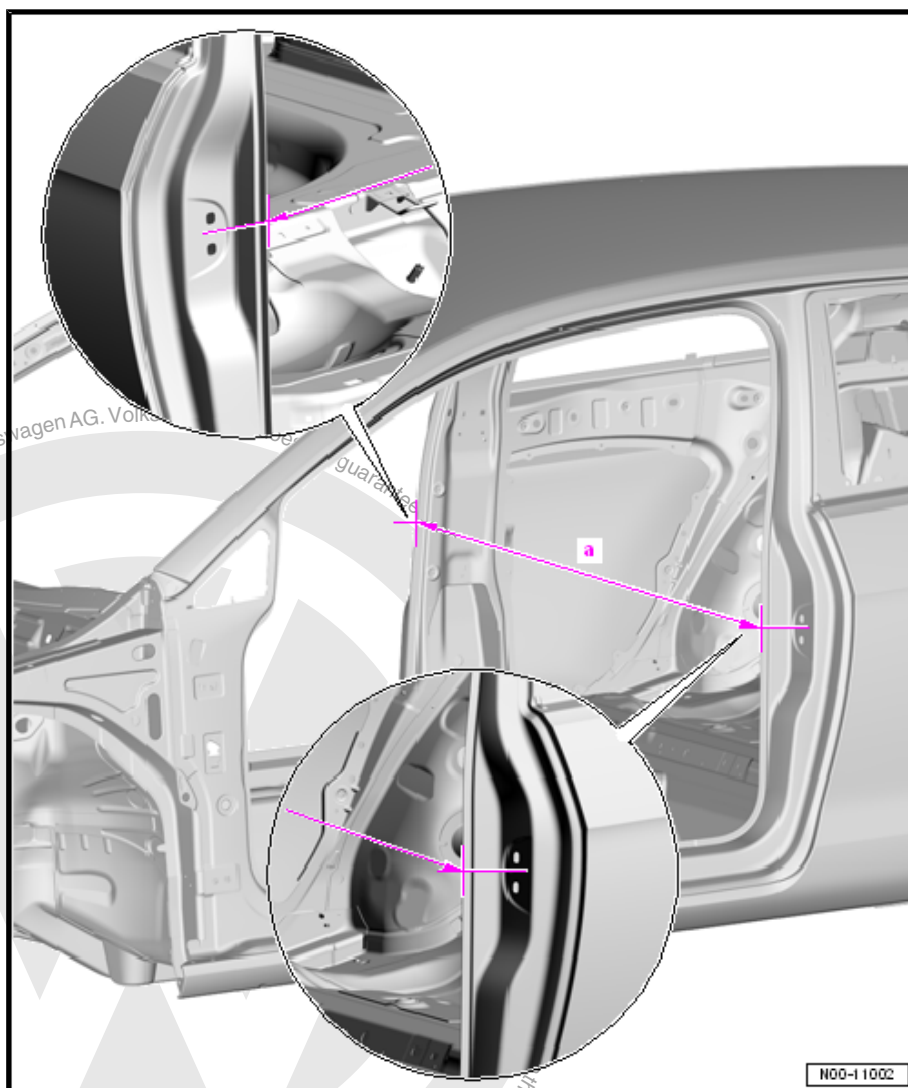
8.2.1 2-Door Vehicle



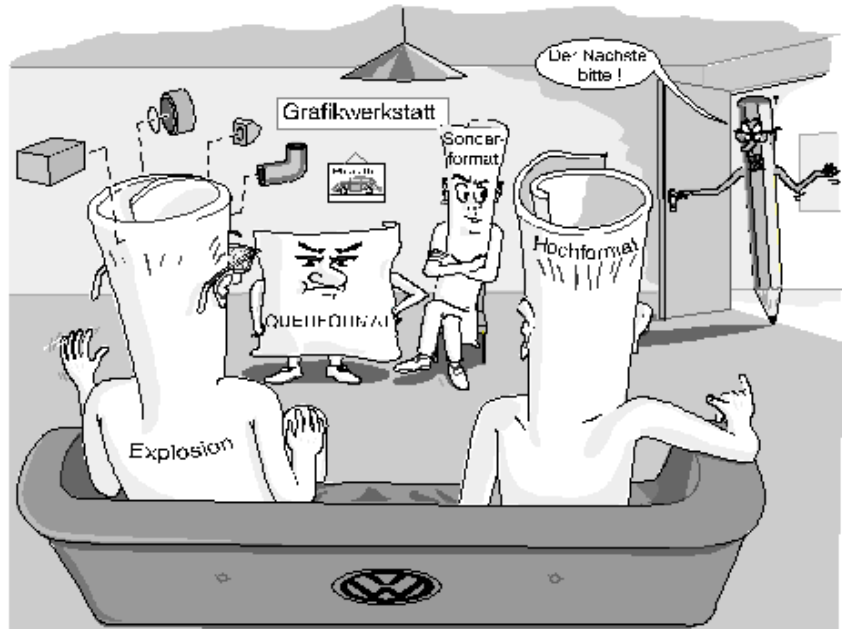
Note

This dimension is the same in 2- and 4-door vehicles.

Dimension -a- = 1435 mm \pm 2.0 mm

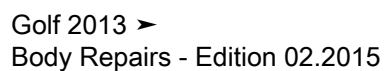


Dimension -a- = 1425 mm \pm 2.0 mm



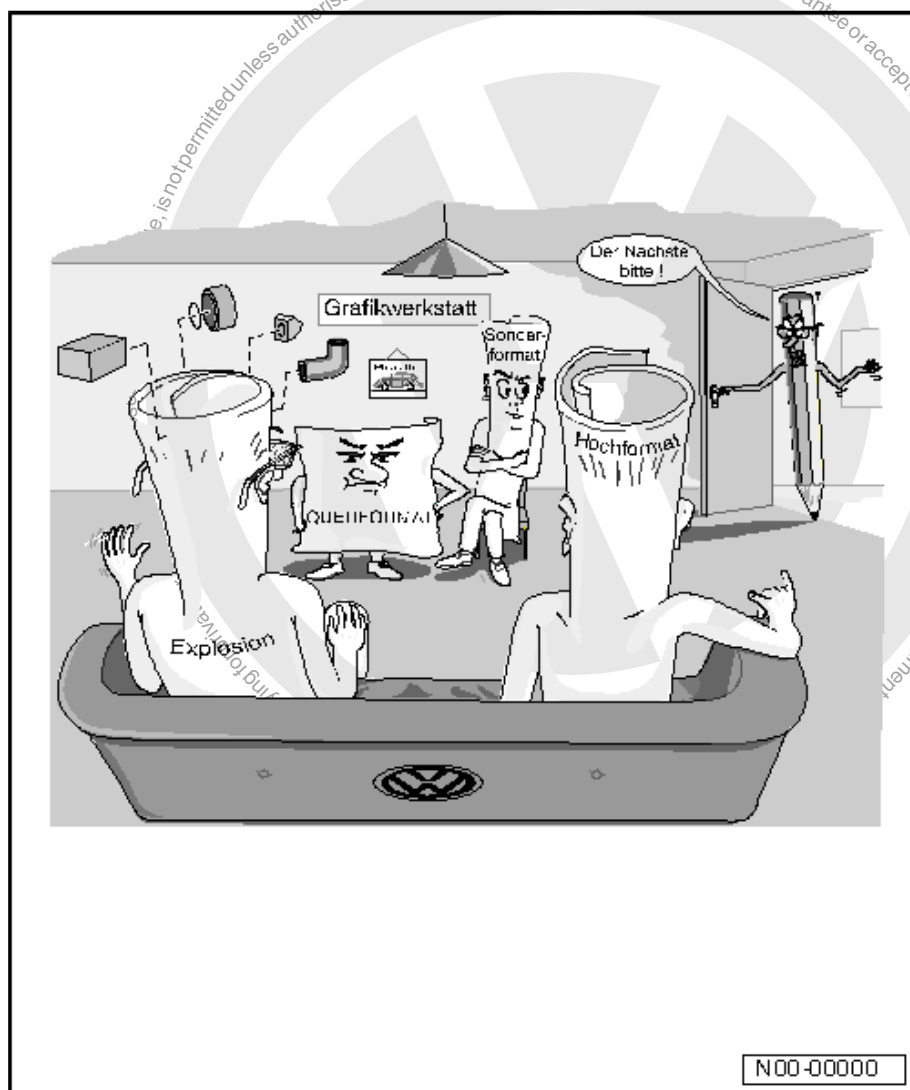
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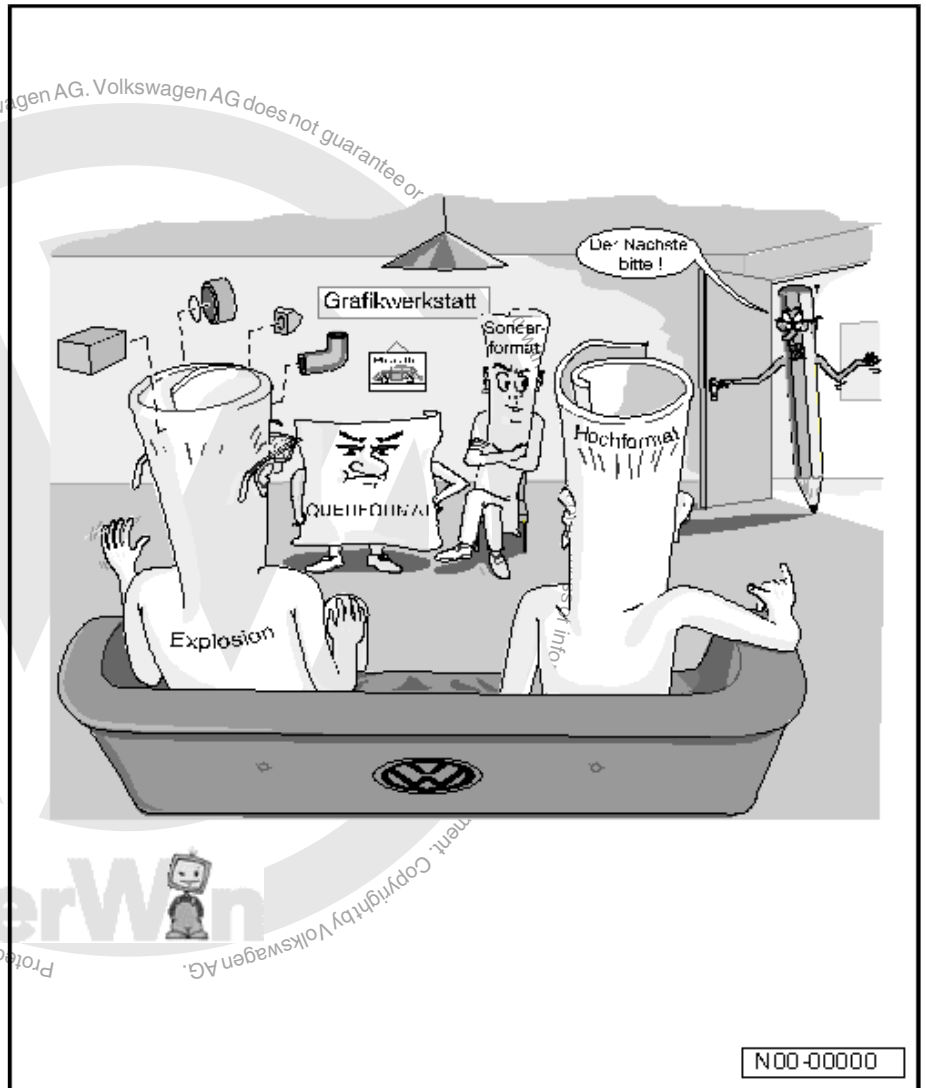


Dimension -b- = 920 mm ± 2.0 mm

8.2.2 4-Door Vehicle

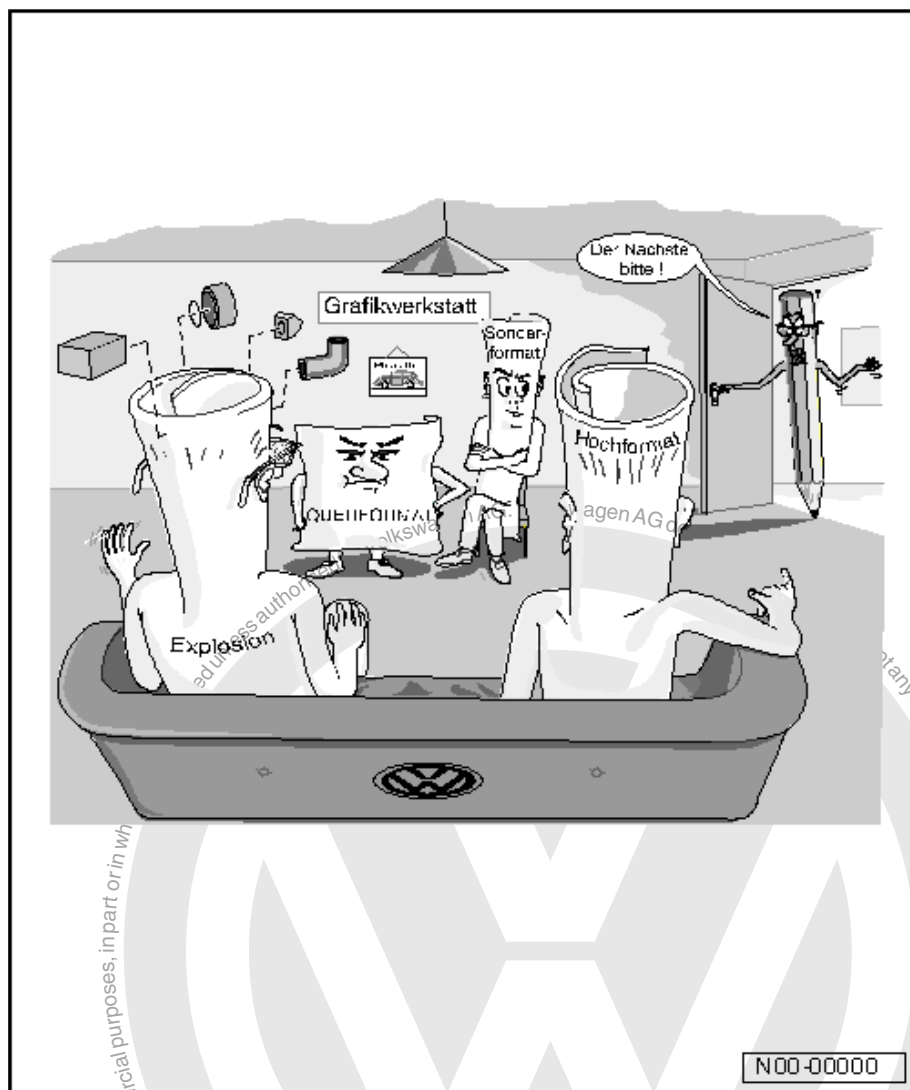


Dimension -b- = 1415 mm ± 2.0 mm



Dimension -a- = 860 mm ± 2.0 mm

Dimension -b- = 920 mm ± 2.0 mm



Dimension -b- = 680 mm ± 2.0 mm

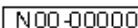
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Dimension -b- = 800 mm ± 2.0 mm

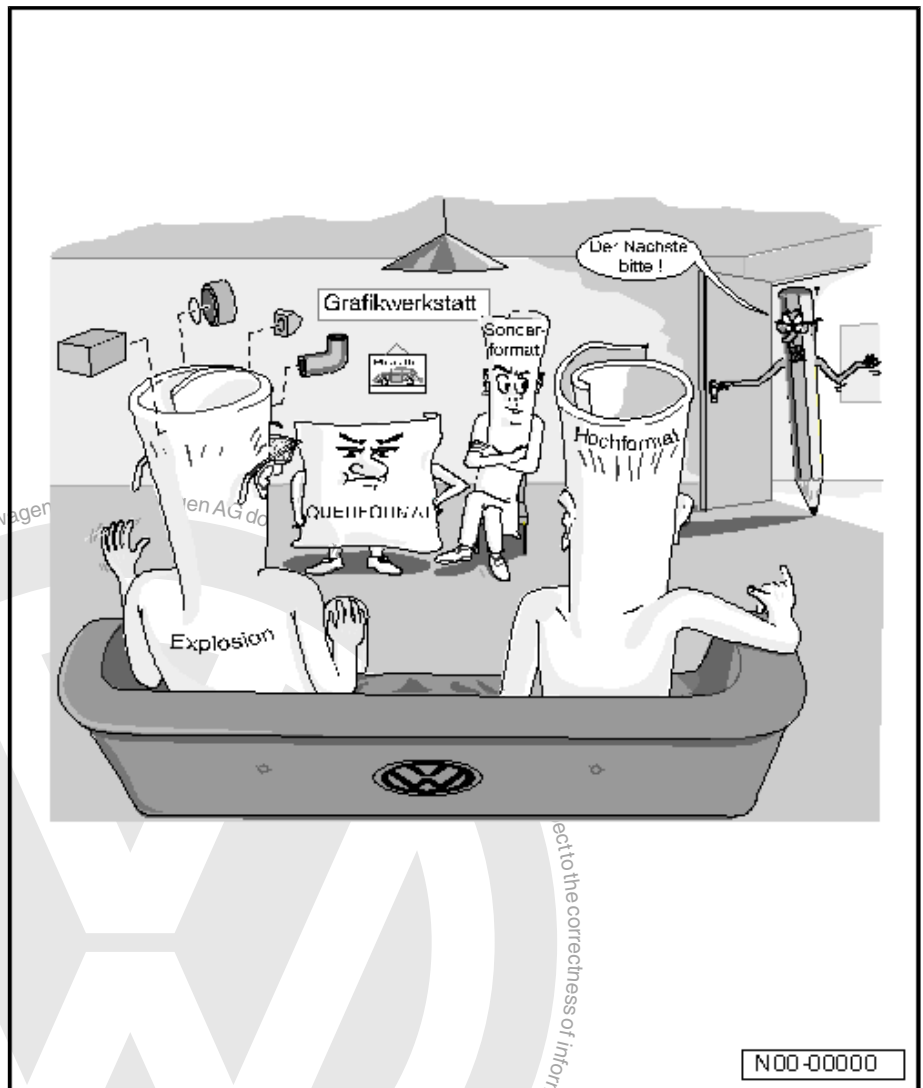
8.4 Front Floor Assembly





Dimension -a- = 965 ± 2.0 mm
Dimension -b- = 610 ± 2.0 mm
Dimension -c- = 1030 ± 2.0 mm
Dimension -d- = 875 ± 2.0 mm
Dimension -e- = 680 ± 2.0 mm
Dimension -f- = 400 ± 2.0 mm

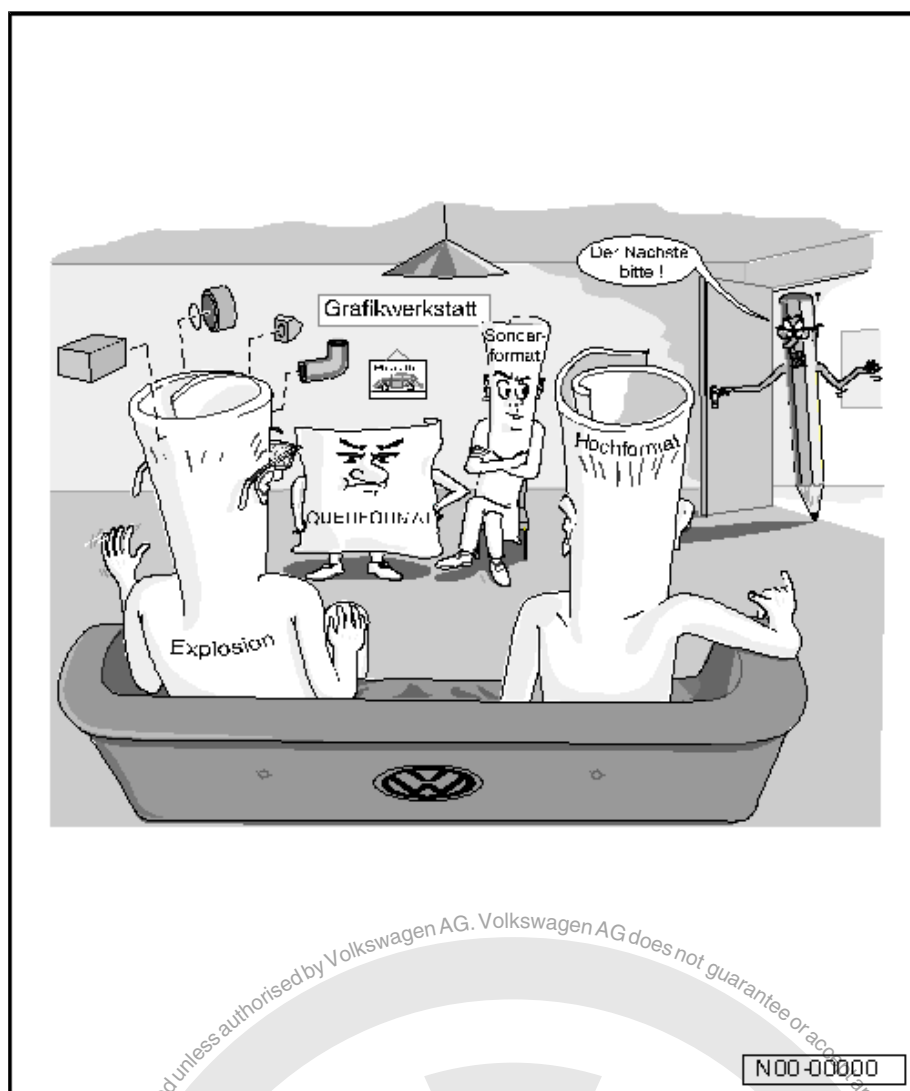
8.5 Center Floor Assembly





Dimension -a- = 1490mm ± 2.0 mm

8.6 Rear Floor Assembly



Dimension -a- = 1325 ± 2.0 mm

Dimension -b- = 1000 ± 2.0 mm.

Dimension -c- = 1090 ± 2.0 mm

Dimension -d- = 990 ± 2.0 mm

Dimension -f- = 270 ± 2.0 mm



9 Alignment Bracket Set



Note

Use a Alignment Bracket Set or Measuring and Alignment System approved by Volkswagen AG to perform any aligning work.

9.1 Overview

Special tools and workshop equipment required

- ◆ Measuring And Alignment System - VAS 6526- or
- ◆ Measuring And Alignment System - VAS 6527- or
- ◆ Measuring And Alignment System w/Wall System - VAS 6528- or
- ◆ Straightening Bracket Set - Audi A3 - VAS 6789-



Note

Refer to assembly plan supplied with alignment bracket set for detailed information on the assembly.





10 Portal Gauge

Special tools and workshop equipment required

- ◆ Portal Gauge - VAS 5007-





50 – Body Front

RO: 50 43 55 60

1 Subframe Mounting Bracket, Removing and Installing

⇒ "1.1 Tools", page 34

⇒ "1.2 Removing", page 34

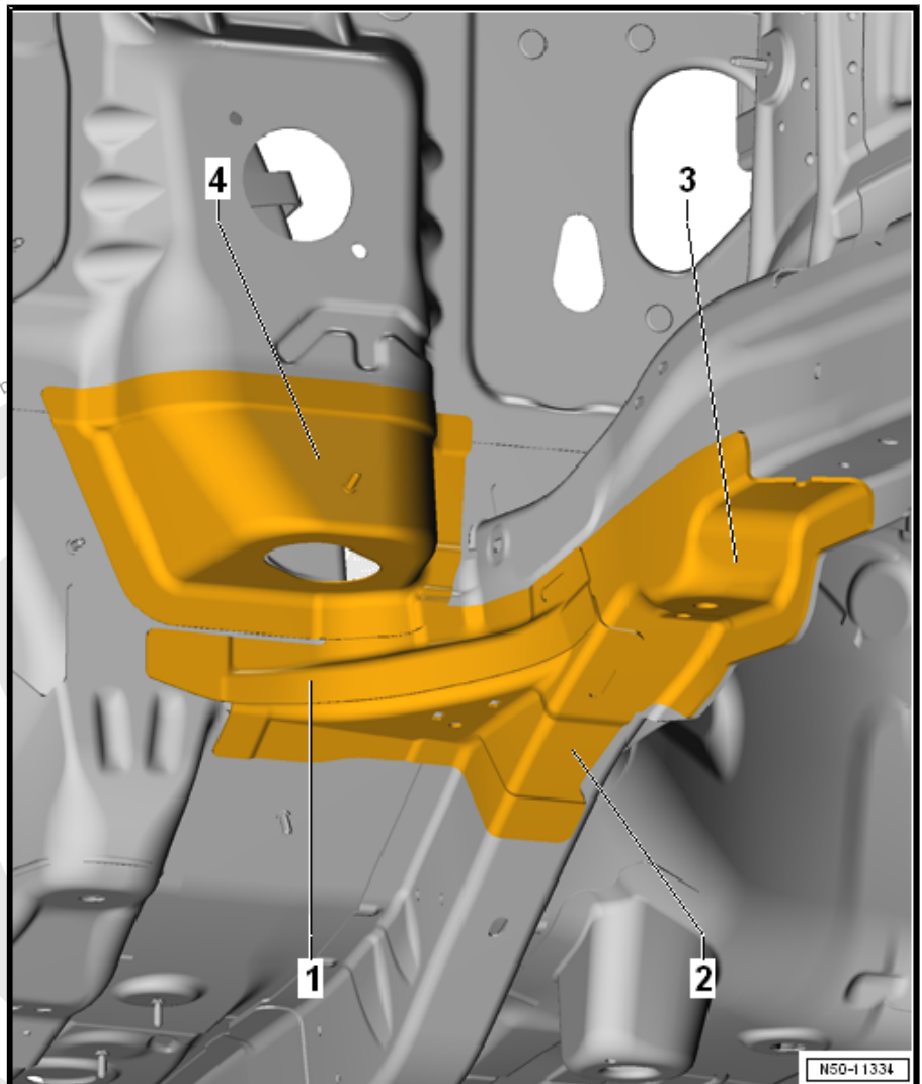
⇒ "1.3 Installing", page 35



WARNING

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

- 1 - Subframe Retaining Bracket
- 2 - Upper Corner Reinforcement
- 3 - Lower Corner Reinforcement
- 4 - Steering End Panel





Note

In the example, replacement of retaining bracket for subframe is described for left front retaining bracket on this vehicle. Work procedure must be transferred to the other 3 retaining brackets accordingly as necessary.

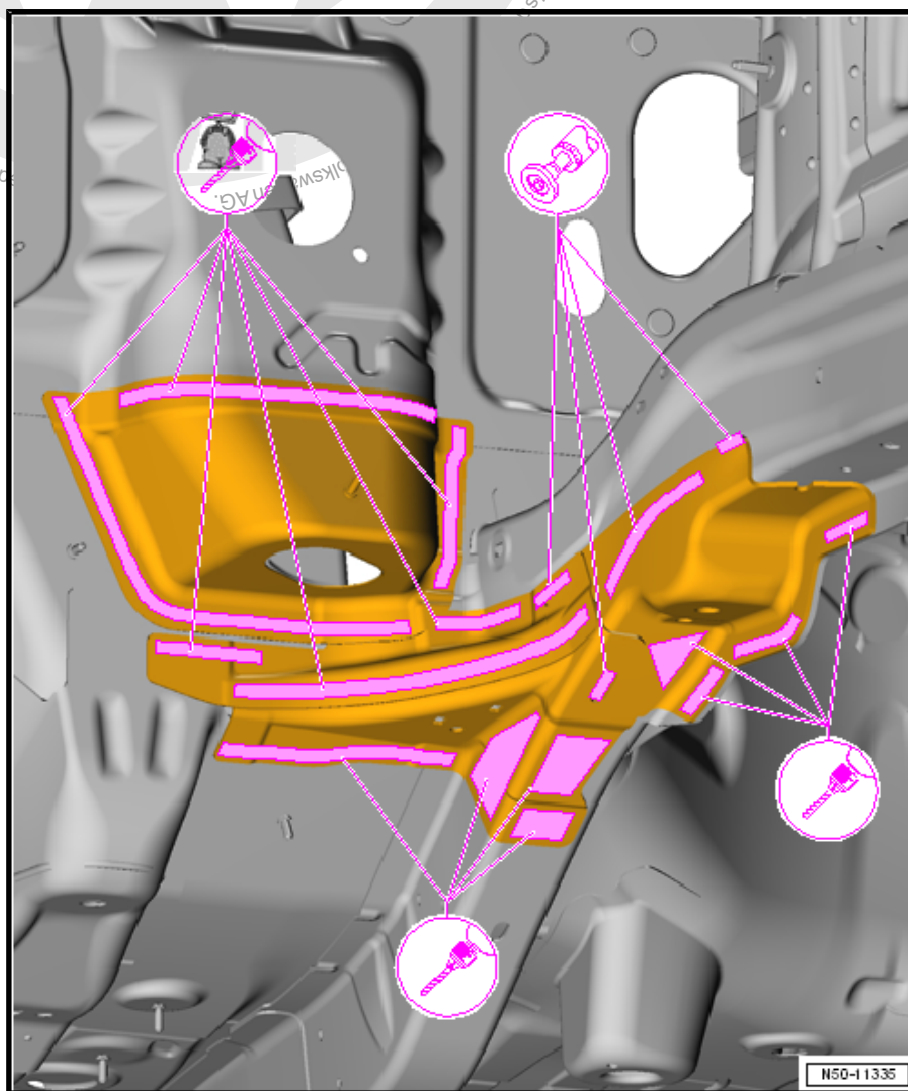
1.1 Tools



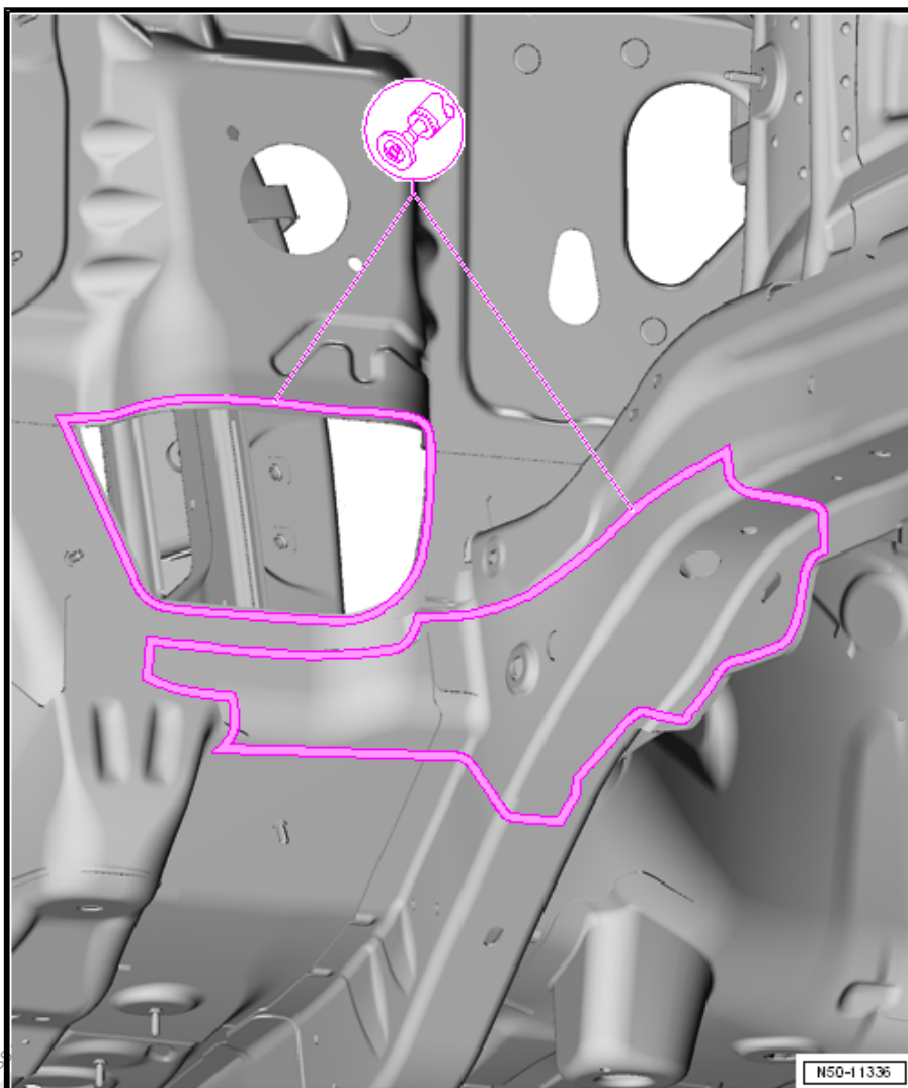
Note

Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.

1.2 Removing



- Separate the original joint.



- Remove residual material.

1.3 Installing

⇒ [“1.3.1 Preparing New Parts”, page 35](#)

⇒ [“1.3.2 Welding”, page 36](#)



Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ [“1.1 Tools”, page 34](#).

1.3.1 Preparing New Parts

Replacement Part

- ◆ Front Subframe Retaining Bracket
- ◆ Upper corner reinforcement
- ◆ Lower corner reinforcement
- ◆ Steering end panel

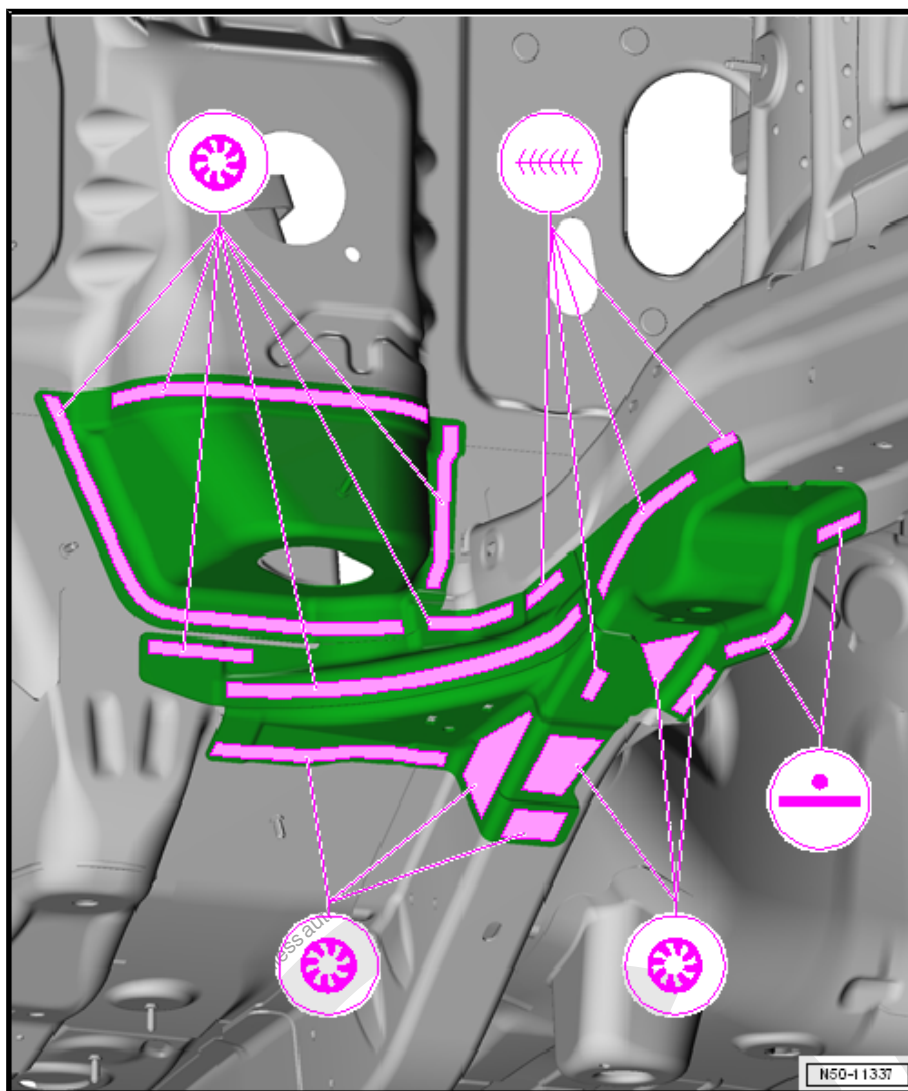


Preparing New Parts

- Drill 8 mm holes for a gas shielded arc plug weld seam.

1.3.2 Welding

- Fit new part to vehicle standing on Straightening Bracket Set and secure.



- Weld in the new part, Straight-line spot weld seam and gas-shielded arc plug weld seam.



RO: 50 65 55 00

2 Front Bumper Bracket, Replacing

⇒ ["2.1 Tools", page 38](#)

⇒ ["2.2 Removing", page 38](#)

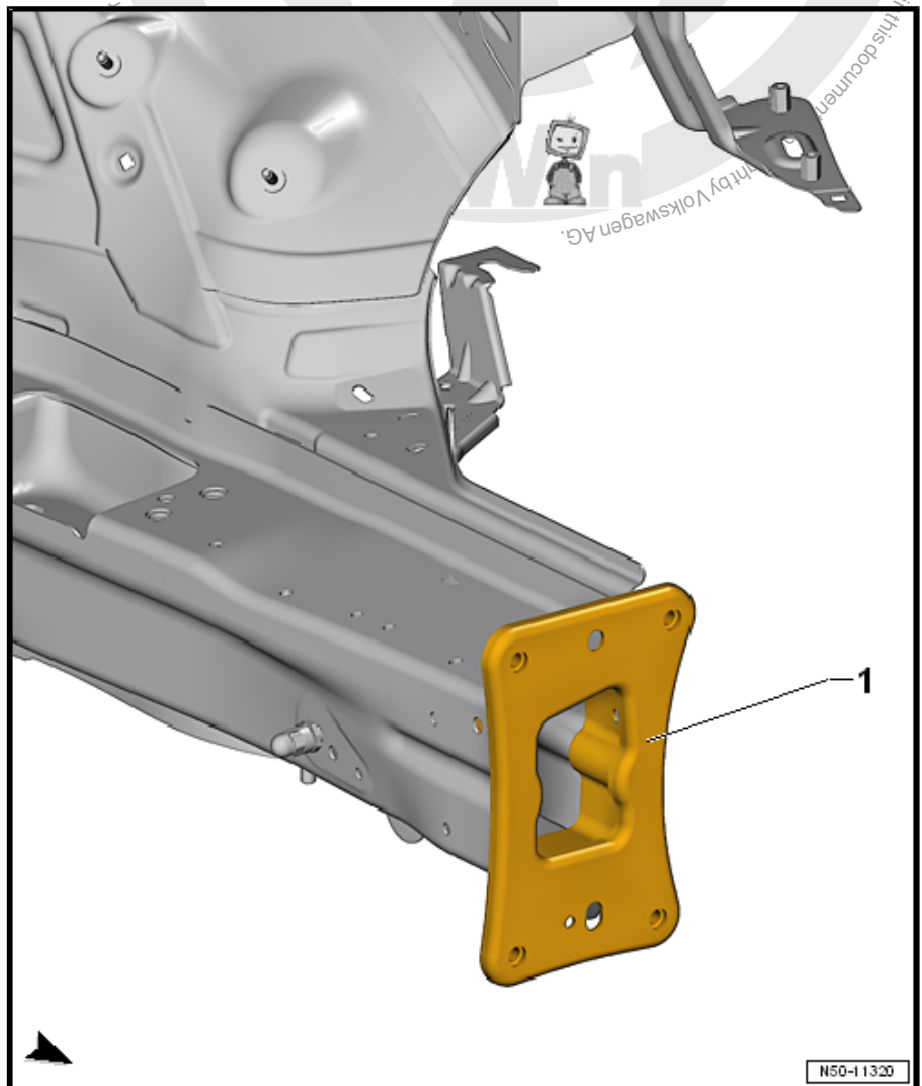
⇒ ["2.3 Installing", page 39](#)



WARNING

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

1 - Bumper Bracket





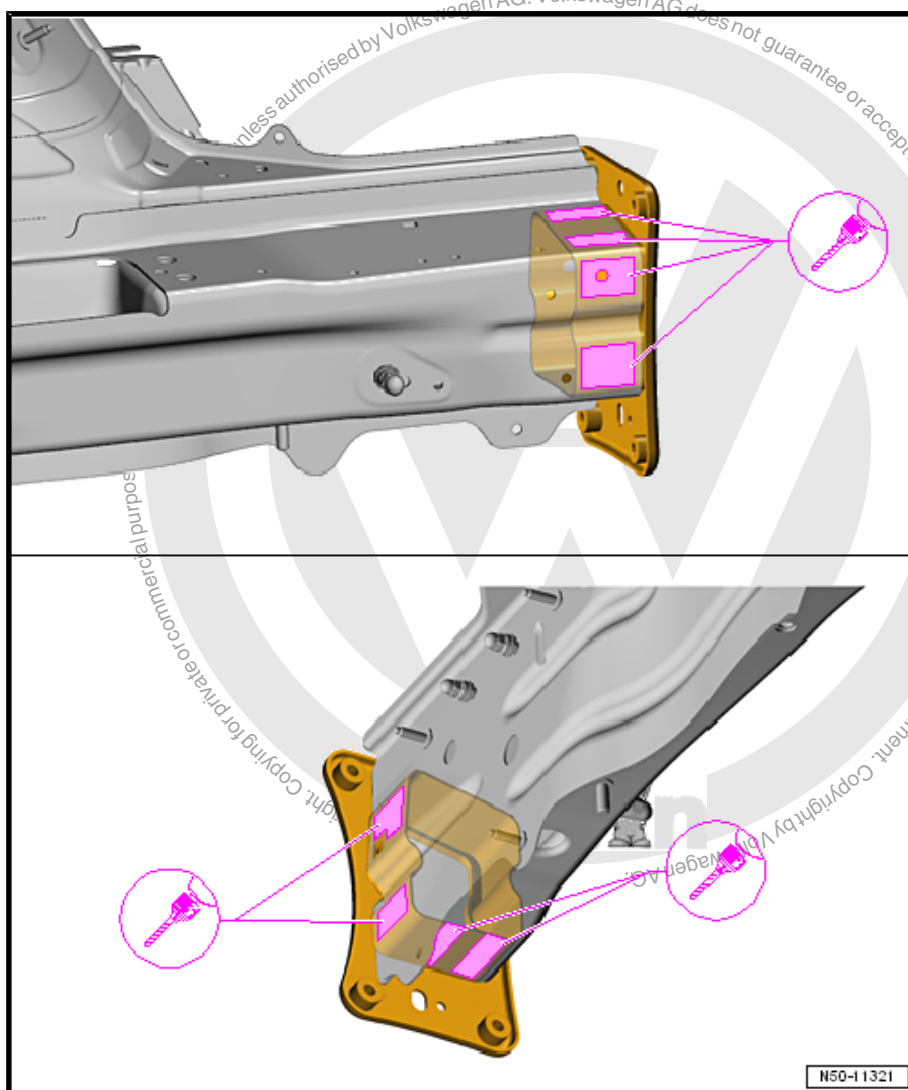
2.1 Tools



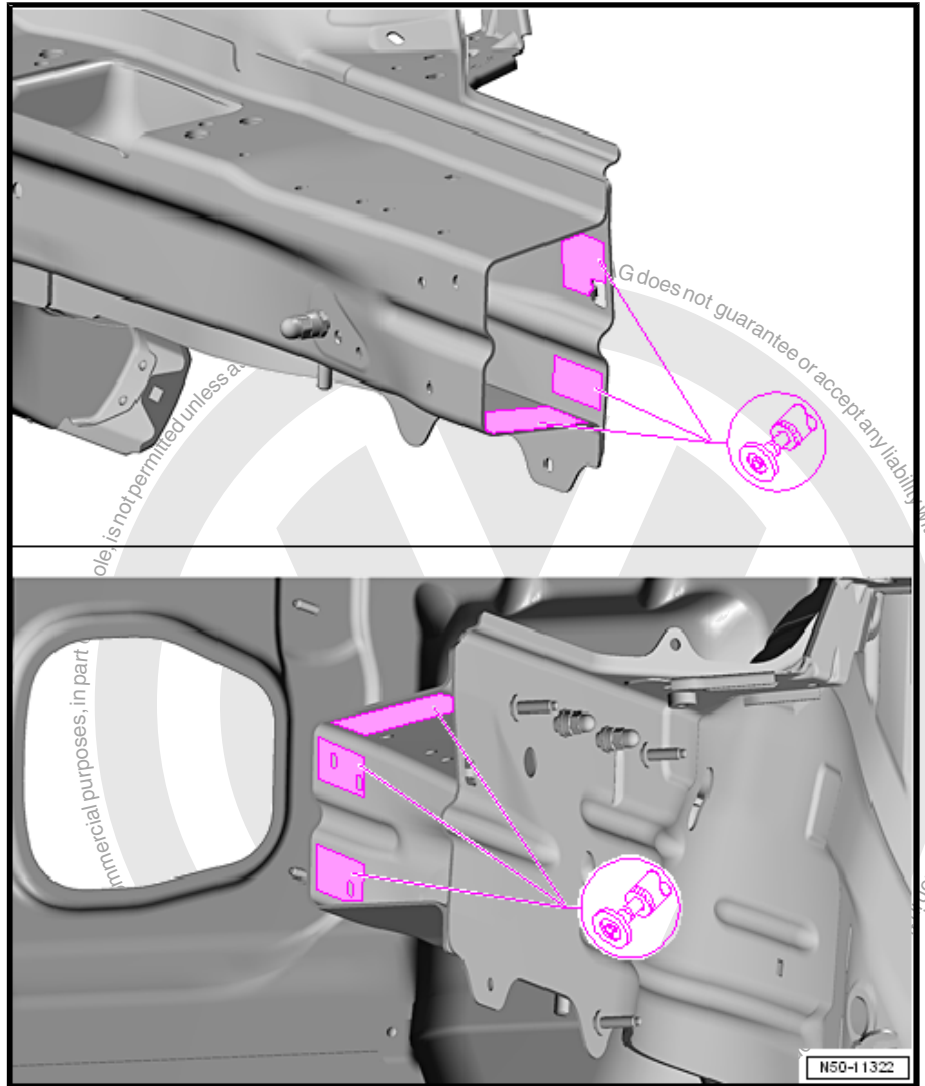
Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

2.2 Removing



- Separate the original joint.



- Remove residual material.

2.3 Installing

⇒ [“2.3.1 Welding”, page 39](#)



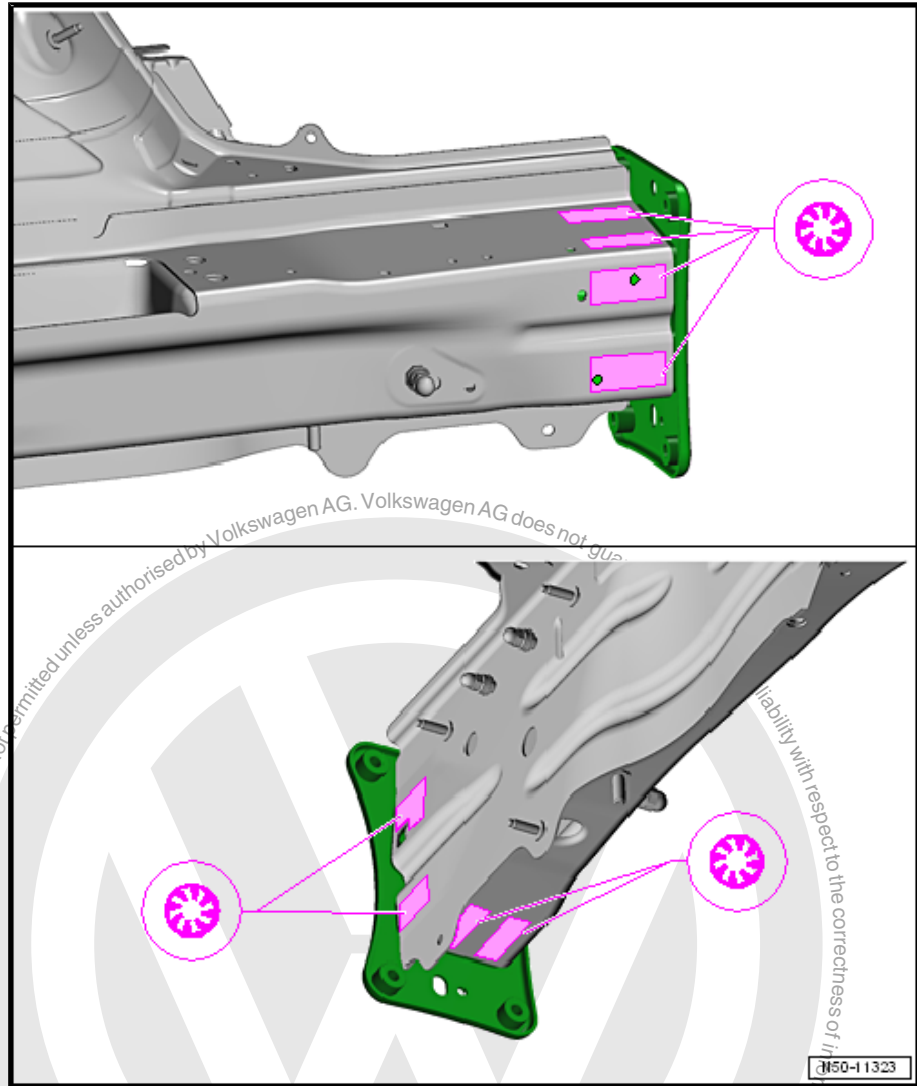
Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ [“2.1 Tools”, page 38](#).

2.3.1 Welding

Replacement Part

- ◆ Front bumper bracket
- Fit new part to vehicle standing on Straightening Bracket Set and secure.



- Weld the bumper bracket, gas-shielded arc plug weld seam.



RO: 50 72 55 50

3 Upper Wheel Housing Longitudinal Member, Replacing

⇒ "3.1 Tools", page 42

⇒ "3.2 Removing", page 42

⇒ "3.3 Installing", page 43



WARNING

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

1 - Upper Wheel Housing Longitudinal Member

2 - Bonded Area

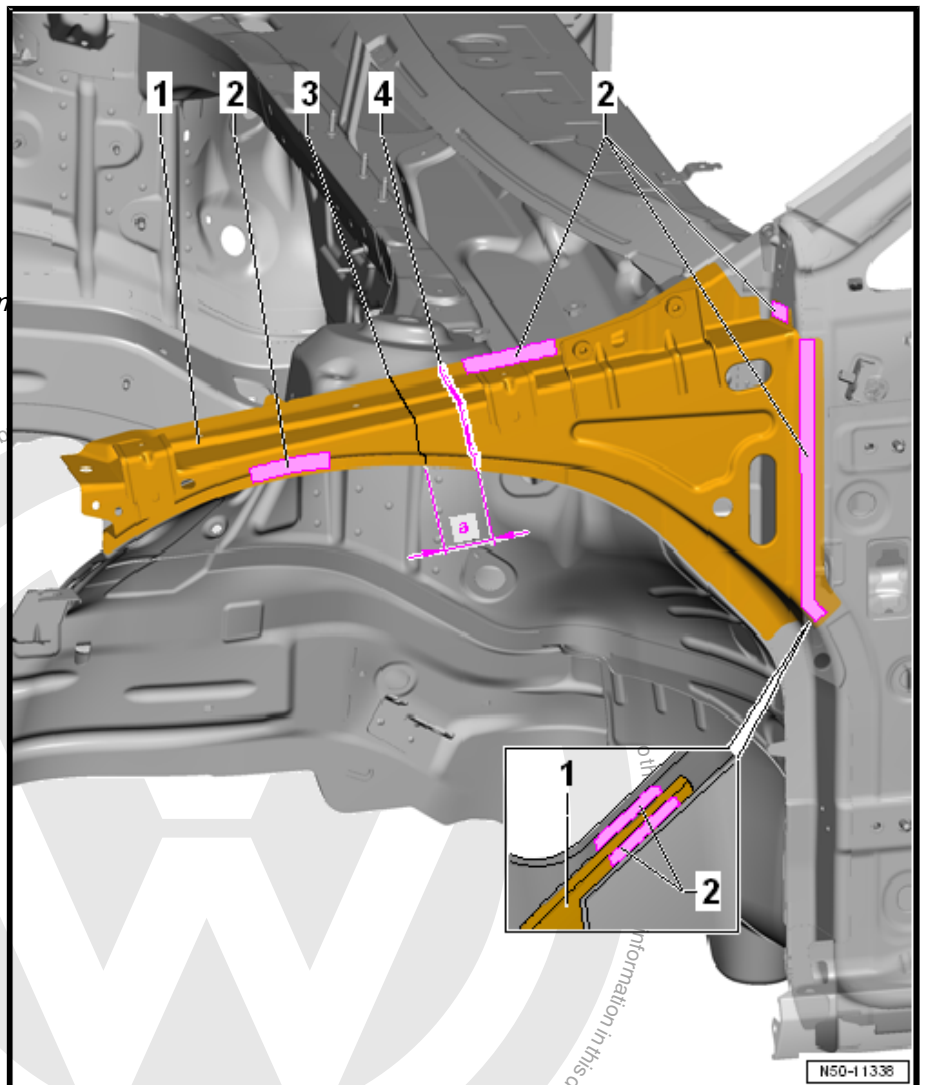
3 - Laser Seam

4 - Separating Cut



Note

Dimension -a- = 50 mm laser seam





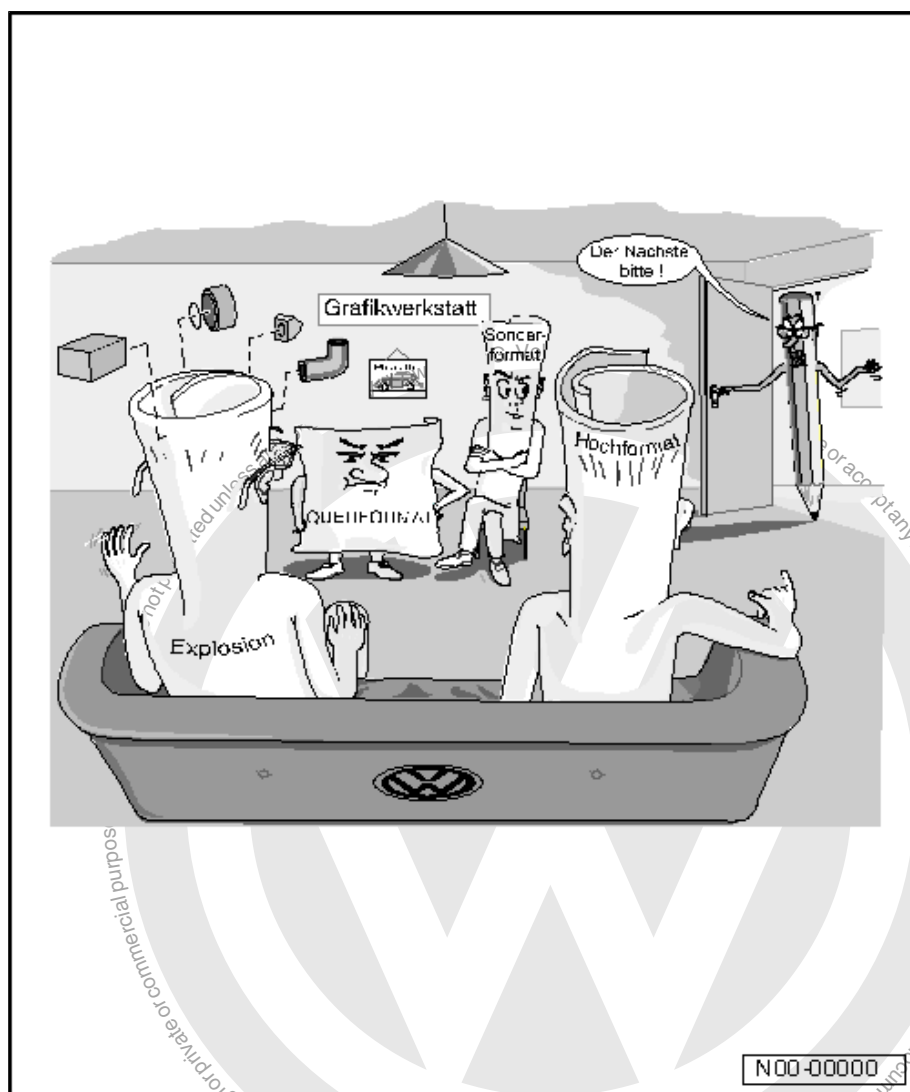
3.1 Tools



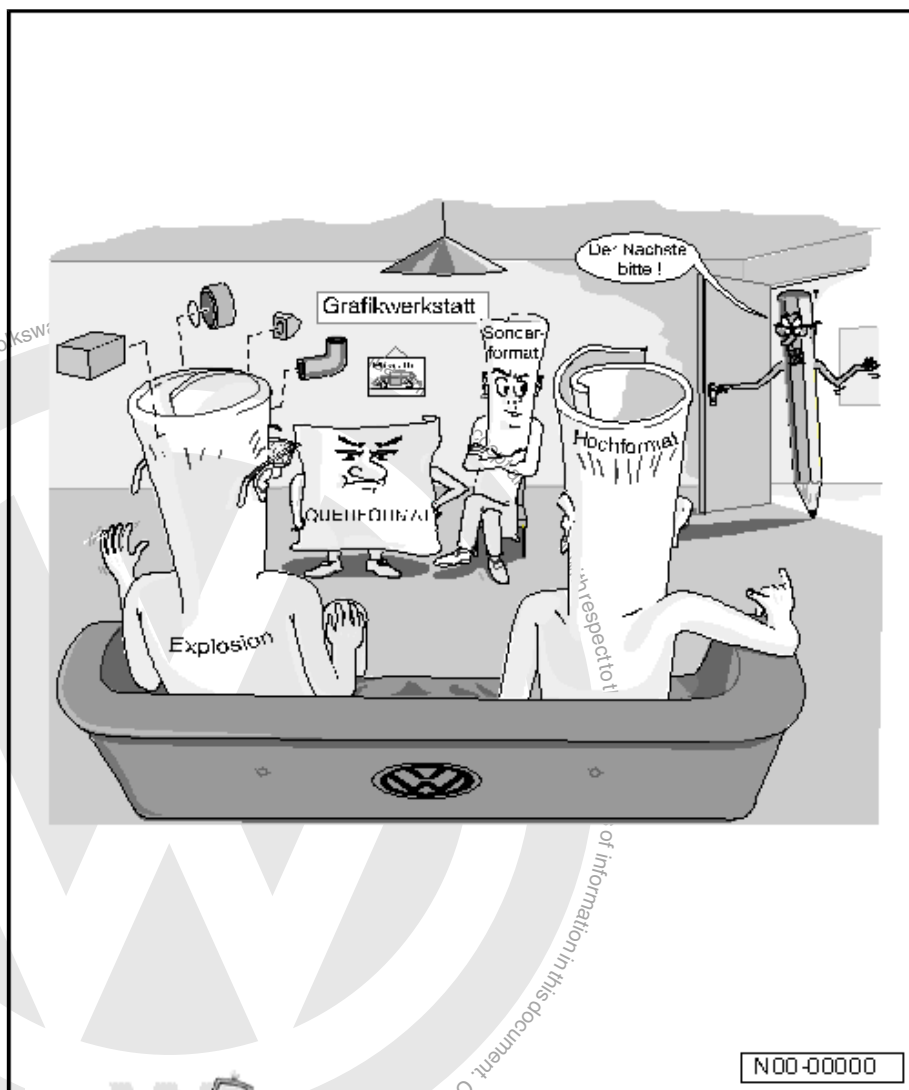
Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

3.2 Removing



- Separate the original joint.



- Remove residual material.
- Completely remove any remaining adhesive.

3.3 Installing

⇒ [“3.3.1 Preparing New Parts”, page 43](#)

⇒ [“3.3.2 Welding”, page 44](#)



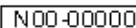
Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ [“3.1 Tools”, page 42](#).

3.3.1 Preparing New Parts

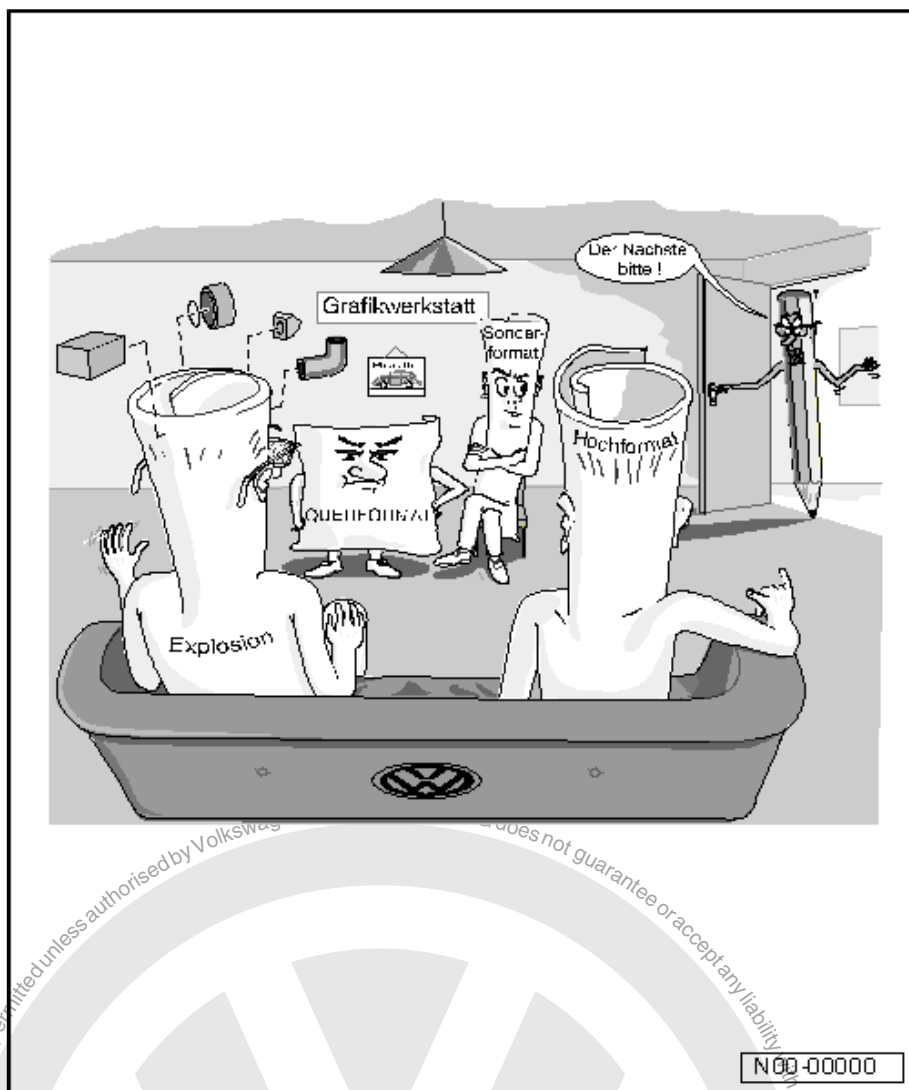
Replacement Part

- ◆ Upper wheel housing longitudinal member
- ◆ 2K Body Adhesive - D 180 KD3 A2-



- Transfer separating cuts onto new part and cut to shape.
- Drill holes for gas-shielded arc plug weld seam.

- Fit new part to vehicle standing on Straightening Bracket Set and secure.
- Check fit with attachments.



- Weld the new part, straight-line spot weld seam, gas-shielded arc plug weld seam.
- Apply the 2K Body Adhesive - D 180 KD3 A2- in the area where adhesive was applied during production.



RO: 50 75 55 50

4 Front Wheel Housing, Replacing

⇒ ["4.1 Tools", page 47](#)

⇒ ["4.2 Removing", page 47](#)

⇒ ["4.3 Installing", page 48](#)

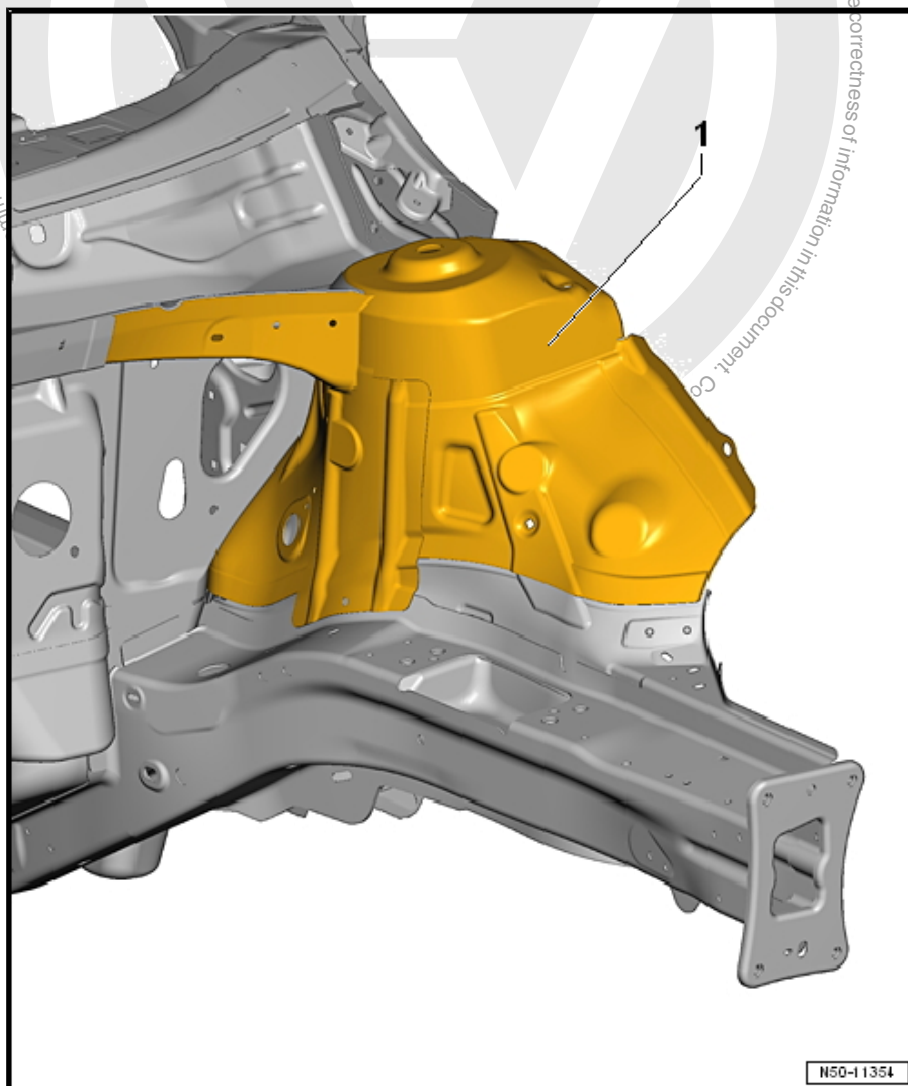


WARNING

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

- Longitudinal member for upper wheel housing already removed. Refer to
⇒ ["3 Upper Wheel Housing Longitudinal Member, Replacing",
page 41](#)

1 - Suspension Strut Tower Mount

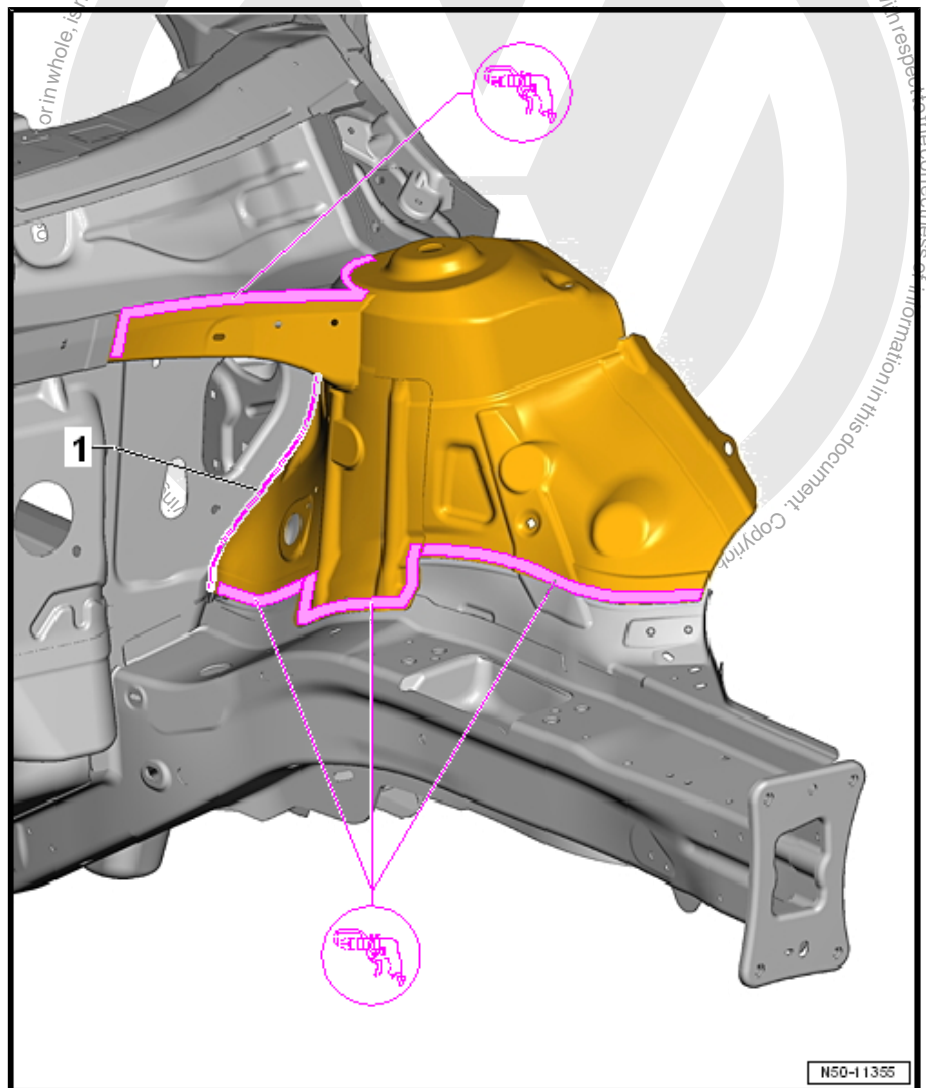


4.1 Tools

Note

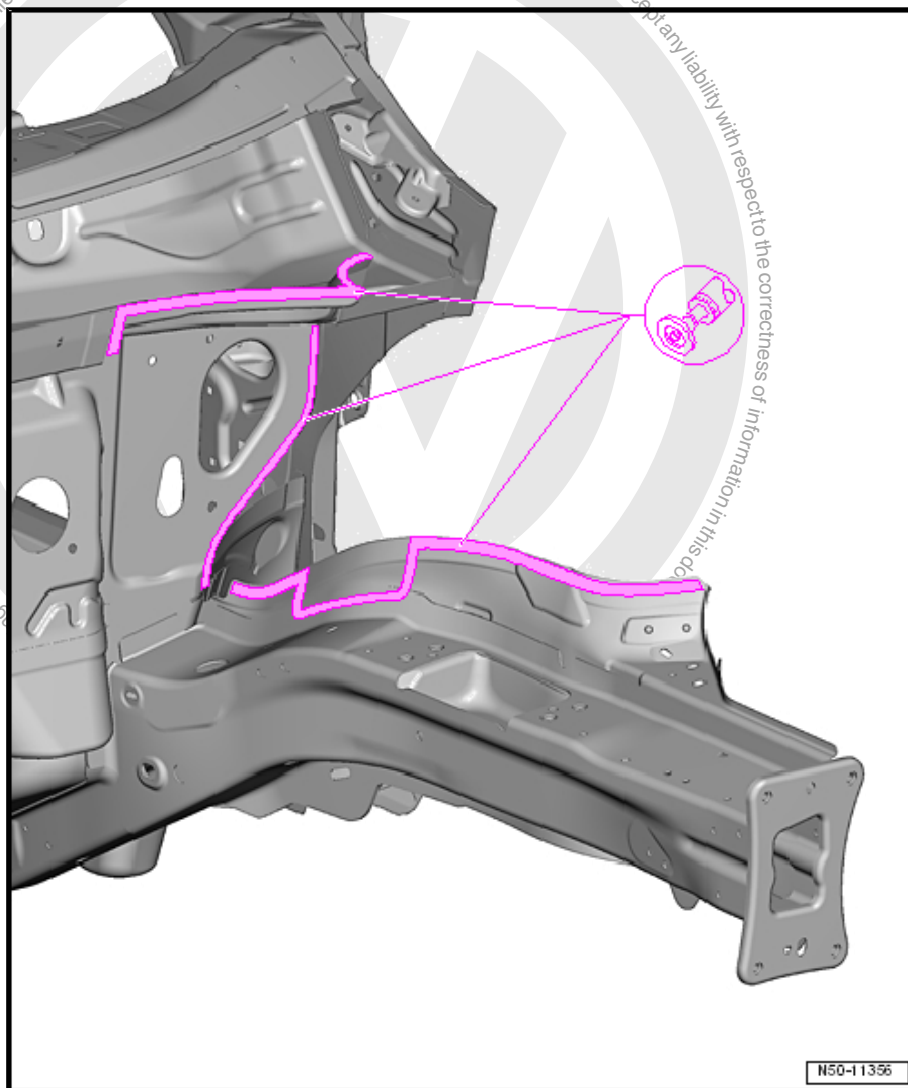
- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

4.2 Removing



- Remove the wheel housing original joint leading to the longitudinal member cover place the to the bulk head.

Partial replacement is possible with the separating cut -1-.



- Remove residual material.

4.3 Installing

⇒ [“4.3.1 Welding”, page 48](#)



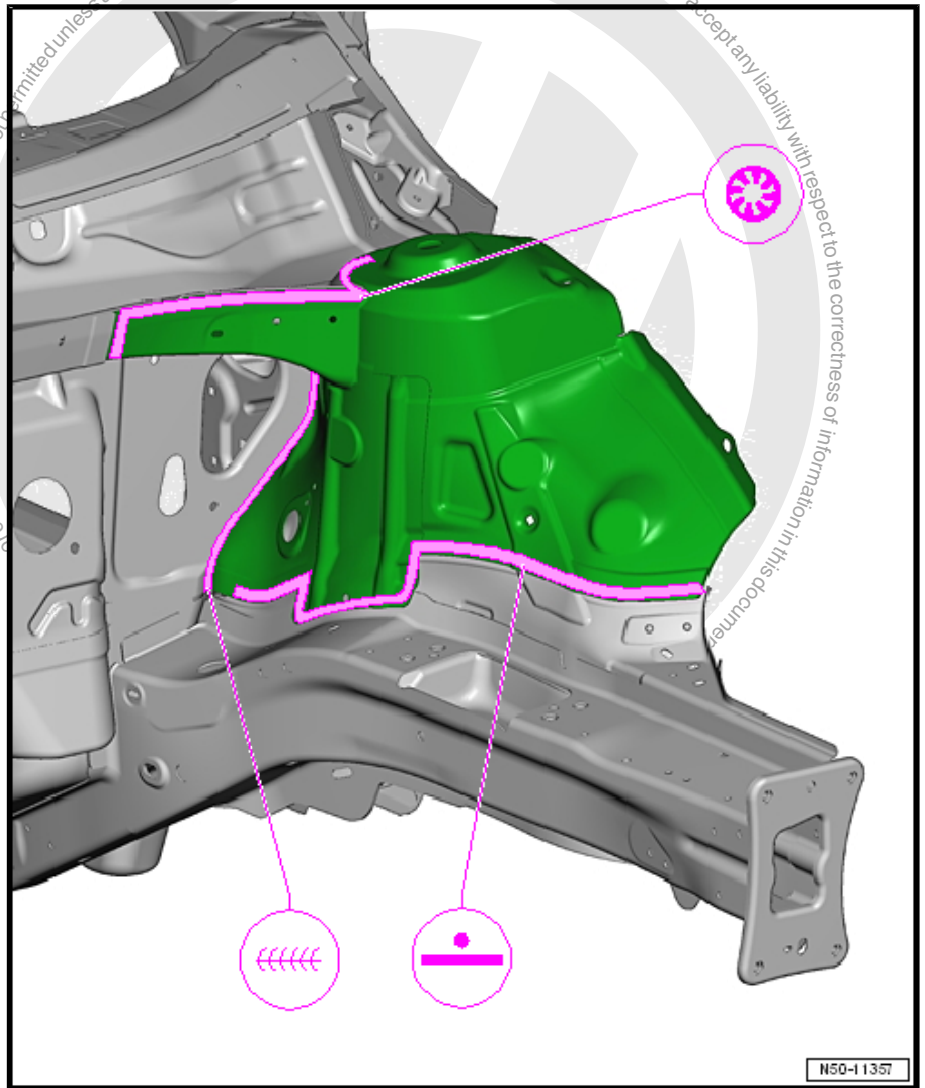
Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ [“4.1 Tools”, page 47](#).

4.3.1 Welding

Replacement Part

- ◆ Wheel Housing
- ◆ Brace
- Fit and secure the new part using the Alignment Bracket Set on the vehicle.



- Weld in the new part, Straight-line spot weld seam and gas-shielded arc plug weld seam.



RO: 50 79 41 50

5 Subframe Mount Thread, Servicing

⇒ ["5.1 Contents of Thread Repair Set", page 52](#)

⇒ ["5.2 Threads, Repairing", page 52](#)



WARNING

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

- Subframe was already removed. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 40 ; Subframe .



Note

In the example, thread repair on this vehicle is described for left front retaining bracket for subframe and is to be employed at the other 3 retaining brackets accordingly as necessary.

Special tools and workshop equipment required

- ◆ Thread Repair Kit M12x1.5 - VAS 6058-
- ◆ Drill - VAS 6267-



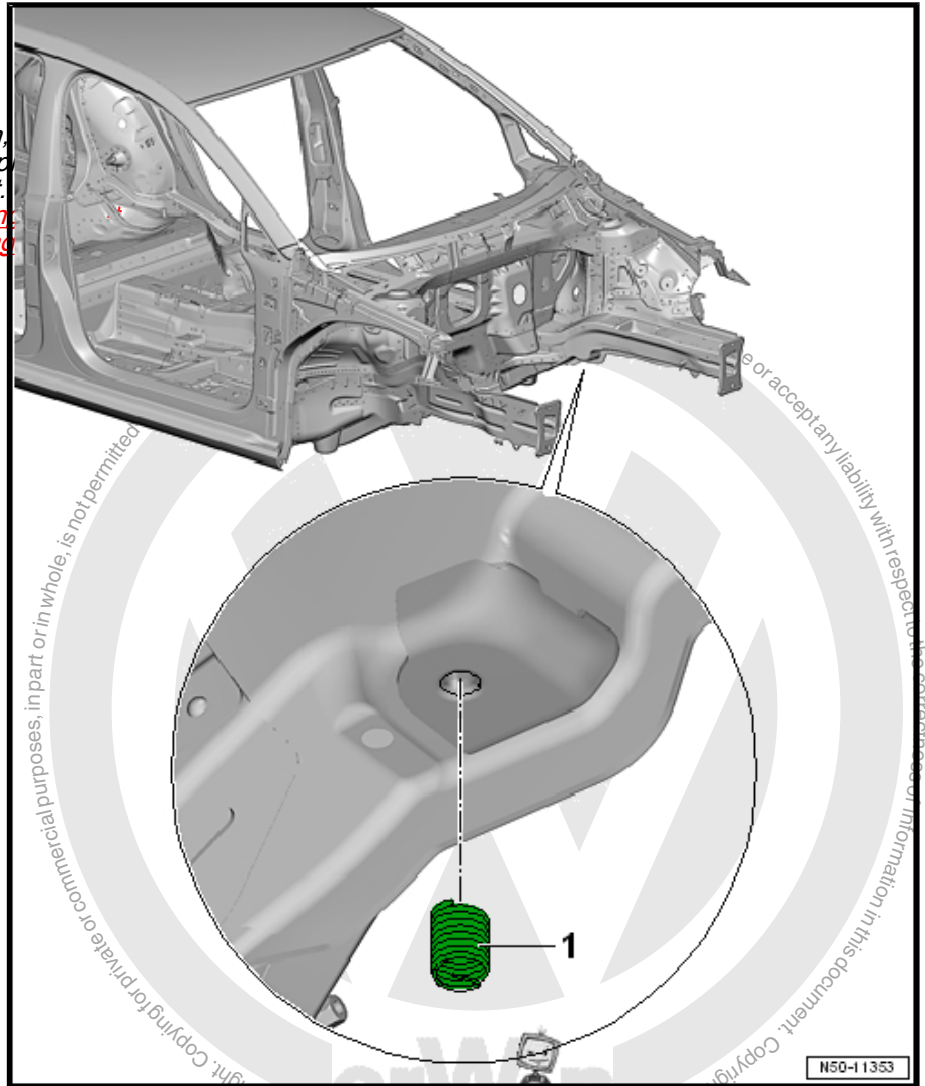


1 - Heli-Coil insert



Note

*If damaged once again,
the retaining bracket must be replaced.
⇒ "1 Subframe Mounting
Removing and Installing"*



N50-11353



5.1 Contents of Thread Repair Set

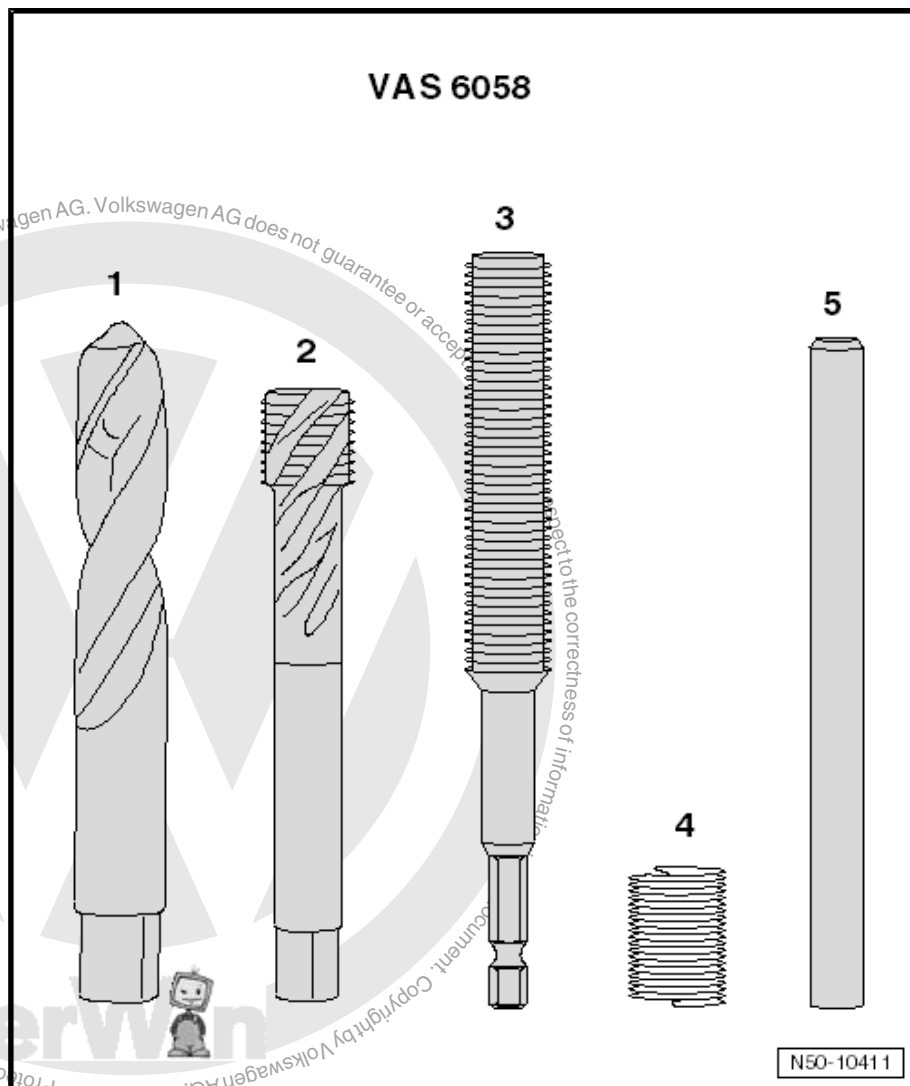
1 - Spiral Drill Diameter 12.5 mm

2 - Tap M 12 x 1.5

3 - Installing Spindle

4 - M 12 x 1.5 x 24 Threaded Insert (HeliCoil Plus - Thread Inserts - VAS 6058/1-)

5 - Peg Breaker with Magnetic Tips



5.2 Threads, Repairing

⇒ [“5.2.1 Threads, Drilling”, page 52](#)

⇒ [“5.2.2 Threads, Cutting”, page 53](#)

⇒ [“5.2.3 Thread Inserts, Inserting”, page 54](#)

5.2.1 Threads, Drilling

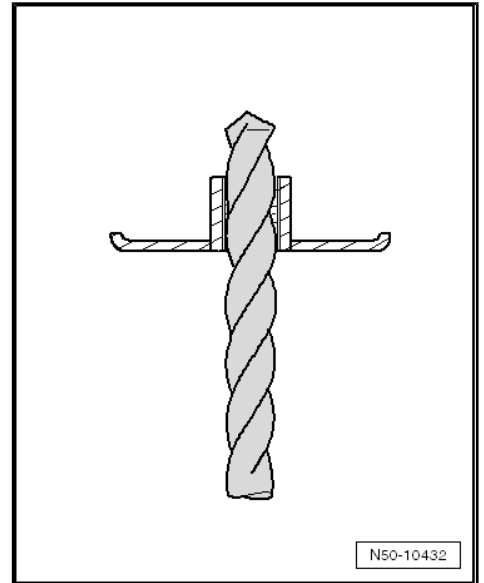


Caution

Wear protective eyewear when drilling out the threads.



- Drill out the threads with the spiral drill.



i Note

- ◆ Use the Drill - VAS 6267- for drilling and grinding.
- ◆ While drilling, drill must be held by a second person using an additional handle.
- ◆ Do not angle the drill.



5.2.2 Threads, Cutting

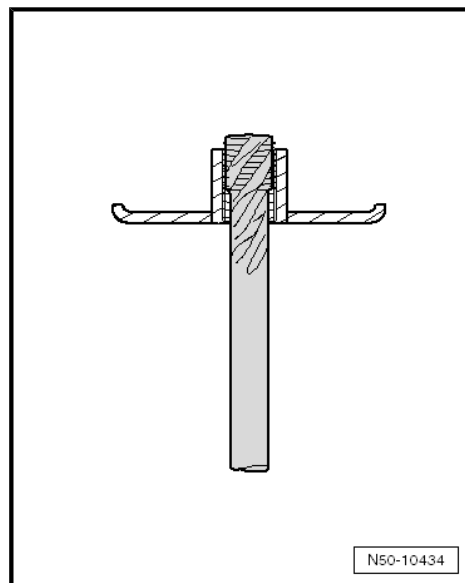


Caution

Wear protective eyewear when cutting the thread and when cleaning the threaded bushing with compressed air.



- Cut the threads with the thread tap.
- Clean threaded bushing (blow with pressurized air).



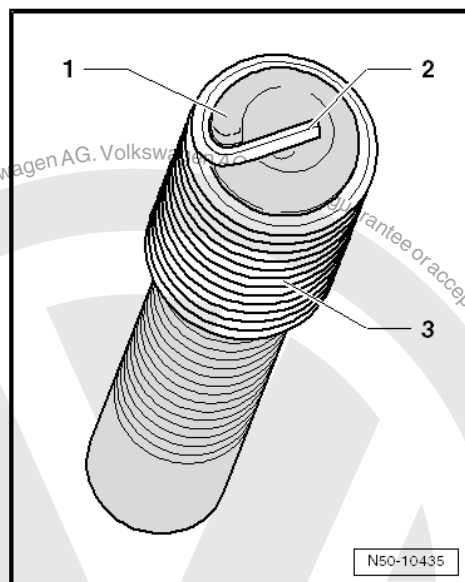
5.2.3 Thread Inserts, Inserting

- Turn the threaded insert -3- onto the spindle until the drive peg -2- makes contact on drive tab -1- of installing spindle.

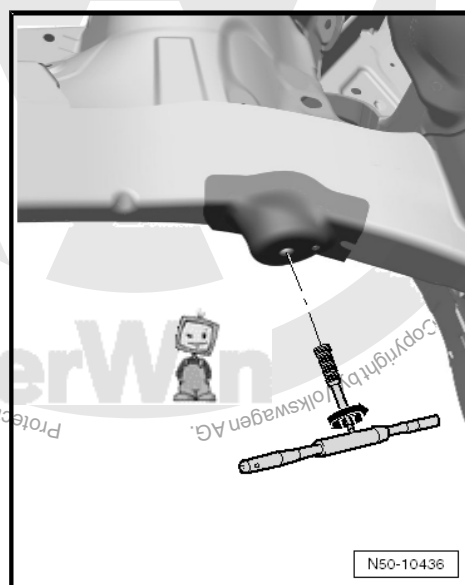


Note

Thread insert must be able to be turned easily.

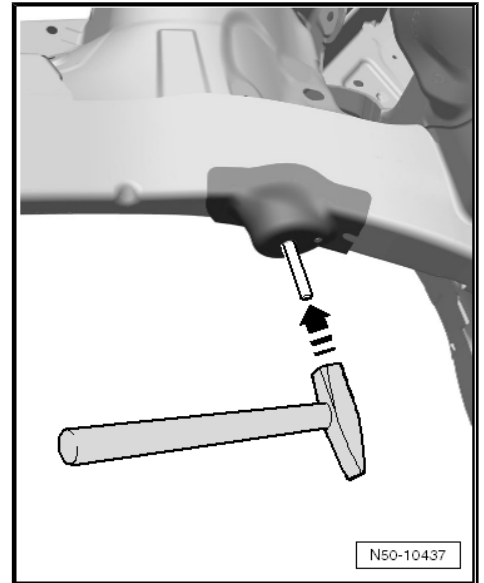


- Screw the threaded insert into the threaded plate until the threaded insert is seated flush with the outer edge of the threaded plate (check visually).
- Then tighten the threaded insert an additional $\frac{1}{4}$ turn.
- Remove the spindle.





- Break off thread insert driver tang using tang breaker.
- Install the subframe (tightening specification). Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 40 ; Subframe .





RO: 50 79 55 03

6 Front Longitudinal Member, Replacing

⇒ ["6.1 Tools", page 57](#)

⇒ ["6.2 Removing", page 57](#)

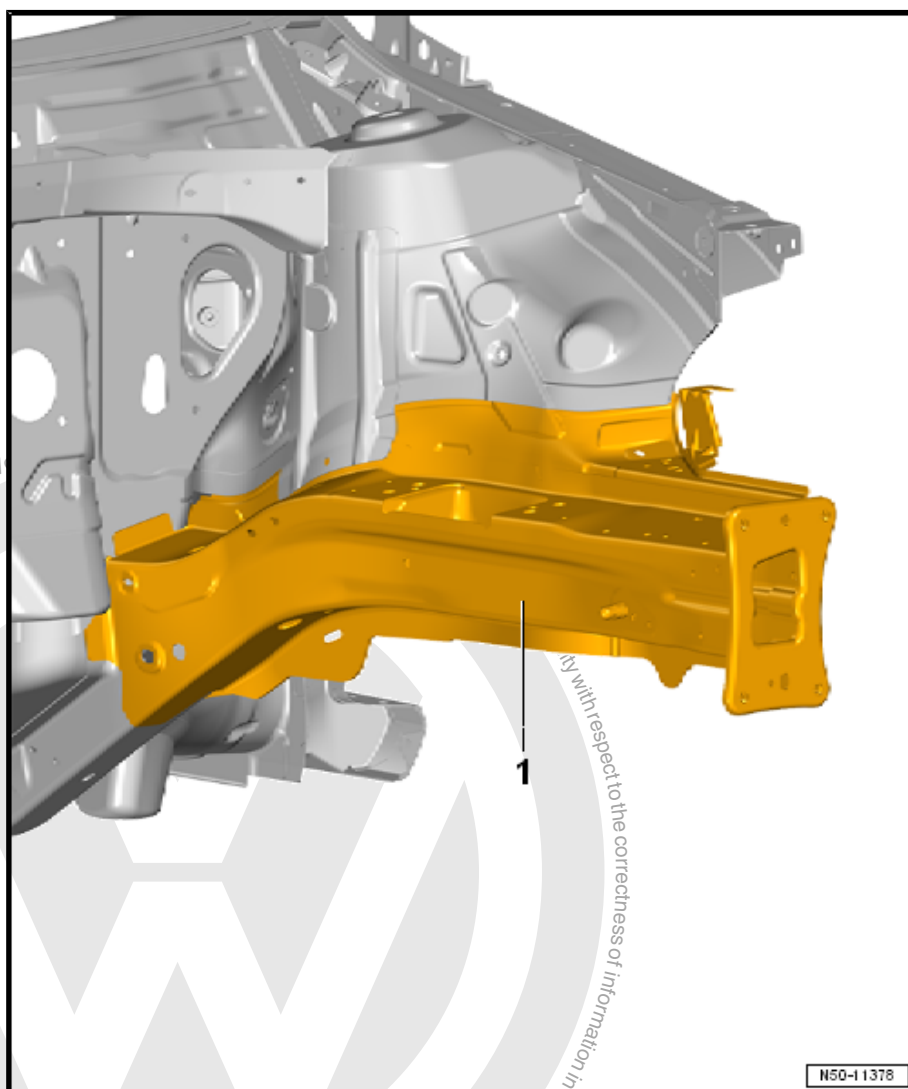
⇒ ["6.3 Installing", page 58](#)



WARNING

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

1 - Longitudinal Member





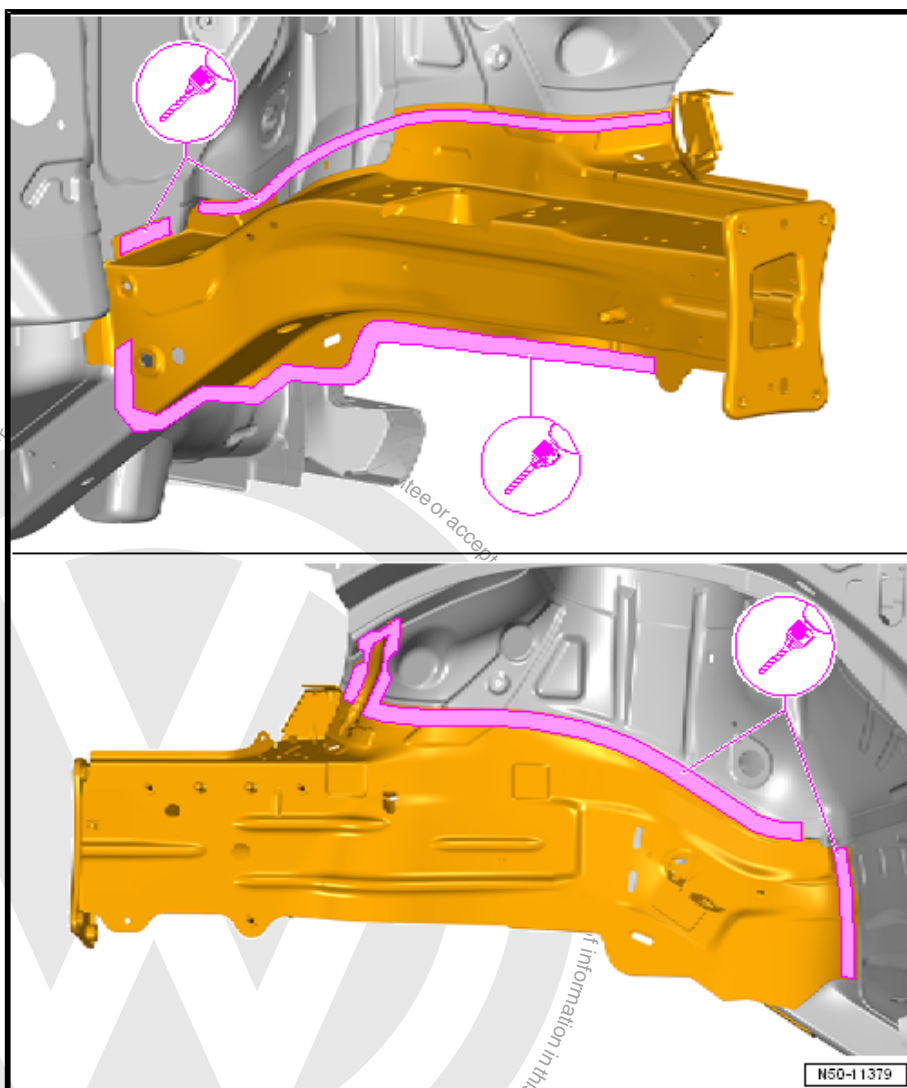
6.1 Tools



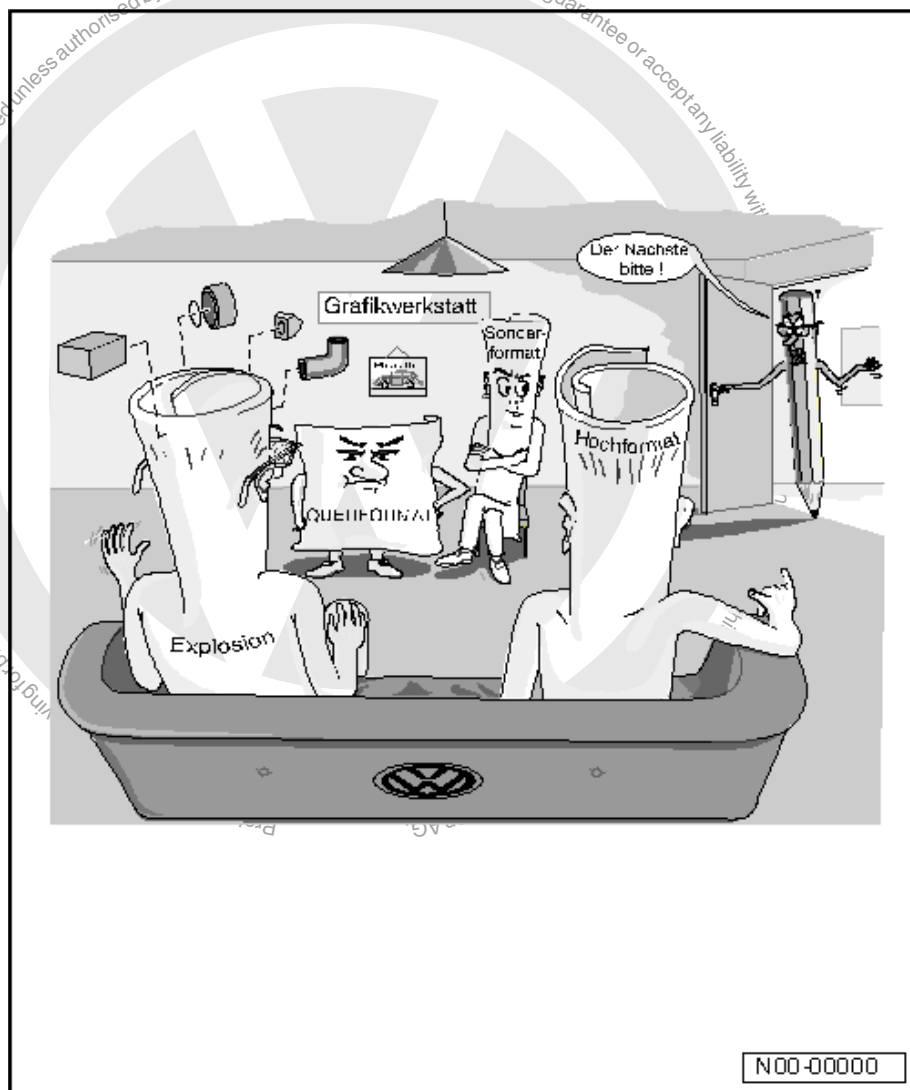
Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

6.2 Removing



- Separate the original joint.



- Remove residual material.

6.3 Installing

⇒ [“6.3.1 Preparing New Parts”, page 58](#)

⇒ [“6.3.2 Welding”, page 59](#)



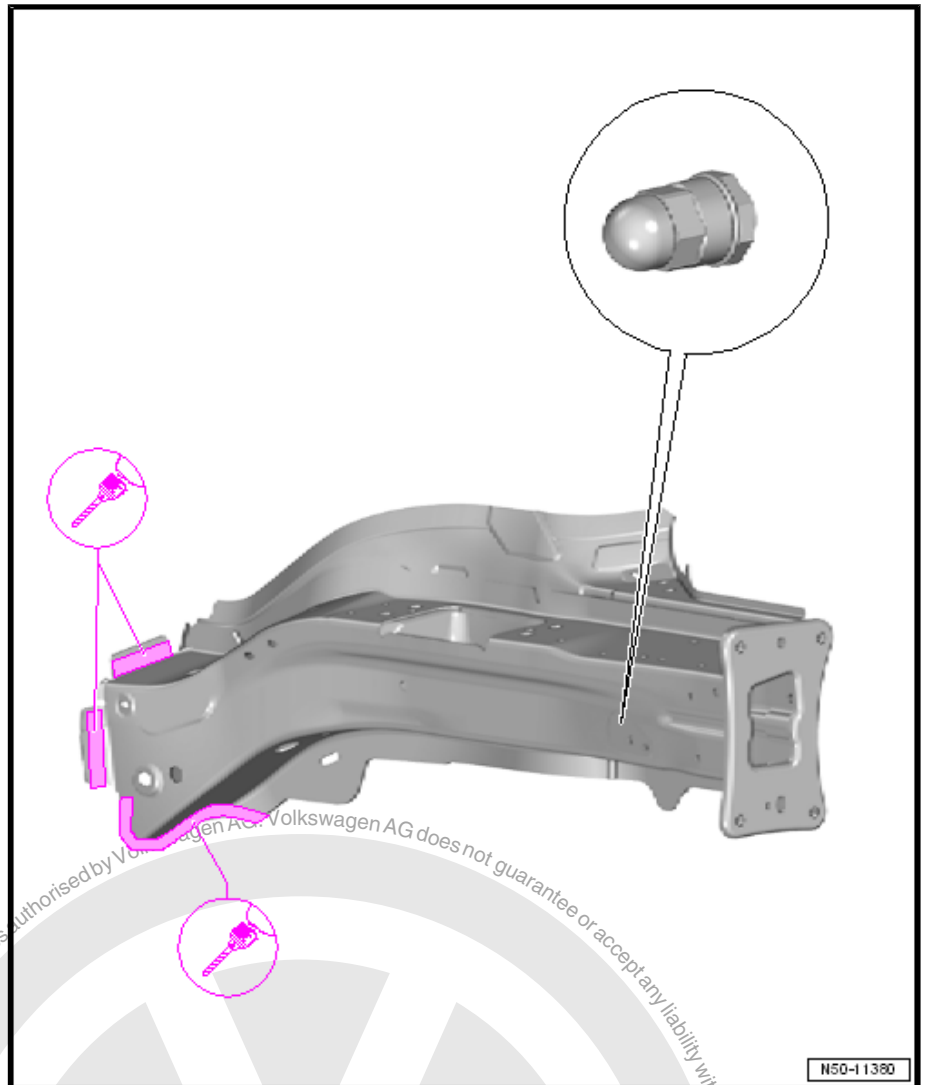
Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ [“6.1 Tools”, page 57](#).

6.3.1 Preparing New Parts

Replacement Part

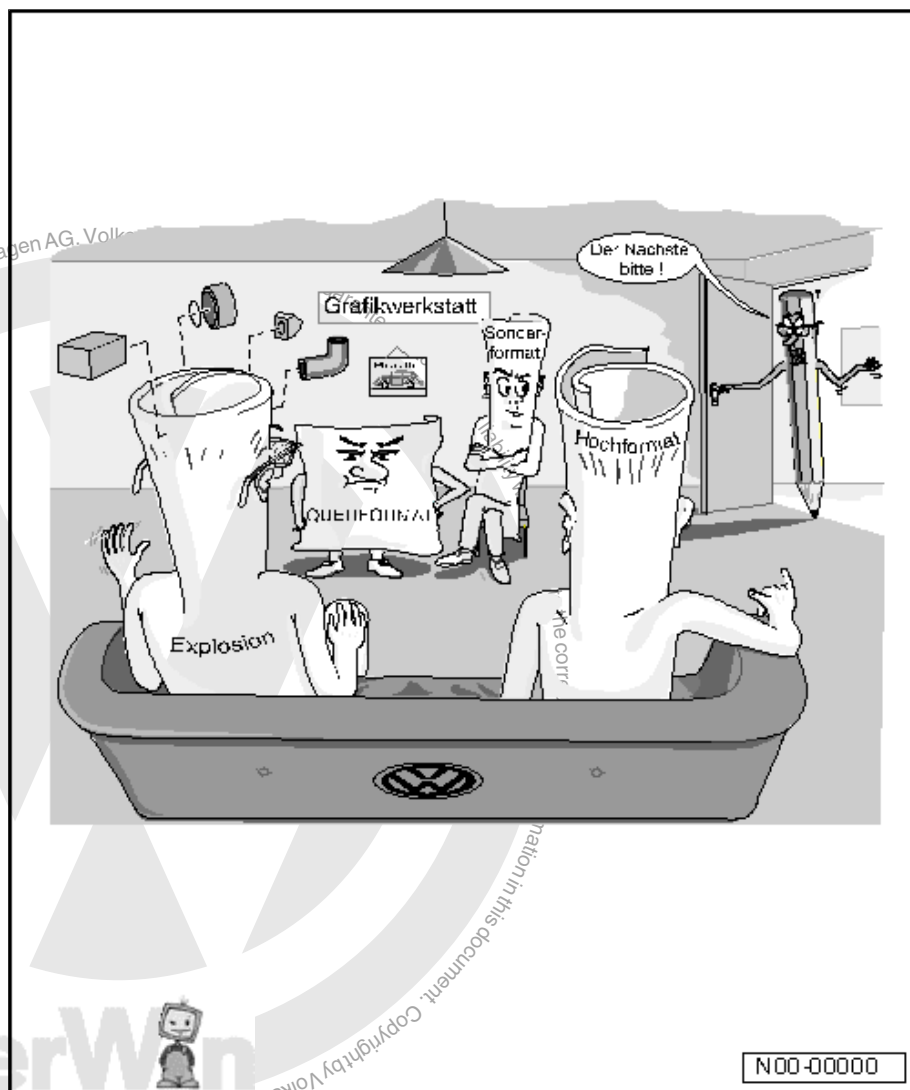
- ◆ Longitudinal Member
- ◆ Ground bolt



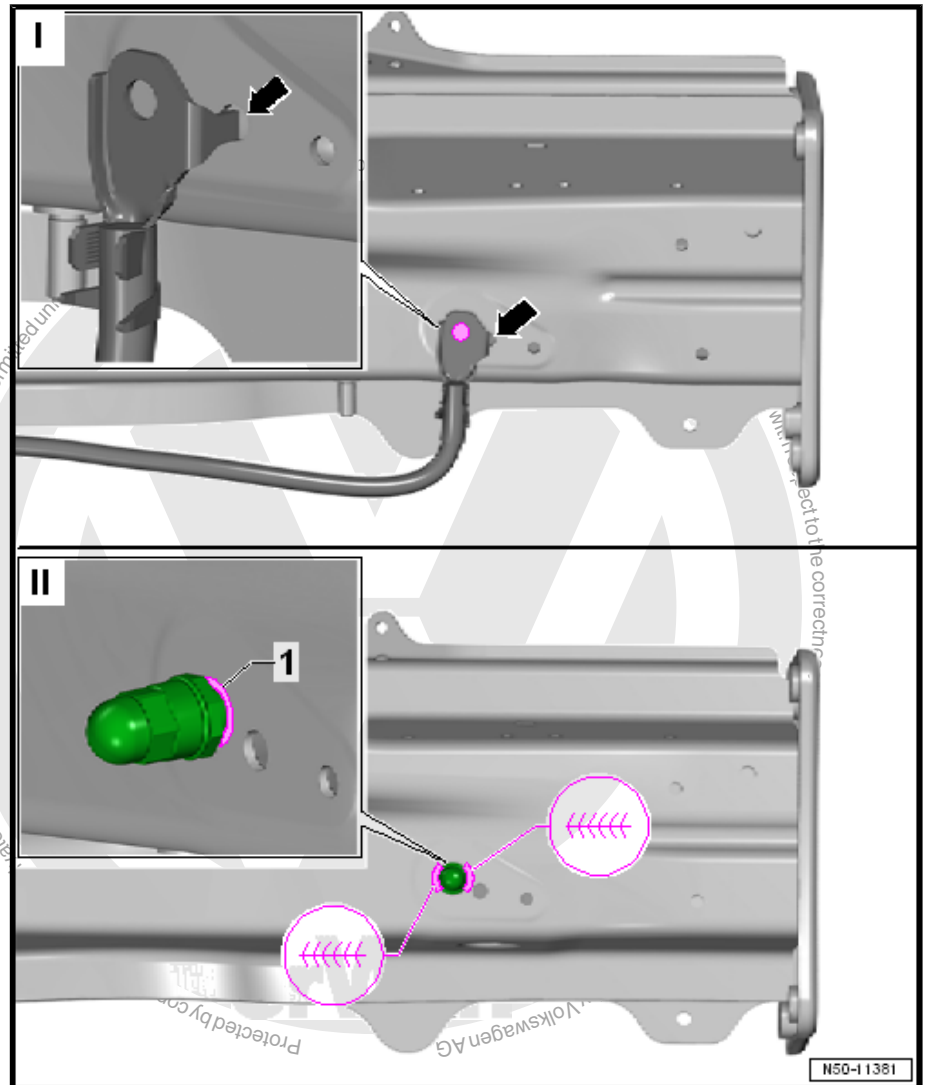
- Drill the 8 and 10 mm holes for the gas-shielded arc plug weld seam.

6.3.2 Welding

- Fit and secure the new part using the Alignment Bracket Set on the vehicle.
- Check fit with neighboring components.



- Weld in the new part with a straight-line spot weld seam and gas-shielded arc plug weld seam.



- Mark the ground bolt location with the ground cable location.
- At the marked location -1-, weld the ground bolt with two opposing stitch welds = 12 mm.



Note

Rework the contact surface to restore the electric conductivity of the ground bolt.



RO: 50 79 55 06

7 Front Longitudinal Member, Replacing, Left Partial Section



WARNING

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

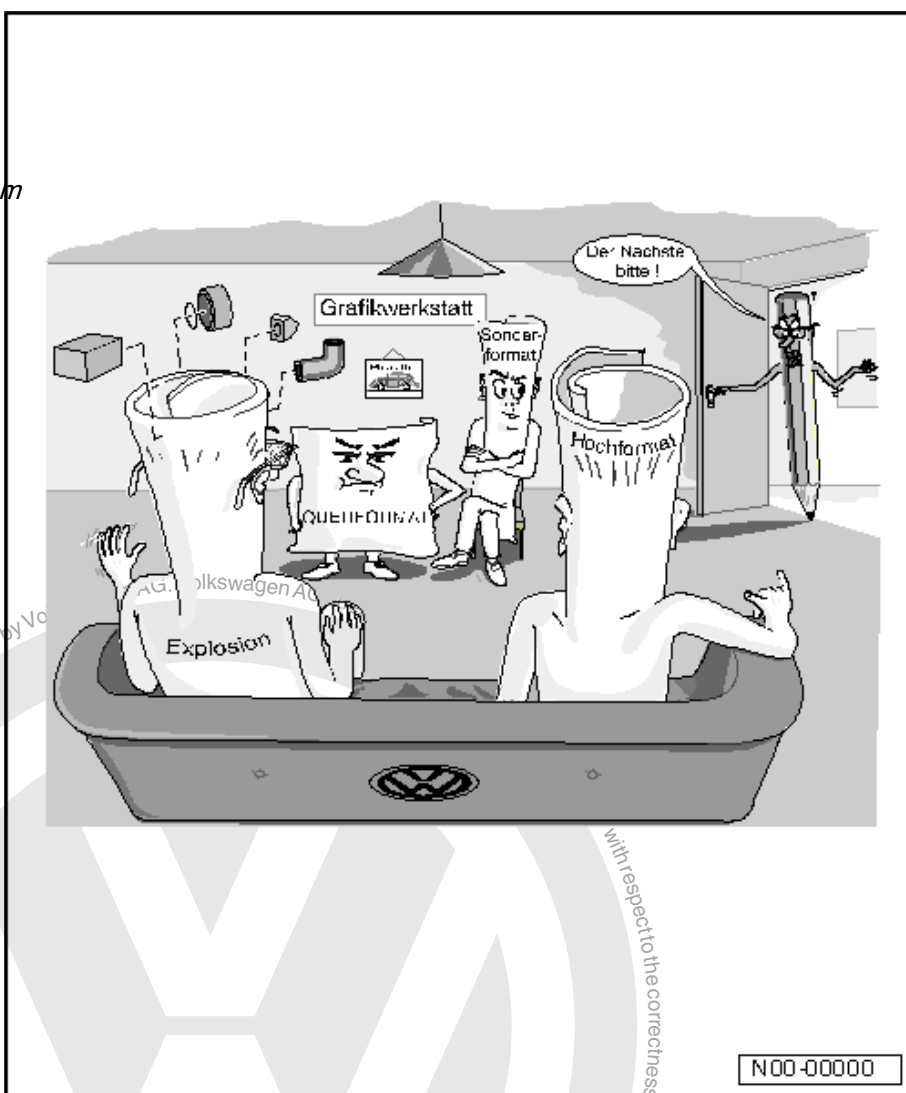
1 - Front Longitudinal Member

2 - Separating Cut



Note

Dimension -a- = 110 mm



N00-00000



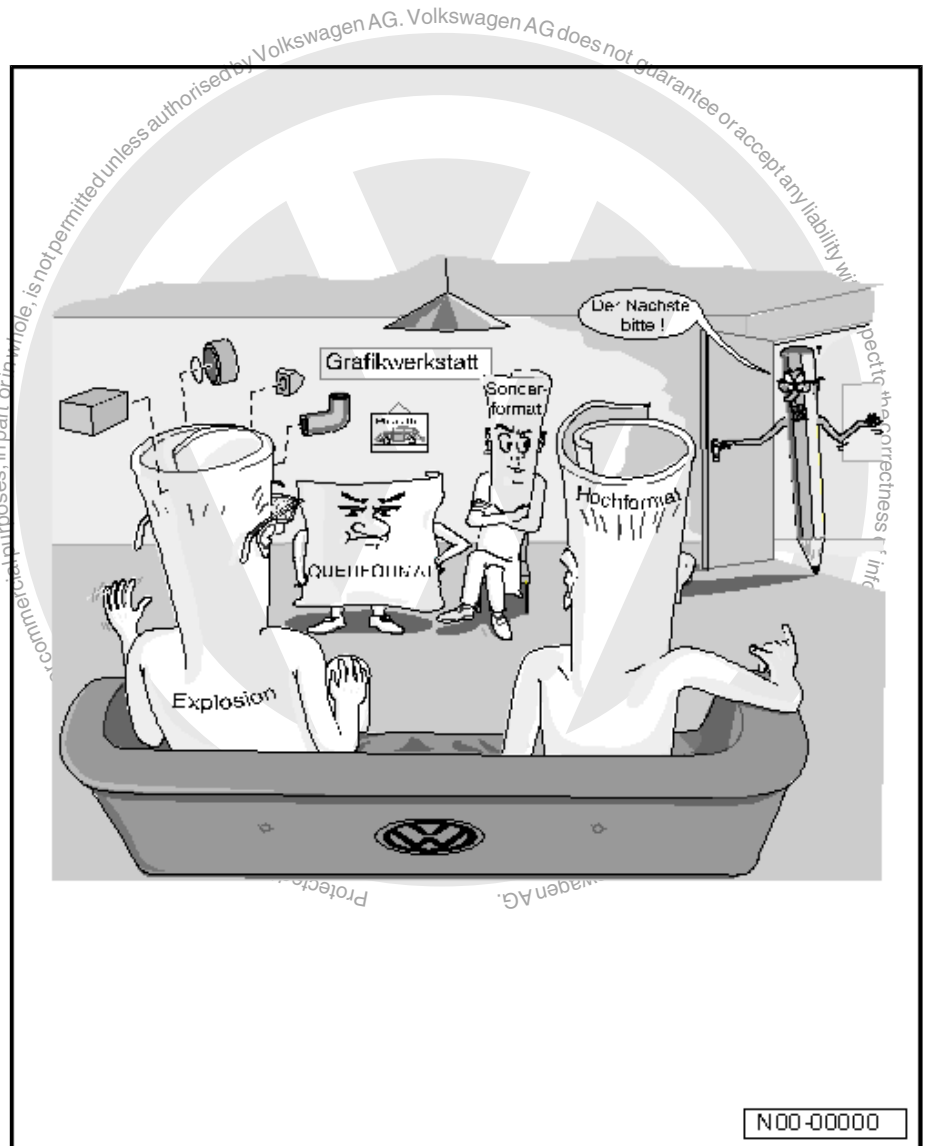
7.1 Tools



Note

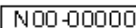
- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

7.2 Removing



- Label and perform separating cut as shown.

110 mm



- ## 7.3 Installing

⇒ “7.3.2 Welding”, page 65

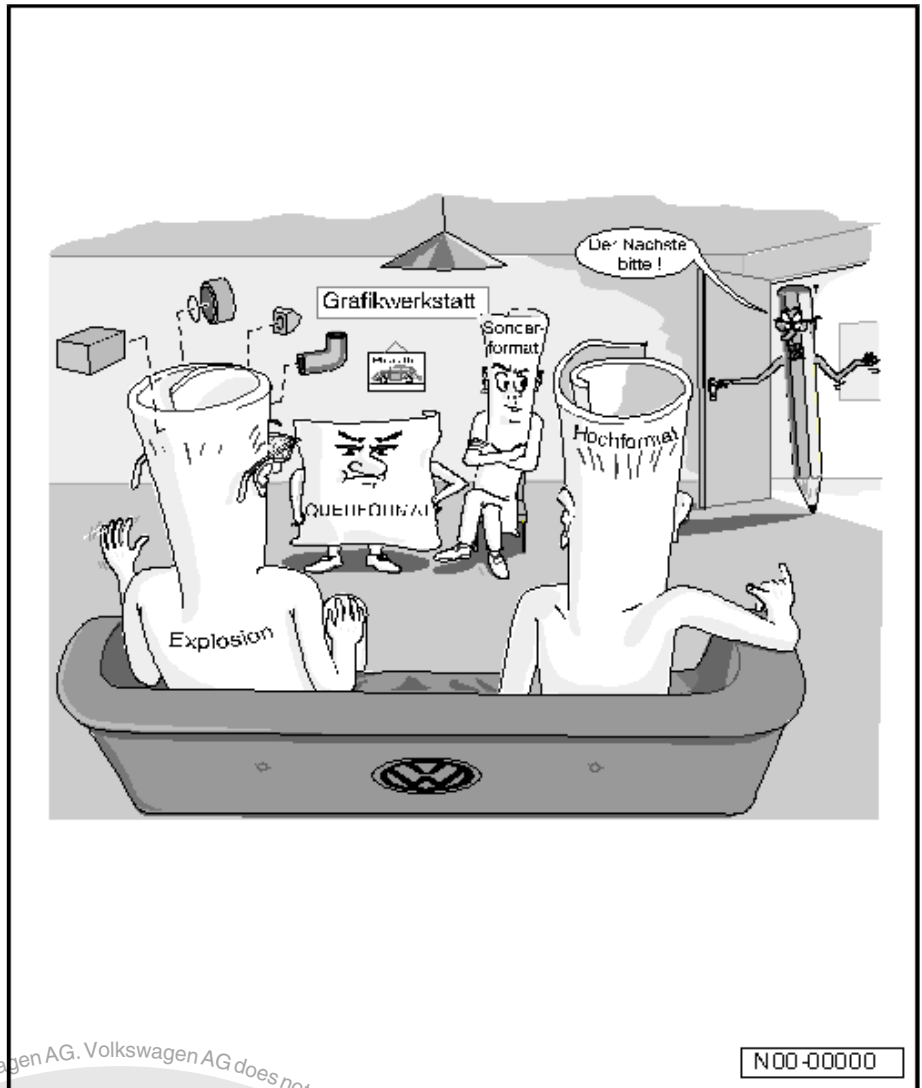


When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ "7.1 Tools", page 63 .

7.3.1 Preparing New Parts

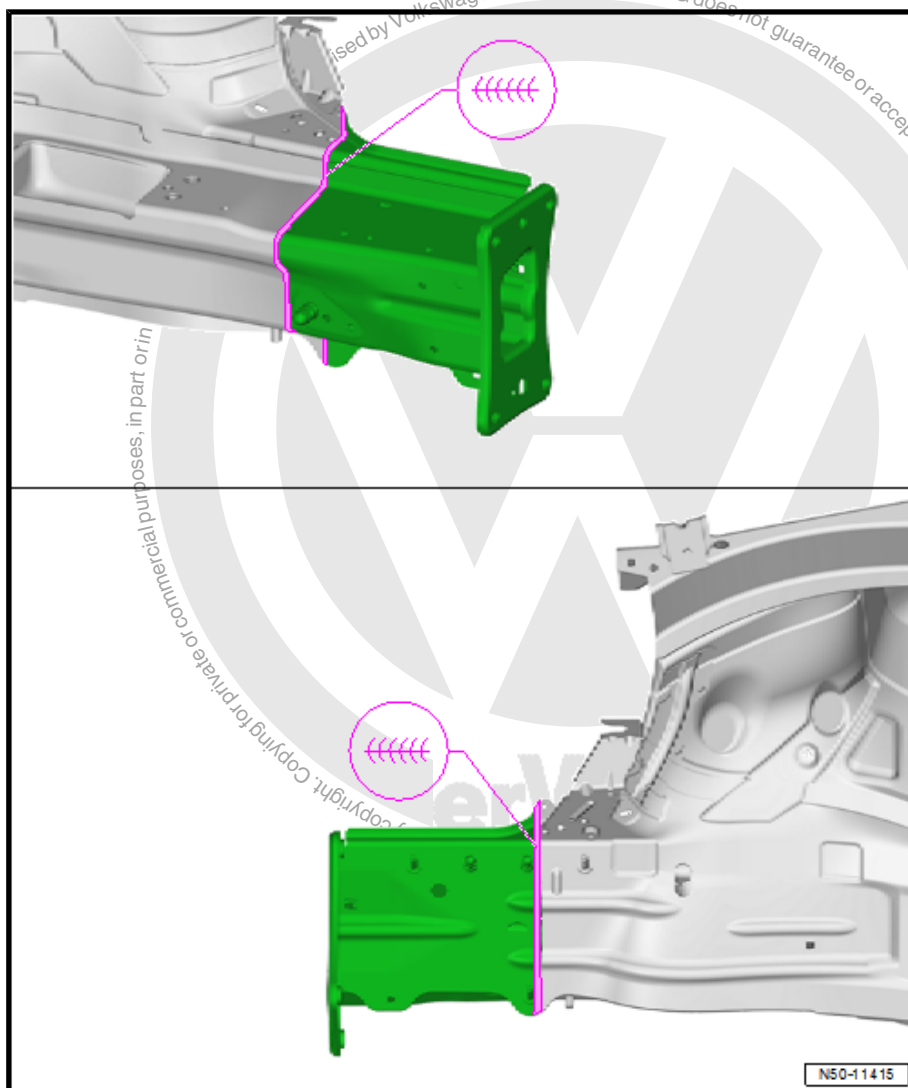
Replacement Parts

- ◆ Longitudinal member cover plate
- ◆ Front Longitudinal Member
- ◆ Front bumper bracket



7.3.2 Welding

- Fit new part to vehicle standing on Straightening Bracket Set and secure.
- Check fit with neighboring components.



- Weld the longitudinal member separating cut along the circumference using a gas shielded arc continuous seam.



RO: 50 79 55 06

8 Front Longitudinal Member, Replacing, Right Partial Section

⇒ ["8.1 Tools", page 68](#)

⇒ ["8.2 Removing", page 68](#)

⇒ ["8.3 Installing", page 69](#)



WARNING

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

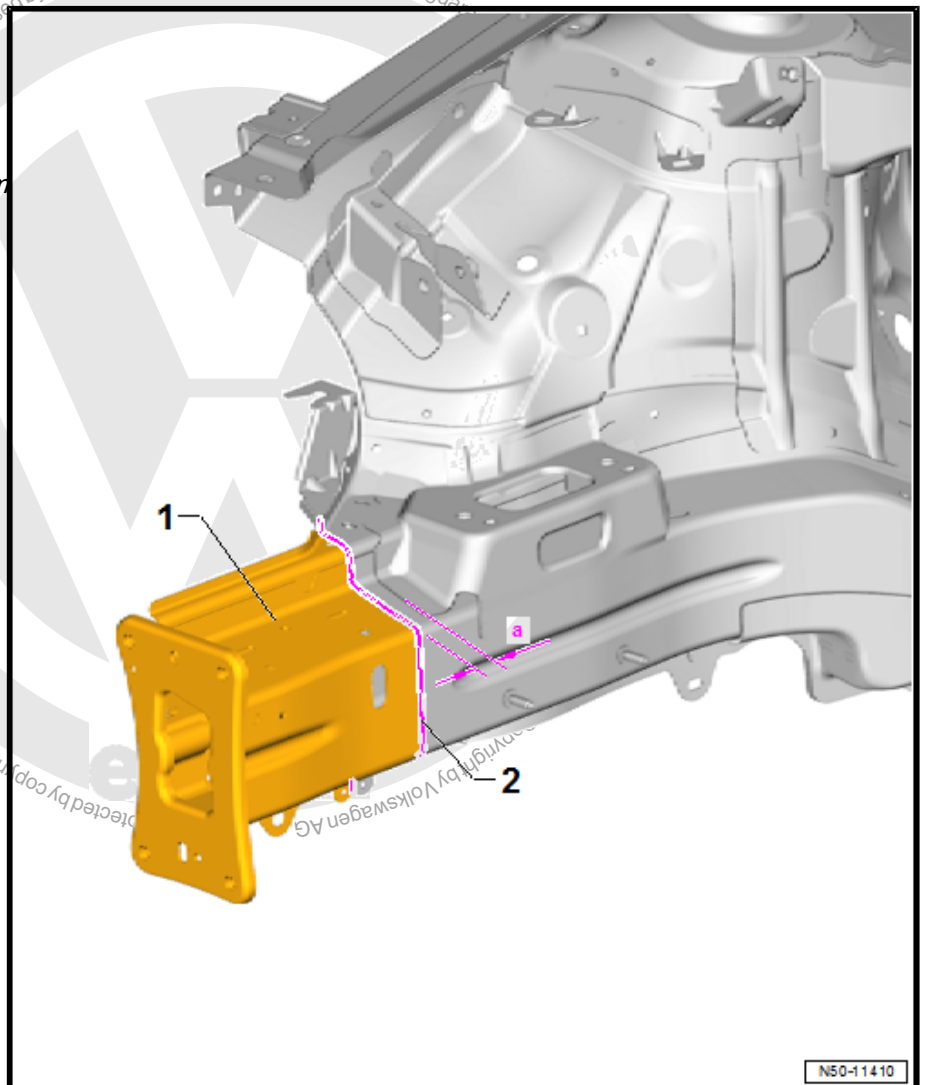
1 - Front Longitudinal Member

2 - Separating Cut



Note

Dimension -a- = 25 mm





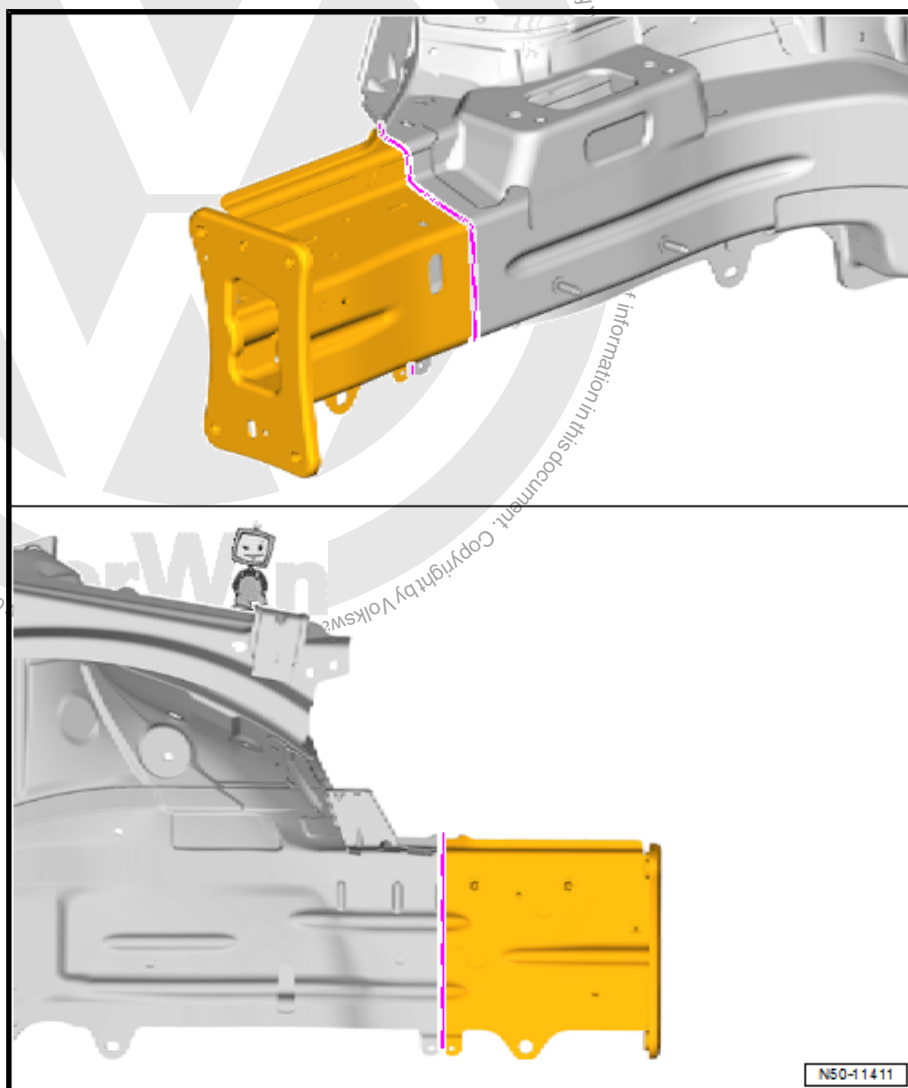
8.1 Tools



Note

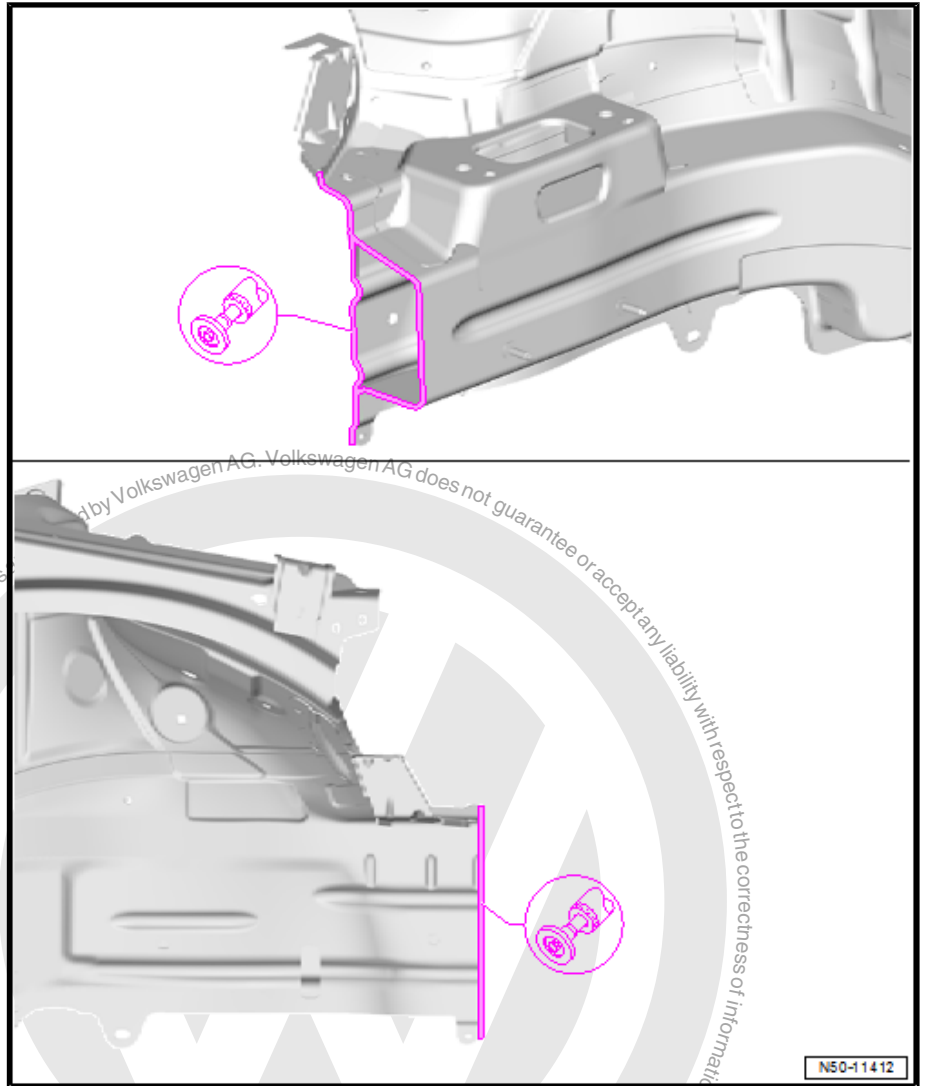
- ♦ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ♦ For a list of welding equipment and body tools approved by Volkswagen AG.

8.2 Removing



- Label and perform separating cut as shown.

25 mm



- Remove residual material.

8.3 Installing



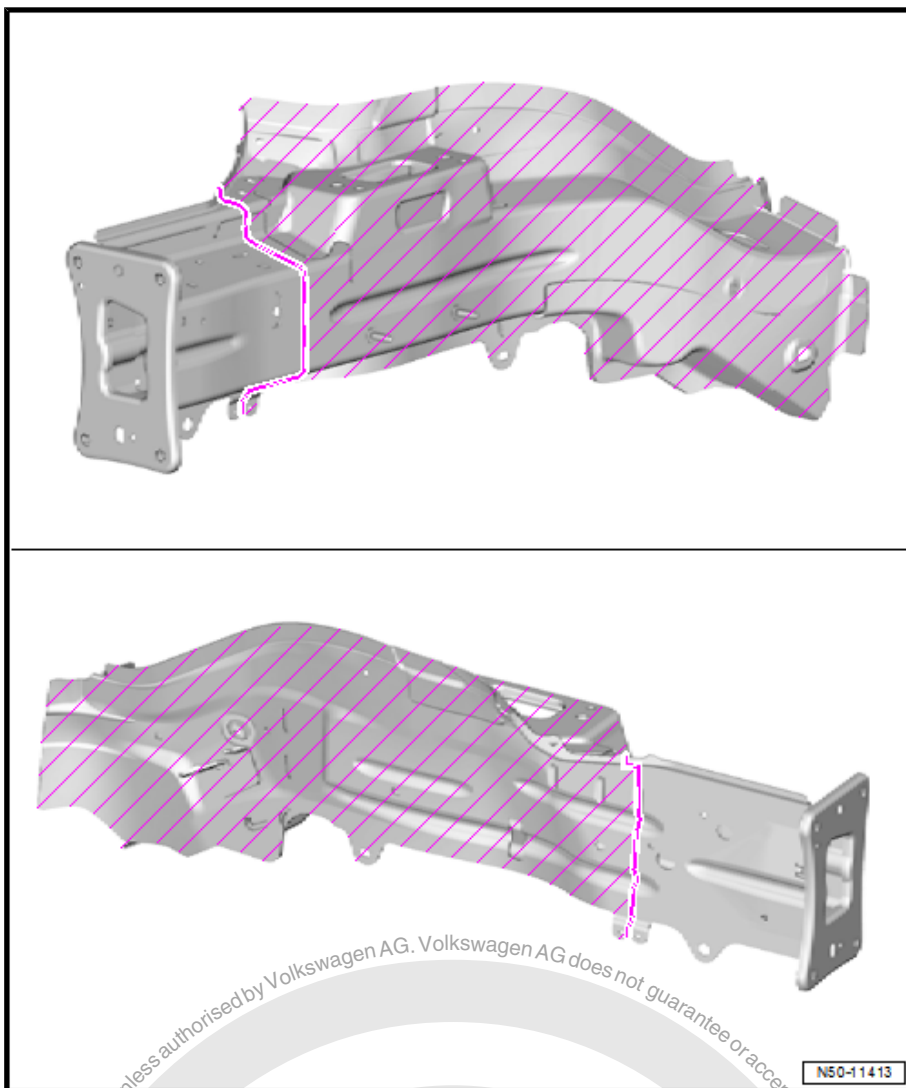
Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ ["8.1 Tools", page 68](#).

8.3.1 New Part, Preparing

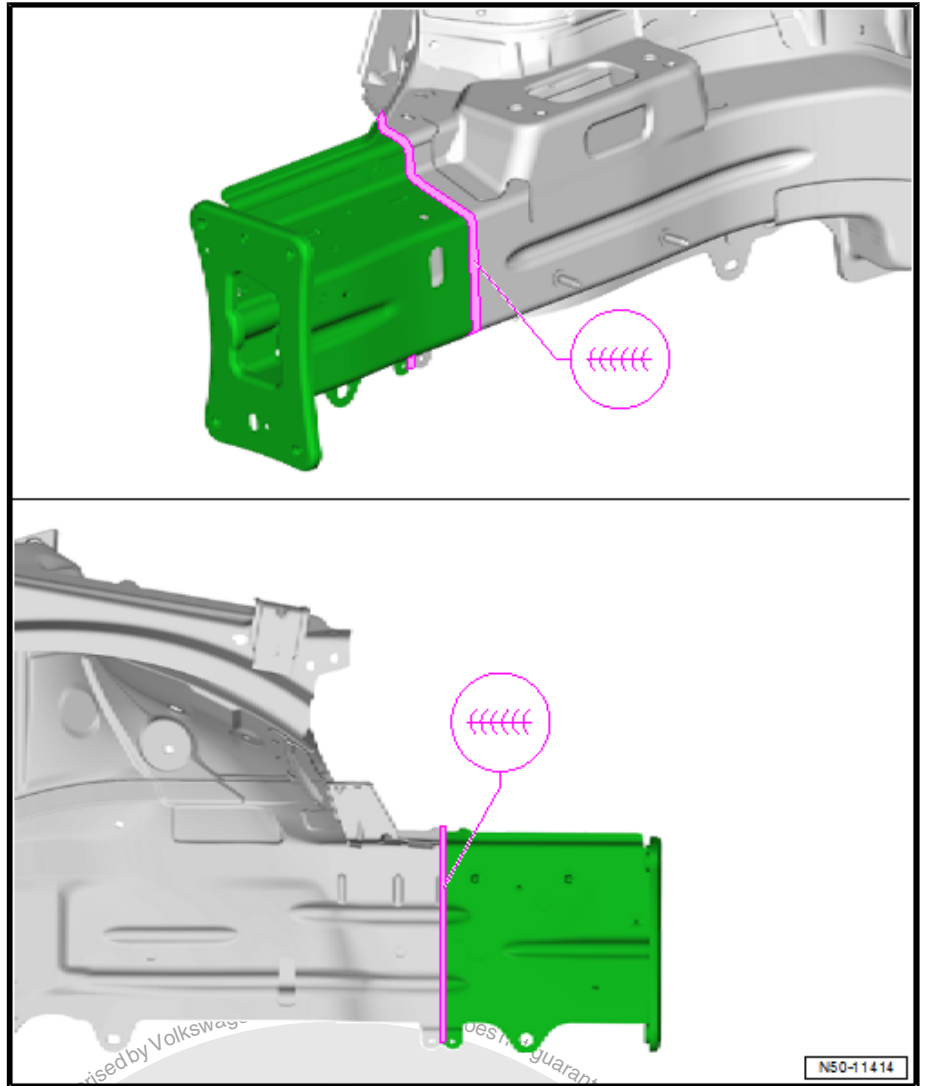
Replacement Parts

- ◆ Longitudinal Member Cover Plate
- ◆ Front Longitudinal Member
- ◆ Front bumper bracket



8.3.2 Welding

- Fit and secure the new part using the Alignment Bracket Set on the vehicle.
- Check fit with neighboring components.



- Weld the longitudinal member separating cut along the circumference using a gas shielded arc continuous seam.



9 Special Tools

Special tools and workshop equipment required

- ◆ Thread Repair Kit M12x1.5 - VAS 6058-
- ◆ Drill - VAS 6267-





51 – Body Center, Chassis, Roof

RO: 51 03 55 00

1 Roof Replacing- Vehicles without a Panorama-Sunroof

⇒ "1.1 Tools", page 74

⇒ "1.2 Removing", page 74

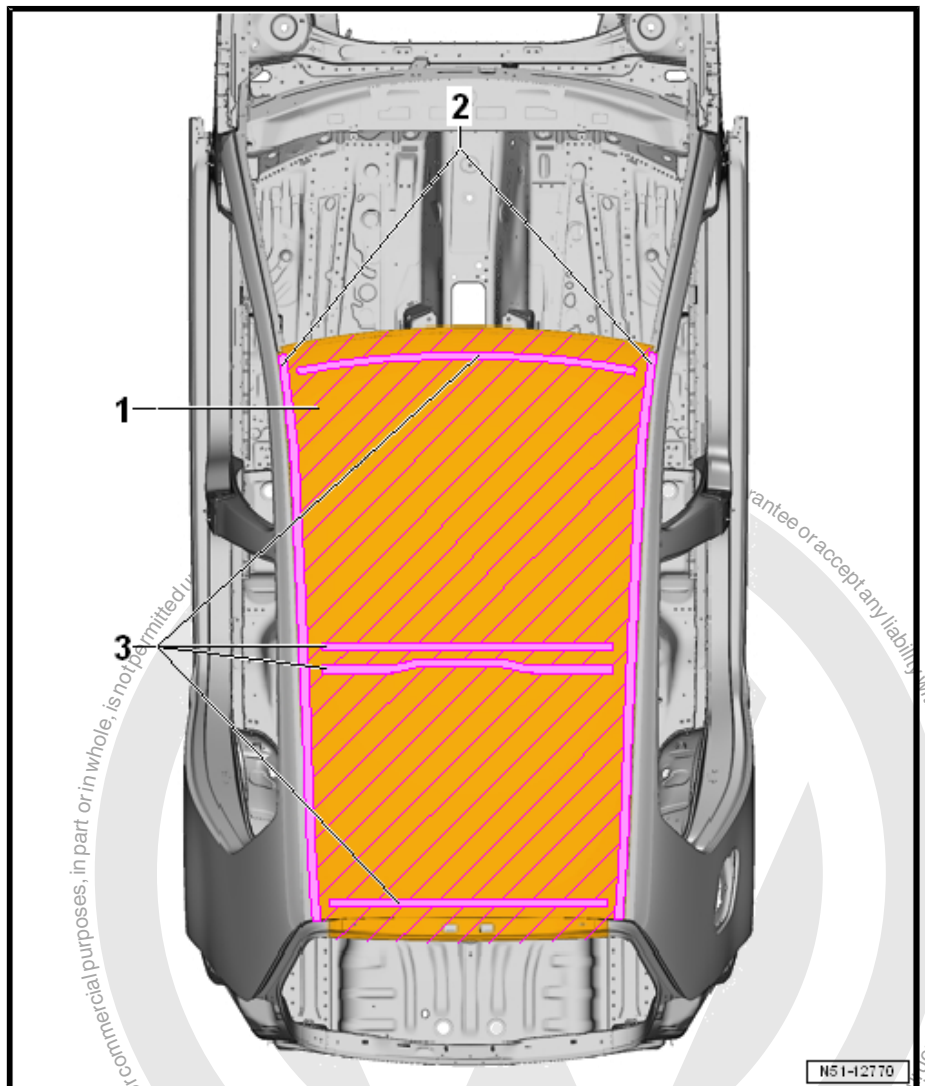
⇒ "1.3 Installing", page 76



DANGER!

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

- 1 - Roof
- 2 - Laser Brazed Seam
- 3 - Bonded Area





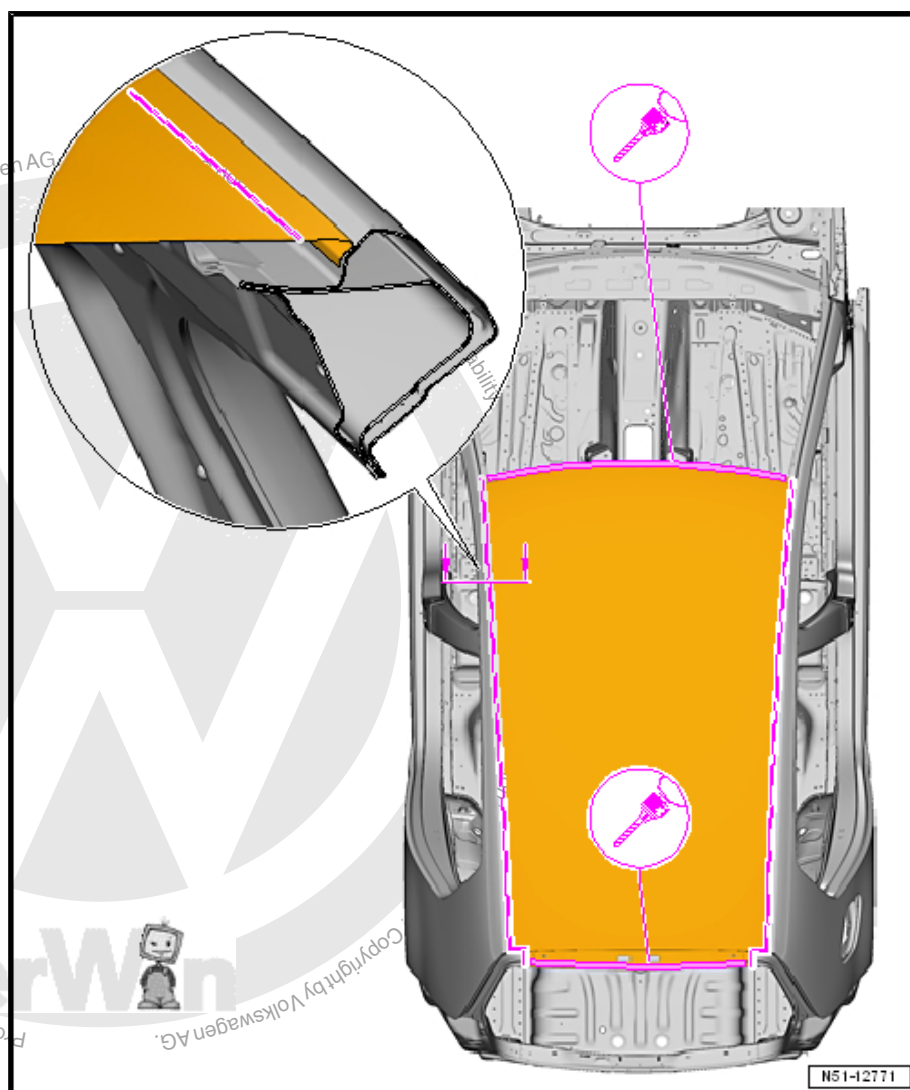
1.1 Tools



Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

1.2 Removing

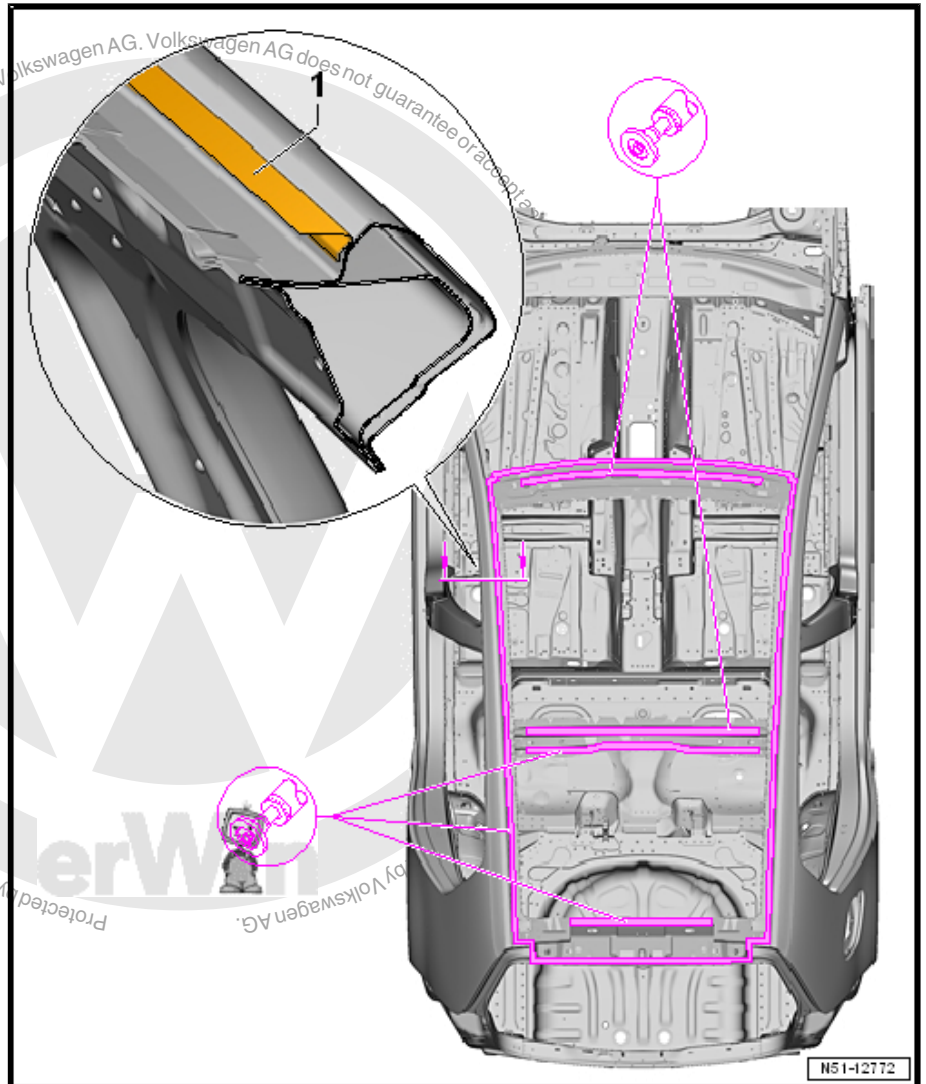


Note

- ◆ Apply cloth reinforced adhesive tape parallel to the laser brazed seams on the left and right side of the roof pillars. It prevents pillars from getting damaged or dirty while servicing.
- ◆ Maintain a distance of approximately 15 mm to the roof pillar so that the roof pillar does not get damaged.
- ◆ The roof reinforcement is not removed.



- Cut the original joint at the front of the roof crossmember.
- Cut the original joint inside the rear lid opening.
- Roughly cut out the roof parallel to the laser brazed seams.



i Note

- ◆ *When removing the remaining roof material -1-, do not damage the side panel.*
- ◆ *Do not use separating- or roughing blades.*
- Remove residual material.
- Remove any adhesive and sealant still remaining on the front and rear roof crossmembers and on the roof reinforcement.
- Remove any remaining adhesive on the left and right roof pillars.
- Touch up any paint damage using the paint repair manual.



1.3 Installing

⇒ ["1.3.1 Preparing New Parts", page 76](#)

⇒ ["1.3.2 Roof Depth Dimension, Adjusting", page 77](#)

⇒ ["1.3.3 Roof, Bonding", page 78](#)

⇒ ["1.3.4 Welding", page 84](#)



Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ ["1.1 Tools", page 74](#).

1.3.1 Preparing New Parts

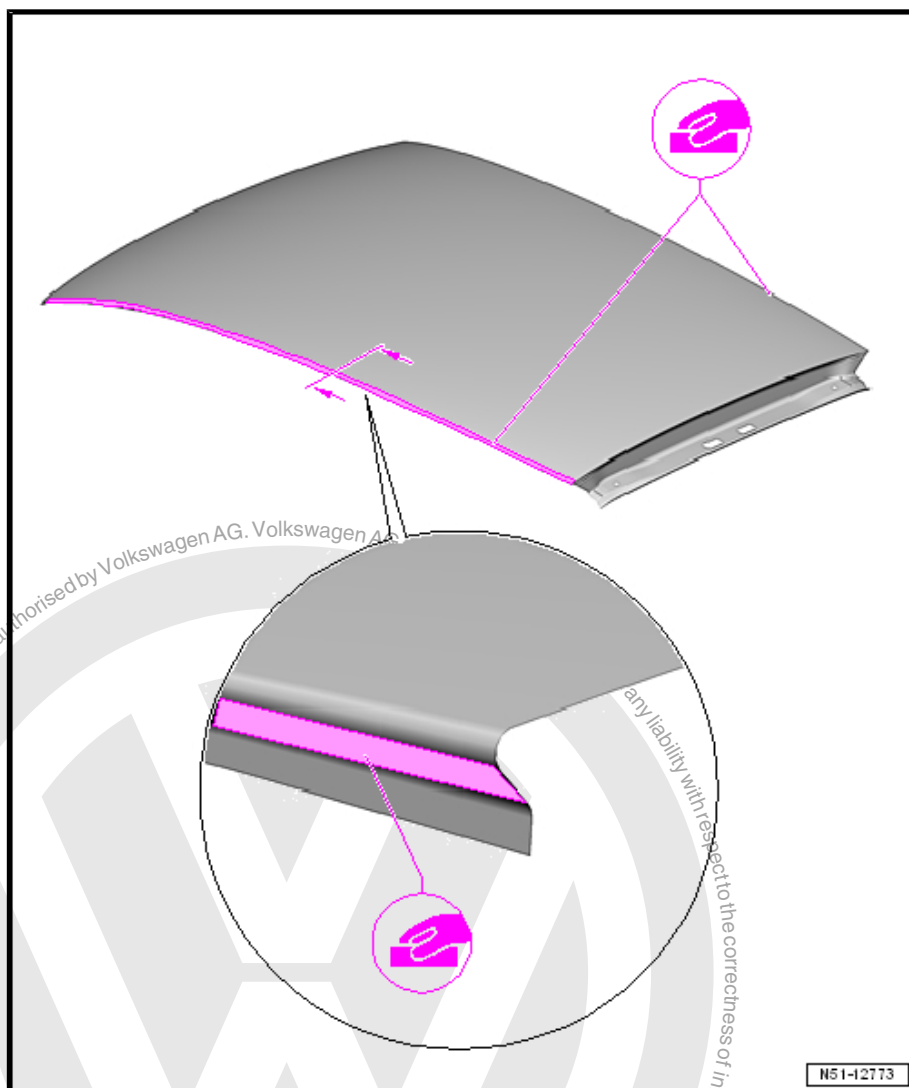
Replacement part

- ◆ Roof
- ◆ 1K Assembly Adhesive - D 190 MKD A3- , (3 cartridges)
- ◆ 2K Body Adhesive - D 180 003 M2- (2 cartridge sets)
- ◆ Primer - ALN 002 003 04-
- ◆ Adhesive - AKD 476 KD5 05-
- ◆ Felt - 533 867 910 B-
- ◆ Cavity Sealant - AKR 321 M15 4-



Note

- ◆ *In order to guarantee problem-free and long lasting roof repair, the following work procedure must always be followed.*
- ◆ *Be sure to follow the work procedure exactly to prevent making any mistakes.*



- Mount the roof onto the roof frame.
- Make sure the roof fits correctly with the rear lid and the windshield.

1.3.2 Roof Depth Dimension, Adjusting

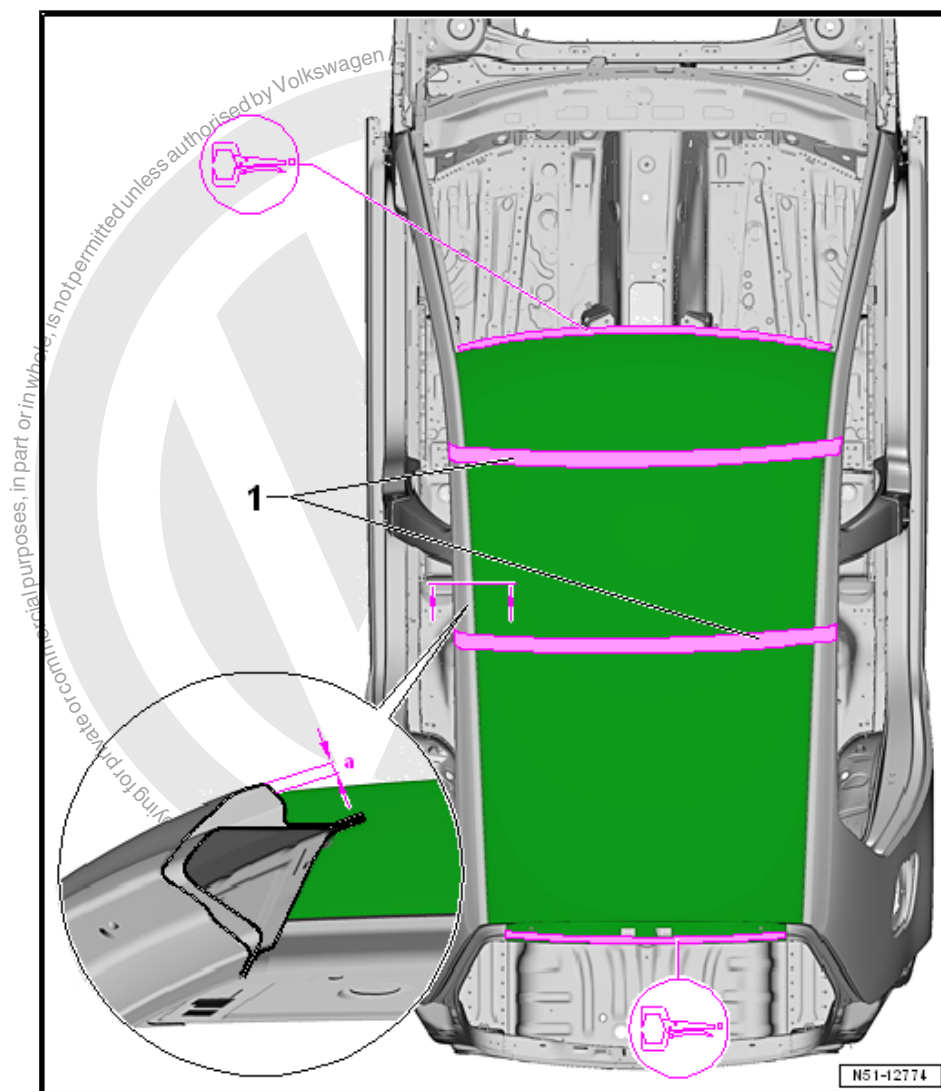
The tensioning straps -1- prevent roof from lifting off the roof frame and sliding during the adhesive procedure.

To prevent damage, do not overtighten the tensioning straps.

Dimension -a- is determined by tightening or loosening the tension straps so that the roof is lower than the side panels.



Use the Gauge - Gap Adjustment - 3371- to check the dimension -a-.



- Tension the Tensioning Strap - T10038- across the roof in the areas shown to adjust the roof height.
- Secure the roof on the opening for the window at the front and rear with locking pliers.
- Check the roof alignment to the roof pillars.
- If necessary, place Felt - 533 867 910 B- on the roof frame to balance it out.

1.3.3 Roof, Bonding

- Remove the roof.
- Apply corrosion protection.
- Clean the adhesive surface on the roof and the vehicle with Silicone Remover - LVM 020 000 A5- .



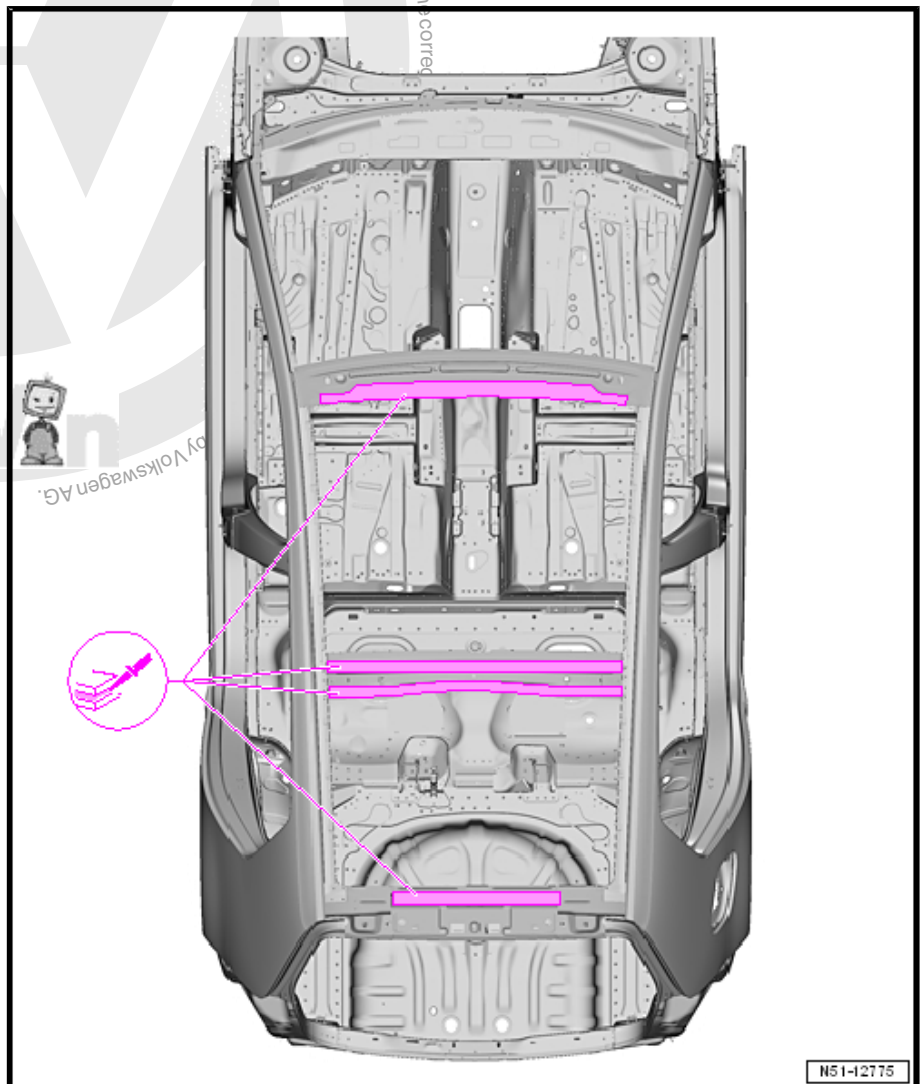
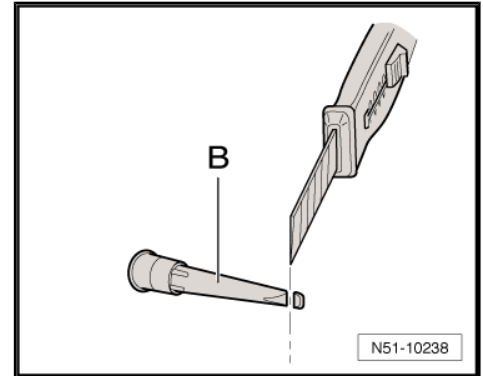
Note

- ◆ The adhesive sealant must be applied very quickly.
- ◆ Pay close attention to the processing time (working life).
- ◆ To apply the adhesive sealant, use a compressed air gun or electric cartridge pistol.
- For the corresponding bead geometry, cut off approximately 2 mm from the nozzle – B.



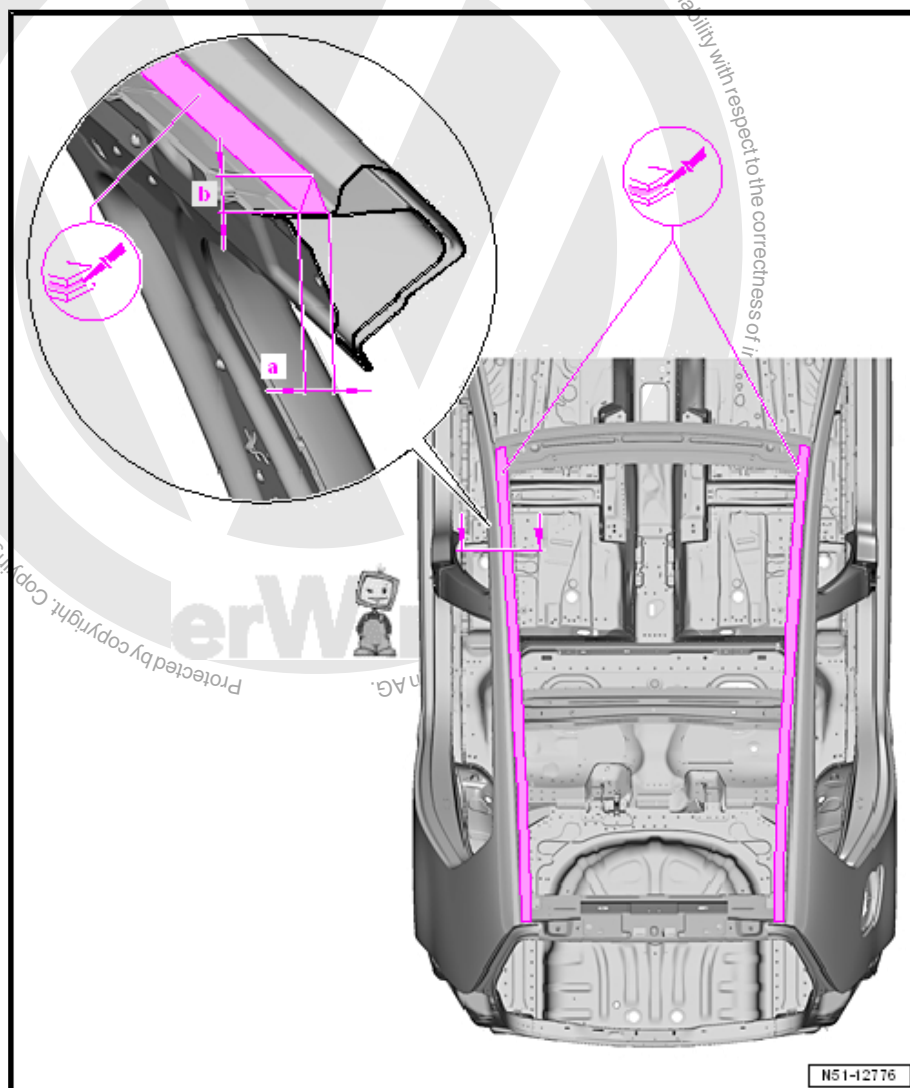
Note

- ◆ To ensure a proper and long-lasting roof repair, always follow the procedure exactly.
- ◆ Be sure to follow the work procedure exactly to prevent making any mistakes.





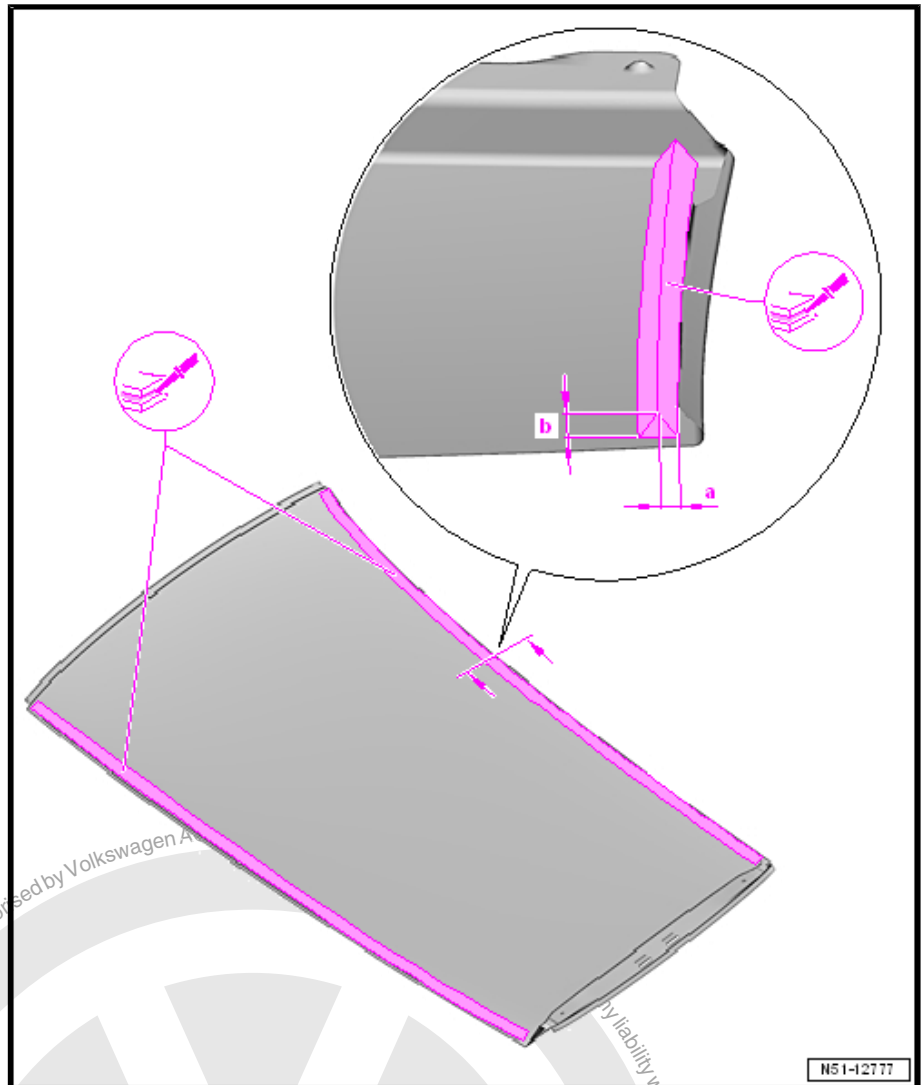
- Apply One-Part Assembly Adhesive - D190 MKD A3- using the Pneumatic Cartridge Gun - VAG1761/1- on the front and rear roof crossmember and the roof reinforcement in the area near the adhesive applied at the factory.



- Apply One-Part Assembly Adhesive - D190 MKD A3- using the Pneumatic Cartridge Gun - VAG1761/1- in the area of the roof pillar.

Dimension -a- = approximately 12 mm

Dimension -b- = approximately 14 mm



- Apply One-Part Assembly Adhesive - D190 MKD A3- using the Pneumatic Cartridge Gun - VAG1761/1- on the inside of the roof parallel to the left and right roof flange.

Dimension -a- = approximately 6 mm

Dimension -b- = approximately 14 mm

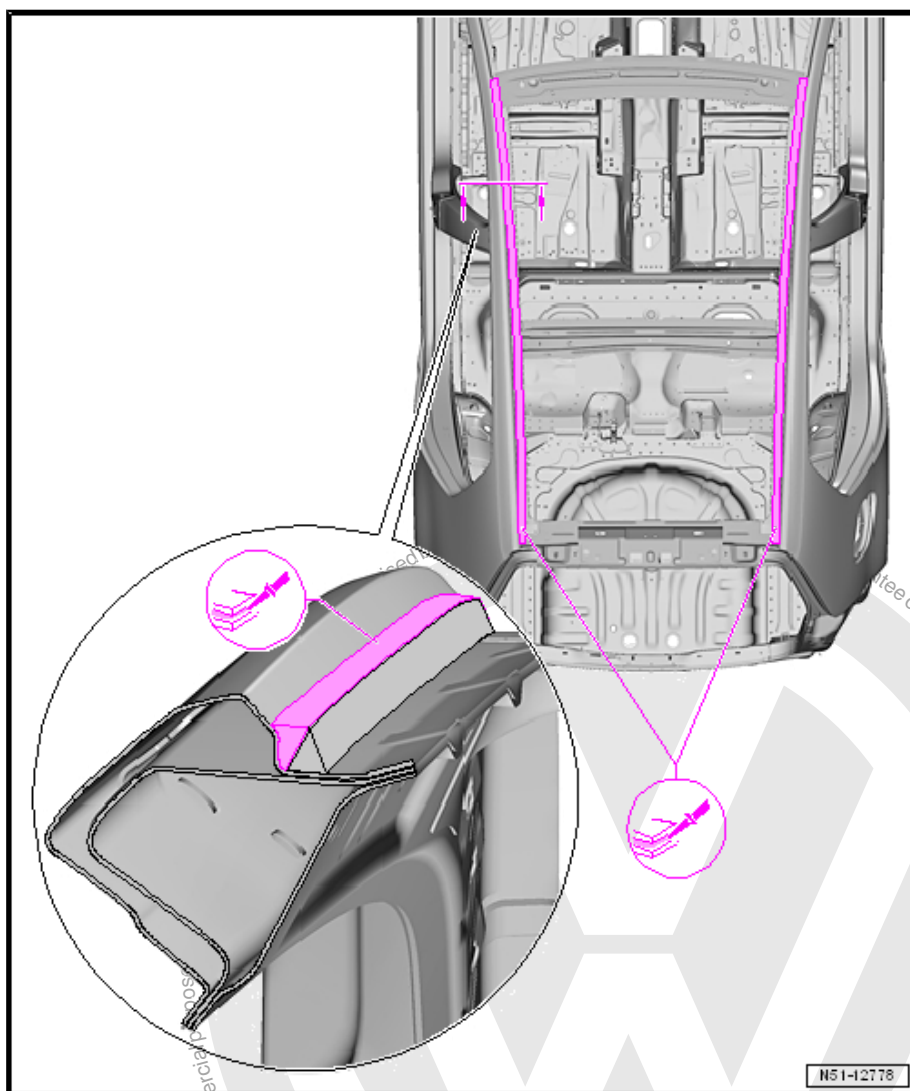
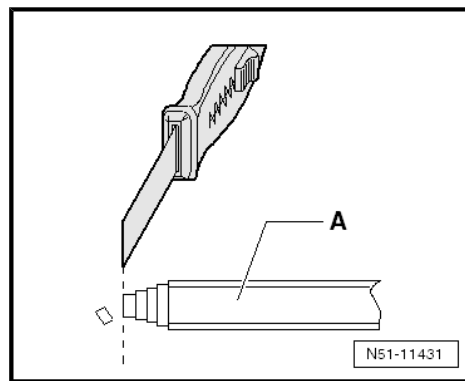


Note

- ◆ The processing time (time on pot) for Two-Part Body Adhesive - D 180 003 M2- is approximately 90 minutes.
- ◆ An assistant is required for the following work steps.
- ◆ Remove any Two-Part Body Adhesive - D 180 003 M2- that leaks out immediately. The Two-Part Body Adhesive - D 180 003 M2- can only be removed mechanically once it has hardened.



- Cut off the first section of the static mixer -A- to get the correct bead diameter.
- Operate the Double Cartridge Gun - VAS5237- without mixer, until adhesive extrudes evenly out of both chambers of cartridge union.
- Attach the mixer to the cartridge union.
- Apply the first 100 mm of adhesive onto a piece of cardboard and only then begin the application on the vehicle.

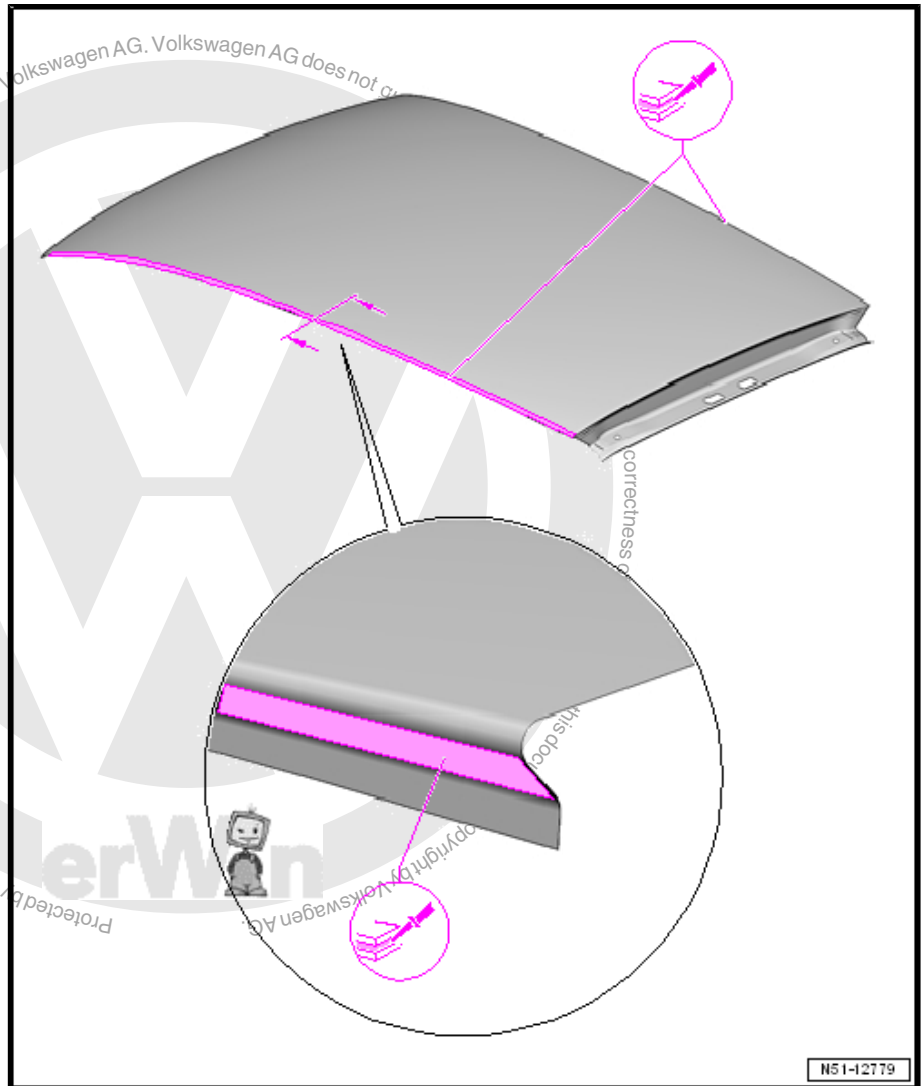


- Fill the roof pillar area with Two-Part Body Adhesive - D 180 003 M2- using the Double Cartridge Gun - VAS5237- .
- Apply Two-Part Body Adhesive - D 180 003 M2- on the rear roof crossmember near the adhesive applied at the factory.



Note

- ◆ *To ensure a proper and long-lasting roof repair, always follow the procedure exactly.*
- ◆ *Be sure to follow the work procedure exactly to prevent making any mistakes.*



- Coat the roof flange with Two-Part Body Adhesive - D 180 003 M2- .
- Mount the roof immediately and align it.
- Secure the roof to the openings for the front window and the rear lid as well as to the center area with the tensioning straps using locking pliers.
- Check the roof depth dimension -a- and adjust the roof if necessary.
- Remove any Two-Part Body Adhesive - D 180 003 M2- that leaks out on the roof edge using a cloth soaked in Silicone Remover - LVM 020 000 A5- .



- Remove any Two-Part Body Adhesive - D 180 003 M2- that leaks out of the hinge holes in the rear lid opening.



Note

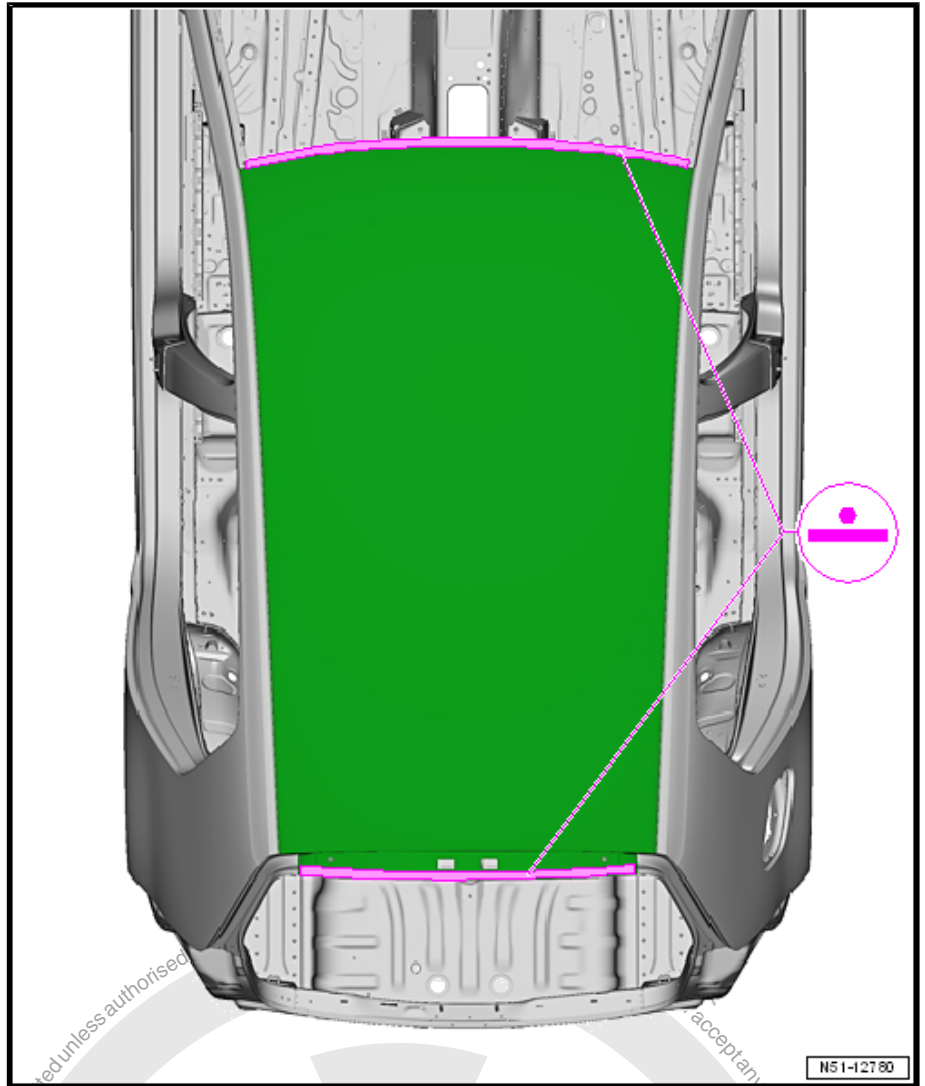
- ◆ *After adhering, vehicle must stand on a level surface at room temperature (at least 15 °C) for 8 to 10 hours so the adhesive components can cure.*
- ◆ *Further work can only be performed on the vehicle after the "minimum curing time" has passed.*
- Mount the roof immediately and align it.
- Secure the roof to the openings for the front window and the rear lid as well as to the center area with the tensioning straps using locking pliers. Refer to
⇒ ["1.3.2 Roof Depth Dimension, Adjusting", page 77](#) .
- Check the roof depth dimension -a- and adjust if necessary. Refer to
⇒ ["1.3.2 Roof Depth Dimension, Adjusting", page 77](#) .
- Remove any Two-Part Body Adhesive - D 180 003 M2- that leaks out on the roof edge using a cloth soaked in Silicone Remover - LVM 020 000 A5- .
- Remove any Two-Part Body Adhesive - D 180 003 M2- that leaks out of the hinge holes in the rear lid opening.



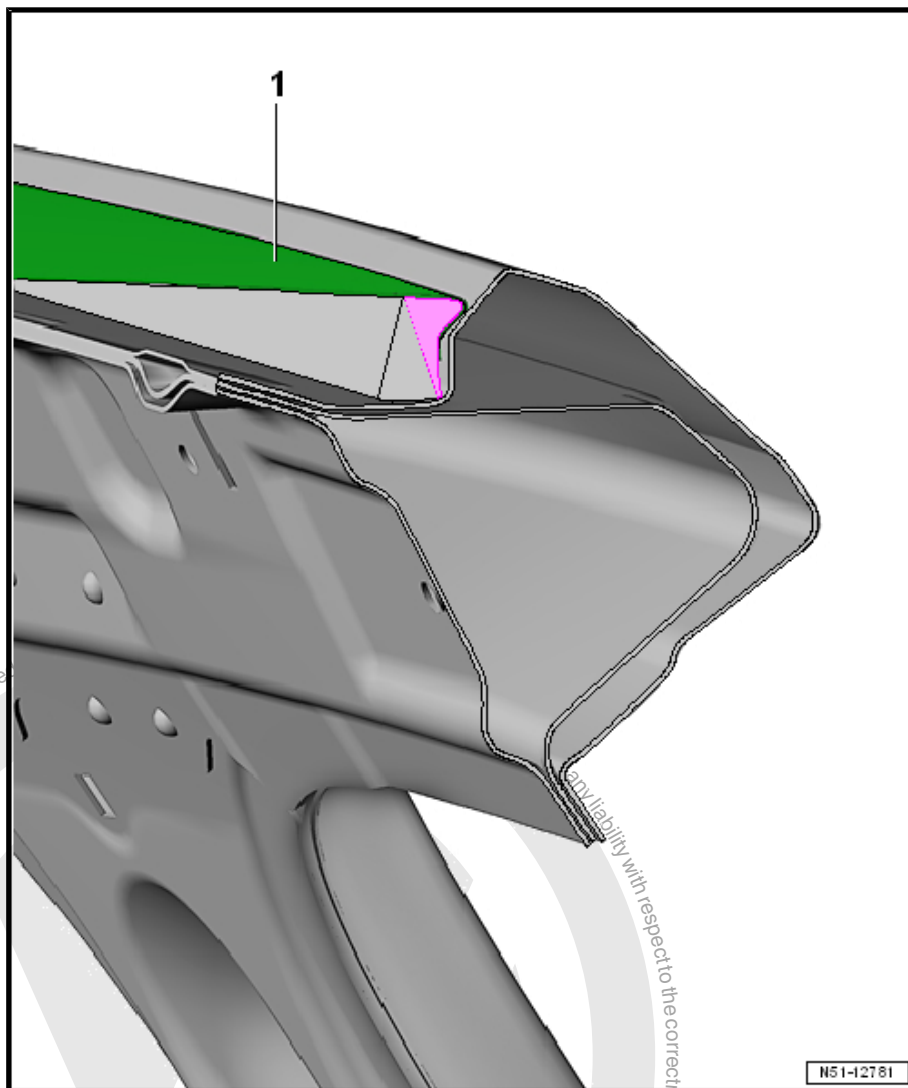
Note

- ◆ *After adhering, vehicle must stand on a level surface at room temperature (at least 15 °C (59 °F)) for 8 to 10 hours so the adhesive components can cure.*
- ◆ *Further work can only be performed on the vehicle after the "minimum curing time" has passed.*

1.3.4 Welding



- Weld the roof to the windshield opening and to the rear lid opening using a straight-line spot weld seam.



- Apply a fine-seal of adhesive seam -1- to the seam between the roof and the roof pillar with Adhesive - AKD 476 KD5 05- .
- After painting, protect the hollow roof cavities -arrow- with Cavity Sealant - AKR 321 M15 4- .
- Apply a fine-seal of adhesive seam -1- to the seam between the roof and the roof pillar with Adhesive - AKD 476 KD5 05- .
- After painting, protect the hollow roof cavities -arrow- with Cavity Sealant - AKR 321 M15 4- .



RO: 51 03 55 03

2 Roof, Replacing, Vehicles with Panorama Sunroof

⇒ ["2.1 Tools", page 88](#)

⇒ ["2.2 Removing", page 88](#)

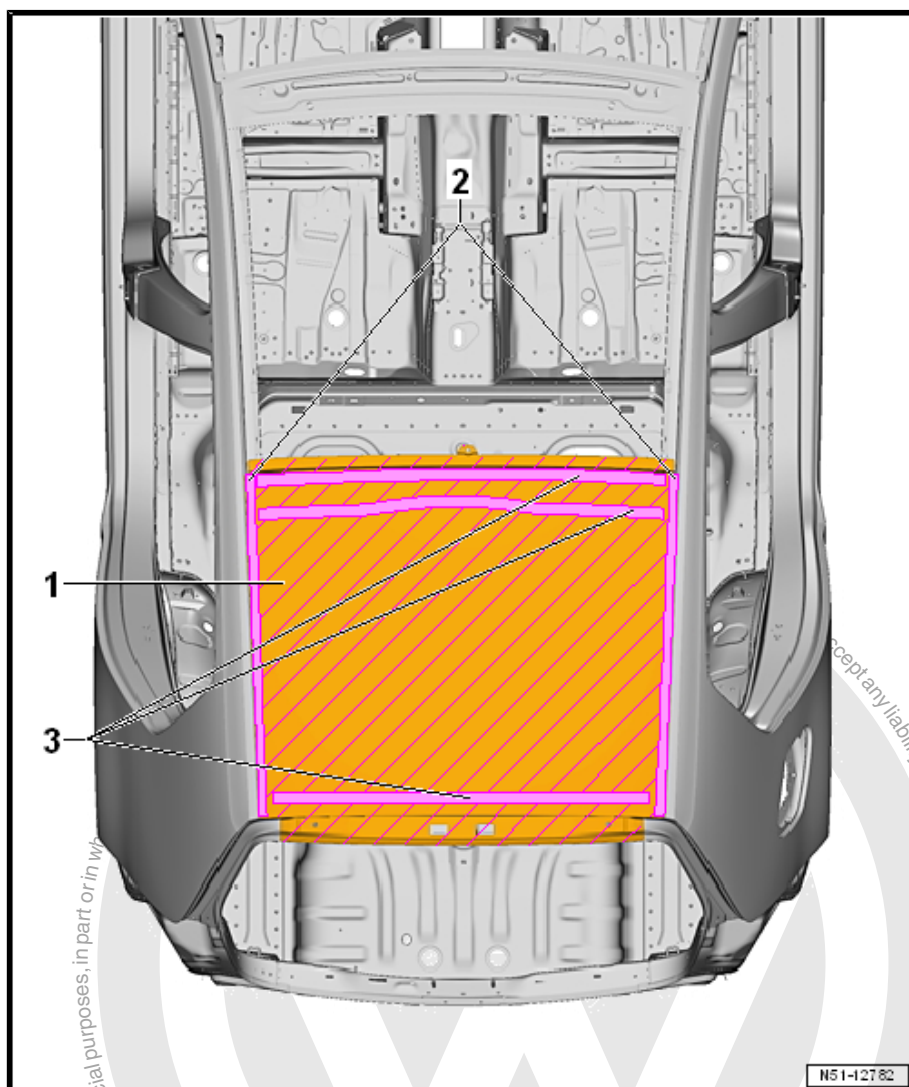
⇒ ["2.3 Installing", page 90](#)



DANGER!

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

- 1 - Roof
- 2 - Laser Brazed Seam
- 3 - Bonded Area





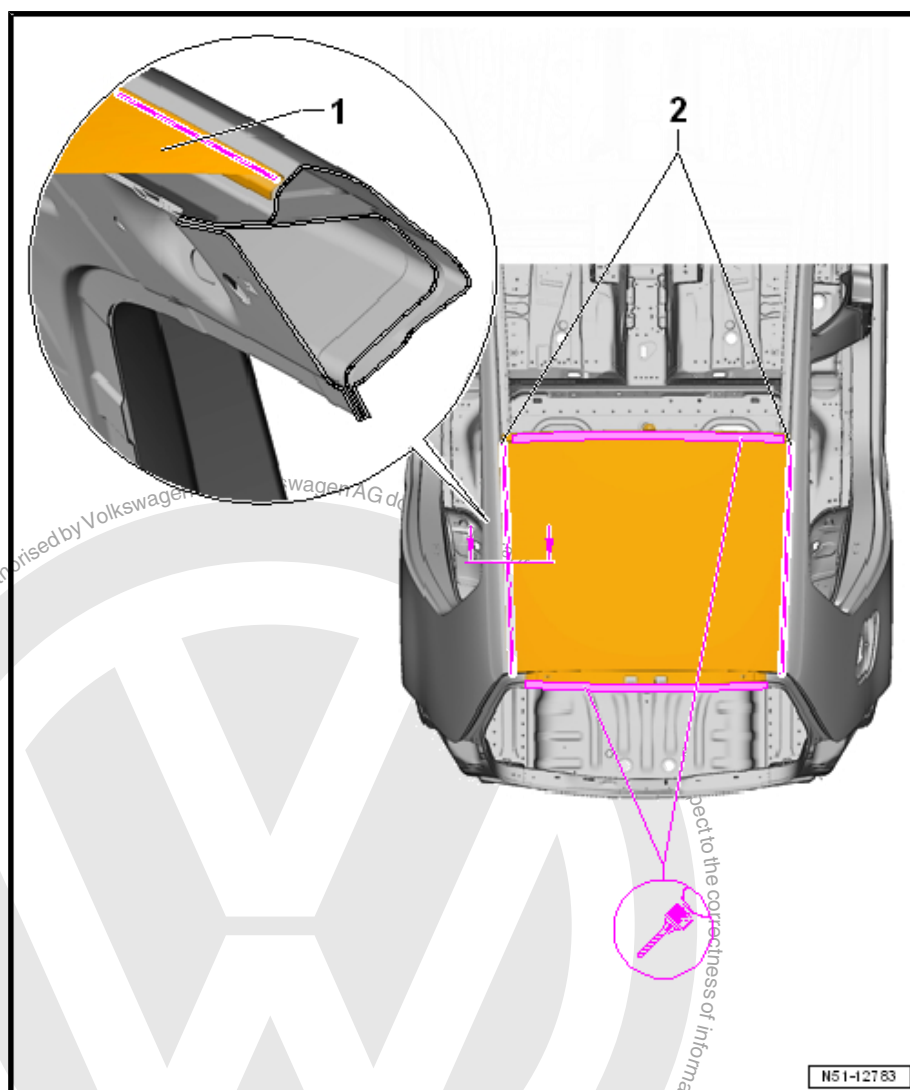
2.1 Tools



Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

2.2 Removing

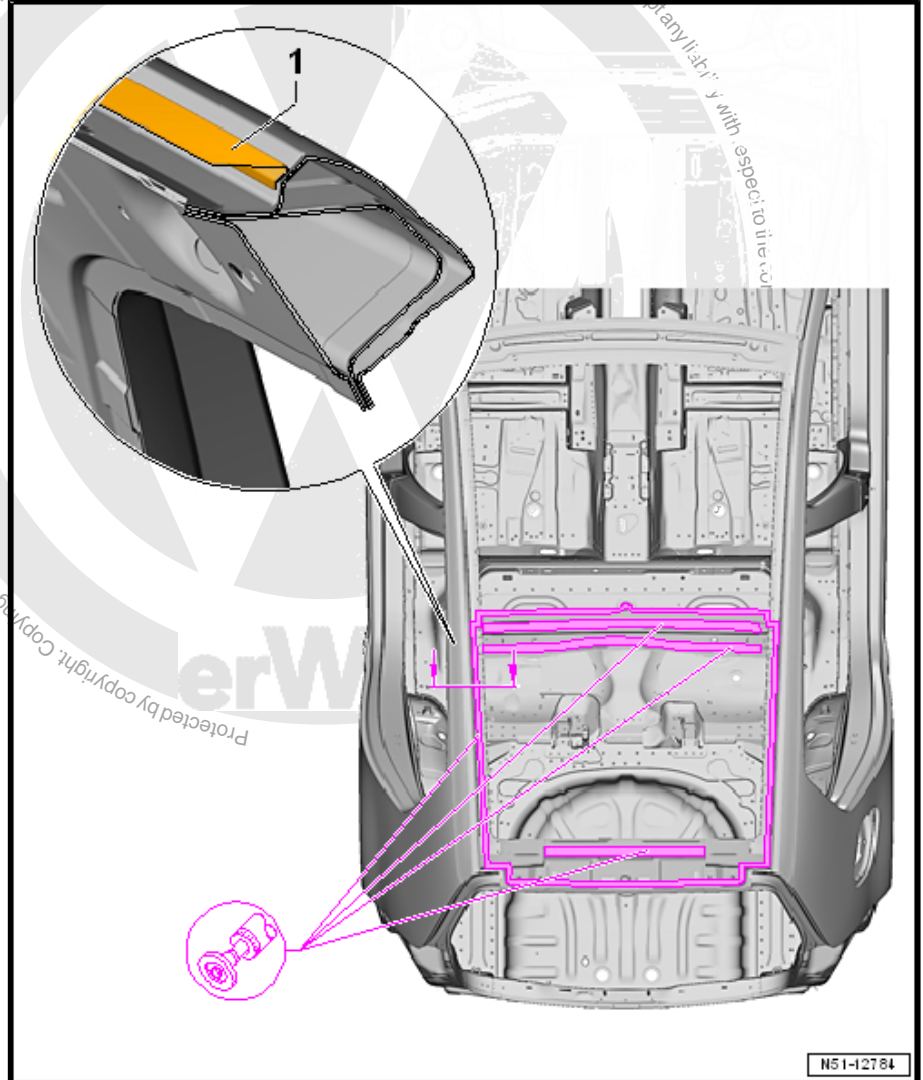


Note

- ◆ Apply cloth reinforced adhesive tape parallel to the laser brazed seams on the left and right side of the roof pillars. It prevents pillars from getting damaged or dirty while servicing.
- ◆ Maintain a distance of approximately 15 mm to the roof pillar - 1- so that the roof pillar does not get damaged.
- ◆ The roof reinforcement on the sunroof opening is also removed.



- Cut the original joint at the front of the roof crossmember.
- Cut the original joint inside the rear lid opening.
- Roughly cut out the roof parallel to the laser brazed seams -2-.



Note

- ◆ *When removing the remaining roof material -1-, do not damage the side panel.*
- ◆ *Do not use separating- or roughing blades.*
- Remove residual material.
- Remove any excess adhesive and sealant on the center and rear roof crossmembers.
- Remove any remaining adhesive on the left and right roof pillars.
- Repair any paint damage.



2.3 Installing

⇒ [“2.3.1 New Part, Preparing”, page 90](#)

⇒ [“2.3.2 Roof Depth Dimension, Adjusting”, page 92](#)

⇒ [“2.3.3 Roof, Bonding”, page 93](#)

⇒ [“2.3.4 Welding”, page 99](#)



Note

When using different types of steel and materials of different strengths, one of the inverters listed under [Tools](#) are required to perform repair work correctly. Refer to [“2.1 Tools”, page 88](#).

2.3.1 New Part, Preparing

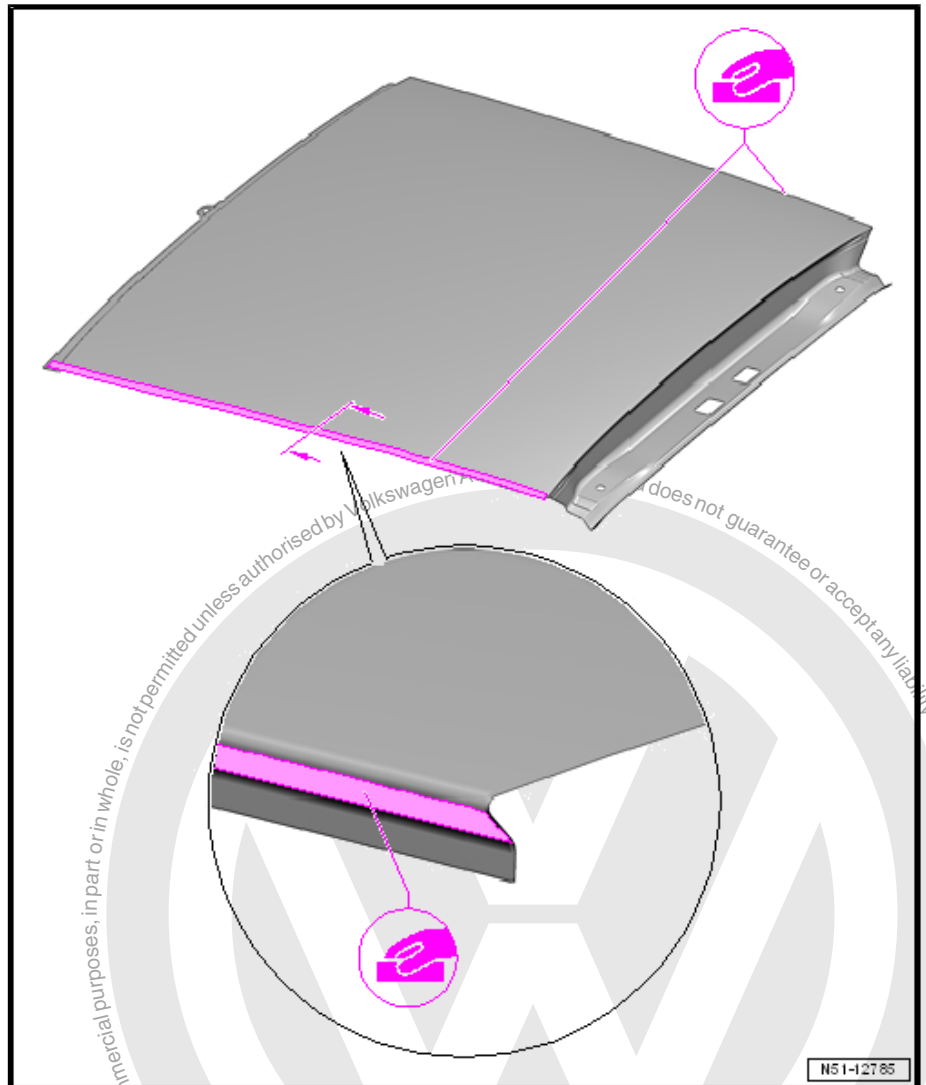
Replacement Part

- ◆ Roof
- ◆ One-Part Assembly Adhesive - D 190 MKD A3- , (3 cartridges)
- ◆ Two-Part Body Adhesive - D 180 003 M2- (2 cartridge sets)
- ◆ Primer - ALN 002 003 04-
- ◆ Adhesive - AKD 476 KD5 05-
- ◆ Felt - 533 867 910 B-
- ◆ Cavity Sealant - AKR 321 M15 4-



Note

- ◆ *To ensure a proper and long-lasting roof repair, always follow the procedure exactly.*
- ◆ *Be sure to follow the work procedure exactly to prevent making any mistakes.*

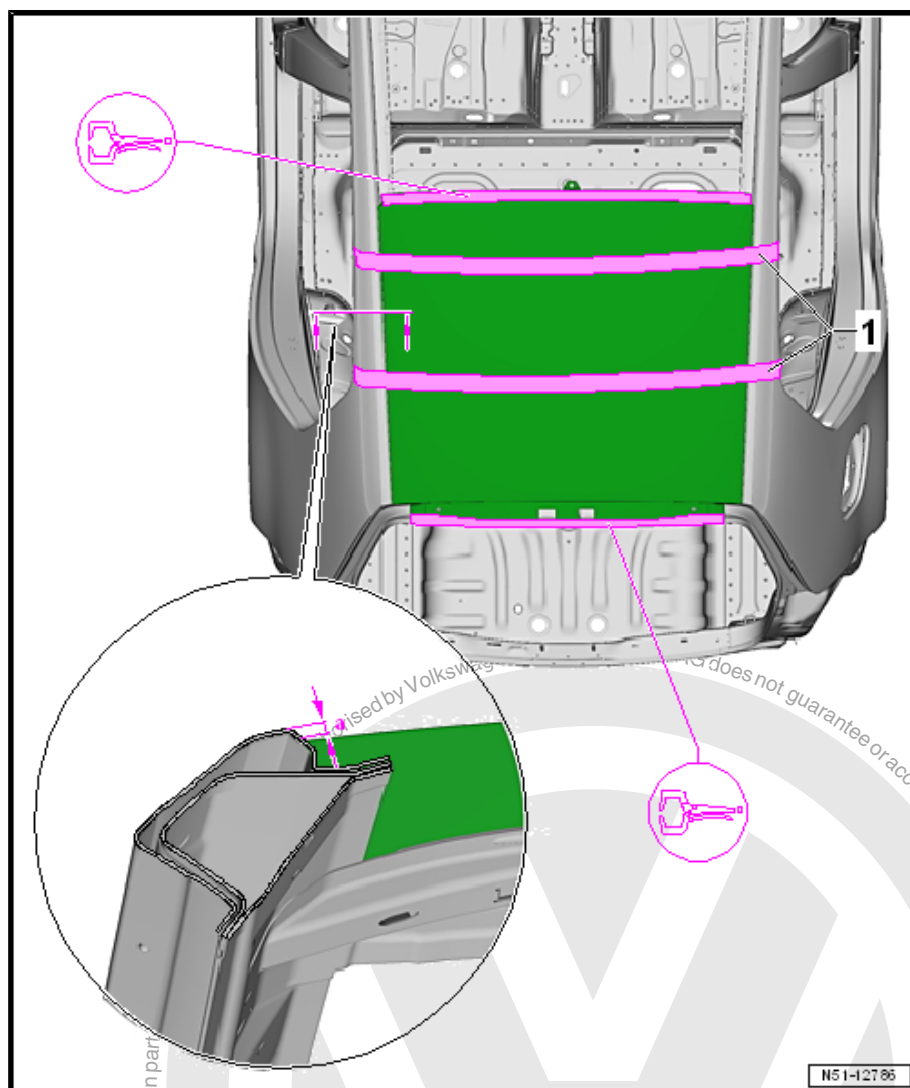


- Sand the left and right adhesive areas on the roof down to the bare metal.

This ensures that the Two-Part Body Adhesive - D 180 003 M2- can achieve a good bond with the adhesive surface.

- Mount the roof onto the roof frame.
- Make sure the roof fits correctly with the rear lid and the wind-shield.

2.3.2 Roof Depth Dimension, Adjusting



Note

- ◆ *The Tensioning Strap - T10038- prevents the roof from being lifted or slid off of the roof frame during the adhesive procedure.*
- ◆ *To prevent any damage, do not overtighten the Tensioning Strap - T10038- .*
- ◆ *For a 2-door vehicle with the side windows installed, position the Tensioning Strap - T10038- around the entire vehicle.*
- Tension the Tensioning Strap - T10038- across the roof in the areas shown -arrows- to modify the roof height.

Dimension -a- is determined by tightening or loosening the Tensioning Strap - T10038- so that the roof is lower than the side panels.

Use the Gauge - Gap Adjustment - 3371- to check the dimension -a-.

If the dimension -a- is exceeded, place Felt - 533 867 910 B- on the roof frame to even it out.



If the rear dimension -a- cannot be adjusted, it may be necessary to remove the rear roof crossmember and to weld it again.

- Check the roof alignment to the side panels.

Dimension -a- = 3.5 mm ± 0.5 mm

2.3.3 Roof, Bonding

- Remove the roof.
- Apply corrosion protection. Refer to ⇒ Paint; Rep. Gr. 00 .
- Clean the adhesive surface on the roof and the vehicle with Silicone Remover - LVM 020 000 A5- .



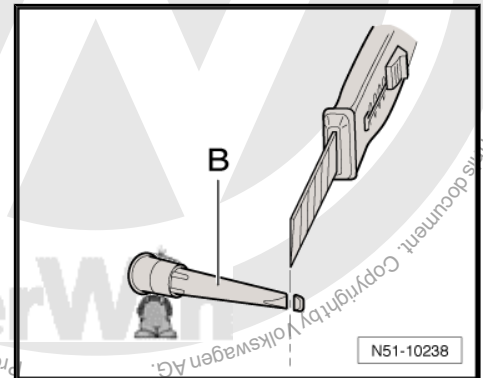
Note

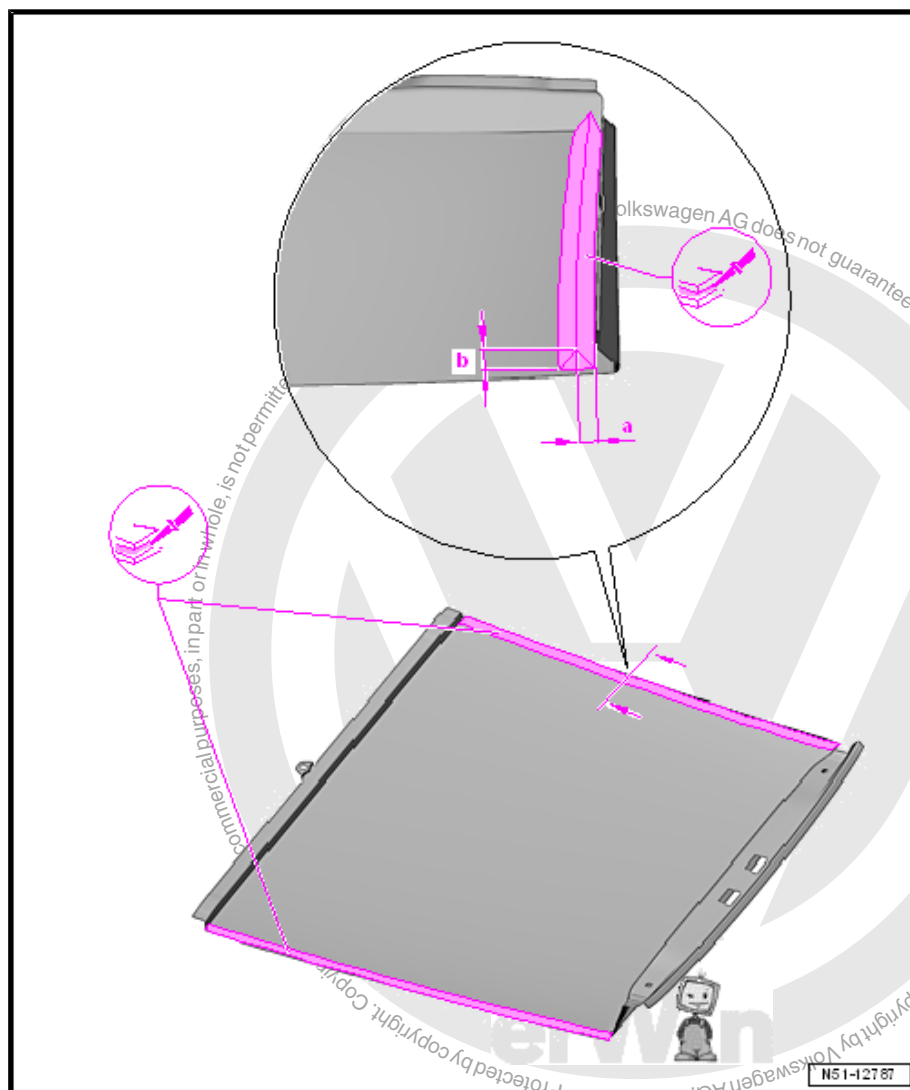
- ◆ *The adhesive sealant must be applied very quickly.*
- ◆ *Pay close attention to the processing time (working life).*
- ◆ *To apply the adhesive sealant, use a compressed air gun or electric cartridge pistol.*
- For the corresponding bead geometry, cut off approximately 2 mm from the nozzle -B-.



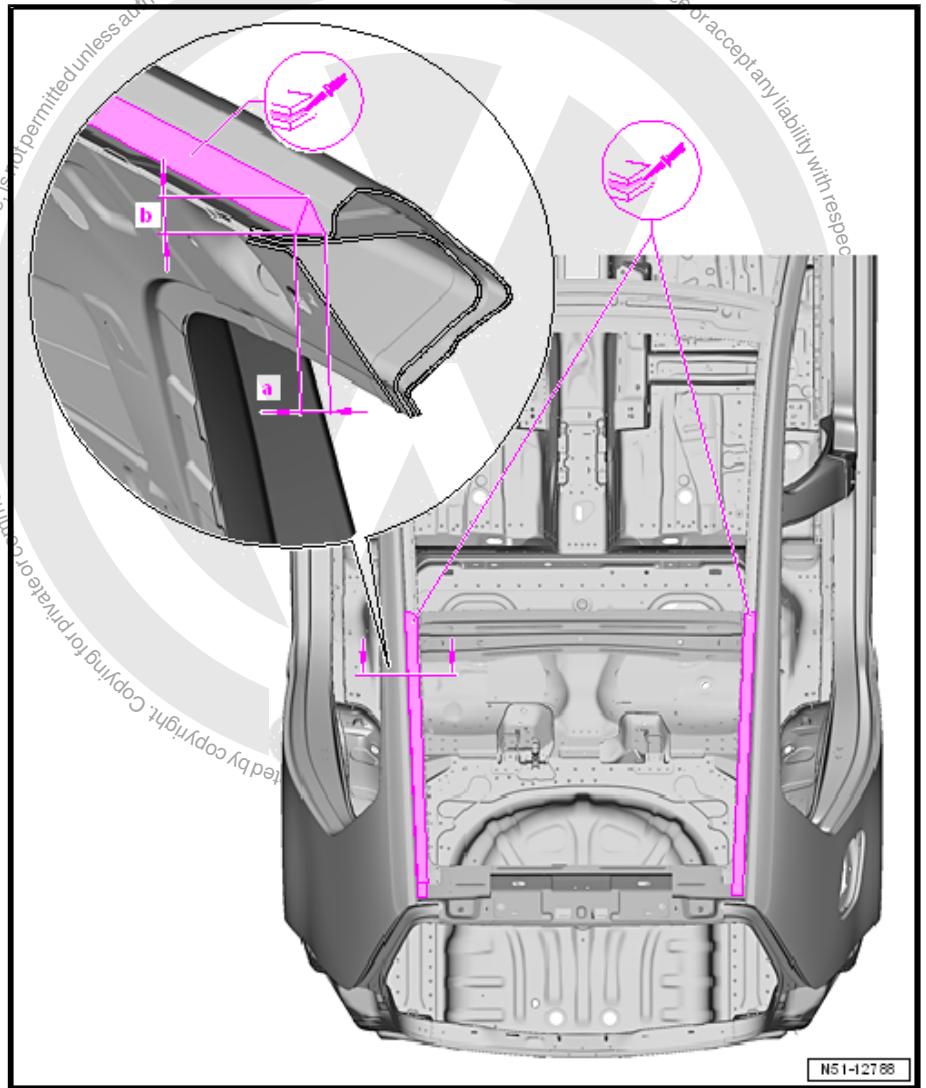
Note

- ◆ *To ensure a proper and long-lasting roof repair, always follow the procedure exactly.*
- ◆ *Be sure to follow the work procedure exactly to prevent making any mistakes.*





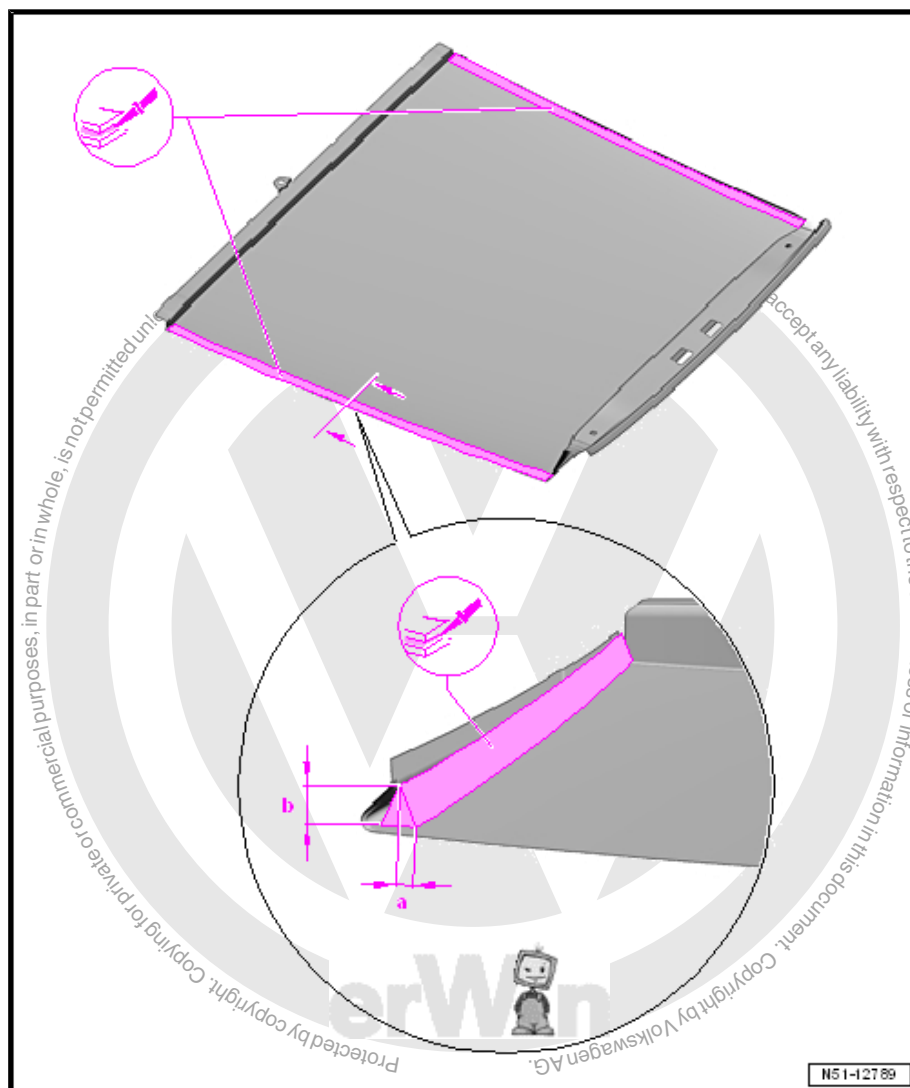
- Apply One-Part Assembly Adhesive - D190 MKD A3- using the Pneumatic Cartridge Gun - VAG1761/1- on the front and roof crossmember near the adhesive applied at the factory.



- Apply One-Part Assembly Adhesive - D190 MKD A3- using the Pneumatic Cartridge Gun - VAG1761/1- in the area of the roof pillar.

Dimension -a- = approximately 12 mm

Dimension -b- = approximately 14 mm



- Apply One-Part Assembly Adhesive - D190 MKD A3- using the Pneumatic Cartridge Gun - VAG1761/1- on the inside of the roof parallel to the left and right roof flange.

Dimension -a- = approximately 6 mm

Dimension -b- = approximately 14 mm



Note

- ◆ *The processing time (time on pot) for Two-Part Body Adhesive - D 180 003 M2- is approximately 90 minutes.*
- ◆ *An assistant is required for the following work steps.*
- ◆ *Remove any Two-Part Body Adhesive - D 180 003 M2- that leaks out immediately. The Two-Part Body Adhesive - D 180 003 M2- can only be removed mechanically once it has hardened.*

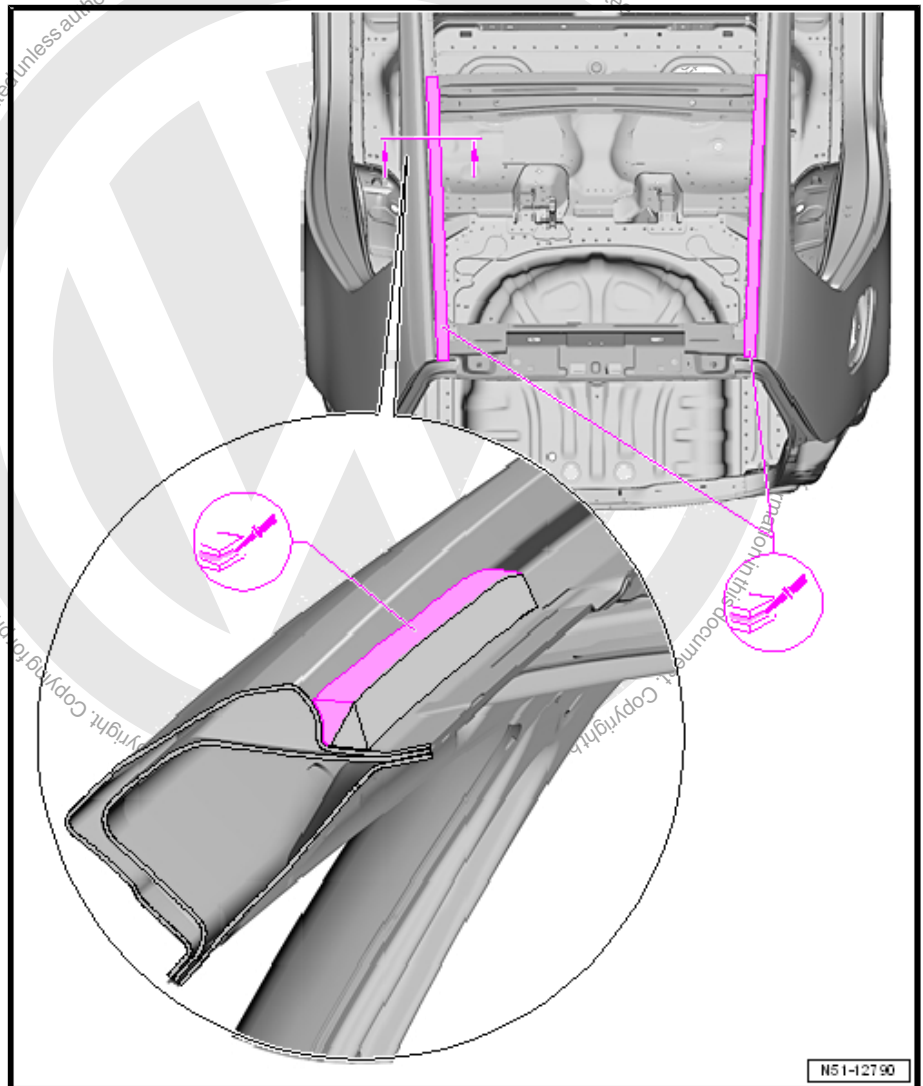
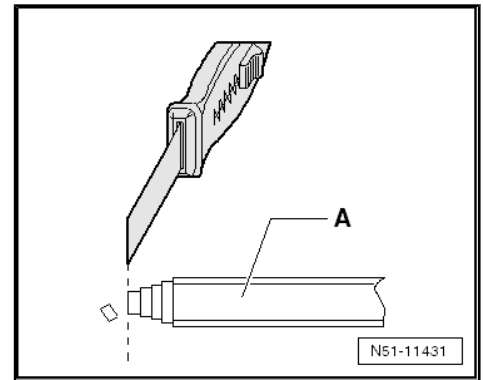


- Cut off the first section of the static mixer -A- to get the correct bead diameter.
- Operate the Double Cartridge Gun - VAS5237- without mixer, until adhesive extrudes evenly out of both chambers of cartridge union.
- Attach the mixer to the cartridge union.
- Apply the first 100 mm of adhesive onto a piece of cardboard and only then begin the application on the vehicle.



Note

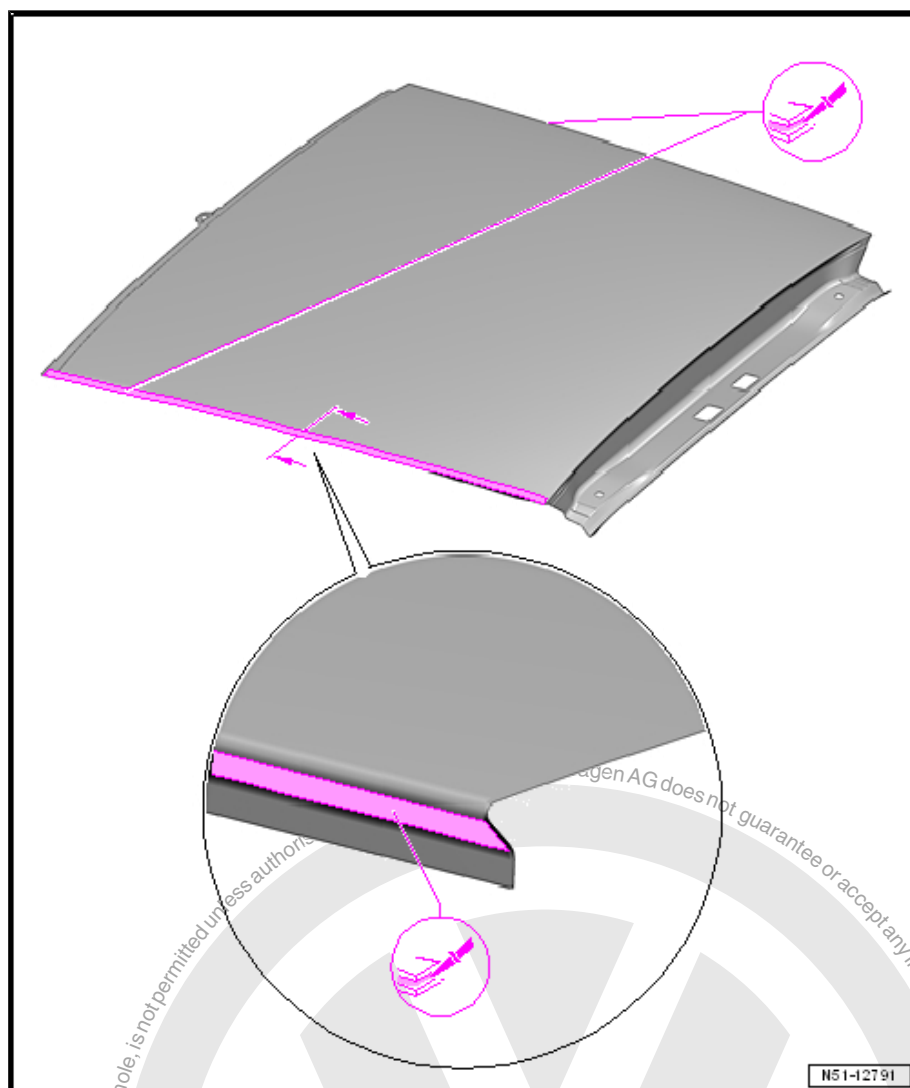
- ◆ *To ensure a proper and long-lasting roof repair, always follow the procedure exactly.*
- ◆ *Be sure to follow the work procedure exactly to prevent making any mistakes.*



- Fill the area with Two-Part Body Adhesive - D 180 003 M2- using the Double Cartridge Gun - VAS5237- .



- Apply Two-Part Body Adhesive - D 180 003 M2- on the rear roof crossmember near the adhesive applied at the factory.



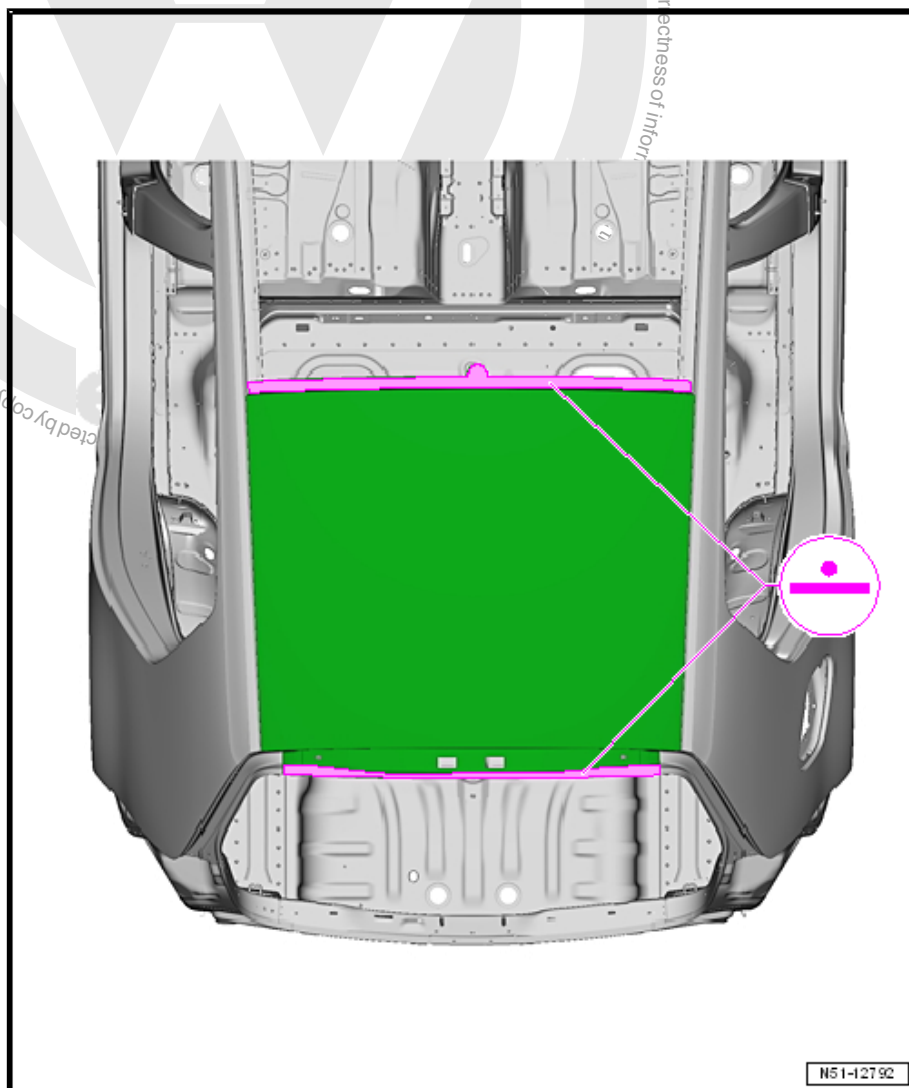
- Coat the roof flange with the Two-Part Body Adhesive - D 180 003 M2- .
- Mount the roof immediately and align it.
- Secure the roof to the openings for the front window and the rear lid as well as to the center area with the tensioning straps using locking pliers. Refer to [⇒ "2.3.2 Roof Depth Dimension, Adjusting", page 92](#) .
- Check the roof depth dimension -a- and adjust if necessary. Refer to [⇒ "2.3.2 Roof Depth Dimension, Adjusting", page 92](#) .
- Remove any Two-Part Body Adhesive - D 180 003 M2- that leaks out on the roof edge using a cloth soaked in Silicone Remover - LVM 020 000 A5- .
- Remove any Two-Part Body Adhesive - D 180 003 M2- that leaks out of the hinge holes in the rear lid opening.



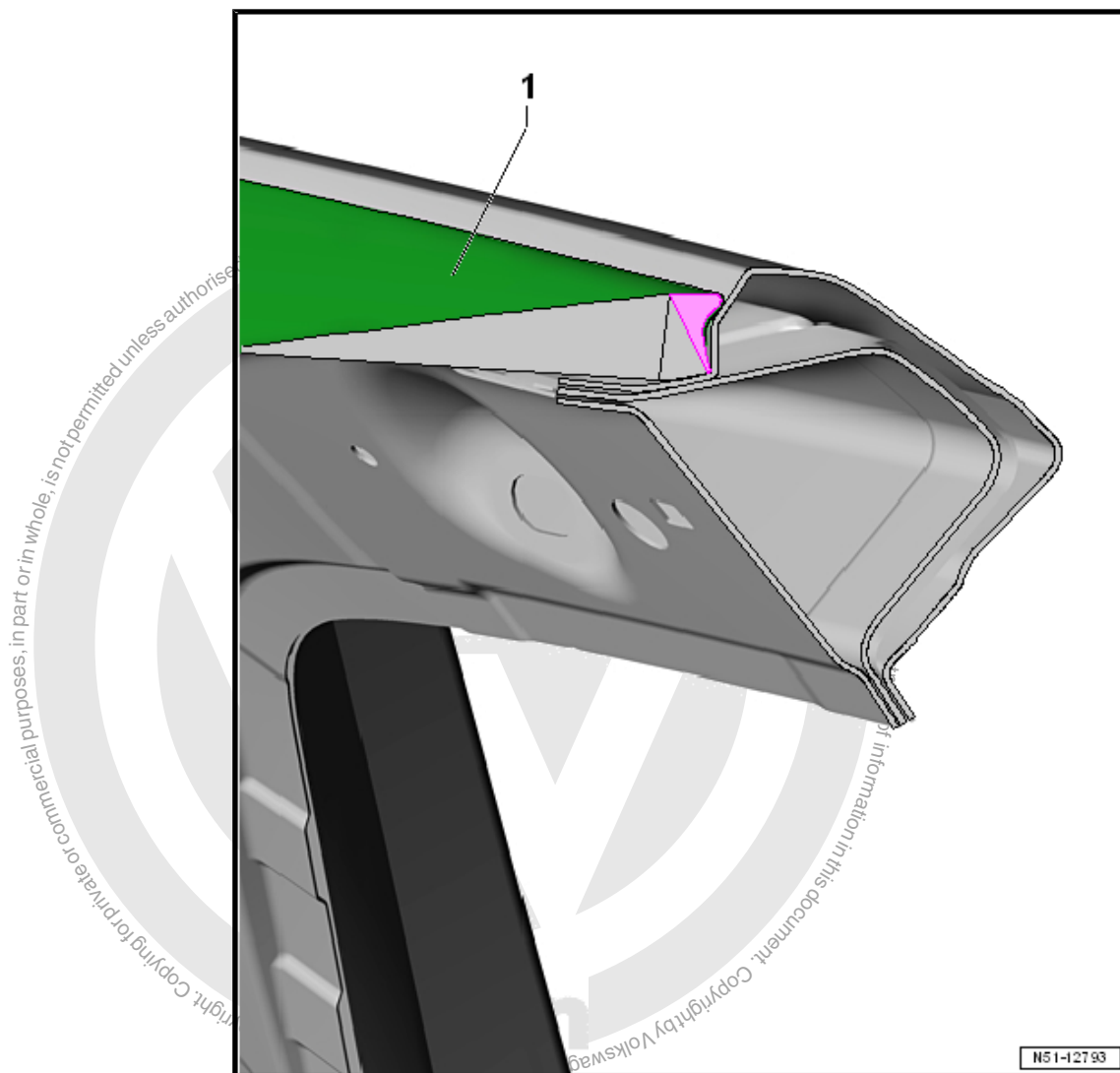
Note

- ◆ After adhering, vehicle must stand on a level surface at room temperature (at least 15 °C (59 °F)) for 8 to 10 hours so the adhesive components can cure.
- ◆ Further work can only be performed on the vehicle after the "minimum curing time" has passed.

2.3.4 Welding



- Weld the roof to the windshield opening and to the rear lid opening using a straight-line spot weld seam.



- Apply a fine-seal of adhesive seam -1- to the seam between the roof and the roof pillar with Adhesive - AKD 476 KD5 05- .
- After painting, protect the hollow roof cavities -arrow- with Cavity Sealant - AKR 321 M15 4- .



RO: 51 37 55 00

3 A-Pillar, Replacing

⇒ ["3.1 Tools", page 102](#)

⇒ ["3.2 Removing", page 102](#)

⇒ ["3.3 Installing", page 104](#)

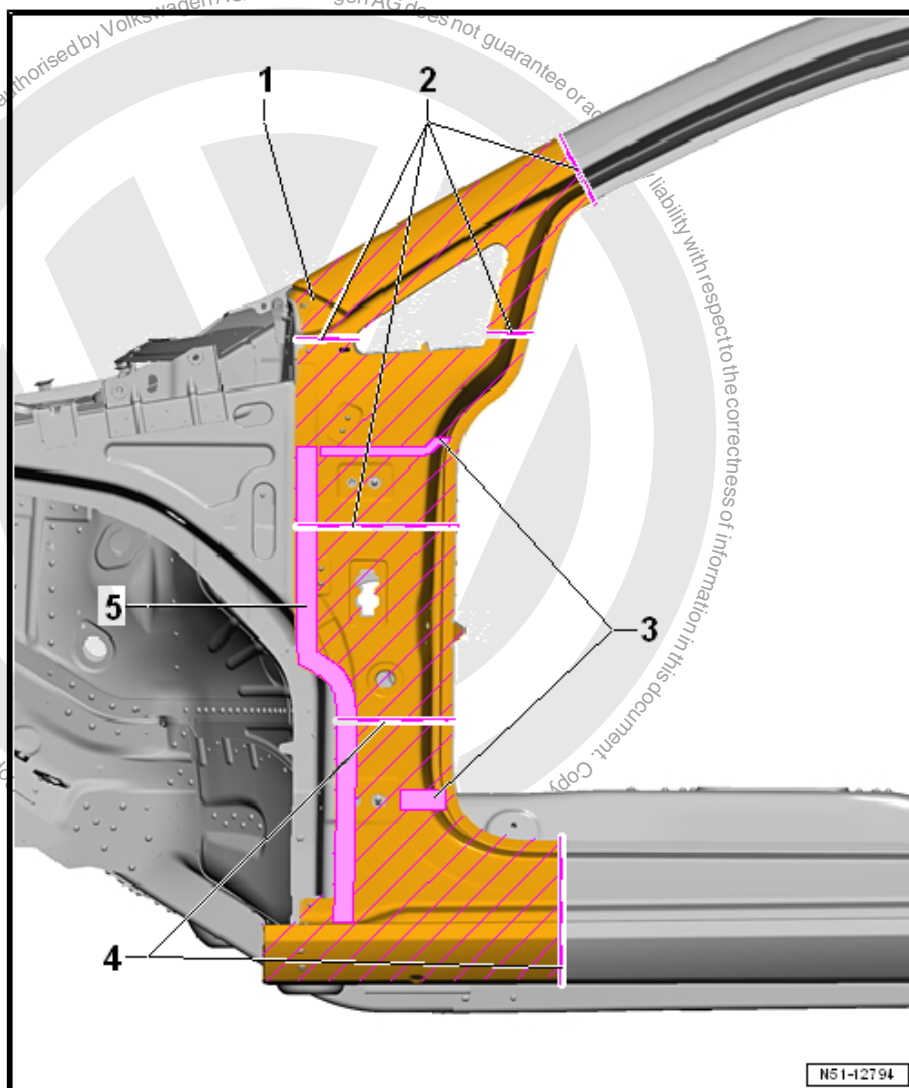


WARNING

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

If welding or cutting with spark-producing devices/tools or when plating in foamed areas where hazardous gases are produced that are harmful to humans and the environment, these procedures are to be omitted in each case.

- 1 - A-Pillar
- 2 - Upper Separation Cut
- 3 - Molded Foam Part
- 4 - Lower Separation Cut
- 5 - Bonded Area





3.1 Tools



Note

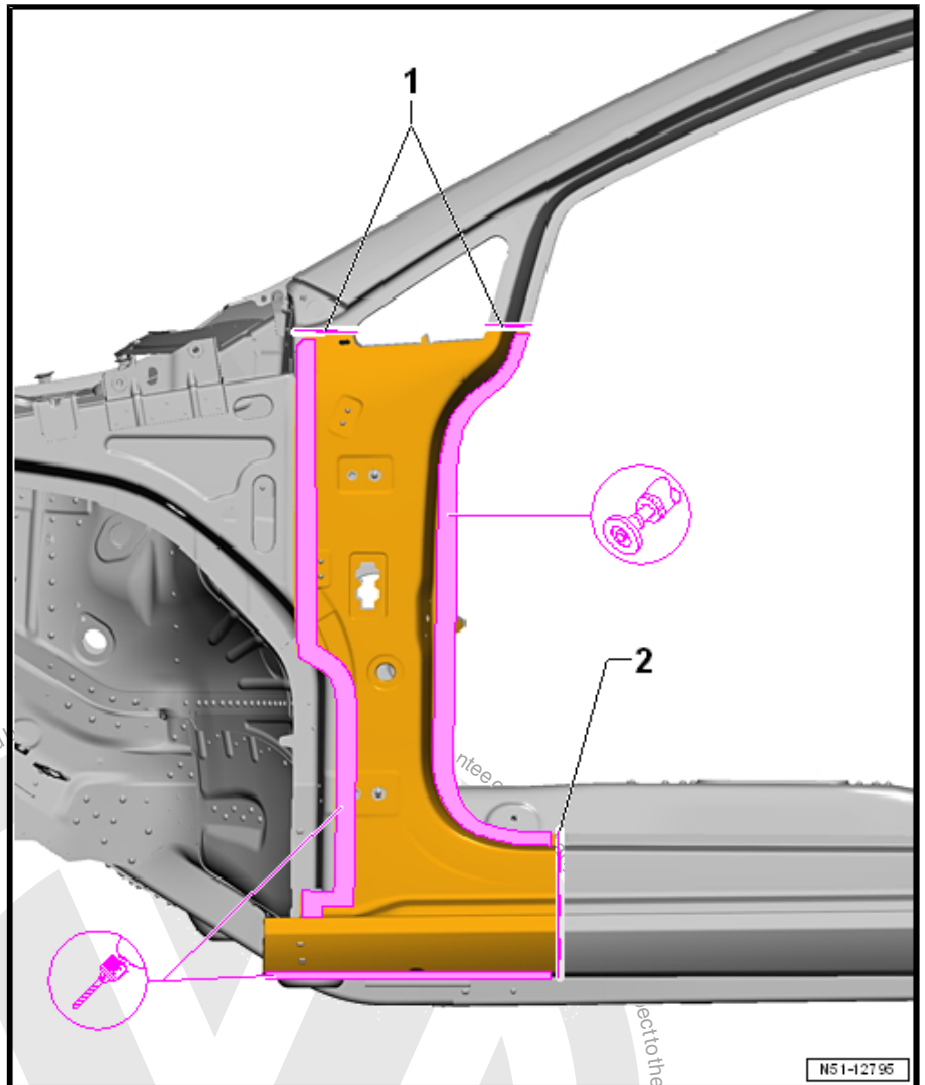
- ◆ *Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.*
- ◆ *For a list of welding equipment and body tools approved by Volkswagen AG.*

3.2 Removing

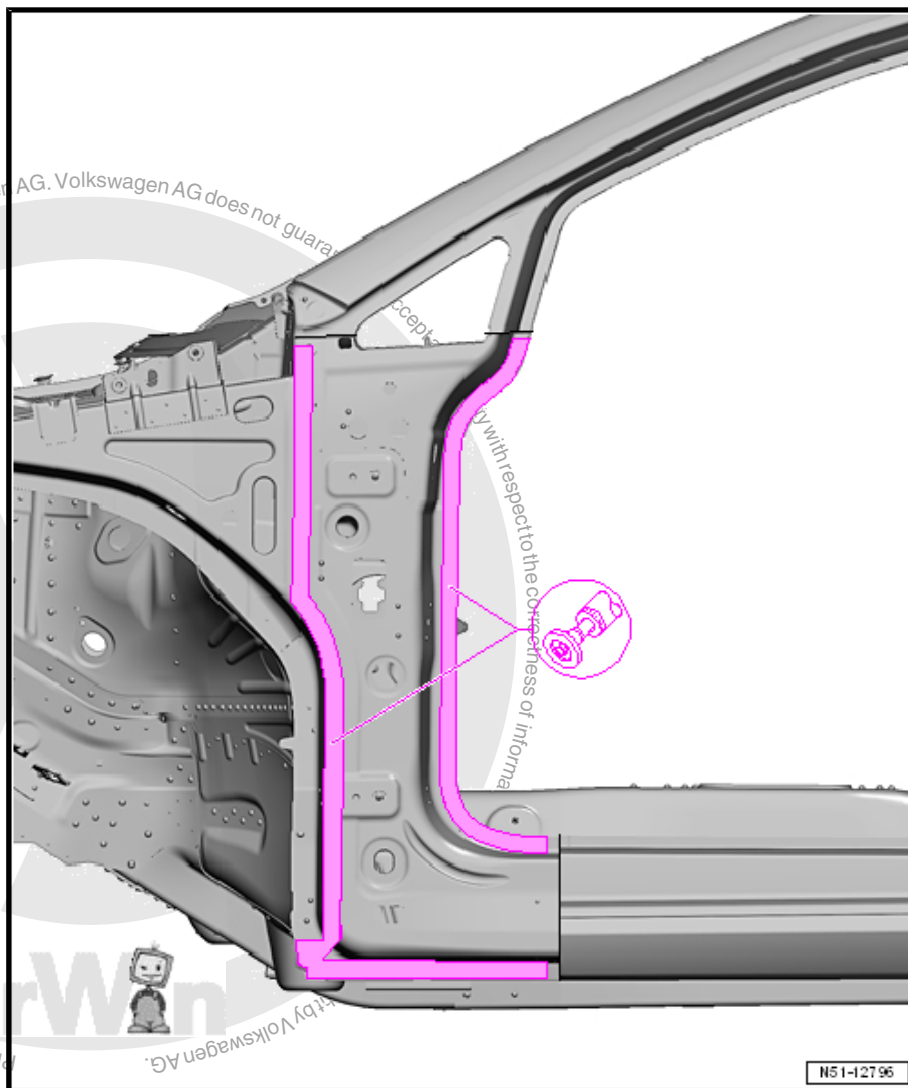


Note

- ◆ *Only use the body Pneumatic Body Saw - VAS6780- to perform separating cuts.*
- ◆ *Be sure not to damage the metal panels behind it when making the separating cut.*
- ◆ *If the A-pillar reinforcement is damaged, then it must always be replaced.*
- ◆ *A-pillar reinforcement must not be re-welding for safety reasons »crash safety«!*
- ◆ *Foam residue must be removed as much as possible before sanding work.*



- Make a separating cut -1- according to the damage.
- Make a separating cut -2- according to the damage.



- Remove residual material.
- Completely remove any remaining adhesive and grind the adhesive surfaces down to bare metal.

3.3 Installing

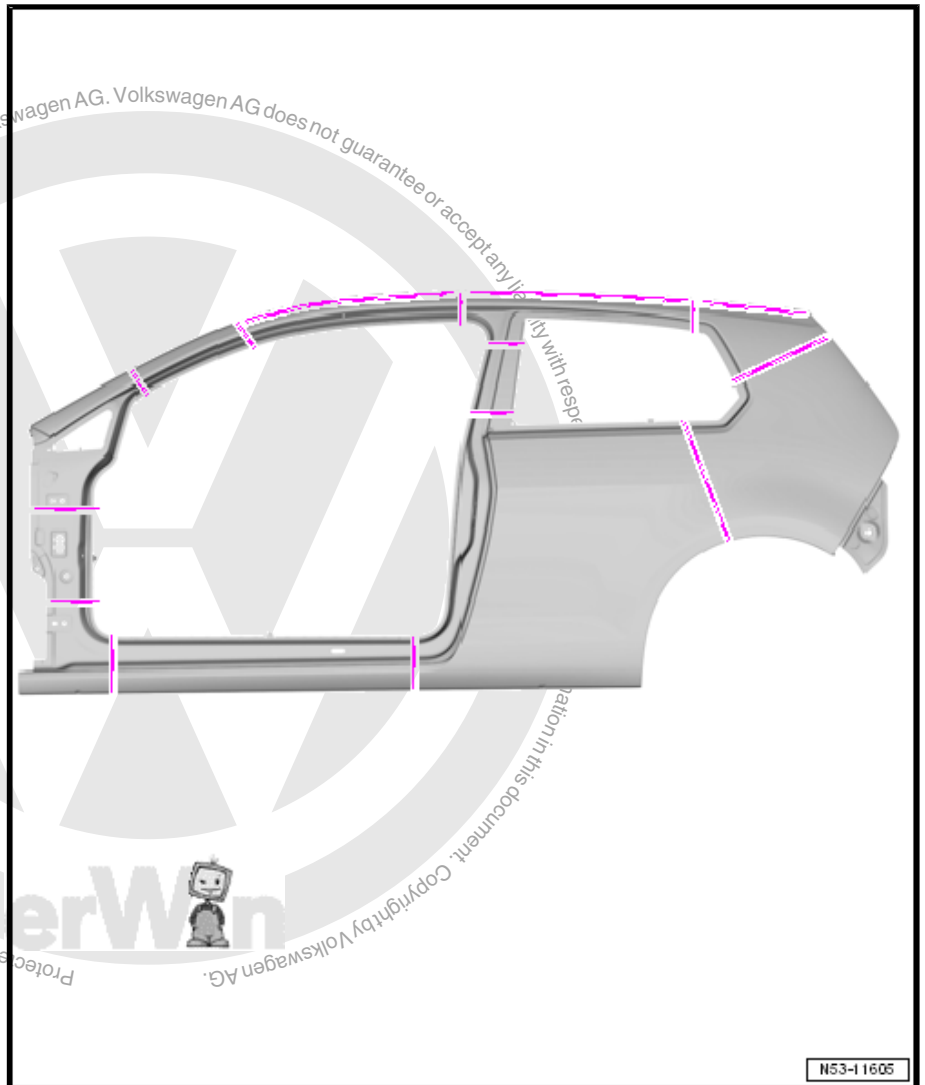
⇒ ["3.3.1 Preparing New Parts", page 106](#)

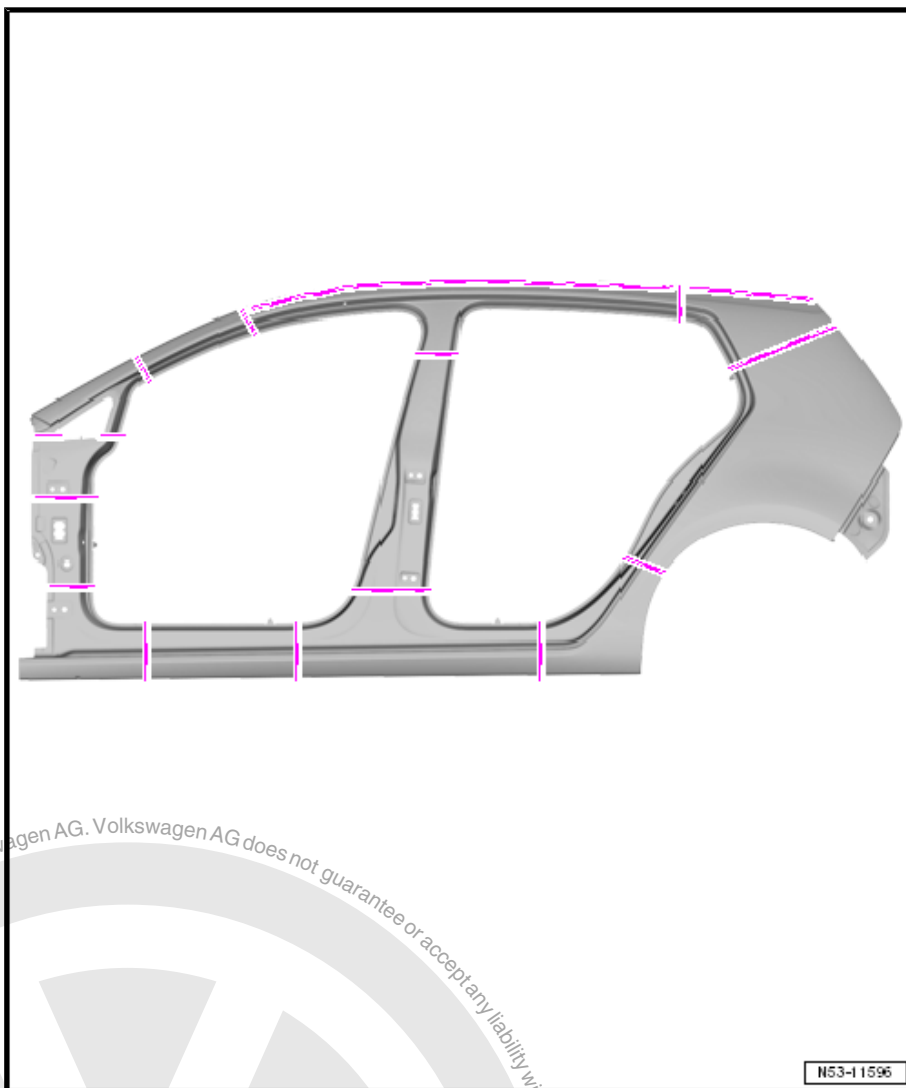
⇒ ["3.3.2 Welding", page 108](#)



Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ ["3.1 Tools", page 102](#).





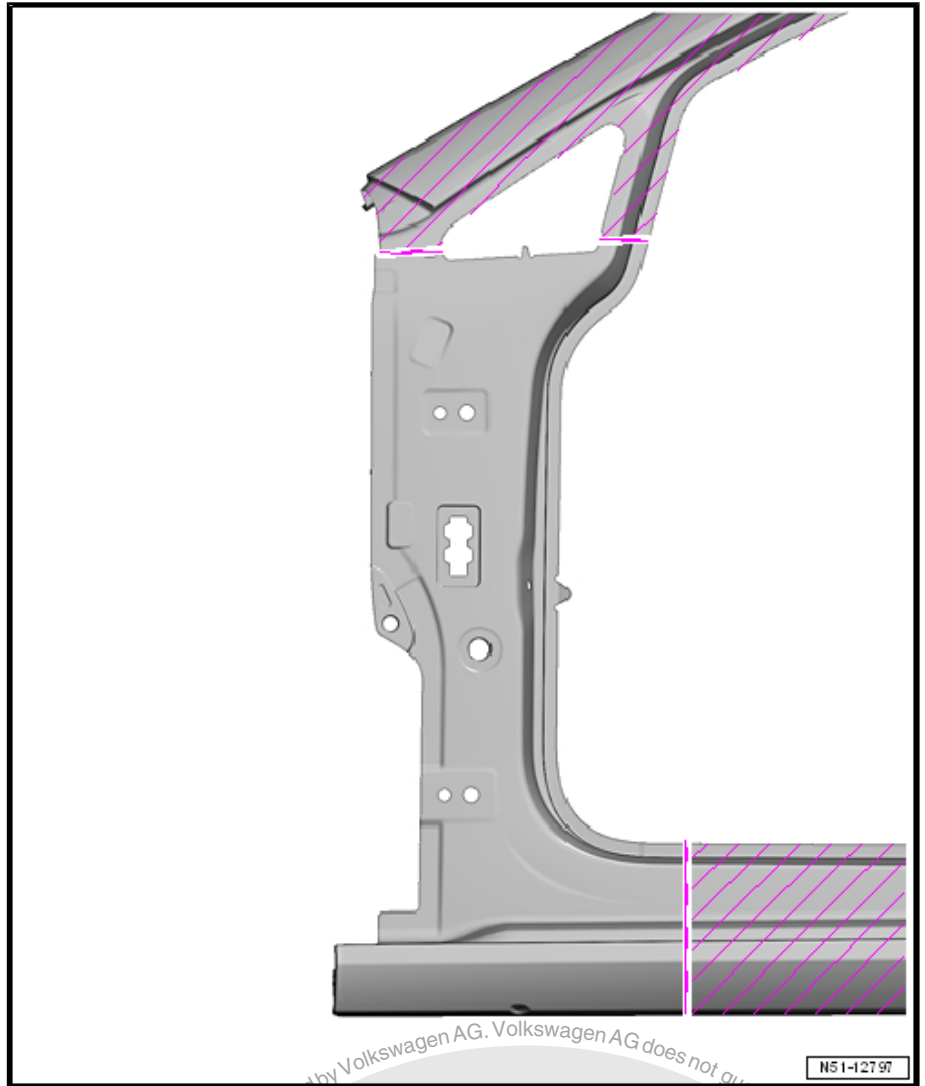
Note

MIG soldered seams are permitted on the separating cuts shown in the illustration.

3.31 Preparing New Parts

Replacement Part

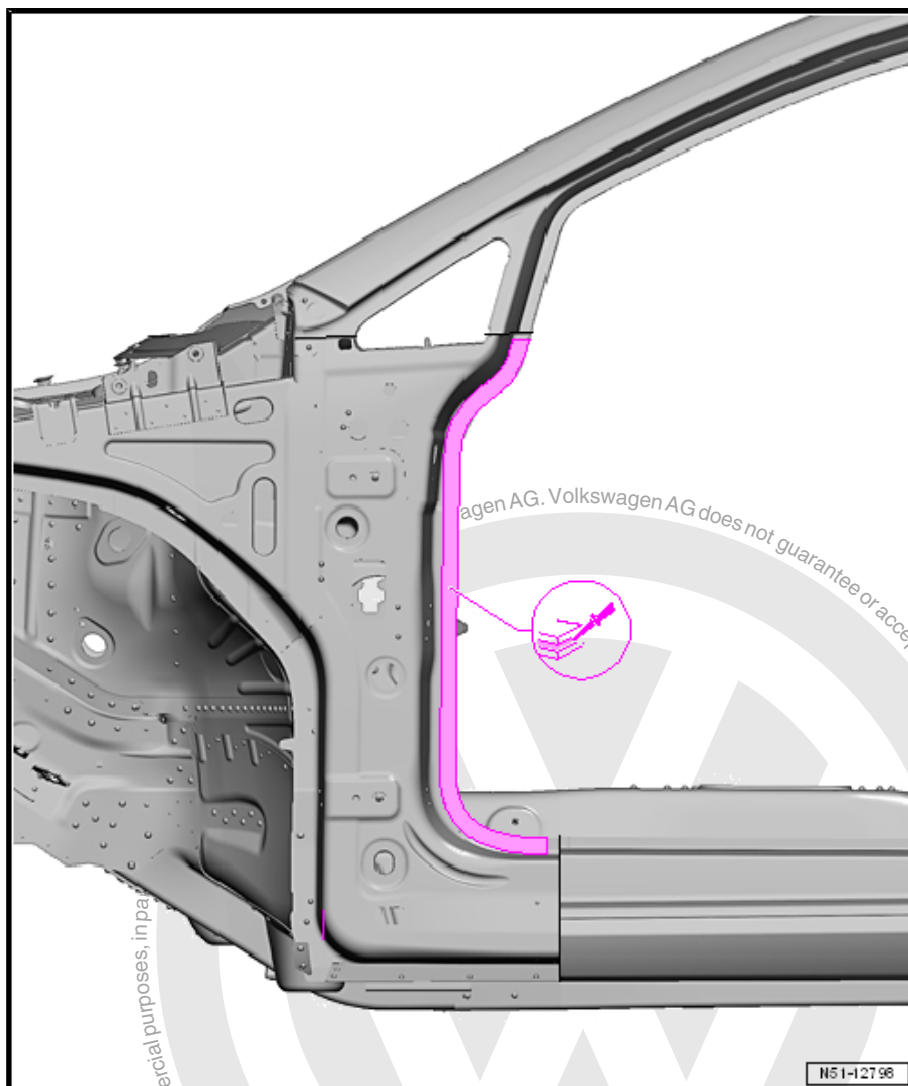
- ◆ Sub-part, front side panel (replacement part name: A-pillar sub-part with sill panel)
- ◆ 2K Body Adhesive - D 180 003 M2-



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



3.3.2 Welding



Note

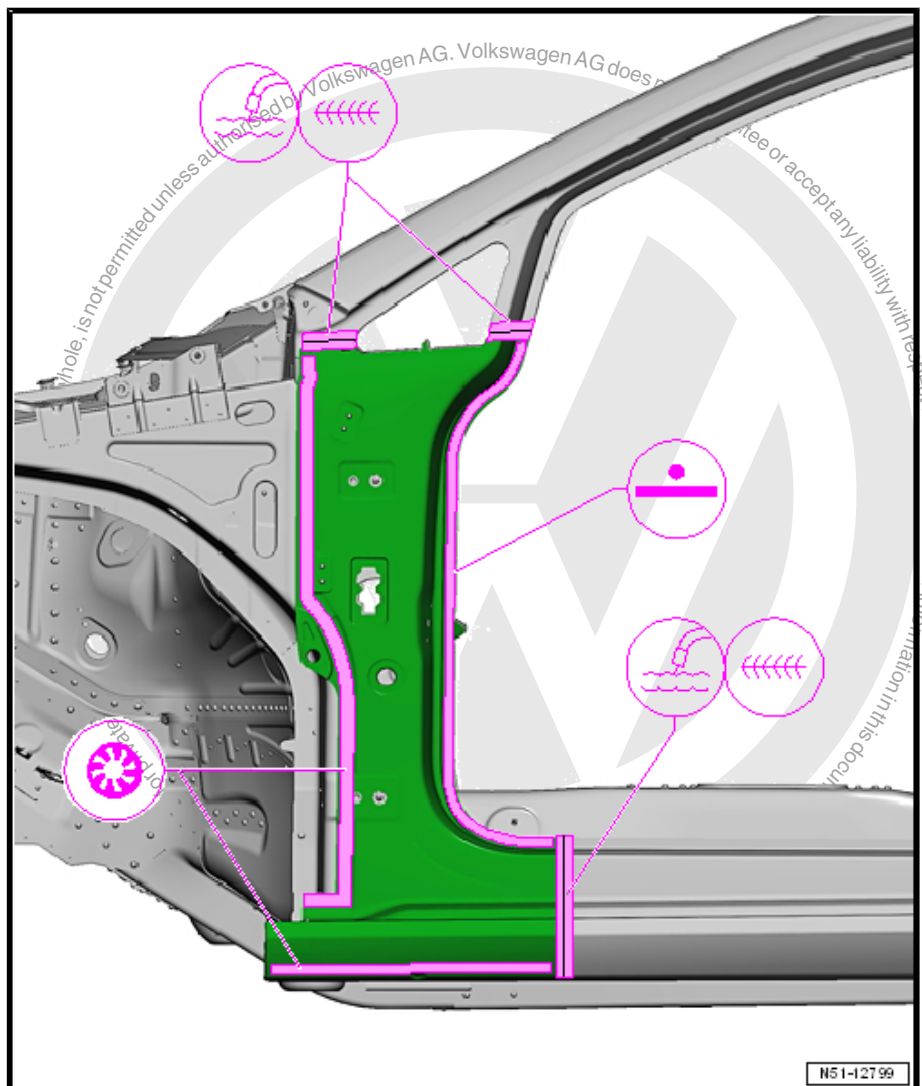
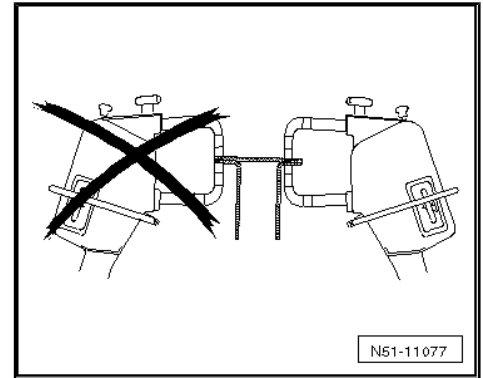
- ◆ *New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.*
- ◆ *The holes for the hinge mount must be cleaned after applying the adhesive.*
- Position two Butyl Sealing Cords - AKD 497 010 04 R10- in area -1-.
- Apply a 4 mm adhesive bead of 2K Body Adhesive - D 180 003 M2- in the areas of the door opening and the door hinges.



Note

Place the straight line weld points as far as possible from the outer edge of the weld flange to provide strength.

- Fit new part to vehicle standing on its wheels or on alignment bracket set and secure.
- Check fit with attachments.



- Weld in A-pillar reinforcement, straight-line spot weld seam and gas-shielded arc plug weld seam.
- Weld the separation cuts, either MIG-L stitch weld seam or a gas-shielded arc continuous weld seam



RO: 51 38 55 50

4 A-Pillar Reinforcement, Replacing Partial Section

⇒ "4.1 Tools", page 111

⇒ "4.2 Removing", page 111

⇒ "4.3 Installing", page 112



WARNING

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

If welding or cutting with spark-producing devices/tools or when plating in foamed areas where hazardous gases are produced that are harmful to humans and the environment, these procedures are to be omitted in each case.

- A-pillar already removed. Refer to
⇒ "3 A-Pillar, Replacing", page 101

1 - A-Pillar Reinforcement

2 - Molded Foam Parts



Note

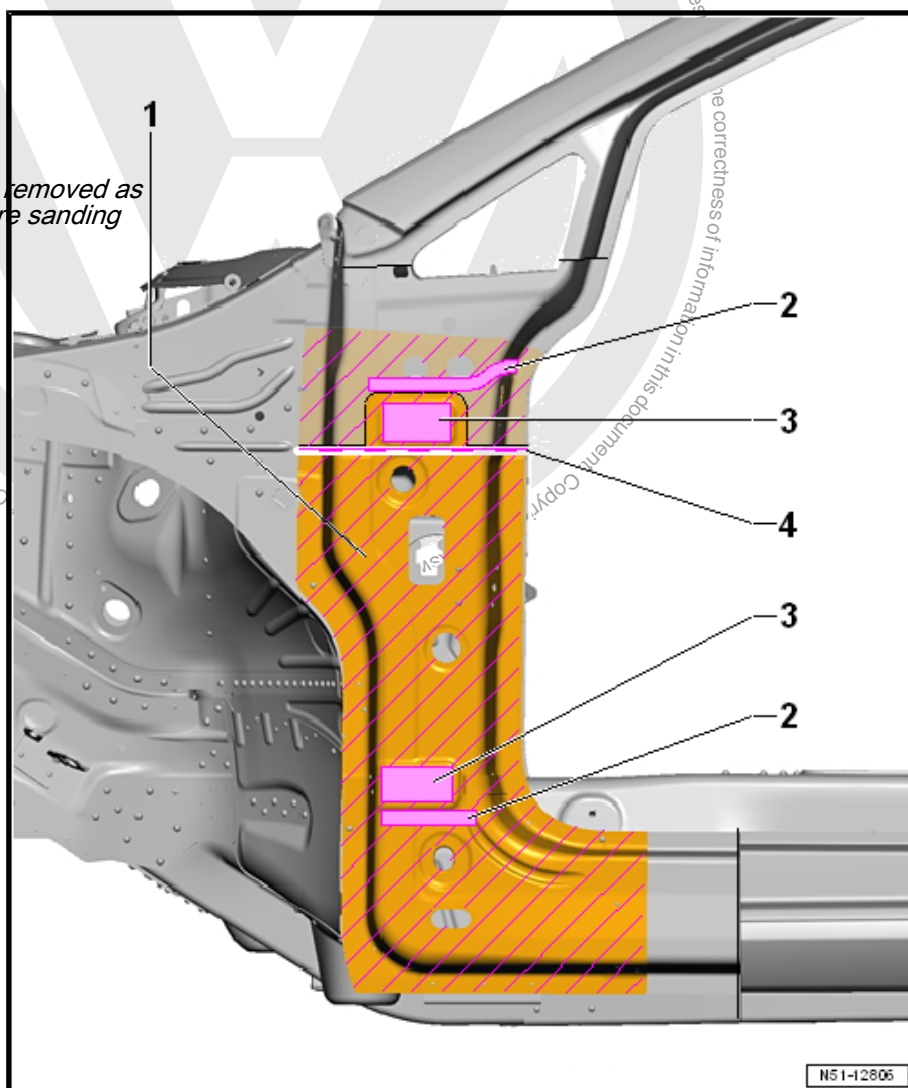
Foam residue must be removed as much as possible before sanding work.

3 - Bonded Area

4 - Lower Inner A-Pillar Separating Cut

Partial renewal

A partial replacement is possible with this separating cut.





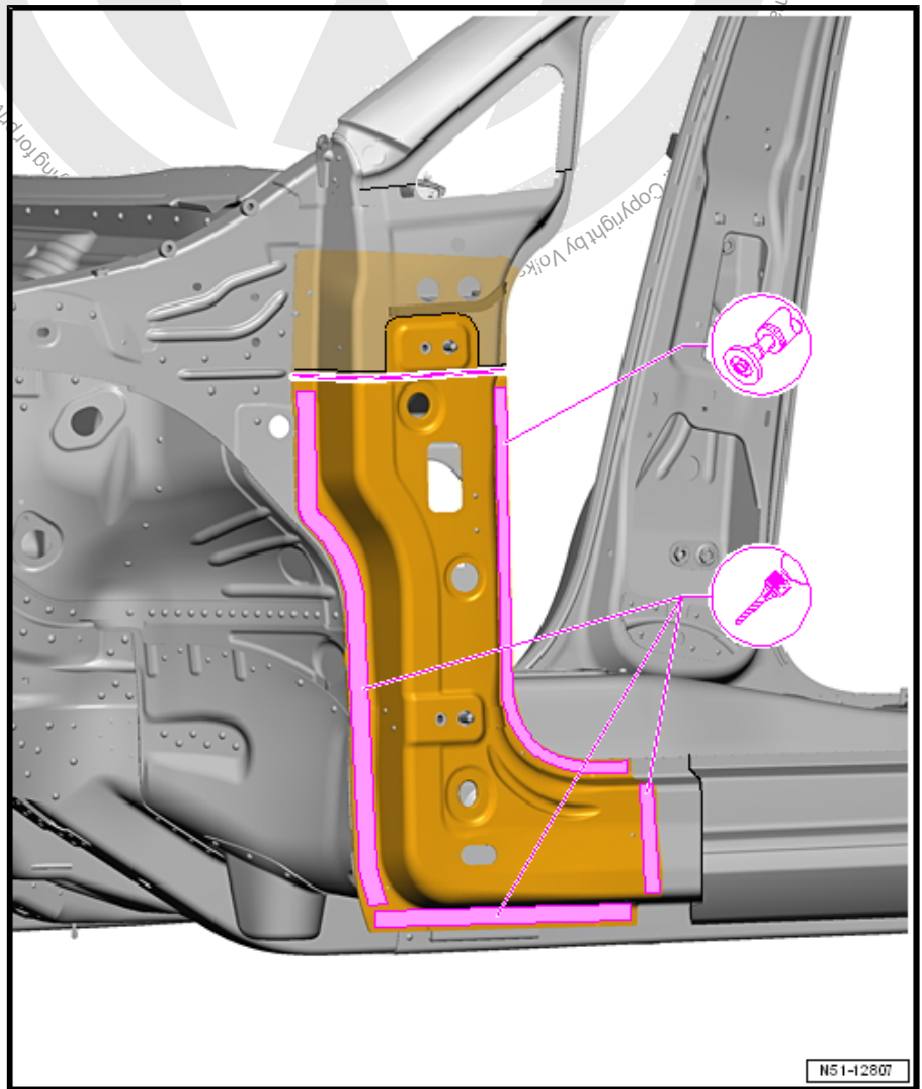
4.1 Tools



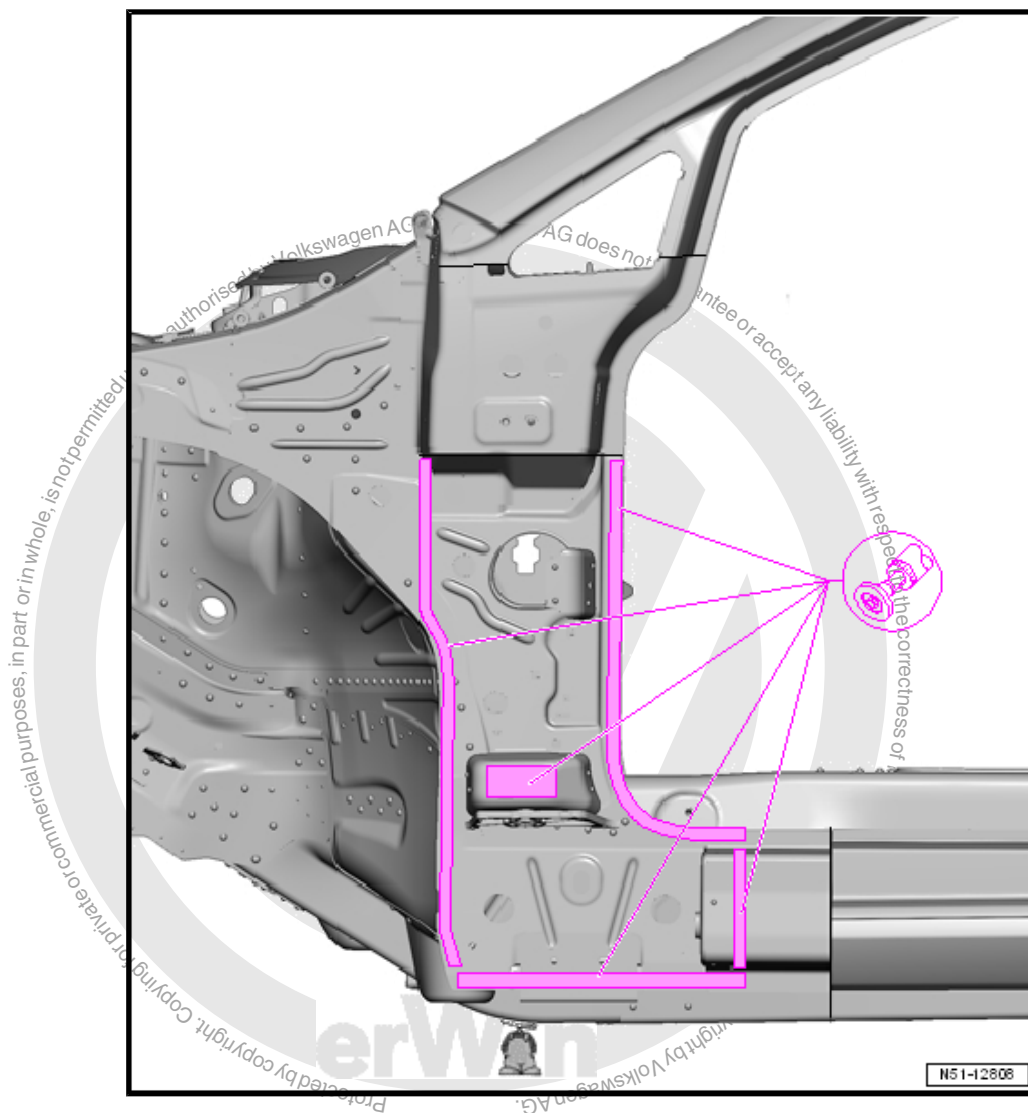
Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

4.2 Removing



- Separate original joint of A-pillar reinforcement.
- Perform a separation cut at the inner lower A-pillar hinge cover.



- Remove residual material.
- Completely remove any remaining adhesive and grind the adhesive surfaces down to bare metal.

4.3 Installing

⇒ ["4.3.1 Preparing New Parts", page 112](#)

⇒ ["4.3.2 Welding", page 113](#)



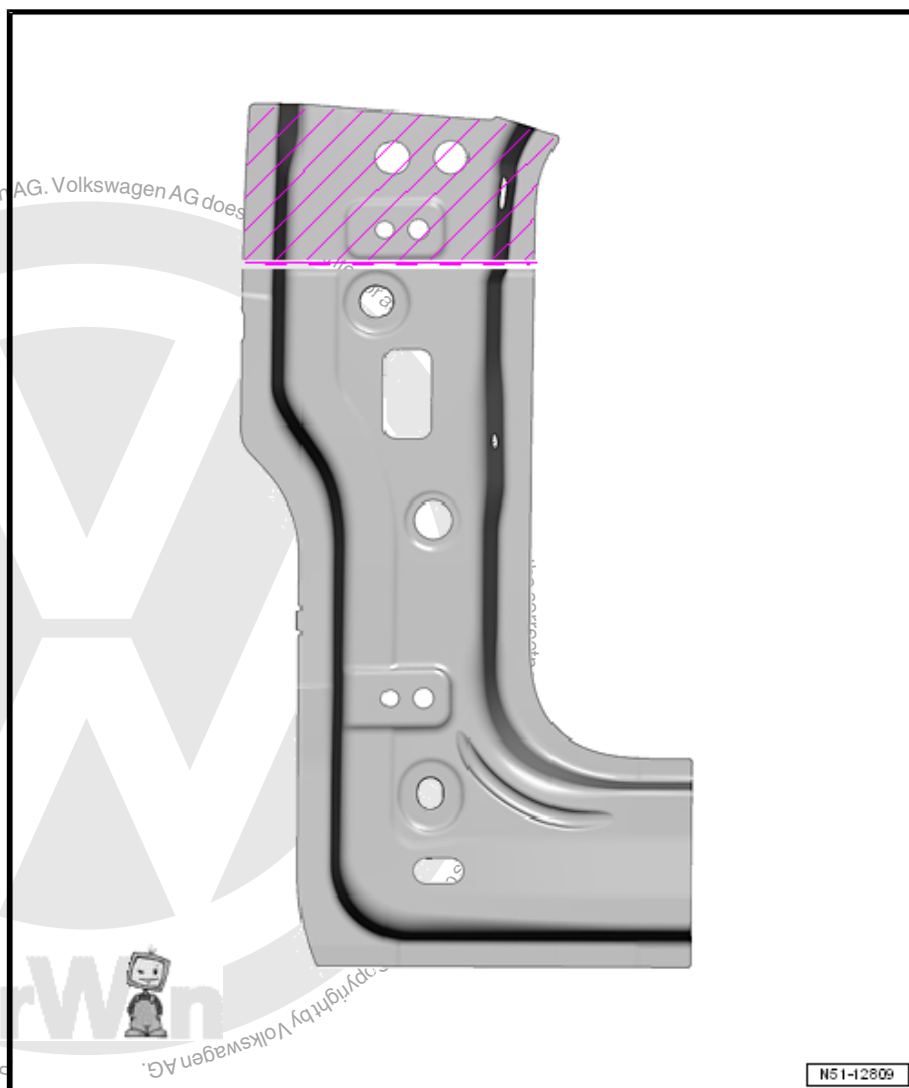
Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ ["4.1 Tools", page 111](#).

4.3.1 Preparing New Parts

Replacement Part

- ◆ A-Pillar Reinforcement
- ◆ Molded Foam Part
- ◆ 2K Body Adhesive - D 180 003 M2-



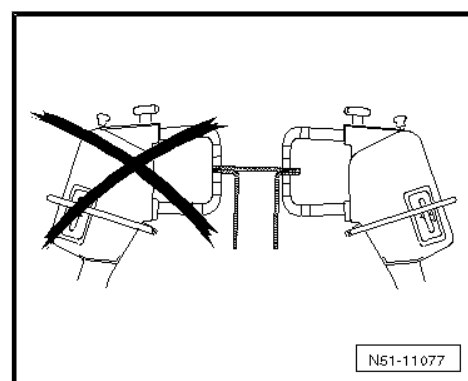
N51-12809

4.3.2 Welding

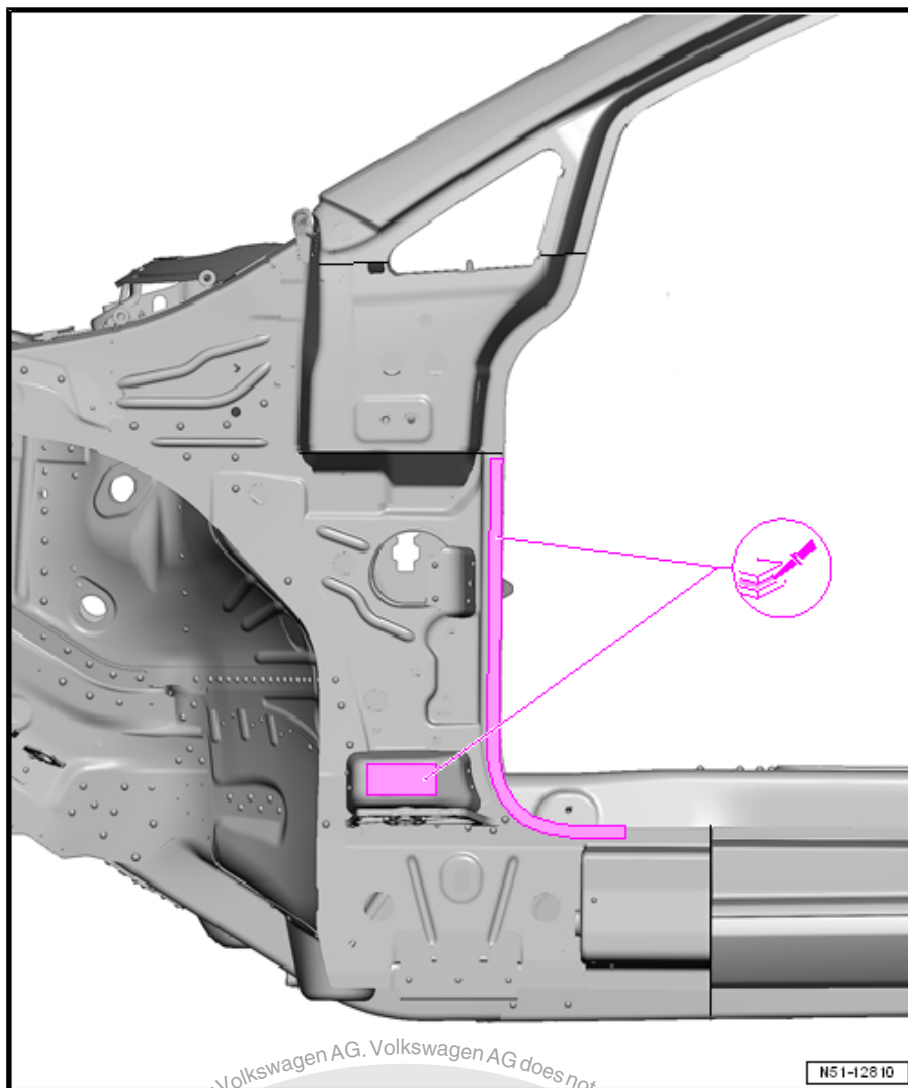


Note

Place the straight line weld points as far as possible from the outer edge of the weld flange to provide strength.



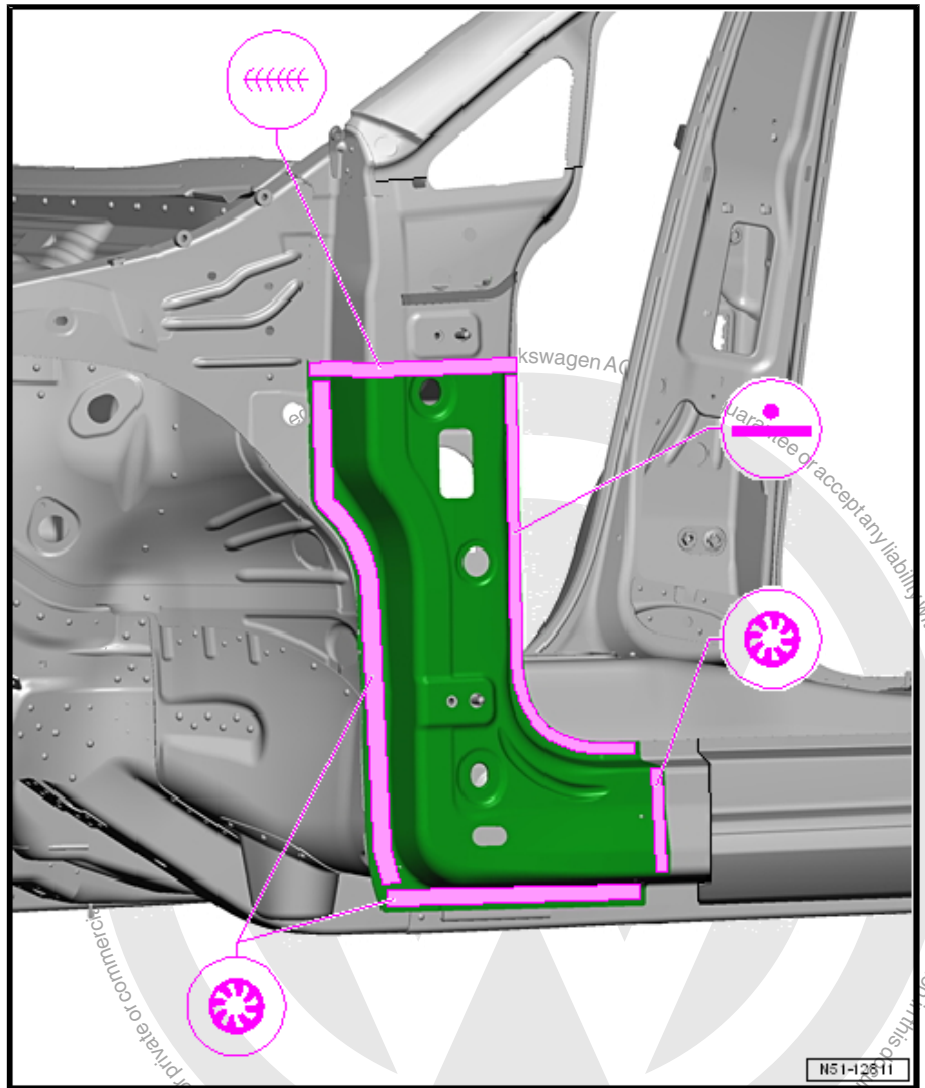
N51-11077



Note

New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.

- Apply 2K Body Adhesive - D 180 003 M2- near the hinge reinforcement and the door opening.
- Install new part with vehicle standing on the alignment bracket set and affix it in place.
- Check fit to A-pillar.



- Weld the A pillar reinforcement, straight-line spot weld seam and gas-shielded arc plug weld seam and gas-shielded arc continuous weld seam.



RO: 51 41 55 00

5 B-Pillar, 4-Door Vehicle, Removing and Installing

⇒ "5.1 Tools", page 117

⇒ "5.2 Removing", page 117

⇒ "5.3 Installing", page 118



DANGER!

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

If welding or cutting with spark-producing devices/tools or when plating in foamed areas where hazardous gases are produced that are harmful to humans and the environment, these procedures are to be omitted in each case.

1 - B-Pillar

2 - Bonded Area

3 - Molded Foam Part



Note

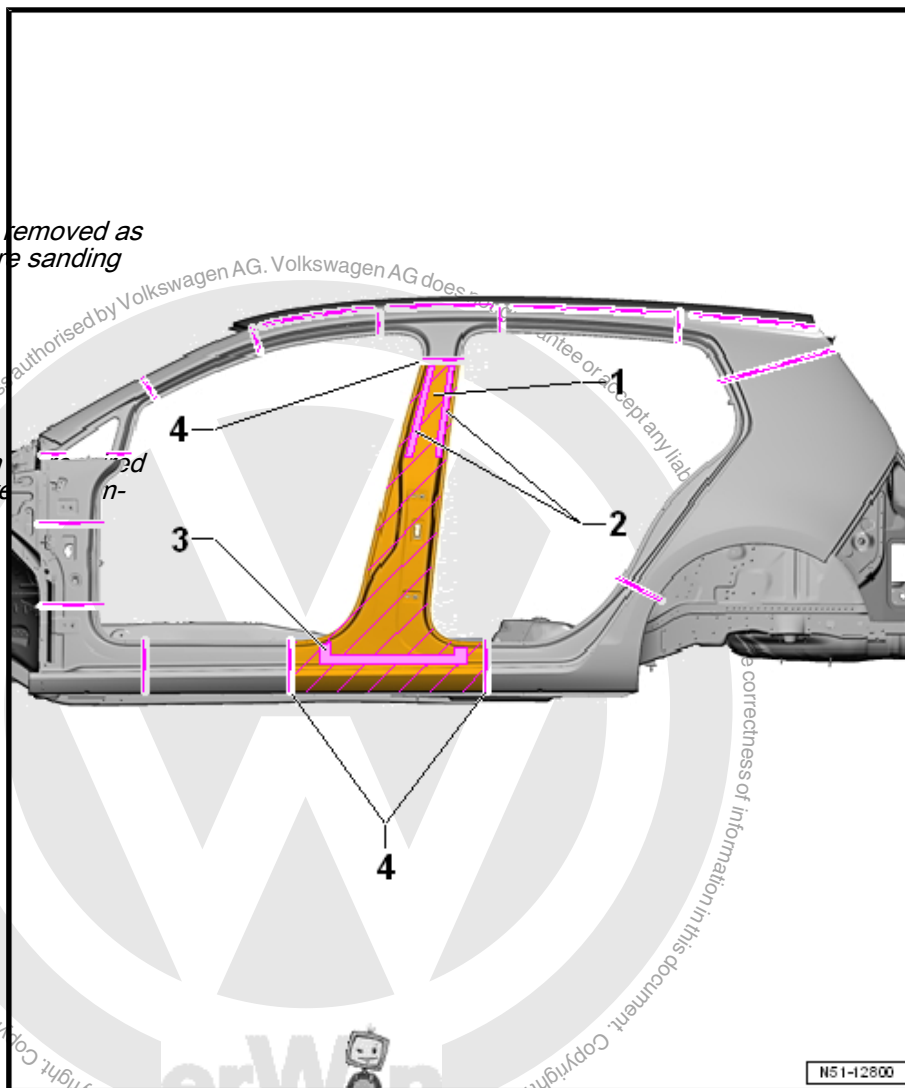
Foam residue must be removed as much as possible before sanding work.

4 - B-Pillar Separation Cut



Note

The separation cut can vary depending on the degree of damage.





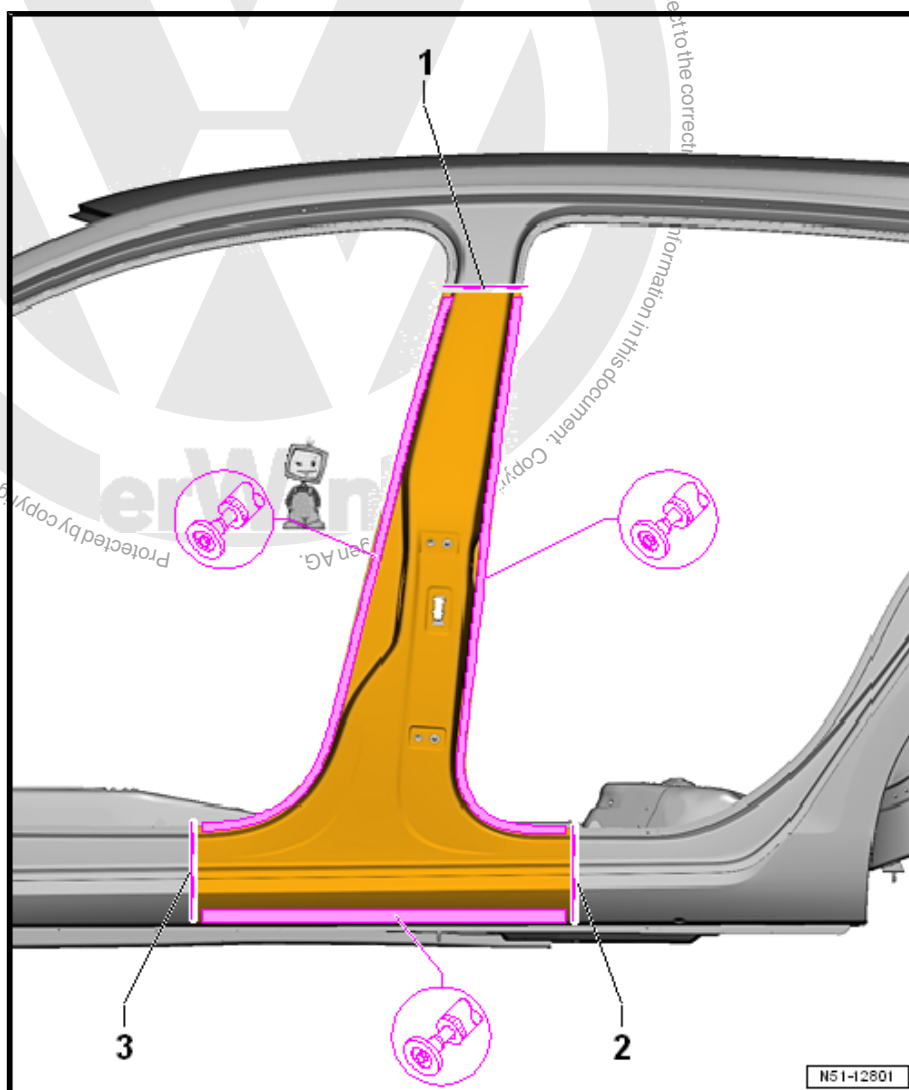
5.1 Tools



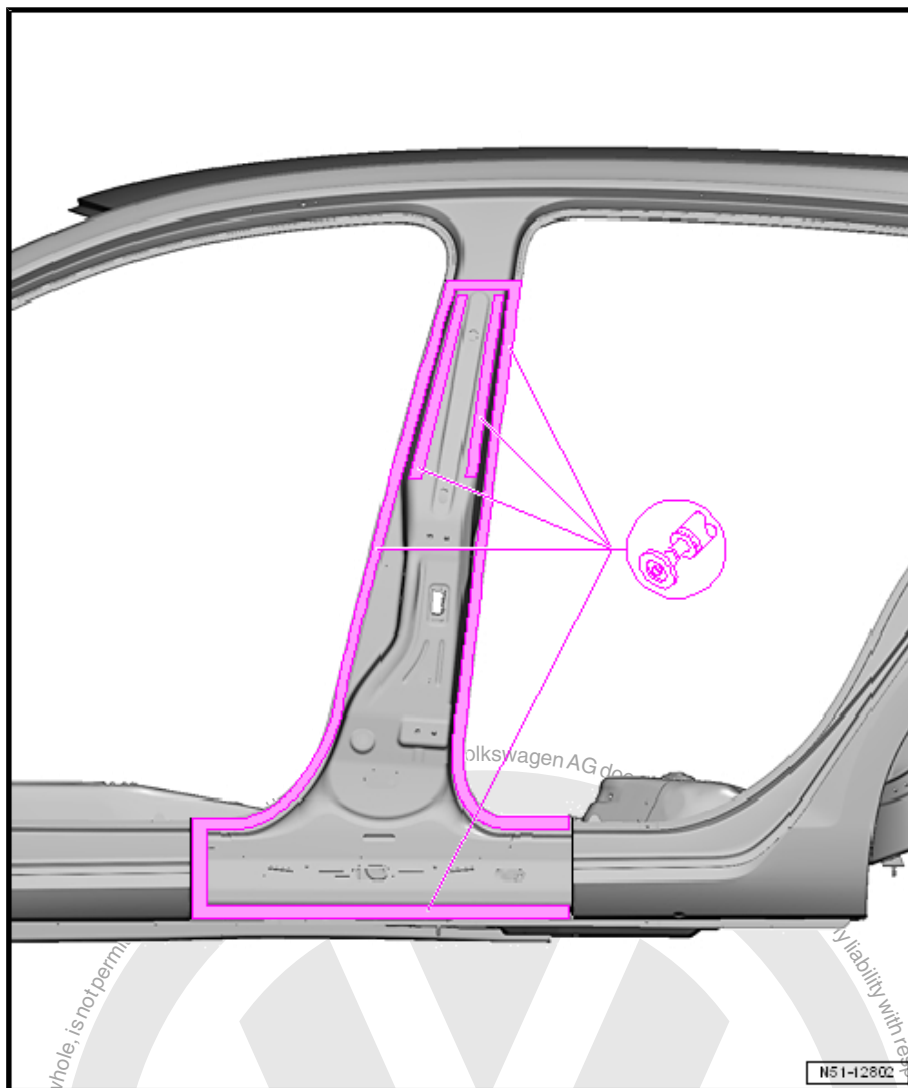
Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

5.2 Removing



- Make separating cuts -1 through 3- depending on the damage.
- Separate original joint in door cut-outs.



- Remove residual material.
- Completely remove any remaining adhesive and grind the adhesive surfaces down to bare metal.

5.3 Installing

⇒ ["5.3.1 Preparing New Parts", page 118](#)

⇒ ["5.3.2 Welding", page 120](#)



Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ ["5.1 Tools", page 117](#).

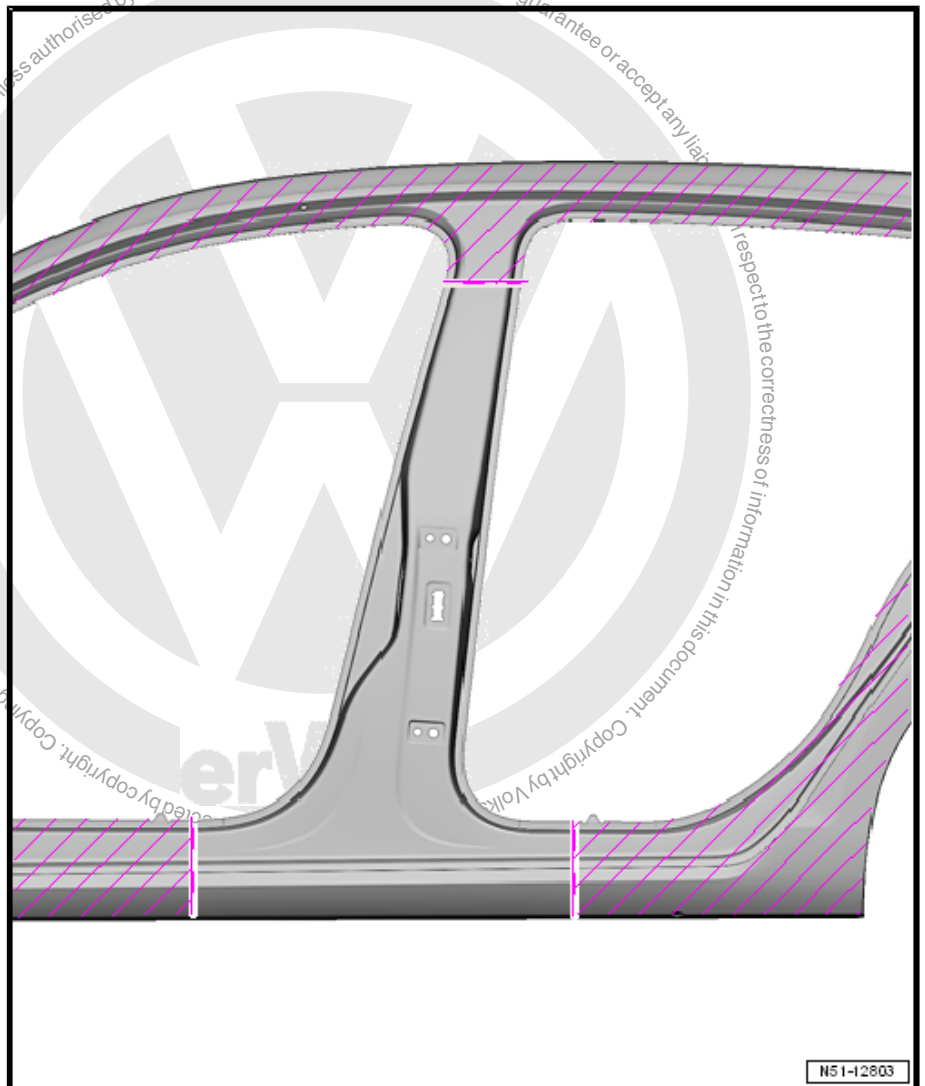
5.3.1 Preparing New Parts

Replacement Part

- ◆ B-pillar (replacement part name: A-pillar sub-part with sill panel)
- ◆ Molded Foam Part



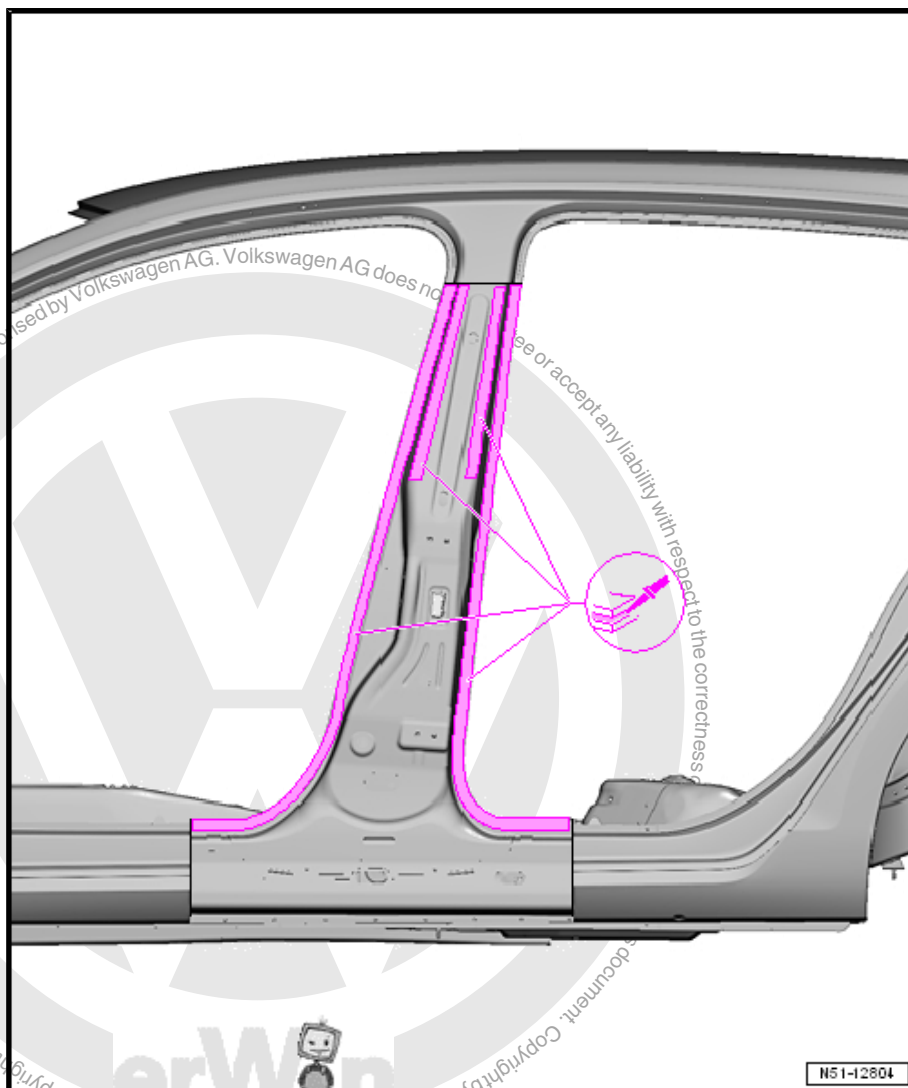
◆ 2K Body Adhesive - D 180 KD3 A2-



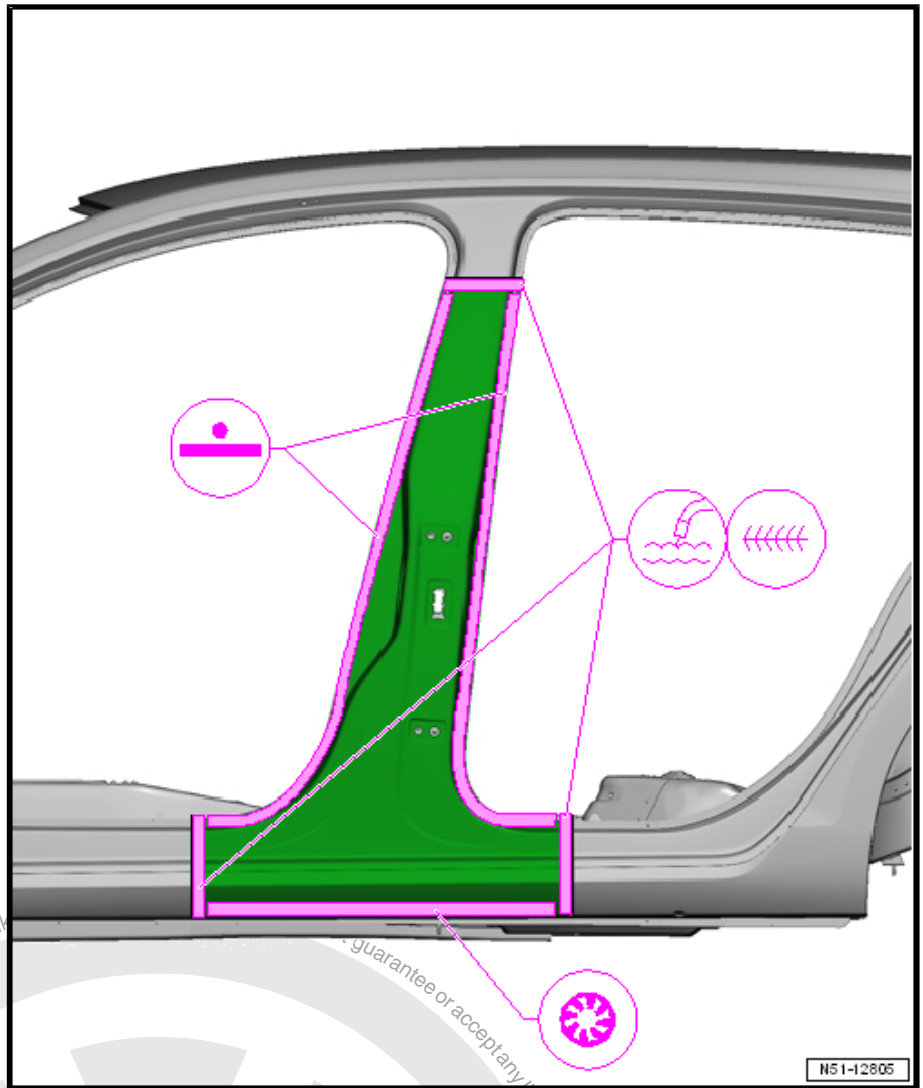
- Transfer separating cuts onto new part and cut to shape.



5.3.2 Welding



- Apply 2K Body Adhesive - D 180 003 M2- in the shown areas.
- Fit new part to vehicle standing on Straightening Bracket Set and secure.
- Check fit with attachments.



- Weld the separation cuts, either MIG-L stitch weld seam or a gas-shielded arc continuous weld seam
- Weld the B pillar, straight-line spot weld seam, gas-shielded arc plug weld seam.
- Remove escaped adhesive.



RO: 51 42 55 50

6 B-Pillar Reinforcement, Replacing, 4-Door (Partial Section)



WARNING

Follow all safety precautions.

If welding or cutting with spark-producing devices/tools or when plating in foamed areas where hazardous gases are produced that are harmful to humans and the environment, these procedures are to be omitted in each case.

Refer to ⇒ General Information; Body Repairs, Body Collision Repair ; Safety Precautions

- B-pillar already removed. Refer to ⇒ ["5 B-Pillar, 4-Door Vehicle, Removing and Installing", page 116](#) .
- Outer side sill is already removed. Refer to ⇒ ["7 Outer Sill Panel, Replacing, 4-Door", page 135](#) .

1 - B-Pillar Reinforcement

2 - Molded Foam Parts

3 - Bonded Area

4 - Front Side Sill Separation Cut

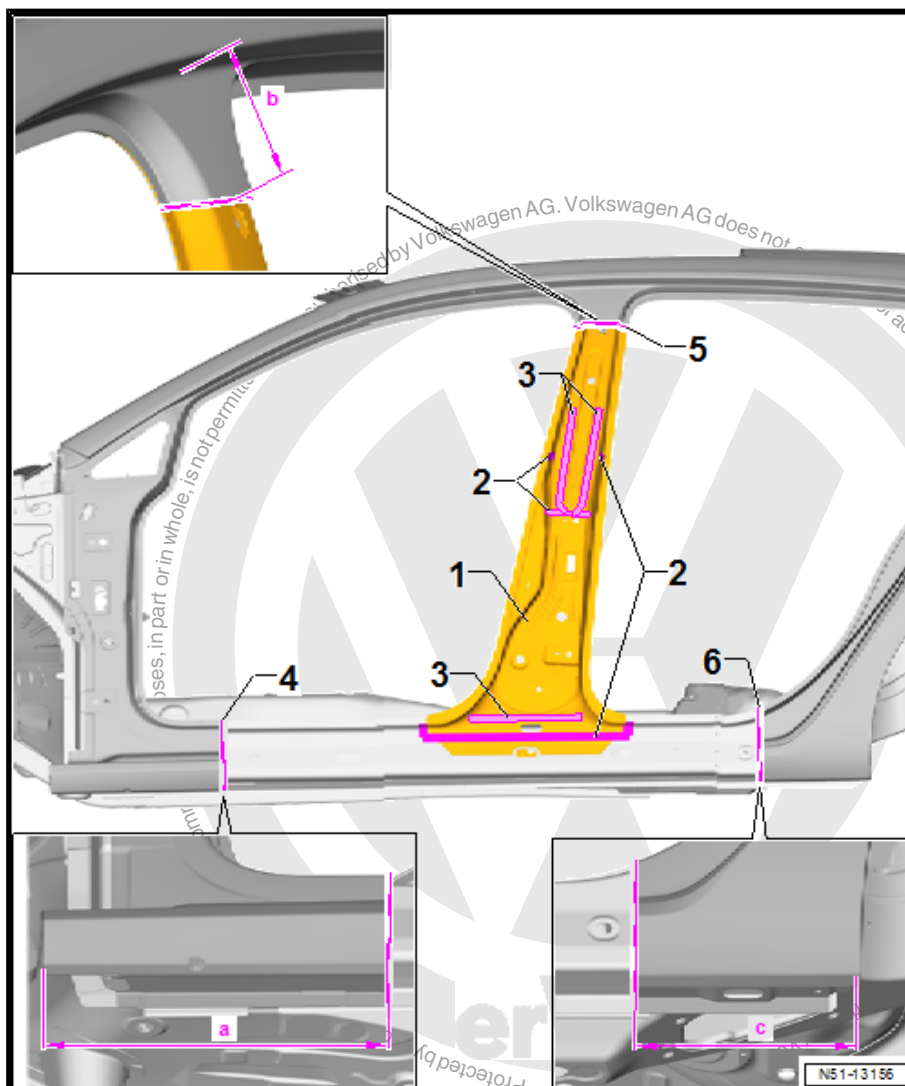
Dimension -a- = 400 mm

5 - Roof Pillar Separation Cut

Dimension -b- = 90 mm.

6 - Rear Side Sill Separation Cut

Dimension -c- = 250 mm





6.1 Tools

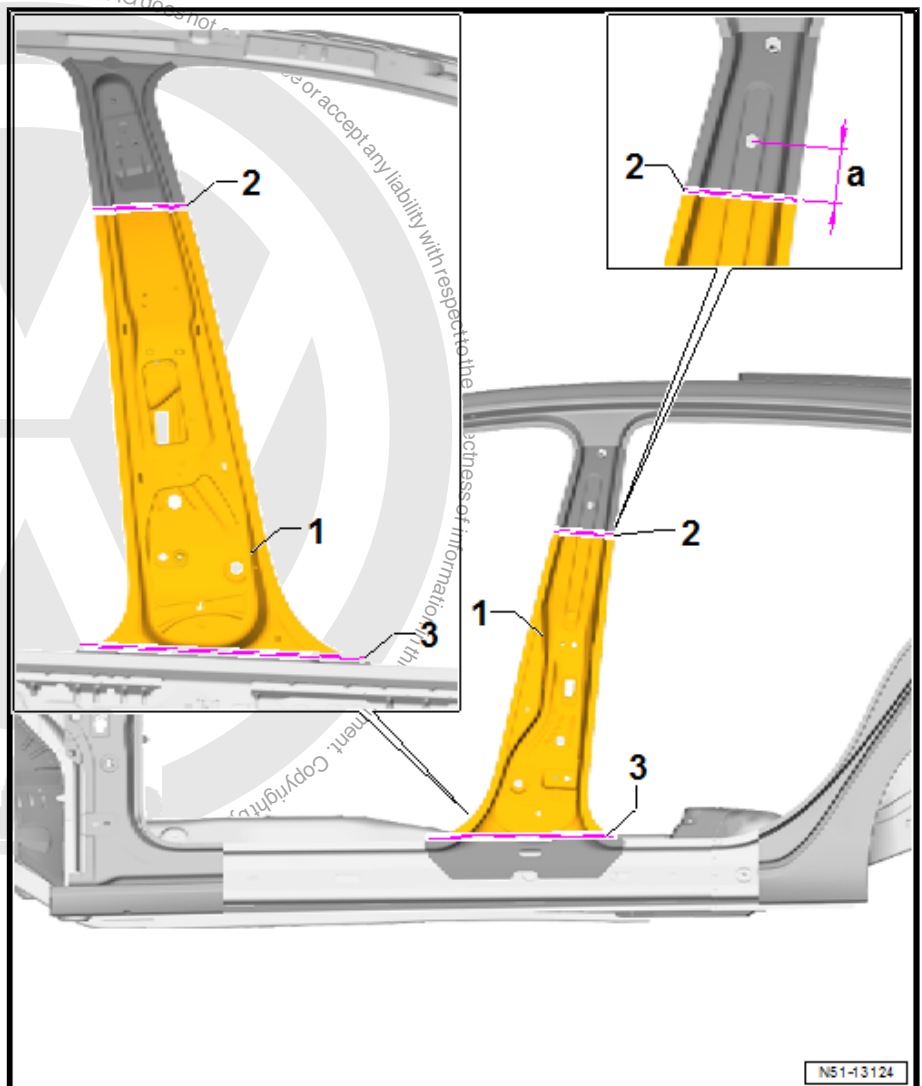
Note

Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.

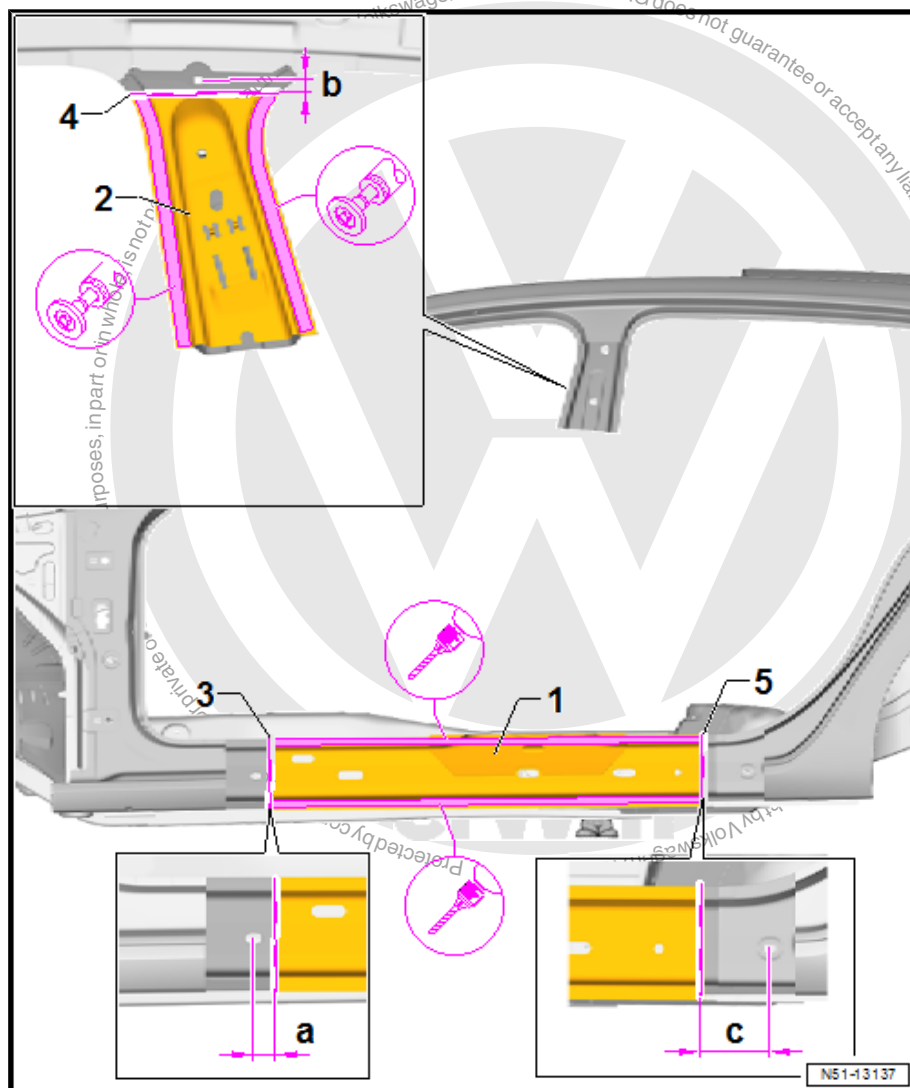
6.2 Removing

Note

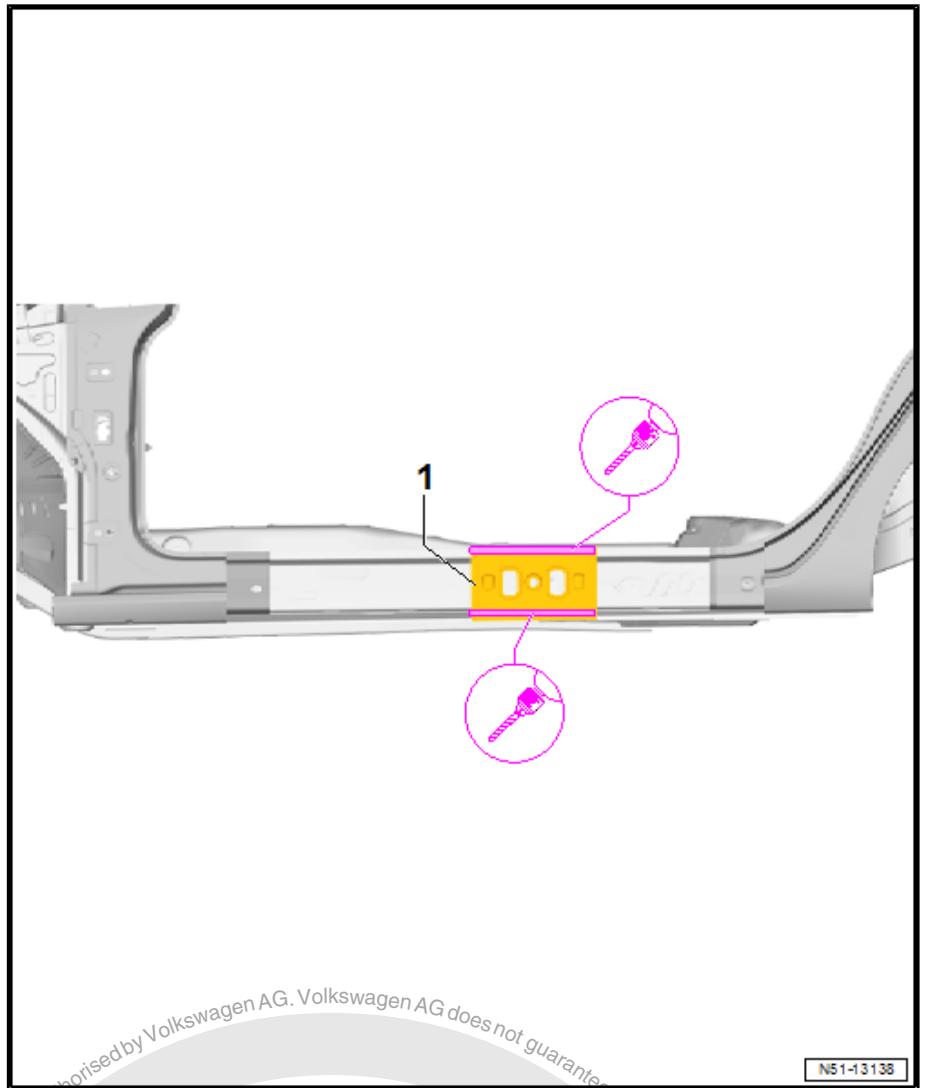
Before the following procedures are performed, Mechanical Door Brace - V.A.G 1438- must be inserted in front and rear door openings. This prevents the roof from changing in its position.



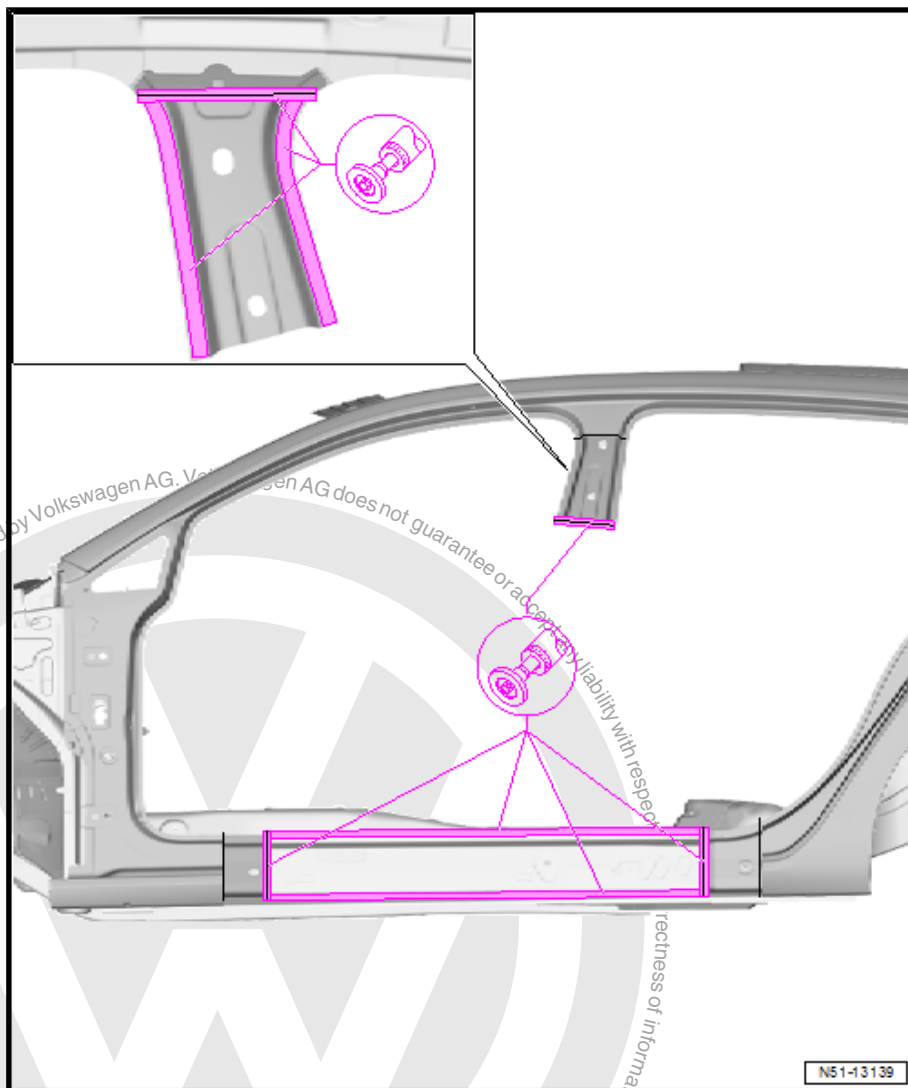
- Transfer dimension -a- = 60 mm on the B-pillar reinforcement -1-.
- Apply the separation cuts -2- and -3-.



- Transfer and apply the dimension -a- = 30 mm or separation cut -3- on the side sill reinforcement -1-.
- Transfer and apply the dimension -b- = 10 mm for the separation cut -4- on the inner B-pillar -2-.
- Transfer and apply the dimension -c- = 90 mm or separation cut -5- on the side sill reinforcement -1-.
- Separate the original joint.



- Loosen the inner B-pillar original joint -1-.



- Remove residual material.
- Sand the welding surfaces down to bare metal.
- Completely remove any remaining adhesive and grind the adhesive surfaces down to bare metal.

6.3 Installing



Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ ["6.1 Tools", page 123](#).

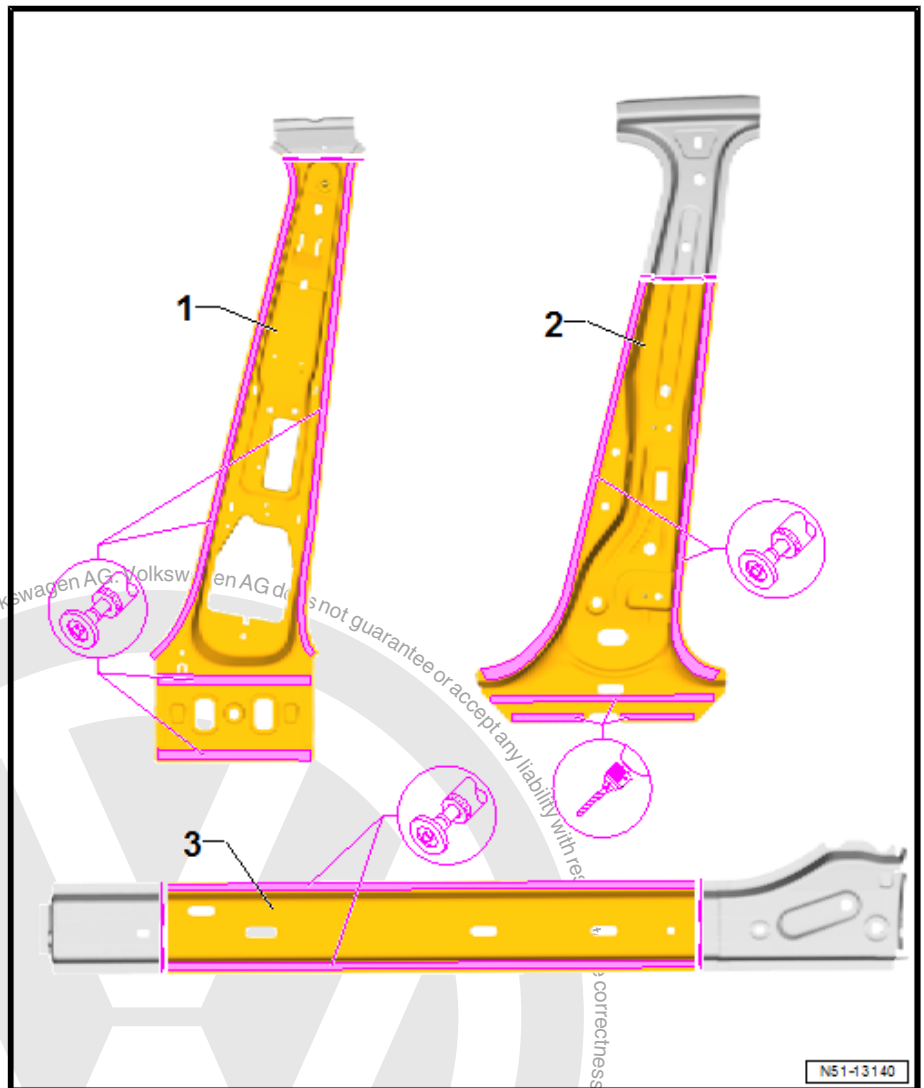
6.3.1 New Part, Preparing

Replacement Parts

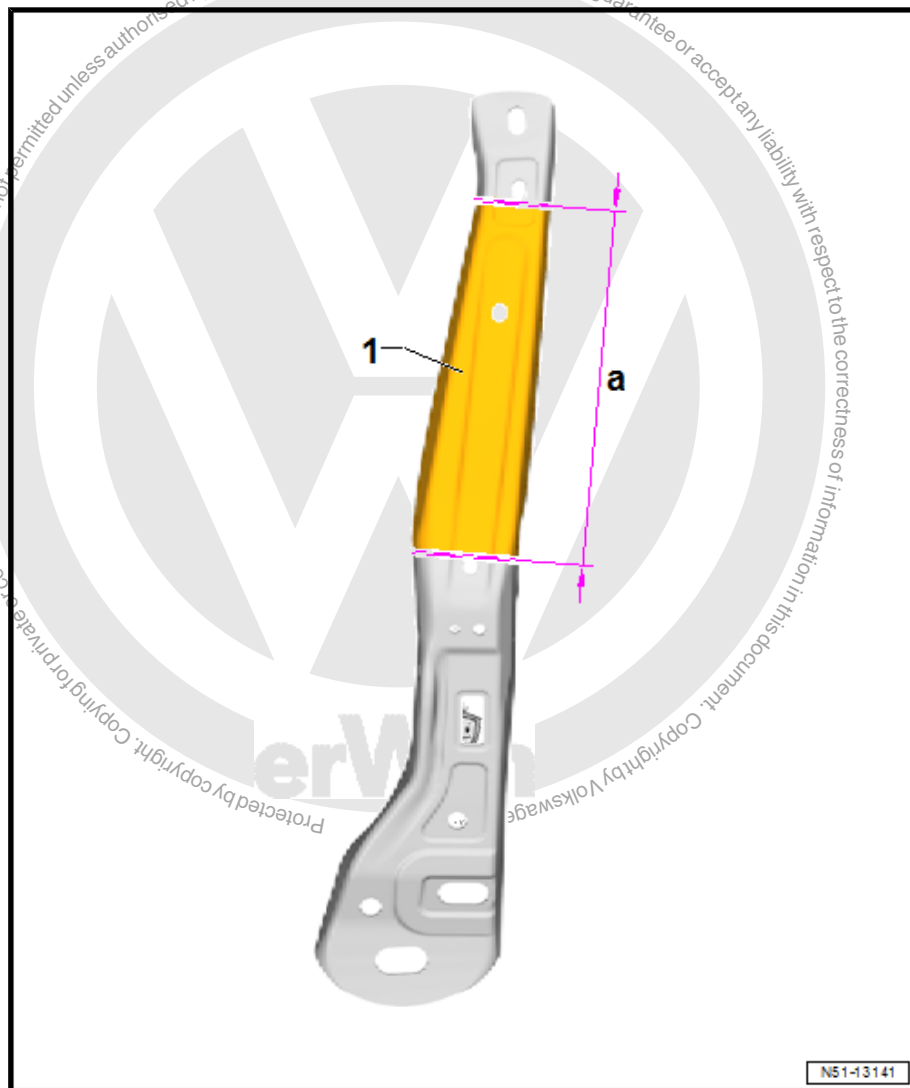
- ◆ B-Pillar Reinforcement
- ◆ Crash reinforcement (replacement part name in the Electronic Parts Catalog (ETKA) ⇒ B-pillar reinforcement)
- ◆ Inner B-pillar



- ◆ Inner Side Sill
- ◆ Molded foam part (replacement part name in the Electronic Parts Catalog (ETKA) ⇒ butyl sealing cord/partition)
- ◆ Two-Part Body Adhesive - (for the replacement part number refer to ⇒Electronic Parts Catalog (ETKA))-



- Sand the welded surfaces on the new part -1-, -2-, and -3- to the bare metal.
- Perform the separation cut as shown.
- Lightly sand the adhesive surfaces.



- Transfer dimension -a- = 390 mm on the crash reinforcement.
- Perform the separation cut and the exact fit of the double patch panel -1- with the B-pillar reinforcement.
- Sand the adhesive surfaces and welded surfaces to bare metal.

6.3.2 Molded Foam Parts

Observe repair notes:

Chapter. Refer to [⇒ "4 Molded Foam Parts", page 5](#) .

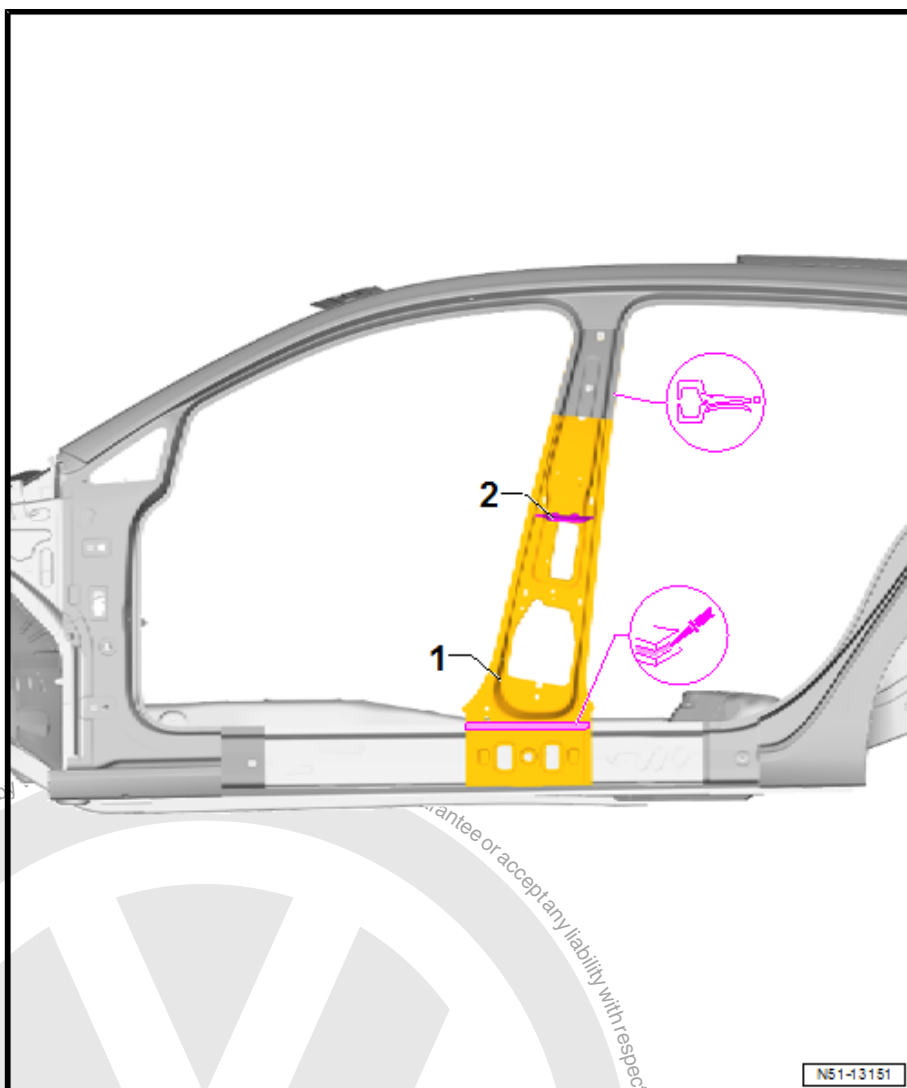


6.3.3 Welding

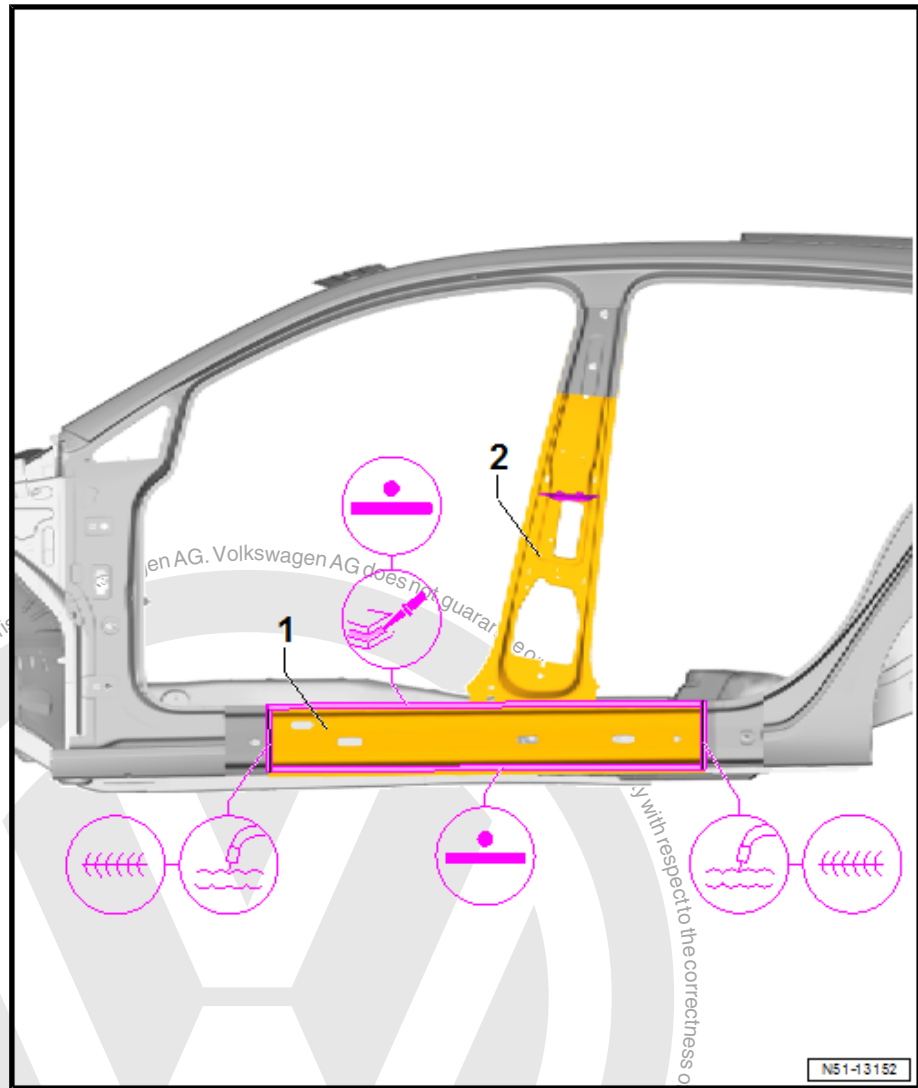


Note

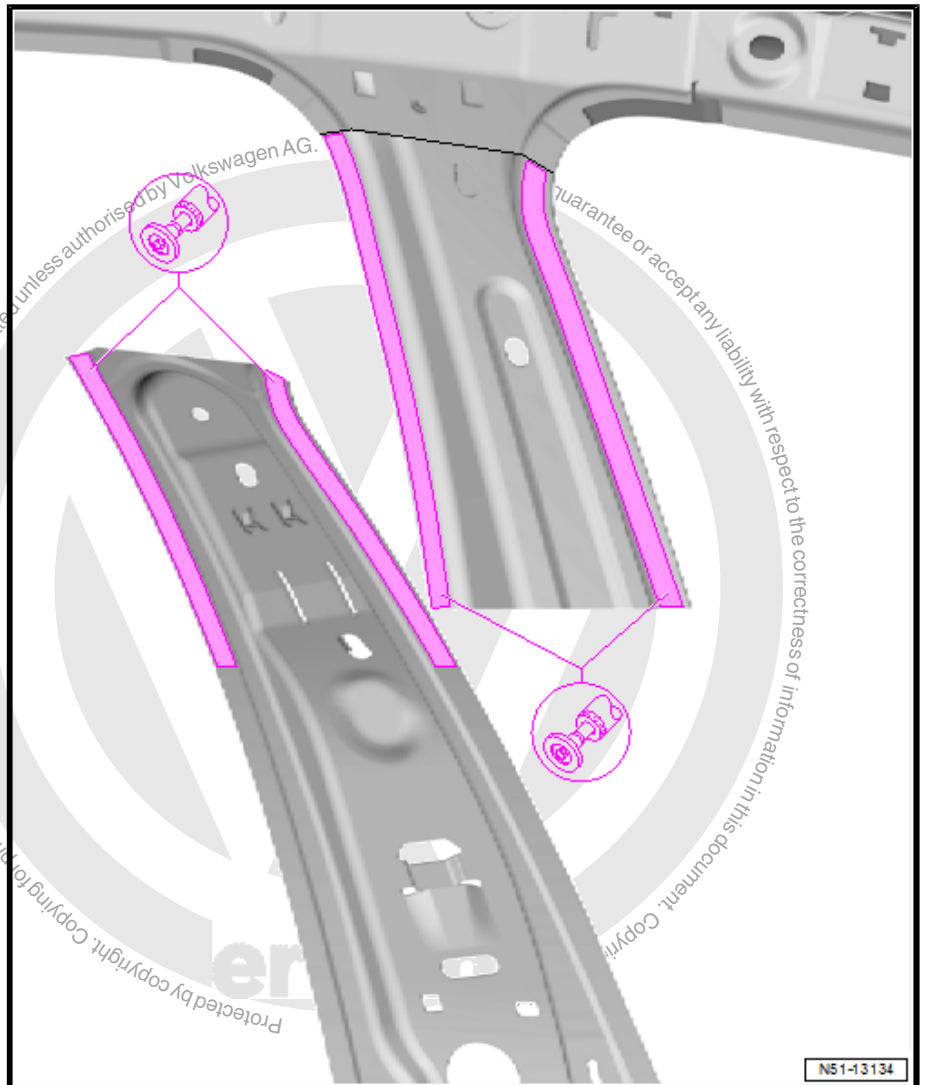
New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.



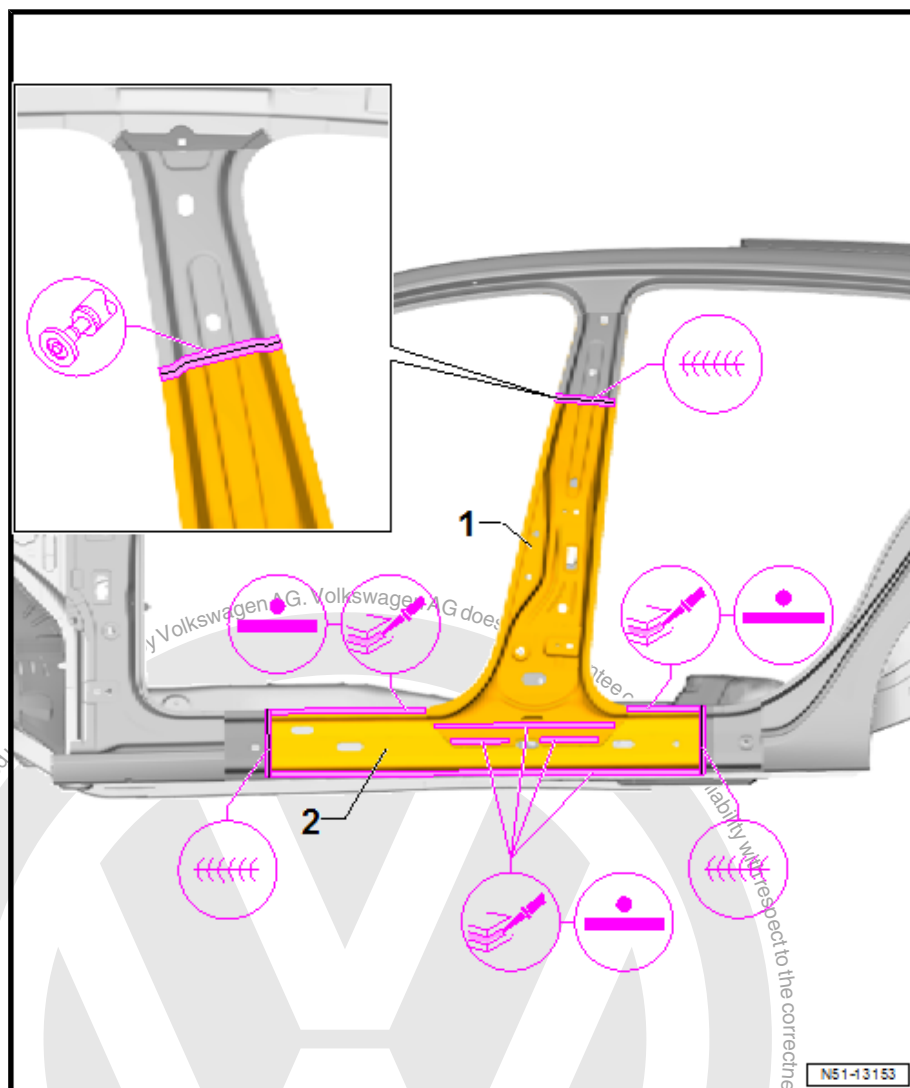
- Apply Two-Part Body Adhesive on the inner B-pillar.
- Fit the inner B-pillar -1- to vehicle standing on its wheels or on Alignment Bracket Set and secure.
- Check fit with attachments.
- Insert the molded foam part -2-.



- Fit and attach the side sill reinforcement -1-.
- Check fit with attachments.
- Fold up and secure the inner B-pillar above.



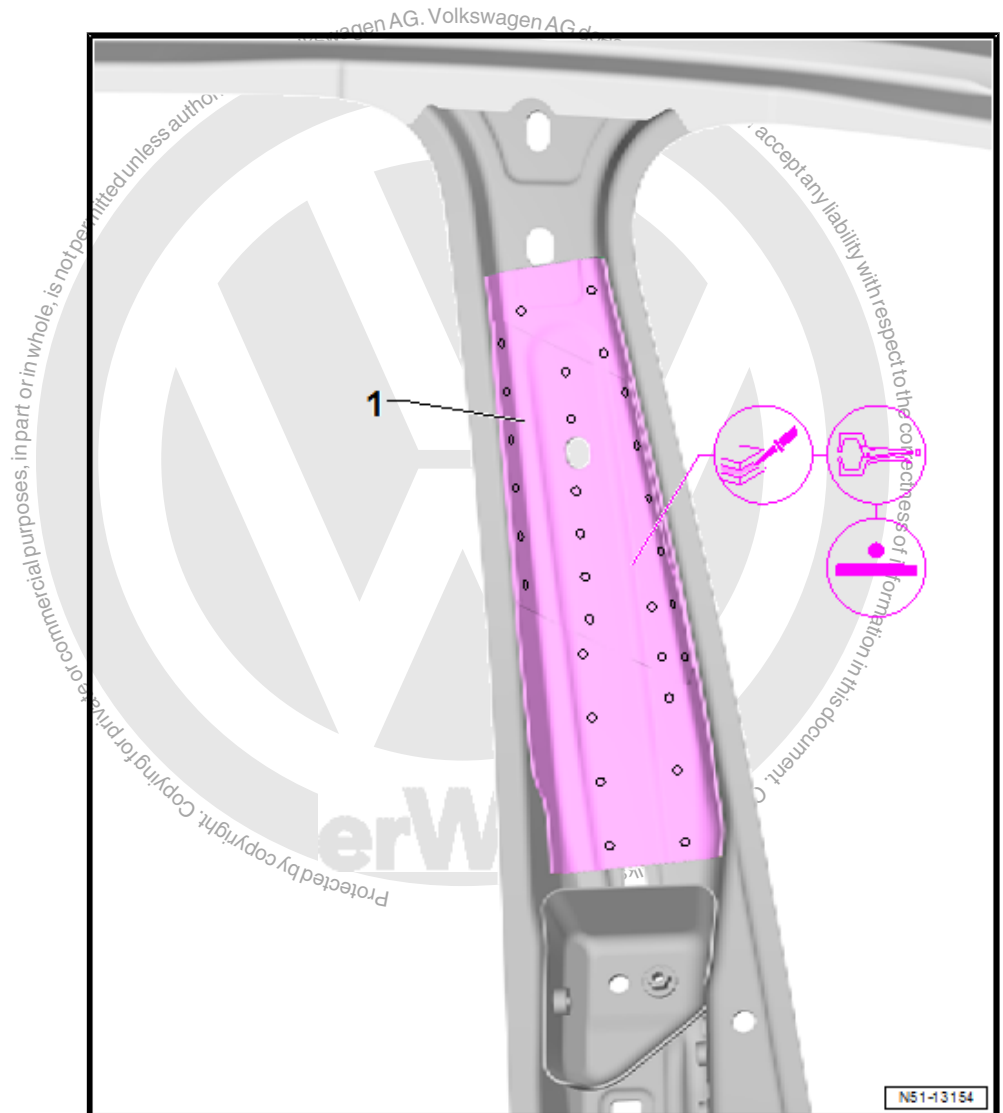
- Sand the welding surfaces down to bare metal.



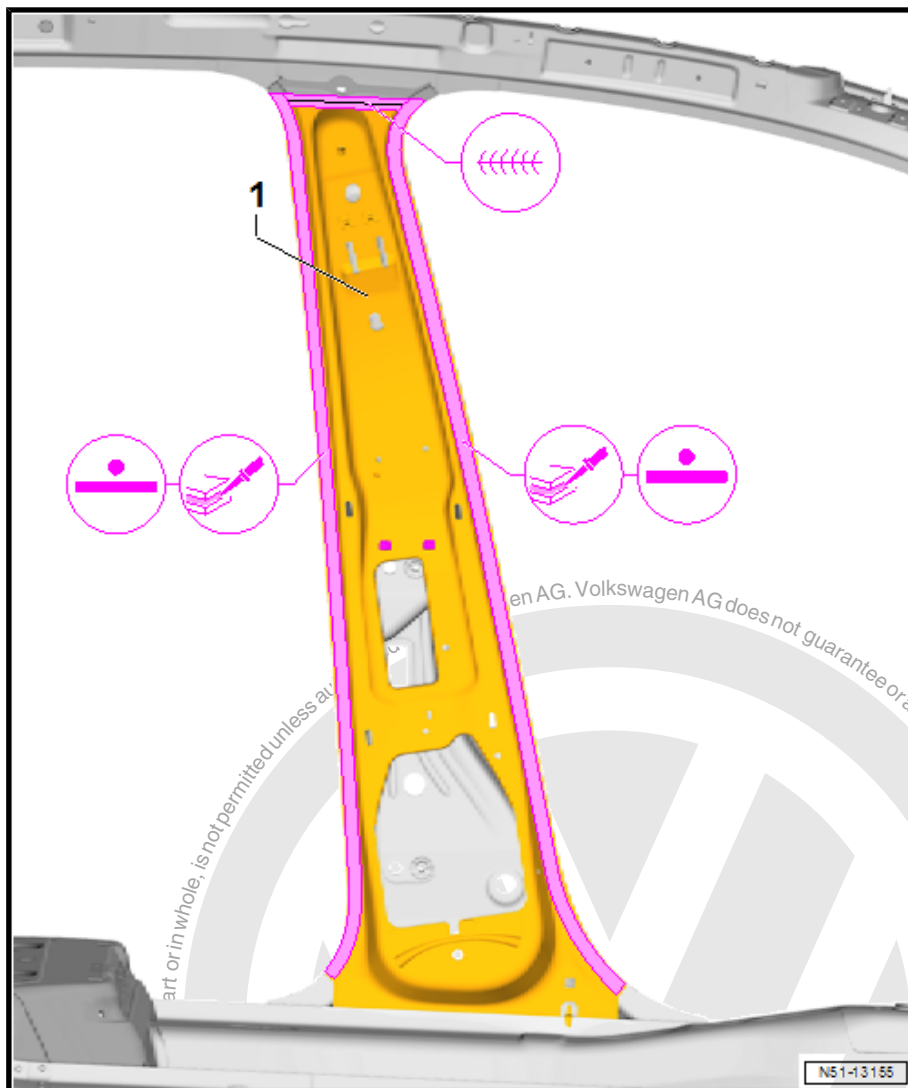
- Apply Two-Part Body Adhesive to the B-pillar reinforcement -1-.
- Fit and attach the B-pillar reinforcement -1-.
- Check fit with attachments.
- Attach the B-pillar reinforcement -1- on the side sill reinforcement -2- use a gas-shielded arc continuous weld seam.
- Remove the B-pillar reinforcement and side sill reinforcement and weld is using a straight-line spot weld seam.
- Apply the Two-Part Body Adhesive on the side sill reinforcement -2-.
- Fit and attach the B-pillar reinforcement with the side sill reinforcement.
- Check fit with attachments.
- Attach the B-pillar reinforcement and side sill reinforcement on the separation cut using a gas-shielded arc continuous weld seam. Check the fit of the double patch panel to the B-pillar reinforcement.
- Weld the separation cuts using a gas-shielded arc continuous weld seam.



- Sand the weld seam as far as necessary for the for the smooth fit of the double patch panel from the inside.
- Sand the adhesive surface for the double patch panel in the B-pillar reinforcement to bare metal.
- Apply Two-Part Body Adhesive of the entire surface for the double patch panel and B-pillar reinforcement.



- Fit and secure the double patch panel -1-.
- Weld the double patch panel as shown, straight-line spot weld seam.
- Apply Two-Part Body Adhesive to the B-pillar reinforcement.



- Fold back and secure the inner B-pillar -1-.
- Weld the inner B-pillar from below upward, straight-line spot weld seam.
- Weld the inner B-pillar separation cut, gas-shielded arc continuous weld seam/



Note

Weld the separation cut only in the marked area to prevent heat impact on the hot-formed B-pillar.

- Insert the molded foam part.
- Install the outer side sill. Refer to [⇒ "7.3 Installing", page 137](#).
- Install the B-pillar. Refer to [⇒ "5.3 Installing", page 118](#).



RO: 51 45 55 00

7 Outer Sill Panel, Replacing, 4-Door

⇒ "7.1 Tools", page 136

⇒ "7.2 Removing", page 136

⇒ "7.3 Installing", page 137



WARNING

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

If welding or cutting with spark-producing devices/tools or when plating in foamed areas where hazardous gases are produced that are harmful to humans and the environment, these procedures are to be omitted in each case.

1 - Sill Panel

2 - Separating Cuts

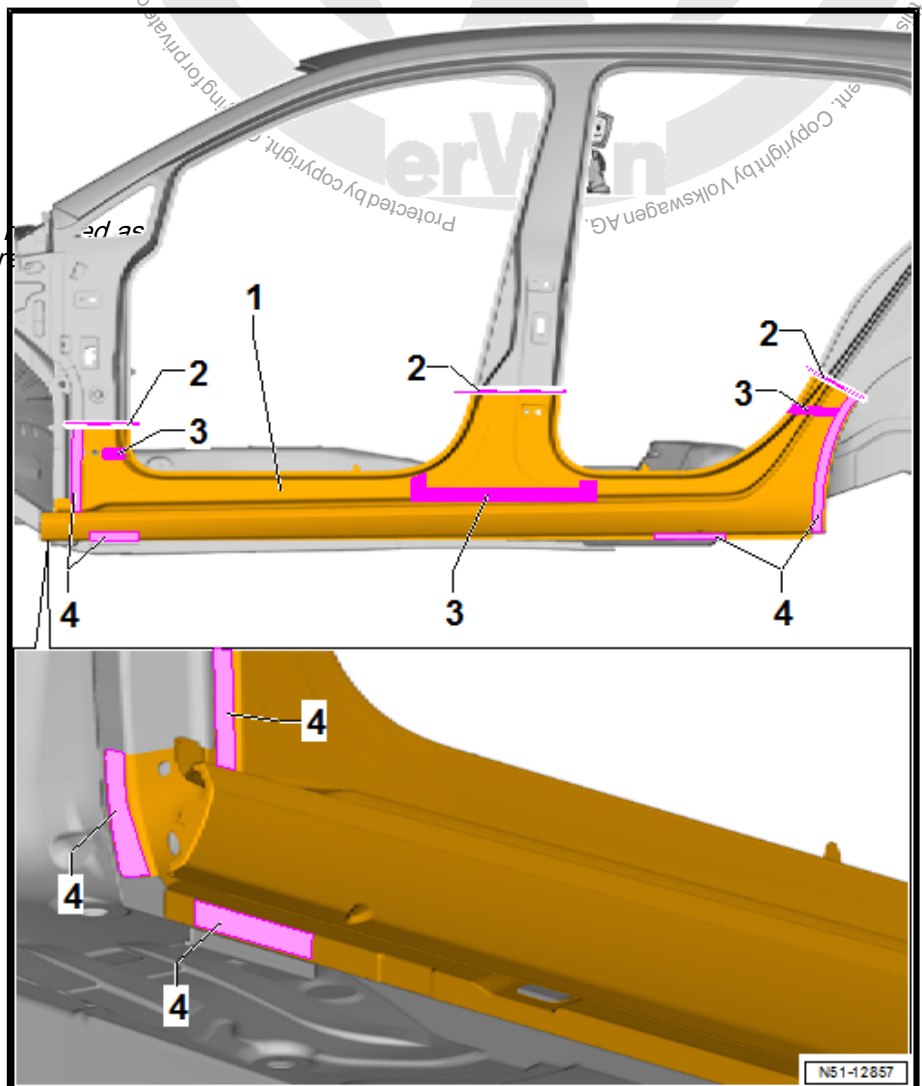
3 - Molded Foam Parts



Note

Foam residue must be removed as much as possible before work.

4 - Bonded Area





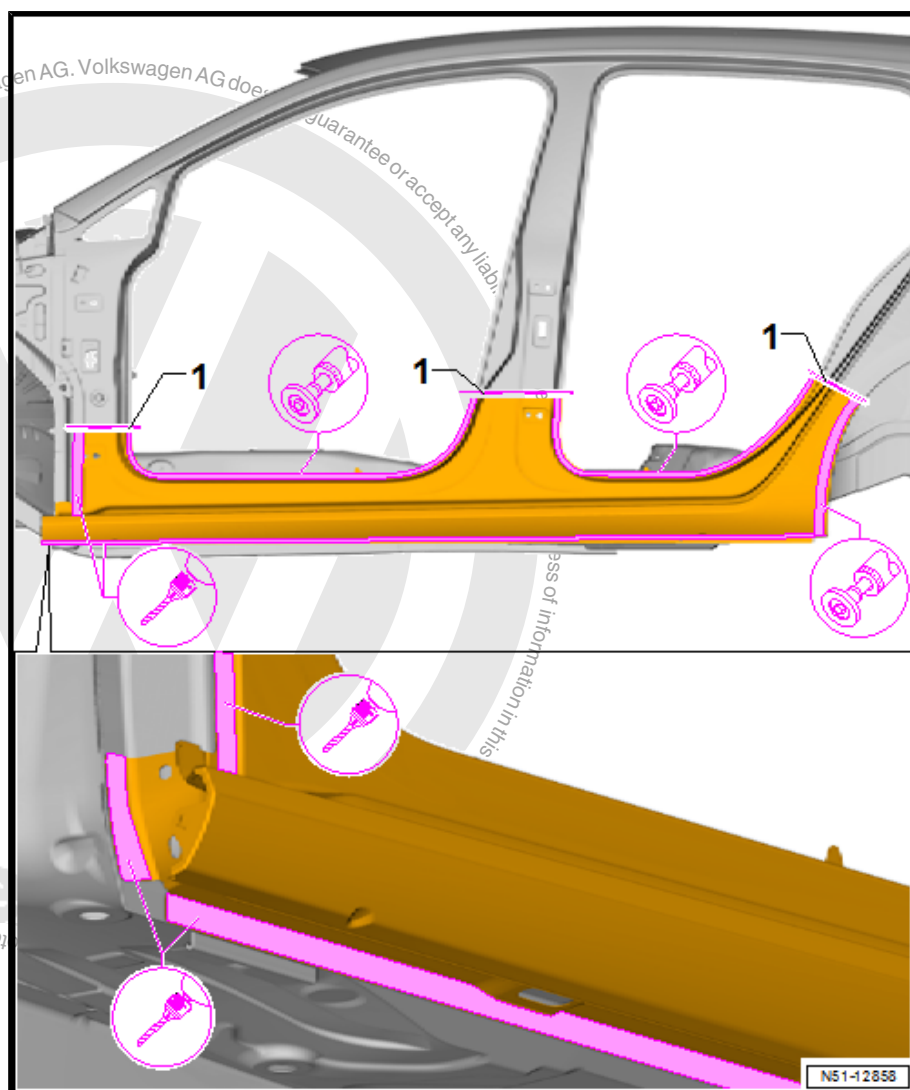
7.1 Tools



Note

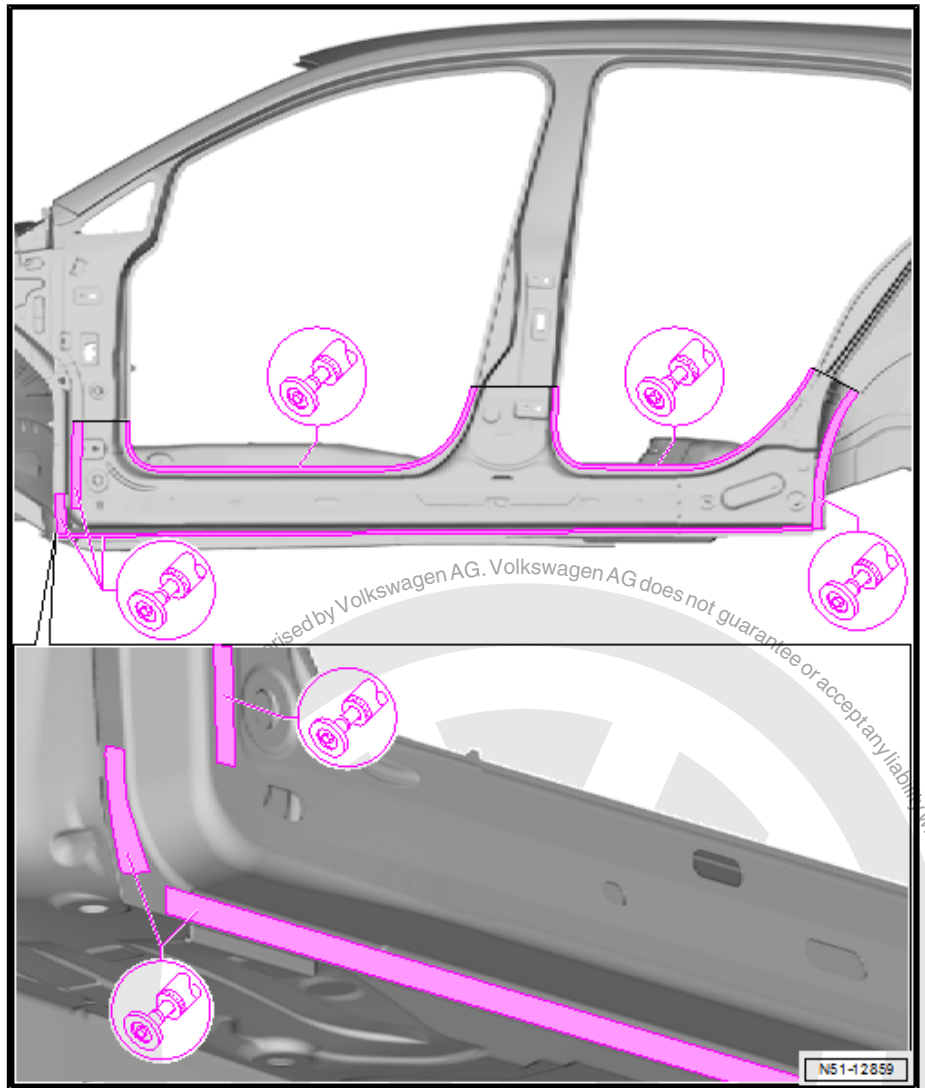
- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

7.2 Removing



Note

- ◆ Only use the body Pneumatic Body Saw - VAS6780- to perform separating cuts.
- ◆ Be careful not to damage the panel behind it when making the separation cuts.
- Make separating cuts -1, 2 and 3- depending on the damage.
- Separate the original joint.



- Remove residual material.
- Completely remove any remaining adhesive and grind the adhesive surfaces down to bare metal.
- Clean the flanging area on wheel arch (it must be free of dust and grease).

7.3 Installing

⇒ [“7.3.1 Additional Separation Cuts on the Outer Sill Panel”, page 137](#)

⇒ [“7.3.2 Preparing New Parts”, page 138](#)

⇒ [“7.3.3 Welding”, page 140](#)



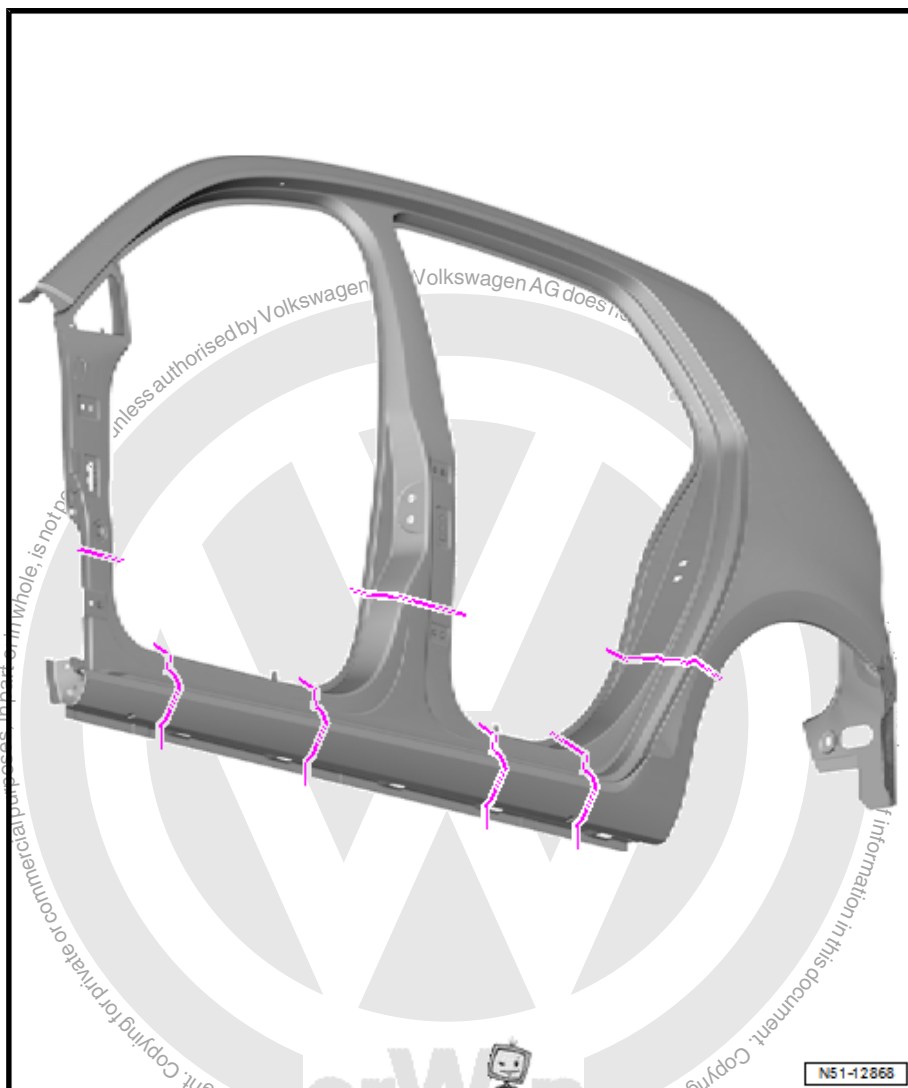
Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ [“7.1 Tools”, page 136](#).

RO: 51 45 55 02, 51 45 55 04, 51 45 55 08



7.3.1 Additional Separation Cuts on the Outer Sill Panel

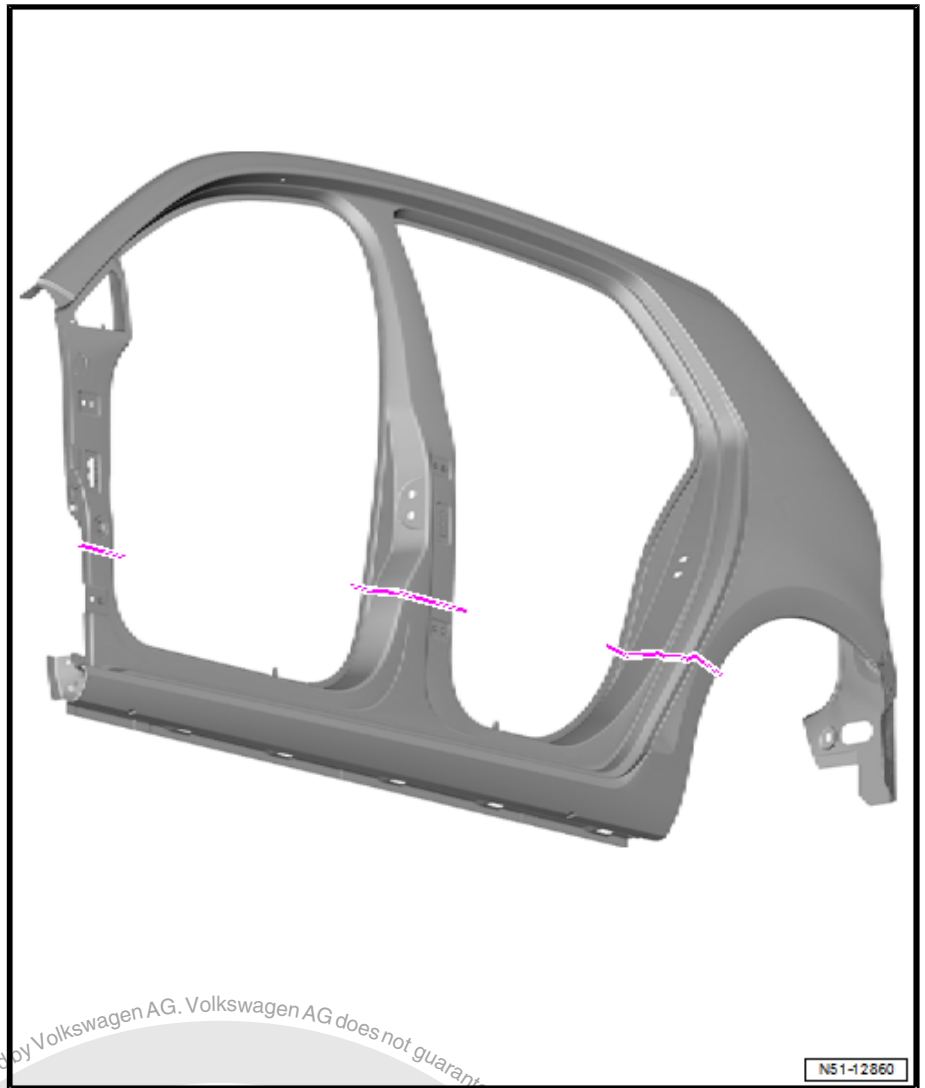


- Make separation cuts according to the degree of damage, or follow the displayed separation cuts.

7.3.2 Preparing New Parts

Replacement Part

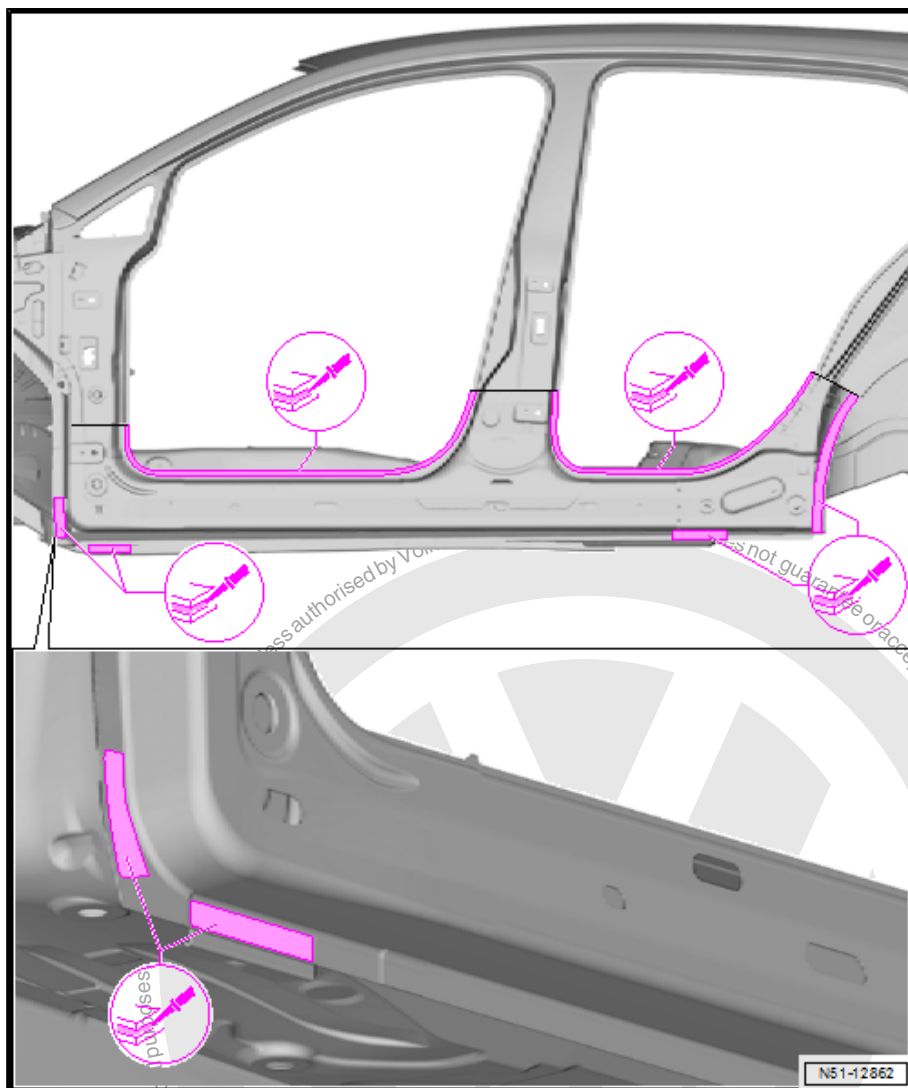
- ◆ Side Panel
- ◆ Molded Foam Part
- ◆ 2K Body Adhesive - D 180 KD3 A2-



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



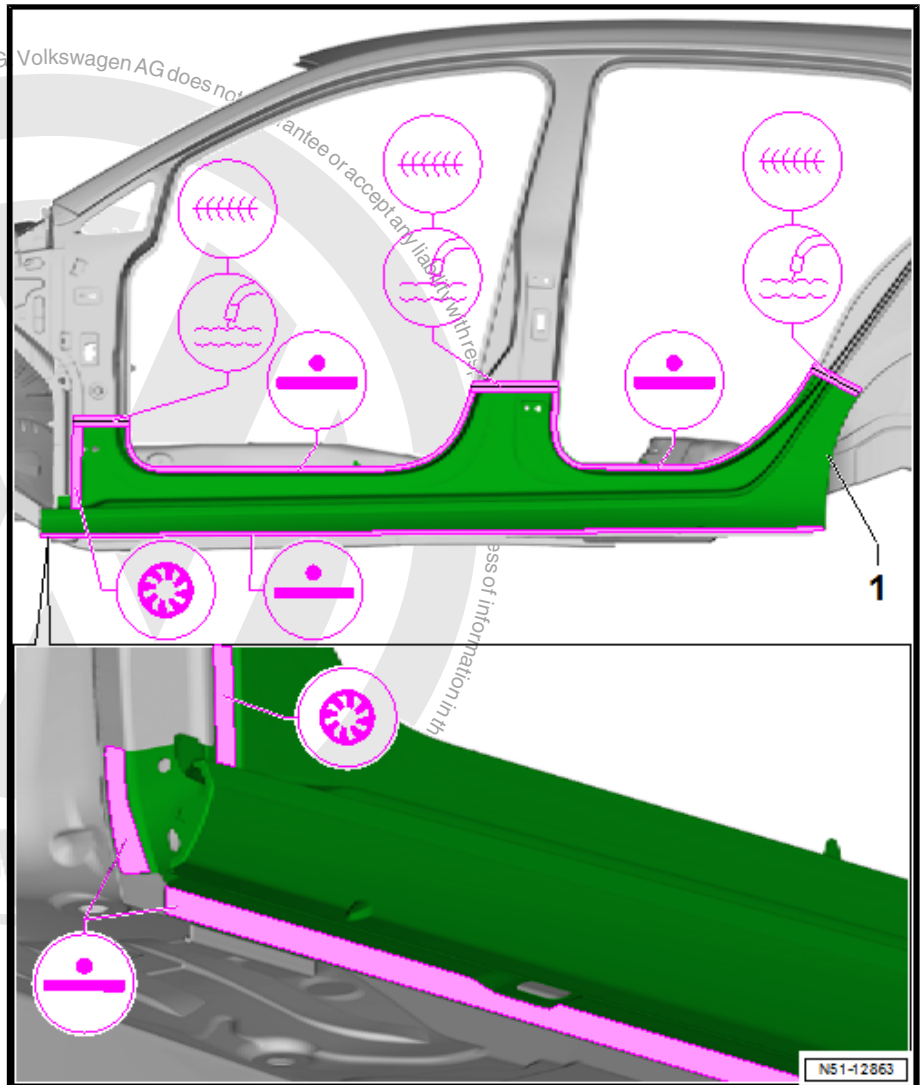
7.3.3 Welding



Note

New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.

- Fit new part to vehicle standing on Straightening Bracket Set and secure.
- Check fit with attachments.



- Weld the separation cuts, either MIG-L stitch weld seam or a gas-shielded arc continuous weld seam
- Recreate the original joint using straight-line spot weld seam and gas-shielded arc plug weld seam.
- Reform the wheel arch flange.
- Remove any escaping adhesive and seal the wheel arch.



RO: 51 45 55 10

8 Outer Sill Panel, Replacing, 2-Door

⇒ "8.1 Tools", page 143

⇒ "8.2 Removing", page 143

⇒ "8.3 Installing", page 144



WARNING

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

If welding or cutting with spark-producing devices/tools or when plating in foamed areas where hazardous gases are produced that are harmful to humans and the environment, these procedures are to be omitted in each case.

1 - Sill Panel

2 - Separating Cuts

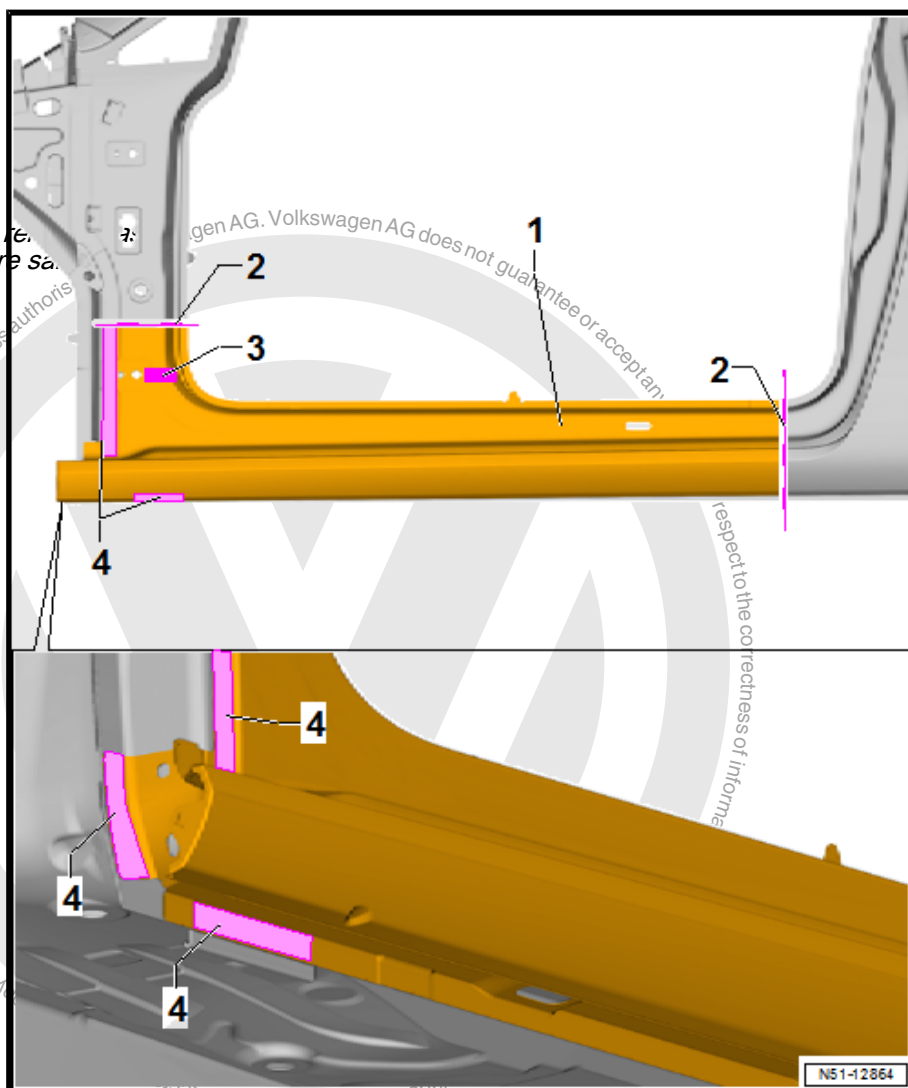
3 - Molded Foam Parts



Note

Foam residue must be removed as much as possible before saw work.

4 - Bonded Area



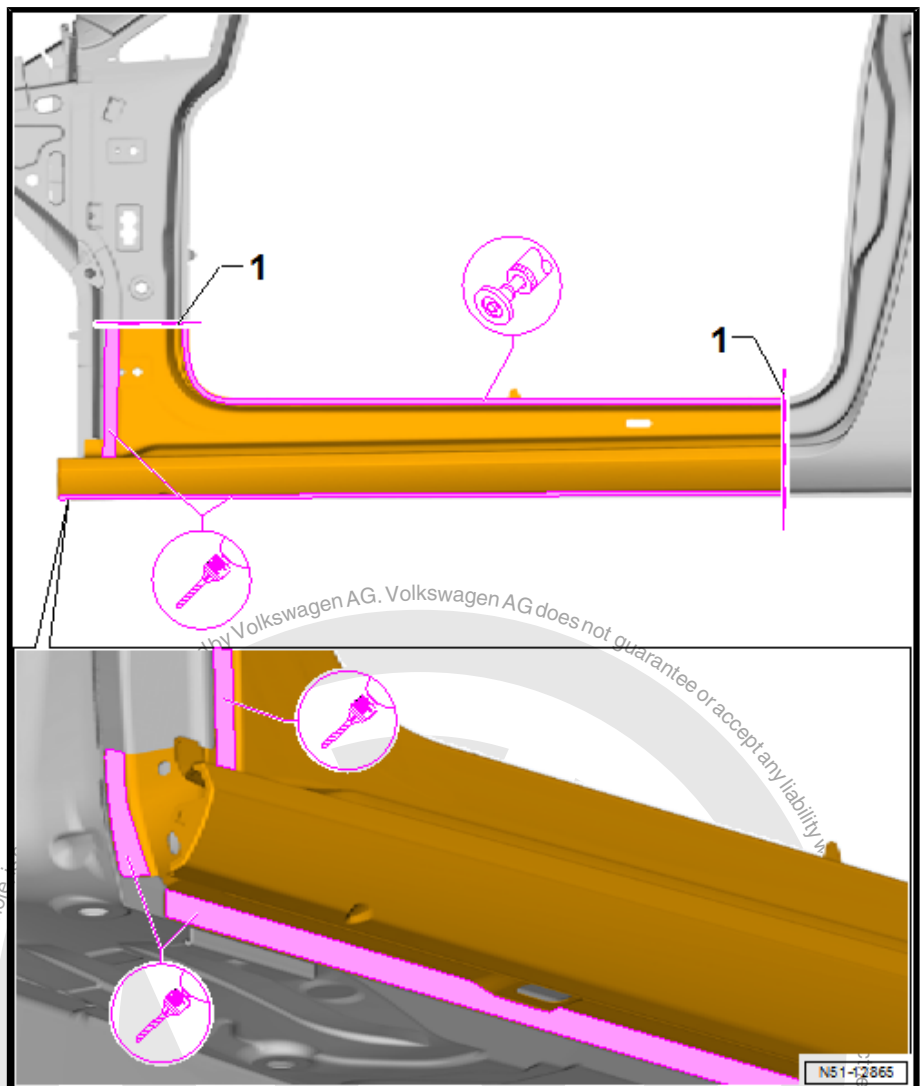


8.1 Tools

Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

8.2 Removing

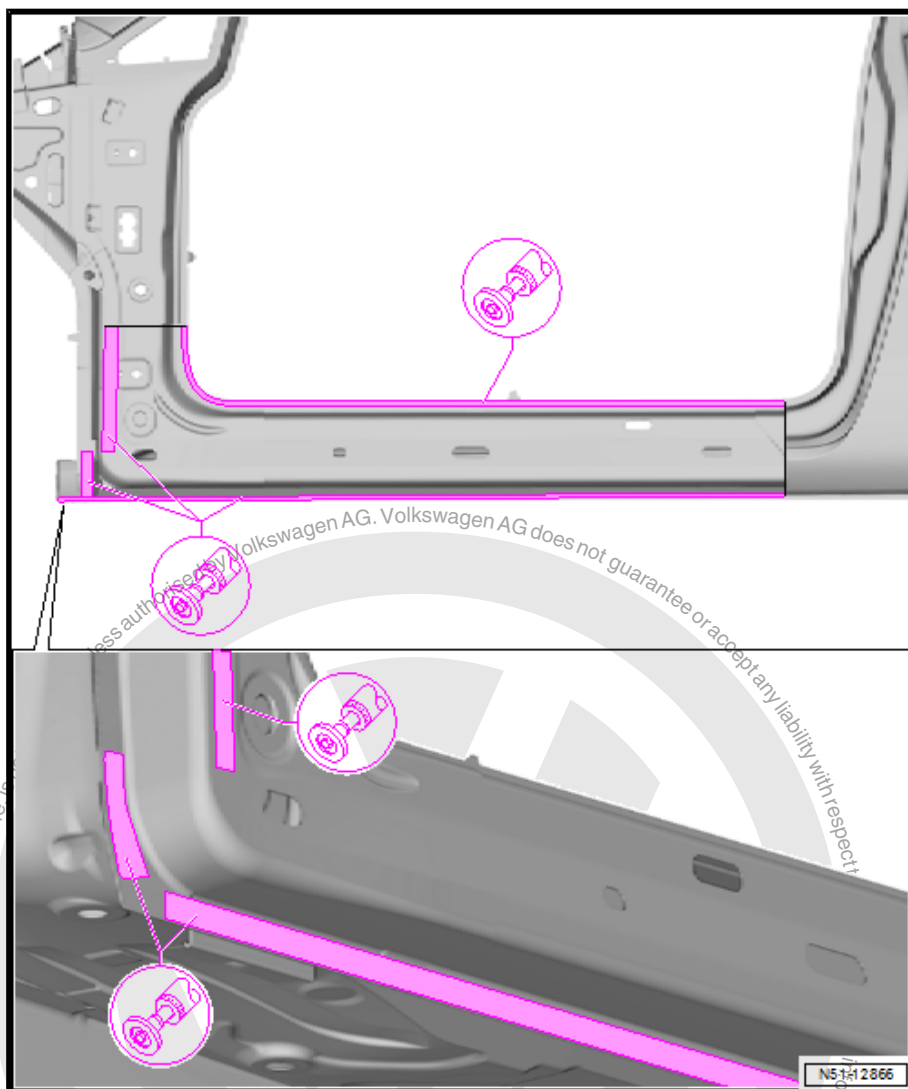


Note

- ◆ Only use the body Pneumatic Body Saw - VAS6780- to perform separating cuts.
- ◆ Be careful not to damage the panel behind it when making the separation cuts.
- Make separating cuts -1 and 2- according to the degree of damage.



- Separate the original joint.



- Remove residual material.
- Completely remove any remaining adhesive and grind the adhesive surfaces down to bare metal.

8.3 Installing

⇒ ["8.3.1 Additional Separation Cuts on the Outer Sill Panel", page 144](#)

⇒ ["8.3.2 Preparing New Parts", page 145](#)

⇒ ["8.3.3 Welding", page 147](#)



Note

When using different types of steel and materials of different strengths, one of the inverters listed under Tools are required to perform repair work correctly. Refer to ⇒ ["8.1 Tools", page 143](#).

RO: 51 45 55 12



8.3.1 Additional Separation Cuts on the Outer Sill Panel

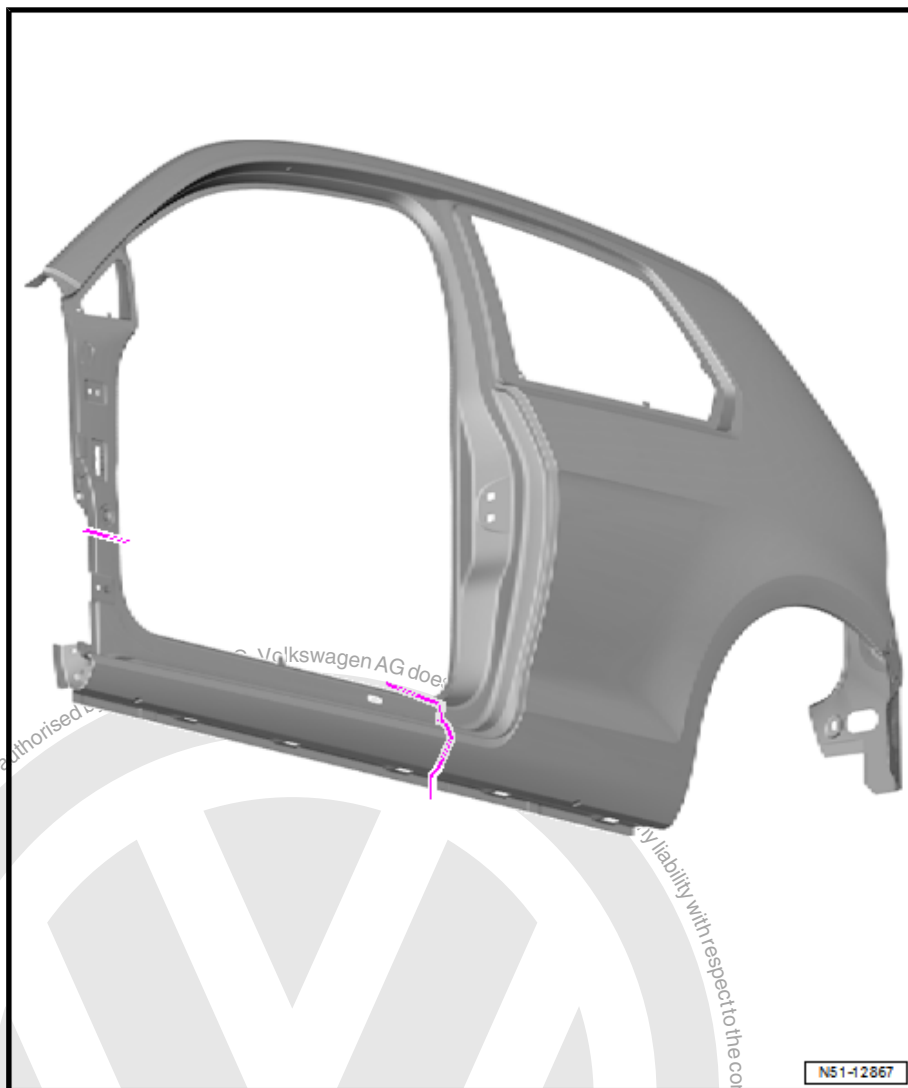


- Make separation cuts according to the degree of damage, or follow the displayed separation cuts.

8.3.2 Preparing New Parts

Replacement Part

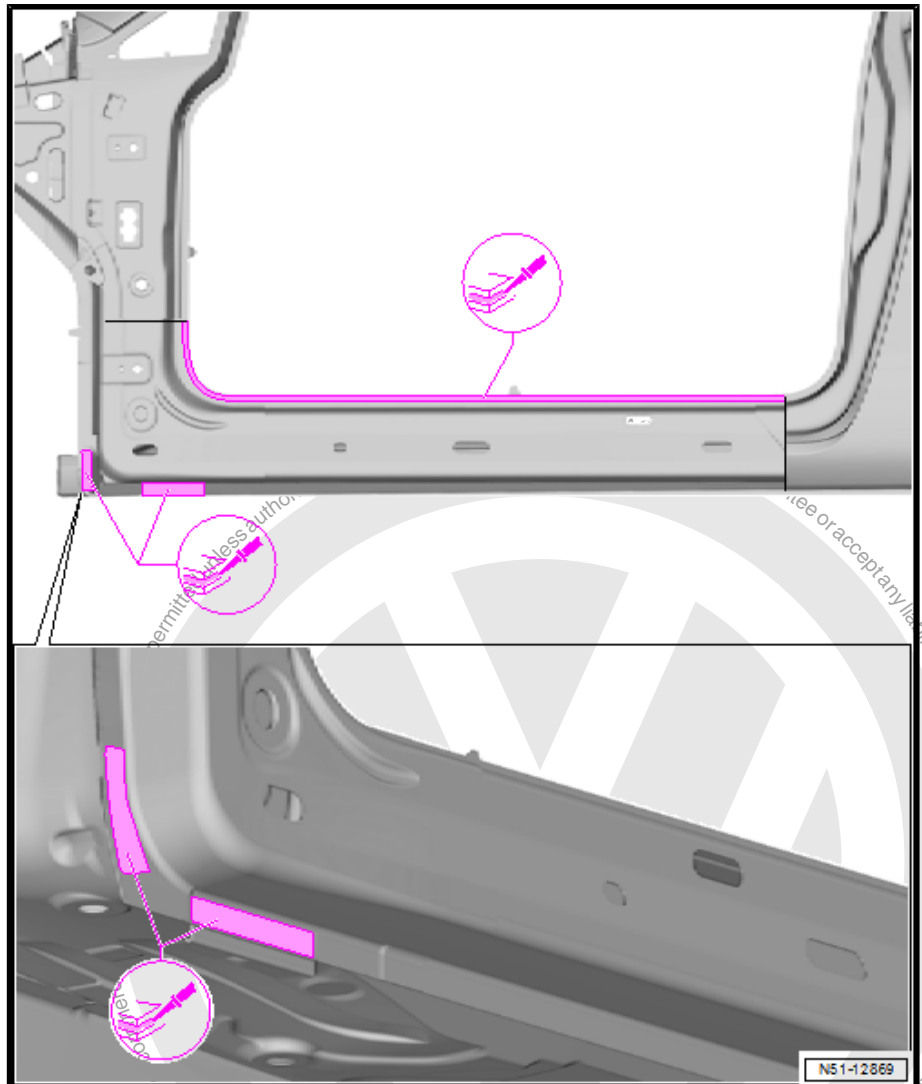
- ◆ Side Panel
- ◆ Molded Foam Part
- ◆ 2K Body Adhesive - D 180 KD3 A2-



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



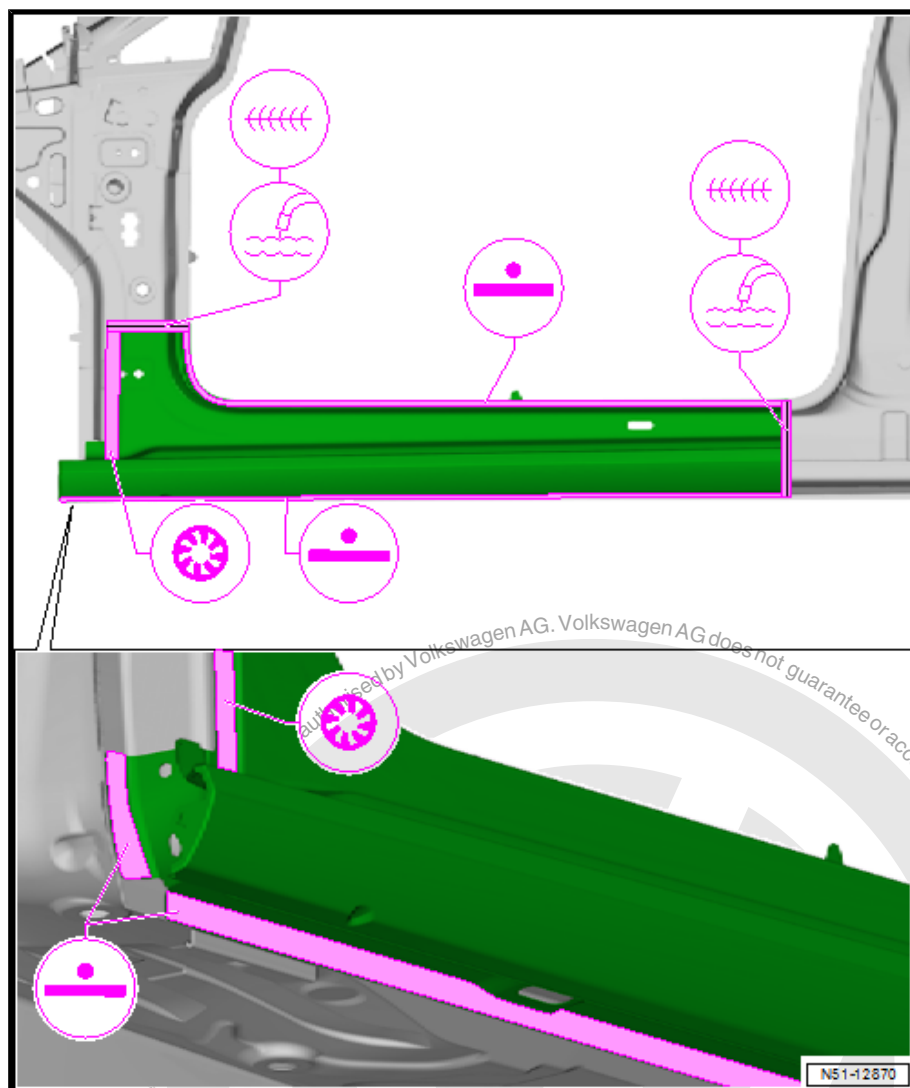
8.3.3 Welding



Note

New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.

- Fit new part to vehicle standing on Straightening Bracket Set and secure.
- Check fit with attachments.



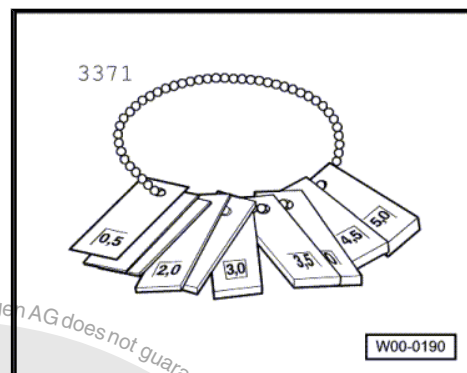
- Weld the separation cuts, either MIG-L stitch weld seam or a gas-shielded arc continuous weld seam
- Recreate the original joint using straight-line spot weld seam and gas-shielded arc plug weld seam.



9 Special Tools

Special tools and workshop equipment required

- ◆ Gauge - Gap Adjustment - 3371-



- ◆ Pneumatic Cartridge Gun - VAG1761/1-
- ◆ Tensioning Strap - T10038-
- ◆ Pneumatic Body Saw - VAS6780-
- ◆ Straightening Bracket Set



53 – Body Rear

RO: 53 05 55 50

1 Rear Cross Panel, Replacing

⇒ ["1.1 Tools", page 151](#)

⇒ ["1.2 Removing", page 152](#)

⇒ ["1.3 Installing", page 153](#)



WARNING

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



Note

To replace the rear cross panel the tail lamp mount and the corner reinforcement must be removed on one side.

- End crossmember already removed. Refer to
⇒ ["4 End Crossmember, Replacing", page 168](#).
- Tail lamp mount already removed. Refer to
⇒ ["3 Tail Lamp Mount, Removing and Installing", page 162](#).
- The corner reinforcement is already removed. Refer to
⇒ ["2 Corner Reinforcement, Replacing", page 157](#).



1 - Rear Cross Panel

2 - Bonded Area

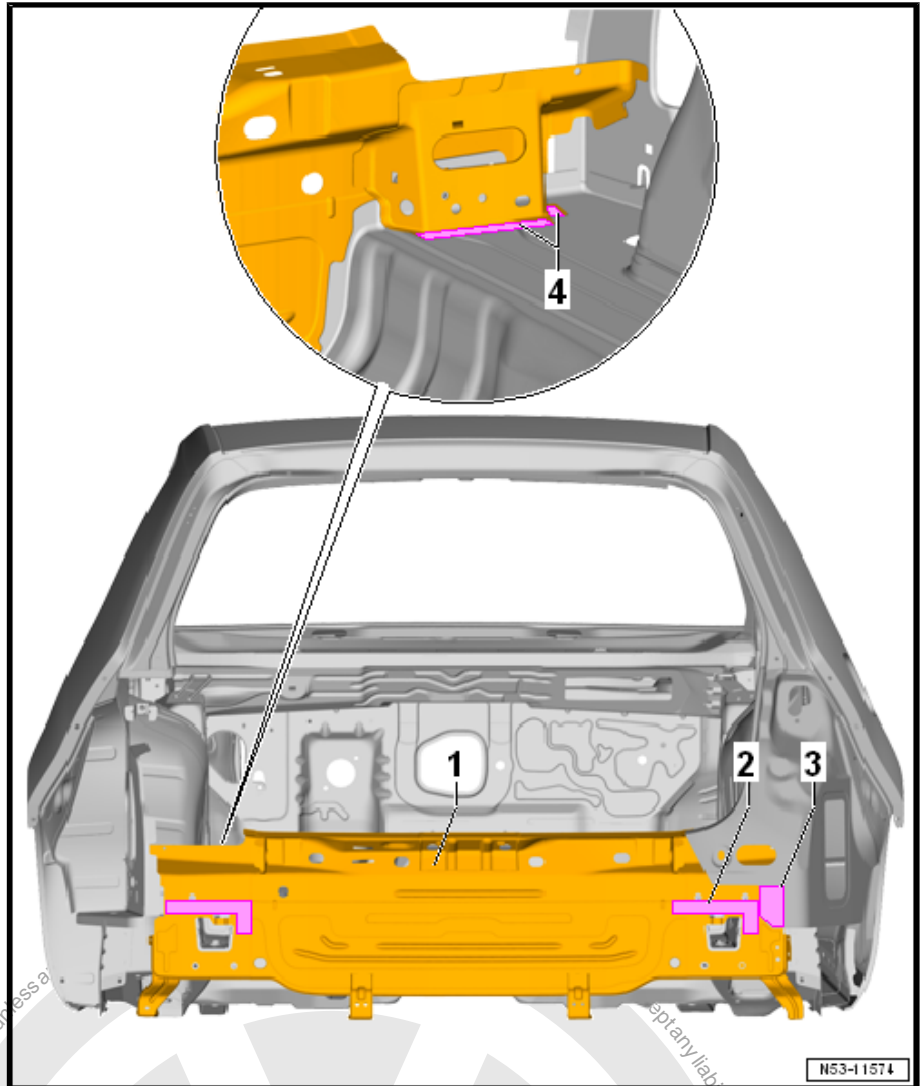
- ☐ Bonded longitudinal member area

3 - Tail Lamp Mount

- ☐ The marked area must be loosened and slightly bent for the removal of the back panel

4 - Bonded Area

- ☐ Bonded in the luggage compartment floor area



1.1 Tools



Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

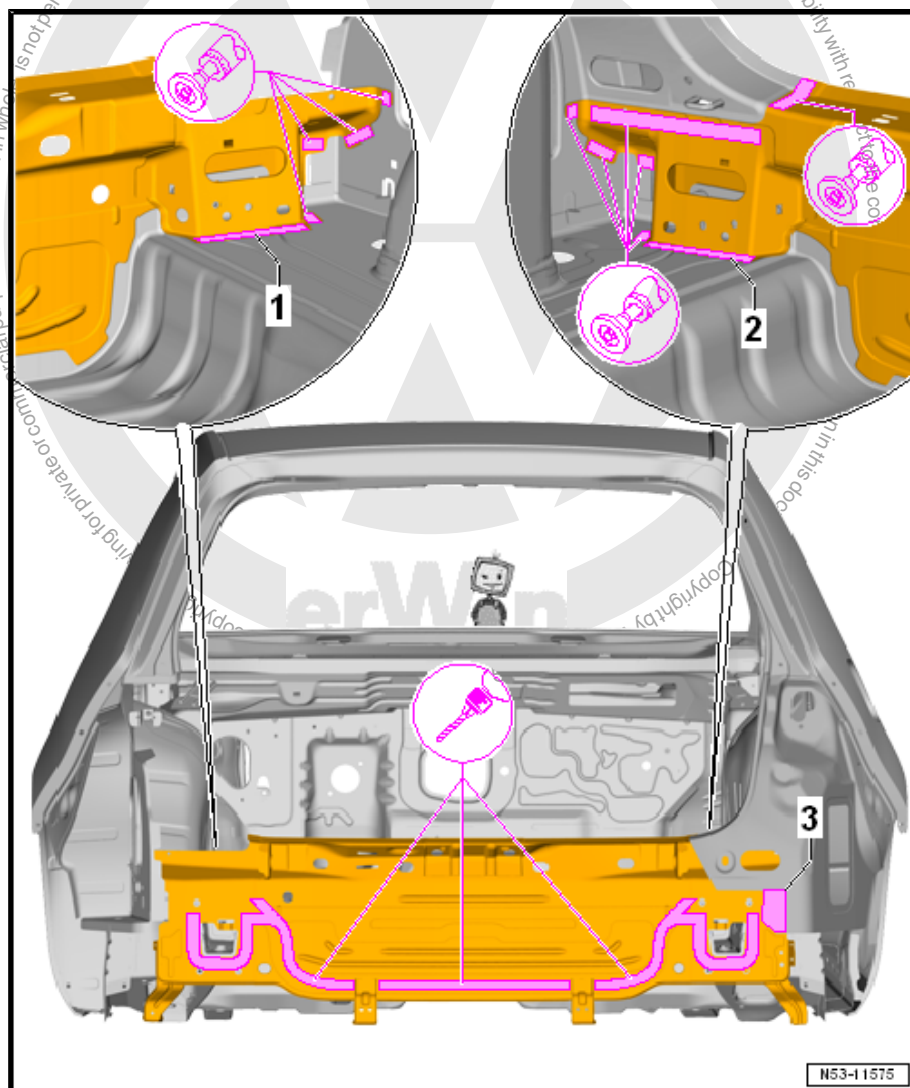


1.2 Removing

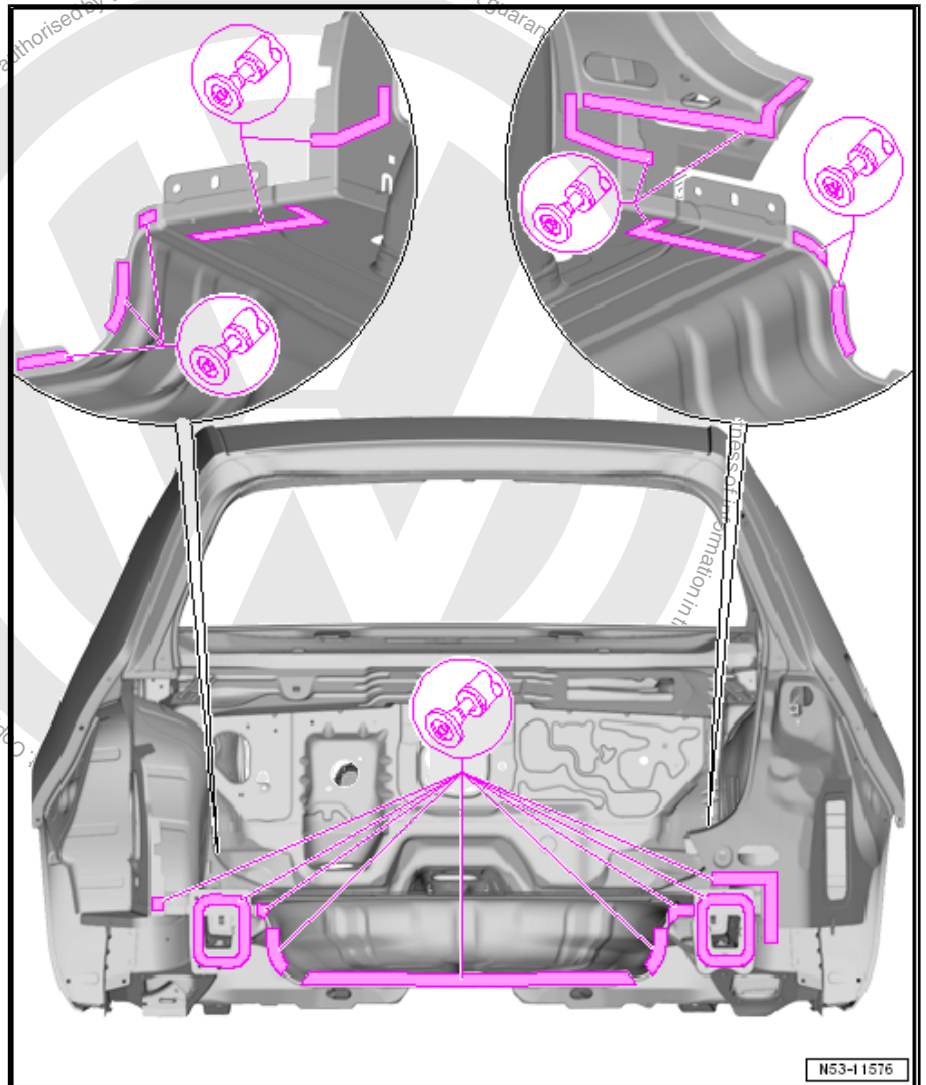


Note

To remove the rear back panel the marked areas -3- must be loosed and slightly bent.



- Separate the original joint.
- Loosen the adhesive surfaces -1- and -2- from the luggage compartment floor.
- Remove the rear back panel from the body.



- Remove residual material.
- Completely remove any remaining adhesive and grind the adhesive surfaces down to bare metal.
- Apply corrosion protection to the adhesive surfaces, which will not be welded. Refer to ⇒ Paint; Rep. Gr. 00 .
- Lightly sand the adhesive surfaces in the connection.

1.3 Installing

⇒ [“1.3.1 Preparing New Parts”, page 154](#)

⇒ [“1.3.2 Welding”, page 155](#)



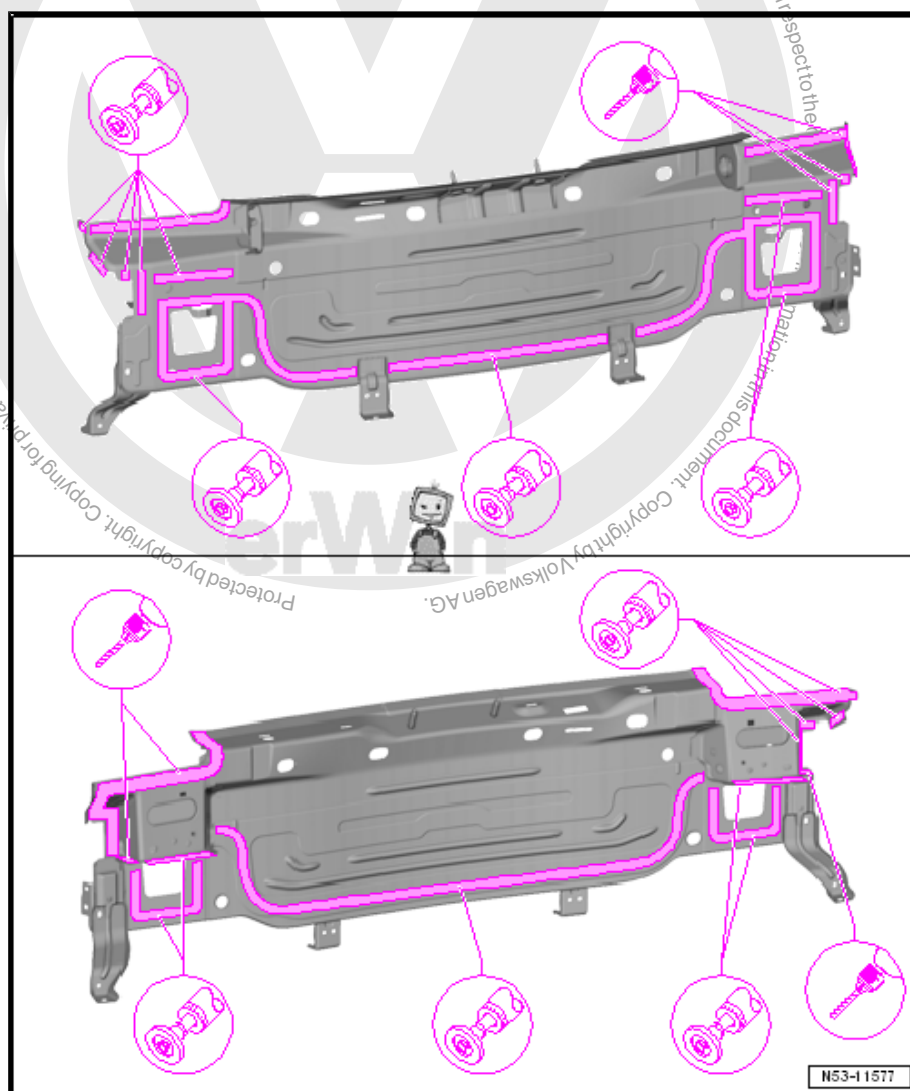
Note

Use only welding equipment approved by Volkswagen AG. Refer to ⇒ [“1.1 Tools”, page 151](#) .



1.3.1 Preparing New Parts

Replacement Part



- Sand welding surfaces to bare metal.
- Drill holes for SG plug weld seam, 7 mm diameter.

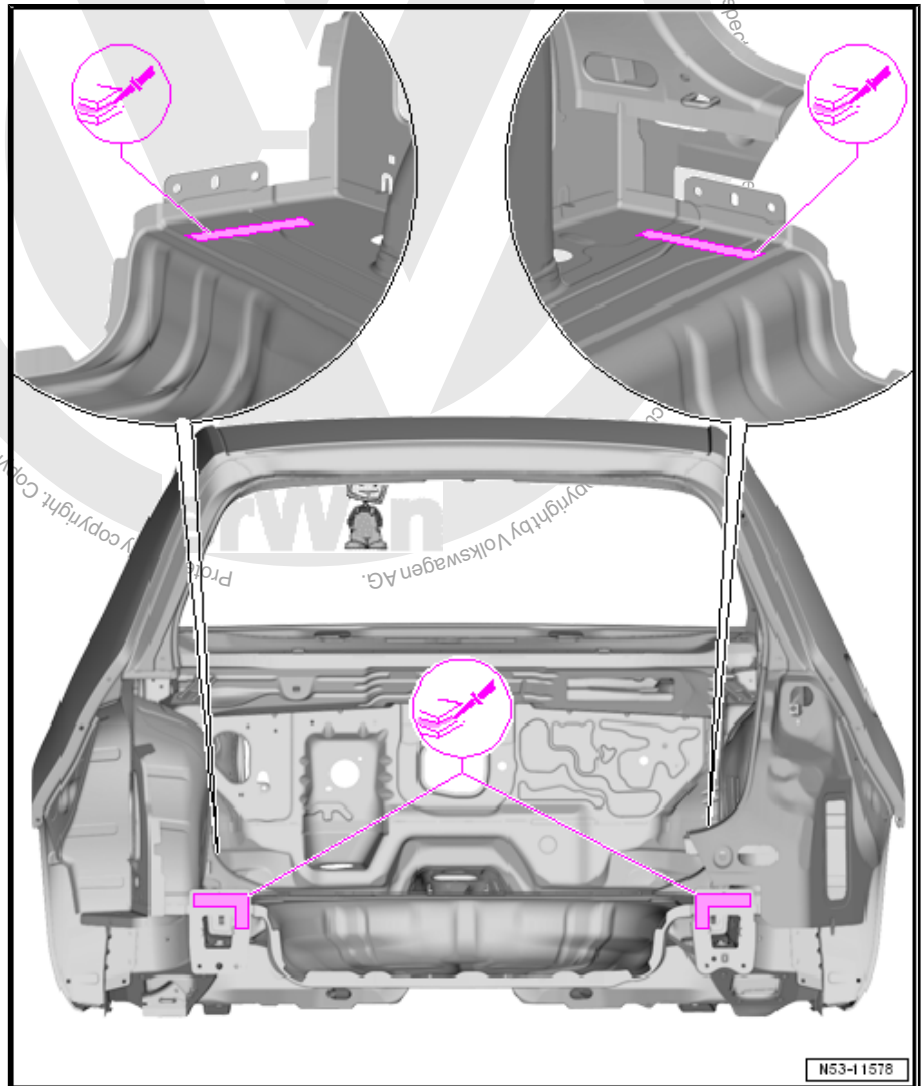


1.3.2 Welding

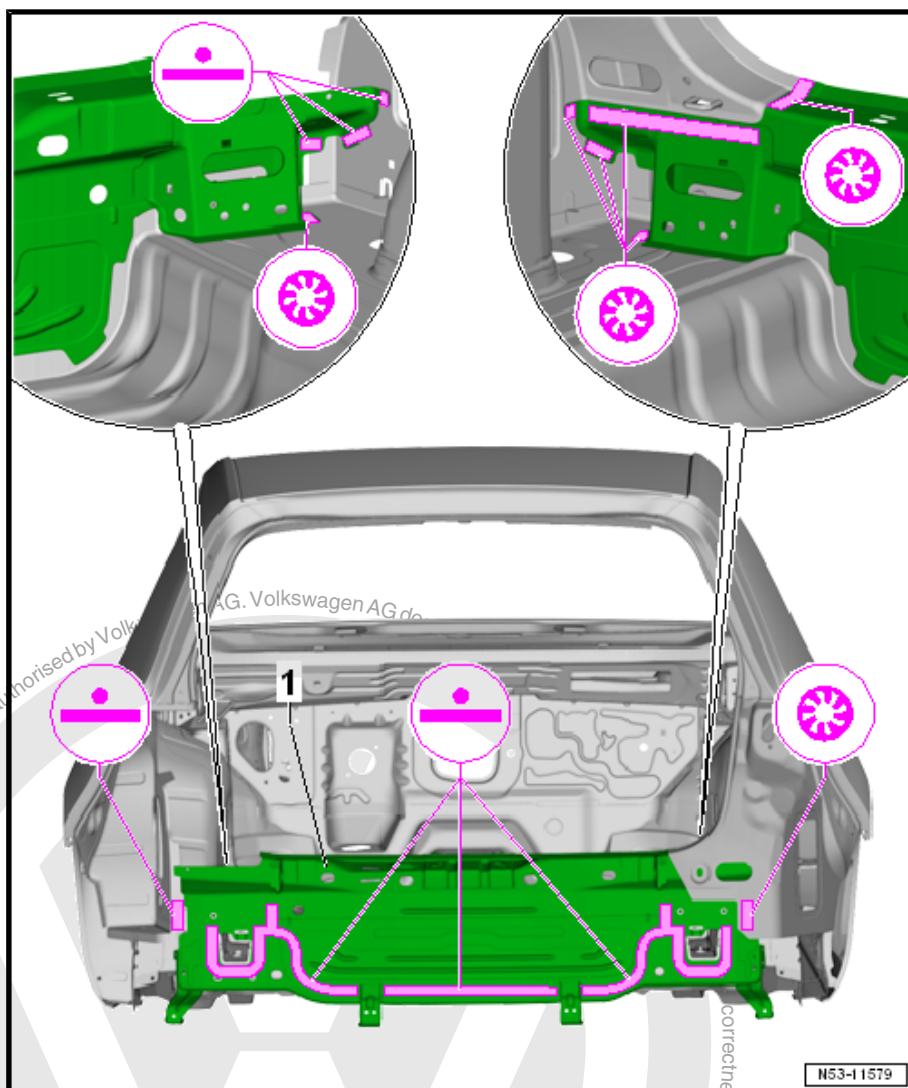


Note

New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.



- Apply 2K Body Adhesive - D 180 003 M2- in the areas where it was bonded during production.
- Fit new part -1- to vehicle standing on its wheels or on Alignment Bracket Set and secure.
- Check fit with attachments.
- Check rear lid closing function.



- Weld in rear cross panel, straight-line spot weld seam and gas-shielded arc plug weld seam.



Note

Bend the bent areas back and weld them to the back panel.

- Install the corner reinforcement. Refer to [⇒ "2.3 Installing", page 159](#).
- Install the tail lamp mount. Refer to [⇒ "3.3 Installing", page 164](#).
- Install end crossmember. Refer to [⇒ "4.3 Installing", page 170](#).



RO: 53 06 55 50

2 Corner Reinforcement, Replacing

⇒ ["2.1 Tools", page 158](#)

⇒ ["2.2 Removing", page 158](#)

⇒ ["2.3 Installing", page 159](#)



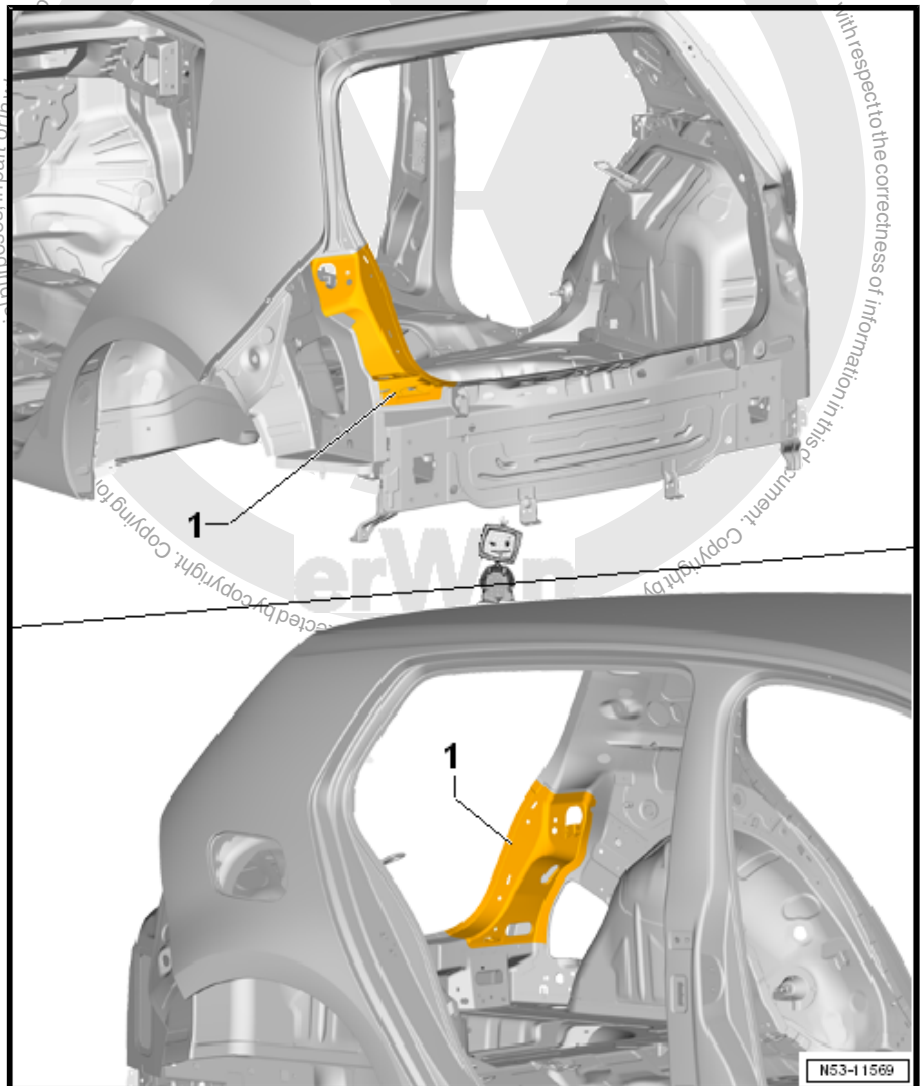
DANGER!

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

- End crossmember already removed. Refer to ⇒ ["4 End Crossmember, Replacing", page 168](#).
- Tail lamp mount already removed. Refer to ⇒ ["3 Tail Lamp Mount, Removing and Installing", page 162](#).

1 - Corner Reinforcement

- ☐ Inner corner reinforcement





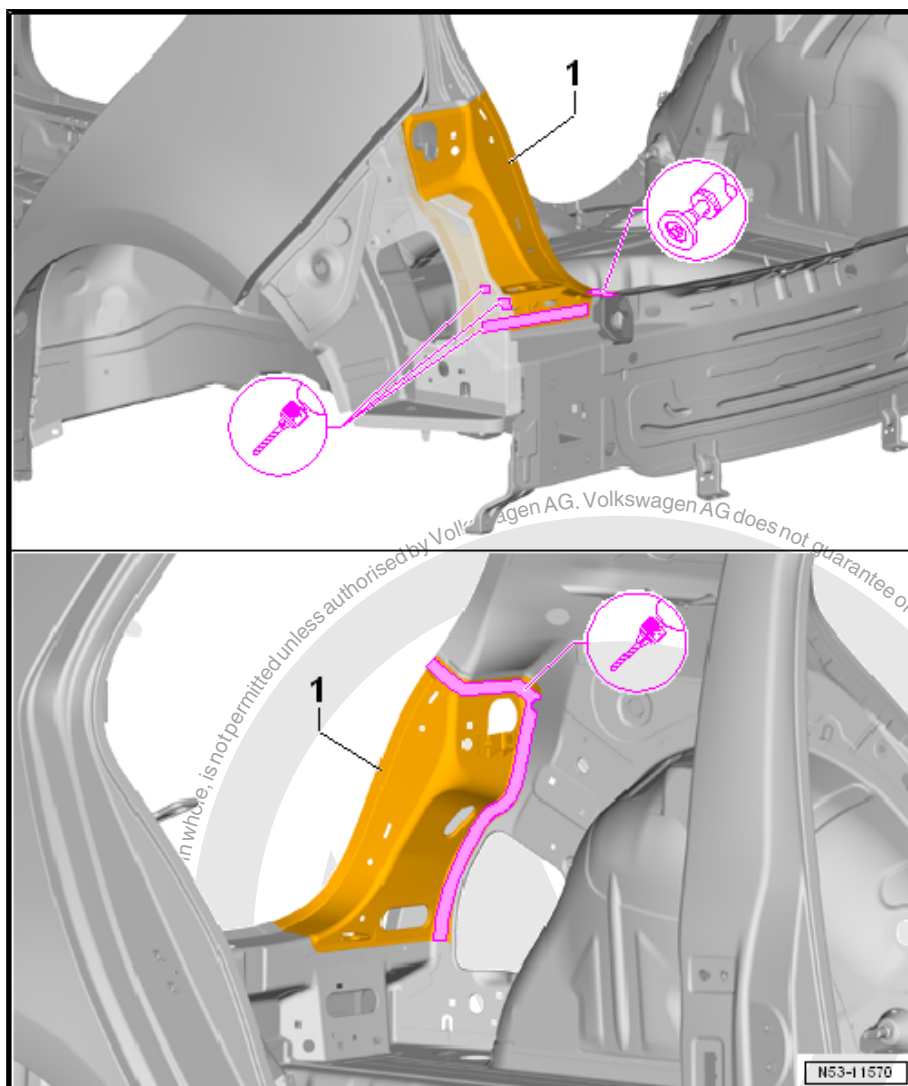
2.1 Tools



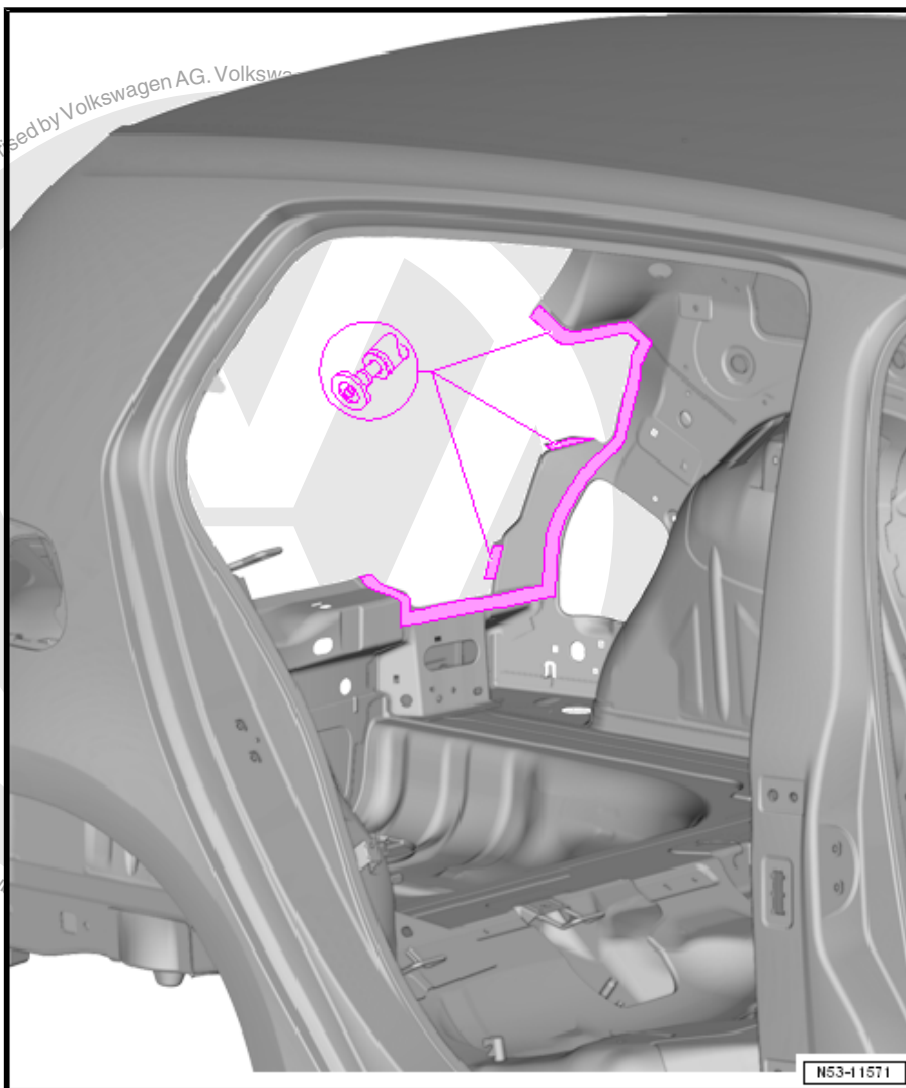
Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

2.2 Removing



- Separate the original joint.
- Remove the corner reinforcement -1- from the body.



- Remove residual material.
- Sand welding surfaces to bare metal.

2.3 Installing

⇒ [“2.3.1 Preparing New Parts”, page 159](#)

⇒ [“2.3.2 Welding”, page 160](#)



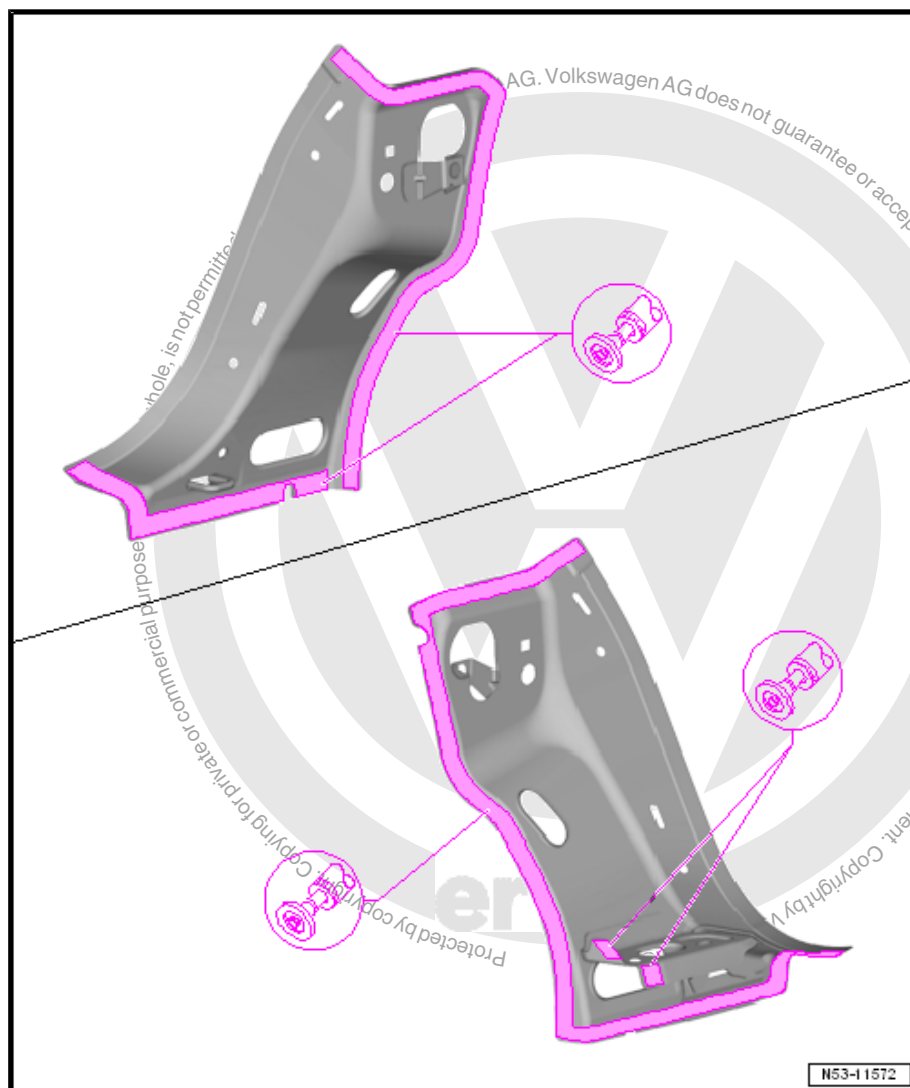
Note

Use only welding equipment approved by Volkswagen AG. Refer to ⇒ [“2.1 Tools”, page 158](#).

2.3.1 Preparing New Parts

Replacement Part

- ◆ Corner reinforcement (replacement part name for ETKA Sealing channel reinforcement)



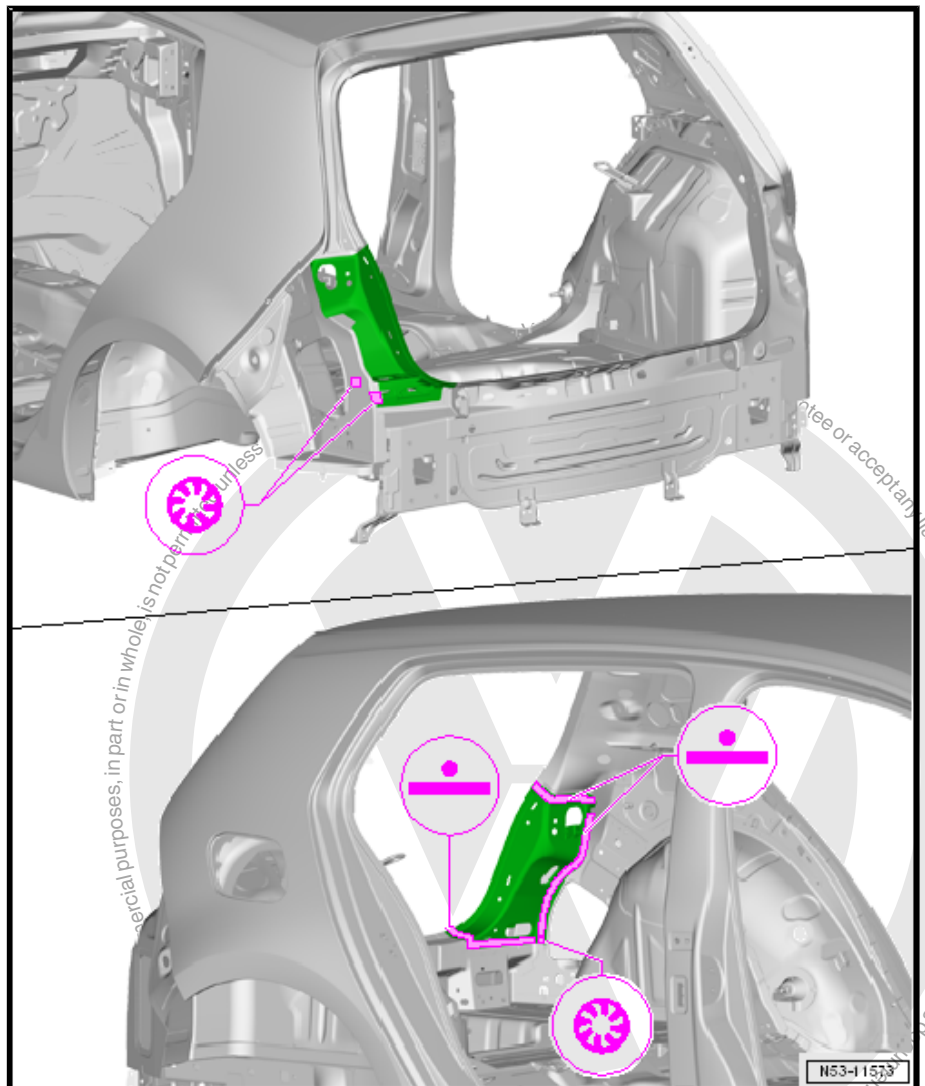
- Sand welding surfaces to bare metal.

2.3.2 Welding

- Fit new part to vehicle standing on its wheels or on Alignment Bracket Set and secure.



- Check fit with attachments.



- Weld the corner reinforcement, straight-line spot weld seam, gas-shielded arc plug weld seam.
- Install the tail lamp mount. Refer to [⇒ "3.3 Installing", page 164](#).
- Install end crossmember. Refer to [⇒ "4.3 Installing", page 170](#).



RO: 53 10 55 50

3 Tail Lamp Mount, Removing and Installing

⇒ ["3.1 Tools", page 163](#)

⇒ ["3.2 Removing", page 163](#)

⇒ ["3.3 Installing", page 164](#)



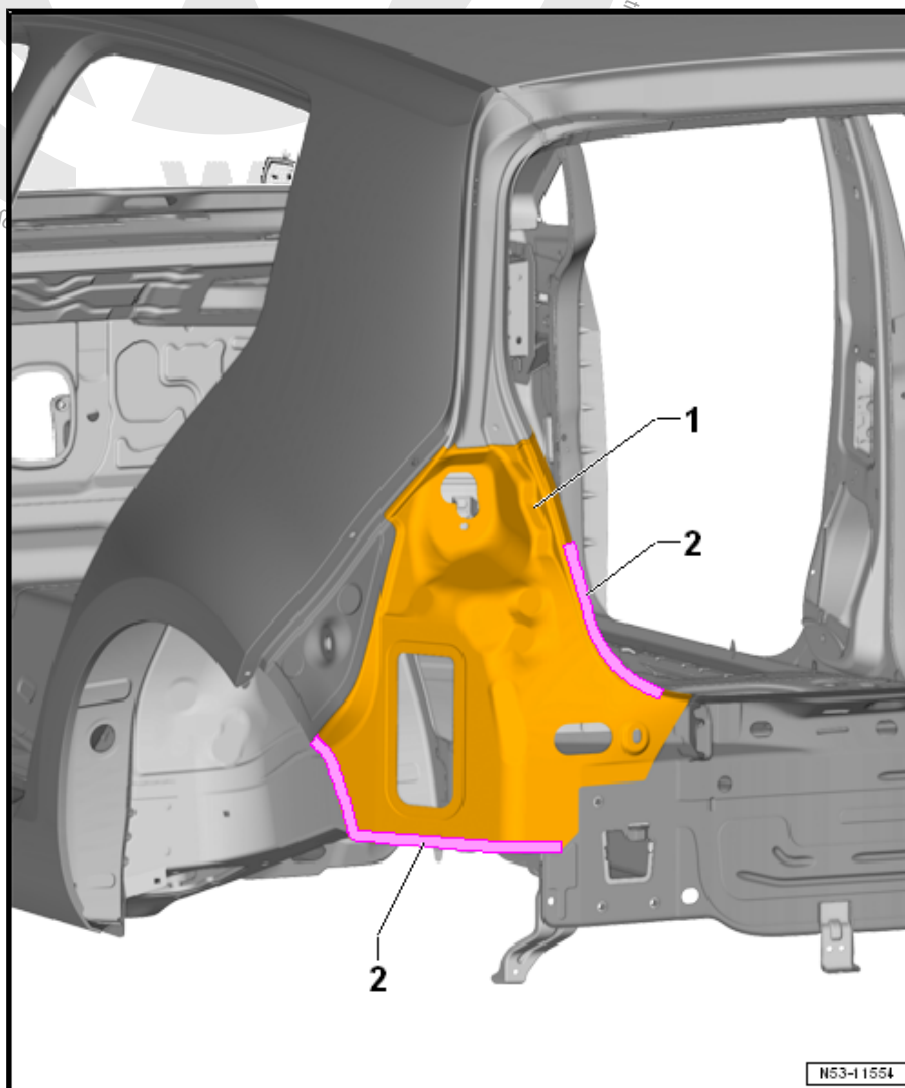
DANGER!

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

- End crossmember already removed. Refer to ⇒ ["4 End Crossmember, Replacing", page 168](#).

1 - Tail Lamp Mount

2 - Bonded Area





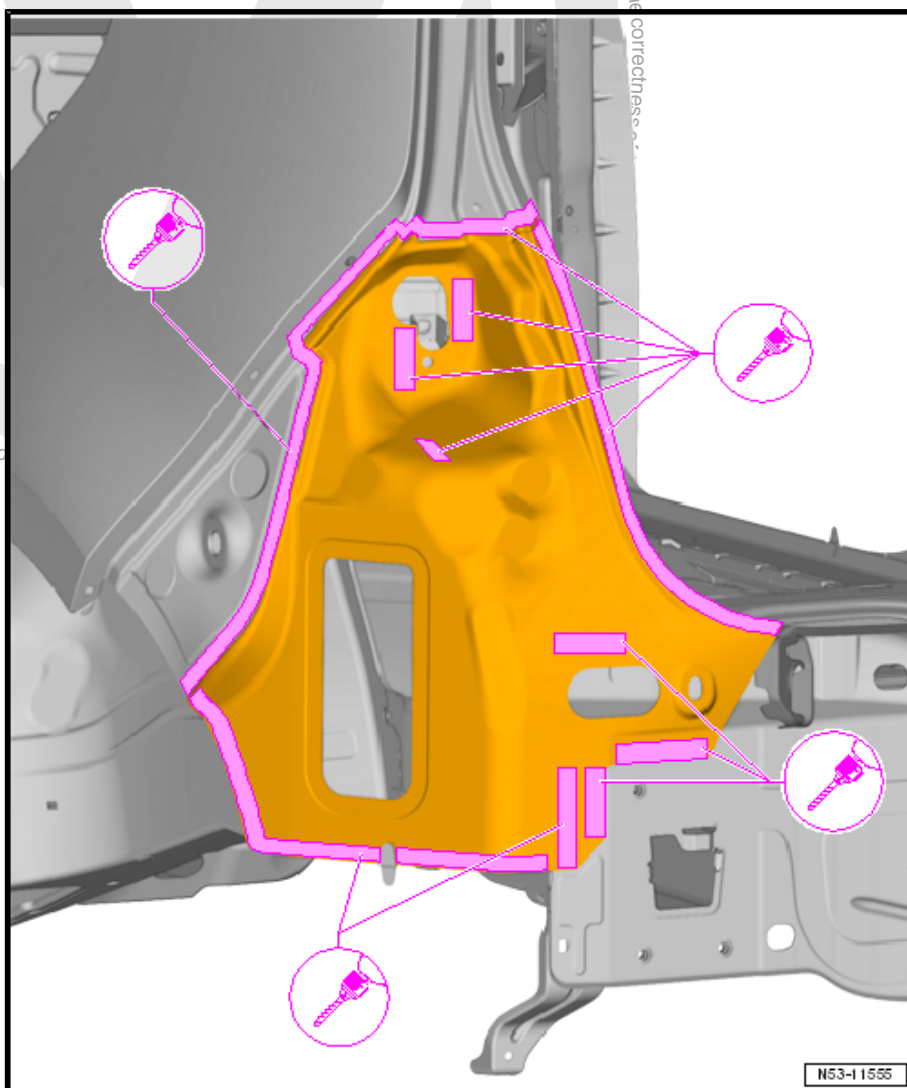
3.1 Tools



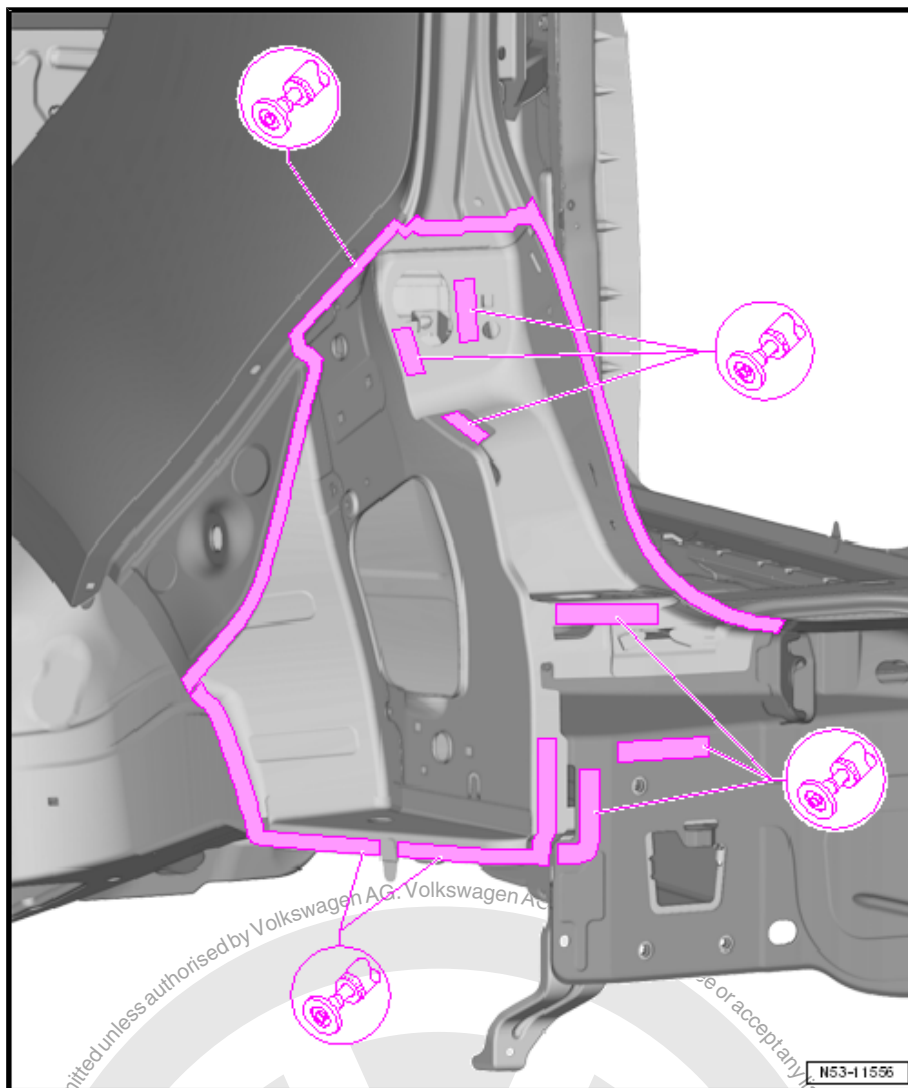
Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

3.2 Removing



- Separate the original joint.
- Loosen the bonded joints and remove the tail lamp assembly mount from the body.



- Remove residual material.
- Completely remove any remaining adhesive and grind the adhesive surfaces down to bare metal.
- Apply corrosion protection to the adhesive surfaces, which will not be welded..
- Lightly sand the adhesive surfaces in the connection.

3.3 Installing

⇒ ["3.3.1 Preparing New Parts", page 164](#)

⇒ ["3.3.2 Welding", page 166](#)



Note

Use only welding equipment approved by Volkswagen AG. Refer to ⇒ ["3.1 Tools", page 163](#).

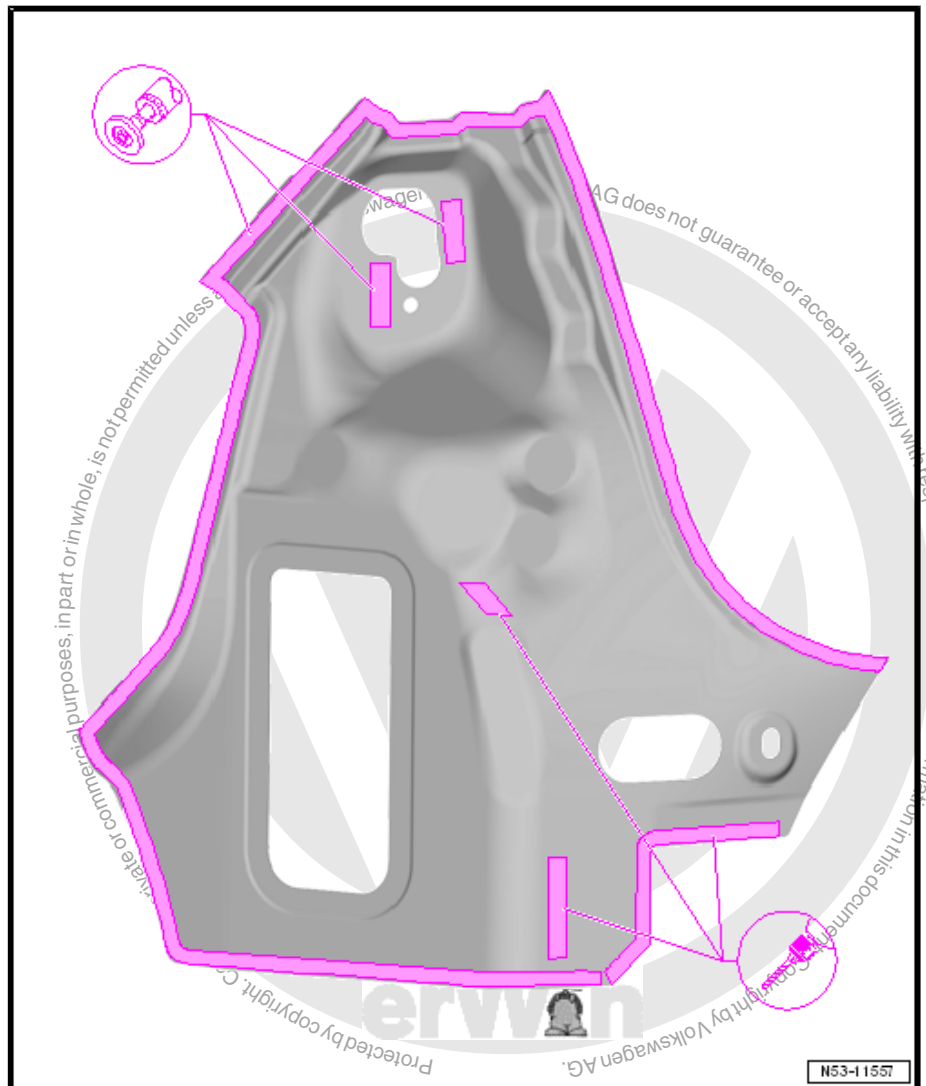
3.3.1 Preparing New Parts

Replacement Part

- ◆ Tail Lamp Assembly Mount



◆ 2K Body Adhesive - D 180 003 M2-



- Sand welding surfaces to bare metal.
- Drill 7 mm holes for the gas-shielded arc plug weld seam.

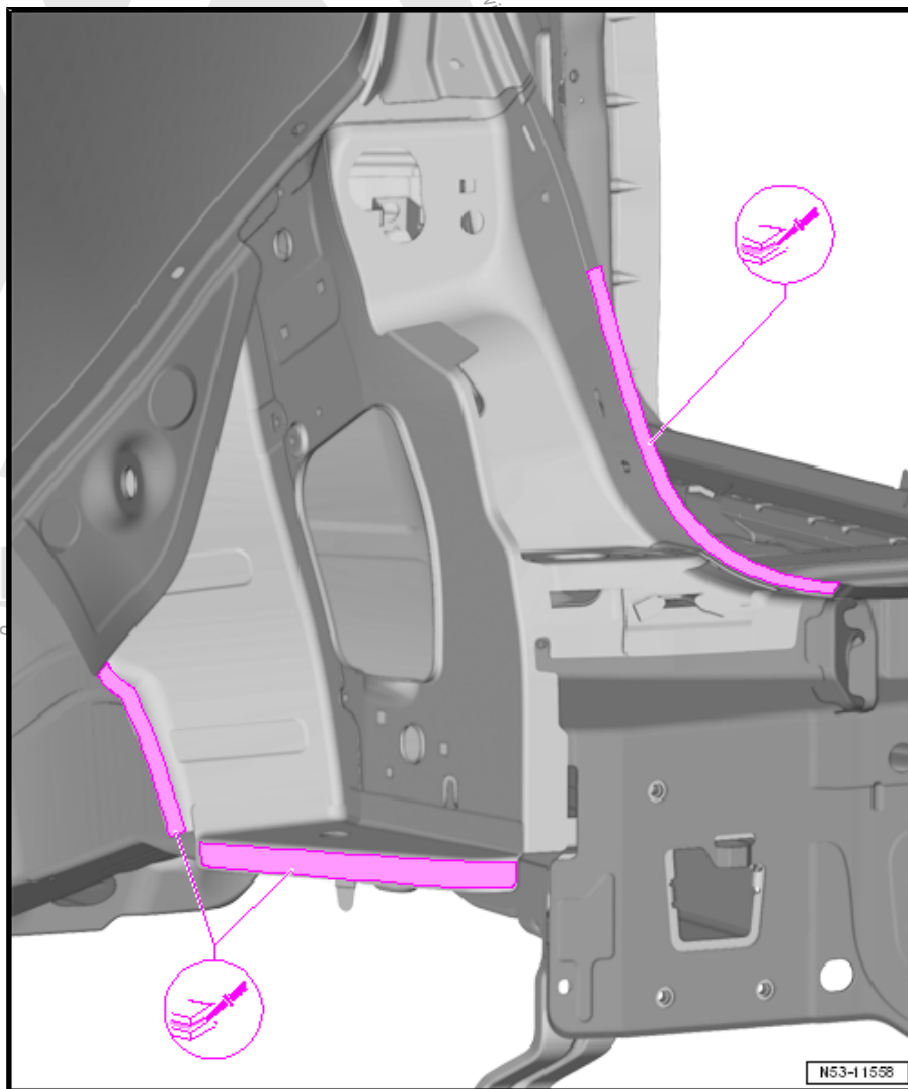


3.3.2 Welding

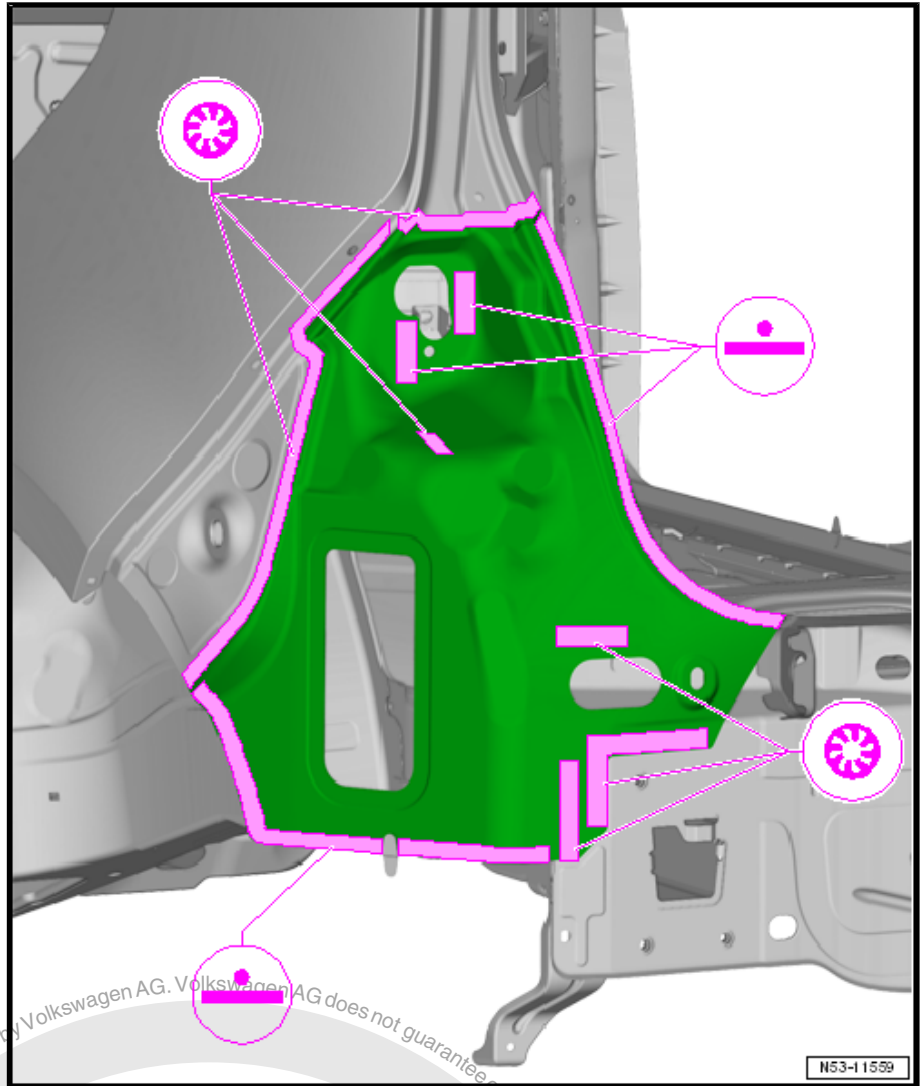


Note

New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.



- Apply 2K Body Adhesive - D 180 003 M2- in the areas where it was bonded during production.
- Fit new part to vehicle standing on its wheels or on Alignment Bracket Set and secure.
- Check fit with attachments.



- Weld the tail lamp assembly mount, straight-line spot weld seam, gas-shielded arc plug weld seam.



Note

Use a »heat shield« to avoid paint damage on side panel when welding it with tail light mount.

- Install end crossmember. Refer to ["4.3 Installing", page 170](#).



RO: 53 16 55 00

4 End Crossmember, Replacing

⇒ "4.1 Tools", page 169

⇒ "4.2 Removing", page 169

⇒ "4.3 Installing", page 170



DANGER!

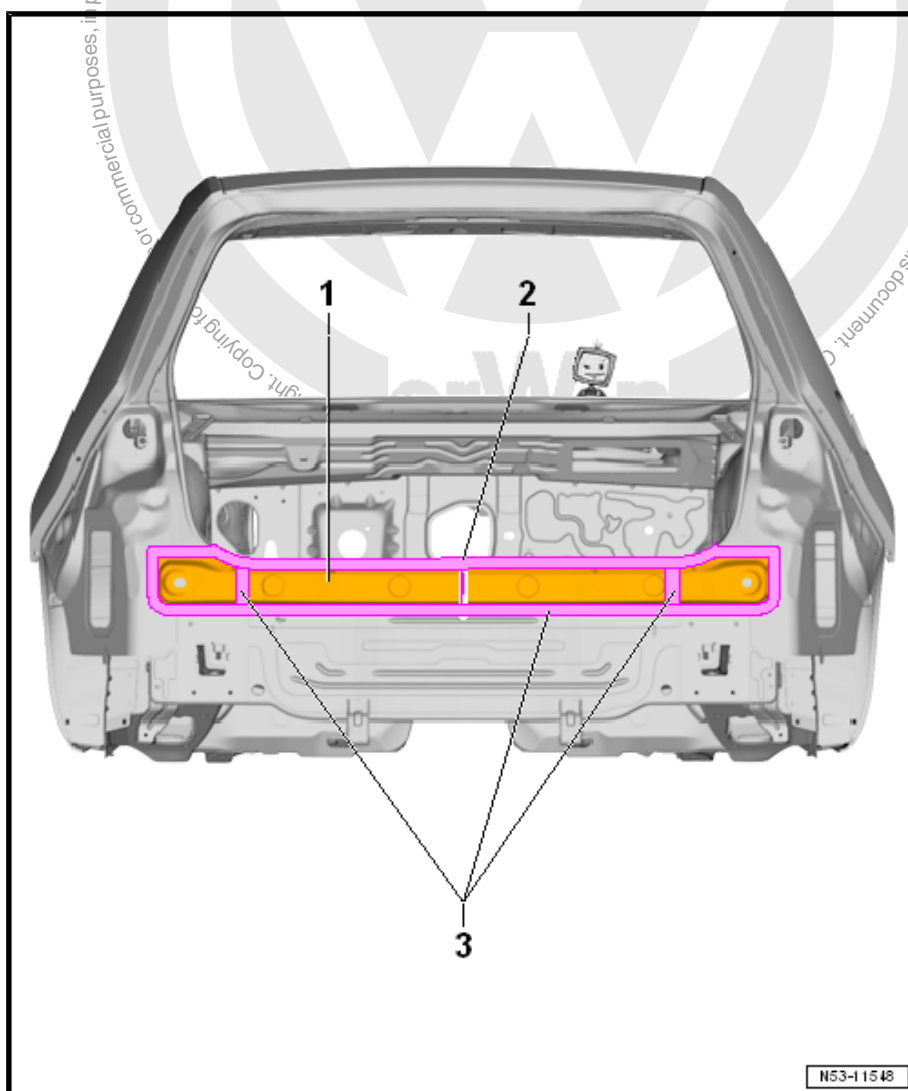
*Follow all safety precautions. Refer to ➔ General Information;
Body Repairs, Body Collision Repair*

1 - End Crossmember

2 - Separating Cut

Partial renewal
*Separation cut is permitted for
the partial replacement.*

3 - Bonded Area



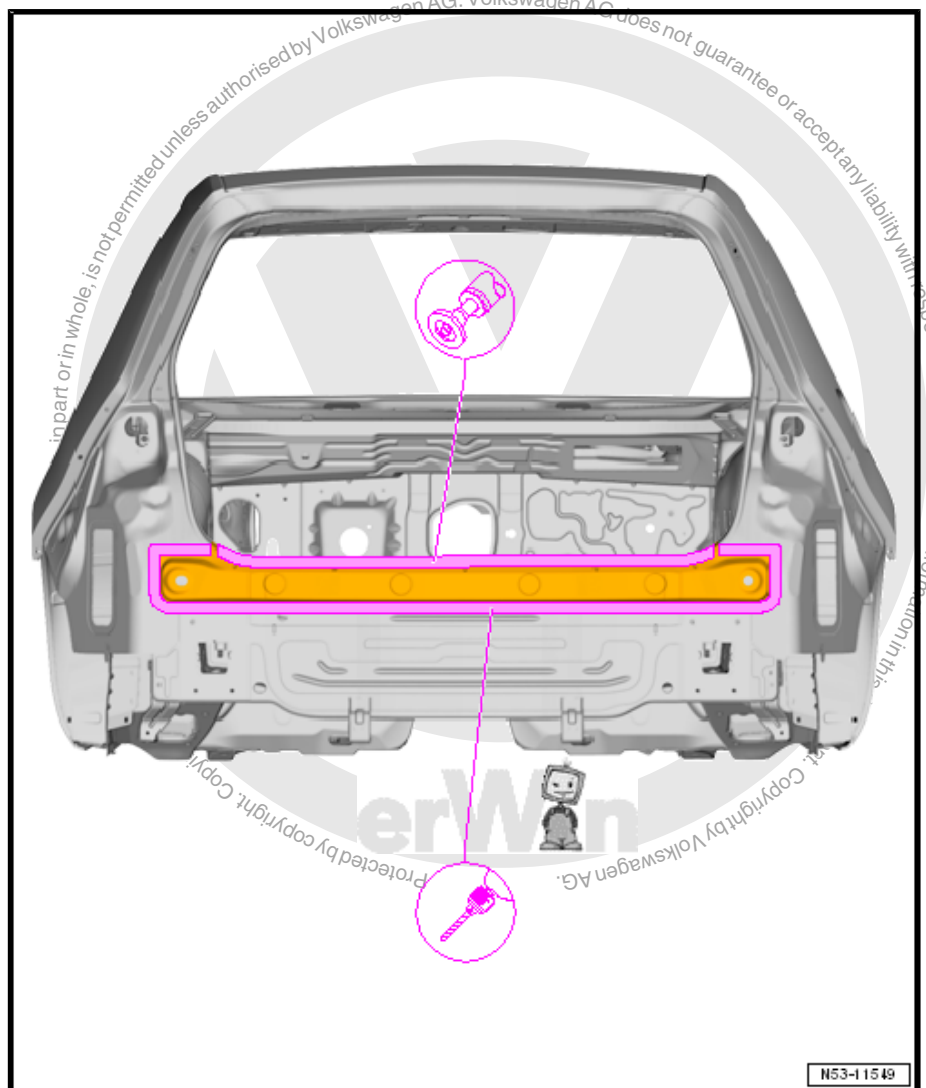


4.1 Tools

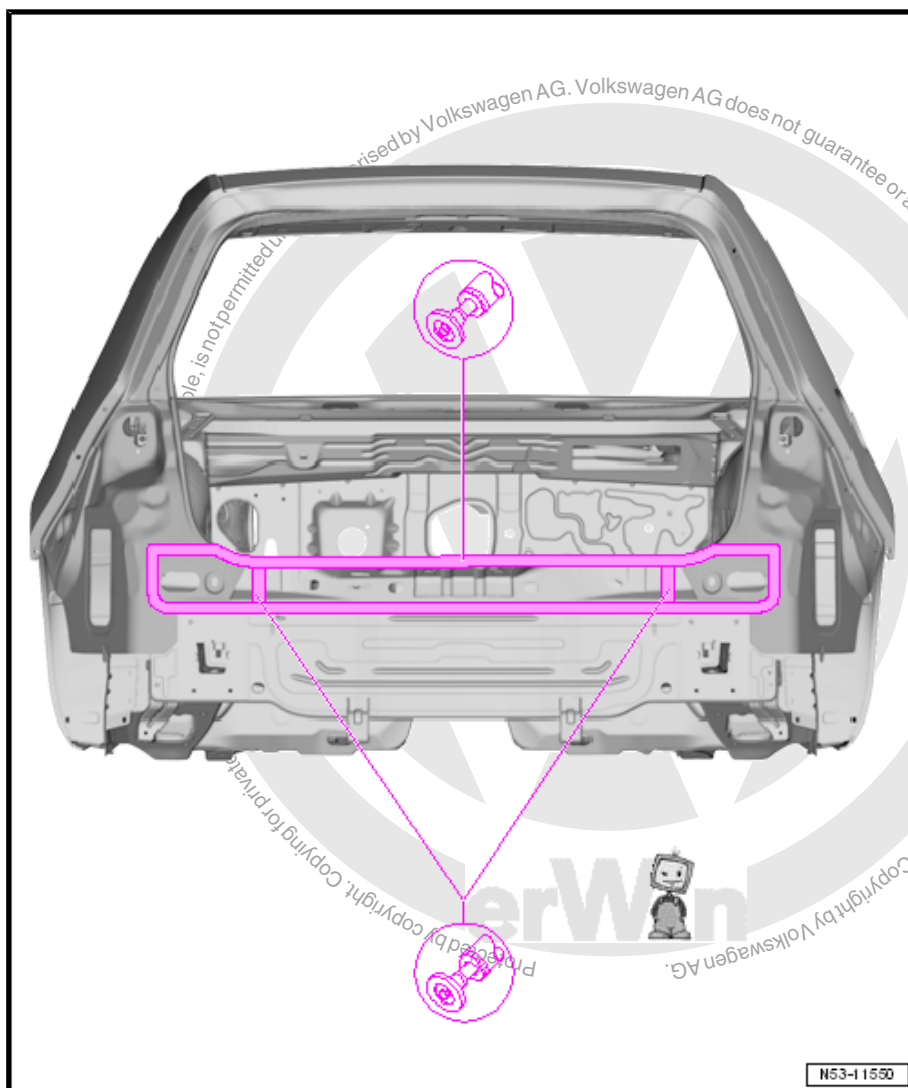
Note

- ◆ *Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.*
- ◆ *For a list of welding equipment and body tools approved by Volkswagen AG.*

4.2 Removing



- Separate the original joint.



- Remove residual material.
- Sand welding surfaces to bare metal.
- Completely remove any remaining adhesive and grind the adhesive surfaces down to bare metal.
- Apply corrosion protection to the adhesive surfaces, which will not be welded.
- Lightly sand the adhesive surfaces in the connection.

4.3 Installing

⇒ **“4.3.1 Preparing New Parts”, page 171**

⇒ **“4.3.2 Welding”, page 172**



Note

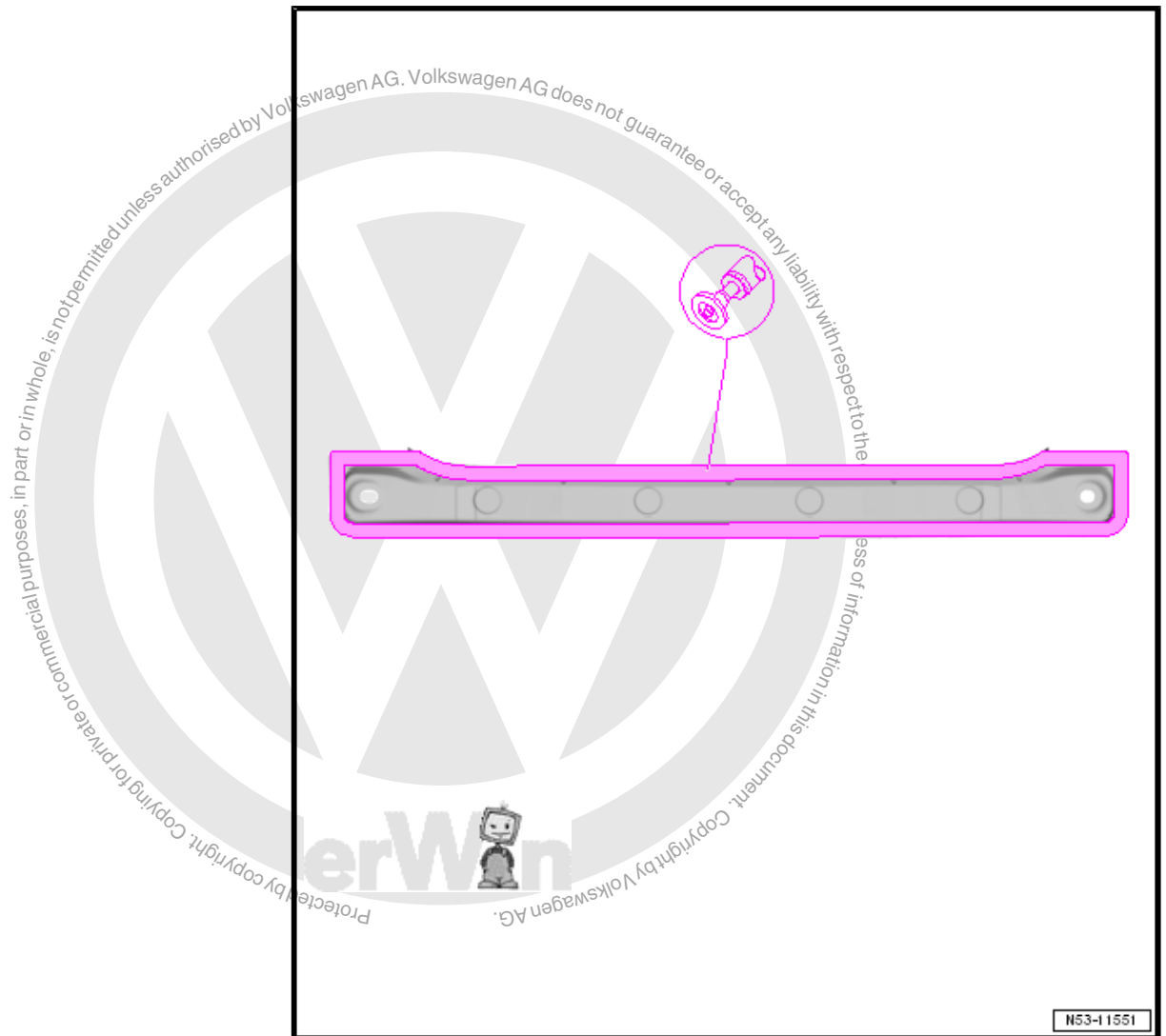
Use only welding equipment approved by Volkswagen AG. Refer to ⇒ "4.1 Tools", page 169.



4.3.1 Preparing New Parts

Replacement Part

- ◆ End crossmember
- ◆ 2K Body Adhesive - D 180 003 M2-



- Sand welding surfaces to bare metal.
- Lightly grind the areas which will not be welded.

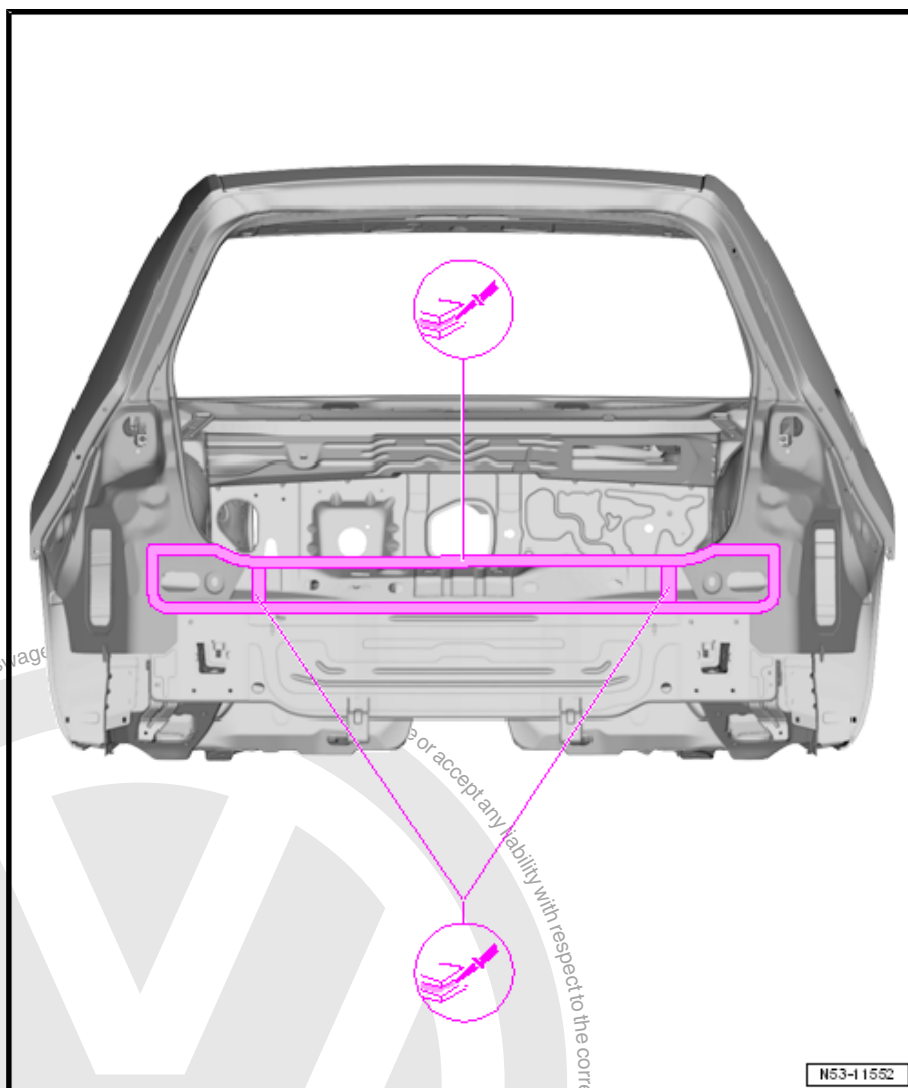


4.3.2 Welding

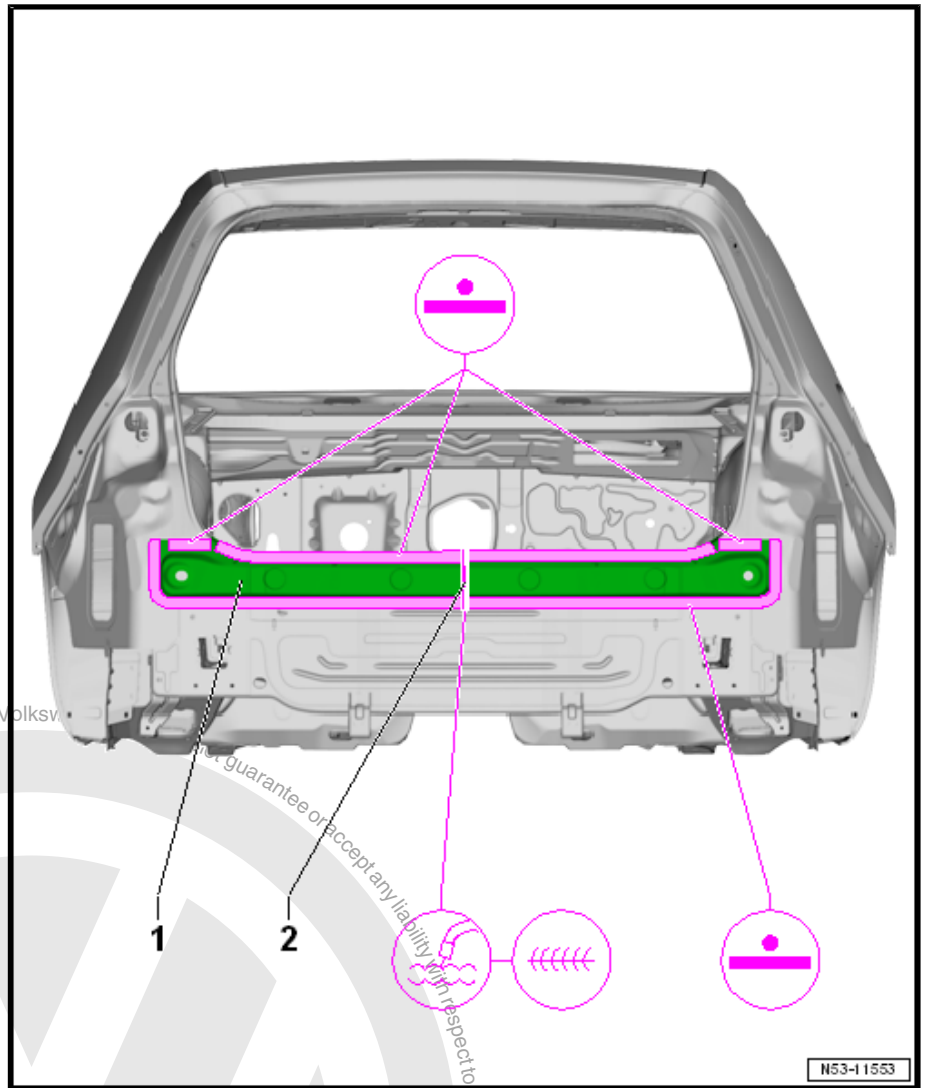


Note

New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.



- Apply 2K Body Adhesive - D 180 003 M2- in the areas where it was bonded during production.
- Fit new part to vehicle standing on its wheels or on Alignment Bracket Set and secure.
- Check fit with attachments.
- Check rear lid closing function.



- Weld in the end crossmember -1-, straight line spot weld seam.



Note

For the partial replacement the illustrated separation cut -2- MIG soldered seams/gas-shielded arc continuous weld seam are permitted.



RO: 53 24 55 50

5 Luggage Compartment Floor, Replacing

⇒ ["5.1 Tools", page 175](#)

⇒ ["5.2 Removing", page 176](#)

⇒ ["5.3 Installing", page 177](#)



Caution

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

If welding or cutting with spark-producing devices/tools or when plating in foamed areas where hazardous gases are produced that are harmful to humans and the environment, these procedures are to be omitted in each case.



Note

- ◆ For better illustration in the overview the left and right tail lamp mounts are not shown.
- ◆ The work procedure applies to vehicles with Front Wheel Drive (Front Wheel Drive (FWD)).
- Cross panel already removed. Refer to ⇒ ["1 Rear Cross Panel, Replacing", page 150](#) .



1 - Rear Luggage Compartment Floor

2 - Separating Cut

- ☐ Separating Cut for Partial Replacement

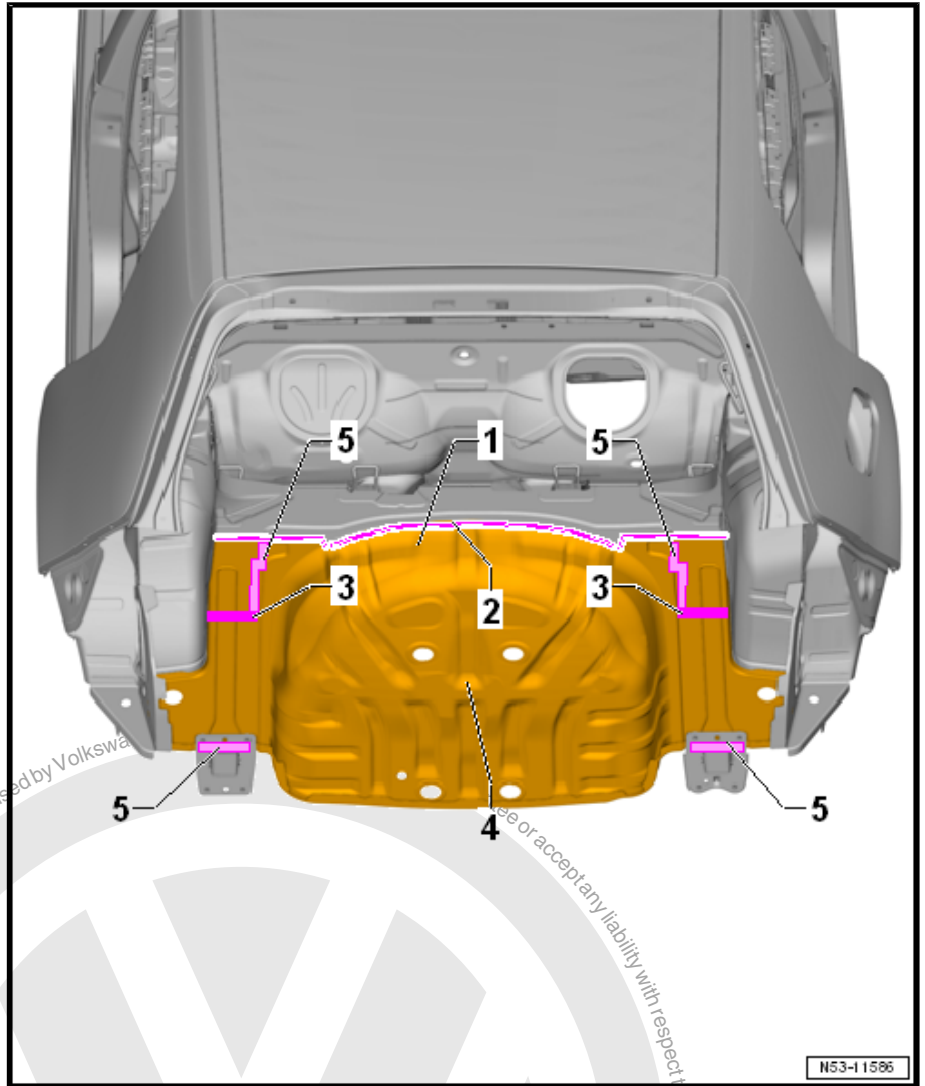
3 - Molded Foam Parts

- ☐ Refer to
⇒ ["4 Molded Foam Parts", page 5](#)

4 - Spare Tire Retaining Bracket

- ☐ In replacement part area of the luggage compartment floor not included

5 - Bonded Area



5.1 Tools



Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

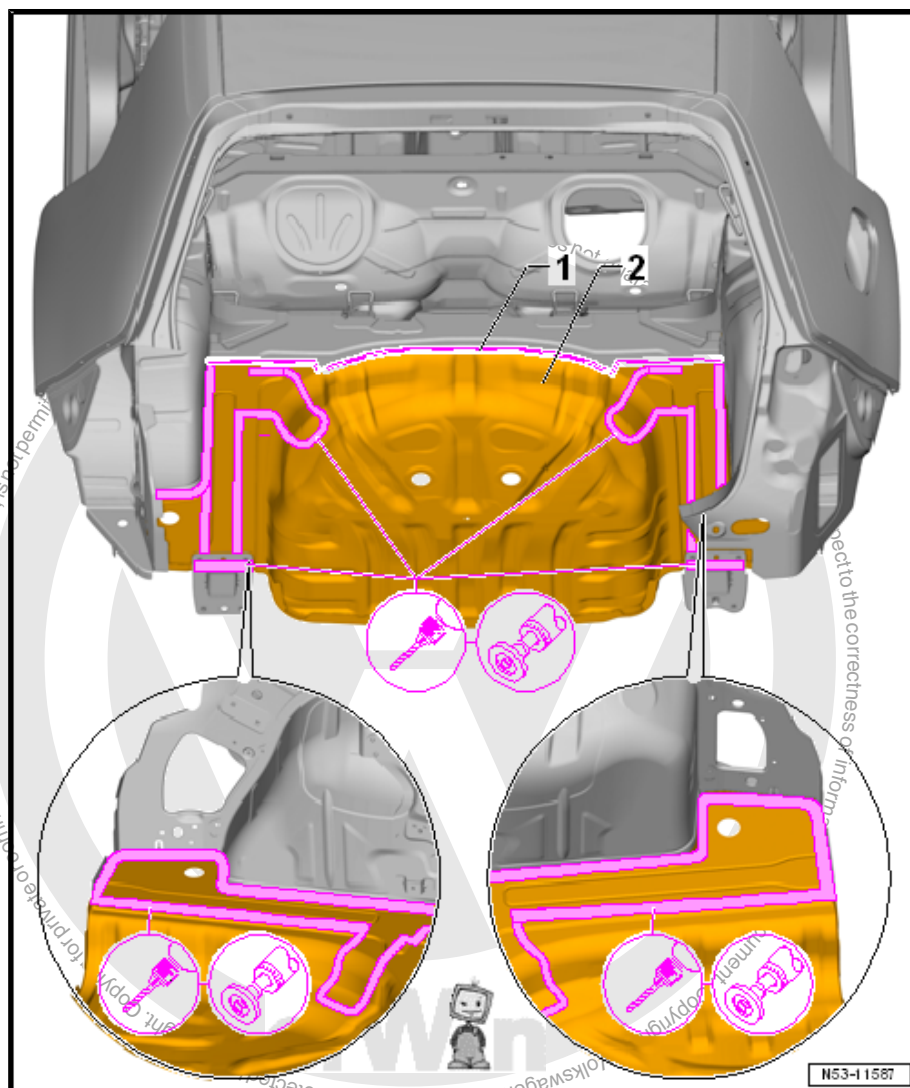


5.2 Removing



Note

When performing the separation cut -1- pay attention that the reinforcement underneath is not damaged.



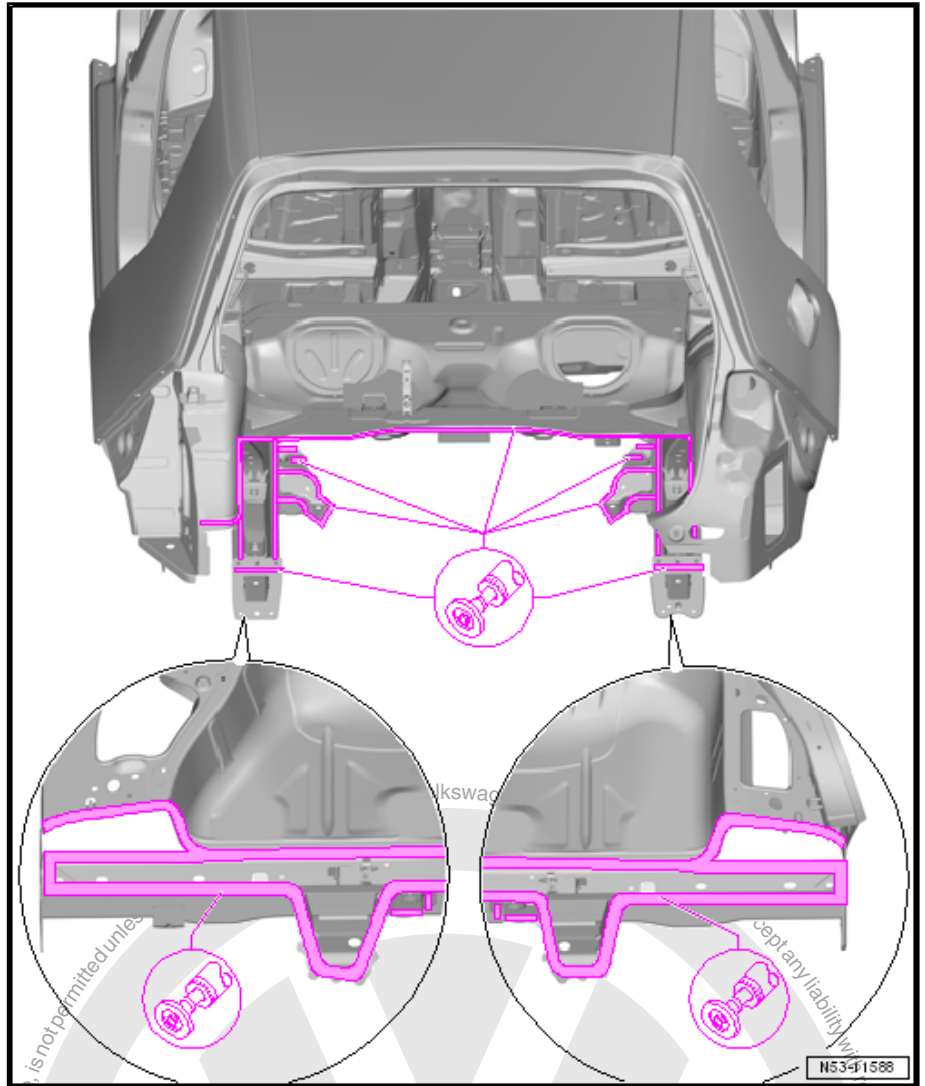
- Perform the separating cut -1- as illustrated.



Note

Position the separation cut -1- in the spare wheel well area on the front edge. In this area fold the rear luggage compartment floor over when installing and weld with a gas-shielded arc plug weld seam.

- Separate the original joint.
- Remove the rear luggage compartment floor -2- from the vehicle.



- Remove residual material.
- Completely remove adhesive remains and grind welding surfaces down to bare metal.

i Note

The adhesive applied during production in the rear area will be replaced with gas-shielded arc plug weld seam welding.

5.3 Installing

⇒ ["5.3.1 New Part, Preparing", page 178](#)

⇒ ["5.3.2 Molded Foam Parts", page 179](#)

⇒ ["5.3.3 Welding", page 179](#)

i Note

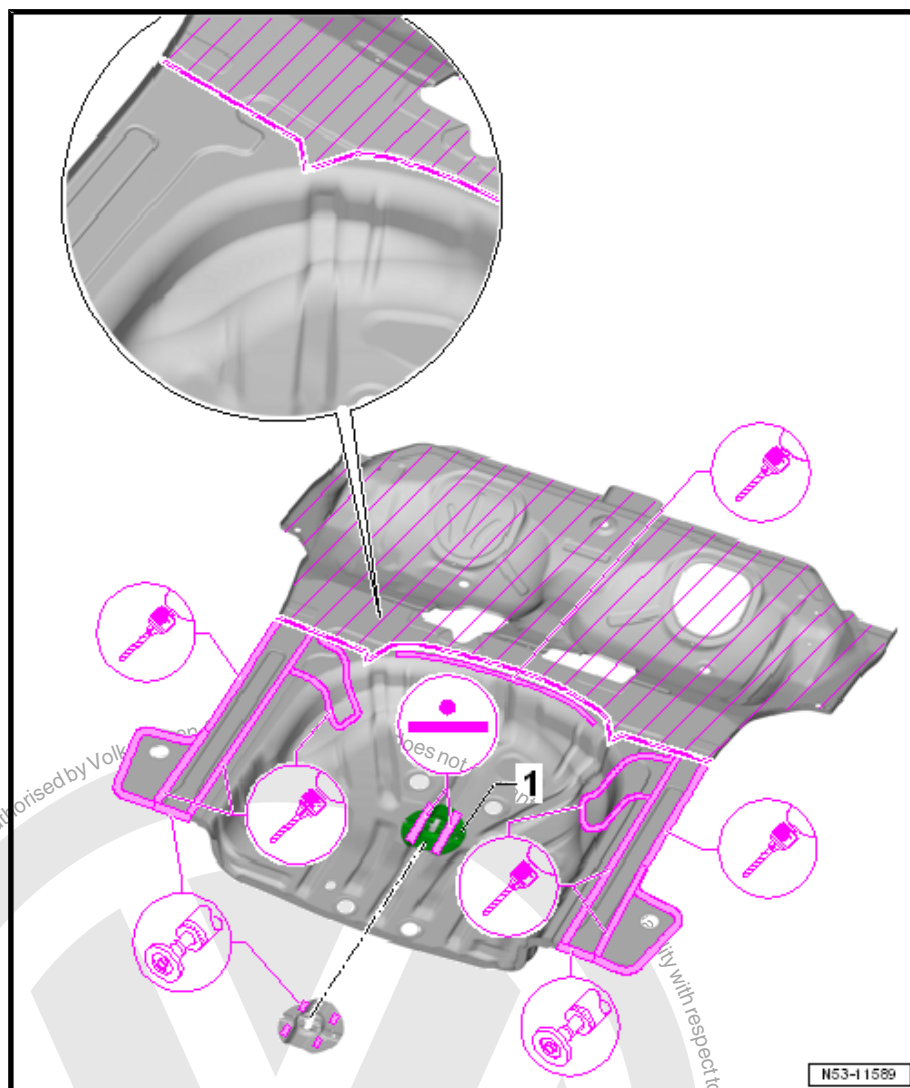
Use only welding equipment approved by Volkswagen AG. Refer to ⇒ ["5.1 Tools", page 175](#).



5.3.1 New Part, Preparing

Replacement Part

- ◆ Rear luggage compartment floor (replacement part name: rear floor panel)
- ◆ Spare Tire Retaining Bracket
- ◆ Two-Part Body Adhesive - D 180 003 M2-



- Transfer the separating cut to the new part, cut and remove the shaded area.



Note

Position the separation cut in the spare wheel well area on the rear edge. In this area fold the rear luggage compartment floor over when installing and weld with a gas-shielded arc plug weld seam.

- Drill holes for gas-shielded arc plug weld seam and stamp diameter 7 mm.
- Sand the welding surfaces down to bare metal.
- Lightly grind the areas which will not be welded.





- Weld the spare tire retaining bracket -1- to the luggage compartment floor using a straight-line spot weld seam.

5.3.2 Molded Foam Parts

Observe repair notes.

Molded foam part. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

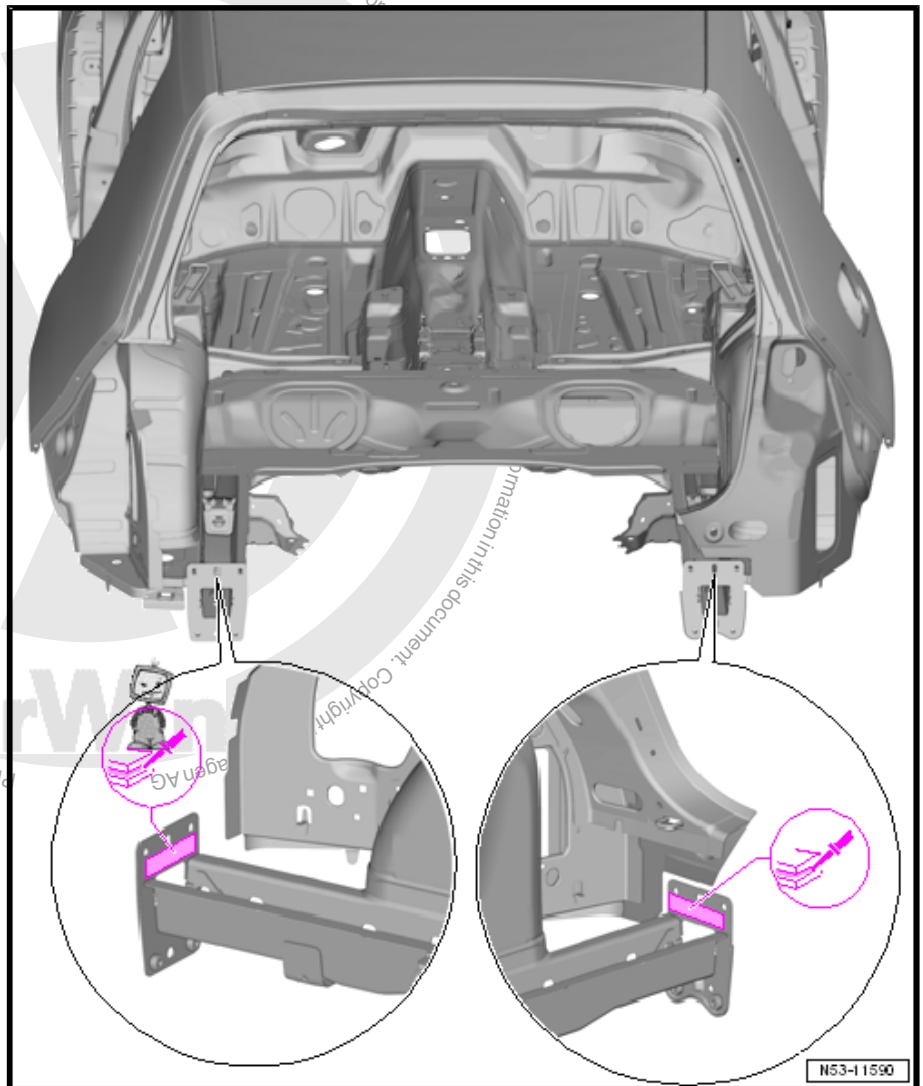
Position of molded foam parts. Refer to
⇒ [“4 Molded Foam Parts”, page 5](#) .

5.3.3 Welding



Note

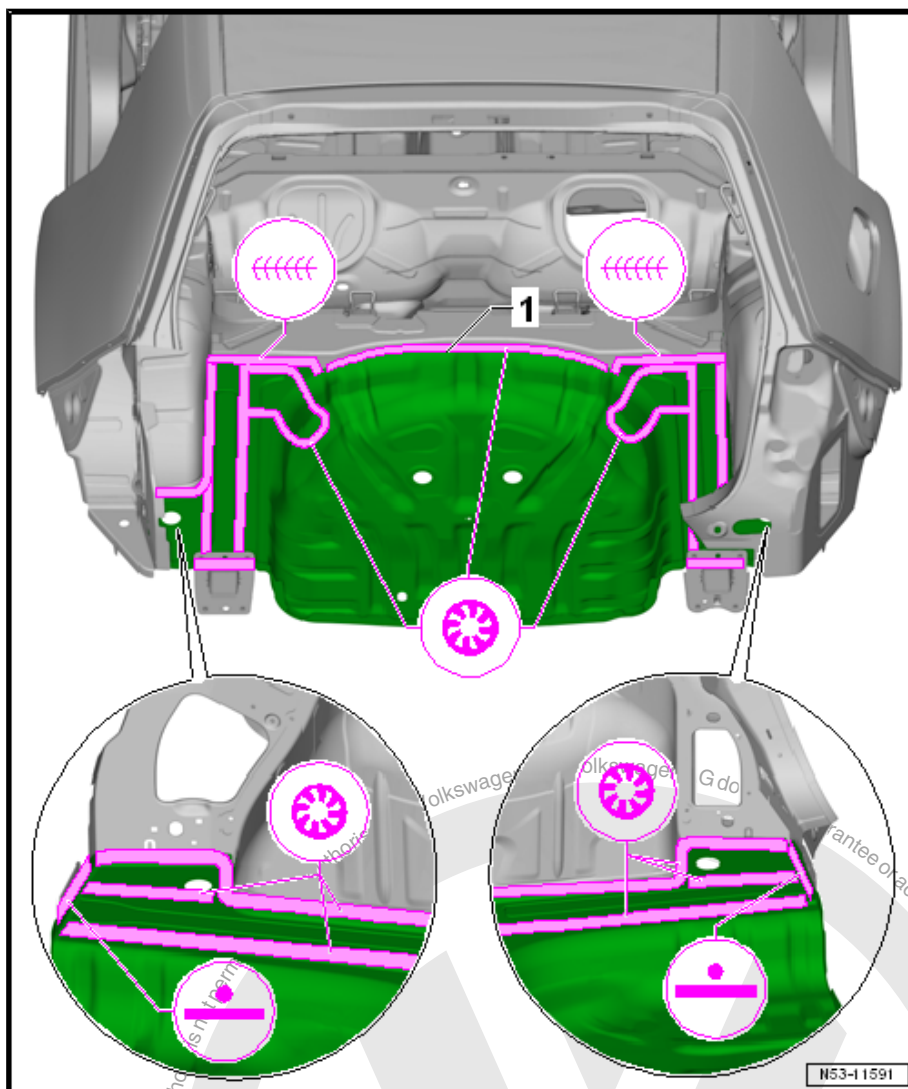
New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.



- Apply Two-Part Body Adhesive - D 180 003 M2- in the area of the rear longitudinal member.
- Fit new part to vehicle standing on its wheels or on Alignment Bracket Set and secure.



- Check fit with attachments.



- Weld the luggage compartment floor with a gas-shielded arc plug weld seam and a straight-line spot weld seam.
- Weld the luggage compartment floor at the left and right transition to the front floor panel using a gas-shielded arc continuous weld seam.
- Weld the overlap in the front upper spare wheel well area -1-, gas-shielded arc plug weld seam.
- Install the cross panel. Refer to ⇒ [“1.3 Installing”, page 153](#).



RO: 53 24 55 50

6 Luggage Compartment Floor, Replacing, with Hybrid Drive



Caution

Follow all safety precautions.

If welding or cutting with spark-producing devices/tools or when plating in foamed areas where hazardous gases are produced that are harmful to humans and the environment, these procedures are to be omitted in each case.

⇒ General Information; Body Repairs, Body Collision Repair



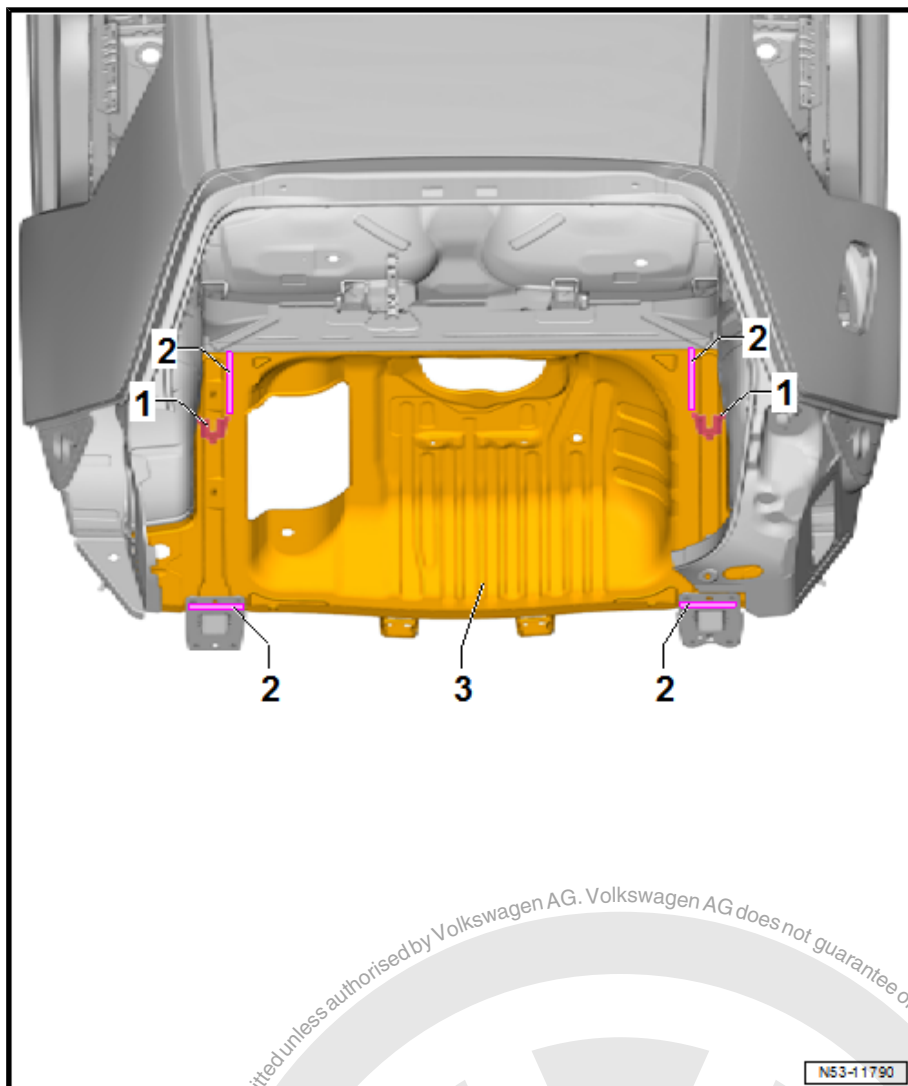
Note

- ◆ *For better illustration in the overview the left and right tail lamp mounts are not shown.*
- ◆ *The work procedure applies to vehicles with Front Wheel Drive (FWD).*
- Cross panel already removed. Refer to [⇒ "1 Rear Cross Panel, Replacing", page 150](#).





- 1 - Molded Foam Parts
- 2 - Bonded Area
- 3 - Rear Luggage Compartment Floor



6.1 Tools

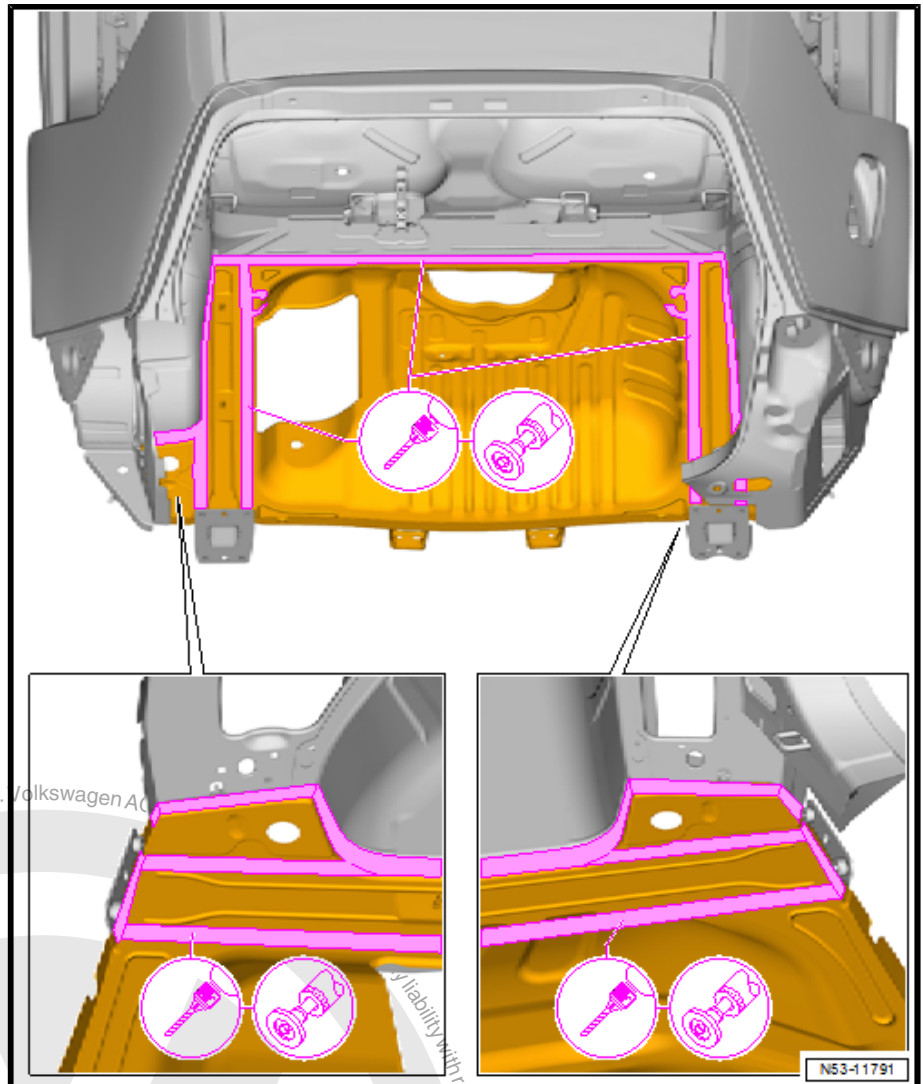


Note

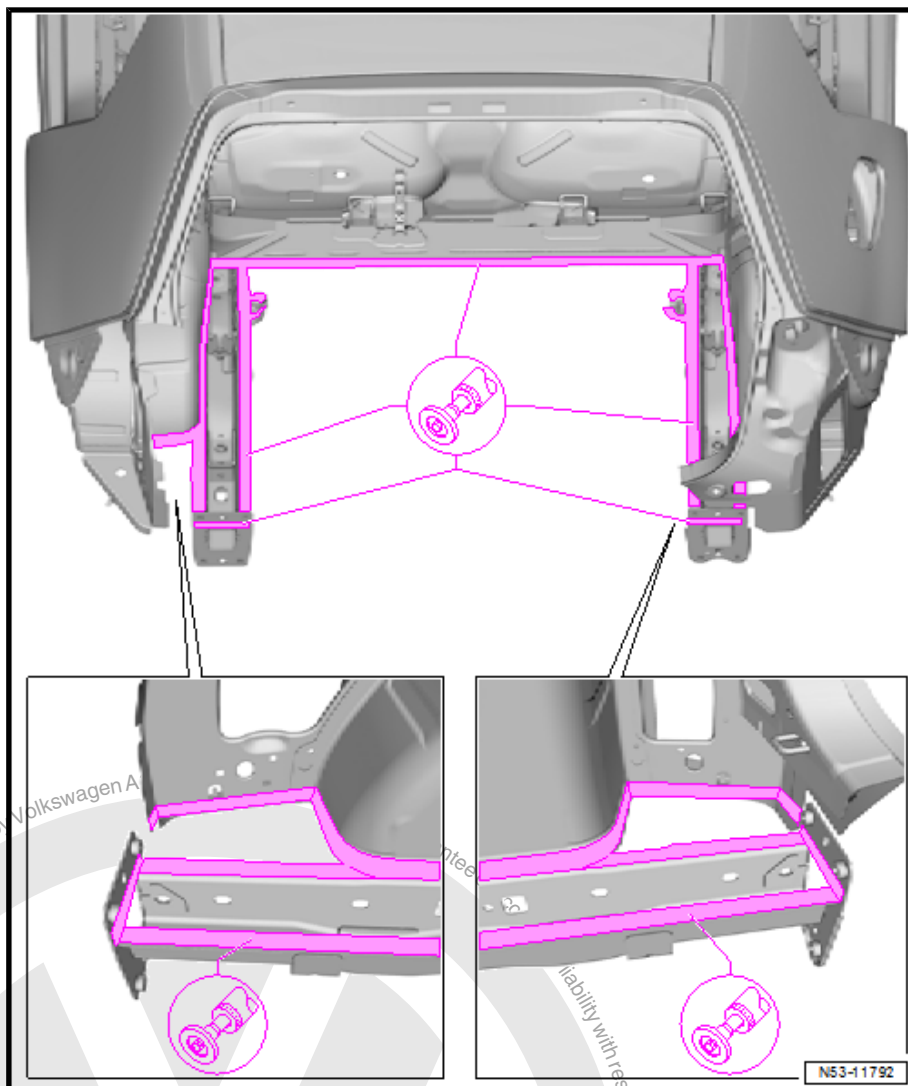
Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.



6.2 Removing



- Separate the original joint.



- Remove residual material.
- Completely remove adhesive remains and grind welding surfaces down to bare metal.



Note

The adhesive applied during production in the rear area will be replaced with gas-shielded arc plug weld seam welding.

6.3 Installing



Note

Use only welding equipment approved by Volkswagen AG. Refer to ⇒ "6.1 Tools", page 182.

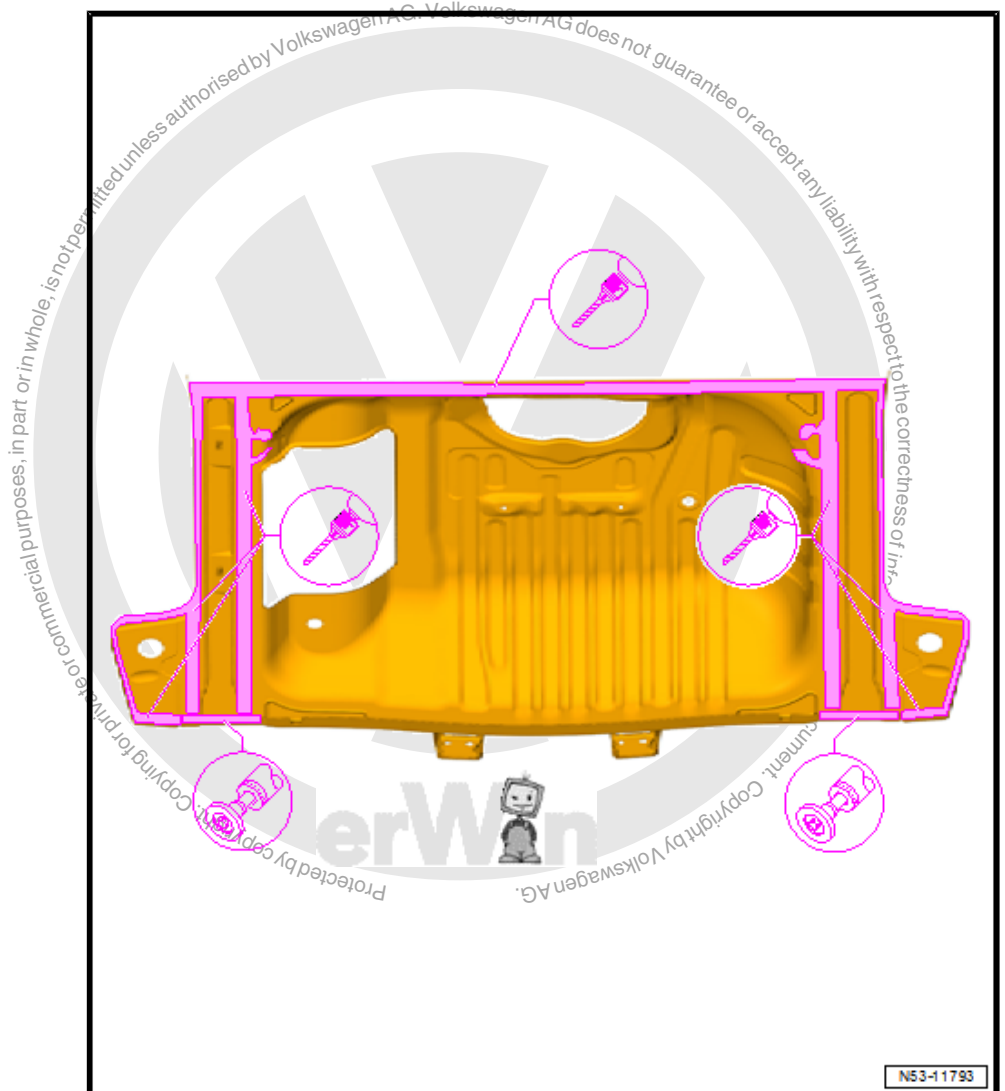
6.3.1 New Part, Preparing

Replacement Part

- ◆ Rear luggage compartment floor (replacement part name: rear floor panel)



◆ Two-Part Body Adhesive - D 180 003 M2-



6.3.2 Molded Foam Parts

Observe the repair information:

Molded foam part. Refer to ➔ General Information; Body Repairs, Body Collision Repair ; General Information, Molded Foam Components

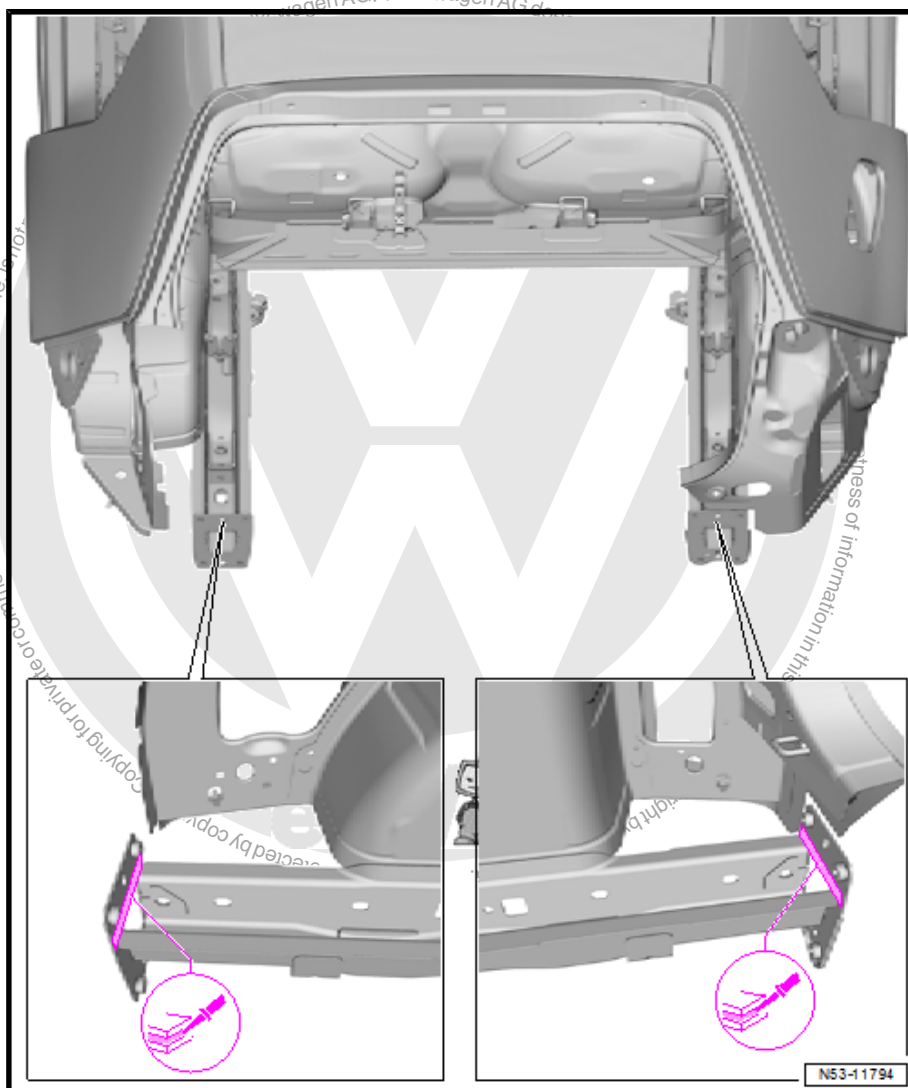


6.3.3 Welding

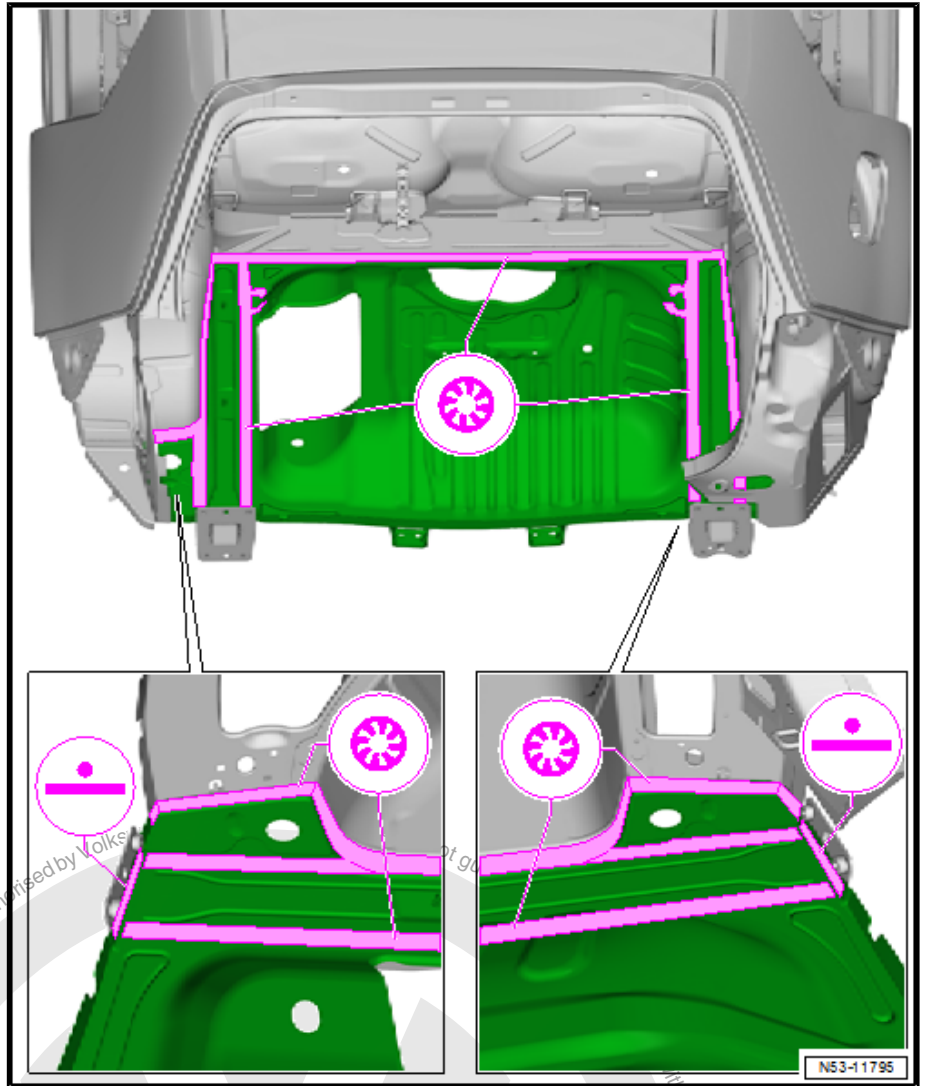


Note

New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.



- Apply Two-Part Body Adhesive - D 180 003 M2- in the area of the rear longitudinal member.
- Fit new part to vehicle standing on its wheels or on Alignment Bracket Set and secure.
- Check fit with attachments.



- Weld the luggage compartment floor with a gas-shielded arc plug weld seam and a straight-line spot weld seam.
- Weld the luggage compartment floor at the left and right transition to the front floor panel using a gas-shielded arc continuous weld seam.
- Install the cross panel. Refer to [⇒ “1.3 Installing”, page 153](#).



RO: 53 24 55 50

7 Luggage Compartment Floor, Replacing, Hybrid Vehicles

⇒ [“7.1 Tools”, page 189](#)

⇒ [“7.2 Removing”, page 190](#)

⇒ [“7.3 Installing”, page 191](#)



Caution

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

If welding or cutting with spark-producing devices/tools or when plating in foamed areas where hazardous gases are produced that are harmful to humans and the environment, these procedures are to be omitted in each case.

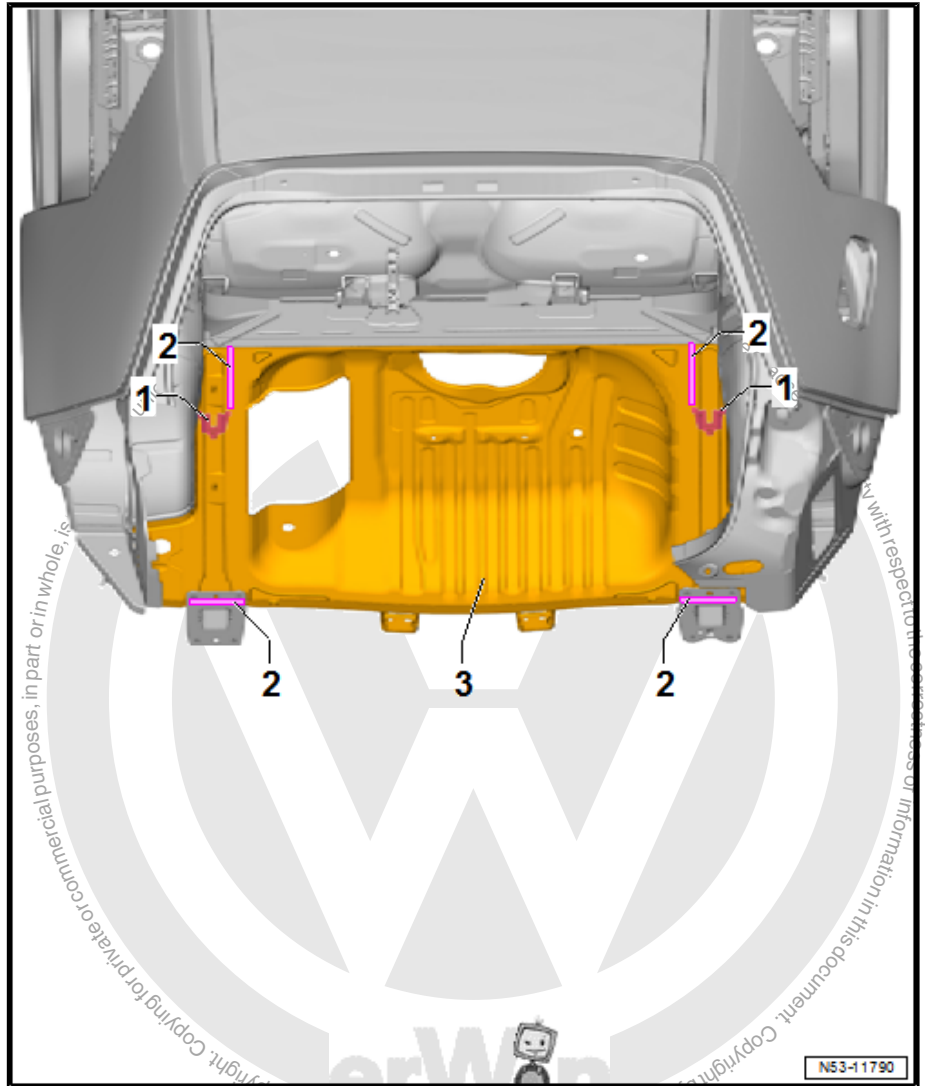


Note

- ◆ *For better illustration in the overview the left and right tail lamp mounts are not shown.*
- ◆ *The work procedure applies to vehicles with Front Wheel Drive (Front Wheel Drive (FWD)).*
- Cross panel already removed. Refer to
⇒ [“1 Rear Cross Panel, Replacing”, page 150](#) .



- 1 - Molded Foam Parts
- 2 - Bonded Area
- 3 - Rear Luggage Compartment Floor



7.1 Tools

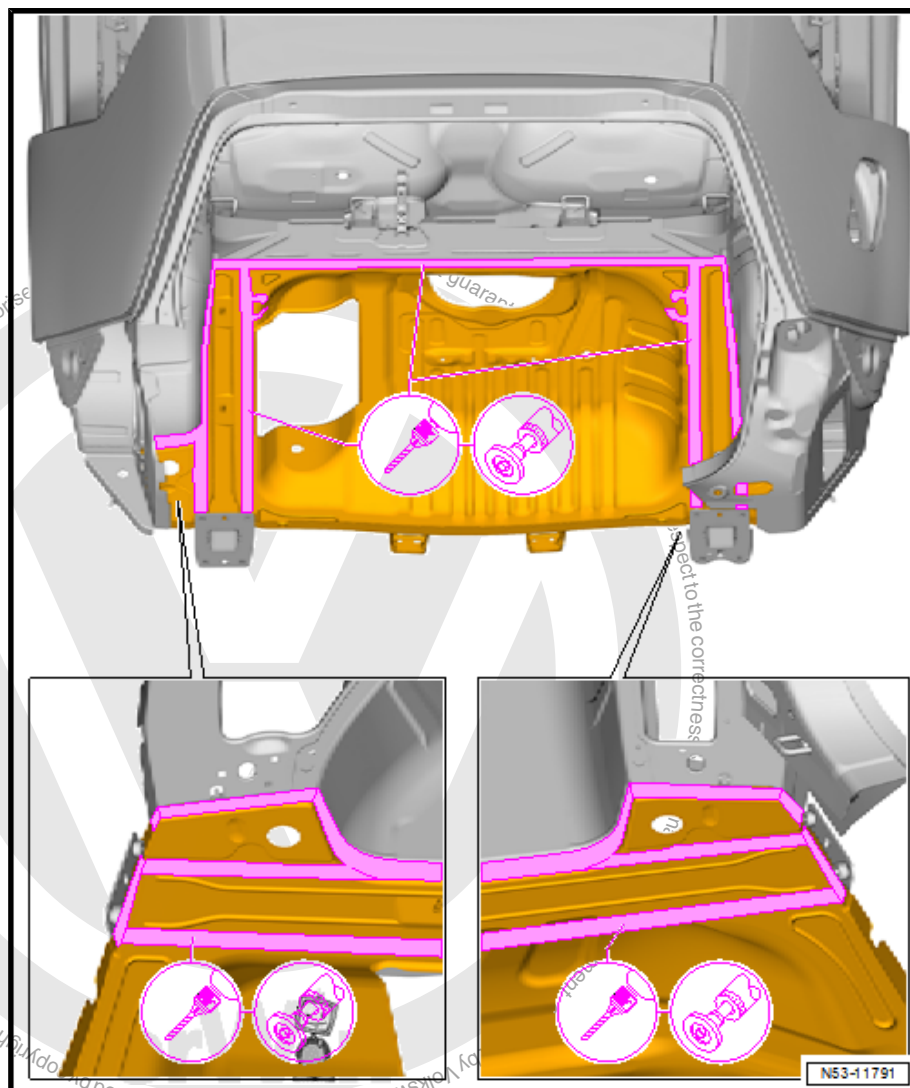


Note

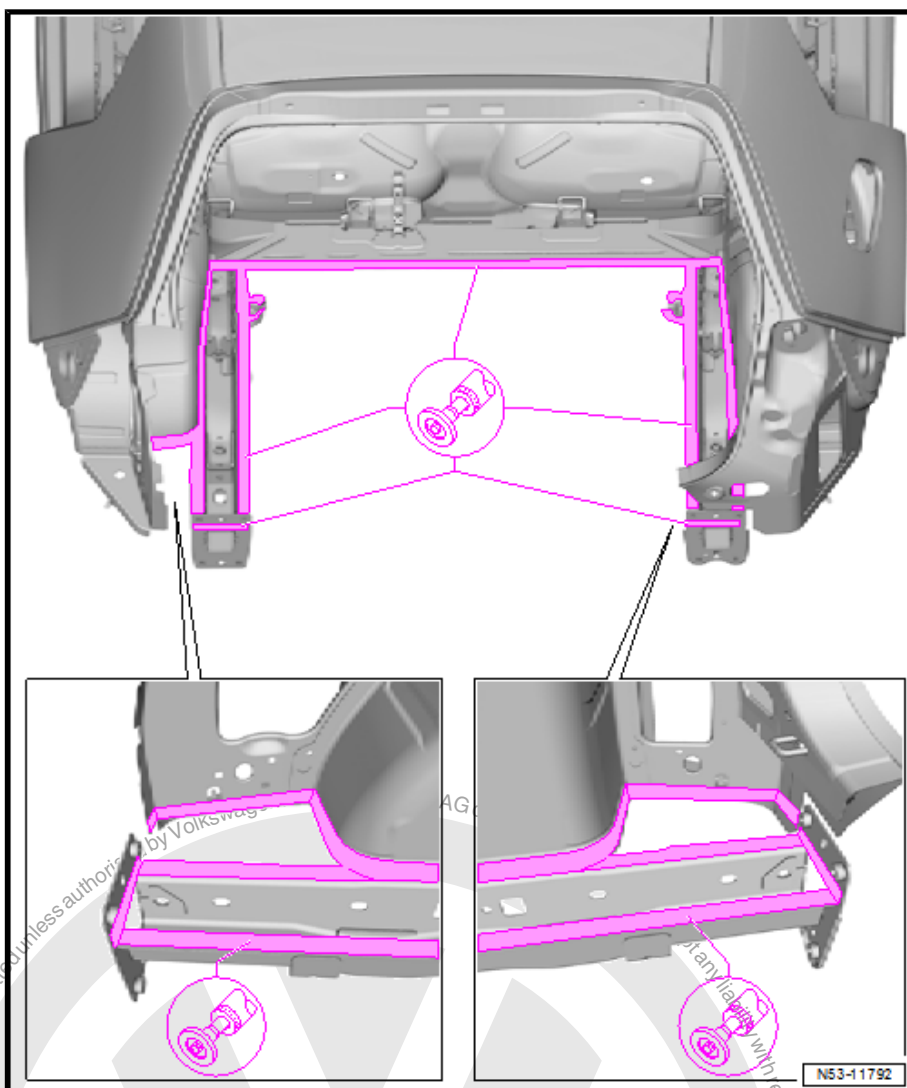
- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.



7.2 Removing



- Separate the original joint.



- Remove residual material.
- Completely remove adhesive remains and grind welding surfaces down to bare metal.



Note

The adhesive applied during production in the rear area will be replaced with gas-shielded arc plug weld seam welding.

7.3 Installing

⇒ [“7.3.1 Preparing New Parts”, page 192](#)

⇒ [“7.3.2 Molded Foam Parts”, page 192](#)

⇒ [“7.3.3 Welding”, page 193](#)



Note

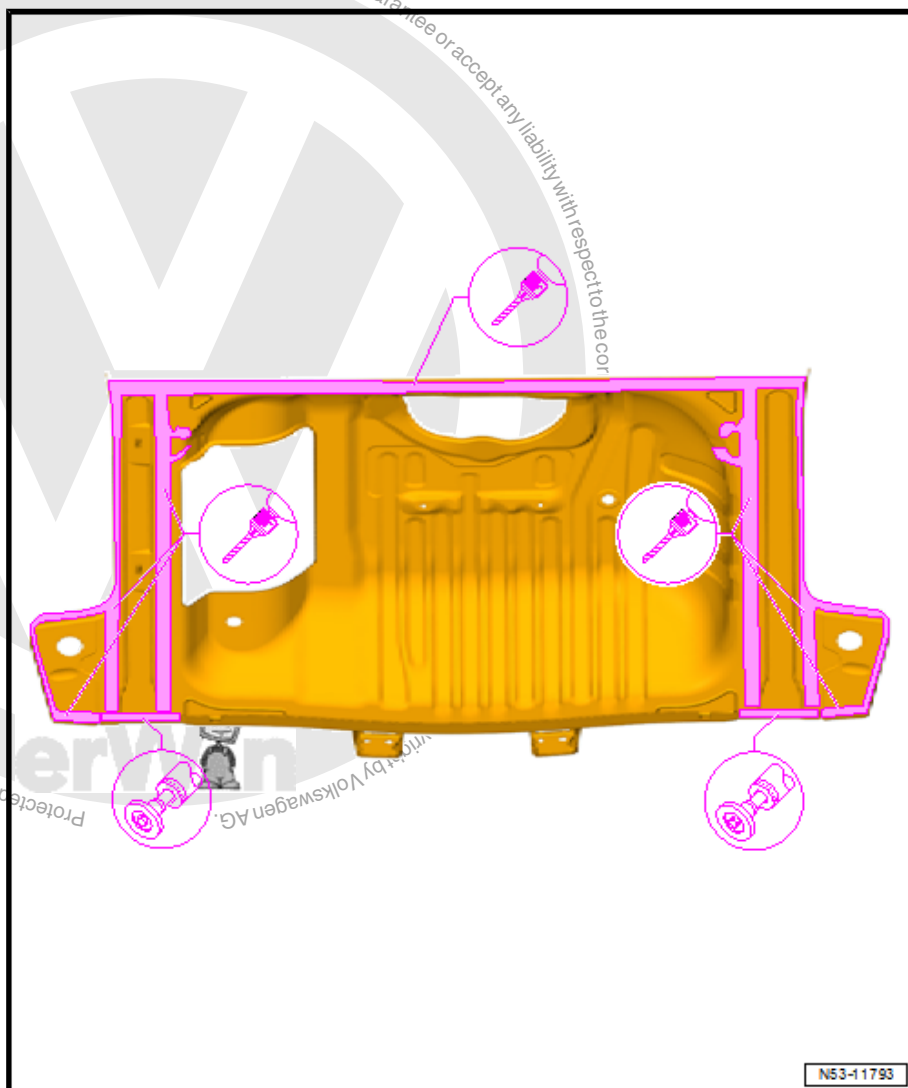
Use only welding equipment approved by Volkswagen AG. Refer to ⇒ [“6.1 Tools”, page 182](#).



7.3.1 Preparing New Parts

Replacement Part

- ◆ Rear luggage compartment floor (replacement part name: rear floor panel)
- ◆ 2K Body Adhesive - D 180 003 M2



7.3.2 Molded Foam Parts

Observe repair notes.

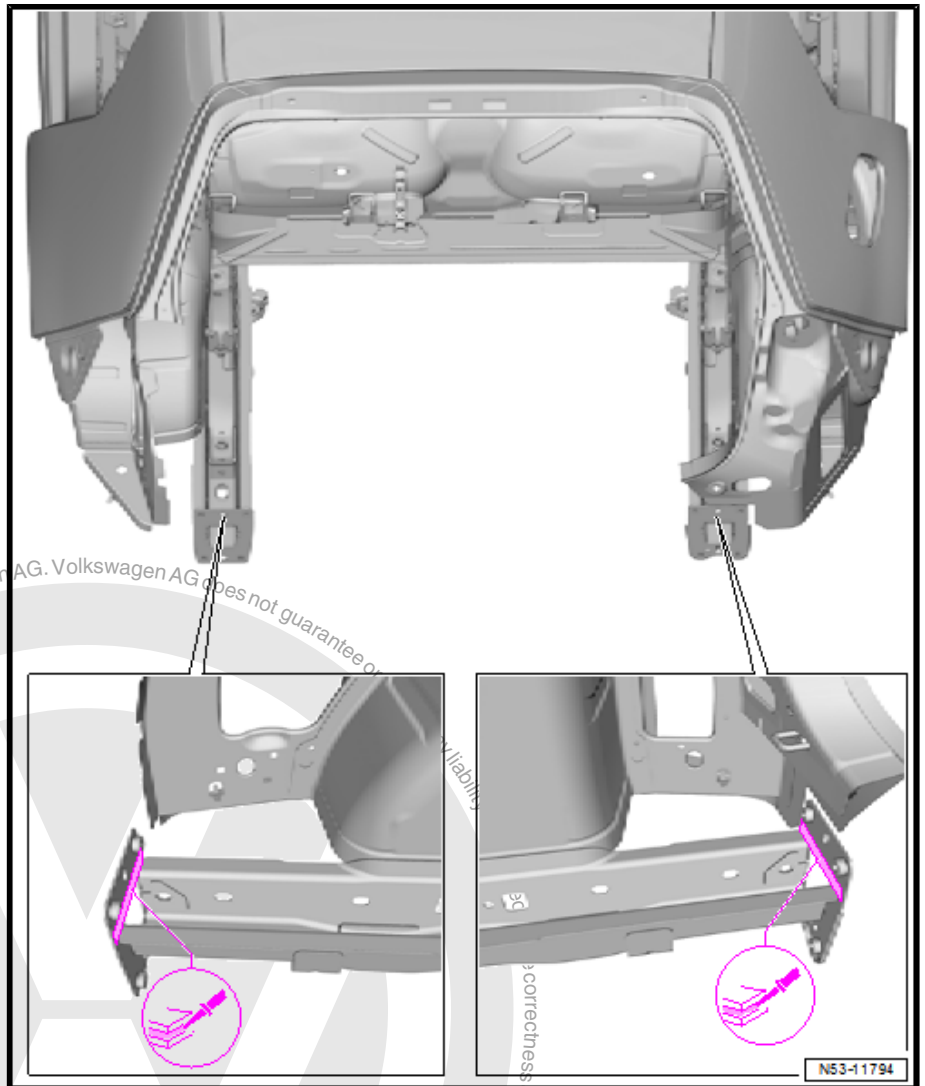
Molded foam part. Refer to ⇒ General Information; Body Repairs, Body Collision Repair



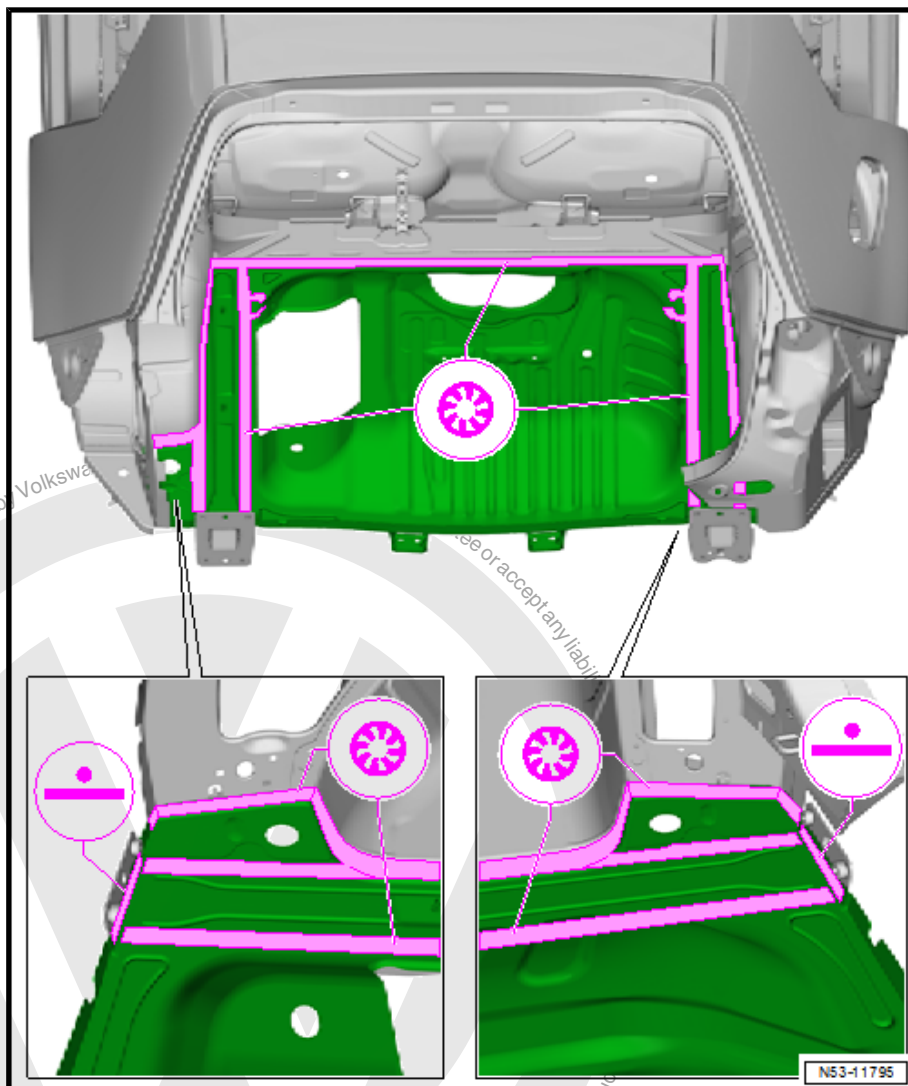
7.3.3 Welding



New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.



- Apply 2K Body Adhesive - D 180 003 M2- in the area of the rear longitudinal member.
- Fit new part to vehicle standing on its wheels or on Alignment Bracket Set and secure.
- Check fit with attachments.



- Weld the luggage compartment floor with a gas-shielded arc plug weld seam and a straight-line spot weld seam.
- Weld the luggage compartment floor at the left and right transition to the front floor panel, gas-shielded arc continuous weld seam.
- Install the cross panel. Refer to [1.3 Installing](#), page 153.



RO: 53 48 55 50

8 Rear Longitudinal Member, Replacing, Partial Section

⇒ ["8.1 Tools", page 196](#)

⇒ ["8.2 Removing", page 196](#)

⇒ ["8.3 Installing", page 198](#)



Caution

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

If welding or cutting with spark-producing devices/tools or when plating in foamed areas where hazardous gases are produced that are harmful to humans and the environment, these procedures are to be omitted in each case.

- The luggage compartment floor panel is already removed. Refer to
⇒ ["5 Luggage Compartment Floor, Replacing", page 174](#).

1 - Rear Longitudinal Member

2 - Separating Cut

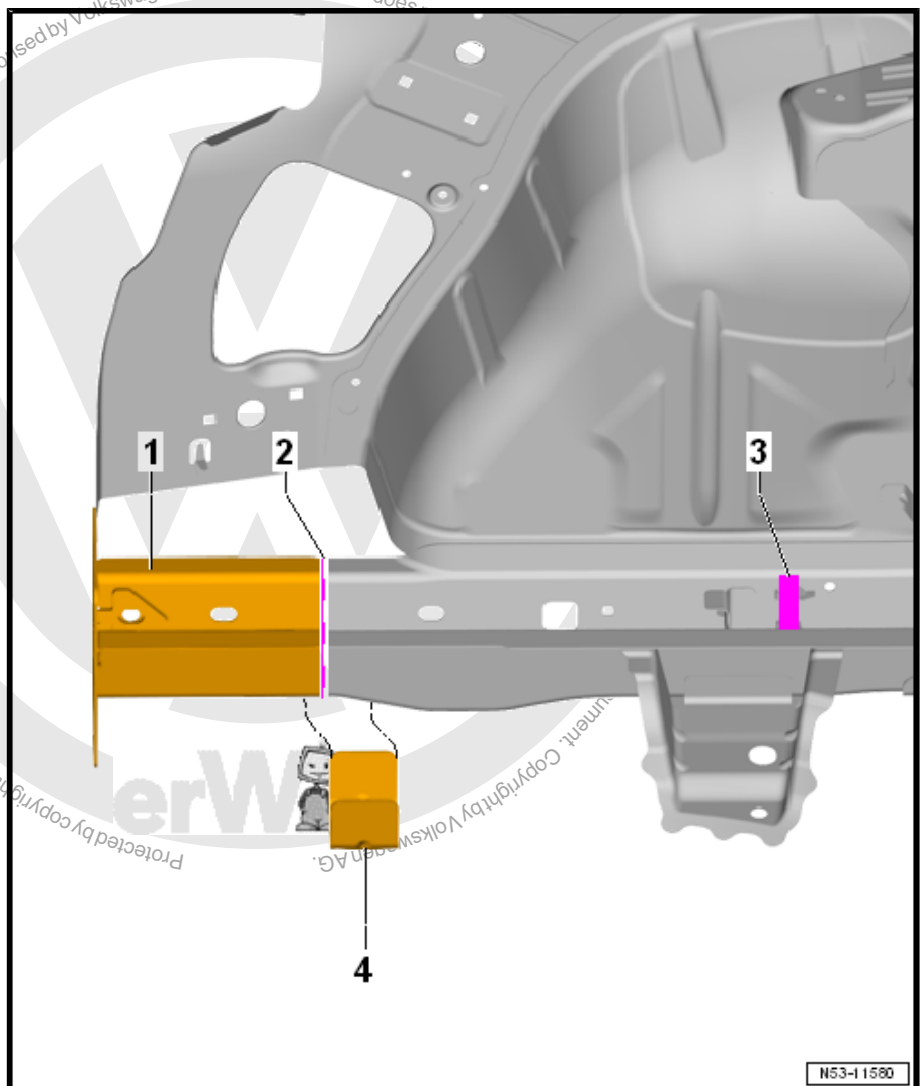
- ☐ Separating Cut for Partial Replacement

3 - Molded Foam Part

- ☐ ⇒ ["4 Molded Foam Parts", page 5](#)

4 - Bracket

- ☐ Must be removed to perform the separation cut





-2-.

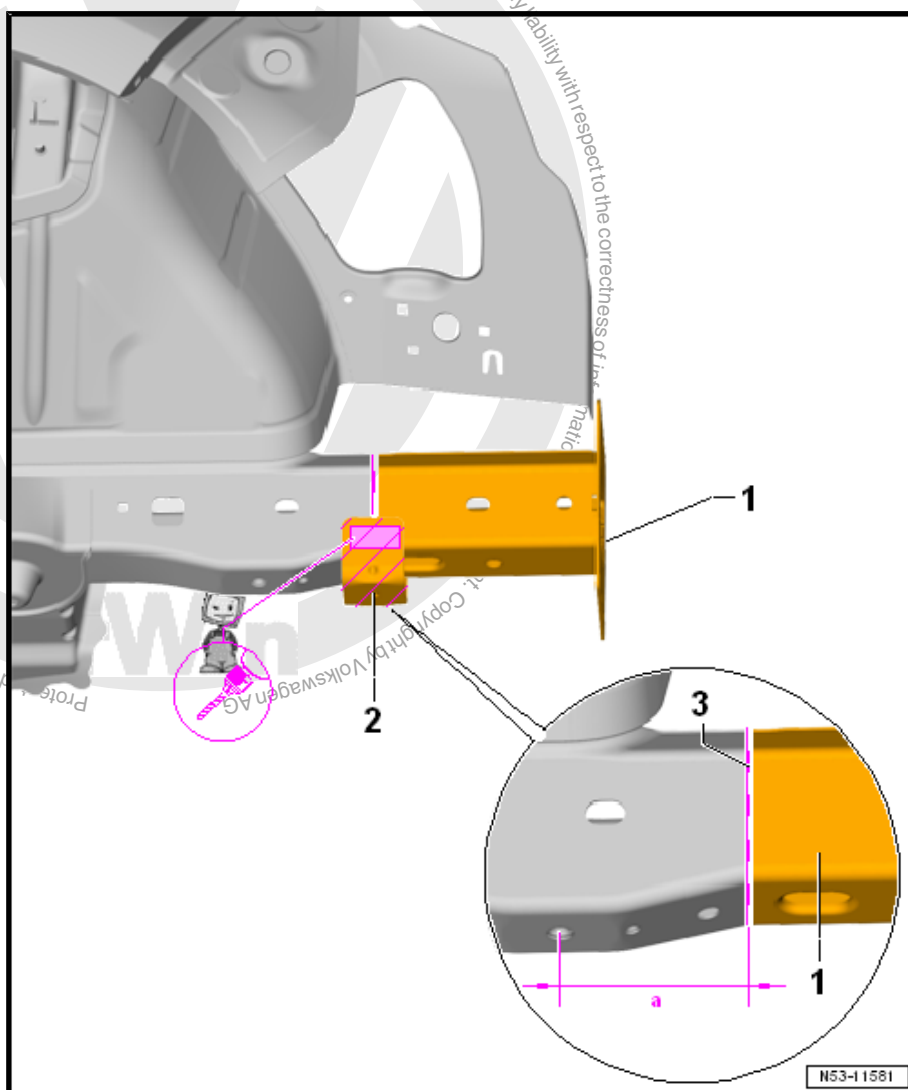
8.1 Tools



Note

- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

8.2 Removing

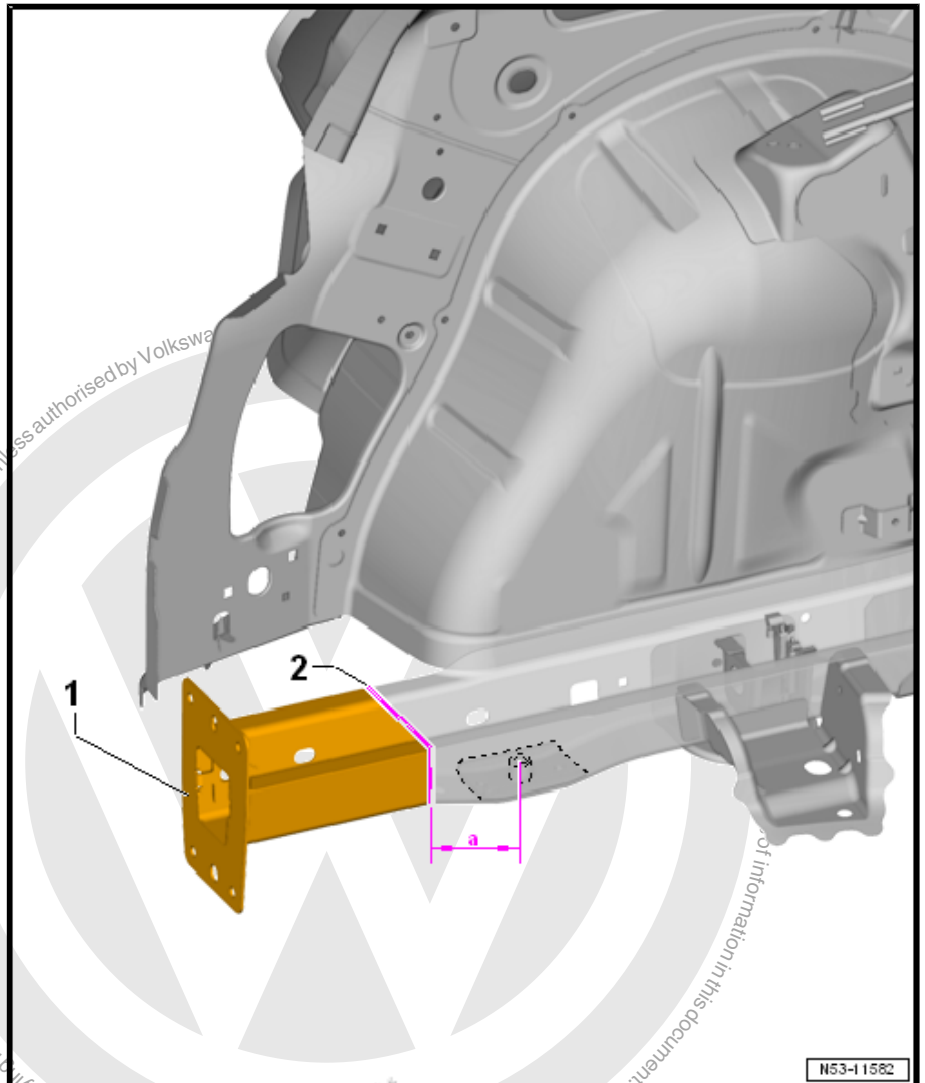


- Remove the original joint from the bracket -2-.
- Remove the bracket -2- from the rear longitudinal member -1-.
- Label the separation cut -3- on the rear longitudinal member -1- all around to the dimension -a-.



Dimension -a- = 75 mm

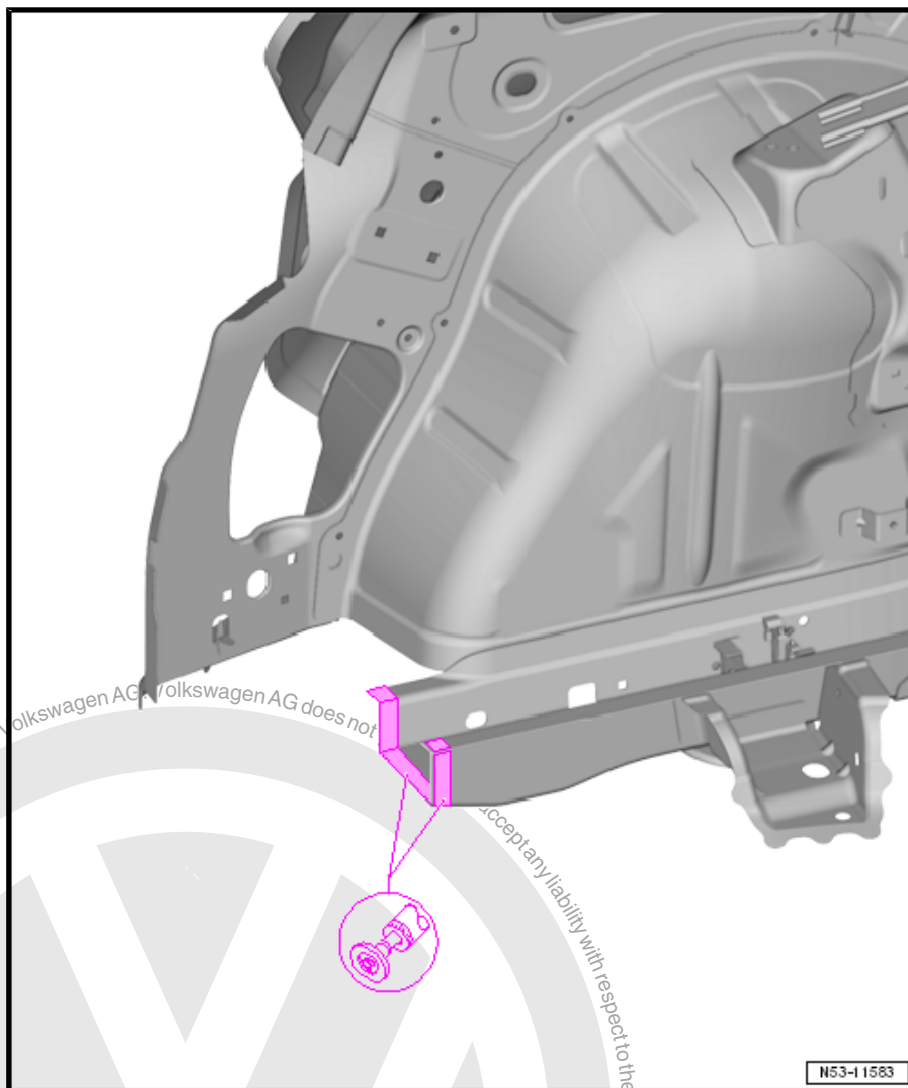
- Perform the separation cut -3- on the rear longitudinal member -1-.



- Perform the separation cut -2- to the dimension -a- on the rear longitudinal member -1-.

Dimension -a- = 75 mm

- Remove the rear longitudinal member -1- from the body.



- Remove residual material.
- Sand welding surfaces to bare metal.

8.3 Installing

⇒ ["8.3.1 Preparing New Parts", page 198](#)

⇒ ["8.3.2 Welding", page 199](#)



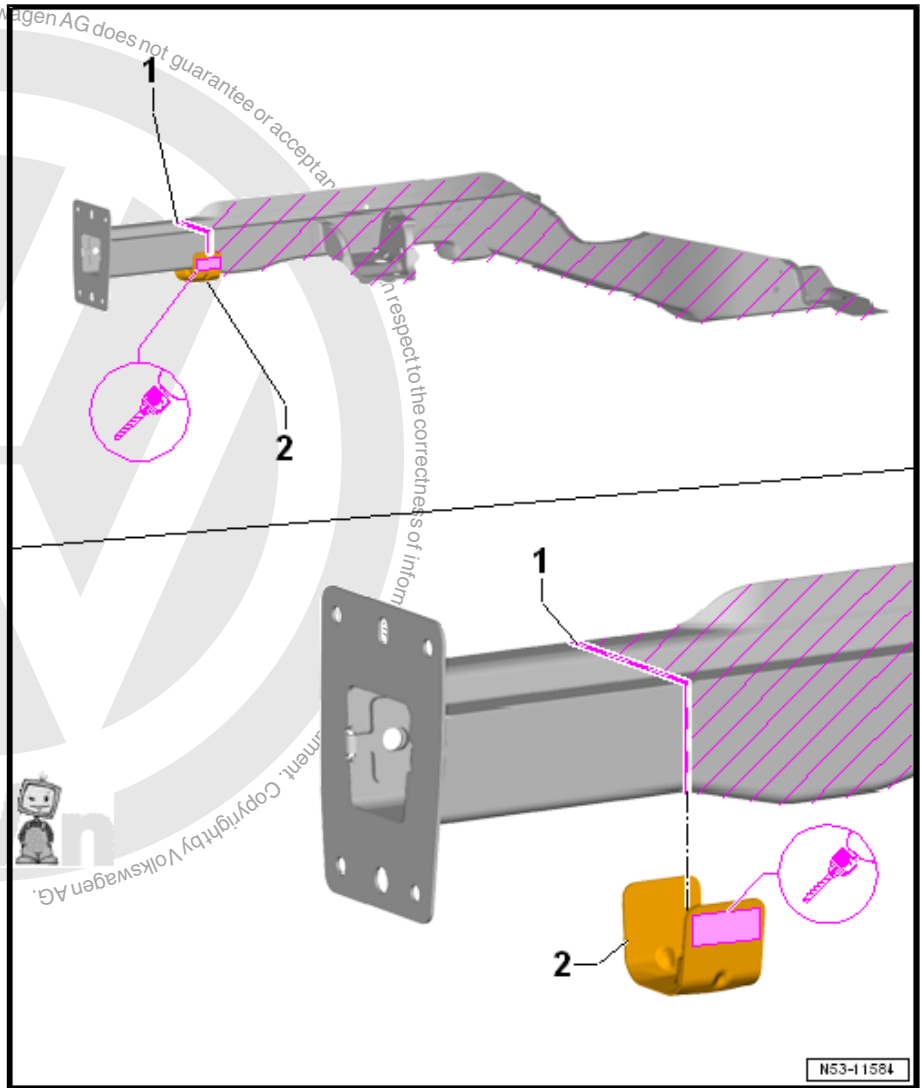
Note

Use only welding equipment approved by Volkswagen AG. Refer to ⇒ ["8.1 Tools", page 196](#).

8.3.1 Preparing New Parts

Replacement Part

- ◆ Rear Longitudinal Member



- Remove the original joint from the bracket -2-.
- Remove the bracket -2- from the new part -1-.



Note

Remove the bracket -2- from the new part -1- so that it can be reused when reinstalling.

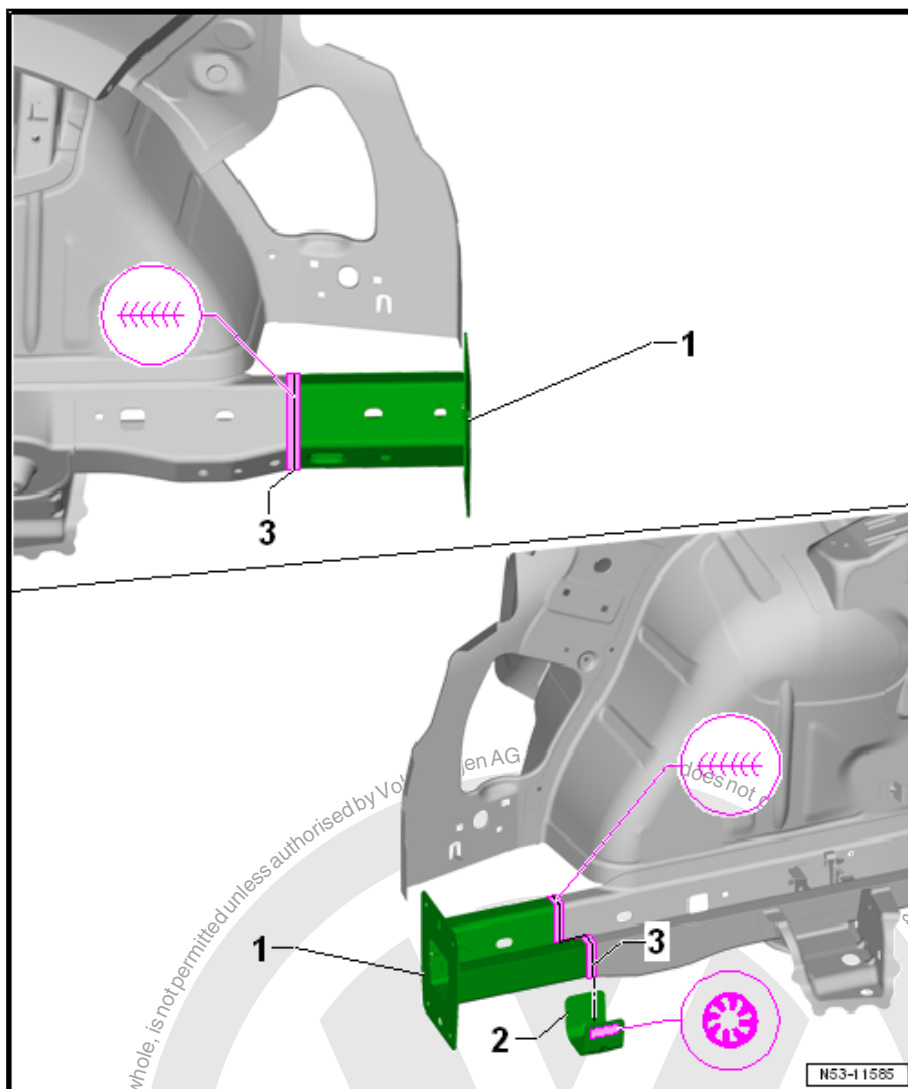
- Transfer the separation cut -1- from the assembly, cut the new part and remove the shaded area.
- Sand welding surfaces to bare metal.

8.3.2 Welding

- Install new part -1- with vehicle standing on the alignment bracket set and affix it in place.



- Check fit with neighboring components.



- Weld the separating cut -3- all around. Gas-shielded arc continuous weld seam.



Note

- ♦ The gas-shielded arc continuous weld seam cannot be reworked (sanded or smoothed).
- ♦ If the bracket -2- on the rear longitudinal -1- member via gas-shielded arc continuous weld seam does not come into contact then »readjust« it.
- Fit and secure the bracket -2-.
- Weld the bracket -2- on both sides, gas-shielded arc plug weld seam.
- Install the luggage compartment floor panel. Refer to [⇒ "5.3.3 Welding", page 179](#).
- Install rear cross panel. Refer to [⇒ "1.3.2 Welding", page 155](#).



RO: 53 55 55 00

9 Side Panel, Replacing, 4-Door

⇒ ["9.1 Tools", page 202](#)

⇒ ["9.2 Removing", page 202](#)

⇒ ["9.3 Installing", page 205](#)



WARNING

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

If welding or cutting with spark-producing devices/tools or when plating in foamed areas where hazardous gases are produced that are harmful to humans and the environment, these procedures are to be omitted in each case.

1 - Side Panel

- ☐ Sub-part
- ☐ ⇒ ["9.3.1 Permitted Separating Cuts on Whole Side Panel", page 205](#)

2 - C-Pillar Separation Cut

3 - Molded Foam Parts

- ☐ Refer to
⇒ ["4 Molded Foam Parts", page 5](#)

4 - Bonded Area

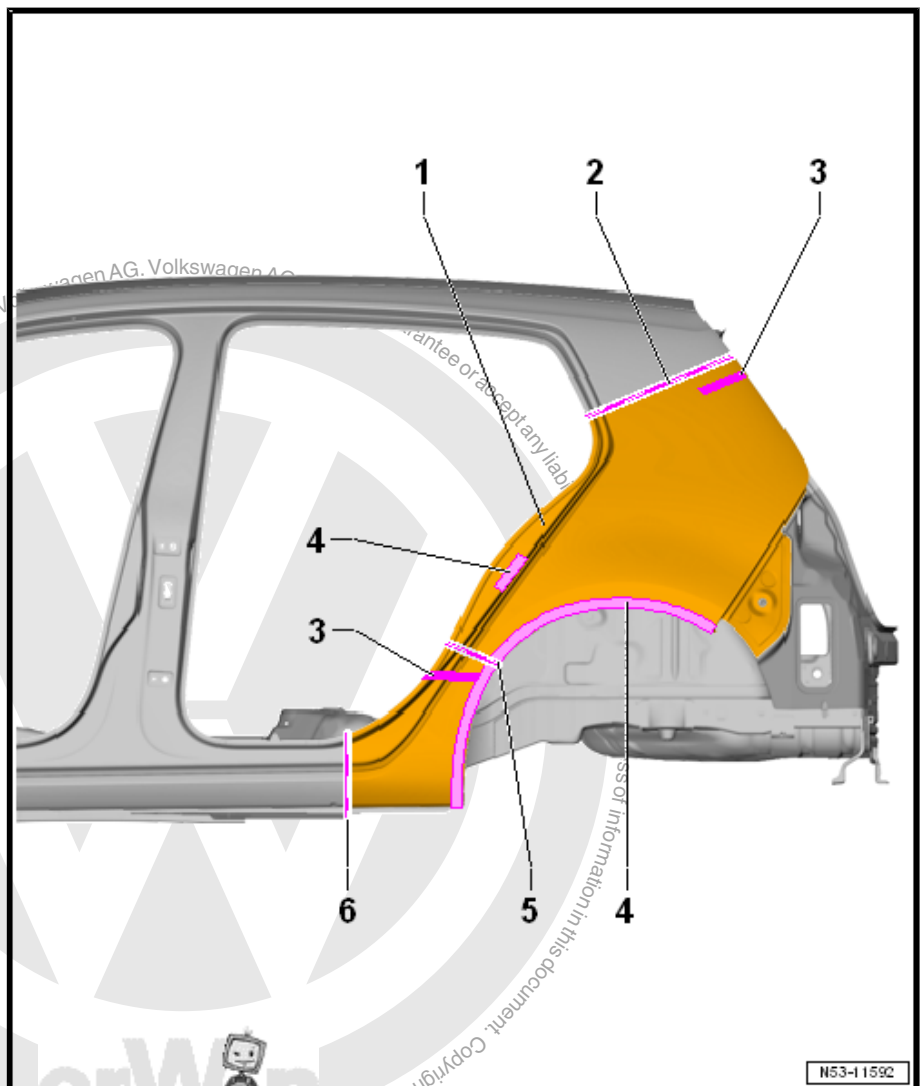
5 - Wheel Arch Separation Cut

Partial renewal
Separation cut is permitted for the partial replacement.

The separation cut is can be combined with other damage separation cuts.

6 - Separation Cut for Sill Panel

- ☐ Observe replacement panel separating cut



N53-I 1592



9.1 Tools



Note

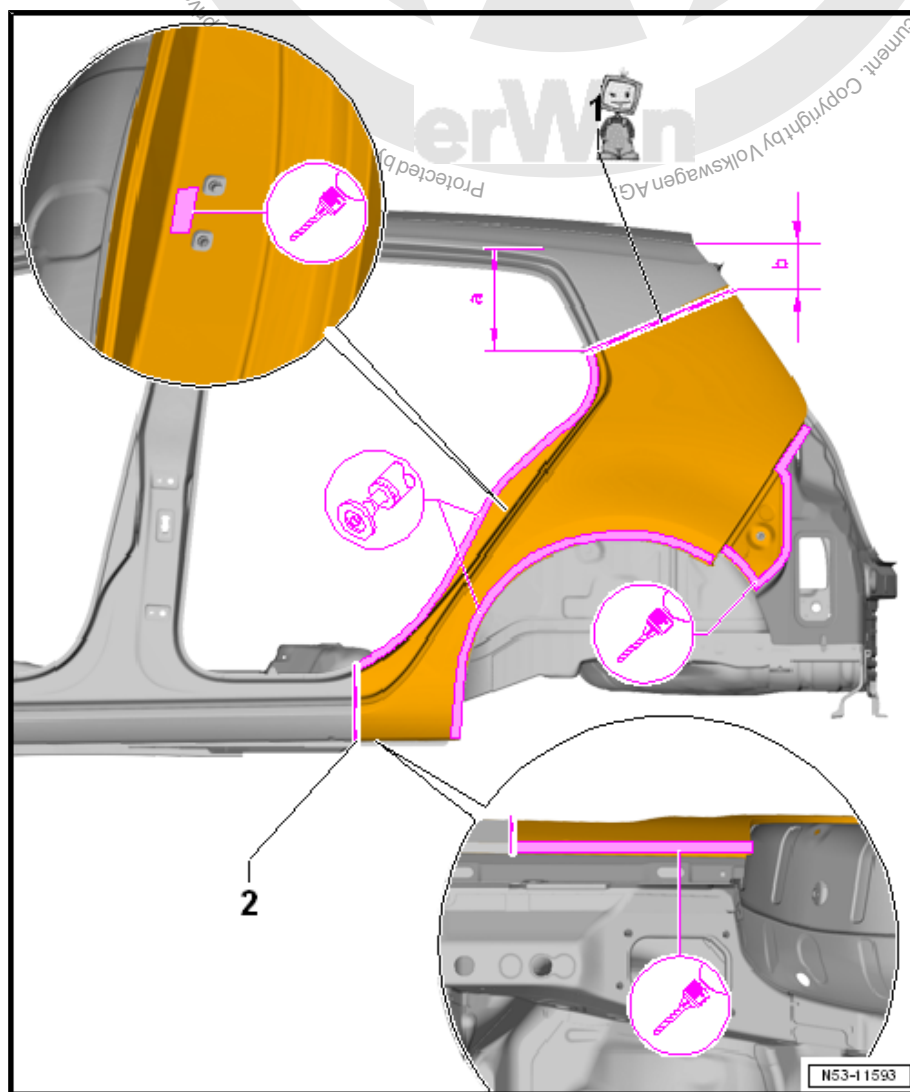
- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

9.2 Removing



Note

- ◆ Only use the body Pneumatic Body Saw - VAS6780- to perform separating cuts. Do not damaged the inner reinforcements.
- ◆ Note the replacement part separating cut when making a separating cut -2-.



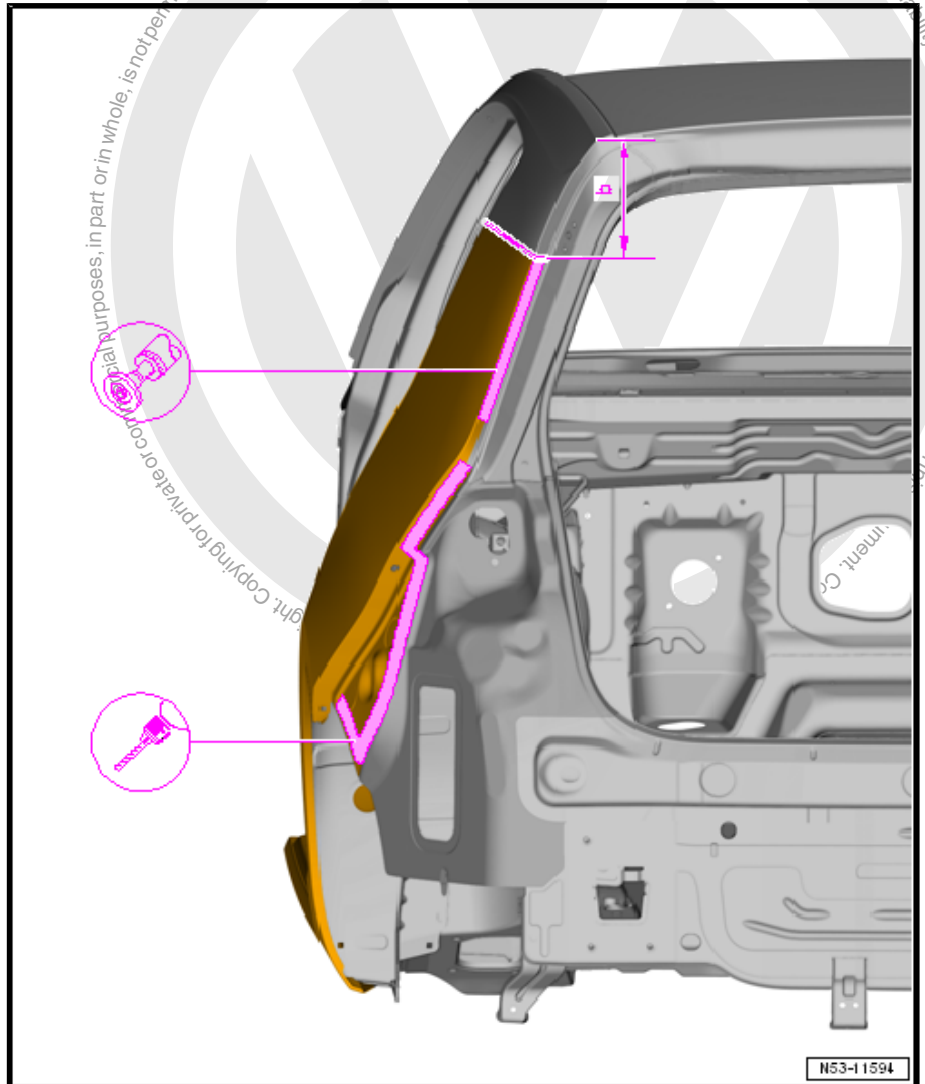
- Perform the separation cut -1- to the dimension -a- and -b-.



Dimension -a- = 150 mm

Dimension -b- = 100 mm

- Perform separating cut -2- as shown.
- Separate the original joint.
- Sand down the outer edge of the wheel arch



- Cut the original joint inside the rear lid opening.

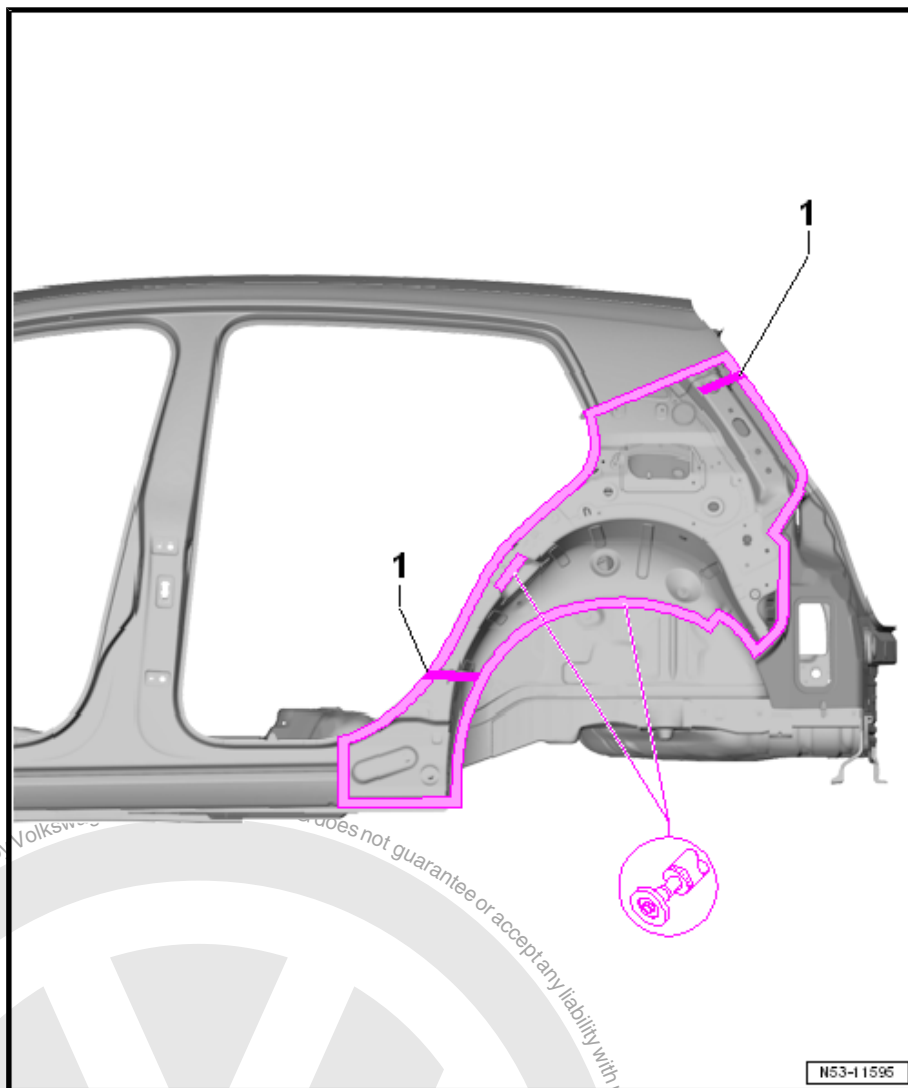
Dimension -b- = 100 mm

- Remove the side panel from the body.



Note

Foam residue -1- must be removed as much as possible before sanding work.



- Remove residual material.
- Sand welding surfaces to bare metal.
- Completely remove any remaining adhesive and grind the adhesive surfaces down to bare metal.
- Clean the flanging area on wheel arch (it must be free of dust and grease).
- Apply corrosion protection to the adhesive surfaces, which will not be welded.
- Lightly sand the adhesive surfaces in the connection.



9.3 Installing

⇒ ["9.3.1 Permitted Separating Cuts on Whole Side Panel", page 205](#)

⇒ ["9.3.2 Preparing New Parts", page 206](#)

⇒ ["9.3.3 Molded Foam Parts", page 207](#)

⇒ ["9.3.4 Welding", page 208](#)



Note

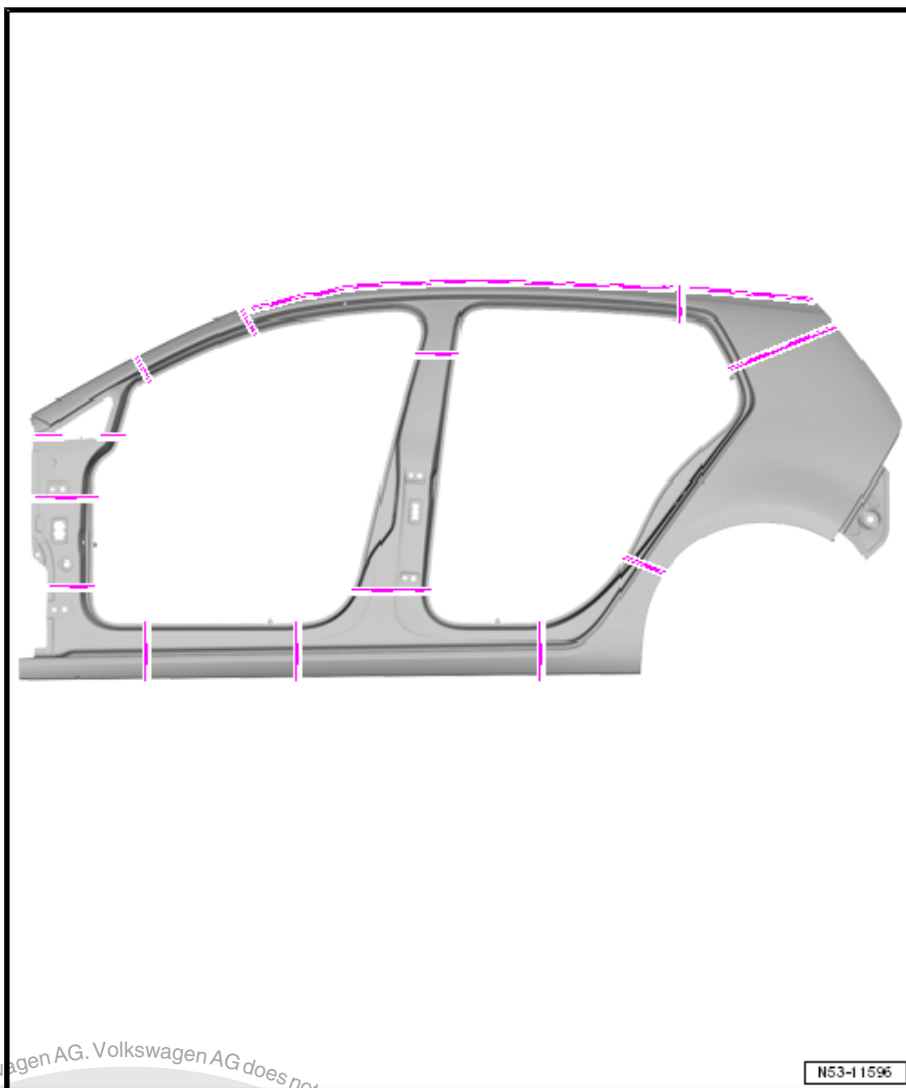
Use only welding equipment approved by Volkswagen AG. Refer to ["9.1 Tools", page 202](#).

9.3.1 Permitted Separating Cuts on Whole Side Panel



Note

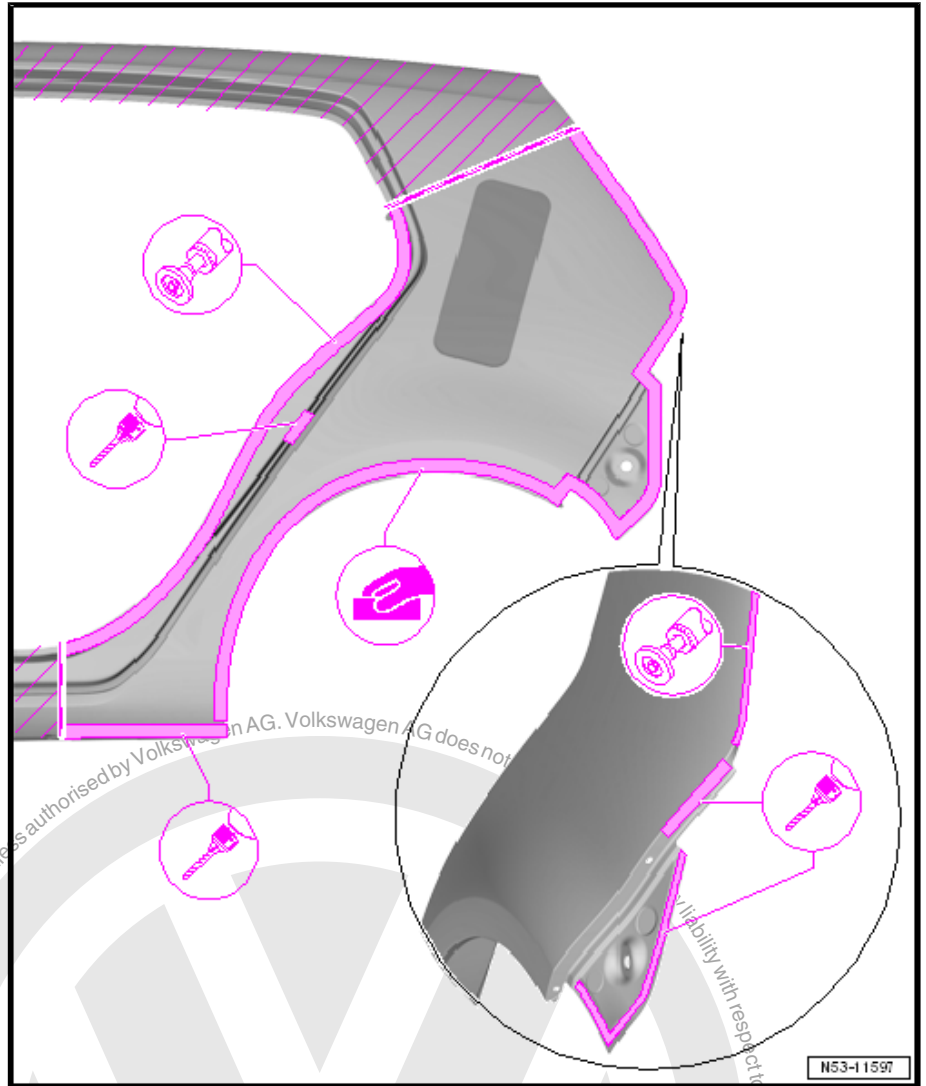
- ◆ *Use only welding equipment approved by Volkswagen AG. Refer to ["9.1 Tools", page 202](#).*
- ◆ *MIG soldered seams/gas-shielded arc continuous weld seam are permitted on the separating cuts shown in the illustration.*



9.3.2 Preparing New Parts

Replacement part

- ◆ Side panel sub-part
- ◆ 2K Body Adhesive - D 180 003 M2-
- ◆ 2K Polyurethane Adhesive - D 180 KD2 A1- (for the right side panel)



- Transfer separating cuts to new part and cut off shaded area.
- Sand welding surfaces to bare metal.
- Drill holes for gas-shielded arc plug weld seam and stamp diameter 7 mm.
- Lightly grind the areas which will not be welded.

9.3.3 Molded Foam Parts

Observe repair notes.

Molded foam part. Refer to ➤ General Information; Body Repairs, Body Collision Repair

Position of molded foam parts. Refer to ➤ ["4 Molded Foam Parts", page 5](#).

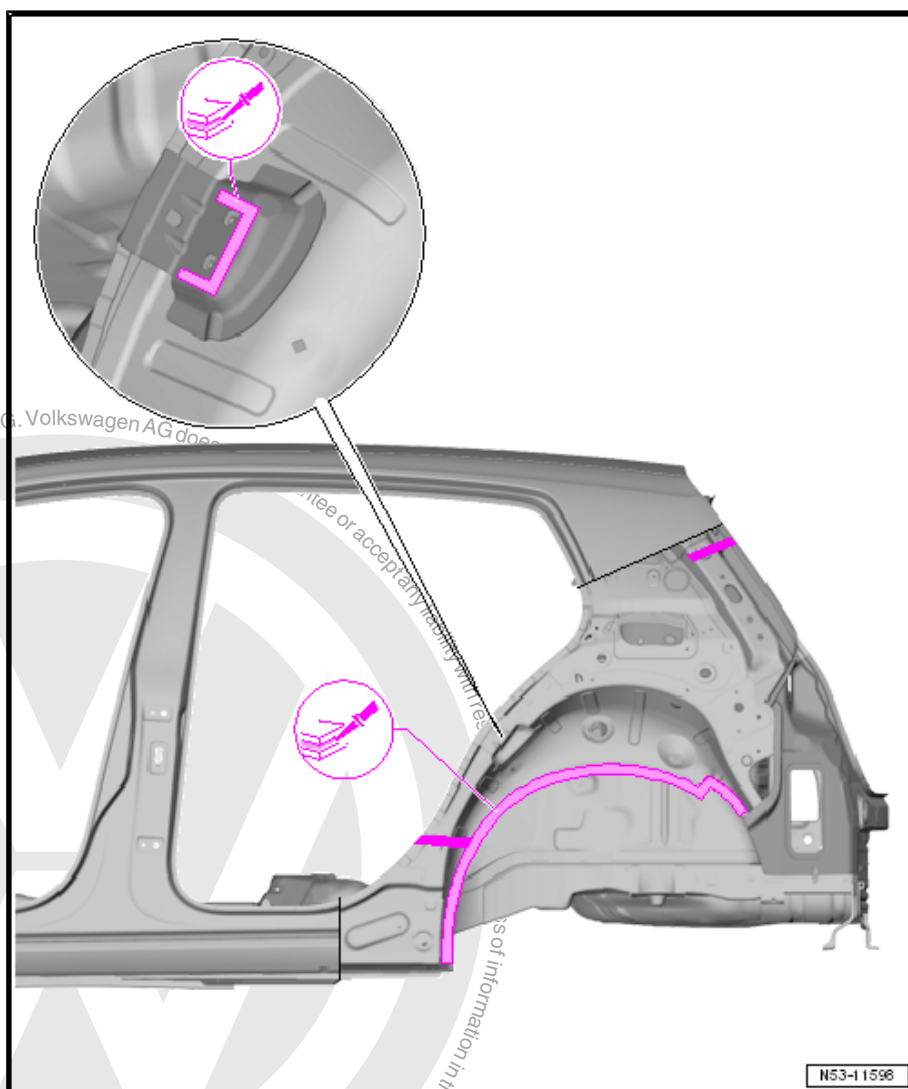


9.3.4 Welding

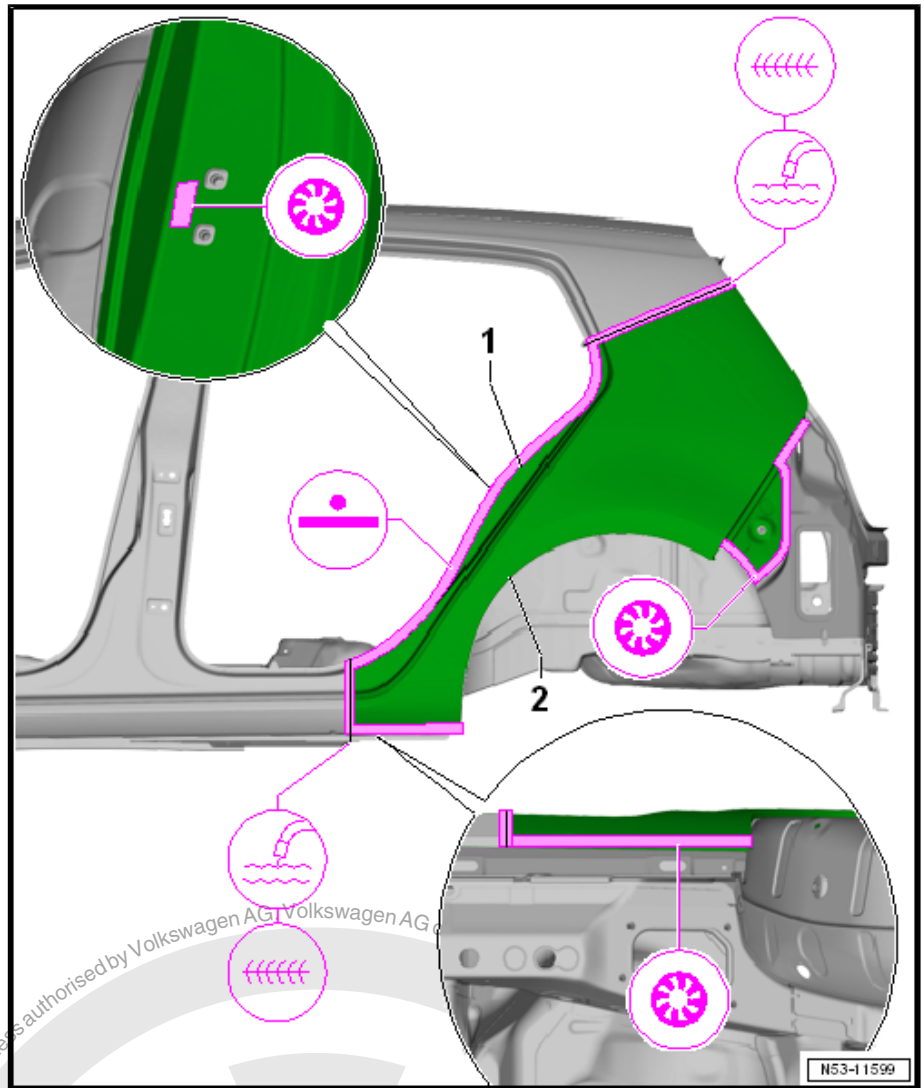


Note

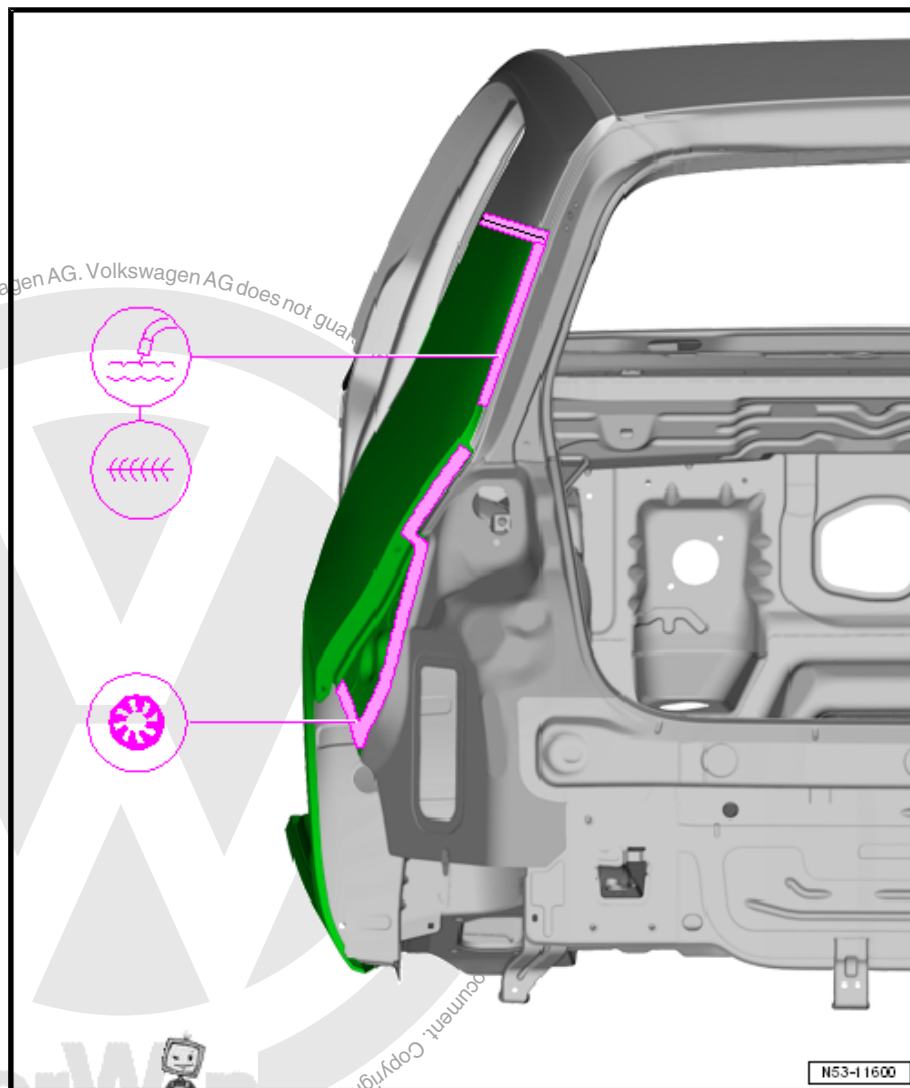
- ◆ New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.
- ◆ For the lock reinforcement, omit the welding areas for the gas-shielded arc plug weld seam when applying the 2K Body Adhesive - D 180 003 M2- .
- ◆ The thread for the striker pin mount must be cleaned after applying the adhesive.
- ◆ For the right side panel, 2K Polyurethane Adhesive - D 180 KD2 A1- must be applied near the fuel filler tube before welding.



- Apply 2K Body Adhesive - D 180 003 M2- in the shown areas.
- Fit new part -1- to vehicle standing on its wheels or on Alignment Bracket Set and secure.
- Check fit with attachments.



- Weld in the side panel -1-, Straight-line spot weld seam and gas-shielded arc plug weld seam.
- Weld the separation cuts, either MIG soldered seam/gas-shielded arc continuous weld seam.
- Reform the wheel arch flange -2- and remove any escaped adhesive.



- Weld the side panel in the area of the sealing channel either MIG soldered seams/gas-shielded arc continuous weld seam is permitted.
- Weld the connection tail lamp assembly mount, gas-shielded arc plug weld seam.



RO: 53 55 55 10

10 Side Panel, Replacing, 2-Door Vehicle

⇒ ["10.1 Tools", page 212](#)

⇒ ["10.2 Removing", page 212](#)

⇒ ["10.3 Installing", page 215](#)



WARNING

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

If welding or cutting with spark-producing devices/tools or when plating in foamed areas where hazardous gases are produced that are harmful to humans and the environment, these procedures are to be omitted in each case.

1 - B-Pillar Separating Cut

- ☐ Can be set to any height
- ☐ Observe replacement panel separating cut

2 - Bonded Area

3 - Side Panel

- ☐ Sub-part
- ☐ Refer to
⇒ ["10.3.1 Permitted Separating Cuts on Whole Side Panel", page 215](#)

4 - C-Pillar Separation Cut

5 - Molded Foam Parts

- ☐ Refer to
⇒ ["4 Molded Foam Parts", page 5](#)

6 - Wheel Arch Separation Cut

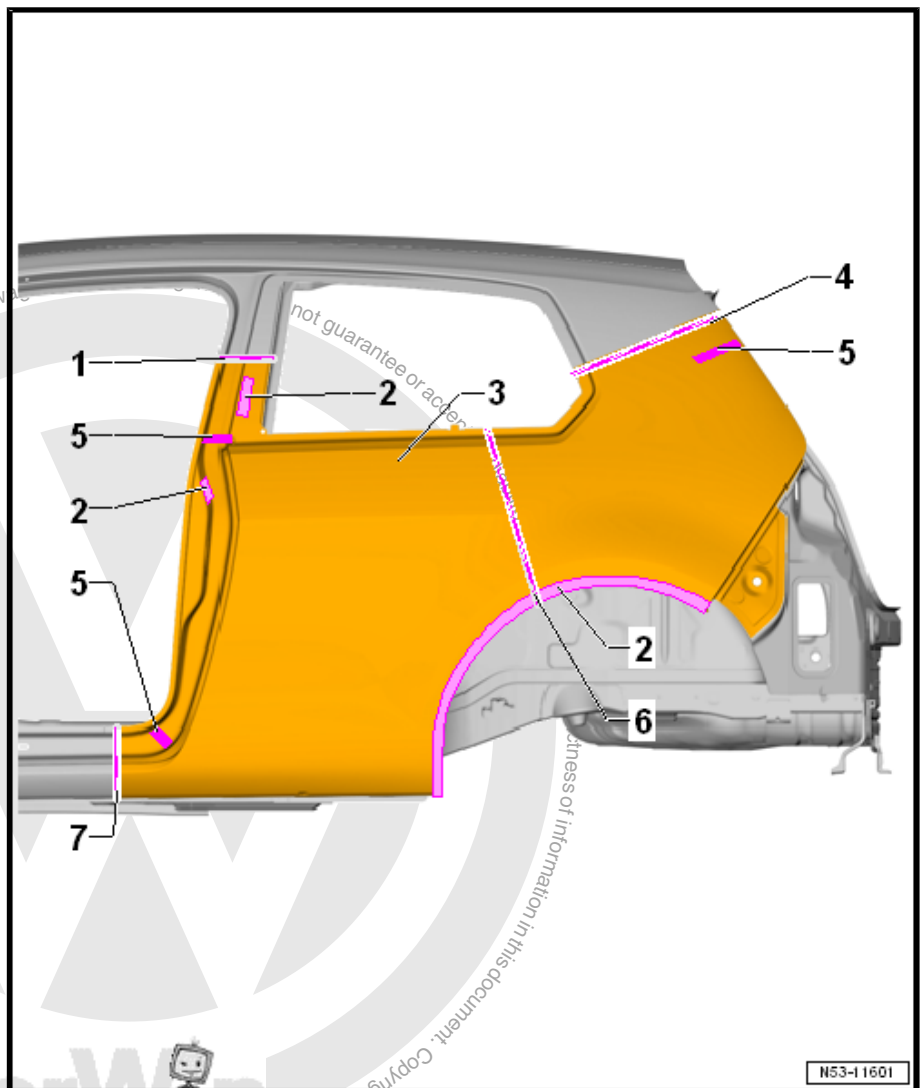
Partial renewal

Separation cut is permitted for the partial replacement.

The separation cut is can be combined with other damage separation cuts.

7 - Separation Cut for Sill Panel

- ☐ Observe replacement panel separating cut



N53-I 1601



10.1 Tools



Note

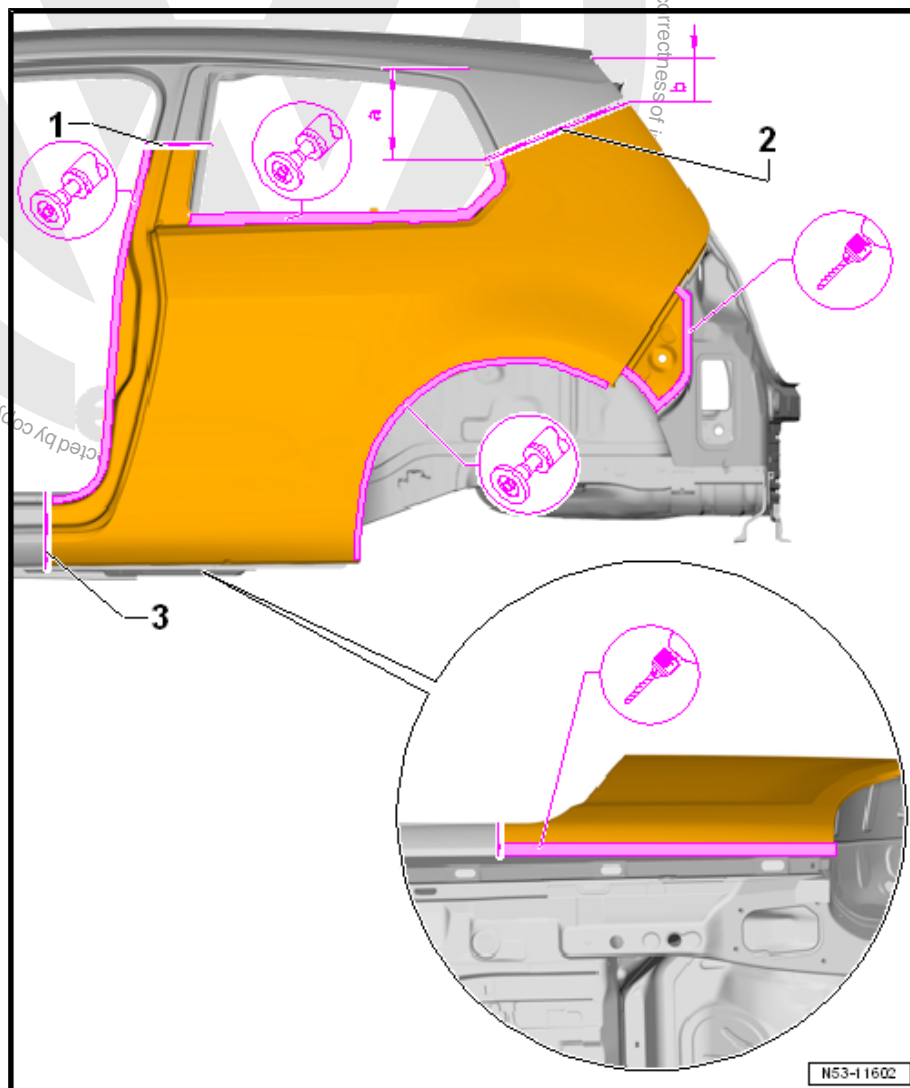
- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.

10.2 Removing



Note

- ◆ Only use the body Pneumatic Body Saw - VAS6780- to perform separating cuts. Do not damaged the inner reinforcements.
- ◆ For the separation cut -1- and -3- pay attention to the replacement part separation cut.



- Perform the separating cut -1- and -3- as illustrated.

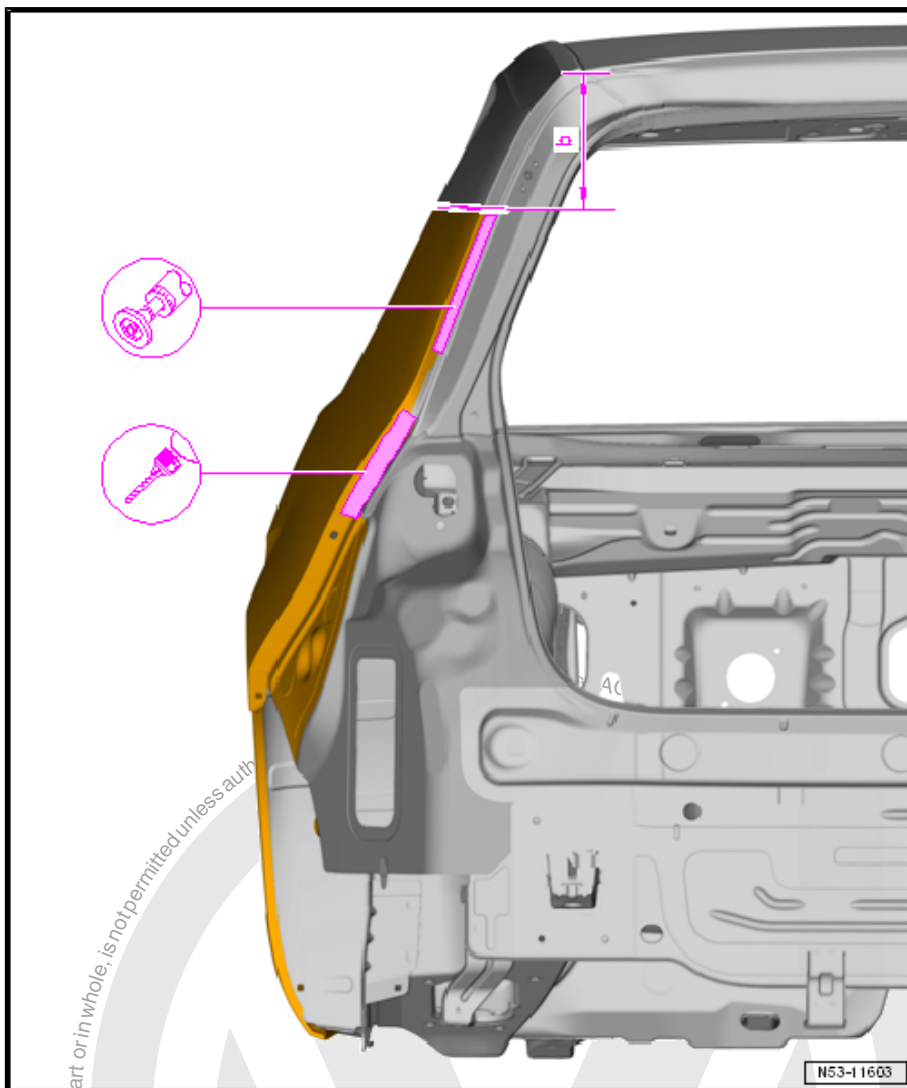


- Perform the separation cut -2- to the dimension -a- and -b-.

Dimension -a- = 180 mm

Dimension -b- = 100 mm

- Separate the original joint.
- Sand down the outer edge of the wheel arch.



- Cut the original joint inside the rear lid opening.

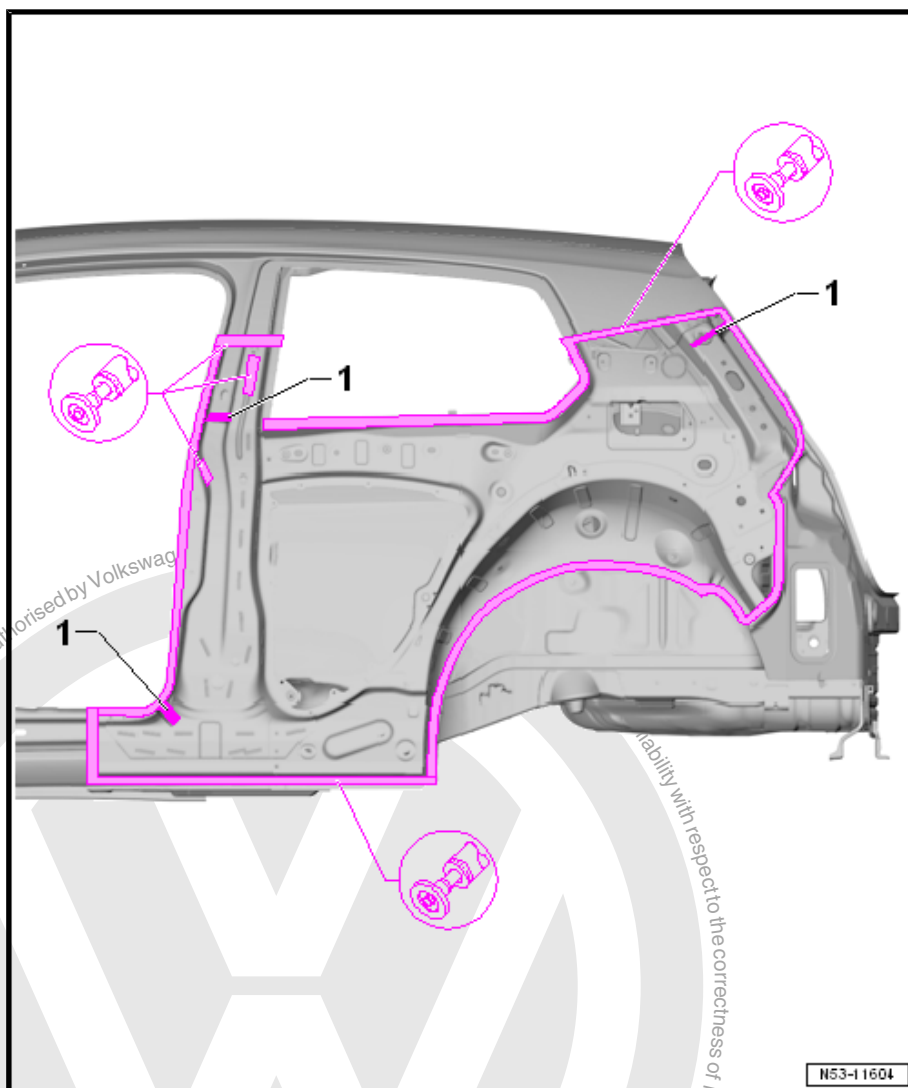
Dimension -b- = 100 mm

- Remove the side panel from the body.



Note

Foam residue -1- must be removed as much as possible before sanding work.



- Remove residual material.
- Sand welding surfaces to bare metal.
- Completely remove any remaining adhesive and grind the adhesive surfaces down to bare metal.
- Clean the flanging area on wheel arch (it must be free of dust and grease).
- Apply corrosion protection to the adhesive surfaces, which will not be welded.
- Lightly sand the adhesive surfaces in the connection.



10.3 Installing

⇒ ["10.3.1 Permitted Separating Cuts on Whole Side Panel", page 215](#)

⇒ ["10.3.2 Preparing New Parts", page 216](#)

⇒ ["10.3.3 Molded Foam Parts", page 217](#)

⇒ ["10.3.4 Welding", page 218](#)



Note

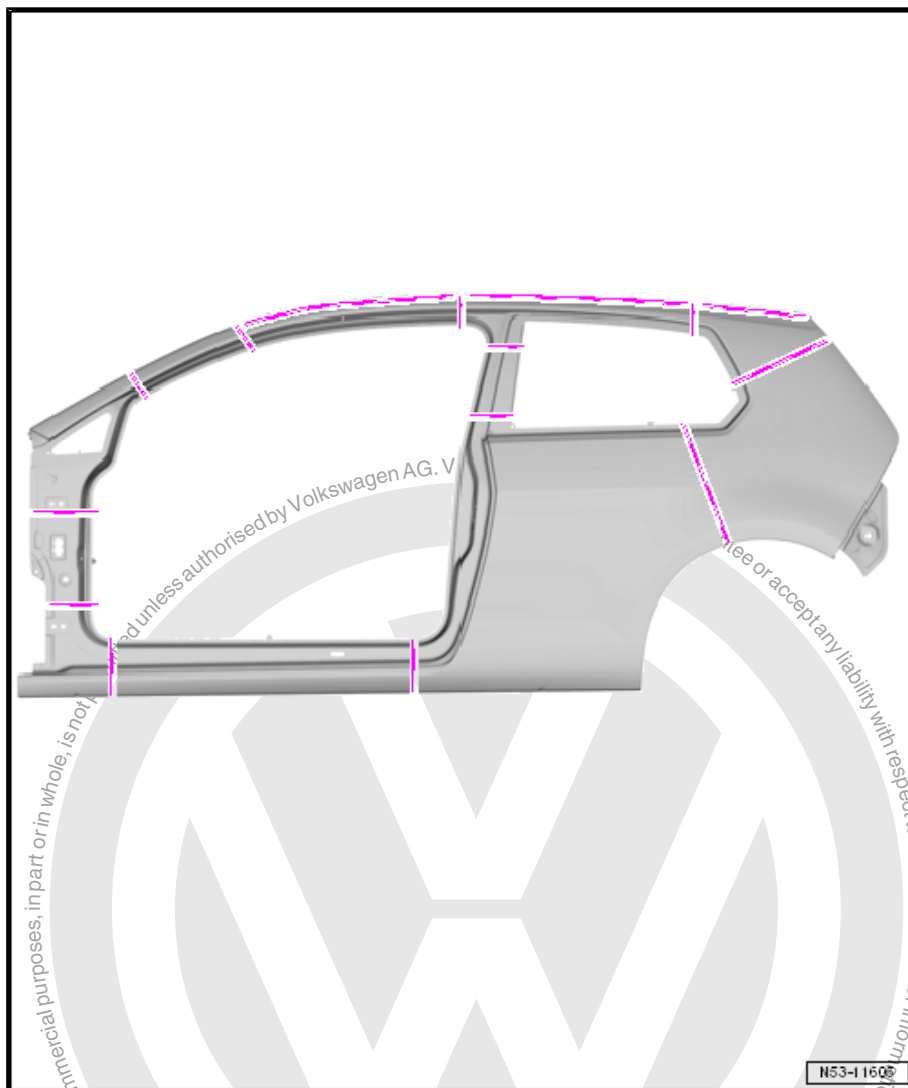
Use only welding equipment approved by Volkswagen AG. Refer to ⇒ ["10.1 Tools", page 212](#).

10.3.1 Permitted Separating Cuts on Whole Side Panel



Note

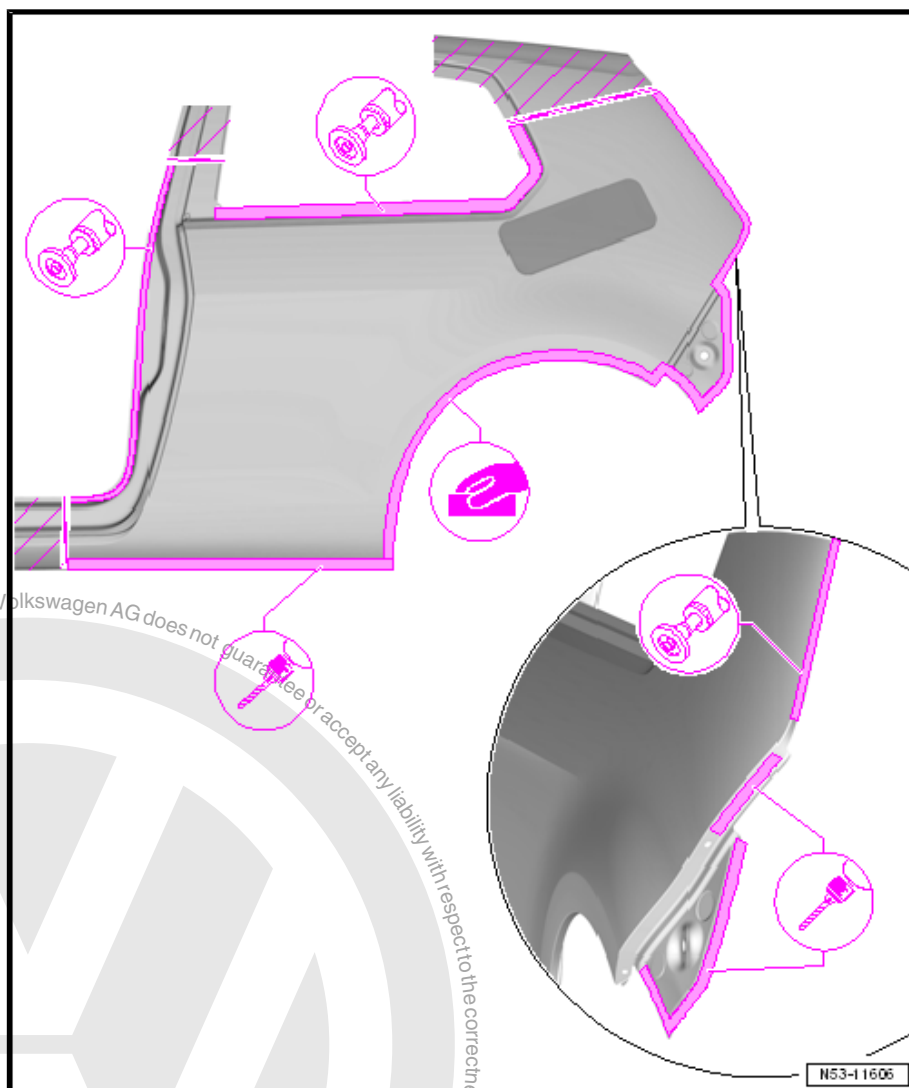
- ◆ *Use only welding equipment approved by Volkswagen AG. Refer to ⇒ ["10.1 Tools", page 212](#).*
- ◆ *MIG soldered seams/gas-shielded arc continuous weld seam are permitted on the separating cuts shown in the illustration.*



10.3.2 Preparing New Parts

Replacement Part

- ◆ Side panel sub-part
- ◆ 2K Body Adhesive - D 180 003 M2-
- ◆ 2K Polyurethane Adhesive - D 180 KD2 A1- (for the right side panel)



- Transfer separating cuts to new part and cut off shaded area.
- Sand welding surfaces to bare metal.
- Drill holes for gas-shielded arc plug weld seam and stamp diameter 7 mm.
- Lightly grind the areas which will not be welded.

10.3.3 Molded Foam Parts

Observe repair notes.

Molded foam part. Refer to ⇒ General Information; Body Repairs, Body Collision Repair

Position of molded foam parts. Refer to
⇒ ["4 Molded Foam Parts", page 5](#) .

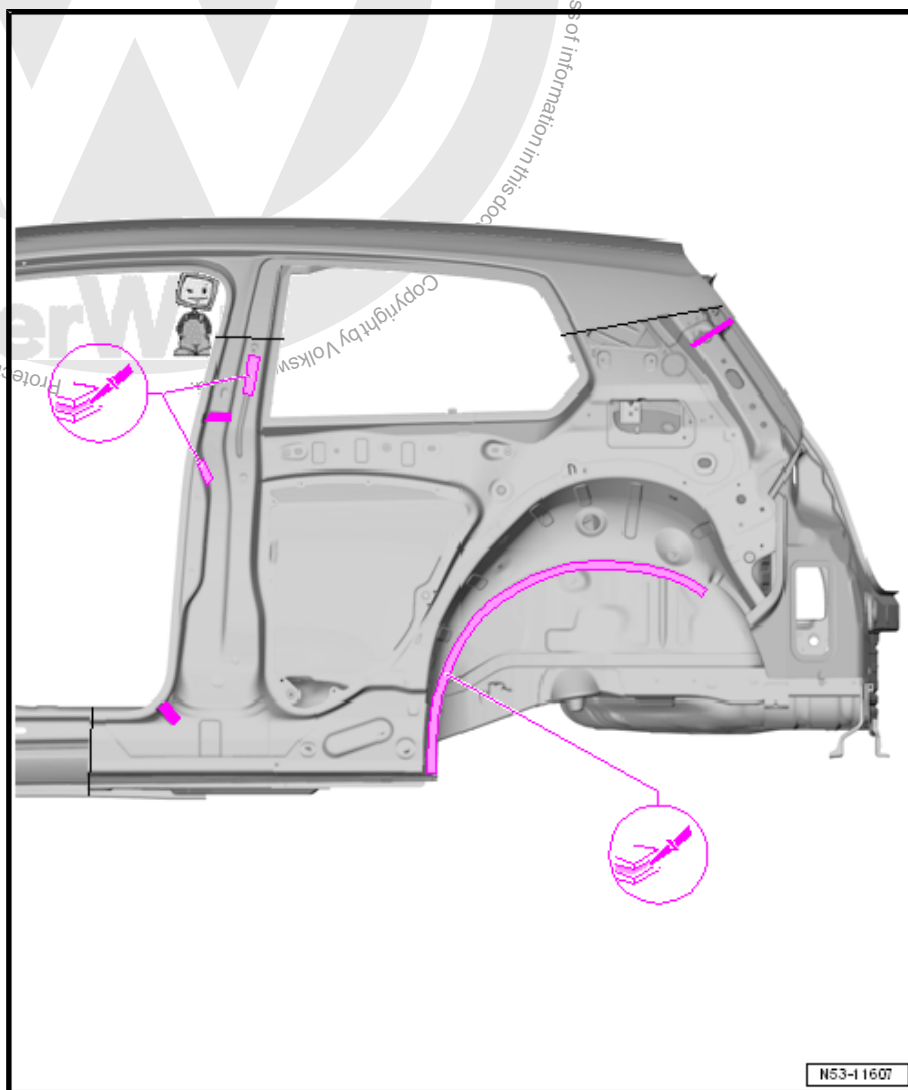


10.3.4 Welding

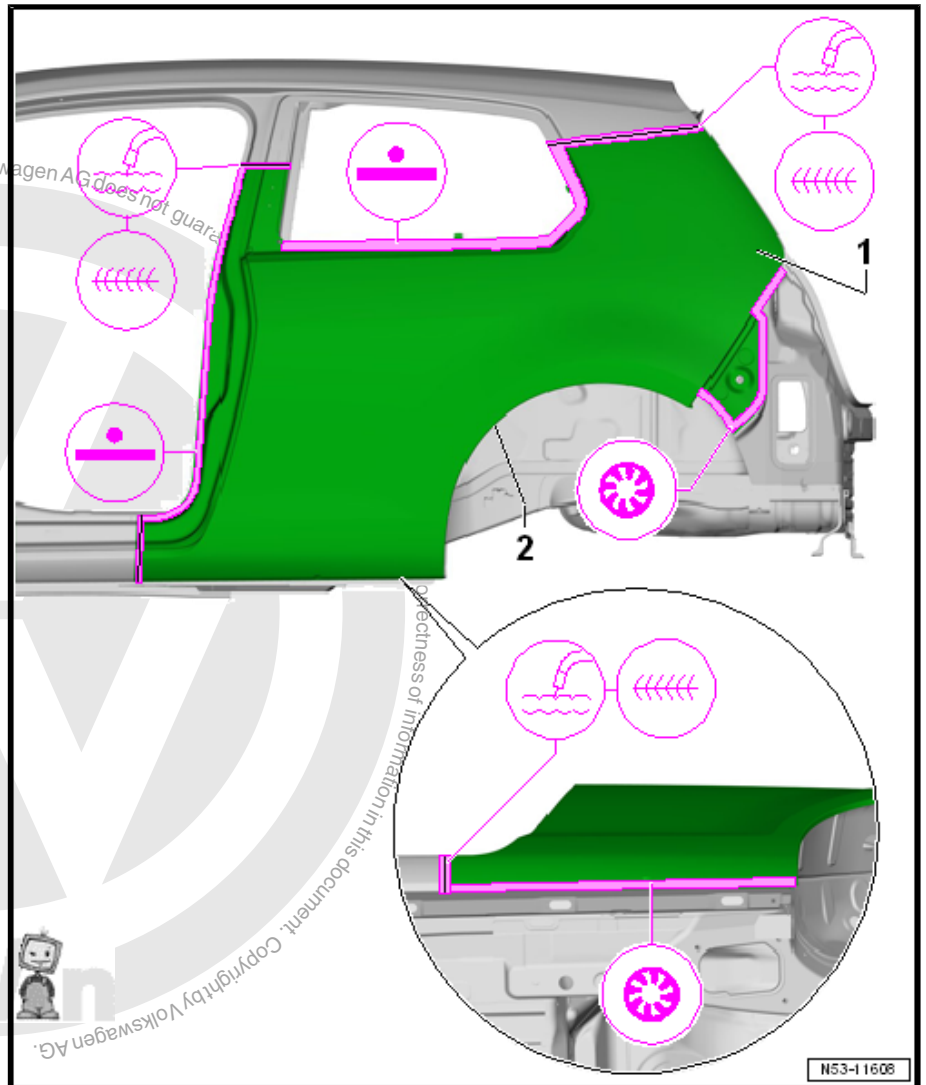


Note

- ♦ *New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.*
- ♦ *For the right side panel, 2K Polyurethane Adhesive - D 180 KD2 A1- must be applied near the fuel filler tube before welding.*



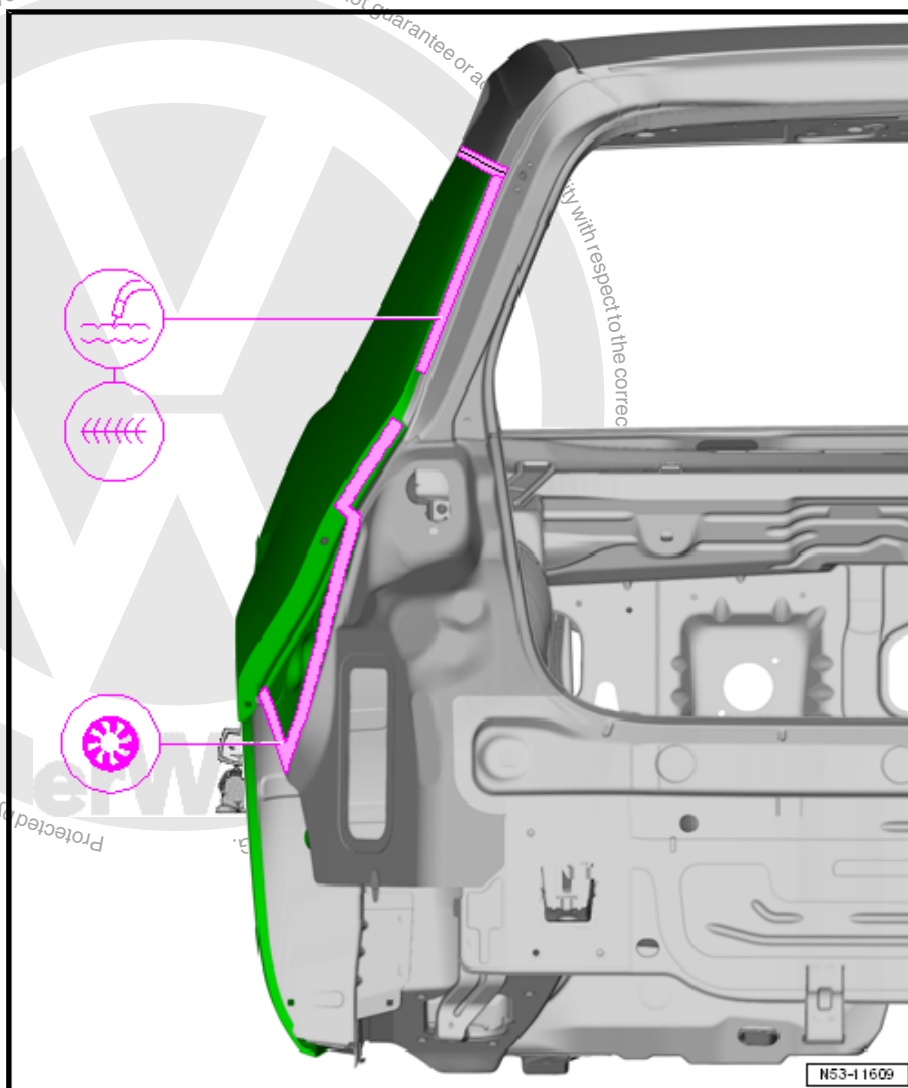
- Apply 2K Body Adhesive - D 180 003 M2- in the shown areas.
- Fit new part -1- to vehicle standing on its wheels or on Alignment Bracket Set and secure.
- Check fit with attachments.



- Weld in the side panel -1-, Straight-line spot weld seam and gas-shielded arc plug weld seam.
- Weld the separation cuts, either MIG soldered seam/gas-shielded arc continuous weld seam.
- Reform the wheel arch flange -2- and remove any escaped adhesive.



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- Weld the side panel in the area of the sealing channel either MIG soldered seams/gas-shielded arc continuous weld seam is permitted.
- Weld the connection tail lamp assembly mount, gas-shielded arc plug weld seam.



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11 Outer Wheel Housing Liner, Replacing

⇒ ["11.1 Tools", page 222](#)

⇒ ["11.2 Removing", page 223](#)

⇒ ["11.3 Installing", page 225](#)

Includes: Lock Reinforcement



Caution

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



Note

The removal and installation of the outer wheel housing liner is describes for a 4-door vehicle. The removal and installation for 2-door vehicles is identical to the following description.

- Side panel in 4-door vehicle already removed. Refer to ⇒ ["9 Side Panel, Replacing, 4-Door", page 201](#).
- Side panel in 2-door vehicle already removed. Refer to ⇒ ["10 Side Panel, Replacing, 2-Door Vehicle", page 211](#)



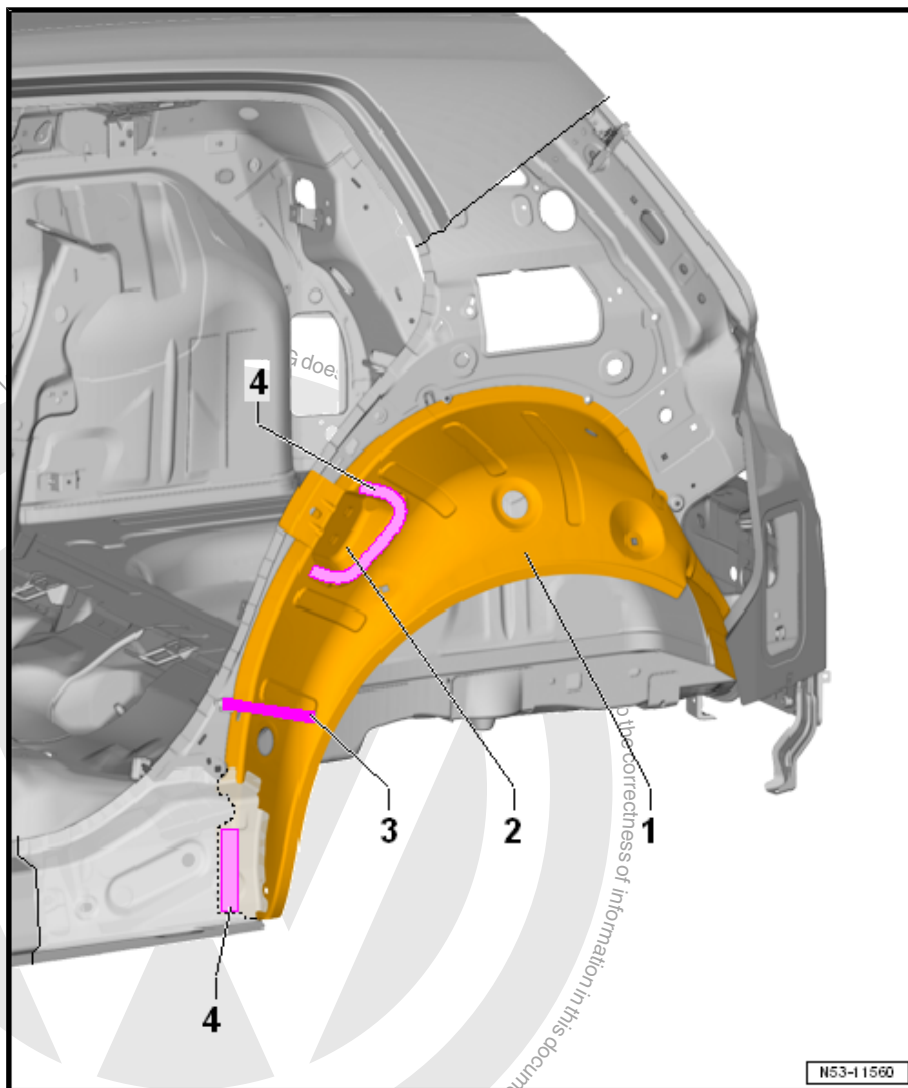
1 - Outer Wheel Housing Liner

2 - Lock Reinforcement

3 - Molded Foam Part

- Refer to
⇒ ["4 Molded Foam Parts", page 5](#)

4 - Bonded Area



11.1 Tools

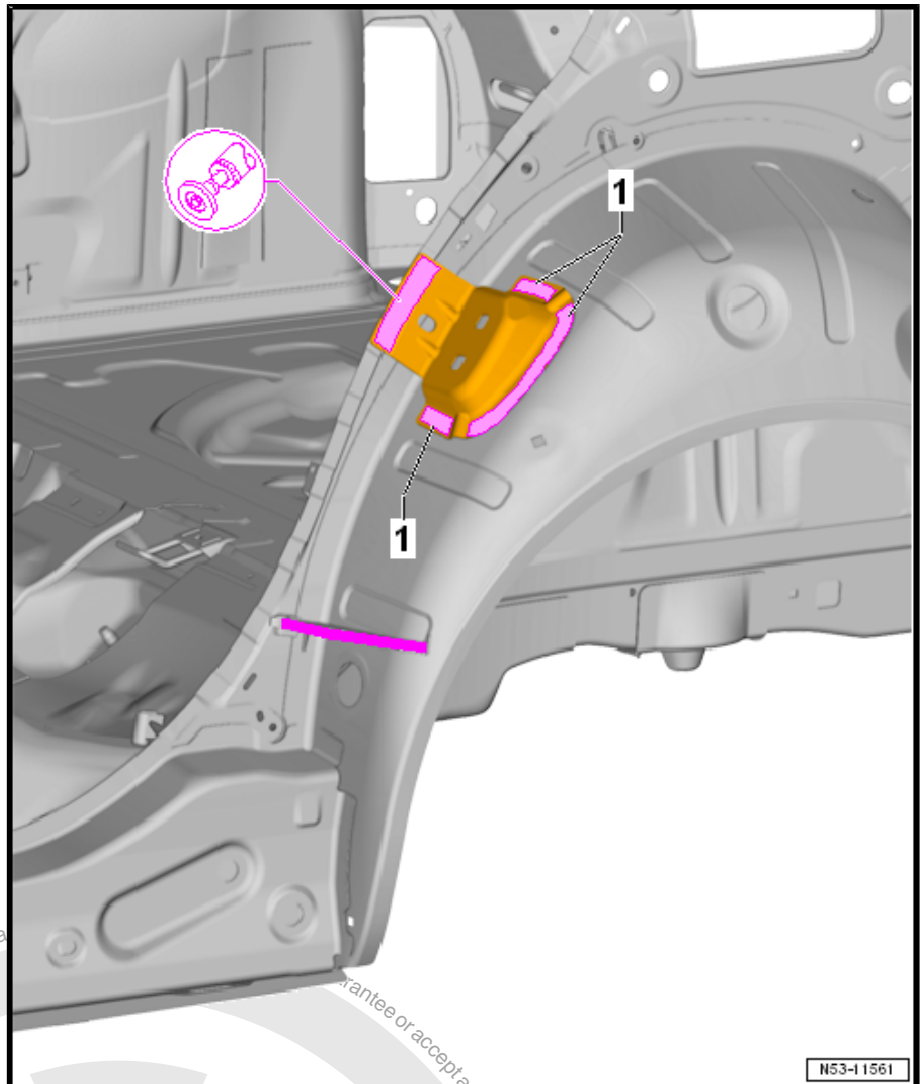


Note

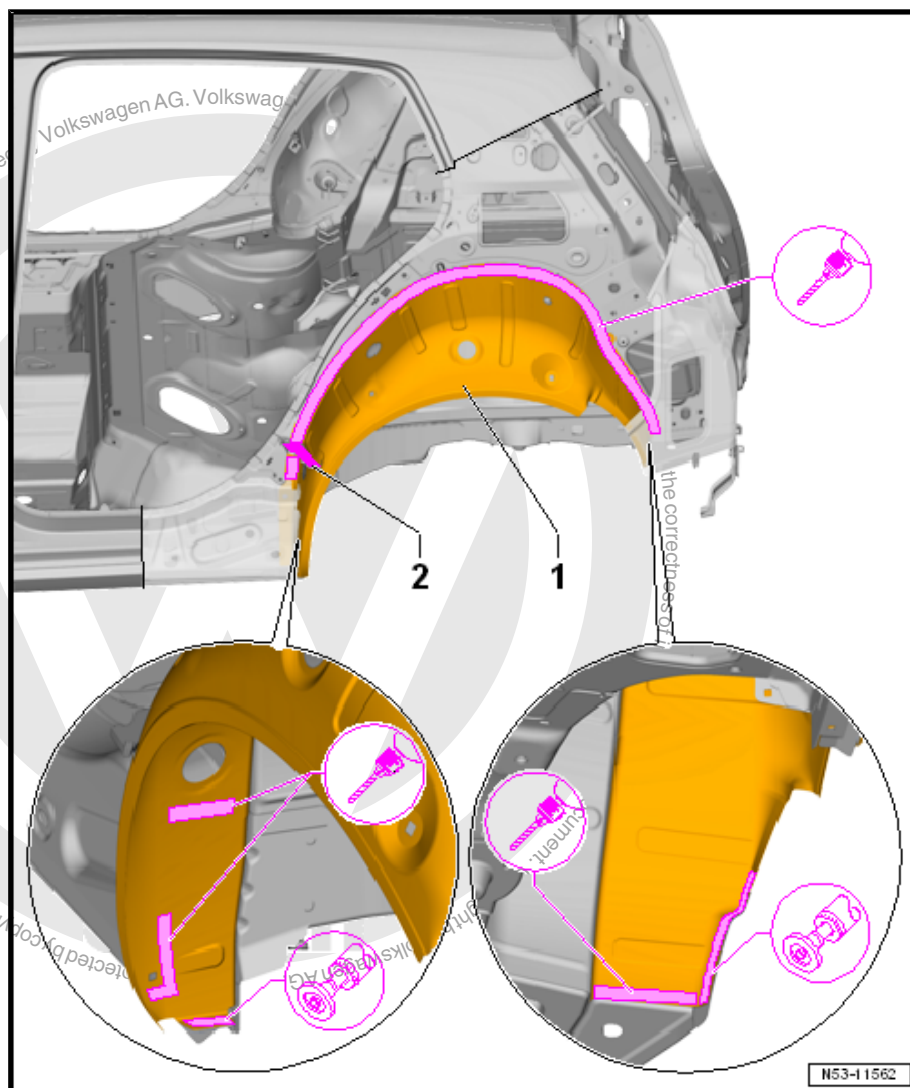
- ◆ Due to the different types of steel and material strength, use only welding equipment approved by Volkswagen AG to perform any service work.
- ◆ For a list of welding equipment and body tools approved by Volkswagen AG.



11.2 Removing



- Separate the original joint.
- Remove the bonded areas -1- on the lock reinforcement.
- Remove the lock reinforcement from the outer wheel housing liner.



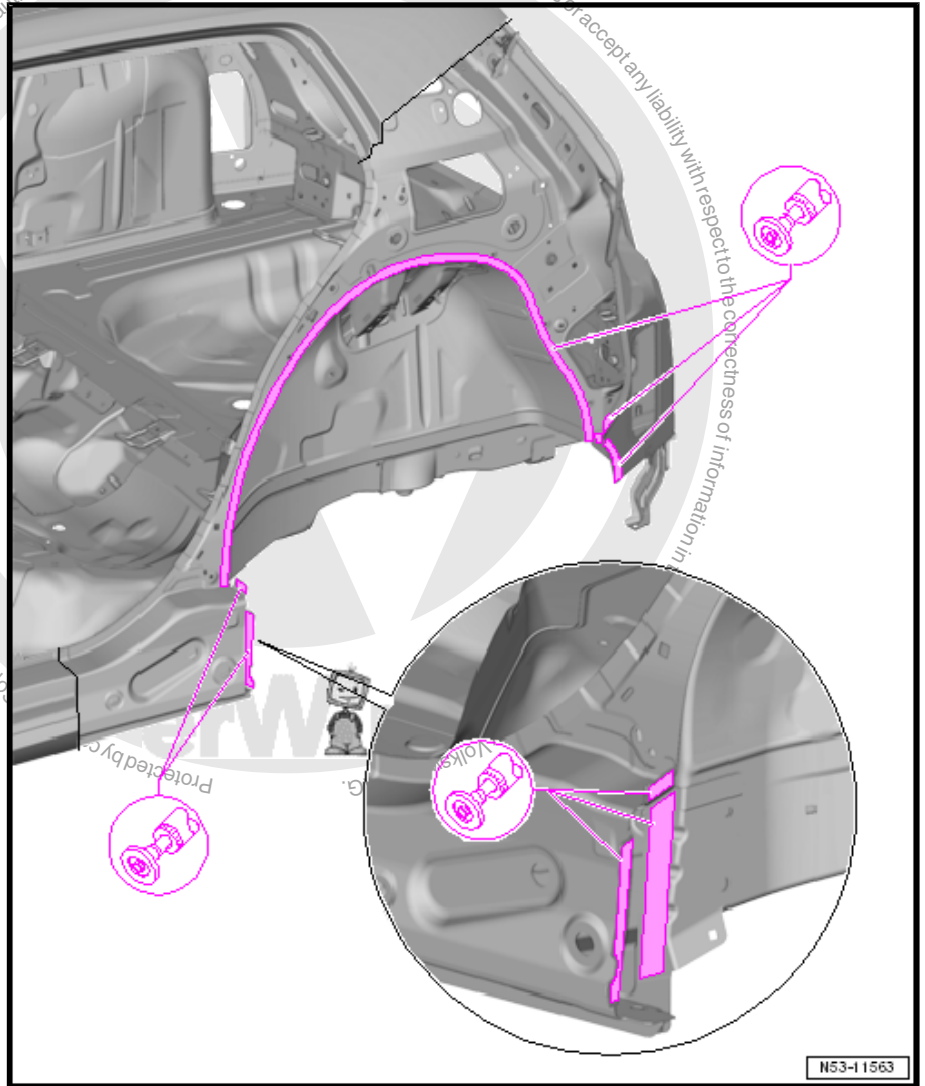
- Separate the original joint.
- Carefully remove the molded foam part -2- from the outer wheel housing liner -1-.



Note

Remove the molded foam part -2- from the outer wheel housing liner -1-, so that it can be installed again.

- Remove the outer wheel housing liner -1- from the body.



- Remove residual material.
- Sand welding surfaces to bare metal.
- Completely remove any remaining adhesive and grind the adhesive surfaces down to bare metal.
- Apply corrosion protection to the adhesive surfaces, which will not be welded.
- Lightly sand the adhesive surfaces in the connection.

11.3 Installing

⇒ ["11.3.1 Preparing New Parts", page 226](#)

⇒ ["11.3.2 Welding", page 227](#)



Note

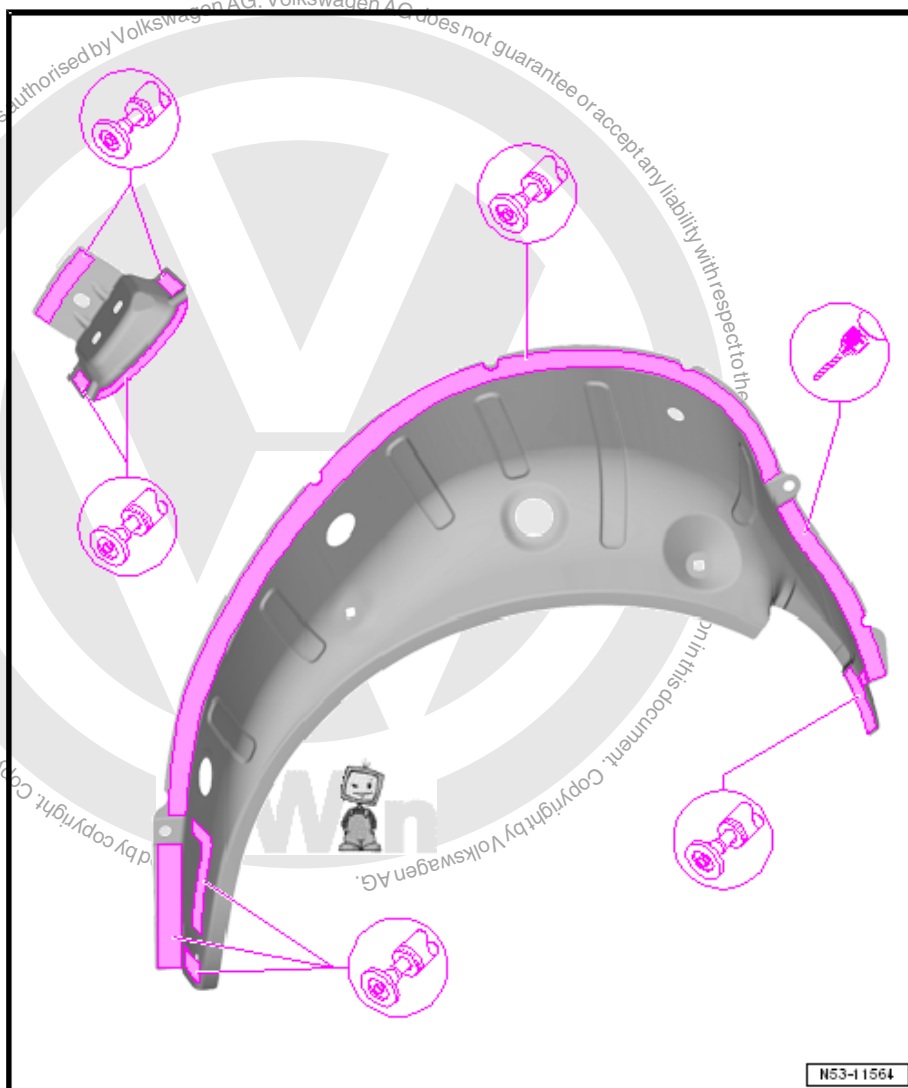
Use only welding equipment approved by Volkswagen AG. Refer to ⇒ ["11 Outer Wheel Housing Liner, Replacing", page 221](#) .



11.3.1 Preparing New Parts

Replacement Part

- ◆ Outer wheel housing liner
- ◆ Lock reinforcement
- ◆ 2K Body Adhesive - D 180 003 M2-



- Drill holes for SG plug weld seam, 7 mm diameter.
- Sand welding surfaces to bare metal.
- Lightly grind the areas which will not be welded.

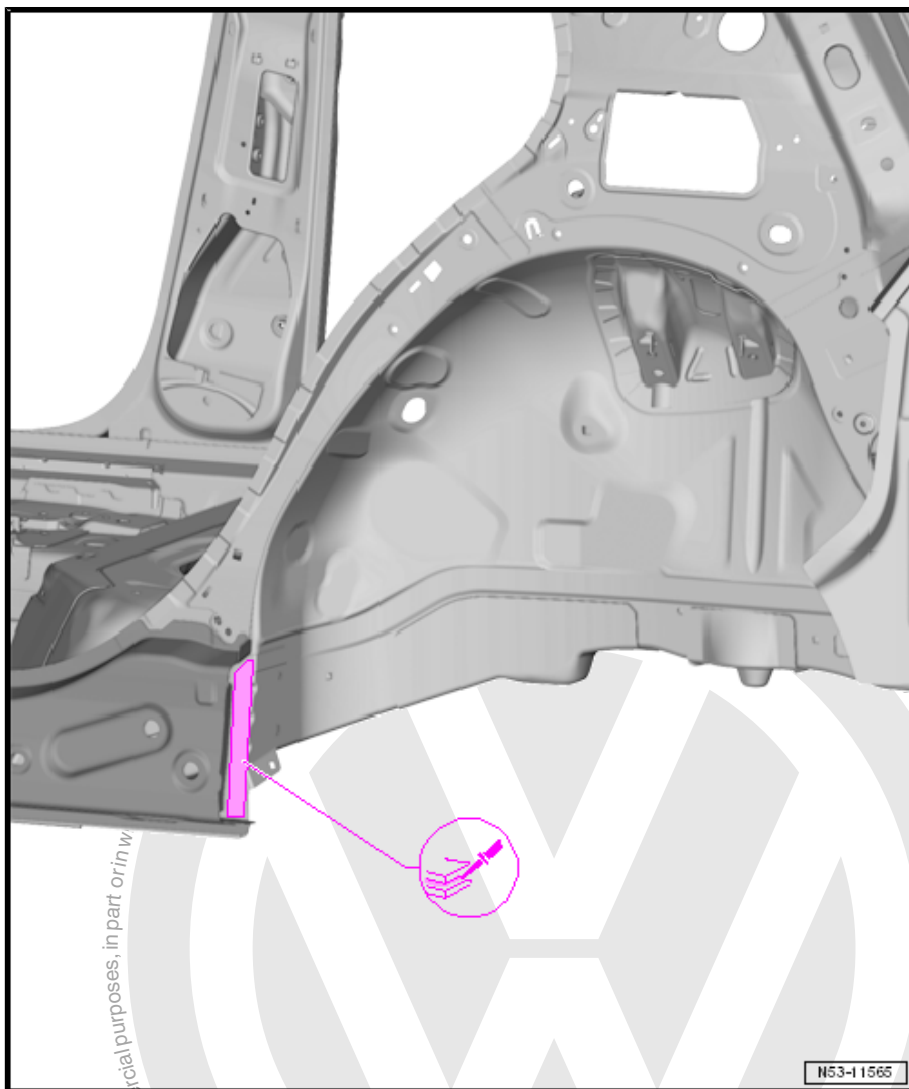


11.3.2 Welding

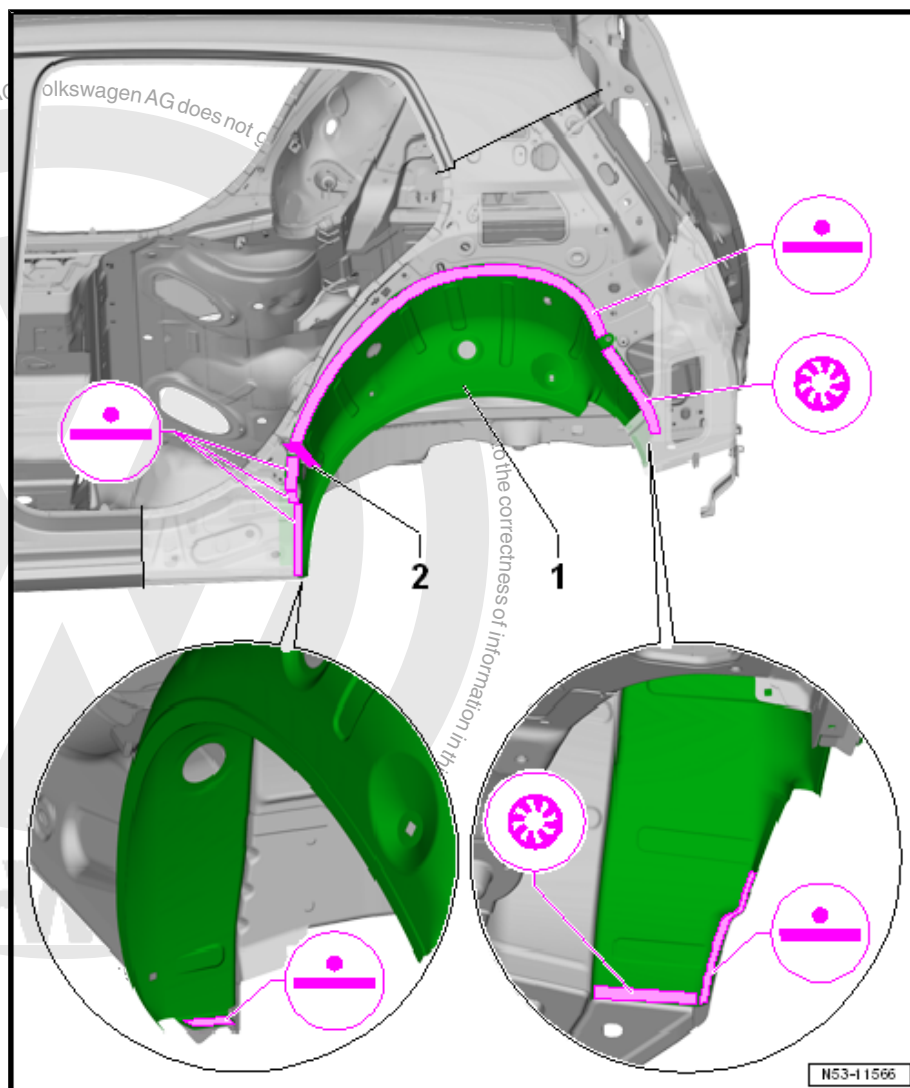


Note

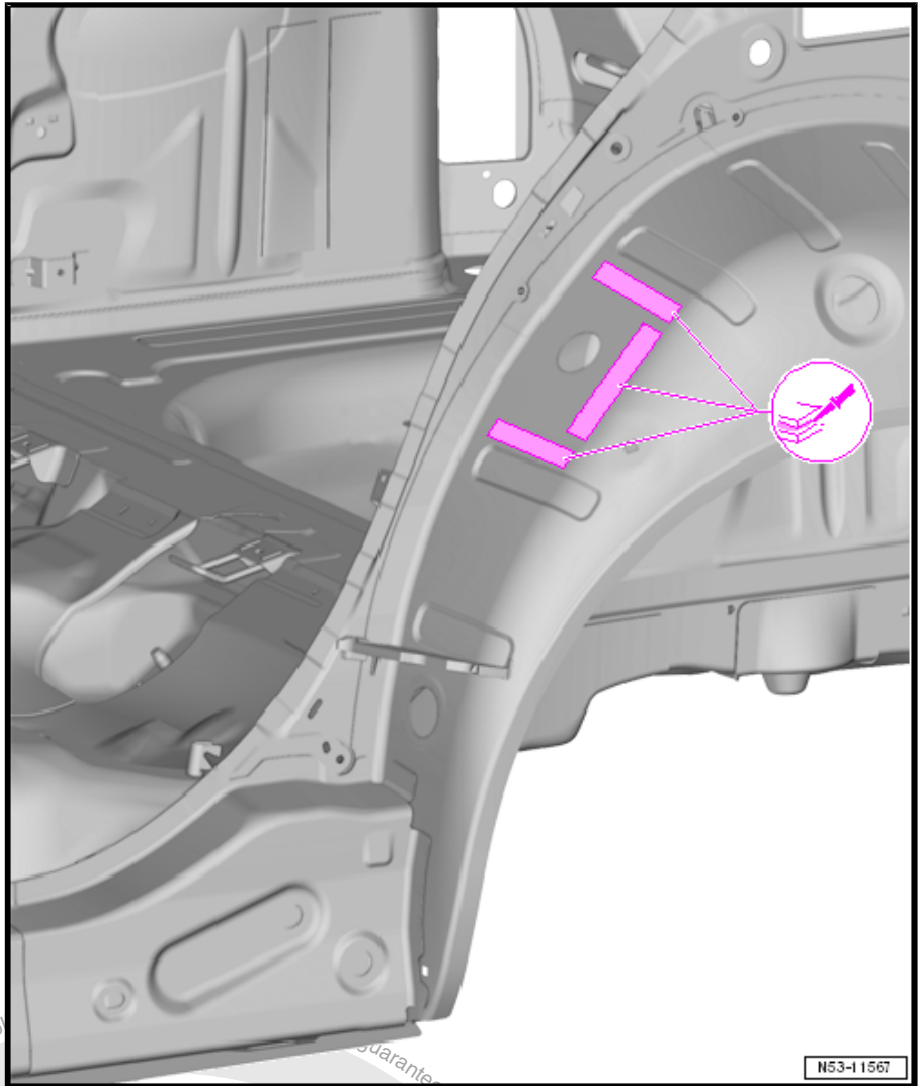
New part must be installed within 90 minutes, otherwise bonding properties of adhesive will be impaired.



- Apply 2K Body Adhesive - D 180 003 M2- in the areas where it was bonded during production.
- Fit new part to vehicle standing on its wheels or on Alignment Bracket Set and secure.
- Check fit with side panel.

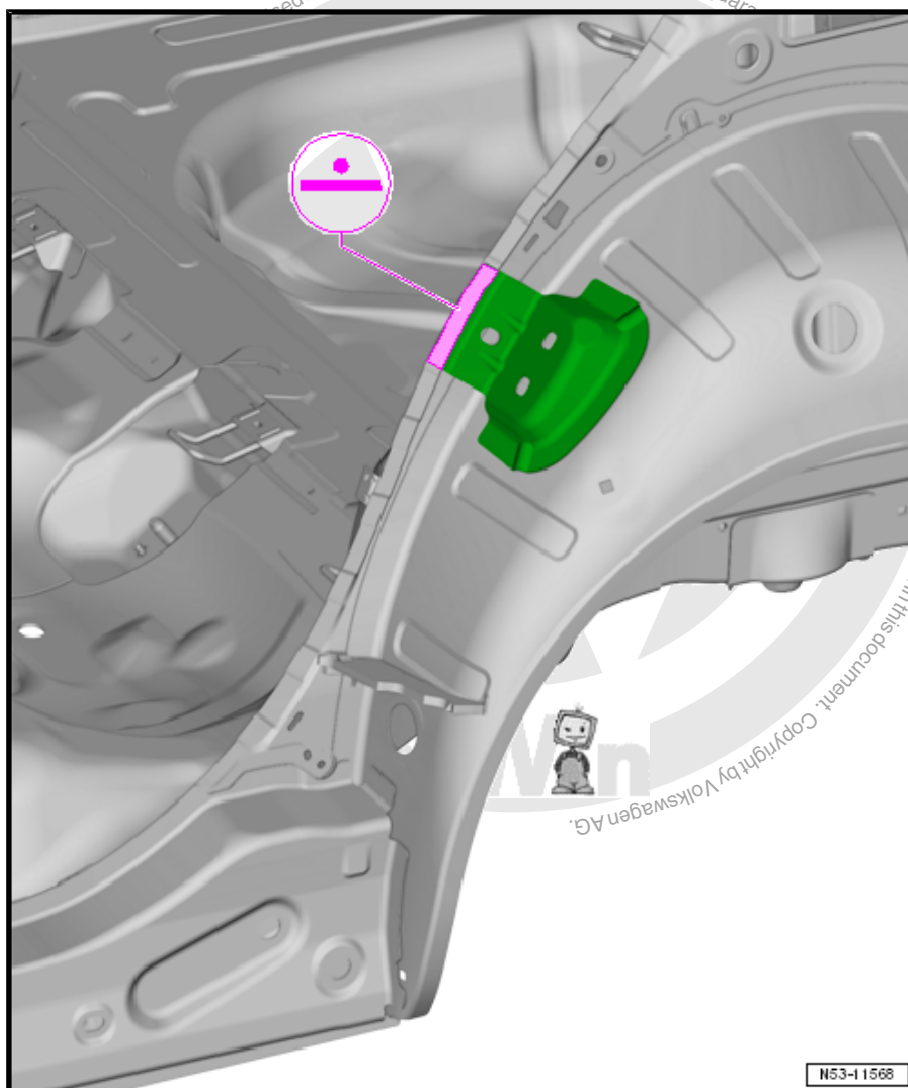


- Weld the outer wheel housing liner -1- straight-line spot weld seam, gas-shielded arc plug weld seam.
- Reinsert the molded foam part -2-. Refer to [⇒ “4 Molded Foam Parts”, page 5](#).



- Apply 2K Body Adhesive - D 180 003 M2- in the areas where the lock reinforcement was bonded during production.





- Weld the lock reinforcement with a straight-line spot weld seam.
- Install the 4-door side panel. Refer to [⇒ "9.3 Installing", page 205](#).
- Install the 2-door side panel. Refer to [⇒ "10.3 Installing", page 215](#).



12 Special Tools

Special tools and workshop equipment required

- ◆ Alignment Bracket Set
- ◆ Pneumatic Body Saw - VAS6780-

Edition 03/25/2015 - K0059210121 - FU - JY





13 Revision History

Re- vi- sion	Date	Job Type	Feedback #	Notes	Editor
2	03/25/2015	Factory Update			Yambrick
1	11/12/2014	Factory Update			Yambrick

Cautions & Warnings

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

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

Cautions & Warnings

- Illuminate the work area adequately but safely. Use a portable safety light for working inside or under the vehicle. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.
- Friction materials such as brake pads and clutch discs may contain asbestos fibers. Do not create dust by grinding, sanding, or by cleaning with compressed air. Avoid breathing asbestos fibers and asbestos dust. Breathing asbestos can cause serious diseases such as asbestosis or cancer, and may result in death.
- Finger rings should be removed so that they cannot cause electrical shorts, get caught in running machinery, or be crushed by heavy parts.
- Before starting a job, make certain that you have all the necessary tools and parts on hand. Read all the instructions thoroughly; do not attempt shortcuts. Use tools that are appropriate to the work and use only replacement parts meeting Volkswagen specifications. Makeshift tools, parts and procedures will not make good repairs.
- Catch draining fuel, oil or brake fluid in suitable containers. Do not use empty food or beverage containers that might mislead someone into drinking from them. Store flammable fluids away from fire hazards. Wipe up spills at once, but do not store the oily rags, which can ignite and burn spontaneously.
- Use pneumatic and electric tools only to loosen threaded parts and fasteners. Never use these tools to tighten fasteners, especially on light alloy parts. Always use a torque wrench to tighten fasteners to the tightening torque listed.
- Keep sparks, lighted matches, and open flame away from the top of the battery. If escaping hydrogen gas is ignited, it will ignite gas trapped in the cells and cause the battery to explode.
- Be mindful of the environment and ecology. Before you drain the crankcase, find out the proper way to dispose of the oil. Do not pour oil onto the ground, down a drain, or into a stream, pond, or lake. Consult local ordinances that govern the disposal of wastes.
- The air-conditioning (A/C) system is filled with a chemical refrigerant that is hazardous. The A/C system should be serviced only by trained automotive service technicians using approved refrigerant recovery/recycling equipment, trained in related safety precautions, and familiar with regulations governing the discharging and disposal of automotive chemical refrigerants.
- Before doing any electrical welding on vehicles equipped with anti-lock brakes (ABS), disconnect the battery negative terminal (ground strap) and the ABS control module connector.
- Do not expose any part of the A/C system to high temperatures such as open flame. Excessive heat will increase system pressure and may cause the system to burst.
- When boost-charging the battery, first remove the fuses for the Engine Control Module (ECM), the Transmission Control Module (TCM), the ABS control module, and the trip computer. In cases where one or more of these components is not separately fused, disconnect the control module connector(s).
- Some of the vehicles covered by this manual are equipped with a supplemental restraint system (SRS), that automatically deploys an airbag in the event of a frontal impact. The airbag is operated by an explosive device. Handled improperly or without adequate safeguards, it can be accidentally activated and cause serious personal injury. To guard against personal injury or airbag system failure, only trained Volkswagen Service technicians should test, disassemble or service the airbag system.

Cautions & Warnings

- Do not quick-charge the battery (for boost starting) for longer than one minute, and do not exceed 16.5 volts at the battery with the boosting cables attached. Wait at least one minute before boosting the battery a second time.
- Never use a test light to conduct electrical tests of the airbag system. The system must only be tested by trained Volkswagen Service technicians using the VAG 1551 Scan Tool (ST) or an approved equivalent. The airbag unit must never be electrically tested while it is not installed in the vehicle.
- Some aerosol tire inflators are highly flammable. Be extremely cautious when repairing a tire that may have been inflated using an aerosol tire inflator. Keep sparks, open flame or other sources of ignition away from the tire repair area. Inflate and deflate the tire at least four times before breaking the bead from the rim. Completely remove the tire from the rim before attempting any repair.
- When driving or riding in an airbag-equipped vehicle, never hold test equipment in your hands or lap while the vehicle is in motion. Objects between you and the airbag can increase the risk of injury in an accident.

I have read and I understand these Cautions and Warnings.