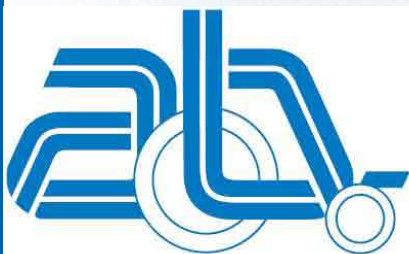


# Installation manual Volkswagen Caddy Maxi

## WAV-Conversion

Version 2.2



# Bierman



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## What is new in version 2.2

- The process of conversion is adjusted to a more efficient method.
- The layout of the manual is changed for more clarity.
- The general information has been extended.
- The manual includes check points for tightening torques.
- All parts supplied by Bierman have been appointed in the manual with part numbers.
- The installation of the reinforcement shock absorber bracket + extra bracket is described in the manual.
- A checklist is included for inspection of the vehicle after conversion.



## 1. General Information

### 1.1 Personal safety regulations

- Always wear suitable protective clothing, safety shoes and use safety glasses, ear protection, respiratory protection and protective gloves if necessary.
- Do not wear rings, watches and loose jewellery.
- Never carry loose items in pockets.
- Tie long hair together.

### 1.2 General safety regulations

- Make sure your tools are in good condition and use it only for the intended purpose.
- Always use axle stands whenever you work underneath the car.
- Ensure that the vehicle can not roll off from the 4-post lift.
- Work safely with hazardous materials such as fuels.

### 1.3 Used symbols



You need an extra pair of hands.



Wear protection for eyes and ears.



No open fire or smoking.



Check tightening torque



Part can be thrown away. No need for it anymore.

## 1.4 General Guidelines

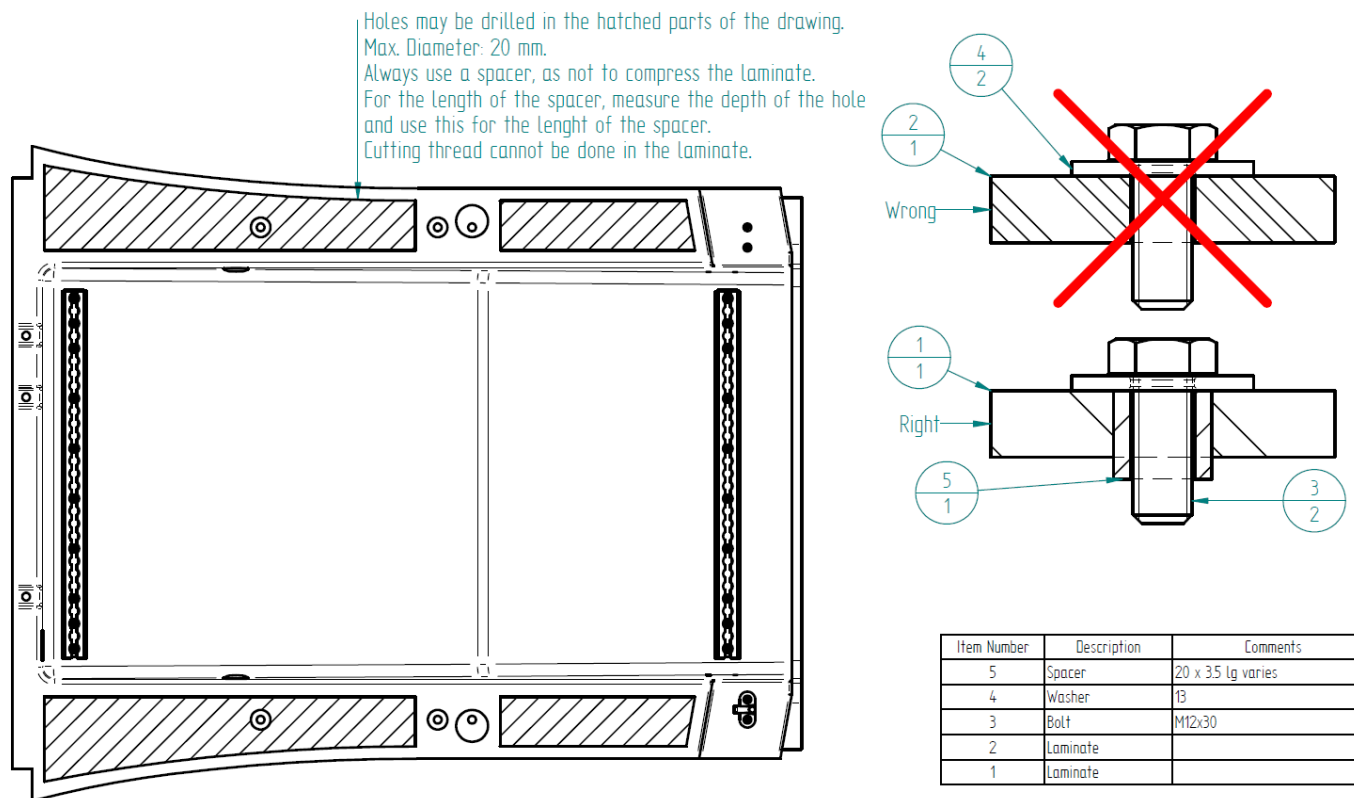
- Read the instructions carefully, before starting to convert the vehicle.
- **IMPORTANT:** Only use a 4-post car lift while converting the car!
- Never throw the dismantled parts away, unless mentioned otherwise.
- Keep all the parts stored together.
- Be sure that you have enough working space in- and outside the vehicle.
- Make sure the vehicle is dry before you start the conversion.
- Before you start, you need to disconnect the connections to the battery.
- The vehicle must not move during the conversion, to assure a good geometry of it.
- Never remove the steel bumper before the lowered floor is fixated in the vehicle.
- Always check the website for the latest installation guide.

### IMPORTANT:

When the car is brand new, direct from the factory, the electrical system of the car needs to be reset. The VW dealer can do this.

### IMPORTANT:

Holes (max. 20 mm) may be drilled in the hatched parts of the drawing below. Always use a steel spacer to prevent damaging GRP (Glass Reinforced Polyester)



## 2. Tools list

### 2.1 Common tools

- Sealant gun **1** (or pneumatic adhesives dispenser gun)
- Calibrated torque wrench **2**
- Pop riveter **3**



## 2.2 Electrical/compressed air tools

- Angle grinder (electrical/pneumatic) **4**
- Circular saw (electrical) for metal (for example: Milwaukee MCS 65) **5**
- Saw (pneumatic) **6**
- Impact wrench (pneumatic) **7**
- Pop riveter (pneumatic) **8**
- Drilling machine (electrical/pneumatic) **9**



## 2.3 Special tools

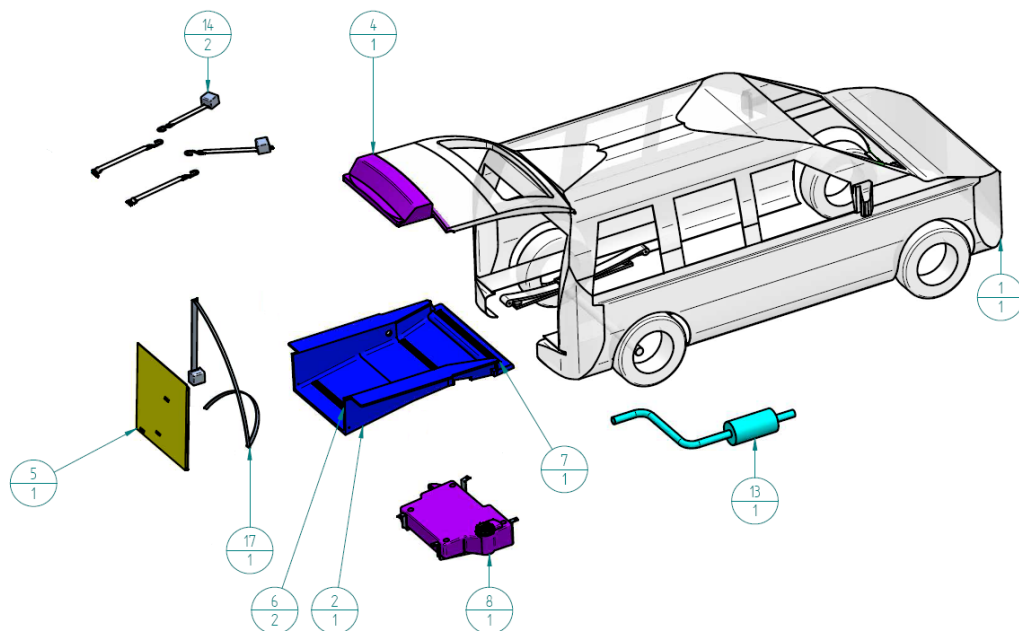
- Bit for inner twelve-side screws M8 for Volkswagen, on general sale (Gedore 6569330 code: 885\*8) **10**
- Bit for inner twelve-side screws M10 for Volkswagen, on general sale (Gedore 6569410 code: 885\*10) **11**
- Floor mould (on sale at Bierman, part number N200014001) **12**
- Bumper mould, included with two tailgate moulds (on sale at Bierman, part number N200014002) **13**



# Bierman

### 3. Survey of the conversion kit

In the picture below you see the most important parts of the conversion kit.



- |                                   |                                          |
|-----------------------------------|------------------------------------------|
| 1. Volkswagen Caddy Maxi          |                                          |
| 2. Lowerd floor                   | N200001007                               |
| 4. Bumperpart Complete            | N150002001                               |
| 5. B/C-Ramp Assembly              | O5643/O5644                              |
| 6. Tie plate set L&R              | N100001003                               |
| 7. Electric wire set 4-Point Fix. | N563211005                               |
| 8. Fuel tank (parts)              | petrol: N150013011    diesel: N150013008 |
| 13. Exhaust caddy                 | petrol: 760108    diesel: 760109         |
| 14. Q'straint restraint system    | QE-4175                                  |
| 17. 5 Seated maxi set             | N581915001                               |



## 4. Dismounting

### 4.1 Dismounting the interior

Remove the rear shelf.



Remove the rubber of the rear hatch.



Remove the back seats on the second row



Fold up the first row back seats.





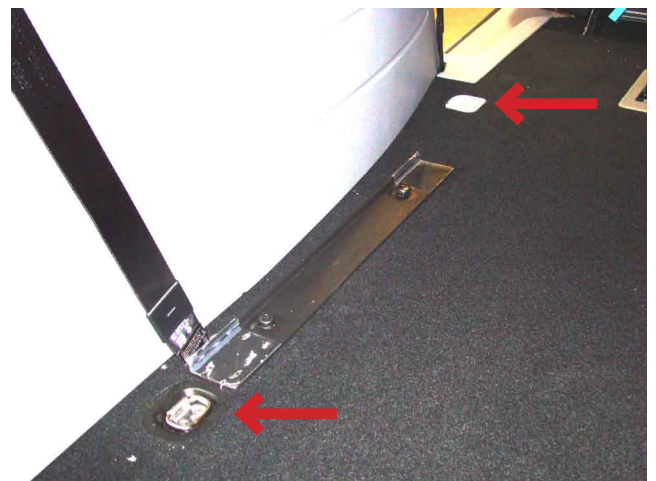
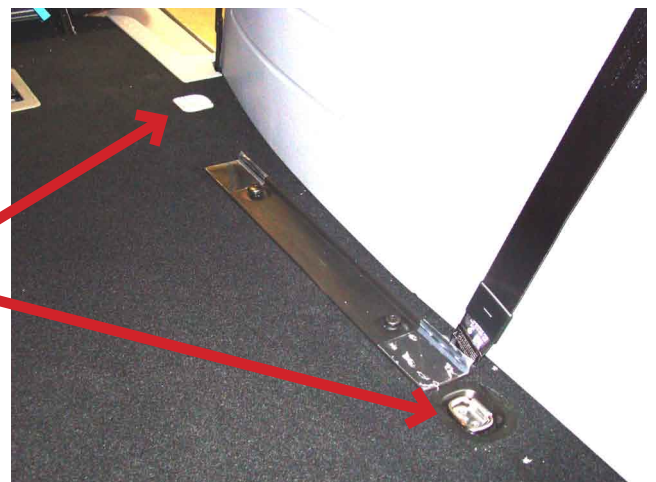
Remove the door latch and cargo anchorages

Remove the cover of the door latch

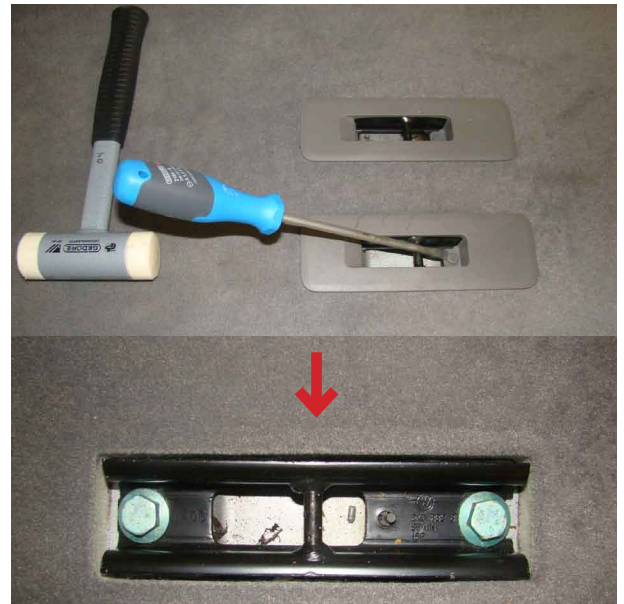


Unscrew the bolts of the second back seat

Remove the other cargo anchorages.  
On both sides



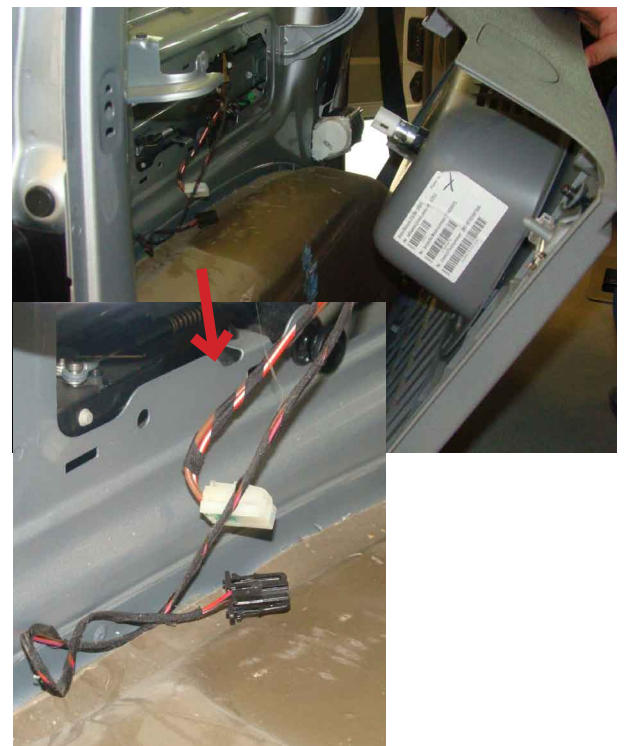
Dismount the rear points of support for the back seat



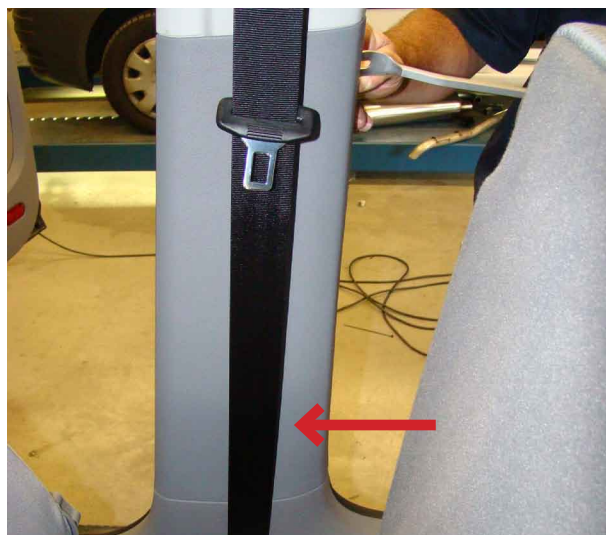
Unscrew the bolts of the seat belts of the second row back seats.



Remove the covers from the wheel arches, disconnect the connector plugs (left side).



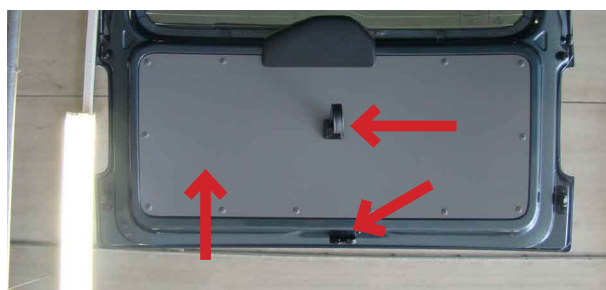
Remove the covers from the front belts (both sides).



Remove the covers from the door sills, unscrew the bolts of the front seat belts at both sides.



Remove the cover of the rear hatch, the lock, cord and protection cap of the rear hatch



Fold the floor covering over the front seats to protect the interior.





## 4.2 Dismounting the exterior

Remove the spare wheel.



Unscrew the screws in the wheel arches



Unscrew the two screws on the inside of the bumper (these screws connecting the bumper with steel inner bumper and can be found within the red squares on the inside of the bumper).



Disassemble the plastic bumper, but let the steel bumper be mounted on the vehicle. Store the plastic bumper to use later on.



Remove the connection part from of the exhaust



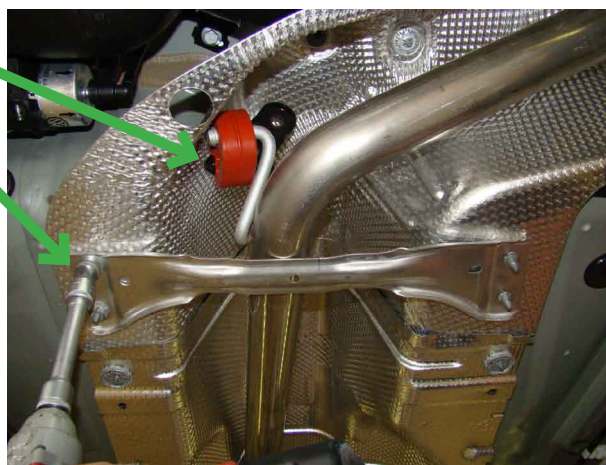
Remove the mounting bracket at the rear



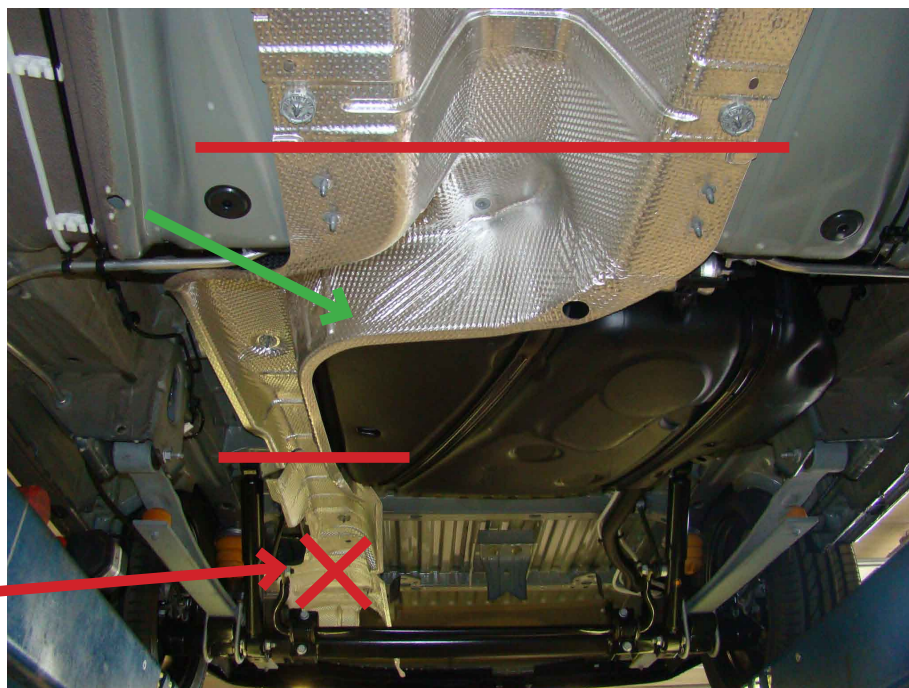
Remove the mounting bracket in the middle

Remove the bracket

Carefully remove the exhaust.



Remove the heat shields  
(see picture).



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**Petrol only!**

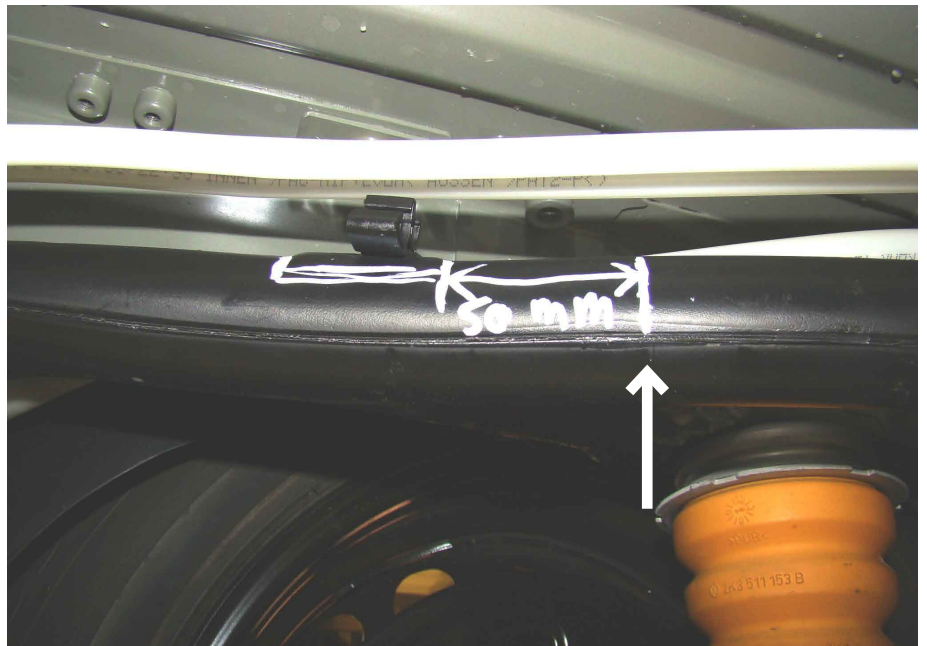
Remove the steel wire out of the filler opening.

**IMPORTANT:**

There is fuel in the filler pipe, make sure that the fuel can be collected. The tank will not drain completely because there is a safety valve in the fuel tank.



Saw through the filler pipe and the white pipes, at the places indicated in the pictures.

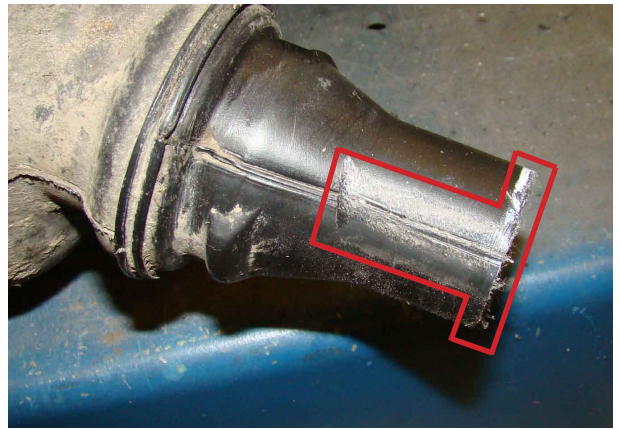


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### IMPORTANT:

Make the cutting edge smooth with a file (deburr)  
Remove the edge on top off the original filler pipe,  
do this by using a file to make the surface smooth.  
Do this at both sides of the earlier sawn filler pipe.



### IMPORTANT:

Make sure that the fuel tank is empty before  
removing, or use a plug to close up the tank and to  
prevent leakage!

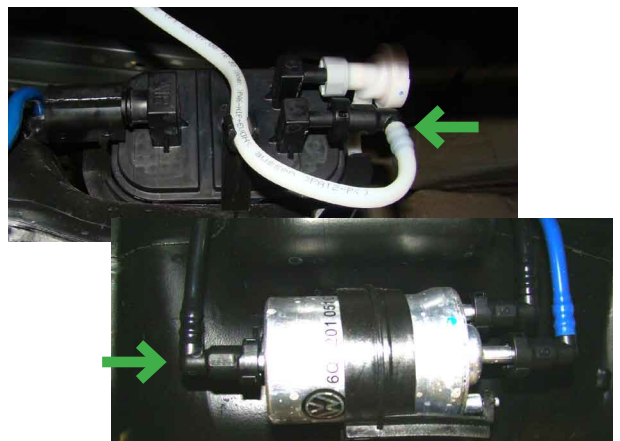
Place a support underneath the fuel tank and  
unscrew the bolts of the braces at the side of the  
float element.



Disconnect the connector plug from the float  
element and both fuel pipes (Mark the mounting  
locations of the two fuel pipes, so you cannot make  
any mistakes when refitting the fuel tank).



**PETROL  
ONLY!**



## Version 2.2

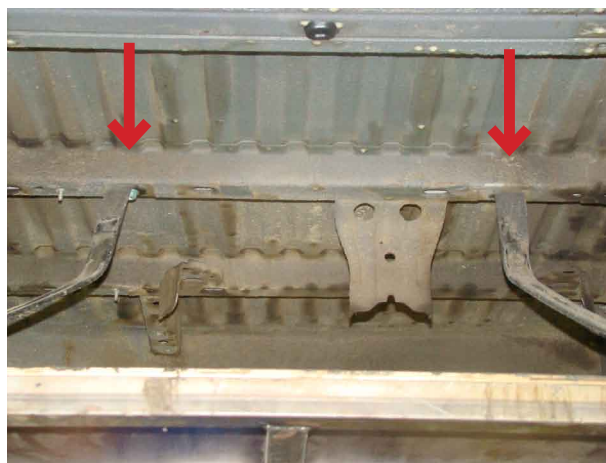
Carefully remove the fuel tank. The fuel tank braces can remain in place.



Remove the bolts of the anti-roll bar.

Unscrew the upper bolts of both shock absorbers,  
**Bend them downwards!!**

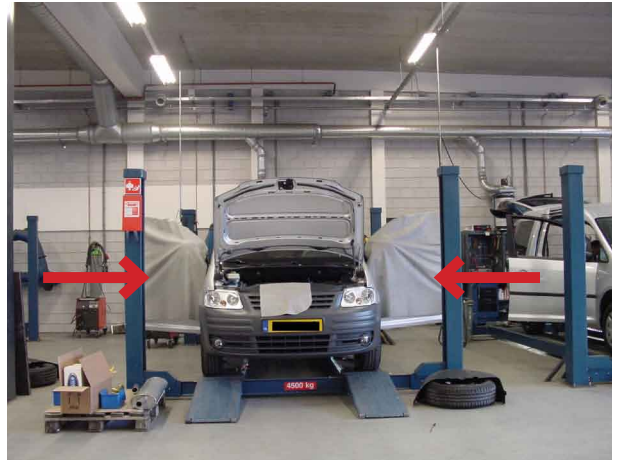
## Volkswagen Caddy Maxi



## 5. Preparations

### 5.1 Protection of the vehicle

Protect the front seats, doors, seat belts, windows and the roof lining if needed. Bierman is not liable for damage to these components.





## 5.2 Sawing out the floor

**IMPORTANT:**

Always wear protection glasses and protection for your ears when sawing!

**IMPORTANT:**

Make sure that the vehicle is dry when sawing out the floor!! (in/outside the car).

**IMPORTANT:**

Be sure that all hydraulic pipes and electrical wires are bent downwards or out of range of the cutting path, before sawing out the floor!!

Place the mould into the vehicle and fixate the mould on the vehicle.  
(Mould: N200014005).

Mark the lines (outer sides of the mould).  
Remove the mould from the vehicle.  
Connect the marked lines to make it complete.



## Version 2.2

First saw through the lines in the longitudinal direction of the vehicle using the circular saw (minimal saw depth 50 mm and maximum saw depth 65 mm).



The other parts need to be sawn out with the air saw.

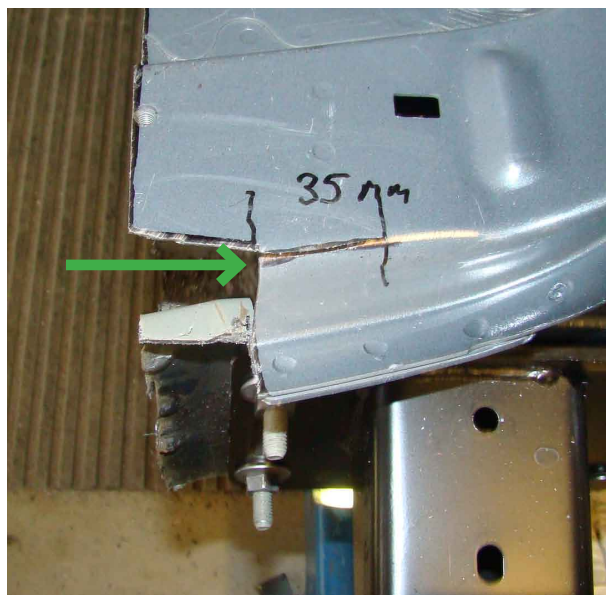




Saw away the edge on the front.



Saw on both sides a line of 35 mm to the outside of the vehicle.



Use a hammer to punch the lower part to the inner side of the vehicle and the upper part downwards (both sides).





**IMPORTANT:**

Remove the original anti-corrosion coating in the designated area (red square) on both sides.



Mark the location of the brackets as shown in both pictures. (Art. nr. bracket: N100001043).



Grind all of the steel edges found within the markings, until all of the edges are equal to the red surface area (see pictures below). Do this on both sides of the vehicle.



Place the bracket on its location temporarily.  
Use the shock absorber bolt in order to  
determine the location precisely.  
Mark the two holes.

Remove the bracket.  
Drill the two holes (6mm).



Use the primer (included in N150012001/ N150012002) to treat the sawing/grinding edges against corrosion,  
(Glass primer/activator Terostat 8519 P).

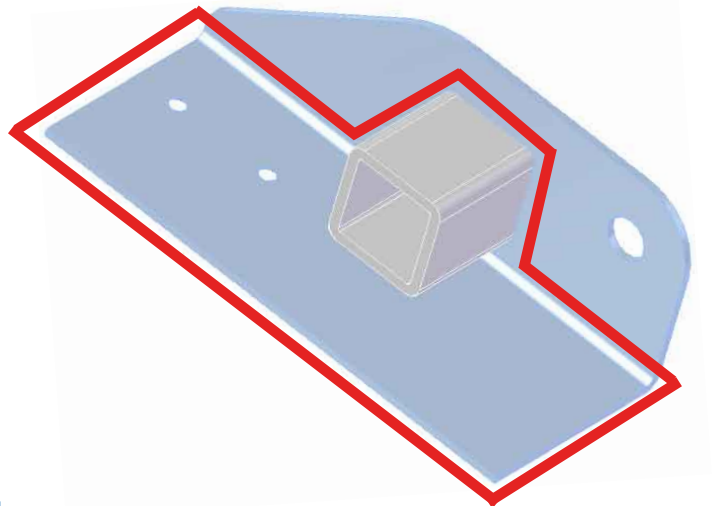
### **IMPORTANT:**

Always treat the sawing edges to prevent corrosion!!  
Your company is responsible for warranty!!

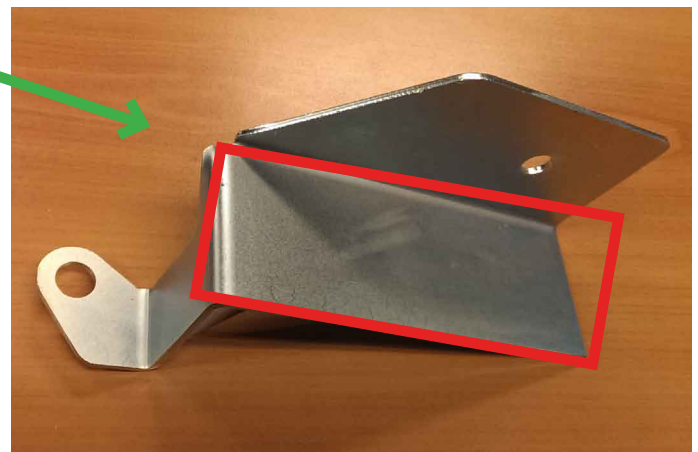
### **IMPORTANT:**

Preparation of the vehicle  
(After the primer has dried up).

- Clean the parts with **Cleaner I**. See both pictures on this page and the pictures on the next page.
- Wait 5 minutes.
- Treat all the metal parts with **Prep M**.
- Wait 5 minutes.



Also treat the locations mentioned below.  
Part nr.: N100001041

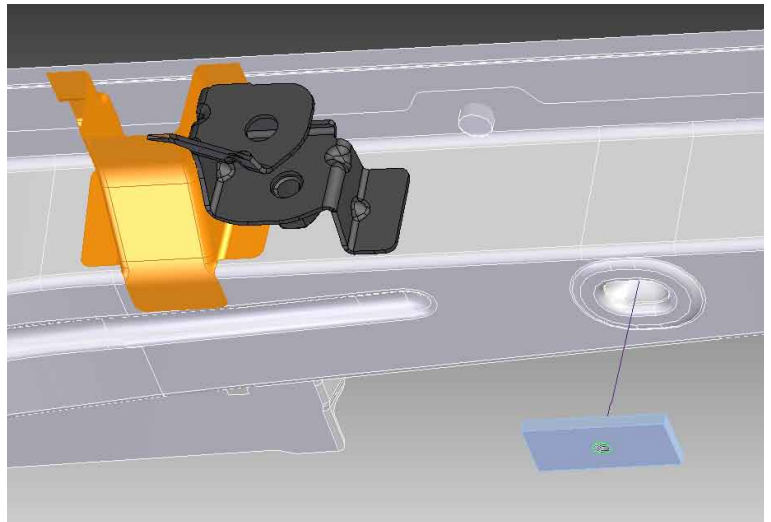


# Bierman

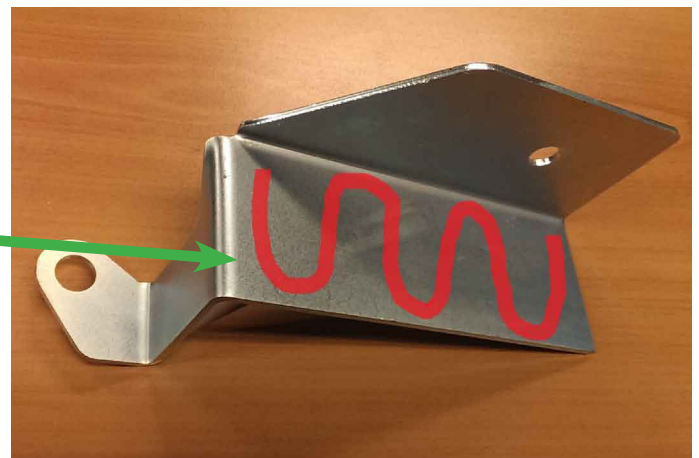


Mount the reinforcement shock absorber brackets (N100001041).


Maneuver the counter plate through the hole of the structure beam, and align the holes.



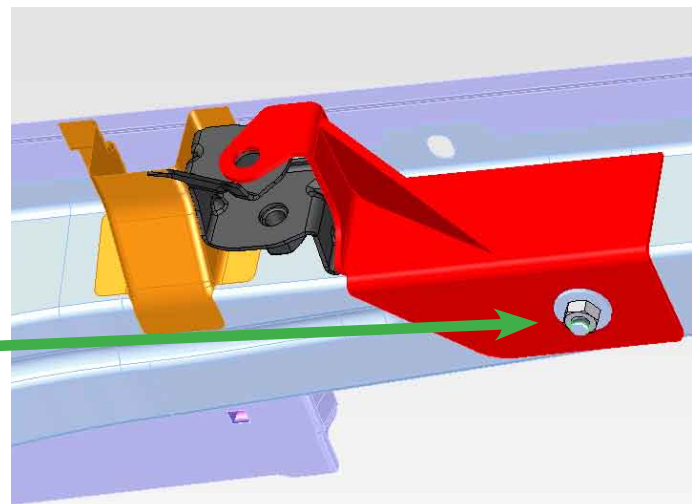
Apply glue (the same as used for the lowered floor, Simson ISR 70-05, Included in: N150012001/ N150012002) to the bracket as shown in the picture. (do not make closed shapes).



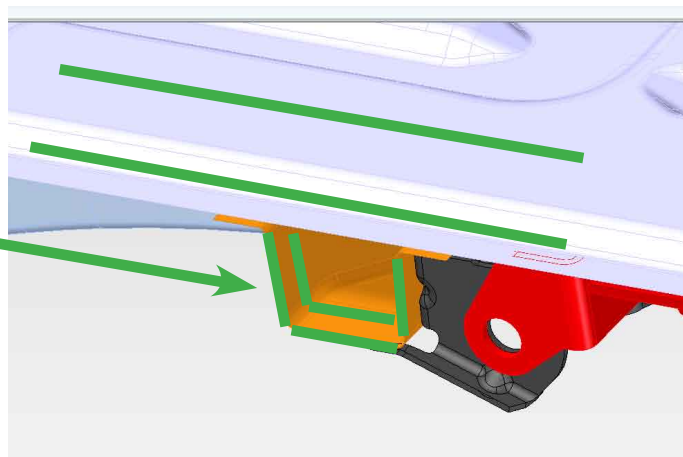
Mount the bracket as shown in the picture. Mount the supplied fasteners to the counter plate and **use thread locking adhesive.**

41 Nm	
Check Torque	

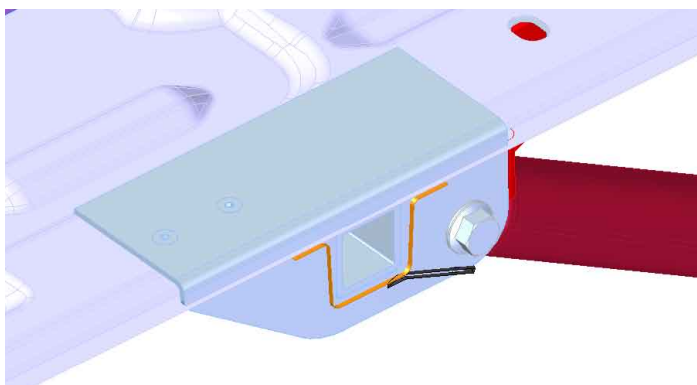
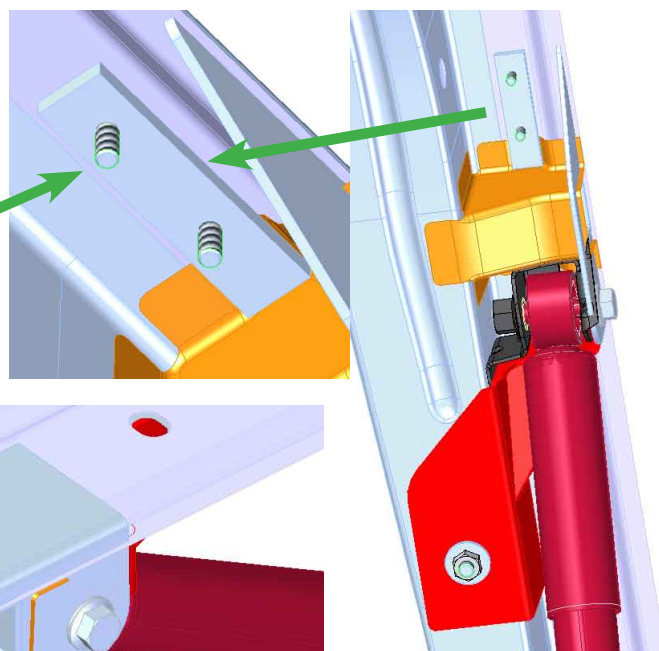
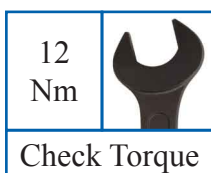
Mount the shock absorber (upper) bolt through the bracket, but only in order to hold the bracket in place.



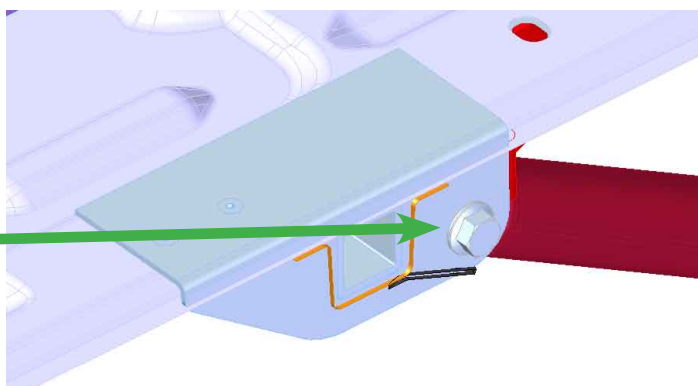
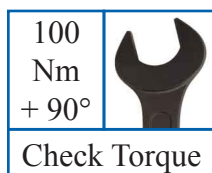
Apply glue (Simson ISR 70-05) to the locations shown in the picture (also inside the square shaped beam).



Disassemble the shock absorber bolt.  
Mount the extra bracket (N100001043) with the included fasteners. Mount the counter plate as shown in the picture.



Mount the shock absorber with the longer bolt.  
(included in set N100001043).



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## Version 2.2

Dismount the rubber bump stop and metal plate (both sides).

Remount the rubber bump stop and metal plate (both sides) with the spacer and new bolt (included in the kit, part number: N150013022).

40  
Nm



Check Torque

Place the lowered floor carefully in the vehicle, check if it fits perfectly. The floor has to make contact with the floor of the vehicle. (part number: N200001007).



To treat the sawing edges against corrosion, use the primer that is included in the kit. (Glass primer/activator Terostat 8519 P)

### **IMPORTANT:**

Always treat the sawing edges to prevent corrosion!!

Your company is responsible for warranty!!

## Volkswagen Caddy Maxi



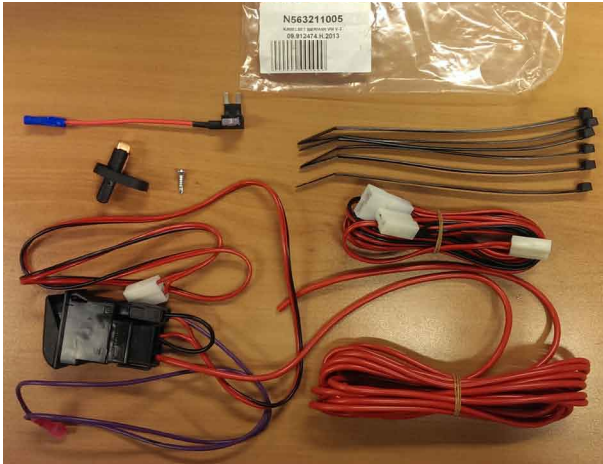
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### 5.3 Electrical installation for 4-point belt fixation

**ATTENTION:**

There are two nearly identical cable sets on sales. The difference between these two cable sets are the cable color and the part number. The differences will be shown in the following pages.



New and most common (N563211005)



Old (N150011001)

Place the red/black cable behind the front seats (see picture on the right: brown/red wire). Make sure that the female connector plug is going to the left wheel arch.



Place the cable (with the switch) on top of the wheel arch. Connect the connector plugs of the red/black wires with each other.

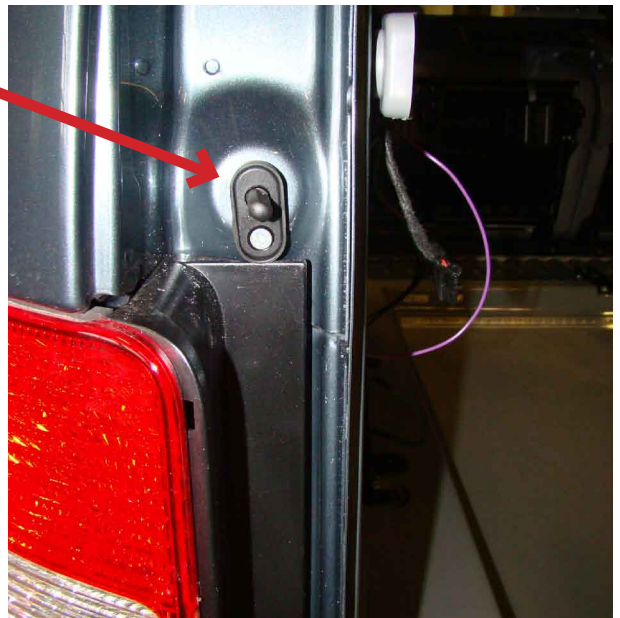
This is a preparation for a later stage in the conversion.



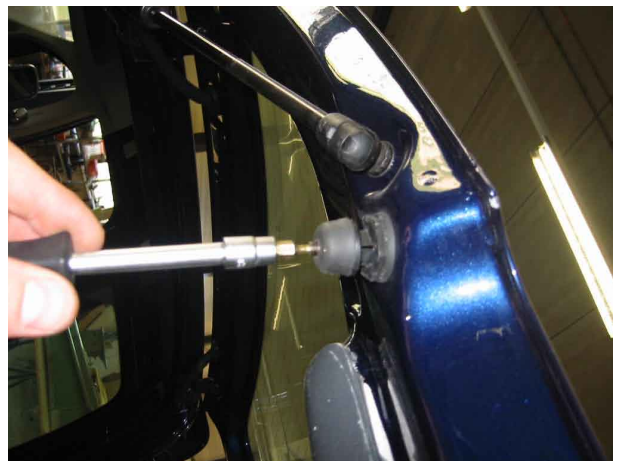
Drill a Ø 11 mm hole and treat against corrosion

Place the ground switch above the left tail light, fasten the switch with a screw (included in N563211005).

Connect the purple wire to the ground switch.



Loosen the left door stopper of the rear hatch.



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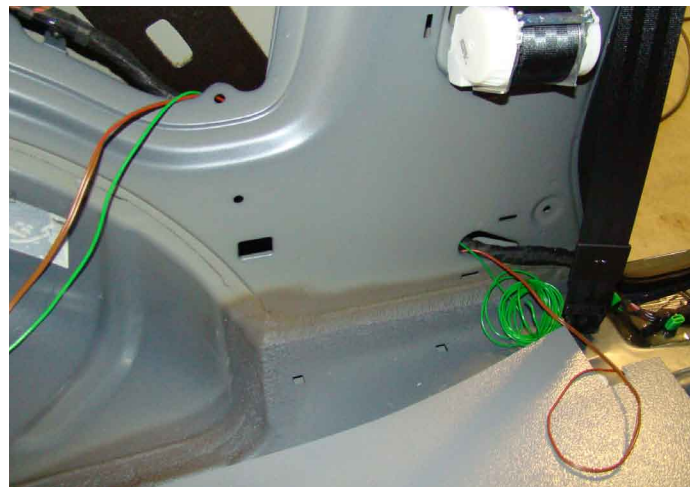
Push the door stopper in and fasten it.



The red wire (green wire in the picture) needs to go to the fuse box that is located inside the vehicle under the steering wheel.

Attach this wire to the original wiring harness underneath the upholstery.

If the red wire is located at the fuse box, the fuse holder can be mounted on the wire.



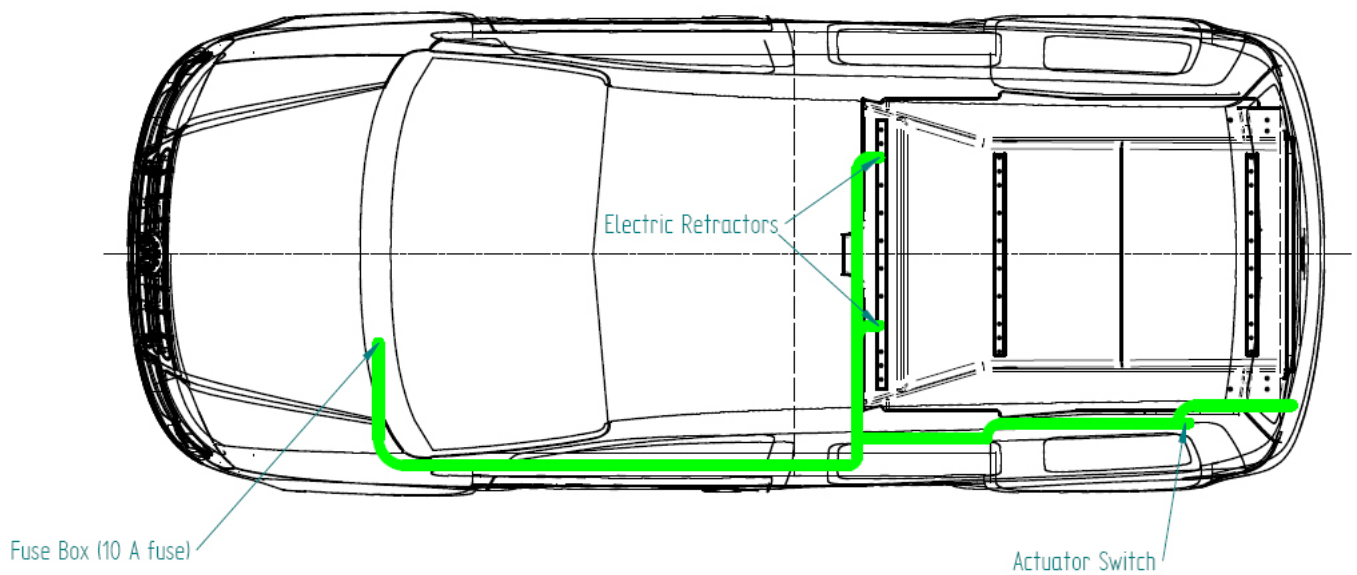
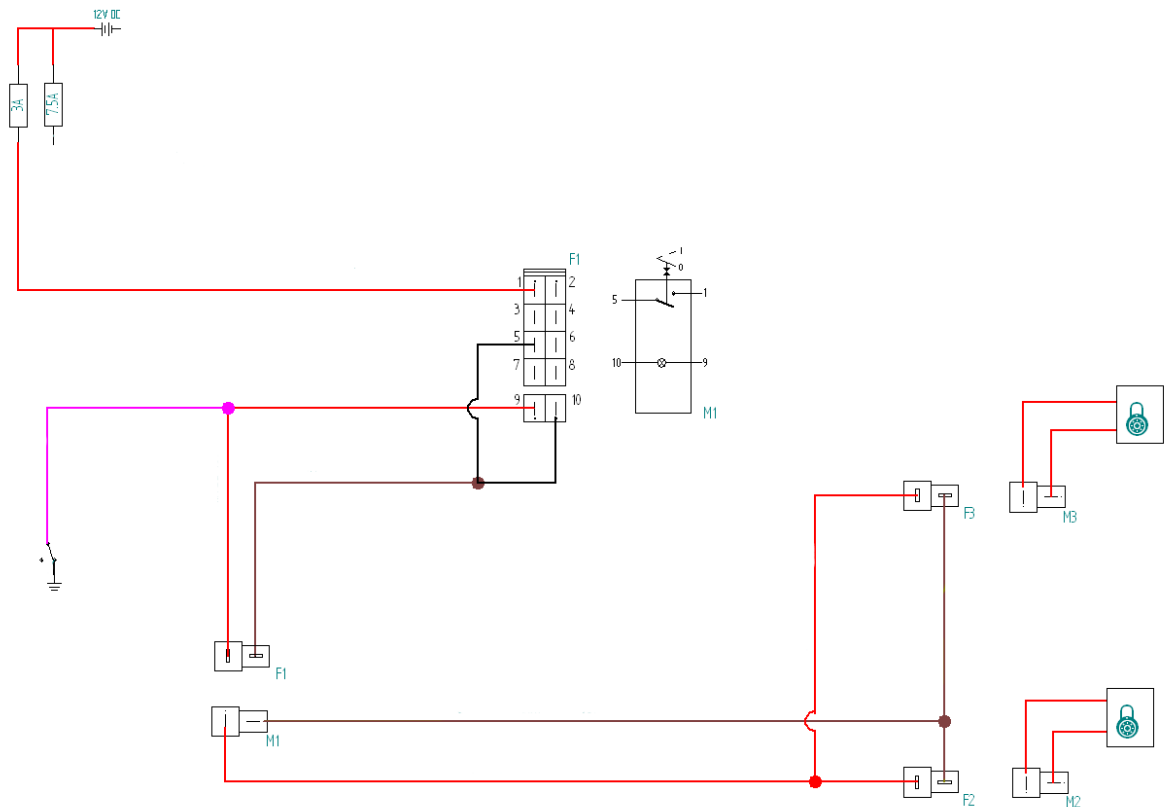
Place the splitter on ID 23, as indicated in the picture. There should not be a fuse present on ID23.

**IMPORTANT:**

Before you place the fuse on ID23 you should check if there is already a fuse present, if present this fuse must be equal or more than 10 A. Also you should check if the power is constantly 12V.



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## 6. Installing the conversion kit

### 6.1 Installing the lowered floor

#### **IMPORTANT:**

Make sure that the vehicle is dry before preparing the vehicle.

#### **IMPORTANT:**

Be sure that the saw cuts are treated with the primer before fastening the lowered floor into the vehicle.

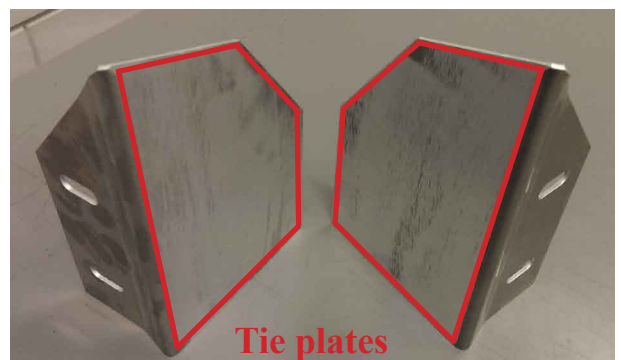
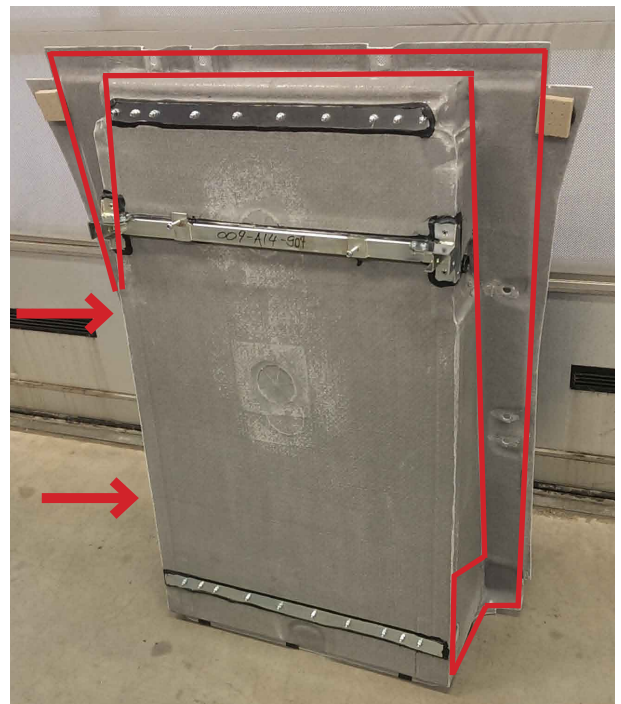
#### **IMPORTANT:**

Make sure that the parts which will be glued are prepared with Cleaner I and Prep M.

#### **IMPORTANT:**

Preparation of the vehicle, lowered floor and tie plates:

- Prepare the parts of the lowered floor with sandpaper (P60).
- Clean the parts with **Cleaner I**. Vehicle (see picture next page), lowered floor and tie plates.
- Wait 5 minutes.
- Treat the parts with **Prep M (Only metal parts)**. Vehicle and tie plates.
- Wait 5 minutes.





Vehicle surfaces that need to be treated.

**IMPORTANT:**

To glue the different parts, you need to use the triangular nozzle (included in set: N150012001/ N150012002).

**IMPORTANT:**

Put the glue on the vehicle in a way that the triangle stands up

**IMPORTANT:**

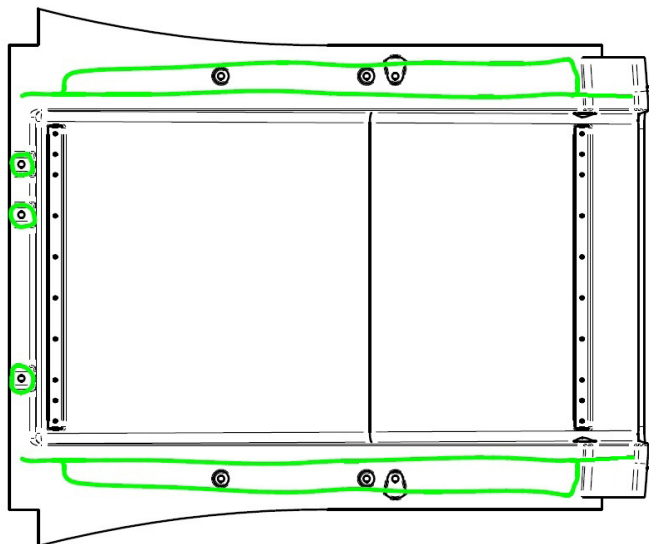
Keep 1 cm distance between the sawing edges and the glue.

Apply the glue onto the vehicle in closed shapes, see glue pattern on the next page.

Part nr.: N150012001/N150012002.



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Now carefully place the floor in the vehicle and press it downwards. Use a screwdriver to centre the lowered floor to the stud holes.



**IMPORTANT:**

Start on the left side. The studholes on the right side are adjustable.





**IMPORTANT:**

- If the car must be equipped with the option: handle bars, continue in manual: Volkswagen Caddy Maxi - Handle bars. You can download this manual from the login page of our website [www.bierman.eu](http://www.bierman.eu) (in the section 'workshop').
- If the car you are converting is a five-seater Caddy Maxi instead of a seven-seater, continue in manual: Volkswagen Caddy Maxi - 5 seated Maxi kit. You can download this manual from the login page of our website [www.bierman.eu](http://www.bierman.eu) (in the section 'workshop').

Remount the seat belts of the second back seat by using the original bolts, both sides.

40  
Nm



Check Torque

**IMPORTANT:**

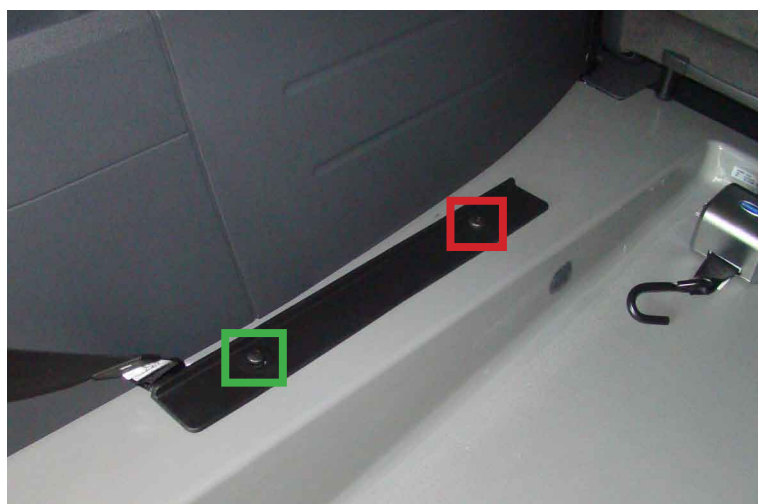
Put grease on the bolts, to isolate them from the glue.

Place the four bolts of the second back seat in the holes to fasten the lowered floor. The ones with the large bolt heads needs to go in front and the others (with the smaller bolt heads) in the back.

40  
Nm



Check Torque



Back

Front



## Version 2.2

Place the two rings (included in set: N150013010) on top of each other, to raise the support for the back seat.

Mount all the supports for the back seat as shown in the picture beside this text (use original fasteners).

30  
Nm

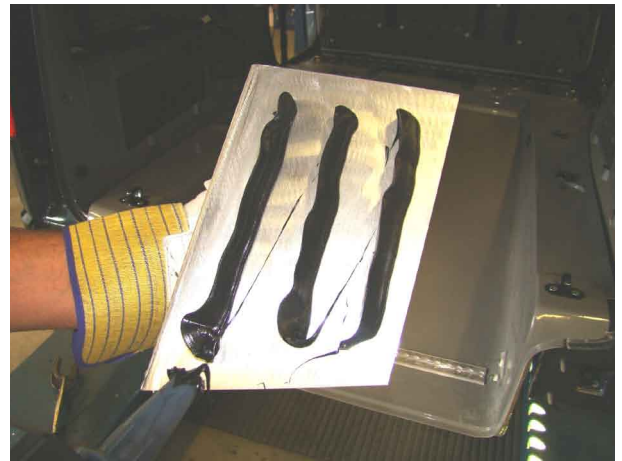


Check Torque

### IMPORTANT:

Remove the steel bumper (use the dismantled parts in the next step).

Apply the glue in three stripes on the tie plates and place them at each side of the vehicle. Fasten the tie plates by using the original nuts of the rear bumper.



Mount the anti-roll bar, using the original bolts, onto the bottom of the lowered floor using the two M12 nuts (included in set N150013010).

108  
Nm



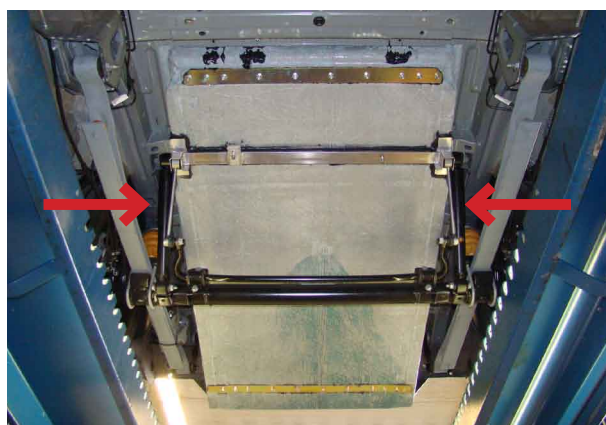
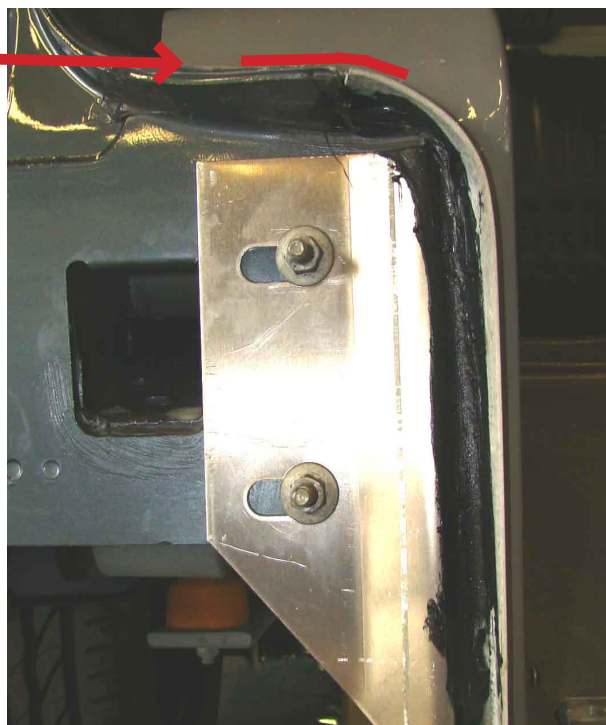
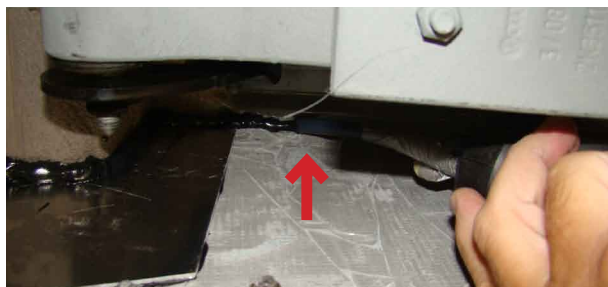
Check Torque

Stick tape across the gap. Fill the gap with sealant. Do not remove the tape before the sealant has dried.

Finally you need to fill up all the open places with glue, the sides of the tie plates and underneath the vehicle.

### IMPORTANT:

After fastening the lowered floor into the vehicle you must wait 48 hours before using the car. This way, you will get the maximum strength of the glue!



### IMPORTANT:

Make sure to seal all edges of the lowered floor in order to prevent moisture to get into the vehicle or between the lowered floor and the original floor. Repair the original anti-corrosion system with spraywax or protective coating.

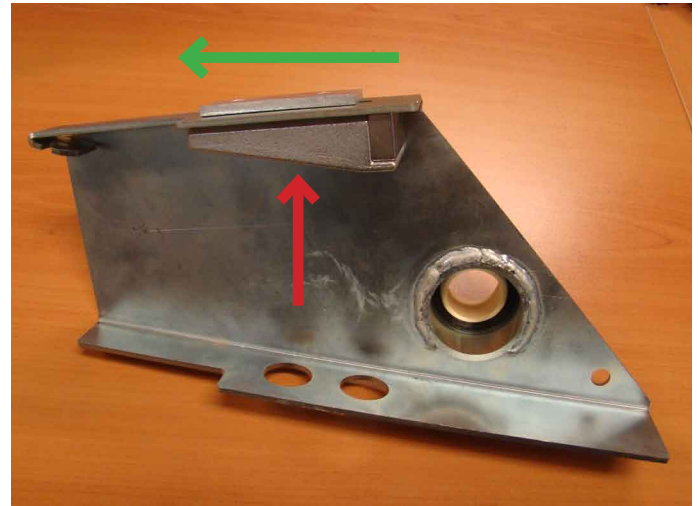


# Bierman



## 6.2 Mounting springplates

Slide the part with the magnet as far as possible from the hinge joint (both sides).



### IMPORTANT:

Make sure that the parts which will be glued are prepared with Cleaner I and Prep M. Use Prep M only on metal surfaces.

Clean the mounting plate with Cleaner I and after 5 minutes with Prep M.





## Version 2.2

## Volkswagen Caddy Maxi

Apply the glue onto the springplate and place it on the lowered floor as indicated in the picture. glue included in: N150012001/ N150012002.

### IMPORTANT:

Make sure the springplates are resting flat against the lowered floor and parallel with the underside of the lowered floor.

Secure the springplate onto the floor with M8 bolt as shown in the picture.

20  
Nm



Check Torque

### IMPORTANT:

After fastening the mounting plates onto the sides of the lowered floor you must wait 48 hours before using the ramp. This way, you will get the maximum strength of the glue!

When the mounting plates are fastened you can mount the hinges and the spring, as indicated in the pictures (both sides).

### IMPORTANT:

If the car must be equipped with the option: Taxi hinges, continue in manual: Taxi hinges. You can download this manual from the login page of our website [www.bierman.eu](http://www.bierman.eu) (in the section 'workshop').

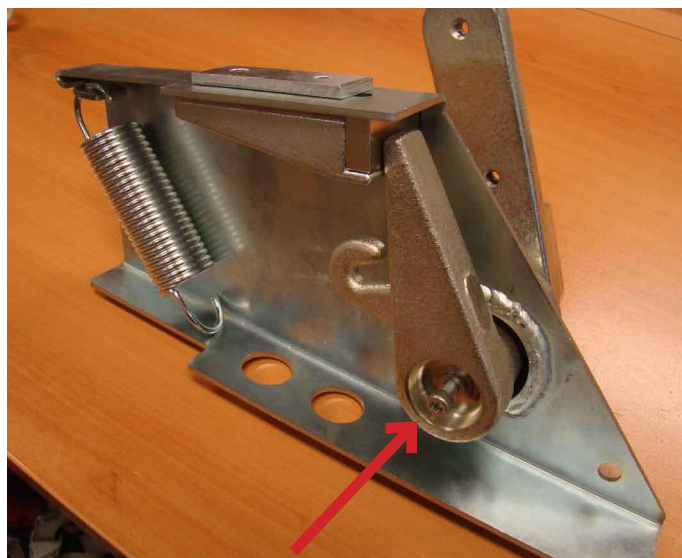
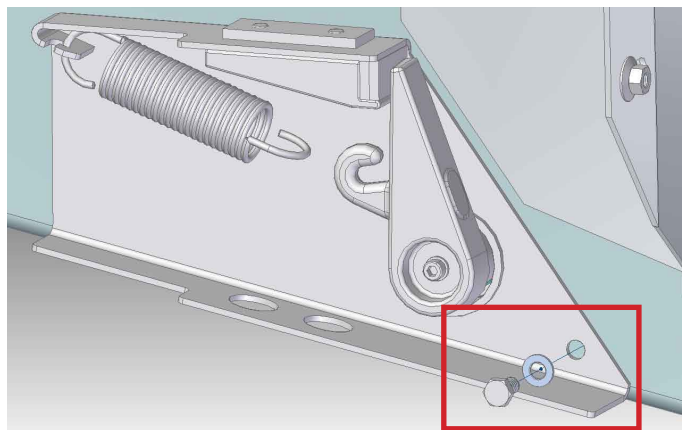
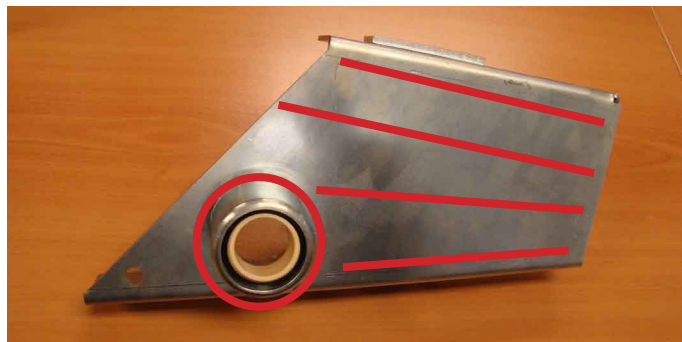
### IMPORTANT:

Use thread locking adhesive.

8  
Nm



Check Torque



# Bierman

For Diesel continue at page 42

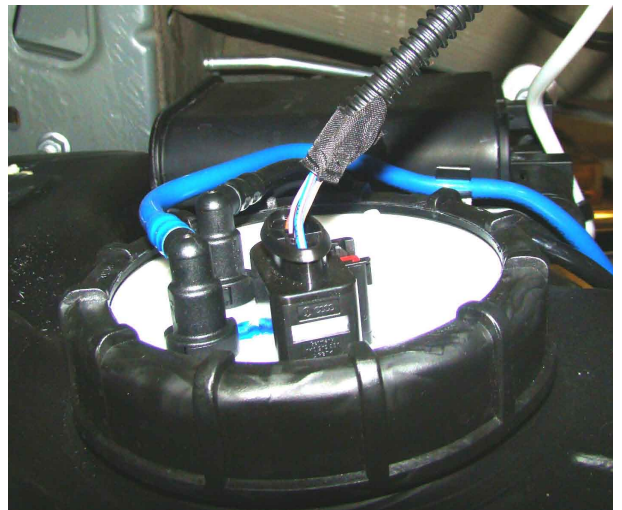
For Petrol continue at page 49

## 6.3.1 Fueltank Diesel

Place a support underneath the car and place the original fuel tank on it.



Connect the connector plug to the float element. Reconnect both fuel pipes.



Now replace the original braces from fueltank, fasten them on the side of the float element (use the original bolts).

20  
Nm



Check Torque



Mount the other side of the braces to the brackets underneath the lowered floor. Use two M8 lock nuts, already present on the thread ends.



# Bierman



**IMPORTANT:**

Mount the tank as much as possible to the right side. keep at least 1 cm distance between leaf spring bolt and fuel tank.

20  
Nm

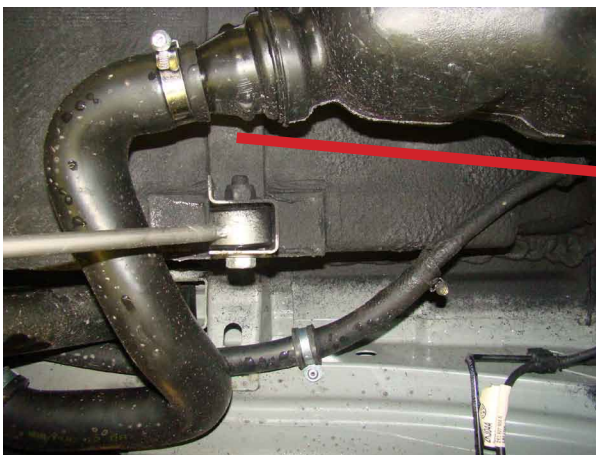


Check Torque



Attach the new filler pipe to the original fuel tank and filler pipe by using two hose clamps, 35-50 mm 12 mm.

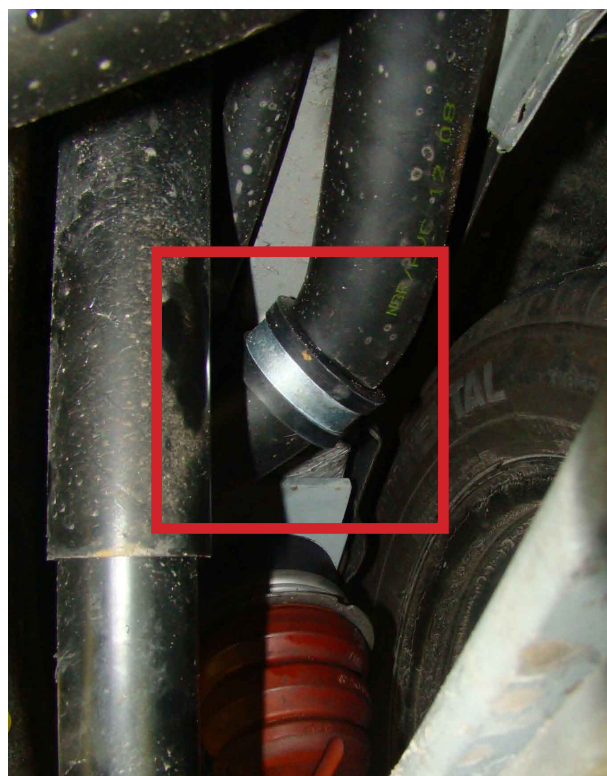
- part nr. filler pipe: 38708004.
- hose clamps included in set: N150013008



Place the protection rubber (included set: N150013008) round the steel plate of the rubber axle bumper, to protect the filler pipe.



Place the clamp with rubber on the filler pipe to fasten it, use a self-drilling screw and washer (included in set N150013008).

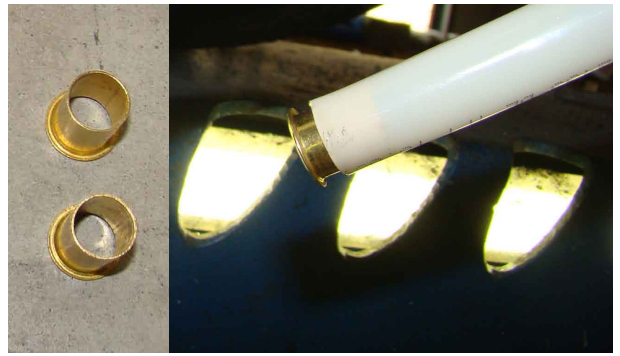




## Version 2.2

## Volkswagen Caddy Maxi

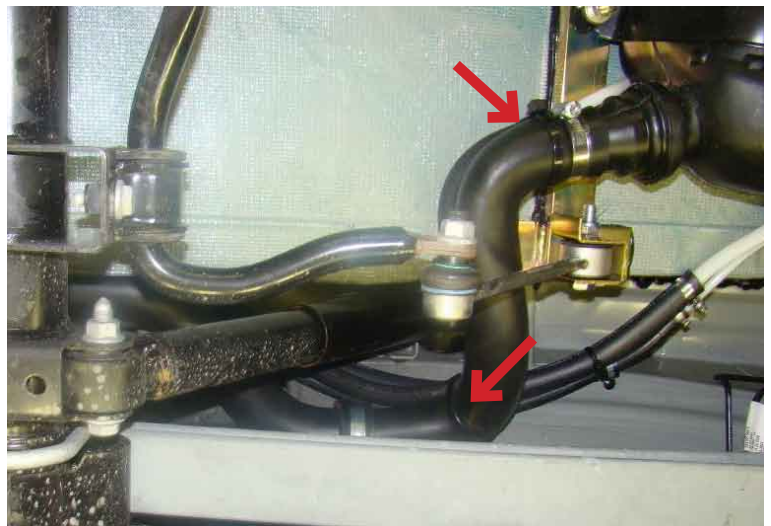
Place the tube shells in the white hose (sawn through earlier, as well on the side of the filler pipe as on the side of the fuel tank), included in set N150013008.



Connect the Ø 16 mm long 800 mm hose with the white hose. Fasten it with two hose clamps, 12-22 mm (included in set N150013008).



Use the cable ties to keep the hoses together.



### **IMPORTANT:**

The new fuel tank is full when the fuel gauge stands between 3/4 and 1/1, as indicated in the picture!! Cause of this problem is that the original fuel tank is remounted under the vehicle under a different angle than the original one!

The fuel gauge displays the amount of fuel inside the tank correctly between 0 and 3/4.



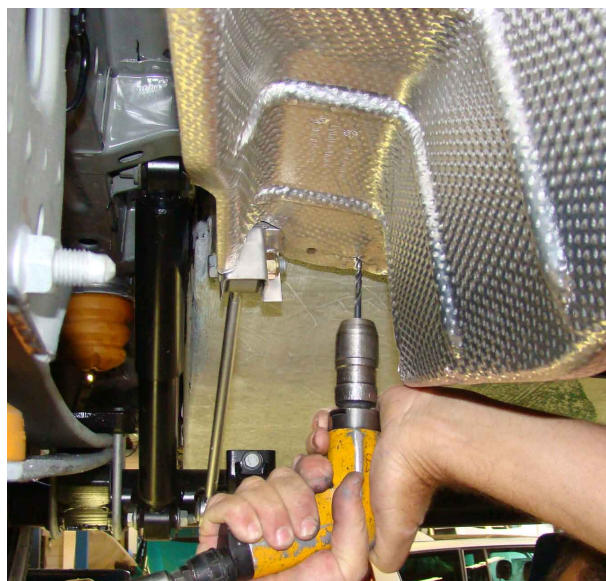


### 6.3.2 Exhaust system Diesel

Replace the middle part of the original heat shield.



Drill two holes (5 mm) at the rear end of the heat shield in the mounting bracket (of the fuel tank) under the lowered floor.



Mount the rear end of the heat shield with two blind rivets (included in set: N150013010).

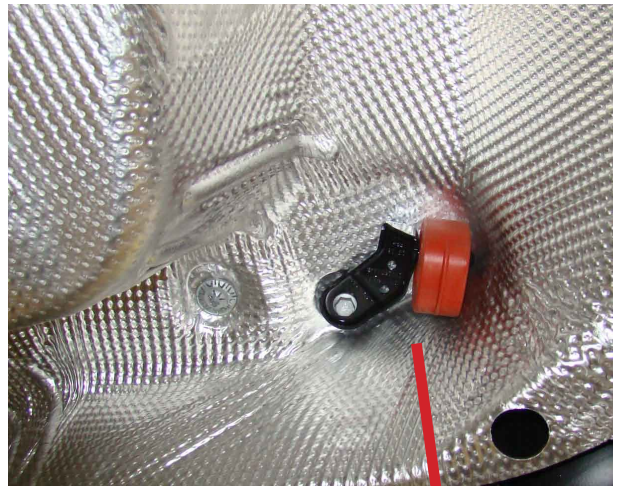


Place the original mounting bracket back on the place were it used to be, use the original bolt.

30  
Nm



Check Torque

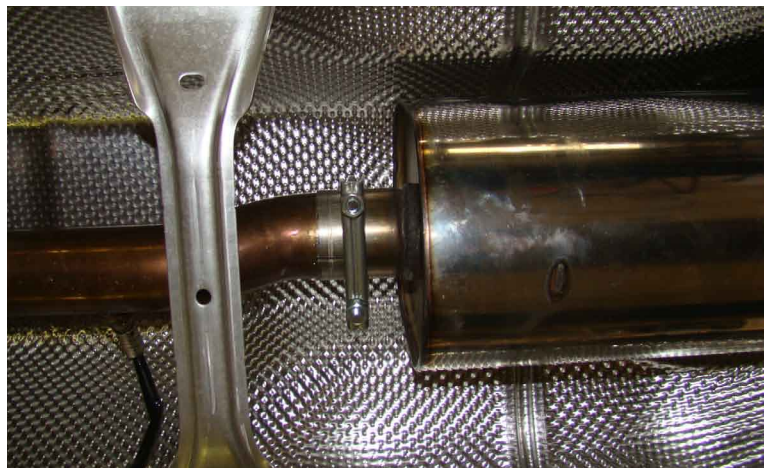


**IMPORTANT:**

Before you mount the new exhaust system you must try if it fits. You can see where you need to saw through the original exhaust pipe ( $\pm 5\text{cm}$ ), the part which is still on the vehicle. The new exhaust system fits on the brackets (included in set 760109), no adaptation needed.

Slide the exhaust silencer over the original exhaust and place it on the mounting bracket. Part nr.: 760109.

Use an exhaust clamp (included in set 760109) to fasten the silencer to the original pipe.





Place the other mounting bracket (with original rubber) in front of the right leaf spring, use a M8 bolt and nut (included in set 760109).

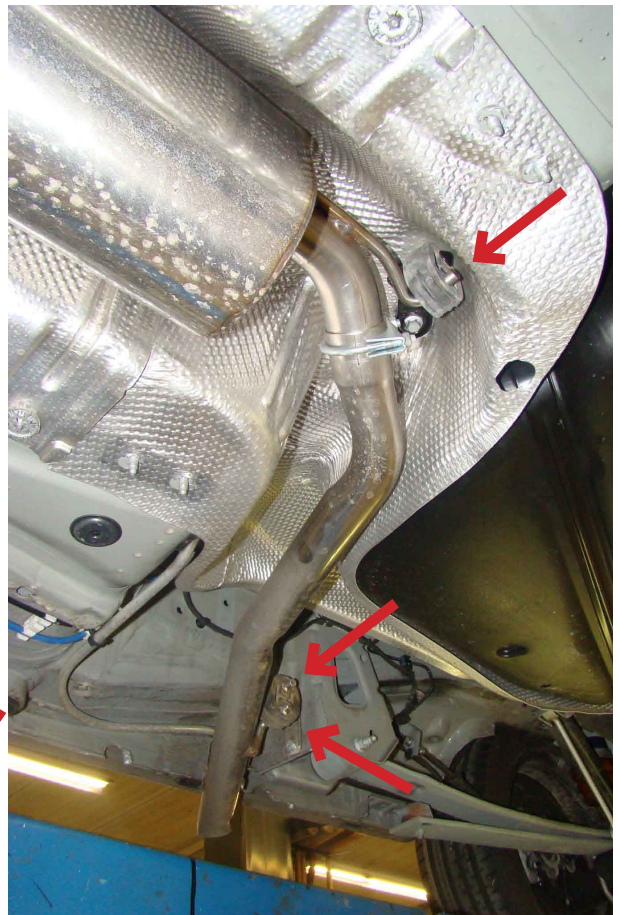
20  
Nm



Check Torque

Slide the curved part of the exhaust over the silencer part and fasten it with an exhaust clamp (included in set 760109).

Place the three toothed lock washers (included in set 760109) on the axles.

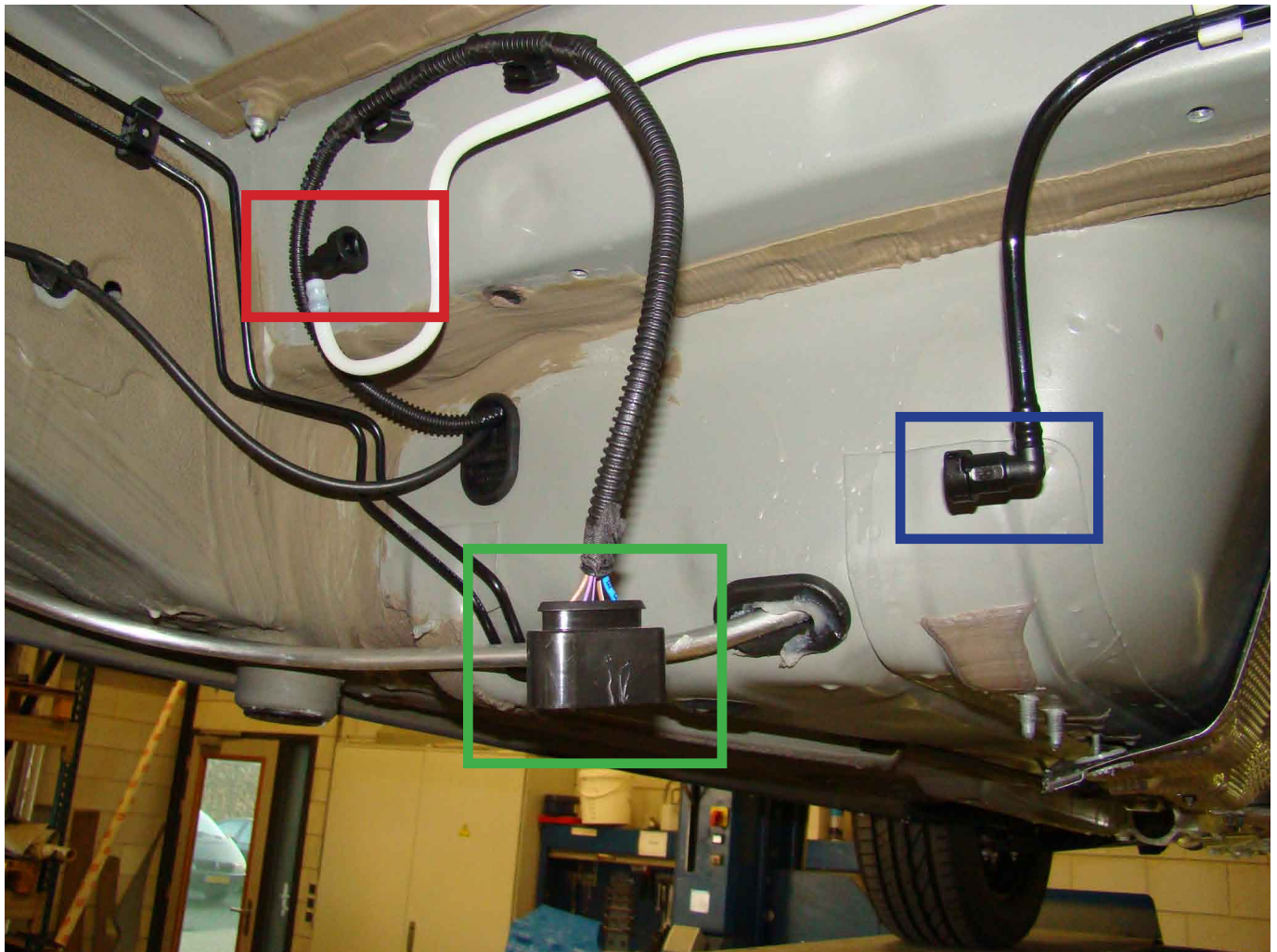


Continue on page 58



## 6.3.3 Fuel tank Petrol

- Goes to the carbon canister.
- Goes to the float element.
- Goes to the fuel filter.



Place a support underneath the car and place the original fuel tank on it.



Connect the connector plug to the float element.



Reconnect the fuel pipes.



Now replace the original braces, fasten them on the side of the float element (use the original bolts).

20  
Nm



Check Torque

Mount the other side of the braces to the brackets underneath the lowered floor. Use two M8 lock nuts, already present on the thread ends.





**IMPORTANT:**

Mount the tank as much as possible to the right side. keep at least 1 cm distance between leaf spring bolt and fuel tank.

20  
Nm

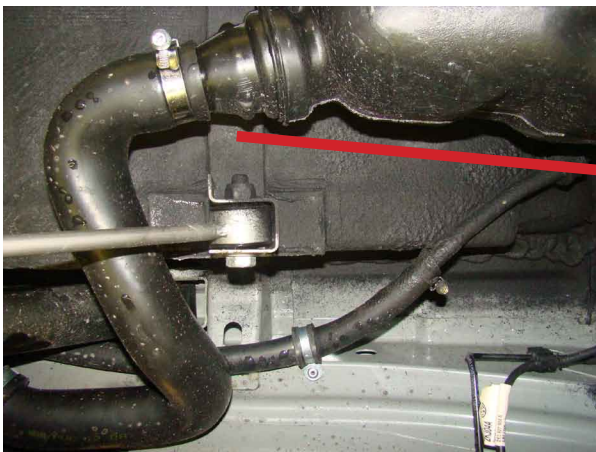


Check Torque



Attach the new filler pipe to the original fuel tank and filler pipe by using two hose clamps, 35-50 mm 12 mm.

- part nr. filler pipe: 38708004.
- hose clamps included in set: N150013011

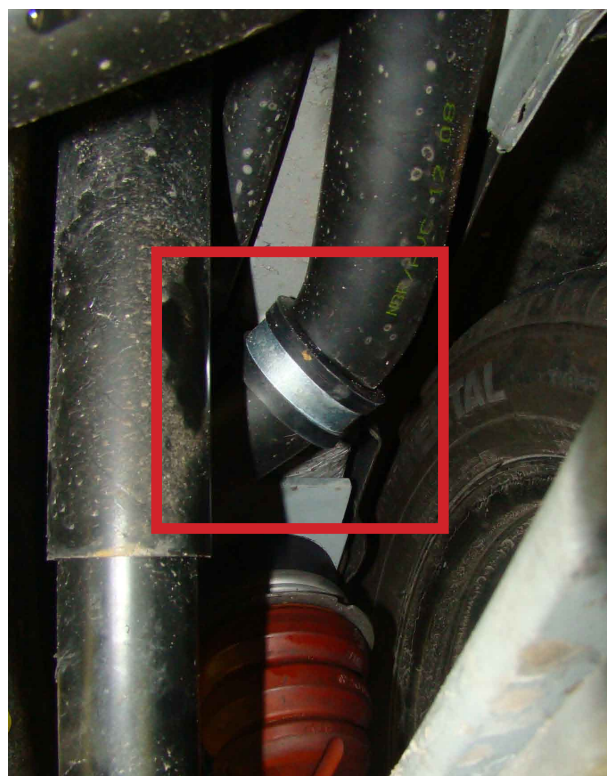




Place the protection rubber (included set: N150013011) round the steel plate of the rubber axle bumper, to protect the filler pipe.



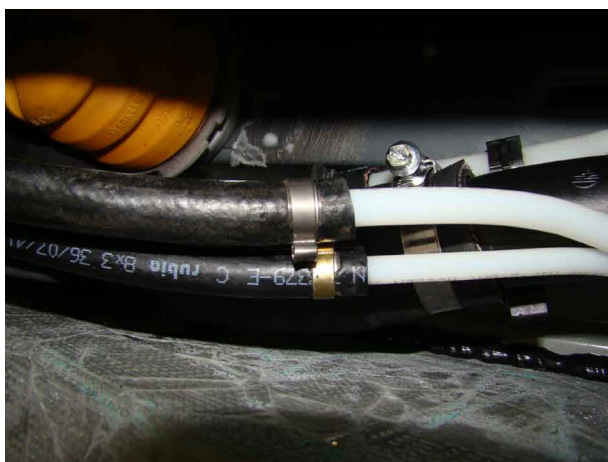
Place the clamp with rubber on the filler pipe to fasten it, use a self driscrow and washer (included in set N150013011).



Place the tube shells in the white hoses (sawn through earlier, as well on the side of the filler pipe as on the side of the fuel tank), included in set N150013011.

Connect the fuel hose (Ø 8 mm long 800 mm) onto the original white hose, thinnest section through, using two ear clamps 15,5.

Connect the fuel hose (Ø 11 mm long 800 mm) onto the original white hose, middle section through, using two ear clamps 17,5.

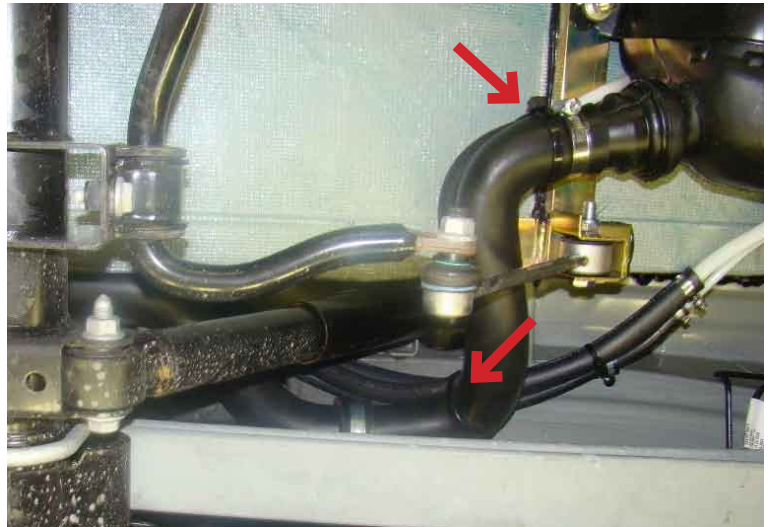


The last fuel hose you need to connect is, the Ø 16 mm long 800 mm hose with the white pipe.

Fasten it with two hose clamps, 12-22 mm (included in set N150013011).



Use the cable ties to keep the hoses together.



### **IMPORTANT:**

The new fuel tank is full when the fuel gauge stands between 3/4 and 1/1, as indicated in the picture!

Cause of this problem is that the original fuel tank is remounted under the vehicle under a different angle than the original one!

The fuel gauge displays the amount of fuel inside the tank correctly between 0 and 3/4.



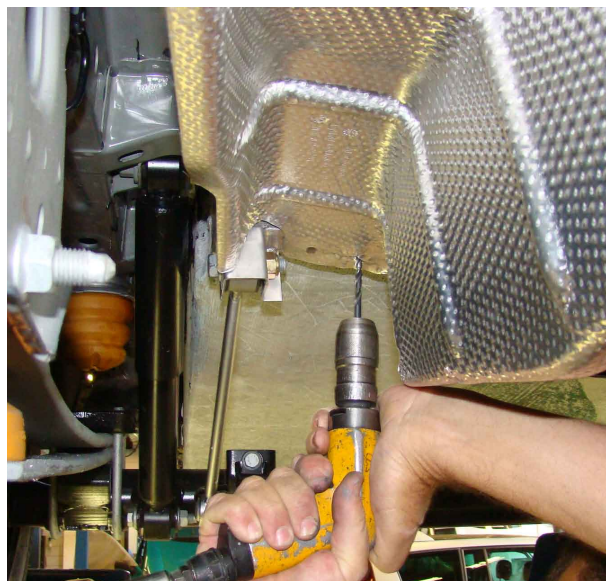
Replace the middle part of the original heat shield.



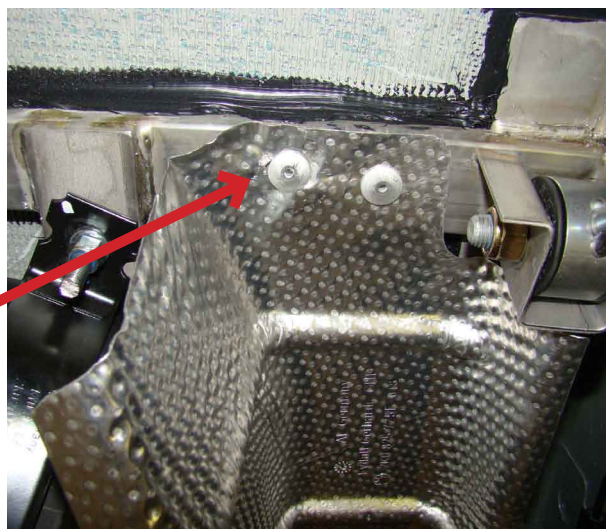


### 6.3.4 Exhaust system Petrol

Drill two holes (5 mm) at the rear end of the heat shield in the mounting bracket (of the fuel tank) under the lowered floor.



Mount the rear end of the heat shield with two blind rivets (included in set: N150013010).

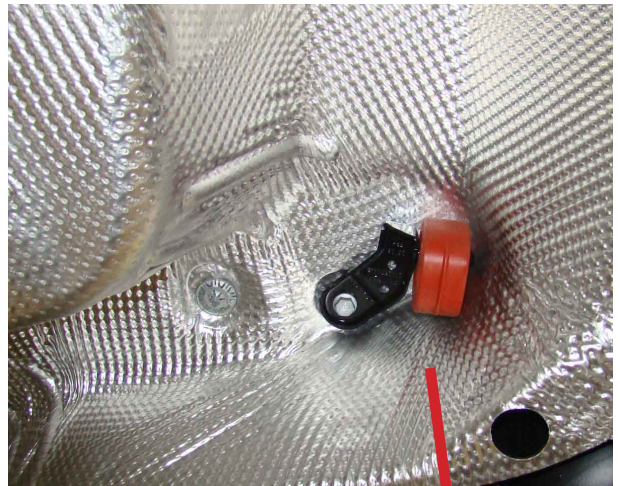


Replace the original mounting bracket on the place were it used to be, use the original bolt.

30  
Nm



Check Torque

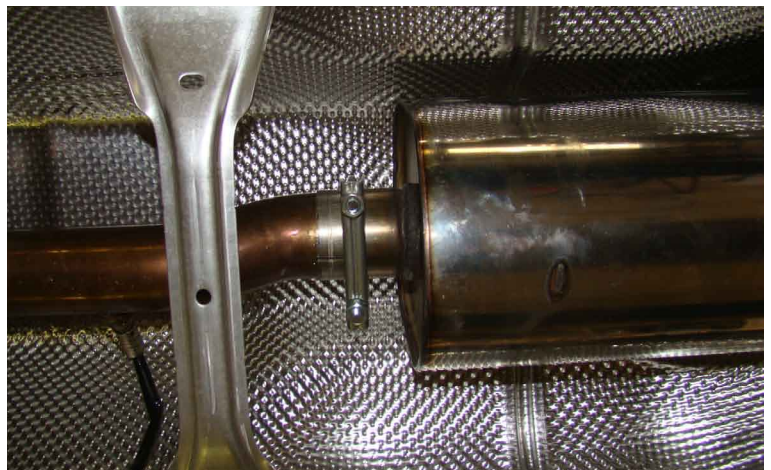


**IMPORTANT:**

Before you mount the new exhaust system you must try if it fits. You can see where you need to saw through the original exhaust pipe, the part which is still on the vehicle. The new exhaust system fits on the brackets (included in set 760108), no adaptation needed.

Slide the exhaust silencer over the original exhaust and place it on the mounting bracket. Part nr.: 760108.

Use an exhaust clamp (included in set 760108) to fasten the silencer to the original pipe.



**Bierman**



## Version 2.2

## Volkswagen Caddy Maxi

Place the other mounting bracket (with original rubber) in front of the right leaf spring, use a M8 bolt and nut (included in set 760108).

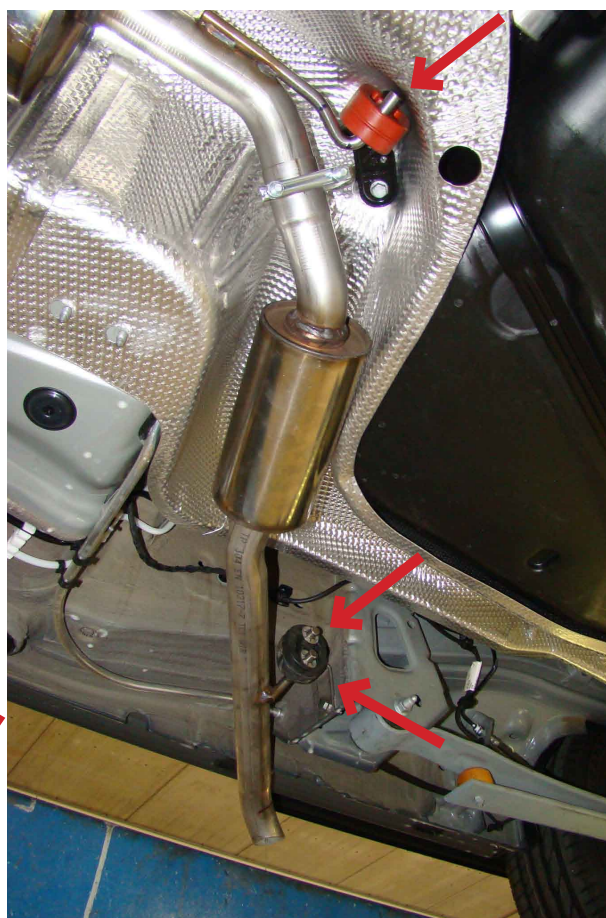
20  
Nm



Check Torque

Slide the curved part of the exhaust over the silencer part and fasten it with an exhaust clamp (included in set 760108).

Place the three toothed lock washers (included in set 760108) on the axles.

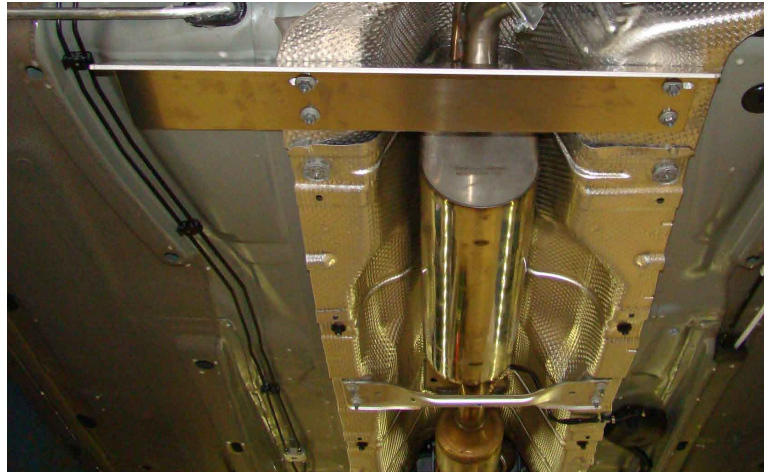


# Bierman



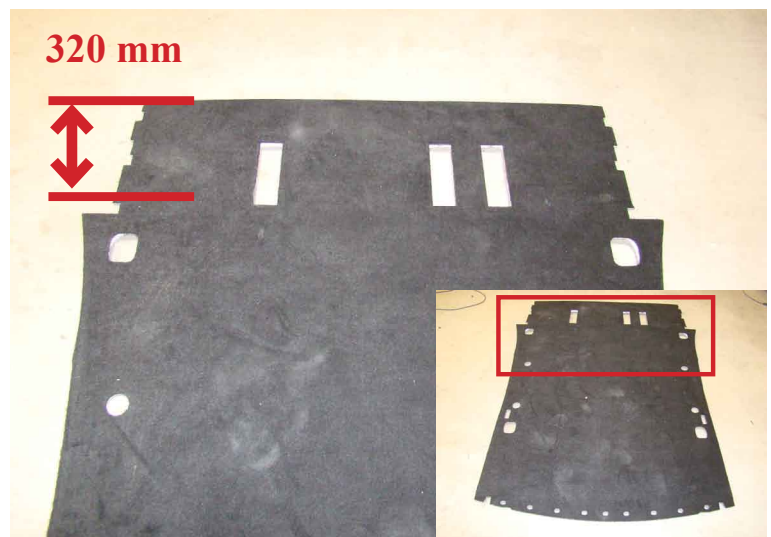
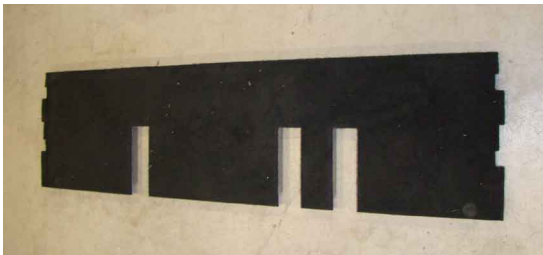
## 6.4 Fuel tank protection plate

Mount the fuel tank protection plate using the original four nuts. (N100007009).

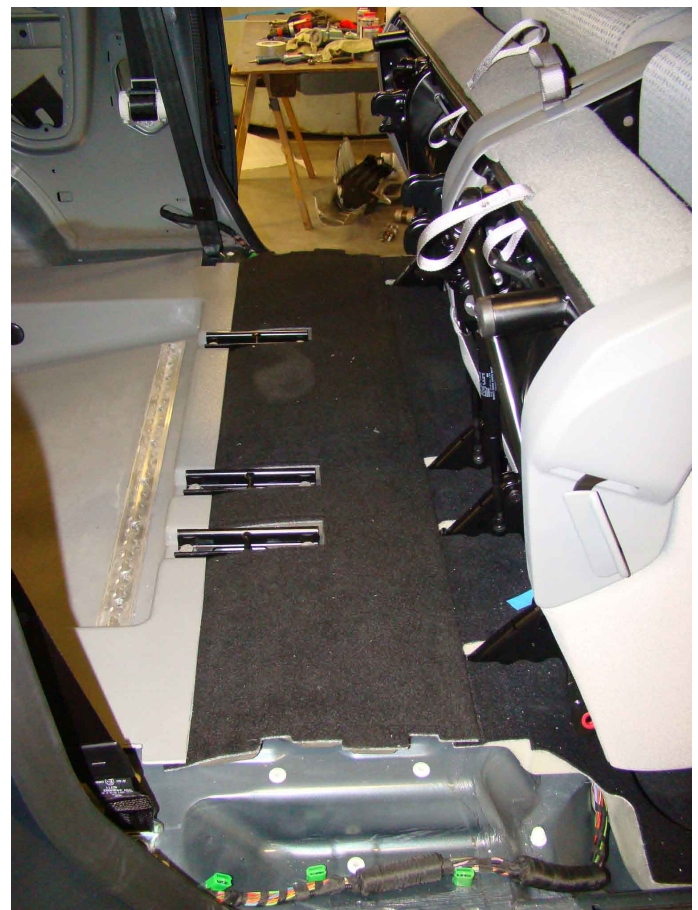
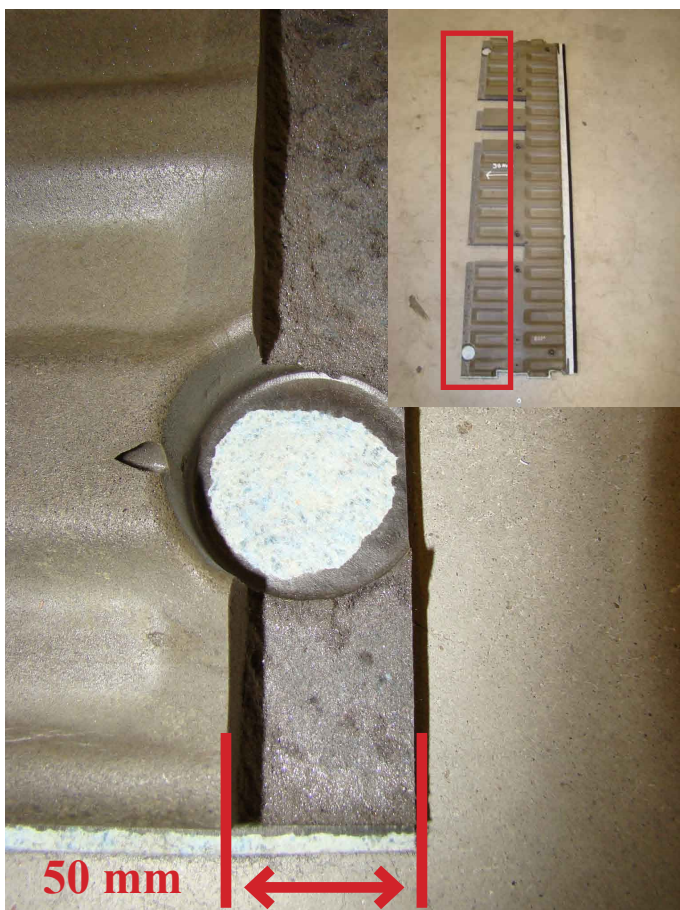


## 6.5 Remounting the interior

Remove the floor covering out of the vehicle and cut off the front part as indicated in the picture.



Remove the foam as indicated in the picture and replace the floor covering into the vehicle.





Remount the protection covers from the rear points of support for the back seat.  
Use the rivets from set: N150013010.



Fasten the front seat belt with the original bolt, remount the cover from the door sill (both sides).  
Remount the cover from the front seat belt (both sides).





## Version 2.2

## Volkswagen Caddy Maxi

Install the noise absorption set (N250016002).

Right side, step 1;  
Place 1 long and 1 short component absorption material between the inner and outer metal wheel housing plates. see picture.

Right side, step 2;  
Install a short component absorption material between the inner metal wheelhousing plate and the plastic wheelarch cover.

Left side, step 3;  
Place 1 long and 1 short component absorption material between the inner metal wheel housing plate.

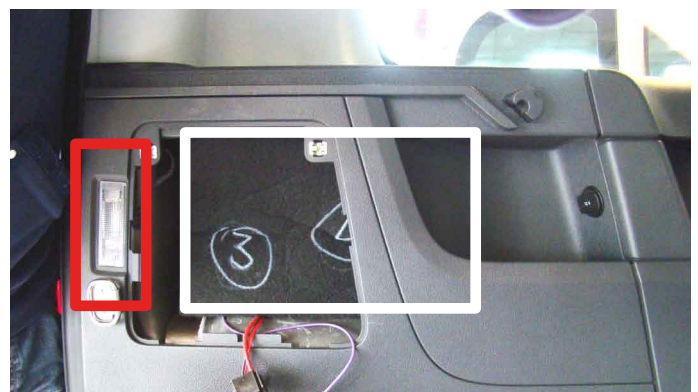
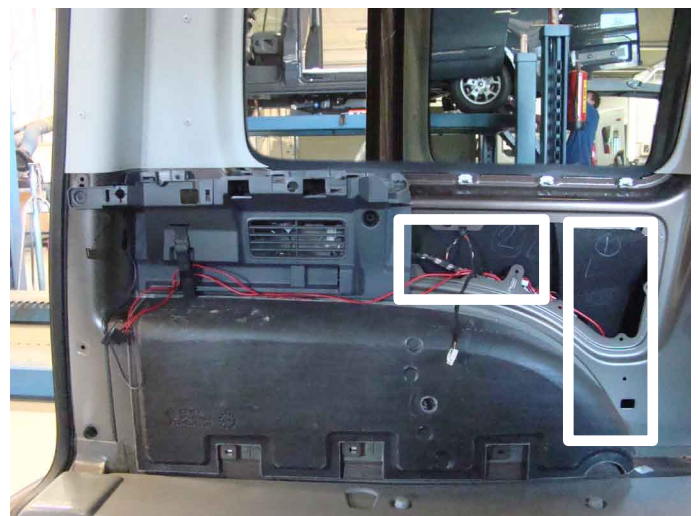
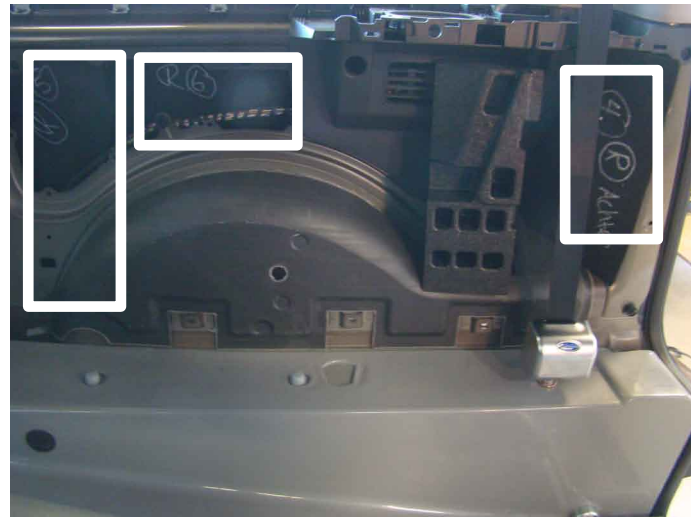
Left side, step 4;  
Install 1 large component absorption material between the inner metal wheel housing plate and the plastic wheelarch cover.

### **IMPORTANT:**

Keep the material away from the interior light!

### **Remark:**

You do not have to glue the absorption material, they will be clamped by their surrounding area. They do not have a precise location, the material only will fill the empty space.





Remove the edge indicated in the pictures from both caps (wheel arches).



Remount the covers from the wheel arches (both sides), connect the connector plugs on the left side.



Make a square hole (22mm x 45 mm) in the left cover for the switch of the 4-point belt fixation (select a location to mount the switch, keep in mind the connectors on the back).



Remount the rubber of the rear door (Only when sealant has dried).  
Begin with the original rubber at the top so you can fill up the room at the bottom with the rubber that is included in set N150002001.





## 6.6 4-Point belt fixation

Use set QE-4175 in this section.

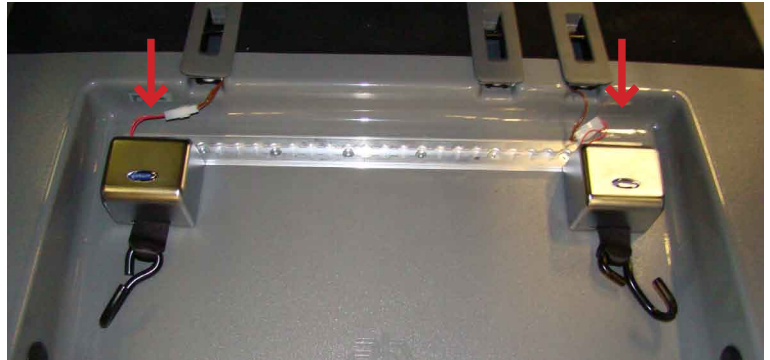
Electrical front retractors (front track):

- Place the retractors as indicated in the picture.
- Connect the connector plugs.

47  
Nm

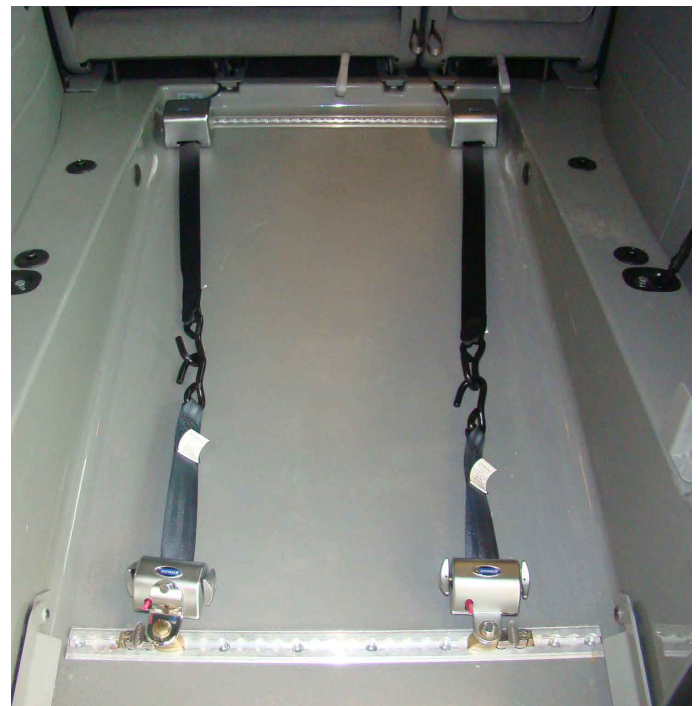


Check Torque



Rear retractors (rear rail):

- Place the retractors as indicated in the picture.
- Place the seatbelt extension in the vehicle.



### IMPORTANT:

When you are converting a Caddy Maxi with five seats instead of seven seats you have to go to the workshop manual:

Volkswagen Caddy Maxi - Five-seated Maxi Set. You can download this manual from the login page of our website [www.bierman.eu](http://www.bierman.eu) (in the section 'workshop').



# Bierman

## 6.7 Ramp and hinge covers

The double folding ramp is for the basic-version.  
(Part nr.: O5643).



The single ramp is for the comfort- and the  
air-version (Part nr.: O5644).



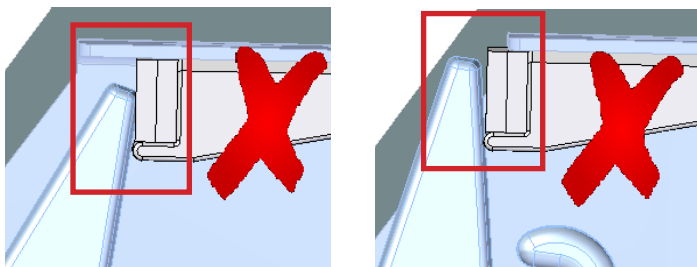
Mount the ramp onto the hinges, which are already  
installed, by using two bolts (both sides). Included  
in set: O5647.

20 Nm	
Check Torque	

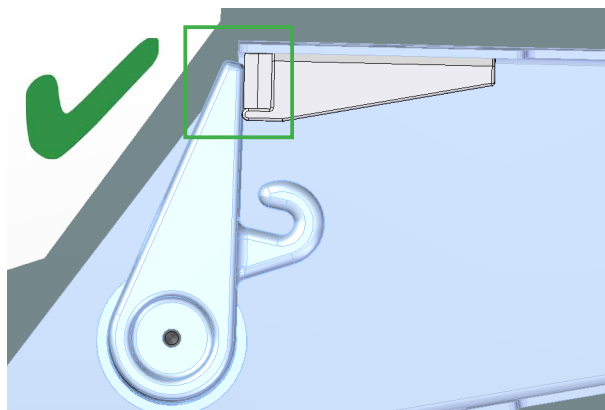


## Version 2.2

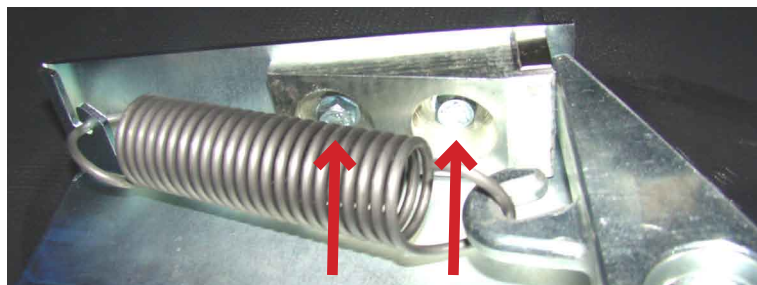
Adjust the magnet holder so the ramp stop rests parallel with the magnet.



## Volkswagen Caddy Maxi



Tighten the bolts to secure magnet holder



Before the hinge covers can be mounted (Part nr.: N150004001), cut out the indicated area shown on the inside of both covers.



Mount the protection covers by using the two screws at the bottom.





## 6.8 Preparations for the relocated parking sensors (option)

Use set N150011006 and N150015017 in this section.

### IMPORTANT:

When you need to remount the parking sensors continue with this section, otherwise continue on page 69.

3 of the 4 parking sensors cables need to be lengthened. Cut the wires of the two middle parking sensors. Maneuver the wire of the set through the D-style of the vehicle into the rear hatch. Below is an example of how the wires can be connected.



— Wire length: 5000mm

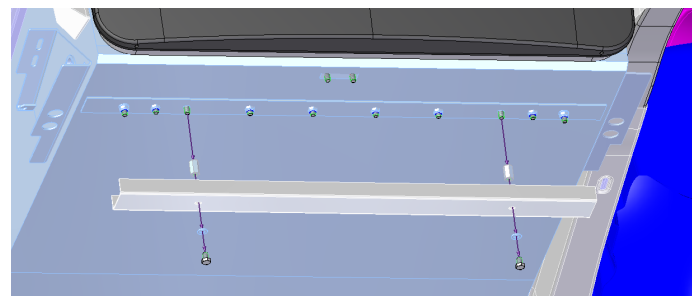
— Wire length: 400mm

Lead the wire through here.

leave the wires hanging out of the tailgate, these wires are needed later on.



Mount the parking sensor cable channel (N150015017) underneath the vehicle and run the wire through it.



## 6.9 Mounting the rear and rearbumper

Parts that are required in this chapter are all included in set: N150002001.

Replace the original gas springs for new gas springs.  
(included in set N150002001).



Place the drill mould on the rear hatch as indicated in the picture.  
Draw the 4 hole positions on the rear hatch and remove the mould.  
(Mould included in set N2000014002).



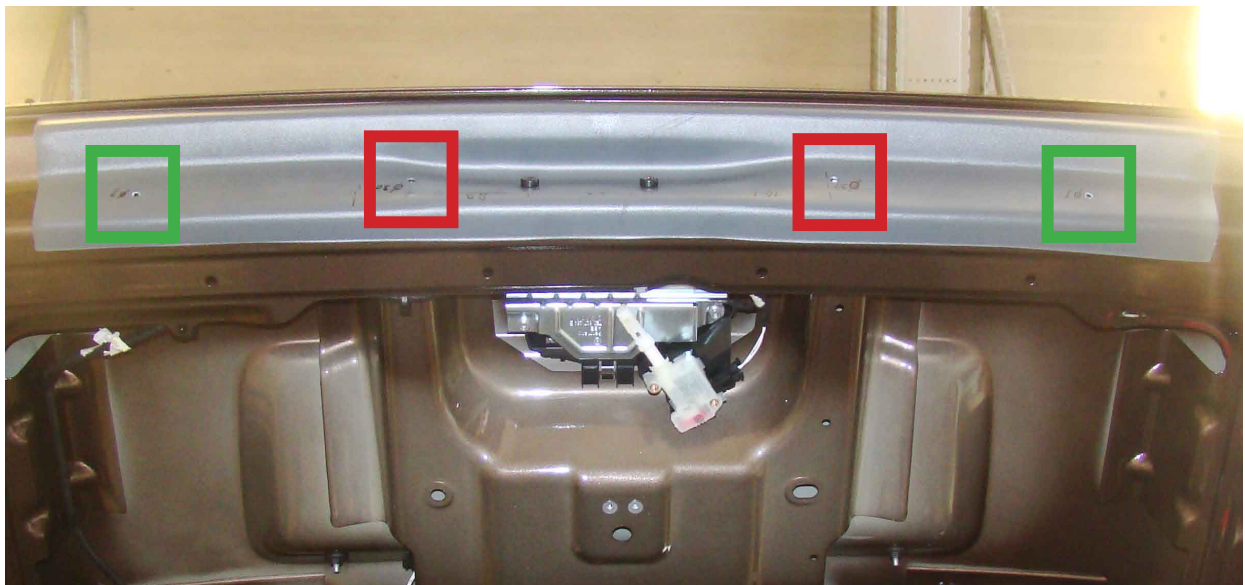
Drill two holes in the rear hatch Ø 18 mm.



Drill two holes in the rear hatch Ø 30 mm.

### **IMPORTANT:**

Treat all the holes against corrosion!



## Version 2.2

## Volkswagen Caddy Maxi

Place the two rubber grommets in the holes Ø 30.  
Make sure they are seated properly on the hatch.  
Included in set N150002001.



Place the second drill mould on the rear hatch as indicated in the picture. Draw the 2 hole positions on the rear hatch and remove the mould.  
(Mould included in set N200014002).

Drill the holes Ø 8 on the indicated locations.

### **IMPORTANT:**

Treat all the holes against corrosion!





## Version 2.2

Put thread locking adhesive on the threads M8x35 and place the treads left and right in the indicated places on the bumperpart.

## Volkswagen Caddy Maxi



Place the stop in the hole as indicated in the picture. The rear hatch can be opened from the inside through this hole.



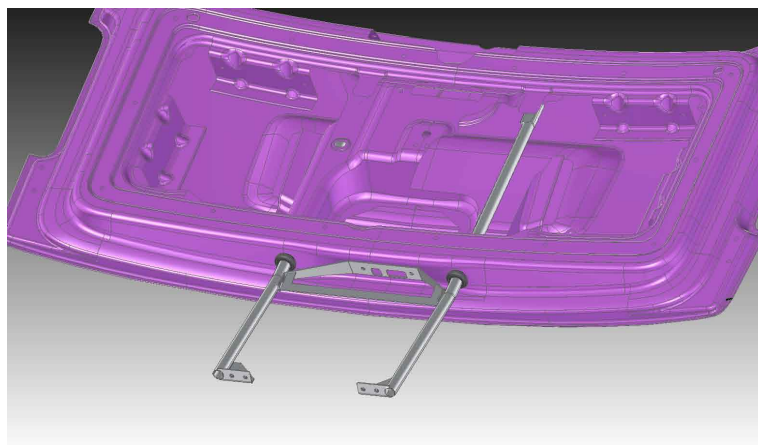
Cut of the original connector plug, the one with three white wires. Mark the three wires with 1, 2 and 3. Extend the 3 wires with the included wires and connectors.



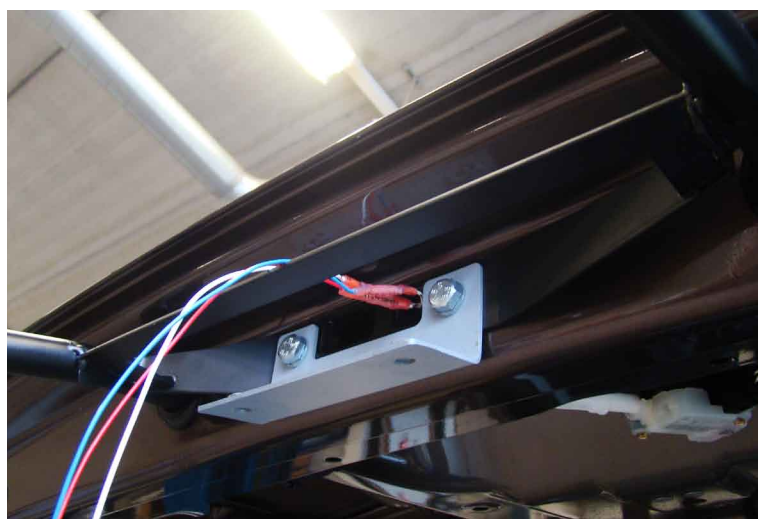
## Version 2.2

## Volkswagen Caddy Maxi

The frame can now be mounted onto the rear hatch. Spray some silicone on the frame and the grommets and push the frame through.



Bolt the lower part of the frame onto the rear hatch using the two M8 bolts and washers included in the kit N150002001 and the plate on the original lock location. Place the extra plate as indicated. Move it back as far as possible.



# Bierman

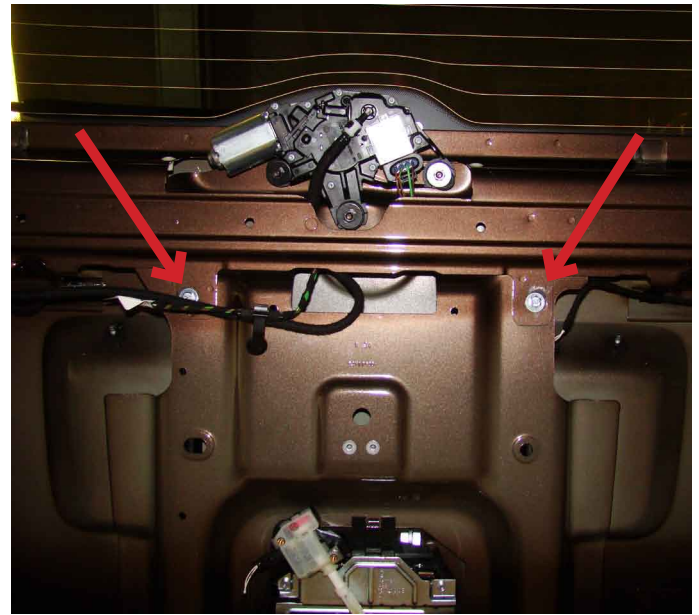


Bolt the top part of the frame onto the rear hatch using two M6 bolts and washers included in set N150002001.

8  
Nm



Check Torque



Remove the white plastic of the motor.



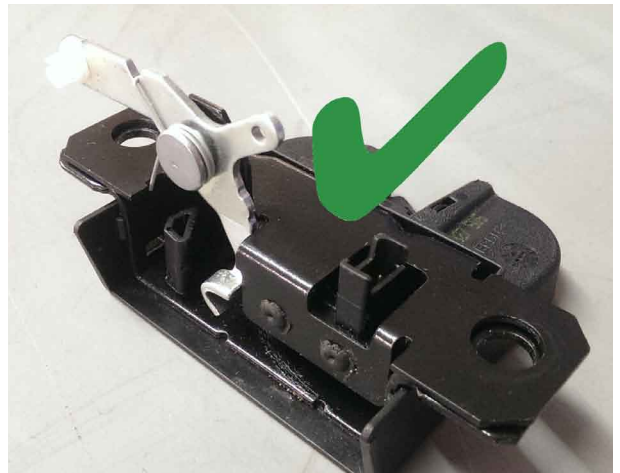
### IMPORTANT:

If the car must be equipped with the option: Emergency exit, continue in manual: Volkswagen Caddy - Emergency Exit. You can download this manual from the login page of our website [www.bierman.eu](http://www.bierman.eu) (in the section 'workshop')

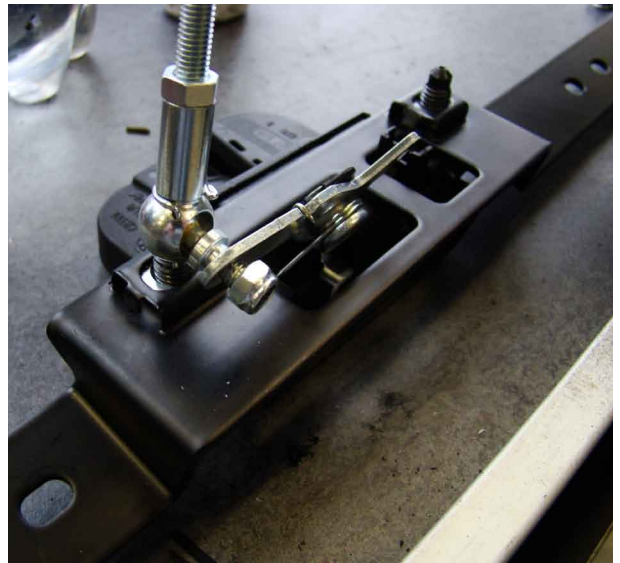
Hand tighten the Volkswagen lock onto the subframe as indicated in the picture with the original bolts.



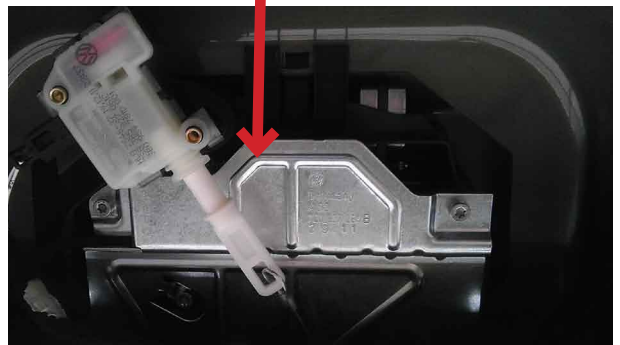
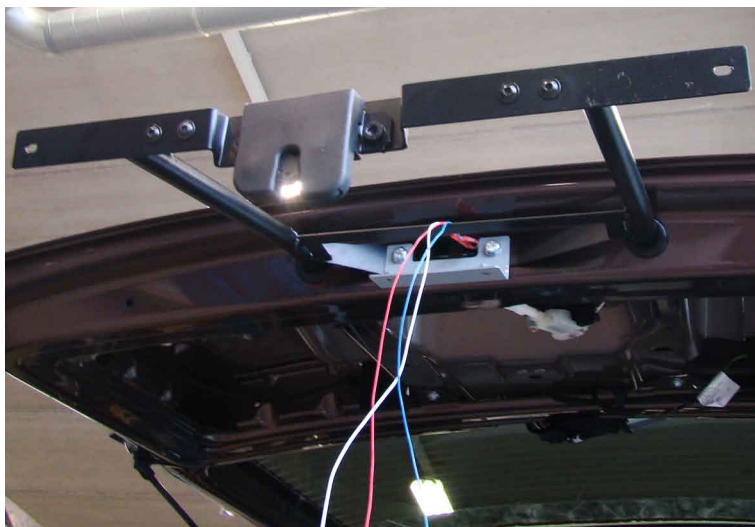
Adjust the lever of the lock



Mount the ball joint of the cable onto the hole in the lever of the lock.

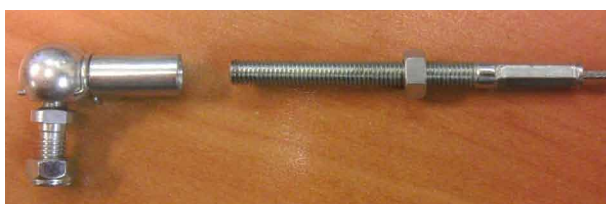
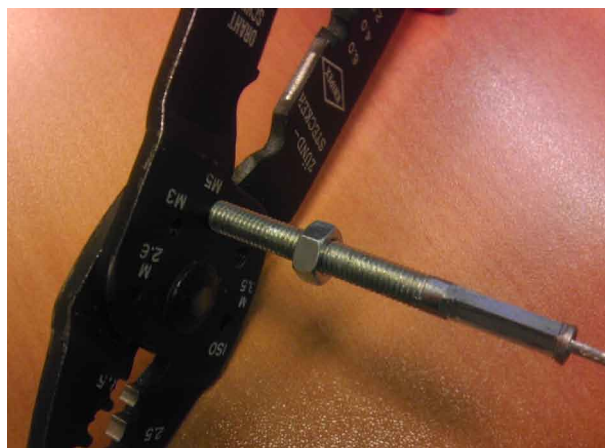


Hand tighten the subframe onto the frame using four M6 bolts and attach the end of the cable to the original motor. Check the lock for proper operation.

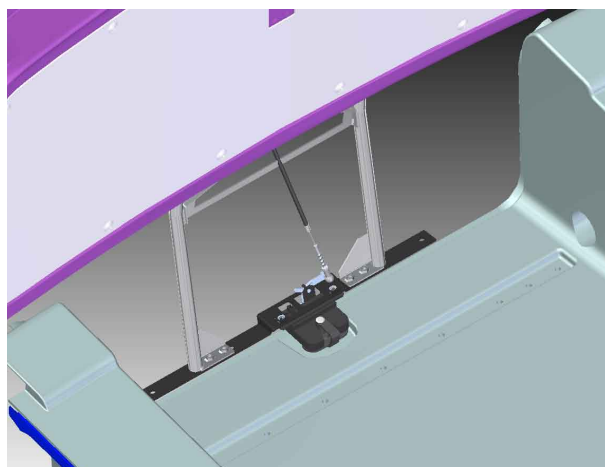


### IMPORTANT:

If the lock does not release when the handle is operated, the cable must be shortened. Cut a small piece of the thread. Make sure it still locks in its first lock position.



Place the striker plate in the lock and close the rear hatch to draw the location of the striker plate on the lowered floor.  
Close the rear hatch carefully to not damage the lowered floor.



Drill two holes Ø 10 mm.





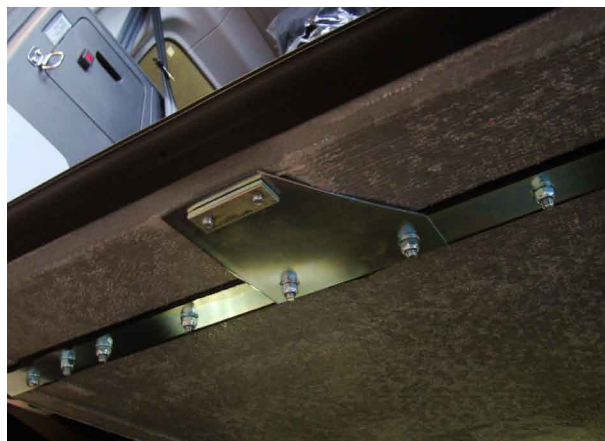
## Version 2.2

## Volkswagen Caddy Maxi

Place the striker plate in the indicated location.



Place the backplate under the lowered floor and mount the striker plate onto the plate with the M8 thread.

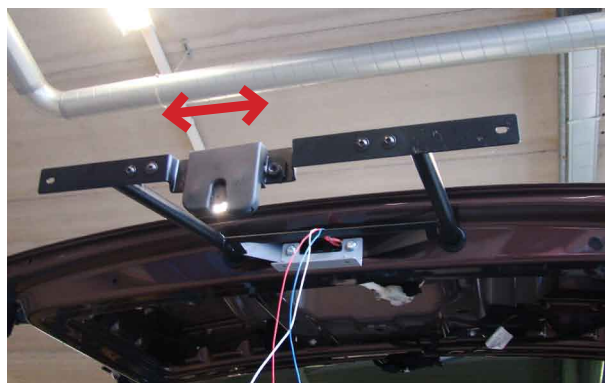


30  
Nm



Check Torque

Check the fitting of the lock on the striker plate. Left and right adjusting can be done with the lock on the frame. Tighten the lock on the subframe.



20  
Nm



Check Torque

### **IMPORTANT:**

Mark the exact location of all the bolts on the subframe.

Tie the wires with the included cable ties to the right side of the frame.



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## Version 2.2

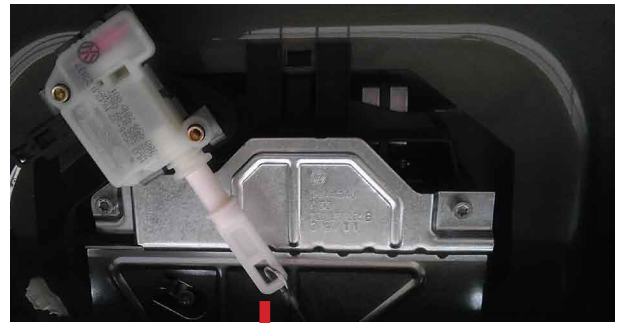
Remove the cable from the lock motor in the rear hatch and remove the electric connector from the lock.

Remove the subframe with the lock to place the plastic bumperpart.

If the parking sensors needs to be re-installed (option), drill a Ø 10 hole in the middle of the bumperpart. Maneuver the cable of the parking sensors through the large opening at the top and then through the recently drilled hole outward.

Put thread locking adhesive on the threads M8x35 Which have been fitted in the bumper part previously.

## Volkswagen Caddy Maxi

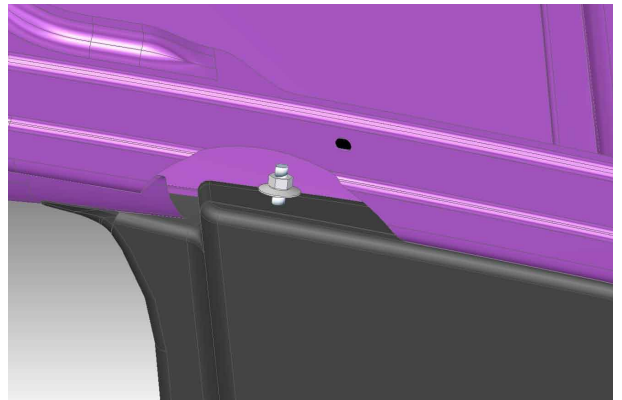


Slide the plastic bumperpart over the frame so the frame is level with the bumperpart.



Hand tighten the M6 nuts with ring and two DIN9021 washers onto the studs of the plastic part onto the rear hatch.

Close the rear hatch and align the bumperpart with the lowered floor. Make sure the space between the lowered floor and the bumperpart are the same on the left and right. If everything is properly aligned, the subframe with the lock can be placed again.



Tighten the M6 nuts with ring onto the studs of the plastic part onto the rear hatch.

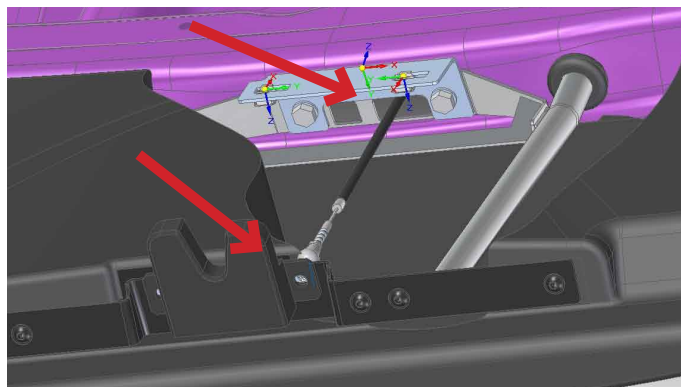




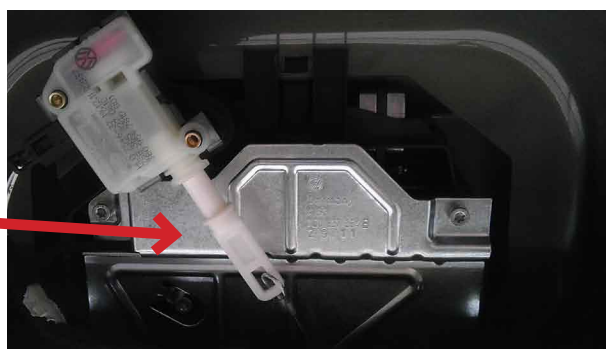
## Version 2.2

## Volkswagen Caddy Maxi

Connect the electric wire to the lock and guide the cable through the rear hatch.



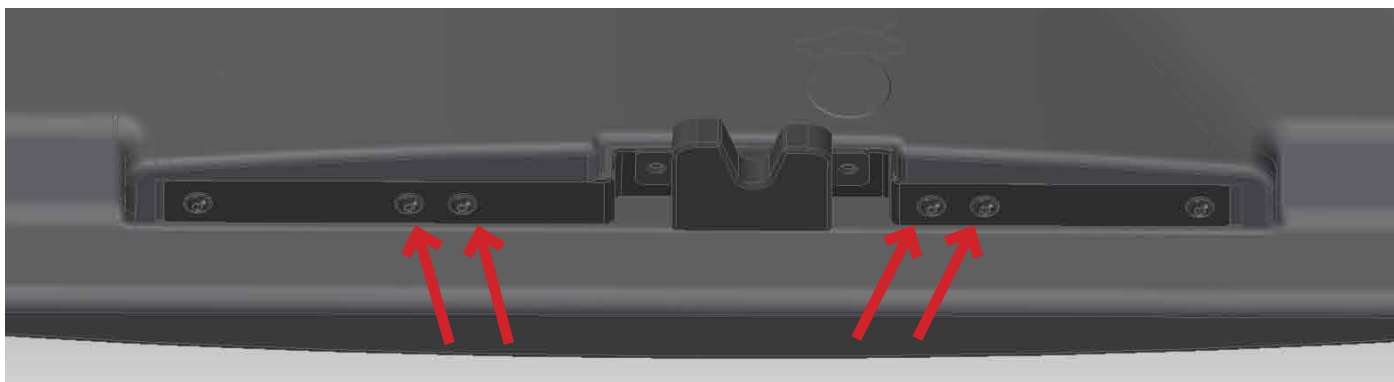
Reconnect the cable to the lock motor.



Mount the subframe onto the bumperpart, using two M6x12 bolts.



Mount the subframe onto the frame using four M6x12 bolts.



**IMPORTANT:**

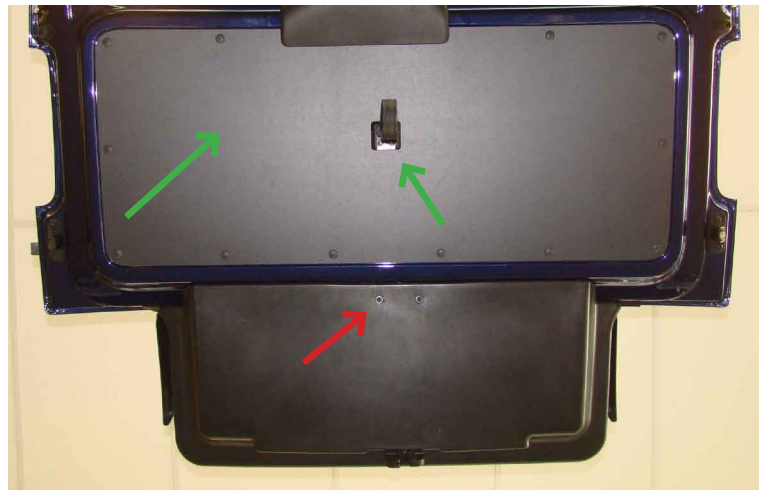
Check the rear hatch for proper operation.  
Make sure the hatch and lock are closing well.

Glue the two rubber pieces on the rear hatch using the same glue as used for fastening the lowered floor.



Remount the original cover and cord, using the original bolts and pins.

Mount two M6 x 12 bolts with nylon washers.



Remount the original protection cover.



Remount the steel rear bumper.

20  
Nm

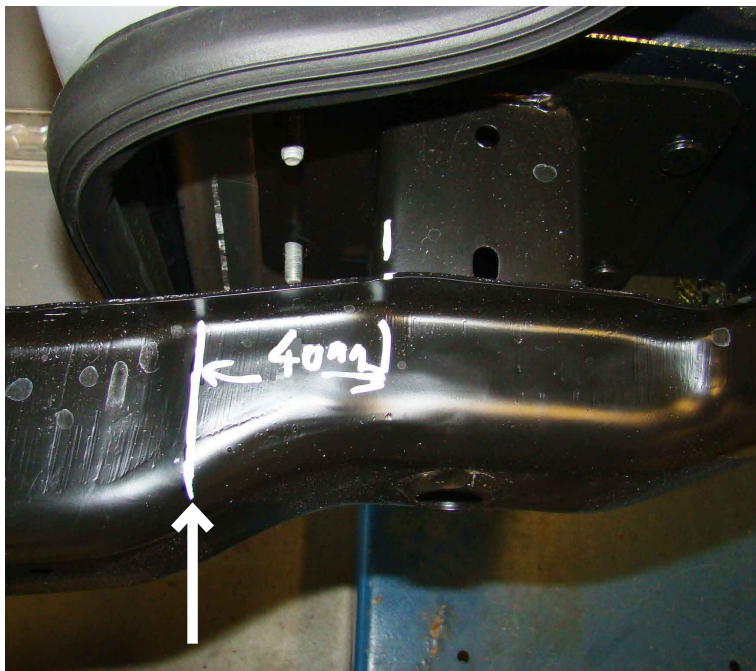


Check Torque

Mark the places where you need to saw through the bumper (both sides), **40 mm** from the support.  
Saw through the bumper.



Throw away the middle section.



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## Version 2.2

## Volkswagen Caddy Maxi

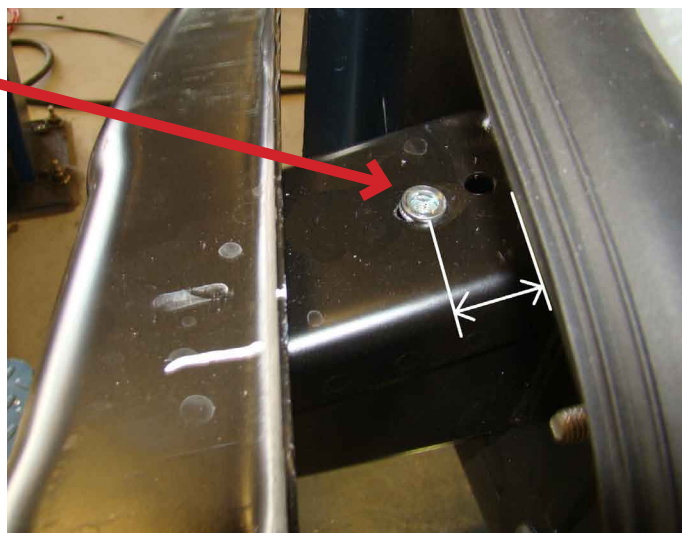
Place the bumper mould on the bumper and mark the sawing lines (both sides, top and bottom).



Saw through the bumper according the sawing lines.  
**!Keep all three parts!**



Drill a 9 mm 3 cm from the bumper mount and attach a blind rivet nut in the hole (both sides).

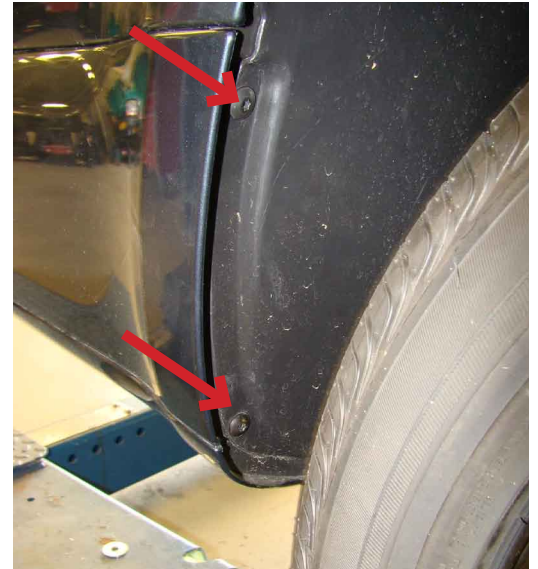


Place a bolt, used as marker, in the blind rivet nut and mount the bumper part. Press it downwards so you can see where you need to drill the hole (6 mm), do this at both sides of the vehicle.

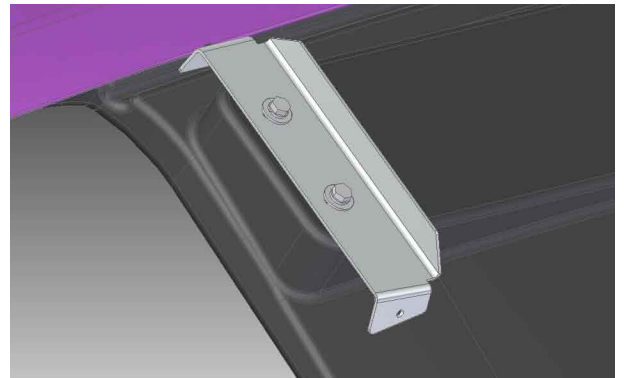




Remount the bumper part at each side of the vehicle. Using the original screws in the wheel arches and a M6 bolt with plastic spacer (included in set N150002001) in the earlier drilled hole. The plastic spacer is fitted in between the plastic and the metal bumper part.



Place the two aluminium brackets on the bumperpart as indicated in the picture using four M6 bolts, four DIN9021 washers and four spring washers.



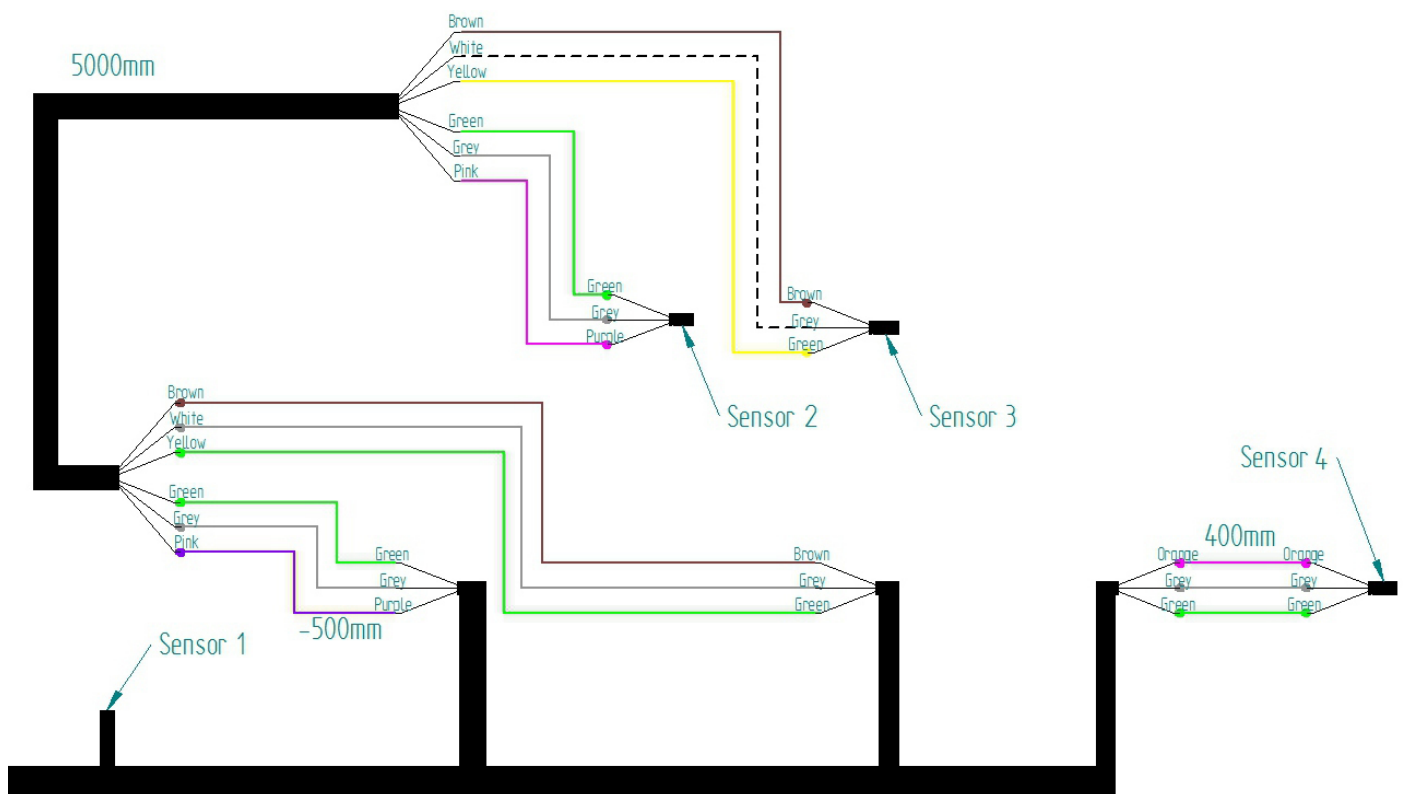
Place the bumper over the aluminium bracket and locate the brackets on the inside of the bumper. Drill 4 holes (Ø 5mm) through the bumper and the brackets.





If the car should be equipped with parking sensors, continue with the instructions on this page, else continue on page 87

Use the provided cable connectors to connect the wires.



Mount the sensors to their original positions.  
Check the function of the sensors



## Version 2.2

Fix the bumper on the aluminium brackets using four black rivets.

## Volkswagen Caddy Maxi



Clean the surfaces to be bonded with **Cleaner I**. Mount the bumper caps on the side bumper parts, using the same glue as used for the lowered floor. Look if the rear hatch is closing correctly.



Clean the surfaces to be bonded with **Cleaner I**.  
Mount the bumper caps on the middle bumper part,  
using the same glue as used for fastening the  
lowered floor. Look if the rear hatch is closing  
correctly.





## 7. Torque specifications

### IMPORTANT:

Always use a calibrated torque wrench.

Bolt type	Class 8.8	Class 10.9
M6 * 1.00	8.5 Nm	12.5 Nm
M7 * 1.00	14 Nm	20.5 Nm
M8 * 1.00	22 Nm	32 Nm
M8 * 1.25	20 Nm	30 Nm
M10 * 1.00	45 Nm	67 Nm
M10 * 1.25	43 Nm	64 Nm
M10 * 1.50	41 Nm	60 Nm
M12 * 1.25	77 Nm	112 Nm
M12 * 1.50	74 Nm	108 Nm
M12 * 1.75	71 Nm	104 Nm
M14 * 1.50	121 Nm	175 Nm
M14 * 2.00	113 Nm	165 Nm
M16 * 1.50	180 Nm	270 Nm
M16 * 2.00	170 Nm	250 Nm
M18 * 1.50	270 Nm	390 Nm
M18 * 2.50	245 Nm	350 Nm
M20 * 1.50	380 Nm	540 Nm
M20 * 2.50	350 Nm	490 Nm
M22 * 1.50	510 Nm	720 Nm
M22 * 2.50	470 Nm	670 Nm

## 8. Checklist

Description	Check?
Serial numbers checked (necessary for the COC document)?	
Fuel system checked for leaks?	
Are all nuts and bolts tightened with the correct torque?	
Is a user manual available (see website)?	
All parts are treated against corrosion?	
The exhaust gas-tight?	
Functioning of the 4P fixation in combination with switch?	
Operation of the 3P fixation?	
Operation of the parking sensors (where fitted)?	
Closing the tailgate properly (operation of lock)?	
Approved test drive?	

## 9. Notes

[illegible]



## 10. Contact

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Fax: +31 252 232985  
E mail: [info@bierman.eu](mailto:info@bierman.eu)  
[www.bierman.eu](http://www.bierman.eu)



## 10.1 Contact persons

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• General Manager



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• Training  
• Installation manual  
• Warranty



Alex Vieveen (NL-UK)  
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• Parts  
• Distribution



## 11. Recommendation form

Dear installer,

Bierman strives to excel in delivering the highest quality wheelchair conversion kits for vehicles. However this is an ongoing process. Therefore we are interested in your opinion! So if you have any comments, improvements or recommendations, please tell us. After all, with your input we are able to improve the conversion kit (and manual). This is not only in our favour, but also you and your company will benefit from this!

Please send an e-mail to [info@bierman.eu](mailto:info@bierman.eu), or send this feedback-form to fax nr. +31 252 - 232985.

**Company:**

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**Your name:**

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**Date:**

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**Vehicle:**

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**Engine type:**

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**Conversion:**

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**Manual version:**

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### YOUR REMARKS:

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