

## REMOVING - REFITTING : SCUTTLE PANEL GRILLE

### 1. Recommended tools

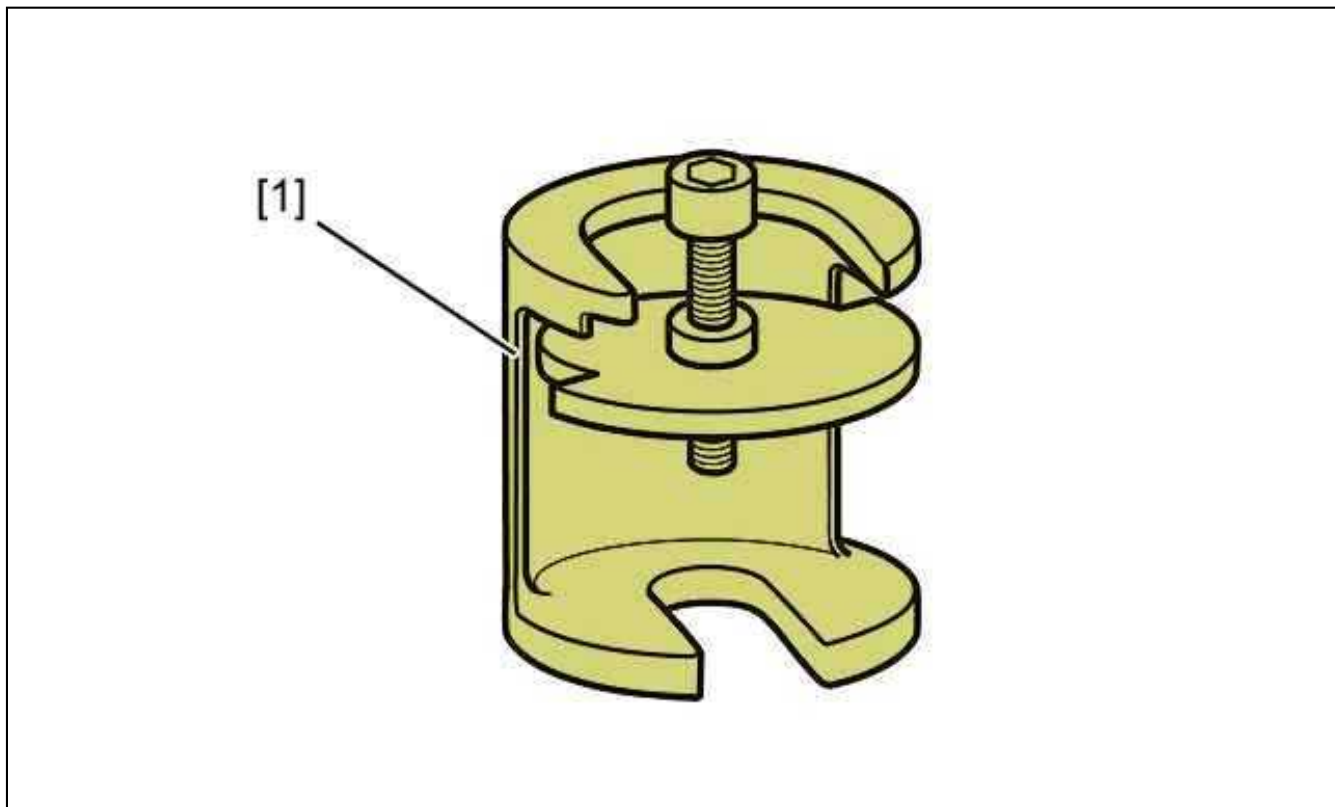


Figure : E5AP38HD

[ 1 ] windscreen wiper arm removal tool (-).1371-C.

### 2. Removing

**ESSENTIAL :** Switch on the ignition ; Check that the motor is in the off position (off position on the switch).

Switch off the ignition.

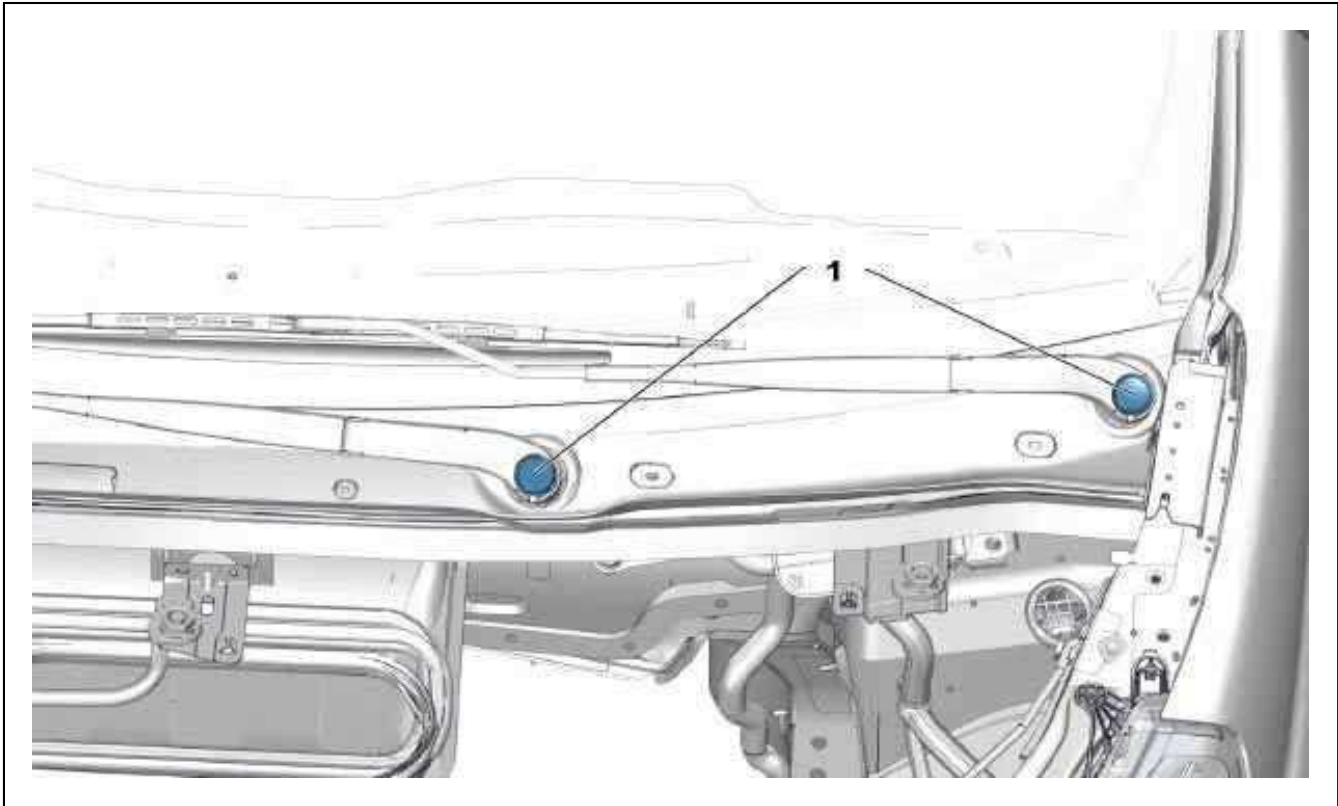


Figure : C4AP1VJD

Withdraw the trim covers (1).

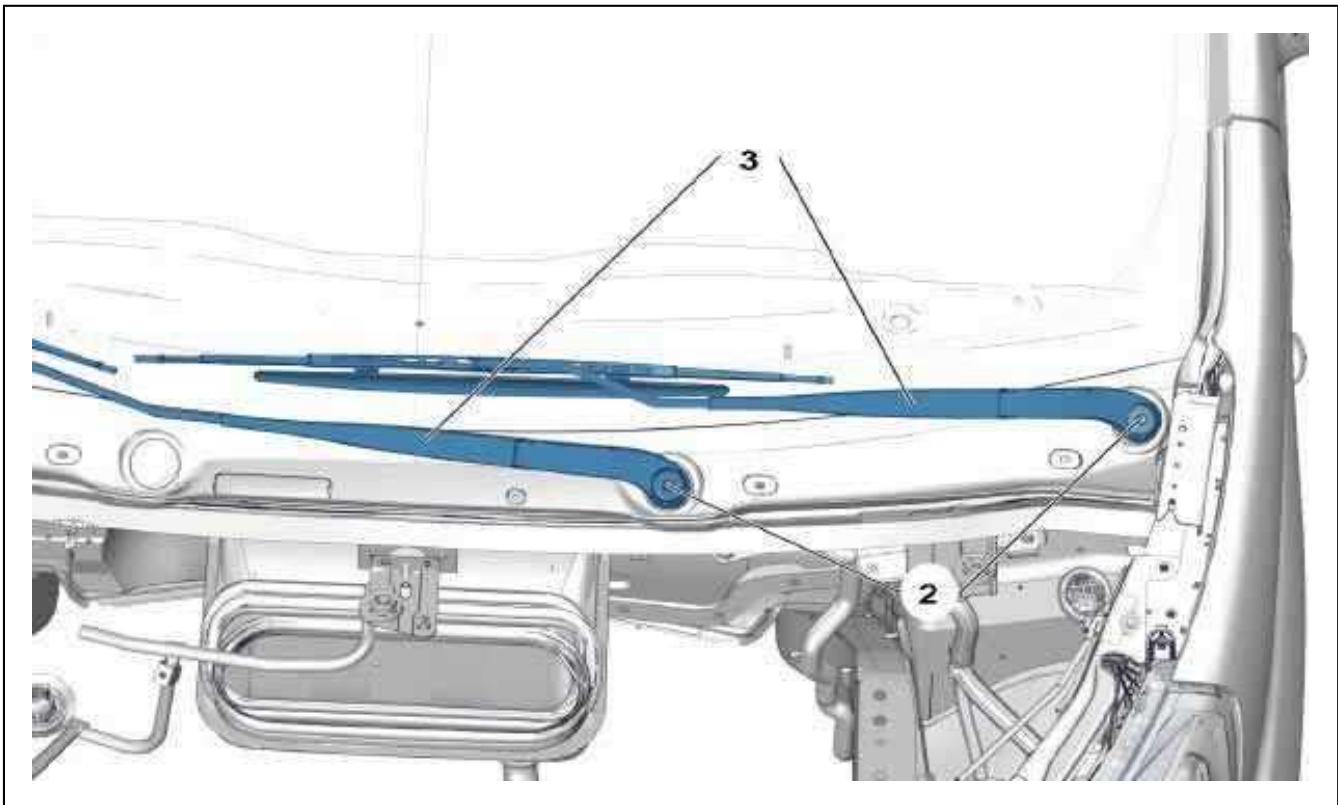


Figure : C4AP1VKD

Remove the mountings (2).

Remove the windscreen wiper arms (3) ; Using tool [1].



Figure : C4AP1VLD

Remove :

- The bolts (4)
- The scuttle grille (5)

### 3. Refitting

Tighten the fixings ( 1 ) to  $2,5 \pm 0,3$  m.daN.

Proceed in the reverse order to removal.

Check all the equipment works.

## REMOVING - REFITTING : BONNET

## 1. Removing

Open the bonnet.

N.B. : Two people are required to perform the following operation.

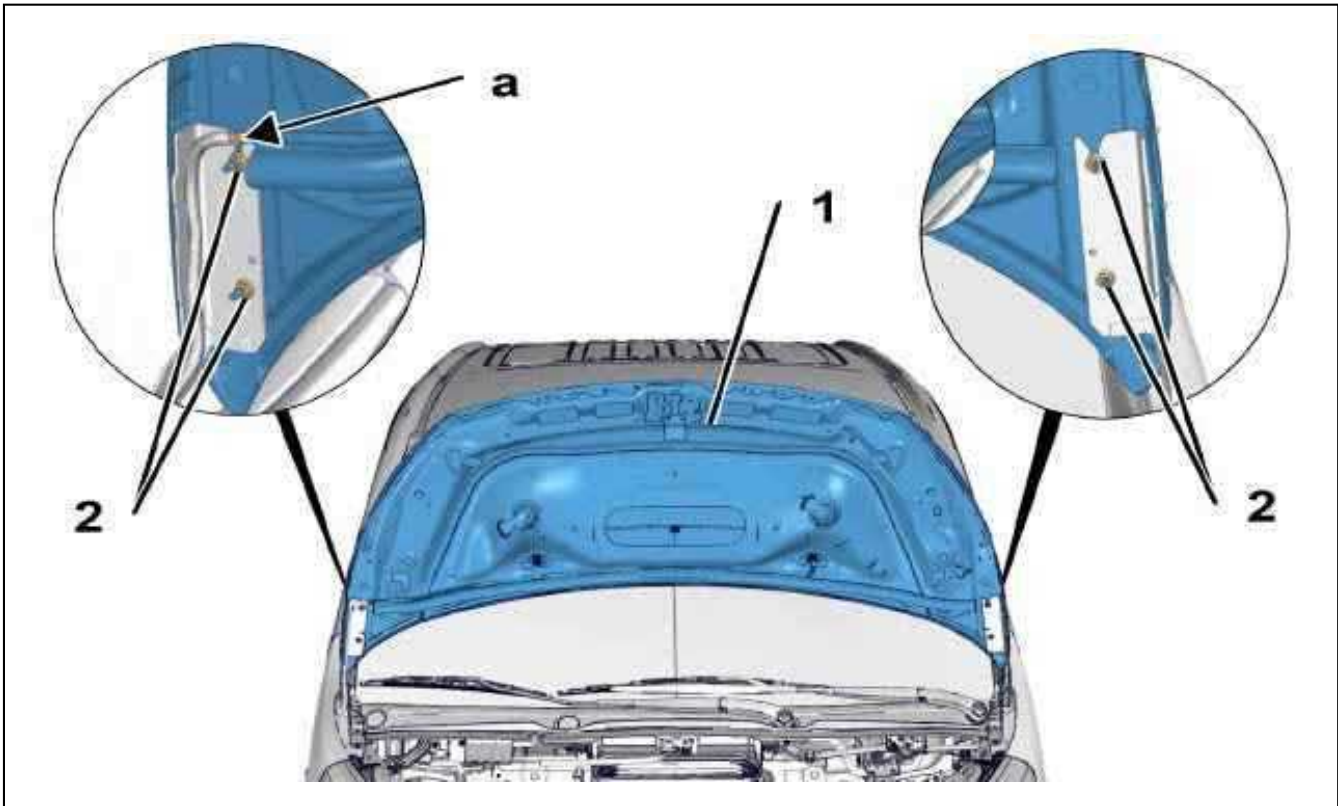


Figure : C4AP1VND

Disconnect screen washer pipe at connection point (at "a").

Remove :

- The nuts (2)
- The cover (1)

## 2. Refitting

Proceed in the reverse order to removal.

Adjust the bonnet's fits and clearances .

Check that the electrical equipment is working correctly.

## REMOVING - REFITTING : FRONT WING

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or customer's jack).

## 1. Recommended tools

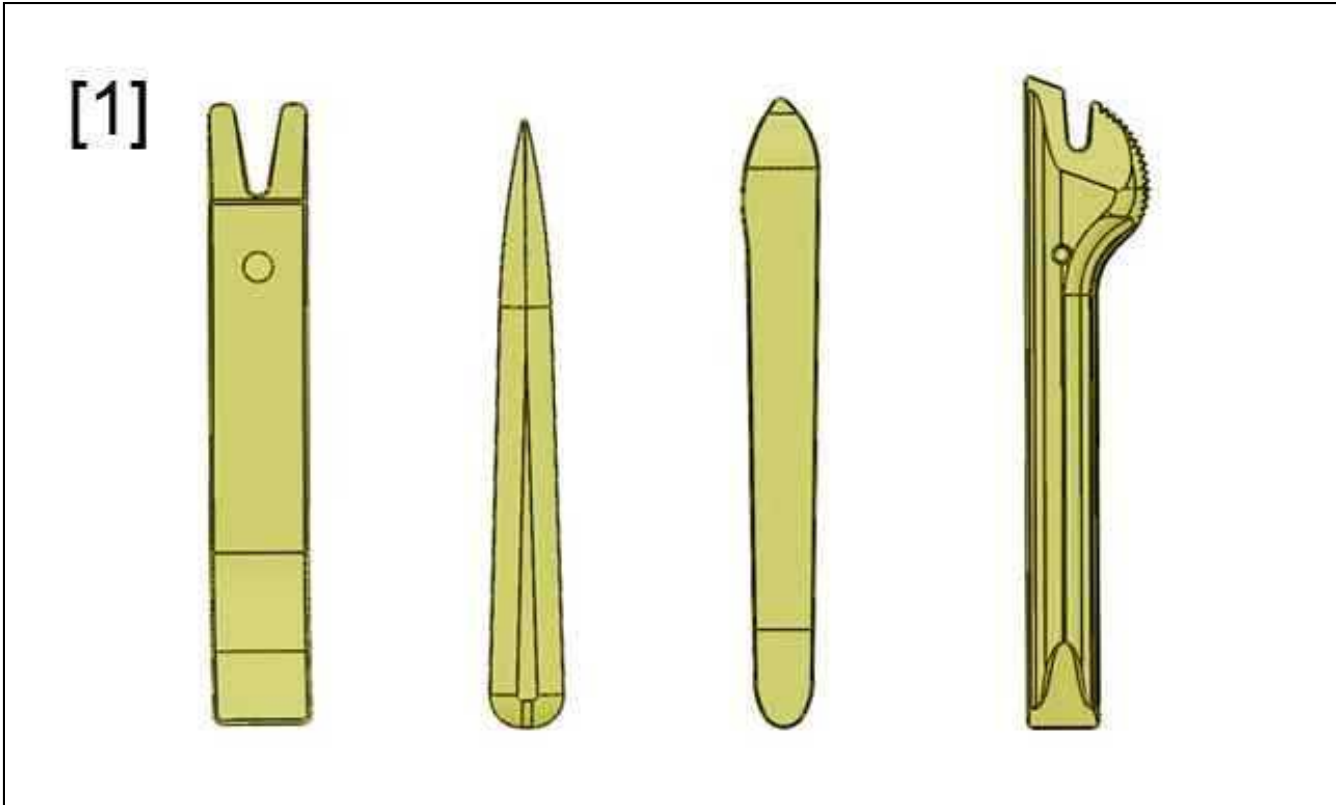


Figure : E5AP30WD

[1] Stripping tool (-).1350-ZZ.

## 2. Removing

Switch off the ignition.

Wait 3 minutes before disconnecting the battery.

Disconnect the battery.

Remove :

- The front wheels
- The front splash shields ⓘ
- The front bumper ⓘ
- The front headlamp ⓘ

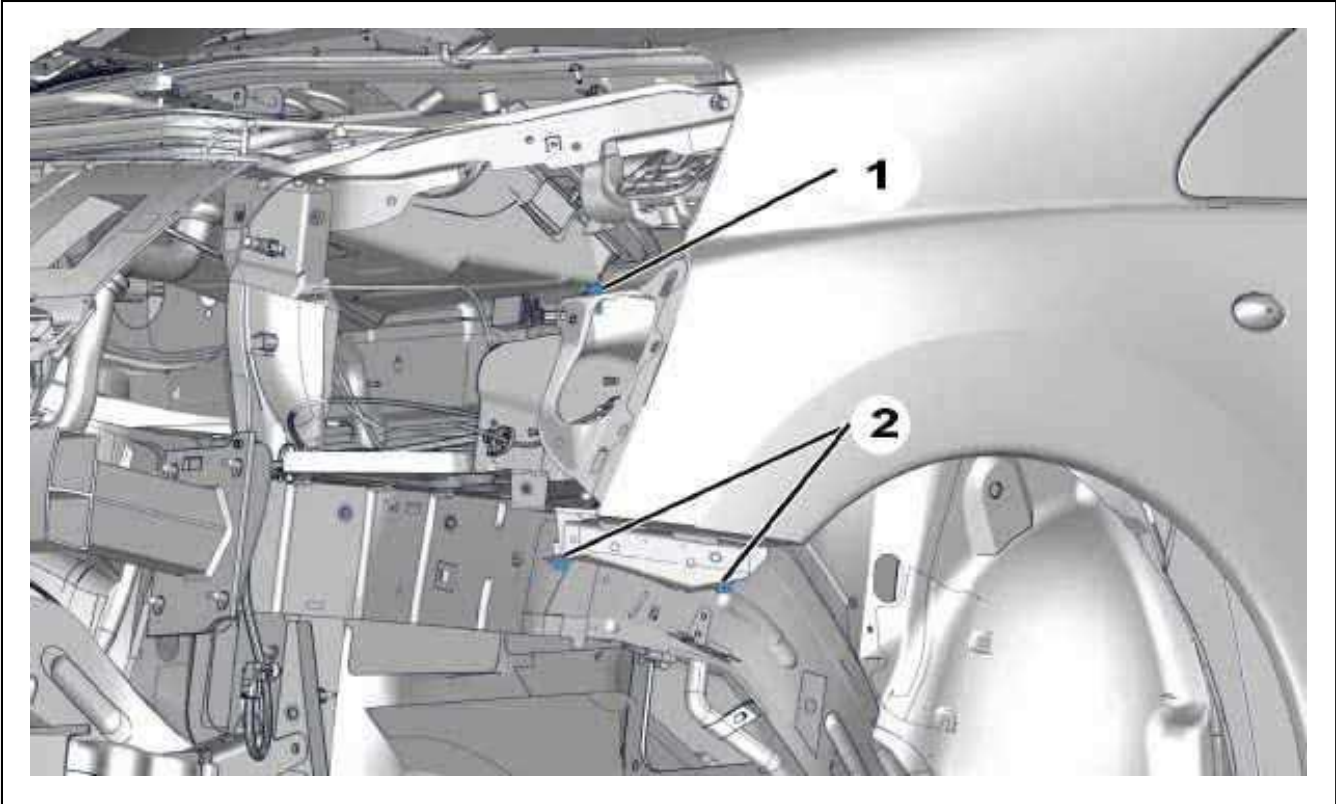


Figure : C4CP2EYD

Remove :

- The (1) bolt
- The bolts (2)

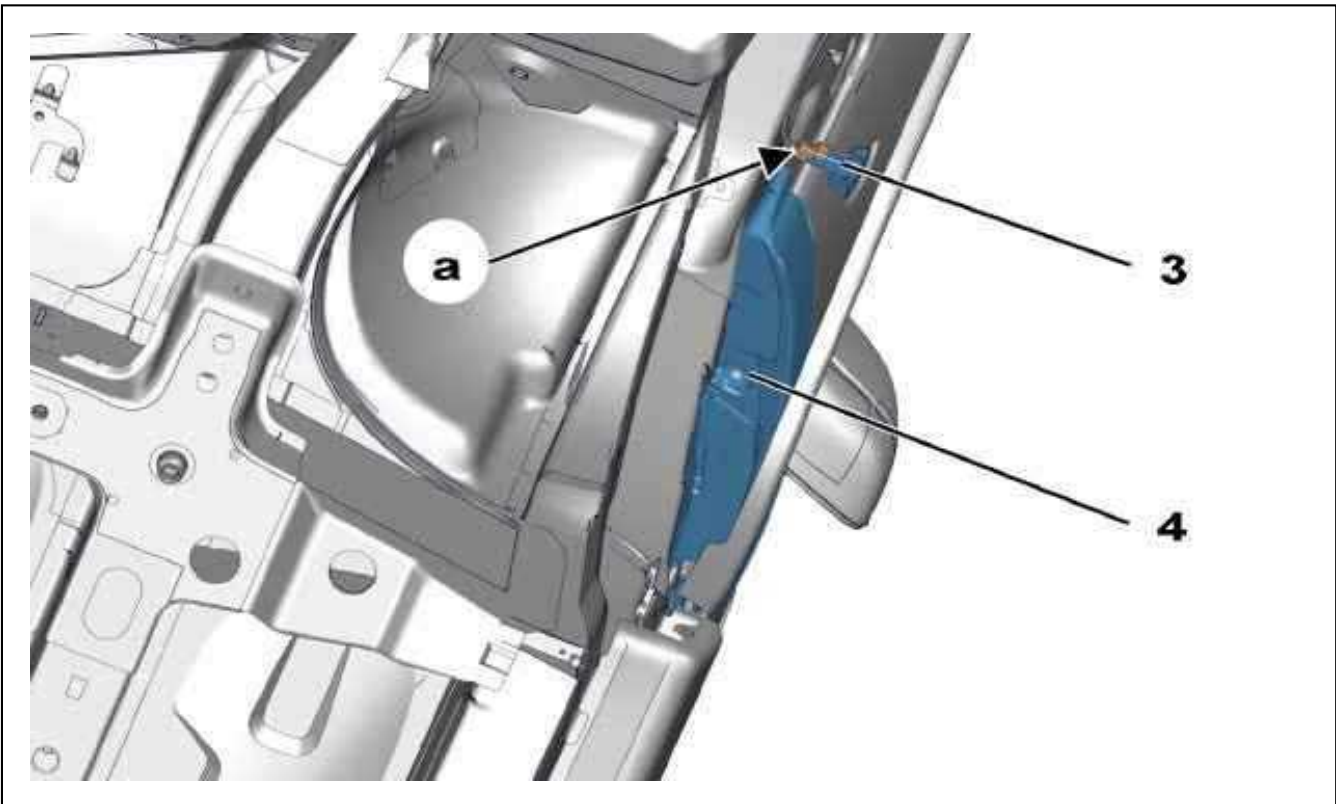


Figure : C4CP2EZD

Disconnect the connector of the wing side repeater ( as "a").

Remove :

- Remove the side repeater (3)
- The wing seal (4)

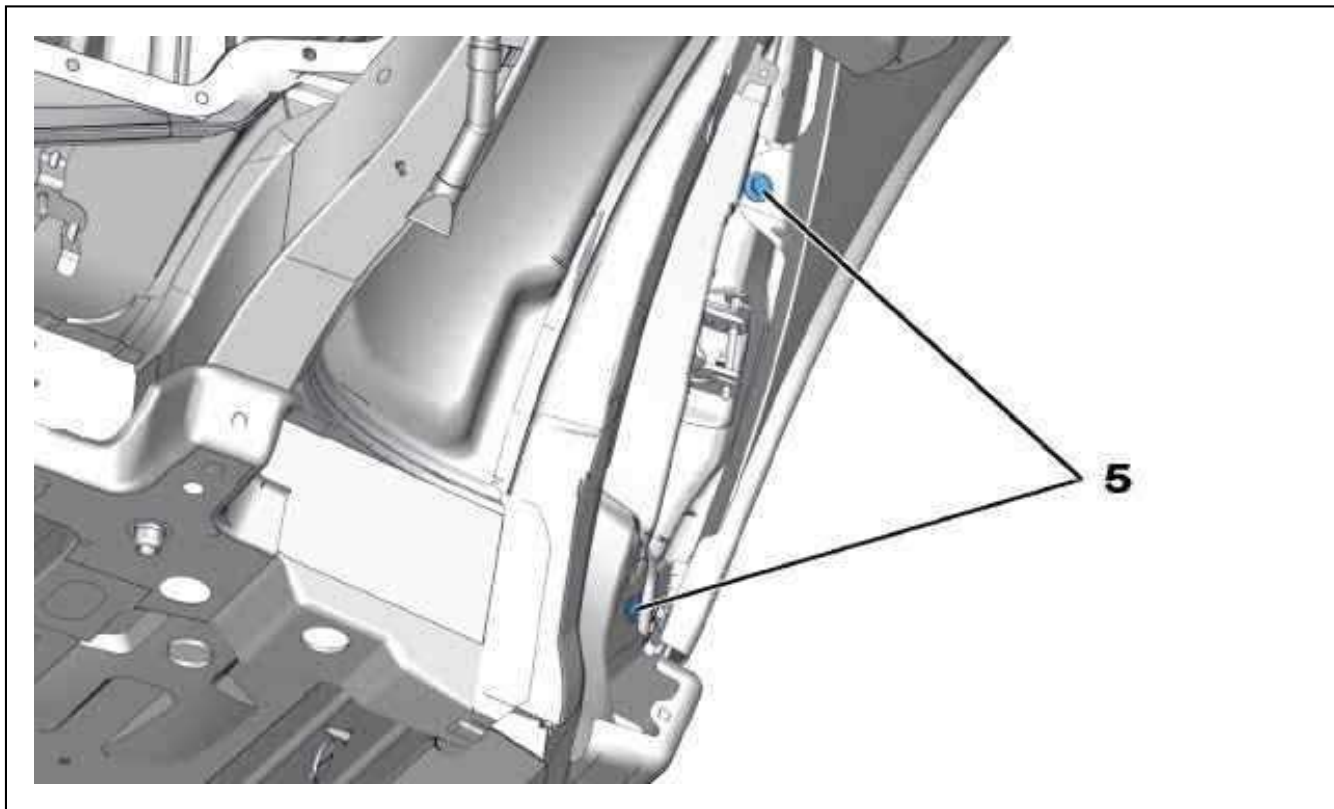


Figure : C4CP2F0D

Remove the bolts (5).

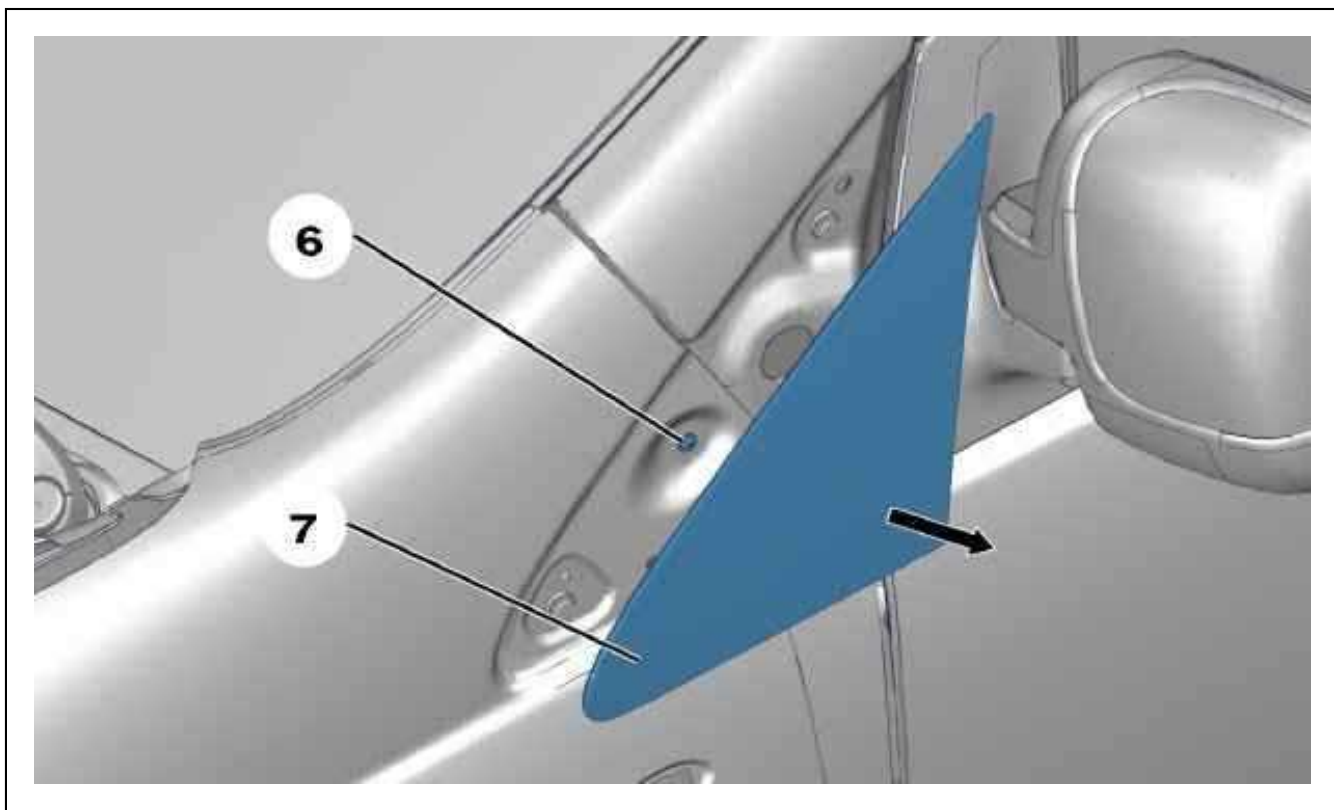


Figure : C4CP2F1D

Unclip the trim (7) ; Using tool [1].  
Remove bolts (6).

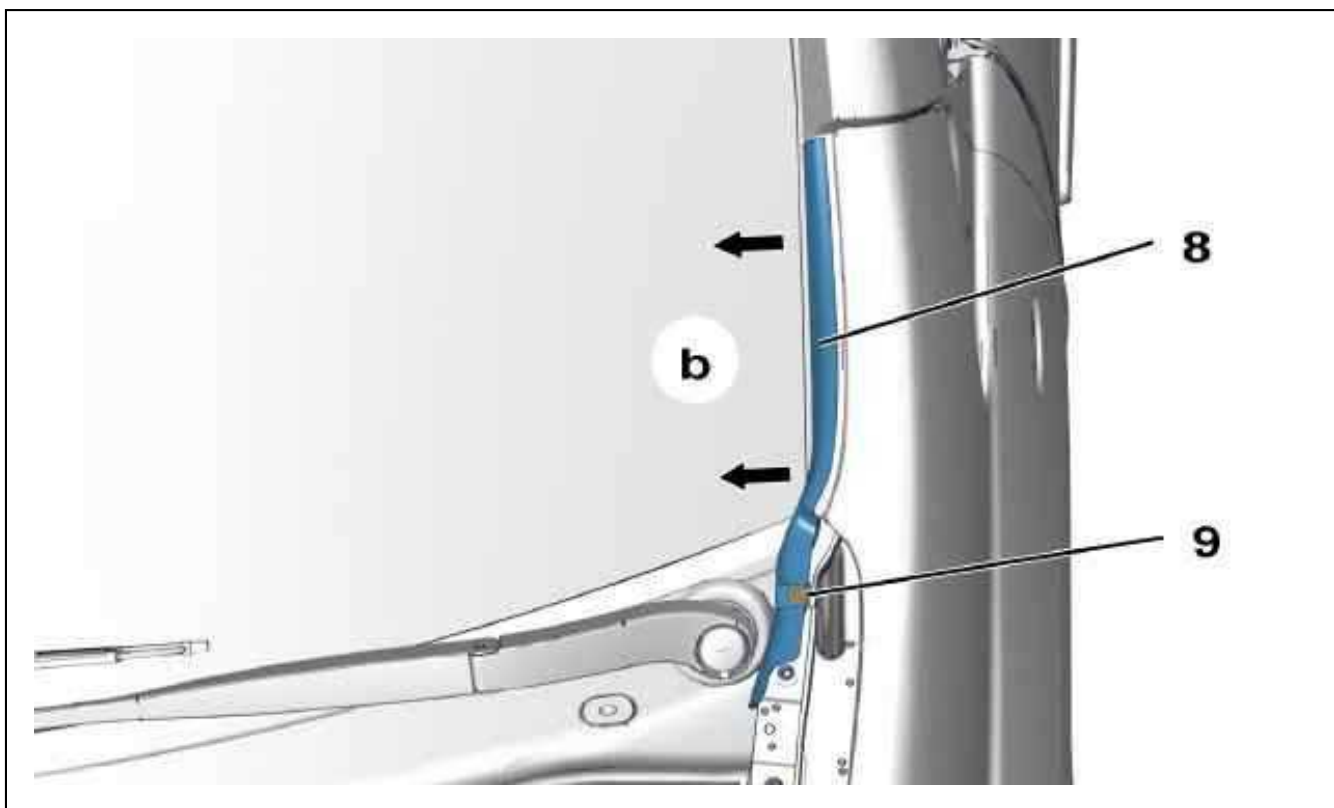


Figure : C4AP1VTD

Remove bolts (9).

Unclip the cover (8) ( as "b").

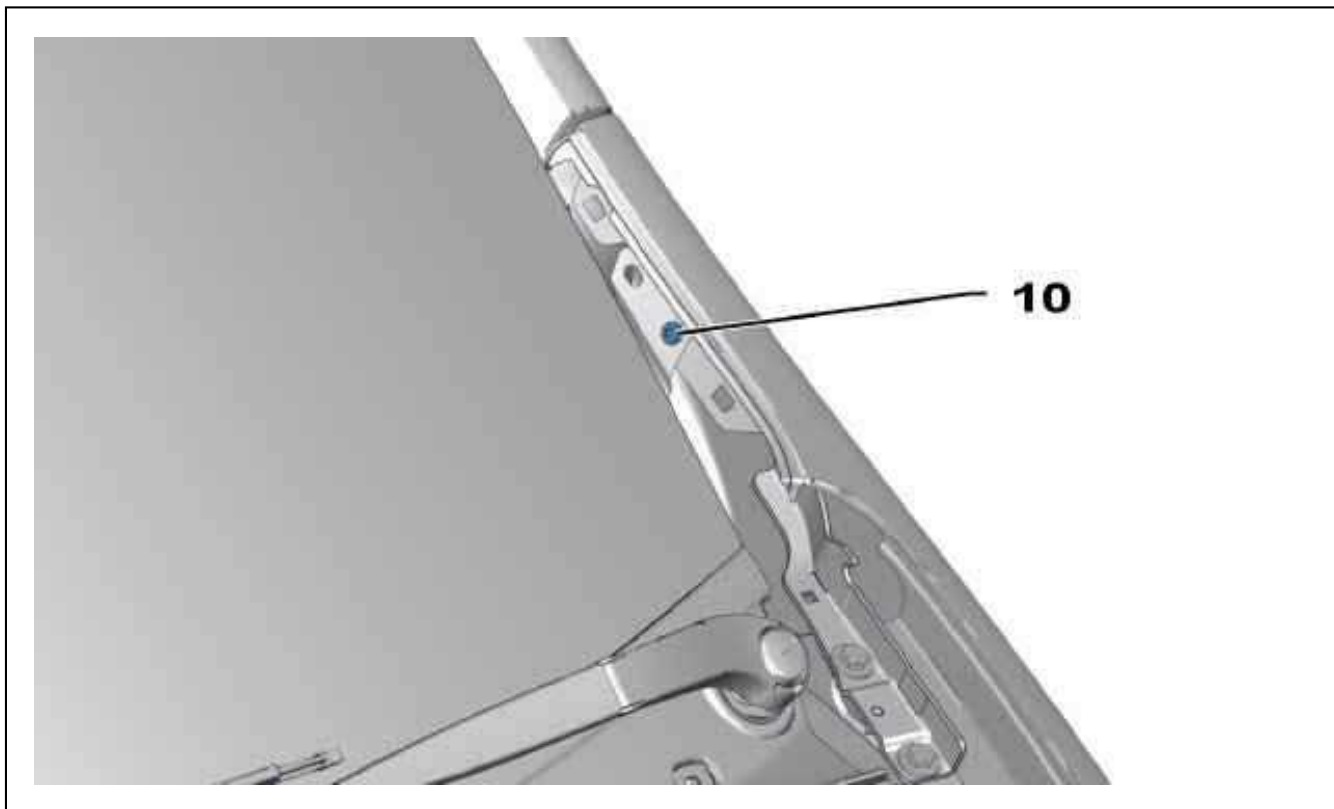


Figure : C4AP1VUD

Remove bolts (10).

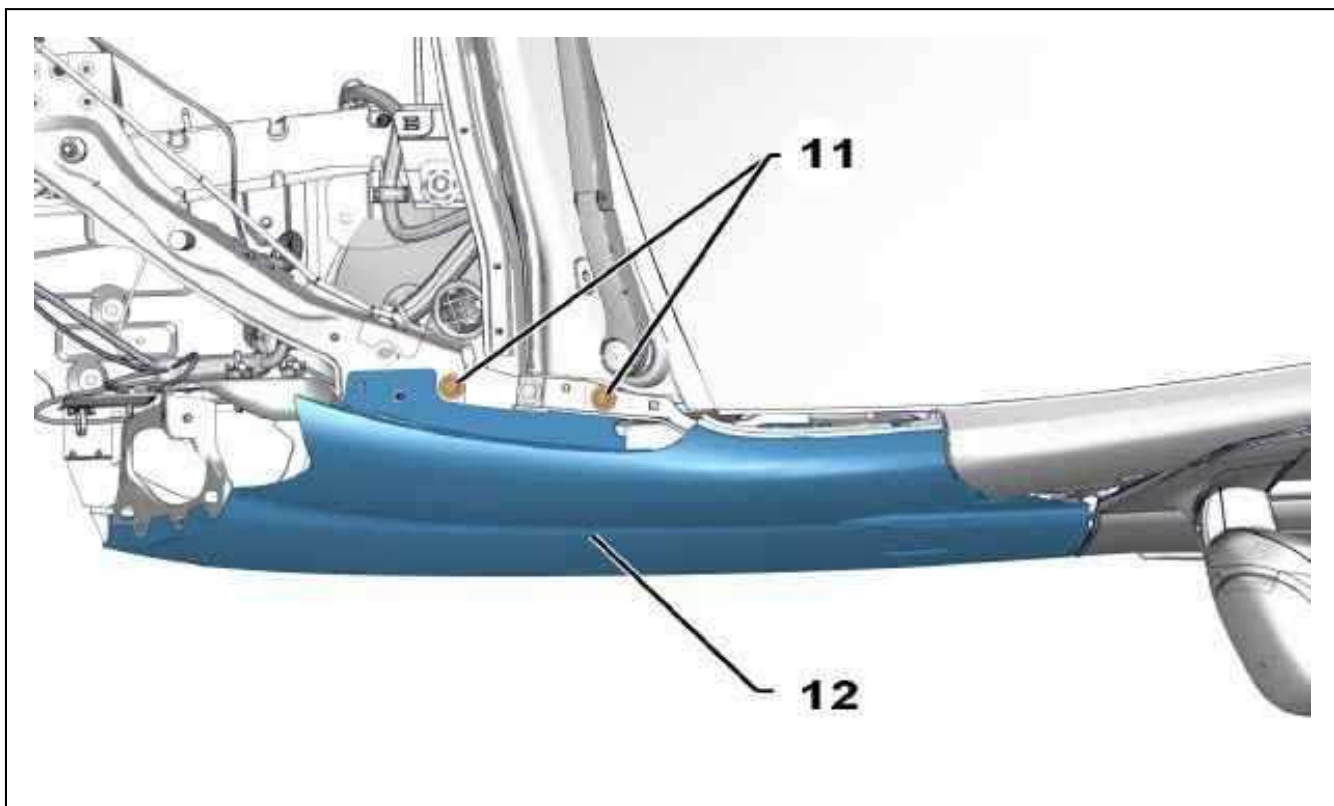


Figure : C4CP2F2D

Remove :

- The bolts (11)
- The front wing (12)

### 3. Refitting

Proceed in the reverse order to removal.

Adjust the fits and clearances  .

Tighten :

- The bolts (1), (2), (5) (11) to  $1,8 \pm 0,1$  daN.m
- The bolts (6), (9), (10) to  $0,5 \pm 0,1$  daN.m

Reconnect the battery.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery  .

Check all the equipment works.

## REMOVING - REFITTING : ENGINE BONNET DIVIDER

### 1. Removing

Remove the bonnet .

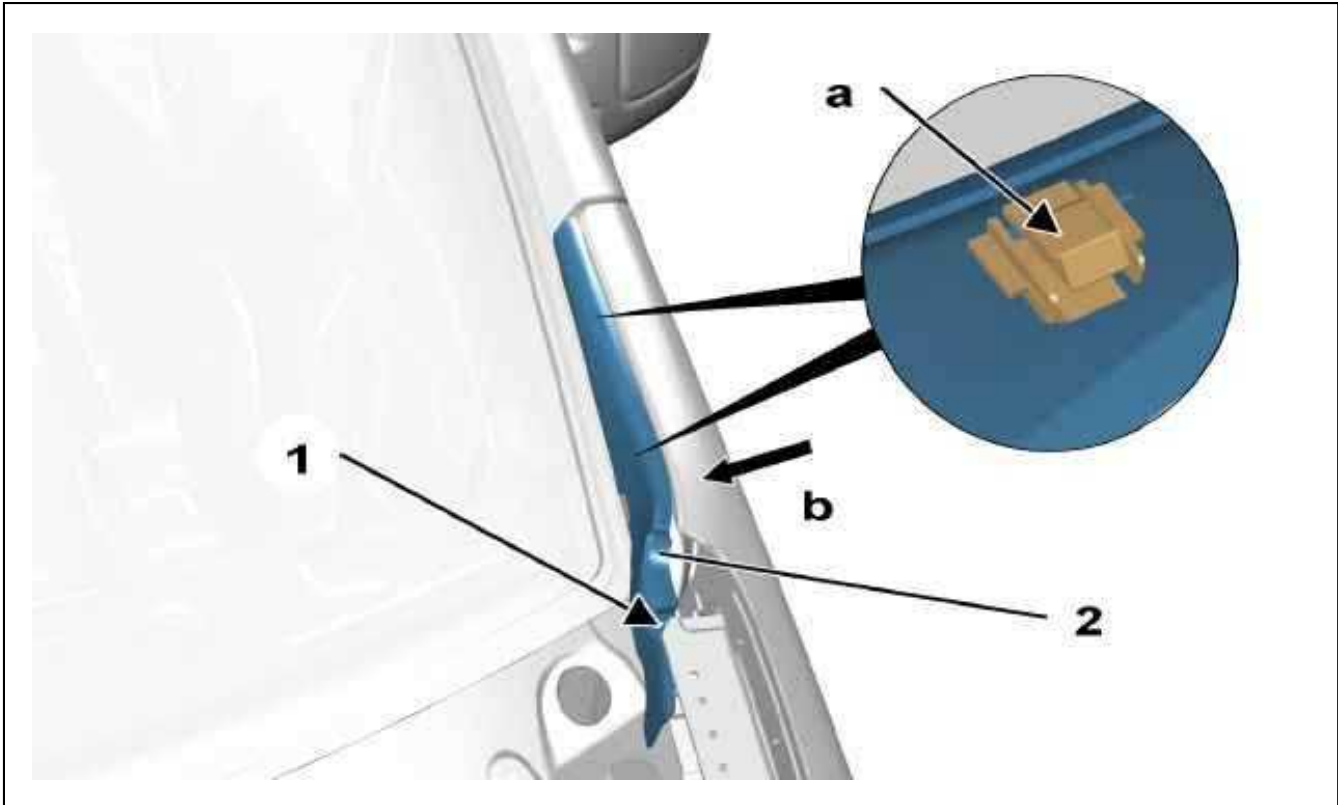


Figure : C4AP1W1D

Remove bolts (1).

Unclip the trim ( 2) ( as "a").

Remove the trim (2) (in direction "b").

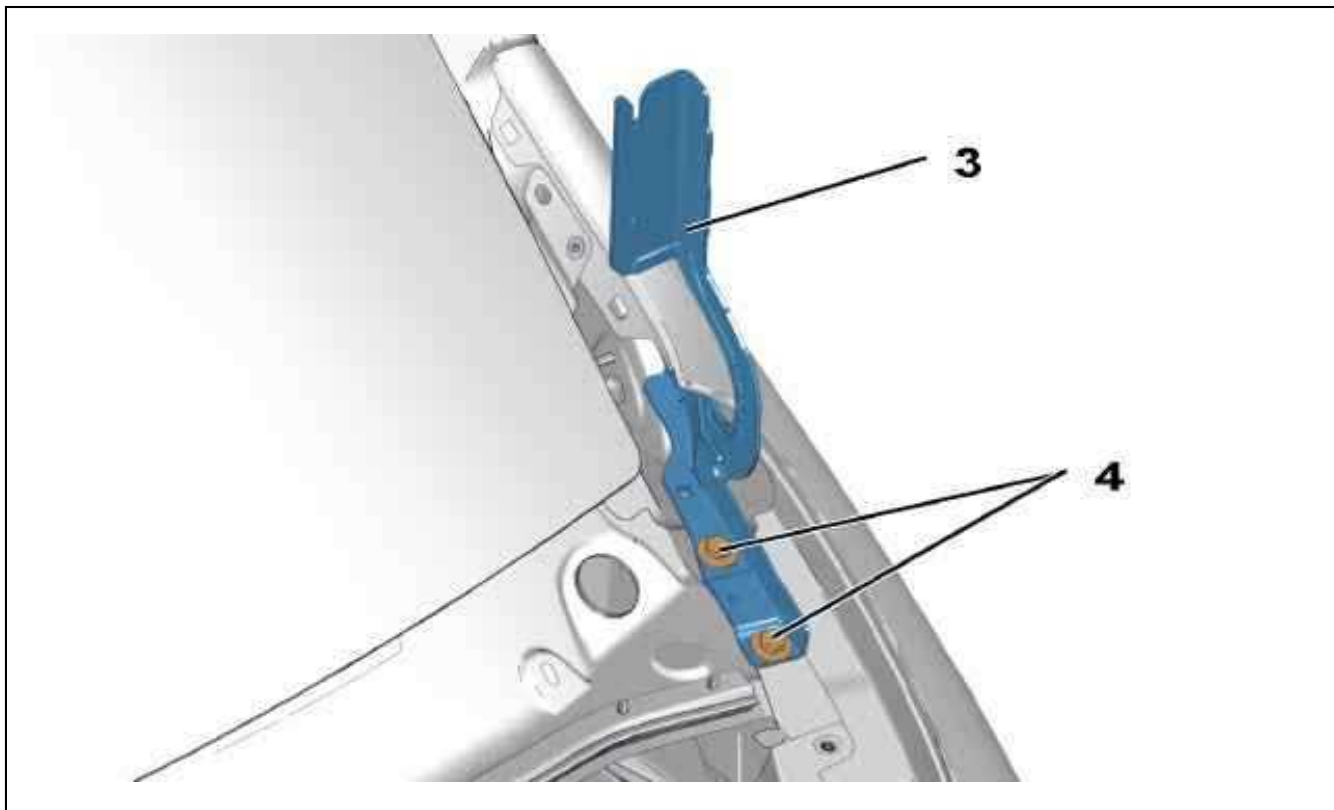


Figure : C4AP1W2D

Remove :

- The bolts (4)
- The bonnet divider (3)

Proceed in the same way for the other side.

## 2. Refitting

Proceed in the reverse order to removal.

Tighten the bolts (4) to  $1 \pm 0,1$  daN.m.

Adjust the bonnet and/or bonnet release mechanism .

## REMOVING - REFITTING : BONNET OPENING CONTROL CABLE

**ESSENTIAL** : Observe the safety and cleanliness recommendations ⓘ .

## 1. Preliminary operations

Remove :

- The front bumper ⓘ
- The driver's seat ⓘ
- The centre console ⓘ
- The door sill trim ⓘ (Combi version)
- The door sill trim ⓘ (Utility version)

## 2. Removing

### 2.1. Opening control

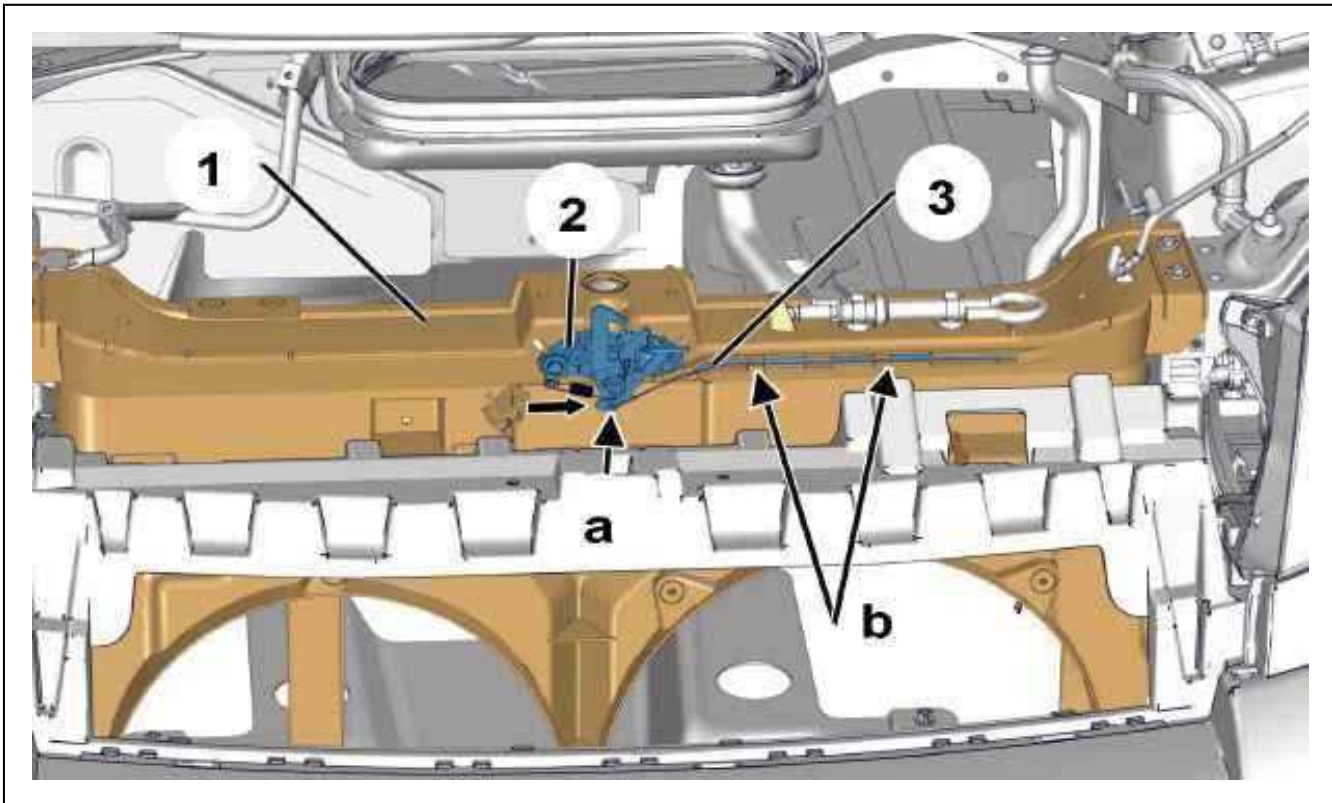


Figure : C4AP1W4D

Operate the bonnet lock (2)(In the direction of the arrow ).

**CAUTION** : Before removing the cable make a note of its routing.

Detach :

- The bonnet opening control cable (3)( as "a")
- The bonnet opening control cable (3) from the front panel (1) ( as "b")

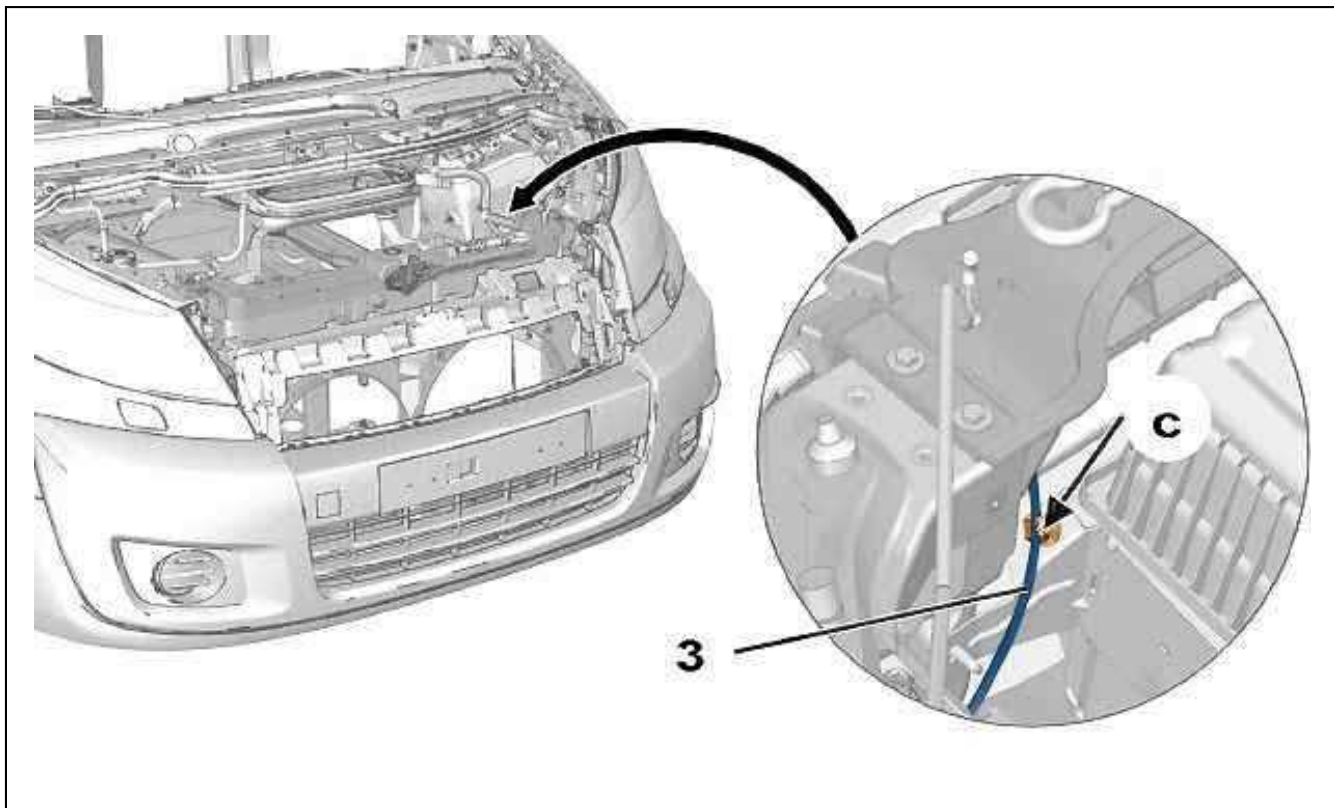


Figure : C4AP1W5D

Unclip and disengage the bonnet opening control cable (3)( as "c ").

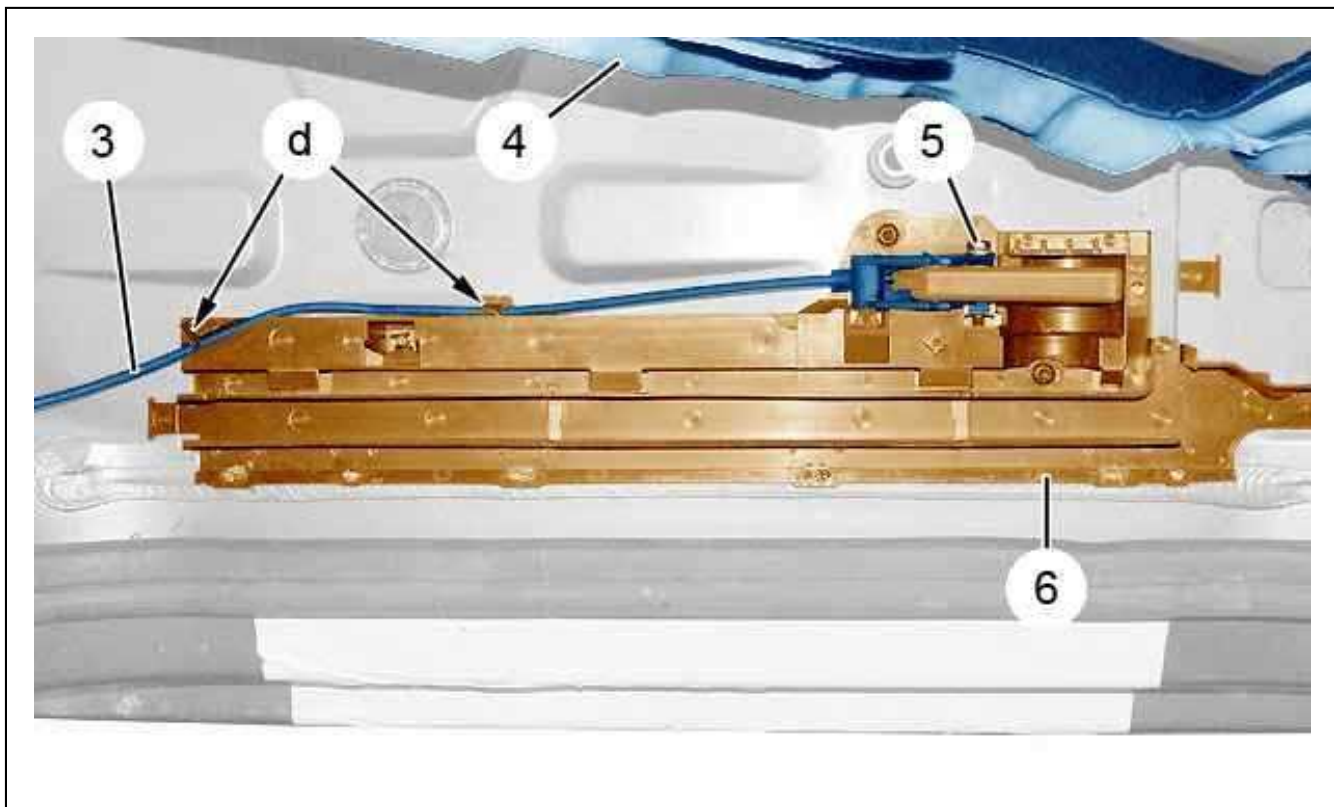


Figure : C4AP1W6D

Raise and disengage the carpet (4) on the driver's side (According to specification).  
Remove bolts (5).

Unclip the bonnet opening control cable (3) from the door sill trim support (6) ( as "d").  
Disengage the bonnet opening control cable (3).

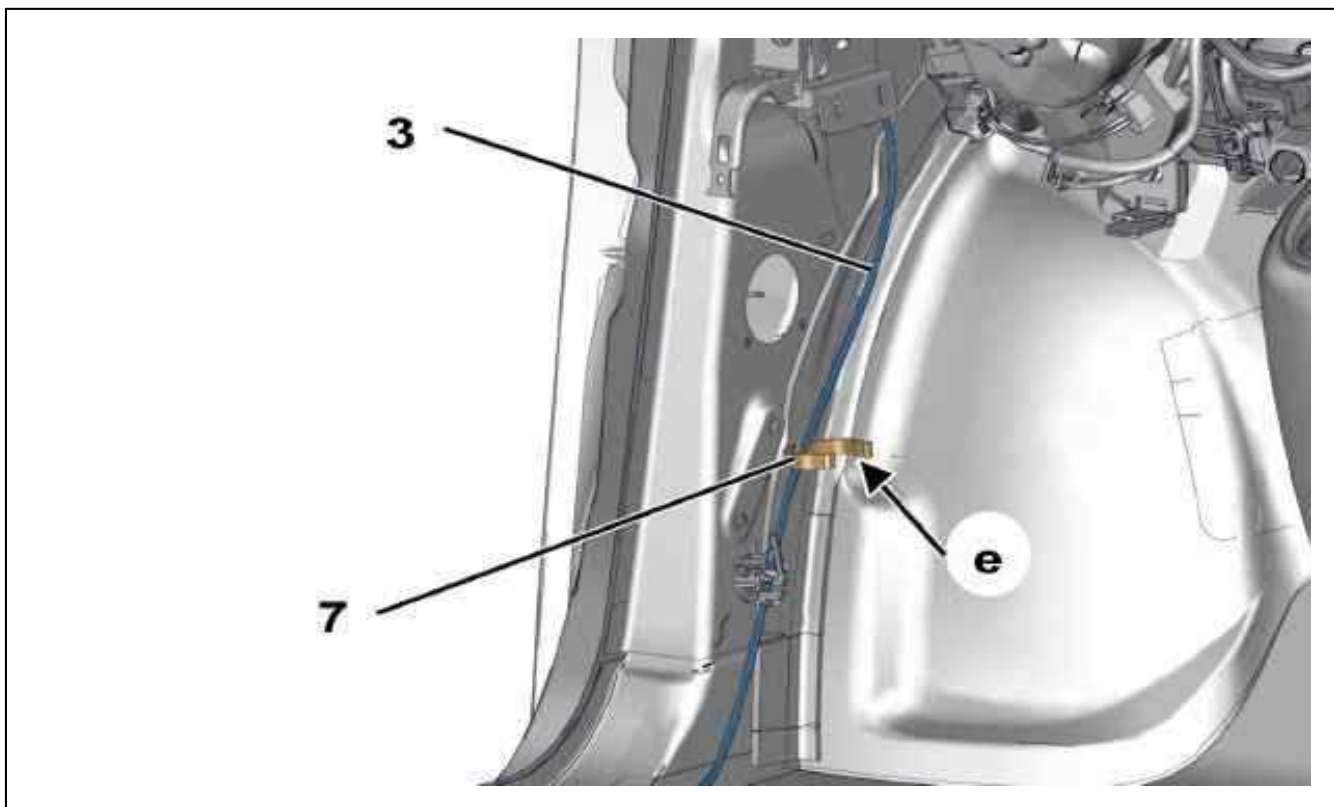


Figure : C4AP1W7D

Open the clip (7) ( as "e").  
Disengage the bonnet opening control cable (3) from the bulkhead towards the interior.  
Remove the bonnet opening control cable assembly (3).

## 2.2. Bonnet lock

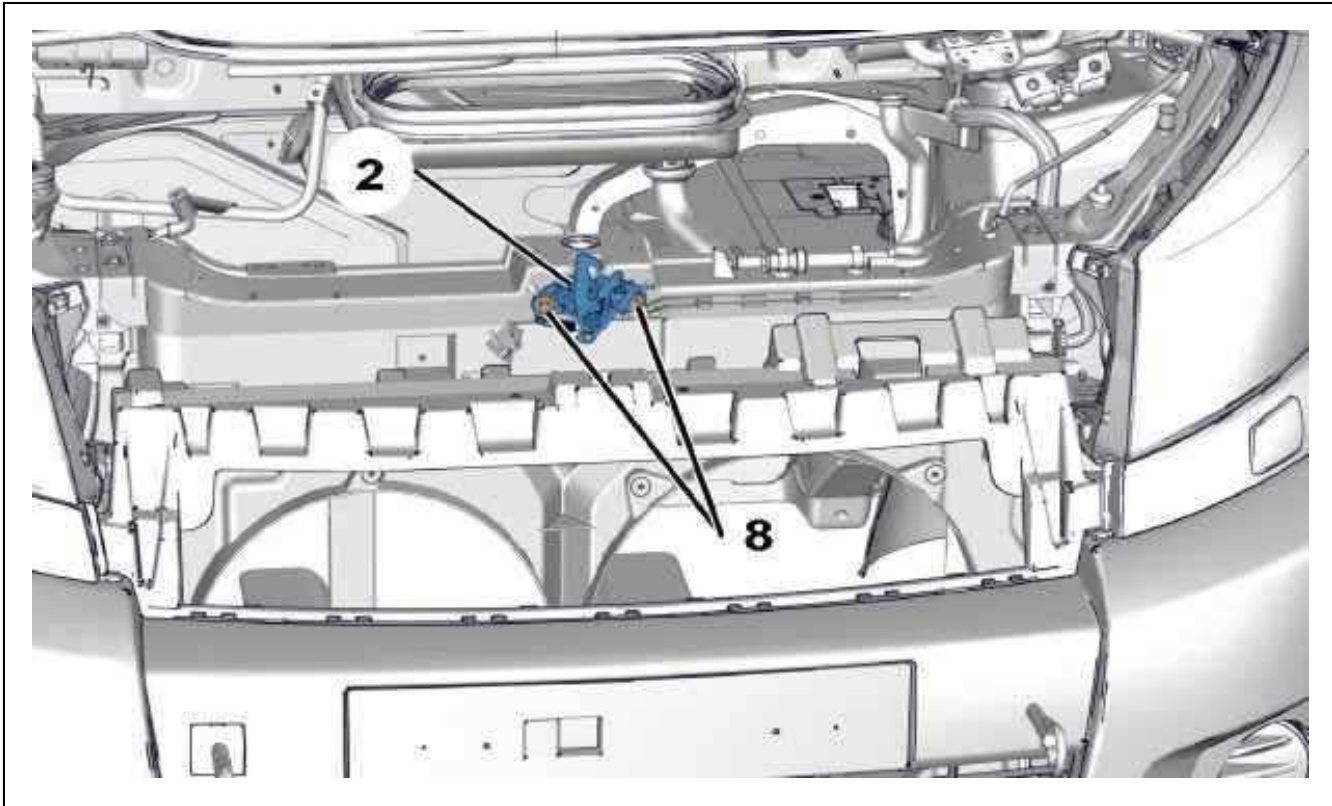


Figure : C4AP1W8D

Remove :

- The bolts (8)
- The bonnet lock (2)

### 3. Refitting

**CAUTION** : Before refitting the driver's seat carpet : From the centre console and from the radiator grille , check the operation of the bonnet opening control cable (3).

Proceed in the reverse order to removal.

Tighten the bolts (8) to  $0,8 \pm 0,2$  daN.m.

Adjust the bonnet lock (2) (see the relevant operation).

Check that the electrical equipment is working correctly.

## REPLACEMENT : THE FRONT WING LOWER INNER PANEL

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or customer's jack).

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic rezincing process .

## 1. Additional operations

Disconnect the battery.

Replacement : Front wing upper inner panel ⓘ .

Release the wiring harnesses.

Protect the interior of the passenger compartment.

## 2. Identification of replacement parts

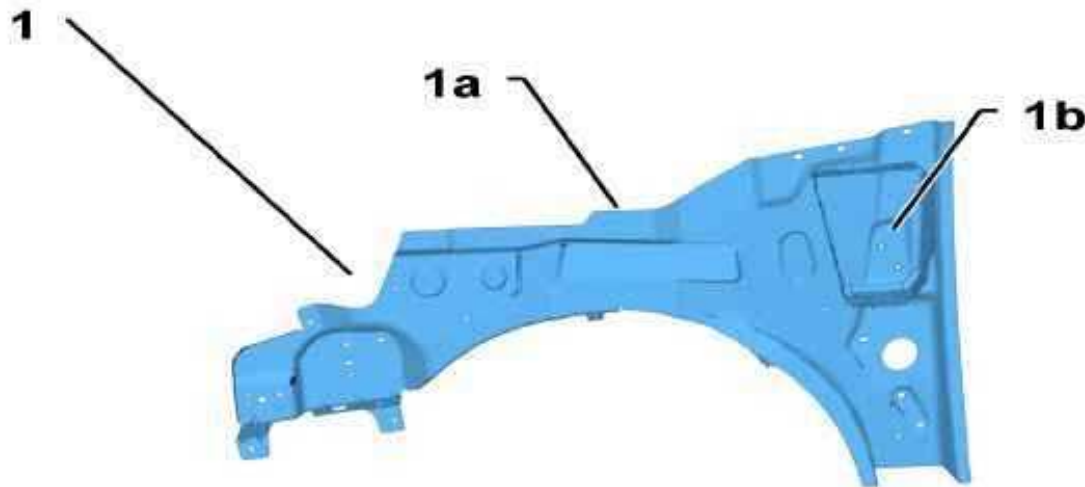


Figure : C4AM01JD

| Reference | Designation                           | Thickness (mm) | Nature/classification |
|-----------|---------------------------------------|----------------|-----------------------|
| (1)       | Front wing lower inner panel assembly | -              | -                     |

|                                                   |                              |      |          |
|---------------------------------------------------|------------------------------|------|----------|
| (1a)                                              | Front wing lower inner panel | 1,47 | HLE (**) |
| (1b)                                              | A post upper gusset          | 1,76 | ADX (*)  |
| (*) ADX : Mild steel(**)HLE : high-strength steel |                              |      |          |

### 3. Replacement part preparation

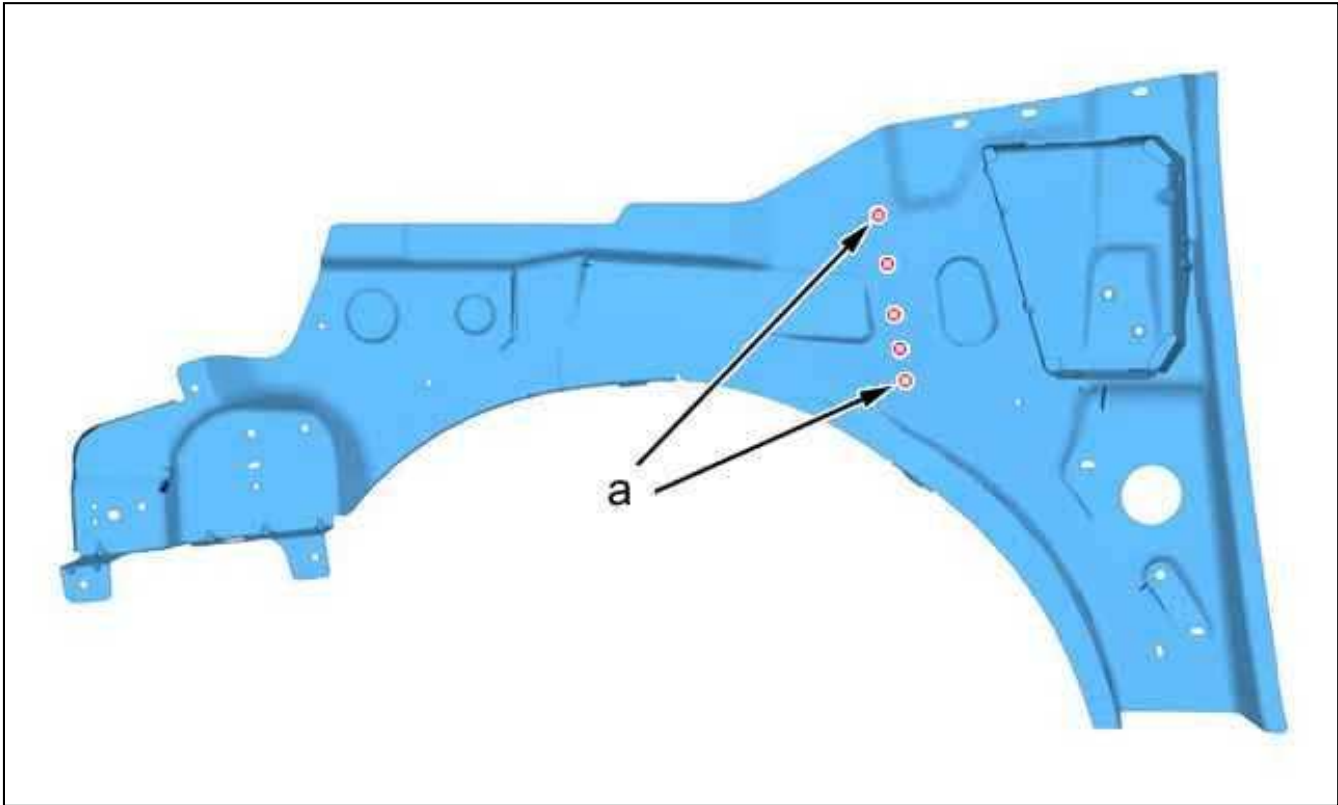


Figure : C4AM01KD

Mark then drill to Ø 8 mm for later plug welding(At "a").  
Prepare the mating edges and protect them using a weldable primer .

### 4. Cutting out

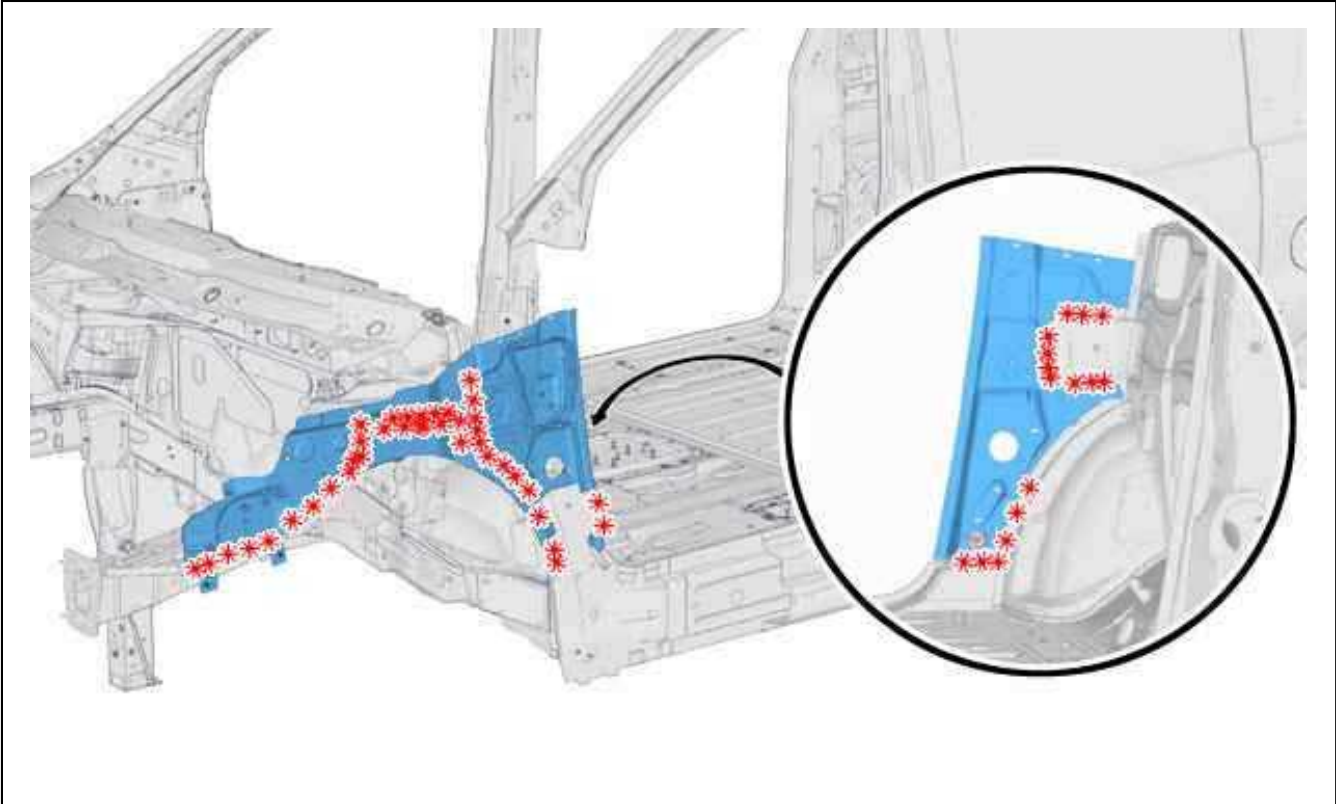


Figure : C4AM01LD

Cut out the spot welds .

Remove : The front wing lower inner panel assembly.

## 5. Bodywork cleaning and preparation

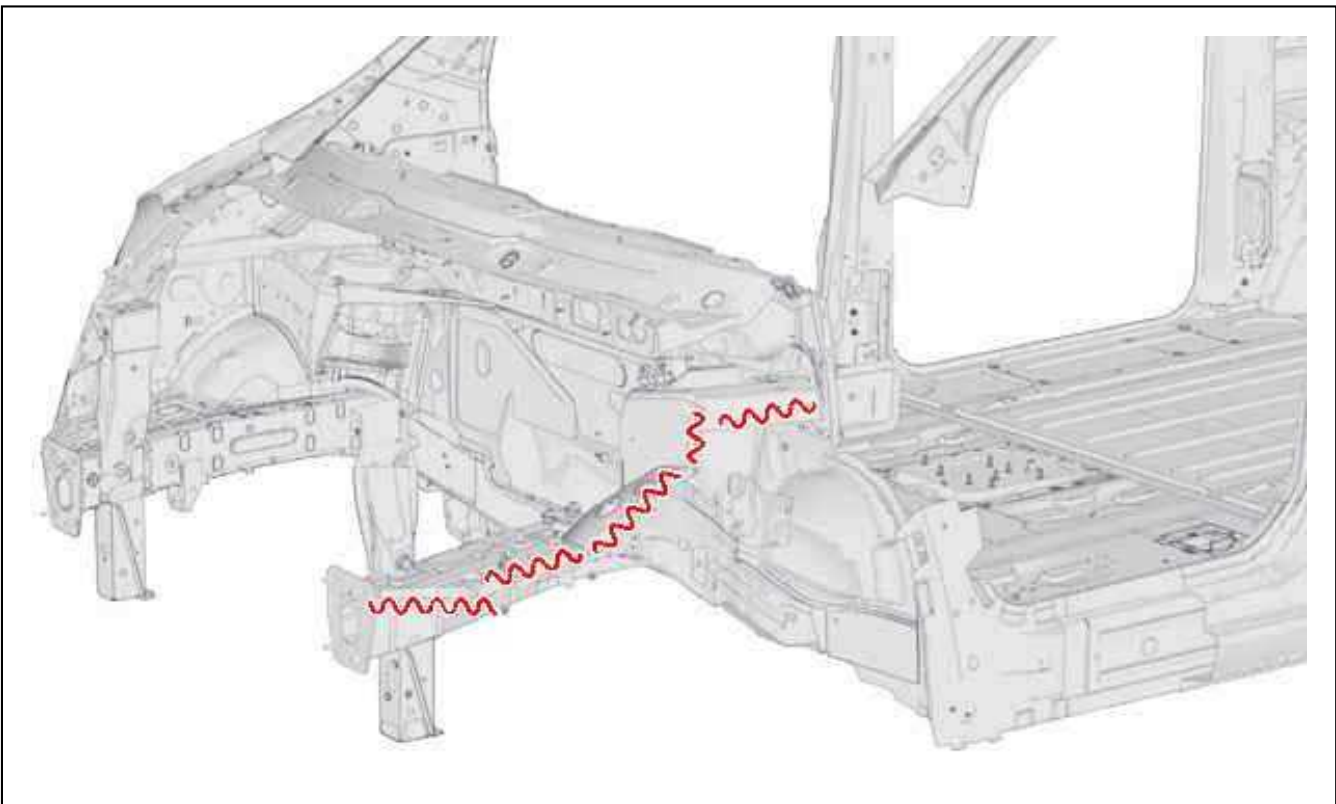


Figure : C4AM01MD

Prepare the mating edges and protect them using a weldable primer .  
Apply a filling adhesive "A2".

## 6. Adjustment

Position :

- The front wing lower inner panel assembly
- The front wing upper inner panel

Check the fit.

Use the approved checking and measuring equipment.

Remove : The front wing upper inner panel.

## 7. Welding

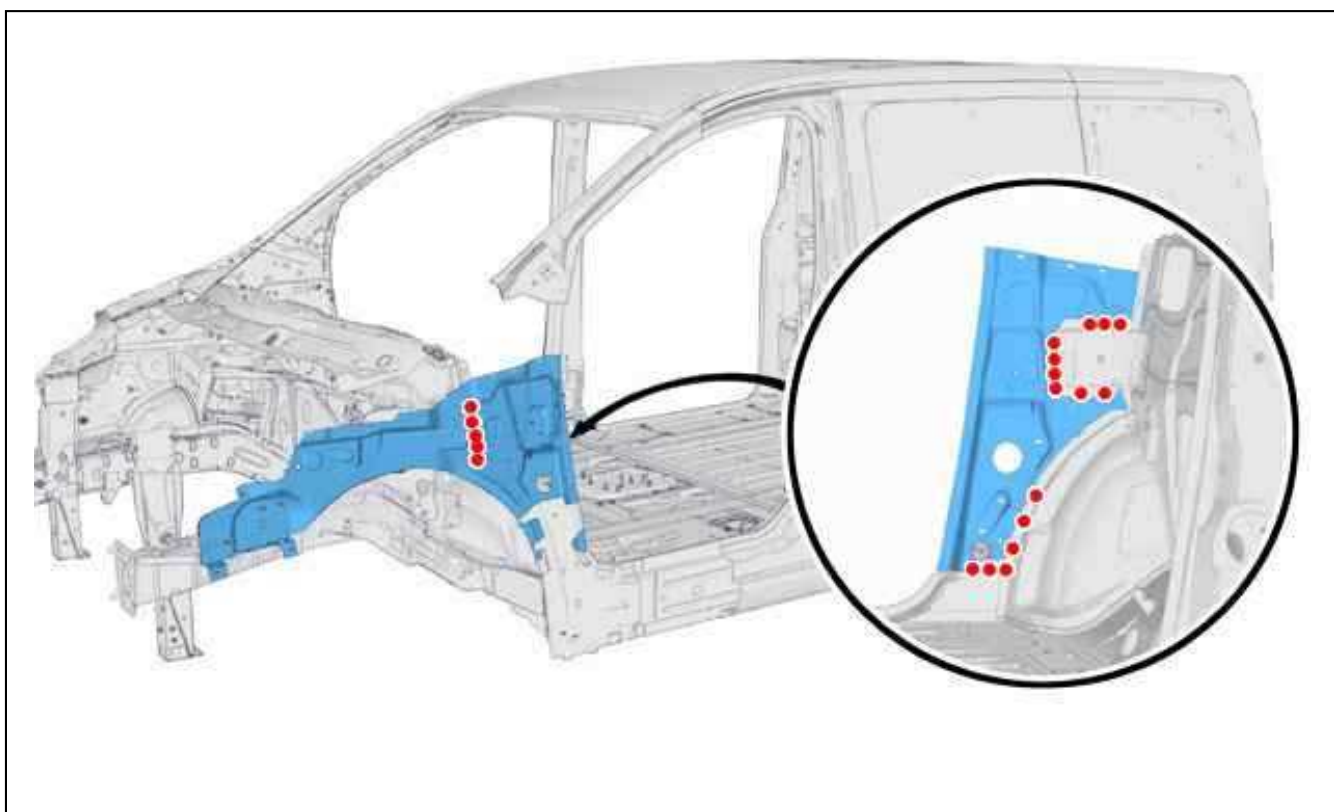


Figure : C4AM01ND

Weld with MAG plug welds.

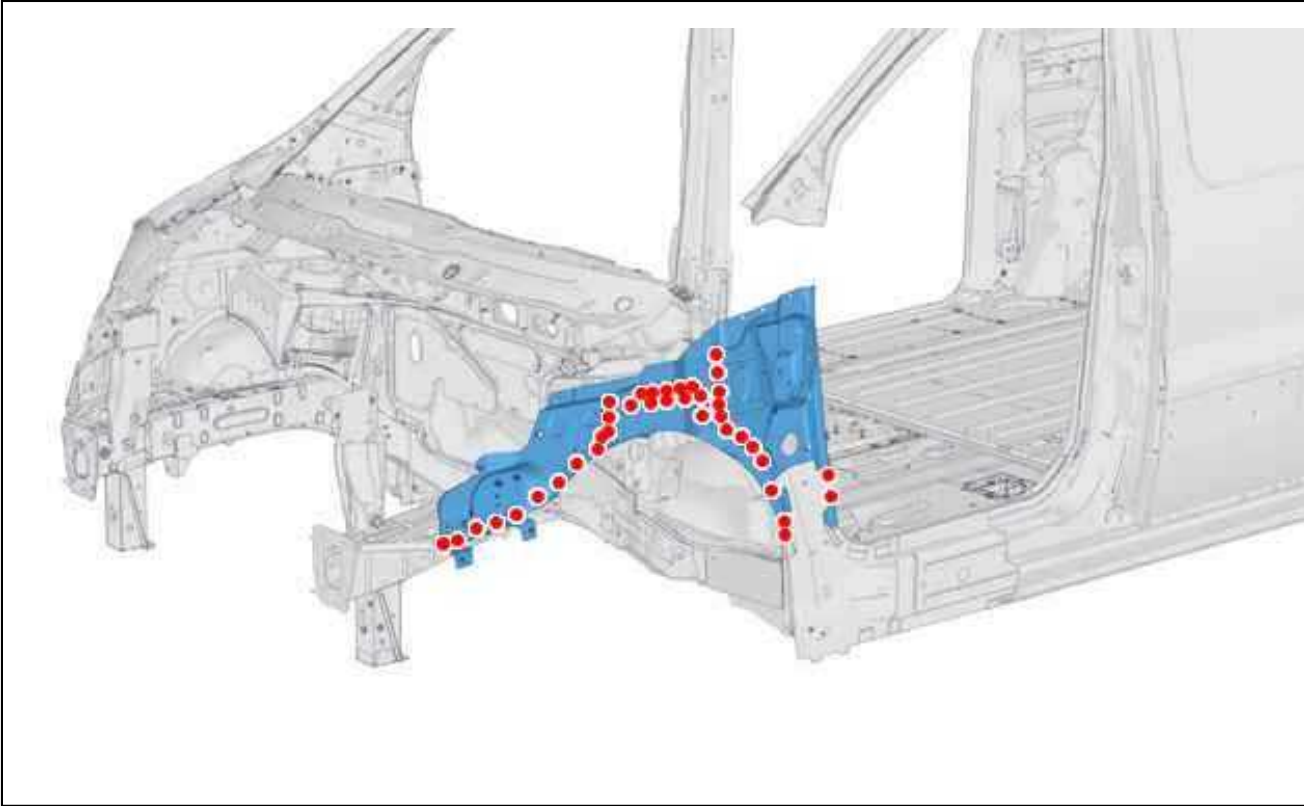


Figure : C4AM01PD

Weld with electric spot welds ⓘ .

## 8. Sealing protection

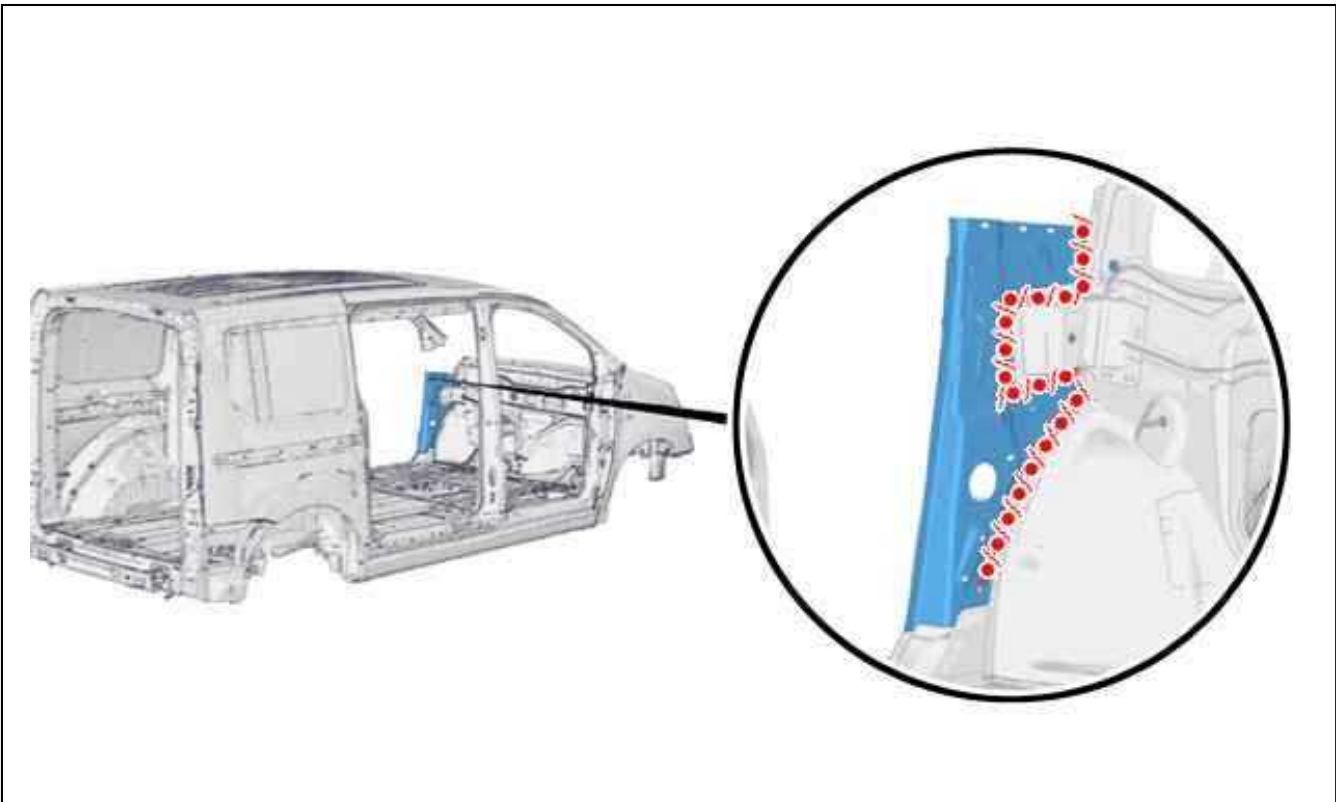


Figure : C4AM01QD

Apply a phosphate-print layer on the zone laid bare.

Apply a sealing mastic of type "A4".

Paint then spray into the hollow sections, product index C5, in the repair zone.

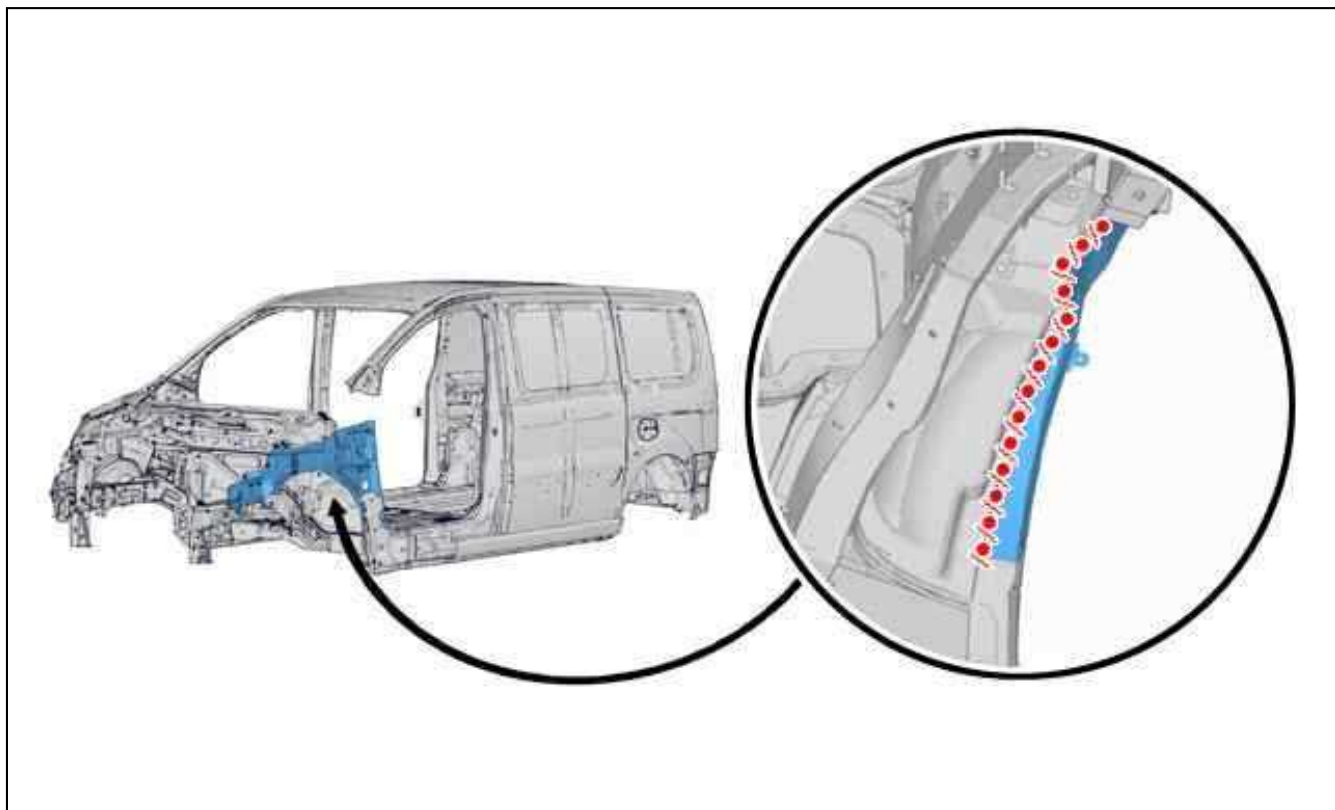


Figure : C4AM01RD

Apply a phosphate-print layer on the zone laid bare.

Apply a sealing mastic of type "A1".

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

Reconnect the battery.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery .

## REPLACEMENT : FRONT WING UPPER INNER PANEL

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or customer's jack ⓘ).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic rezincing process .

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

## 1. Additional operations

Disconnect the battery.

Replace :

- Passenger compartment side front strengthener ⓘ
- The front pillar assembly ⓘ
- Front foot reinforcement ⓘ

Release the wiring harnesses.

Protect the interior of the passenger compartment.

## 2. Identification of the replacement parts

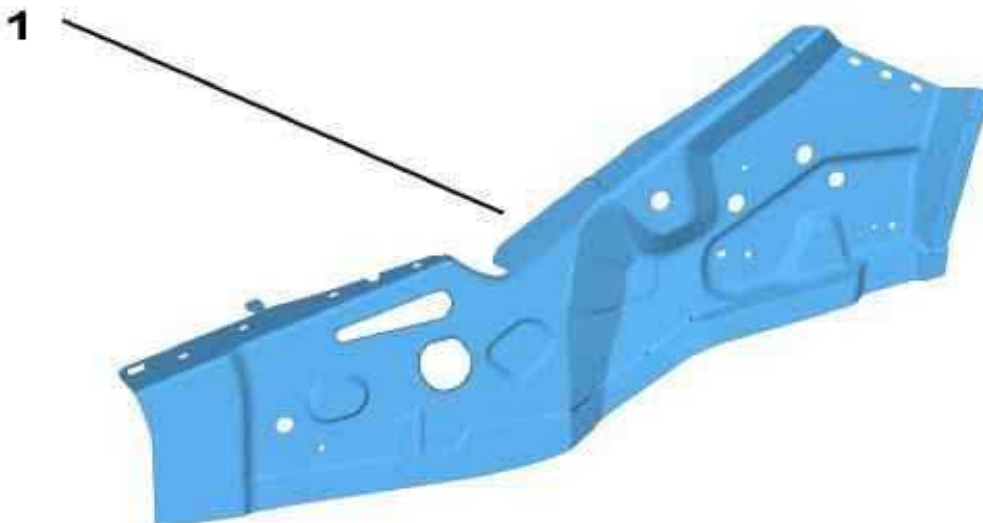


Figure : C4AM003D

| Reference                    | Designation                  | Thickness (mm) | Nature/classification |
|------------------------------|------------------------------|----------------|-----------------------|
| (1)                          | Front wing upper inner panel | 1,47           | HLE (*)               |
| (*)HLE : high-strength steel |                              |                |                       |

### 3. Replacement part preparation

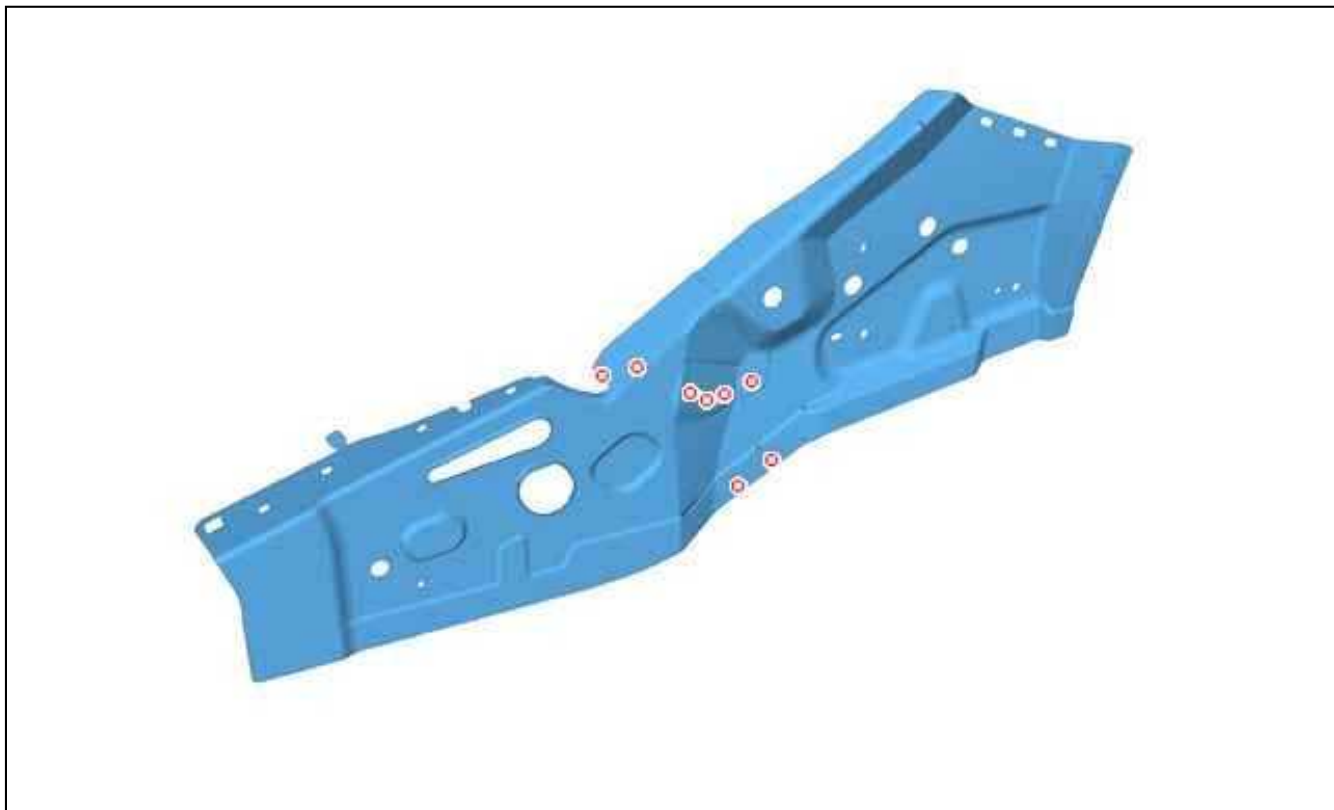


Figure : C4AM004D

Mark then drill to Ø 8 mm for later plug welding.

Prepare the mating edges and protect them using a weldable primer .

### 4. Cutting out

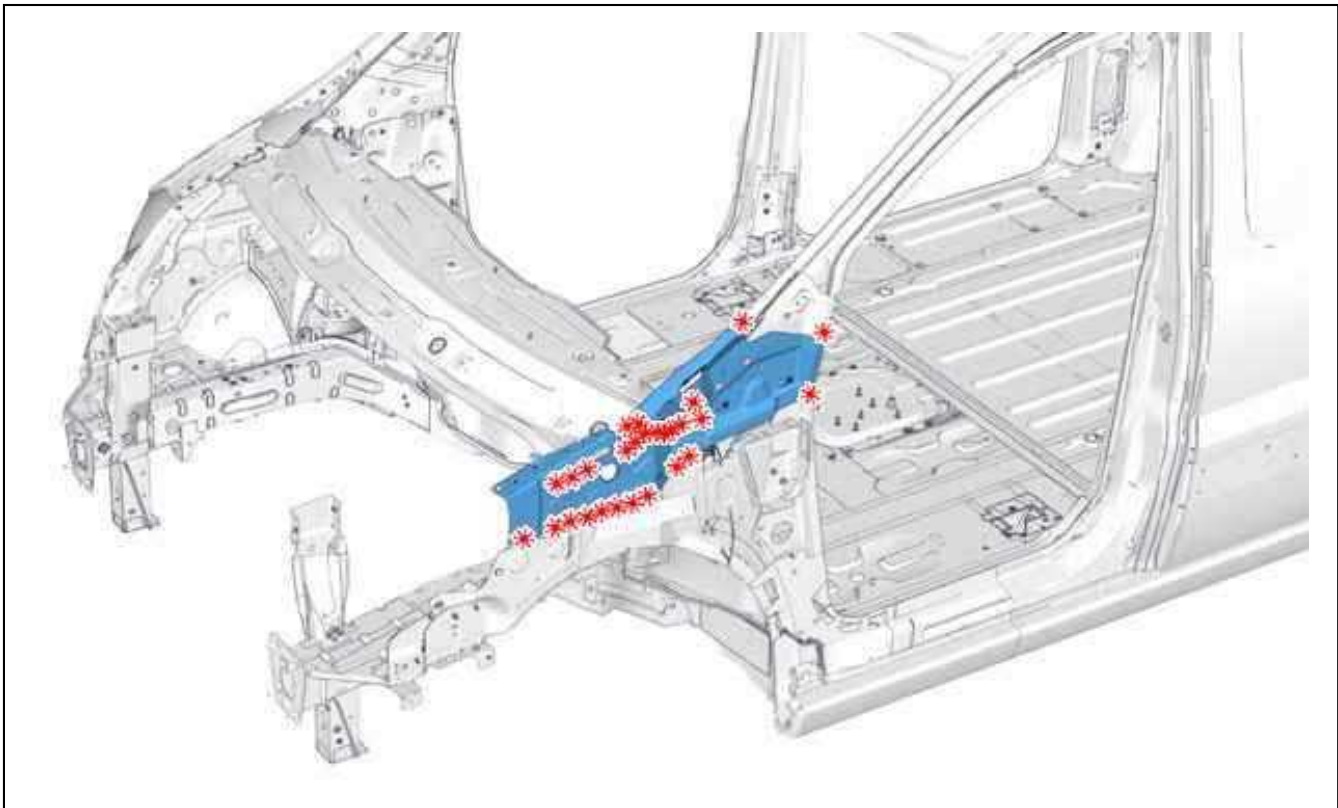


Figure : C4AM005D

Cut out the spot welds .

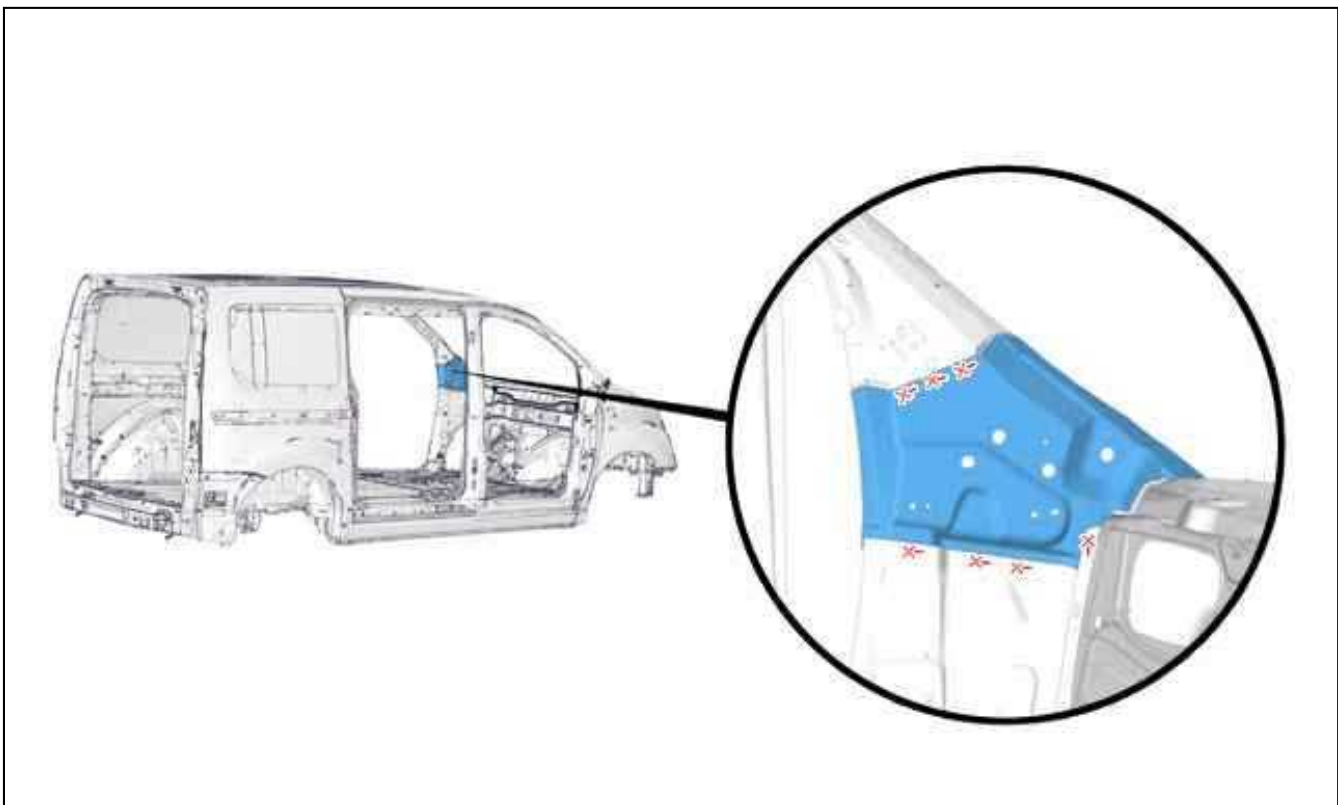


Figure : C4AM006D

Cut the MIG weld beads.

Remove : The front wing upper inner panel.

## 5. Bodywork cleaning and preparation

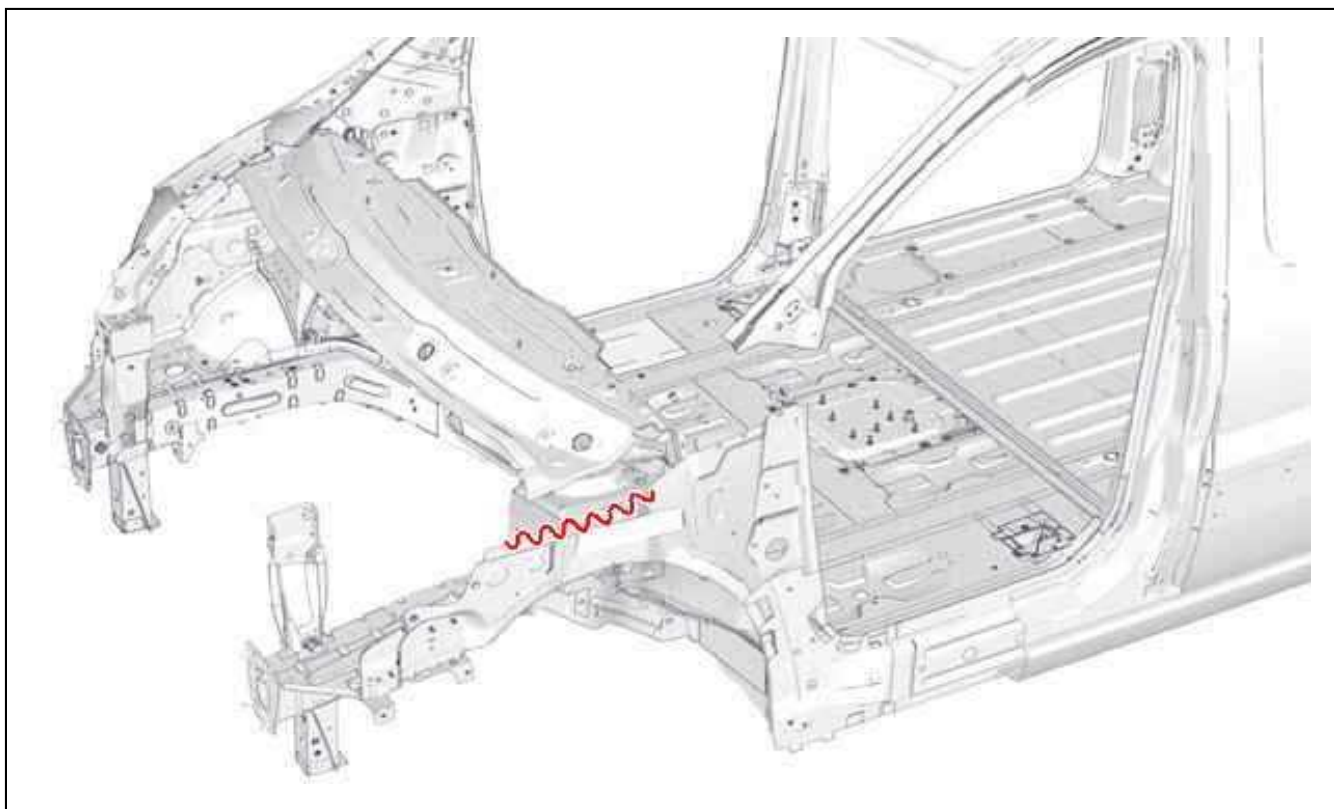


Figure : C4AM007D

Prepare the mating edges and protect them using a weldable primer .  
Apply a filling adhesive ( index "A2").

## 6. Adjustment

Position : The front wing upper inner panel.  
Check the fit.

## 7. Welding

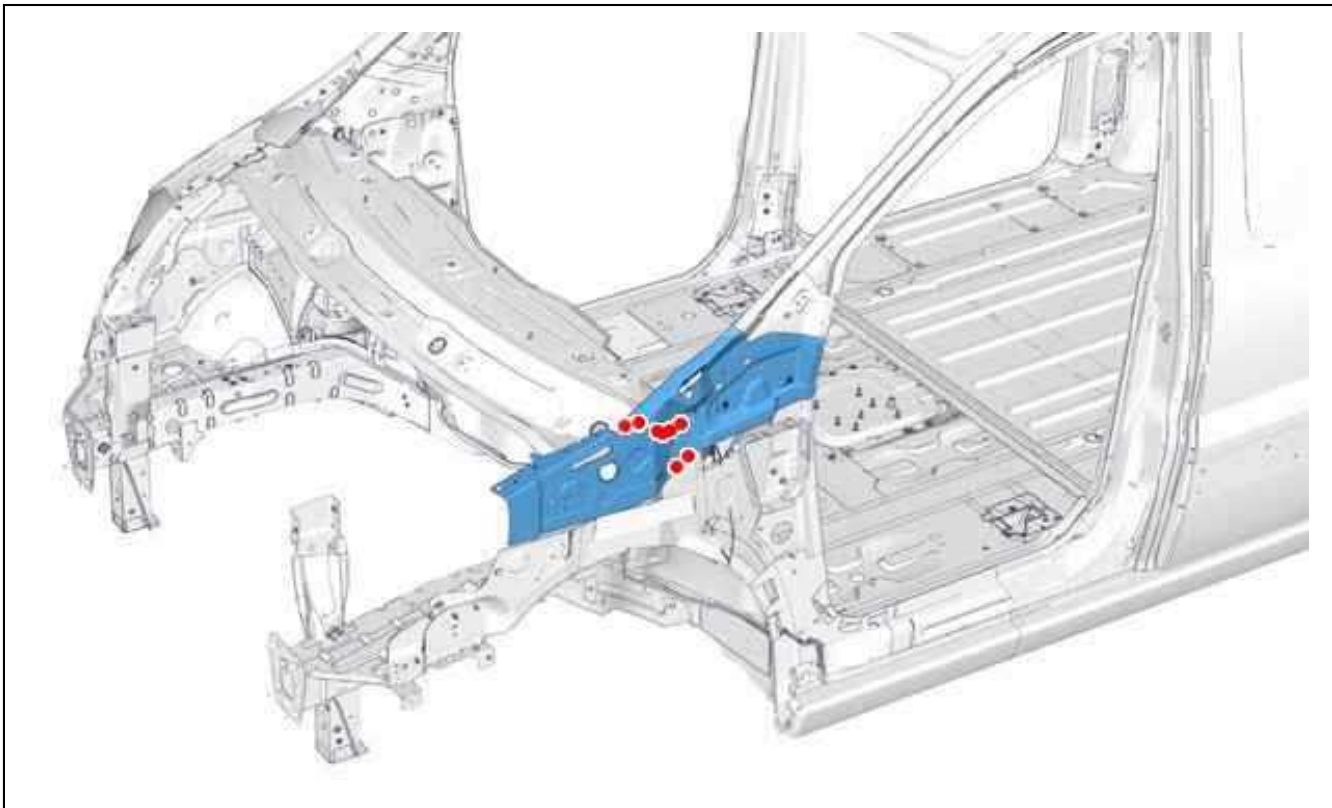


Figure : C4AM008D

Weld with MAG plug welds.

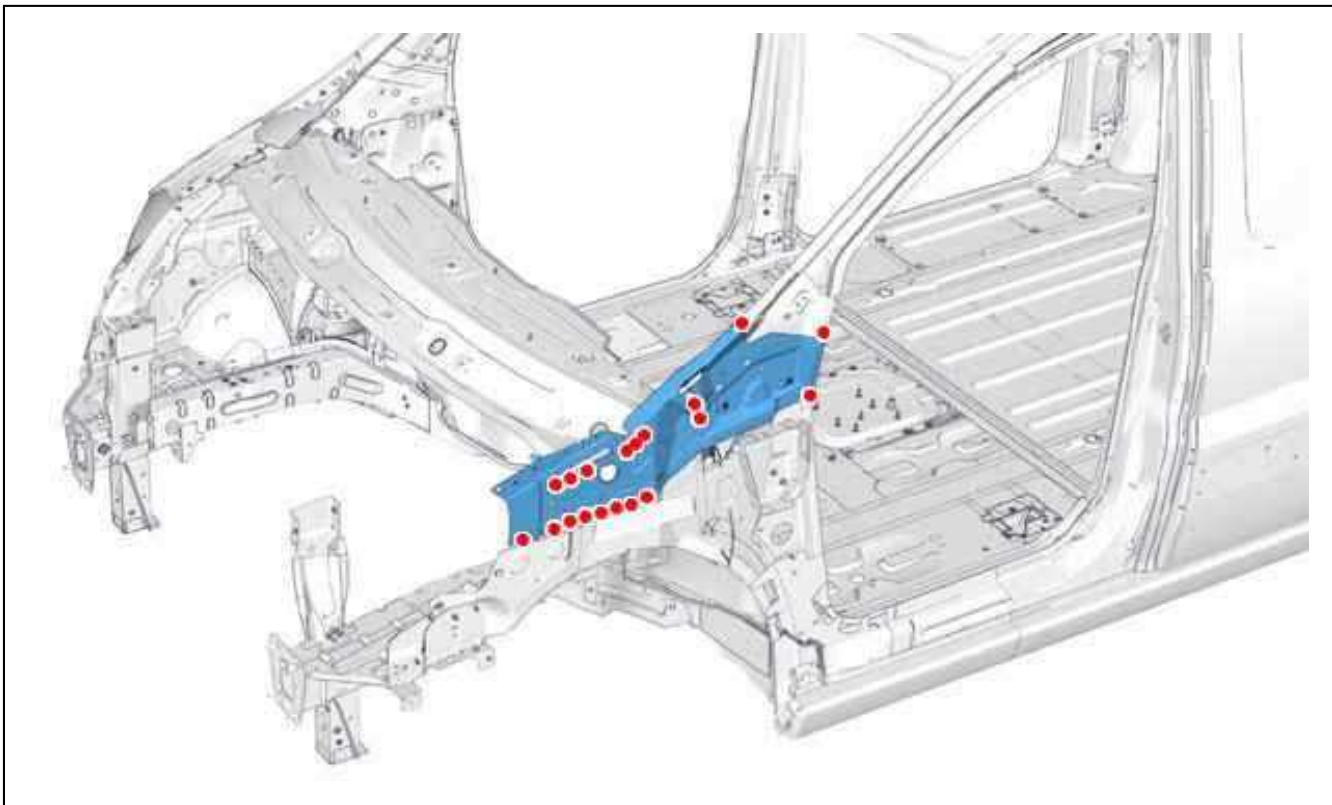


Figure : C4AM009D

Weld with electric spot welds ⓘ.

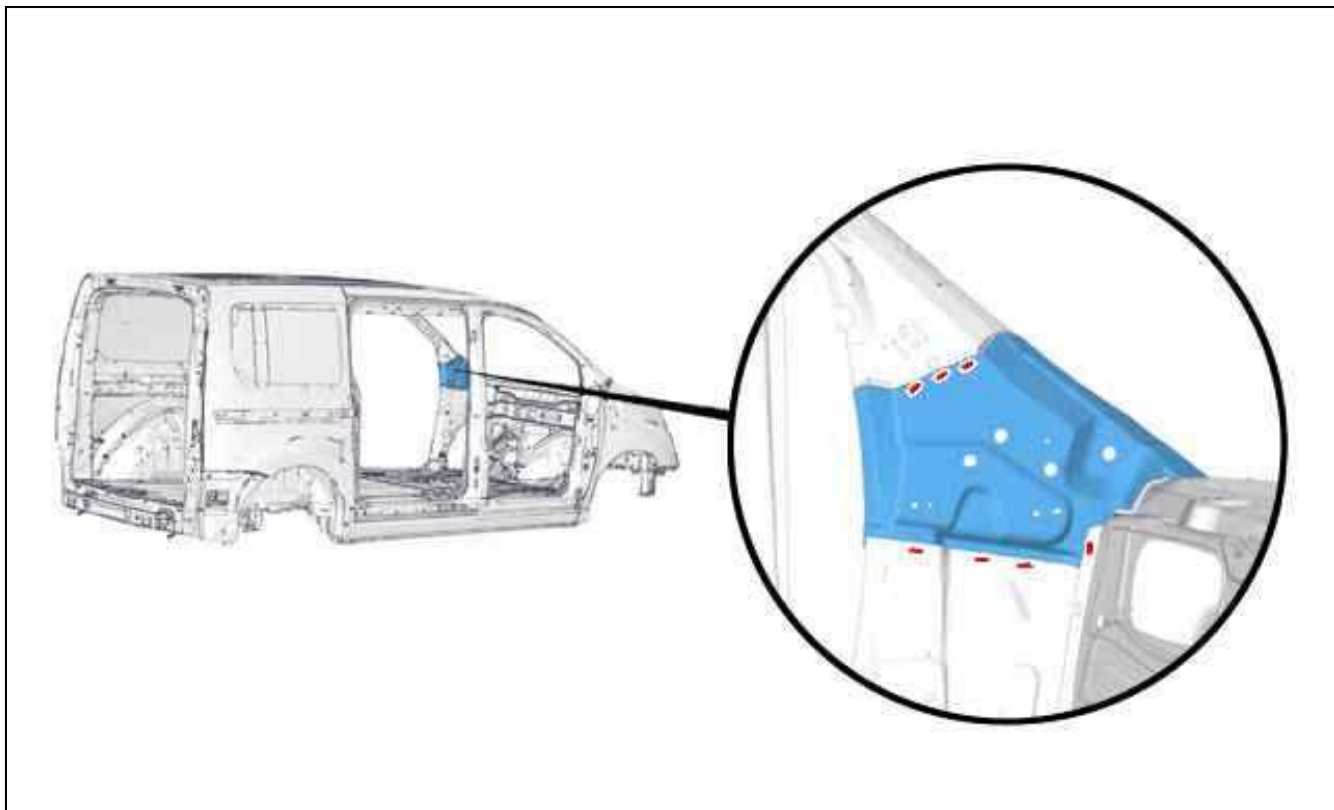


Figure : C4AM00AD

Weld using MIG weld beads.

## 8. Sealing protection

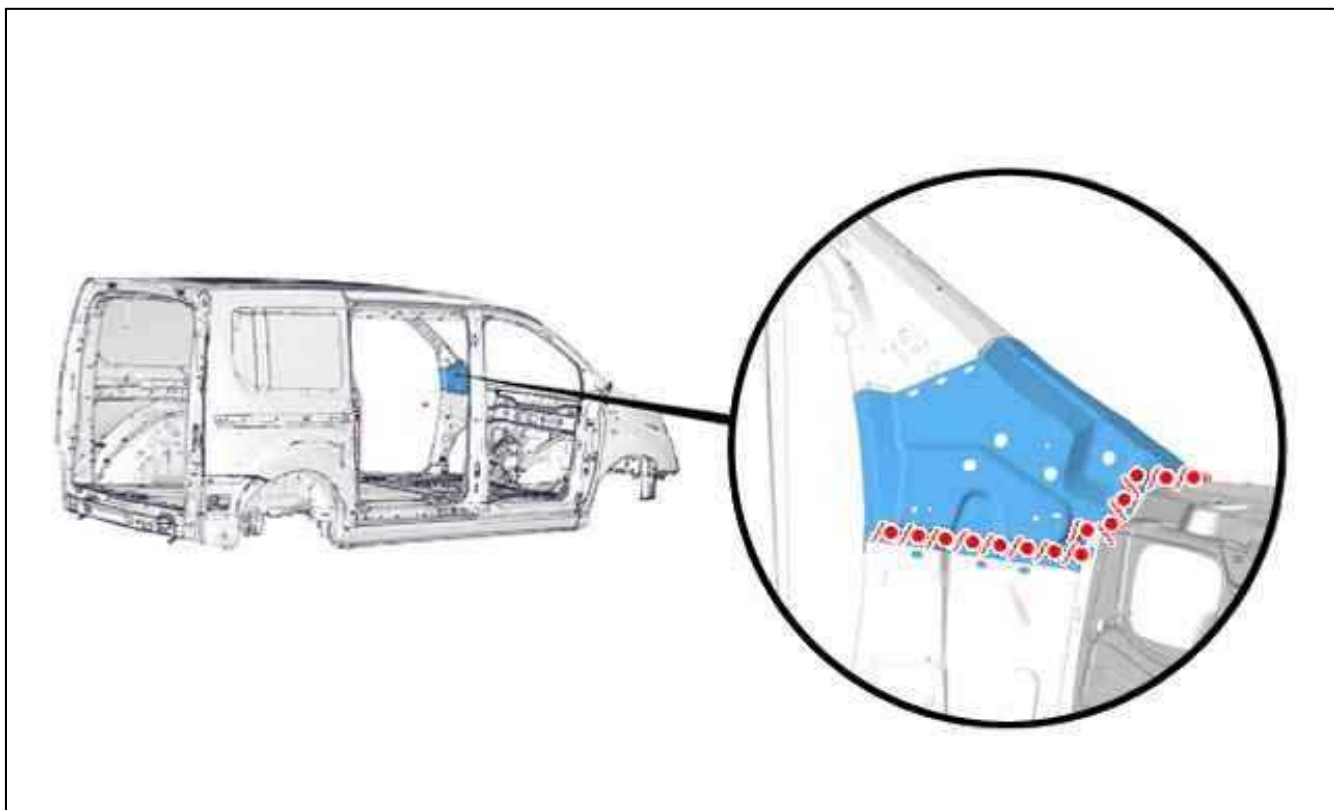


Figure : C4AM00BD

Apply a phosphate-print layer on the zone laid bare.

Apply a sealing mastic ( index "A4").

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

Reconnect the battery.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery  .

## REPLACEMENT : FRONT WHEEL ARCH - PART FRONT WING INNER PANEL

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or customer's jack ⓘ).

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic rezing process .

## 1. Additional operations

Disconnect the ancillaries battery.

Remove - refit : Upper engine compartment front half panel.

Release the wiring harnesses.

Protect the interior of the passenger compartment.

Replace the front cabin strengthener ⓘ .

## 2. Identification of replacement parts

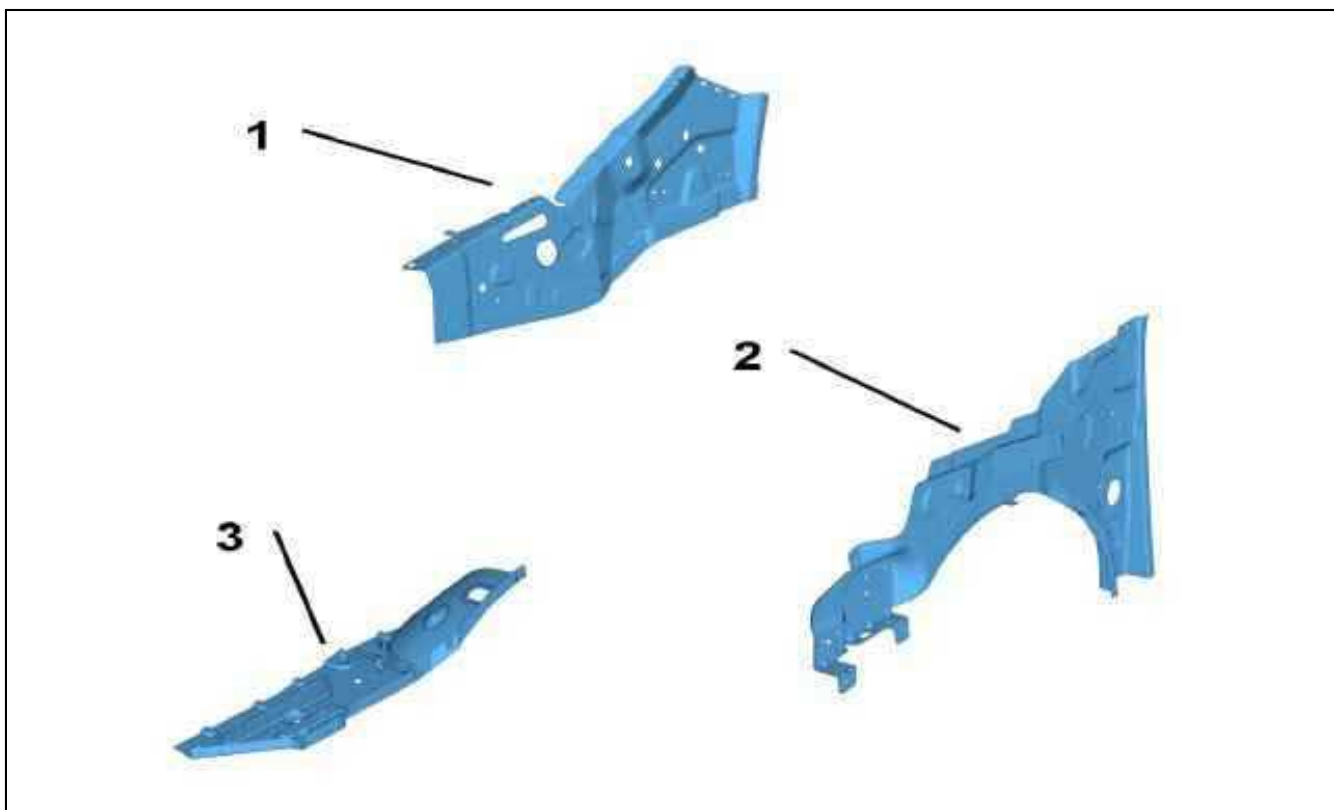


Figure : C4CM0BGD

| Reference | Designation | Thickness (mm) | Nature/classification |
|-----------|-------------|----------------|-----------------------|
|-----------|-------------|----------------|-----------------------|

|                                                      |                                           |      |         |
|------------------------------------------------------|-------------------------------------------|------|---------|
| (1)                                                  | Part front wing inner panel upper section | 1,47 | HLE (*) |
| (2)                                                  | Part front wing inner panel lower section | 1,47 | HLE (*) |
| (3)                                                  | Front wheel arch                          | 0,97 | ADX (*) |
| (*) ADX : Mild steel (*) : HLE : high-strength steel |                                           |      |         |

### 3. Preparation of the replacement parts

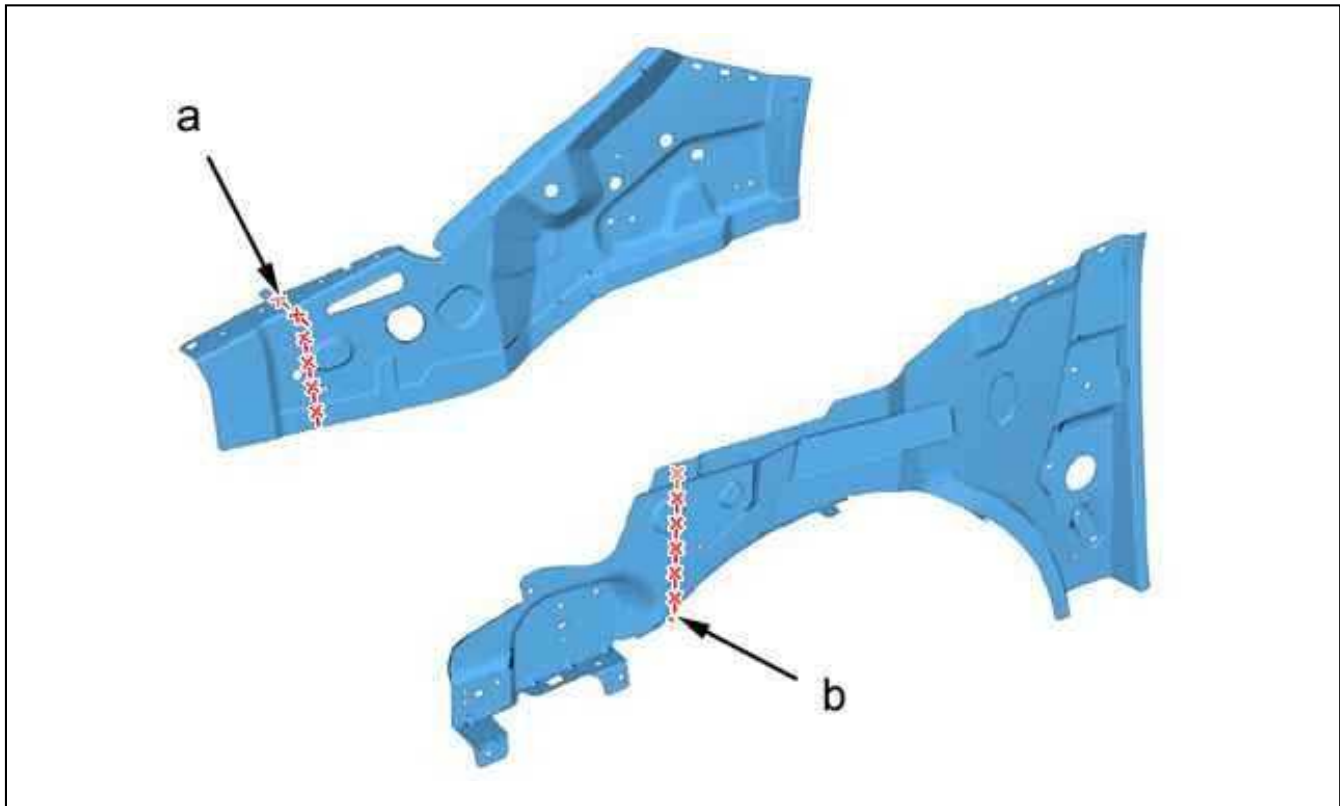


Figure : C4CM0BHD

Mark, then cut( as "a", "b") ; Using a saw.

Prepare the mating edges and protect them using a weldable primer .

N.B. : The cutting lines "a", "b" are indicated as an example only : They may change according to the different examples of replacement of the part front wing inner panel (upper and lower).

### 4. Cutting out

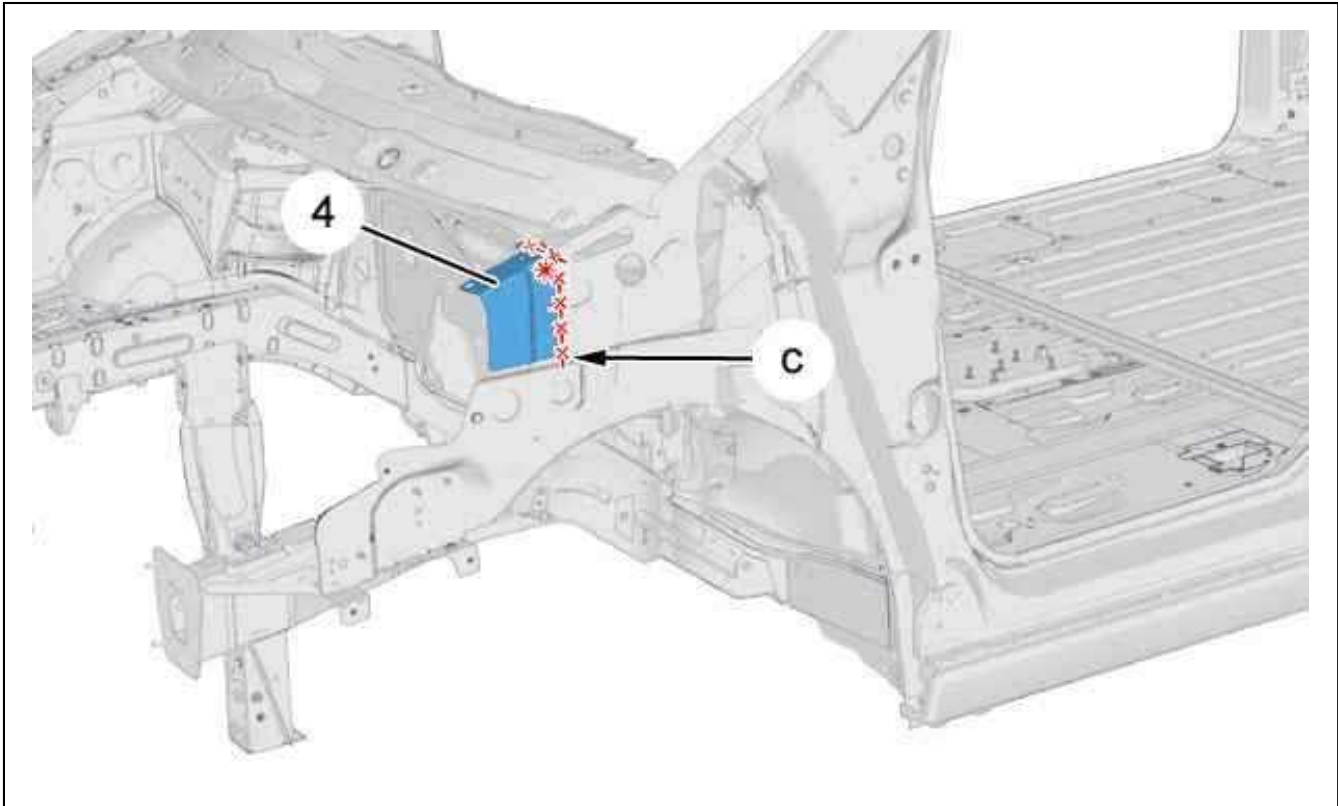


Figure : C4CM0BJD

Mark, then cut( as "c").

Cut out the spot welds .

Remove the part front wing inner panel upper section (4).

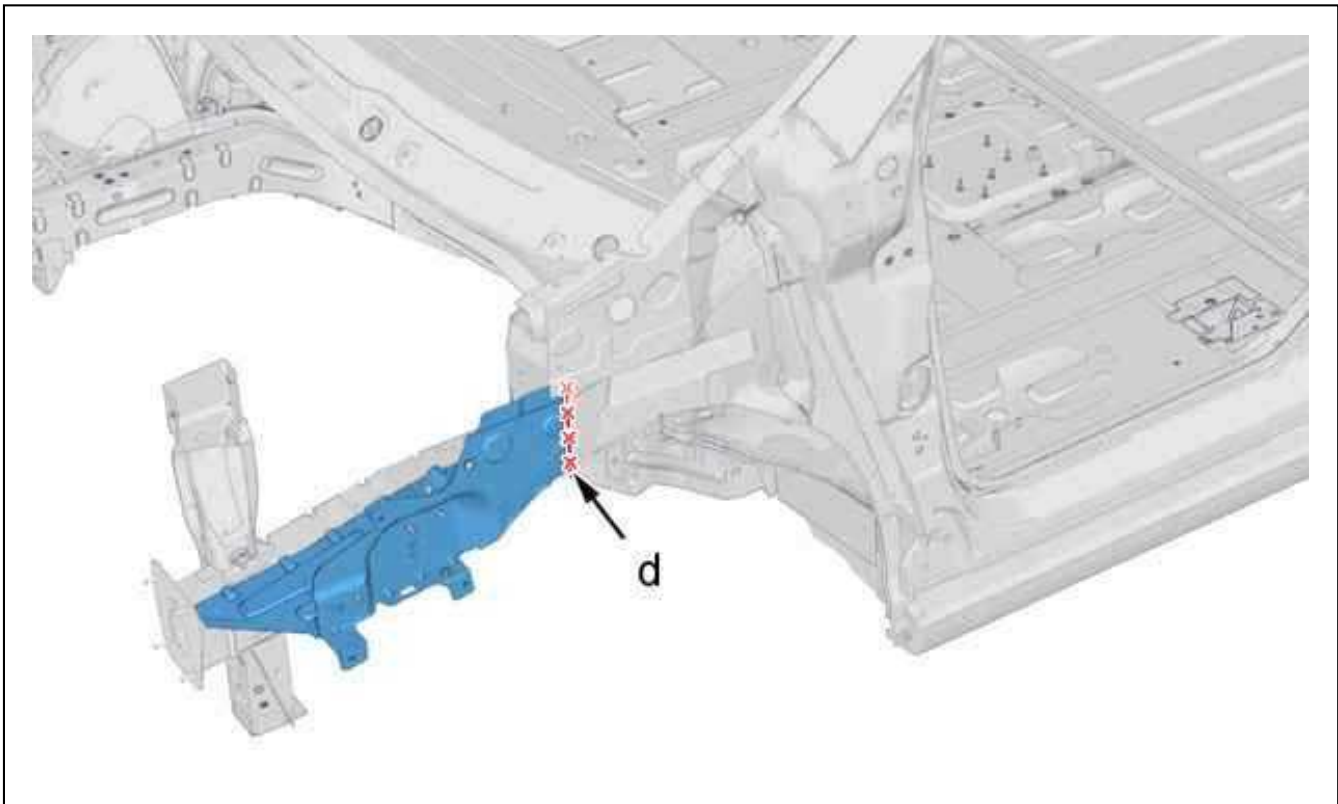


Figure : C4CM0BKD

Mark, then cut( as "d").

Remove :

- The part front wing inner panel lower section
- The front wheelarch

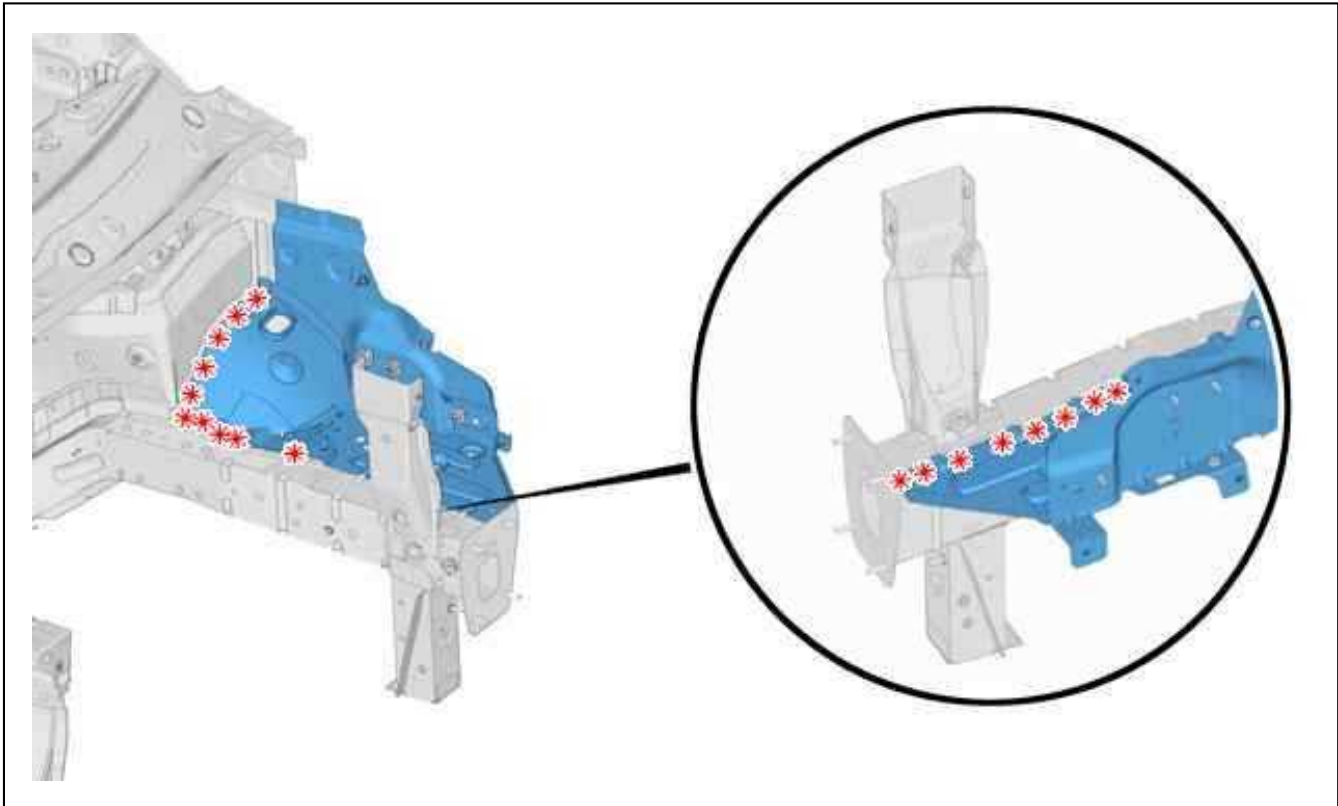


Figure : C4CM0BLD

Cut out the spot welds .

Remove :

- The part front wing inner panel lower section
- Front wheel arch

## 5. Bodywork cleaning and preparation

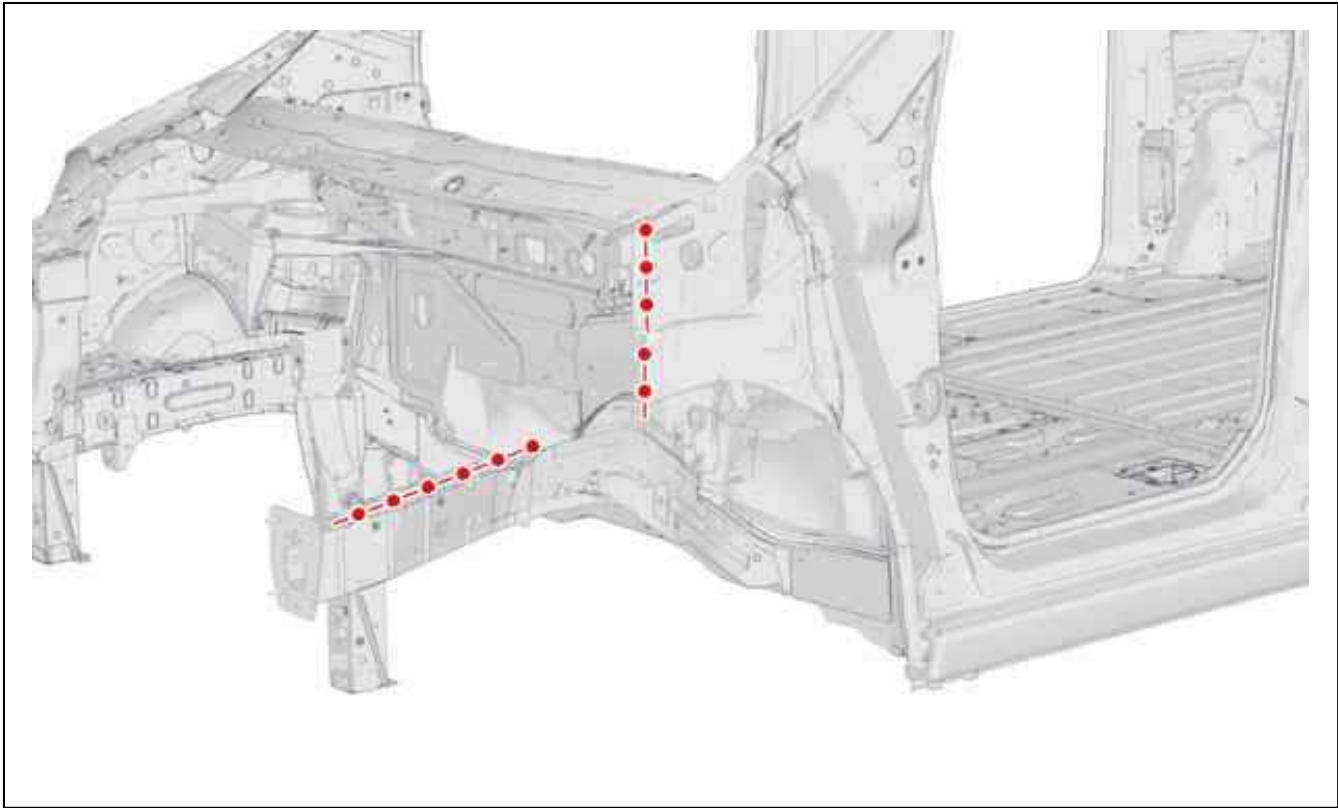


Figure : C4CM0BMD

Prepare the mating edges and protect them using a weldable primer .

## 6. Adjustment

Fit :

- The wheelarch
- The part front wing inner panel lower section
- The part front wing inner panel upper section
- Check the fit

Remove :

- The part front wing inner panel upper section
- The part front wing inner panel lower section

Use the approved checking and measuring equipment.

## 7. Welding

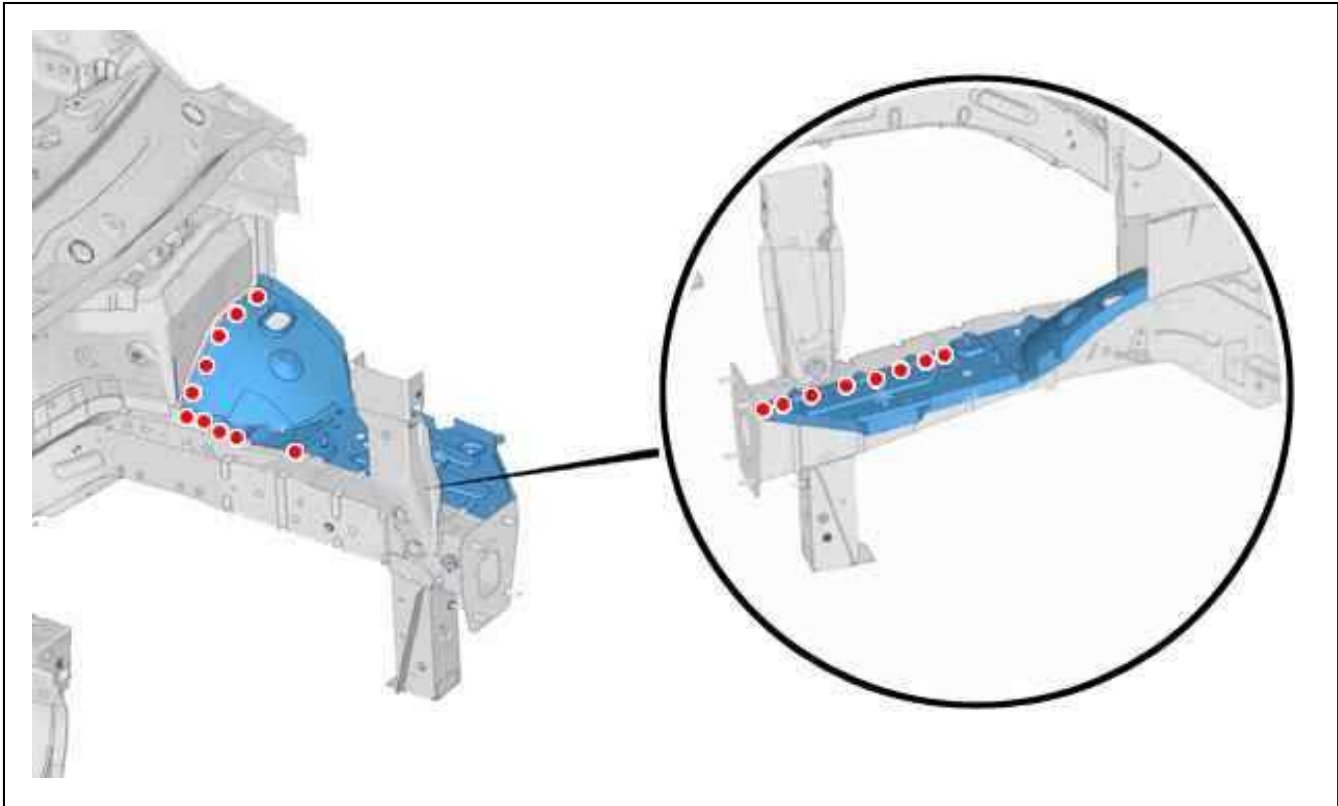


Figure : C4CM0BND

Weld with electric spot welds  .

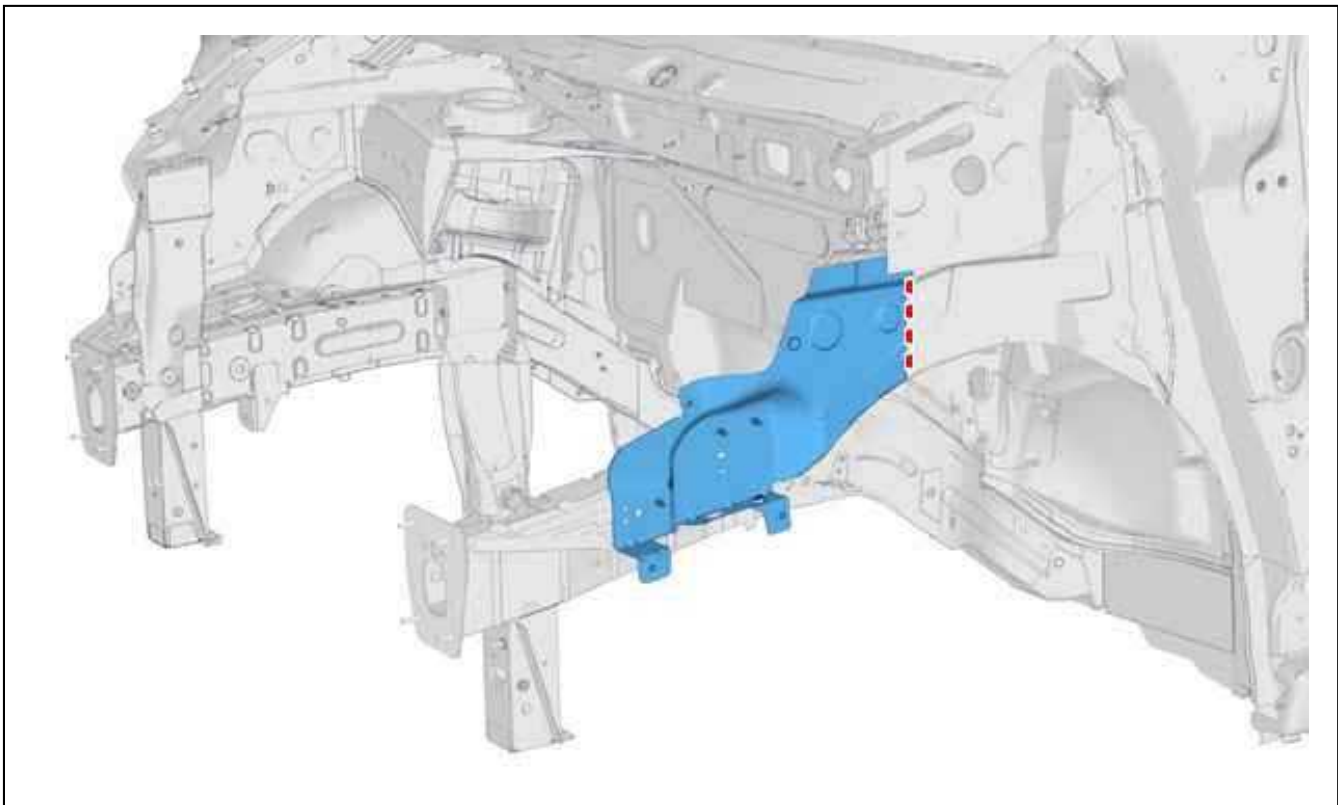


Figure : C4CM0BPD

Position the part front wing inner panel lower section.  
MAG weld with beads in succession.

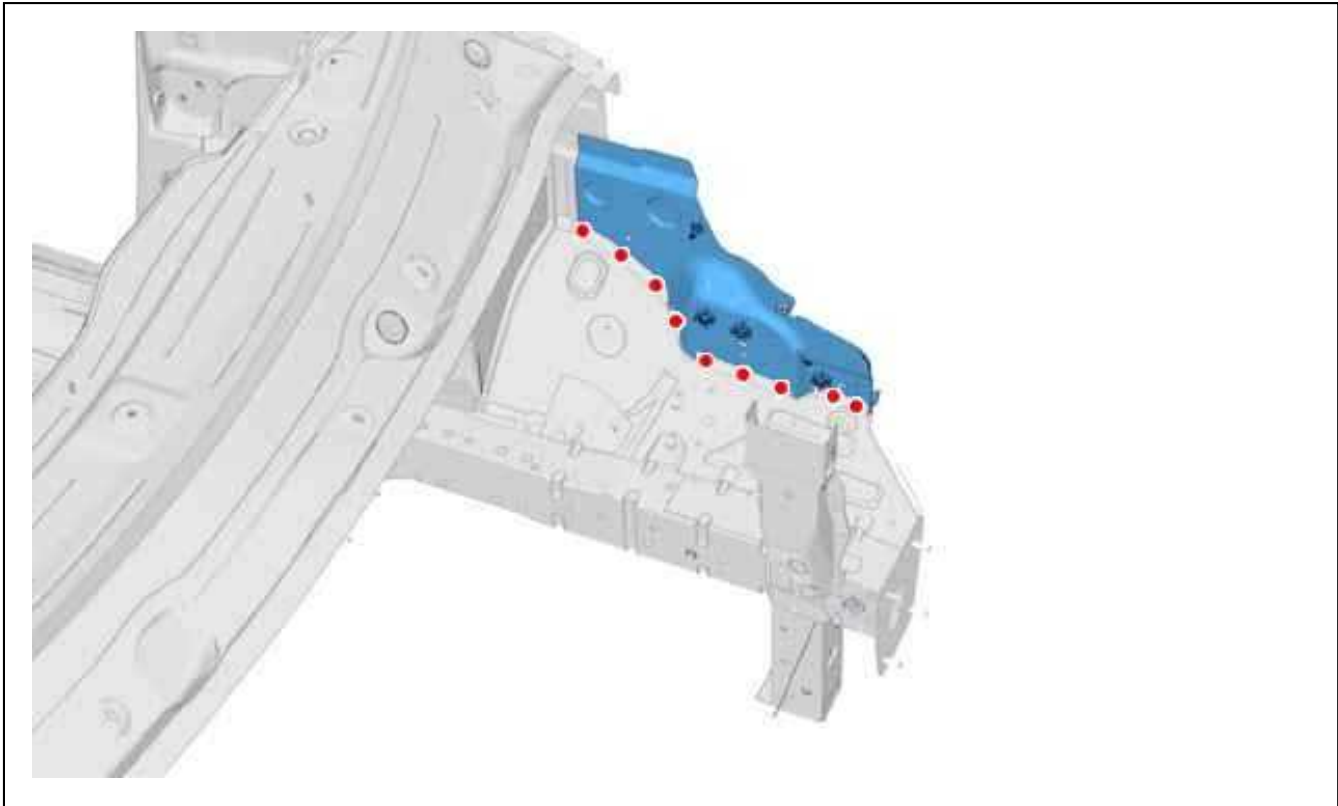


Figure : C4CM0BQD

Weld with electric spot welds ⓘ .

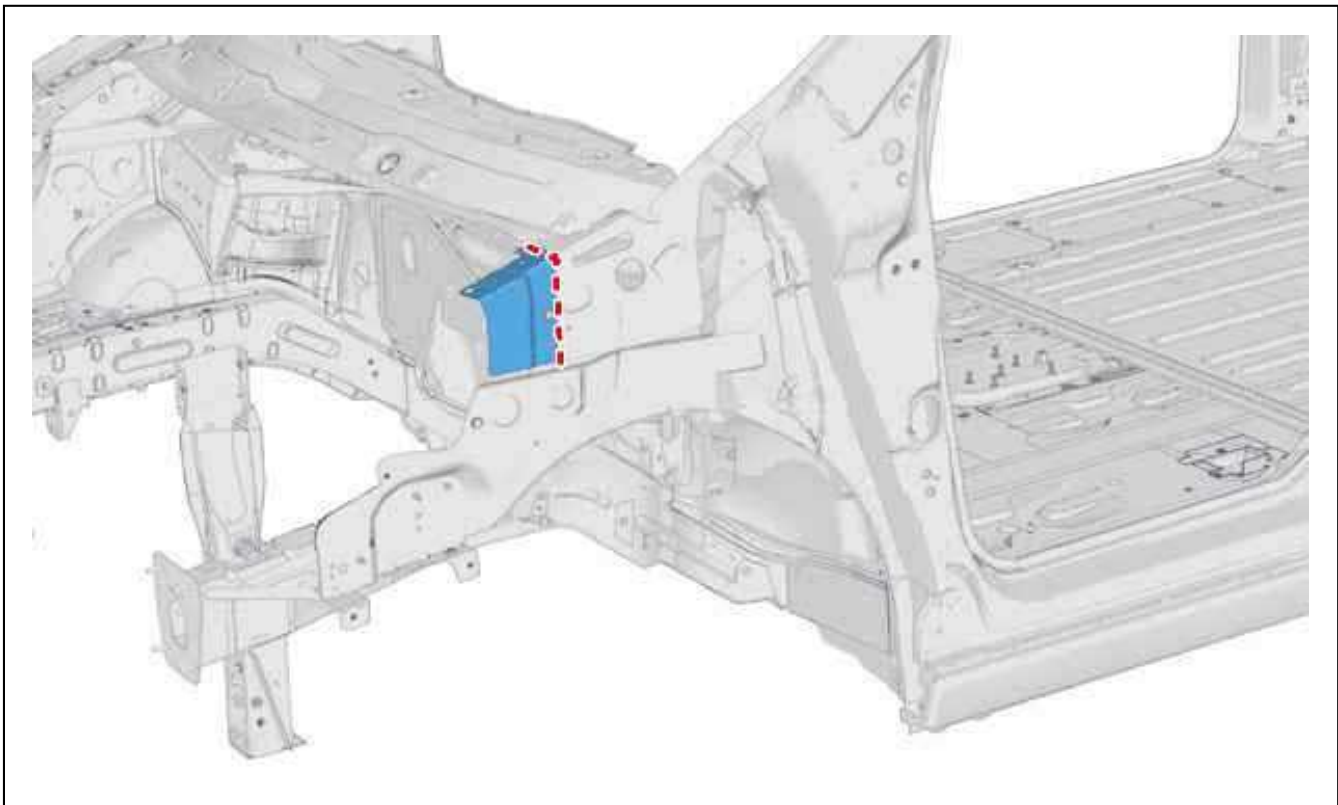


Figure : C4CM0BRD

Position the part front wing inner panel upper section extension.  
MAG weld with beads in succession.

Resistance welding parameters ⓘ (front section) ⓘ .

## 8. Sealing protection

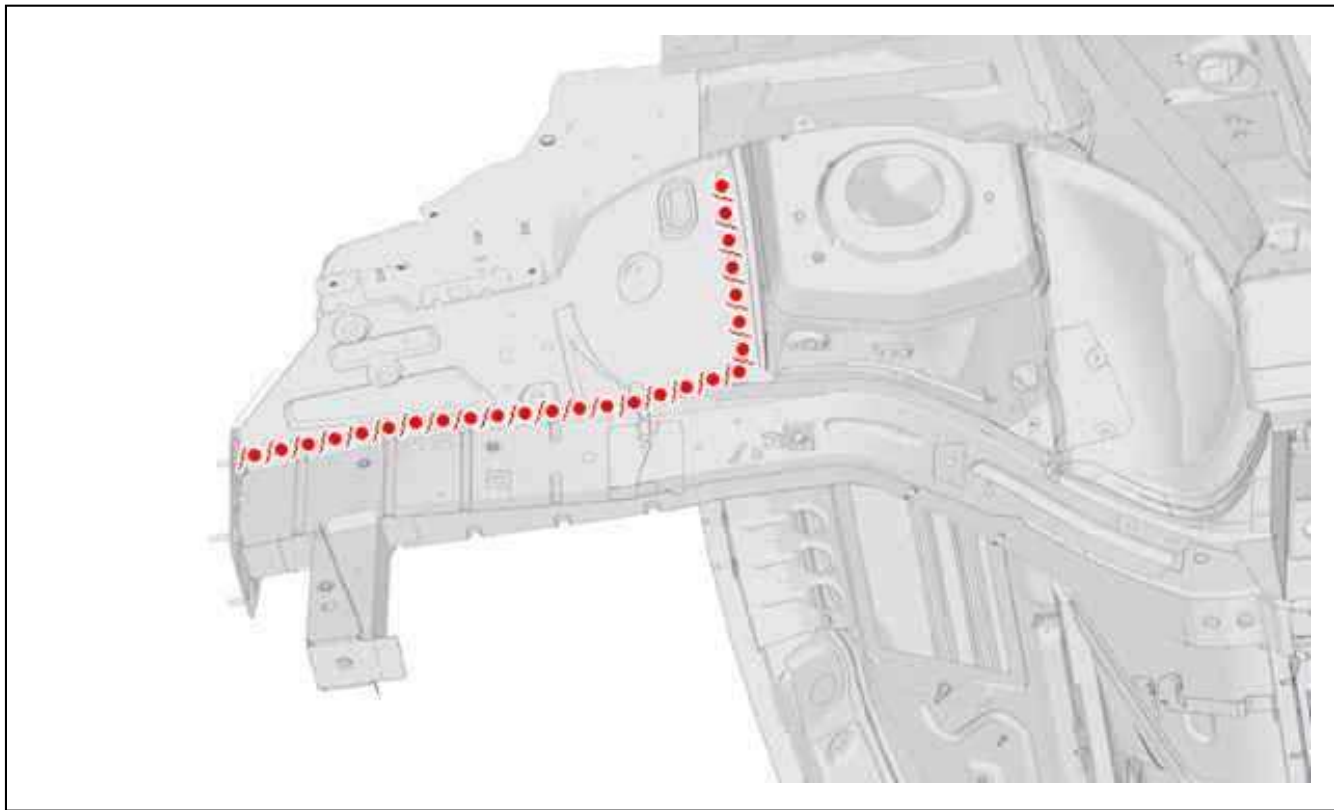


Figure : C4CM0BSD

Apply a phosphate-print layer on the zone laid bare.

Apply a sealing mastic of type "A1".

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

**CAUTION :** Perform the operations that are required following a reconnection of the ancillaries battery ⓘ .

Reconnect the ancillaries battery.

## REPLACEMENT : WINDSCREEN OPENING INNER PANEL

**ESSENTIAL** : Observe the safety and cleanliness recommendations ⓘ .

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or customer's jack ⓘ ).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic re-zincing process .

**CAUTION** : The number of spot welds necessary for the assembly of a new part must be identical to the number of spot welds fixing the original part.

### 1. Additional operations

Disconnect the battery.

Replacement :

- Front pillar assembly ⓘ
- Short roof ⓘ

Release the wiring harnesses.

Protect the interior of the passenger compartment.

### 2. Identification of the replacement parts



Figure : C4AP1WJD

| Reference                               | Designation                    | Thickness | Nature/classification |
|-----------------------------------------|--------------------------------|-----------|-----------------------|
| (1)                                     | Windscreen opening inner panel | 1,17 mm   | High strength (*)     |
| (*) High strength : High strength steel |                                |           |                       |

### 3. Cutting out

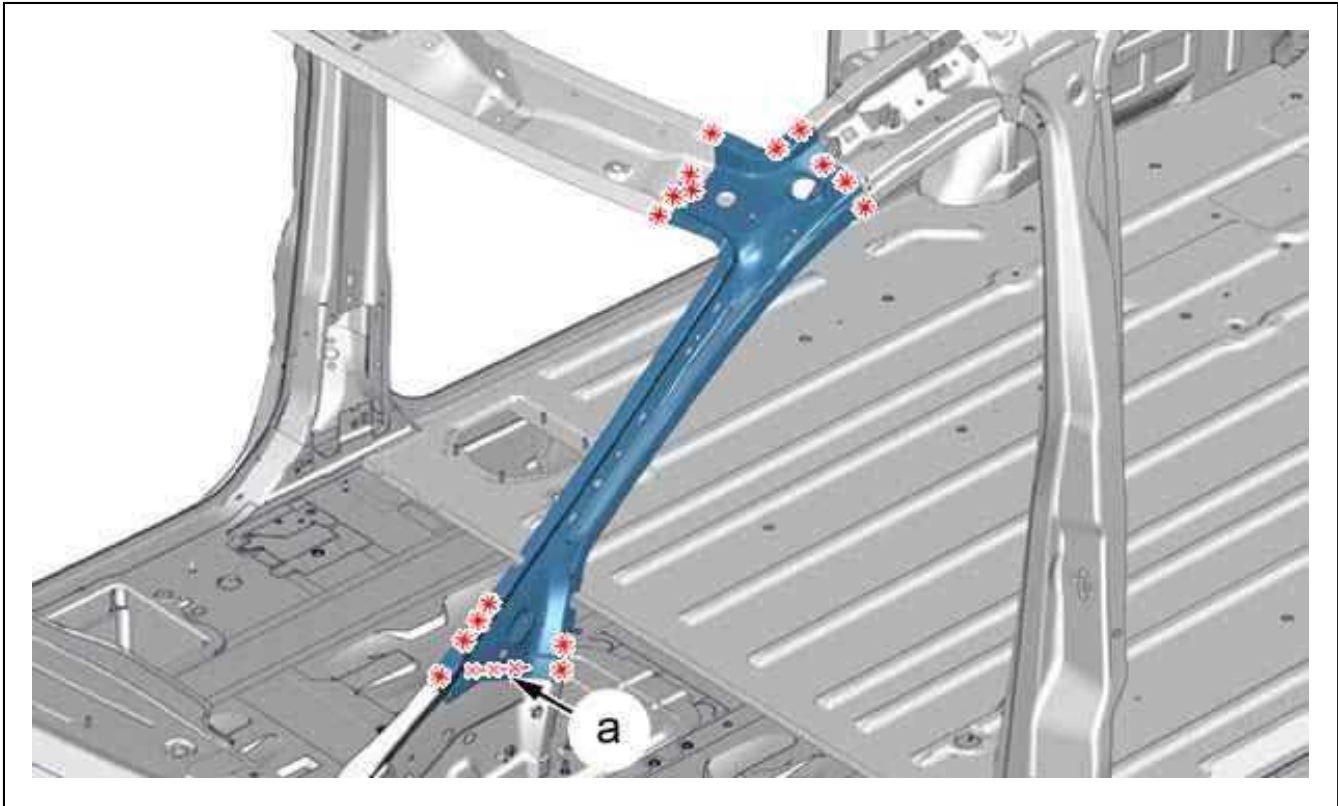


Figure : C4AP1WKD

Cut out the spot welds .

Cut the weld seams (at "a").

Remove the windscreen pillar inner panel.

#### 4. Bodywork cleaning and preparation

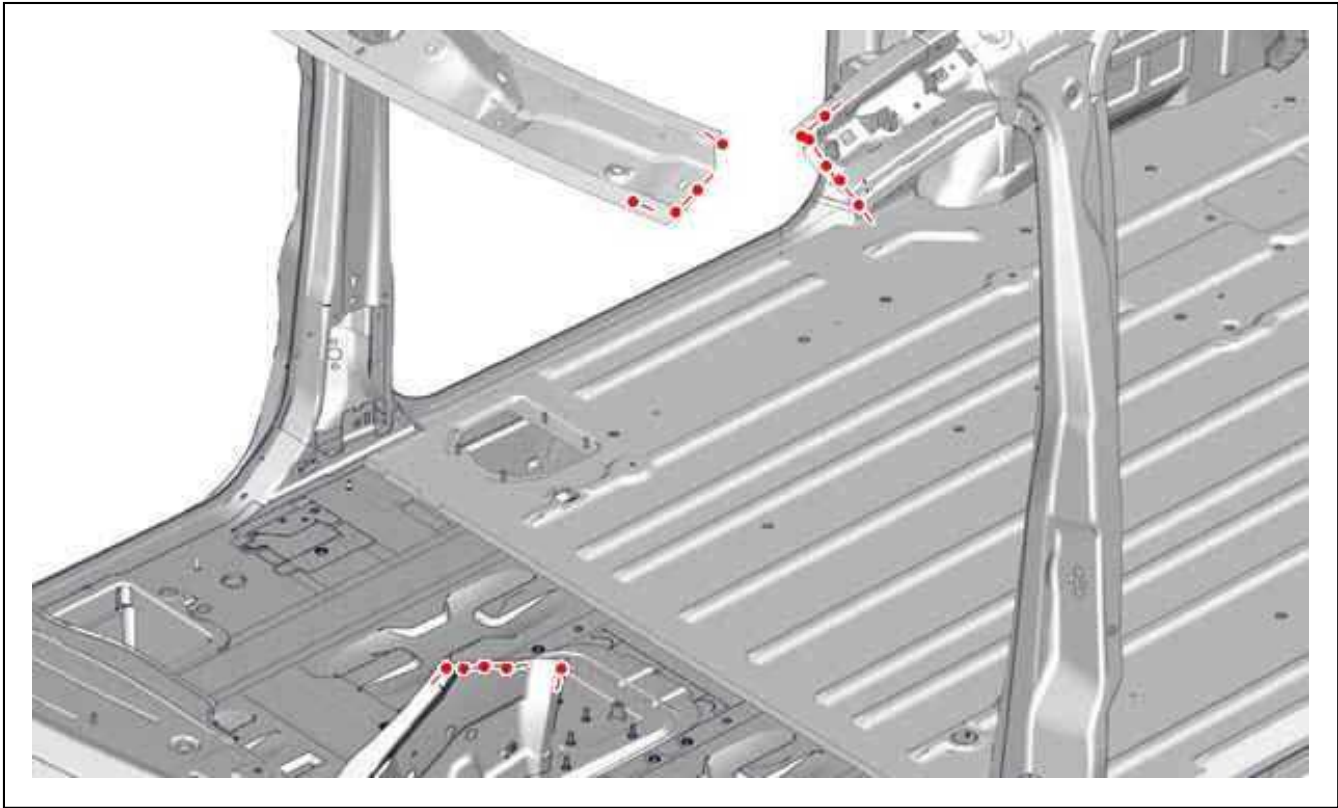


Figure : C4AP1WLD

Prepare the mating edges and protect them using a weldable primer .

## 5. Adjustment

Fit the windscreen pillar insert.

Check the fit.

Remove the windscreen pillar insert.

## 6. Welding

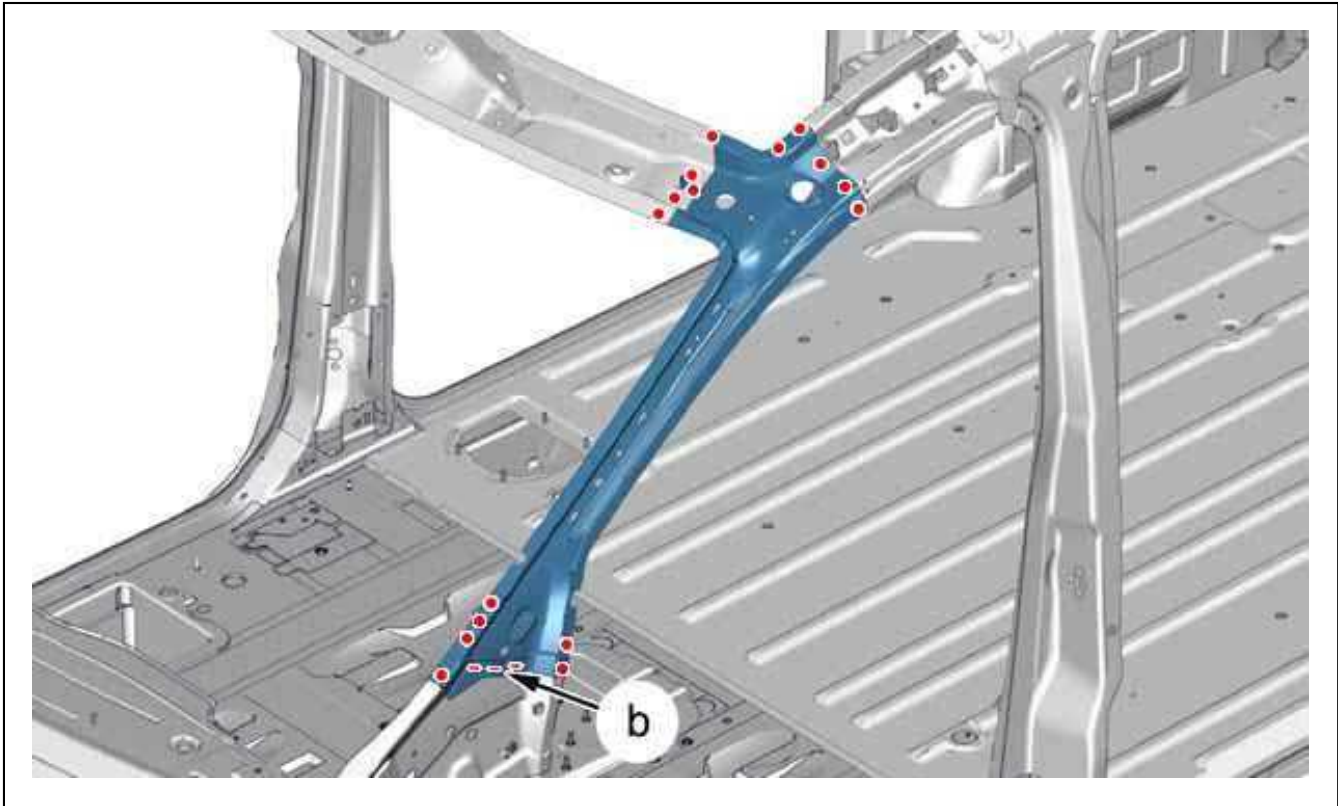


Figure : C4AP1WMD

Weld with electric spot welds.

Weld using MIG weld beads (at "b").

## 7. Reinitialisation

Carry out the additional operations.

**CAUTION :** Operations to be carried out following reconnection of the battery ⓘ.

## REPLACEMENT : WINDSCREEN PILLAR INSERT

**ESSENTIAL** : Observe the safety and cleanliness recommendations ⓘ .

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or customer's jack ⓘ).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic re-zincing process .

**CAUTION** : The number of spot welds necessary for the assembly of a new part must be identical to the number of spot welds fixing the original part.

### 1. Additional operations

Disconnect the battery.

Replacement :

- Front pillar assembly ⓘ
- Short roof ⓘ
- Centre pillar assembly ⓘ

Release the wiring harnesses.

Protect the interior of the passenger compartment.

### 2. Identification of the replacement parts

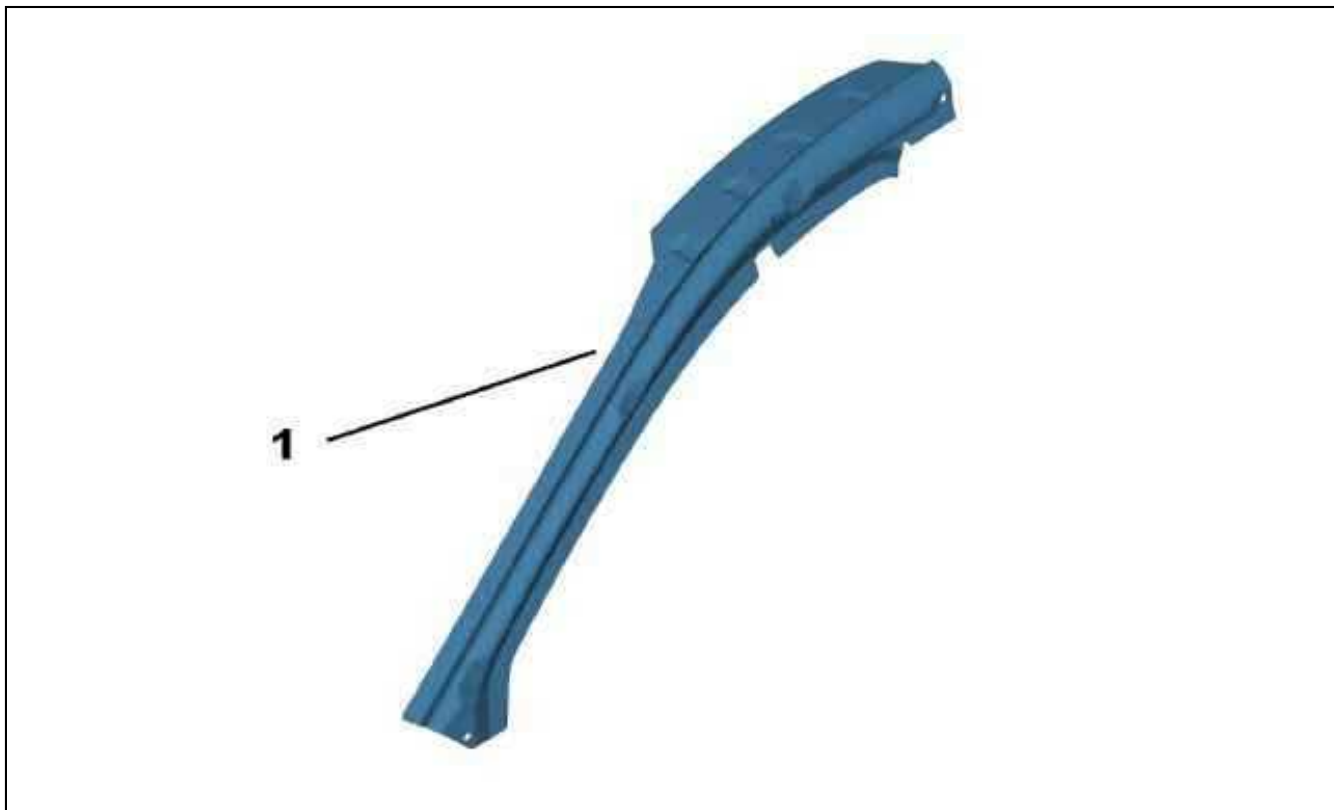


Figure : C4AP1WED

| Reference                               | Designation              | Thickness | Nature/classification |
|-----------------------------------------|--------------------------|-----------|-----------------------|
| (1)                                     | Windscreen pillar insert | 1,17 mm   | High strength (*)     |
| (*) High strength : High strength steel |                          |           |                       |

### 3. Cutting out

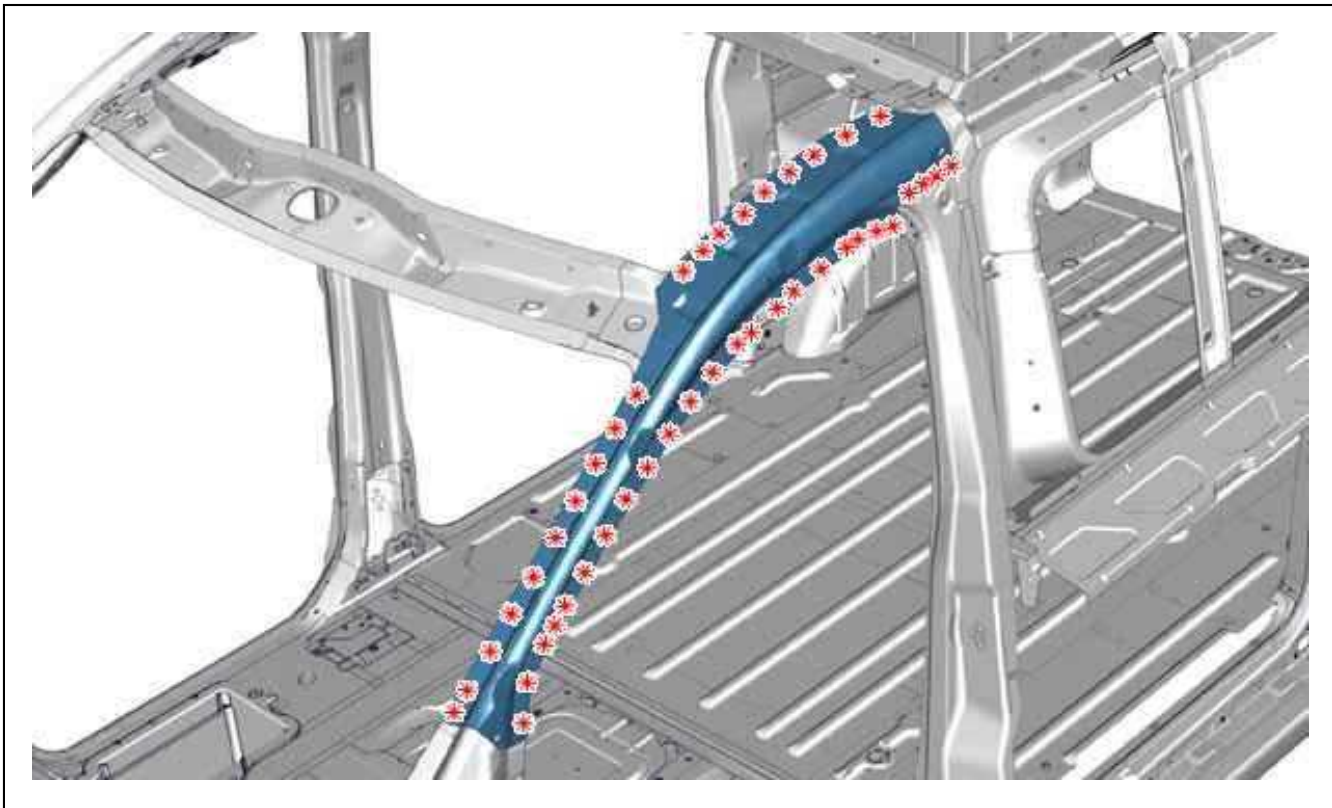


Figure : C4AP1WFD

Cut out the spot welds .

Remove the windscreen pillar insert.

#### 4. Bodywork cleaning and preparation

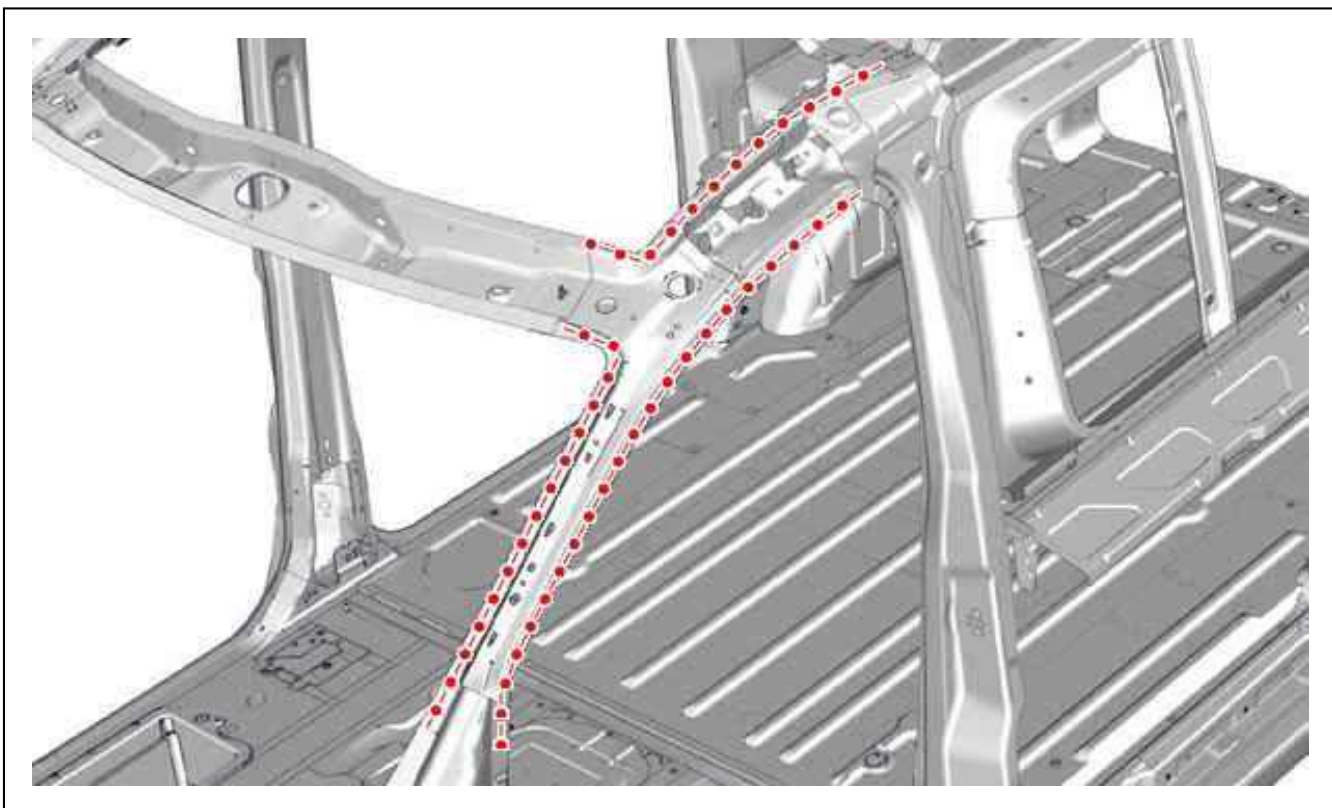


Figure : C4AP1WGD

Prepare the mating edges and protect them using a weldable primer .

## 5. Adjustment

Fit :

- The screen pillar web
- The front pillar
- The centre pillar

Check the fit.

Remove :

- The centre pillar
- The front pillar

## 6. Welding

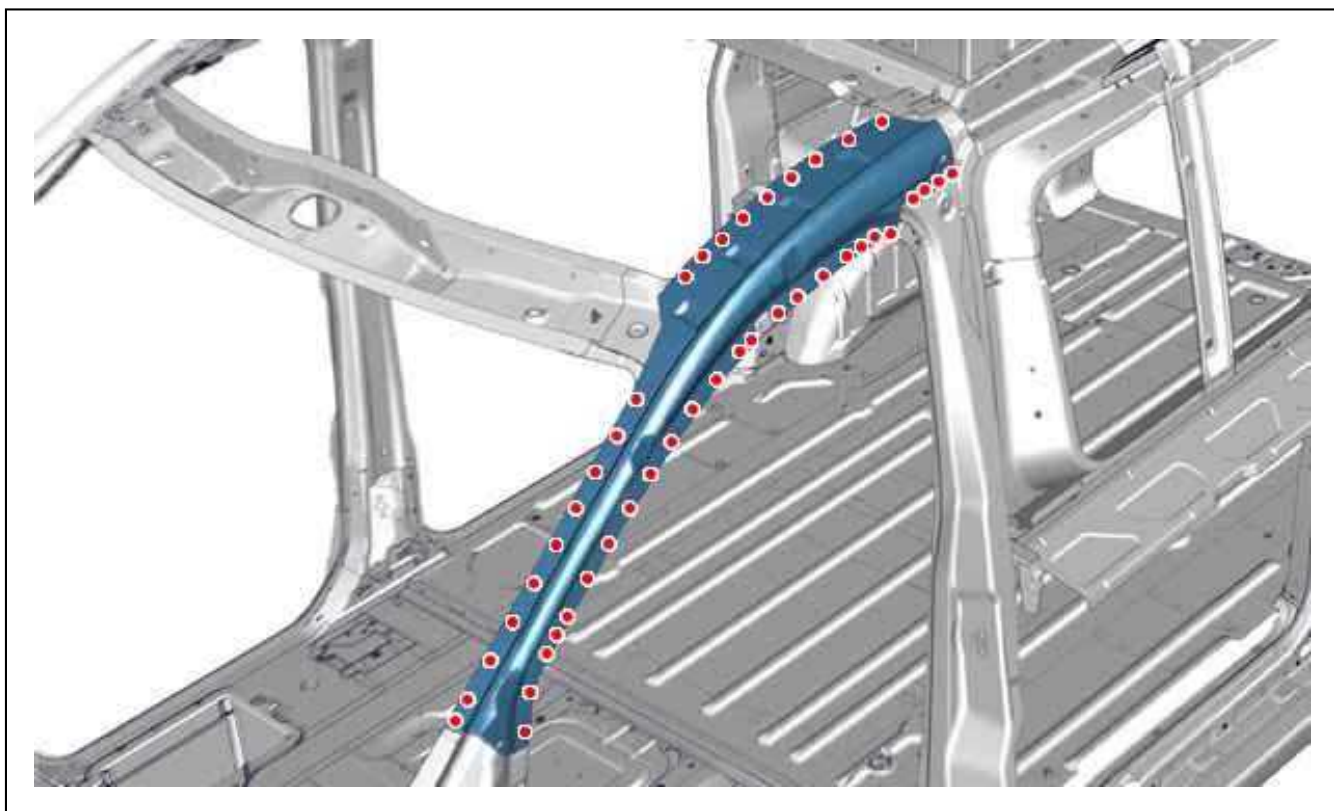


Figure : C4AP1WHD

Weld with electric spot welds :

- Side panel ⓘ
- Passenger compartment side strengtheners and inner panels ⓘ

## 7. Reinitialisation

Carry out the additional operations.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery ⓘ .

## REPLACEMENT : ENGINE COMPARTMENT FRONT HALF PANEL ASSEMBLY

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ ( 2 or 4 post lift, workshop jack or customer's jack ⓘ ).

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic rezincing process .

### 1. Additional operations

Disconnect the battery.

Remove-refit the following components :

- Front bumper
- Front mud flaps
- Headlamp
- Cooling cassette
- Air cleaner (left side)
- Subframe extension
- Screenwash reservoir ( right hand side)
- Steering pump ( right hand side)

Replace the following components :

- Upper engine compartment front half panel
- Front bumper top frame
- Front bumper bottom frame (according to equipment)

Release the wiring harnesses.

Protect the interior of the passenger compartment.

### 2. Identification of the replacement parts

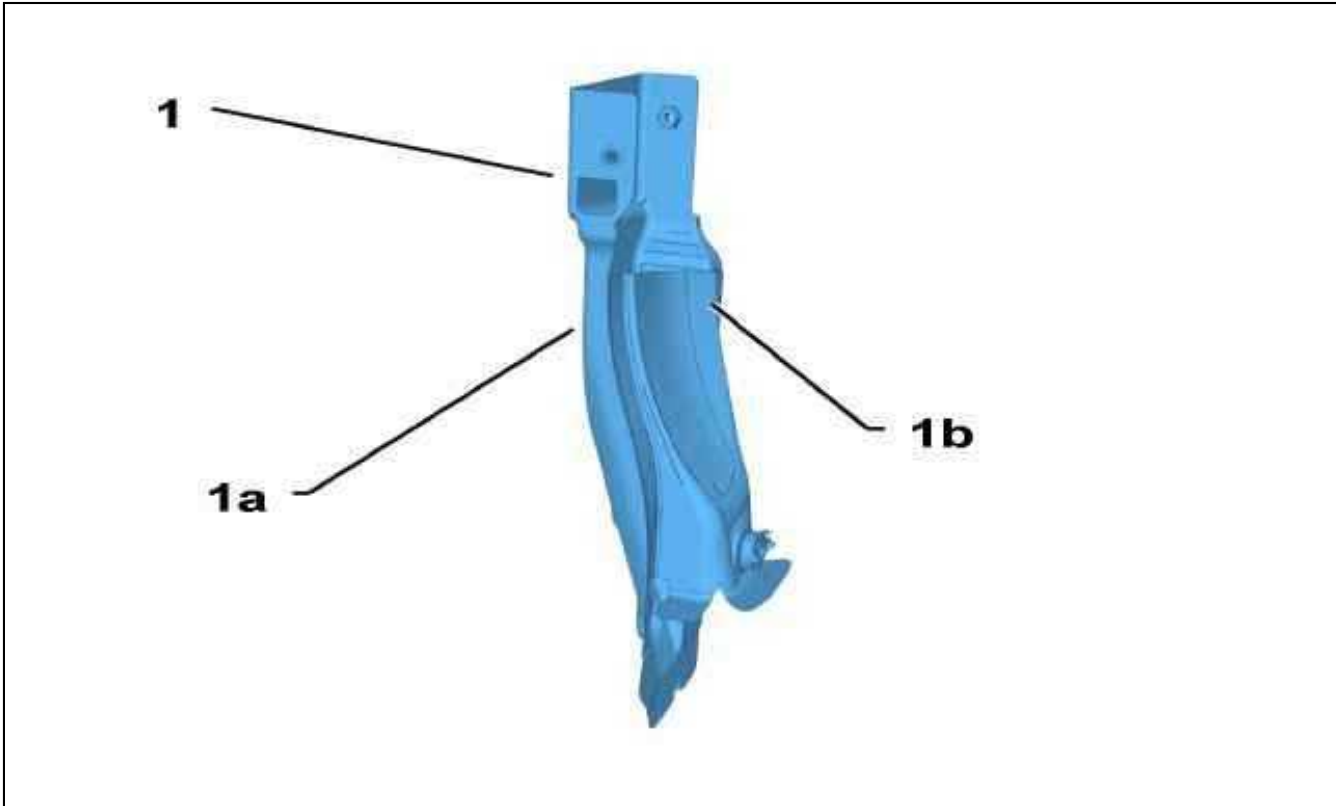


Figure : C4AP1XAD

(1) Engine compartment front half panel assembly.

| Reference | Designation                         | Thickness (mm) | Nature/classification |
|-----------|-------------------------------------|----------------|-----------------------|
| (1a)      | Front block half-panel              | 0,97           | ADX (*)               |
| (1b)      | Lower engine compartment half-panel | 0,97           | ADX (*)               |

(\*) ADX = Mild steel.

### 3. Replacement part preparation



Figure : C4AP1XBD

Mark then drill to Ø 8 mm for later plug welding.

#### 4. Cutting out

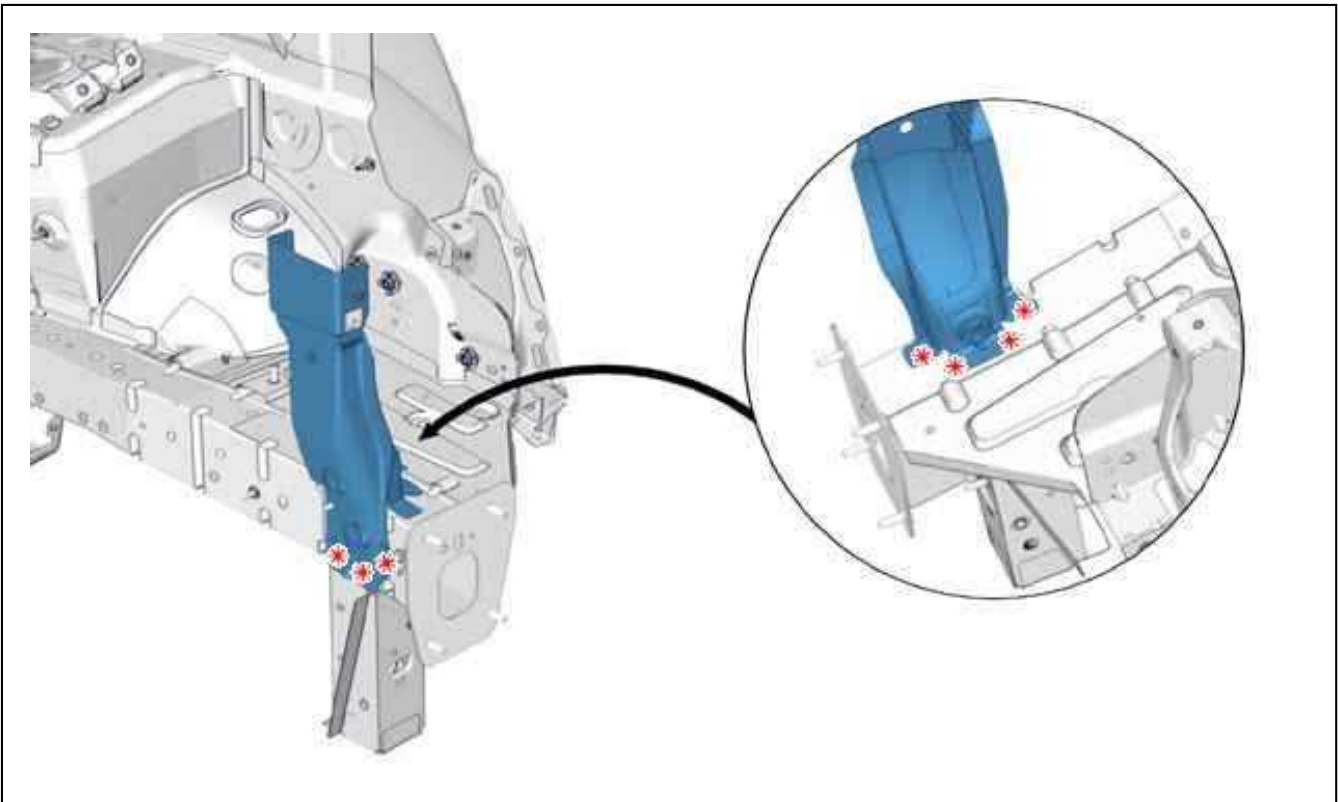


Figure : C4AP1XCD

Cut out the spot welds .

## 5. Bodywork cleaning and preparation

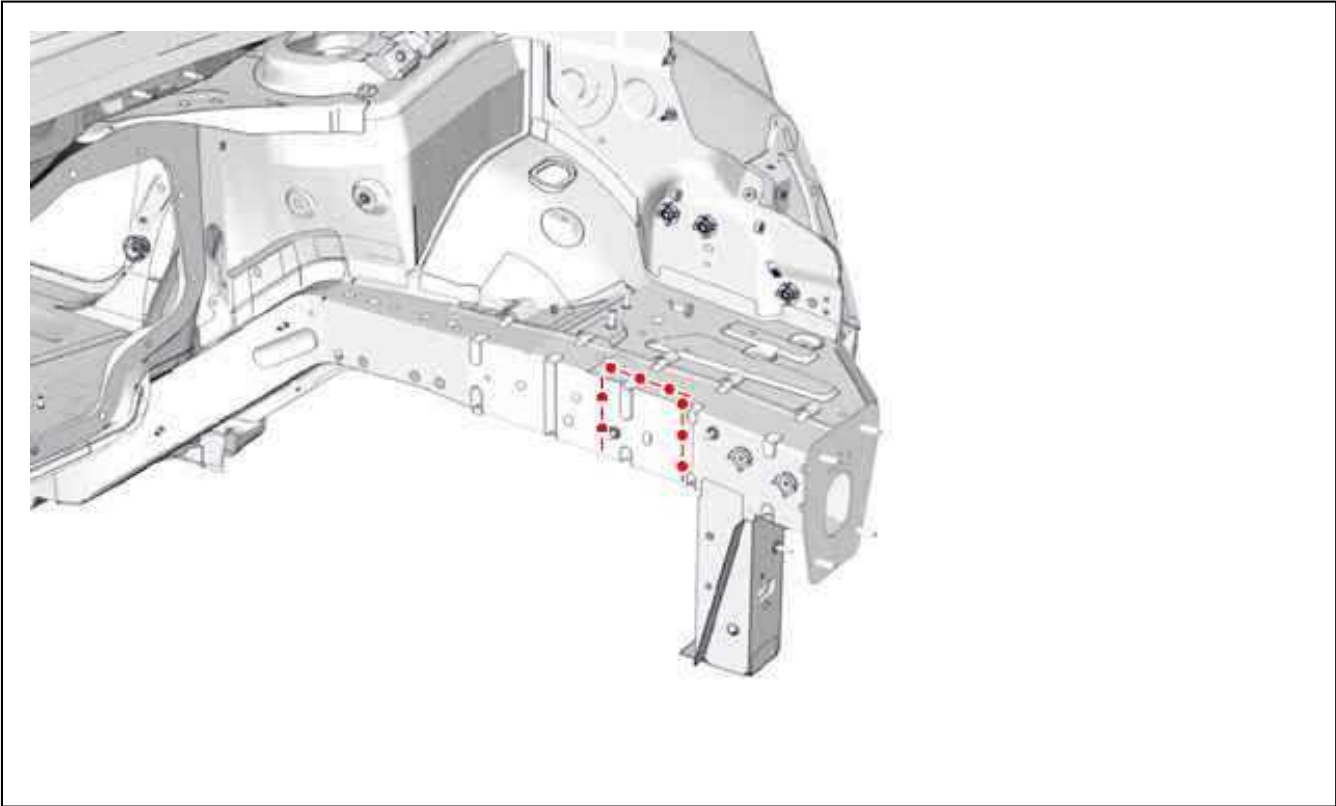


Figure : C4AP1XDD

Prepare the mating edges and protect them using a weldable primer .

## 6. Adjustment

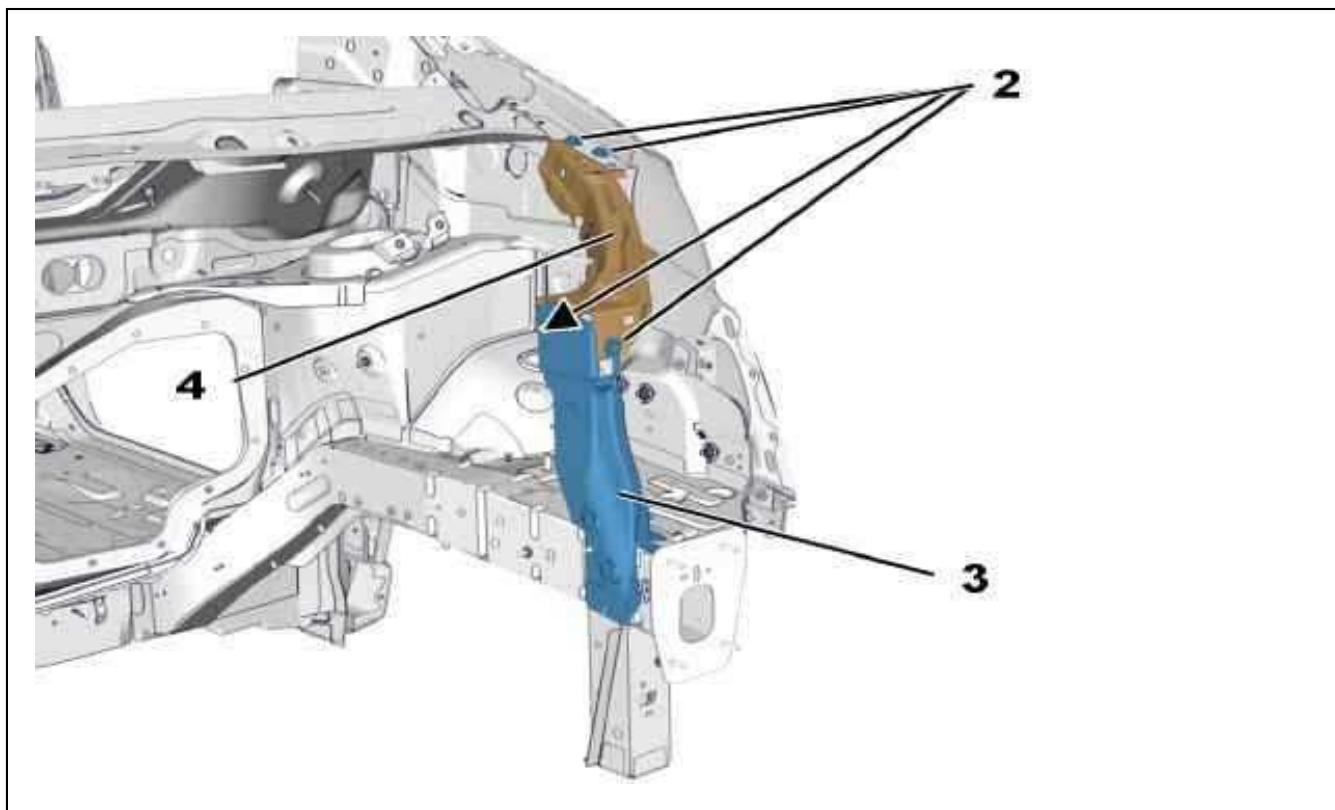


Figure : C4AP1XED

Fit :

- Front block half-panel (4)
- Engine compartment front half panel assembly (3)

Check the fit of the engine compartment half-panel assembly (4) using the bolts (2).

Remove the engine compartment half-panel (4).

Use the approved checking and measuring equipment.

## 7. Welding

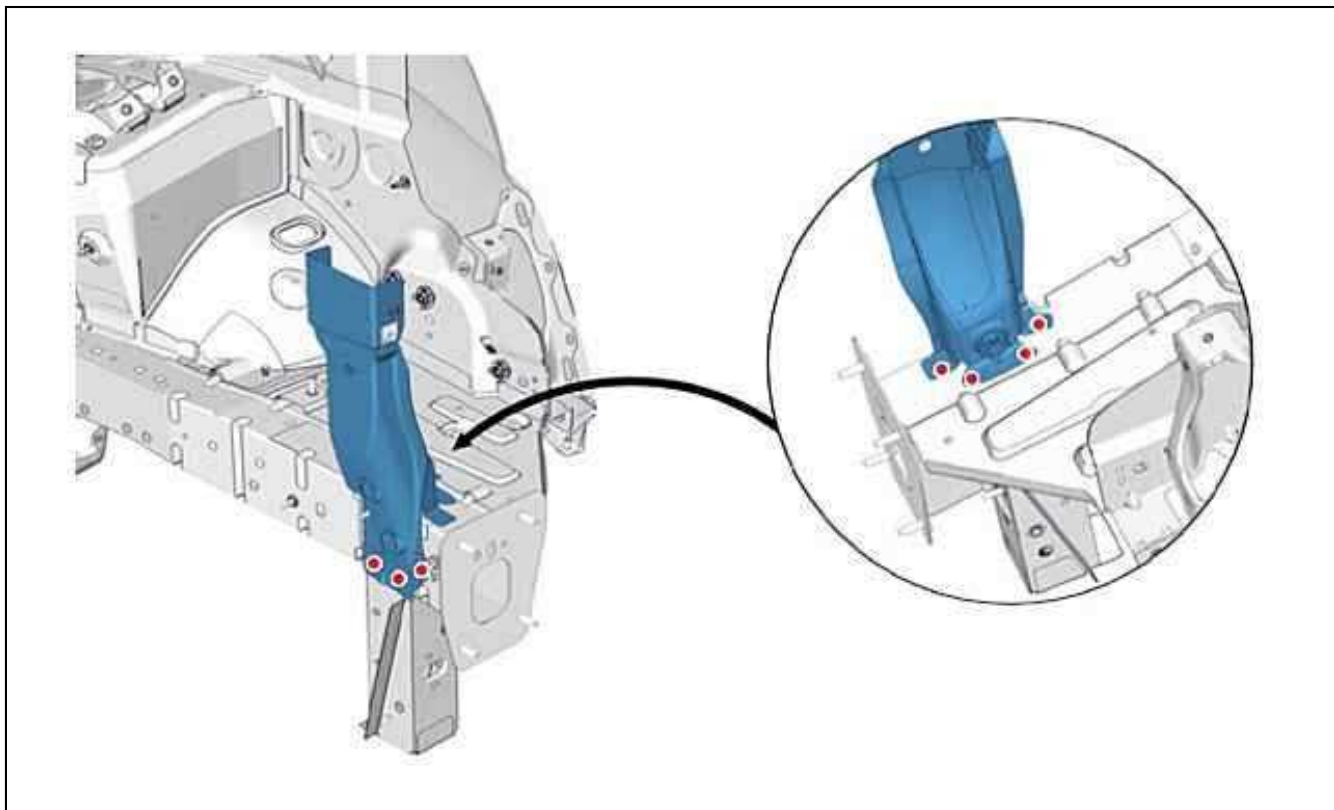


Figure : C4AP1XFD

Weld with MAG plug welds.

## 8. Sealing protection

Apply a phosphate-print layer on the zone laid bare.

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery ⓘ .

## REPLACEMENT : CHASSIS LEG END PIECE - ASSEMBLED CHASSIS MEMBER END PIECE CLOSURE PANEL

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ ( 2 or 4 post lift, workshop jack or customer's jack ⓘ ).

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic zincing process .

### 1. Additional operations

Disconnect the battery.

Removing - refitting :

- Front bumper
- Splash shield
- Cooling cassette
- Air cleaner (On the left-hand side )
- Subframe extension
- Screenwash reservoir (On the right-hand side )
- Steering pump (On the right-hand side )

Replace the following components :

- Front bumper top frame
- Front bumper bottom frame

Protect the interior of the passenger compartment.

Release the wiring harnesses.

### 2. Identification of replacement parts

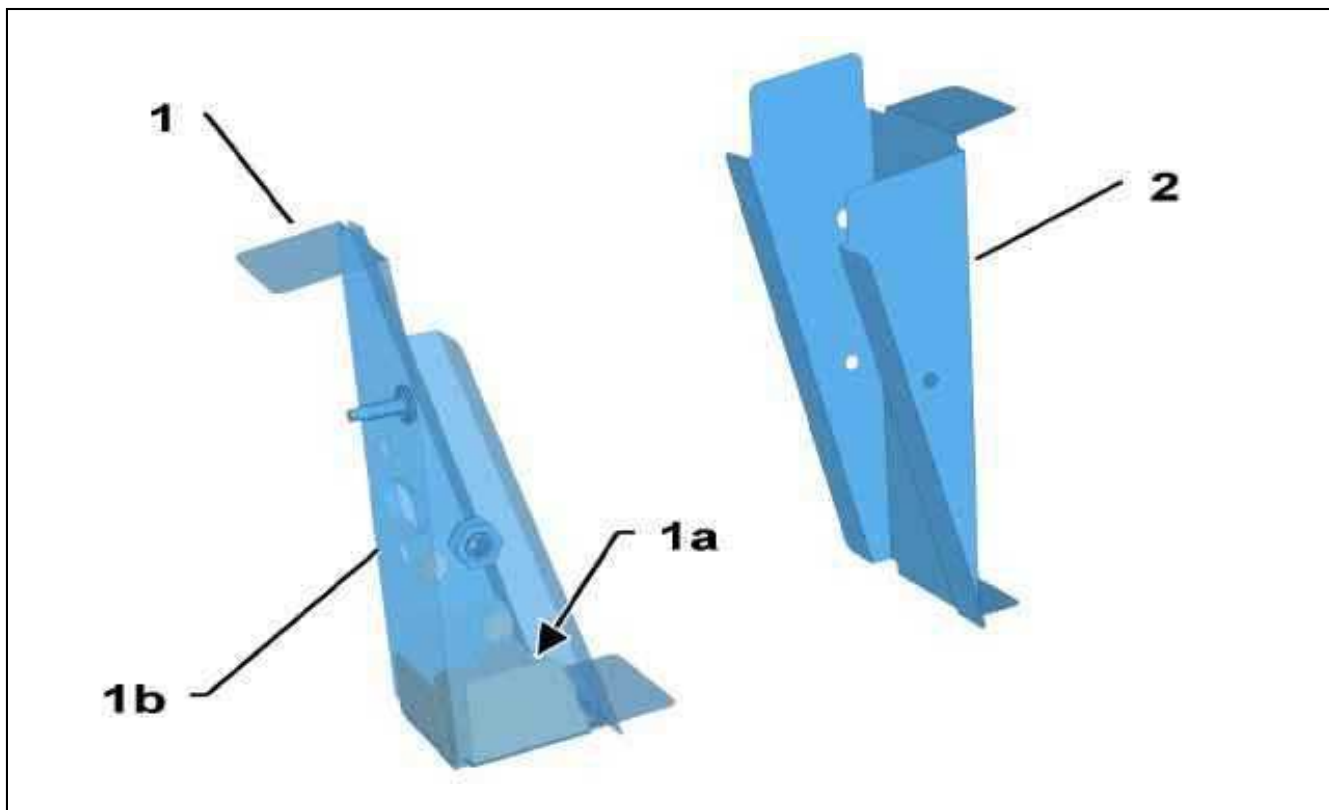


Figure : C4AP1X0D

| (1) Assembled chassis member end piece closure panel |                                                  |                |                       |
|------------------------------------------------------|--------------------------------------------------|----------------|-----------------------|
| Reference                                            | Designation                                      | Thickness (mm) | Nature/classification |
| (1a)                                                 | Engine subframe mounting strengthener            | 1,47           | ADX (*)               |
| (1b)                                                 | Assembled chassis member end piece closure panel | 1,47           | ADX (*)               |
| (*) ADX = Mild steel                                 |                                                  |                |                       |

| Reference            | Designation           | Thickness (mm) | Nature/classification |
|----------------------|-----------------------|----------------|-----------------------|
| (2)                  | Chassis leg end piece | 1,47           | ADX (*)               |
| (*) ADX = Mild steel |                       |                |                       |

### 3. Preparation of the replacement parts



Figure : C4AP1X1D

Mark then cut out to the diameter 8 mm for a later welding with plug welds.

#### 4. Cutting out

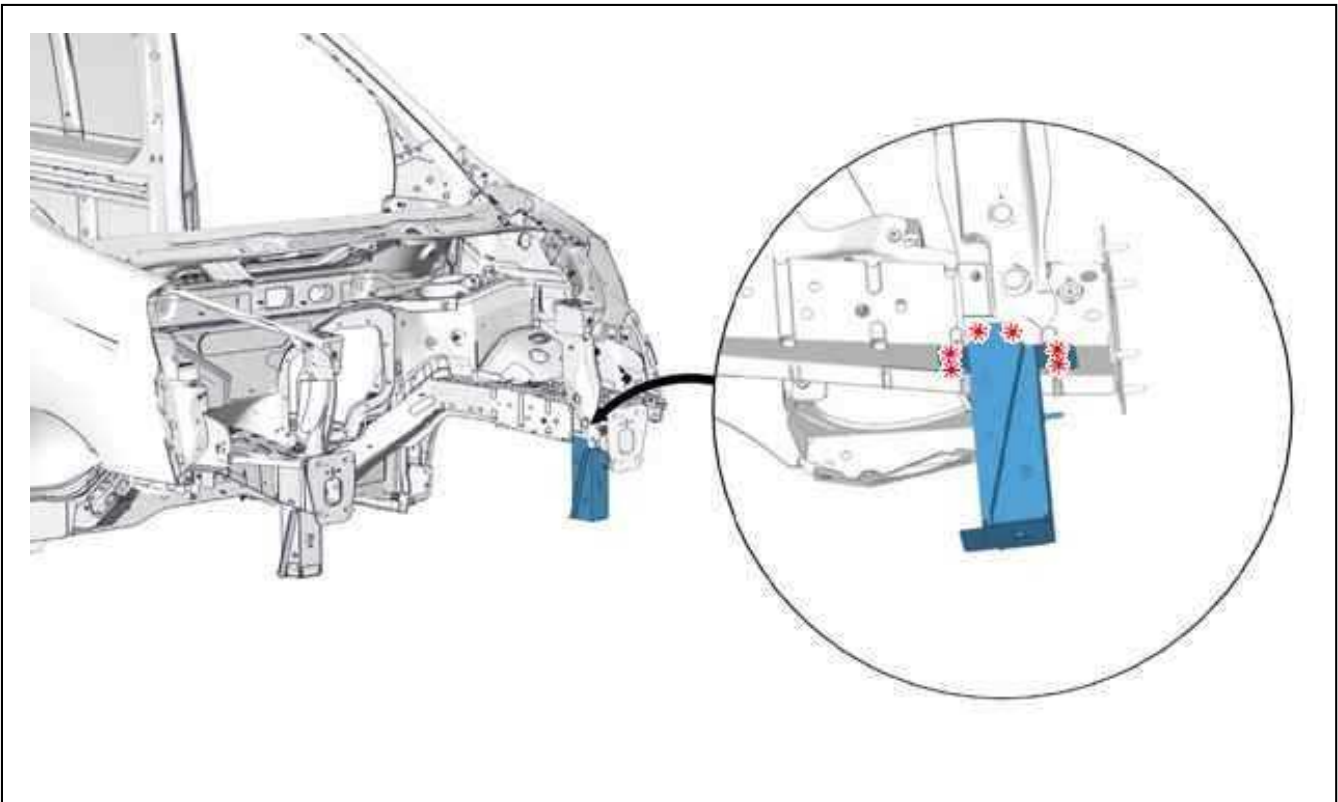


Figure : C4AP1X2D

Cut out the spot welds .

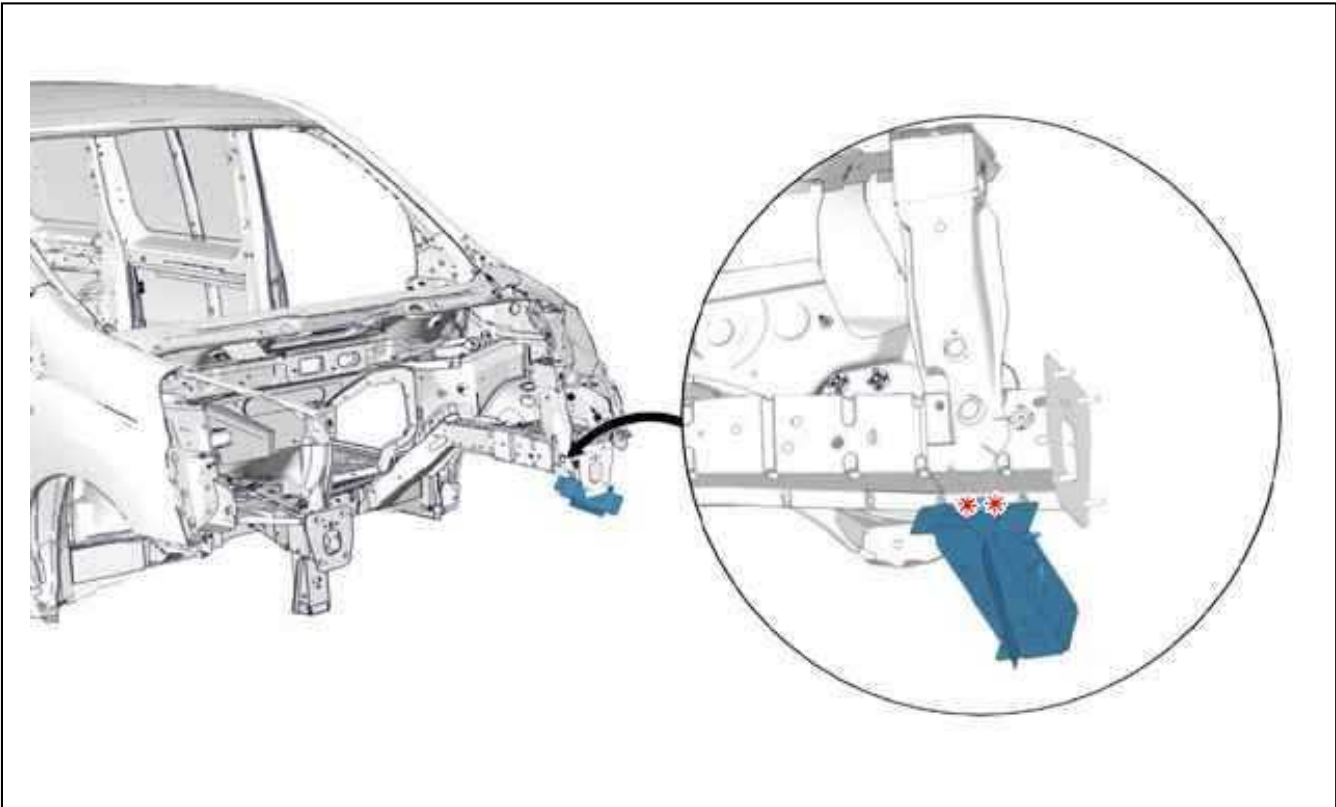


Figure : C4AP1X3D

Fold back the chassis leg end piece and the chassis leg end piece closure panel.  
Cut out the spot welds .

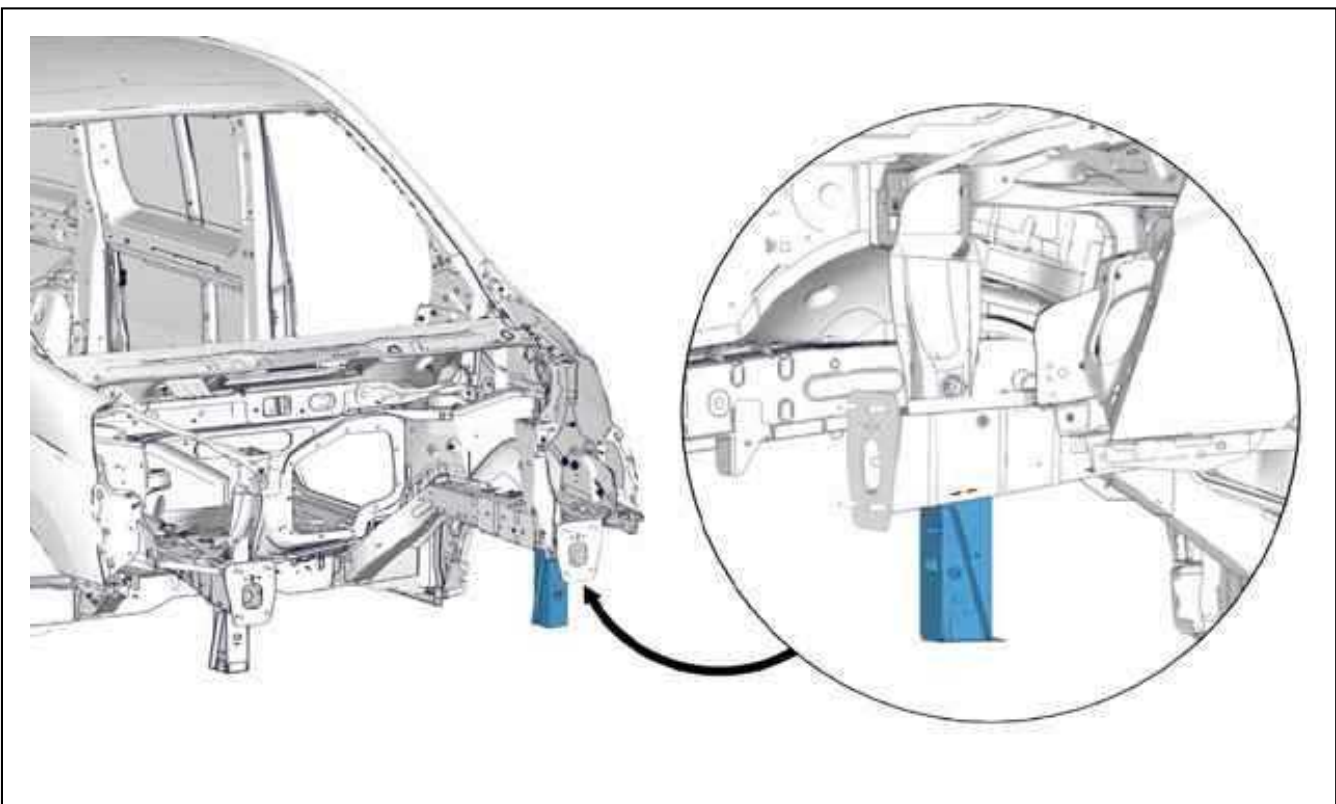


Figure : C4AP1X4D

Cut out the weld bead MAG.

Remove the chassis leg end piece and assembled chassis leg end piece closure panel.

## 5. Bodywork cleaning and preparation

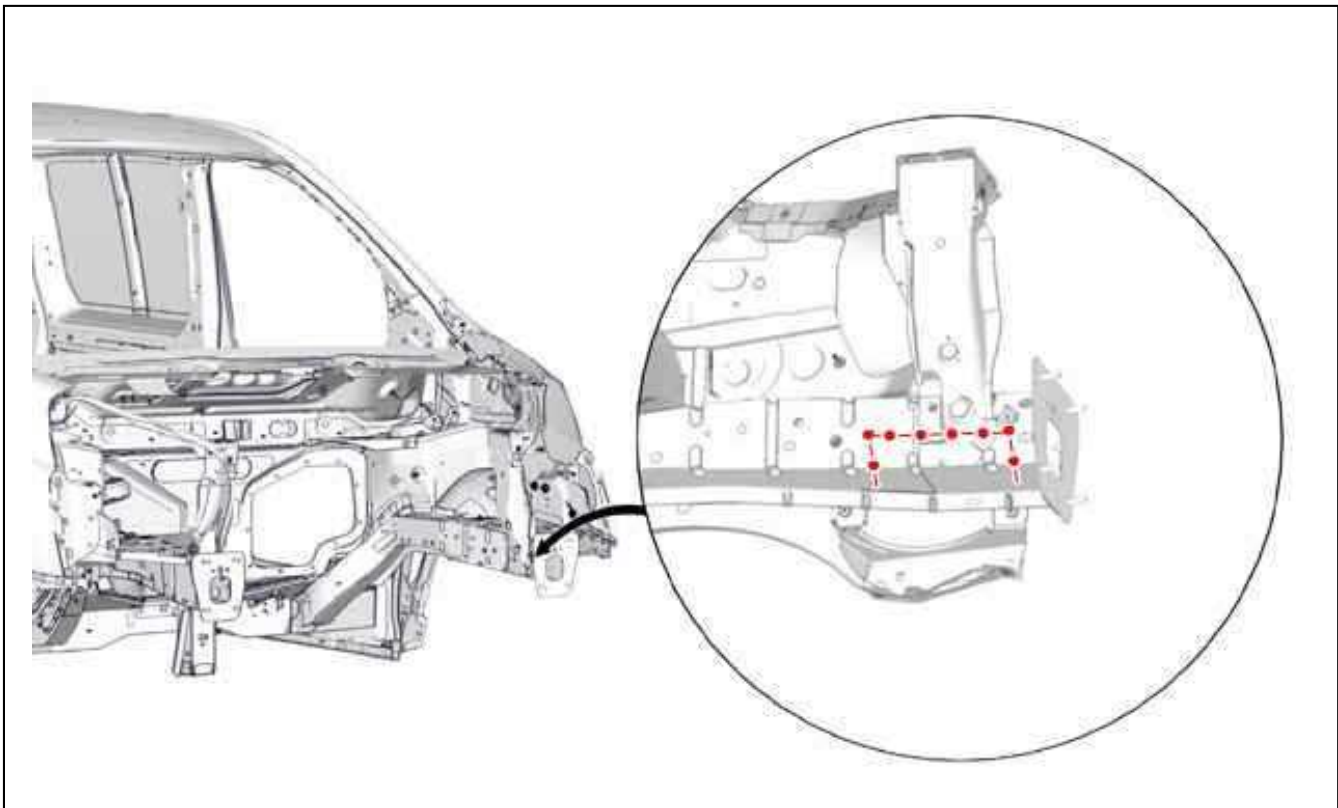


Figure : C4AP1X5D

Prepare the mating edges and protect them using a weldable primer .

## 6. Adjustment

Fit :

- The chassis member endpiece
- The chassis member endpiece closure panel

Check the adjustment of the components.

Use the approved checking and measuring equipment.

Remove the chassis leg end piece.

## 7. Welding

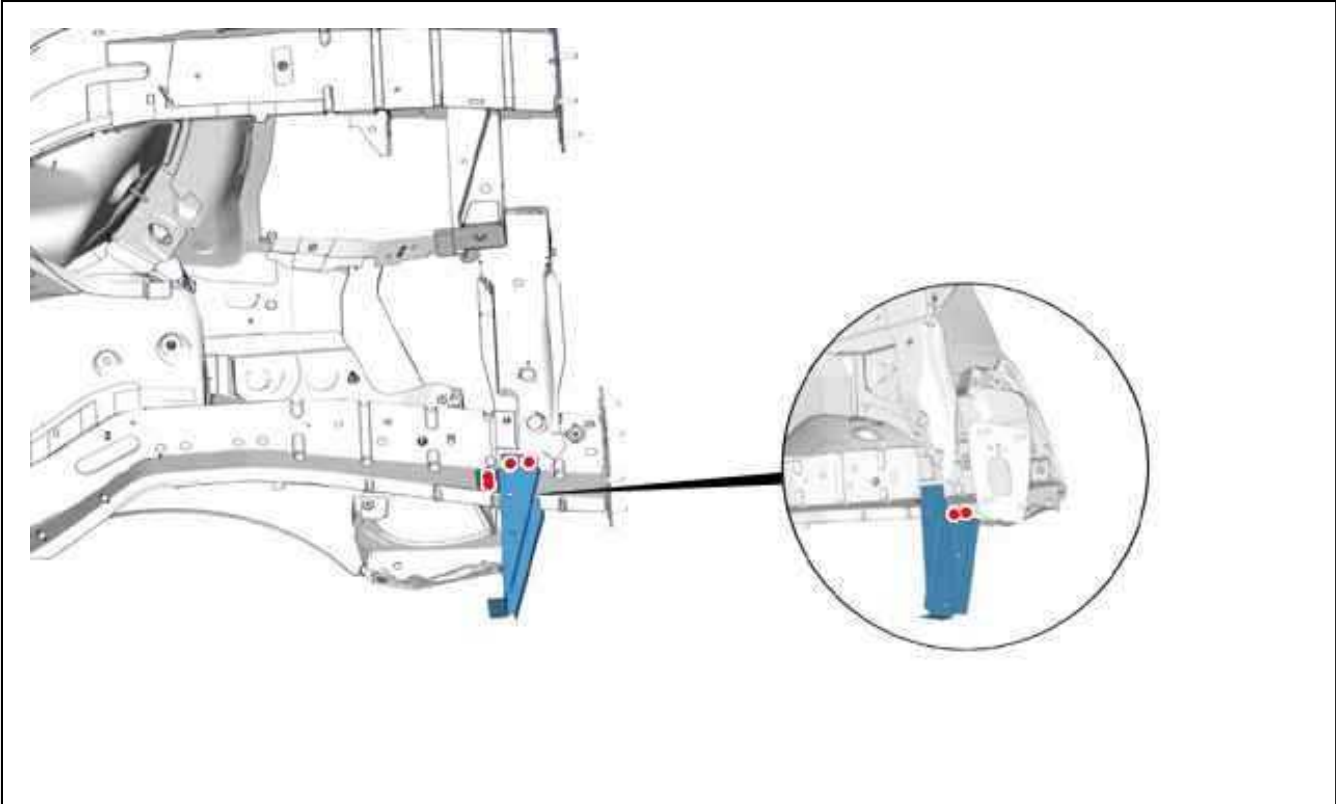


Figure : C4AP1X6D

Weld with plug welds MAG.

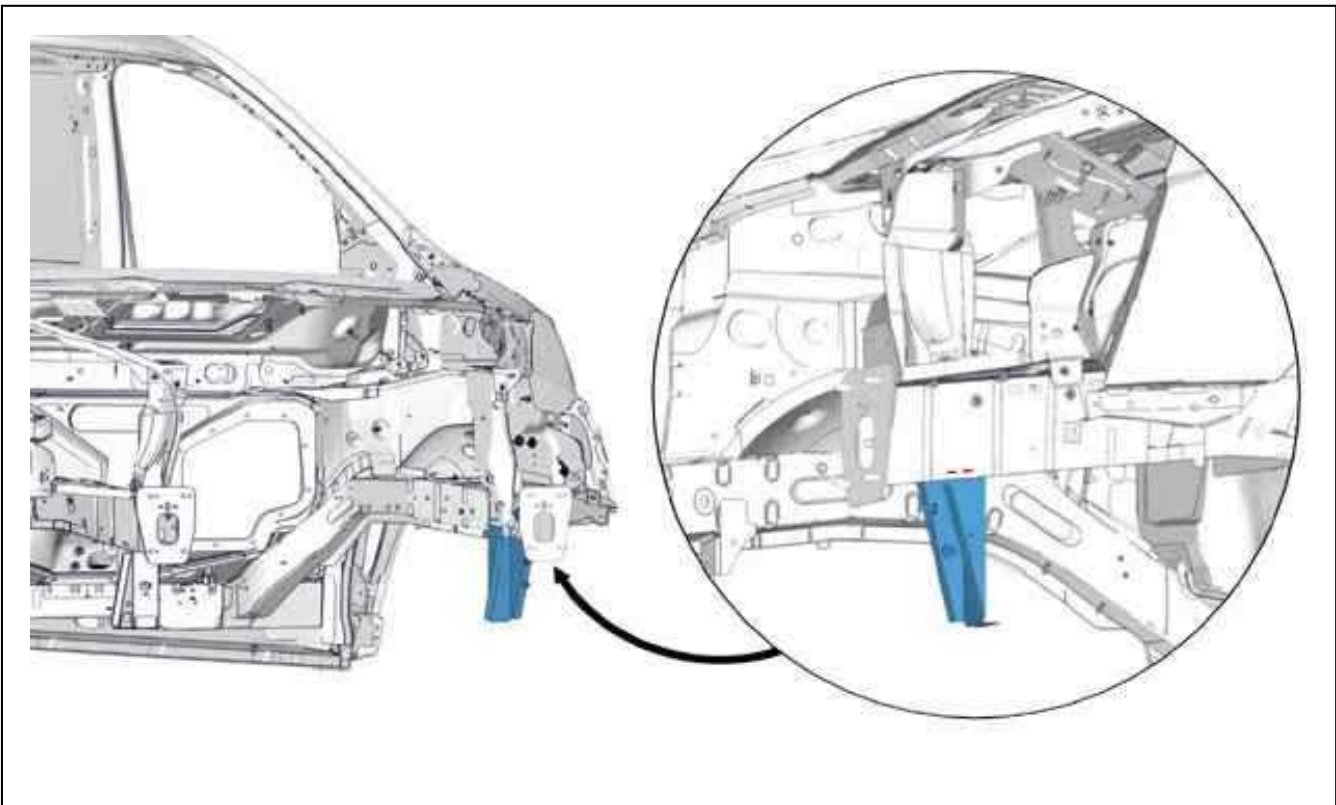


Figure : C4AP1X7D

Weld with MAG beads.

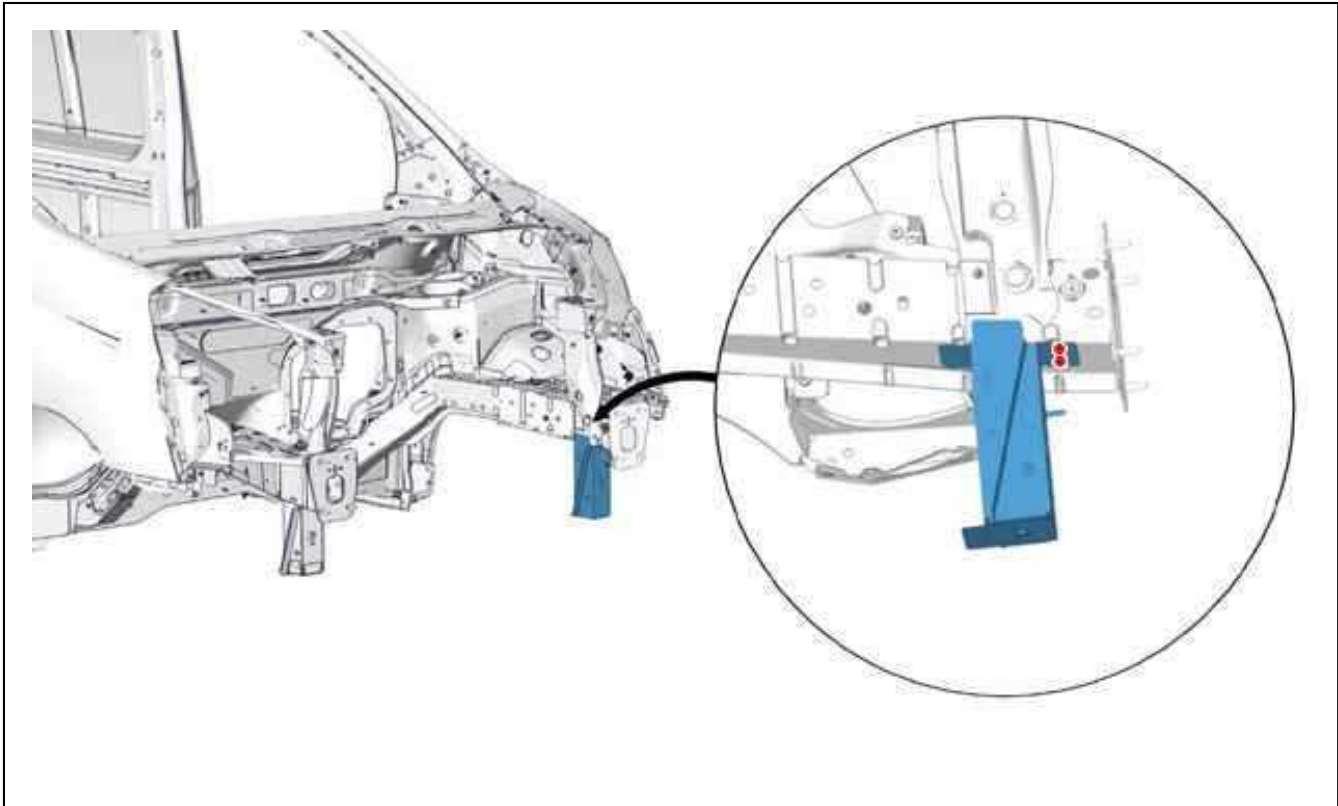


Figure : C4AP1X8D

Fit the chassis leg end piece closure panel.  
Weld with MAG plug welds.

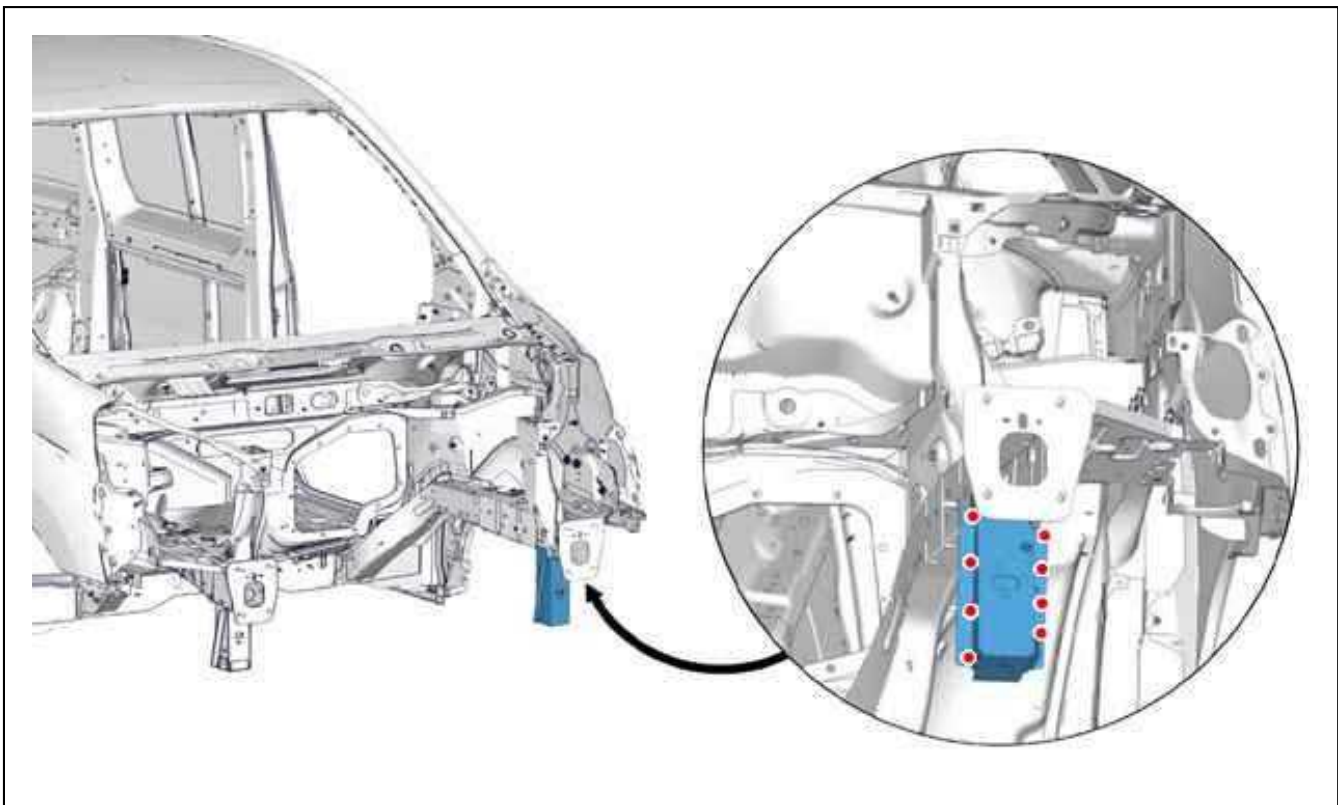


Figure : C4AP1X9D

Weld with electric spot welds  .

## 8. Sealing protection

Apply a phosphate-print layer on the zone laid bare.

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery ⓘ.

## REPLACEMENT : FRONT SILL SECTION

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ ( 2 or 4 post lift, workshop jack or customer's jack ⓘ ).

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic rezincing process .

## 1. Additional operations

Disconnect the battery.

Remove-refit the following components :

- Front bumper
- Splash shield
- Lower front impact absorbers
- Engine compartment lower crossmember
- Headlamp
- Cooling radiator
- Cooling condensor
- Air cleaner (left side)
- Air cleaner (left side)
- Subframe extension
- Screenwash reservoir ( right hand side)
- Steering pump ( right hand side)

Detach : The electrical harnesses.

Protect the interior of the passenger compartment.

## 2. Identification of the replacement parts

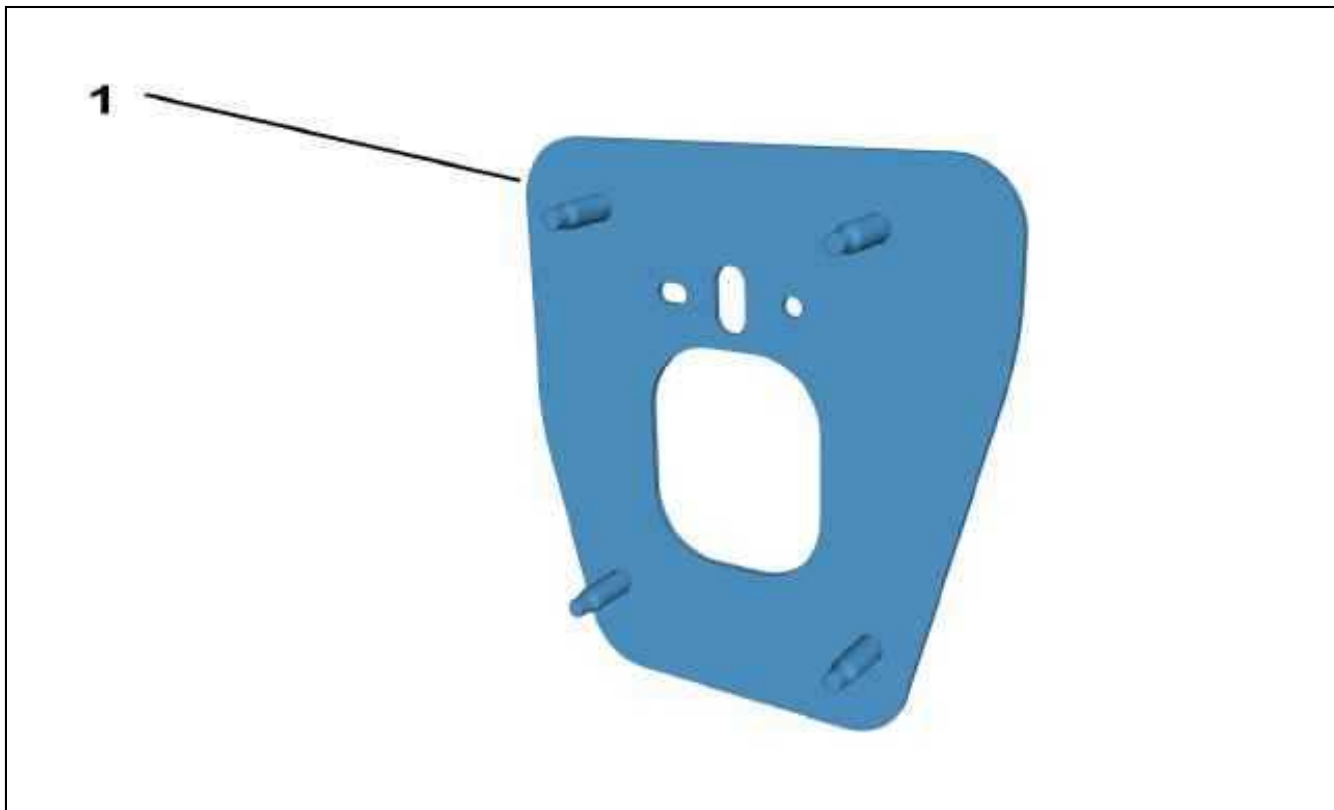


Figure : C4AP1WWD

| Reference | Designation        | Thickness (mm) | Nature/classification |
|-----------|--------------------|----------------|-----------------------|
| ( 1 )     | Front sill section | 1,95           | HLE (*)               |

(\*) HLE = High strength steel.

### 3. Cutting out

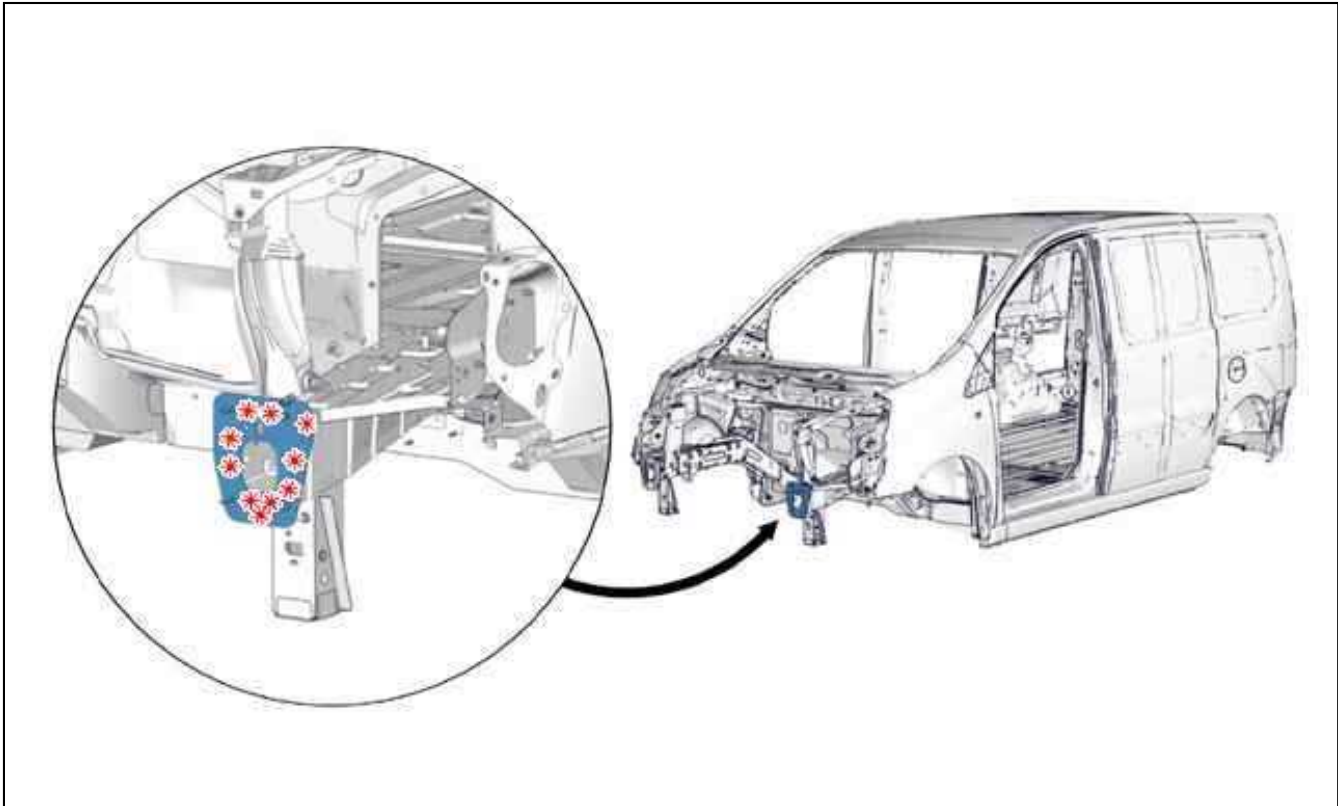


Figure : C4AP1WXD

Cut out the spot welds .

#### 4. Bodywork cleaning and preparation

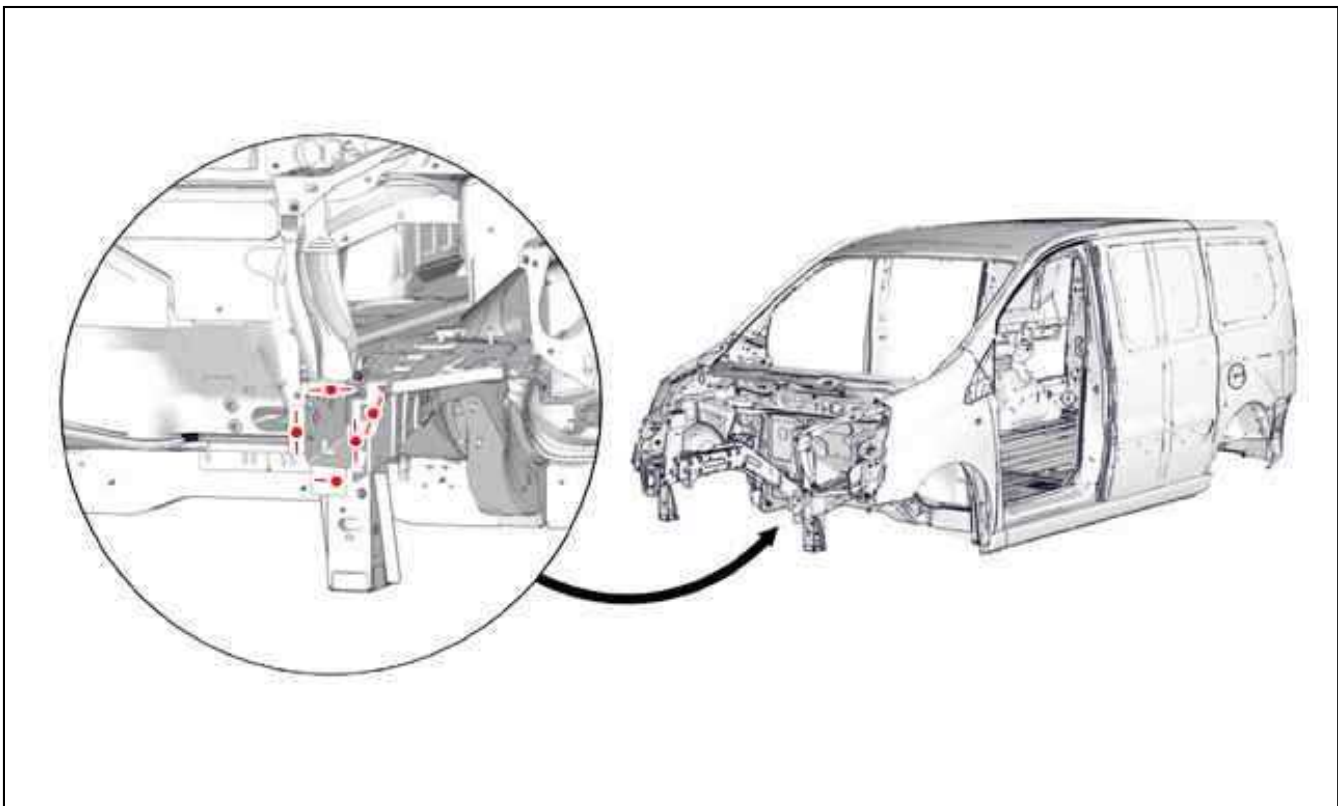


Figure : C4AP1WYD

Prepare the mating edges and protect them using a weldable primer .

## 5. Adjustment

Fit :

- The front sill section
- The front bumper crossmember

Check the fit of the sill section with the front bumper crossmember .

Remove the front bumper crossmember .

Use the approved checking and measuring equipment.

## 6. Welding

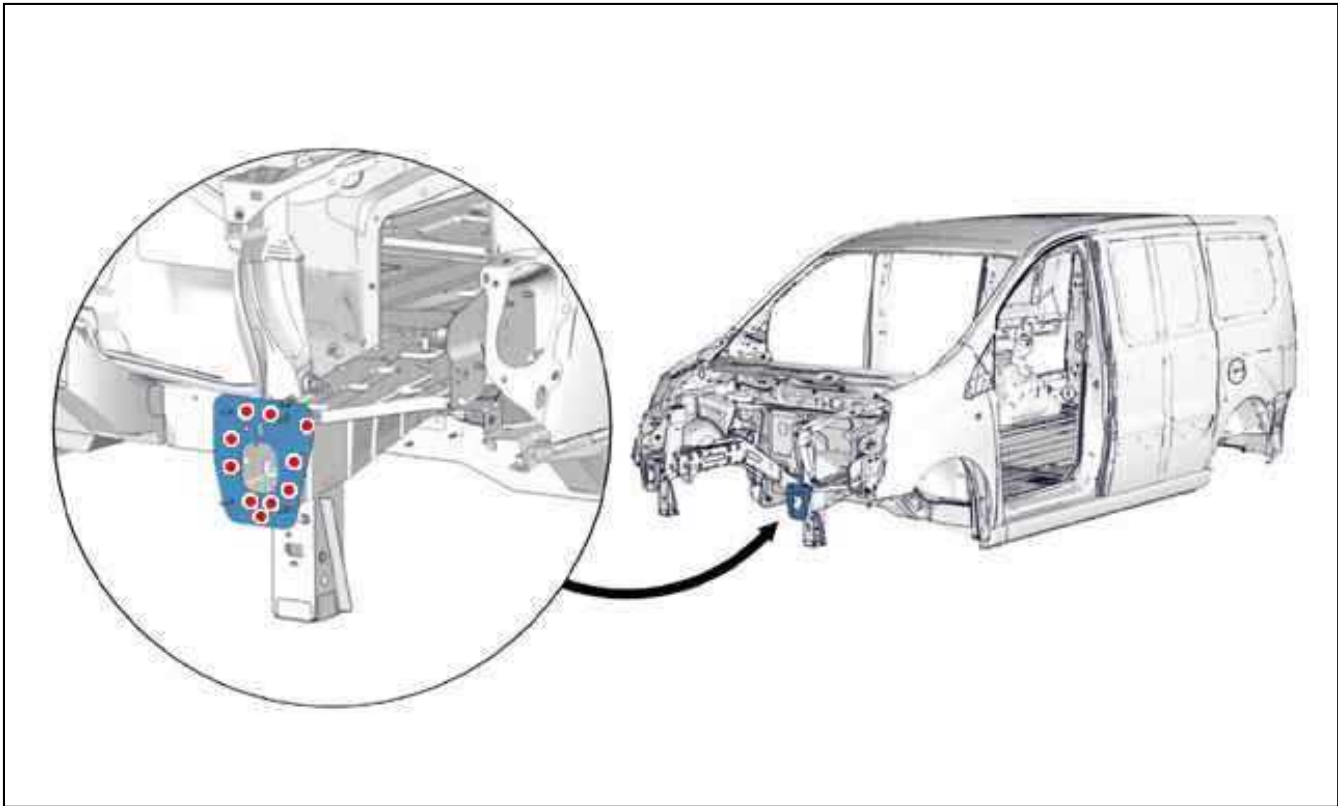


Figure : C4AP1WZD

Weld with electric spot welds  .

## 7. Sealing protection

Apply a phosphate-print layer on the zone laid bare.

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 8. Reinitialisation

Carry out the additional operations.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery  .

## REPLACEMENT : SIDE PANEL FRONT REINFORCEMENT

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ ( 2 or 4 post lift, workshop jack or customer's jack ⓘ ).

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic rezincing process .

### 1. Additional operations

Disconnect the battery.

Remove-refit the following components :

- Front bumper
- Headlamp
- Front door
- Front mud flaps
- Front wing

Release the wiring harnesses.

Protect the interior of the passenger compartment.

### 2. Identification of the replacement parts

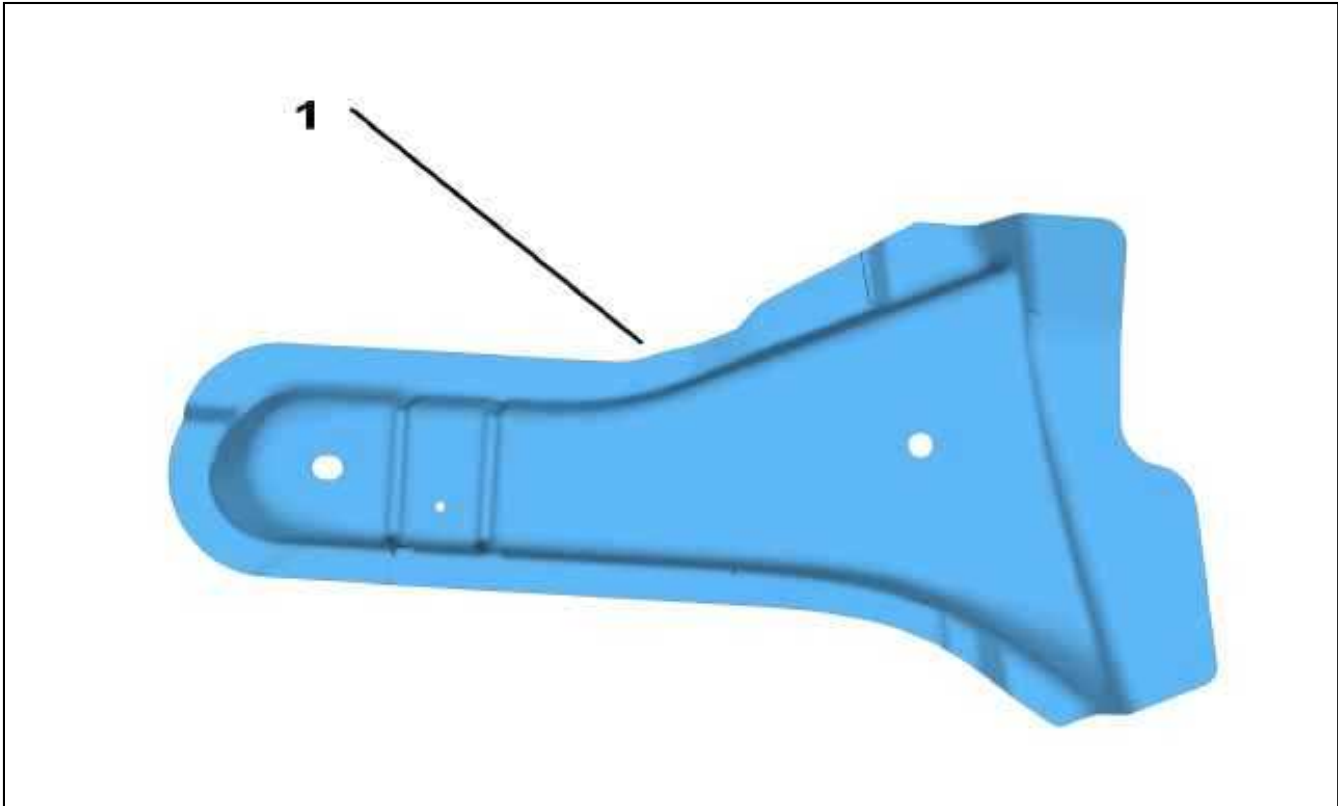


Figure : C4AP1XGD

| Reference            | Designation                    | Thickness (mm) | Nature/classification |
|----------------------|--------------------------------|----------------|-----------------------|
| (1)                  | Side panel front reinforcement | 0,97           | ADX (*)               |
| (*) ADX = Mild steel |                                |                |                       |

### 3. Replacement part preparation

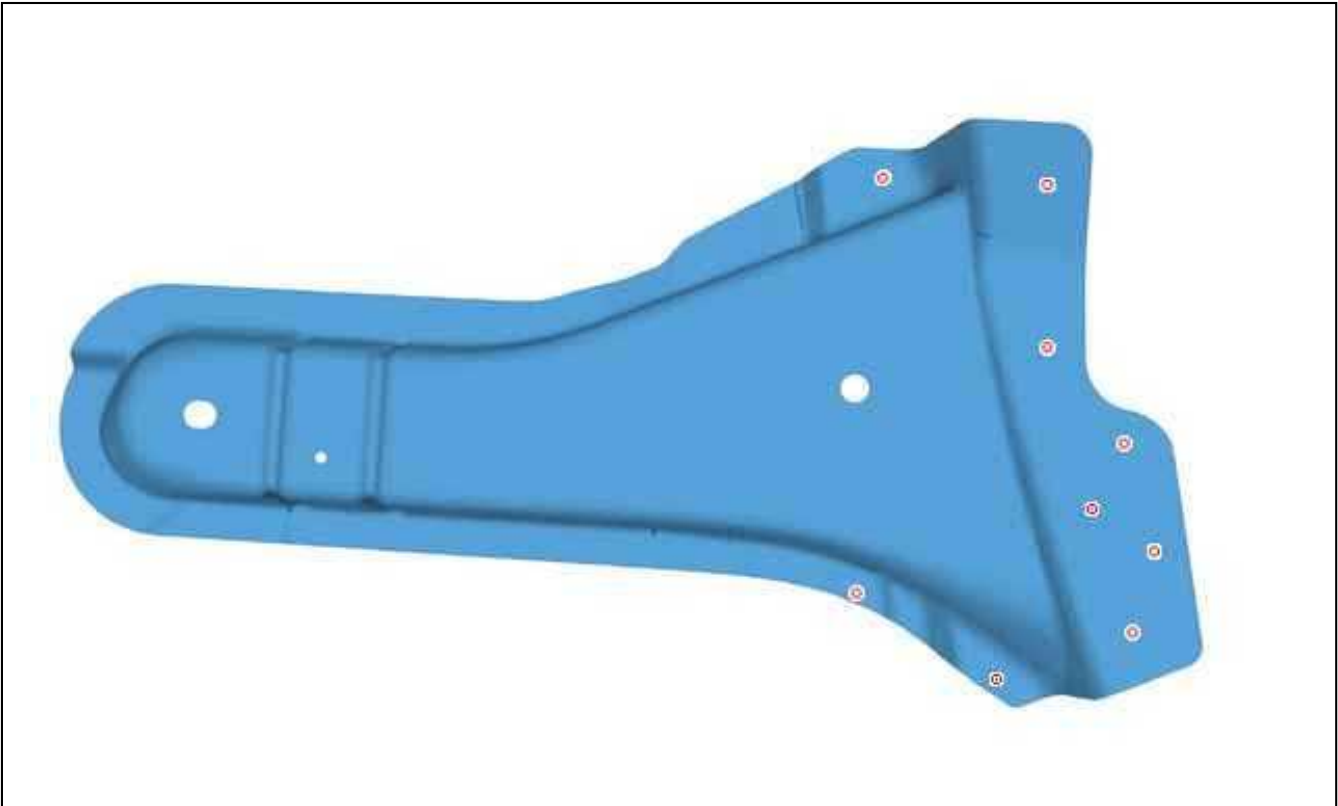


Figure : C4AP1XHD

Drill 6,5 mm holes for later plug welding.

Preparation of the mating edges and protection with a weldable primer.

#### 4. Cutting out

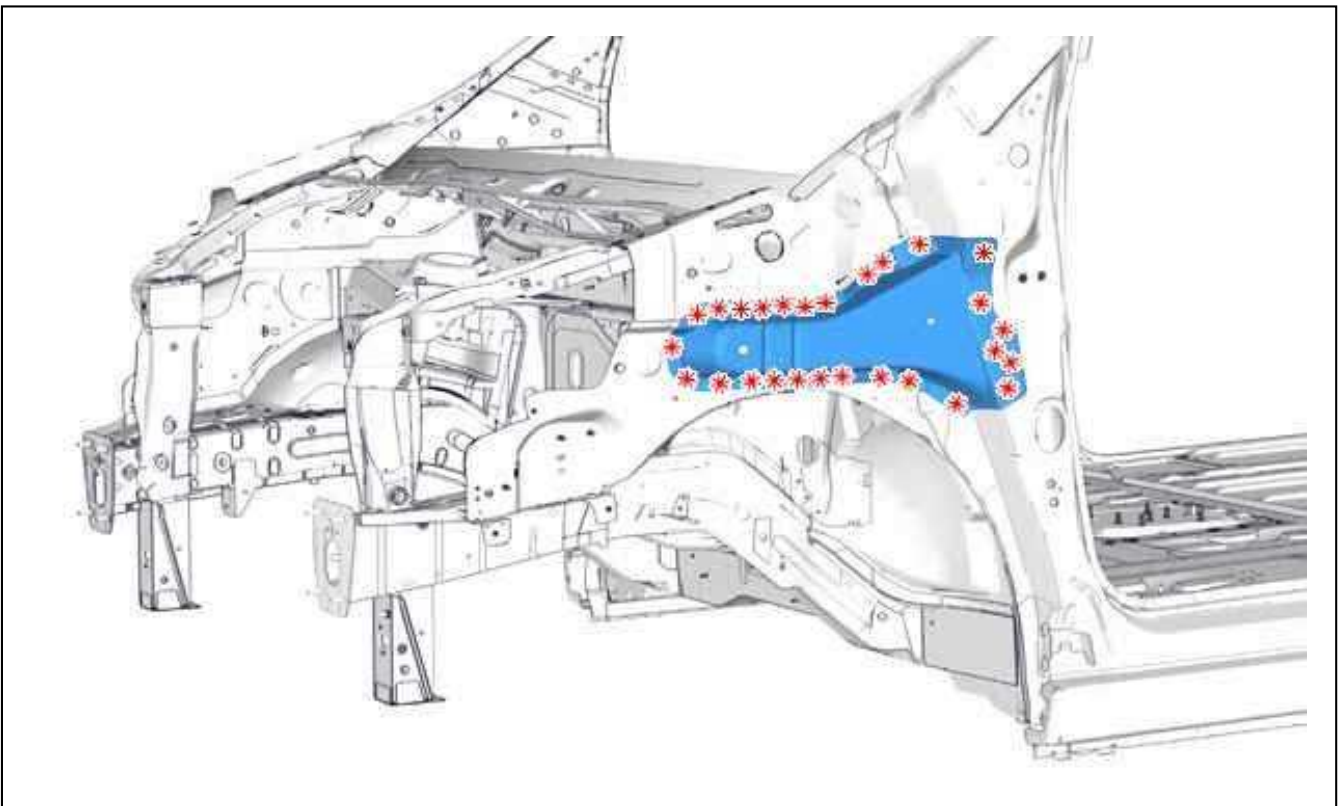


Figure : C4AP1XJD

Cut the spot welds to Ø 8 mm.

Remove the passenger compartment front strengthener.

## 5. Bodywork cleaning and preparation

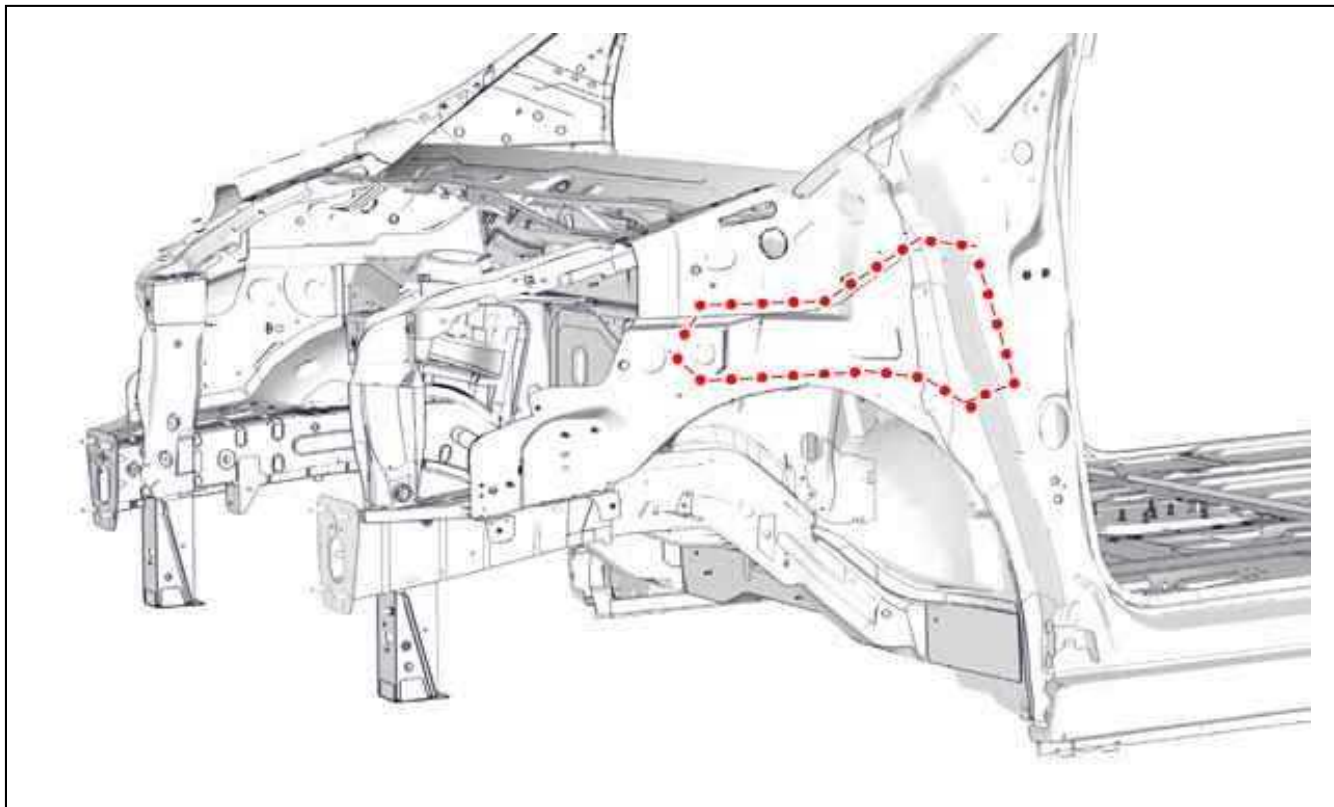


Figure : C4AP1XKD

Prepare the mating edges and protect them using a weldable primer .

## 6. Adjustment

Fit :

- The cabin side front strengthener
- The front wing

Check the fit.

Remove the front wing .

## 7. Welding

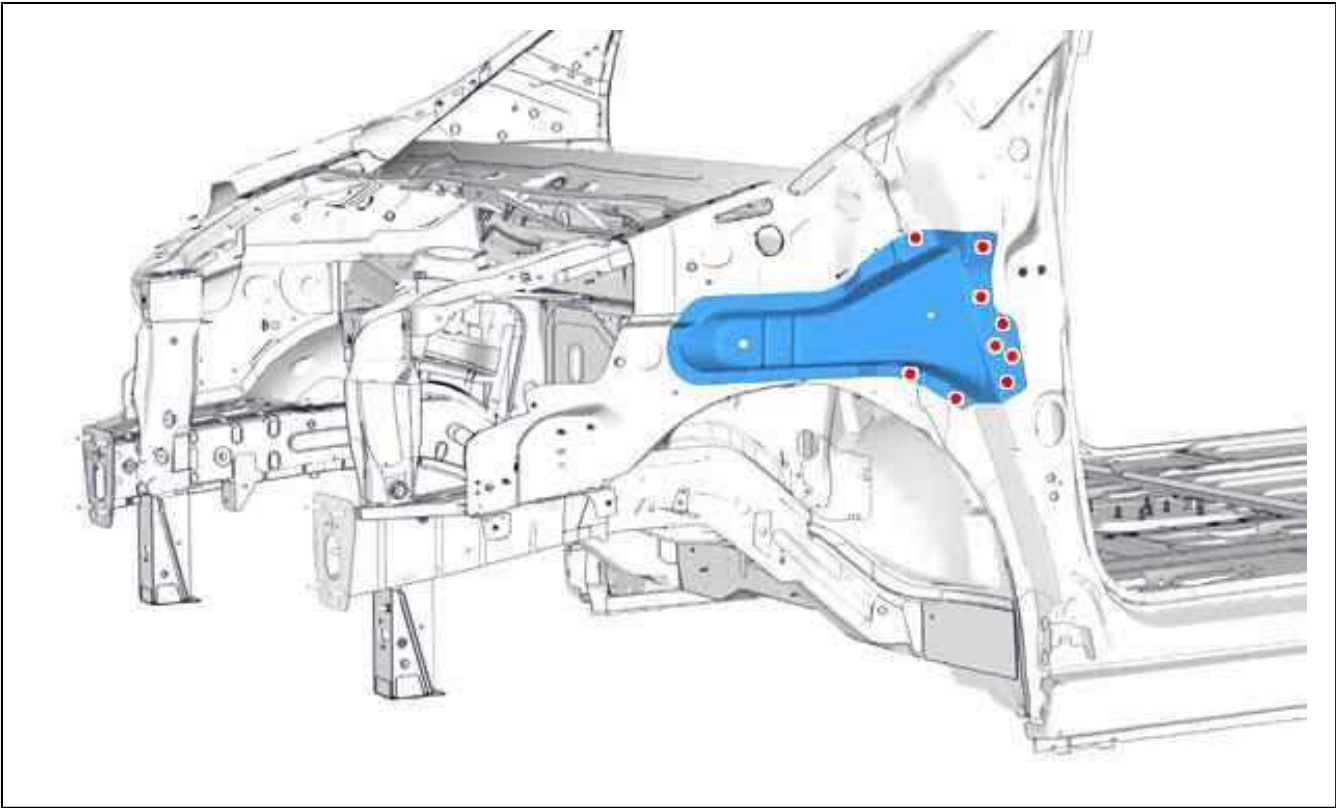


Figure : C4AP1XLD

Weld with MAG plug welds.

Grind the MAG plug welds.

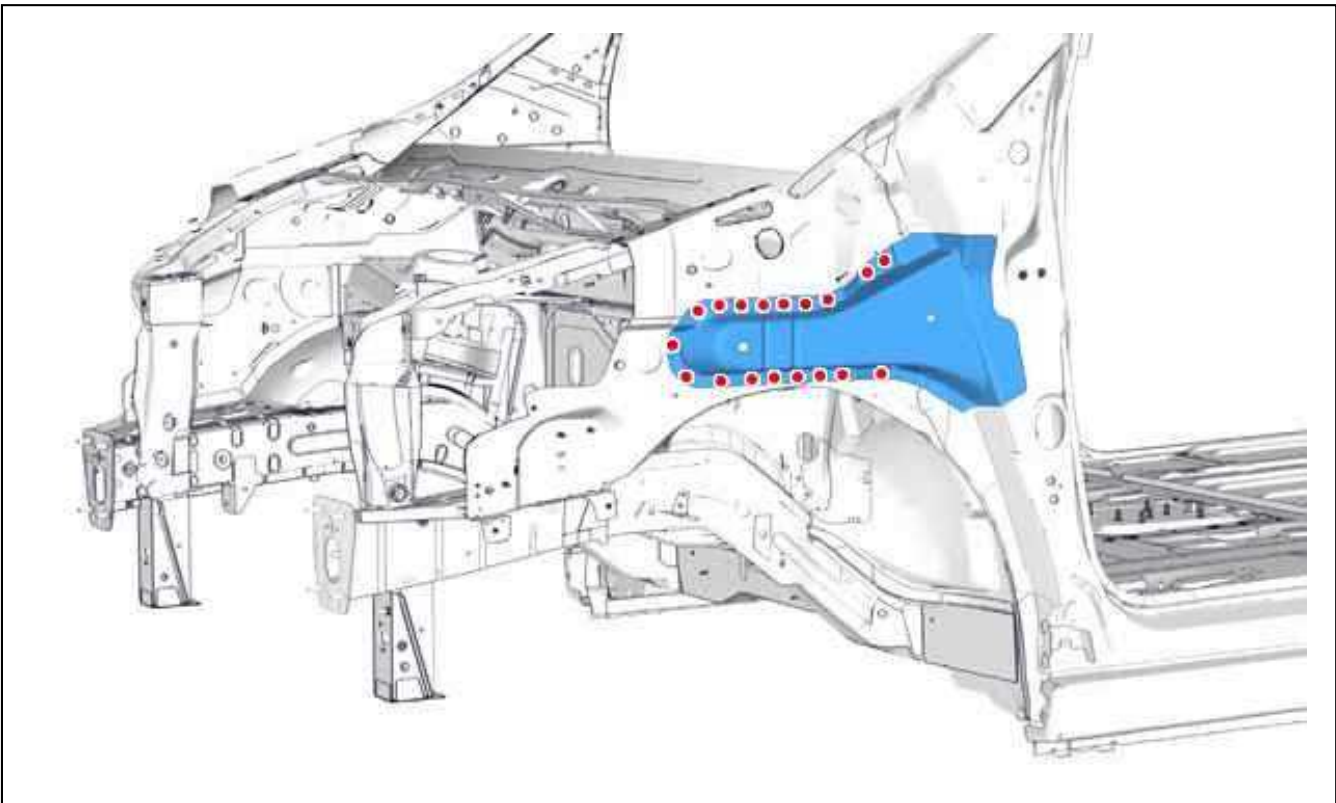


Figure : C4AP1XMD

Weld with electric spot welds ⓘ .

## 8. Sealing protection

Apply a phosphate-print layer on the zone laid bare.

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery ⓘ.

## REPLACEMENT : FRONT WHEEL ARCH

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or customer's jack ⓘ).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic rezincing process .

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

### 1. Additional operations

Disconnect the battery.

Removing - refitting :

- Front wing
- Front wing bracket
- Front wing lower rear support
- Front bumper bracket

Release the wiring harnesses.

### 2. Identification of the replacement parts

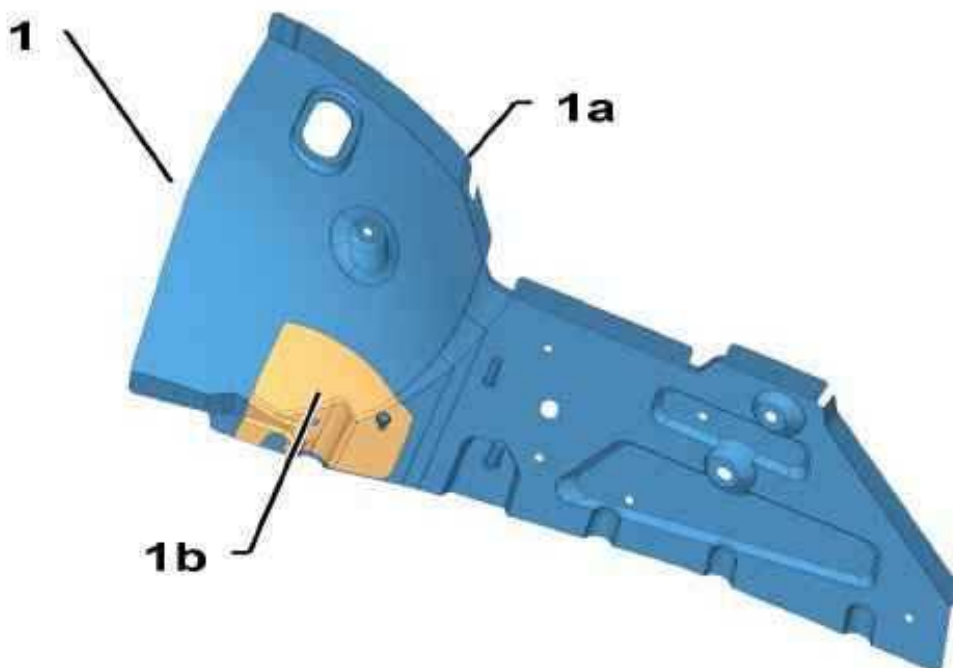


Figure : C4AP1WND

| Reference                                          | Designation                  | Thickness (mm) | Nature/classification |
|----------------------------------------------------|------------------------------|----------------|-----------------------|
| (1)                                                | Front wheelarch assembly     | -              | -                     |
| (1a)                                               | Front wheel arch             | 0,97           | ADX (*)               |
| (1b)                                               | Front wheelarch strengthener | 1,76           | HLE (**)              |
| (*)ADX : soft steel (**) HLE : high-strength steel |                              |                |                       |

### 3. Replacement part preparation

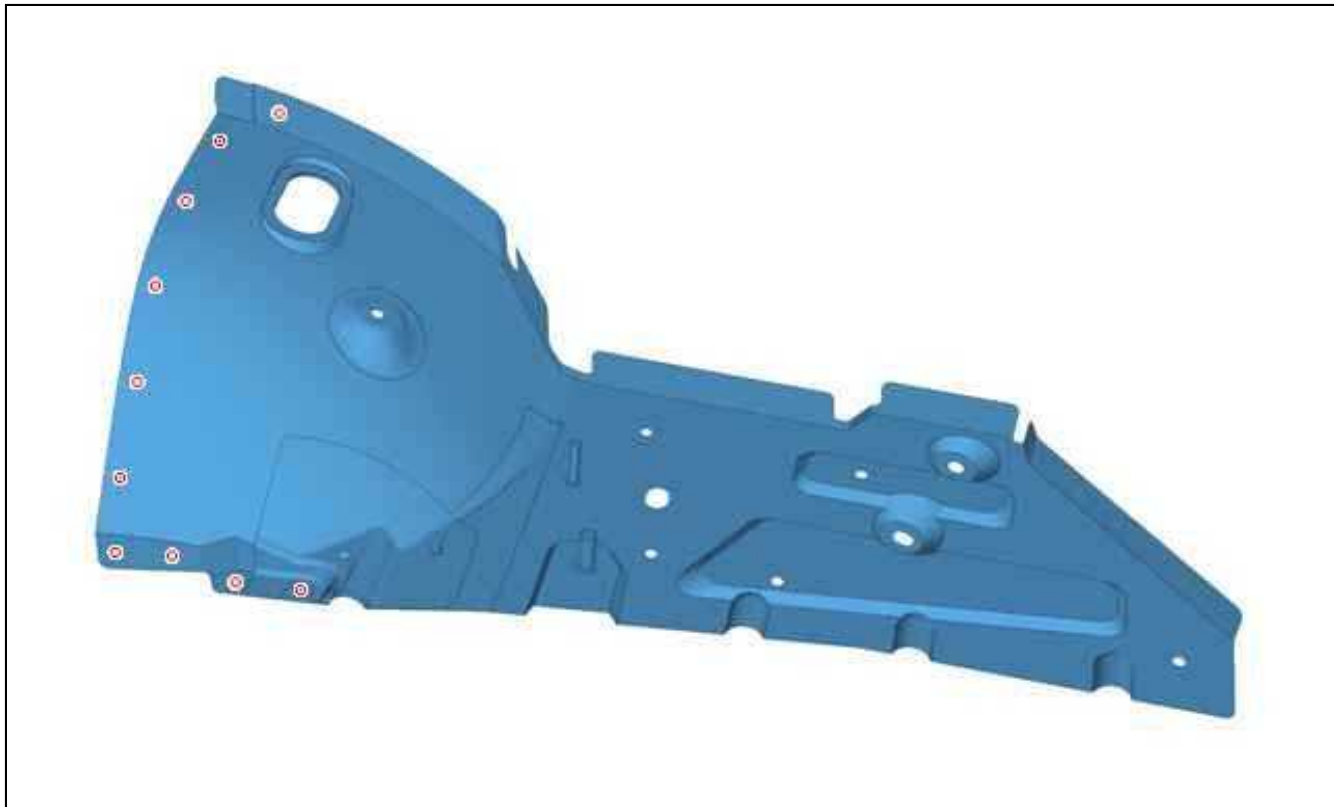


Figure : C4AP1WQD

Mark then cut out to the diameter 6,5 mm for a later welding with plug welds.

### 4. Cutting out

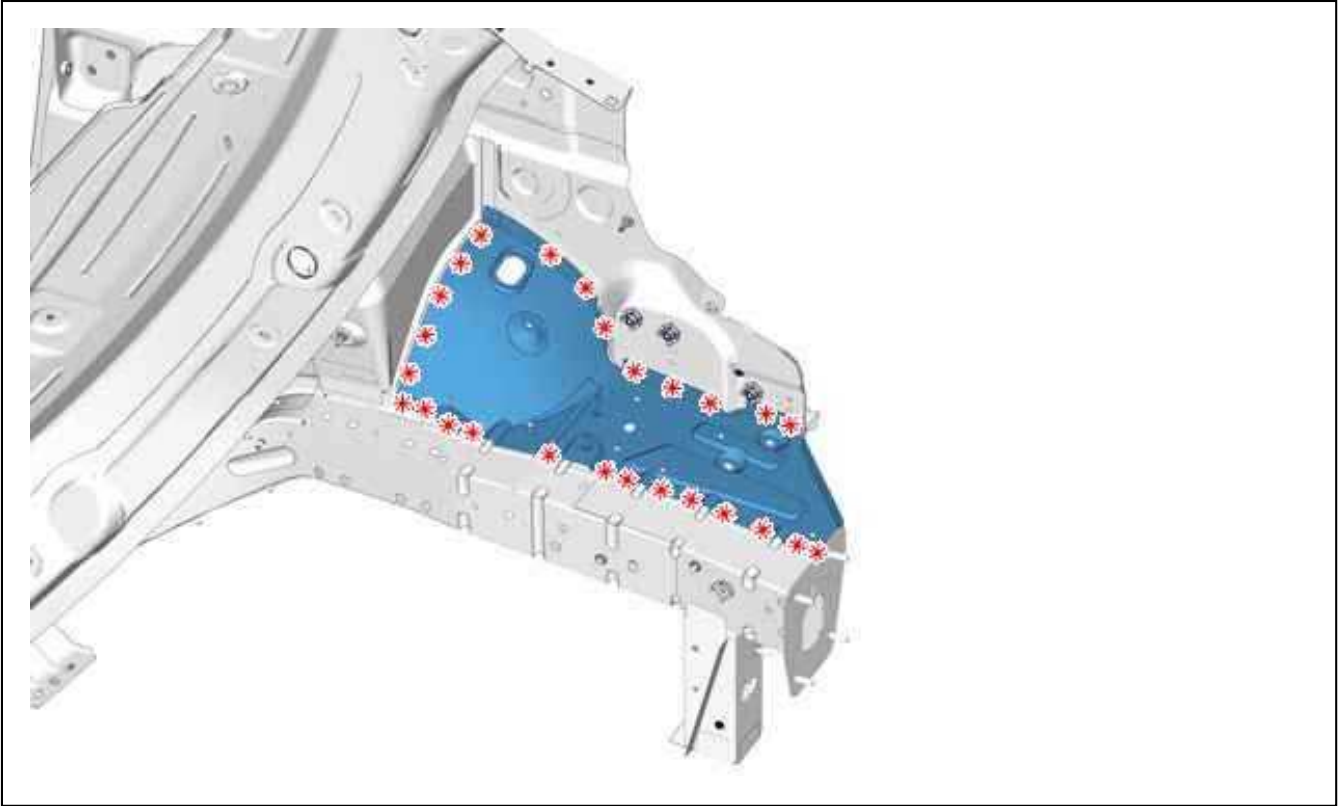


Figure : C4AP1WRD

Cut out the spot welds .

## 5. Bodywork cleaning and preparation

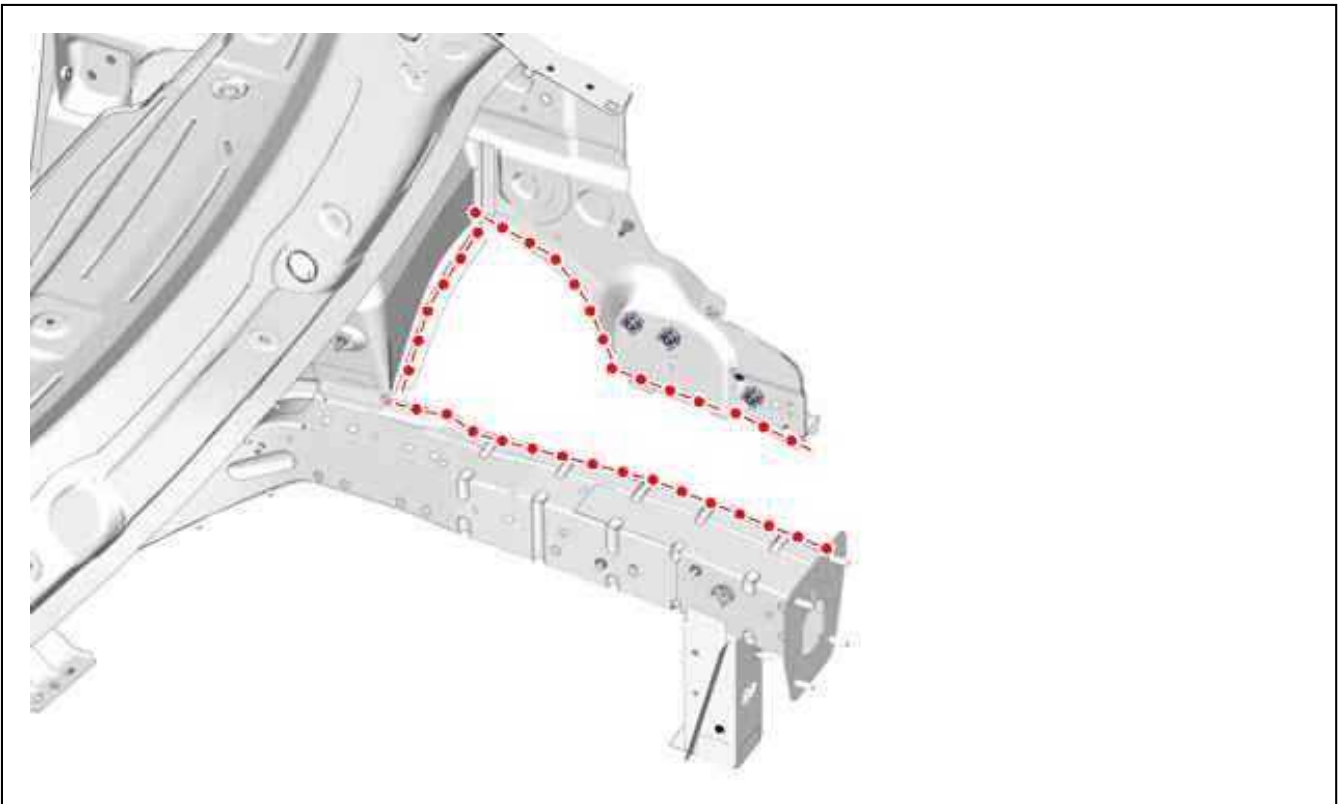


Figure : C4AP1WSD

Prepare the mating edges and protect them using a weldable primer .

## 6. Adjustment

Fit the front wheelarch .

Check the adjustment of the front wheelarch.

## 7. Welding

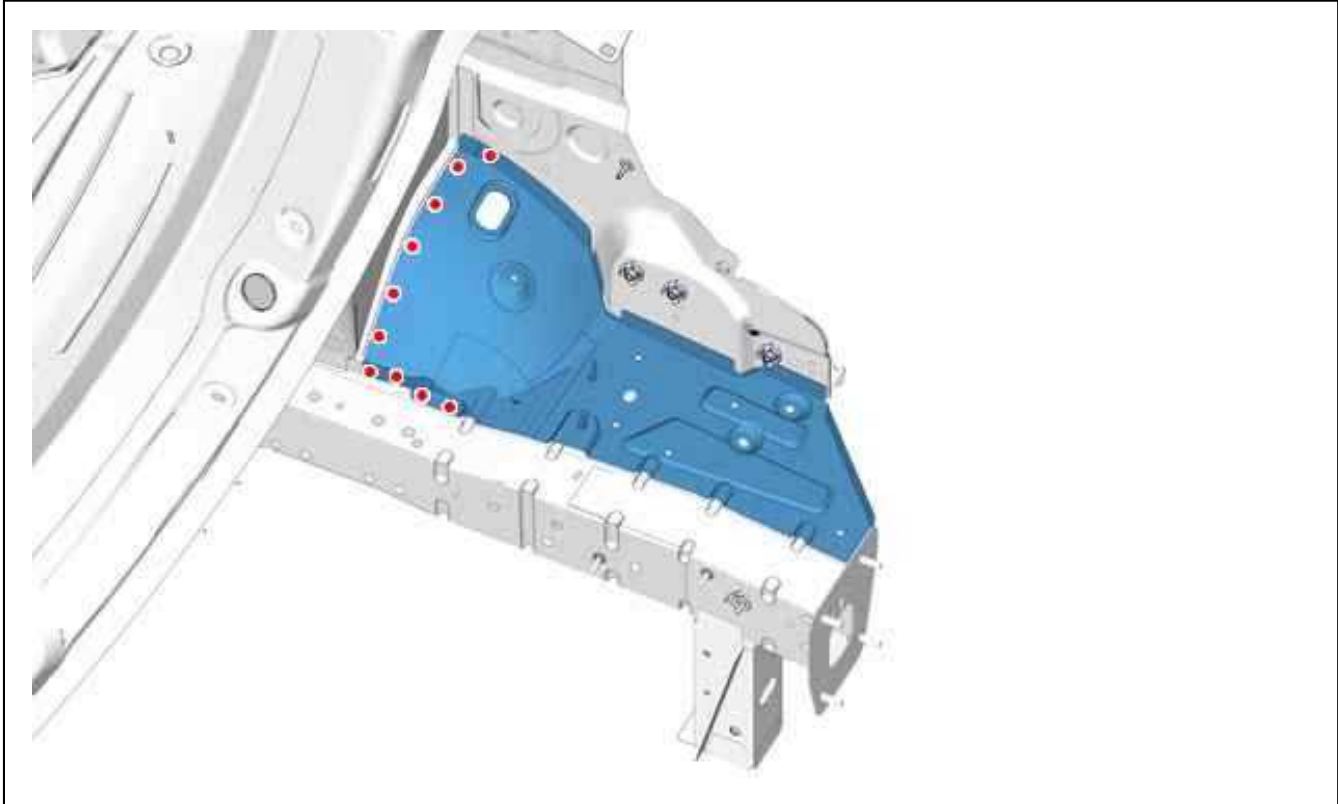


Figure : C4AP1WTD

Weld with MAG plug welds.

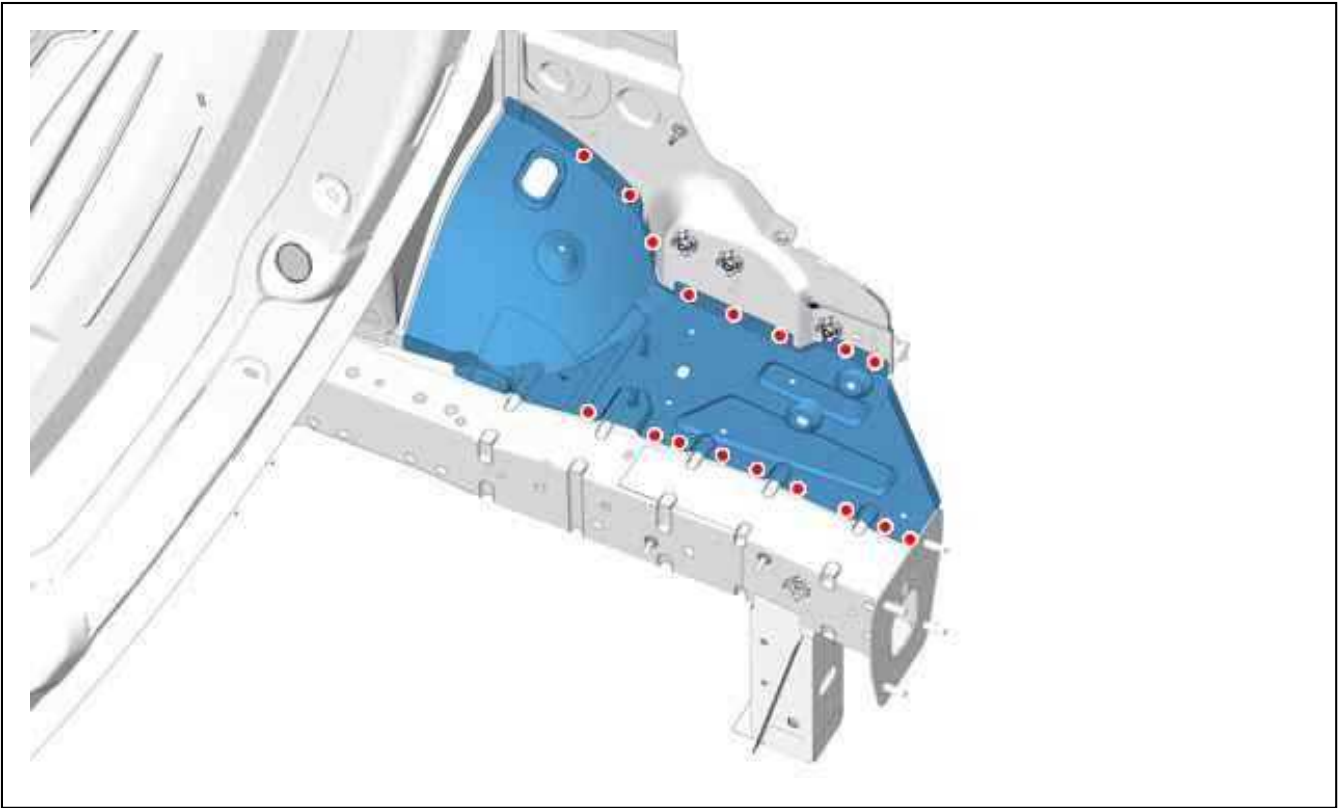


Figure : C4AP1WUD

Weld with electric spot welds :

- Front structure ⓘ
- Passenger compartment side strengtheners and inner panels ⓘ

## 8. Sealing protection

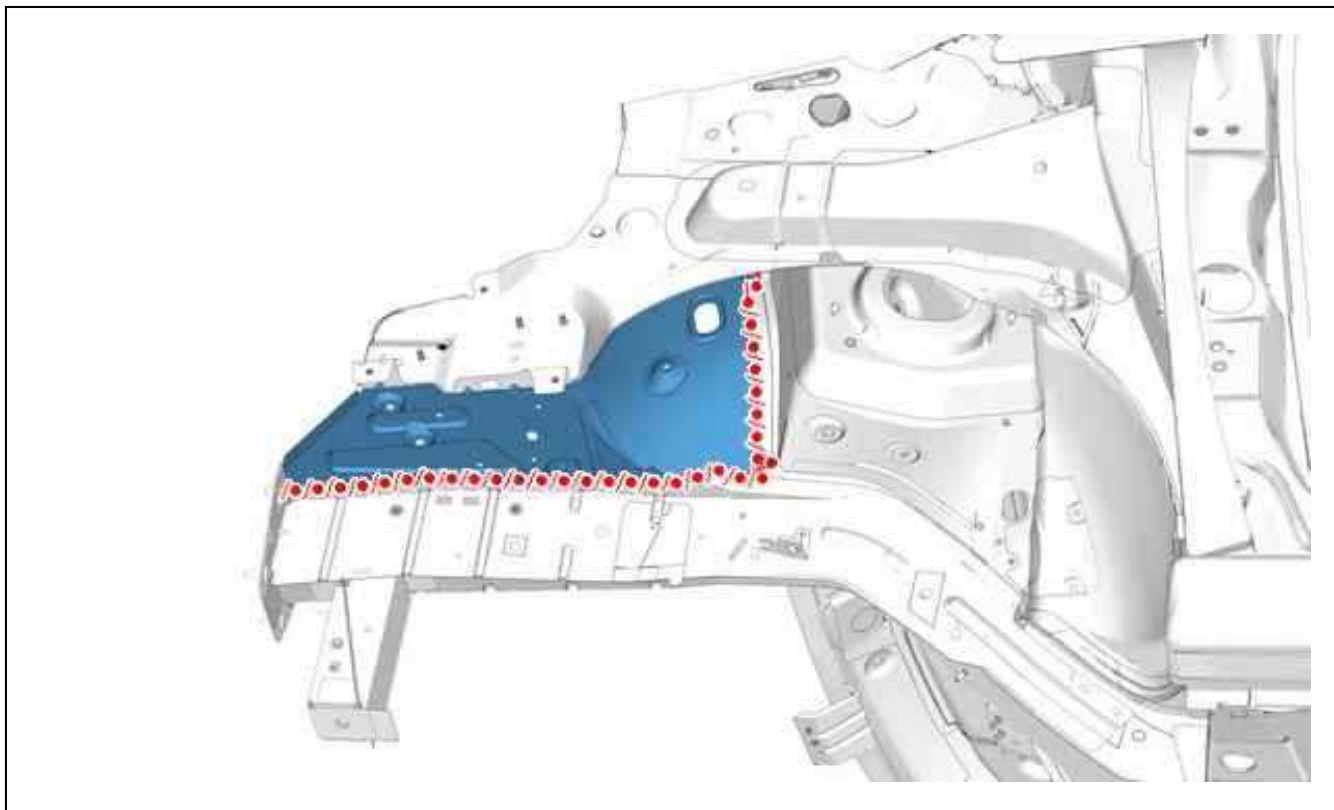


Figure : C4AP1WVD

Apply a phosphate-print layer on the zone laid bare.

Apply a sealing mastic of type "A1".

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery ⓘ.

REPLACEMENT : FRONT SUSPENSION SUPPORT ASSEMBLY

- ESSENTIAL : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.
- ESSENTIAL : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or vehicle jack ⓘ).
- ESSENTIAL : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).
- CAUTION : All of the stripped surfaces must be protected by means of the approved electrolytic rezincing process .

1. Additional operations

- Disconnect the battery.
- Replace ⓘ : The front wing lower inner panel ⓘ .
- Replace ⓘ : The front wheel arch assembly ⓘ .
- Release the wiring harnesses.
- Protect the interior of the passenger compartment.

2. Identification of replacement parts

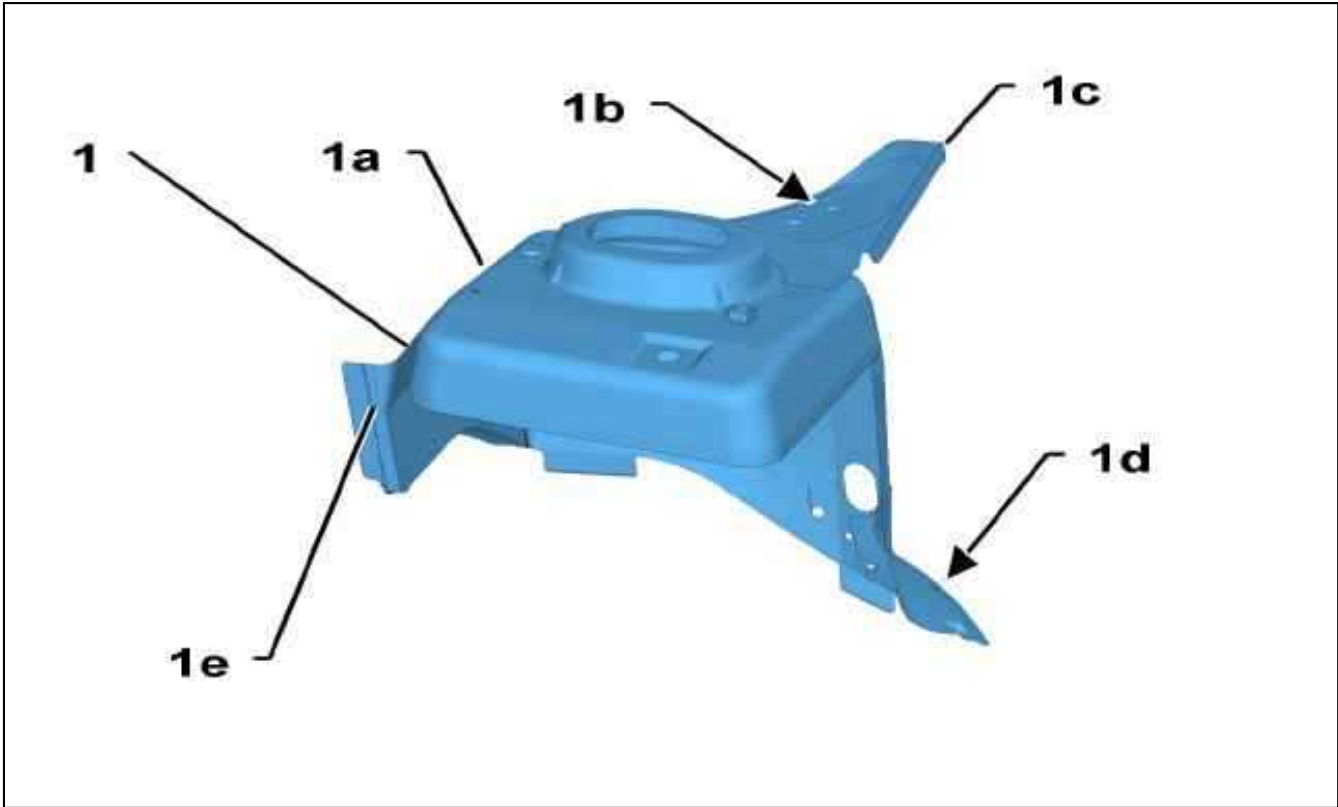


Figure : C4AM016D

| Reference | Designation | Thickness (mm) | Nature/classification |
|-----------|-------------|----------------|-----------------------|
|-----------|-------------|----------------|-----------------------|

|                                                   |                                              |      |          |
|---------------------------------------------------|----------------------------------------------|------|----------|
| (1)                                               | Assembled front LH suspension mounting       | -    | -        |
| (1a)                                              | Front suspension support                     | 2,93 | HLE (**) |
| (1b)                                              | Section (Front wheelarch support connection) | 1,17 | ADX (*)  |
| (1c)                                              | Front wheelarch support connection           | 1,17 | ADX (*)  |
| (1d)                                              | Front suspension support connection          | 1,76 | HLE (**) |
| (1e)                                              | Front suspension support stiffener           | 1,17 | ADX (*)  |
| (*)ADX : soft steel (**)HLE : high-strength steel |                                              |      |          |

### 3. Preparation of the replacement parts

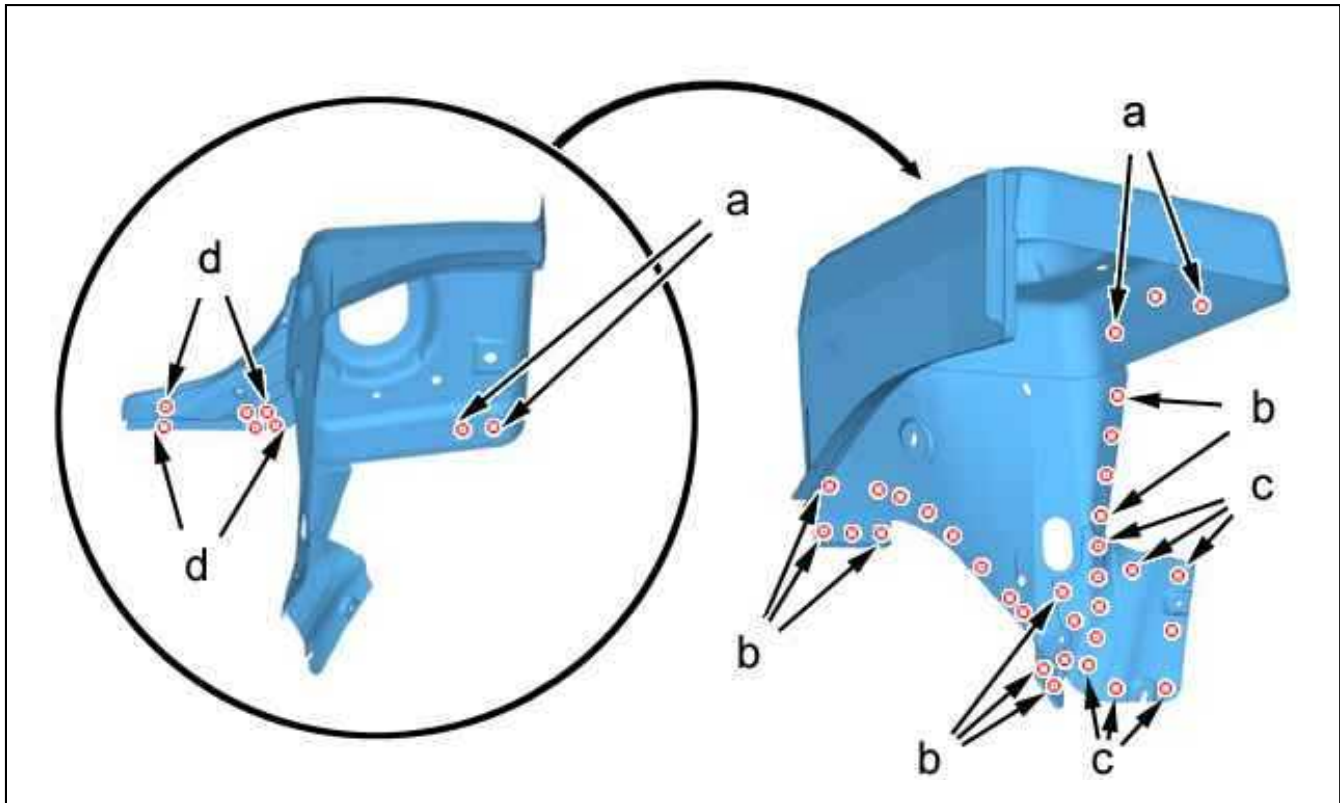


Figure : C4AM017D

Mark then drill for later spot welding :

- Ø 6 mm ( as "b", "d")
- Ø 8 mm ( as "c")
- Ø 10 mm ( as "a")

Prepare the mating edges and protect them using a weldable primer .

### 4. Cutting out

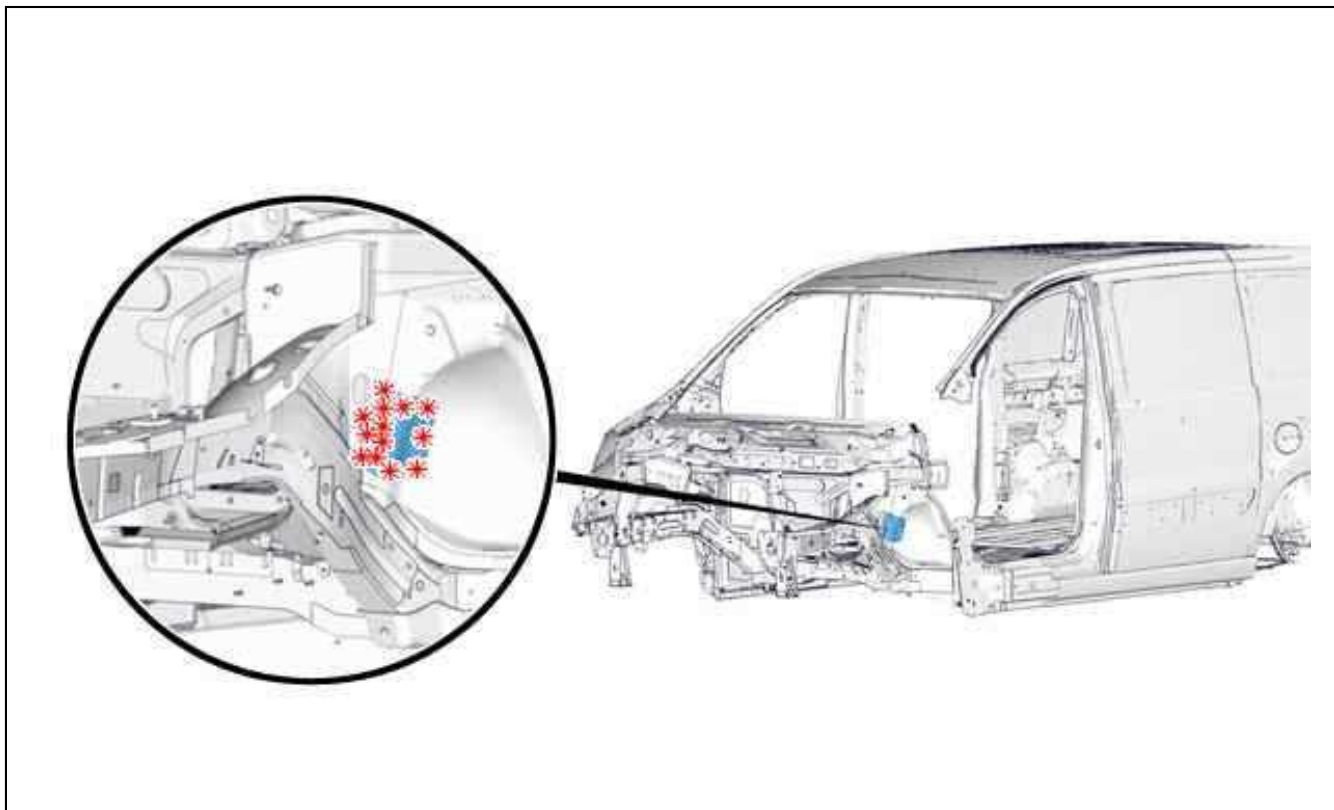


Figure : C4AM018D

Cut out the spot welds .

Remove : Front suspension support connection.

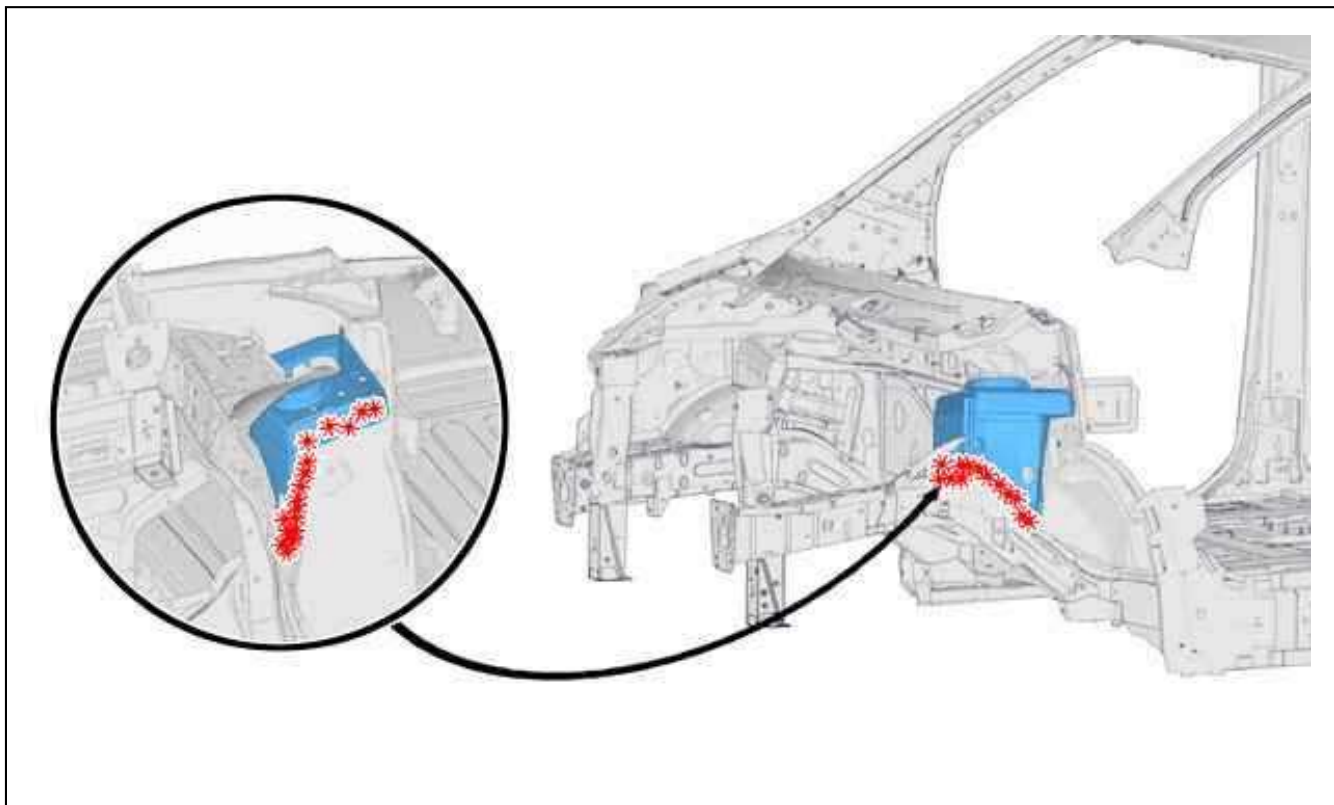


Figure : C4AM019D

Cut out the spot welds .

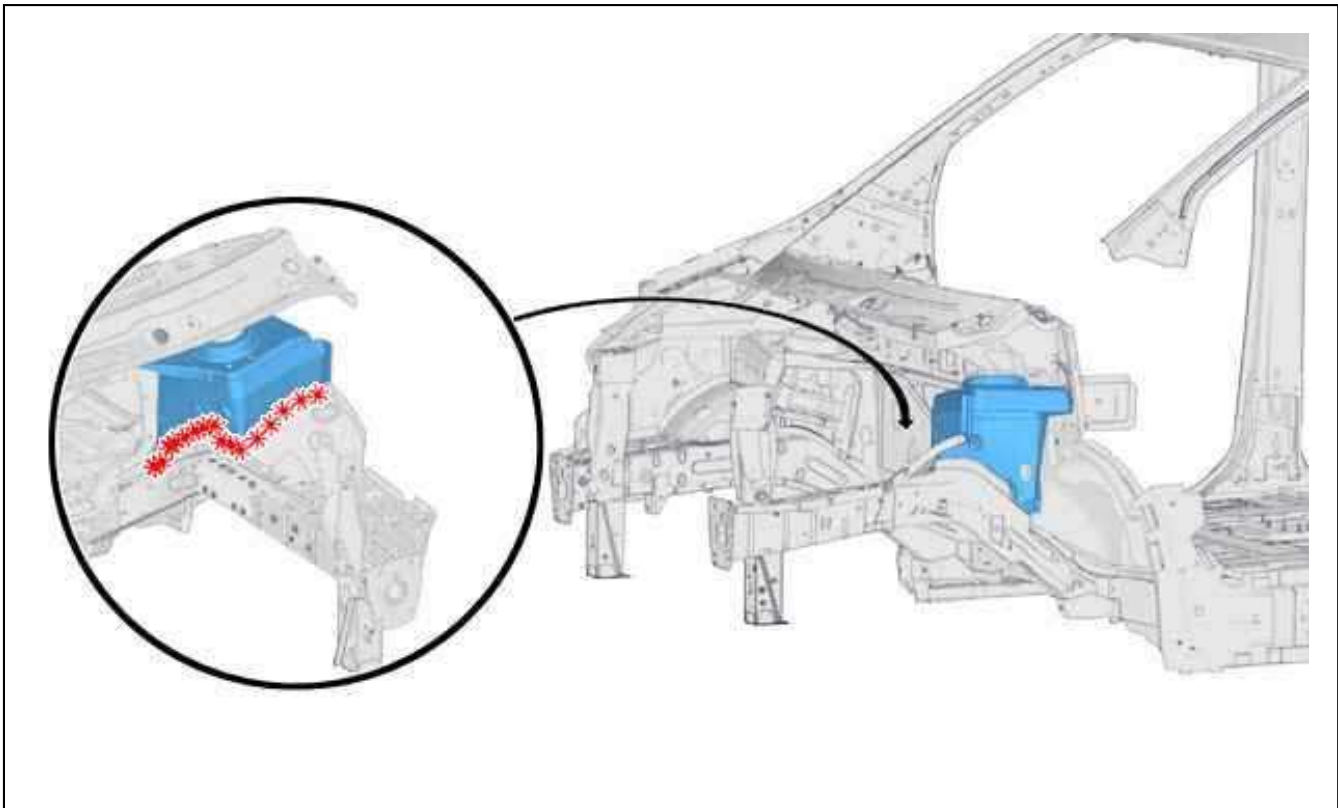


Figure : C4AM01AD

Cut out the spot welds .

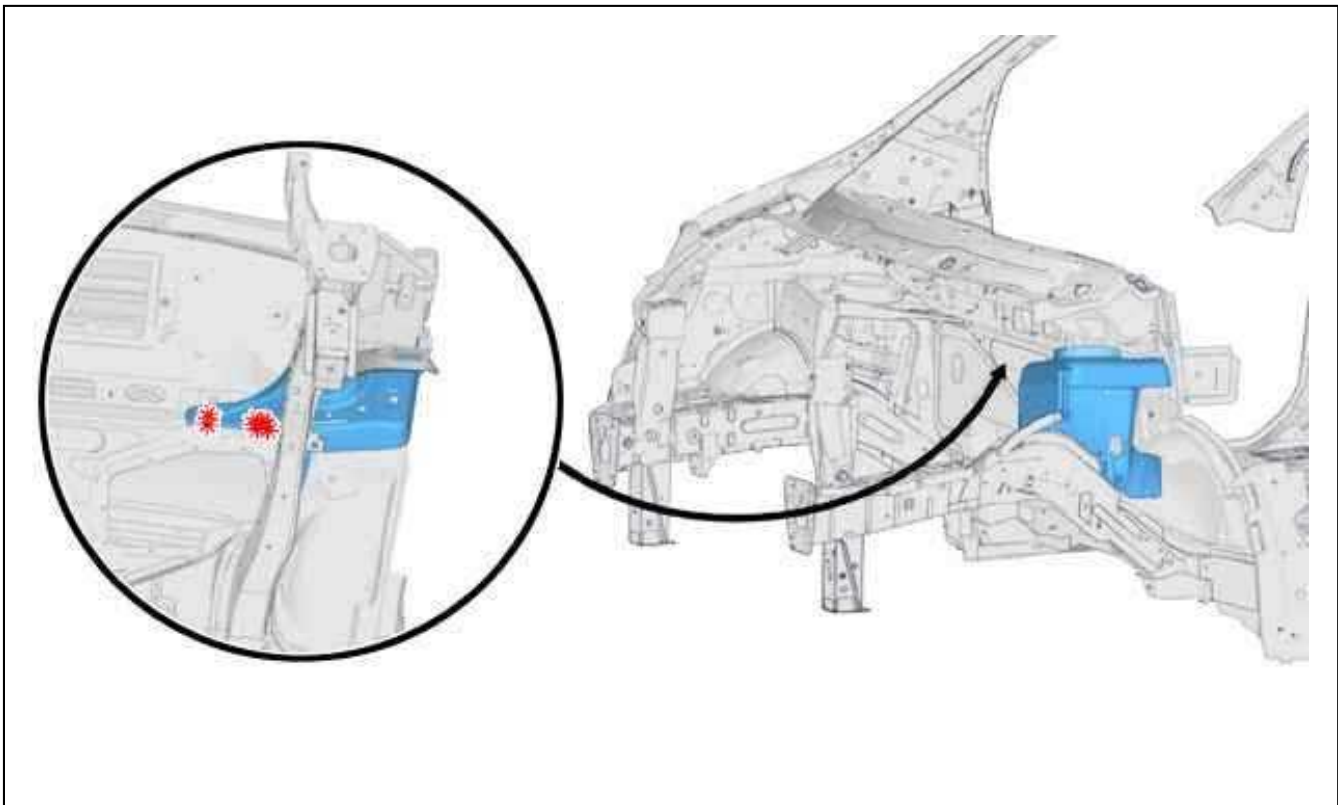


Figure : C4AM01BD

Cut out the spot welds .

Remove the front suspension support assembly.

## 5. Bodywork cleaning and preparation

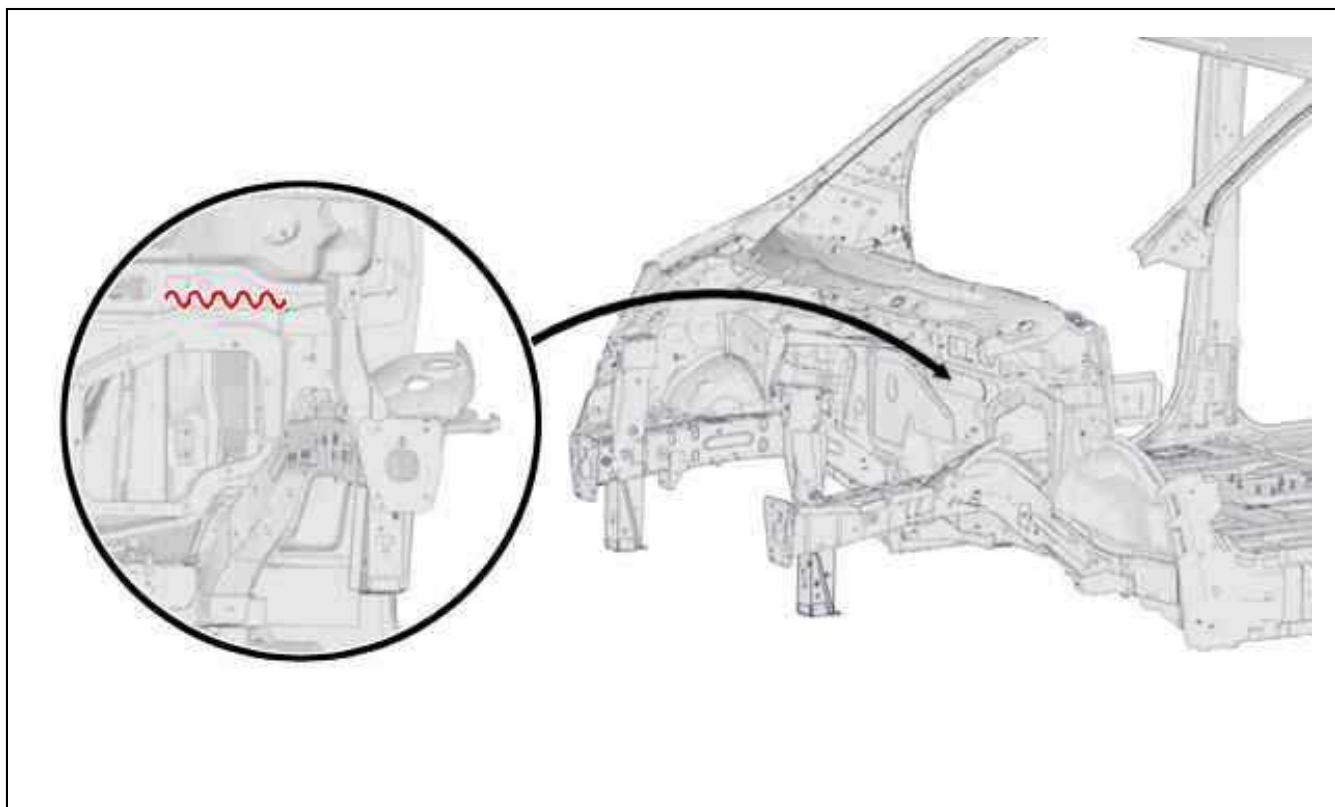


Figure : C4AM01CD

Prepare the mating edges and protect them using a weldable primer .  
Apply a filling adhesive "A2".

## 6. Adjustment

Position : Assembled front LH suspension mounting.  
Check the fit.  
Use the approved checking and measuring equipment.

## 7. Welding

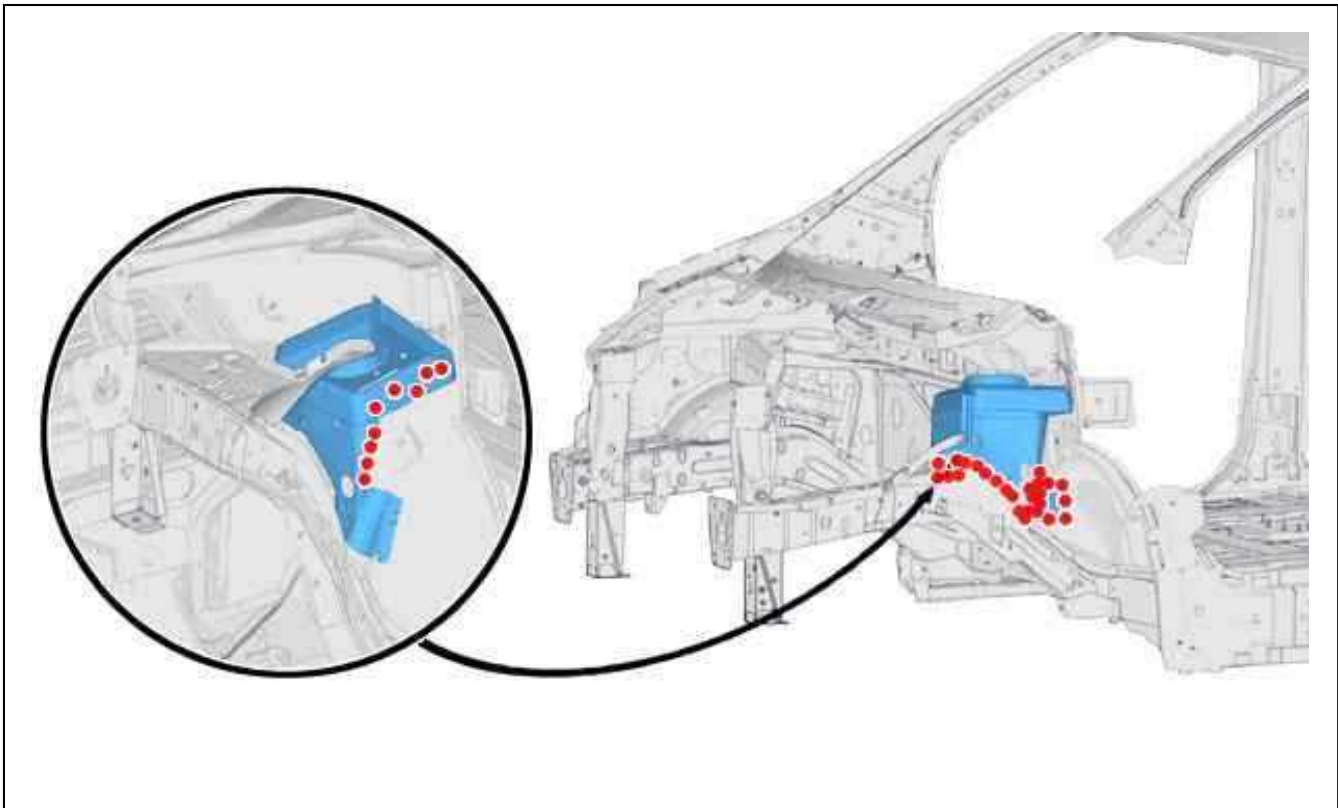


Figure : C4AM01DD

Weld with MAG plug welds.

Grind the MAG plug welds.

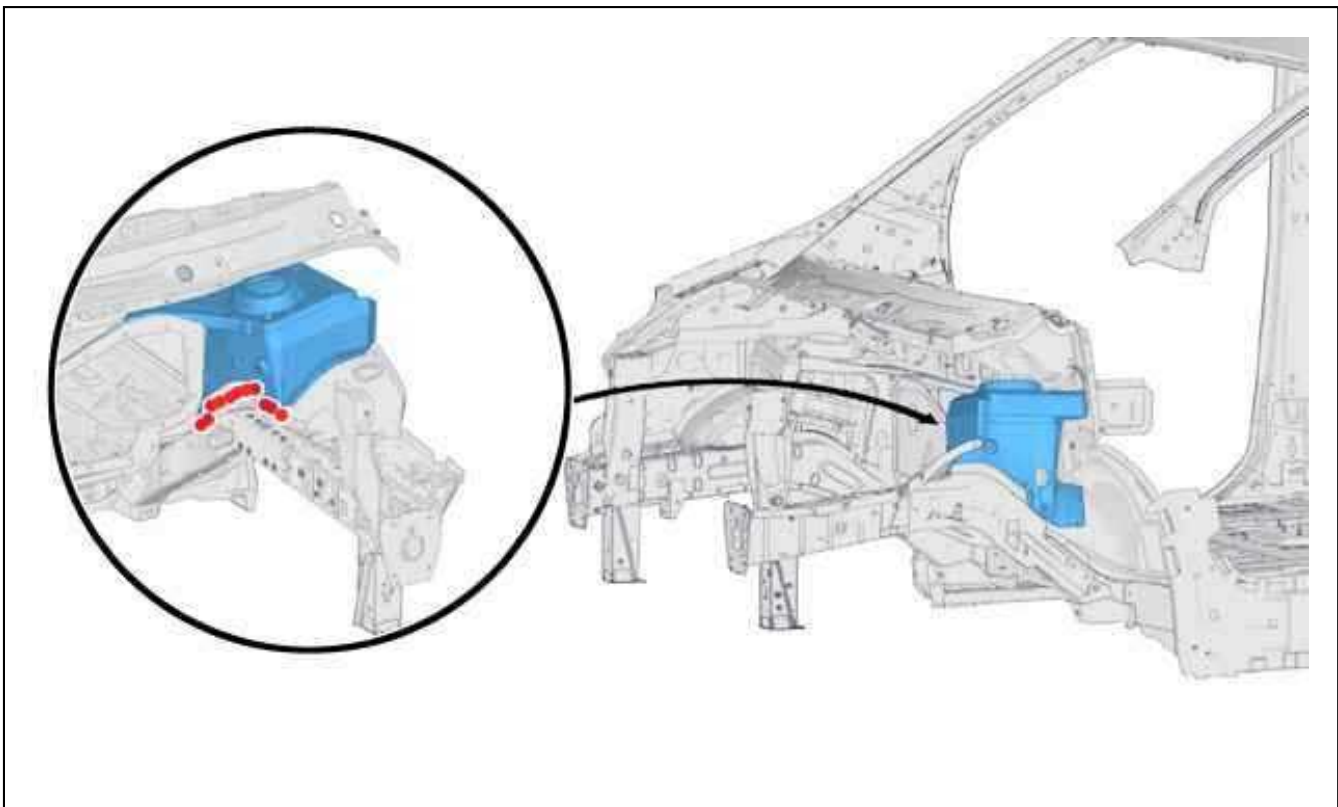


Figure : C4AM01ED

Weld with MAG plug welds.

Grind the MAG plug welds.

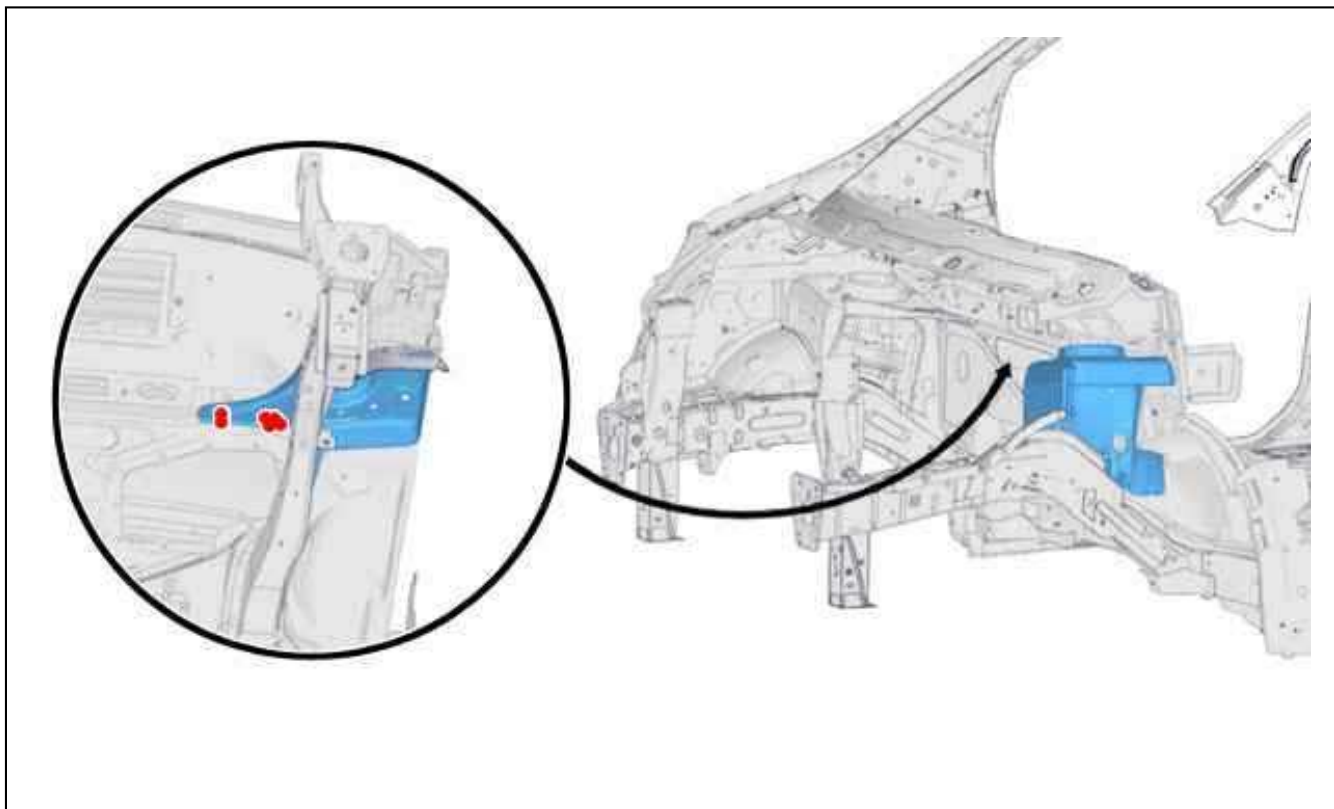


Figure : C4AM01FD

Weld with MAG plug welds.

Grind the MAG plug welds.

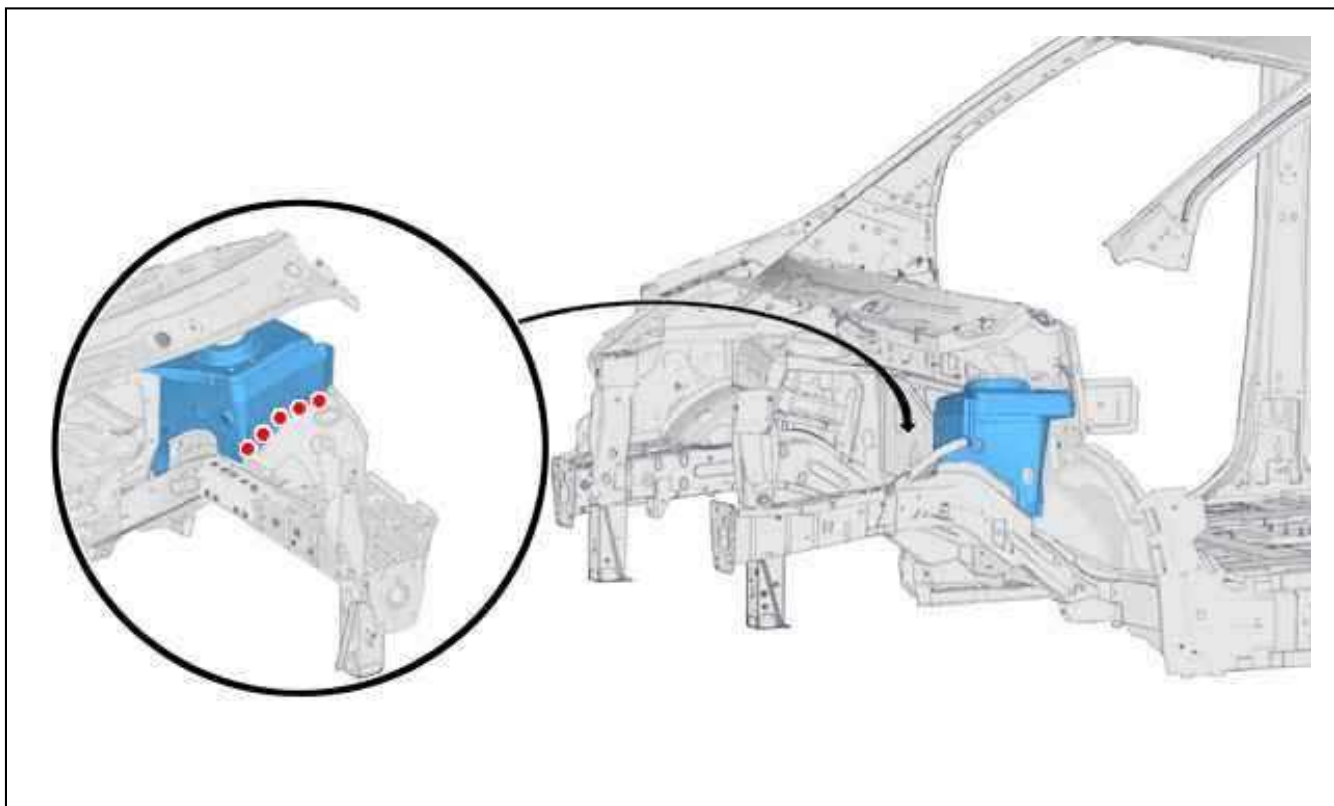


Figure : C4AM01GD

Weld with electric spot welds  .

## 8. Sealing protection

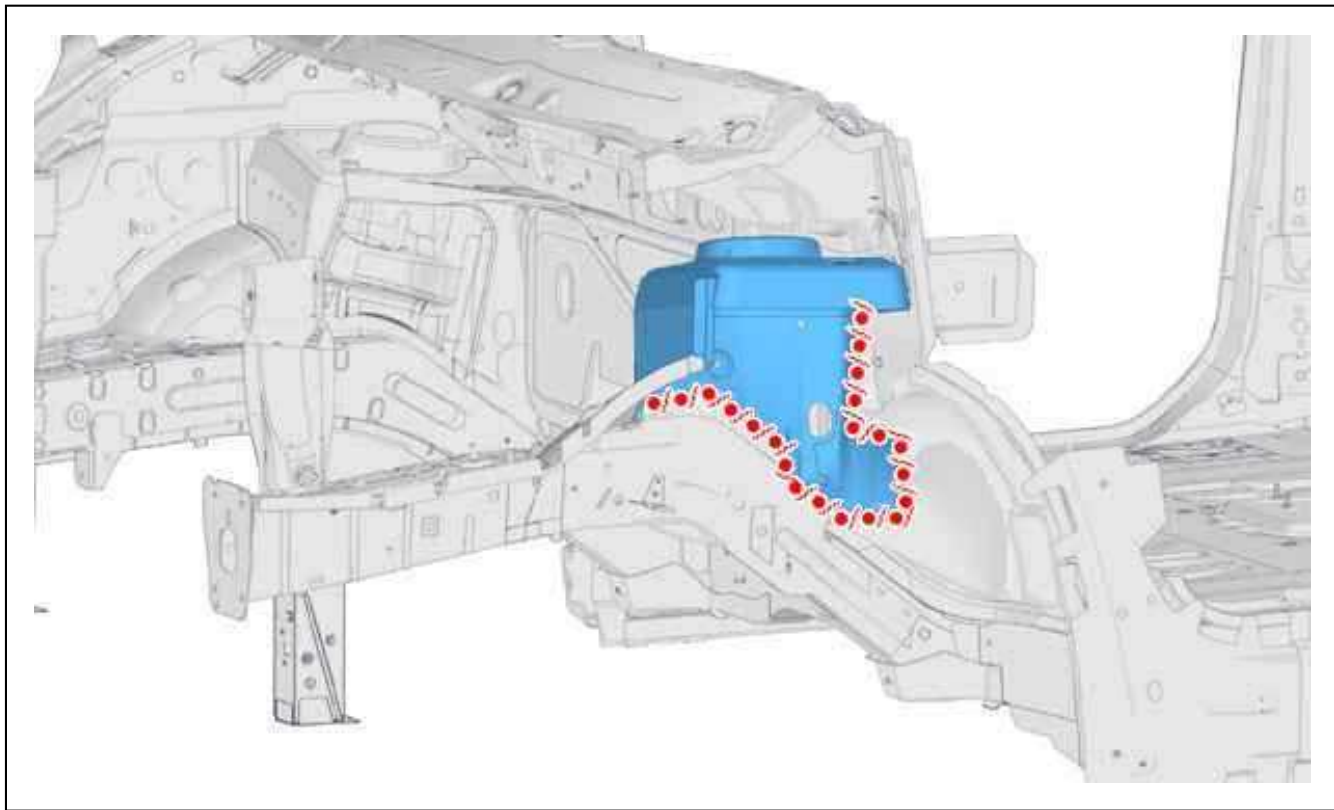


Figure : C4AM01HD

Apply a phosphate-print layer on the zone laid bare.

Apply a sealing mastic of type "A4".

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

Reconnect the battery.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery  .

## REPLACEMENT : FRONT CHASSIS MEMBER- FRONT CUT - FRONT CHASSIS LEG STIFFENER (PARTIAL)

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or customer's jack).

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic rezincing process .

### 1. Additional operations

Disconnect the battery.

Replace :

- The front wheel arch assembly ⓘ
- The front sill section ⓘ

Release the wiring harnesses.

Protect the interior of the passenger compartment.

### 2. Identification of replacement parts

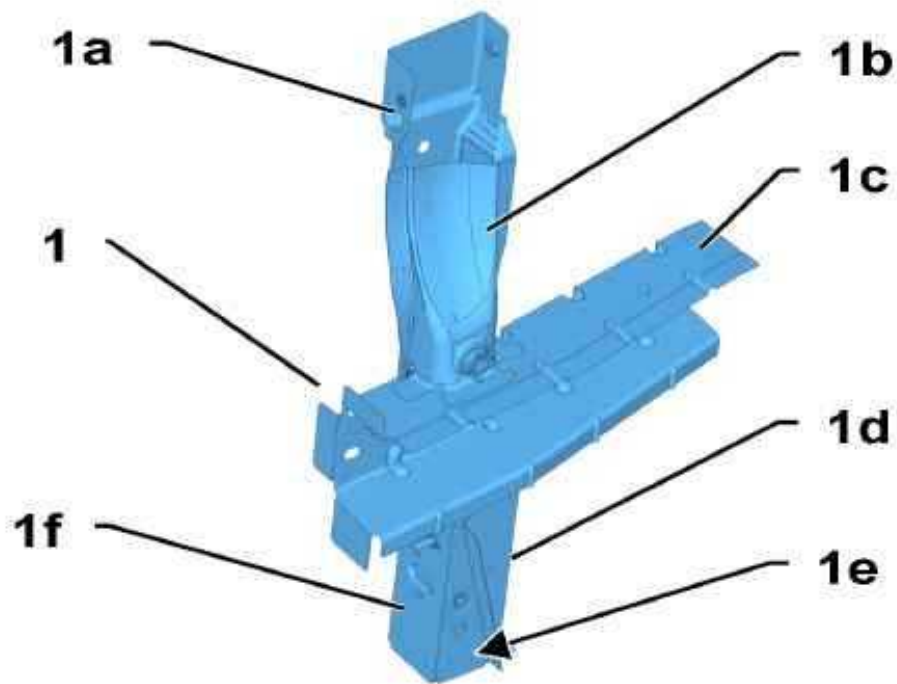


Figure : C4AM00SD

| Reference            | Designation                           | Thickness (mm) | Nature/classification |
|----------------------|---------------------------------------|----------------|-----------------------|
| (1)                  | Chassis member front cut assembly     | -              | -                     |
| (1a)                 | Lower engine compartment half-panel   | 0,97           | ADX (*)               |
| (1b)                 | Front block half-panel                | 0,97           | ADX (*)               |
| (1c)                 | Front part chassis leg                | 1,95           | ADX (*)               |
| (1d)                 | Chassis leg end piece                 | 1,47           | ADX (*)               |
| (1e)                 | Engine subframe mounting strengthener | 1,47           | ADX (*)               |
| (1f)                 | Chassis member end closing panel      | 1,47           | ADX (*)               |
| (*) ADX : soft steel |                                       |                |                       |

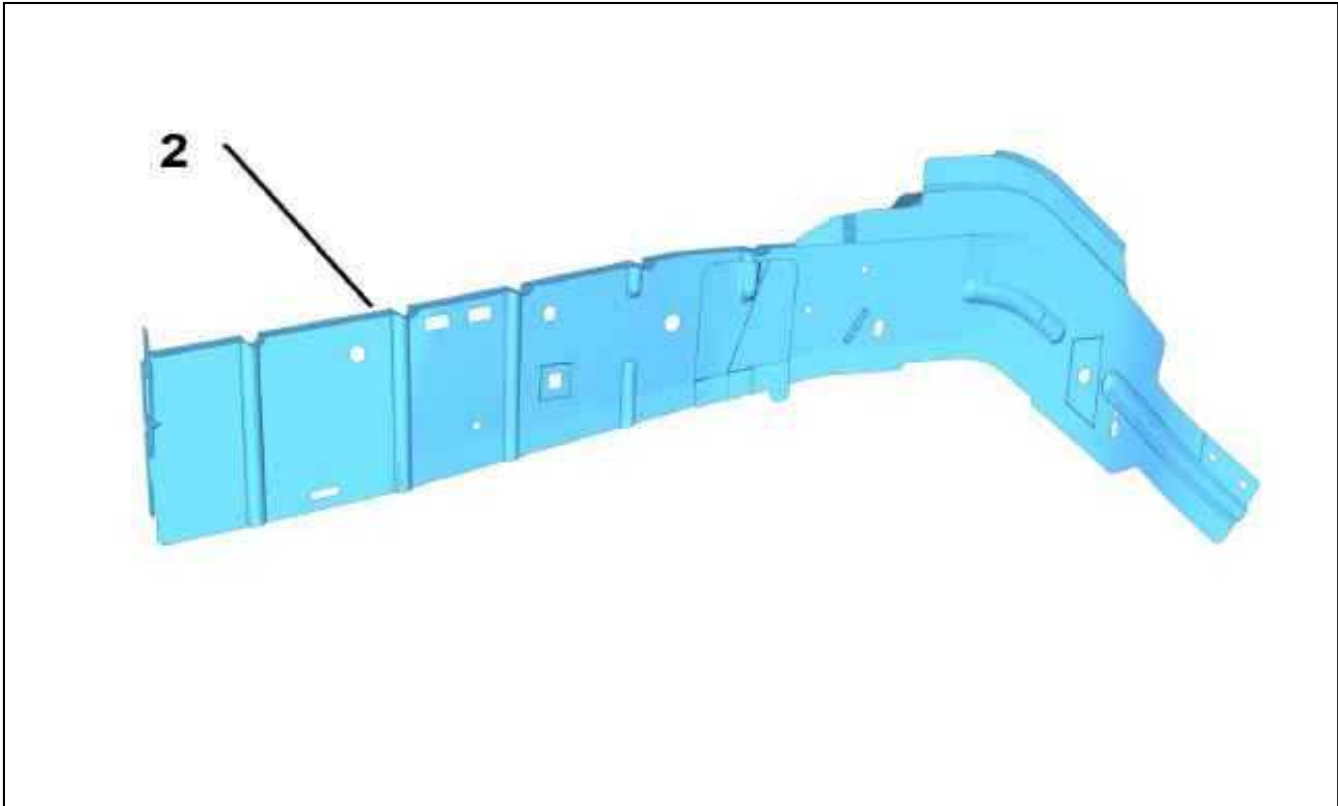


Figure : C4AM00TD

| Reference                                           | Designation             | Thickness (mm) | Nature/classification |
|-----------------------------------------------------|-------------------------|----------------|-----------------------|
| (2)                                                 | Side sill closure panel | 1,76/2,44      | ADX (*) / HLE (**)    |
| (*) ADX : soft steel (**) HLE : high-strength steel |                         |                |                       |

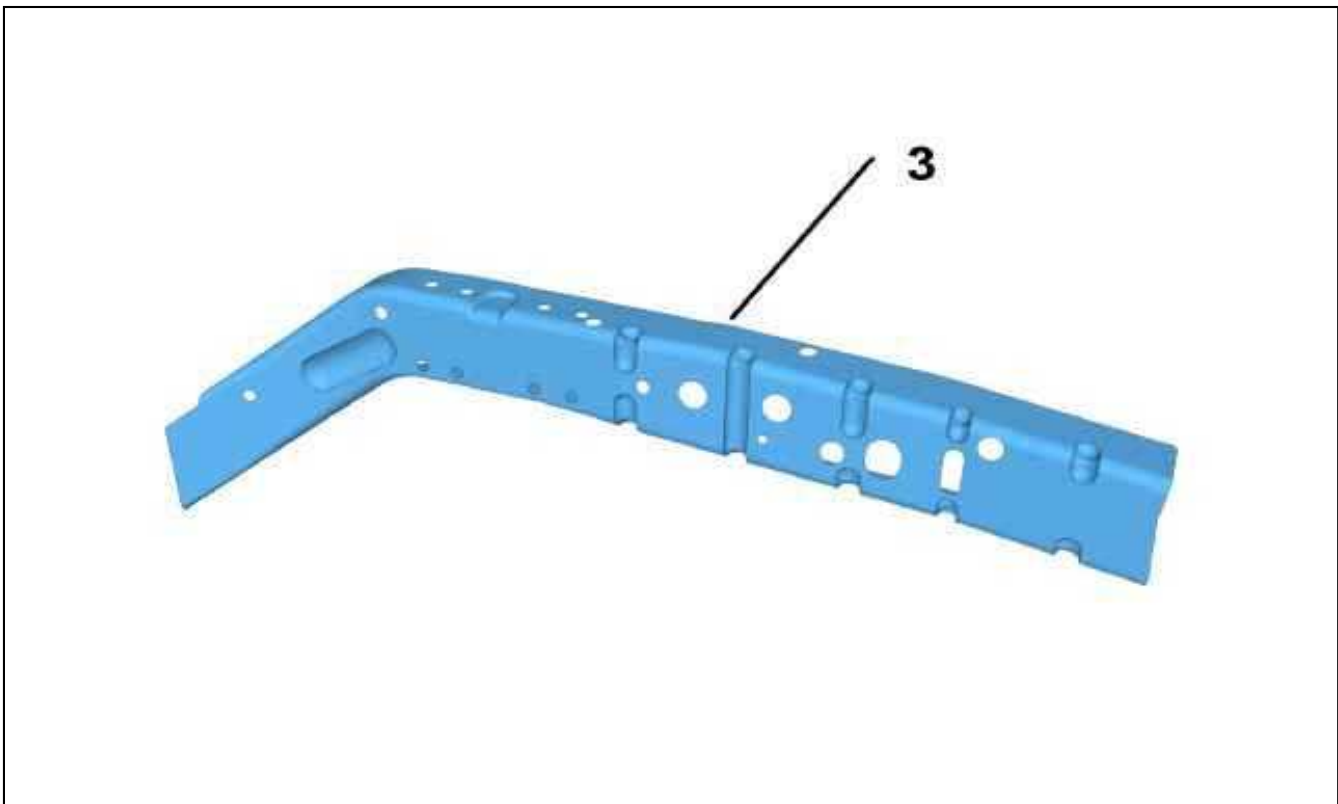


Figure : C4AM00UD

| Reference                                           | Designation                 | Thickness (mm) | Nature/classification |
|-----------------------------------------------------|-----------------------------|----------------|-----------------------|
| (3)                                                 | Front chassis leg stiffener | 0,97/1,47      | HLE (*) / ADX (**)    |
| (*) ADX : soft steel (**) HLE : high-strength steel |                             |                |                       |

### 3. Preparation of the replacement parts

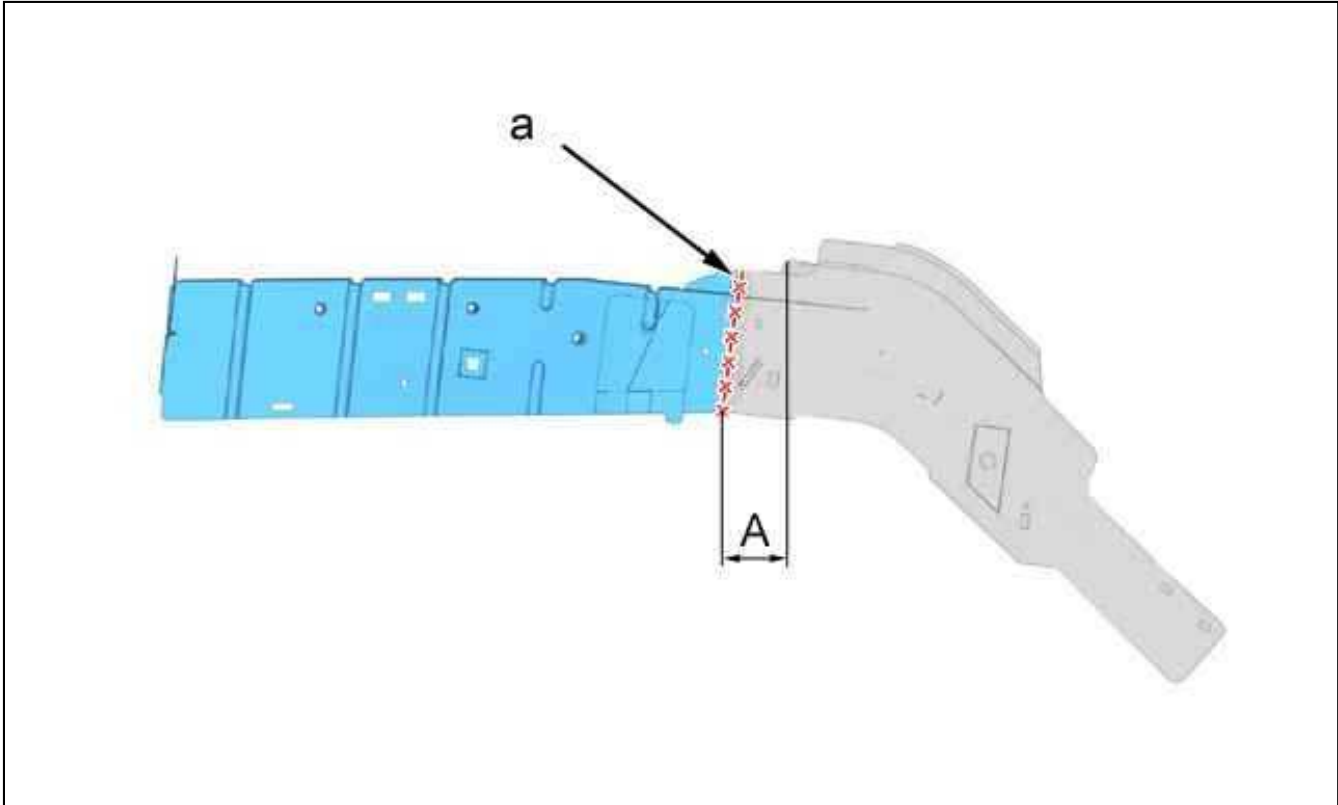


Figure : C4AM00VD

Mark then cut (at "a") (final cutting).

N.B. : The cutting line "A" is shown as an example only, it may vary depending on the different cases of replacement of the chassis member front cut assembly.

Prepare the mating edges and protect them using a weldable primer .

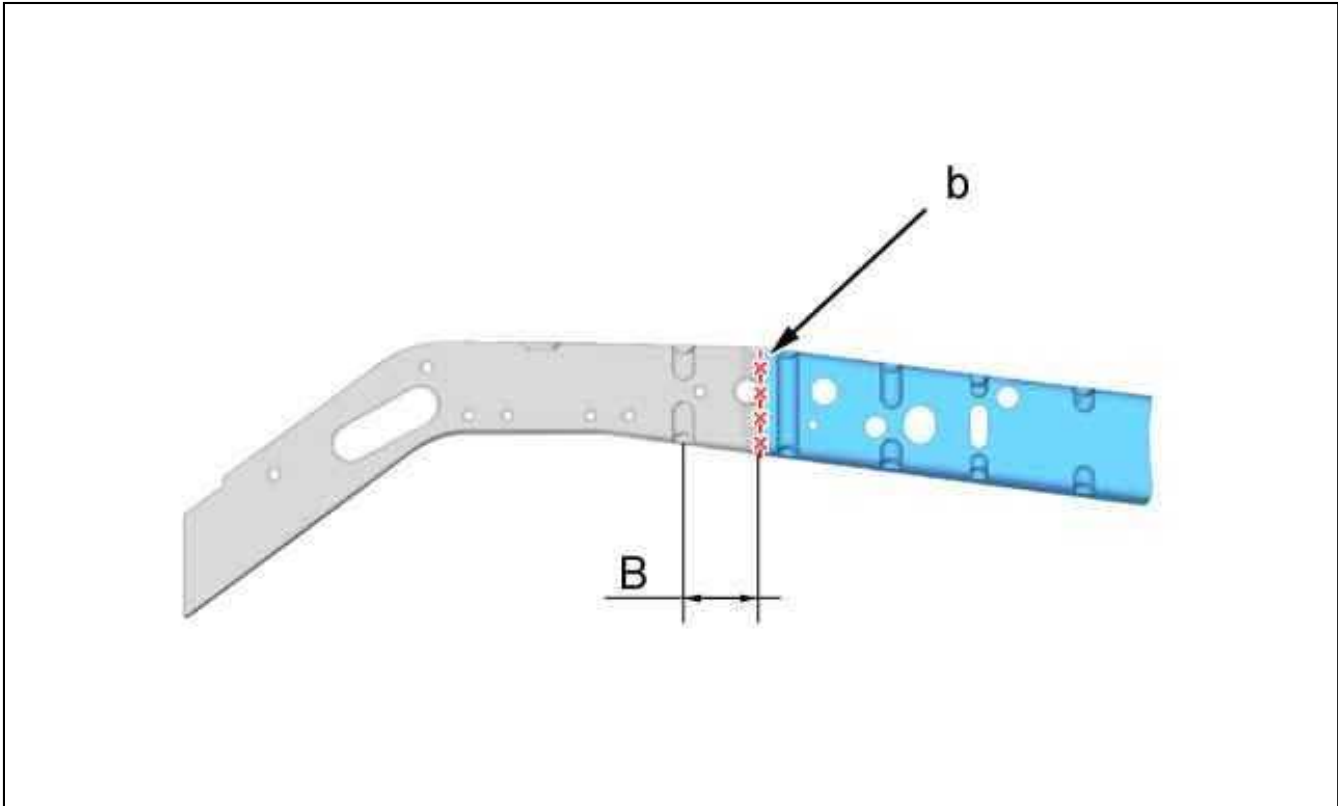


Figure : C4AM00WD

Mark then cut (at "b") (final cutting).

N.B. : The cutting line "B" is shown as an example only, it may vary depending on the different cases of replacement of the chassis member front cut assembly.

Prepare the mating edges and protect them using a weldable primer .

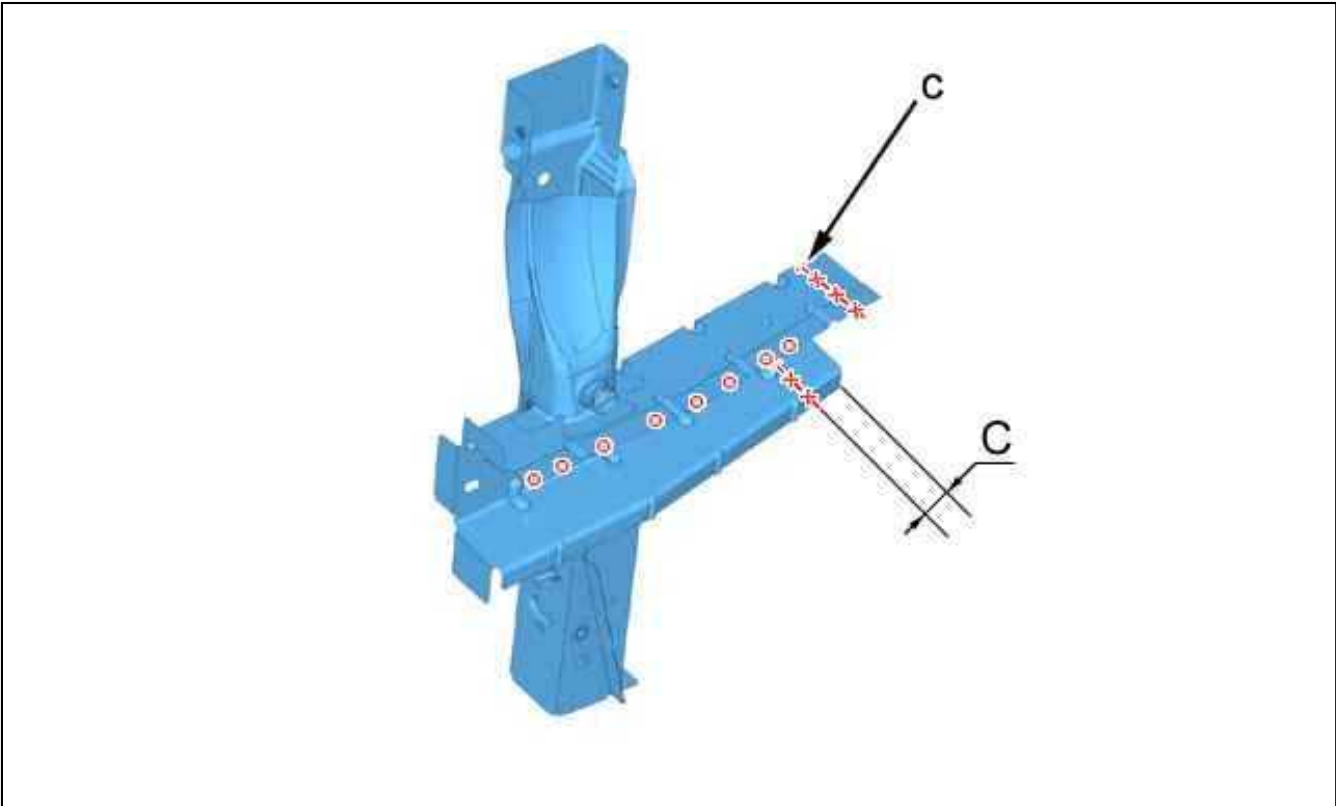


Figure : C4AM00XD

Mark then cut (at "c") (final cutting).

Mark then drill to Ø 8 mm for later plug welding.

N.B. : The cutting line "C" is shown as an example only, it may vary depending on the different cases of replacement of the chassis member front cut assembly.

Prepare the mating edges and protect them using a weldable primer .

#### 4. Cutting out

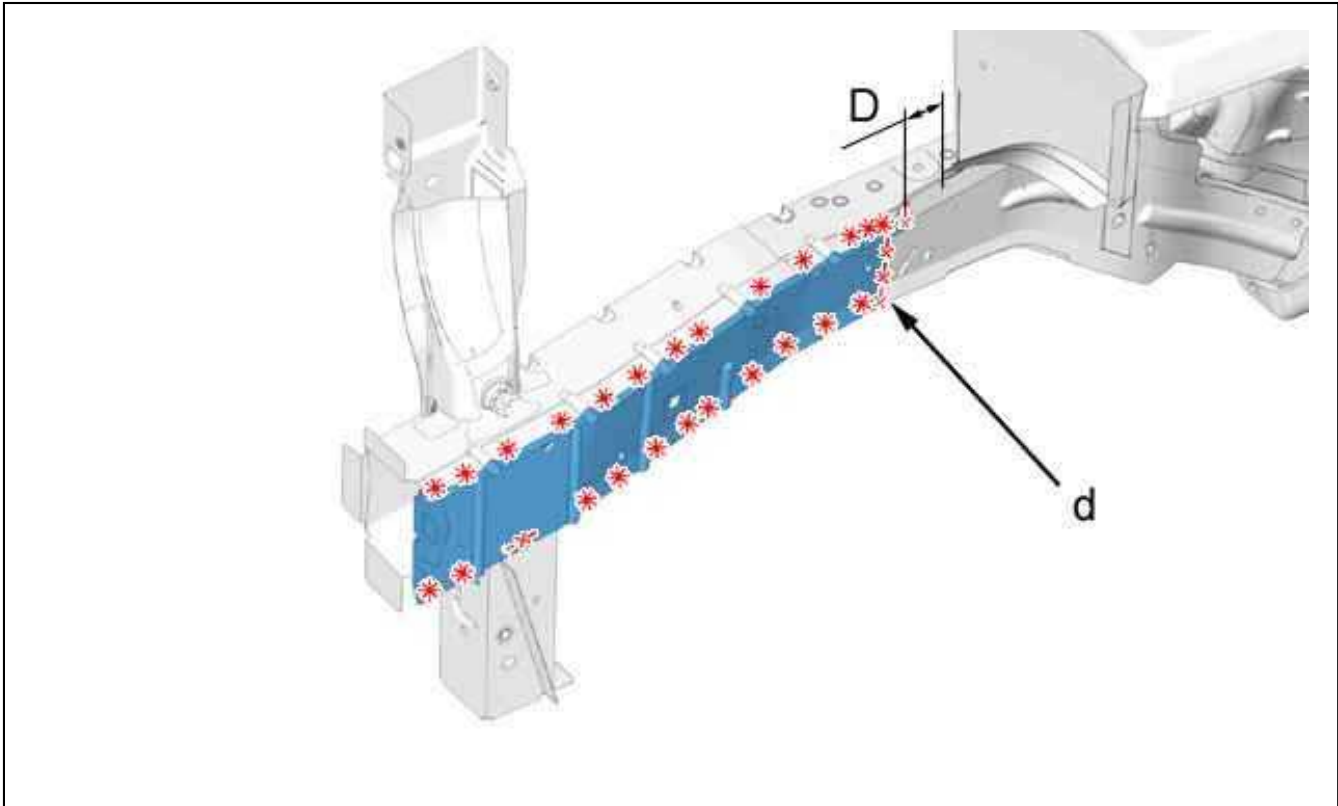


Figure : C4AM00YD

Cut out the spot welds .

Cut out the MAG seam.

Mark then cut (at "d") (preliminary cut).

N.B. : The cutting line "D" is shown as an example only, it may vary depending on the different cases of replacement of the chassis member front cut assembly.

Remove: The front chassis leg inner panel(2).

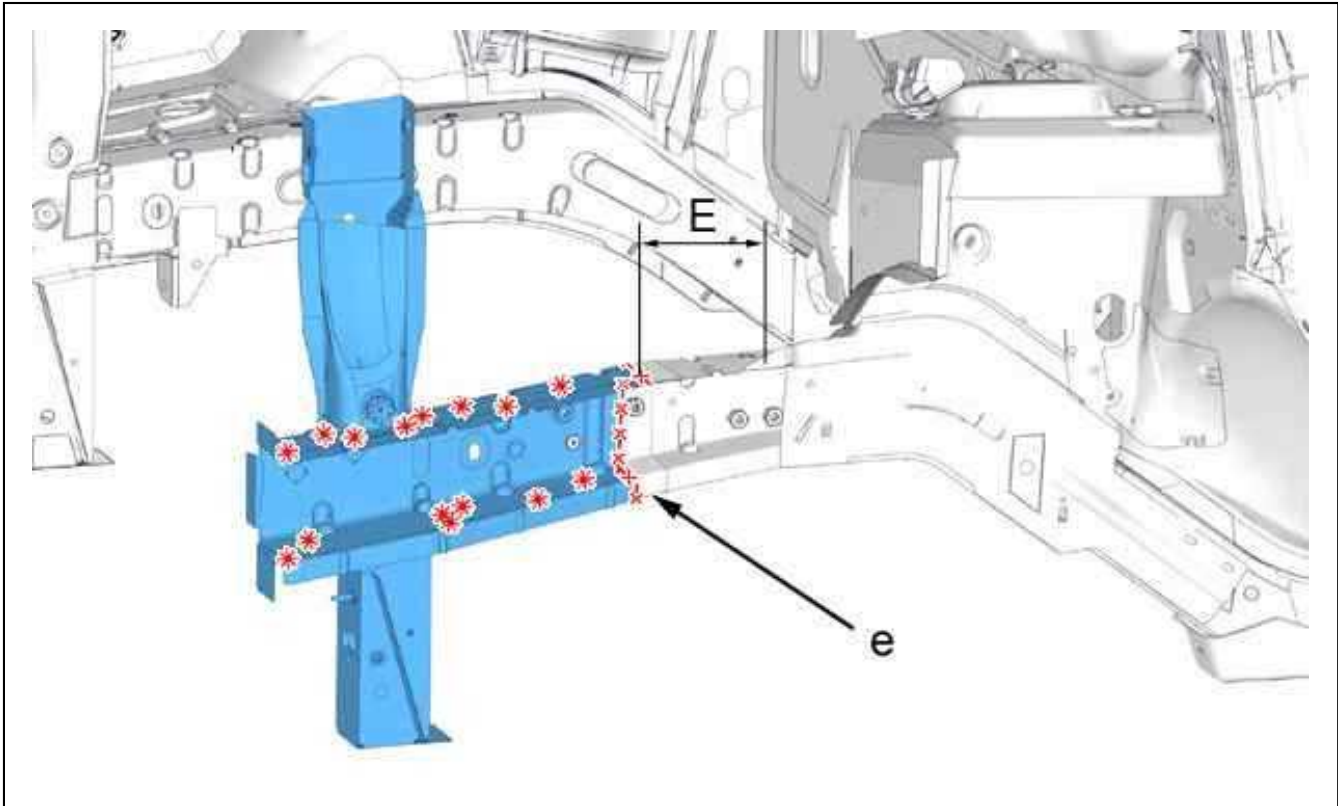


Figure : C4AM00ZD

Cut out the spot welds .

Mark then cut (at "e") (preliminary cut).

N.B. : The cutting line "E" is shown as an example only, it may vary depending on the different cases of replacement of the chassis member front cut assembly.

Remove: The chassis member front cut assembly(1).

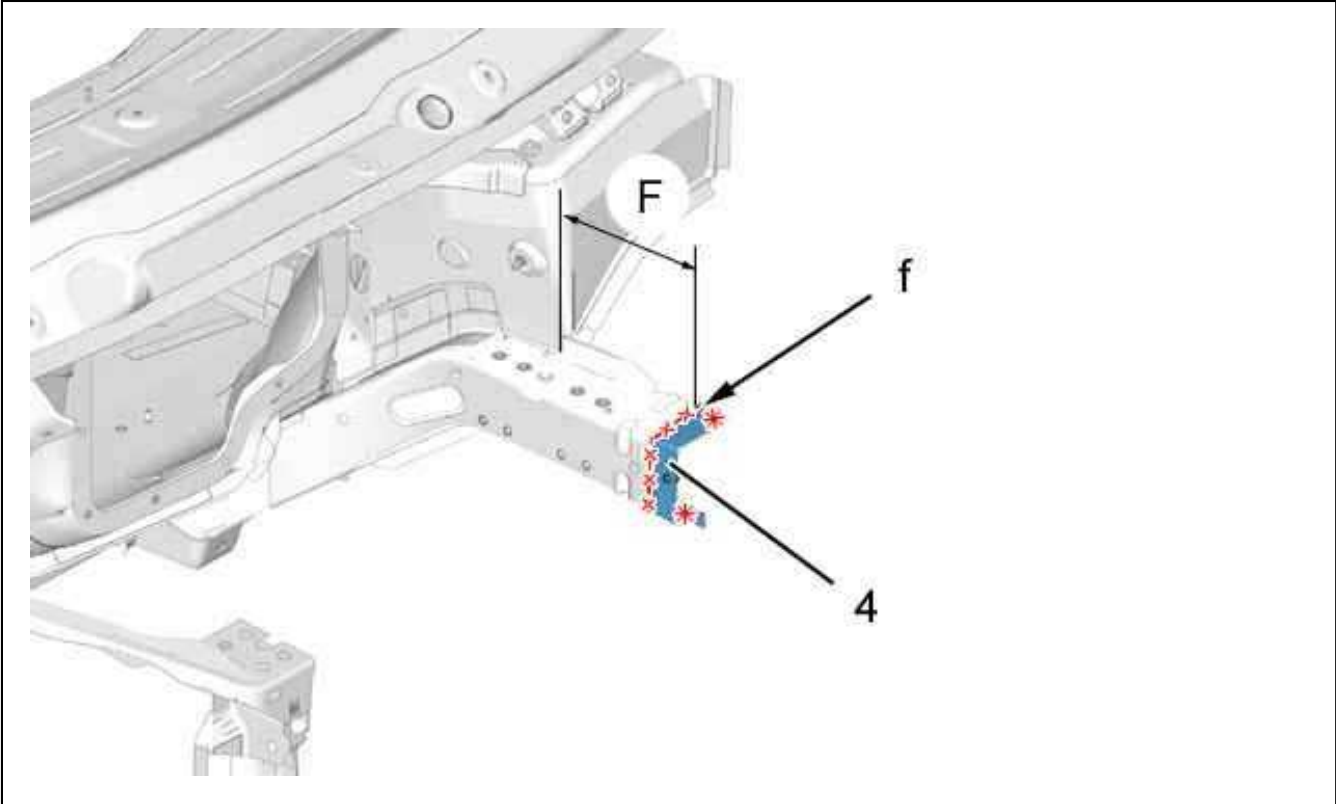


Figure : C4AM010D

Cut out the spot welds .

Mark then cut (at "f") (final cutting).

N.B. : The cutting line "F" is shown as an example only, it may vary depending on the different cases of replacement of the chassis member front cut assembly.

Remove: The cut part (4).

## 5. Bodywork cleaning and preparation

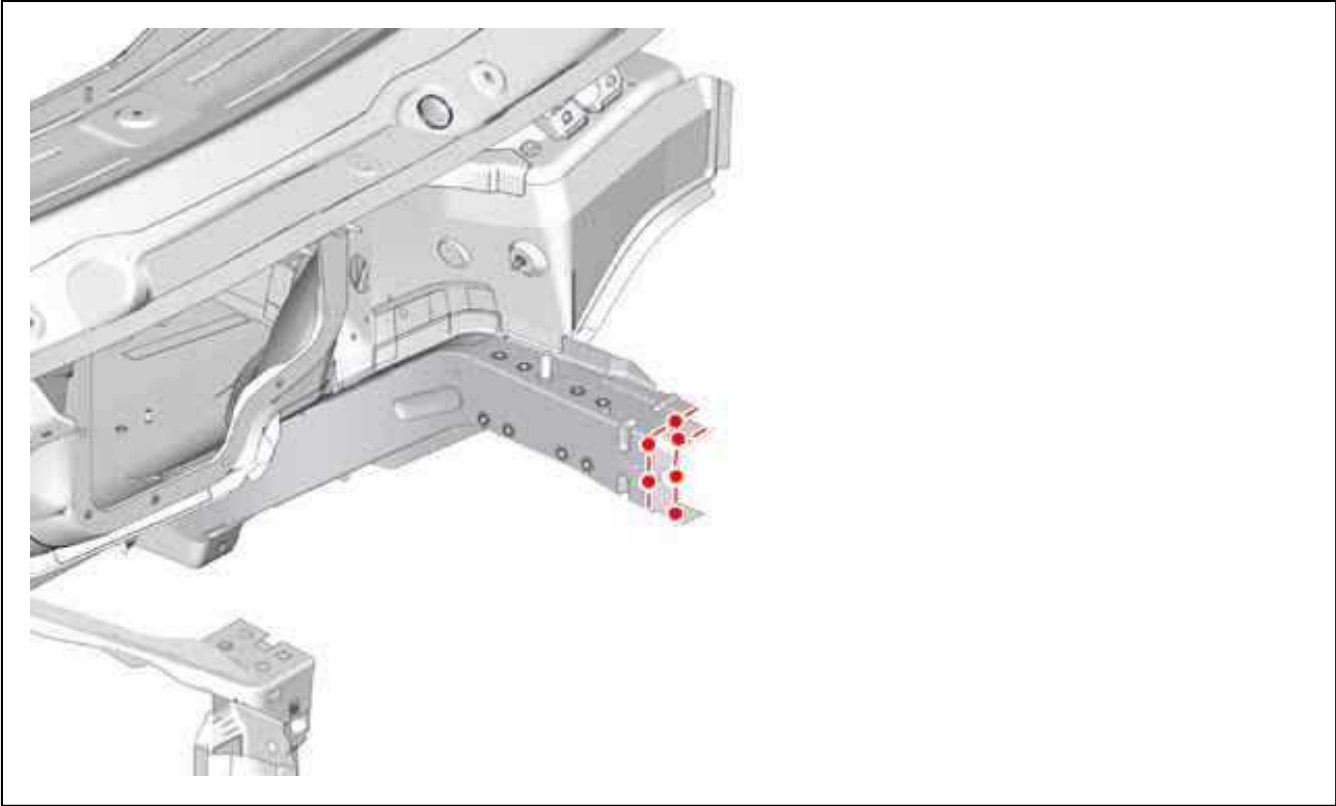


Figure : C4AM011D

Prepare the mating edges and protect them using a weldable primer .

## 6. Adjustment

Position the following components :

- The chassis member front cut assembly
- The chassis member strengthener
- The front chassis leg inner panel

Check the adjustment of the chassis member front cut assembly using the measuring equipment approved by the manufacturer.

Adjust the cut lines.

Remove: The chassis leg closer(2).

## 7. Welding

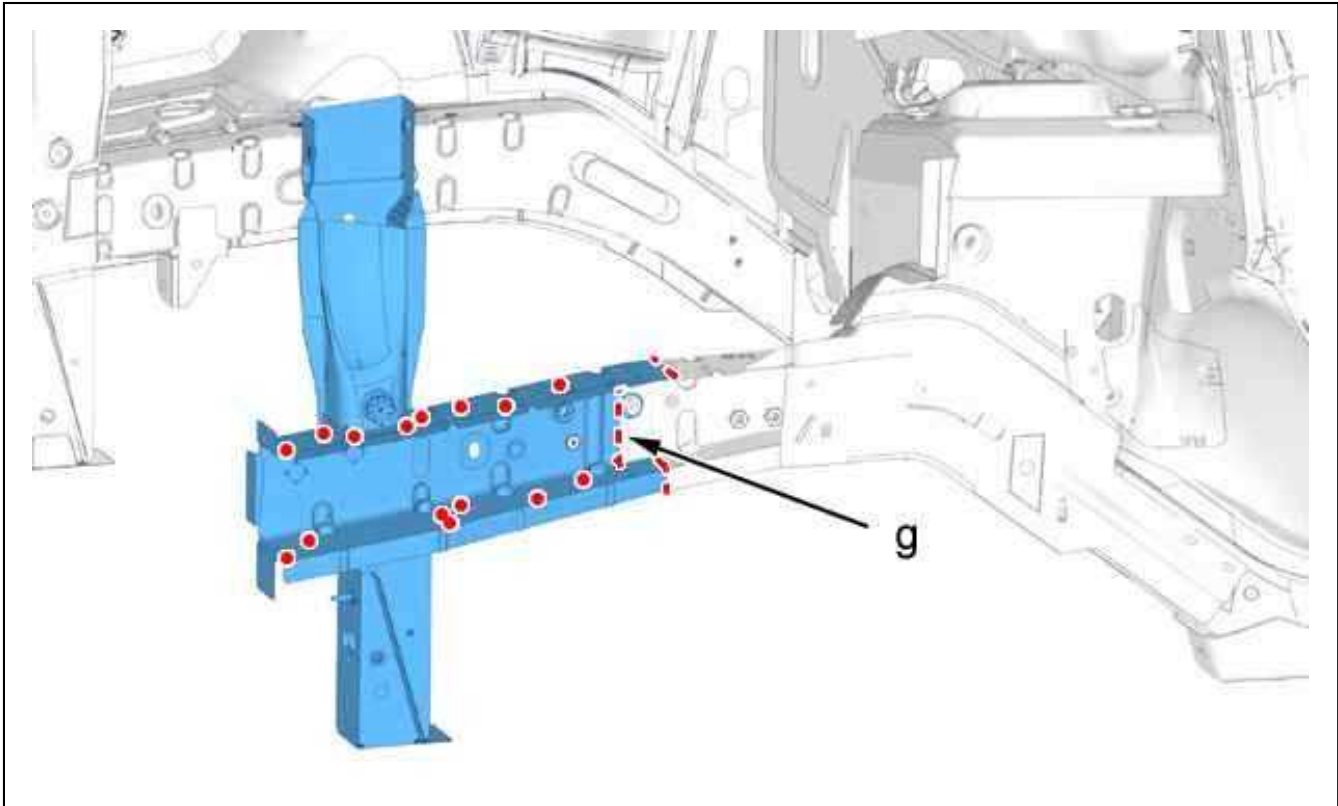


Figure : C4AM012D

Weld with MAG beads (at "g").

Weld with electric spot welds .

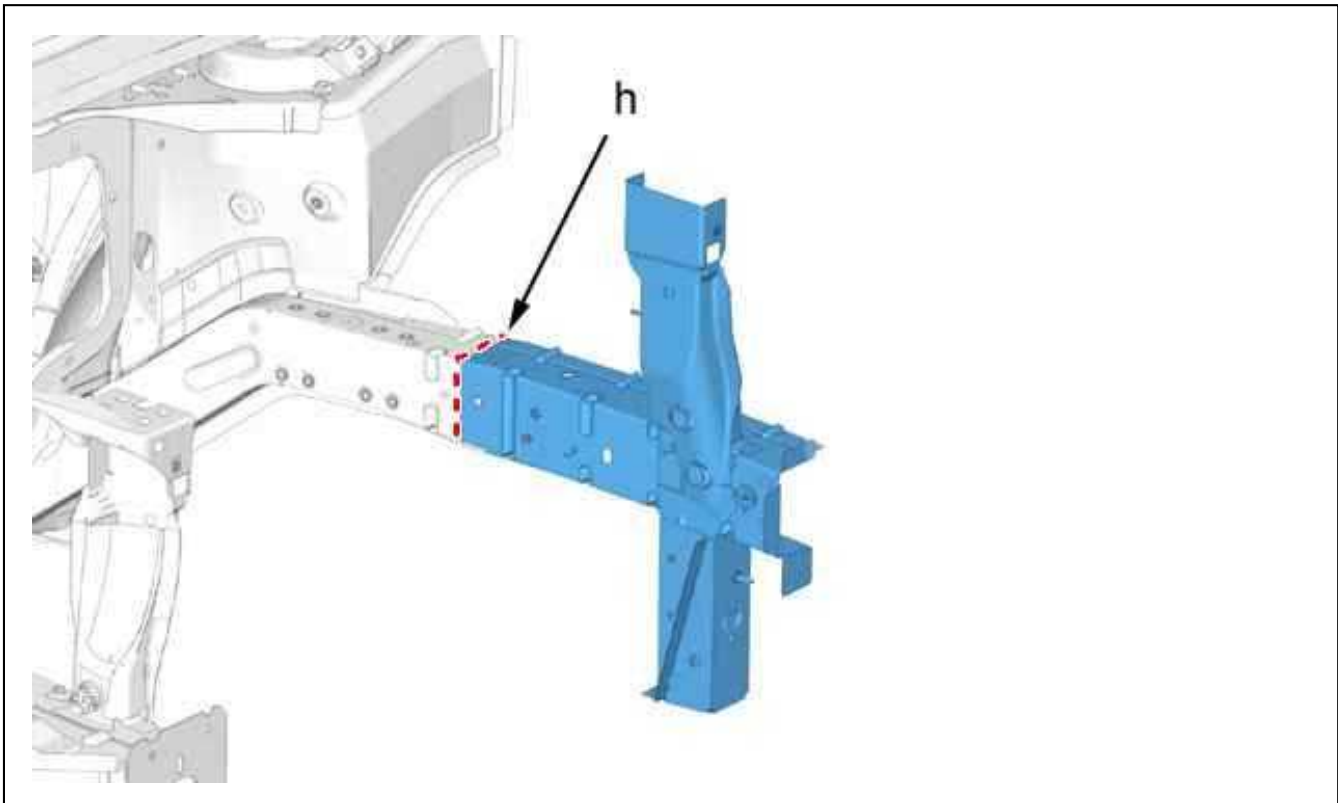


Figure : C4AM013D

Weld with MAG beads (at "h").

Grind the MAG weld beads.

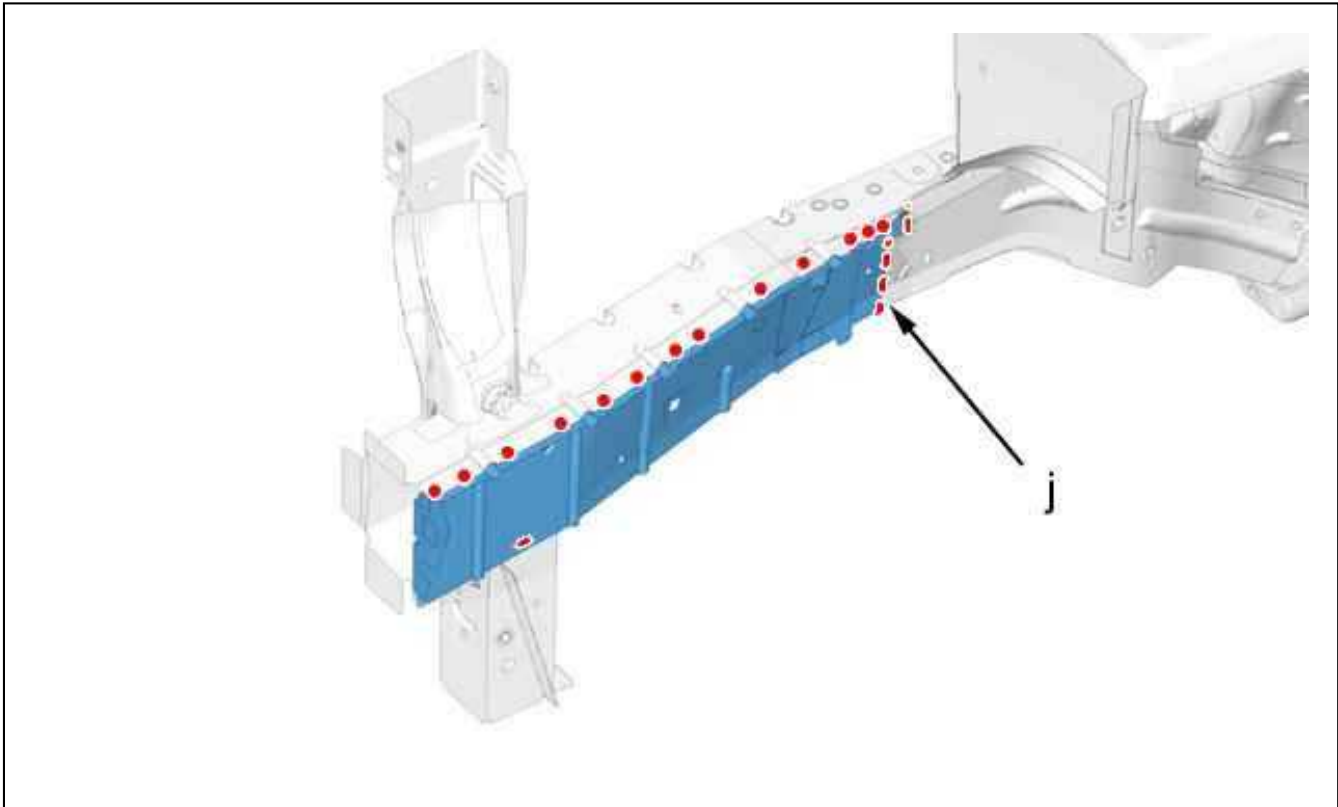


Figure : C4AM014D

Position: The front chassis leg inner panel.

Weld with MAG beads (at "j").

Grind the MAG weld beads.

Weld with MAG plug welds.

Grind the MAG plug welds.

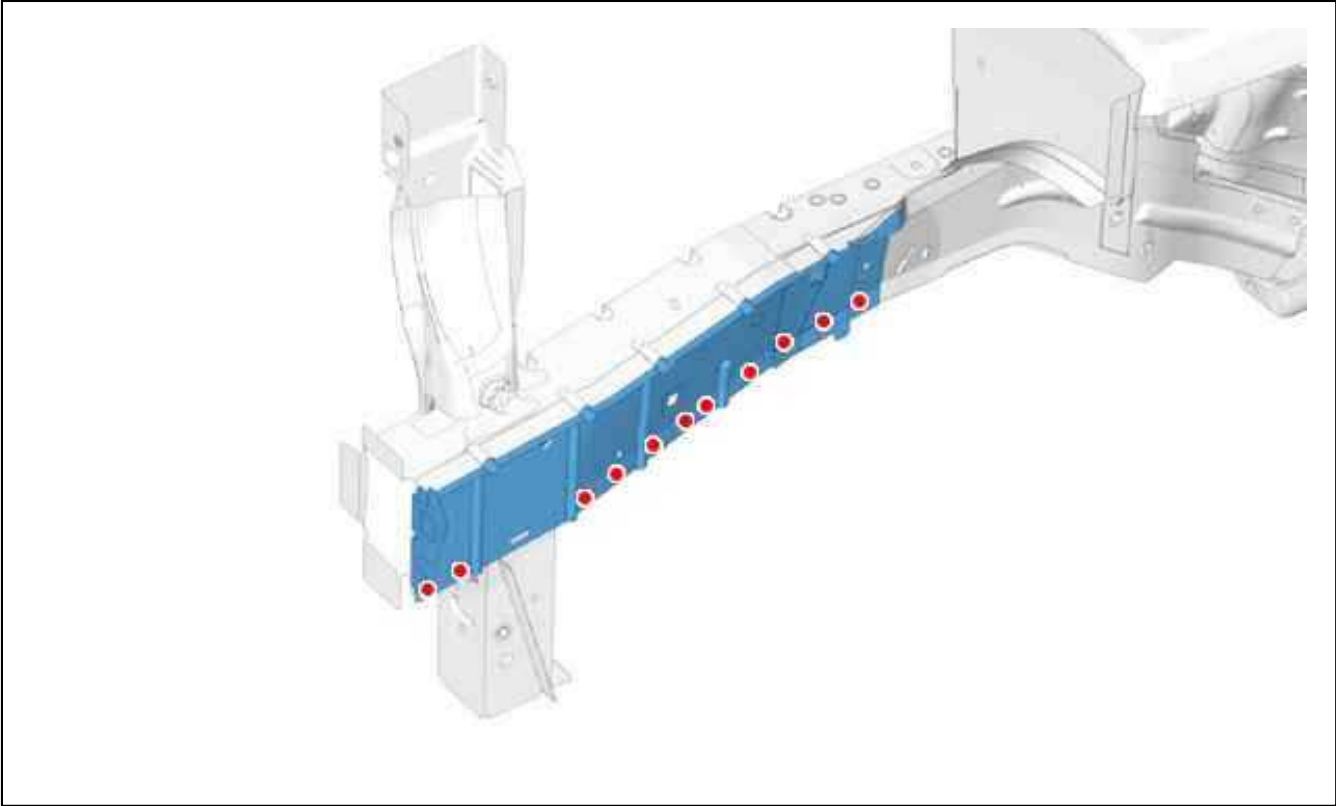


Figure : C4AM015D

Weld with electric spot welds ⓘ.

## 8. Sealing protection

Apply a phosphate-print layer on the zone laid bare.

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

Reconnect the battery.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery ⓘ.

## REPLACEMENT : ASSEMBLED TORQUE REACTION ROD SUPPORT (ON THE RIGHT-HAND SIDE )

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ ( 2 or 4 post lift, workshop jack or vehicle jack ⓘ ).

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic rezincing process .

### 1. Additional operations

Disconnect the battery.

Remove-refit the following components :

- The engine (see the relevant operation)
- The engine compartment crossmember
- The engine compartment lower crossmember

Release the wiring harnesses.

Protect the interior of the passenger compartment.

### 2. Identification of the replacement parts

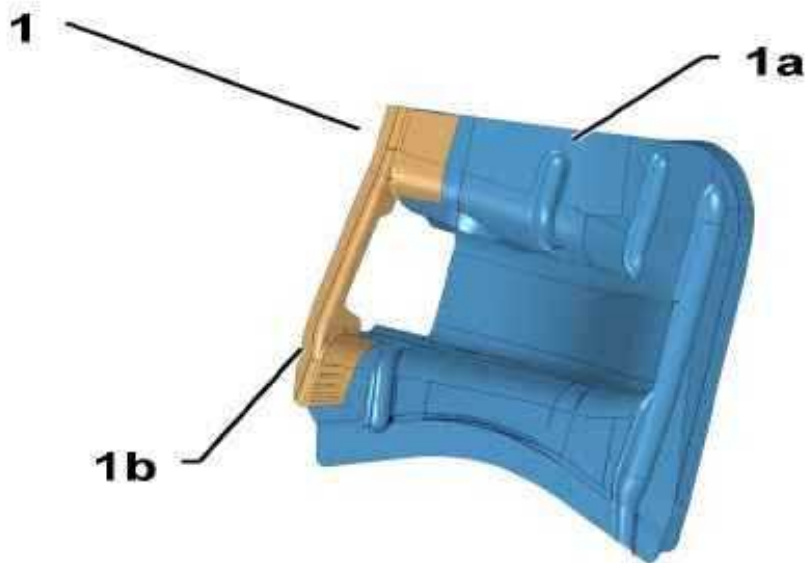


Figure : C4AM01SD

| Reference           | Designation                           | Thickness (mm) | Nature/classification |
|---------------------|---------------------------------------|----------------|-----------------------|
| (1)                 | Assembled torque reaction rod support | -              | -                     |
| (1a)                | Torque reaction rod bracket           | 2,44           | ADX (*)               |
| (1b)                | Reaction link rod support stiffener   | 2,44           | ADX (*)               |
| (*)ADX : soft steel |                                       |                |                       |

### 3. Replacement part preparation



Figure : C4AM01TD

Mark then drill to Ø 10 mm for later plug welding.  
Prepare the mating edges and protect them using a weldable primer .

#### 4. Cutting out

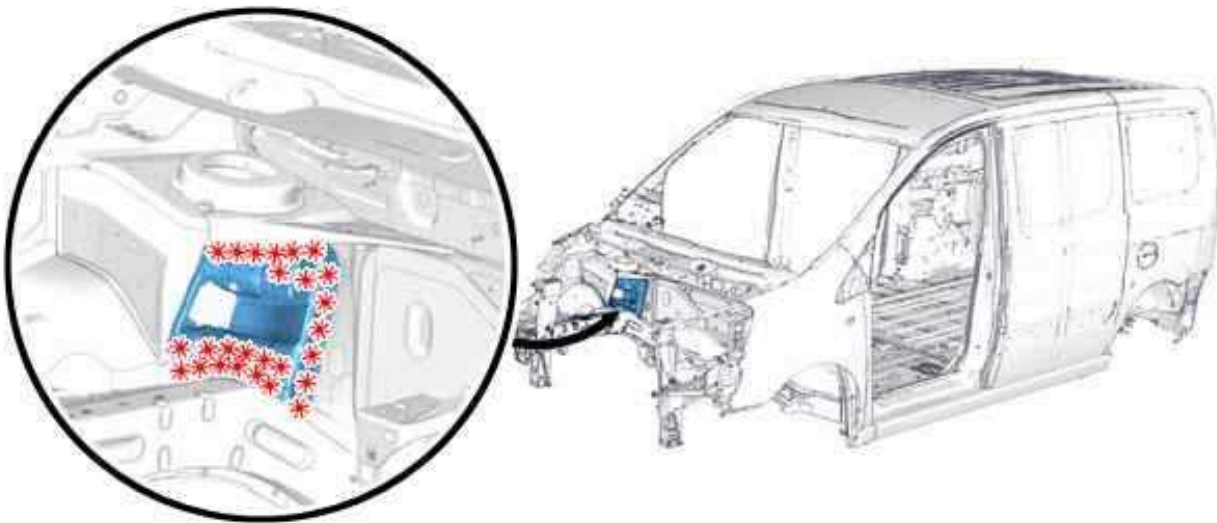


Figure : C4AM01UD

Cut out the spot welds .

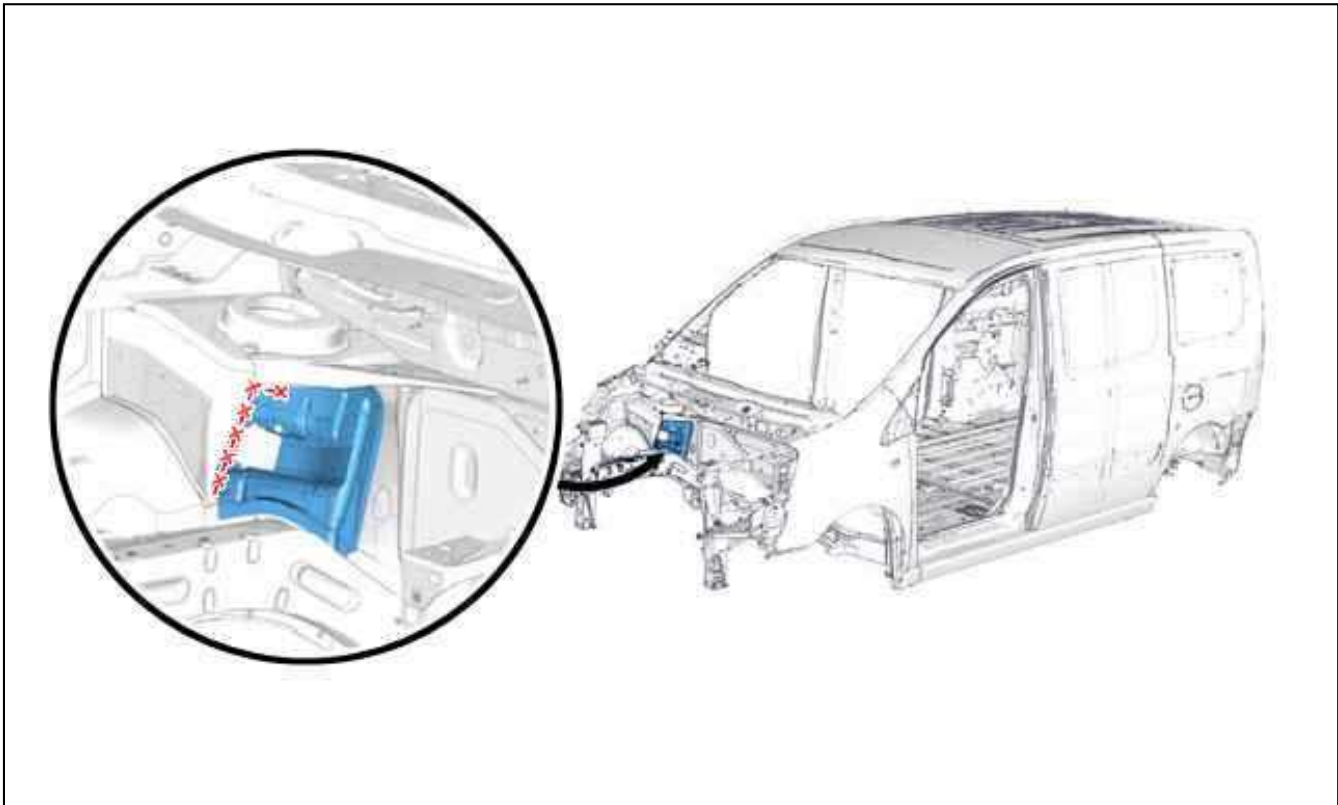


Figure : C4AM01VD

Cut : The MAG seams.

Remove : Assembled torque reaction rod support.

## 5. Bodywork cleaning and preparation

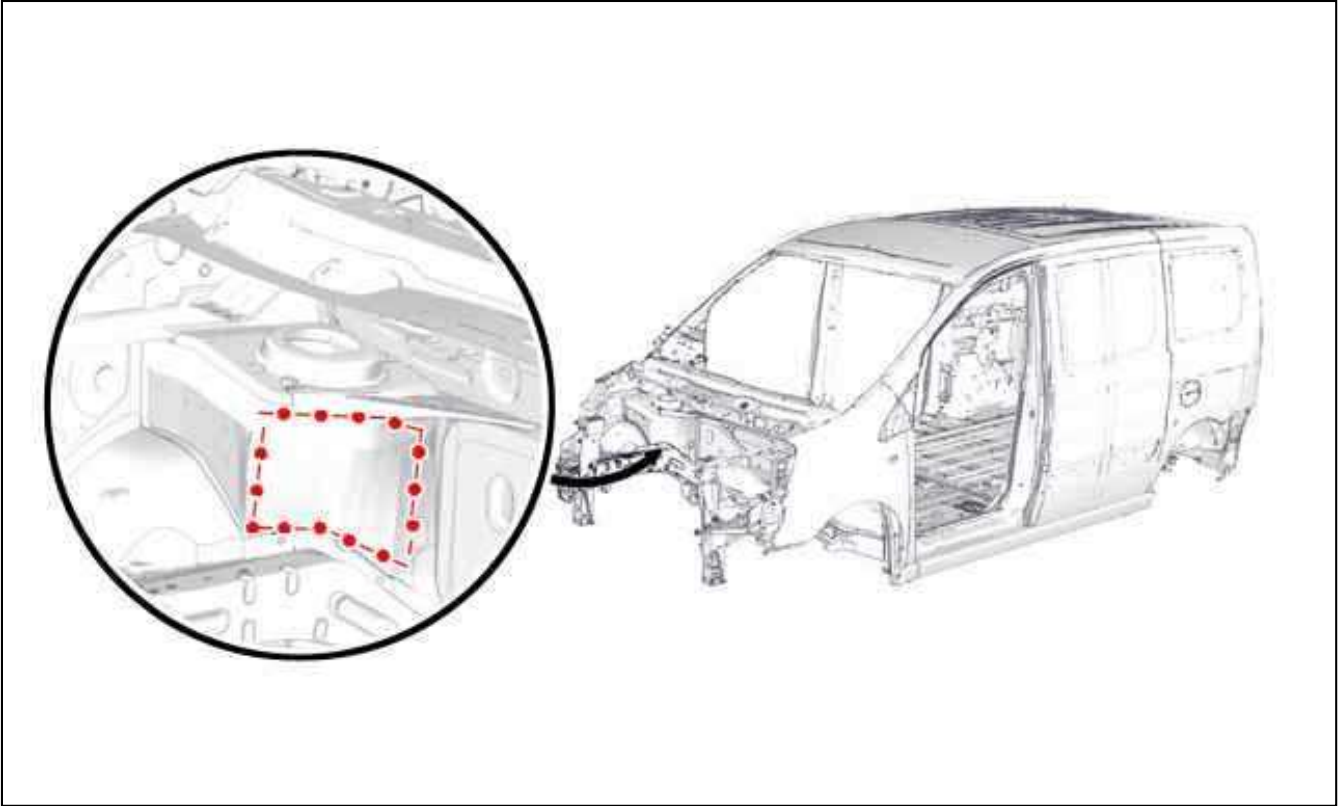


Figure : C4AM01WD

Prepare the mating edges and protect them using a weldable primer .

## 6. Adjustment

Position : Assembled torque reaction rod support.

Check the fit.

## 7. Welding

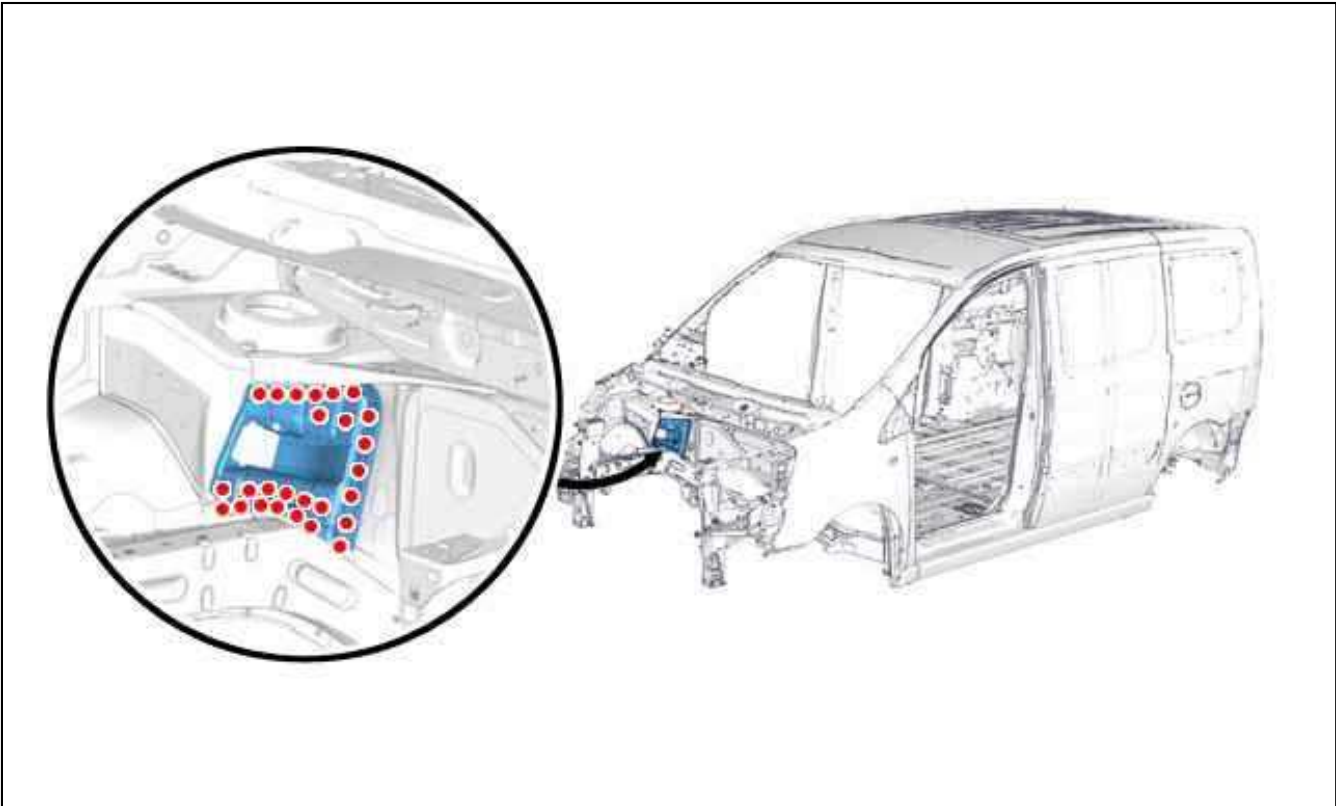


Figure : C4AM01XD

Weld with MAG plug welds.

Grind the MAG plug welds.

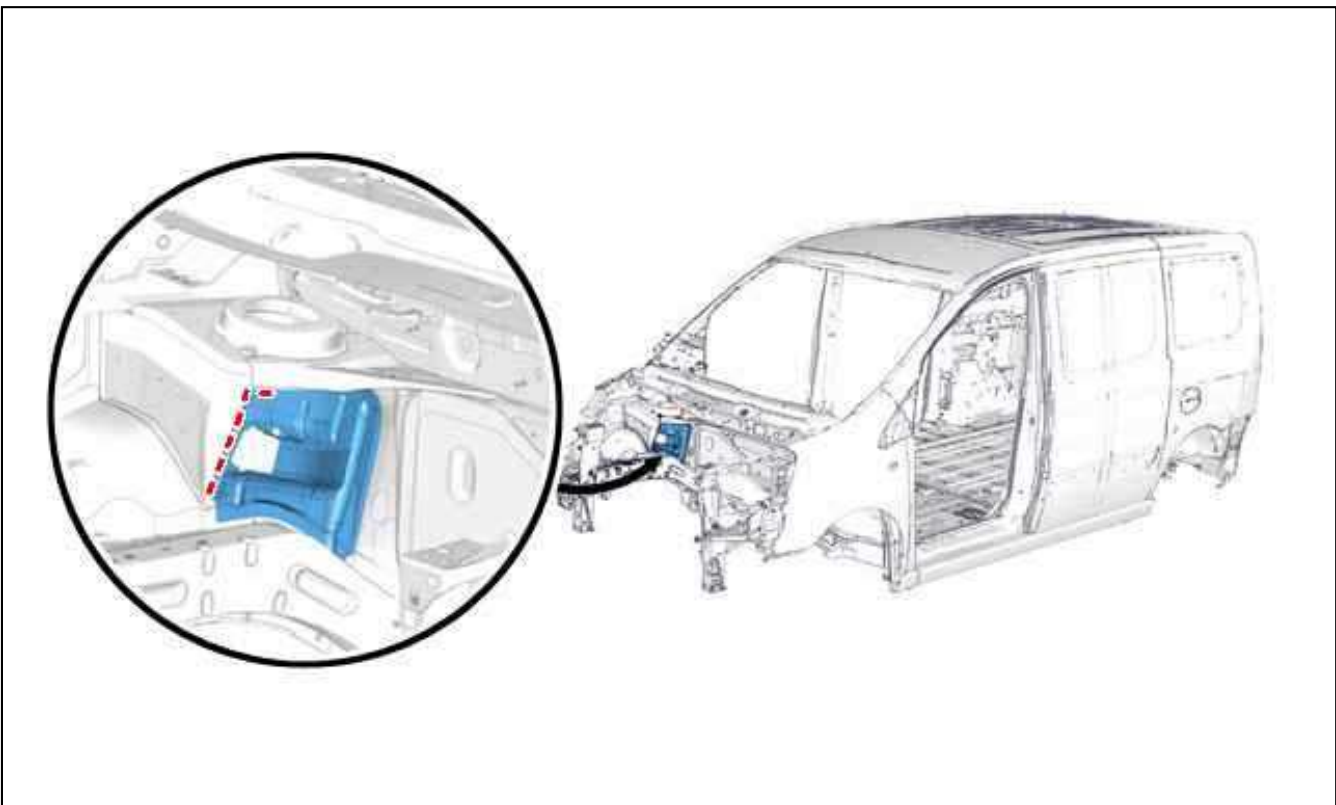


Figure : C4AM01YD

Weld the MAG seams.

## 8. Sealing protection

Apply a phosphate-print layer on the zone laid bare.

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

Reconnect the battery.

---

**CAUTION :** Perform the operations to be carried out following reconnection of the battery  .

---

## REPLACEMENT : FRONT CHASSIS MEMBER ASSEMBLY(REAR SECTION) - CHASSIS LEG STIFFENER

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or customer's jack ⓘ).

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic rezincing process .

### 1. Additional operations

Disconnect the battery.

Replace :

- The front wheel arch assembly ⓘ
- The front sill section ⓘ

Release the wiring harnesses.

Protect the interior of the passenger compartment.

### 2. Identification of replacement parts

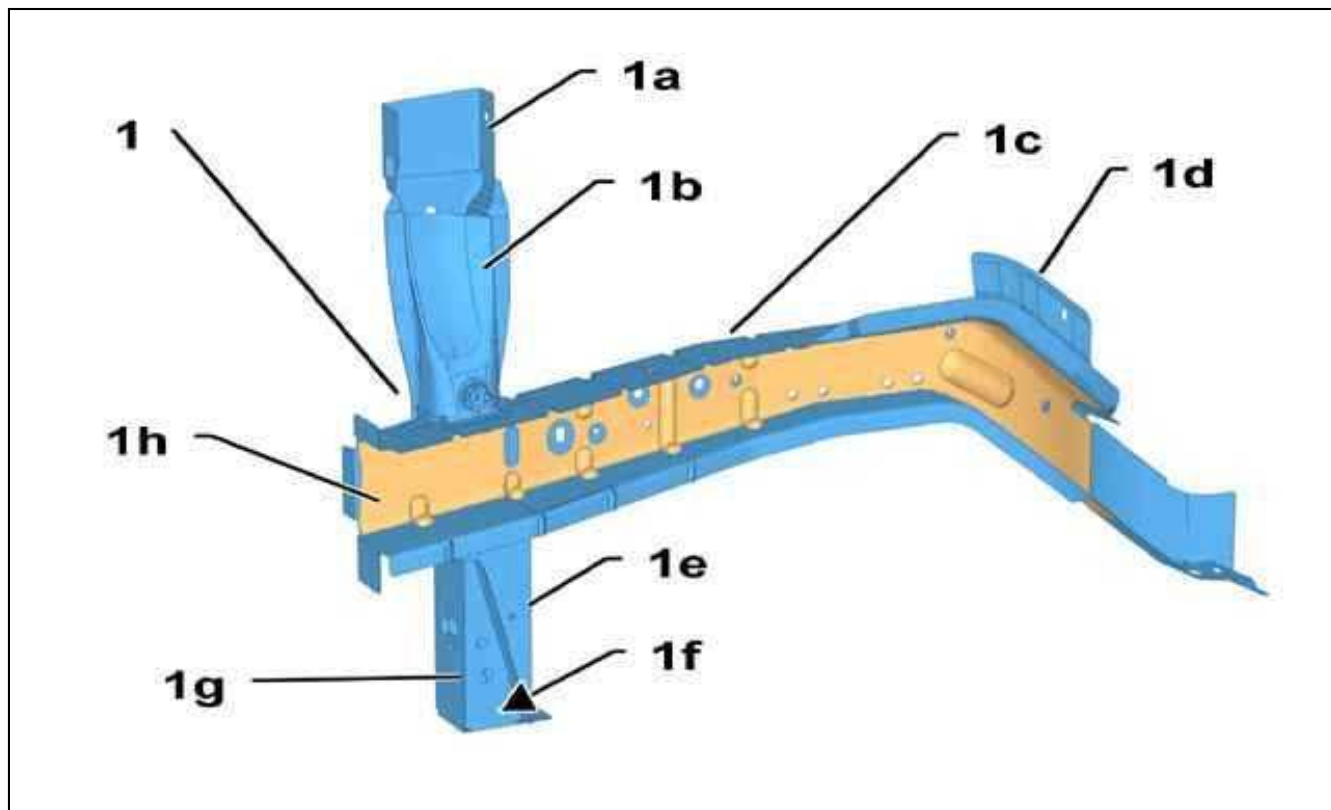


Figure : C4CM0ARD

| Reference                                            | Designation                               | Thickness (mm) | Nature/classification |
|------------------------------------------------------|-------------------------------------------|----------------|-----------------------|
| (1)                                                  | Front chassis member assembly             | -              | -                     |
| (1a)                                                 | Front block half-panel                    | 0,97           | ADX (*)               |
| (1b)                                                 | Lower engine compartment half-panel       | 0,97           | ADX (*)               |
| (1c)                                                 | Front chassis member                      | 1,95           | ADX (*)               |
| (1d)                                                 | Front chassis member strengthening piece  | 1,95           | ADX (*)               |
| (1e)                                                 | Chassis leg end piece                     | 1,47           | ADX (*)               |
| (1f)                                                 | Engine subframe mounting strengthener     | 1,47           | ADX (*)               |
| (1g)                                                 | The chassis member endpiece closure panel | 1,47           | ADX (*)               |
| (1h)                                                 | Front chassis leg stiffener               | 0,97/1,47      | ADX (*) / HLE (*)     |
| (*) ADX : Mild steel (*) : HLE : high-strength steel |                                           |                |                       |

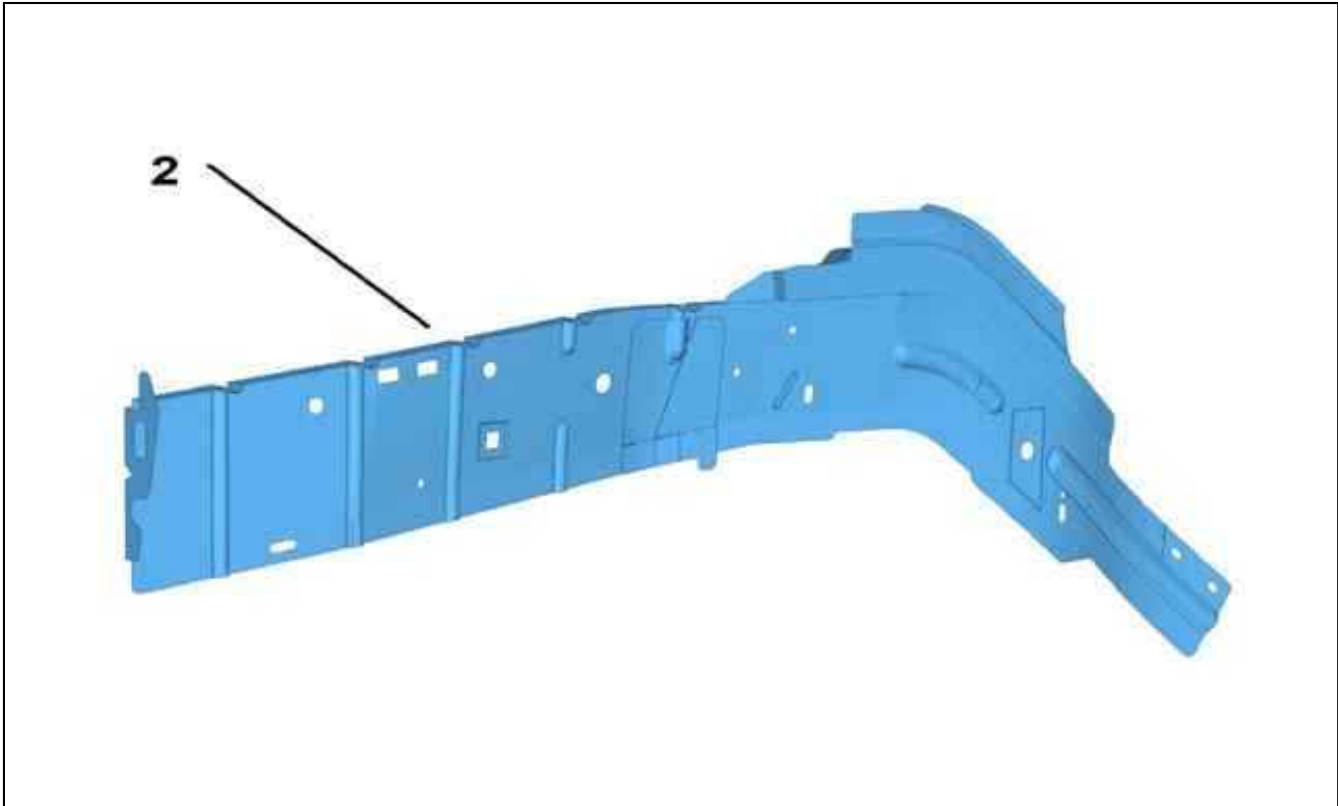


Figure : C4CM0ASD

| Reference                                           | Designation           | Thickness (mm) | Nature/classification |
|-----------------------------------------------------|-----------------------|----------------|-----------------------|
| (2)                                                 | Chassis leg stiffener | 1,76/2,44      | ADX (*) / HLE (*)     |
| (*)ADX : Mild steel (*) : HLE : high-strength steel |                       |                |                       |

### 3. Preparation of the replacement parts

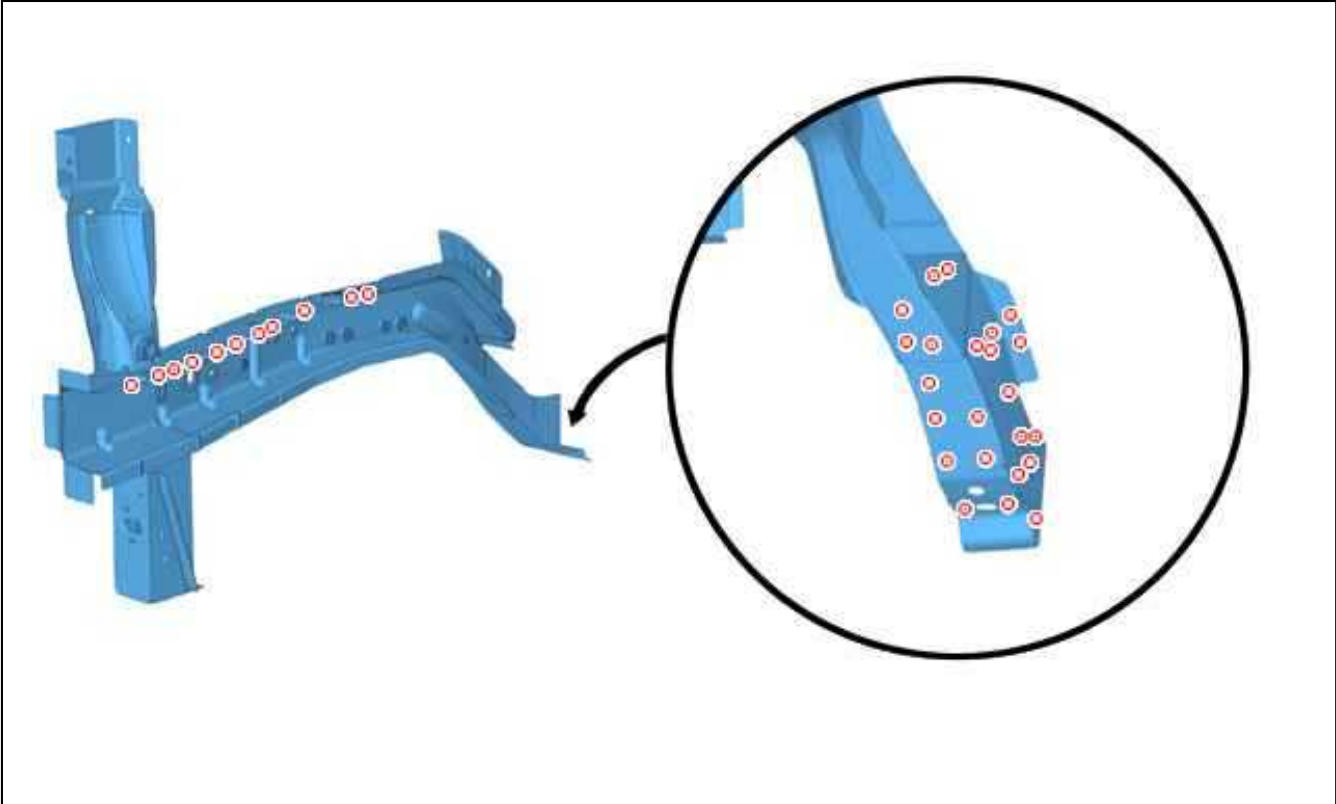


Figure : C4CM0ATD

Drill the component using a Ø 8 mm drill bit(For later plug welding).  
Preparation of the mating edges and protection with a weldable primer.

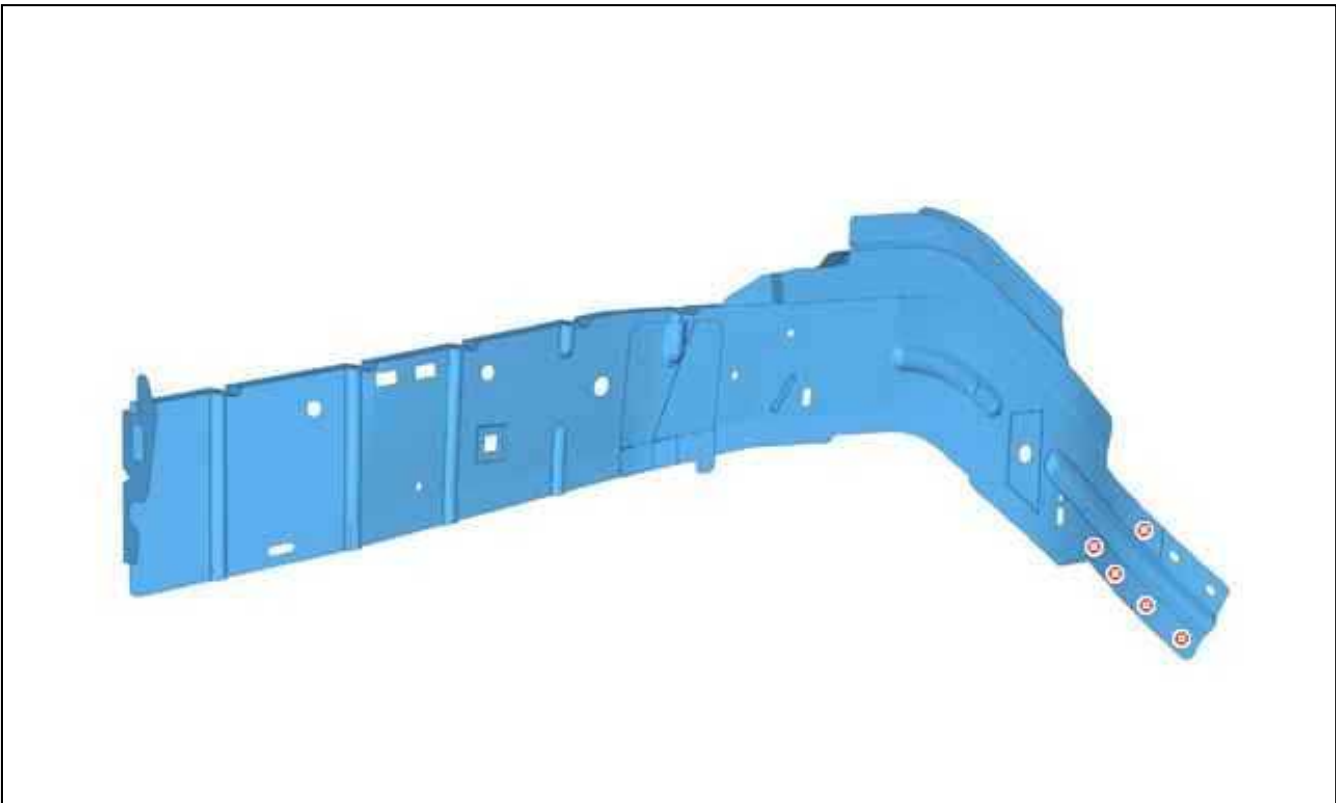


Figure : C4CM0AUD

Drill the component using a Ø 8 mm drill bit(For later plug welding).

Preparation of the mating edges and protection with a weldable primer.

#### 4. Cutting out

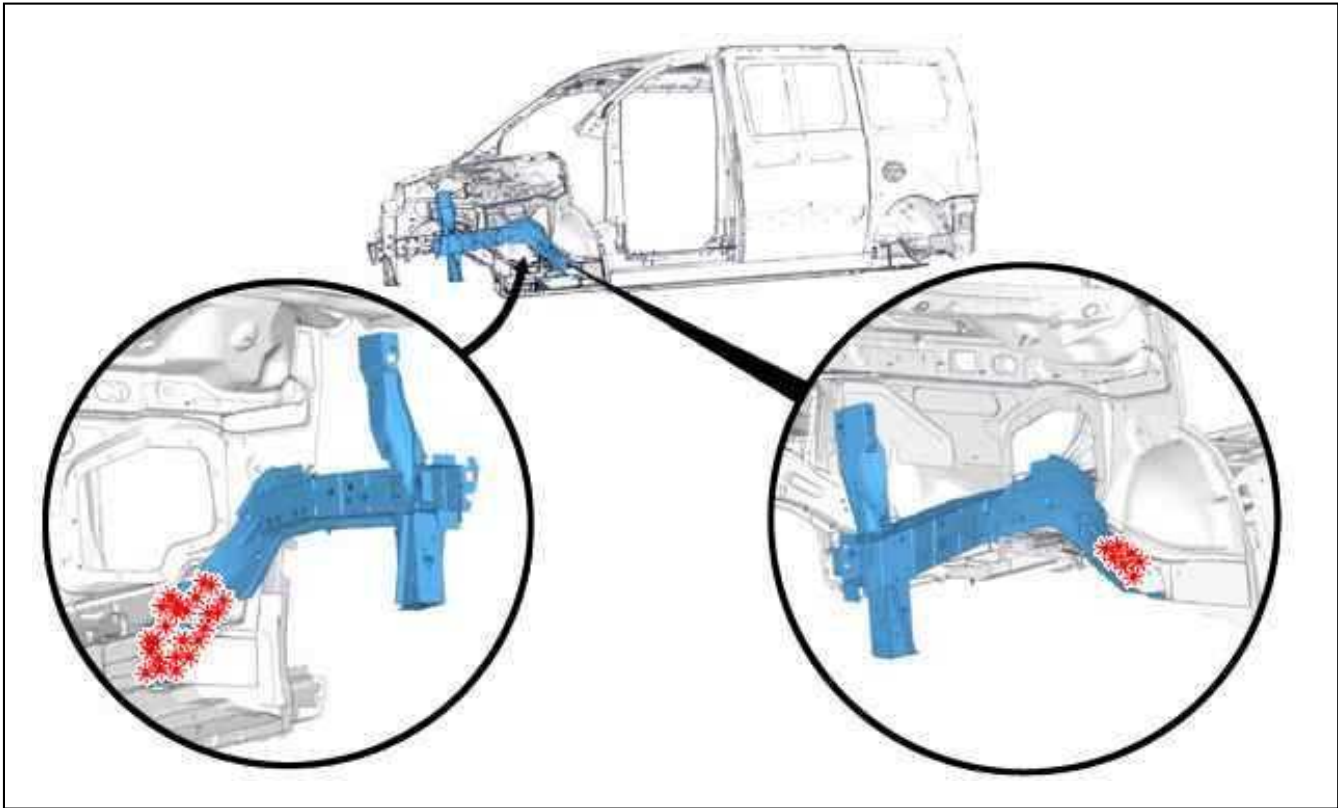


Figure : C4CM0AVD

Cut out the spot welds ; Using a mill of Ø 8 mm.

Remove :

- The front sill assembly
- The chassis leg closer

#### 5. Bodywork cleaning and preparation

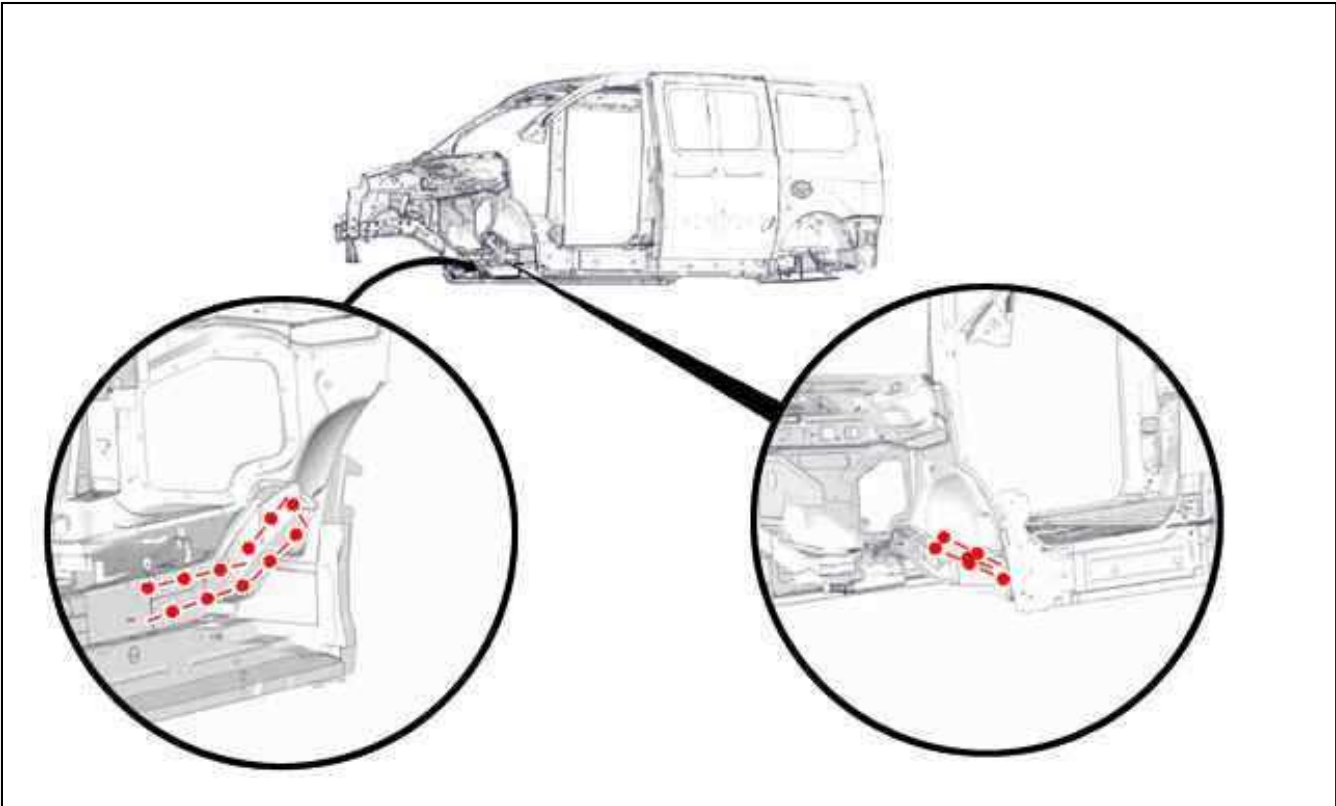


Figure : C4CM0AWD

Prepare the mating edges and protect them using a weldable primer .

## 6. Adjustment

Position :

- The front sill assembly
- The chassis leg closer

Check the position of the chassis member assembly.

Remove : The chassis leg closer.

## 7. Welding

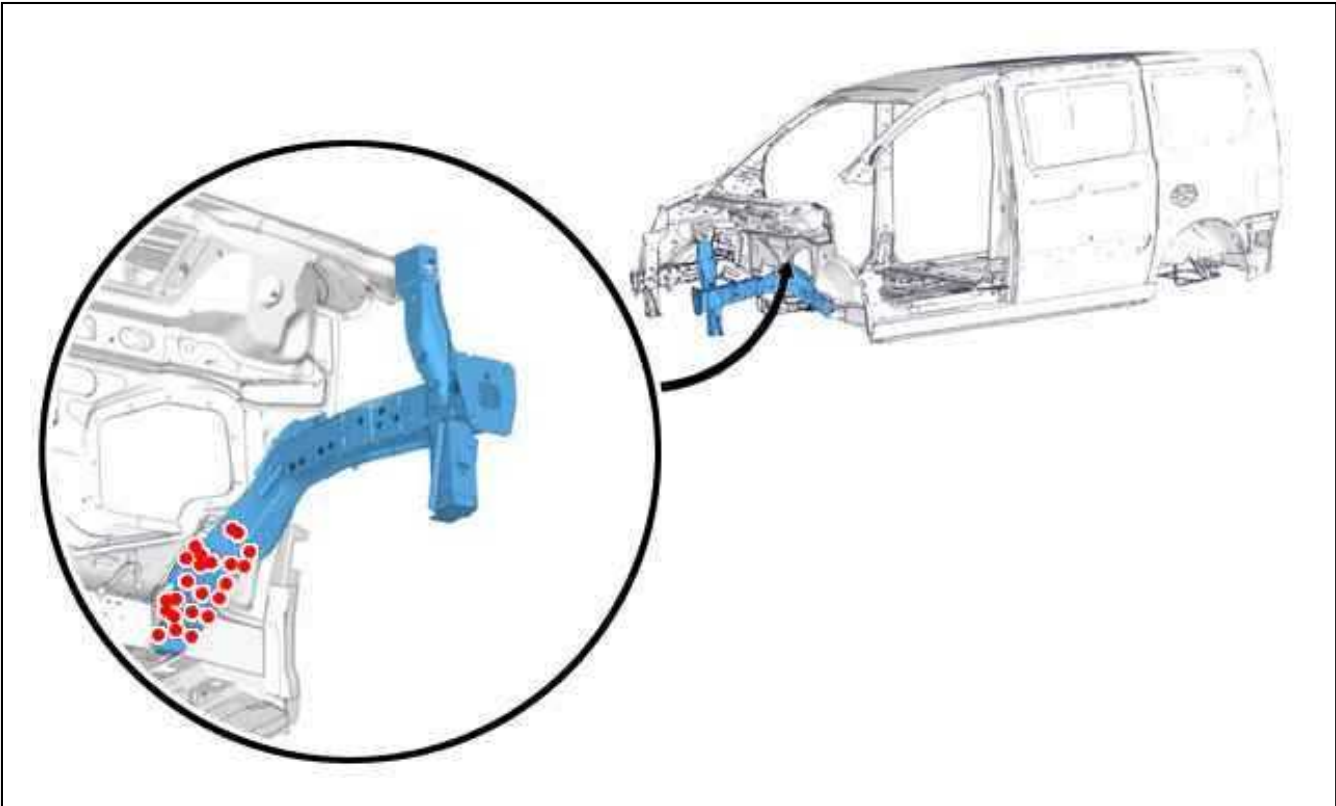


Figure : C4CM0AXD

Weld with MAG plug welds.

Grind the MAG plug welds.

Fit the chassis member closing panel.

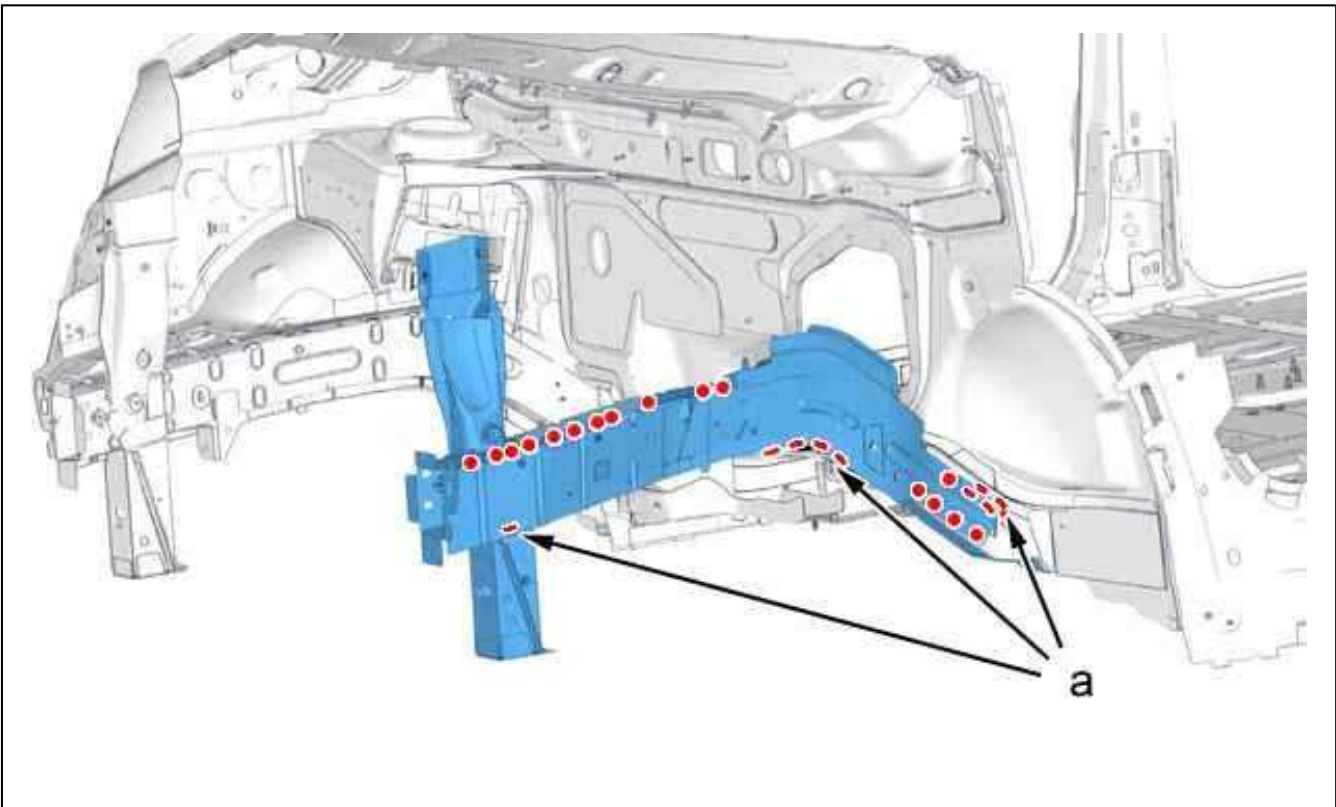


Figure : C4CM0AYD

MAG weld with beads in succession( as "a").

Weld with MAG plug welds.

Grind the MAG plug welds.

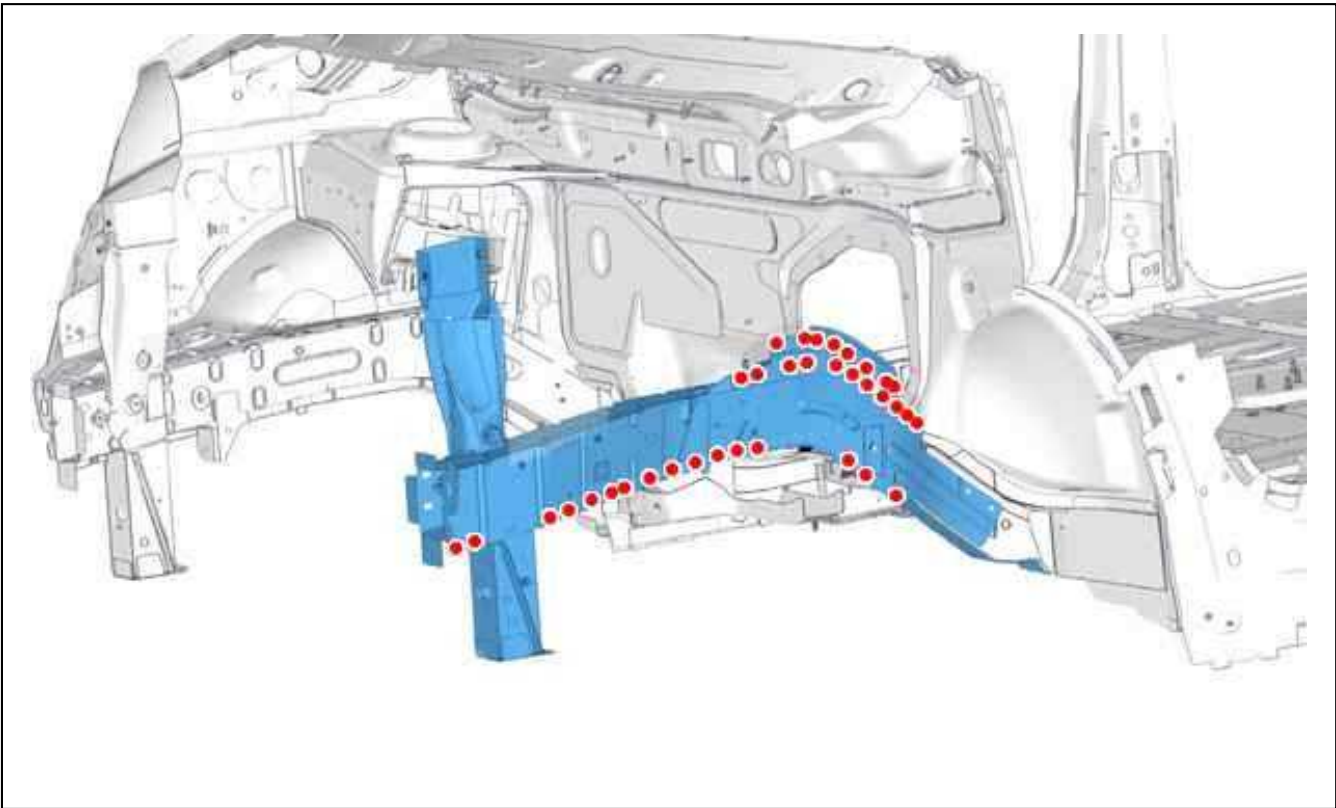


Figure : C4CM0AZD

Weld with MAG plug welds.

Grind the MAG plug welds.

## 8. Sealing protection

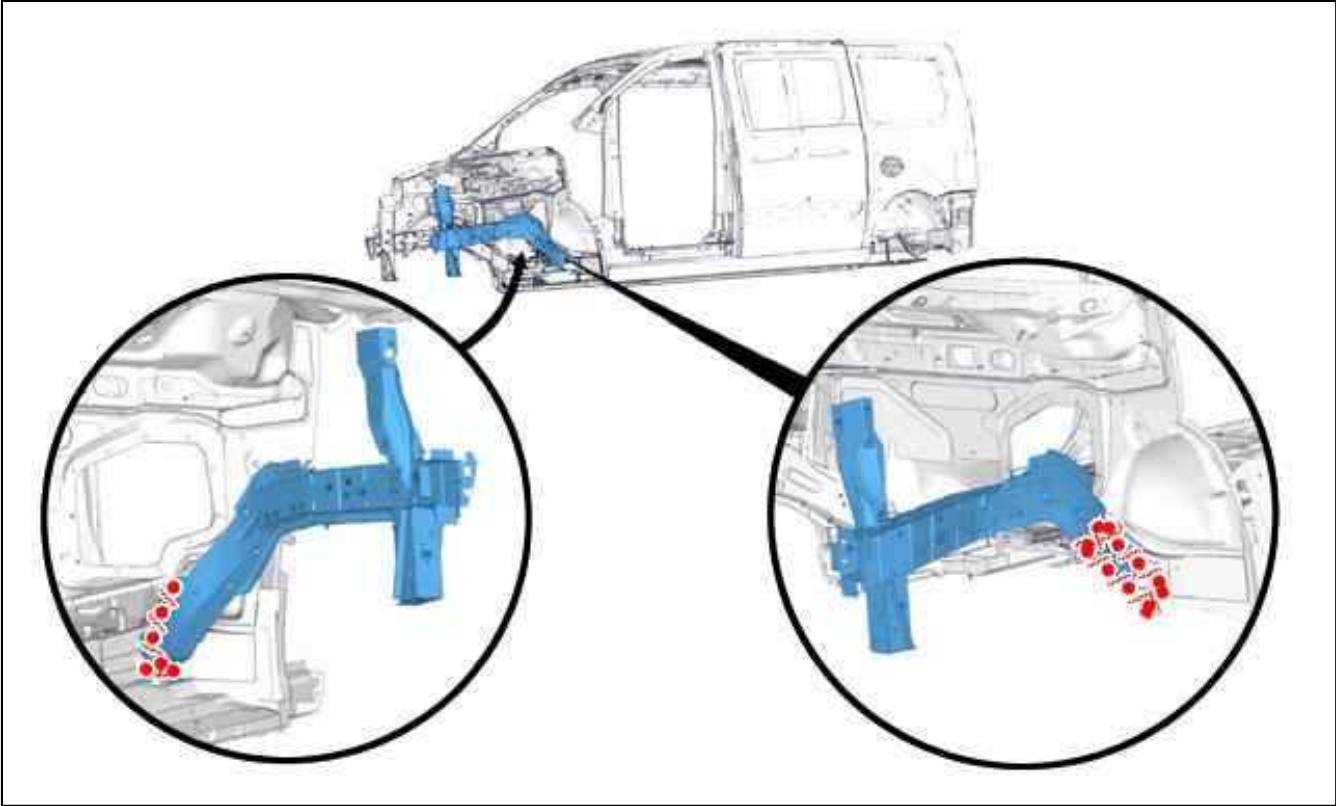


Figure : C4CM0B0D

Apply a phosphate-print layer on the zone laid bare.

Apply a sealing mastic of type "A1".

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

Reconnect the battery.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery .

## REPLACEMENT : SUPPORT (ENGINE SUBFRAME )

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ ( 2 or 4 post lift, workshop jack or customer's jack ⓘ ).

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

**CAUTION** : All of the stripped surfaces must be protected by means of the approved electrolytic rezincing process .

### 1. Additional operations

Disconnect the battery.

Remove - refit :

- The front wheel
- The front splash shield
- The engine subframe

Release the wiring harnesses.

Protect the interior of the passenger compartment.

### 2. Identification of the replacement parts



Figure : C4CM0BAD

| Reference            | Designation                | Thickness (mm) | Nature/classification |
|----------------------|----------------------------|----------------|-----------------------|
| (1)                  | support (Engine subframe ) | 2,44           | ADX (*)               |
| ADX (*) : Mild steel |                            |                |                       |

### 3. Replacement part preparation

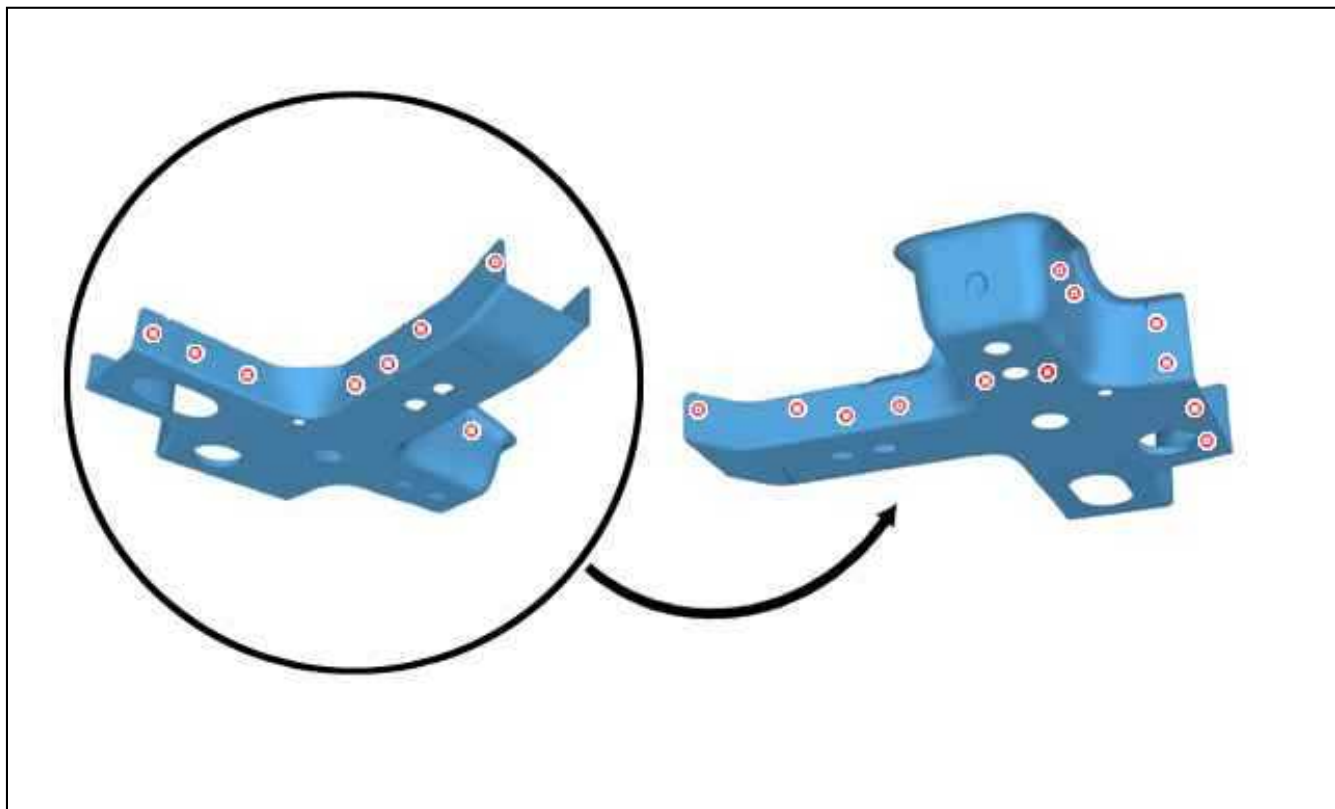


Figure : C4CM0BBD

Drill the component using a Ø 10 mm drill bit (For later plug welding ).  
Preparation of the mating edges and protection with a weldable primer.

### 4. Cutting out

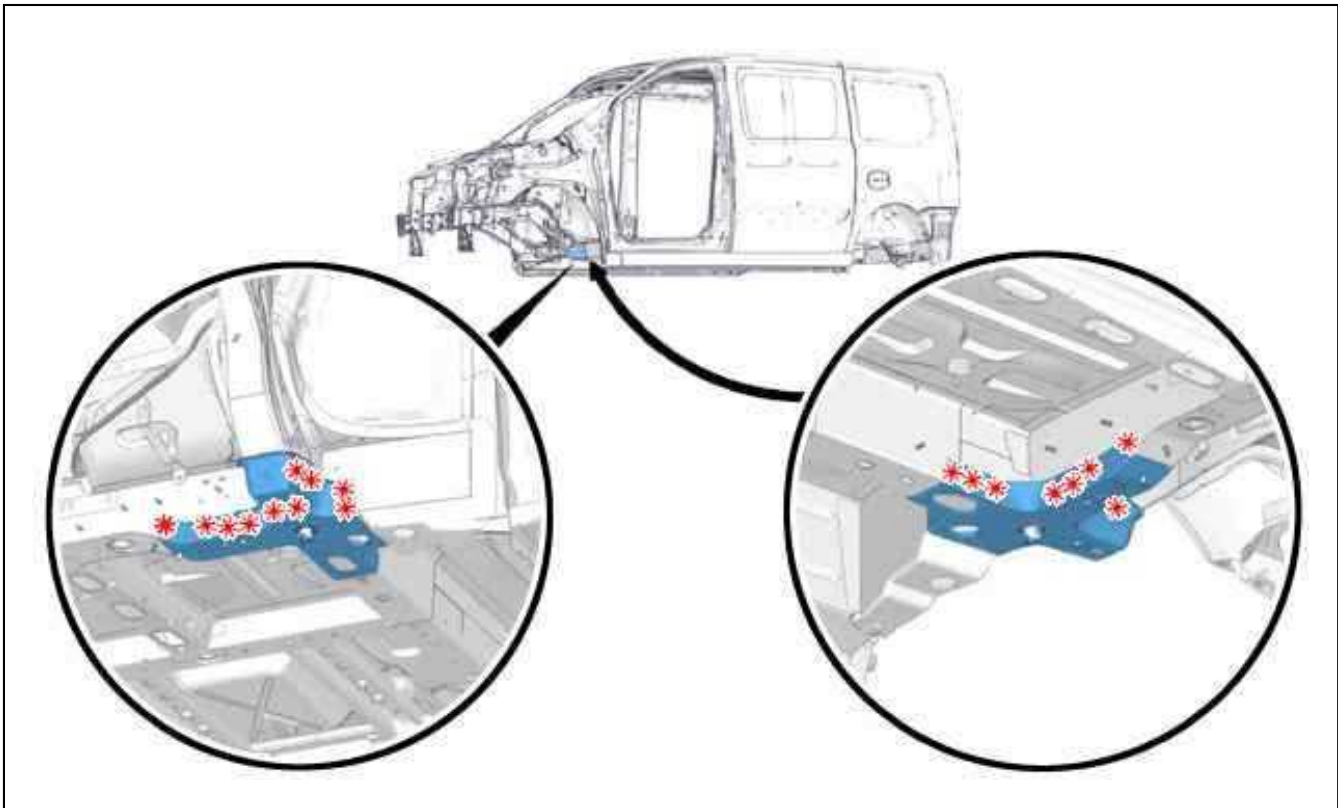


Figure : C4CM0BCD

Cut out the spot welds ; Using a mill of Ø 8 mm.

Remove : The bracket (Engine subframe ).

## 5. Bodywork cleaning and preparation

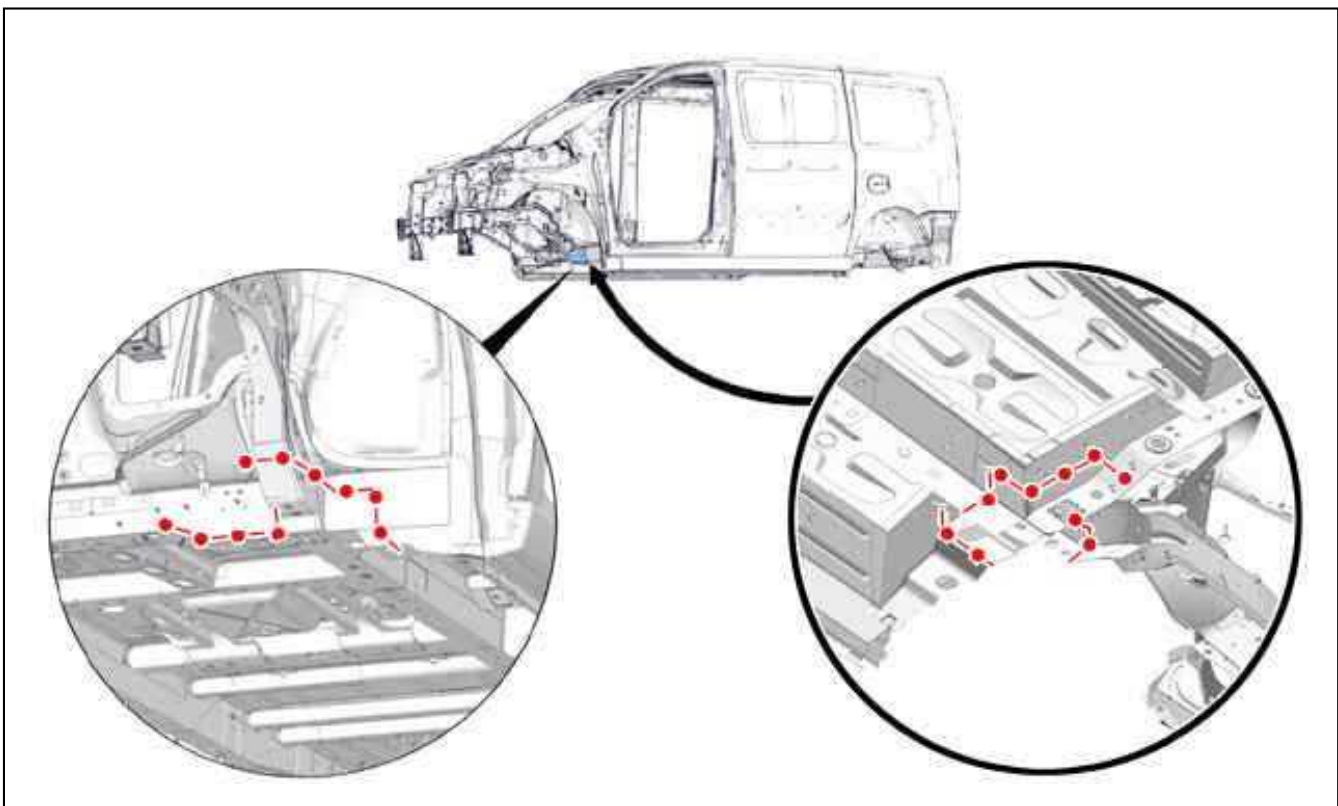


Figure : C4CM0BDD

Prepare the mating edges and protect them using a weldable primer .

## 6. Adjustment

Position : The bracket (Engine subframe ).

Check : The position of the engine subframe mounting.

## 7. Welding

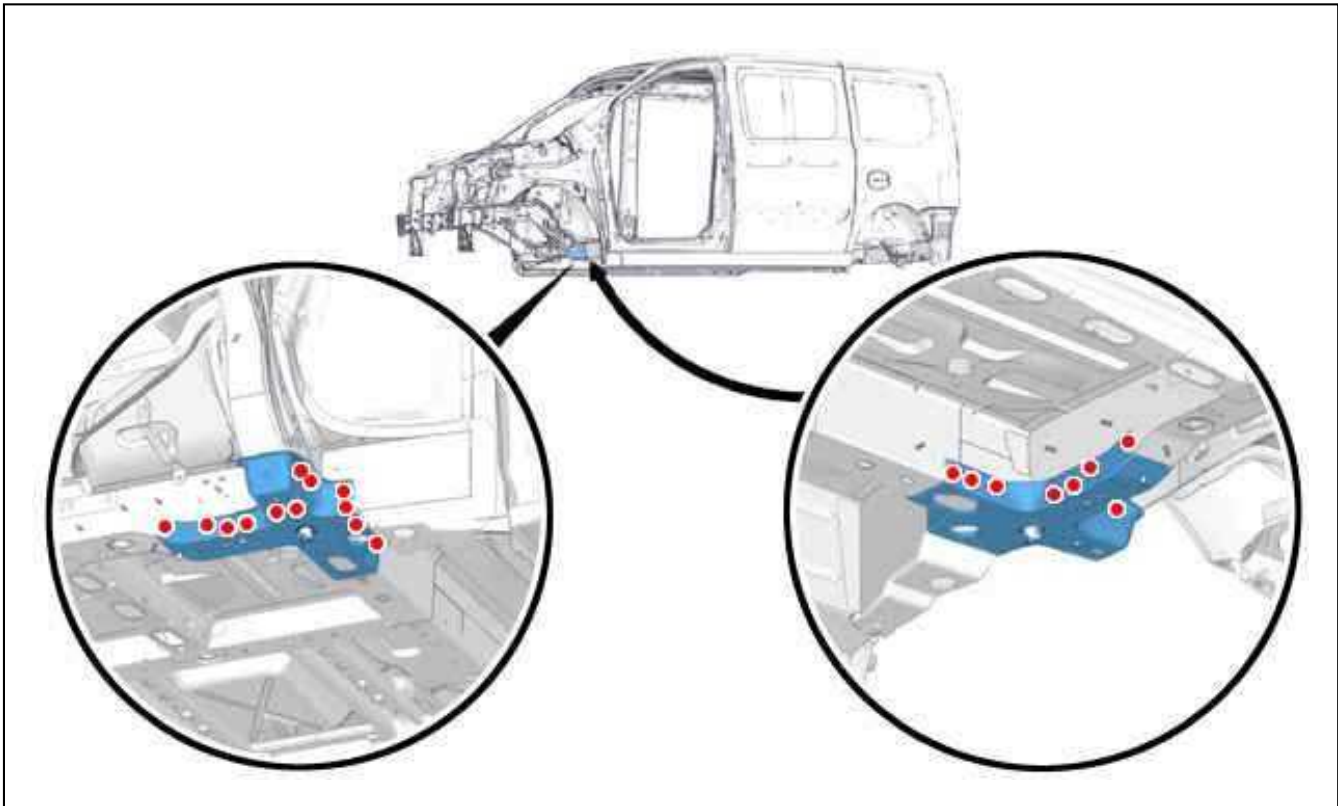


Figure : C4CM0BED

(Take capture 03 ae).

Weld with MAG plug welds.

Grind the MAG plug welds.

## 8. Sealing protection

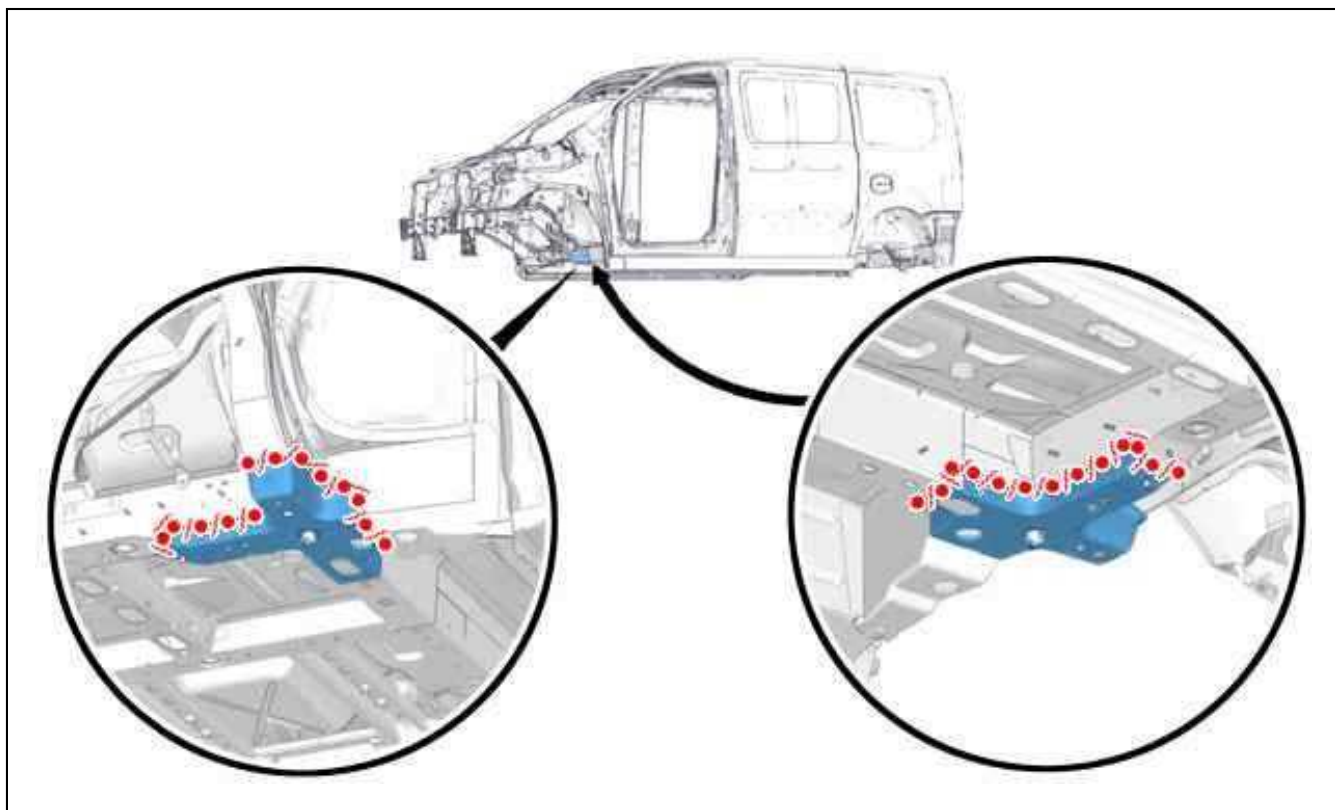


Figure : C4CM0BFD

Apply a phosphate-print layer on the zone laid bare.

Apply a sealing mastic of type " A1".

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

Reconnect the battery.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery ⓘ.

## REPLACEMENT : INNER SILL - CENTRAL CHASSIS LEG LINK

**ESSENTIAL** : Depending on the operation to be carried out, observe the instructions for chocking up the vehicle.

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or customer's jack ⓘ).

**ESSENTIAL** : Observe the elementary rules of hygiene and safety (wear a face mask to protect against fumes and vapour - work in a well ventilated space).

**ESSENTIAL** : All of the stripped surfaces must be protected by means of the approved electrolytic rezincing process .

## 1. Additional operations

Disconnect the battery.

Remove - refit : The front wheel.

Detrim-retrim : The front splash shield .

Release the wiring harnesses.

Protect the interior of the passenger compartment.

## 2. Identification of the replacement parts

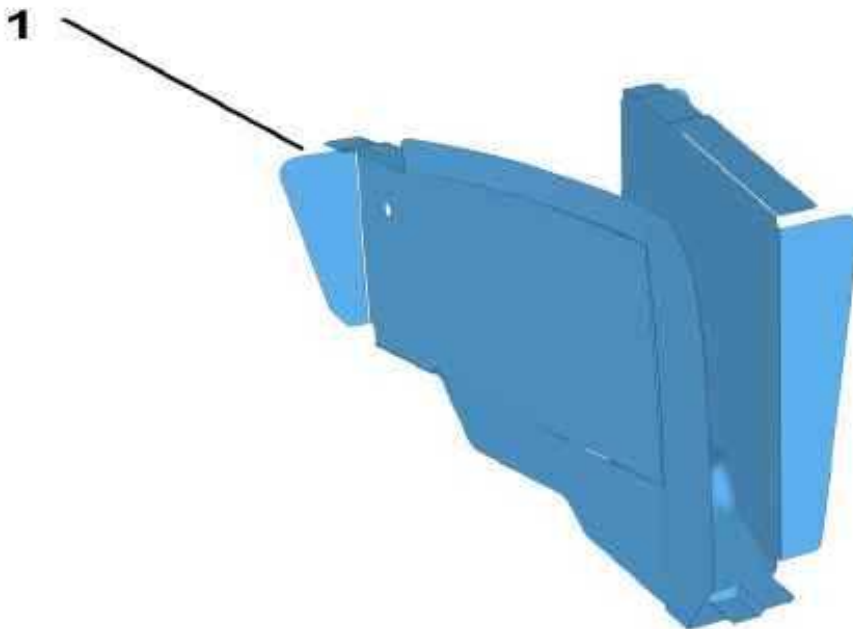


Figure : C4CM0C1D

| Reference | Designation | Thickness (mm) | Nature/classification |
|-----------|-------------|----------------|-----------------------|
|-----------|-------------|----------------|-----------------------|

|                      |                                       |      |         |
|----------------------|---------------------------------------|------|---------|
| (1)                  | Inner sill - central chassis leg link | 1,17 | ADX (*) |
| (*) ADX : Mild steel |                                       |      |         |

### 3. Replacement part preparation

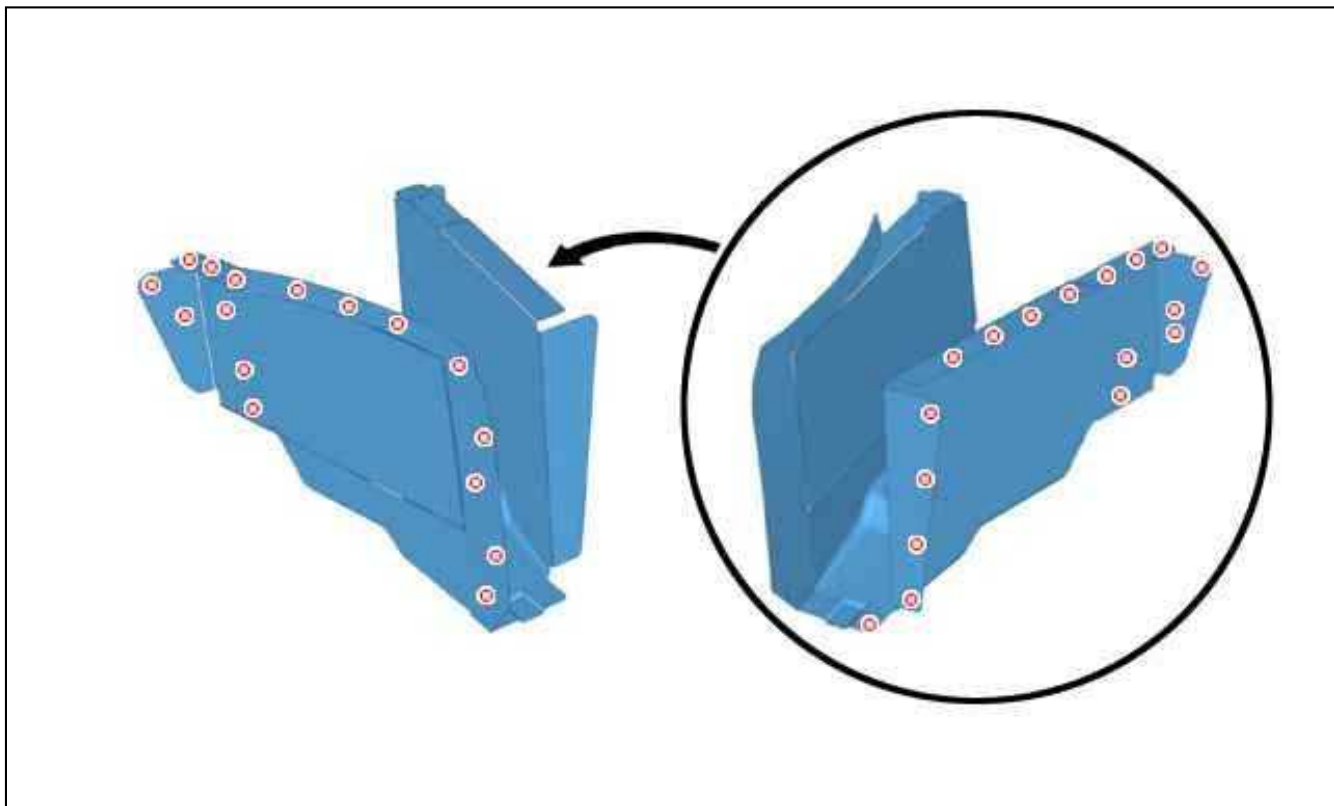


Figure : C4CM0C2D

Drill the component using a Ø 8 mm drill bit (For later plug welding).  
Preparation of the mating edges and protection with a weldable primer.

### 4. Cutting out

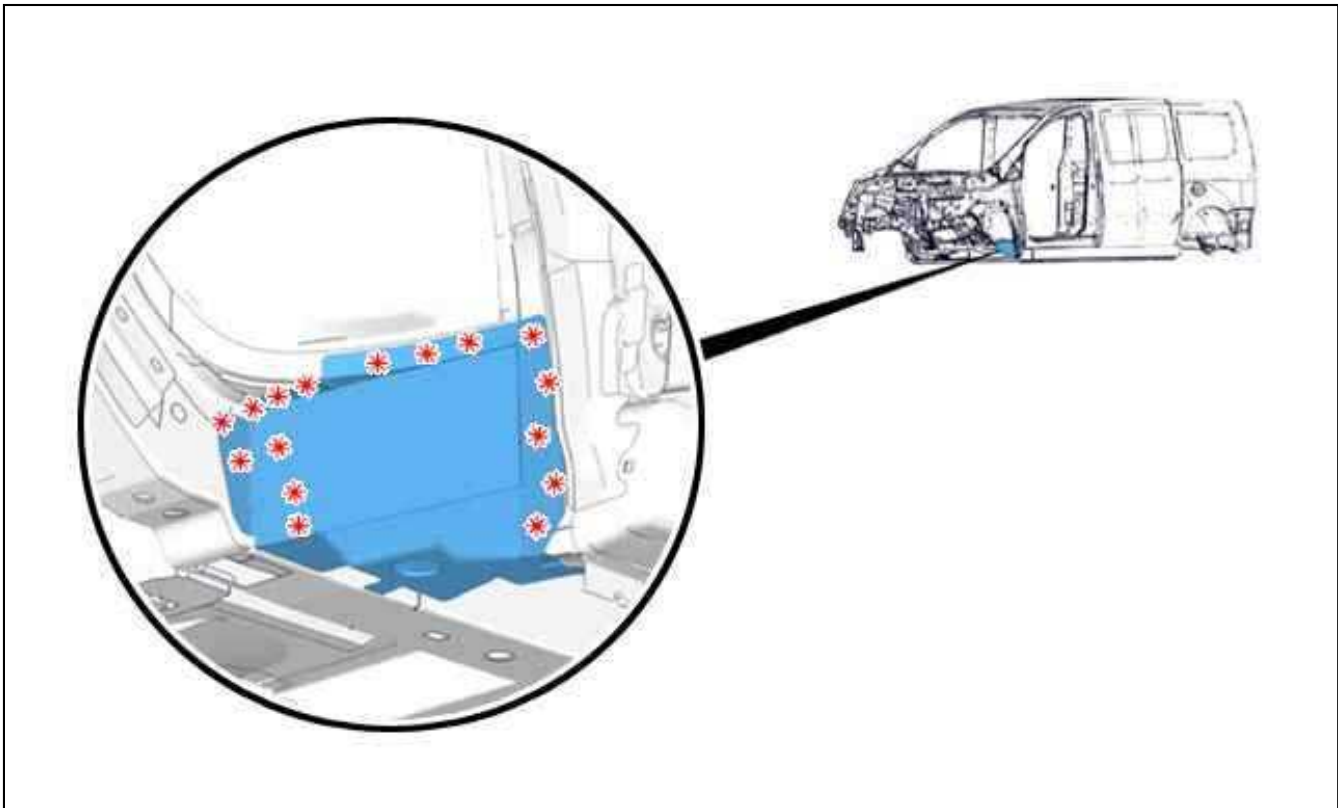


Figure : C4CM0C3D

Cut out the spot welds .

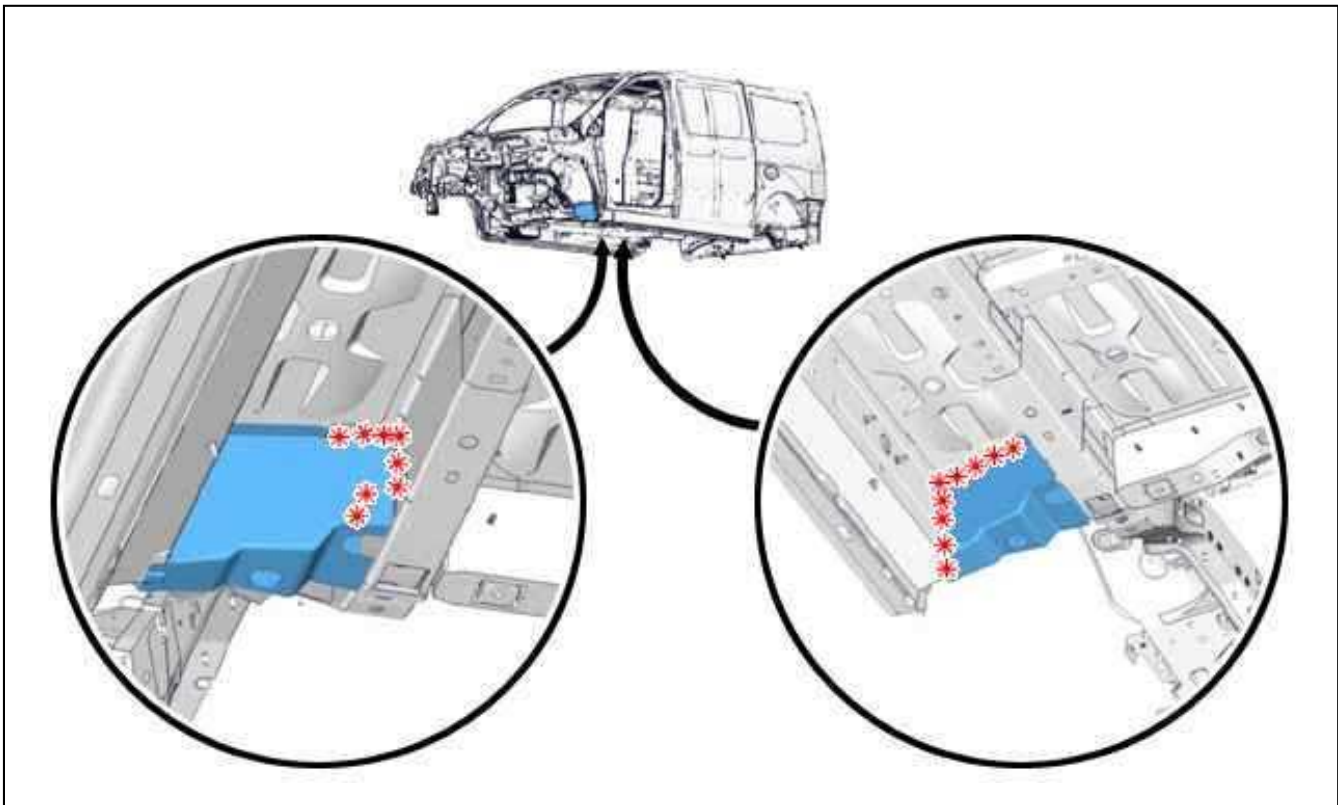


Figure : C4CM0C4D

Cut out the spot welds .

Remove : The inner sill - central chassis leg link.

## 5. Bodywork cleaning and preparation

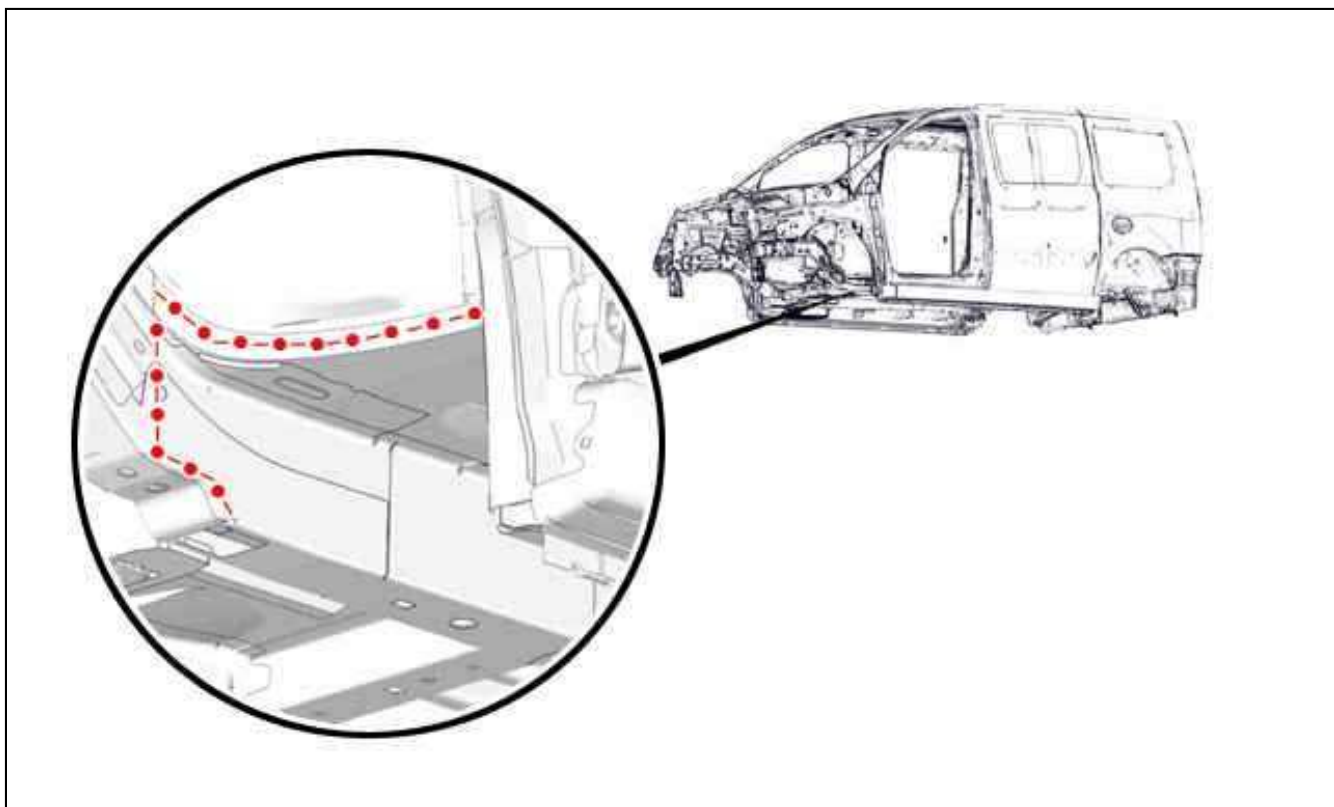


Figure : C4CM0C5D

Prepare the mating edges and protect them using a weldable primer .

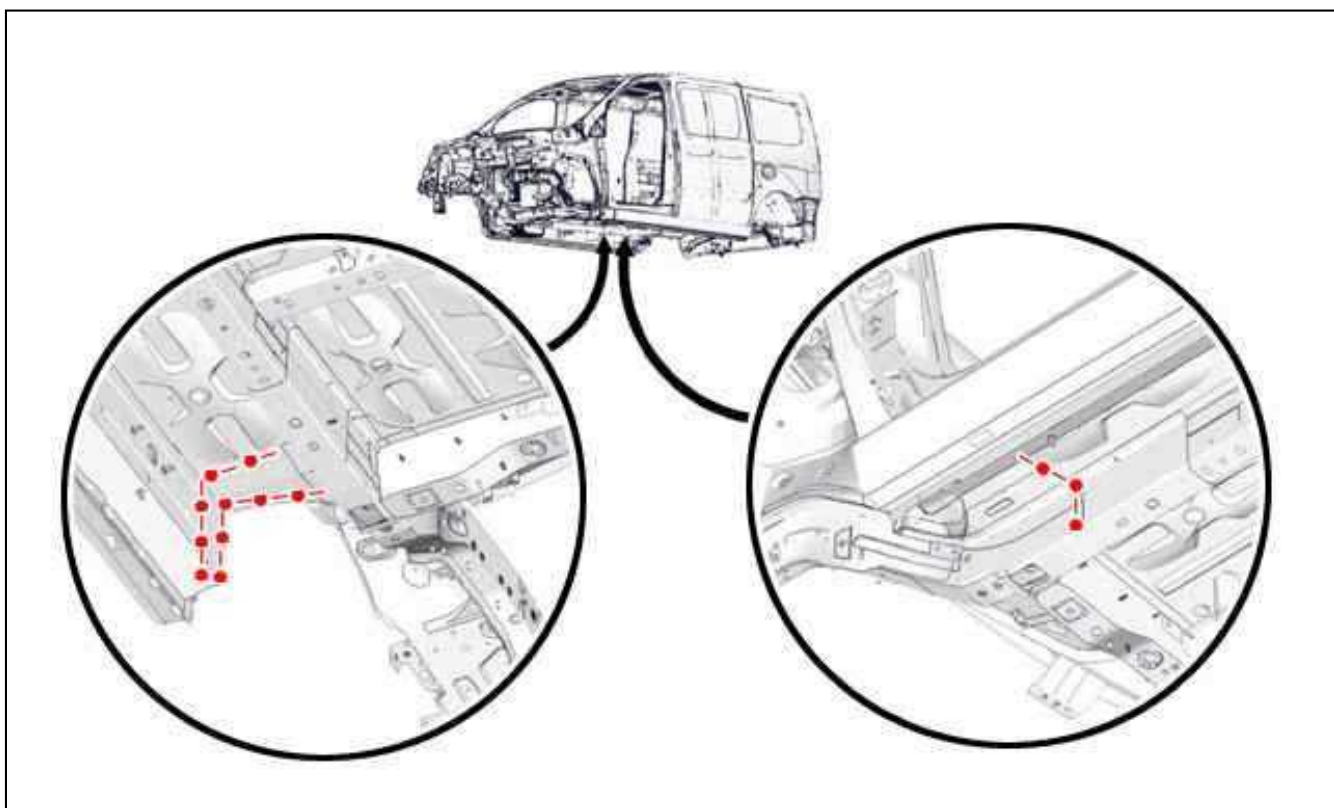


Figure : C4CM0C6D

## 6. Adjustment

Position : The inner sill - central chassis leg link.

Check : The position of the inner sill - central chassis leg link.

## 7. Welding

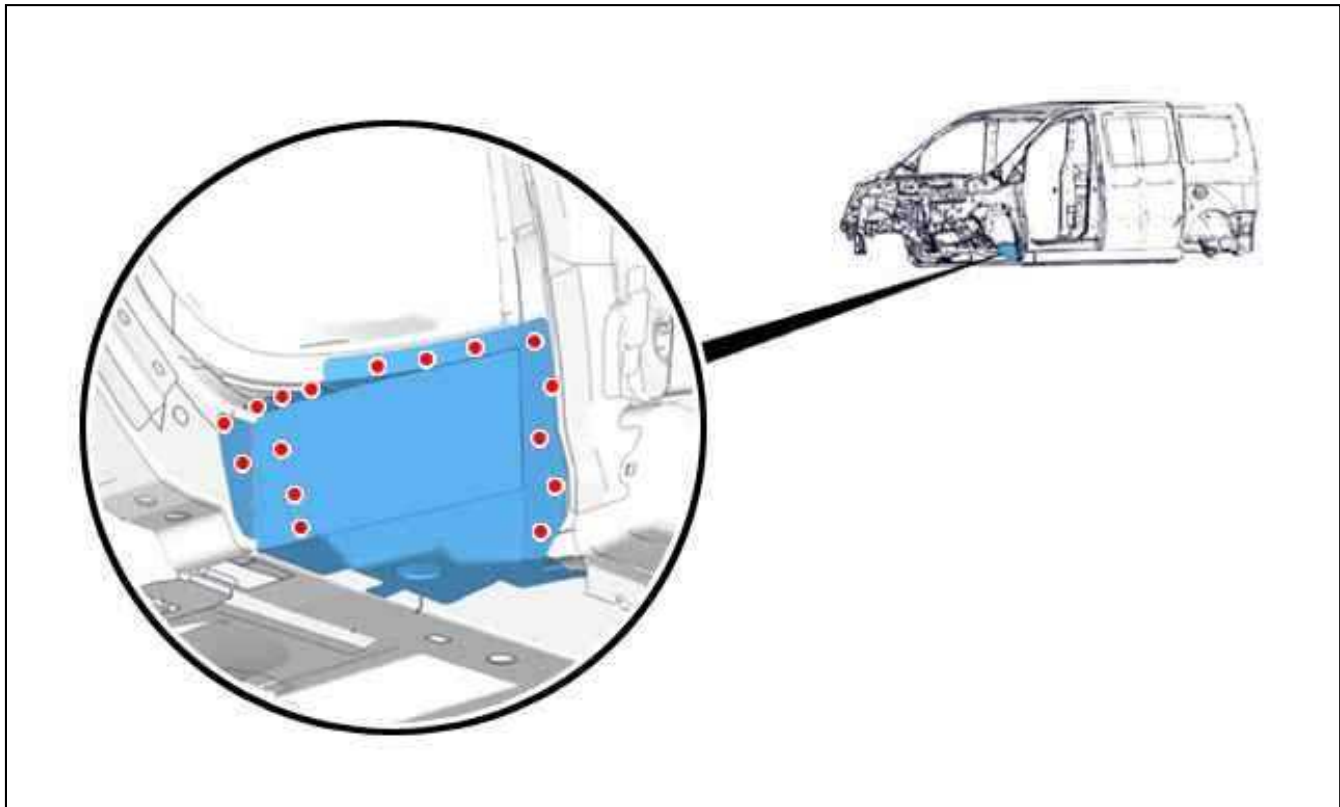


Figure : C4CM0C7D

Weld with MAG plug welds.

Grind the MAG plug welds.

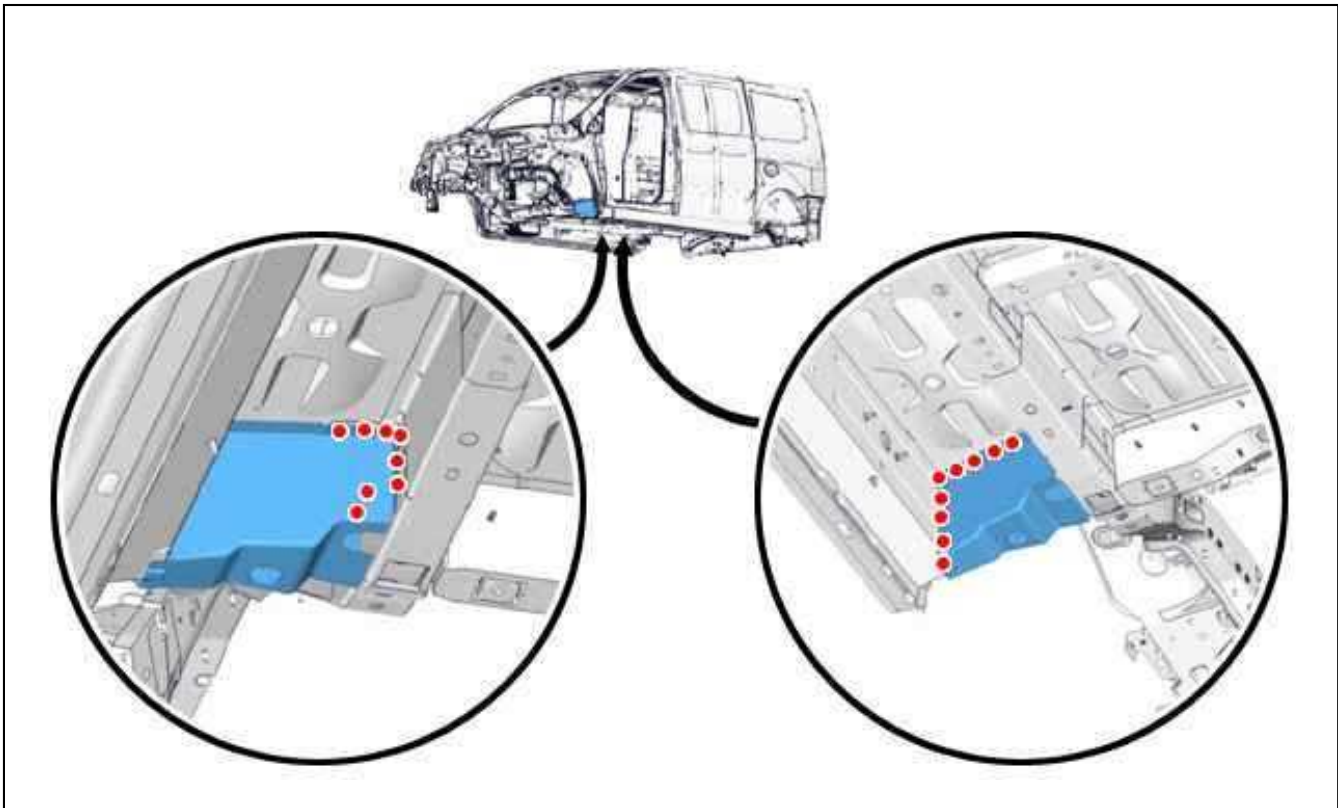


Figure : C4CM0C8D

Weld with MAG plug welds.

Grind the MAG plug welds.

## 8. Sealing protection

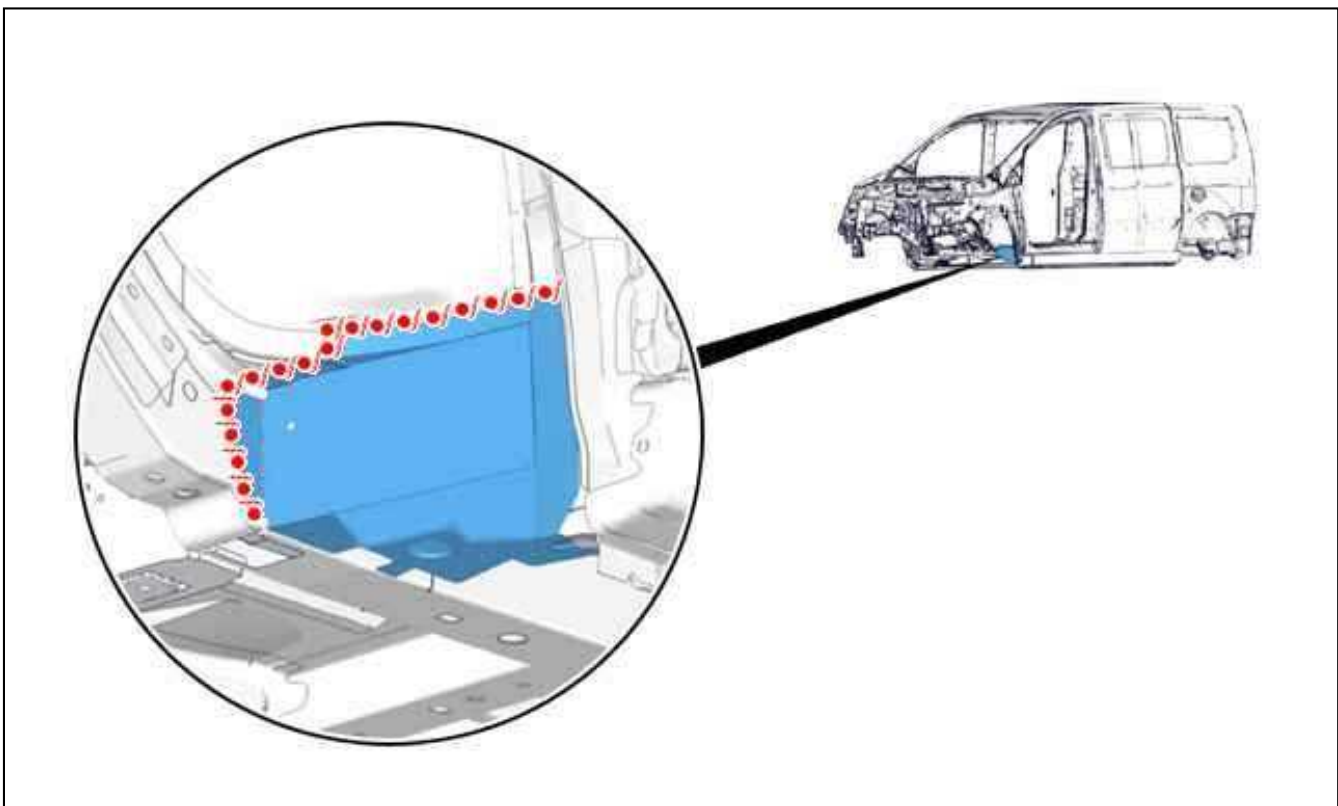


Figure : C4CM0C9D

Apply a phosphate-print layer on the zone laid bare.

Apply a sealing mastic of type "A1".

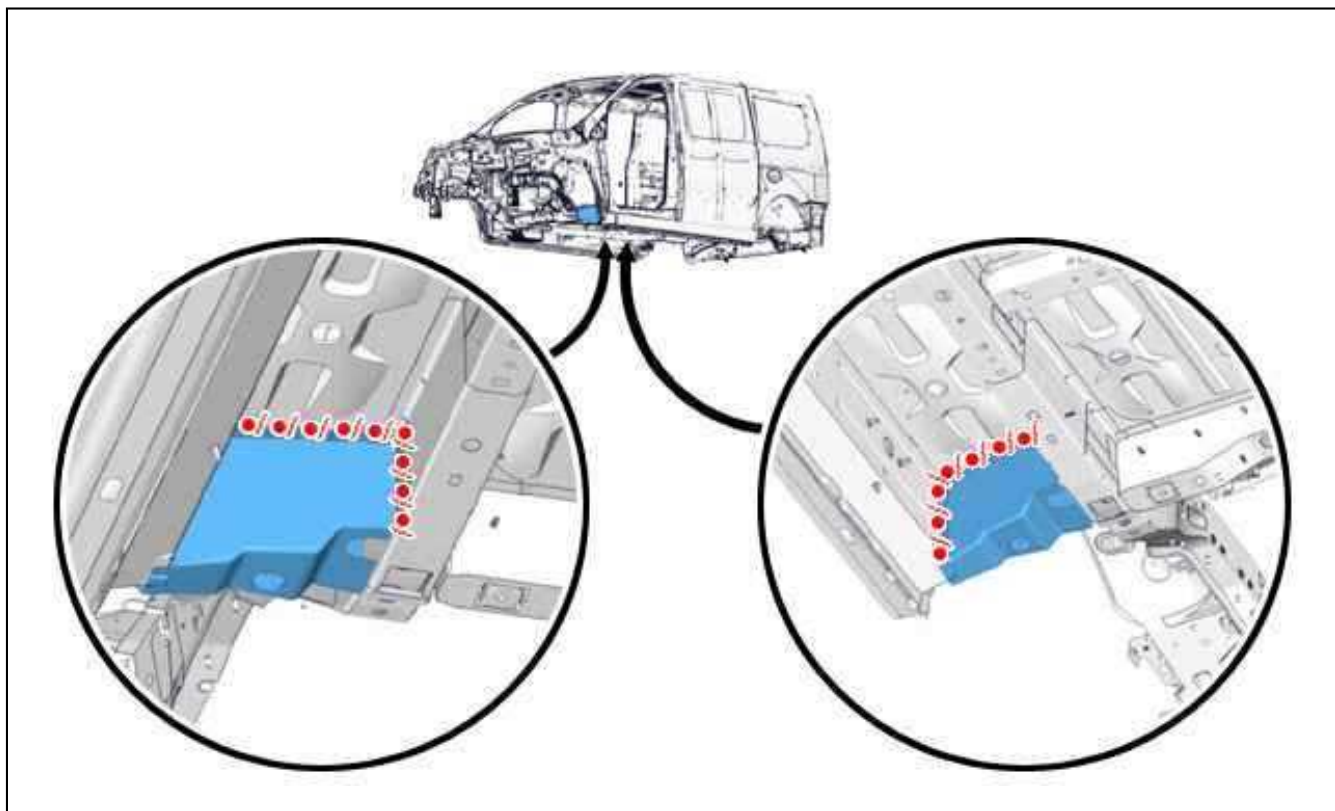


Figure : C4CM0CAD

Apply a phosphate-print layer on the zone laid bare.

Apply a sealing mastic of type "A1".

Paint then spray into the hollow sections, product index C5, in the repair zone.

## 9. Reinitialisation

Carry out the additional operations.

Reconnect the battery.

**CAUTION :** Perform the operations to be carried out following reconnection of the battery ⓘ.

## PRESENTATION : GLASS BONDING KIT (FROM 01/07/2006)

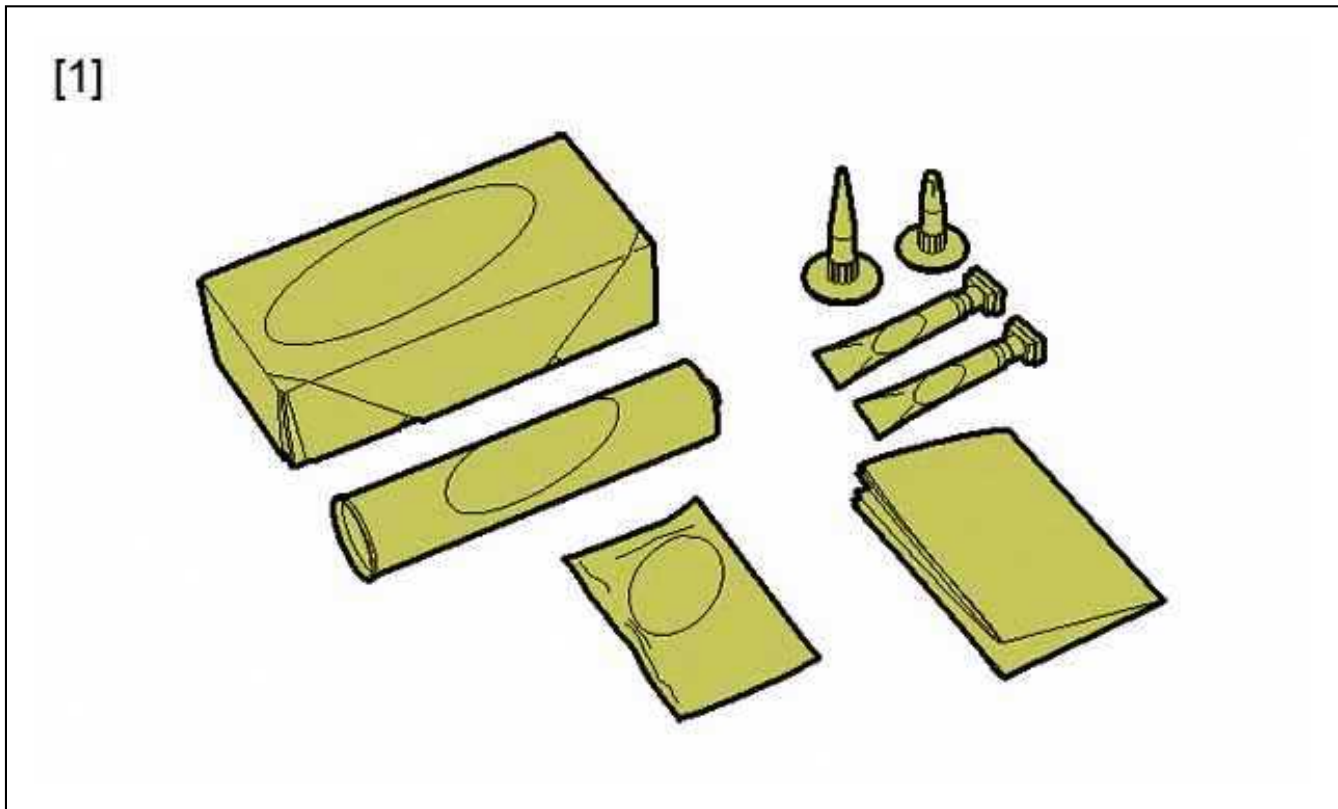


Figure : E5AP3AWD

[1] Adhesive kit ( single component).

| make LOCTITE        |                          |                       |
|---------------------|--------------------------|-----------------------|
| Designation         | Vehicle : Without airbag | Vehicle : With airbag |
| Ultra-rapid setting | 0,5 (*)                  | 0,5 (*)               |
| Rapid setting       | 1,5 (*)                  | 6 (*)                 |
| Standard setting    | 2,5 (*)                  | 12 (*)                |

(\*) Time required to get the vehicle back on the road (In hours and hundredths of an hour - Ambient temperature : 23°C)

| make DOW         |                                                         |                                           |
|------------------|---------------------------------------------------------|-------------------------------------------|
| Designation      | Vehicle : With or without airbag (On the driver's side) | Vehicle : With airbag (Passenger 's side) |
| Rapid setting    | 1 (*)                                                   | 2 (*)                                     |
| Standard setting | 1,5 (*)                                                 | 3 (*)                                     |

(\*) Time required to get the vehicle back on the road (In hours and hundredths of an hour - Ambient temperature : 23°C)

[2]

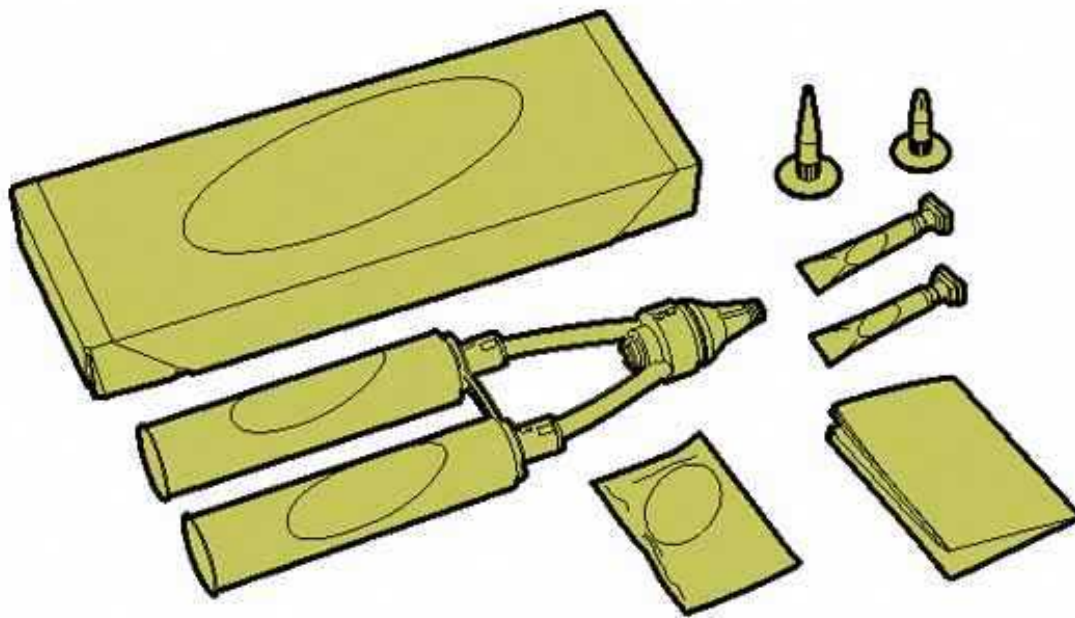


Figure : E5AP3AXD

[2] Adhesive kit (Two part).

| make DOW                                                                                                               |                          |                       |
|------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------|
| Designation                                                                                                            | Vehicle : Without airbag | Vehicle : With airbag |
| Ultra-rapid setting                                                                                                    | 0,5 (*)                  | 1 (*)                 |
| (*) Time required to get the vehicle back on the road (In hours and hundredths of an hour - Ambient temperature : 23°C |                          |                       |

[3]

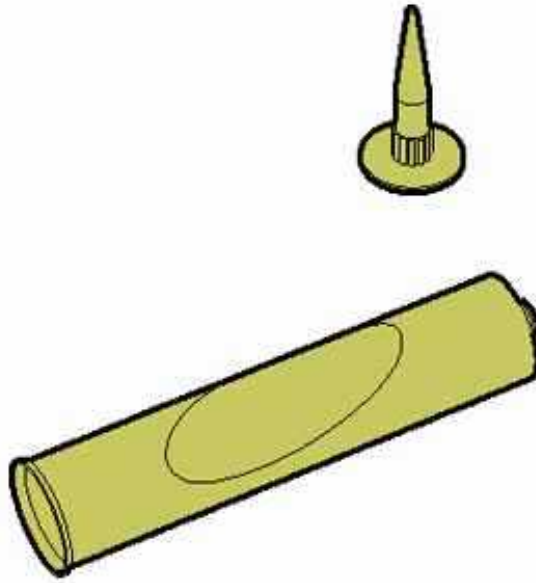


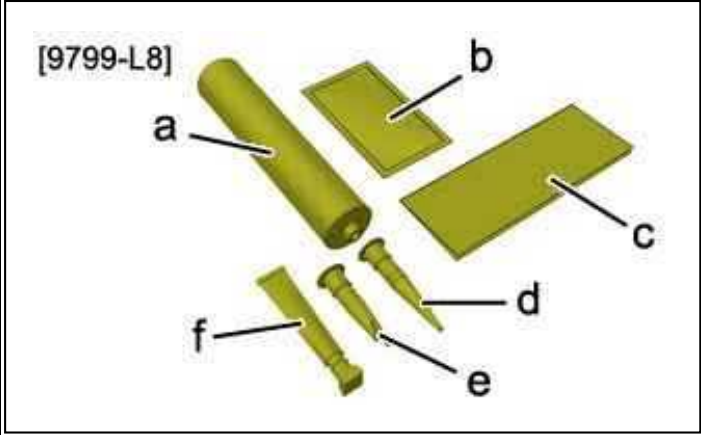
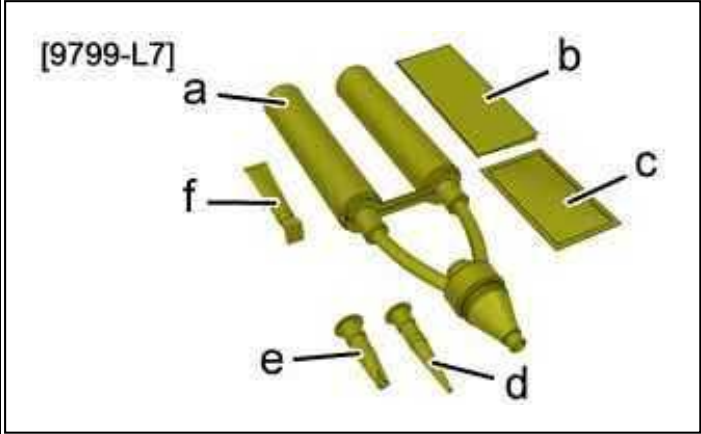
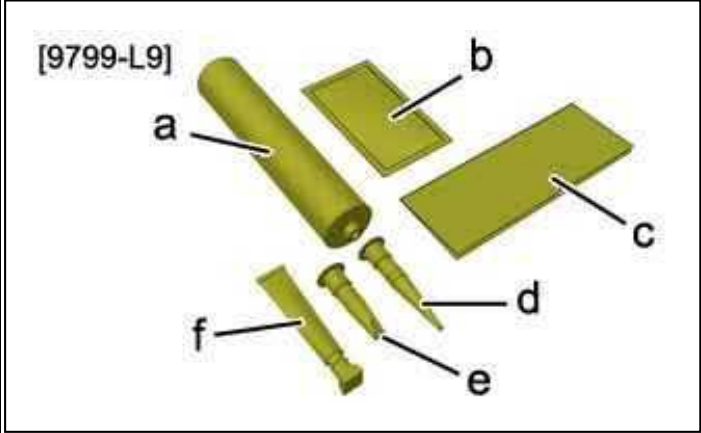
Figure : E5AP3AYD

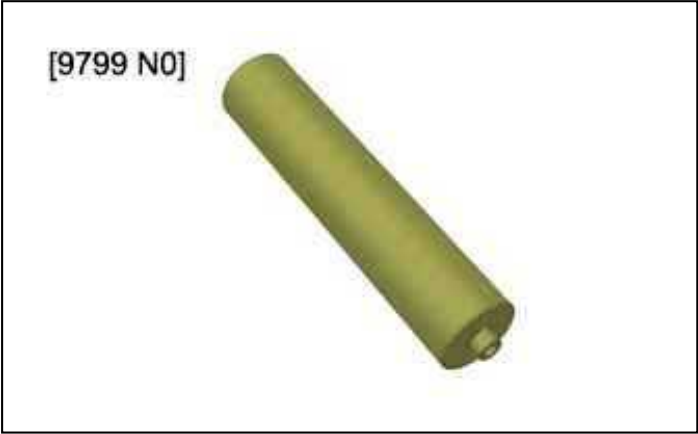
[3] Adhesive cartridge (Additional : single component).

**CAUTION :** Before using the products, refer to the supplier's instructions included in the kits.

## PRESENTATION : GLAZING CONSUMABLES

## 1. Consumables (dow automotive)

| tool                                                                                                 | Reference | Designation                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>[9799-L8]</p>   | [9799 L8] | Single-pot quick setting kit                                                                                                                                  |
|                                                                                                      |           | "a" Adhesive cartridge<br>"b" Sachet of glass cleaner<br>"c" Instructions<br>"d" Un-cut nozzle<br>"e" Pre-cut nozzle<br>"f" Primer applicator tube            |
|  <p>[9799-L7]</p> | [9799 L7] | Two-pot ultra-quick setting kit                                                                                                                               |
|                                                                                                      |           | "a" Cartridge of two-pot adhesive<br>"b" Sachet of glass cleaner<br>"c" Instructions<br>"d" Un-cut nozzle<br>"e" Pre-cut nozzle<br>"f" Primer applicator tube |
|  <p>[9799-L9]</p> | [9799 L9] | Standard kit                                                                                                                                                  |
|                                                                                                      |           | "a" Adhesive cartridge<br>"b" Sachet of glass cleaner<br>"c" Instructions<br>"d" Un-cut nozzle<br>"e" Pre-cut nozzle<br>"f" Primer applicator tube            |

|                                                                                   |           |                                     |
|-----------------------------------------------------------------------------------|-----------|-------------------------------------|
| Figure : E5AB0MRT                                                                 |           |                                     |
|  | [9799 N0] | Extra cartridge in the kit[9799 L8] |
|                                                                                   |           | Adhesive cartridge                  |
| Figure : E5AB0MTT                                                                 |           |                                     |

## 1.1. Tooling

Pneumatic gun with air flow adjustment  .

## 1.2. Data

| Reference | Designation                          | Time of immobilisation of the vehicle after bonding |
|-----------|--------------------------------------|-----------------------------------------------------|
| [9799 L8] | Single-pot quick setting kit         | 1 hr                                                |
| [9799 L7] | Two-pot ultra-quick setting kit      | 1 hr                                                |
| [9799 L9] | Standard kit                         | 2 hr                                                |
| [9799 N0] | Extra cartridge in the kit [9799 L8] | 1 hr                                                |

Compatibility :

- All bonding of original polyurethane used in bonding of window glass
- Glass with integral radio aerial (non-conductive product)

Optimum temperatures for using the product : Between 10°C and 35°C.

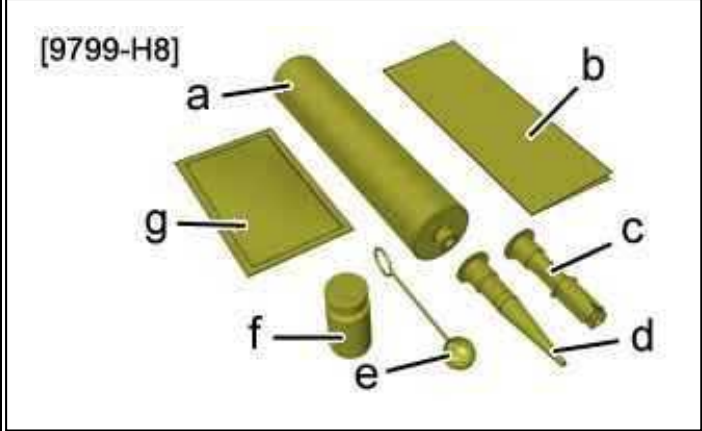
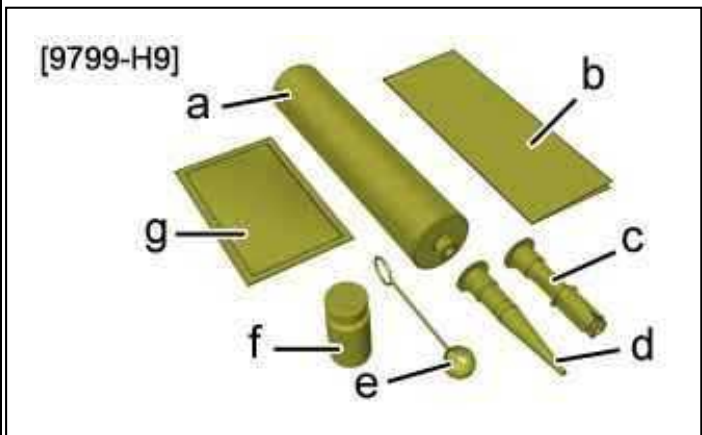
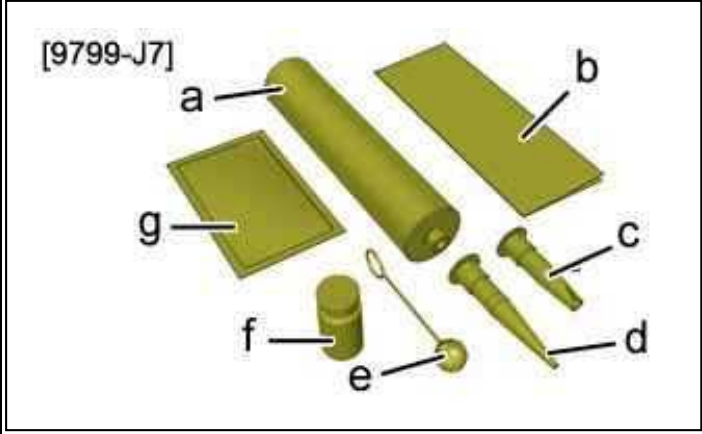
N.B. : The maximum time for bonding the glass is the time between extruding of the product and positioning of the glass to be bonded. The maximum time for bonding the glass varies as a function of the temperature and moisture level (22°C and 50% humidity).

Drying in air at ambient temperature.

N.B. : Immobilisation time for the vehicle after bonding is approx. 1 h.

## 2. Consumables (henkel)

| tool | Reference | Designation                                                         |
|------|-----------|---------------------------------------------------------------------|
|      | [9799 H8] | ultra rapid kit                                                     |
|      |           | "a" Adhesive cartridge<br>"b" Instructions<br>"c" Adjustable nozzle |

|                                                                                                     |           |                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>[9799-H8]</p>   |           | <p>"d" Un-cut nozzle<br/>         "e" applicator<br/>         "f" Primer<br/>         "g" Window glass cleaning kit</p>                                                                                                      |
| <p>Figure : E5AB0MUT</p>                                                                            |           |                                                                                                                                                                                                                              |
| <p>[9799 H9]</p>                                                                                    | [9799 H9] | Fast kit                                                                                                                                                                                                                     |
|  <p>[9799-H9]</p>  |           | <p>"a" Adhesive cartridge<br/>         "b" Instructions<br/>         "c" Adjustable nozzle<br/>         "d" Un-cut nozzle<br/>         "e" applicator<br/>         "f" Primer<br/>         "g" Window glass cleaning kit</p> |
| <p>Figure : E5AB0MVT</p>                                                                            |           |                                                                                                                                                                                                                              |
| <p>[9799 J7]</p>                                                                                    | [9799 J7] | Standard kit                                                                                                                                                                                                                 |
|  <p>[9799-J7]</p> |           | <p>"a" Adhesive cartridge<br/>         "b" Instructions<br/>         "c" Pre-cut nozzle<br/>         "d" Un-cut nozzle<br/>         "e" applicator<br/>         "f" Primer<br/>         "g" Window glass cleaning kit</p>    |
| <p>Figure : E5AB0MWT</p>                                                                            |           |                                                                                                                                                                                                                              |
|                                                                                                     | [9799 J0] | Extra ultra-quick cartridge                                                                                                                                                                                                  |

|                                                                                                     |                  |                                    |
|-----------------------------------------------------------------------------------------------------|------------------|------------------------------------|
| <p>[9799 JO]</p>   |                  |                                    |
| <p>Figure : E5AB0MXT</p>                                                                            |                  | <p>Adhesive cartridge</p>          |
| <p>[9799 J1]</p>  | <p>[9799 J1]</p> | <p>Extra ultra-quick cartridge</p> |
| <p>Figure : E5AB0MYT</p>                                                                            |                  | <p>Adhesive cartridge</p>          |
| <p>[972676]</p>  | <p>[972676]</p>  | <p>Extra standard cartridge</p>    |
| <p>Figure : E5AB0MZT</p>                                                                            |                  | <p>Adhesive cartridge</p>          |

## 2.1. Tooling

Pneumatic gun with air flow adjustment  .

## 2.2. Data

| Reference | Designation     | Time of immobilisation of the vehicle after bonding |
|-----------|-----------------|-----------------------------------------------------|
| [9799 H8] | ultra rapid kit | 15 minutes (With cartridge heated)                  |

|           |                             |                                    |
|-----------|-----------------------------|------------------------------------|
| [9799 H9] | Fast kit                    | 2 hr                               |
| [9799 J7] | Standard kit                | 6 hr                               |
| [9799 J0] | Extra ultra-quick cartridge | 15 minutes (With cartridge heated) |
| [9799 J1] | Extra ultra-quick cartridge | 2 hr                               |
| [9726 76] | Extra standard cartridge    | 6 hr                               |

Compatibility :

- All bonding of original polyurethane used in bonding of window glass
- Glass with integral radio aerial (non-conductive product)

Optimum temperature for using the product : Between 10°C and 35°C.

N.B. : The maximum time for bonding the glass is the time between extruding of the product and positioning of the glass. The maximum time for bonding the glass varies as a function of the temperature and moisture level (22°C and 50% humidity).

Drying in air at ambient temperature.

N.B. : Immobilisation time for the vehicle after bonding is approx. 1 h.

### 3. Data on hygiene and safety

The data files on health and safety can be consulted on the internet site <http://quickfds.com>.

N.B. : Use the Parts No. for searches of the hygiene and safety data.

### 4. Bonding method

#### 4.1. Preparation of the bonding surfaces

Clean the bonding surfaces of the glass, as well as the edges ; Using the cleaning cloth.  
Wipe with the dry cloth or use a clean rag.

#### 4.2. Note on use of bonding primer

Leave the primer to dry for 5 minutes.

**CAUTION** : Never carry out bonding without using bonding primers.

**CAUTION** : If there is a metal support, this support should be covered with a paint layer (top lacquer or cataphoresis coating).

**CAUTION** : If there are supports made from synthetic materials (polyester, PVC, PU, RIM) the lacquer primer can be applied directly on the unpainted material.

**CAUTION** : In the case of a new replacement body, do not damage the anti-corrosion protection (cataphoresis).

**CAUTION** : In the case of a component replacement (e.g. windscreen pillar), do not remove the anti-corrosion protection (cataphoresis) on the bonding zone.

**CAUTION** : On bare panel, apply the bonding primer in two layers, with a drying time of 5 to 10 minutes between the two layers.

CAUTION : Prime the bonding zone before painting.

CAUTION : Never paint the bonding zone.

#### 4.3. Bonding

CAUTION : Apply the adhesive strip on the entire periphery of the glass in one uninterrupted action.

Fit the glass on the bodywork.

## PRESENTATION : GLAZING TOOLS

## 1. Set of glass components

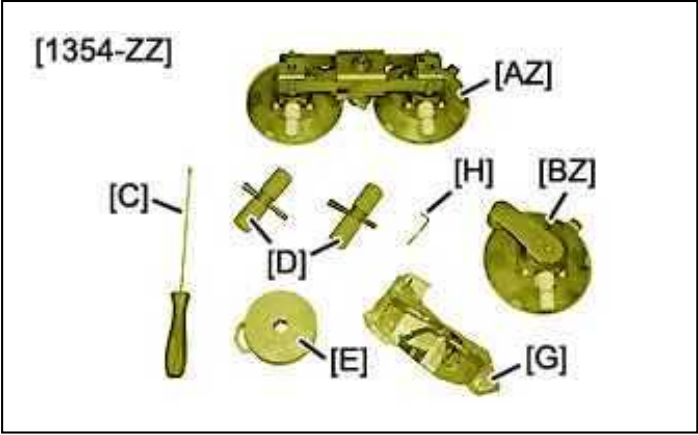
| Tool                                                                                                                                                                              | Reference | Description                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------|
|  <p>[1354-ZZ]</p> <p>[C]</p> <p>[D]</p> <p>[E]</p> <p>[G]</p> <p>[AZ]</p> <p>[H]</p> <p>[BZ]</p> | [1354-ZZ] | Set of glass components           |
|                                                                                                                                                                                   | [1354-AZ] | roller guide apparatus            |
|                                                                                                                                                                                   | [1354-BZ] | Guiding roller (half suction pad) |
|                                                                                                                                                                                   | [1354-C]  | awl                               |
|                                                                                                                                                                                   | [1354-D]  | Handles                           |
|                                                                                                                                                                                   | [1354-E]  | square section cutting wire       |
|                                                                                                                                                                                   | [1354-G]  | Protective goggles                |
|                                                                                                                                                                                   | [1354-H]  | Allen key                         |

Figure : E5AB0RST

## 2. Suction pads

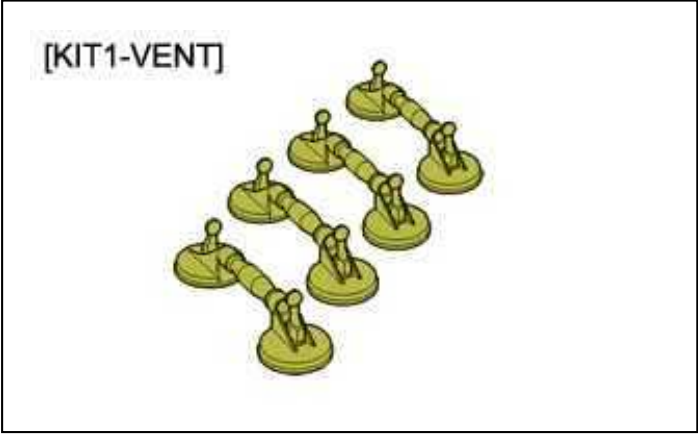
| Tool                                                                                                   | Reference   | Description              |
|--------------------------------------------------------------------------------------------------------|-------------|--------------------------|
|  <p>[KIT1-VENT]</p> | [KIT1-VENT] | Articulated suction pads |
|                                                                                                        | [KIT2-VENT] | Suction pads with wires  |

Figure : E5AB0NZT

[KIT2-VENT]



Figure : E5AB000T

### 3. Heater cartridge

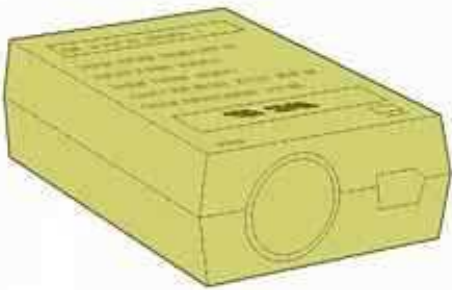
| Tool                                                                               | Reference | Description      |
|------------------------------------------------------------------------------------|-----------|------------------|
|  | -         | Heater cartridge |

Figure : E5AB001T

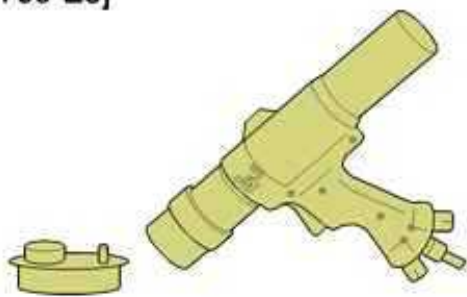
### 4. Guns

#### 4.1. Guns (DOW automotive)

| Tool | Reference | Description                 |
|------|-----------|-----------------------------|
|      | [9776-GG] | Monocomponent pneumatic gun |

|                                                                                                            |                   |                                    |
|------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------|
| <p><b>[9776-GG]</b></p>   |                   |                                    |
| <p>Figure : E5AB002T</p>                                                                                   |                   |                                    |
| <p><b>[BETA-GUN]</b></p>  | <p>[BETA-GUN]</p> | <p>Twin-component electric gun</p> |
| <p>Figure : E5AB003T</p>                                                                                   |                   |                                    |

## 4.2. Guns (Henkel)

| Tool                                                                                                        | Reference        | Description                        |
|-------------------------------------------------------------------------------------------------------------|------------------|------------------------------------|
| <p><b>[9799-E6]</b></p>  | <p>[9799-E6]</p> | <p>Monocomponent pneumatic gun</p> |
| <p>Figure : E5AB004T</p>                                                                                    |                  |                                    |
|                                                                                                             | <p>[9799-N1]</p> | <p>Twin-component electric gun</p> |

|                                                                                                    |  |  |
|----------------------------------------------------------------------------------------------------|--|--|
| <p>[9799-N1]</p>  |  |  |
| Figure : E5AB0O5T                                                                                  |  |  |

## 5. FEIN electric knife

### 5.1. Tool box

| Tool                                                                                                  | Reference   | Description         |
|-------------------------------------------------------------------------------------------------------|-------------|---------------------|
| <p>[FEIN-400E]</p>  | [FEIN-400E] | FEIN electric knife |
| Figure : E5AB0RUT                                                                                     |             |                     |

### 5.2. Blades

| Tool | Reference | Description                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | -         | Blades                                                                                                                                                                                                                                                                                                                                                                                                                           |
|      |           | "a" part no PR 9776.G8 - Blade no. 194<br>"b" part no PR 9769.23 - Blade no. 143<br>"c" part no PR 9769.26 - Blade no. 076<br>"c" part no PR 9769.HA - Blade no. 079<br>"c" part no PR 9769.29 - Blade no. 154<br>"c" part no PR 9780.EF - Blade no. 101<br>"c" part no PR 9780.EG - Blade no. 115<br>"c" part no PR 9780.EJ - Blade no. 207<br>"c" part no PR 9780.EK - Blade no. 208<br>"d" part no PR 9769.30 - Blade no. 146 |

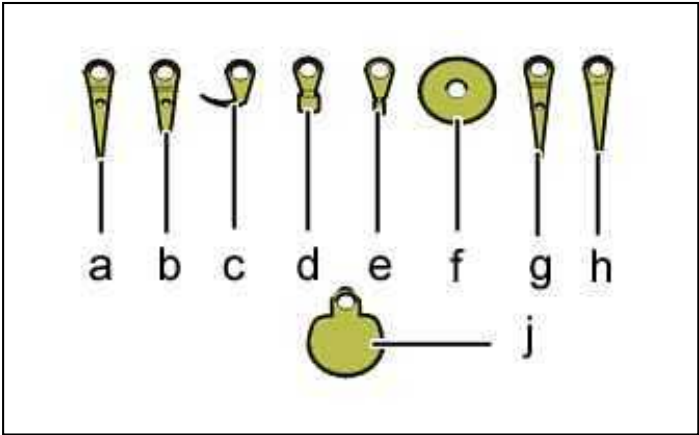


Figure : E5AB007T

"e" part no PR 9769.25 - Blade no. 144  
"f" part no PR 9769.24 - Blade no. 103  
"g" part no PR 9769.80 - Blade no. 160  
"h" part no PR 9769.GR - Blade no. 125  
"j" part no PR 9780.E9 - Blade no. 128

6. Protective shield

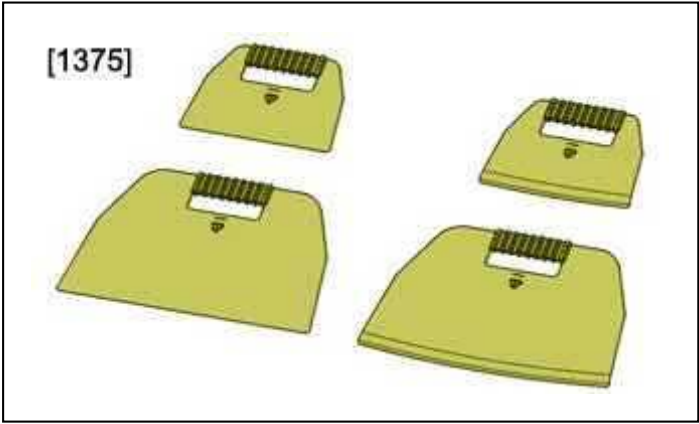
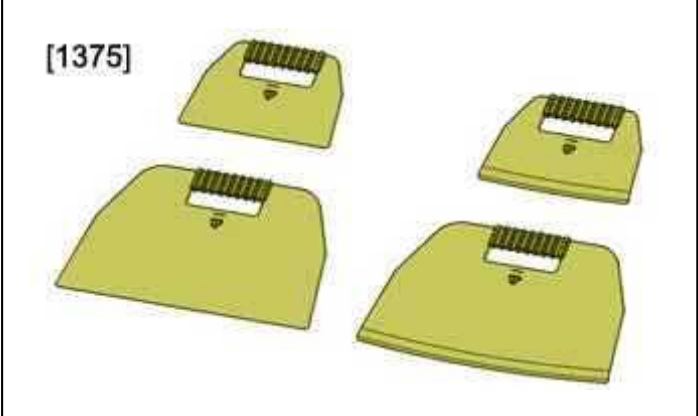
| Tool                                                                                          | Reference | Description       |
|-----------------------------------------------------------------------------------------------|-----------|-------------------|
| <div></div> | [1375]    | Protective shield |

Figure : E5AB03RT

## REMOVING - REFITTING : WINDSCREEN

**ESSENTIAL** : Observe the safety and cleanliness recommendations ⓘ .

## 1. Tooling

| tool                                                                                                       | Reference | Designation |
|------------------------------------------------------------------------------------------------------------|-----------|-------------|
|  <p>Figure : E5AB03RT</p> | [1375]    | Protectors  |

Presentation :

- Glazing tools ⓘ
- Glazing consumables ⓘ

## 2. Preliminary operations

Remove :

- The scuttle grille ⓘ
- The rain/sunlight bi-sensor ⓘ
- The screen pillar trim pads ⓘ
- The bonnet hinge trim ⓘ

## 3. Removing

**ESSENTIAL** : Gloves and protective goggles must be worn for the following operations.

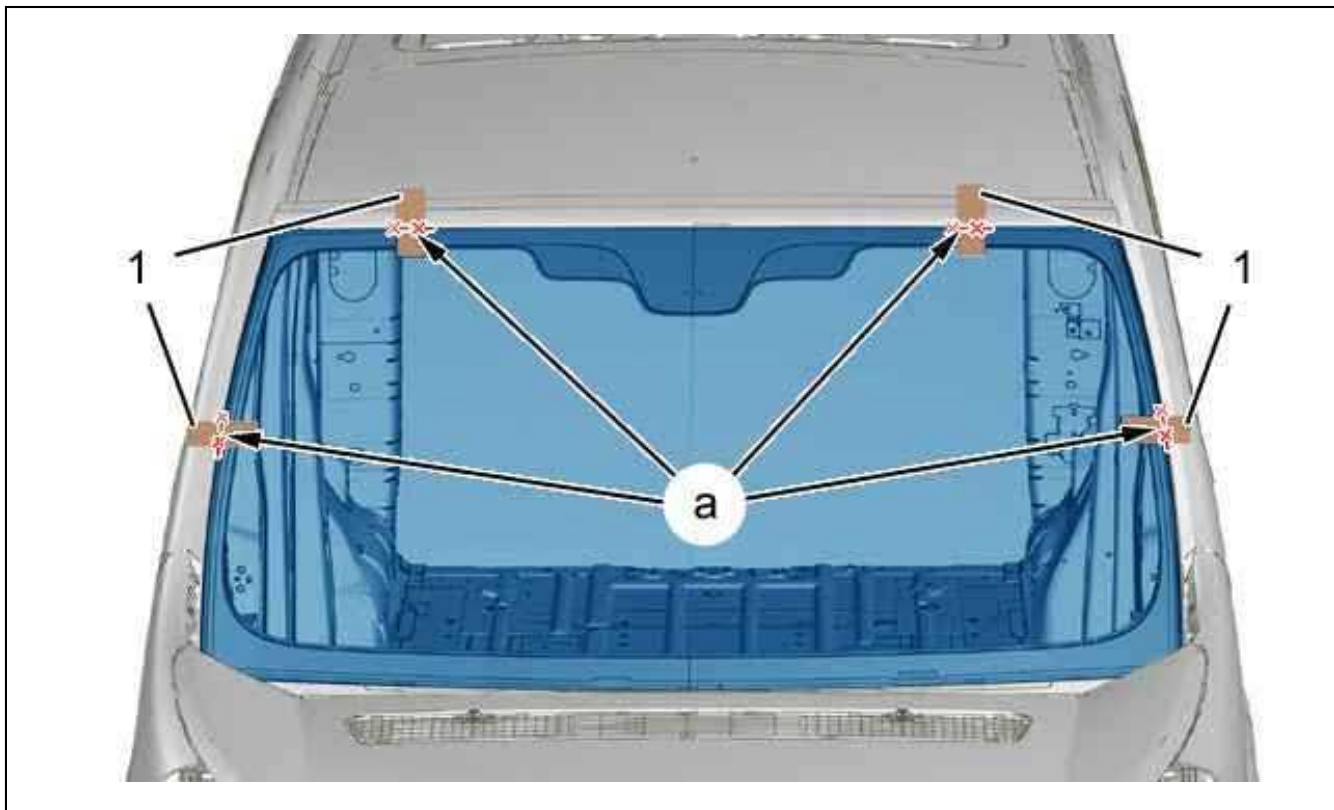


Figure : C5CG1KSD

Position the adhesive strips (1).  
Cut the adhesive tape (1) (at "a").

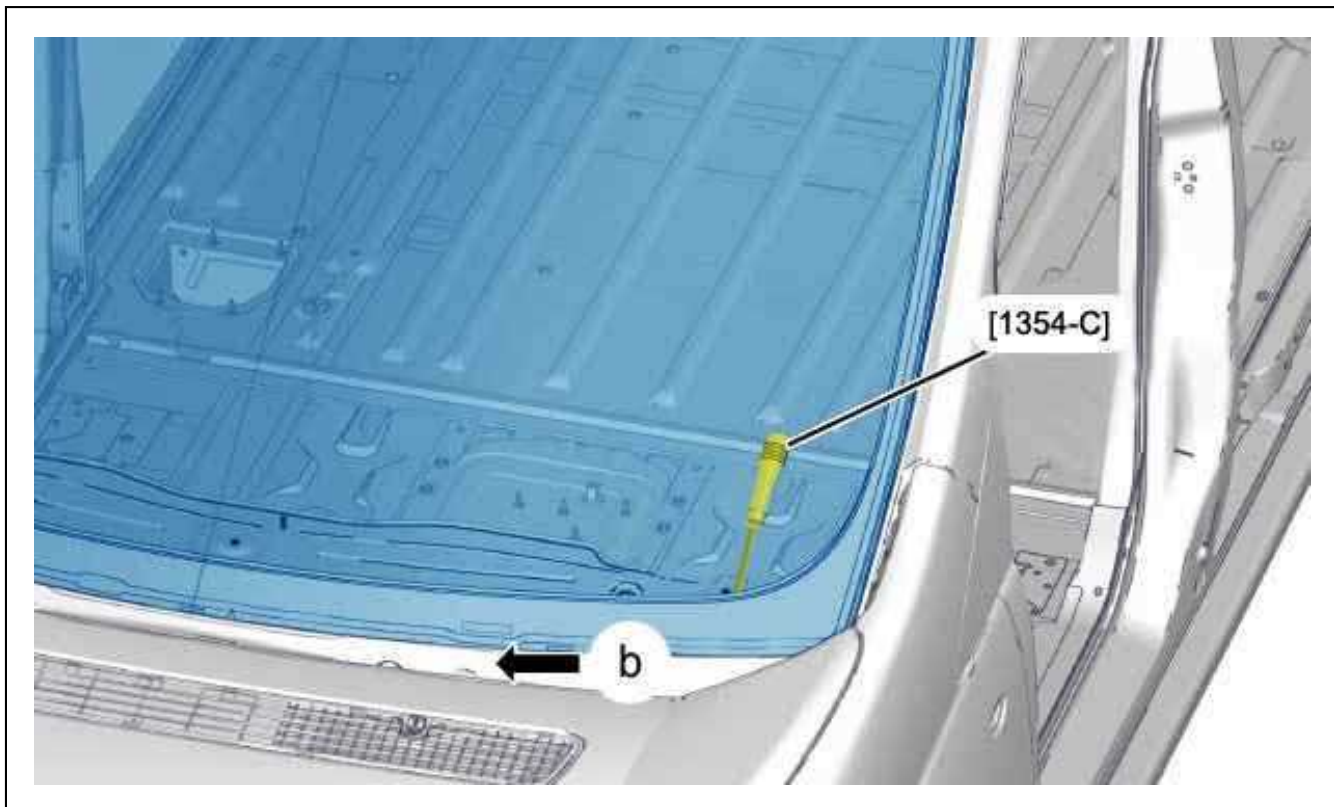


Figure : C5CG1L7D

Pass the awl [1354-C] through the bead of adhesive, from the inside towards the outside.

Attach the cutting wire [1354-E] in the handle [1354-C].

Pass the cutting wire [1354-E] inside the vehicle.

Leave a sufficient length to permit fixing on the winder device with roller [1354-AZ].

Pass the cutting wire [1354-E] under the windscreen seal over the entire periphery (following "b").

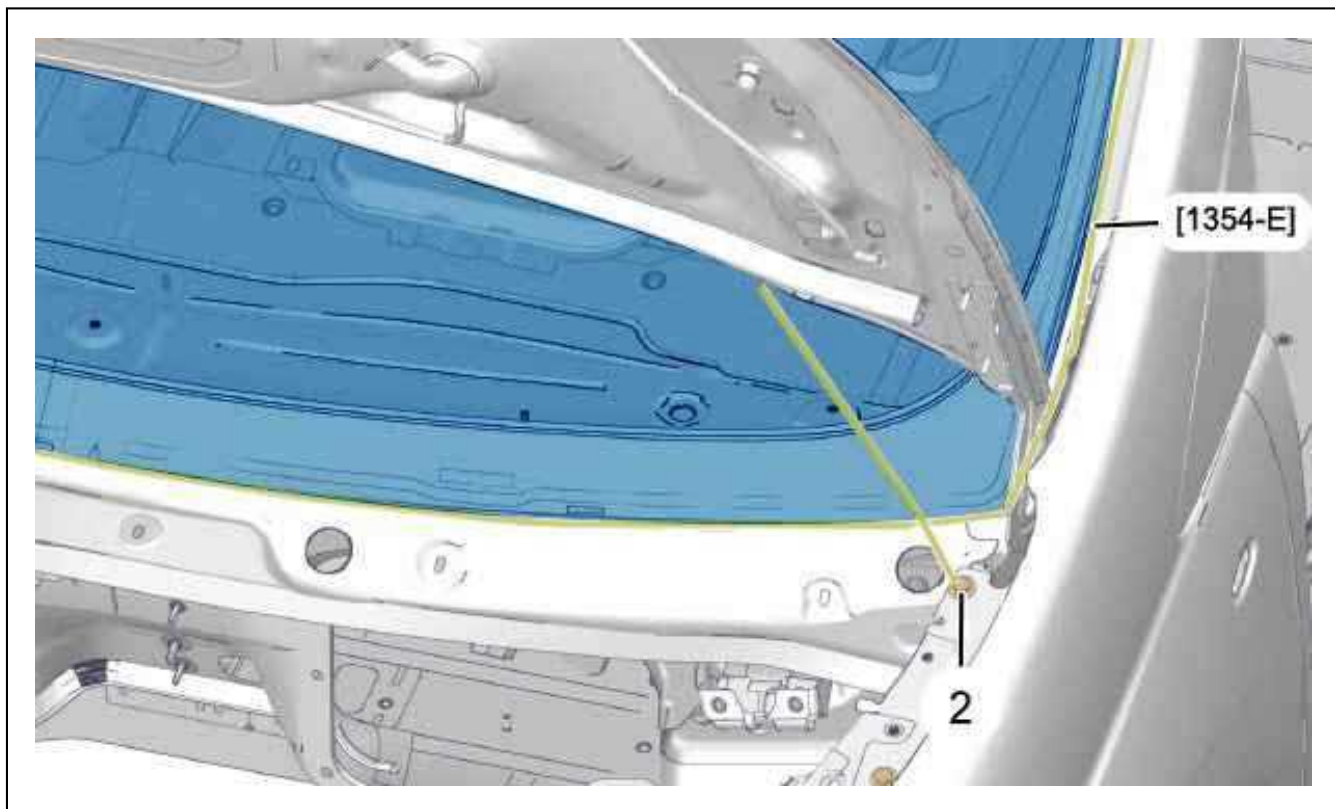


Figure : C5CG1LAD

Open the bonnet.

Fix the cutting wire [1354-E] using the bonnet hinge bolt (2).

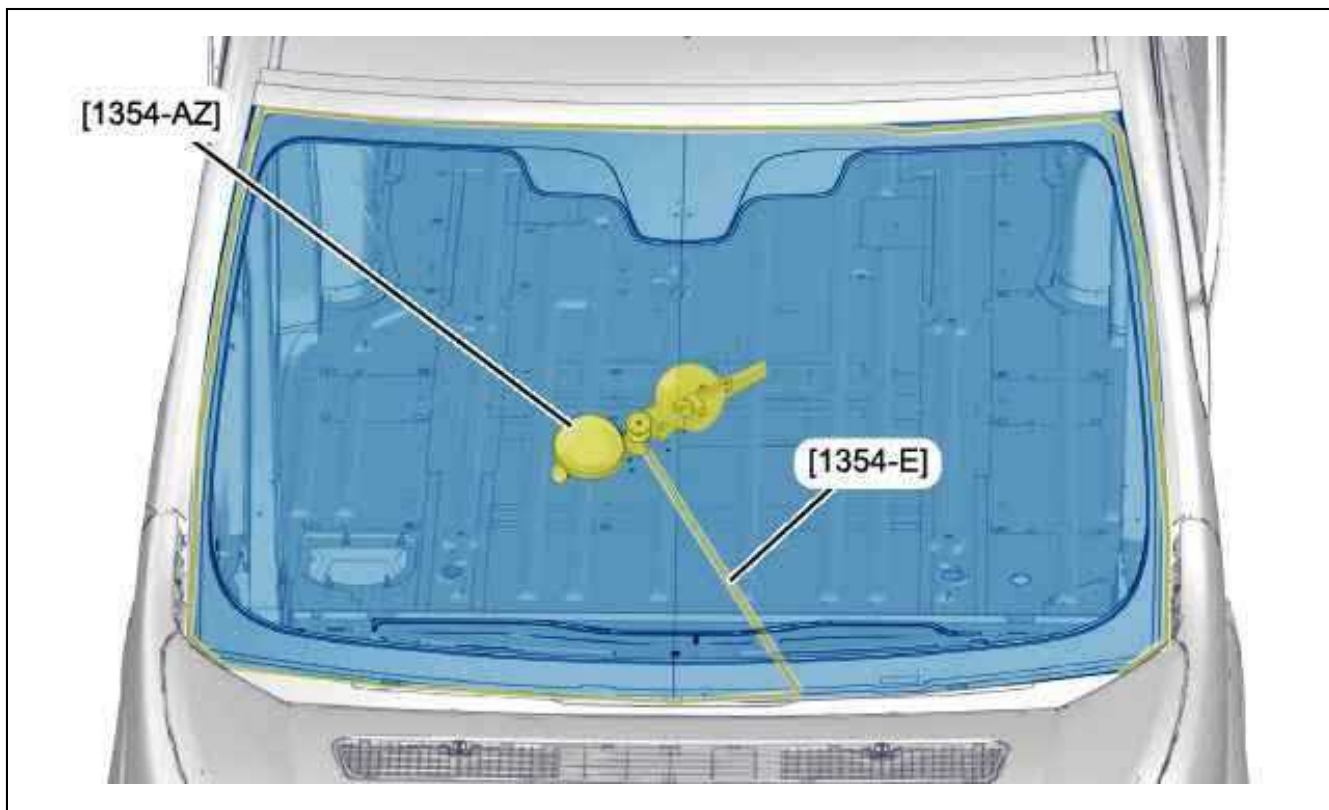


Figure : C5CG1LDD

CAUTION : Protect the dashboard ; Using protectors [1375].

CAUTION : When pulling the cutting wire [1354-E] taut, check that the wire is positioned correctly under the windscreen.

Fix the end of the cutting wire [1354-E] to the roller guide device [1354-AZ].  
Start cutting the adhesive sealing strip at the upper part of the windscreen.

N.B. : If the slightest resistance is felt during cutting, slacken the cutting wire [1354-E].

Assist the cutting wire [1354-E] in passing the obstacle (Support shims, excessive thickness of the bead of adhesive or join between panels).

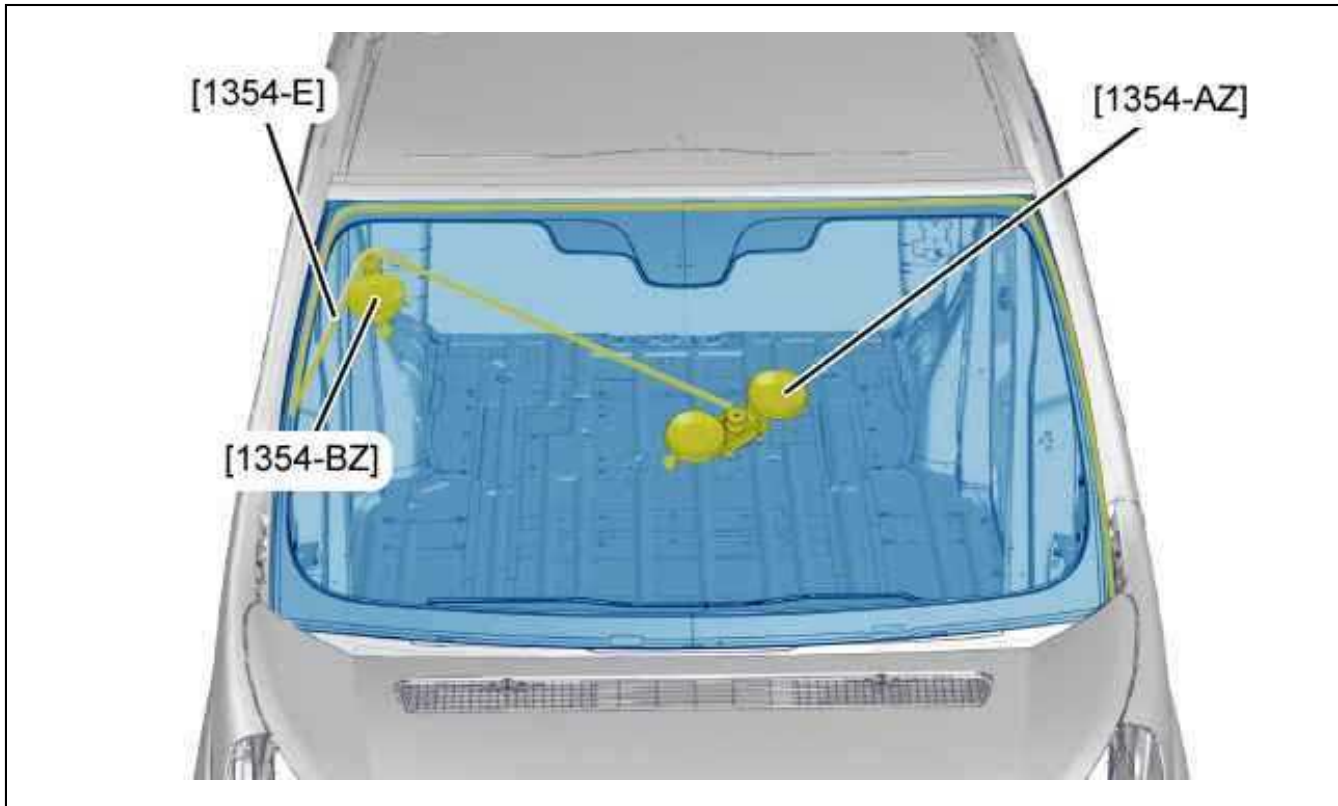


Figure : C5CG1LGD

Move the tools [1354-AZ] and [1354-BZ] ; Following the progress of the cutting of the adhesive sealing strip. Continue cutting until the cutting wire [1354-E] is no longer guided by the guide roller [1354-BZ], remove the guide roller [1354-BZ] and complete the cut.

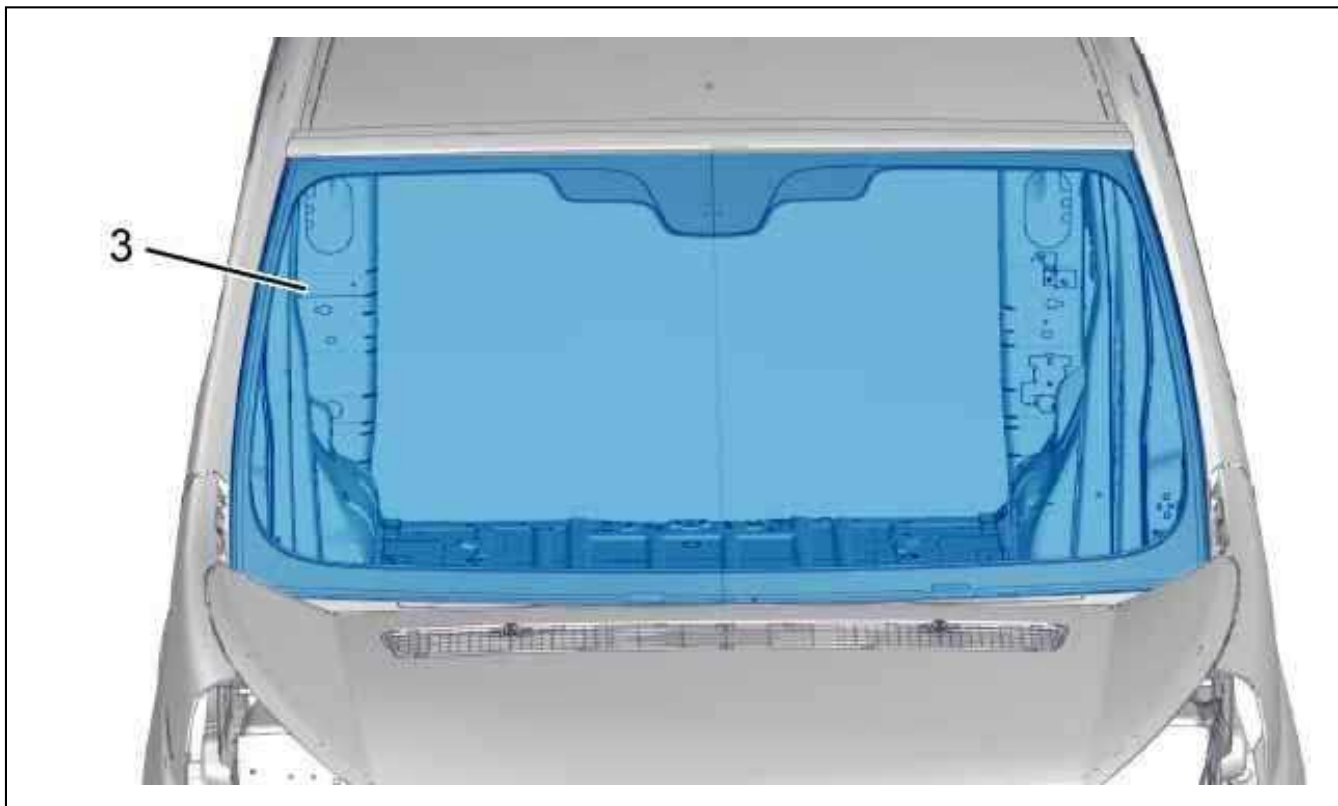


Figure : C5CG1LHD

N.B. : For the following operation, 2 operators are necessary.

Remove the windscreen (3) ; Using the double hinged suction cups [KIT1-VENT].

## 4. Refitting

### 4.1. Preparing the windscreen

1st case : Re-use of the windscreen glass.

Fit the electric knife [FEIN-400E] with the blade N°146.

Remove the sealing adhesive strip.

Dedust with a clean cloth.

Apply the primer on the zones made bare.

Leave to dry for 10 minutes.

2nd case : Fitting new windscreen glass.

Degrease the edge of the windscreen.

Apply the glass primer provided in the bonding kit part number A3.

Leave to dry for 10 minutes.

N.B. : Apply the primer on the zones made bare.

### 4.2. Preparing the windscreen flange

1st case : On residue sealant.

Fit the electric cutter [FEIN-400E] with blade N°146.

Remove the sealing adhesive strip.

Dedust with a clean cloth.

2nd case : New component.

Degrease the aperture.

Apply the metal primer provided in the bonding kit part number A3.

Leave to dry for 10 minutes.

### 4.3. Applying the adhesive

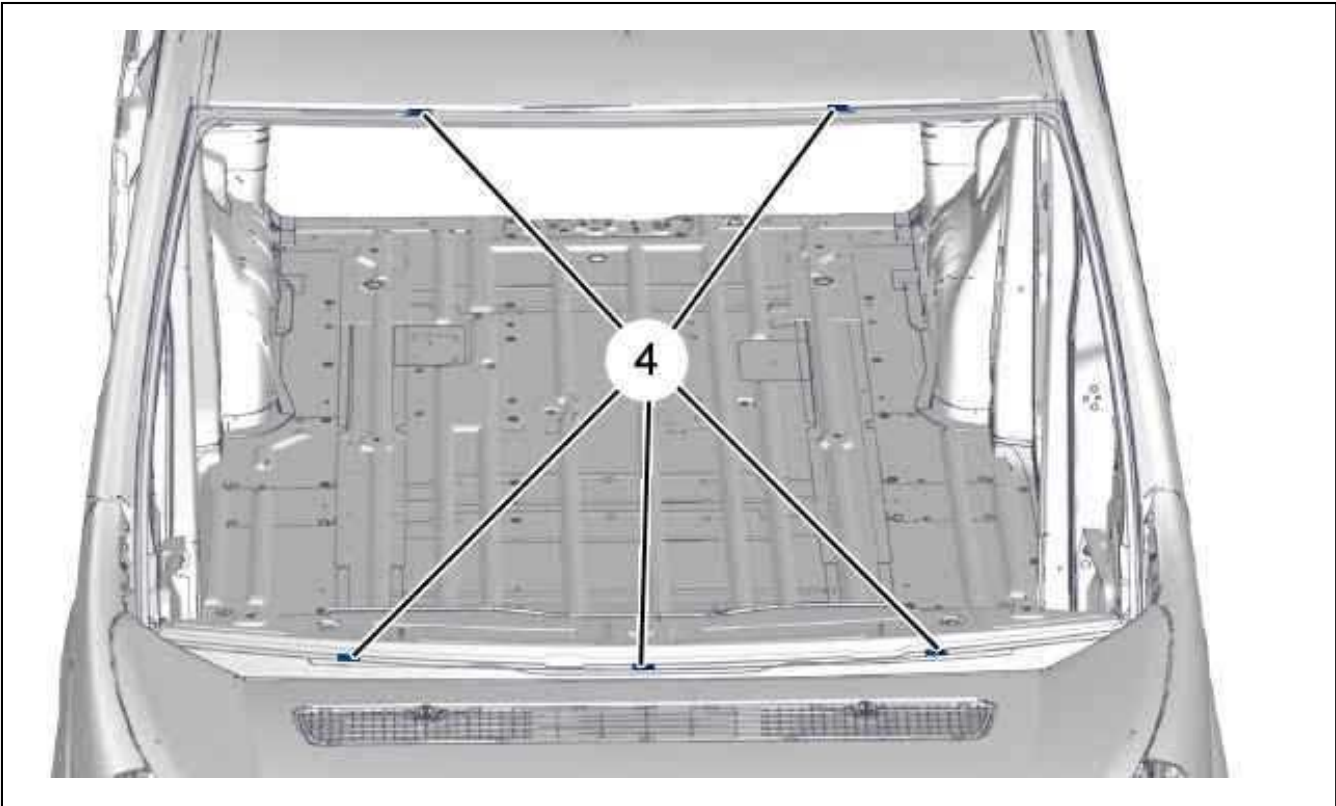


Figure : C5CG1LID

Position the shims (4).

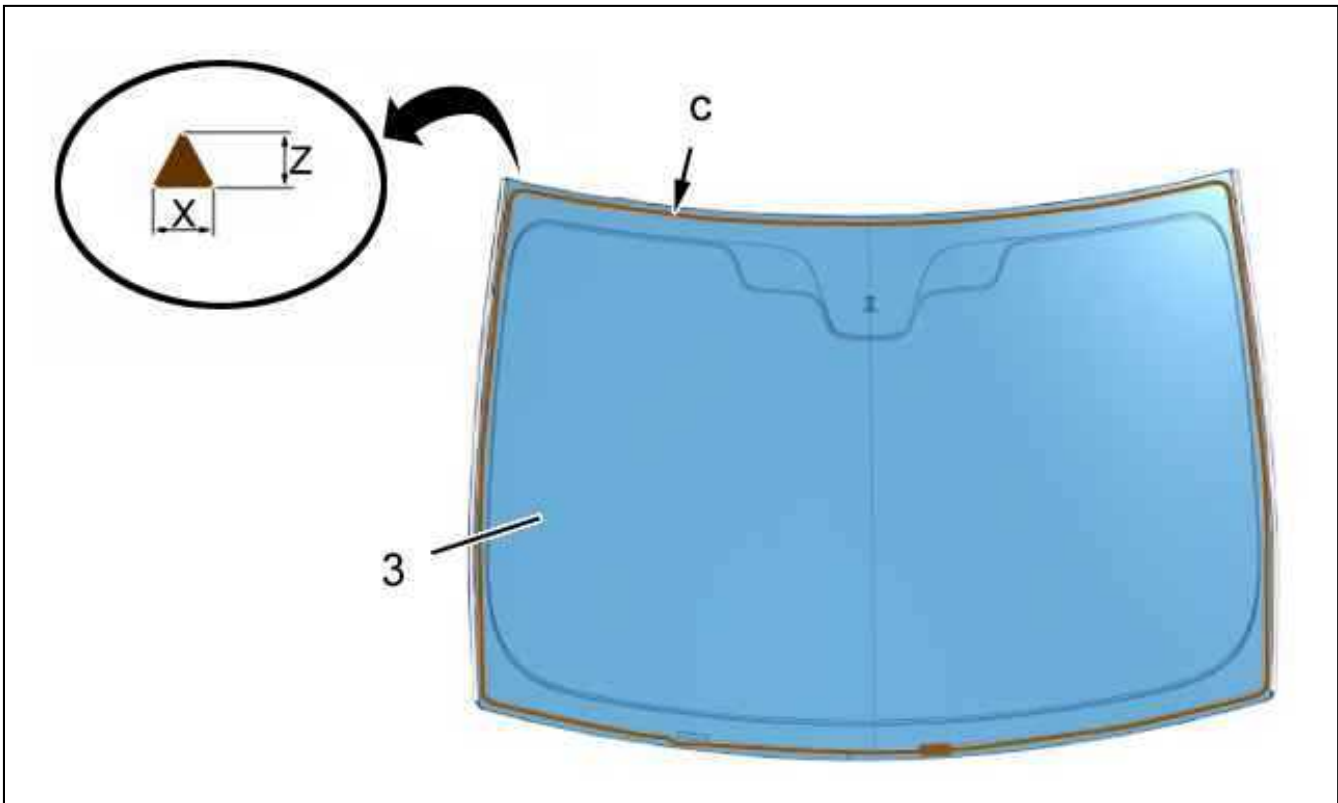


Figure : C5CP0E0D

"X" = 8 mm .

"Z" = 12 mm .

Cut the nozzle in triangular section to obtain a bead of sealing adhesive "X" wide and "Z" deep.

1st case : Reusing the windscreen.

Apply a bead of sealing adhesive to the periphery of the windscreen (3) (at "c").

**CAUTION : Use of the two part product: the time for fitting the window on the vehicle and the start of extrusion of the sealing adhesive is 5 minutes.**

Refit the windscreen :

- Using the double hinged suction cups [KIT1-VENT]
- Using adhesive tapes (1)

Check the fits and clearances of the windscreen.

Press gently on the edges of the windscreen (3).

Clean the windscreen and its surround.

2nd case : Fitting a new screen (3).

Test fit the windscreen (3).

Position strips of adhesive tape (1) and cut them (at "a").

Remove the windscreen (3).

Apply a bead of sealing adhesive to the periphery of the windscreen (3) (at "c").

**CAUTION : Use of the two part product: the time for fitting the window on the vehicle and the start of extrusion of the sealing adhesive is 5 minutes.**

Refit the windscreen :

- Using the double hinged suction cups [KIT1-VENT]
- Using adhesive tapes (1)

Check the fits and clearances of the windscreen.

Press gently on the edges of the windscreen (3).

Clean the windscreen and its surround.

**CAUTION : Observe the vehicle immobilisation time following fitting of the windscreen recommended by the suppliers of the products used.**

Continue the fitting operations in the reverse order to the removal operations.

Check that the electrical equipment is working correctly.

Check the sealing of the windscreen (3).

Clean the windscreen (3) and its surround.

# REPAIR OF IMPACTS ON LAMINATED WINDSCREENS : EQUIPMENT AND REPAIR PRODUCTS

## 1. Equipment and repair products

### 1.1. Complete repair kit

Part number : 000 006.

| Designation                          | Quantity |
|--------------------------------------|----------|
| Resin injecting gun                  | 1        |
| Product for adhesion of suction pads | 1        |
| Resin pack                           | 5        |
| Tube of finishing resin              | 1        |
| Transparent plastic sheet            | 3        |
| Large sensor                         | 1        |
| Carbide tipped pen                   | 1        |
| Mirror                               | 1        |
| Light pen                            | 1        |
| Ultraviolet ray drying lamp          | 1        |
| Drill                                | 1        |
| Drill key                            | 2        |
| Drill extension                      | 1        |
| Carbide drill bit                    | 1        |
| Bottle of polish                     | 1        |
| Scraper                              | 5        |
| Instruction manual                   | 1        |

**N.B. :** Equipment requiring electric current is supplied from the vehicle's battery (voltage 12V).

### 1.2. Pack de consommables

Part number : 9999 01.

| Designation               | Quantity |
|---------------------------|----------|
| Resin pack                | 5        |
| Tube of finishing resin   | 1        |
| Scraper                   | 5        |
| Transparent plastic sheet | 10       |

The pack of consumables is sufficient for treating approx. 25 impacts.

### 1.3. Set of 10 special drill bits

Part number : 9999 02.

One drill bit will suffice for approx. 3 impact repairs.

### 1.4. Set of 5 packs of resin

Part number : ZCE 820 001.

Each resin pack contains the following elements

| Designation    | Quantity |
|----------------|----------|
| Tube of resin  | 2        |
| Resin cylinder | 2        |
| Wooden scraper | 2        |

## 2. Ordering repair products

Order from Replacement Parts.

# REPAIR OF IMPACTS ON LAMINATED WINDSCREENS : PRINCIPLE OF REPAIR

## 1. Types of impact that can be repaired

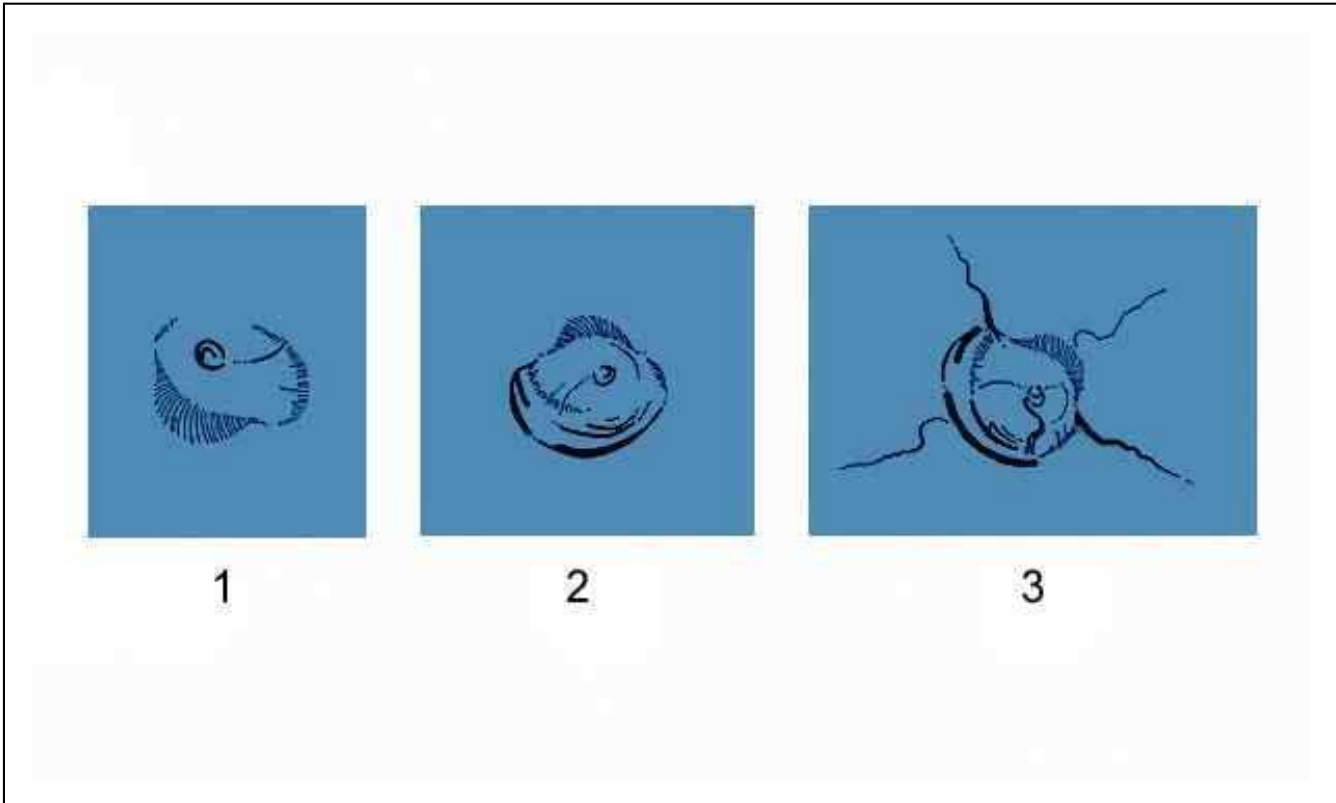


Figure : C5CP045D

- (1) 1/2 bubble impact.
- (2) Bubble impact.
- (3) Star and bubble impact.

## 2. Preparation

Place the vehicle where minimum temperature is 18°C (the windscreen must be repaired in a temperature at least this level).

**CAUTION : Repair must be carried out in shade.**

Clean the impact area to eliminate glass fragments, using tools from the repair kit (carbide point pen, carbide drill and drill bit).

Remove dirt and any signs of humidity.

## 3. Injecting the resin

Place the mirror on the impact zone (interior side of windscreen).

Open a resin pack and screw the resin cylinder onto the injection gun.

Fix the injection gun onto the windscreen, with the aid of its suction pad (centre the resin cylinder perfectly on the point of impact, tightening it until it makes contact with the windscreen).

Draw back the resin cylinder piston.

Pour the contents, partially or completely as required, of the tube of resin into the resin cylinder.

Slowly screw the resin cylinder piston so as to force the resin into the cracks.

Allow the resin to penetrate completely into all the cracks (this should take 2 to 20 minutes depending on the cracks).

As soon as the impact is filled, remove the injection gun.

Deposit a drop of finishing resin on the point of impact.

Apply a plastic sheet on the impact area to prevent the resin from running.

#### 4. Drying and finishing

Place the ultraviolet lamp on the repaired zone and allow to dry for at least 30 minutes.

After hardening :

- Remove the ultraviolet lamp
- Remove the plastic sheet
- Remove excess resin by rubbing with a scraper

**CAUTION :** The scraper must be held perpendicular to the windscreen. Never level by cutting flush with the windscreen. Smoothing is by applying polish to the impact zone.

Place a small drop of polish, then polish with a small cloth using the end of the finger.

#### 5. In the case of cracking

In the case of cracks greater than 3 cm in length, carry out the following operations :

- Drill using a carbide drill bit at the end of the crack, in order to stop it lengthening
- Fill the hole by injecting resin, then dry and surface

## REPAIR OF IMPACTS ON LAMINATED WINDSCREENS : REPAIR LIMITS

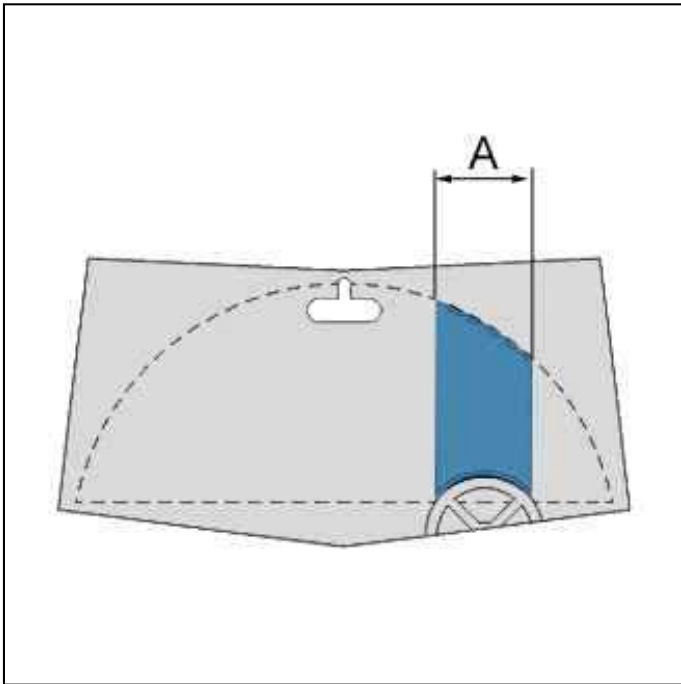


Figure : C5CP046C

"A" Zone of driver's field of vision in which any repair is forbidden (220 mm).

### 1. In the case of impact

N.B. : Any repair in the driver's field of vision may constitute a hindrance of vision.

### 2. In the case of cracking

Do not repair any crack greater than 15 cm in length.

N.B. : Any repair in the driver's field of vision may constitute a hindrance of vision.

## REPAIR : IMPACT ON THE LAMINATED WINDOWS PRINCIPLES OF REPAIR

**ESSENTIAL** : Observe the safety and cleanliness recommendations  .

### 1. Tooling

- 1 Repair kit (Manual injection ).
- 1 Repair kit (Injection using the pressure/vacuum pump ).

N.B. : Refer to the tools catalogue.

### 2. Windscreen repair area

**CAUTION** : Read the repair manual in full.

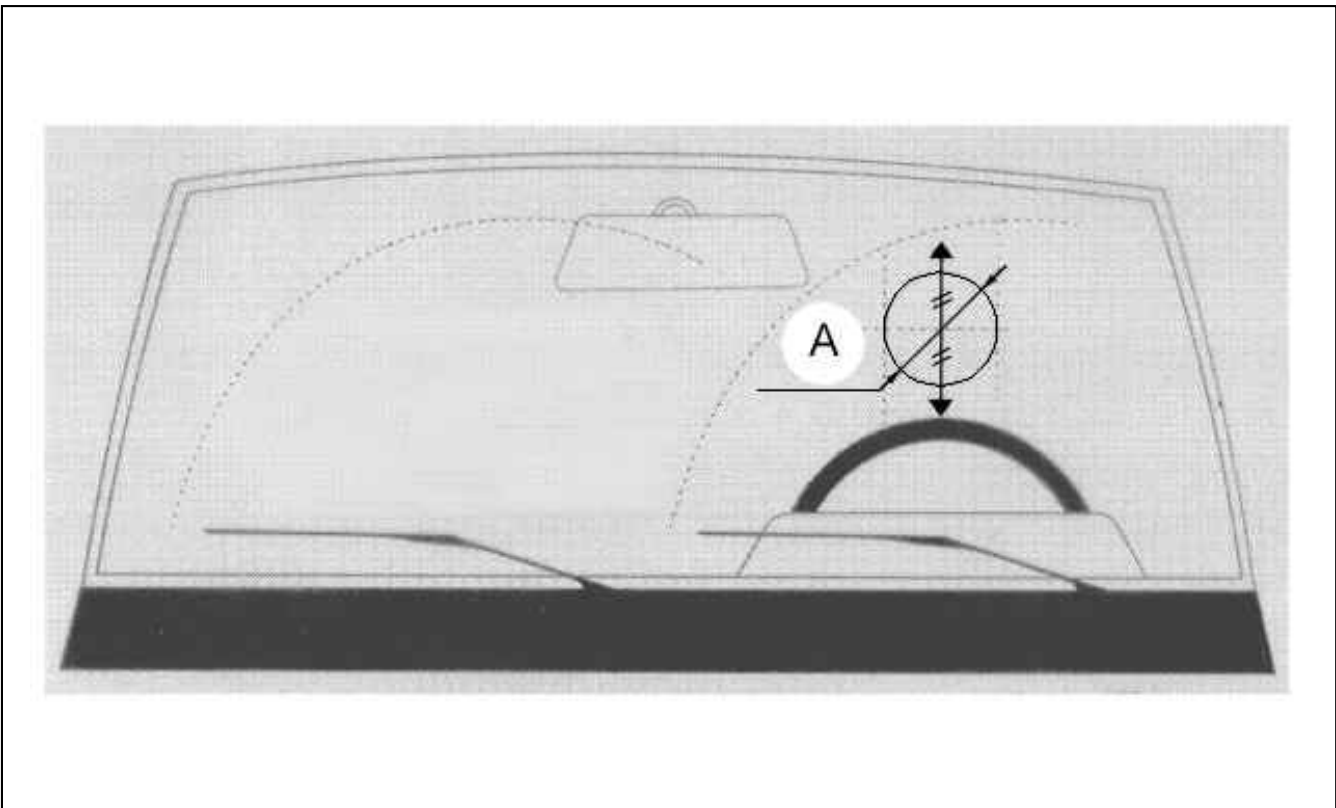


Figure : C5CM06WD

"A" = 300 mm.

**ESSENTIAL** : The repair of a windscreen in the field of vision of the driver, see "A", is prohibited.

**ESSENTIAL** : If the impact is more than 50 mm : Replace the windscreen.

### 3. Types of impact

### 3.1. Bubble or half-bubble impacts

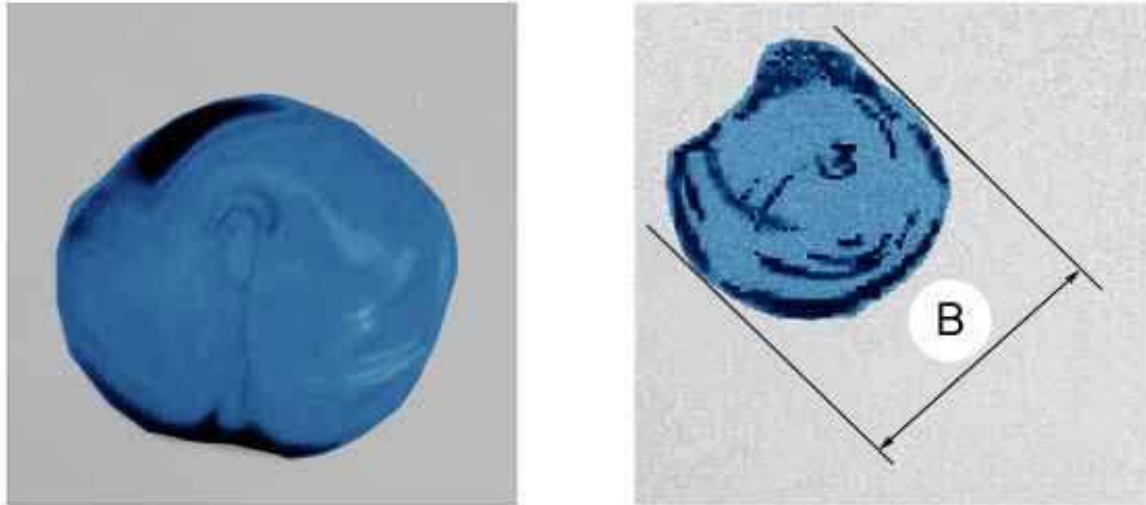


Figure : C5CM06XD

"B" = 20 mm (Max ).

N.B. : Formation of a small hole at the point of impact and a core in the form of a cone is created.

### 3.2. Star impact

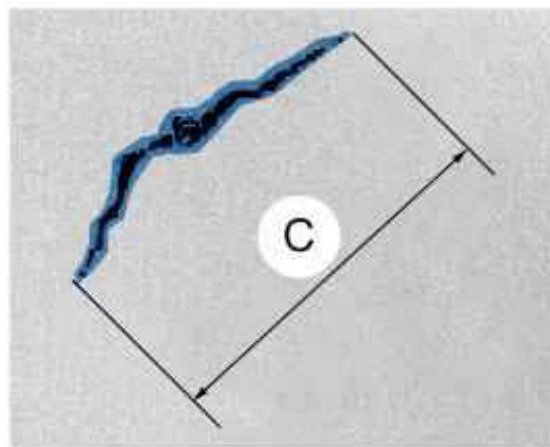
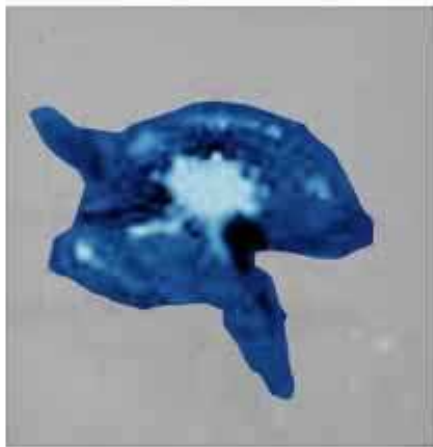


Figure : C5CM06YD

"C" = 50 mm (Max ).

Formation of cracks or worse, spreading from the point of impact.

### 3.3. Star bubble or combination impact

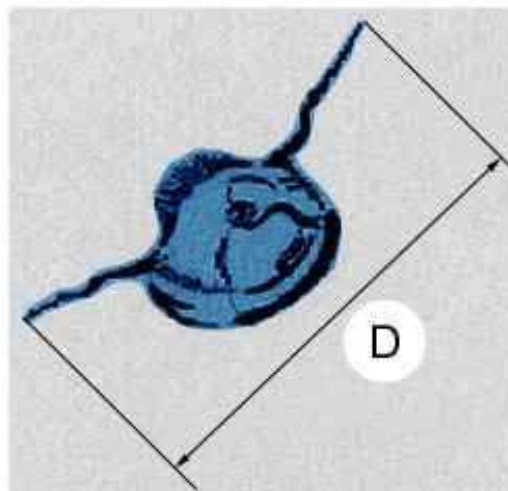
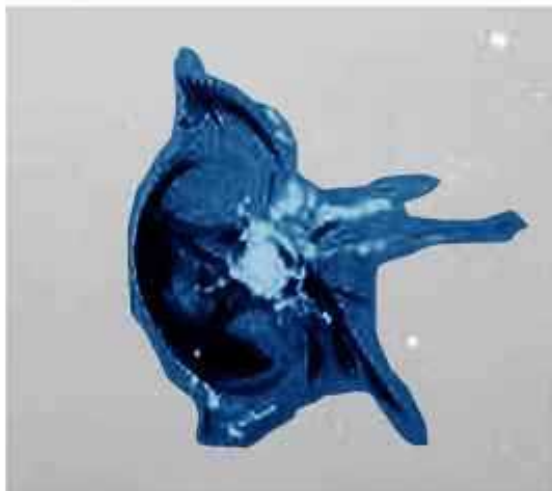


Figure : C5CM08PD

"D" = 50 mm (Max ).

Formation of cracks or worse, spreading from the point of impact.

## 4. Precautions regarding use

N.B. : Numerous factors can affect the result of a repair.

The most important points to be complied with are the following :

- Check for the presence of moisture in the impact
- Check that the temperature of the window is between 10°C and 30°C
- Protect the resin from ultraviolet rays
- Control the amount of pressure during the injection of the impact

### 4.1. Humidity

N.B. : If moisture is present, dry out the impact using the heating lamp.

**CAUTION** : Heat the laminated window moderately using the heating lamp as any other excessively strong and excessively violent heat source may enlarge the impact and crack the laminated window.

### 4.2. Temperature

The ideal temperature for repairing a laminated window is between 10°C and 30°C.

### 4.3. Ultraviolet rays

Repair away from ultraviolet rays.

### 4.4. Pressure

Follow the pressure level recommendations in the repair manual.

## 5. Repair

N.B. : Proceed in the same way for an athermic windscreen.

Place a protective cloth on the bonnet for setting down the tools.

Clean the laminated window around the impact using a dry, lint-free cloth.

N.B. : Do not spray any products onto the impact.

### 5.1. Fitting

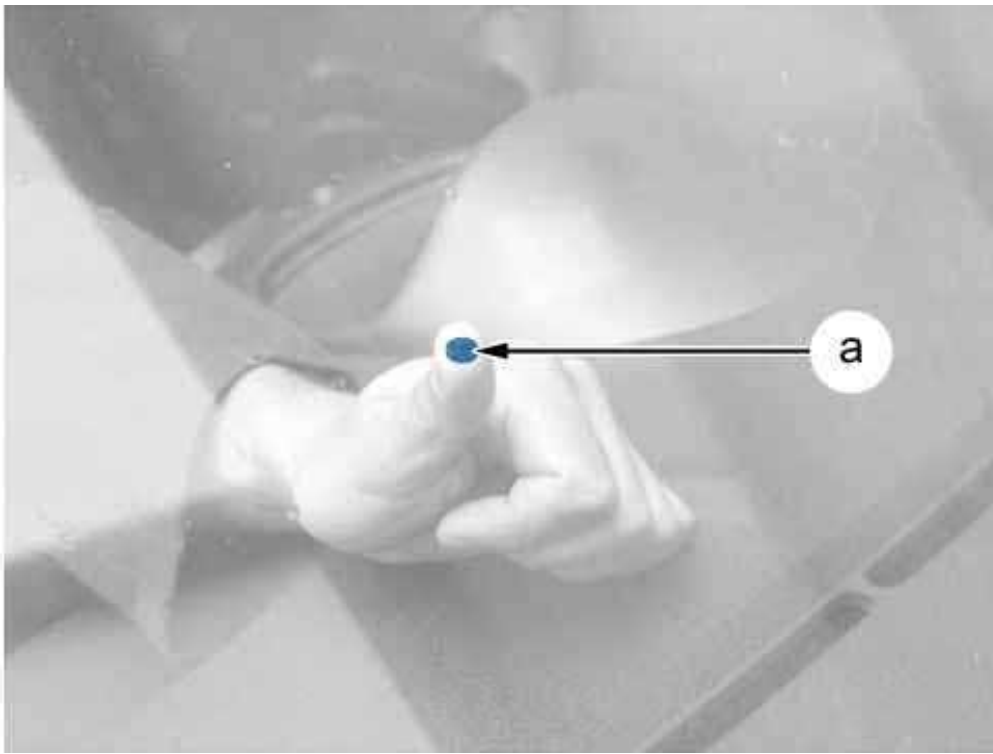


Figure : C5CM070D

Exert slight pressure on the impact at "a" using your thumb to ensure that it is free of the beginnings of any cracks.

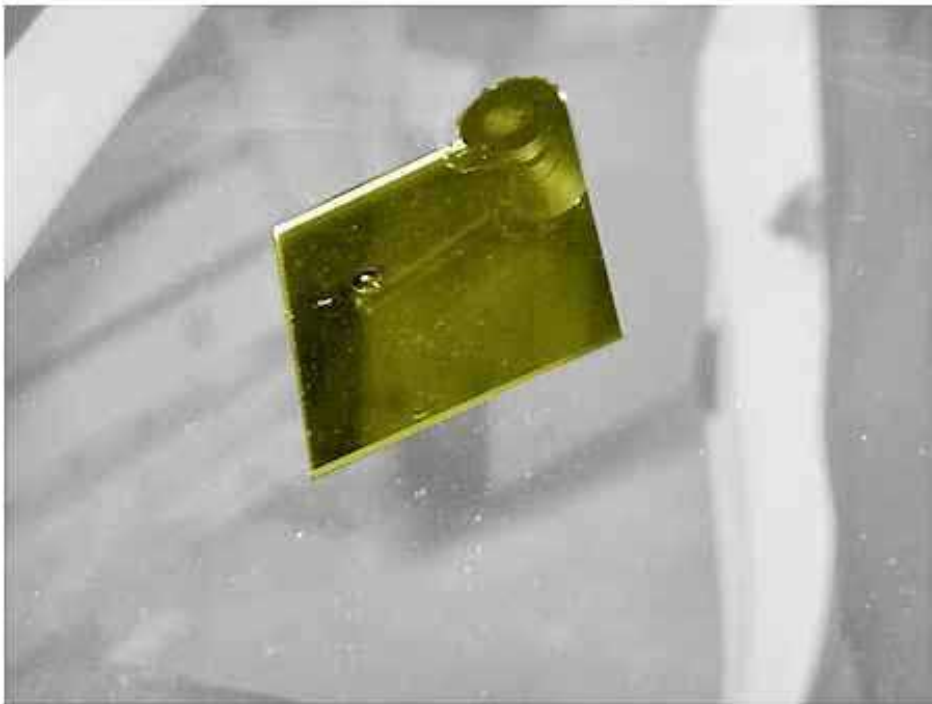


Figure : C5CM08QD

Apply adhesion product to the suction cup.  
Put the rear view mirror in place inside the passenger compartment level with the impact.

N.B. : The mirror will serve as a guide throughout the repair.



Figure : C5CM08YD

Drill out the point of impact until contact is made with the sheet of polyvinyl butyral ; Using a drill and bit.

## 5.2. Injection process

2 Processes for injecting the resin :

- 1 Manual process
- 1 Process using a pressure/vacuum pump

N.B. : Refer to the repair manual : Before removing the injection equipment, check that there are no more particles or air in the impact.

## 5.3. Drying and finishing

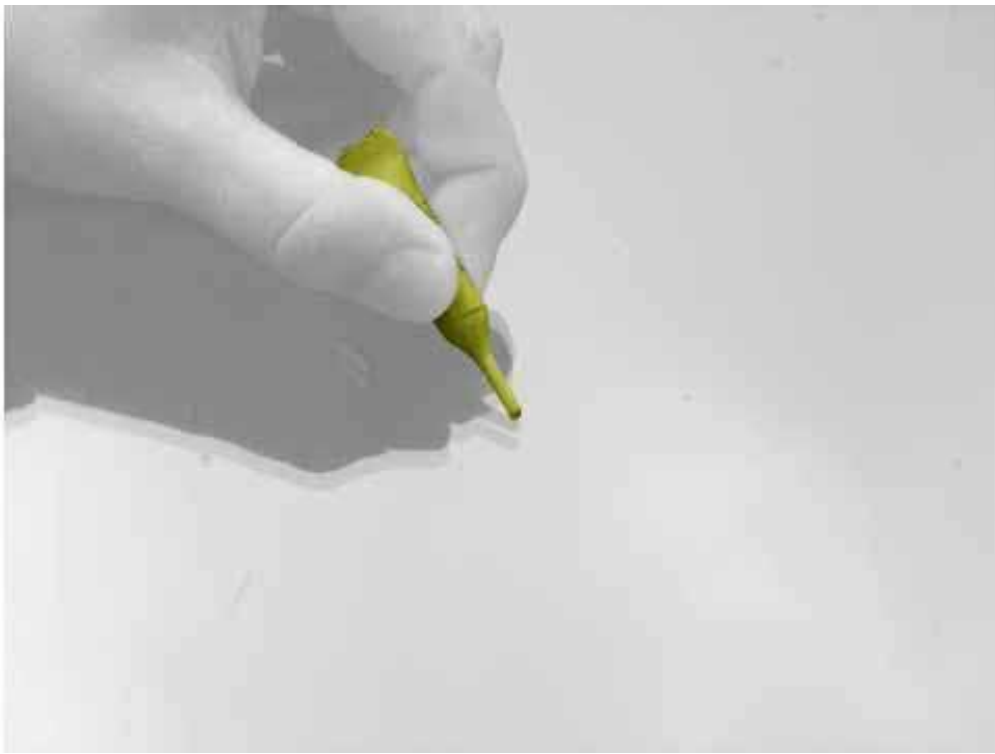


Figure : C5CM08ZD

Apply a drop of finishing resin.

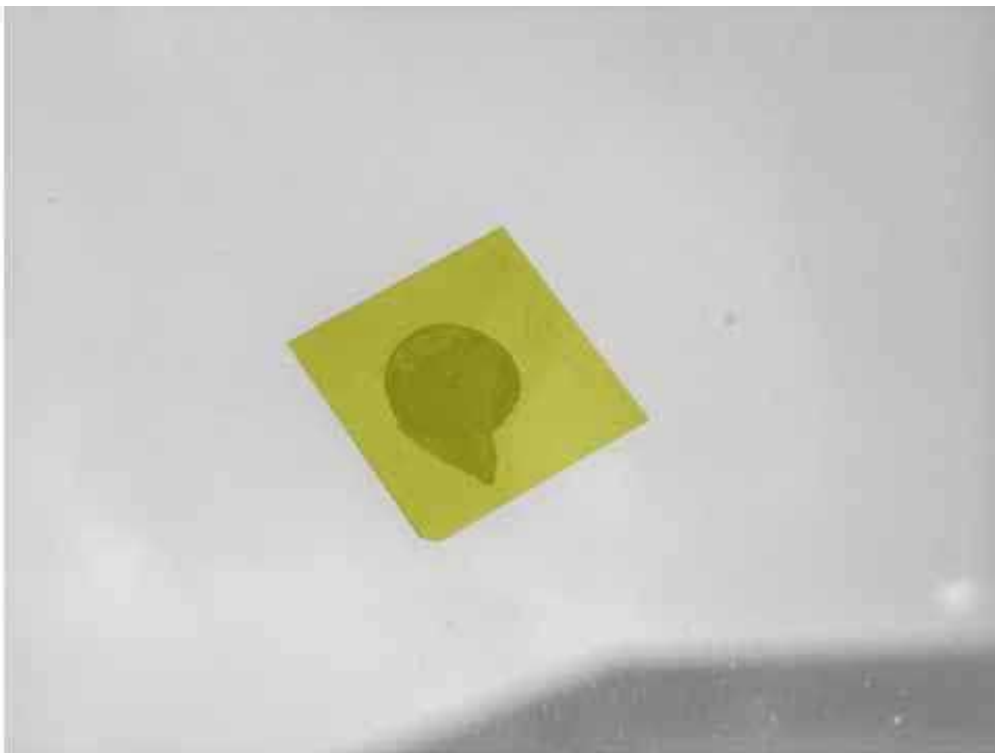


Figure : C5CM090D

Put a small plastic sheet on the finishing resin.  
Allow the small plastic sheet to rest naturally so that the finishing resin covers the whole impact.

N.B. : Do not touch the finishing resin with your fingers.

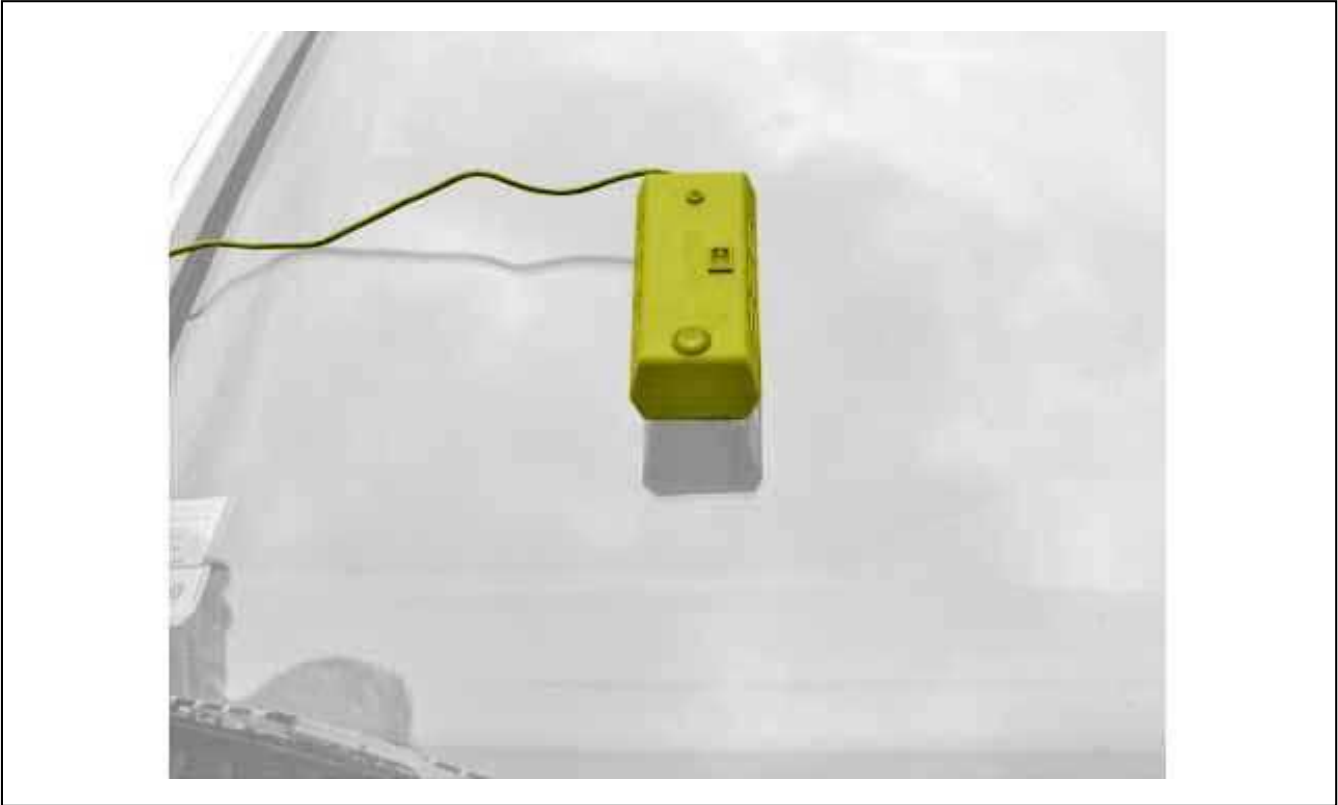


Figure : C5CM091D

Put the ultraviolet lamp in place on the small plastic sheet on the exterior side of the laminated window. Leave to dry for 15 minutes (minimum).

Remove :

- The ultraviolet lamp
- The plastic sheet

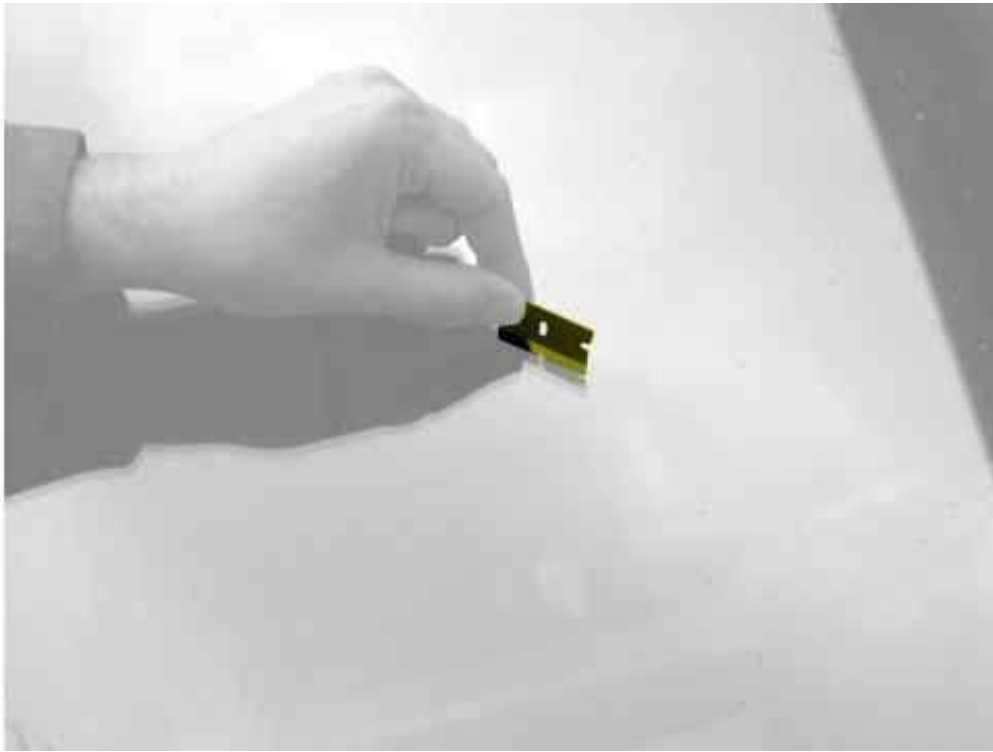


Figure : C5CM092D

Scrape off the surplus finishing resin using the scraper.

**CAUTION :** Scrape off the surplus perpendicular to the laminated window and not parallel (risk of removing the entire layer of polymerised resin).



Figure : C5CM093D

Apply the special glass finishing polish using a lint-free cloth.

Clean the laminated window.

Check that the surface of the glass is even as elsewhere on the laminated window.

## REPAIR : SCRATCH ON GLASS

**ESSENTIAL** : Observe the safety and cleanliness recommendations  .

### 1. Tooling

Glass scratch repair kit.

N.B. : Refer to the tools catalogue (Bodywork Family).

### 2. Windscreen repair area

**CAUTION** : Read the repair manual in full.

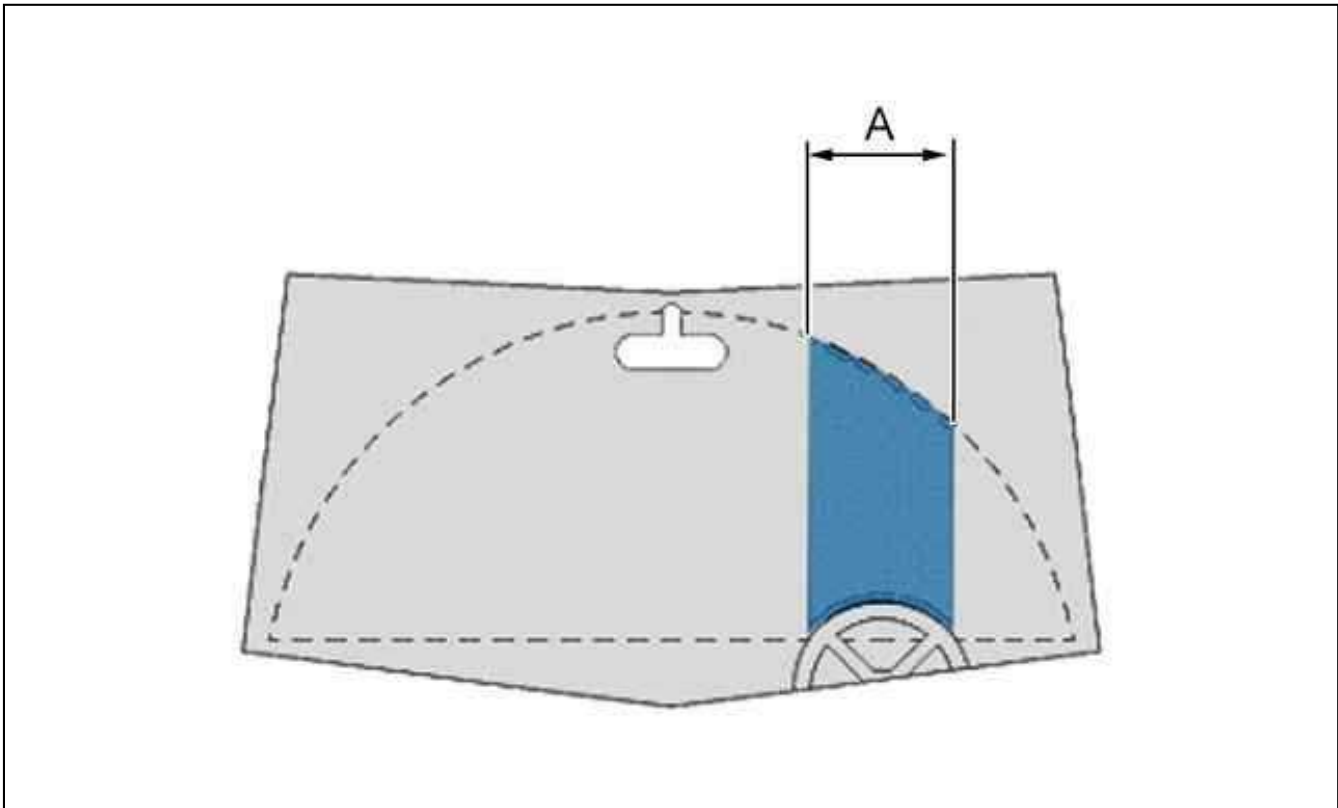


Figure : C5CM095D

"A" Zone of driver's field of vision in which any repair is forbidden (220 mm).

N.B. : Any repair in the driver's field of vision may constitute a hindrance of vision.

### 3. Precautions regarding use

N.B. : Always store the discs in individual plastic bags to avoid contamination. Excessive heat may break the glass.

**ESSENTIAL :** Keep the temperature of the glass under control to prevent it from breaking.

Mixing 5 litres of distilled water with the dose provided permits several repairs of optimum quality.  
If the polisher bounces on the glass during the operation, increase the level of water and the angle of the polisher slightly.

**ESSENTIAL :** Use the polisher with extreme care (Splashes of water).

## 4. Scratch

**CAUTION :** A scratch which can be detected with a fingernail is considered deep and therefore irreparable.

Repairable scratches :

- Slight scratches
- Very slight scratches

**ESSENTIAL :** Follow the repair process using the discs in descending order, blue, orange and white.

## 5. Preparation



Figure : C5CM096D

Examine the scratch (at "a") to be repaired and determine its repair.

**N.B. :** To see the surface to be worked on more easily, mark the interior of the window using a black marker.

Clean the glass.

Protect the vehicle against slashes of water.

**ESSENTIAL : Use distilled water.**

Fill the water reservoir with the full dose provided for 5 litres of water.

Pump the coolant reservoir several times to pressurise it.

The pipe must be connected to the polisher.

Check that the red water flow valve is in the closed position.



Figure : C5CM097D

## 5.1. Polishing

**CAUTION :** Too little water may result in an increase in the temperature of the polishing disc and shorten its service life; too much water slows down the polishing process.

Turn the valve anticlockwise until a few drops of water begin to flow from the centre of the polishing head.

**ESSENTIAL :** Follow the repair process using the discs in descending order, blue, orange and white.

Hold the polisher flat and keep it above the surface to be polished.

Eliminate the scratch (at "a") ; Using the polisher.

Polish the area (at "b").

Clean the glass ; Using a scraper.

Visually check the progress of the repair.

After a few minutes of polishing, the scratch begins to disappear.

Continue polishing until the scratch has disappeared completely.

## 5.2. Final polishing

There are 2 options for the final polishing stage.

## 1 option :

- Use the white disc ; Using the polisher
- Increase the flow and quantity of water
- Hold the polisher flat and keep it above the surface to be repaired
- Polish the area (at "b")
- If the polisher begins to bounce, increase the flow of water
- Continue the final polish, until a satisfactory result is achieved

## 2 option :

- Use the foam disc ; Using the polisher
- Apply the polishing fluid or powder to the foam disc
- Add a few drops of water to the foam
- Hold the polisher flat and keep it above the surface to be repaired
- Polish the area (at "b")
- Continue the final polish, until a satisfactory result is achieved
- If cloudy marks remain after polishing, Use option 1 to achieve a satisfactory result

## REMOVING - REFITTING : HEADLAMP WASH

**ESSENTIAL** : Observe the safety and cleanliness recommendations.

### 1. Recommended tools

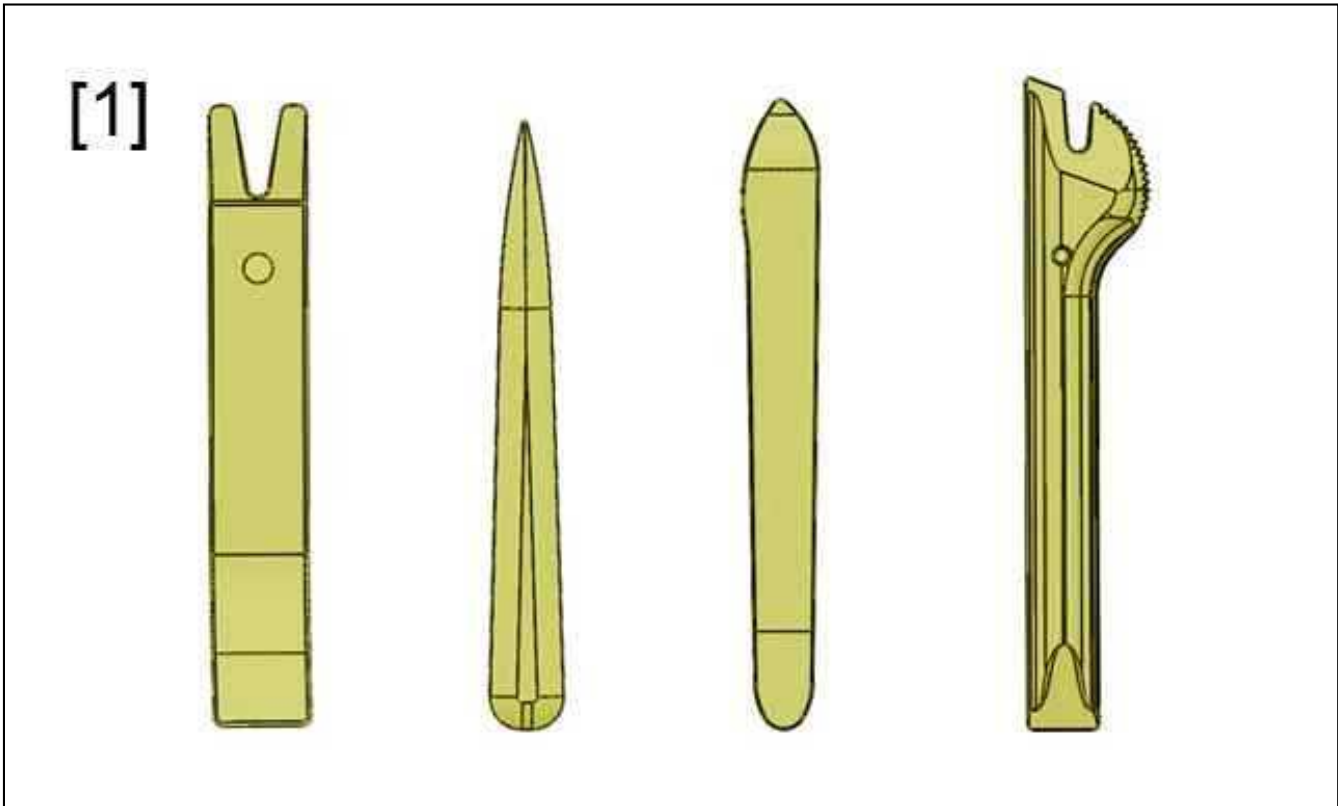


Figure : E5AP30WD

[1] Stripping tool (-).1350-ZZ.

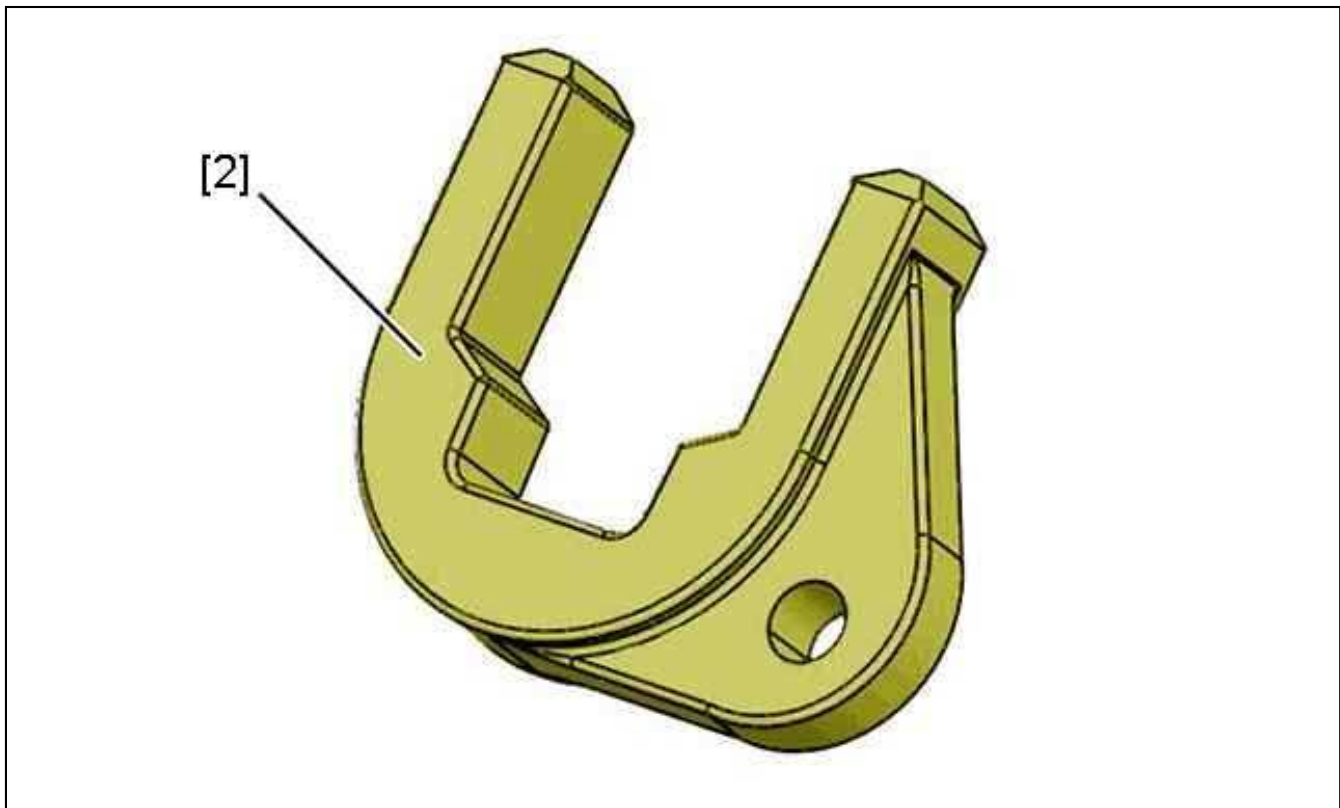


Figure : E5AP397D

[2] Headlamp washer immobilisation fork (-).1371-D.

## 2. Removing

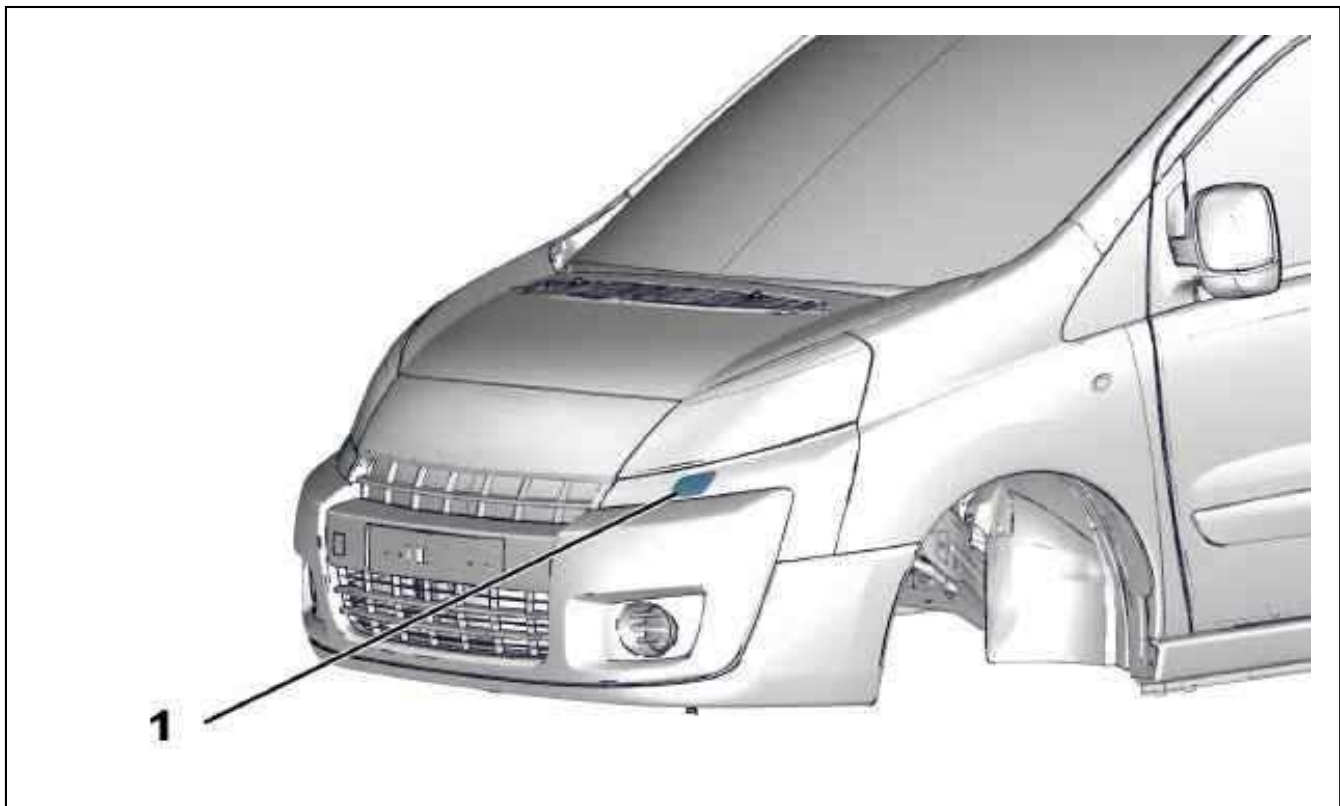


Figure : C4AP1WDD

Detach the jet trim (1) from the bumper skin ; Using tool [1].

N.B. : Protect the headlamp washer location surround ; Using adhesive tape .

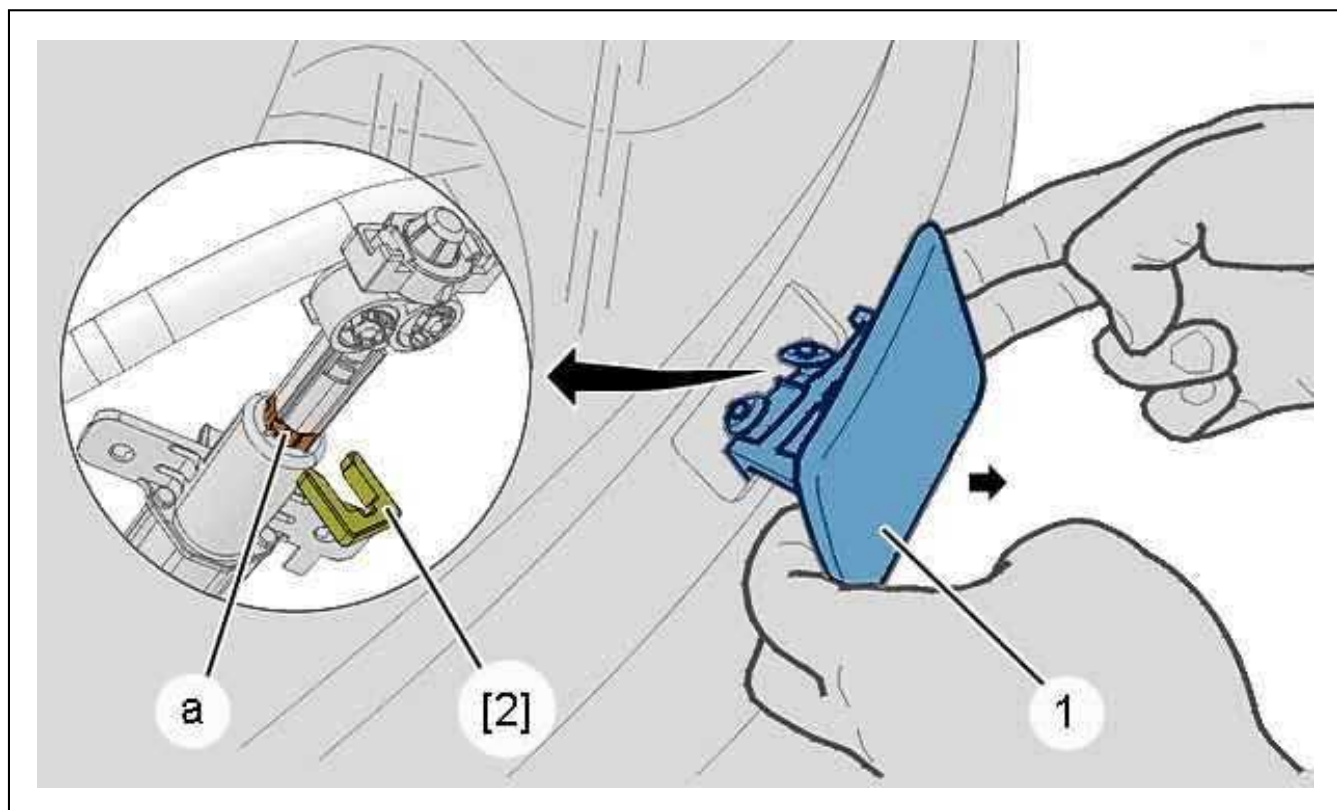


Figure : C5EP057D

Pull the trim (1) progressively towards you.

Place the tool [2] in the groove of the headlamp wash jet ram (at "a"), gently release the headlamp wash jet ram .

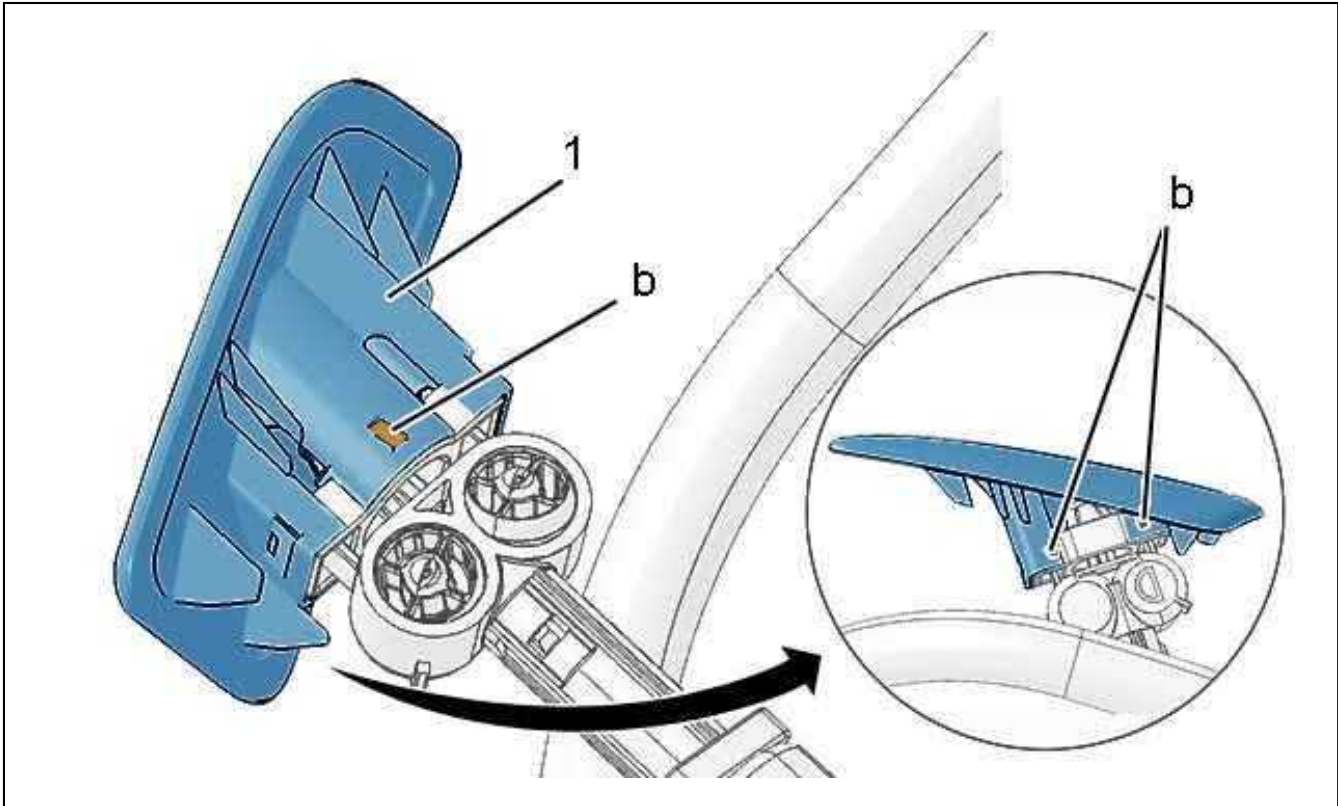


Figure : C5DP09FD

Unclip the trim ( 1 ) ( as "b" ) ; Using a small screwdriver.  
Remove the trim (1).

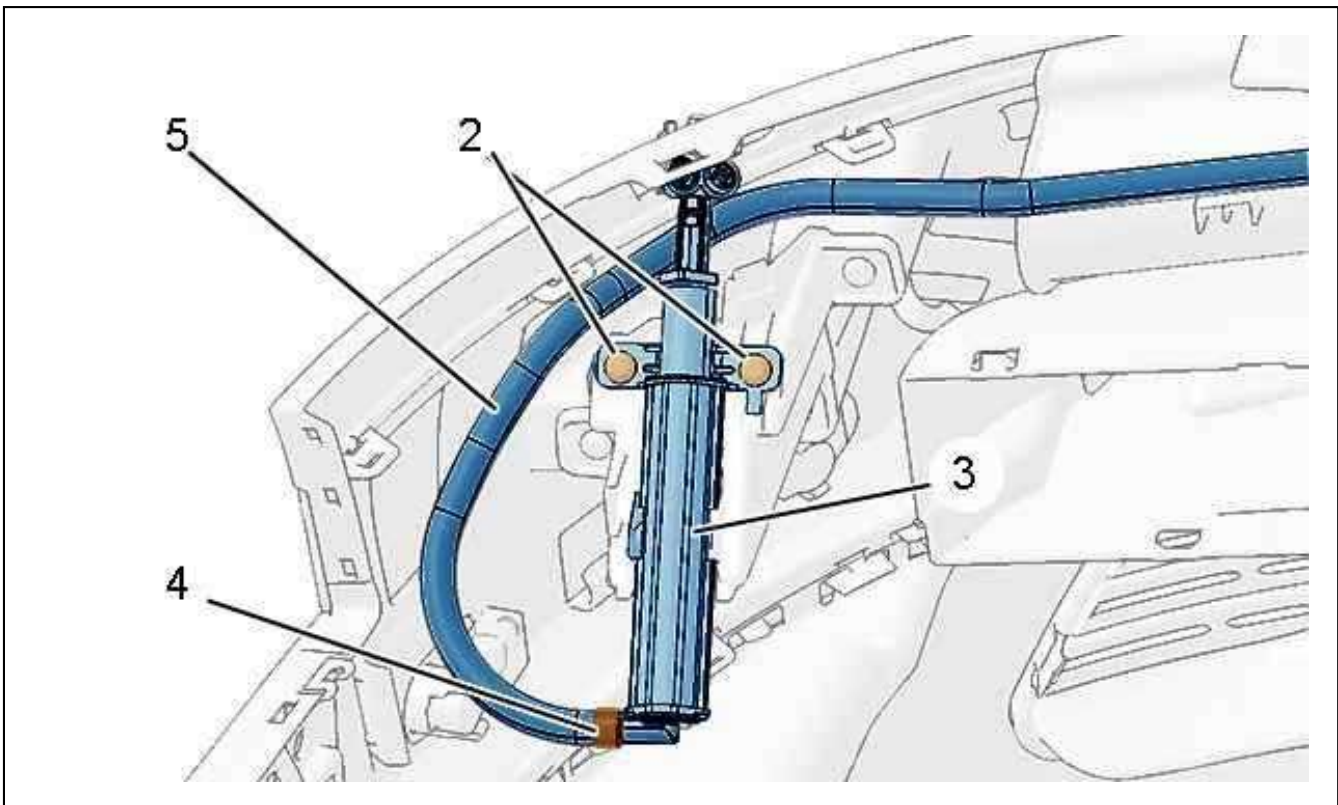


Figure : C5DP09GD

Remove :

- **Headlamp** ⓘ
- The bolts (2)

Detach the headlamp washer (3).

Unclip the clip ( 4).

Uncouple the pipe (5).

Remove the headlamp washer (3).

### 3. Refitting

Proceed in the reverse order to removal.

Adjust the headlamp washer jets if necessary.

Check the level of water in the screenwash reservoir.

Check all the equipment works.

## REPAIR : OF PLASTIC BY WELDING

**ESSENTIAL** : Observe the safety and cleanliness recommendations ⓘ .

## 1. Tooling

N.B. : Refer to the tools catalogue.

Repair kit for plastics.

| Designation    | Material                        |
|----------------|---------------------------------|
| PP             | Polypropylene                   |
| PA             | Polyamide                       |
| PP-EPDM or P/E | Ethylene Di-Propylene           |
| ABS            | Acrylonitrile butadiene styrene |

## 2. Preparing the zone to be repaired

Wash the component to be repaired using a high pressure washer, then dry it.

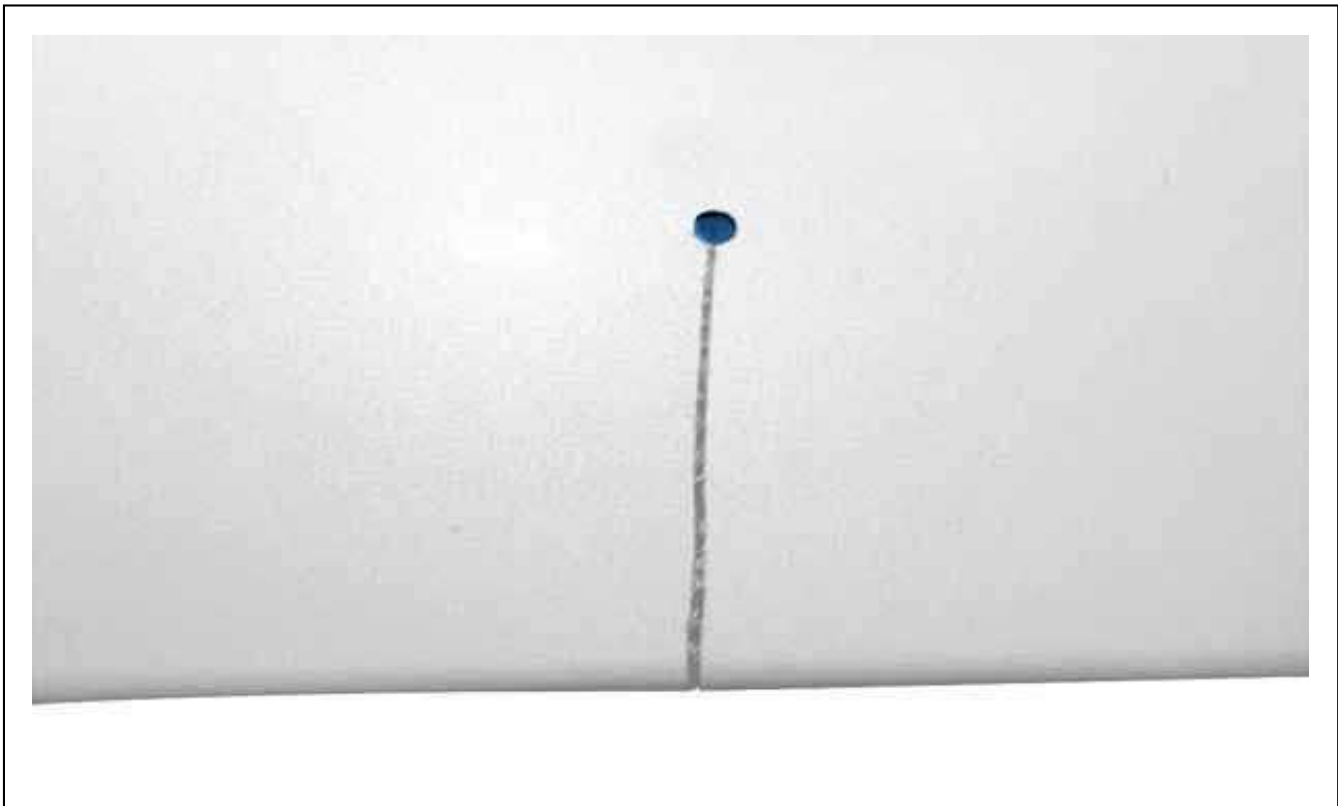


Figure : C5GM1FPD

Stop the cracking ; Using a 4 mm diameter drill bit.

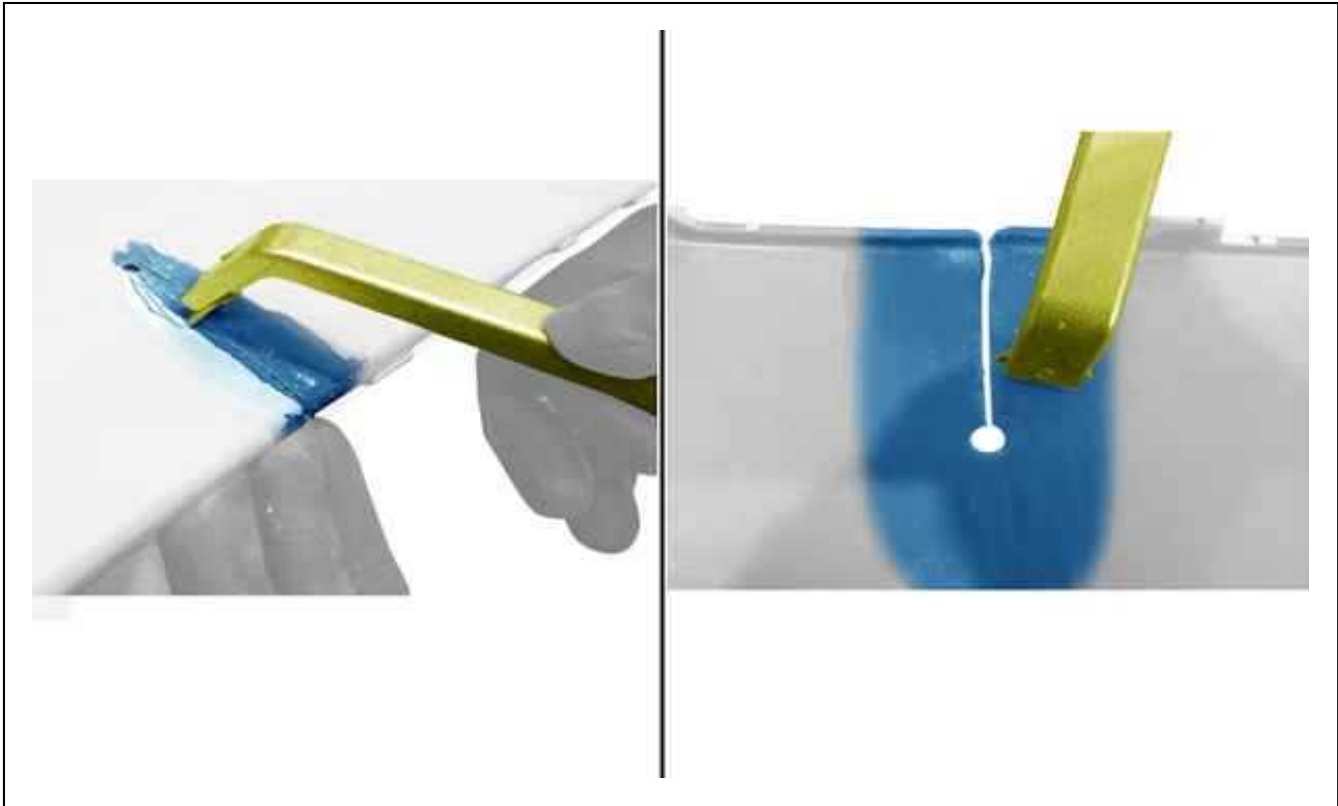


Figure : C5GM1FSD

Scrape the paint along the length of the crack until there is bare plastic visible on the inside and outside ; Using the scraper.

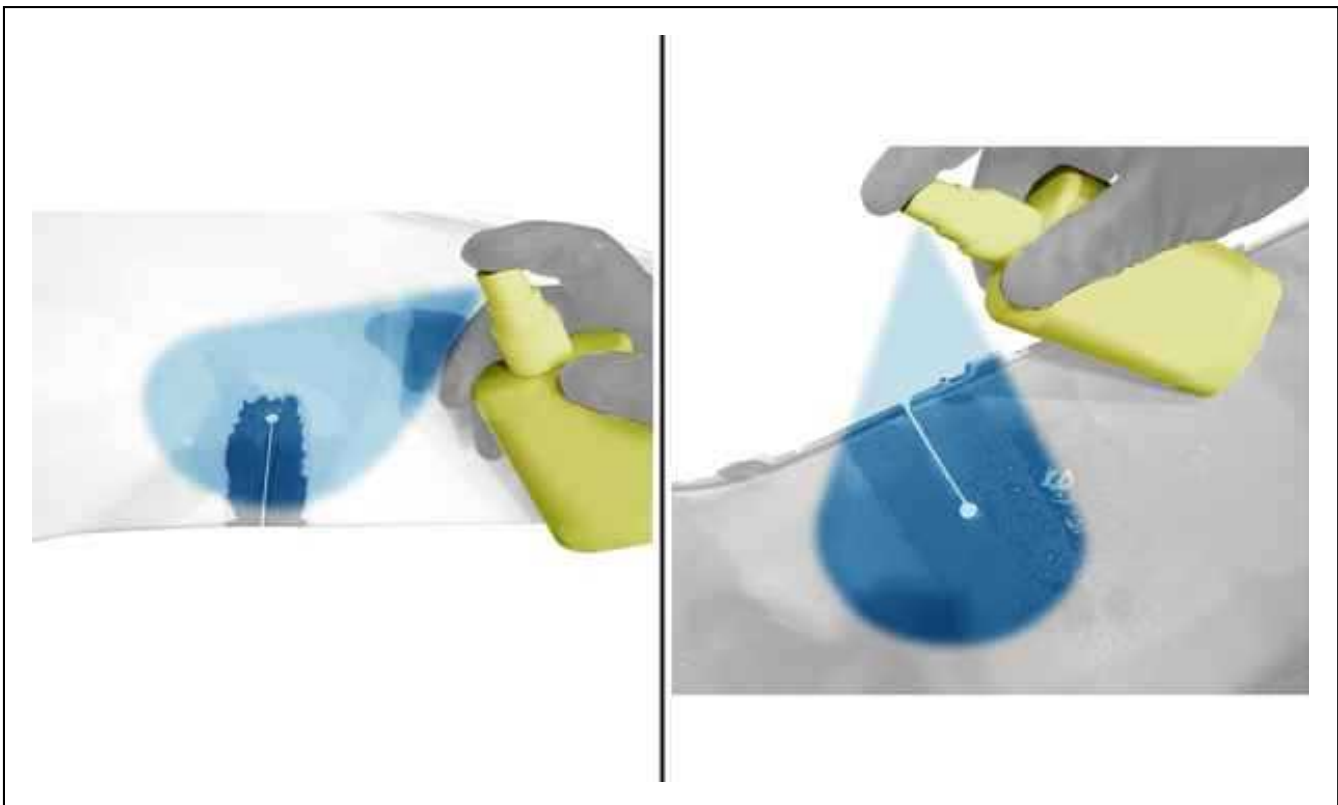


Figure : C5GM1FVD

Degrease the zone to be repaired on the inside and outside ; Using a special degreaser (see operating instructions).



Figure : C5GM1FYD

Identify the nature of the plastic that is to be repaired "P/E" (See table of descriptions).

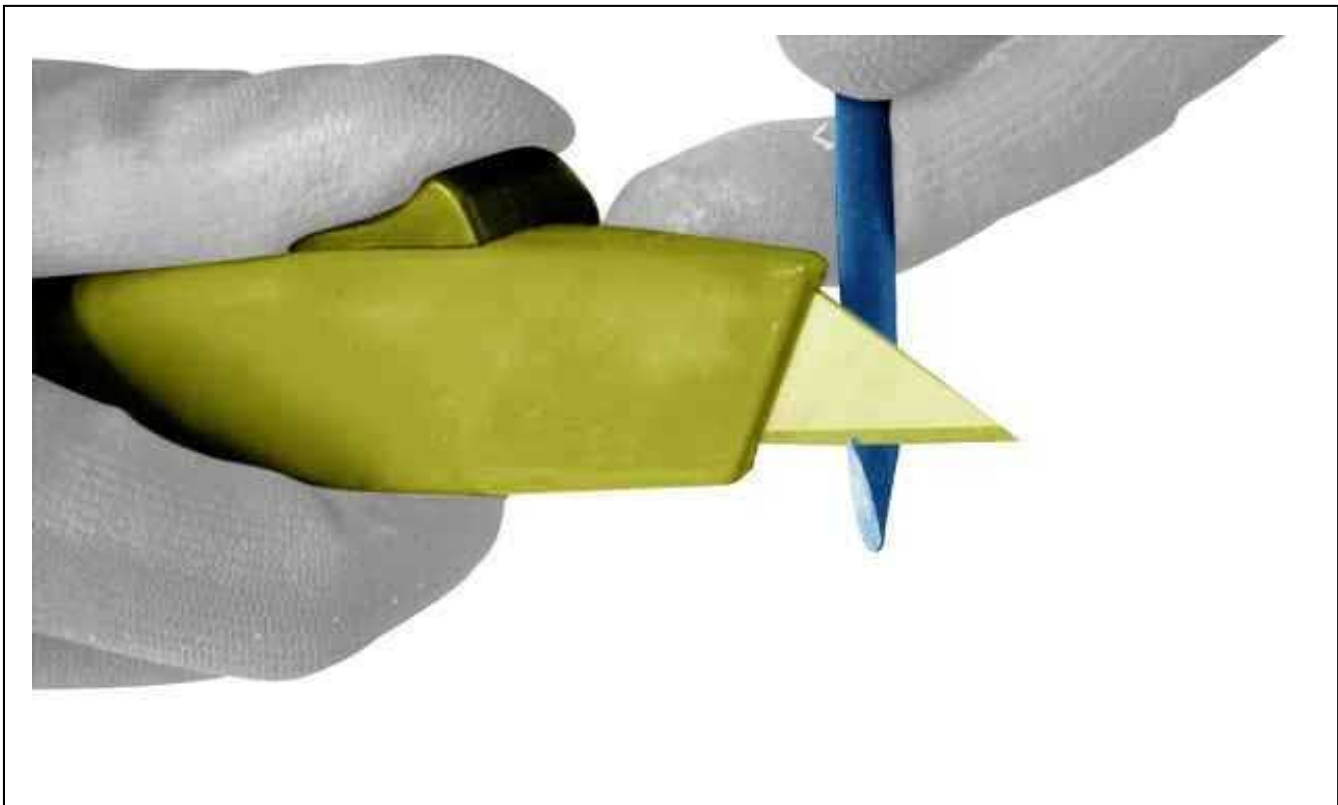


Figure : C5GM1G1D

Bevel the end of the strip corresponding to the material to be repaired ; Using a sharp-edged tool.

### 3. Welding

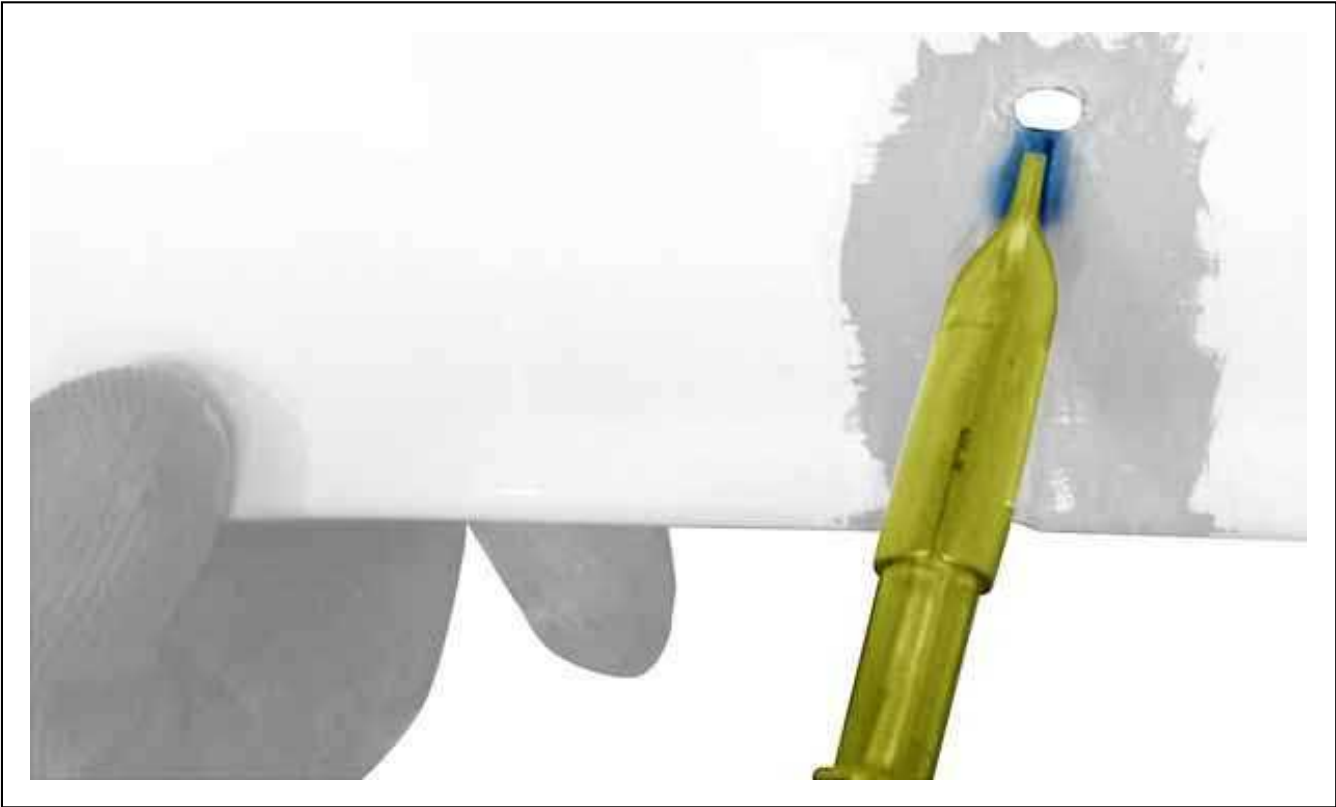


Figure : C5GM1G4D

Do a welding run to close the crack and to pre-heat the plastic ; Using the hot air gun fitted with the welding nozzle to adjust the temperature (see operating instructions).

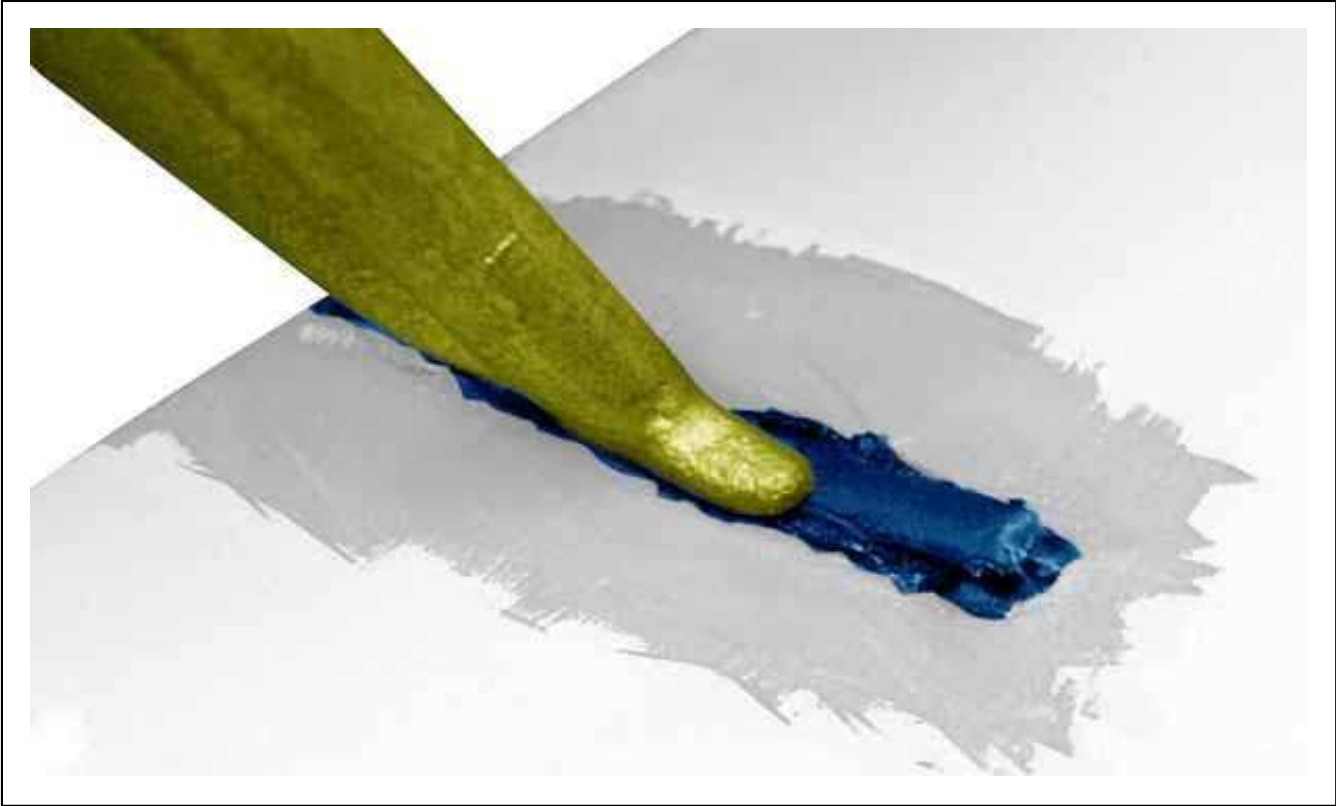


Figure : C5GM1G7D

**N.B. :** Use the welding strip corresponding to the type of plastic (see operating instructions).

Fit the hot air gun with the welding nozzle.

Position the strip in the welding nozzle (Bevelled point in the lead).

**N.B. :** Advance from the drill hole outwards on the full length of the crack Keep advancing as you see the strip starting to melt on the support.

Perform the welding (Bevelled point into the crack).

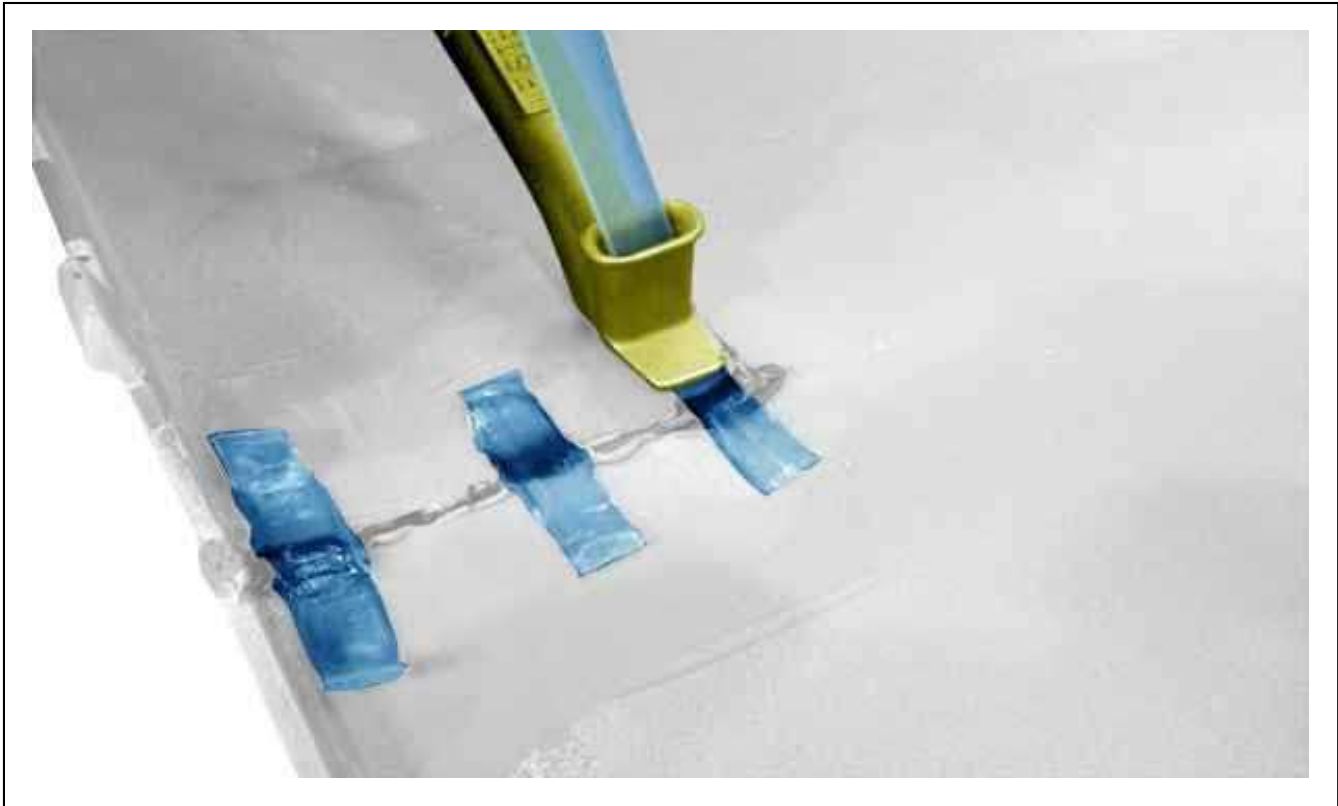


Figure : C5GM1GAD

**N.B. :** Use the flat strip corresponding to the type of plastic (see operating instructions).

Apply stiffeners on the inside ; Using flat strips and the stiffener nozzle.

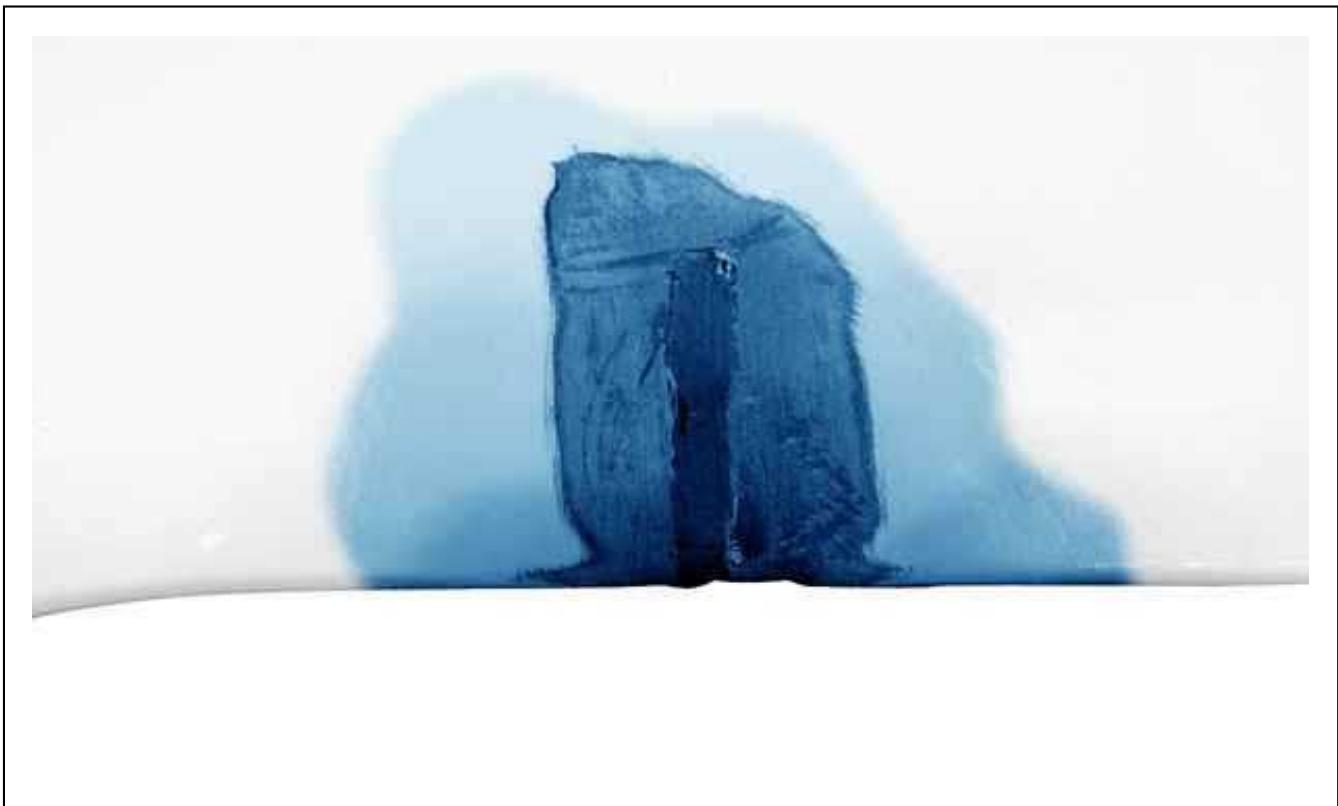


Figure : C5GM1GDD

Smooth the repaired surface with abrasive ; Using an orbital sander.

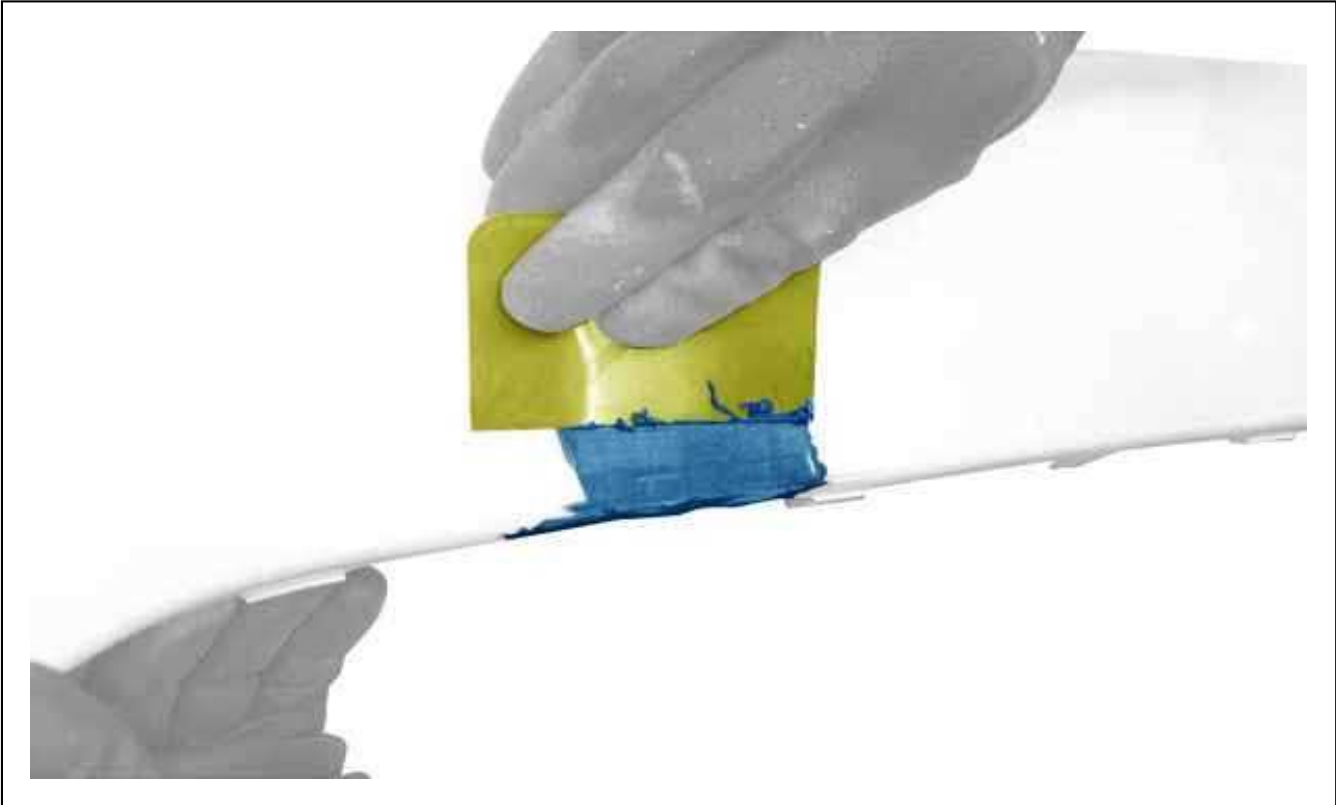


Figure : C5GM1GGD

**N.B. : Degrease the zone ; Using a special degreaser (see operating instructions).**

Apply a finishing mastic on the weld ; Using the spatula .

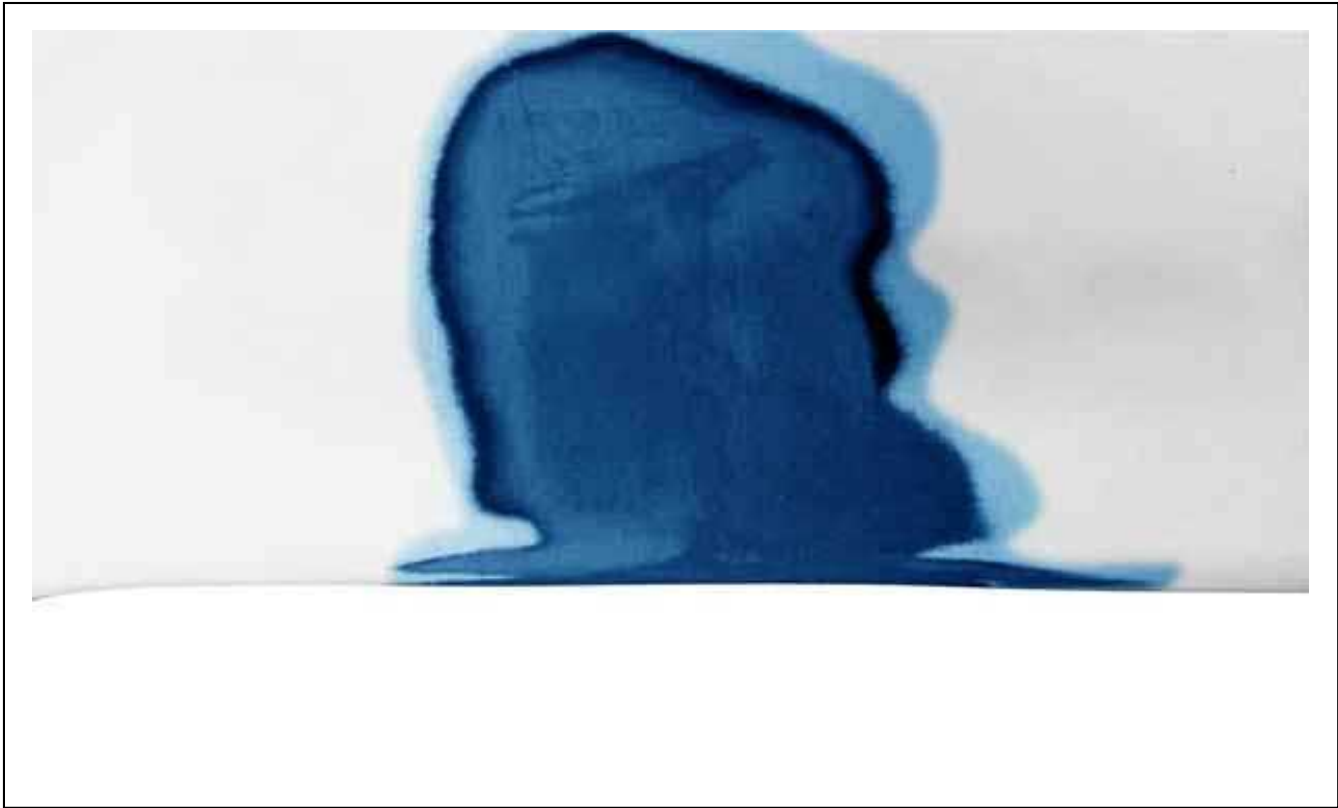


Figure : C5GM1GJD

Smooth the finishing mastic to recreate the original form of the component.

Apply a primer for plastics (see operating instructions).

Paint the component.

## REMOVING - REFITTING : FRONT BUMPER CROSSMEMBER

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or vehicle jack).

## 1. Removing

Remove the front bumper ⓘ.

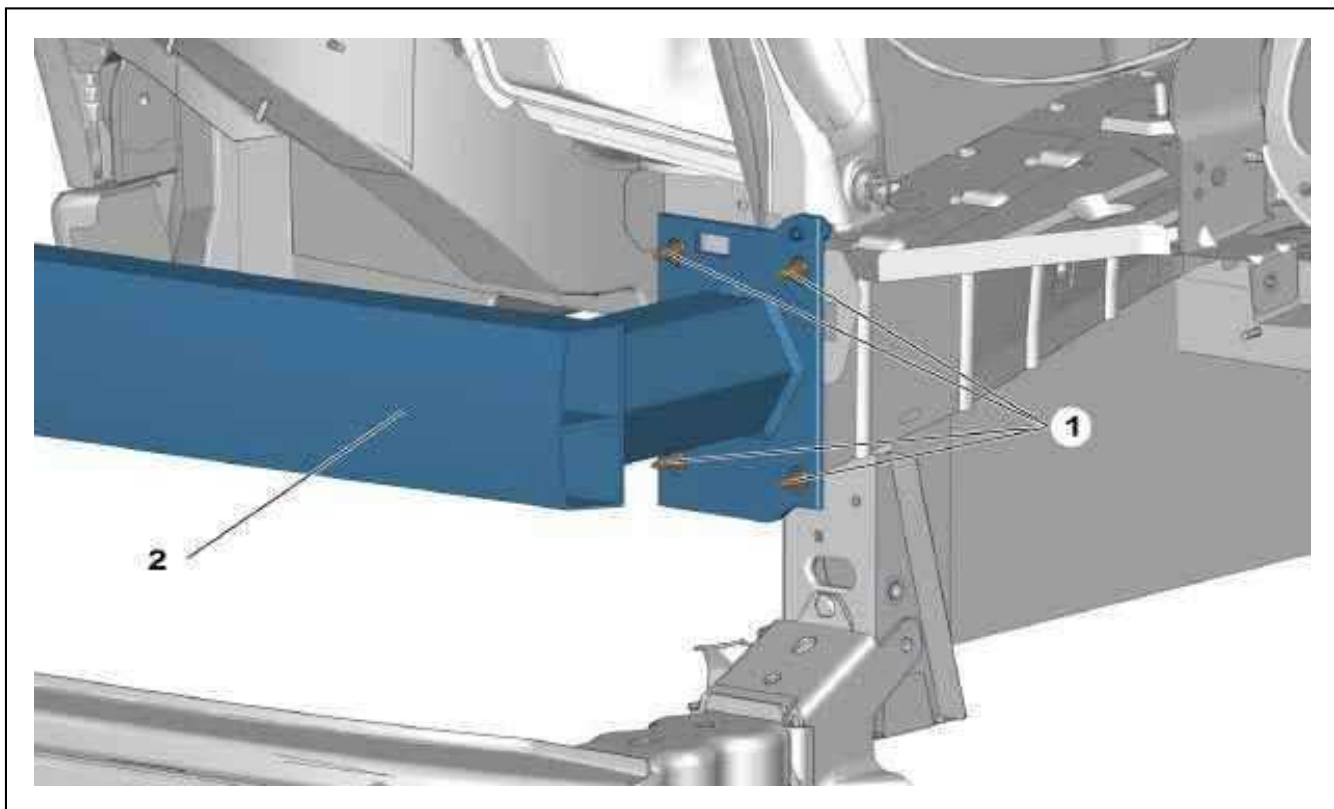


Figure : C4AP1VMD

Remove the bolts (1).

Proceed in the same way for the other side.

Remove the front bumper crossmember (2).

## 2. Refitting

Proceed in the reverse order to removal.

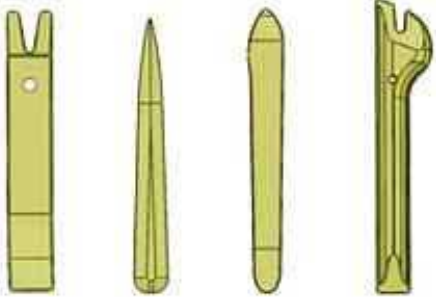
Tighten the bolts (1) to  $0,8 \pm 0,15$  daN.m.

Refit the front bumper ⓘ.

## REMOVING - REFITTING : RAIN/SUNLIGHT BI-SENSOR

**ESSENTIAL** : Observe the safety and cleanliness recommendations ⓘ .

## 1. Tooling

| tool                                                                                                                                                                 | Reference | Designation     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------|
| <div data-bbox="103 569 797 995"> <p>[1350-ZZ]</p>  </div> <p>Figure : E5AG02MT</p> | [1350-ZZ] | Stripping tools |

## 2. Preliminary operations

Perform the following operations :

- Remove the ignition key
- Wait for at least 3 minutes
- Disconnect the battery

## 3. Removing

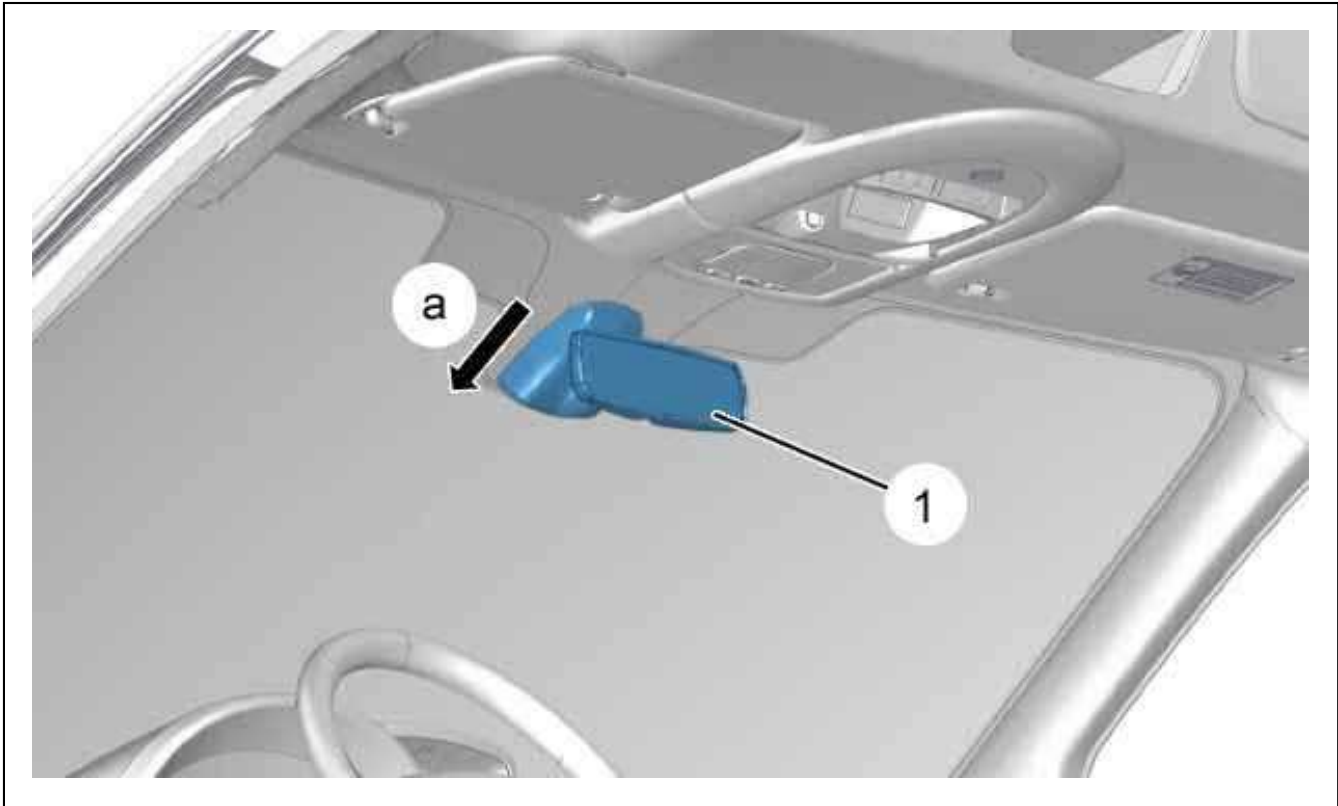


Figure : C5CP0DJJD

Remove the rear view mirror (1) (in direction "a").

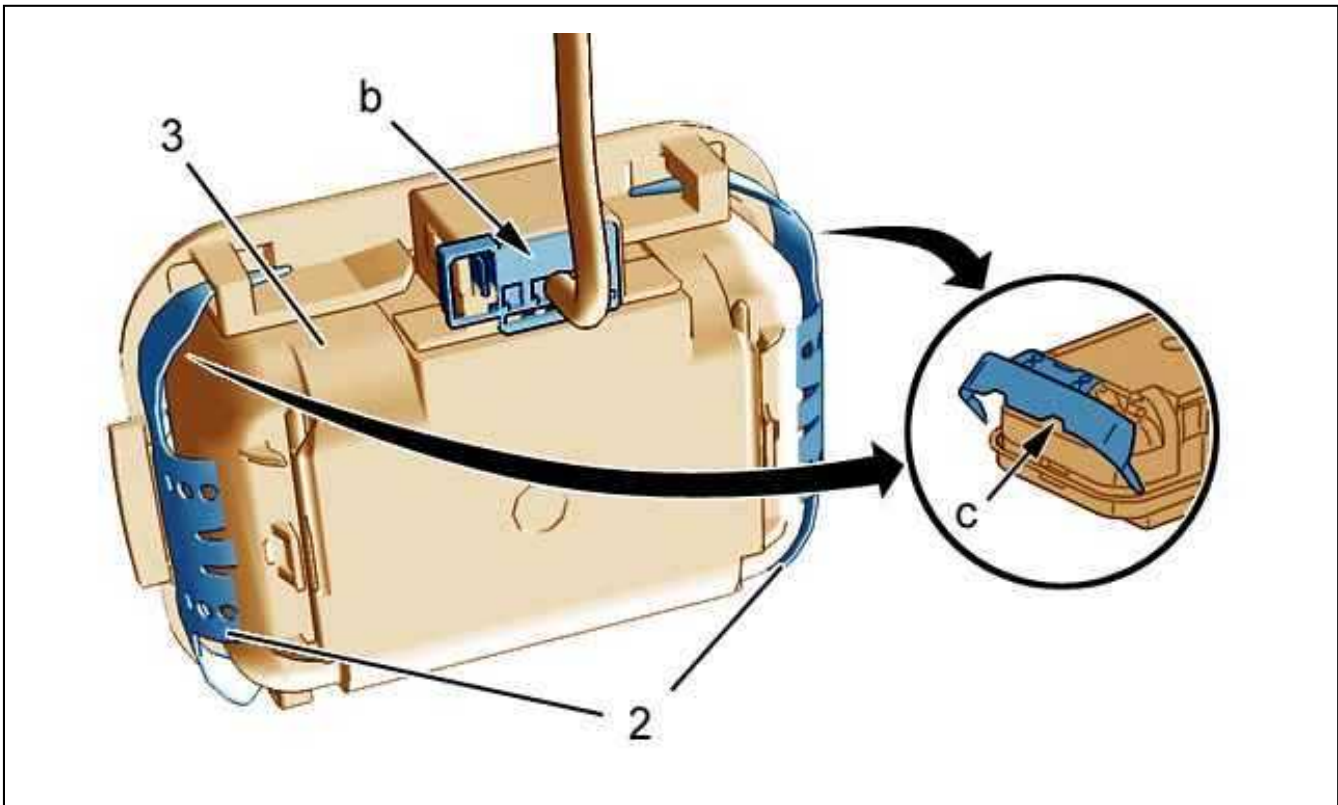


Figure : C5DP0B0D

Disconnect the connector "b" ( as "b").

Unclip the springs (2) ( as "c") ; Using tool [1350-ZZ].

Bring the springs (2) to the pre-locking position at 45°.

Remove, by hand, the rain/sunlight bi-sensor (3) from its base (perpendicular to the windscreen).

N.B. : If necessary, pass the tool [1350-ZZ] between the rain/sunlight bi-sensor (3) and the base (near the springs) raising it simultaneously on each side.

**CAUTION** : Protect the coupling pad of the rain/sunlight bi-sensor (3) with transparent adhesive tape ; Store the rain/sunlight bi-sensor (3) in an envelope.

Remove the rain/sunlight bi-sensor (3).

## 4. Refitting

**CAUTION** : The rain/sunlight bi-sensor (3) and the windscreen must be clean for the system to function. Do not touch the surface of the coupling face with your fingers or with any object. Chemical detergents are not authorised. Clean the windscreen and the inside of the base of all dirt, bonding residue and other particles; using a non-fluffy paper towel and glass detergent.

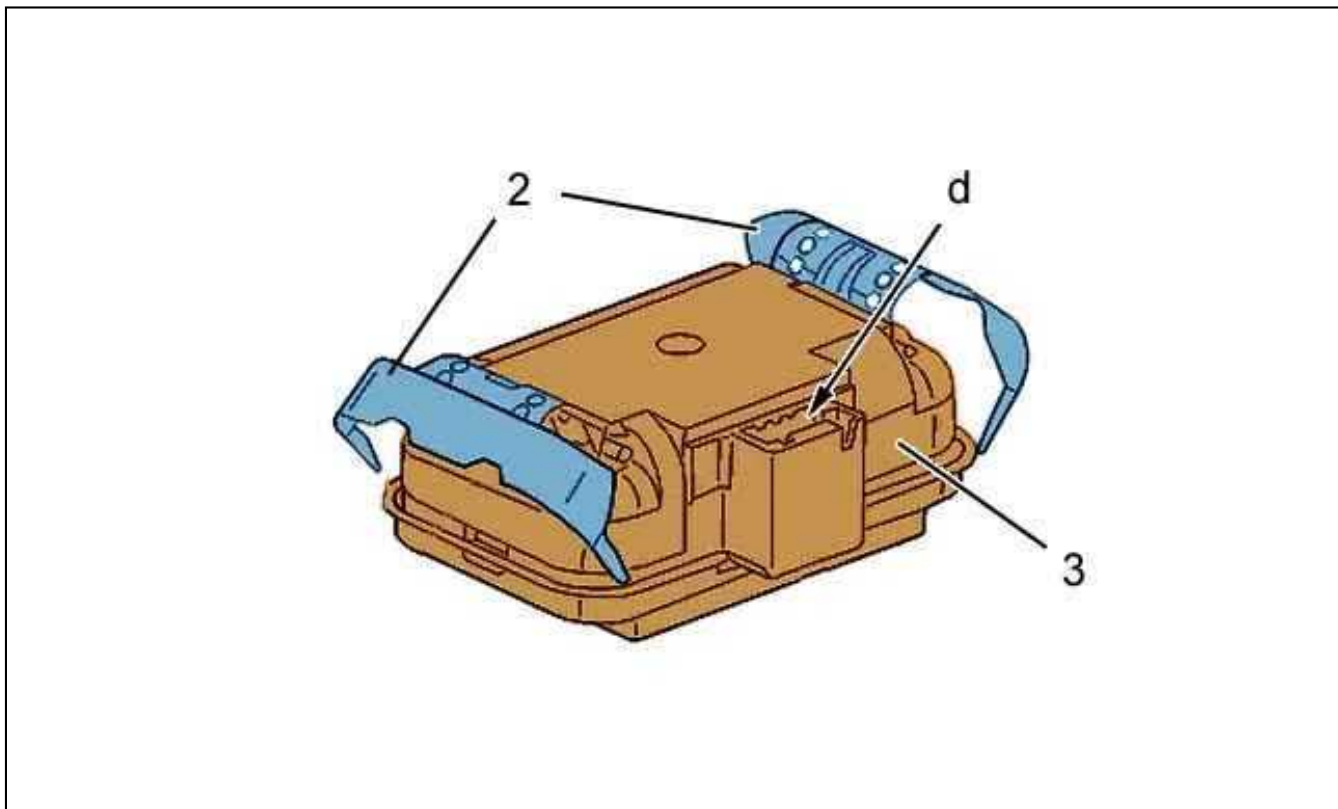


Figure : C5DP0B1D

### 4.1. New rain/sunlight bi-sensor

Remove the protection cover.

**CAUTION** : Ensure that nothing is obstructing the rain/sunlight bi-sensor (3) ; Check that there is no air trapped between the sensor and the windscreen .

Place the rain/sunlight bi-sensor (3) in its base.

Simultaneously lock the springs (2).

Connect the connector ( as "d").

Clip the brightness and rain dual sensor (3).

## 4.2. Rain/sunlight bi-sensor reused

**CAUTION :** Do not systematically replace this type of sensor after each removal.

Remove the transparent adhesive strip.

**CAUTION :** Clean the contact surface using the transparent adhesive strip.

**N.B. :** The springs (2) should be in the pre-locking position at 45°.

**CAUTION :** Ensure that nothing is obstructing the rain/sunlight bi-sensor (3). Check there are no air bubbles between the sensor and the windscreen .

Place the rain/sunlight bi-sensor (3) in its base.

Simultaneously lock the springs (2).

Connect the connector ( as "d").

Clip the brightness and rain dual sensor (3).

## 5. Common operations

**CAUTION :** Perform the operations to be carried out following reconnection of the battery.

Reconnect the battery.

## 6. Checks

Switch the ignition to the "ignition +" position.

Activate the "automatic headlight" function (Long press on the left hand control under the steering wheel).

**N.B. :** A message is displayed on the multifunction screen : "headlamp lighting active".

Start the engine.

Mask the rain/sunlight bi-sensor (3) on the windscreen.

Check the operation of the automatic illumination of the lights .

Activate the automatic windscreen wipe (position "I" or "AUTO").

**N.B. :** A single wipe of the front windscreen confirms that the automatic mode has been activated.

Spray water in the area of the rain/sunlight bi-sensor.

Check the functioning of the automatic windscreen wipe.

Place the wiper switch in position "0".

Stop the engine.

## REMOVING - REFITTING : FRONT MUD FLAPS

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or customer's jack).

## 1. Removing

Place the vehicle on a 2-post lift.



Figure : C5JP0HMD

Detach the fasteners (1) of the splash-shield (2).

Remove :

- The bolts (3)
- The splash shield (2)

## 2. Refitting

Proceed in the reverse order to removal.

## REMOVING - REFITTING : FRONT BUMPER

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or customer's jack).

## 1. Recommended tools

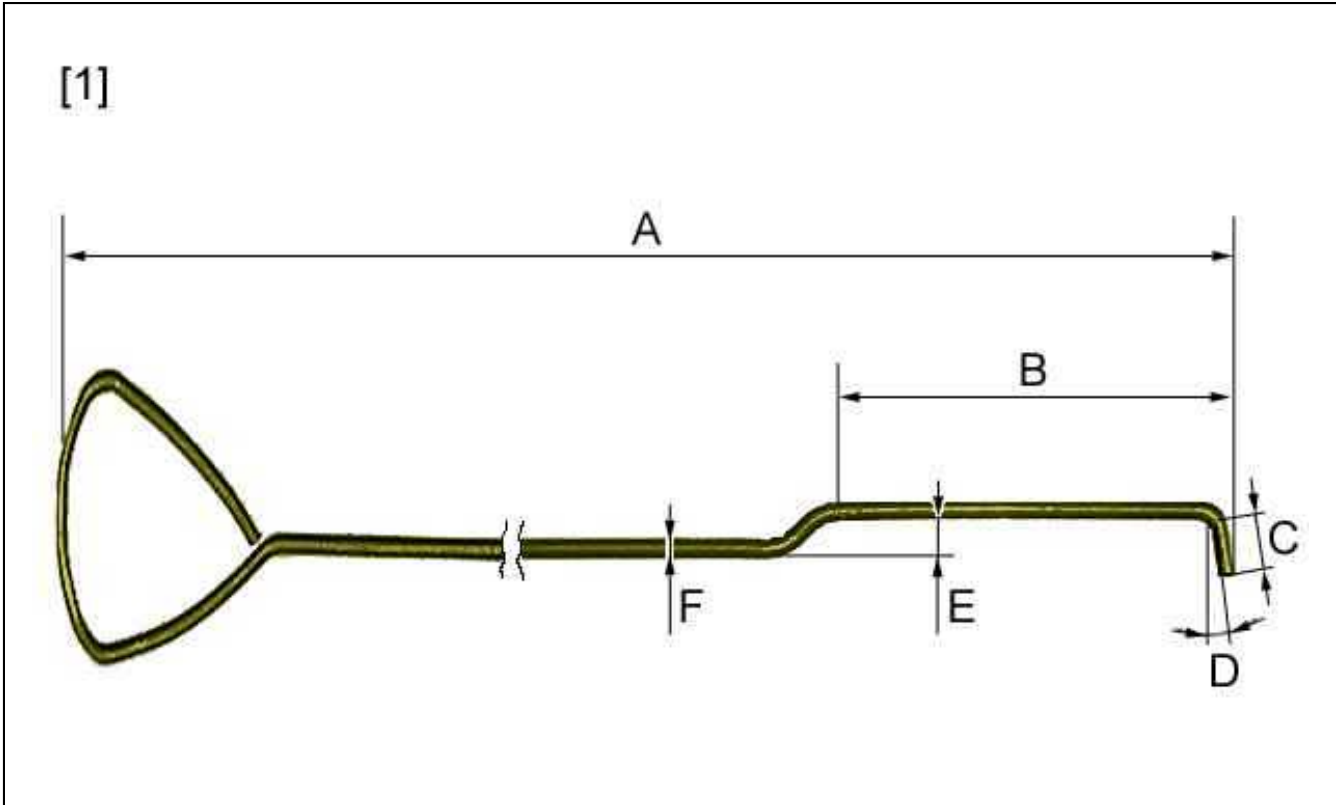


Figure : E5AP309D

[1] Hook for releasing/locking the 1/4 turn clips (Tools to be produced locally) :

- Material : Soft steel
- A = 550 mm
- B = 80 mm
- C = 12 mm
- D = 30 degrees
- E = 10 mm
- F = 4 mm diameter

## 2. Removing

Place the vehicle on a two-post ramp.

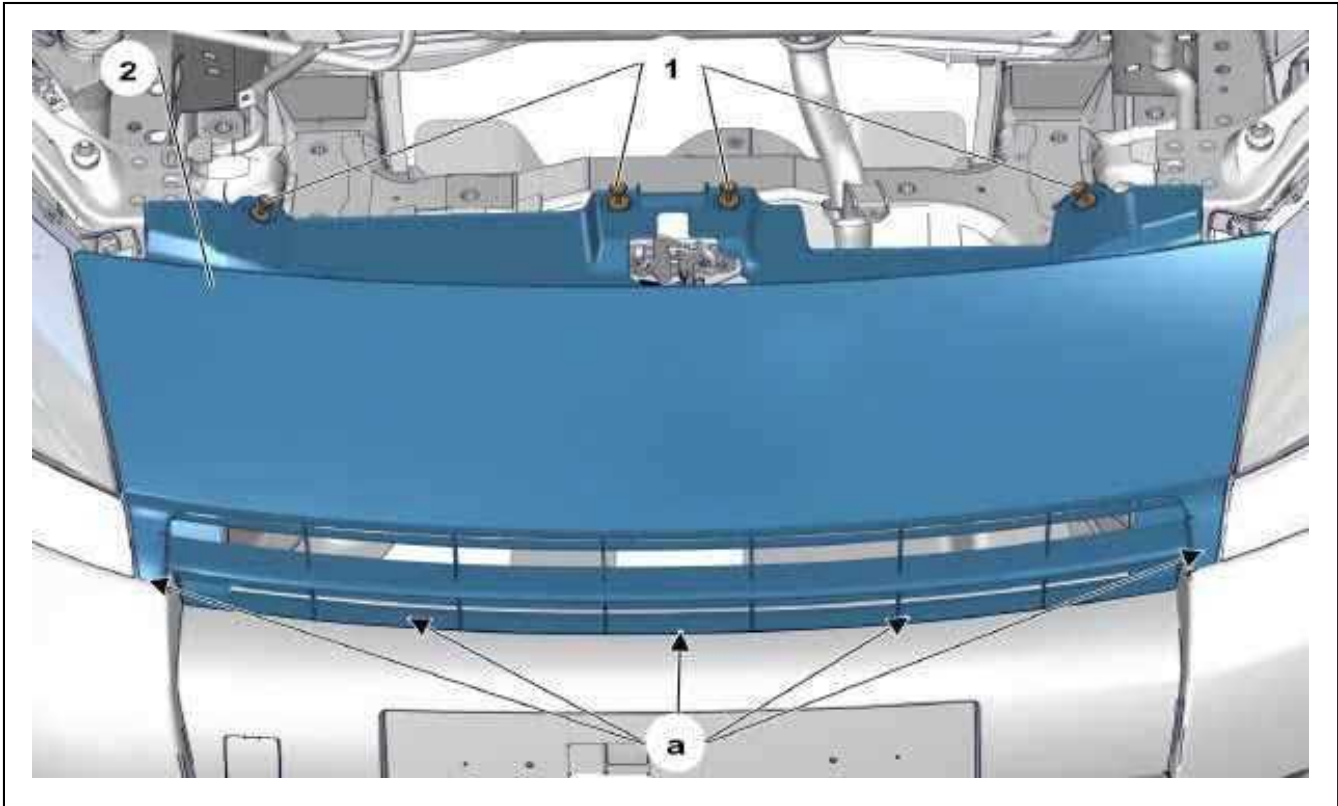


Figure : C4AP1VED

Remove the plastic pins (1).  
Detach the grille (2) ( as "a").  
Remove the grille (2).

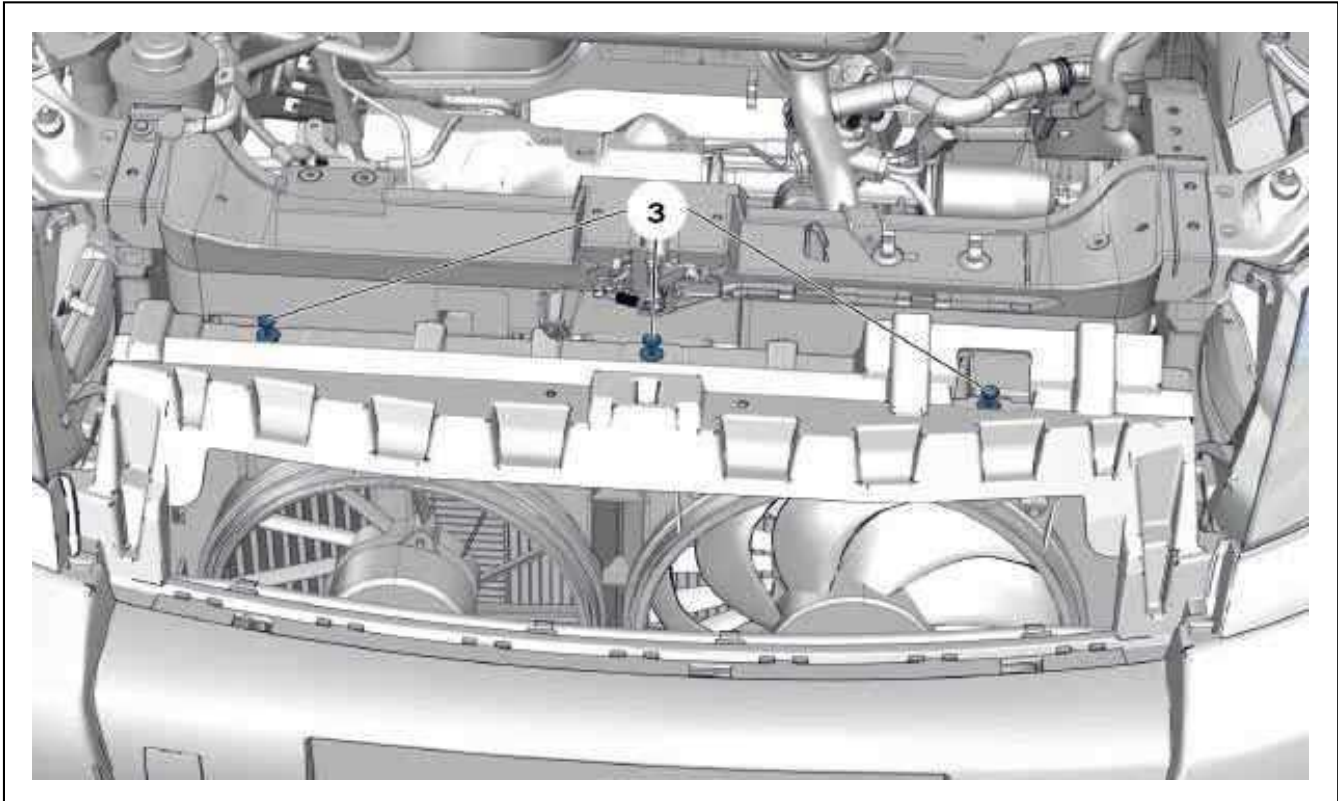


Figure : C4AP1VFD

Remove the plastic pins (3).

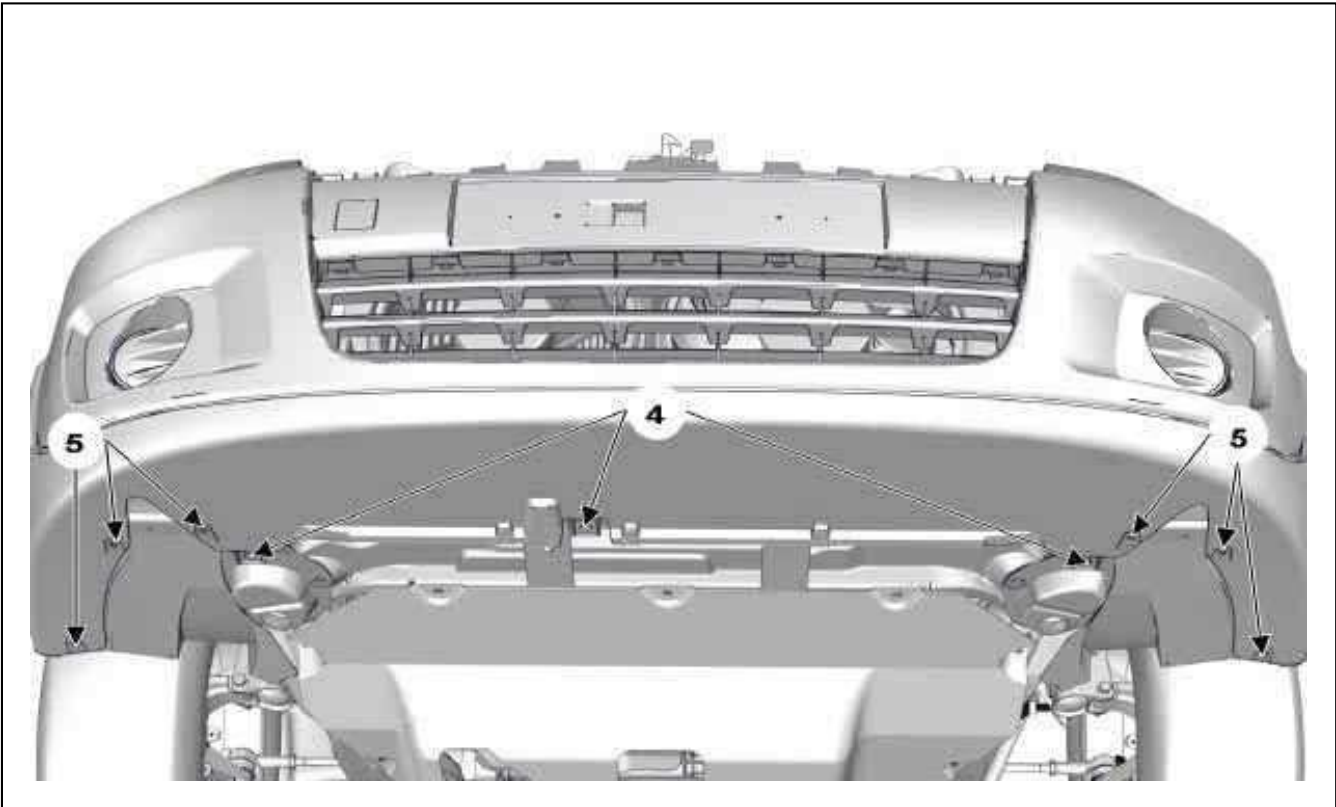


Figure : C4AP1VGD

Remove :

- The bolts (4)
- The bolts (5)

Partially detach the 2 front mud guards .

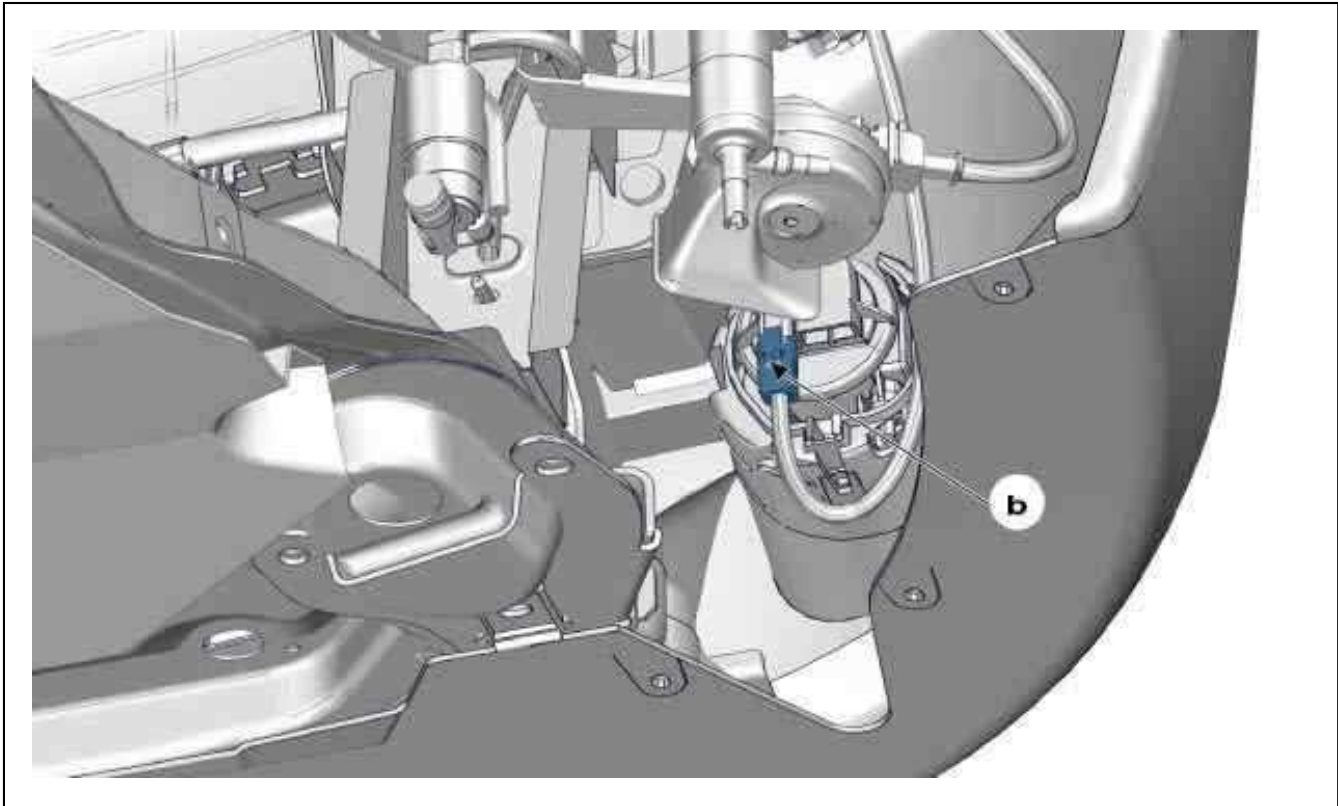


Figure : C4AP1VHD

Disconnect the front fog lamp connector "b" symmetrically (According to equipment).

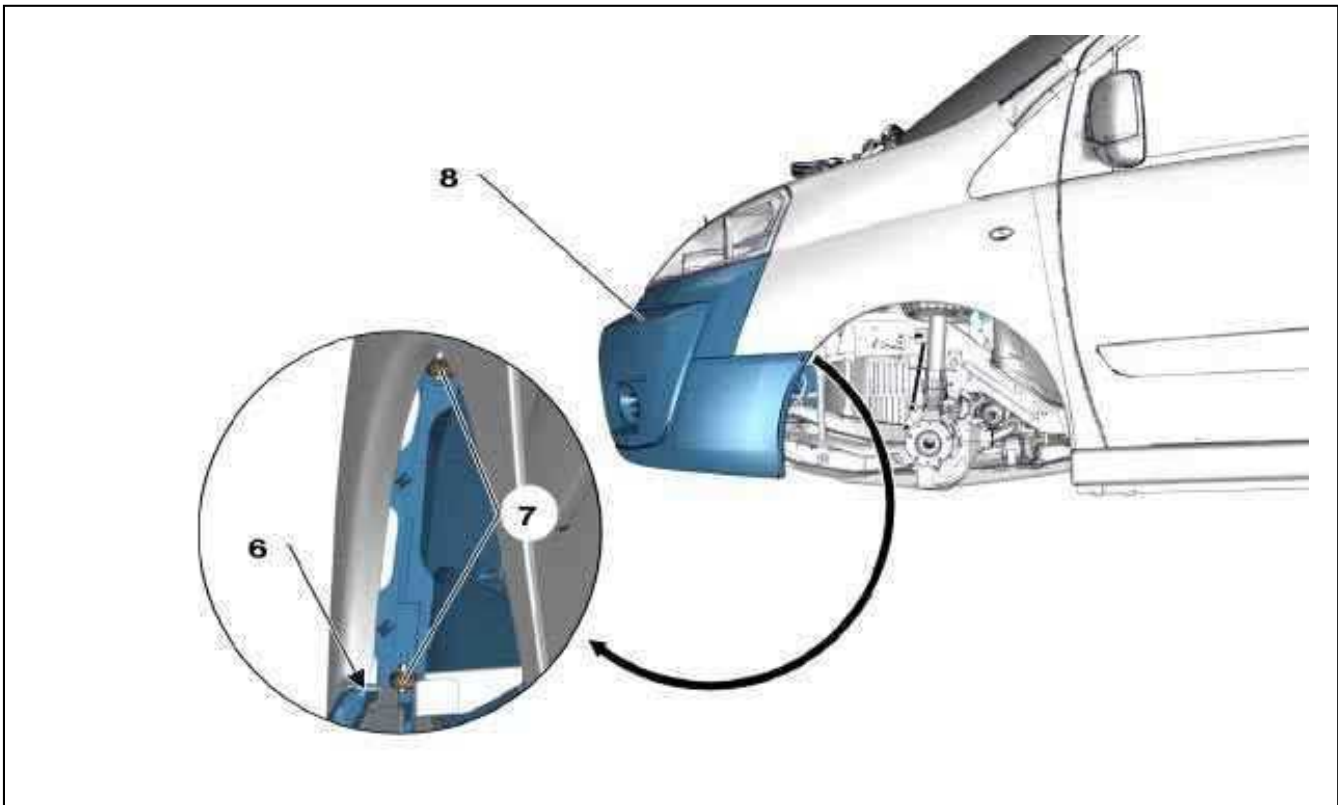


Figure : C4CP2E5D

Remove bolts (6) (Symmetrical operation(s)).  
Turn the fasteners (7) a quarter turn ; Using tool [1] (Symmetrical operation(s)).

Remove the front bumper (8).

### 3. Refitting

Proceed in the reverse order to removal.

Check that the electrical equipment is working correctly.

## REMOVING - REFITTING : UNDER ENGINE PROTECTION

**ESSENTIAL** : Deactivate the pneumatic suspension before lifting the vehicle ⓘ (2 or 4 post lift, workshop jack or vehicle jack).

## 1. Removing

Place the vehicle on a 2-post lift.

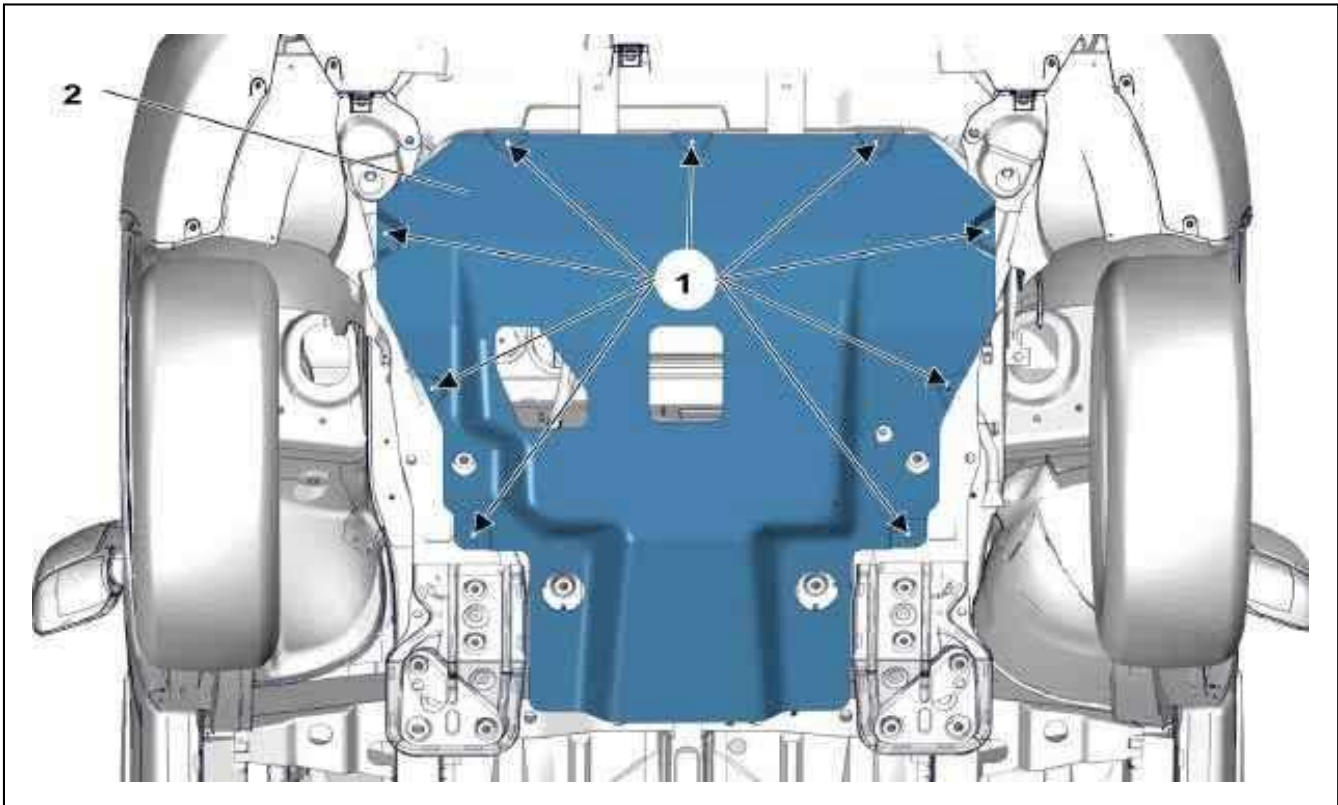


Figure : C5JP0HND

Remove :

- The bolts (1)
- The protective panel under the engine (2)

## 2. Refitting

Proceed in the reverse order to removal.

## REPAIR : PLASTIC

**ESSENTIAL** : Observe the safety and cleanliness recommendations ⓘ .

## 1. Tooling

N.B. : Refer to the tools catalogue.

Repair kit for plastics.

| Designation    | Material                        |
|----------------|---------------------------------|
| PP             | Polypropylene                   |
| PA             | Polyamide                       |
| PP-EPDM or P/E | Ethylene Di-Propylene           |
| ABS            | Acrylonitrile butadiene styrene |

## 2. Preparing the zone to be repaired



Figure : C5JM0LV D

Clean :

- The component to be repaired using a high pressure washer, then dry it
- The zone to be repaired, on the inside and outside, using the cleaning product ; Using a clean cloth (see operating instructions)

Wait for the cleaning product to evaporate completely (approx. 5 minutes).

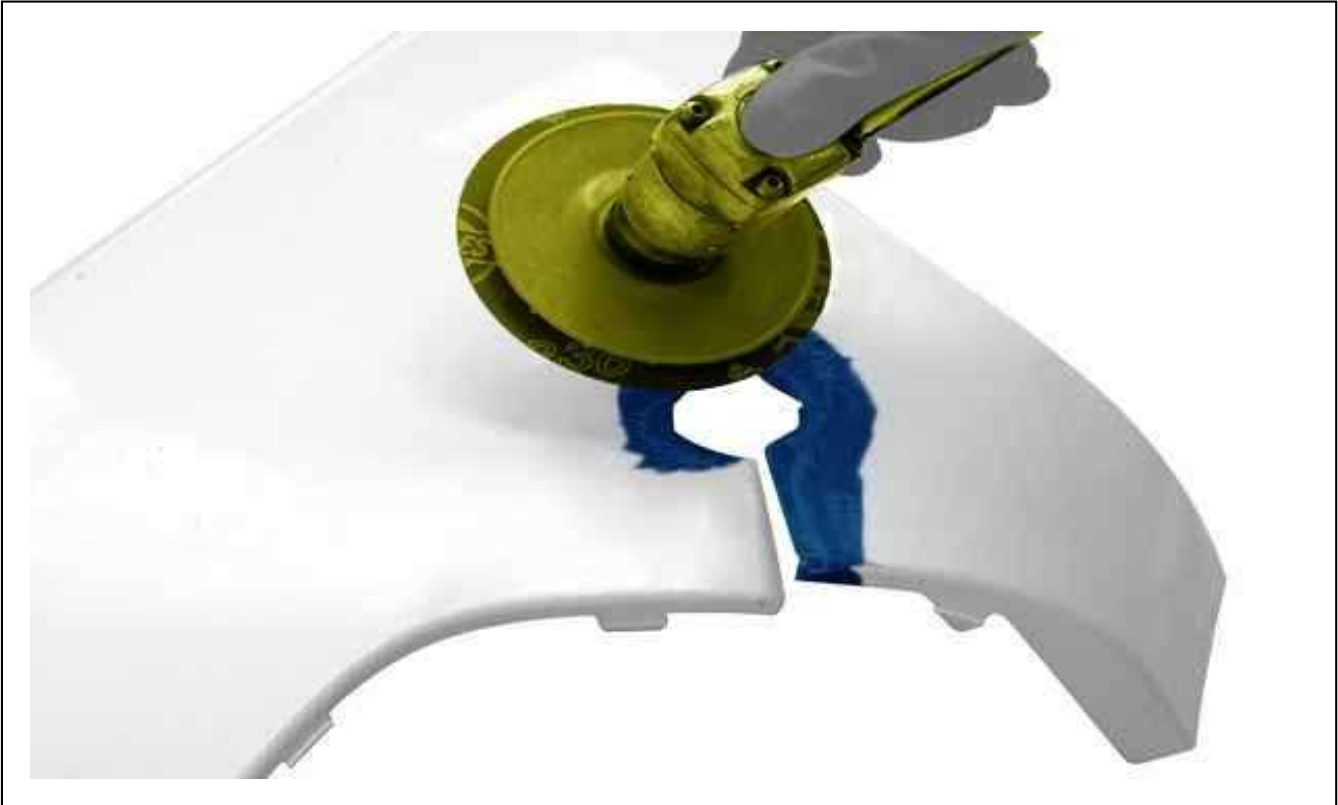


Figure : C5JM0LYD

Chamfer the outer edges of the zone to be repaired over 1 to 2 centimetres ; Using a grinding disc.

**N.B. :** Put the disc to low speed rotation.

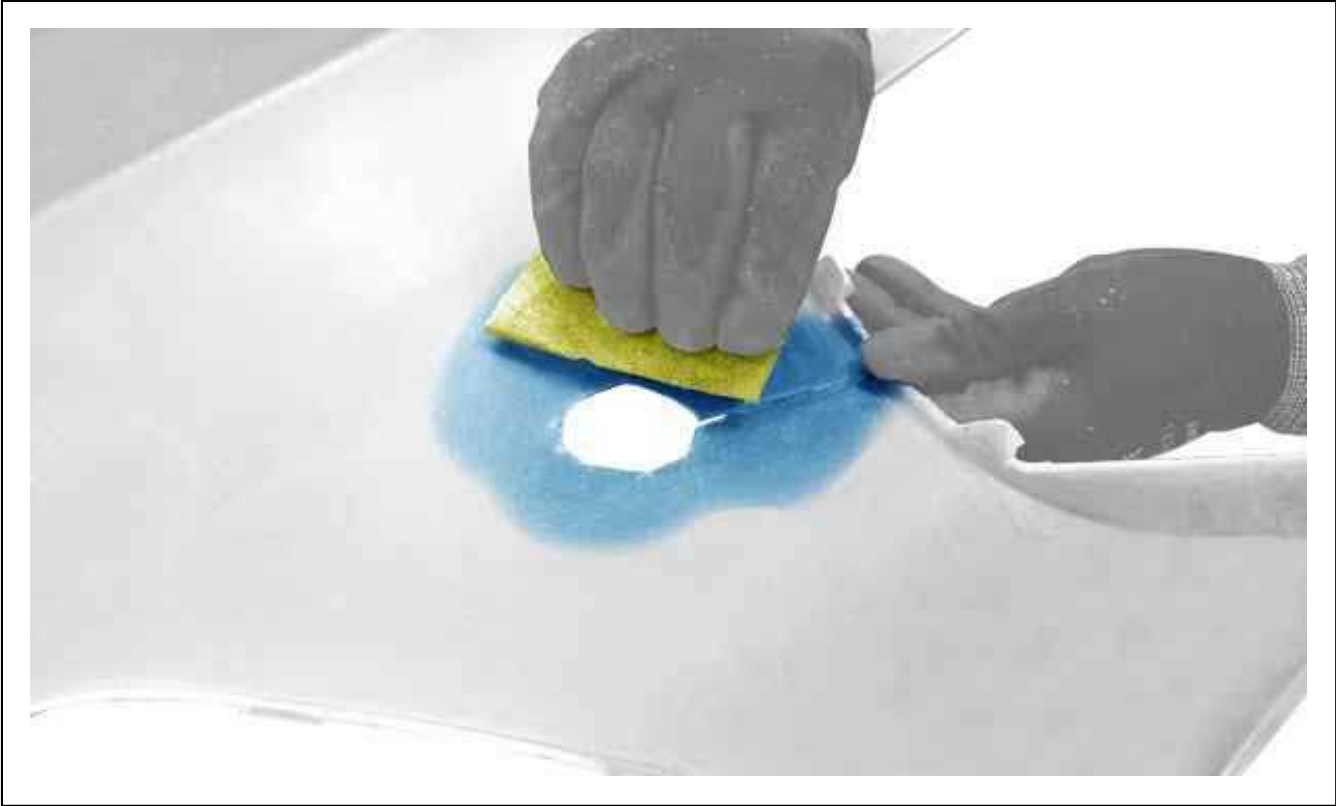


Figure : C5JM0M1D

Smooth the zone to be repaired, inside and outside.



Figure : C5JM0M4D

Clean The zone to be repaired, on the inside and outside, using the cleaning product ; Using a clean cloth.

### 3. Application

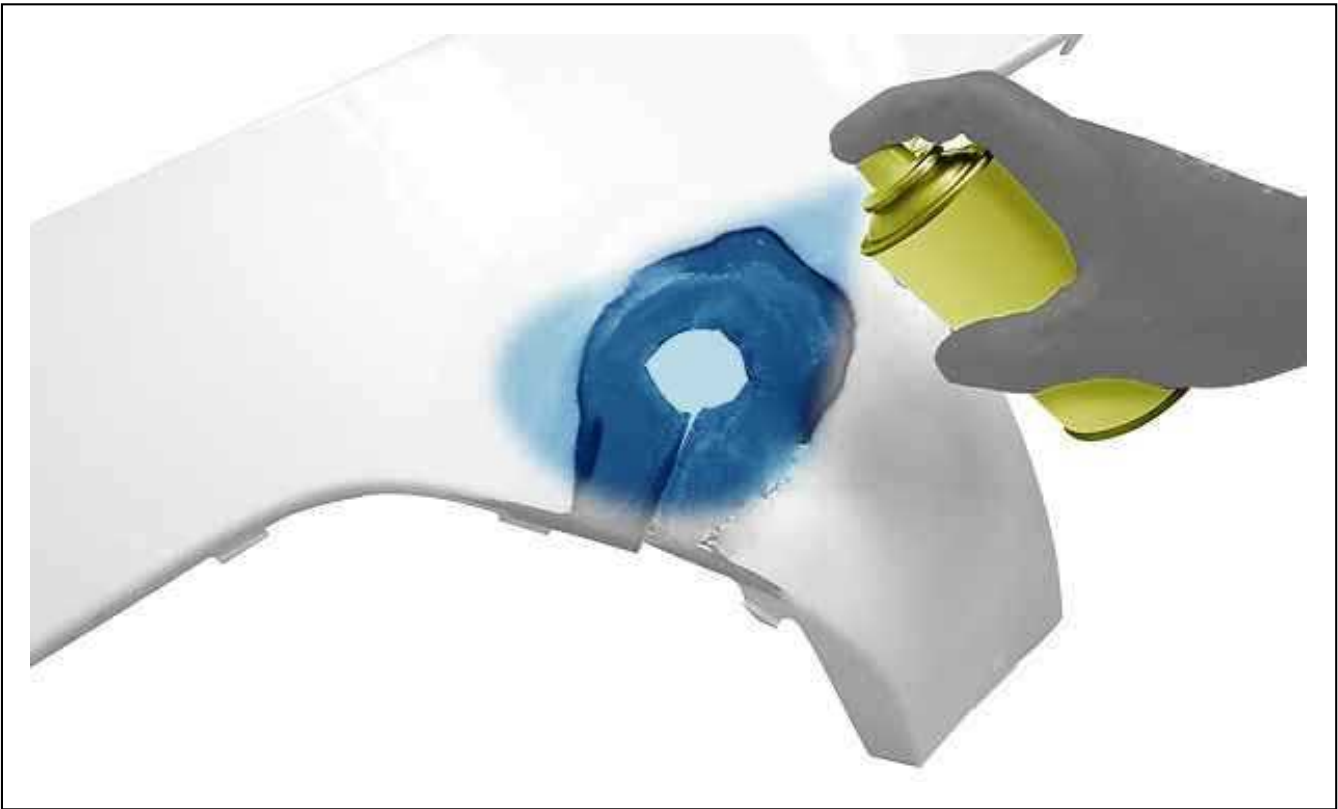


Figure : C5JM0M7D

**CAUTION :** When applying the primer : Do not overload the zone to be repaired.

Apply the primer (only a very thin layer) on the zone to be repaired, inside and outside.  
Leave to dry for 10 minutes at ambient temperature.

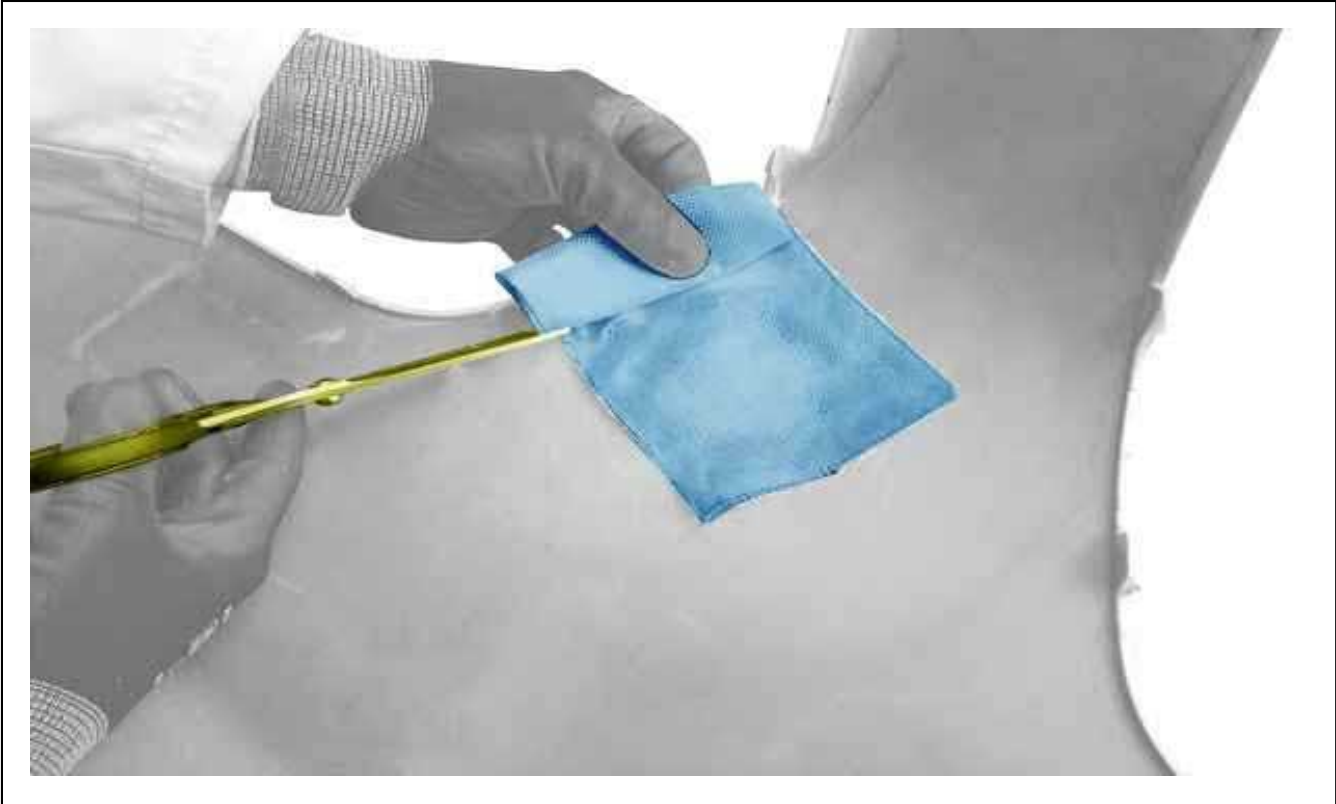


Figure : C5JM0MAD

Prepare the glass fibre stiffener strip, to overlap the repair zone by a wide margin.

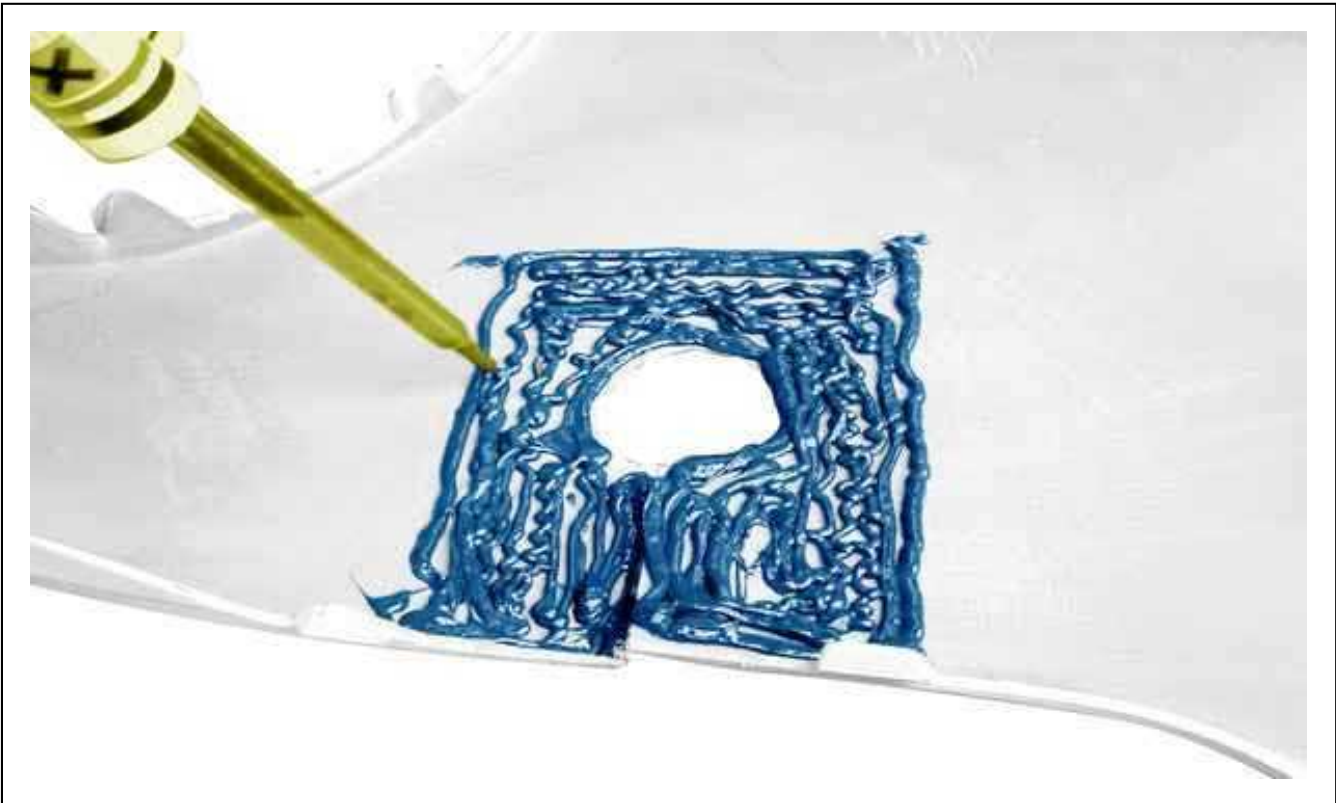


Figure : C5JM0MDD

Apply a layer of resin on the inside face of the repair, of the same dimension as the glass fibre stiffener strip.

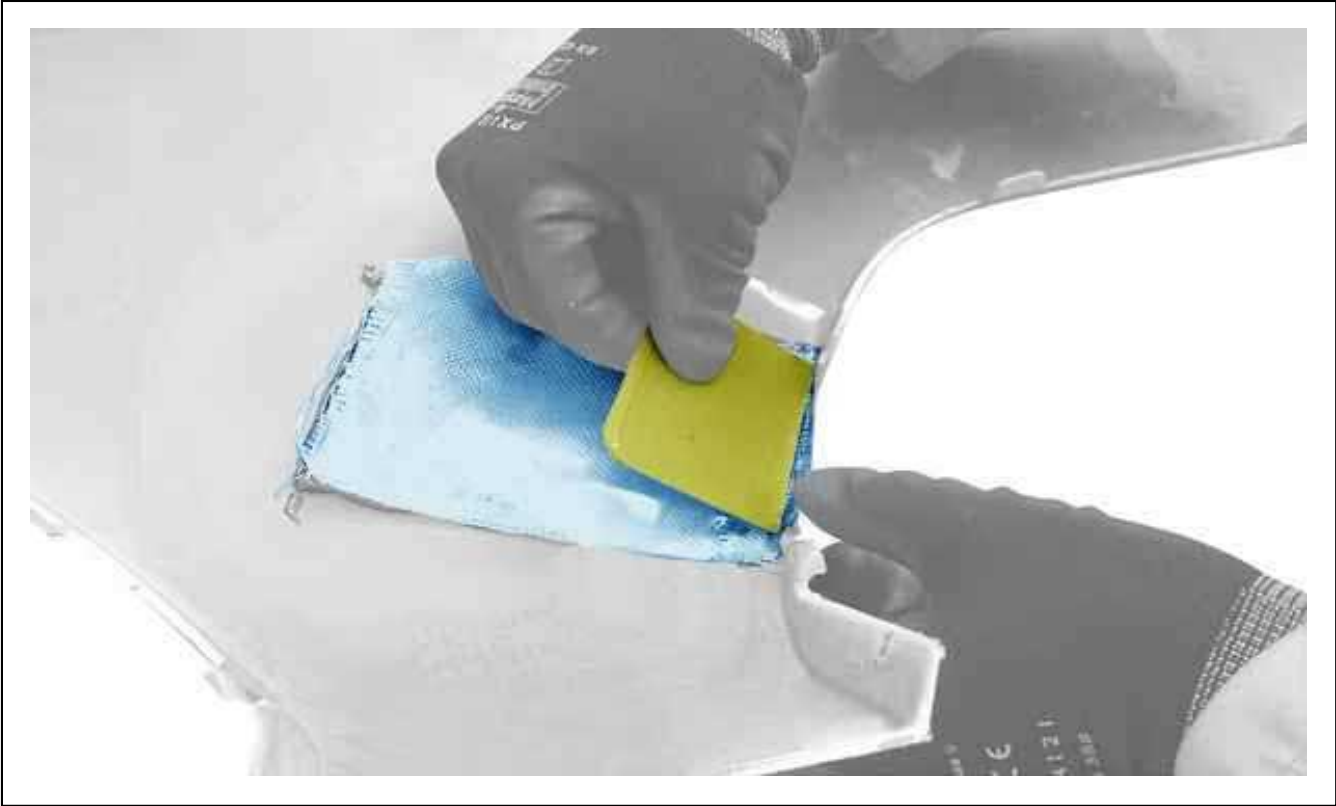


Figure : C5JM0MGD

Position the glass fibre stiffener strip ; Using a plastic spatula.



Figure : C5JM0MJD

Apply a layer of resin on the glass fibre stiffener strip ; Using an applicator gun .

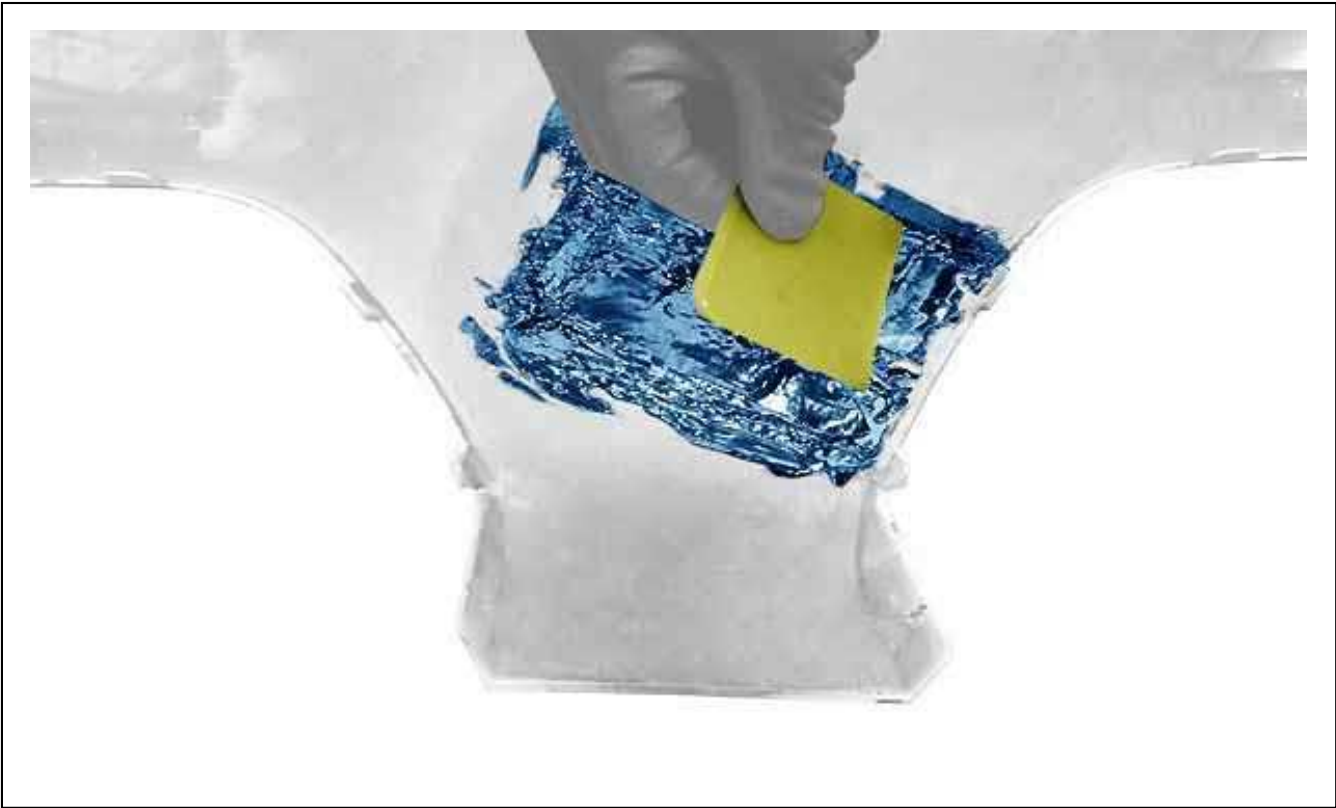


Figure : C5JM0MMD

Smooth the resin ; Using a plastic spatula.

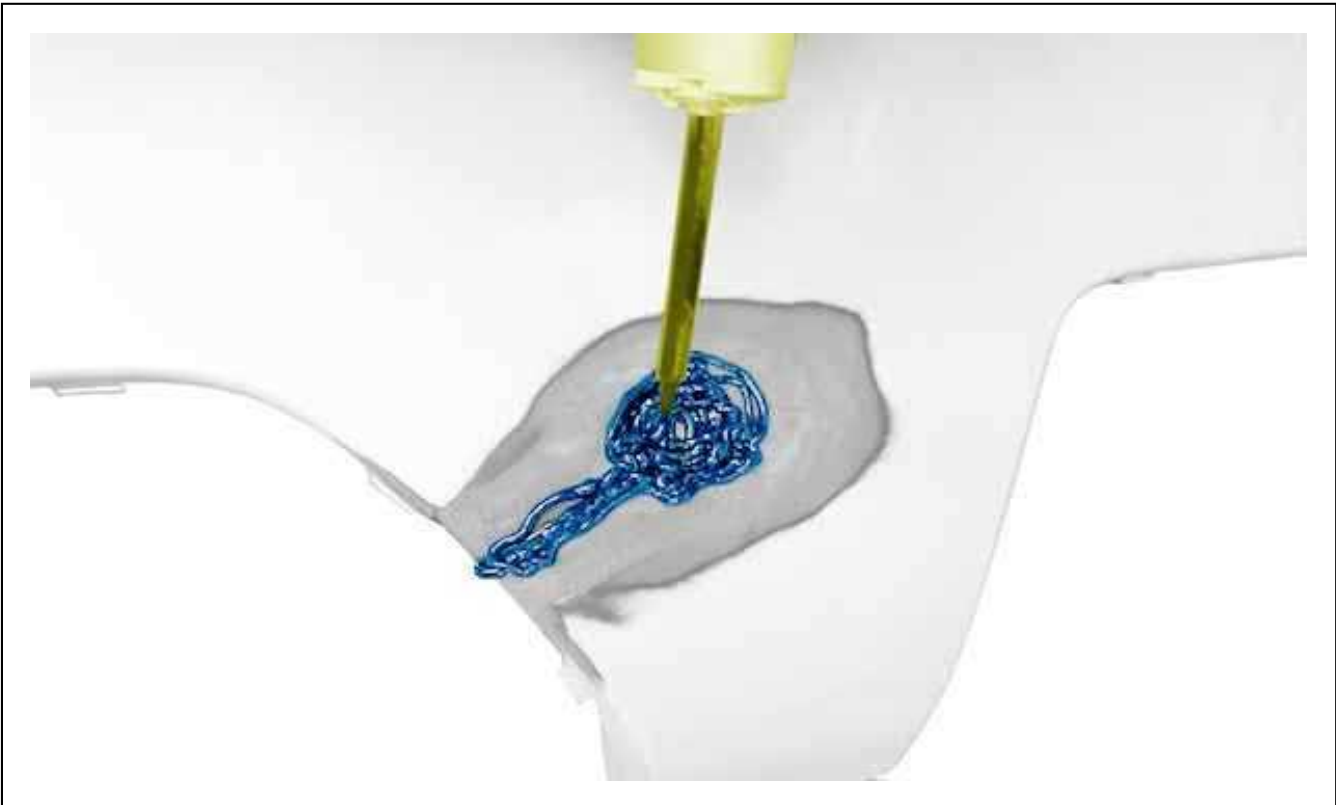


Figure : C5JM0MPD

Apply the resin on the exterior surface ; Using an applicator gun .

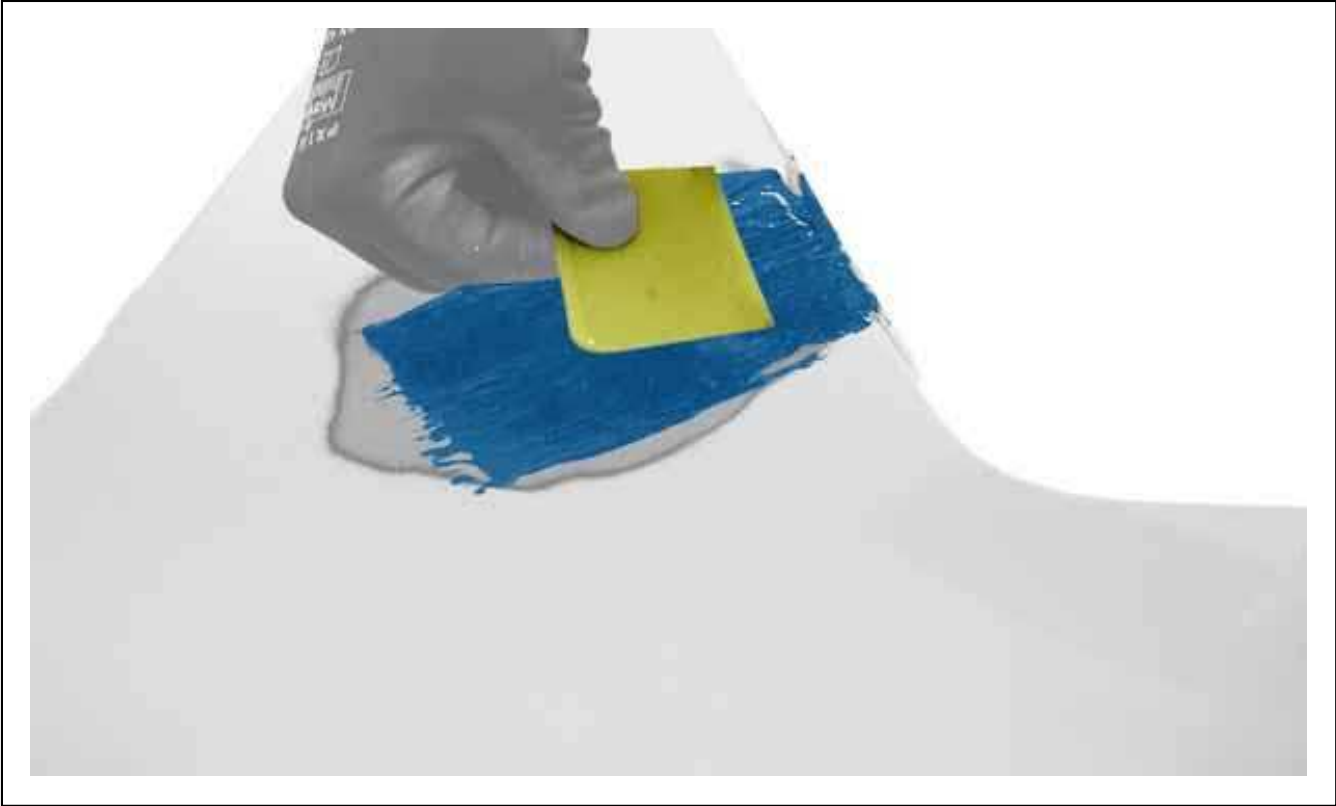


Figure : C5JM0MSD

**N.B. :** Leave a slight over-layer of resin.

Smooth the resin ; Using a plastic spatula.

Leave to polymerize; Using an infrared lamp (Depending on the type of resin used) (see operating instructions).

#### 4. Finish

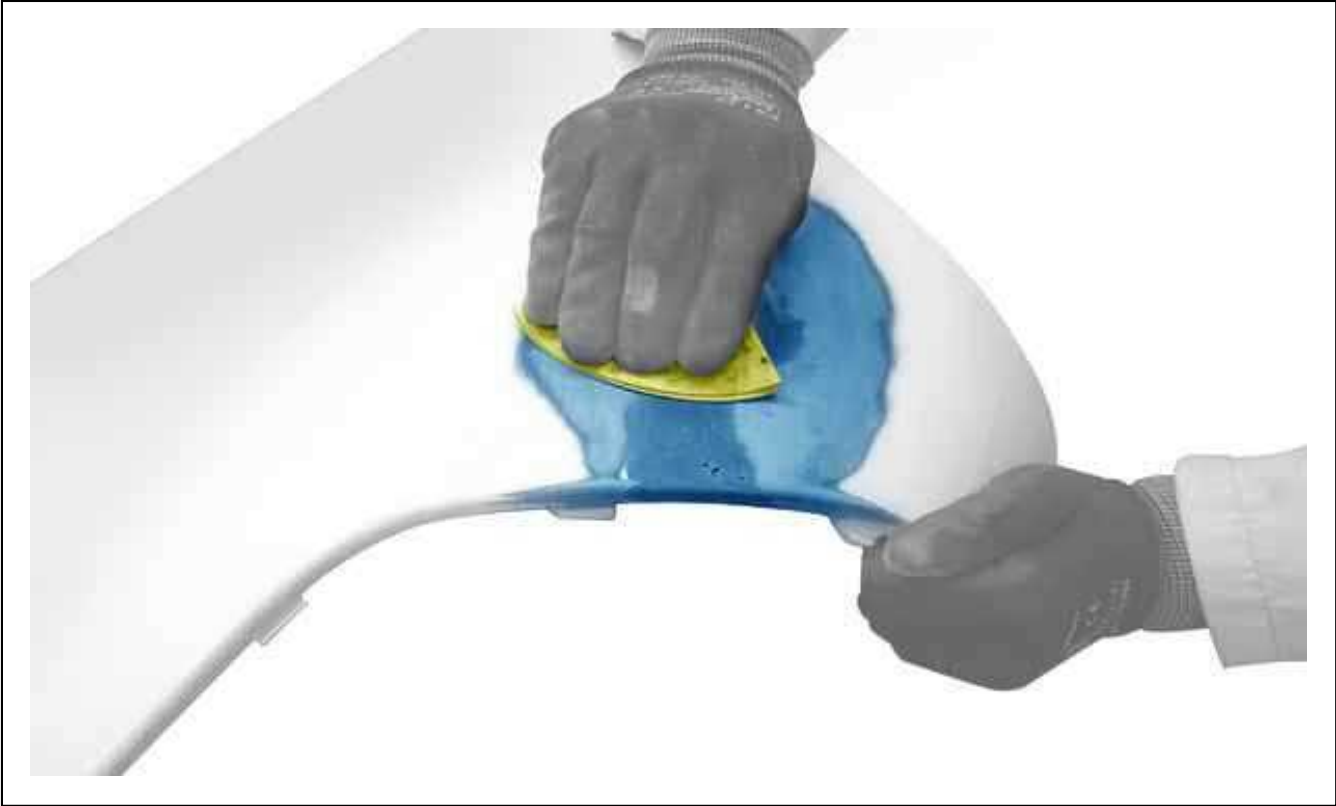


Figure : C5JM0MVD

**N.B. : Remove any scratches or slight defects.**

Smooth to remove excess resin, recreating the original form of the component.



Figure : C5JM0MYD

Apply the finishing mastic over the entire repaired surface ; Using a plastic spatula.

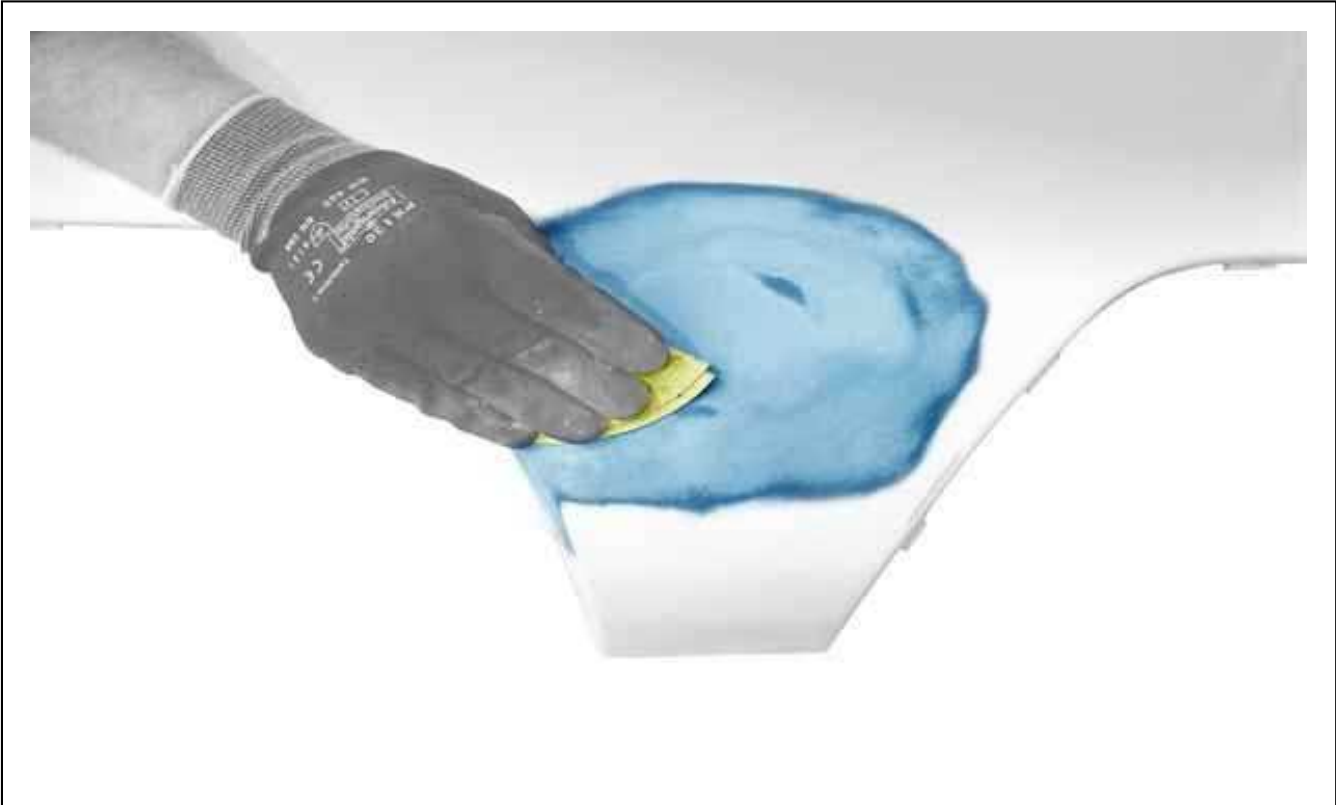


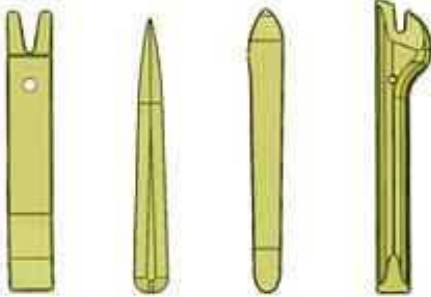
Figure : C5JM0N1D

Smooth the finishing mastic.  
Paint the component.

## STRIPPING-ASSEMBLING : FRONT BUMPER

**ESSENTIAL** : Observe the safety and cleanliness recommendations ⓘ .

## 1. Tooling

| Tool                                                                                                                        | Reference | Designation     |
|-----------------------------------------------------------------------------------------------------------------------------|-----------|-----------------|
| <p>[1350-ZZ]</p>  <p>Figure : E5AG02MT</p> | [1350-ZZ] | Stripping tools |

## 2. Preliminary operation

Remove :

- The headlamp washers ⓘ
- The front bumper ⓘ
- The front foglamps ⓘ (according to equipment)
- The number plate

## 3. Stripping

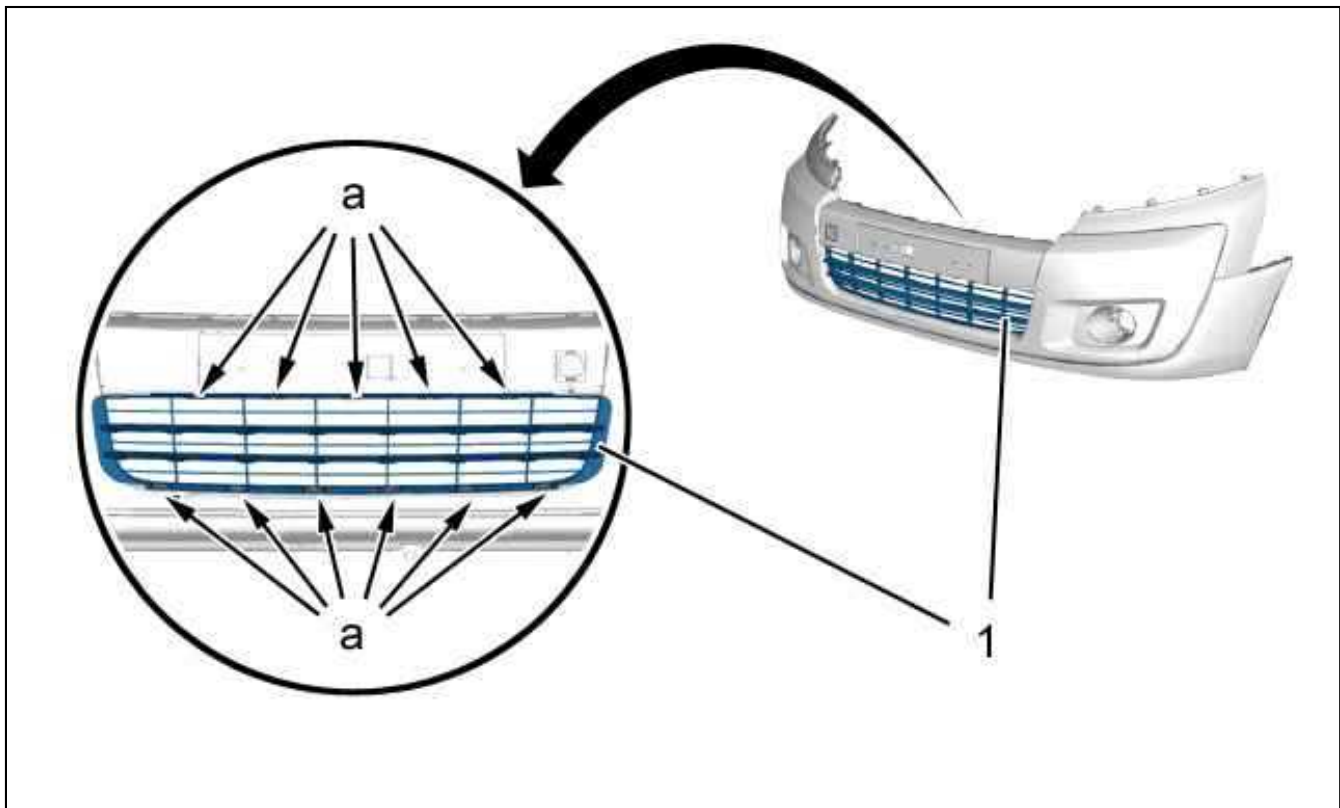


Figure : C5JS0DPD

Detach the grille (1) ( as "a" ) ; Using tool [1350-ZZ].  
Remove the loudspeaker grille (1).

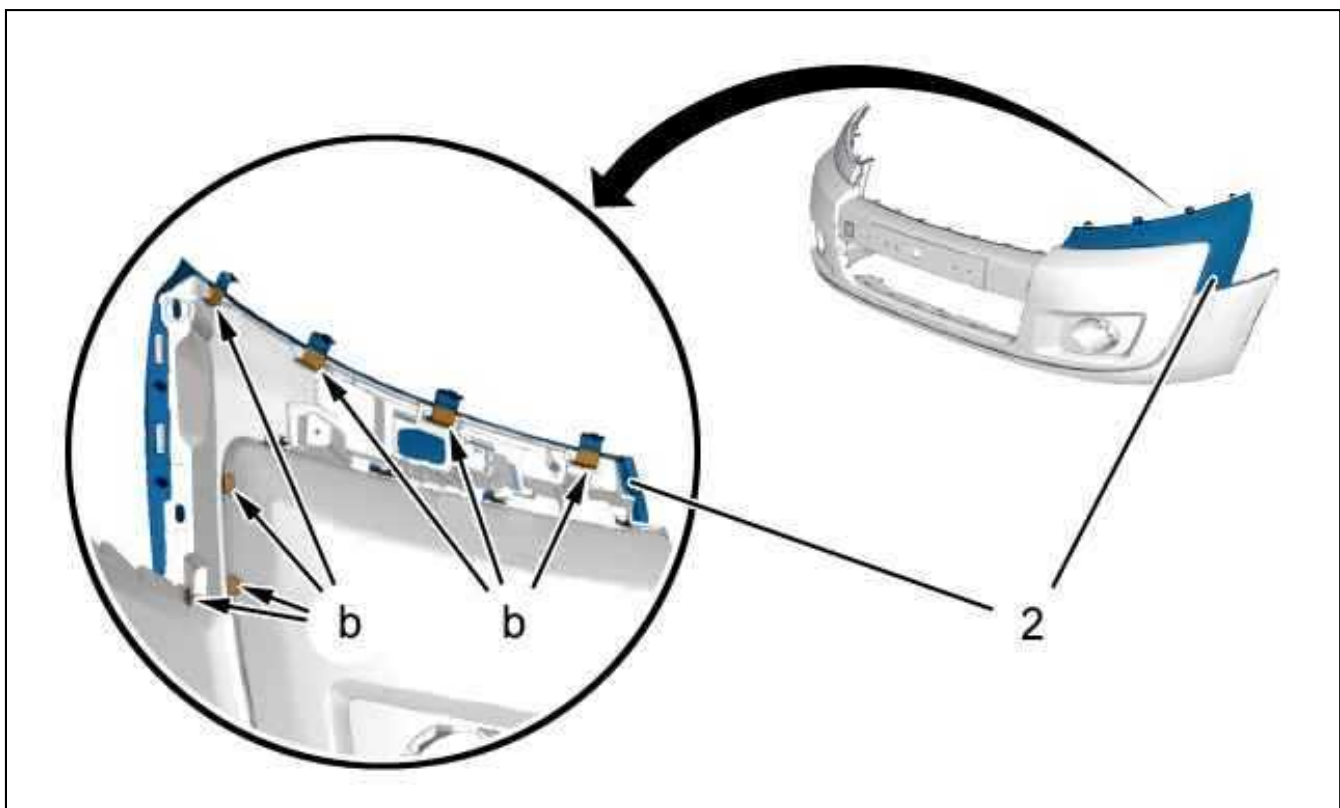


Figure : C5JS0DQD

Unclip the lateral trim (2) ( as "b" ) (Symmetrical operation).

Remove the lateral trim (2).

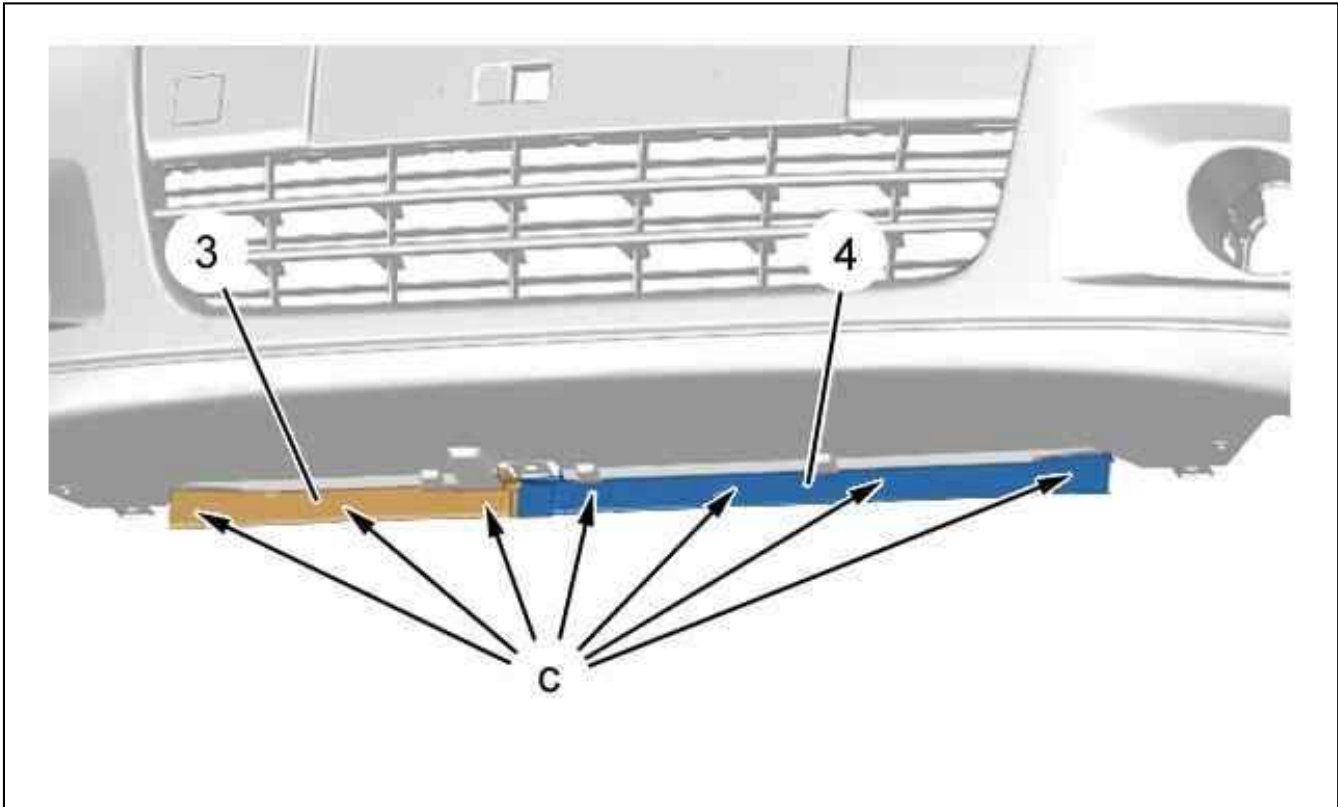


Figure : C5JS0DRD

Unclip the clips (at "c") ; Using a cutter.  
Remove The strips (3) , (4).

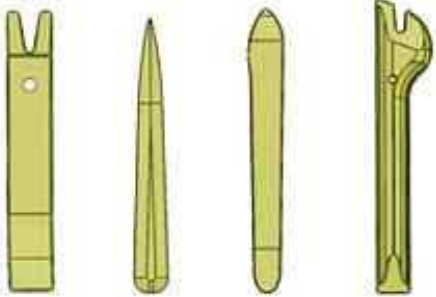
#### 4. Re-assembling

Refit : The strips (3), (4) ; Using rivets.  
Carry out the re-trim operations in the reverse order to the stripping operations.

## STRIPPING - RE-ASSEMBLING : GRILLE ( RESTYLED)

**ESSENTIAL** : Observe the safety and cleanliness recommendations ⓘ .

## 1. Tooling

| tool                                                                                                                                                                 | Reference | Description        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------|
| <div data-bbox="103 569 797 995"> <p>[1350-ZZ]</p>  </div> <p>Figure : E5AG02MT</p> | [1350-ZZ] | Trim removal tools |

## 2. Stripping

Remove the grille ⓘ .



Figure : C5JS0DUD

N.B. : Respect the order of removal.

Unclip ; Using tool [1350-ZZ] :

- The bezel (1)
- The symbol (2)
- The bezel (3)

### 3. Re-assembling

Carry out the re-trim operations in the reverse order to the stripping operations.

Fit the grille  .