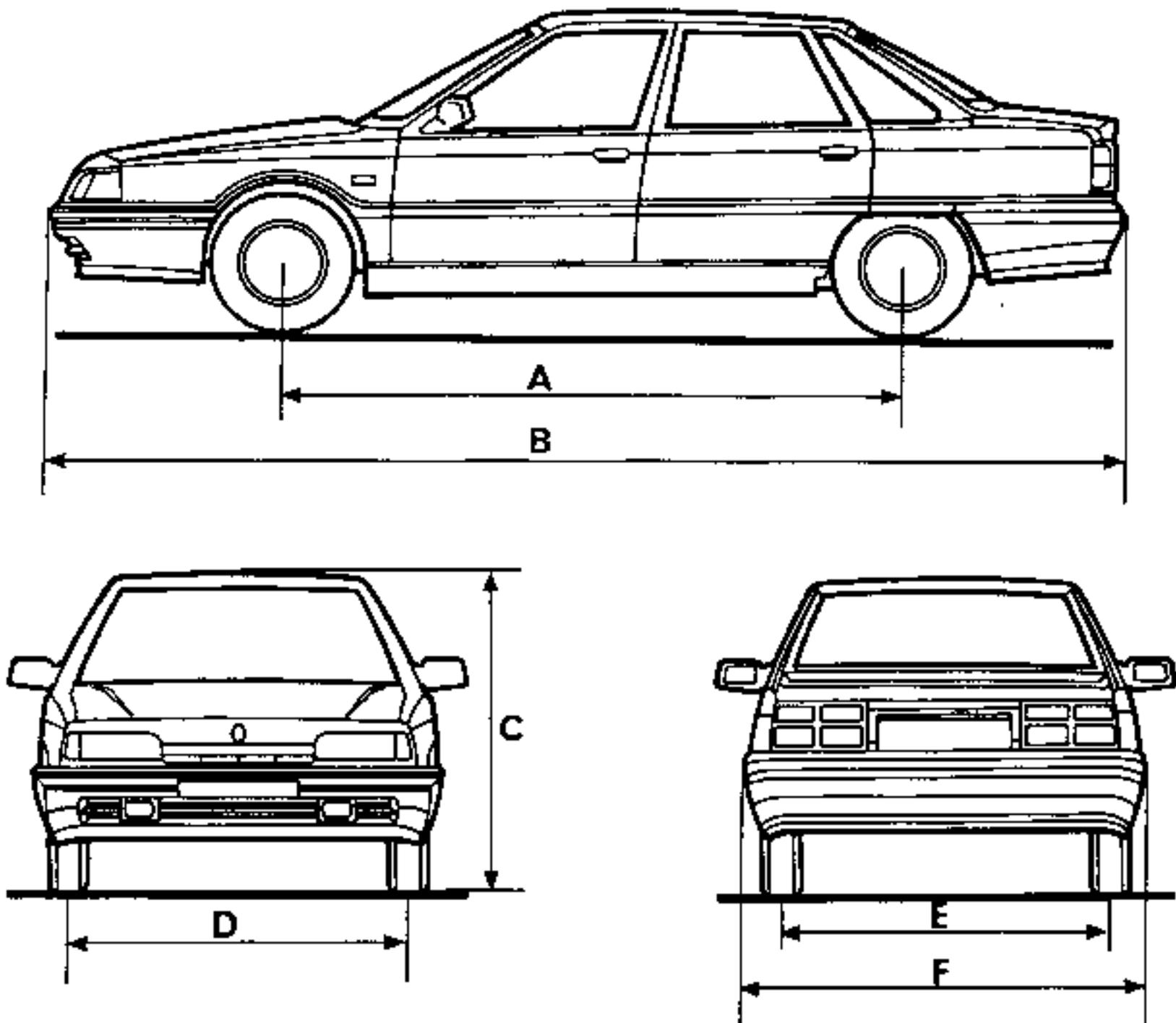


21401

REFERENCE	IN-LINE ENGINE						TRANSVERSE ENGINE			
	RX	TI	GTX TXE	2 litres turbo	TD GTD	Turbo D Turbo DX	TL - TS	GTS	RS	TSE
A	2600						2659			
B	4465	4462	4498	4462		4462	4465	4462		
C	1414		1385	1414		1414				
D	1454		1450		1454	1429				
E	1406		1402	1406		1402				
F	1715		1706	1715		1706	1715			

Dimensions are given in millimetres.

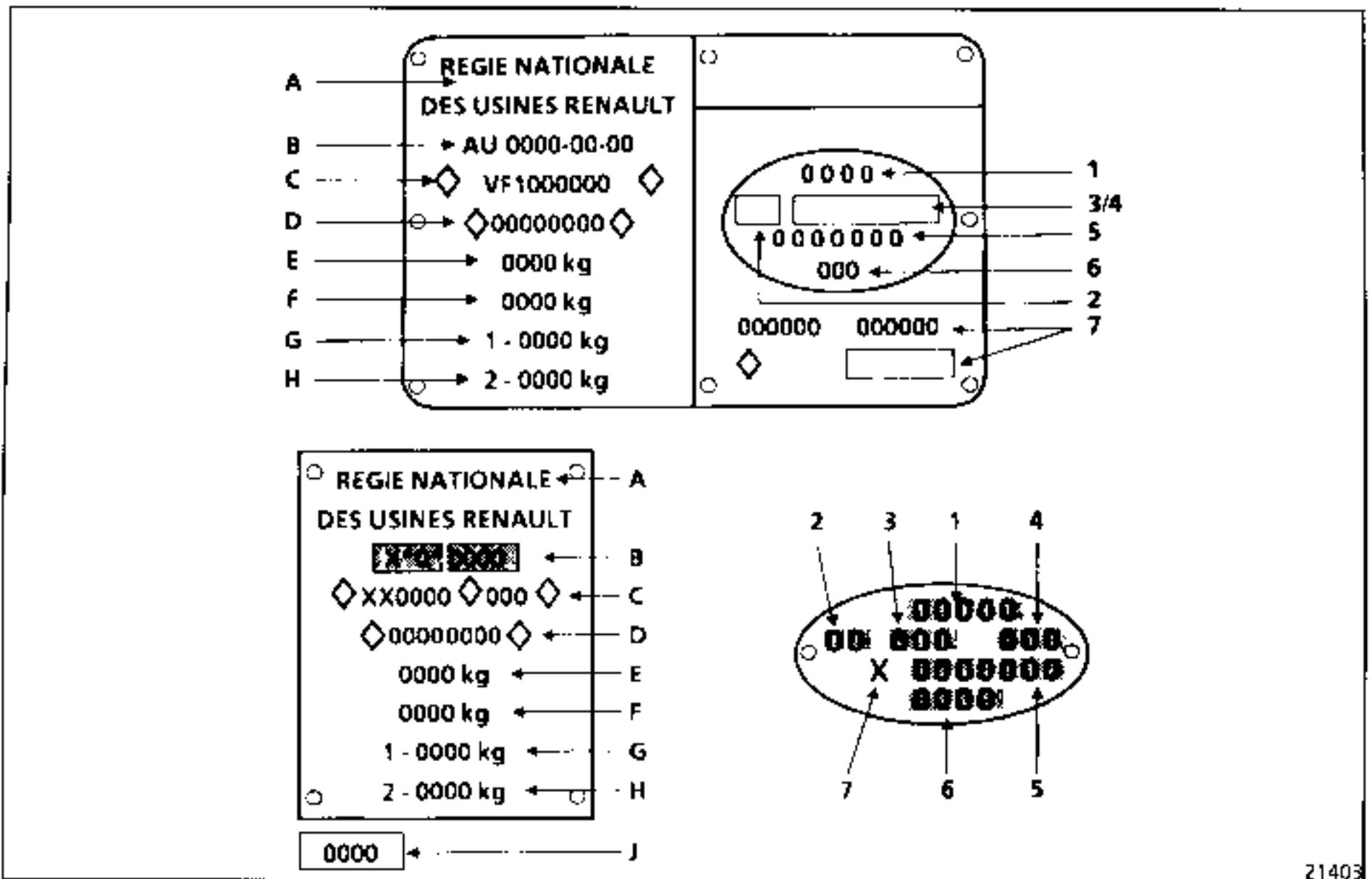


21402

REFERENCE	IN-LINE ENGINE					TRANSVERSE ENGINE			
	GTX TXE	TXI	2 litres turbo	TD GTD	Turbo D Turbo DX	TL - TS	GTS	TSE	SD - GSD
A	2600					2659			
B	4528	4510	4528			4528			
C	1415	1385	1415	1400		1415			
D	1454	1445	1454			1435			
E	1400 (1403 with ABS)	1396	1400 (1408 with ABS)		1400 (1403 with ABS)		1400 (1408 ABS)		
F	1726	1722	1726			1726			

Dimensions are given in millimetres.

The vehicle is identified by the means of two plates which may be on the same mounting.



21403

- At A : The manufacturer's name.
- At B : The EEC reception number
- At C : The vehicle type mines preceded by the world wide identification code for the manufacturer (example VF1 corresponds to Renault France).
- At D : The chassis number.
- At E : The gross vehicle weight.
- At F : The gross train weight.
- At G : The maximum permissible front axle loading.
- At H : The maximum permissible rear axle loading.
- At J\* : The model year (optional, three possible locations, see above).

- At 1 : The vehicle type.
- At 2 : Special features of the vehicle.
- At 3 and 4 : The equipment and option numbers.
- At 5 : A letter designating the manufacturing factory followed by the fabrication number
- At 6 : The original paint reference.
- At 7 : The additional marking.

\*Note : In certain export markets some of these items may not be shown. The plate described above is the most comprehensive version.

**ALLOCATION OF EQUIPMENT NUMBERS**

Good roads		Poor roads		Special equipment
Steering				
LHD	RHD	LHD	LHD	
100 series	600 series	200 series	500 series	

SPECIAL TOOLING REQUIRED	
Cha. 280-02	Trolley jack pad
Cha. 408-02	Trolley jack adaptor socket

The vehicle may not be lifted by taking the load under the front suspension arms.  
Depending on the type of trolley jack, use one of the sockets Cha. 408-02 to fit the pad Cha. 280-02.

**LIFTING WITH A TROLLEY JACK FROM THE FRONT**

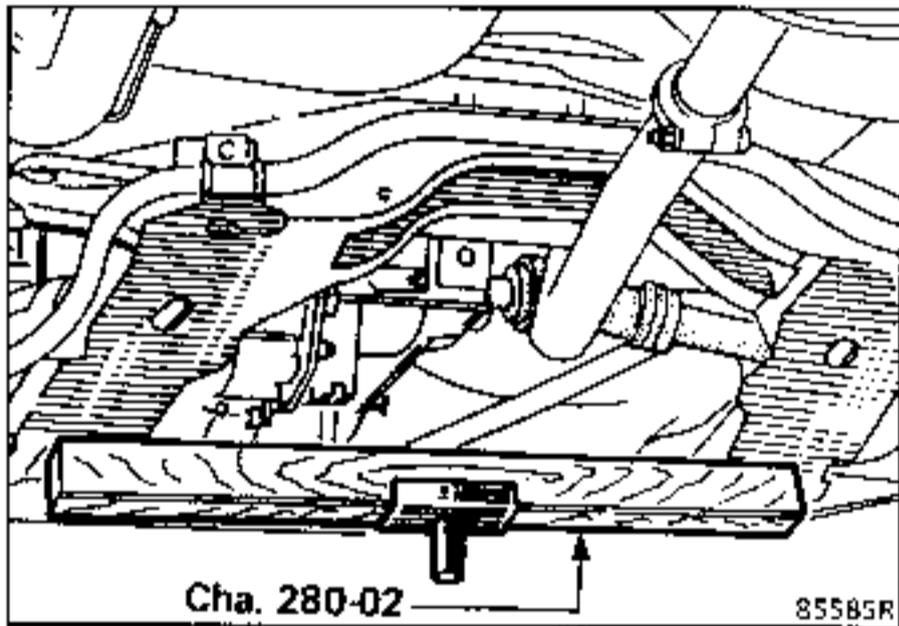
Apply the handbrake or chock the rear wheels.

Use pad Cha. 280-02.

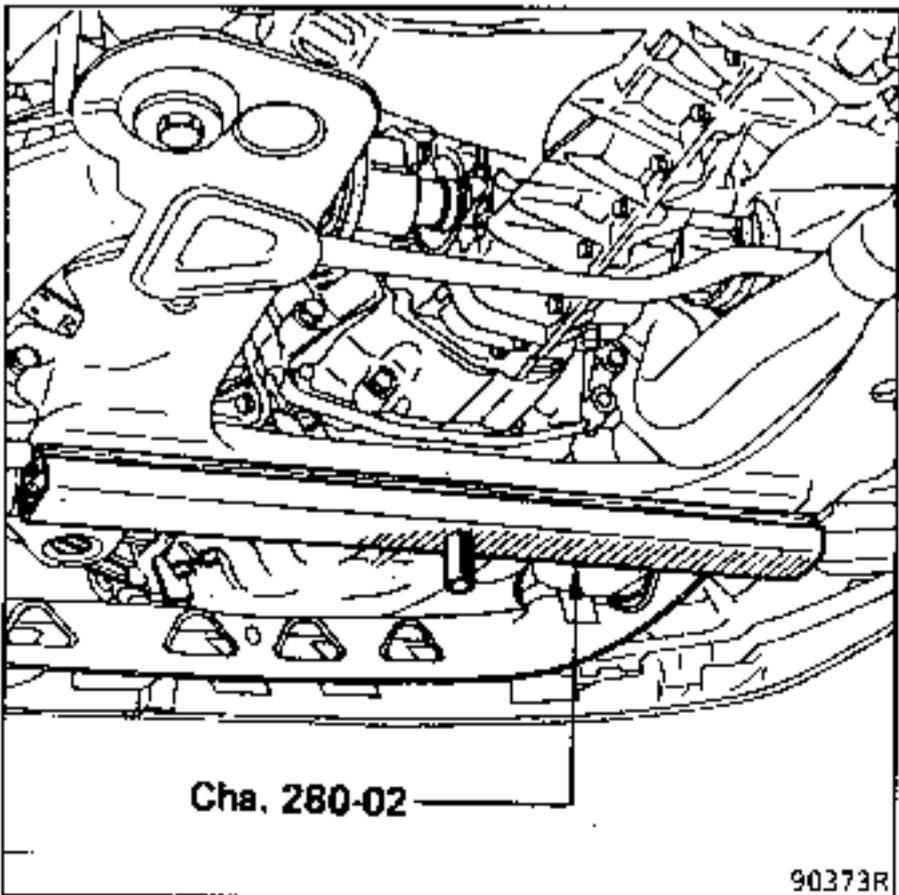
Take the load under the front sub-frame.

Ensure that the pad is not in contact with the gearbox or the exhaust downpipe.

**Transverse engine**

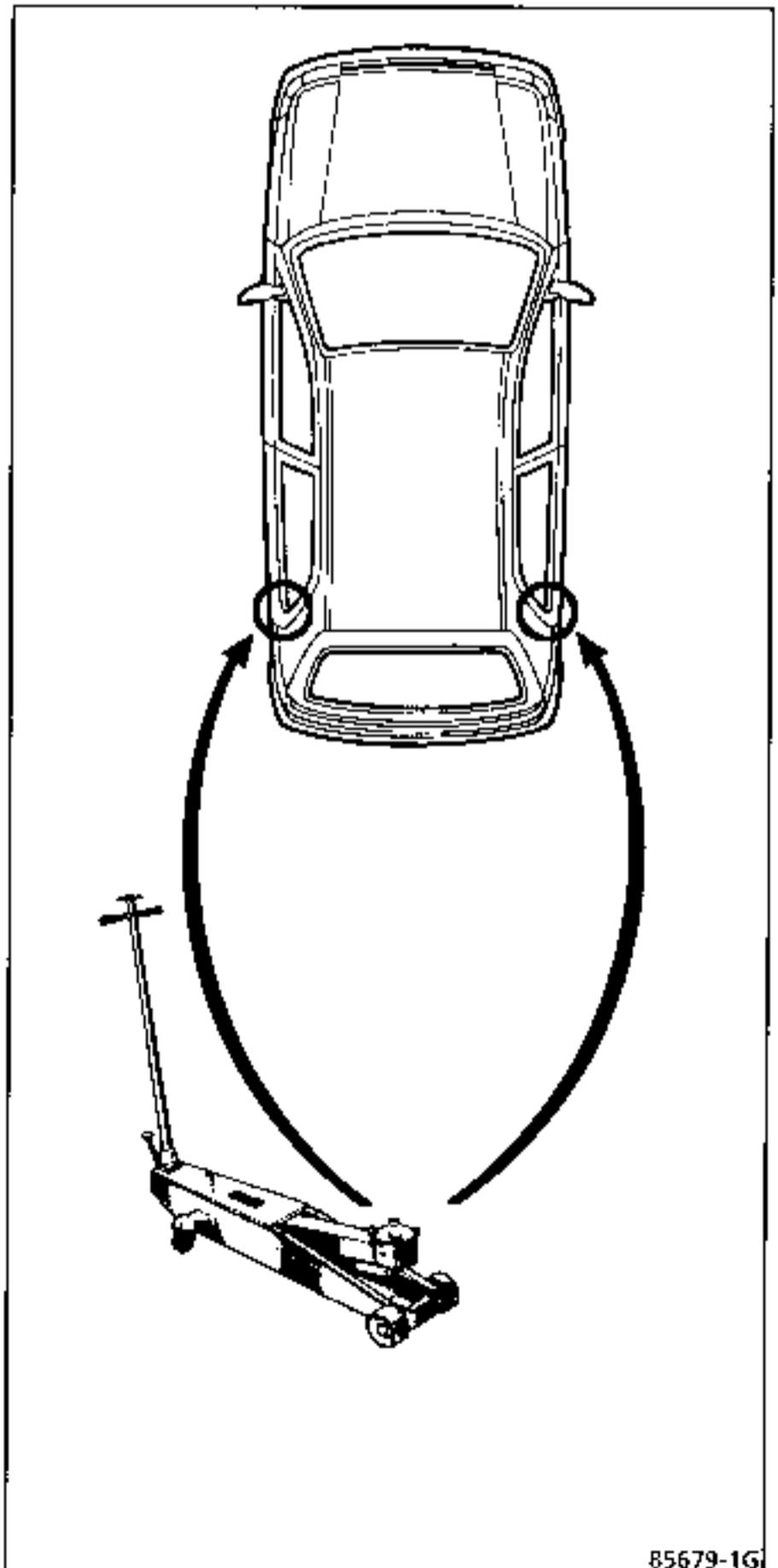


**In-line engine**



**LIFTING WITH A TROLLEY JACK FROM THE REAR**

The vehicle **MAY NOT** be lifted by taking the weight under the rear axle assembly. Lift each wheel separately, taking the load on the vehicle jacking points.

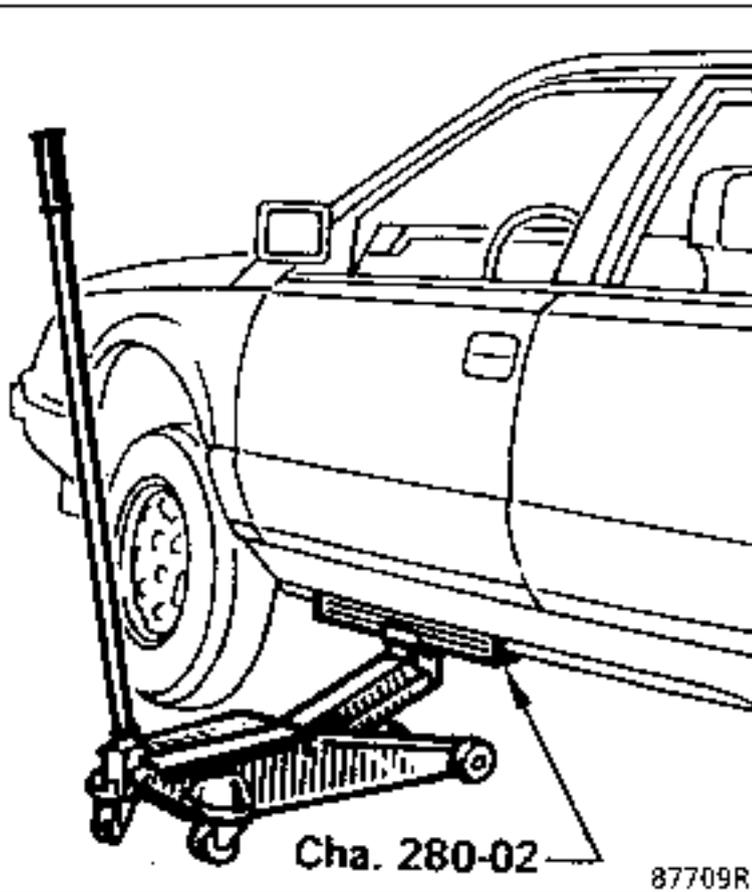


### LIFTING WITH A TROLLEY JACK FROM THE SIDE

Use pad Cha. 280-02.

Take the load under the sill, under the front door.

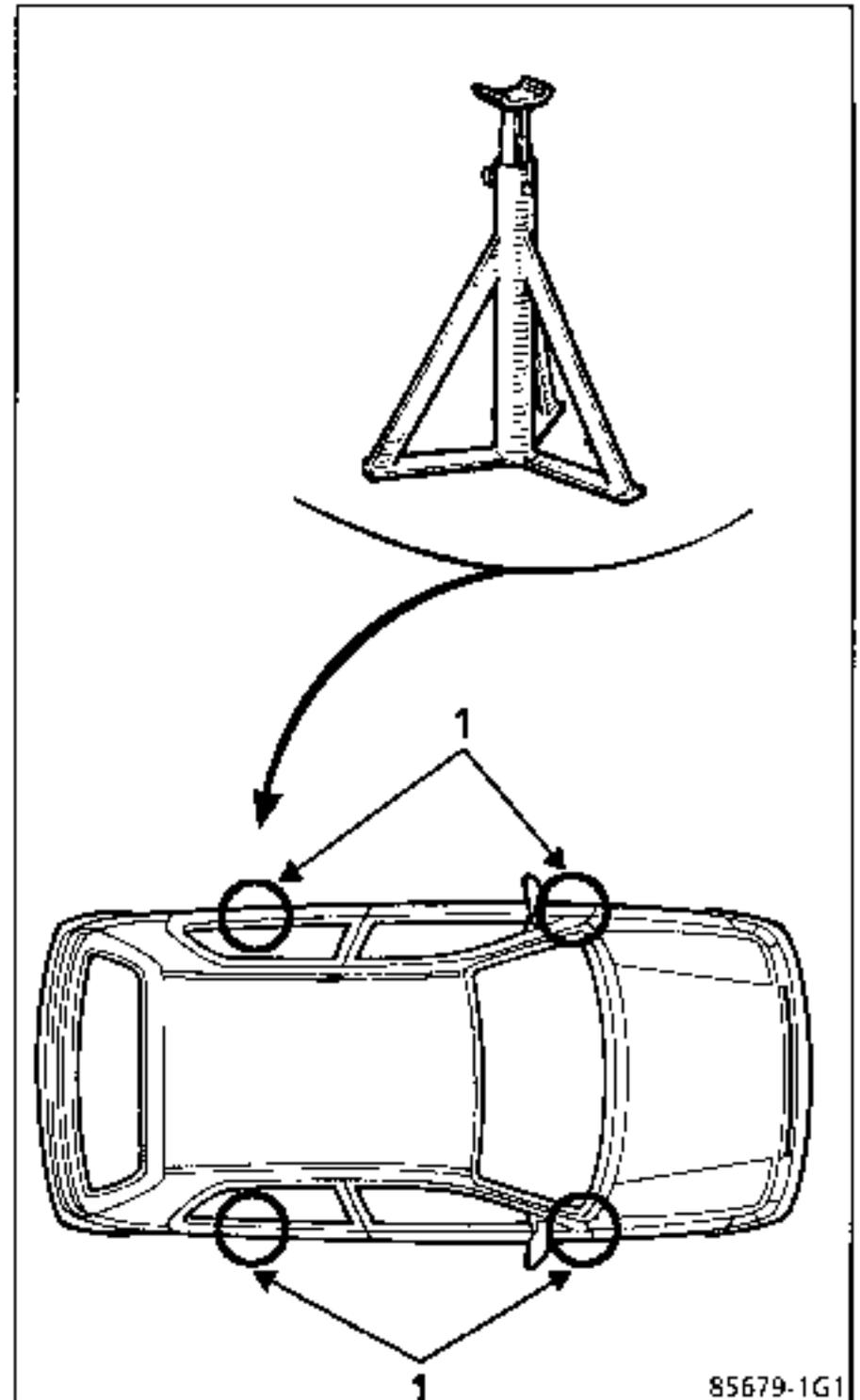
Ensure that the flange is correctly positioned in the slot on the pad.



### AXLE STANDS

When putting the vehicle on axle stands, they must be positioned under the jacking points (1) provided for lifting the vehicle with its own jack.

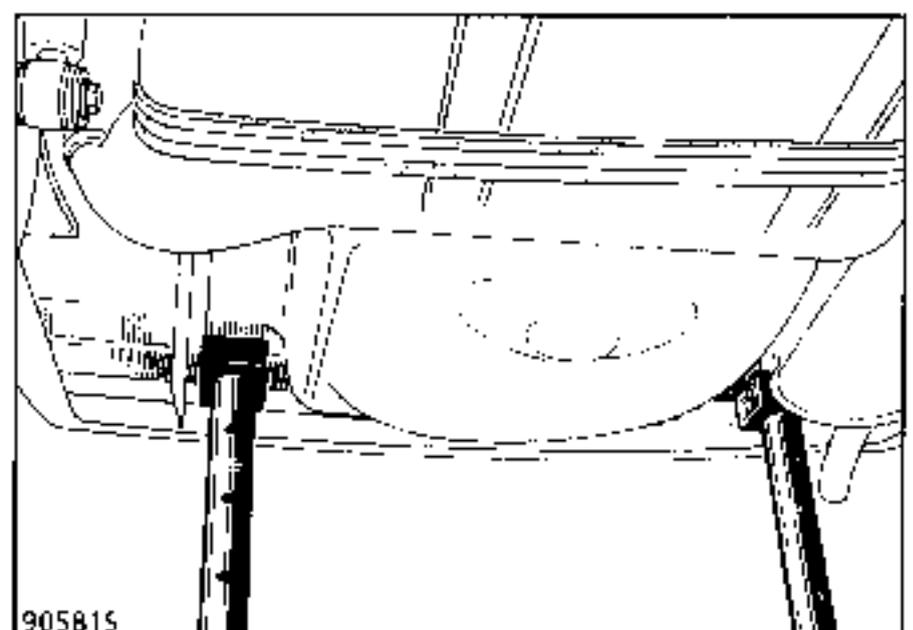
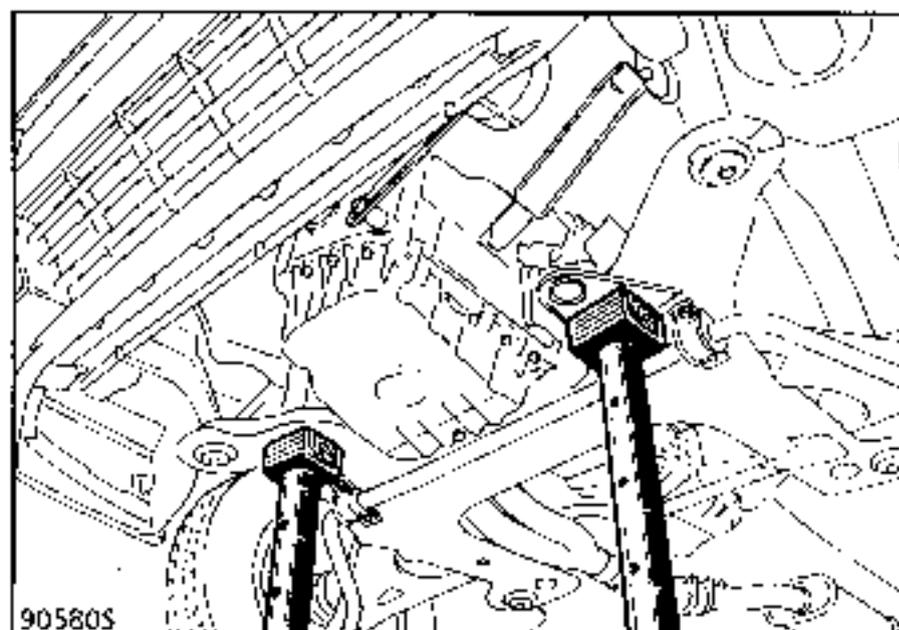
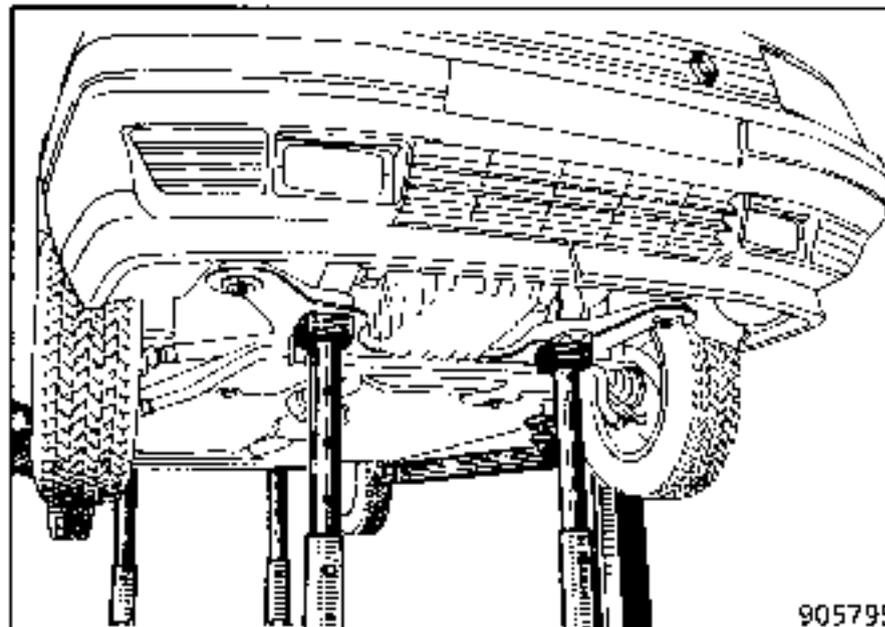
Rear axle stands are placed in position by lifting the vehicle from the side.



A number of different cases may arise:

1 - When components are to be removed:

- a) Generally speaking, **never use a 2 post lift**, if a 4 post lift may be used (for example, removing the gearbox, the engine or the engine and transmission assembly).
- b) Only in cases where the lift will not have to be moved (up and / or down) during the removal - refitting of components (for example, complete rear axle assembly), it is essential that 2 high axle stands (Part Number FOG 440-8001 for example) are placed under the **opposite end of the vehicle** (in the case already quoted of removing the rear axle assembly, the stands would be placed under the front end of the vehicle).



2 - Particular case of removing and refitting the engine - transmission assembly secured to its sub-frame :

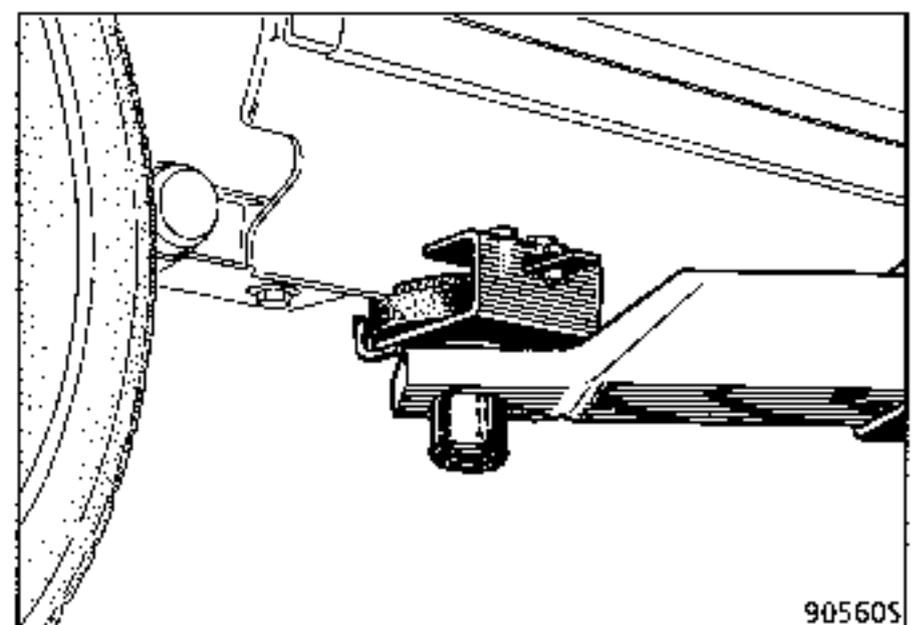
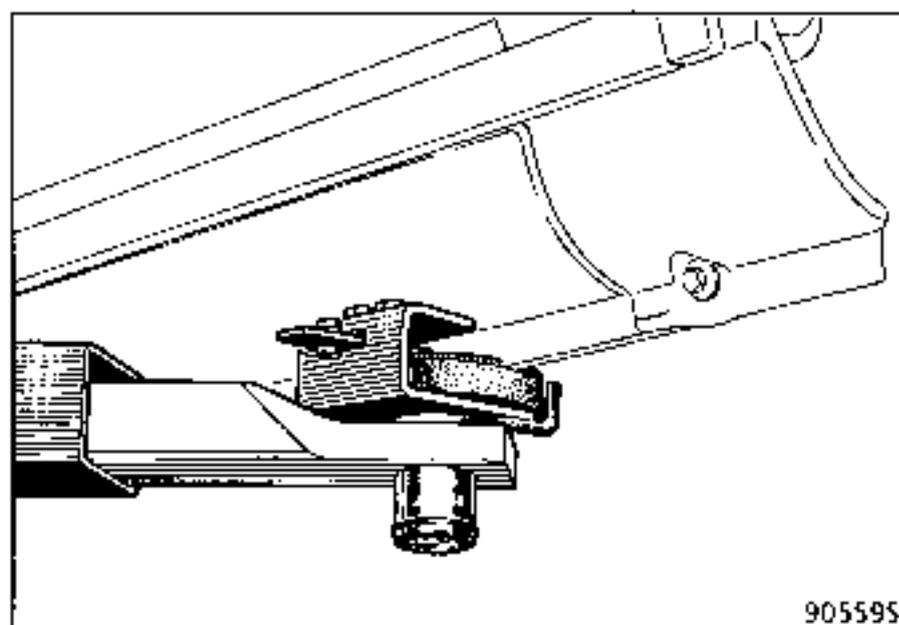
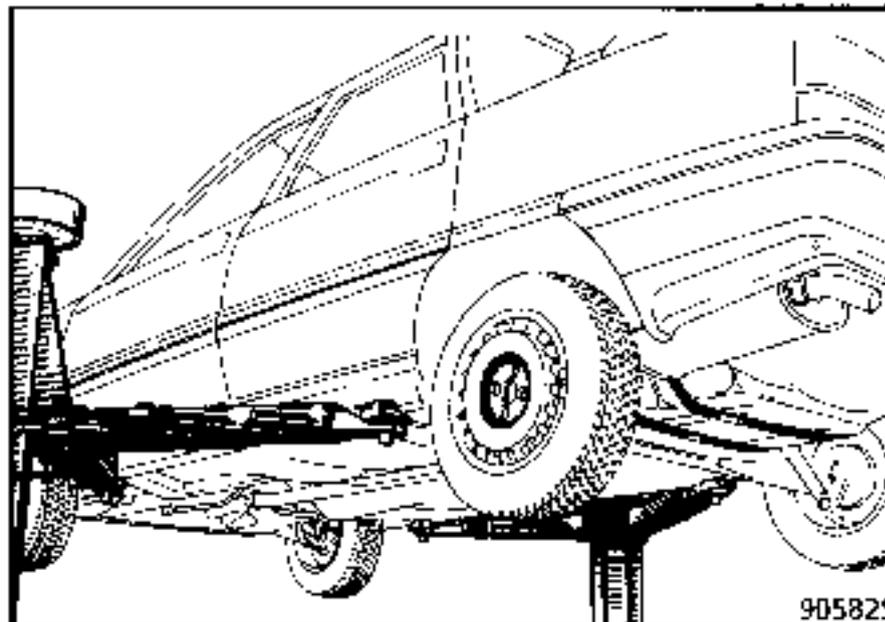
First of all, it should be noted that this operation is only to be undertaken when carrying out body repair operations (replacement of the side members for example, where the vehicle has to be mounted on the jig bench).

In this specific case, the body of the vehicle must be secured to the arms of the 2 post lift.

The FOG company supplies a set of special pads.

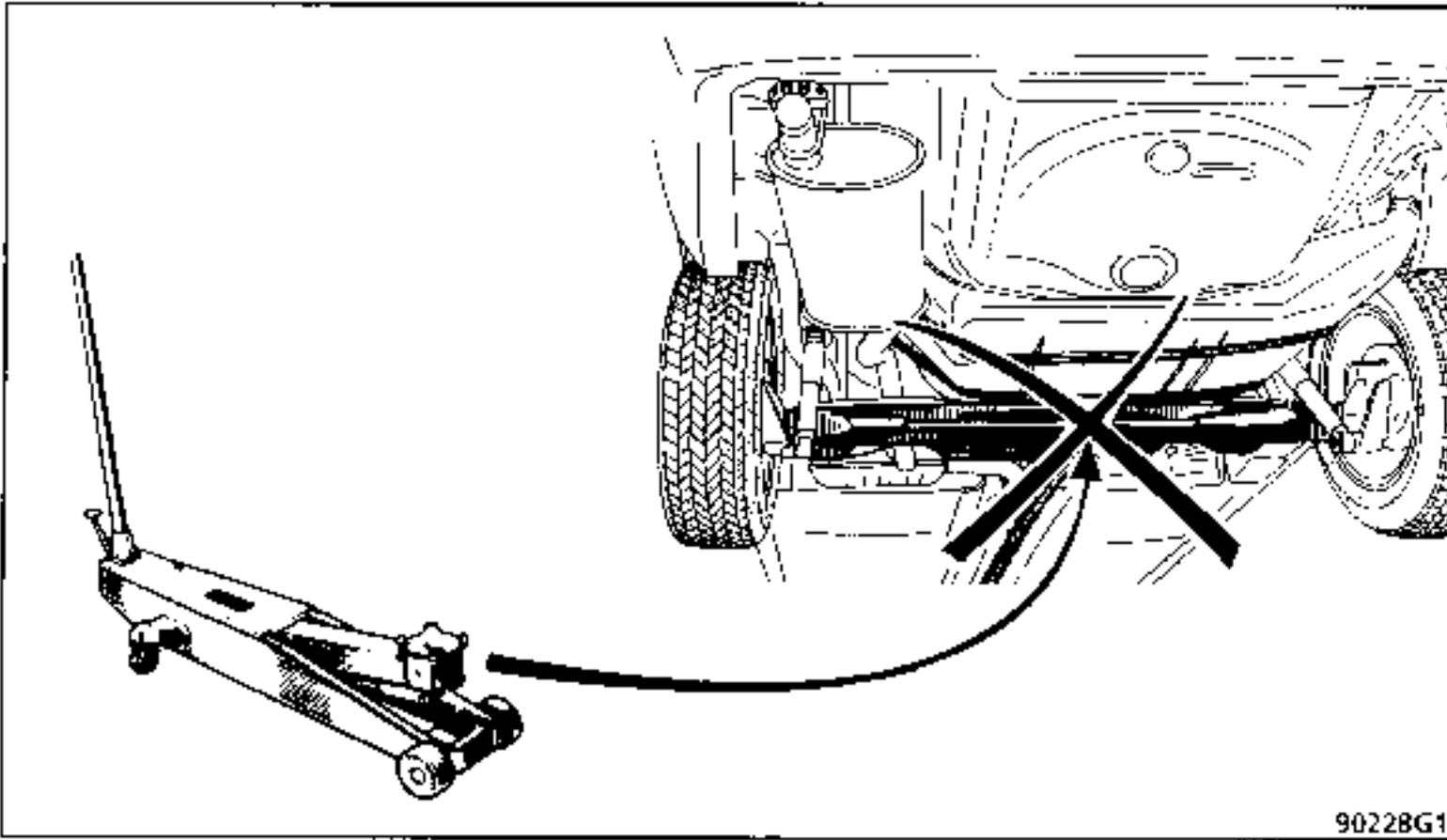
Part Number : FOG 449 8111.

These should be located under the vehicle jacking points. They must click into the apertures in the body sill flanges.



3 - In all other cases when the vehicle is to be raised on a 2 post lift, the lifting pads must be placed under the body sill flanges, in line with the vehicle jacking points.

It is **FORBIDDEN** to jack up the vehicle taking the load under the rear axle V section.

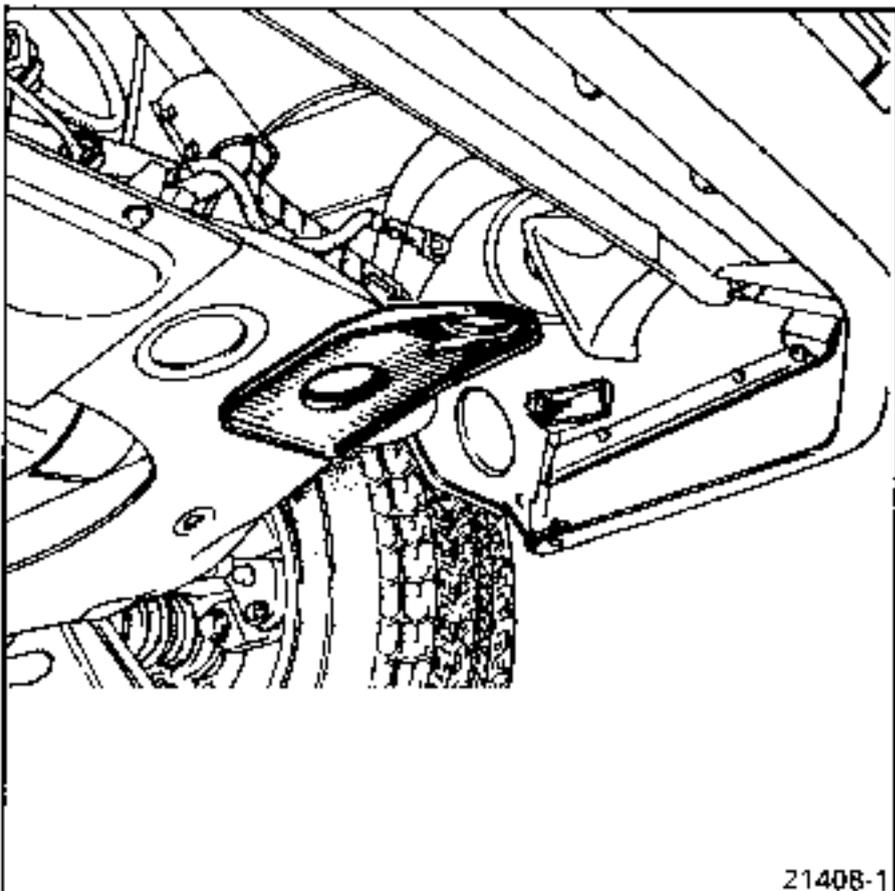


90228G1

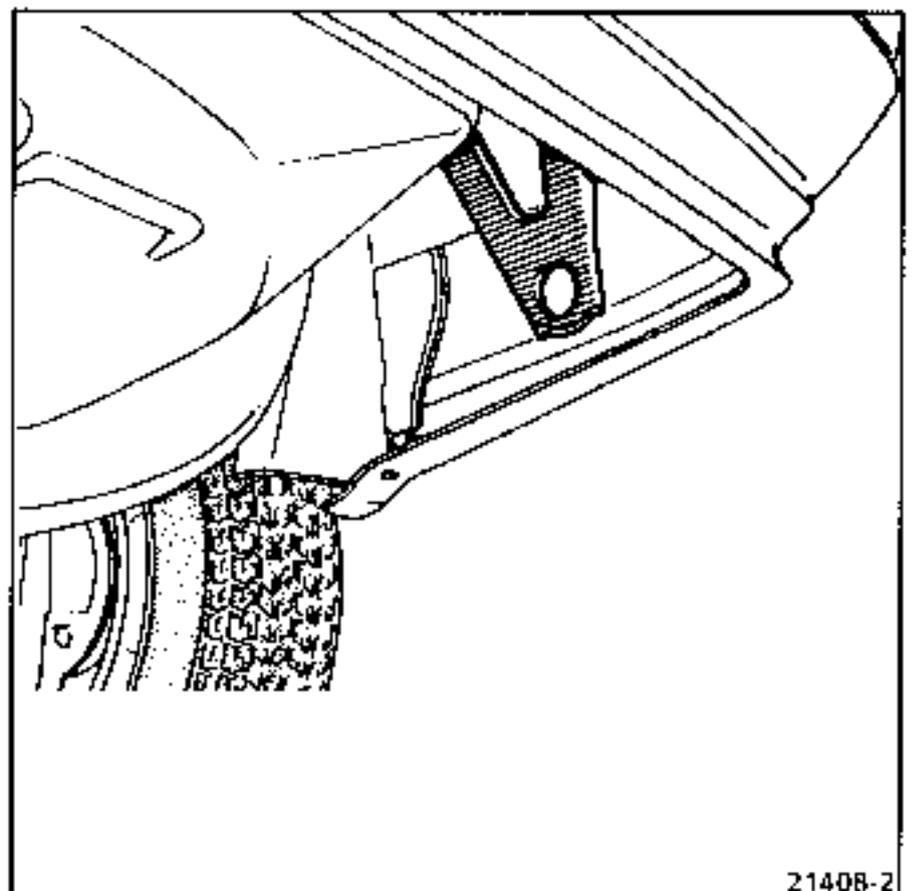
The towing hooks, which are to be used only for towing the vehicle on the road, must under no circumstances be used for pulling the vehicle out of a ditch or any other similar emergency operation and must not be used for lifting the vehicle, either directly or indirectly.

FRONT

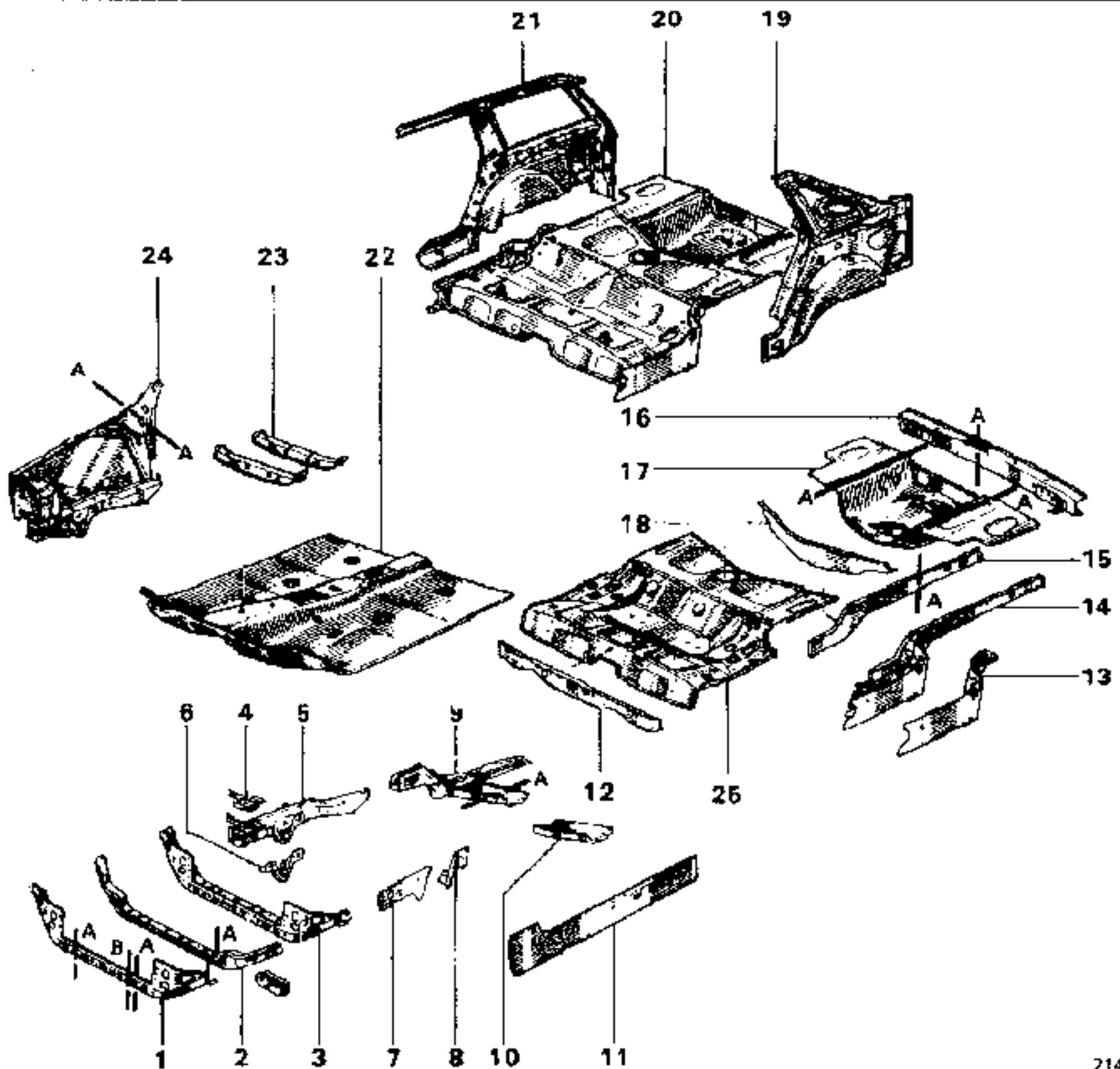
REAR



21408-1



21408-2

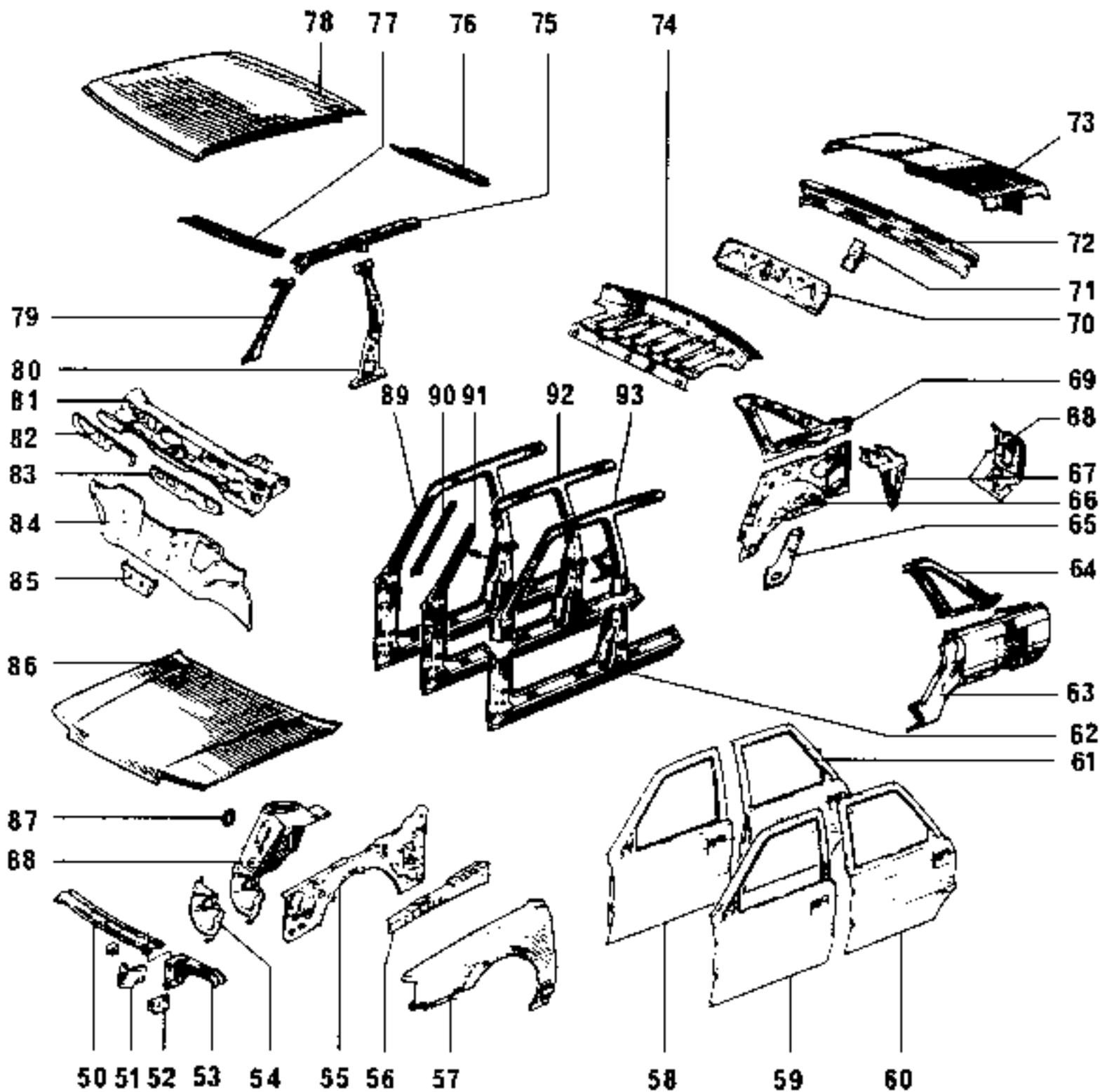


21409

**LOWER STRUCTURE**

- 1 Lower cross member closure panel
- 1AA Cross member closure panel along cut AA
- 1B Cross member closure panel along cut B
- 2 Front lower cross member
- 2A Lower cross member along cut A
- 3 Front lower cross member, complete
- 4 Connection gusset
- 5 Side member, complete front section
- 6 Sub-frame front gusset
- 7 Front side member closure panel
- 8 Rear closure panel
- 9 Front side member, rear section
- 9A Side member, rear section along cut A
- 10 Side cross member
- 11 Sill closure panel
- 12 Cross member under floor
- 13 Valence closure panel
- 14 Rear side member, complete

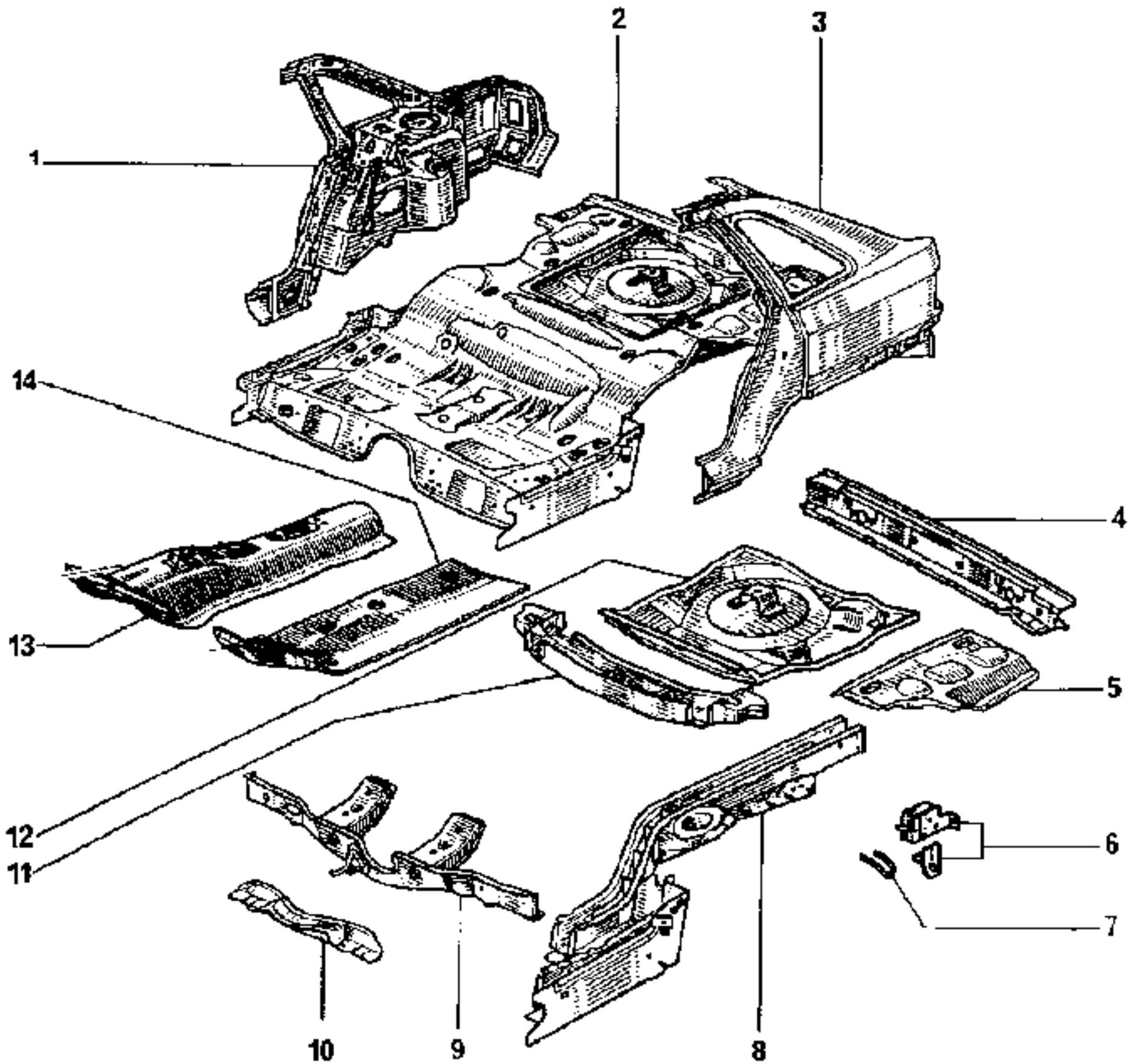
- 15 Rear side member, bare
- 15A Rear side member along cut A
- 16 Rear cross member
- 16A Rear cross member along cut A
- 17 Luggage compartment floor panel, rear section
- 17A Side section of floor, along cut A
- 18 Luggage compartment panel
- 19 Rear half unit
- 20 Rear floor assembly
- 21 Rear half unit
- 22 Floor, bare
- 23 Floor cross member
- 24 Front half unit
- 25 Centre floor



214010

UPPER STRUCTURE

- |    |                          |    |                               |    |                                 |
|----|--------------------------|----|-------------------------------|----|---------------------------------|
| 50 | Front upper cross member | 66 | Rear wheel arch               | 82 | RH partition under cross member |
| 51 | Hinge mounting           | 67 | Wing panel reinforcement      | 83 | LH partition under cross member |
| 52 | Movable gusset           | 68 | Rear lights carrier panel     | 84 | Bulkhead                        |
| 53 | Headlight carrier panel  | 69 | Rear quarter panel lining     | 85 | Steering mounting               |
| 54 | Wheel arch extension     | 70 | Rear end panel lining         | 86 | Bonnet                          |
| 55 | Front pillar lining      | 71 | Striker plate reinforcement   | 87 | Steering mounting flange        |
| 56 | Lining reinforcement     | 72 | Rear end panel                | 88 | Wheel arch                      |
| 57 | Front wing               | 73 | Boot lid                      | 89 | Body side                       |
| 58 | Front door               | 74 | Rear parcel shelf             | 90 | Windscreen aperture stretcher   |
| 59 | Front door panel         | 75 | Side stretcher                | 91 | Front pillar                    |
| 60 | Rear door panel          | 76 | Roof rear cross member        | 92 | Centre pillar                   |
| 61 | Rear door                | 77 | Roof front cross member       | 93 | Body top                        |
| 62 | Sill panel               | 78 | Roof                          |    |                                 |
| 63 | Rear wing panel          | 79 | Windscreen pillar lining      |    |                                 |
| 64 | Rear quarter panel       | 80 | Centre pillar lining          |    |                                 |
| 65 | Pillar reinforcement     | 81 | Windscreen lower cross member |    |                                 |



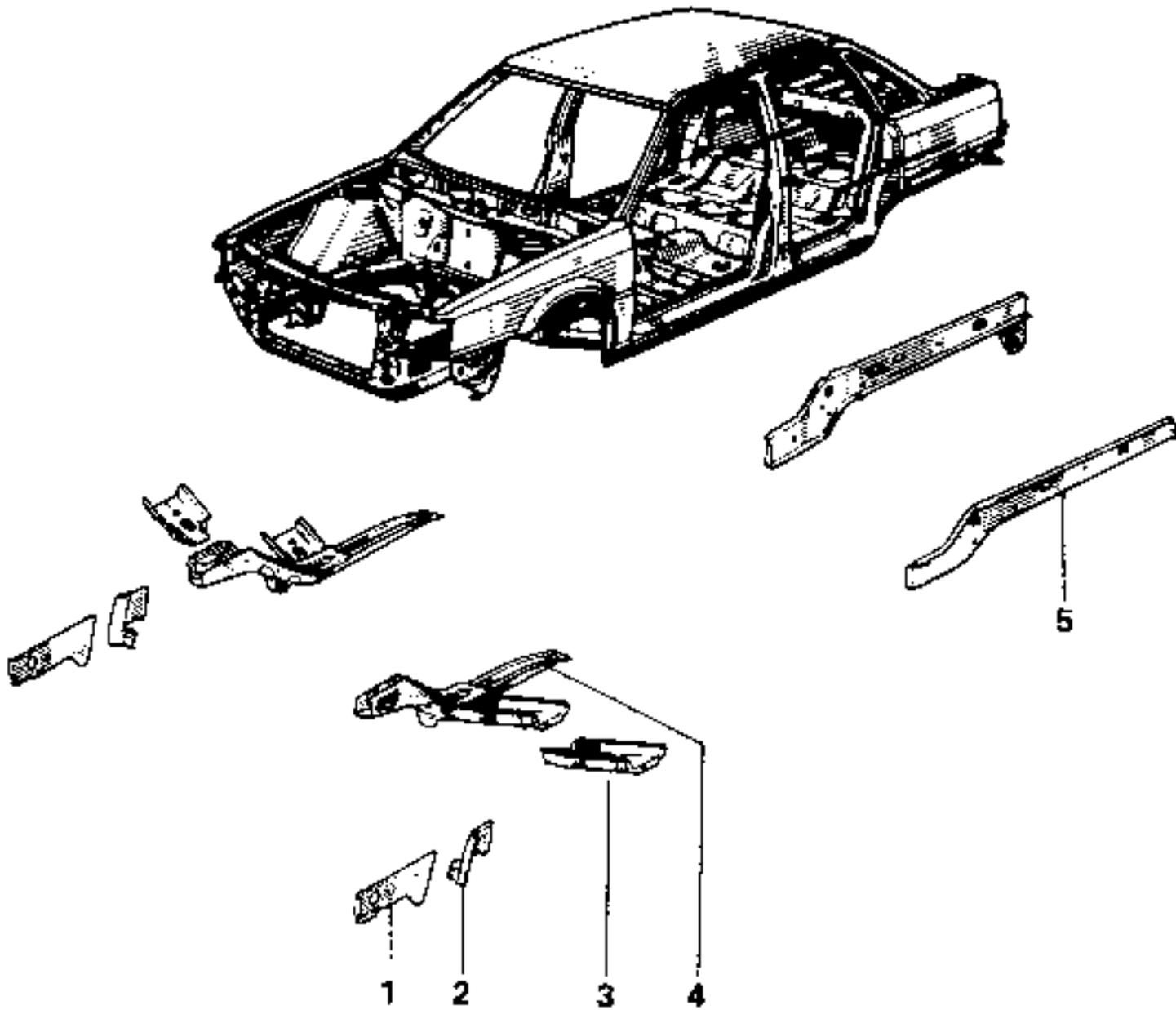
214011

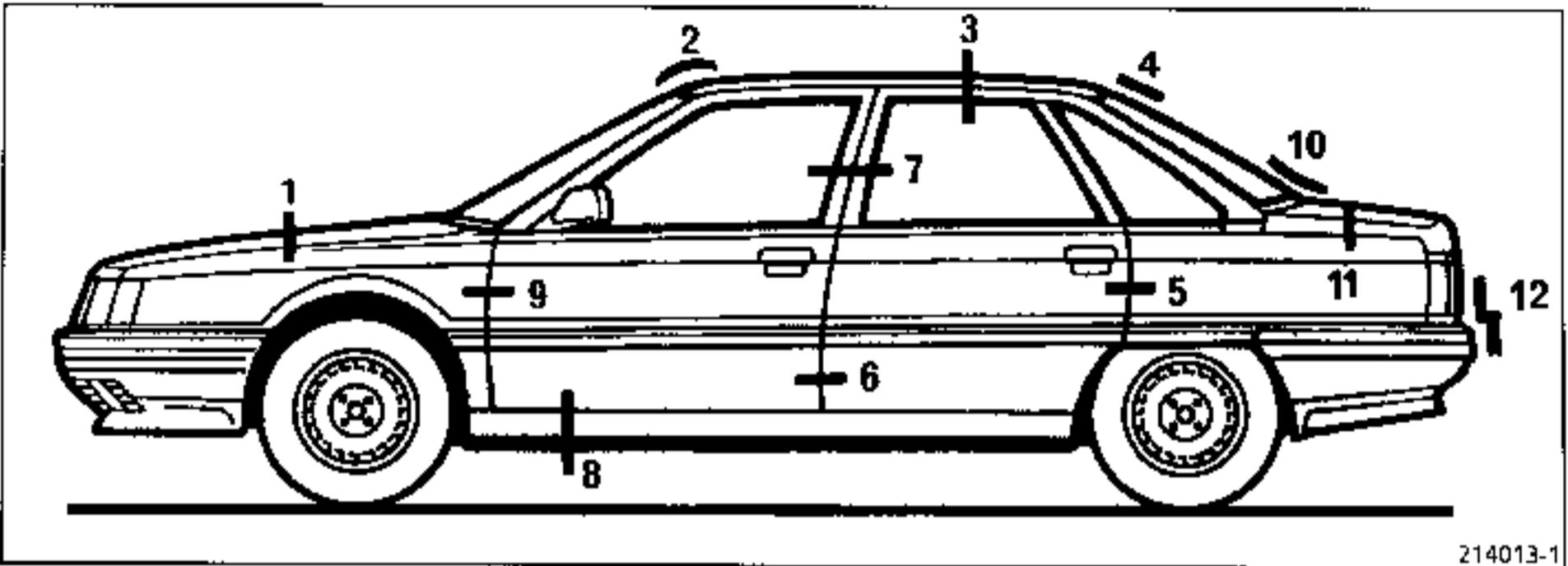
LOWER STRUCTURE

- |   |                               |    |                                  |
|---|-------------------------------|----|----------------------------------|
| 1 | Rear half unit L48            | 8  | Rear side member                 |
| 2 | Rear floor assembly B48 - L48 | 9  | Cross member under seat assembly |
| 3 | Rear half unit B48            | 10 | Rear lower spacer assembly       |
| 4 | Rear cross member             | 11 | Axle support cross member        |
| 5 | Side rear end floor           | 12 | Centre rear end floor            |
| 6 | Impact absorbing pad          | 13 | Floor tunnel                     |
| 7 | Towing ring                   | 14 | Side floor                       |

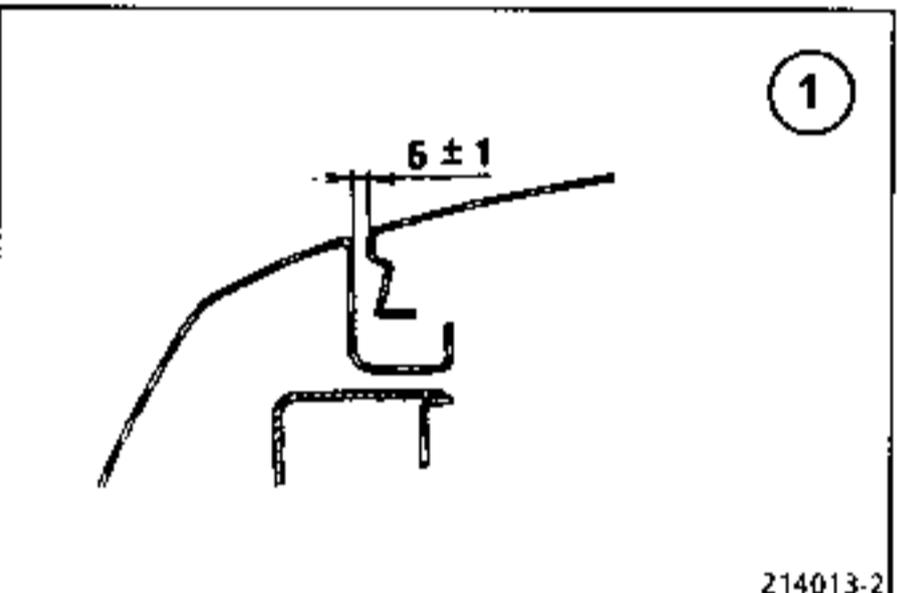
High tensile components

- 1 Front side member closure panel
- 2 Rear closure panel
- 3 Side cross member
- 4 Side member, rear section
- 5 Rear side member

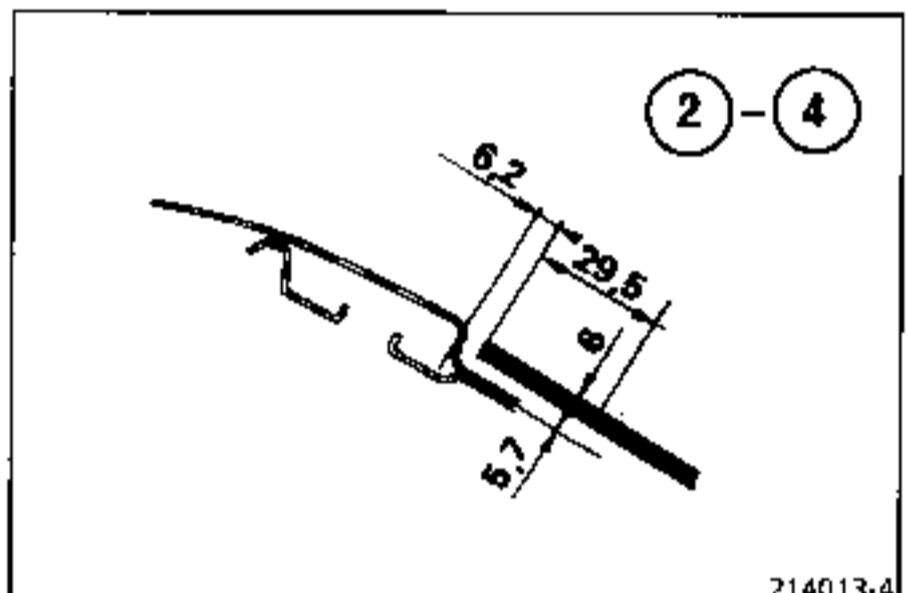




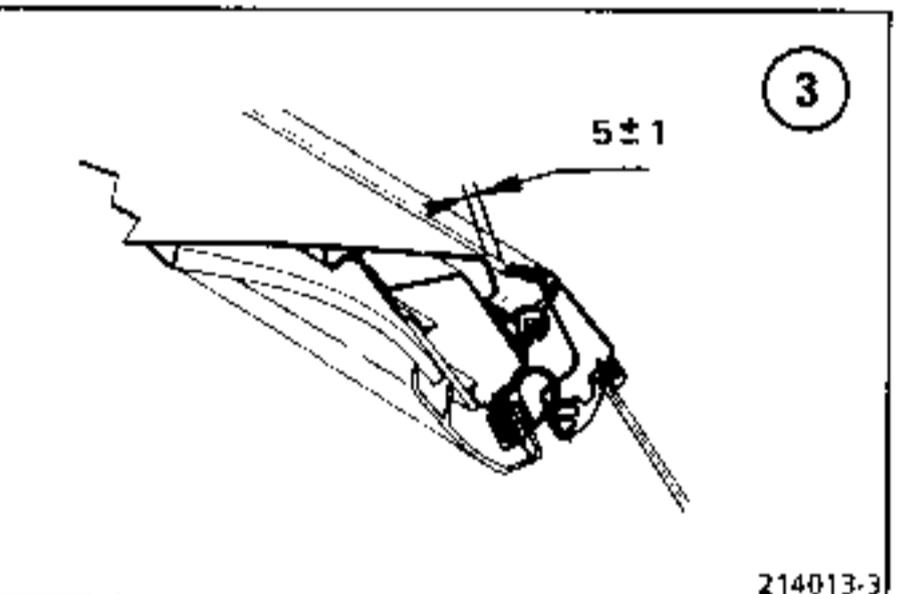
214013-1



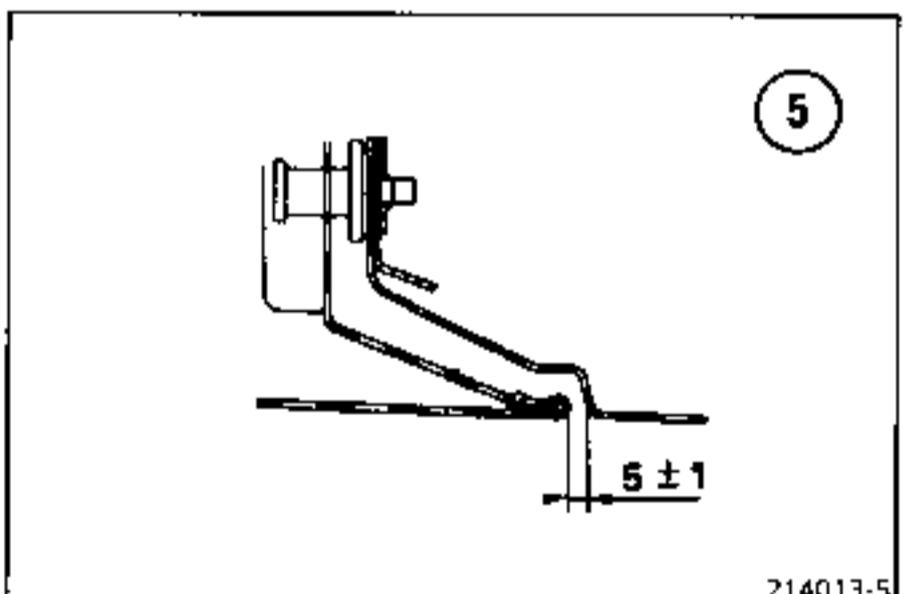
214013-2



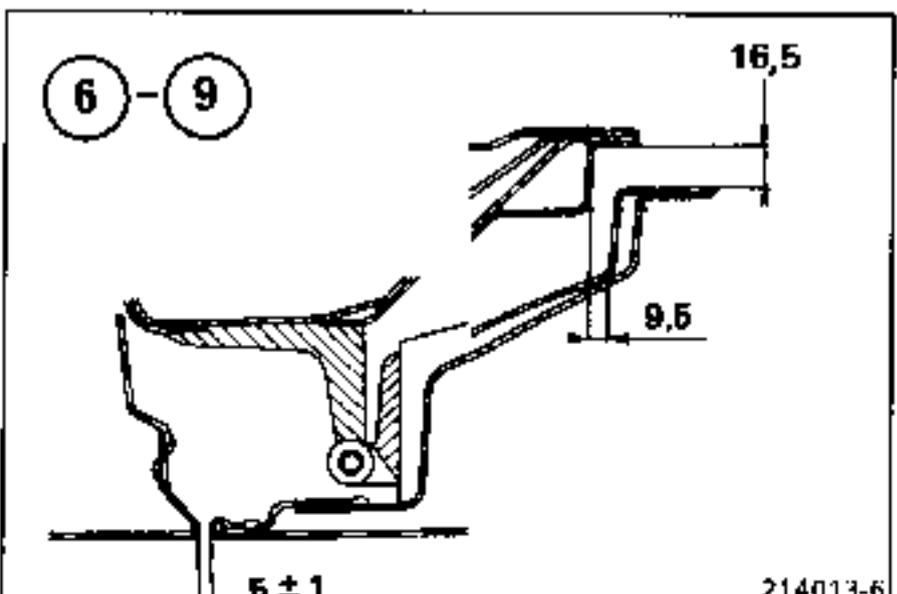
214013-4



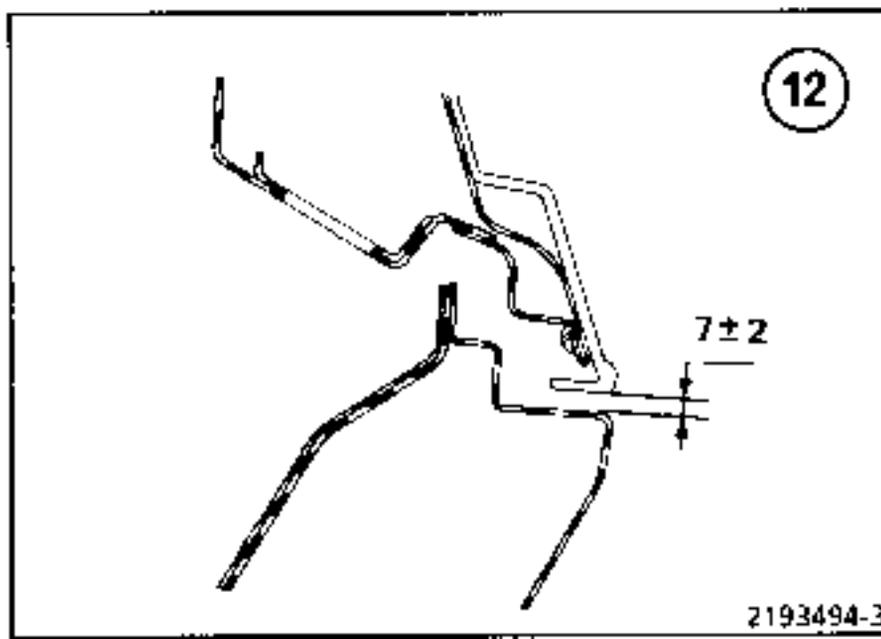
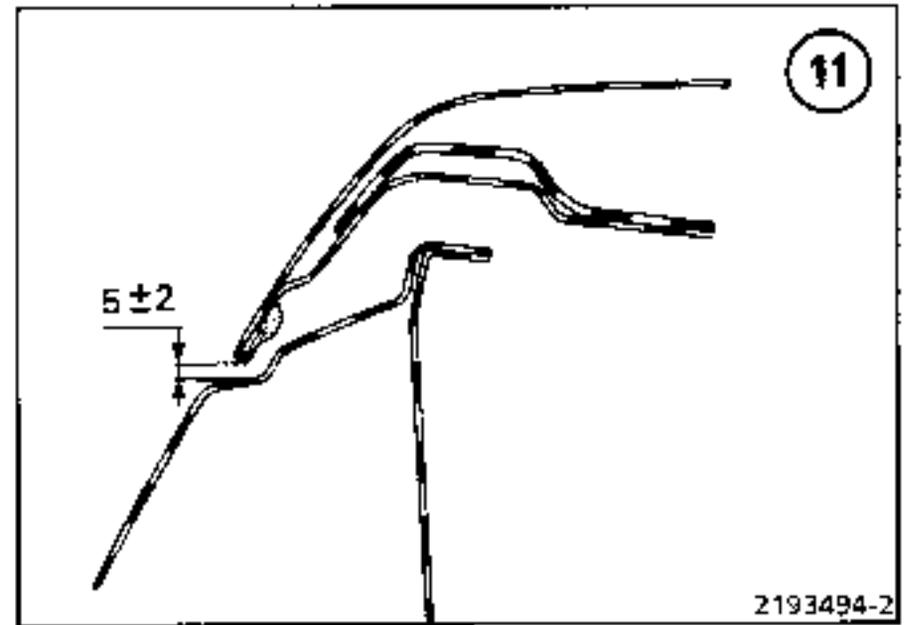
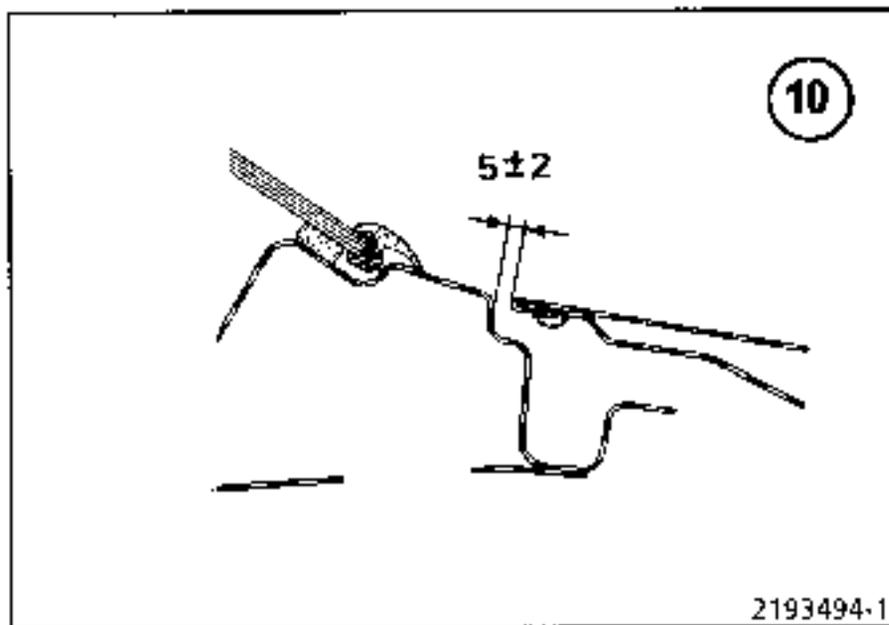
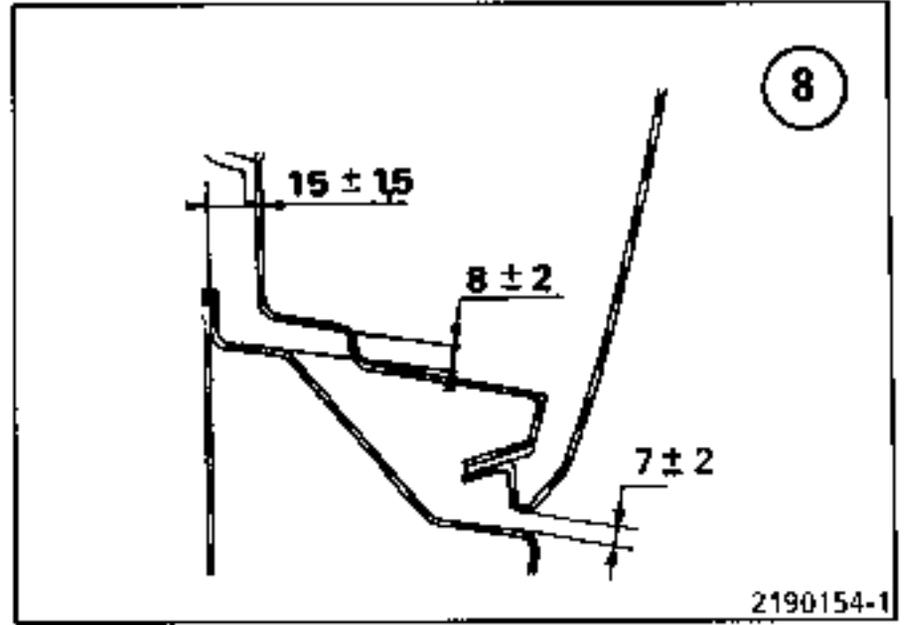
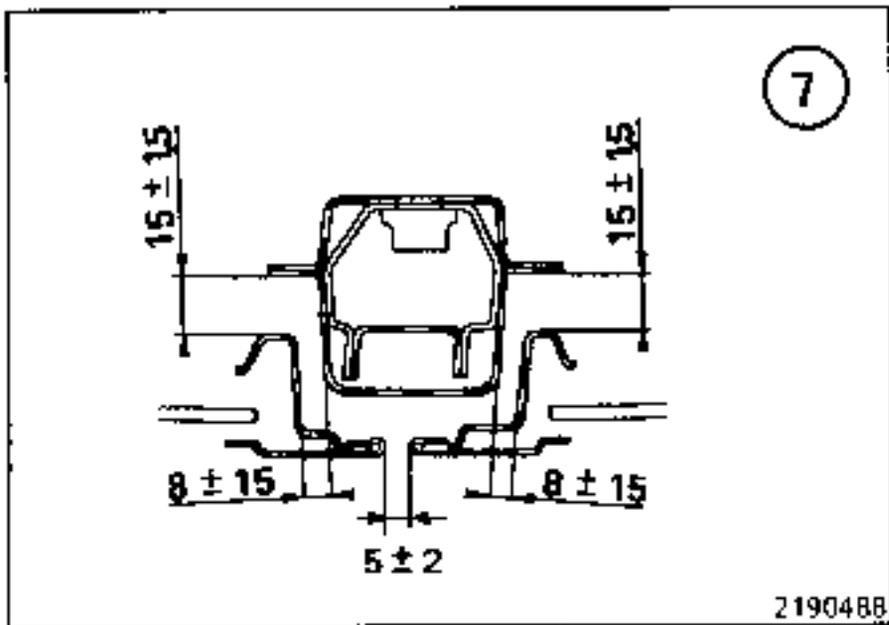
214013-3

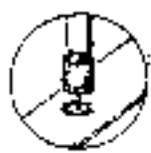
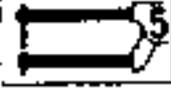
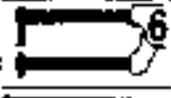
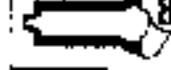


214013-5



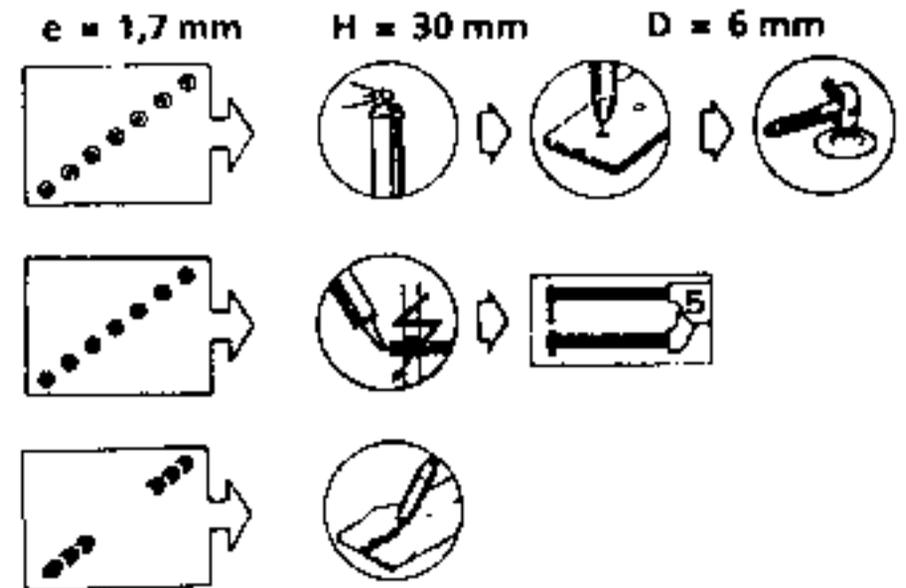
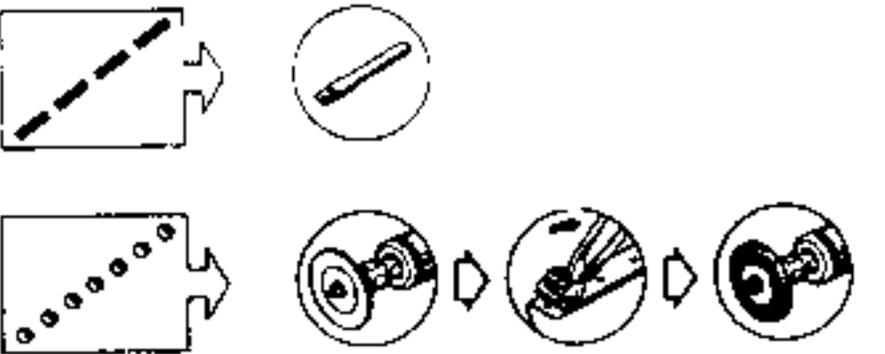
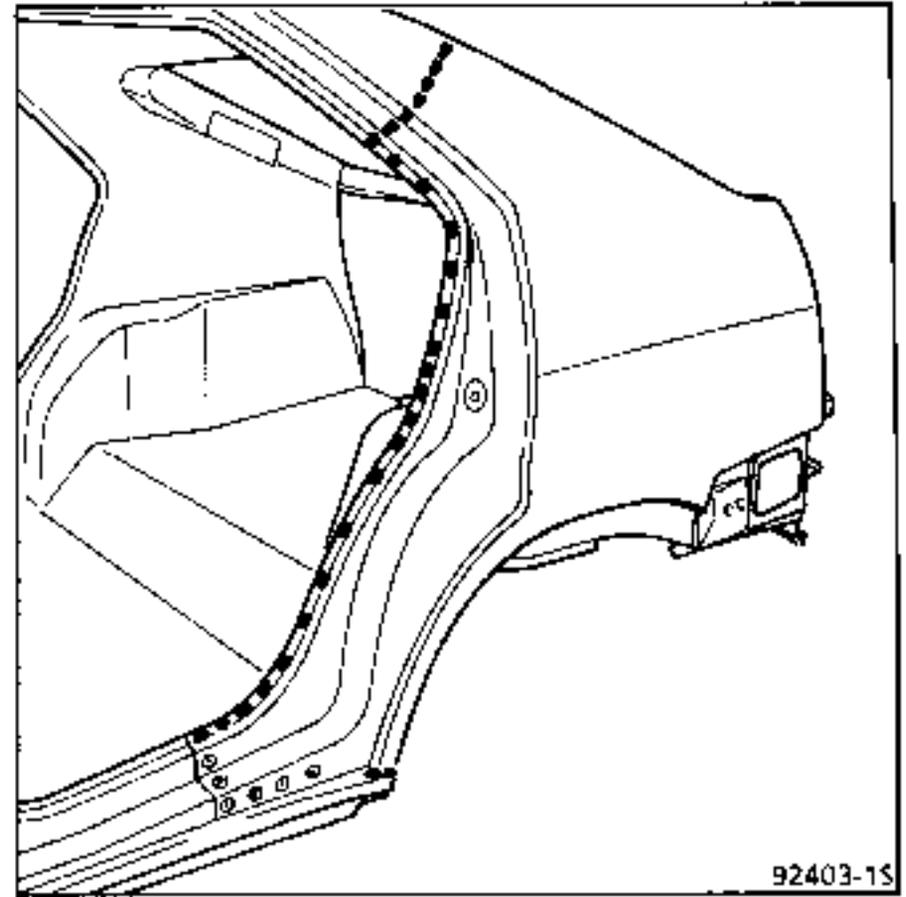
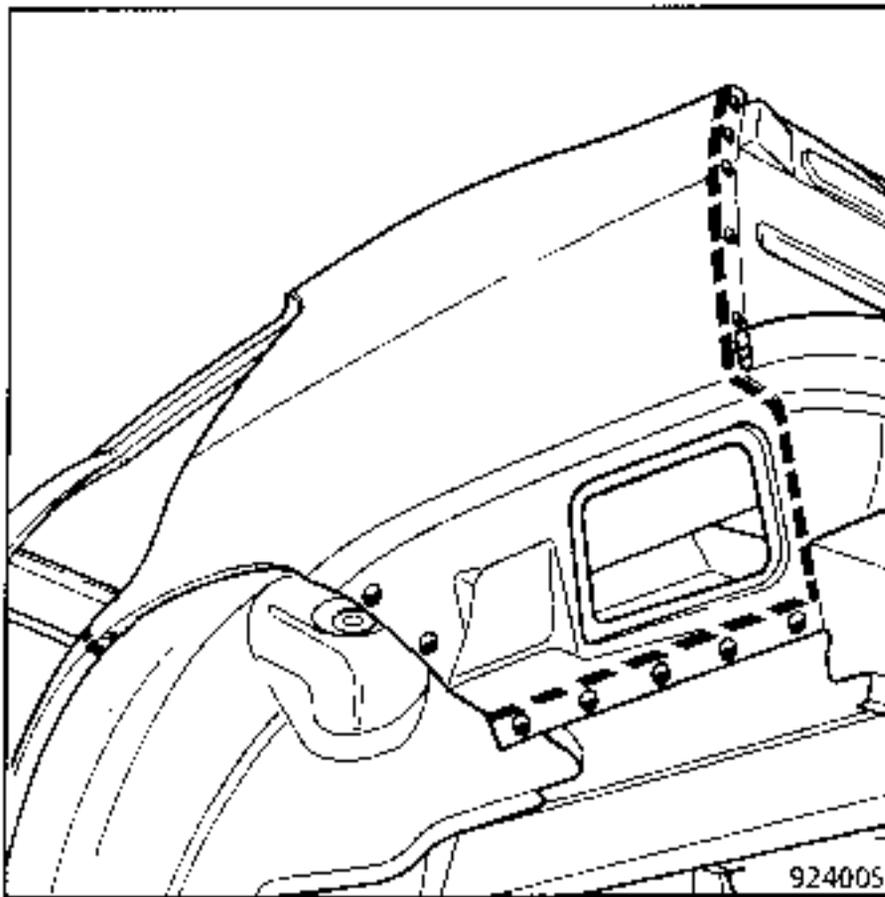
214013-6



 <p><b>Chiselling.</b></p>	 <p><b>MAG stitch weld</b> Note : to obtain a good quality weld we recommend the use of a gas consisting of argon - 15 % CO<sub>2</sub>. This is considered to be an active gas (MAG).</p>
 <p><b>Grind back beads or spot welds.</b> Straight grinding wheel with 75 mm diameter bakelite impregnated disc, thickness 1.8 to 3.2 mm.</p>	
 <p><b>Grind back spot welds.</b> 20 000 rpm straight grinder with 10 or 16 mm diameter spherical burr.</p>	 <p><b>Plug welding.</b> under MAG gas protection.</p>
 <p><b>Grind back spot welds.</b> Hardened steel bit. Speed of rotation 800 to 1 000 rpm.</p>	<p><b>Injection a product for hollow sections.</b> Pressurised spray gun equipped with a flexible end piece with different ends.</p>
 <p><b>Unpicking.</b></p>	<p><b>Safety symbol.</b> This means that the welding operation in question concerns one or more of the vehicle's vital safety components.</p>
 <p><b>Cleaning surfaces to be welded.</b> 100 mm diameter fibre disc.</p>	 <p><b>Body solder.</b> Hot air torch. Nozzle output temperature 600° min. Slipper + 33 % tin solder + tallow. Note : to a large extent, body solder filling compensates for the heat distortion caused by welding.</p>
  <p><b>Cutting with a saw.</b> Alternating pneumatic saw.</p>	
 <p><b>Cutting out part by grinding off flange or grinding back remaining traces of spot weld.</b> Angle grinder equipped with a rubber pad and a 120 to 180 mm diameter fibre disc grain size P36.</p>	 <p><b>Application of weldable sealer.</b> This sealing mastic conducts electricity. When it is placed between two panels to be spot welded, it seals the joint and prevents the spot welds corroding.</p>
 <p><b>Unsoldering.</b></p>	
<p><b>Dimensions and types of electrode to be used for given operations:</b></p>  L = 100  L = 100  L = 100 + flat  L = 250  L = 350  L = 230  L = 230	<p><b>Application of aluminium paint.</b> This is to be applied to the joint faces of each of the parts to be plug welded. The paint conducts electricity and is resistant to high temperatures. It provides anti-corrosion protection around the plug welds.</p>  <p><b>Apply a fillet of extruded mastic:</b></p> <ul style="list-style-type: none"> <li>- from a manual or pneumatic spray gun.</li> <li>- one or two pot mastic for crimped and butt joints.</li> </ul>  <p><b>Spray on sealer:</b></p> <ul style="list-style-type: none"> <li>- spray gun.</li> <li>- two pot anti-gravel and anti-corrosion mastic.</li> </ul>

CUTTING OUT - UNPICKING

WELDING



Operation symbols

Tool symbols

This determines the type of operation and the exact point at which it is to be applied.

These show the type of tools and the logical sequence in which they are to be used at the various points concerned.

**Note :** The operations involved in unpicking the strip of steel remaining in place and grinding back the traces of spot weld remaining on the support panels can only be carried out after the part to be replaced has been removed entirely.

**Note :** the operations involved in protecting spot welds (weldable sealer and aluminium paint) are to be performed before the new part is fitted.

**COLLISION FAULT FINDING**

Before repairing the bodywork of a vehicle, even that which appears to have been only slightly damaged, a series of checks must be carried out:

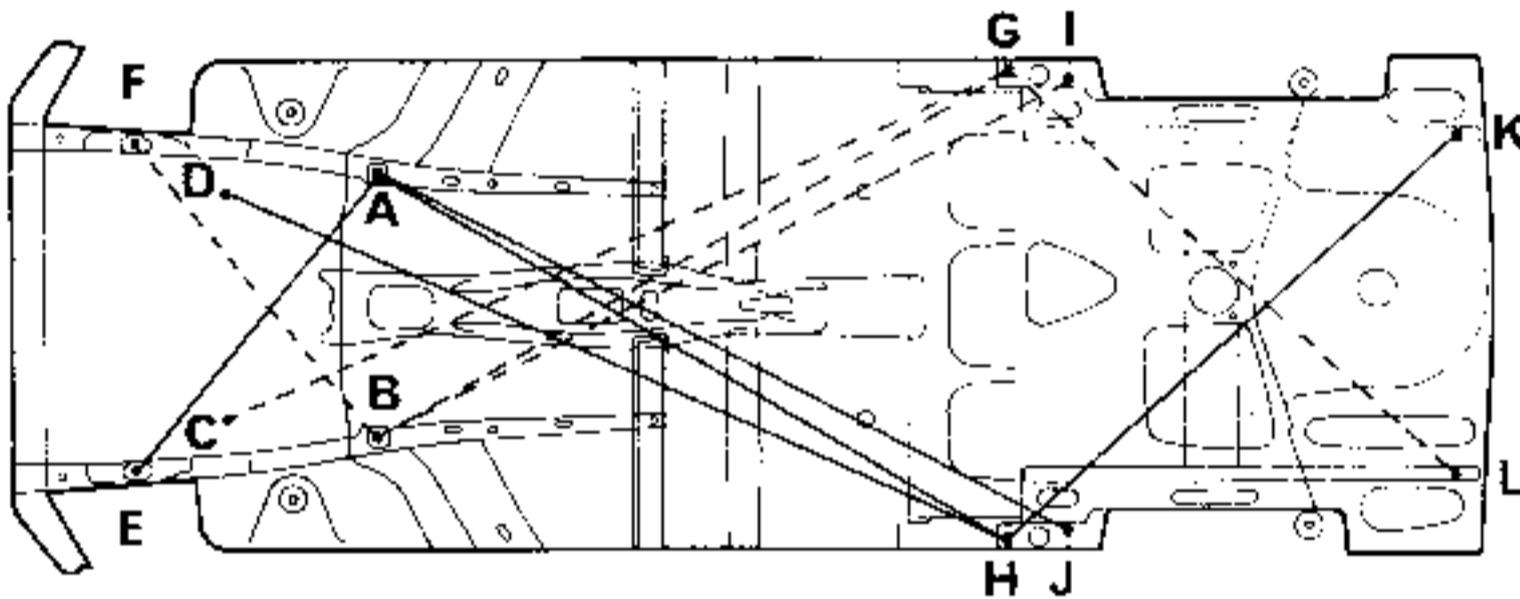
**VISUAL INSPECTION**

This inspection entails the examination of the vehicle sub-frame where mechanical components are mounted and in crumple zones or vulnerable areas to detect folds where materials have been deformed.

**INSPECTION USING TRAMMEL GAUGE**

The visual inspection is completed by a check using a trammel gauge which allows measurement of certain deformations by symmetrical comparisons.

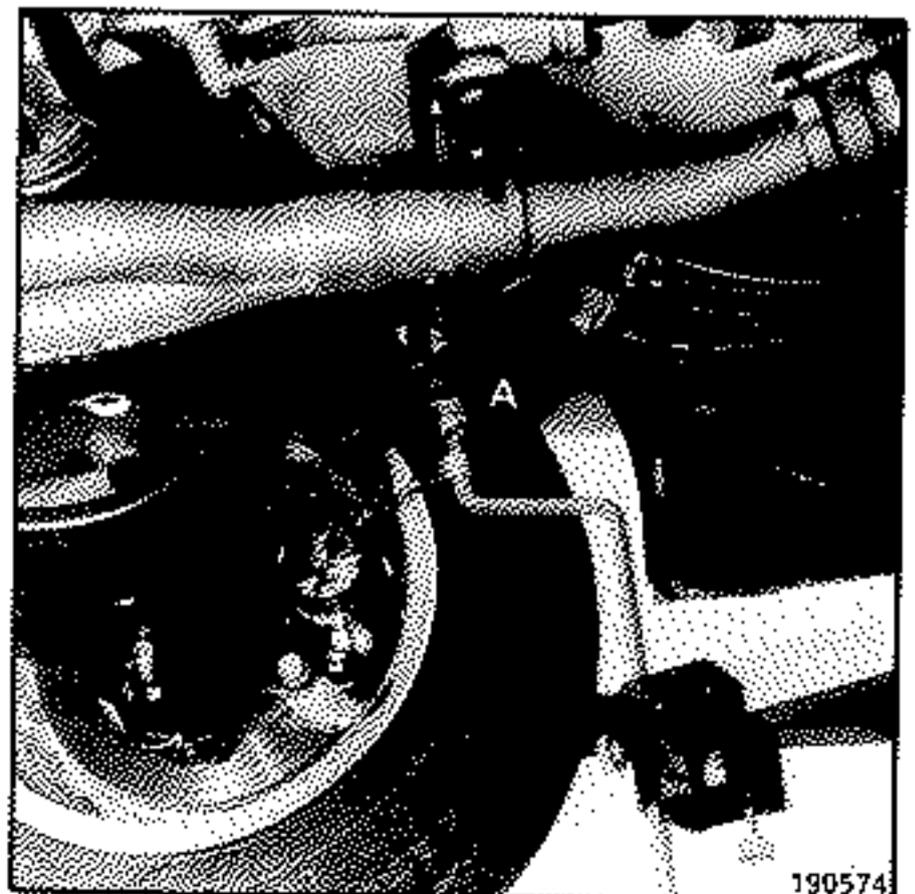
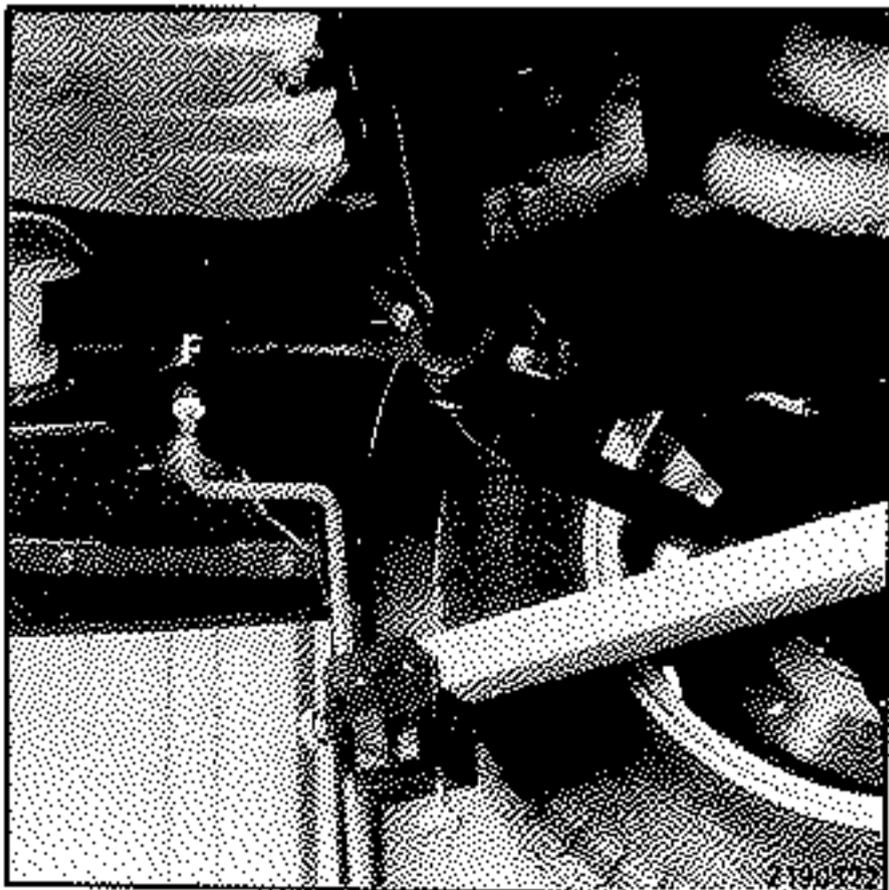
Examples of gauge points:



2190401-1

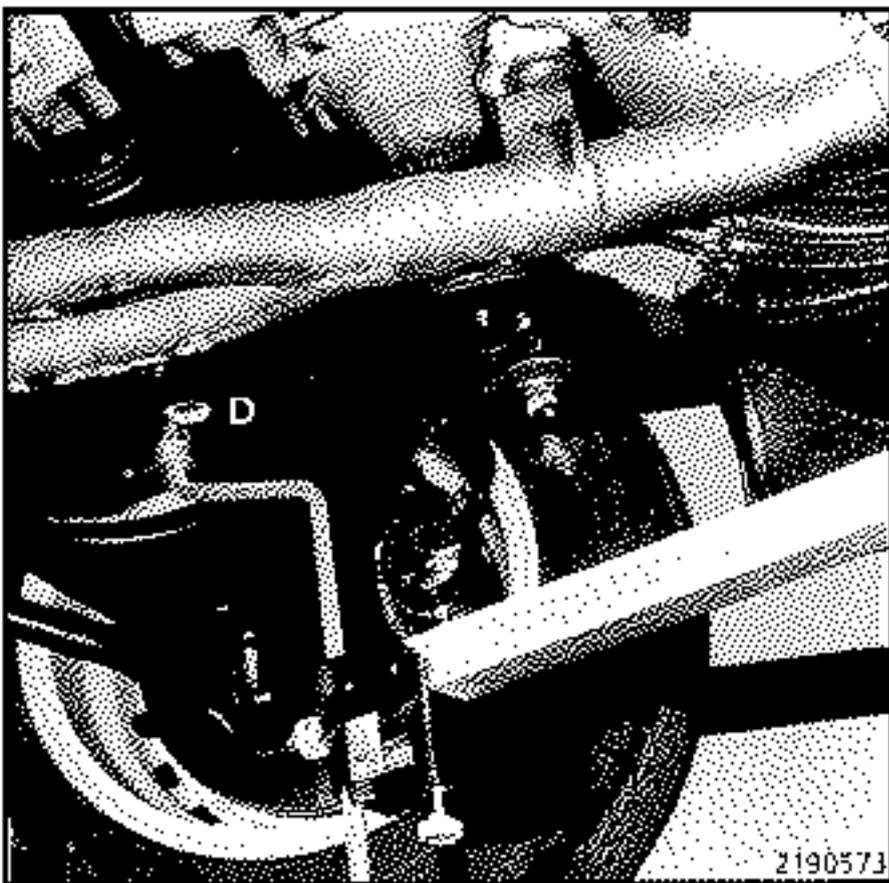
Points E and F

Points A and B

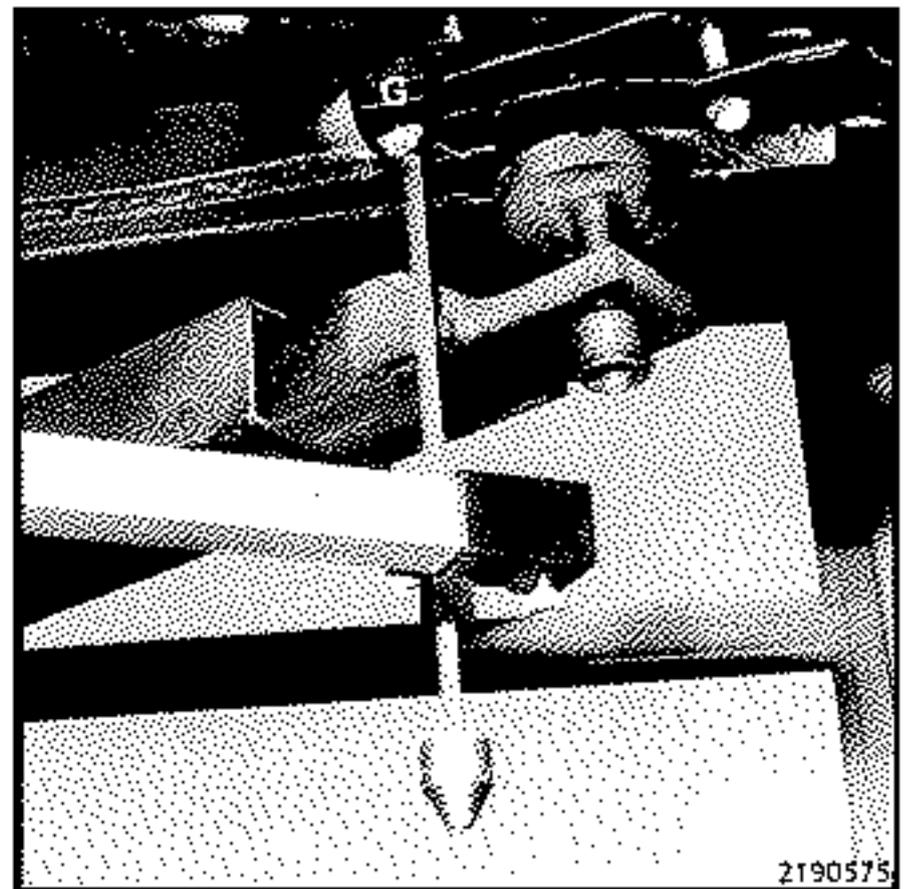


190574

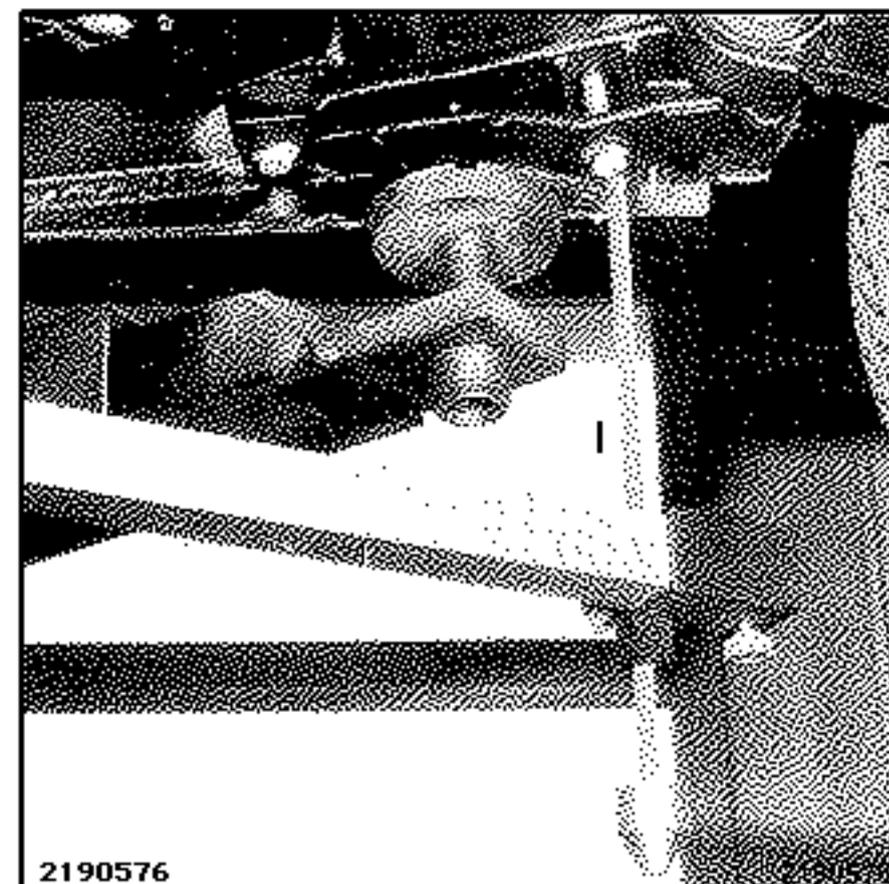
Points C and D



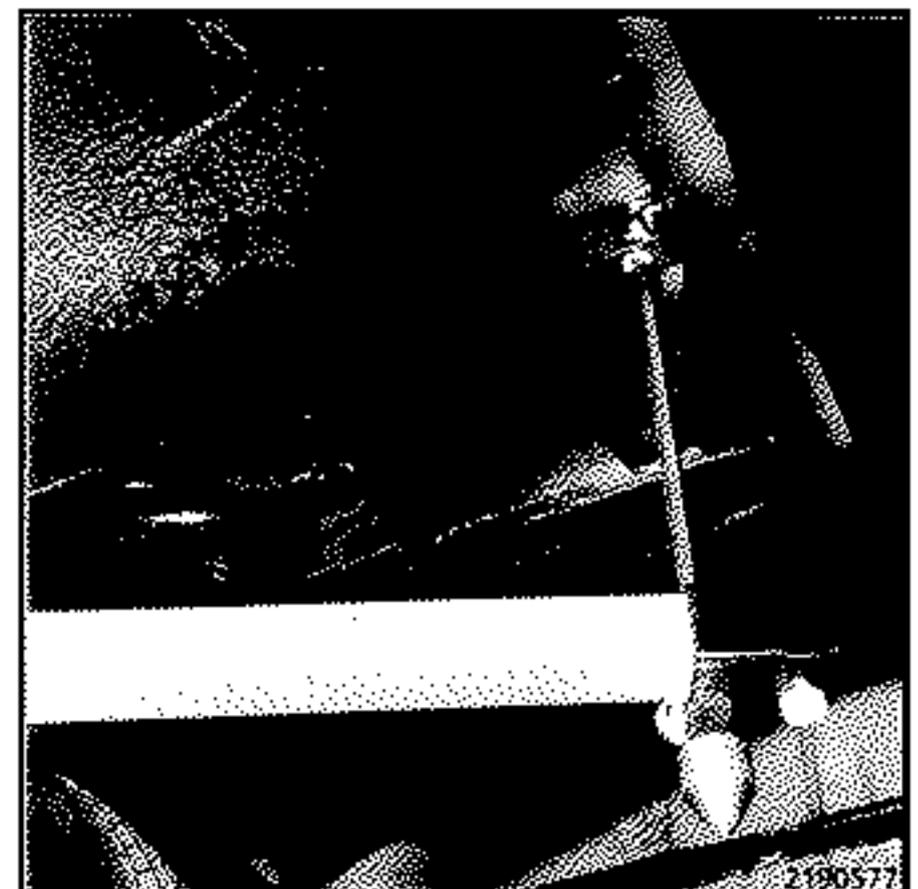
Points G and H



Points I and J



Points K and L

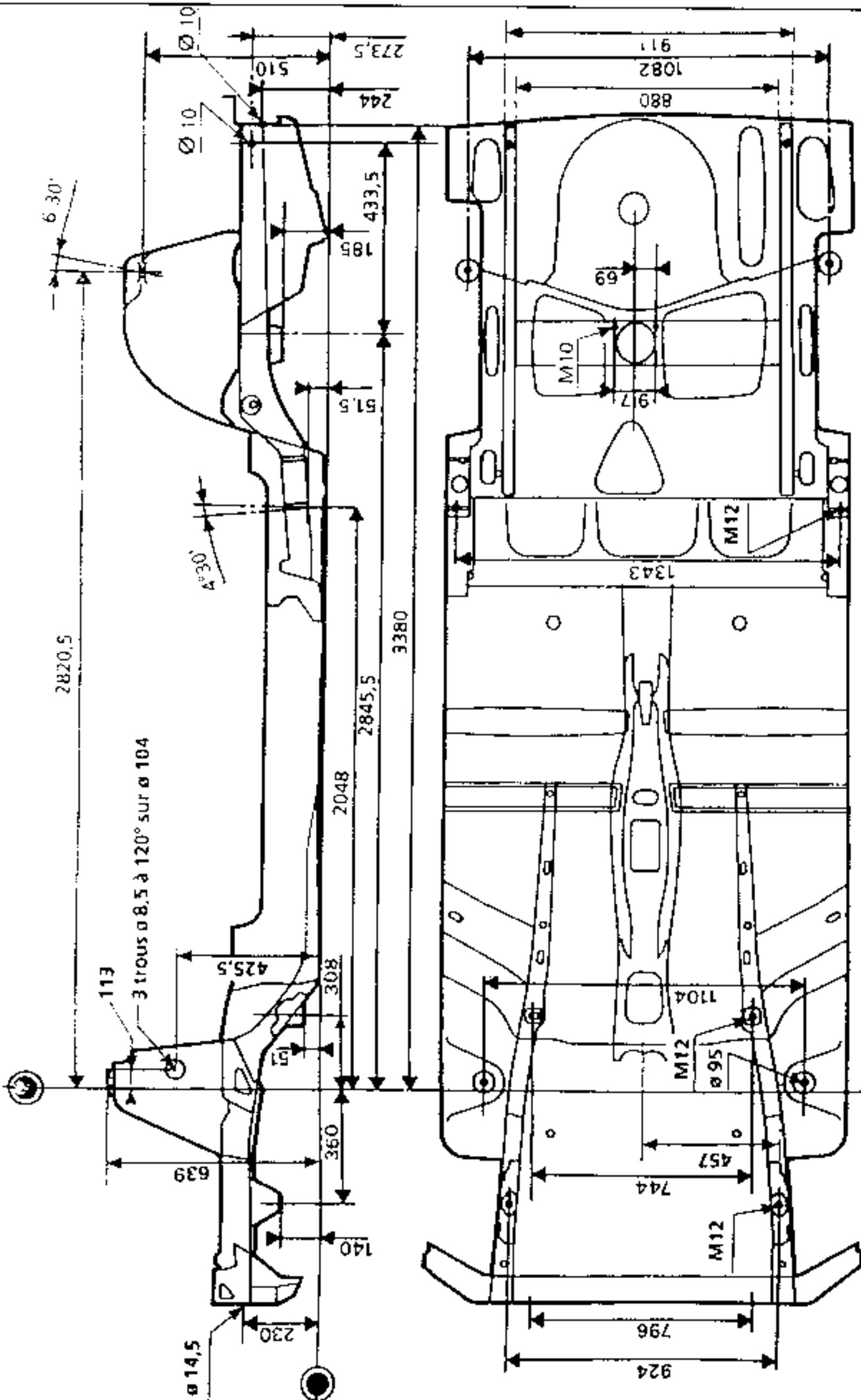


### CHECKING THE GEOMETRY OF THE AXLE ASSEMBLIES

This is the only method of determining whether the impact the vehicle suffered has or has not affected the road holding of the vehicle.

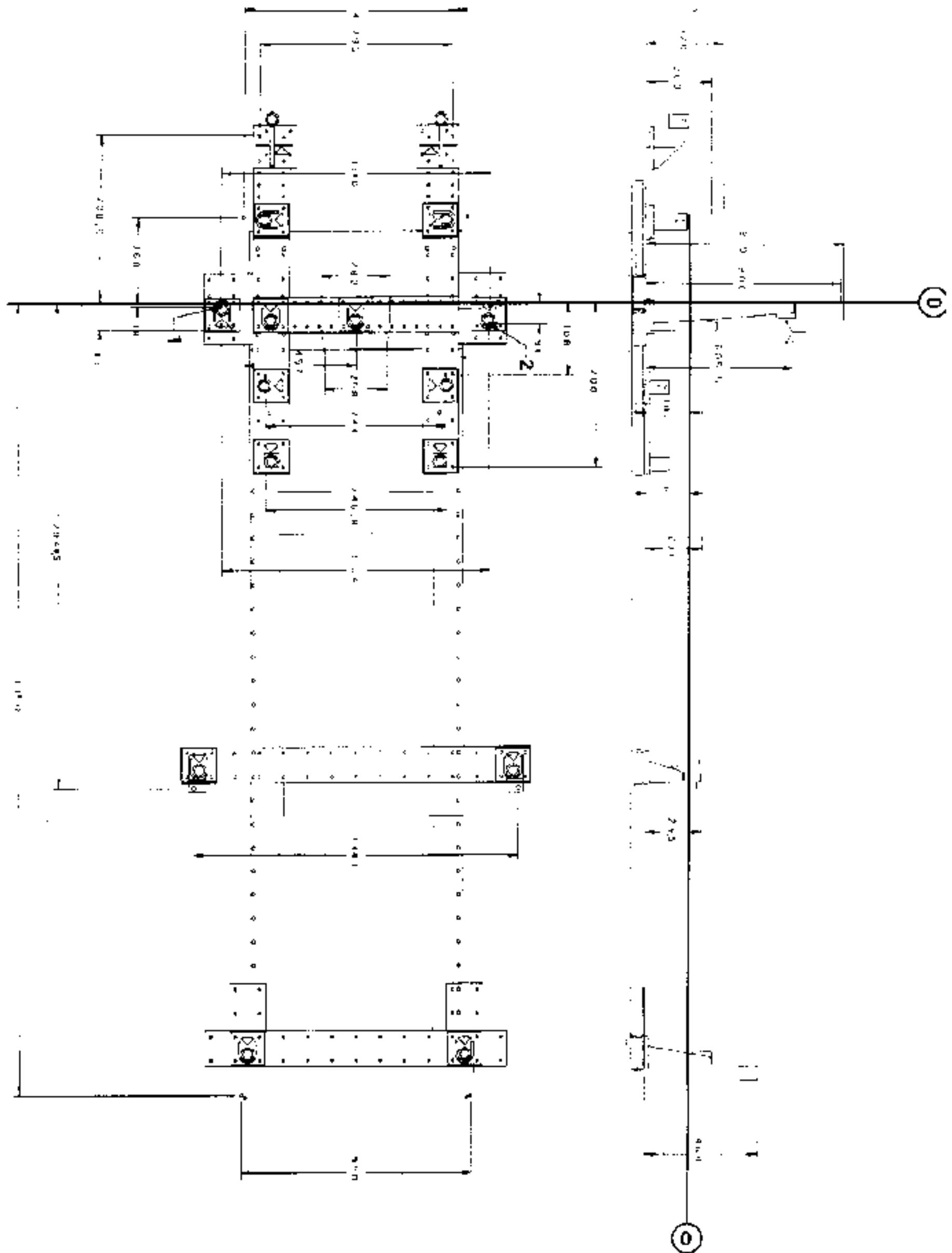
**Important :** remember to check the components of the axle assemblies which may also have suffered deformation.

In principle, no welded component of the body should be replaced without having first ensured that the sub-frame was not affected by the impact.



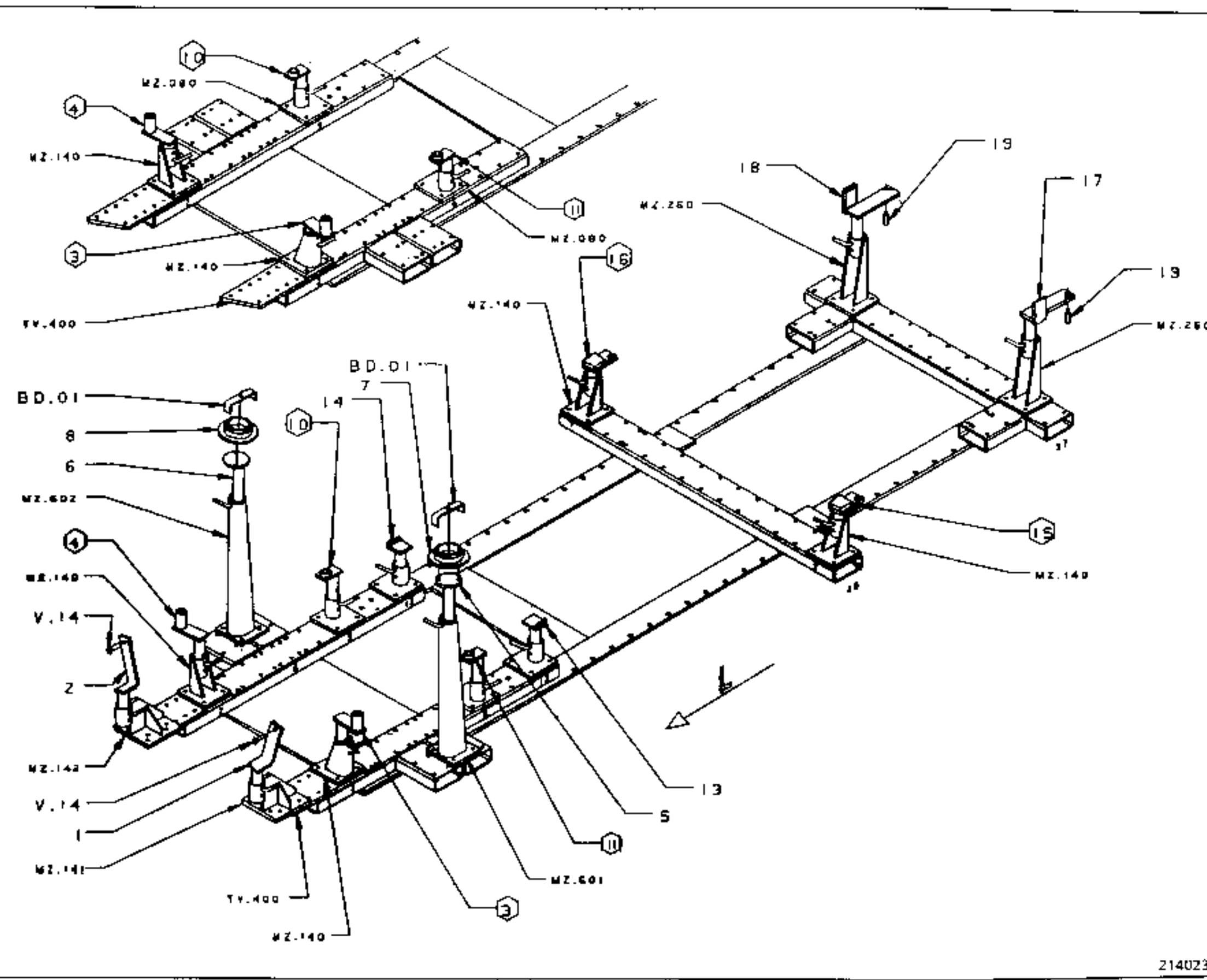


- 1 Transverse position
- 2 Longitudinal position



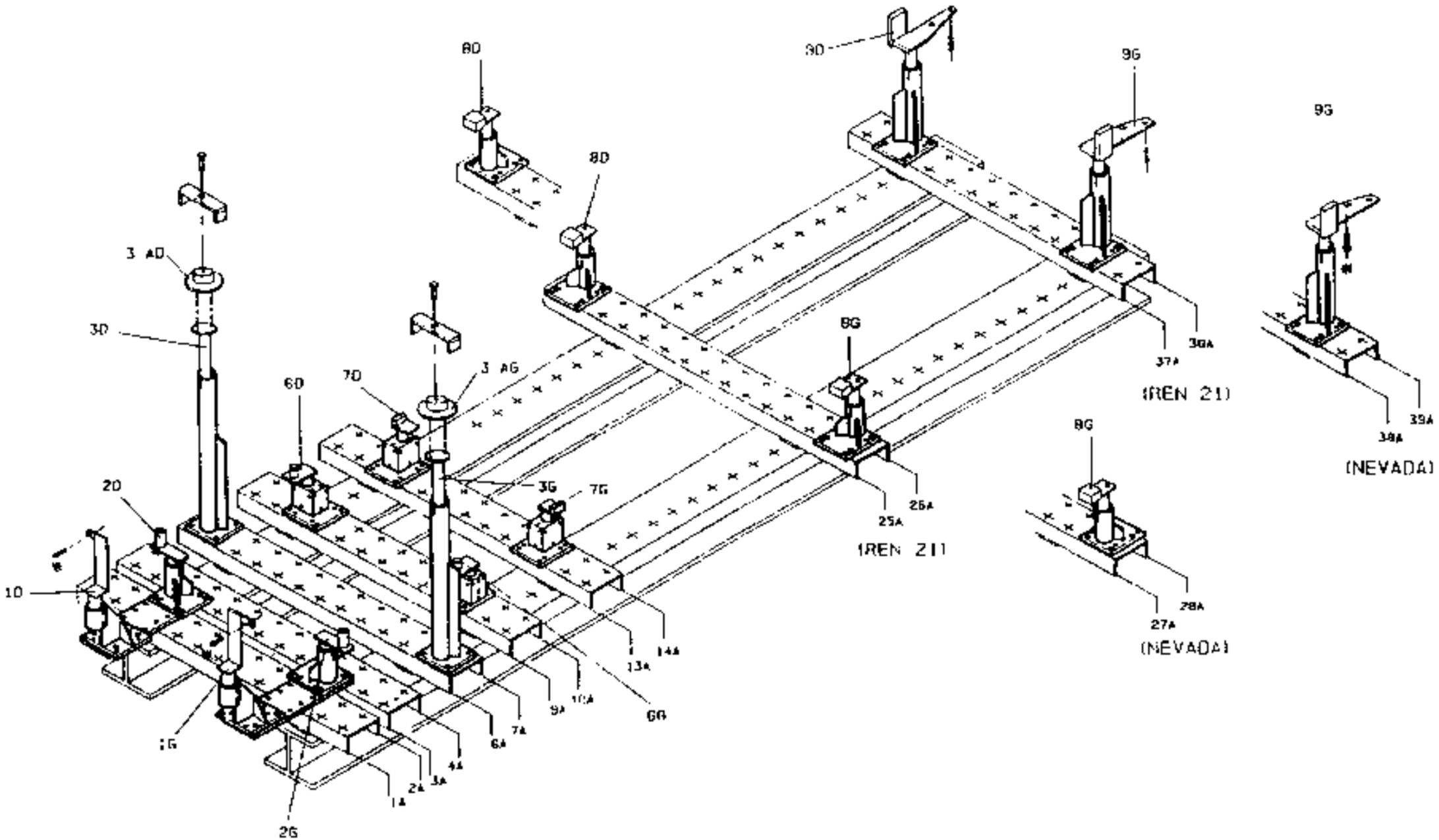


Fitting Célette brackets for transverse engines



Fitting Blackhawk brackets for transverse engines

1B

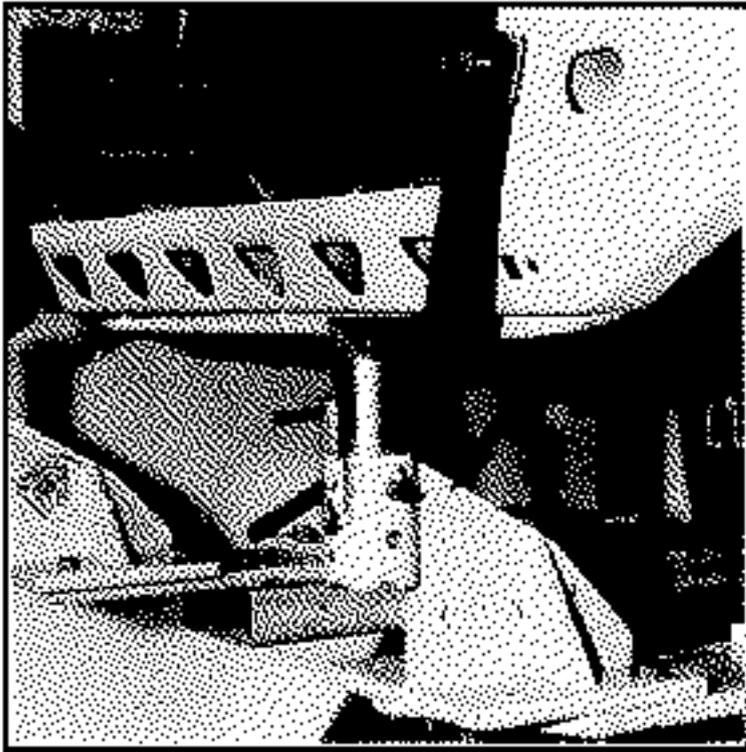




All types except 4 x 4

### Front end lower cross member

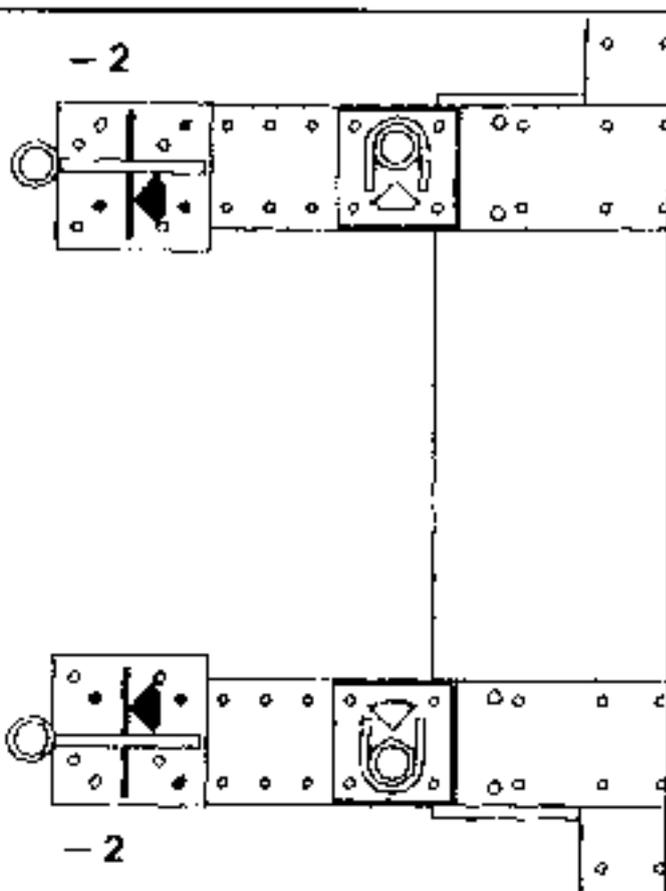
This bracket positions the front end cross member.  
It is used mainly following a front end impact, after removal of the mechanical units.  
It has no function when carrying out rear end repairs.



Bases MZ 141 left hand side.  
MZ 142 right hand side.

The special head is locked in the upper hole.

### POSITIONING



Fit the two front modular cross-member extensions TV 400 in position 2.

Position the bases MZ 141 - MZ 142 on the front end extensions, in modular position space N° 2, with the arrows pointing forwards.

### Sub-frame front mounting

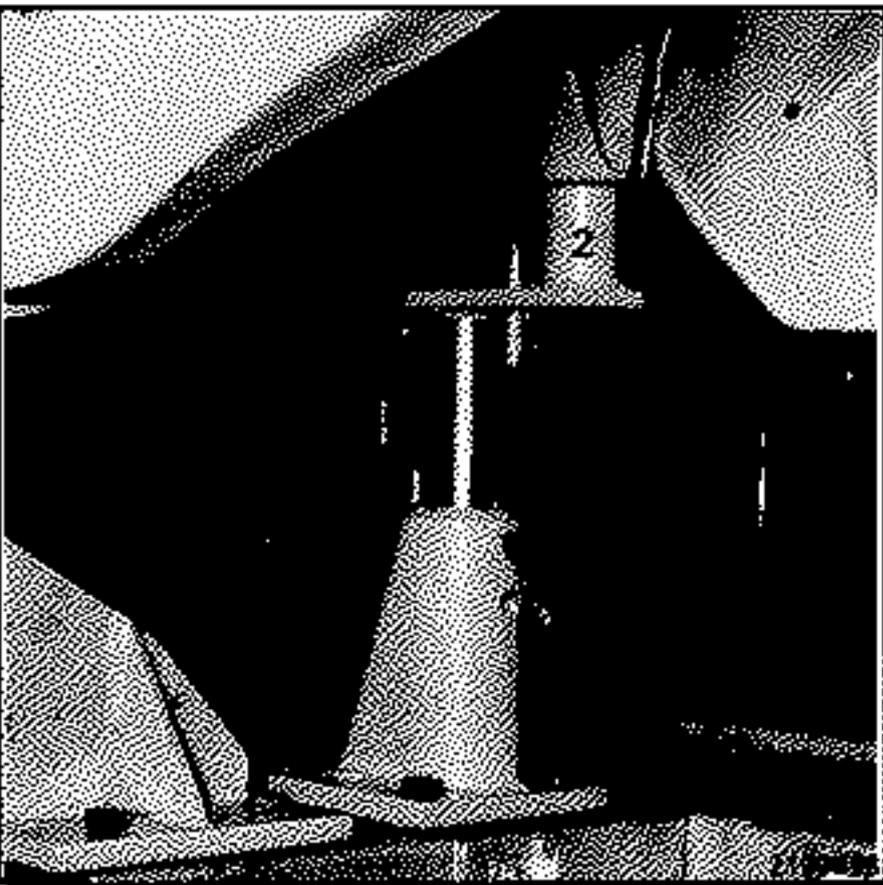
#### For front end impact repairs:

It is used to position the engine sub-frame front gusset.

It is fitted after removal of the front end mechanical units.

#### For rear end impact repairs:

It is used with the mechanical units in place and helps to align and centre the vehicle on the bench.



Following front end impact, mechanical units removed.

Base MZ 140.

The head is locked at the upper hole.

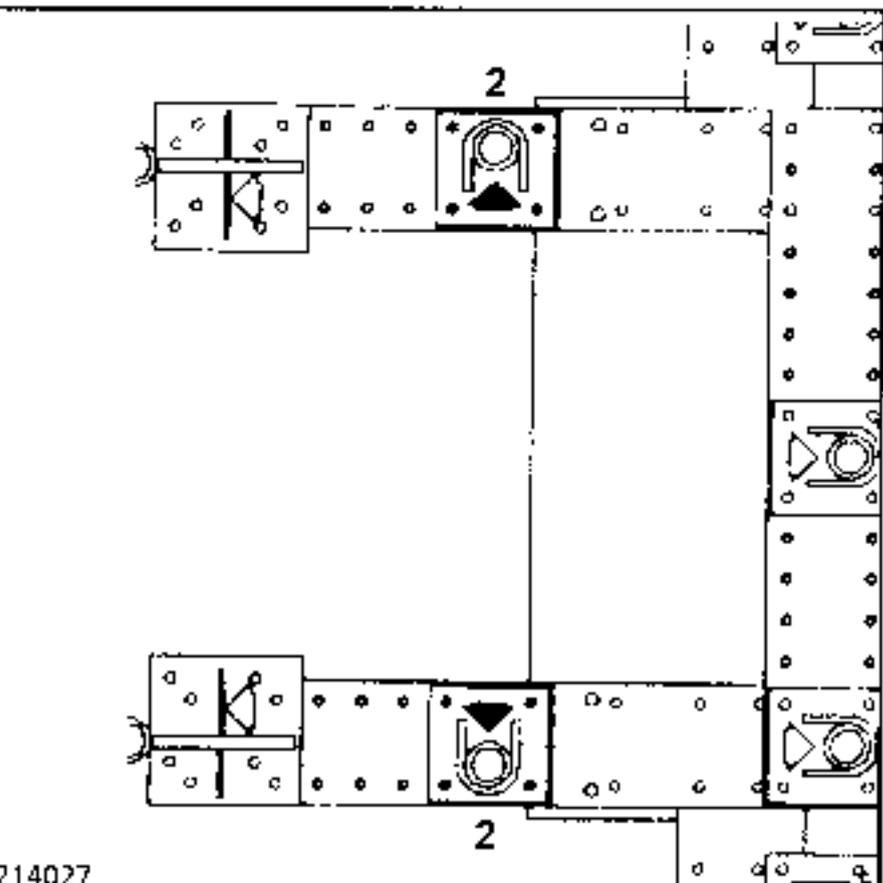
#### POSITIONING



Following rear end impact, mechanical units in place.

Base MZ 140.

The head is locked at the lower hole



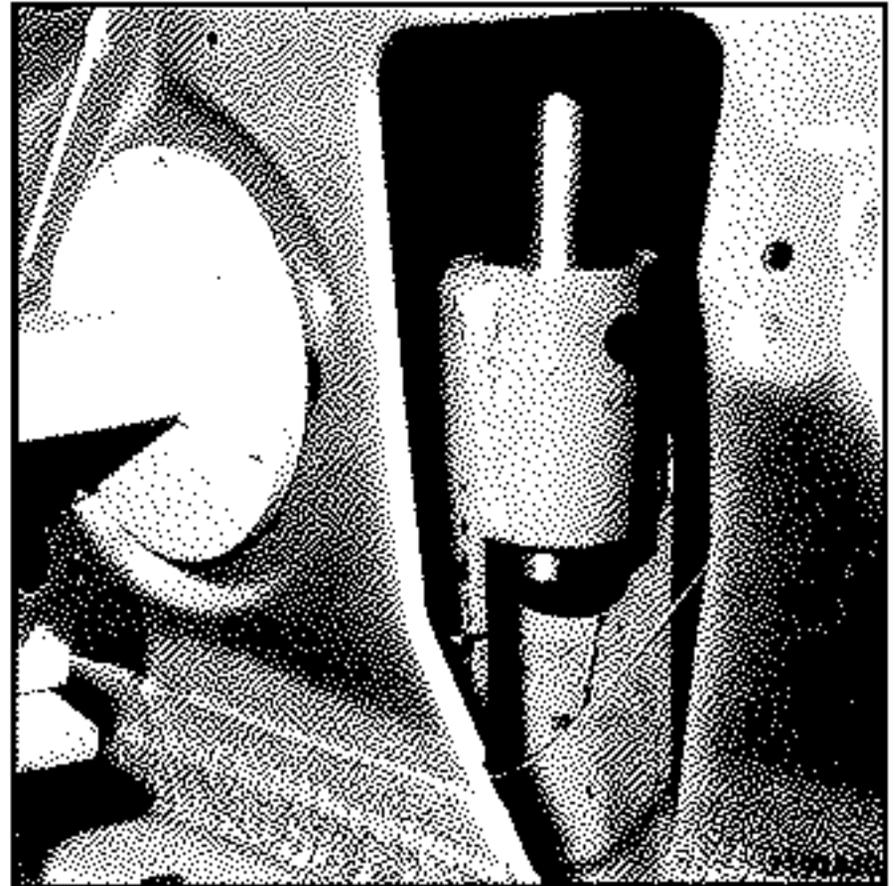
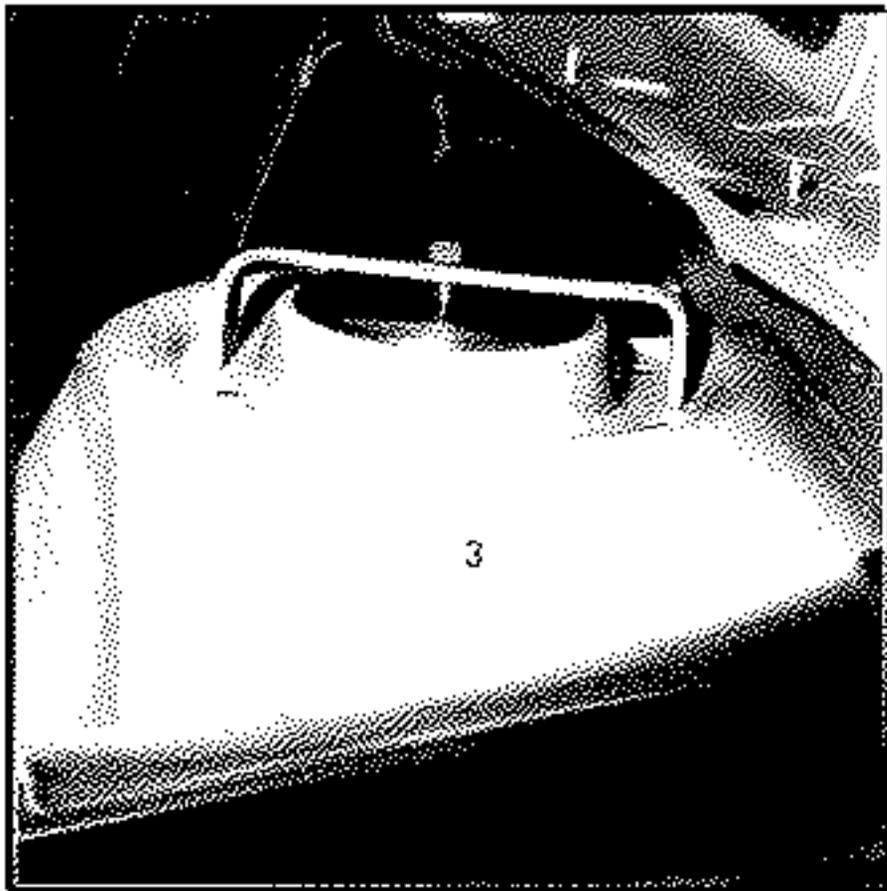
Fit the two modular front cross member extensions TV 400 in position 2.

Position the bases MZ 140 on the front extensions, in modular position space N° 2, arrows pointing outwards.

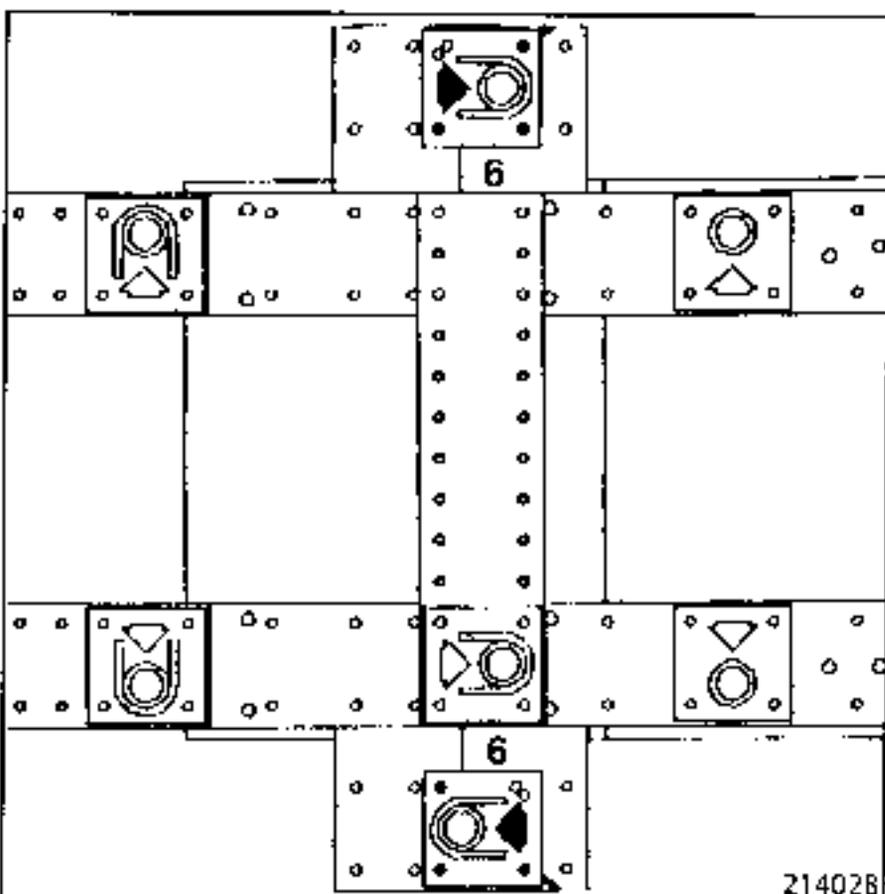
### Front shock absorber upper mounting

These are only used for front end impact repairs, with the mechanical units removed. They enable the shock absorber turret to be fitted when replacing a cowl side panel.

When jacking out a cowl side panel, unlock the bracket head to free the shock absorber turret.



### POSITIONING



Position the bases MZ 601 and MZ 602 on the front cross member flanges at modular space N° 6, arrows pointing towards the rear for a version with in-line engine and towards the front for a version with transverse engine.

Each base is secured by 3 bolts.

Due to the complexity of fitting front suspension brackets and owing to the difference in engine arrangements for this vehicle (transverse and in-line), it is proposed that you obtain a second set of two special heads, consisting of two parts per side (support piston and thrust cup) which can be left permanently assembled for one of the two versions, the old set staying assembled for the other version.

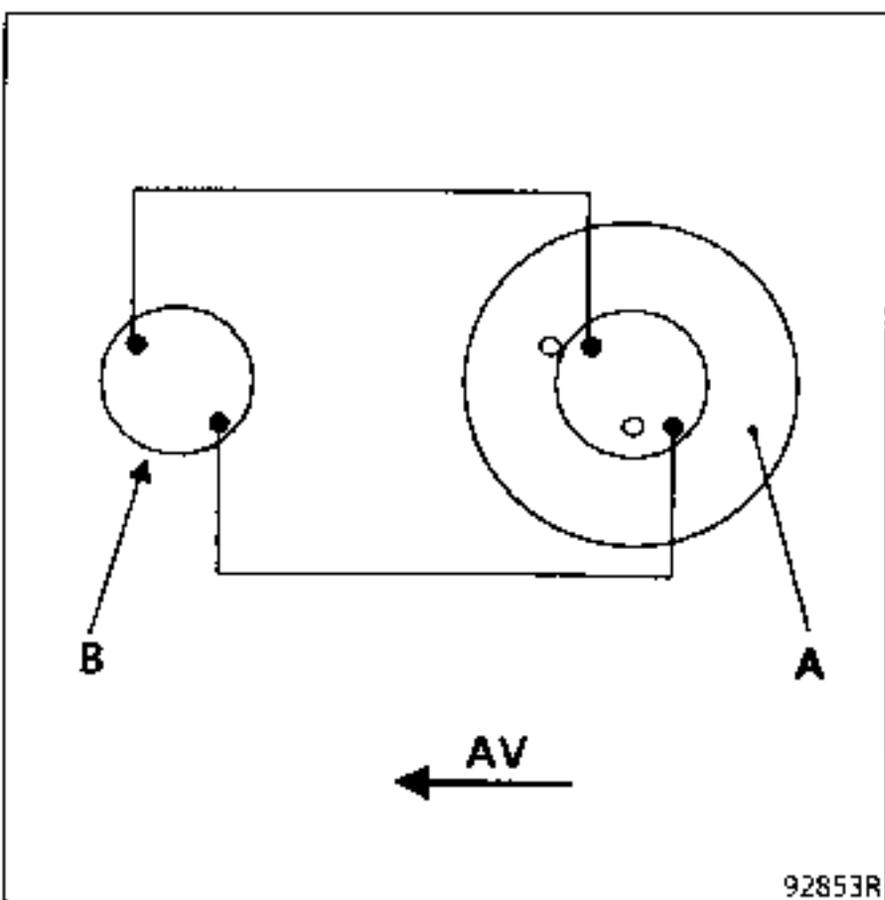
For this purpose you must order under one single Part Number : Célette 486 LONGIT a kit comprising:

- 1 LH and RH thrust cup,
- 1 LH and RH cup support piston
- 4 mounting bolts,

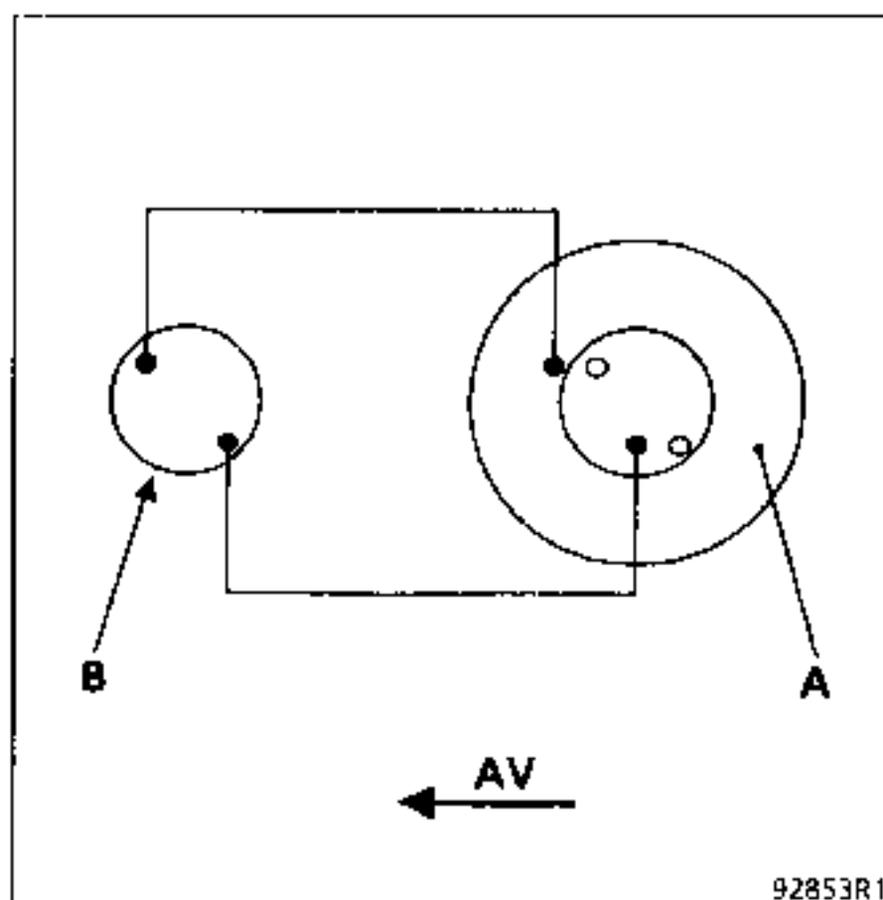
and in addition you will receive 2 plastic positioning cards (one per version).

### ASSEMBLING THE PARTS

Transverse engine

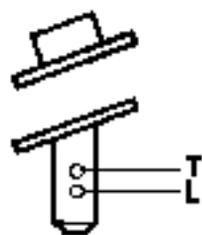


In-line engine



A Thrust cup

B Cup support piston



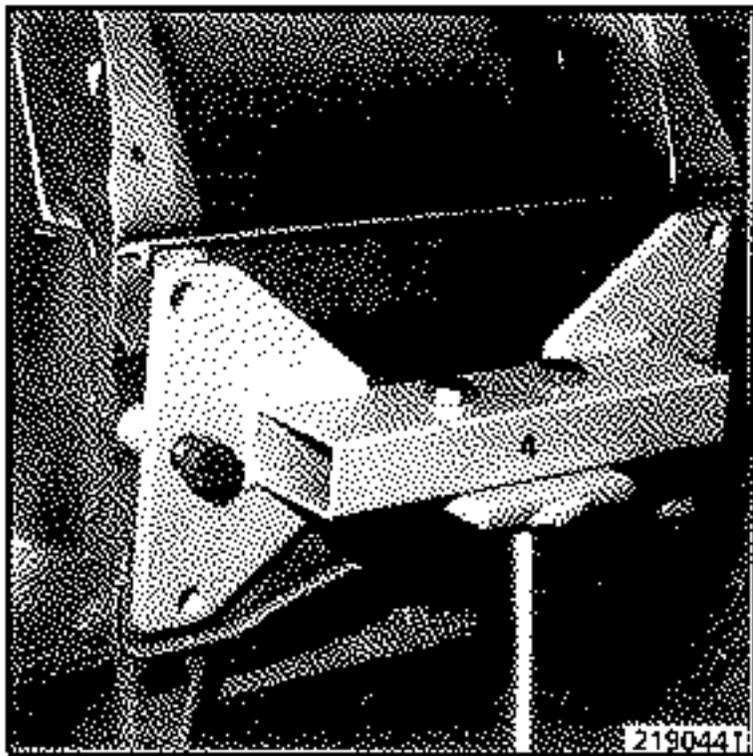
9285351

### Steering box mounting

This bracket is only used for carrying out front end impact repairs on in-line engines after removal of the mechanical units.

It enables the positions of the steering box mounting holes to be checked.

It also positions the steering box mounting holes so that they can be drilled through when replacing the mounting on the bulkhead.

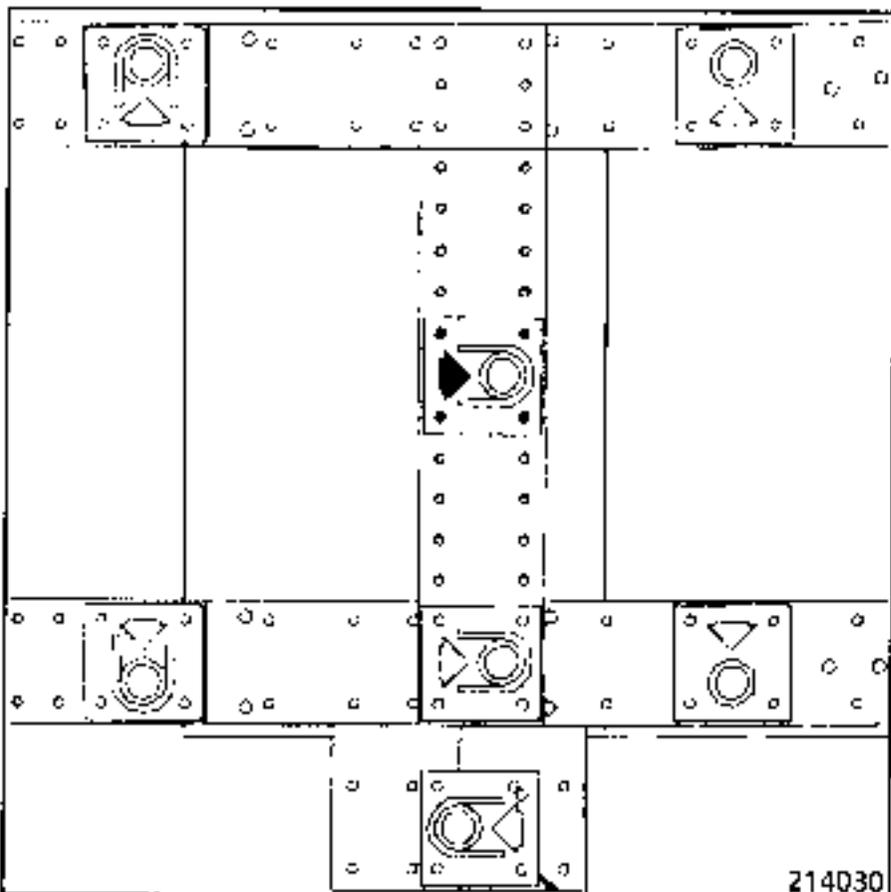


Use base MZ 260.

The special head is secured to the piston which is common to support N° 5.

Lock it at the upper hole.

### POSITIONING



Fit the two extensions TV 400 securing them at space N° 5 on the front cross members.

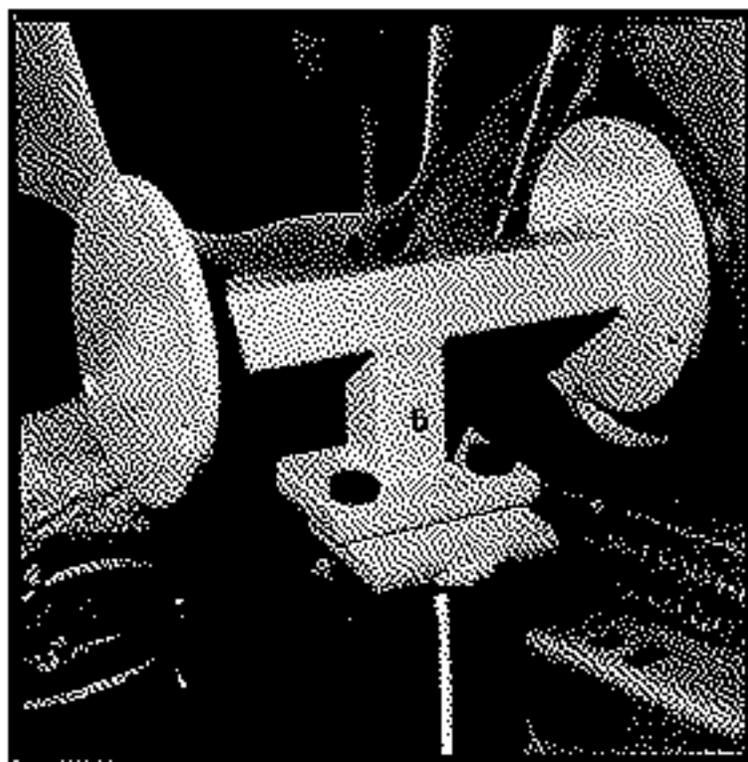
Align base MZ 260 with the centre line of the vehicle.

The arrows are to point to the rear.

This bracket is only used for front end impact repairs on in-line versions, after the mechanical units have been removed.

It enables the position of the steering swivel lever cup which is welded to the cowl side panel to be checked.

It positions the swivel lever cup so that it can be welded in place when a cowl side panel is replaced.

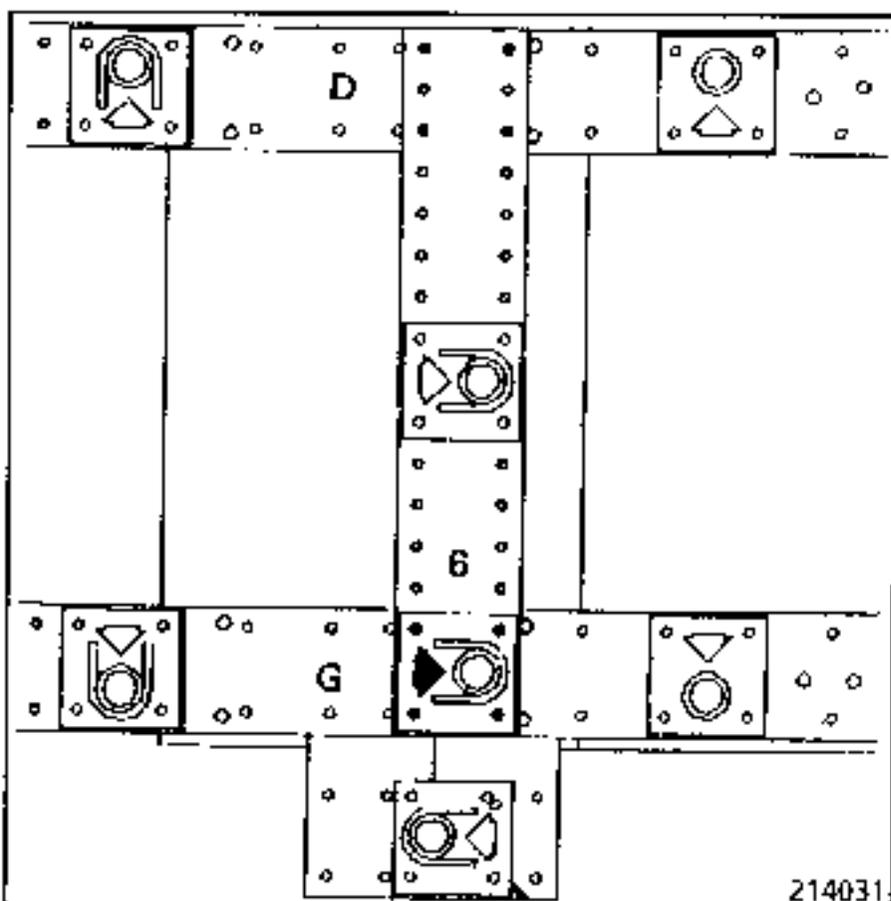


Use base MZ 260.

The special head is secured to the piston which is common to support N° 4.

It is locked in the upper hole in the piston and the lower hole in the base.

#### POSITIONING



Fit the two extensions TV 400 at space N° 6 on the front cross members.

Position base MZ 260 at space N° 6 :

- on the left hand side for left hand drive vehicles,
- on the right hand side for right hand drive vehicles.

The arrows should point towards the rear.

**Note :** when base TV 400 is not used, the assembly is locked at the lower hole in the piston.

**Sub-frame rear mounting**

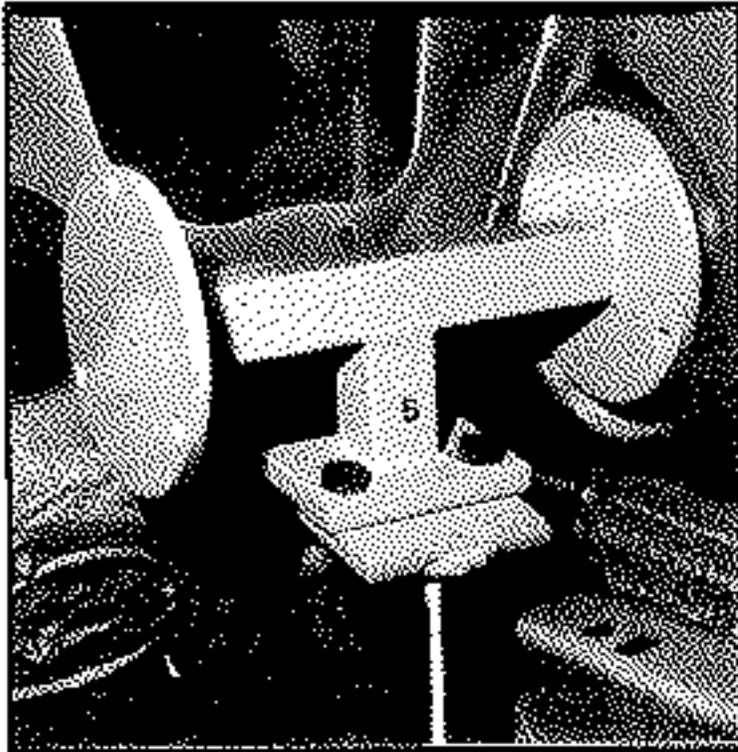
**For front end impact repairs:**

It positions the engine sub-frame front gusset.

It is used after removal of the front mechanical units.

**For rear end impact repairs:**

It is used with the mechanical units in place. It helps to centre and align the vehicle on the bench.

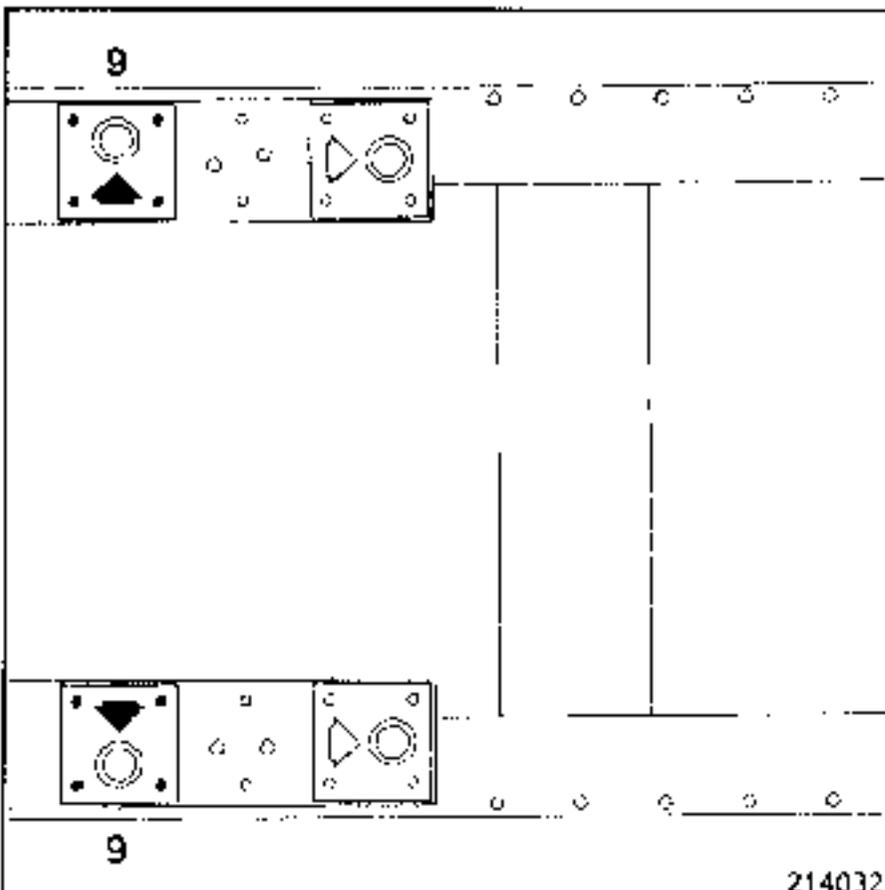


**Bases MZ 080.**

The head is locked in the upper hole in the base.

The position with the mechanical units in place, or after removal of the mechanical units, is determined by the two holes in the piston.

**POSITIONING**



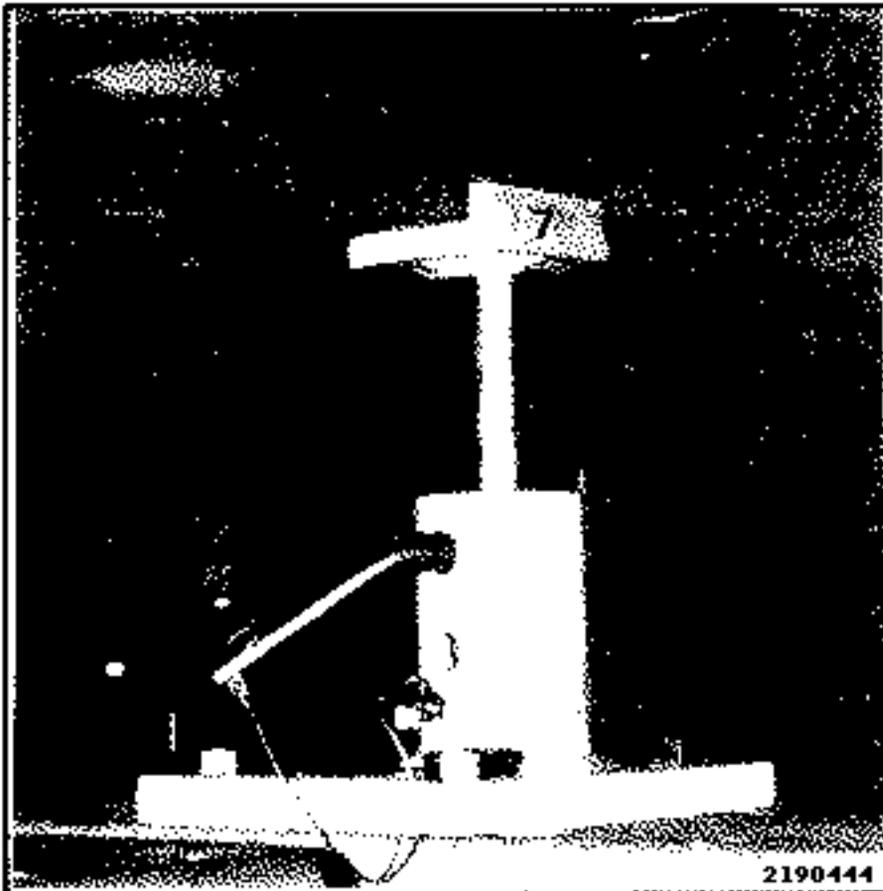
Position the two bases **MZ 080** at modular space **N° 9** on the front cross members.

The arrows are to point outwards.

### Front side member rear end

This bracket supports and locates the rear part of the front side member.

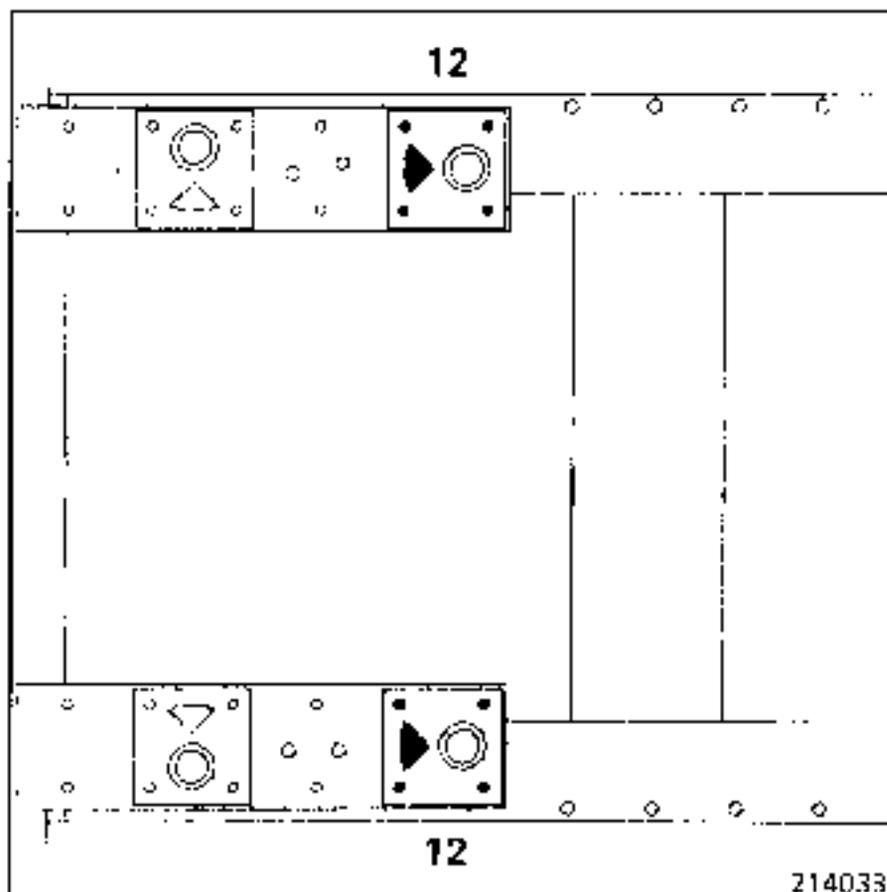
It is used in all cases whether the mechanical units are in position or not and whether the impact damage has been at the front or at the rear.



Use two bases MZ 080.

Only the upper hole is to be used for locking the head.

### POSITIONING



Fit the bases MZ 080 to the ends of the front cross members at space N° 12.

The arrows are to point towards the rear.

**Rear axle assembly front mounting**

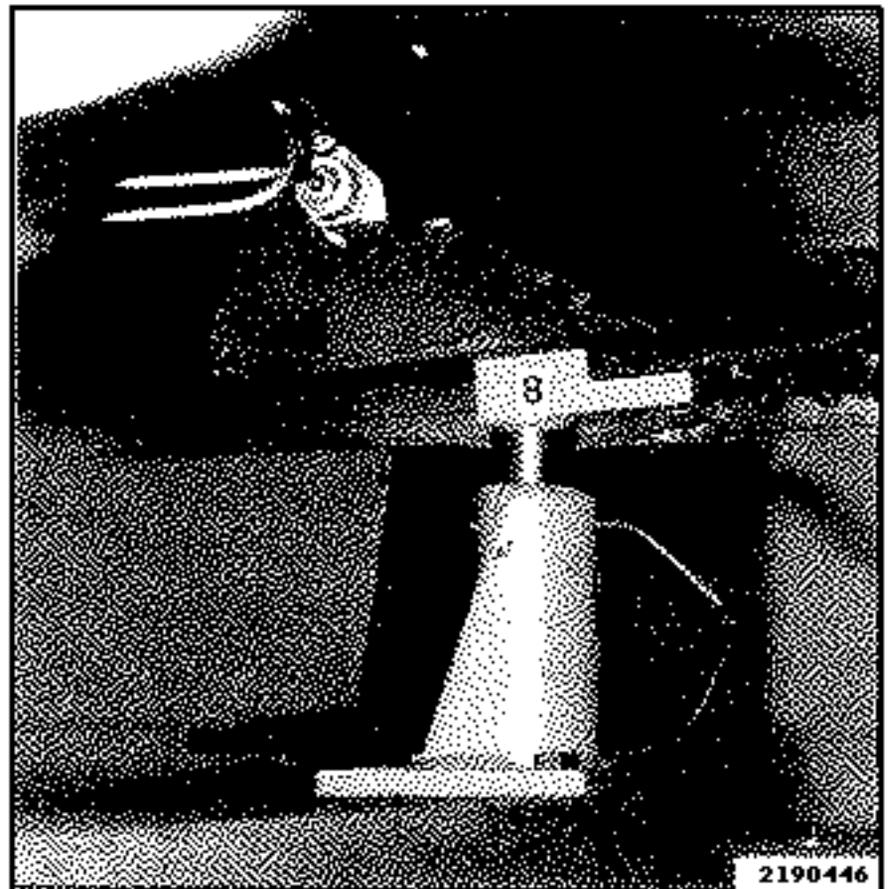
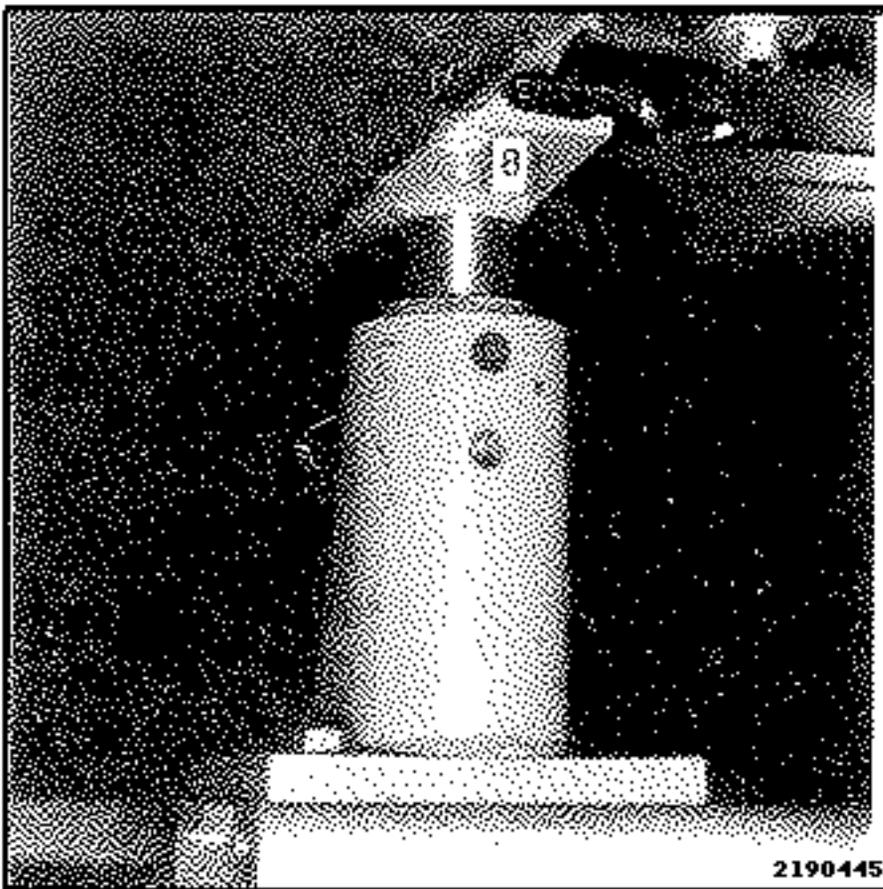
This bracket is used for supporting the rear side member and for centring the suspension arms.

**Front end impact repairs:**

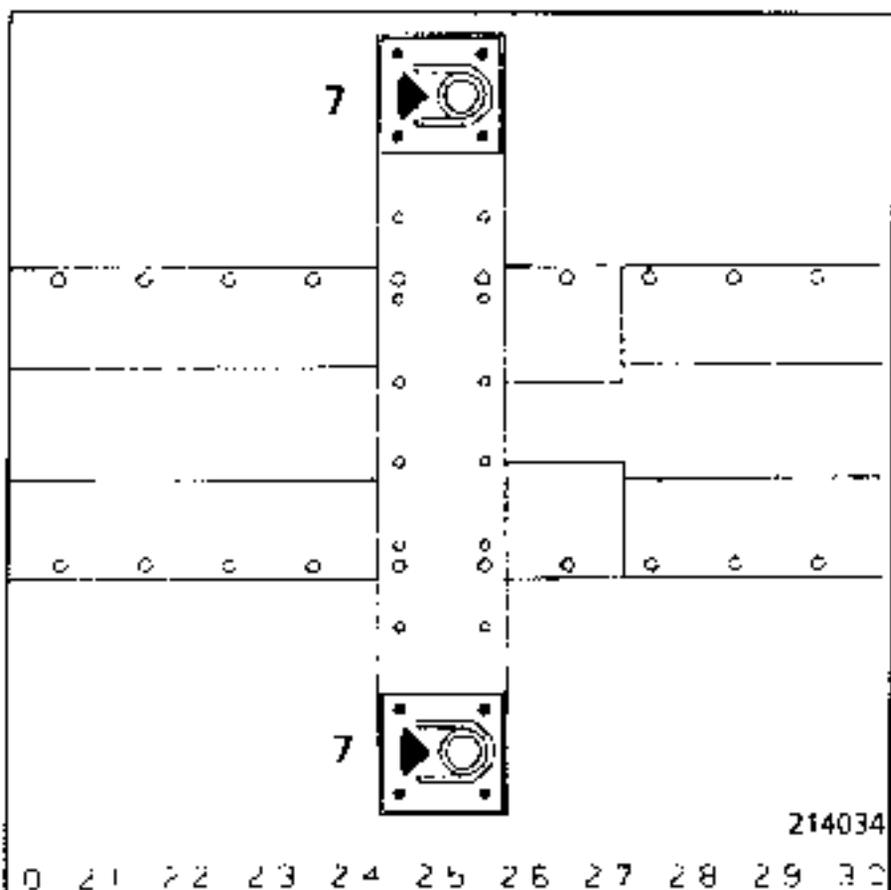
It is used with the rear mechanical units in place and helps to centre the rear end of the vehicle on the bench.

**Rear end impact repairs:**

It is used following removal of the rear end mechanical units for checking the side suspension arm mounting points.



**POSITIONING**



Use two bases MZ 140.

Lock the head in the upper hole in the base.

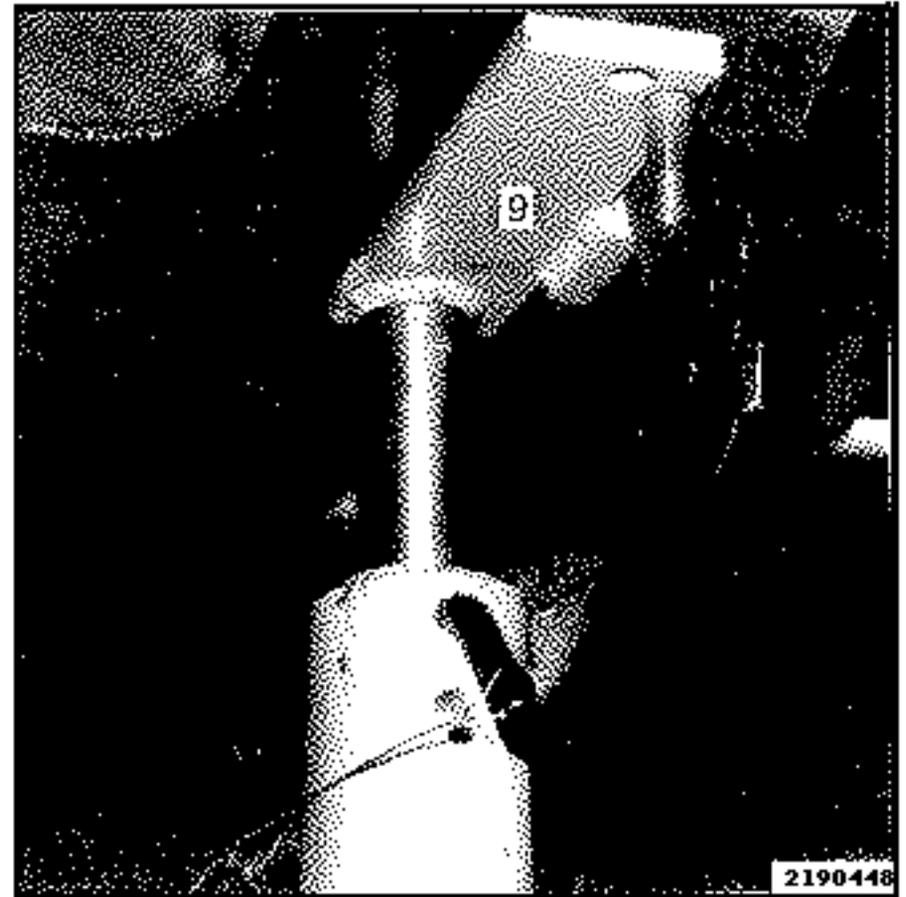
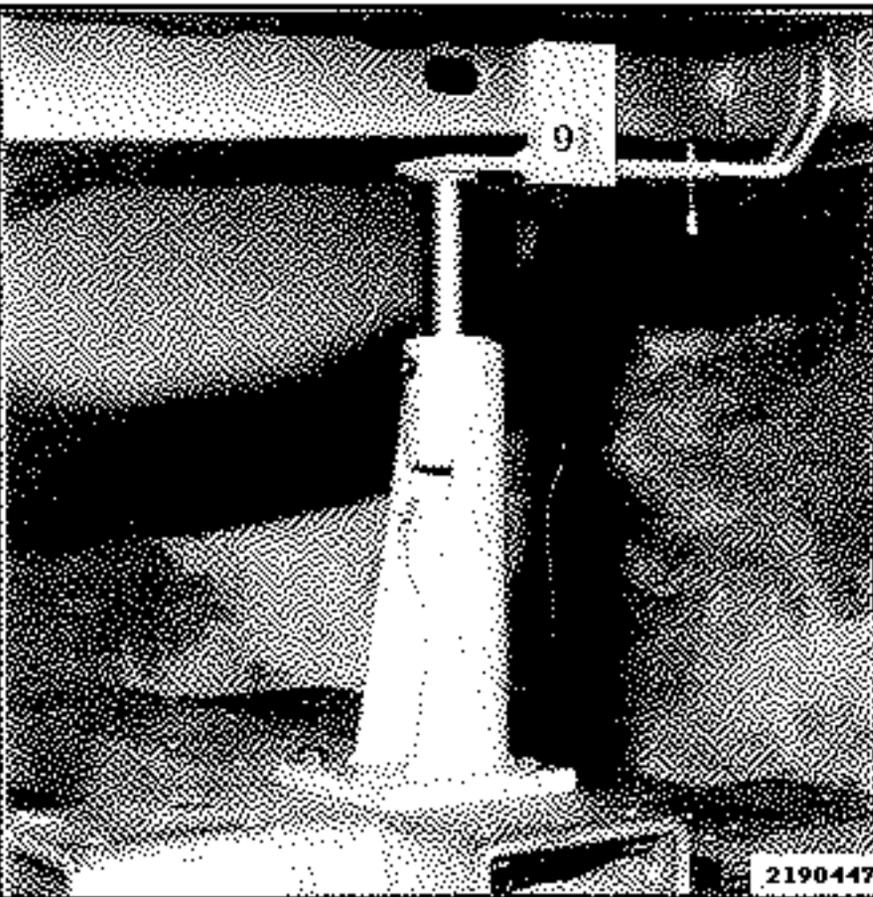
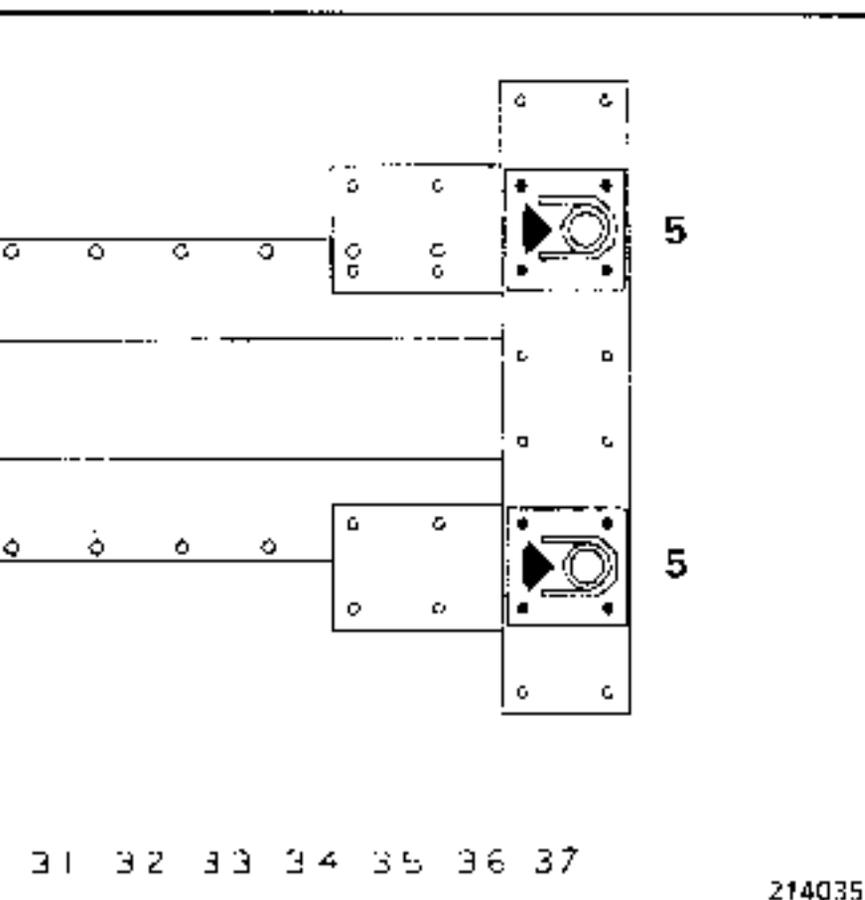
Position the bases at space N° 7 on the cross member which in turn is secured at modular space N° 25 on the bench.

The arrows are to point towards the rear.

**Rear side member rear end**

This bracket acts as a rear support for the floor and serves to position the ends of the rear side members.

It is mainly used after removal of the mechanical units, following a rear end impact.

**POSITIONING**

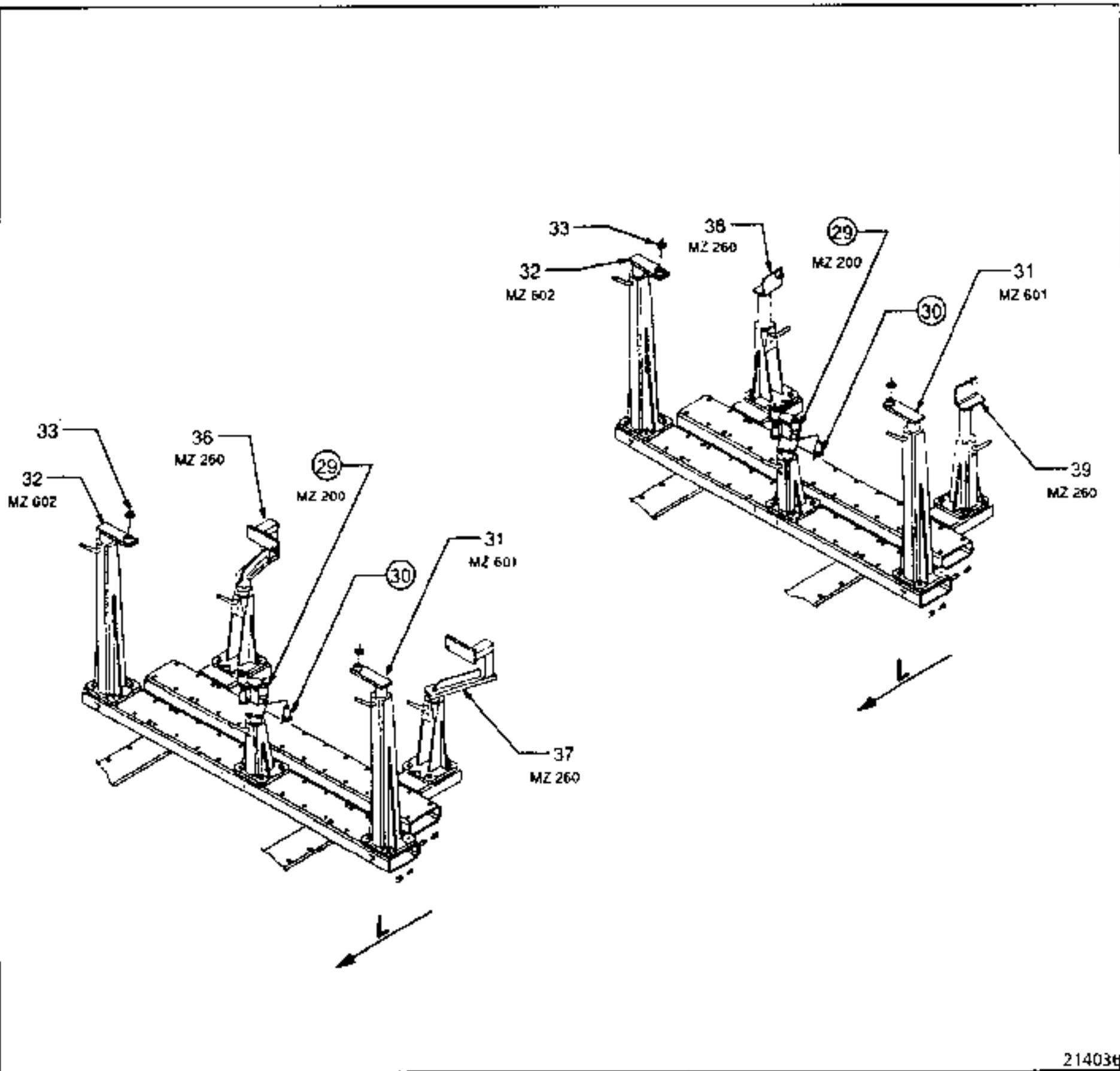
Use two bases MZ 260.

Lock the head in the upper hole in the base.

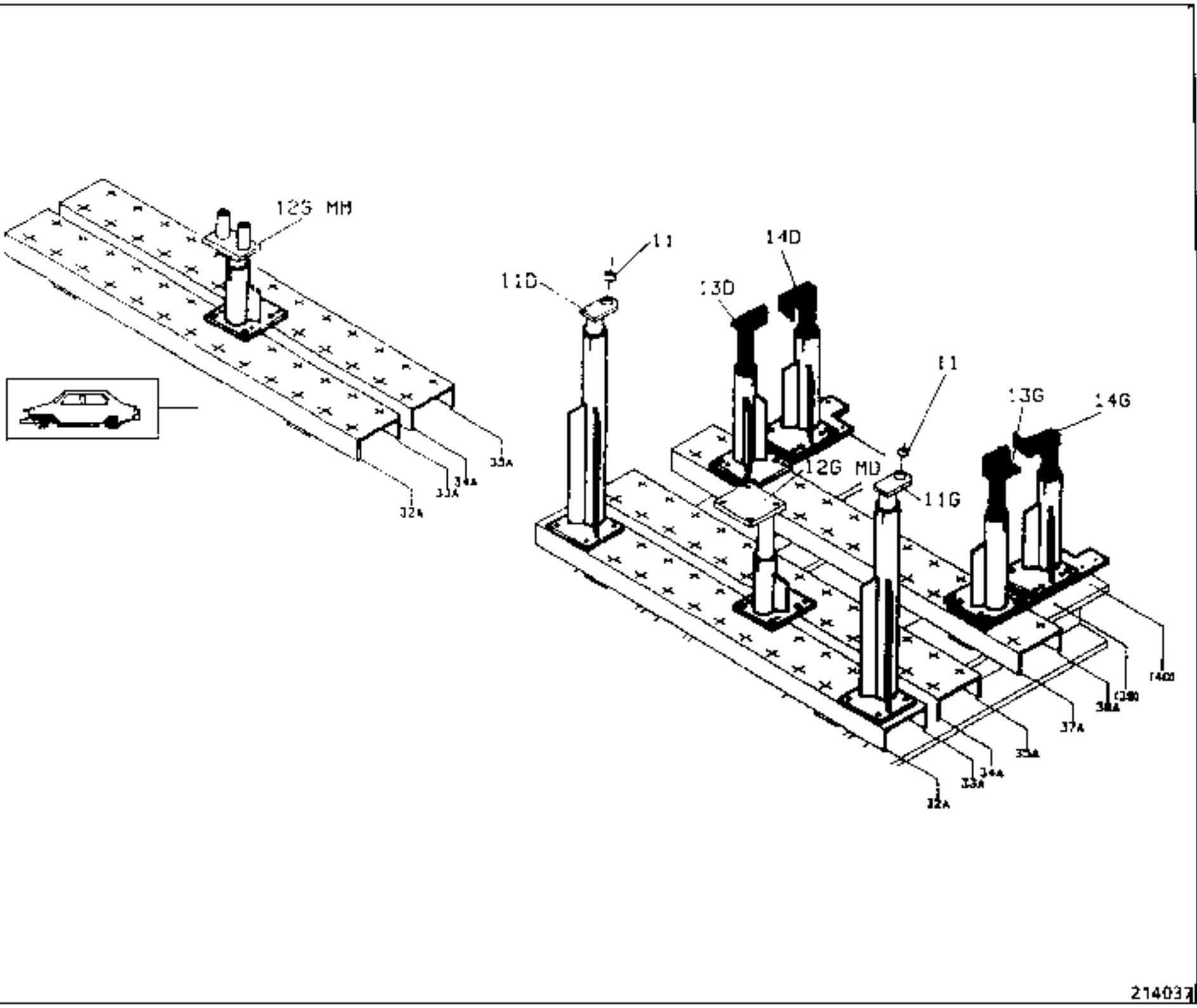
Position the bases at space N° 5 on the rear cross member which in turn is positioned at space N° 36 on the bench.

The arrows are to point towards the rear and the base is to be in space N° 37.

4 x 4 version



4 x 4 version

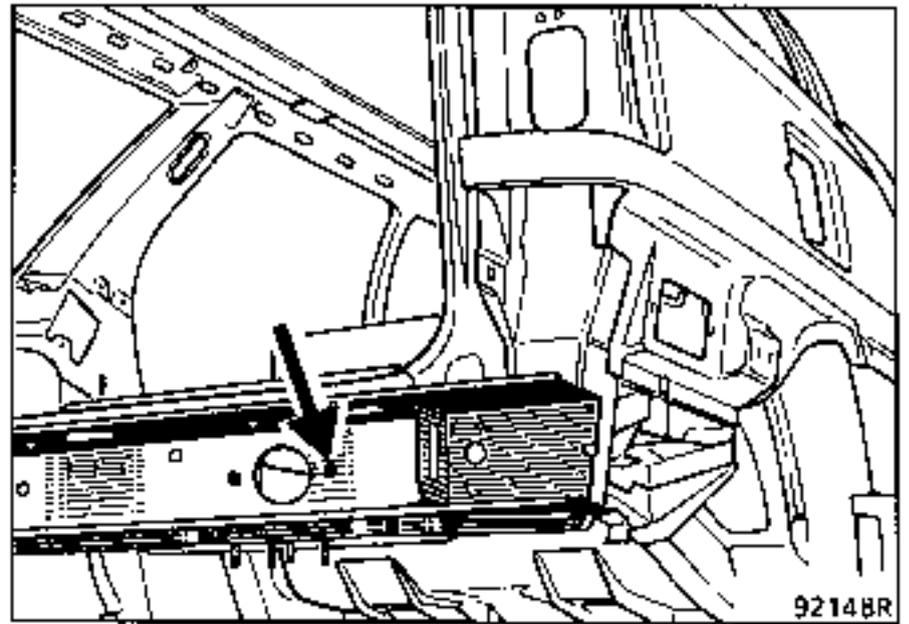


For brackets 1 to 8, there is no alteration in relation to the reference vehicle (L48 4 x 2).

**Rear side member, rear end point**

This is used when rebuilding the rear end, when replacing the side member.

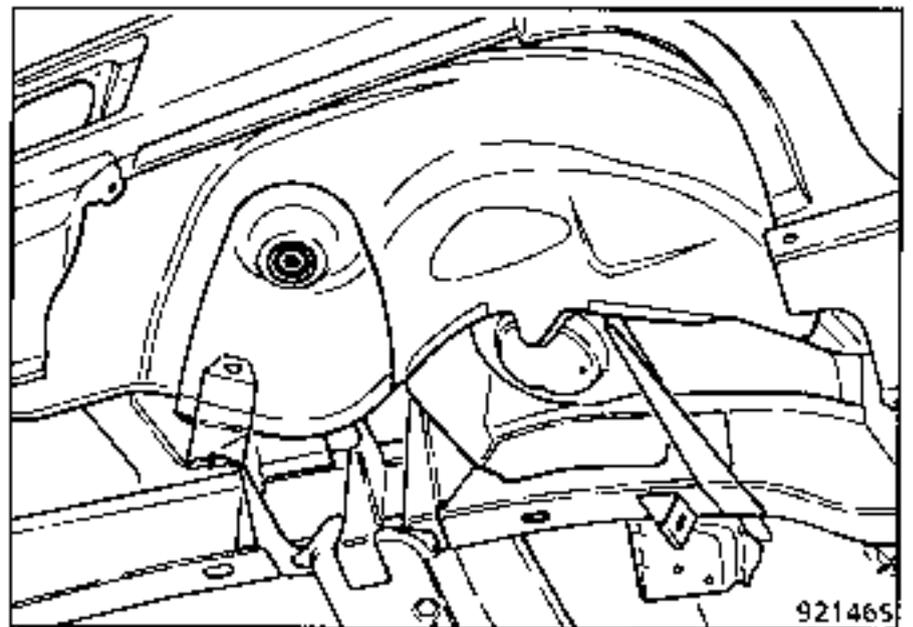
**NOTE :** this bracket is specific to versions B and L48.



**Rear shock absorber upper mounting point**

This is used when rebuilding the rear end, when replacing the inner wheel arch.

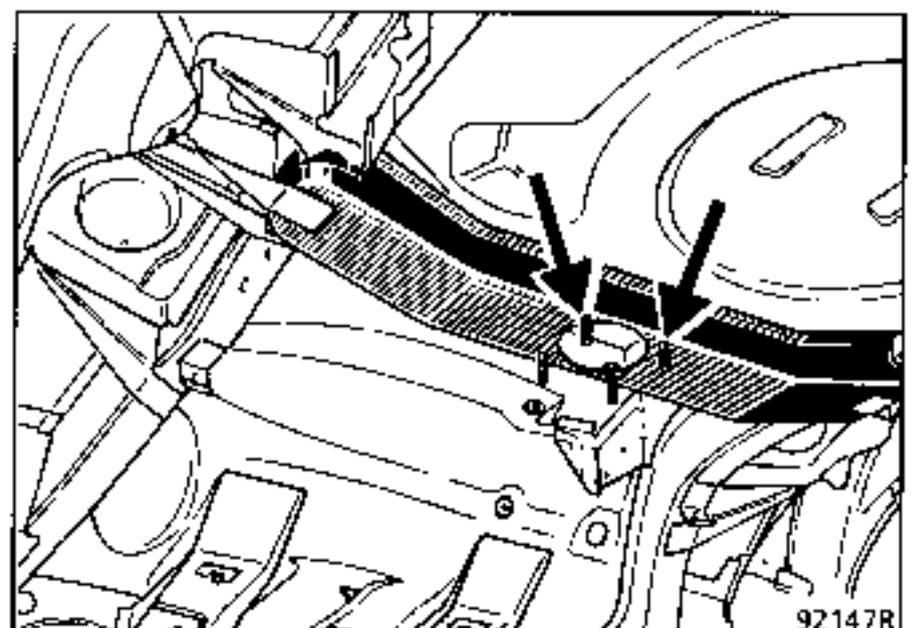
**NOTE :** this bracket is identical to K48 versions (but is positioned differently).



**4 x 4 rear axle mechanical unit mounting point**

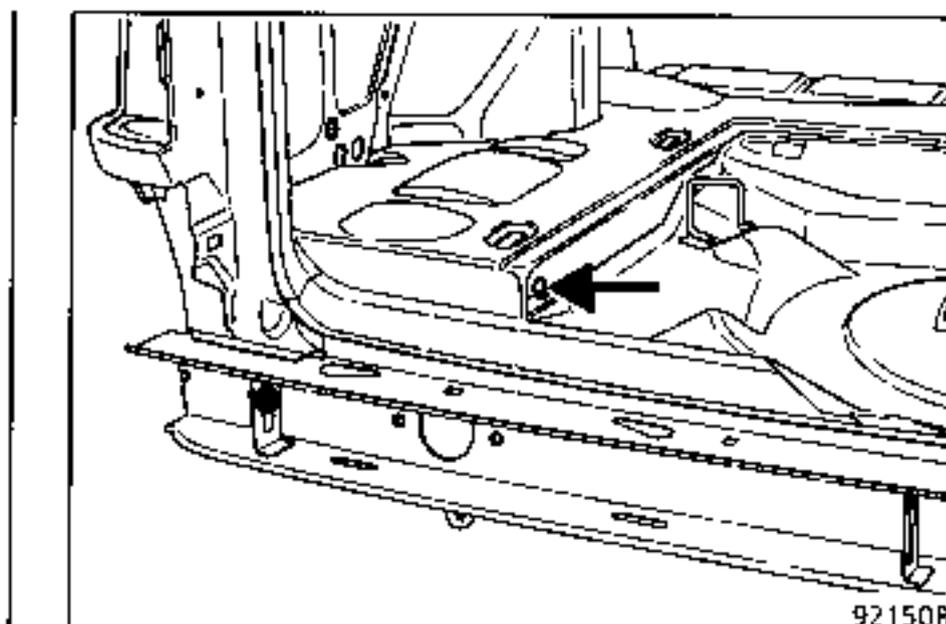
This is used when rebuilding the rear end, when replacing the axle support cross member and for rebuilding the front end to centre the rear of the vehicle.

**NOTE :** this bracket is identical to K48 versions (but is positioned differently).



**Towing point mounting point**

This is used when rebuilding the rear end, when replacing the side members.



---

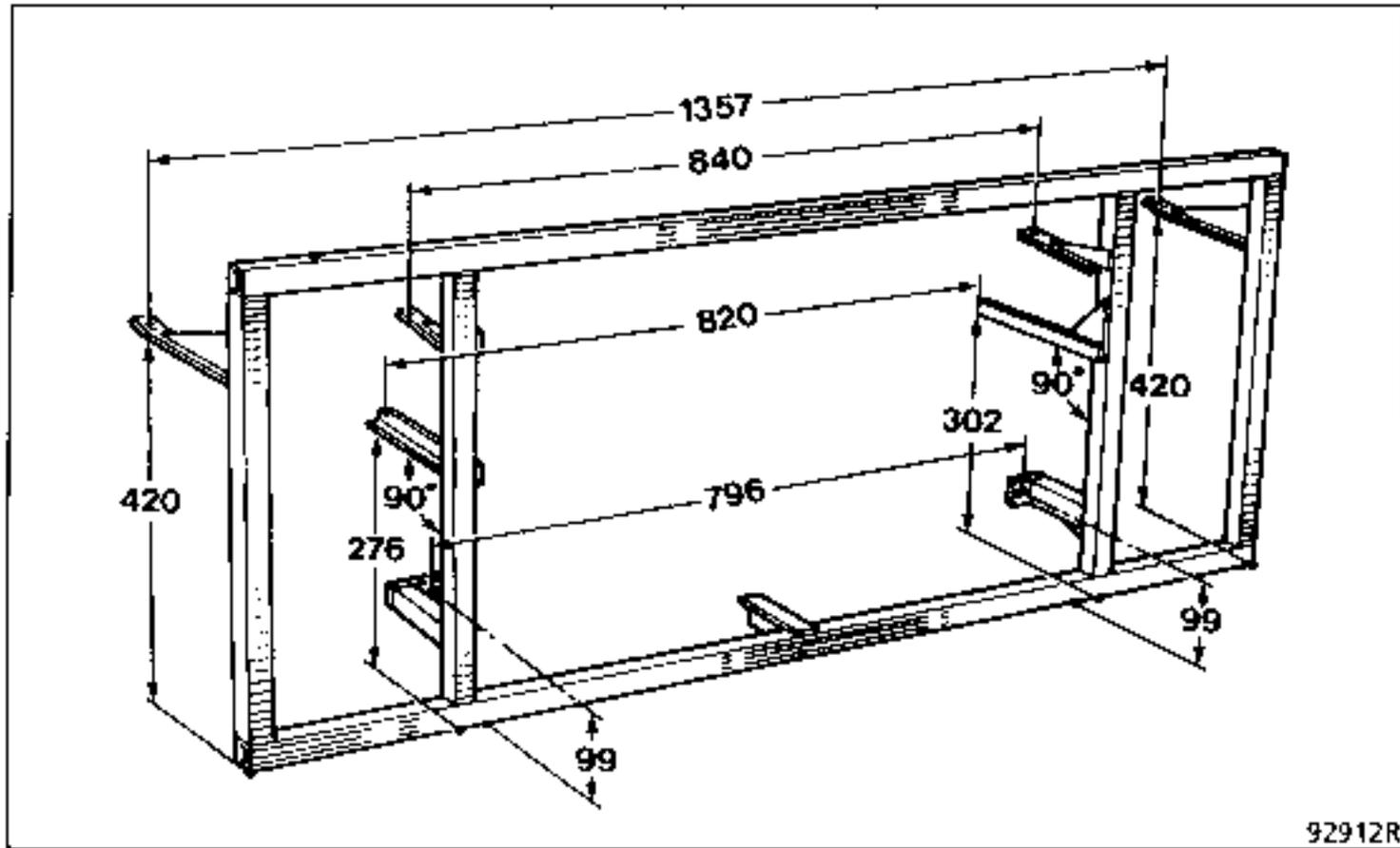
**Replacing specific parts**

---

- 1) When replacing the rear end cross member and the rear end panel, refer to operation 41 A of section B48 or L48 depending on version.
- 2) When replacing specific parts without the rear and front floor, refer to section K48.

PRESENTATION

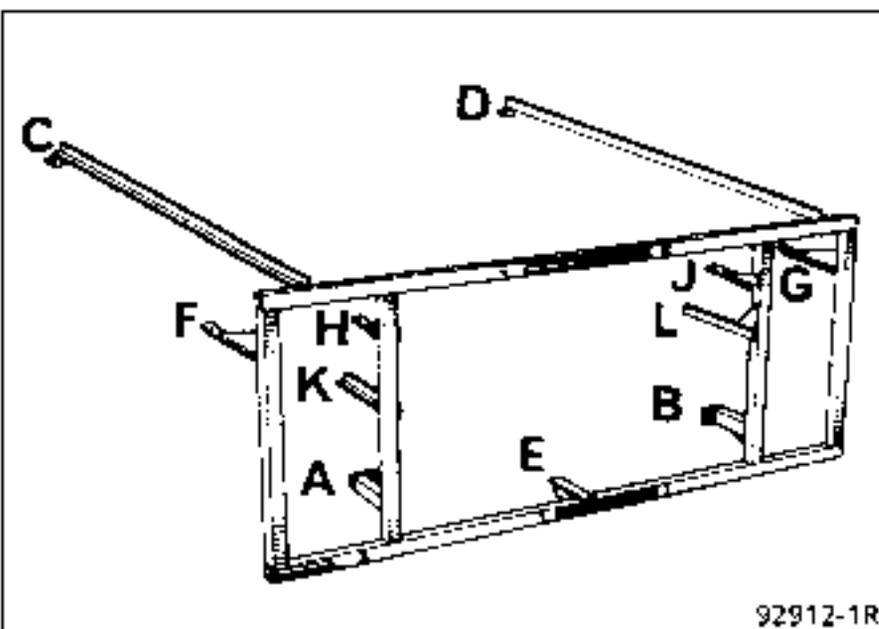
Part Number 00 00 1062-01



92912R

The dimensions given in the above drawing enable the geometry of the jig to be checked.

FITTING IN PLACE

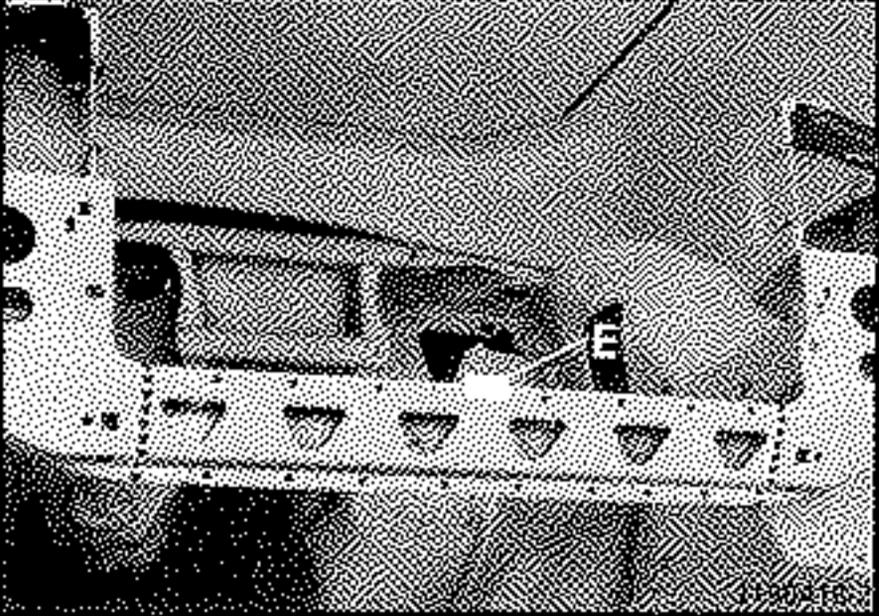
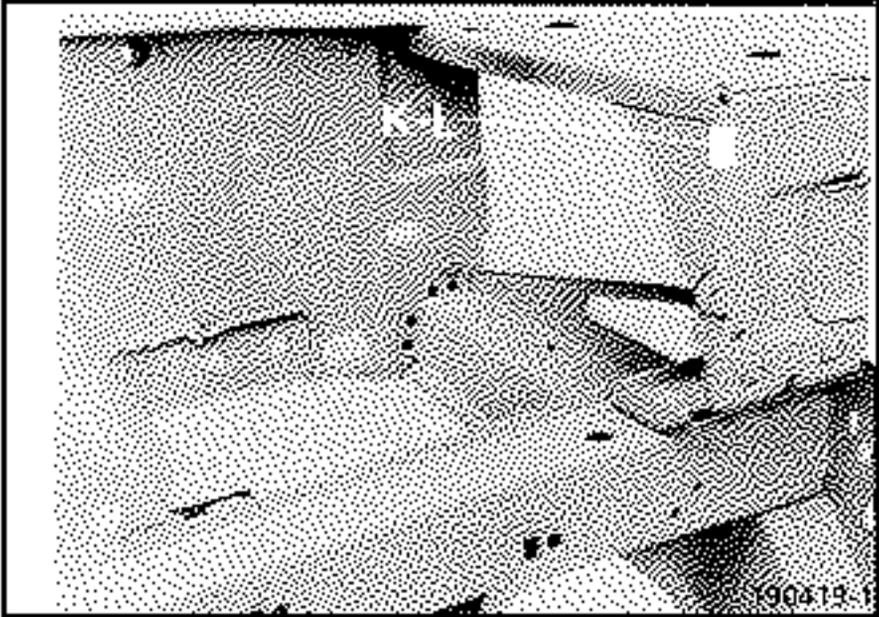
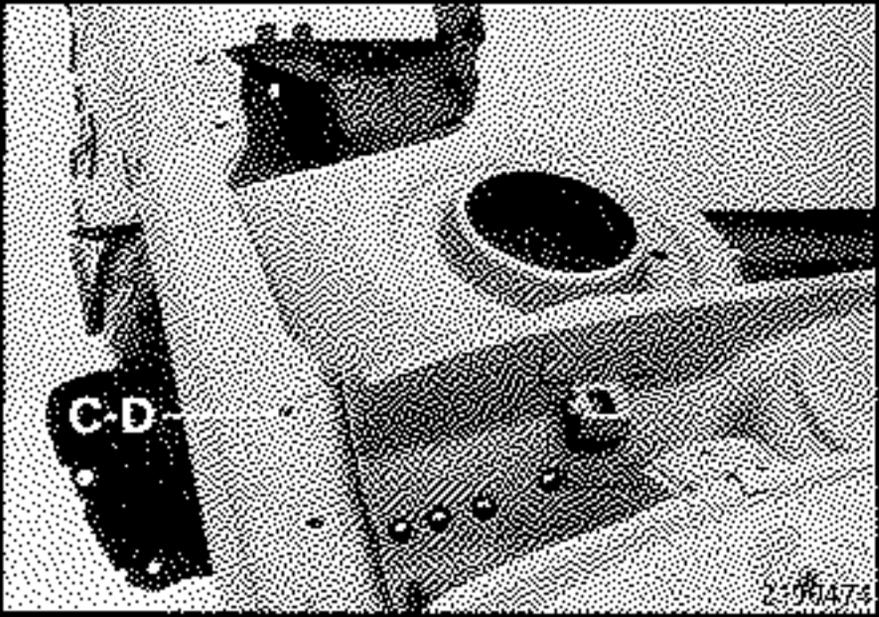
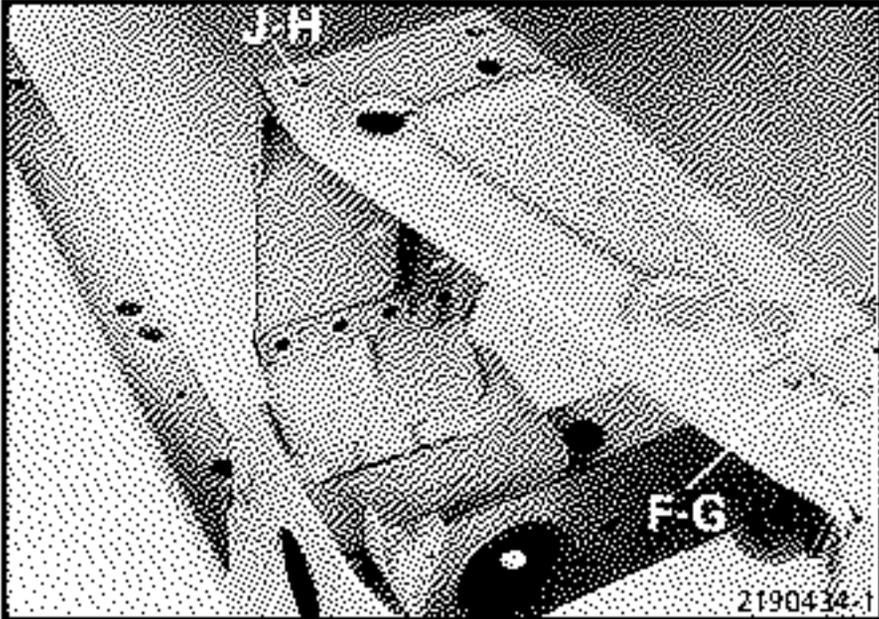
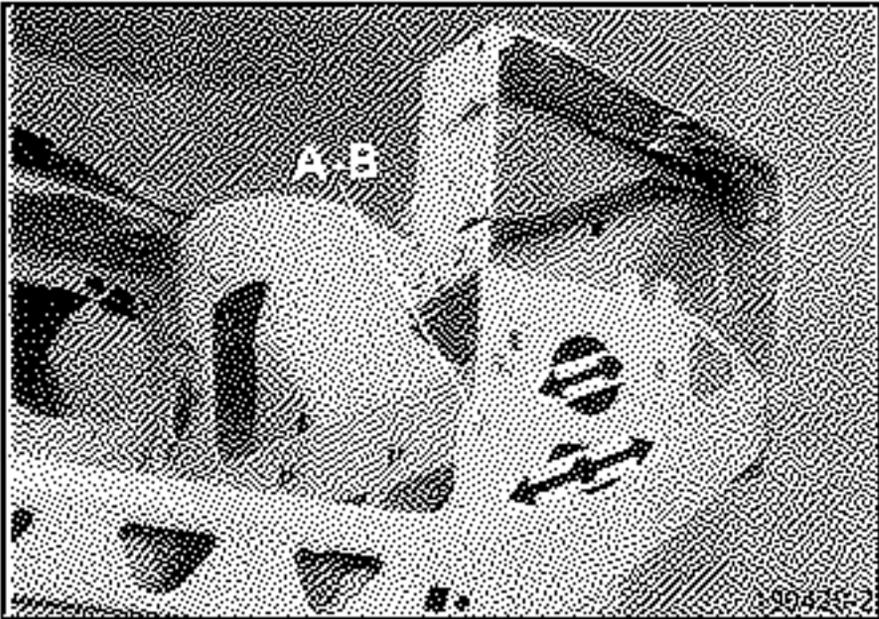


92912-1R

Points (A), (B), (C), (D) and (E) are the reference marks for positioning the jig on the vehicle. Before fitting it, you must check during the fault finding operation that these points are correct.

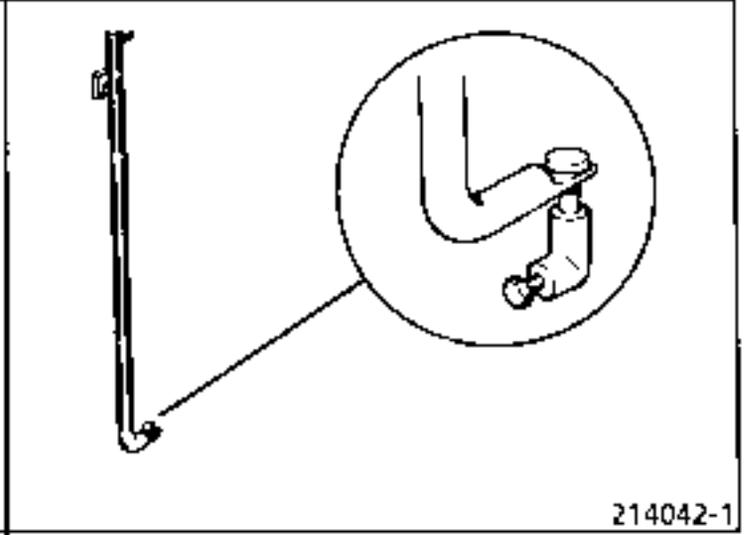
Points (F), (G), (H), (J), (K) and (L) are used firstly to secure and then to position the replaced components. But if one of points (A) or (B) cannot be used as a reference mark, the point on the side opposite the impact must be used for this purpose.

POSITIONING



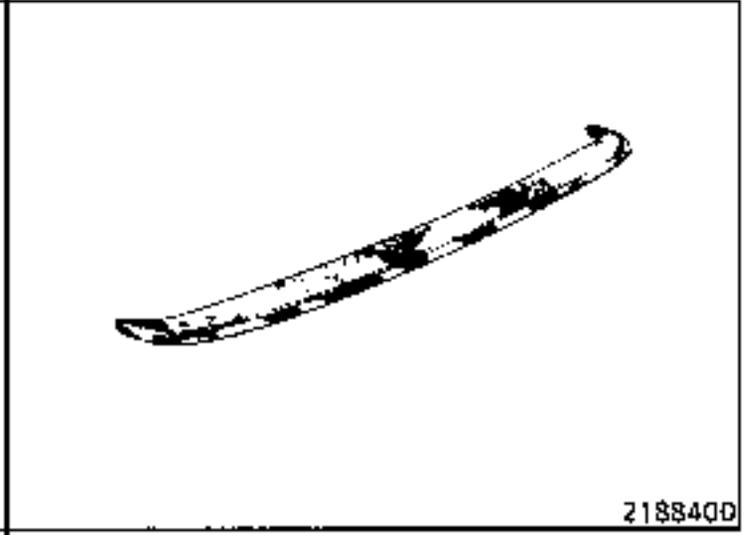
Car. 1055 Part Number 00 01 055 00

Hinge pin extracting tool  
(short and long)  
  
(can be fitted to FENWICK REN 1303)



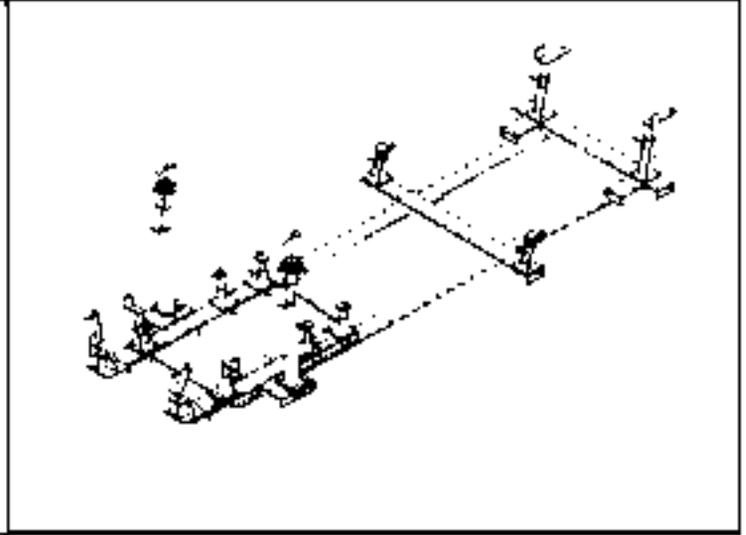
Car. 1060 Part Number 00 00 106 000

Dashboard protector



Car. 1062 Part Number 00 00 106 200

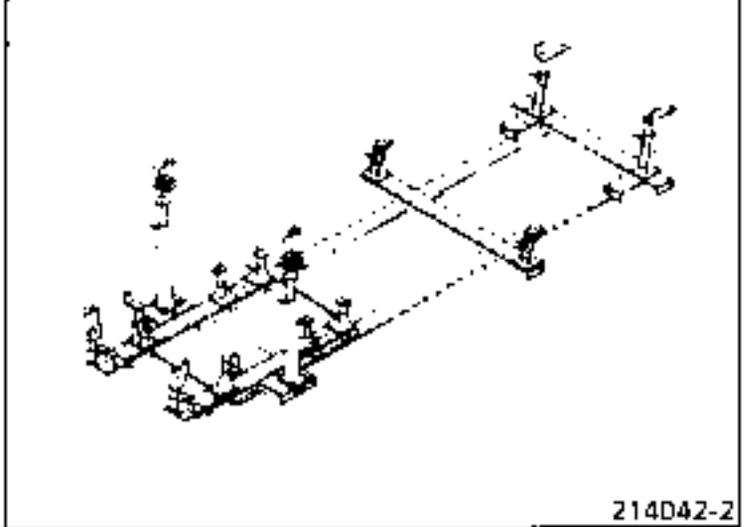
Front component positioning jig



Célette  
Repair bench brackets Ref. 486-800

1 - system 4 x 4 K48 Ref. 486-308  
1 - system 4 x 4 B-L48 Ref. 486-307

MZ System (modular)  
  
The bases are universal and can be used for future vehicles.  
The heads are specific to the particular vehicles.  
To order these parts consult your local After Sales Head Office.

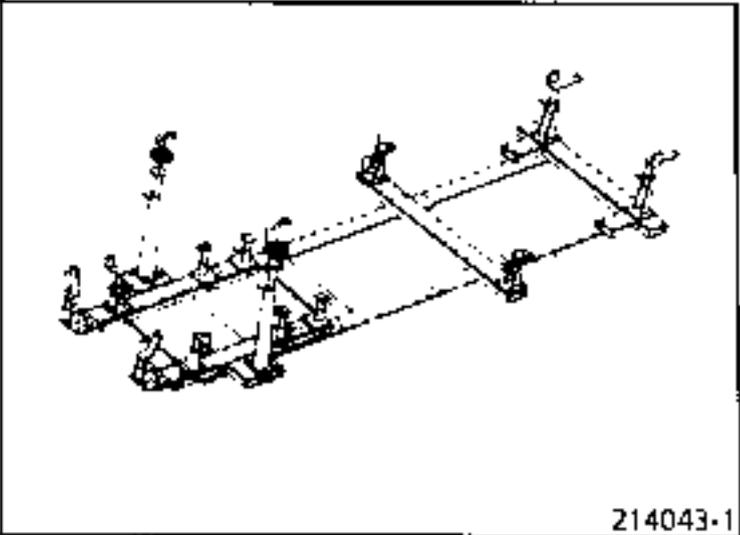


**Blackhawk  
Repair bench brackets**

**Ref. 91254 MMS**

- 1 - system 4 x 4 K48      REN 87106 for the modular system  
   or  
   REN 87107 for the compact system.
- 1 - system 4 x 4 B-L48      REN 87109

To order these parts consult your local After Sales Head Office.



214043-1

**STRIPPING**

All the parts must be placed on a workshop trolley provided for this purpose.

The details for the removal of trim components are given in the paragraph corresponding to each component.

**CUTTING OUT - UNPICKING**

Remove the damaged part following the instructions given with the diagram for each operation (if necessary, refer to the paragraph explaining the use of symbols).

Grind back the pieces of spot weld remaining on the vehicle panels.

Cut the new part approximately 50 mm larger than the part to be removed from the vehicle.

Position the new part at the appropriate location on the vehicle, over the part to be replaced, then secure it using a vice grip wrench.

Simultaneously saw through the two panel thicknesses to make it easier to adjust the cuts.

**PREPARATION BEFORE WELDING**

Lay bare the inner and outer faces of all areas to be welded (on the vehicle and new parts).

Coat the parts to be spot welded with a bead of electro-plastic mastic (see key to the symbols).

Prepare the parts to be plug welded: drill the first panel to diameter **D** shown below each welding diagram and coat them with aluminium paint.

Adjust the new part then secure it using vice clamps.

**WELDING**

Apply retaining points along butt welding lines

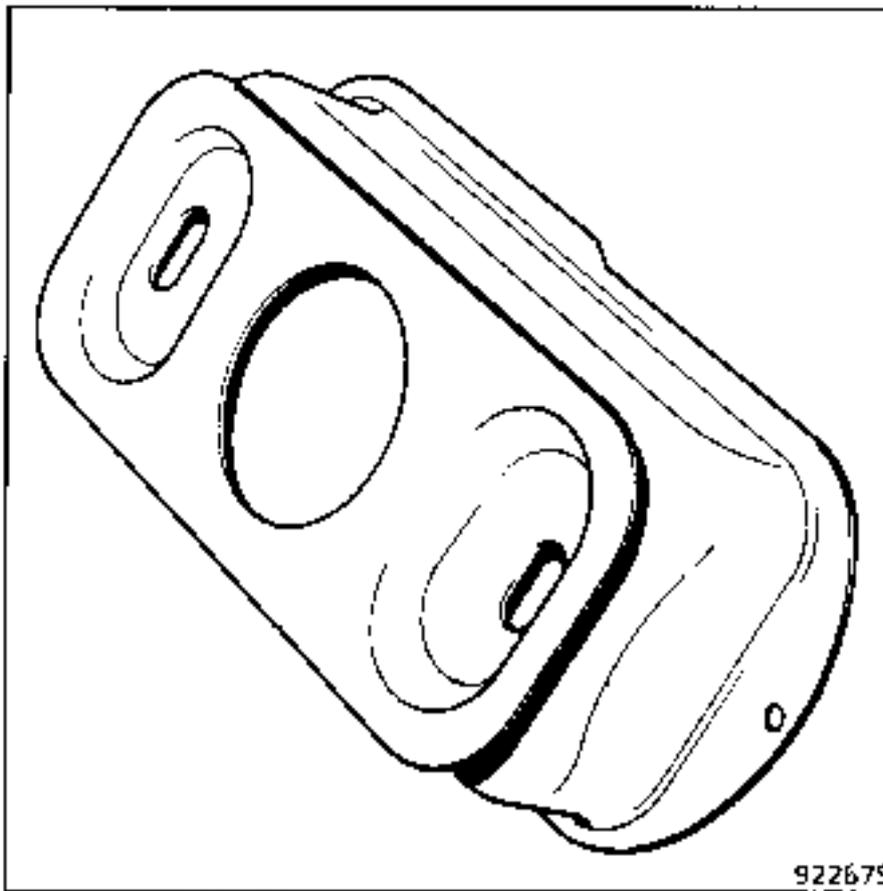
Apply electric spot welds. The corresponding values of (e) and (H) are given under each diagram.

Apply stitch welds under a protective gas envelope.

Apply plug welds under a protective gas envelope.

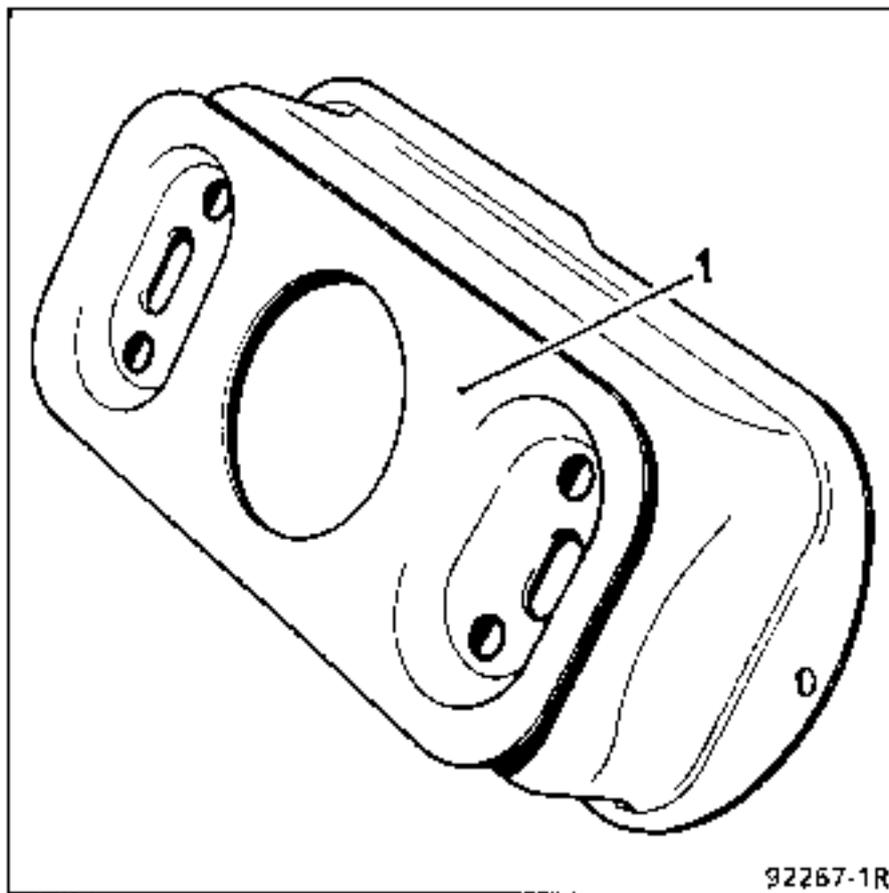
On butt welded parts apply body solder after grinding down the weld bead.

RENAULT 21 TURBO



Parts to be used as they are.

RENAULT 21 OTHER VERSIONS

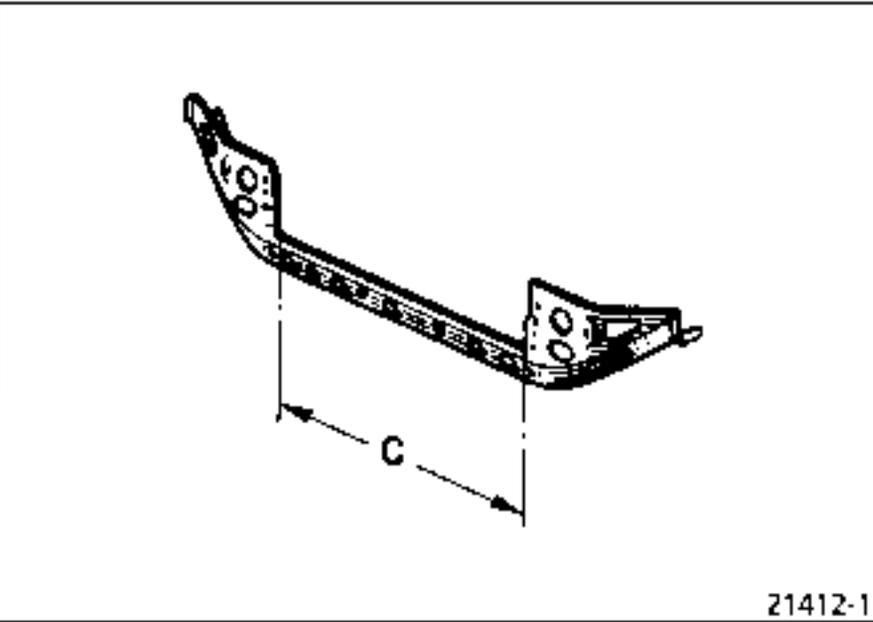


Remove the spacer (1) welded with four spot welds.

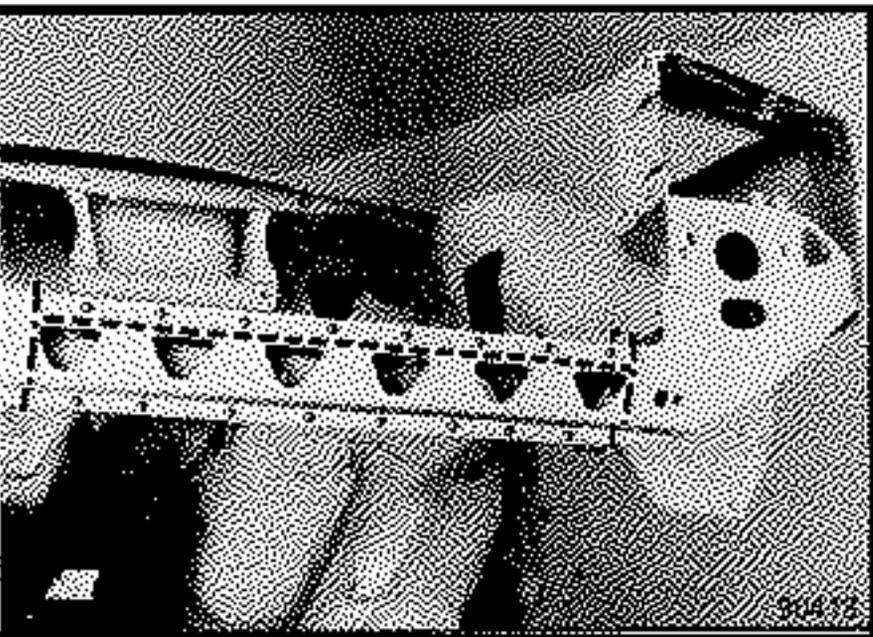


COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with bumper mounting reinforcements.



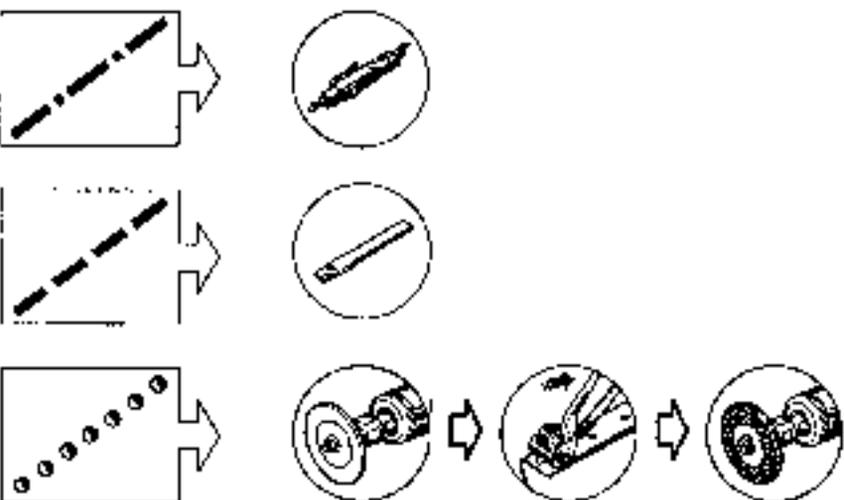
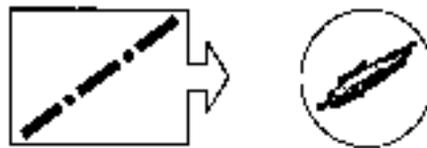
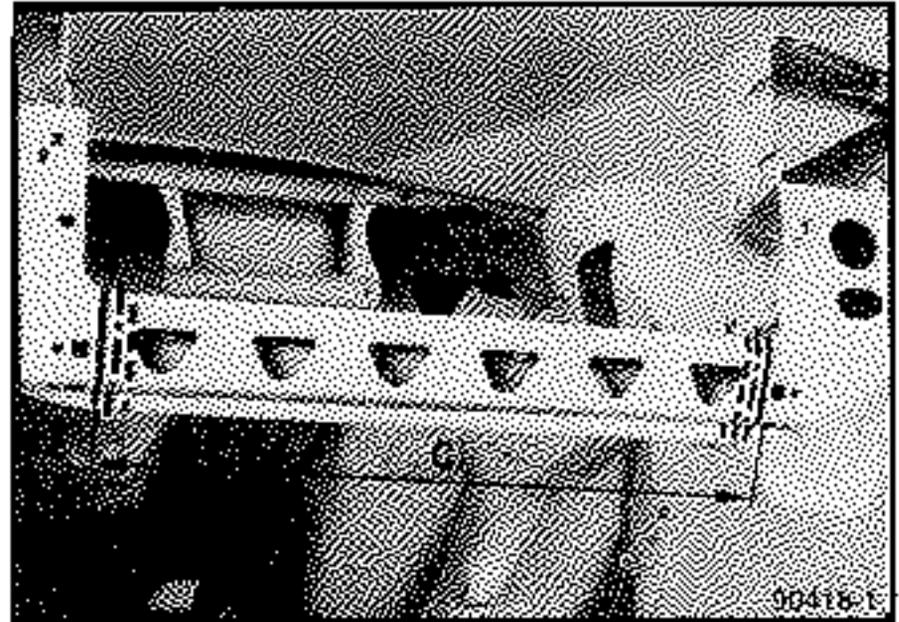
CUTTING OUT - UNPICKING



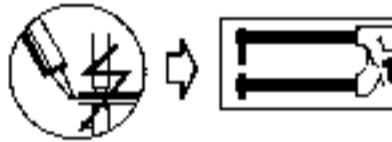
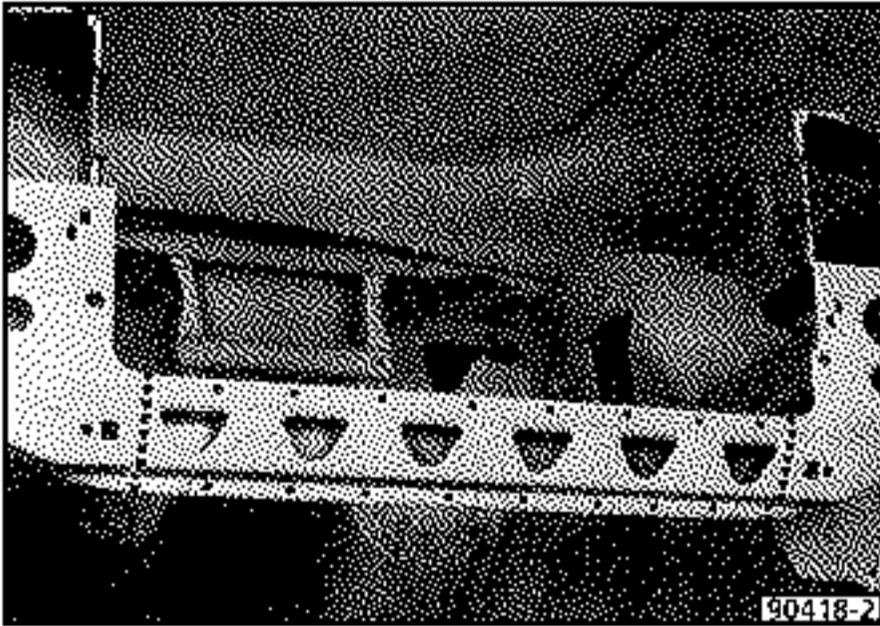
On the new part mark out a part approximately 50 mm larger than the part cut out from the vehicle.

Position the new part on the vehicle over the part to be replaced then secure it using vice clamps.

Simultaneously saw through the two thicknesses of the panel so as to facilitate the alignment of the cuts.



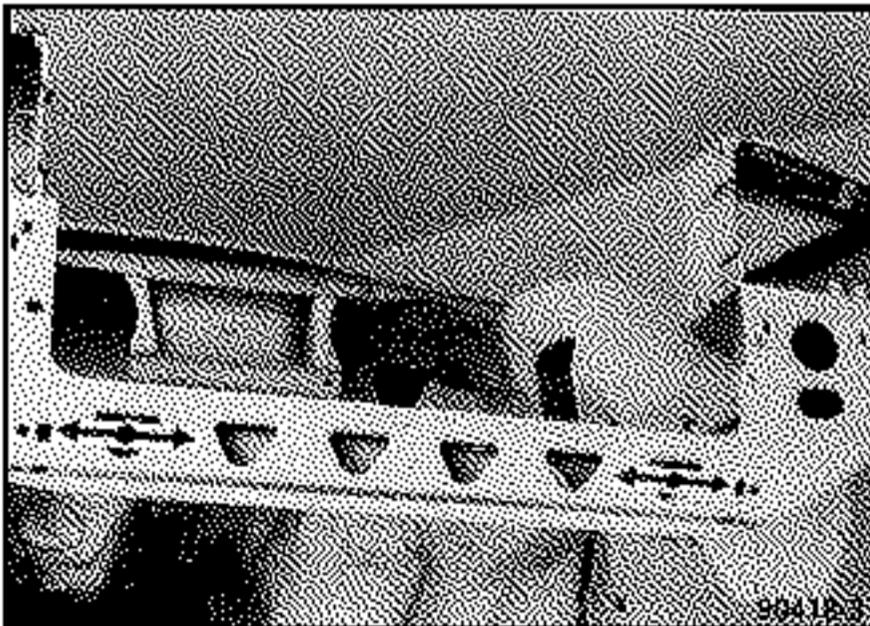
WELDING



$e = 1.6 \text{ mm}$   
 $H = 25 \text{ mm}$



PROTECTING HOLLOW SECTIONS

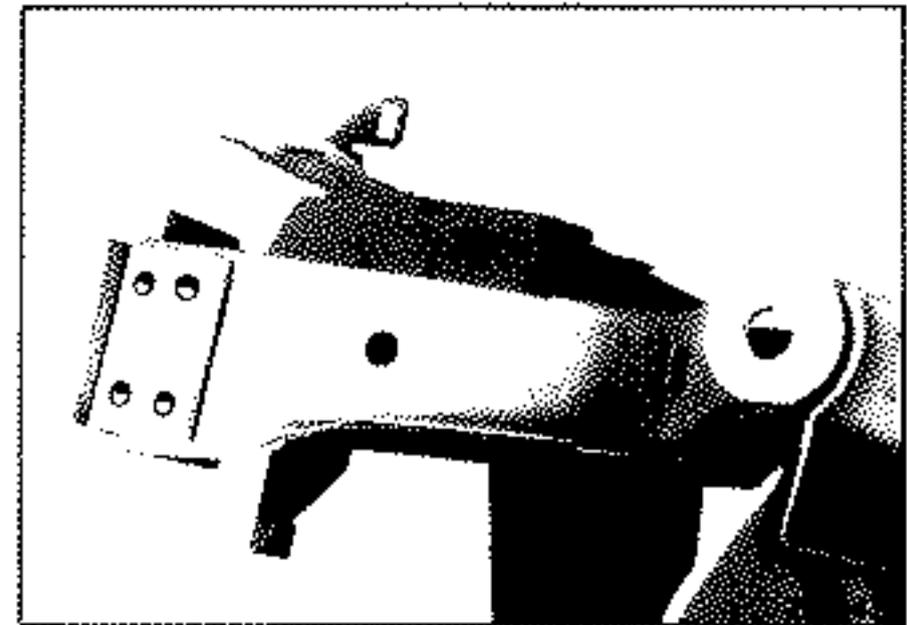
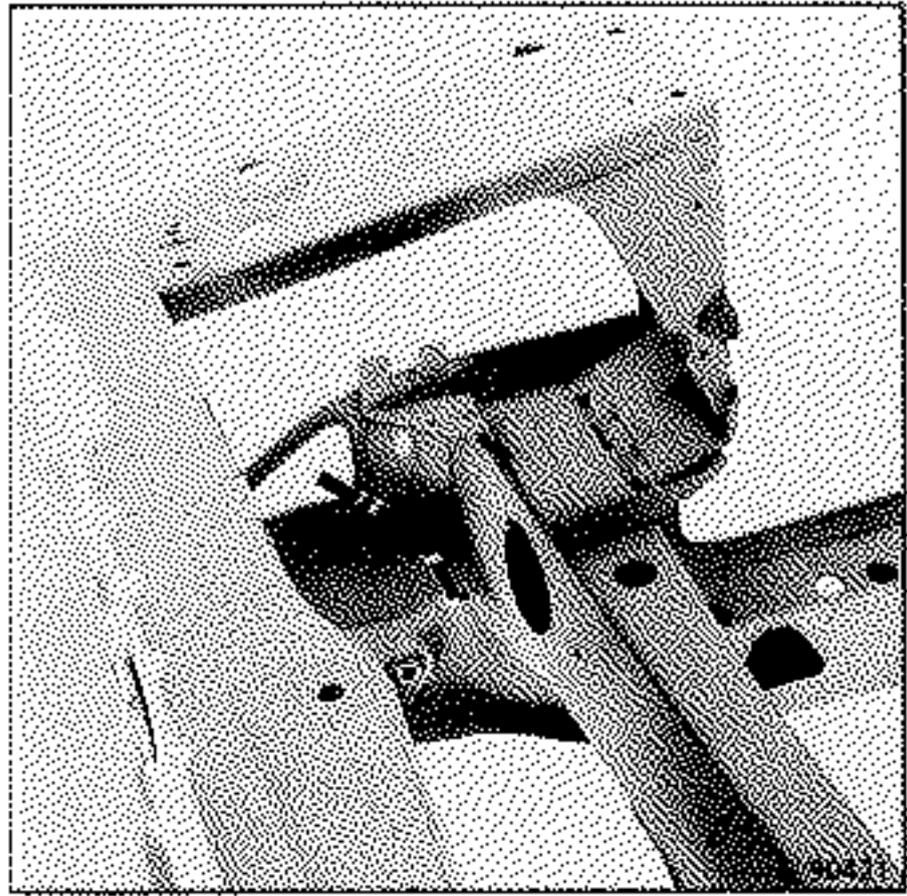
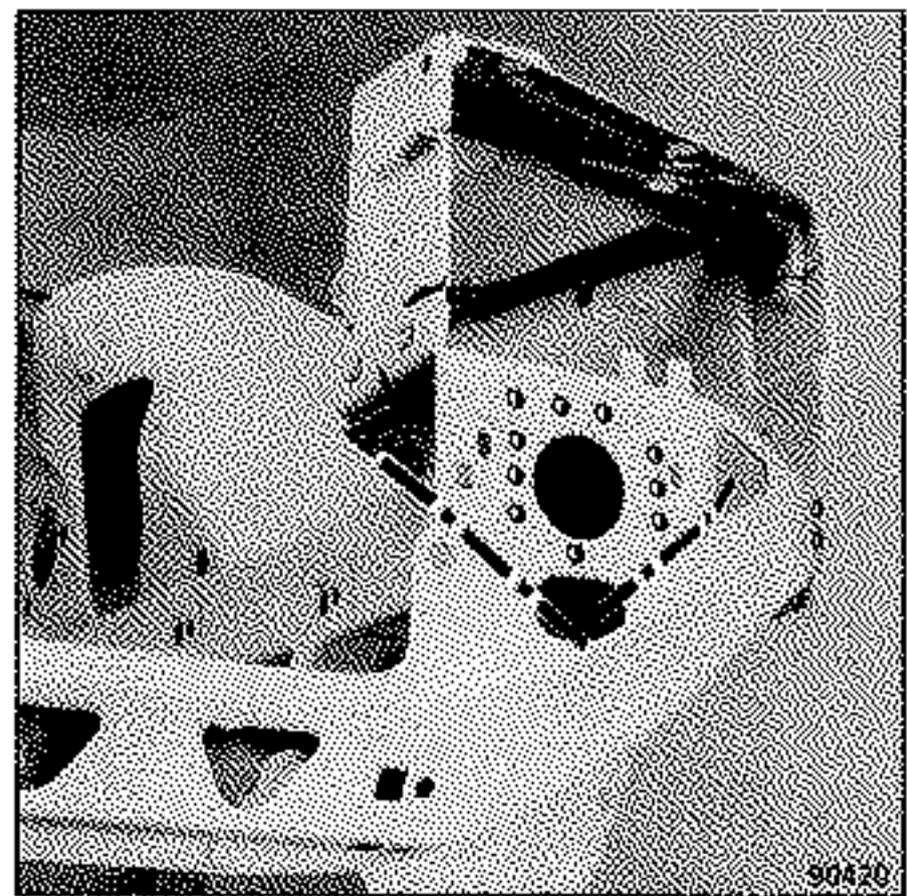
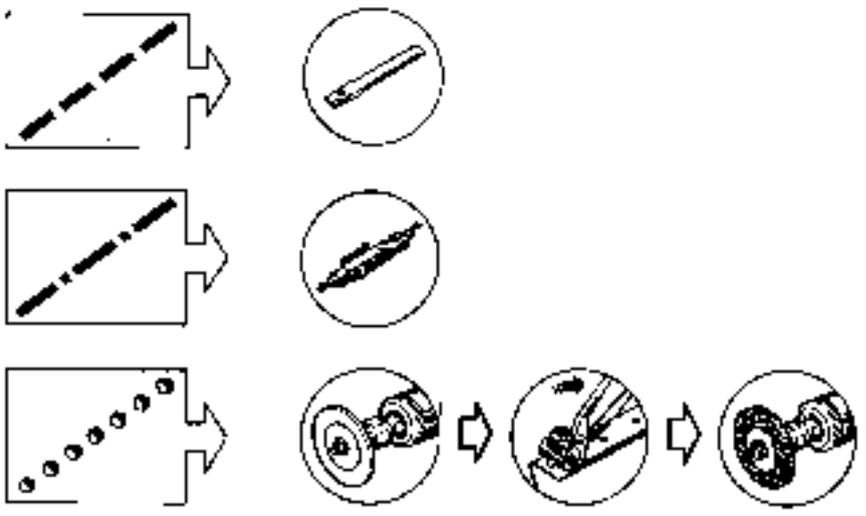
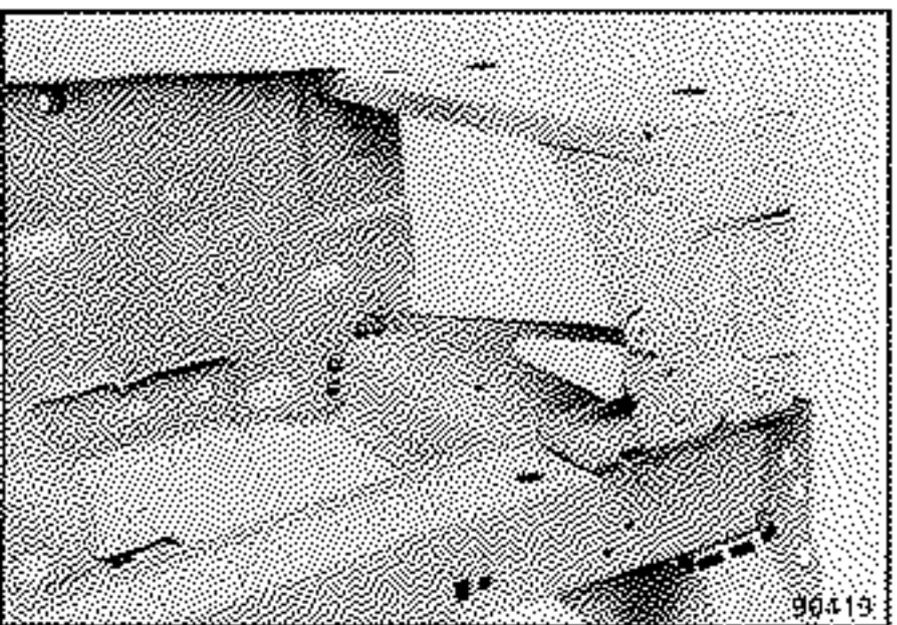
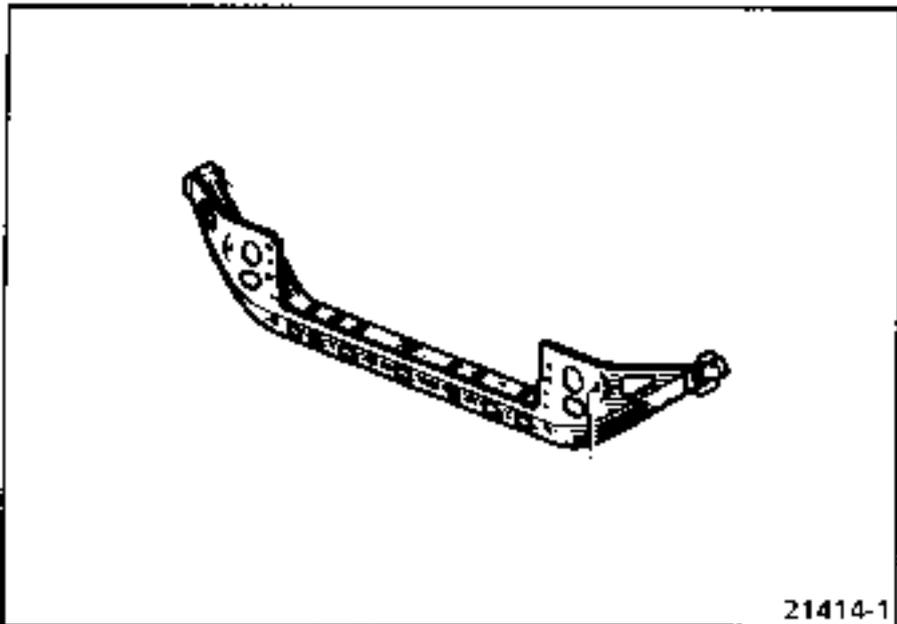


After painting and before refitting the trim, apply the protection for hollow sections.

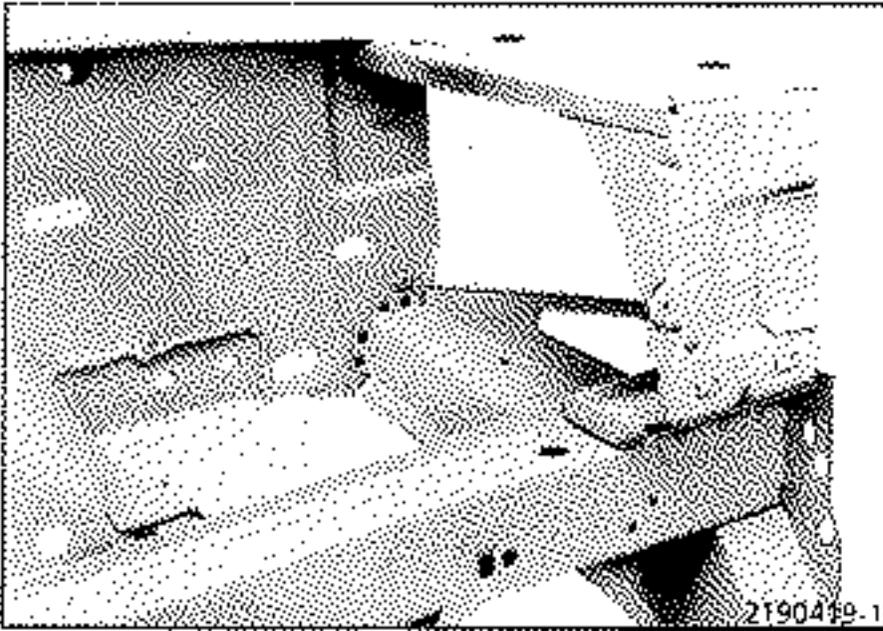
COMPOSITION OF PART FROM PARTS DEPARTMENT

Assembled part comprising:

- Closure panel.
- Bumper mounting reinforcement.
- Cross member.



WELDING

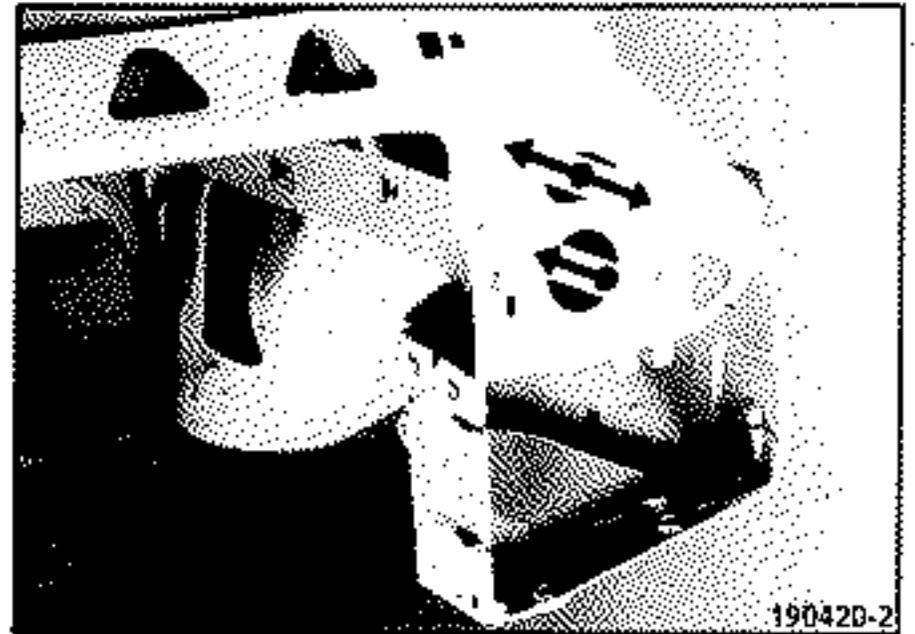


e = 1.6 mm  
H = 25 mm

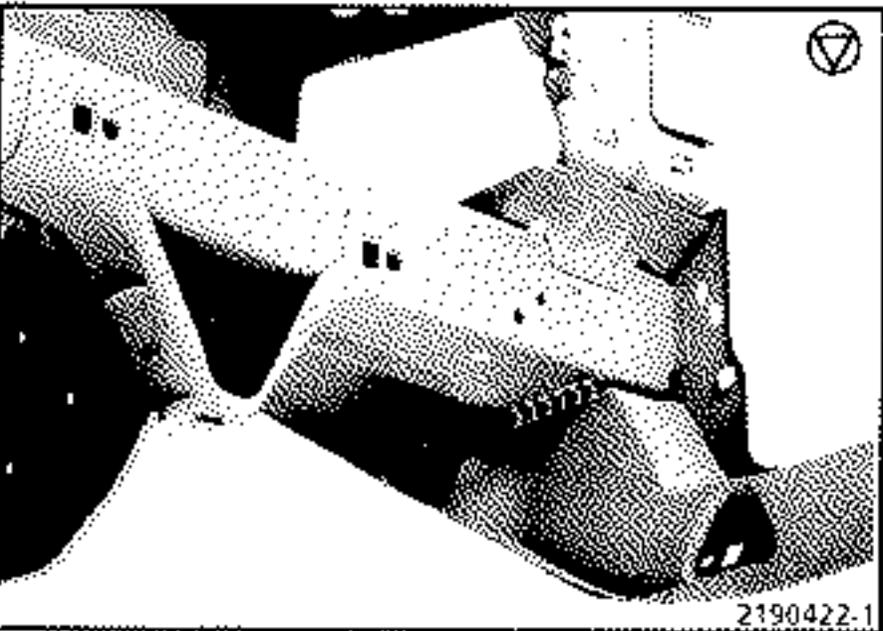


D = 4.5 mm

PROTECTING HOLLOW SECTIONS

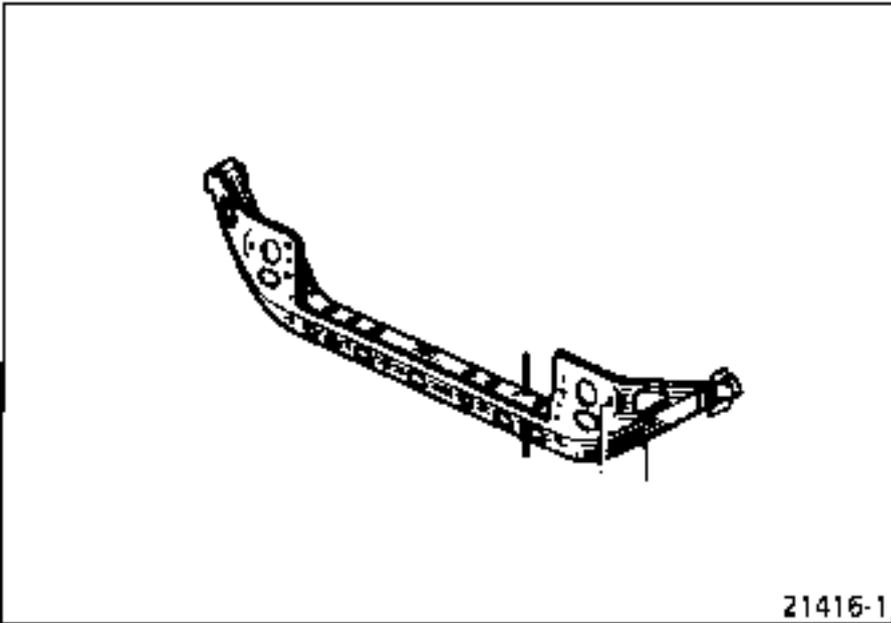


This is performed after painting and before the trim is refitted.



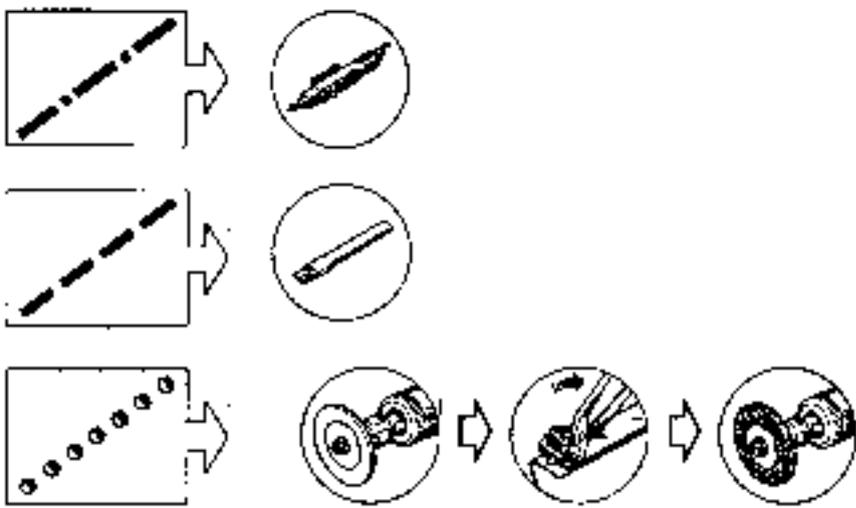
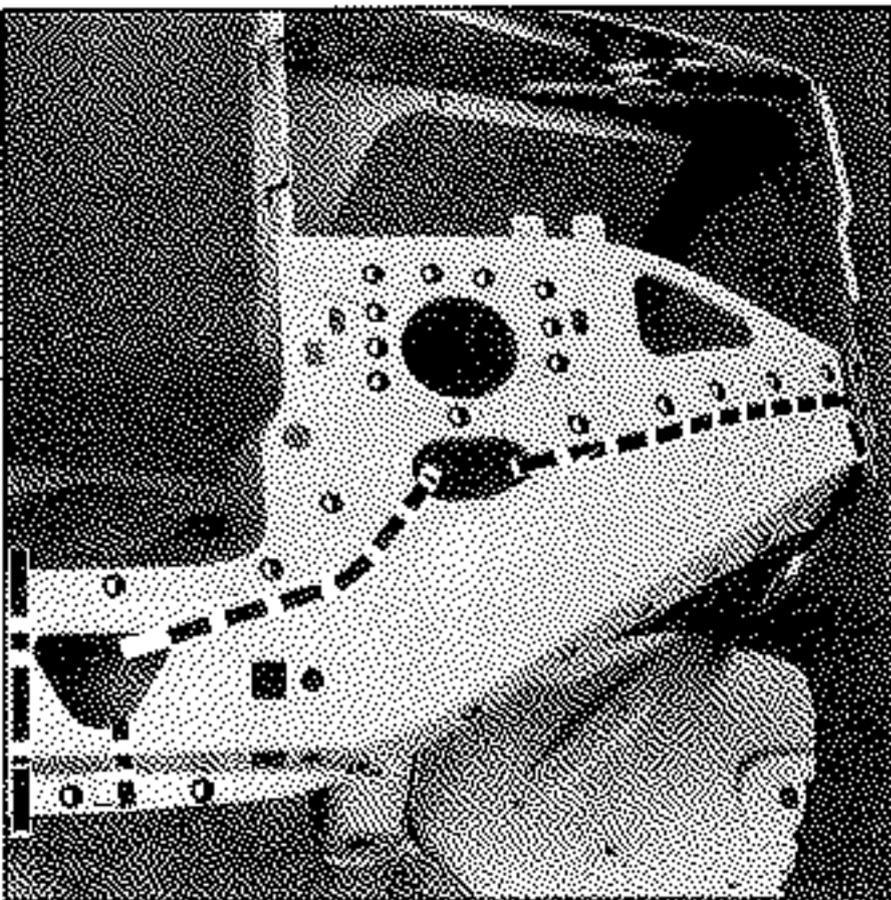
COMPOSITION OF PART FROM PARTS DEPARTMENT

Parts assembled with bumper mounting reinforcements.

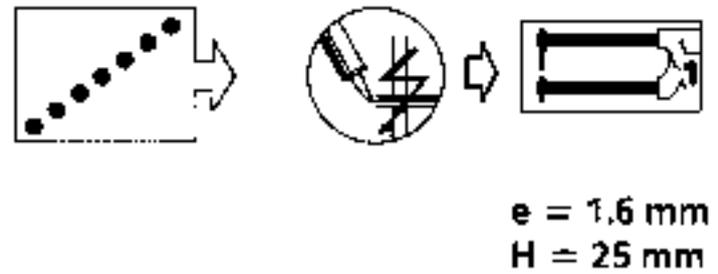
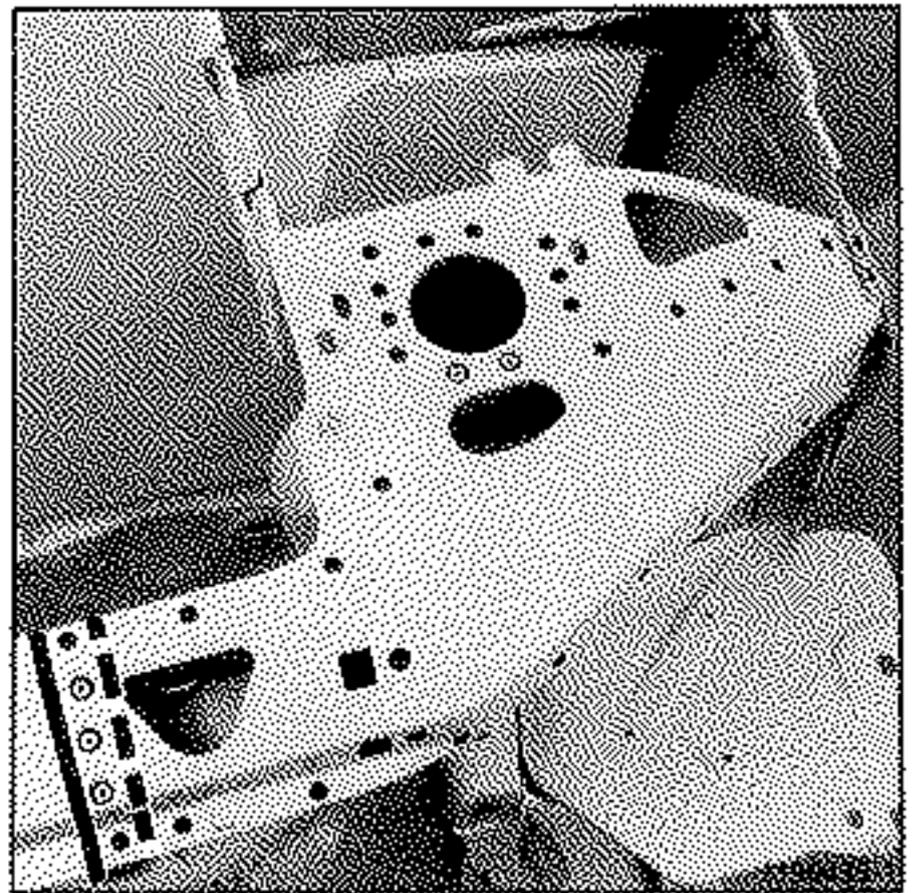


21416-1

CUTTING OUT - UNPICKING



WELDING



PROTECTING HOLLOW SECTIONS

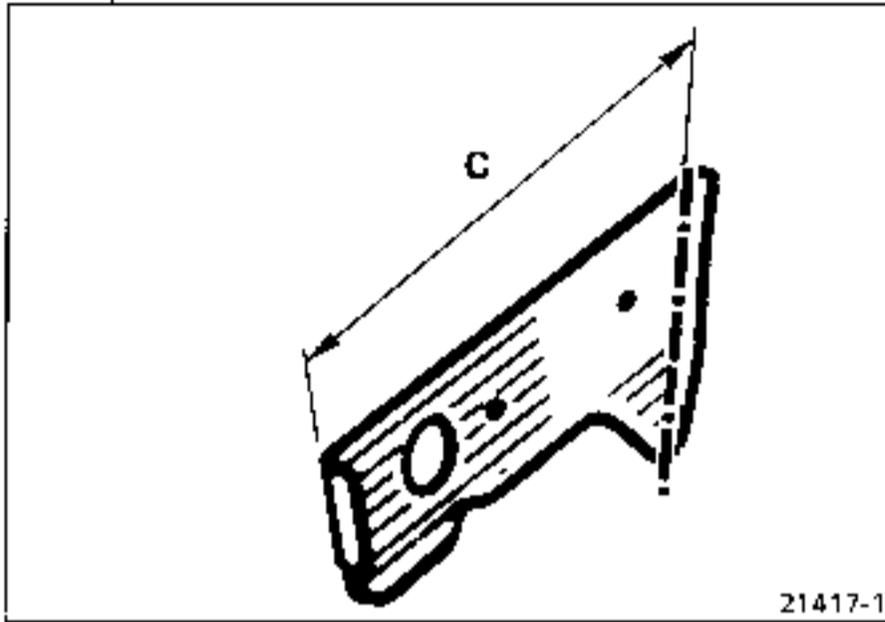


See previous operation.

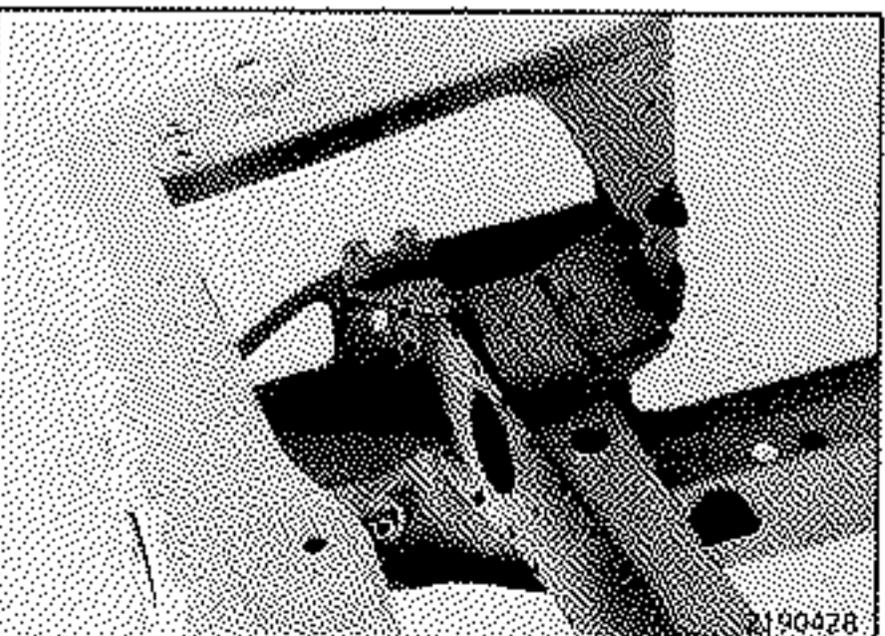
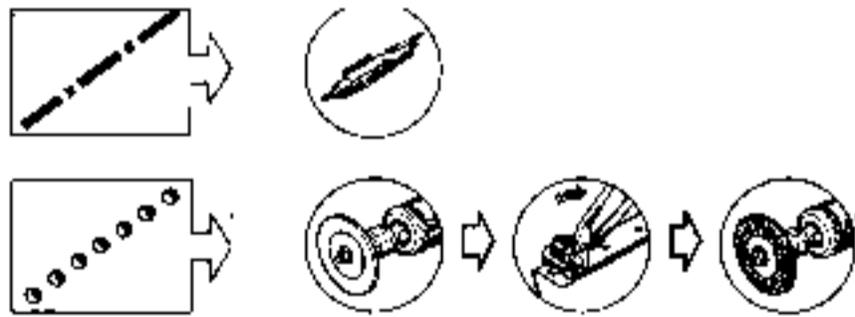
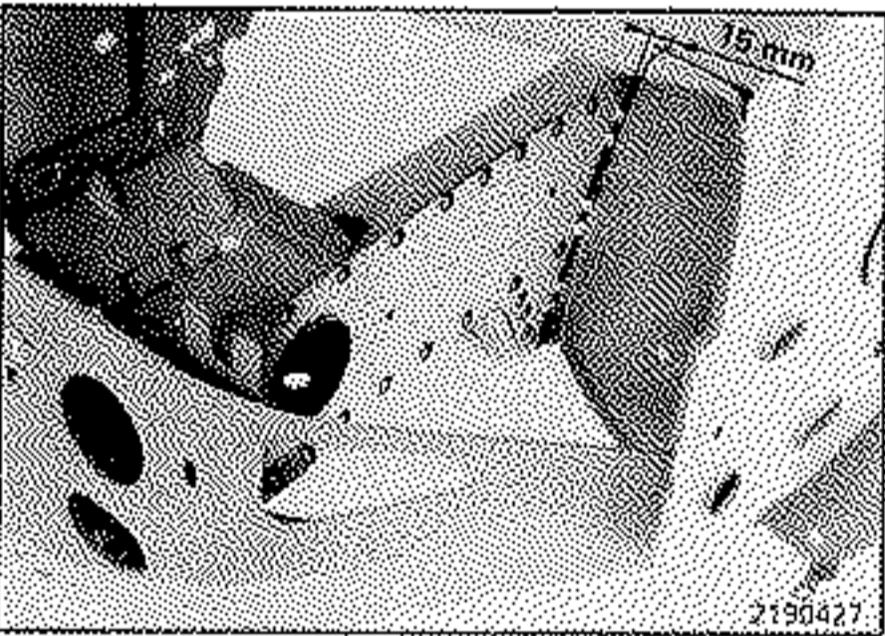
This operation is additional to the preceding ones and is to be performed when the front section of the side member can be recovered by straightening.

COMPOSITION OF PART FROM PARTS  
DEPARTMENT

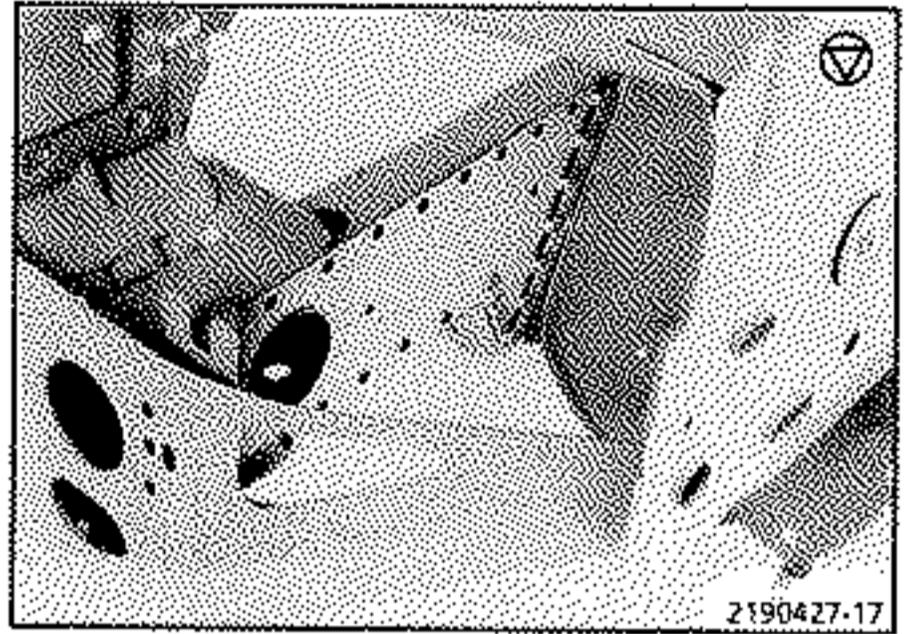
Bare part.



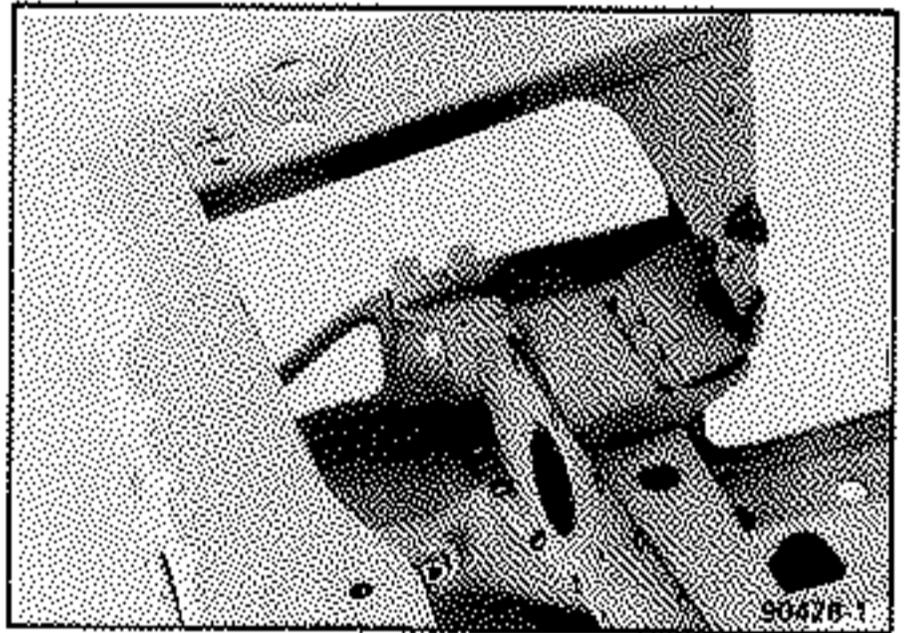
CUTTING OUT - UNPICKING



WELDING



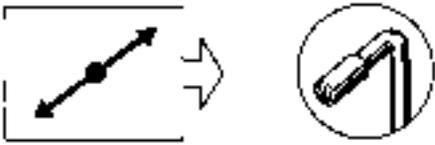
$D = 4.5 \text{ mm}$        $e = 2 \text{ mm}$        $H = 30 \text{ mm}$



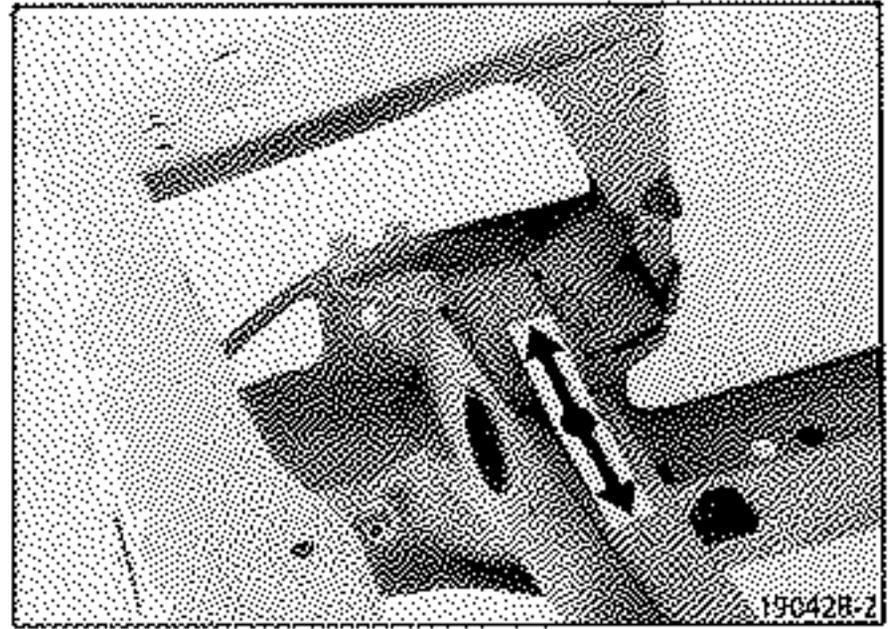
$e = 2 \text{ mm}$        $H = 30 \text{ mm}$



PROTECTING HOLLOW SECTIONS



This is performed after painting and before the trim is refitted.



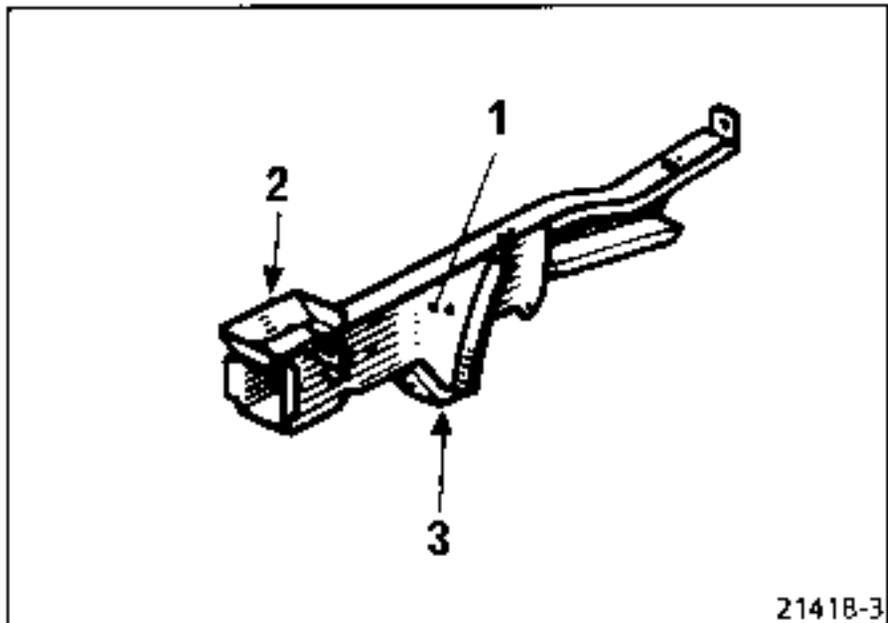
Front side member, front section

This operation is to be performed on the repair bench. Refer to sub-section 40 for the positioning of the components.

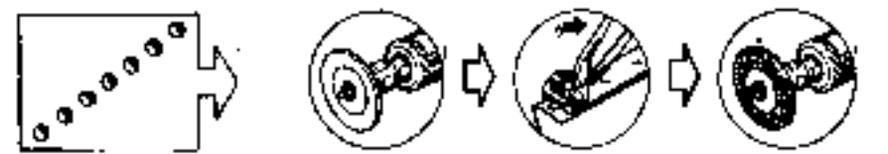
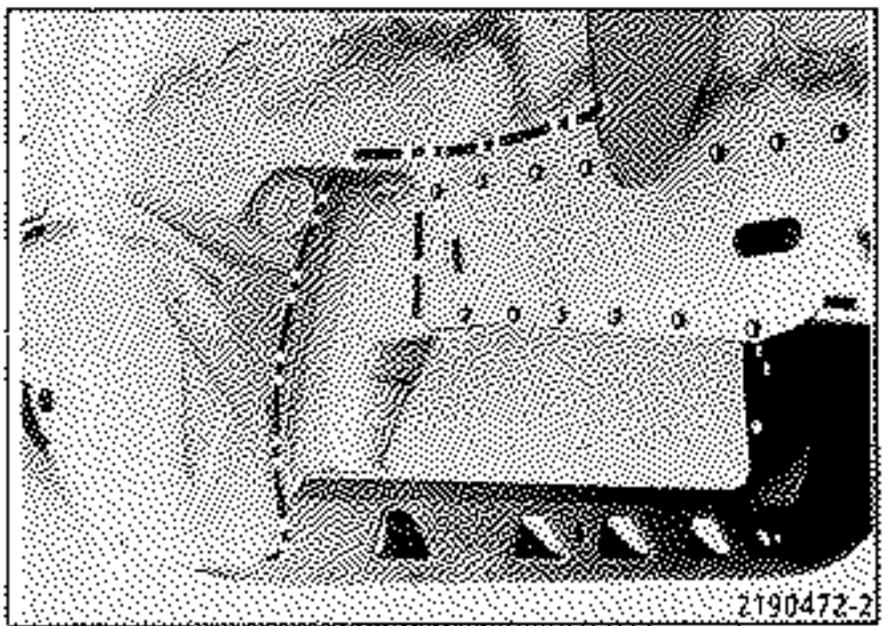
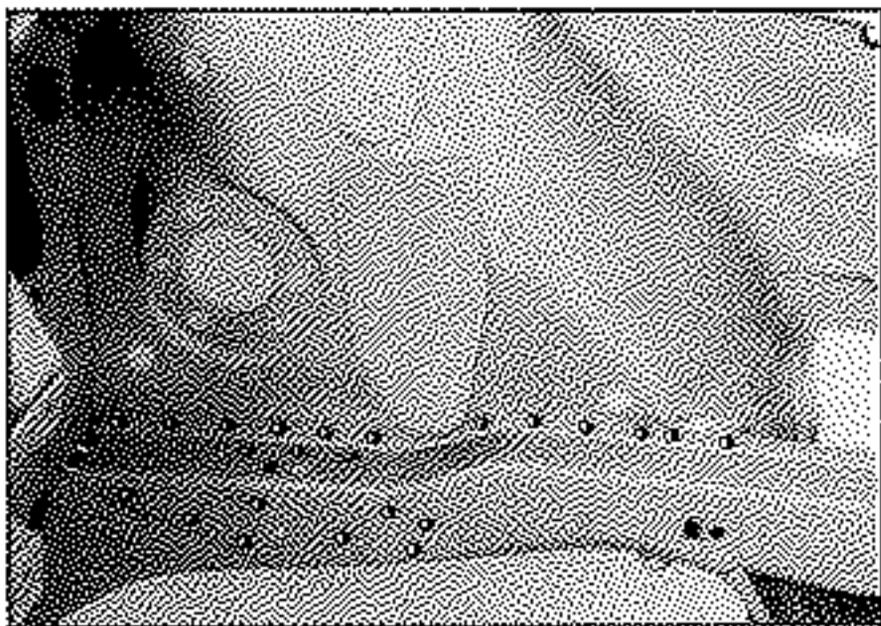
COMPOSITION OF PART FROM PARTS DEPARTMENT

Supplied with:

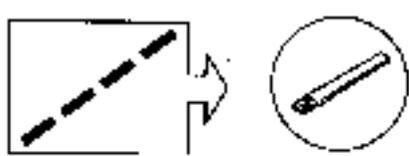
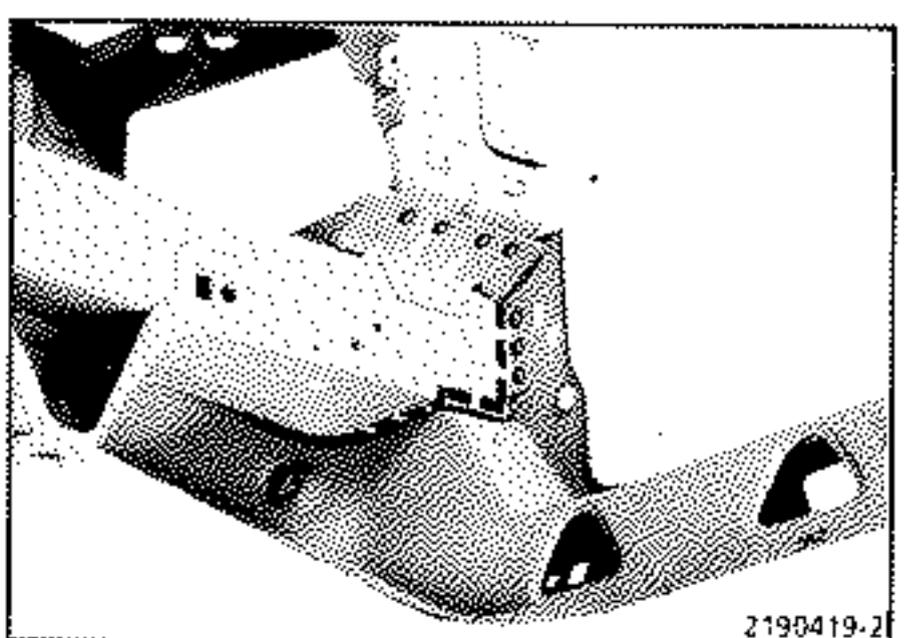
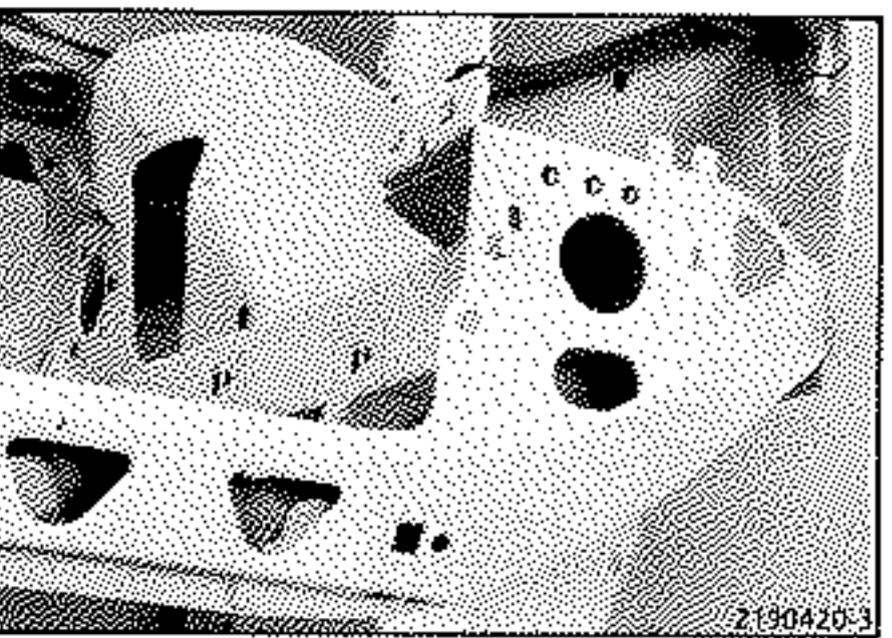
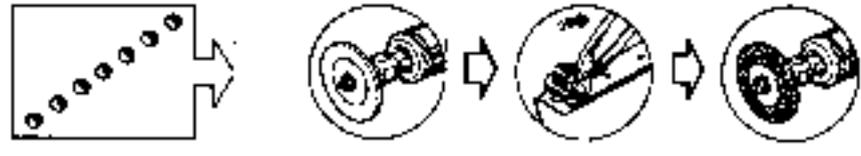
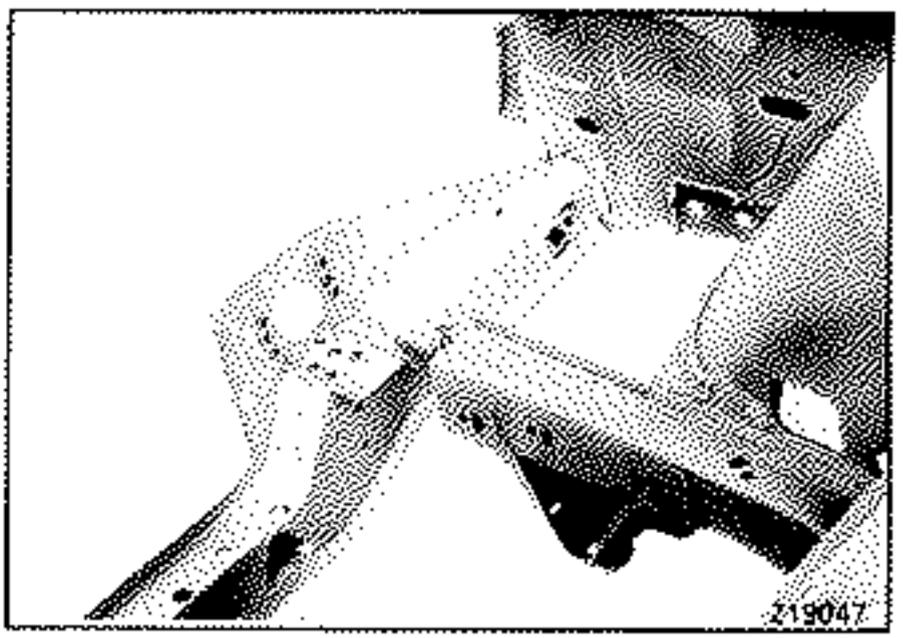
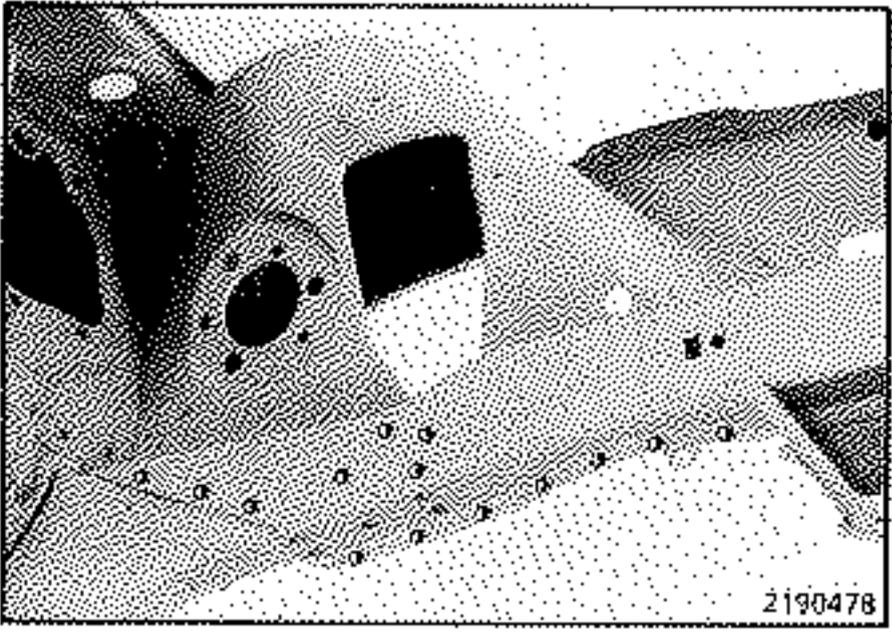
- Closure panel.
- Headlight carrier panel connecting gusset.
- Sub-frame mounting gusset.



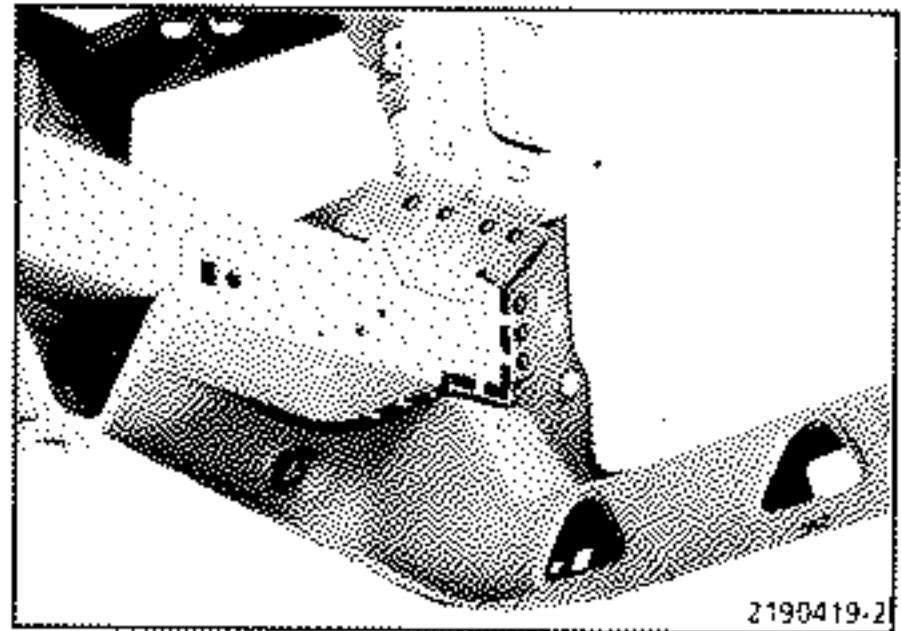
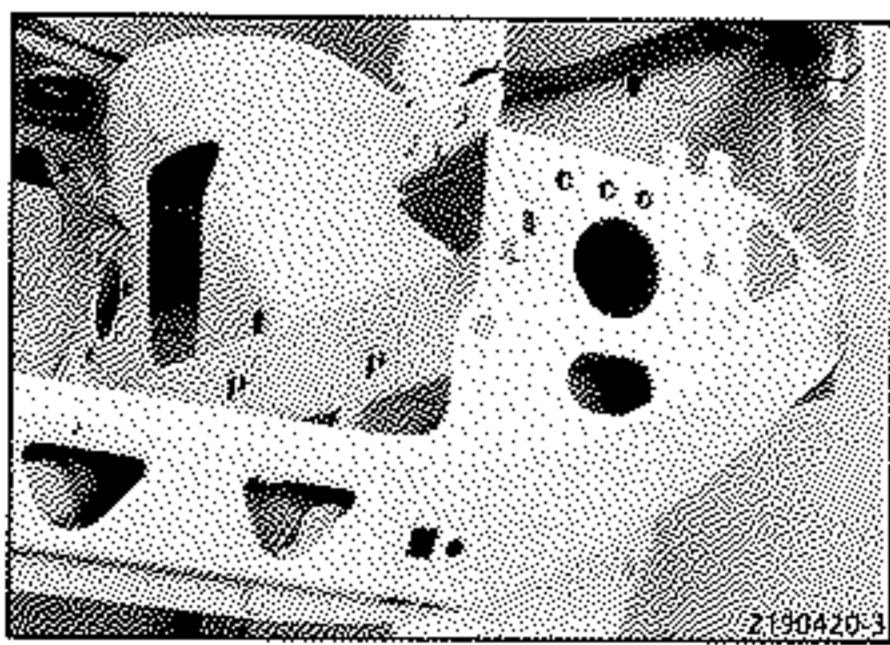
CUTTING OUT - UNPICKING



CUTTING OUT - UNPICKING (cont)



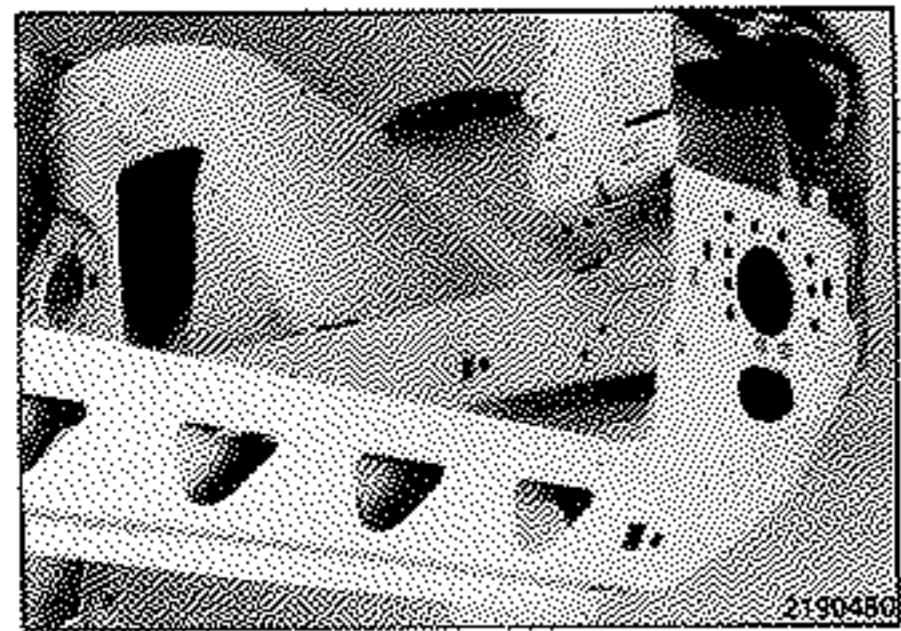
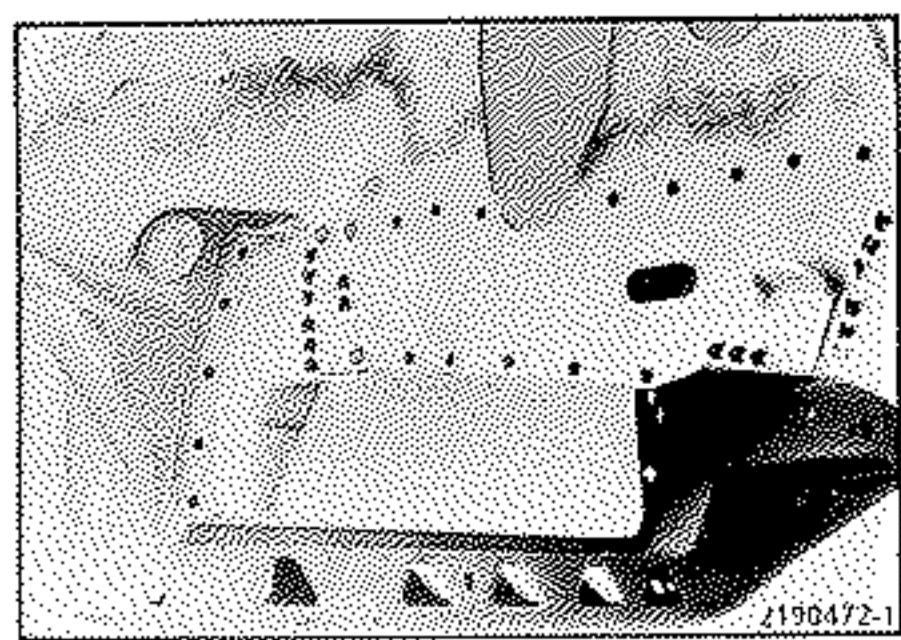
WELDING



$D = 6\text{ mm}$

$e = 2.5\text{ mm}$

$H = 30\text{ mm}$



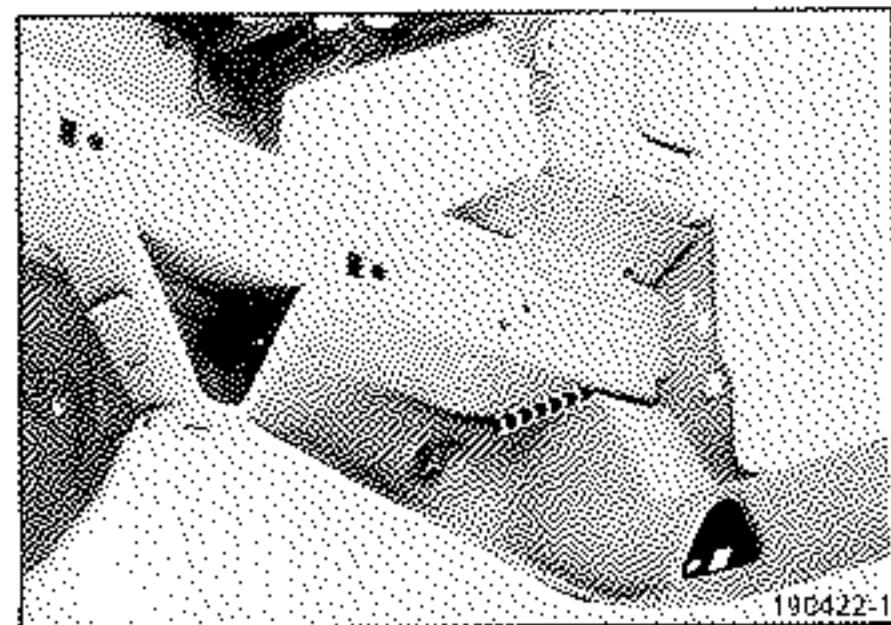
$e = 1.5\text{ mm}$

$H = 30\text{ mm}$

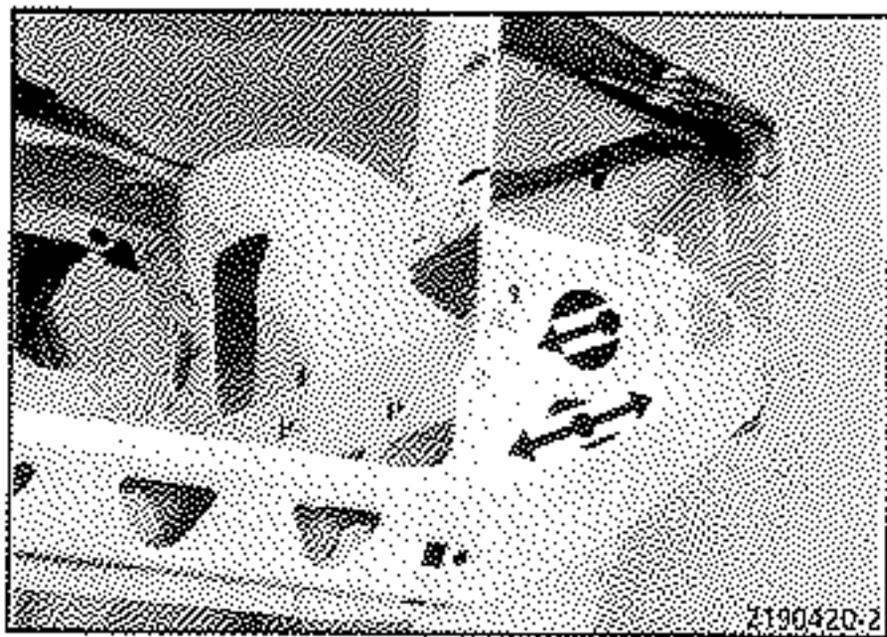
$e = 2\text{ mm}$

$H = 30\text{ mm}$

$D = 4.5\text{ mm}$



## PROTECTING HOLLOW SECTIONS



This is performed after painting and before the trim is refitted.



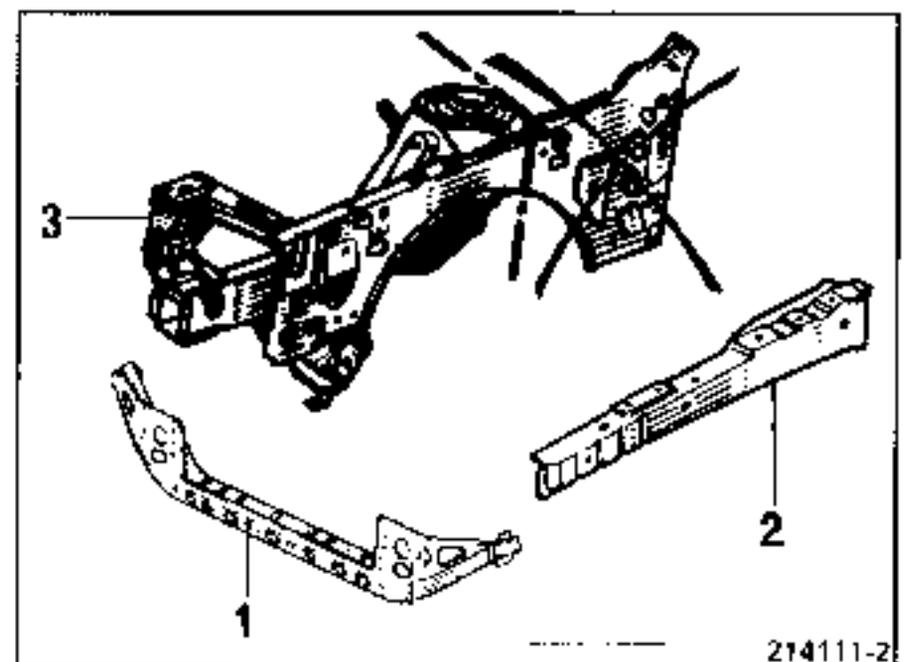
## Front half unit

This operation is to be performed on the repair bench. Refer to sub-section 40 for the positioning of the components.

Replacing the half unit also requires the lower front end cross member and the cowl side panel reinforcement to be replaced.

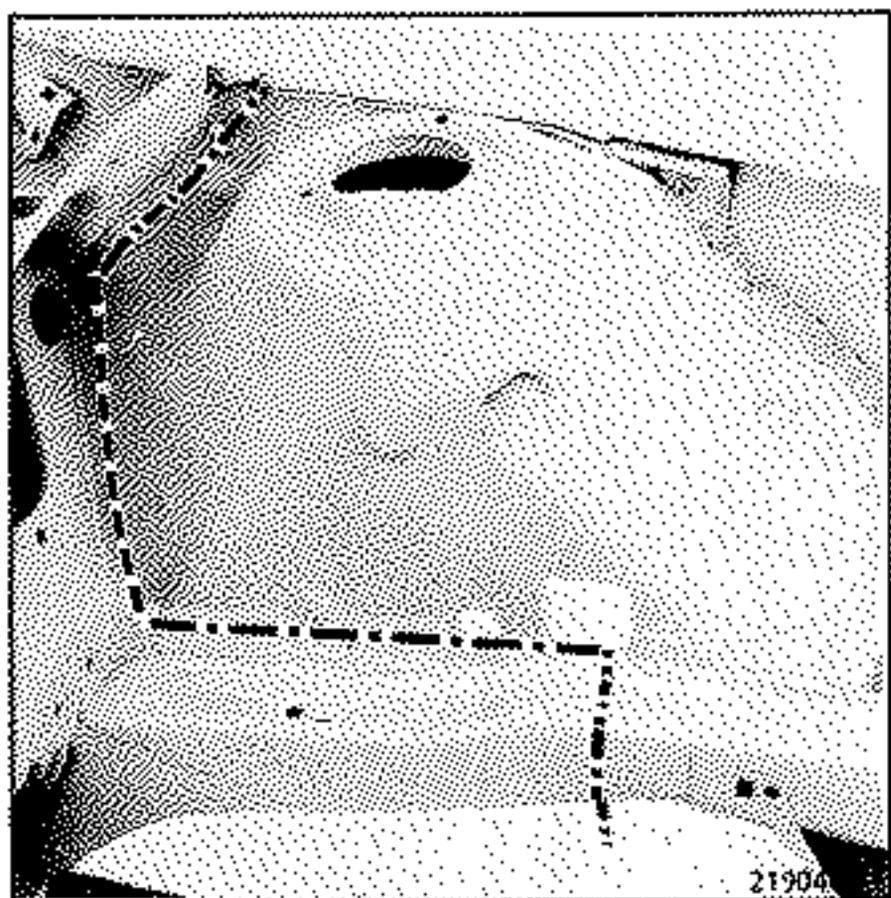
## COMPOSITION OF PART FROM PARTS DEPARTMENT

- 1) Complete lower cross member:
  - Bare cross member.
  - Closure panel.
  - Bumper mounting reinforcement.
- 2) Bare cowl side panel reinforcement.
- 3) Half unit:
  - Front section of side member with closure panels.
  - Wheel arch with reinforcements, mounting and extension.
  - Headlight carrier panels.
  - Cowl side panel.

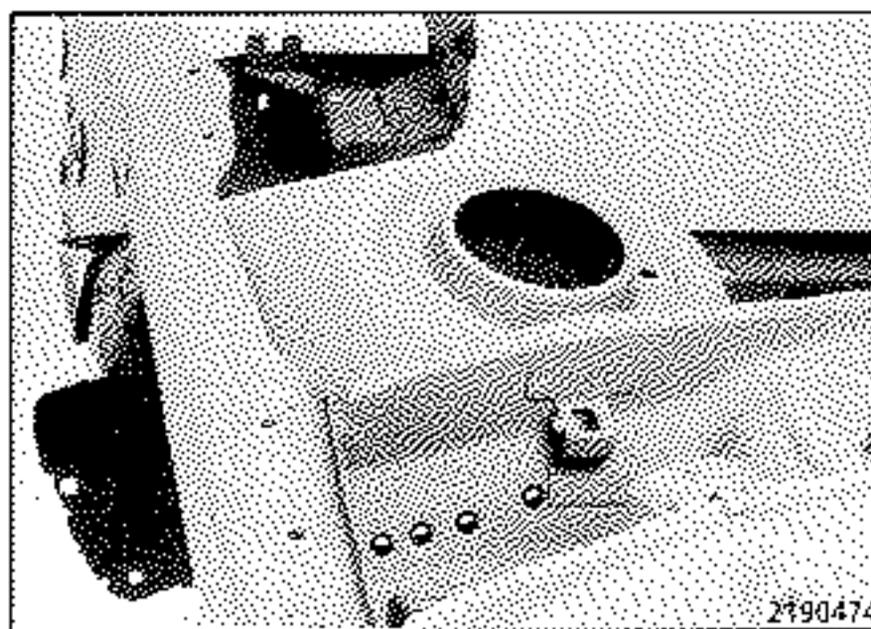
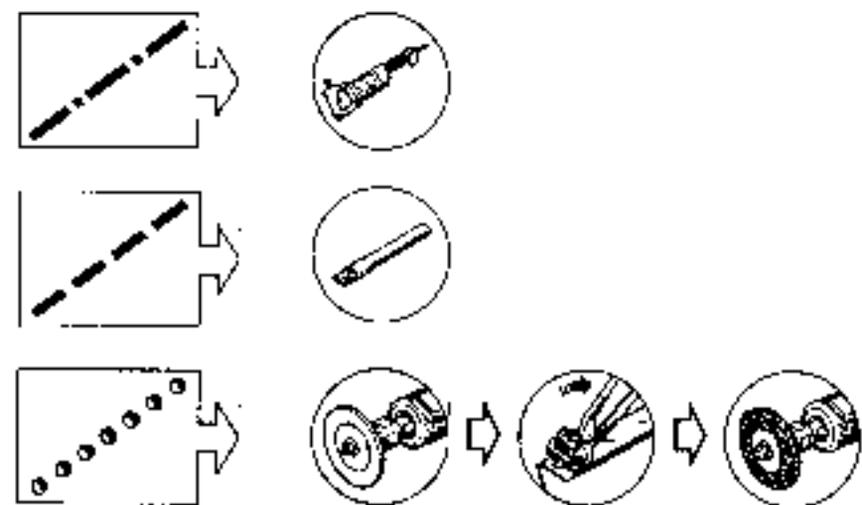
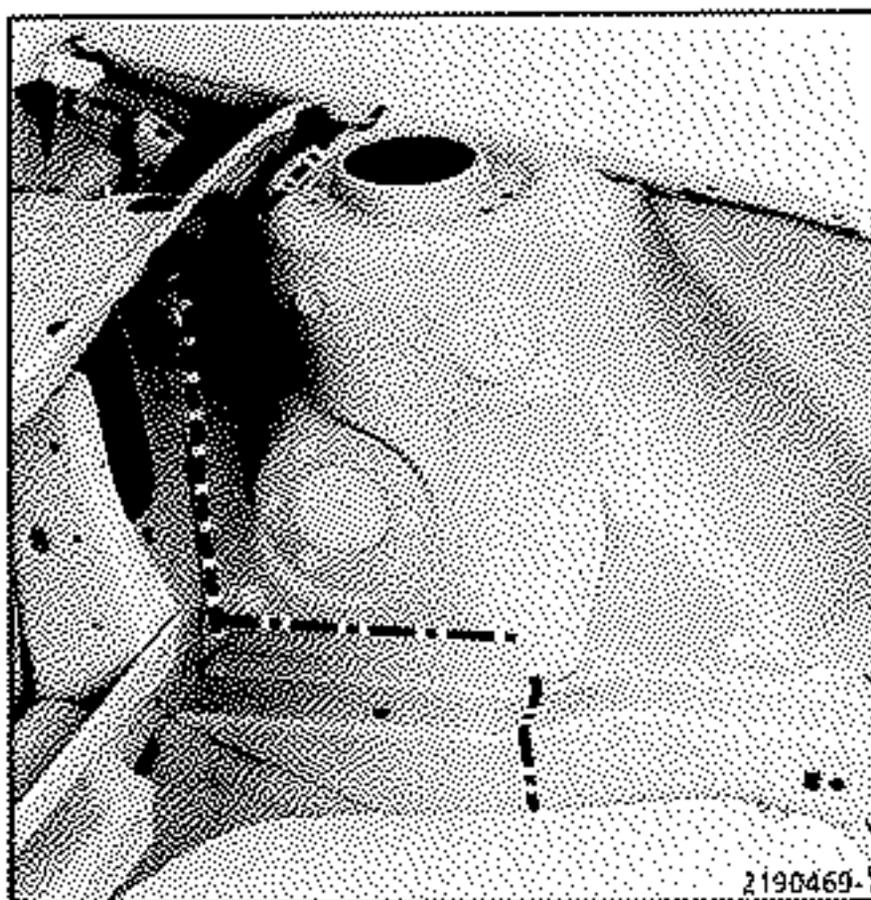


CUTTING OUT - UNPICKING

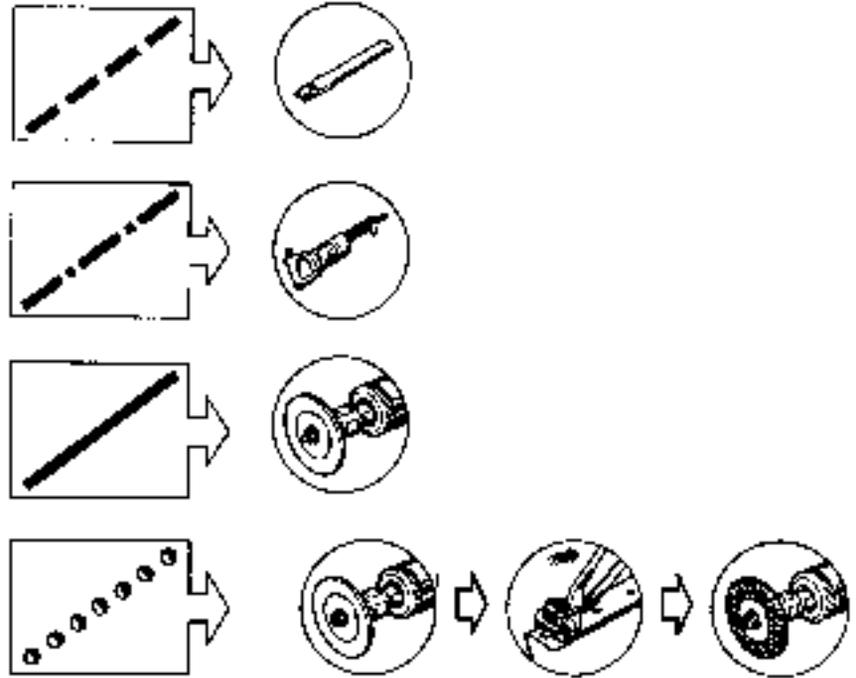
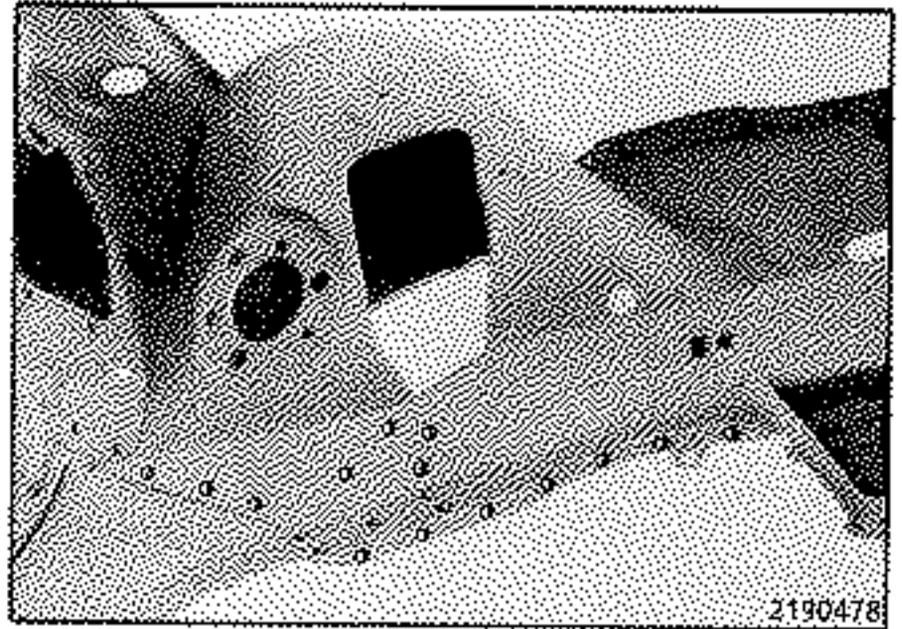
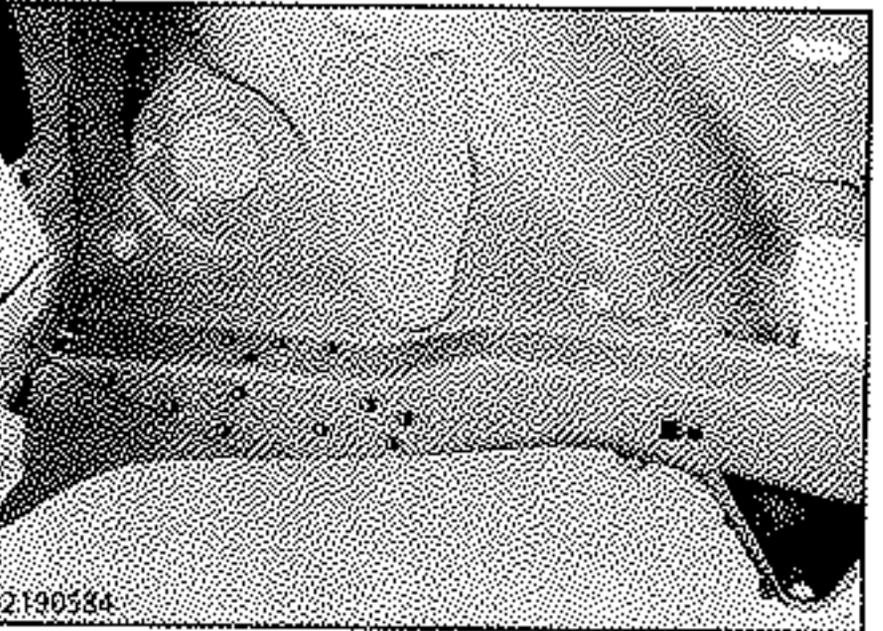
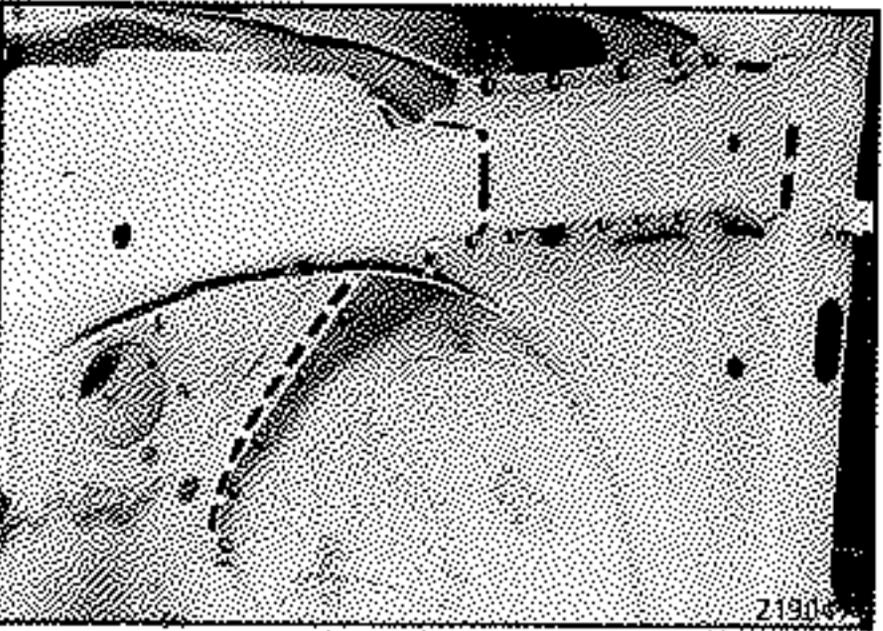
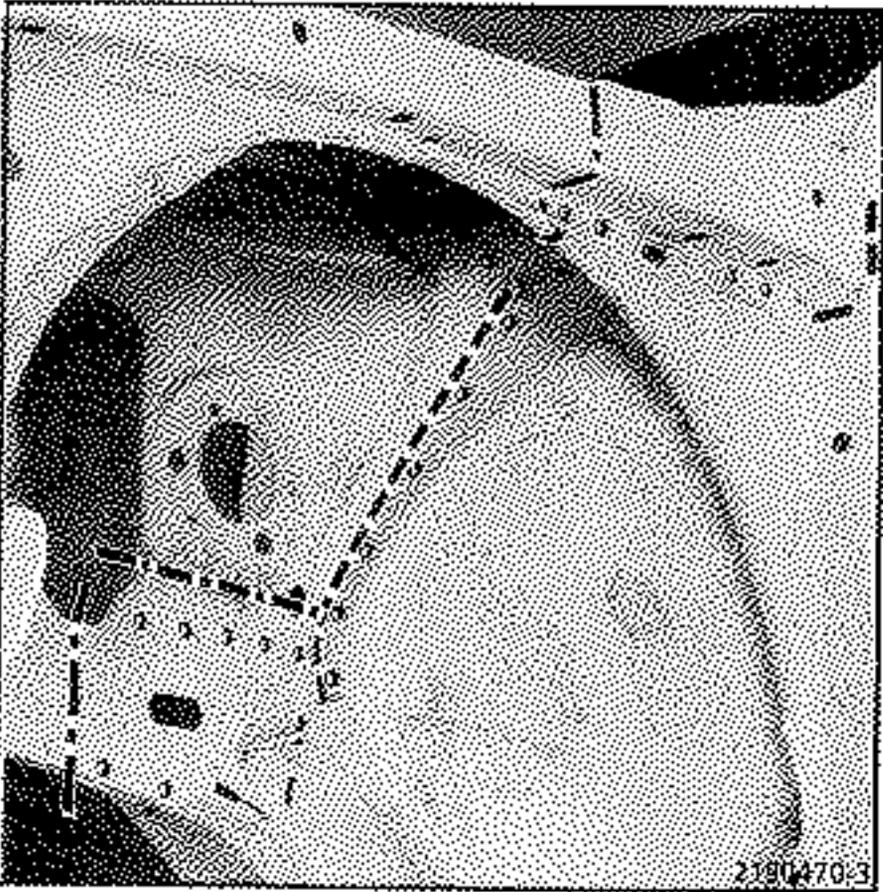
Transverse engine.



In-line engine.

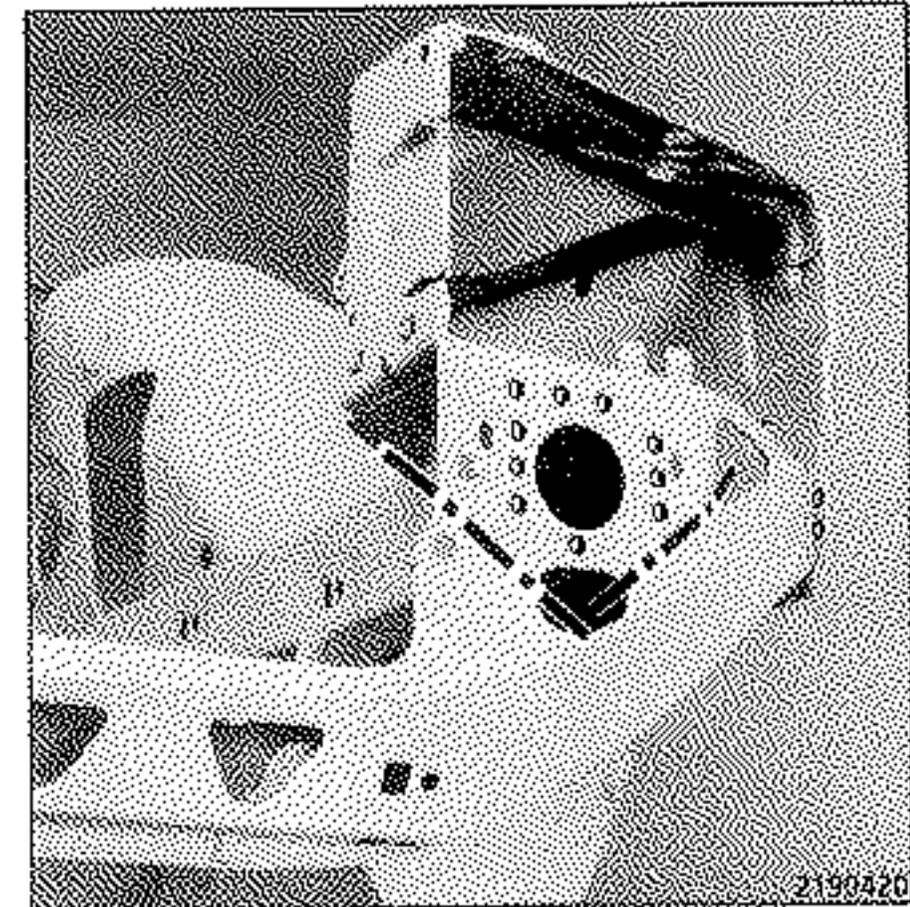
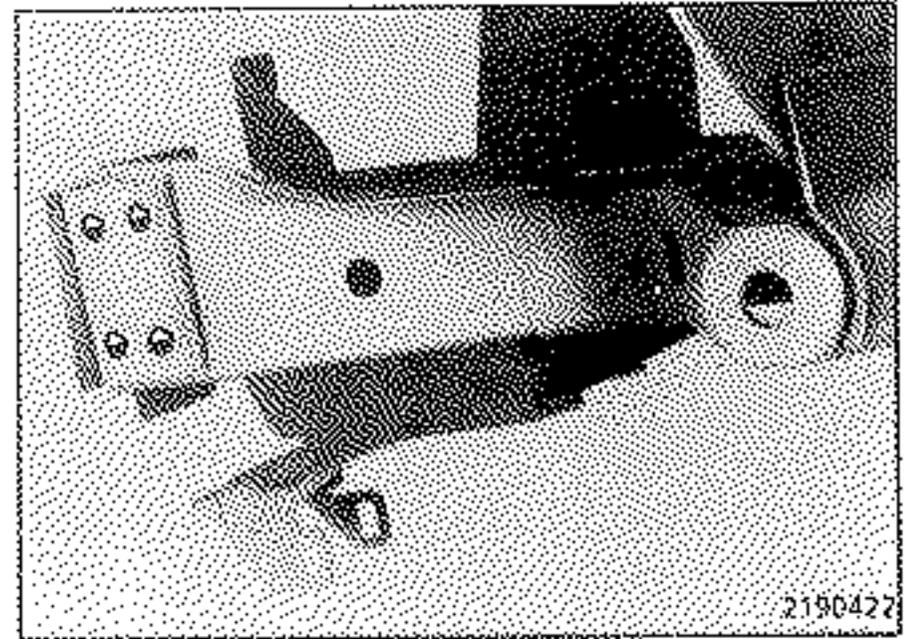
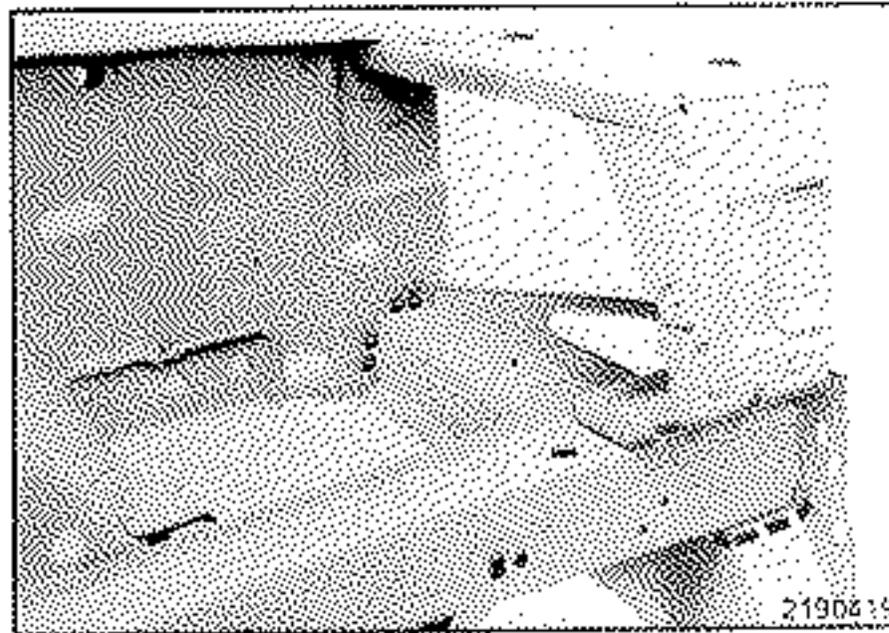
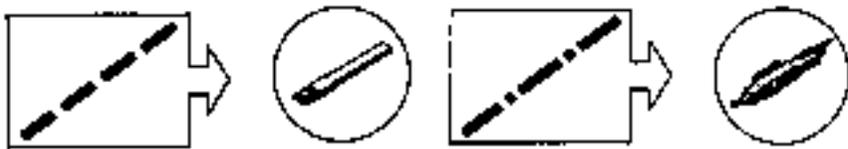
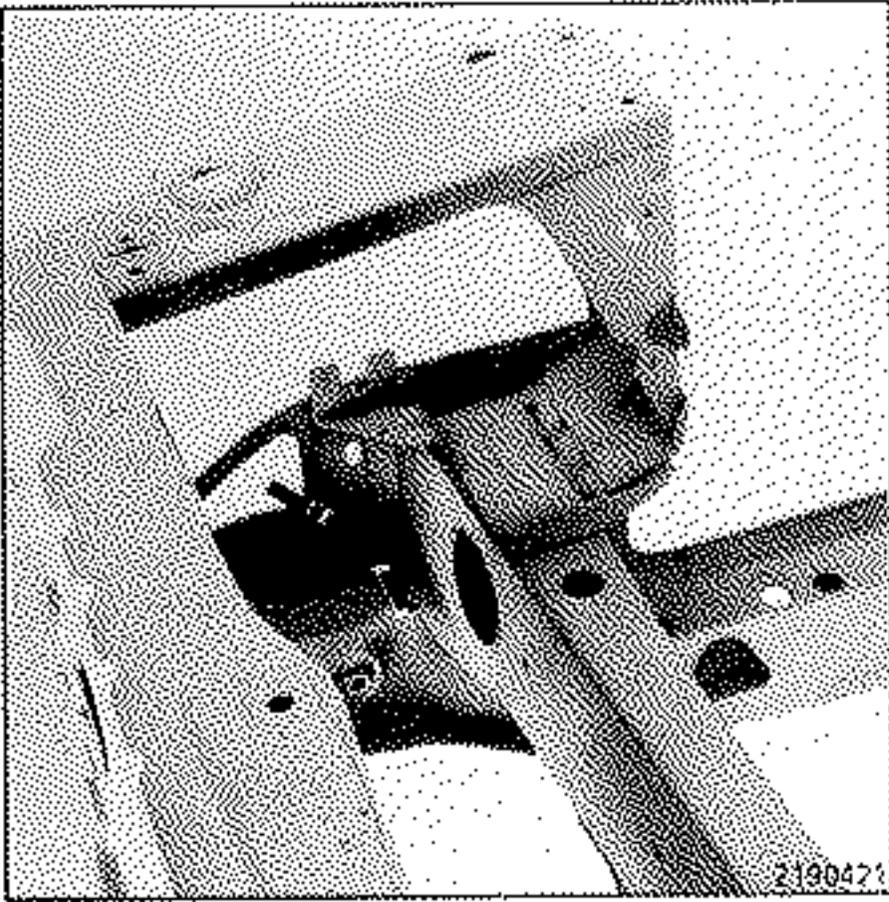


CUTTING OUT - UNPICKING (cont)

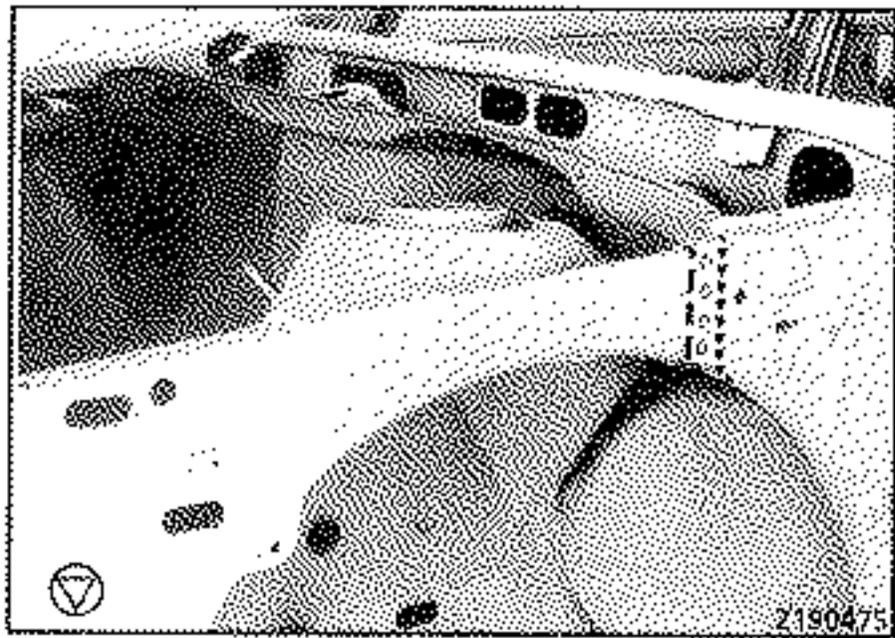


CUTTING OUT - UNPICKING (cont)

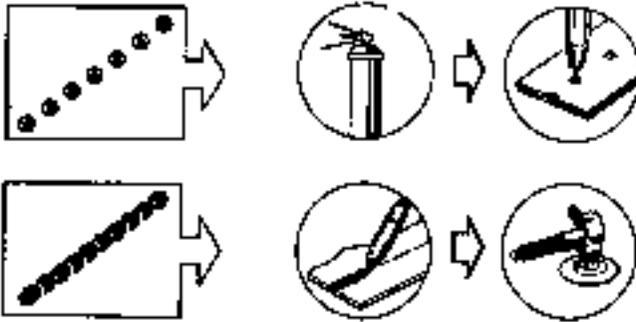
Side opposite impact:



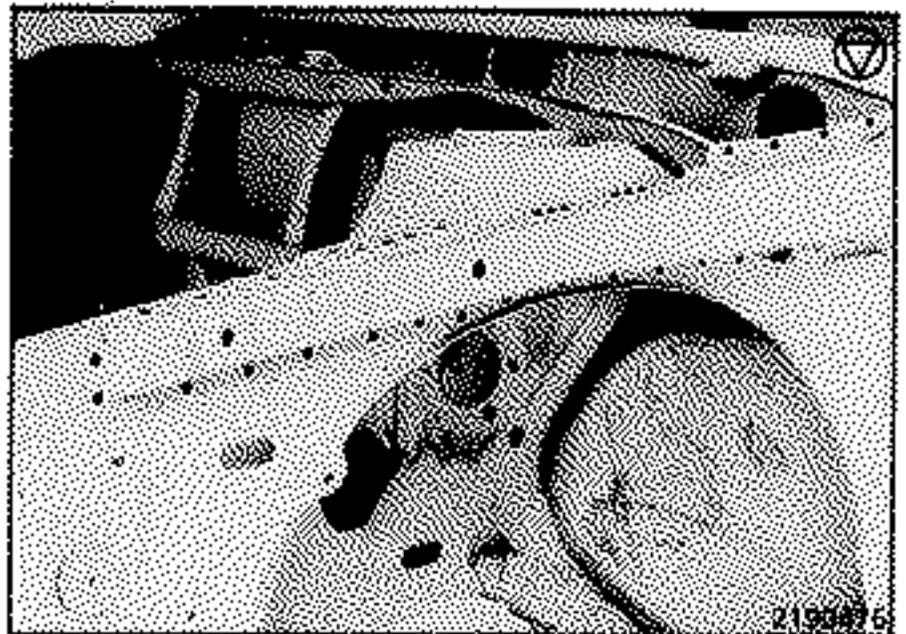
WELDING



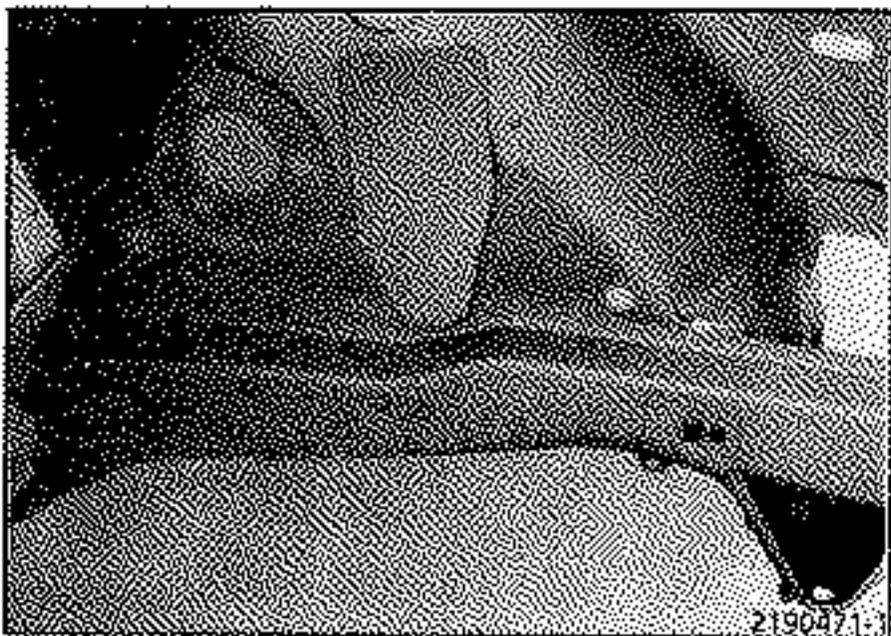
D = 5 mm



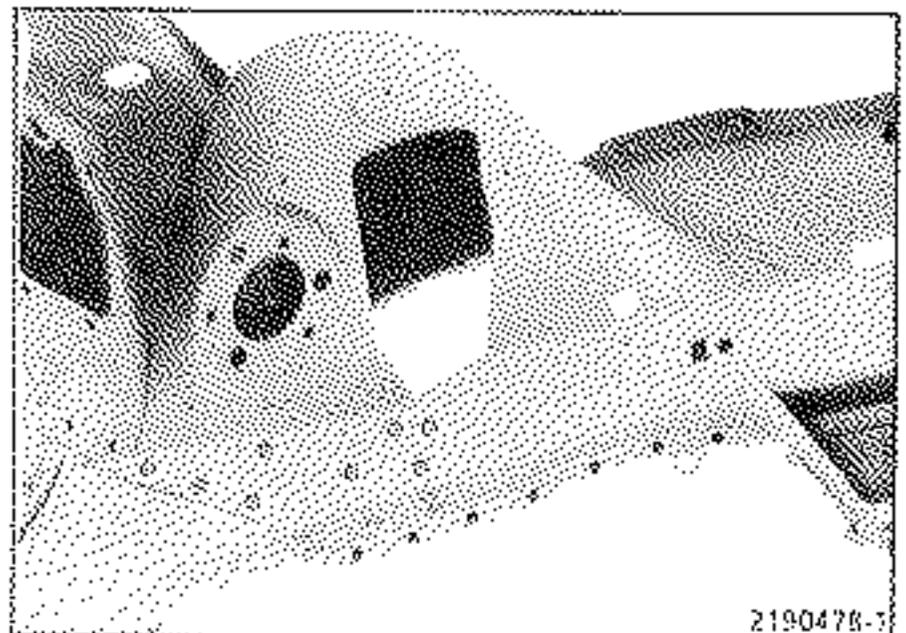
D = 5 mm



e = 1,7 mm      H = 30 mm

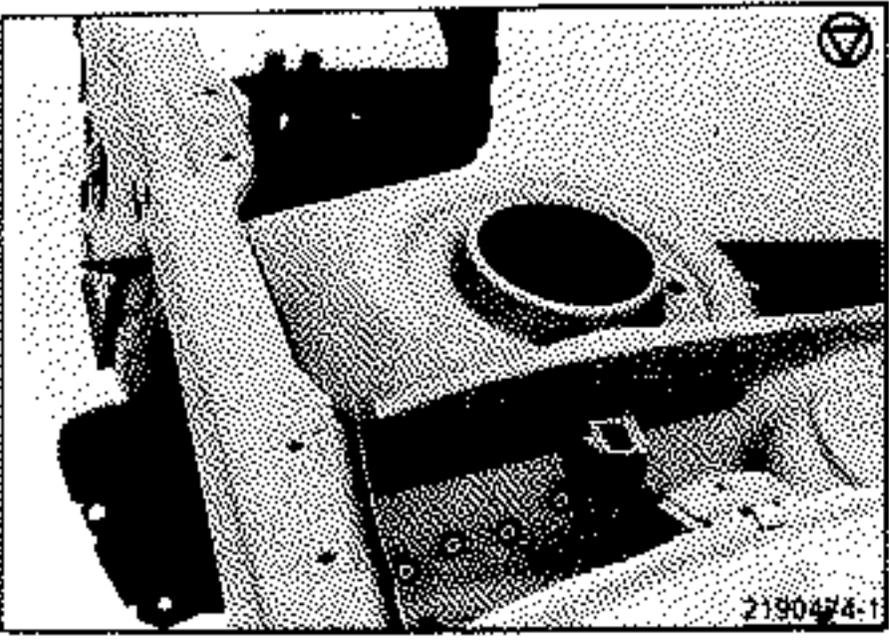
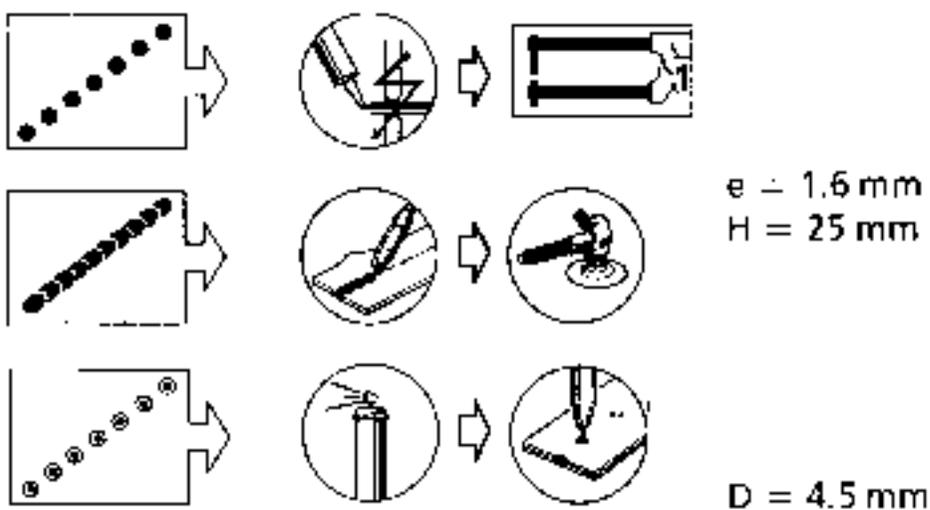
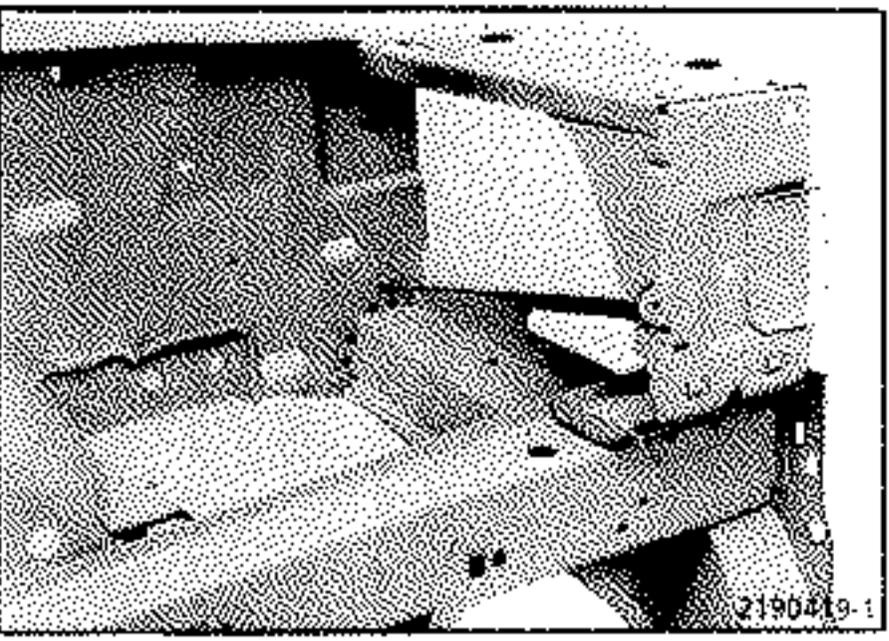


e = 1,7 mm      H = 30 mm      A : D = 6 mm

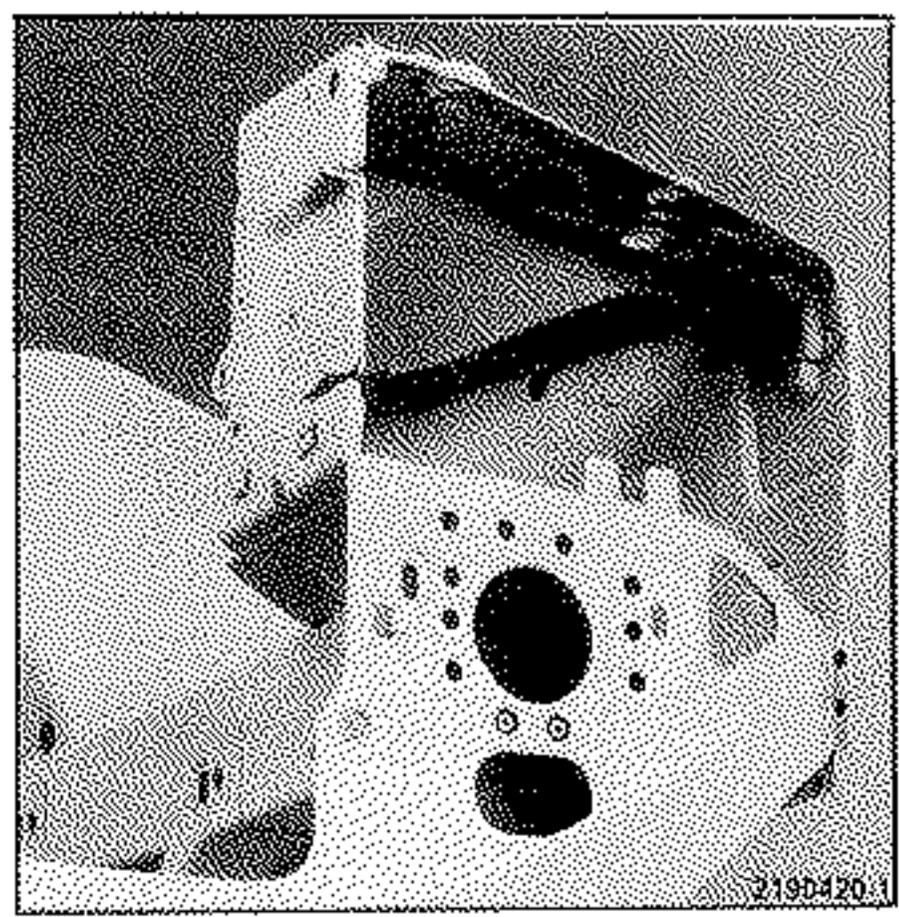
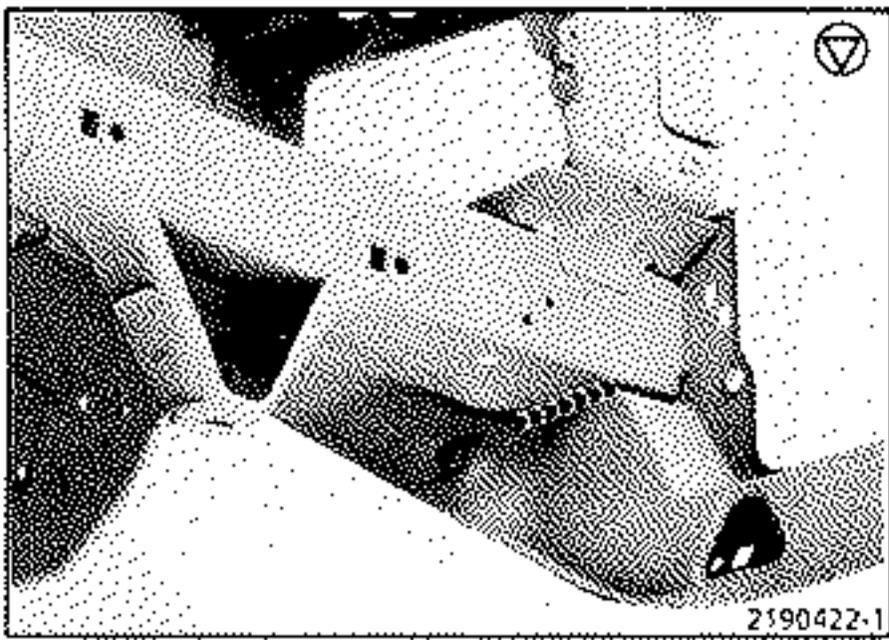


D = 5 mm      e = 2,5 mm      H = 30 mm

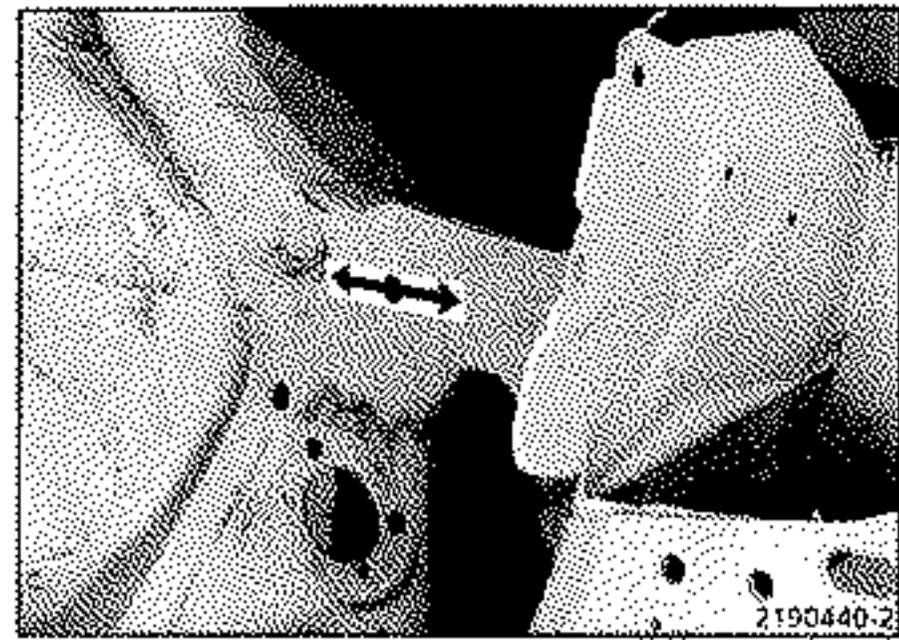
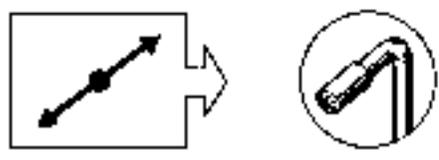
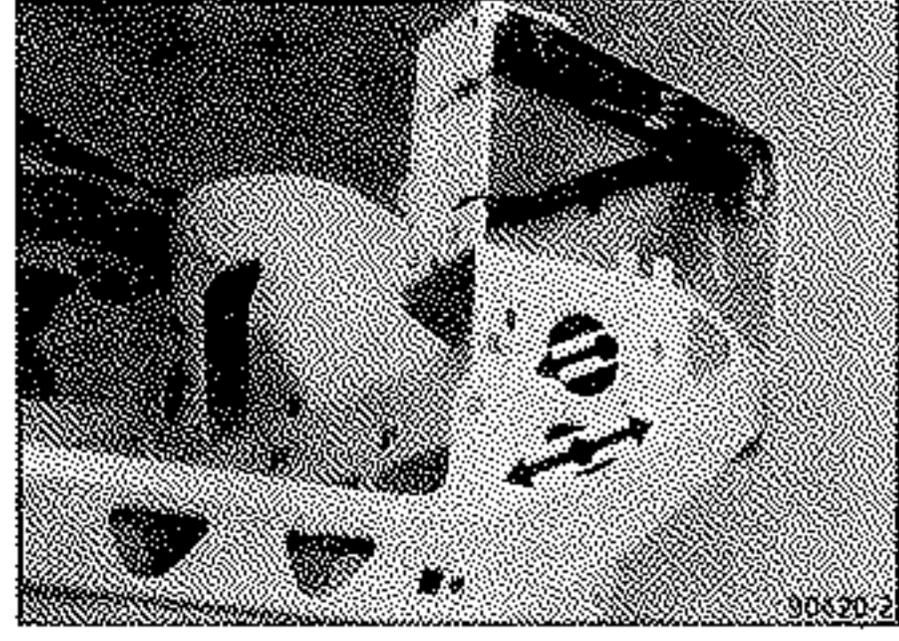
WELDING (cont)



IN-LINE ENGINE



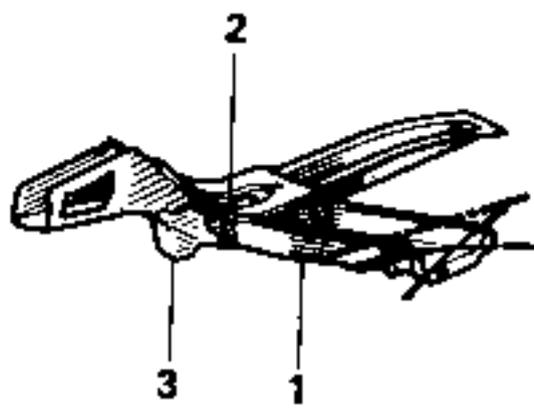
PROTECTING HOLLOW SECTIONS



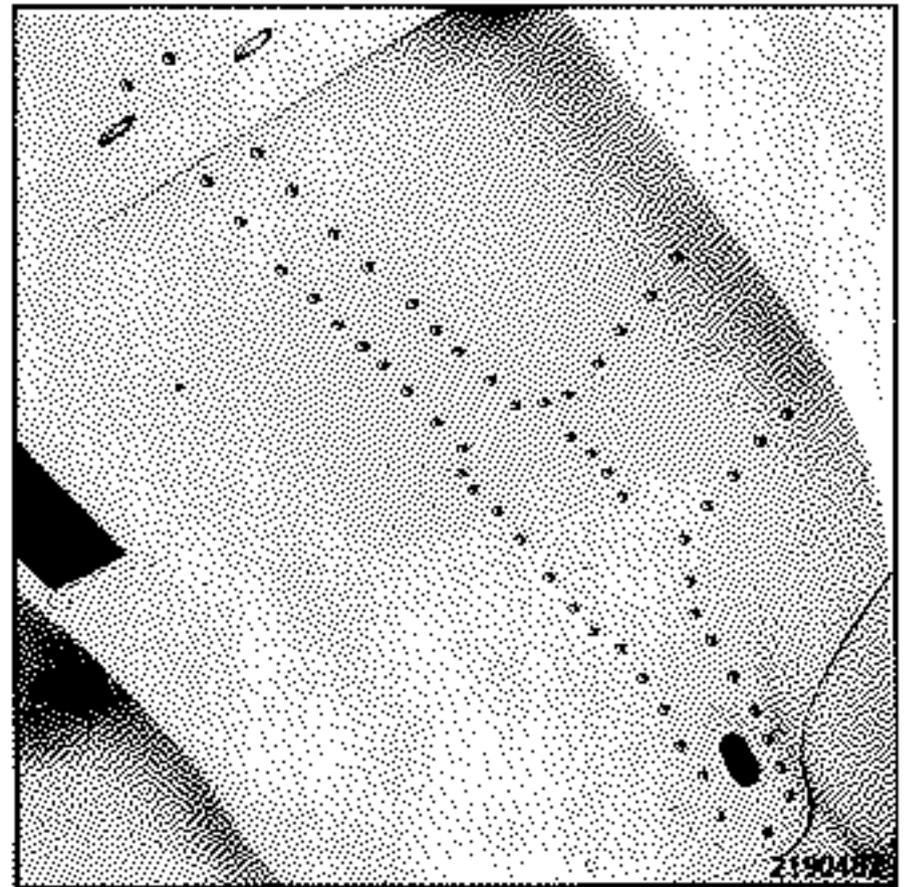
This operation is additional to the preceding one which contains all the information not dealt with below.

COMPOSITION OF PART FROM PARTS DEPARTMENT

- Side cross member - jack reinforcement (1).
- Upper closure panel (2).
- Sub-frame mounting gusset (3).



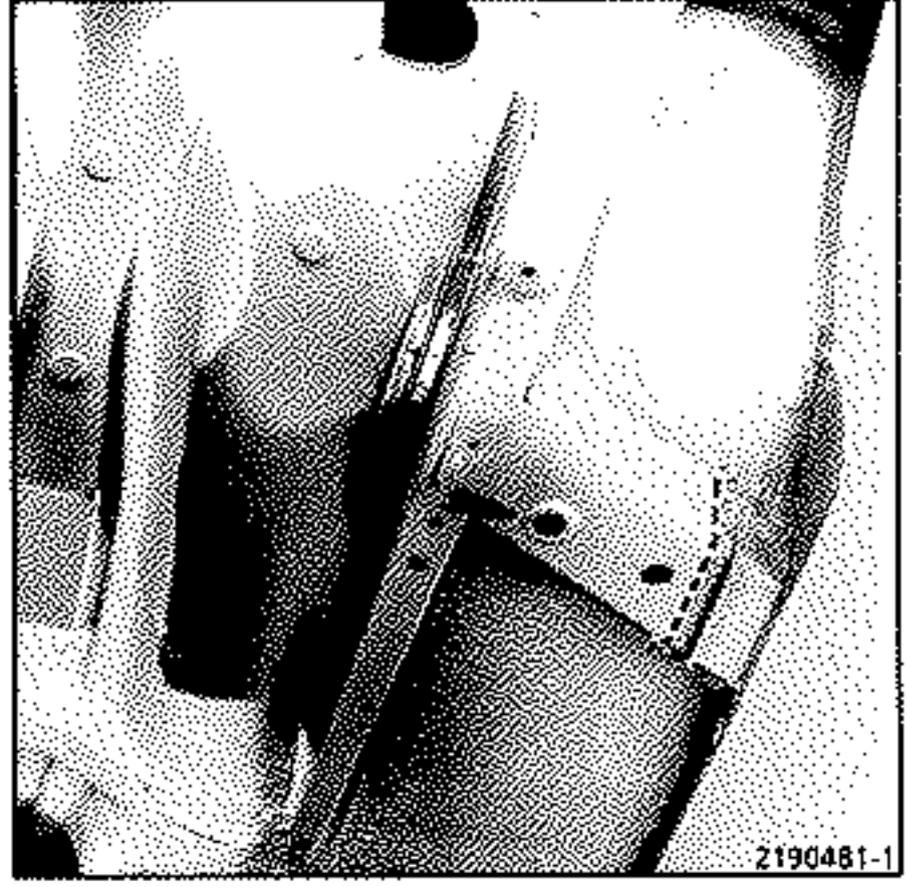
214117-1



2190487

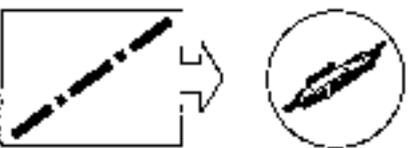
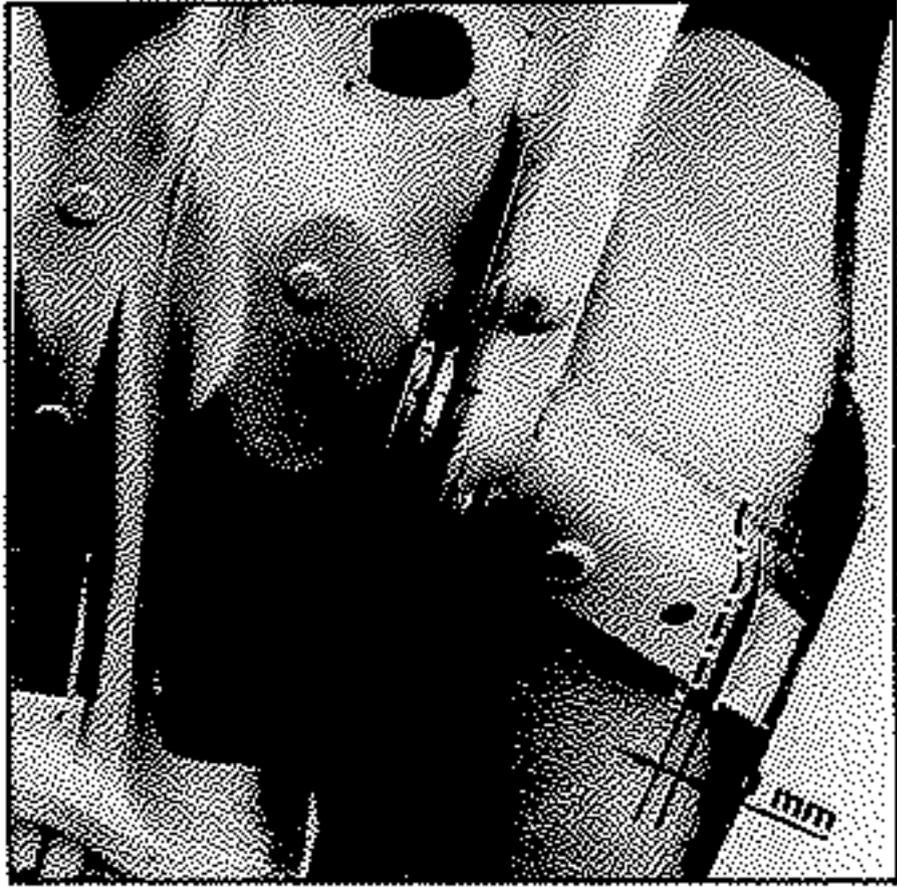


WELDING

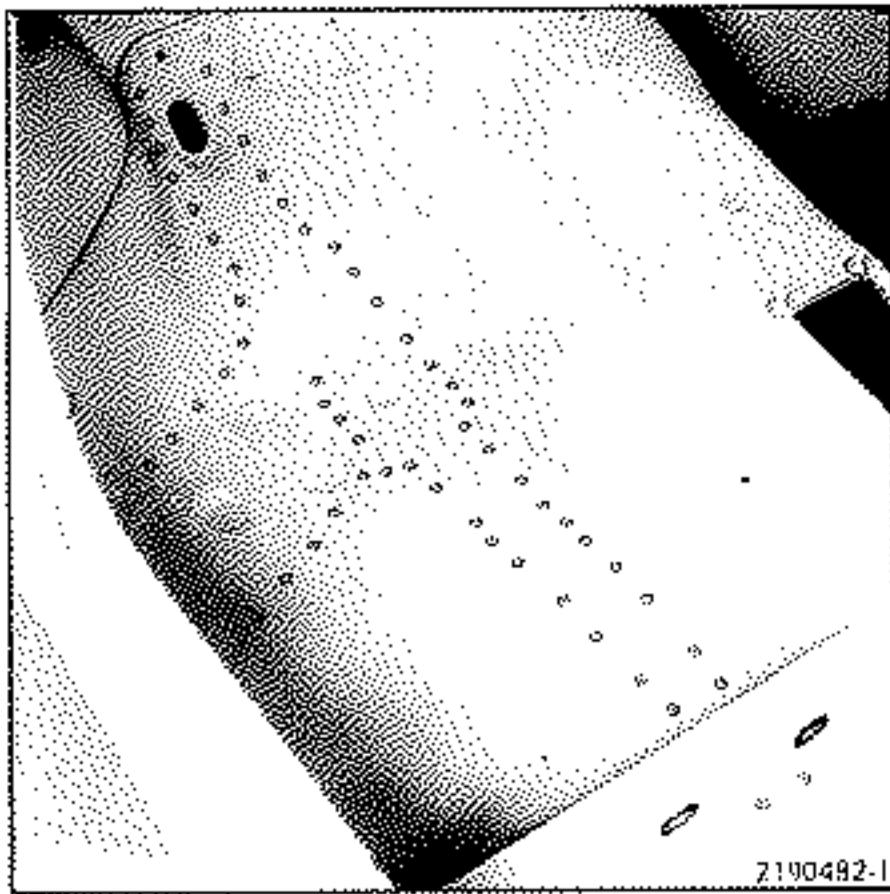


2190481-1

CUTTING OUT - UNPICKING



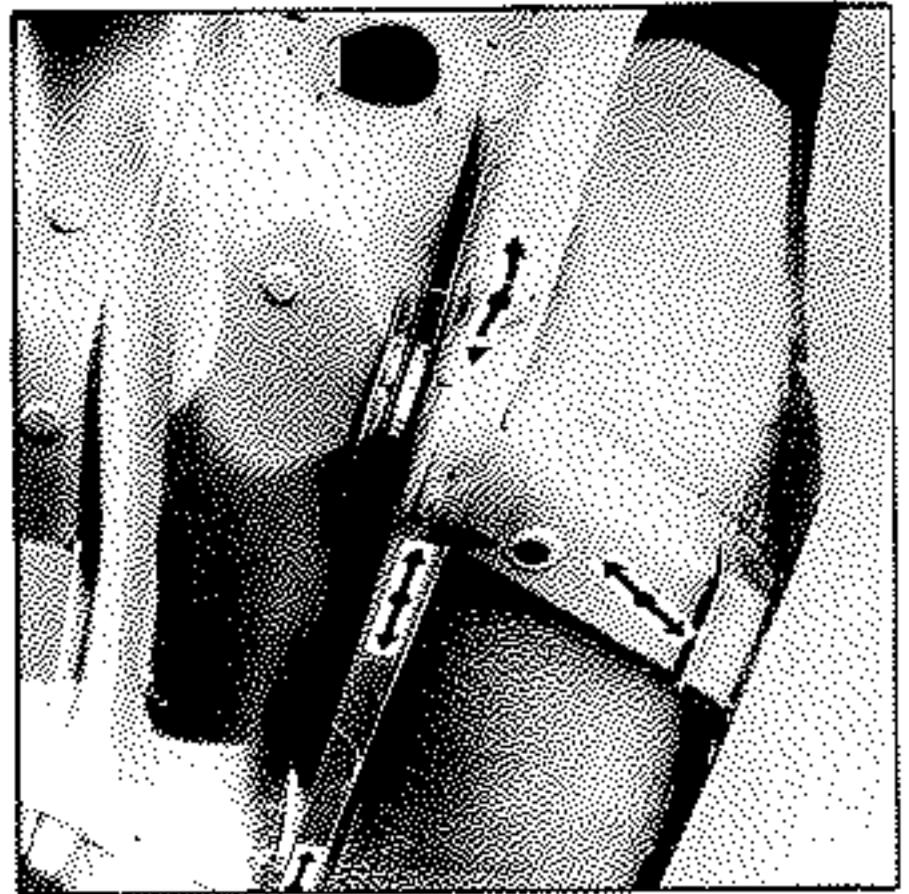
WELDING (cont)



7190482-1



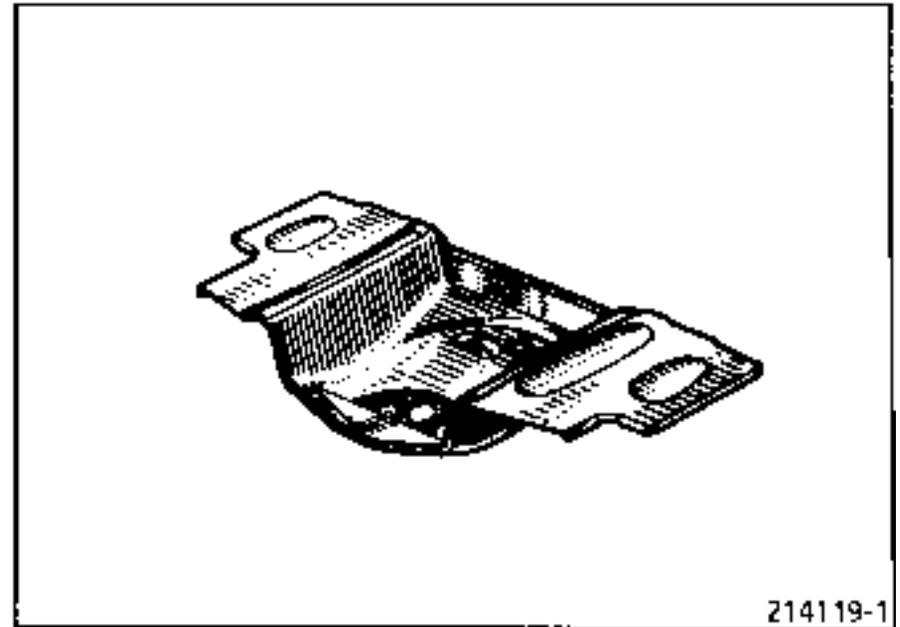
PROTECTING HOLLOW SECTIONS



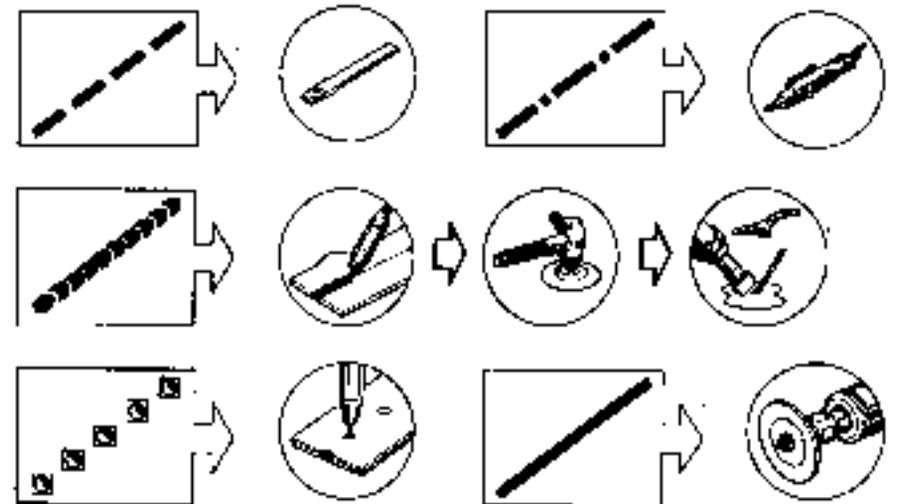
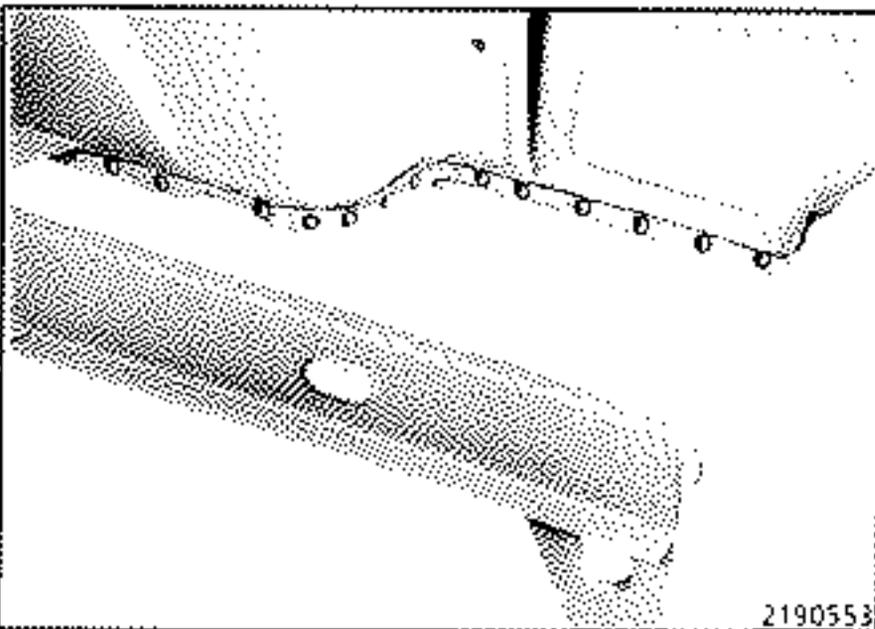
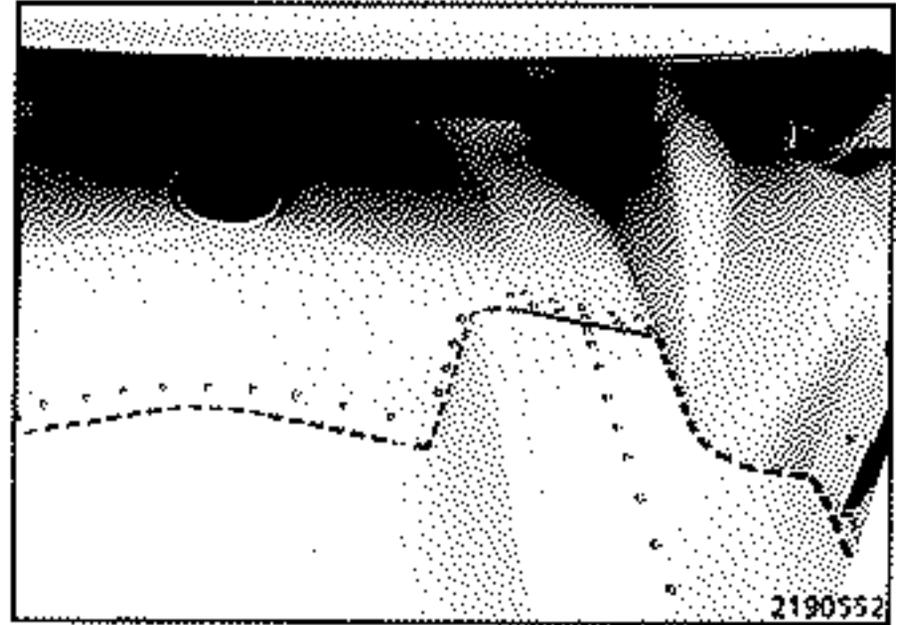
COMPOSITION OF PART FROM PARTS DEPARTMENT

Assembled part comprising:

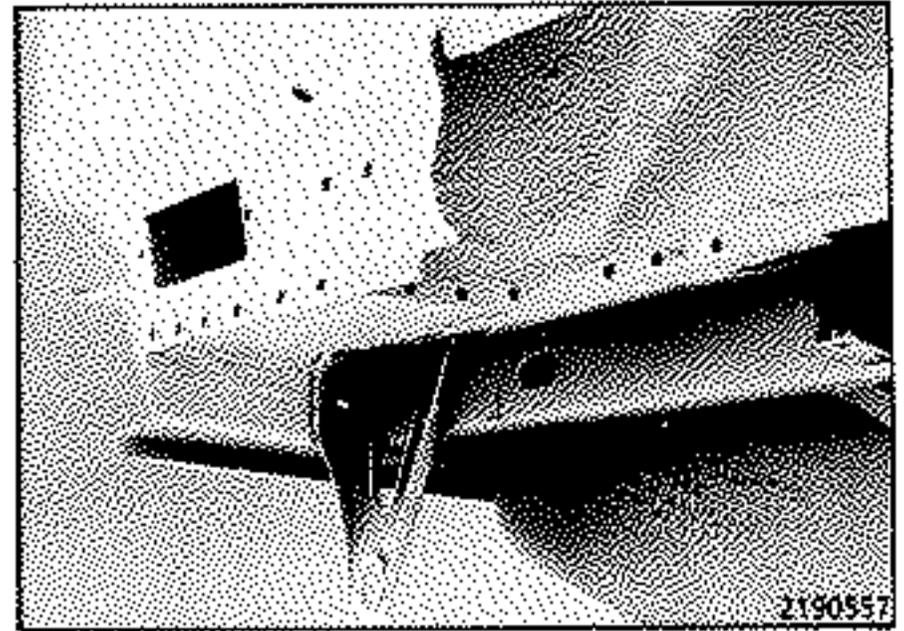
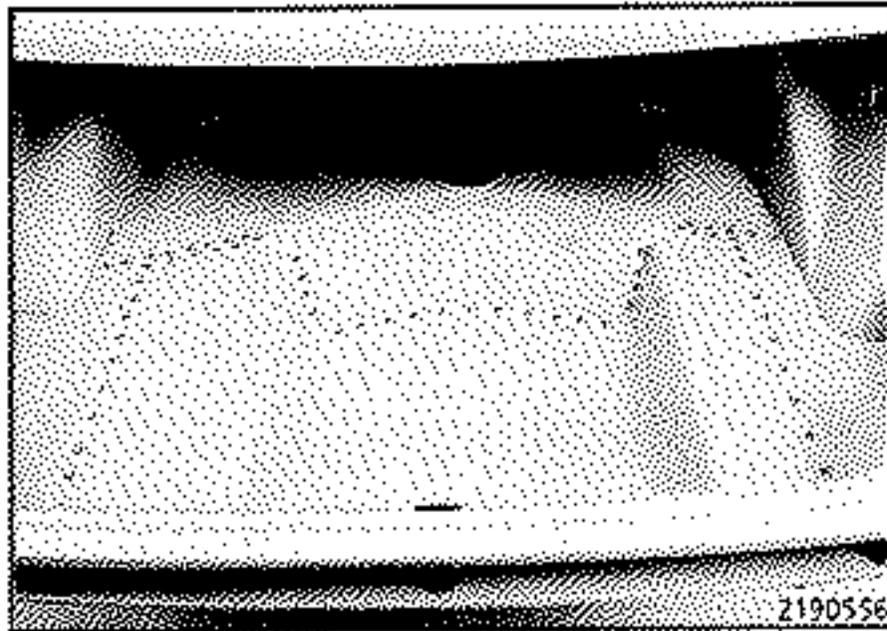
- Rear end floor panel.
- Closure panel.



CUTTING OUT - UNPICKING



WELDING



D = 4.5 mm



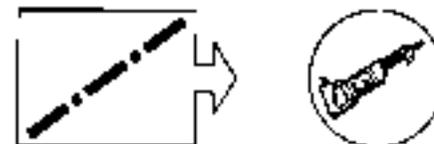
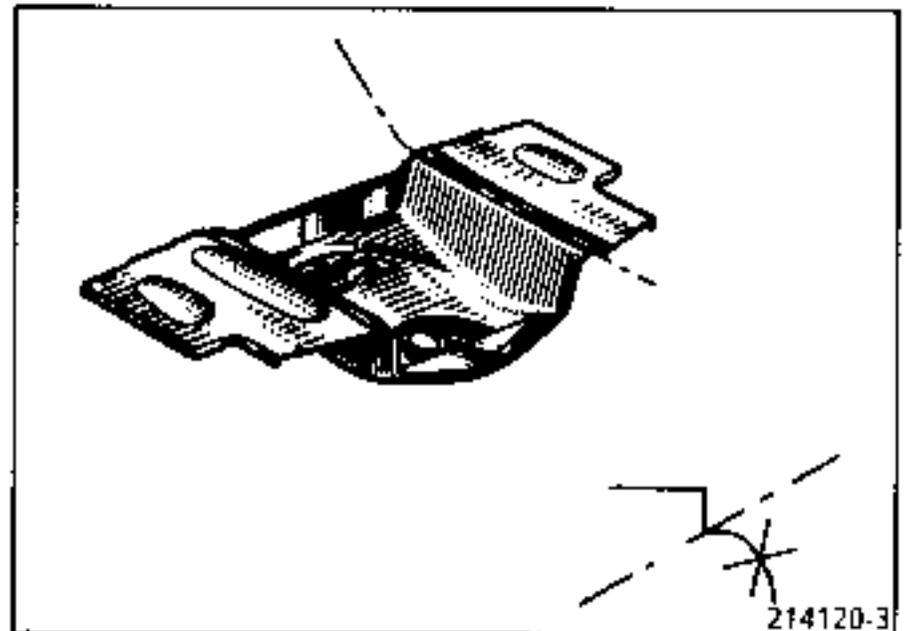
L = 100  
e = 1.5 mm  
H = 25 mm

Rear end floor, part section (side section)

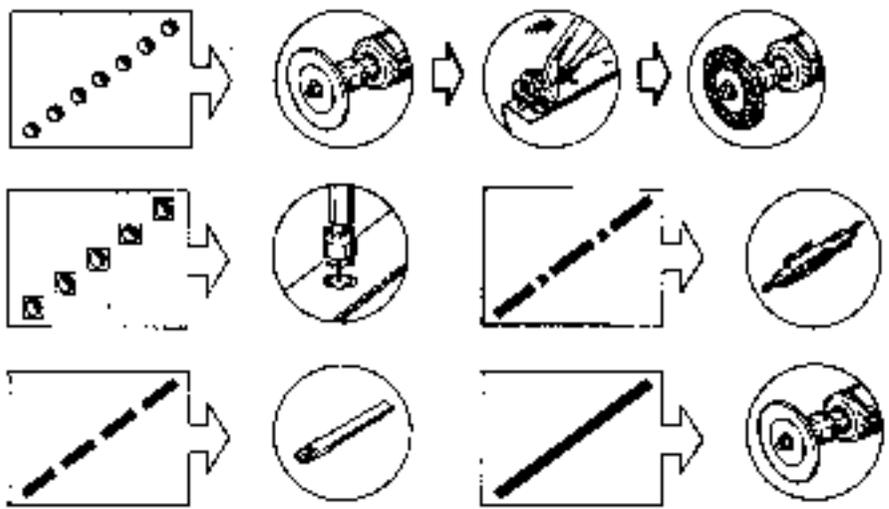
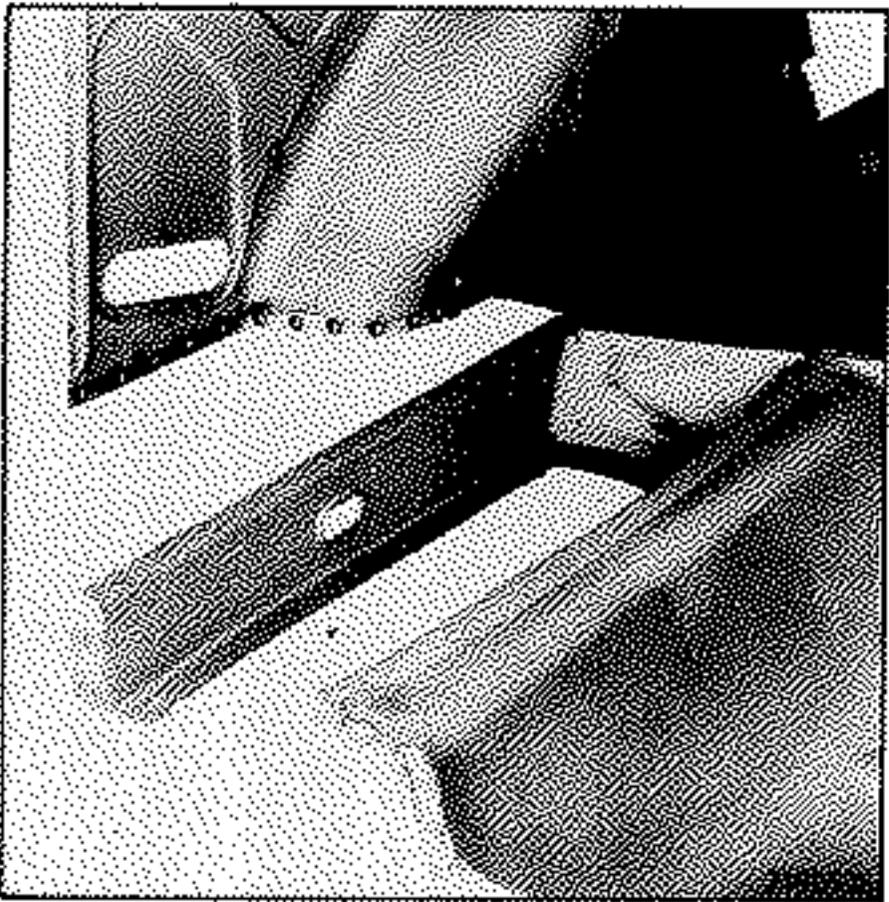
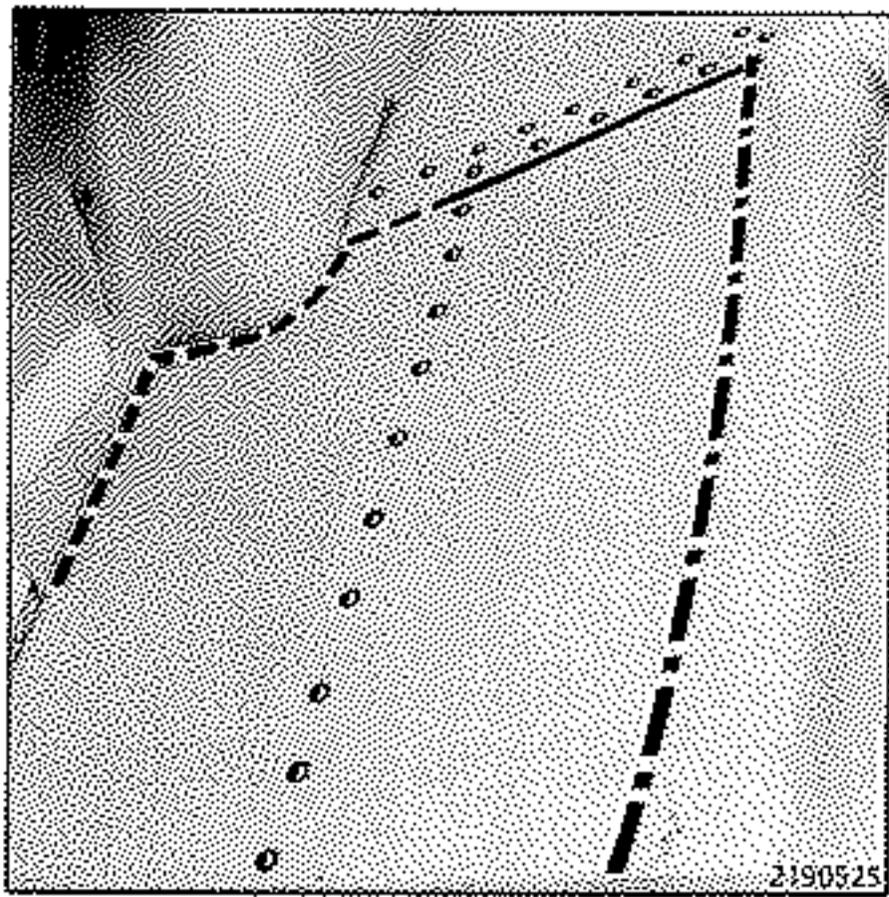
COMPOSITION OF PART FROM PARTS DEPARTMENT

Assembled part comprising:

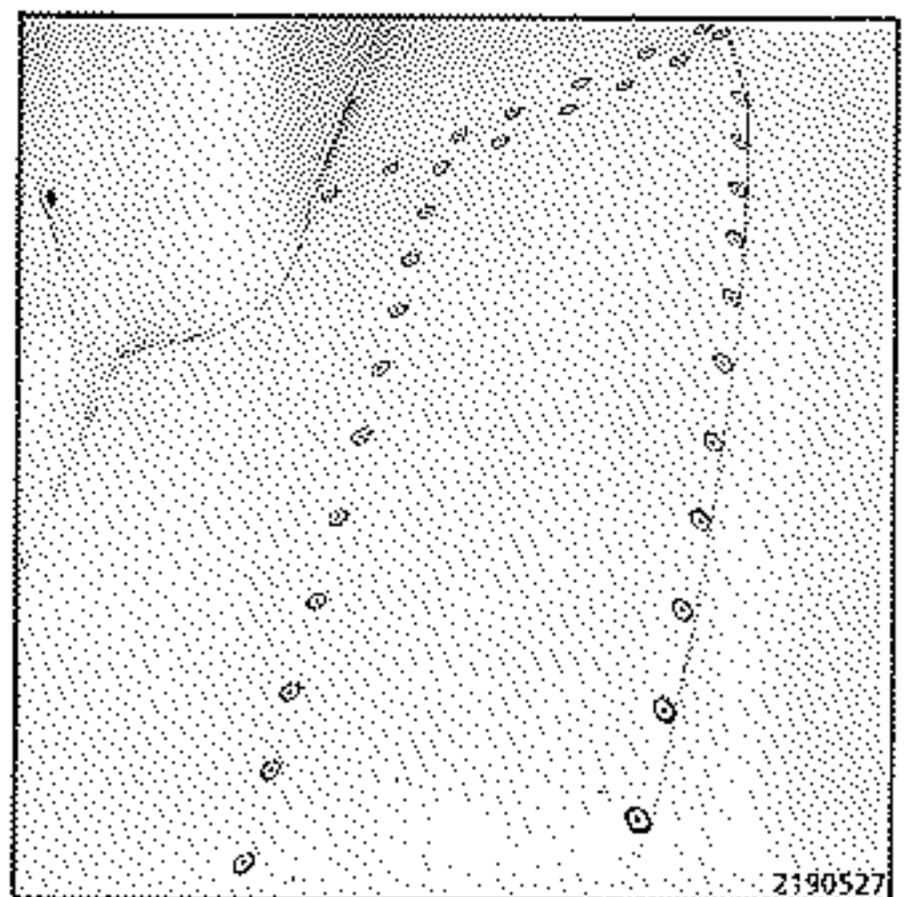
- Rear end floor panel.
- Closure panel.



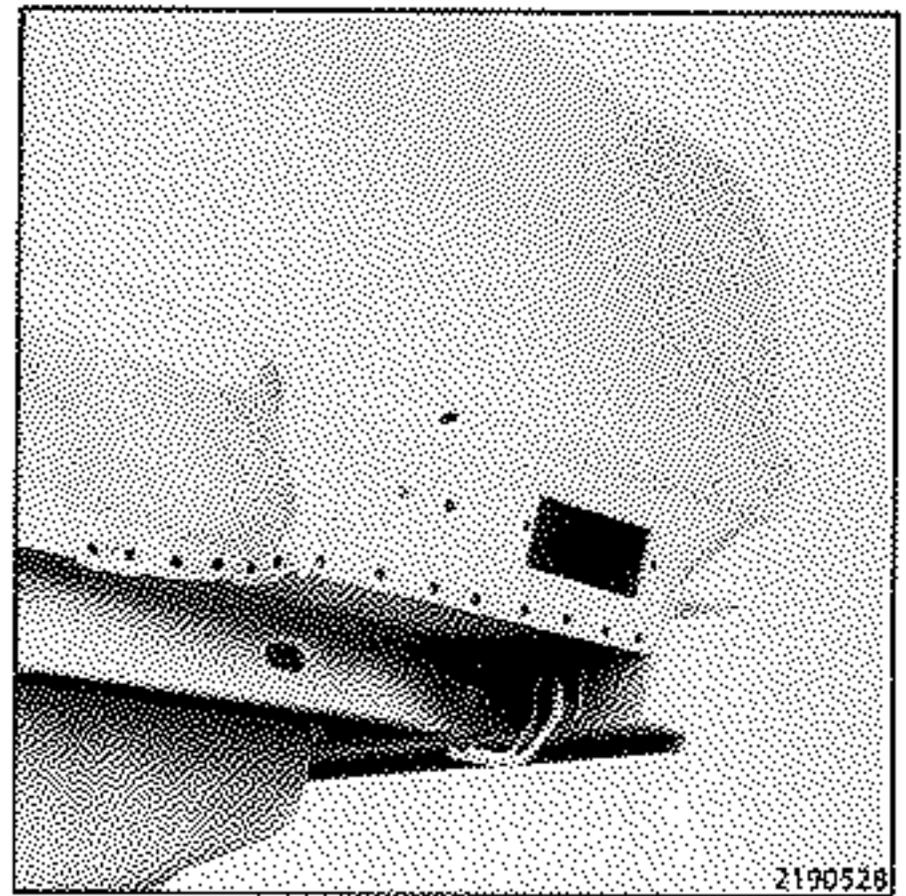
CUTTING OUT - UNPICKING



WELDING



D = 4.5 mm

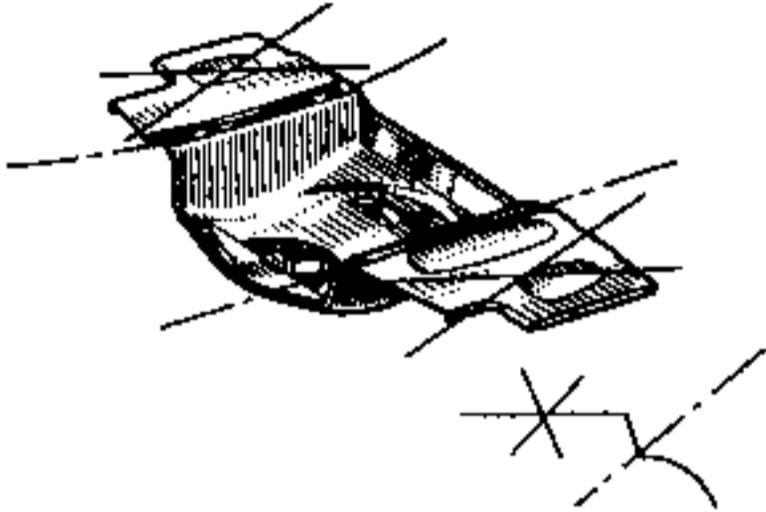


L = 100  
e = 1.5 mm  
H = 25 mm  
e = 2 mm A

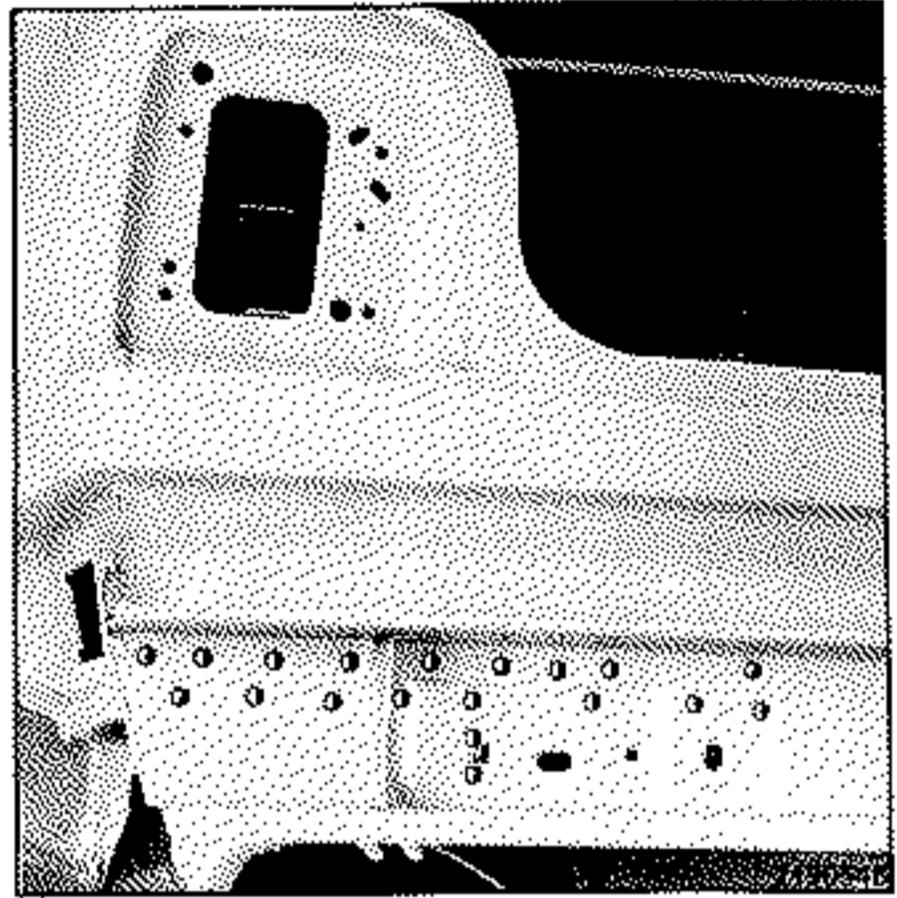
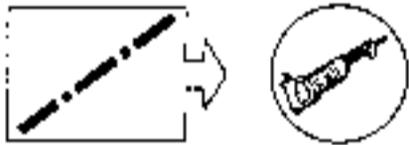
COMPOSITION OF PART FROM PARTS DEPARTMENT

Assembled part comprising:

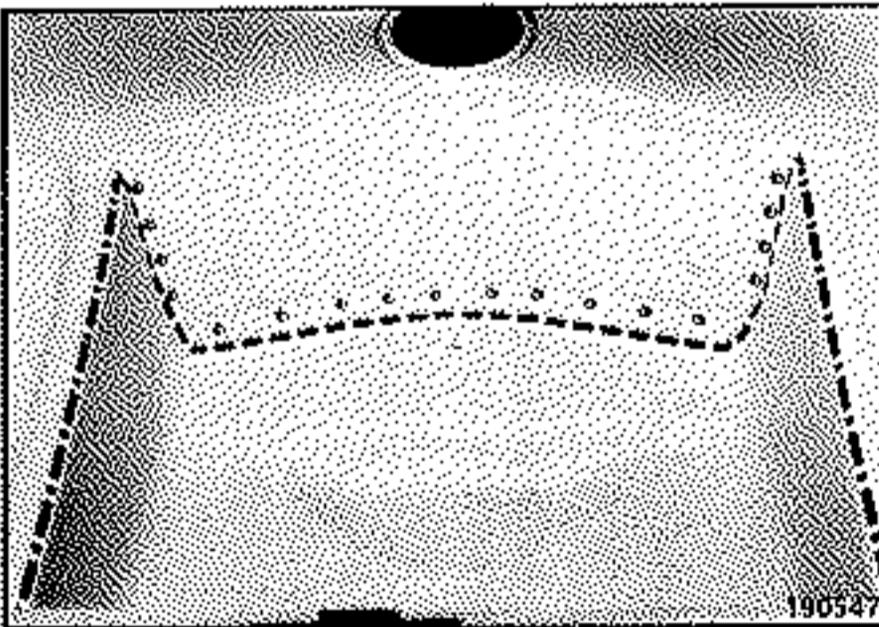
- Rear end floor panel.
- Rear floor closure panel.



214122-1



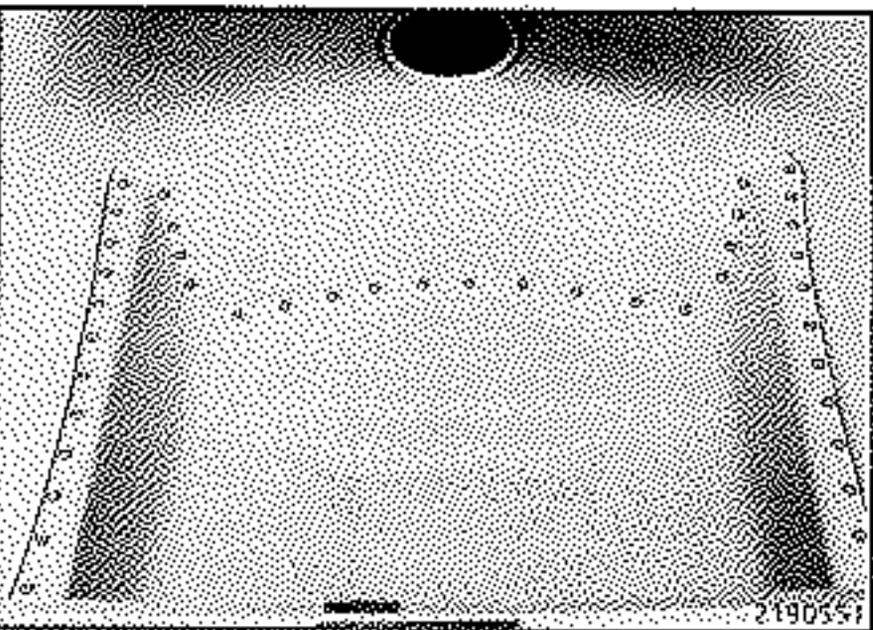
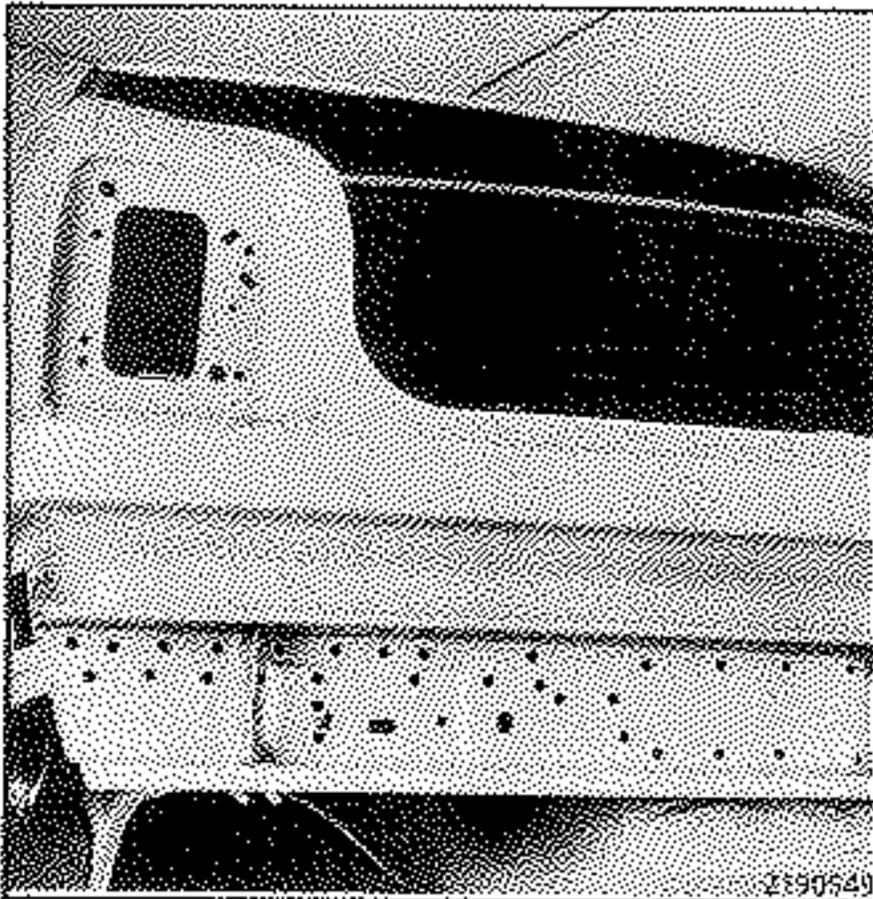
CUTTING OUT - UNPICKING



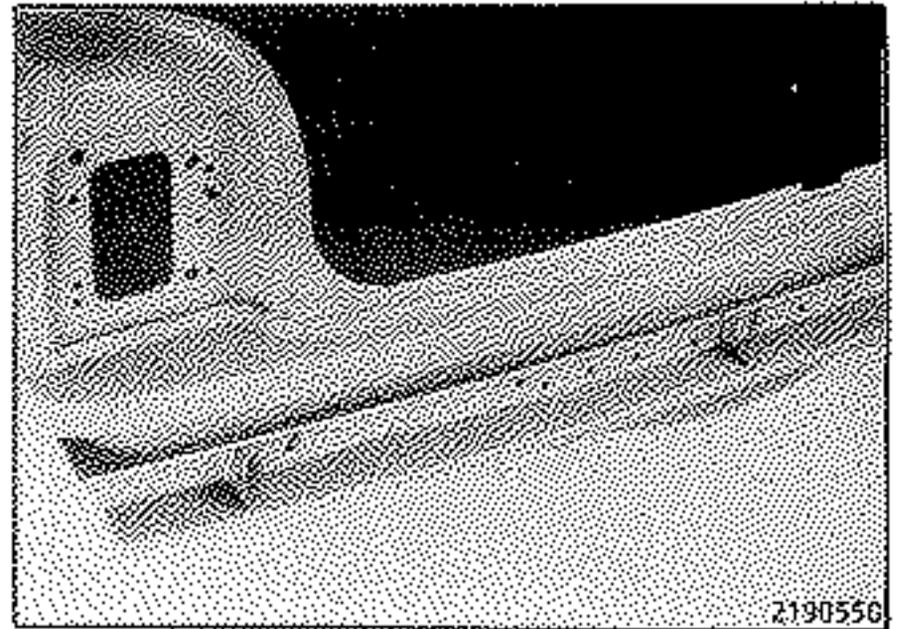
190547



WELDING



D = 4.5 mm



L = 310 mm  
e = 2 mm  
H = 48 mm

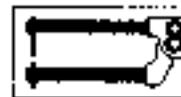
L = 310 mm  
e = 2 mm  
H = 54 mm

Connection : cross member  
Rear floor or rear floor closure panel

Connection: cross member  
Lights mounting panel or rear end panel lining

L = 310 mm  
e = 2.75 mm  
H = 72 mm

Connection : cross member  
Rear side member

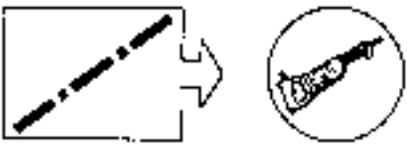
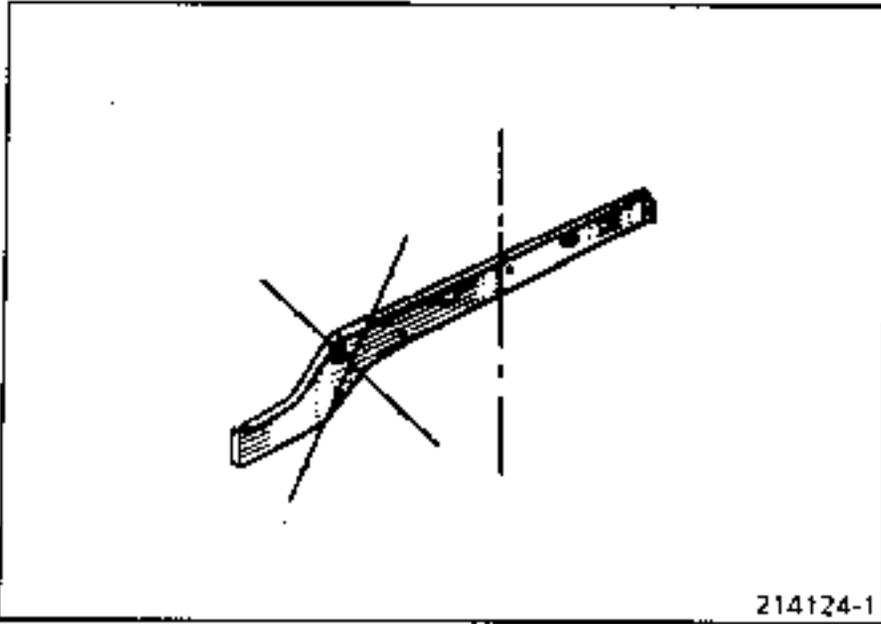


L = 330 mm  
e = 2 mm  
H = 54 mm

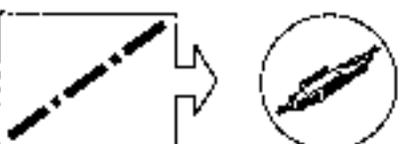
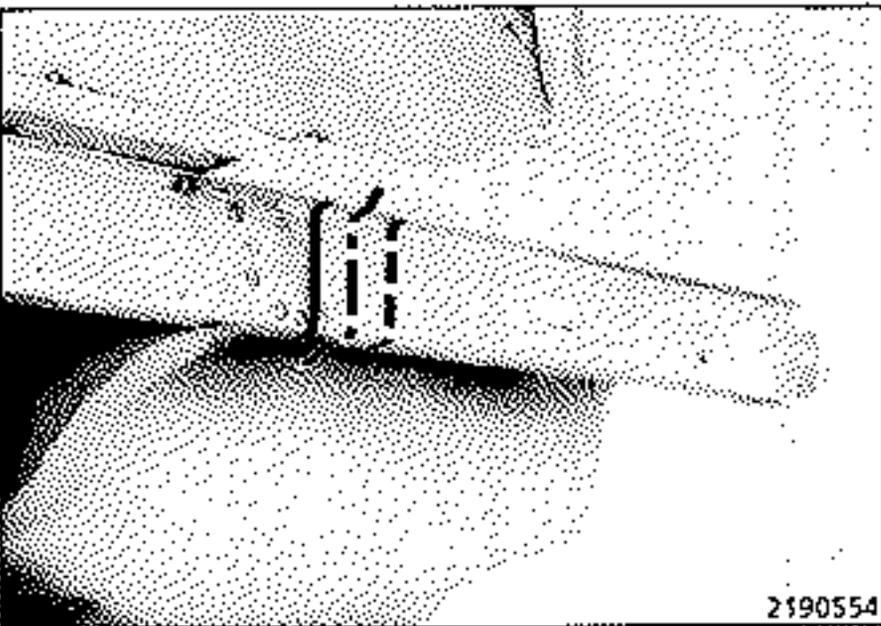
Connection : cross member  
Rear end panel

COMPOSITION OF PART FROM PARTS DEPARTMENT

Bare side member.

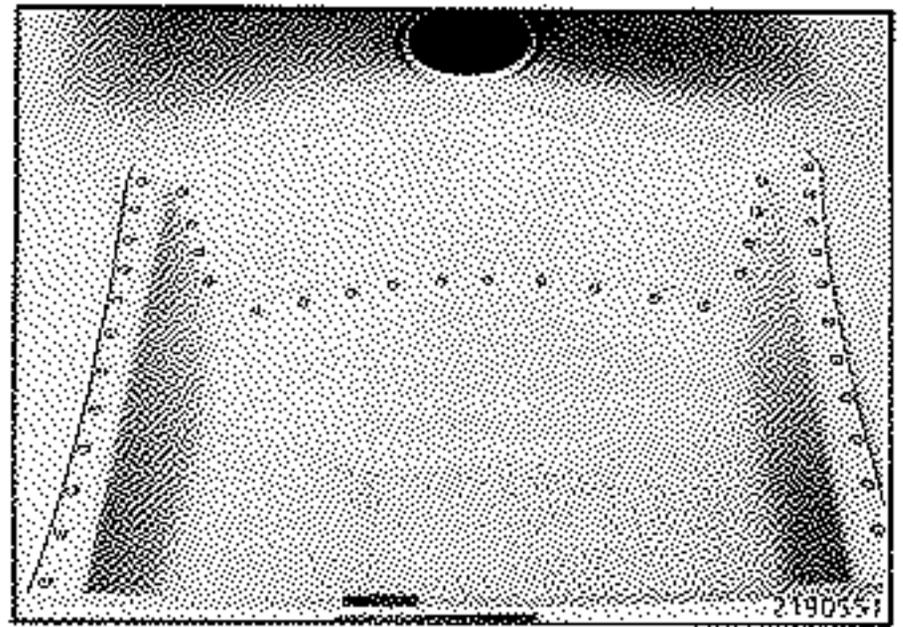


On the new part mark out a part approximately 50 mm larger than the part cut out from the vehicle.



Position the new part on the vehicle on the bracket covering the part to be replaced on the vehicle then secure it using vice clamps.

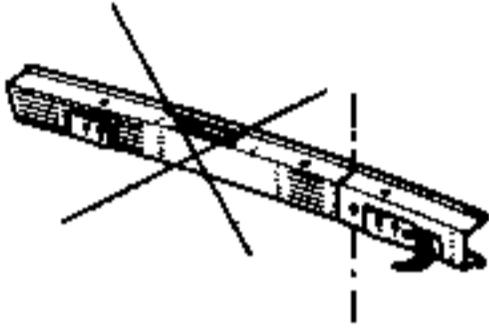
WELDING



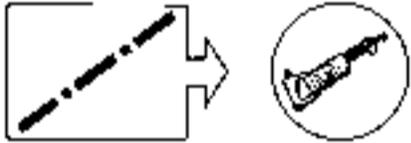
COMPOSITION OF PART FROM PARTS DEPARTMENT

Assembled part comprising:

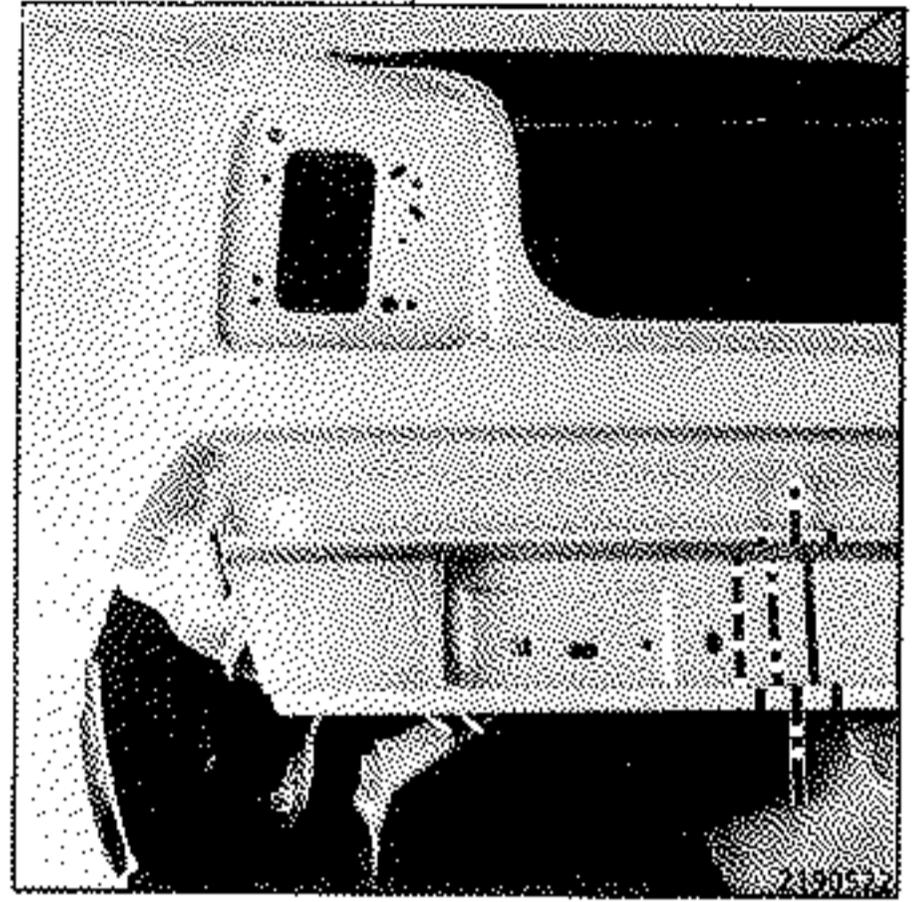
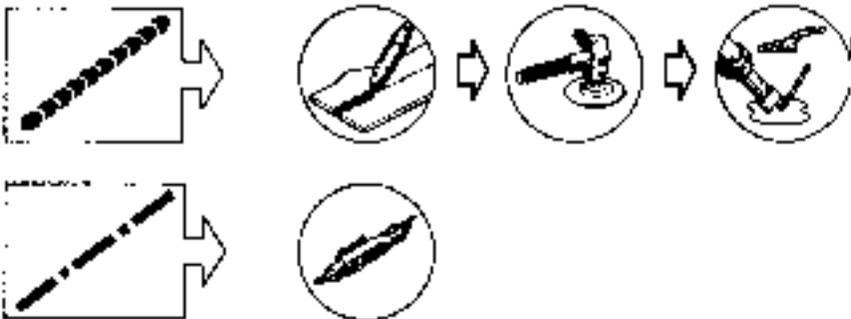
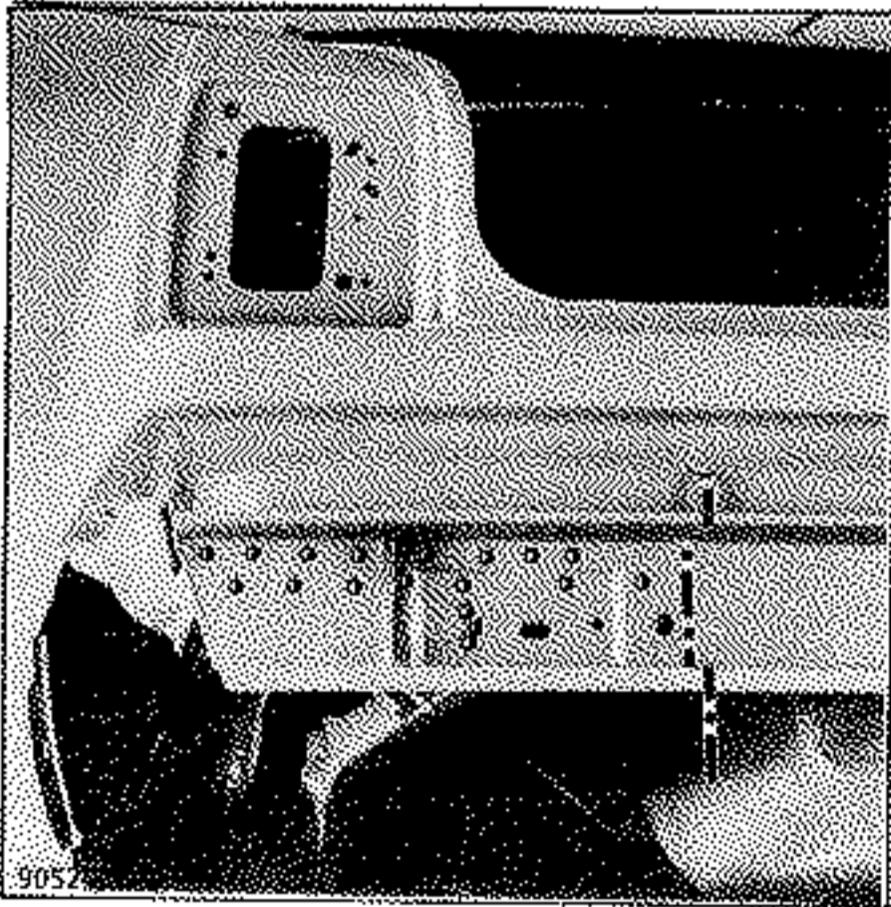
- Assembled cross member.
- Exhaust mounting hook.



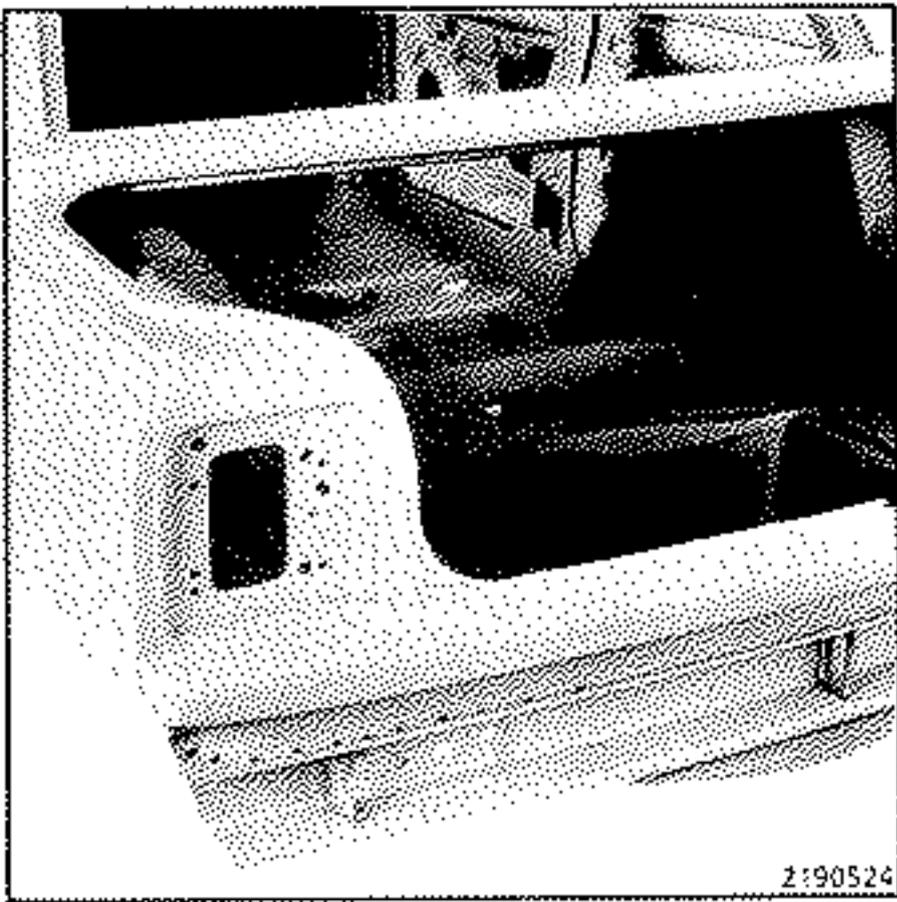
214125-1



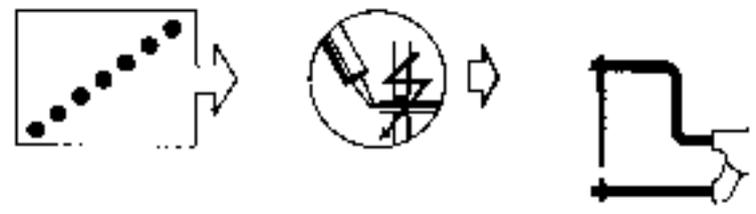
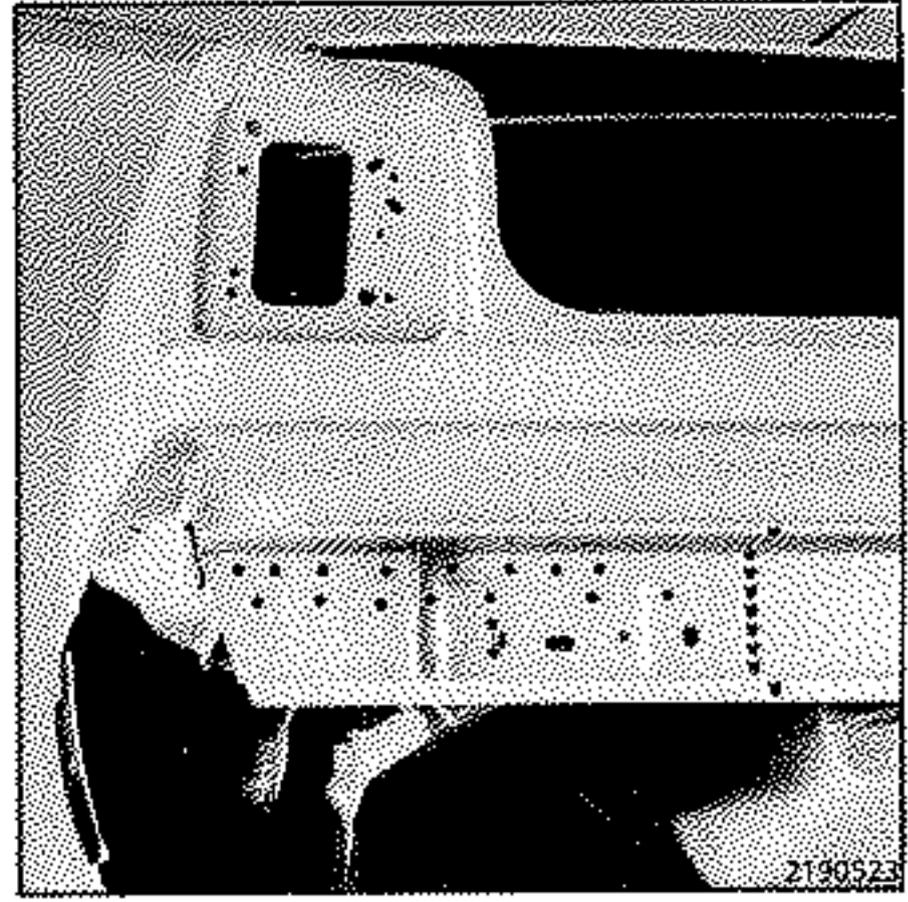
CUTTING OUT - UNPICKING



WELDING



L = 330 mm  
e = 1.92 mm  
H = 54 mm

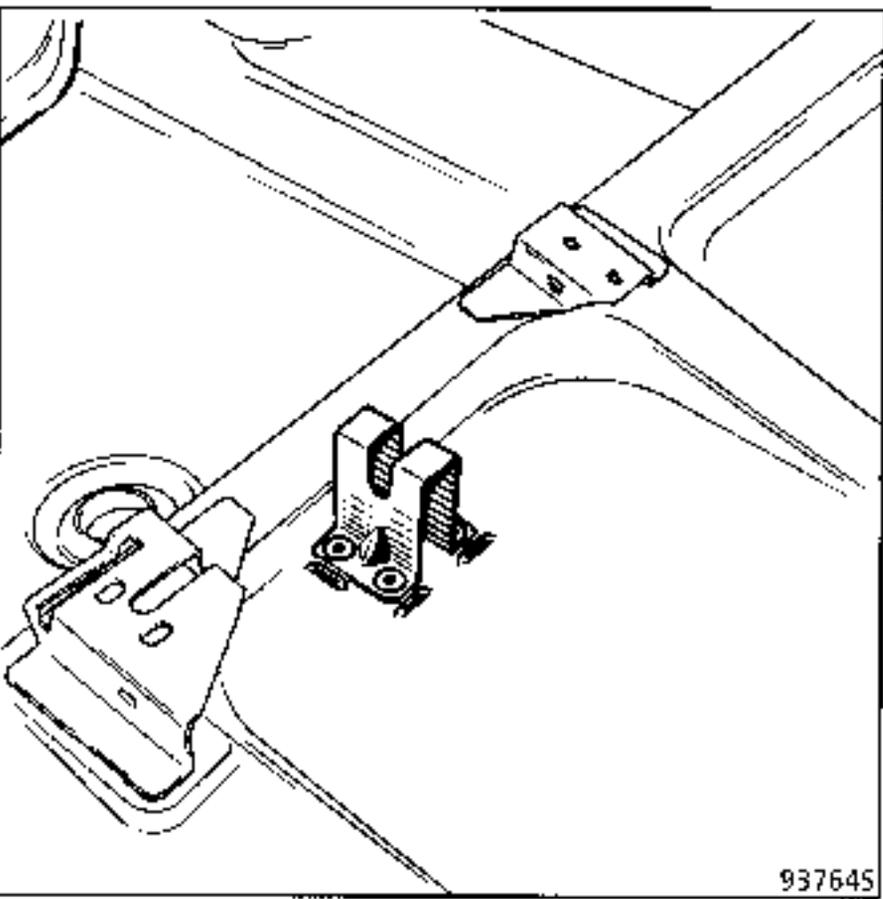
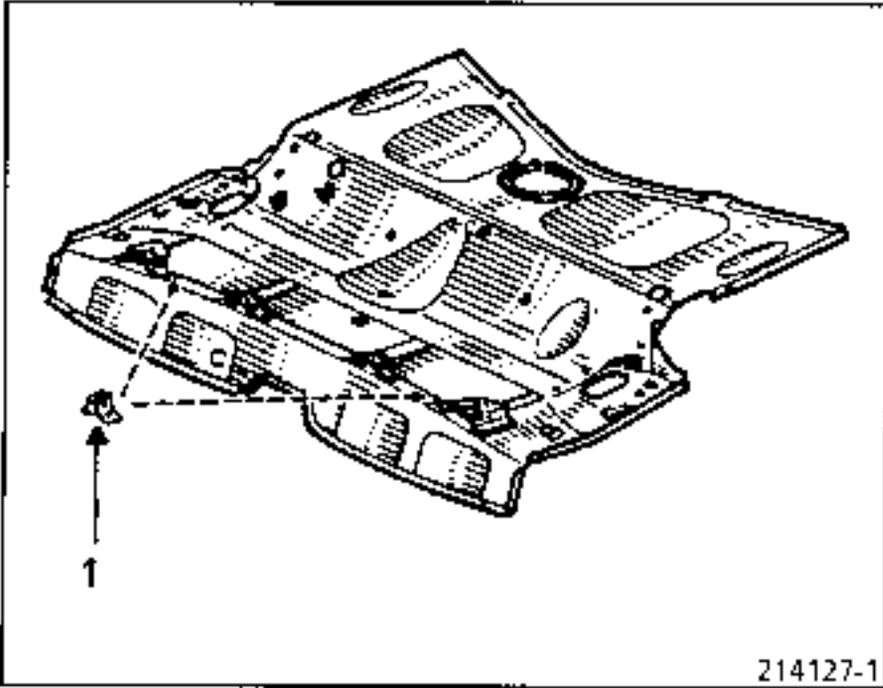


L = 310 mm      L = 310 mm  
e = 1.85 mm      e = 1.95 mm  
H = 48 mm        H = 54 mm

Connection: cross member  
Rear floor

Connection: cross member  
Lights mounting panel or rear end panel lining

REAR BENCH SEAT MOUNTING



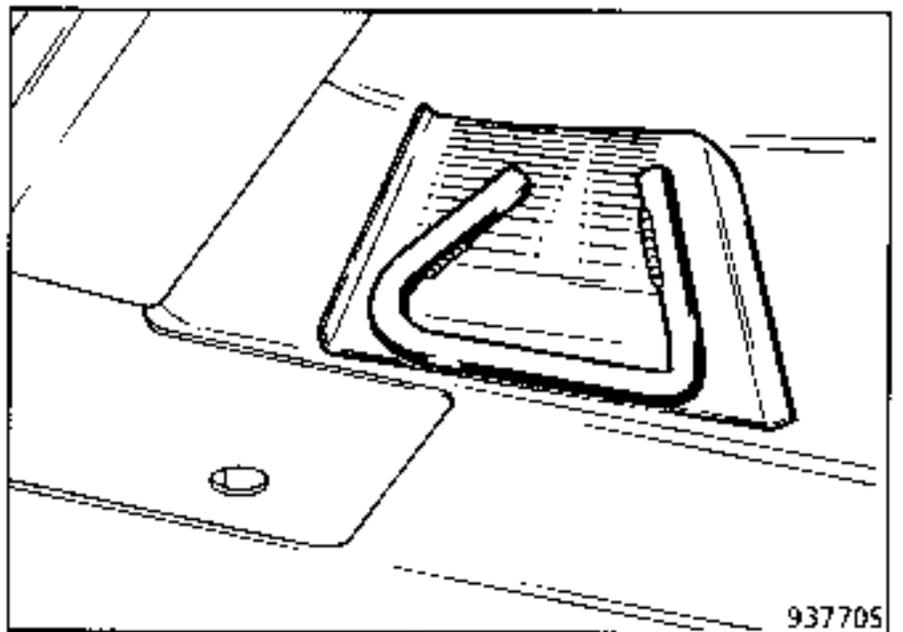
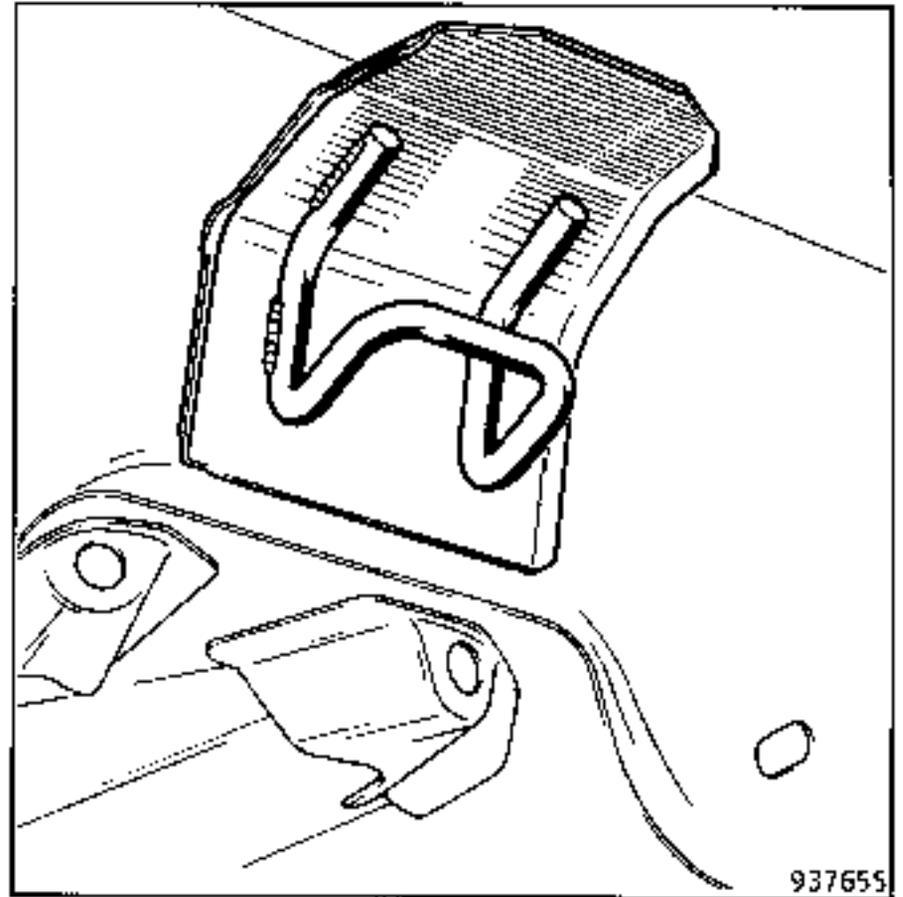
Fit the two supports (1) positioning them in relation to the bosses (2).



Four plug welds on each support (drill to diameter 5.5 mm).

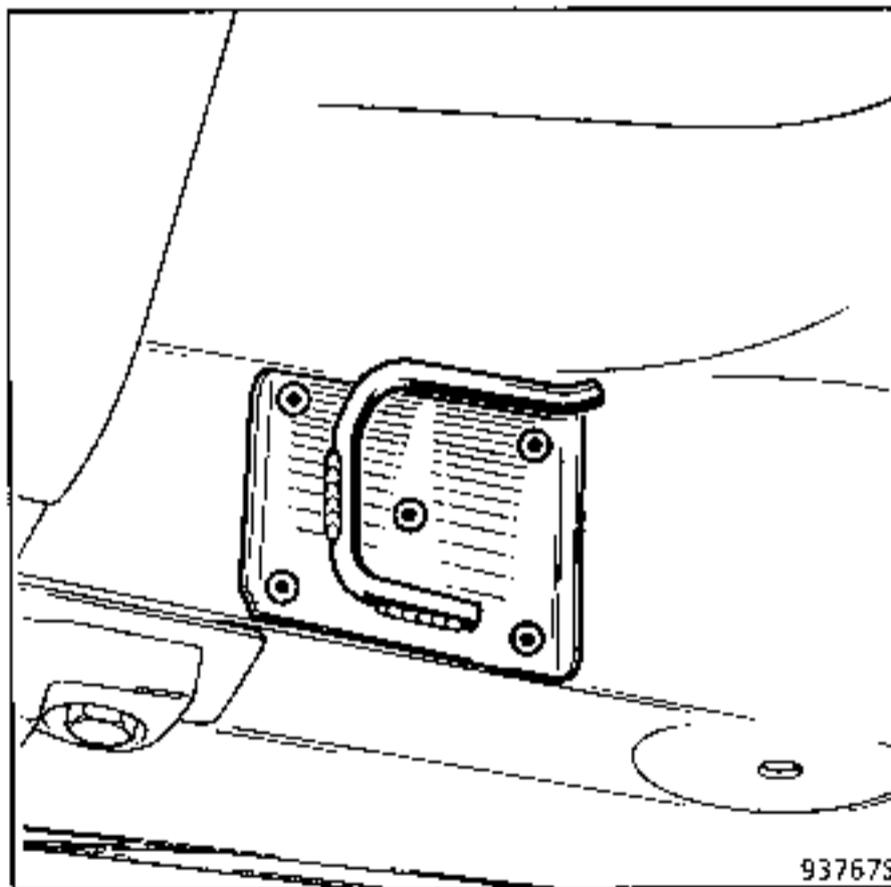
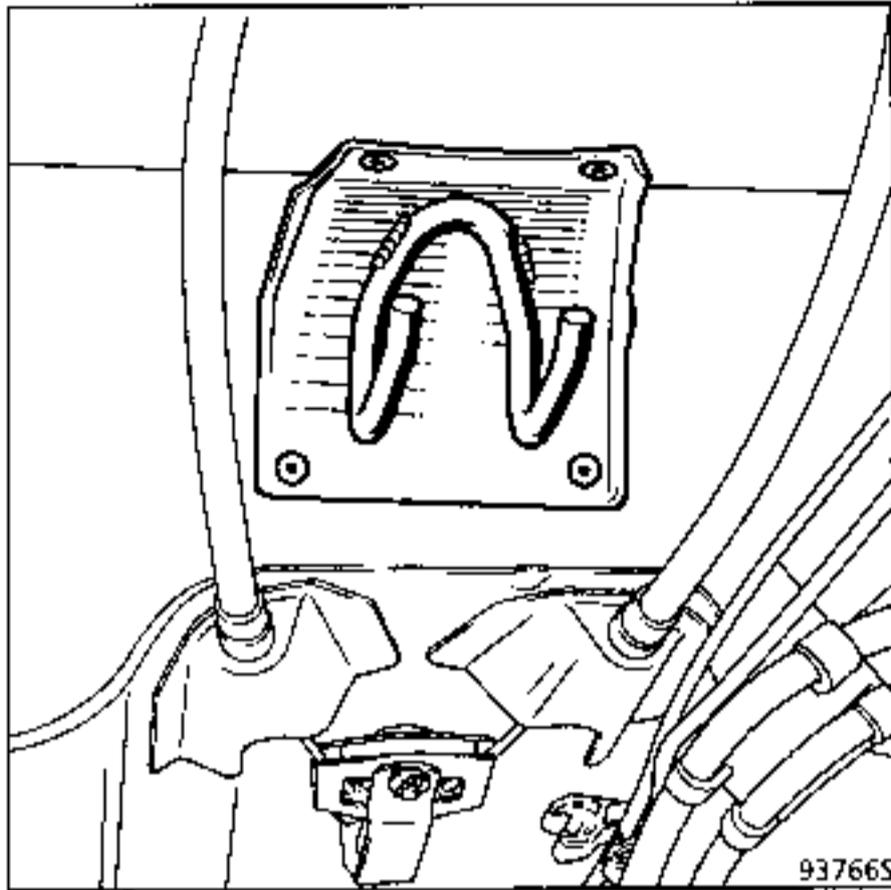
EXHAUST MOUNTING HOOKS

NEW MODELS



Release the two supports from the new body.

OLD MODELS

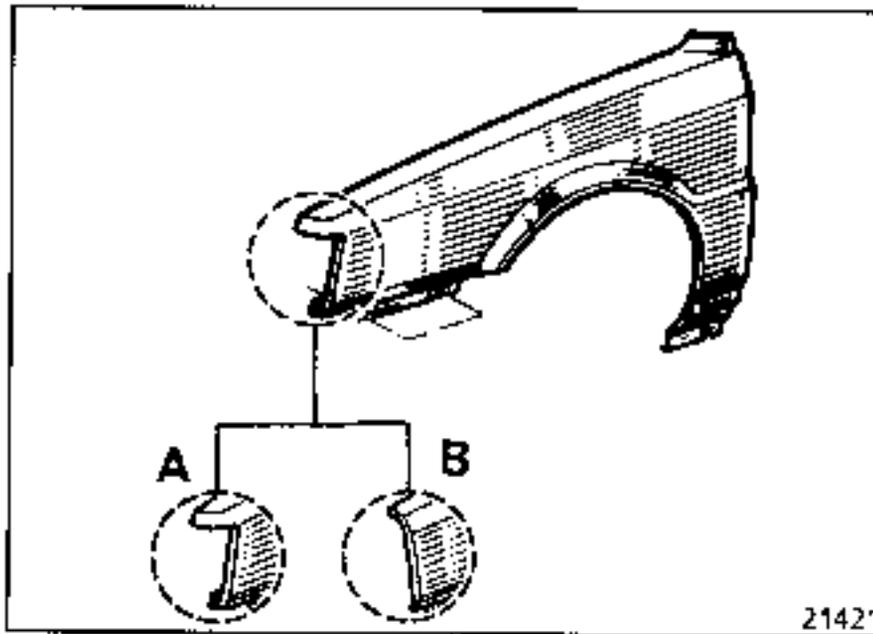


Take the two supports from the old body and weld them onto the new body.

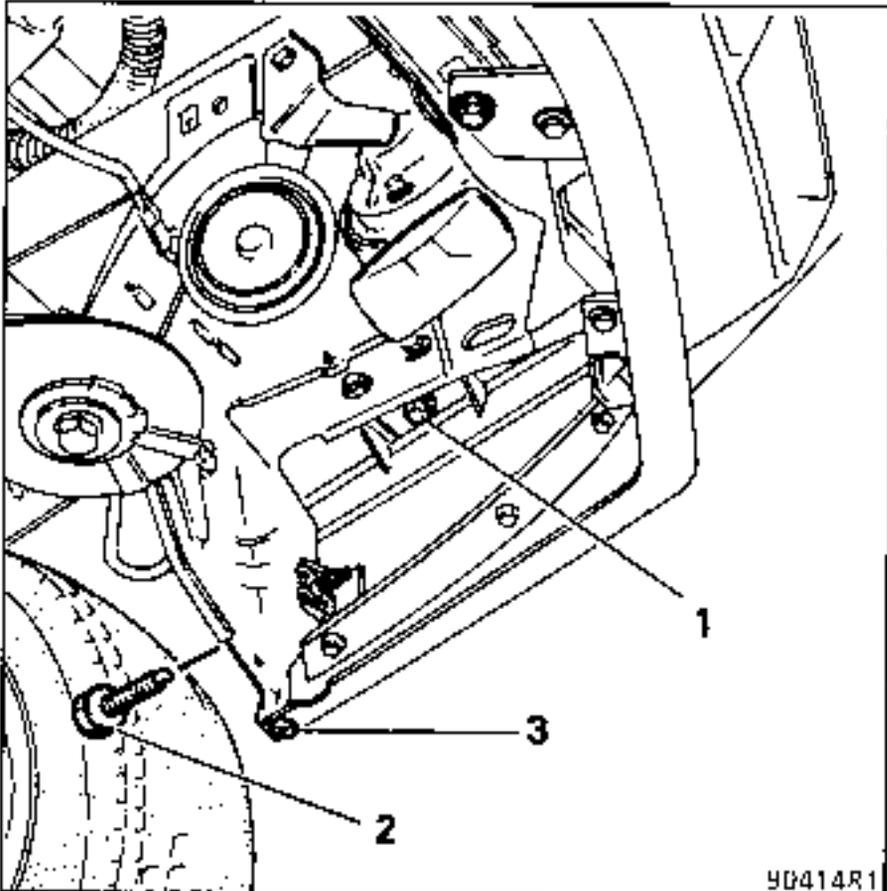


Nine plug welds (drill to diameter 6.5 mm).



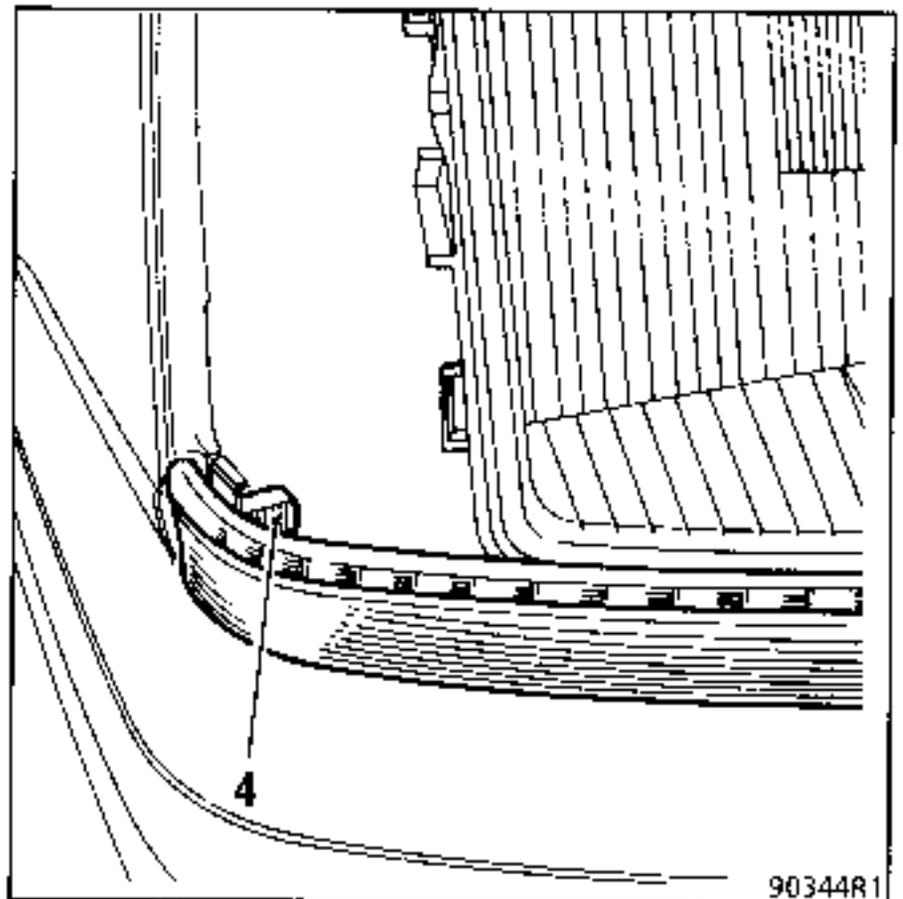


- A Phase 1 vehicles
- B Phase 2 and sports vehicles



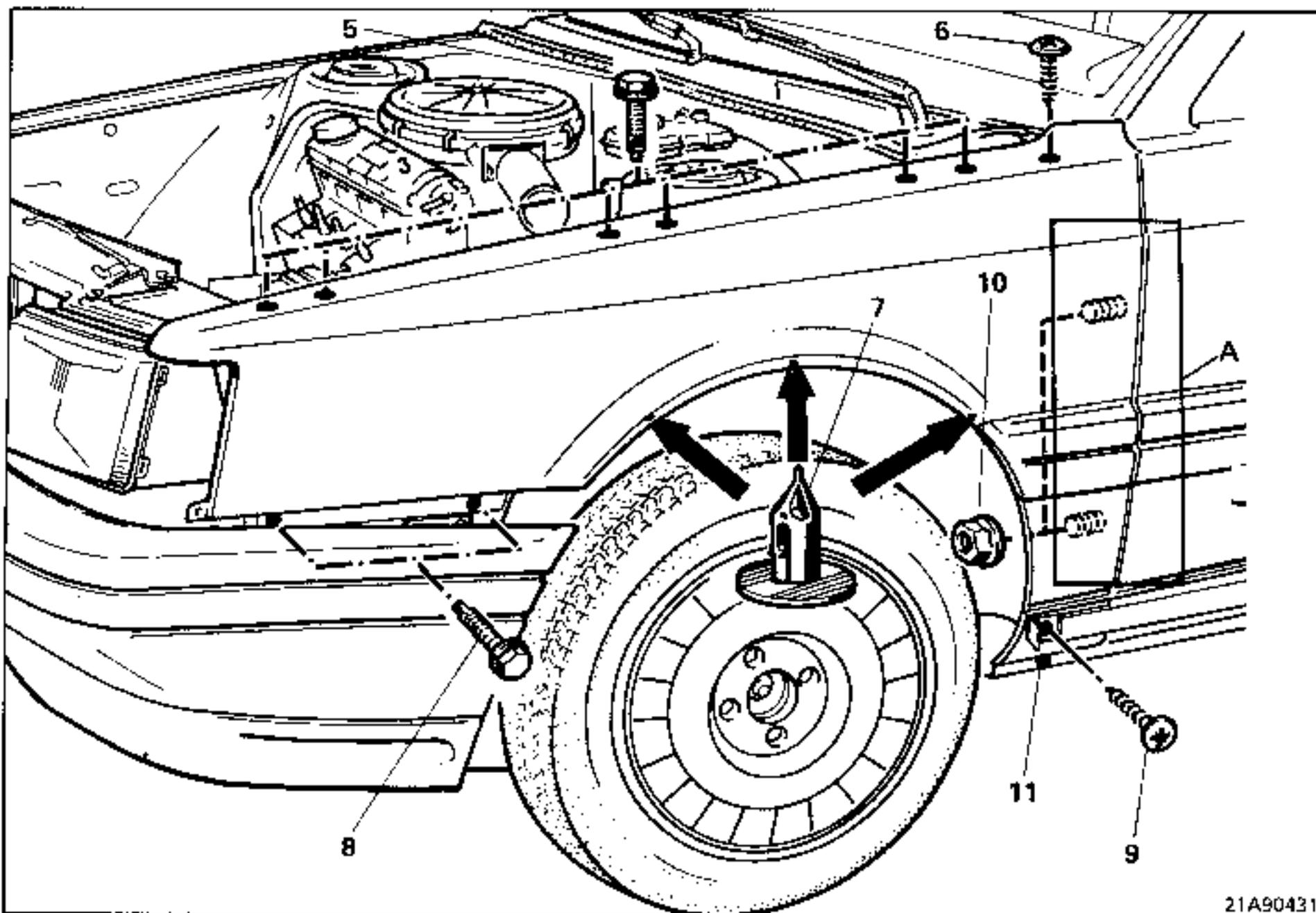
Remove bolt (3).

Remove mountings (1) and (2) for the bumper on the cowl side panel. Bolt (1) can be reached from under the vehicle.



Remove the indicator.

Slacken the front panel moulding mounting nut (4).  
(Plastic manual nut).

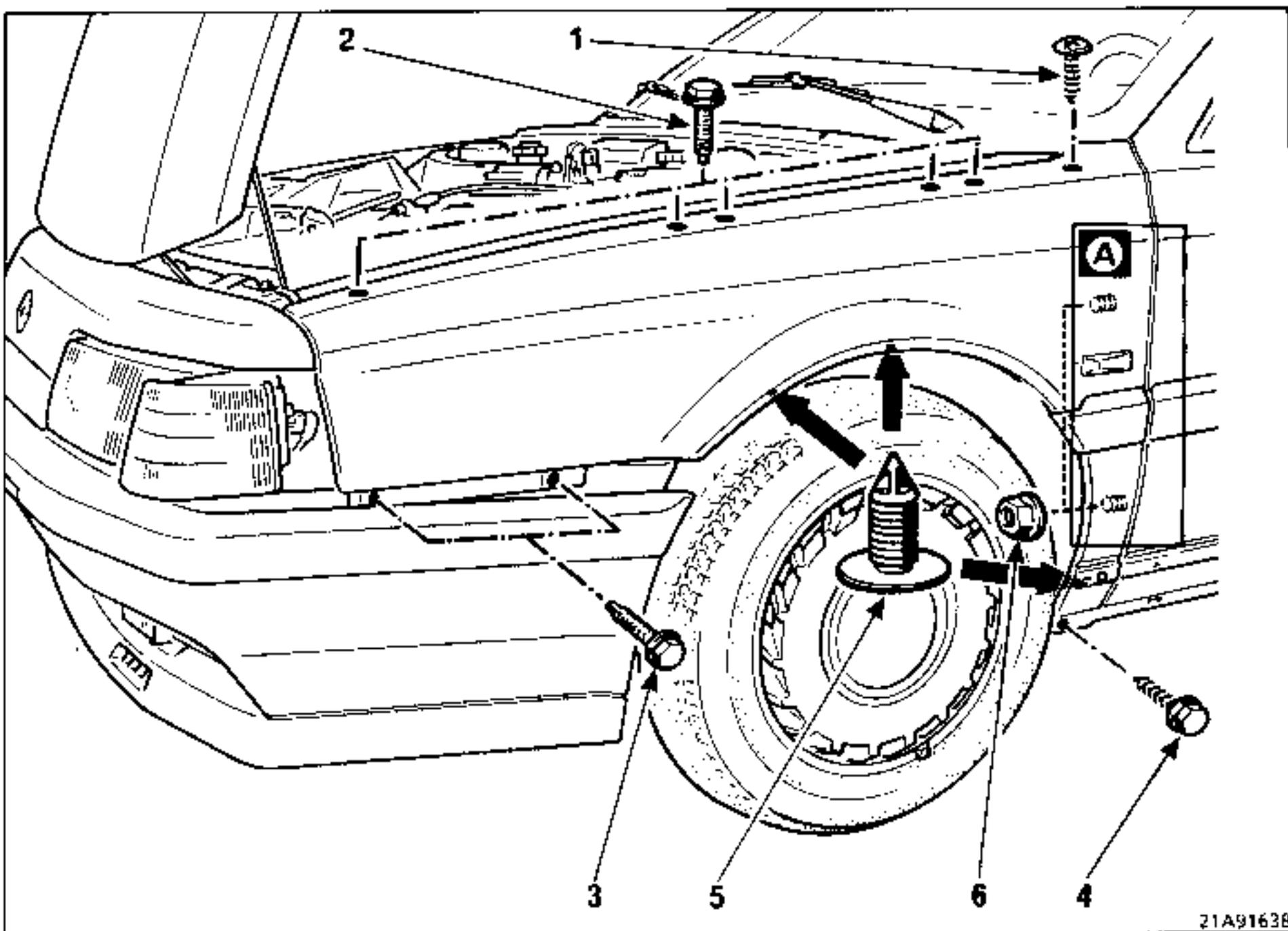


21A90431

- A Remove bolt (6) mounting the scuttle panel grille. Remove the six bolts (5).
- B Using a screwdriver, unclip the end of the strip to reach bolt (9).
- C Tilt the bumper so that bolts (8) may be reached.
- D Remove bolt (11) from the sill.
- E Remove the wheel arch protector (three clips (7)) and from inside the wing, remove the two mounting bolts (10) on the front pillar.

**Note :** the inner section (A) of the wing is coated with sealing mastic. To remove the wing, use a hot air torch to soften the mastic, taking care not to burn the paintwork if the wing is to be retained.

## REMOVAL



21A91638

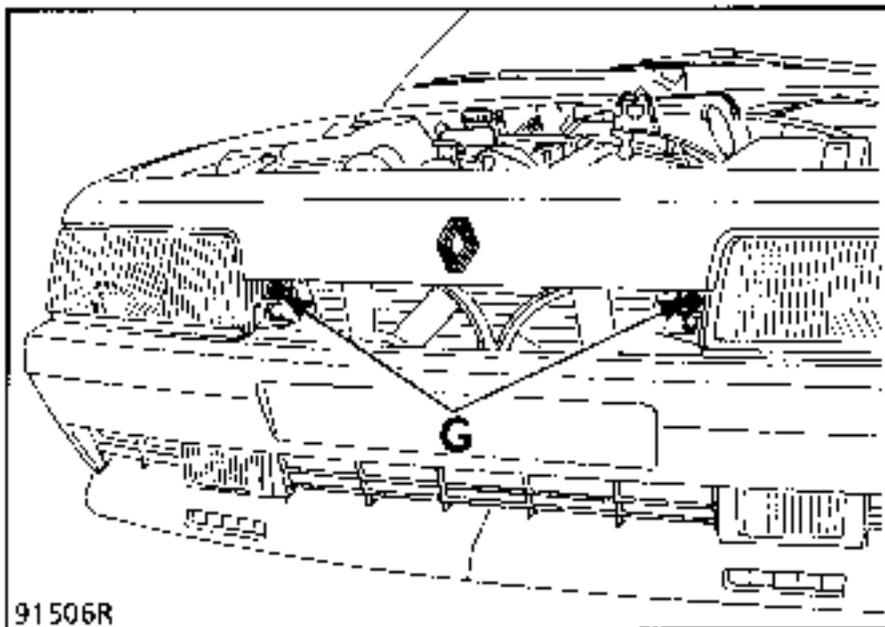
Remove:

- the sill skirt,
- mounting bolt (4) on the sill,
- the wheel arch protector, three clips (5),
- the two mounting nuts (6) on the front pillar from inside the wing,
- mounting bolt (1) from the scuttle panel grille,
- the five bolts (2).

Tilt the bumper, removing its two side mounting bolts and remove the two bolts (3).

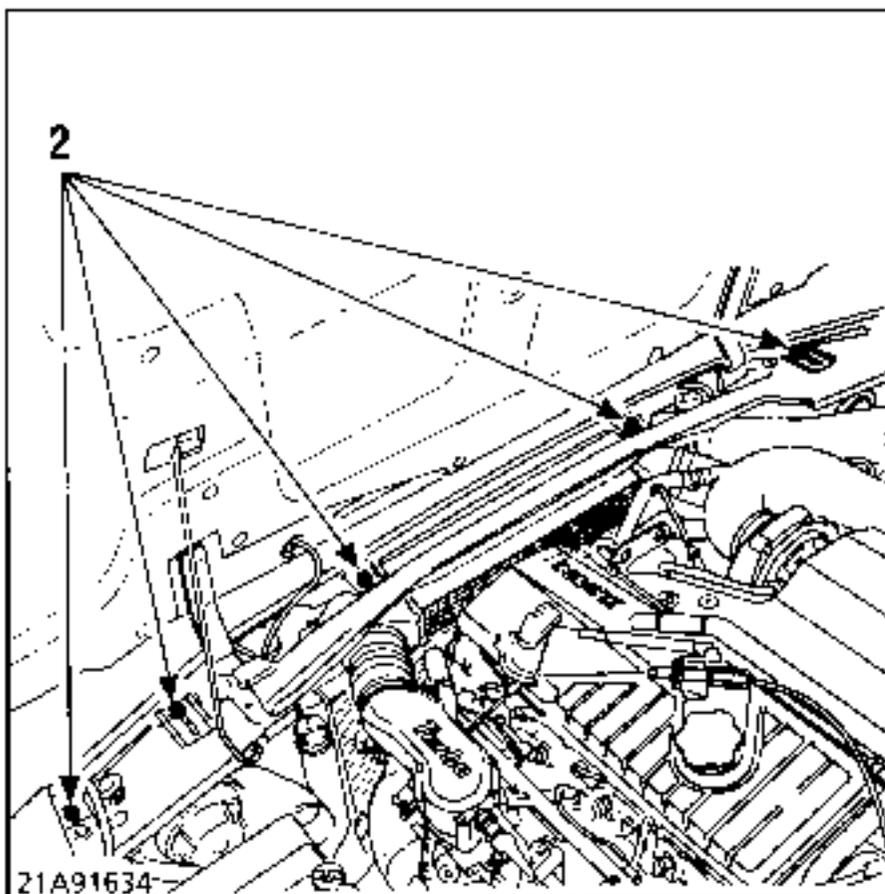
**Note:** the inner section (A) of the wing is coated with sealing mastic. To remove the wing, use a hot air torch to soften the mastic, taking care not to burn the paintwork if the wing is to be retained.

REMOVAL



Remove:

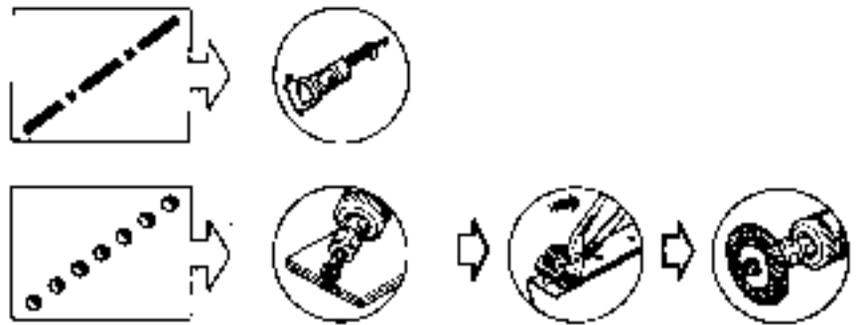
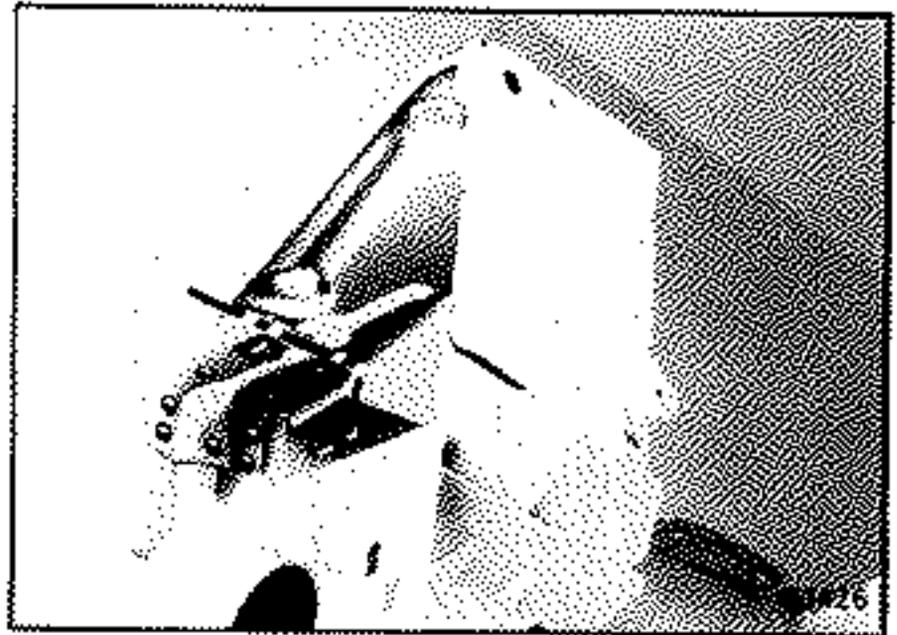
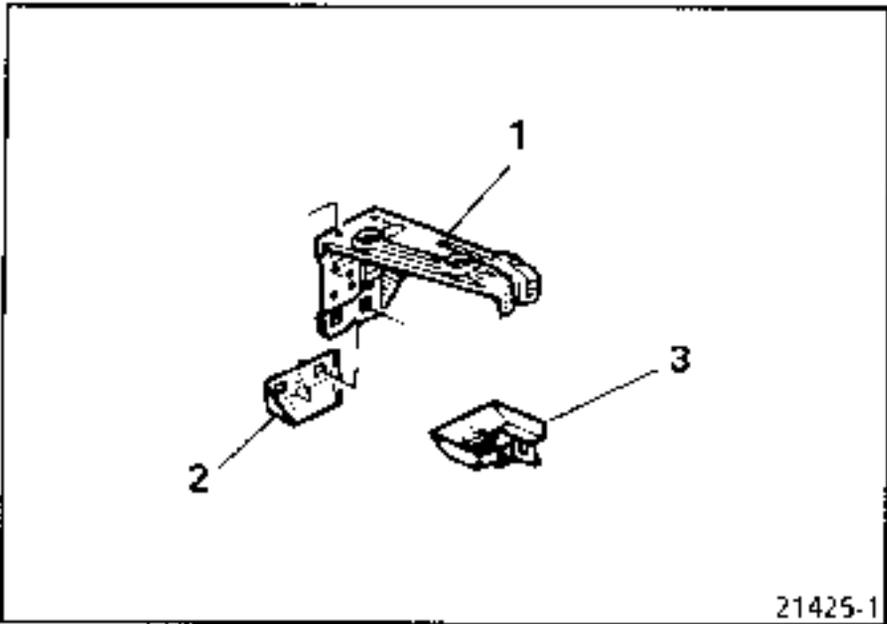
- the radiator grille,
- the two bolts (G),



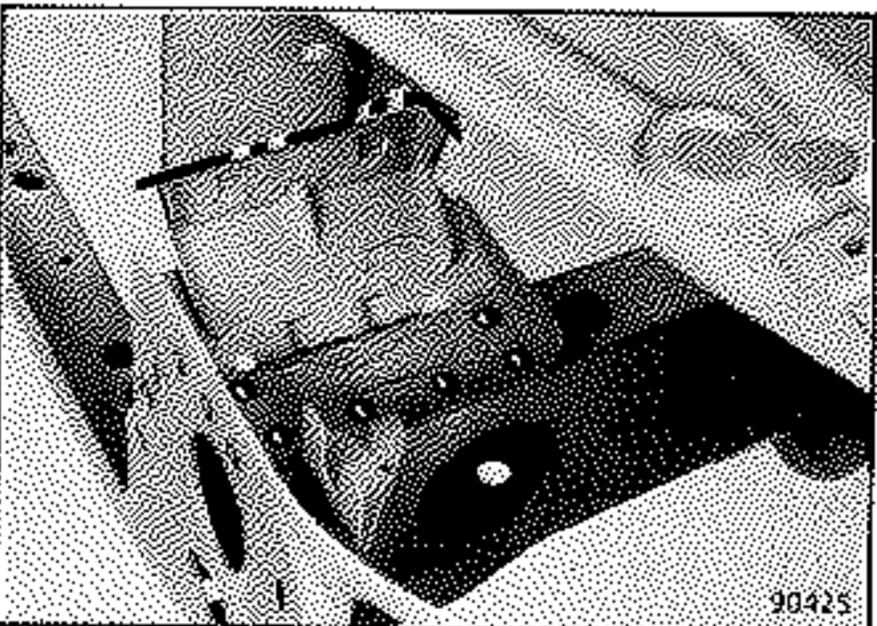
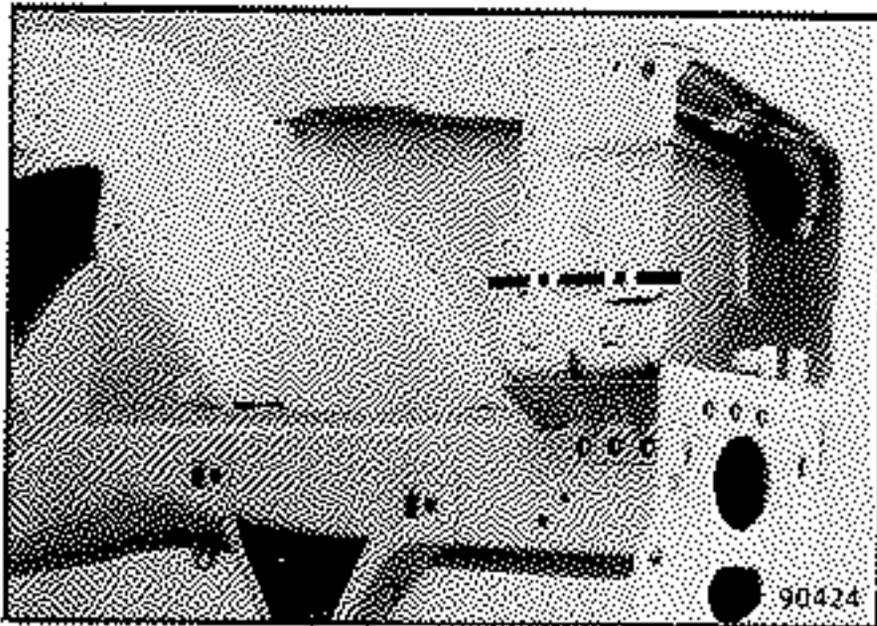
- the six upper mounting bolts (2),
- the front panel.

COMPOSITION OF PART FROM PARTS DEPARTMENT

- Headlight carrier panel (1).
- Connecting bracket (2).
- Connecting gusset (3).



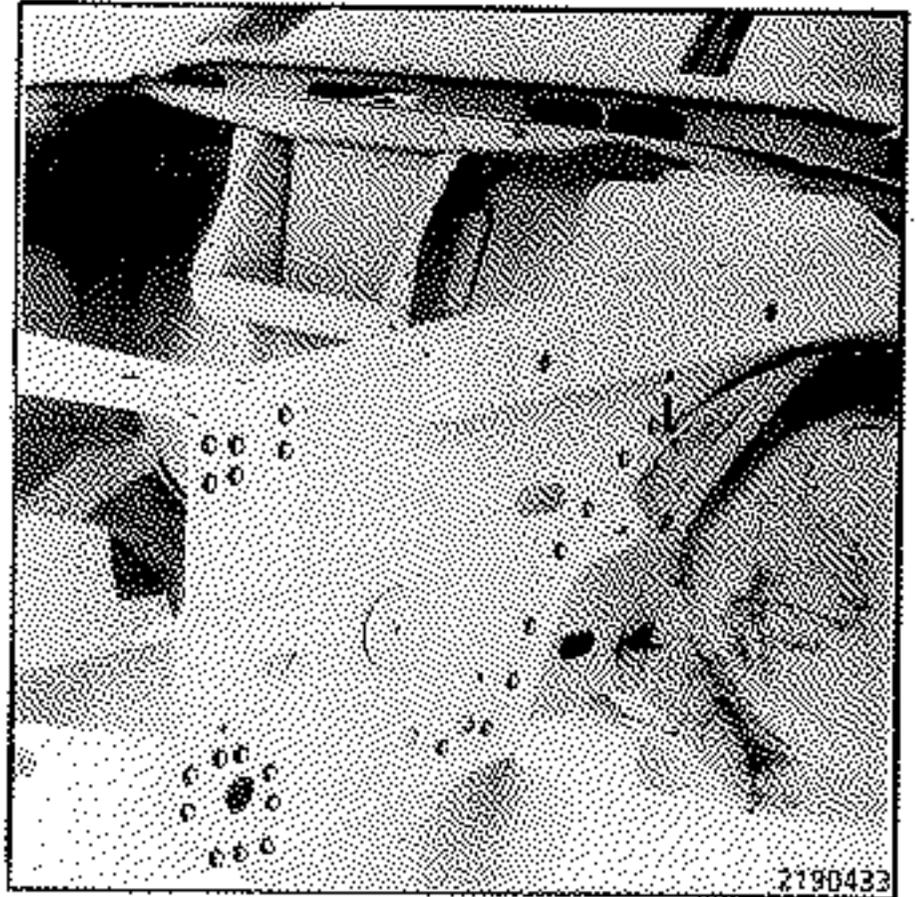
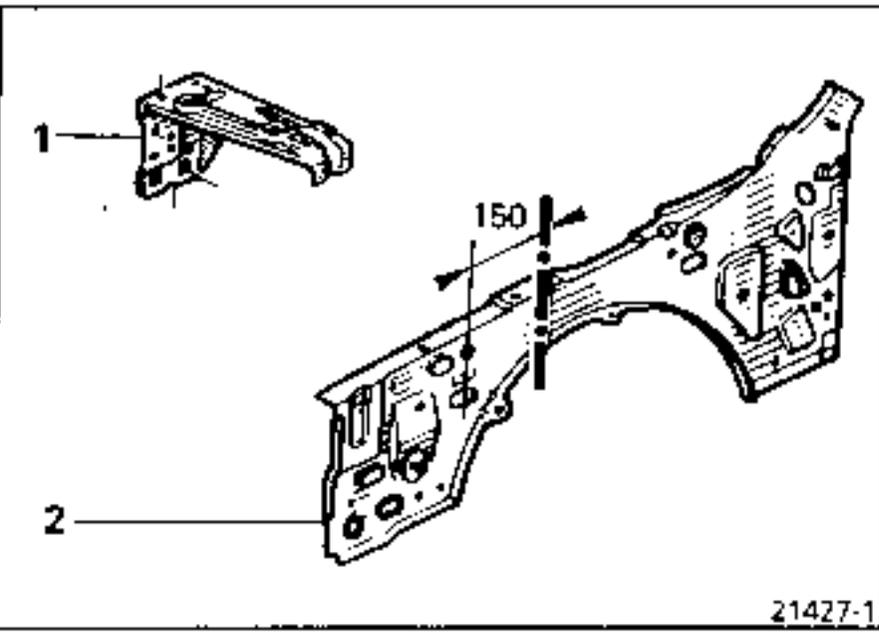
CUTTING OUT - UNPICKING



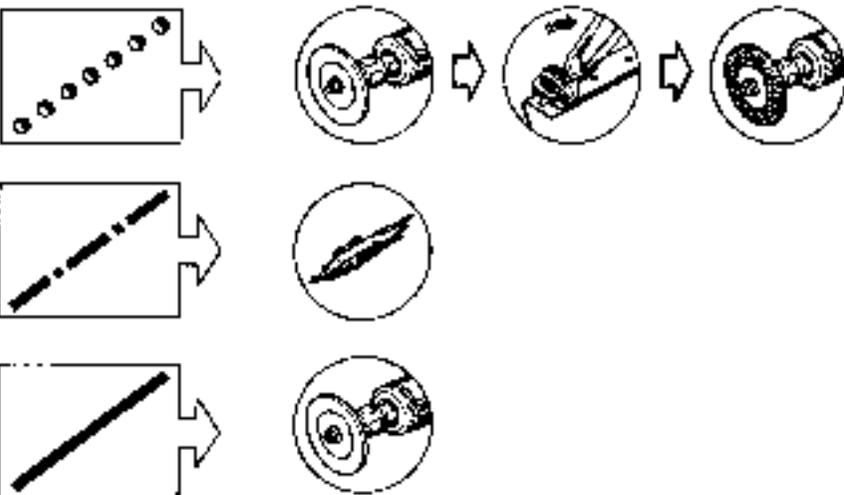
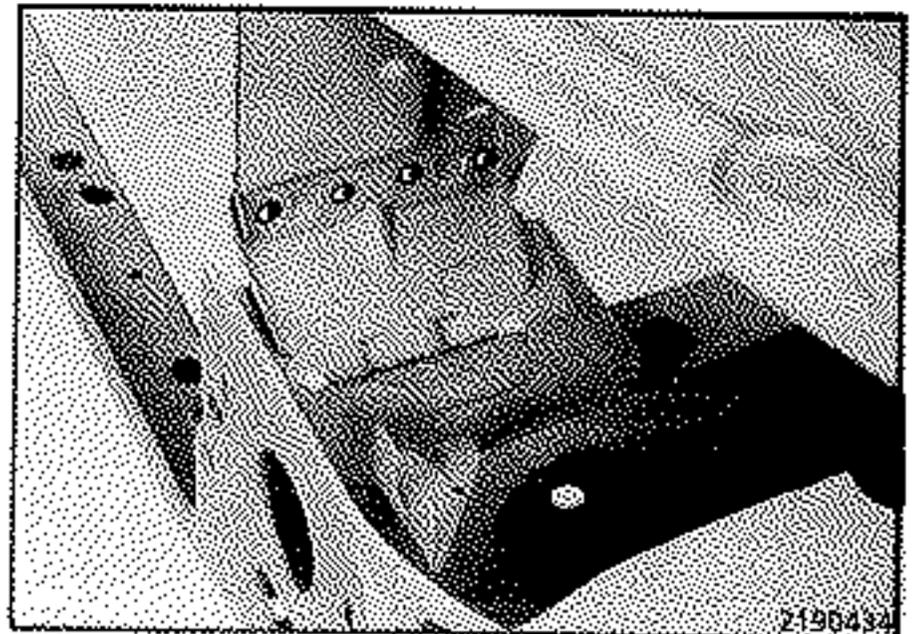
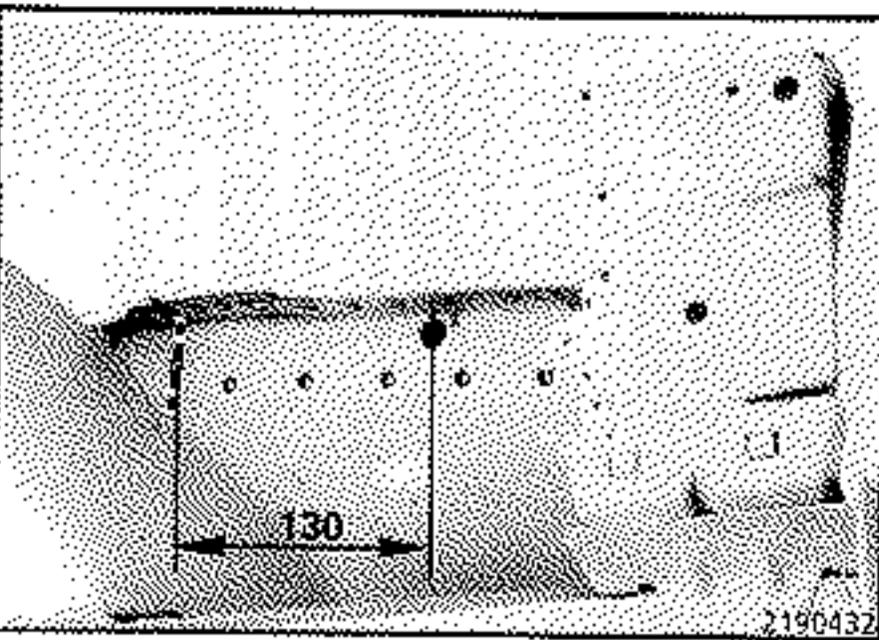


COMPOSITION OF PART FROM PARTS DEPARTMENT

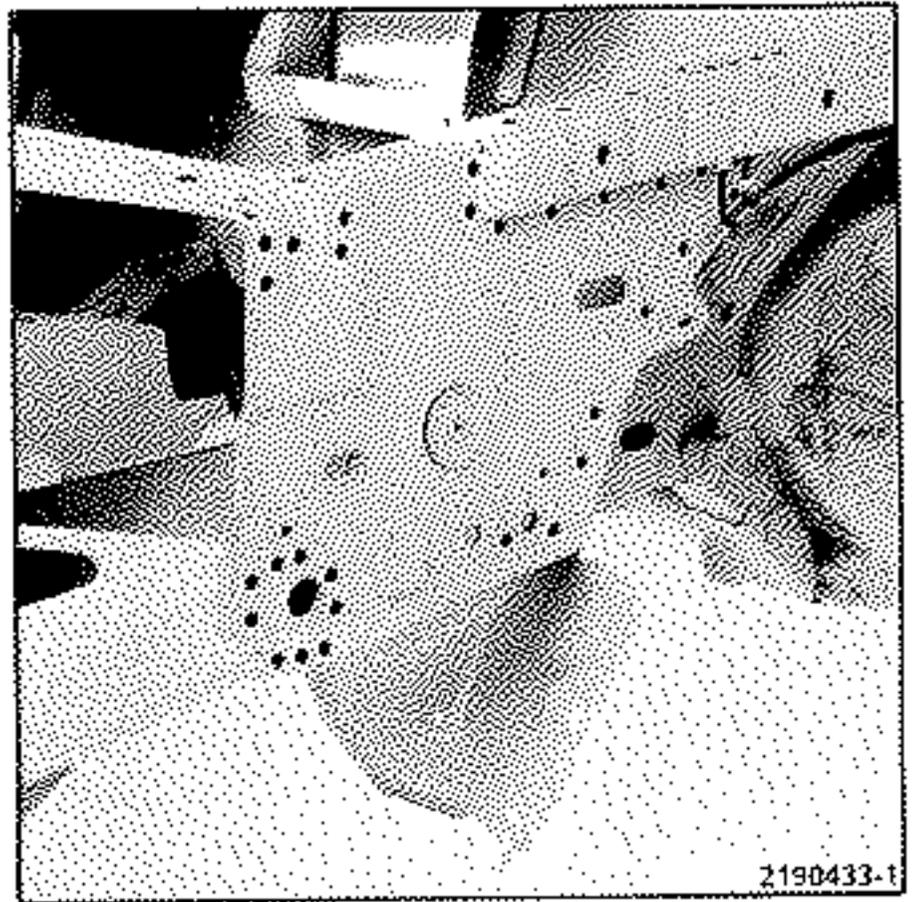
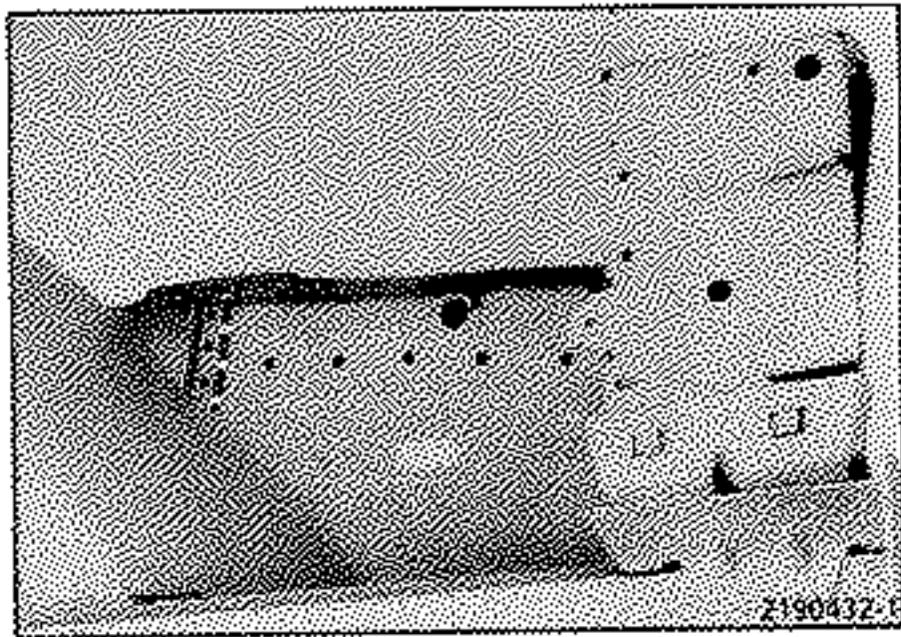
- Assembled headlight carrier panel (1).
- Bare inner wheel flange panel (2).



CUTTING OUT - UNPICKING

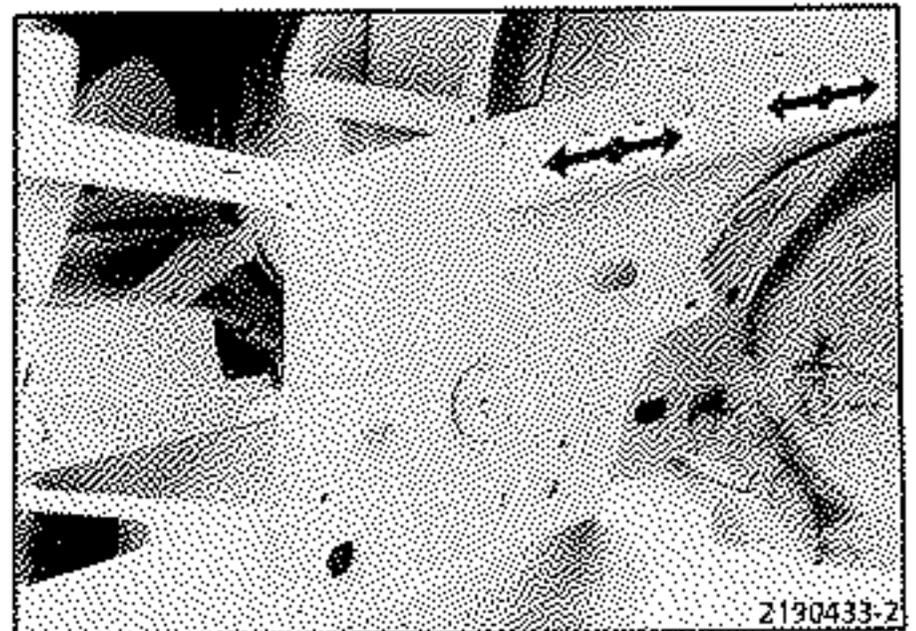
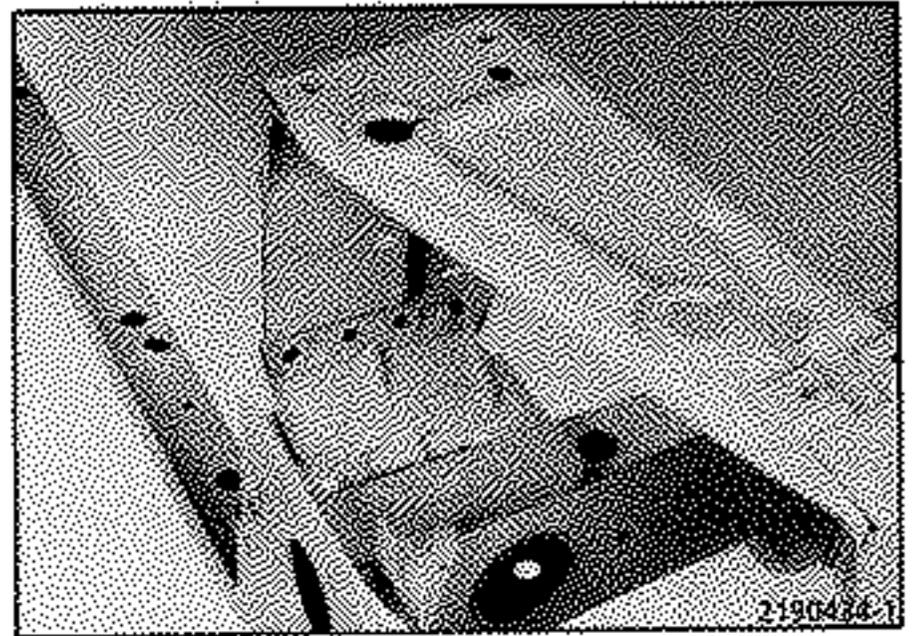


WELDING



E = 1.5 mm

H = 35 mm

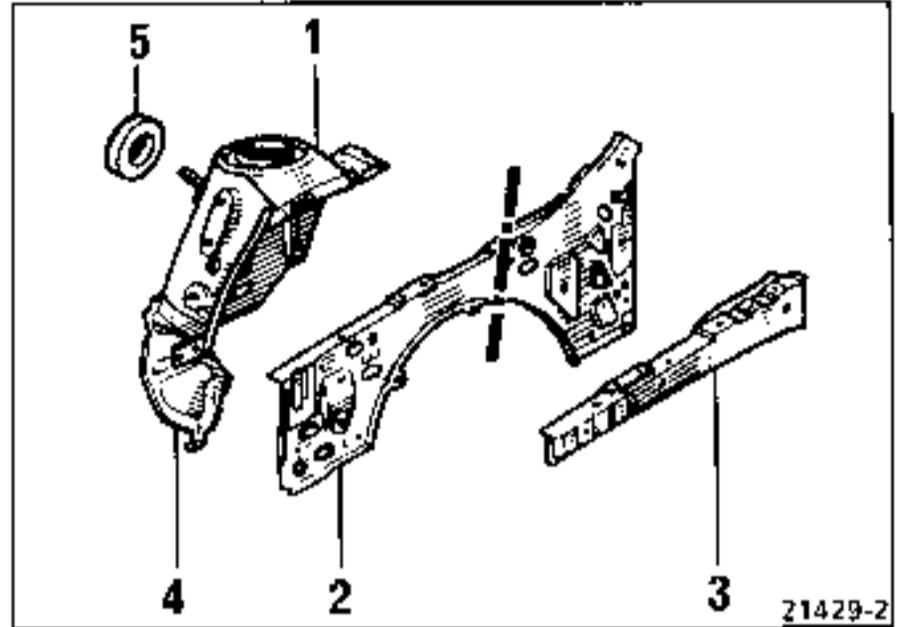


This operation is to be performed on the repair bench. Refer to sub-section 40 for the positioning of the components.

The replacement of the wheel arch is additional to the replacement of the cowl side panel and its reinforcement.

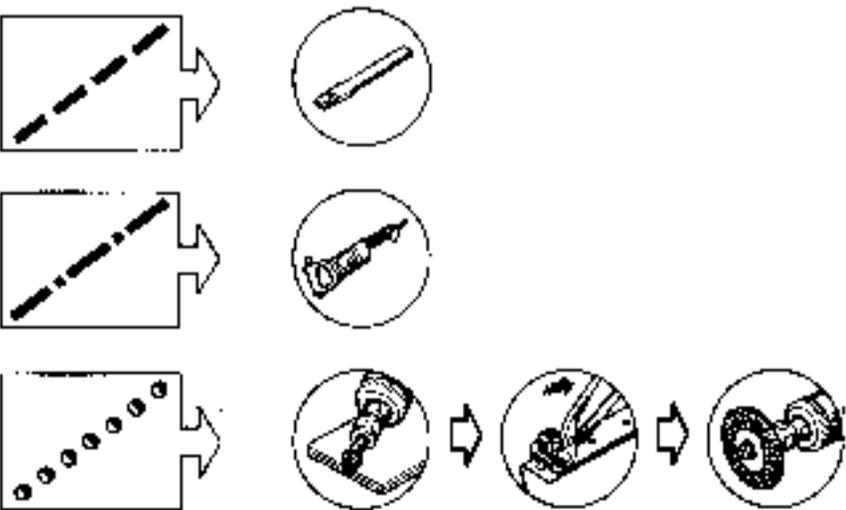
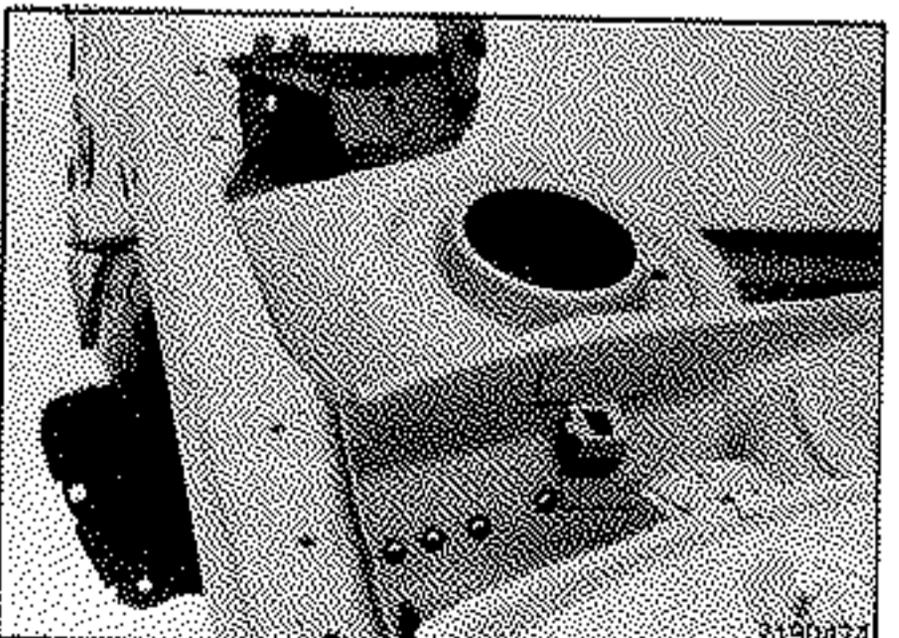
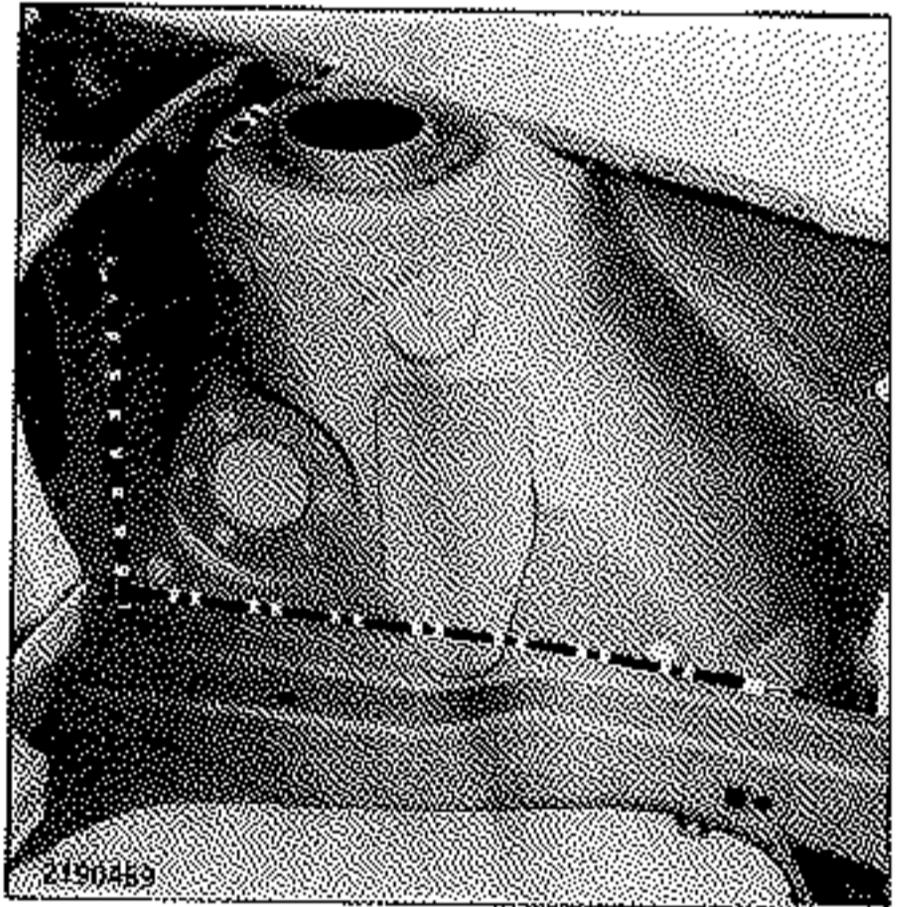
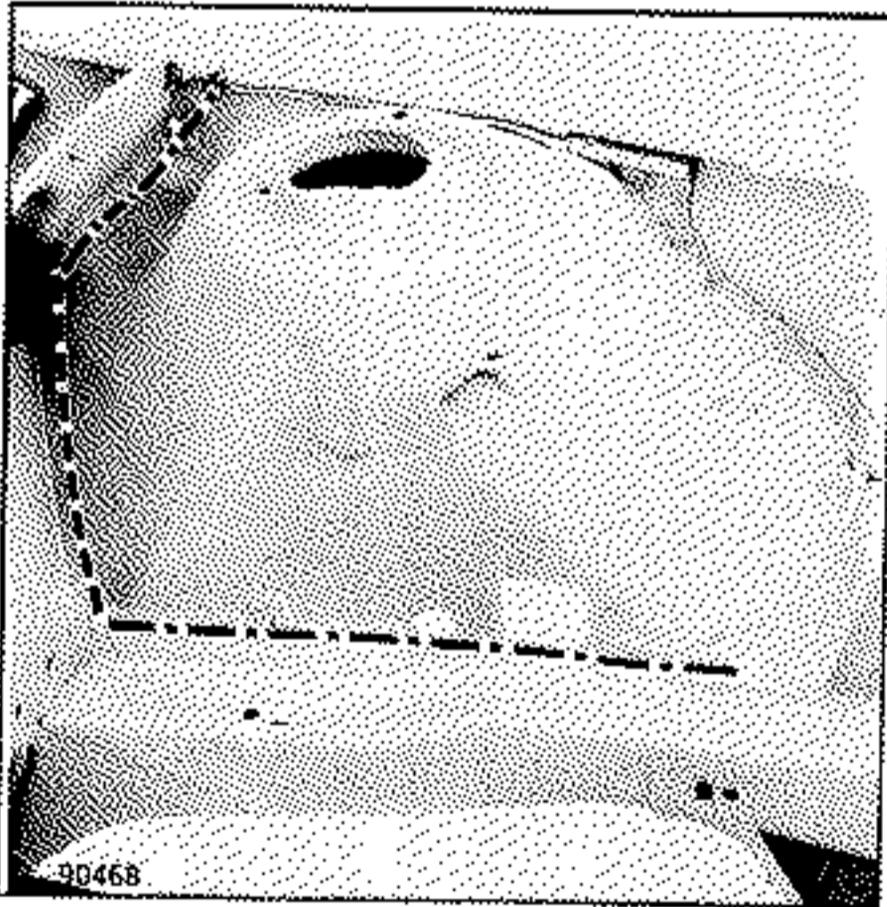
**COMPOSITION OF PART FROM PARTS DEPARTMENT**

- Wheel arch (1) supplied with :
  - Upper shock absorber cup,
  - Extension (4) with reinforcement.
  - Electrical component mounting brackets.
- Inner wheel flange panel (2) (pillar lining) with reinforcements and various mountings.
- Bare upper reinforcement (3).
- Steering mounting cup (5) (to be welded on re-fitting).

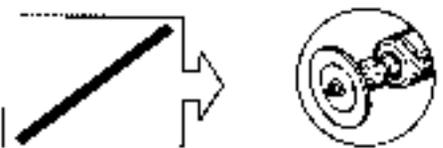
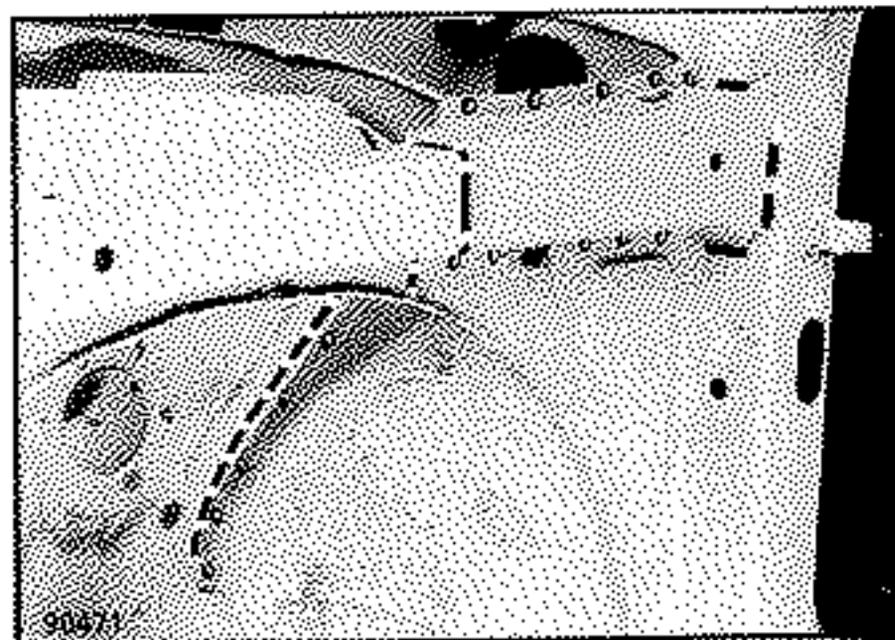
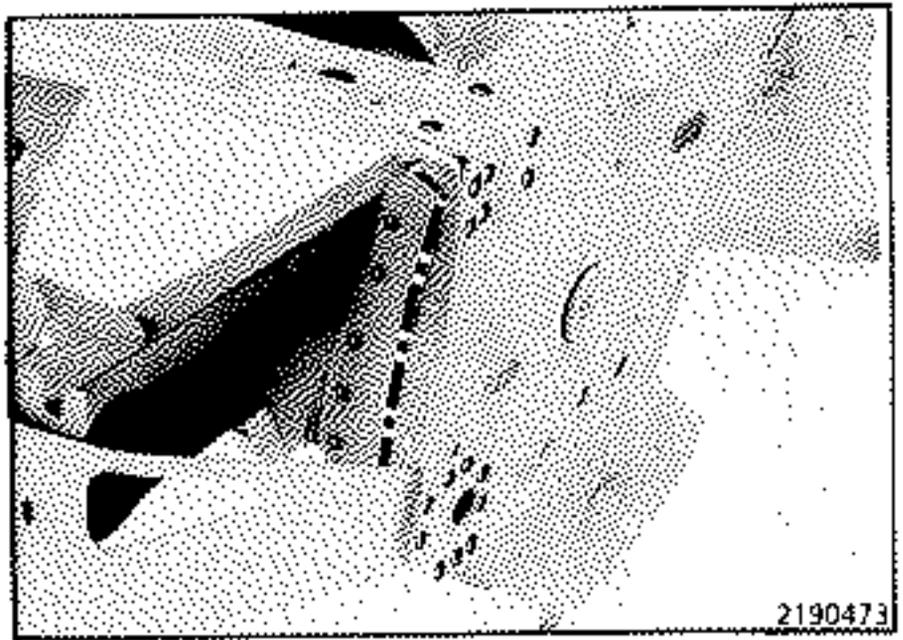
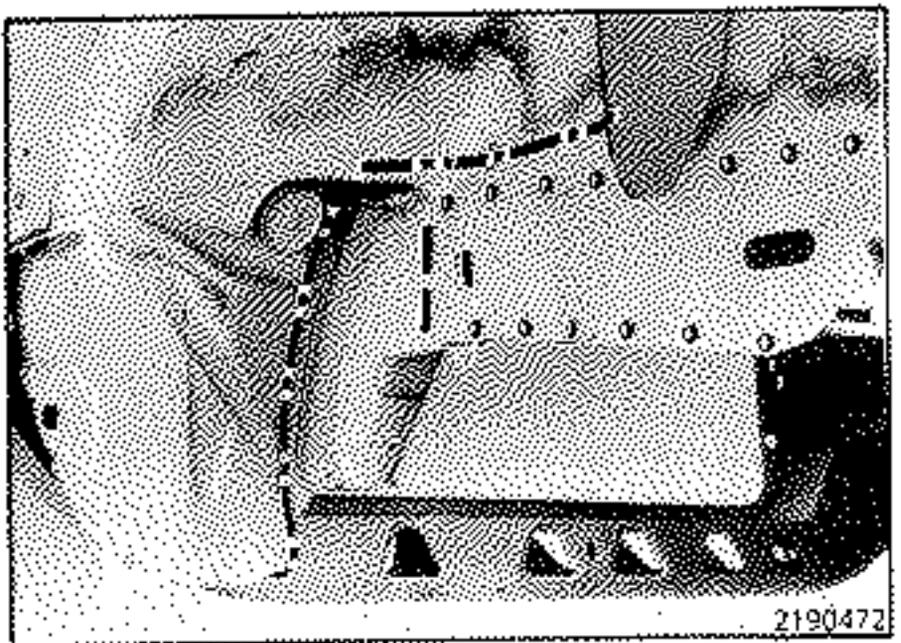
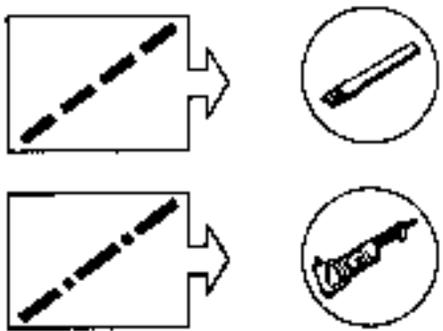
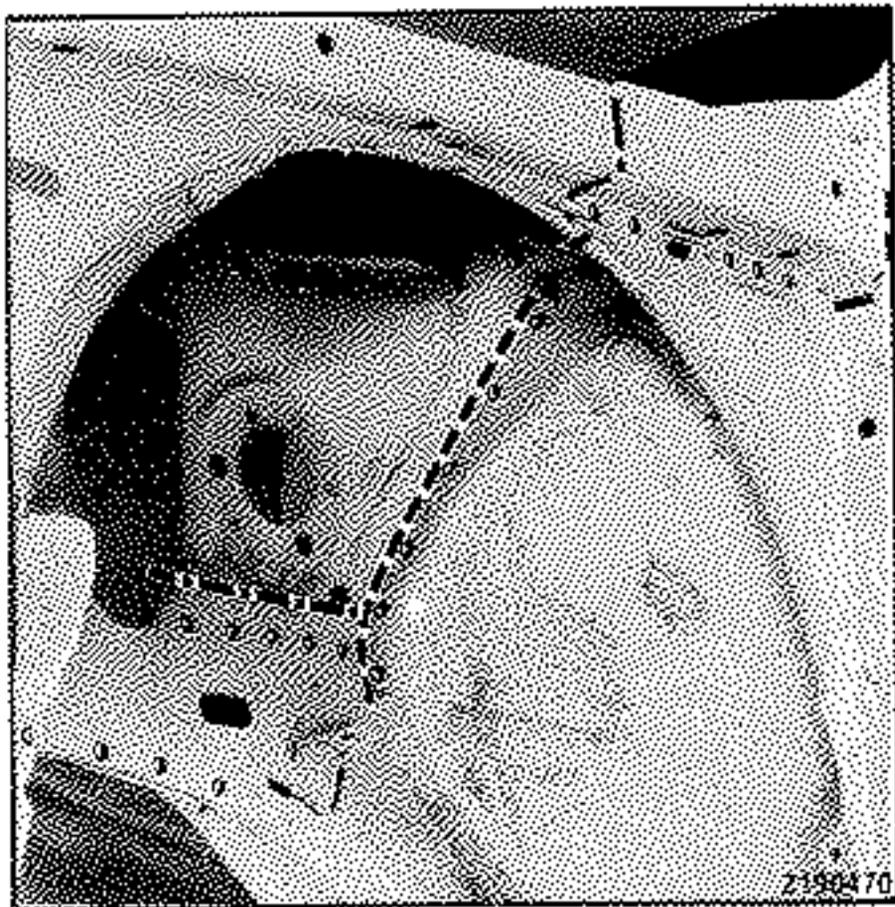


**CUTTING OUT - UNPICKING**

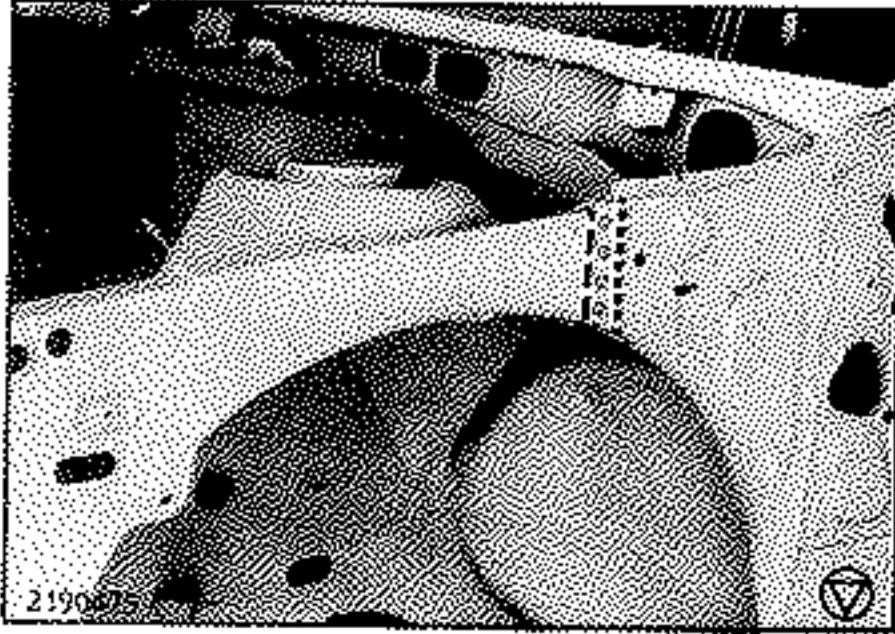
Transverse engine.



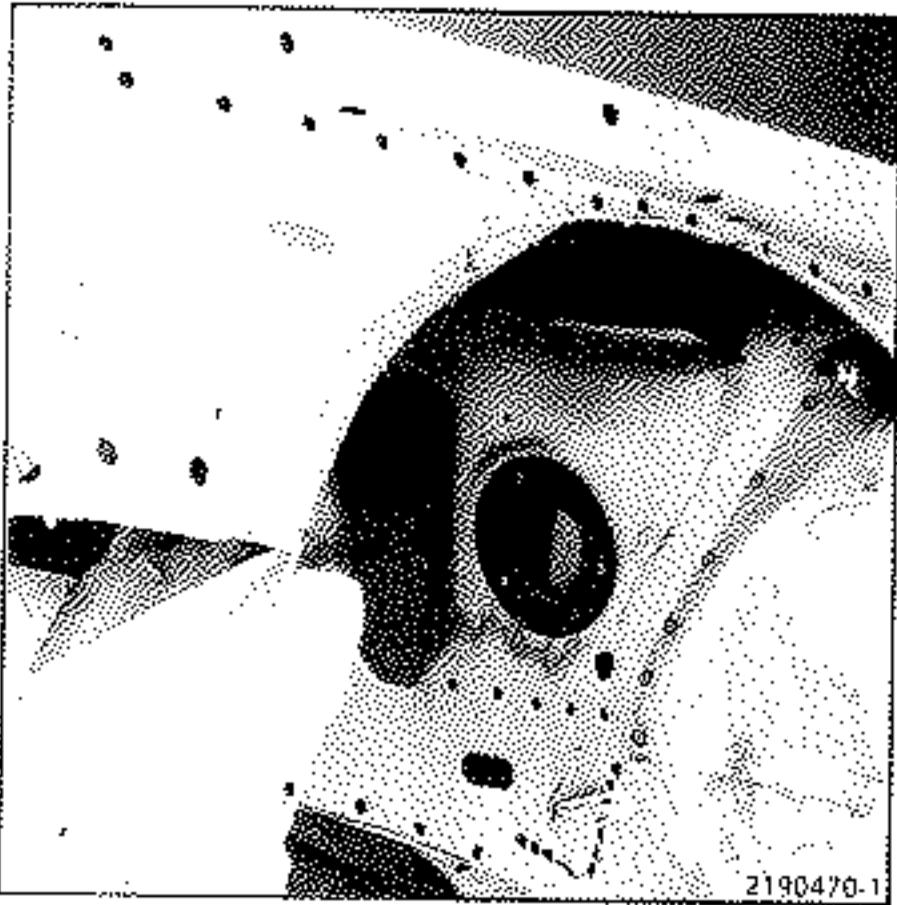
CUTTING OUT - UNPICKING (cont)



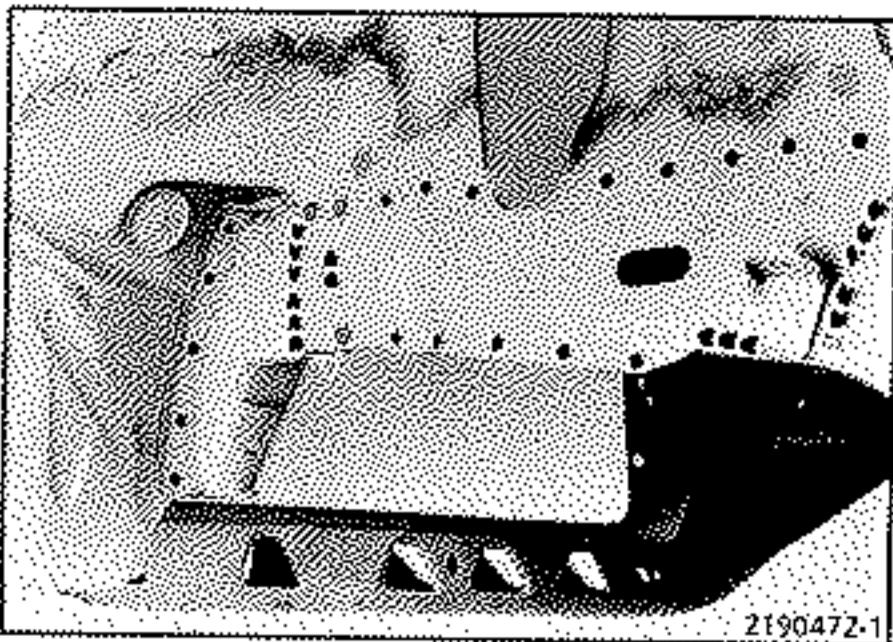
WELDING



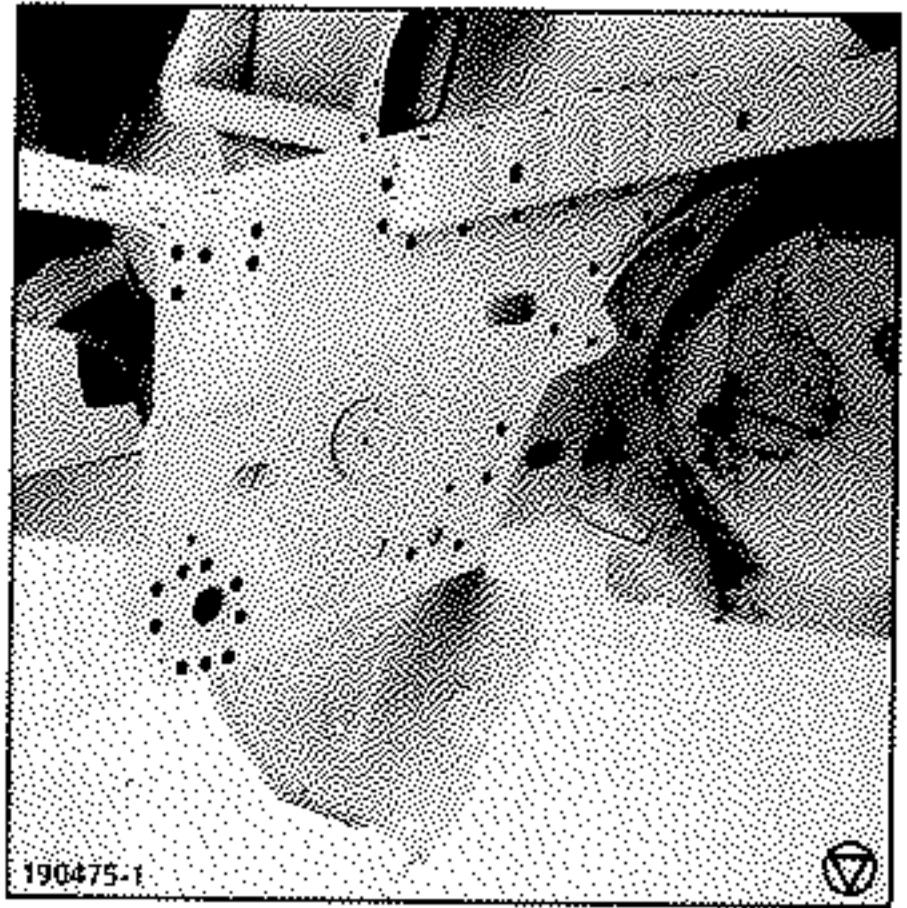
D = 5 mm



D = 5 mm



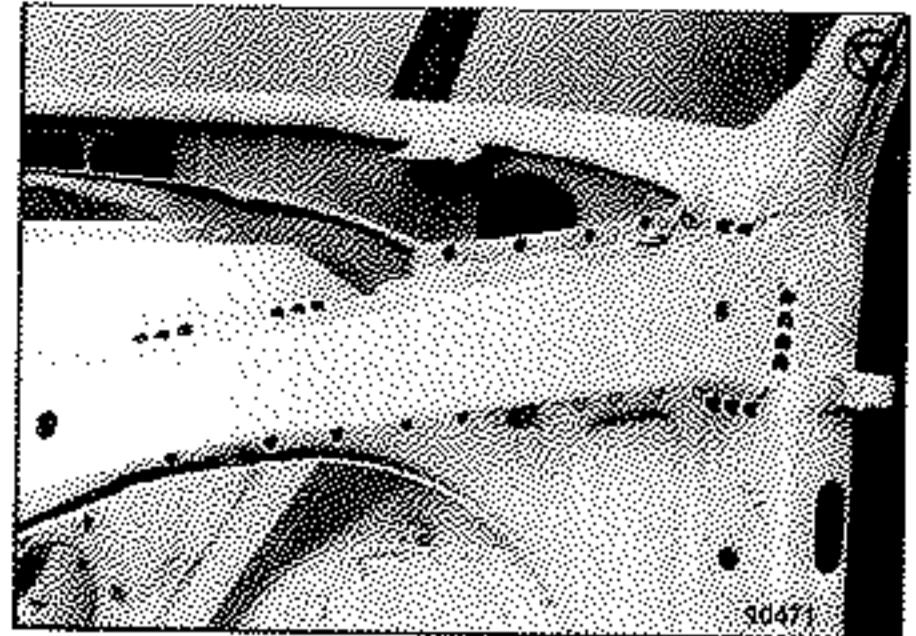
E = 1.7 mm  
H = 30 mm



D = 5 mm

e = 1.7 mm

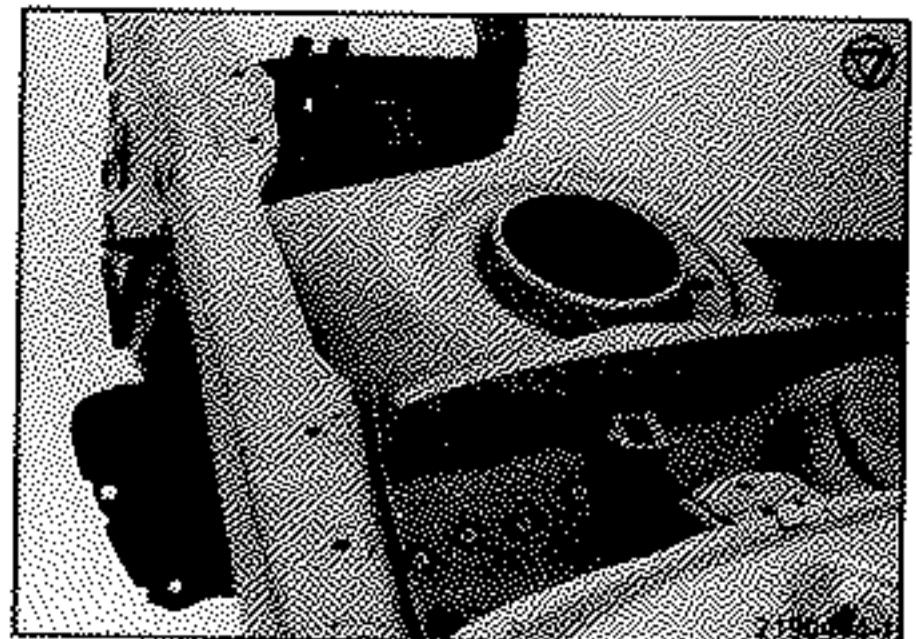
H = 30 mm



e = 1.7 mm

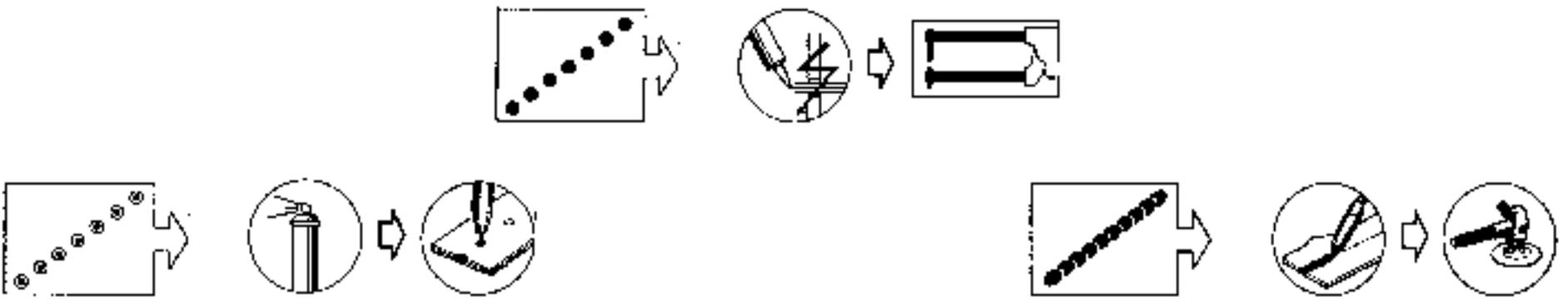
H = 30 mm

A:D = 6 mm



IN-LINE ENGINE

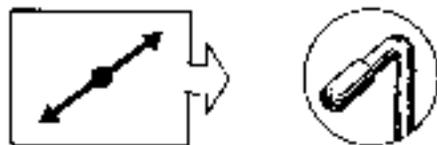
WELDING (cont)



Apply the electric spot welds. The corresponding values for e and H are given under each diagram.



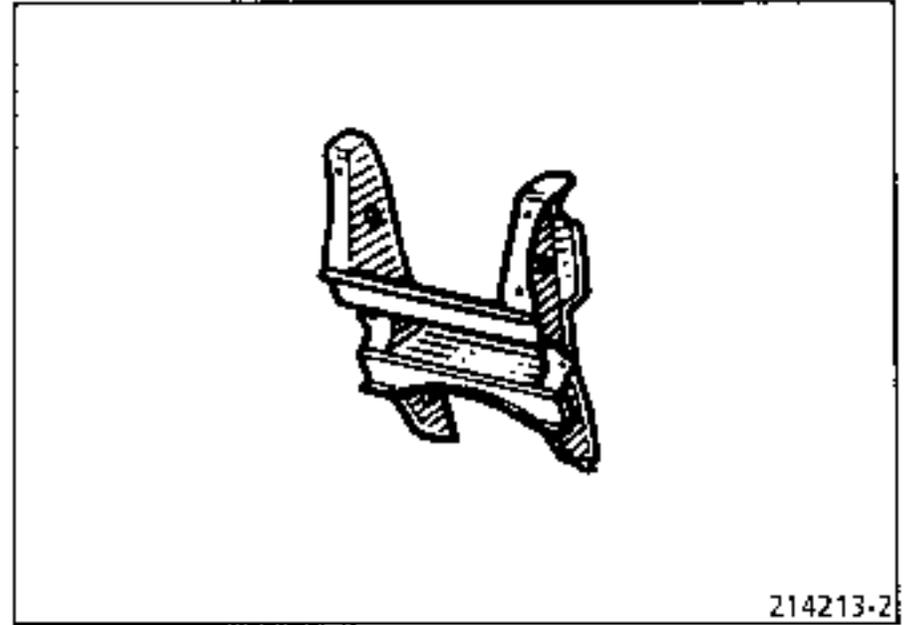
PROTECTING HOLLOW SECTIONS



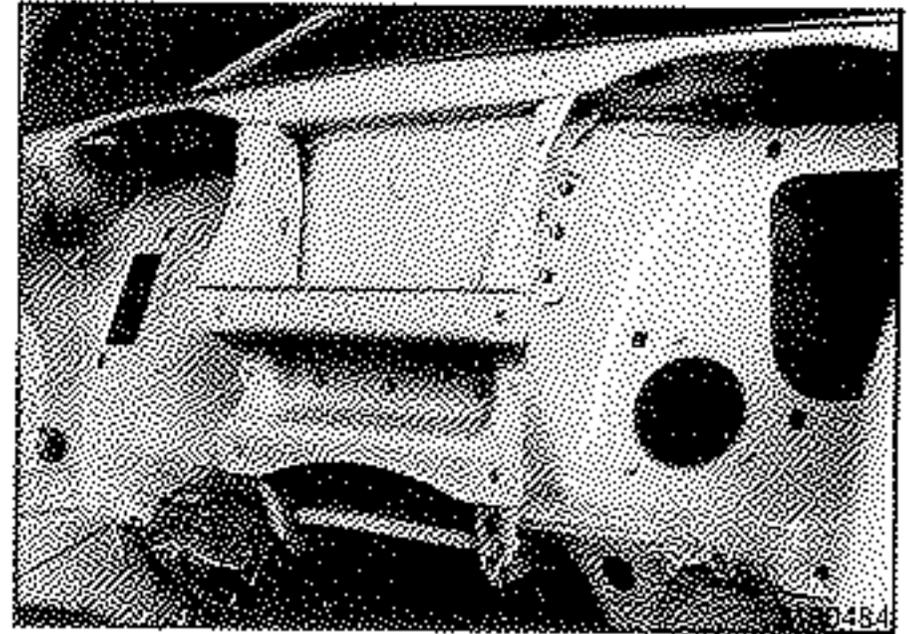
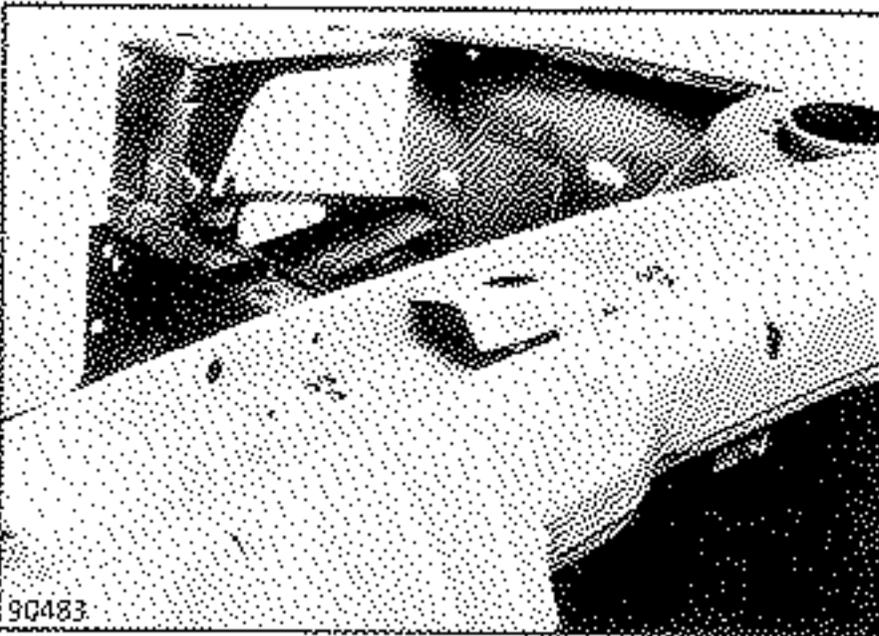
This operation is to be performed on the repair bench. Refer to sub-section 40 for the positioning of the components.

COMPOSITION OF PART FROM PARTS DEPARTMENT

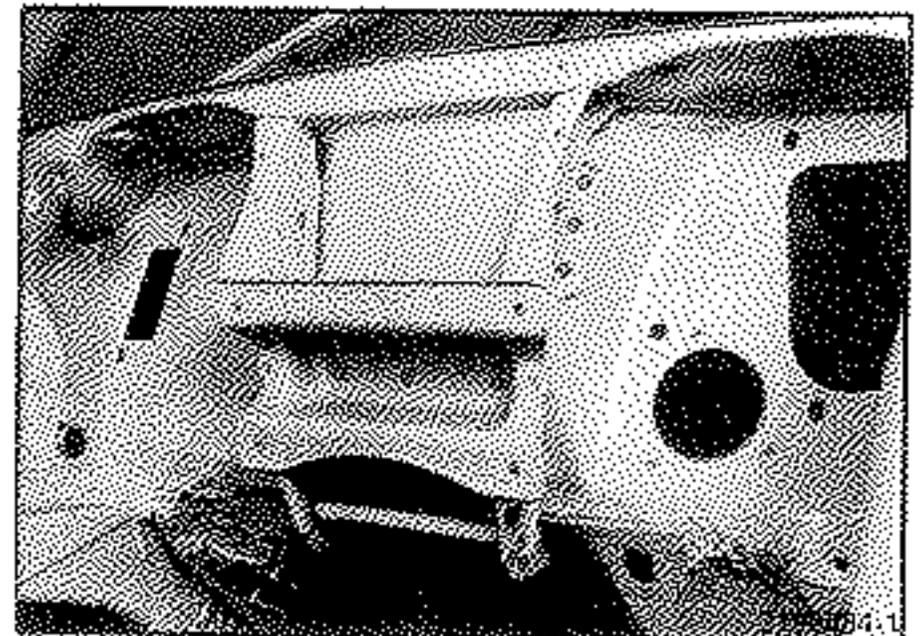
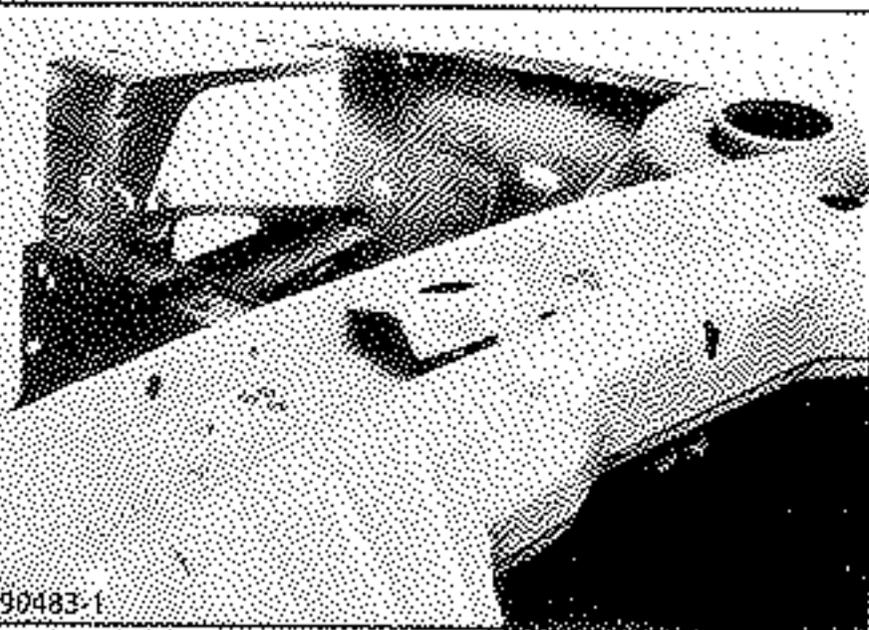
Part supplied undrilled (drill using bracket N° 4 on the repair bench).



CUTTING OUT - UNPICKING



SOUDURE

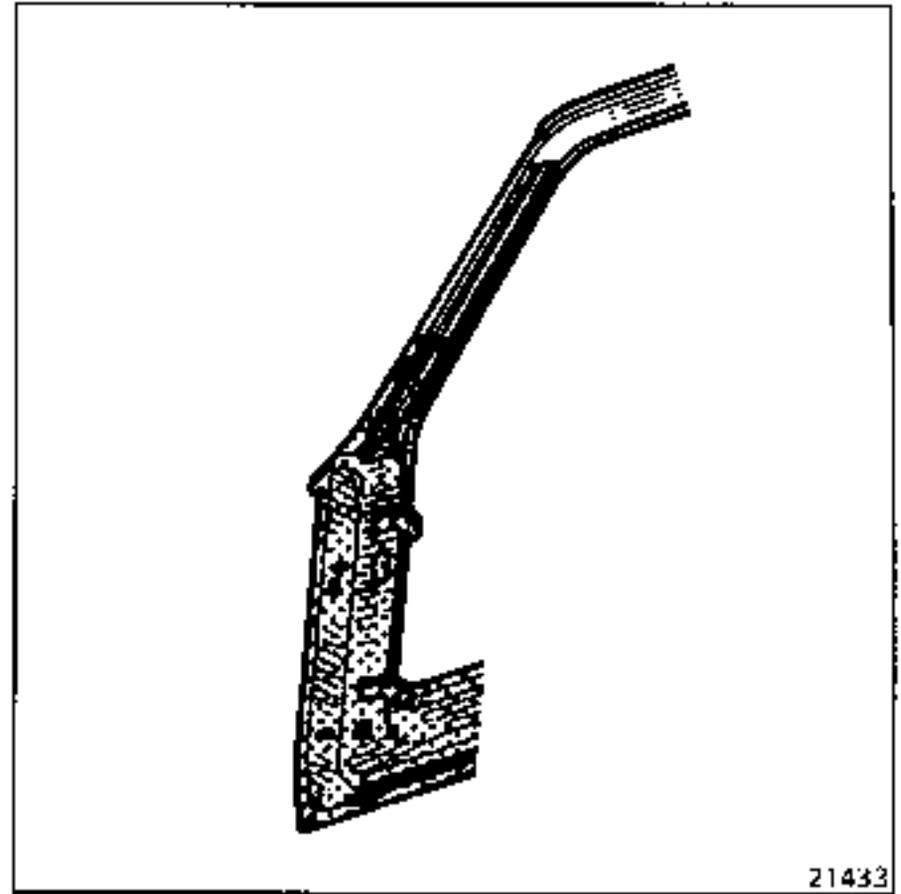


D = 6 mm

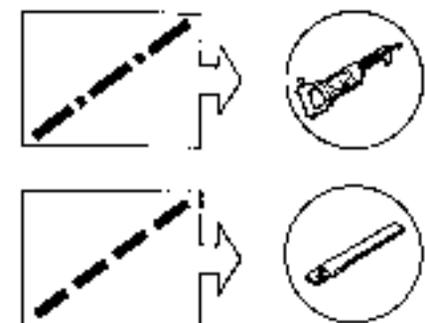
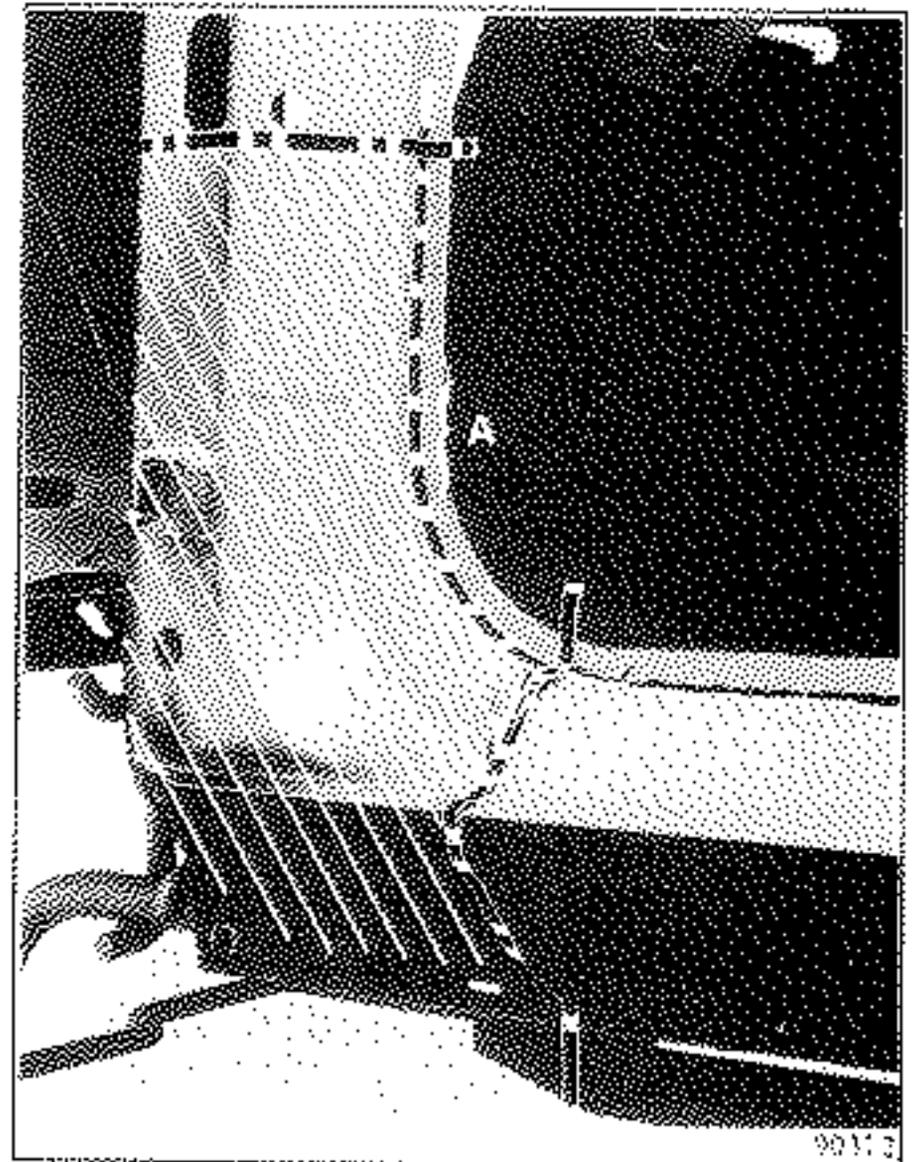
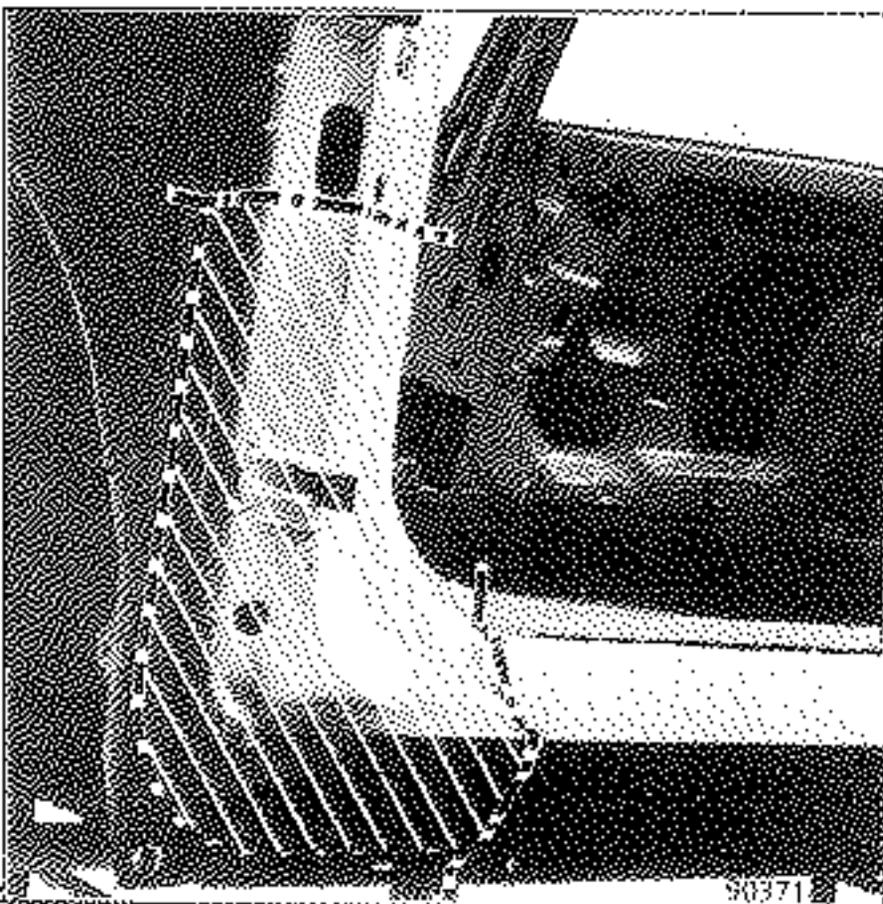


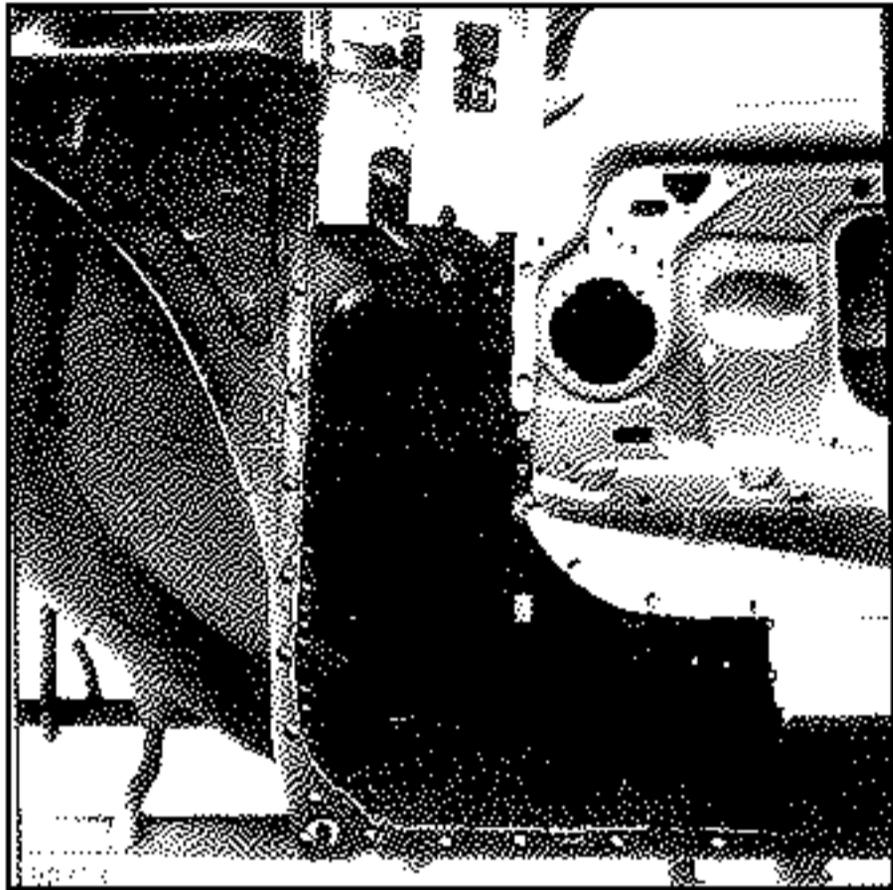
COMPOSITION OF FRONT PILLAR FROM PARTS DEPARTMENT

- Front pillar.
- Upper hinge reinforcement.
- Lower hinge reinforcement.
- Door check mounting.
- Wing mounting stud.
- Rain channel moulding mounting support.
- Upper hinge.
- Lower hinge.

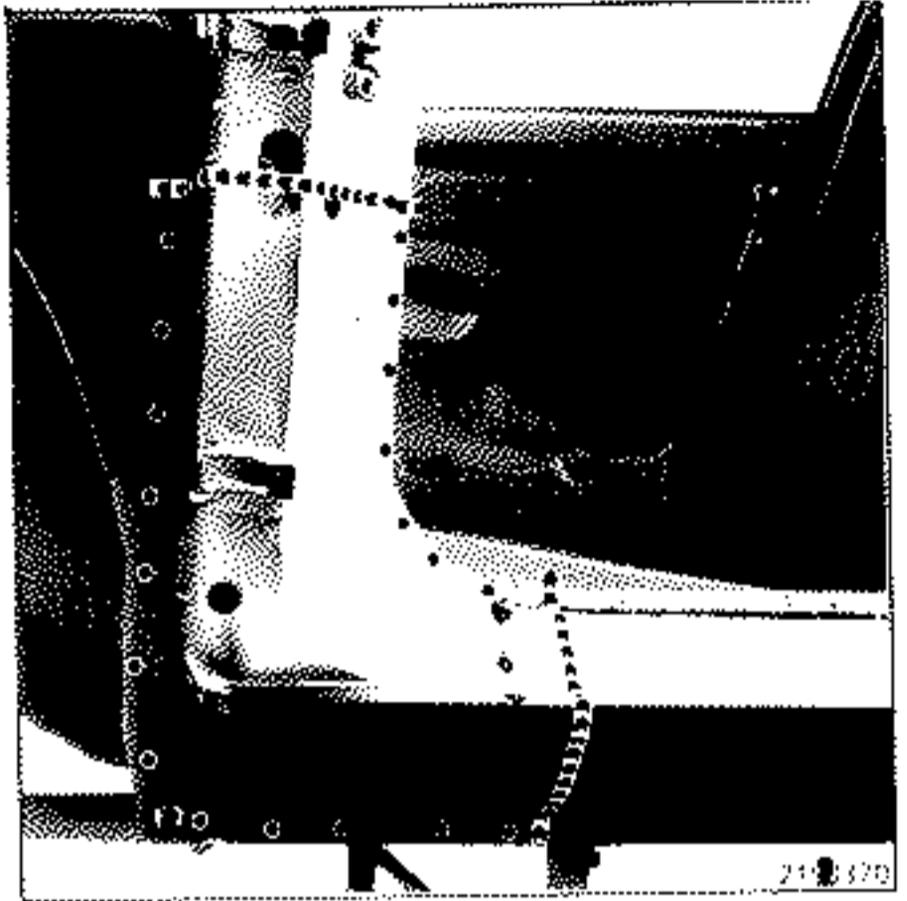


CUTTING OUT - UNPICKING



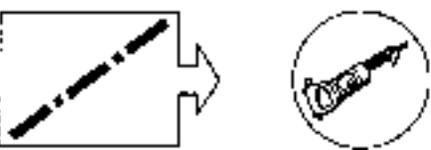
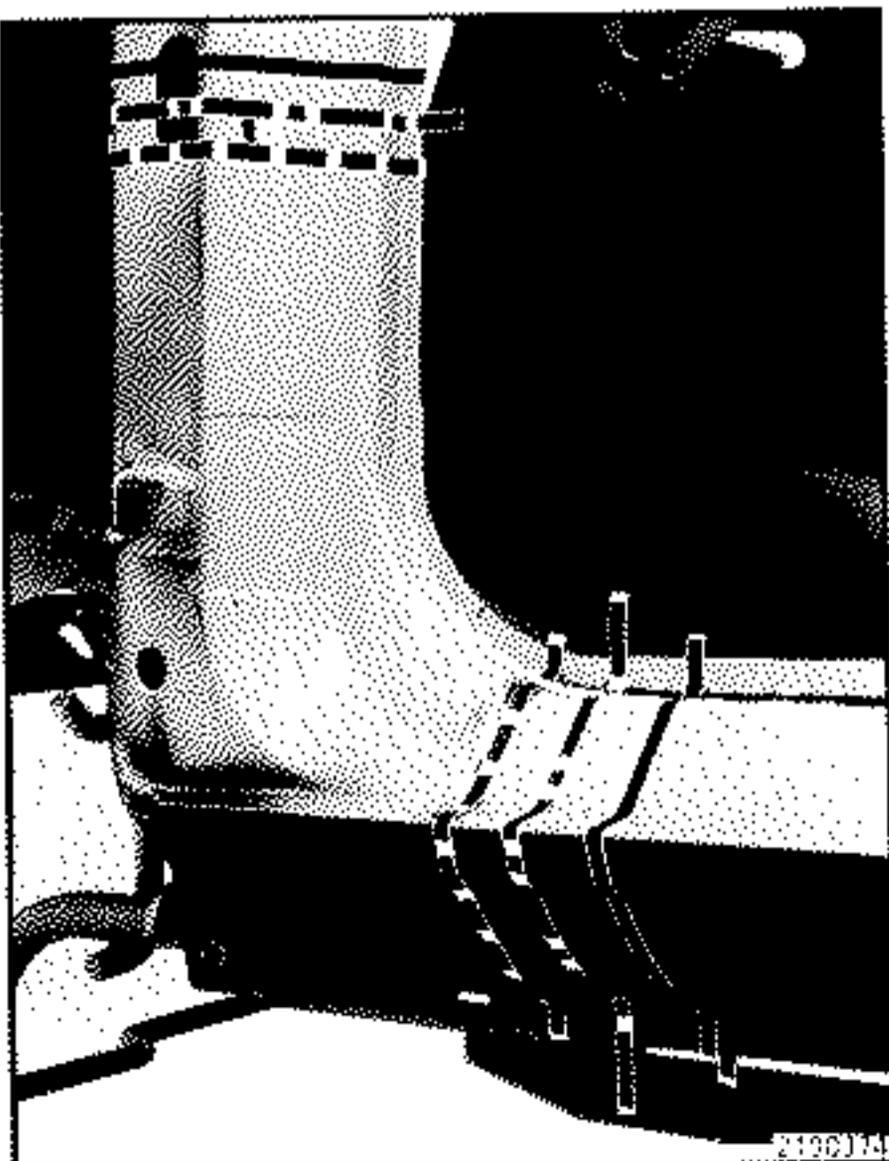


WELDING



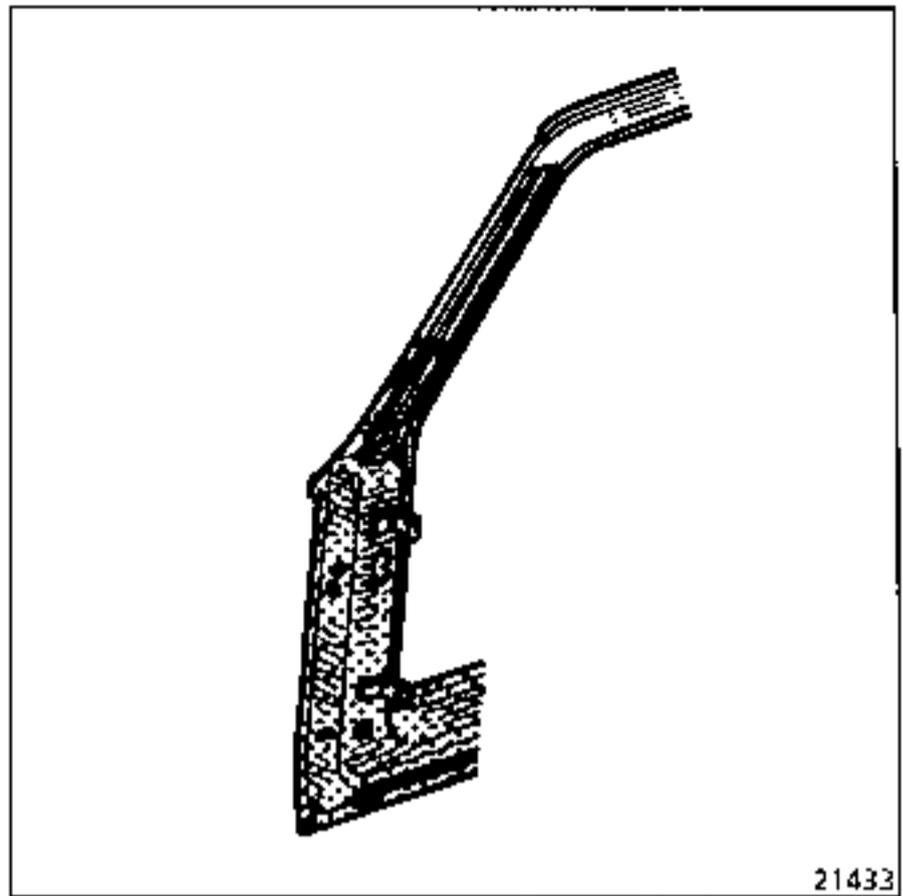
$e = 1.4 \text{ mm}$   
 $H = 75 \text{ mm}$

PREPARATION BEFORE WELDING

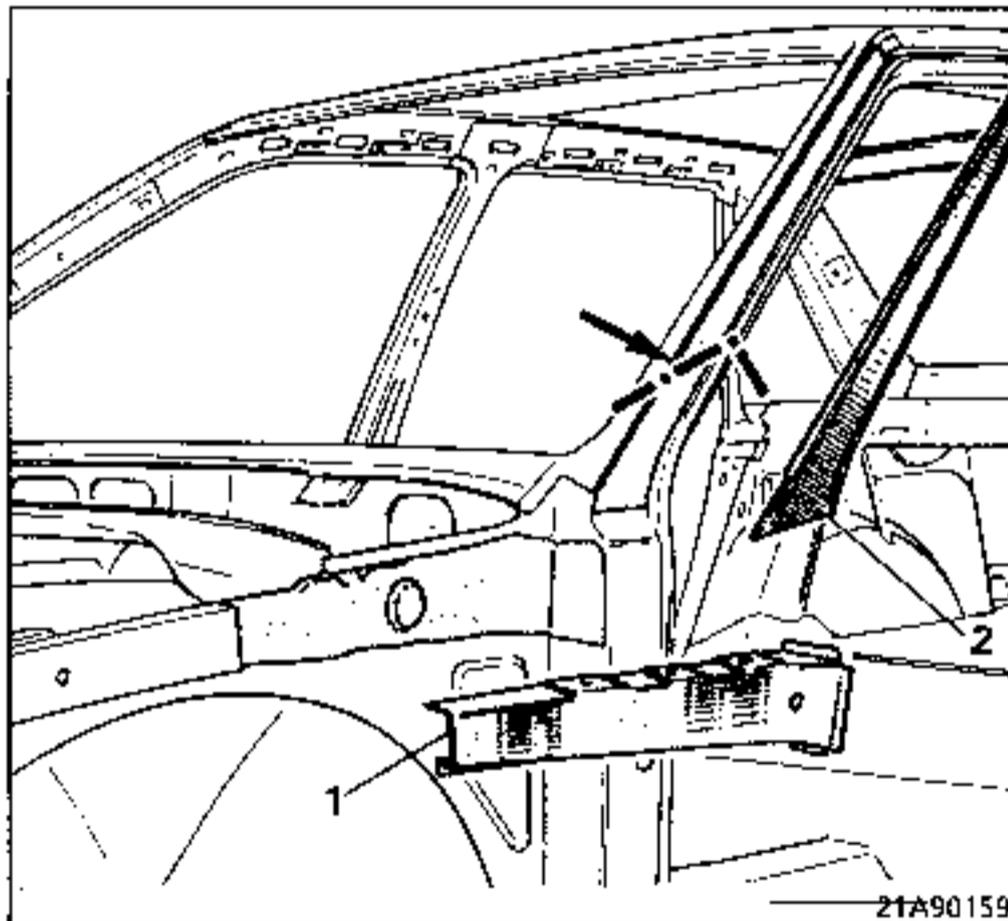


**COMPOSITION OF FRONT PILLAR FROM PARTS DEPARTMENT**

- Front pillar.
- Upper hinge reinforcement - door check mounting.
- Lower hinge reinforcement.
- Upper hinge.
- Lower hinge.
- Wing mounting stud.
- Rain channel moulding mounting support.



The method described below requires the windscreen to be removed and possibly the dashboard if the lining has been damaged. If the dashboard is not to be removed, it must be protected.



The following components must be replaced when the pillar upright is cut:

- 1 side members and (partial replacement),
- 2 rain channel moulding mounting support.

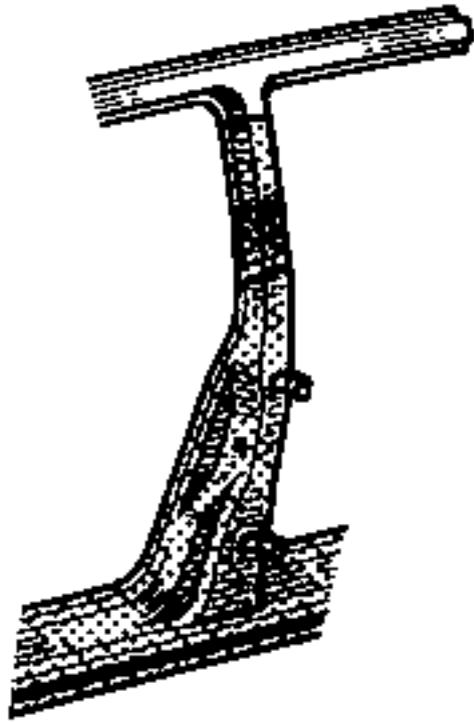
Firstly: remove these components to give access to the front pillar upper section.

Mark the cutting line along the pillar upright; the operating method is the same as for replacement of the lower section of the pillar (see the corresponding section).

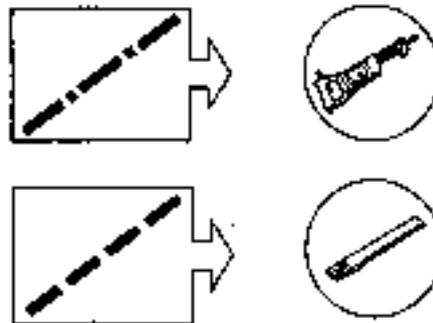
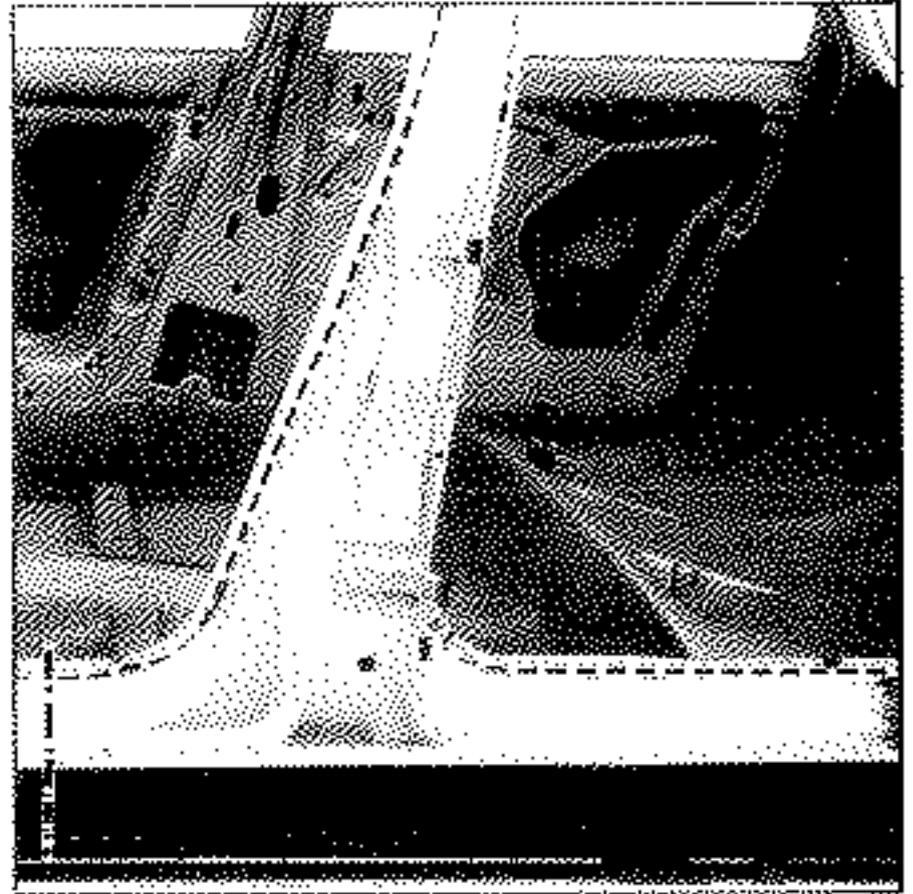
In order to facilitate positioning of the pillar, the rain channel moulding mounting support must be removed from the new component supplied by the Parts Department.

COMPOSITION OF CENTRE PILLAR FROM PARTS DEPARTMENT

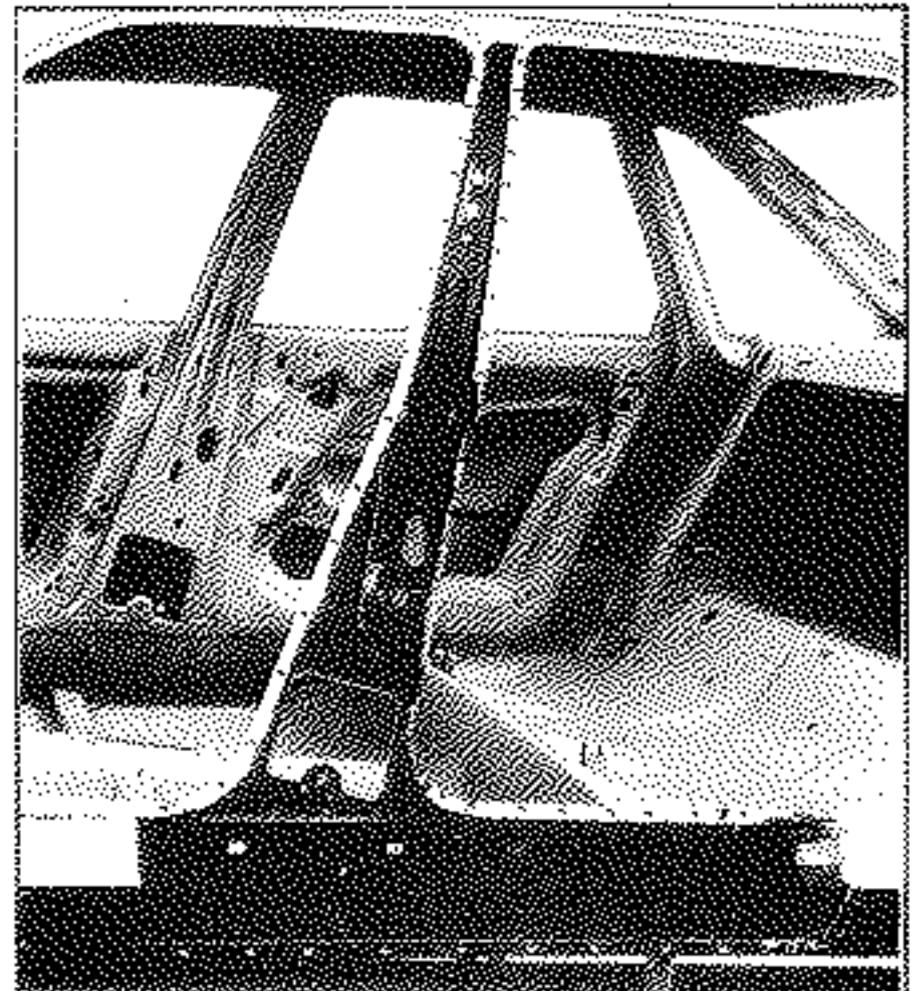
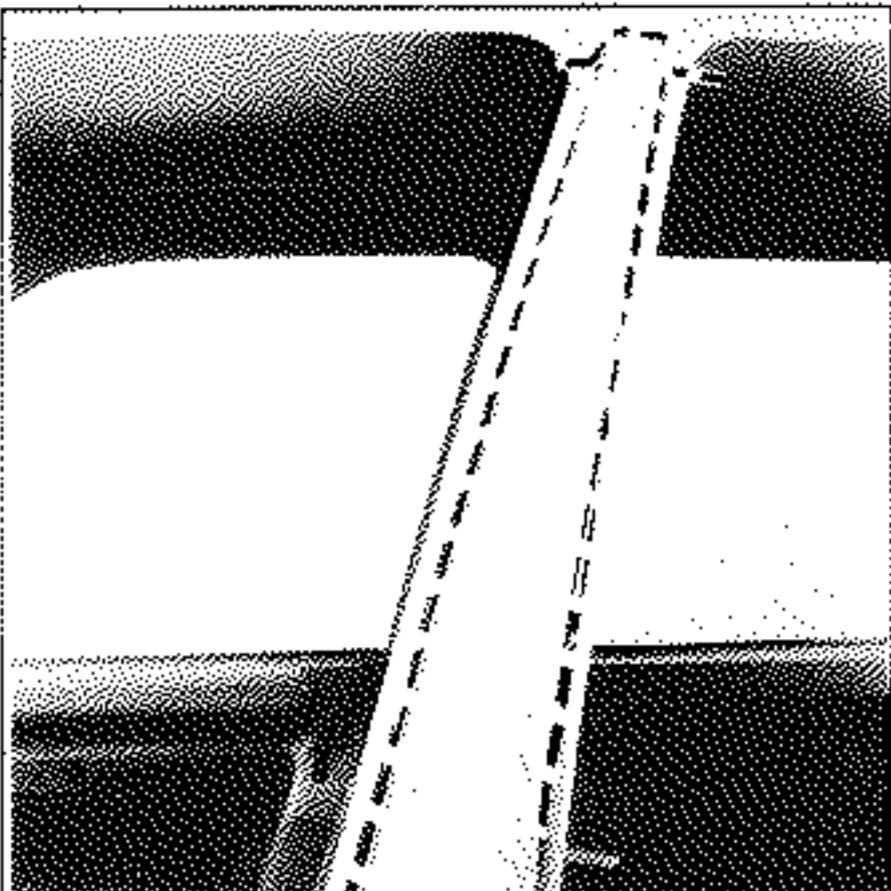
- Centre pillar.
- Seat belt mounting.
- Upper hinge.
- Lower hinge.
- Hinge reinforcement.
- Striker plate mounting casing.



21434-1



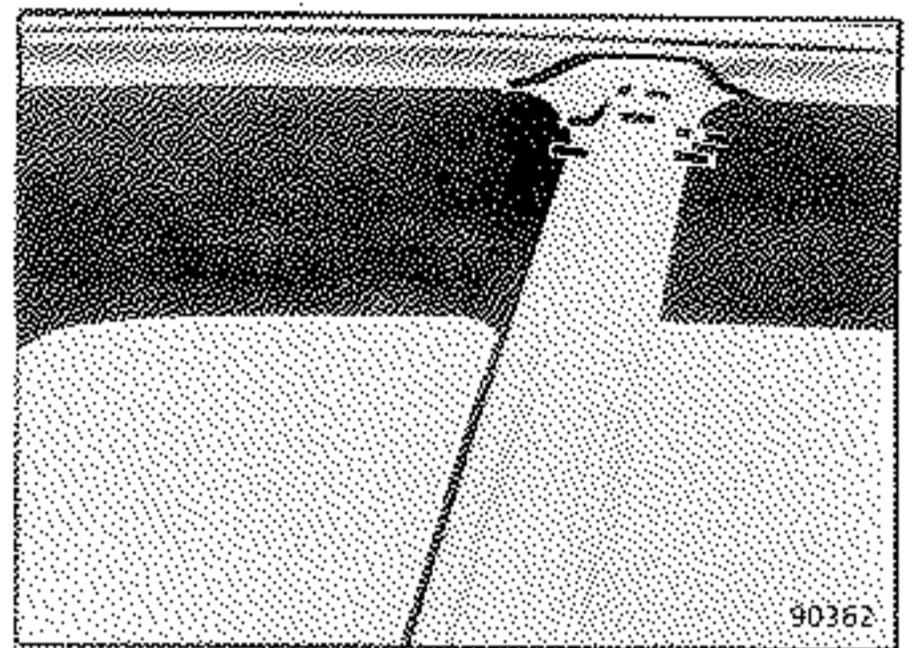
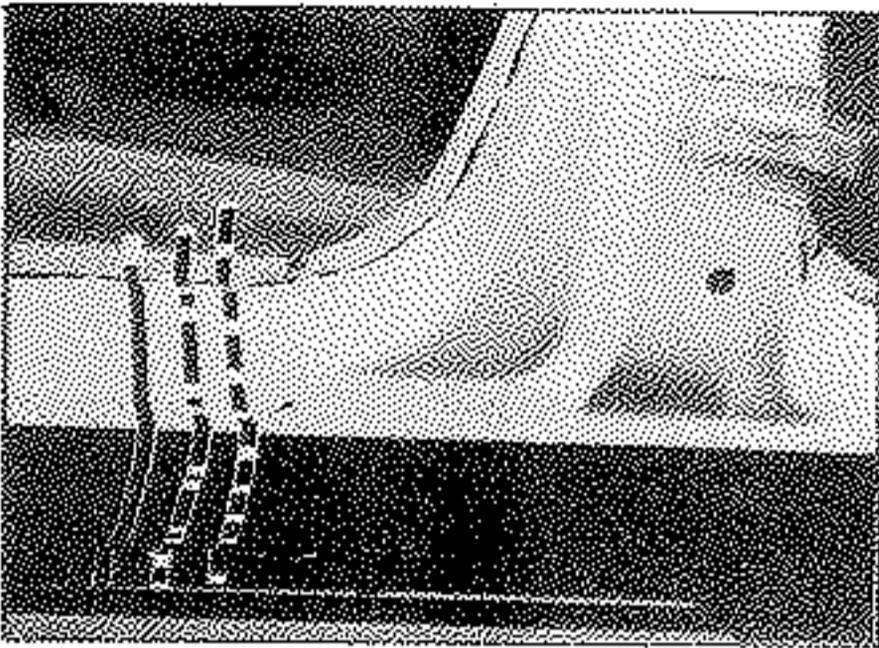
CUTTING OUT - UNPICKING



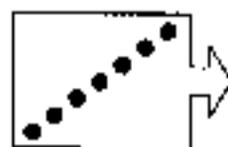
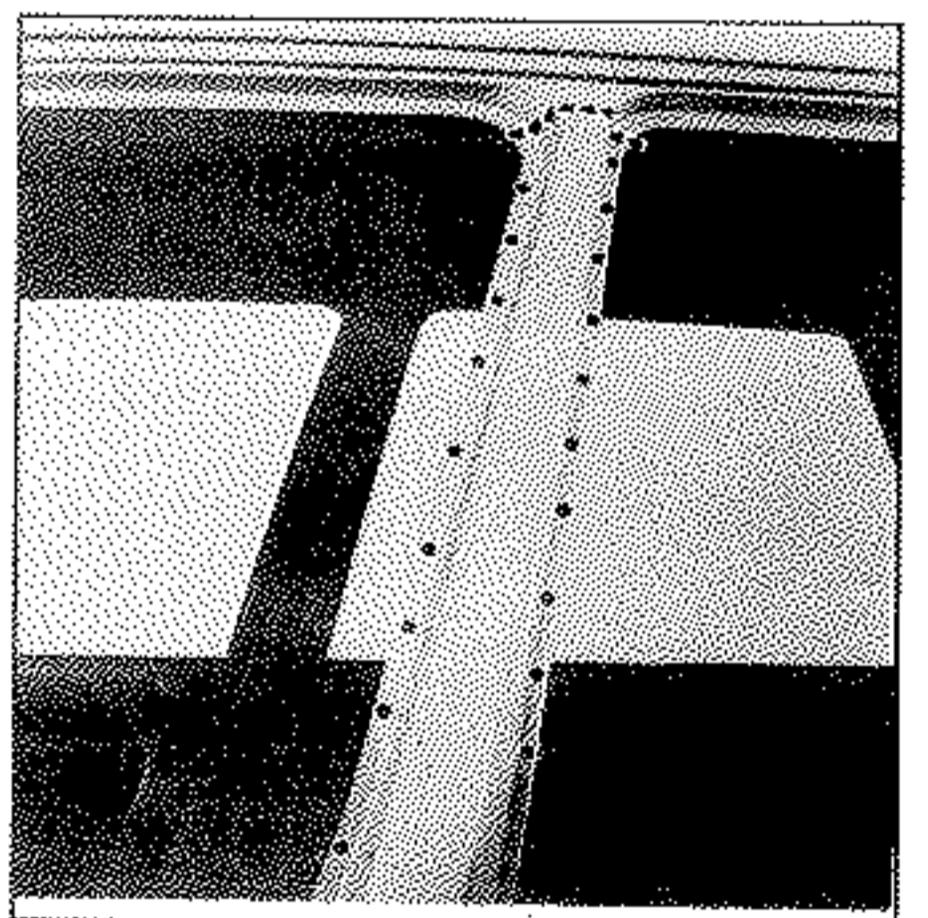
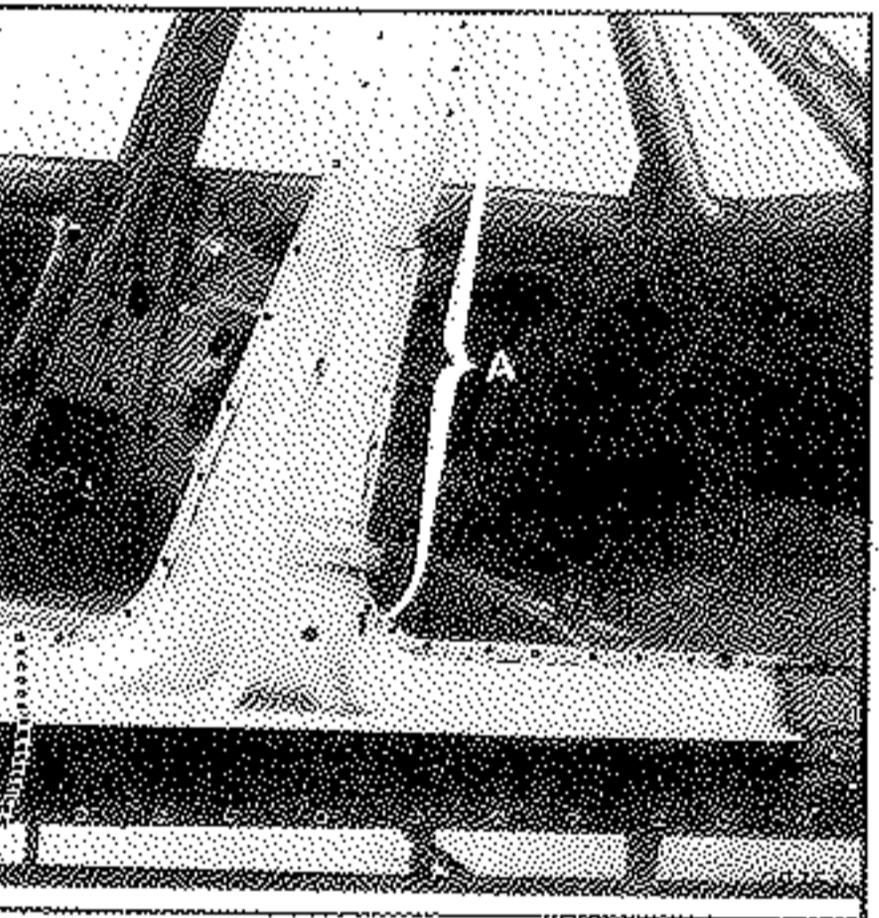
21434-2



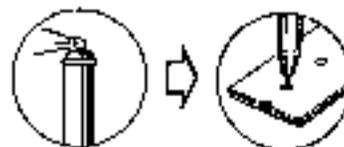
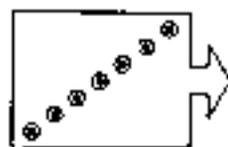
PREPARATION BEFORE WELDING



WELDING



$e = 1.4 \text{ mm}$   
 $H = 37 \text{ mm}$



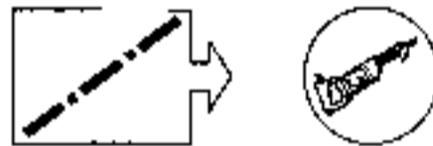
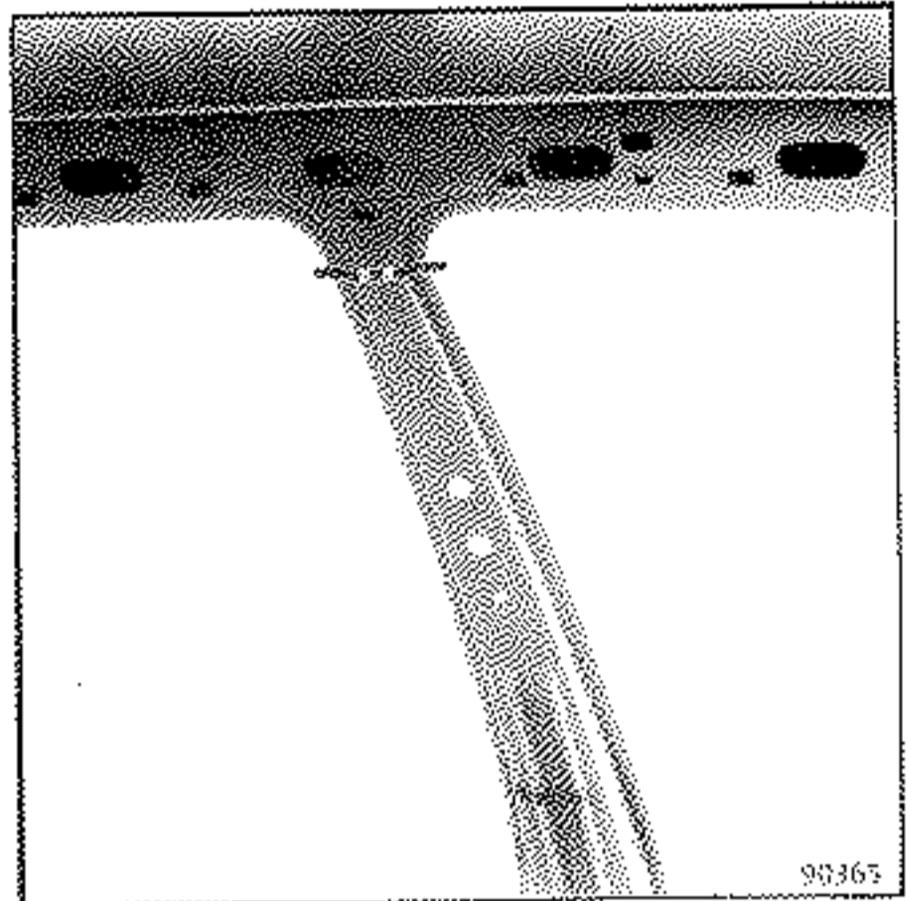
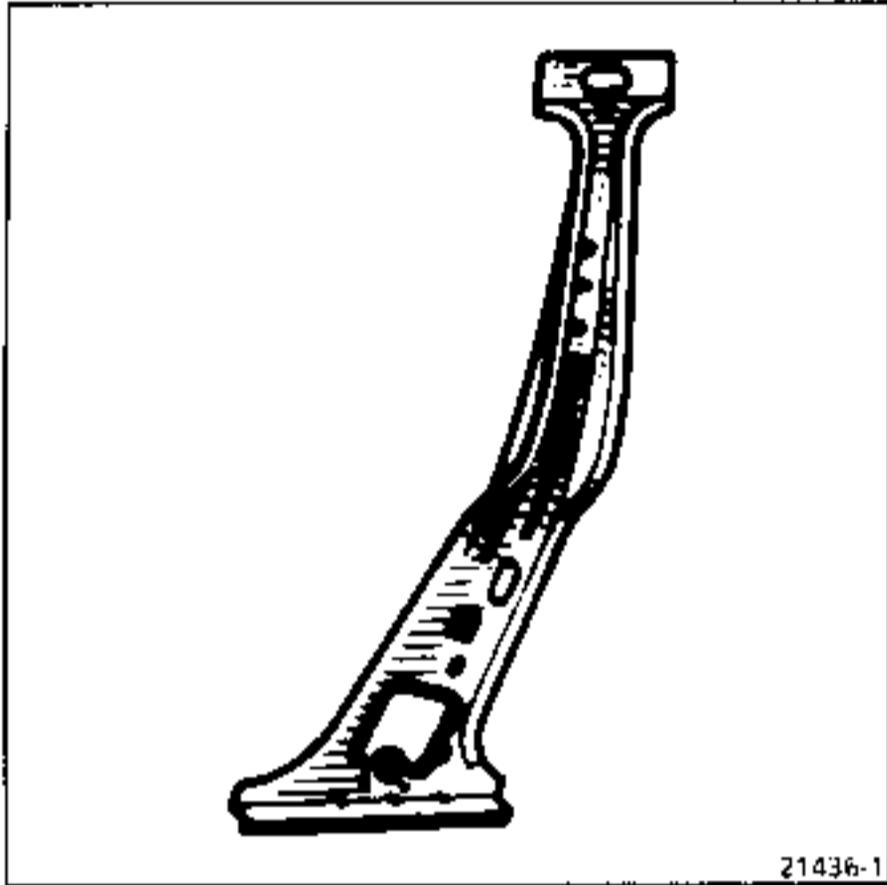
$D = 45 \text{ mm}$

At (A) apply plug welds under a protective gas envelope to the following connections:  
Centre pillar lining - Hinge reinforcement.

This operation is additional to the replacement of the centre pillar.

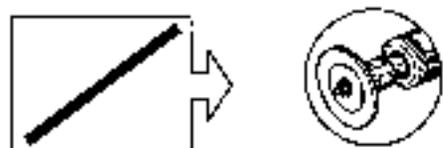
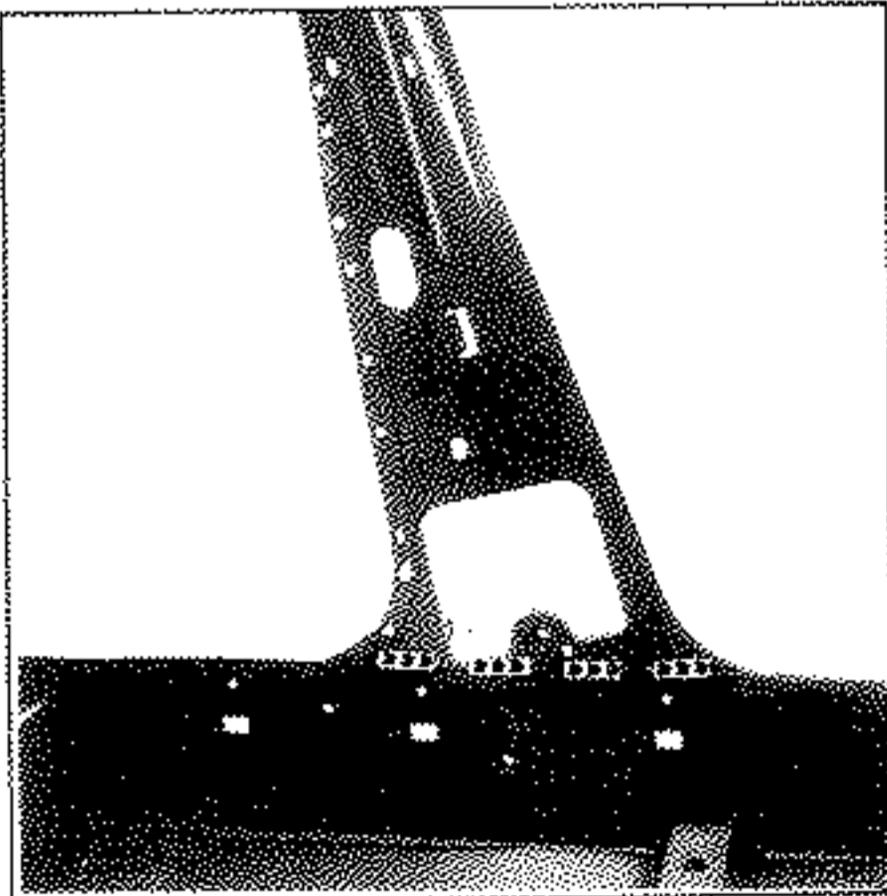
COMPOSITION OF CENTRE PILLAR LINING

Centre pillar lining.  
Seat belt mounting nut.

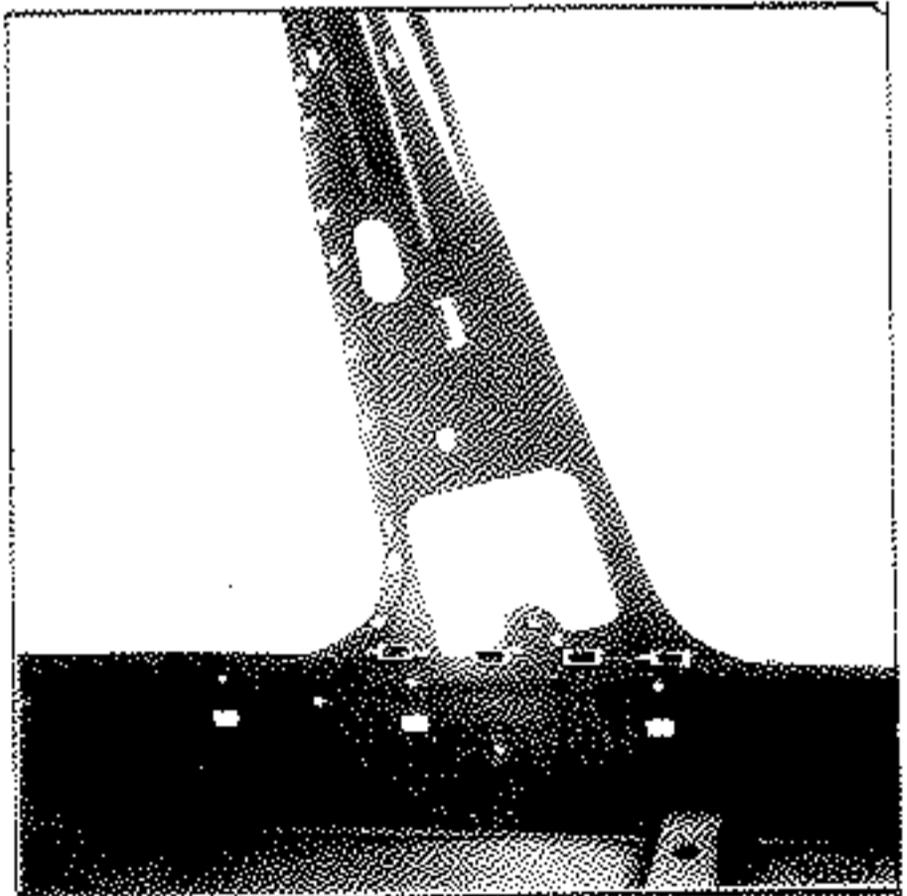


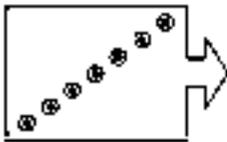
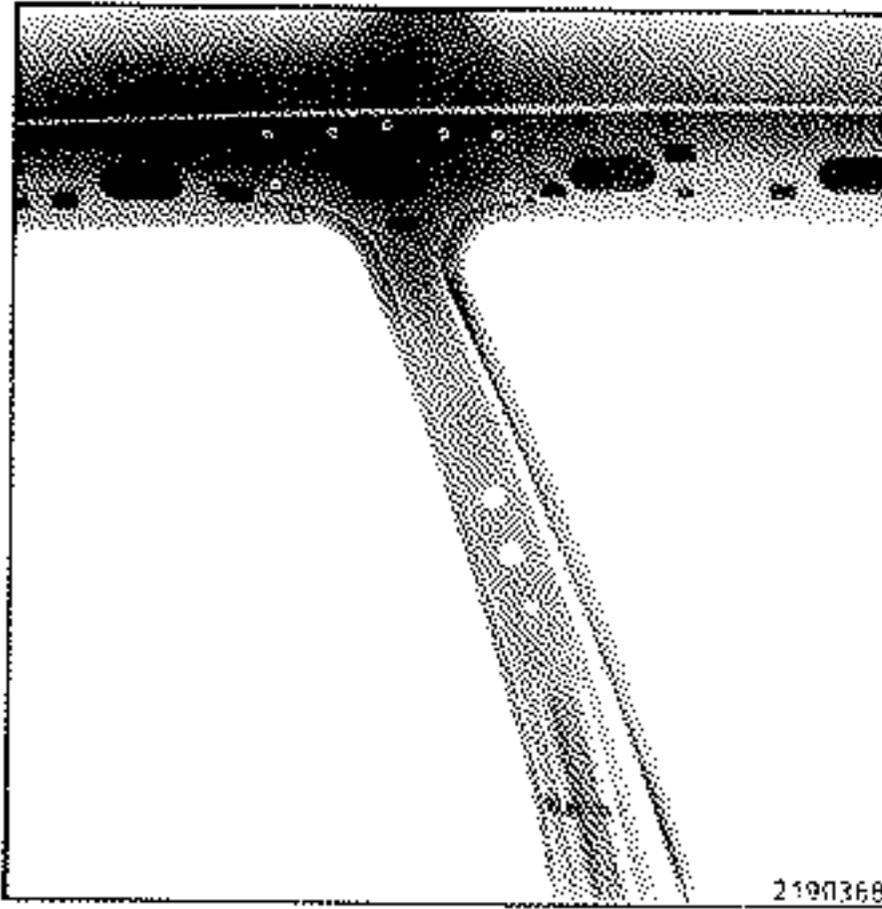
Cut the lining and the centre pillar simultaneously.

CUTTING OUT - UNPICKING



WELDING





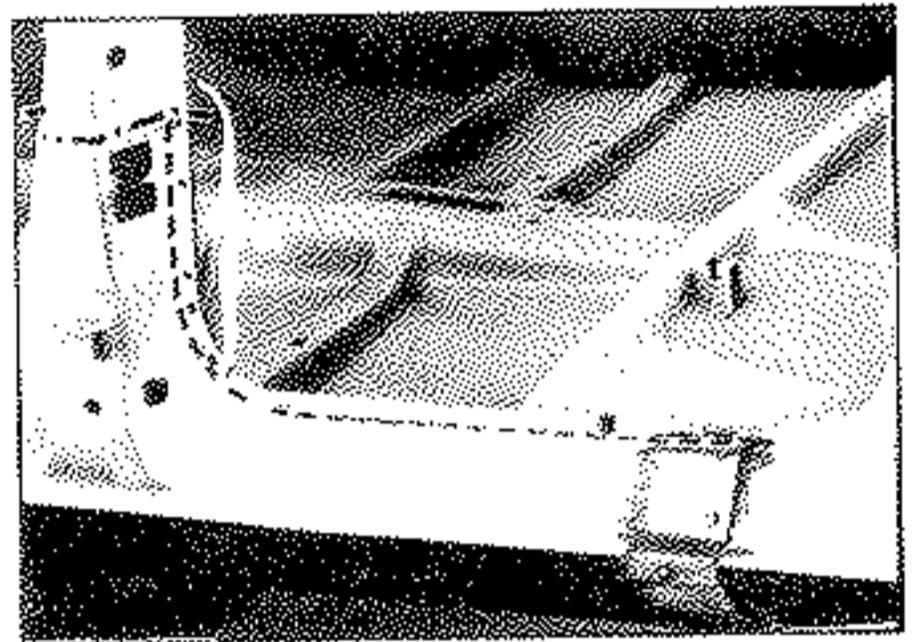
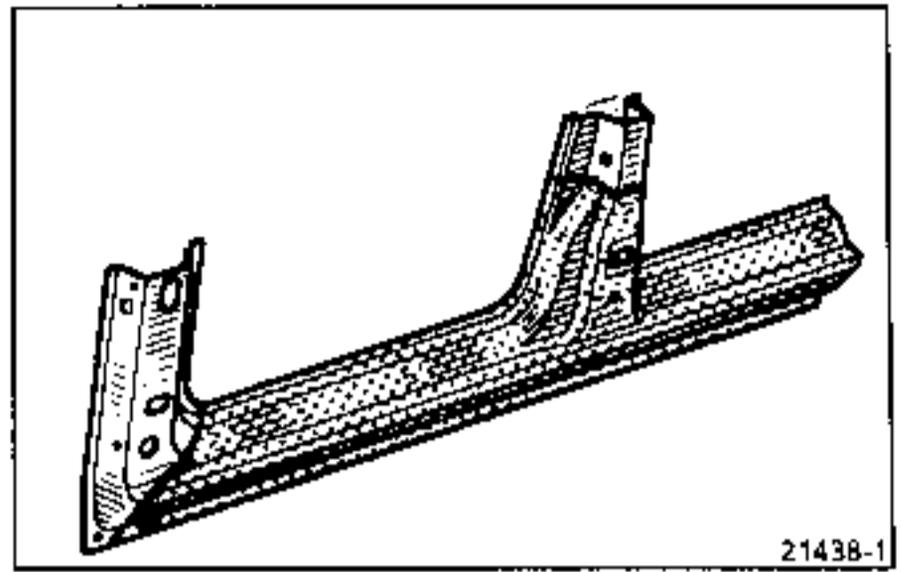
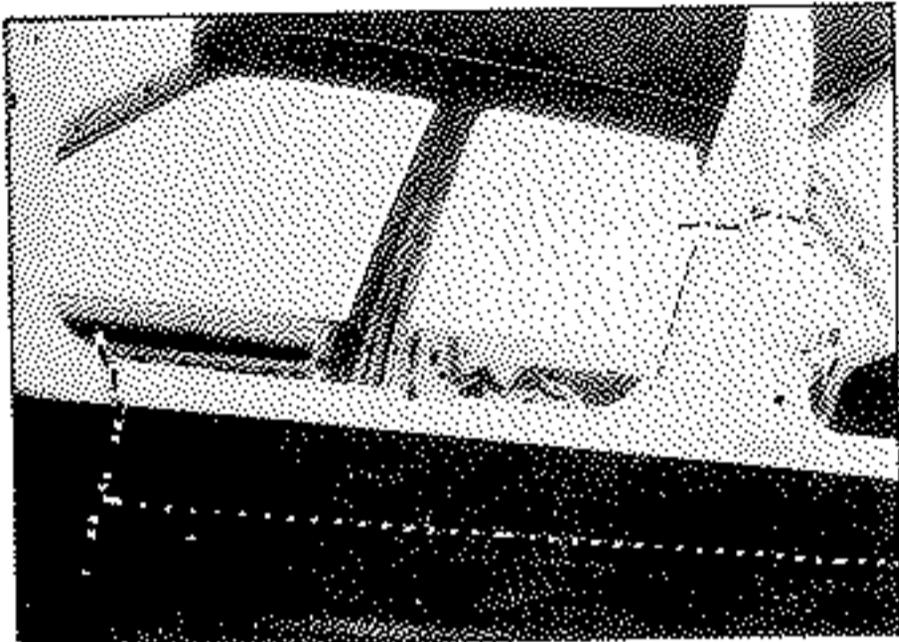
D = 5 mm



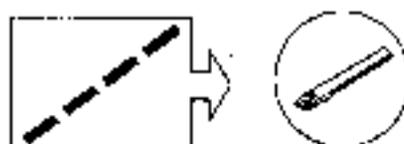
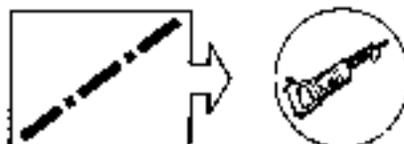
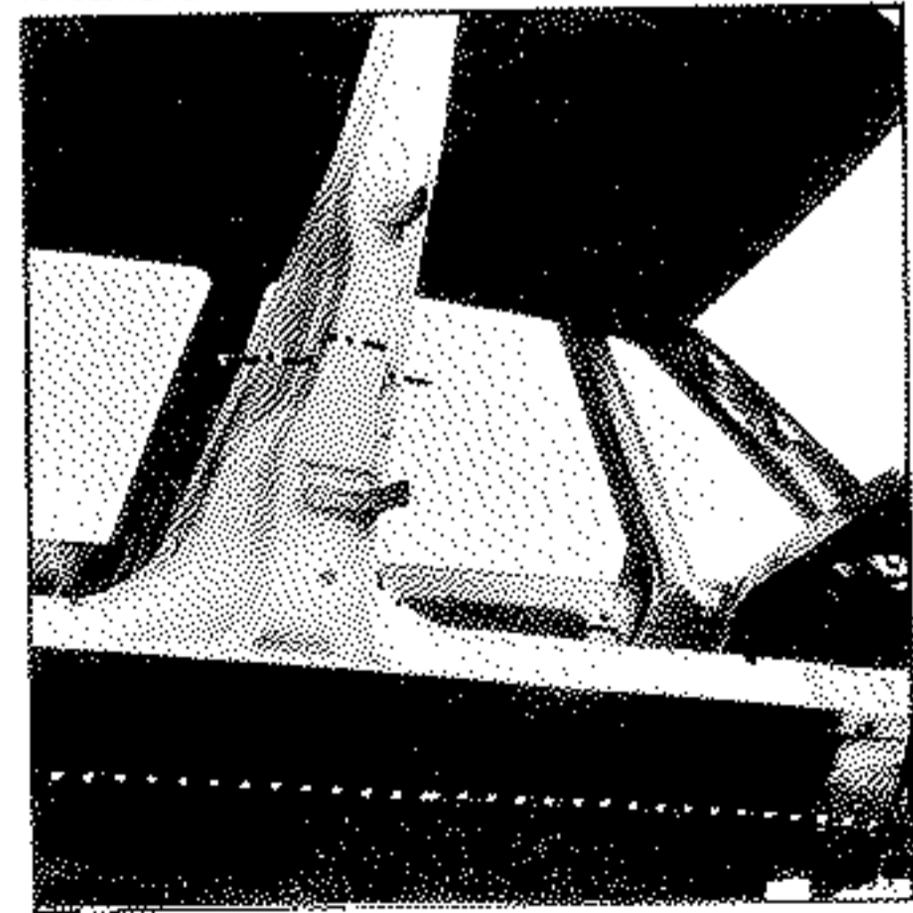
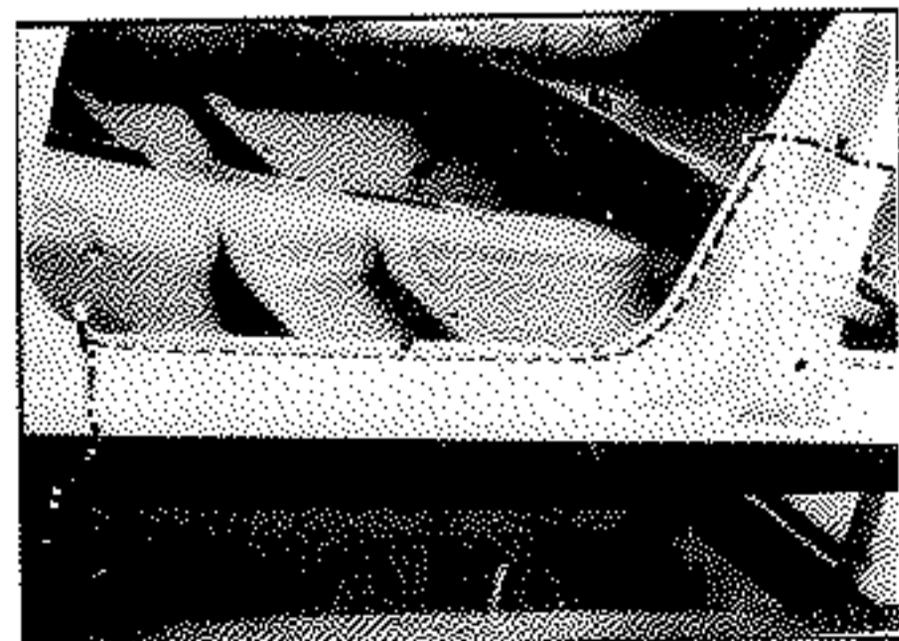
COMPOSITION OF SILL PANEL FROM PARTS DEPARTMENT

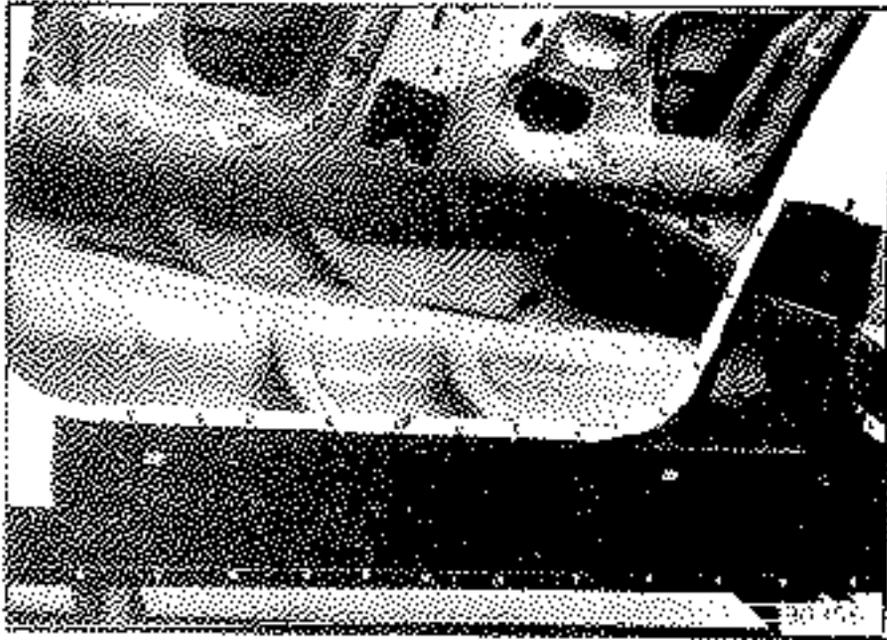
- Sill panel.
- Front pillar hinge reinforcement.
- Centre pillar hinge reinforcement.  
(without lower hinge).

CUTTING OUT - UNPICKING

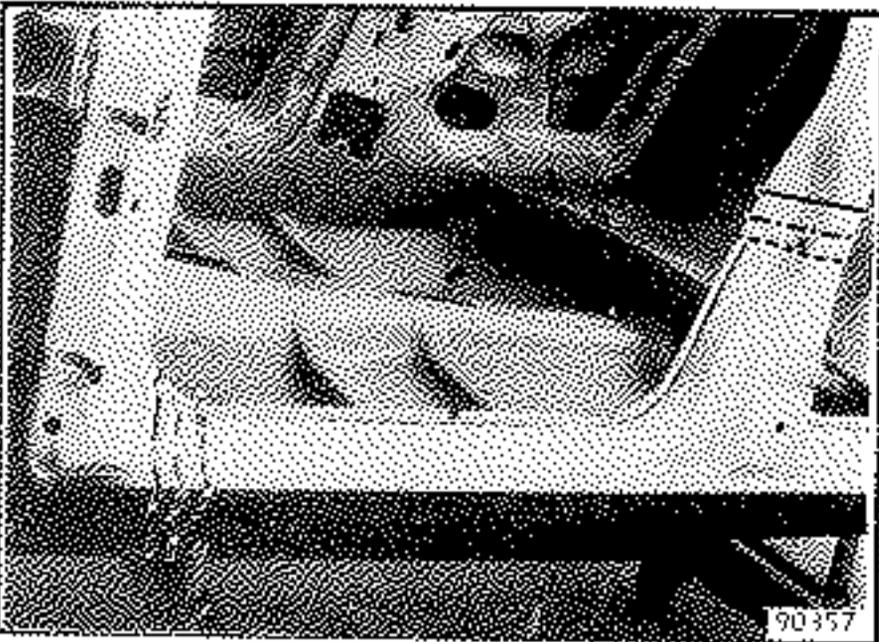


(A) drill the welding spots at the connections between the centre pillar lining and the hinge reinforcement.





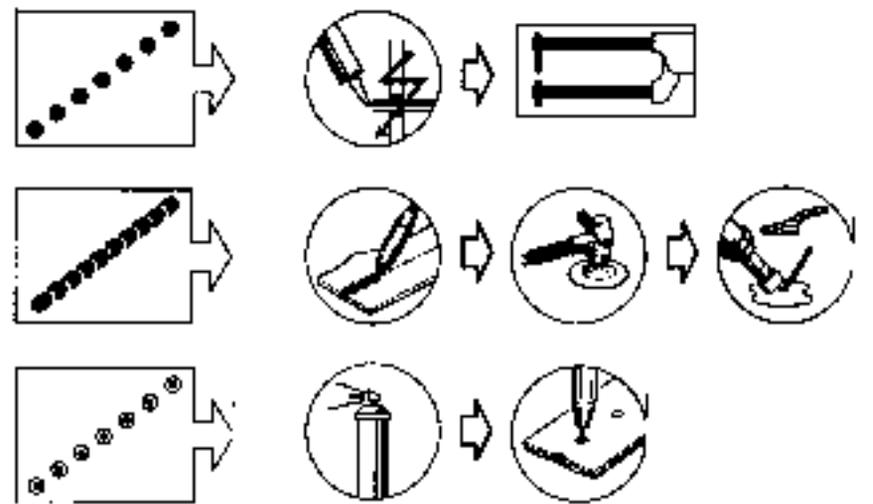
PREPARATION BEFORE WELDING



WELDING

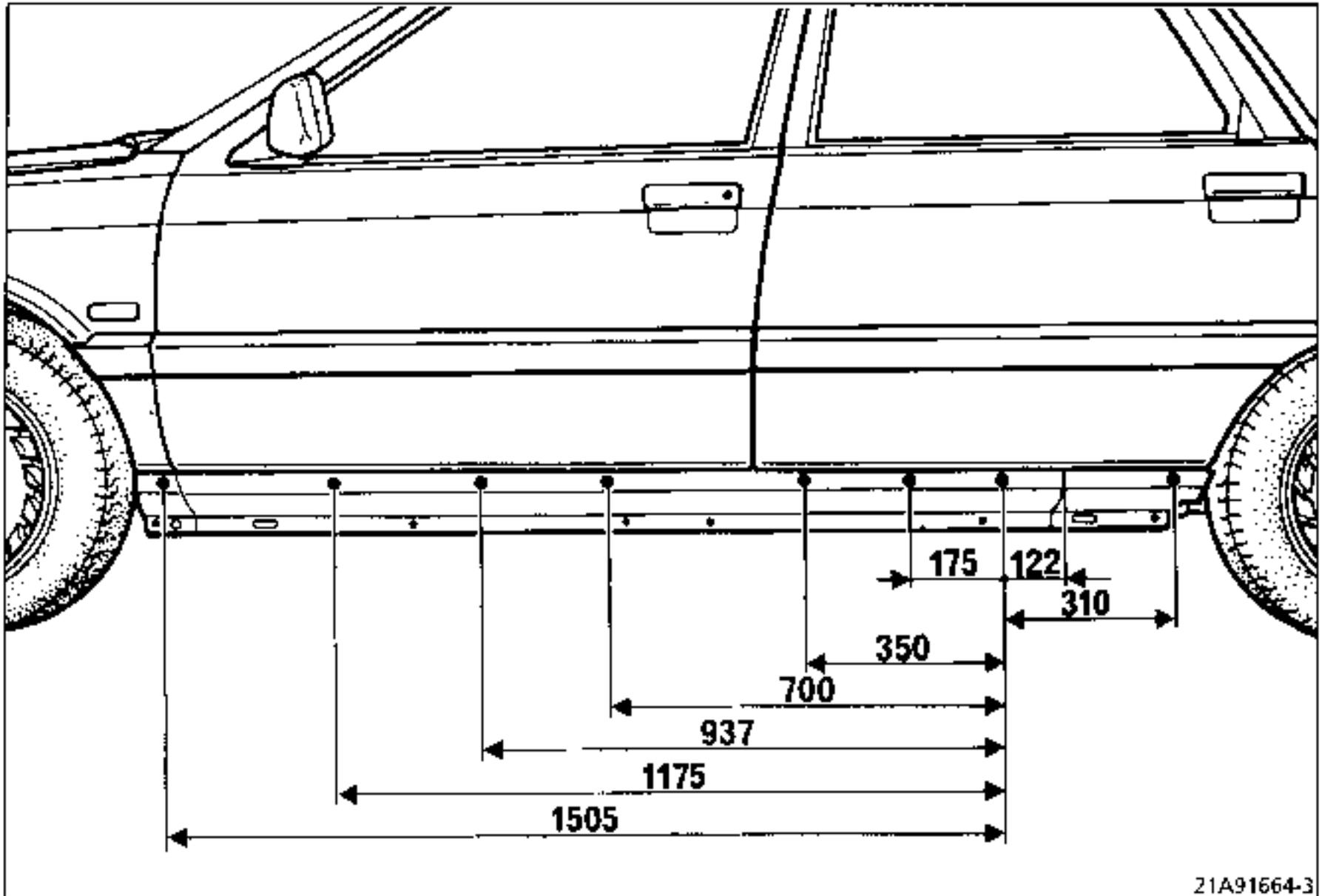


e = 16 mm  
H = 37 mm  
D = 4.5 mm

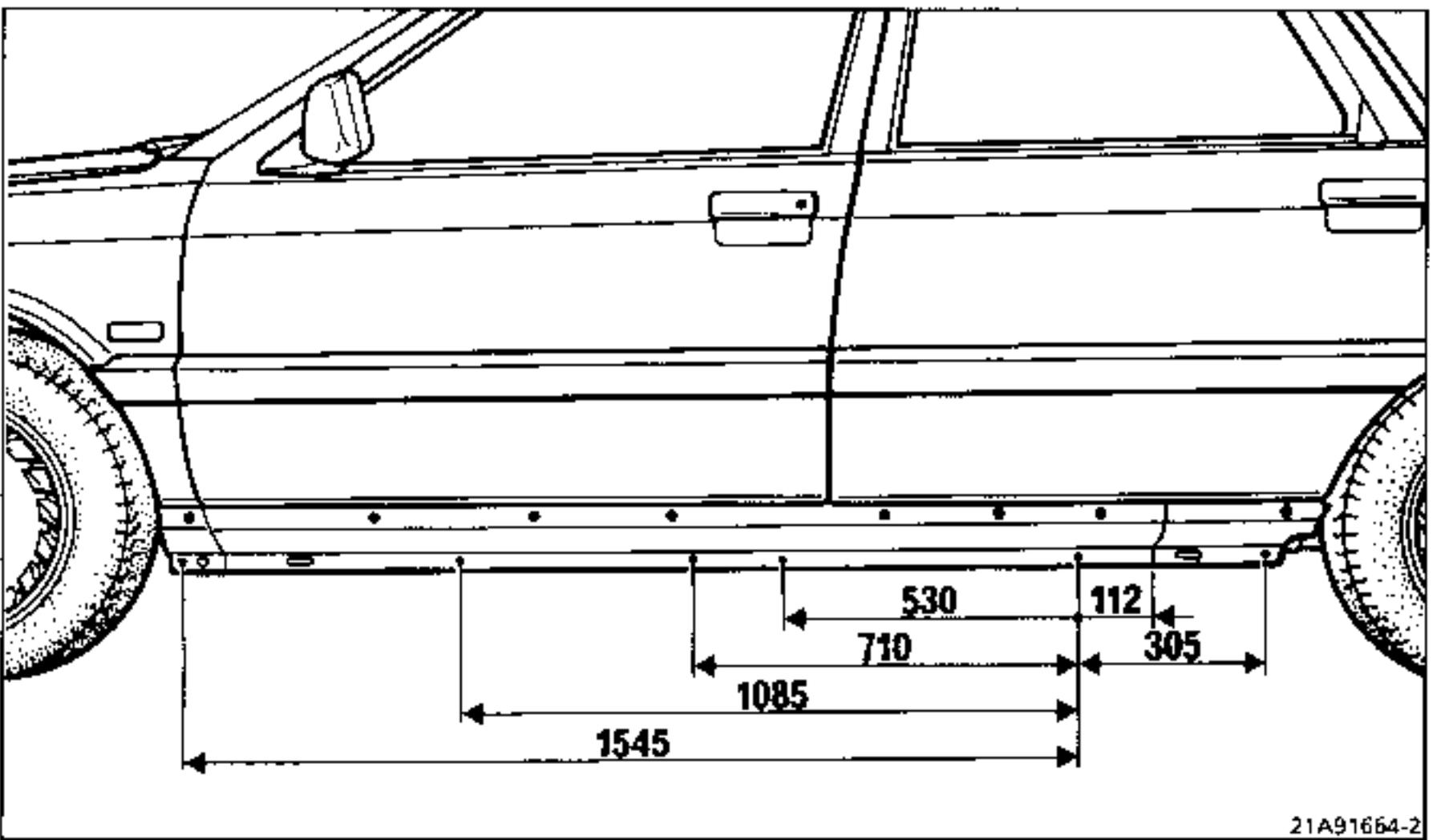


DRILLING DIAGRAMS (to be performed before painting)

Drilling diameter 6.5 mm.



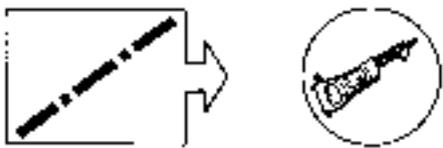
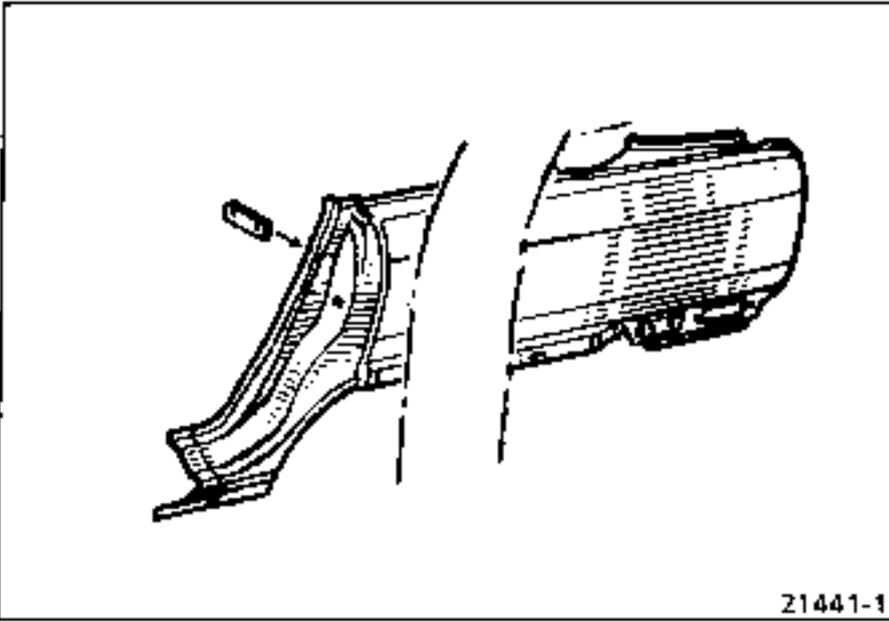
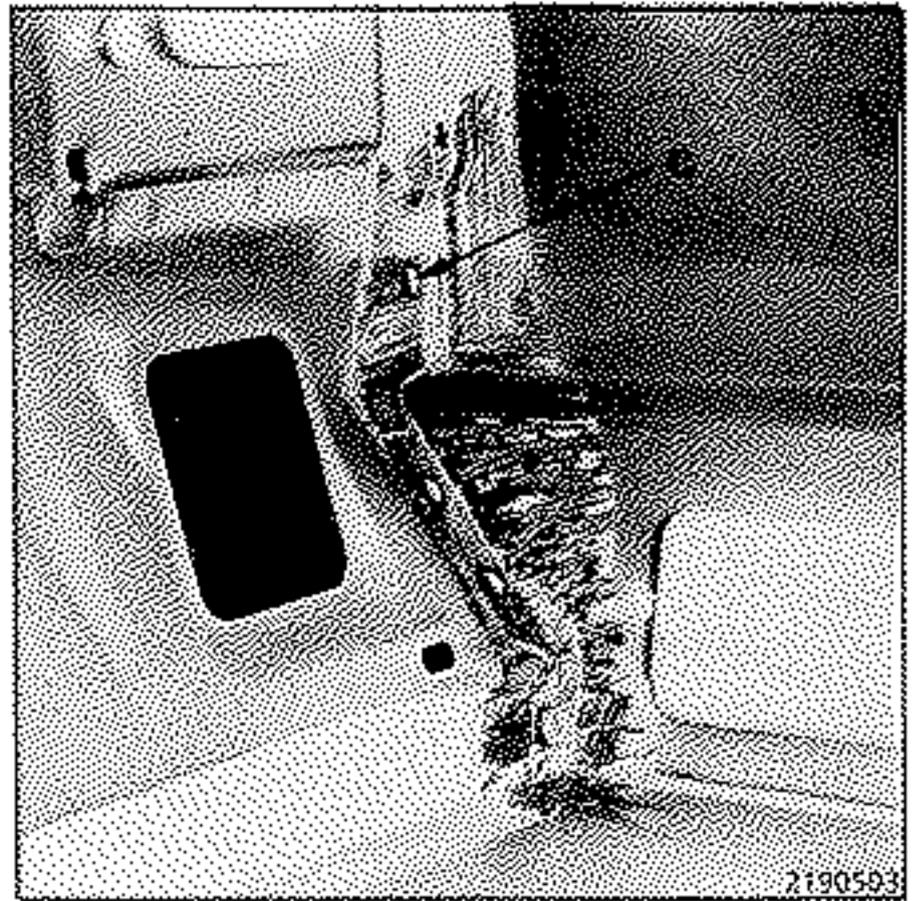
Drilling diameter 5.5 mm.



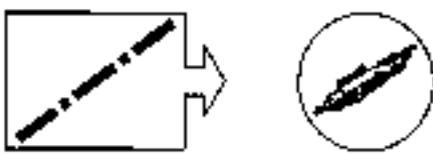
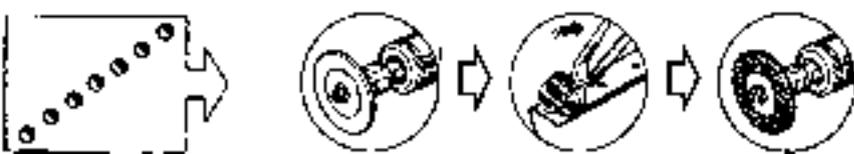
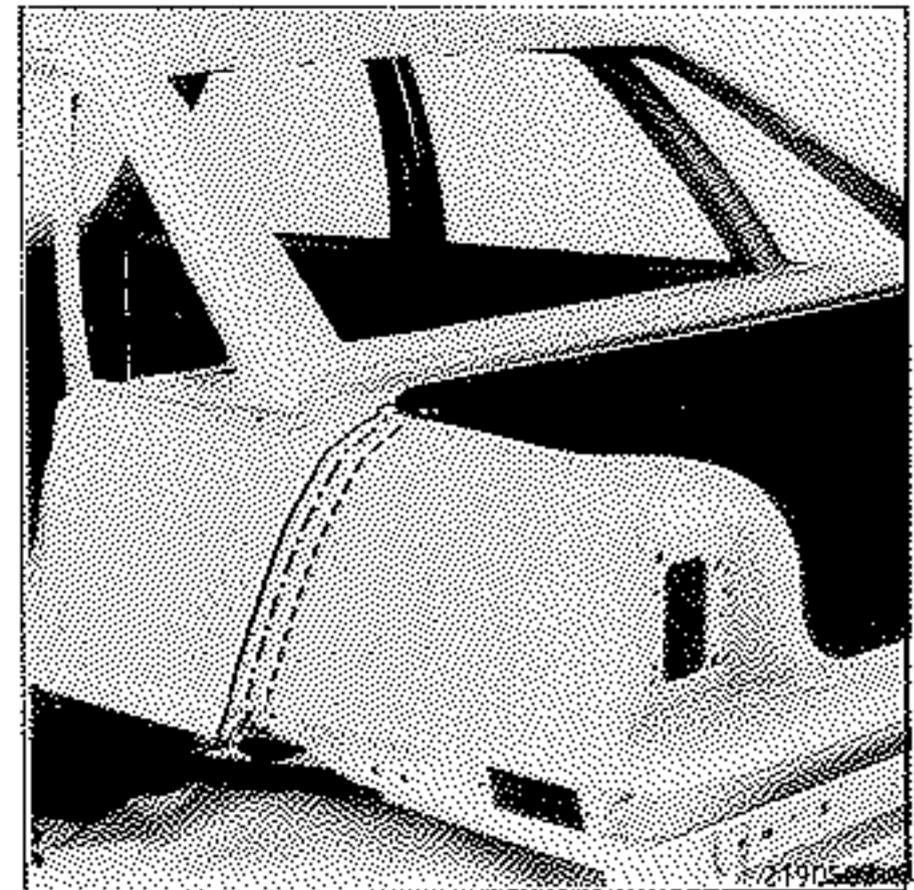
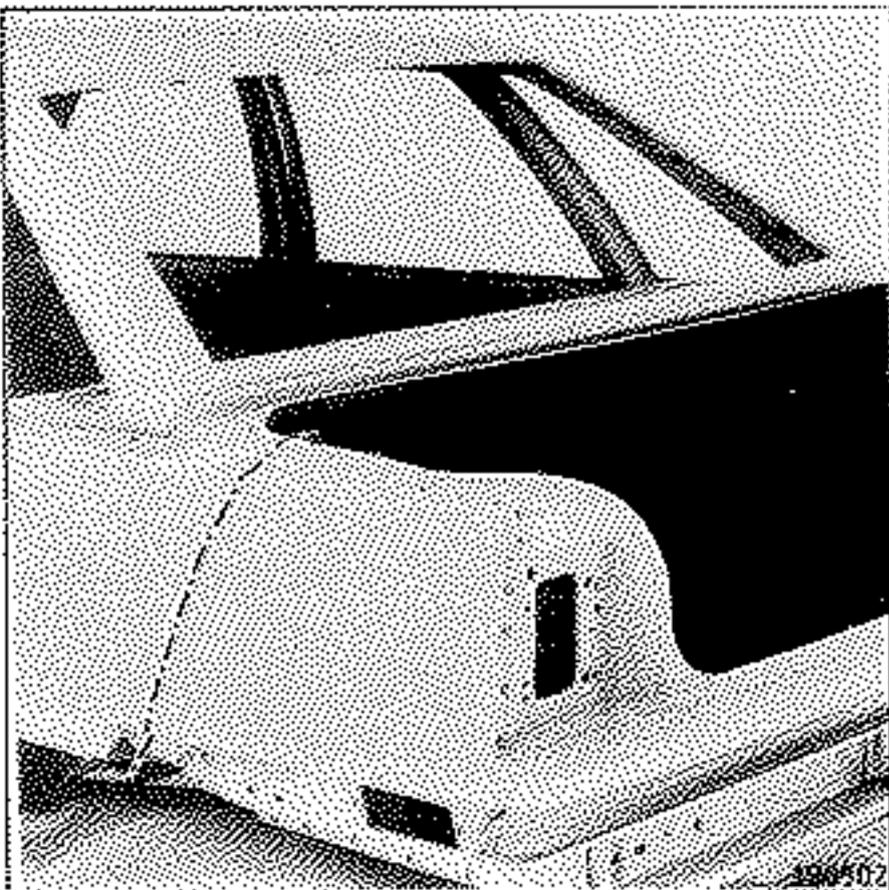
COMPOSITION OF PART FROM PARTS DEPARTMENT

Assembled part comprising:

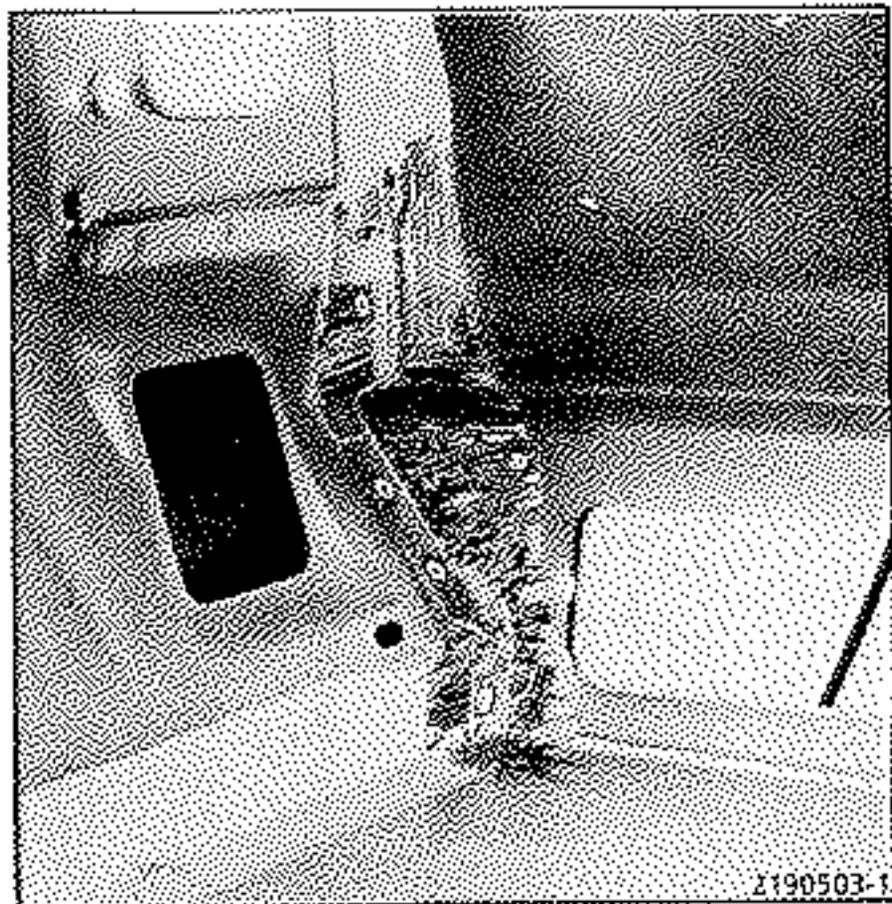
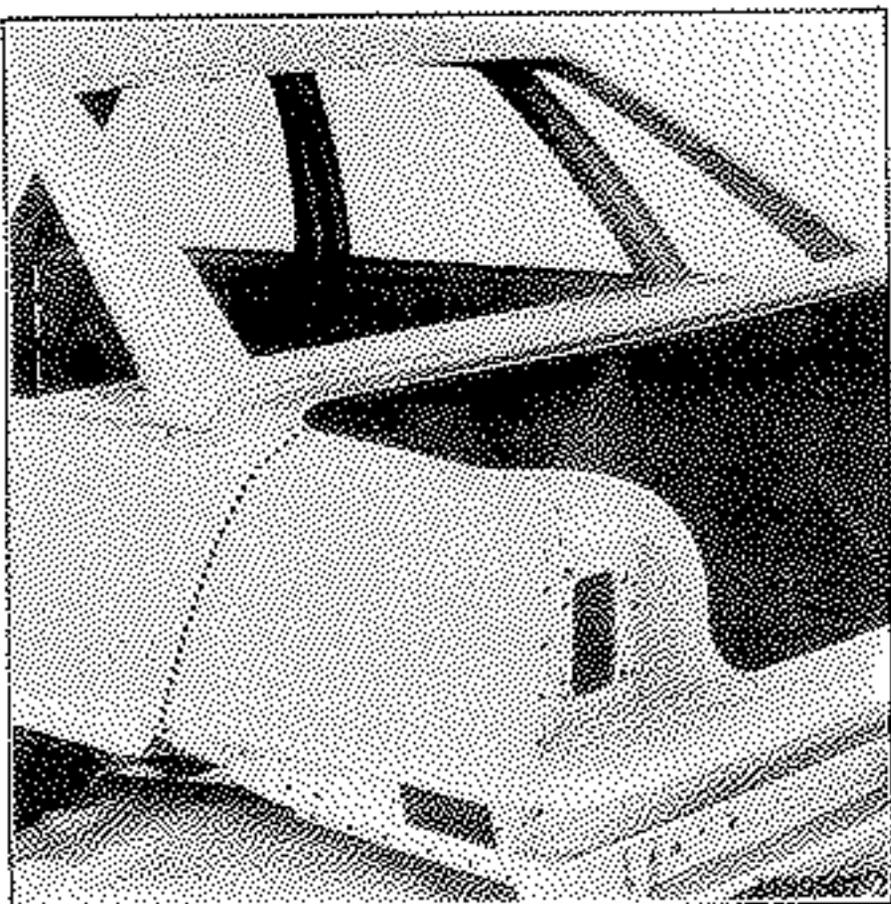
- Side panel.
- Bumper mounting reinforcement.
- Striker plate reinforcement.



CUTTING OUT - UNPICKING



WELDING



2190503-1



L = 330 or 350 mm  
e = 1.4 mm  
H = 60 mm

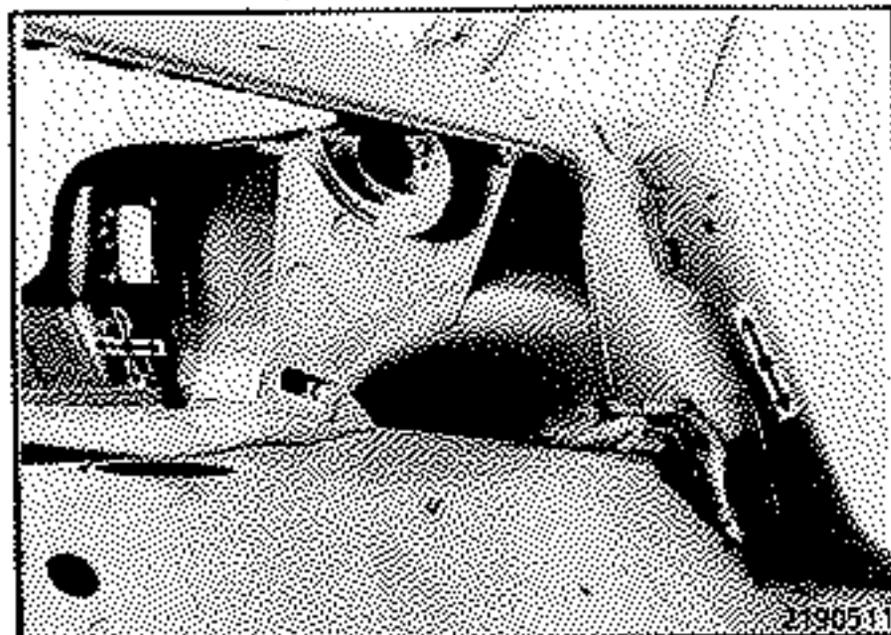
L = 330 or 350 mm  
e = 1.4 mm  
H = 60 mm



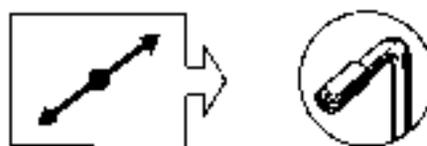
D = 4.5 mm

D = 4.5 mm

ANTICORROSION PROTECTION



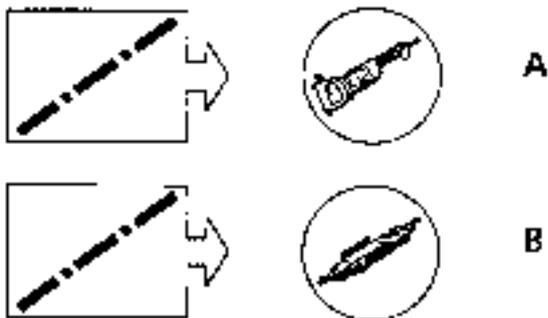
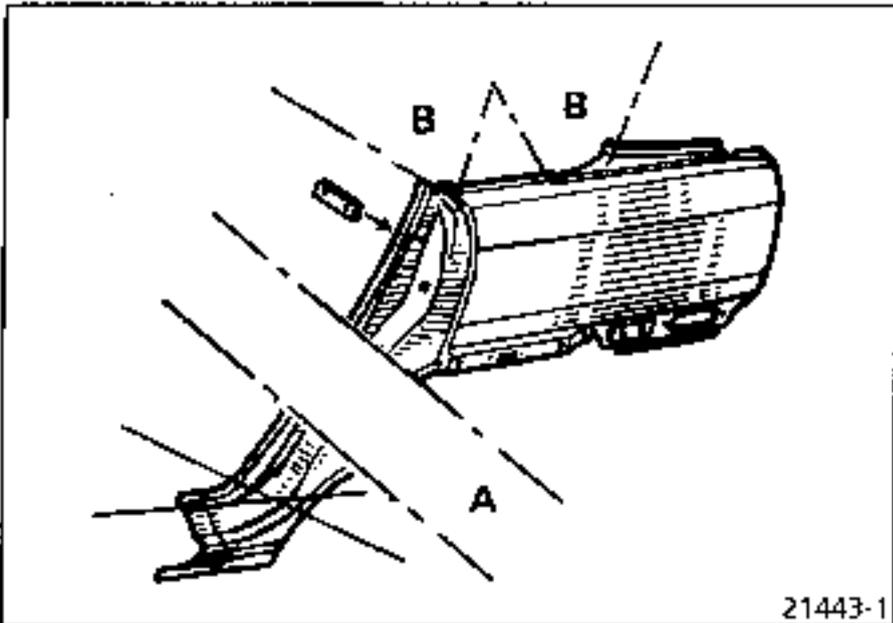
2190511



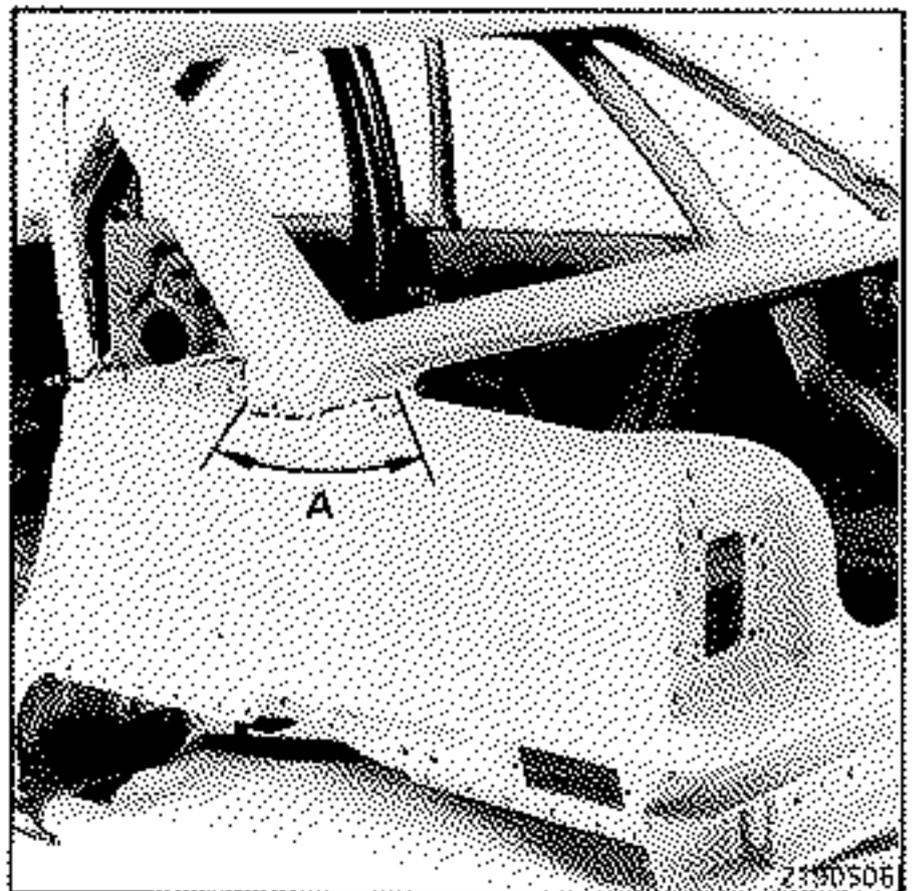
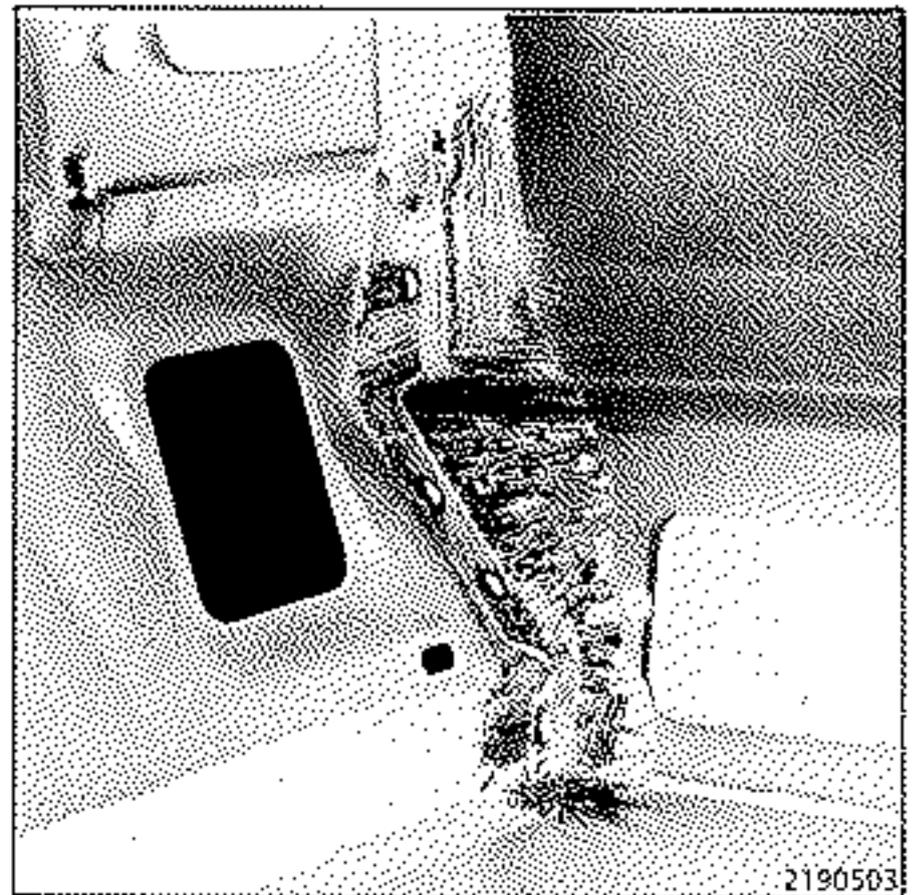
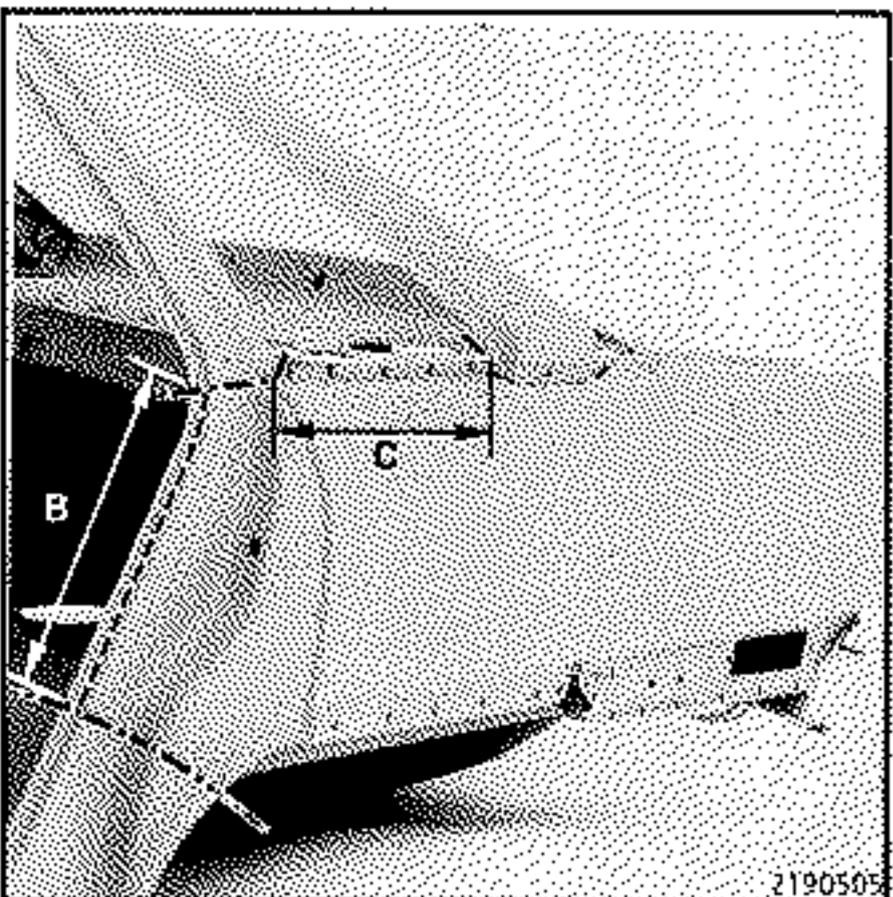
COMPOSITION OF PART FROM PARTS DEPARTMENT

Assembled part comprising:

- Side panel.
- Bumper mounting reinforcement.
- Striker plate reinforcement.

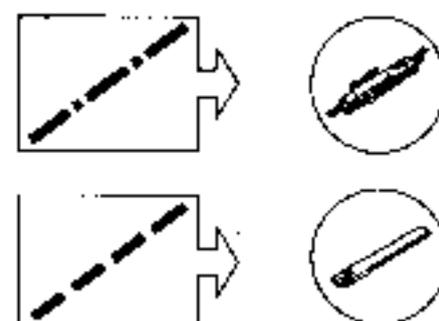


CUTTING OUT - UNPICKING

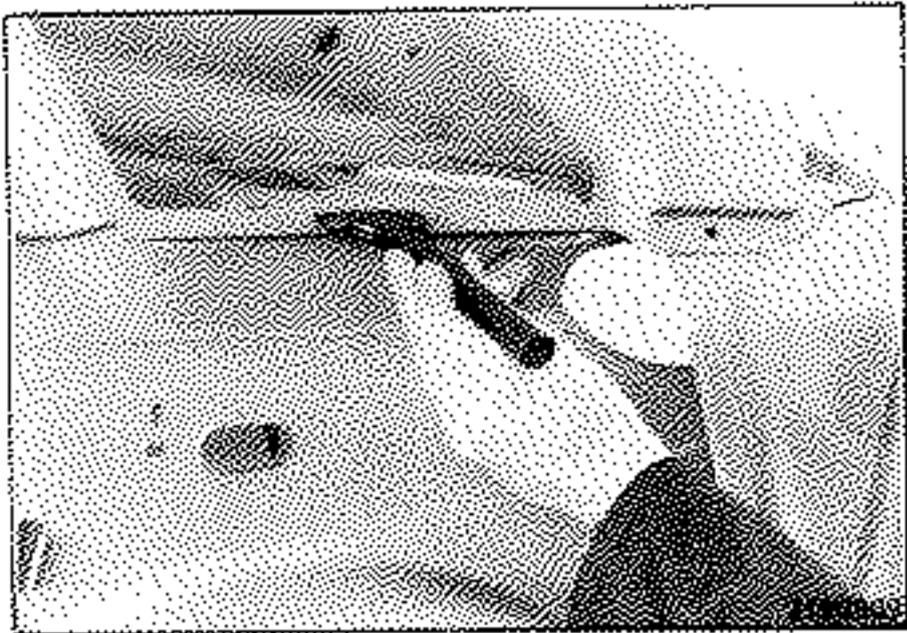


A : Take care not to damage wing panel reinforcement.

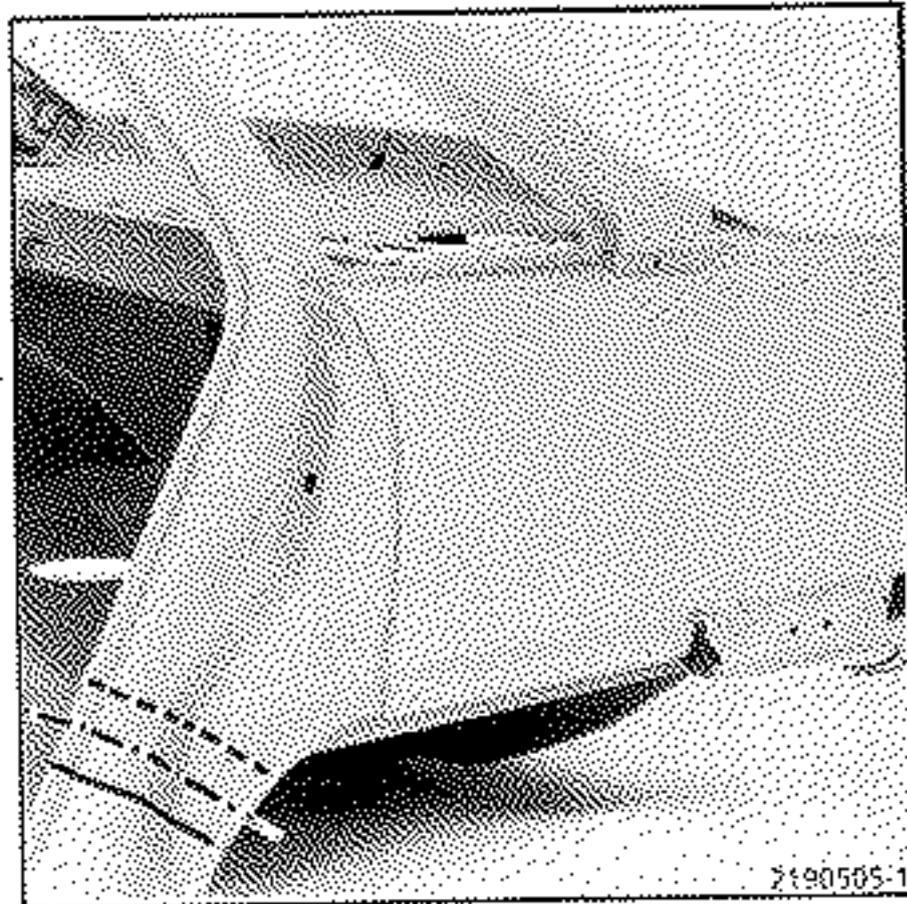
B : = 400 mm



PREPARATION BEFORE WELDING



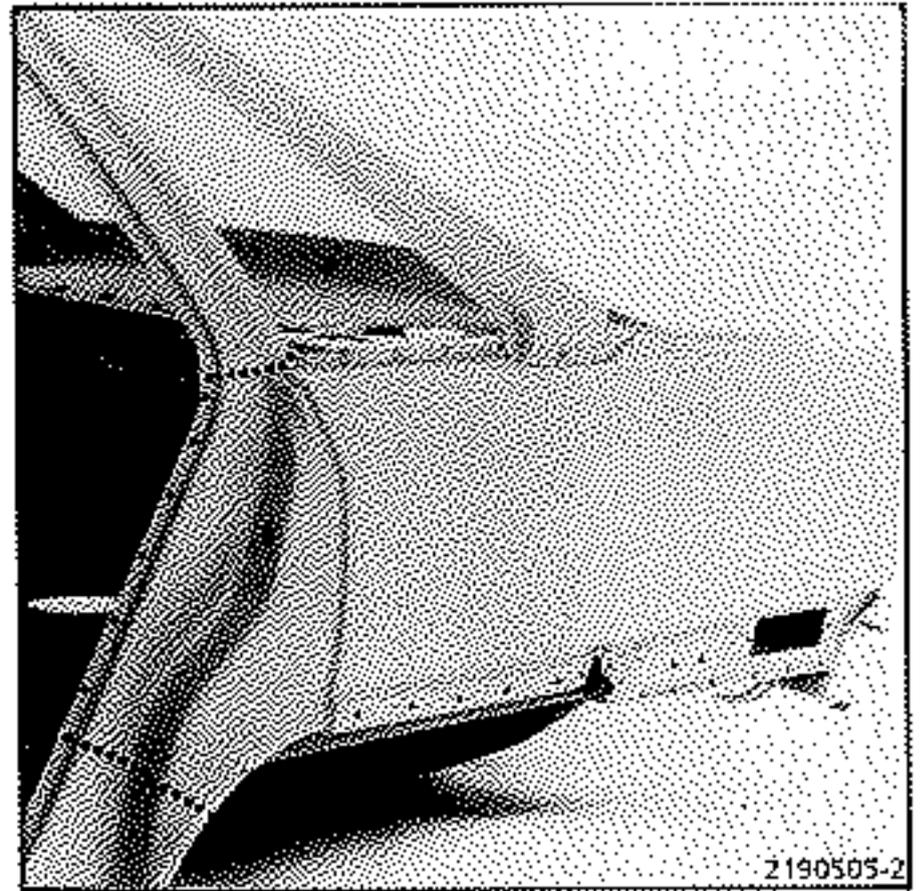
Using a drift, fold over the lower edge of the rear quarter panel onto the quarter panel lining to compensate for the excess thickness of the wing panel which is to be welded so that it covers the edge.



2190505-1



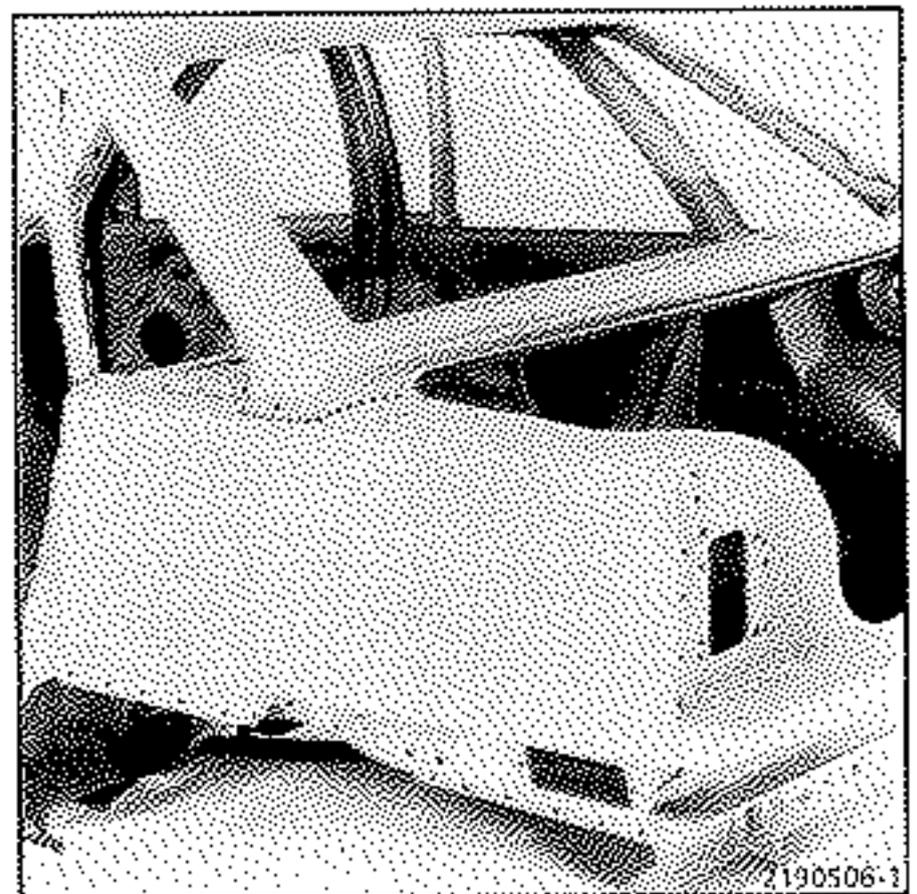
WELDING



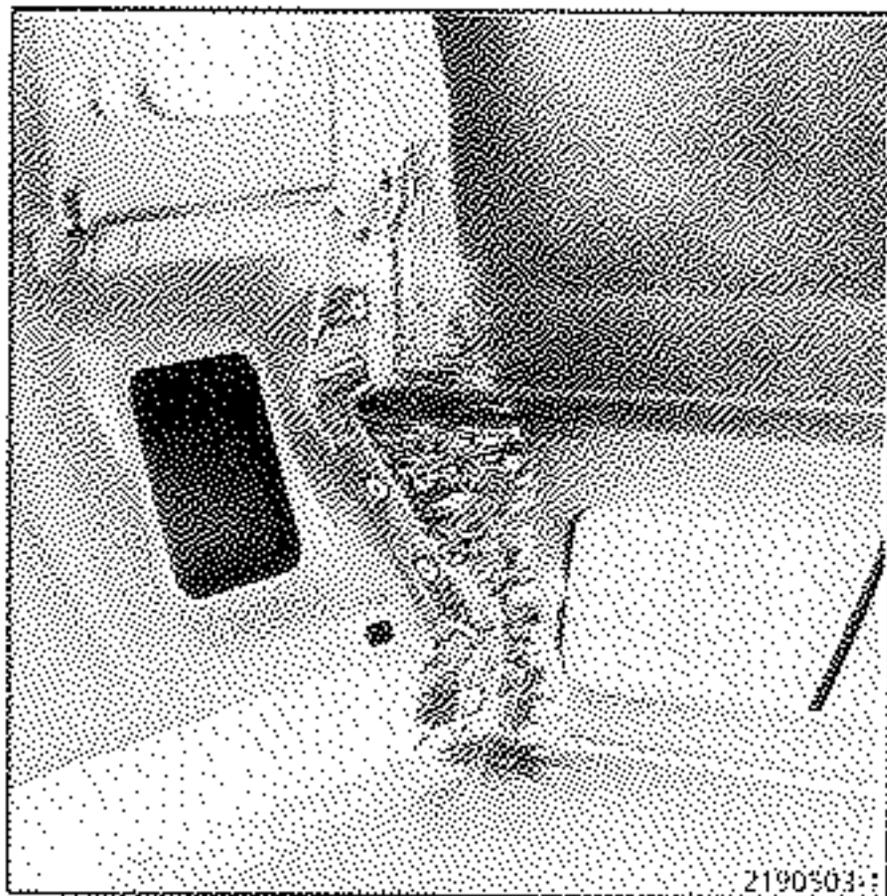
2190505-2



L = 330 ou 350 mm  
e = 1,4 mm  
H = 60 mm

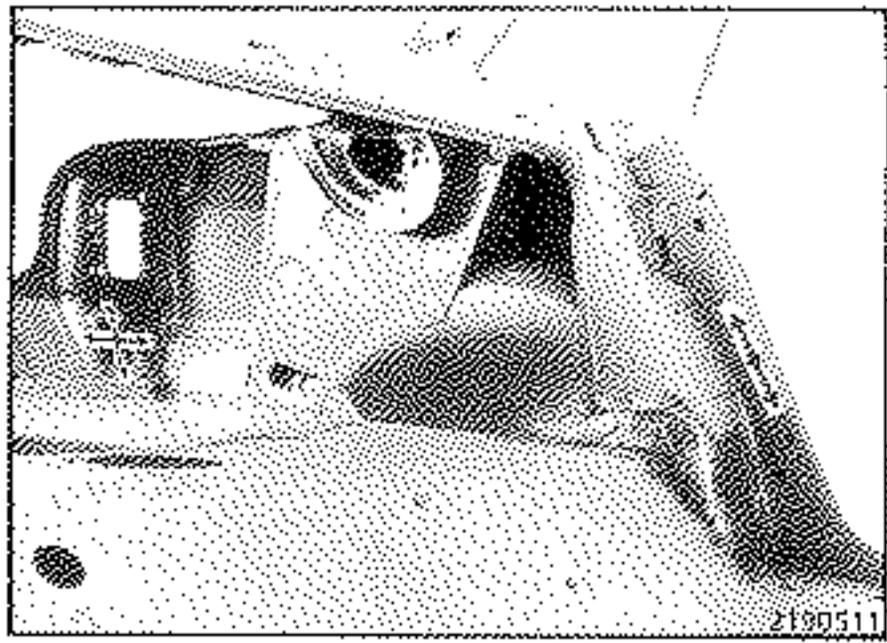


2190506-1



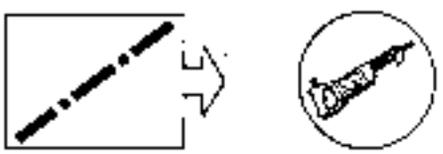
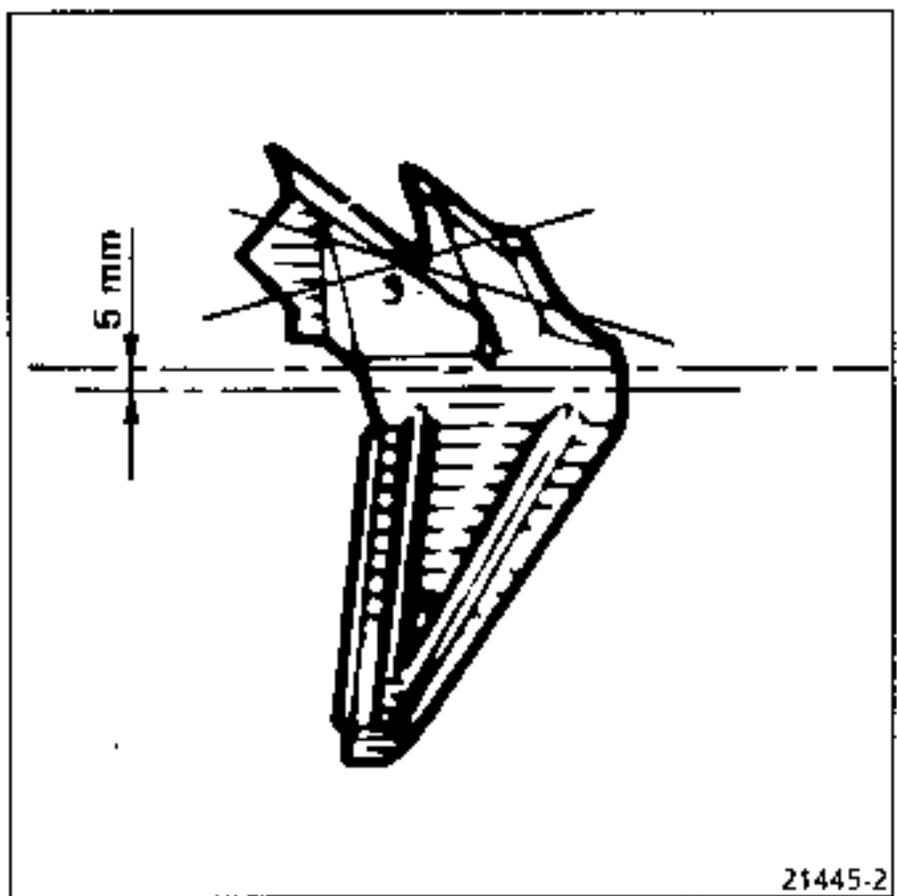
D = 4.5 mm

PROTECTING HOLLOW SECTIONS

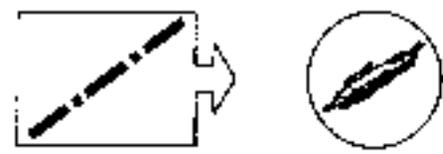
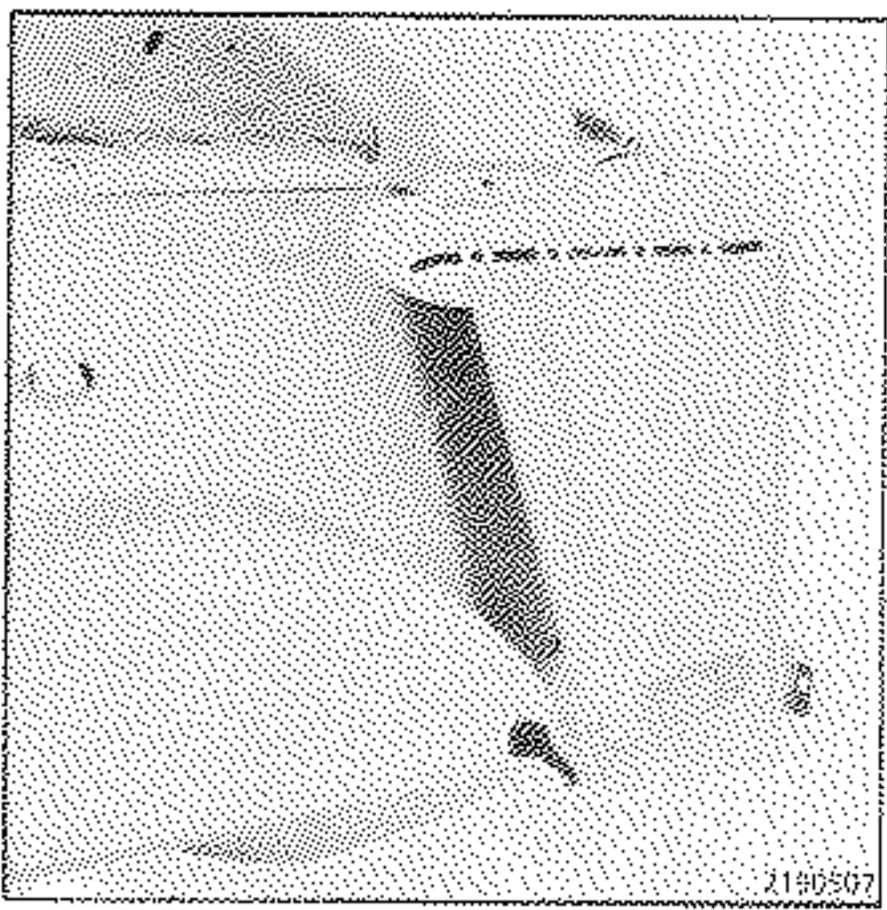


Wing panel reinforcement

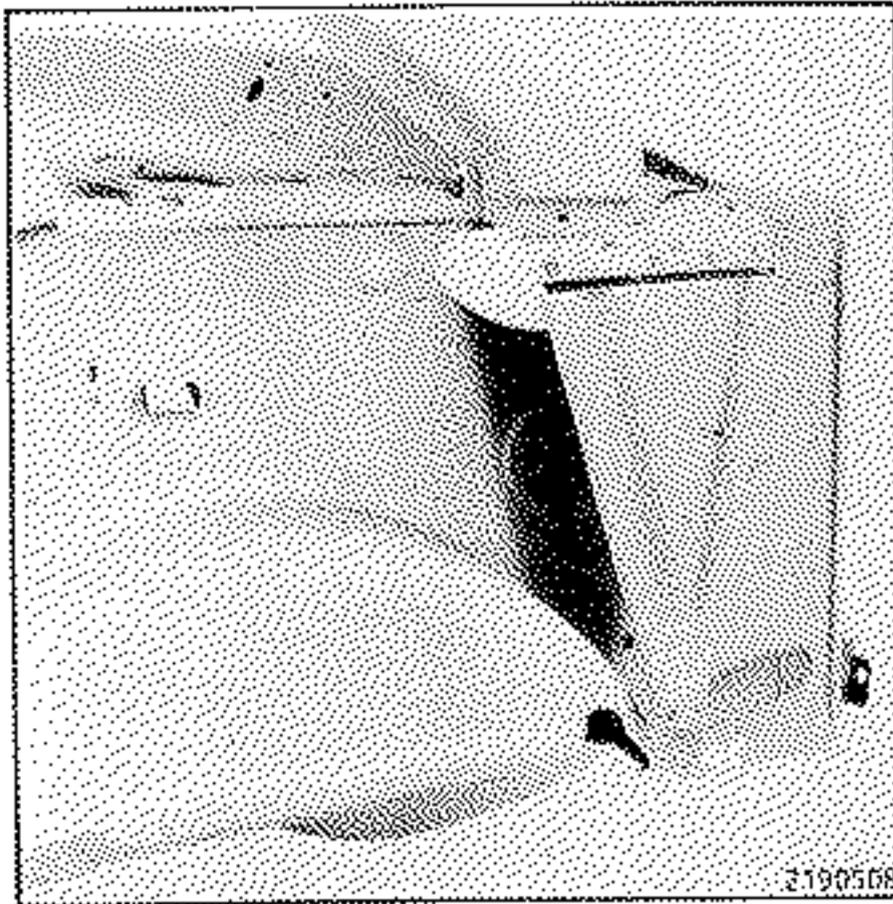
Additional to preceding operation.



CUTTING OUT



WELDING



D = 5.5 mm

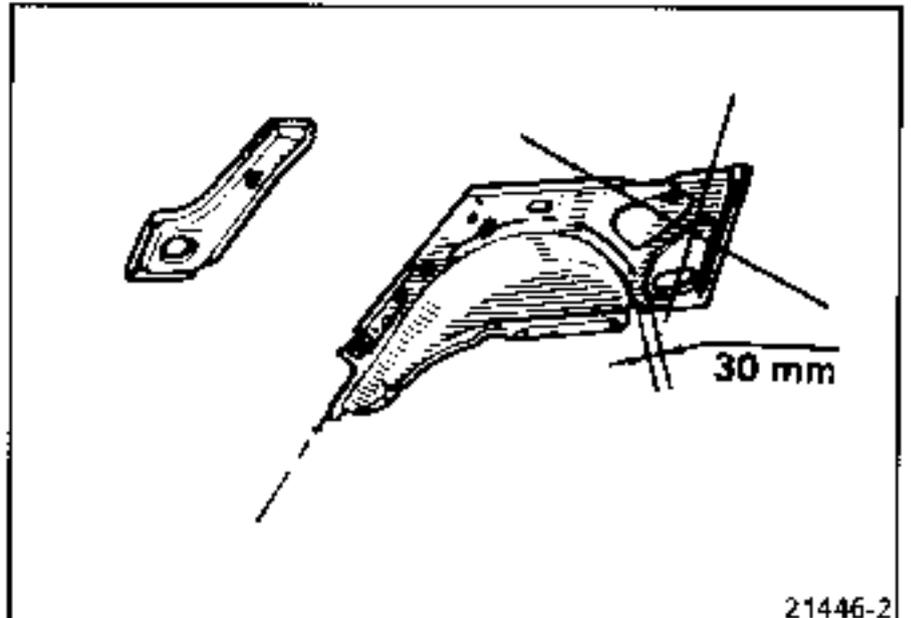
## Outer wheel arch

Additional to preceding operation.

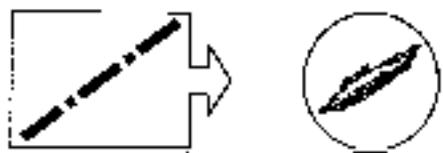
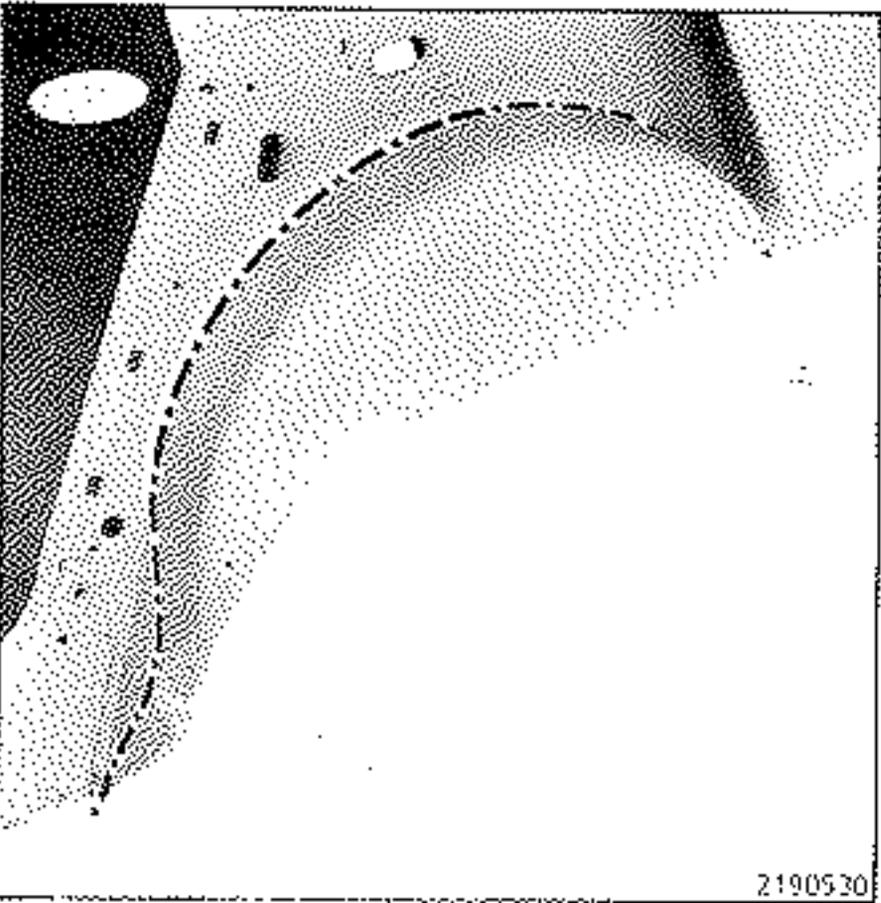
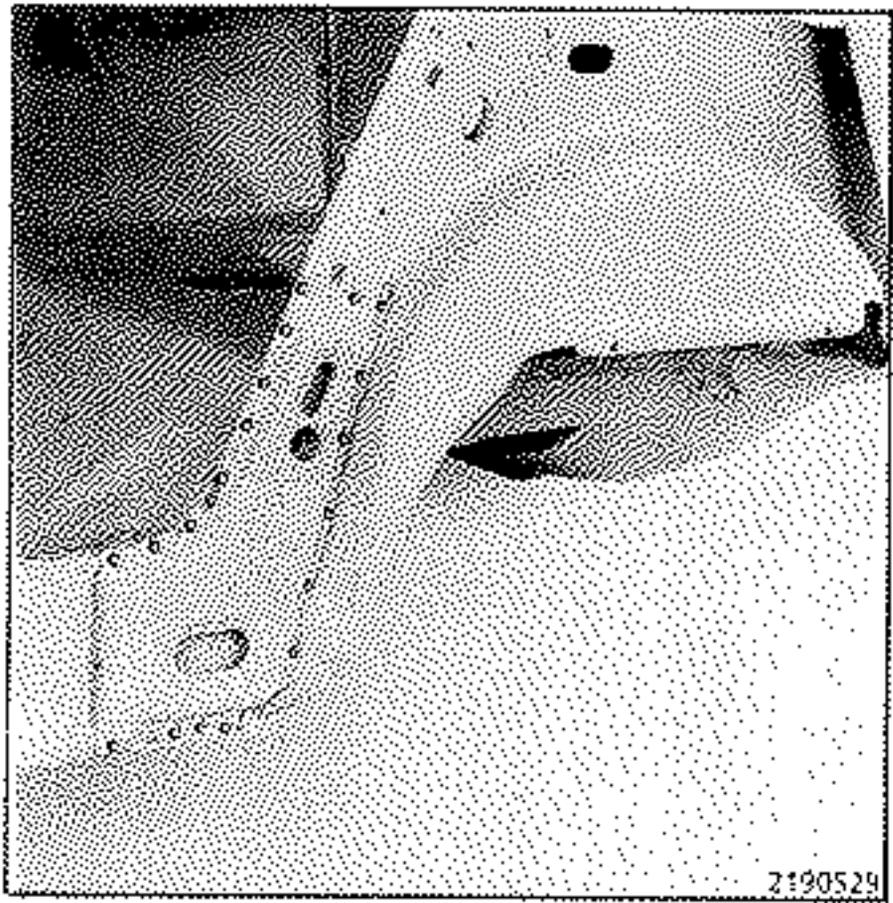
### COMPOSITION OF PART FROM PARTS DEPARTMENT

Assembled part comprising:

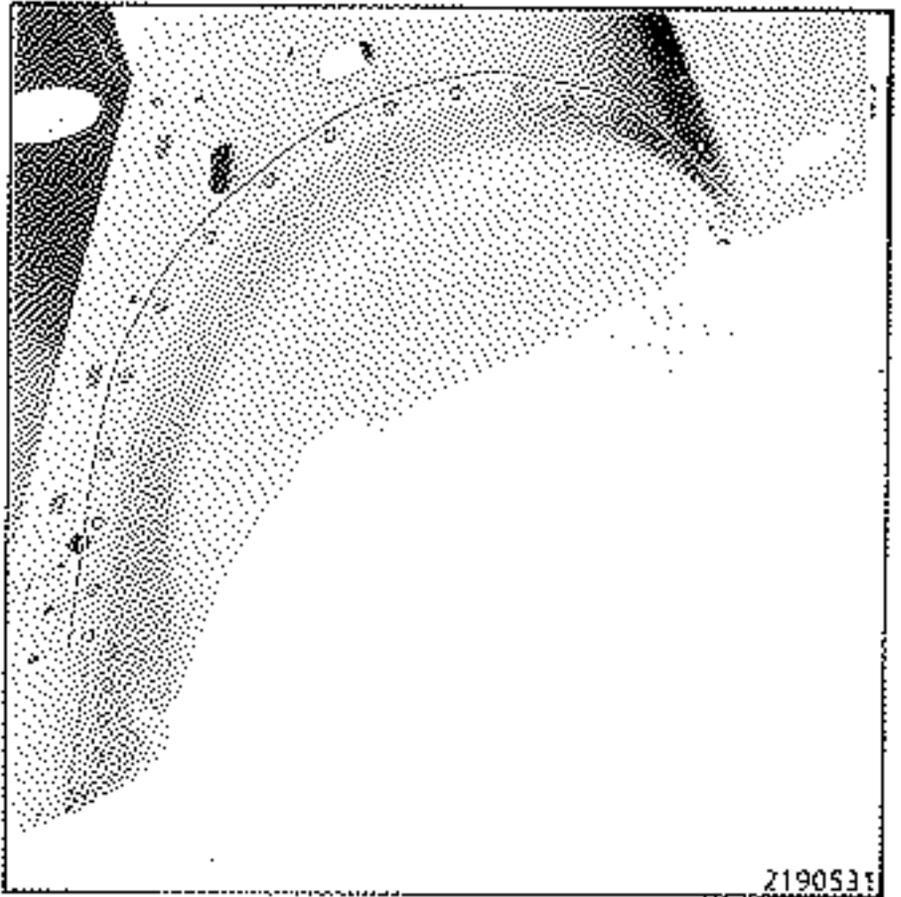
- Bare outer wheel arch with seat belt mounting reinforcement.
- Bare rear pillar reinforcement.



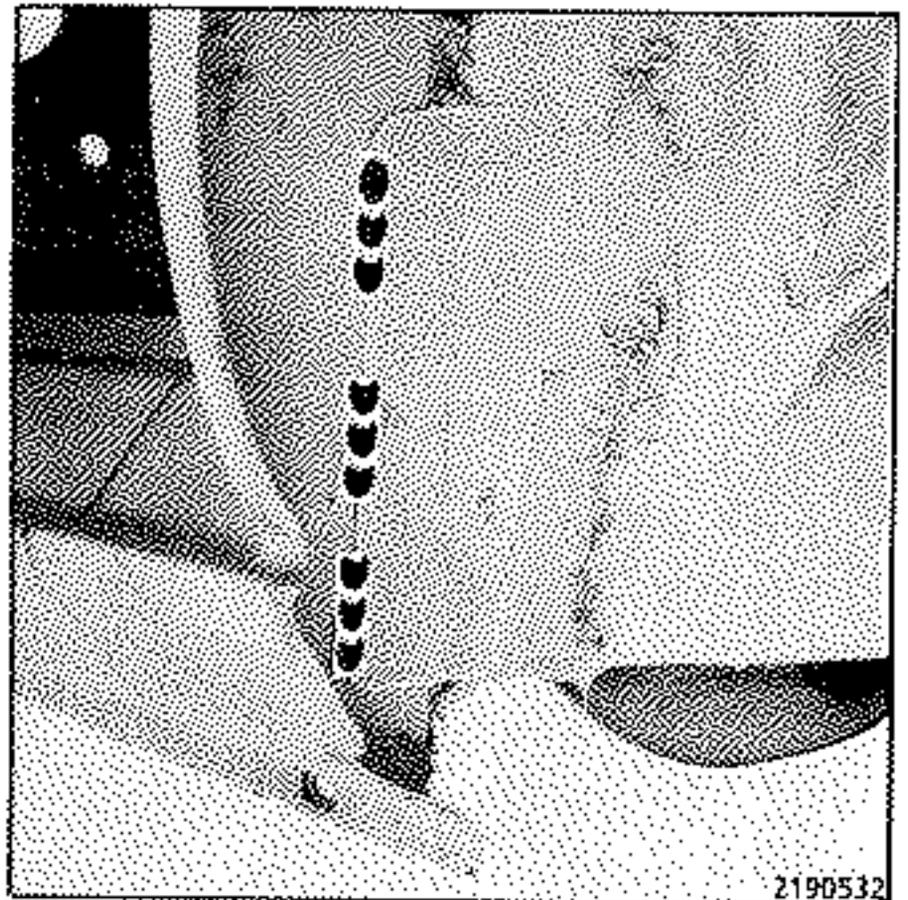
CUTTING OUT - UNPICKING



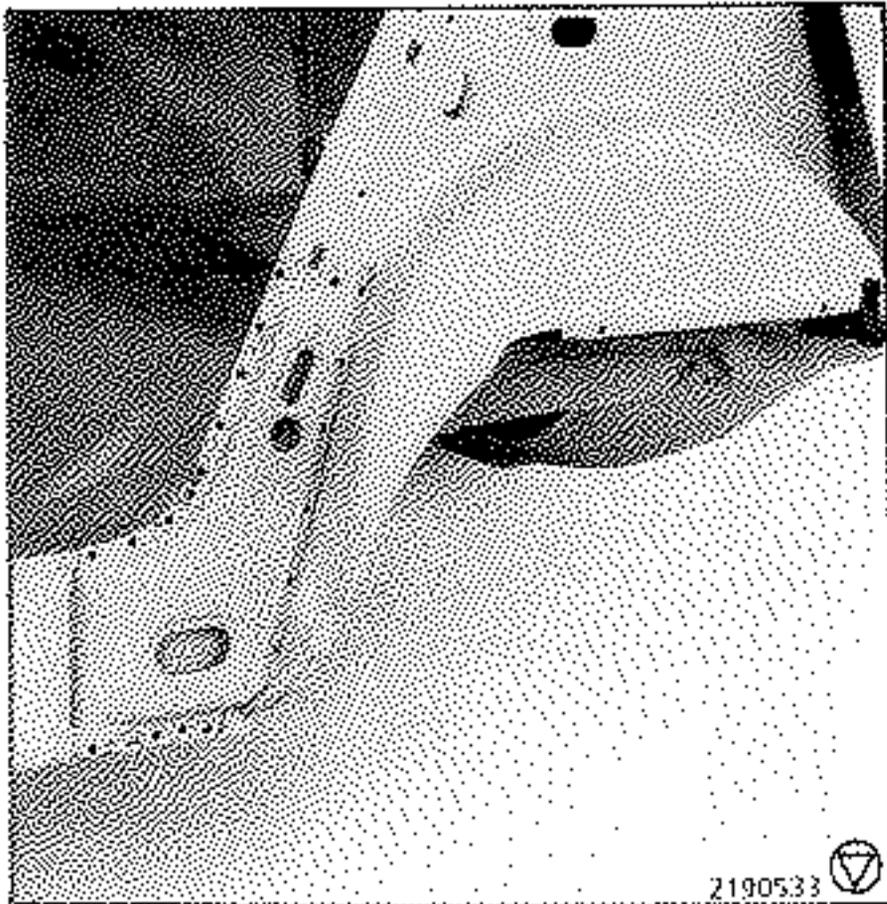
WELDING



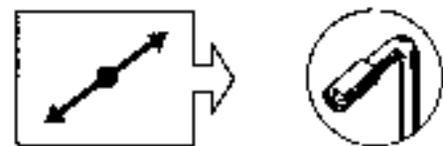
D = 4,5 mm



WELDING (cont)



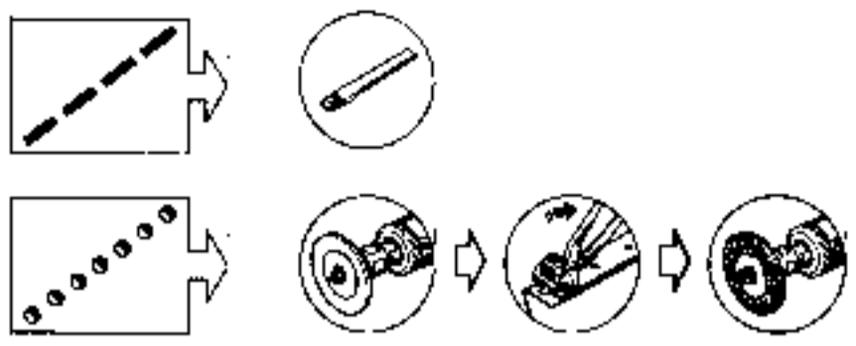
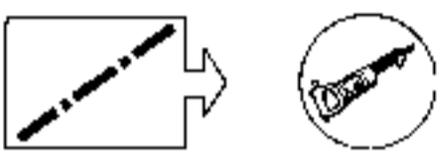
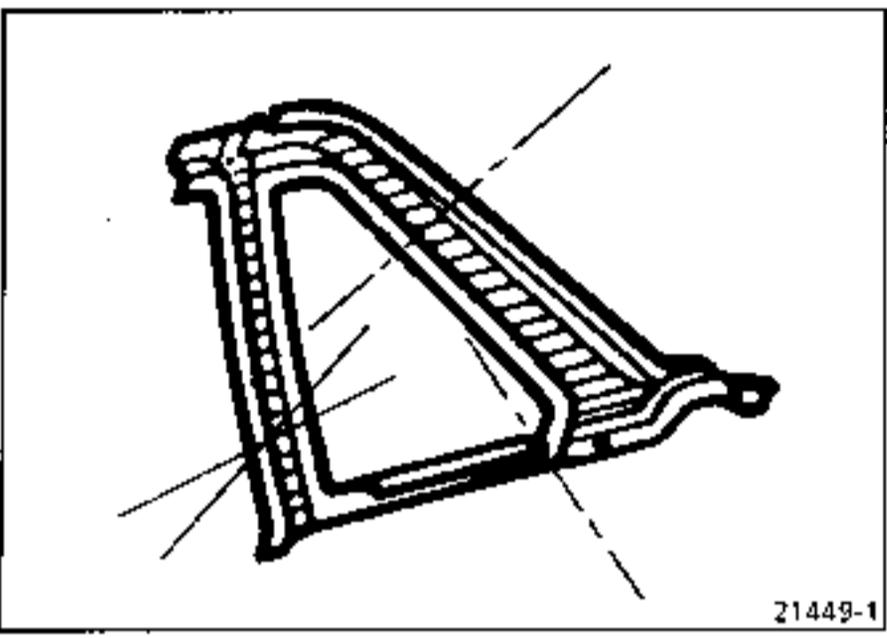
PROTECTING HOLLOW SECTIONS



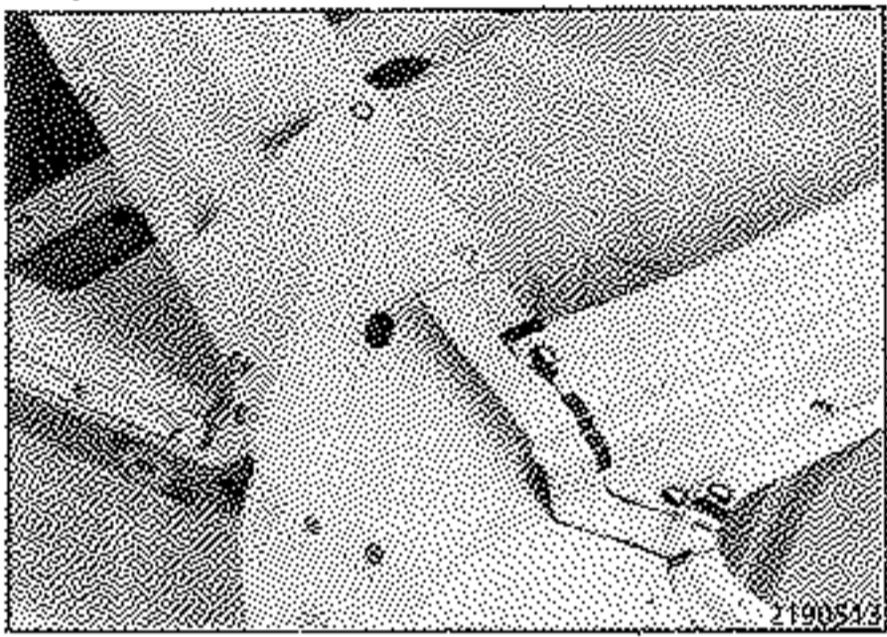
L = 250 mm  
e = 1.5 mm  
H = 50 mm  
e = 2.2 mm A

COMPOSITION OF PART FROM PARTS DEPARTMENT

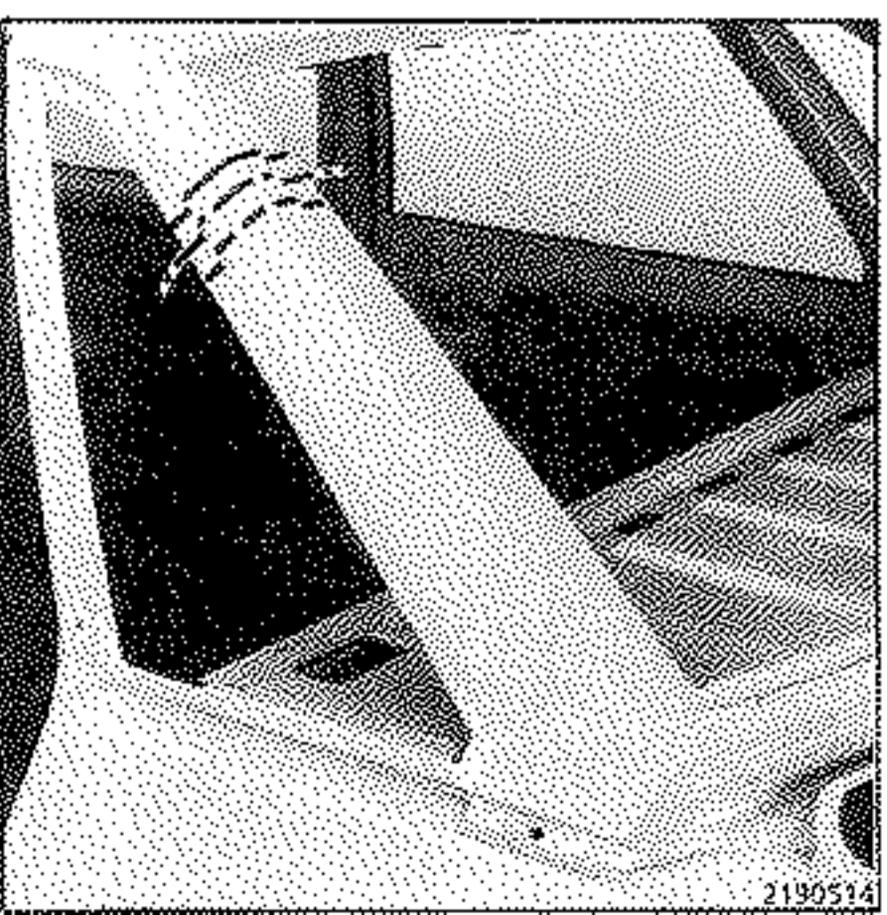
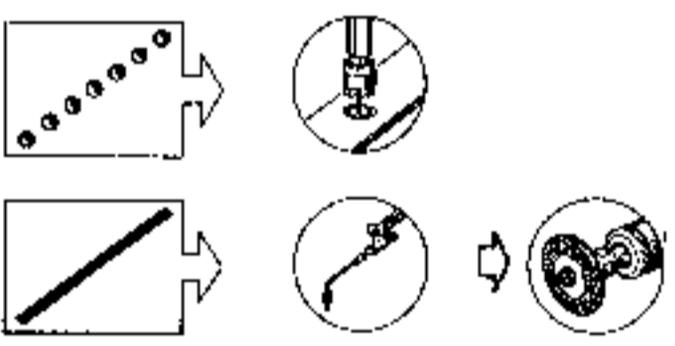
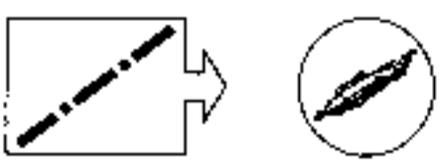
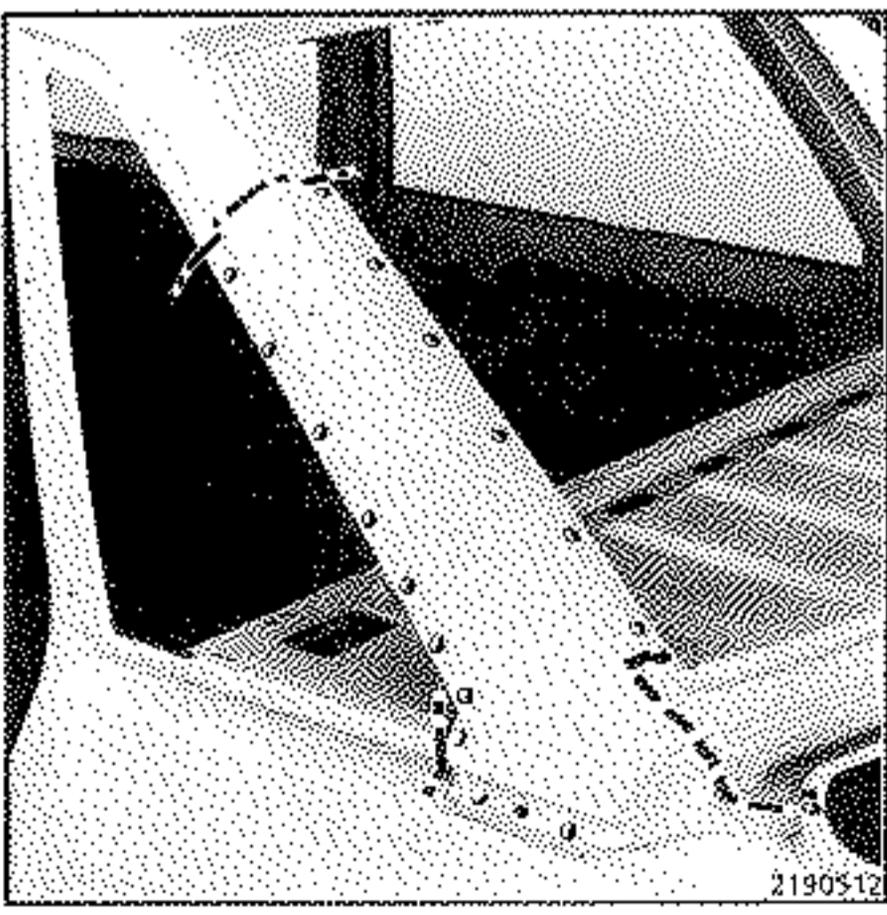
Bare rear quarter panel.



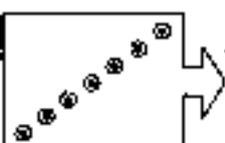
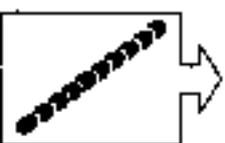
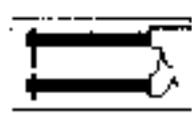
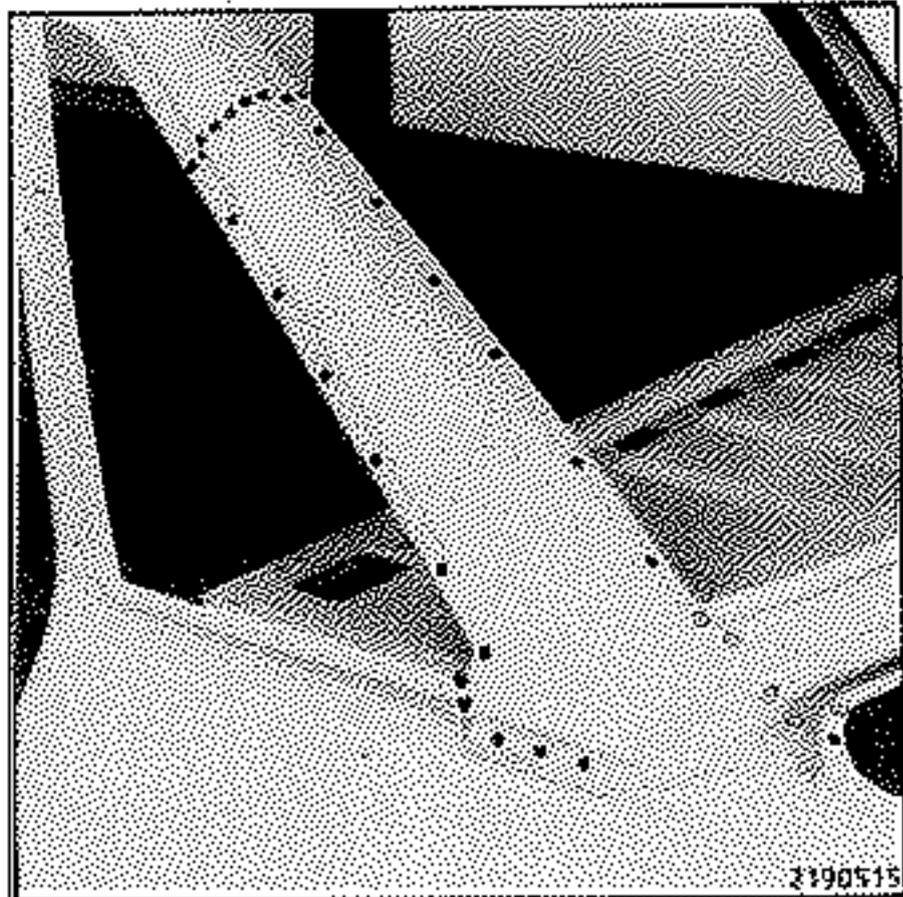
Note : when cutting with the chisel, take care not to damage the wing panel reinforcement as it is very close.



CUTTING OUT - UNPICKING



WELDING



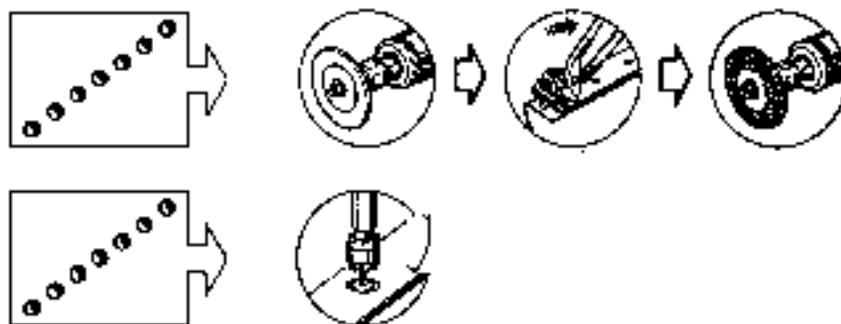
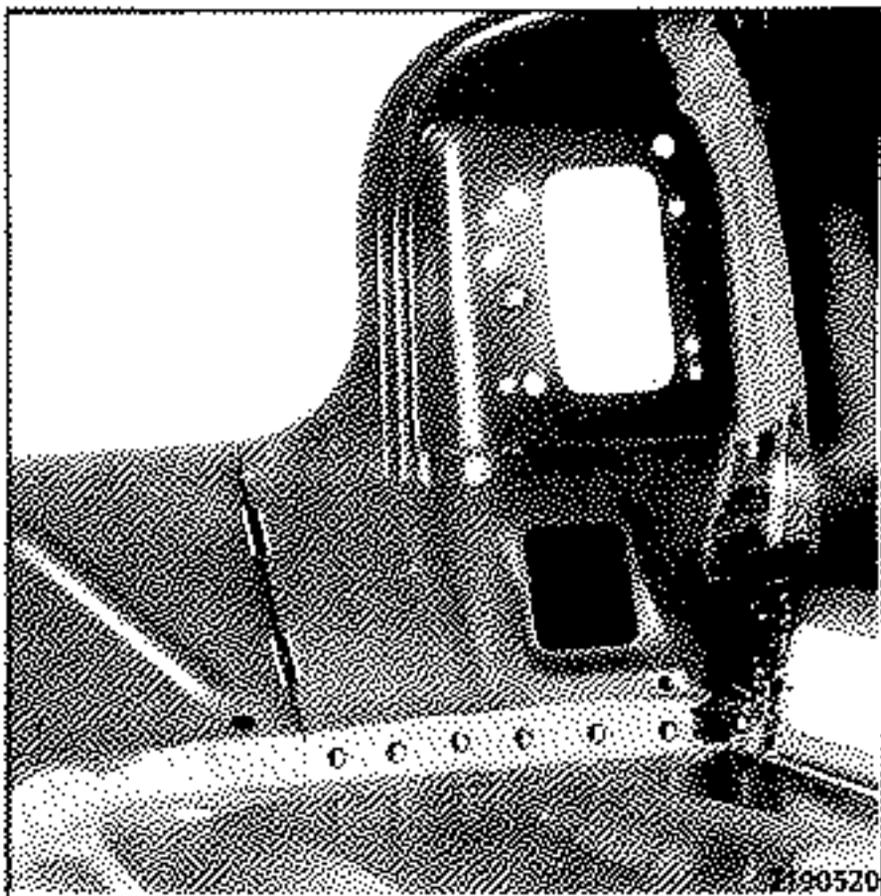
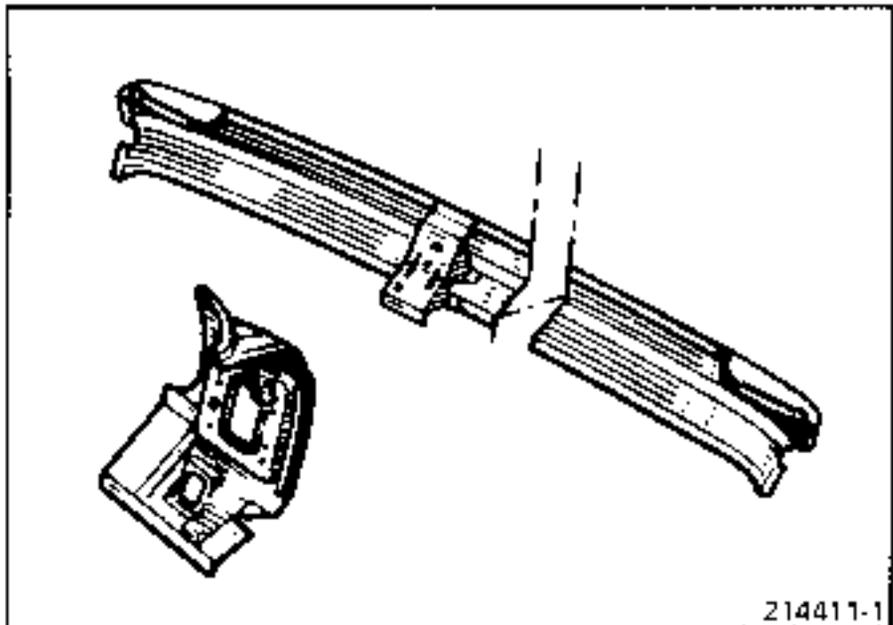
PROTECTING HOLLOW SECTIONS



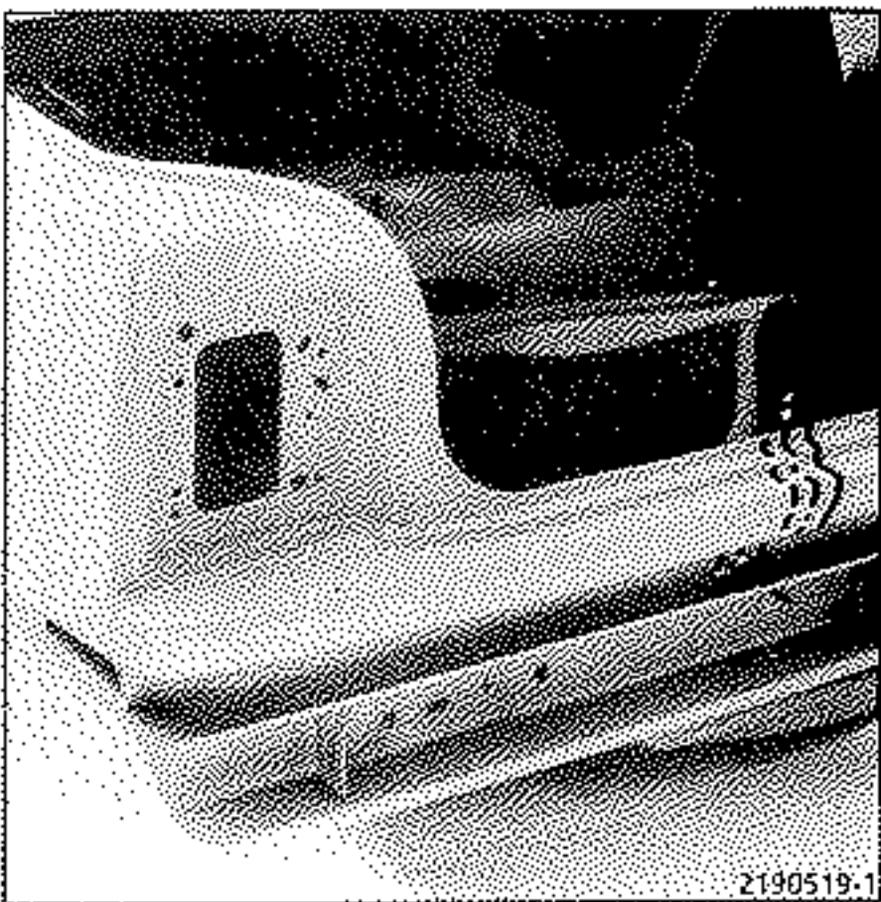
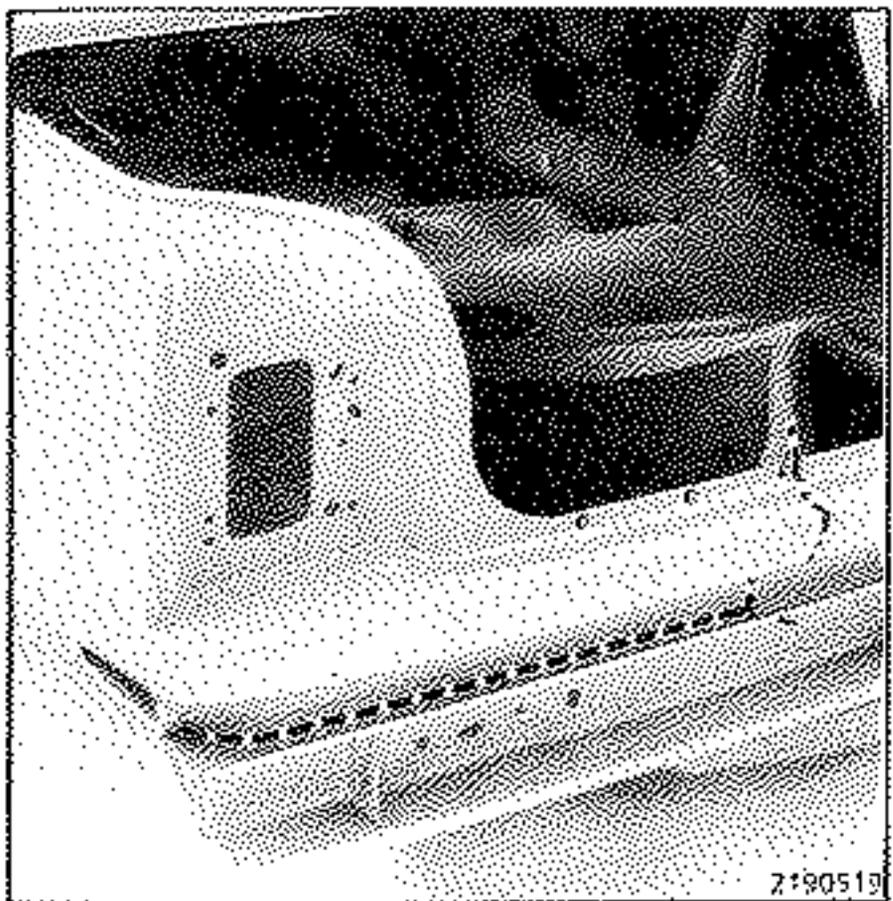
COMPOSITION OF PARTS FROM PARTS DEPARTMENT

Assembled parts comprising:

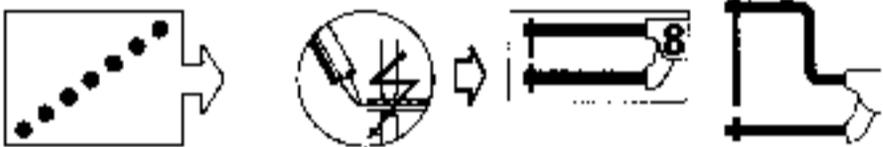
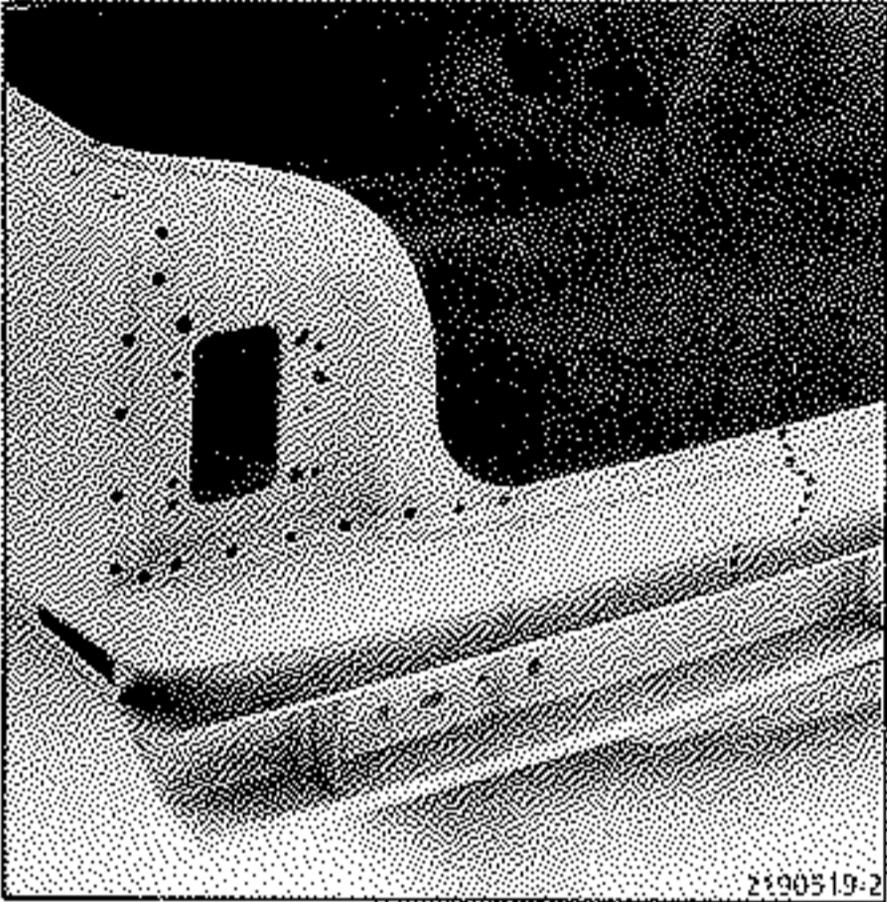
- Rear end panel with striker plate mounting reinforcement.
- Light carrier panel with compensator spring retaining hook.



CUTTING OUT - UNPICKING



WELDING

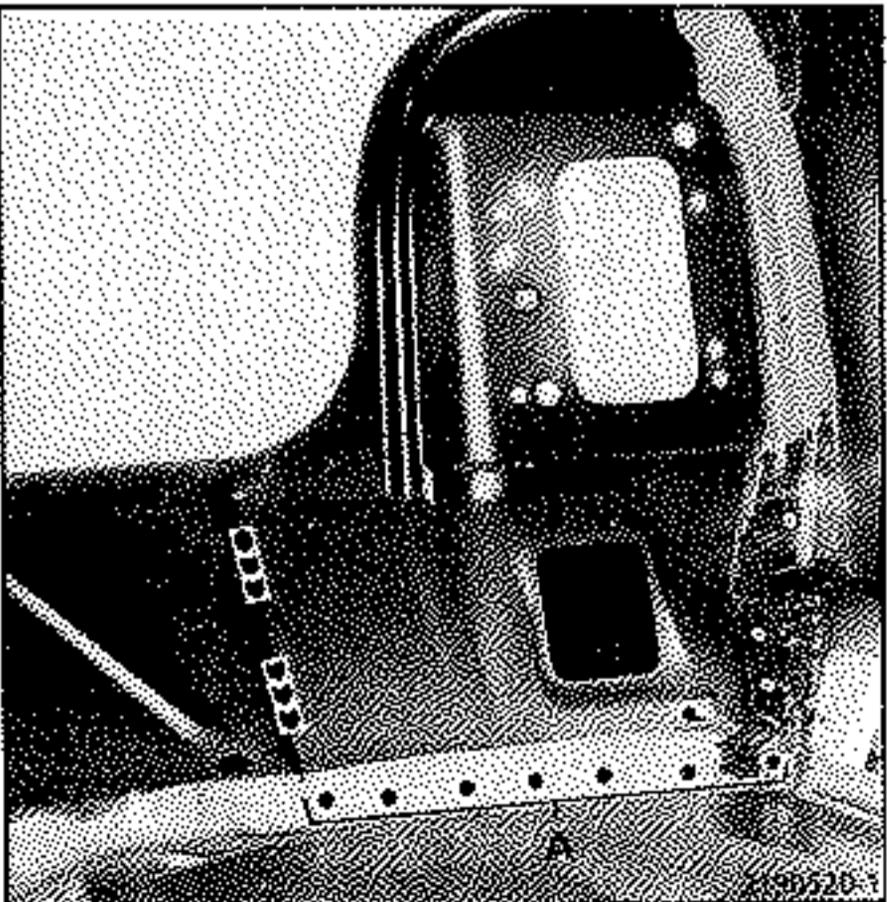


L = 330 mm  
e = 1.4 mm  
H = 60 mm

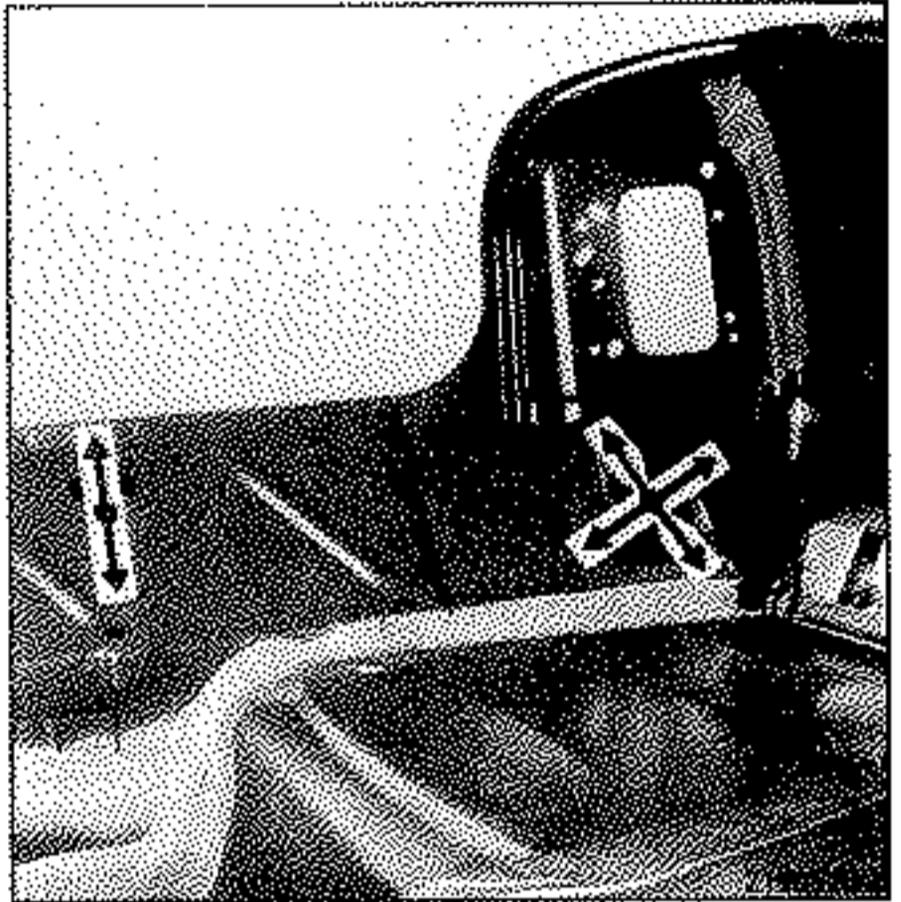
Zone A  
e = 2 mm  
H = 54 mm



D = 4.5 mm



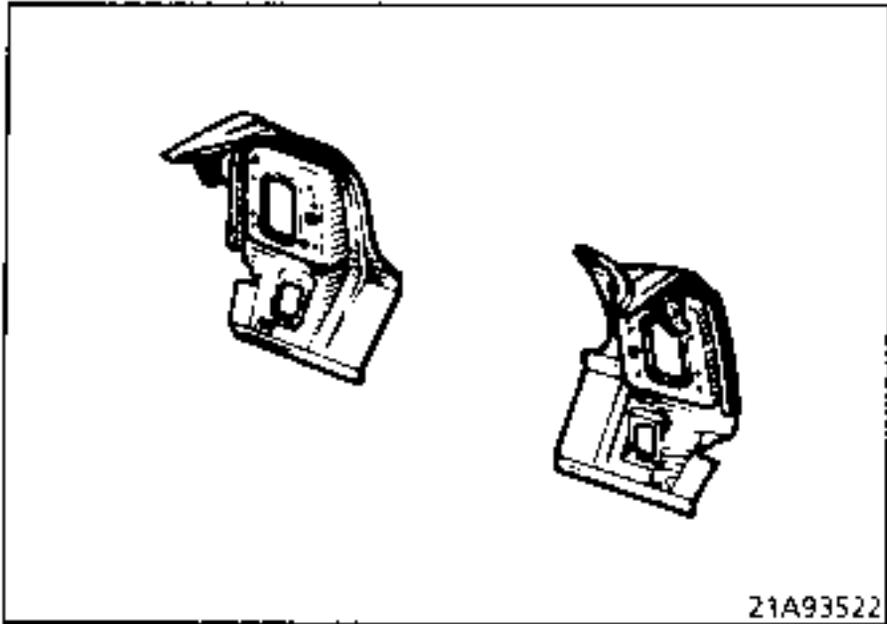
ANTICORROSION PROTECTION



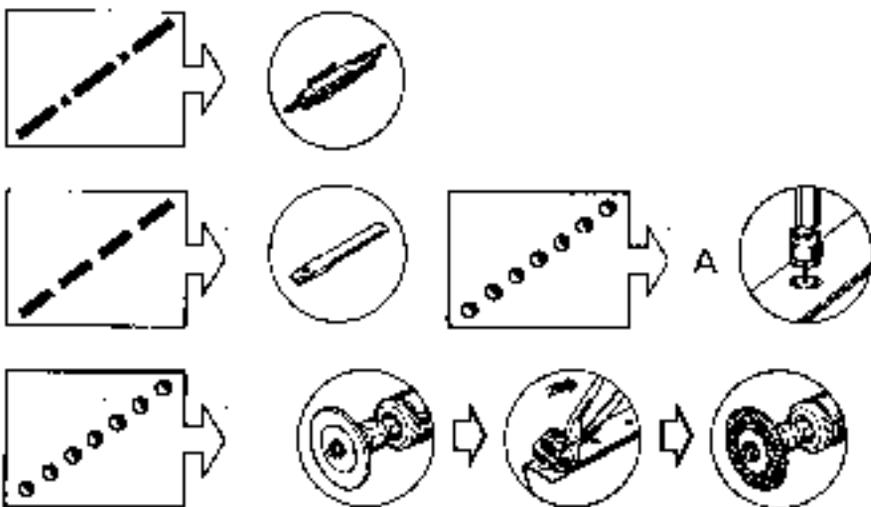
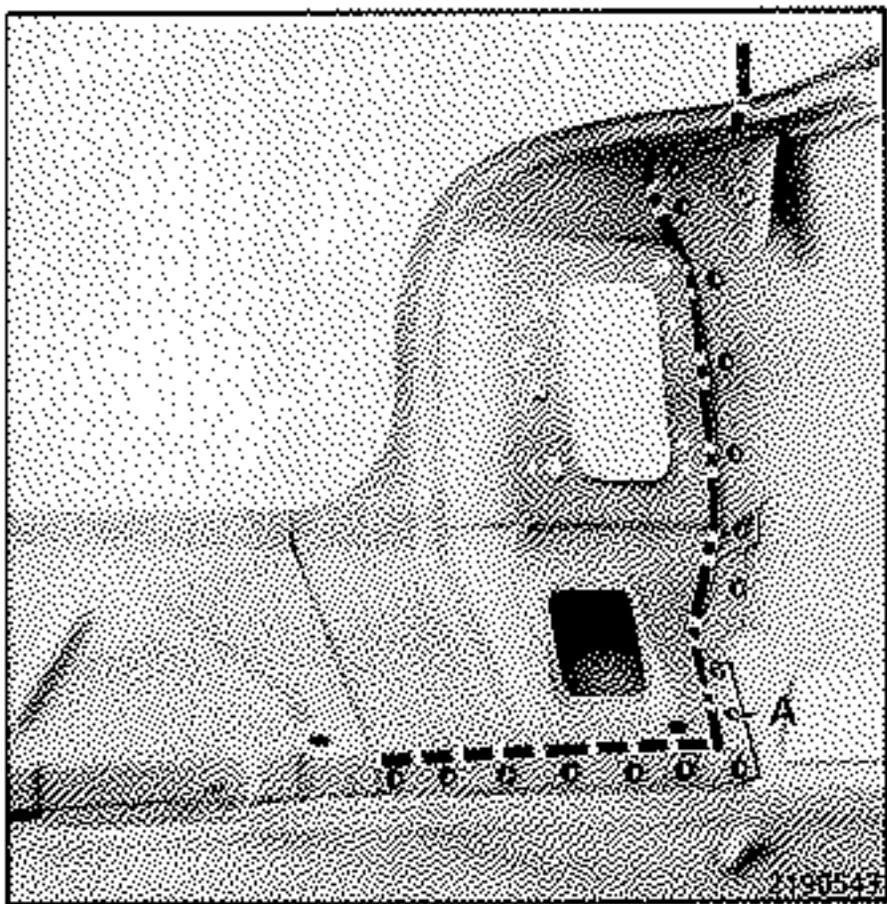
COMPOSITION OF PART FROM PARTS DEPARTMENT

Assembled part comprising:

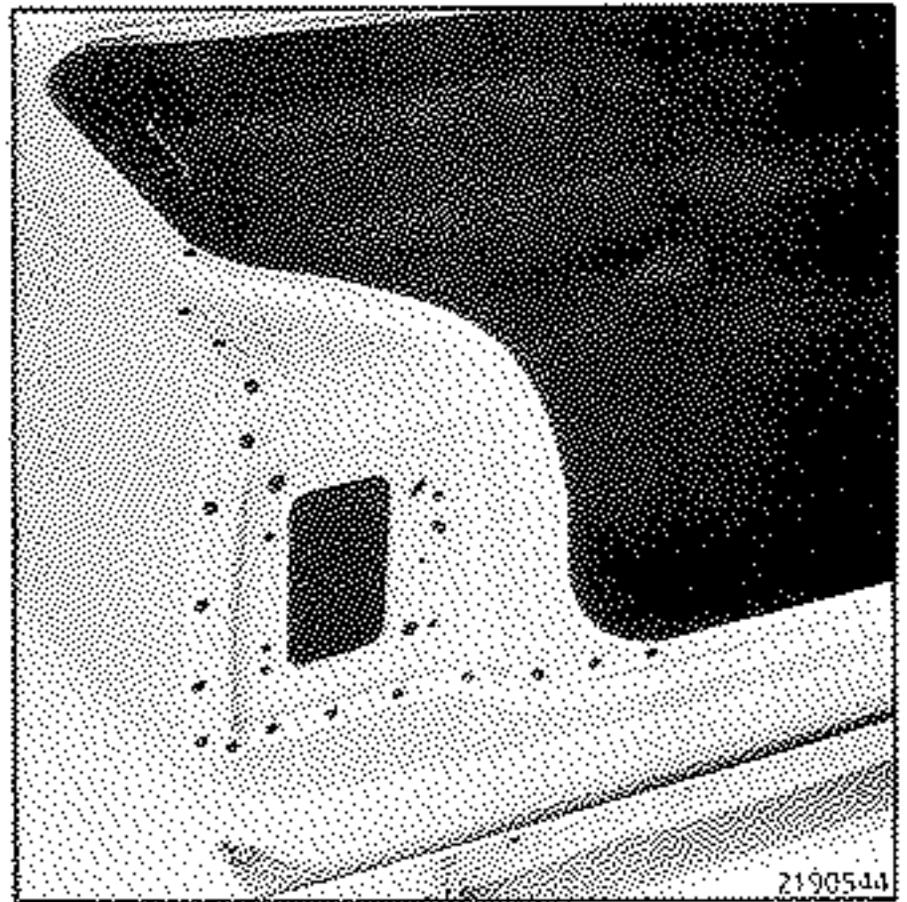
- Light carrier panel with compensator spring retaining hook.



CUTTING OUT - UNPICKING

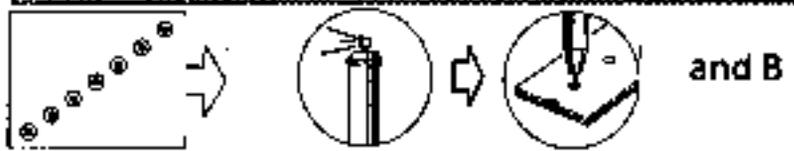
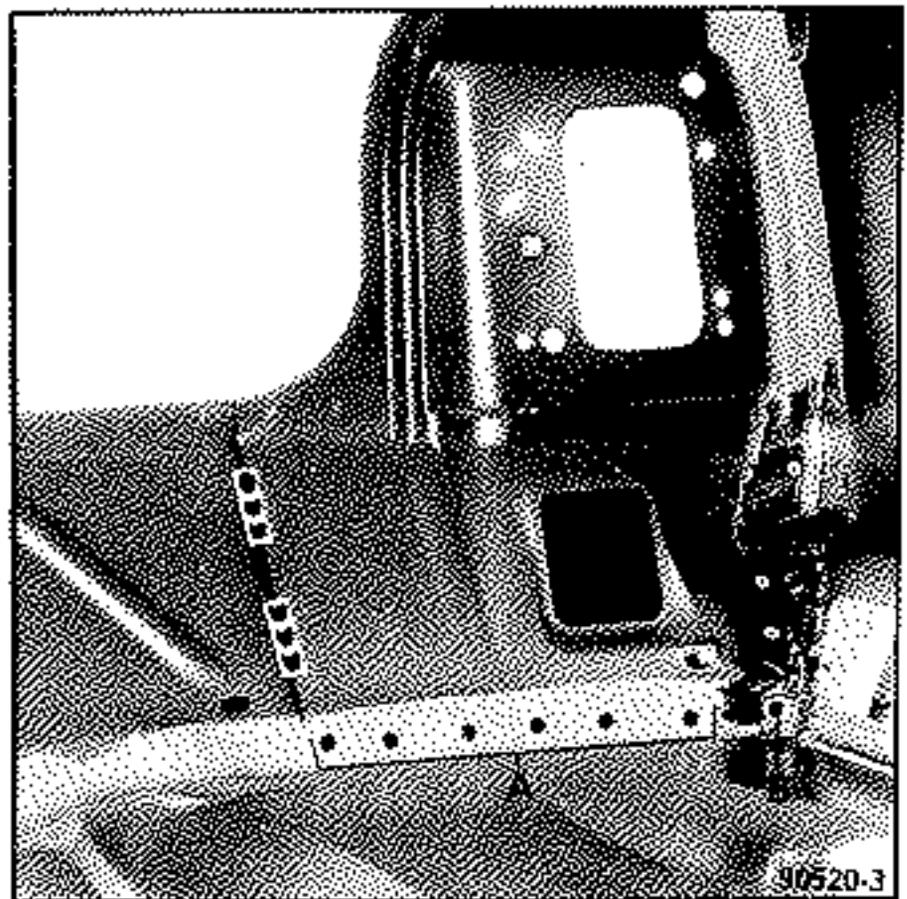


WELDING



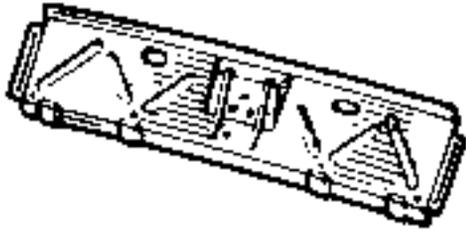
L = 310 mm  
e = 1.5 mm  
H = 60 mm

e = 2 mm  
H = 54 mm A



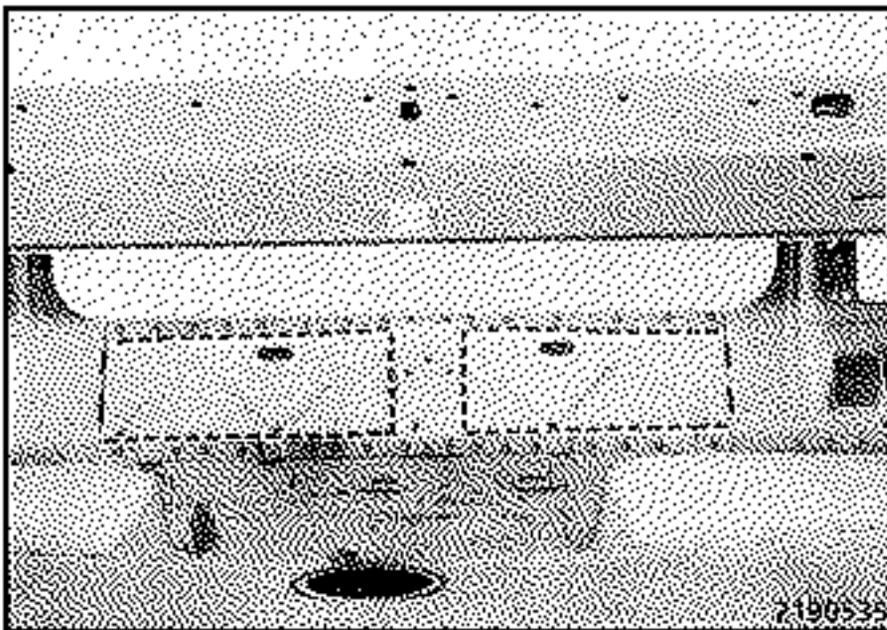
COMPOSITION OF PART FROM PARTS DEPARTMENT

Rear end panel lining.

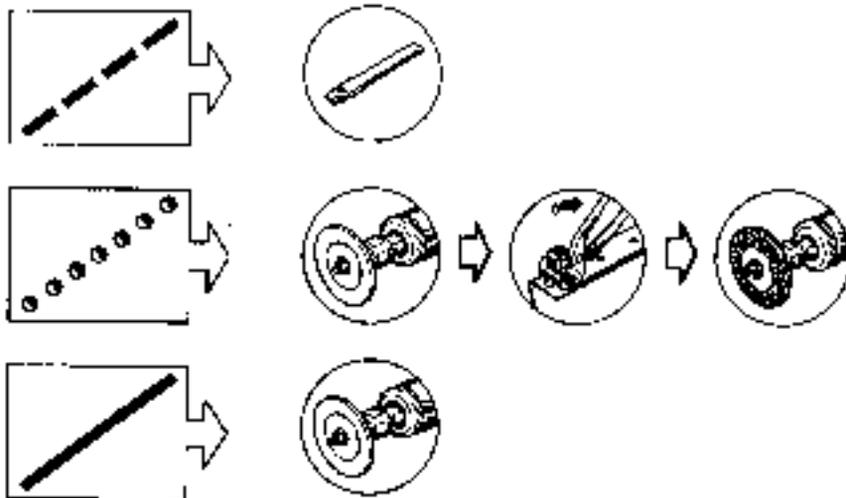


214414-1

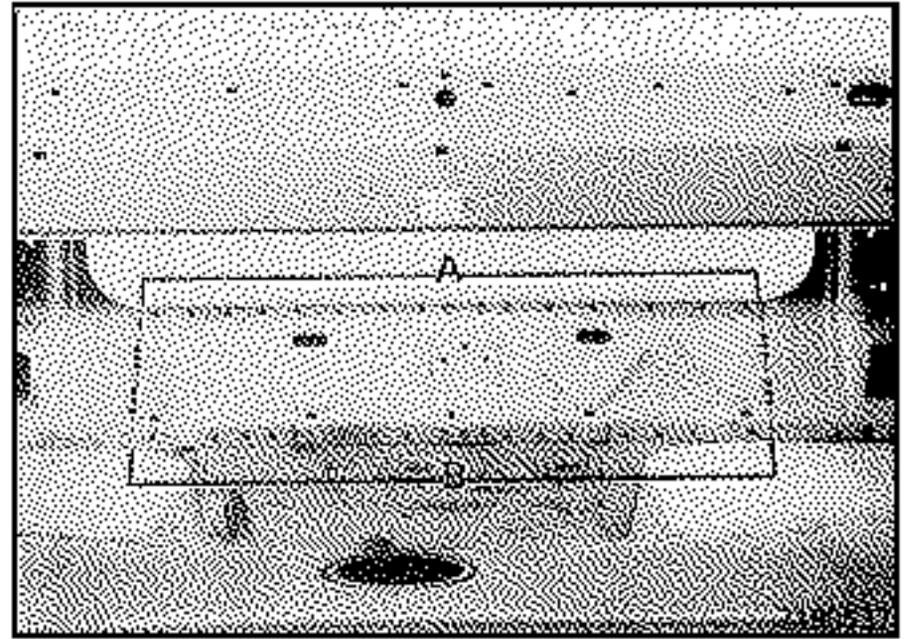
CUTTING OUT - UNPICKING



219033



WELDING



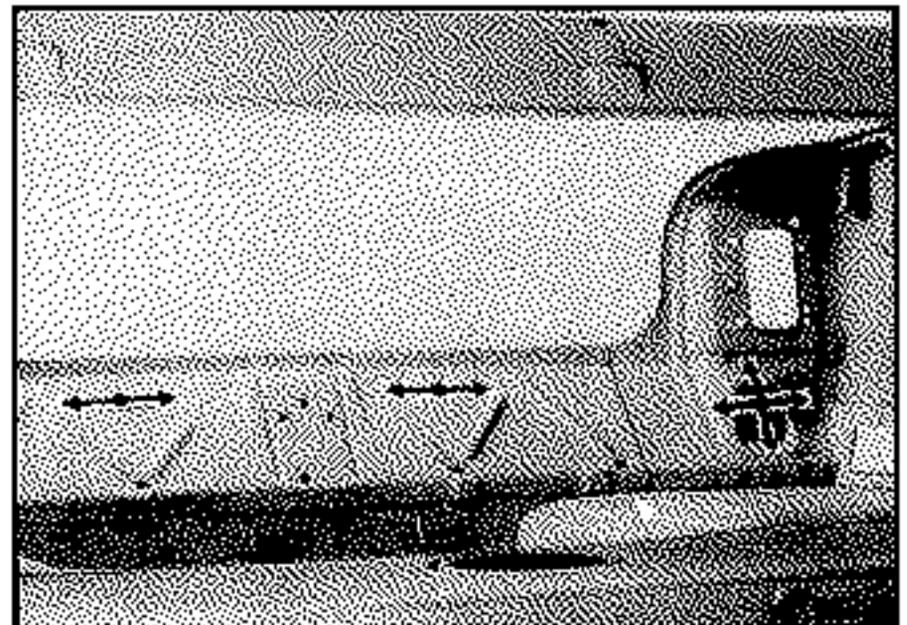
L = 310 mm  
e = 1.5 mm A      e = 2 mm B  
H = 60 mm



D = 4.5 mm



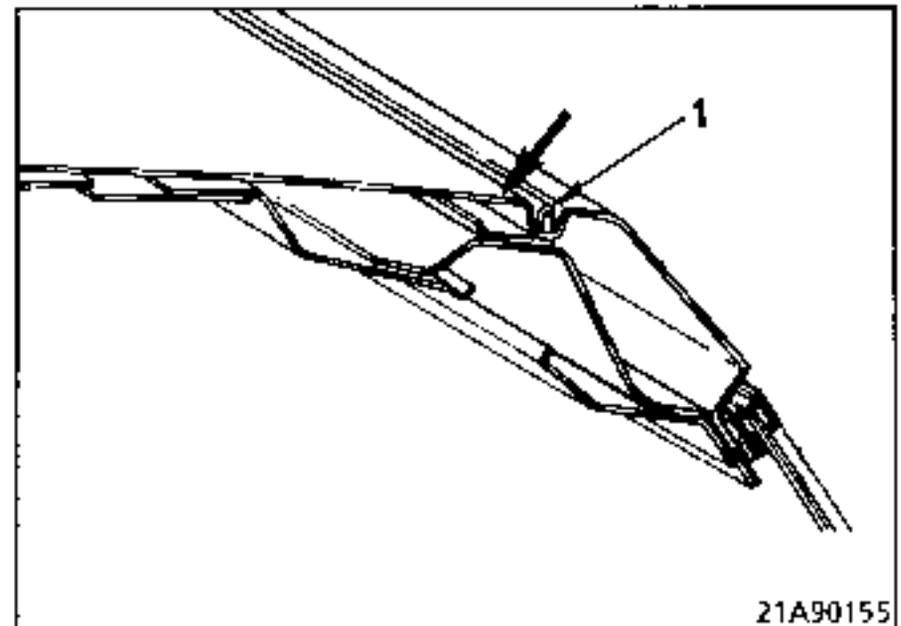
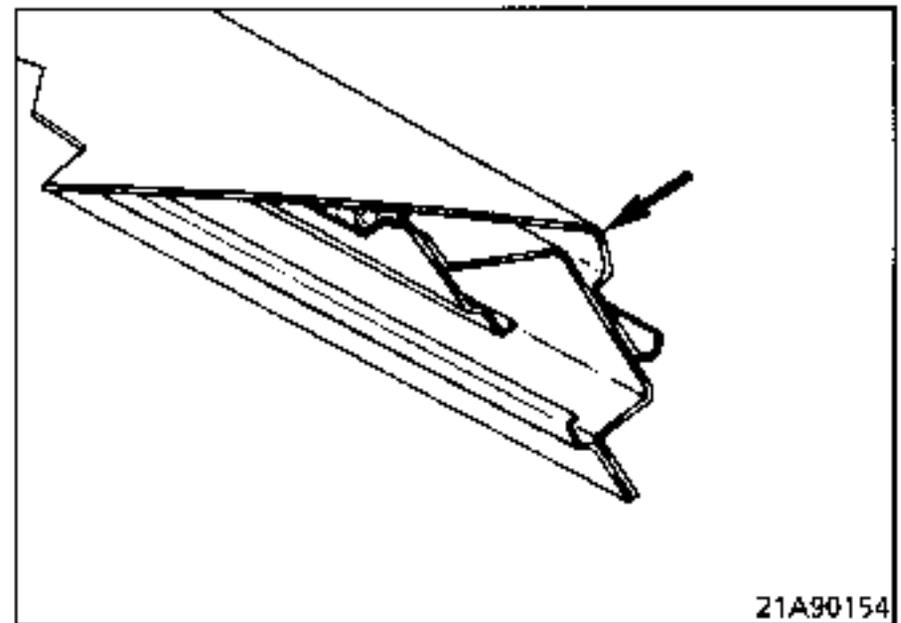
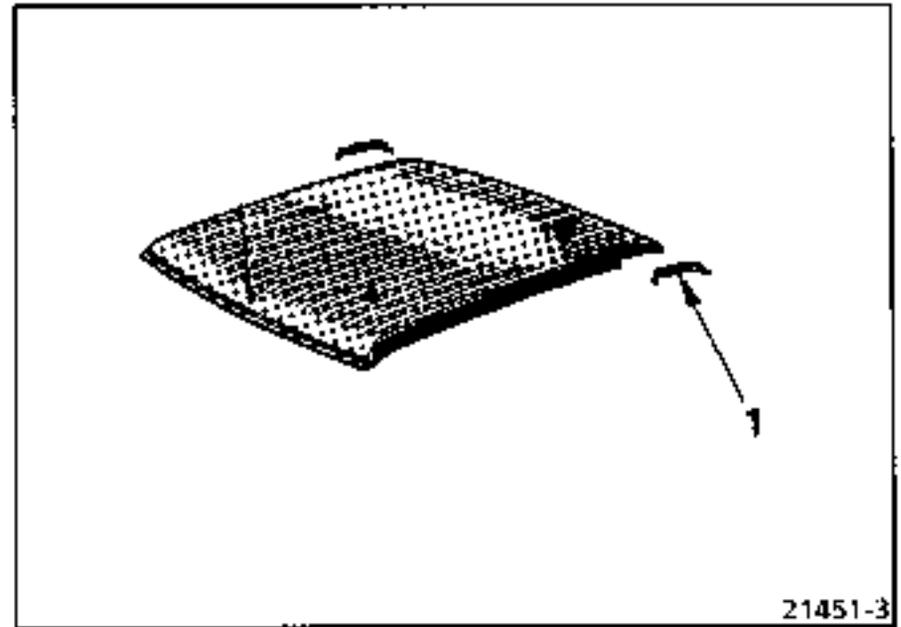
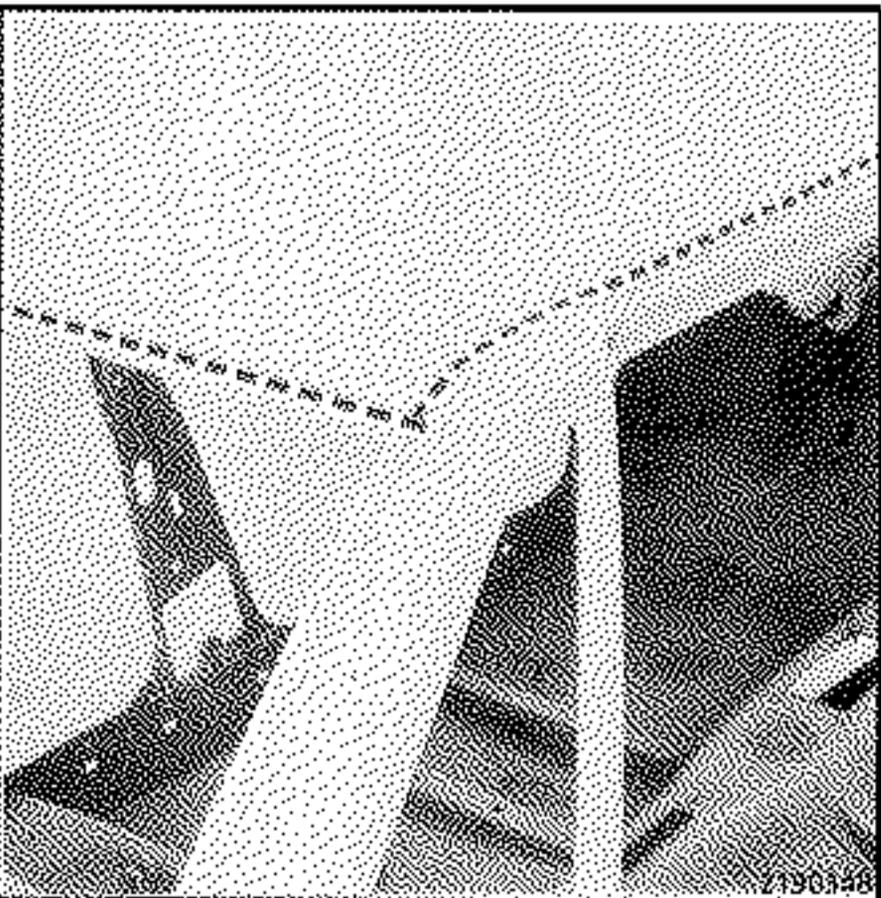
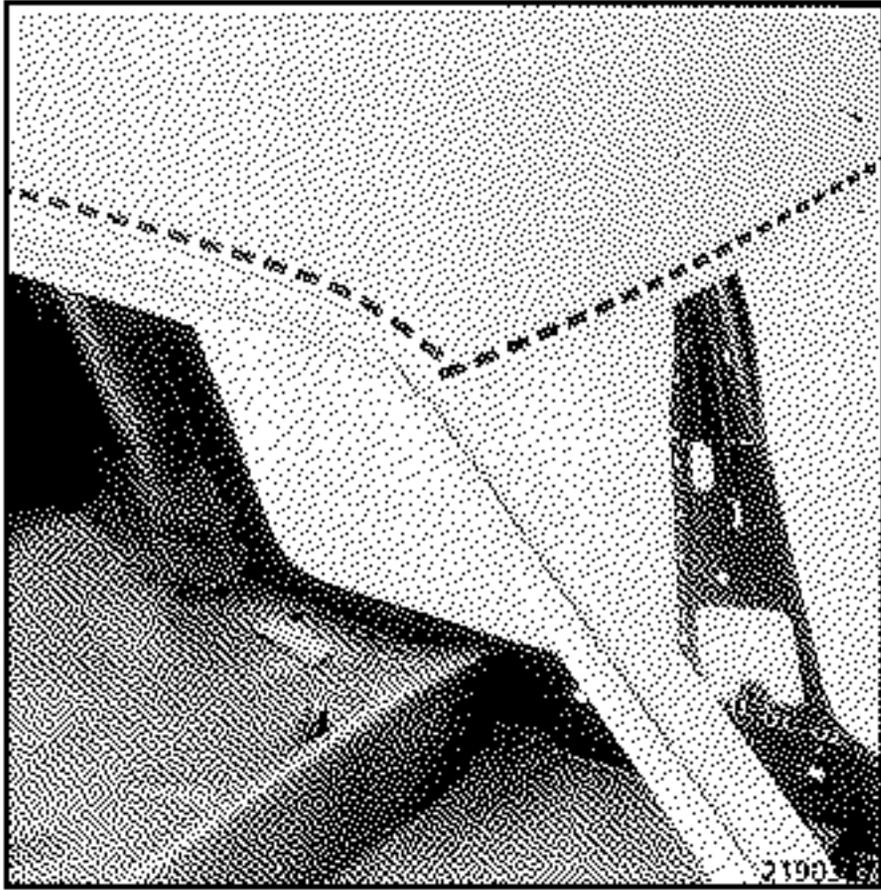
PROTECTING HOLLOW SECTIONS



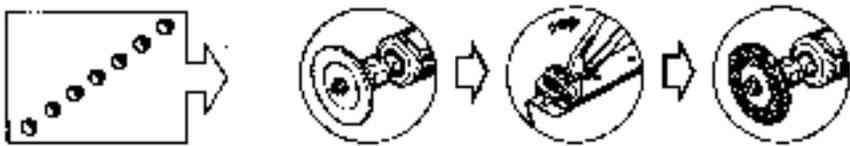
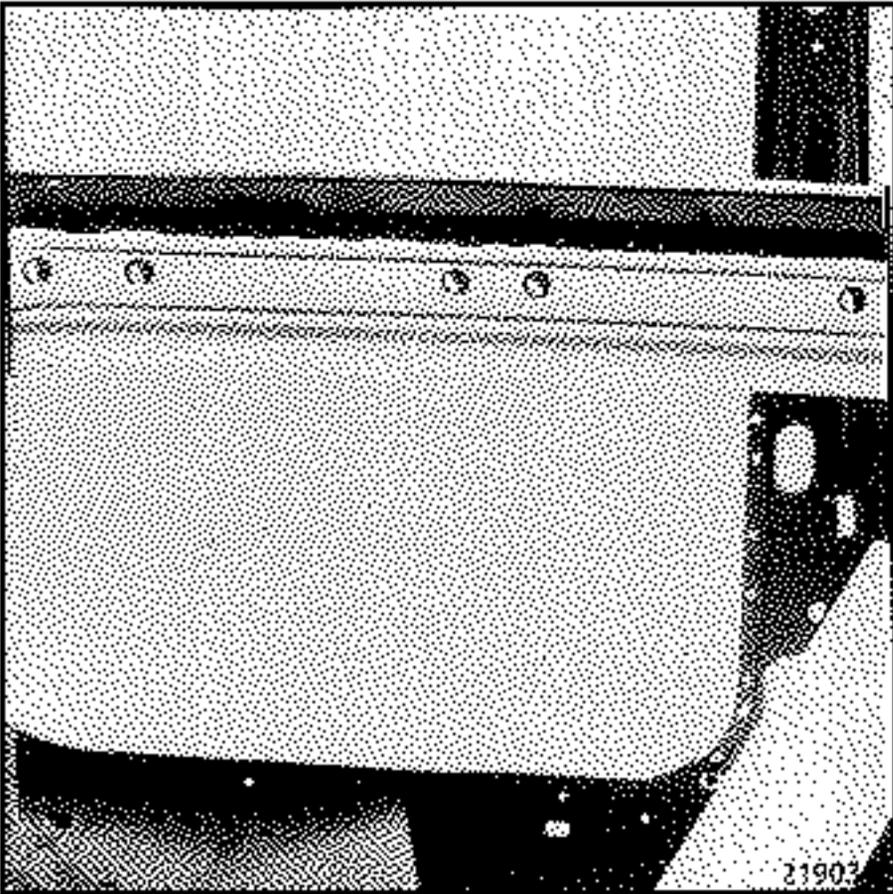
### COMPOSITION OF ROOF PANEL FROM PARTS DEPARTMENT

The roof panel is supplied bare; without a cross member and stretcher.

### CUTTING OUT - UNPICKING

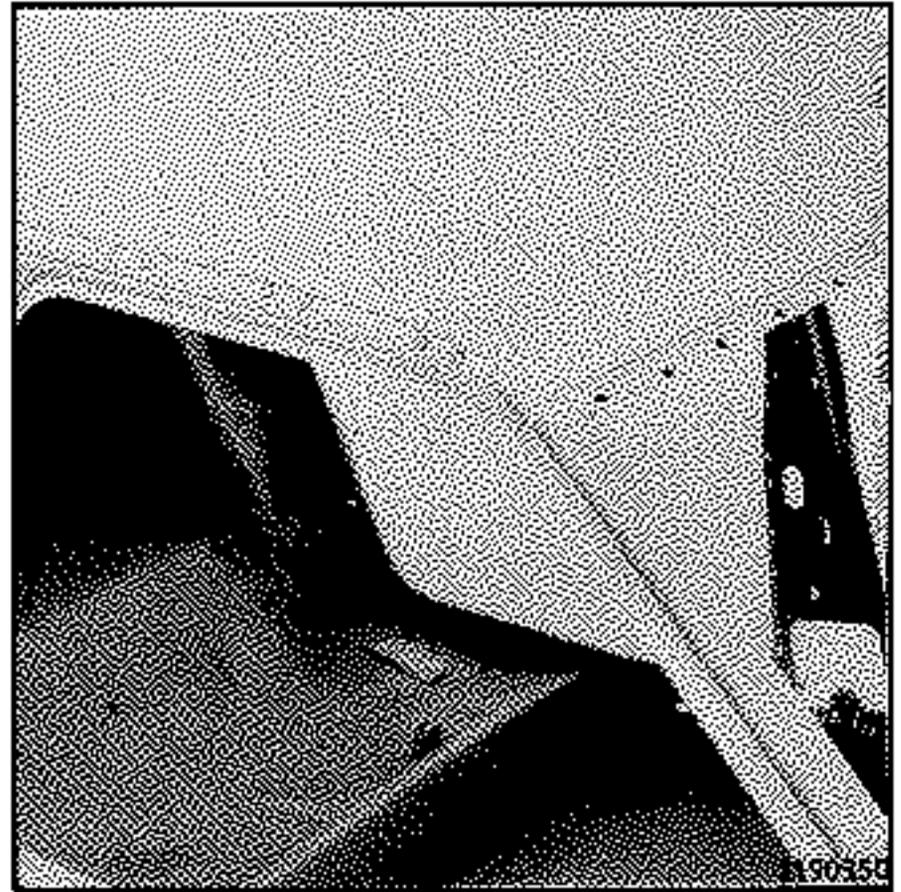
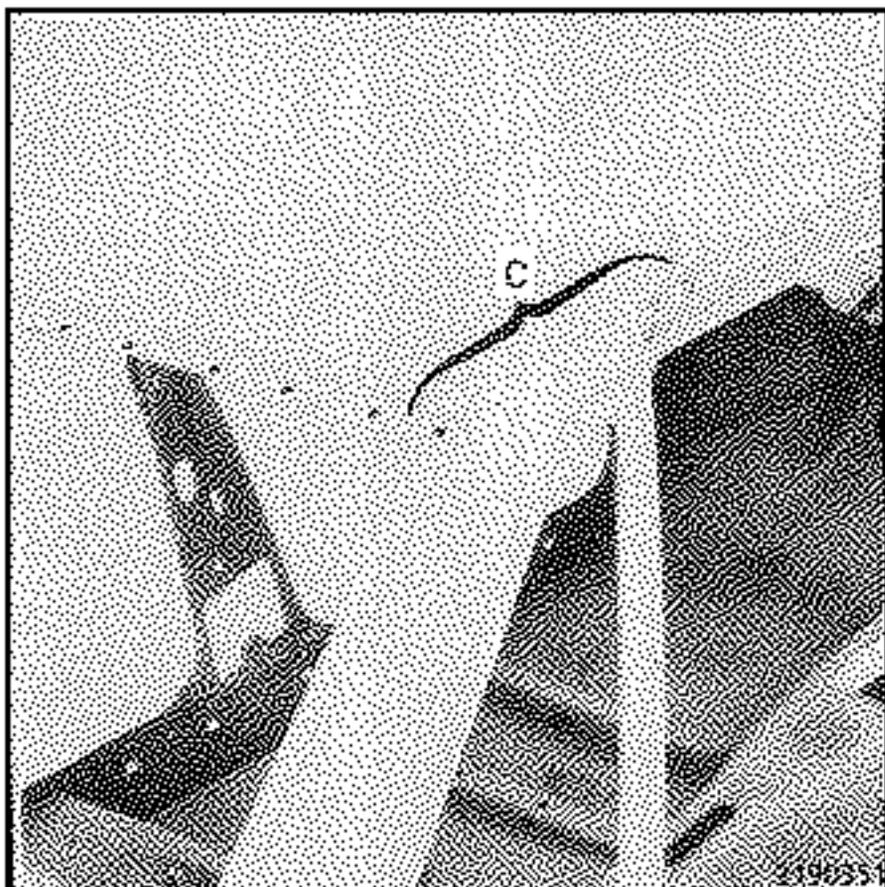


1 metal strip.



**C** apply MCT metal-to-metal bonding mastic before welding.

**WELDING**



$D = 4.5 \text{ mm}$



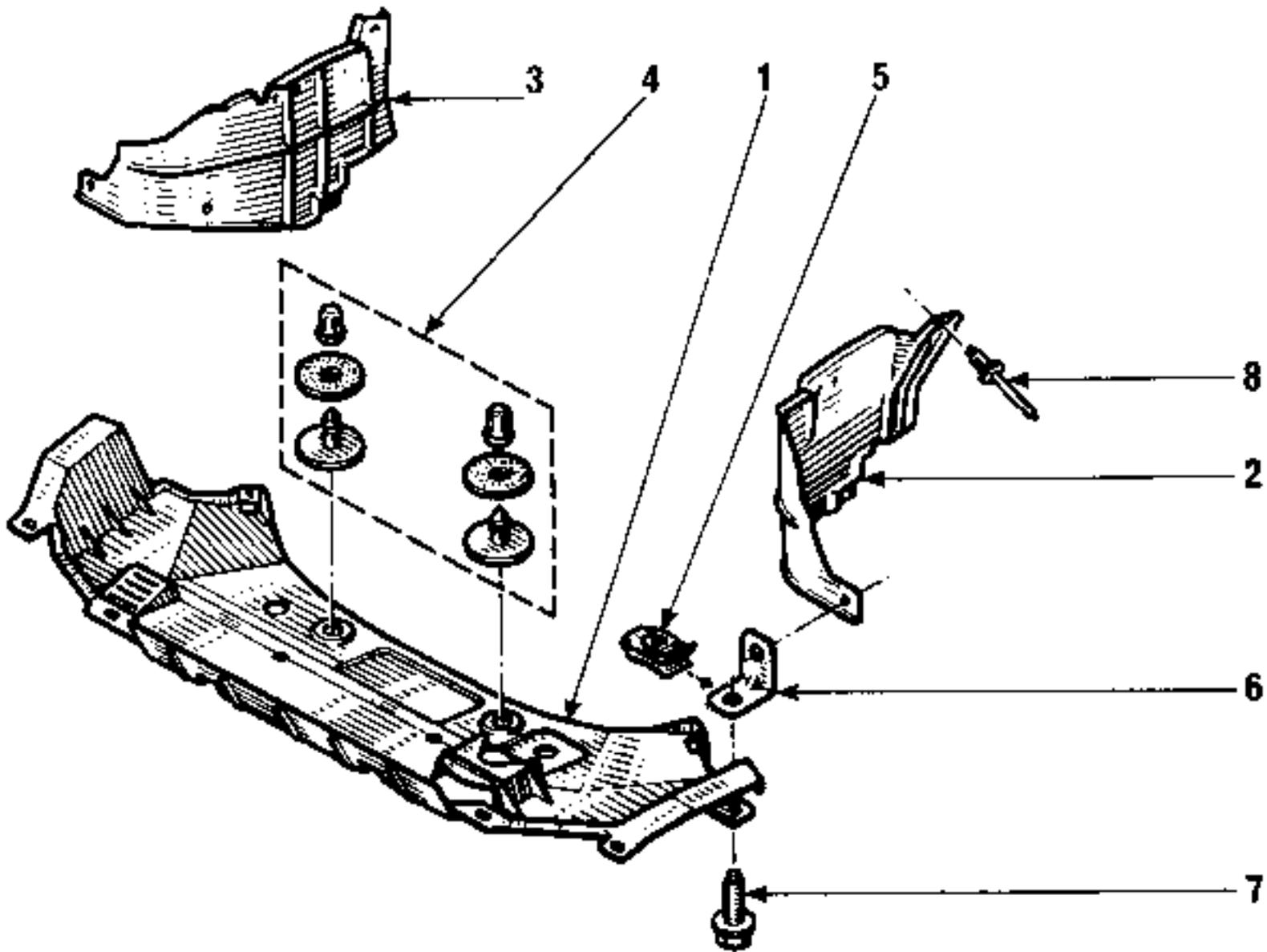
$e = 1.4 \text{ mm}$

$H = 37 \text{ mm}$

After welding, apply a bead of bonding mastic to the following connections: roof - stretchers, roof - cross members.

After painting and before refitting the trim, inject the product for hollow sections.

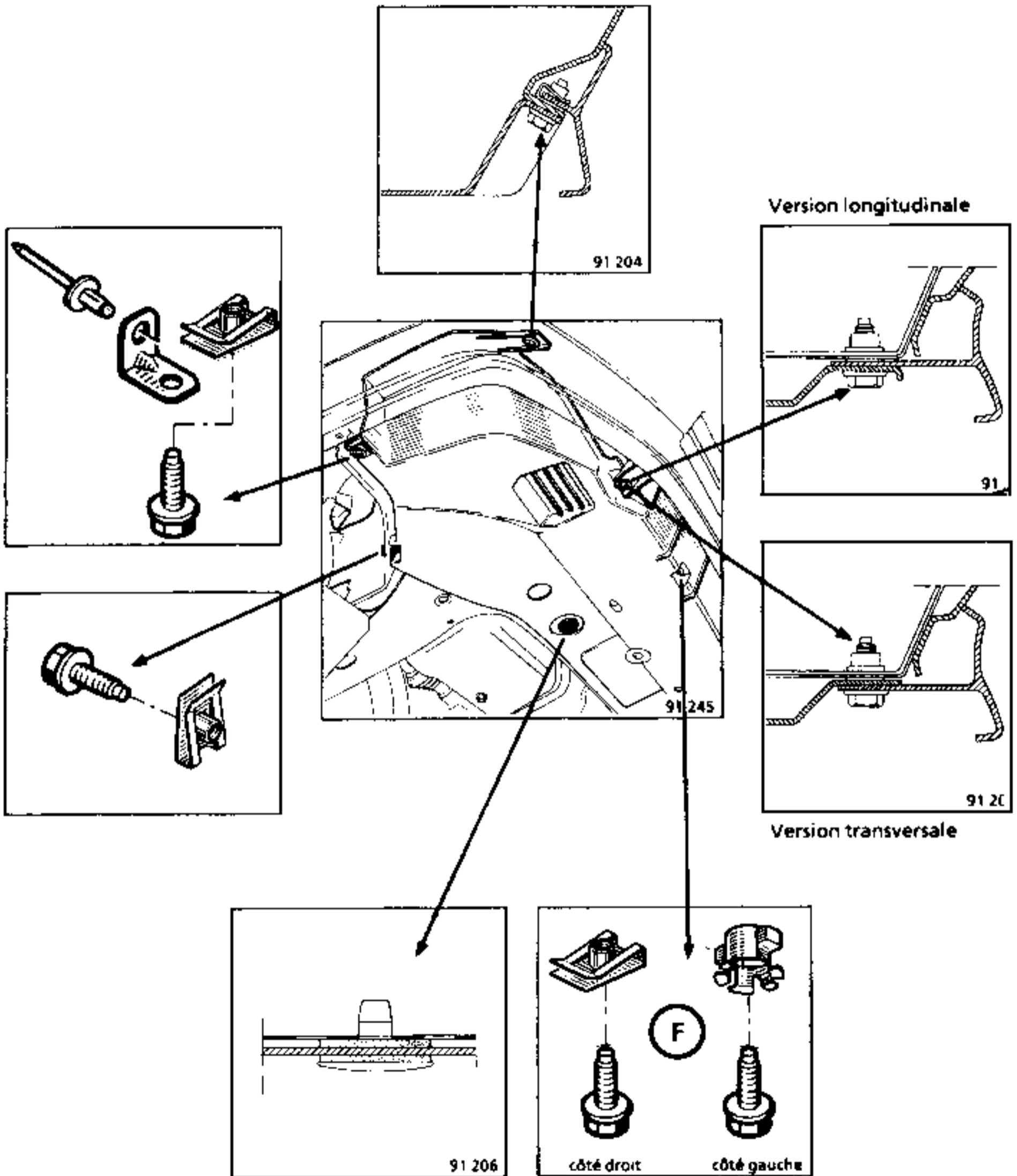
Parts required for mounting the protective skid.



21A91245

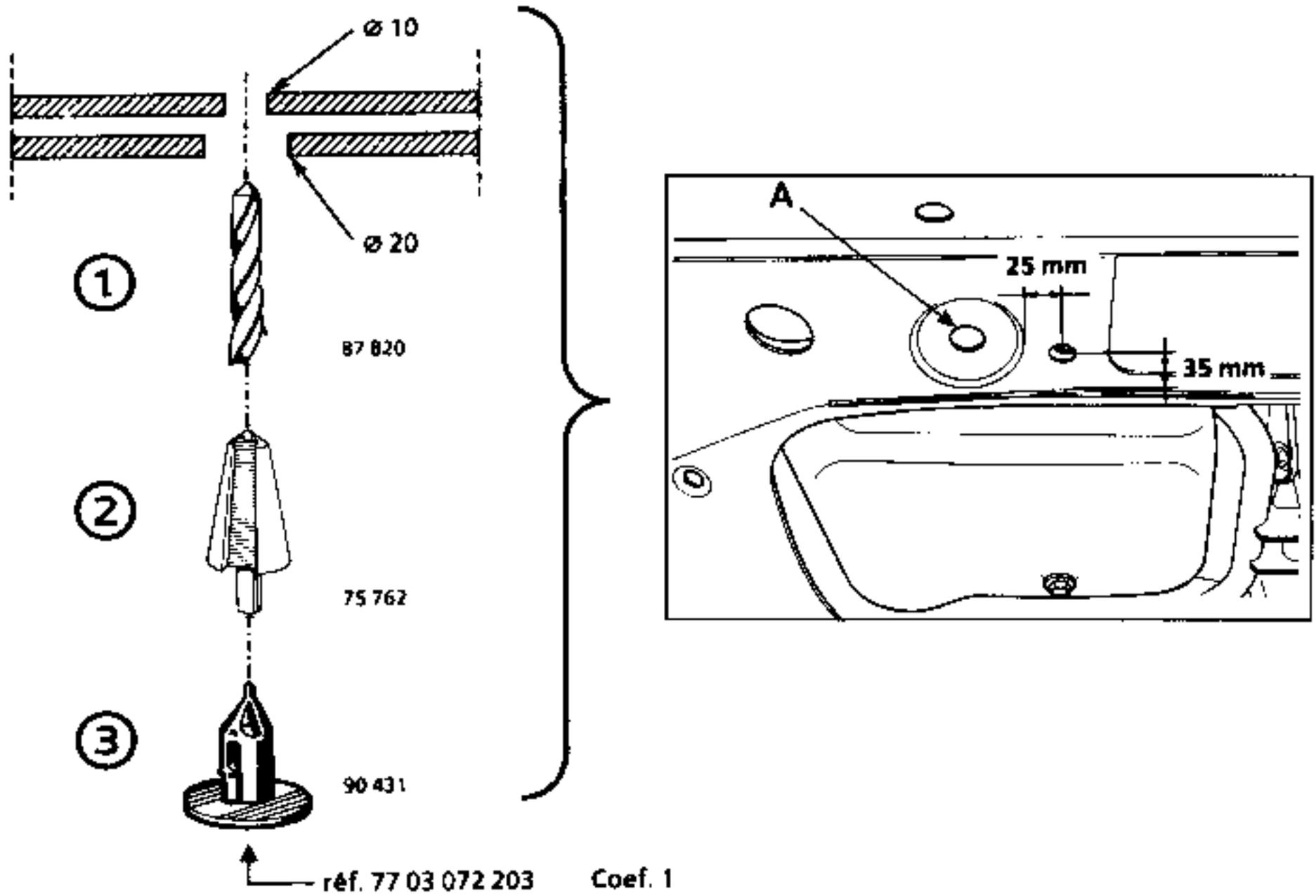
			Quantity				Quantity
1.	Transverse engine	77 00 780 633	1	4.	77 01 464 452		1
	In-line engine	77 00 780 134	1	5.	77 03 046 048		5
2.	Transverse engine	77 00 779 769	G 1	6.	77 05 028 074		2
	In-line engine	77 00 777 437	G 1	7.	77 03 001 904		6
3.	Transverse engine	77 00 779 770	D 1	8.	77 03 072 182		2*
	In-line engine	77 00 777 438	D 1				

(\* ) Plus 2 if fitting parts 2 and 3.



Note : mountings (F) are optional - only use them if the cross member is drilled.

Fitting the mounting to the earlier model engine sub-frame (mounting "A" for the protective skid cannot be used).



21A91223

Note : Apply anticorrosion protection using electro-weldable mastic Part Number 77 01 394 679.

There are two types of hinge:

Pin A : fitted on phase I vehicles.

Pin B : fitted on phase II vehicles.

Note : pins of type B may be fitted to all vehicles.



A



B

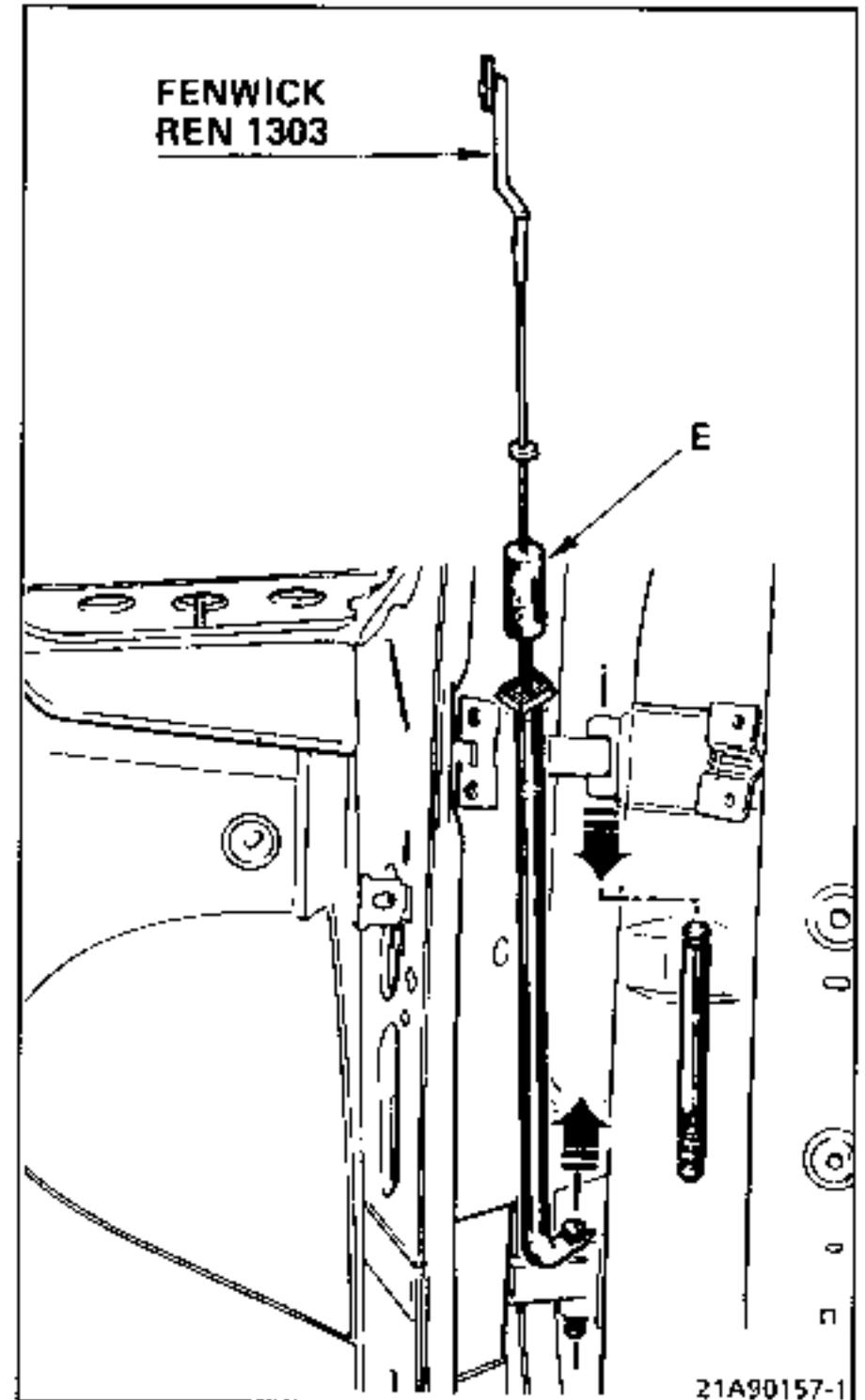
21A90157

Note: the pins are always removed between the hinges.

When a door is removed and refitted, the pins and bushes must always be renewed.

When replacing a door, the Parts Department supplies a special service exchange door equipped with hinges bolted at the door side and a set of hinges is provided for this purpose.

When removing the door from a first model vehicle, it is advisable to replace the hinge pins with the new type.

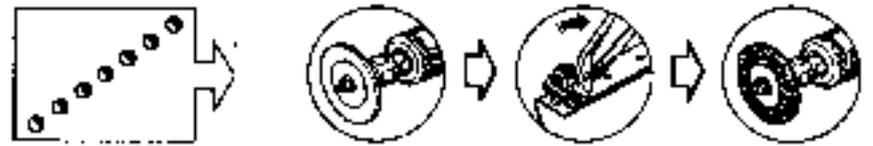
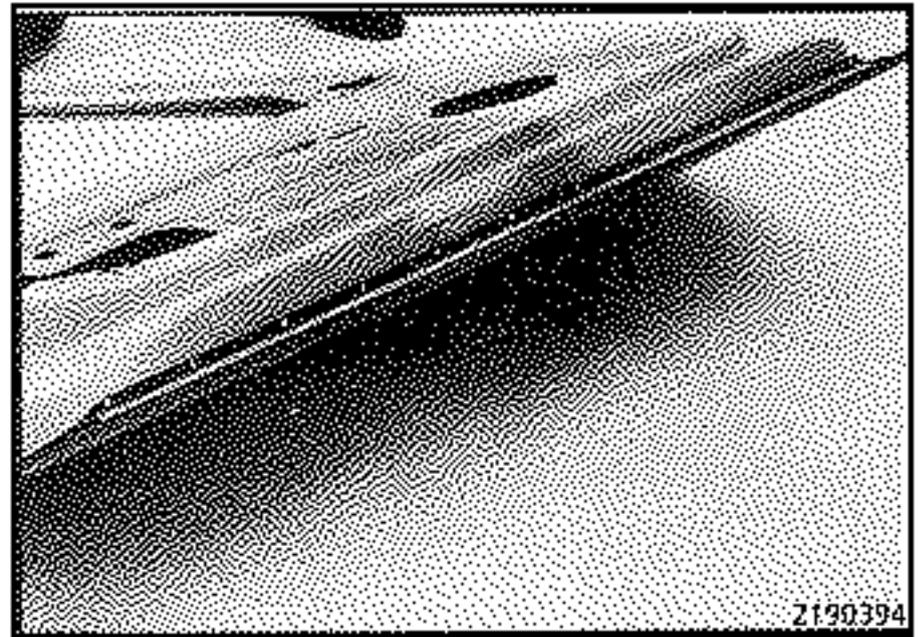
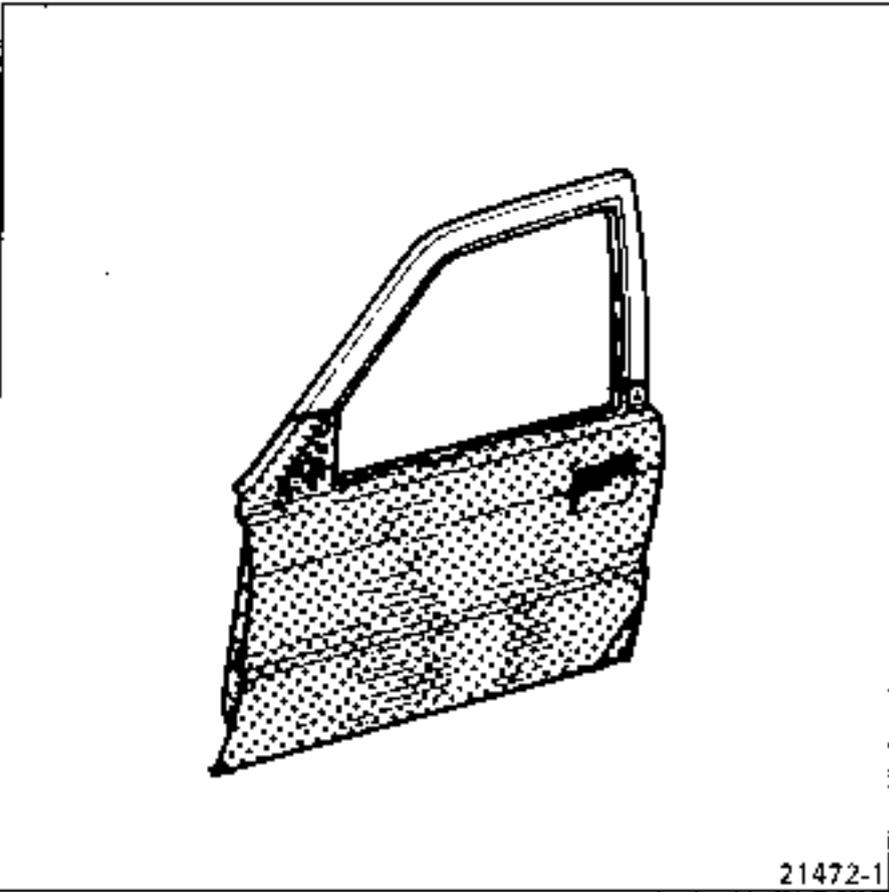


21A90157-1

Tool Car. 1055, Part Number 00 00 105 500.

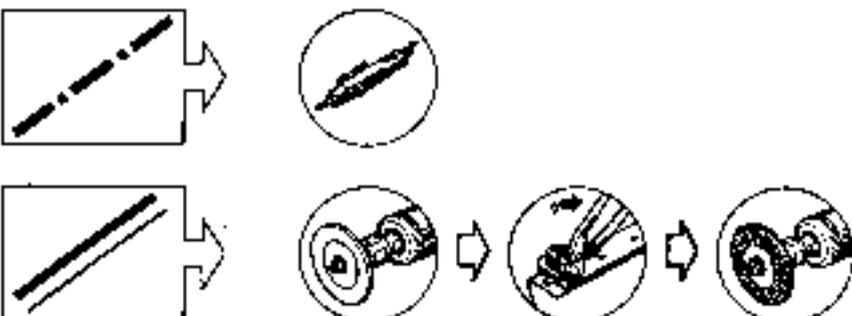
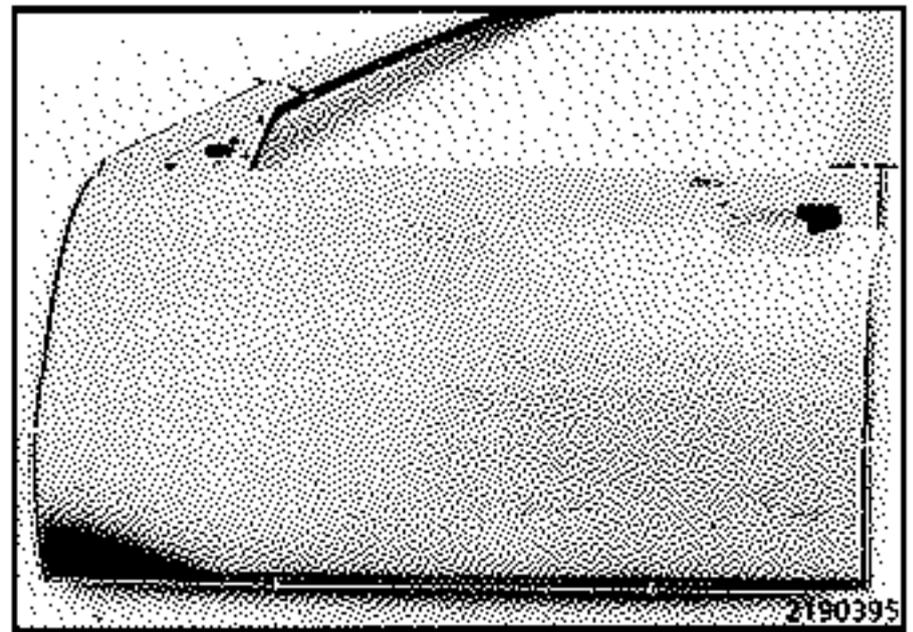
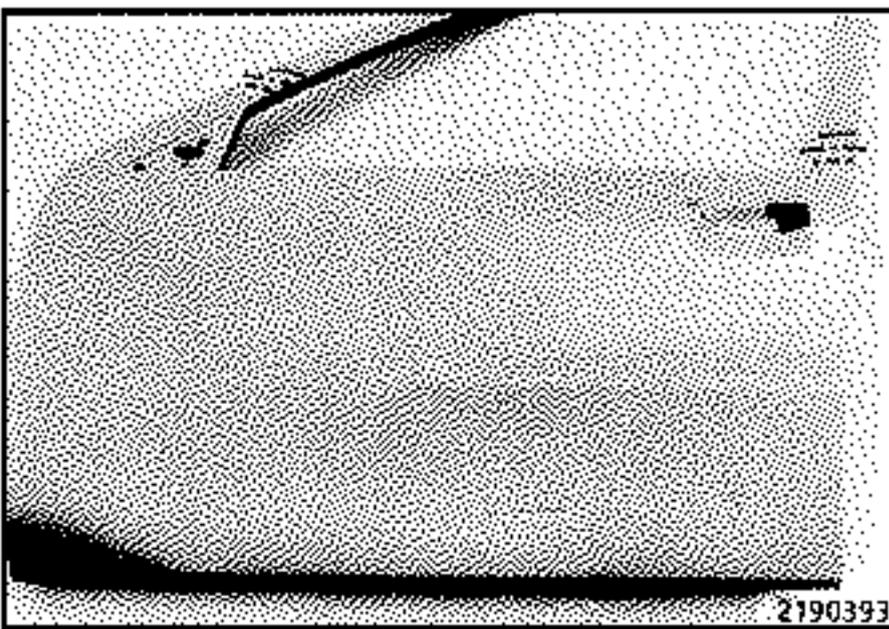
COMPOSITION OF DOOR PANEL FROM PARTS DEPARTMENT

Outer panel.  
Panel stiffener.  
Soundproofing.

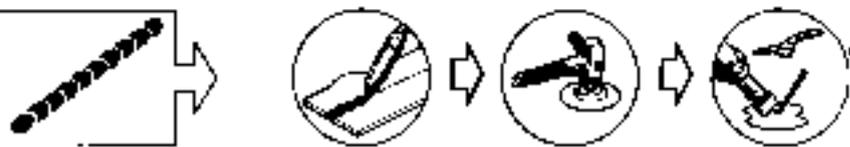
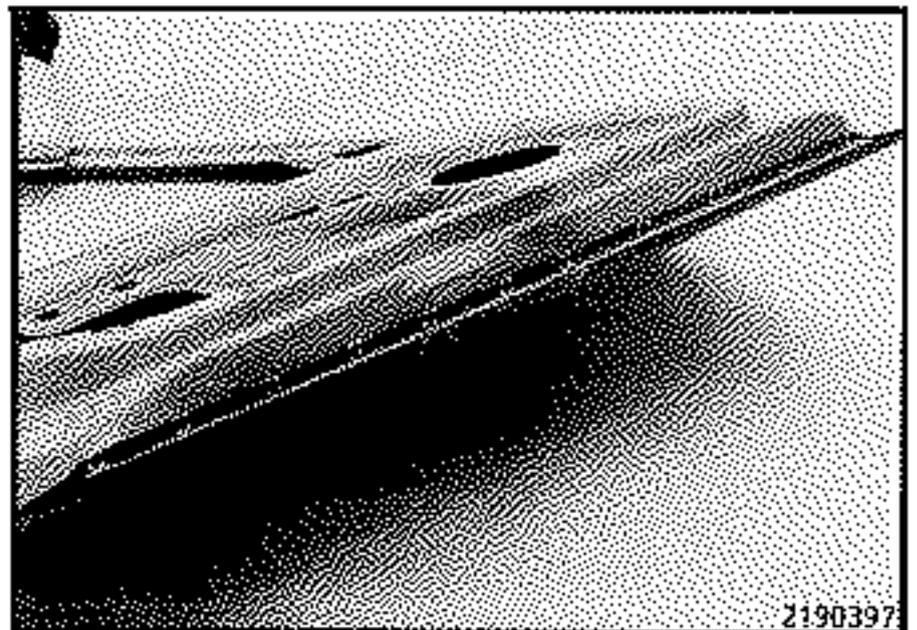
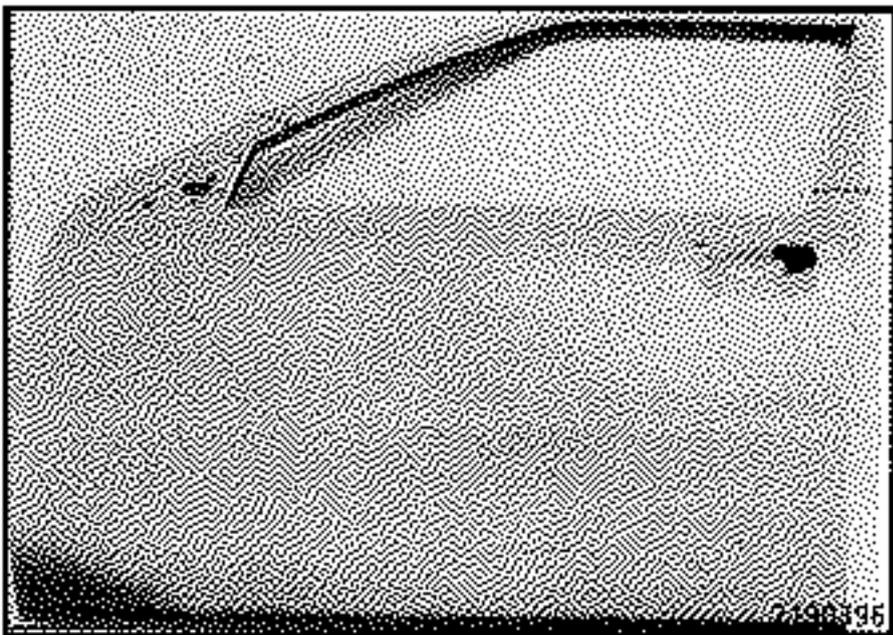


In order to facilitate removal of the panel after cutting out, use a hot air torch to release the panel from the door.

CUTTING OUT - UNPICKING



WELDING



E = 1,34 mm  
H = 40 mm

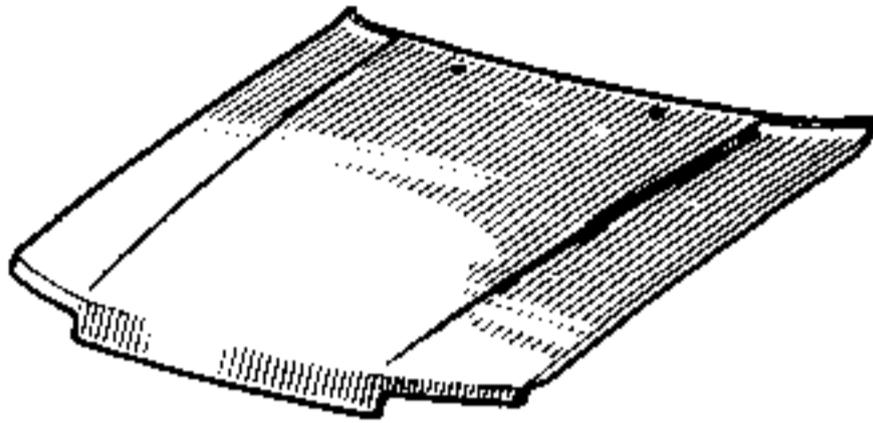
After painting, inject a product for protecting hollow sections into the door, especially in the welded areas.

Rear door panel

The operation is identical to that for the front door.

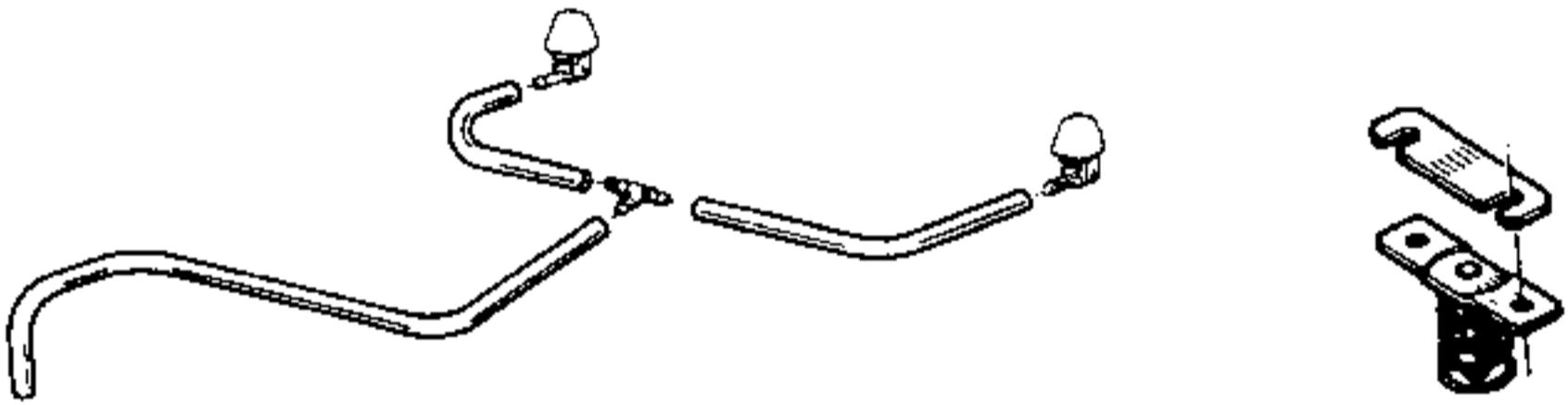
REPLACEMENT

A

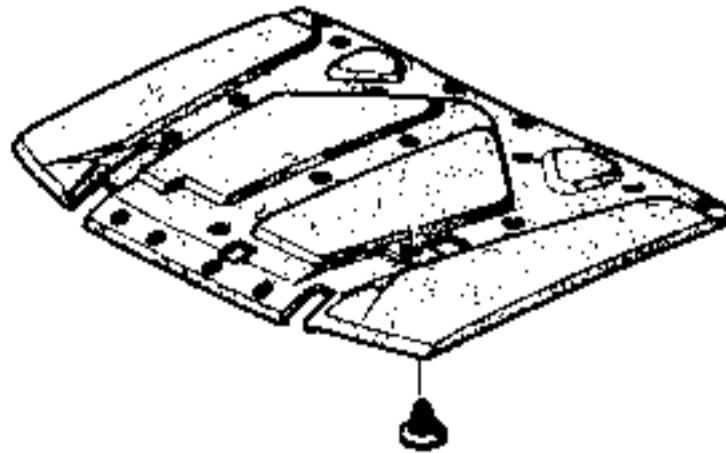


21481-1

B



X2



21481-2

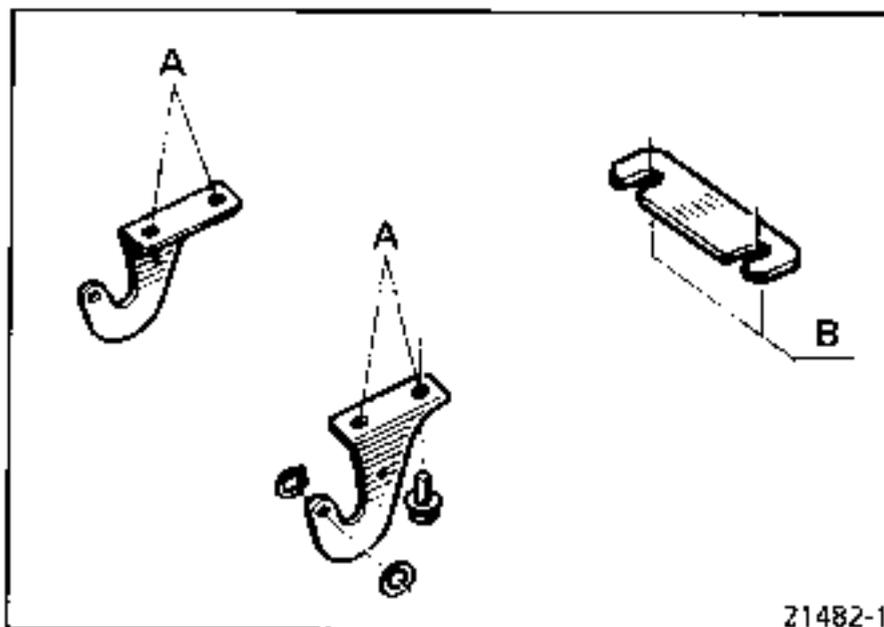
**A** : Replaced part

**B** : Retained part

The bonnet is removed by removing the four mounting bolts (A) from the stays (see diagram below).

**ADJUSTMENT**

The peripheral clearance of the bonnet is adjusted by the play in the four mountings (A) for the stays on the bonnet.



After adjustment, align the lock by the play in its mounting (B).

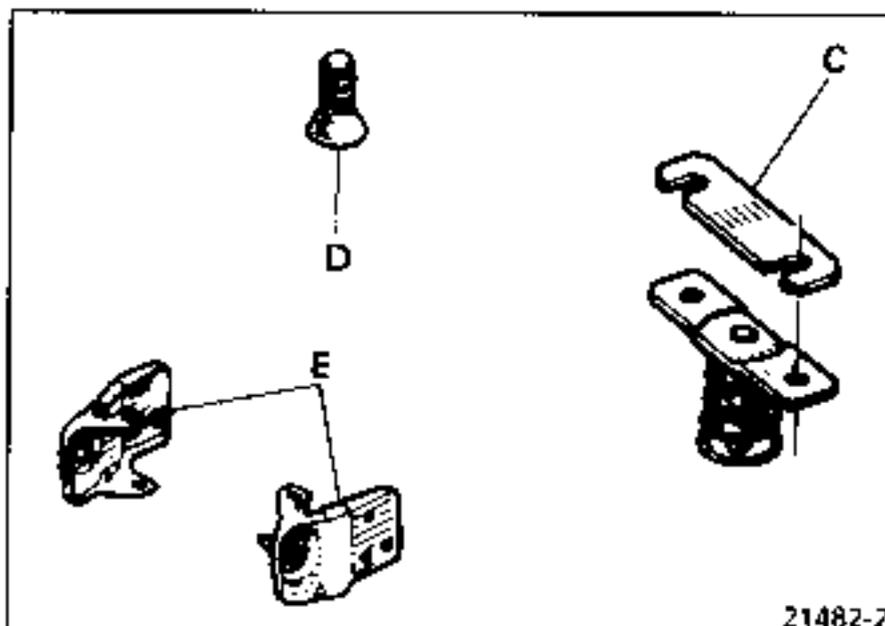
The alignment is adjusted:

At the front by the play in mountings (E) for the stay supports.

At the rear by shims (C) between the locking finger and the bonnet.

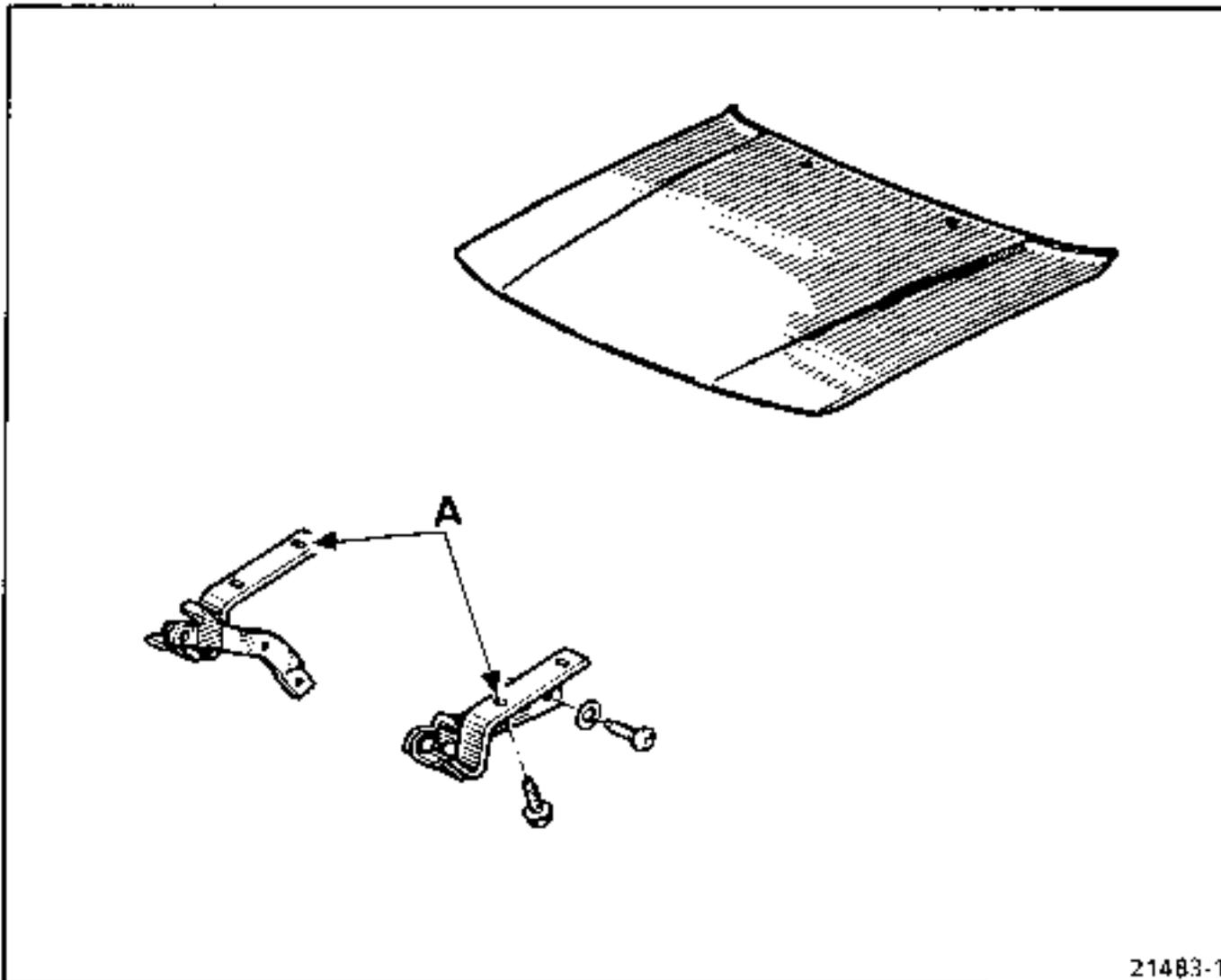
Shim thickness: 1 mm.

On each side, adjust the rubber stops (D) to make fine adjustments to the lateral clearance.



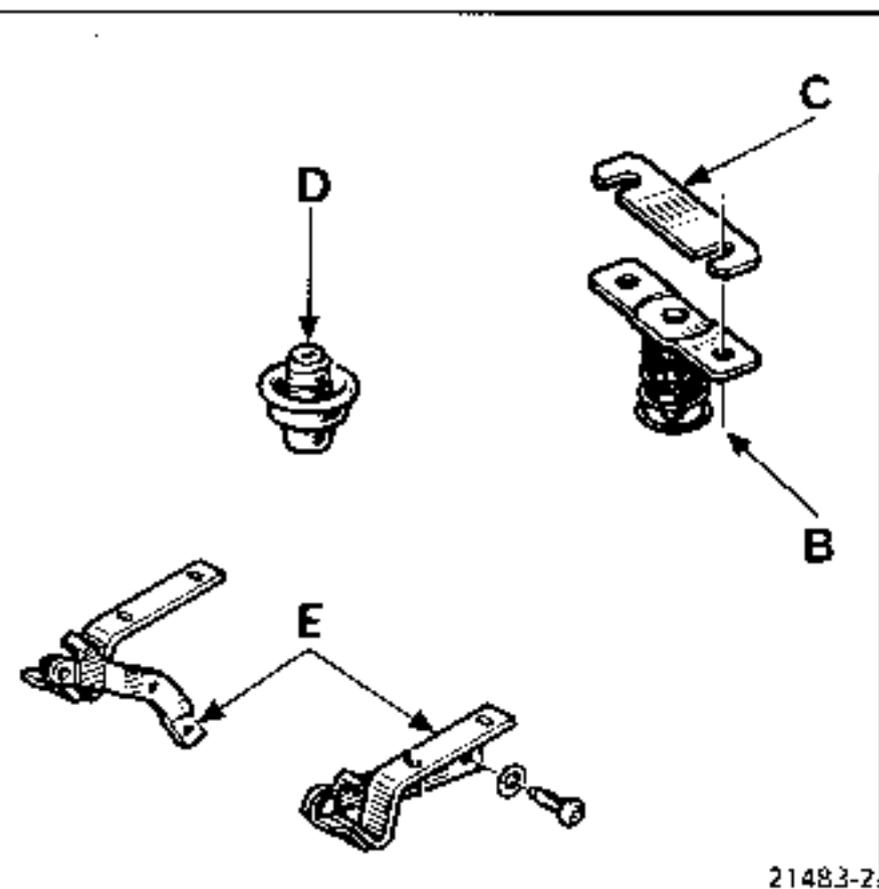
## REMOVAL

The bonnet is removed by removing the four mounting bolts (A) from the stays.



21483-1

## ADJUSTMENT



21483-2

Peripheral adjustment:

By the play in mountings (A) and (B).

Alignment adjustment:

At the front by the play in mountings (E) for the stays.

At the rear by shims (C) slid between the locking finger and the bonnet.

Shim thickness : 1 mm.

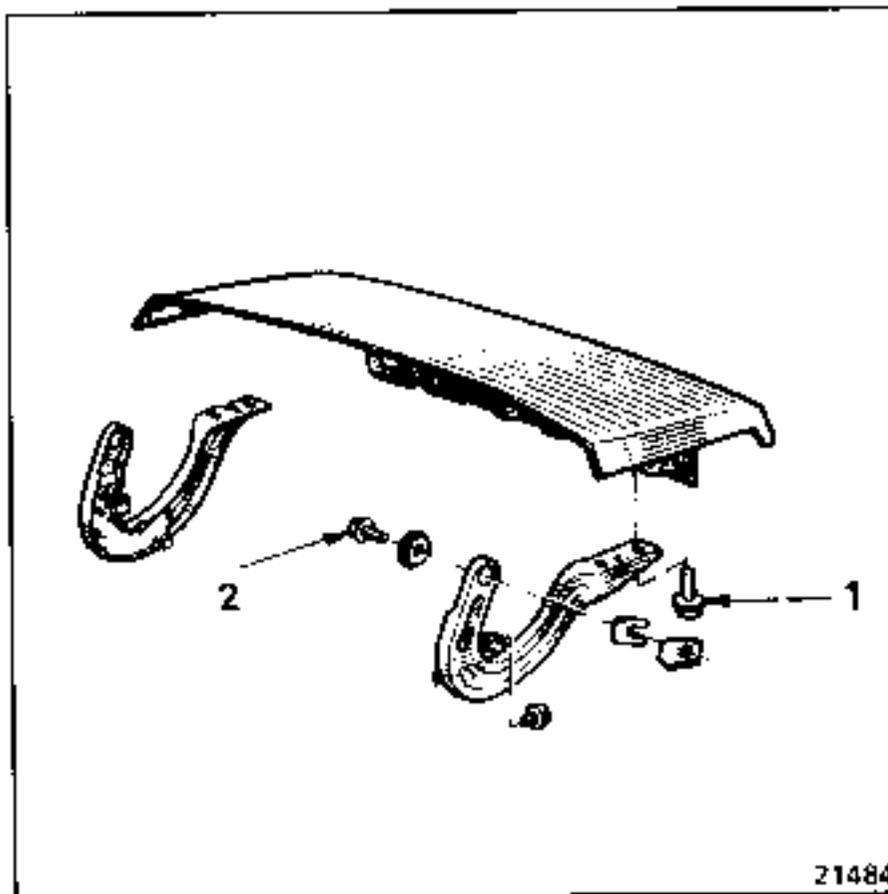
On each side, at the rear of the bonnet, adjust the rubber stops (D) to make fine adjustments to the lateral clearance.

## REMOVING THE TRIM

Remove in the following order:

- the number plate,
- the number plate mounting moulding,
- the lights,
- the catch,
- the locking motor,
- the lock,
- the rubber stops.

Remove the wiring from the boot lid.



Remove the four mounting bolts (1) securing the boot lid to the hinges.

**NOTE :** if possible, do not remove bolts (2), as they are difficult to refit owing to the shims.

Refitting is the reverse of removal.

## ADJUSTMENT

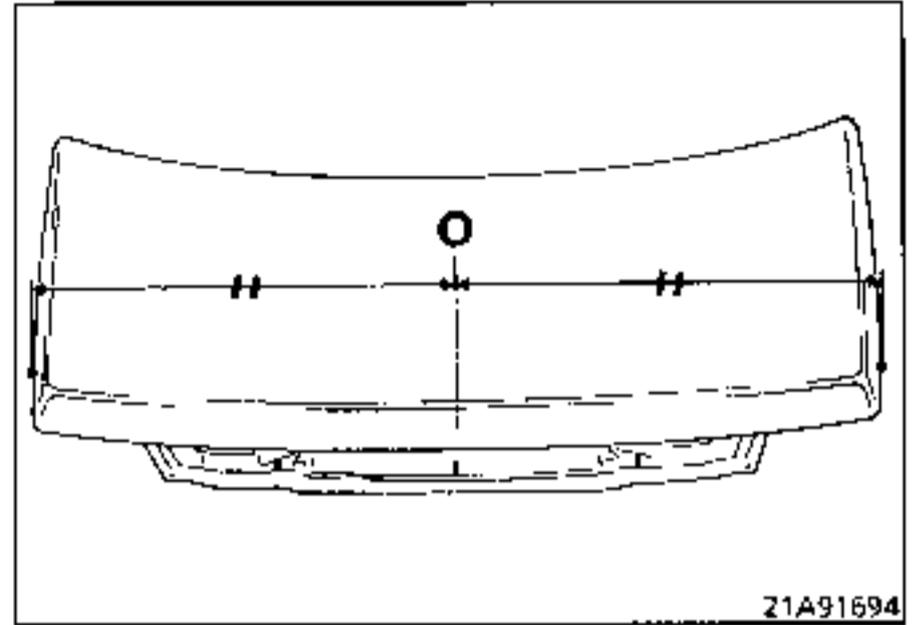
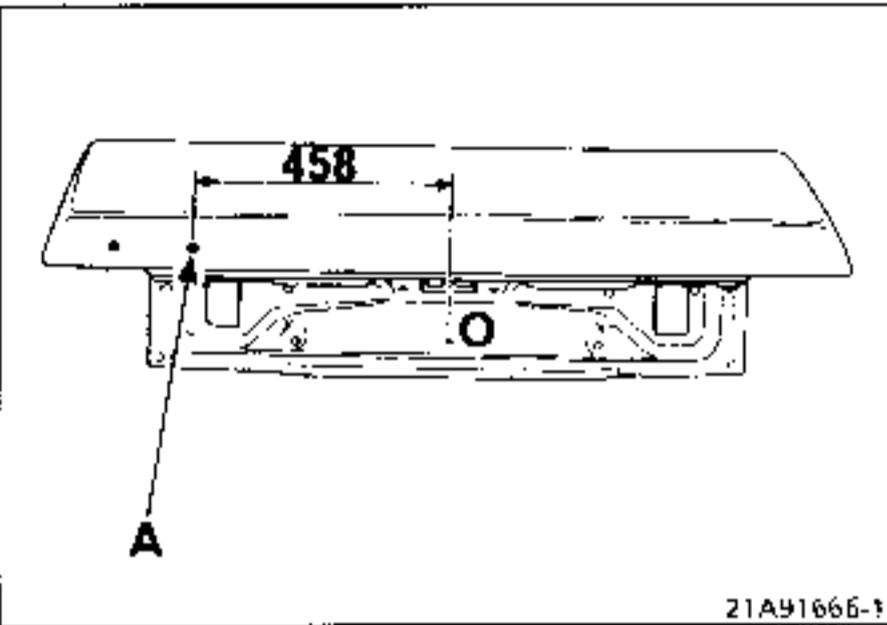
The boot lid is centred by using the four mounting bolts on the hinges.

The boot lid is aligned using the striker plate. To do this, remove the rear end panel trim.

**DRILLING MOUNTING HOLES FOR A SPOILER ON A NEW BOOT LID (to be performed before painting)**

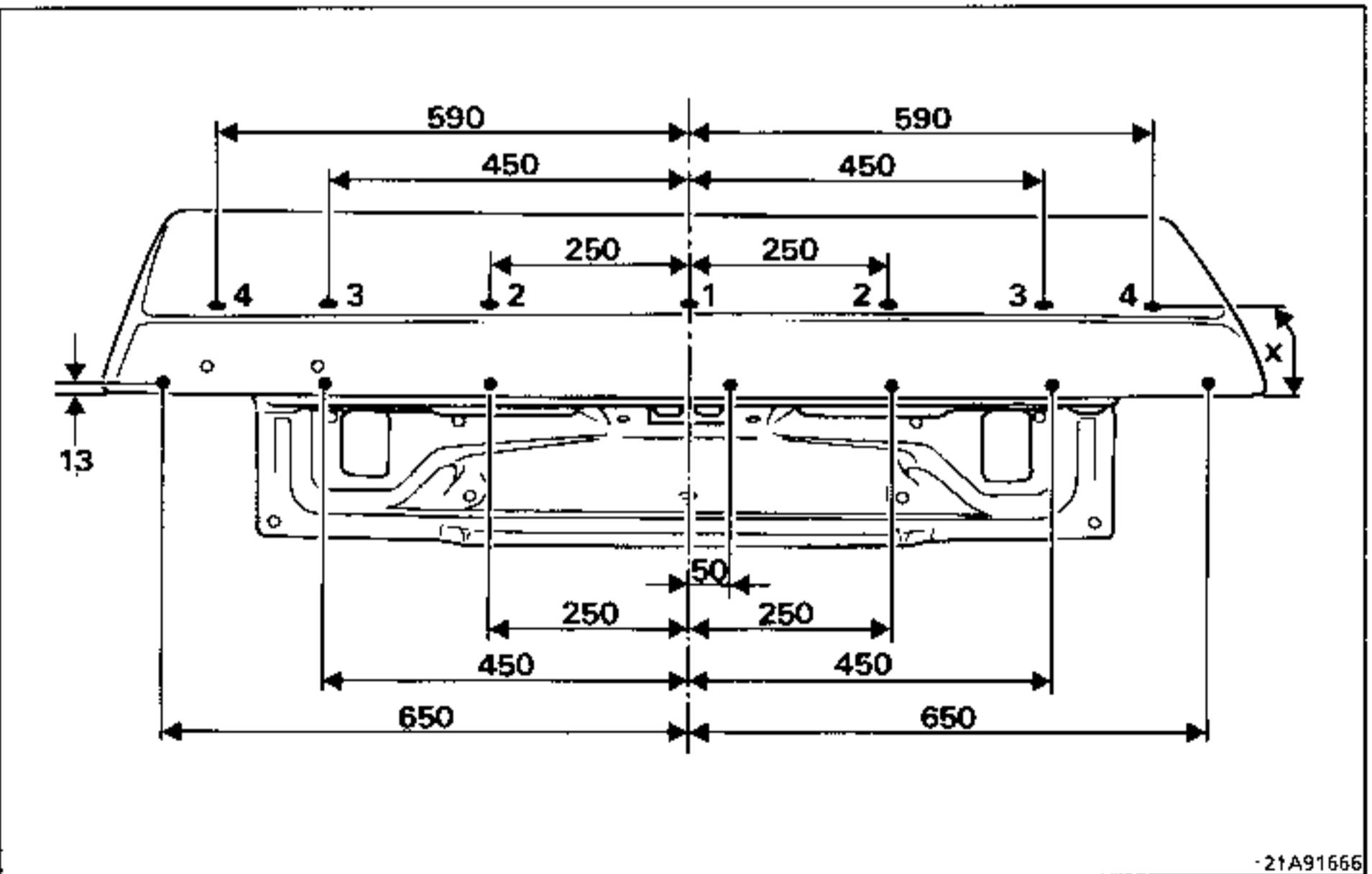
Trace the longitudinal axis (O) of the boot lid on the front section, 458 mm away from the centre line of the right hand hole (A) mounting the monogramme.

Using a tape measure, mark the centre line on the upper part.



Mark the centre lines of the drilling points according to the diagram below:

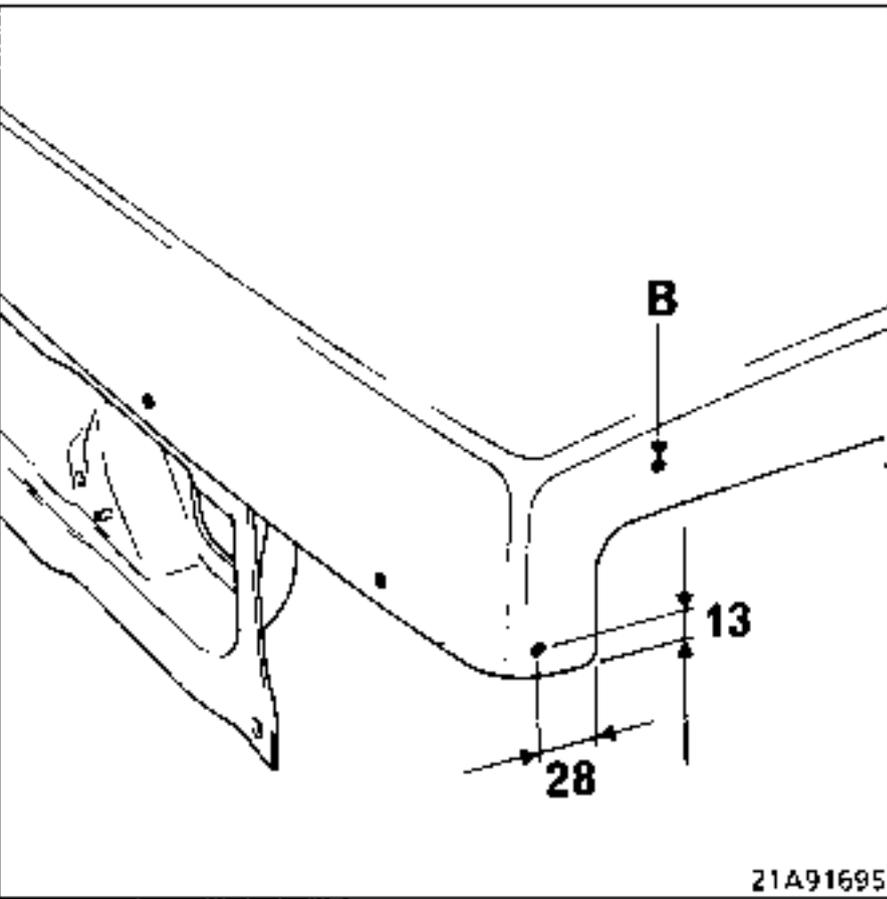
- 1 x = 135 mm      3 x = 134 mm
- 2 x = 135 mm      4 x = 132 mm



After marking the centre lines, drill the points (1), (2), (3) and (4) using a drill of diameter 5.5 mm.

Deburr the holes and blow out the inside of the boot lid with compressed air.

Using the spoiler, check the front holes drilled are correct before painting the boot lid.



The dimension for point (B) is determined from inside.

