

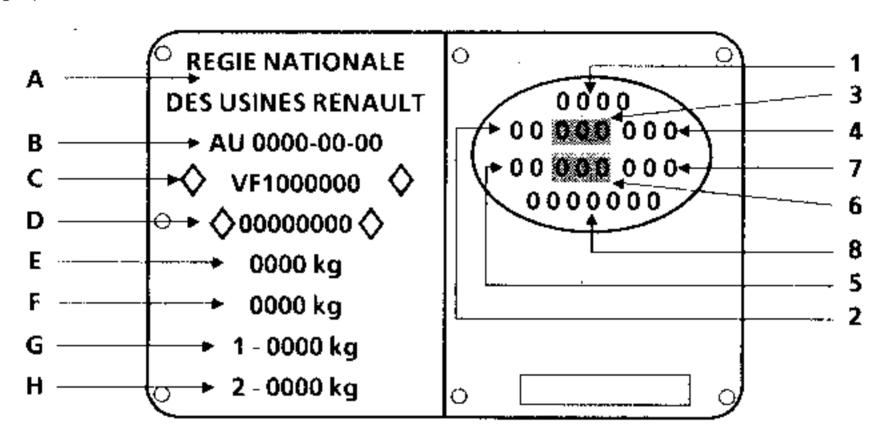
Dimensions in metres

**ENGINE - CLUTCH - GEAR BOX** 

Vehicle type	Engine		Clutch type	Gear box type
venicle type	Type	Capacity	Ciditii type	
C063	C3G	1 238	160 CPH 2750	JB1

## GENERAL Vehicle identification

#### Single plate\*



#### This shows:

At A: manufacturer's name,

At B: EEC type approval number

At C : vehicle type Mines preceded by the manufacturer's code (VF1 corresponds to RENAULT FRANCE).

At D : chassis number,

At E: Maximum permitted all up weight

At F: Maximum permitted total train weight,

At G: Maximum permitted front axie loading,

At H: Maximum permitted rear axle loading,

At 1: the vehicle type,

At 2: the first figure indicates gear box type or heavy options,

the second figure indicates the equipment level.

At 3: technical equipment code,

At 4: factory complementary equipment code,

At 5: trim code,

At 6: paint code,

At 7: equipment level,

At 8: one letter indicating the factory of manufacture, followed by the fabrication number.

**ATTENTION**: the seven characters in the fabrication number cannot be split. For vehicles manufactured before this date, the fabrication number is 7 figures.

 depending on country of export, certain information may not be shown - this plate shows the fullest amount of information.

**IMPORTANT**: to specify a part, the basic equipment level code shown on the oval plate must be taken into consideration.

# GENERAL Vehicle identification

## ALLOCATION OF TECHNICAL EQUIPMENT CODES

Good roads		Poor roads	
Left hand drive	Right hand drive	Left hand drive	Right hand drive
Series 10X to 49X	Series 70X to 89X	Series 50X to 69X	Series 90X to 99X

X Corresponds to a complementary technical definition

#### Lifting the vehicle - jack and axle stands



Safety symbol (special precautions must be taken)

#### SPECIAL TOOLING REQUIRED

Cha. 280-02 Cross piece for trolley jack

Cha. 408-01

or Socket for trolley jack

Cha. 408-02



If a trolley jack is used, appropriate axle stands must also be used.

It is forbidden to lift the vehicle by taking the weight under the front suspension arms or the rear axle assembly

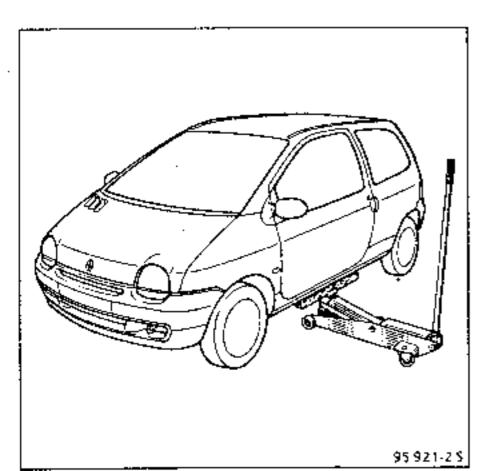
Depending on the type of trolley jack used, use sockets Cha. 408-01 or Cha. 408-02 to position cross piece Cha. 280-02.

#### **USING A TROLLEY JACK FROM THE SIDE**

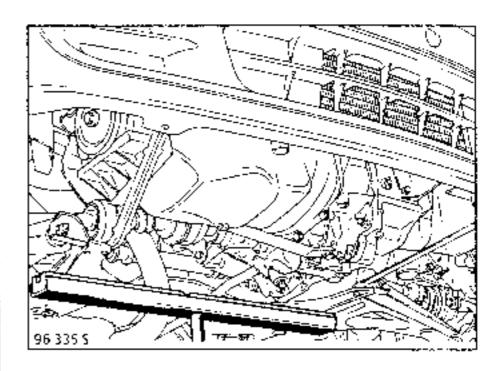
Use cross piece Cha. 280-02.

Take the weight on the sill by the front door.

Ensure the body sill flange is correctly positioned in the slot in the cross piece.

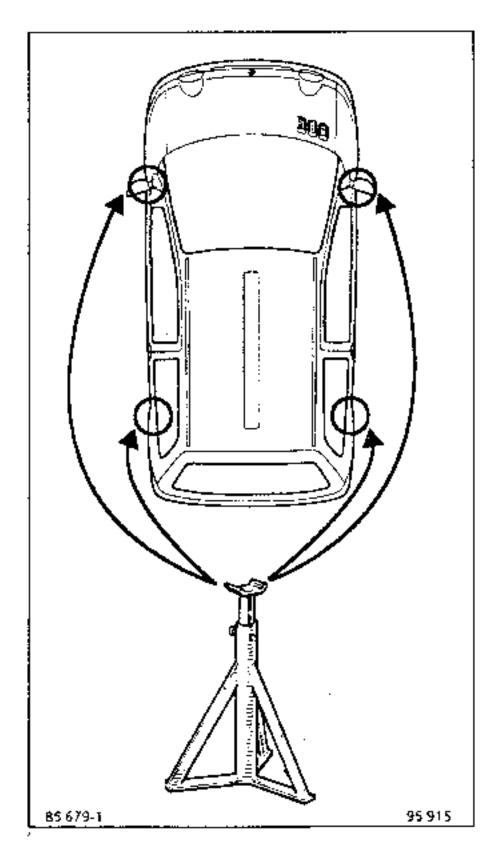


#### USING A TROLLEY JACK FROM THE FRONT



#### **AXLESTANDS**

To put the vehicle on axle stands they must be positioned as shown below



**ATTENTION** Take care not to catch the rear left hand brake pipes

#### SAFETY SYMBOL

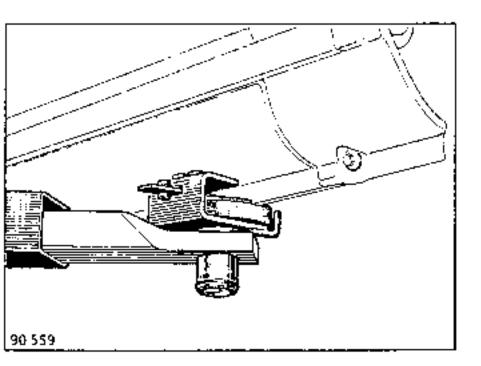


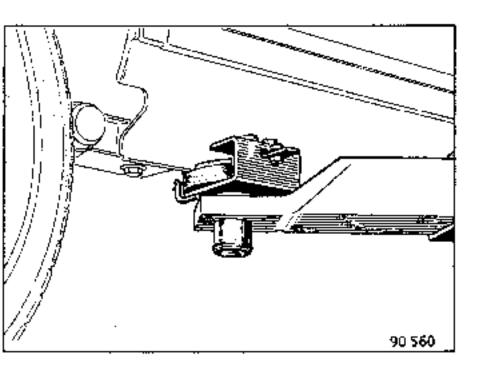
Several instances may be considered:

#### 1 - REMOVING COMPONENTS

Generally, never use a 2 post lift, if a 4 post lift, may be used.

If this is not possible, place the lifting supports under the body sill taking care not to catch the rear left hand brake pipes.





## 2 - PARTICULAR CASE OF REMOVING - REFITTING THE ENGINE AND TRANSMISSION

In this special case, the vehicle body must be securely mounted on the 2 post lift arms using special pads.

FOG:

Part no FOG 449 8111 - 449 8411

or

CHEMICO:

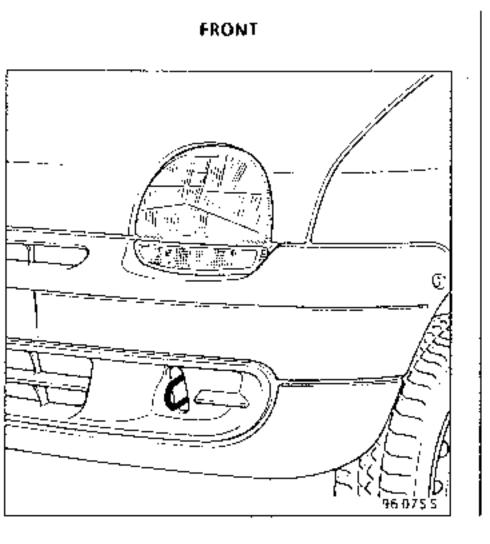
Part no 39 2550 0001

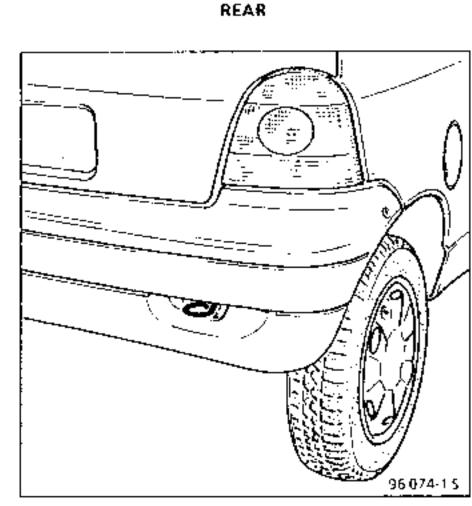
These must be locked in the body sill holes.

#### OBSERVE THE TOWING REGULATIONS APPLICABLE FOR THE COUNTRY YOU ARE DRIVING IN.

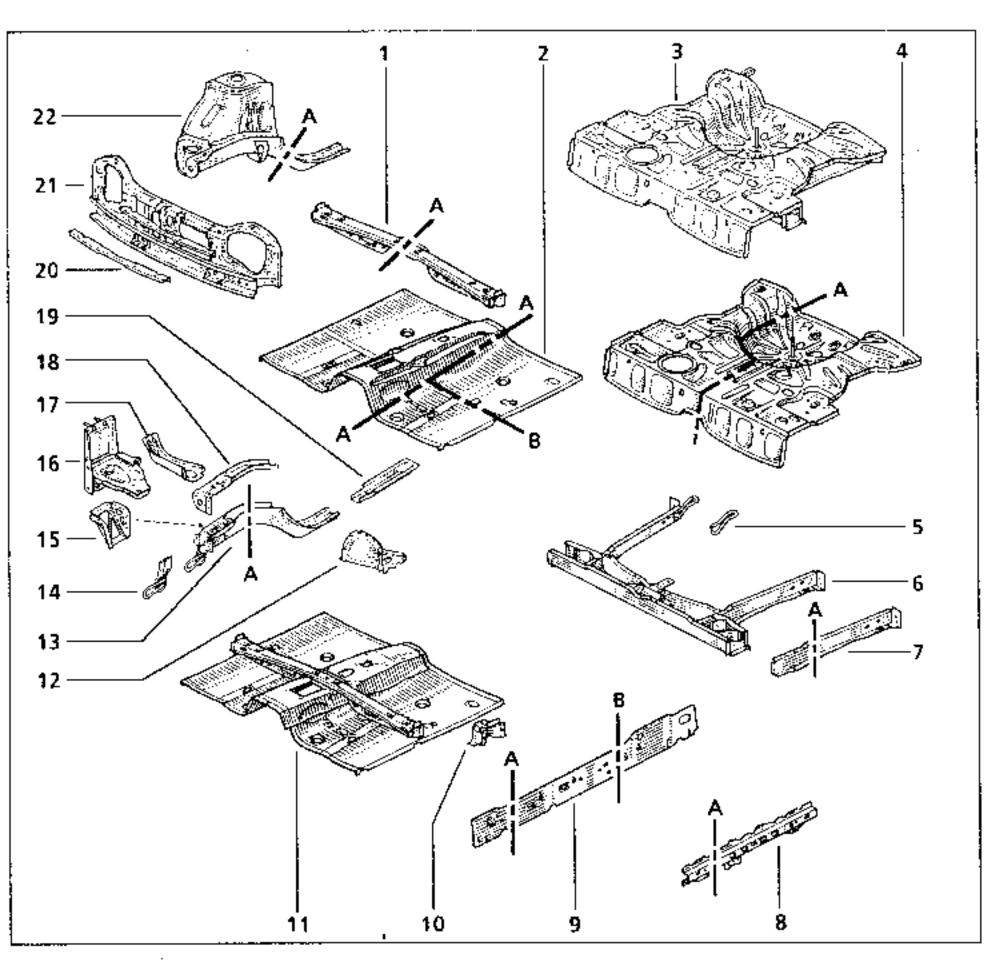
#### **NEVER USE TRANSMISSION COMPONENTS AS TOWING POINTS.**

The towing points are only to be used for towing the vehicle on the road. They must never be used for removing the vehicle from a ditch, or to carry out any other similar operations, or for lifting the vehicle either directly or indirectly.





# GENERAL Part descriptions (exploded view)

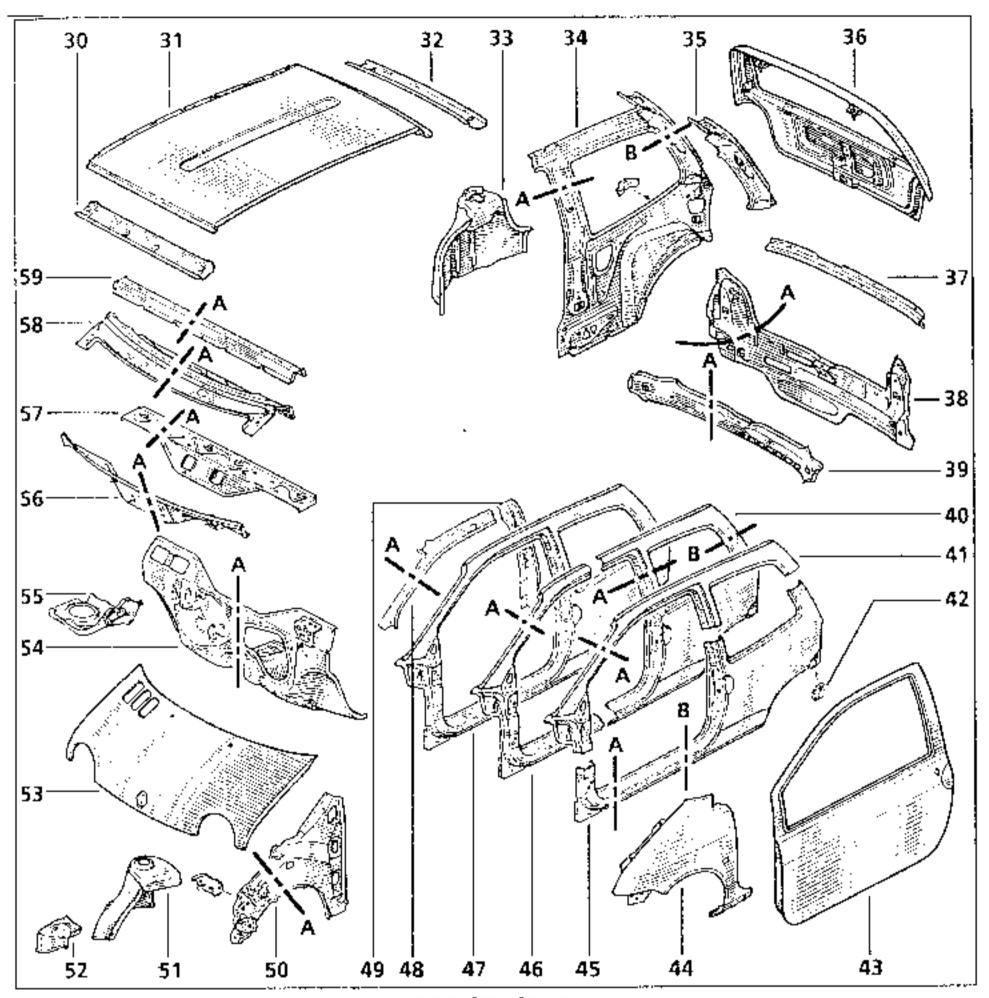


#### **LOWER STRUCTURE**

- 1 Front cross member under front seat
- Centre floor
- 3 Rear floor section.
- 4 Rear floor
- 5 Rear towing ring
- 6 Rear side member frame
- 7 Rear side member
- 8 Sill panel stiffener
- 9 Sill panel cover plate
- 10 Front seat rear mounting unit.
- 11 Centre floor section

- 12 Front side cross member
- 13 Front side member
- 14 Front towing ring.
- 15 Battery tray mounting:
- 16 Battery tray
- 17 Rear engine mounting
- 18 Side member cover plate
- 19 Front side member rear section.
- 20 Front bumper corner
- 21 Front panel
- 22 Front half unit

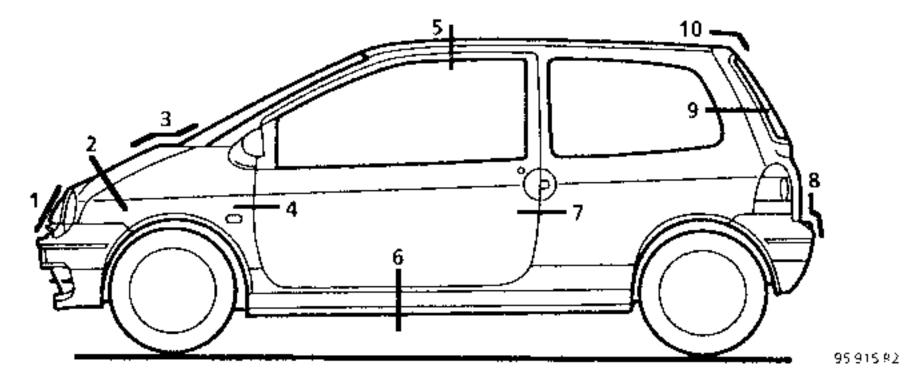
# GENERAL Part descriptions (exploded view)

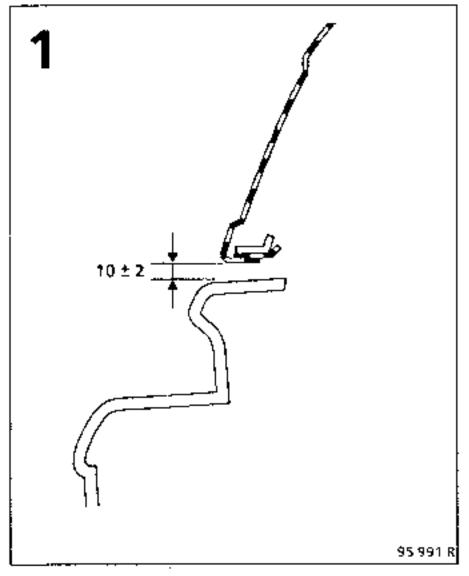


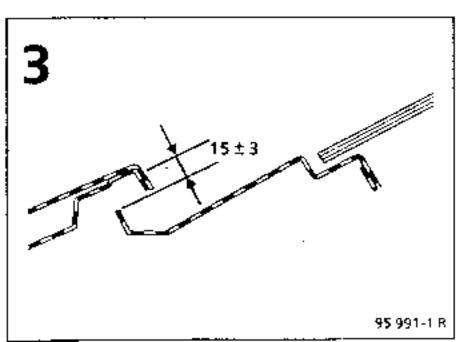
#### **UPPER STRUCTURE**

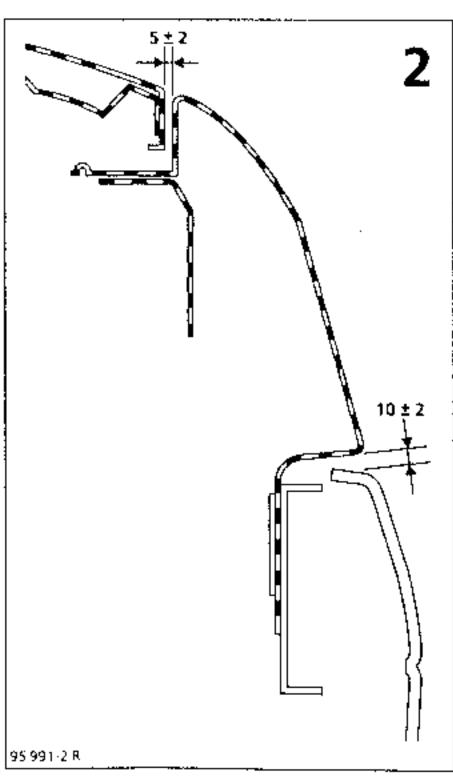
- 30 Front roof cross member.
- 31 Roof panel
- 32 Rear roof cross member
- 33 Rear inner wheel arch
- 34 Rear quarter panel lining
- 35 Rear quarter panel reinforcement.
- 36 Tailgate
- 37 Rear bumper support panel
- 38 Rear panel ;
- 39 Rear panel cross member
- 40 Rear quarter panel
- 41 Body top panel
- 42 Bumper mounting
- 43 Side door
- 44 front wing

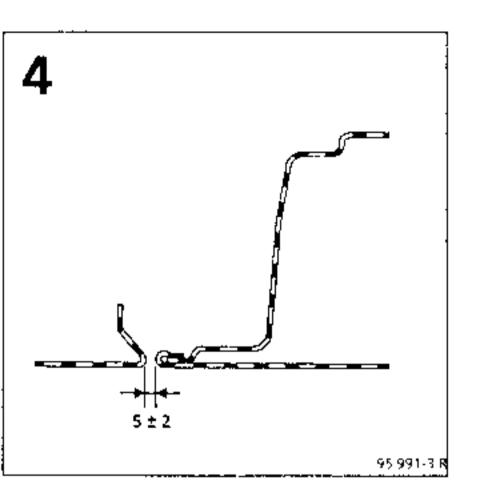
- 45 Sill panel
- 46 Front pillar
- 47 Body side panel
- 48 Window aperture side pillar lining
- 49 Centre pillar reinforcement
- 50 Cowl side panel (pillar lining)
- 51 Front wheel arch
- 52 Wheel arch cover plate
- 53 Bonnet
- 54 Bulkhead pedal mounting
- 55. Plenum chamber
- 56 Scuttle panel cover plate
- 57 Upper bulkhead section
- S8 Front section of scuttle panel
- 59 Rear section of scuttle panel

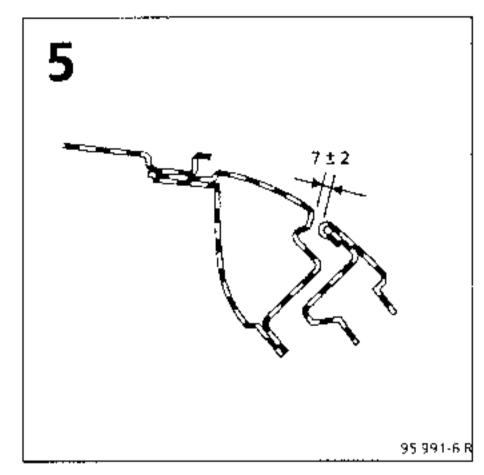


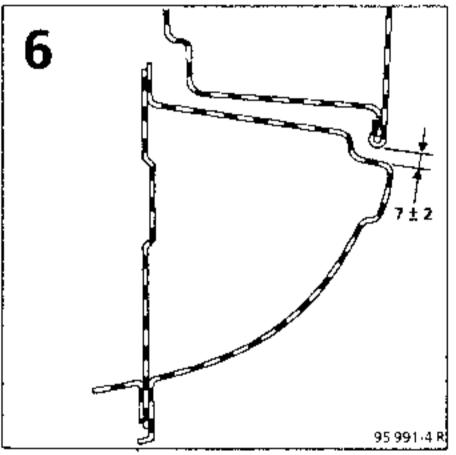


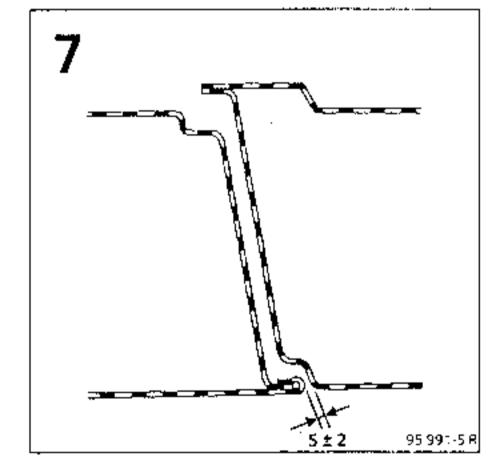


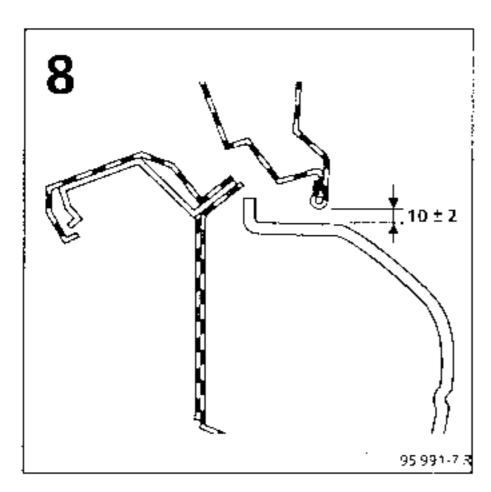


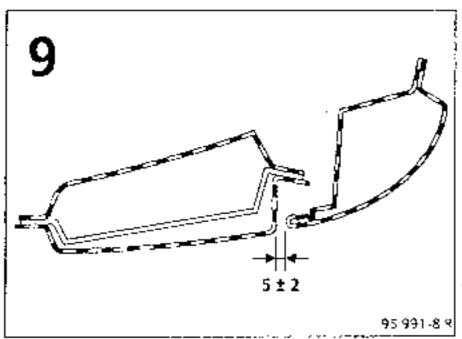


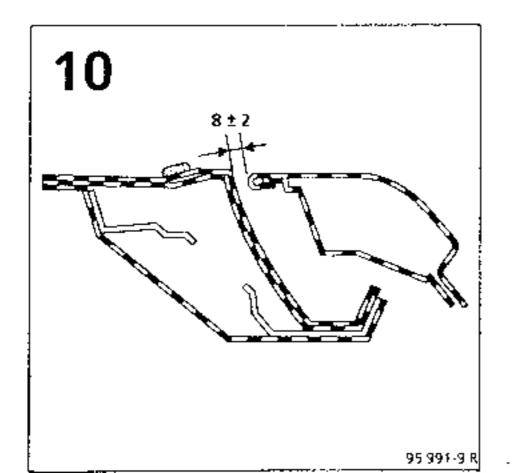


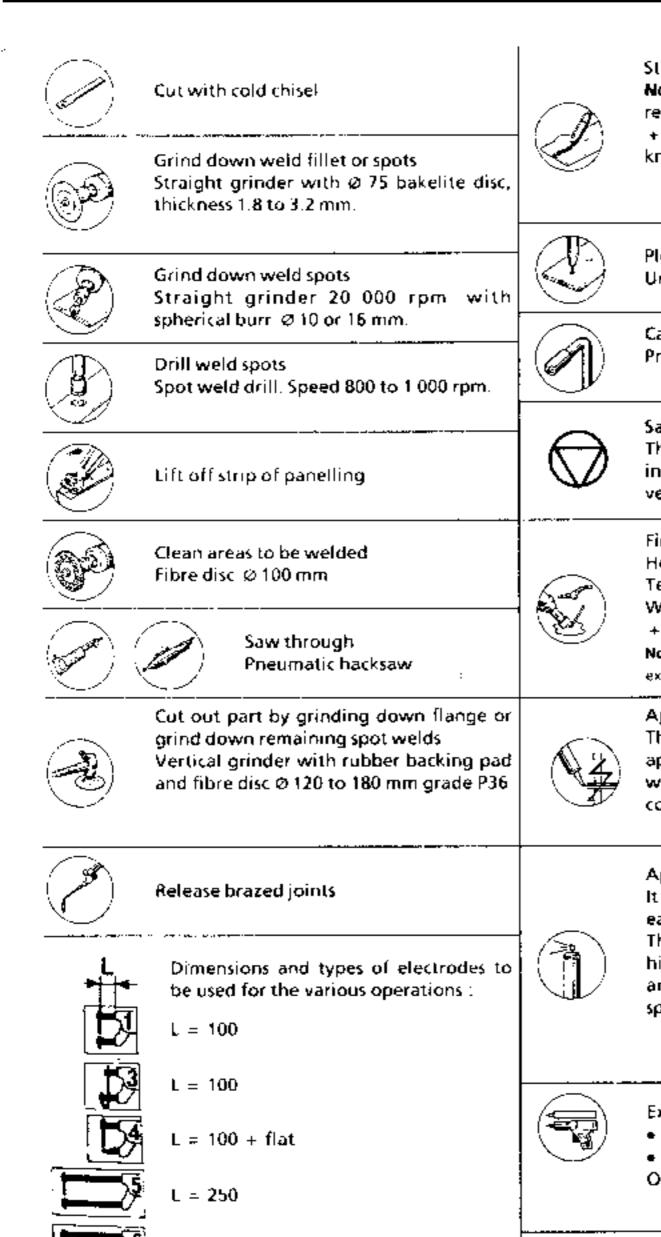












t = 350 + ball joint

L = 330

Stitch weld under MAG gas protection.

Note: to obtain good quality welds, we recommend a gas consisting of Argon + 15% CO<sub>2</sub>. This is an active gas (MAG, known locally as MIG)

Plug weld Under MAG gas protection

Carry out hollow section protection. Pressure gun with flexible end.

Safety symbol

This means that the welding operation in question concerns one or more of the vehicle's vital components.

Finish with soft solder (lead fill). Hot air gun

Temperature at nozzle outlet 600° min Wiping bat cloth + lead stick 33% tin + tallow

**Note:** the soft solder finish compensates to a large extent the risk of distortion caused by welding

Application of weldable mastic
This mastic is a current conductor, and is applied between two panels to be spot welded, to seal the panels and prevent corrosion of the spot welds.

Application of aluminium based paint. It is to be applied to the joint faces of each of the parts to be plug welded. This paint conducts current and resists high temperatures; it also provides anti-corrosion protection around the spot welds.

Extruded mastic fillet

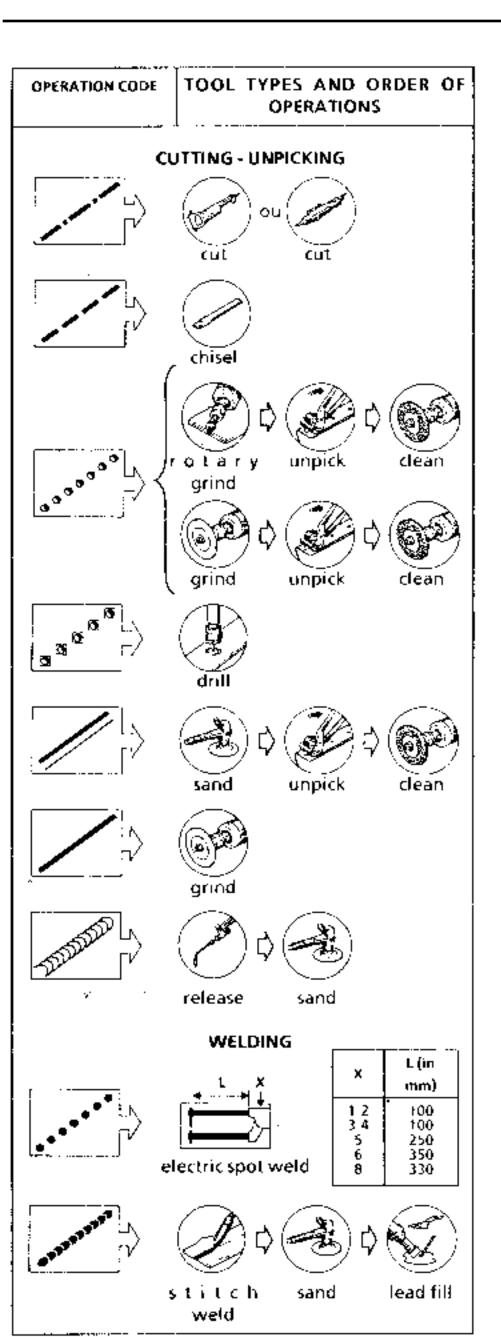
- manual or pneumatic cartridge gun
- mastic for crimped or butt joints.

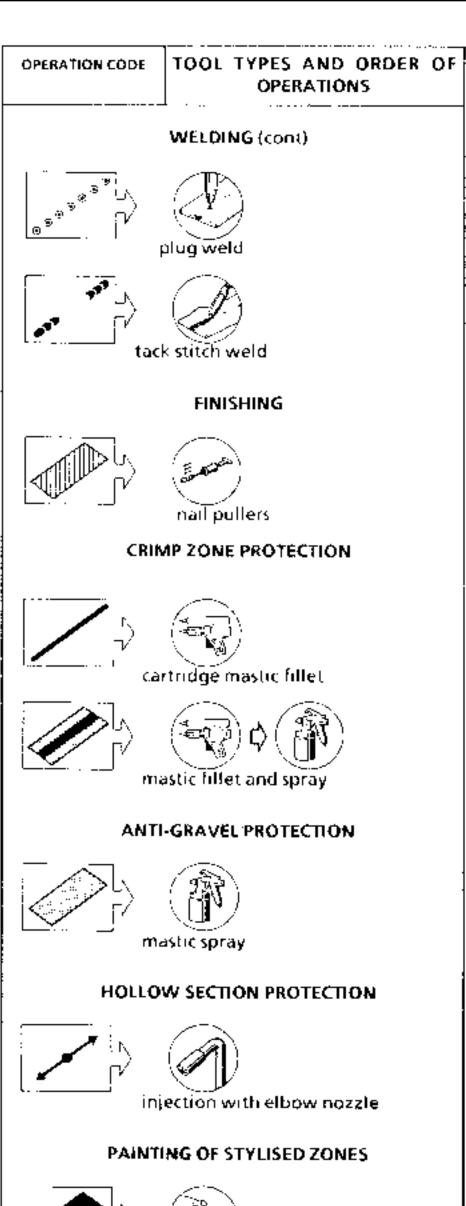
One or two pol



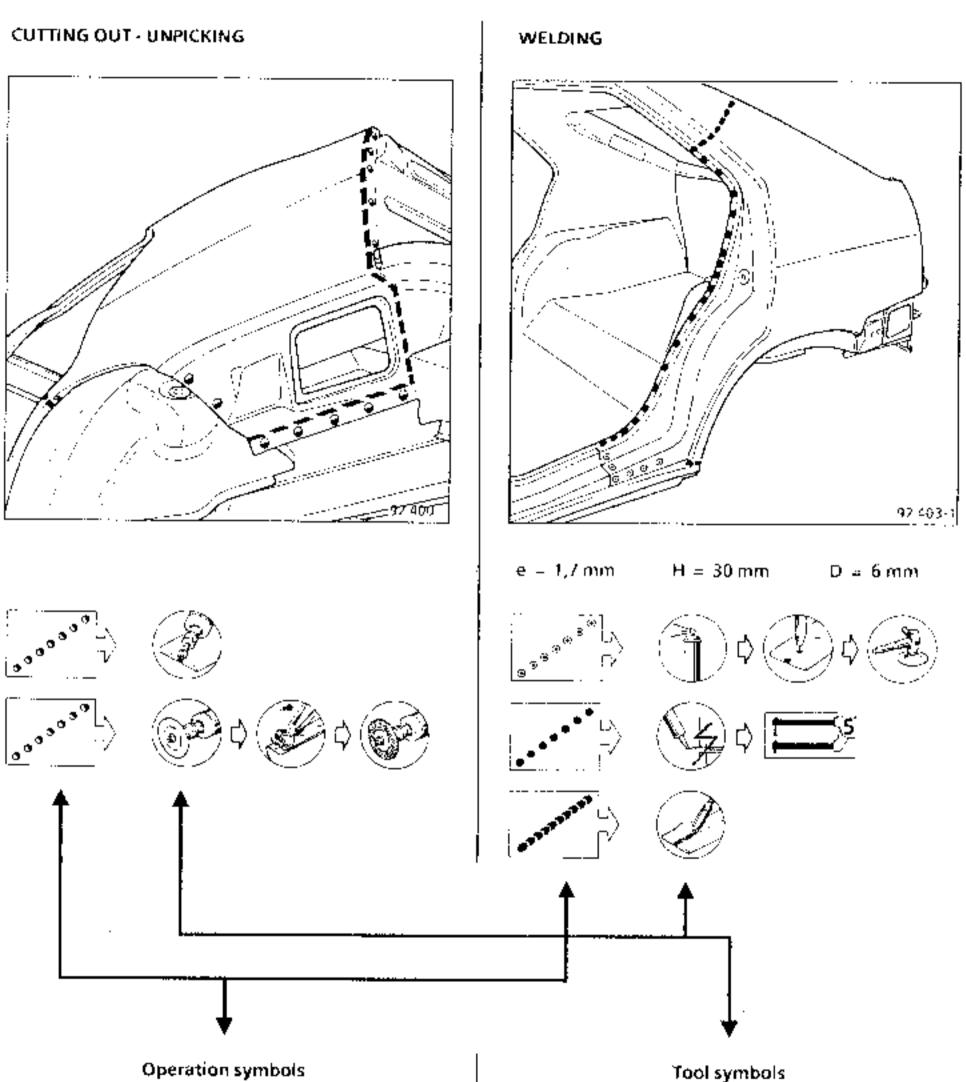
Sprayed mastic

- pressure spray gun
- two pot anti-gravel and anticorrosion mastic.





aerosol spray can



These show the type of operation and the points at which they are to be carried out.

Note: the entire part to be replaced must be removed before the remaining pieces of panelling. are unpicked and the spot welds remaining on the support panels are ground down with a disc grinder

#### Tool symbols

This shows the types of tool and the logical sequence in which they are to be used at the points concerned.

Note: weld protection operations (mastic and aluminium paint) must be carried out before the new part is put into place.

# GENERAL Determining collision damage

#### GENERAL ADVICE

Before carrying out any body repair operation, however slightly the vehicle may appear to be damaged, a series of checks must first be carried out:

#### VISUAL INSPECTION

This consists of checking the vehicle around the mechanical component securing points and along the "crumple" or vulnerable areas to see whether there are any distortion folds or creases at these points.

#### CHECKING WITH A TRAMMEL GAUGE

It may be necessary to accompany the visual inspection by a check on various symmetrical dimensions with a trammel gauge to ensure that there is no distortion (further details on each point to examine in the body jig bench paragraph below)

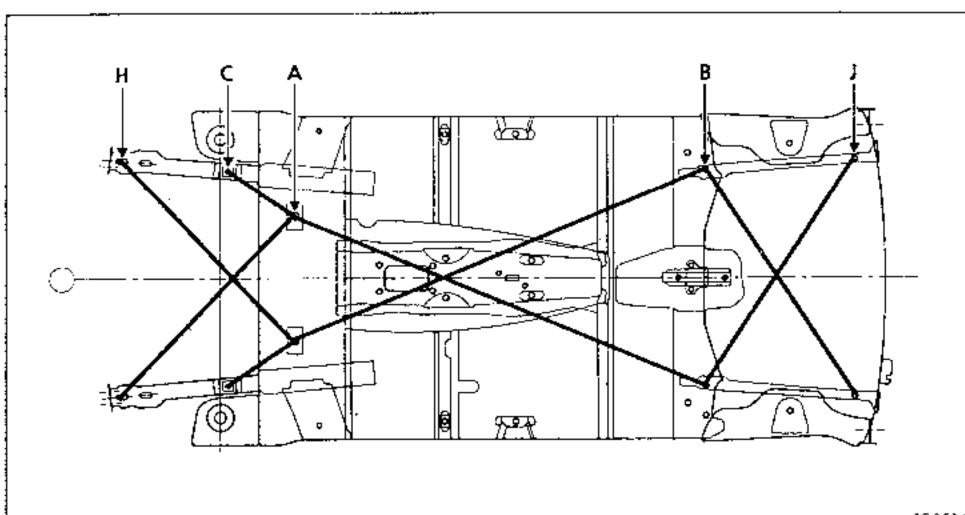
#### CHECKING THE AXLE GEOMETRY

These are the only tests to show whether the impact that the vehicle has suffered has affected the roadholding of the vehicle

Important: in extreme cases one must check the axle assembly components themselves which may also have suffered distortion.

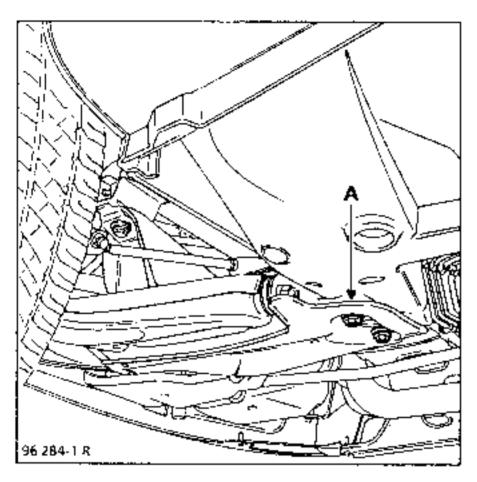
In principle, no welded body shell component is to be replaced without first ensuring that the sub-frame has not been affected by the impact

#### **GAUGE POINTS**

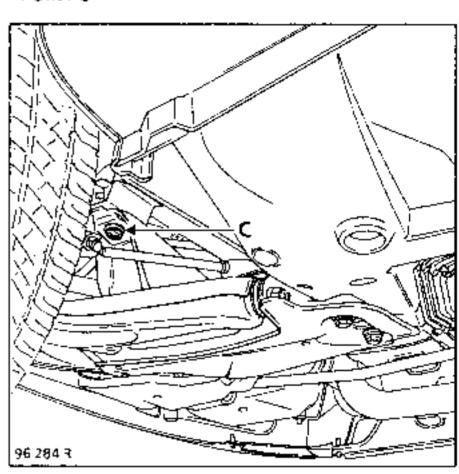


# GENERAL Determining collision damage

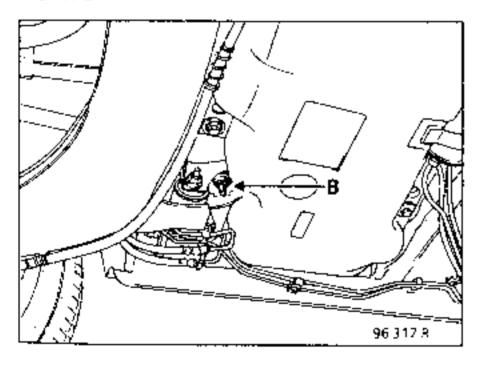
POINT A



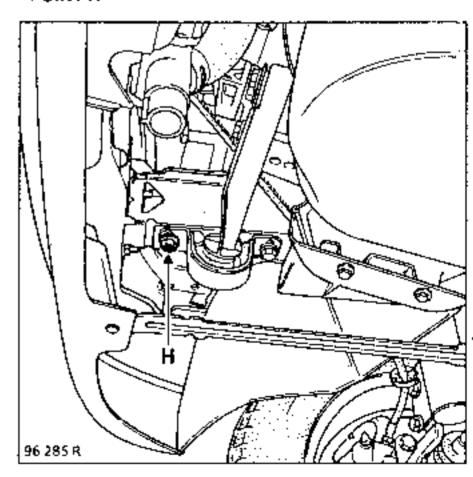
POINT C



POINT B

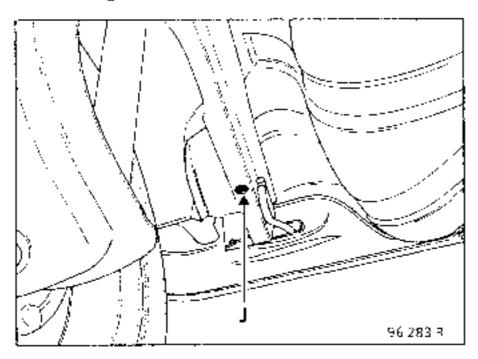


POINT H

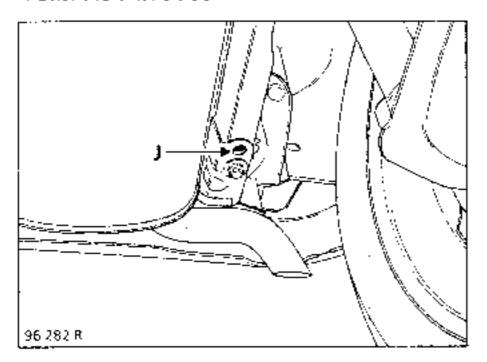


# GENERAL Determining collision damage

POINT I right hand side



POINT I left hand side



#### GEOMETRICAL LAYOUT

The intersection of the three planes **X** - **Y** - **Z** determines the 0 point on the vehicle and the corresponding point for the three reference lines :

1 Dimension base line

: L-D-C (position of the bracket in plane X, given with reference to this

line)

2 Body centre line

: A-D-C (position of the bracket in plane Y, given with reference to this

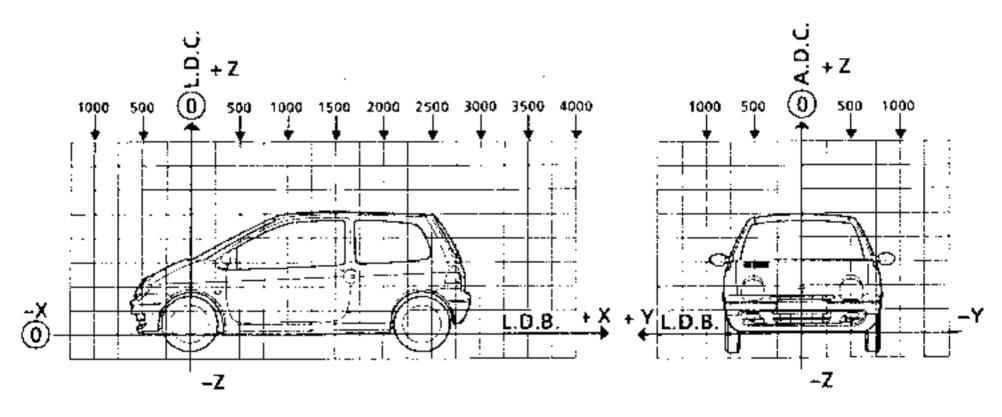
hne)

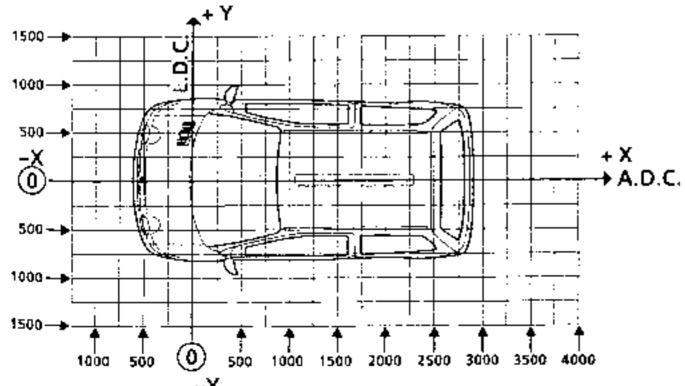
3 Baseline

: L-D-B (position of the bracket in plane Z, given with reference to this

line)

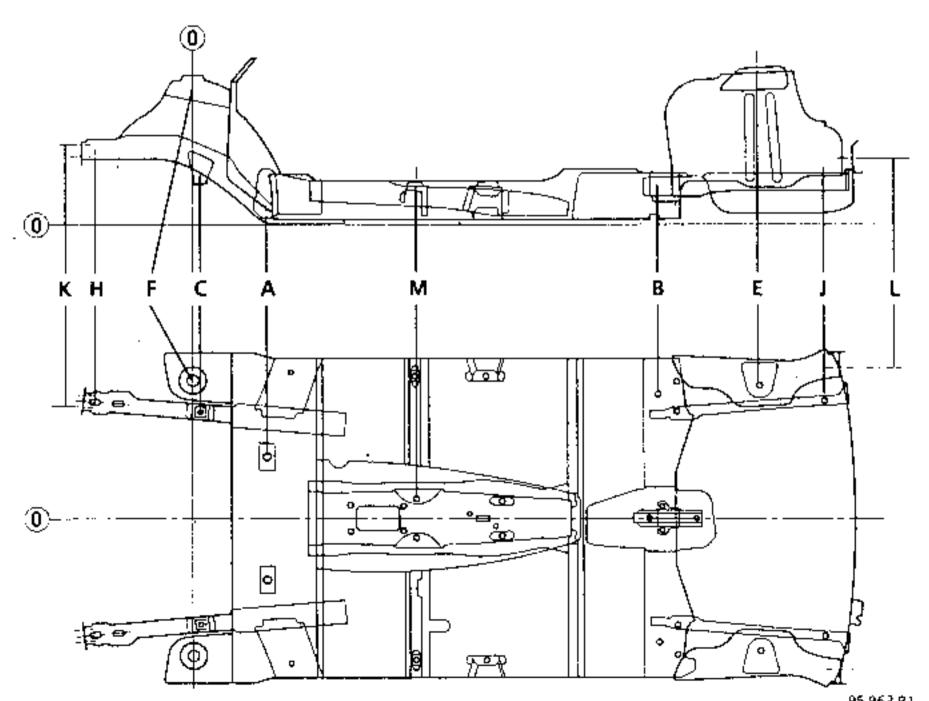
It is on the basis of their positions in relation to these three lines that the body repair brackets are designed and their positions on the jig bench are determined.



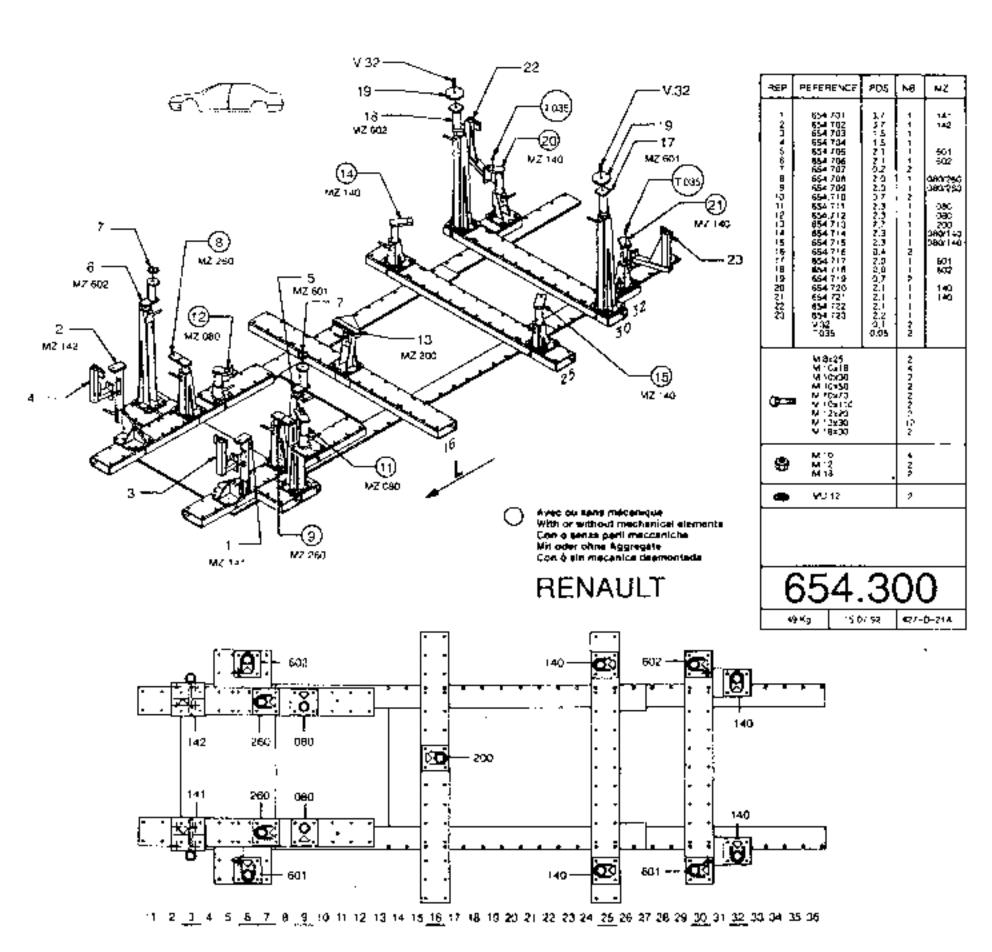


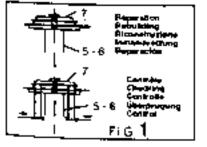
## **GENERAL** Sub-frame dimensions

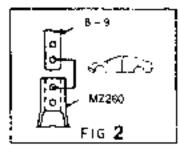
X06	DESCRIPTION	×	ν	Z	DIAM	ANGLE %
Α	Front sub-frame rear mounting	279	252,5	26,5	M10x150	0
В	Rear axle assembly front mounting	1 971,5	457	103	10,2	0
c	Front sub-frame front mounting	27	442,5	158,5	M10x150	0
E	Rear shock absorber mounting	2302	559	634,5	10,2 x 2	X = 5° Y = 0
F	Front shock absorber mounting	2,5	568,5	599	48	X = 2° Y = 1°
Н*	Front side member front end	- 394	480	261	10,2	0
1	Rear side member rear end	2 531	50 <b>6</b>	131,5	14,5	0
к	Lower cross member front end	<b>- 4</b> 54	Left: 440 Right: 441	316,5	M8 x 125	0
L	Rear cross member end (rear panel)	2 632	635	275	20,5	0
м	Cross member under centre floor	•	80	144,5	10,2	X = 4° Y = 0

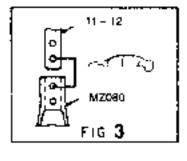


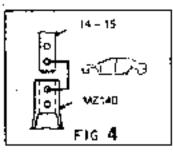
#### FITTING THE CELETTE BRACKETS

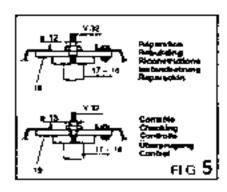




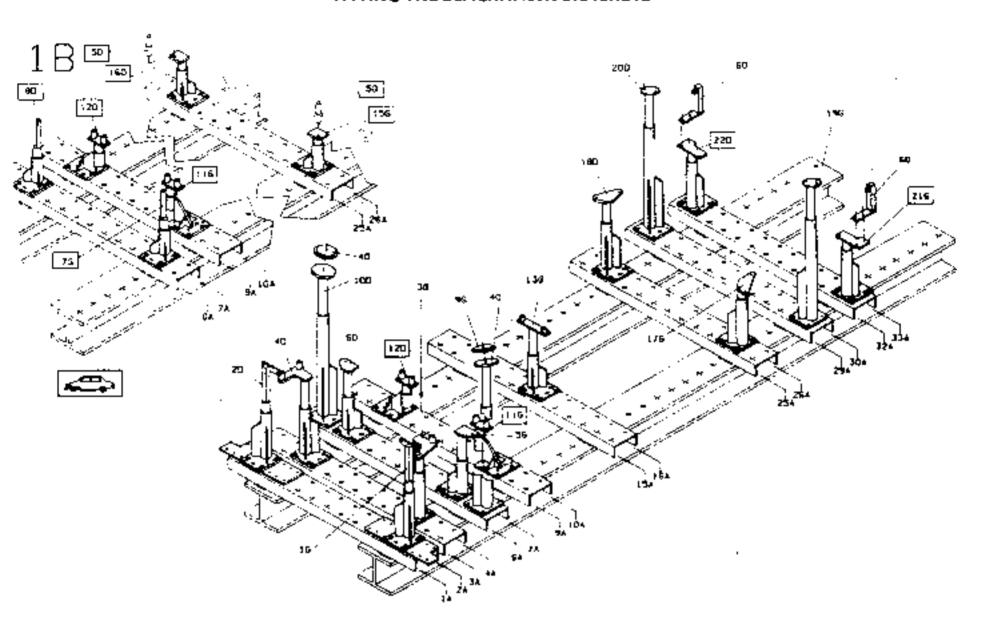






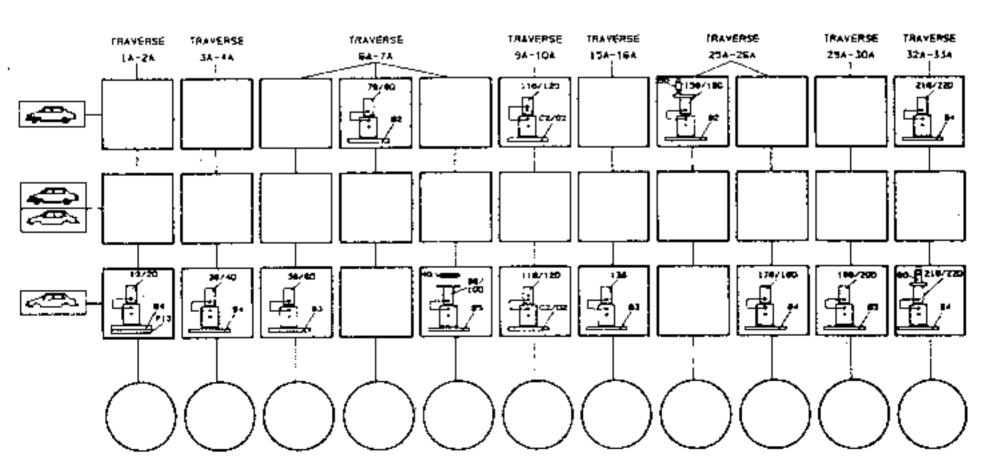


#### FITTING THE BLACKHAWK BRACKETS



NVFC MECANTOLE/MITH MECHANICS/MIT MECMANIK

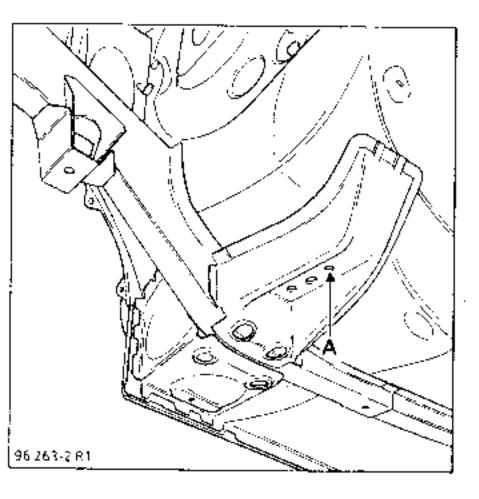
3B



#### I - BRACKETS AND REFERENCE POINTS

## A - FRONT SUB-FRAME REAR MOUNTING

#### This is the main reference point

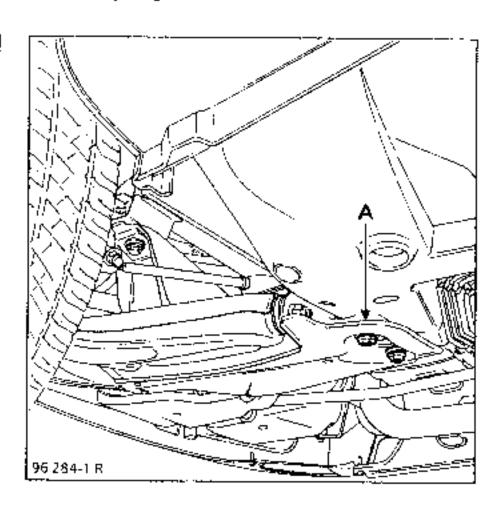


#### 1 - With the front sub-frame removed :

The bracket touches the bottom side of the cross member and is centred in the engine mounting hole.

It is used to position the front of the vehicle on the jig.

If the cross member underneath the floor pan is to be replaced, this reference point is replaced by points (M), located under the floor pan, on either side of the tunnel. Point (A) can then be used for positioning the cross member to be replaced.



## 2 - With the front sub-frame in position:

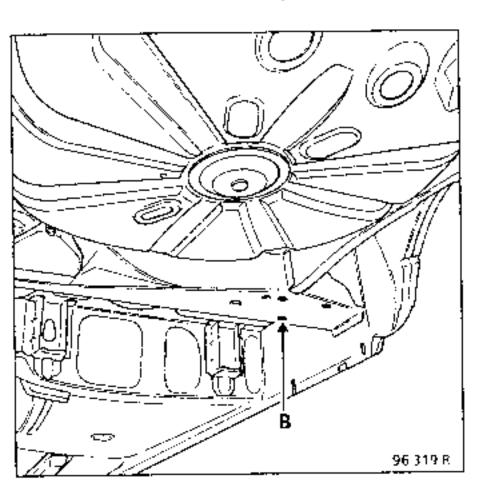
The bracket covers the head of the engine mounting bolt.

If the rear end is being rebuilt, only this point is needed to align the front of the vehicle.

#### I - BRACKETS AND REFERENCE POINTS (cont)

#### B - REAR AXLE FRONT MOUNTING

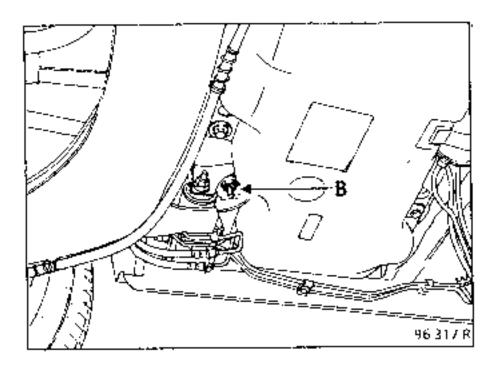
This is the main rear reference point.



#### 1 - With the rear sub-frame removed :

The bracket touches the bottom of the cross member and is centred in one of the rear axle assembly mounting holes.

If the cross member underneath the floor pan is to be replaced, this reference point is replaced by points (M), located under the floor pan, on either side of the tunnel. Point (B) can then be used for positioning the cross member (or rear floor section) to be replaced.



#### 2 - With the rear sub-frame in place:

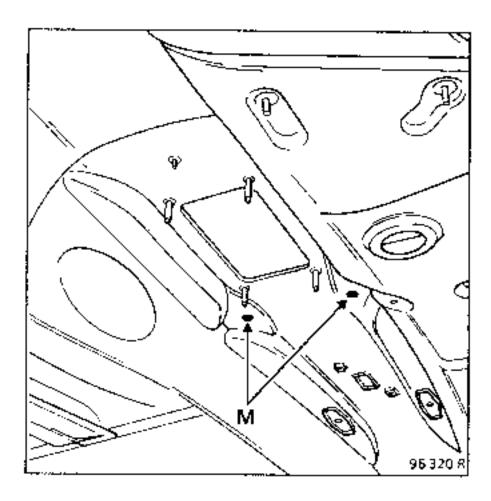
The bracket covers the head of one of the rear axle assembly mounting bolts.

If the front end is being rebuilt, only this point is needed to align the rear of the vehicle.

#### II - COMPLEMENTARY REFERENCE POINTS

#### M - SUPPORT POINT UNDER FRONT FLOOR

This is a complementary temporary reference point provided for the case when rear or front rebuilding is necessary, when replacing a unit or after major impacts when one of the main reference points has been affected.



These points allow the vehicle to be aligned with a complementary front or rear reference point (depending on the location of the impact).

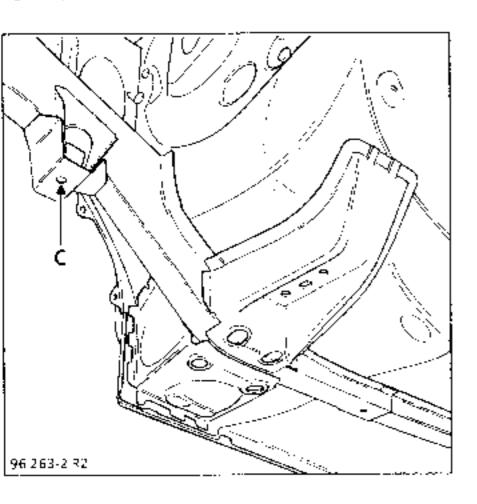
**NOTE**: these points should only be used in the situations described above, it is not recommended that they are used when the main reference points are correct.

The complementary reference point function may also be fulfilled by the checking points on the ends of the front or rear side members by taking the points on the opposite side to the impact.

The seats must be removed to fit the bracket.

#### III - REFERENCE POINTS FOR POSITIONING PARTS TO BE REPLACED

#### C - FRONT SUB-FRAME FRONT MOUNTING POINT



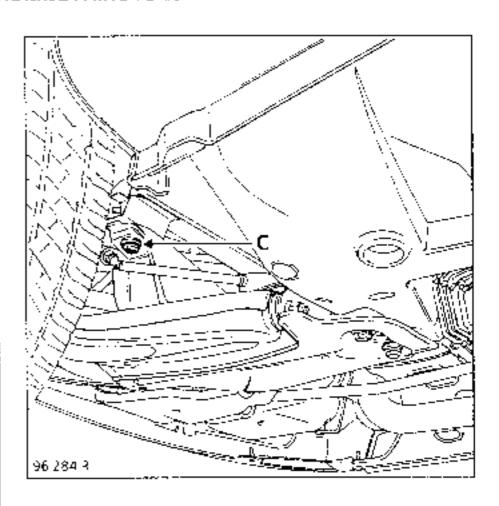
#### 1 - Front sub-frame removed

The bracket touches the bottom of the engine mounting and is used for checking the mounting hole.

It should be used for replacing:

- the front side member,
- a front half unit.

It may also be used for re-aligning the front section of the side member.



## 2 - Mécanique avant en place

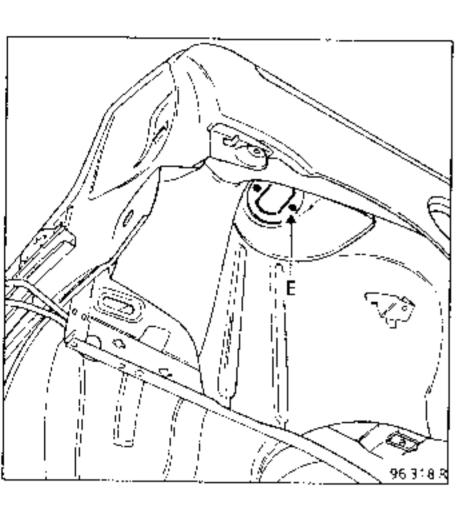
The bracket touches the bottom of the engine mounting bolt and cover it

It is used for small frontal impacts

It may be used for fault finding on the front subframe mountings if the front axle assembly angles are in question after checking.

## III - REFERENCE POINTS FOR POSITIONING PARTS TO BE REPLACED (cont)

#### E-REAR SHOCK ABSORBER UPPER MOUNTING



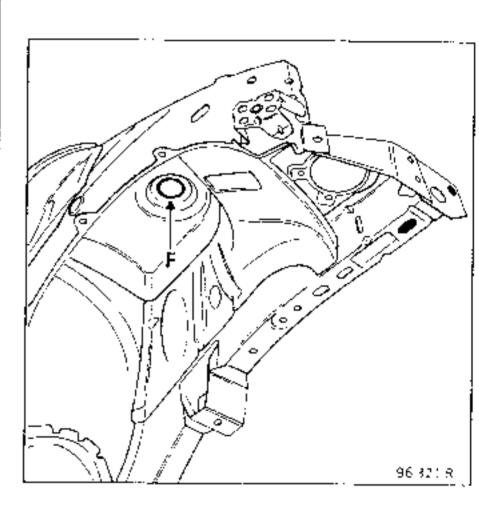
The bracket touches the bottom of the shock absorber turret and is used to check the position of the mounting holes for the suspension component

It should be used when replacing :

- the wheel arch.
- a half unit.

It may also be used for checking the re-alignment of the shock absorber cup after removing the rear sub-frame.

#### F-FRONT SHOCK ABSORBER UPPER MOUNTING



The bracket touches the bottom of the shock absorber turret and is used to check the position of the mounting holes for the shock absorber rod.

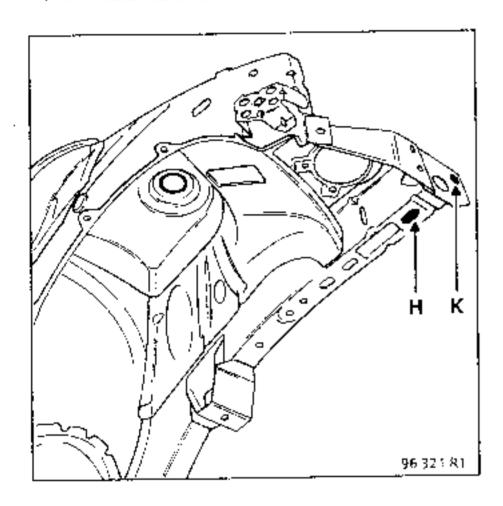
It should be used when replacing :

- the wheel arch,
- a half unit.

It may also be used for checking the re-alignment of the shock absorber cup after removing the front sub-frame

## III - REFERENCE POINTS FOR POSITIONING PARTS TO BE REPLACED (cont)

#### H - K - FRONT END OF FRONT SIDE MEMBER



#### 1 - Front sub-frame removed

#### Н

The bracket touches the end of the side member and is used to check the mounting point for the engine mounting flange.

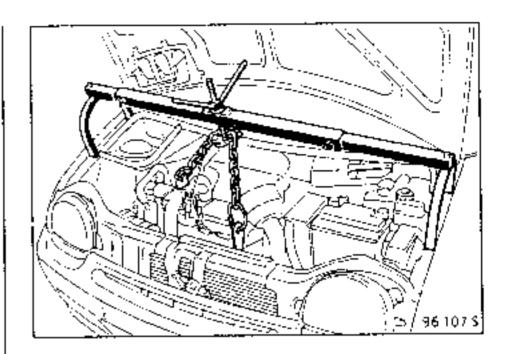
#### К

The bracket touches the front face of the side member in the front panel mounting hole.

It should be used when replacing:

- a front half unit,
- a front side member,

or when re-aligning the front end of the side member.



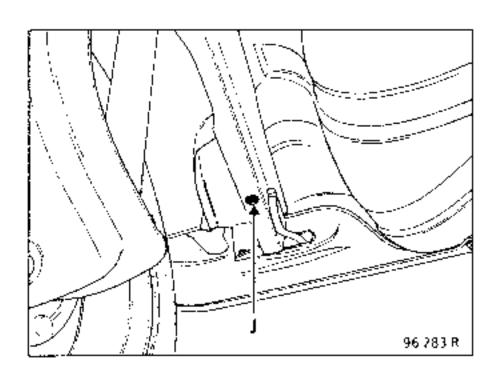
#### 2 - Front sub-frame in place

Same fitting as when the sub-frame is removed, but the front engine -transmission mounting bearing must be removed to fit the bracket. In order to do this, the weight of the assembly must be supported using the Celette tool part number 918-910 (see gear box section)

**NOTE**: point K on the bracket is only used after removing the front panel after a slight impact, when re-aligning

#### III - REFERENCE POINTS FOR POSITIONING PARTS TO BE REPLACED (cont)

#### J - REAR END OF REAR SIDE MEMBER



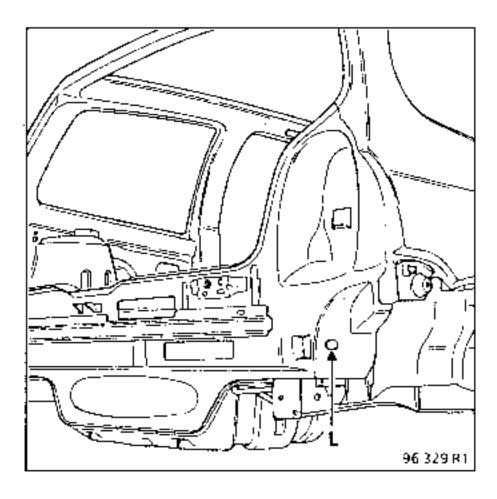
The bracket touches the bottom of the side member and is centred in the pilot hole by a cylindrical pin.

It is used with the sub-frame in place for realigning the rear end. The left hand side exhaust mounting flange will need to be removed.

With the rear sub-frame removed, when replacing:

- a side member,
- a rear floor section.

#### L-REAR PANEL CROSS MEMBER



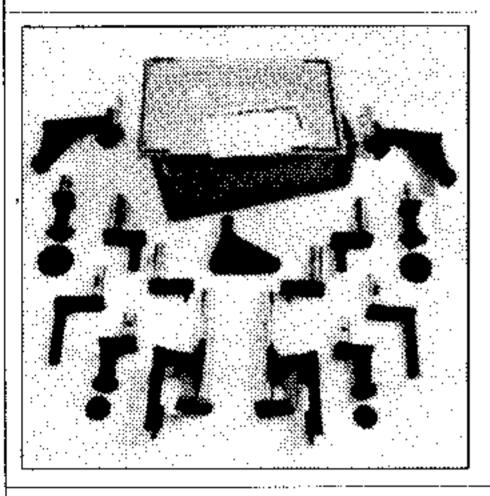
The bracket touches the rear panel (vertically), and is centred in a round hole on the left hand side and in a slot on the right hand side (see diagram).

It is used when replacing the rear panel after removing the bumper.

# GENERAL Special tool references

## Figure

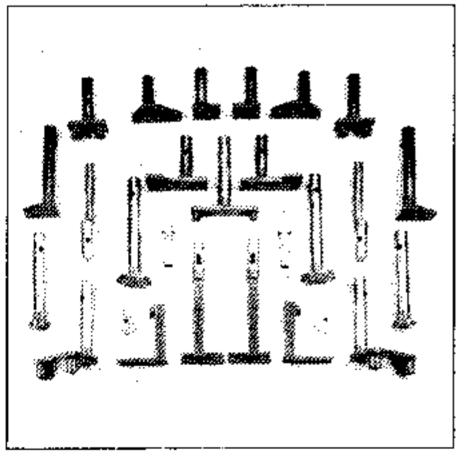
## Description



Jig bench heads CELETTE System MZ

For further information contact your local After Sales Head Office.

Supplier's part number: 654.300



Jig bench heads BLACKHAWK system MS

For further information contact your local After Sales Head Office.

#### INTRODUCTION

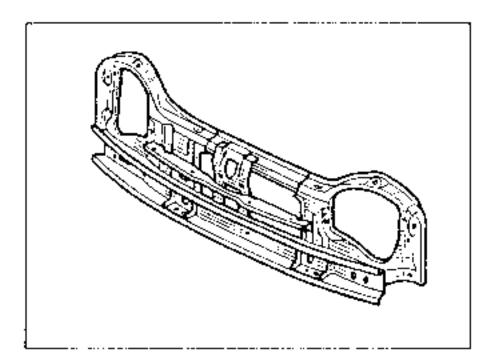
Removable part mounted by 12 bolts  $\emptyset$  8 x 125.

Basic operation for frontal impact.

## COMPOSITION OF THE PART AS SUPPLIED BY THE PARTS DEPARTMENT

#### Part assembled with:

- Lower cross member and reinforcements,
- upper cross member
- left and right headlight plate.
- bonnet lock mounting,
- bumper support bracket,
- nuts and welded studs.



#### **REMOVAL - REFITTING**

#### Remove:

- the bumper,
- the front panel and equipment.

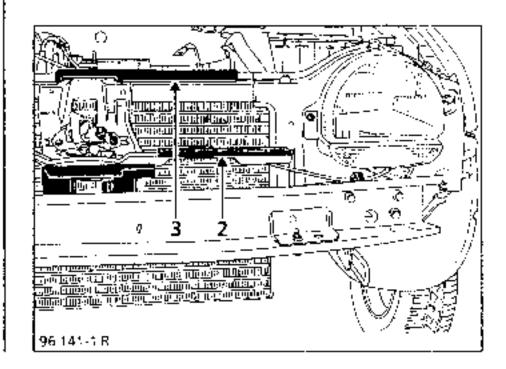
#### STRIPPING

#### Remove:

- the headlights,
- the radiator if it is damaged,
- the bonnet lock.

#### Retain:

- the bonnet stops,
- the plastic bumper mountings (2),
- the upper cross member cover (3),
- the wiring retaining clips.



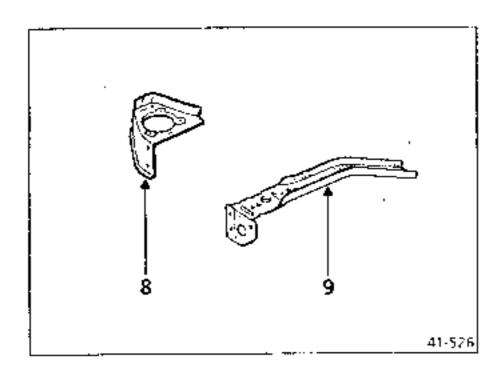
#### INTRODUCTION

Complementary operation to straightening of the side member end section or partial replacement of the side member front section. The wheel arch cover panel must be replaced.

## COMPOSITION OF THE PART AS SUPPLIED BY THE PARTS DEPARTMENT

#### Blank parts

- 8 Wheel arch cover panel
- 9 Side member cover panel



## 1 JOINT WITH WHEEL ARCH COVER PANEL

#### Steel thickness (mm)

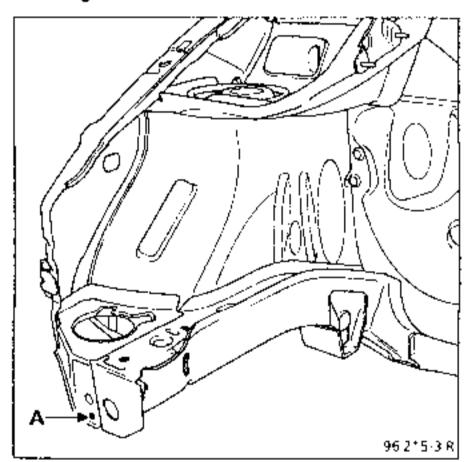
Wheel arch cover panel	0,70
Side member cover panel	0,70
Side member	1,20

## Unpicking



5 spot welds on thickness 0,70.

#### Welding





**NOTE**: all the welds are on three thicknesses except point (A). These points will be welded during operation **41-B-2** 

## 2 JOINT WITH SIDE MEMBER

#### Steel thickness (mm)

Wheel arch cover panel	0,70
Side member cover panel	0,70
Side member	1,20

## Unpicking

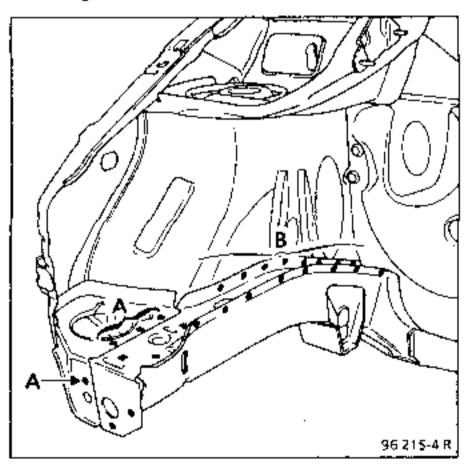


Cut with chisel for 500 mm



24 spot welds on thickness 0,70

#### Welding





NOTE: at (A), 4 points on three thicknesses, see **41-B-1** at (8), 9 points on three thicknesses, see **42-C-2** 

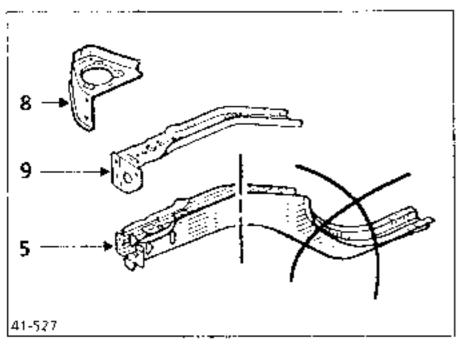
# LOWER STRUCTURE Part of front side member, front section (C)

#### INTRODUCTION

Basic operation for frontal impact. The side member cover panel and wheel arch cover panel must be replaced.

## COMPOSITION OF THE PART AS SUPPLIED BY THE PARTS DEPARTMENT

- 5 Front section of front side member, assembled with:
  - -engine mounting spacer,
  - left hand side towing ring.
- 8. Wheel arch cover panel, blank part
- 9. Side member cover panel, blank part





## 1 JOINT WITH WHEEL ARCH COVER PANEL

#### Steel thickness (mm)

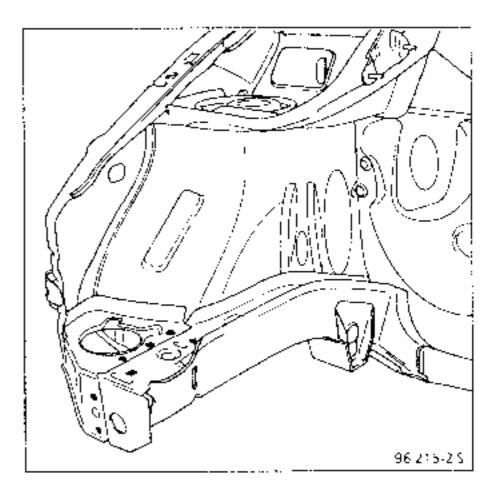
Wheel arch cover panel	0,70
Side member cover panel	0,70
Side member	1,20

#### Unpicking



4 spot welds on two thicknesses  $(0.70 \times 2)$ 

#### Welding

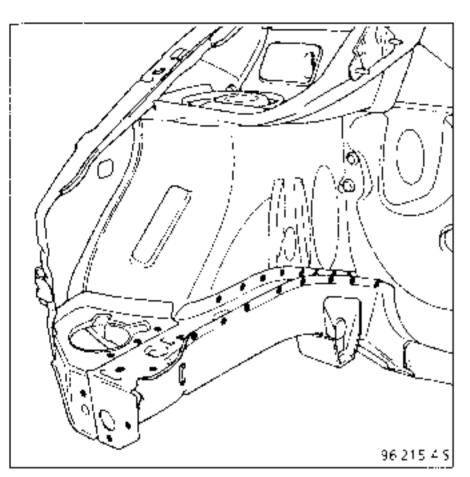




**NOTE**: these spot welds are on three thicknesses and will be welded in the complementary operation **41-8-2** 

## 2 JOINT WITH SIDE MEMBER

## Reminder: see 41-B-2





## 3 JOINT WITH WHEEL ARCH

#### Steel thickness (mm)

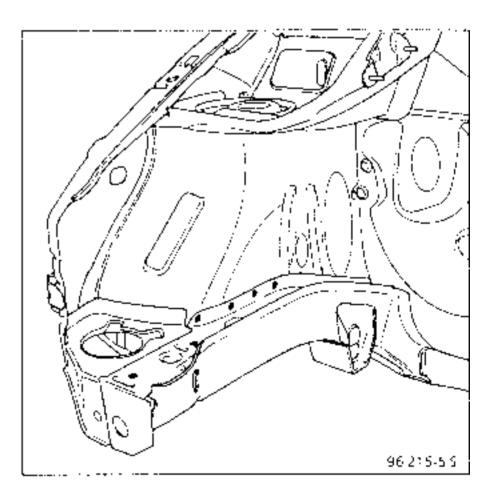
Wheel arch	0,70
Side member	1,20
Side member cover panel	0,70

## Unpicking



4 spot welds on one thickness 1,2

## Welding





NOTE: these spot welds are on three thicknesses and will be welded an the complementary operation 41-B-2.

# 4 JOINT WITH BATTERY MOUNTING (LEFT HAND SIDE ONLY)

#### Steel thickness (mm)

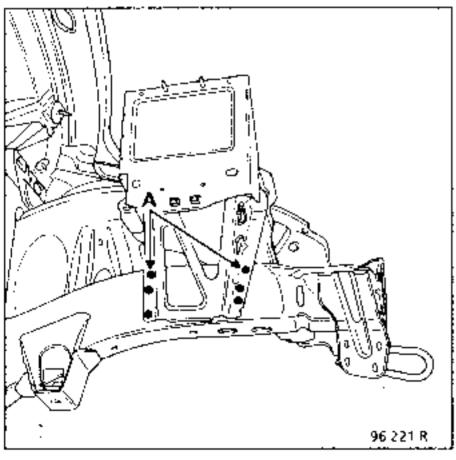
Lower mounting	1,20
Side member	1,20
Side member cover panel	0,70

#### Unpicking



6 spot welds on one thickness 1,2

#### Welding





**NOTE**: Points (A) are on three thicknesses and will be welded in complementary operation **41-B-2**. The other points are completed before the side member cover plate is fitted.

## 5 PARTIAL SECTION

#### Steel thickness (mm)

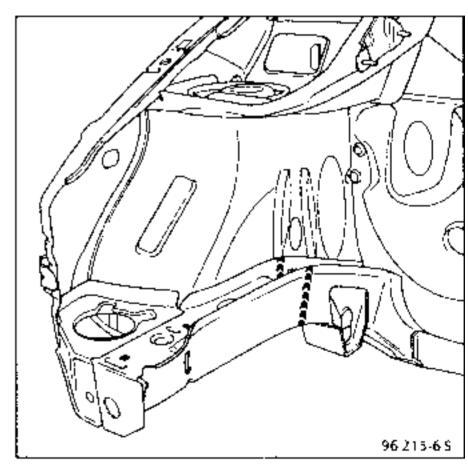
Side member 1,20

## Unpicking



250 mm

#### Welding





# LOWER STRUCTURE Front part of side cross member (D)

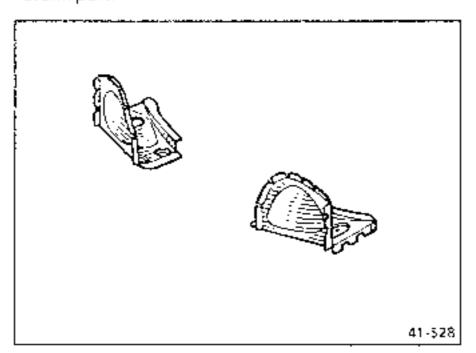
#### INTRODUCTION

Complementary operation to front half unit for frontal impact.

Front pillar for side impact.

# COMPOSITION OF THE PART AS SUPPLIED BY THE PARTS DEPARTMENT

Blank part.



# [1] JOINT WITH BULKHEAD

### Steel thickness (mm)

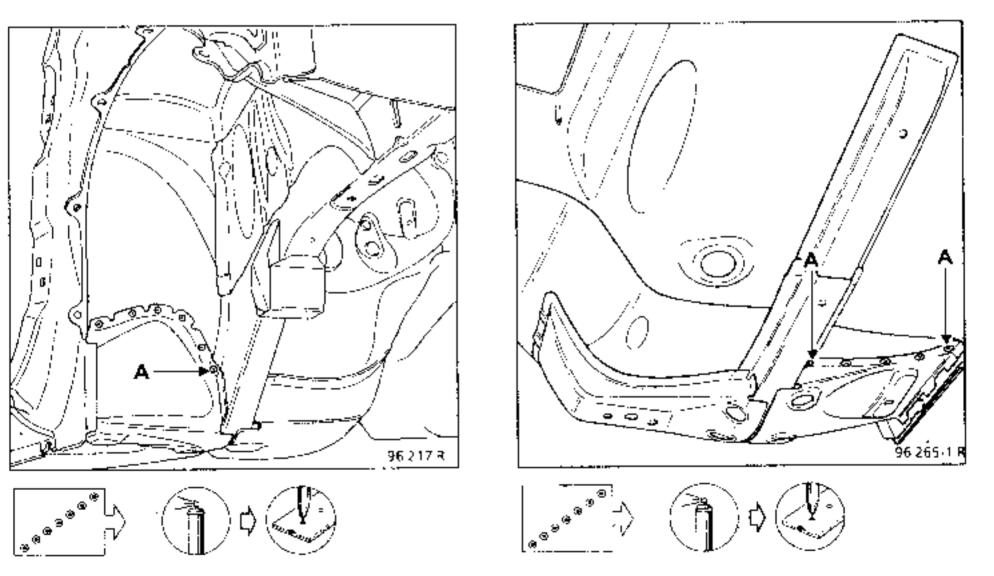
Side cross member	1,00
Bulkhead	0,70
Front side member	1,50
Centre floor	0,70

## Unpicking



11 spot welds on thickness 1,0

### Welding



NOTE: at (A), welds on three thicknesses.

# 2 JOINT WITH FRONT PILLAR LINING

### Steel thickness (mm)

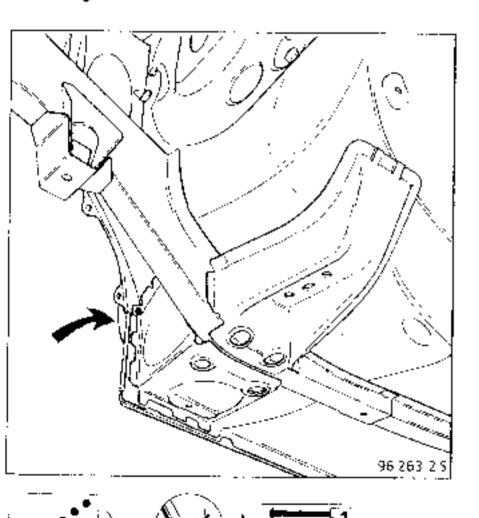
Front pillar	0,70
Front pillar reinforcement	1,50
Sill panel lining	1,00
Side cross member	1,00

## Unpicking



1 spot weld on thickness 1,00

### Welding





**NOTE**: Welds on four thicknesses

## 3 JOINT WITH SILL PANEL LINING

### Steel thickness (mm)

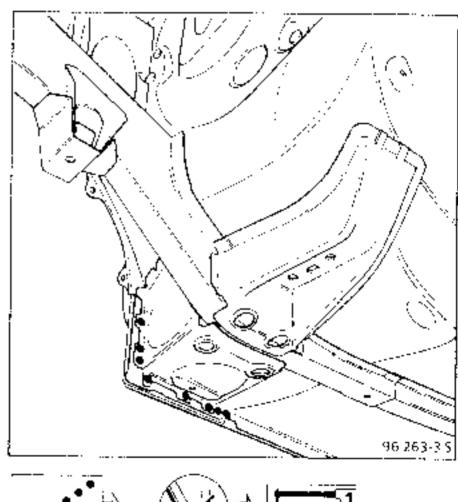
Sill panel lining	1,00
Front pillar	0,70
Side cross member	1.00

### Unpicking



8 spot welds on thickness 1,00

## Welding





NOTE: all the welds are on three thicknesses

# JOINT WITH FRONT SIDE MEMBER (HALF UNIT)

### Steel thickness (mm)

Front side member 1,20 Side cross member 1,00 Bulkhead 0,70

### Unpicking

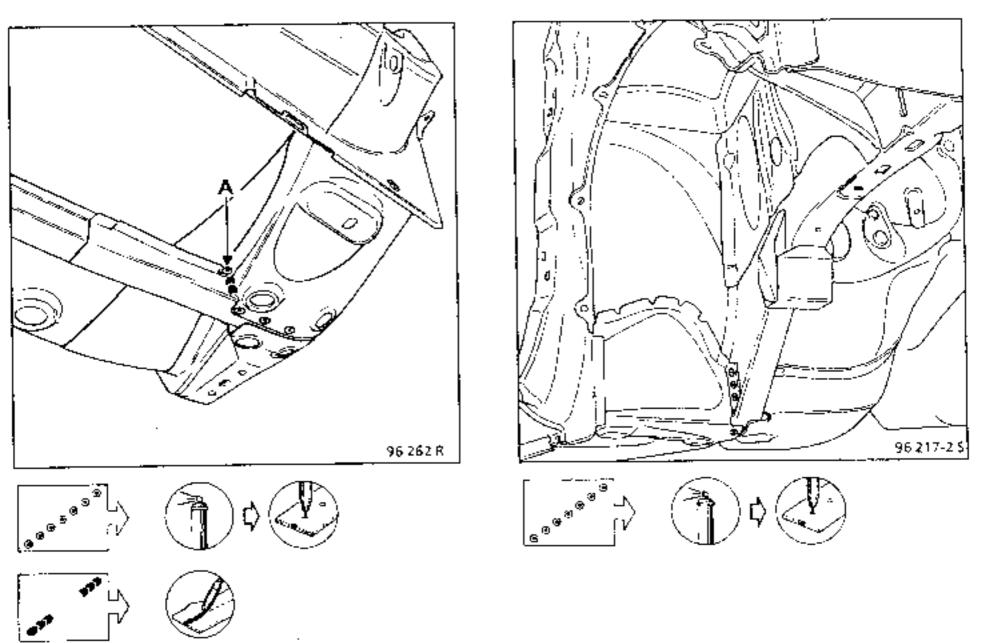


8 spot welds on thickness 1,20



Cut with chisel for 20 mm

### Welding



**NOTE**: at (A), welds on three thicknesses.

#### INTRODUCTION

Complementary operation to :

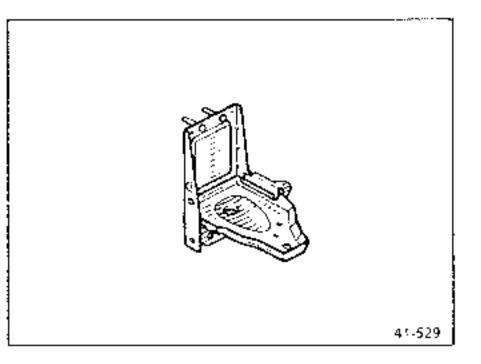
- cowl side panel with wheel arch,
- part section of front side member,
- half unit.

Left hand side only

# COMPOSITION OF THE PART AS SUPPLIED BY THE PARTS DEPARTMENT

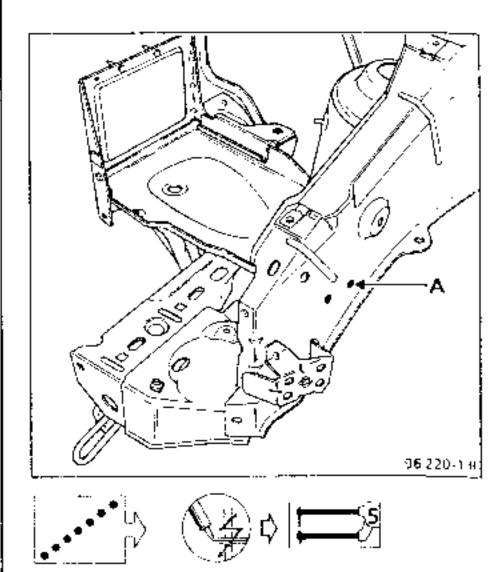
Part assembled with:

- battery stop,
- stop reinforcement,
- welded nuts,
- computer support with welded nuts and bolts



## 1 JOINT WITH COWL SIDE PANEL

Reminder: see 42-B-4



## 2 JOINT WITH WHEEL ARCH

### Steel thickness (mm)

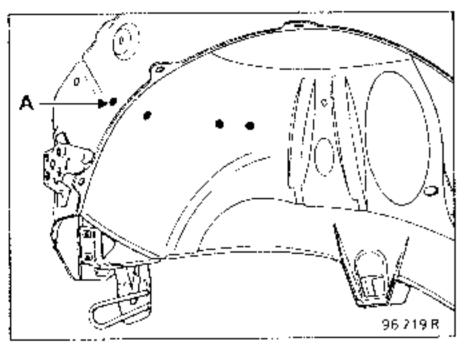
Battery tray	1,20
Wheel arch	0,70
Cowl side panel	0,70

### Unpicking



4 spot welds on thickness 1,20

## Welding





NOTE: at (A), 1 weld on three thicknesses

## 3 JOINT WITH BATTERY TRAY MOUNTING

### Steel thickness (mm)

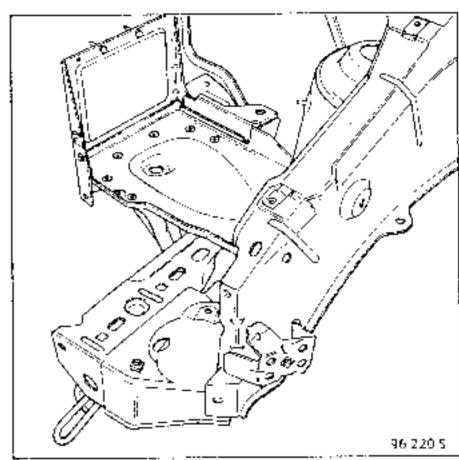
Battery tray	1,20
Mounting	1,20

## Unpicking



6 spot welds on thickness 1,20

## Welding





### INTRODUCTION

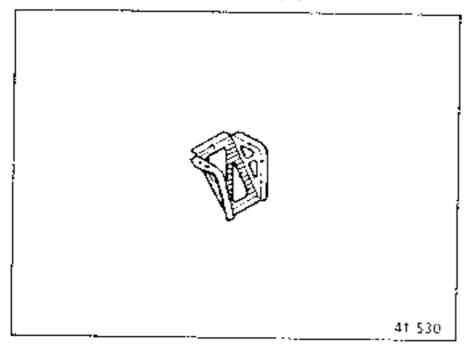
Complementary operation to :

- part section of front side member,
- cowl side panel with wheel arch

Left hand side only.

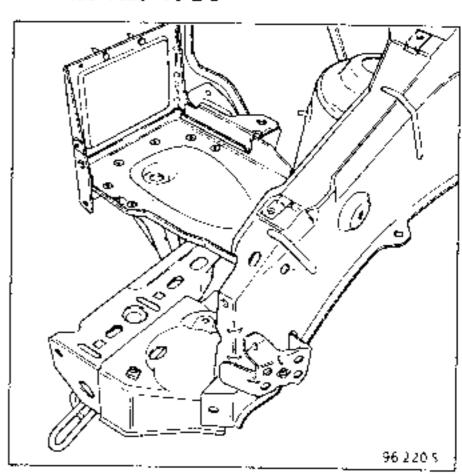
# COMPOSITION OF THE PART AS SUPPLIED BY THE PARTS DEPARTMENT

Part assembled with welded nuts



## 1 JOINT WITH BATTERY TRAY

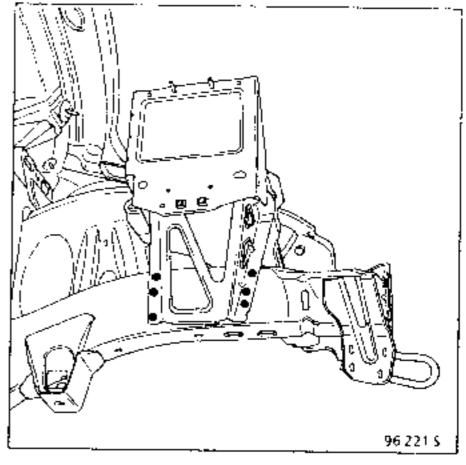
Reminder: see 41-E-3





# 2 JOINT WITH FRONT SIDE MEMBER

Reminder : see 41-C-4





#### INTRODUCTION

Basic operation for frontal impact.

There are two possibilities for replacement:

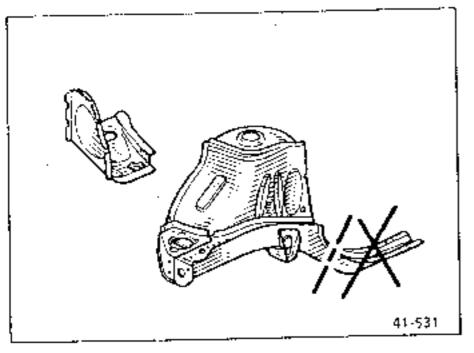
- complete front half unit, requiring the front side cross member to be removed,
- part front half unit requiring the rear end of the side member to be cut

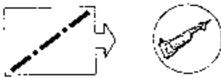
The details of these two methods are described below in the section "front half unit joint with bulkhead".

# COMPOSITION OF THE PART AS SUPPLIED BY THE PARTS DEPARTMENT

Assembled part with:

- front part of front side member with : cover plate
  - engine mounting spacer
  - . front engine mounting
  - . left side towing ring
- wheel arch assembly with:
  - shock absorber cup , wheel arch cover plate.
  - , left side battery tray mounting





**NOTE**: for method 1, also order part (7). for method 2, cut part (4)

# 1 JOINT WITH COWL SIDE PANEL (PILLAR LINING)

#### Steel thickness (mm)

Cowl side panel	0.70
Wheel arch	0,70
Shock absorber cup	2,00
Wheel arch cover panel	0,70

### Unpicking



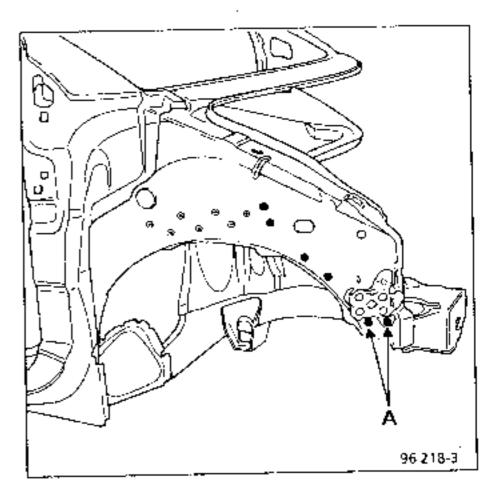
7 spot welds on thickness 0,70 (joint with shock absorber cup)

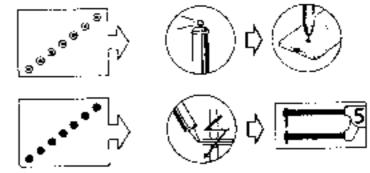


350 mm (joint with wheel arch)



6 spot welds on thickness 0,70





NOTE: at (A), 2 welds on three thicknesses

## 2 JOINT WITH BULKHEAD

### 1st method Complete front section of side member

### Steel thickness (mm)

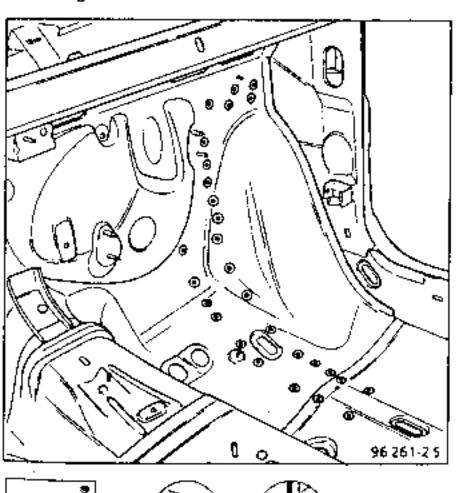
Wheel arch	0,70
Side member	1,20
Bulkhead	0,70
Side cross member	1,00
Rear engine mounting	1,50

### Unpicking



32 spot welds on thickness 0,70 from inside the vehicle

### Welding



### 2nd method: Complete front section of side member

### Steel thickness (mm)

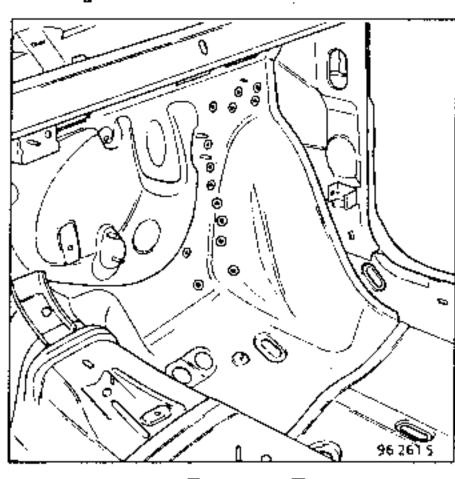
Wheel arch	0,70
Side member	1,20
Bulkhead	0,70

### Unpicking

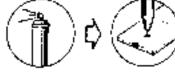


14 spot welds on thickness 0,70 from inside the vehicle

### Welding



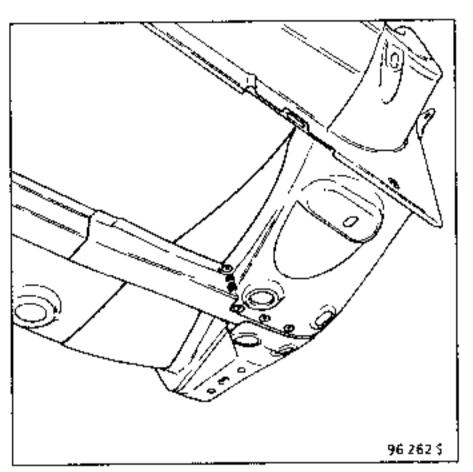


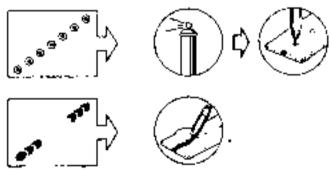


## 3 JOINT WITH SIDE CROSS MEMBER

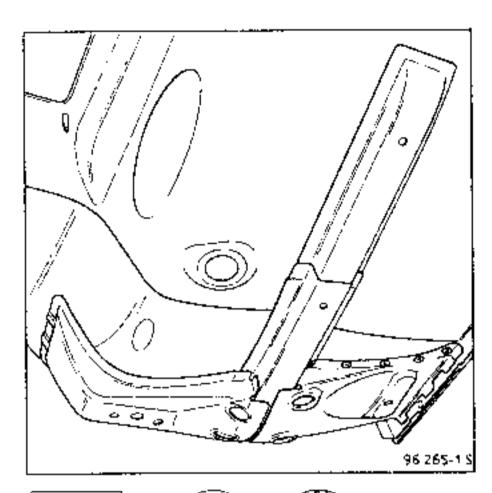
Reminder : see 41-D-1

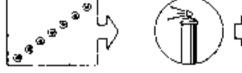
### FRONT





REAR





# 4 JOINT WITH REAR ENGINE MOUNTING

## Steel thickness (mm)

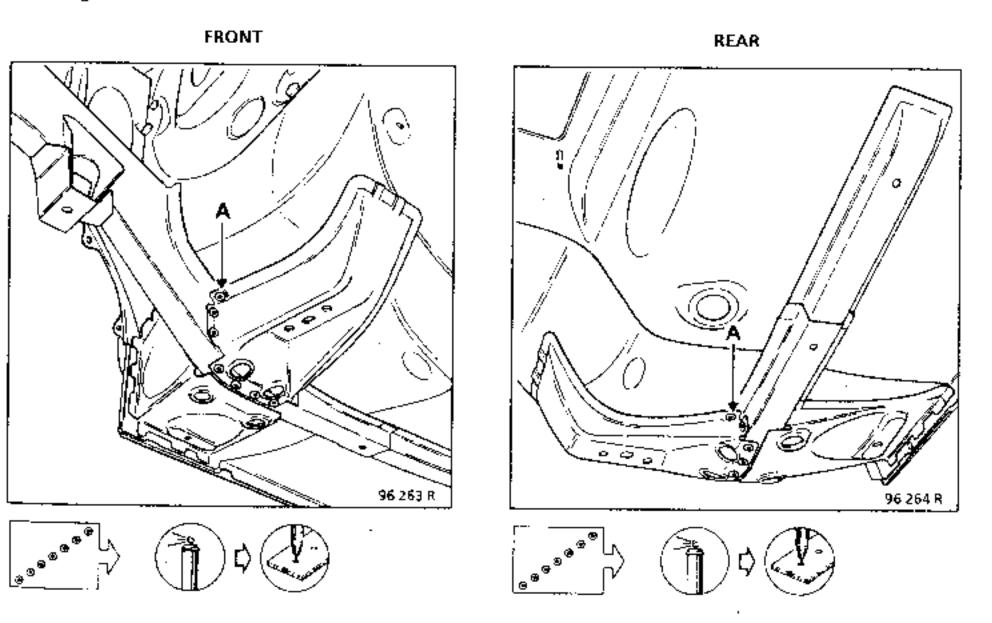
Side member	1,20
Rear engine mounting	1,50
Bulkhead	0.70

## Unpicking



9 spot welds on thickness 1,50

### Welding



**NOTE**: at (A), welds on three thicknesses with the bulkhead

# 5 JOINT WITH REAR SECTION OF FRONT SIDE MEMBER

### Steel thickness (mm)

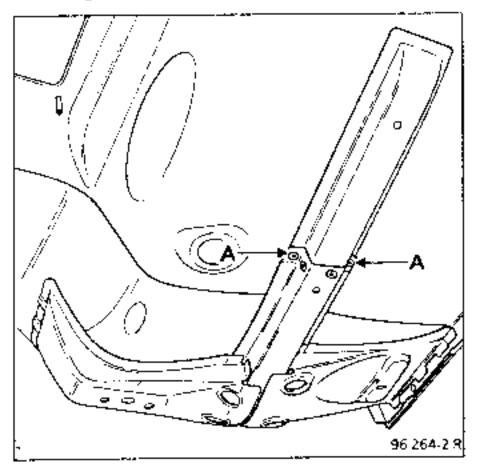
Front section of side member 1,20 Rear section 1,00 Centre floor 0,70

### Unpicking

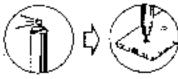


5 spot welds on thickness 1,20

### Welding







NOTE: at (A), welds on three thicknesses

## 6 PART SECTION OF SIDE MEMBER

### Steel thickness (mm)

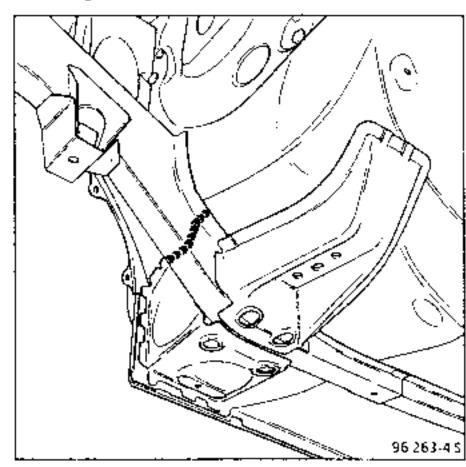
Side member 1,20

### Unpicking



200 mm

#### Welding





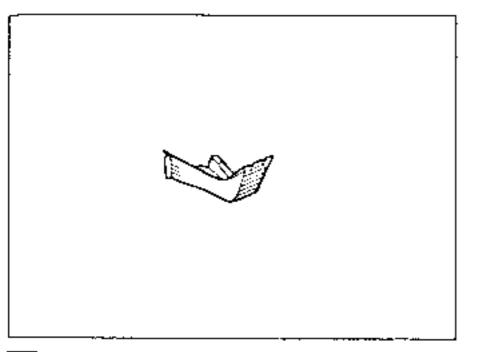
#### INTRODUCTION

Complementary operation to complete front half unit.

# COMPOSITION OF THE PART AS SUPPLIED BY THE PARTS DEPARTMENT

Part assembled with:

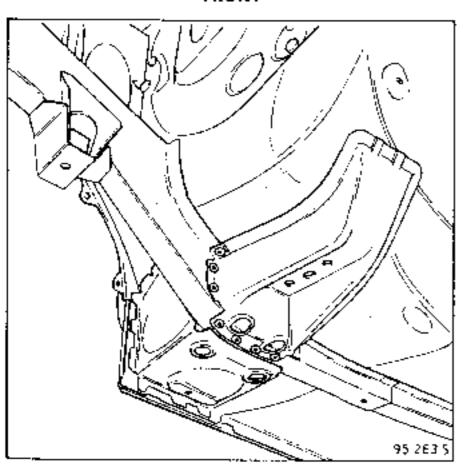
- blank support,
- engine mounting bracket.



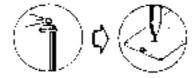
# 1 JOINT WITH FRONT SIDE MEMBER

Reminder ; see 41-G-4

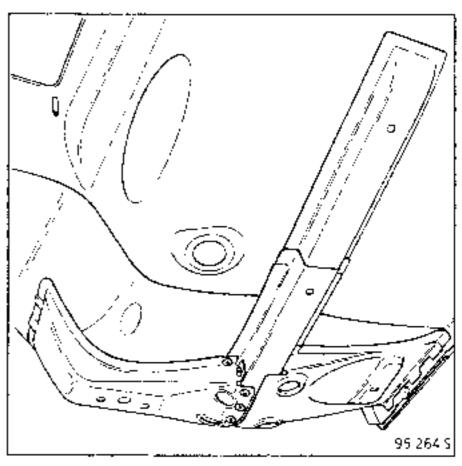
#### FRONT













## 2 JOINT WITH BULKHEAD

## Steel thickness (mm)

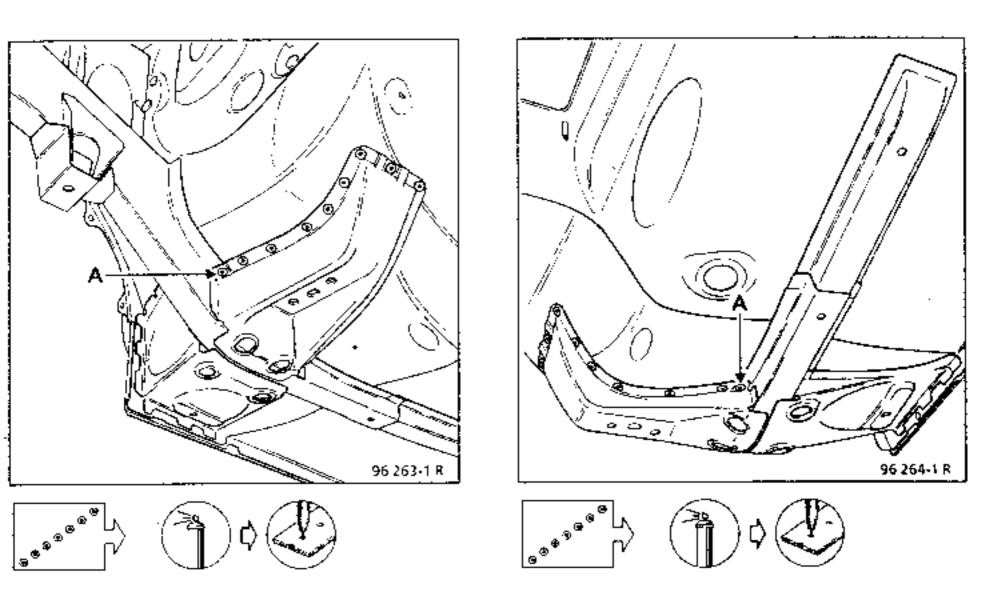
Engine mounting support	1,50
Bulkhead	0,70
Side member	1,20

## Unpicking



15 spot welds on thickness 1,50

## Welding



NOTE: at (A), welds on three thicknesses

# LOWER STRUCTURE Rear part of front side member (I)

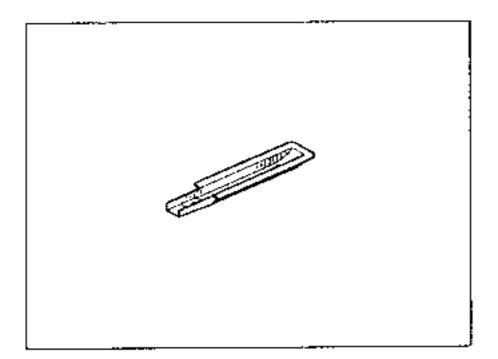
### INTRODUCTION

Complementary operation to:

- front half unit for frontal impact,
- sill panel with floor for side impact.

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

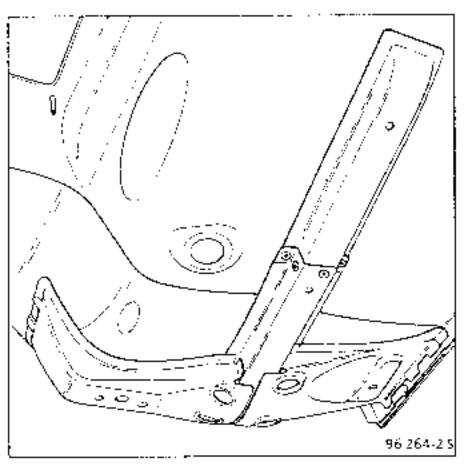
Blank part.



## 1 JOINT WITH FRONT SECTION

Reminder: see 41-G-5

### Welding



## 2 JOINT WITH CENTRE FLOOR

### Steel thickness (mm)

Rear pa	art of sid	e member	1,00
Fronts	ection		1,20
Floor			0,70
_			

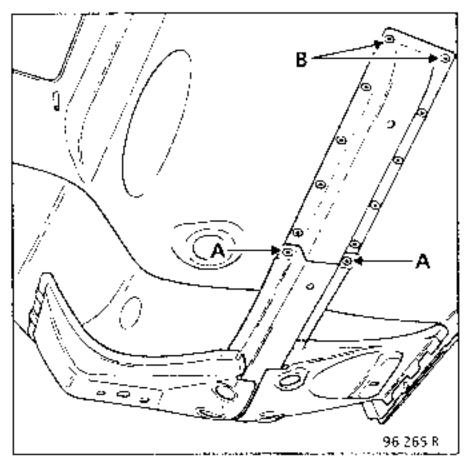
Cross member under front seat

### Unpicking



10 spot welds on thickness 1,00 2 spot welds on two thicknesses 1,2 + 1,0

### Welding





**NOTE**: at (A), 3 thicknesses 1,2 + 1,0 + 0,7 at (B), 3 thicknesses 1,0 + 1,0 + 0,7

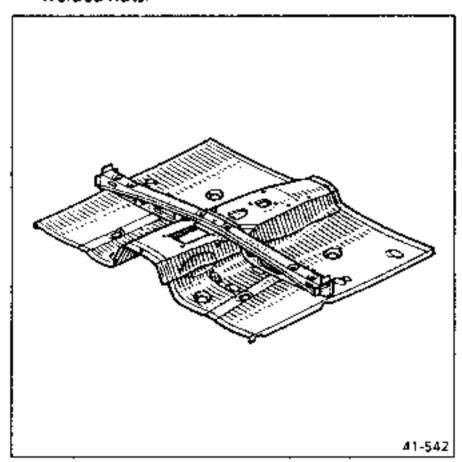
#### INTRODUCTION

Basic operation for impacts under the vehicle

### COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

#### Part assembled with:

- tunnel reinforcement assembly with gear lever mounting
- front cross member under front seat assembled with spacers and mounting components,
- cable sleeve stop,
- brake pipe nut,
- seat mounting reinforcements,
- welded nuts.



## 1 JOINT WITH BULKHEAD

#### Steel thickness (mm)

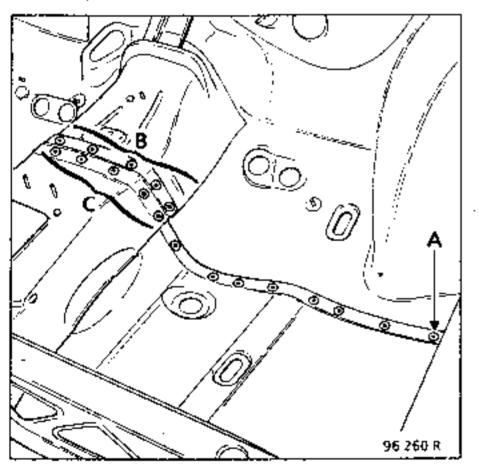
Tunnel reinforcement	1,00
Centre floor	0,70
Bulkhead	0,70
Front section of front side member	1,20
Front side cross member	1,00

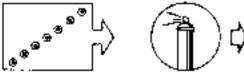
### Unpicking



16 spot welds on 1 thickness 0,70 7 spot welds on 2 thicknesses 1,0 + 0,70 7 spot welds on 1 thickness 1,0

### Welding





**NOTE**: at (A), 1 weld on three thicknesses,

 $(0.70 \times 2) + 1.0$ 

at (B), 7 welds on three thicknesses,

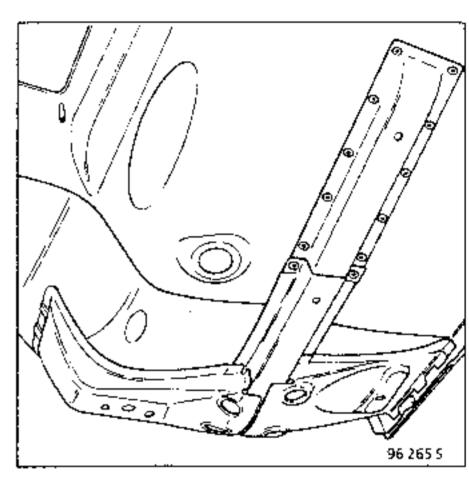
 $(1,0 \times 2) + 0,70$ 

at (C), 7 welds on three thicknesses,

 $(0,70 \times 2) + 1,0$ 

# 2 JOINT WITH REAR SECTION OF FRONT SIDE

Reminder : see 41-I-2





## 3 JOINT WITH SILL PANEL LINING

### Steel thickness (mm)

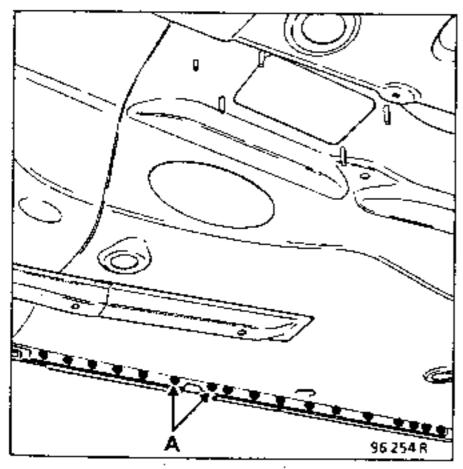
Floor	0,70
Sill panel lining	1,00
Sill panel	0,70
Jacking point	2,00
Front cross member under front seat	1,00

## Unpicking



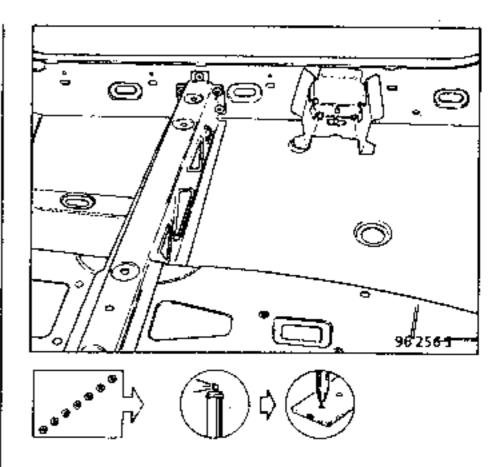
18 x 2 spot welds on thickness 0,70 4 x 2 spot welds on thickness 1,00

### Welding





**NOTE**: All welds on three thicknesses (0,7 x 2) + 1,0 except at (A), 4 thicknesses: (0,7 x 2) + 1,0 + 2



**NOTE**: Joint between front seat cross member and sill panel lining.

# JOINT WITH FRONT SEAT REAR MOUNTING

### Steel thickness (mm)

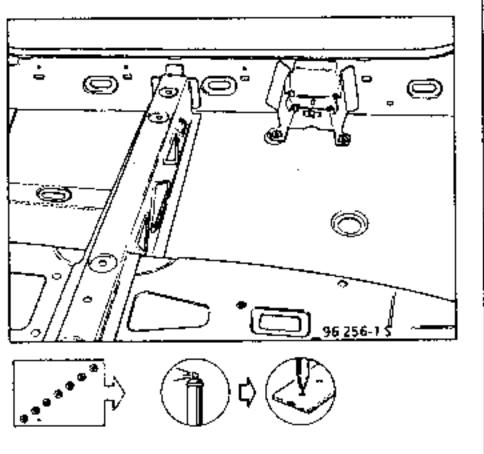
Floor 0,70 Unit 1,20

### Unpicking



2 x 2 spot welds on thickness 0,70

### Welding



## 5 JOINT WITH REAR FLOOR

### Steel thickness (mm)

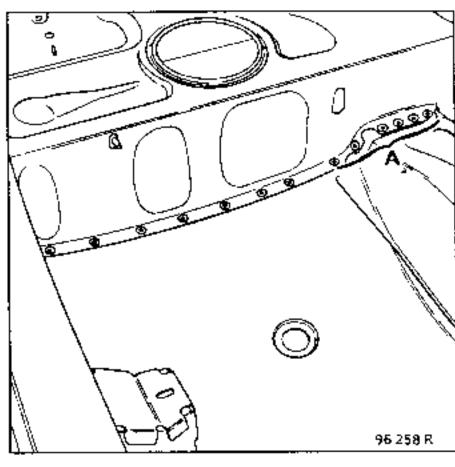
Centre floor	0,70
Rear floor	0,70
Cable sleeve stop	1,50

### Unpicking



7 x 2 spot welds on thickness 0,70 8 spot welds on 2 thicknesses 1,5 + 0,7

### Welding





NOTE: at (A), welds on 2 thicknesses 1.5 + 0.7

# LOWER STRUCTURE Front cross member under front seat (K)

#### INTRODUCTION

Complementary operation to :

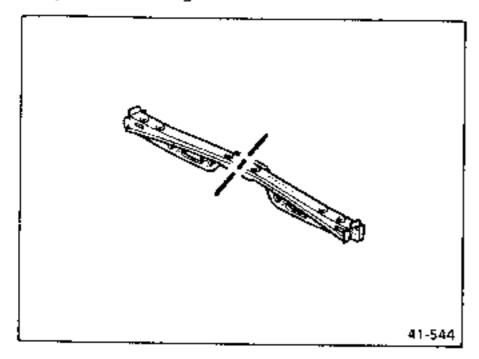
- sill panel,
- centre pillar with replacement.

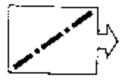
For side impacts, this piece may be partly replaced with one cut in the centre.

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with:

- seat mounting spacer,
- spacer mounting bracket.



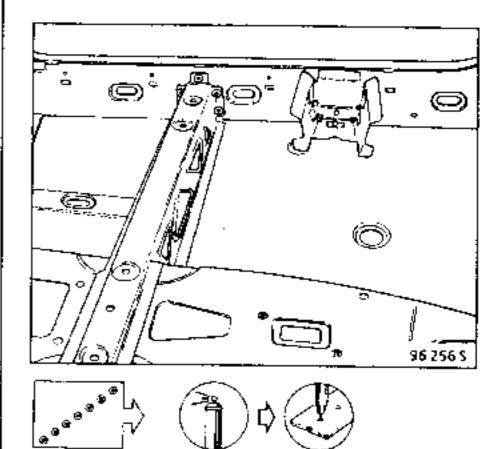




only for partial replacement

## 1 JOINT WITH SILL PANEL LINING

Reminder : see 41-J-3



# 2 JOINT WITH CENTRE FLOOR PAN

### Steel thickness (mm)

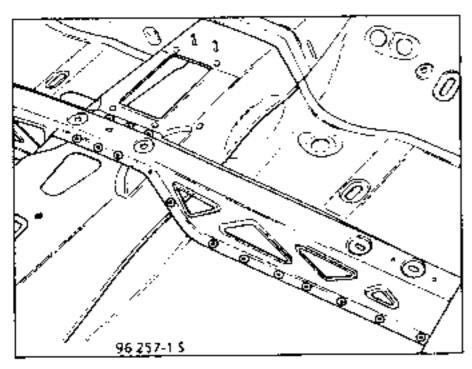
Cross member under seat 1,00 Floor 0,70 Tunnel reinforcement 1,00

### Unpicking

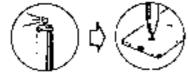


7 x 2 spot welds on thickness 0,70 8 spot welds on thickness 1,0

## Welding







## 3 PARTIAL SECTION

### Steel thickness (mm)

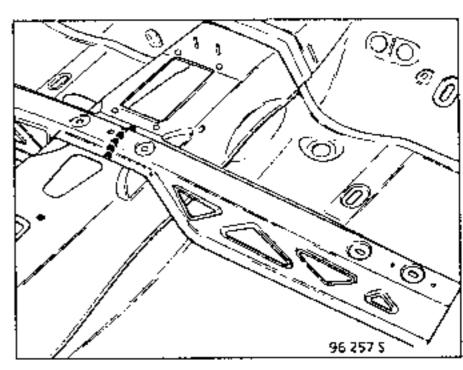
Cross member 1,00

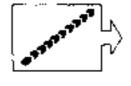
### Unpicking



100 mm

### Welding











#### INTRODUCTION

Complementary operation to :

- complete front half unit for frontal impact,
- sill panel for side impact

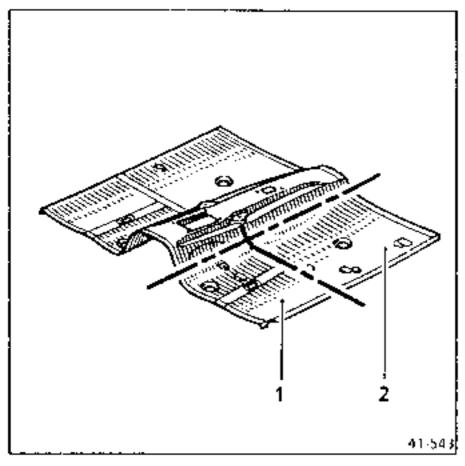
2 possibilities for replacement :

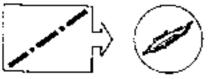
- 1) Front section
- 2) Rear section

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with:

- seat mounting reinforcement,
- spacer,
- welded nuts and studs.





## 1 JOINT WITH BULKHEAD

### Steel thickness (mm)

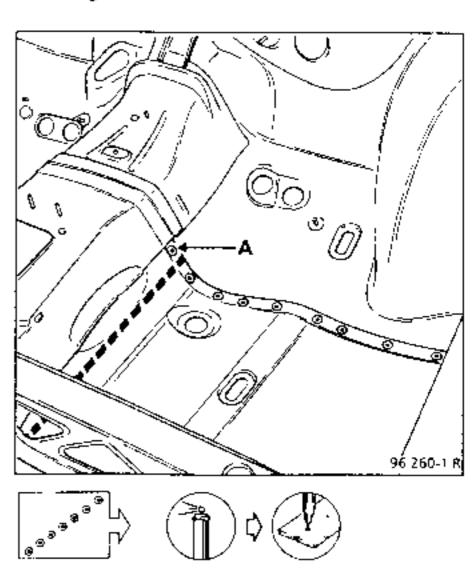
Centre floor	0,70
Bulkhead	0,70
Front part of front side member	1,20
Front side cross member	1,00

### Unpicking



8 spot welds on thickness 0,70

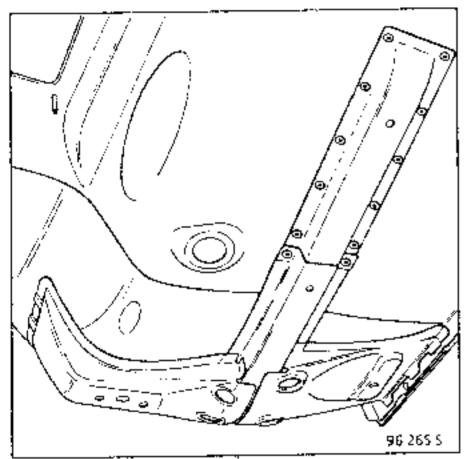
### Welding



NOTE: at (A), plug welds on two thicknesses 0,70.

# 2 JOINT WITH REAR SECTION OF FRONT SIDE MEMBER

Reminder : see 41-I-2





## 3 JOINT WITH SILL PANEL LINING

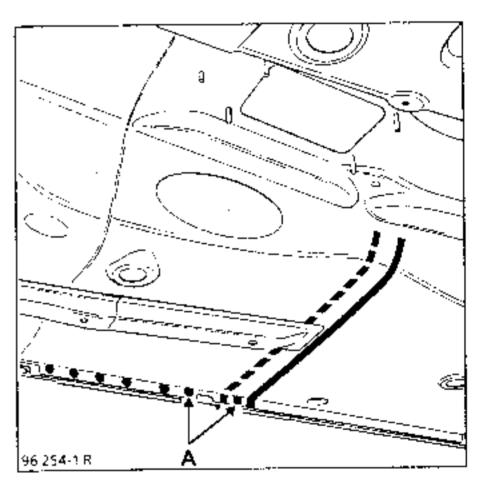
### Steel thickness (mm)

Floor	0,70
Sill panel lining	1,00
Sill panel	0,70
Jacking point	2,00

## Unpicking



7 spot welds on thickness 0,70





**NOTE**: at (A), 2 welds on 4 thicknesses All other welds on 3 thicknesses  $(0.70 \times 2) + 1.0$ 

# JOINT WITH FRONT CROSS MEMBER UNDER FRONT SEAT + PART SECTION

### Steel thickness (mm)

Centre floor 0,70 Cross member under seat 1,00 Rear section of side member 1,00

### Unpicking

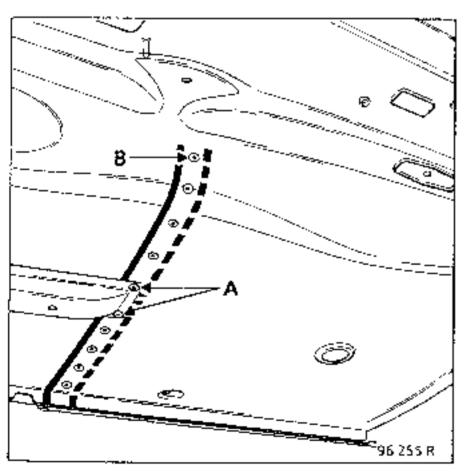


 $500 \, \mathrm{mm}$ 

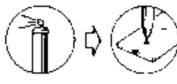


2 spot welds on thickness 1,00

### Welding







**NOTE**: at (A), plug welds on 2 thicknesses: 1,0 + 0,70, make 8 plug welds in total At (B), plug welds on 2 thicknesses 0,70 x 2.

## 5 LONGITUDINAL SECTION

### Steel thickness (mm)

Floor

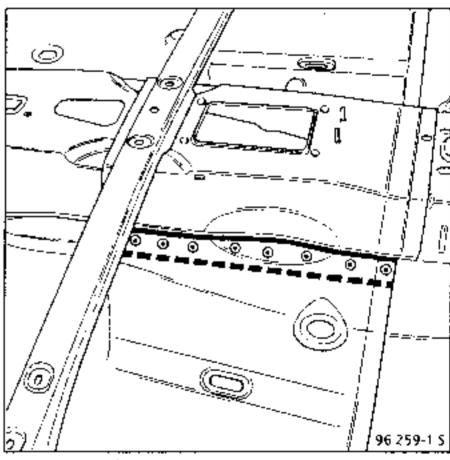
0,70

#### Unpicking



450 mm

#### Welding





NOTE: 6 plug welds on thickness 0,70.

## 6 JOINT WITH REAR FLOOR

### Steel thickness (mm)

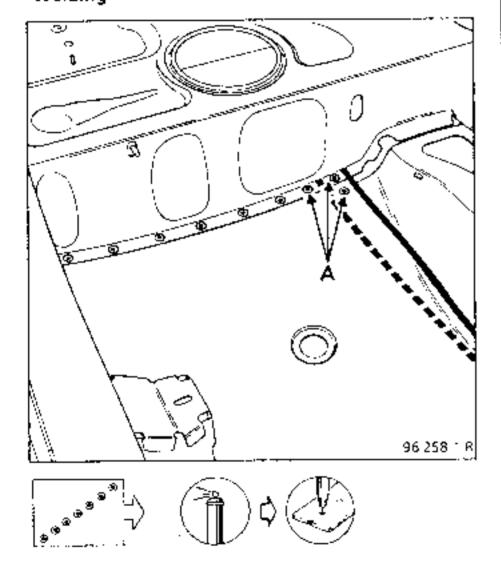
Centre floor	0,70
Rear floor	0,70
Cable sleeve stop	1,50

### Unpicking



7 spot welds on thickness 0,70 3 spot welds on 2 thicknesses 1,5 + 0,70

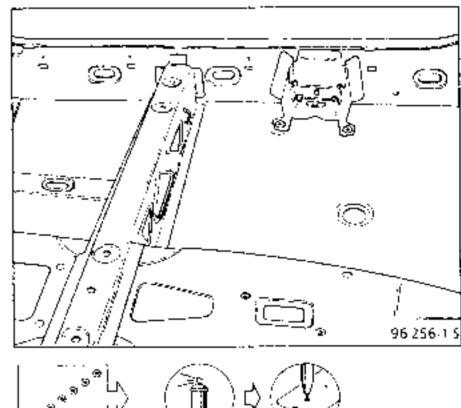
### Welding



NOTE : at (A), 3 plug welds on 2 thicknesses 0.70 x2.

## 7 JOINT WITH FRONT SEAT REAR MOUNTING UNIT

Reminder : see 41-J-4





# LOWER STRUCTURE Part of centre floor pan (rear section) (L)

# 8 JOINT WITH SILL PANEL LINING

### Steel thickness (mm)

 Floor
 0,70

 Lining
 1,00

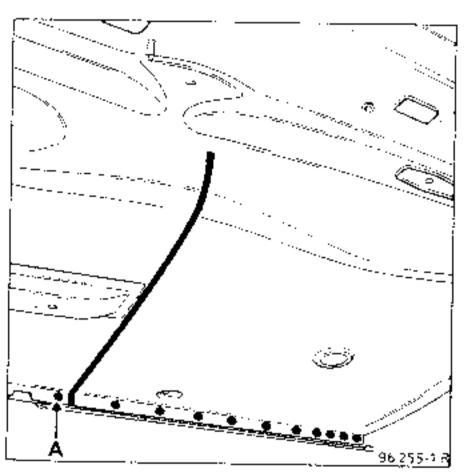
 Sill panel
 0,70

### Unpicking

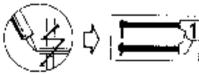


11 spot welds on thickness 0,70

### Welding







**NOTE**: at (A), 1 weld on 4 thicknesses  $(0.70 \times 3) + 1.0$ 

# JOINT WITH FRONT CROSS MEMBER UNDER FRONT SEAT

### Steel thickness (mm)

Floor 0,70 Cross member 1,00

### Unpicking

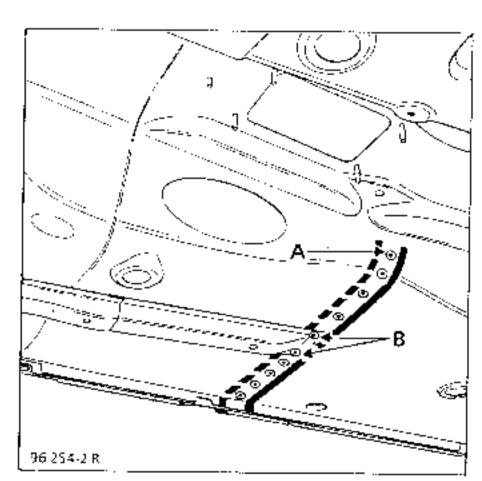


500 mm



2 spot welds on thickness 1,00

### Welding





NOTE: 8 plug welds in total. At (A), 1 weld on 2 thicknesses 0,70. At (B), 2 welds on 2 thicknesses 1,0 + 0,70.

0,70

## 10 LONGITUDINAL PART SECTION

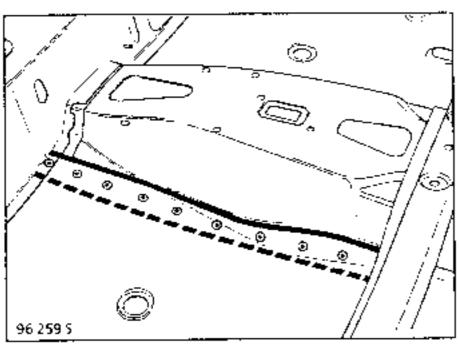
### Steel thickness (mm)

Floor

### Unpicking



### Welding





NOTE: 9 plug welds on thickness 0,70

# LOWER STRUCTURE Sill cover panel stiffener (M)

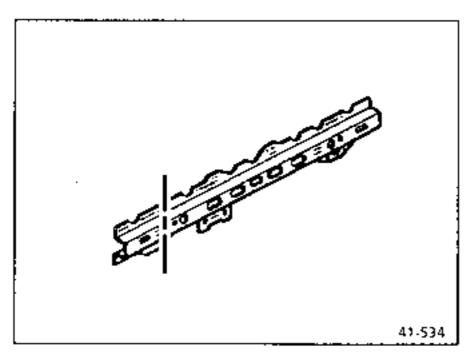
#### INTRODUCTION

Complementary operation to replacement of the sill panel after a side impact.

**NOTE**: section A under the front pillar is not replaced. The stiffener is partially replaced without the front section (see partial section).

# COMPOSITION OF PART AS SUPPLIED BY PARTS DEPARTMENT

Assembled part with seat belt mounting and jacking point.





## 1 JOINT WITH SILL PANEL COVER PLATE

#### Steel thickness (mm)

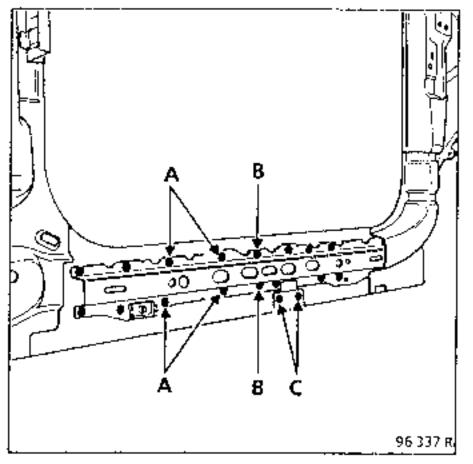
Stiffener	1,00
Cover panel	1,00
Seat mounting unit	1,20
Front cross member under seat	1,00
Floor	0,70
Jacking point	2,00

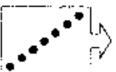
### Unpicking



18 spot welds on thickness 1,00 2 spot welds on thickness 2,00

### Welding







NOTE: at (A), 4 welds on 3 thicknesses,

 $(1,00 \times 2) + 1,20$ 

at (B), 2 welds on 3 thicknesses,

 $1,00 \times 3$ 

at (C), 2 welds on 3 thicknesses,

2,00 + 1,00 + 0,70

## 2 PARTIAL SECTION

### Steel thickness (mm)

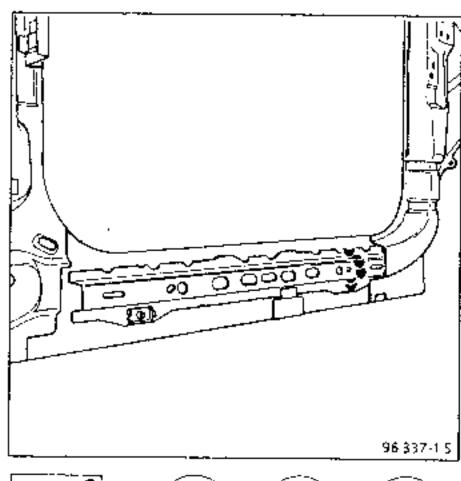
Stiffener 1,00

### Unpicking



150 mm

### Welding





#### INTRODUCTION

Complementary operation to replacement of sill panel, front pillar or wing with rear end panel lining after a side impact.

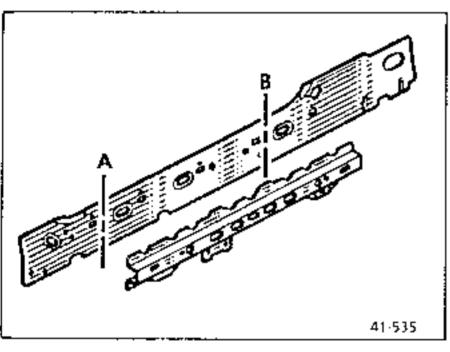
This piece may be partly replaced, requiring replacement of the stiffener which must be ordered separately.

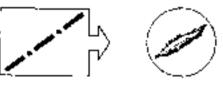
Several cutting combinations are possible : A ; B ; A + B

# COMPOSITION OF PART AS SUPPLIED BY PARTS DEPARTMENT

Single part.

The cover panel stiffener must be ordered separately.





# 1 JOINT WITH PILLAR LINING ON COWL SIDE

#### Steel thickness (mm)

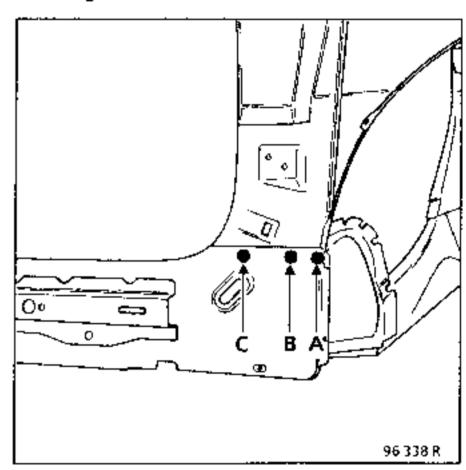
Sill panel lining	0,70
Pillar lining	. 1,00
Front side cross member	1,00
Bulkhead	0,70

#### Unpicking



3 spot welds on thickness 1,00

#### Welding

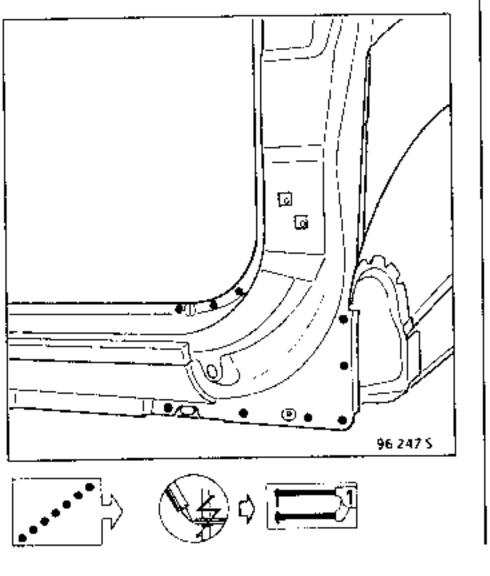




NOTE: at (A), 1 weld on 3 thicknesses, (1,00 x 2) + 0,70 at (B), 1 weld on 3 thicknesses, (0,70 x 2) + 1,00 at (C), 1 weld on 2 thicknesses, 1,00 + 0,70

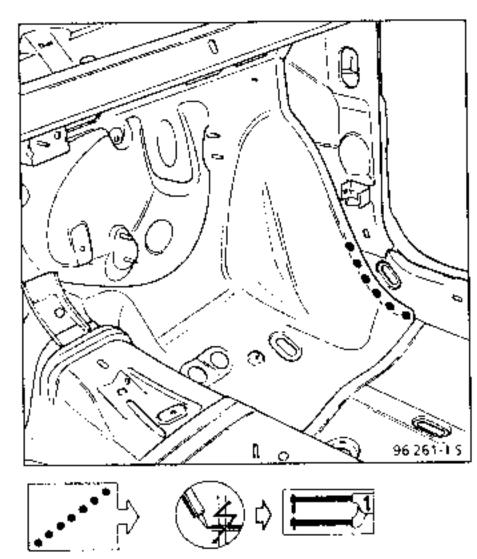
# 2 JOINT WITH FRONT PILLAR

Reminder : see 43-A-3



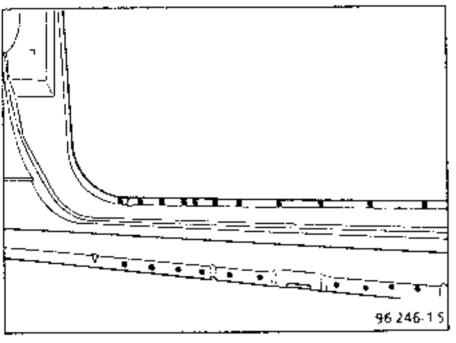
# JOINT WITH BULKHEAD AND PEDAL MOUNTING

Reminder : see 42-J-8



## 4 JOINT WITH SILL PANEL

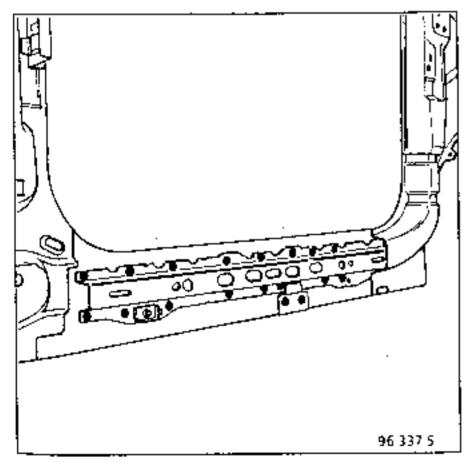
Reminder : see 43-D-1





## 5 JOINT WITH STIFFENER

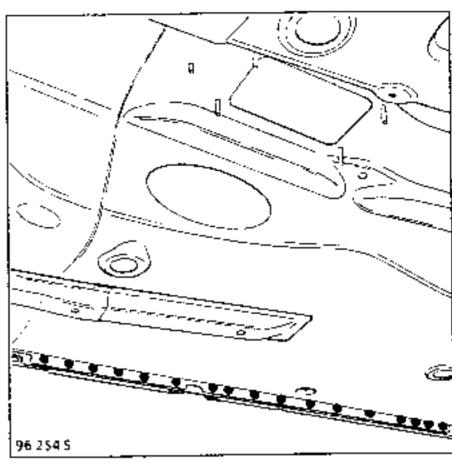
Reminder : see 41-M-1



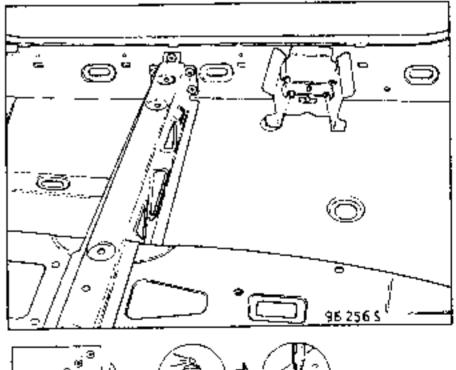


# 6 JOINT WITH CENTRE FLOOR

Reminder : see 41-J-3



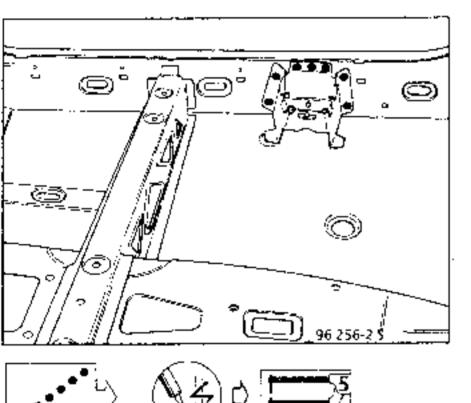






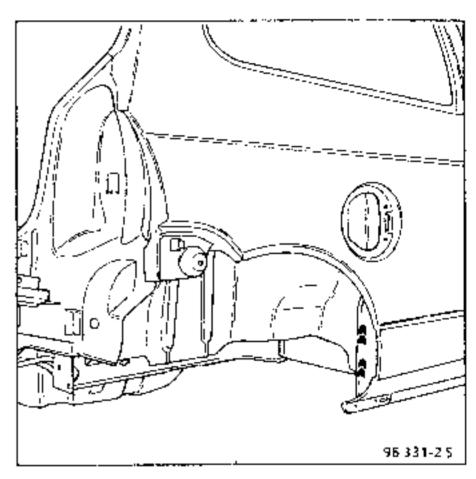
# 7 JOINT WITH FRONT SEAT MOUNTING UNIT

Reminder : see 41-0-1



## 8 JOINT WITH REAR WHEEL ARCH

Reminder : see 44-E-2

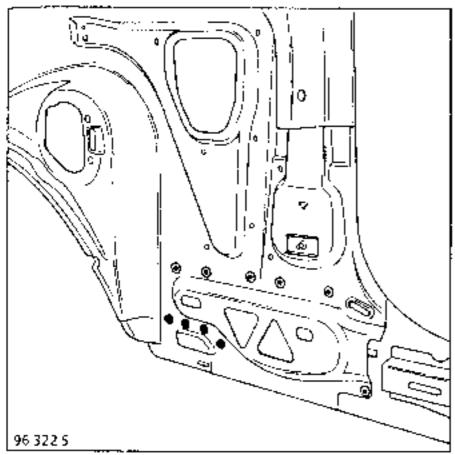




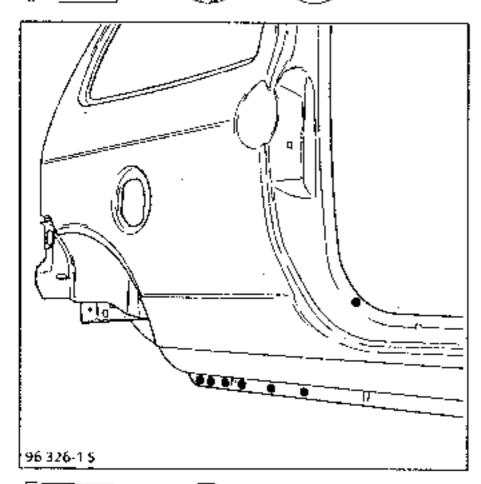
**NOTE**: when unpicking, the rear quarter panel lining or rear axle assembly cross member cover panel must be removed to reach the welds.

# 9 JOINT WITH REAR QUARTER PANEL LINING

### Reminder : see 44-C-2









## 10 JOINT WITH REAR FLOOR

### Steel thickness (mm)

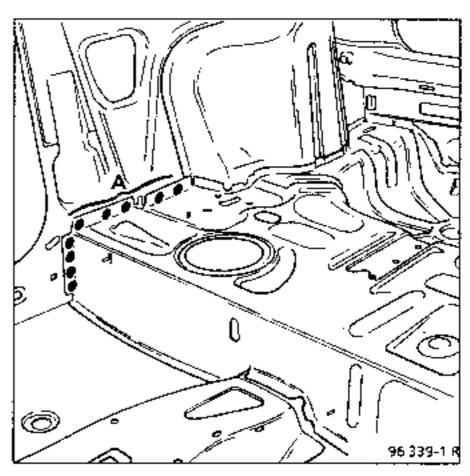
Cover panel	1,00
Rear floor	0,70
Rear quarter panel lining	0,80

## Unpicking



9 spot welds on thickness 1,0 (after removing rear quarter panel lining)

### Welding





**NOTE**: at (A), 5 welds on 3 thicknesses 1,00 + 0,70 + 0,80

# JOINT WITH REAR AXLE ASSEMBLY CROSS MEMBER

#### Steel thickness (mm)

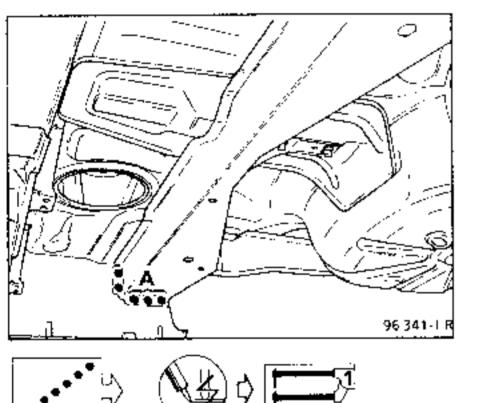
Rear axle assembly cross member 1,20 Cover panel 1,00 Rear quarter panel lining 0,80

#### Unpicking



5 spot welds on thickness 1,0 (the rear end panel lining must be removed to reach these welds)

### Welding



**NOTE**: at (A), 3 welds on 3 thicknesses 1,00 + 1,20 + 0,80

**NOTE**: on the opposite side to the impact, these welds are MAG (MIG) plug welds.

## 12 PARTIAL SECTIONS

#### Steel thickness (mm)

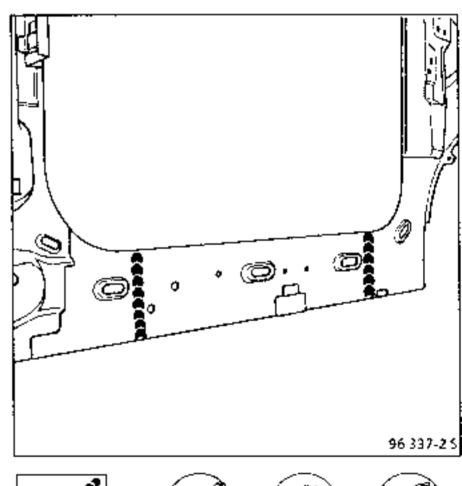
Cover panel 1,00

### Unpicking



200 mm x 2

### Welding



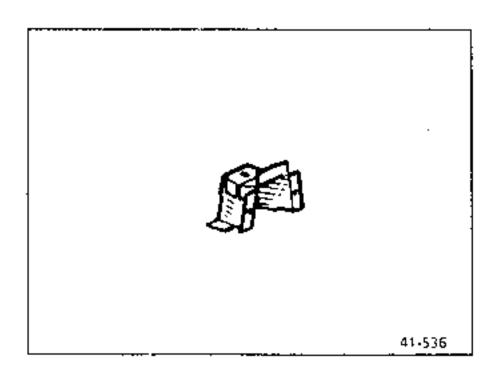


Complementary operation to replacement of sill cover panel for a side impact.

# COMPOSITION OF PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with:

- upper section,
- lower section,
- spacer cage.



# LOWER STRUCTURE Front seat rear mounting unit (0)

## 1 JOINT WITH SILL COVER PANEL

## Steel thickness (mm)

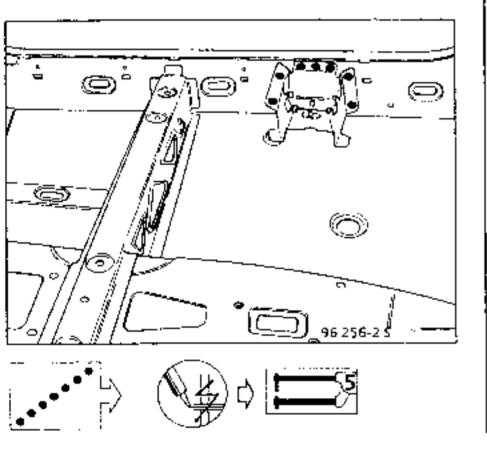
Upper section	1,20
Lower section	1,20
Spacer cage	0,70
Sill cover panel	1,00

## Unpicking



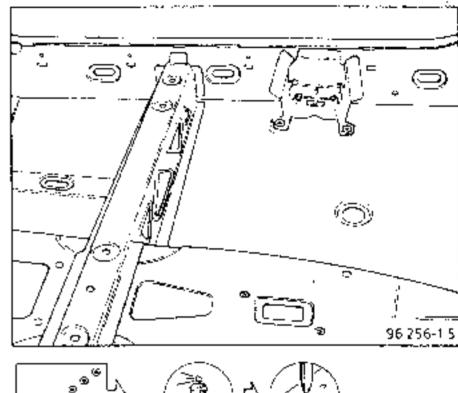
7 spot welds on thickness 1,20

## Welding



## 2 JOINT WITH CENTRE FLOOR

Reminder : see 41-J-4

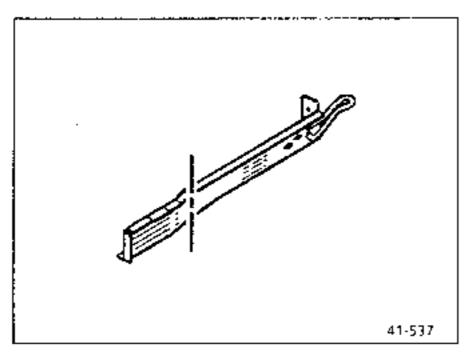




Complementary operation to replacement of rear panel for rear impact..

# COMPOSITION OF PART AS SUPPLIED BY PARTS DEPARTMENT

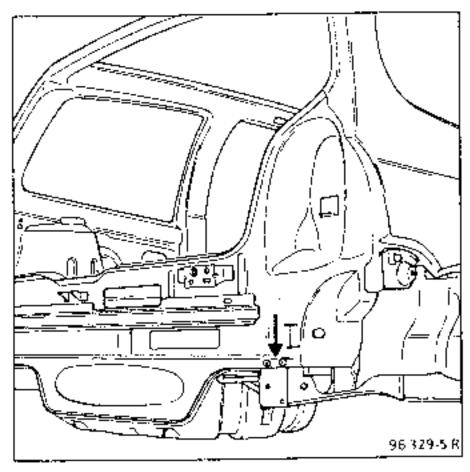
Part assembled with welded nuts and towing ring for right hand side.





## 1 JOINT WITH REAR PANEL

Reminder : see 44-F-6

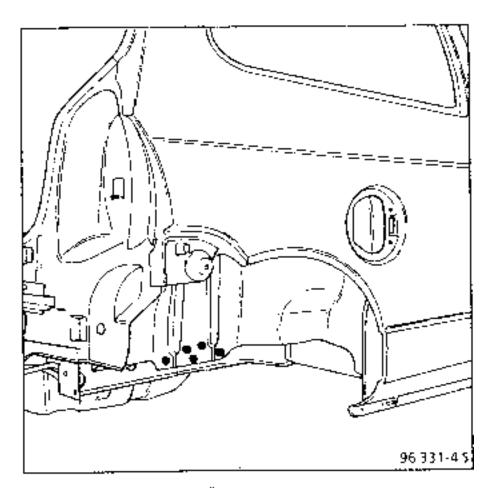




**NOTE**: These welds are made on three thicknesses after refitting the rear panel.

## 2 JOINT WITH REAR WHEEL ARCH

Reminder : see 44-E-5





## 3 JOINT WITH REAR FLOOR

#### Steel thickness (mm)

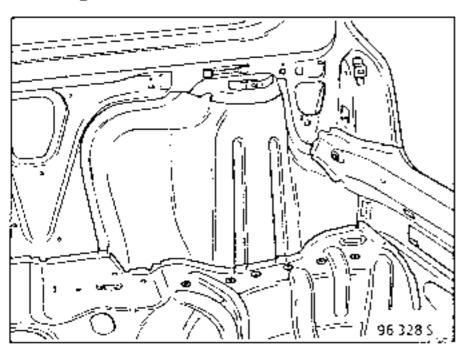
Side member1,80Floor0,70

## Unpicking



6 spot welds on thickness 0,70

## Welding





## 4 PARTIAL SECTION

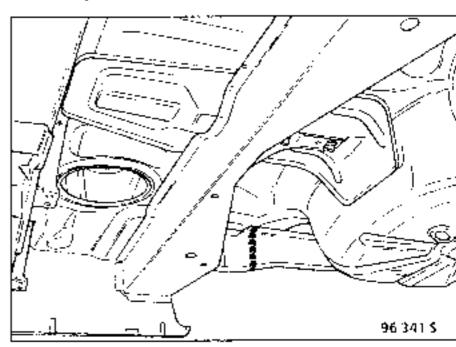
#### Steel thickness (mm)

Side member 1,80

## Unpicking



100 mm





# LOWER STRUCTURE Rear side member frame (Q)

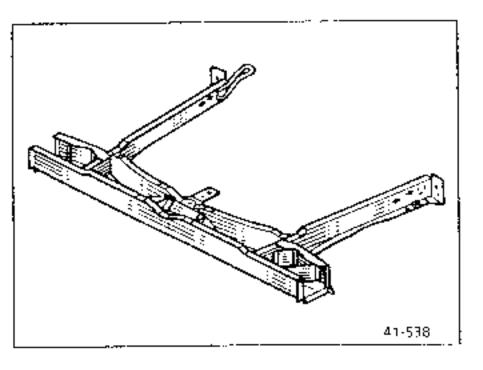
#### INTRODUCTION

Complementary operation to rear panel with part of rear floor for rear impact. Complementary operation to rear quarter panel with rear quarter panel lining for side impact

# COMPOSITION OF PART AS SUPPLIED BY PARTS DEPARTMENT

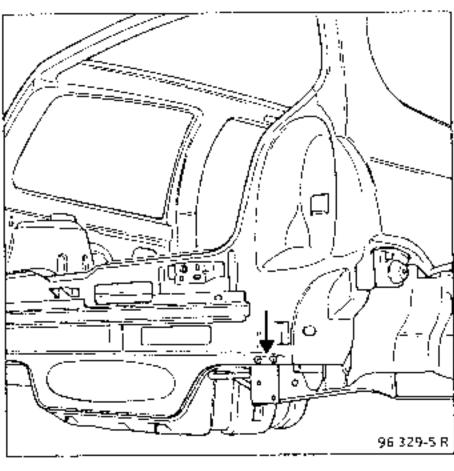
#### Part assembled with:

- rear right hand side member,
- rear left hand side member,
- rear axle assembly cross member,
- left and right hand cross member side cover panels.
- spacer, rear axle assembly mounting,
- towing ring,
- welded nuts.



## 1 JOINT WITH REAR PANEL

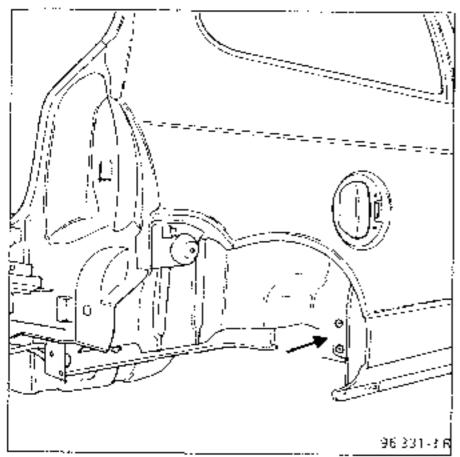
Reminder : see 44-F-6



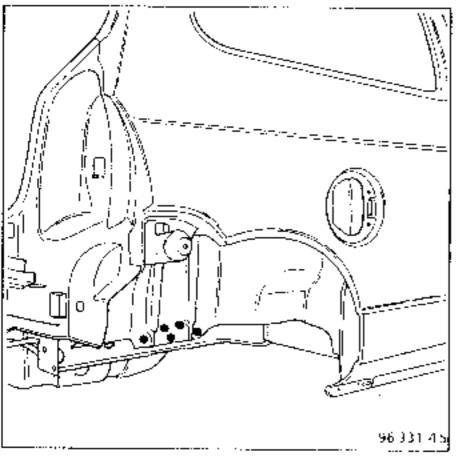


# 2 JOINT WITH WHEEL ARCH

#### Reminder : see 44-E-3 and 44-E-5









## 3 JOINT WITH REAR FLOOR

#### Steel thickness (mm)

Side member	1,80
Rear axle cross member	1,20
Hoor	0,70
Centre floor reinforcement	1,20

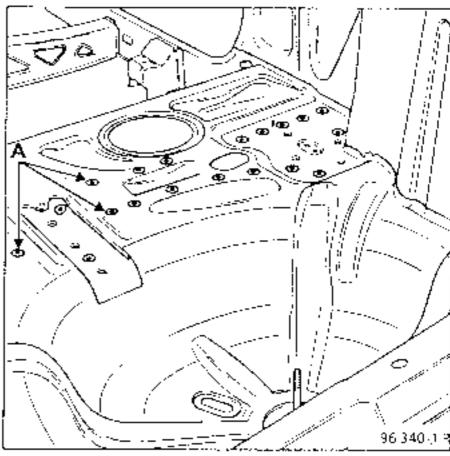
## Unpicking



25 spot welds on thickness 0,70

**NOTE**: the 25 other welds are already removed with the part section of the floor (see **41-R-4**)

## Welding

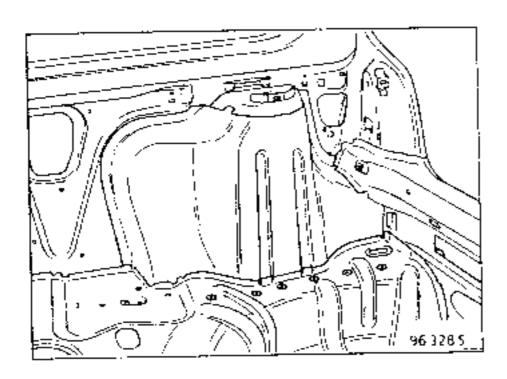




**NOTE**: at (A), plug welds on 2 thicknesses 0,70 + 1,20, 50 plug welds in total

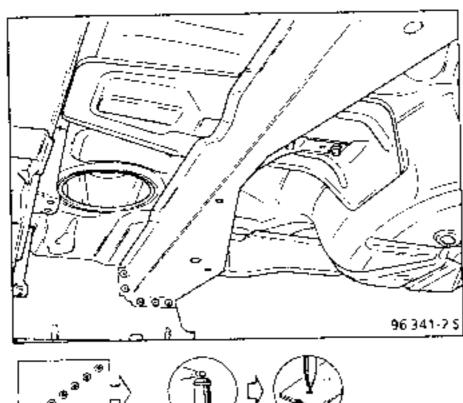
## LOWER STRUCTURE Rear side member frame (Q)

Reminder : see 41-R-4

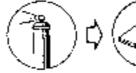


# 4 JOINT WITH SILL COVER PANEL

Reminder : see 41-N-11





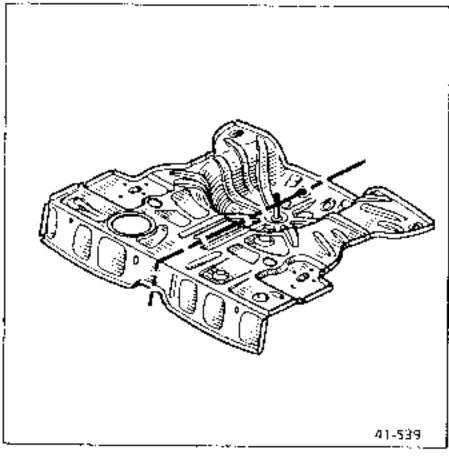


Complementary operation to rear panel with part of side member after rear impact. Complementary operation to quarter panel with rear quarter panel lining and side member frame after side impact. In this case the floor is partly replaced

#### COMPOSITION OF PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with:

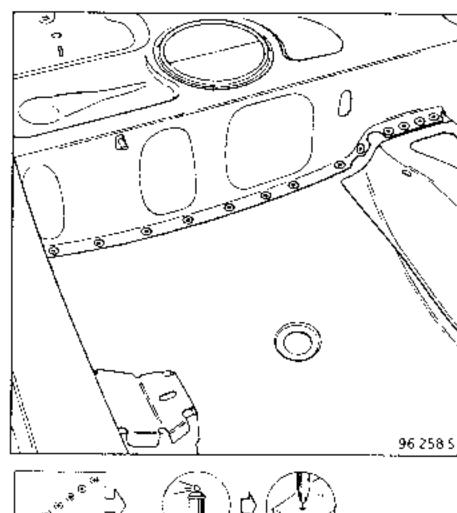
- centre floor reinforcement,
- fuel tank mounting brackets,
- seat belt mounting nuts





## 1 JOINT WITH CENTRE FLOOR

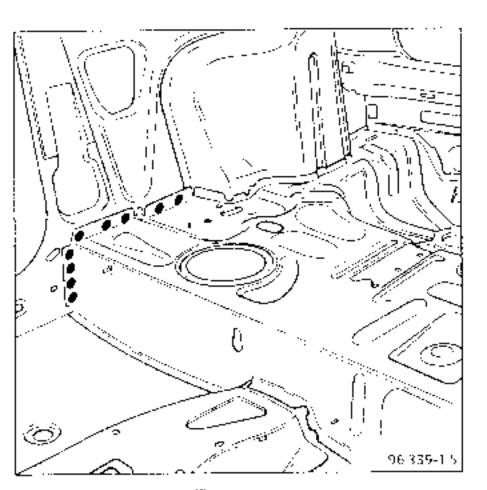
Reminder : see 41-J-5







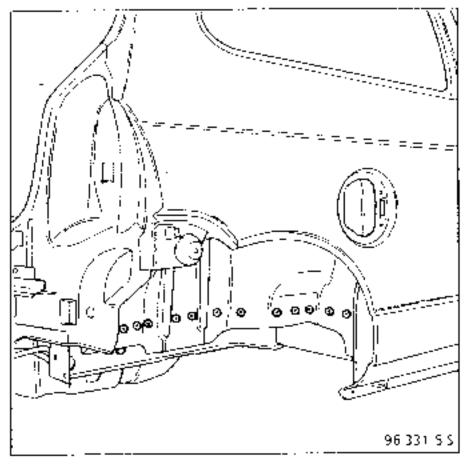
Reminder : see 41-N-10



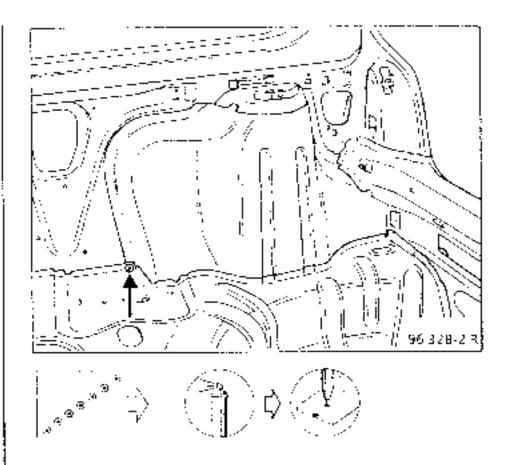


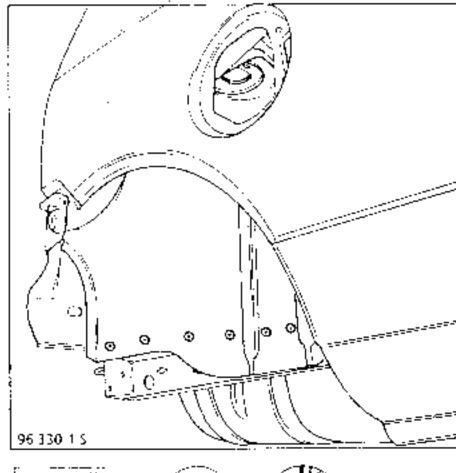
3 JOINT WITH REAR WHEEL ARCH

Remindor : see 44-E-4











# 4 JOINT WITH SIDE MEMBER FRAME

#### Steel thickness (mm)

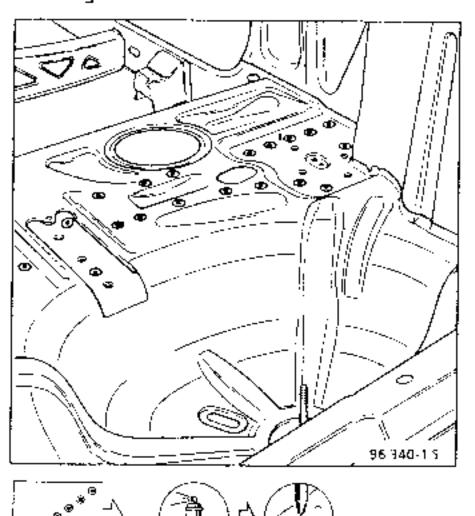
Side member	1,80
Hoor	0,70
Rear axle cross member	1,20
Centre floor reinforcement	1,20

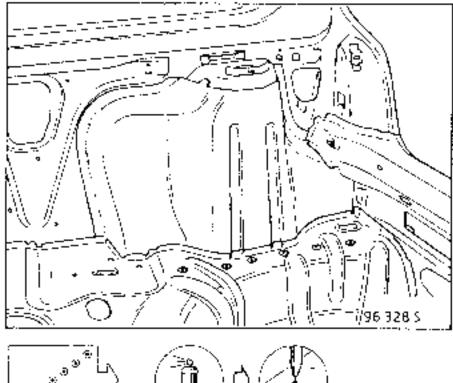
## Unpicking



50 spot welds on thickness 0,70

## Welding



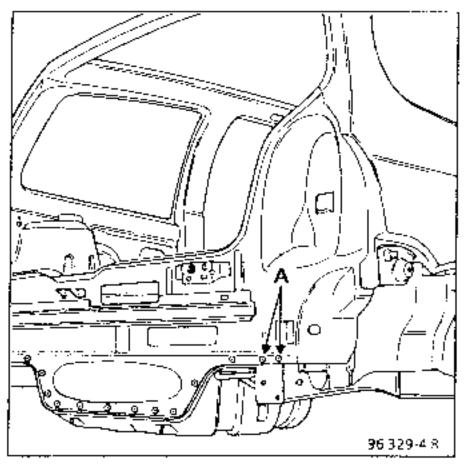




NOTE: the two welds joining the floor to the rear panel are made on three thicknesses (see below)

# 5 JOINT WITH REAR PANEL

Reminder : see 44-F-5





NOTE: at (A), 2 plug welds on 2 thicknesses.

# 6 PARTIAL SECTION

## Steel thickness (mm)

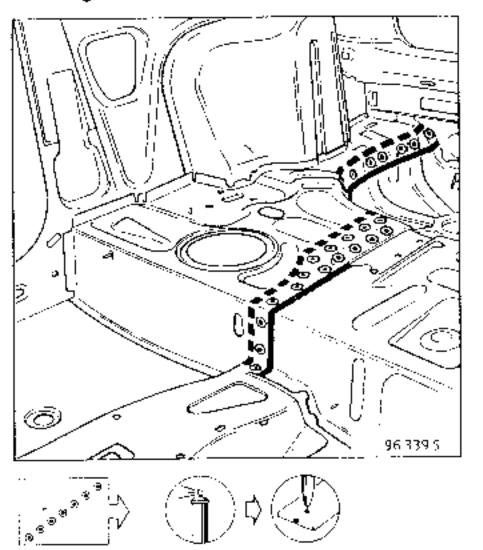
Floor

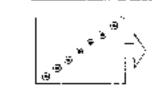
0.70

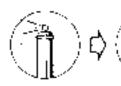
## Unpicking

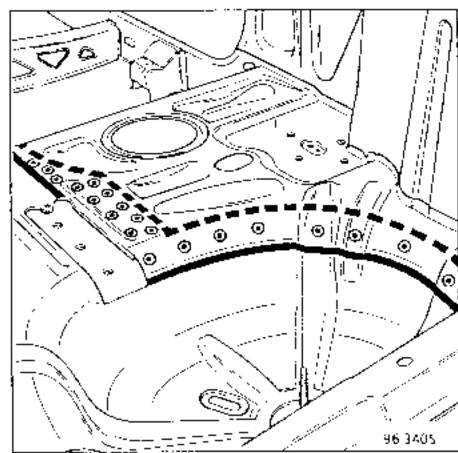


1 350 mm









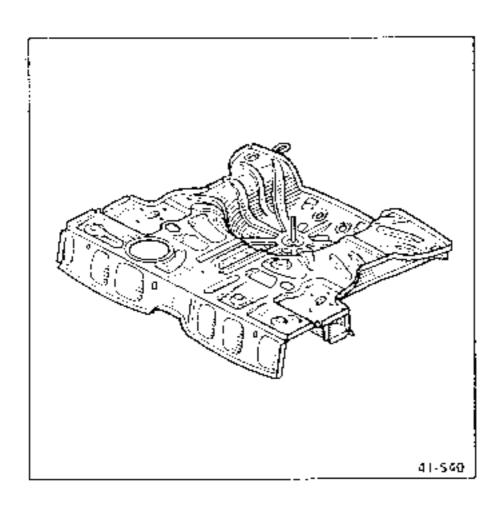
Complementary operation to rear panel after rear impact

Complementary operation to quarter panel with rear quarter panel lining and part of sill coverpanel for side impact.

#### COMPOSITION OF PART AS SUPPLIED BY PARTS DEPARTMENT

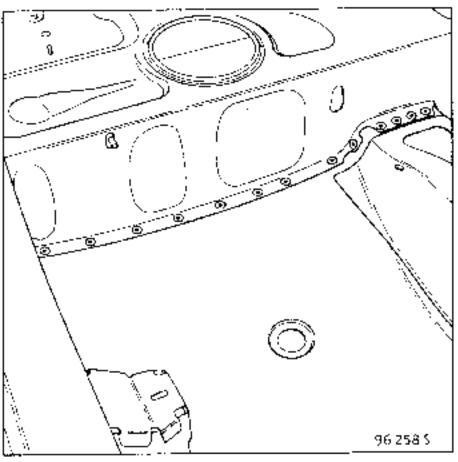
Part assembled with.

- Rear side member frame (see description 41-Q)
- Rear floor (see description 41-R).



# 1 JOINT WITH CENTRE FLOOR

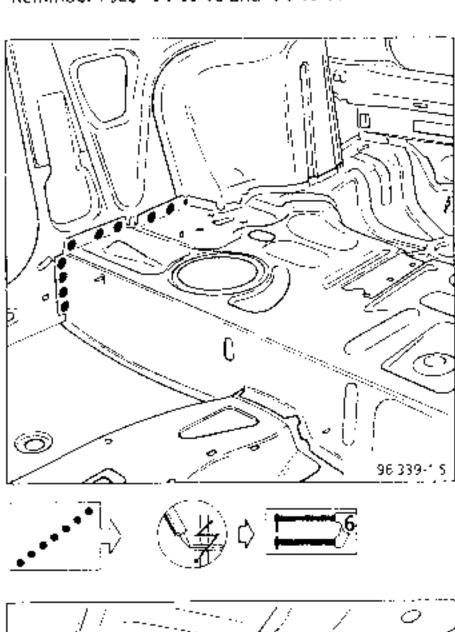
Reminder : see 41-J-5

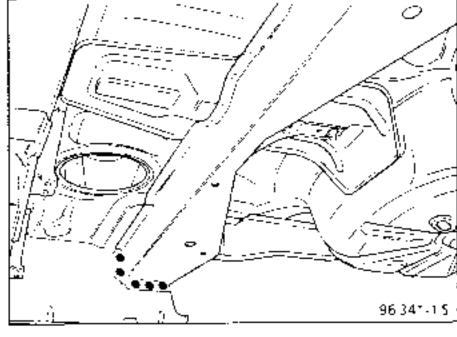




# 2 JOINT WITH SILL COVER PANEL

Reminder : see 41-N-10 and 41-N-11





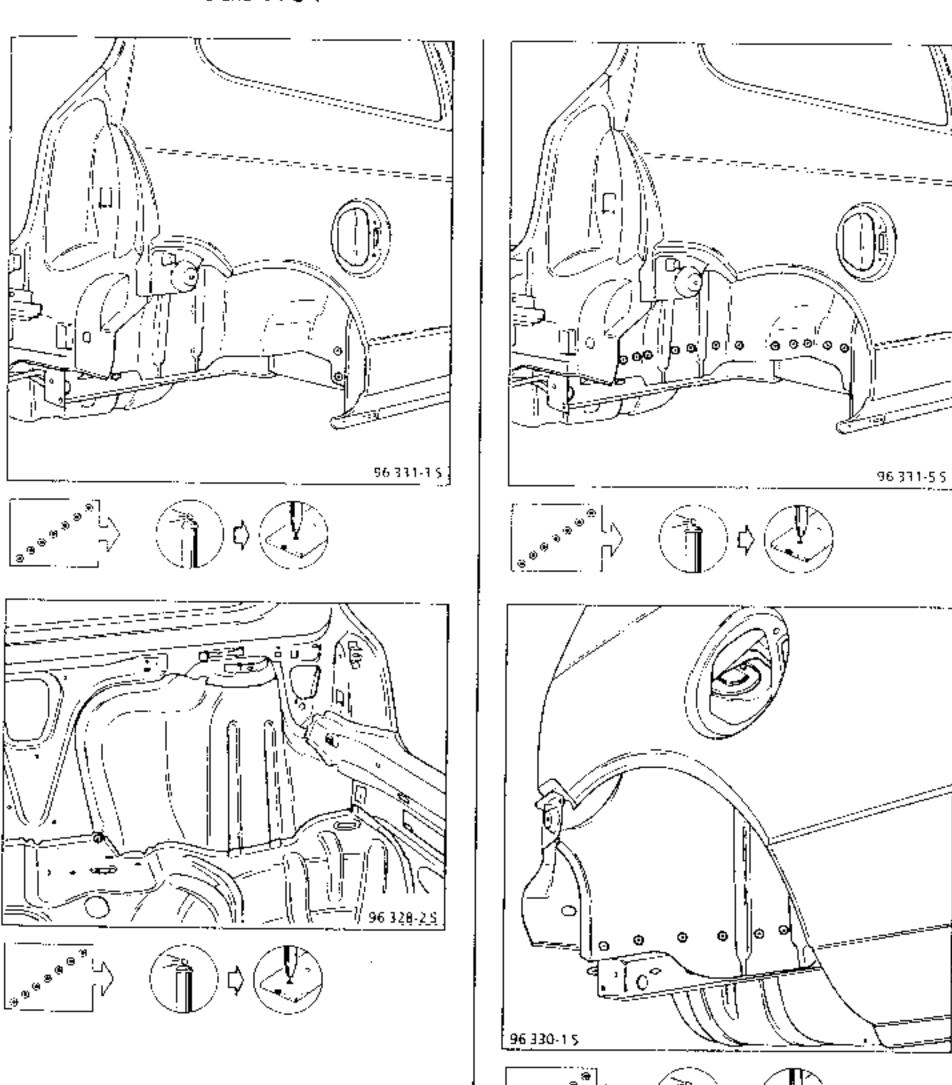


#### NOTE:

- Side impact: the spot welds should be made before refitting the quarter panel.
- Rear impact: these welds should be plug welds.

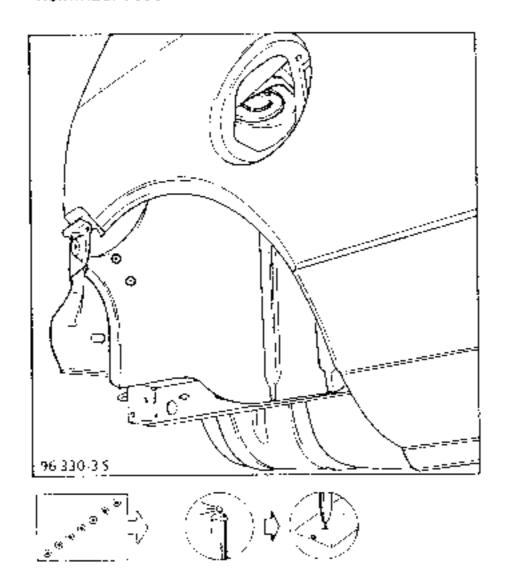
# 3 JOINT WITH REAR WHEEL ARCH

Reminder : see 44-E-3 and 44-E-4



# 4 JOINT WITH REAR PANEL

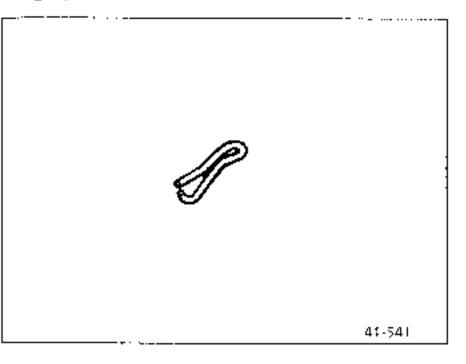
Reminder : see 44-F-5



Basic operation which is not required after an impact, but after towing.

#### COMPOSITION OF PART AS SUPPLIED BY PARTS DEPARTMENT

Single part



## 1 JOINT WITH REAR SIDE MEMBER

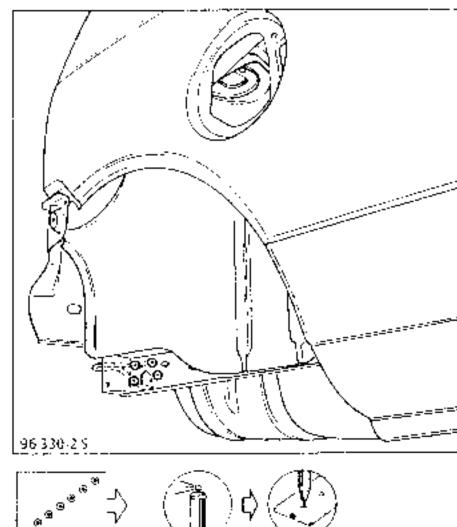
#### Steel thickness (mm)

08 Ring Side member 1,80

## Unpicking

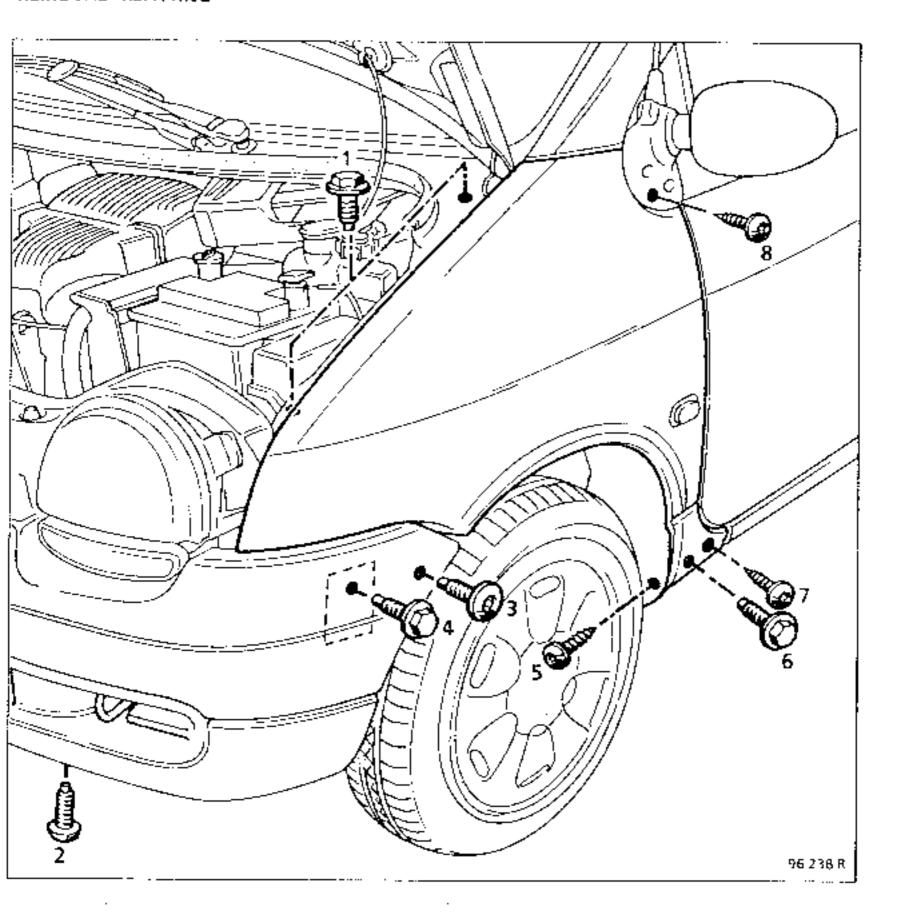


4 MAG (MIG) fillets of 10 mm





#### REMOVAL - REFITTING



#### Remove:

- the rear view mirror,
- part of the bumper by removing the side mountings (2), (3),
- the wing panel mountings (1), (4), (5), (6), (7), (8)

#### NOTE:

(1), (6)	sheet metal holt. Ø 6 with beyannoal head 10 mm
LII.Ibi	Speet metal holf 40 h with beyannoat bead 10 mm

(	4)	4) mechanical threaded bolt $\emptyset 8 \times 1$	I25 with h	rexagonal bead 13 mm.

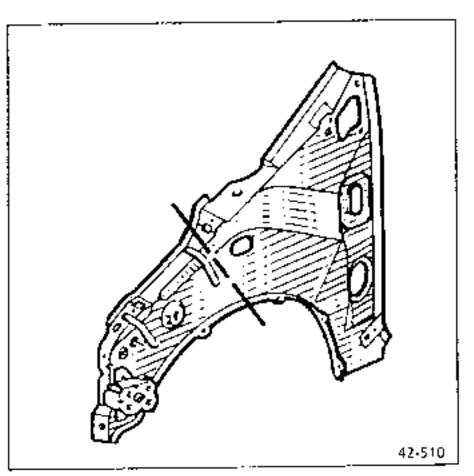
- (2) mechanical threaded bolt Ø 6 x 100 with Forx head T20
   (3) mechanical threaded bolt Ø 8 x 125 with torx head T30
- (5), (7), (8) sheet metal holt  $\emptyset$  4, 2 with forx print head T20.

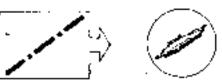
The design of the vehicle is such that the cowl side panel and the front pillar lining are in one piece. When one of these parts is replaced, the part supplied by the Parts Department must therefore be cut.

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with:

- hook reinforcement,
- wing mounting rib,
- dashboard mounting bracket,
- various welded nuts





## 1 JOINT WITH WHEEL ARCH

#### Steel thickness (mm)

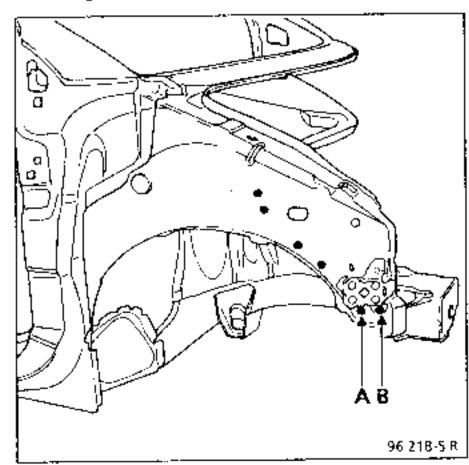
Cowl side panel	0,70
Wheel arch	0,70
Wing mounting rib	1,20

#### Unpicking



5 spot welds on thickness 0,70 1 welds on 2 thicknesses 1,2 + 0,7

#### Welding





**NOTE**: at (A), 1 weld on 3 thicknesses  $(0,7 \times 3)$ , at (B), 1 weld on 3 thicknesses  $(0,7 \times 2) + 1,2$ 

# 2 JOINT WITH WHEEL ARCH COVER PANEL

#### Steel thickness (mm)

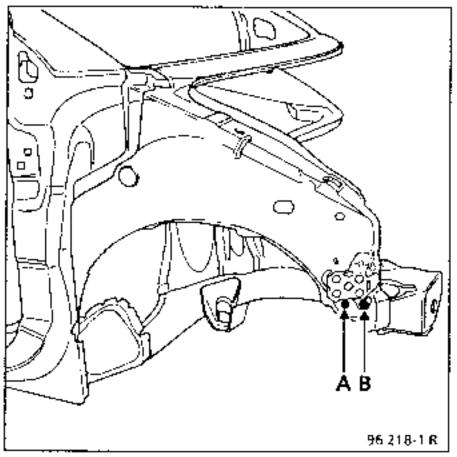
Wheel arch	0,70
Cowl side panel	0,70
Wheel arch cover panel	0,70
Wing mounting rib	1,20

## Unpicking



1 spot weld on thickness 0,70 1 spot weld on 2 thicknesses 1,20 + 0,70

## Welding





**NOTE**: at (A), 3 thicknesses  $(0,70 \times 3)$ 

at (B), 3 thicknesses  $(0.70 \times 2) + 1.20$ 

## 3 JOINT WITH PLENUM CHAMBER

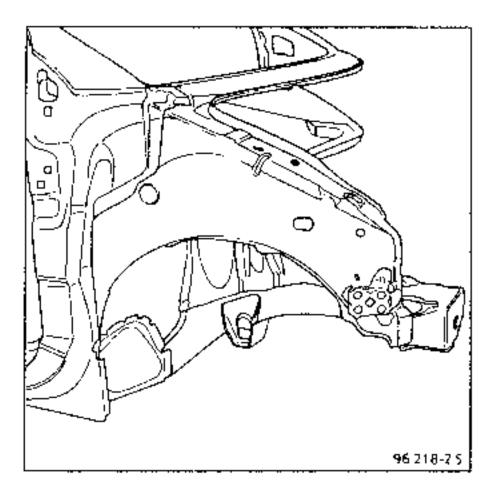
#### Steel thickness (mm)

Cowł side panel	0,70
Plenum chamber	0,70

## Unpicking



1 spot weld on thickness 0,70





# 4 JOINT WITH BATTERY TRAY (LEFT HAND SIDE ONLY)

## Steel thickness (mm)

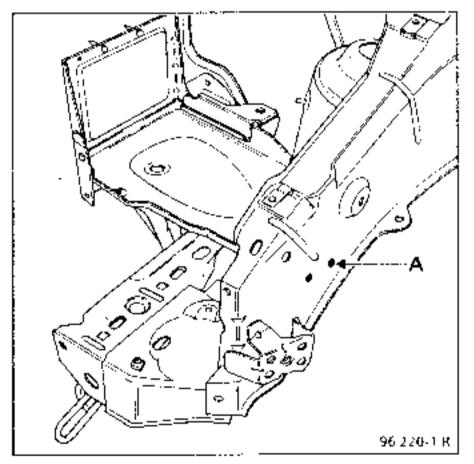
Cowl side panel	0.70
Battery tray	1,20
Wheel arch	0,70

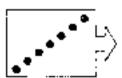
## Unpicking



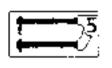
2 spot welds on thickness 0,70

## Welding









NOTE: point (A) is on three thicknesses

## 5 PARTIAL SECTION

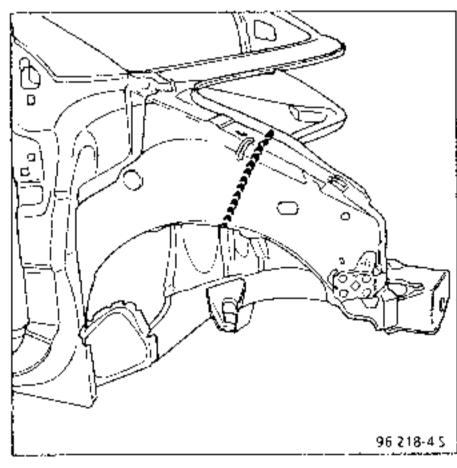
## Steel thickness (mm)

Cowl side panel 0,70

## Unpicking



250 mm





# UPPER SIDE STRUCTURE Wheel arch (C)

#### INTRODUCTION

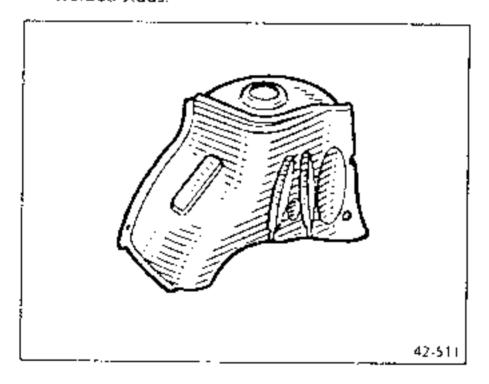
Complementary operation to replacing:

- a cowl side panel after frontal impact,
- · a pillar lining after side impact,

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with:

- wheel arch,
- shock absorber cup.
- welded studs.



## 1 JOINT WITH WHEEL ARCH COVER PANEL

## Steel thickness (mm)

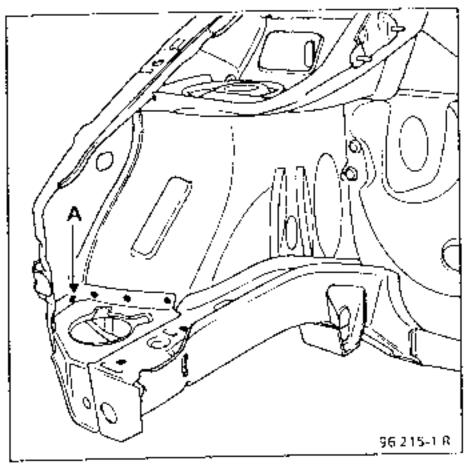
Wheel arch	0,70
Cover panel	0,70
Cowl side panel	0,70

#### Unpicking



3 spot welds on thickness 0,70, 1 spot weld on 2 thicknesses 0,70

### Welding





NOTE: point (A) is on 3 thicknesses

## 2 JOINT WITH SIDE MEMBER

#### Steel thickness (mm)

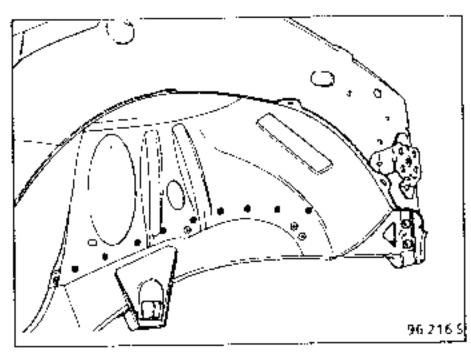
Wheel arch	0,70
Side member	1,20
Side member cover panel	0,70

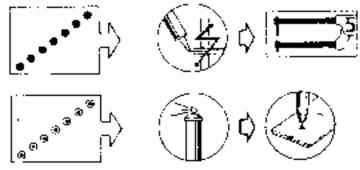
## Unpicking



13 spot welds on thickness 0,70

#### Welding

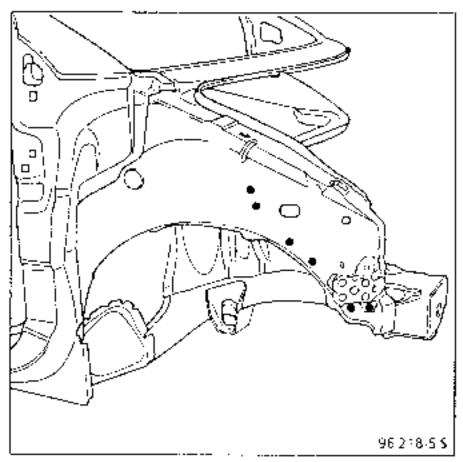




NOTE: all the welds are on 3 thicknesses.

# 3 JOINT WITH COWL SIDE PANEL (PILLAR LINING)

## Reminder : see 42-B-1





## 4 JOINT WITH BULKHEAD

#### Steel thickness (mm)

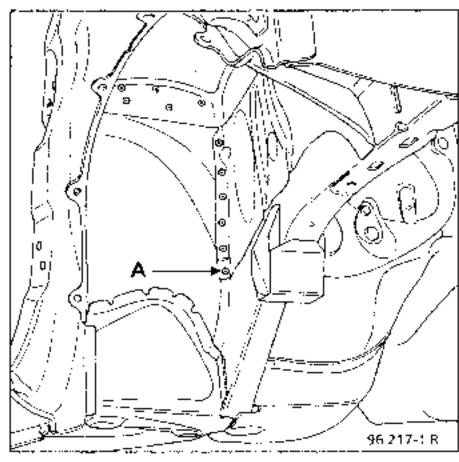
Wheel arch	0,70
Shock absorber cup	2,00
Bulkhead	0,70
Side member	1,20

## Unpicking



5 spot welds on thickness 2,00 6 spot welds on thickness 0,70

## Welding





NOTE: at (A), 3 thicknesses

# UPPER SIDE STRUCTURE Wheel arch (C)

# 5 JOINT WITH BATTERY TRAY (LEFT HAND SIDE ONLY)

#### Steel thickness (mm)

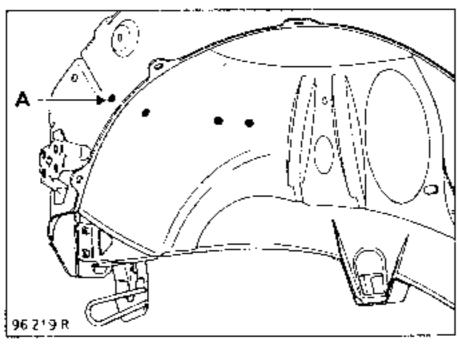
Battery tray	1,20
Wheel arch	0,70
Cowl side panel	0,70

## **Unpicking**



3 spot welds on thickness 0.70 1 weld on 2 thicknesses  $0.70 \times 2$ 

#### Welding



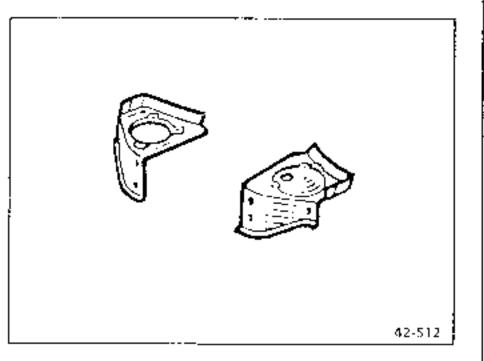


NOTE: at (A), 1 weld on 3 thicknesses

Complementary operation to replacement of cowliside panel (pillar lining)

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with welded nuts



# 1 JOINT WITH COWL SIDE PANEL (PILLAR LINING)

#### Steel thickness (mm)

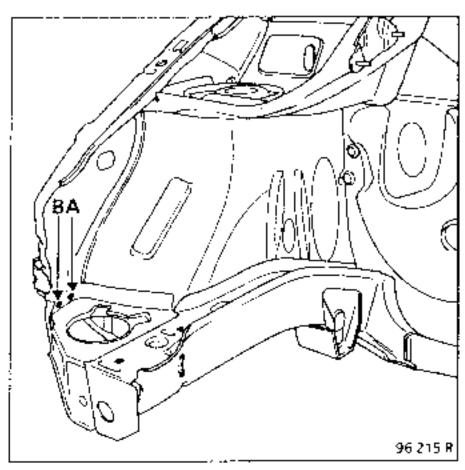
Wheel arch cover panel	0,70
Cowl side panel	0,70
Wing mounting rib	1,20
Wheel arch	0,70

#### Unpicking



2 spot welds on thickness 0,70

## Welding





#### NOTE:

At (A), 3 thicknesses 1,20 + (0,70 x 2), At (B), 3 thicknesses 0,70 x 3

## 2 JOINT WITH WHEEL ARCH

## Steel thickness (mm)

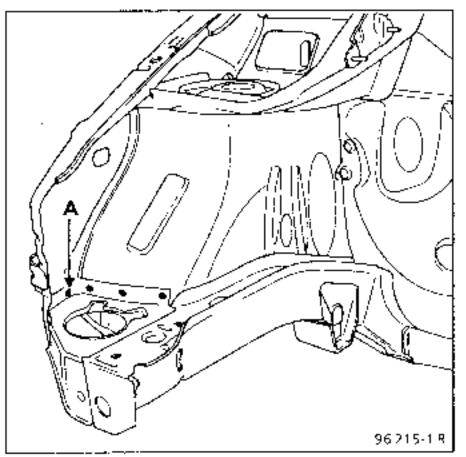
Cover panel0,70Wheel arch0,70Cowl side panel0,70

## Unpicking



4 spot welds on thickness 0,70

### Welding

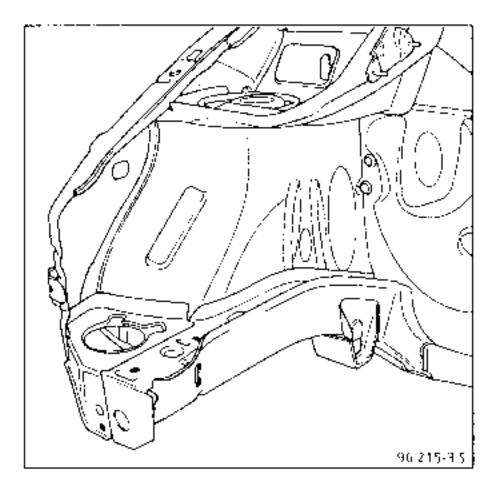




NOTE: At (A), 1 weld on 3 thicknesses 0,70 x 3

## 3 JOINT WITH SIDE MEMBER COVER PANEL

Reminder : see 41-B-1

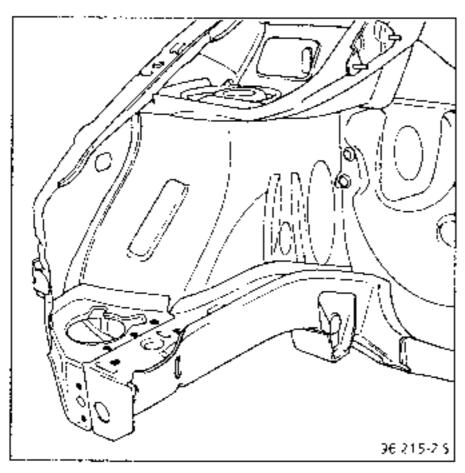




# UPPER SIDE STRUCTURE Wheel arch cover panel (D)

# 4 JOINT WITH SIDE MEMBER

Reminder : see 41-C-1



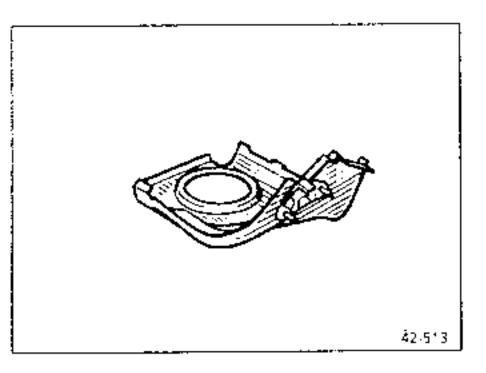


Complementary operation to:

- half unit for frontal impact,
- front pillar with lining for side impact.

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with coil mounting and welded studs.



# 1 JOINT WITH PILLAR LINING (COWL SIDE PANEL)

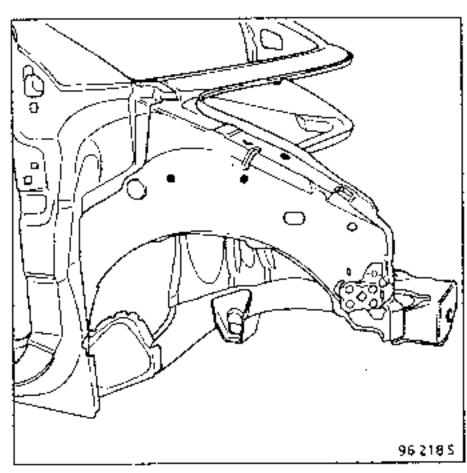
#### Steel thickness (mm)

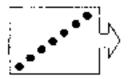
Pillar lining 0,70 Plenum chamber 0,70

#### Unpicking



3 spot welds on thickness 0,70









# 2 JOINT WITH BULKHEAD

## Steel thickness (mm)

Bulkhead

0,70

Plenum chamber.

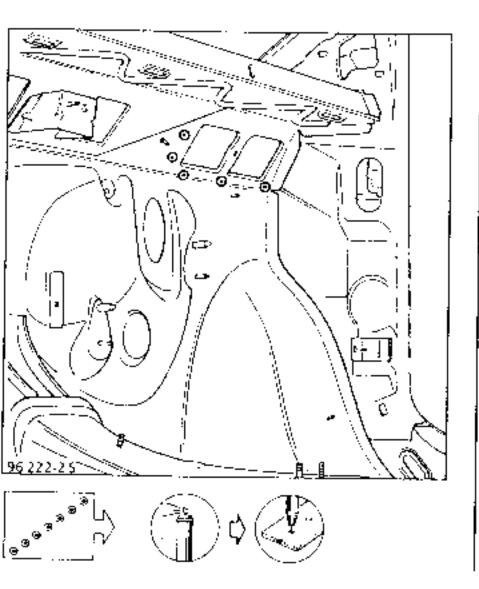
0,70

## Unpicking



5 spot welds on thickness 0,70

#### Welding



# 3 JOINT WITH SCUTTLE PANEL COVER PANEL

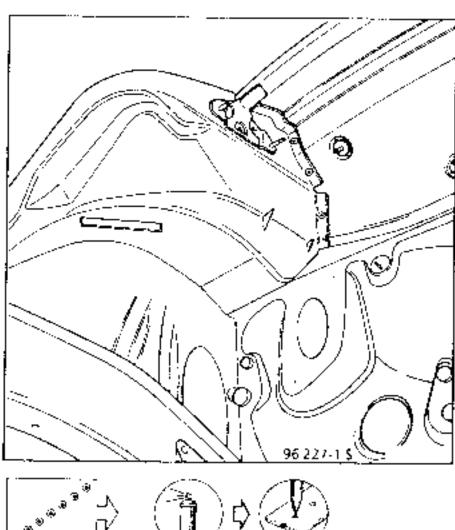
## Steel thickness (mm)

Cover panel 0,70Plenum chamber 0,70

#### Unpicking



3 spot welds on thickness 0,70





# 4 JOINT WITH SCUTTLE PANEL

#### Steel thickness (mm)

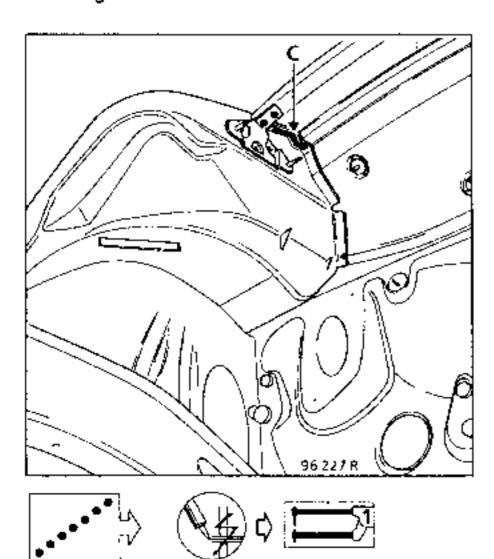
Scuttle panel	0,70
Plenum chamber	0,70
Coil mounting	1,00

## Unpicking



2 spot welds on thickness 1,00

## Welding



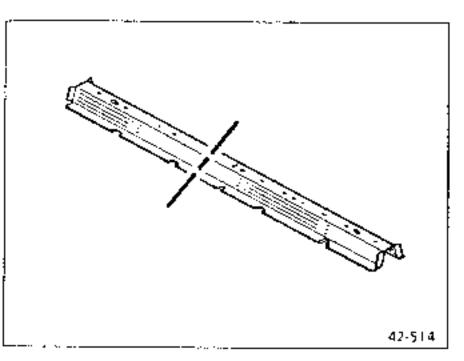
NOTE: at (C), apply a mastic bead. Apply over

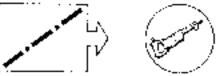
Complementary operation to:

front pillar for side impact.

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with column mounting spacers





# JOINT WITH COWL SIDE PANEL AND PILLAR LINING

Steel thickness (mm)

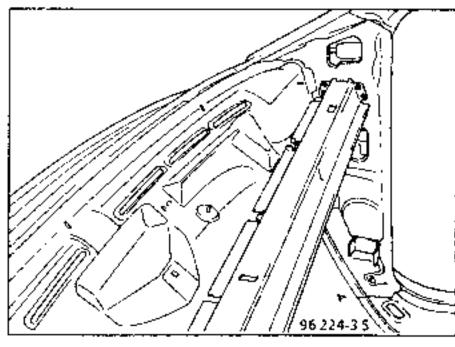
Scuttle panel 0,70 Cowl side panel 0,70

Unpicking



4 spot welds on thickness 0,70

#### Welding





**NOTE**: these welds must be made before refitting the front pillar.

## 2 JOINT WITH UPPER SECTION OF BULKHEAD

#### Steel thickness (mm)

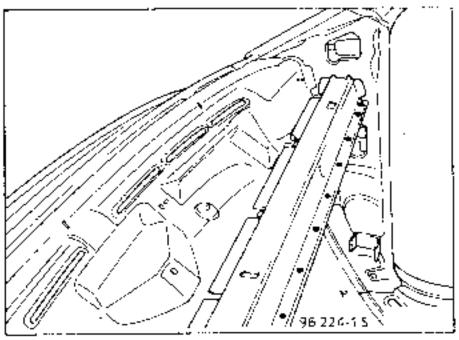
Scuttle panel 0,70 Bulkhead 0,90

#### Unpicking



7 spot welds on thickness 0,70

#### Welding









# 3 JOINT WITH FRONT SECTION OF SCUTTLE PANEL

#### Steel thickness (mm)

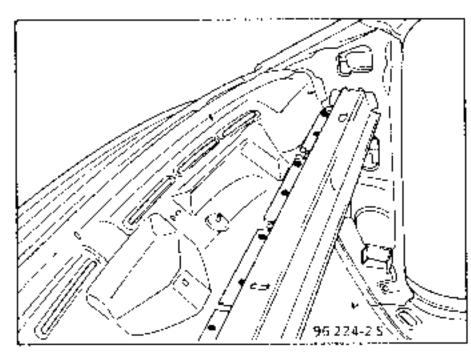
Scuttle panel, rear section 0,70 Scuttle panel, front section 0,70 Upper bulkhead section 0,90

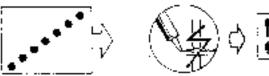
#### Unpicking



6 spot welds on thickness 0,70

#### Welding





NOTE: all these welds are on 3 thicknesses:

- scuttle panel, front section,
- scuttle panel, rear section,
- upper bulkhead section

## UPPER SIDE STRUCTURE Part section of rear scuttle panel (F)

# 4 PARTIAL SECTION

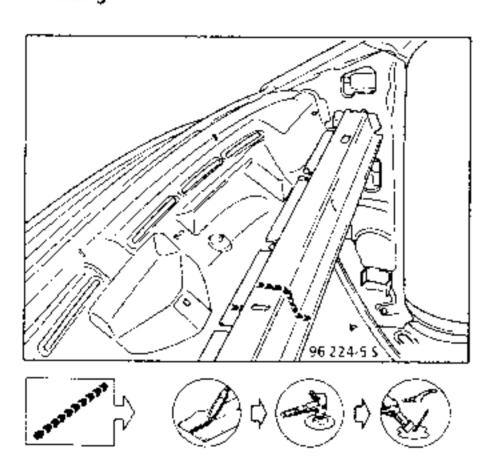
## Steel thickness (mm)

Rear scuttle panel section 0,70

## Unpicking



150 mm

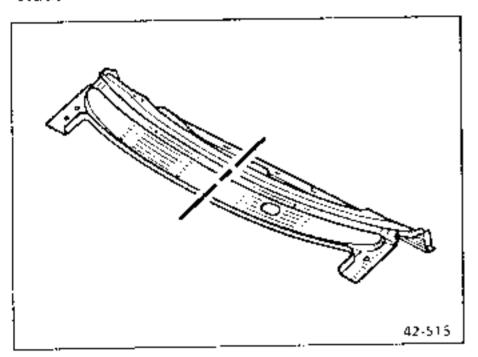


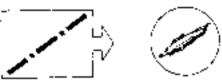
Complementary operation to front pillar for side impact.

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with:

2 bonnet hinge plates, with welded nuts and studs





# JOINT WITH COWL SIDE PANEL AND PILLAR LINING

#### Steel thickness (mm)

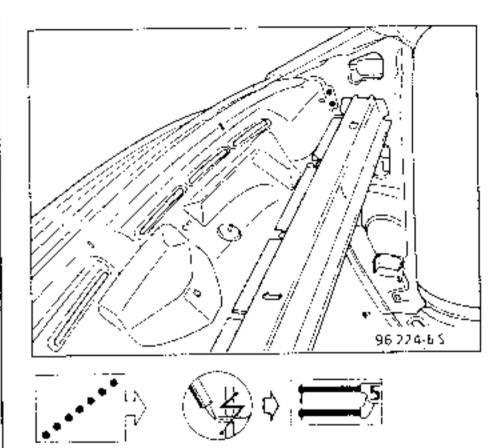
Scuttle panel, front section 0,70 Cowl side panel 0,70

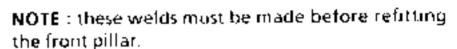
## Unpicking



2 spot welds on thickness 0,70

#### Welding





## 2 JOINT WITH FRONT PILLAR

#### Steel thickness (mm)

Front pillar	0,70
Front section of scuttle panel	0,70
Cowl side panel	0,70

#### Unpicking

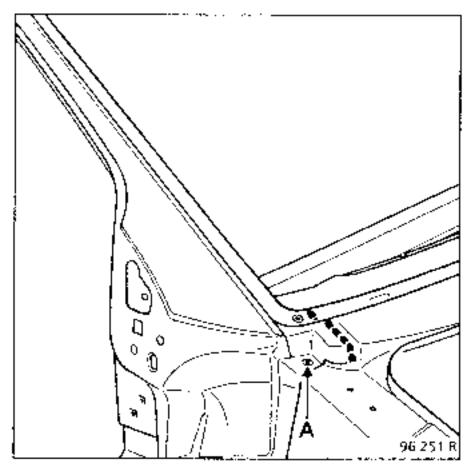


Release brazed joints 100 mm



2 spot welds on thickness 0,70

## Welding







**NOTE**: at (A), plug welds on 2 thicknesses  $0.70 \times 2$ 

# 3 JOINT WITH SCUTTLE PANEL COVER PANEL

## Steel thickness (mm)

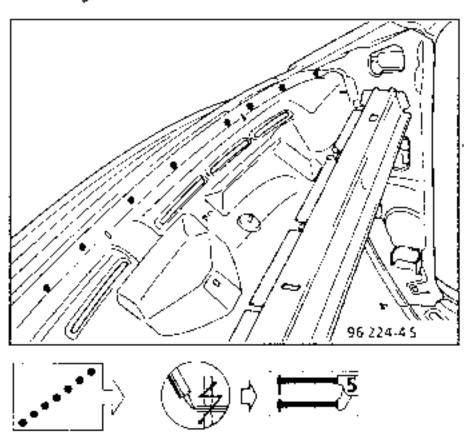
Scuttle panel 0,70 Cover panel 0,90

## Unpicking



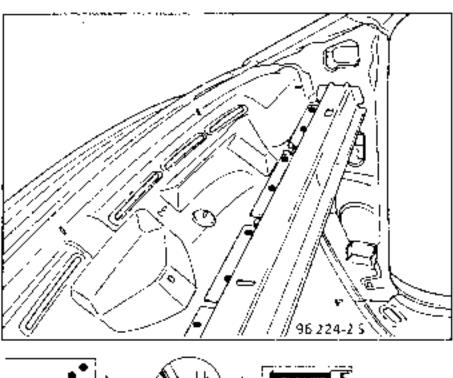
6 spot welds on thickness 0,70

#### Welding



## 4 JOINT WITH REAR SECTION

Reminder : see 42-F-3





#### NOTE: welds on 3 thicknesses:

- front section of scuttle panel
- rear section of scuttle panel
- upper bulkhead section.

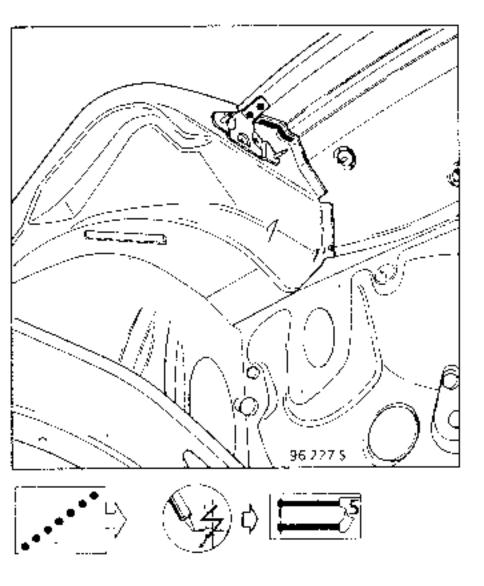
The rear scuttle panel section must be removed to reach these welds



**NOTE**: same joint as above on three thicknesses.

# 6 JOINT WITH PLENUM CHAMBER

Reminder : see 42-E-4





### Steel thickness (mm)

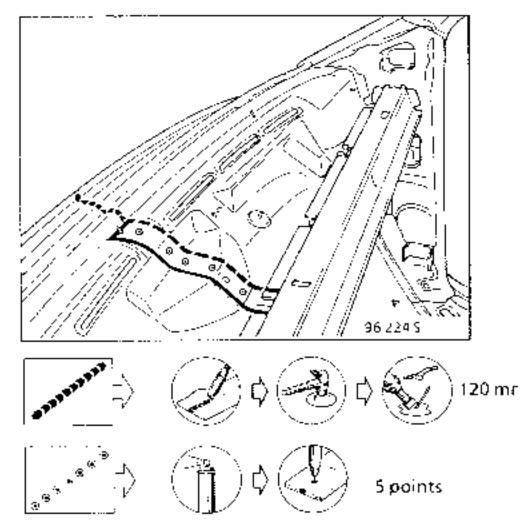
Scuttle panel

## Unpicking



450 mm

### Welding



0,70

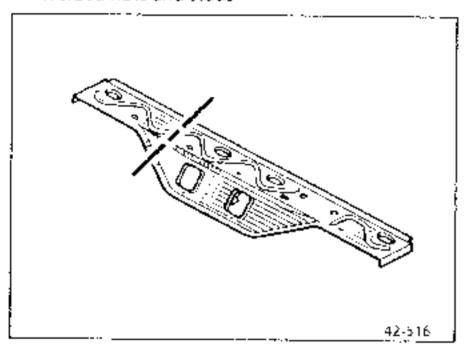
#### INTRODUCTION

Complementary operation to front pillar for side impact

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

#### Part assembled with:

- plenum chamber mounting bracket,
- dashboard guide bracket,
- welded nuts and studs





# JOINT WITH COWL SIDE PANEL AND PILLAR LINING

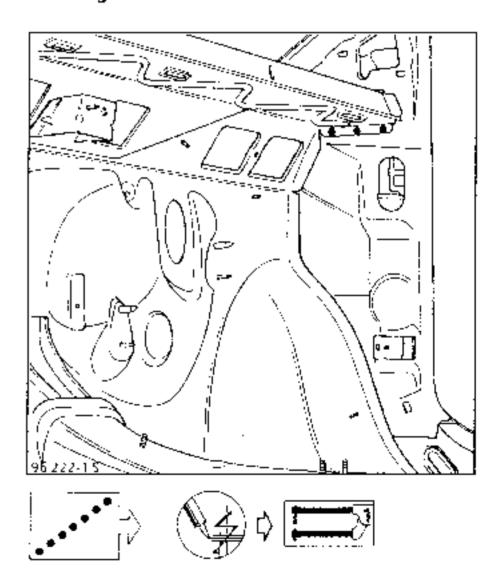
#### Steel thickness (mm)

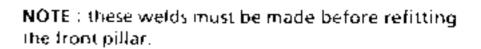
Bulkhead	0,90
Cowl side panel	0,70

#### Unpicking



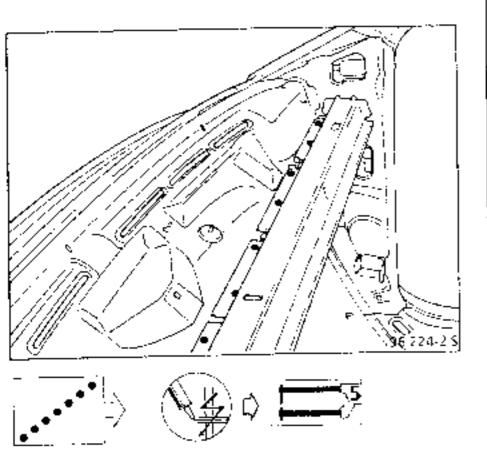
3 spot welds on thickness 0,70





# 2 JOINT WITH SCUTTLE PANEL FRONT SECTION

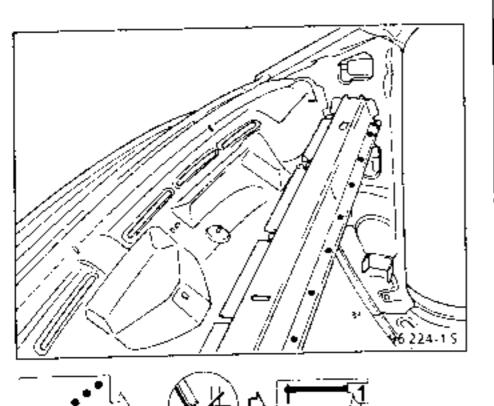
# Reminder : see 42-F-3



NOTE: welds on 3 thicknesses

# 3 JOINT WITH REAR SECTION OF SCUTTLE PANEL

# Reminder : see 42-F-2



# 4 JOINT WITH LOWER BULKHEAD SECTION

# Steel thickness (mm)

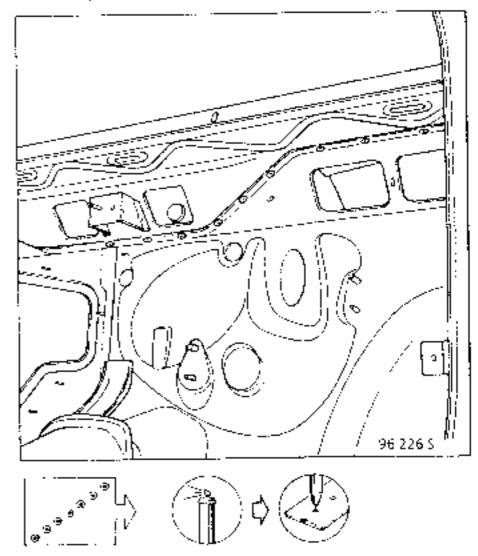
Upper bulkhead section	0,90
Lower bulkhead section	0,70
Scuttle panel cover panel	0,90

## Unpicking



3 spot welds on thickness 0,90

#### Welding



NOTE: these welds are on 3 thicknesses

# 5 PARTIAL SECTION

## Steel thickness (mm)

Bulkhead

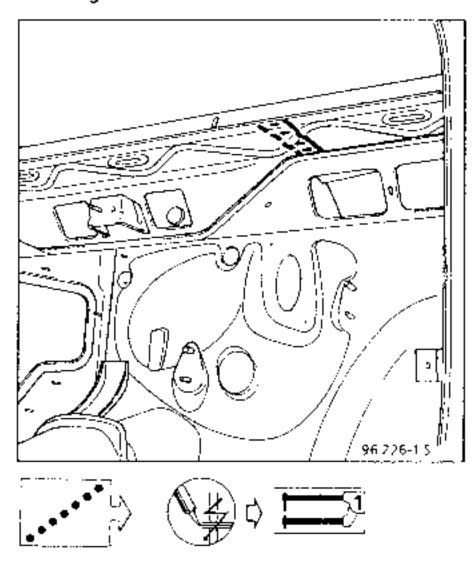
0,90

## Unpicking



100 mm

### Welding



**NOTE**: these welds must be made before refitting the rear section of the scuttle panel.

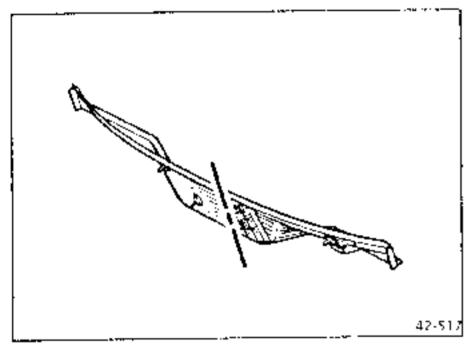
#### INTRODUCTION

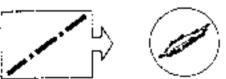
Complementary operation to from pillar for side impact.

# COMPOSITION OF PART AS SUPPLIED BY PARTS DEPARTMENT

#### Part assembled with:

- left hand windscreen wiper mounting rib,
- right hand windscreen wiper rib,
- welded nuts and bolts





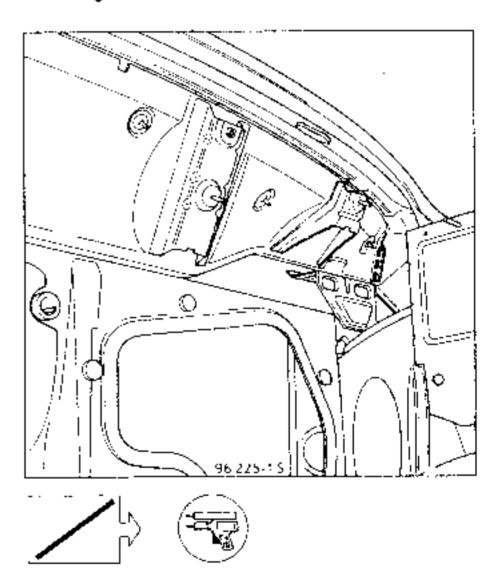
# JOINT WITH COWL SIDE PANEL AND PILLAR LINING

#### Steel thickness (mm)

Cover panel	0,90
Cowl side panel	0,70

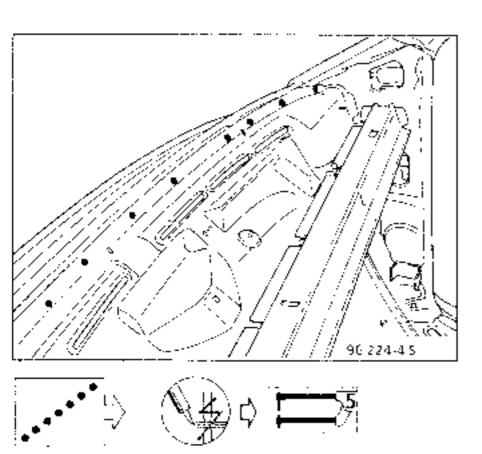
### Unpicking

Use a hot air gun to heat the mastic bead(60 mm)



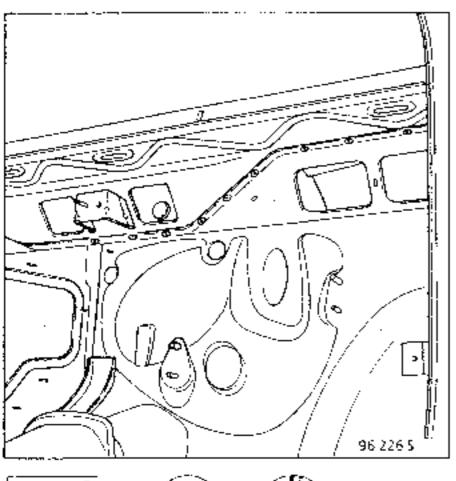
# 2 JOINT WITH FRONT SECTION OF SCUTTLE PANEL

Reminder: see 42-G-3



3 JOINT WITH BULKHEAD - PEDAL MOUNTING

Reminder : see 42-H-4

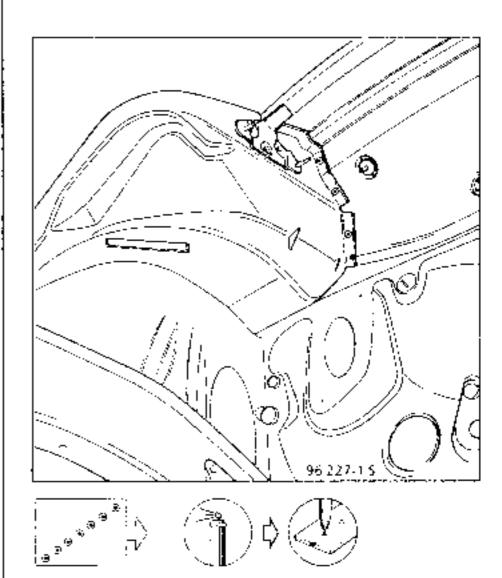




NOTE: welds on three thicknesses

4 JOINT WITH PLENUM CHAMBER

Reminder : see 42-E-3



# 5 PARTIAL SECTION

### Steel thickness (mm)

Cover panel

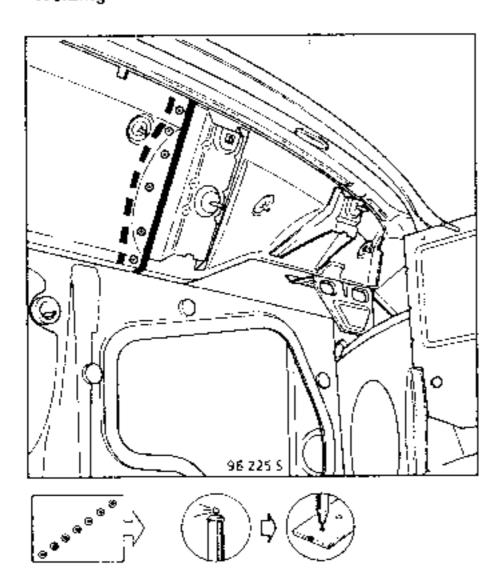
0,90

# Unpicking



200 mm

# Welding



NOTE: plug weld on thickness 0,90

# UPPER FRONT STRUCTURE Bulkhead - pedal mounting, part section (J)

#### INTRODUCTION

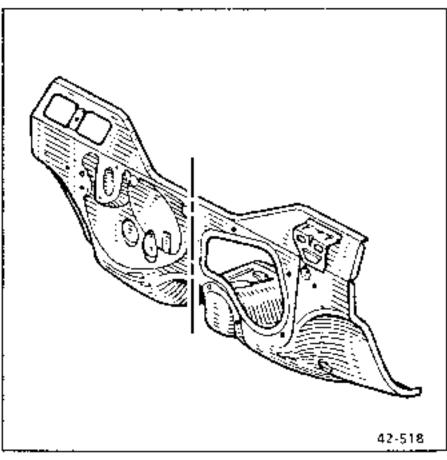
Complementary operation to :

- front half unit for frontal impact,
- front pillar for side impact.

# COMPOSITION OF PART AS SUPPLIED BY PARTS DEPARTMENT

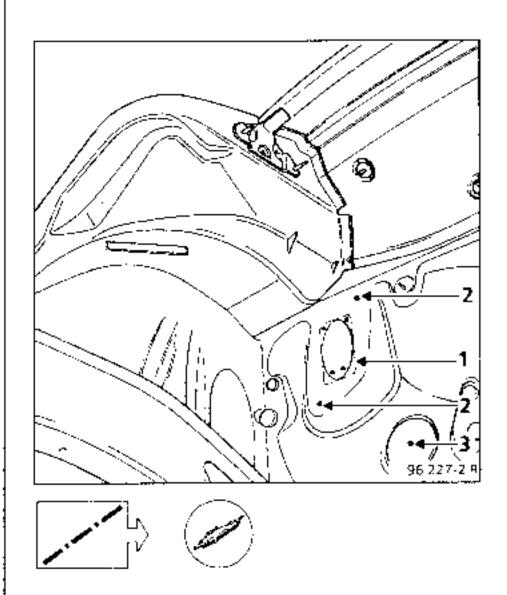
Part assembled with:

- windscreen wiper mounting,
- tunnel reinforcement ;
- tunnel reinforcement bracket,
- steering column gaiter cowling with welded nuts, studs and shafts.





**NOTE**: for vehicles fitted with air conditioning, cut the part as supplied by the Parts Department as shown in the diagram below.

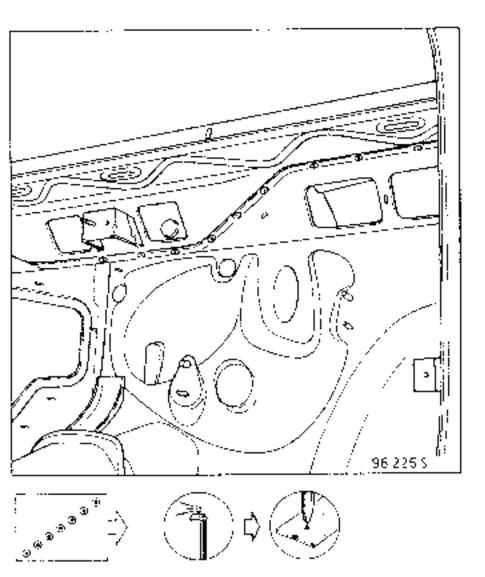


- (1) Rectangular cut-out with rounded corners
- (2) holes Ø 14,5
- (3) hole Ø 30

The centre of each hole is marked by a punch.

# 1 JOINT WITH UPPER BULKHEAD SECTION

### Reminder : see 42-H-4



# 2 JOINT WITH COWL SIDE PANEL (PILLAR LINING)

#### Steel thickness (mm)

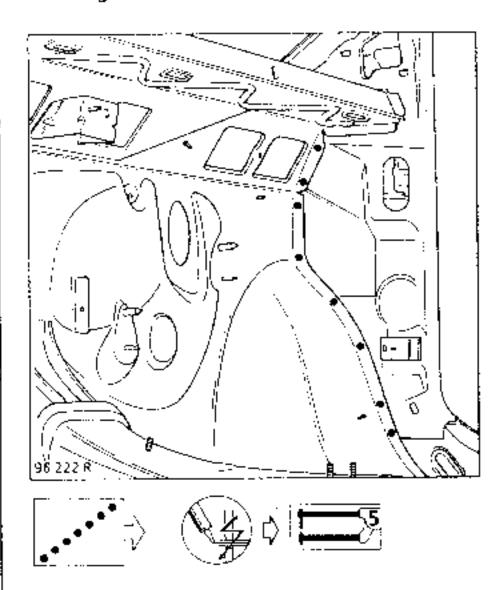
Lower bulkhead section	0,70
Pillar lining	0,70
Sill panel lining	1,00

### Unpicking



8 spot welds on thickness 0,70

#### Welding



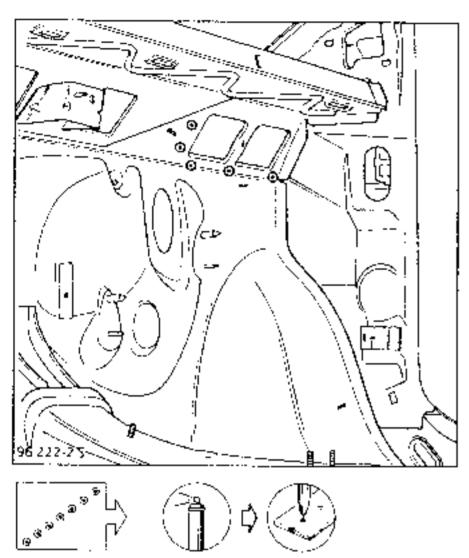
NOTE: at (A), 1 weld on 3 thicknesses.

These welds must be made before the front pillar is relitted.

In the case of a frontal impact where the pillar has not been damaged, the 8 spot welds are replaced by 8 plug welds on thickness 0,70.

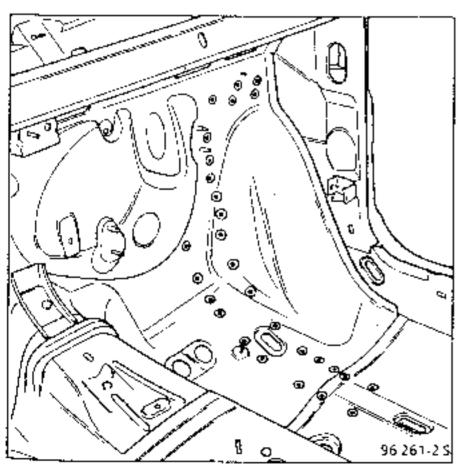
# 3 JOINT WITH PLENUM CHAMBER

Reminder : see 42-E-2



# 4 JOINT WITH FRONT HALF UNIT

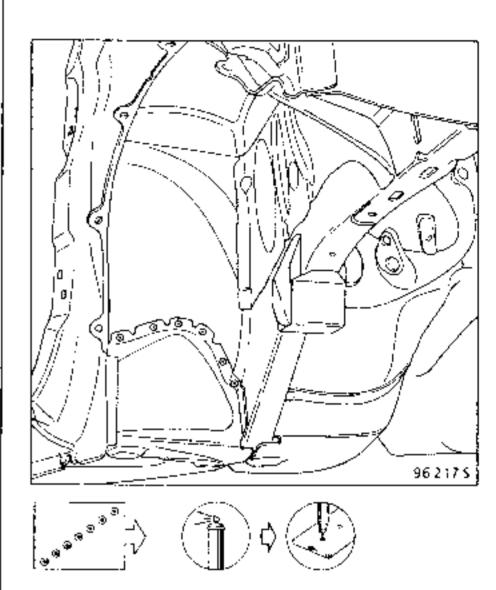
Reminder : see 41-G-2

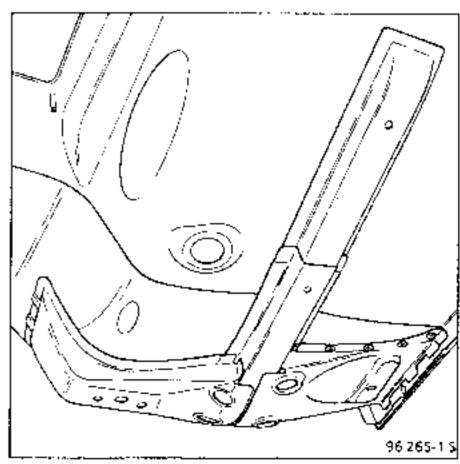




# [5] JOINT WITH FRONT CROSS MEMBER

Reminder : see 41-D-1

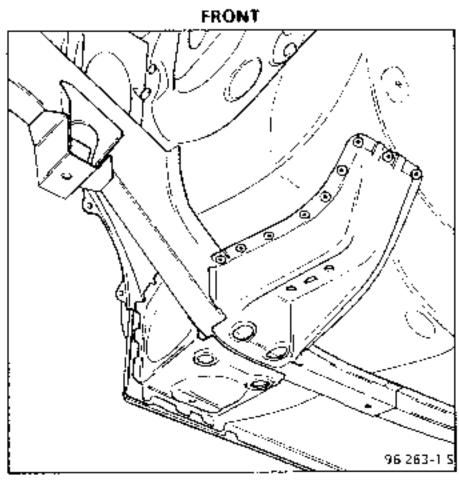


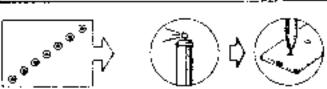


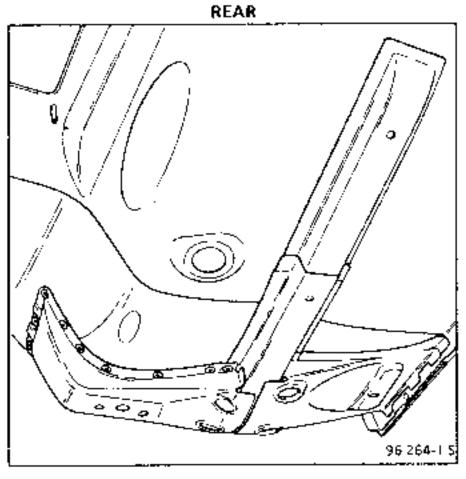


# 6 JOINT WITH REAR ENGINE MOUNTING

Reminder : see 41-H-2



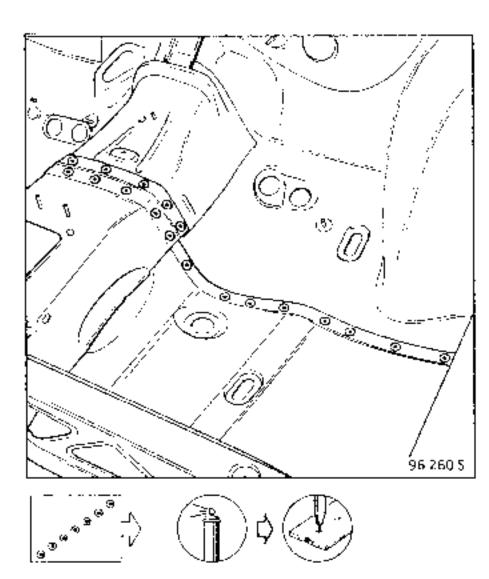






7 JOINT WITH CENTRE FLOOR

Reminder : see 41-J-1



# 8 JOINT WITH SILL COVER PANEL

#### Steel thickness (mm)

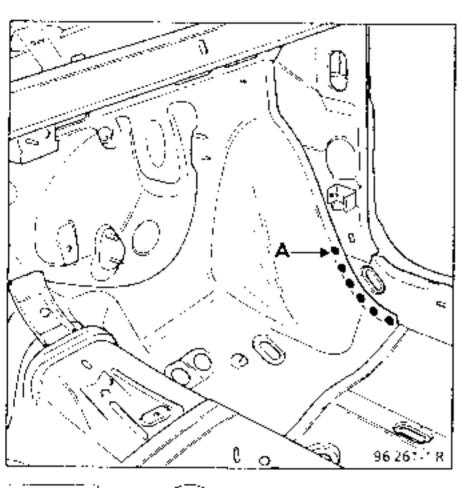
Bulkhead	0,70
Sill cover panel	1,00
Pillar lining	0,70

#### Unpicking



6 spot welds on thickness 0,70

#### Welding





#### NOTE:

At (A), 1 weld on 3 thicknesses

These welds must be made before refitting the front pillar.

In the case of a frontal impact with replacement of the half unit where the pillar has not been damaged, the 6 spot welds are replaced by 6 plugwelds on thickness 0,70

# 9 PARTIAL SECTION

#### Steel thickness (mm)

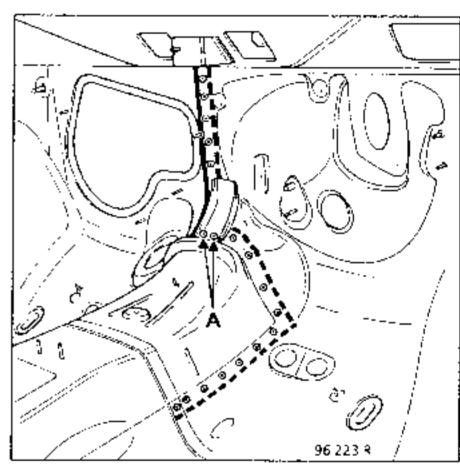
Bulkhead	0,70
Tunnel reinforcement bracket	1,50

### Unpicking



900 mm

#### Welding





#### NOTE:

At (A), 2 welds on thickness 1,5.

All the other welds are on thickness 0,70.

# UPPER SIDE STRUCTURE Front pillar (A)

#### INTRODUCTION

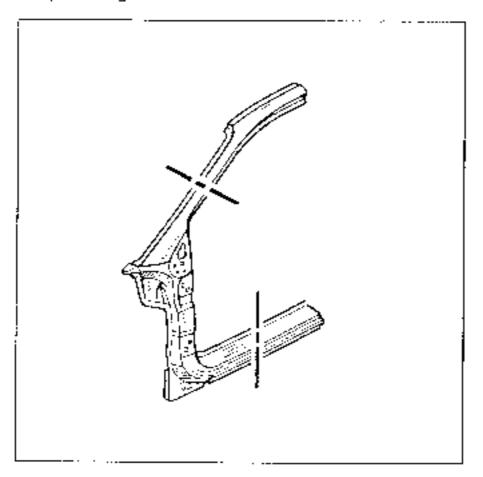
Basic operation for side impact.

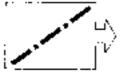
This part is obtained by cutting the side body panel which is pre-assembled in production. A replacement by cutting is therefore required by superimposing the upper and lower sections of the part as supplied by the Parts Department (see note for each description).

# COMPOSITION OF PART AS SUPPLIED BY PARTS DEPARTMENT

Pact assembled with:

- front pillar reinforcement,
- upper and lower hinge reinforcements,
- threaded plates
- plate cages







96 249 \$

# [1] JOINT WITH WINDOW APERTURE PILLAR LINING

#### Steel thickness (mm)

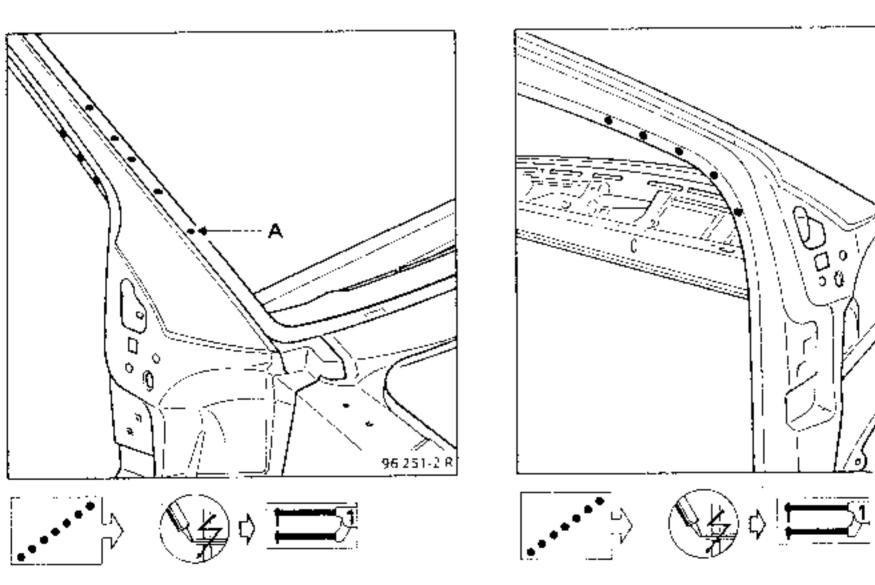
Front pillar	0,70
Front pillar reinforcement	1,50
Window aperture pillar lining	1,00
Pillar lining	0,70

### Unpicking



10 spot welds on thicknesses  $0.7 \pm 1.5$ 

## Welding



**NOTE**: at (A) 1 weld on 4 thicknesses. All other welds on 3 thicknesses  $(0,70 \times 2) + 1,5$ .

# 2 JOINT WITH PILLAR LINING (COWL SIDE PANEL)

## Steel thickness (mm)

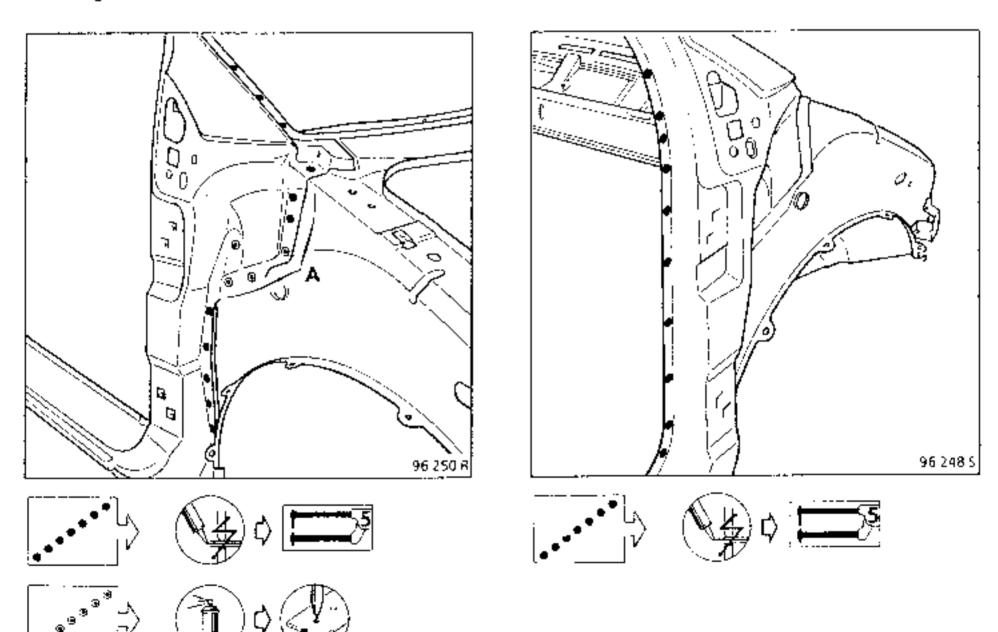
Front pillar	0,70
Front pillar reinforcement	1,50
Pillar lining	0,70

## Unpicking



25 spot welds, 7 of which on thickness 0,7 and 18 on 2 thicknesses 0,7 + 1,5

## Welding



**NOTE**: at (A), 7 welds on 2 thicknesses. All other welds on 3 thicknesses

# 3 JOINT WITH SILL PANEL LINING

### Steel thickness (mm)

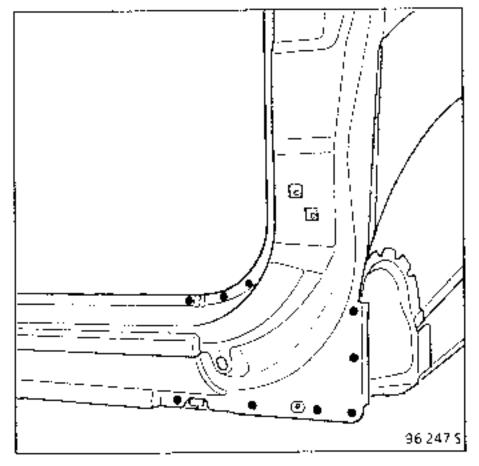
Front pillar	0,70
Front pillar reinforcement	1,50
Sill panel lining	1,00

#### Unpicking



10 spot welds on 2 thicknesses 0,7 + 1,5

### Welding

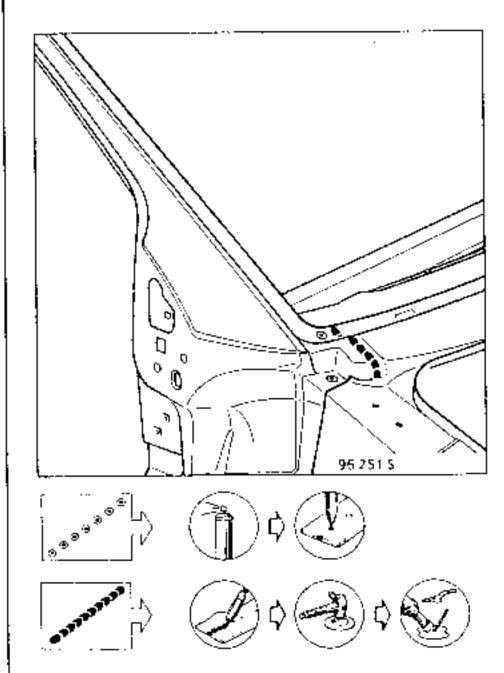




**NOTE**: All welds are on three thicknesses

# $\begin{bmatrix} \overline{4} \end{bmatrix}$ JOINT WITH FRONT SECTION OF SCUTTLE PANEL

Reminder : see 42-G-2



# 5 CUT ON UPPER SECTION OF WINDOW APERTURE PILLAR

### Steel thickness (min)

Front pillar

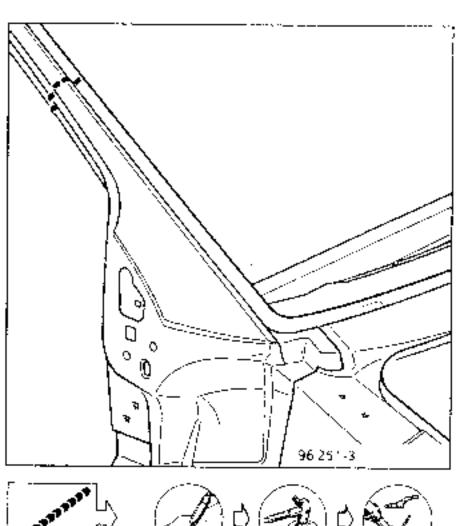
0,70

### Unpicking



 $150 \, mm$ 

### Welding



**NOTE**: The cut must be made above the pillar reinforcement.

# 6 CUT ON LOWER SECTION OF SILL PANEL

#### Steel thickness (mm)

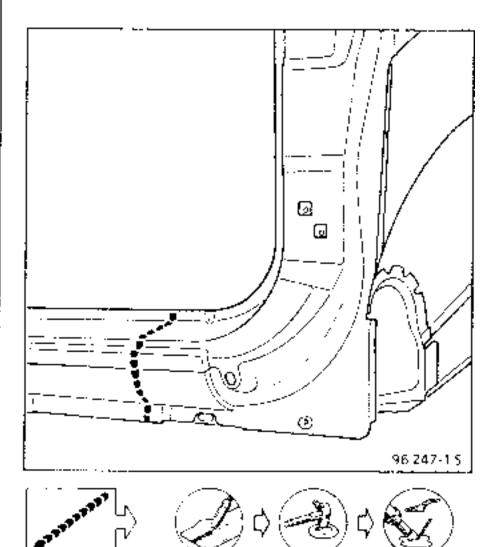
Front pillar

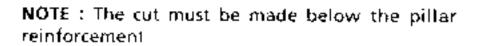
0,70

### Unpicking



300 mm





#### INTRODUCTION

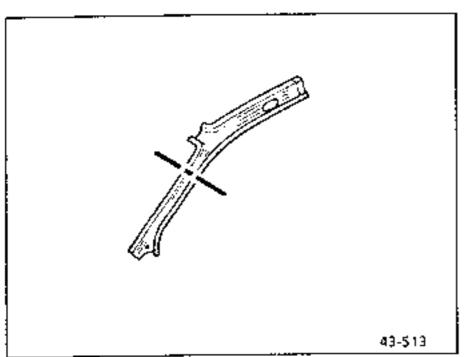
Complementary operation to :

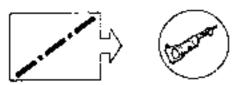
- front pillar,
- Upper body panel.

This part may be partially replaced at (A) as a complementary operation to the front pillar

# COMPOSITION OF PART AS SUPPLIED BY PARTS DEPARTMENT

Blank part.





# JOINT WITH COWL SIDE PANEL AND PILLAR LINING

#### Steel thickness (mm)

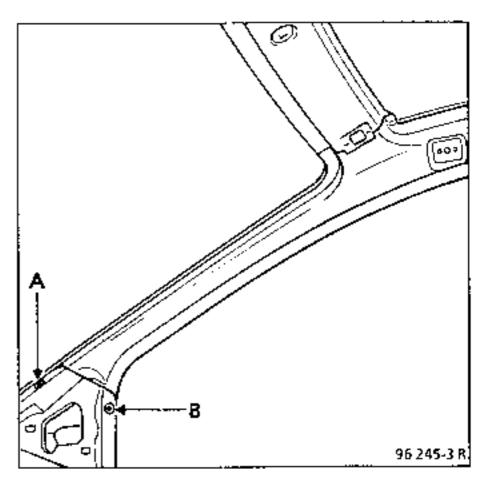
Front pillar	0,70
Pillar lining	0,70
Side pillar lining	1,00
Pillar reinforcement	1,50

### Unpicking



2 spot welds on thickness 0,70.

#### Welding



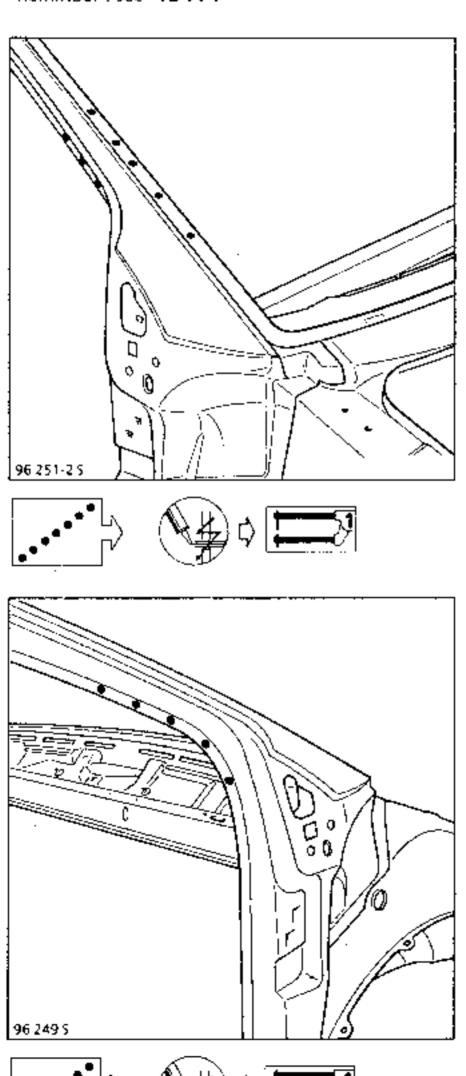


**NOTE**: for complementary replacement of the front pillar, the 2 welds are made with electric resistance welding techniques

A: 4 thicknesses B: 3 thicknesses (see 43-A-1).

# 2 JOINT WITH FRONT PILLAR

Reminder : see 43-A-1



# 3 JOINT WITH UPPER BODY PANEL

### Steel thickness (mm)

Side pillar lining	1,00
Upper body panel	0,70
Roof panel	0,70
Rear end panel lining	0,70

## Unpicking

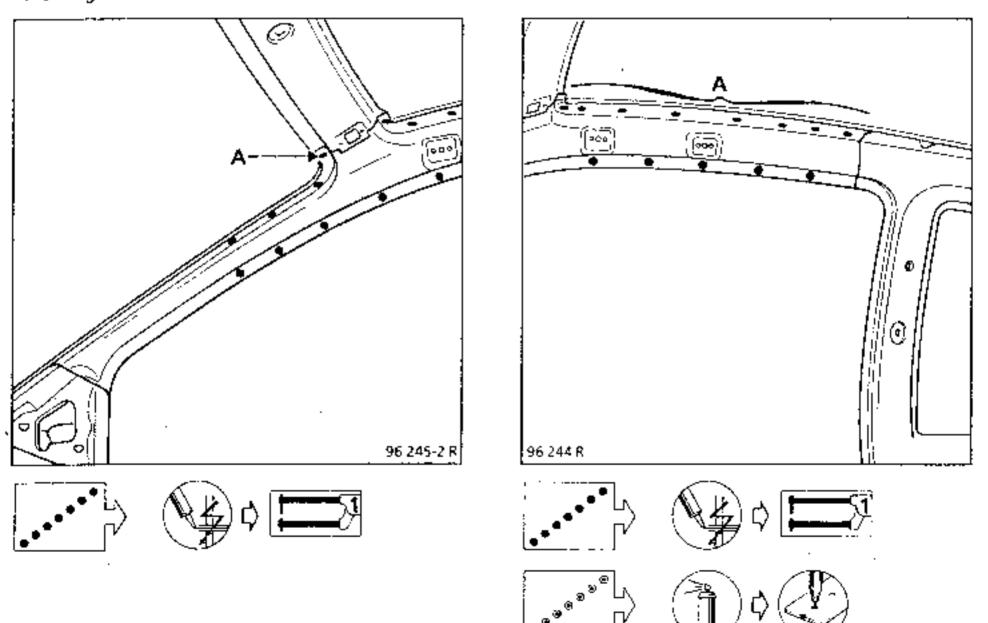


21 spot welds on thickness 1,00



2 spot welds on thickness 0,70

## Welding



NOTE: at (A), 9 welds on 3 thicknesses

 $(0.70 \times 2) + 1.0$ 

# 4 JOINT WITH FRONT ROOF CROSS MEMBER

#### Steel thickness (mm)

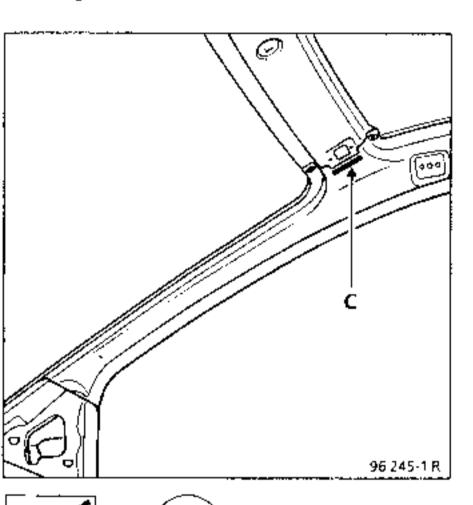
Side pillar lining	1,00
Cross member	0,70
Roof panel	0,70

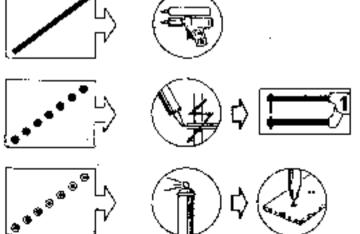
#### Unpicking



2 spot welds on thickness 0,70

#### Welding





**NOTE**: at (C), apply a bead of bonding mastic.

# 5 JOINT WITH REAR END PANEL LINING

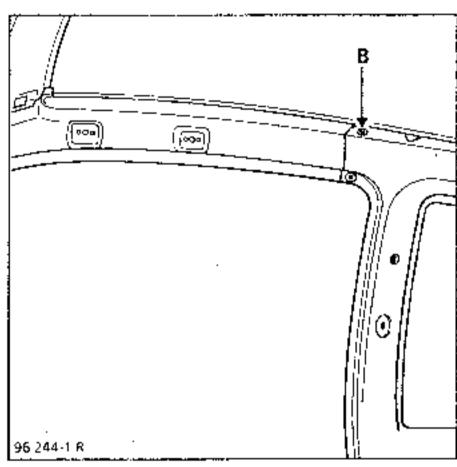
#### Steel thickness(mm)

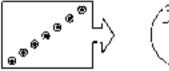
Side pillar lining	1,00
Rear end panel lining	0,70
Side of body	0,70
Roof panel	0,70

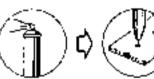
## Unpicking



2 spot welds on thickness 0,70







**NOTE**: at (B), plug welds on 2 thicknesses if replacing the upper body panel

# 6 PARTIAL SECTION

#### Steel thickness (mm)

Lining

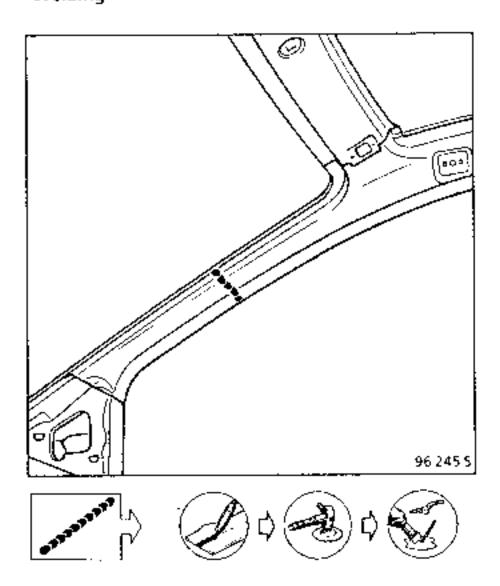
1,00

# Unpicking



70 mm

## Welding



**NOTE**: cutting of the side pillar lining must be carried out approximately 50 mm higher than the cut on the front pillar

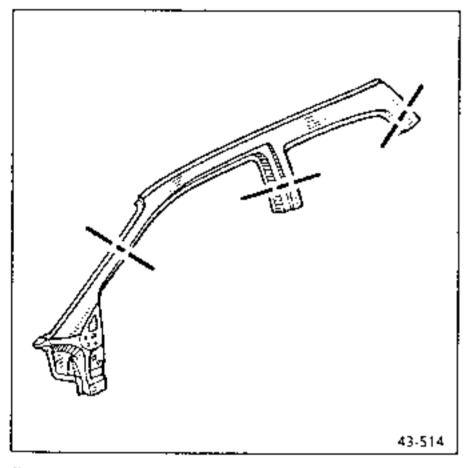
#### INTRODUCTION

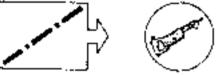
This operation is complementary to replacing the roof panel after a side impact, most often on the side opposite to the impact

This part is obtained by culting the production. upper body panel, and when replacing the part, cuts will have to be superimposed.

#### COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

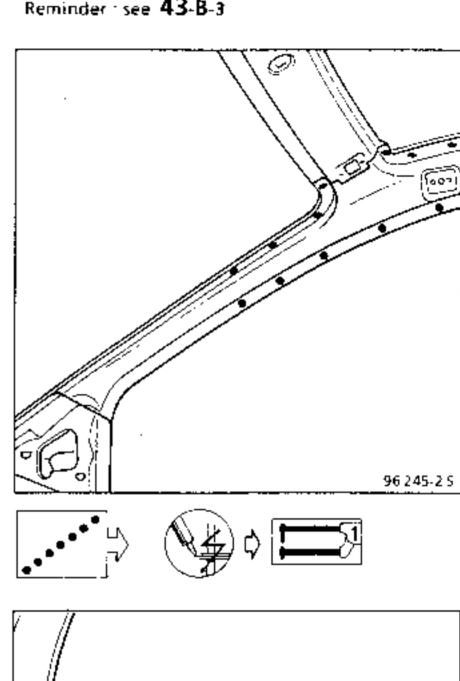
Blank part.

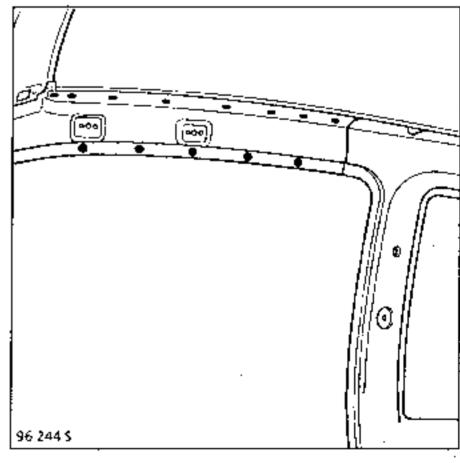




### 1 JOINT WITH WINDOW APERTURE SIDE PILLAR LINING

Reminder : see 43-B-3







# 2 JOINT WITH REAR END PANEL LINING

#### Steel thickness (mm)

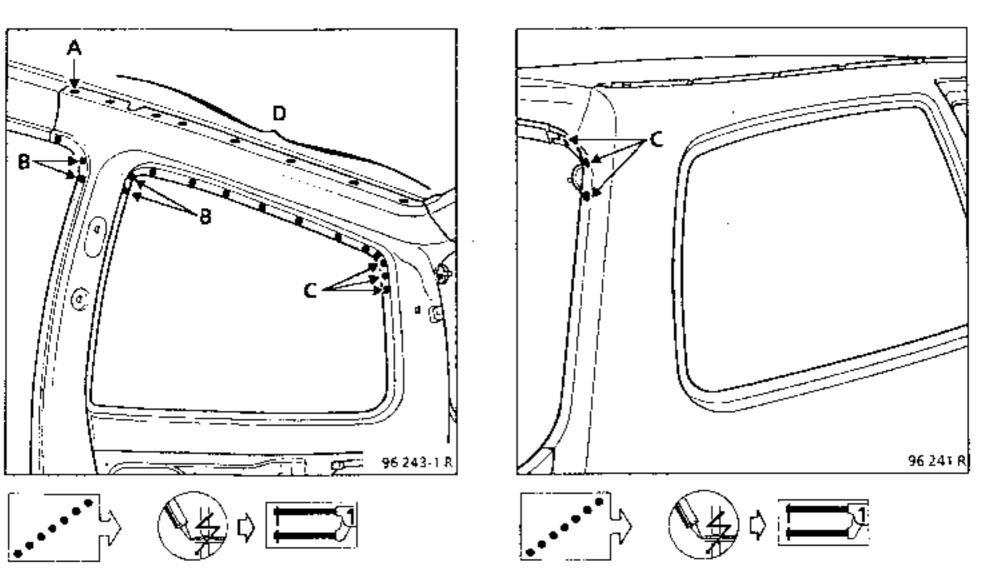
Upper body panel	0,70
Rear quarter panel lining	0,70
Side pillar lining	1,00
Roof panel	0,70
Front seat belt reinforcement	1,20
Rear seat belt reinforcement	1,50

### **Unpicking**



27 spot welds on thickness 0,70

### Welding



NOTE: at (A), 1 weld on 4 thicknesses:  $(0,70 \times 3) + 1,0$ at (B), welds on 3 thicknesses:  $(0,70 \times 2) + 1,2$ at (C), welds on 3 thicknesses:  $(0,70 \times 2) + 1,5$ at (D), welds on 3 thicknesses:  $(0,70 \times 2) + 1,0$ 

# 3 JOINT WITH ROOF PANEL

## Steel thickness (mm)

Roof panel	0,70
Upper body panel	0,70
Side pillar lining	1,00
Rear seat belt, reinforcement	1,50

# Unpicking

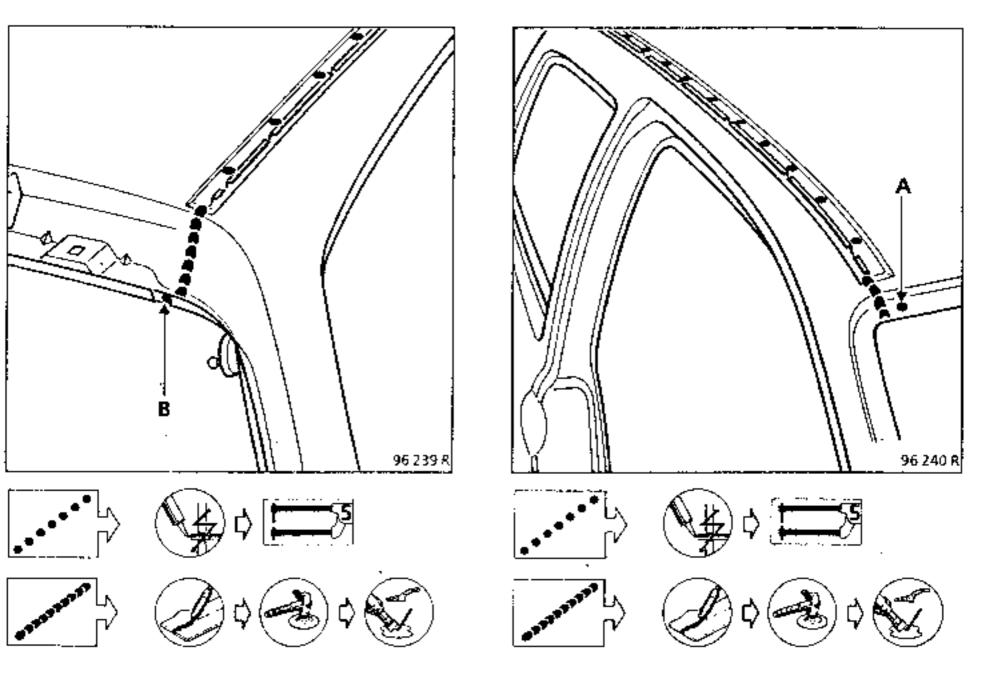


14 spot welds on thickness 0,70



2 tillets: 1,20 + 60 mm

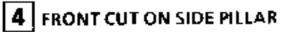
## Welding



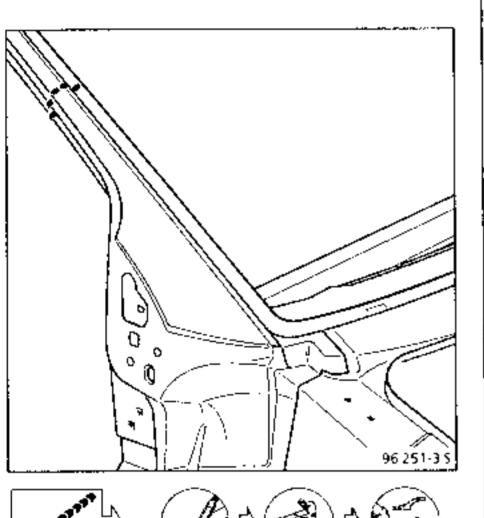
**NOTE:** at (A), 1 weld on 3 thicknesses  $(0.70 \times 2) + 1.0$ 

at (B), 1 weld on 3 thicknesses

 $(0.70 \times 2) + 1.5$ 



Reminder : see 43-A-5





Steel thickness (mm)

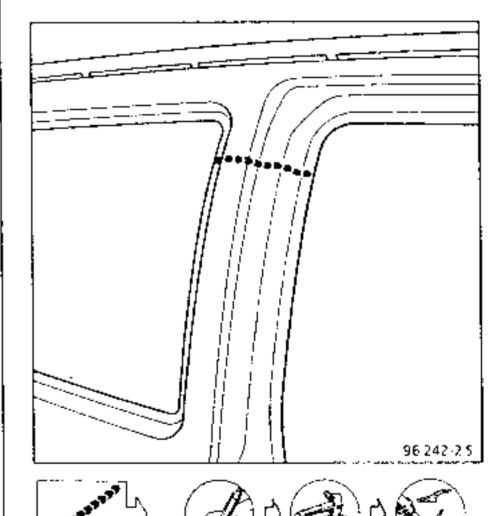
Upper body panel

0.70

Unpicking



150 mm



# 6 CUT ON REAR PILLAR

## Steel thickness (mm)

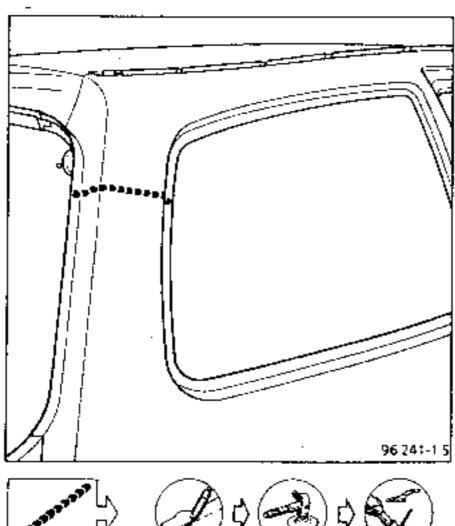
Upper body panel

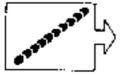
0,70

# Unpicking



150 mm











#### INTRODUCTION

Basic operation for side impact.

This part is obtained by cutting the production side body panel, therefore when it is replaced, cuts must be superimposed following edge-to-edge stitch welding at the front and rear ends (see details in descriptions below)

Several cut combinations are possible: A; B or A; + B.

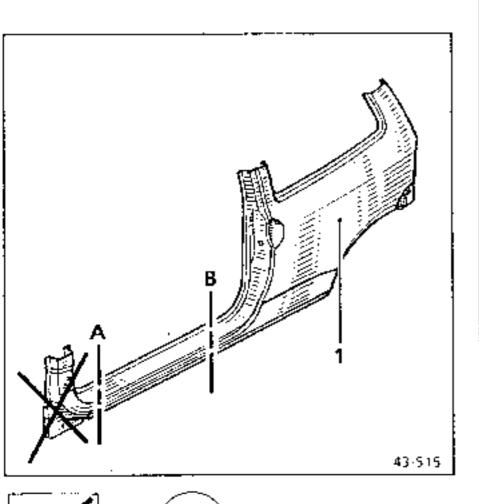
Only possibility A + B is described below.

For complete replacement of the part,—use the 2 operations 43-D + 44 A

Replacement of the remaining part. (1) is described in section **44-A**.

COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Blank part.



# 1 JOINT WITH SILL PANEL LINING

#### Steel thickness (mm)

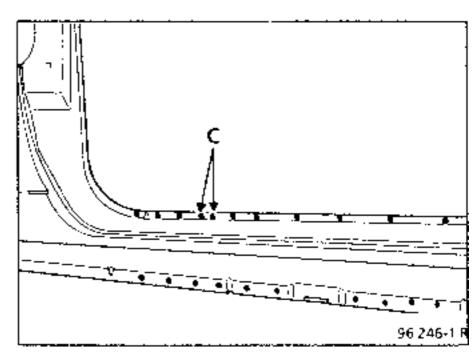
Sill panel	0,70
Sill panel lining	1,00
Seat mounting unit	1,20

#### Unpicking



21 spot welds on thickness 0,70

#### Welding





**NOTE**: at (C), 3 thicknesses (0,7 + 1,0 + 1,2)

# 2 FRONT SECTION

#### Steel thickness (mm)

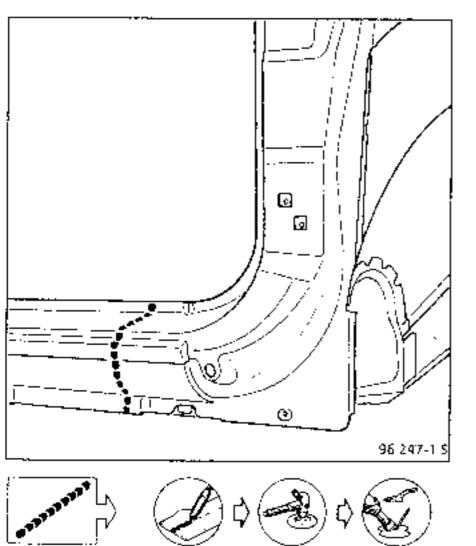
Sill panel

0.70

### Unpicking



## Welding



**NOTE**: The front cut should be made below the front pillar reinforcement.

# 3 REAR SECTION

#### Steel thickness (mm)

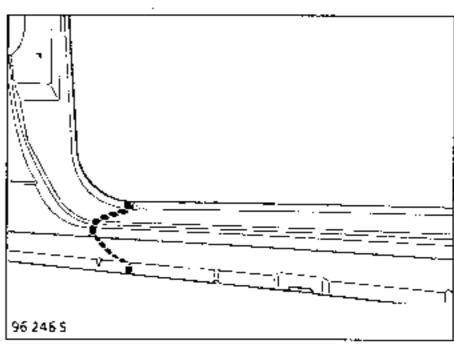
Sitt panel

0,70

## Unpicking



300 mm





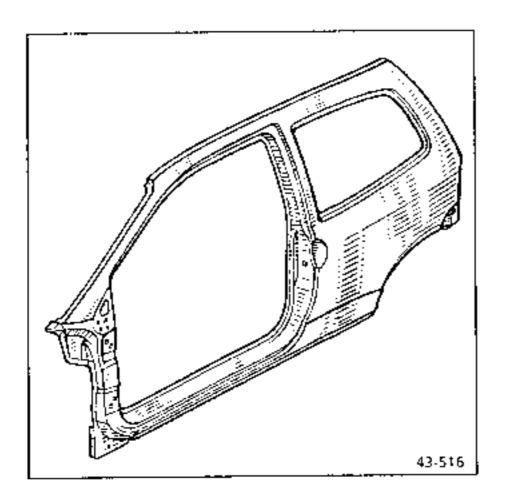
#### INTRODUCTION

Basic operation for side impact. To replace this part, refer to operations, 43-A, 43-C, 43-D, 44-A.

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with:

- front pillar reinforcement,
- upper and lower hinge reinforcements,
- threaded plates,
- plate cages,
- bumper reinforcement



#### INTRODUCTION

Basic operation for rear impact.

There are two possibilities for replacing this component:

- Partial replacement of the lower section.
- 2 Complete replacement

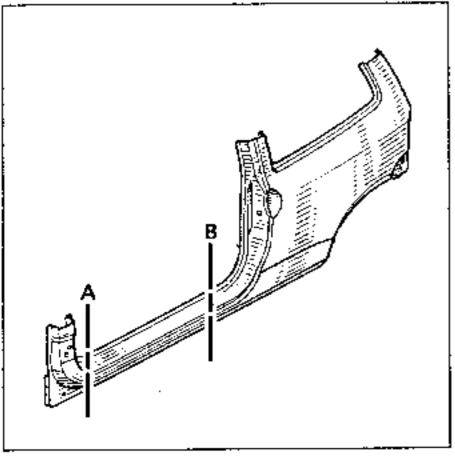
See details of the operations as described below.

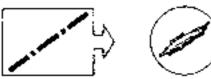
# COMPOSITION OF THE PART AS SUPPLIED BY THE PARTS DEPARTMENT

Part assembled with:

- bumper mounting reinforcement,
- lock reinforcement.

#### 1 Partial replacement of the lower section





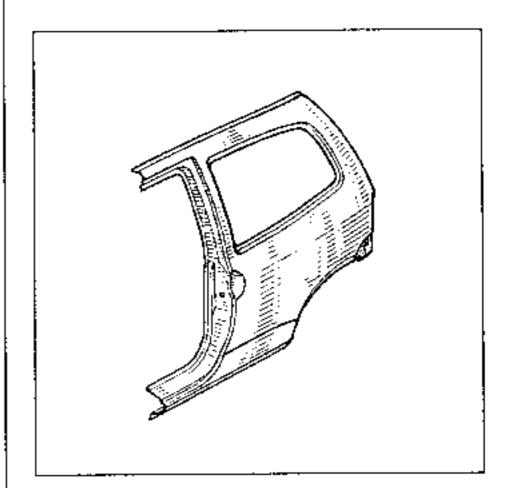
NOTE: there are two cutting possibilities:

Cut A: refer to section 43-D for

complementary information.

Cut B: see below.

#### 2 Complete replacement



# 1 PARTIAL SECTION

## Steel thickness (mm)

Wing panel

0,70

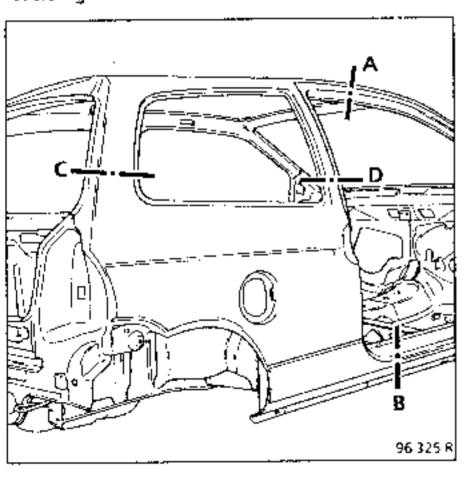
# Unpicking



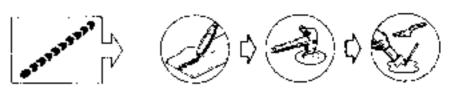
Cut A = 150 mmCut B = 300 mmCut C = 150 mm

Cut  $D = 150 \, mm$ 

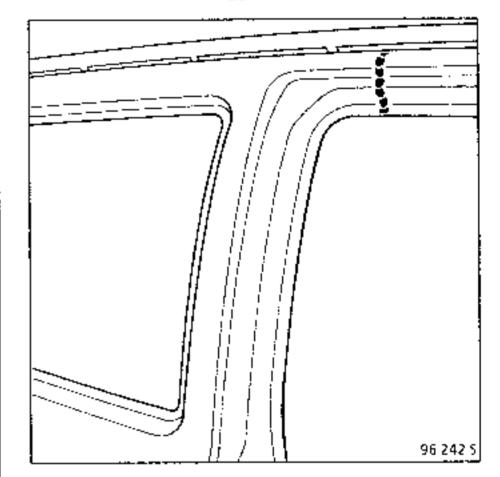
# Welding



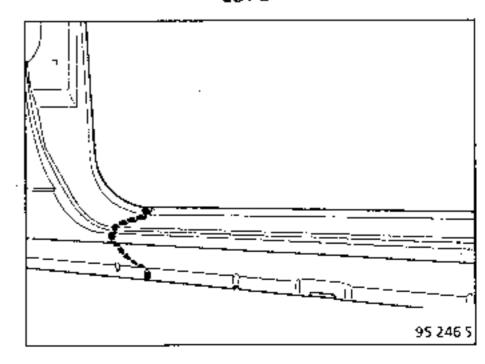
## Welding



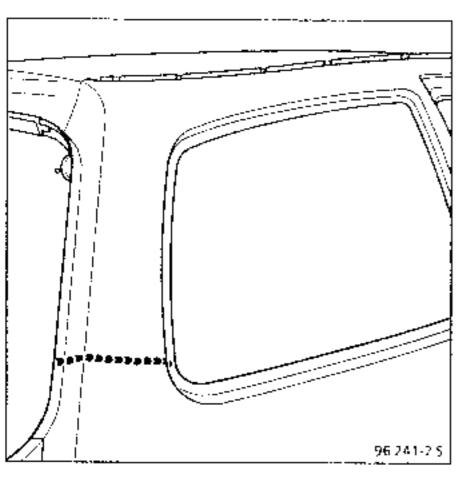
#### **CUT A**



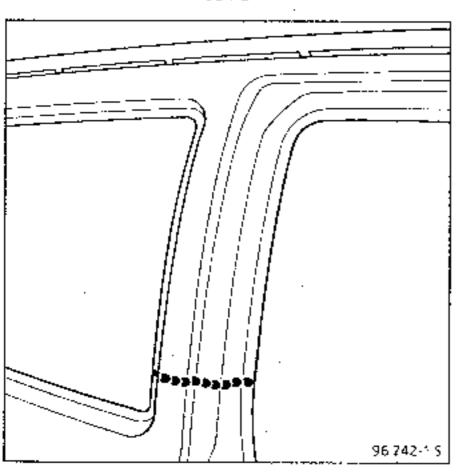
### **CUTB**



#### CUTC



#### CUTD



# 2 JOINT WITH SIDE PILLAR LINING

# Steel thickness (mm)

Quarter panel	0,70
Rear quarter panel lining	0,80
Side pillar lining	1,00

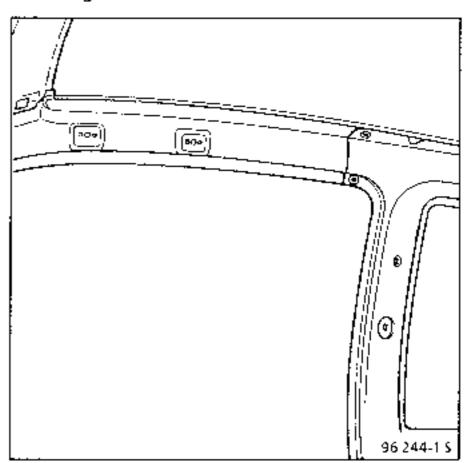
# Unpicking



1 spot weld on thickness 0,70



1 spot weld on thickness 0,80











# 3 JOINT WITH CENTRE PILLAR REINFORCEMENT

### Steel thickness (mm)

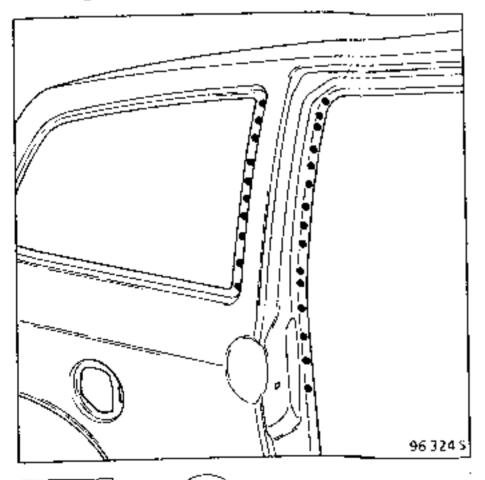
Quarter panel 0,70
Rear quarter panel lining 0,80
Centre pillar reinforcement 1,20

### Unpicking



26 spot welds on thickness 0,70

#### Welding





NOTE: all welds are on three thicknesses

# 4 JOINT WITH REAR END PANEL REINFORCEMENT

#### Steel thickness (mm)

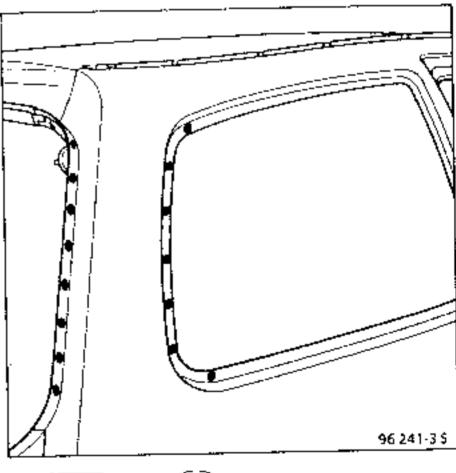
Quarter panel 0,70
Rear quarter panel reinforcement 1,50
Rear quarter panel lining 0,80

### Unpicking



16 spot welds on thickness 0,70

#### Welding





NOTE: all welds are on three thicknesses

# 5 JOINT WITH REAR QUARTER PANEL LINING

#### Steel thickness (mm)

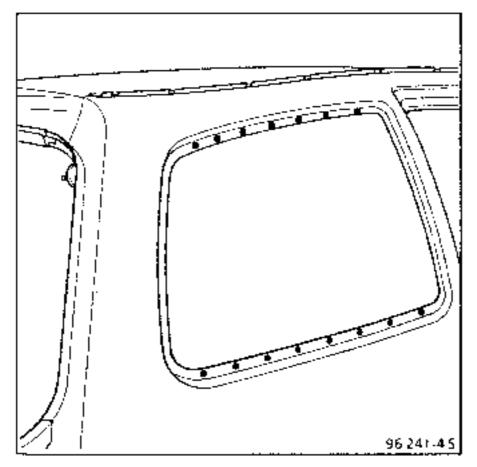
Quarter panel	0,70
Rear quarter panel lining	0,80
Sill cover panel	1,00
Bumper mounting reinforcement	0,70

#### Unpicking



26 spot welds on thickness 0,70. Use hot air gun for 700 mm bead.

### Welding



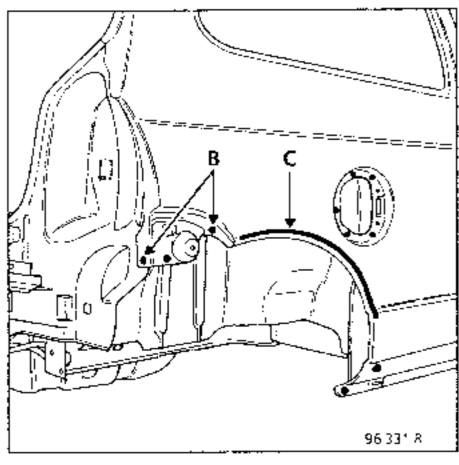


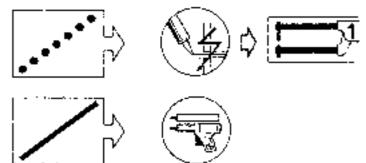
NOTE: at (A), 3 thicknesses:

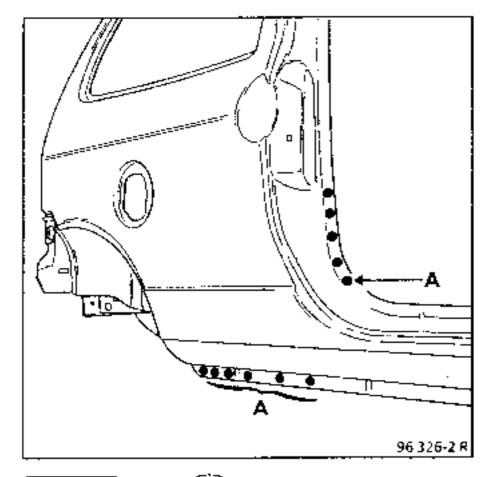
quarter panel 0,70 rear quarter panel lining 0,80 sill cover panel 1,00

at (B), 3 thicknesses:

quarter panel 0,70 rear quarter panel lining 0,80 bumper mounting reinforcement 1,50









NOTE: at (C), 700 mm of bonding mastic.

# 6 JOINT WITH ROOF PANEL

#### Steel thickness (mm)

Quarter panel	0,70
Roof panel	0,70
Rear quarter panel lining	0,80

## Unpicking



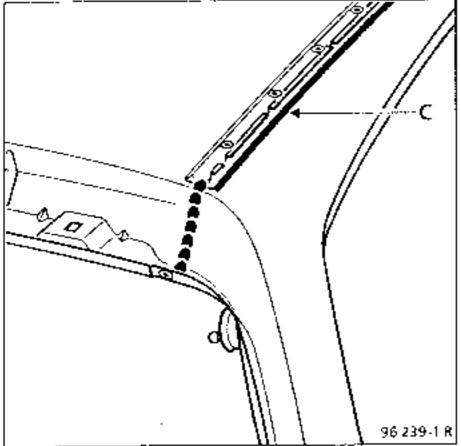
9 spot welds on thickness (0,70x2)

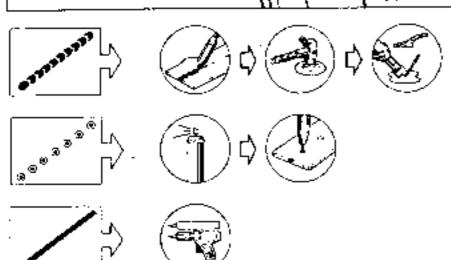
Use hot air gun to release 800 mm bead



Release 120 mm of brazed joint

#### Welding





**NOTE**: at (C), apply an bonding mastic bead to seal the roof panel

# 7 JOINT WITH REAR QUARTER PANEL

#### Steel thickness(mm)

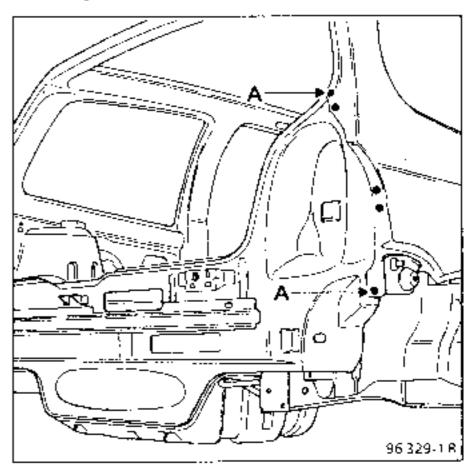
Quarter panel	0,70
Rear panel	0,70
Rear quarter panel lining	0,80

# Unpicking



5 spot welds on thickness 0,70

### Welding





NOTE: at (A), 3thicknesses
quarter panel 0,70
rear panel 0,70

rear quarter panel lining

0.80

# 8 JOINT WITH SILL COVER PANEL

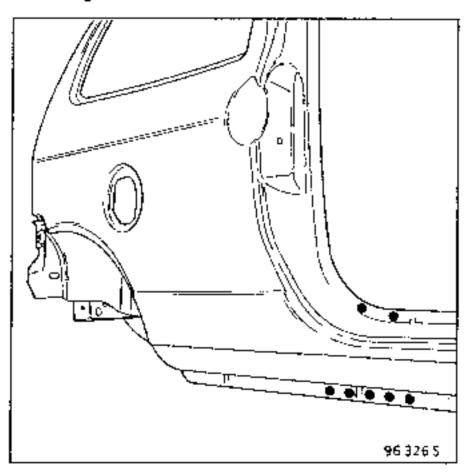
## Sill thickness (mm)

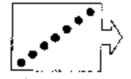
Quarter panel 0,70 Cover panel 1,00

## Unpicking

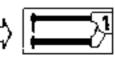


7 spot welds on thickness 0,70





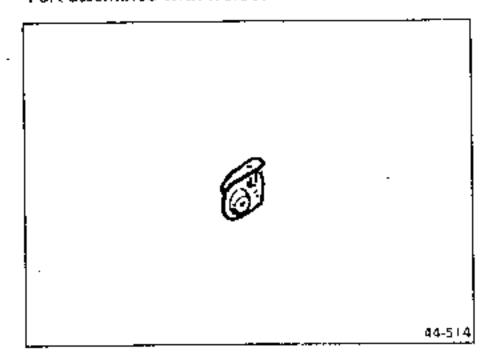




Basic operation in the case of damage to the bumper mounting threads

COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with welded nut.



# 1 JOINT WITH QUARTER PANEL

#### Steel thickness (mm)

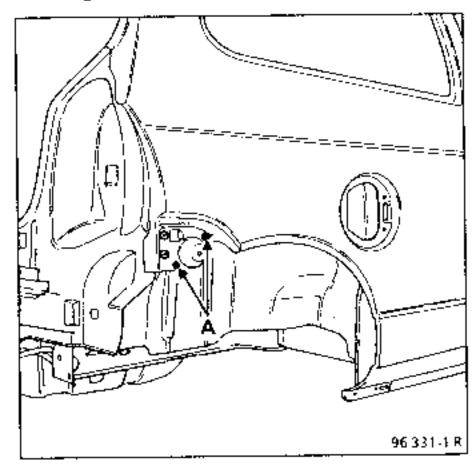
Bumper mounting	1,50
Quarter panel	0,70
Rear quarter panel lining	0,80

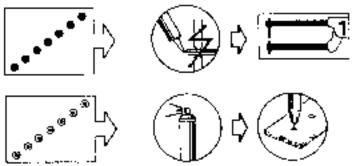
## Unpicking



4 spot welds on thickness 1,5

#### Welding





#### NOTE:

At (A), 2 welds on 3 thicknesses.

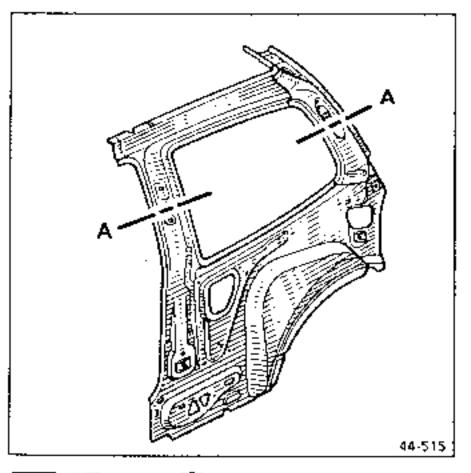
Complementary operation to quarter panel for rear impact, or body side panel for side impact

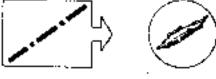
This part may be partially replaced by cutting at A.

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Part assembled with:

- rear parcel shelf mounting bracket,
- rear quarter panel reinforcement,
- seat belt mounting nuts.

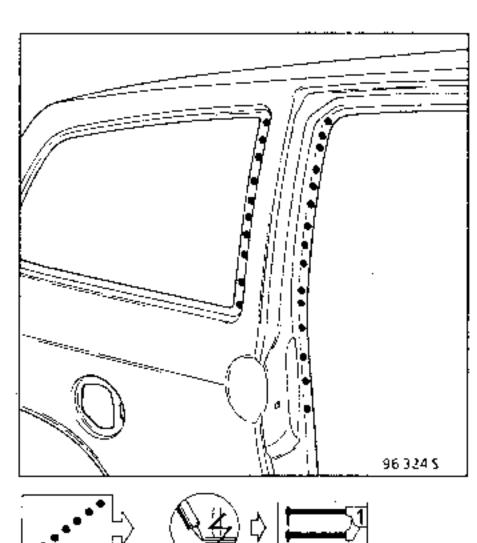


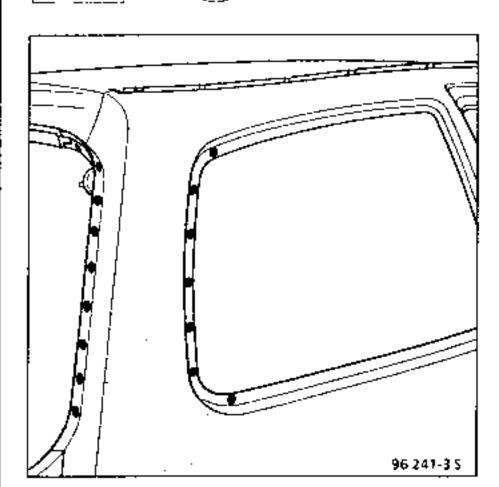


For partial replacement only.

# 1 JOINT WITH QUARTER PANEL

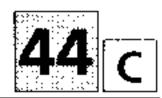
Reminder: see 44-A-3, 44-A-4 and 44-A-5

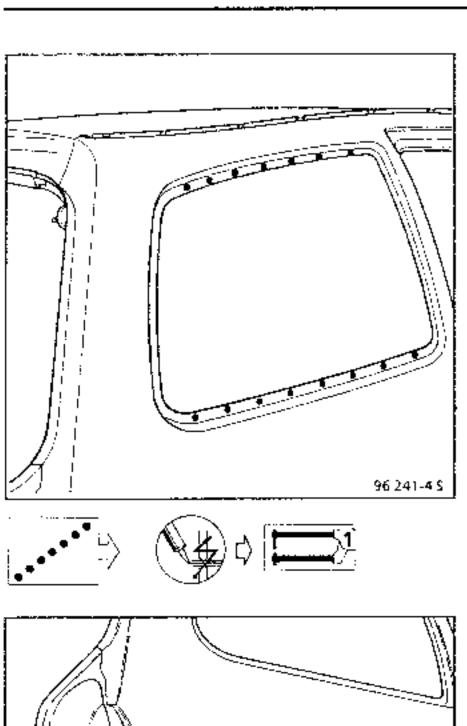


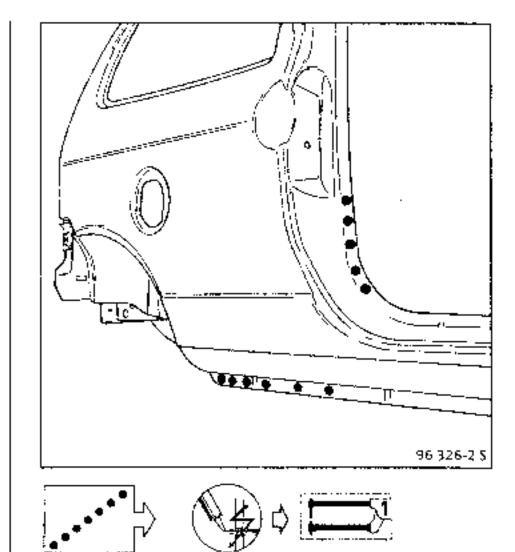


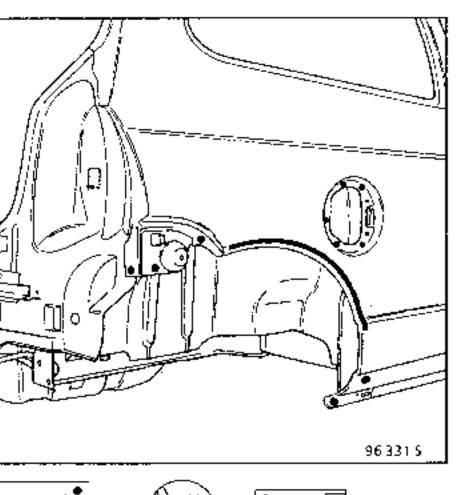


# **UPPER REAR STRUCTURE** Rear quarter panel lining









# 2 JOINT WITH SILL COVER PANEL

## Steel thickness (mm)

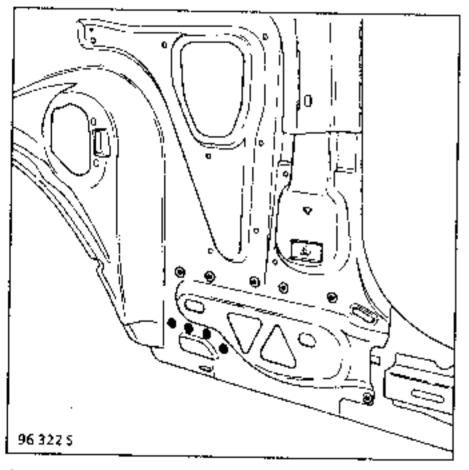
Rear quarter panel lining 0,80 Sill cover panel 1,00 Quarter panel 0,70

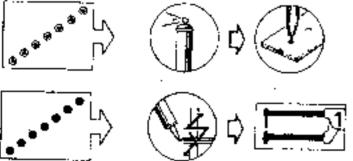
## Unpicking

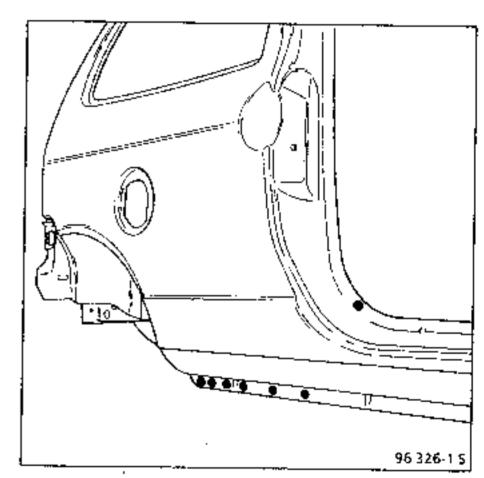


16 spot welds on thickness 0,80 (after removing the quarter panel)

## Welding









These welds are made after refitting the quarter panel

NOTE: all spot welds are on three thicknesses.

# 3 JOINT WITH INTERNAL PART OF WHEEL ARCH

#### Steel thickness (mm)

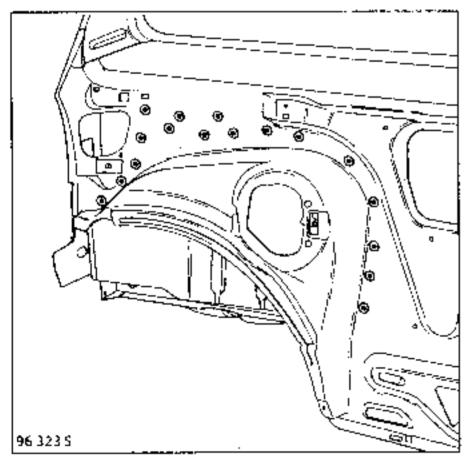
Rear quarter panel lining	0,80
Shock absorber cup	2,00
Wheel arch	0,70

## Unpicking



17 spot weld on thickness 0,80 (after removing the quarter panel)

## Welding





# 4 JOINT WITH REAR PANEL CROSS MEMBER

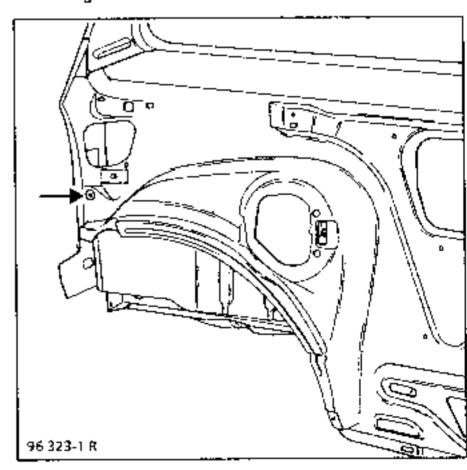
#### Steel thickness (mm)

Rear quarter panel lining	0,80
Rear panel cross member	0,70
Wheel arch	0,70

## Unpicking



1 spot weld on thickness 0,80 (after removing the quarter panel)



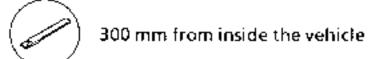


# 5 JOINT WITH REAR PANEL

#### Steel thickness (mm)

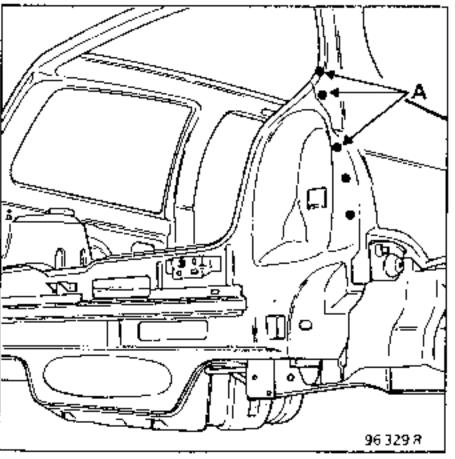
Rear quarter panel lining 0,80 Rear panel 0,70 Quarter panel 0,70

#### Unpicking



5 spot welds on thickness 0,80 (from inside the vehicle)

#### Welding

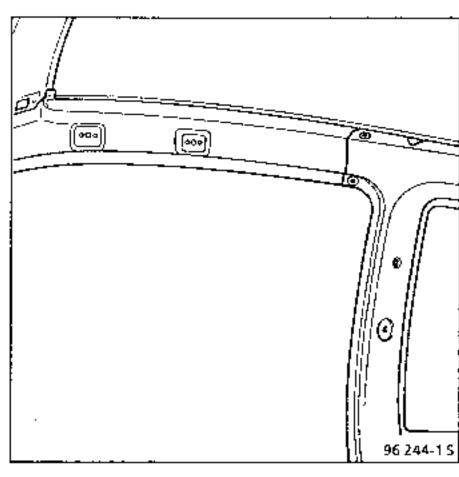




NOTE: at (A), 3 welds on 3 thicknesses

# 6 JOINT WITH SIDE PILLAR LINING

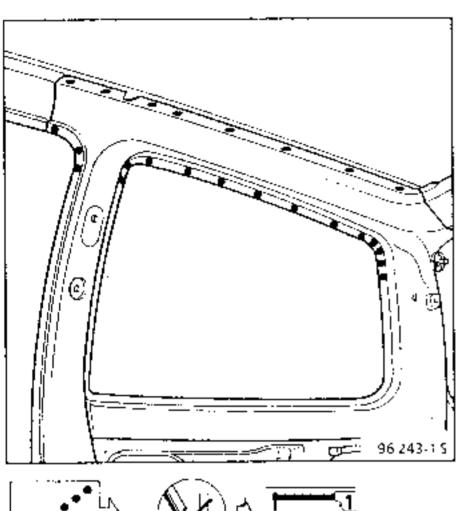
Reminder: see 43-B-5



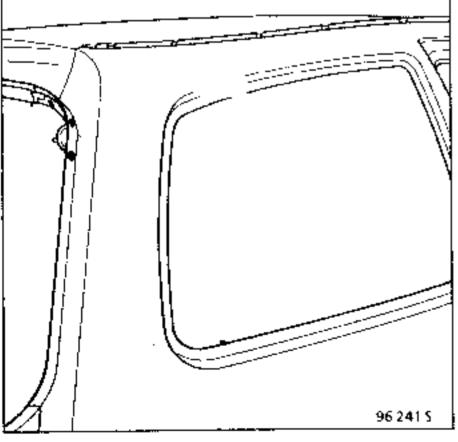


# 7 JOINT WITH UPPER BODY PANEL

Reminder: see 43-C-2



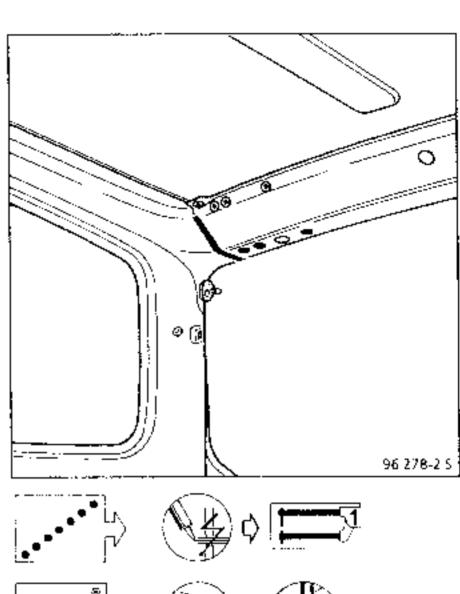


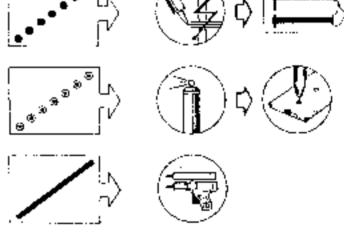


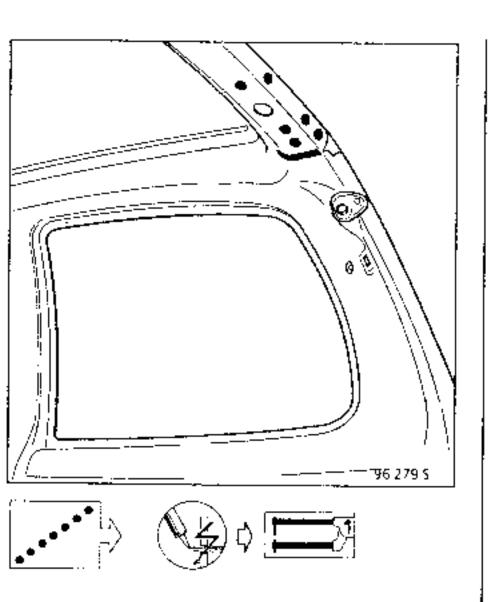


# 8 JOINT WITH REAR ROOF PANEL CROSS MEMBER

Reminder : see 45-C-2

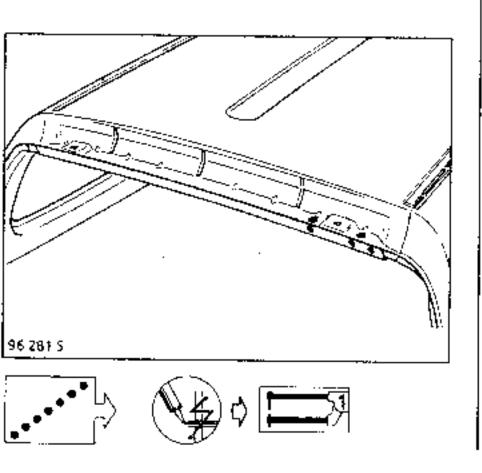






9 JOINT WITH ROOF PANEL

Reminder: see 45-A-3



10 PARTIAL SECTIONS

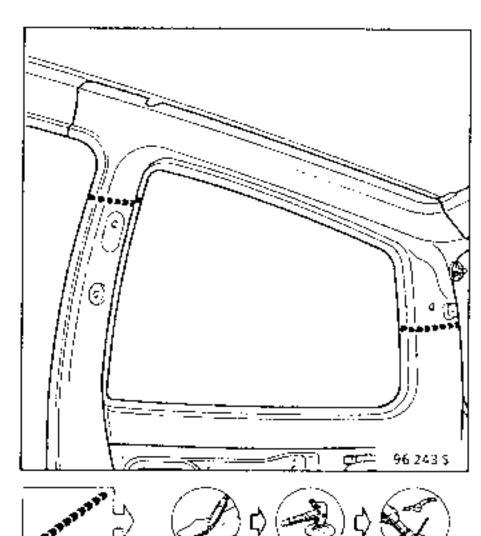
Steel thickness (mm)

Rear quarter panel lining 0,80

Unpicking



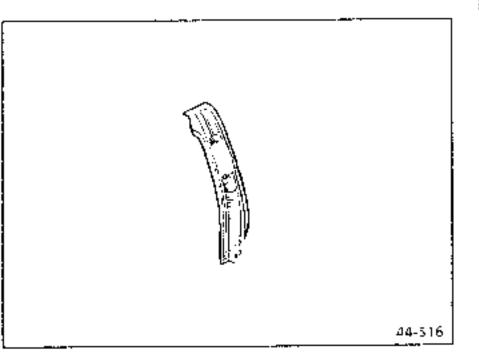
150 x 2 mm



Complementary operation to quarter panel for rear impact or side of body for side impact.

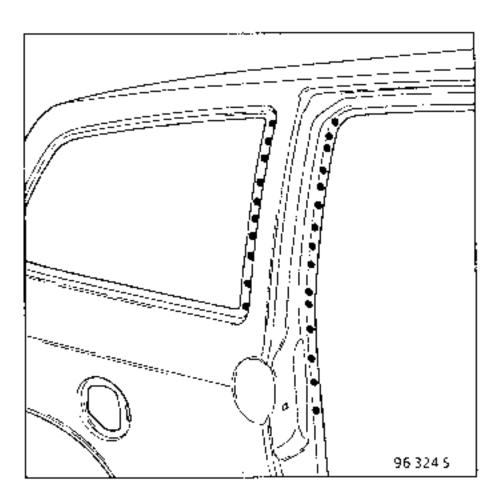
# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Single part



# 1 JOINT WITH QUARTER PANEL

Reminder : see 44-A-3





**NOTE**: all welds are on 3 thicknesses, quarter panel, pitlar reinforcement and rear quarter panel lining. As the operation is complementary to replacing the quarter panel, this joint is made when the quarter panel is welded.

2 JOINT WITH REAR QUARTER PANEL LINING

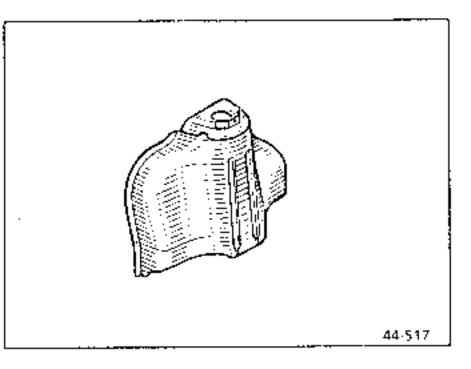
NOTE: same note as for 44-D-1 (above).

This operation is complementary to a quarter panel or rear quarter panel lining or a rear floor section after a rear impact.

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

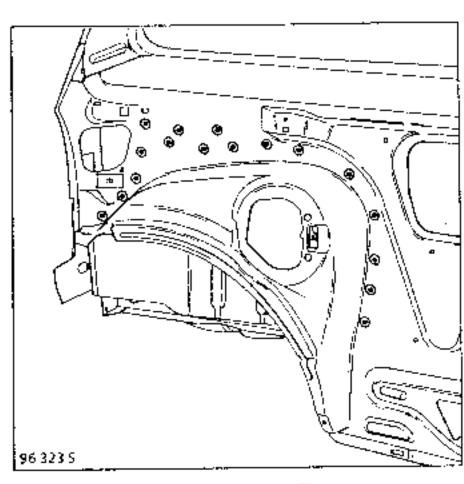
Part assembled with:

- shock absorber cup,
- cup reinforcement,
- rear parcel shelf mounting bracket



# 1 JOINT WITH REAR QUARTER PANEL LINING

Reminder : see 44-C-3





# 2 JOINT WITH SILL PANEL LINING

#### Steel thickness (mm)

Wheel arch 0,70 Sill panel lining 1,00

### **Unpicking**

•

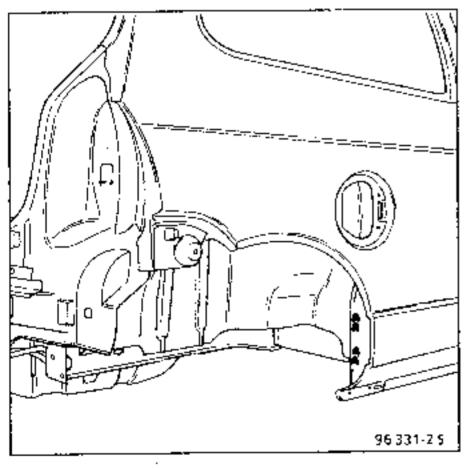
2 spot welds on thickness 0,70

or (depending on side unpicked)



2 welds on thickness 1,00

#### Welding





# JOINT WITH SIDE COVER PANEL FOR REAR AXLE ASSEMBLY CROSS MEMBER

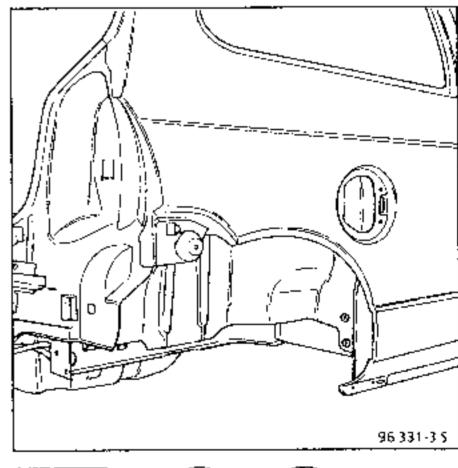
#### Steel thickness (mm)

Wheel arch 0,70 Cover panel 2,00

## Unpicking



2 spot welds on thickness 0,70





# 4 JOINT WITH REAR FLOOR

#### Steel thickness (mm)

Wheel arch

0,70

Floor

0,70

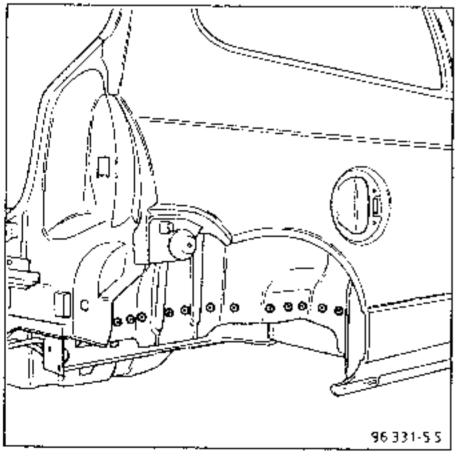
## Unpicking



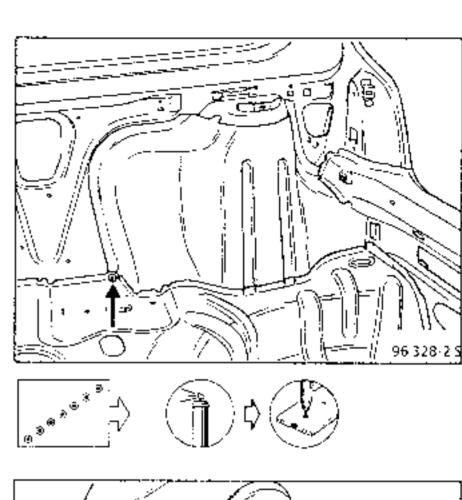
13 spot welds on thickness 0,70

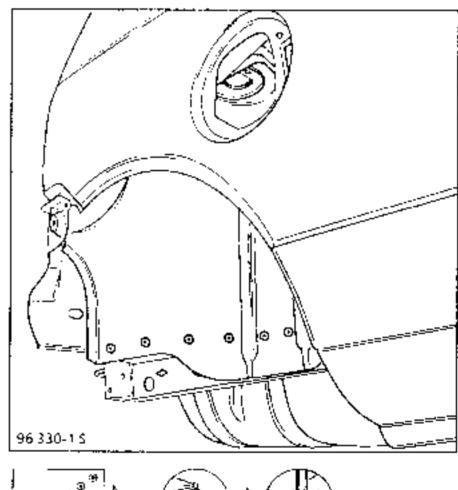


1 weld on thickness 0,70











# 5 JOINT WITH REAR SIDE MEMBER

#### Steel thickness (mm)

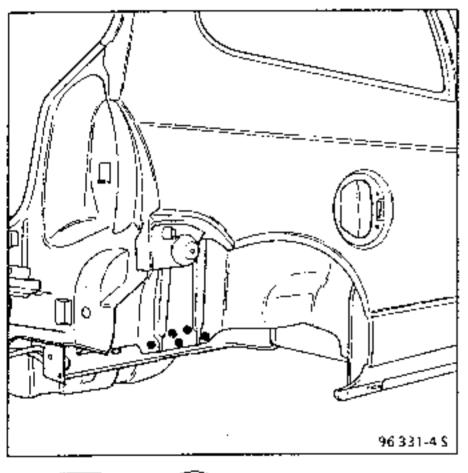
Wheel arch 0,70 Side member 1,80

## Unpicking



5 spot welds on thickness 0,70

## Welding





## 6 JOINT WITH REAR PANEL CROSS MEMBER

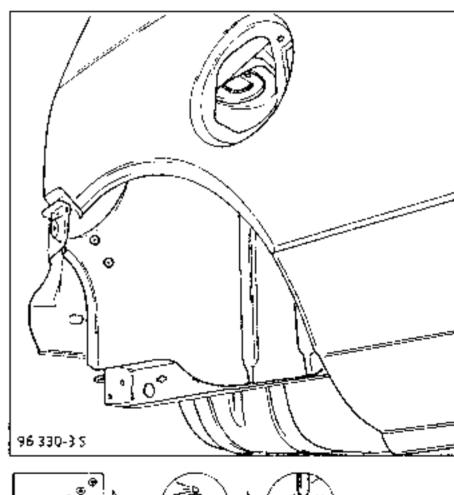
#### Steel thickness (mm)

Wheel arch 0,70 Cross member 0,70

#### Unpicking



2 spot welds on thickness 0,70





# 7 JOINT WITH REAR PANEL

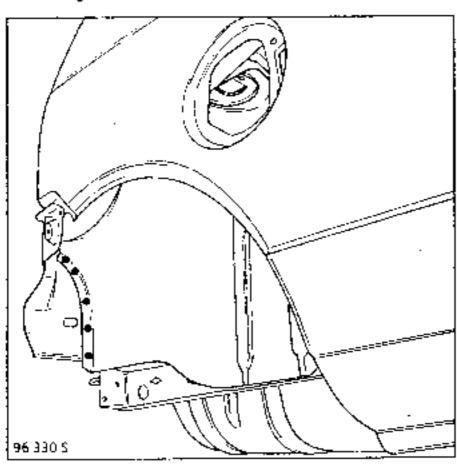
## Steel thickness (mm)

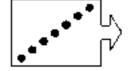
0,70 Wheel arch 1,00 Rear panel

## Unpicking



5 spot welds on thickness 0,70









Basic operation for rear impact, the part is partially replaced following cut A if the two rear quarters have not been damaged

In a complementary operation to replacing a quarter panel, the part may be entirely replaced

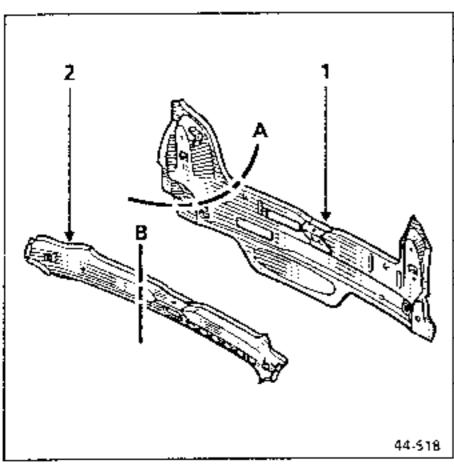
# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

(1) part assembled with:

- lock reinforcement,
- bumper support panel,
- bumper mounting bracket,
- bumper support bracket,
- exhaust mounting bracket.
- rear parcel shelf mounting ribs.

Also order a rear panel cross member (2)

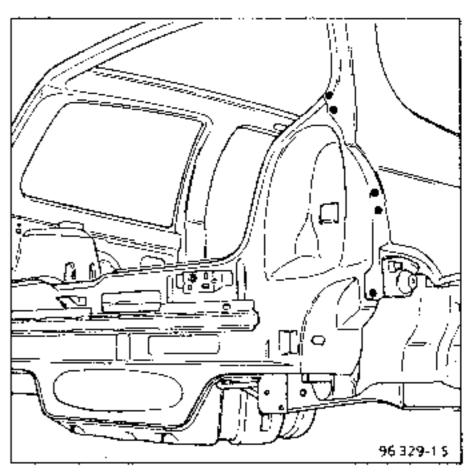
**NOTE**: the rear panel cross member may be partially replaced according to cut B. Refer to operation **44-G-4** 





# 1 JOINT WITH QUARTER PANEL

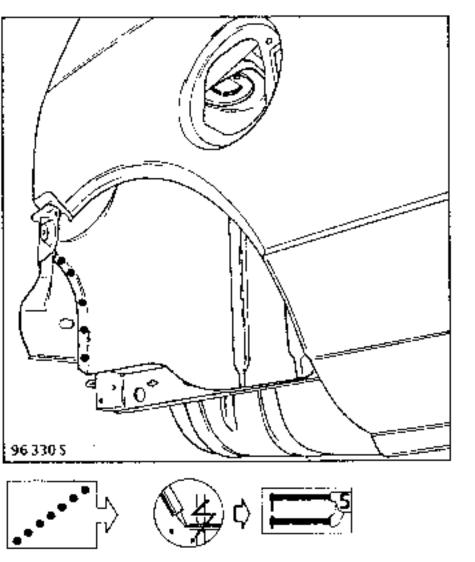
Reminder , see 44-A-7





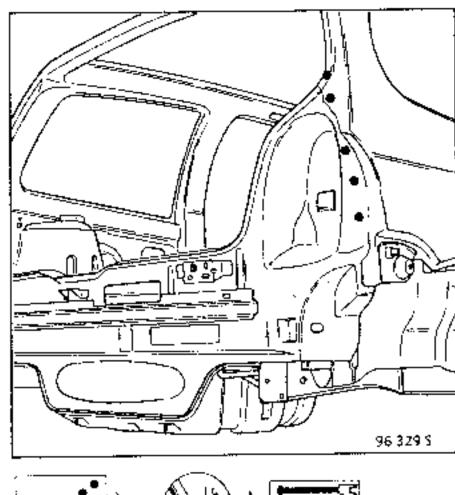
# 2 JOINT WITH INTERNAL PART OF WHEEL ARCH

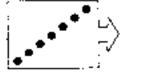
Reminder : see 44-E-7

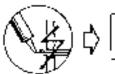


# [3] JOINT WITH REAR QUARTER PANEL LINING

Reminder : see 44-C-5









# 4 JOINT WITH REAR PANEL CROSS MEMBER

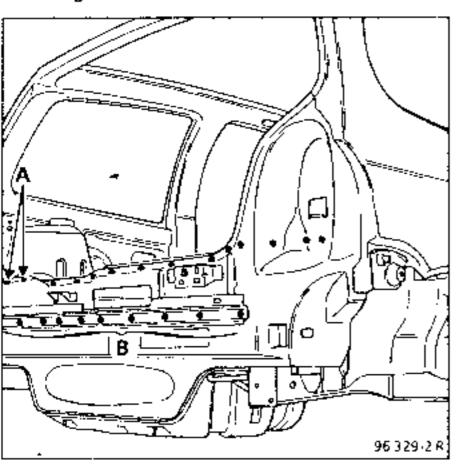
#### Steel thickness (mm)

Rear panel	1,00
Cross member	0,70
Bumper support corner	0,70
Lock reinforcement	1,20

#### Unpicking

**NOTE**: the unpicking operation is not carried out since the rear panel is replaced with the cross member

#### Welding





NOTE: at (A), 2 welds on 3 thicknesses 0,7 + 1,00 + 1,20 at (B), 10 welds on 3 thicknesses (0,7 x 2) + 1,00

# 5 JOINT WITH REAR FLOOR

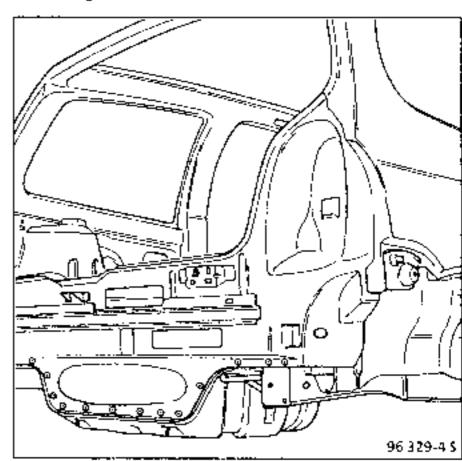
#### Steel thickness (mm)

Rear panel	1,00
Cross member	0,70
Side member	1,80

## **Unpicking**



14 spot welds on thickness 1,00





# 6 JOINT WITH REAR SIDE MEMBER

## Steel thickness (mm)

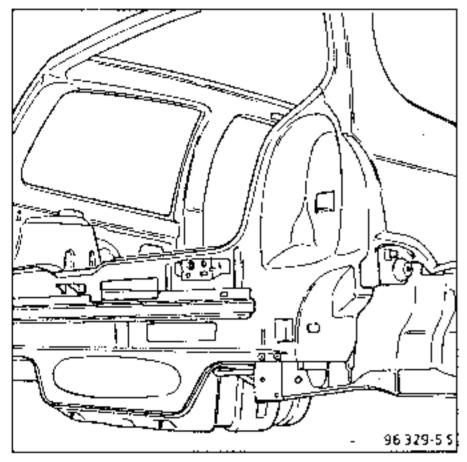
Rear panel	1,00
Side member	1,80
Floor	0,70

## Unpicking



4 spot welds on thickness 1,00

## Welding





# 7 PARTIAL SECTION

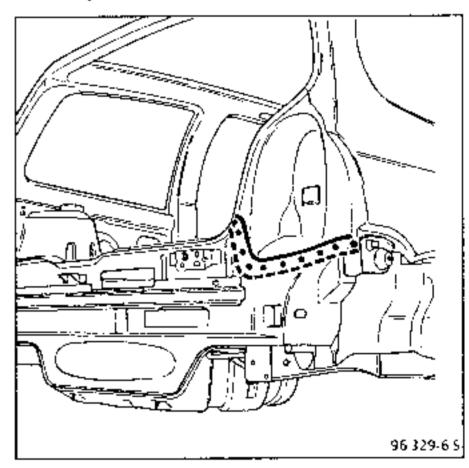
## Steel thickness (mm)

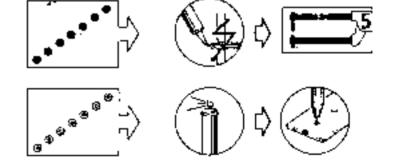
Rear panel 1,00

## Unpicking



300 mm





# UPPER REAR STRUCTURE Rear panel inner cross member (G)

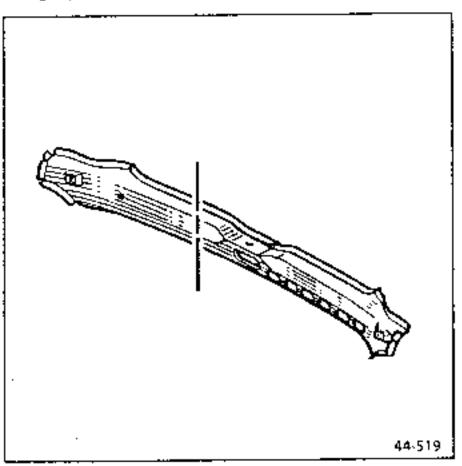
#### INTRODUCTION

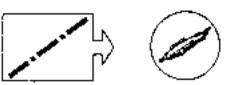
Complementary operation to rear panel.

The part may be partially replaced following cut. A.

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Single part





# 1 JOINT WITH REAR QUARTER PANEL LINING

#### Steel thickness (mm)

Cross member 0,70
Rear quarter panel lining 0,80

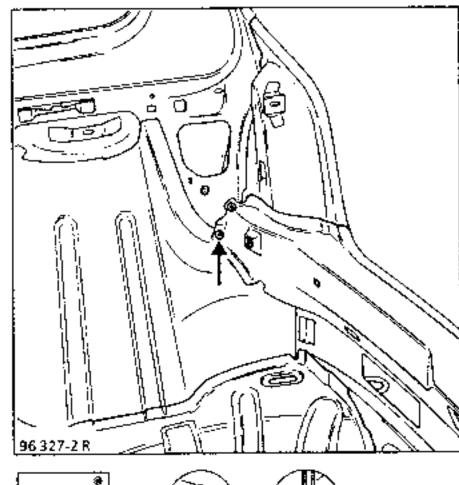
## Unpicking



100 mm



2 spot welds on thickness 0,70







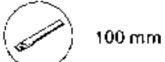


# 2 JOINT WITH WHEEL ARCH

## Steel thickness (mm)

0,70 Cross member 0,70 Wheel arch

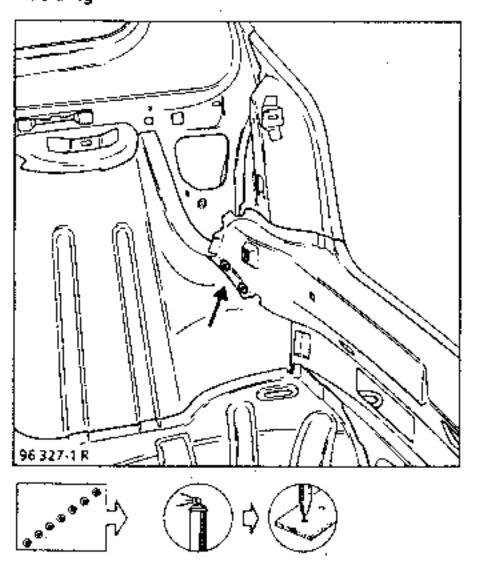
## Unpicking





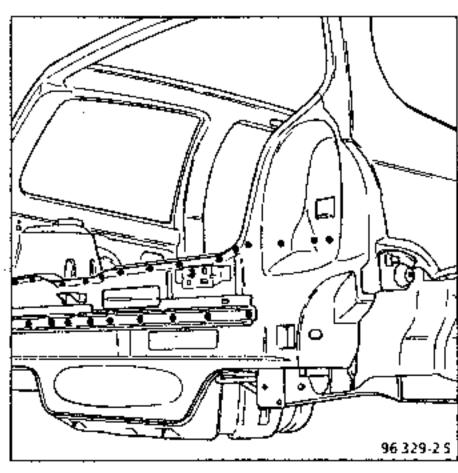
2 spot welds on thickness 0,70

## Welding



# 3 JOINT WITH REAR PANEL

Reminder : see 44-F-4





# UPPER REAR STRUCTURE Rear panel inner cross member (G)

# 4 PARTIAL SECTION

## Steel thickness (mm)

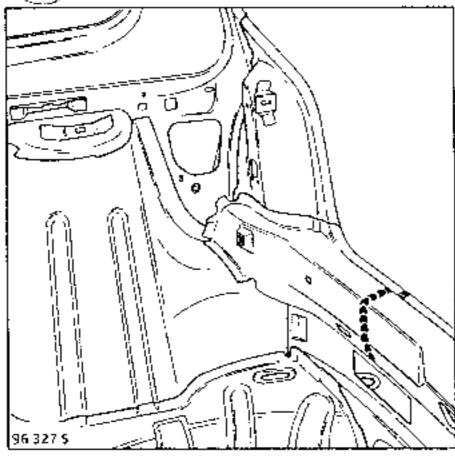
Cross member

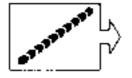
0,70

## Unpicking



200 mm







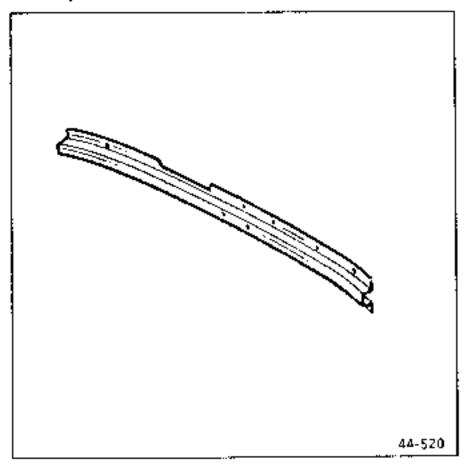




Basic operation for rear impact

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Blank part.



# 1 JOINT WITH REAR PANEL

## Steel thickness (mm)

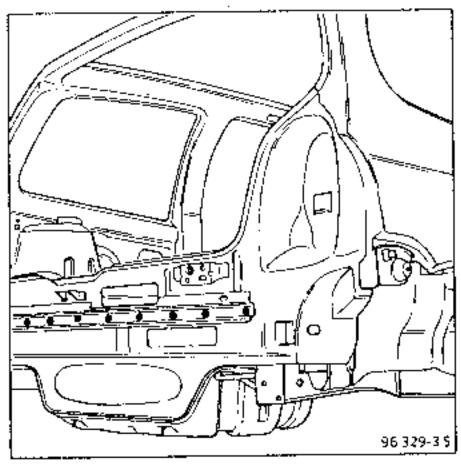
Support panel	0,70
Rear panel	0,70
Rear panel cross member	0,70

## Unpicking



14 spot welds on thickness 0,70

## Welding





NOTE: all welds are on three thicknesses

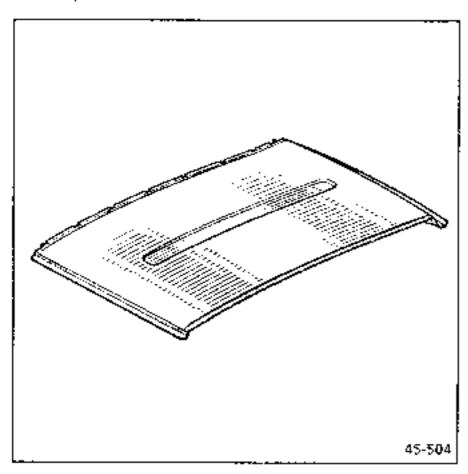
Basic operation for impact on upper body section.

Complementary operation to :

- side of body for side impact,
- half unit for rear impact.

# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Blank part



# 1 JOINT WITH FRONT ROOF PANEL CROSS MEMBER

#### Steel thickness (mm)

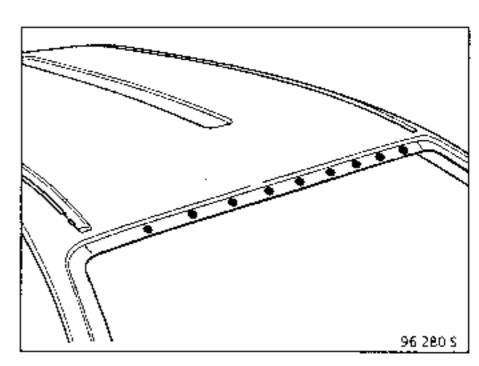
Cross member 0,70 Roof panel 0,70

#### Unpicking

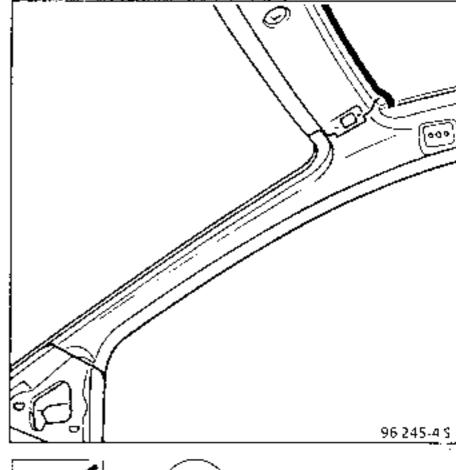


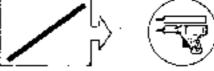
9 spot welds on thickness 0,70 h mastic bead 700 mm

Use a hot air gun to heat 800 mm of mastic bead.



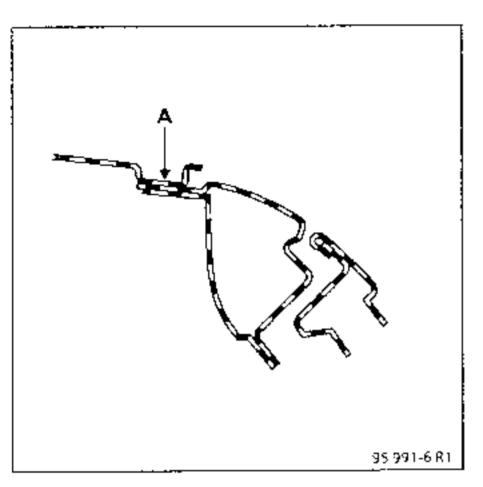


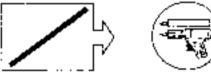




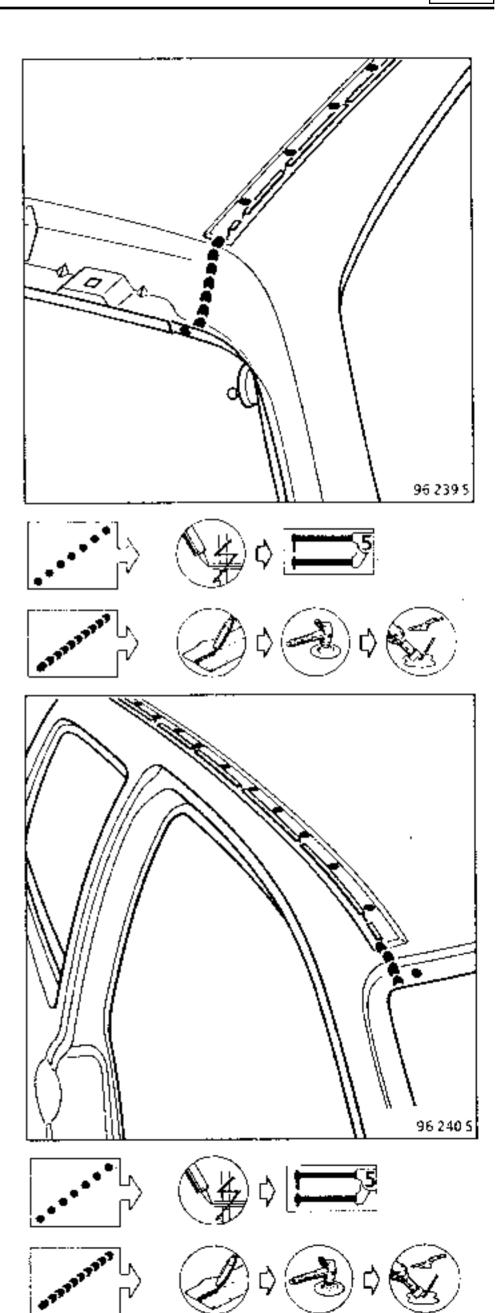
# 2 JOINT WITH UPPER BODY PANEL

Reminder: see 43-C-3





NOTE: at (A), before fitting roof panel, apply an bonding mastic bead Ø 4 mm



# 3 JOINT WITH REAR QUARTER PANEL

#### Steel thickness (mm)

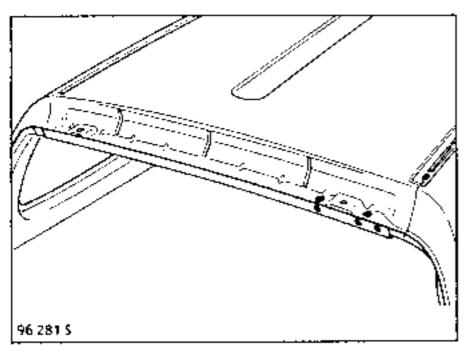
Roof panel 0,70 Rear quarter panel reinforcement 1,50 Roof cross member 0,70

### Unpicking



Sspot welds on thickness 0,70

### Welding





**NOTE:** All welds are on 3 thicknesses  $(0,7 \times 2) + 1,50$ 

# 4 JOINT WITH REAR ROOF CROSS MEMBER

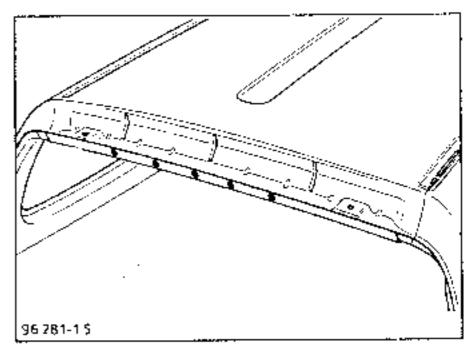
## Steel thickness (mm)

Roof panel 0,70 Cross member 0,70

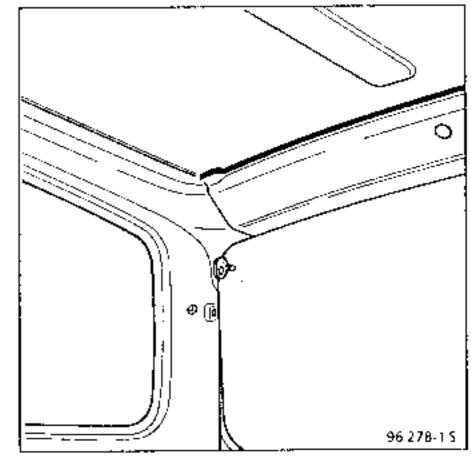
## Unpicking



5 spot welds on thickness 0,70 1 mastic head 700 mm heat with hot air gun for 800 mm





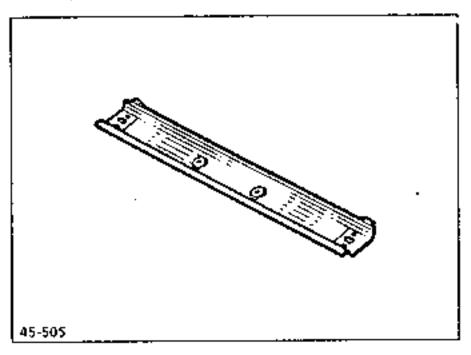




Complementary operation to replacing roof panel.

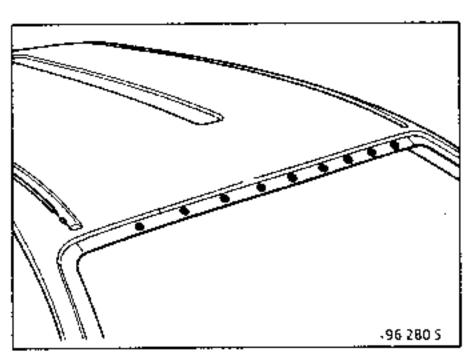
COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

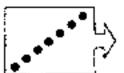
Blank part.





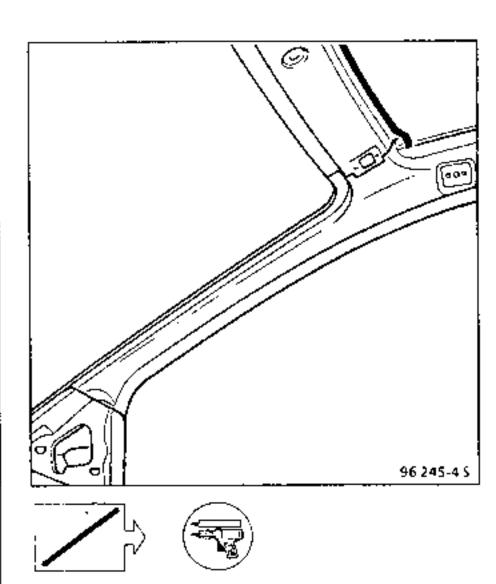
Reminder : see 45-A-1





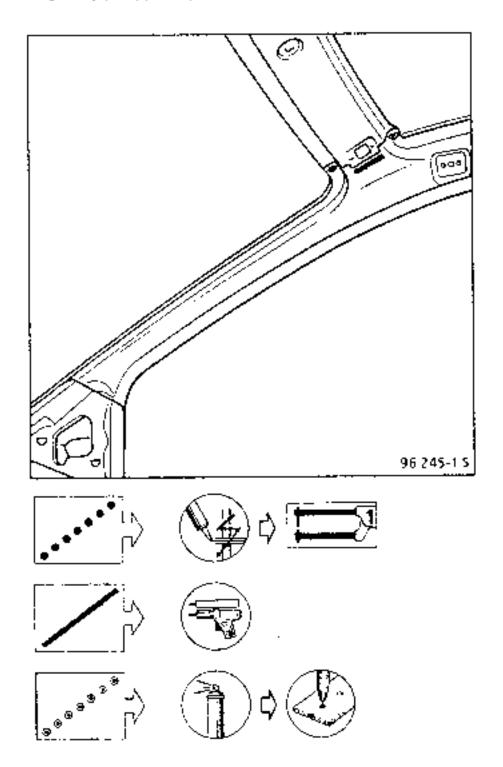






# 2 JOINT WITH SIDE PILLAR LINING

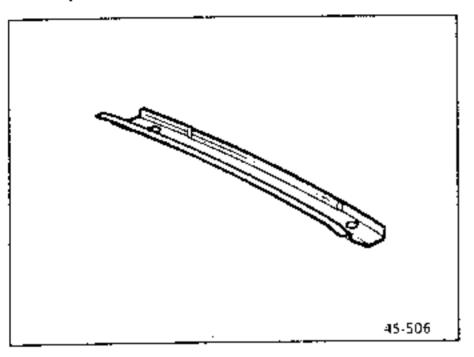
Reminder : see 43-8-4



Complementary operation to replacing roof panel.

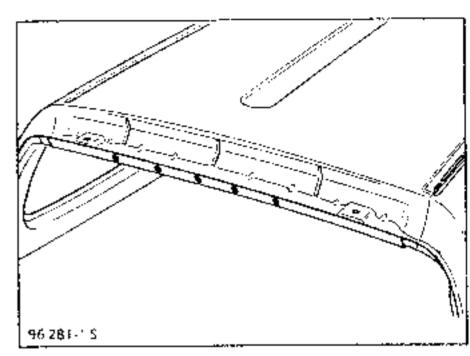
# COMPOSITION OF THE PART AS SUPPLIED BY PARTS DEPARTMENT

Blank part

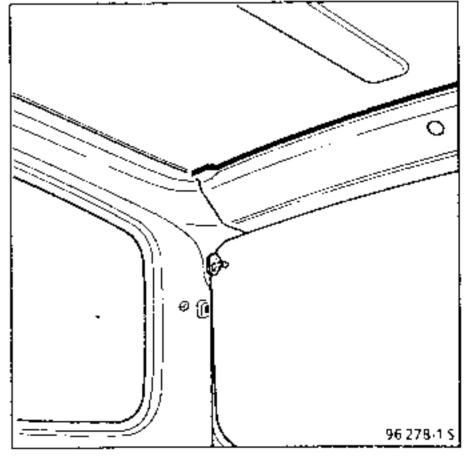


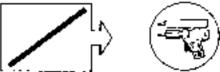
# 1 JOINT WITH ROOF PANEL

Reminder : see 45-A-4









# 2 JOINT WITH REAR END PANEL REINFORCEMENT

#### Steel thickness (mm)

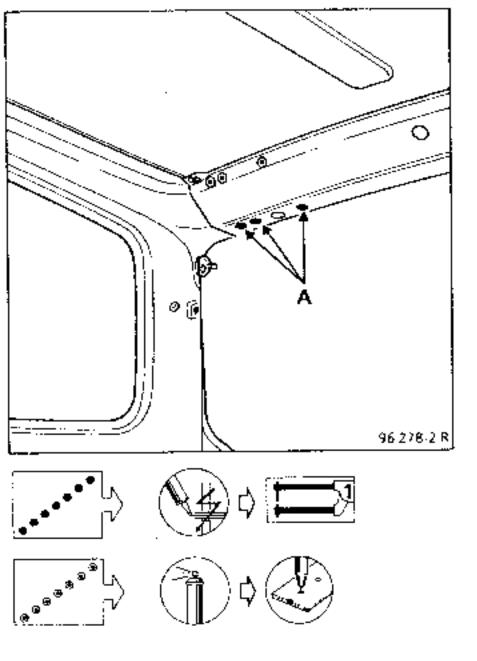
Cross member	0,70
Roof panel	0,70
Rear end panel reinforcement	1,50
Rear end panel lining	0,70

## Unpicking



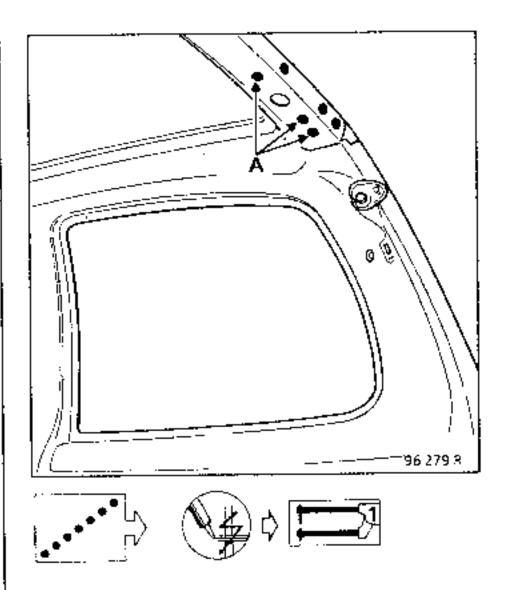
10 spot welds on thickness 0,70

## Welding





 $(0.70 \times 2) + 1.5$ 



# 3 JOINT WITH REAR QUARTER PANEL LINING

#### Steel thickness (mm)

Cross member 0,70 rear quarter panel lining 0,70

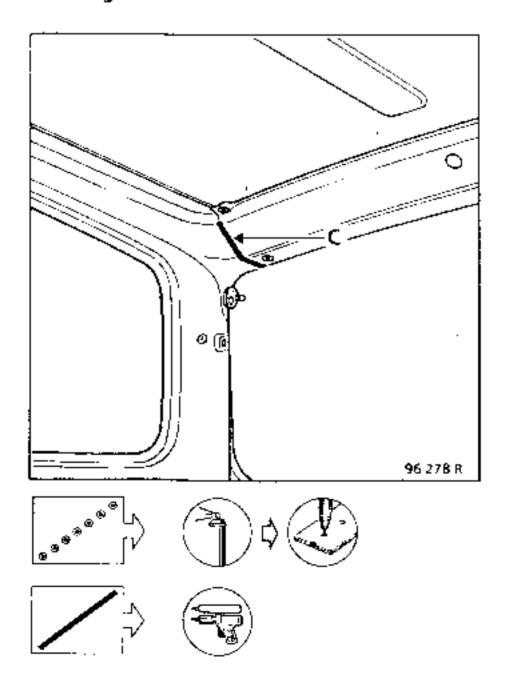
## Unpicking



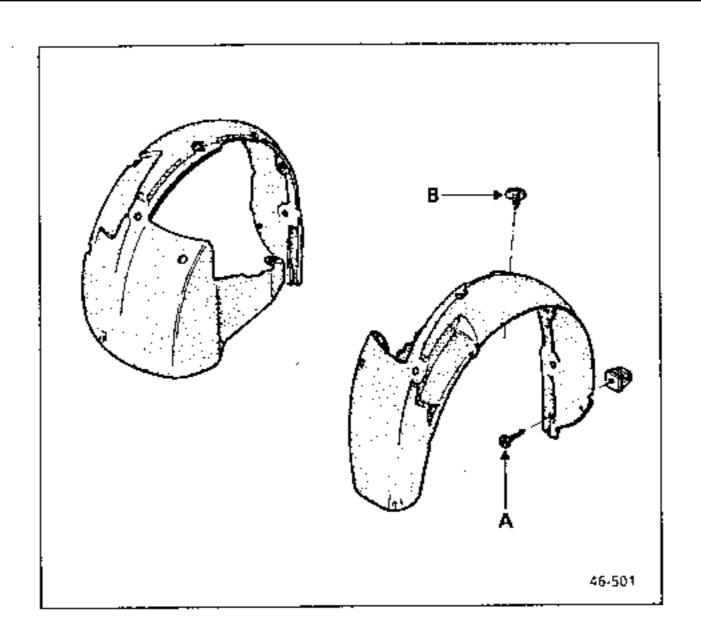
2 spot welds on thickness 0,70

Use hot air gun over 200 mm of bead

#### Welding

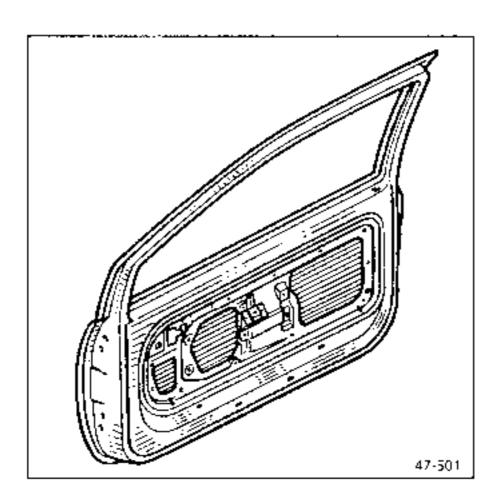


NOTE: at (C), apply a bonding mastic bead.

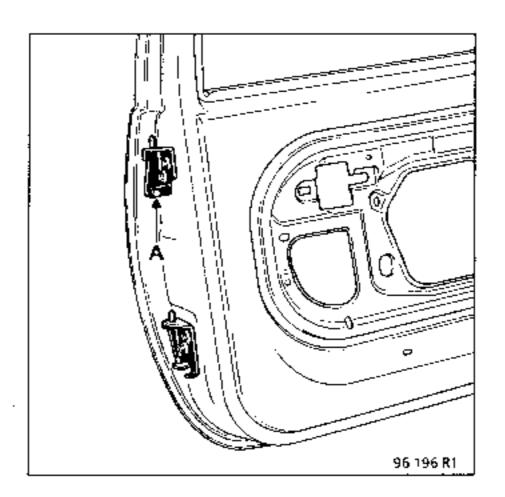


#### remove:

- the Torx screws 20 (A),the plastic clips (B).

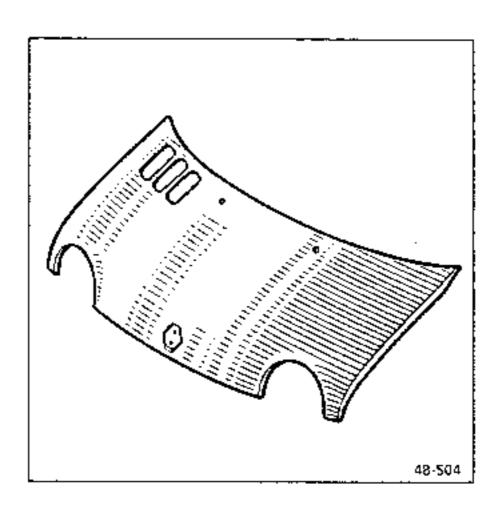


## REMÓVAL

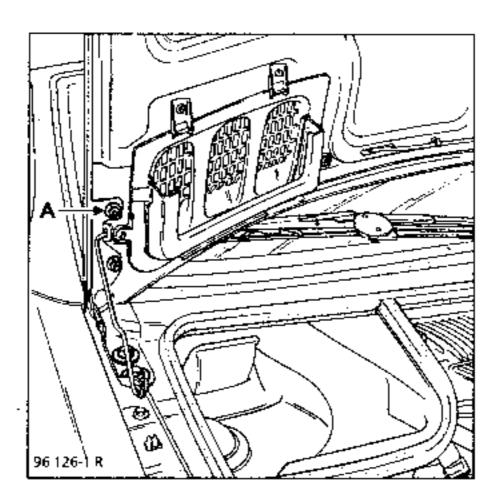


Undo the door lock nut (A).

Lift the door carefully to remove it from the hinges

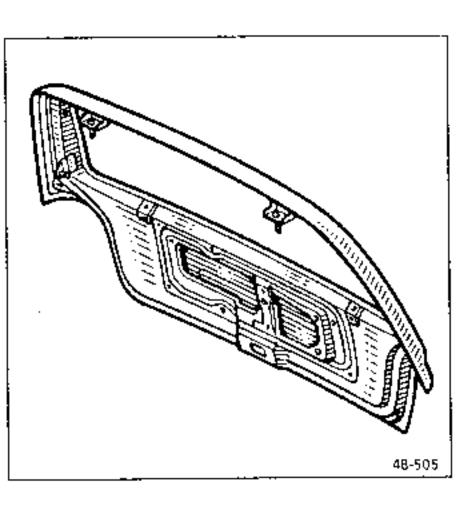


## REMOVAL

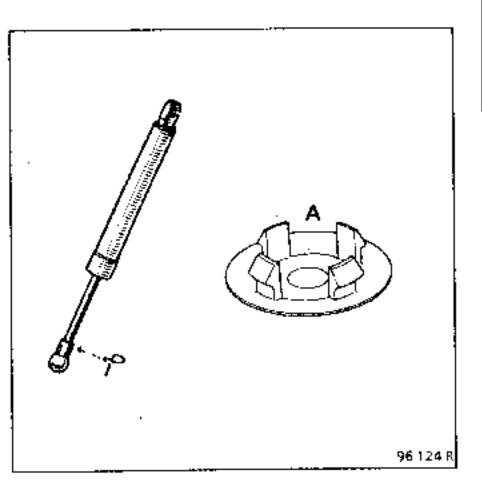


Position the brace rod.

Undo the bonnet mountings (A).

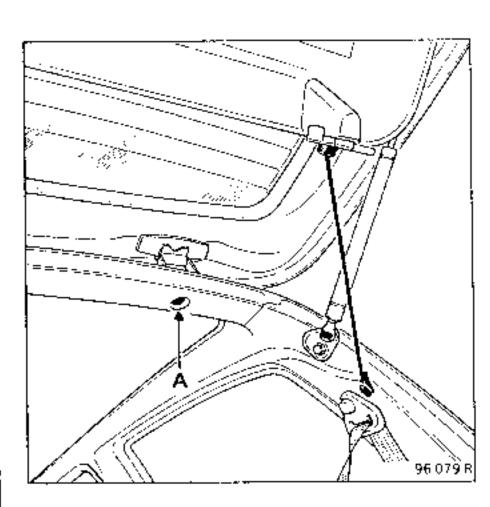






Disconnect the electric wiring.

Unclip the tailgate struts.



Remove plug (A).

Remove the mountings (nuts Ø 8)

**NOTE:** When refitting ensure the rear parcel shelf cords are correctly positioned.