

Vehicle type	Engine		Clutch type	Type of manual gearbox and automatic transmission
	Type	Capacity		
BA0E	E7J	1390	180 DST 3050 180 CP 3300	JB1
BA0F BA0L	K7M	1598	200 HR 4000	JB1
BA0G	F3R	1998	215 HRN 4000	JB3
BA0A BA0U	F8Q	1870	200 HRV 4600 200 HRV 3100	JB1
BA0F	K7M	1598		AD4

**VEHICLE IDENTIFICATION**

Example : BA0E

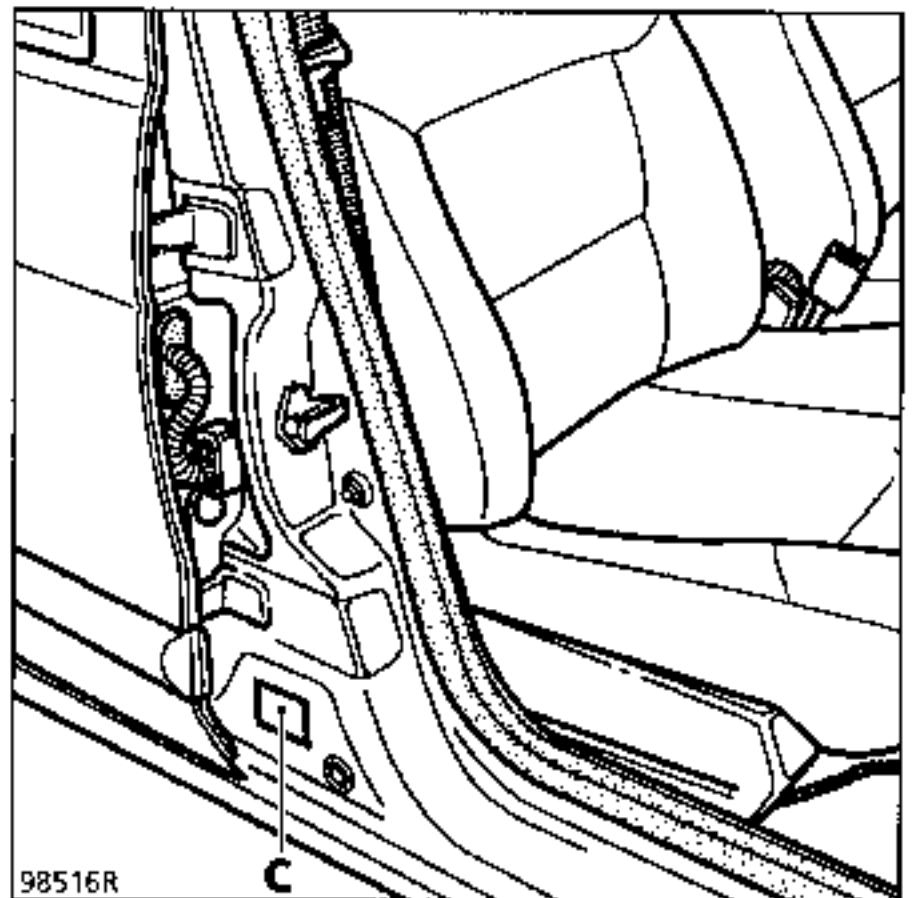
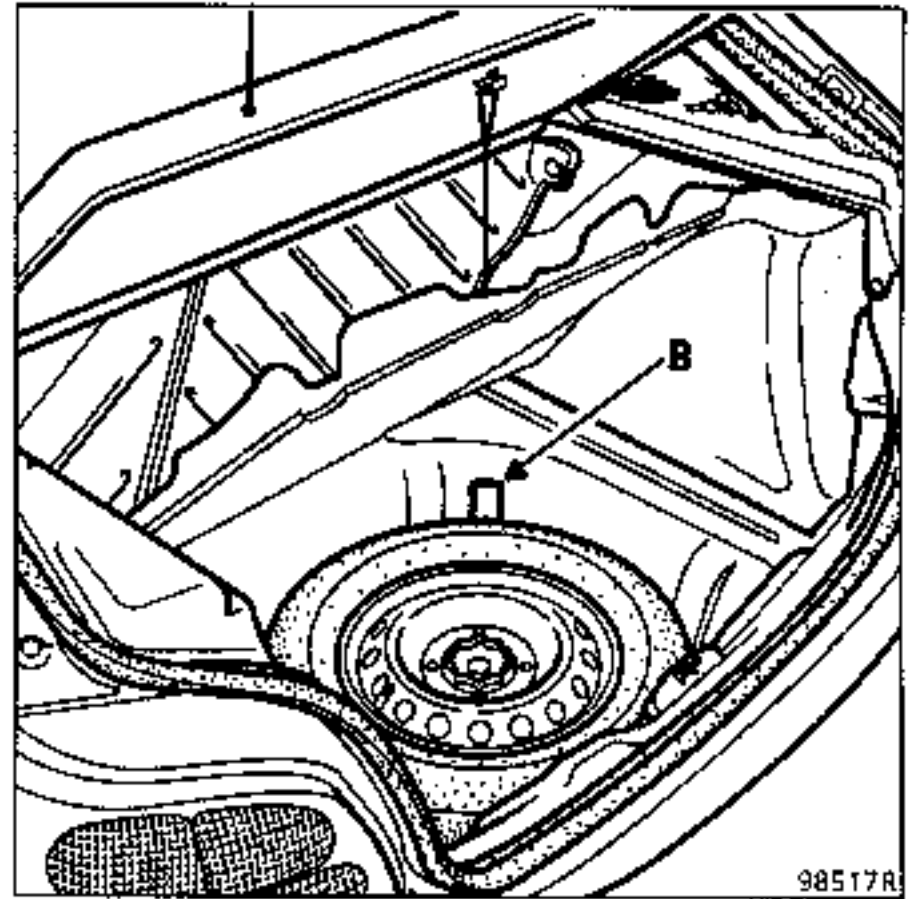
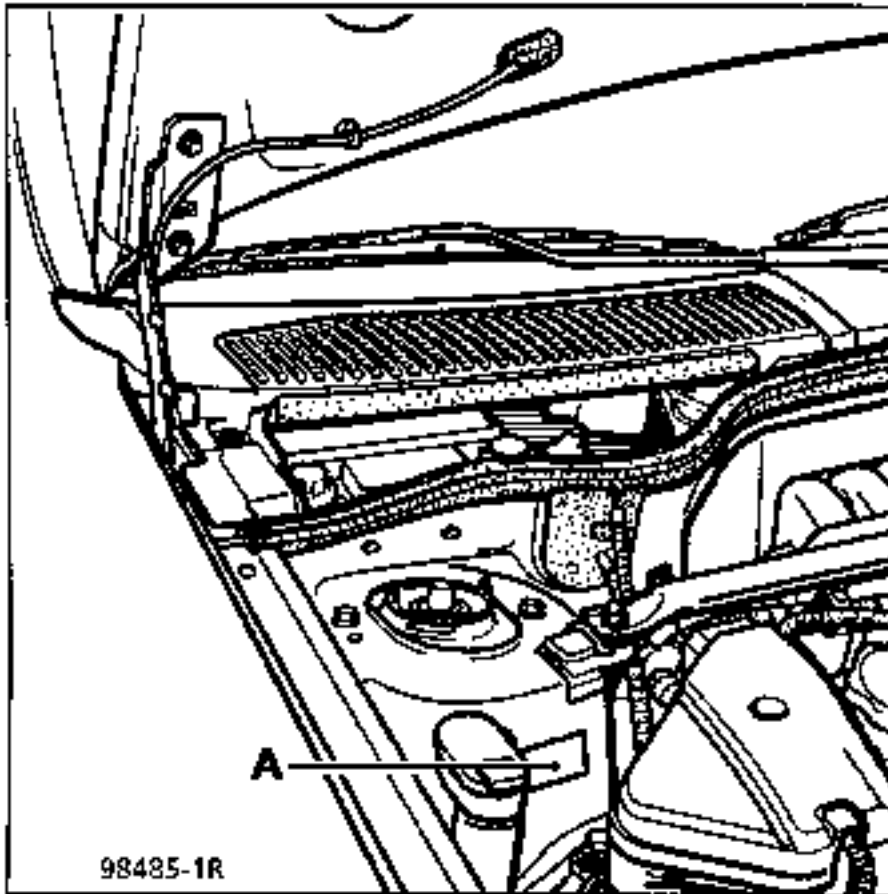
- B : Body type (example 5 door hatchback)
- A : Project code (example 64)
- 0E : Engine suffix (example E7J 764)

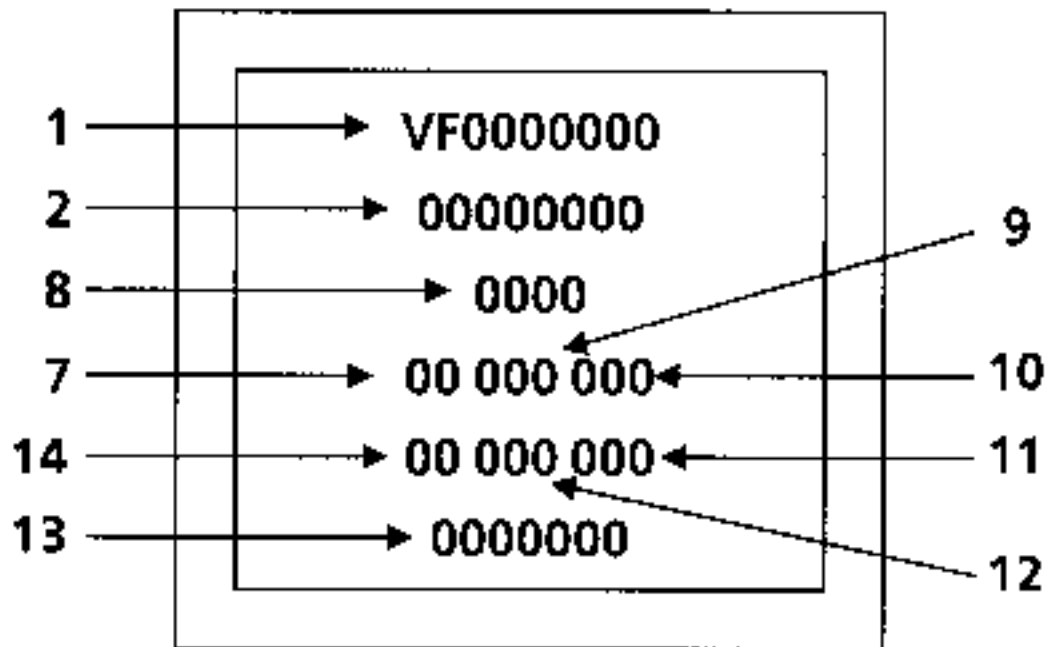
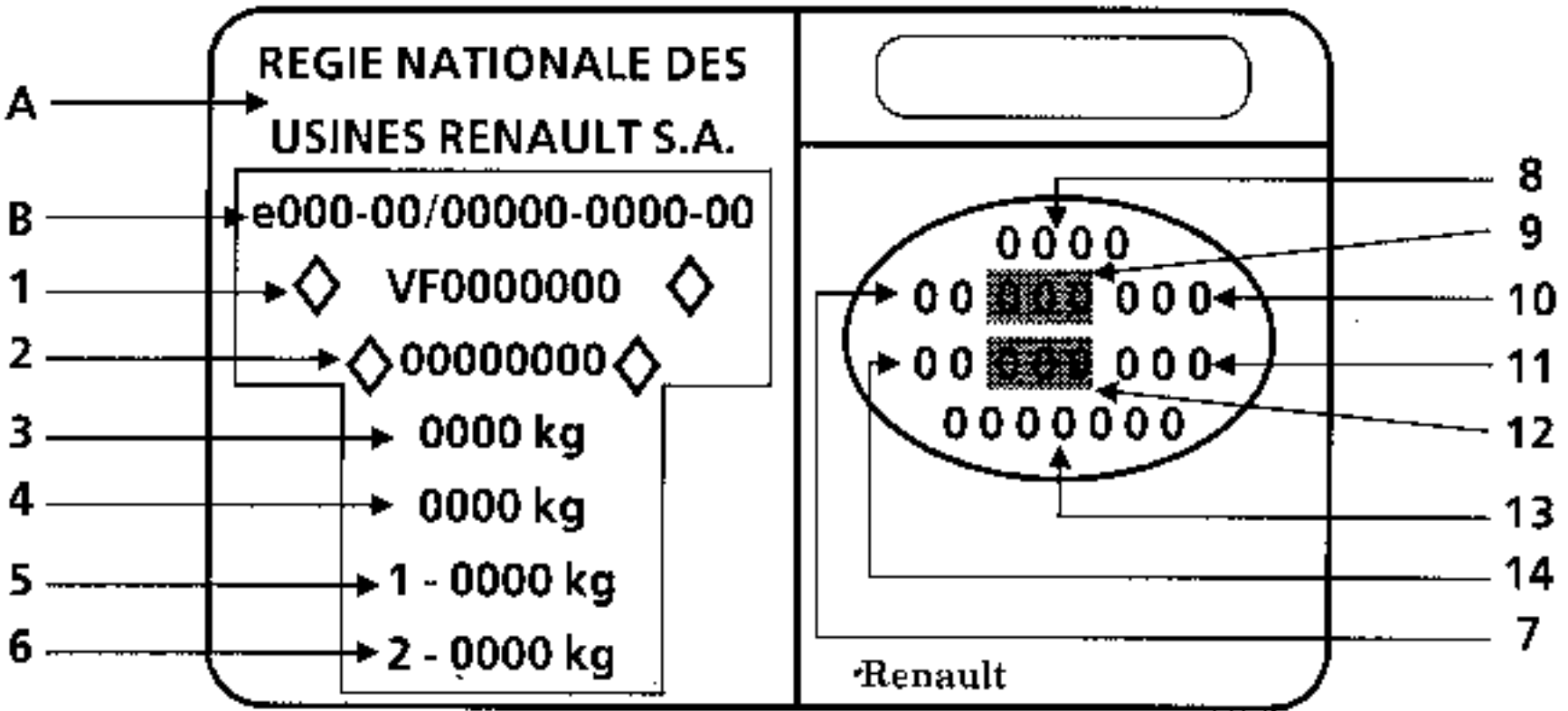
### LOCATION OF THE VEHICLE IDENTIFICATION PLATE

Two possible locations on the vehicle:

- in the engine compartment (A),

- near to the emergency spare wheel (B) with a duplicate label of the oval plate on the lower part of the passenger door (C).






It shows:

- At **A** : the name of the manufacturer,
- At **B** : the E.E.C. acceptance number
- At **1** : the type mines of the vehicle preceded by the world manufacturers identification code (VF1 corresponds to RENAULT FRANCE),
- At **2** : the chassis number,
- At **3** : the total all up weight,
- At **4** : the maximum permitted total train weight,
- At **5** : the maximum permitted weight on the front axle,
- At **6** : the maximum permitted weight on the rear axle,
- At **7** : the first figure indicates the gearbox or factory options,  
the second figure indicates the equipment level,
- At **8** : the vehicle type,
- At **9** : the technical equipment code,
- At **10** : additional factory optional equipment,
- At **11** : the equipment level,
- At **12** : the paint code,
- At **13** : a letter describing the factory of manufacture followed by the fabrication number,
- At **14** : the trim code.


**NOTE** : Depending on the country of export, certain details might not be given. The plate described above shows all possible information.

#### ALLOCATION OF TECHNICAL EQUIPMENT CODES

The equipment code, the three letters which appear in (9), must be documented for vehicle identification reasons (ordering spare parts, warranty claim, etc.)

 Safety symbol (special precautions to be taken when carrying out operations).

SPECIAL TOOLING REQUIRED	
Cha. 280-02	Adaptable cross piece for trolley jack
Cha. 408-01	Adaptable socket for trolley jack
Cha. 408-02	

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

It is **forbidden** to lift the vehicle by supporting its weight under the front suspension arm or under the V shaped part of the rear axle.

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

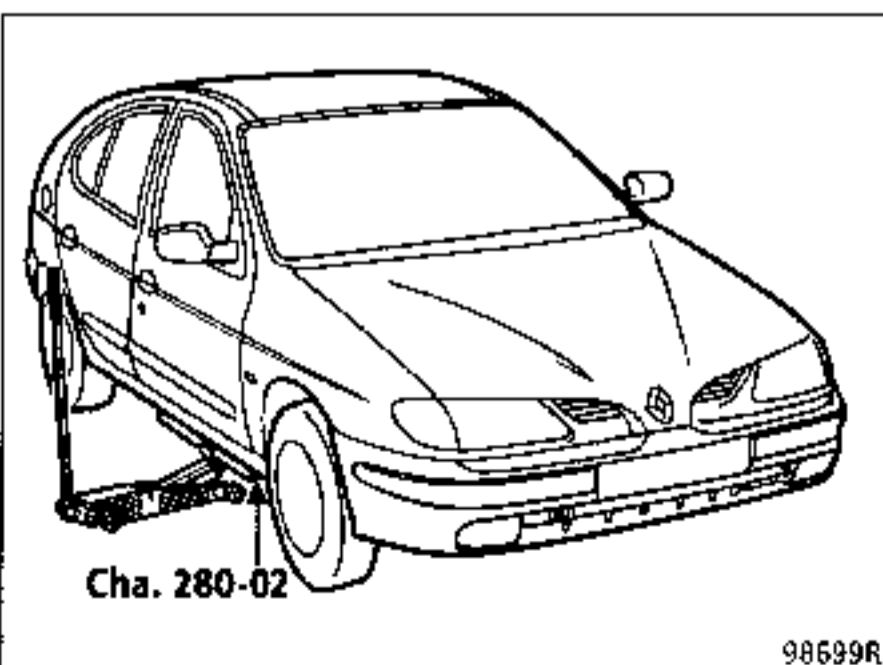
To lift the front or rear, support the vehicle's weight under the vehicle's jacking points.

**TROLLEY JACK USED FROM THE SIDE**

Use cross piece **Cha. 280-02**.

Take the weight under the sill, level with the front door.

Position the flange correctly in the groove of the cross piece.

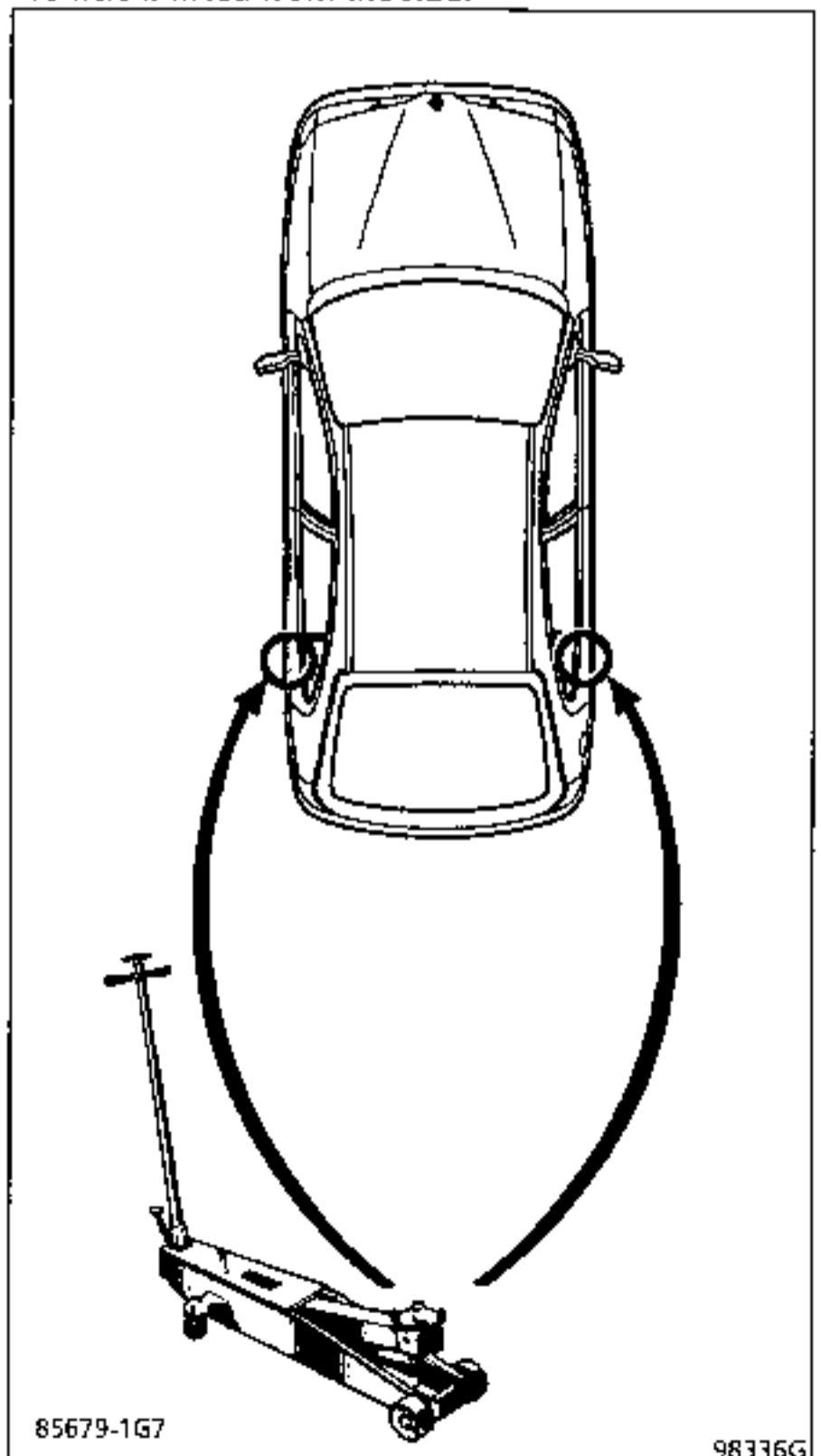


**AXLE STANDS**

When putting the vehicle on axle stands, they must be positioned:

- either under the reinforcements designed for lifting the vehicle using the vehicle's jack,
- or under the points located behind the reinforcements.

Axle stands are positioned at the rear when the vehicle is lifted from the side.



**SAFETY INSTRUCTIONS**



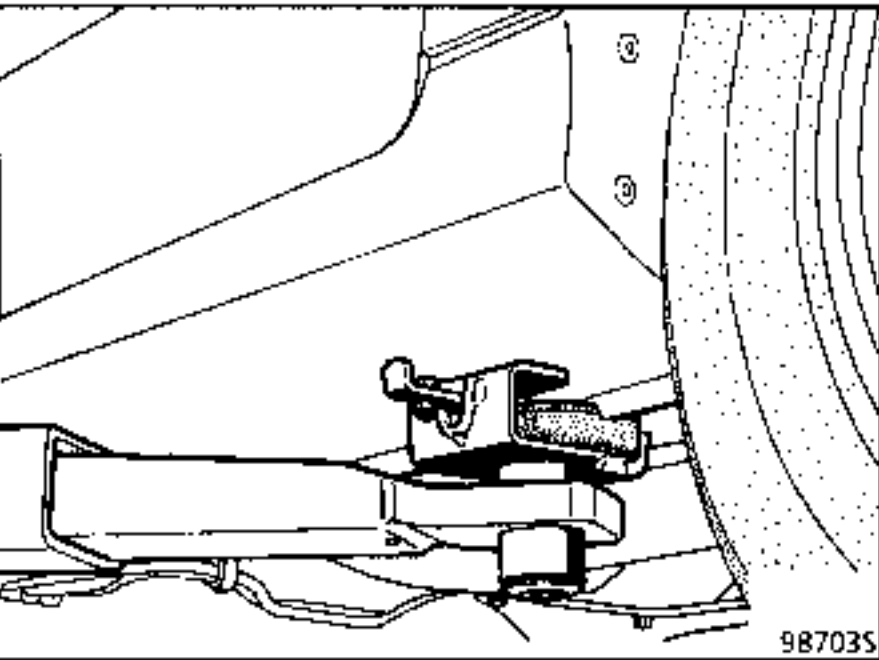
Several scenarios should be considered:

**1 - WHEN REMOVING COMPONENTS**

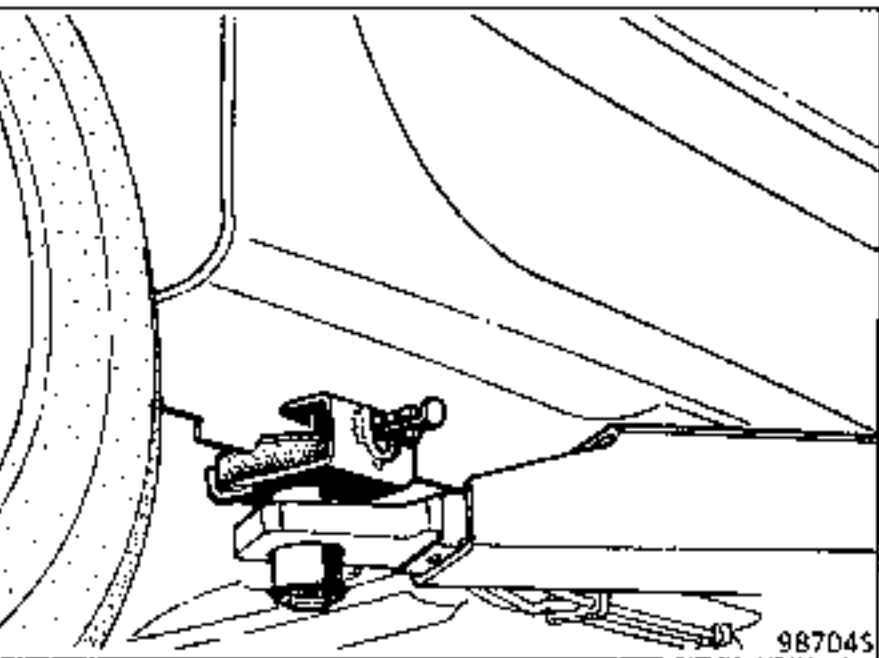
In general, never use a 2 post lift, if a four post lift can be used.

If this is not possible, position the lifting pads under the body sill, level with the vehicle's jacking points.

**FRONT**



**REAR**



These must be positioned in line with the vehicle's jacking points. They must be clipped into the holes in the body sill.

**2 - SPECIFIC CASE OF REMOVING AND REFITTING THE ENGINE AND TRANSMISSION ASSEMBLY**

In this specific case, the body of the vehicle must be firmly attached to the arms of the two post lift using the special pads.

**FOG**

Reference FOG 449 8111 - 449 8411

or

**CHEMICO**

Reference 39 2550 0001

or

**SCENCH**

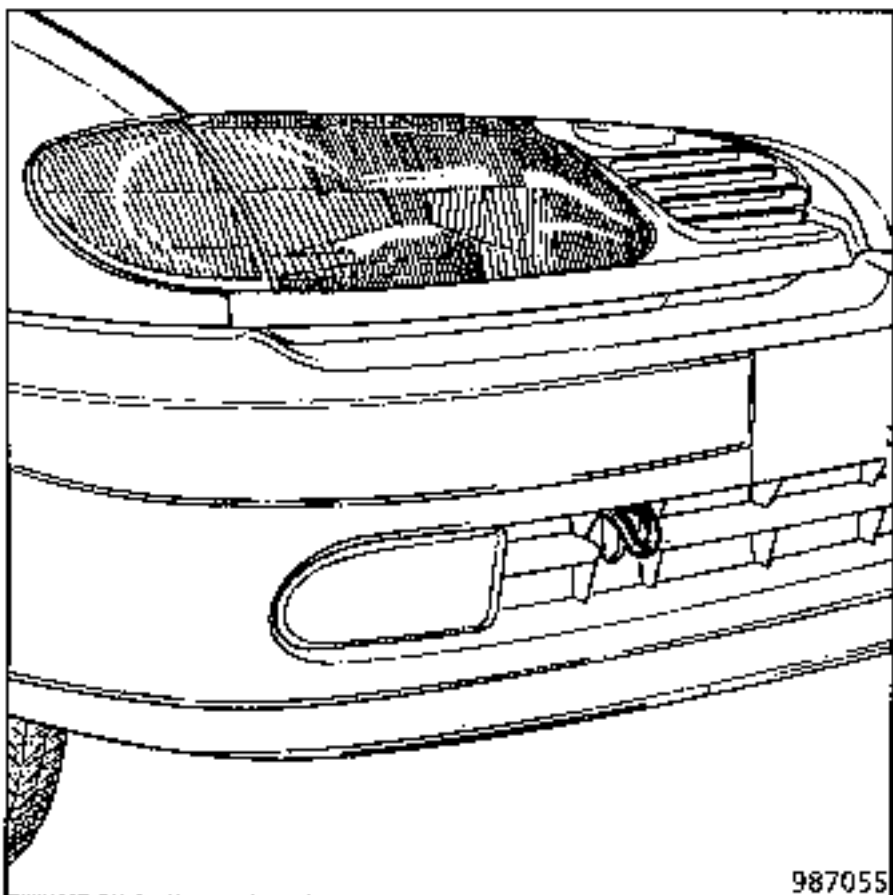
Reference 776 684

**OBSERVE THE LEGAL TOWING REQUIREMENTS OF THE COUNTRY YOU ARE IN.**

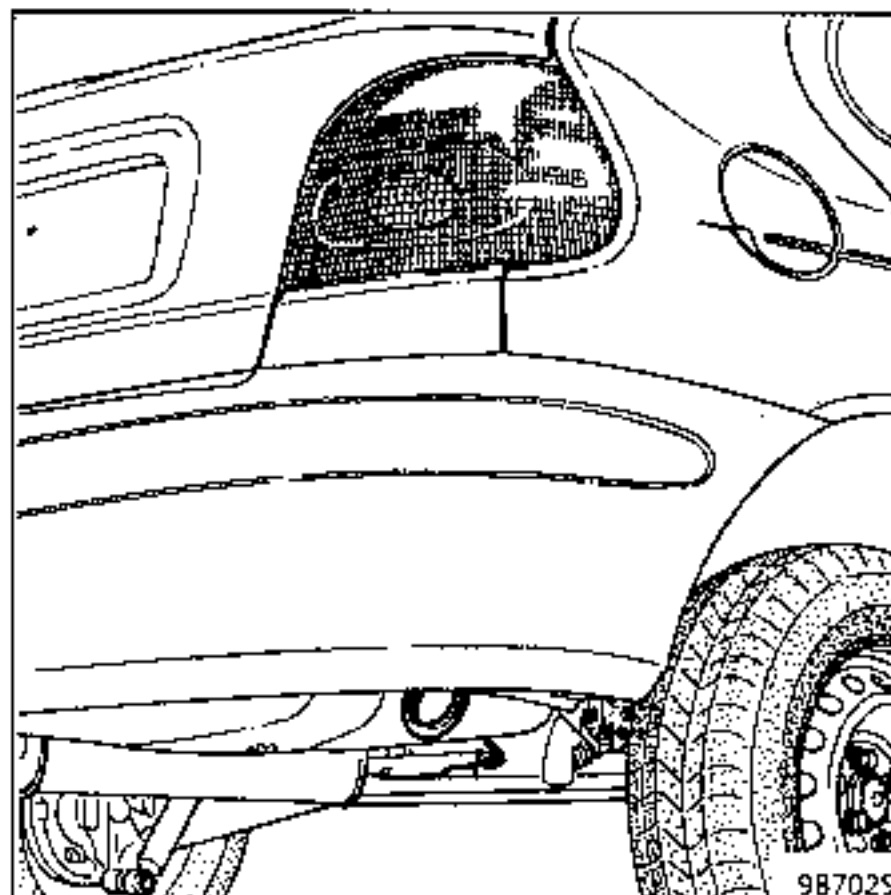
**NEVER USE THE DRIVESHAFTS AS ATTACHMENT POINTS.**

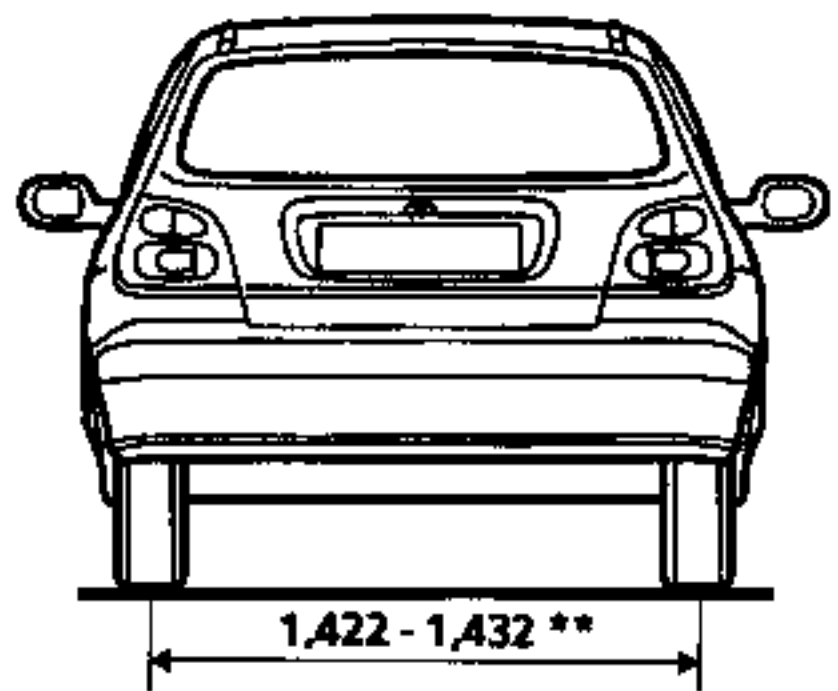
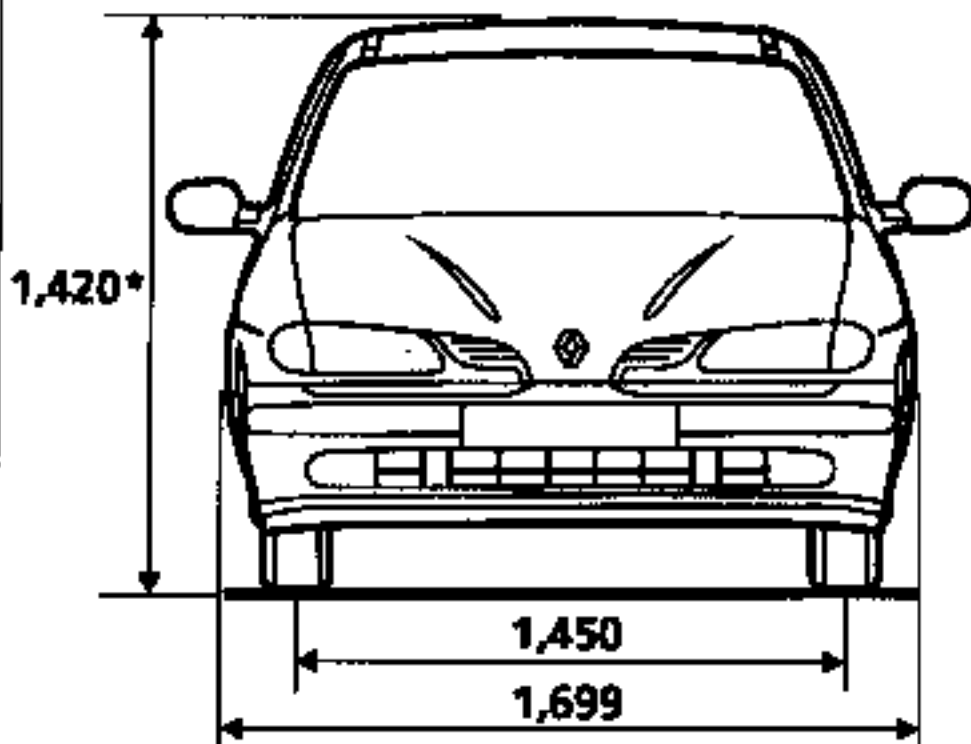
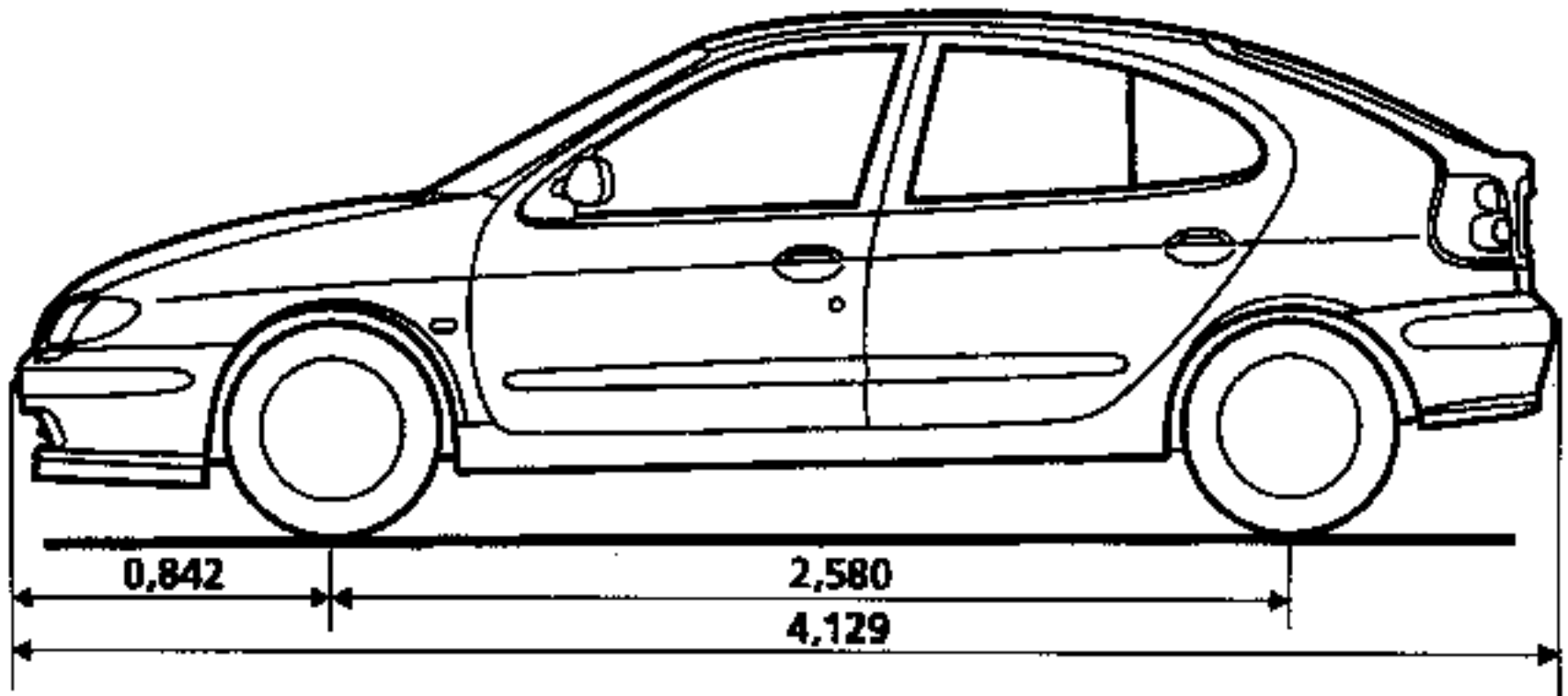
The towing points may only be used for towing the vehicle on the road. They should never be used for removing the vehicle from a ditch or for any other similar breakdown operation or to lift the vehicle, either directly or indirectly.

FRONT



REAR



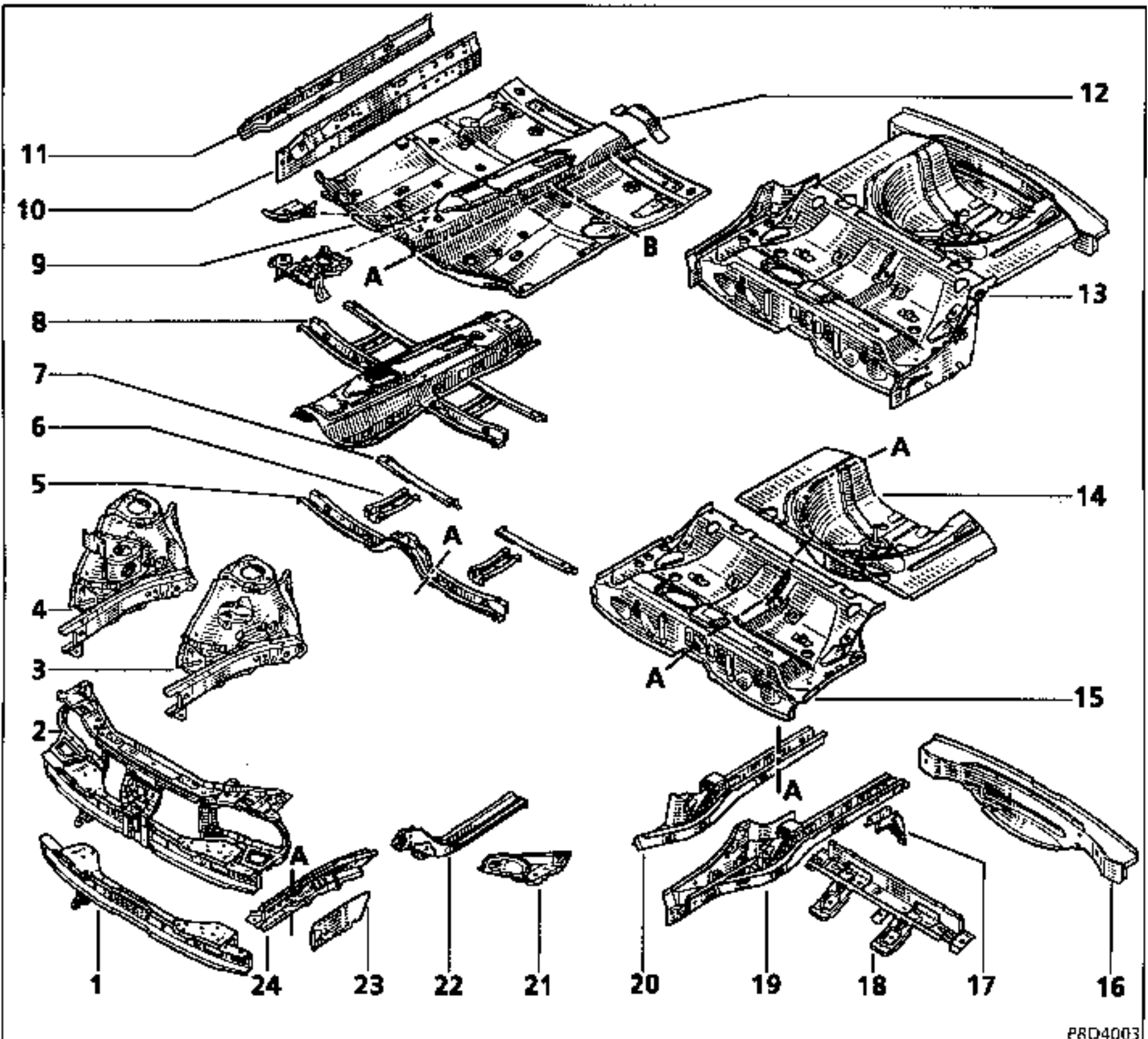


98336R2

\* Unladen  
\*\* Depending on version  
Dimensions in metres



SUB FRAME

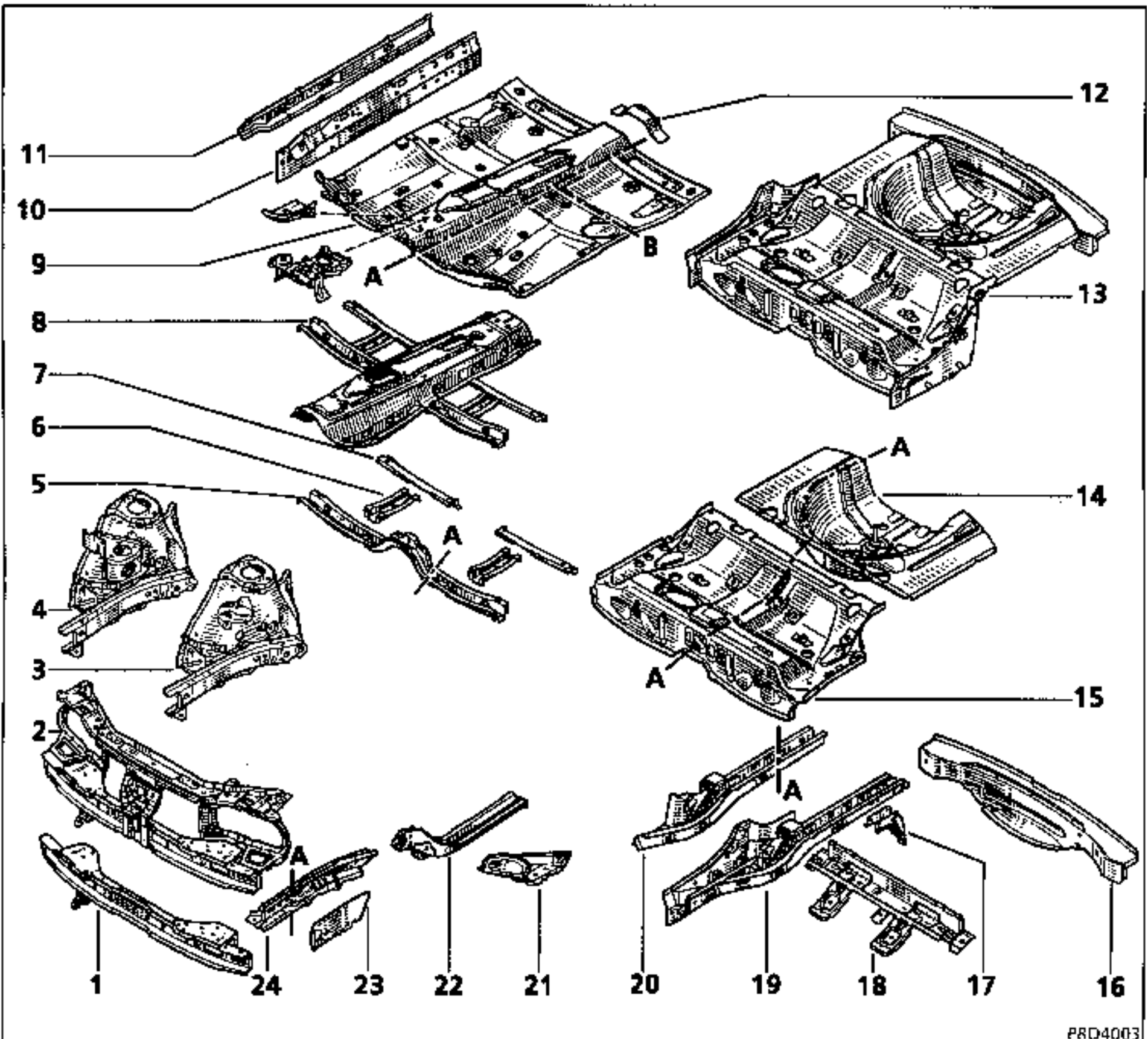


PRD4003

- 1 Front end lower cross member
- 2 Front panel
- 3 Front half unit - without suspended mounting
- 4 Front half unit - with suspended mounting
- 5 Front cross member under front seat
- 6 Front side member extension
- 7 Rear cross member under front seat
- 8 Centre floor reinforcement
- 9 Centre floor
- 10 Inner sill panel
- 11 Inner sill panel stiffener
- 12 Cable sleeve stop

- 13 Rear floor unit
- 14 Rear floor, rear section
- 15 Rear floor, front section
- 16 Rear end cross member
- 17 Securing ring
- 18 Cross member under rear seat
- 19 Rear side member assembly
- 20 Rear side member
- 21 Front side cross member
- 22 Front side member, rear section
- 23 Front side member closure panel
- 24 Front side member

























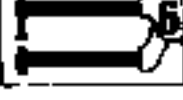
SUB FRAME



PRD4003

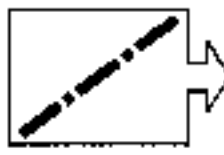
- 1 Front end lower cross member
- 2 Front panel
- 3 Front half unit - without suspended mounting
- 4 Front half unit - with suspended mounting
- 5 Front cross member under front seat
- 6 Front side member extension
- 7 Rear cross member under front seat
- 8 Centre floor reinforcement
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- 11 Inner sill panel stiffener
- 12 Cable sleeve stop

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- 14 Rear floor, rear section
- 15 Rear floor, front section
- 16 Rear end cross member
- 17 Securing ring
- 18 Cross member under rear seat
- 19 Rear side member assembly
- 20 Rear side member
- 21 Front side cross member
- 22 Front side member, rear section
- 23 Front side member closure panel
- 24 Front side member

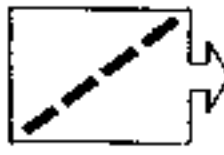
 <p>Cut with cold chisel</p>	 <p>Stitch weld under MAG gas protection Note : to obtain good quality welds, we recommend a gas consisting of Argon + 15% CO<sub>2</sub>. This is an active gas (MAG, known locally as MIG)</p>
 <p>Grind down weld fillet or spots. Straight grinder with <math>\varnothing</math> 75 bakelite disc, thickness 1.8 to 3.2 mm.</p>	 <p>Plug weld Under MAG gas protection</p>
 <p>Grind down weld spots Straight grinder, 20 000rpm with spherical burr <math>\varnothing</math> 10 or 16 mm.</p>	 <p>Carry out hollow section protection. Pressure gun with flexible end.</p>
 <p>Drill weld spots Spot weld drill. Speed 800 to 1 000rpm.</p>	 <p>Safety symbol. This means that the welding operation in question concerns one of more of the vehicle's vital components.</p>
 <p>Lift off strip of panelling</p>	 <p>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</p>
 <p>Clean areas to be welded Fibre disc <math>\varnothing</math> 100 mm</p>	 <p>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.</p>
  <p>Saw through Pneumatic hacksaw</p>	 <p>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.</p>
 <p>Cut out part by grinding down flange or grind down remaining spot welds Vertical grinder with rubber backing pad and fibre disc <math>\varnothing</math> 120 to 180 mm grade P36</p>	 <p>Extruded mastic fillet • manual or pneumatic cartridge gun • mastic for crimped or butt joints. One or two pot.</p>
 <p>Release brazed joints</p>	 <p>Sprayed mastic • pressure spray gun • two pot anti-gravel and anti-corrosion mastic</p>
<p>Dimensions and types of electrodes to be used for the various operations:</p>  <p>L = 100</p>  <p>L = 100</p>  <p>L = 100 + flat</p>  <p>L = 250</p>  <p>L = 350 + ball joint</p>  <p>L = 330</p>	

OPERATION SITE TOOL TYPES AND ORDER OF OPERATIONS

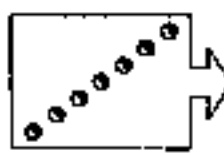
**CUTTING - UNPICKING**






cut or cut



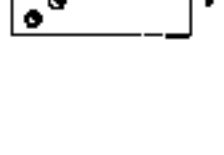
chisel






rotary grind

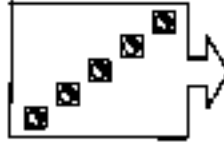
unpick clean



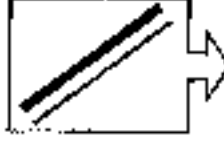
grind




unpick clean




drill



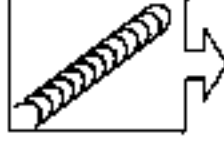
sand



unpick clean



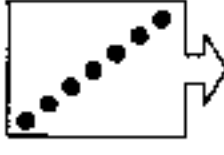
grind



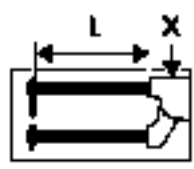
release sand

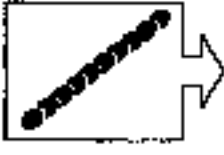
**WELDING**





electric spot weld



X	L (in mm)
1-2	100
3-4	100
5	250
6	350
8	330



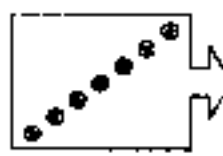
stitch weld


sand lead fill

OPERATION SITE TOOL TYPES AND ORDER OF OPERATIONS

**WELDING (plug)**



plug weld




tack stitch weld

**FINISHING**

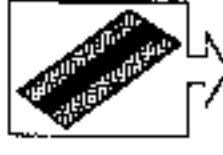


nail pullers

**CRIMP ZONE PROTECTION**



cartridge mastic fillet




mastic fillet and spray

**ANTI-GRAVEL PROTECTION**



mastic spray

**HOLLOW SECTION PROTECTION**

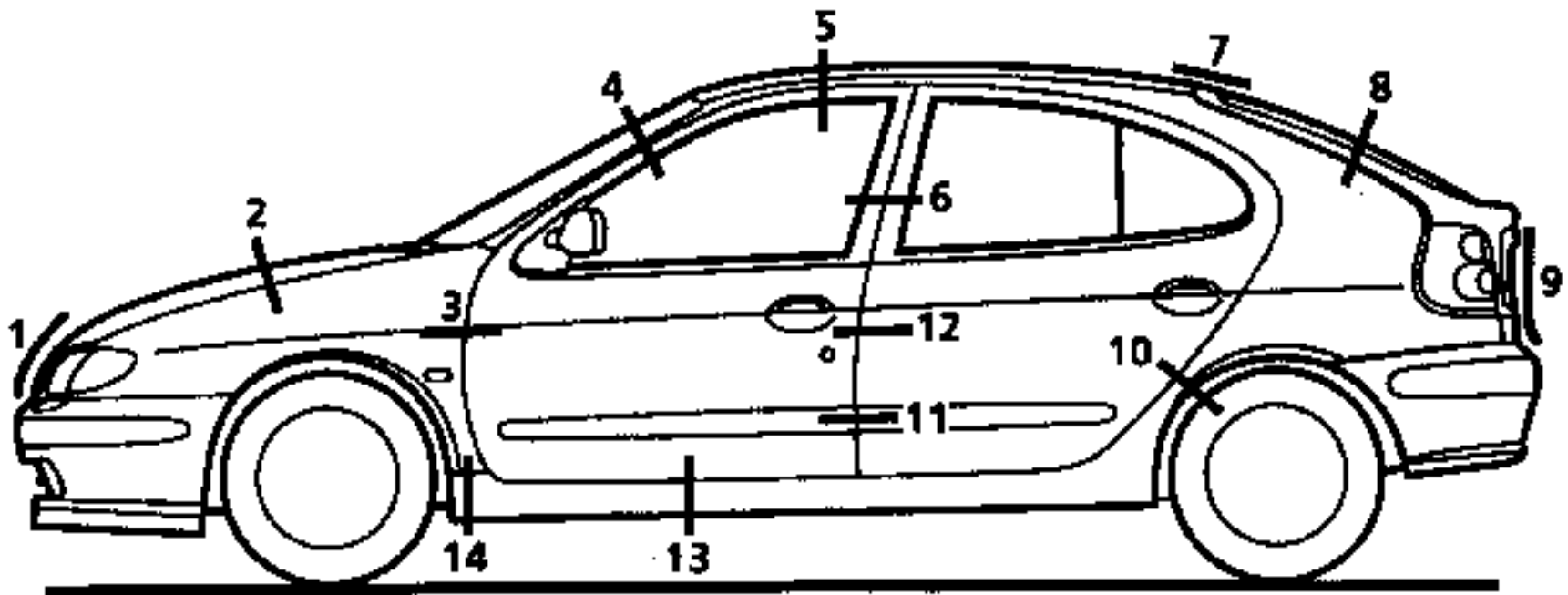


injection with elbow nozzle

**PAINTING OF STYLISED ZONES**



aerosol spray can



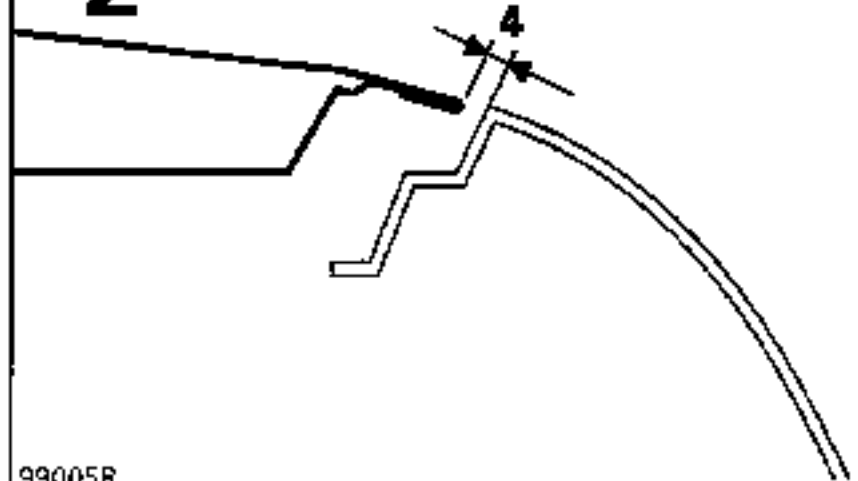
98336R1

1



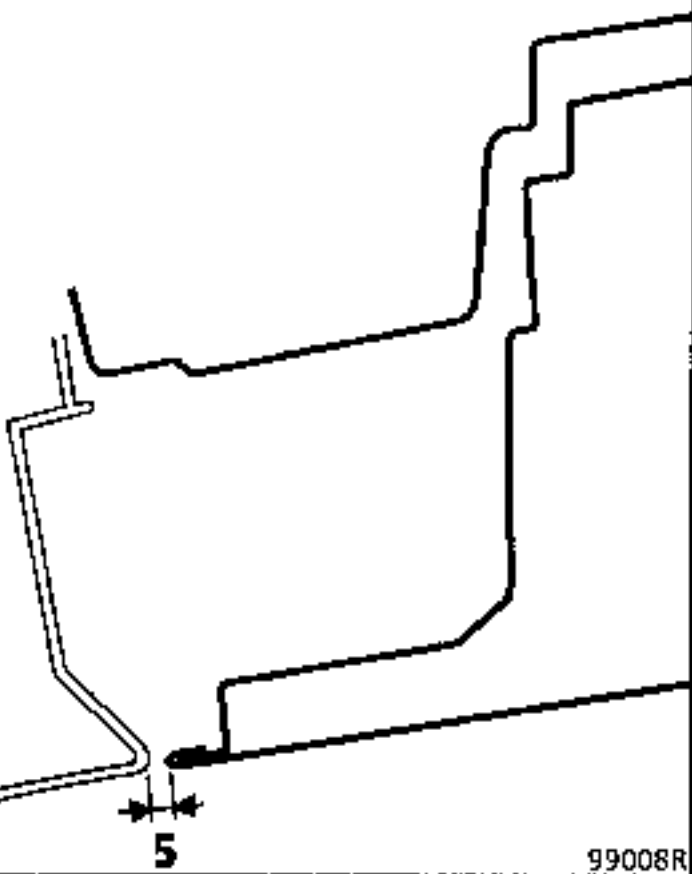
99004R

2



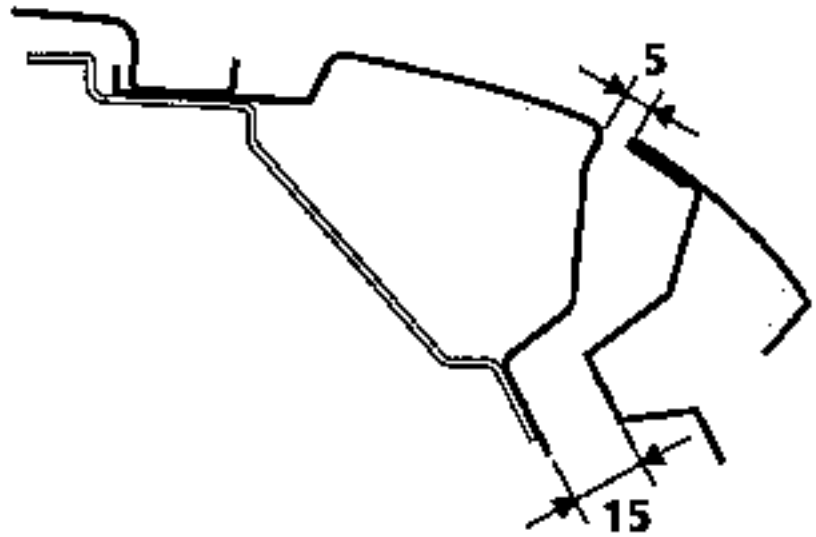
99005R

3



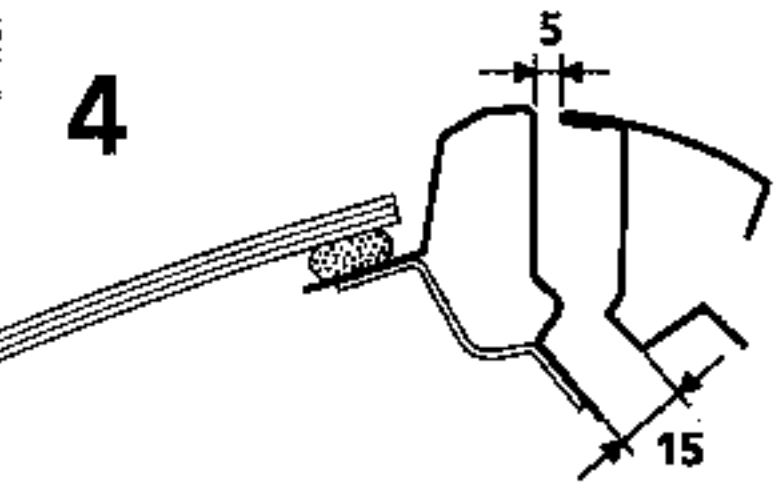
99008R

5



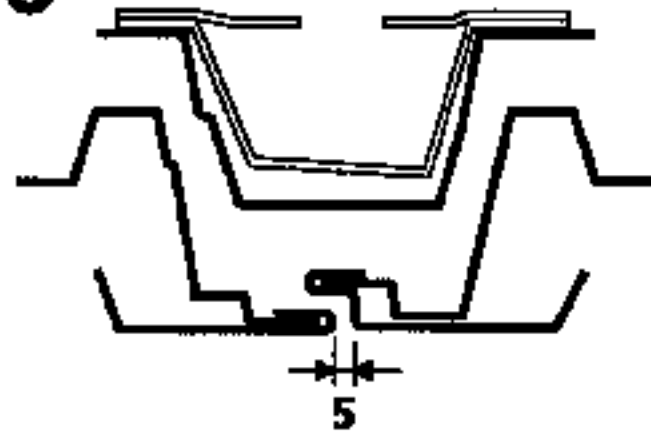
99007R

4

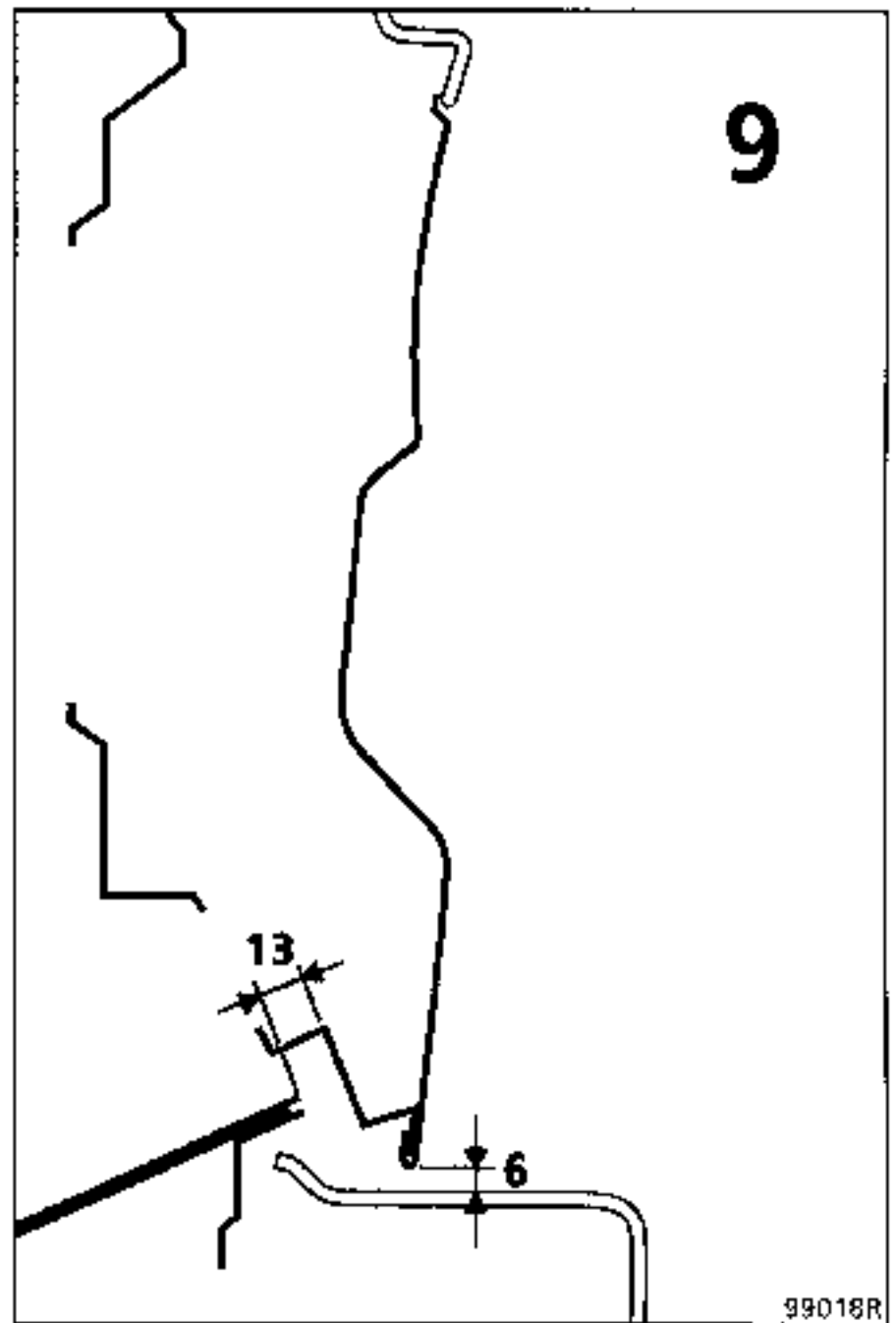
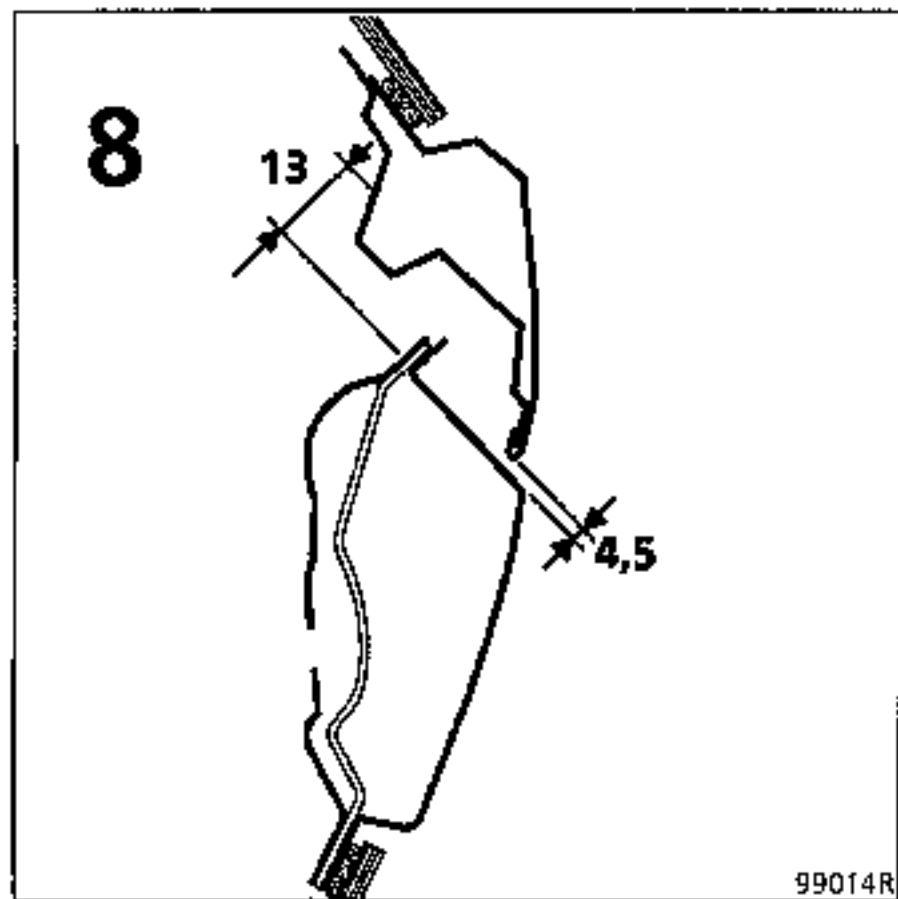
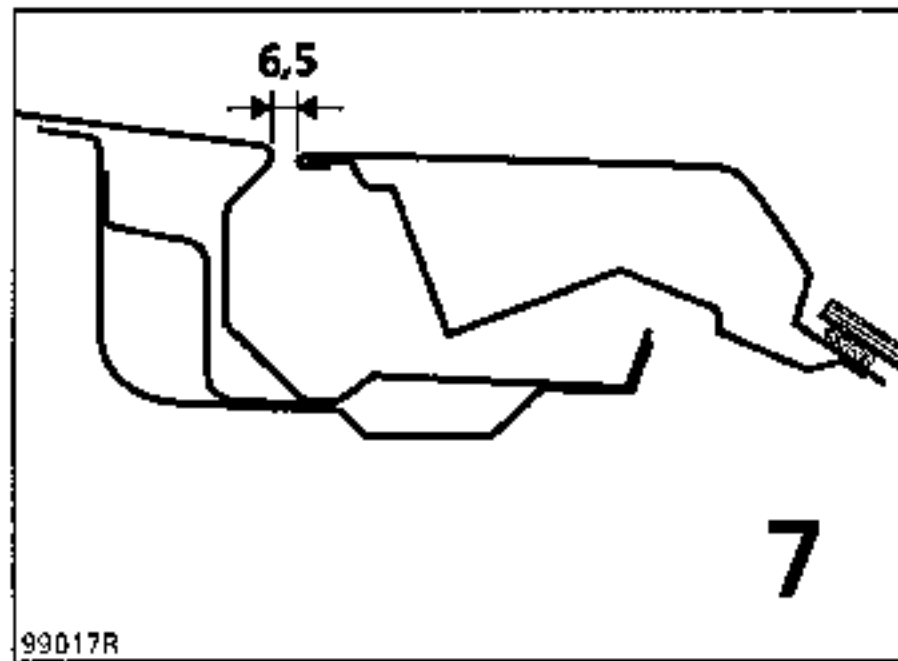


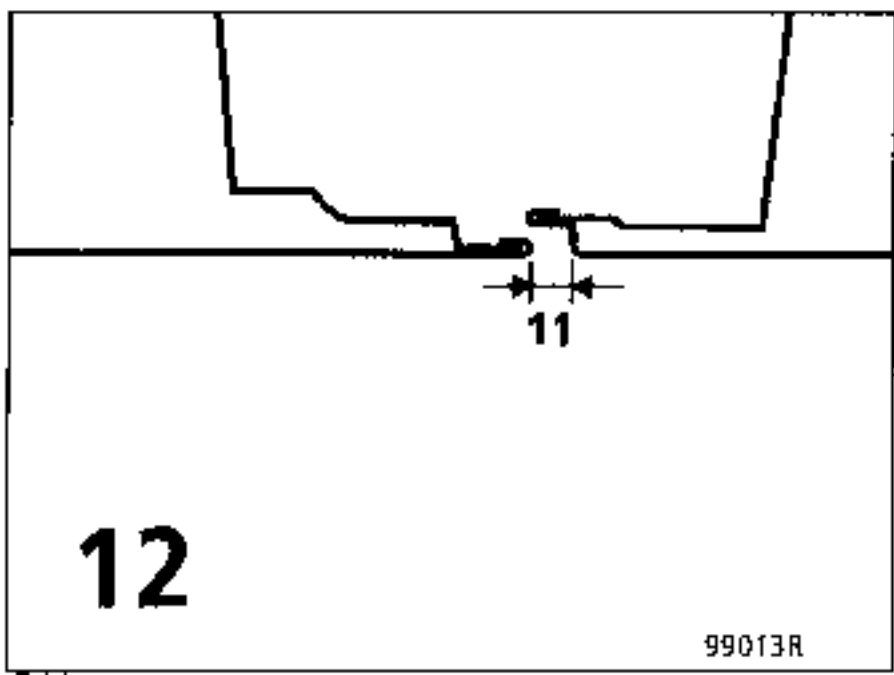
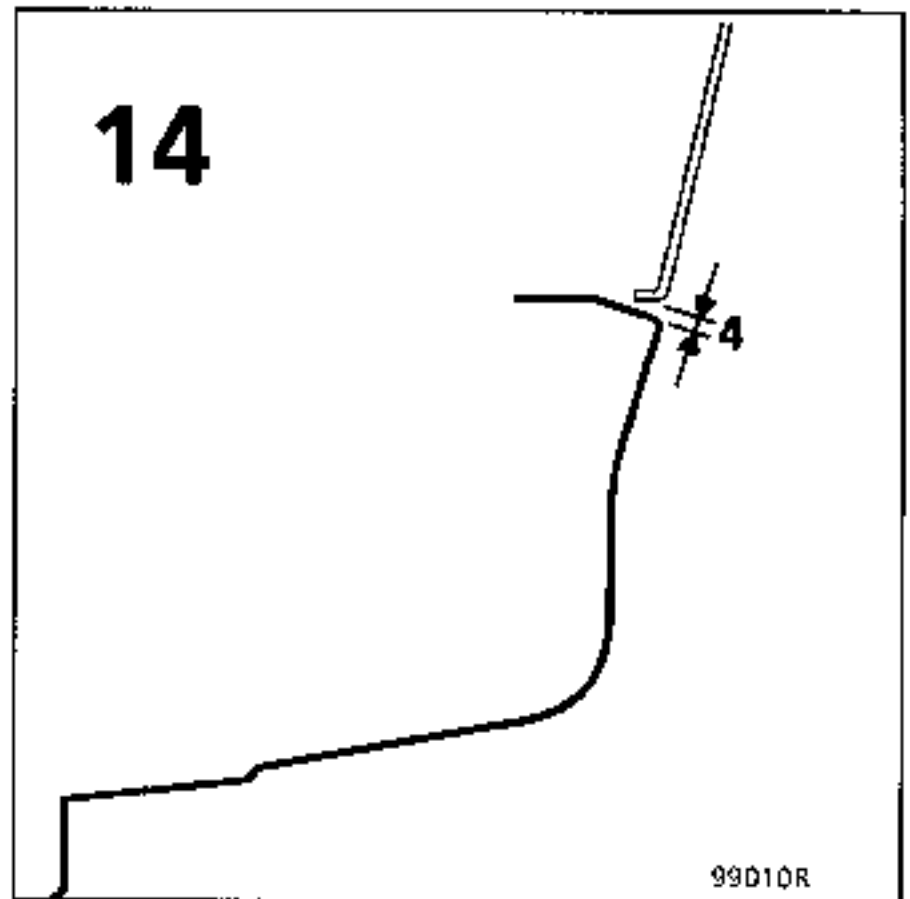
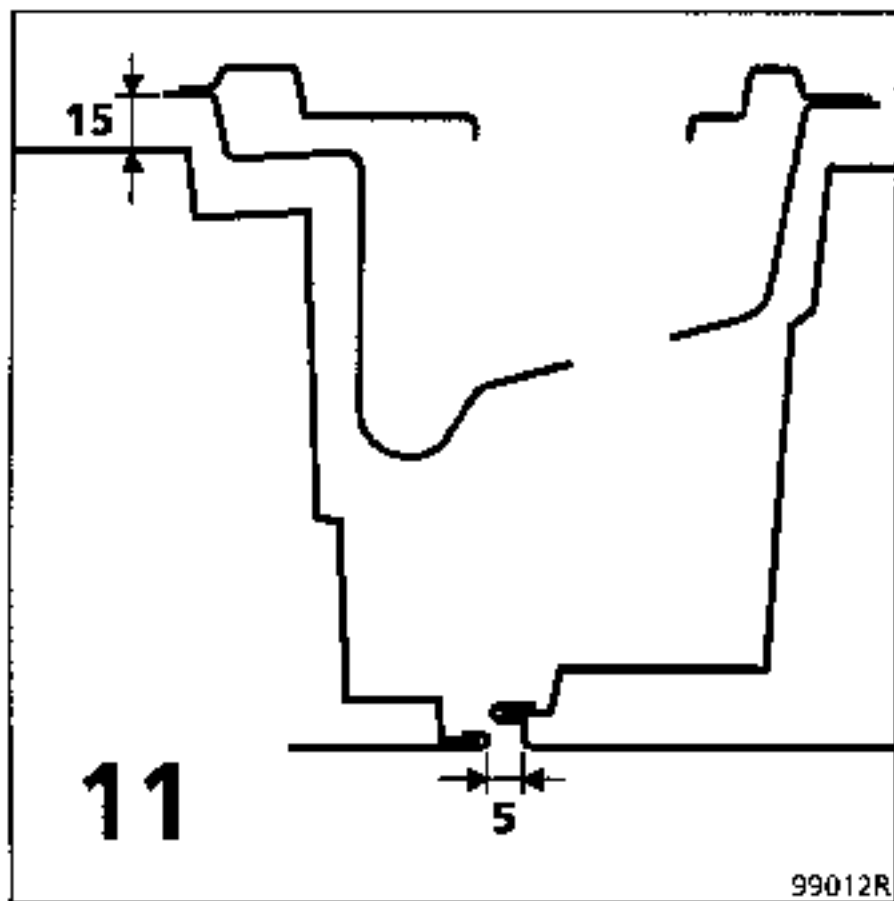
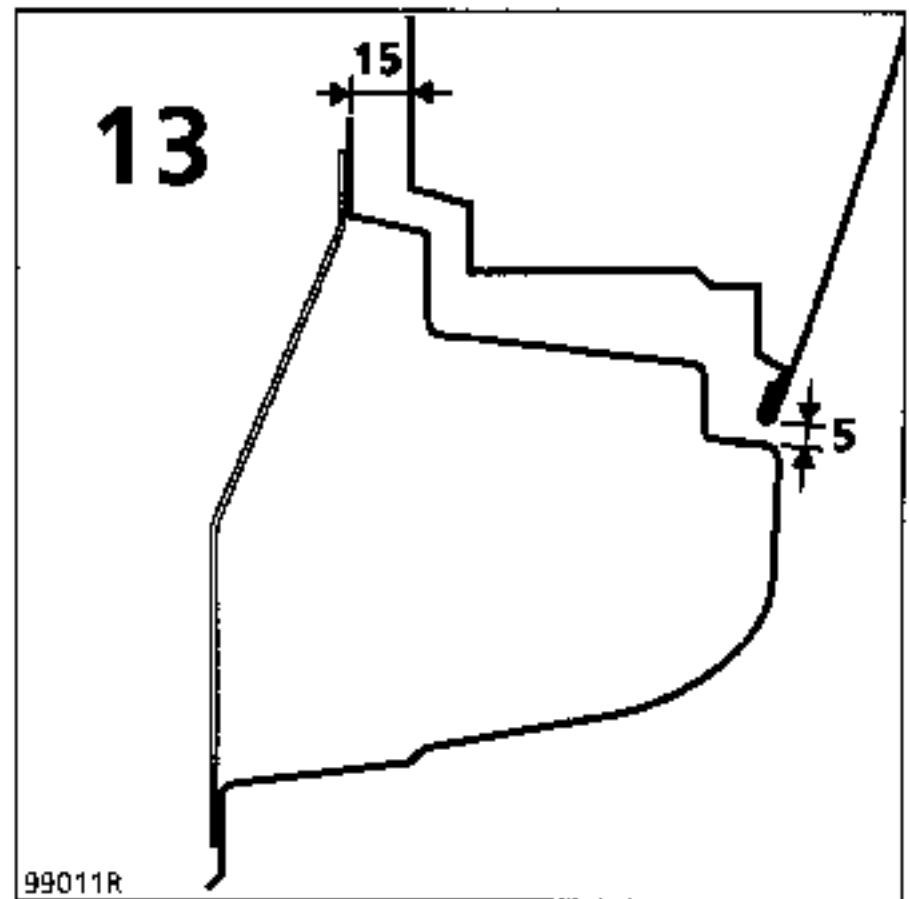
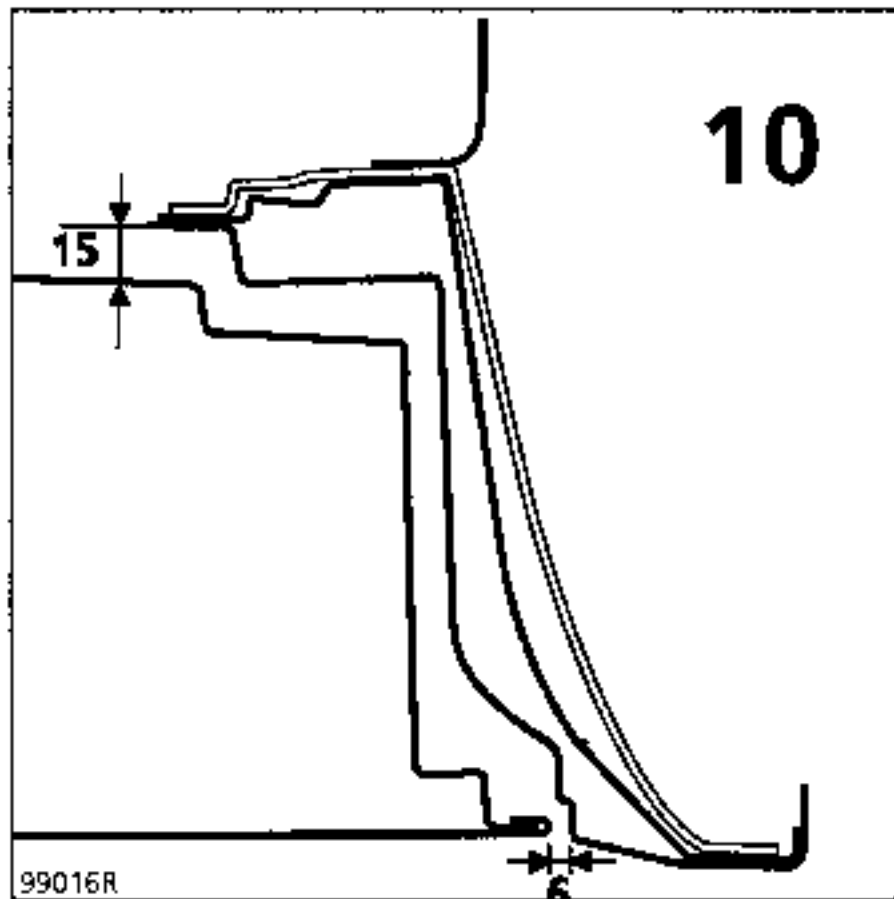
99006R

6



99009R







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

● **VISUAL INSPECTION**

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

● **INSPECTION USING TRAMMEL GAUGE**

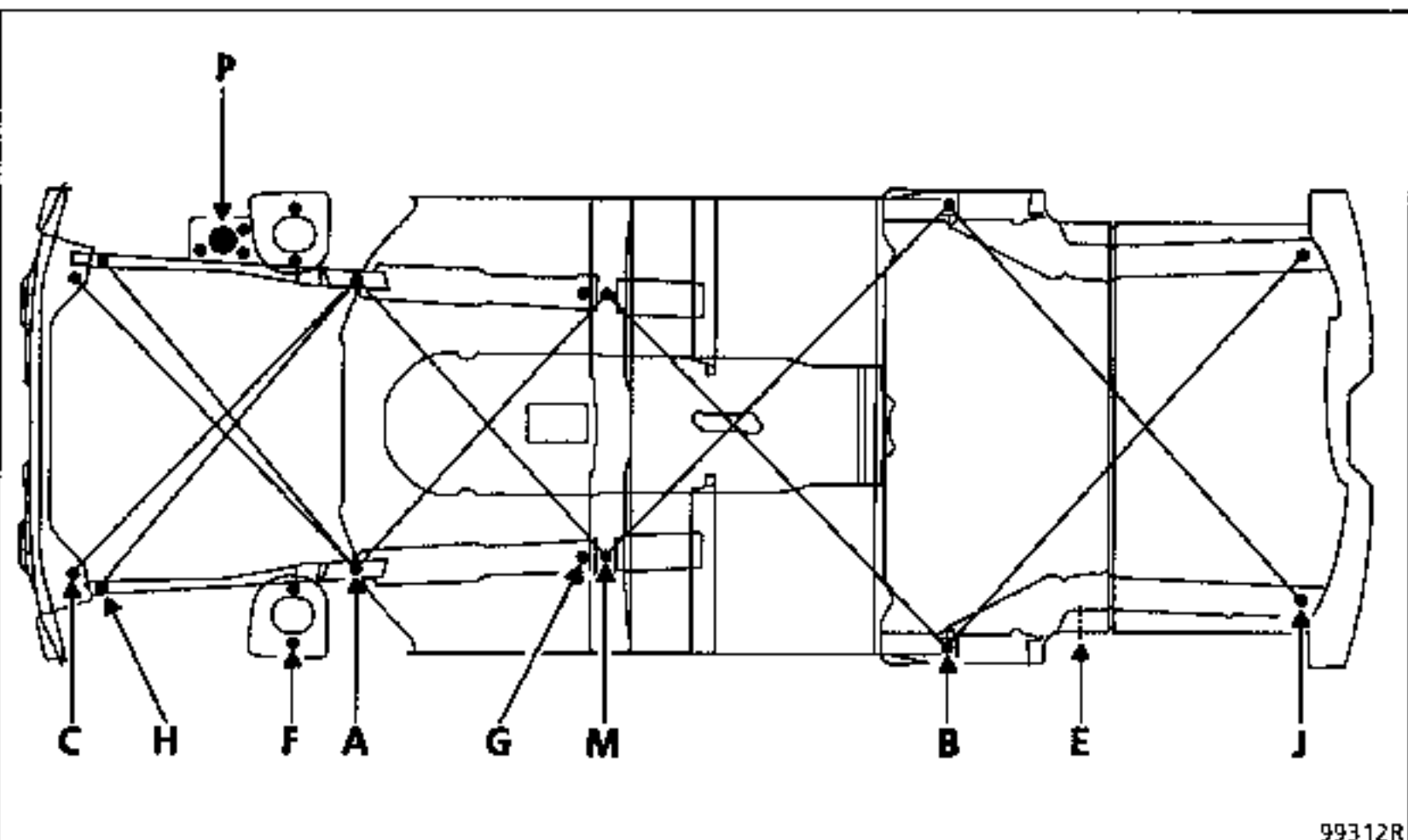
The visual inspection is completed by a check using a trammel gauge which allows measurement of certain deformations by symmetrical comparisons (for more details on each point to be checked, refer to the repair bench section below).

● **CHECKING THE GEOMETRY OF THE AXLE ASSEMBLIES**

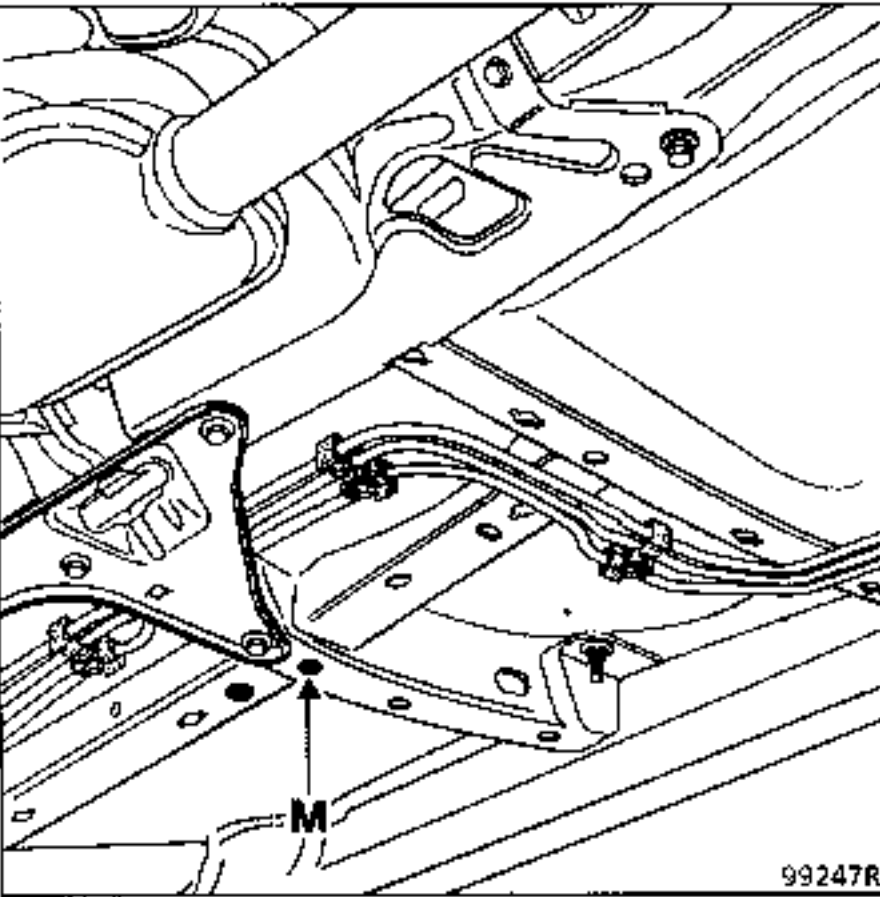
This is the only method of determining whether the impact the vehicle suffered has or has not affected the road holding of the vehicle.

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

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

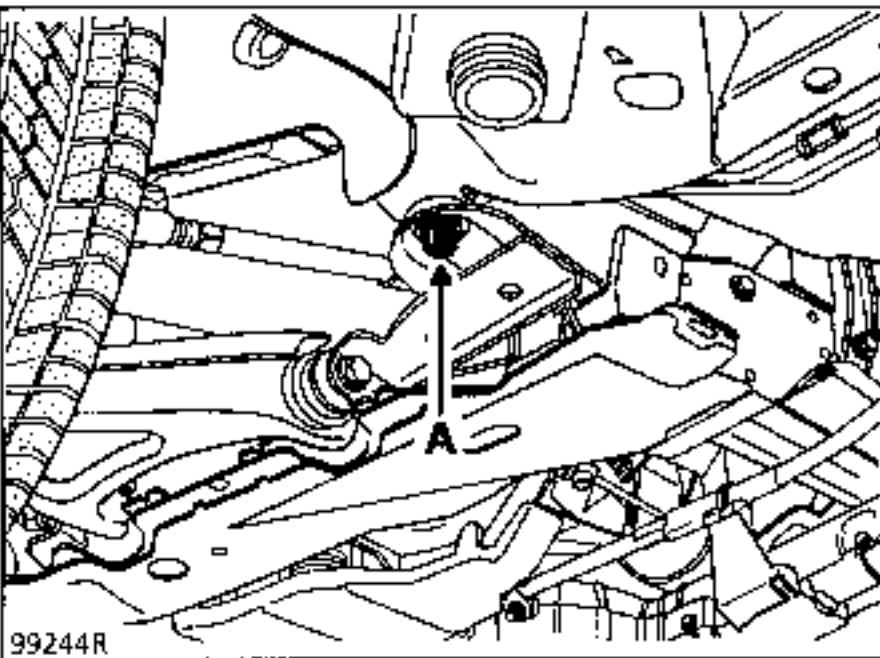


GAUGE POINTS



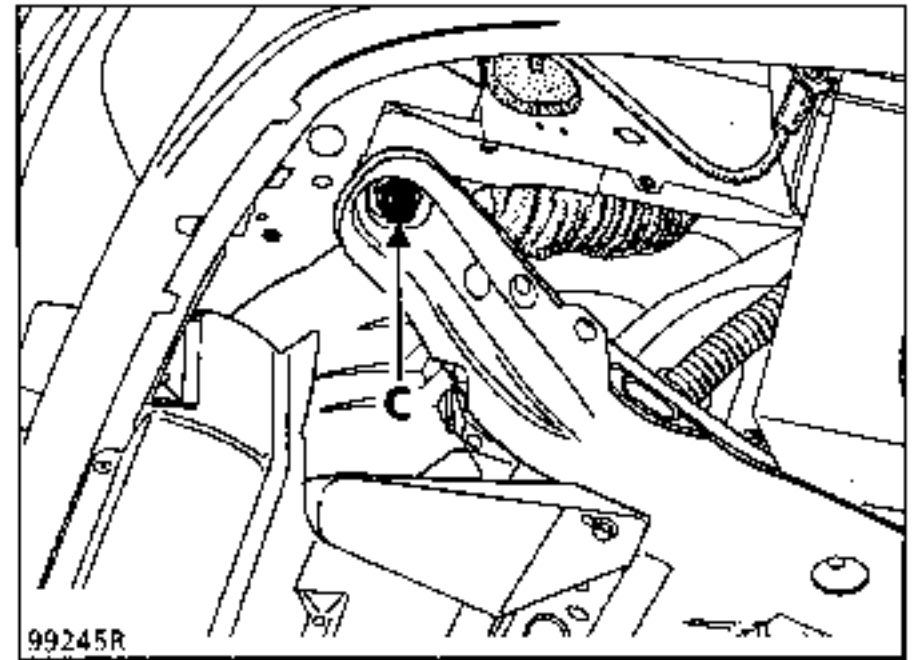
99247R

**Point M**  
Base reference point for checking points (A) and (B).



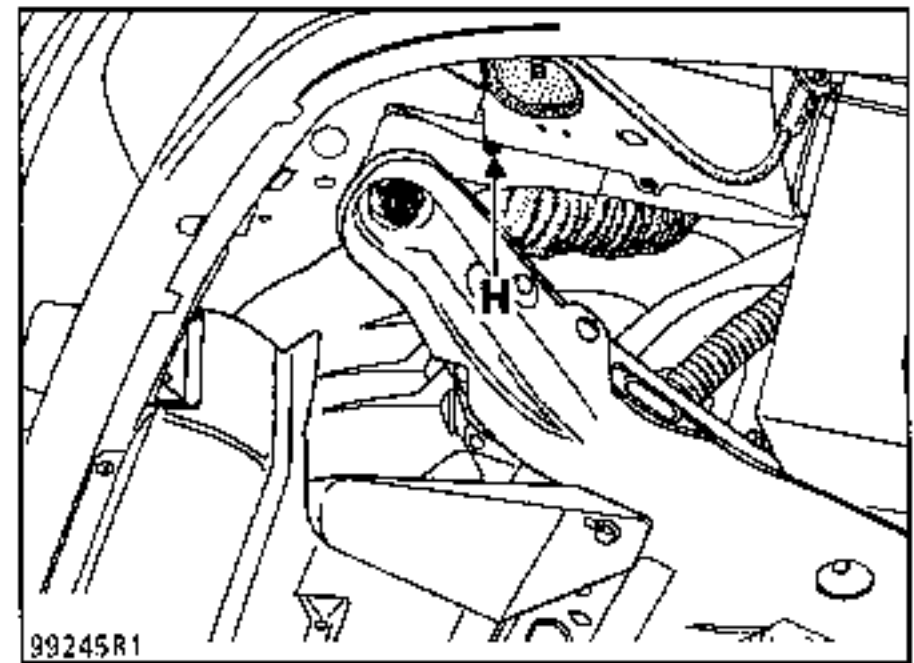
99244R

**Point A**  
Rear sub-frame mounting.



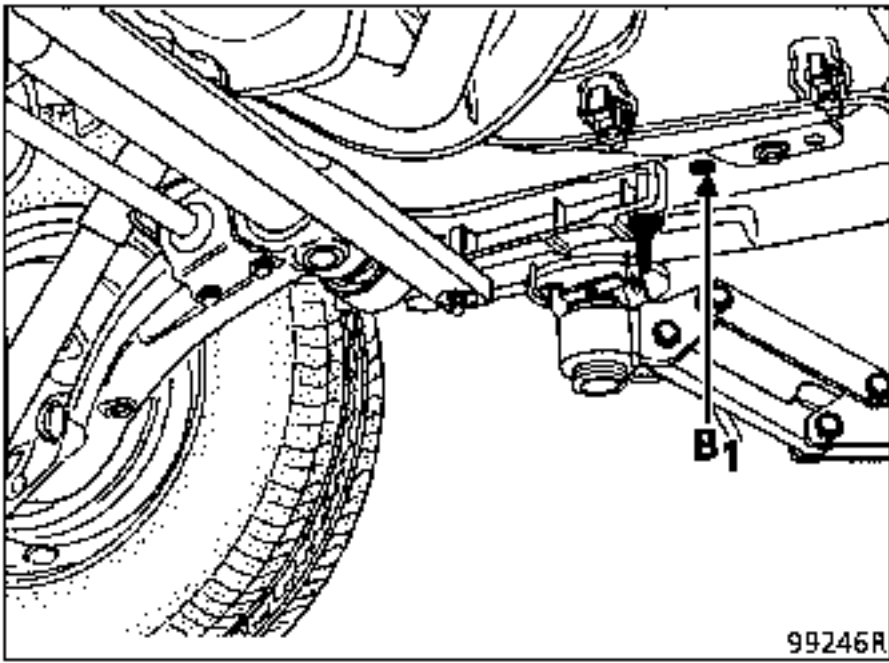
99245R

**Point C**  
Front sub-frame mounting.

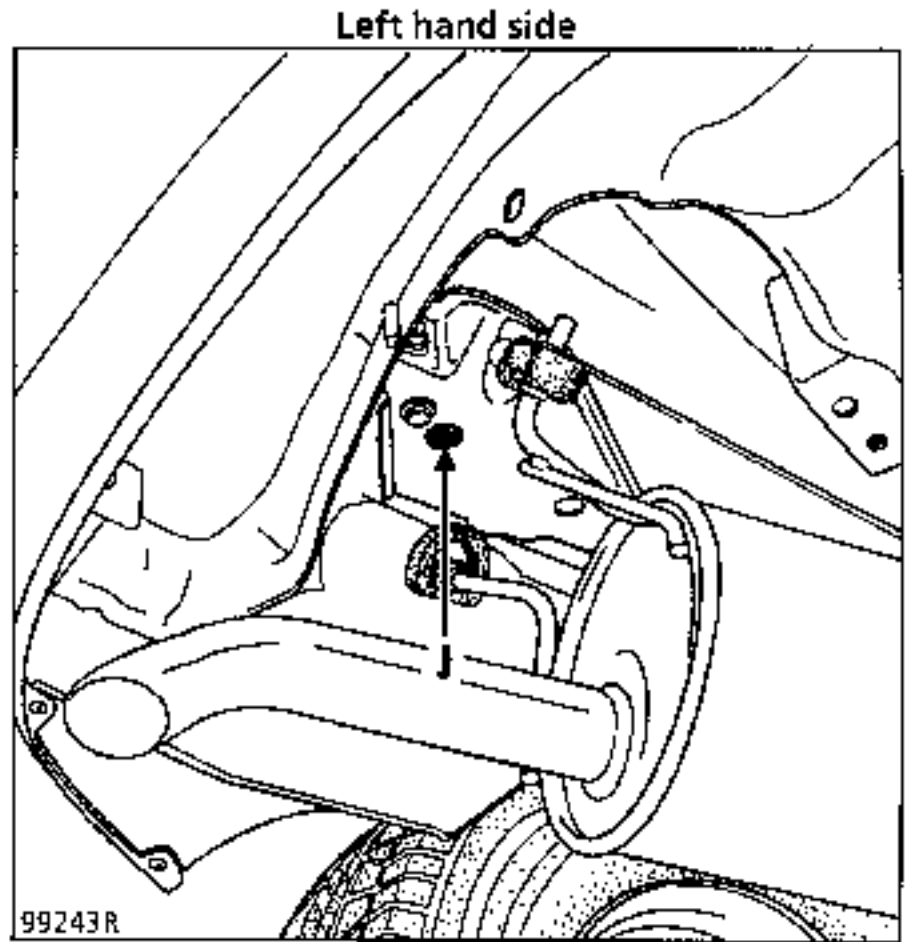
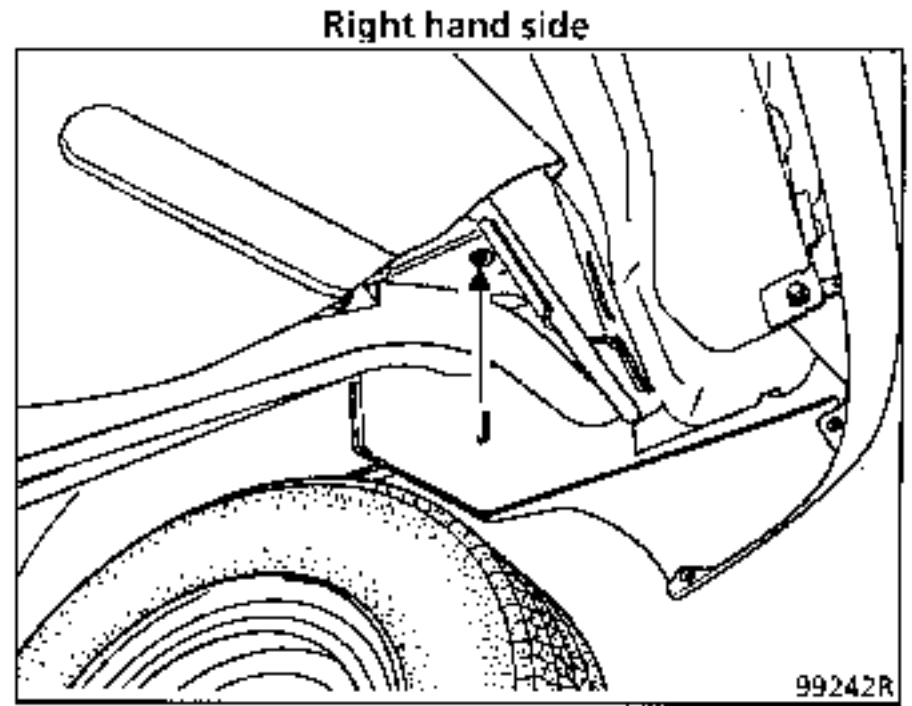


99245R1

**Point H**  
Front end of front side member.

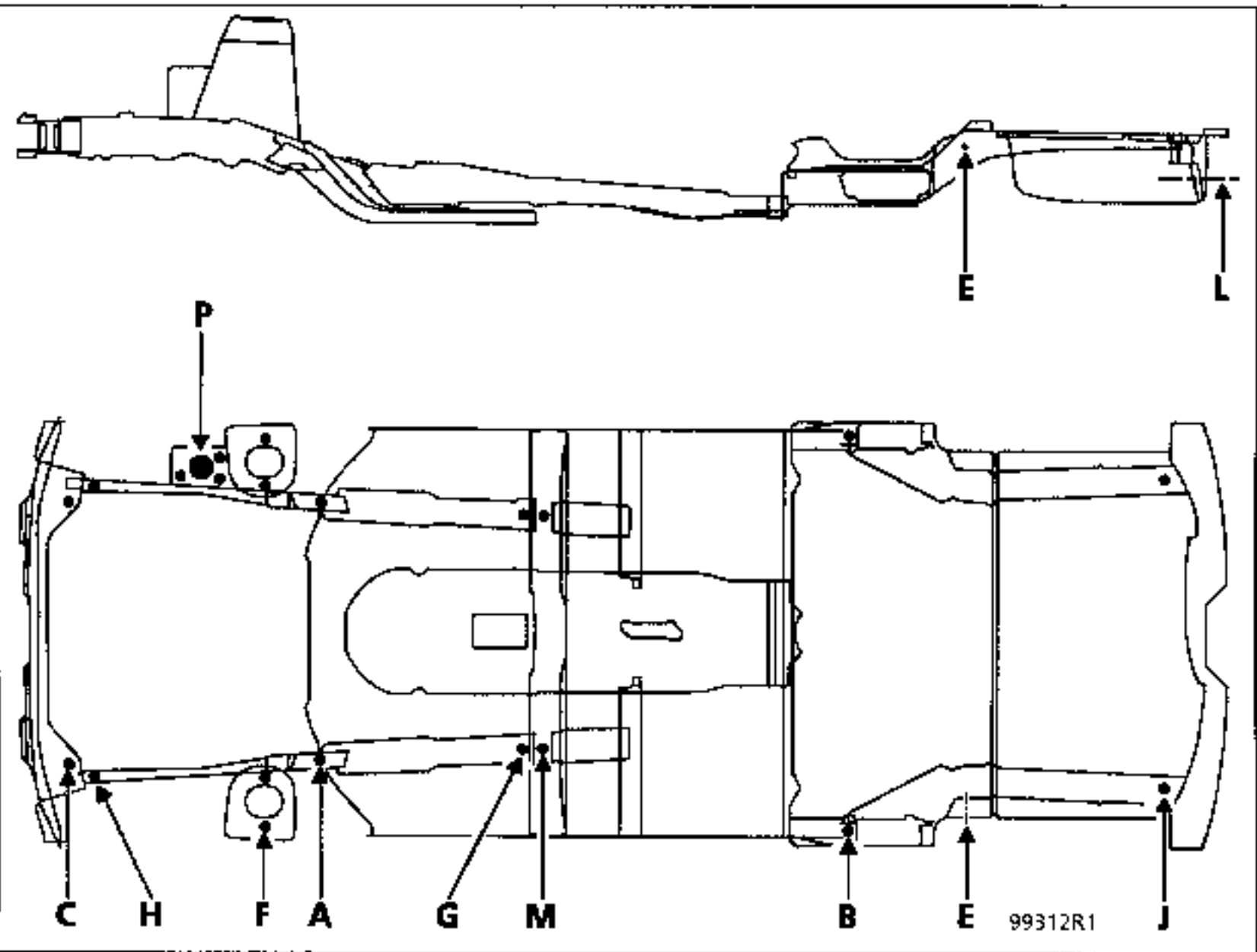


**Point B1**  
Rear axle assembly mounting control point.



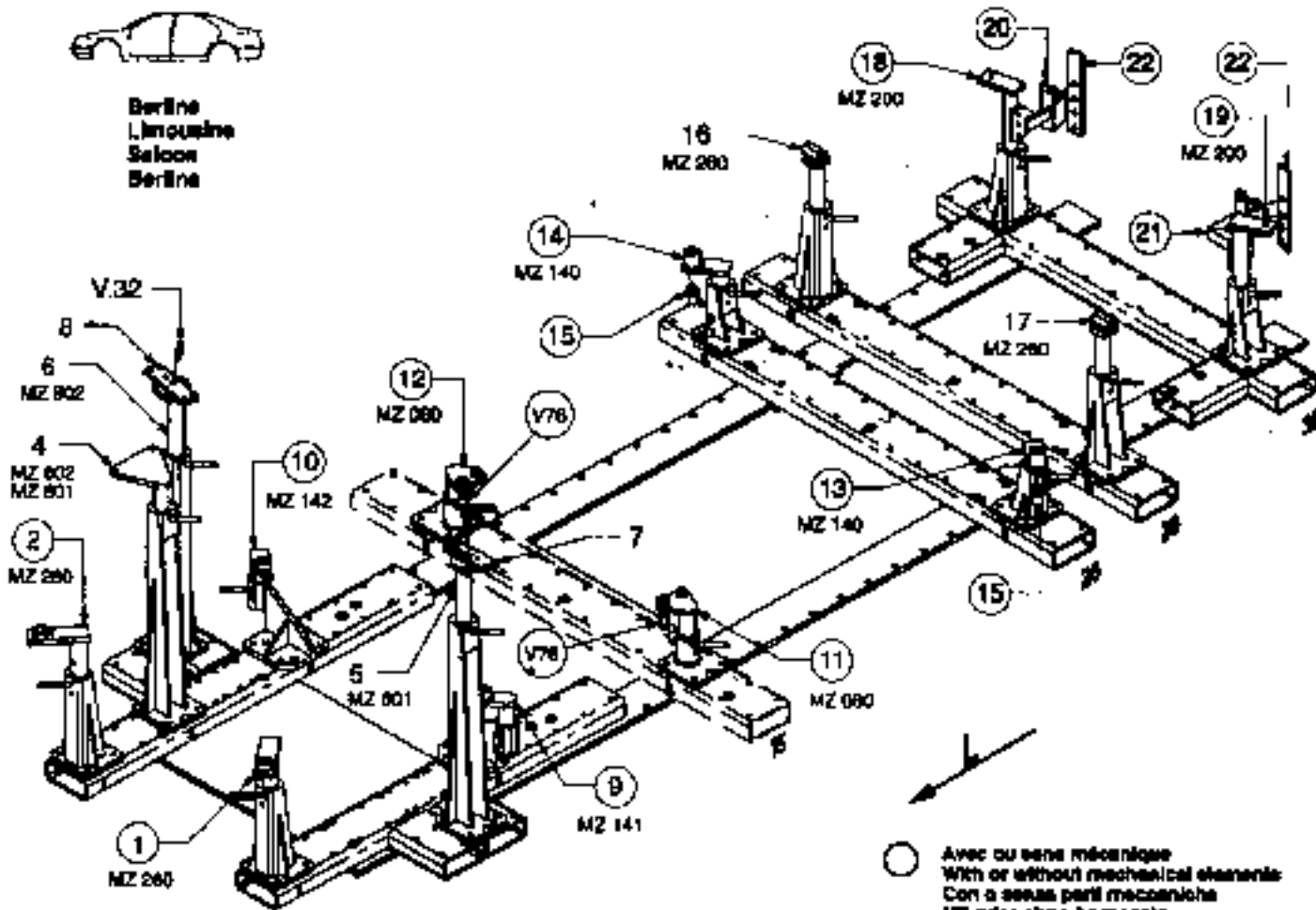
**Point J**  
Rear end of rear side member.

X56	DESIGNATION	X	Y	Z	DIAMETER	ANGLE %
A	Front sub-frame rear mounting	203	402.5	71	M12	0
B	Rear axle assembly front mounting	1966	634.12	70	M12	0
C	Front sub-frame front mounting	-593	412	237.5	M10	0
E	Rear shock absorber mounting	2 305.8	503.2 (65)	259	M14	Y : 90°
F	Front shock absorber mounting (interior)	15.7	477.8	636.7	8.5	X : 3°45 Y : 7°
	Front shock absorber mounting (exterior)	5.5	610.8	654.2	8.5	X : 3°45 Y : 7°
G	Rear end of front side member	880	369	7	18.5	X : 1°
H	Front end of front side member	-547.5	467.4	236.5	10.2 × 12.2	0
J	Rear end of left hand rear side member	2 938	484.6	231	12.2	0
	Rear end of right hand rear side member	2 900	483	231	14.5	0
L	Left hand rear end cross member (rear end panel)	3 049	394.5	170	14.25	X : 90° Y : 10°15
	Right hand rear end cross member (rear end panel)	3 028	397	170	14.25	X : 90° Y : 12°30
M	Cross member under centre floor	937	375	1.5	14.5	0
P	Front engine mounting	247	483.5	514	M10	0
	Rear engine mounting	113	483.5	514	M10	0





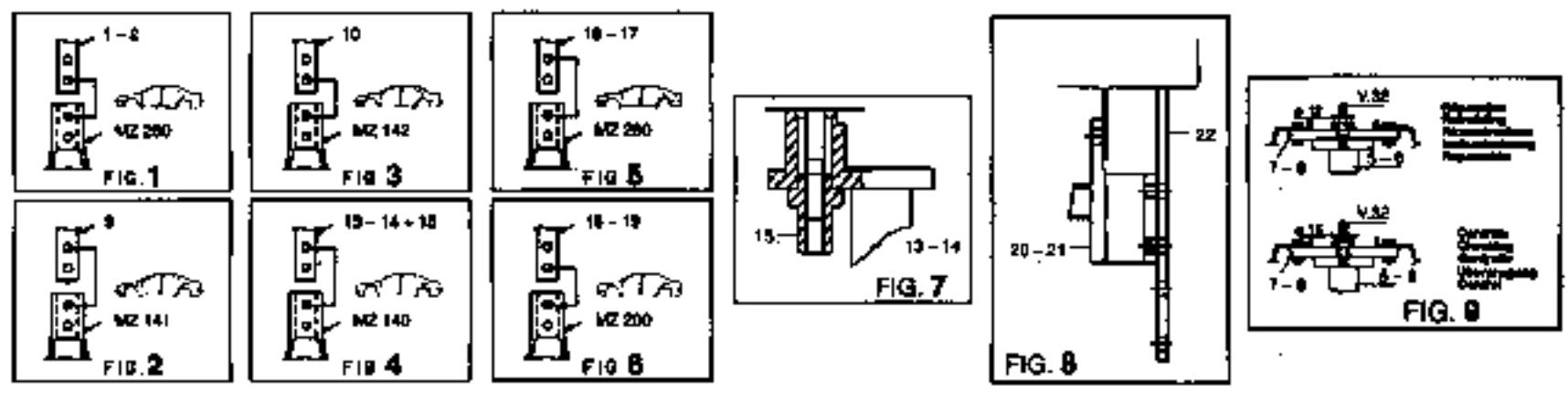
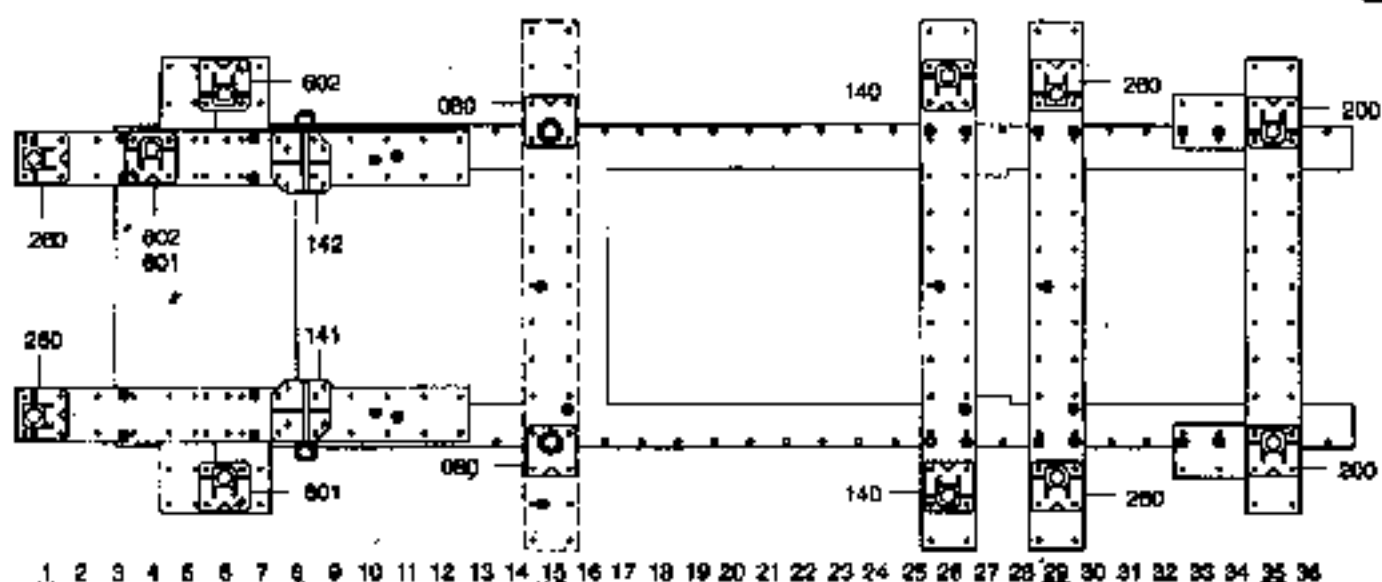
Berline  
Limousine  
Saloon  
Berline



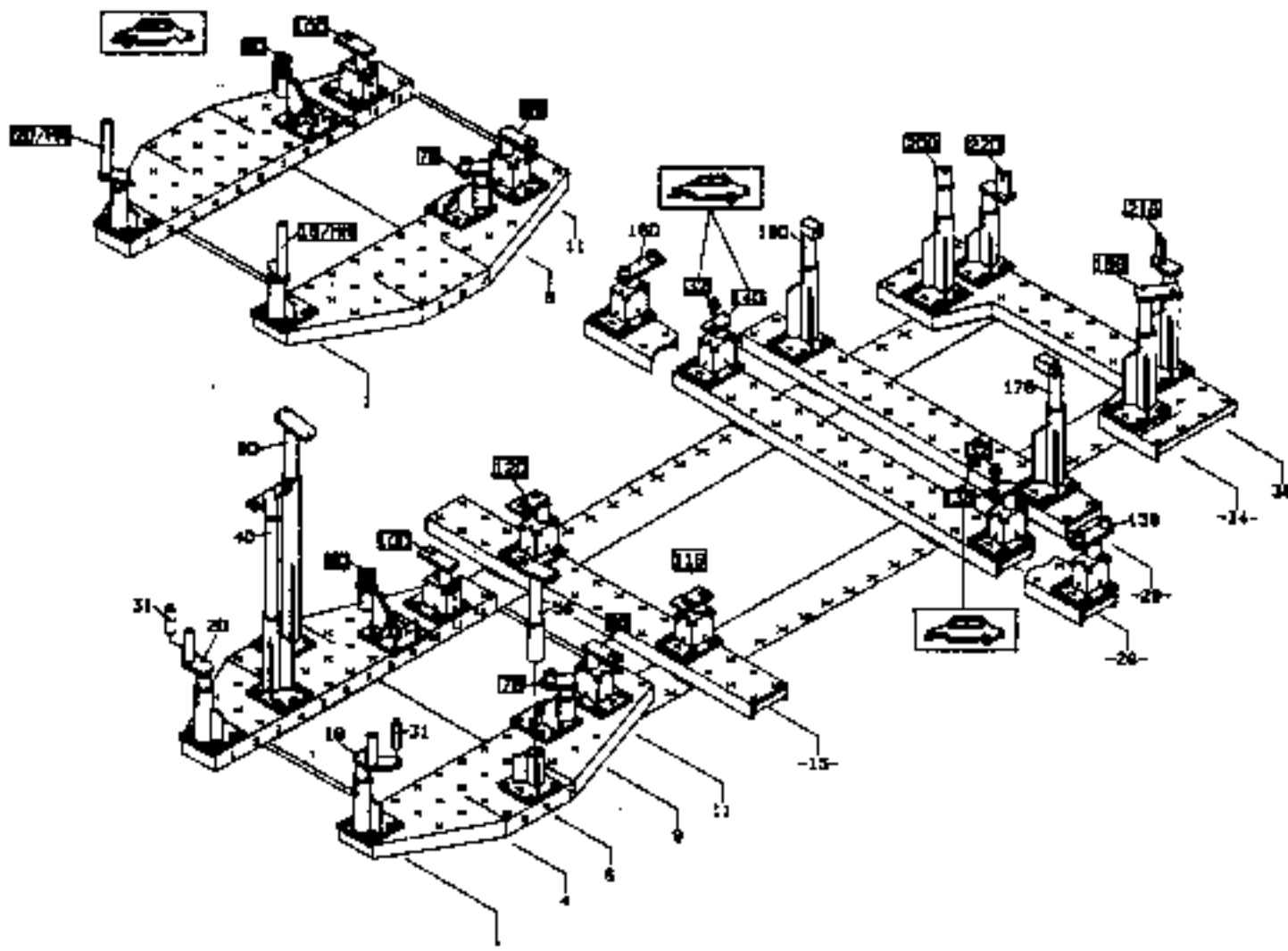
○ Avec ou sans mécanique  
With or without mechanical elements  
Con o senza parti meccaniche  
Mit oder ohne Aggregate  
Con ó sin elementos mecánicos

**RENAULT**

REP.	REFERENCE	POS	MM	MZ	
1	715.7001	2,8	1	280/140	
2	715.7002	2,8	1	280/140	
3	715.7003	0,9	2		
4	715.7004	2,5	1	602/001	
5	715.7005	1,7	1	001	
6	715.7006	1,7	1	002	
7	715.7007	0,7	1		
8	715.7008	0,7	1		
9	715.7009	1,7	1	141	
10	715.7010	1,7	1	142	
11	715.7011	2,5	1	080	
12	715.7012	2,5	1	080	
13	715.7013	1,9	1	140/080	
14	715.7014	1,9	1	140/080	
15	715.7015	0,2	2		
16	715.7016	1,4	1	000	
17	715.7017	1,4	1	000	
18	715.7018	2,8	1	000	
19	715.7019	2,8	1	000	
20	715.7020	1,8	1	000	
21	715.7021	1,9	1		
22	715.7022	0,7	2		
23	715.7023	0,8	1		
	GD.12	2,4	6		
	V.32	0,1	2		
	V.78	0,1	2		
				M 8x16	8
				M 10x30	2
				M 10x50	2
				M 12x25	20
				M 12x55	7
				M 12x80	1
				Chc 18x25	12
				M 10	2
				M 12	2
<b>715.300</b>					
57 Kg		18.08.85		427-D-23A	



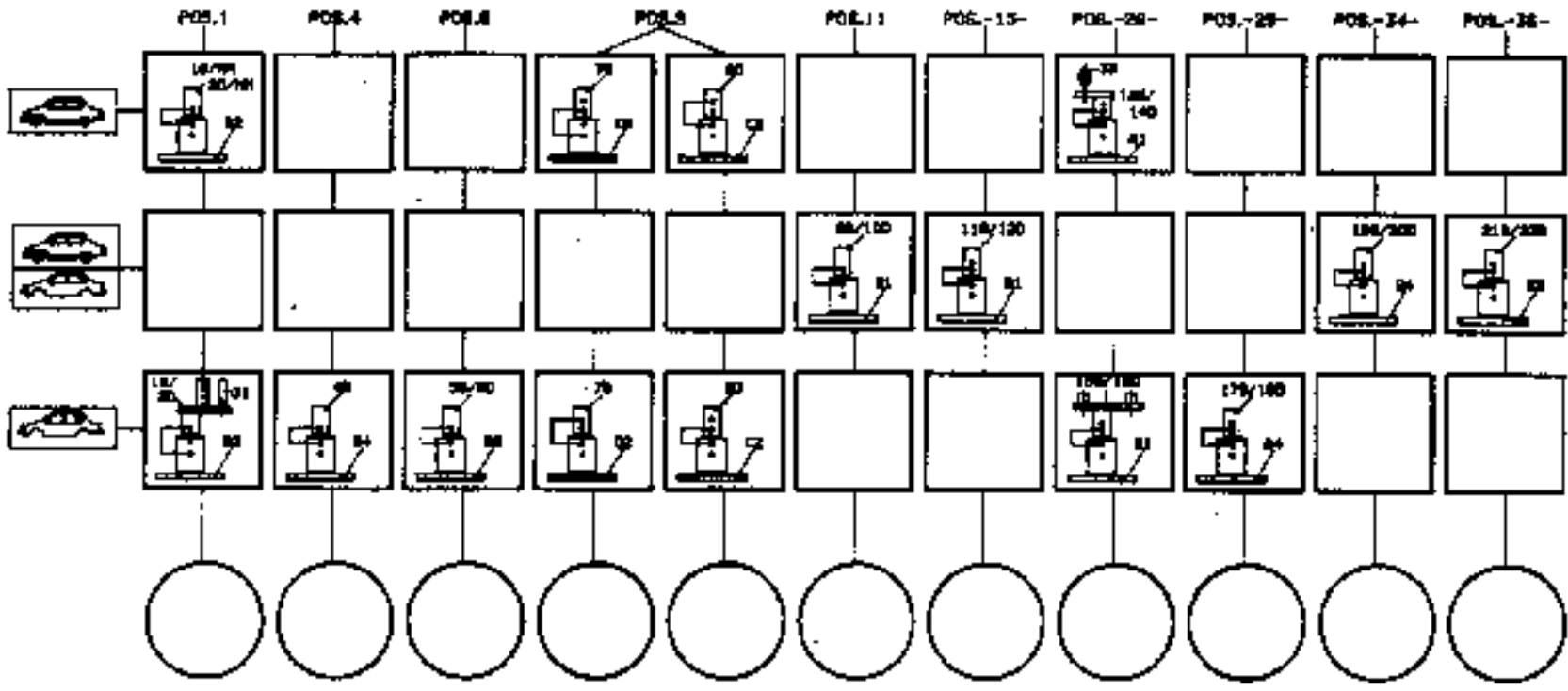
1C



AVEC MECANIQUE/MITH MECHANICS/MET MECHANIK/CON MECCANICA

PRD4006

3C

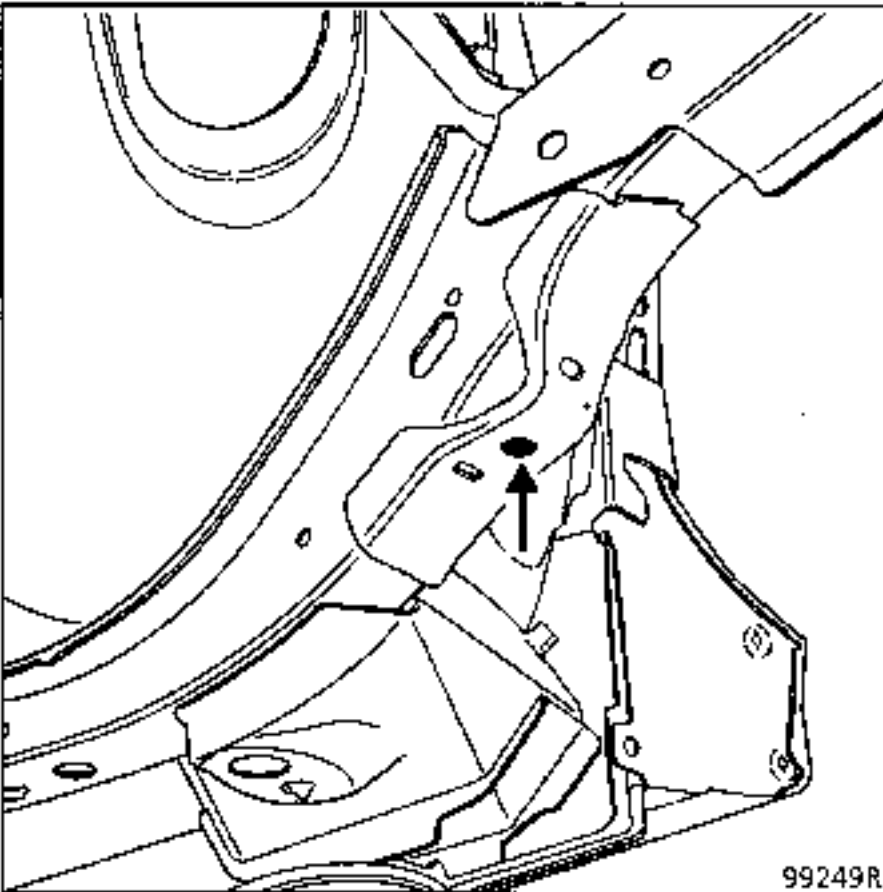


PRD4007

I - MAIN REFERENCE POINTS FOR ALIGNING THE SUB-FRAME

A - FRONT SUB-FRAME REAR MOUNTING

This is the main reference point for the front of the vehicle.



1 - Front mechanical components removed

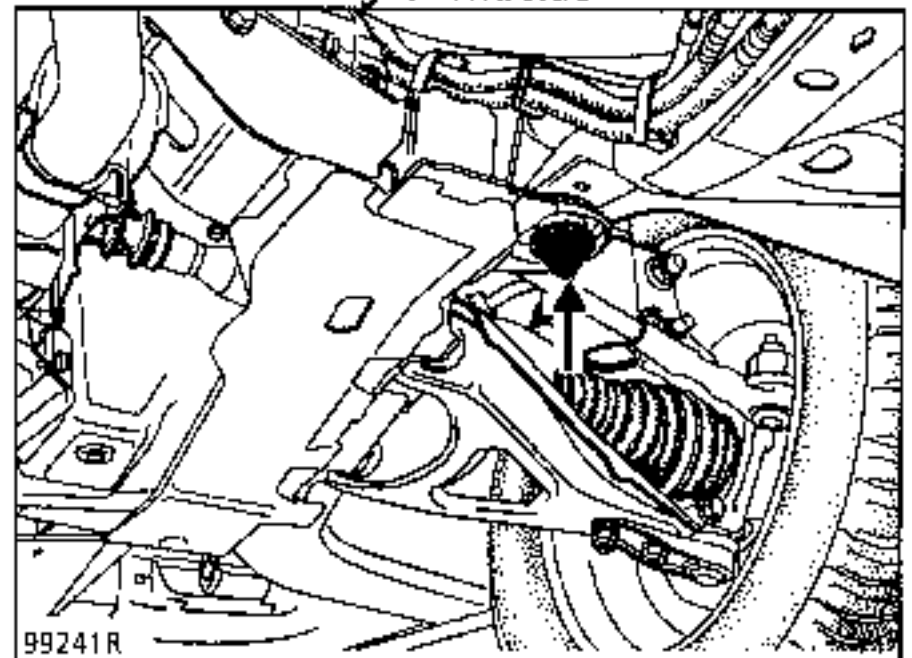
The bracket is fitted against the rear part of the side member and is centred in the sub-frame mounting hole.

**NOTE :**

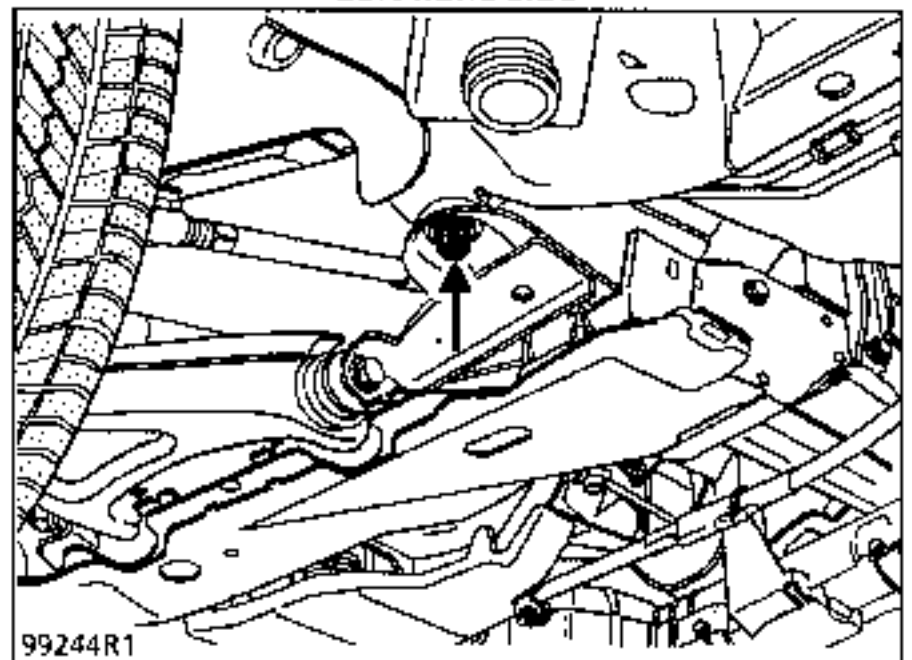
on the left hand side, the hole is round,  
on the right hand side, there is a slot.

If the rear section of the side member is to be replaced, this reference point is provisionally replaced by point (M), located on the seat cross member, point (A) is then used to position the replaced cross member.

Right hand side



Left hand side



2 - Front mechanical components in place

The bracket covers the sub-frame mounting bolt.

**NOTE :** the two sides are not symmetrical, the right hand side is mounted on the rubber mounting pad.

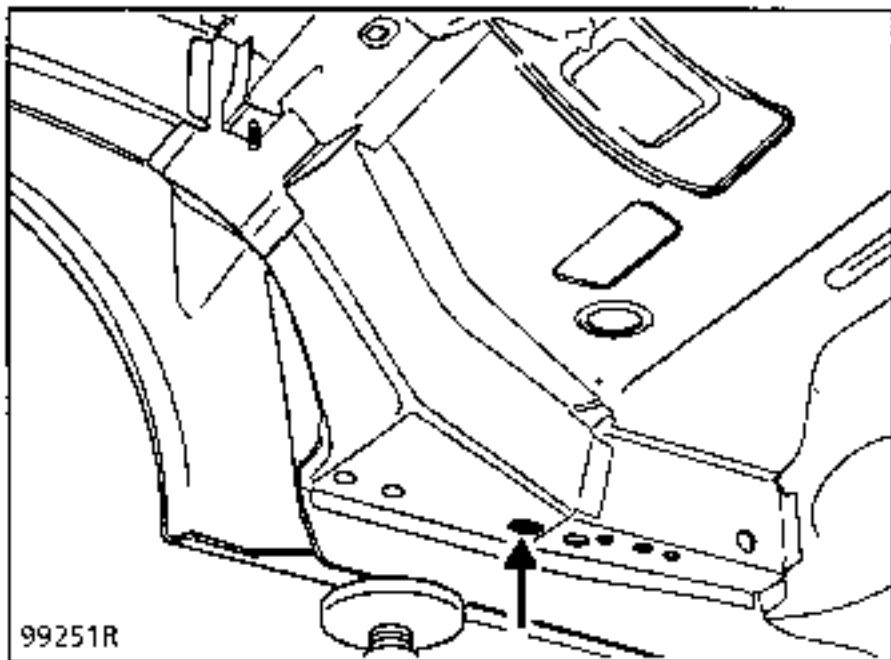
If the rear of the vehicle is being rebuilt, these two points are sufficient in themselves to align and support the front of the vehicle.



I - MAIN REFERENCE POINTS FOR ALIGNING THE SUB-FRAME (continued)

**B - REAR AXLE ASSEMBLY FRONT MOUNTING**

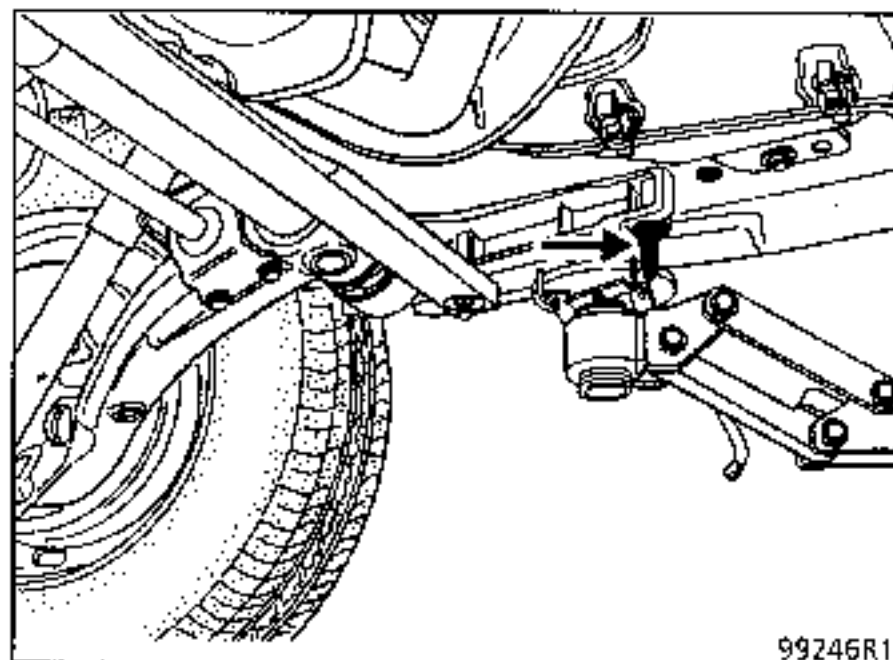
This is the main reference point for the rear of the vehicle.



**1 - Front mechanical components removed**

The bracket is fitted against the bottom of the rear axle assembly mounting and is centred in the axle mounting hole.

If the complete rear side member or the rear floor unit is to be replaced, this reference point is replaced by point (M), located on the seat cross member, point (B) being used to position the replaced part.



**2 - Front mechanical components in place**

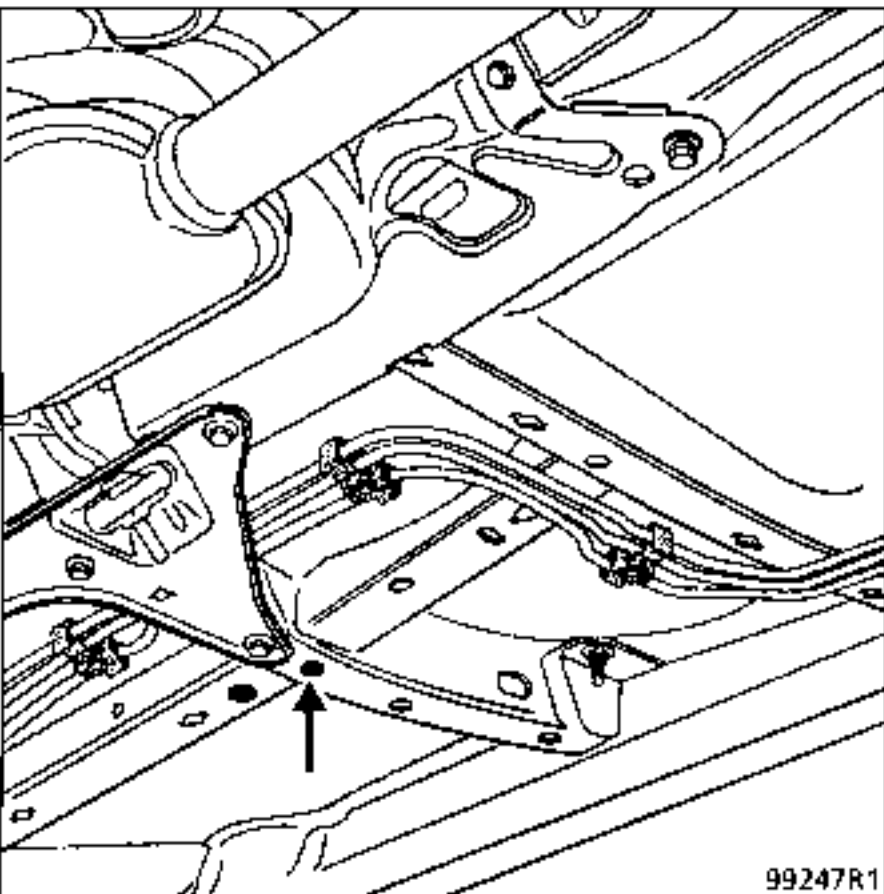
The bracket covers the sub-frame mounting bolt.

If the front of the vehicle is being rebuilt, these two points are sufficient in themselves to align and support the rear of the vehicle.

## II - COMPLEMENTARY REFERENCE POINTS FOR ALIGNING THE SUB-FRAME

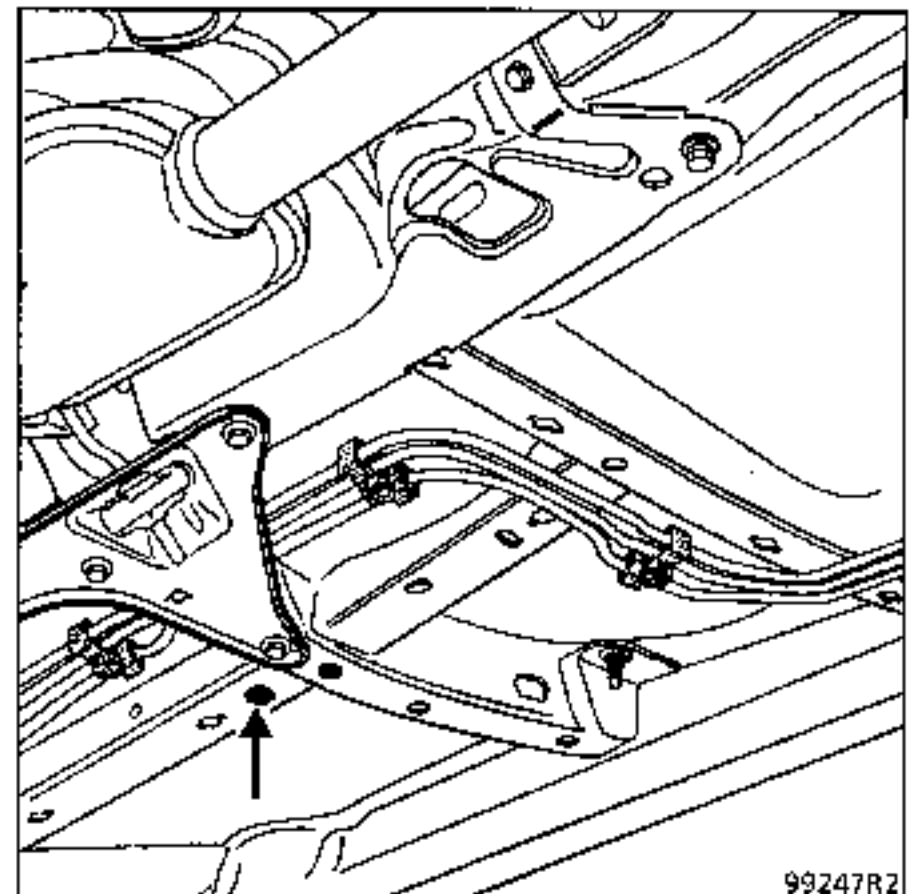
These are provisional reference points to replace the main reference points if they have been affected by the impact.

### M - SUPPORT UNDER FRONT FLOOR (seat cross member)



Point M may also be used to position the replaced part.

### G - REAR END OF FRONT SIDE MEMBER



This point is also used as a positioning reference point when replacing the rear section of the front side member.

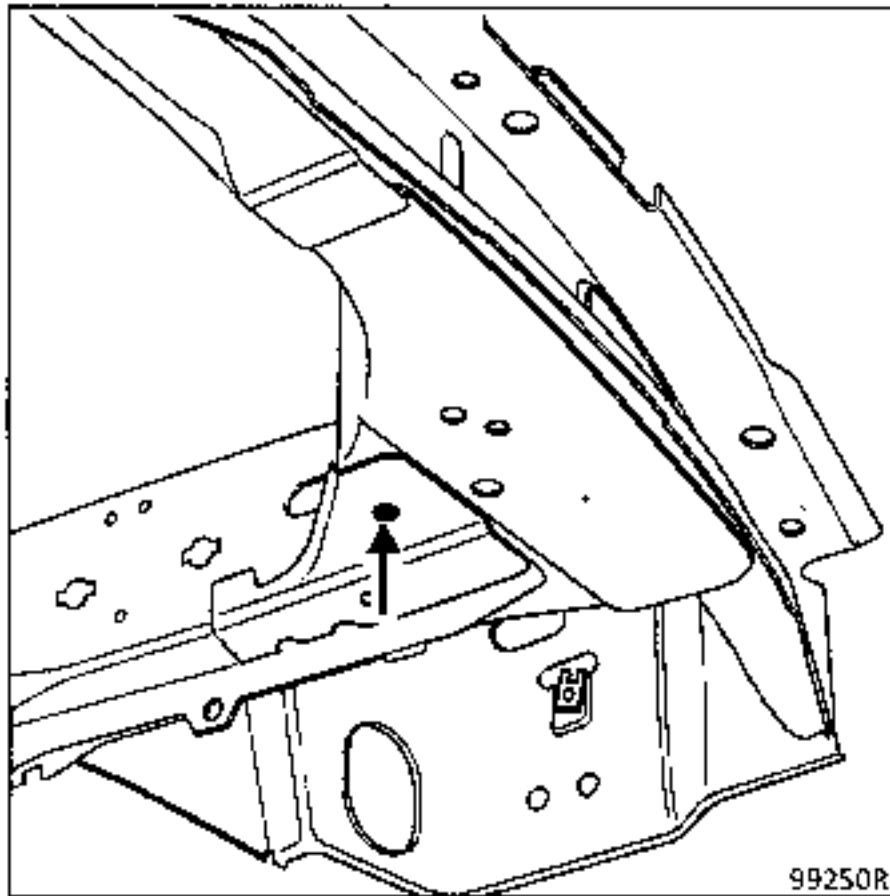
These points allow the vehicle to be supported in addition to a main reference point on the side of the impact and only have relative precision for vehicle alignment.

**IMPORTANT :** these points should only be used in the prescribed cases, they are of no use when the main reference points (points A and B) are correct.

The complementary reference point role may also be fulfilled by the checking points on the ends of the front side members if a rear impact has taken place and vice versa.

III - REFERENCES POINTS FOR POSITIONING REPLACED PARTS

C - FRONT SUB-FRAME FRONT MOUNTING

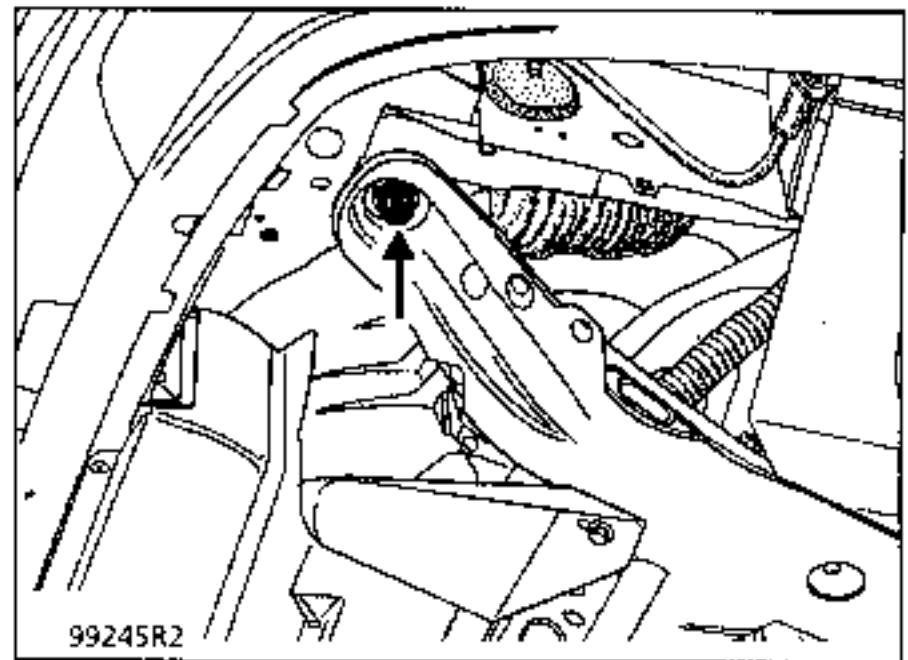


1 - Front mechanical components removed

The bracket is fitted against the bottom of the front cross member and is centred in the sub-frame mounting hole.

It should be used when replacing:

- the front lower cross member,
- the front panel assembly,
- a side member part section,
- a half unit.



2 - Front mechanical components in place

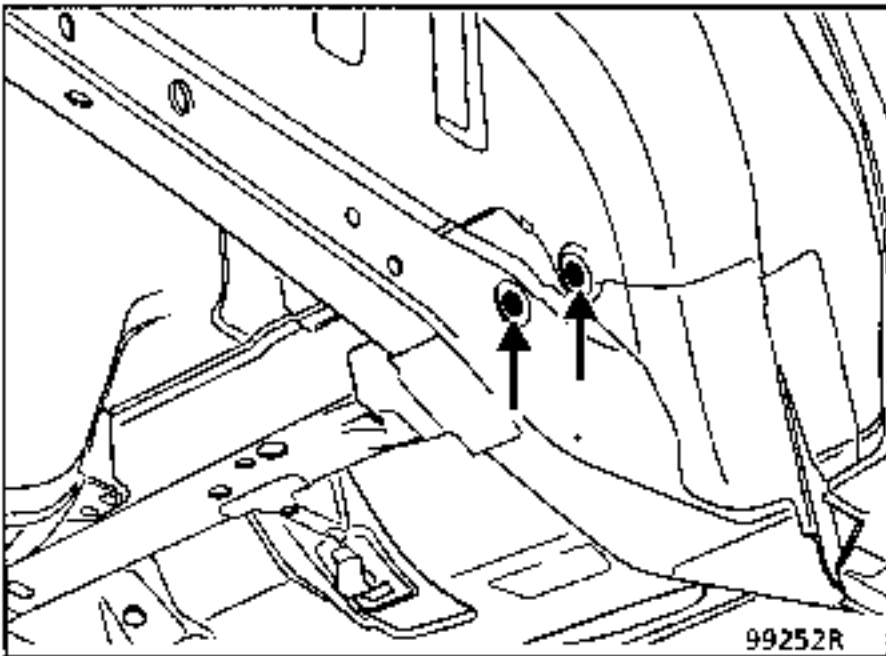
The bracket covers the sub-frame mounting bolt.

It is used:

- in the event of a frontal collision for a minor impact,
- for fault finding when fitting gauges to the front section.

III - REFERENCES POINTS FOR POSITIONING REPLACED PARTS (continued)

E - REAR SHOCK ABSORBER UPPER MOUNTING

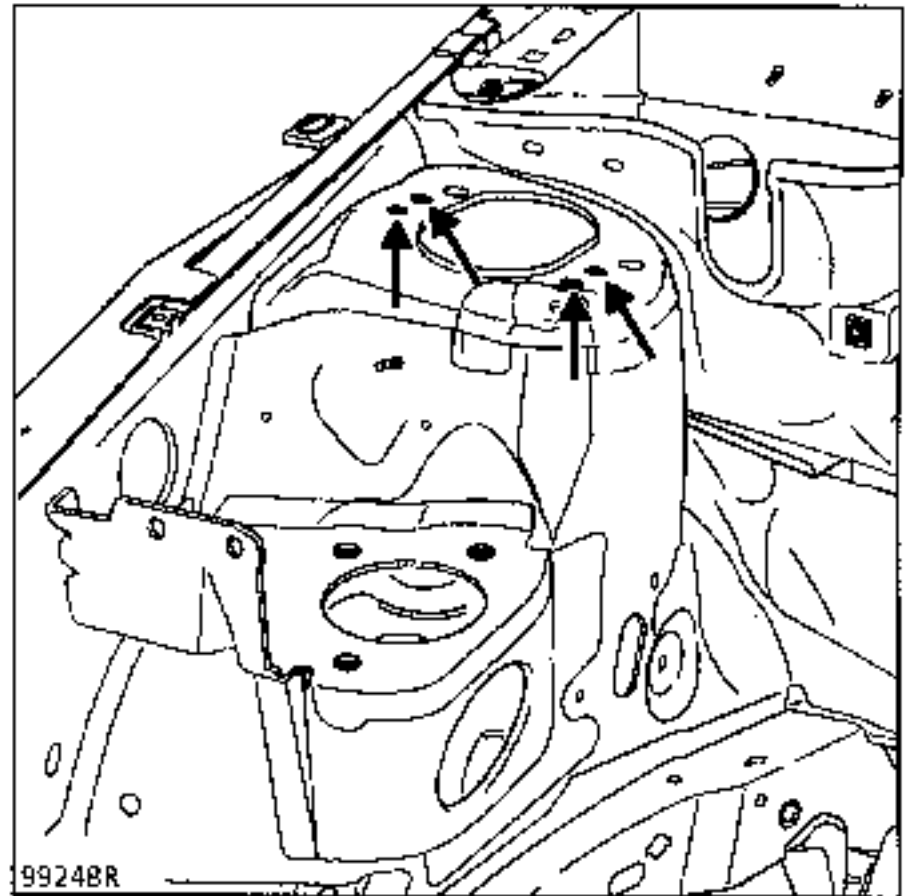


The bracket is fitted in the location for the upper shock absorber clevice and is used to position this mounting when replacing :

- a rear side member,
- a rear floor unit.

It is also used during finishing.

F - FRONT SHOCK ABSORBER UPPER MOUNTING



The bracket is fitted under the shock absorber cup and is centred in the shock absorber mounting holes.

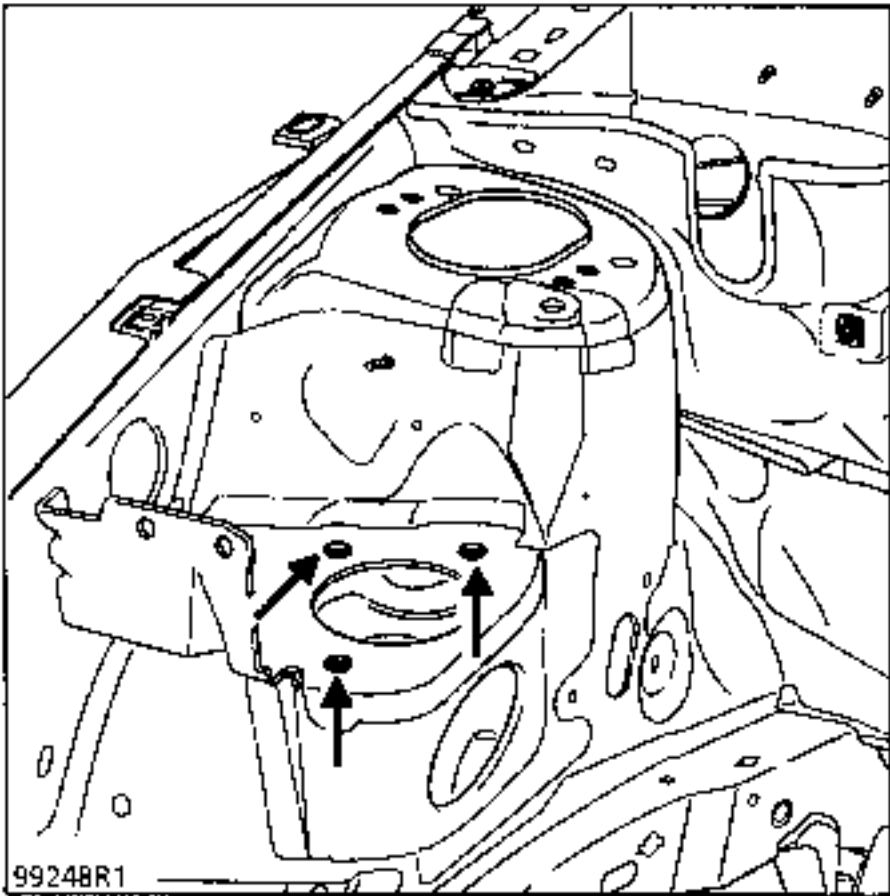
It is used when replacing:

- the wheel arch,
- a front half unit.

It is also used during finishing.

III - REFERENCES POINTS FOR POSITIONING REPLACED PARTS (continued)

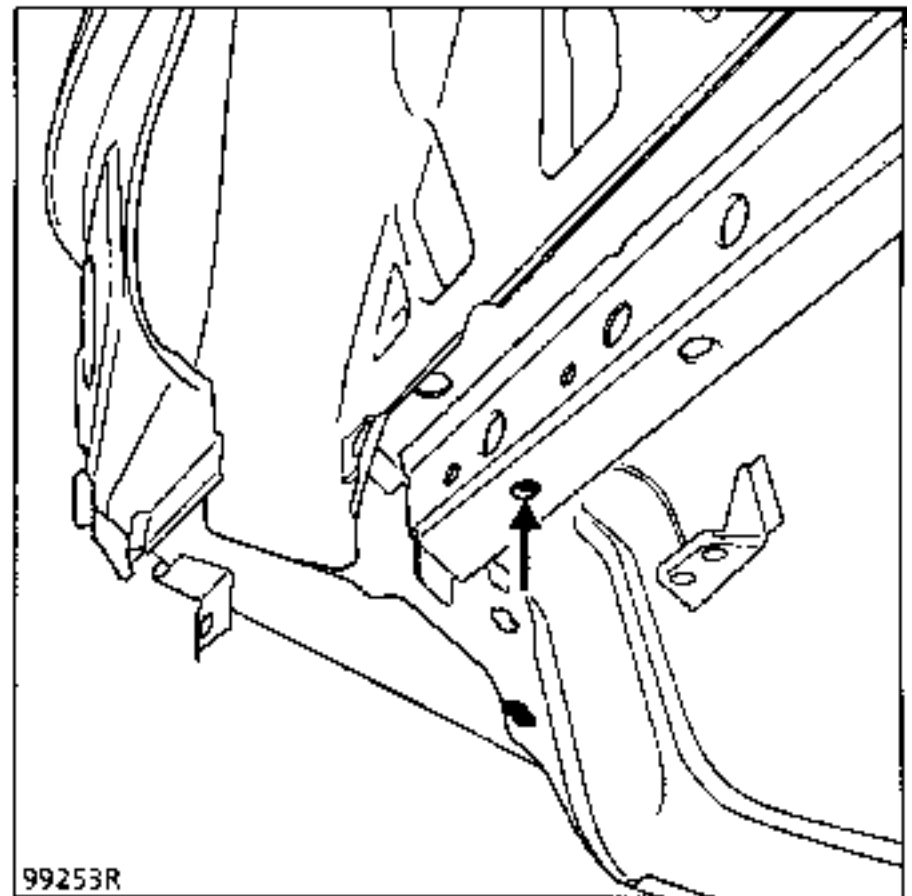
P - ENGINE MOUNTING



The bracket is positioned on the top of the engine mounting and is centred in the pad mounting holes.

It is used when the mechanical components have been removed for replacing a front half unit.

J - FRONT END OF REAR SIDE MEMBER



The bracket is fitted under the side member and is centred in the pilot hole.

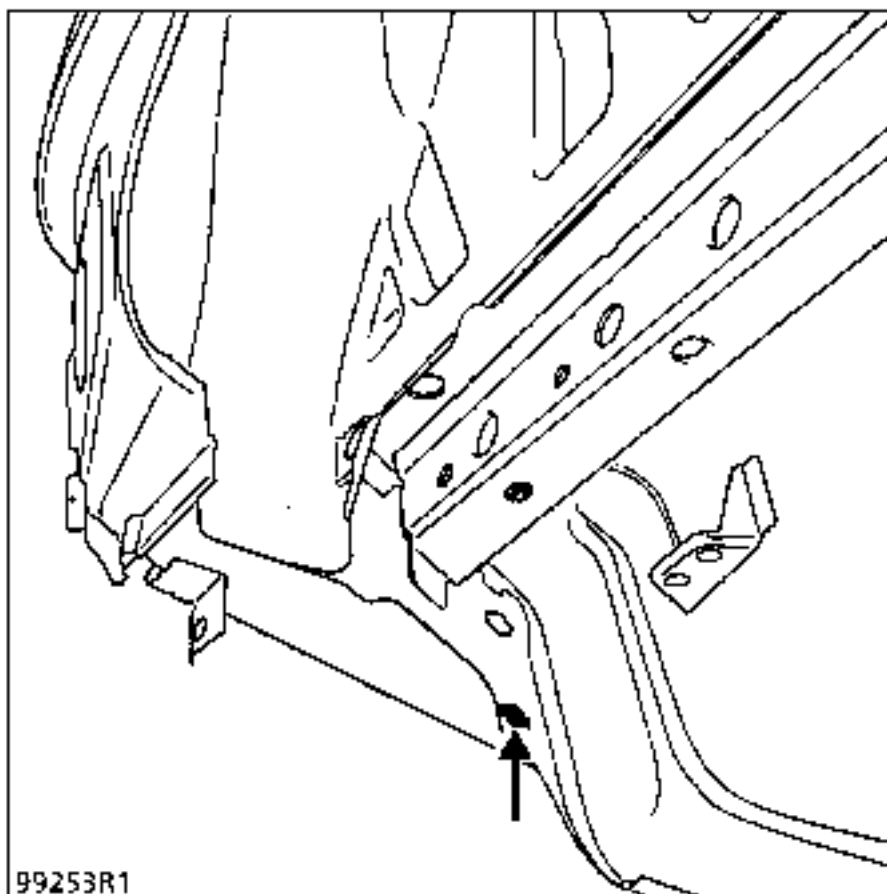
It is used with the mechanical components in place:

- for realigning the side member,
- for fault finding when using gauges.

It is also used with the mechanical components removed, under the same conditions, when replacing the side member.

III - REFERENCES POINTS FOR POSITIONING REPLACED PARTS (continued)

L - REAR END PANEL CROSS MEMBER

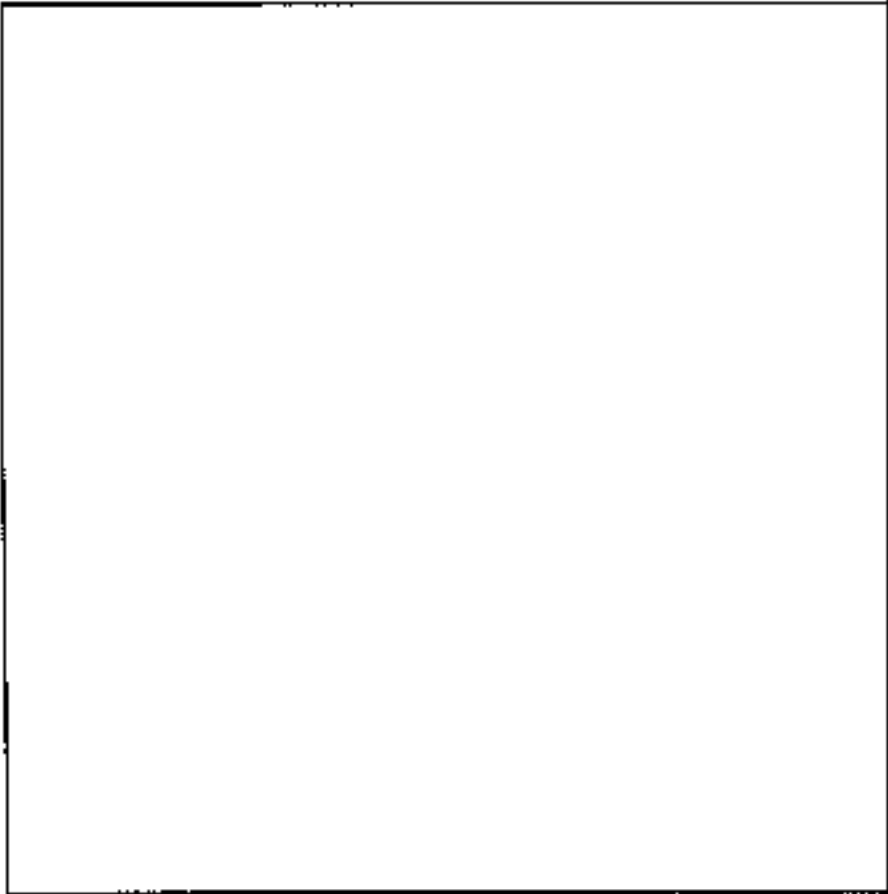


The bracket is fitted vertically against the rear end panel cross member and is centred in the punched hole for the captive nut.

It is used for replacing the rear end panel assembly, with or without the mechanical components in place.

IV - REFERENCE POINTS FOR SPECIAL TOOLING

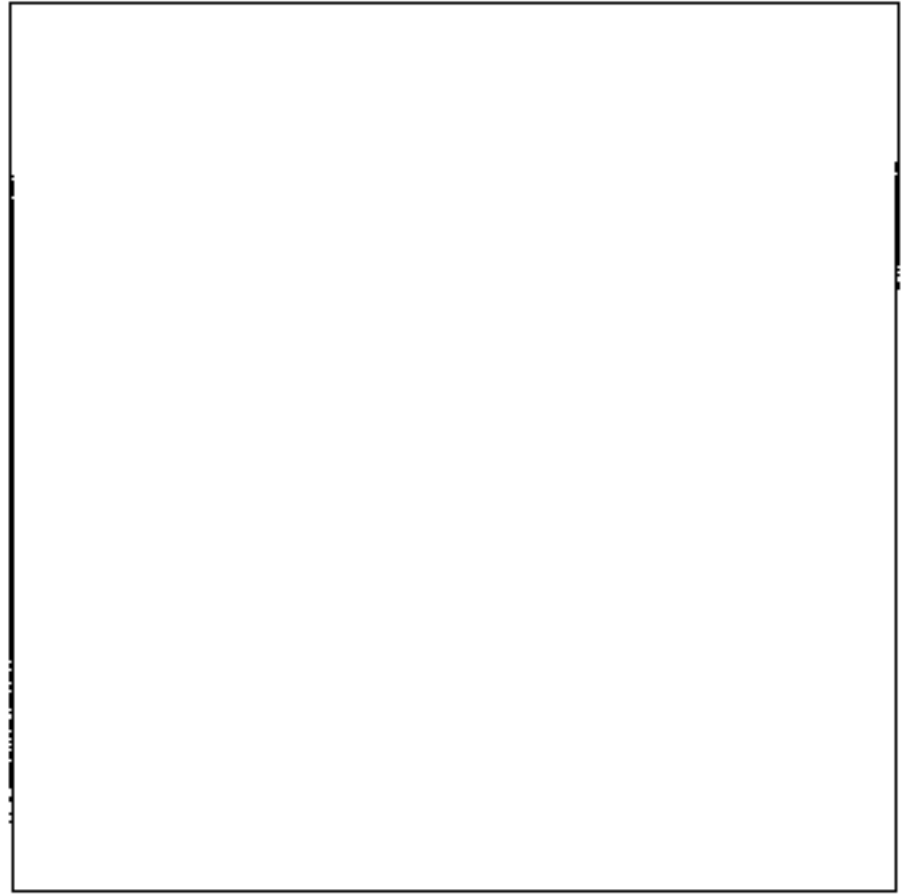
**BLACKHAWK**



Special heads for the **Système MS**

For further details contact your **After Sales Head Office.**

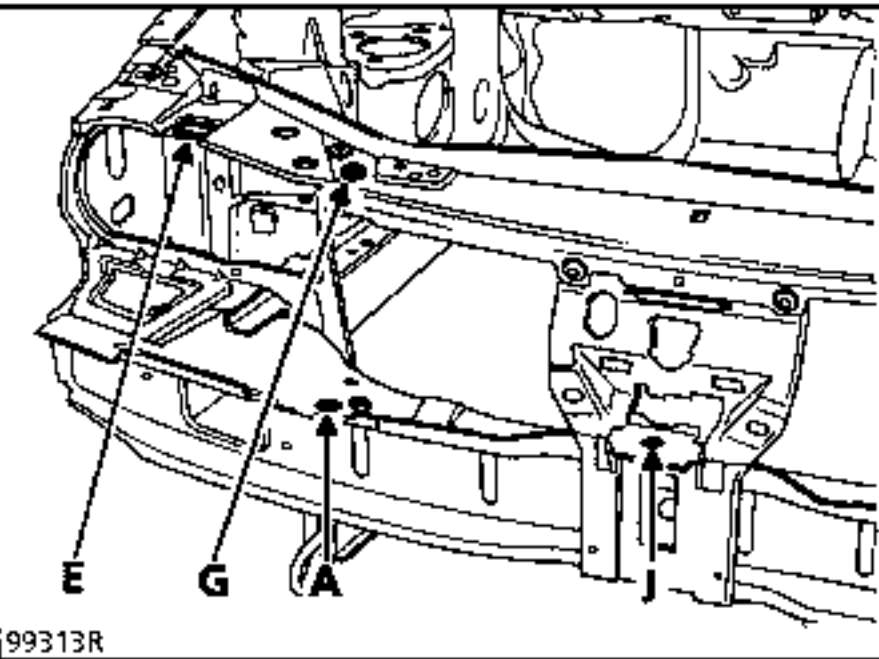
**CELETTE**



Special heads for the **Système MS**

For further details contact your **After Sales Head Office.**

**FRONT PANEL JIG**



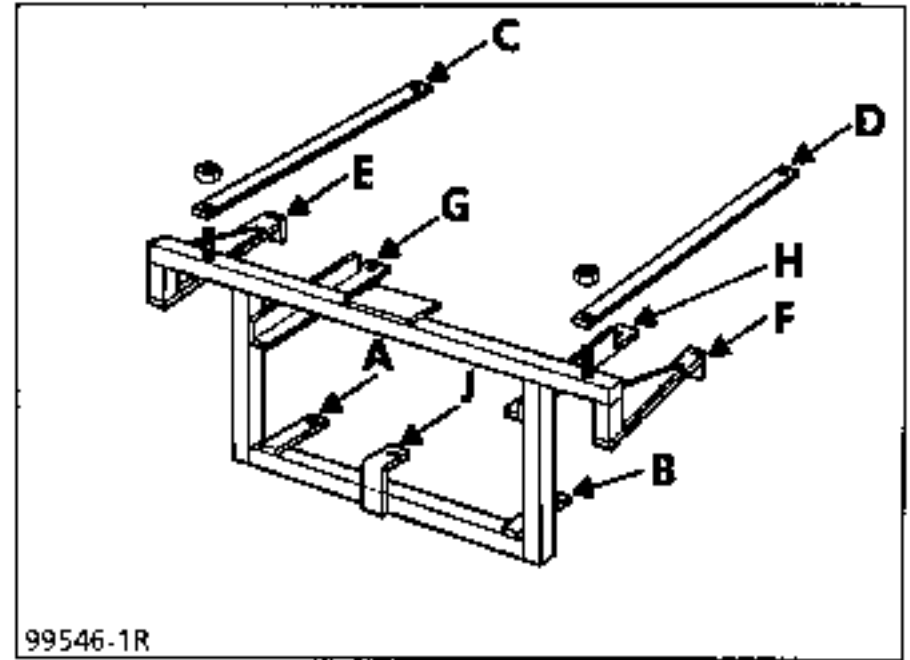
99313R

Points A, B, C and D are the reference points for positioning the jig on the vehicle.

Before fitting the jig, ensure during fault finding that these points are correct.

Points E, F, G, H and J are primarily used for the mounting and positioning of the replaced parts.

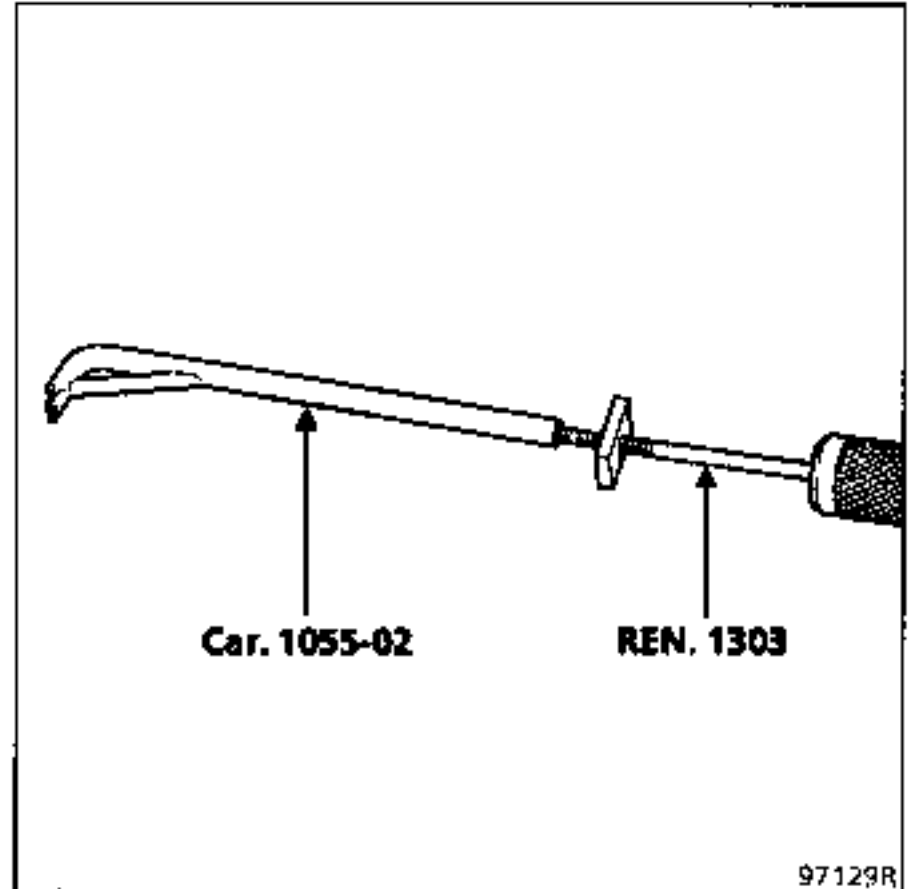
If points A or B cannot be used for reference purposes because they have been affected by the impact, these positioning points are used, on the side opposite to the impact.



99546-1R

Car. 1365  
Part Number 00 00 136 500

**TOOL FOR REMOVING DOOR HINGE PINS**



97129R

Car. 1055-02  
Part Number 00 00 105 502  
Fitted to an inertia extraction tool of type FENWICK REN 1303.



**INTRODUCTION**

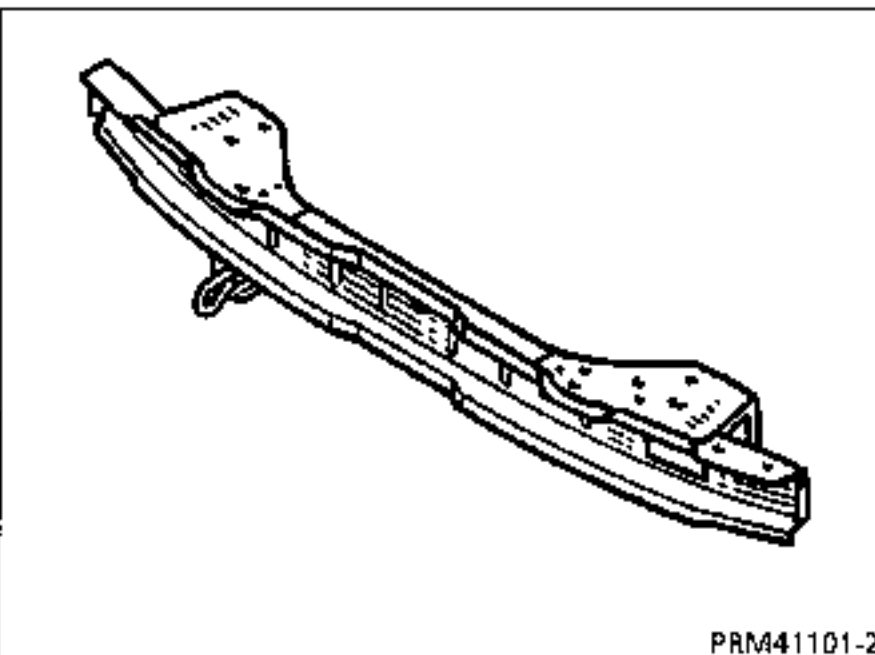
The replacement of this part is a basic operation for a frontal collision. The lock mounting must also be replaced.

The body bench does not need to be used, as long as the side members were not affected by the impact.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Part assembled with :

- closure panel,
- reinforcement,
- securing ring.



**1 JOINT WITH SIDE MEMBER CLOSURE PANEL**

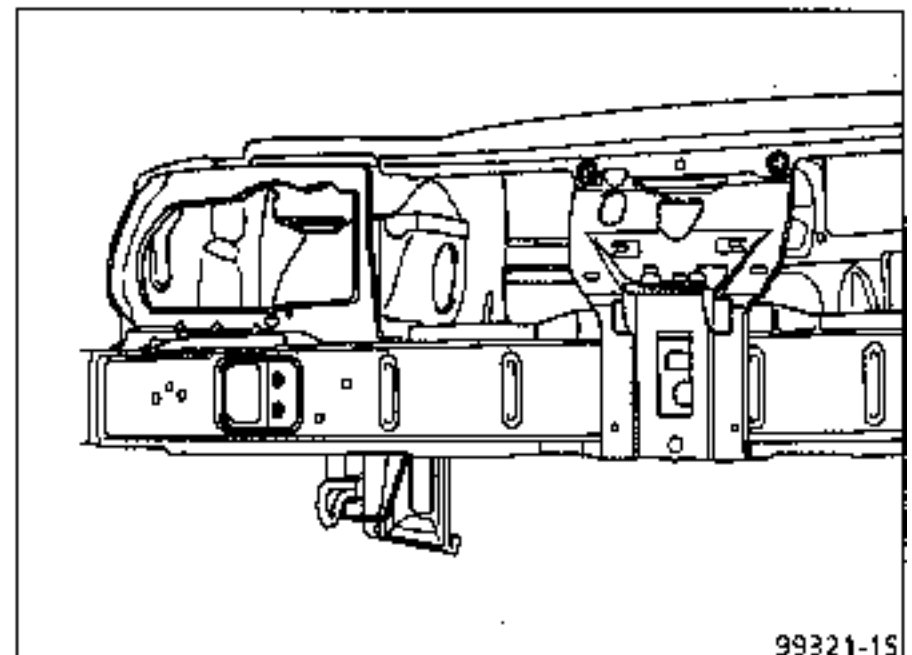
**Thickness of panels concerned (mm)**

Front end cross member (reinforcement )	1
Front side member closure panel	1
Cross member reinforcement	1.5

**Unpicking**

2 spot welds on thickness 1+ 1.50 per side

**Welding**



**NOTE :**  
these welds are on 3 thicknesses

**2** JOINT WITH FRONT SIDE MEMBER, FRONT SECTION

**Thickness of panels concerned (mm)**

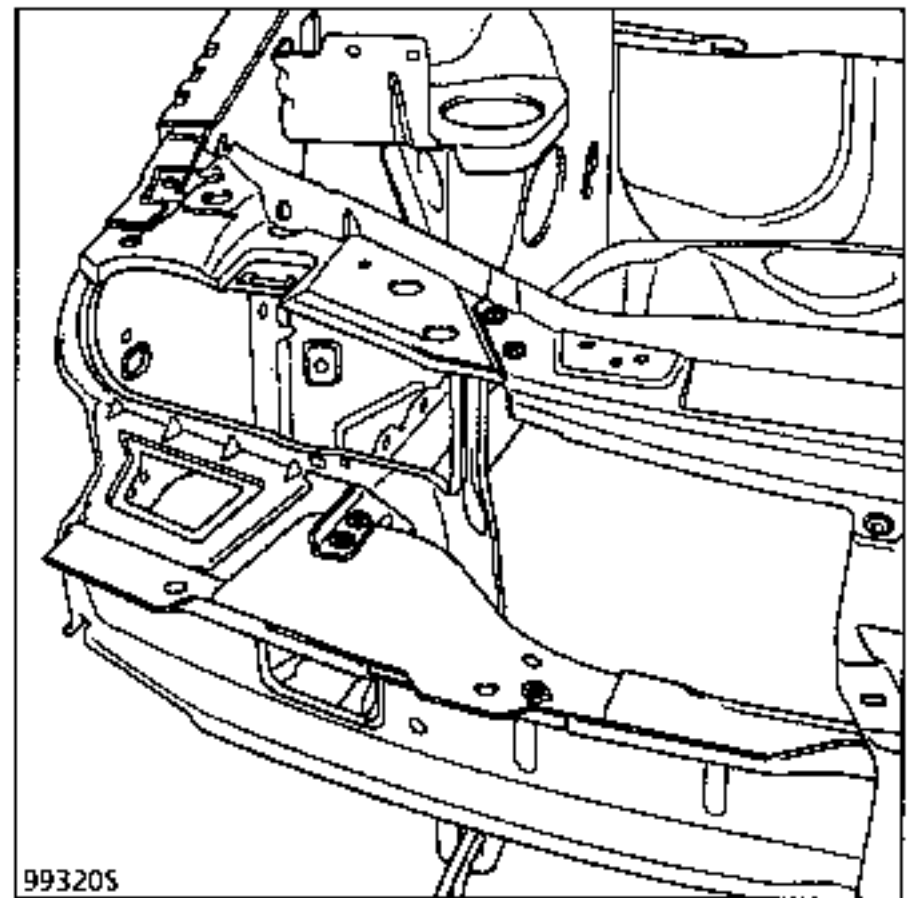
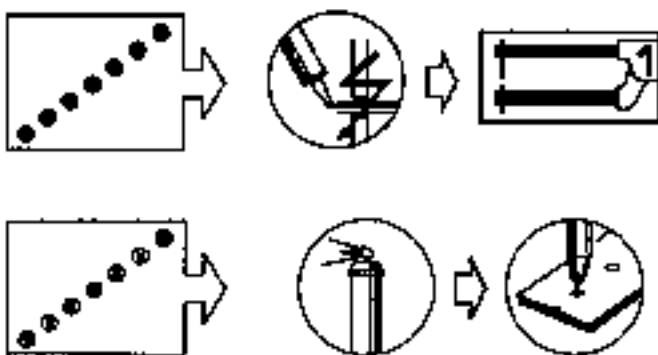
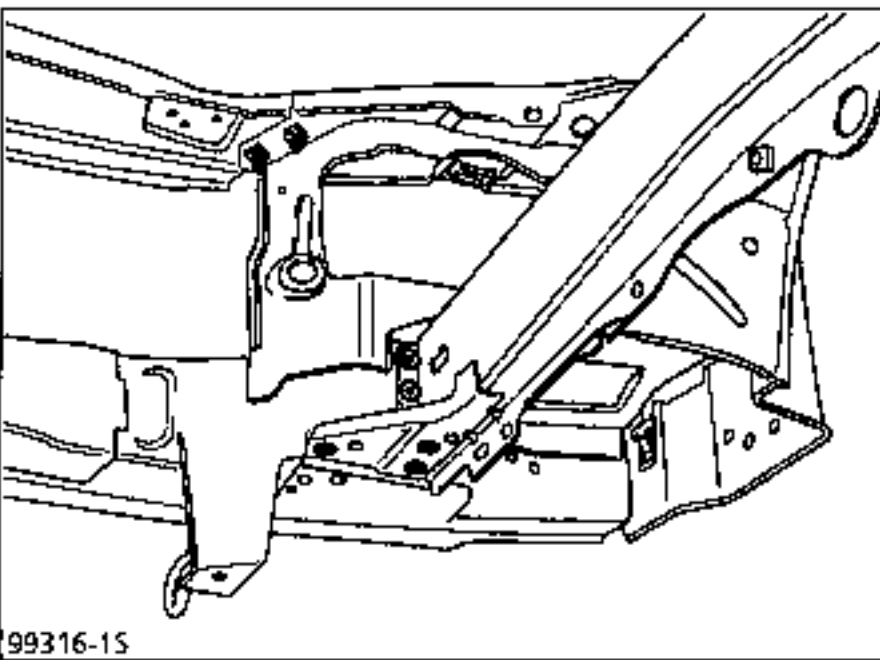
Front end cross member	1
Front side member, front section	1.5
Front side member reinforcement	1.5
Front side member corner plate	1.5

**Unpicking**



2 spot welds on thickness 1.5 x 2  
5 spot welds on thickness 1.5  
both per side

**Welding**



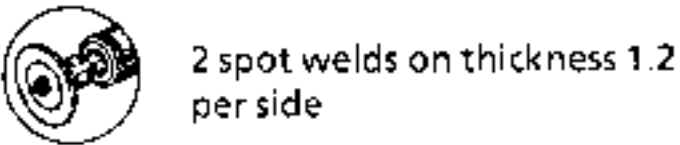
**NOTE :**  
Spot welds on 3 thicknesses.  
Plug welds on 1 thickness.

**3** JOINT WITH COWL SIDE PANEL  
(pillar lining)

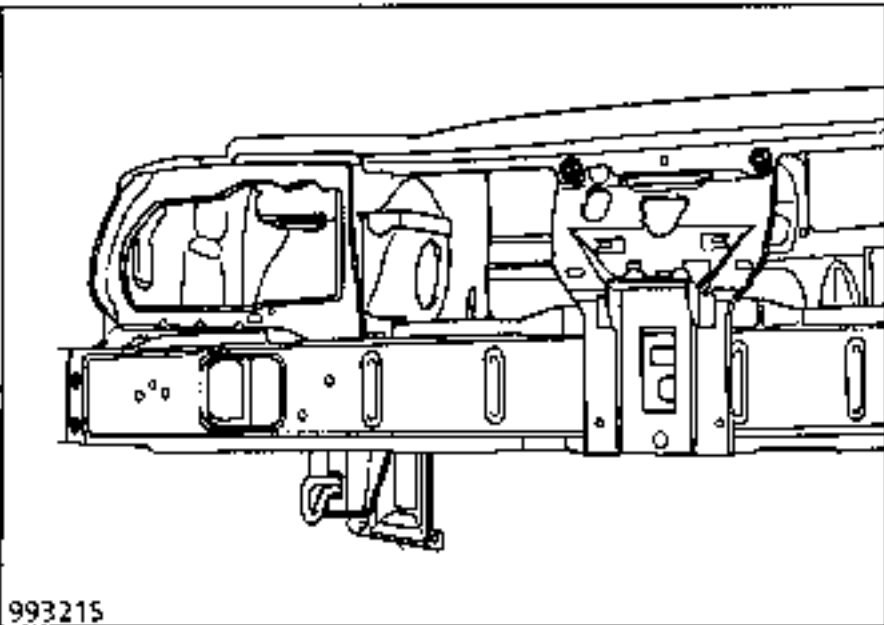
Thickness of panels concerned (mm)

Cross member closure panel	1.2
Cowl side panel (pillar lining)	1

Unpicking



Welding

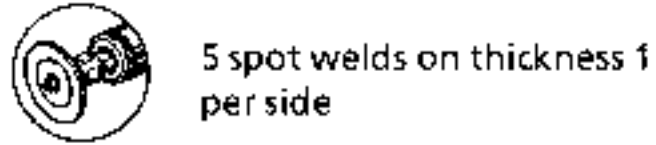


**4** JOINT WITH HEADLIGHT CARRIER PANEL

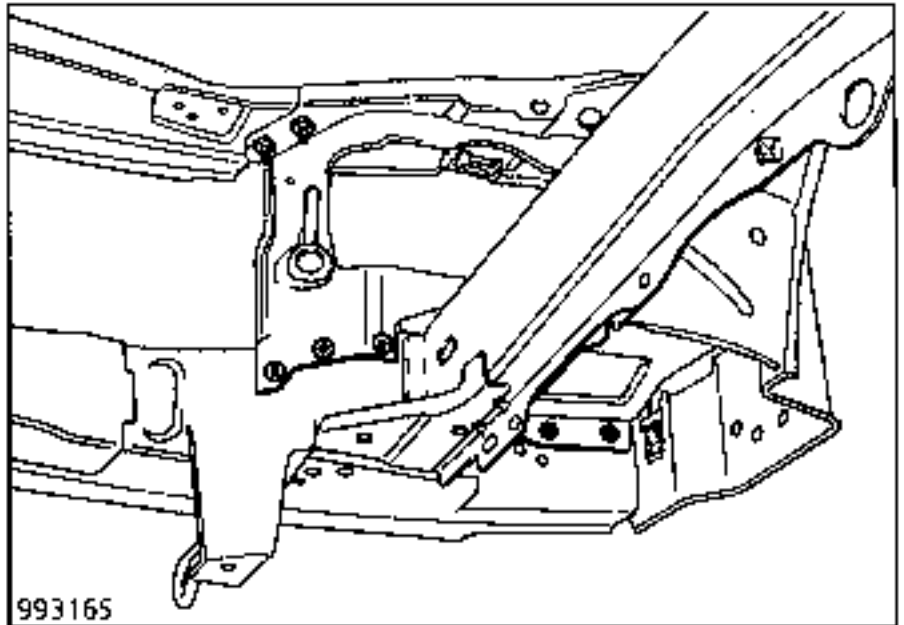
Thickness of panels concerned (mm)

Front end cross member	1
Headlight carrier panel	1

Unpicking



Welding



**5** JOINT WITH LOCK MOUNTING

**Thickness of panels concerned (mm)**

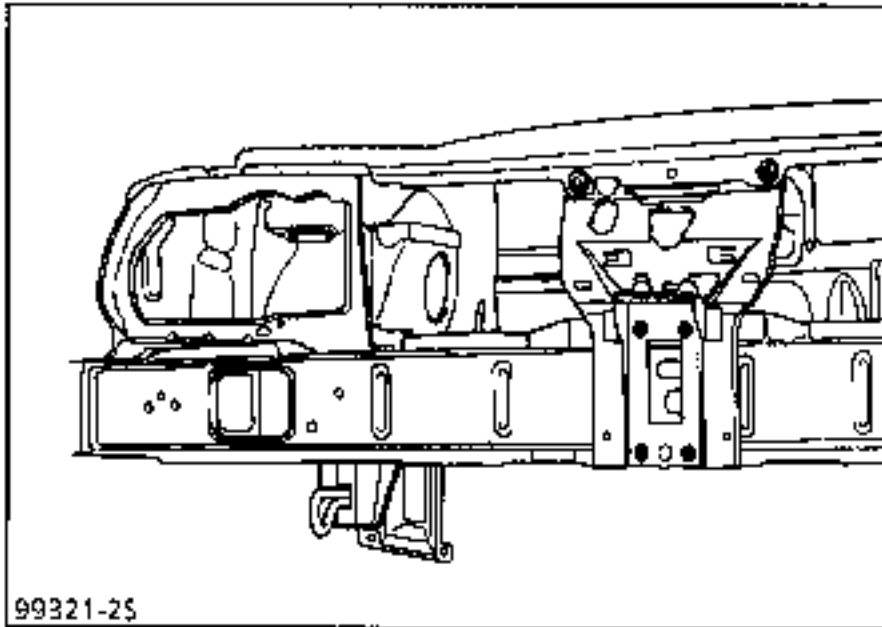
Front end cross member closure panel	1.2
Lock mounting	1
Front end cross member	1.5

**Unpicking**



This operation is not required since the two parts are removed together.

**Welding**



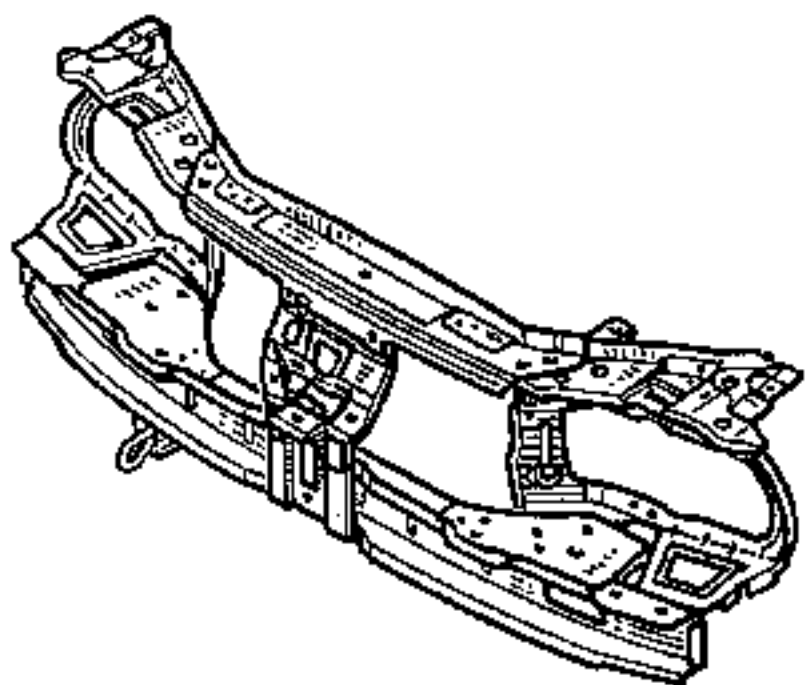
**INTRODUCTION**

The replacement of this part is a basic operation for a frontal collision.

The body bench does not need to be used, as long as the side members were not affected by the impact.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

- Part assembled with :
- complete lower cross member,
  - headlight carrier panel,
  - lock mounting,
  - complete upper cross member.



PRM4D:01

**1 JOINT WITH SIDE MEMBER CLOSURE PANEL**

**Thickness of panels concerned (mm)**

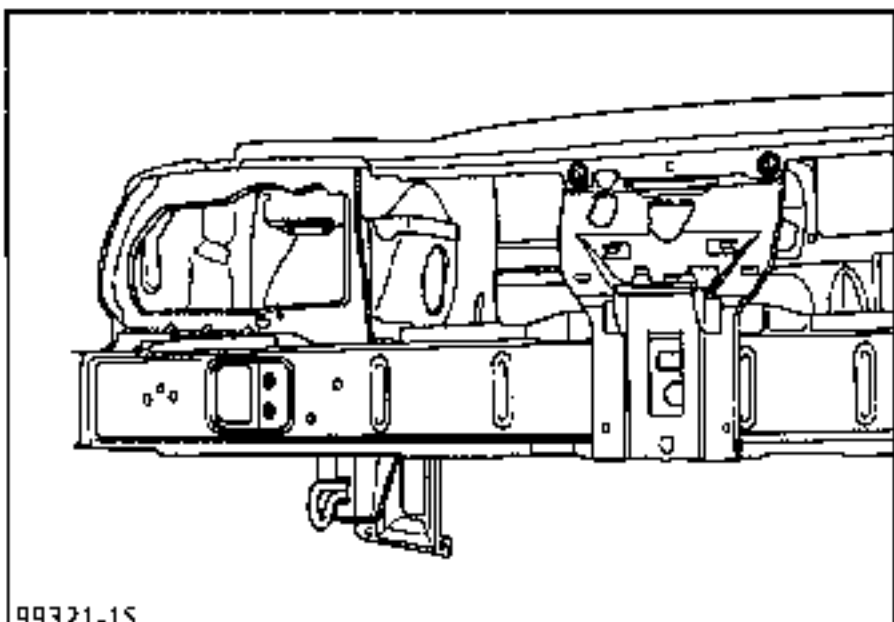
Front panel	1
Side member closure panel	1
Cross member reinforcement	1.5

**Unpicking**



2 spot welds on thickness 1+ 1.50 per side

**Welding**



99321-15



**2** JOINT WITH FRONT SIDE MEMBER, FRONT SECTION

Thickness of panels concerned (mm)

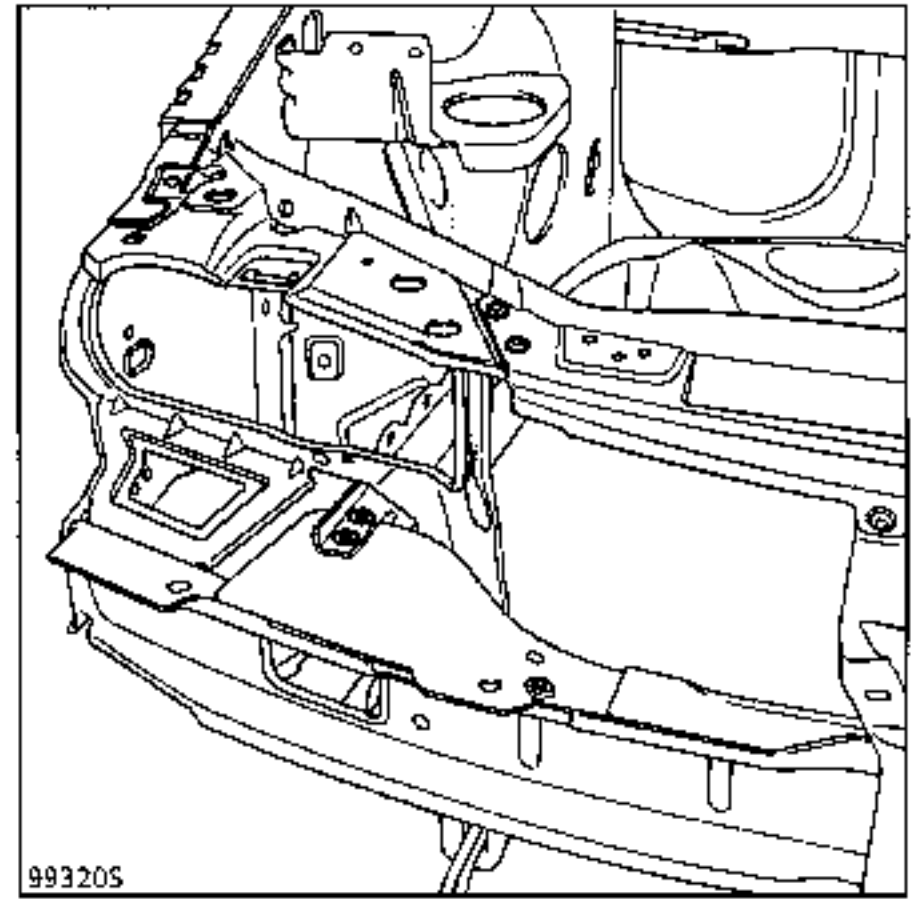
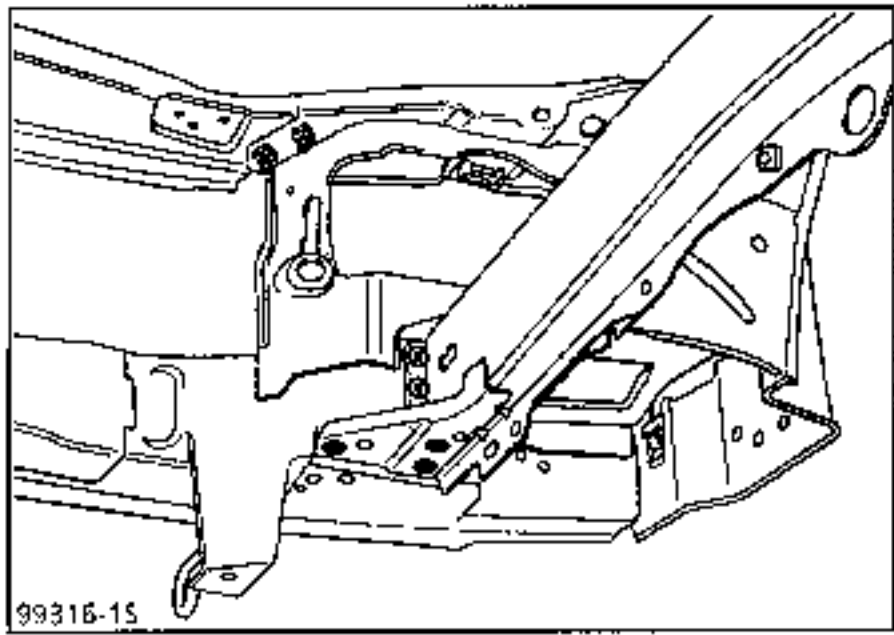
Front panel	1
Front side member, front section	1
Front side member reinforcement	1.5
Front side member corner plate	1.5

Unpicking



2 spot welds on thickness 1.5 x2  
5 spot welds on thickness 1.5  
both per side

Welding



**NOTE :**  
Spot welds on 3 thicknesses.  
Plug welds on 1 thickness.

**3** JOINT WITH COWL SIDE PANEL  
(pillar lining)

**Thickness of panels concerned (mm)**

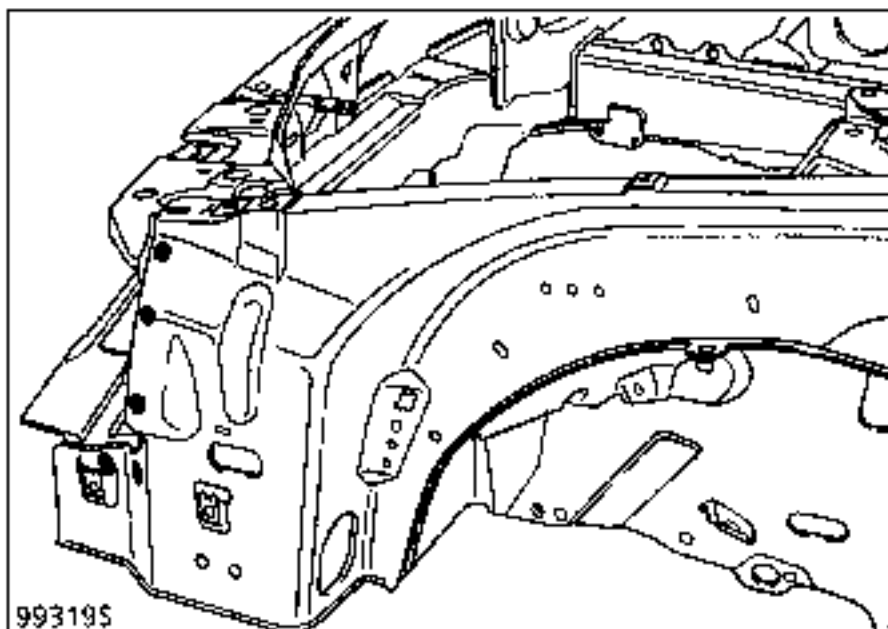
Front panel	1
Cowl side panel (pillar lining)	1
Front cross member closure panel	1.2
Upper side cross member	1.5

**Unpicking**



9 spot welds on thickness 1 mm

**Welding**



**NOTE :**

The spot welds on the upper cross member are on 3 thicknesses.

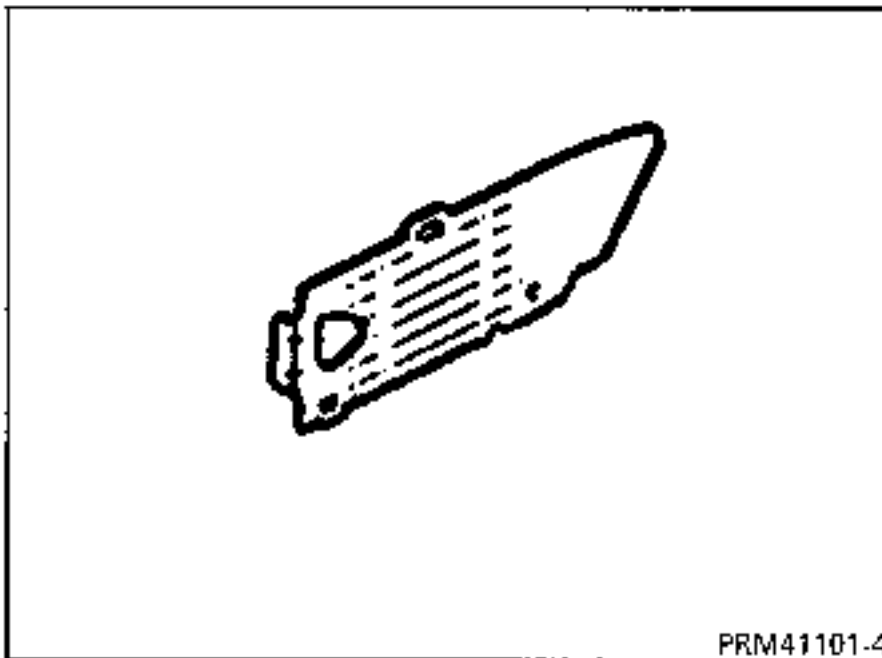
## INTRODUCTION

The replacement of this part is a complementary operation to the front end cross member.

It is used for straightening the side member.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with welded nuts.



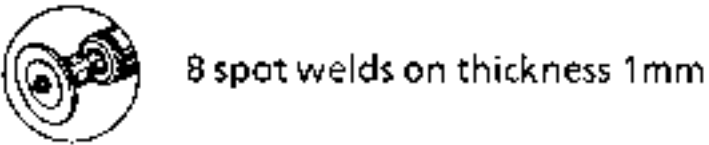


**1** JOINT WITH FRONT SIDE MEMBER, FRONT SECTION

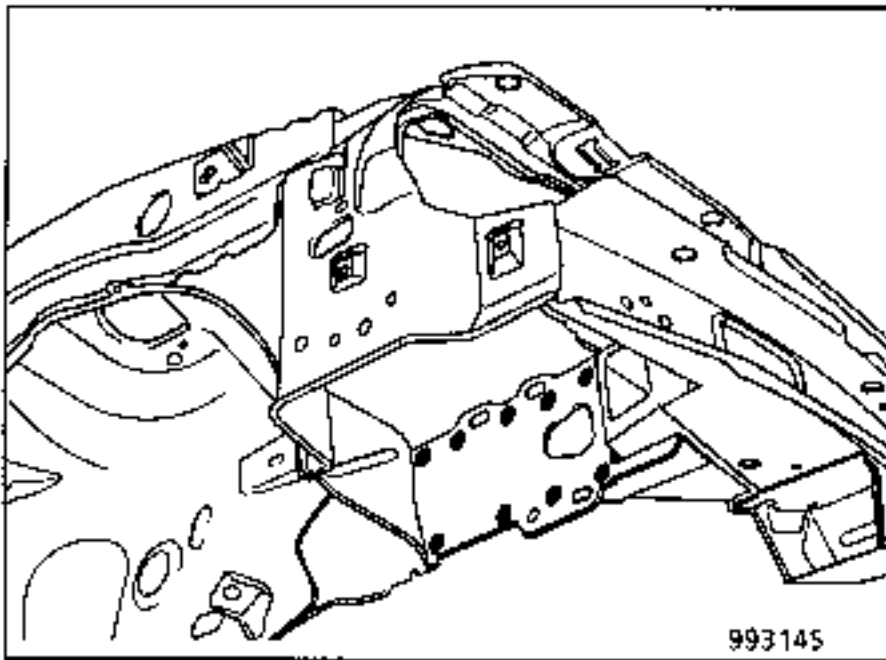
Thickness of panels concerned (mm)

Front side member closure panel	1
Side member	1.5

Unpicking



Welding

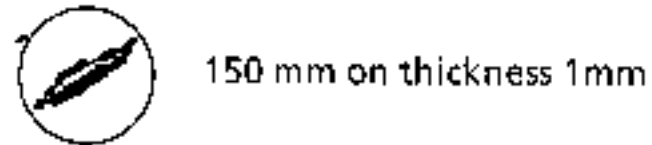


**2** JOINT WITH PART SECTION

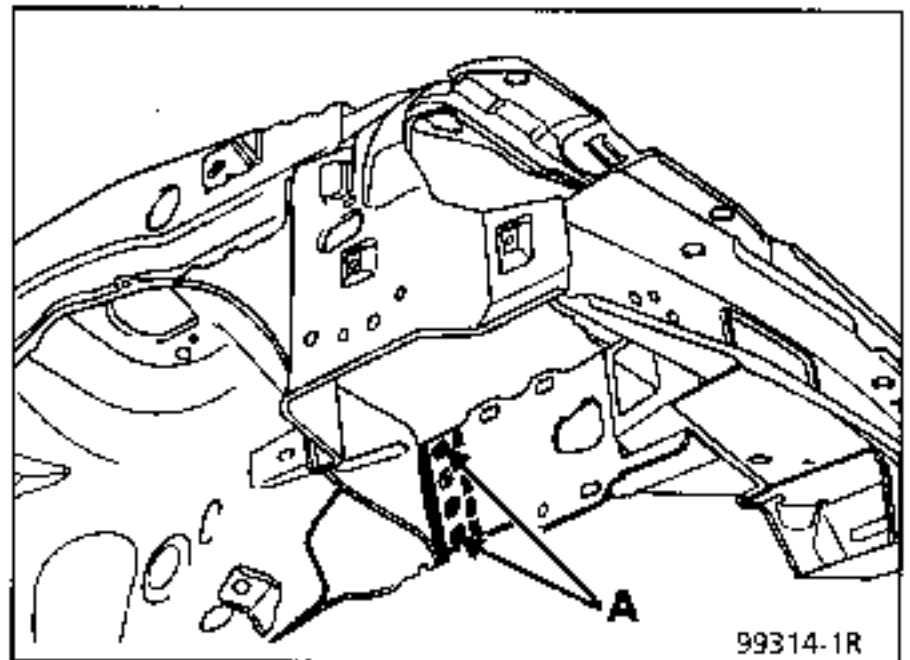
Thickness of panels concerned (mm)

Front side member closure panel	1
Side member	1.5

Unpicking



Welding



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

## INTRODUCTION

This part may be replaced in two ways:

A - Front side member, front section, complete.

B - Front side member, front section, partial.

In both cases the operation is complementary to the replacement of the side member closure panel.

They should be replaced on the body bench.

The replacement of this part also requires the replacement of the closure panel which should be ordered separately.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

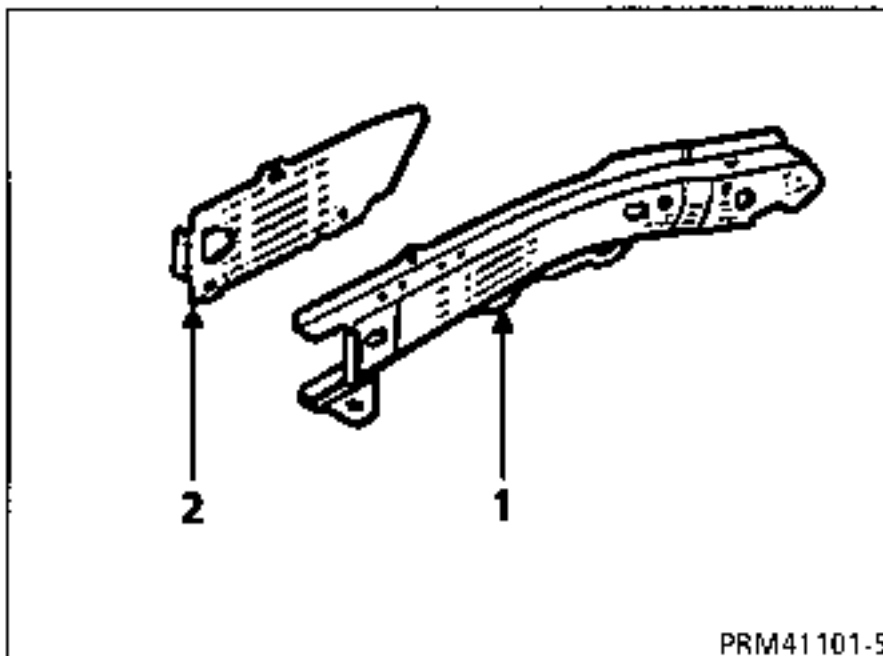
1 - Part assembled with:

Corner bracket joint with lower cross member

Internal reinforcements

Welded nuts

2 - Side member closure panel



**1** JOINT WITH FRONT SIDE MEMBER, REAR SECTION

**Thickness of panels concerned (mm)**

Front side member, front section	1.5
Front side member, rear section	2.5
Wheel arch	1

**Unpicking**

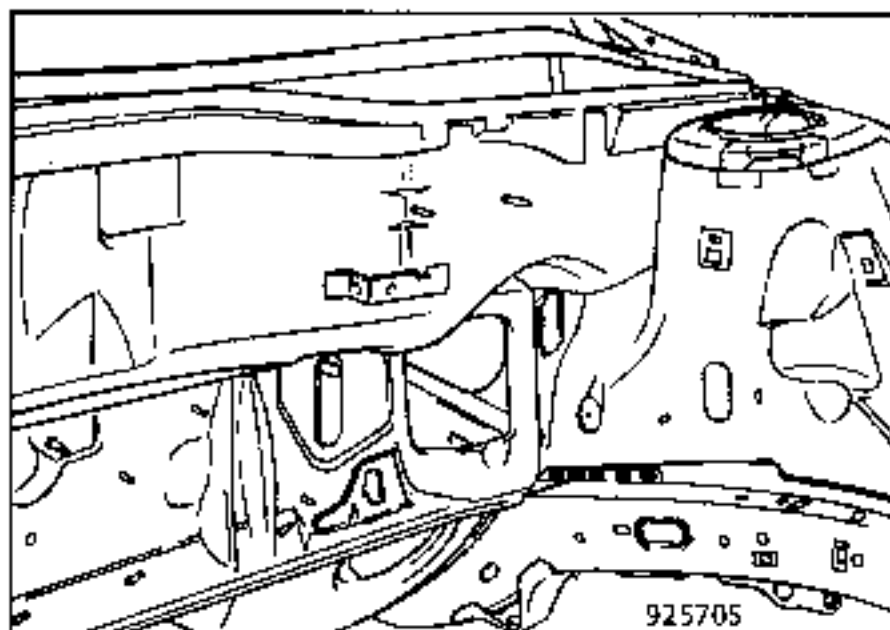
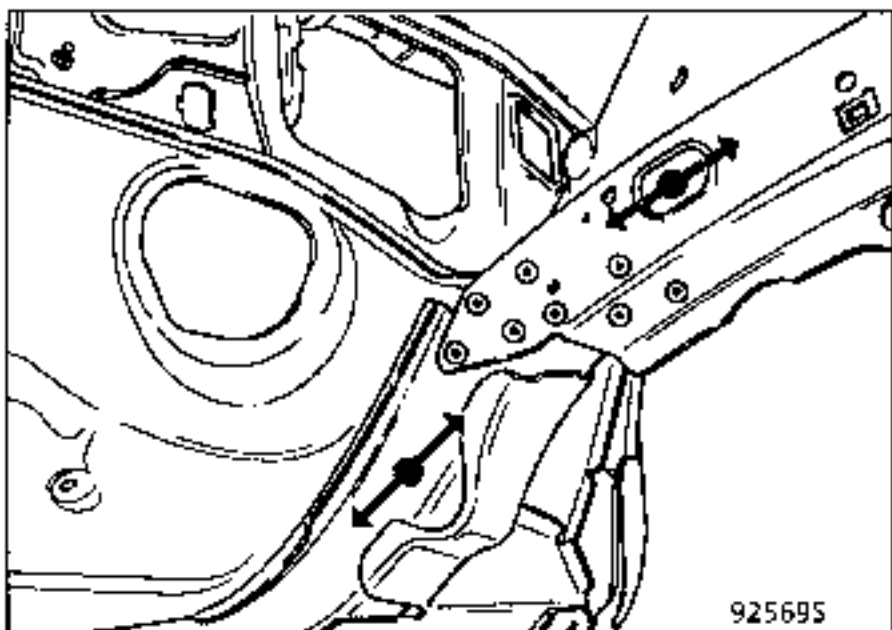


8 spot welds on thickness 1.5



5 spot welds on thickness 1.5

**Welding**




NOTE : welds on 3 thicknesses


**2 JOINT WITH FRONT WHEEL ARCH**

Thickness of panels concerned (mm)

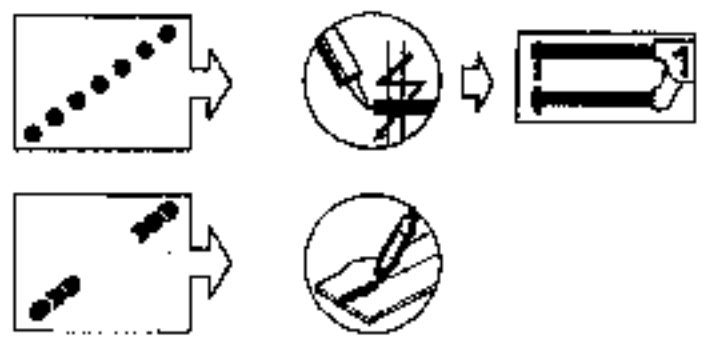
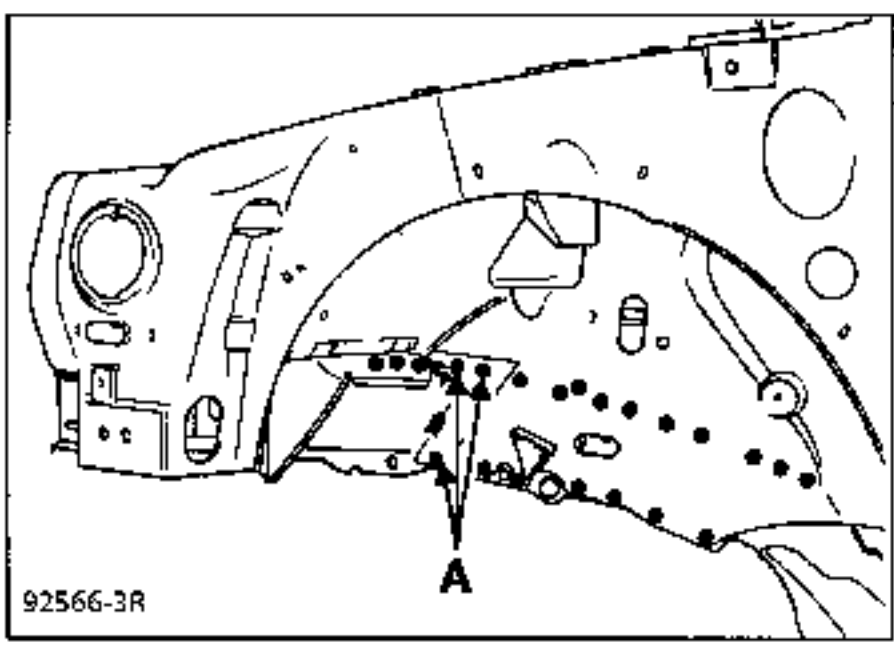
Front side member, front section	1.5
Front side member closure panel	2.5
Wheel arch	1

Unpicking

 19 spot welds on thickness 1.5  
2 MAG fillets of 20 mm

 5 spot welds on thickness 1.5

Welding




NOTE : at A, welds on 3 thicknesses

**3 JOINT WITH PART SECTION**

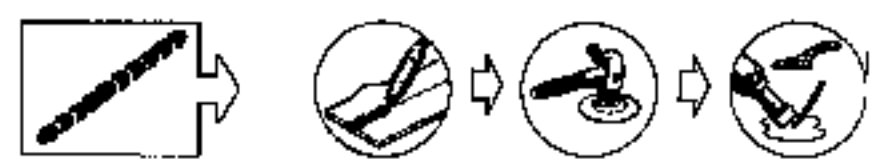
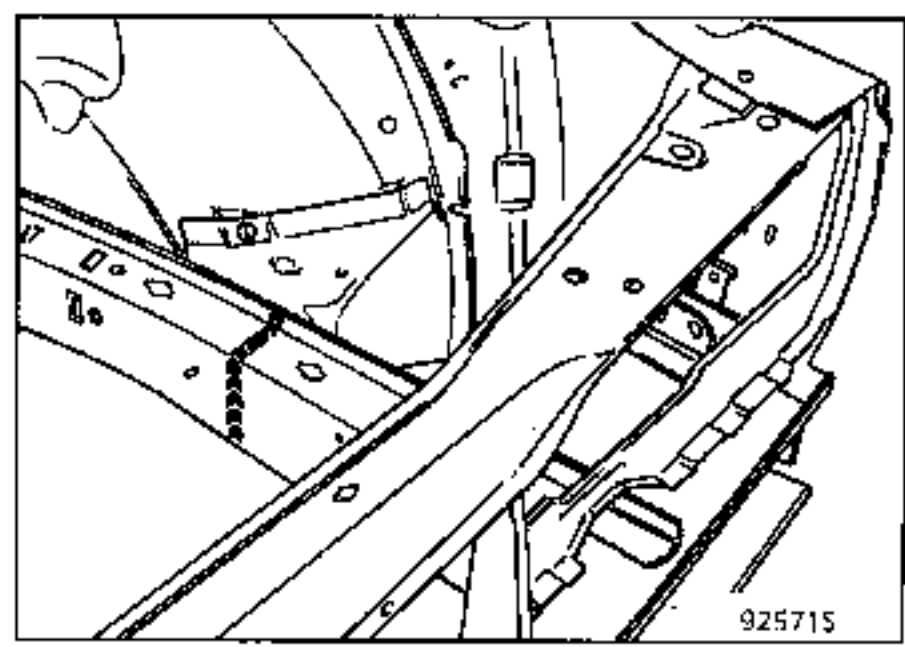
Thickness of panels concerned (mm)

Side member	1.5
-------------	-----

Unpicking

 200 mm on thickness 1.5

Welding



## INTRODUCTION

The replacement of this part is a complementary operation to the replacement of:

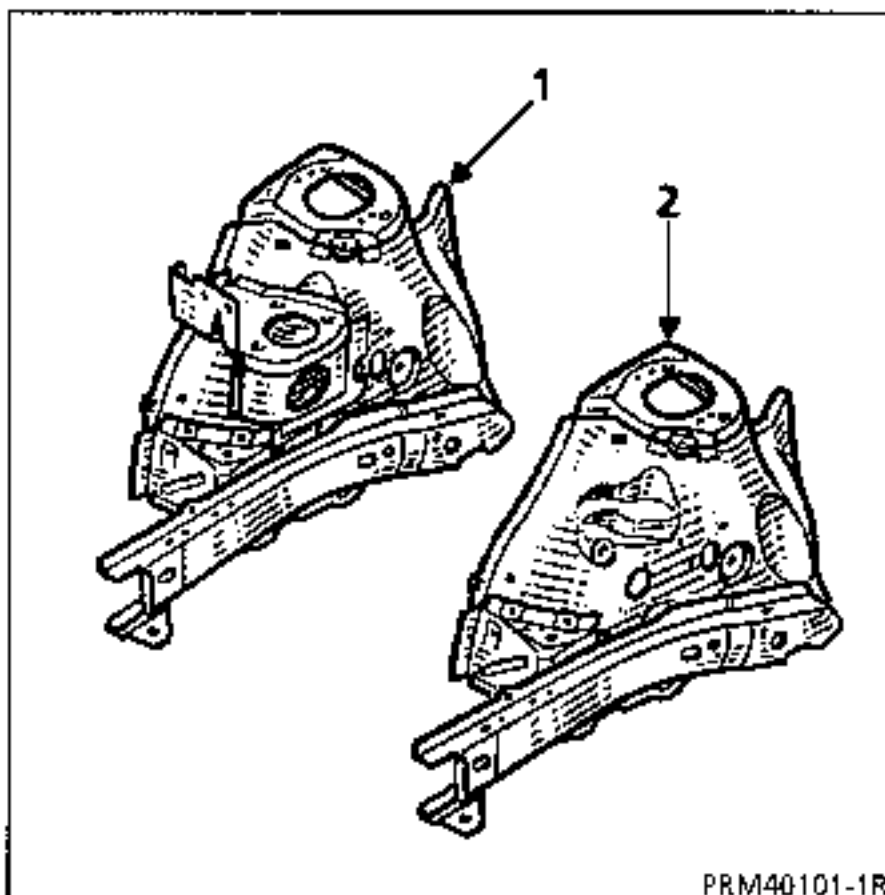
- a front panel,
- a cowl side panel.

The operation must be carried out on the body bench.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with:

- side member complete with closure panel and reinforcements,
- wheel arch assembled with cup and extension,
- engine mounting (with or without depending on version) for right hand side ( 1 or 2 ).



**1** JOINT WITH FRONT SIDE MEMBER, REAR SECTION

**Thickness of panels concerned (mm)**

Front side member, front section	1.5
Front side member, rear section	2.5
Wheel arch	1

**Unpicking**

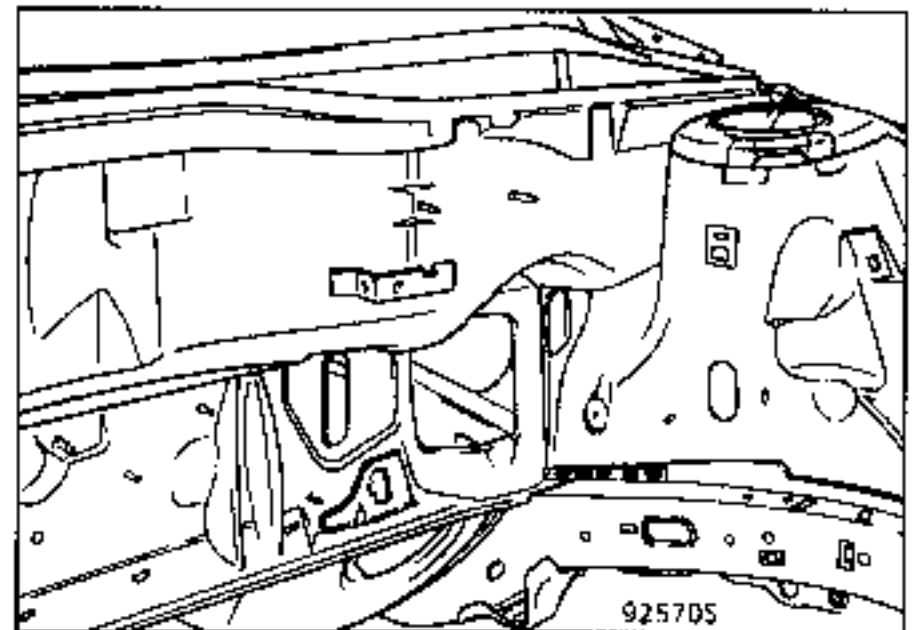
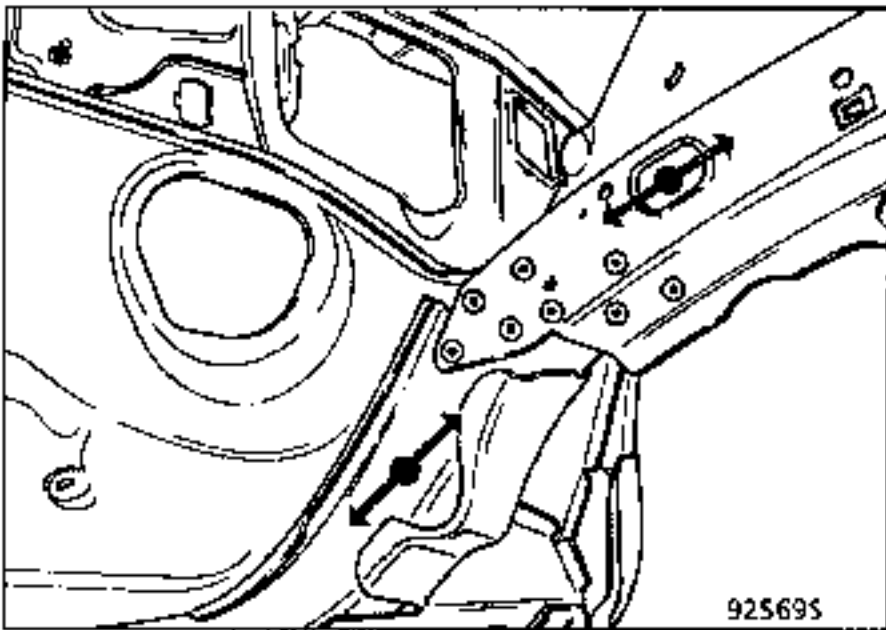


8 spot welds on thickness 1.5



5 spot welds on thickness 1.5

**Welding**



**NOTE :** welds on 3 thicknesses

**2** JOINT WITH PLENUM CHAMBER

Thickness of panels concerned (mm)

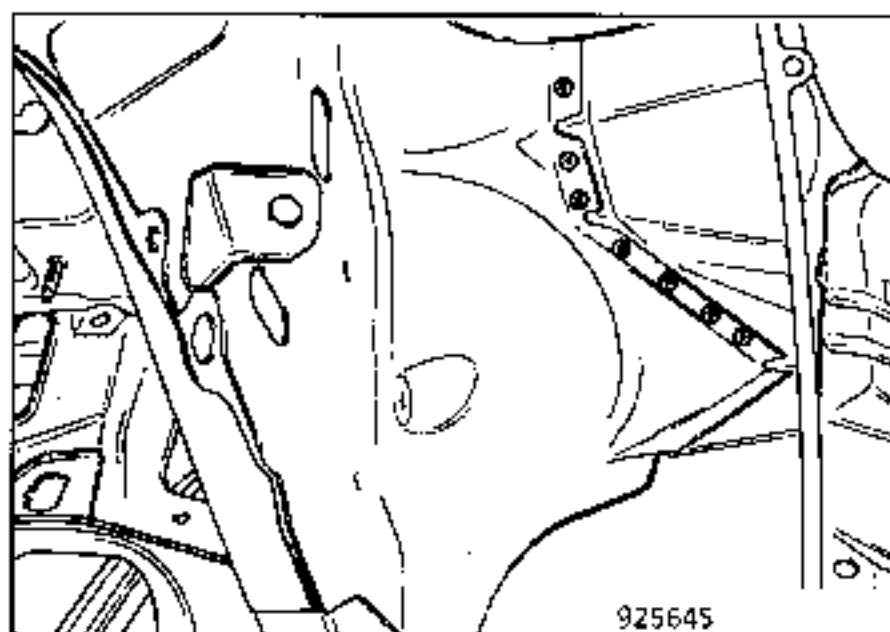
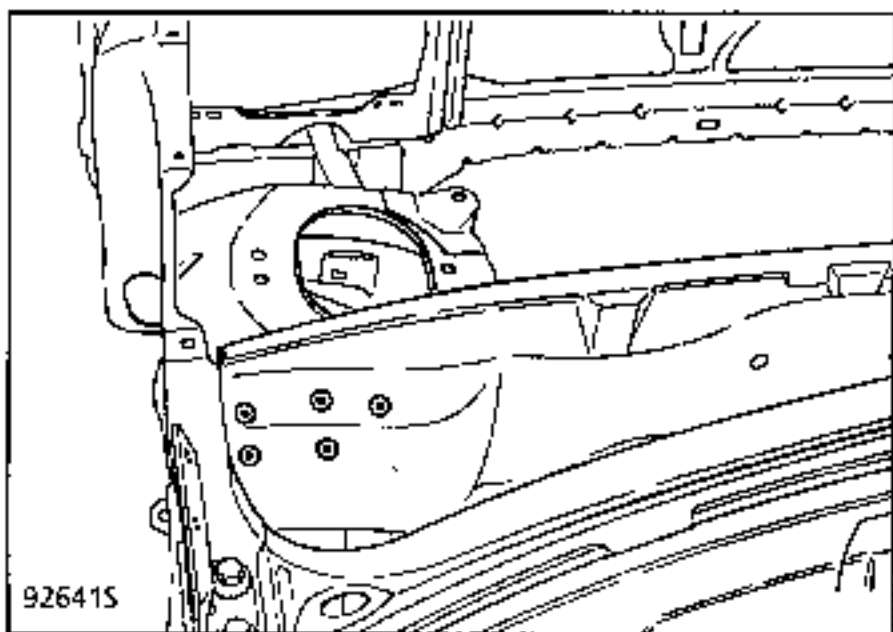
Shock absorber cup	2.5
Plenum chamber	0.7
Wheel arch	1

Unpicking



5 spot welds on thickness 2.5  
7 spot welds on thickness 1

Welding



**3** JOINT WITH BULKHEAD

Thickness of panels concerned (mm)

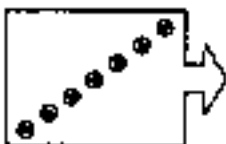
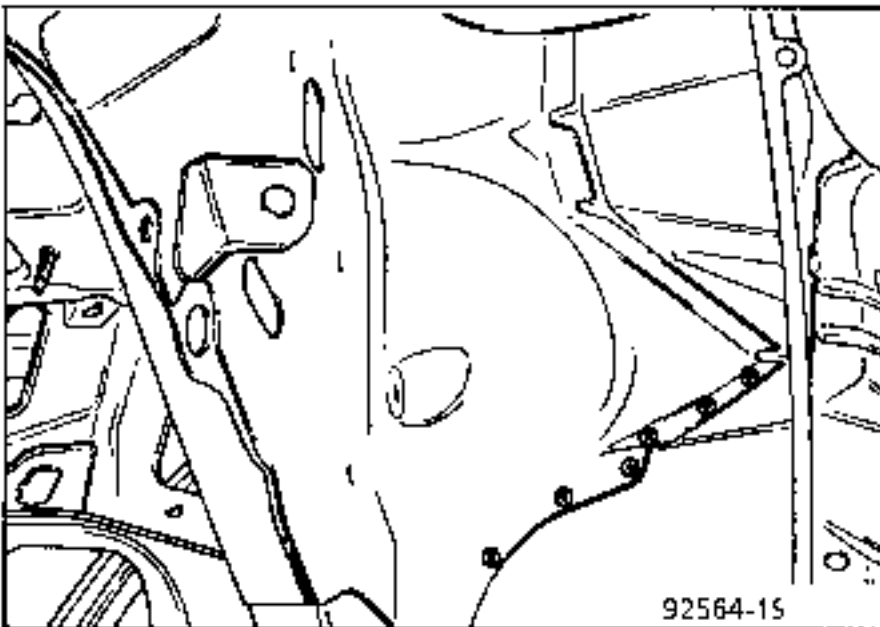
Wheel arch	1
Bulkhead	0.7

Unpicking



6 spot welds on thickness 1

Welding





## INTRODUCTION

The replacement of this part is a complementary operation to the replacement of:

- a front half unit for a frontal collision,
- a front half unit or a sill panel with lining for a side impact.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with jacking point.



PRM41101-3

**1** JOINT WITH FRONT SIDE MEMBER, REAR SECTION

Thickness of panels concerned (mm)

Front side cross member	1
Front side member, rear section	2.5

Unpicking

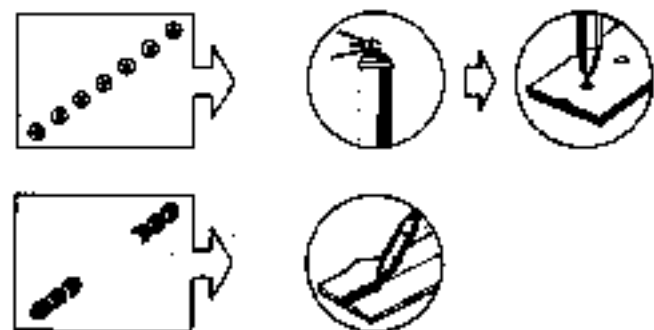
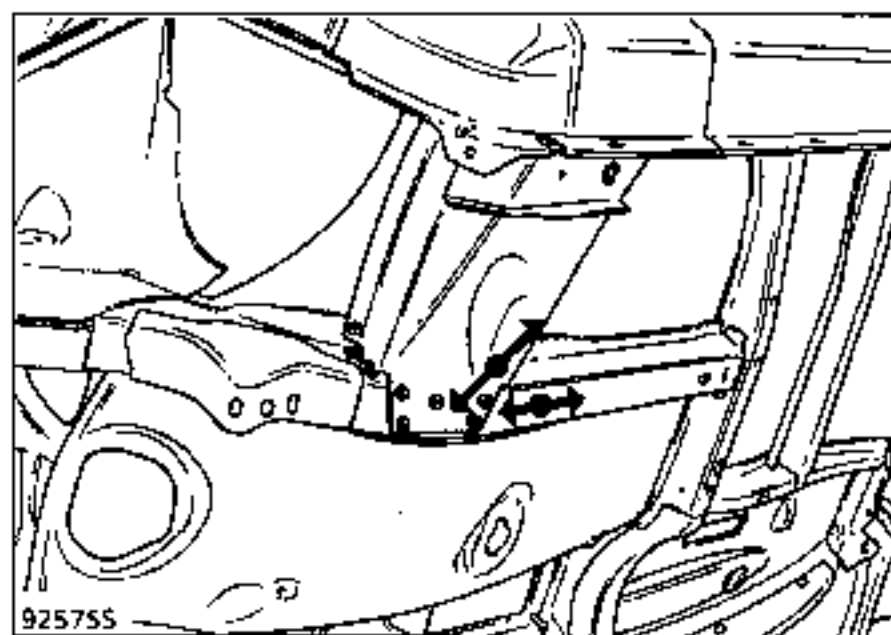
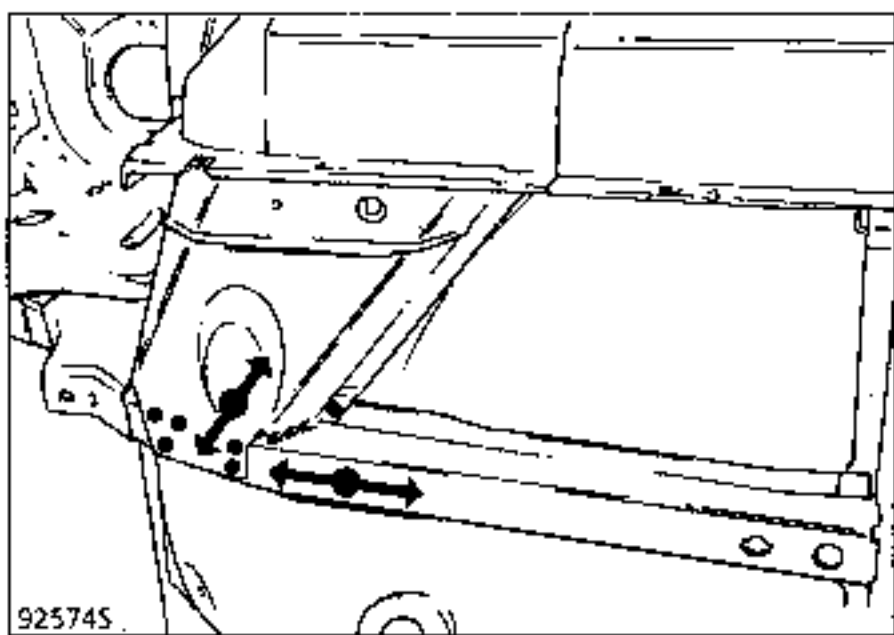


7 spot welds on thickness 1



2 spot welds on thickness 1

Welding



1 fillet of 20 mm

**2** JOINT WITH CENTRE FLOOR

**Thickness of panels concerned (mm)**

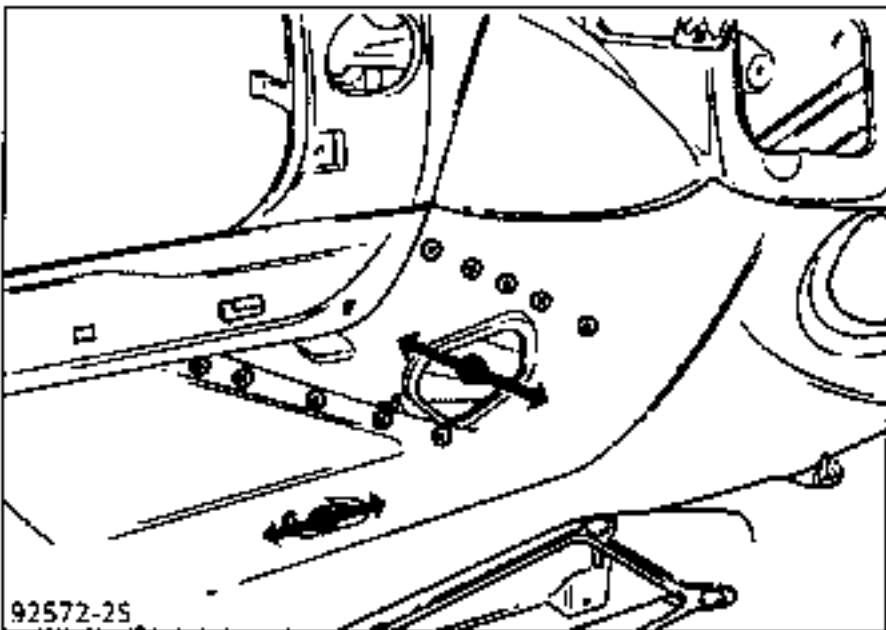
Front side cross member	1
Centre floor	1

**Unpicking**



10 spot welds on thickness 1

**Welding**



**3** JOINT WITH INNER SILL PANEL

**Thickness of panels concerned (mm)**

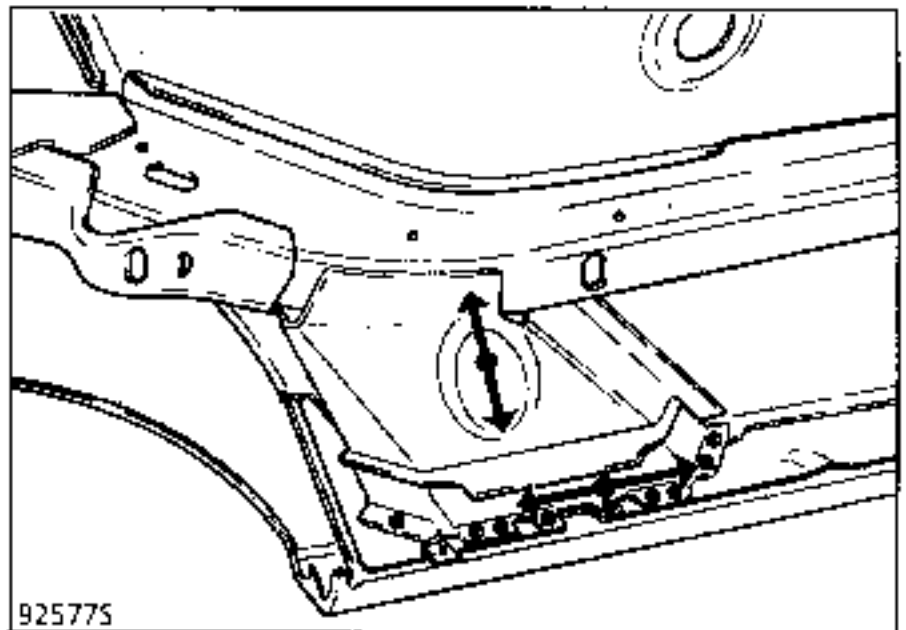
Jacking point	2
Inner sill panel	1.8
Pillar reinforcement	1.2
Sill panel	0.8

**Unpicking**



9 spot welds on thickness 2

**Welding**

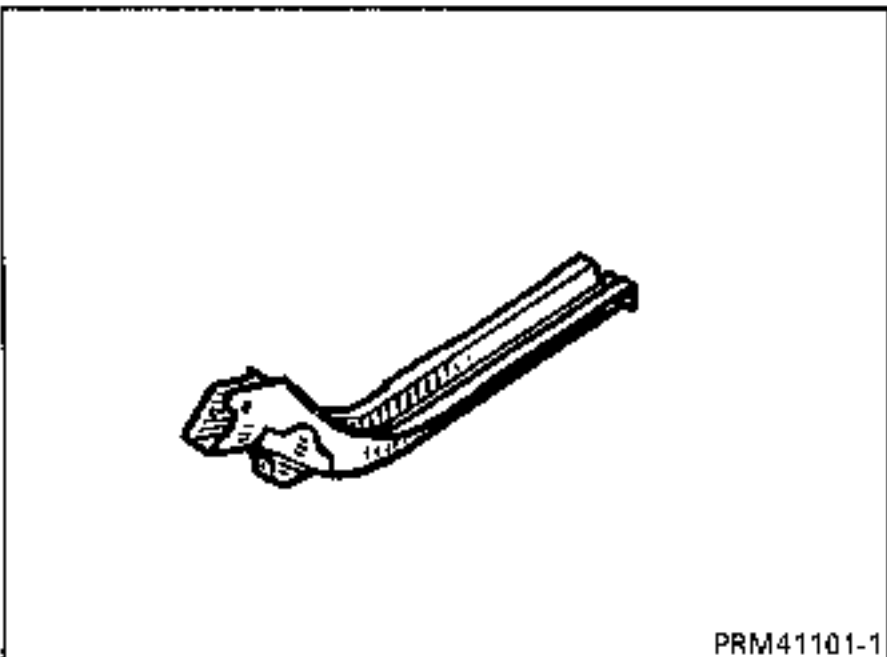


### INTRODUCTION

The replacement of this part is a complementary operation to the replacement of:  
- a front half unit.

### COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with sub-frame mounting



### 1 JOINT WITH CENTRE FLOOR

#### Thickness of panels concerned (mm)

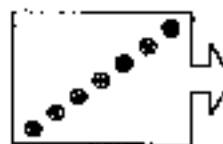
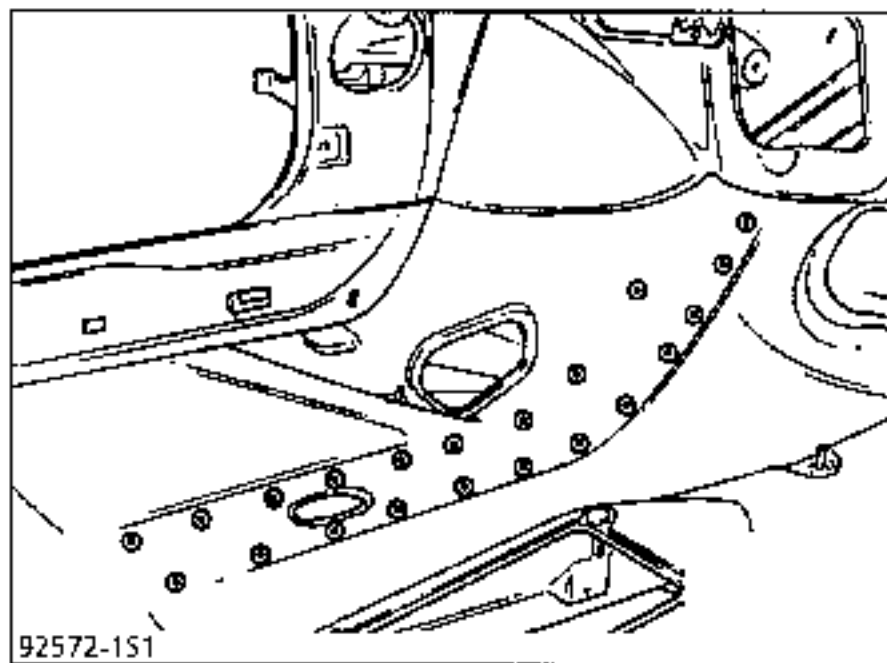
Front side member, rear section	2.5
Centre floor	1
Side member reinforcement	1.5

#### Unpicking



21 spot welds on 2 thicknesses 1.5 + 1  
7 welds on thickness 1 mm

#### Welding



**2** JOINT WITH FRONT SIDE CROSS MEMBER

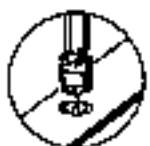
**Thickness of panels concerned (mm)**

Front side cross member	1
Front side member, rear section	2.5

**Unpicking**

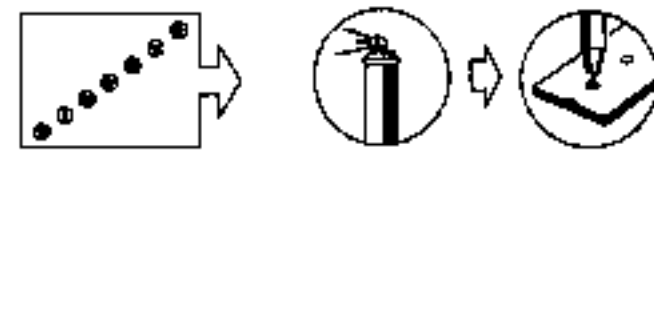
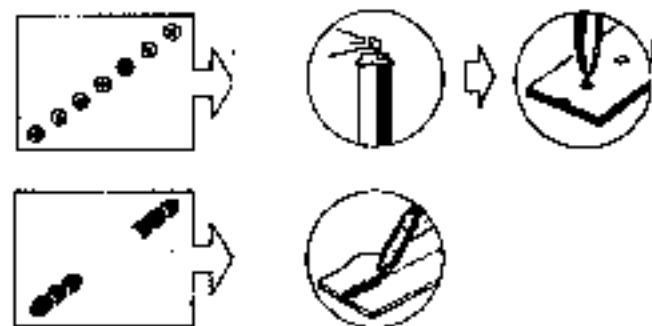
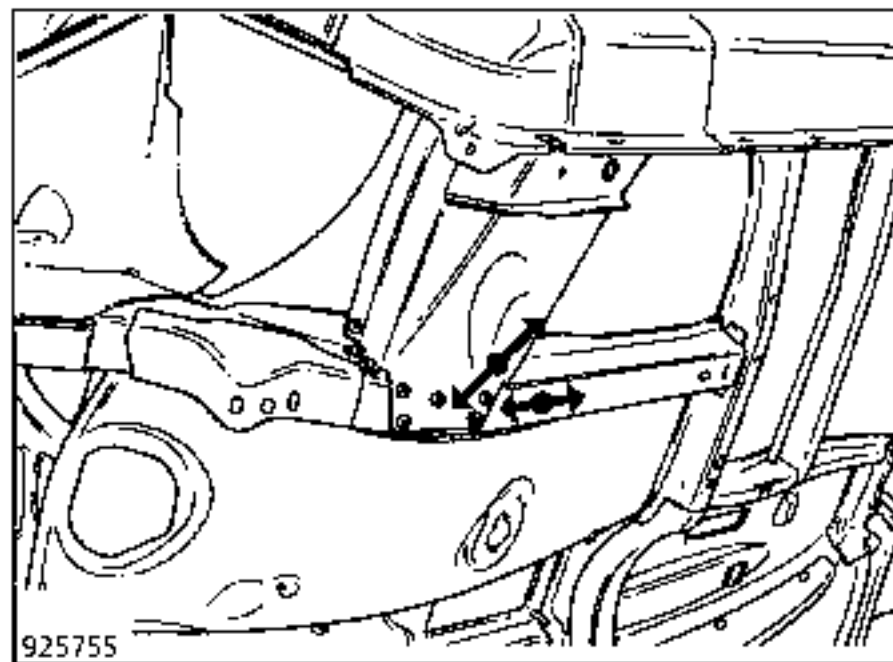
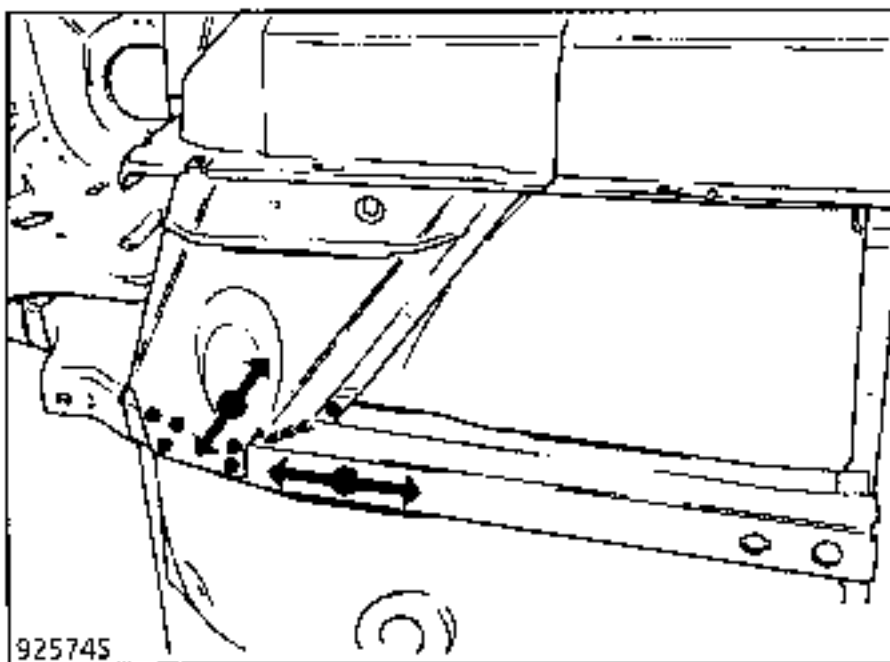


7 spot welds on thickness 1  
1 fillet of 20 mm



2 spot welds on thickness 1

**Welding**

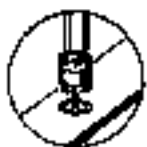


**3** JOINT WITH FRONT CROSS MEMBER UNDER FRONT SEAT

Thickness of panels concerned (mm)

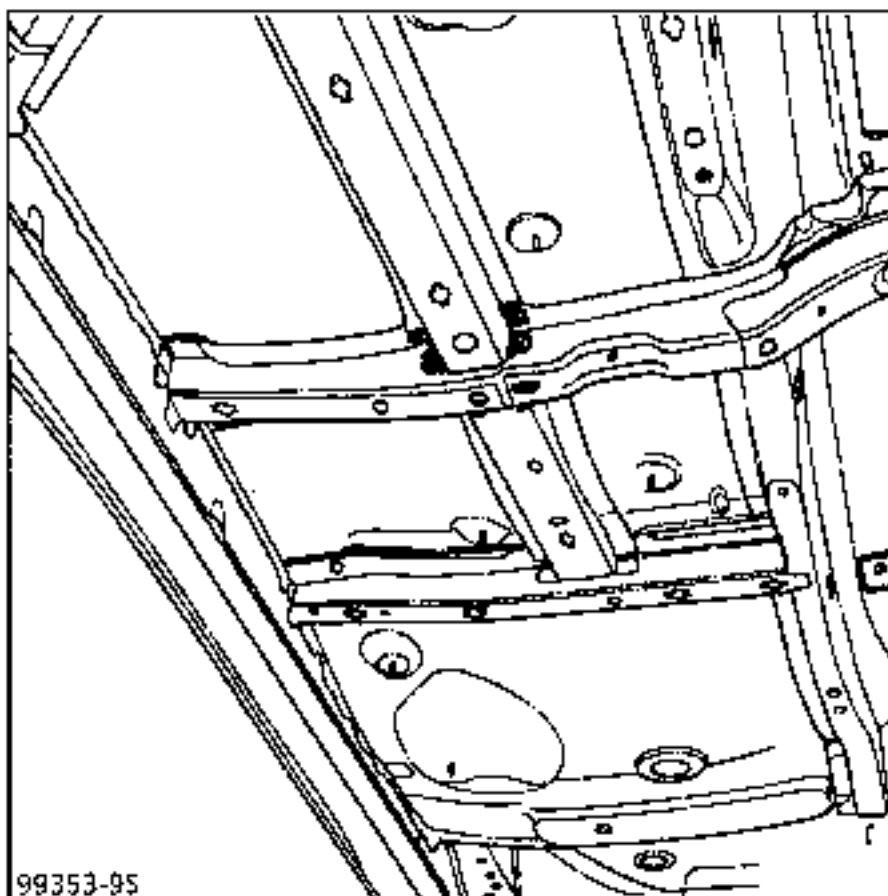
Front cross member under front seat	1.5
Front side member, rear section	2.5

Unpicking



4 spot welds on thickness 2.5

Welding



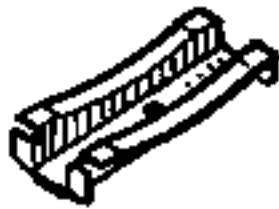
**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of:

- a front half unit for a frontal collision,
- a front cross member under front seat for a side impact.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



PRM41201

**1 JOINT WITH FRONT CROSS MEMBER UNDER FRONT SEAT**

**Thickness of panels concerned (mm)**

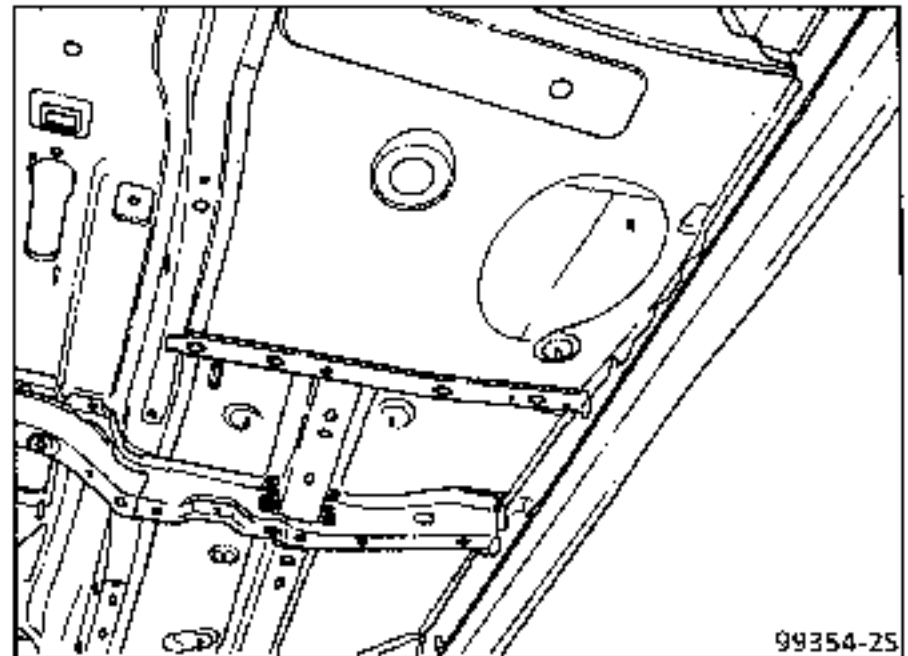
Front cross member under front seat	1.5
Front side member extension	1

**Unpicking**



4 spot welds on thickness 1

**Welding**



99354-25



**2** JOINT WITH CENTRE FLOOR

Thickness of panels concerned (mm)

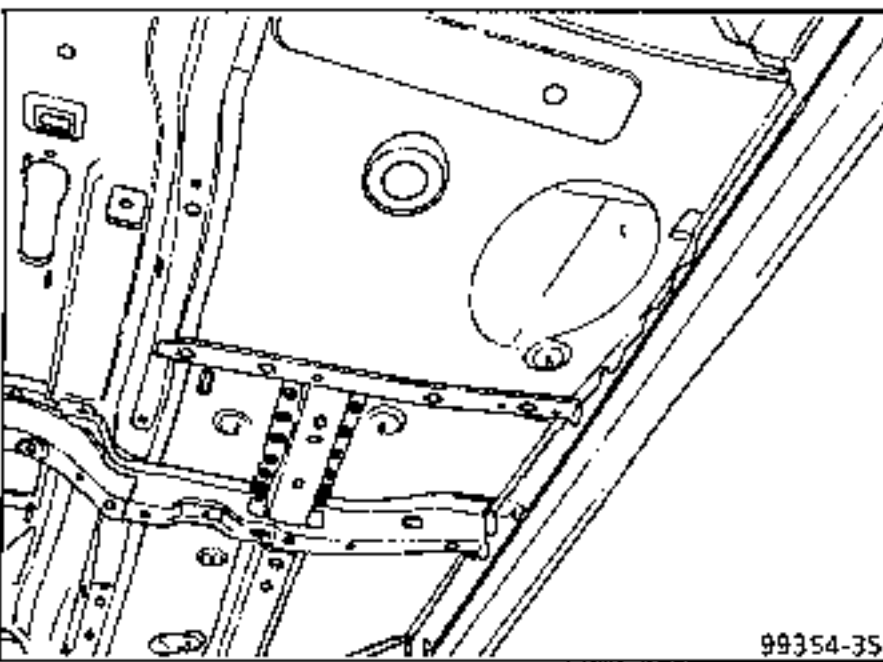
Centre floor	1
Front side member extension	1

Unpicking



12 spot welds on thickness 1

Welding



**3** JOINT WITH REAR CROSS MEMBER UNDER FRONT SEAT

Thickness of panels concerned (mm)

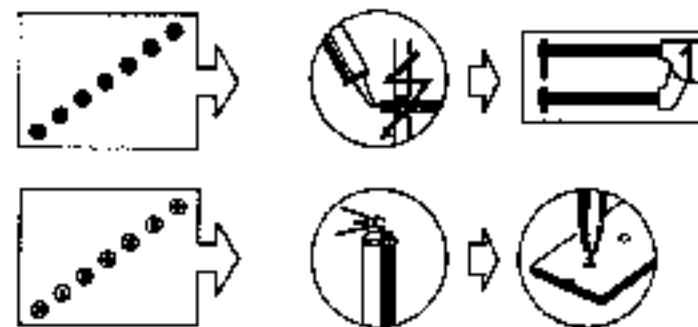
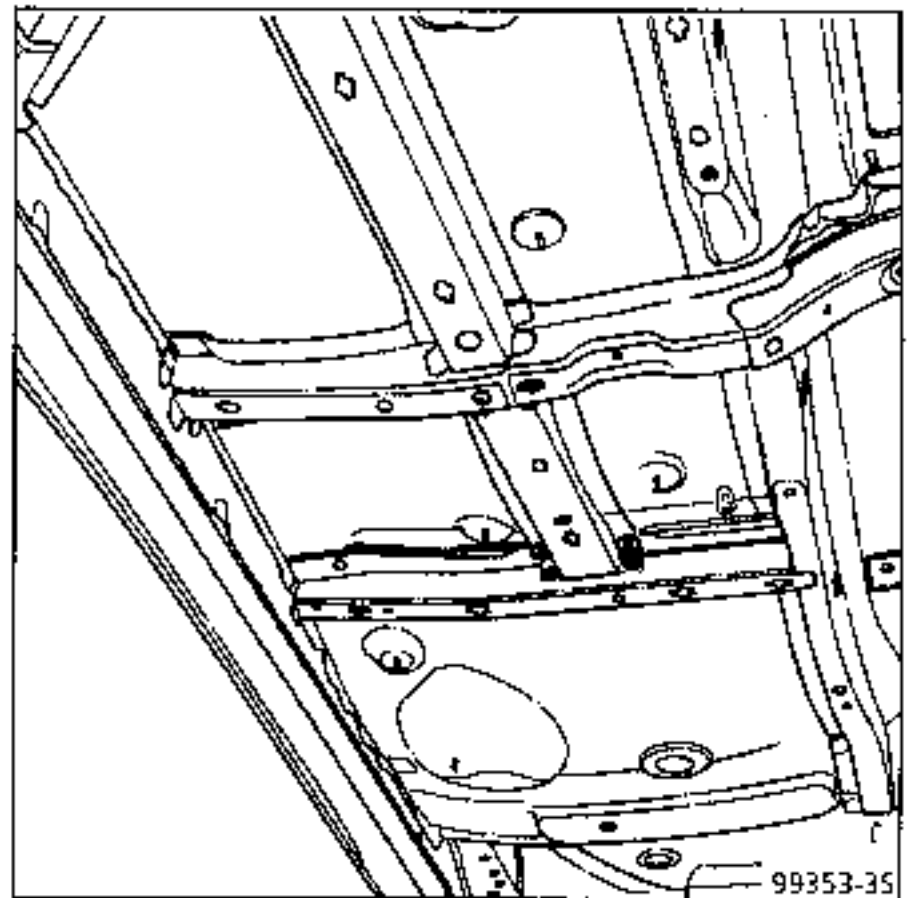
Rear cross member under front seat	1,5
Front side member extension	1

Unpicking



4 spot welds on thickness 1

Welding





**INTRODUCTION**

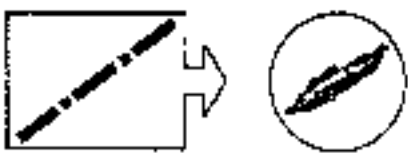
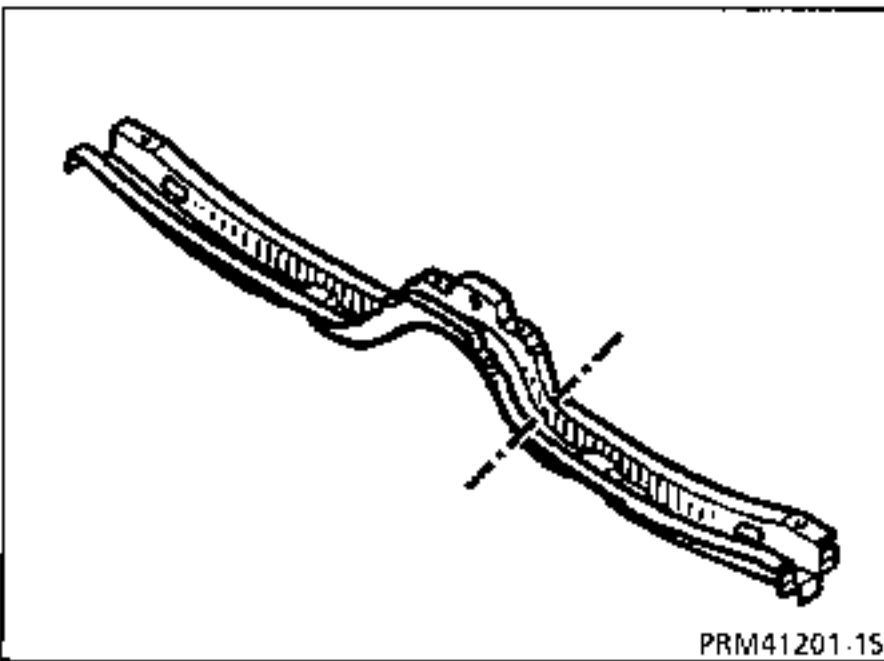
The replacement of this part is a complementary operation to the replacement of:

- a front half unit for a frontal collision
- a sill panel for a side impact.

The replacement of this part requires the removal of the front side member extension

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part



**1 JOINT WITH FRONT SIDE MEMBER, REAR SECTION**

**Thickness of panels concerned (mm)**

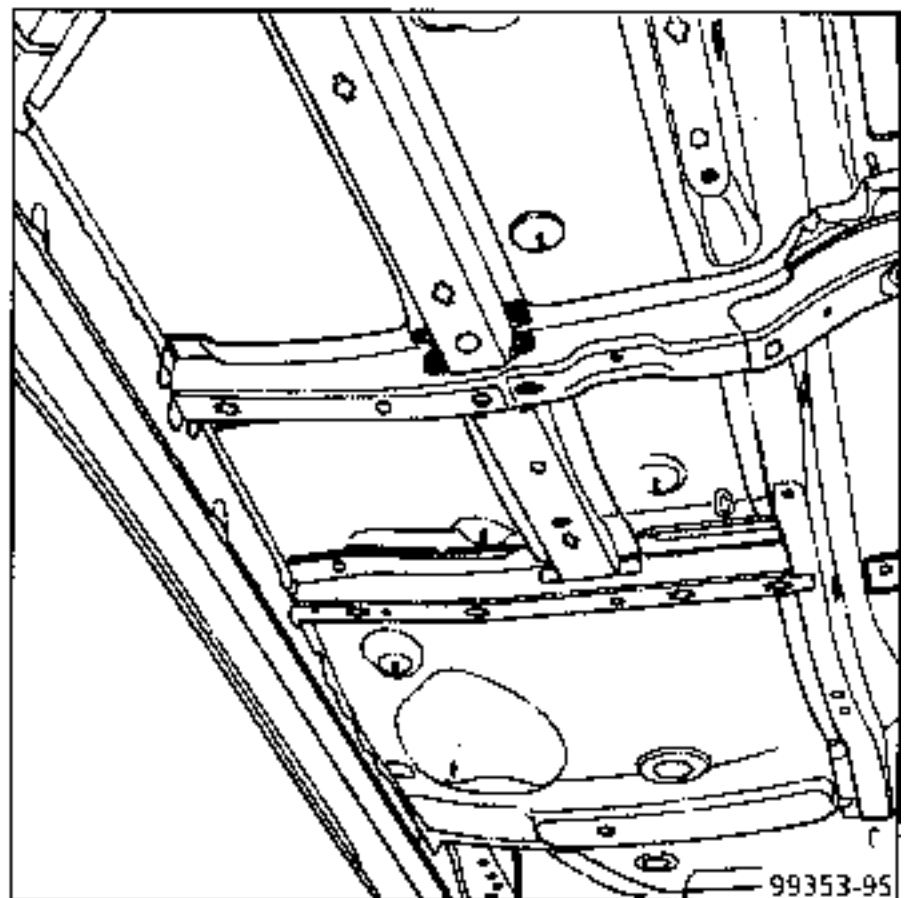
Front cross member under front seat	1.5
Front side member, rear section	2.5

**Unpicking**



4 spot welds on thickness 1

**Welding**



**2** JOINT WITH CENTRE FLOOR

Thickness of panels concerned (mm)

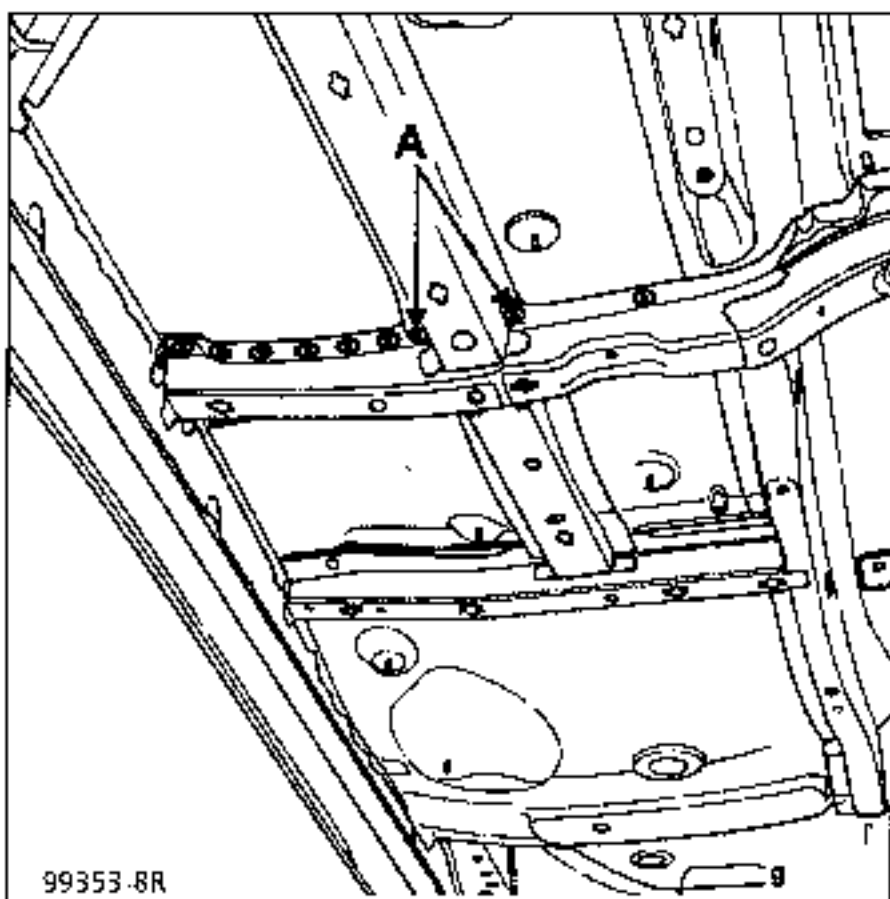
Front cross member under front seat	1.5
Centre floor	1
Side member rear section	2.5
Side member extension	1

Unpicking

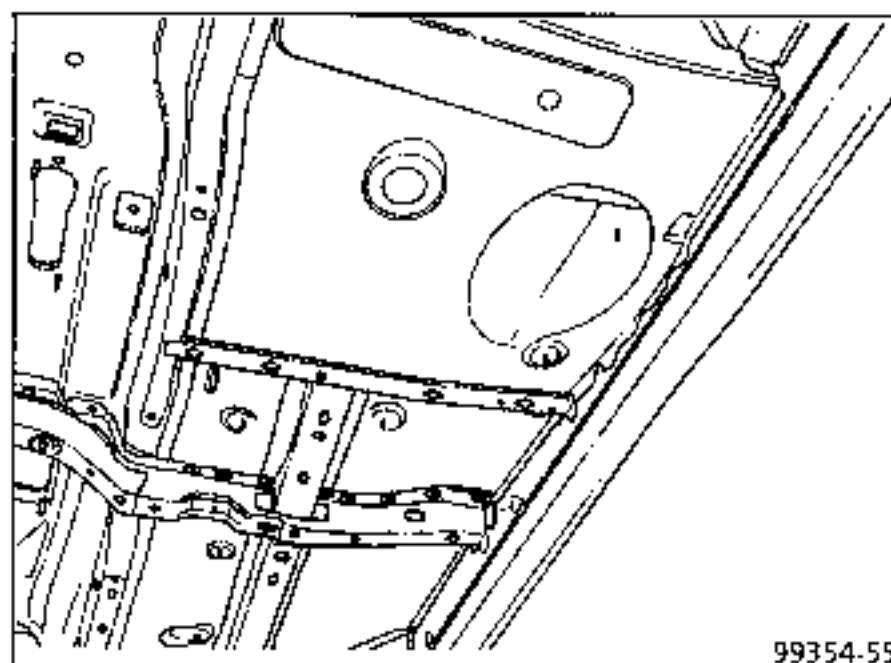


18 spot welds on thickness 1.5

Welding



99353-8R



99354-55



**NOTE :**  
at A, welds are on 2 thicknesses.

**3** JOINT WITH PART SECTION

Thickness of panels concerned (mm)

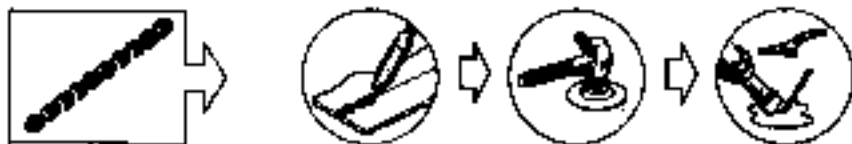
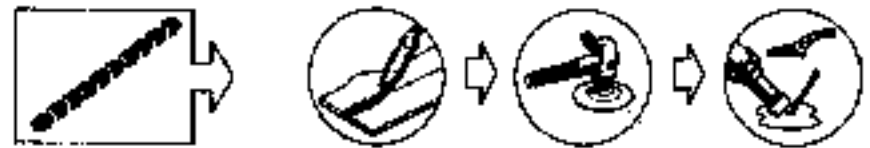
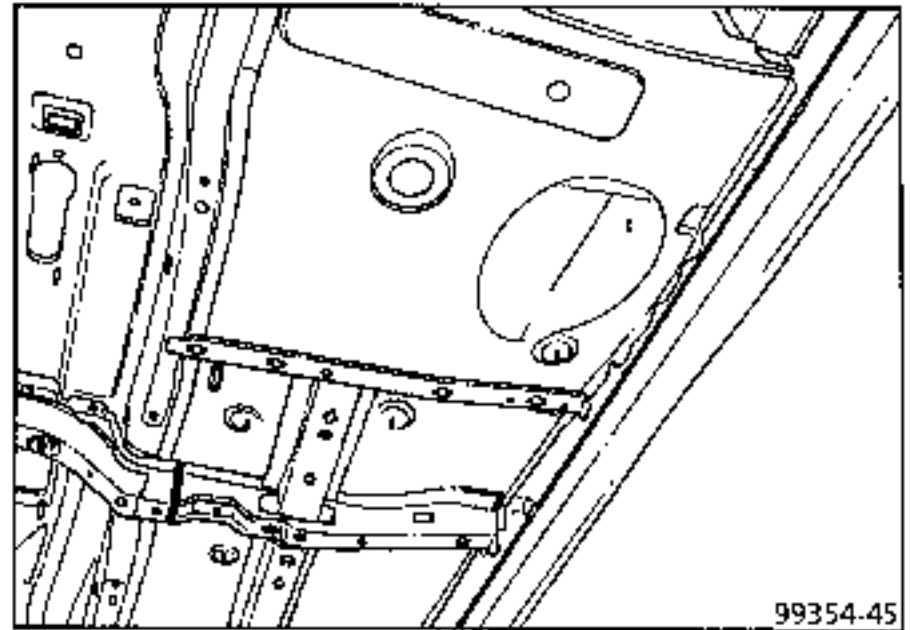
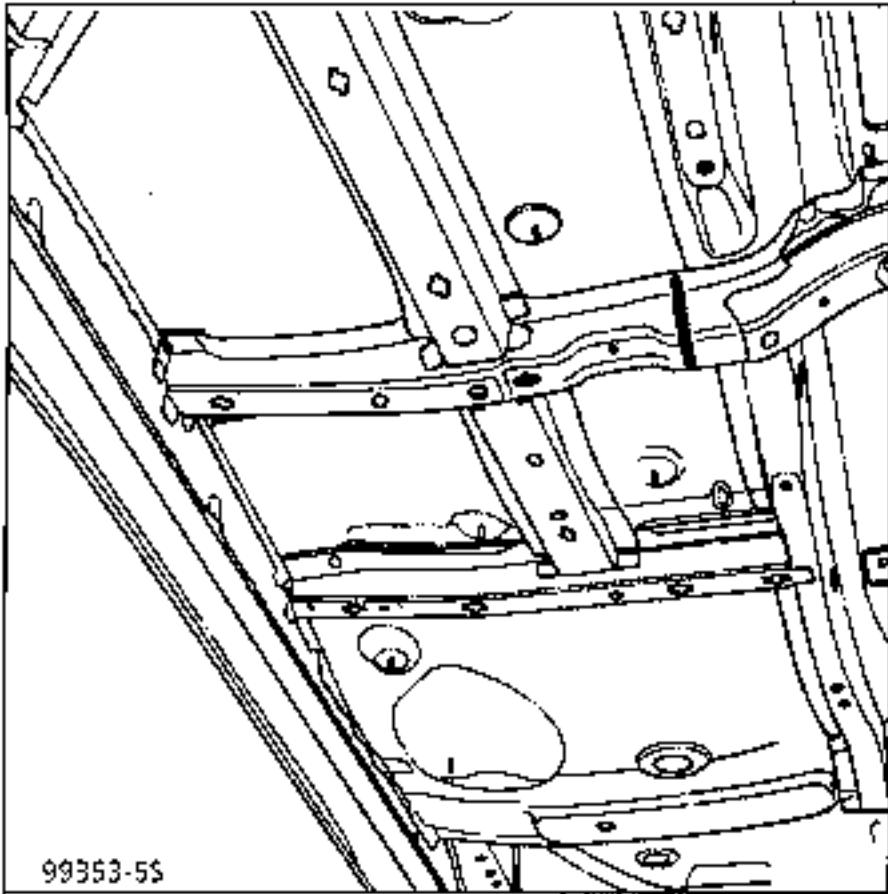
Front cross member under front seat,  
part section 1.5

Unpicking



150 mm on thickness 1.5

Welding

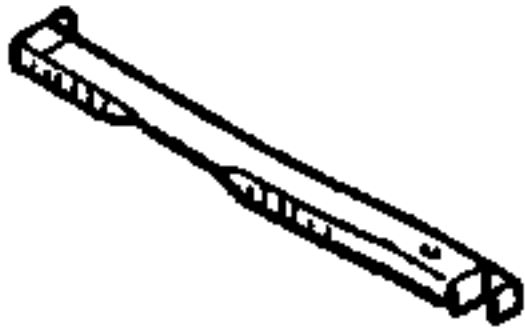


**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of:  
- a sill panel for a side impact.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



PRM41201-2

**1 JOINT WITH TUNNEL**

**Thickness of panels concerned (mm)**

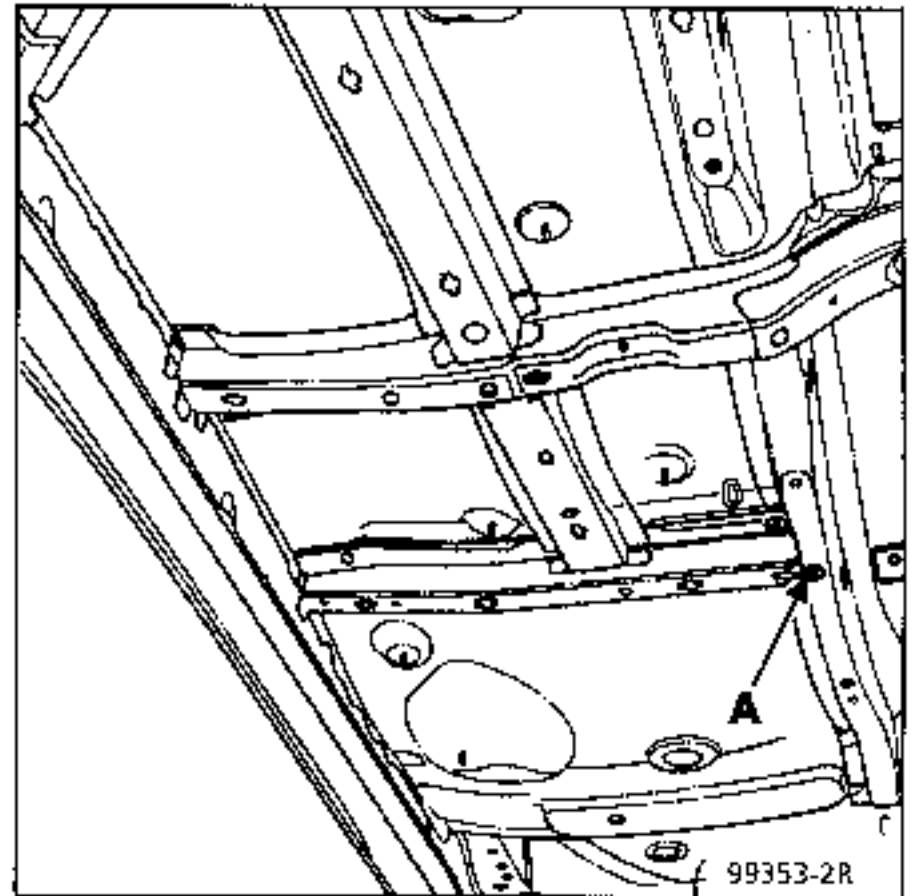
Rear cross member under front seat	1.5
Tunnel	1.5
Centre floor	1

**Unpicking**



2 spot welds on thickness 1.5

**Welding**



99353-2R



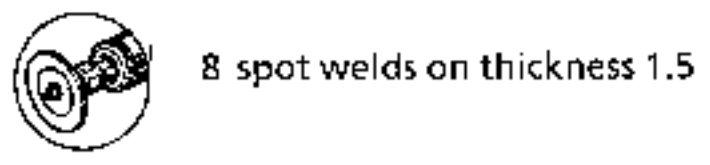
**Note :** at A, welds are on 2 thicknesses.

**2** JOINT WITH CENTRE FLOOR

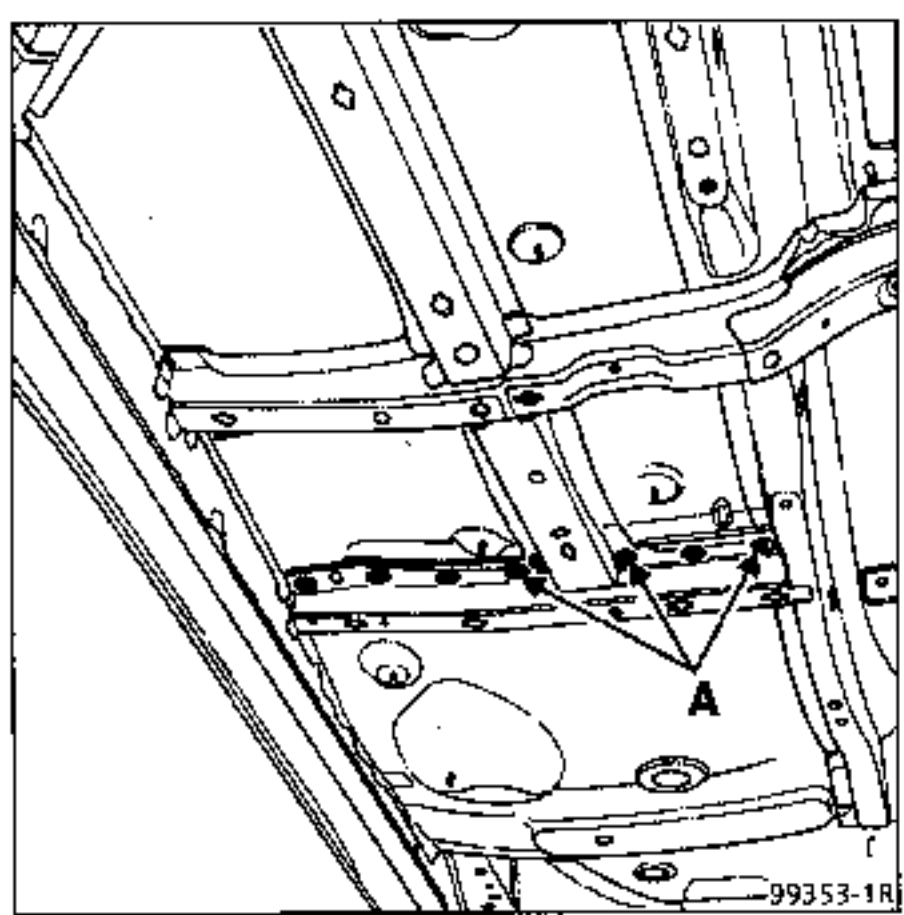
Thickness of panels concerned (mm)

Front cross member under front seat	1.5
Centre floor	1
Side member extension	1

Unpicking



Welding



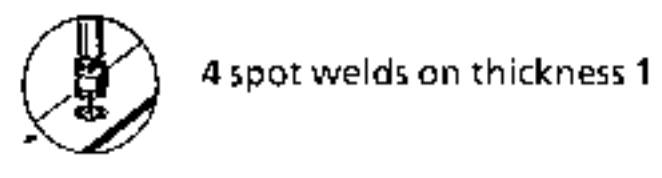
Note :  
at A, welds are on 2 thicknesses

**3** JOINT WITH FRONT SIDE MEMBER EXTENSION

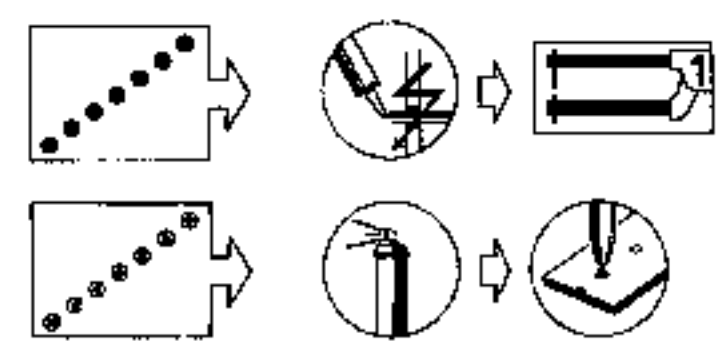
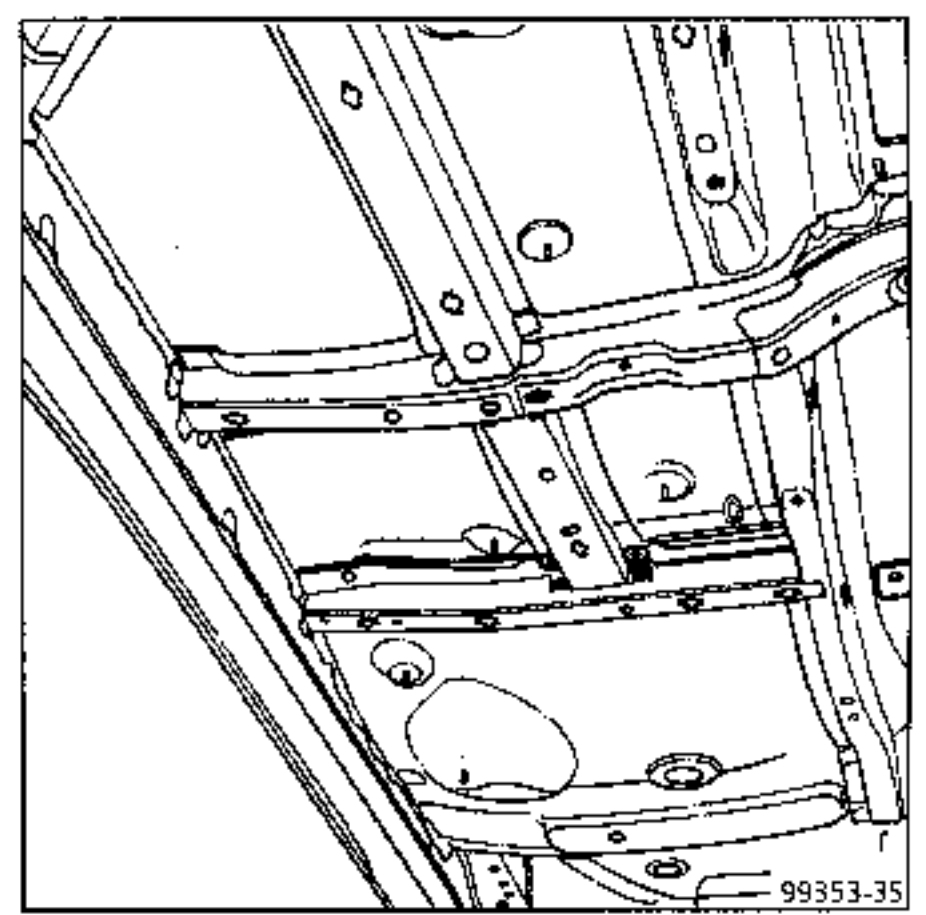
Thickness of panels concerned (mm)

Rear cross member under front seat	1.5
Front side member extension	1

Unpicking



Welding



### INTRODUCTION

The replacement of this part is a complementary operation to the replacement of:

- a front half unit for a frontal collision,
- a sill panel for a side impact.

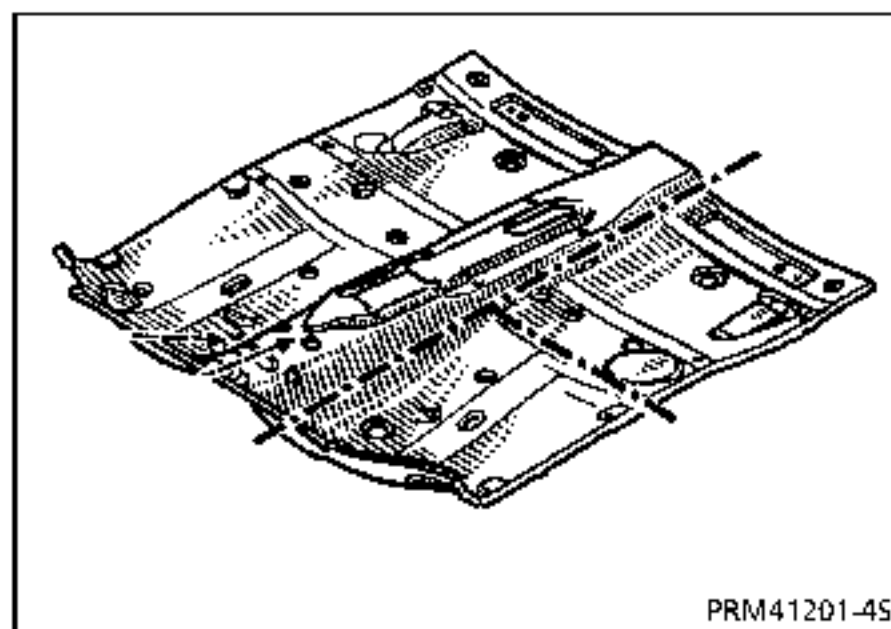
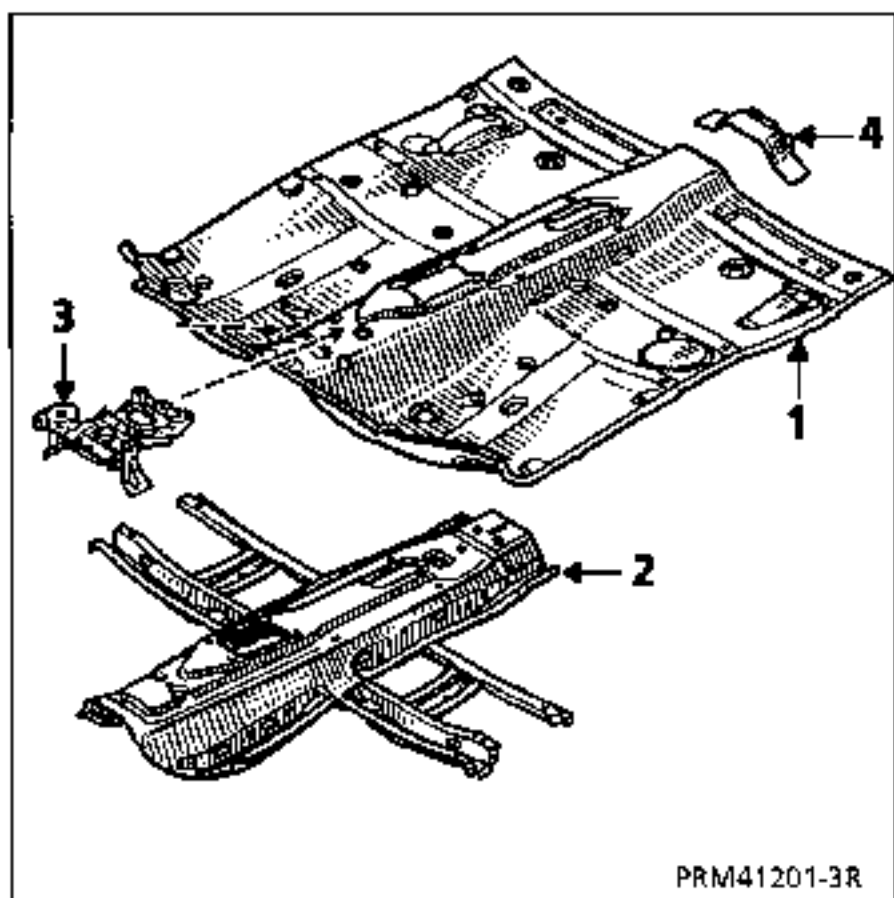
This requires the following parts to be ordered:

- the tunnel reinforcement assembly
- the dashboard console mounting
- the cable sleeve stop

This part may be partially replaced according to the cutting lines defined in the following pages for a side impact, as a complementary operation to a sill panel or a front pillar.

### COMPOSITION OF PART FROM PARTS DEPARTMENT

- 1 Centre floor
- 2 Tunnel reinforcement
- 3 Console mounting
- 4 Cable sleeve stop



**1 JOINT WITH BULKHEAD**

Thickness of panels concerned (mm)

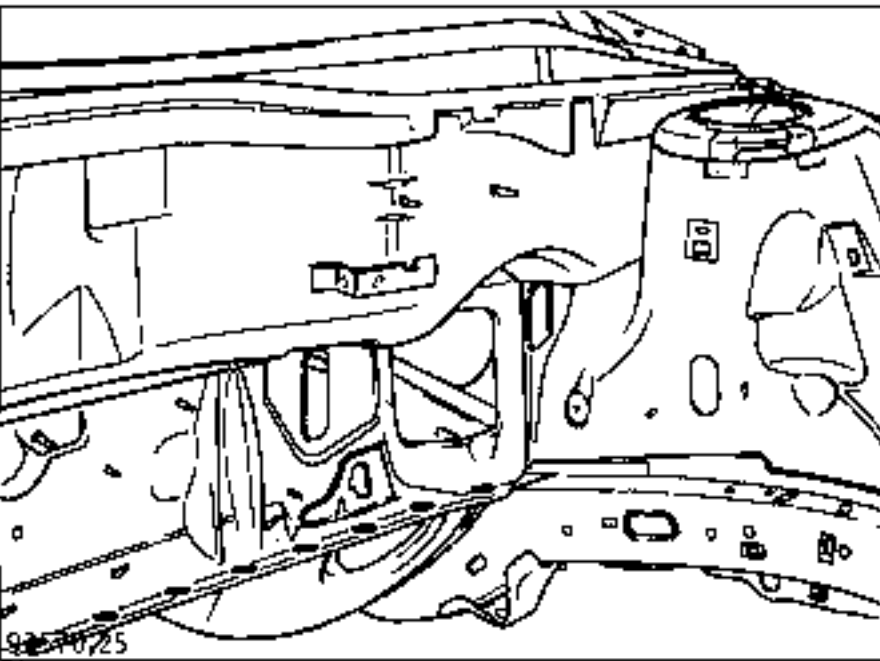
Bulkhead	0.7
Centre floor	1

Unpicking



14 spot welds on thickness 1

Welding



**2 JOINT WITH FRONT SIDE CROSS MEMBER**

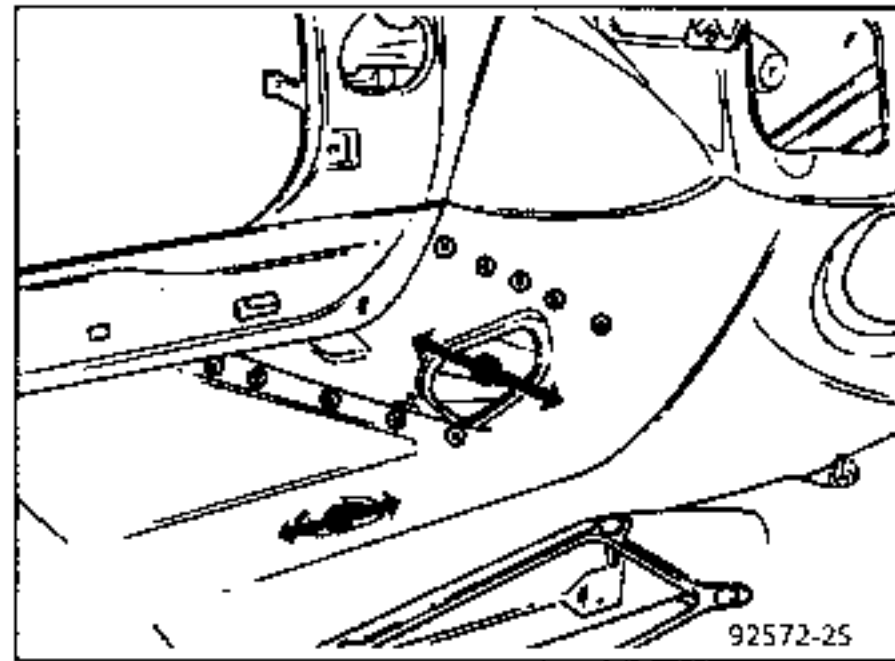
Thickness of panels concerned (mm)

Front side cross member	1
Centre floor	1

Unpicking

10 spot welds on thickness 1

Welding



**3** JOINT WITH FRONT SIDE MEMBER, REAR SECTION

**Thickness of panels concerned (mm)**

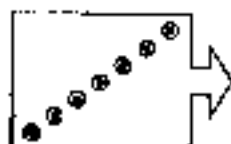
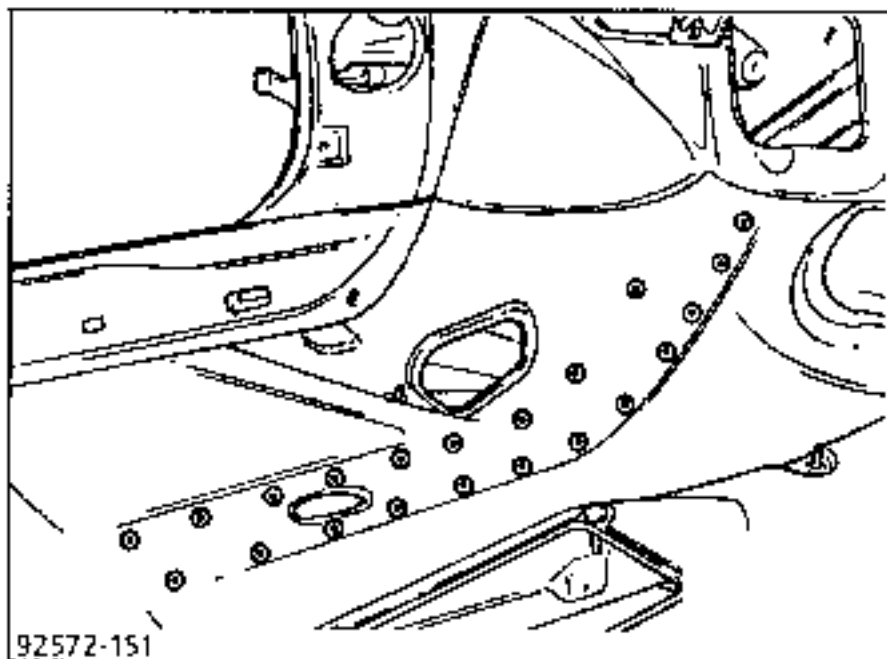
Front side member, rear section	2.5
Centre floor	1
Side member reinforcement	1.5

**Unpicking**



21 spot welds on thickness 1.5 + 1  
7 welds on thickness 1mm

**Welding**





**4** JOINT WITH TUNNEL REINFORCEMENT

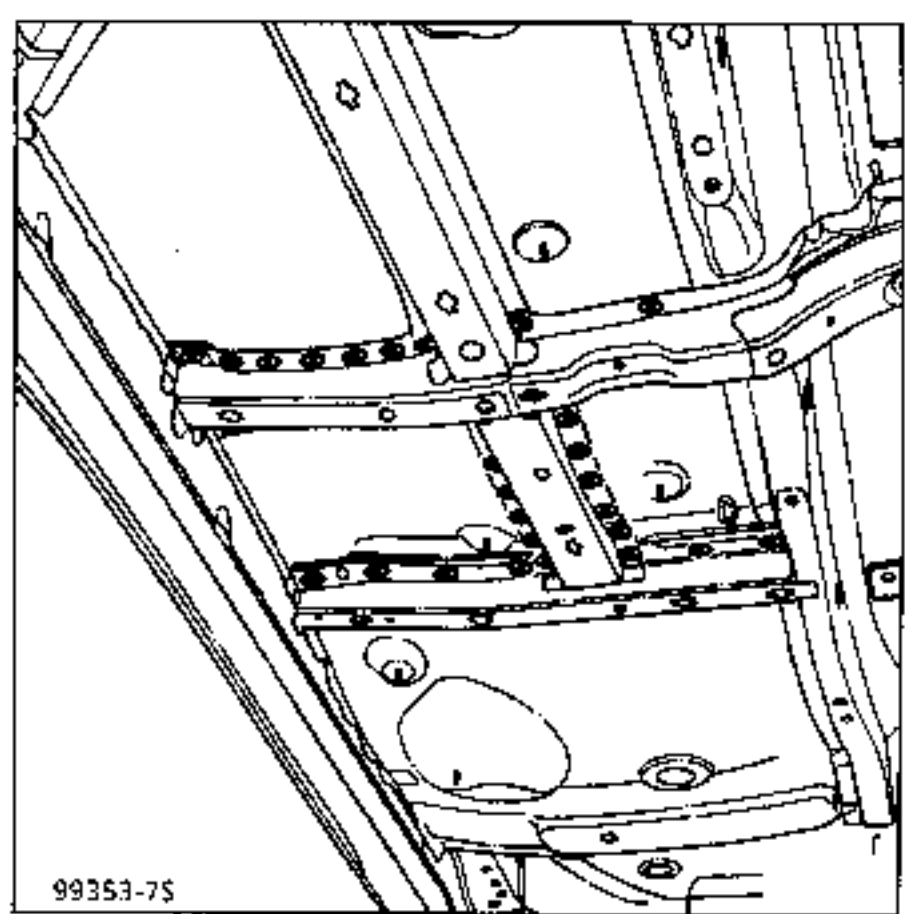
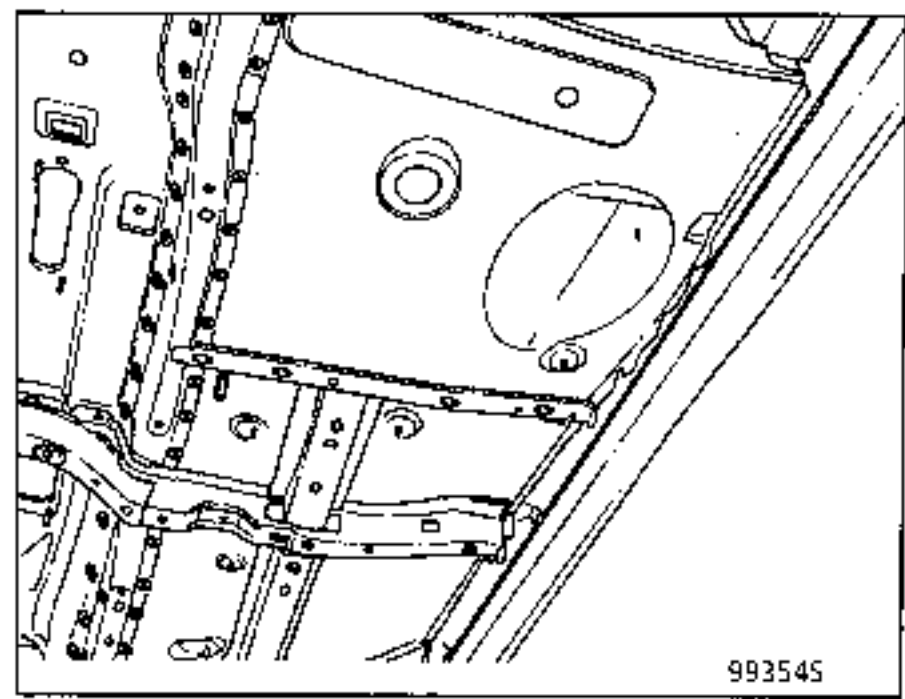
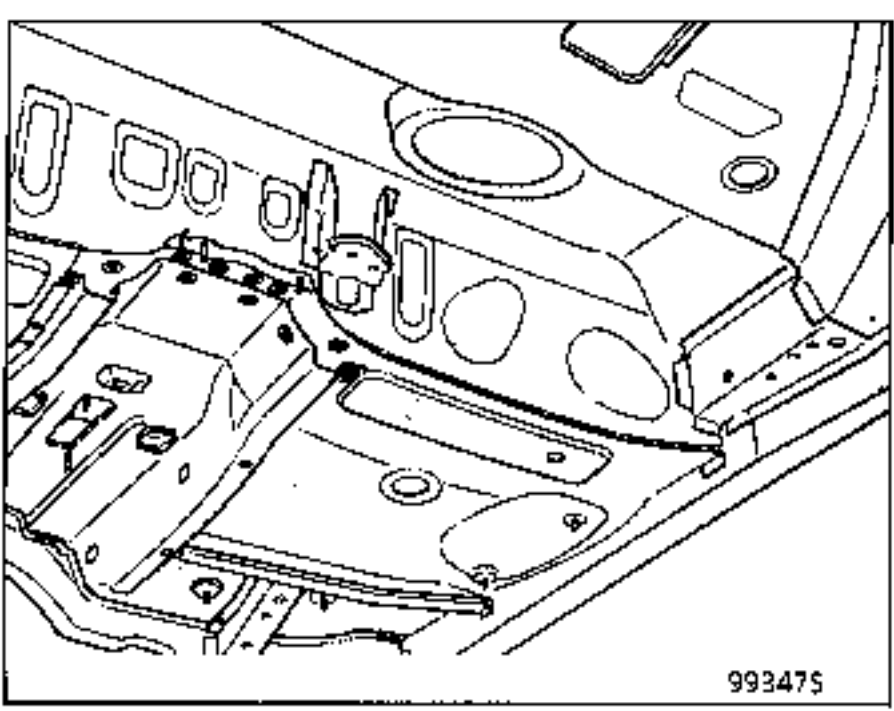
**Thickness of panels concerned (mm)**

Centre floor	1
Tunnel reinforcement	1.5

**Unpicking**

The unpicking operation is not required as the parts are removed together.

**Welding**



**5** JOINT WITH REAR FLOOR, FRONT SECTION

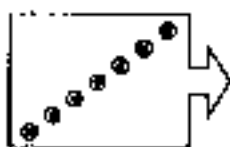
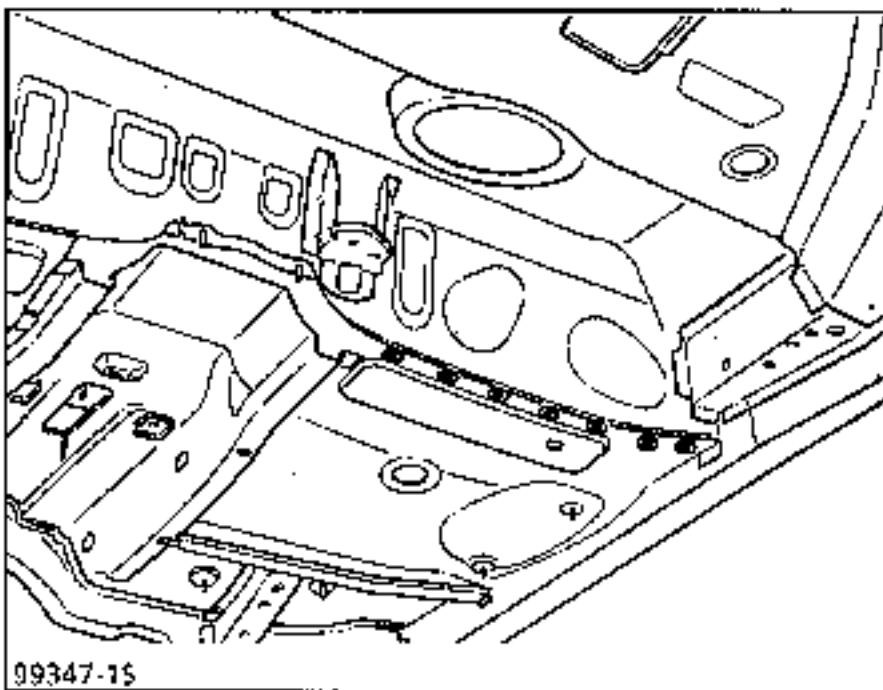
Thickness of panels concerned (mm)

Rear floor, front section, cross member	1.2
Centre floor	1



7 spot welds on thickness 1 per side

Welding



**6** JOINT WITH INNER SILL PANEL

Thickness of panels concerned (mm)

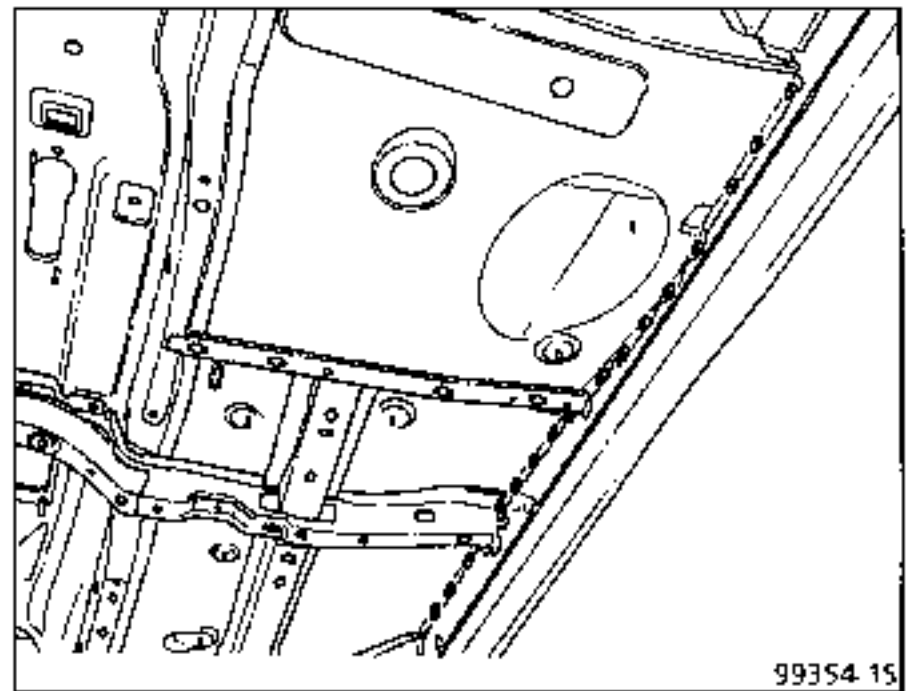
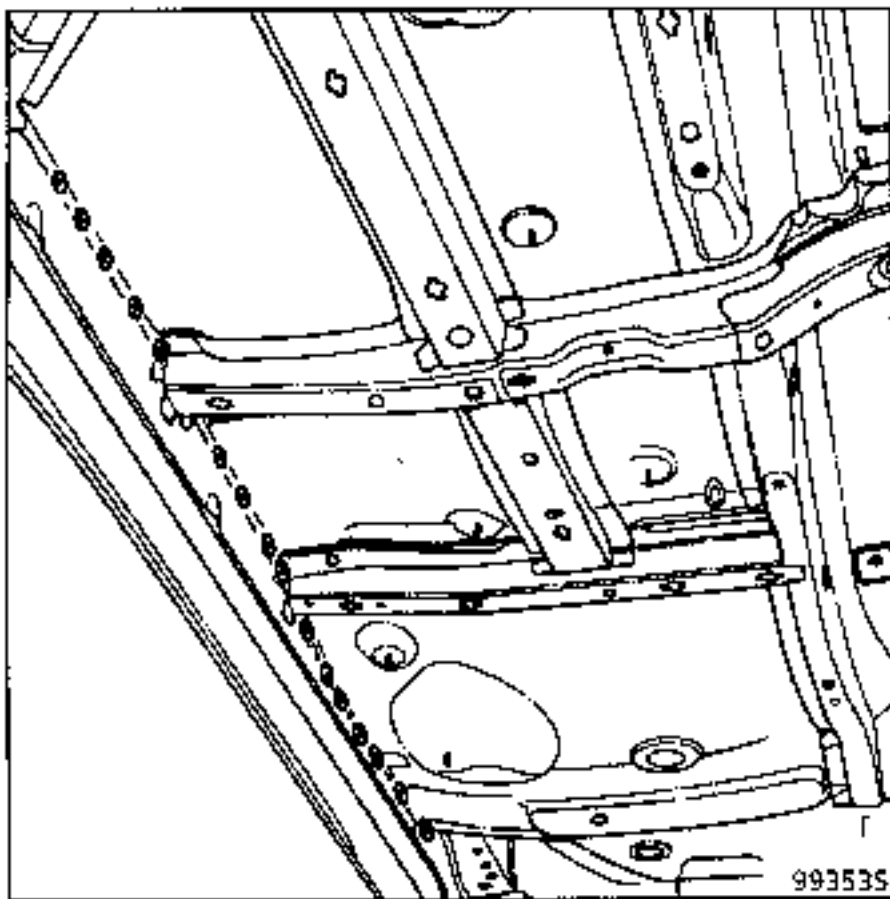
Inner sill panel	1.5
Centre floor	1

Unpicking



16 spot welds on thickness  
1mm per side

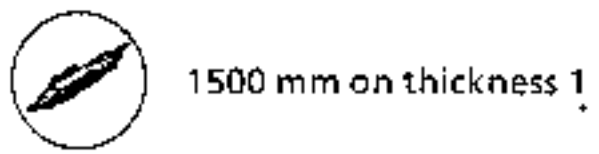
Welding



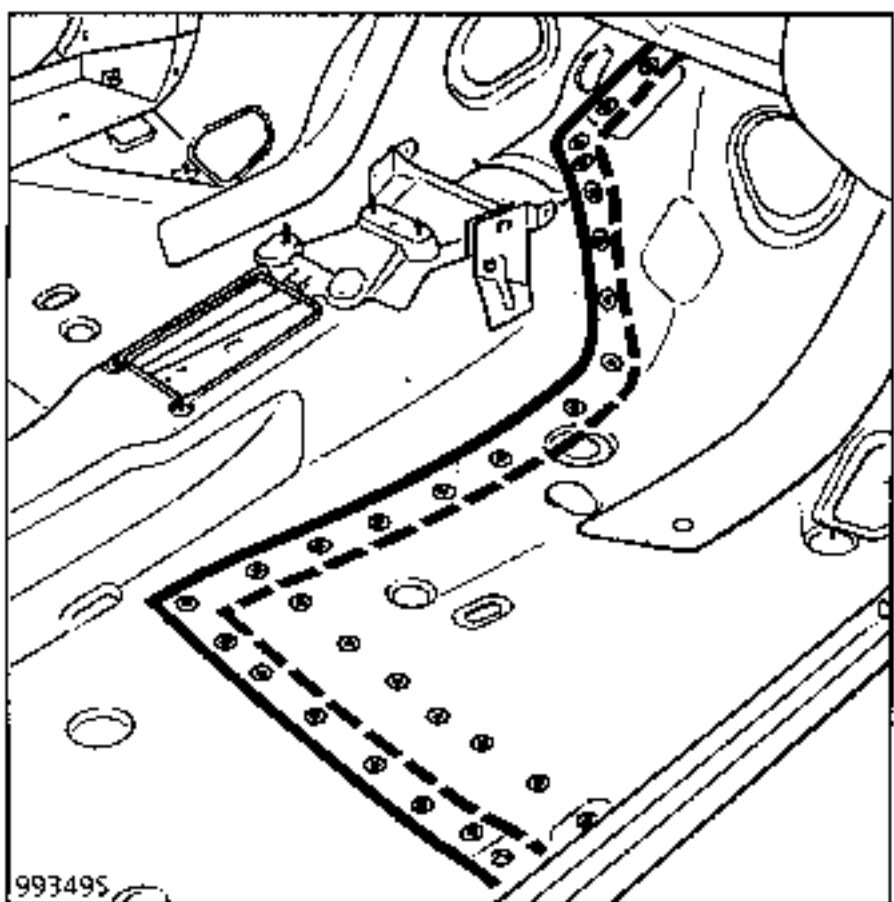
**7** JOINT WITH PART SECTION, FRONT SECTION

Thickness of panels concerned (mm)  
Centre floor part section, front section 1

Unpicking



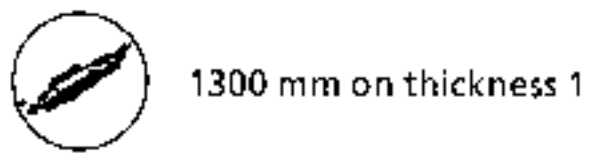
Welding



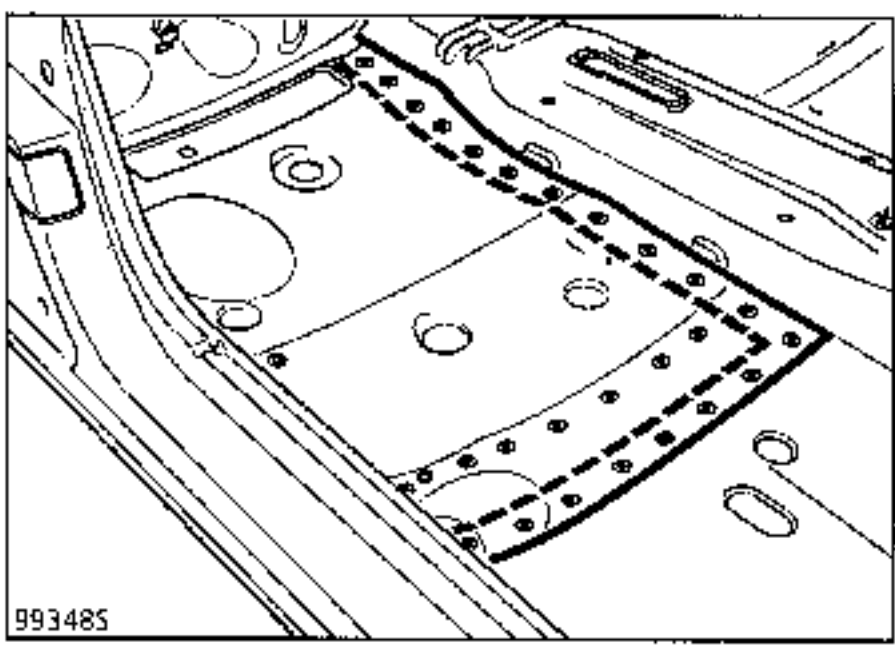
**8** JOINT WITH PART SECTION, REAR SECTION

Thickness of panels concerned (mm)  
Centre floor part section, rear section 1

Unpicking



Welding

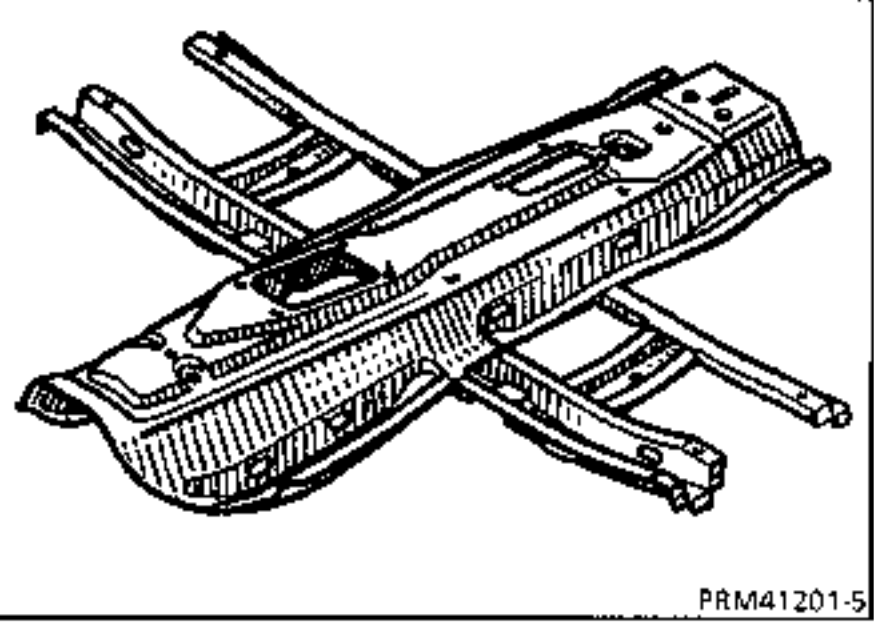


**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of the complete floor.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

- Part assembled with:
- tunnel reinforcement
  - cross members under front seat
  - front side member extensions



**1 JOINT WITH INNER SILL PANEL**

**Thickness of panels concerned (mm)**

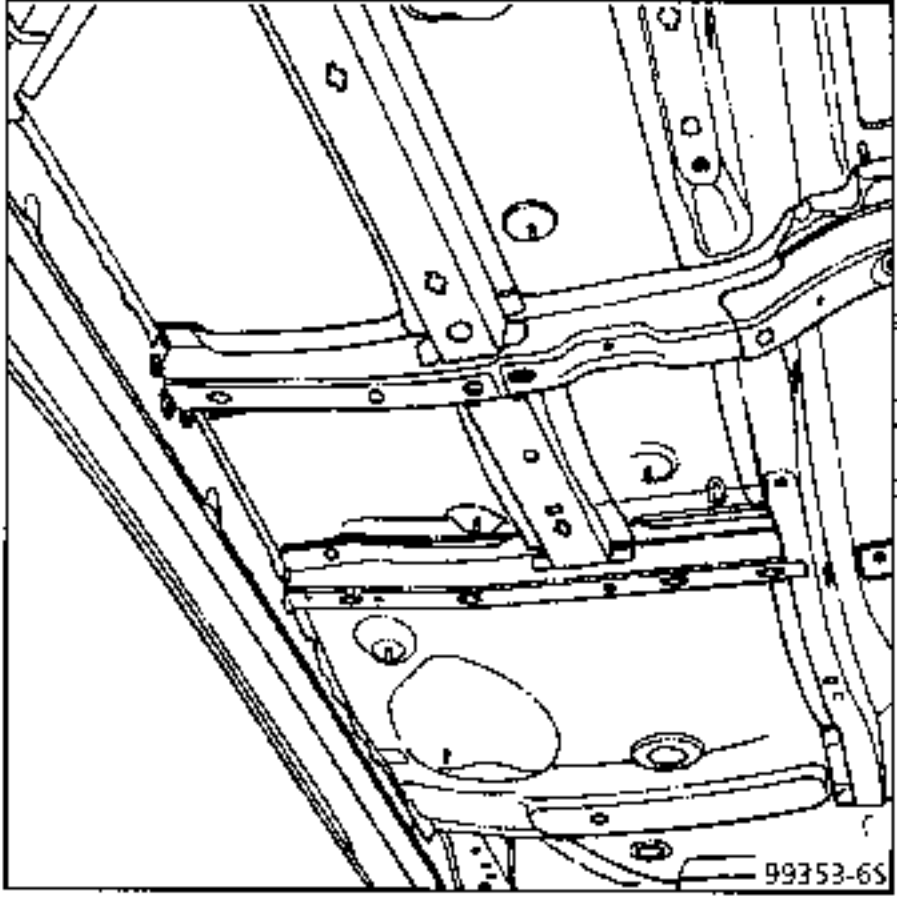
Front cross member under front seat	1.5
Inner sill panel	1.8

**Unpicking**



3 spot welds on thickness 1.5

**Welding**



**2** JOINT WITH INNER SILL PANEL

Thickness of panels concerned (mm)

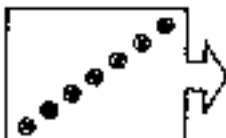
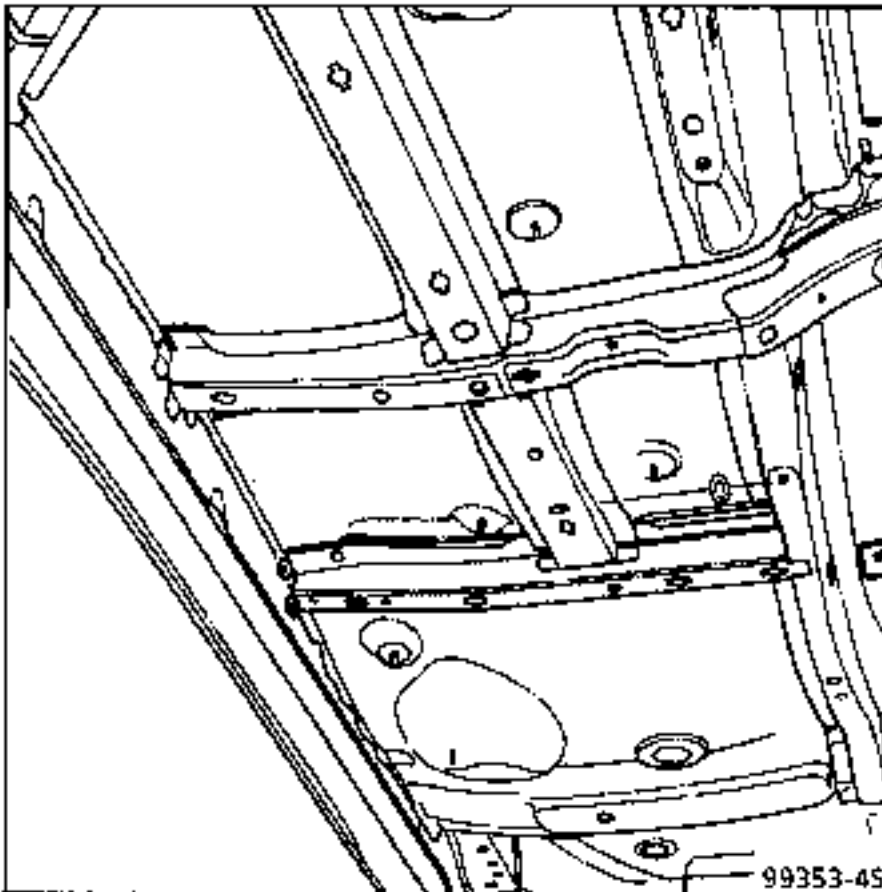
Rear cross member under front seat	1.5
Inner sill panel	1.8

Unpicking



2 spot welds on thickness 1.5

Welding

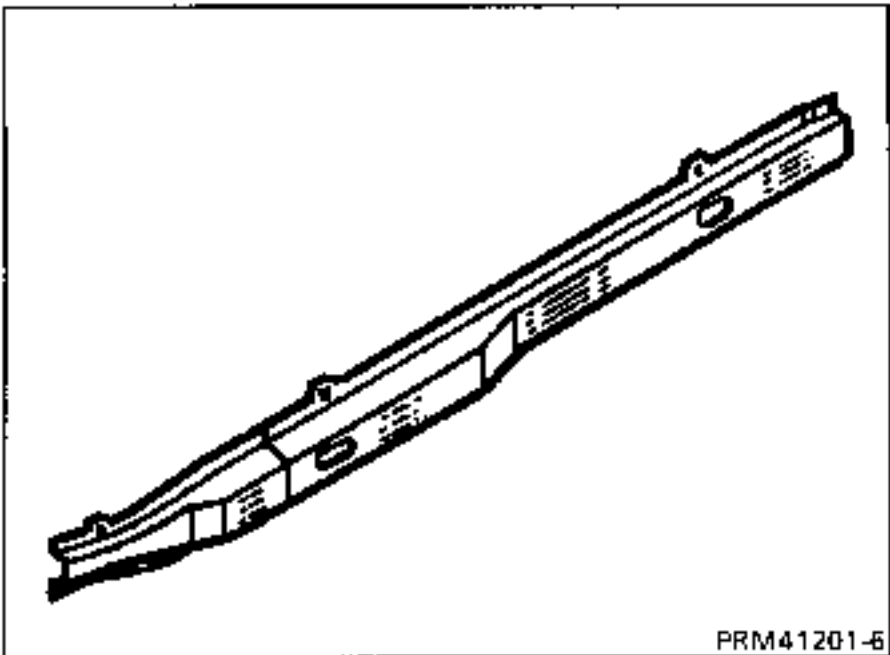


**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of a front pillar or a sill panel for a side impact.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



**1 JOINT WITH INNER SILL PANEL**

**Thickness of panels concerned (mm)**

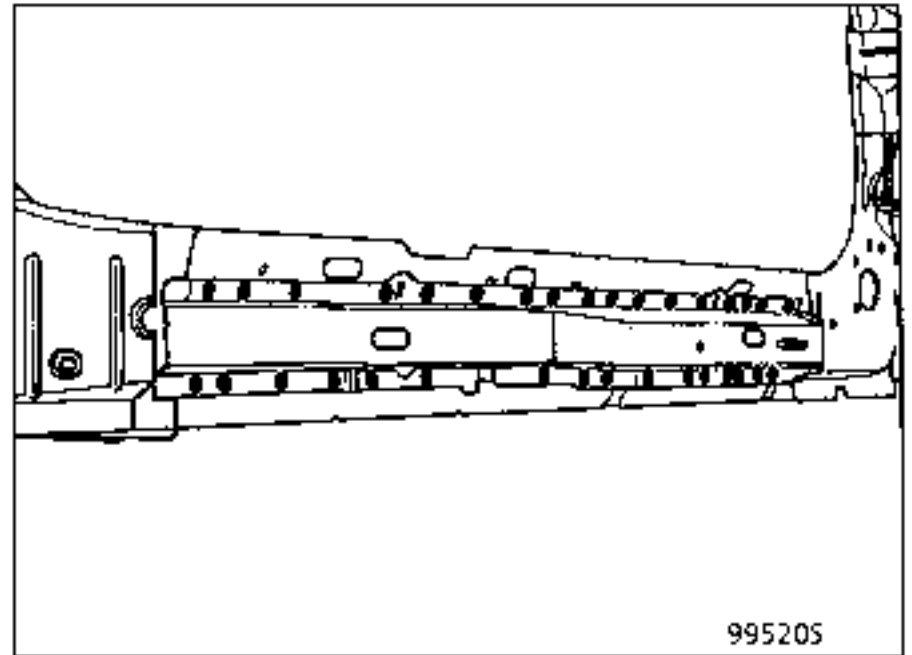
Sill panel stiffener	1
Inner sill panel	1.2

**Unpicking**



34 spot welds on thickness 1

**Welding**

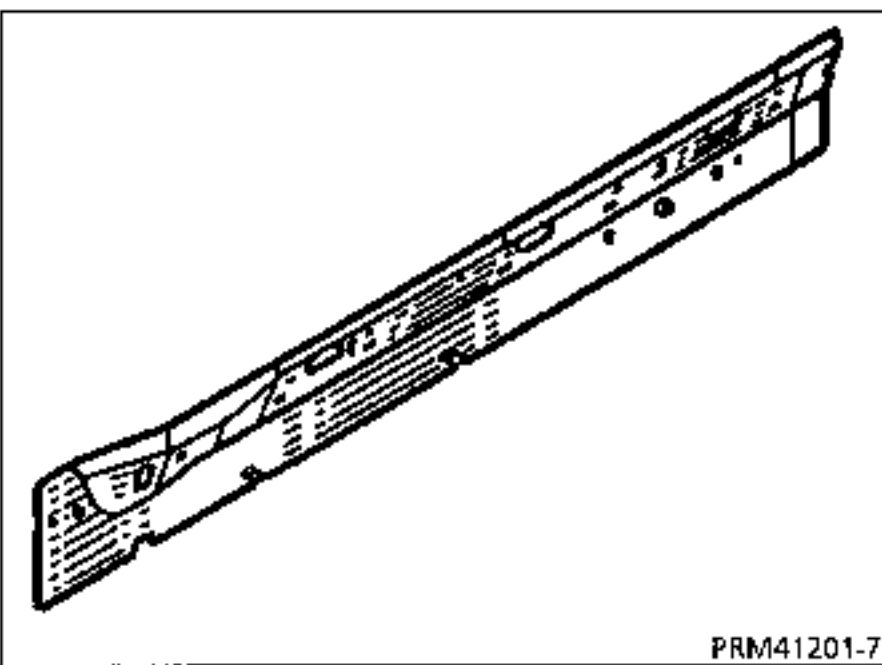


**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of a front pillar or a sill panel for a side impact.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



**1 JOINT WITH FRONT SIDE CROSS MEMBER**

**Thickness of panels concerned (mm)**

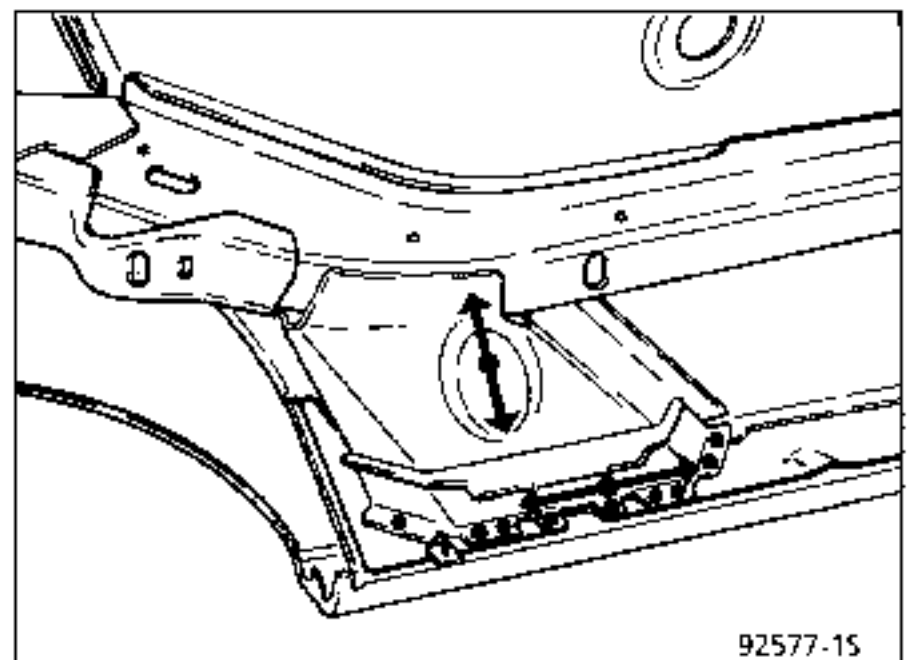
Jacking point	2
Inner sill panel	1.8
Pillar reinforcement	1.2
Sill panel	0.8

**Unpicking**



9 spot welds on thickness 2

**Welding**





**2** JOINT WITH FRONT CROSS MEMBER UNDER FRONT SEAT

Thickness of panels concerned (mm)

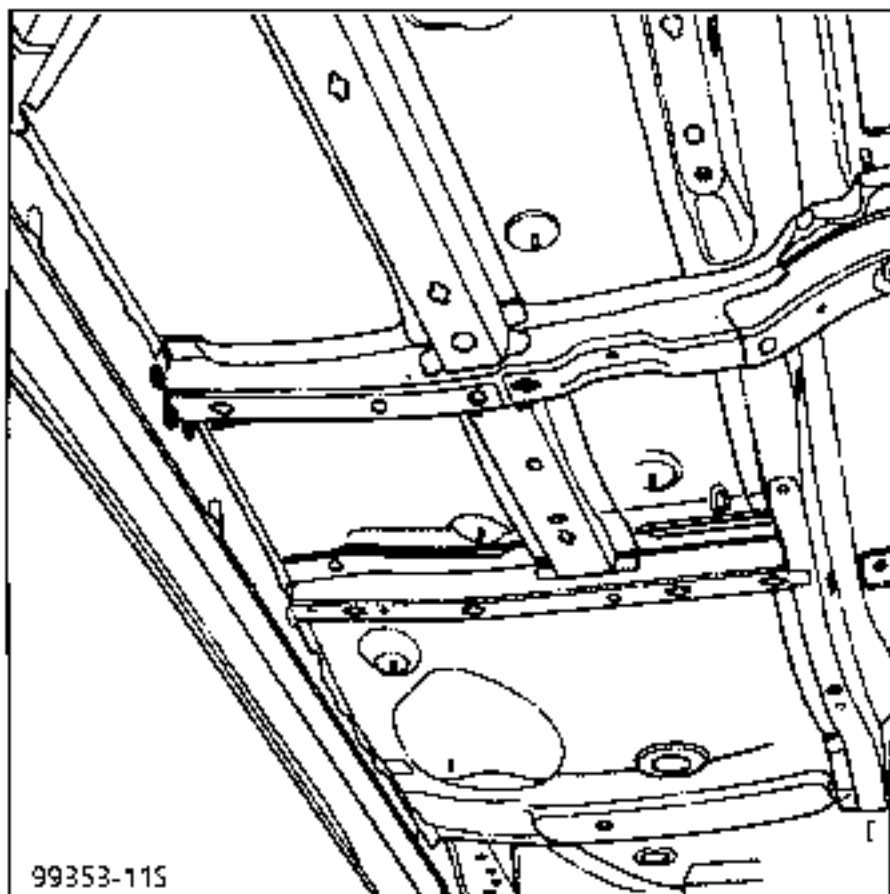
Front cross member under front seat	1.5
Inner sill panel	1.8

Unpicking



3 spot welds on thickness 1.5

Welding



99353-115



**3** JOINT WITH REAR CROSS MEMBER UNDER FRONT SEAT

Thickness of panels concerned (mm)

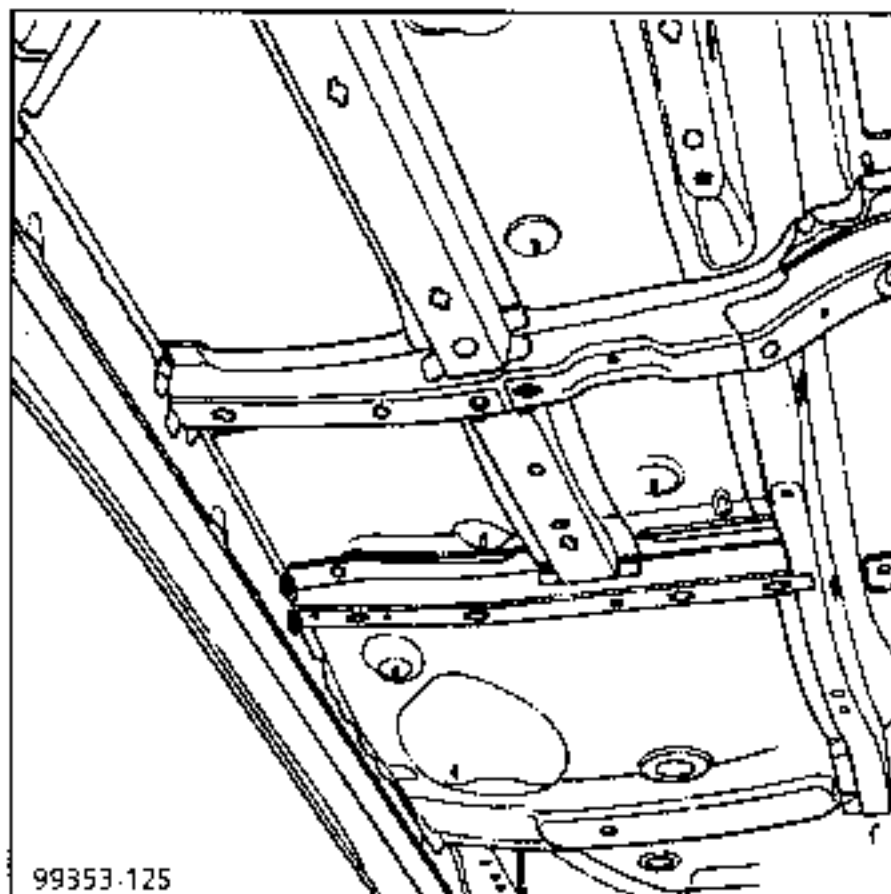
Rear cross member under front seat	1.5
Inner sill panel	1.8

Unpicking



2 spot welds on thickness 1.5

Welding



99353-125



**4** JOINT WITH CENTRE FLOOR

Thickness of panels concerned (mm)

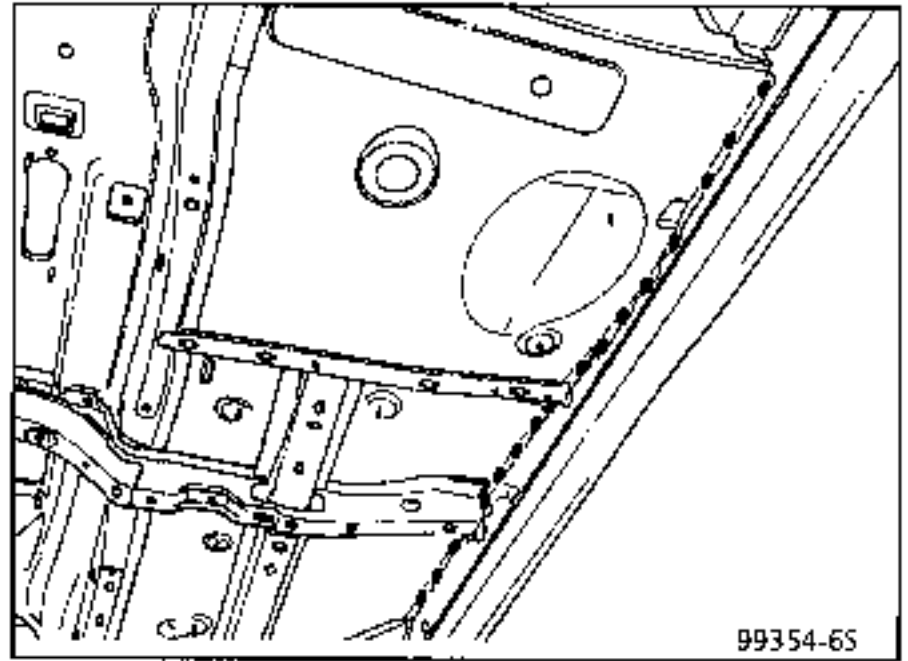
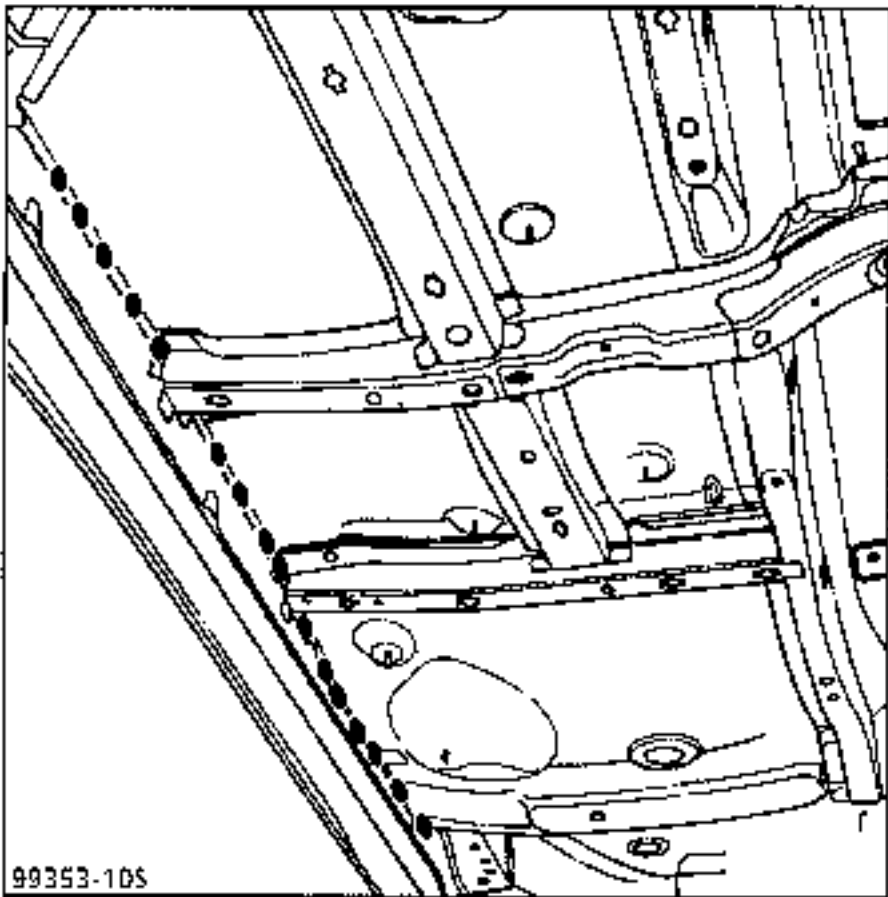
Inner sill panel	1.5
Centre floor	1

Unpicking



16 spot welds on thickness 1mm  
per side

Welding



**5** JOINT WITH COMPLETE REAR SIDE MEMBER

**Thickness of panels concerned (mm)**

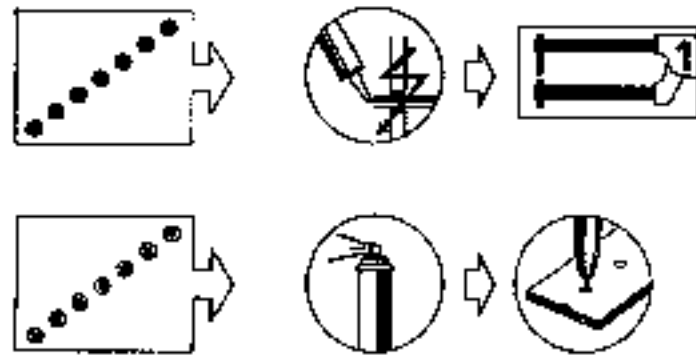
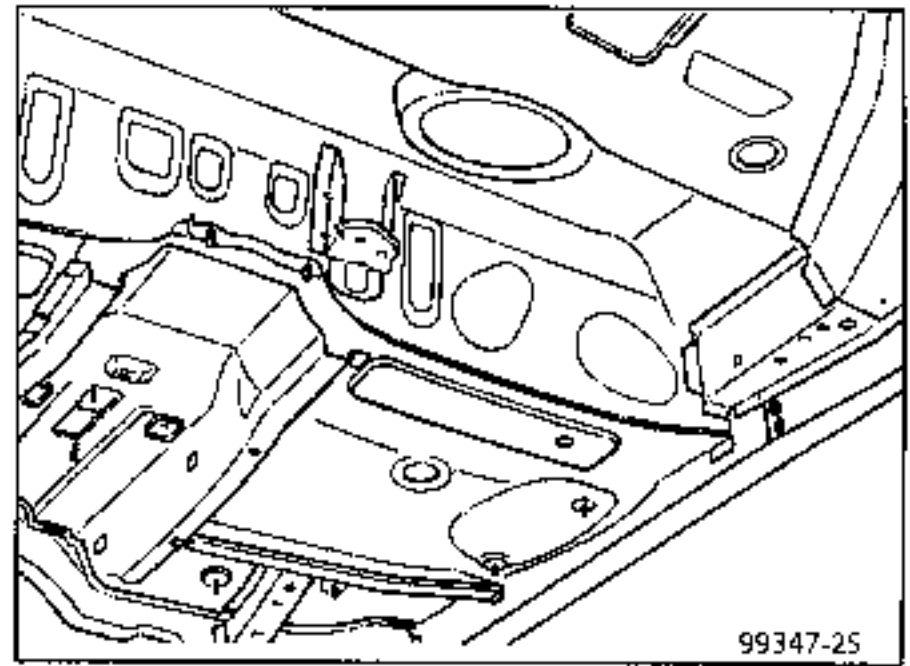
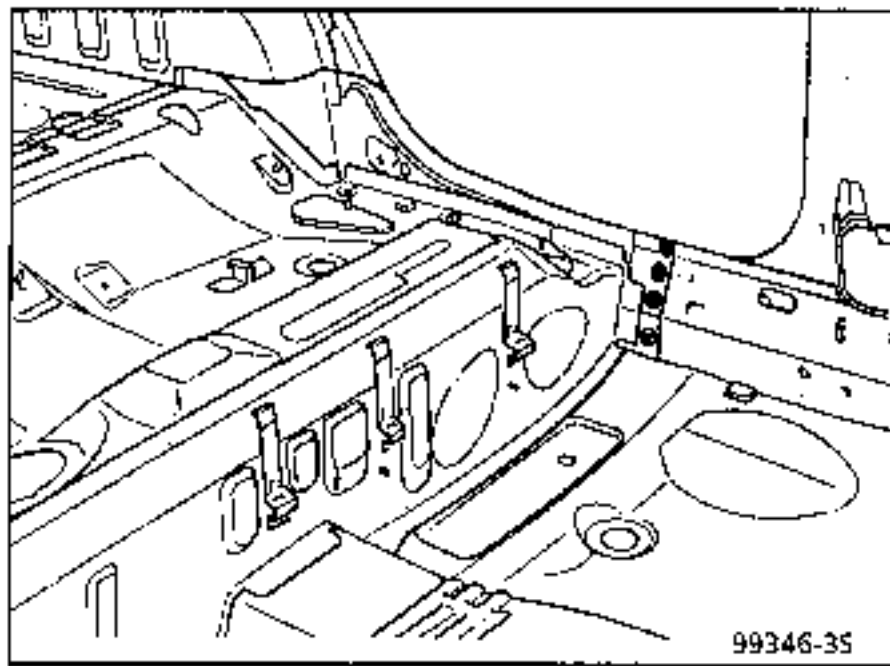
Inner sill panel	1.8
Complete rear side member	1.5
Centre floor	1

**Unpicking**



6 spot welds on thickness 1.8

**Welding**



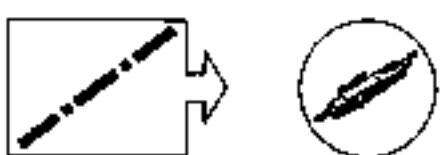
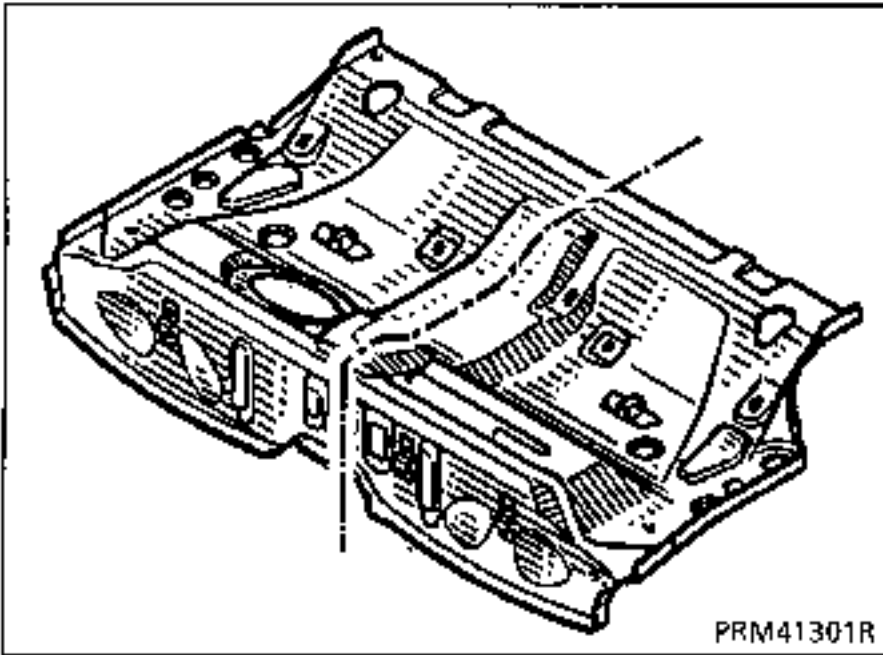
**Note :** 2 welds on 3 thicknesses.

### INTRODUCTION

The replacement of this part is a complementary operation to the replacement of a complete rear side member.

### COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with cross member and seat mountings.



### 1 JOINT WITH CENTRE FLOOR

Thickness of panels concerned (mm)

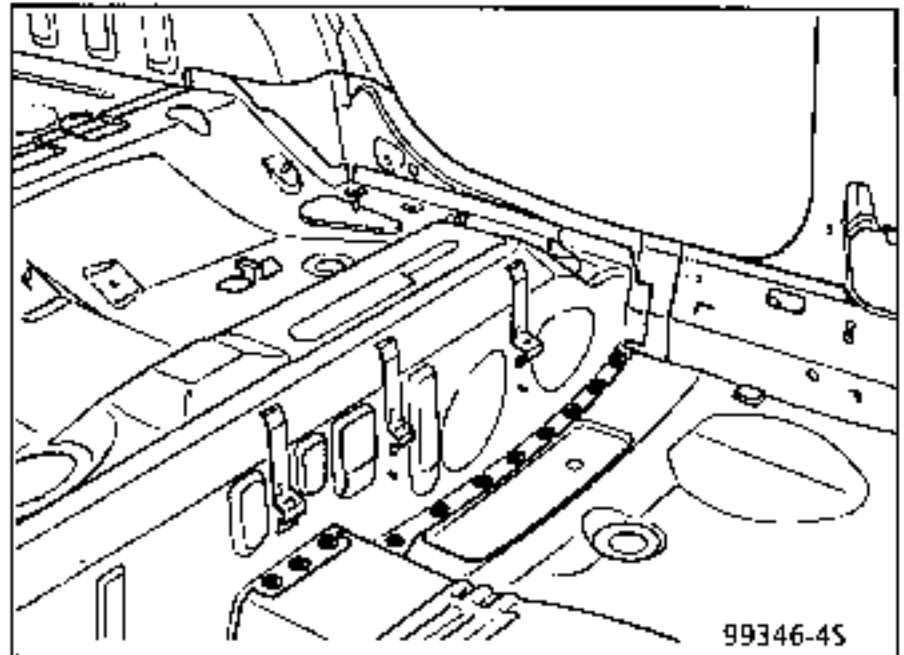
Cross member for rear floor, front section 1.2  
Centre floor 1

#### Unpicking



11 spot welds on thickness 1

#### Welding



**2** JOINT WITH CROSS MEMBER UNDER REAR SEAT

Thickness of panels concerned (mm)

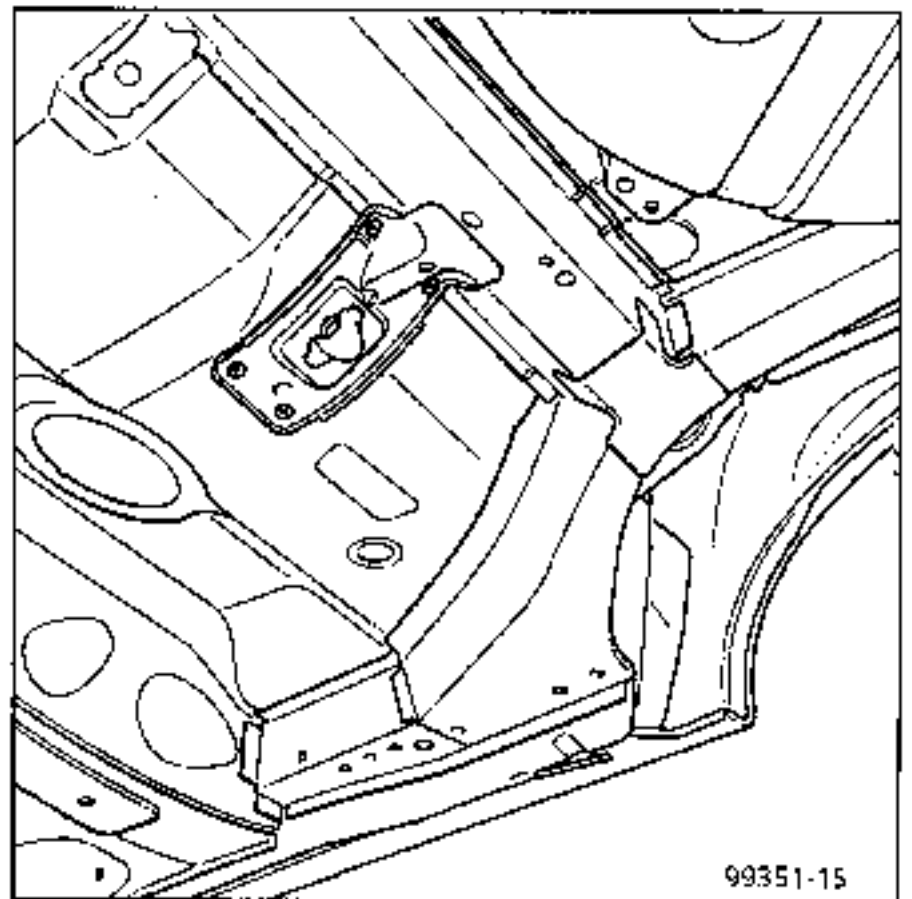
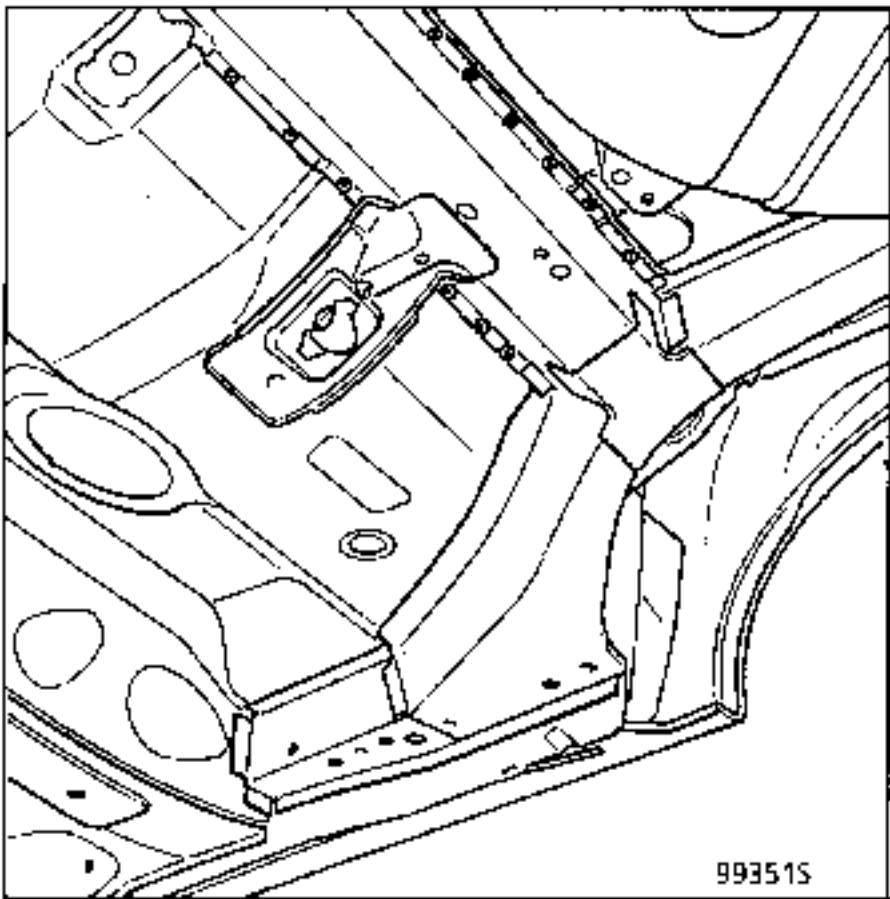
Rear floor, front section	1.2
Cross member under rear seat	1
Seat belt anchorage	2

Unpicking



14 spot welds on thickness 1  
4 spot welds on thickness 2

Welding



**3** JOINT WITH REAR SIDE MEMBER, COMPLETE

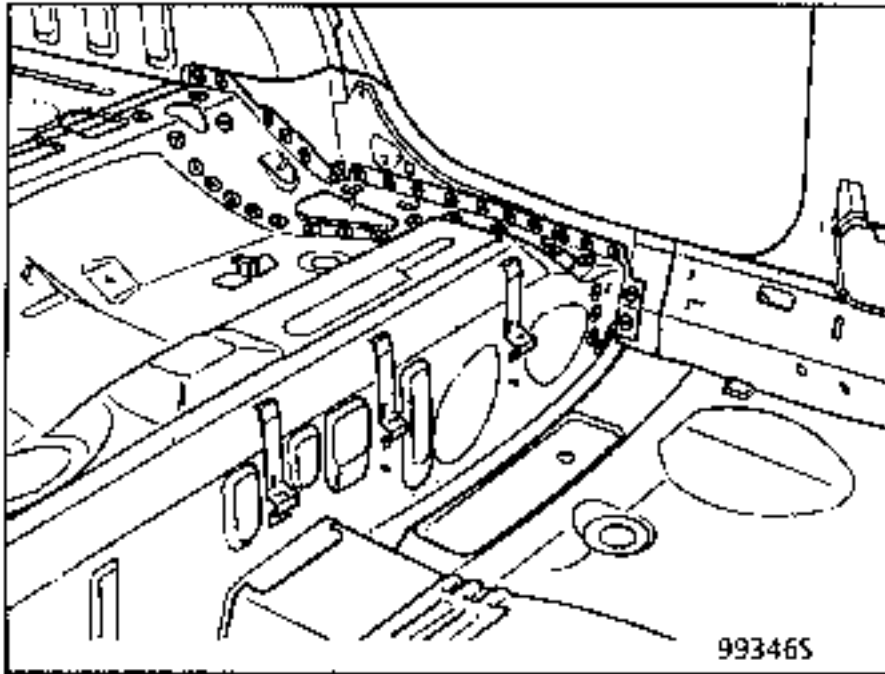
Thickness of panels concerned (mm)

Rear floor, front section	0.7
Rear side member, complete	1.2

Unpicking

The unpicking operation is not required since the parts are removed together.

Welding



**4** JOINT WITH PART SECTION

Thickness of panels concerned (mm)

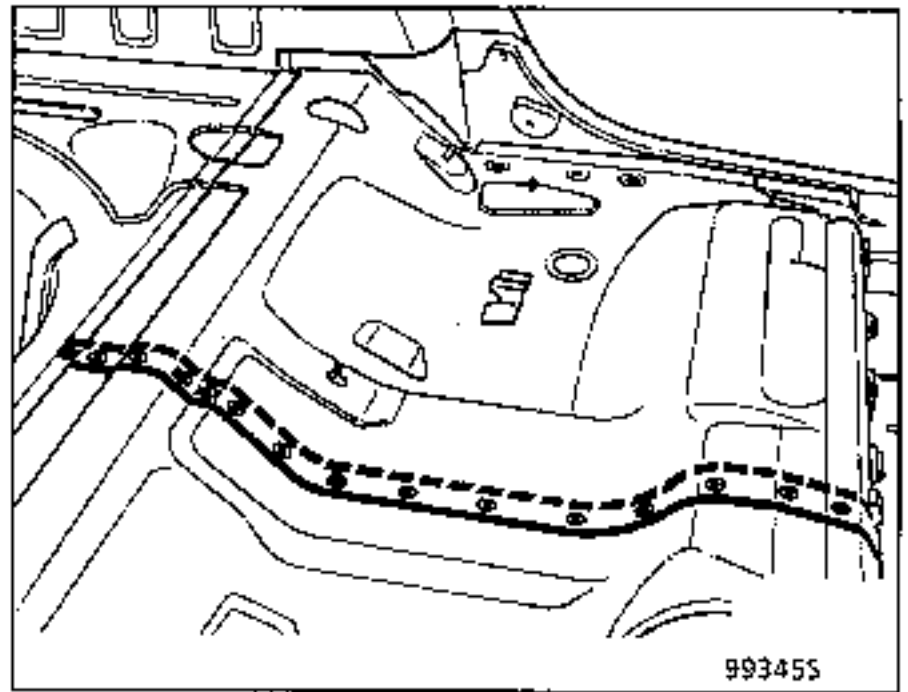
Rear floor, front part section	0.7
--------------------------------	-----

Unpicking



200 mm on thickness 1.2 mm  
600 mm on thickness 0.7 mm

Welding

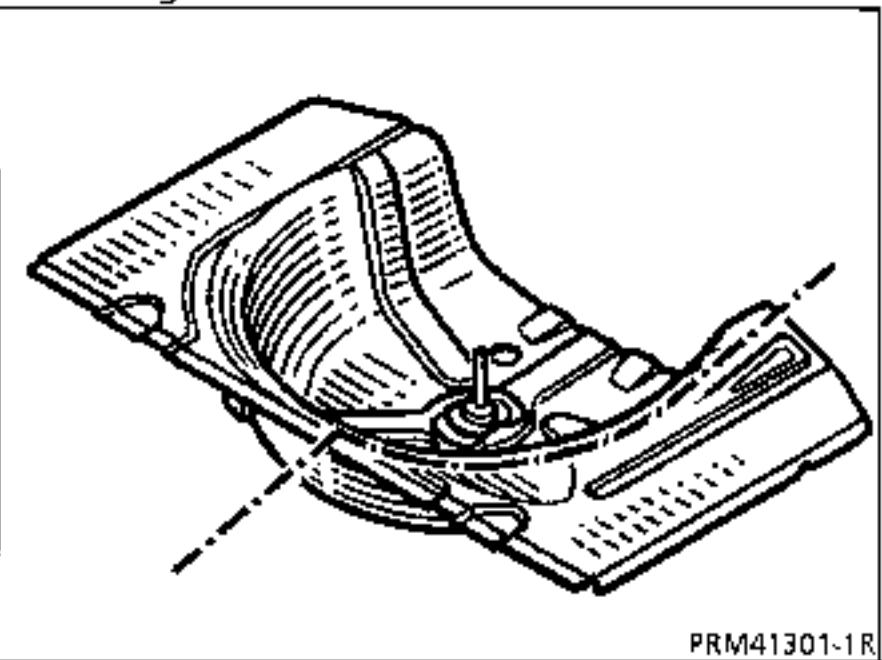


**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of a rear side member, complete or part section.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Part assembled with emergency spare wheel mountings.



**1 JOINT WITH REAR FLOOR, FRONT SECTION**

**Thickness of panels concerned (mm)**

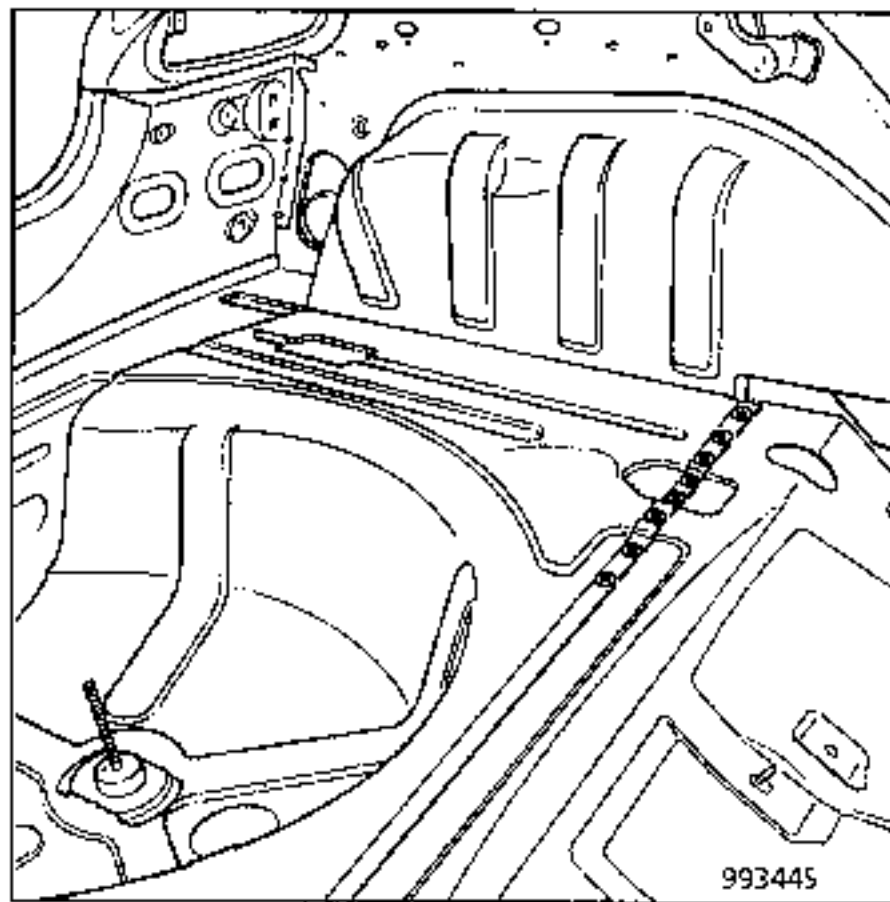
Rear floor, rear section	0.7
Rear floor, front section	0.7

**Unpicking**



8 spot welds on thickness 0.7 per side

**Welding**

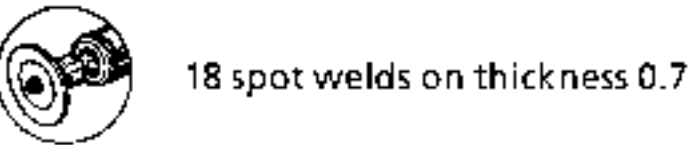


**2** JOINT WITH REAR SIDE MEMBER, COMPLETE

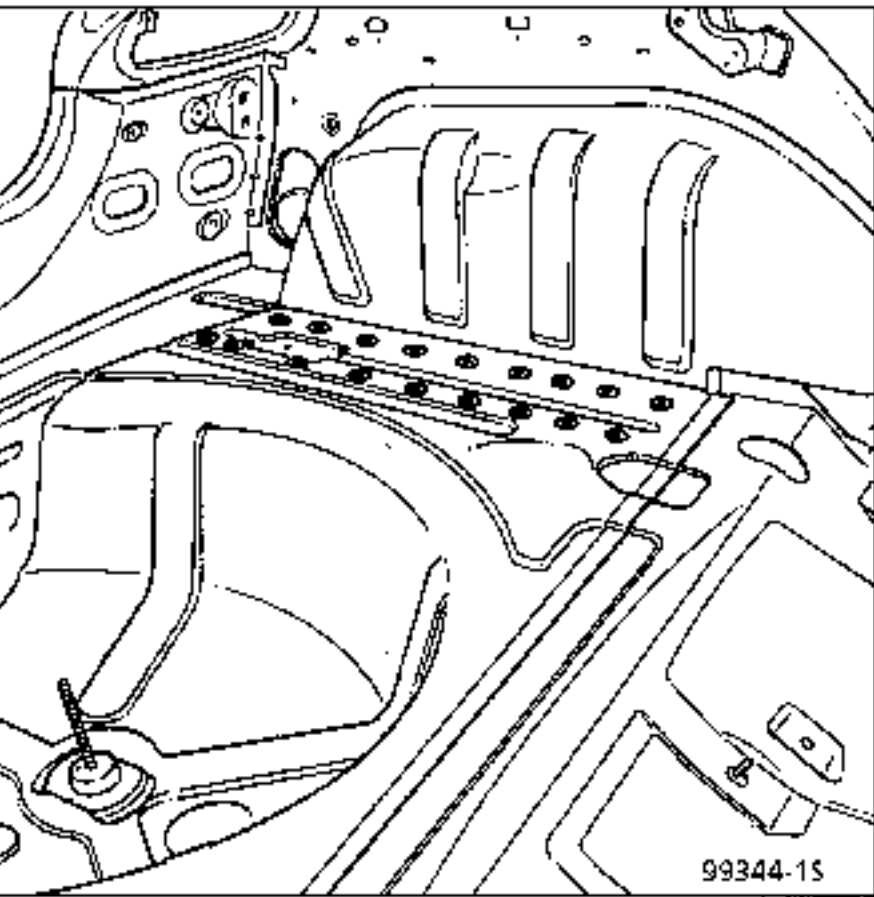
Thickness of panels concerned (mm)

Rear floor, rear section	0.7
Rear side member	1.2

Unpicking



Welding

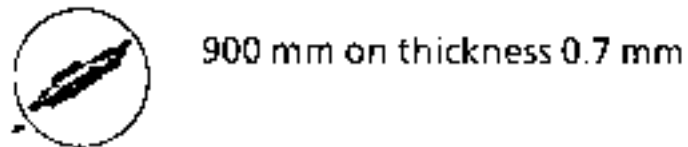


**3** JOINT WITH PART SECTION

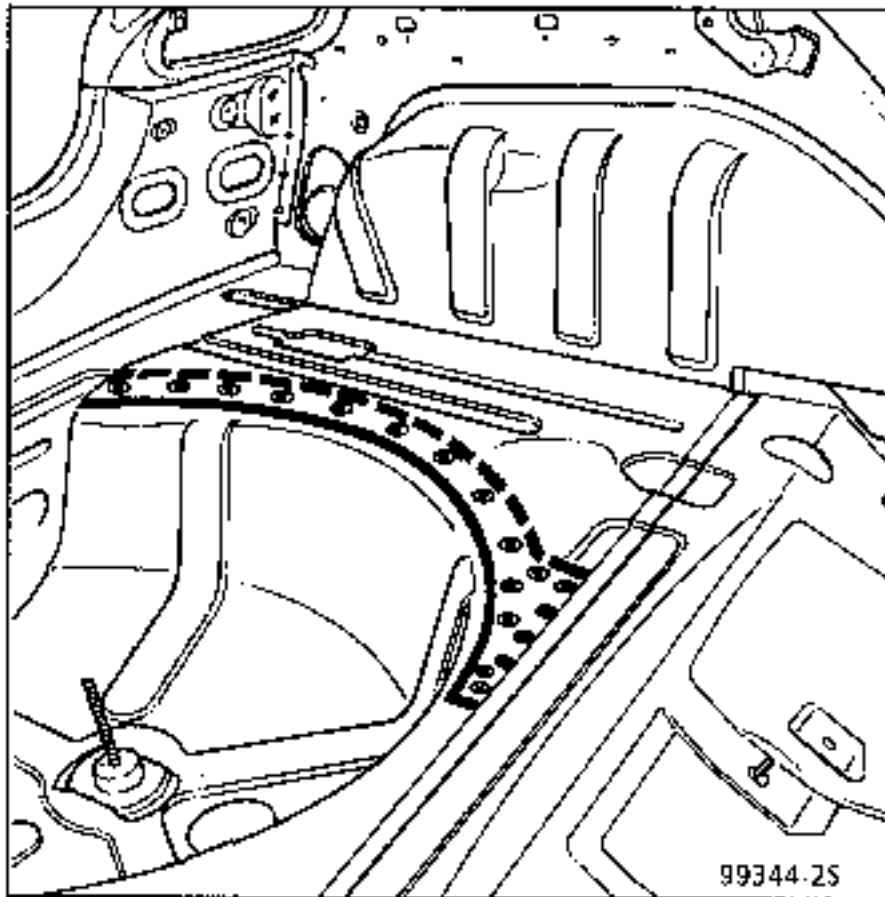
Thickness of panels concerned (mm)

Rear floor, rear part section	0.7
-------------------------------	-----

Unpicking



Welding





**4** JOINT WITH REAR INNER WHEEL ARCH

Thickness of panels concerned (mm)

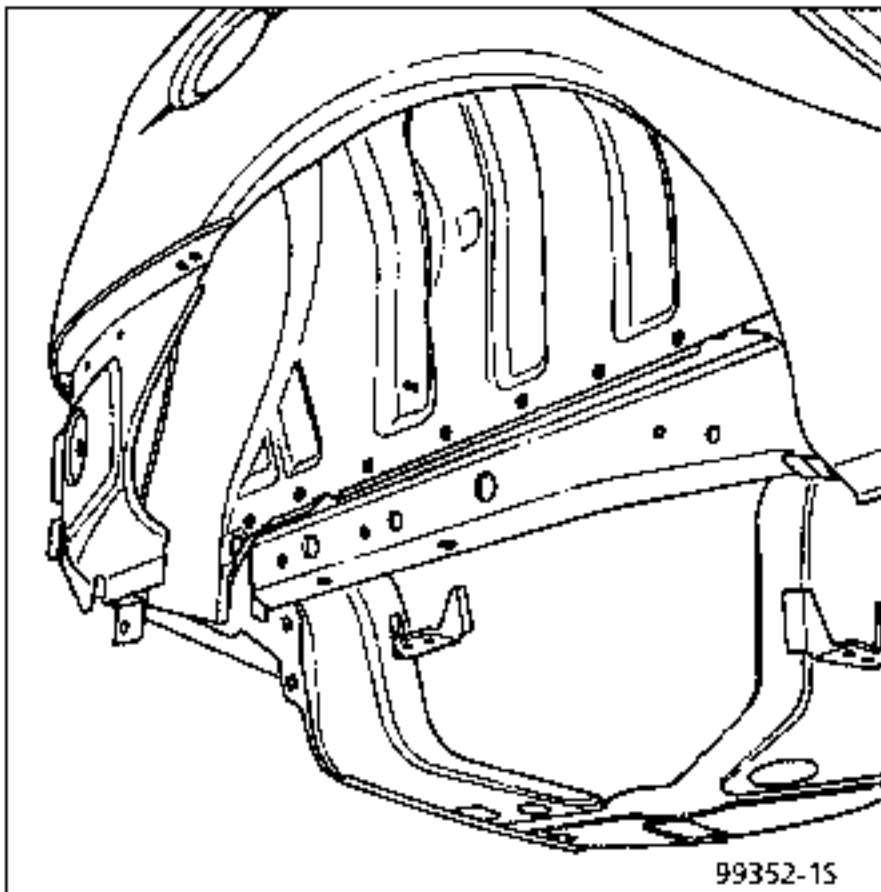
Rear floor, rear section	0.7
Rear inner wheel arch	0.7

Unpicking



7 spot welds on thickness 0.7

Welding

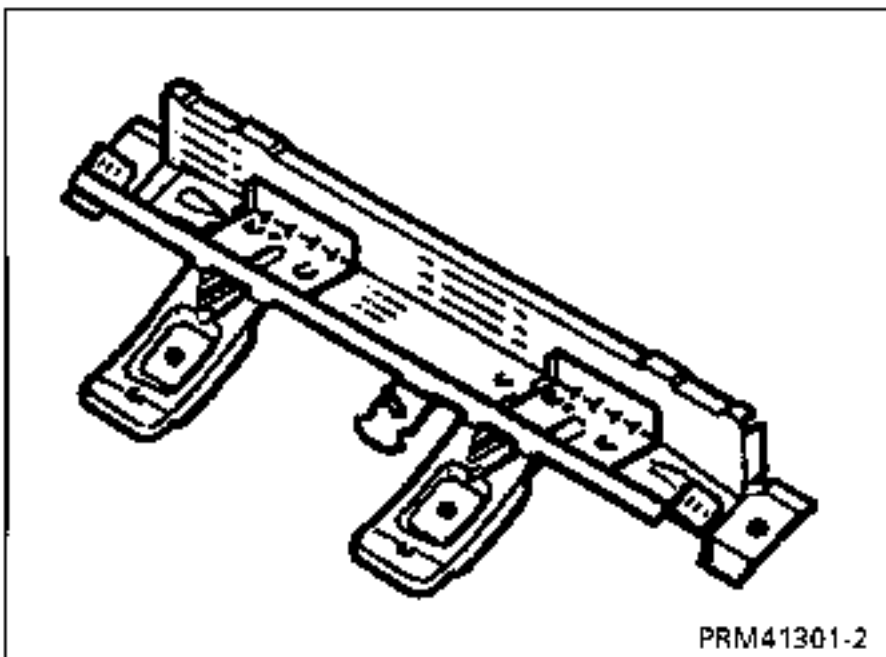


**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of a rear side member, complete + rear floor, front section.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Part assembled with seat belt anchorages.






**1 JOINT WITH REAR SIDE MEMBER**

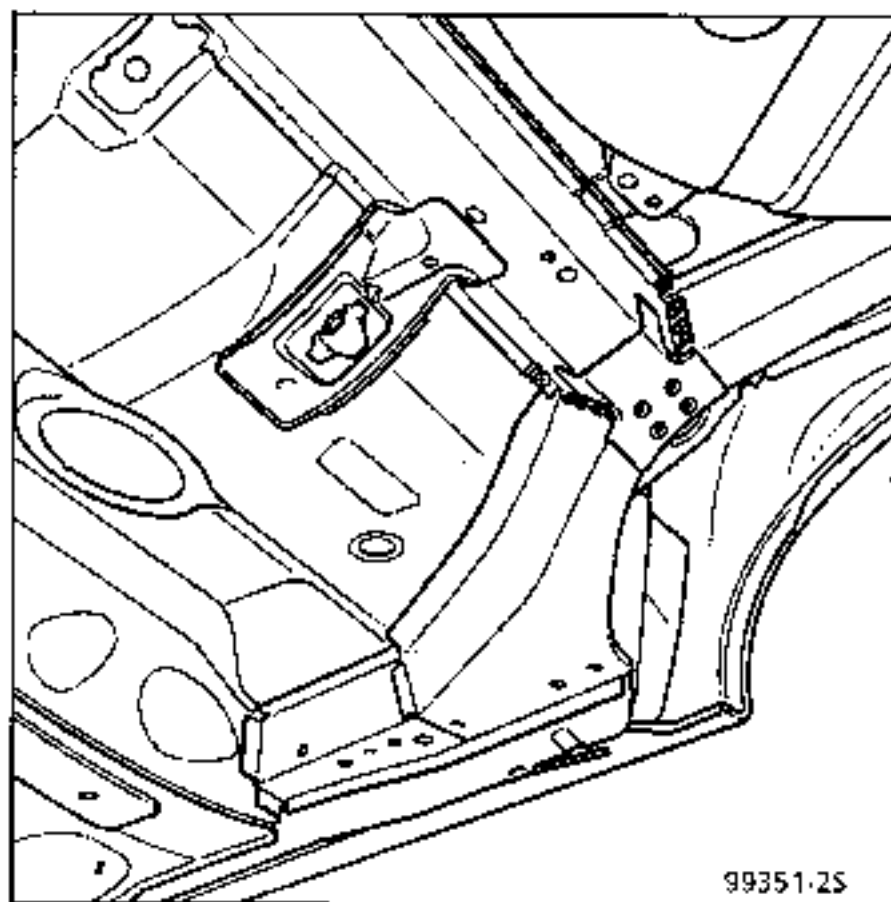
**Thickness of panels concerned (mm)**

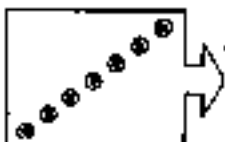


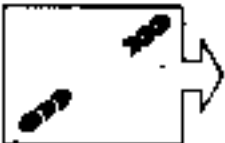

Rear side member	2.5
Cross member under rear seat	1
Joint reinforcement	1.5

**Unpicking**

-  6 spot welds on thickness 1.5
-  100 mm on thickness 1mm
-  5 spot welds on thickness 1

**Welding**



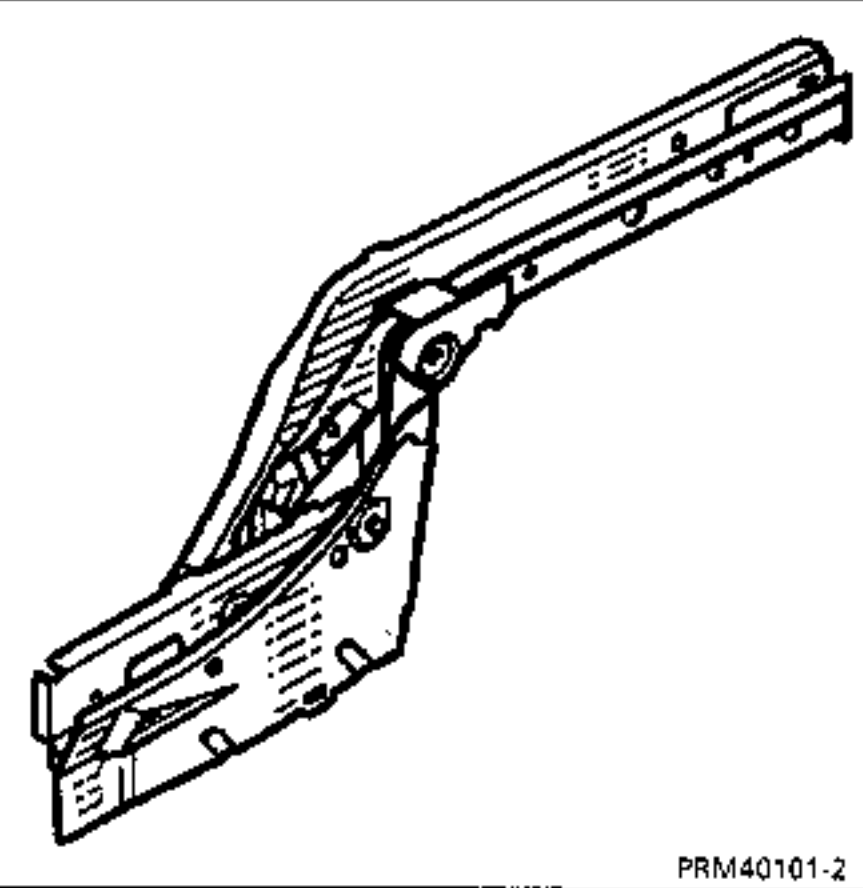
-   
-   2 fillets of 20mm

**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of a rear end panel assembly, rear end cross member and rear floor, rear part section.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Part assembled with reinforcements and axle assembly mounting.






PRM40101-2

**1 JOINT WITH CROSS MEMBER UNDER REAR SEAT**

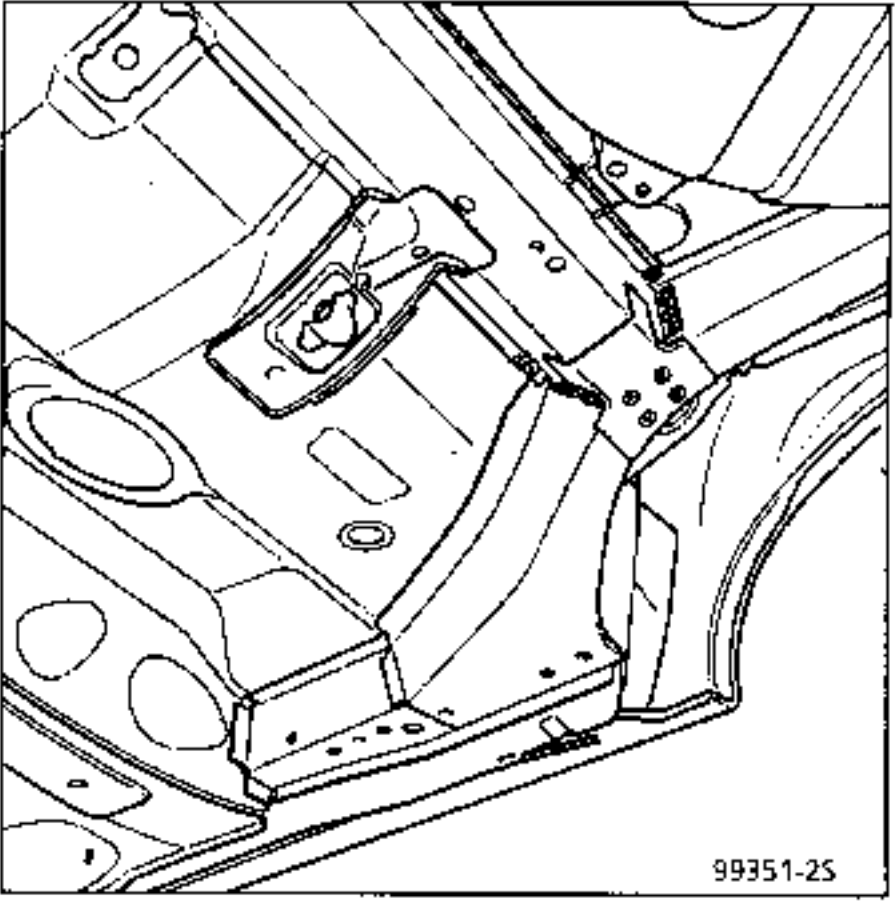
**Thickness of panels concerned (mm)**

Rear side member	1.2
Cross member under rear seat	1
Joint reinforcement	1.5

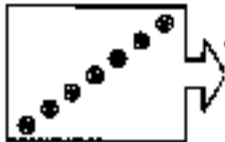




**Unpicking**

-  6 spot welds on thickness 1.5
-  100 mm on thickness 1mm
-  5 spot welds on thickness 1

**Welding**



99351-25

-   
-   2 fillets of 20mm

**2** JOINT WITH INNER WHEEL ARCH

**Thickness of panels concerned (mm)**

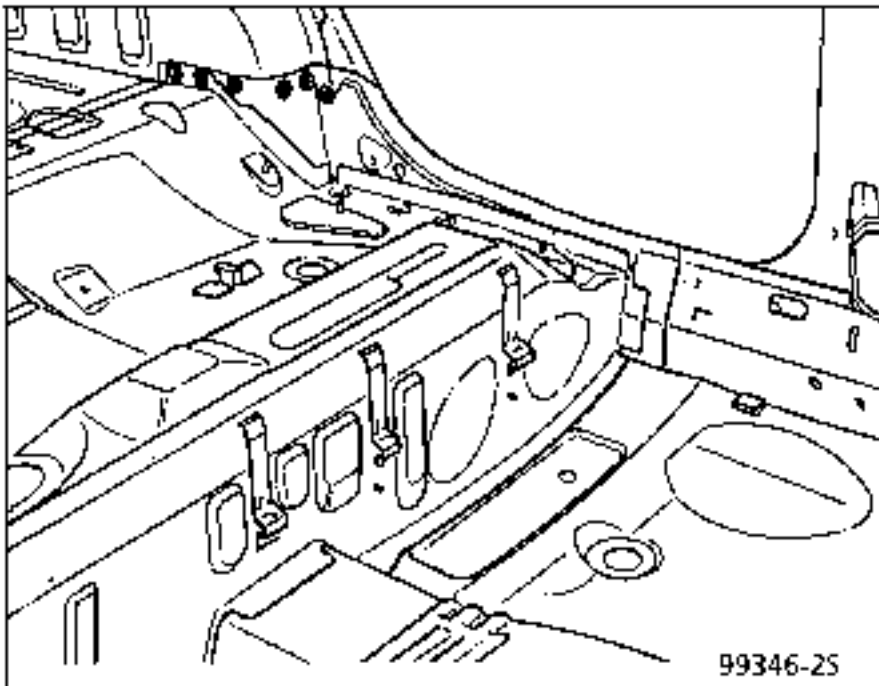
Rear side member assembly	1.5
Inner wheel arch	0.5

**Unpicking**



6 spot welds on thickness 1.5

**Welding**



99346-2S



**3** JOINT WITH INNER SILL PANEL

**Thickness of panels concerned (mm)**

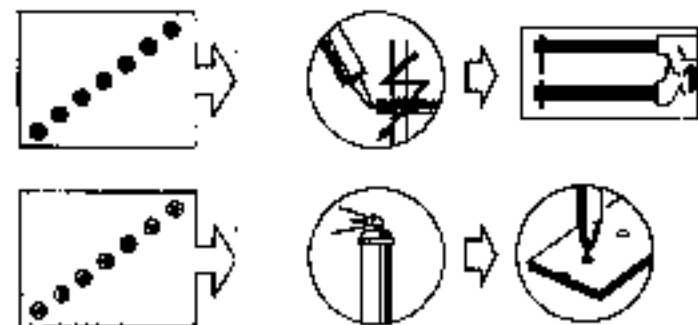
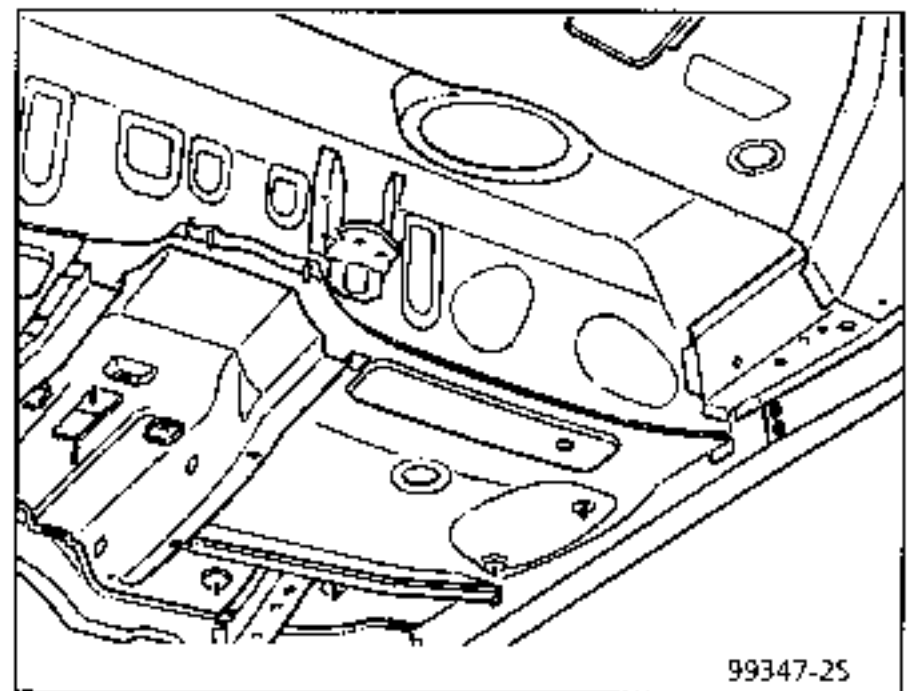
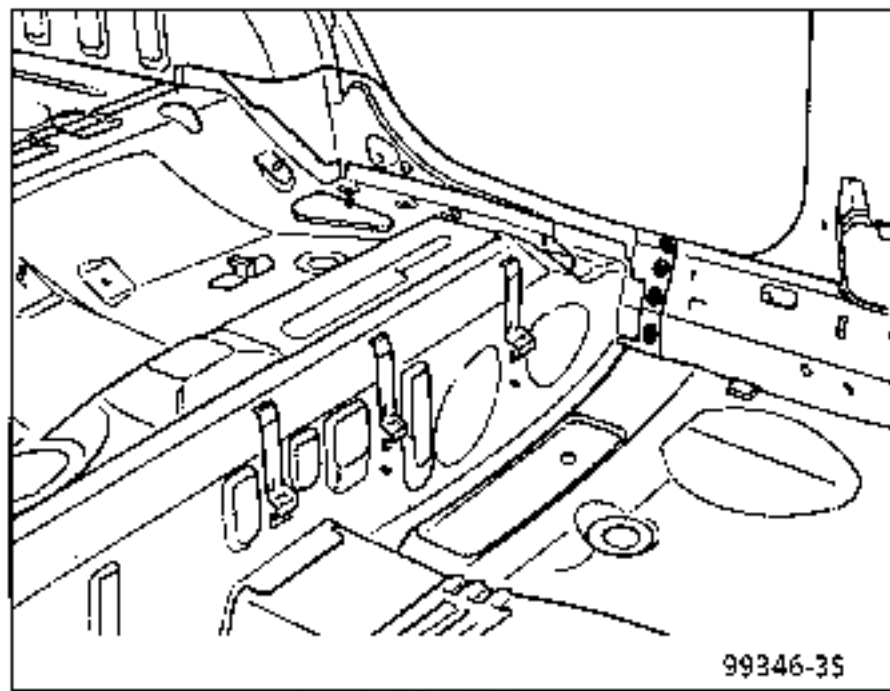
Inner sill panel, front section	1.8
Inner sill panel, rear section	1.5
Centre floor	1

**Unpicking**



6 spot welds on thickness 1.8

**Welding**



**Note :** 2 welds on 3 thicknesses

**4** JOINT WITH REAR QUARTER PANEL LINING

**Thickness of panels concerned (mm)**

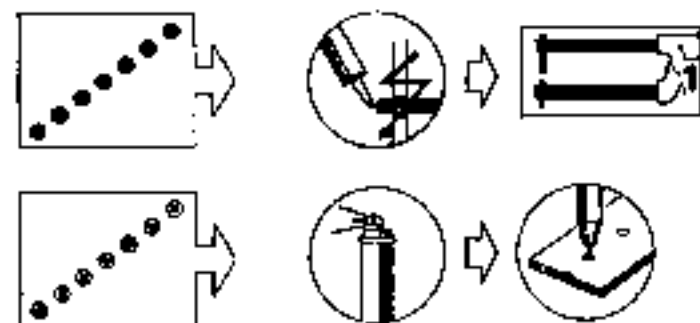
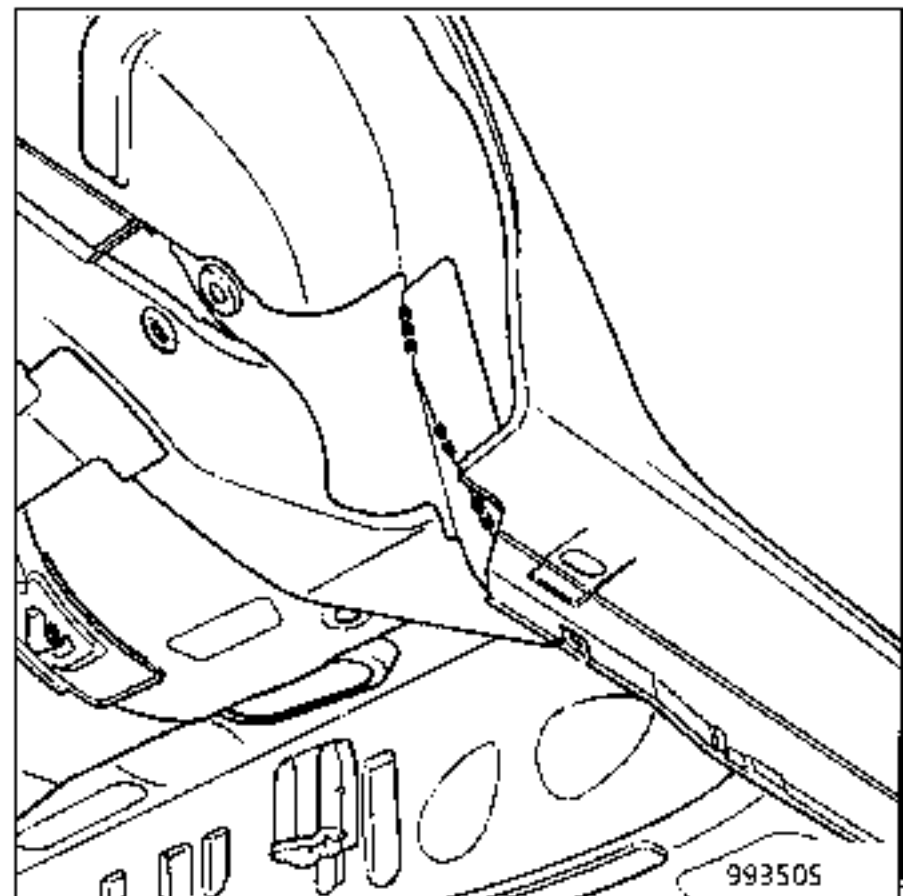
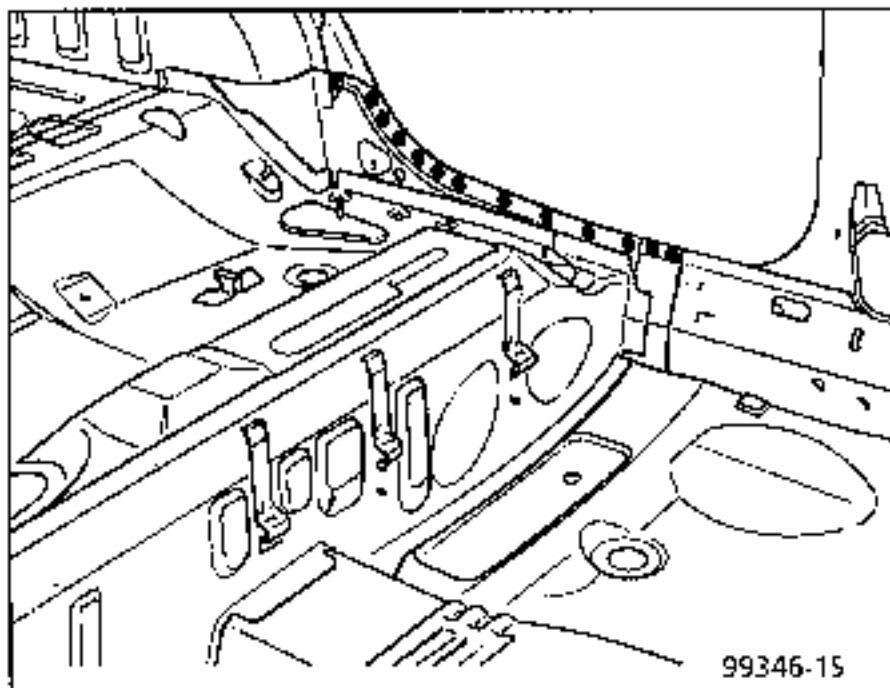
Rear side member assembly	1.5
Rear quarter panel lining	0.7
Sill panel	0.8

**Unpicking**



13 spot welds on thickness 1.5  
3 fillets of 20 mm

**Welding**



**Note :** spot welds on 3 thicknesses

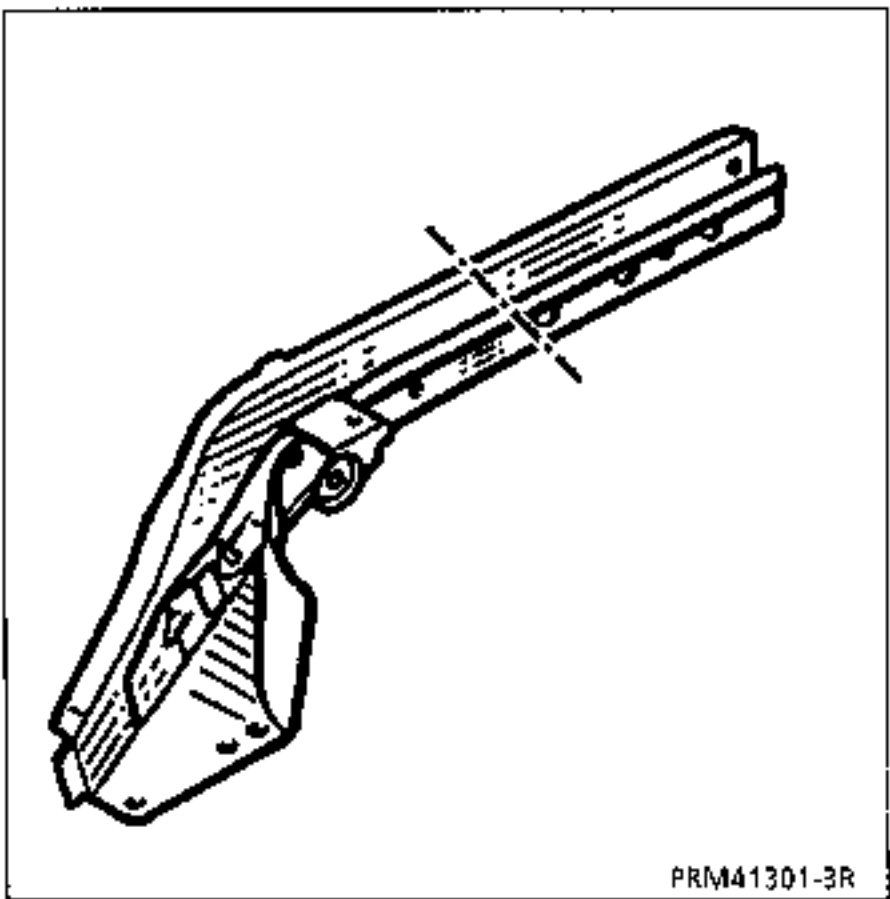
**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of a rear end panel assembly, rear end cross member and rear floor, rear part section.

**Note :** for information concerning the other joints, refer to the previous operation.

**COMPOSITION OF PART .FROM PARTS DEPARTMENT**

Single part.



**1 JOINT WITH PART SECTION**

**Thickness of panels concerned (mm)**

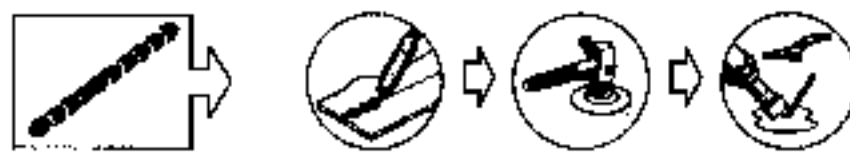
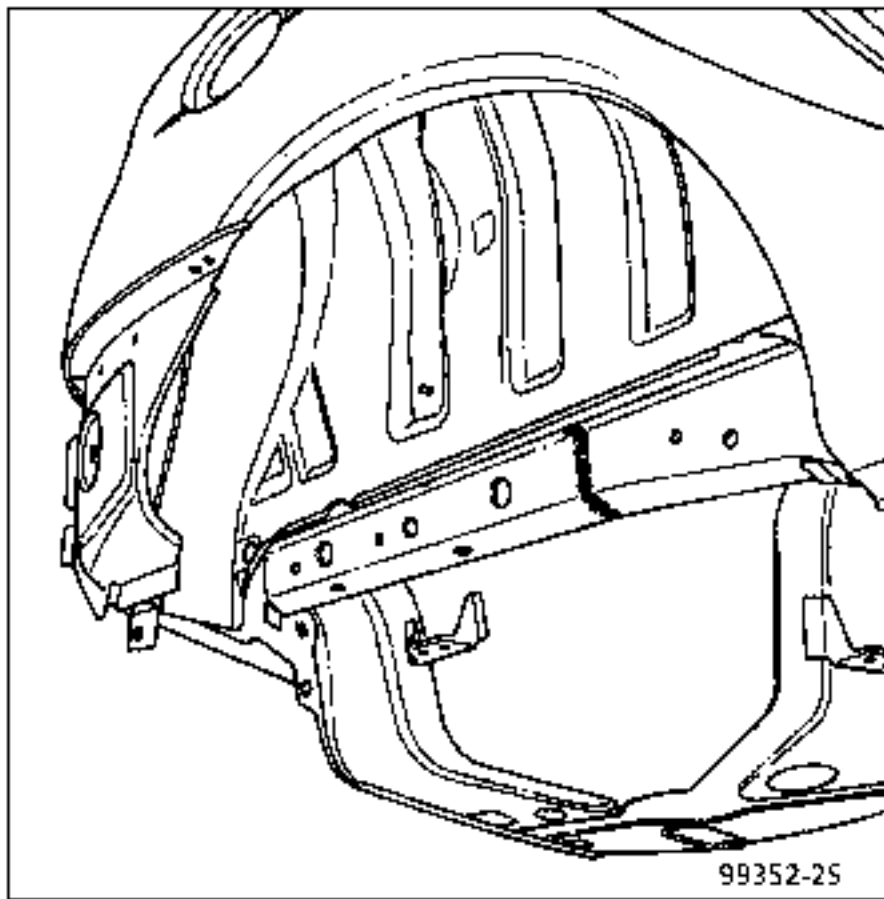
Rear side member, part section                      1.2

**Unpicking**



150 mm on thickness 1.2

**Welding**

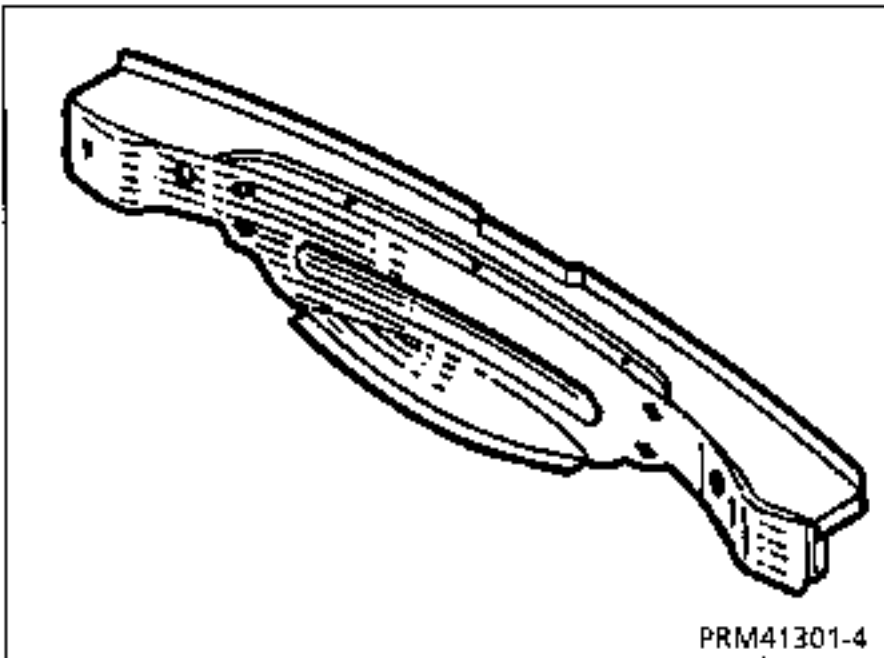


**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of a rear end panel assembly.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



**1 JOINT WITH REAR FLOOR, REAR PART SECTION**

**Thickness of panels concerned (mm)**

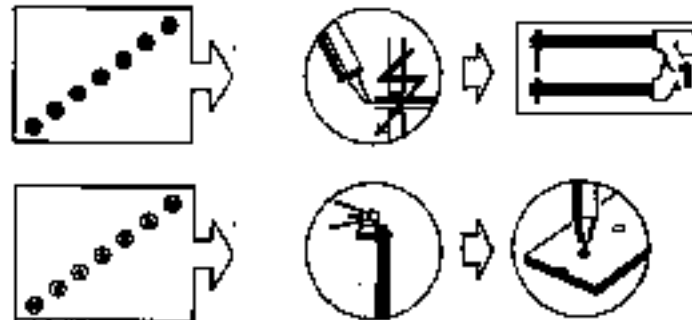
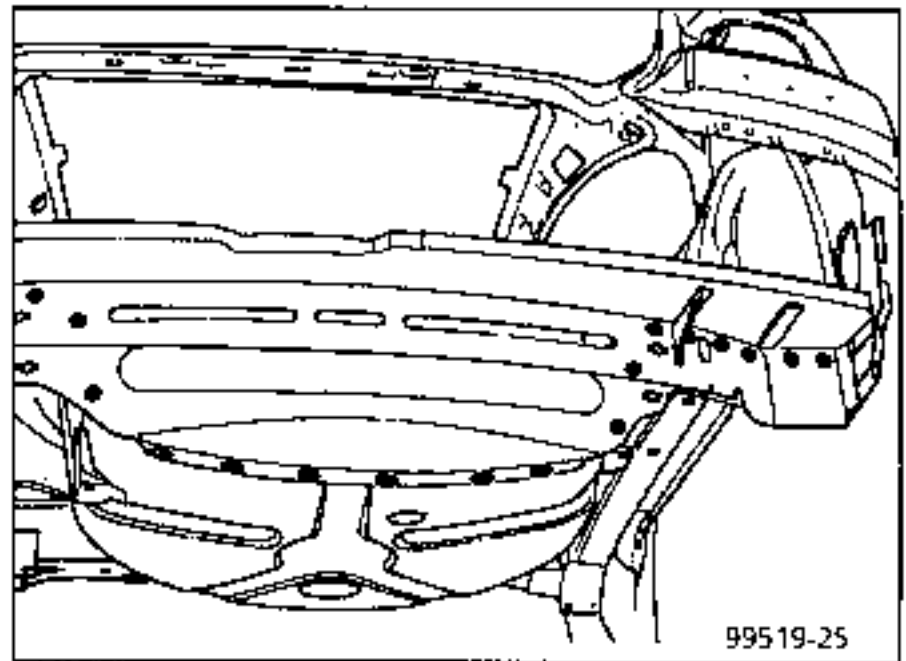
Rear floor, rear section	0.7
Rear end cross member	0.8

**Unpicking**



22 spot welds on thickness 0.8

**Welding**





**2** JOINT WITH REAR QUARTER PANEL LINING

**Thickness of panels concerned (mm)**

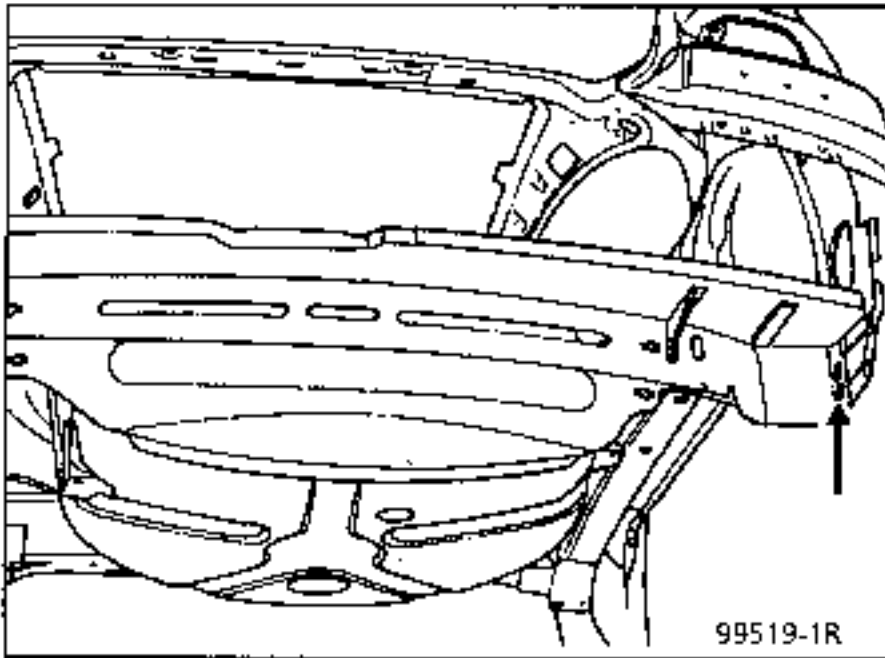
Rear quarter panel lining	0.7
Rear end cross member	0.8

**Unpicking**



2 spot welds on thickness 0.8 per side.

**Welding**



**3** JOINT WITH REAR SIDE MEMBER

**Thickness of panels concerned (mm)**

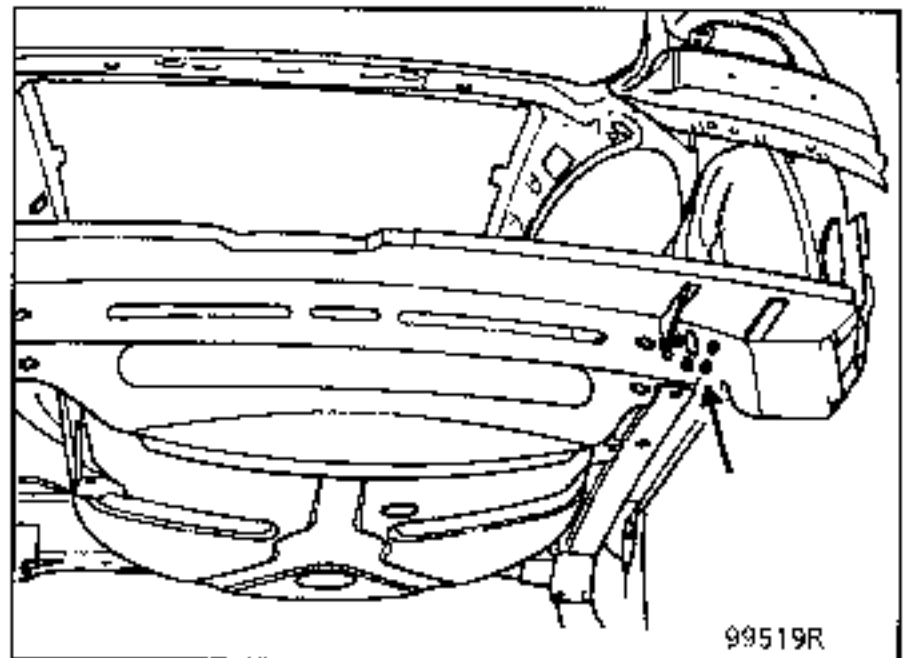
Rear side member	1.2
Rear end cross member	0.8

**Unpicking**



4 spot welds on thickness 0.8 per side.

**Welding**



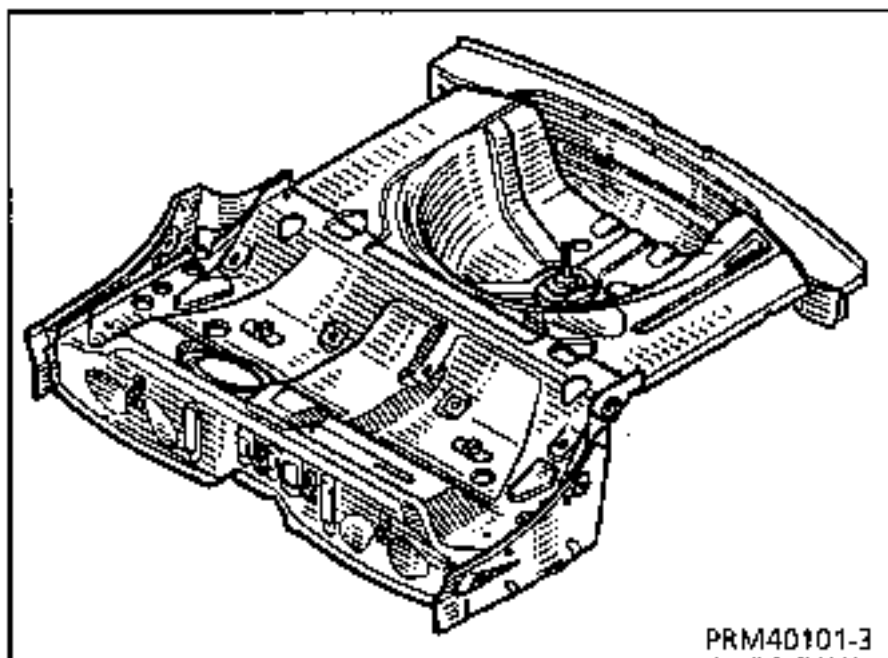
## INTRODUCTION

The replacement of this part is a complementary operation to the replacement of a rear end panel assembly.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with:

- side member assemblies,
- cross member under rear seat,
- rear end cross member,
- securing ring.



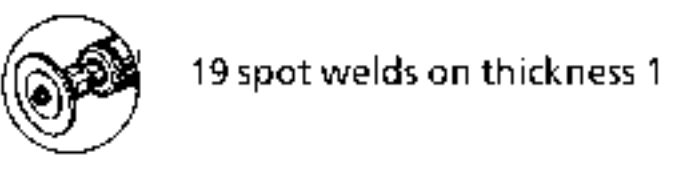
PRM40101-3

**1** JOINT WITH CENTRE FLOOR

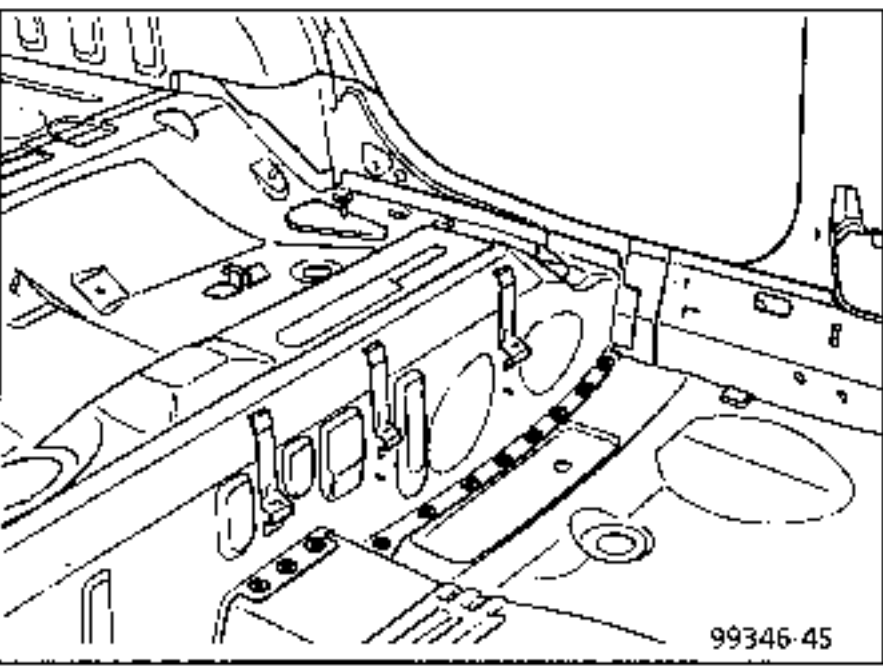
**Thickness of panels concerned (mm)**

Cross member for rear floor, front section	1.2
Centre floor	1

**Unpicking**



**Welding**

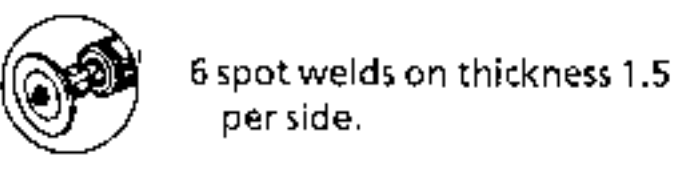


**2** JOINT WITH CENTRE FLOOR

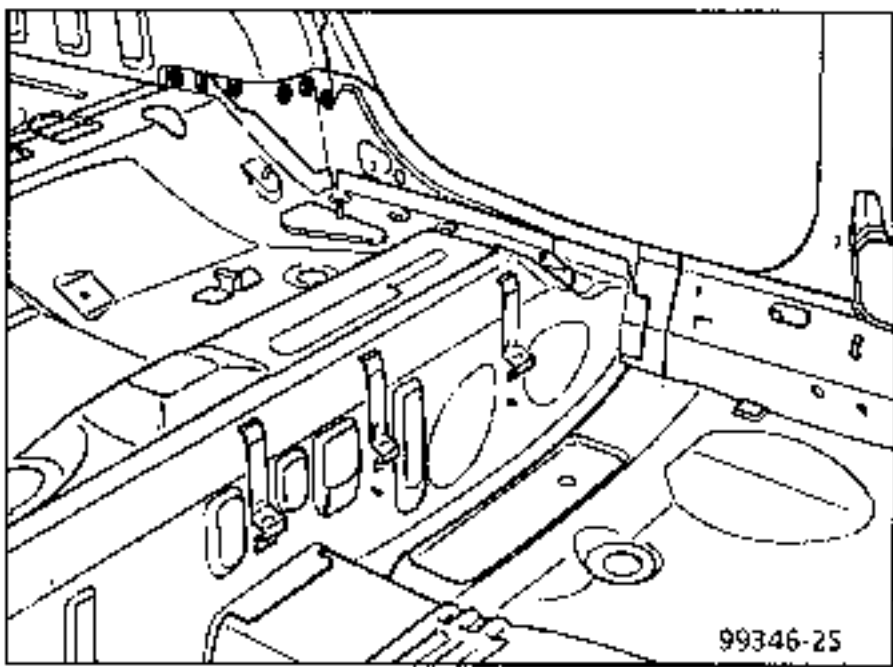
**Thickness of panels concerned (mm)**

Rear side member assembly	1.5
Inner wheel arch	0.7

**Unpicking**



**Welding**



**3** JOINT WITH REAR QUARTER PANEL LINING

**Thickness of panels concerned (mm)**

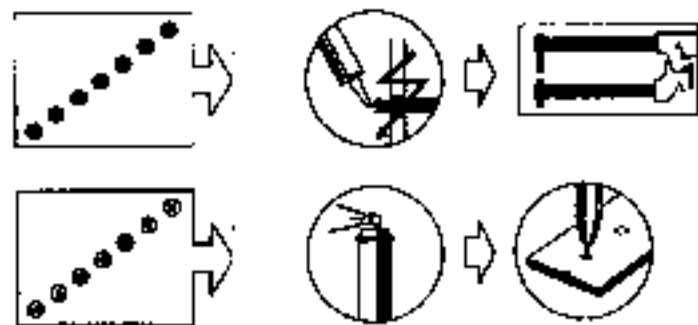
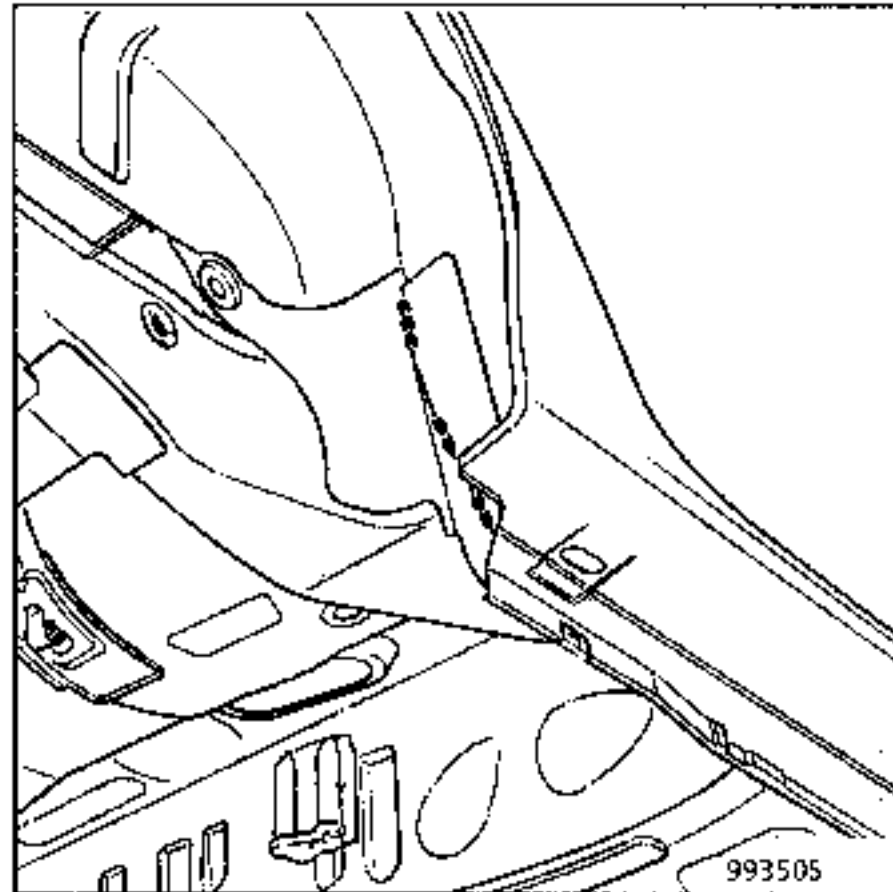
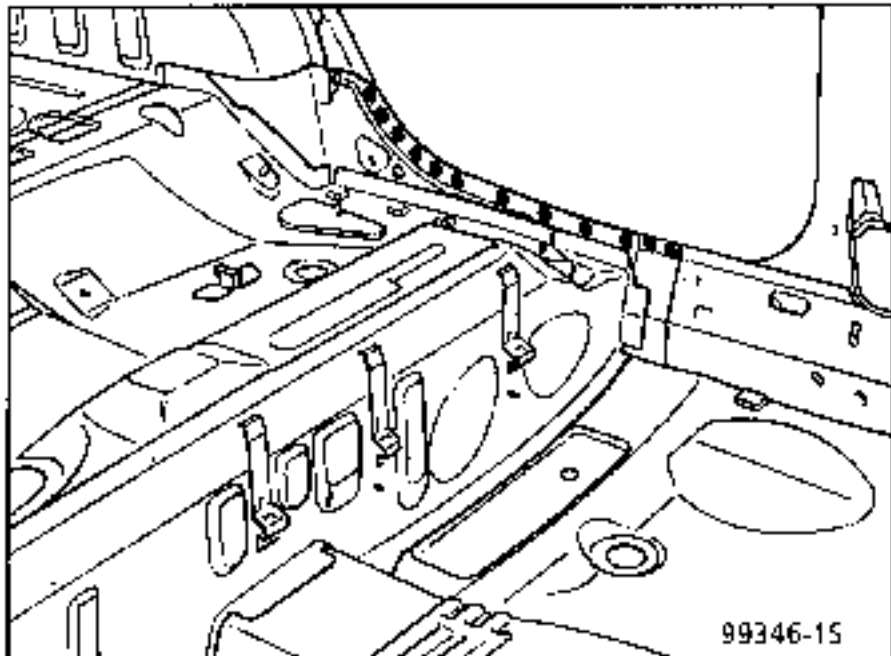
Rear side member assembly	1.5
Rear quarter panel lining	0.7
Sill panel	0.8

**Unpicking**



13 spot welds on thickness 1.5  
3 fillets of 20 mm  
both per side

**Welding**



**4** JOINT WITH REAR INNER WHEEL ARCH

Thickness of panels concerned (mm)

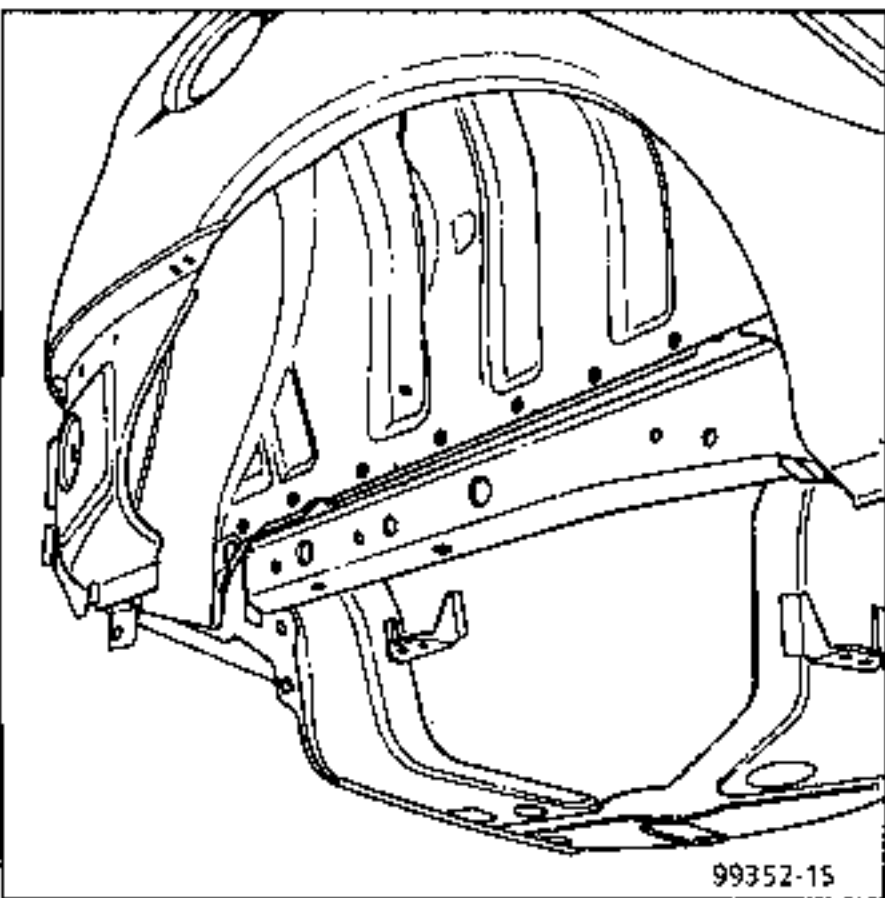
Rear floor, rear section	0.7
Rear inner wheel arch	0.7

Unpicking



7 spot welds on thickness 0.7 per side.

Welding



**5** JOINT WITH REAR QUARTER PANEL LINING

Thickness of panels concerned (mm)

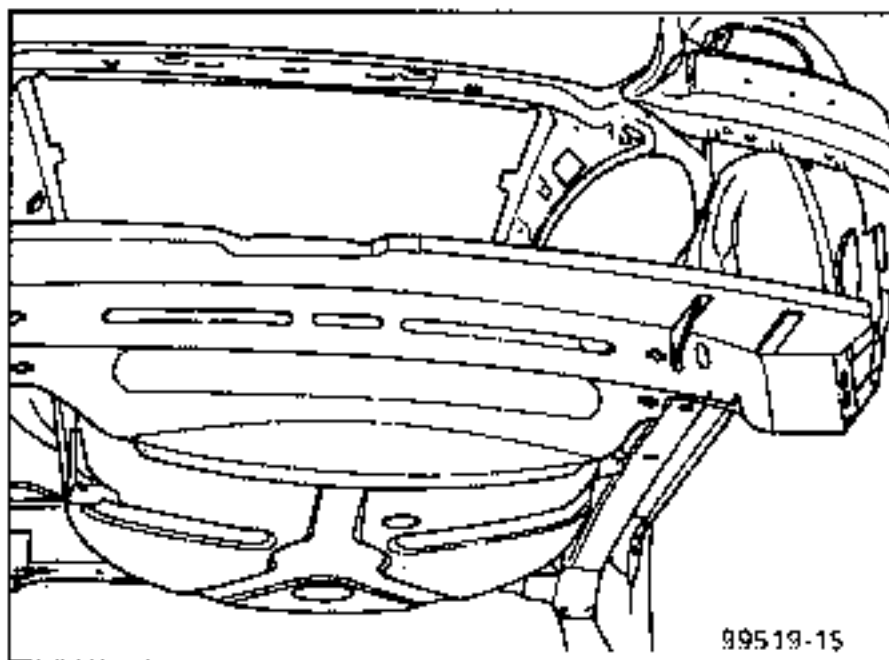
Rear quarter panel lining	0.7
Rear end cross member	0.8

Unpicking



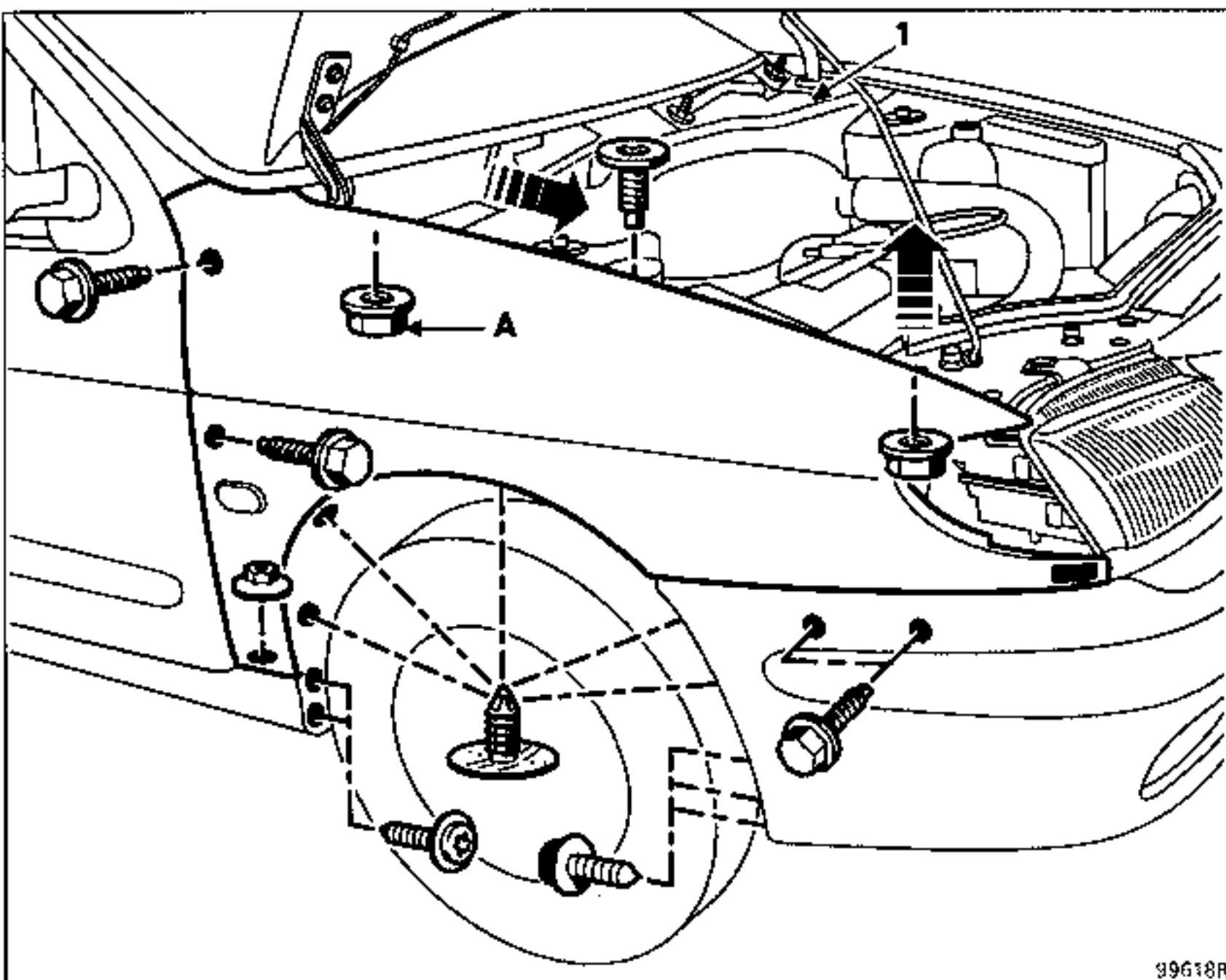
2 spot welds on thickness 0.8 per side.

Welding



## INTRODUCTION

The replacement of this part is a basic operation for a frontal collision.  
This part may be removed from the bodywork structure.



99G18R

**Remove:**

- the scuttle panel grille (see section 55),
- the indicator,
- the bumper (see section 55),
- the mudguard,
- the indicator repeater light,

- unclip the plastic cover (1) on the left hand side,
- slacken the nut (A) for the bonnet stay,
- remove the mounting clip from the radiator grille bar.

**Note :** when refitting, renew the sealing (sealing mastic for removable parts) between the wing mounting brackets and the front pillar.

## INTRODUCTION

The replacement of this part is a basic operation for a frontal collision.

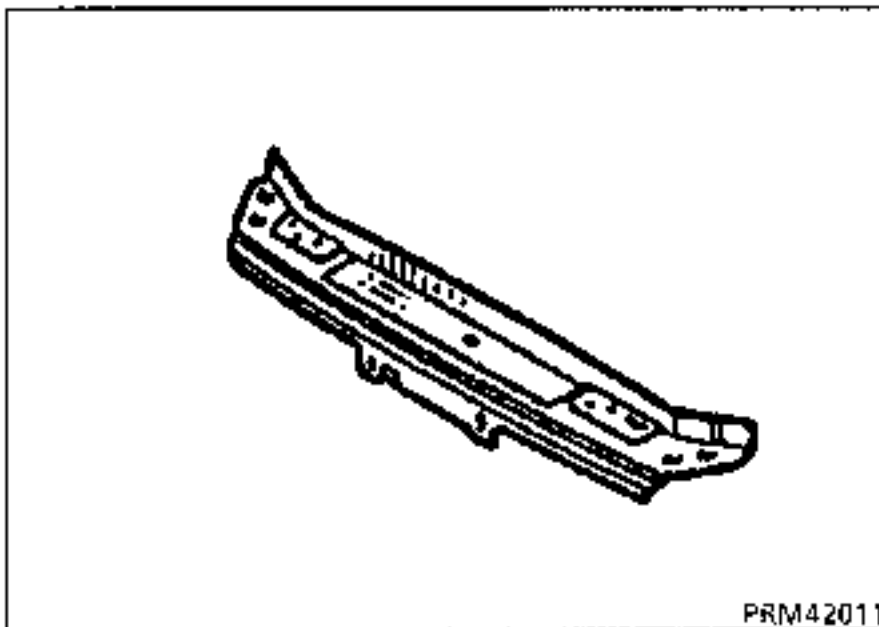
This part may be removed from the bodywork structure and is mounted by six 8 mm bolts, TORX T 40 :

4 on the side cross member components

2 on the lock mounting components

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Single part.



**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of :

- a headlight carrier panel,
- a front end upper cross member.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Part assembled with bumper mounting and welded nut.



PRM42011-1

**1 JOINT WITH FRONT END LOWER CROSS MEMBER**

**Thickness of panels concerned (mm)**

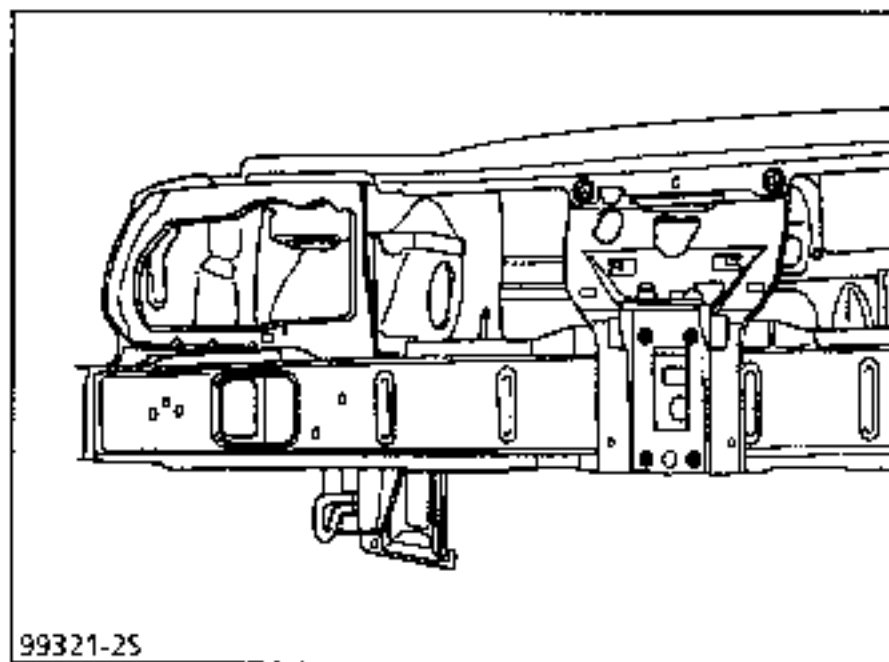
Lock mounting	1.5
Front end lower cross member	1
Closure panel for front end lower cross member	1.2

**Unpicking**



4 spot welds on thickness 1.5

**Welding**



**Note :** 3 welds on 3 thicknesses.



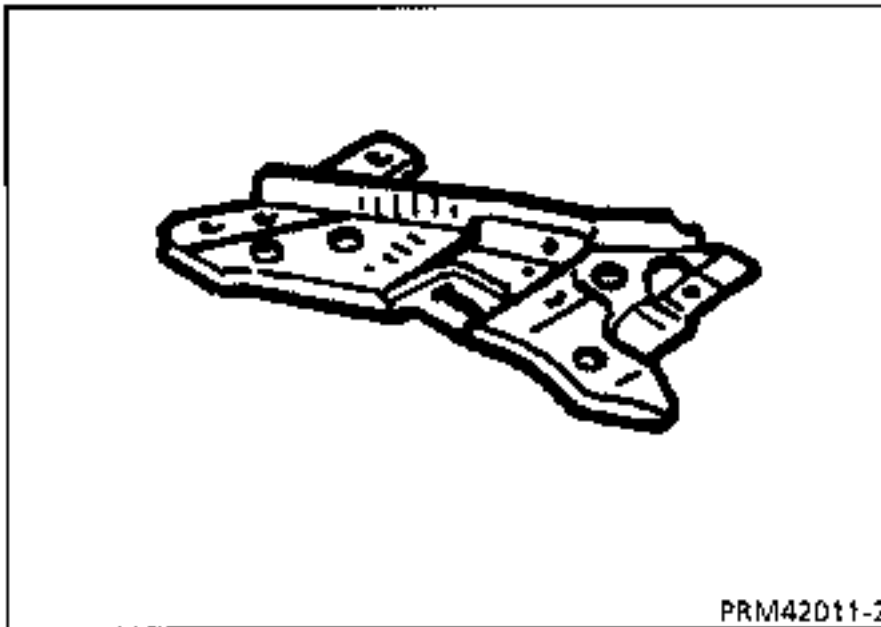
## INTRODUCTION

The replacement of this part is a complementary operation to the replacement of :

- a headlight carrier panel,
- a front end upper cross member.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Single part.



**1** JOINT WITH COWL SIDE PANEL

Thickness of panels concerned (mm)

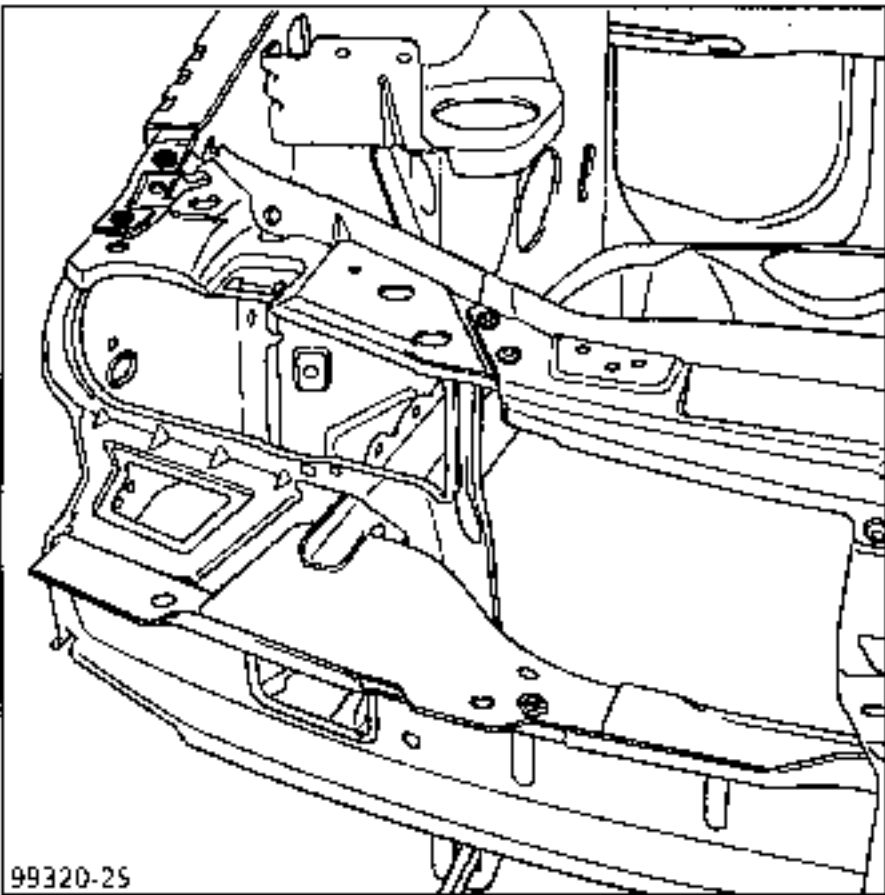
Upper side front cross member	1.5
Cowl side panel	1.2

Unpicking



2 spot welds on thickness 1.5

Welding



**2** JOINT WITH HEADLIGHT CARRIER PANEL REINFORCEMENT

Thickness of panels concerned (mm)

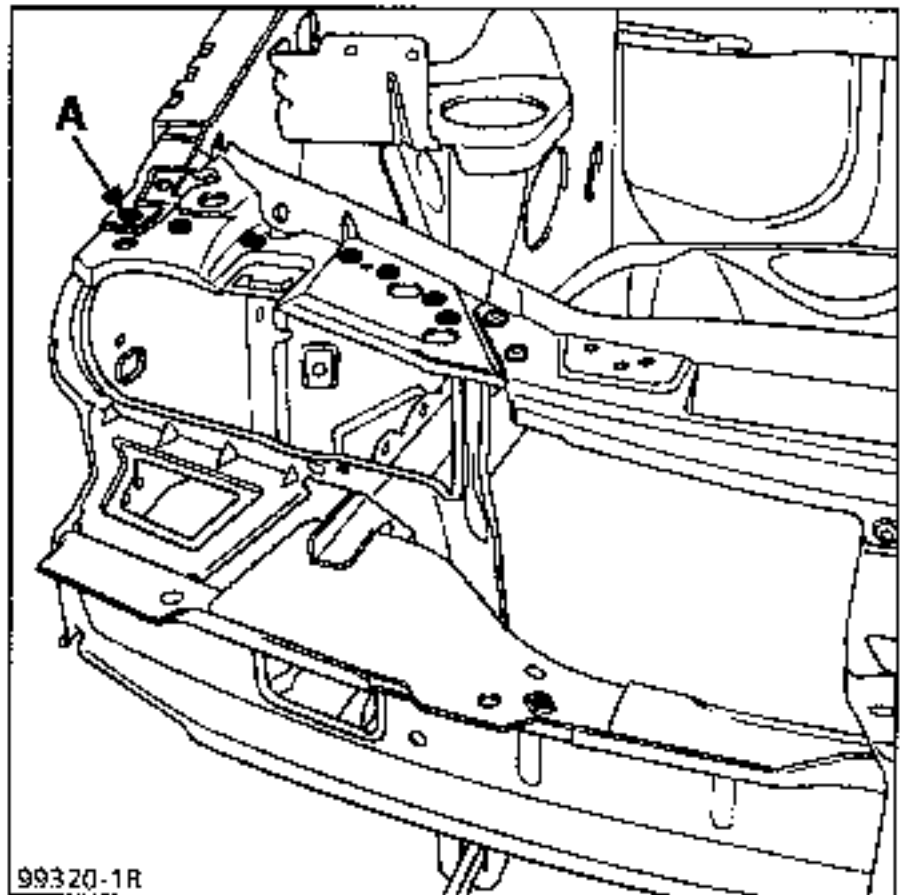
Upper side front cross member	1.5
Headlight carrier panel reinforcement	1

Unpicking



7 spot welds on thickness 1

Welding



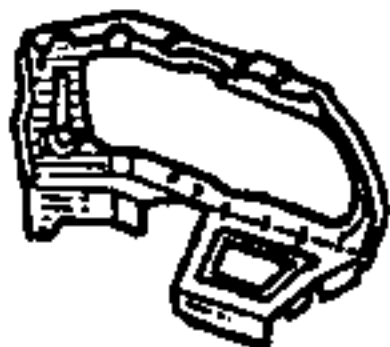
Note : at A, 1 weld on 3 thicknesses.

**INTRODUCTION**

The replacement of this part is a basic operation for a frontal collision.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



PRM42011-3

**1 JOINT WITH COWL SIDE PANEL**

**Thickness of panels concerned (mm)**

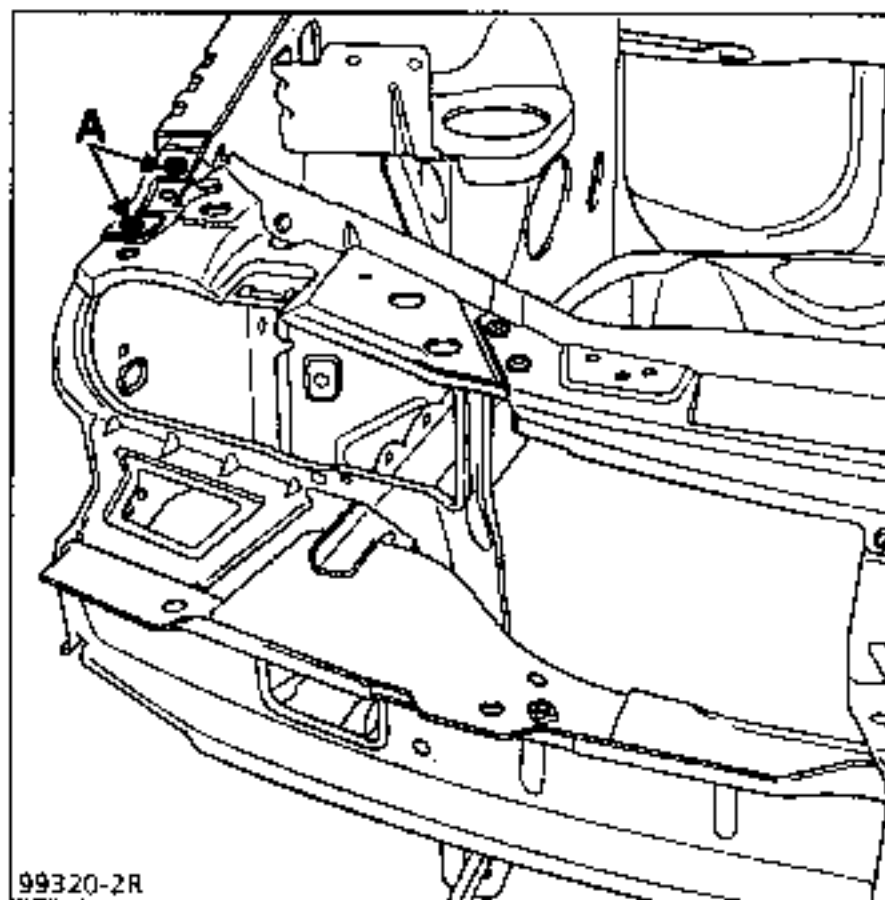
Headlight carrier panel	1
Cowl side panel	1.2

**Unpicking**



6 spot welds on thickness 1

**Welding**



99320-2R



**Note :** at A, 1 weld on 3 thicknesses.

**2** JOINT WITH UPPER SIDE FRONT CROSS MEMBER

Thickness of panels concerned (mm)

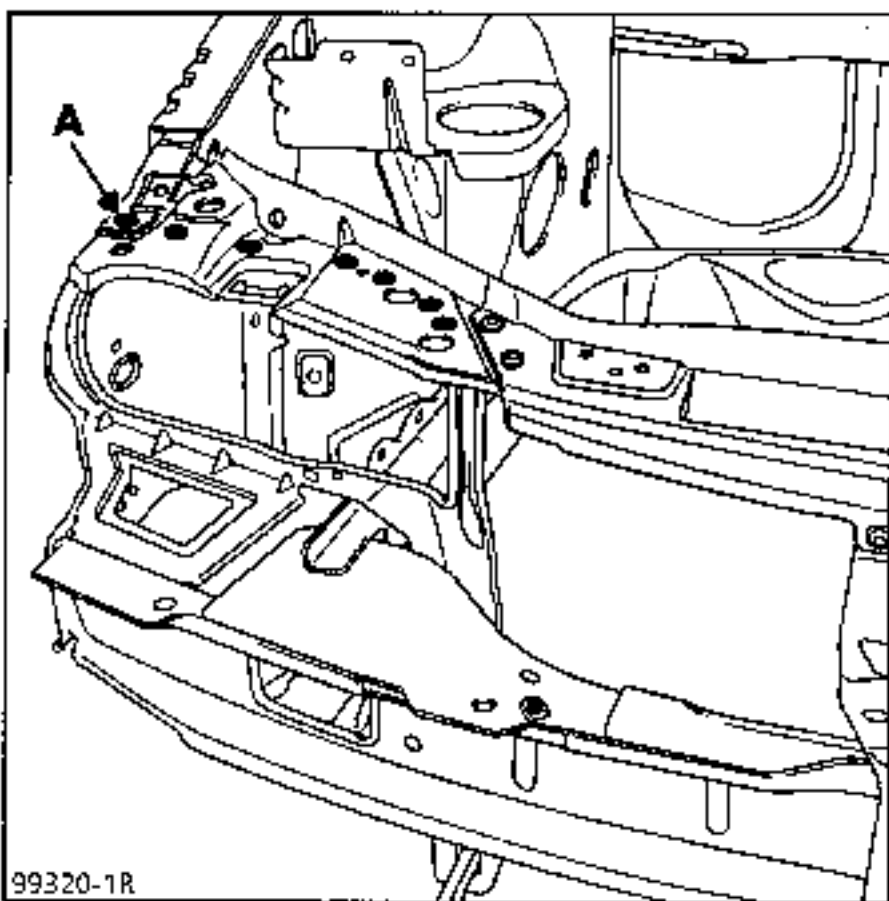
Headlight carrier panel reinforcement	1
Upper side front cross member	1.5

Unpicking



7 spot welds on thickness 1

Welding



99320-1R



Note : at A, 1 weld on 3 thicknesses.

**3** JOINT WITH FRONT END LOWER CROSS MEMBER

Thickness of panels concerned (mm)

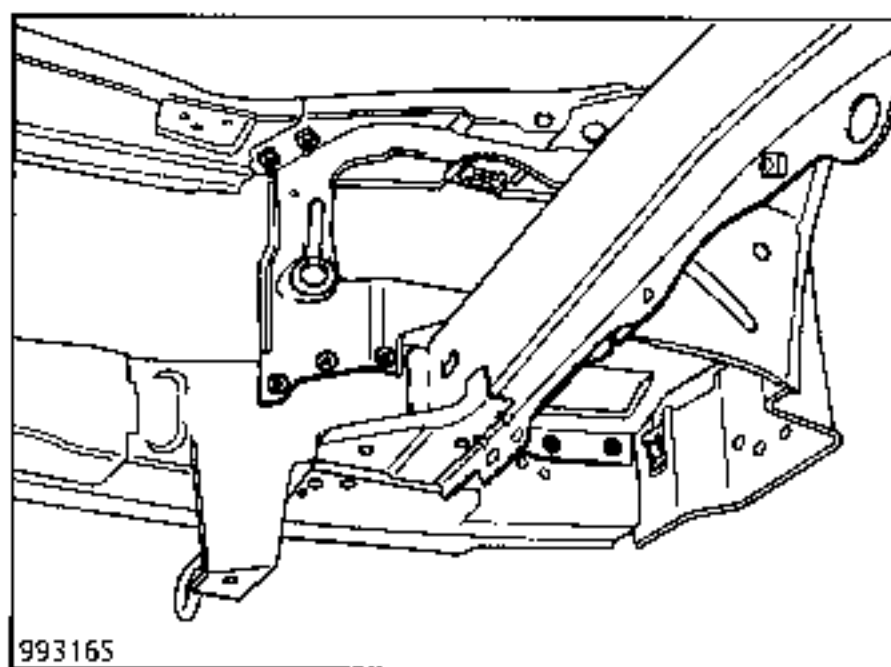
Headlight carrier panel reinforcement	1
Front end lower cross member	1

Unpicking

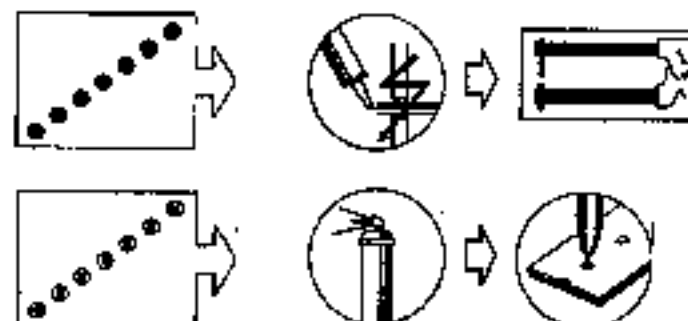


5 spot welds on thickness 1

Welding



993165



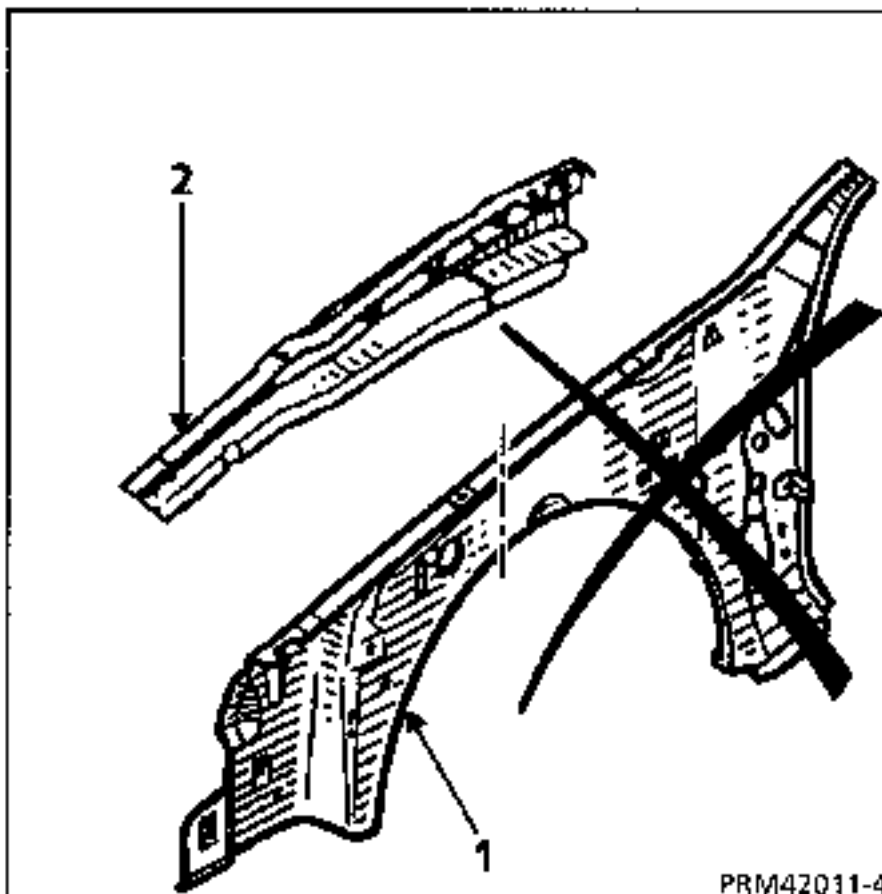
### INTRODUCTION

The design of the vehicle is such that the cowl side panel and the front pillar lining are a single part. When replacing one of these parts, the part provided by the Parts Department must therefore be cut.

The replacement of this part is a complementary operation to the replacement of the cowl side panel (pillar lining)

### COMPOSITION OF PART FROM PARTS DEPARTMENT

- 1) Cowl side panel (front pillar lining)
- 2) Upper cowl side panel reinforcement



**1** JOINT WITH COWL SIDE PANEL

Thickness of panels concerned (mm)

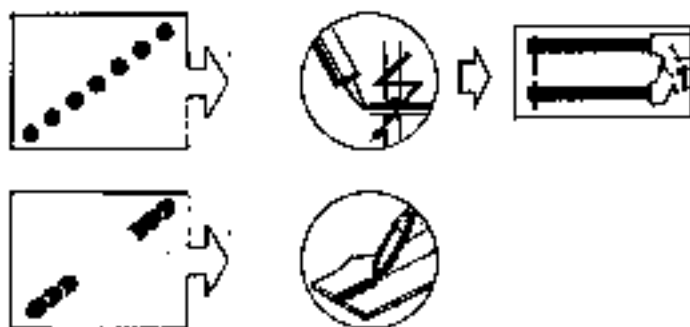
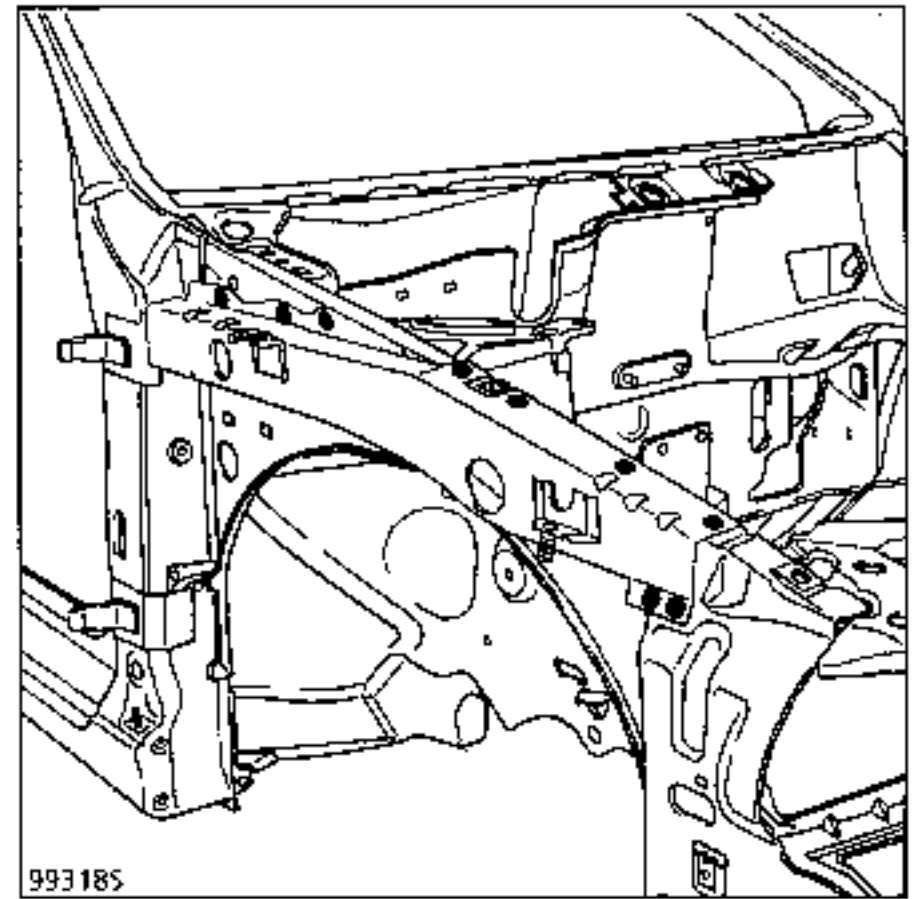
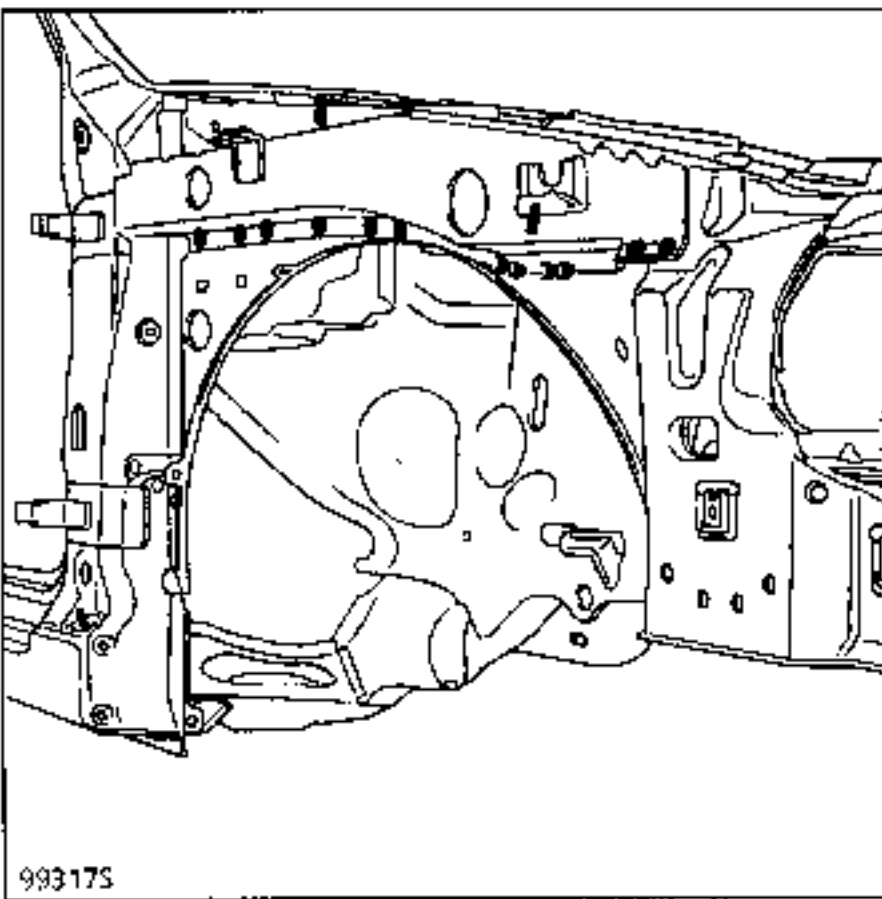
Upper cowl side panel reinforcement	1
Cowl side panel	1.2

Unpicking



15 spot welds on thickness 1 mm  
2 MAG fillets of 20 mm

Welding



**2** JOINT WITH FRONT PILLAR

**Thickness of panels concerned (mm)**

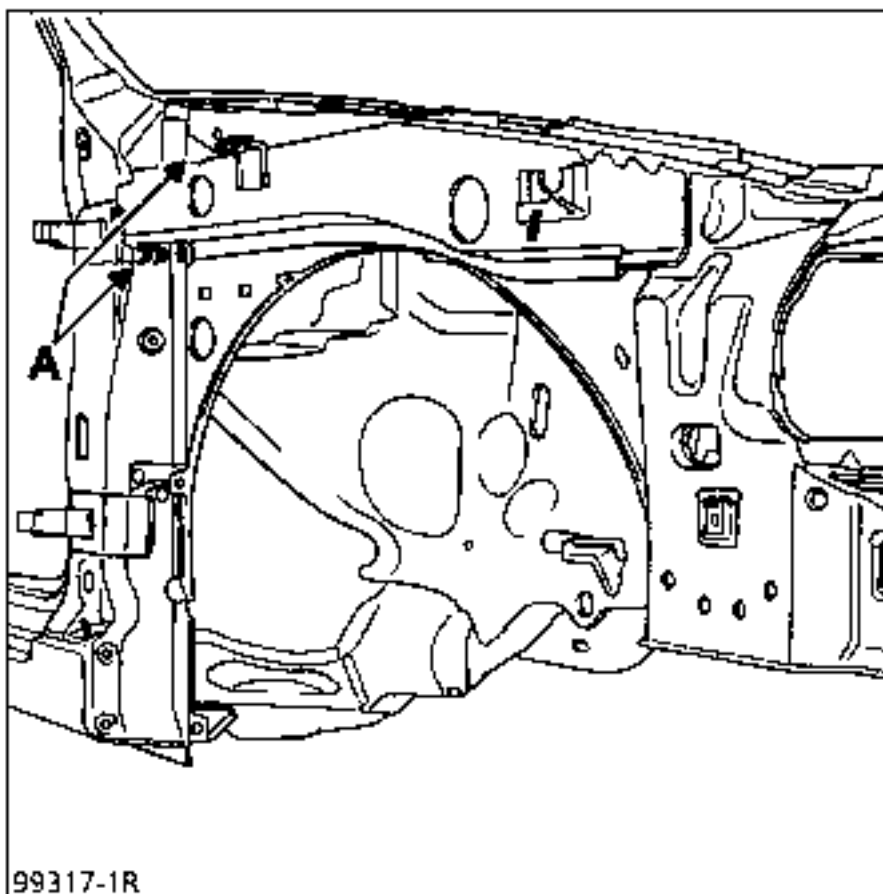
Upper cowl side panel reinforcement	1
Front pillar	0.8
Cowl side panel	1.2

**Unpicking**

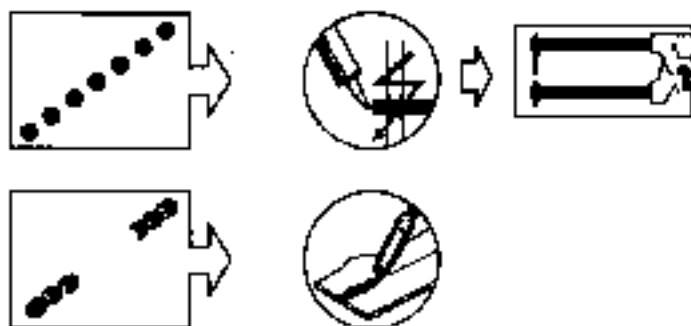


2 spot welds on thickness 1 mm  
3 MAG fillets of 20 mm

**Welding**



99317-1R



**Note :** at A, weld on 3 thicknesses.

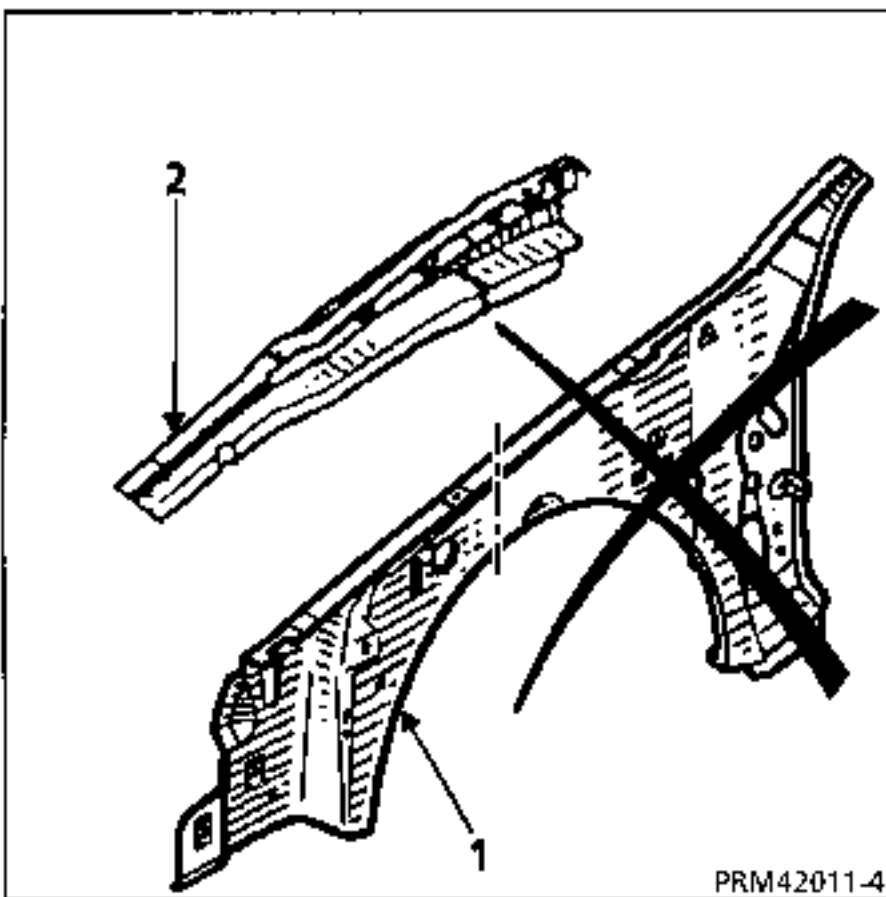
**INTRODUCTION**

The design of the vehicle is such that the cowl side panel and the front pillar lining are a single part. When replacing one of these parts, the part provided by the Parts Department must therefore be cut.

The replacement of this part is a basic operation for a frontal collision. On the right hand side, the upper cowl side panel reinforcement must also be replaced, which should be ordered separately.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

- 1 – Cowl side panel (front pillar lining)
- 2 – Upper cowl side panel reinforcement



**1 JOINT WITH FRONT END CROSS MEMBER**

**Thickness of panels concerned (mm)**

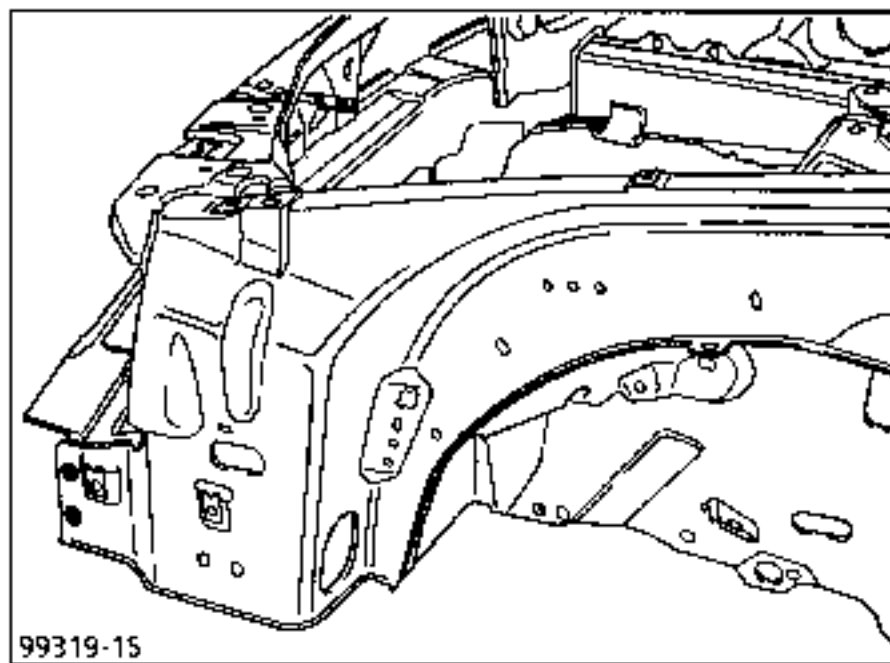
Cross member closure panel	1.2
Cowl side panel (pillar lining)	1.2

**Unpicking**



2 spot welds on thickness 1.2

**Welding**



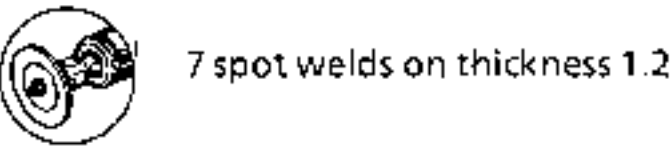


**2** JOINT WITH WHEEL ARCH

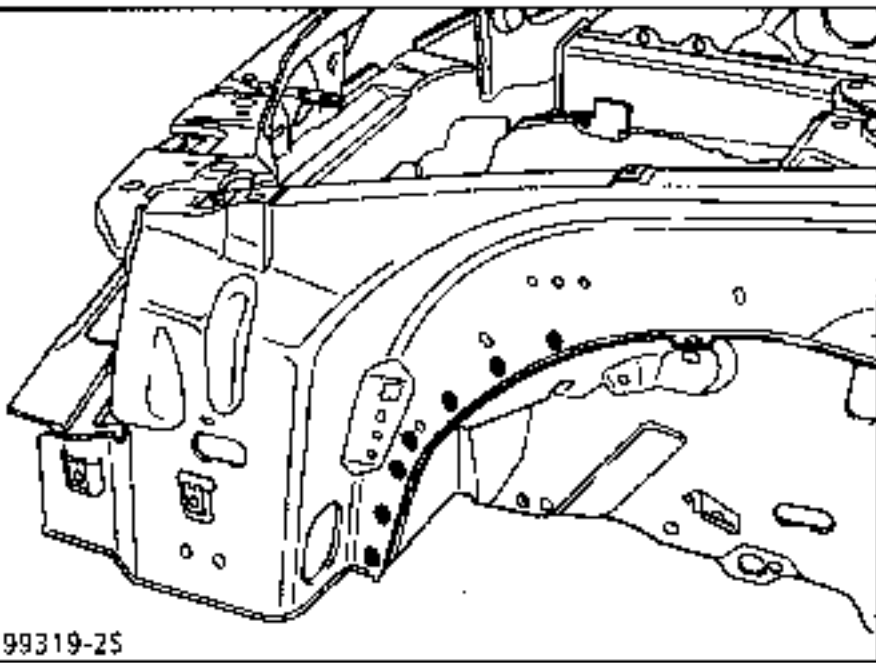
Thickness of panels concerned (mm)

Wheel arch	1.2
Cowl side panel (pillar lining)	1.2

Unpicking



Welding

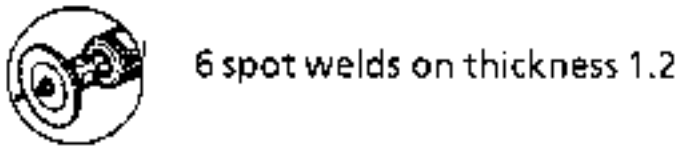


**3** JOINT WITH HEADLIGHT CARRIER PANEL

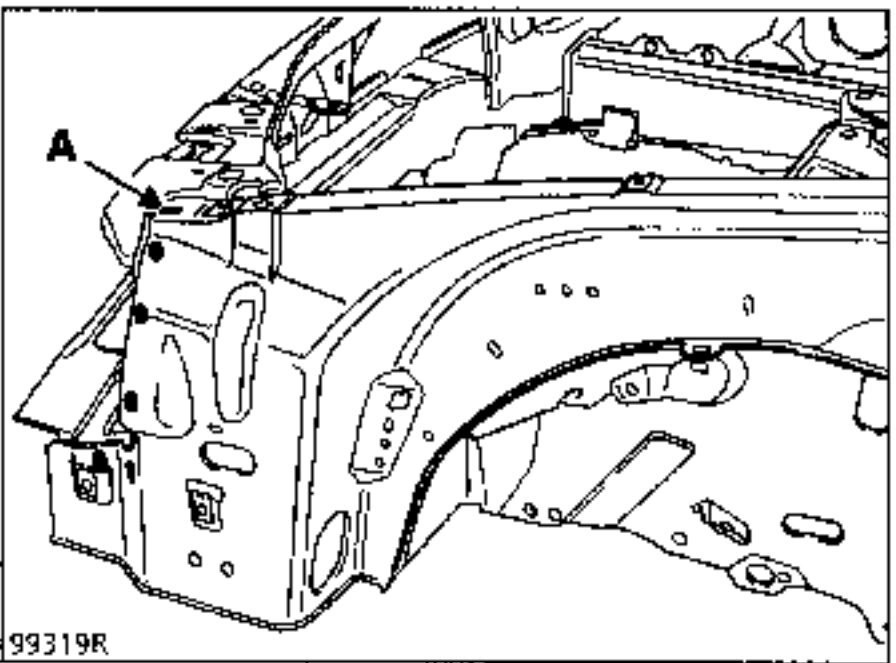
Thickness of panels concerned (mm)

Cowl side panel	1.2
Headlight carrier panel	1

Unpicking



Welding



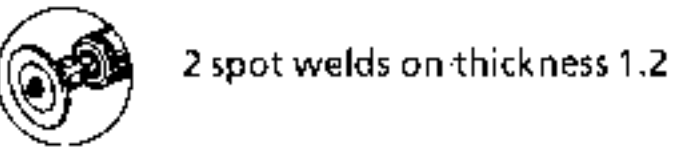
Note : at A, 1 weld on 3 thicknesses.

**4** JOINT WITH UPPER SIDE FRONT CROSS MEMBER

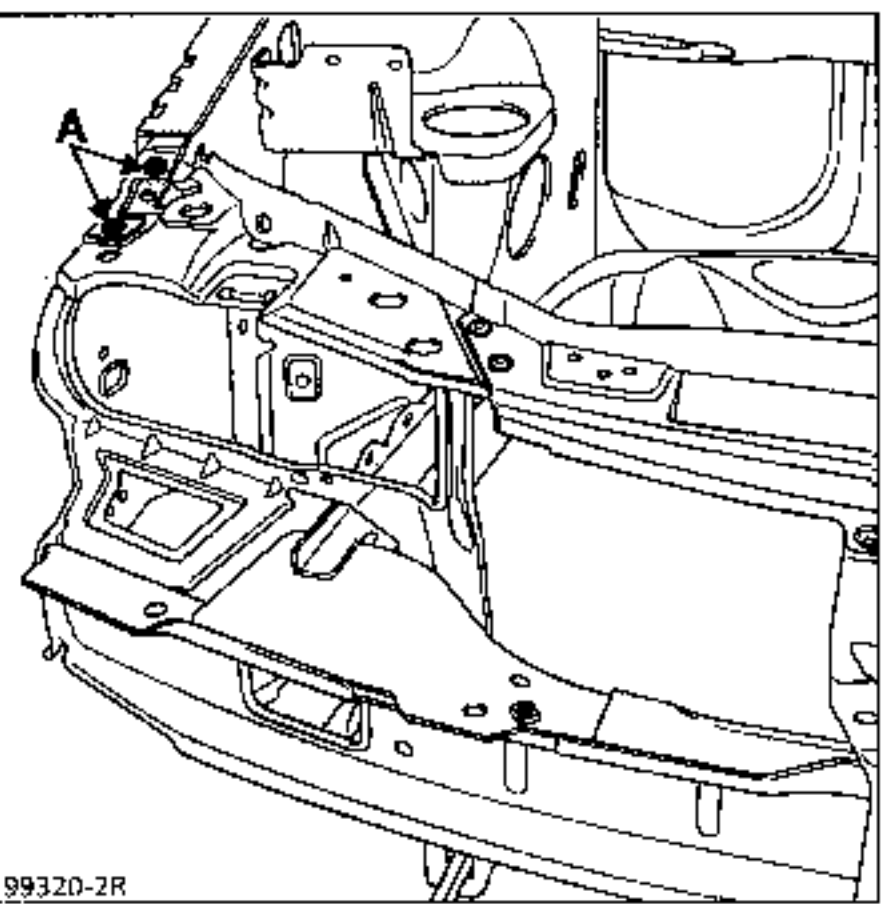
Thickness of panels concerned (mm)

Cowl side panel	1.2
Upper side front cross member	1.5

Unpicking



Welding



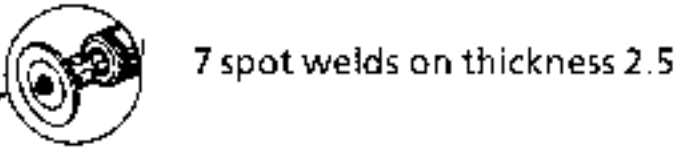
Note : welds on 3 thicknesses.

**5** JOINT WITH ENGINE MOUNTING  
(right hand side only)

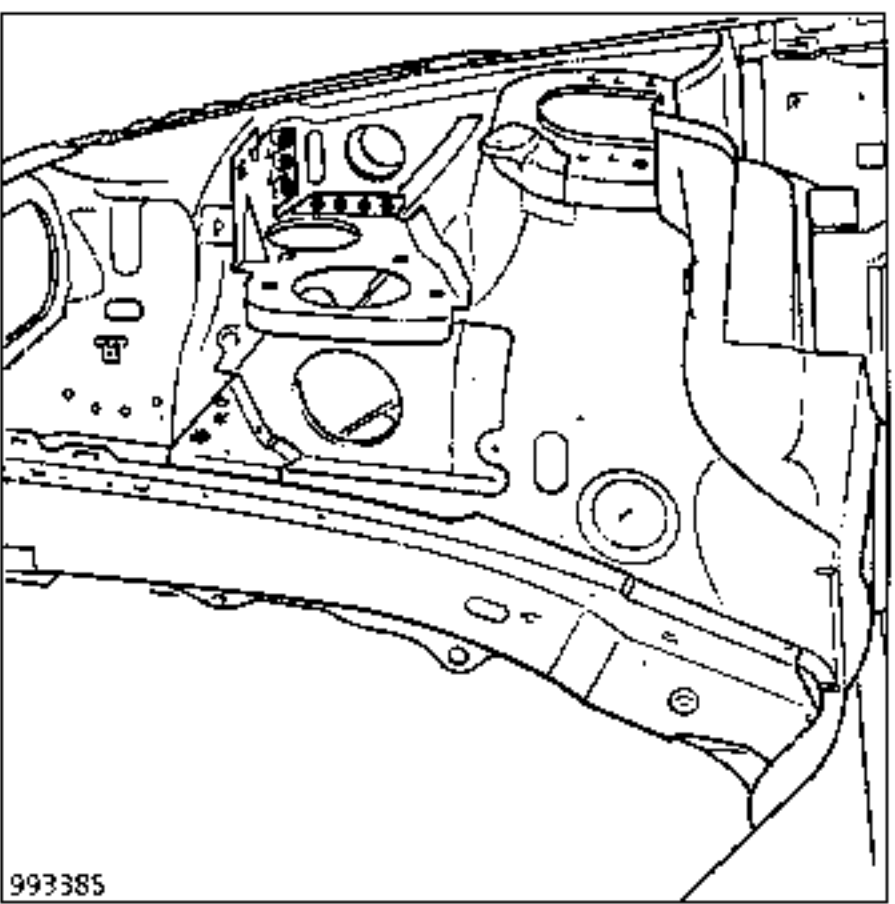
Thickness of panels concerned (mm)

Cowl side panel	1.2
Engine mounting	2.5

Unpicking



Welding



**6** JOINT WITH PART SECTION

**Thickness of panels concerned (mm)**

Cowl side panel 1.2

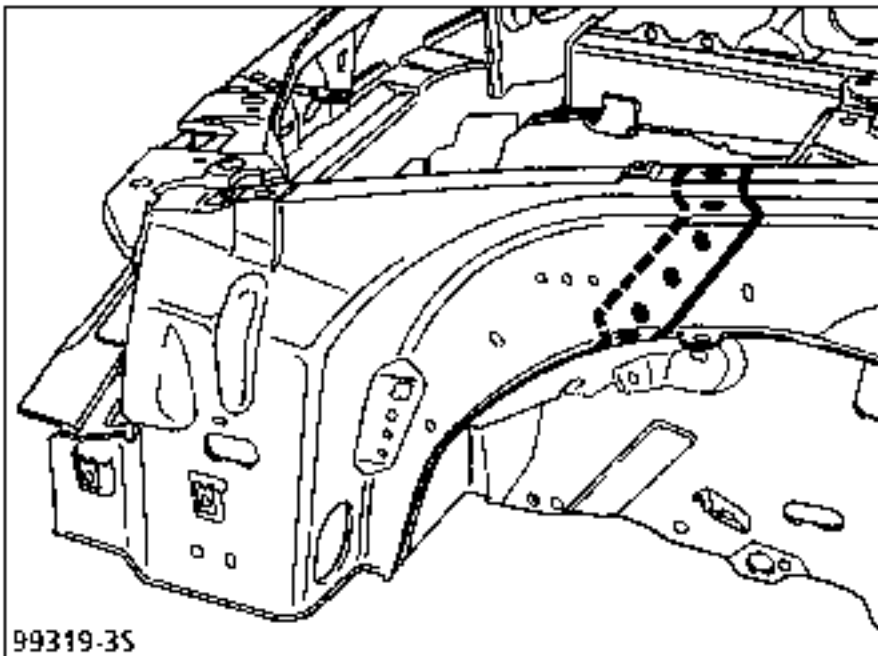
**Unpicking**



150 mm on thickness

1.2

**Welding**



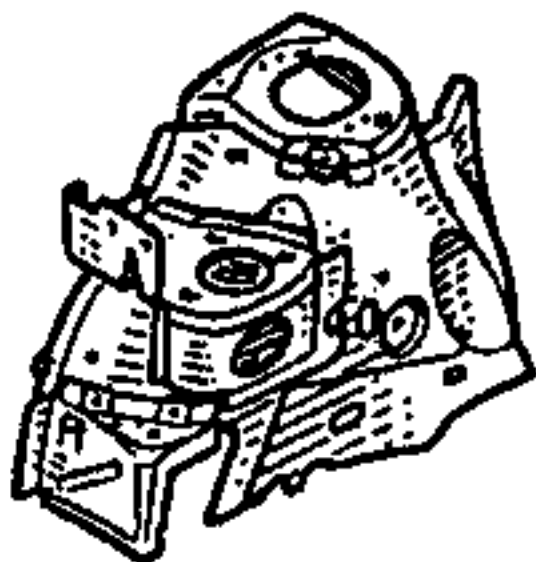
**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of the cowl side panel.

The operation must be carried out on the repair bench.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

- Part assembled with:
- shock absorber cup,
  - wheel arch extension.



PRM42011-5

**1 JOINT WITH FRONT SIDE MEMBER, FRONT SECTION ( left hand side )**

**Thickness of panels concerned (mm)**

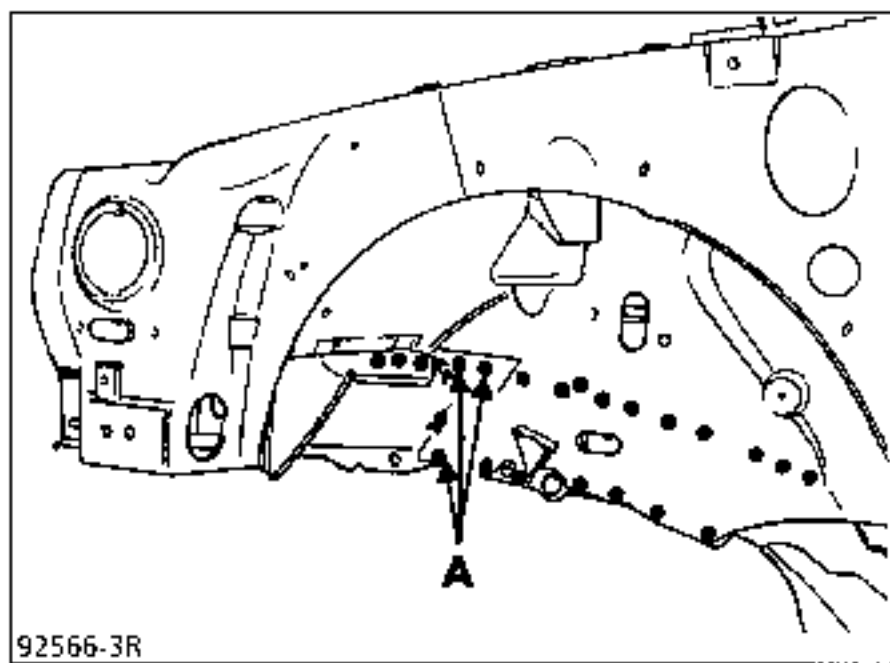
Front wheel arch	1
Front side member closure panel	1
Front side member, front section	1.5

**Unpicking**

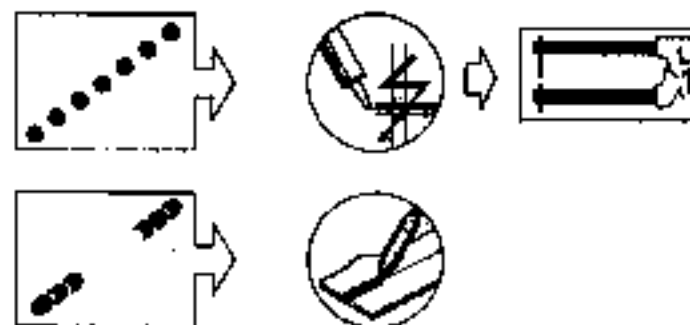


19 spot welds on thickness 1  
2 MAG fillets of 20 mm

**Welding**



92566-3R



**Note :** at A, welds on 3 thicknesses.

**2** JOINT WITH FRONT SIDE MEMBER, REAR SECTION

Thickness of panels concerned (mm)

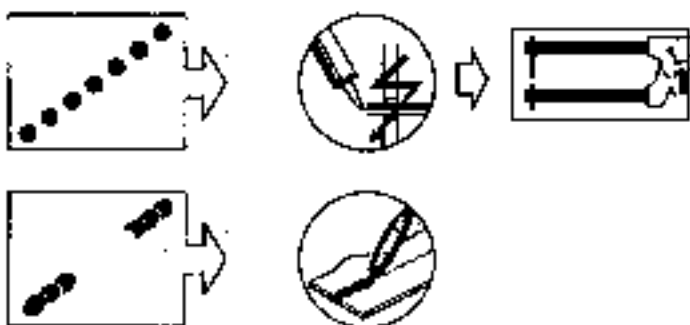
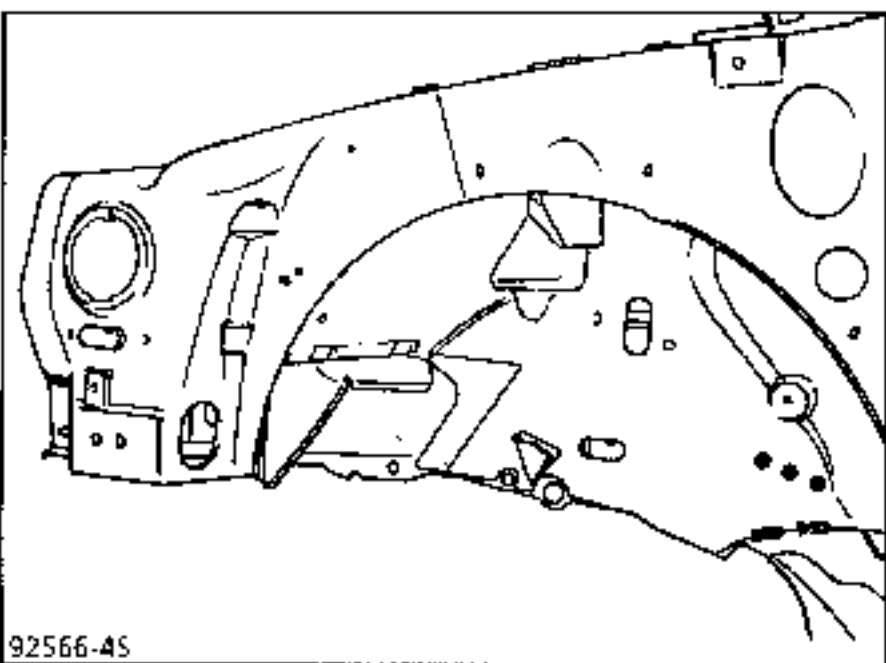
Front wheel arch	1
Front side member, rear section	2.5
Front side member, front section	1.5

Unpicking



3 spot welds on thickness 1  
2 MAG fillets of 20 mm

Welding



Note : welds on 3 thicknesses.

**3** JOINT WITH FRONT SIDE MEMBER, FRONT SECTION (right hand side)

Thickness of panels concerned (mm)

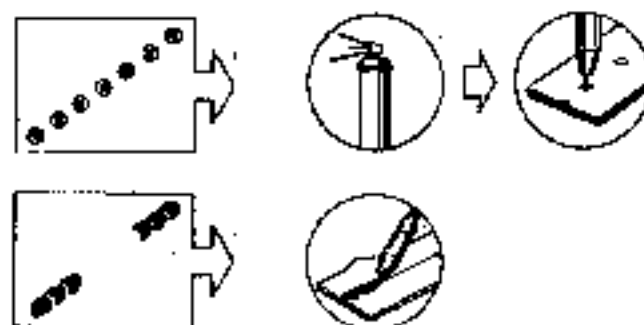
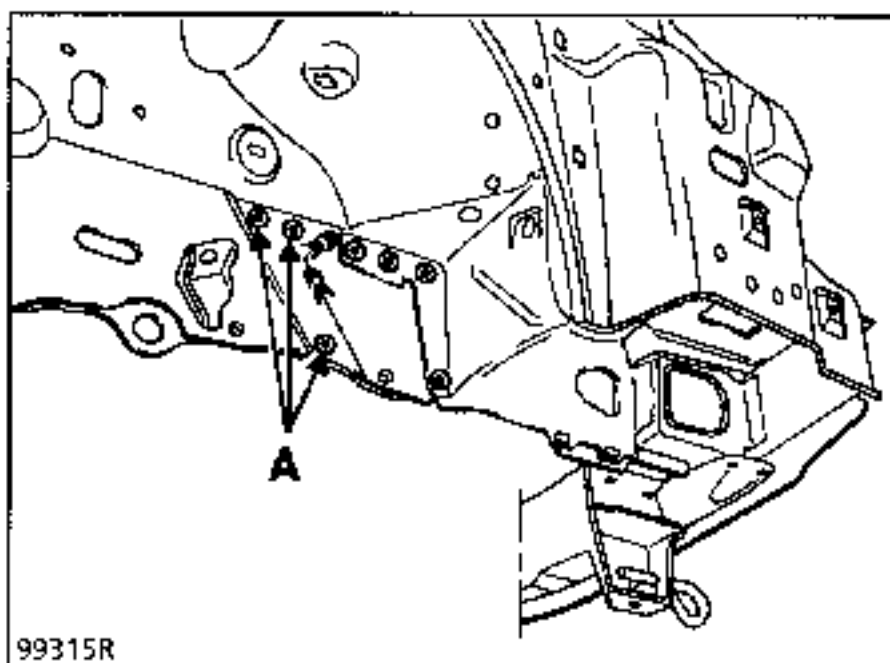
Front wheel arch	1
Front side member closure panel, front section	1
Front side member, front section	1.5

Unpicking



7 spot welds on thickness 1  
2 MAG fillets of 20 mm

Welding



Note : at A, welds on 3 thicknesses.

**4** JOINT WITH BULKHEAD

Thickness of panels concerned (mm)

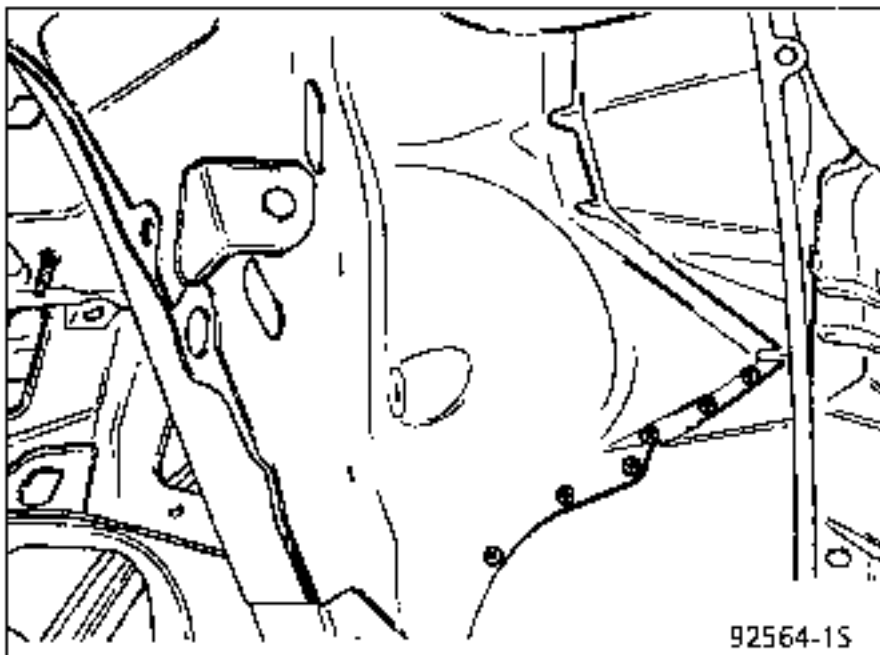
Wheel arch	1
Bulkhead	0.7

Unpicking



6 spot welds on thickness 1

Welding



**5** JOINT WITH PLENUM CHAMBER

**Thickness of panels concerned (mm)**

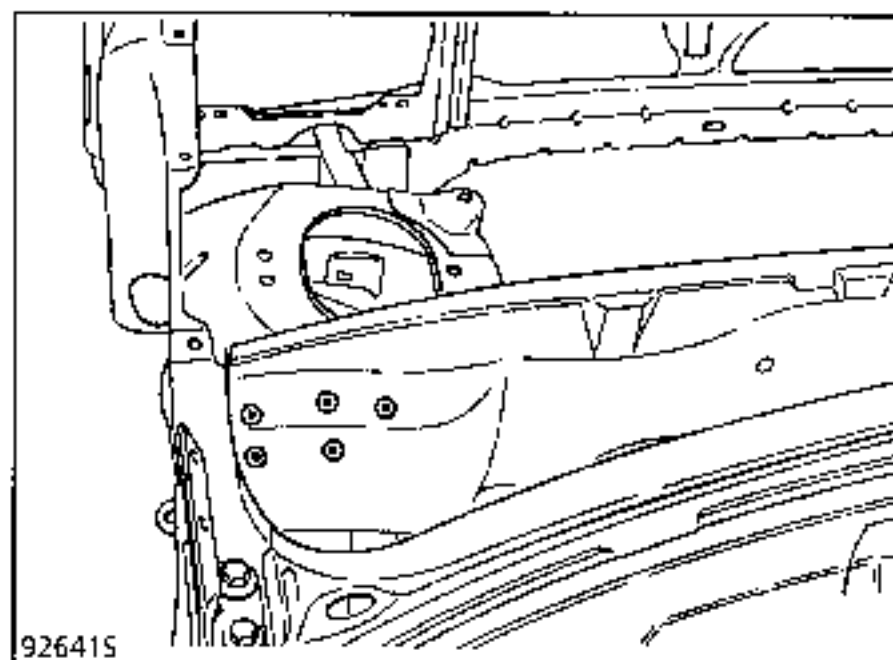
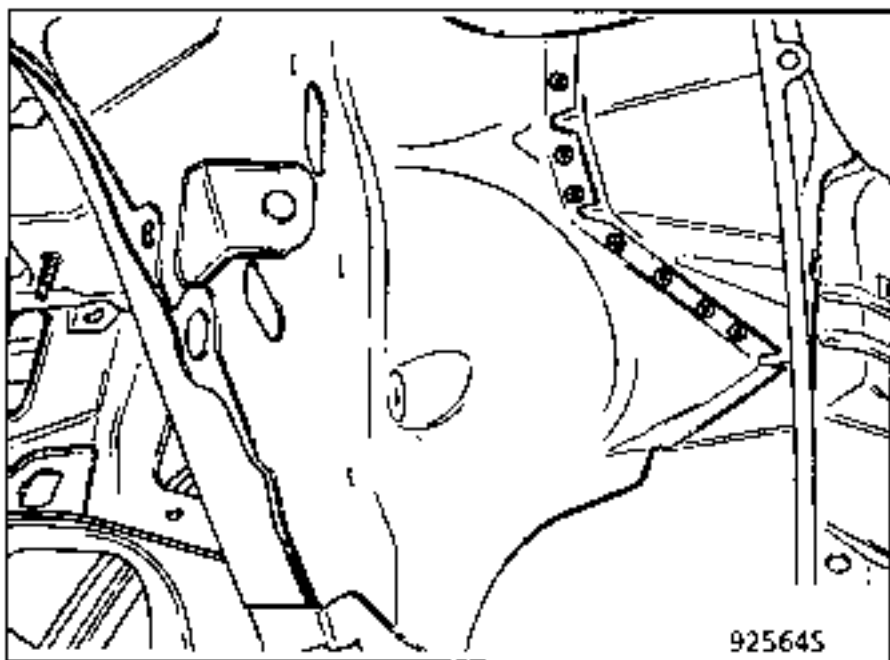
Wheel arch	1
Plenum chamber	0.7
Shock absorber cup	2.5

**Unpicking**



5 spot welds on thickness 2.5  
7 spot welds on thickness 1

**Welding**



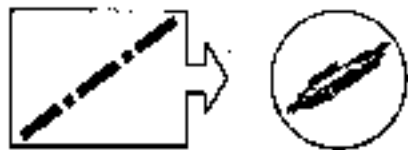
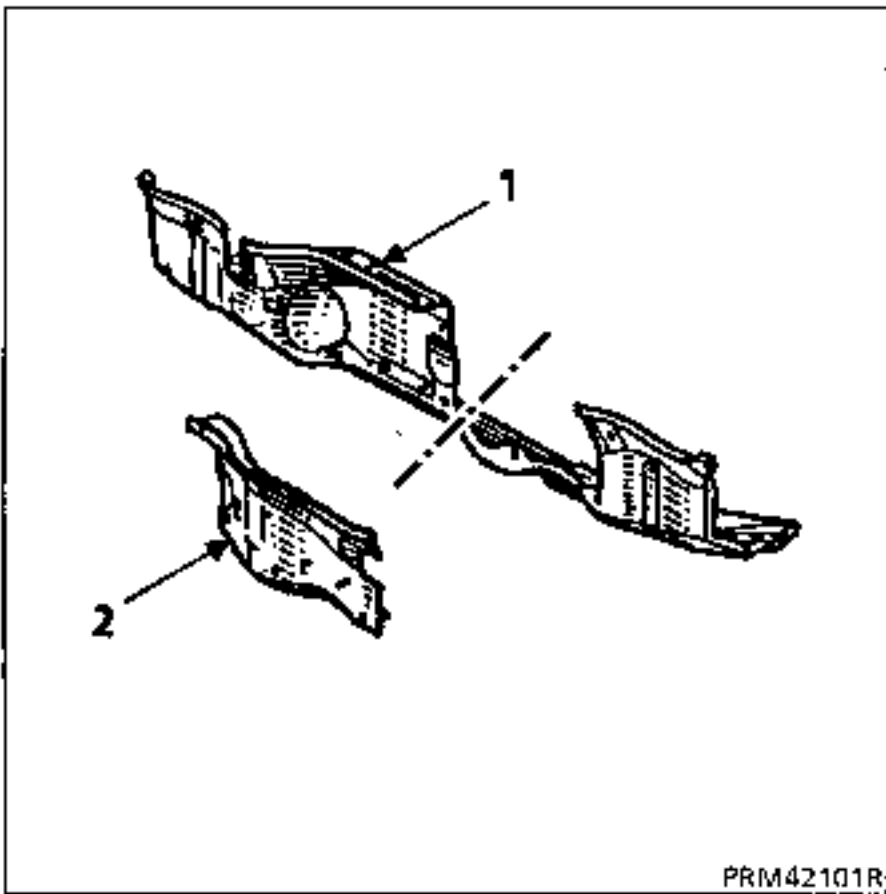
**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of the cowl side panel and wheel arch.

The Parts Department only supplies plenum chambers with the "air conditioning" type closure panel. Consequently, the closure panel must be ordered separately.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

- 1 - Plenum chamber,
- 2 - Plenum chamber closure panel.



**1 JOINT WITH BULKHEAD**

**Thickness of panels concerned (mm)**

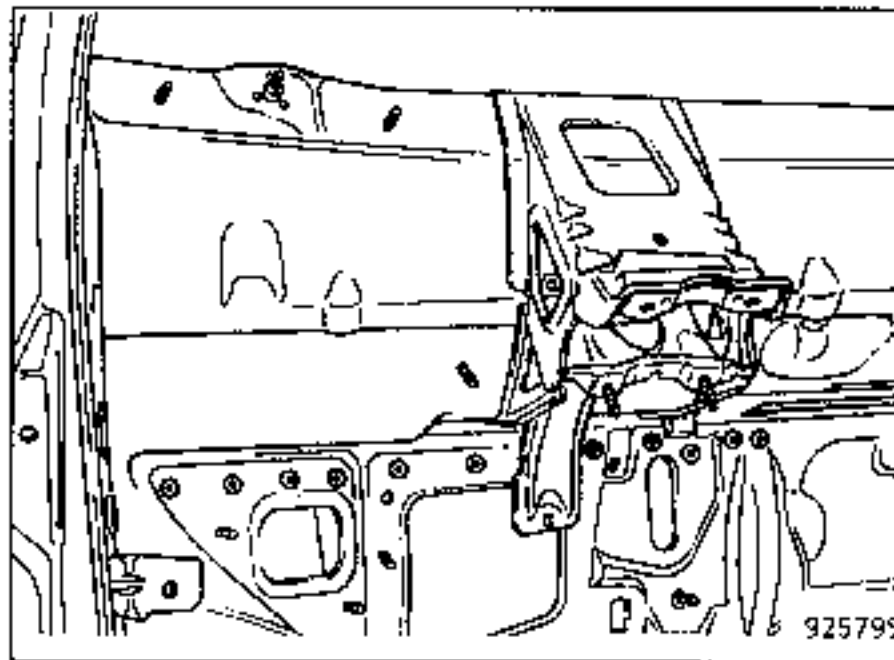
Plenum chamber	0.7
Bulkhead	0.7

**Unpicking**



12 spot welds on thickness 0.7 per half chamber (24 for complete plenum chamber)

**Welding**





**2** JOINT WITH PART SECTION

Thickness of panels concerned (mm)

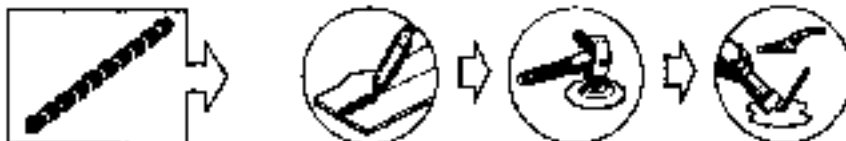
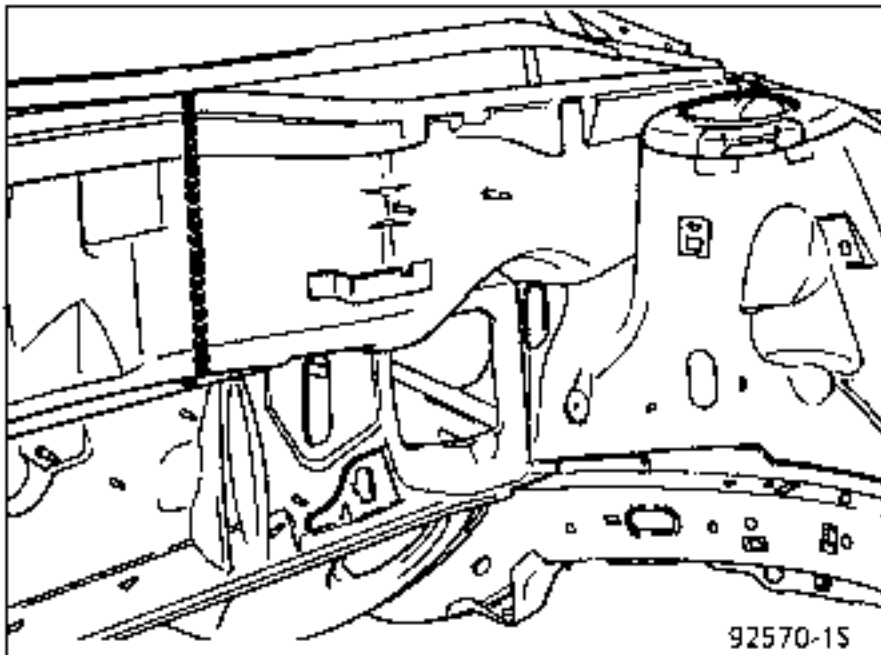
Plenum chamber 0.7

Unpicking



350 mm on thickness 0.7

Welding



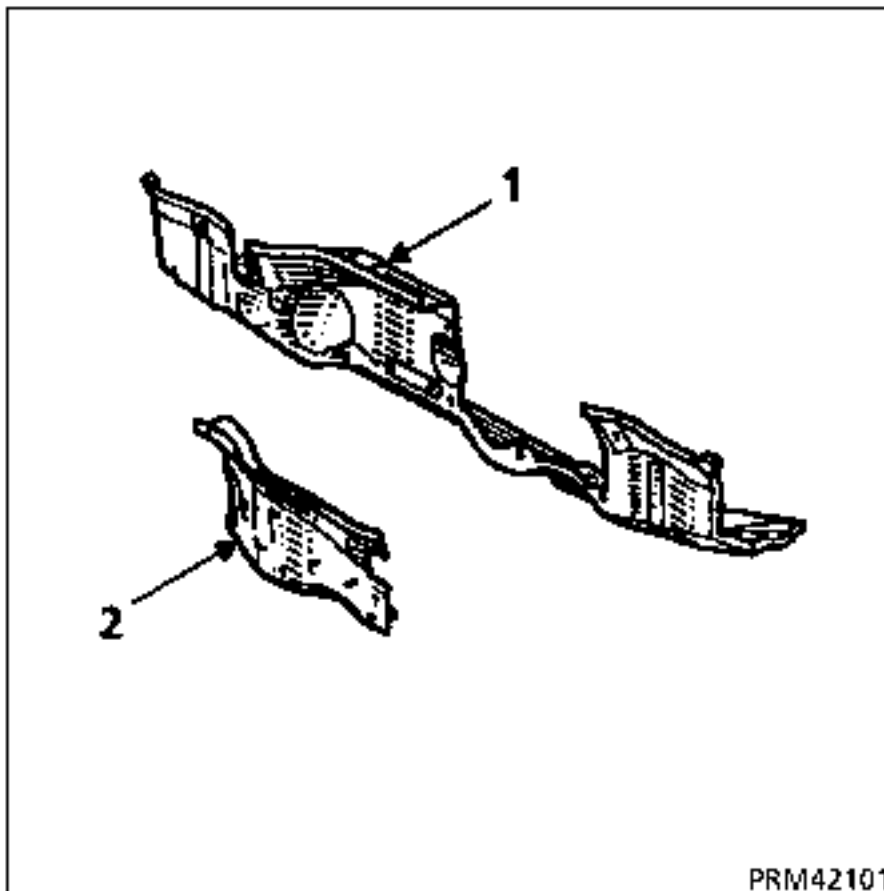
## INTRODUCTION

The replacement of this part is a complementary operation to the replacement of the plenum chamber.

It is fitted as original equipment to vehicles with air conditioning and should be ordered separately for all types when replacing the plenum chamber.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

- 1 - Plenum chamber,
- 2 - Plenum chamber closure panel.



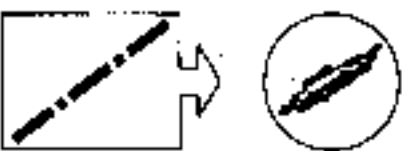
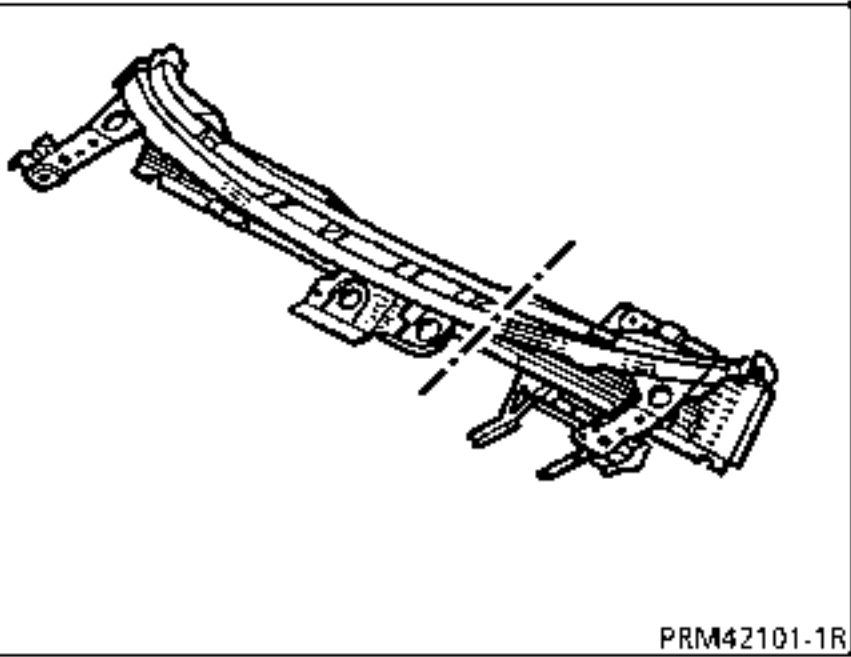
PRM42101

**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of the cowl side panel with wheel arch or a front pillar with lining.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Part assembled with mountings for the bonnet stay and steering column mounting.



**1 JOINT WITH BULKHEAD**

**Thickness of panels concerned (mm)**

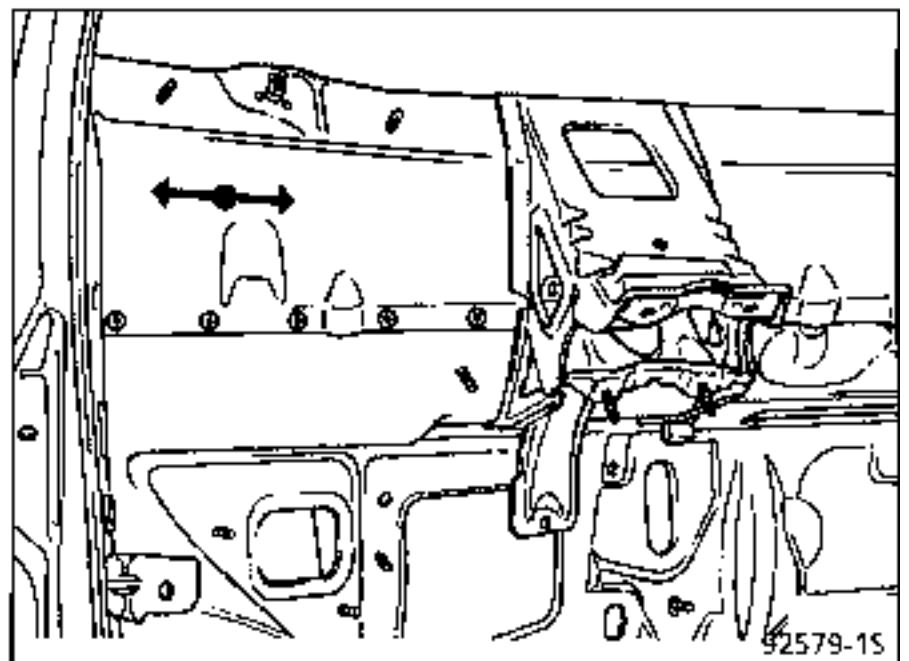
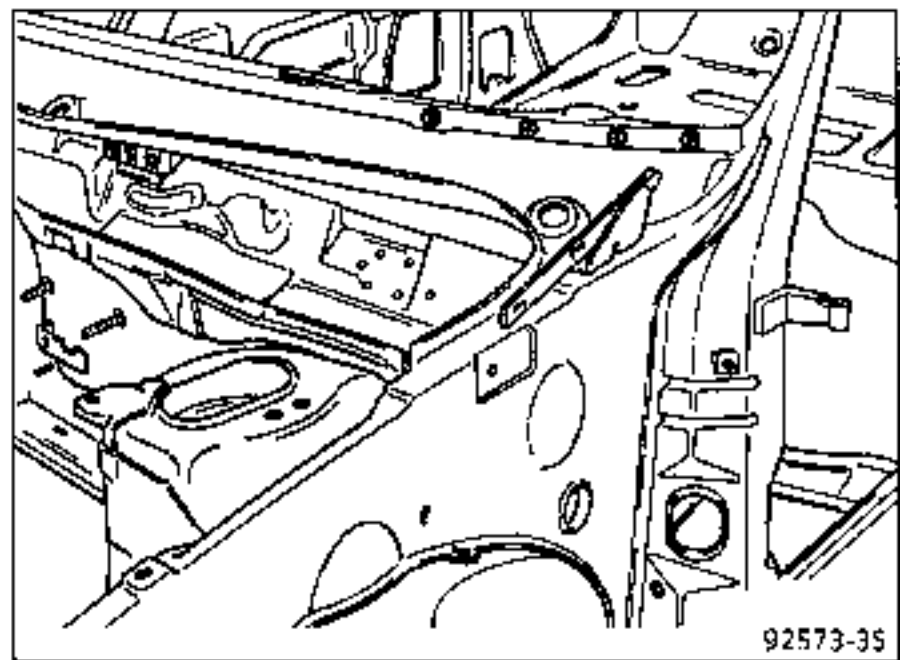
Windscreen aperture lower cross member	1.2
Bulkhead	0.7

**Unpicking**



10 spot welds on thickness 1.2

**Welding**



**2** JOINT WITH PART SECTION

Thickness of panels concerned (mm)

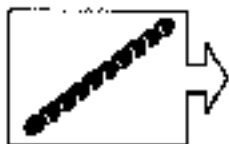
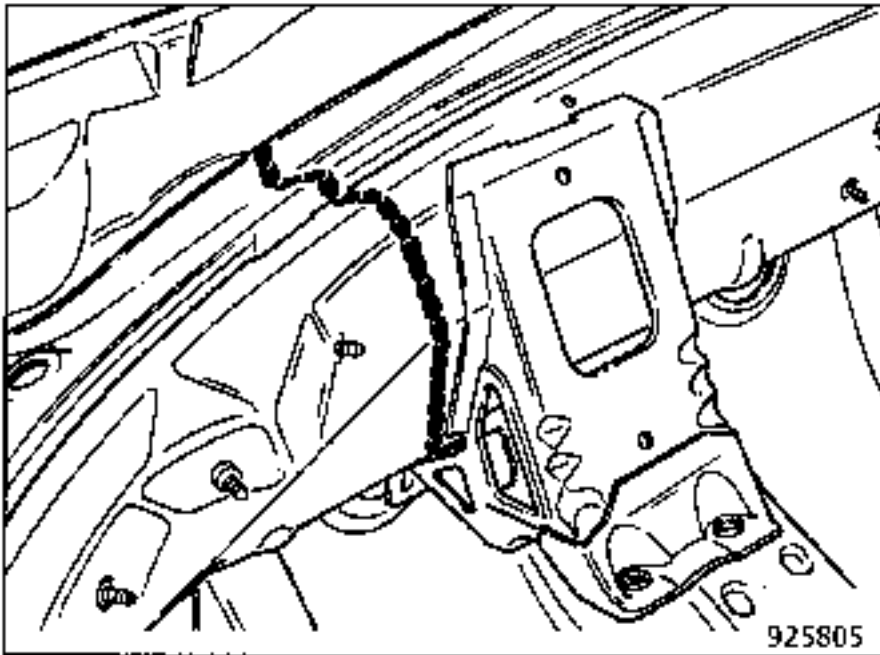
Windscreen aperture lower cross member 1.2

Unpicking



350 mm on thickness 0.7

Welding

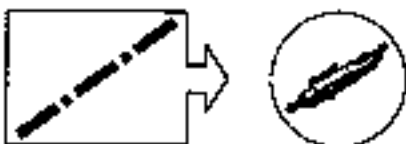
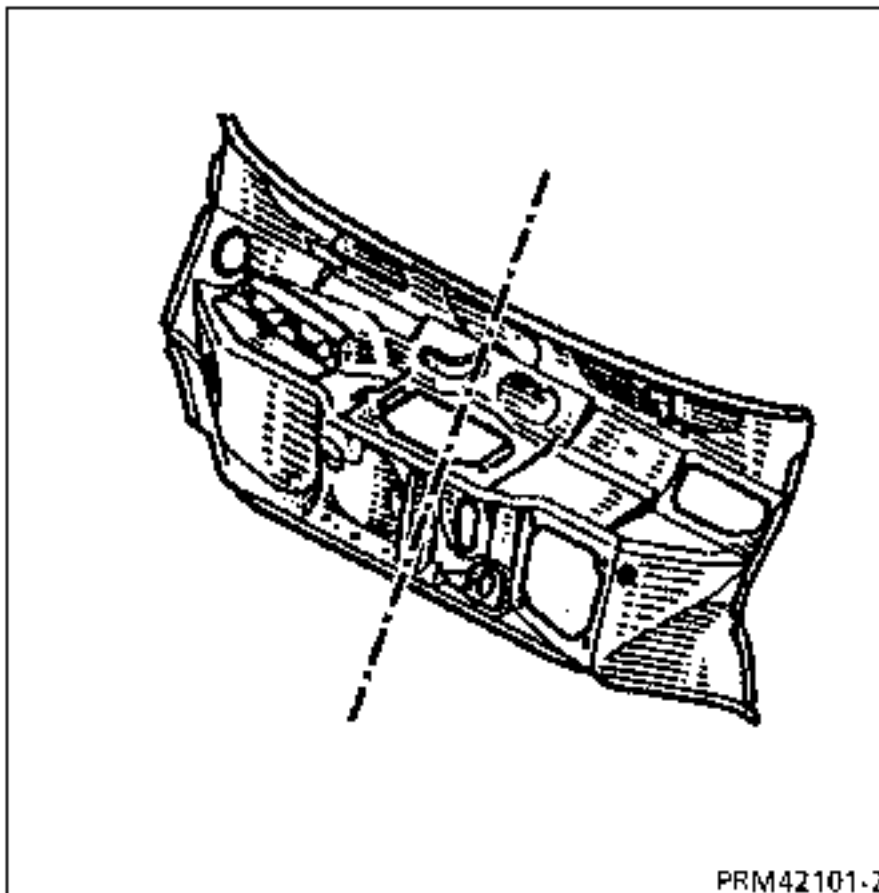


## INTRODUCTION

The replacement of this part is a complementary operation to the replacement of the cowl side panel with wheel arch or a front pillar with lining and a windscreen aperture lower cross member.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Single part.

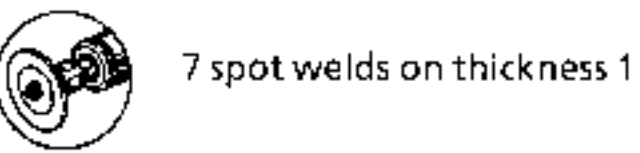


**1** JOINT WITH CENTRE FLOOR

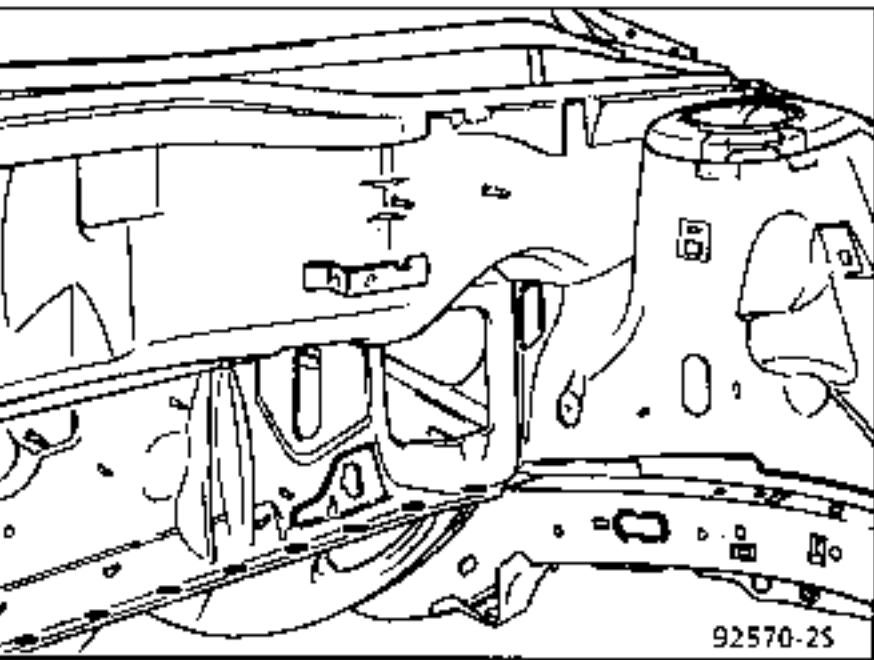
Thickness of panels concerned (mm)

Centre floor	1
Bulkhead	0,7

Unpicking



Welding

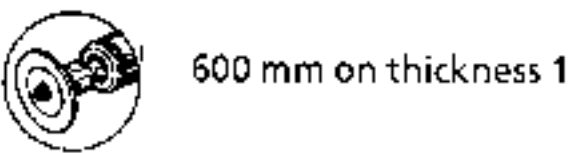


**2** JOINT WITH PART SECTION

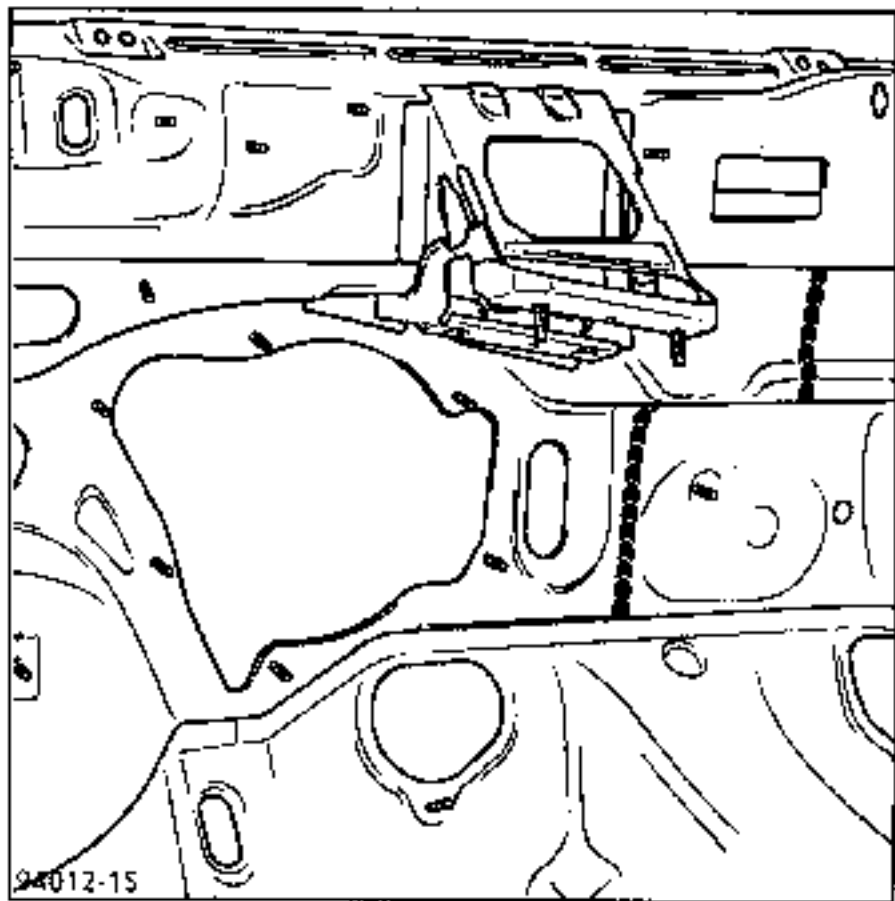
Thickness of panels concerned (mm)

Windscreen aperture lower cross member	1.2
--	-----

Unpicking



Welding

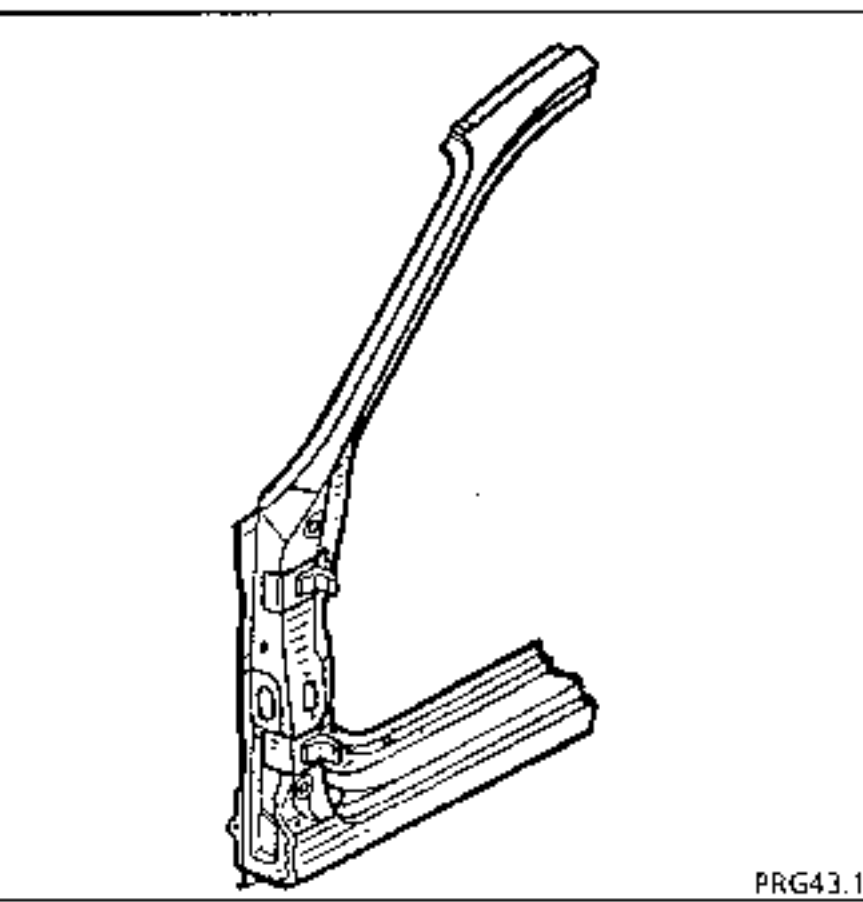


**INTRODUCTION**

The replacement of this part is a basic operation for a front side impact.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

- Part assembled with:
- reinforcements,
  - welded hinge knuckles,
  - lower blanking cover.



**1 JOINT WITH WINDSCREEN PILLAR LINING**

Thickness of panels concerned (mm)

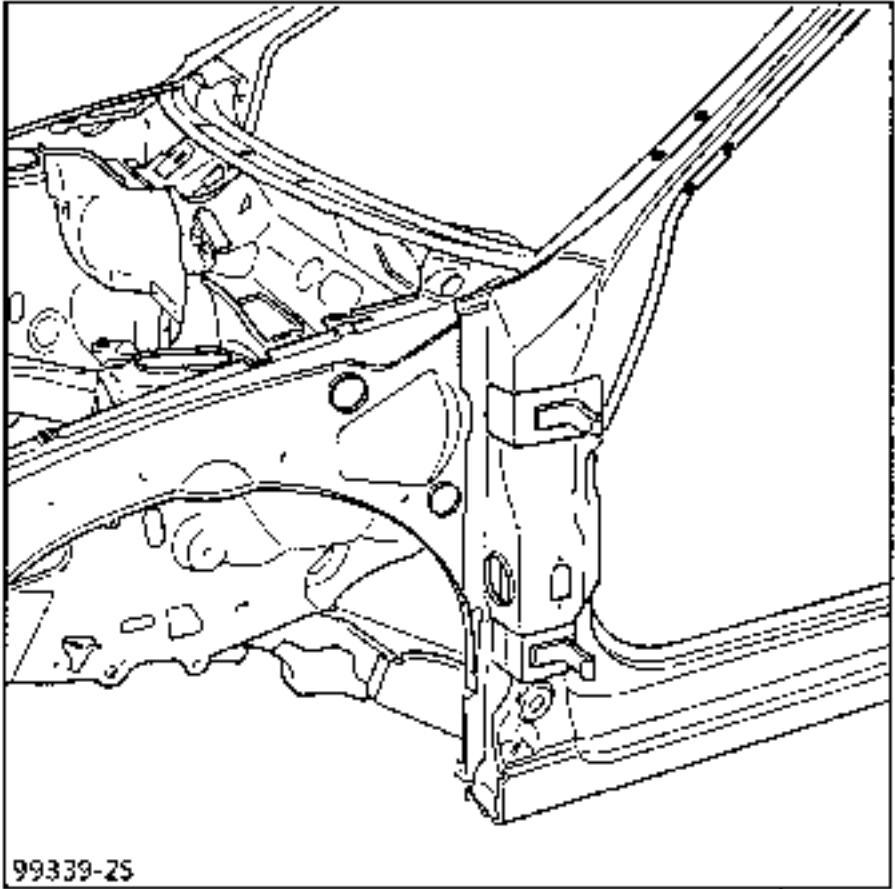
Front pillar	0.8
Windscreen pillar lining	1.5

**Unpicking**



4 spot welds on thickness 0.8 mm

**Welding**



99339-25



**2** JOINT WITH PILLAR LINING (COWL SIDE PANEL)

Thickness of panels concerned (mm)

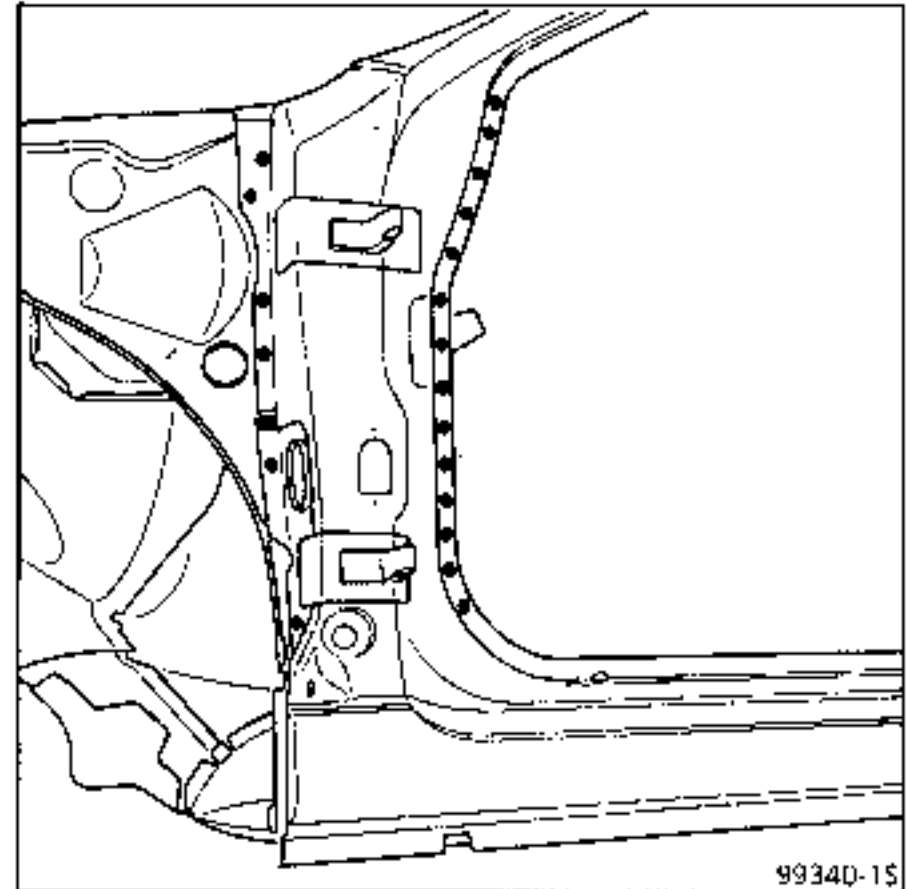
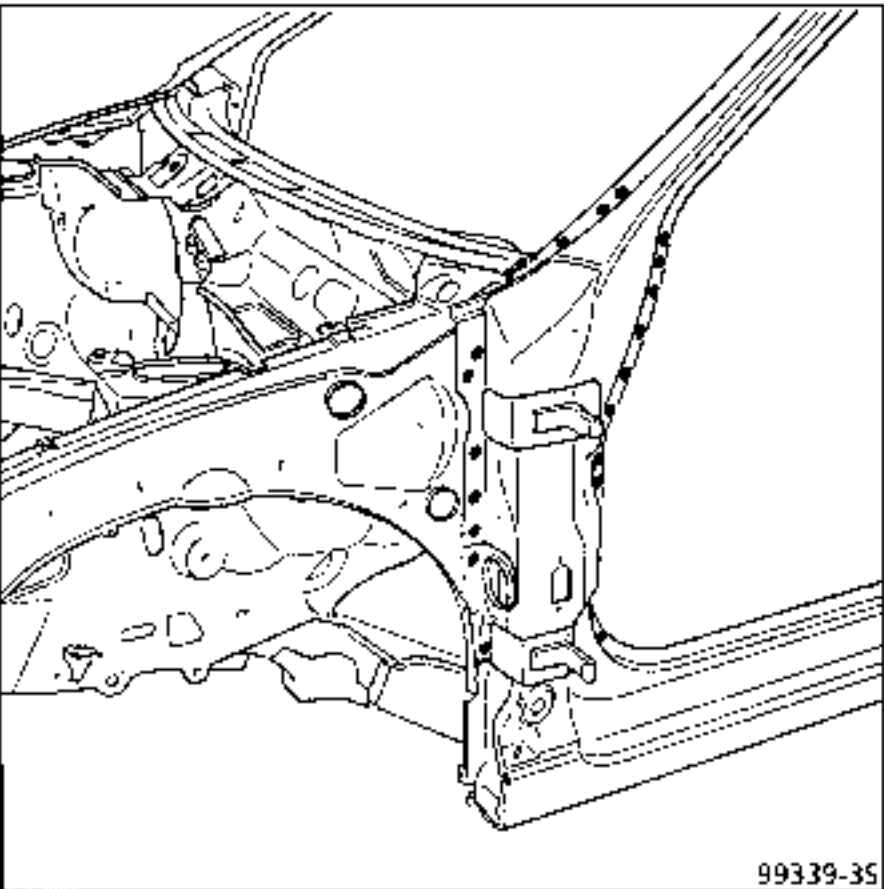
Front pillar	0.8
Pillar lining (cowl side panel)	1.2
Pillar reinforcement	1.2

Unpicking



24 spot welds on thickness 0.8 mm  
2 MAG fillets of 20 mm

Welding



NOTE : all welds are on 3 thicknesses.



**3** JOINT WITH INNER SILL PANEL

Thickness of panels concerned (mm)

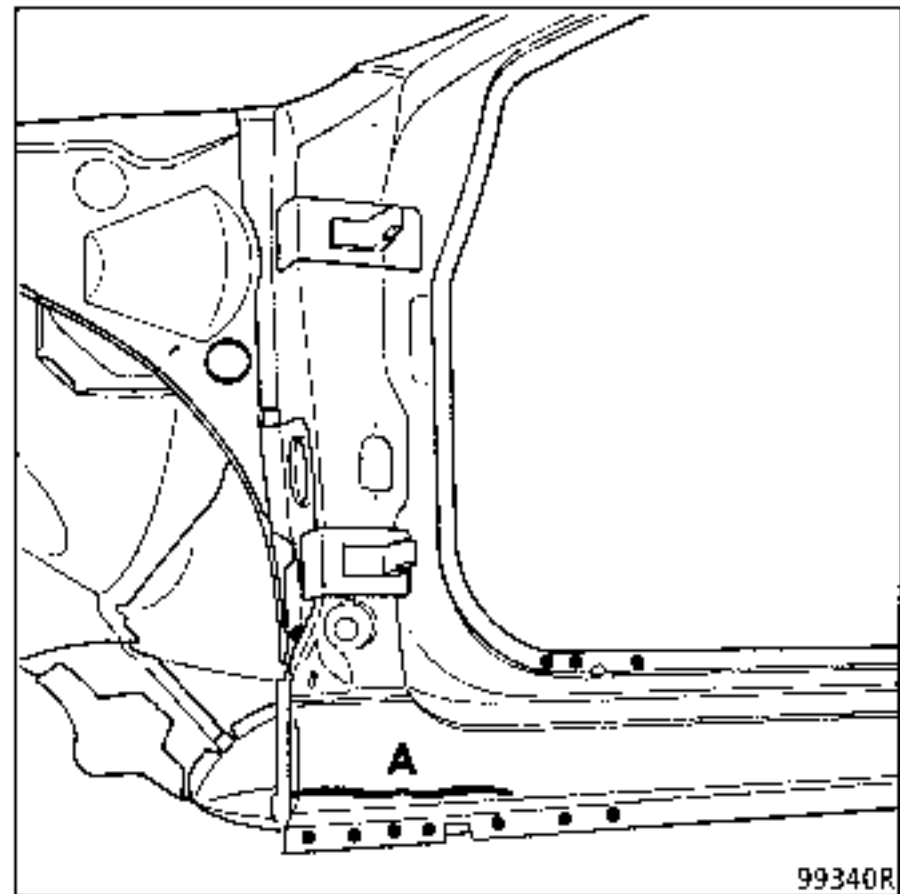
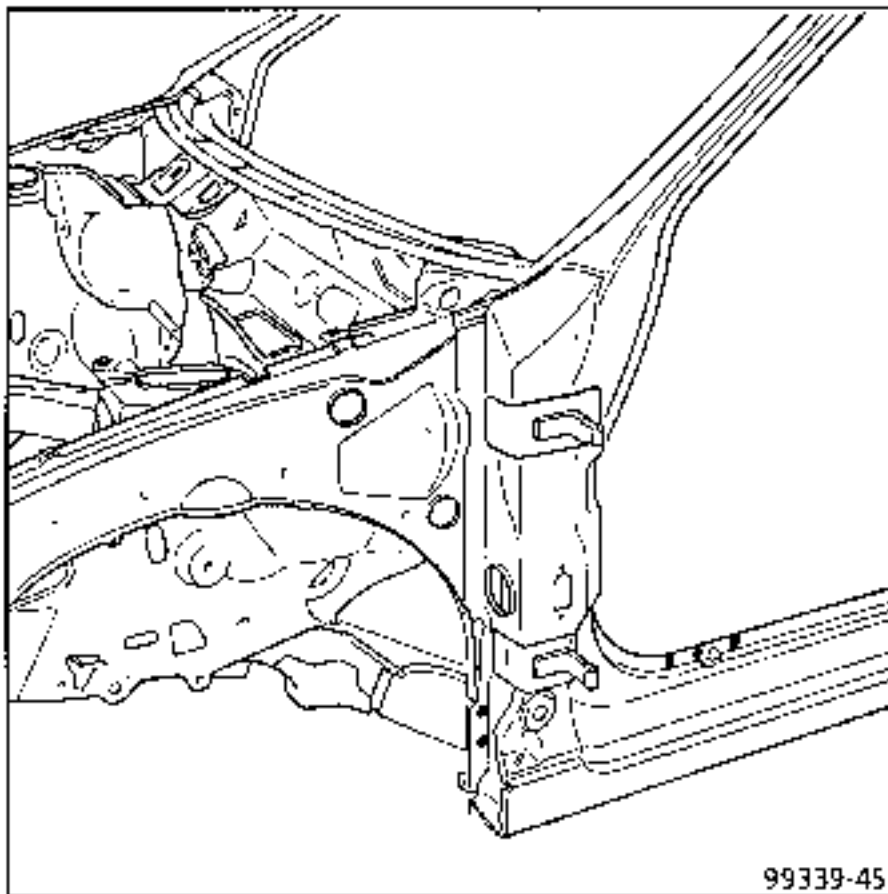
Front pillar	0.8
Inner sill panel	1.2
Pillar reinforcement	1.2
Jacking point	2

Unpicking



12 spot welds on thickness 0.8 mm

Welding



NOTE : at A, welds are on 3 thicknesses.

**4** JOINT WITH PART SECTIONS

Thickness of panels concerned (mm)

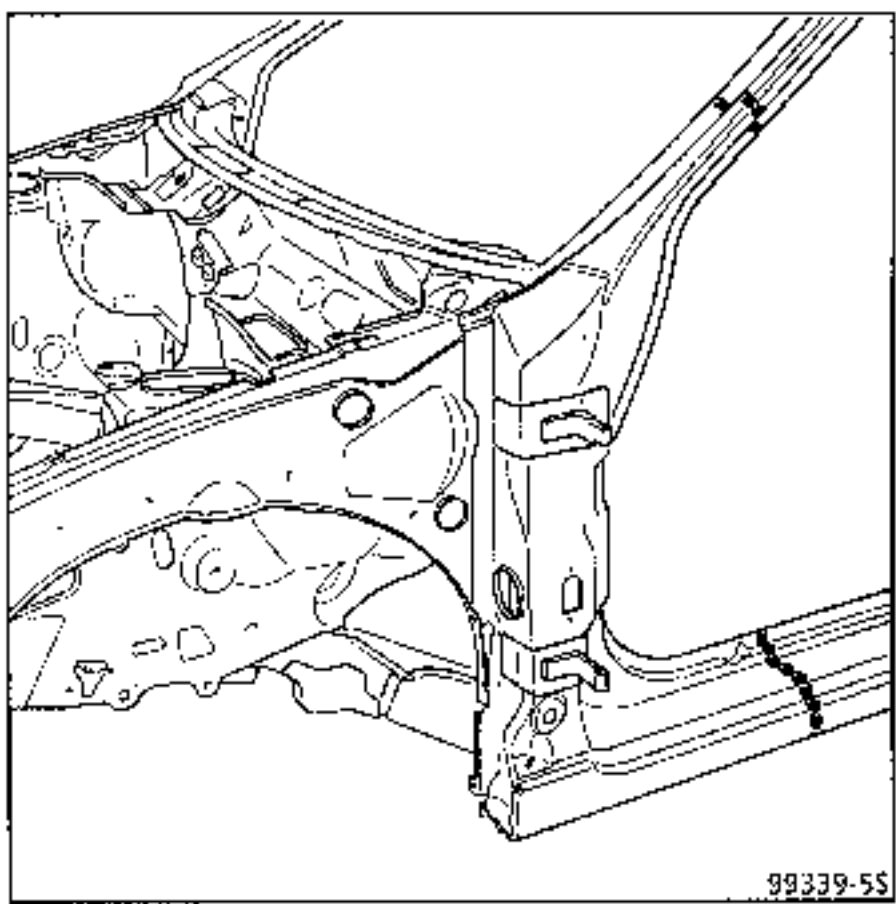
Front pillar 0.8

Unpicking



100 mm + 300 mm on thickness 0.8 mm

Welding

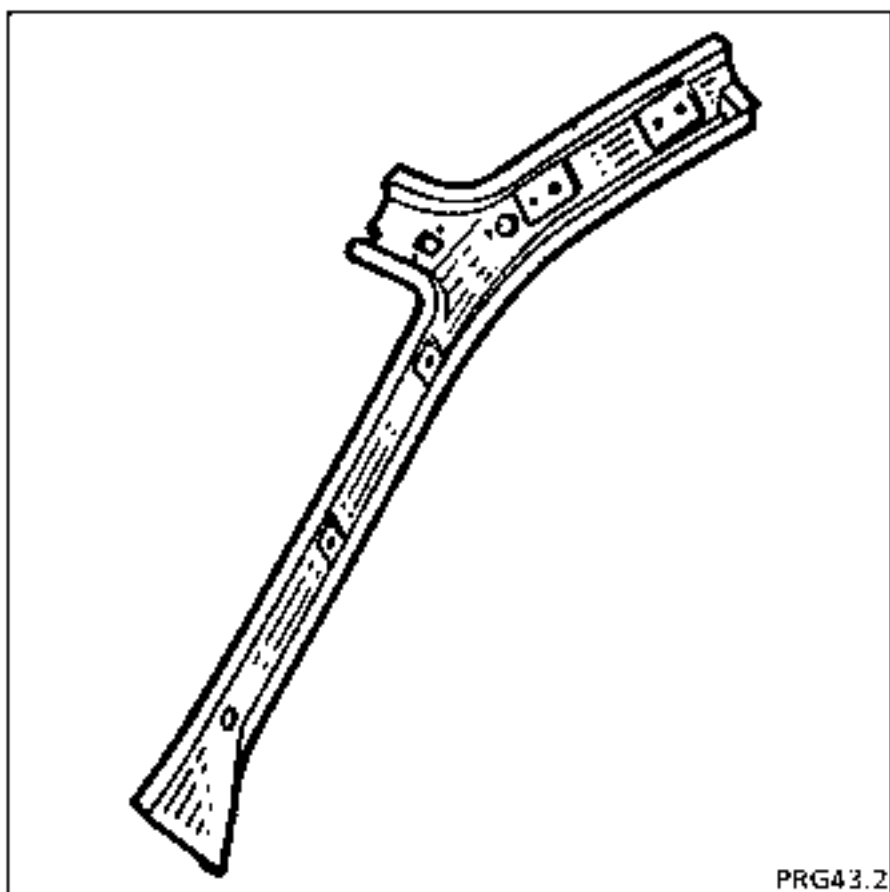


**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of the front pillar .

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



**1 JOINT WITH FRONT PILLAR LINING (COWL SIDE PANEL)**

**Thickness of panels concerned (mm)**

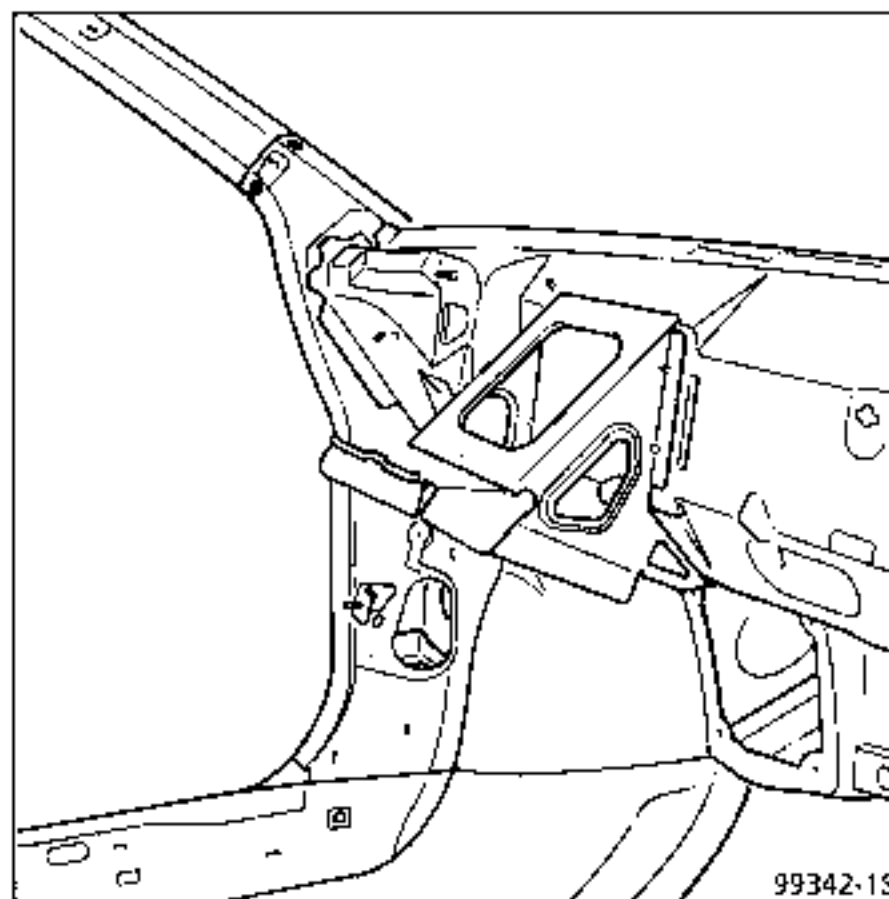
Windscreen pillar lining	0.8
Front pillar lining (cowl side panel)	1.2
Front pillar	0.8

**Unpicking**



2 spot welds on thickness 0.8 mm

**Welding**



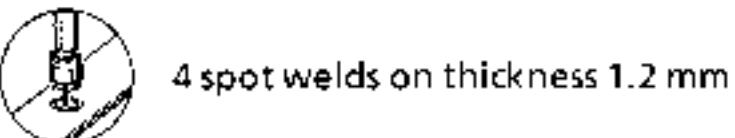
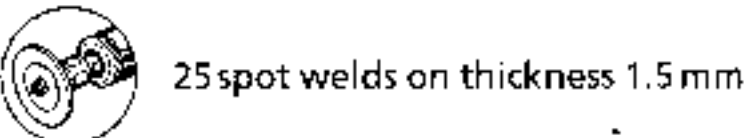
**NOTE :** all welds are on 3 thicknesses.

**2** JOINT WITH TOP OF BODY

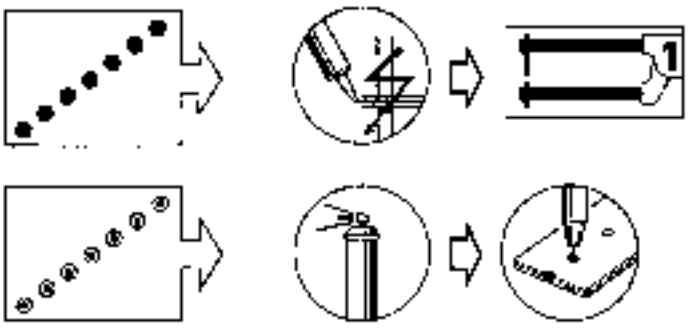
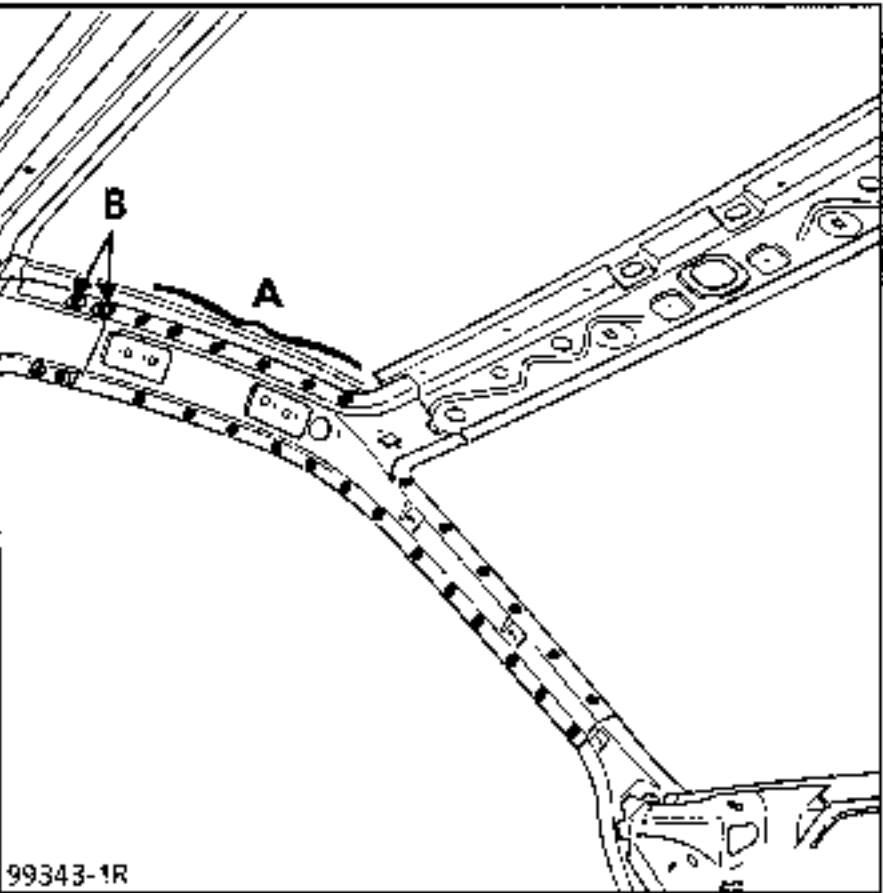
Thickness of panels concerned (mm)

Windscreen pillar lining	1.5
Top of body	1.2
Roof	0.7
Centre pillar lining	1.2

Unpicking



Welding



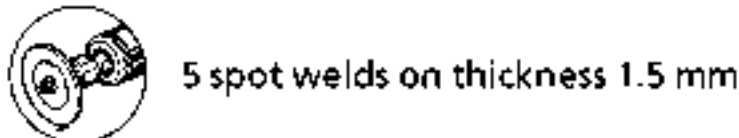
NOTE : at A, welds are on 3 thicknesses,  
at B, plug welds on 2 thicknesses.

**3** JOINT WITH ROOF FRONT CROSS MEMBER

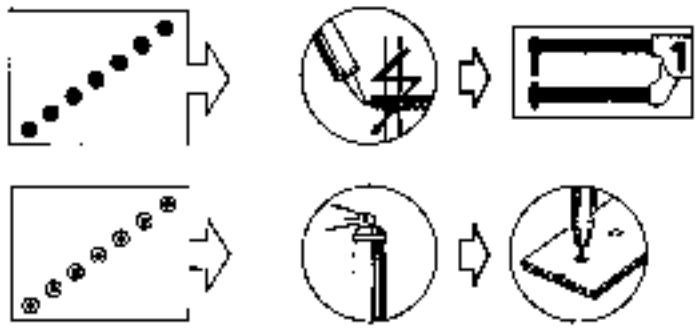
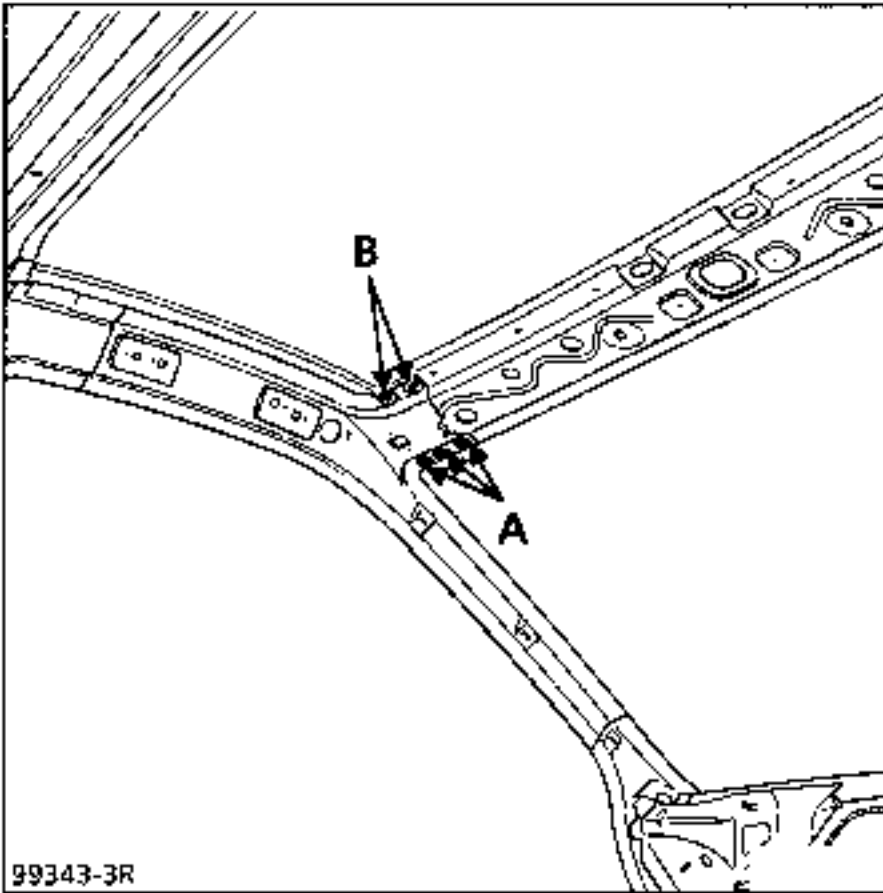
Thickness of panels concerned (mm)

Windscreen pillar lining	1.5
Roof front cross member	0.7
Roof	0.7

Unpicking



Welding



NOTE : at A, welds are on 3 thicknesses,  
at B, plug welds on 2 thicknesses.

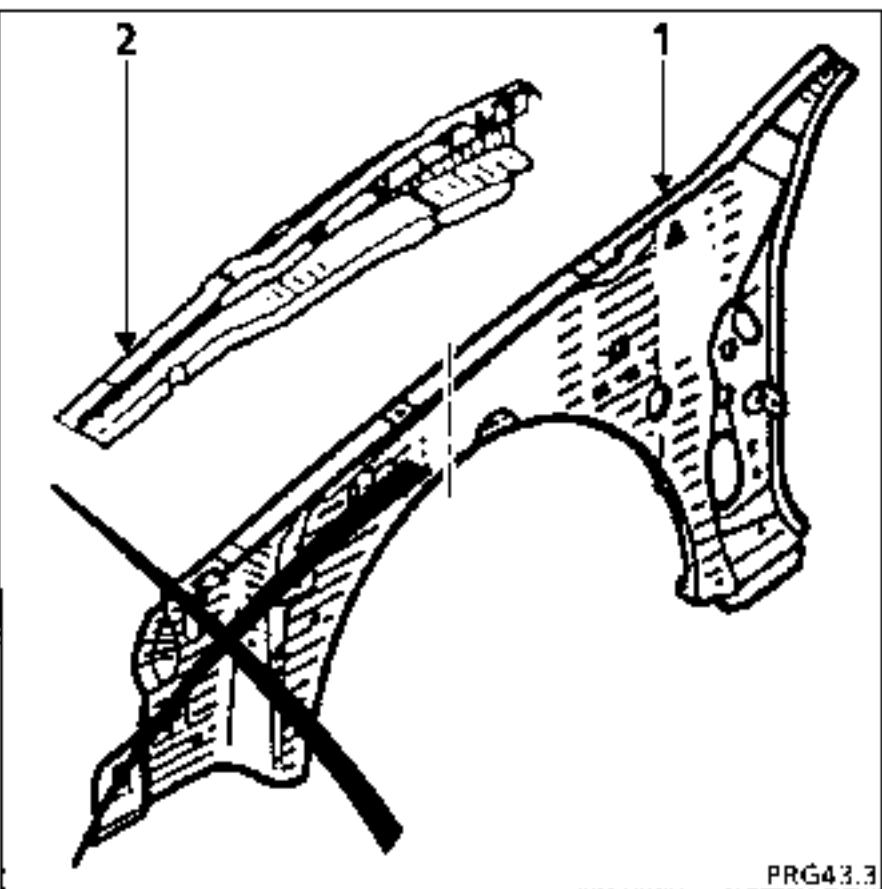
**INTRODUCTION**

The design of the vehicle is such that the cowl side panel and the front pillar lining are a single part. When replacing one of these parts, the part from the Parts Department must therefore be cut.

The replacement of this part is a complementary operation to the replacement of the front pillar. On the right hand side, the upper cowl side panel reinforcement must also be replaced, which should be ordered separately.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

- 1) Cowl side panel (front pillar lining)
- 2) Cowl side panel upper reinforcement



**1 JOINT WITH WINDSCREEN PILLAR LINING**

**Thickness of panels concerned (mm)**

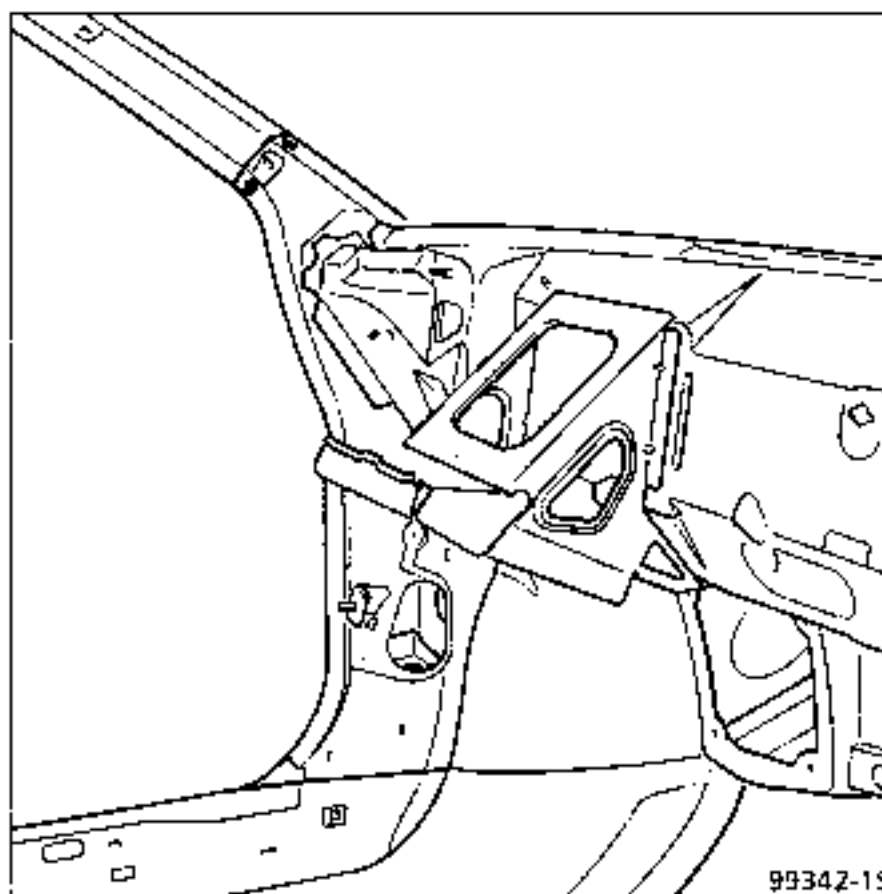
Windscreen pillar lining	0.8
Front pillar lining(cowl side panel)	1.2
Front pillar	0.8

**Unpicking**



2 spot welds on thickness 0.8 mm + 1.2 mm

**Welding**



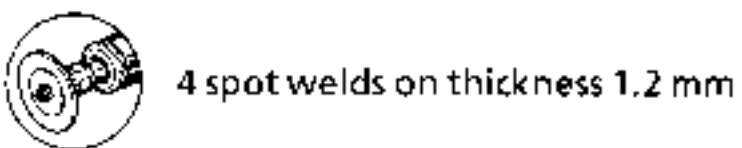
**NOTE :** all welds are on 3 thicknesses.

**2** JOINT WITH INNER SILL PANEL

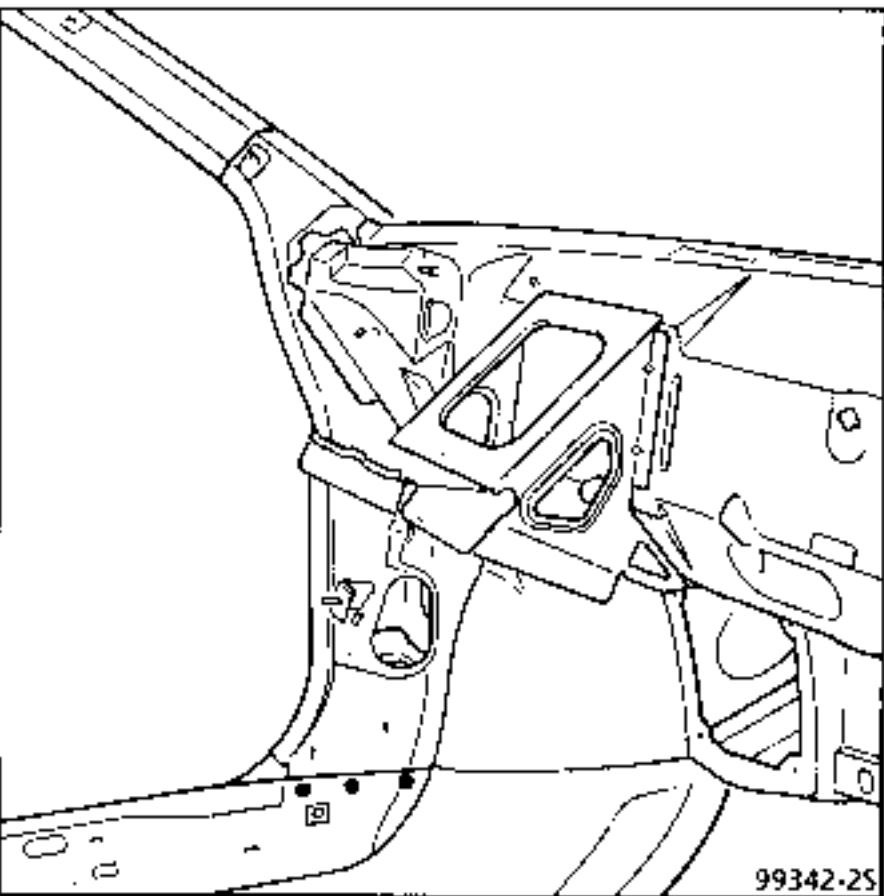
Thickness of panels concerned (mm)

Inner sill panel	1.8
Front pillar lining (cowl side panel)	1.2

Unpicking



Welding

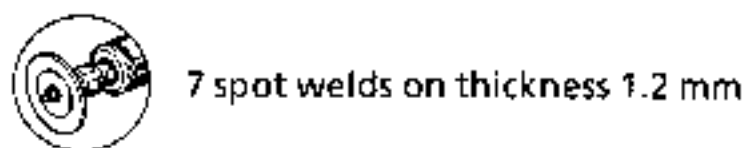


**3** JOINT WITH SHOCK ABSORBER CUP

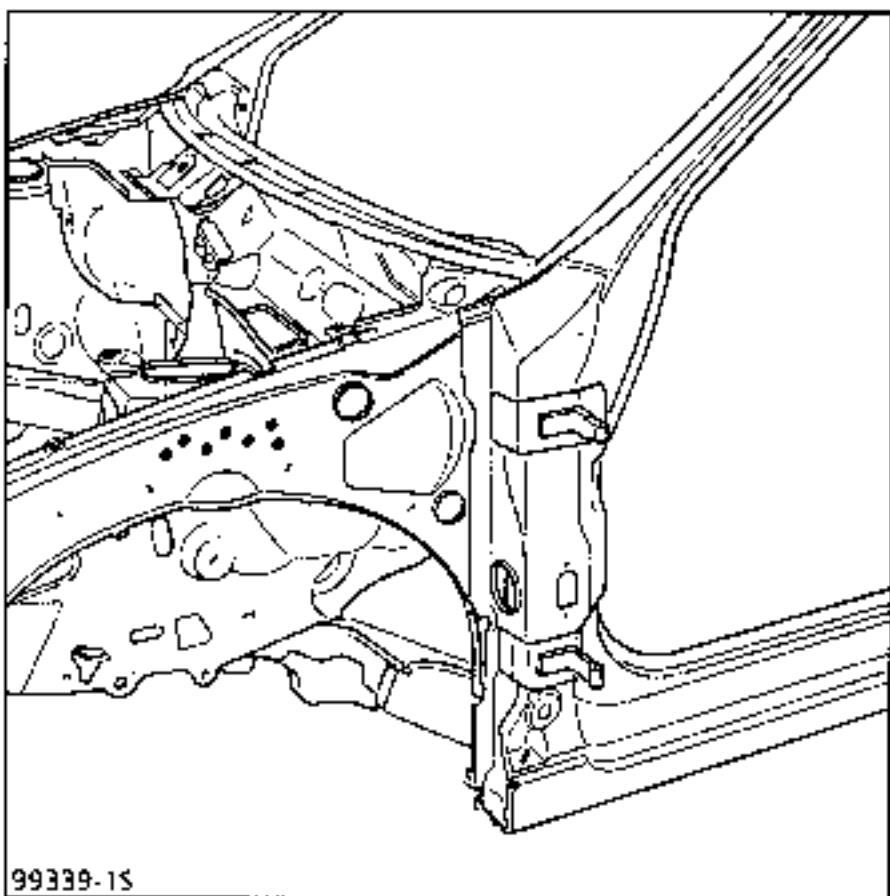
Thickness of panels concerned (mm)

Shock absorber cup	2.5
Front pillar lining (cowl side panel)	1.2

Unpicking



Welding

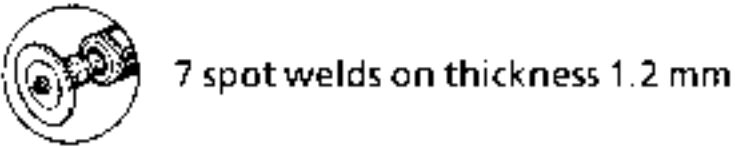


**4** JOINT WITH WINDSCREEN APERTURE LOWER CROSS MEMBER

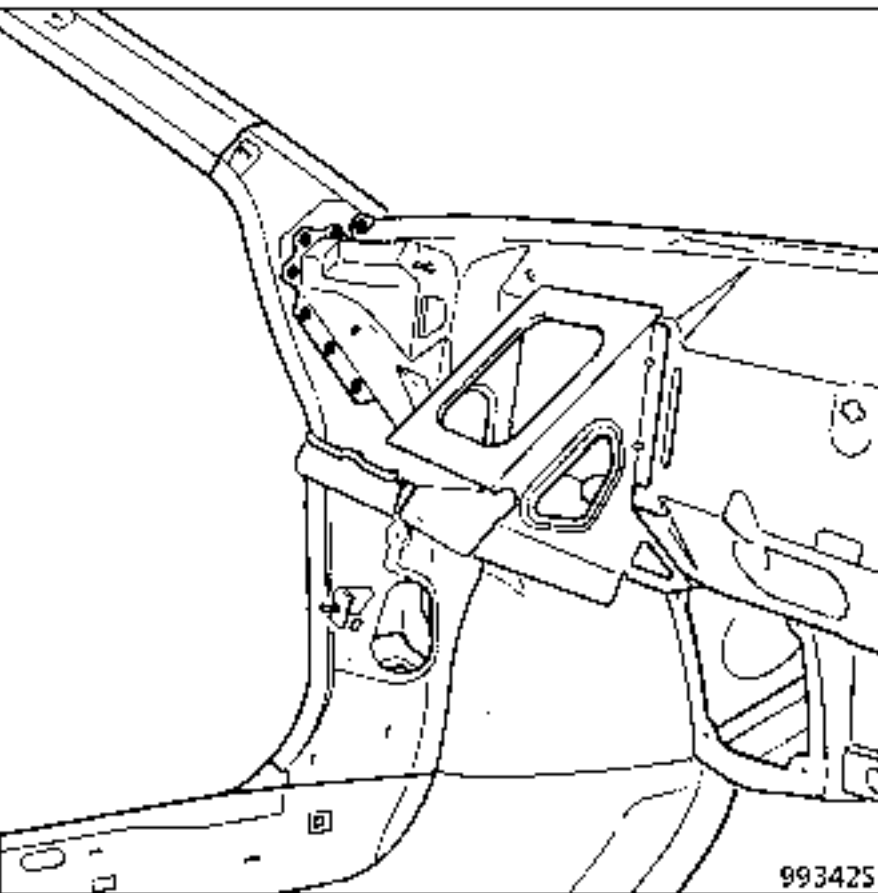
Thickness of panels concerned (mm)

Windscreen aperture lower cross member	1.2
Front pillar lining(cowl side panel)	1.2

Unpicking



Welding



**5** JOINT WITH PART SECTION

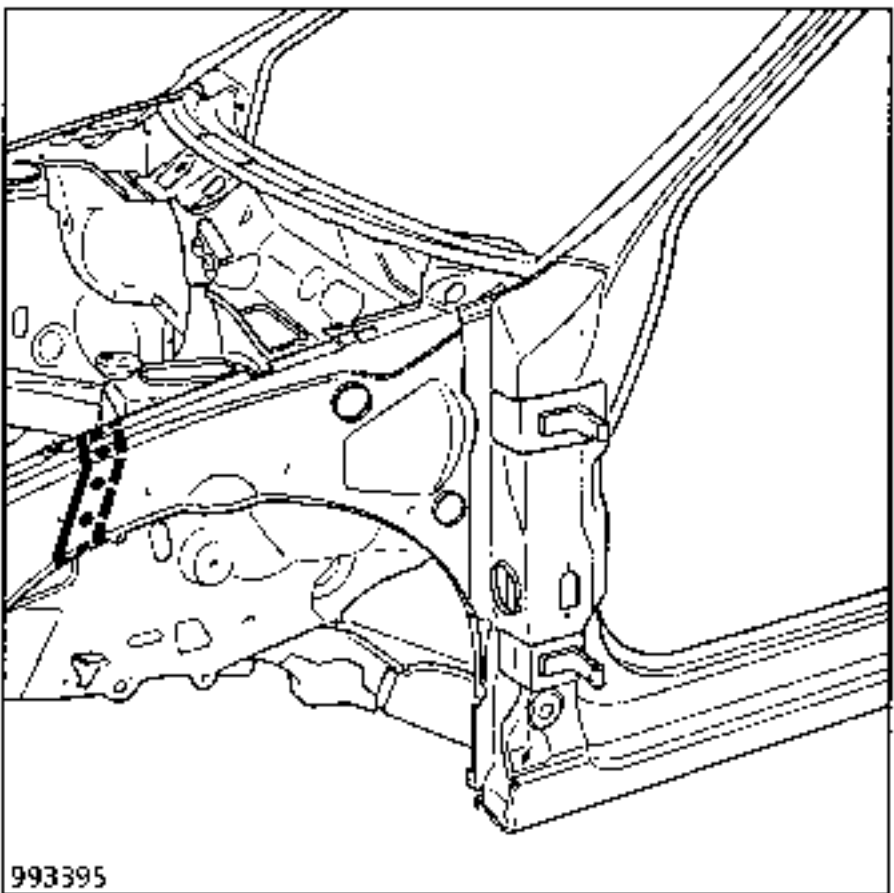
Thickness of panels concerned (mm)

Cowl side panel	1.2
-----------------	-----

Unpicking



Welding



**INTRODUCTION**

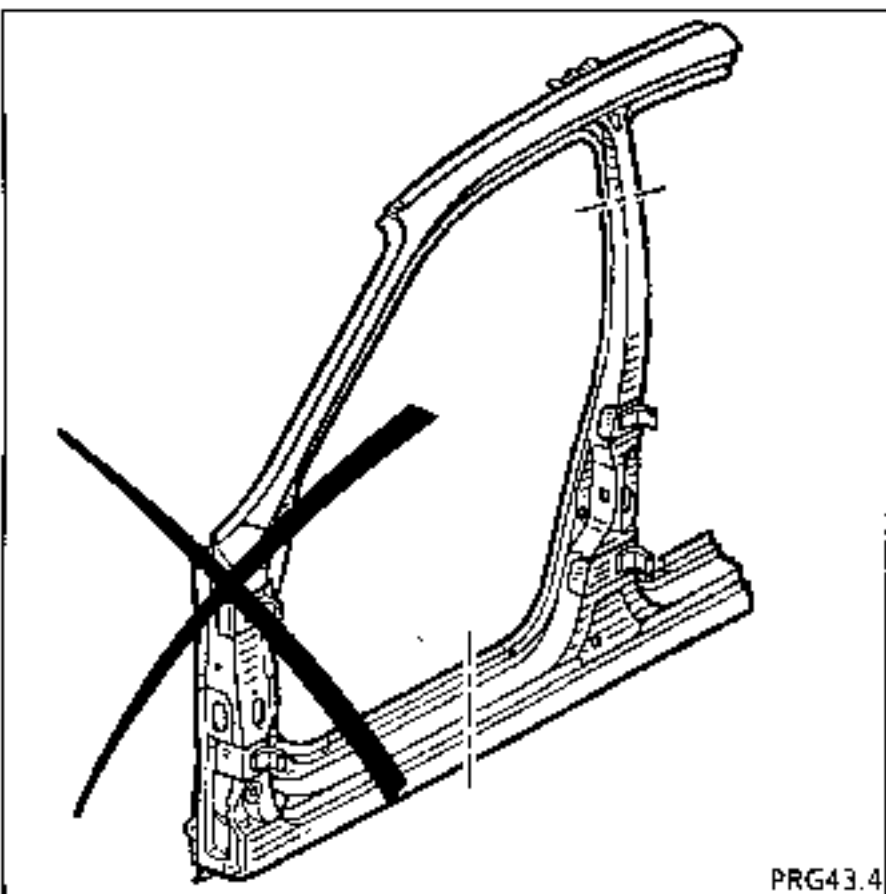
The replacement of this part is a basic operation for a side impact.

It is obtained by cutting the body side at the front section.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Part assembled with:

- reinforcements,
- welded hinge knuckles.



**1 JOINT WITH INNER SILL PANEL**

Thickness of panels concerned (mm)

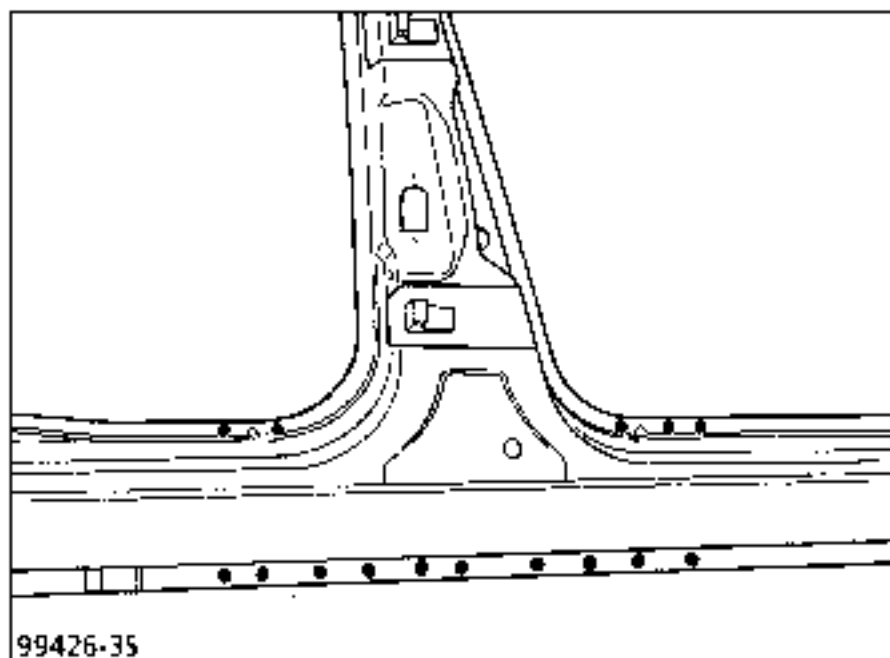
Inner sill panel	1.8
Centre pillar	0.8

**Unpicking**



15 spot welds on thickness 0.8 mm

**Welding**





**2** JOINT WITH LINING

Thickness of panels concerned (mm)

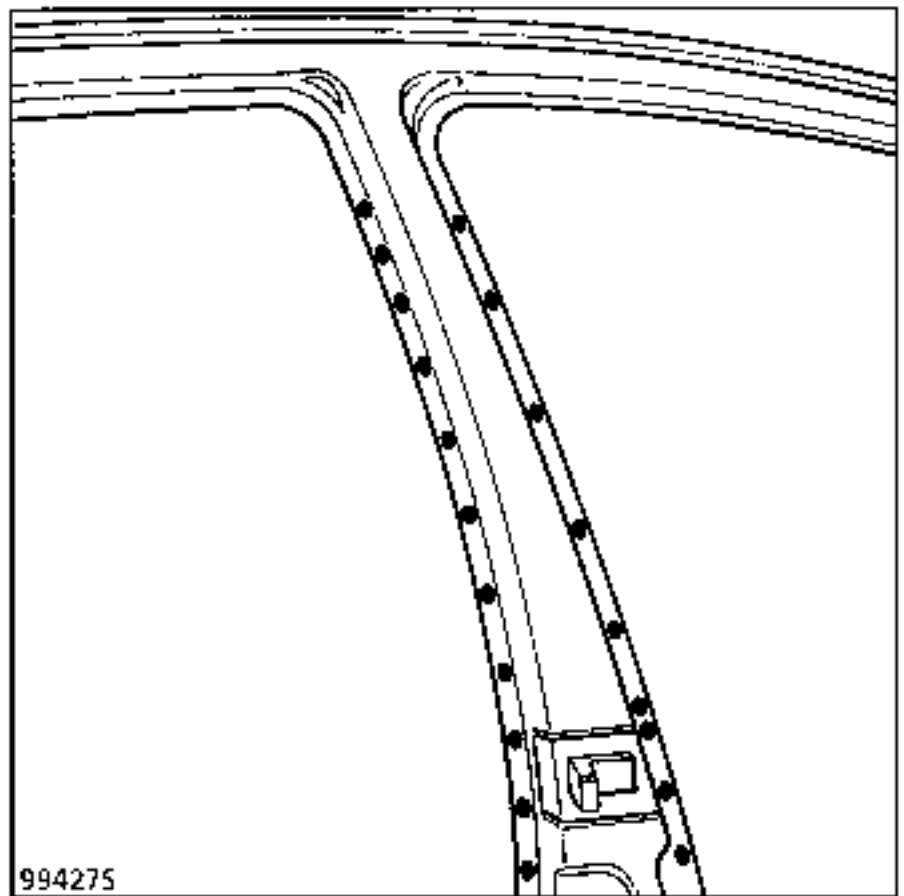
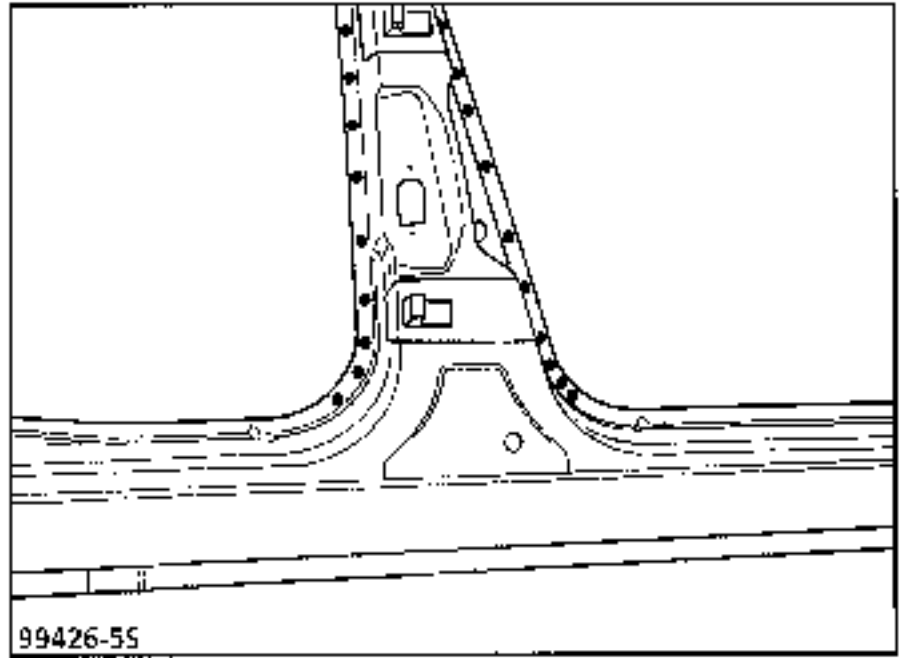
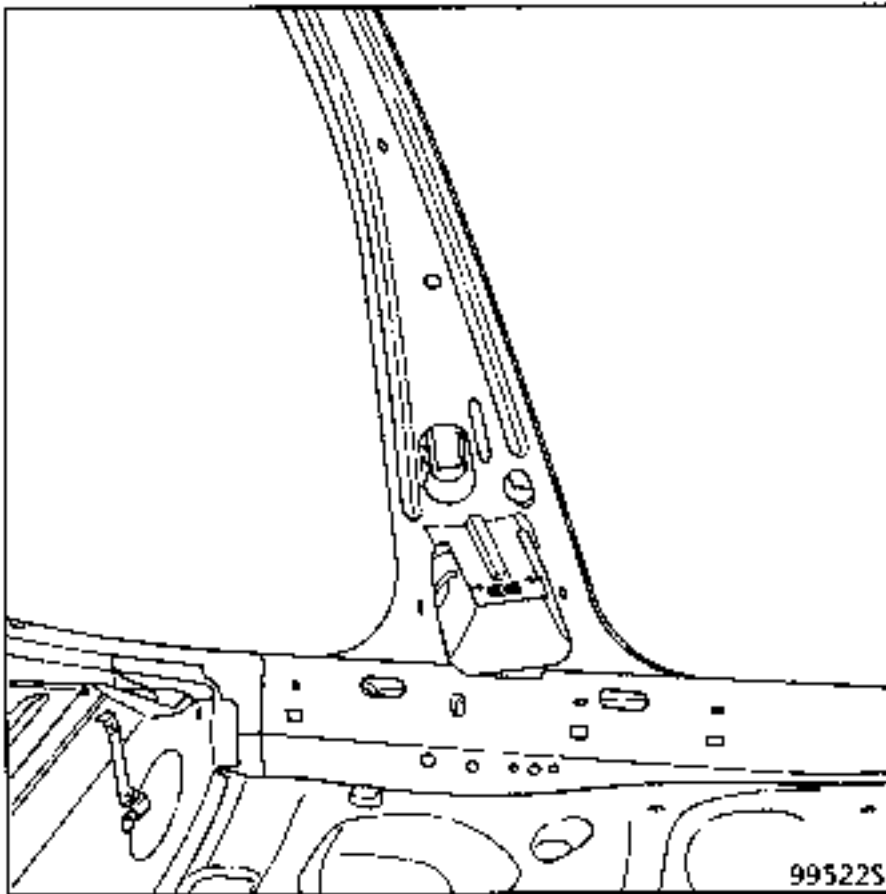
Lining	1.2
Centre pillar	0.8
Pillar reinforcement	1.2

Unpicking



35 spot welds on thickness 0.8 mm  
1 MAG fillet of 20 mm

Welding



NOTE : all welds are on 3 thicknesses.

**3** JOINT WITH PART SECTIONS

Thickness of panels concerned (mm)

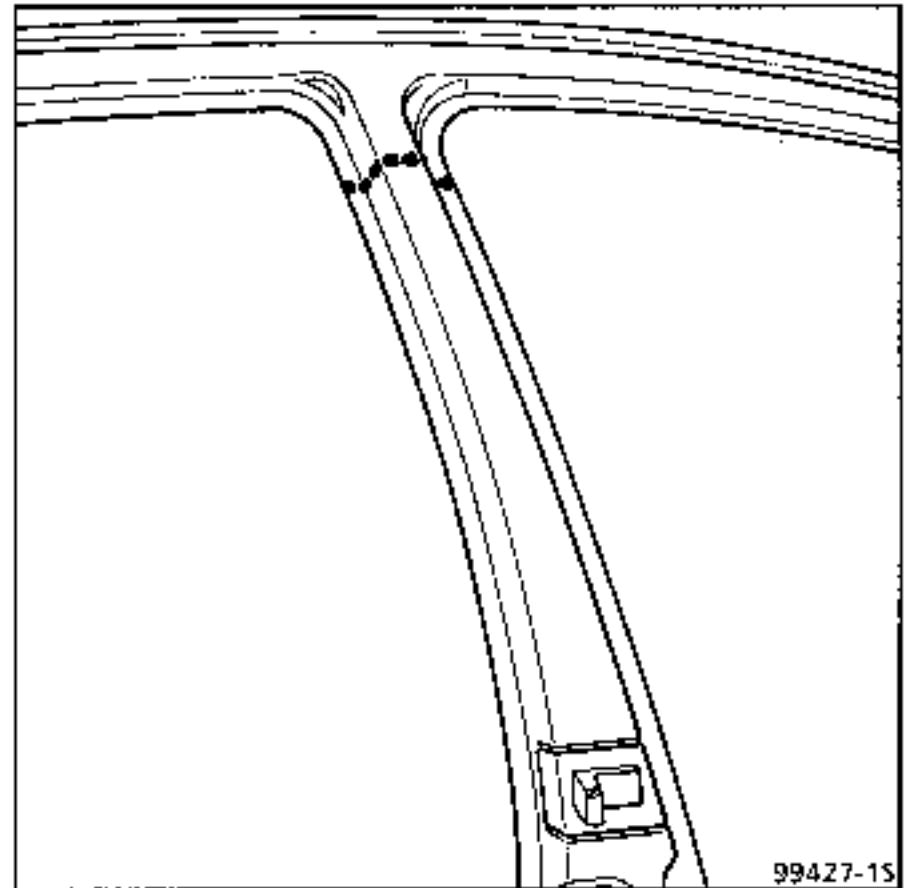
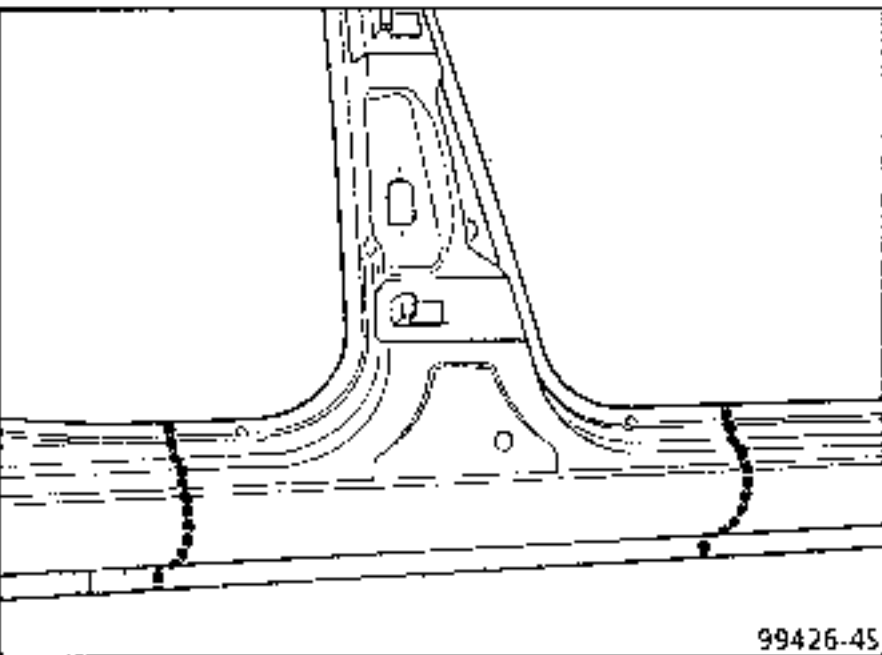
Centre pillar 0.8

Unpicking



300 mm × 2 + 100 mm on thickness 0.8 mm

Welding



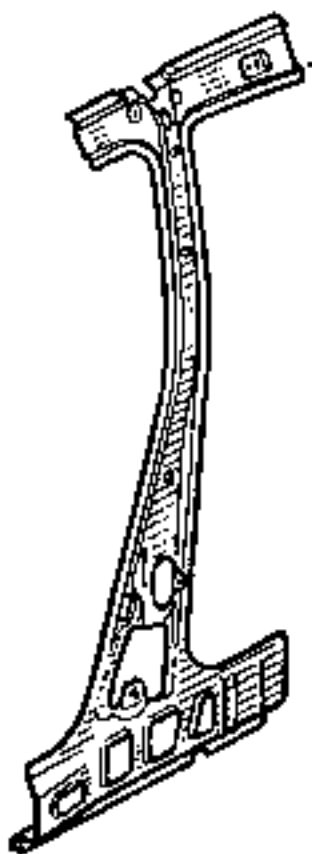
**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of the centre pillar.

It is obtained by cutting the rear quarter panel lining.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



PRG43.5

**1 JOINT WITH WINDSCREEN PILLAR LINING**

**Thickness of panels concerned (mm)**

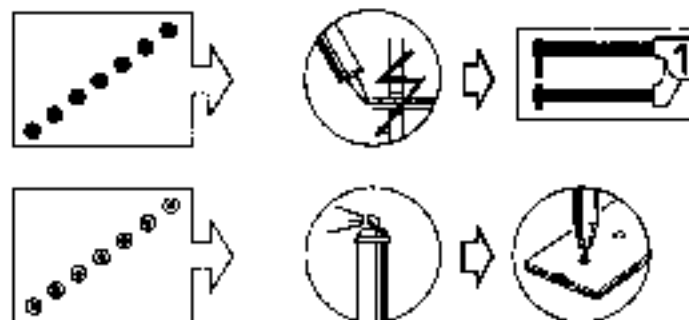
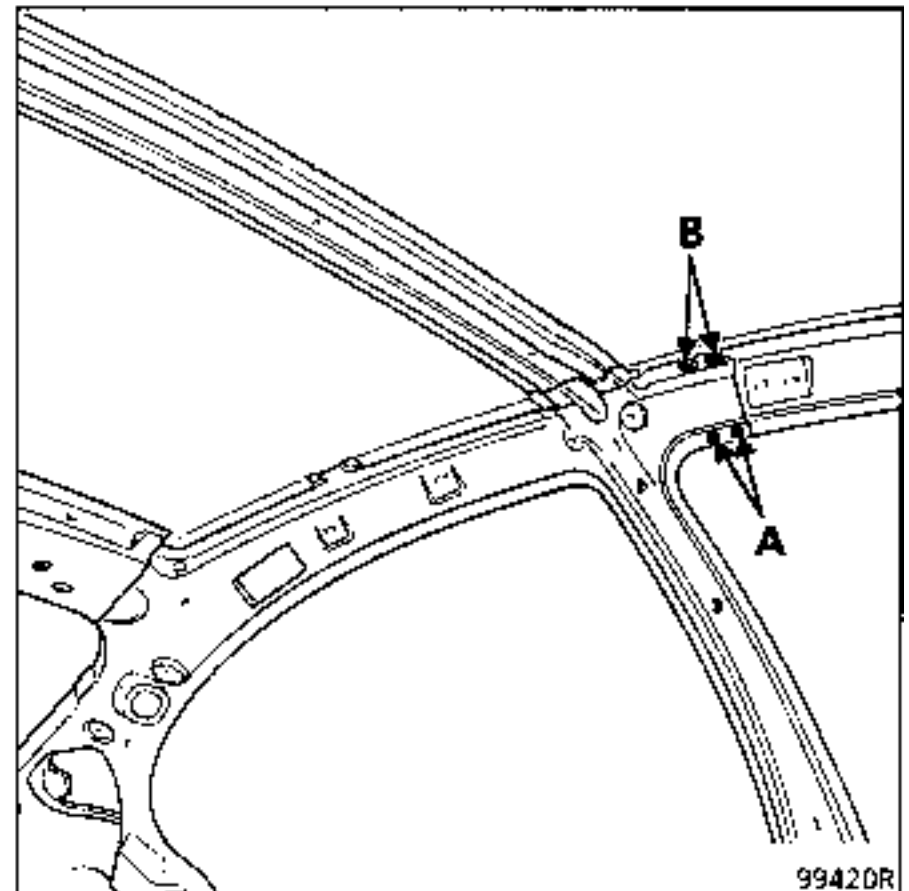
Windscreen pillar lining	0.8
Centre pillar lining	1.2
Centre pillar	0.8

**Unpicking**



4 spot welds on thickness 0.8 mm

**Welding**



**NOTE :** at A, welds are on 3 thicknesses,  
at B, plug welds on 2 thicknesses.

**2** JOINT WITH INNER SILL PANEL

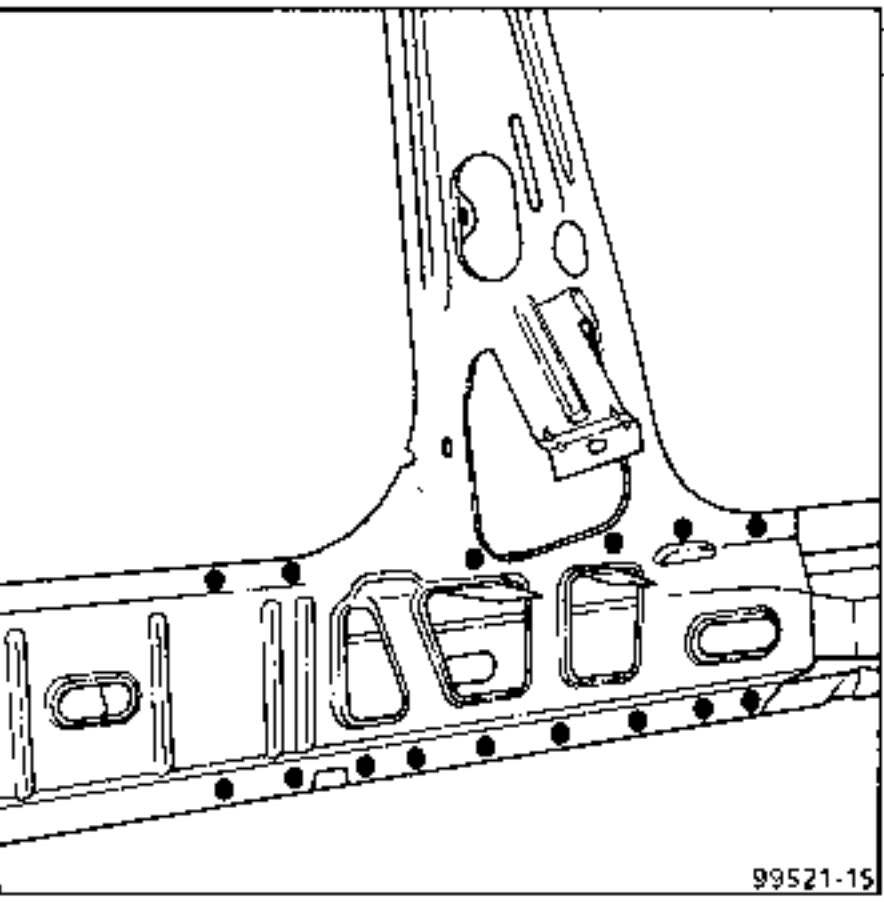
Thickness of panels concerned (mm)

Inner sill panel	1.8
Centre pillar lining	1.2

Unpicking



Welding



**3** JOINT WITH TOP OF BODY

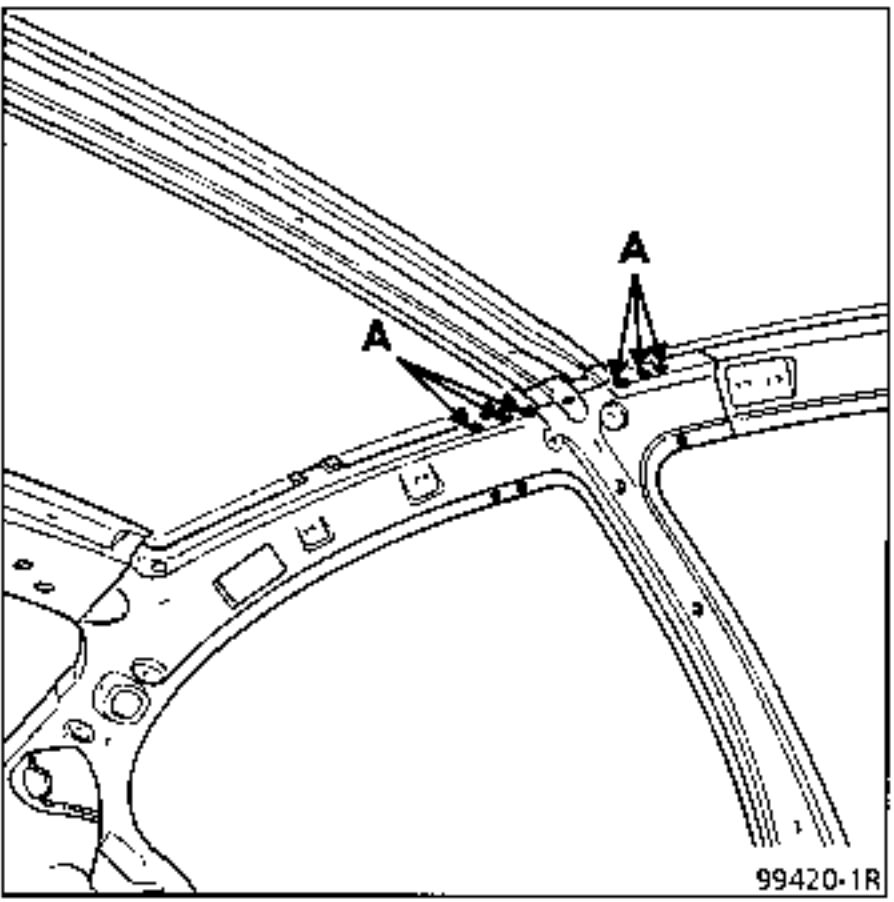
Thickness of panels concerned (mm)

Top of body	0.8
Roof	0.7
Centre pillar lining	1.2

Unpicking



Welding



NOTE: at A, welds are on 3 thicknesses.

**4** JOINT WITH PART SECTIONS

Thickness of panels concerned (mm)

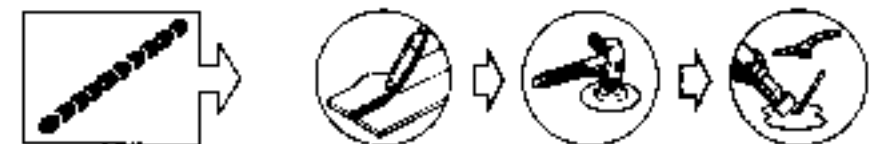
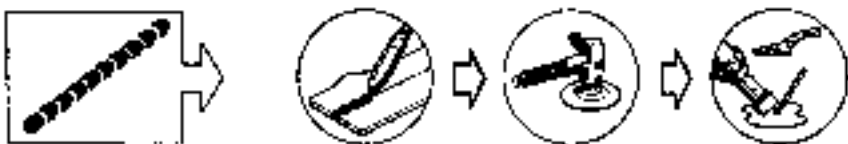
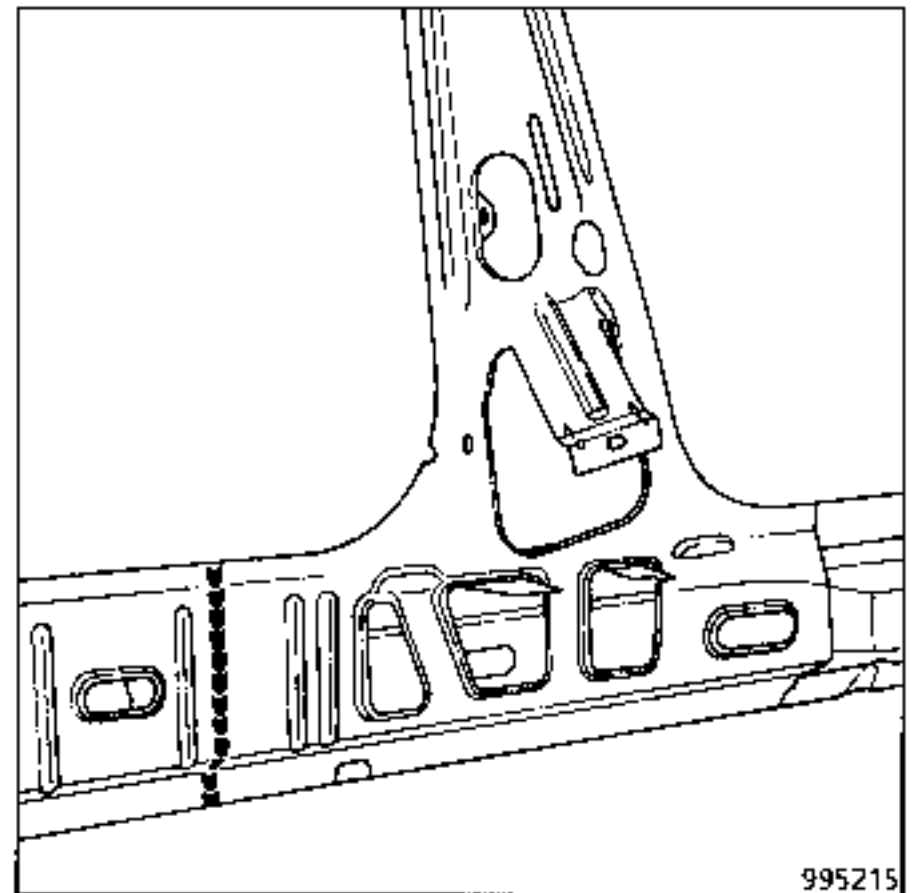
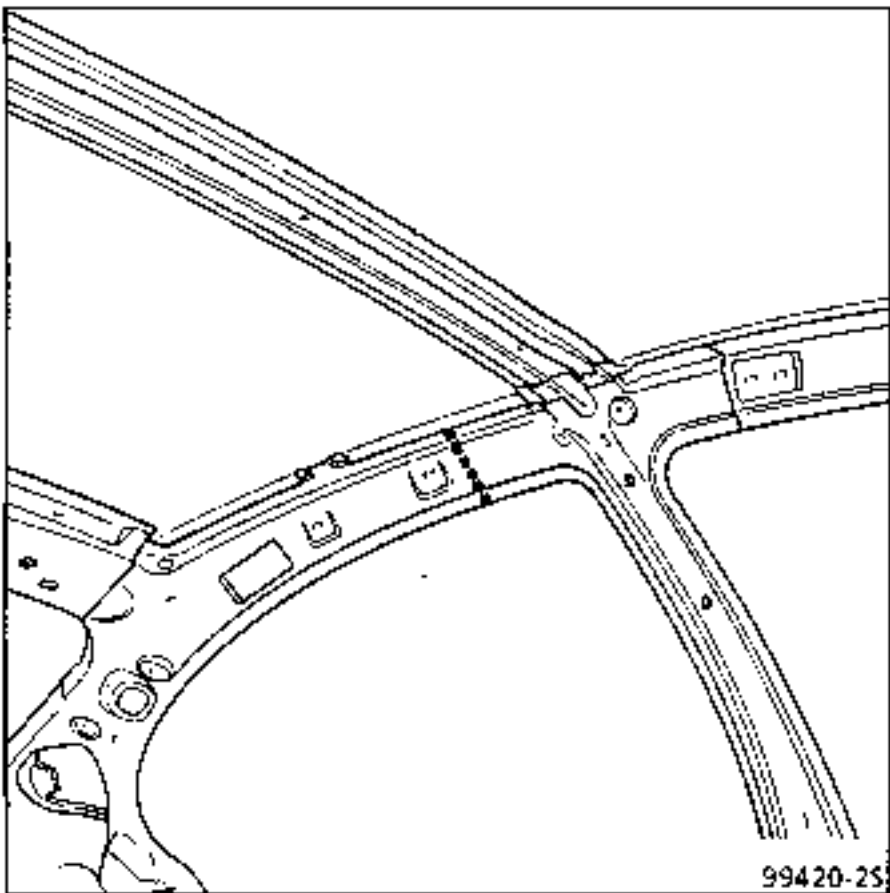
Centre pillar lining 0.8

Unpicking



100 mm + 250 mm on thickness 1.2 mm

Welding



## INTRODUCTION

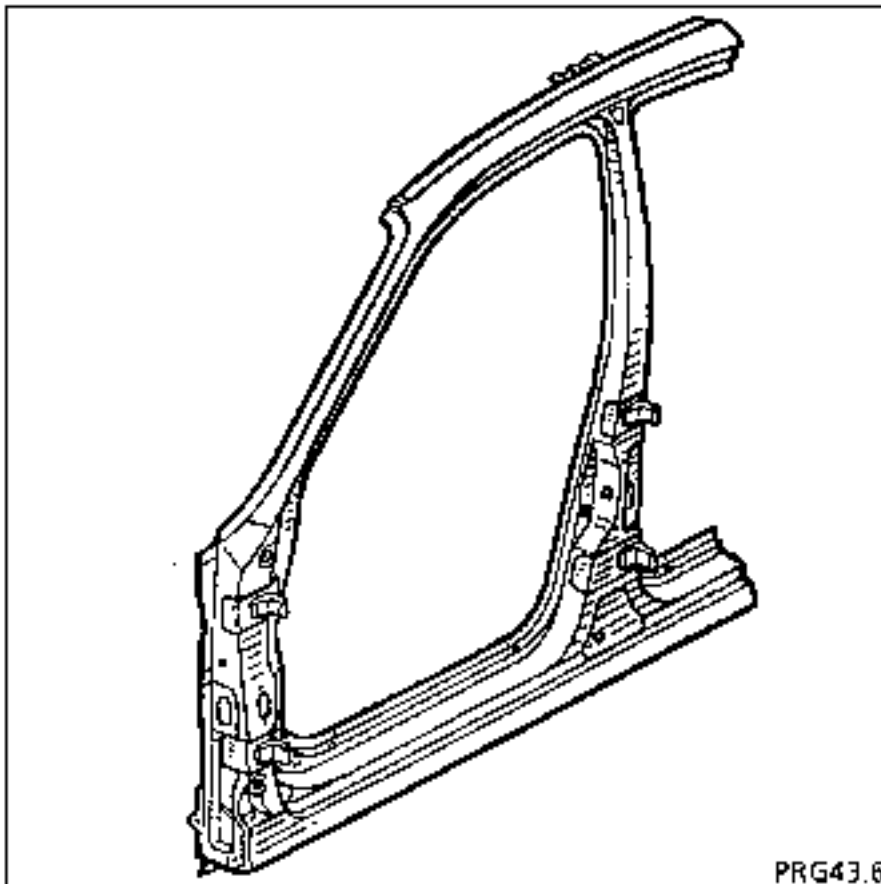
The replacement of this part is a basic operation for a side impact.

For the information required for replacement, refer to operations **43-A** and **43-D**

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with:

- reinforcements,
- welded hinge knuckles.

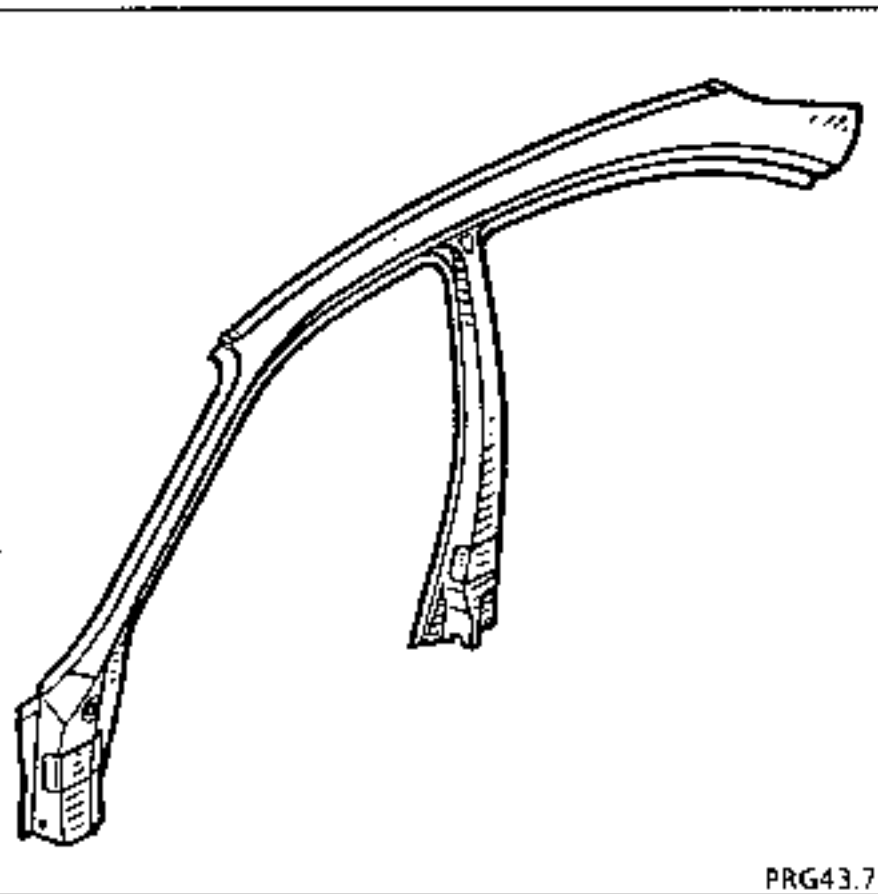


**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of the roof.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



**1 JOINT WITH WINDSCREEN PILLAR LINING**

**Thickness of panels concerned (mm)**

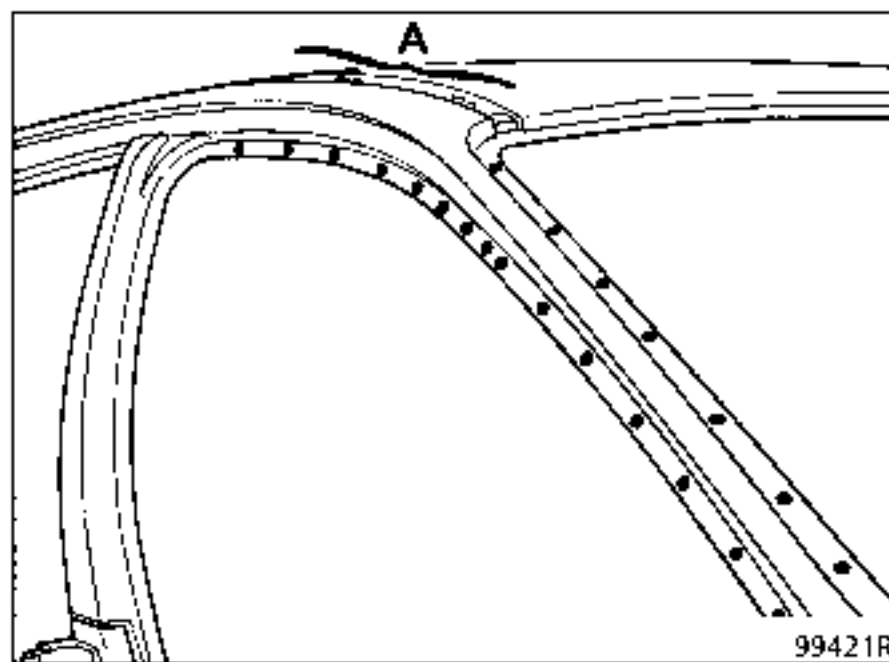
Windscreen pillar lining	0.8
Top of body	1.5
Front pillar	0.8

**Unpicking**



22 spot welds on thickness 0.8 mm

**Welding**



**NOTE:** at A, welds are on 3 thicknesses with the roof. They are not included in the operation (see 45-A-2).

**2** JOINT WITH REAR QUARTER PANEL LINING

**Thickness of panels concerned (mm)**

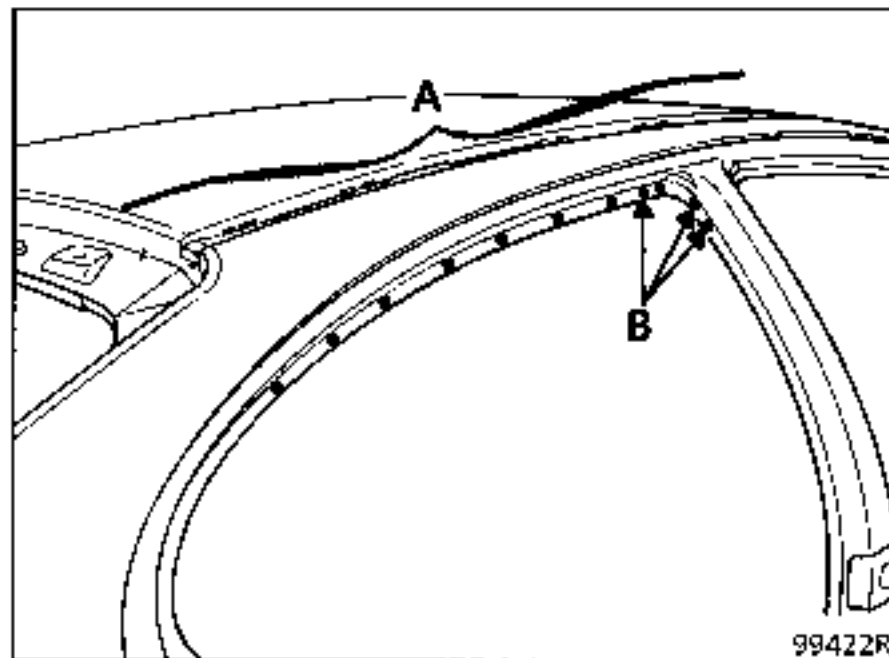
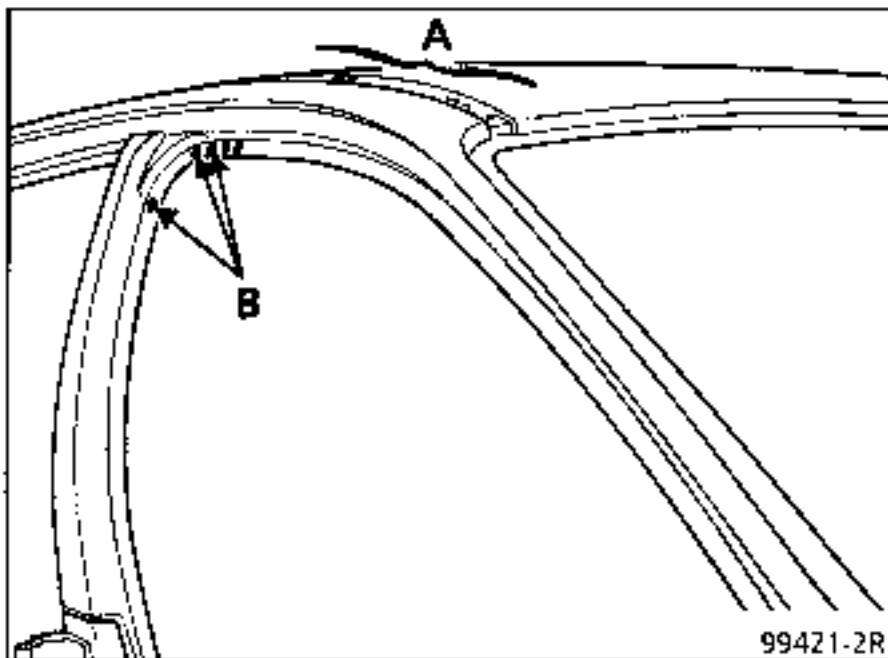
Rear quarter panel lining	0.7
Centre pillar lining	1.2
Top of body	1.5
Roof	0.7
Centre pillar reinforcement	1.2

**Unpicking**



16 spot welds on thickness 0.8 mm

**Welding**




**NOTE:** at A, welds are on 3 thicknesses with the roof. They are not included in the operation  
at B, joint with centre pillar reinforcement.



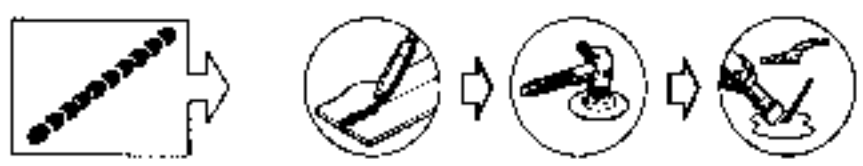
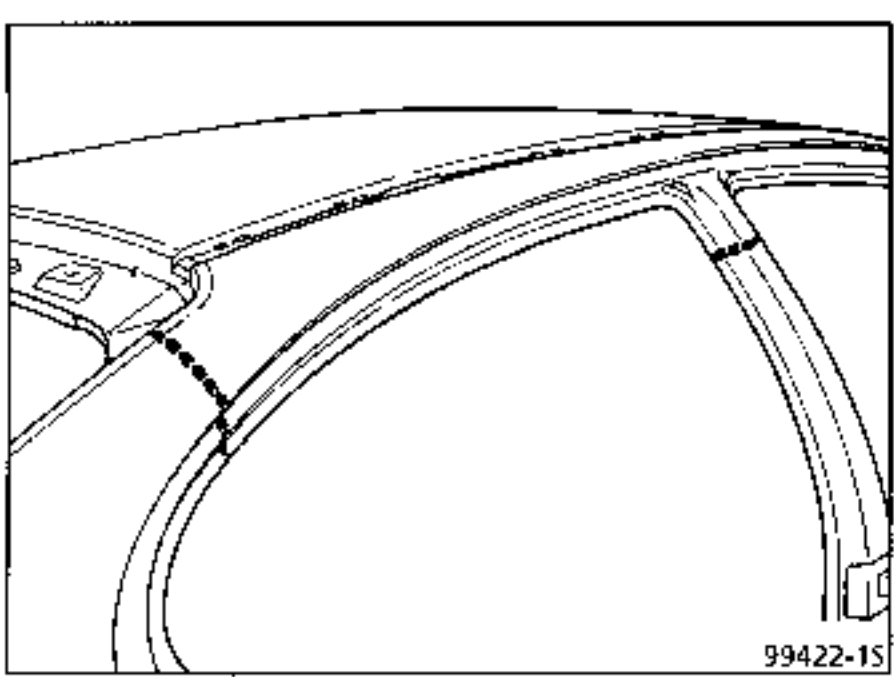
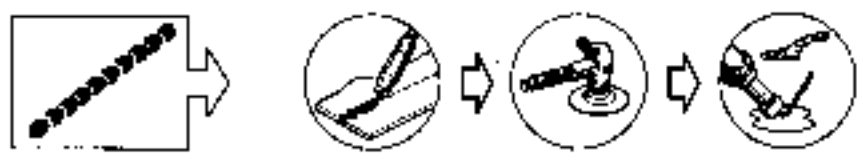
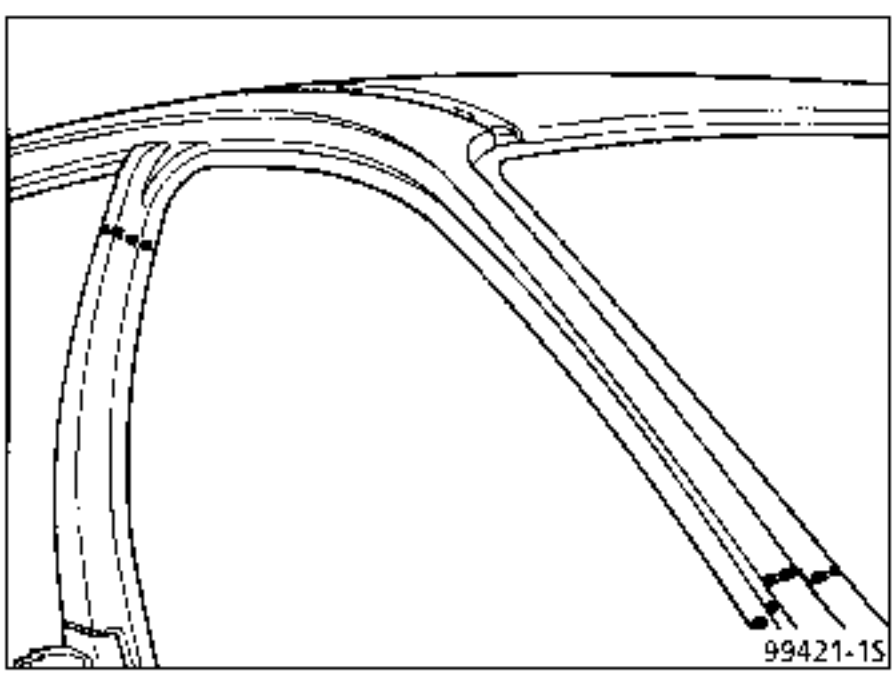
**3** JOINT WITH PART SECTIONS

Thickness of panels concerned (mm)  
Top of body 0.8

Unpicking

 100 mm × 2 – 200 mm on thickness 0.8 mm


Welding



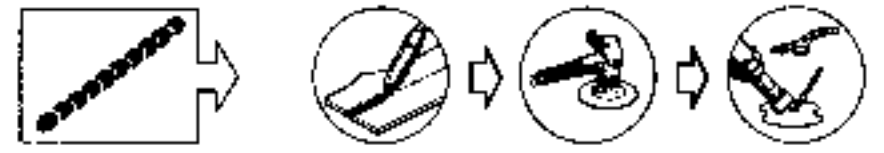
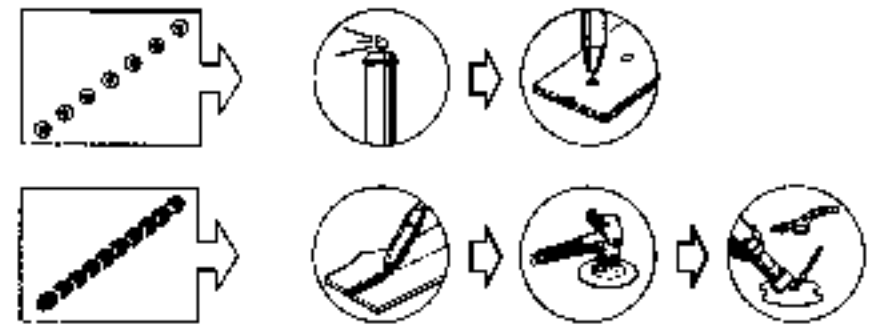
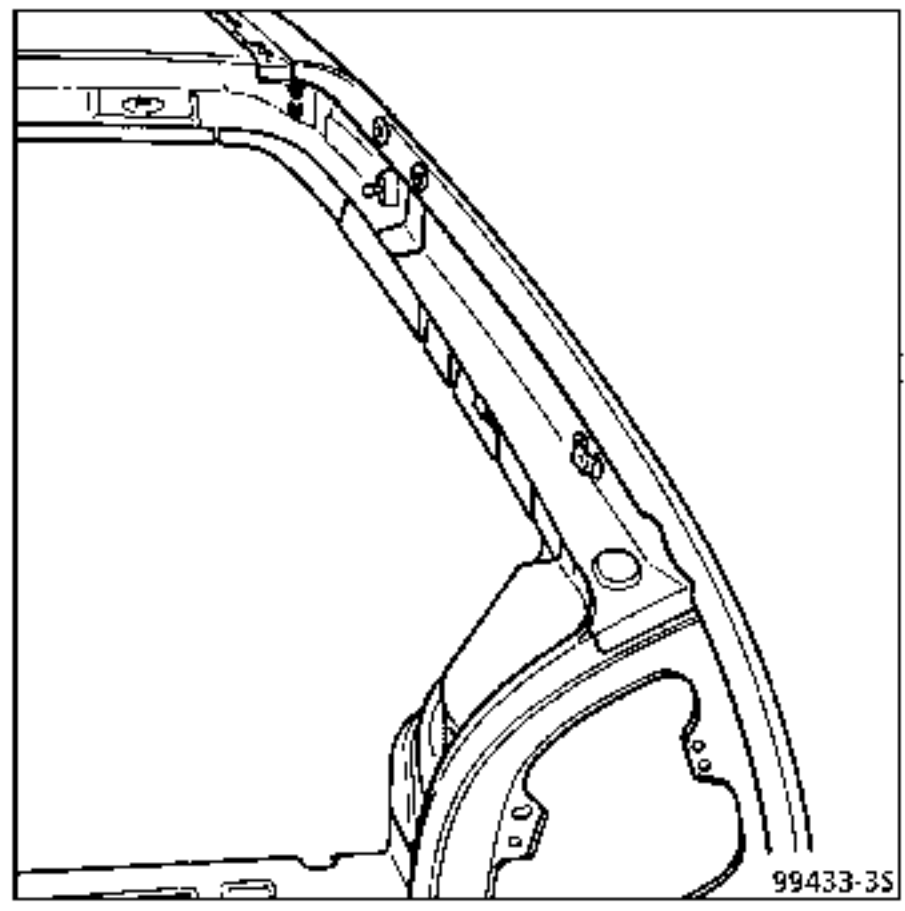
**4** JOINT WITH UPPER RAIN CHANNEL

Thickness of panels concerned (mm)  
Top of body 0.8  
Upper rain channel 1.5

Unpicking

 2 spot welds on thickness 0.8 mm  
1 MAG fillet of 15 mm

Welding

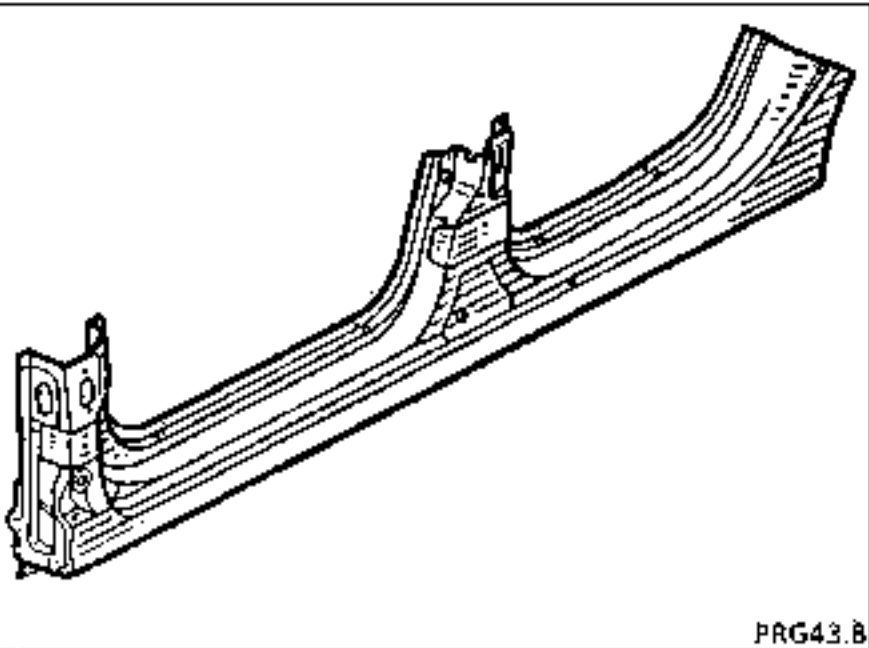


**INTRODUCTION**

The replacement of this part is a basic operation for a side impact.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



**1 JOINT WITH FRONT BLANKING COVER**

**Thickness of panels concerned (mm)**

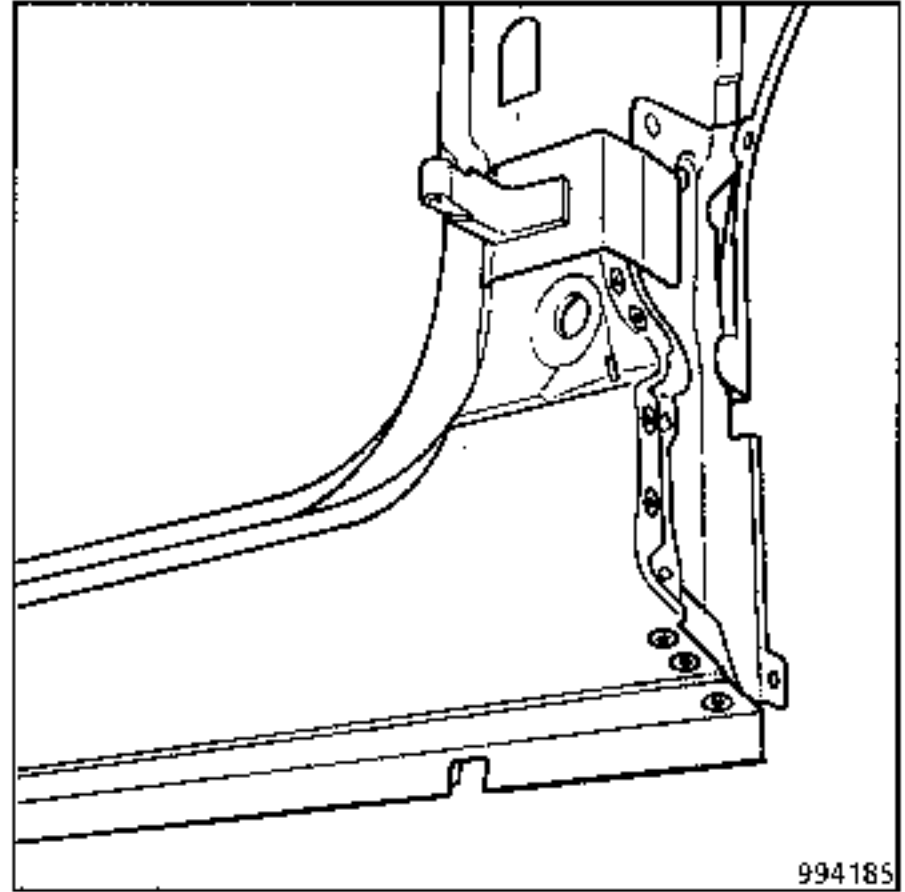
Sill panel	0.8
Front blanking cover	0.8

**Unpicking**



7 spot welds on thickness 0.8 mm

**Welding**



**2** JOINT WITH INNER SILL PANEL, FRONT SECTION

Thickness of panels concerned (mm)

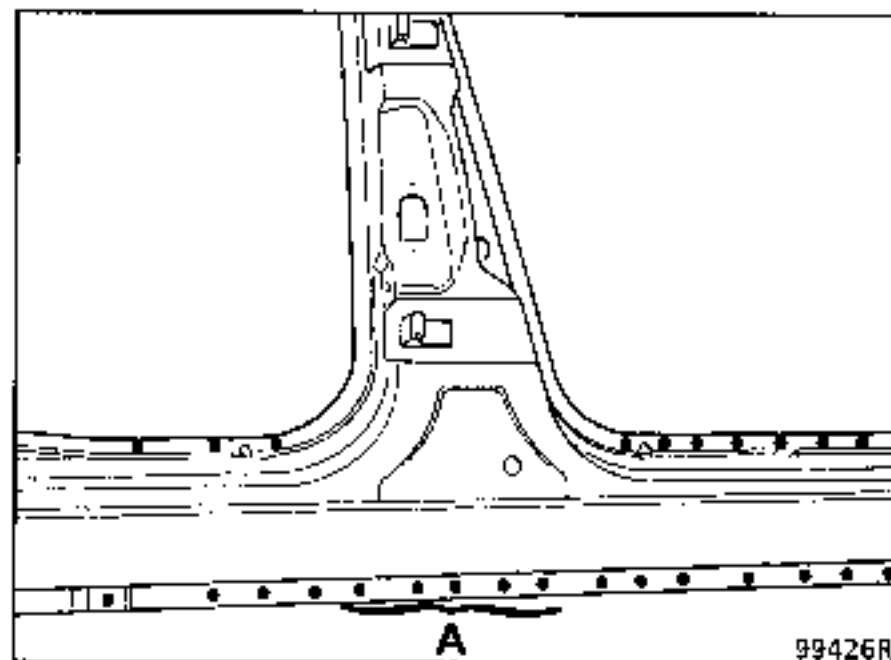
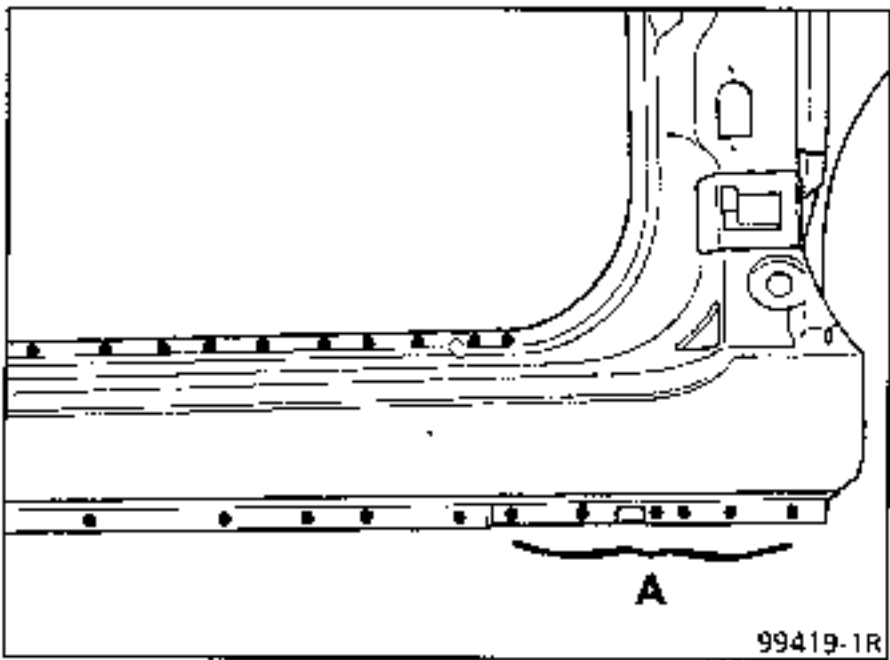
Inner sill panel	1.8
Sill panel, complete	0.8
Jacking point	2

Unpicking



45 spot welds on thickness 0.8 mm

Welding



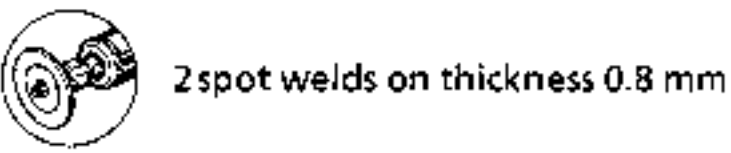
NOTE: at A, welds are on 3 thicknesses.

**3** JOINT WITH FRONT PILLAR LINING (COWL SIDE PANEL)

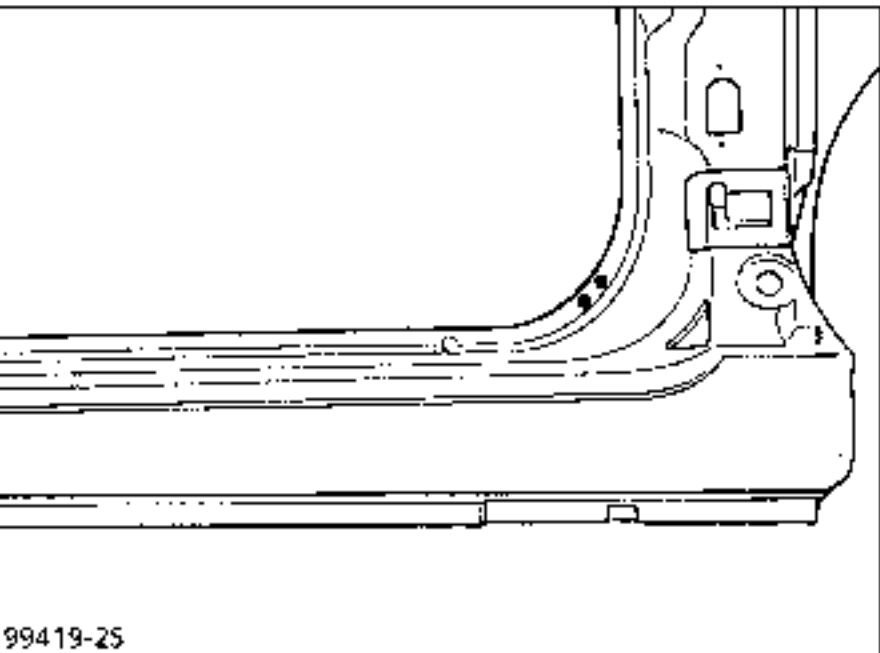
Thickness of panels concerned (mm)

Front pillar lining	1.2
Sill panel, complete	0.8

Unpicking



Welding



99419-25



**4** JOINT WITH CENTRE PILLAR LINING

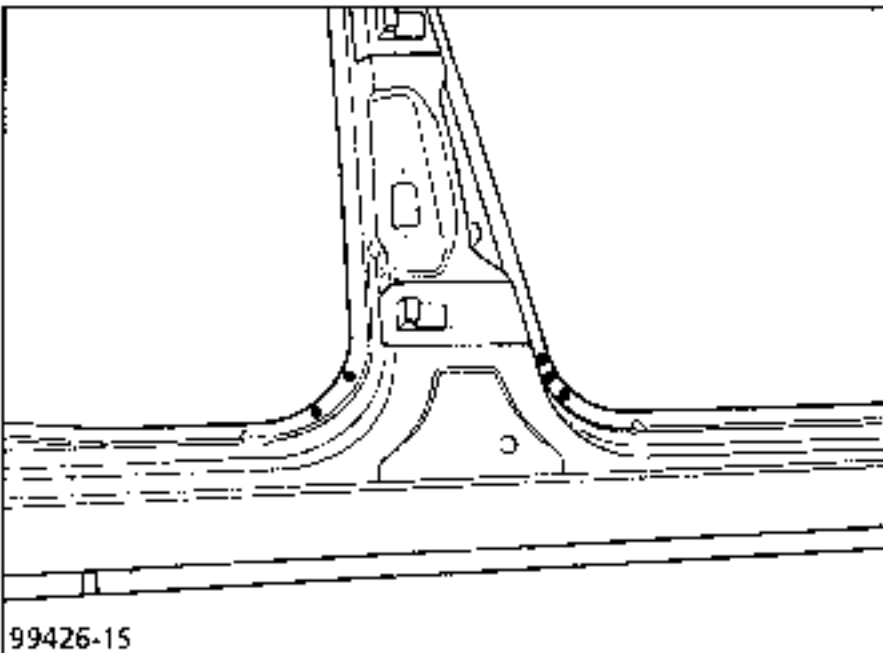
Thickness of panels concerned (mm)

Centre pillar lining	1.2
Sill panel, complete	0.8

Unpicking



Welding



99426-15



**5** JOINT WITH COMPLETE REAR SIDE MEMBER

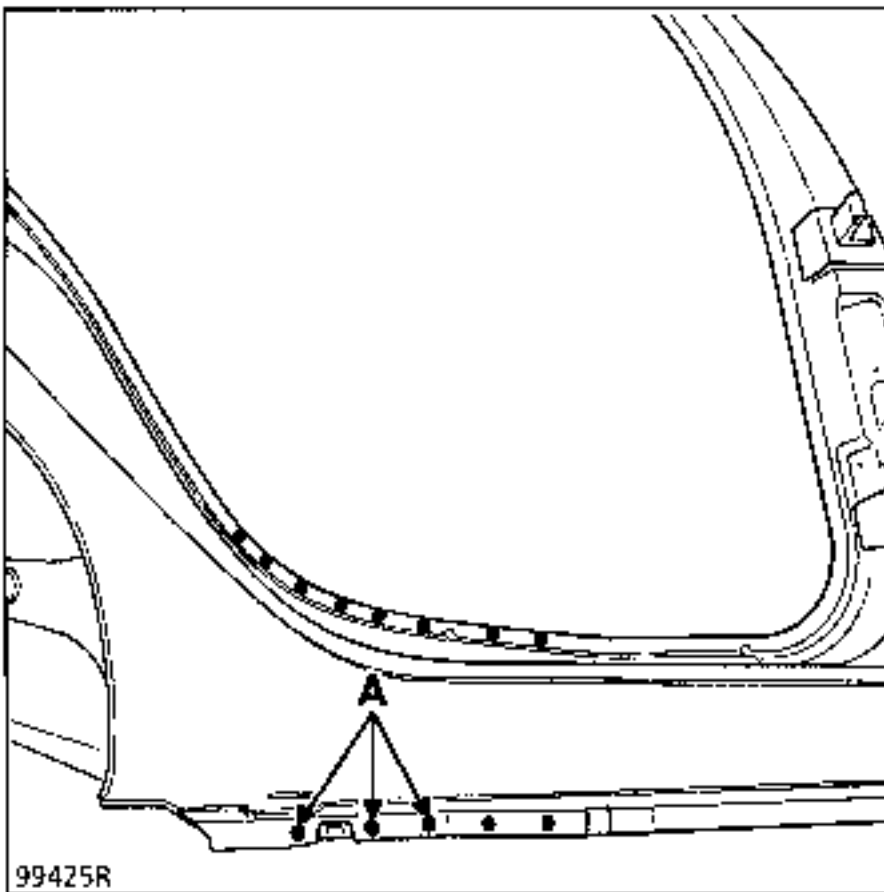
**Thickness of panels concerned (mm)**

Sill panel lining, rear section	1.5
Sill panel, complete	0.8

**Unpicking**



**Welding**



NOTE: at A, welds are on 3 thicknesses.

**6** JOINT WITH REAR EXTERIOR WHEEL ARCH

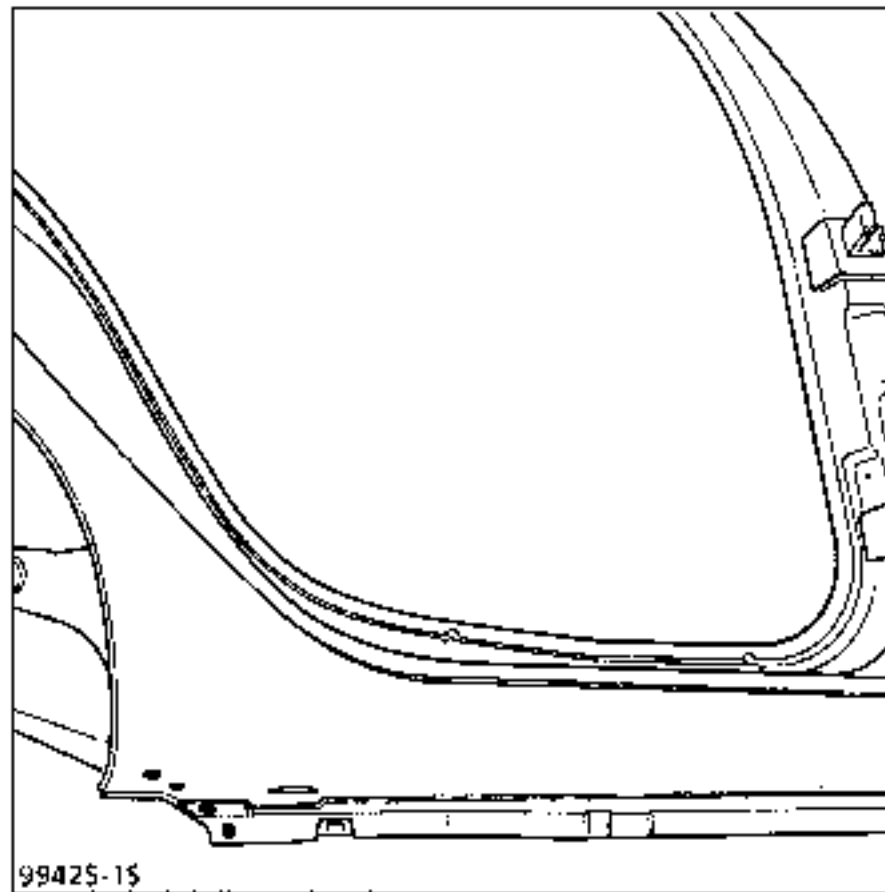
**Thickness of panels concerned (mm)**

Rear exterior wheel arch	0.7
Sill panel, complete	0.8

**Unpicking**



**Welding**




**7** JOINT WITH PART SECTIONS

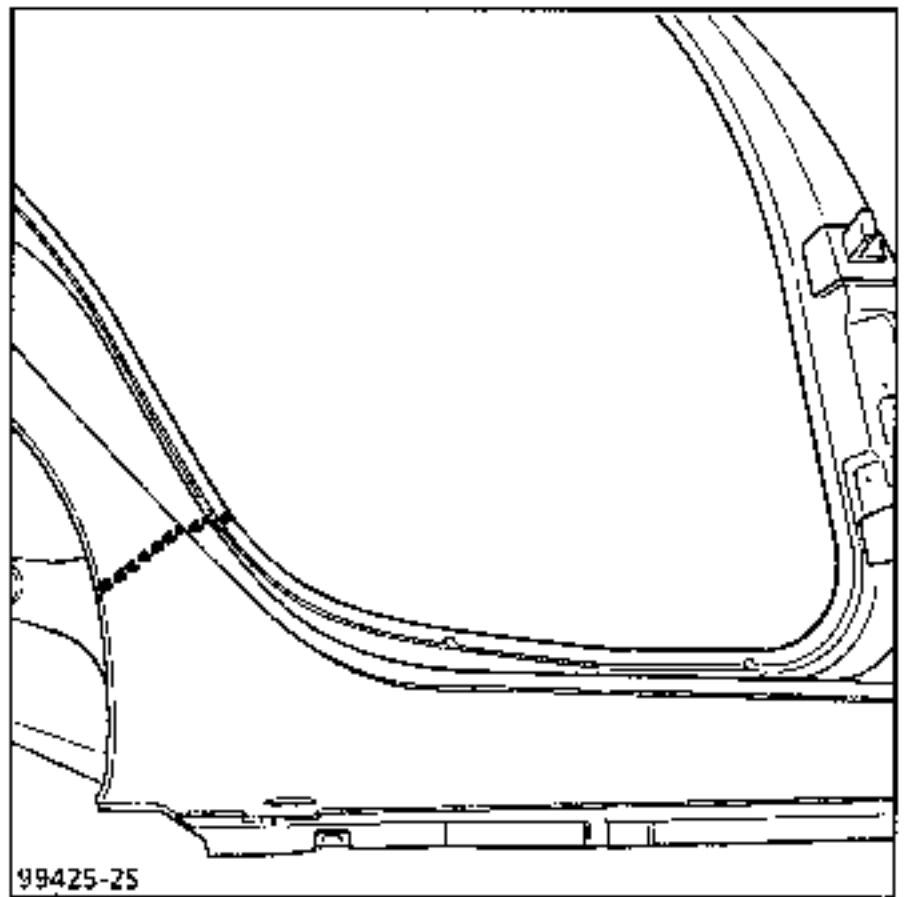
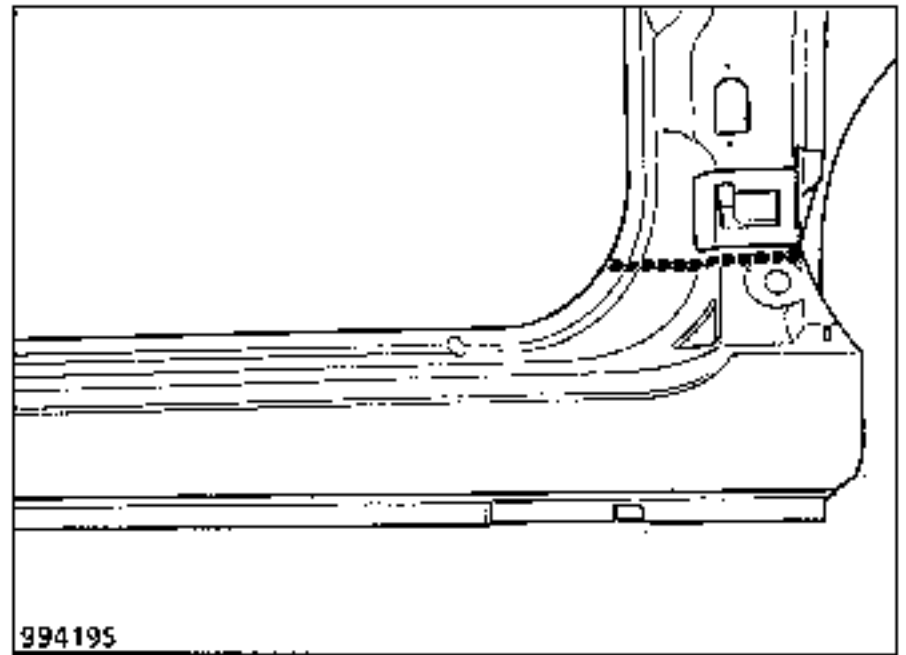
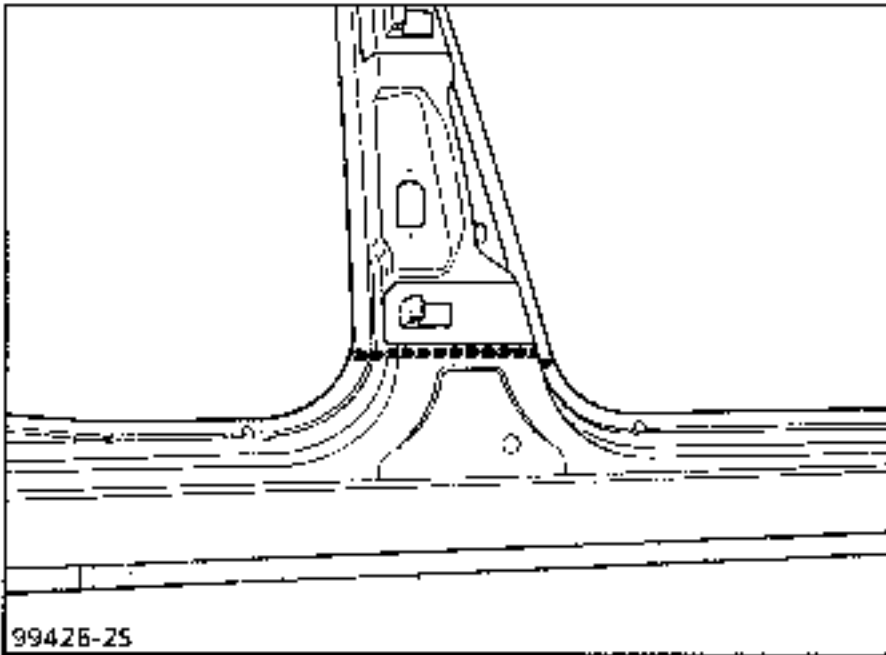
Thickness of panels concerned (mm)

Sill panel, complete 0.8

Unpicking

 350 mm x 3 on thickness 0.8 mm

Welding

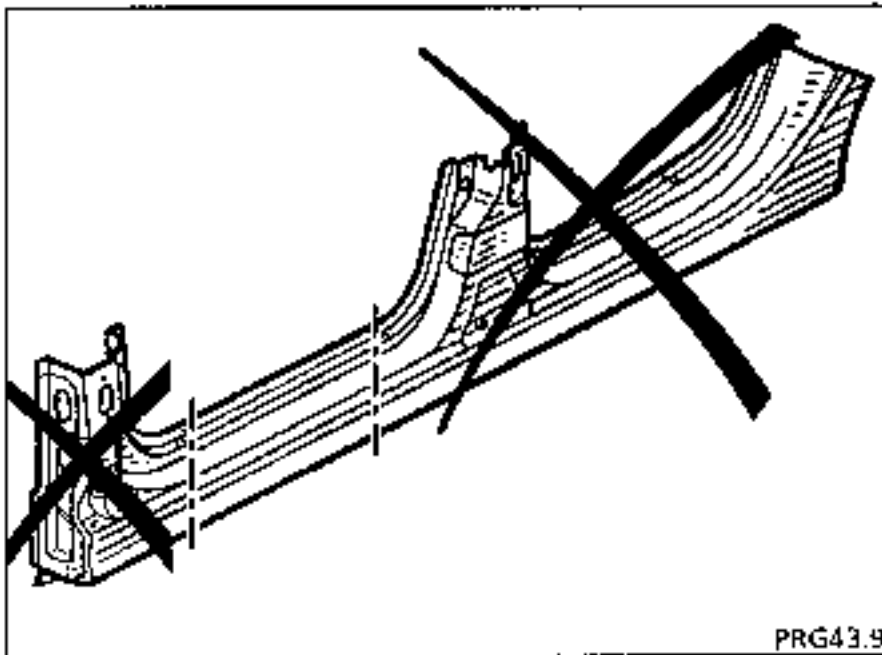


INTRODUCTION

The replacement of this part is a basic operation for a side impact.

COMPOSITION OF PART FROM PARTS DEPARTMENT

Single part.



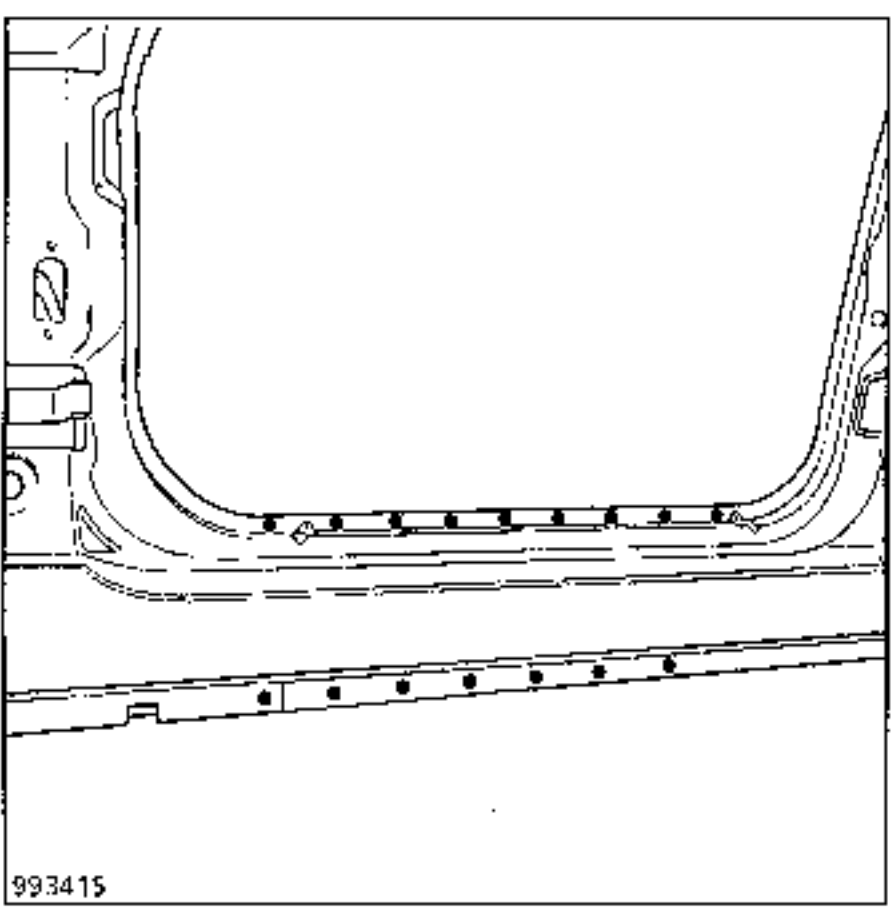
**1** JOINT WITH INNER SILL PANEL, FRONT SECTION

Thickness of panels concerned (mm)	
Inner sill panel	1.8
Sill panel, complete	0.8

Unpicking



Welding



993415



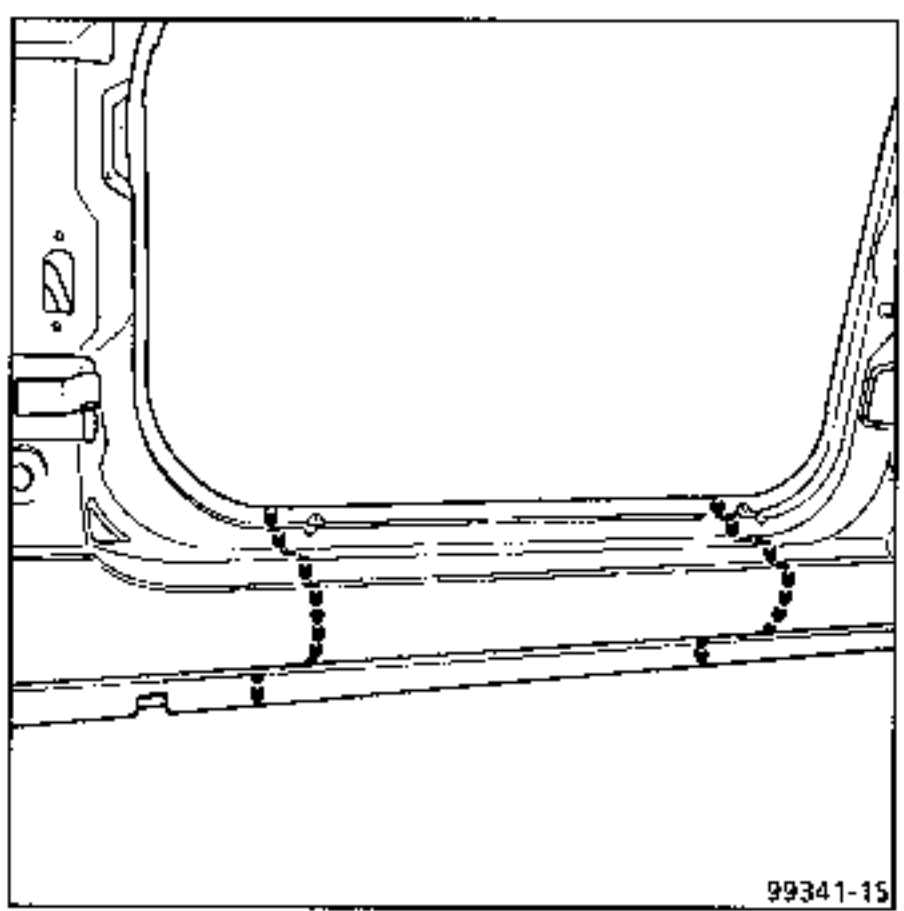
**2** JOINT WITH PART SECTIONS

Thickness of panels concerned (mm)	
Sill panel, part section	0.8

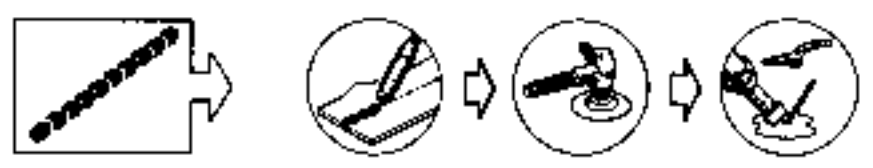
Unpicking



Welding



99341-15





## INTRODUCTION

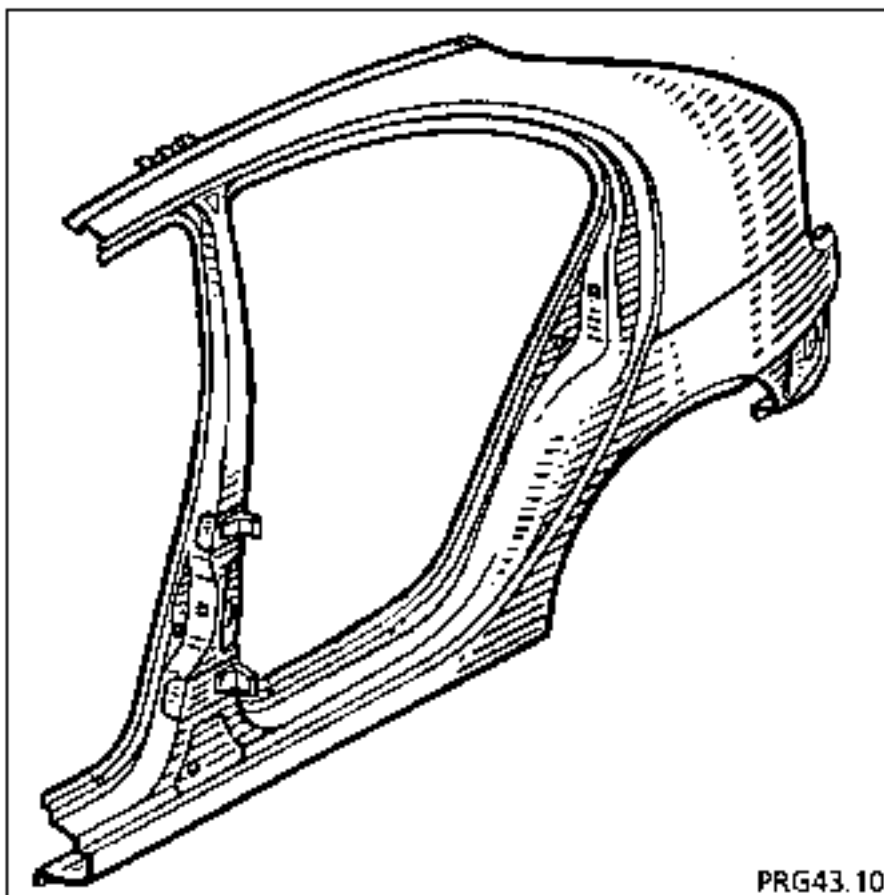
The replacement of this part is a basic operation for a rear side impact.

For the information required for replacement, refer to operations **43-D - 43-G** and **44-A**.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with:

- reinforcements,
- welded hinge knuckles.



PRG43.10

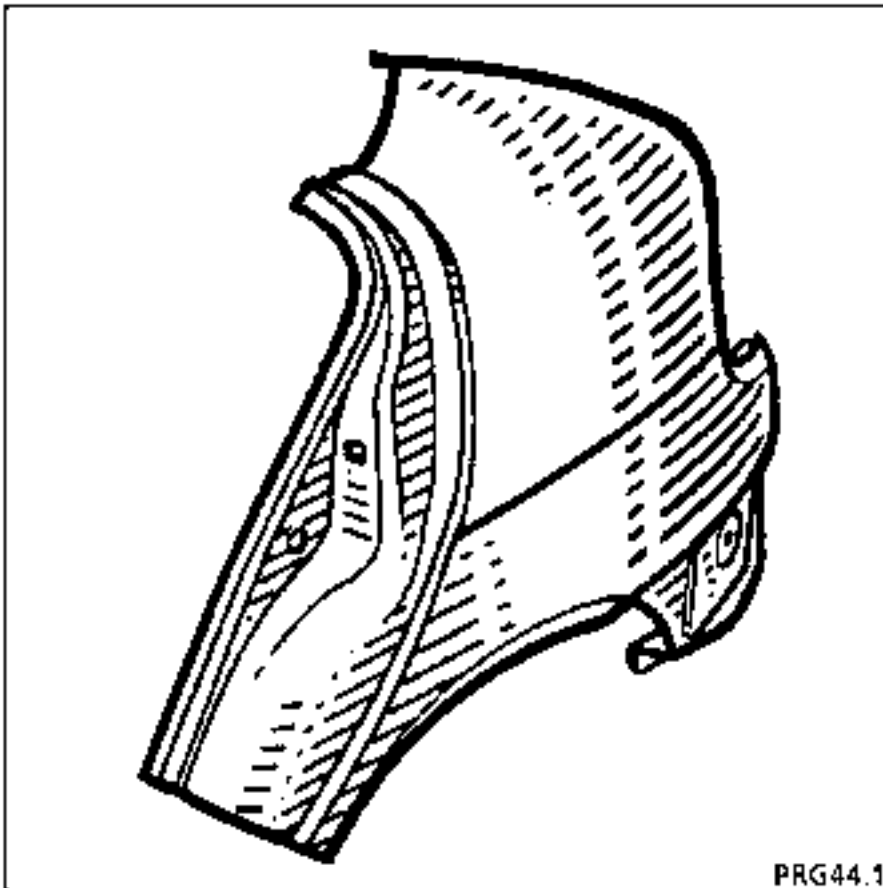
## INTRODUCTION

The replacement of this part is a basic operation for a rear collision.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with:

- striker plate reinforcement,
- bumper counter-blade mounting.



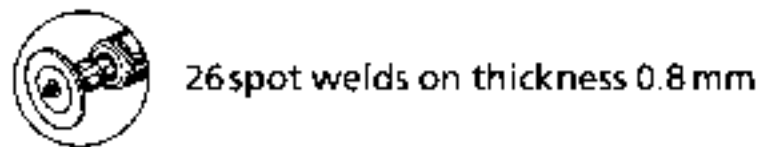
PRG44.1

**1** JOINT WITH REAR QUARTER PANEL LINING

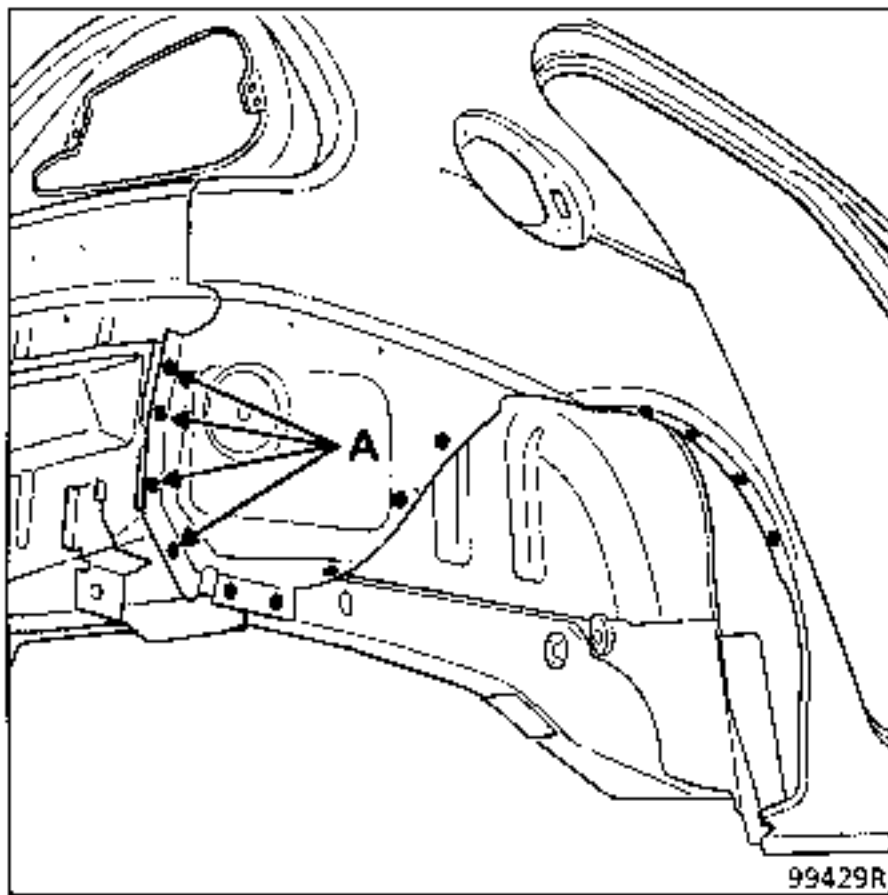
Thickness of panels concerned (mm)

Wing panel	0.8
Rear quarter panel lining	0.7
Rear end panel	0.7

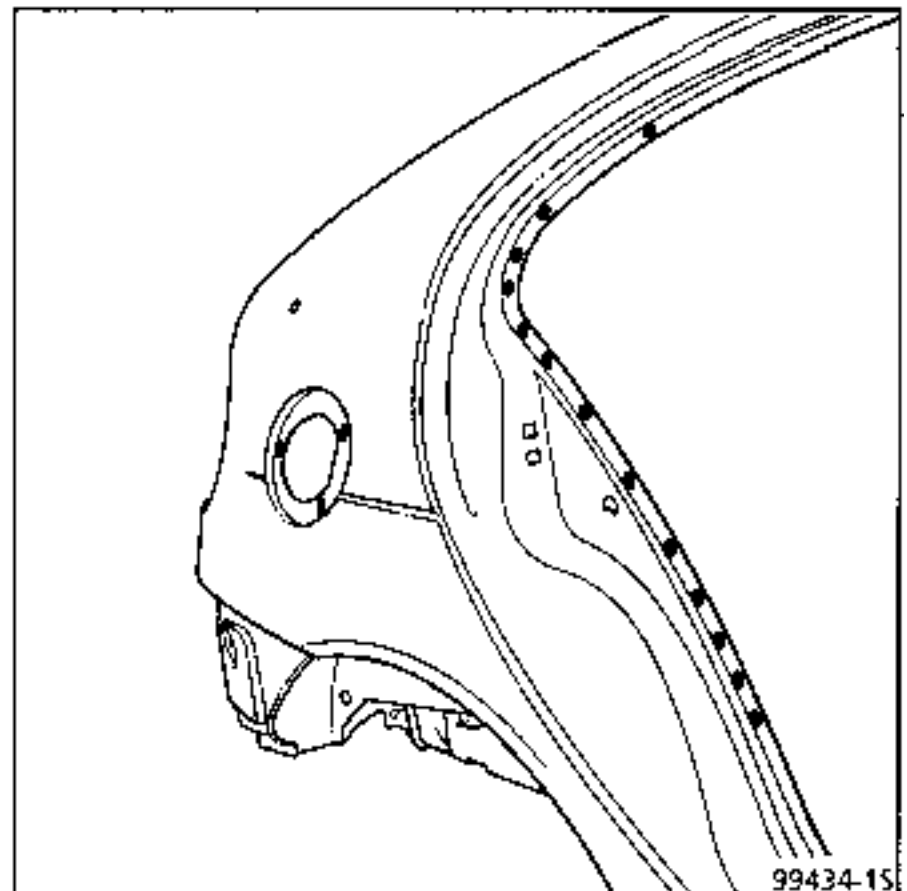
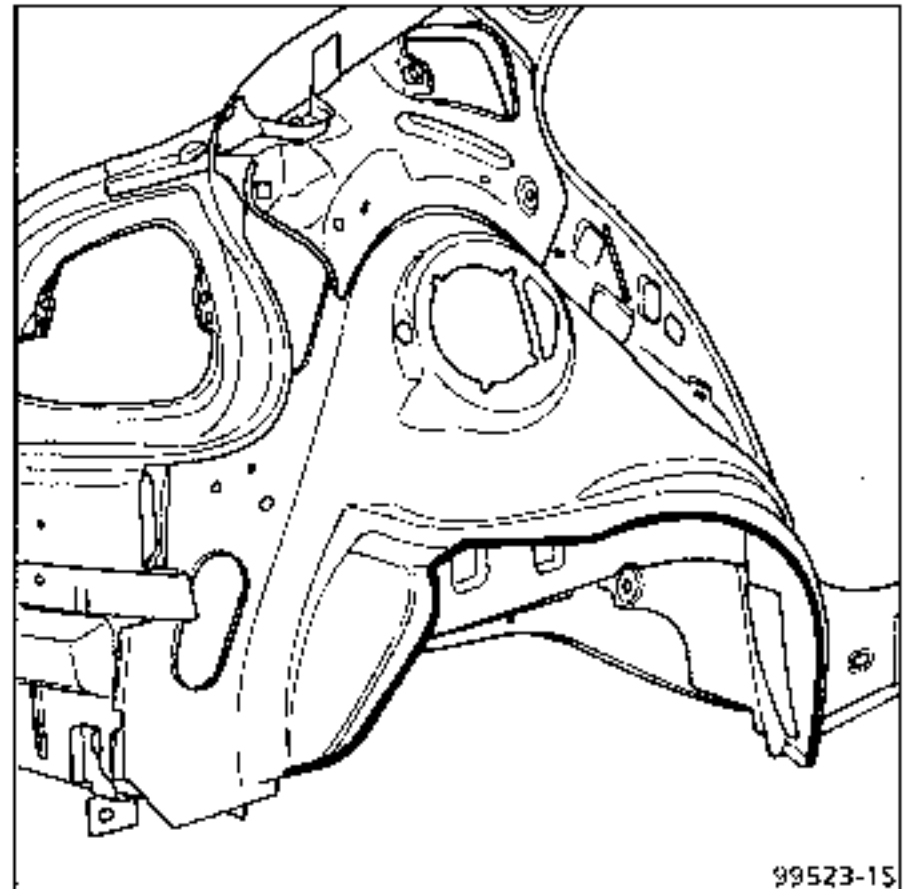
Unpicking



Welding



NOTE : at A, welds are on 3 thicknesses.

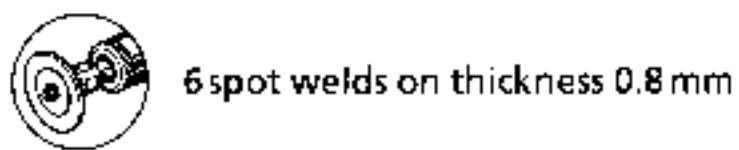


**2** JOINT WITH LOWER RAIN CHANNEL

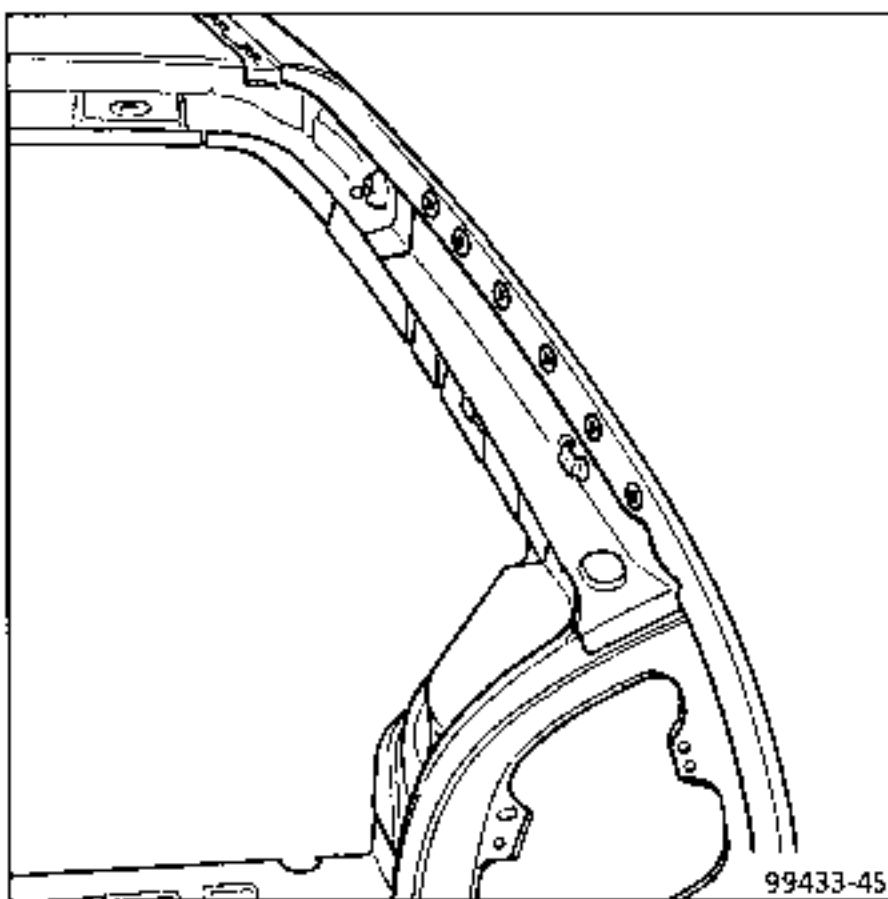
Thickness of panels concerned (mm)

Wing panel	0.8
Lower rain channel	1

Unpicking



Welding

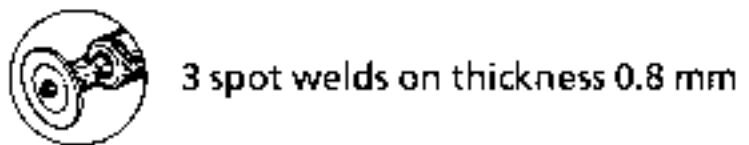


**3** JOINT WITH REAR END PANEL

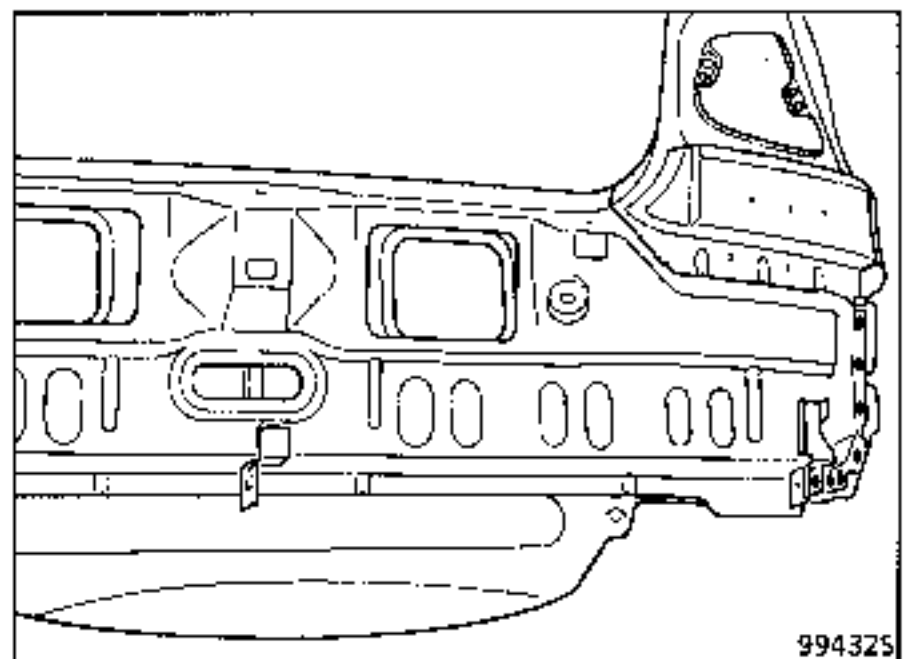
Thickness of panels concerned (mm)

Wing panel	0.8
Rear end panel	0.7
Rear quarter panel lining	0.7

Unpicking



Welding



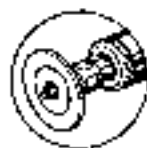
NOTE : welds are on 3 thicknesses.

**4** JOINT WITH LIGHTS MOUNTING

Thickness of panels concerned (mm)

Wing panel	0.8
Lights mounting	0.7

Unpicking

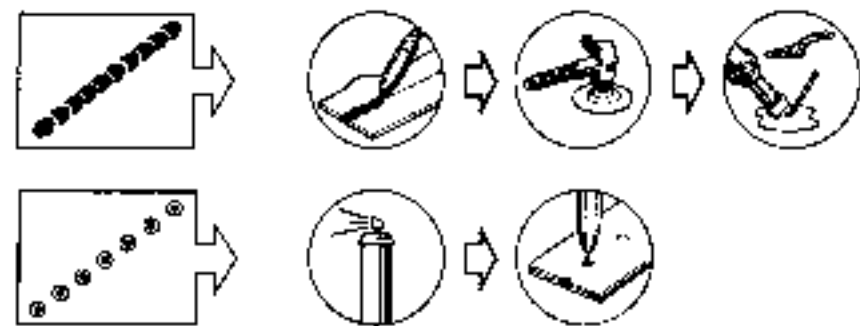
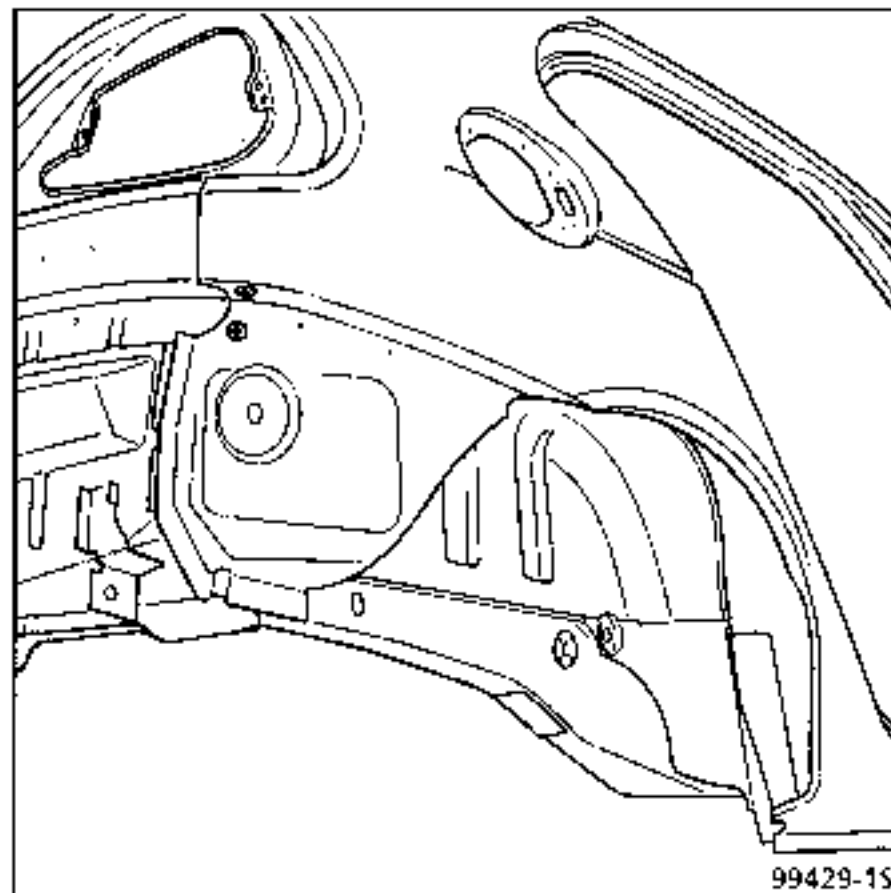
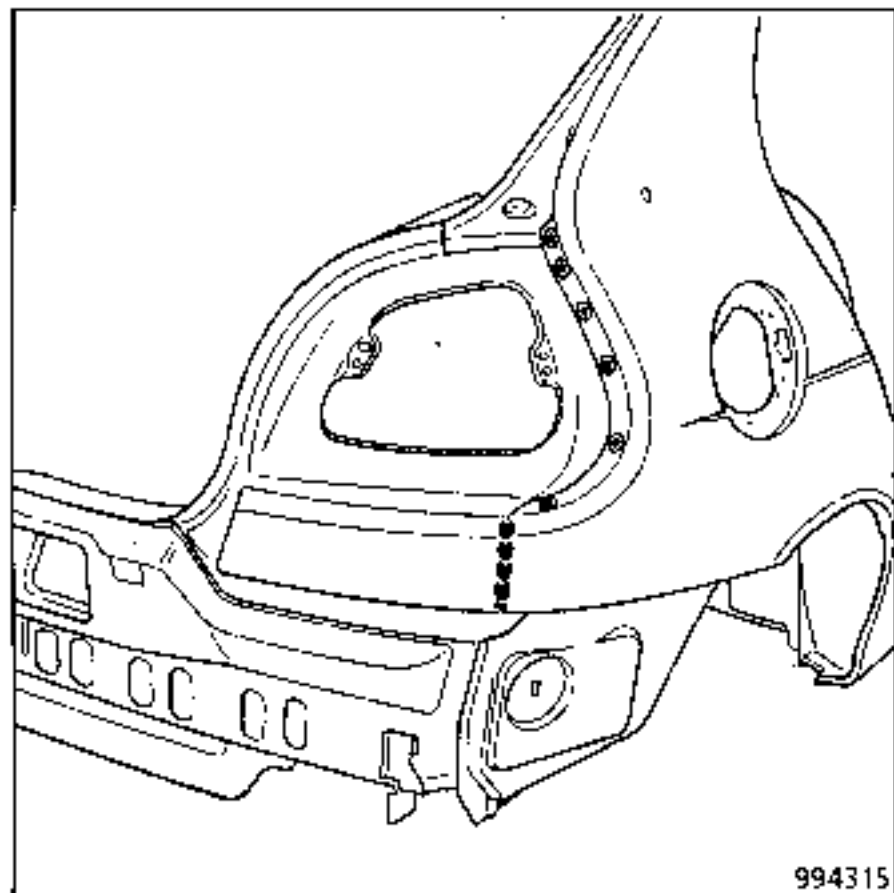


8 spot welds on thickness 0.8 mm



100 mm on thickness 0.8 mm

Welding



**5** JOINT WITH PART SECTIONS

Thickness of panels concerned (mm)

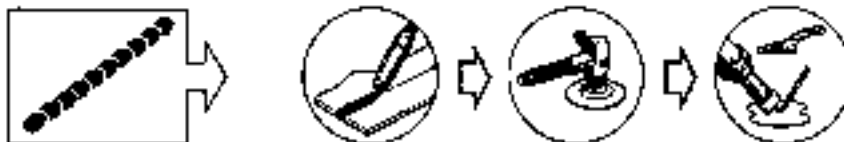
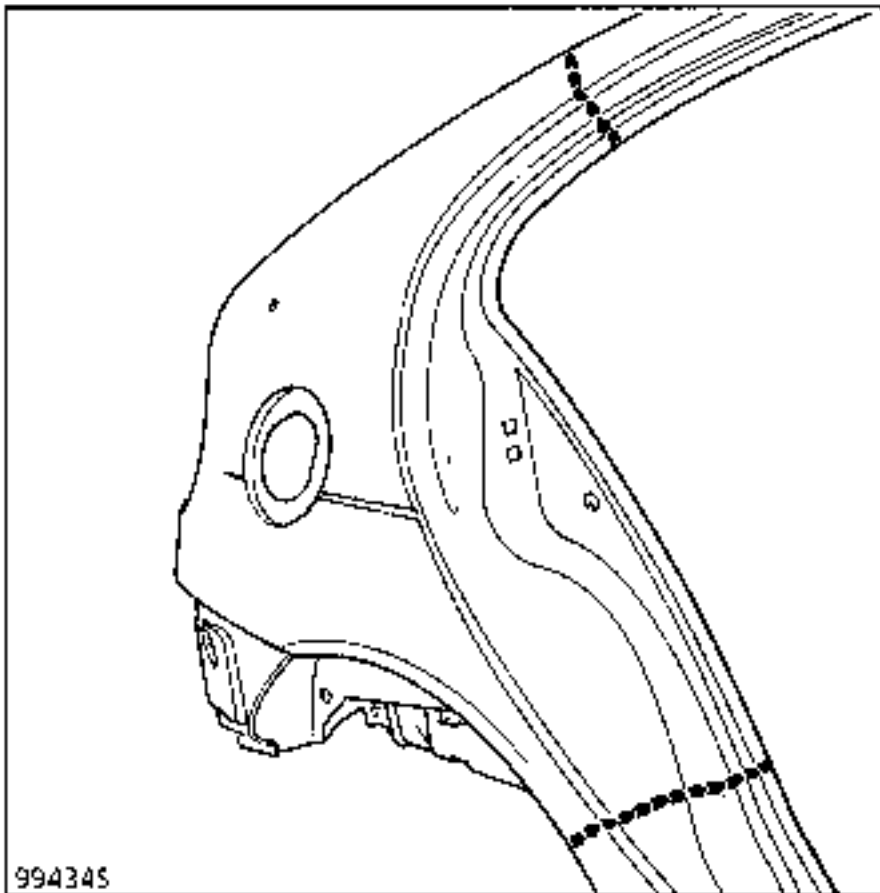
Wing panel 0.8

Unpicking



300 – 150 mm on thickness 0.8 mm

Welding

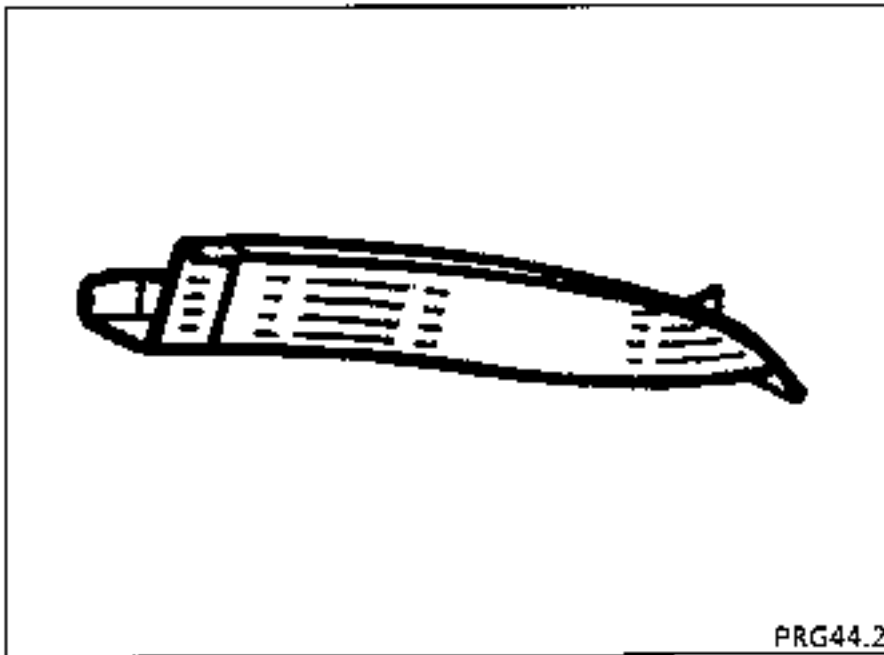


**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of a wing panel.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



**1 JOINT WITH WING PANEL UPPER RAIN CHANNEL**

**Thickness of panels concerned (mm)**

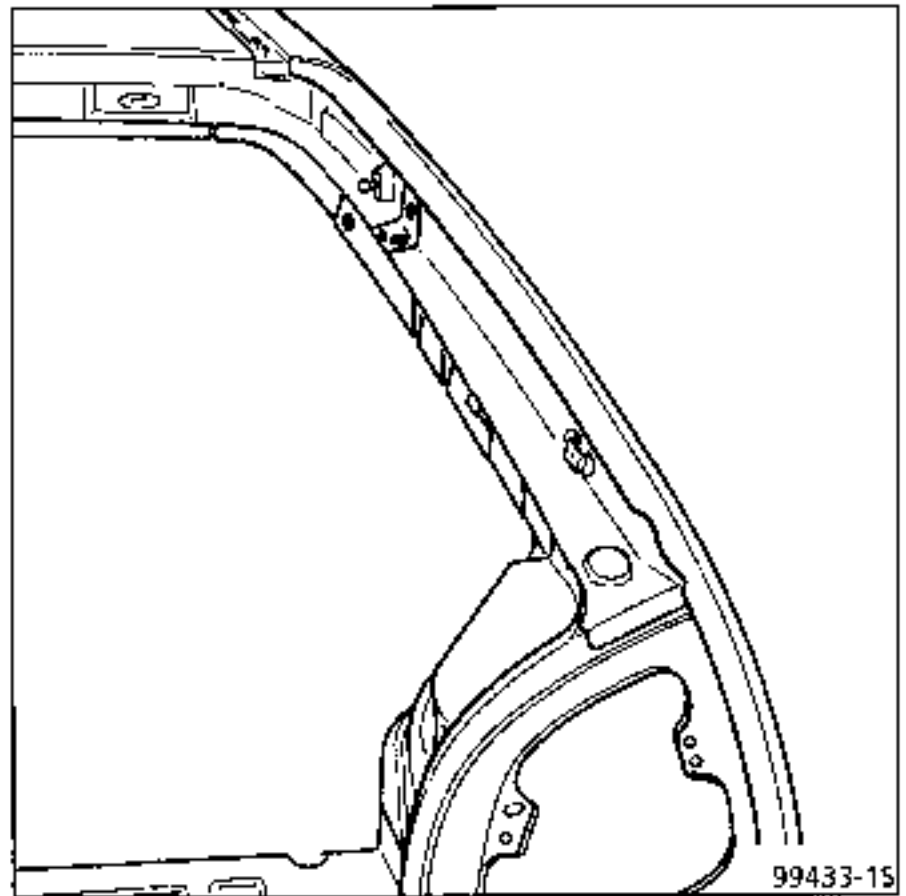
Wing panel lower rain channel	1
Wing panel upper rain channel	1.5

**Unpicking**



4 spot welds on thickness 1 mm

**Welding**

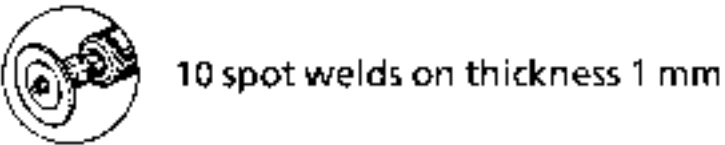


**2** JOINT WITH LIGHTS MOUNTING

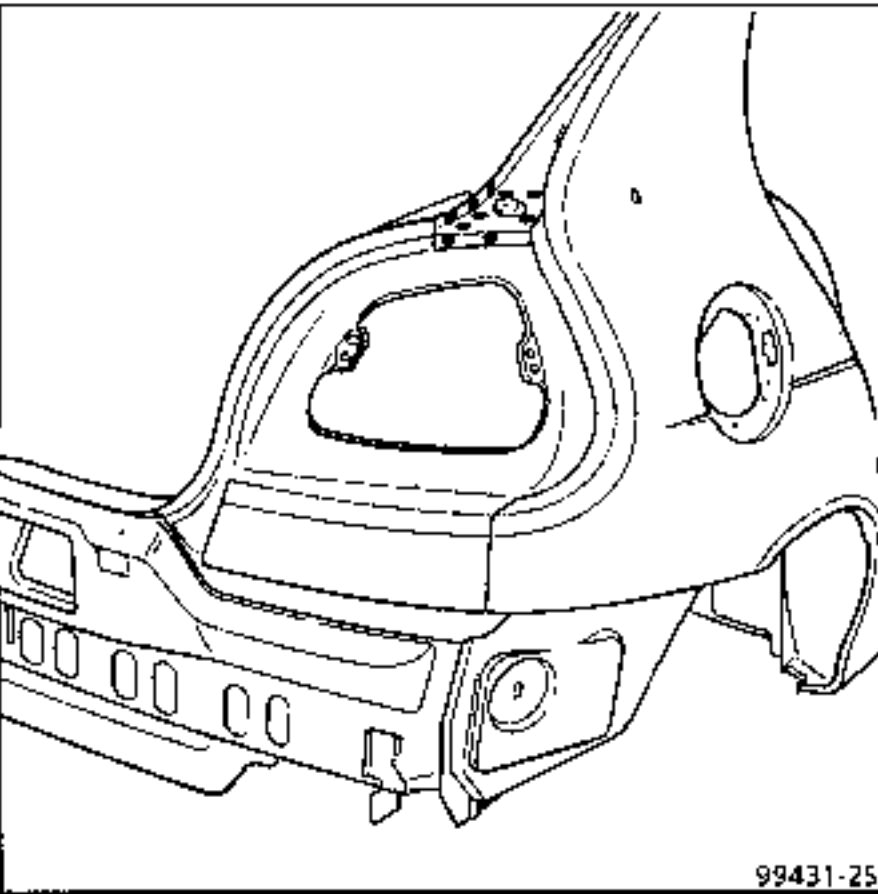
Thickness of panels concerned (mm)

Wing panel lower rain channel	1
Lights mounting	0.7

Unpicking



Welding

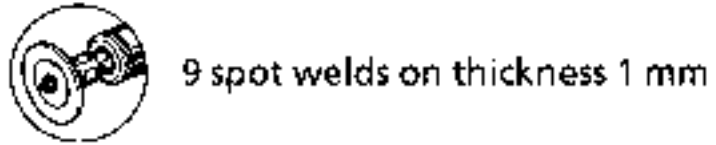


**3** JOINT WITH REAR QUARTER PANEL LINING

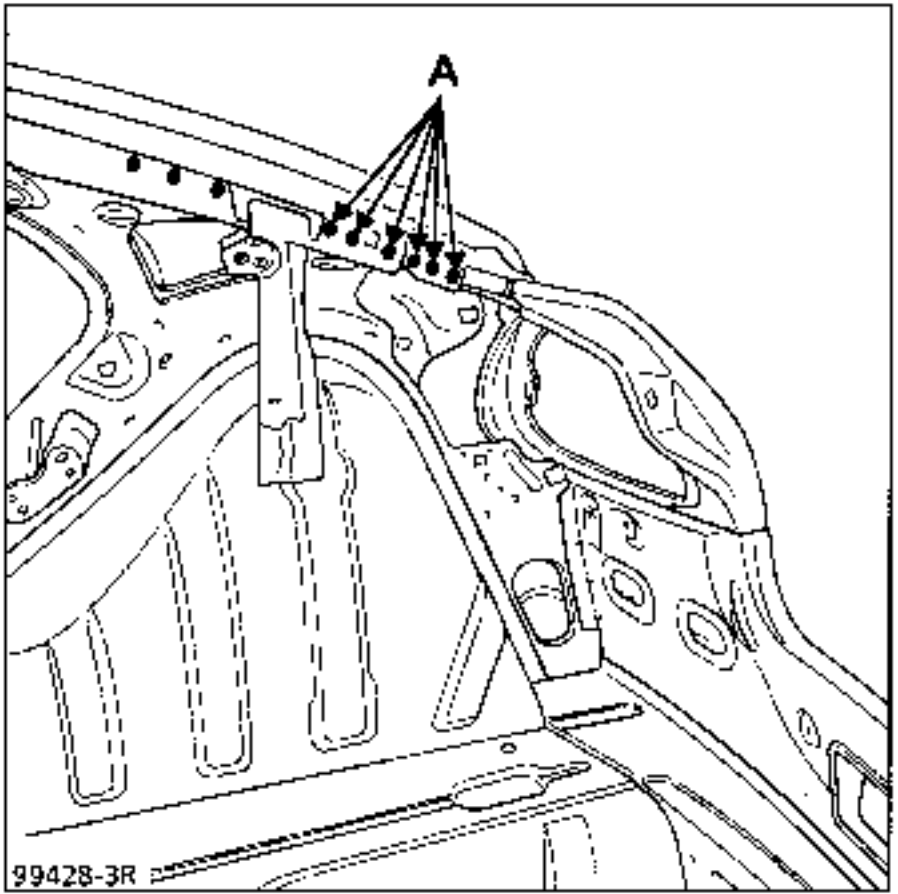
Thickness of panels concerned (mm)

Wing panel lower rain channel	1
Rear quarter panel lining	0.7
Rear quarter panel upper reinforcement	1.5

Unpicking



Welding



NOTE : at A, 6 welds on 3 thicknesses.



**4** JOINT WITH INNER WHEEL ARCH (RIGHT  
HAND SIDE ONLY)

Thickness of panels concerned (mm)

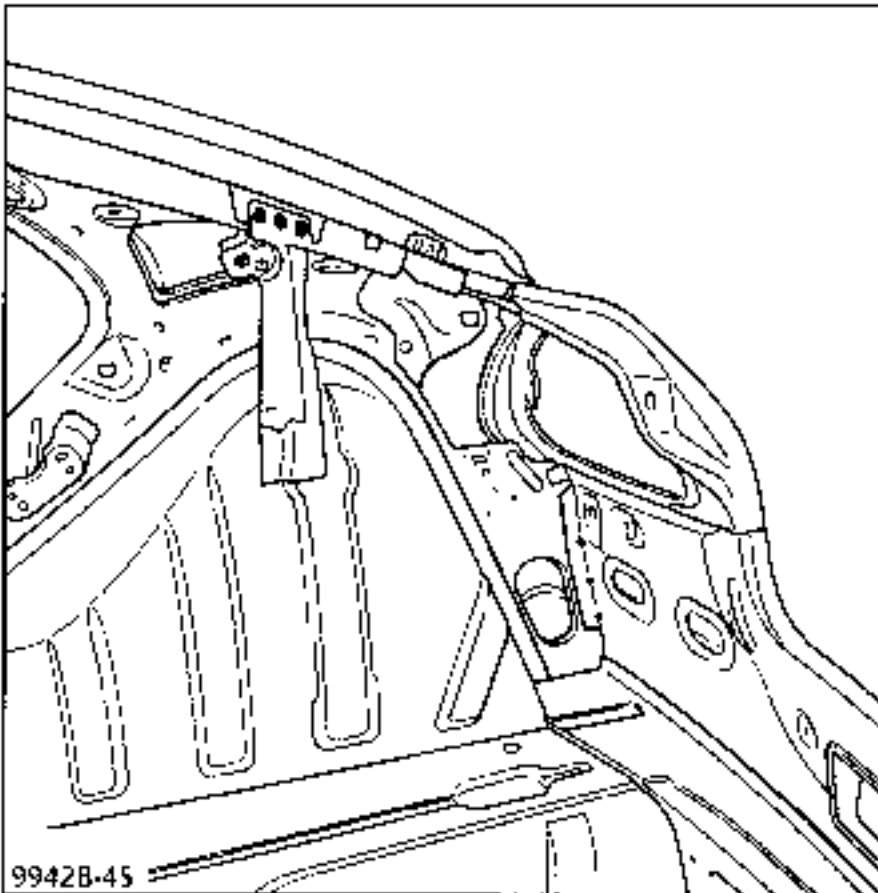
Wing panel lower rain channel	1
Seat belt mounting reinforcement	1.5

Unpicking



3 spot welds on thickness 1 mm

Welding



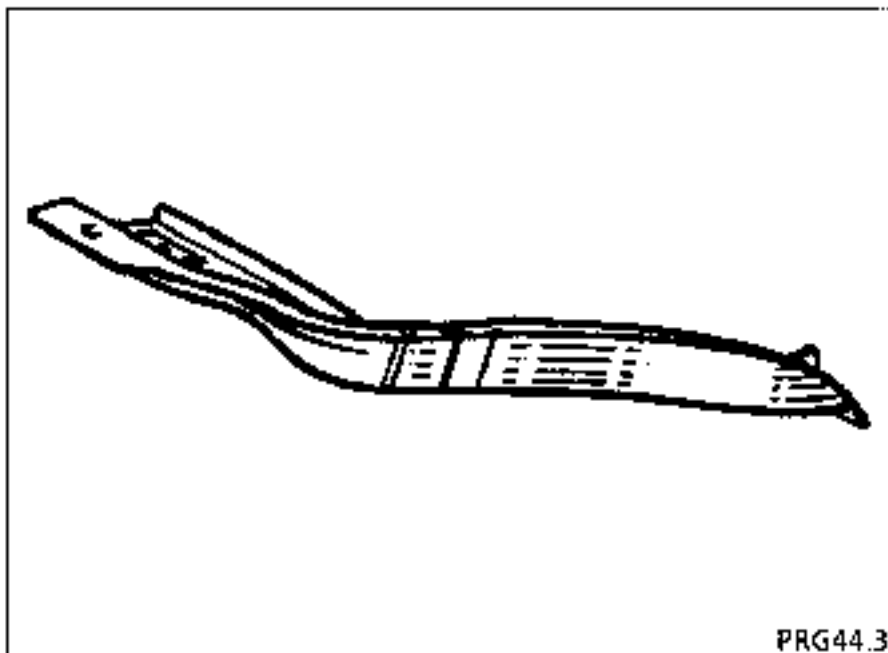
## INTRODUCTION

The replacement of this part is a complementary operation to the replacement of a wing panel with rear quarter panel lining.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with:

- upper section,
- lower section,
- balancer ball joint.



**1** JOINT WITH LIGHTS MOUNTING

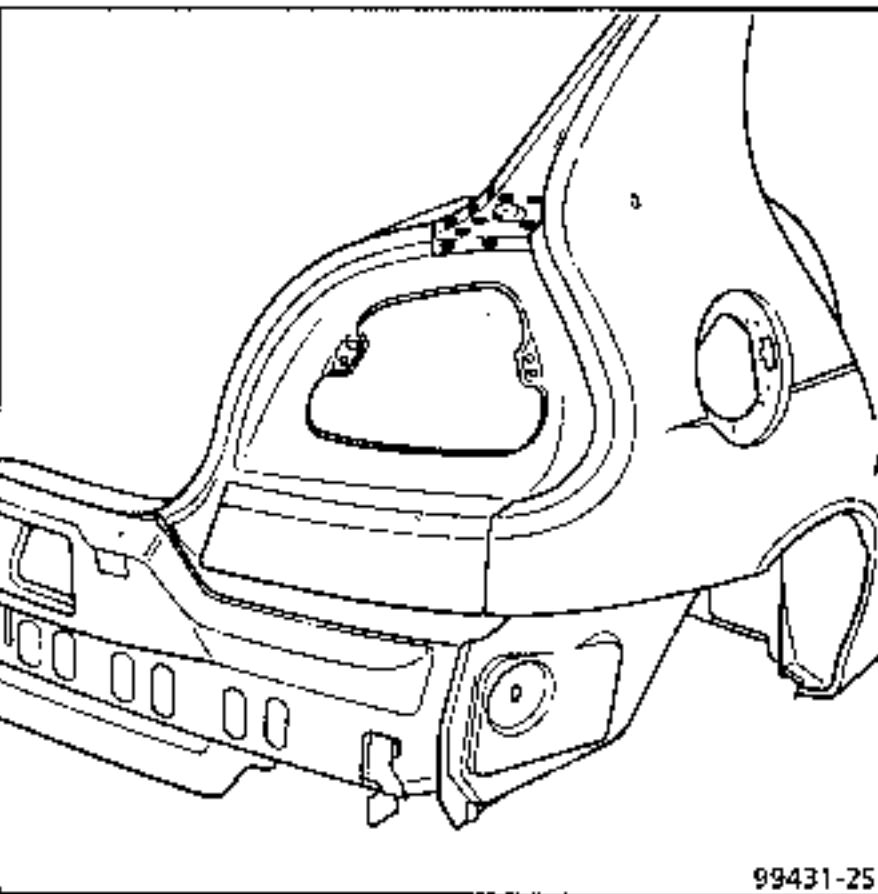
Thickness of panels concerned (mm)

Wing panel lower rain channel	1
Lights mounting	0.7

Unpicking



Welding



99431-25

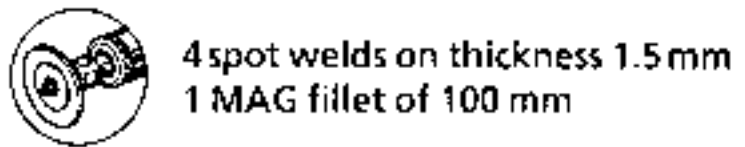


**2** JOINT WITH ROOF

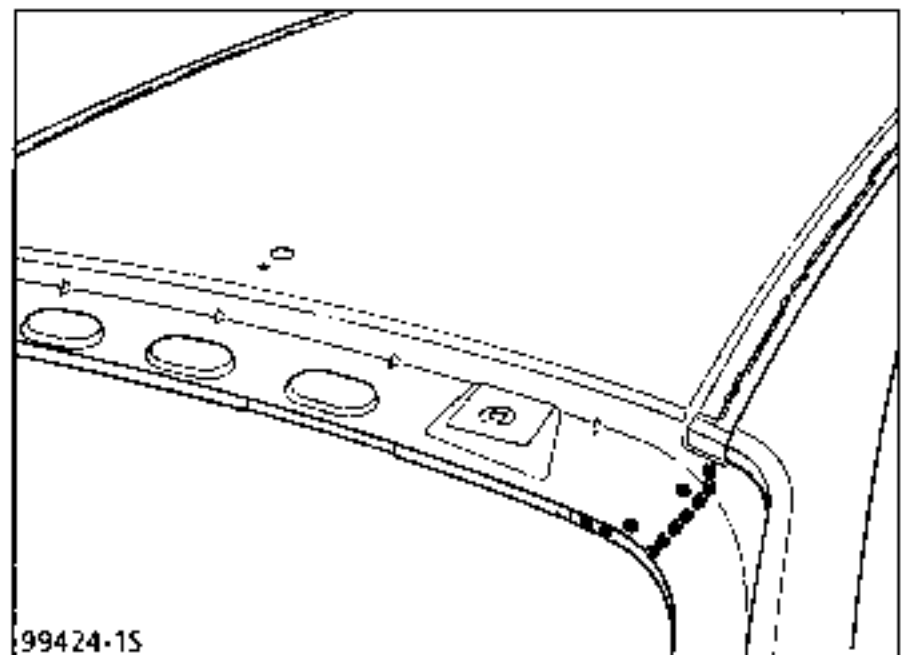
Thickness of panels concerned (mm)

Wing panel upper rain channel	1.5
Roof	0.7

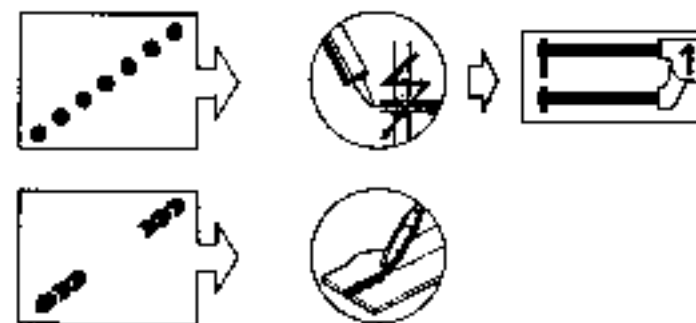
Unpicking



Welding



99424-1S



**INTRODUCTION**

The replacement of this part is a basic operation if the part breaks.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

- Part assembled with:
- ball joint mounting,
  - balancer ball joint.



PRG44.4

**1 JOINT WITH WING PANEL UPPER RAIN CHANNEL**

**Thickness of panels concerned (mm)**

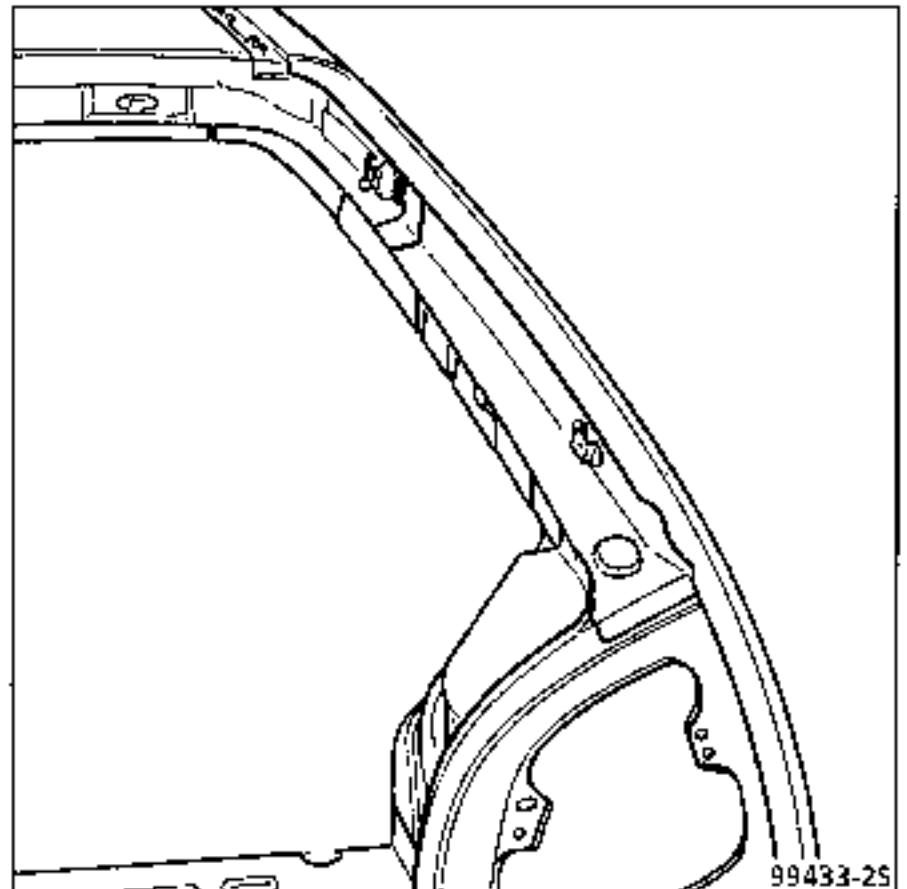
Tailgate balancer ball joint mounting	2
Wing panel upper rain channel	1.5

**Unpicking**



4 spot welds on thickness 2 mm

**Welding**



99433-2S



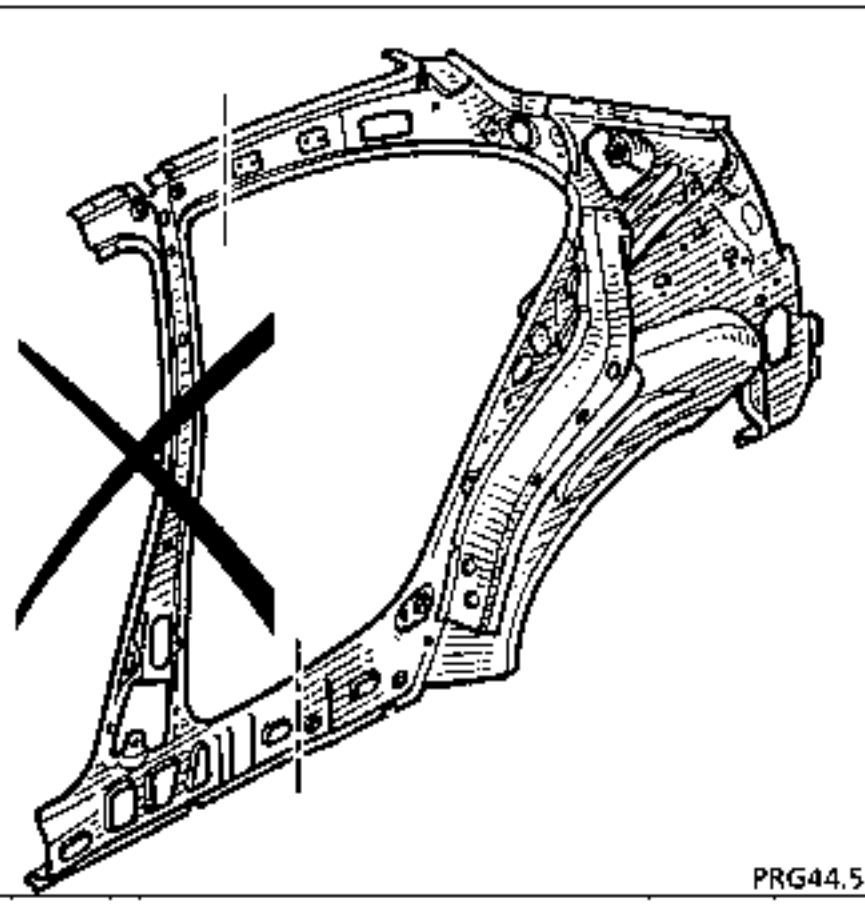
**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of a wing panel.

The centre pillar lining must be cut out from the part from the Parts Department.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

- Part assembled with:
- inertia reel mounting reinforcement,
  - centre pillar lining.



**1 JOINT WITH TOP OF BODY**

**Thickness of panels concerned (mm)**

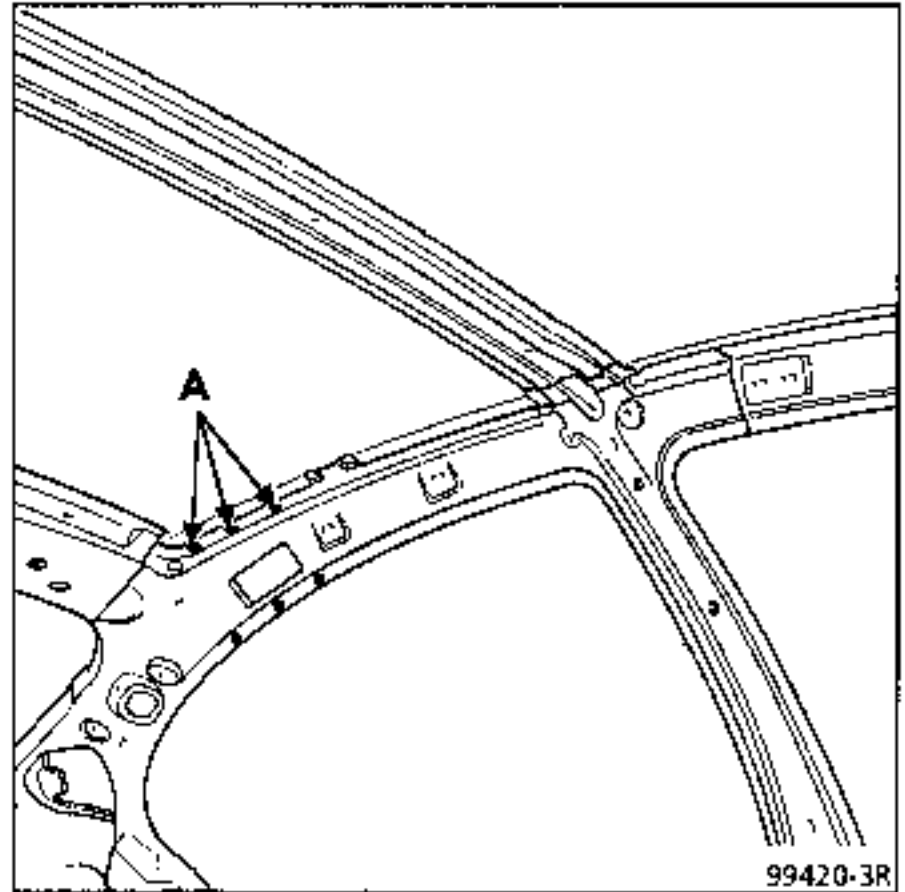
Rear quarter panel lining	0.7
Top of body	1.5
Roof	0.7

**Unpicking**



6 spot welds on thickness 0.7 mm

**Welding**



**NOTE :** at A, welds are on 3 thicknesses with the roof.

**2** JOINT WITH ROOF REAR CROSS MEMBER

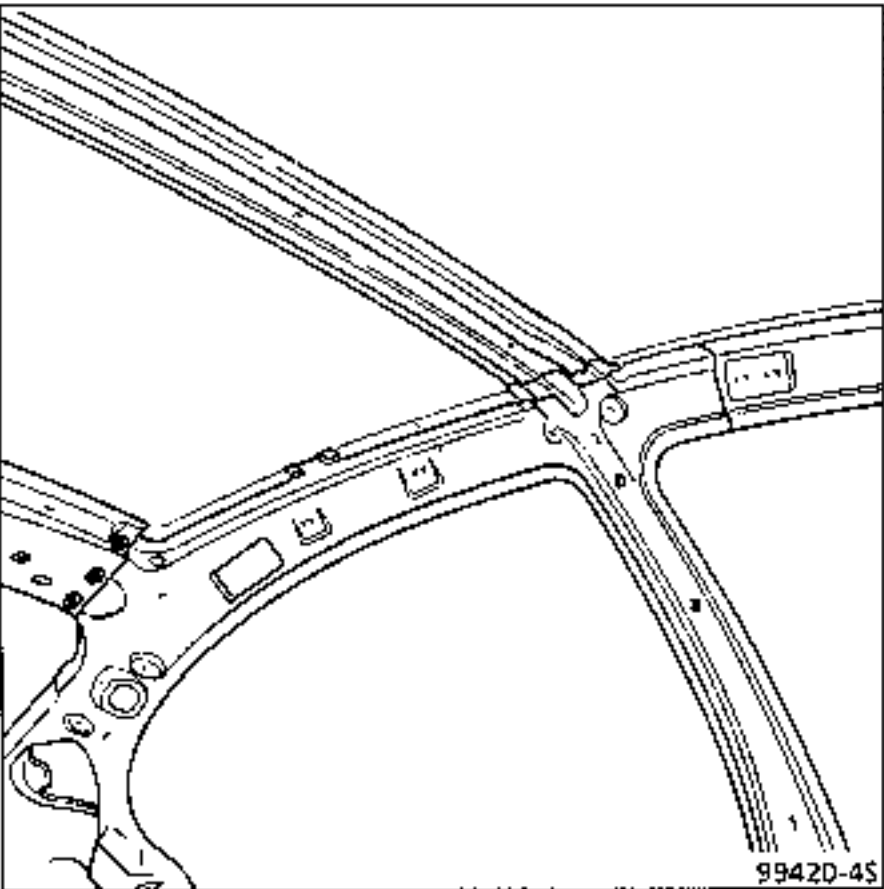
Thickness of panels concerned (mm)

Rear quarter panel lining	0.7
Roof rear cross member	0.8
Roof	0.7

Unpicking



Welding

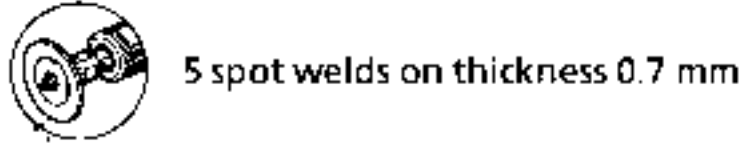


**3** JOINT WITH WING PANEL UPPER RAIN CHANNEL

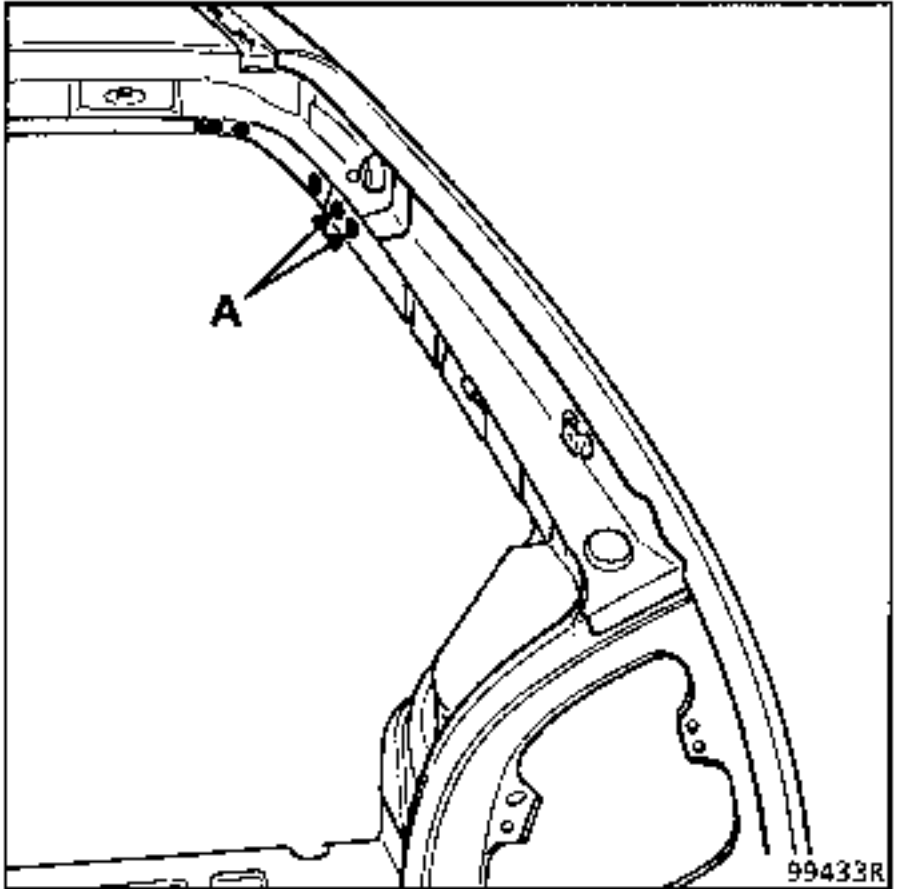
Thickness of panels concerned (mm)

Wing panel lower rain channel	1
Wing panel upper rain channel	1.5
Rear quarter panel lining	0.7

Unpicking



Welding



NOTE : at A, 2 welds are on 3 thicknesses.

**4** JOINT WITH REAR INNER WHEEL ARCH

**Thickness of panels concerned (mm)**

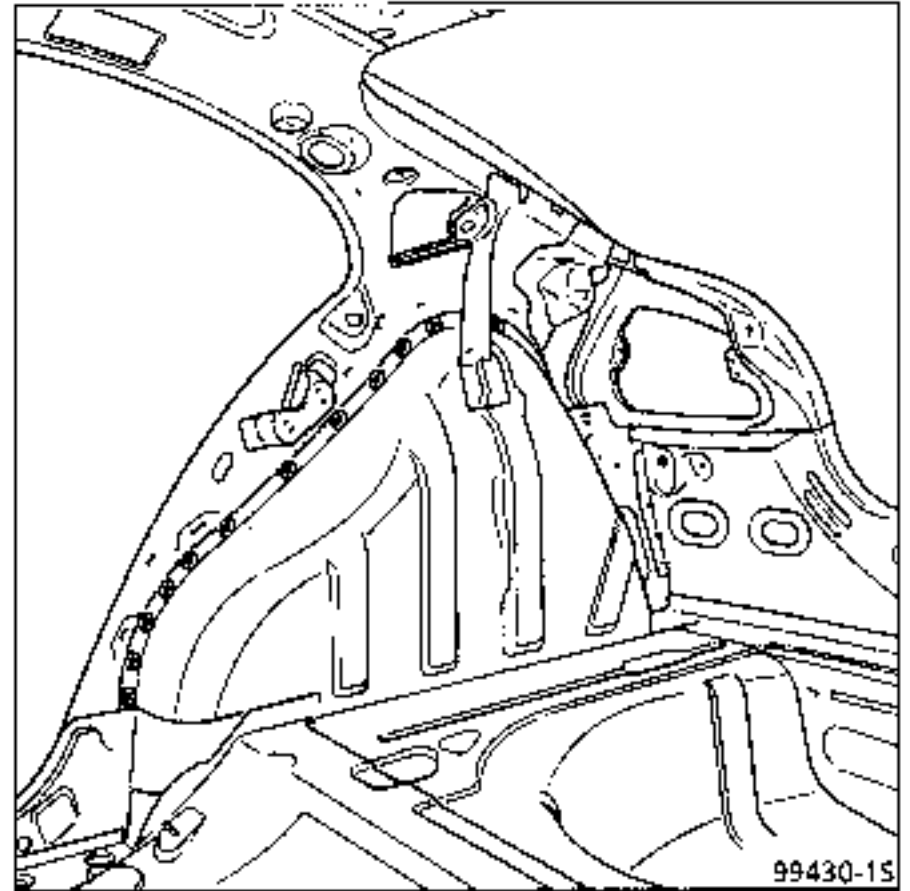
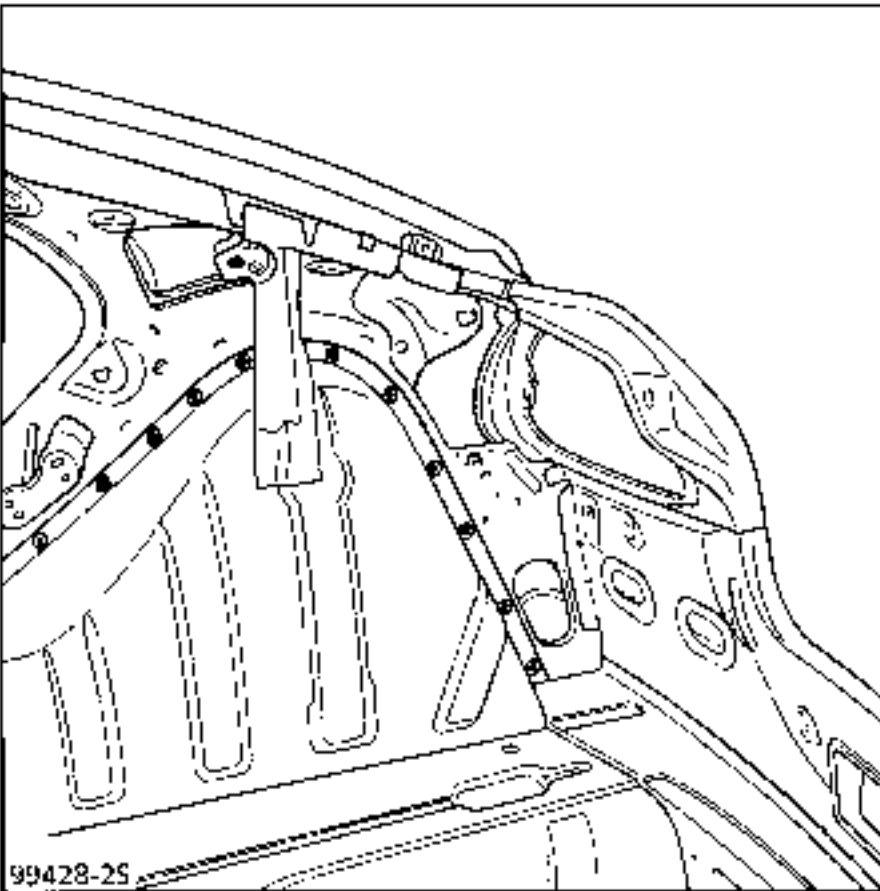
Rear quarter panel lining	0.7
Rear inner wheel arch	0.7

**Unpicking**



18 spot welds on thickness 0.7 mm

**Welding**



**5** JOINT WITH COMPLETE REAR SIDE MEMBER

**Thickness of panels concerned (mm)**

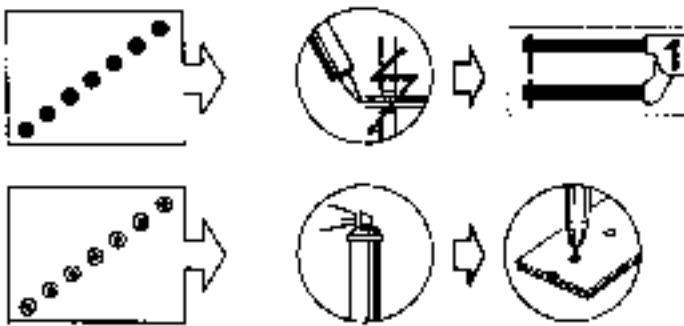
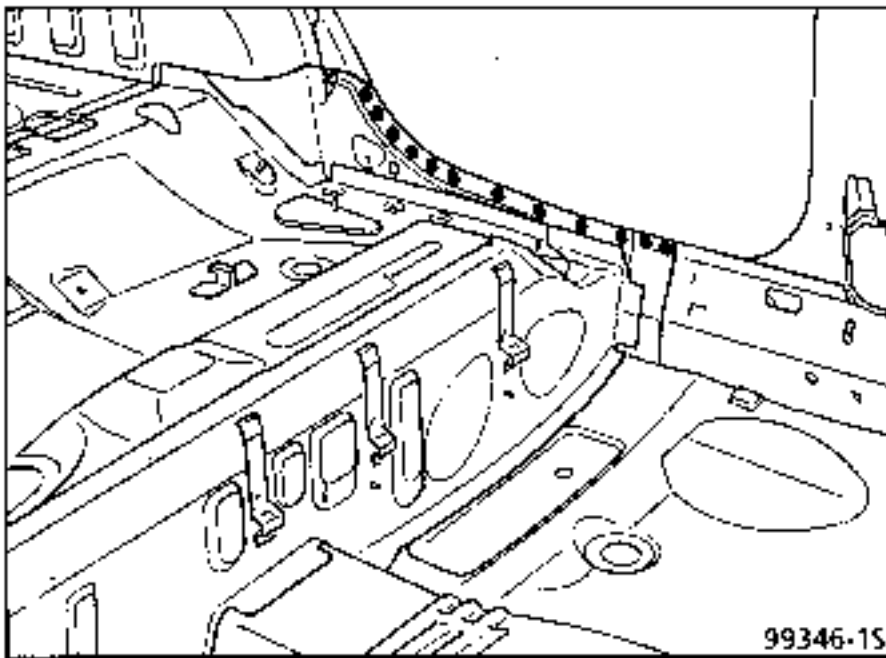
Inner sill panel, rear section	1.5
Rear quarter panel lining	0.7
Sill panel	0.8

**Unpicking**

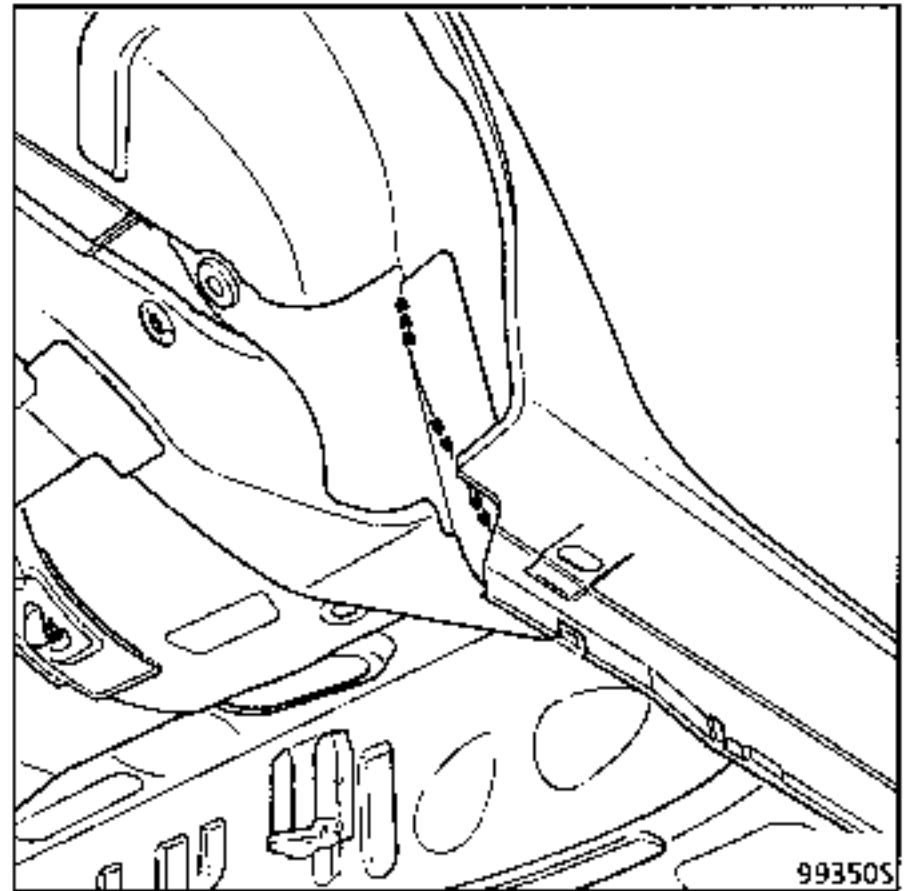


13 spot welds on thickness 1.5 mm  
3 fillets of 20 mm

**Welding**



NOTE : welds are on 3 thicknesses.





**6** JOINT WITH REAR END PANEL LINING

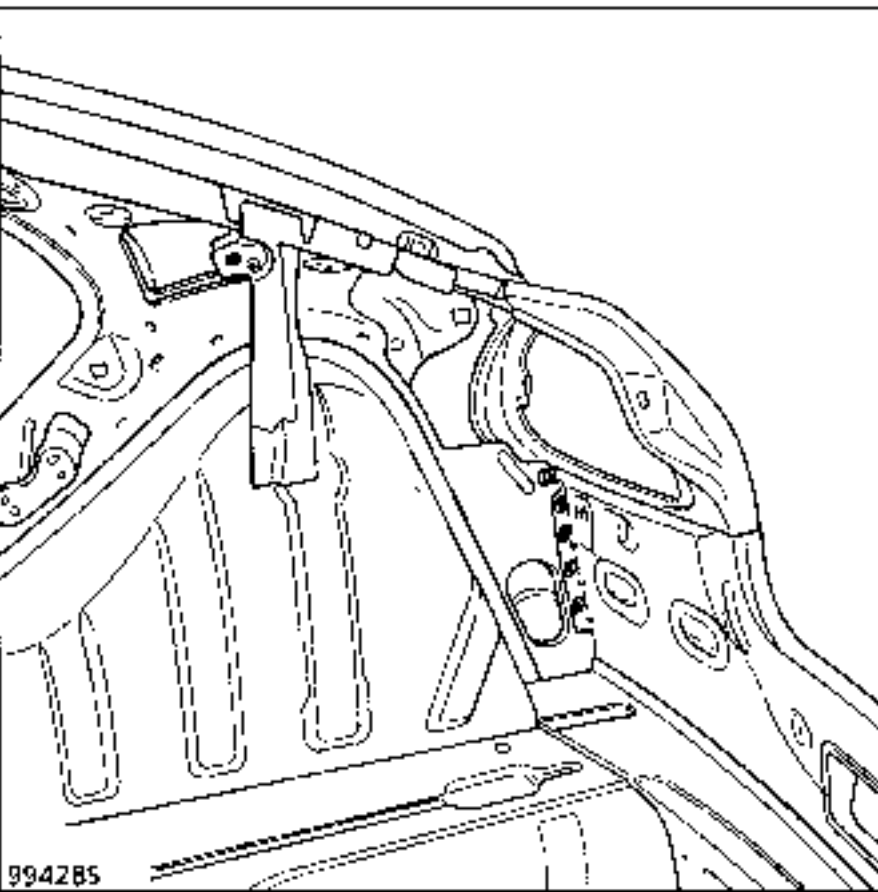
Thickness of panels concerned (mm)

Rear quarter panel lining	0.7
Rear end panel lining	0.7

Unpicking



Welding



**7** JOINT WITH REAR END PANEL

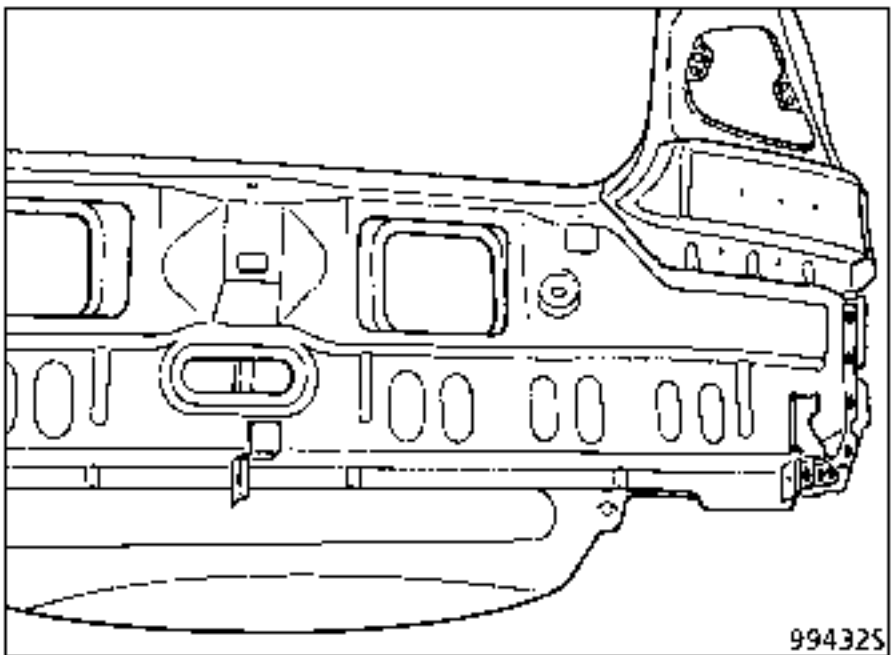
Thickness of panels concerned (mm)

Rear quarter panel lining	0.7
Rear end panel	0.7
Wing panel	0.8

Unpicking



Welding



NOTE : welds are on 3 thicknesses

**8** JOINT WITH PART SECTIONS

Thickness of panels concerned (mm)

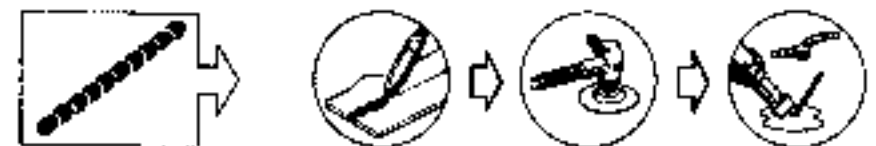
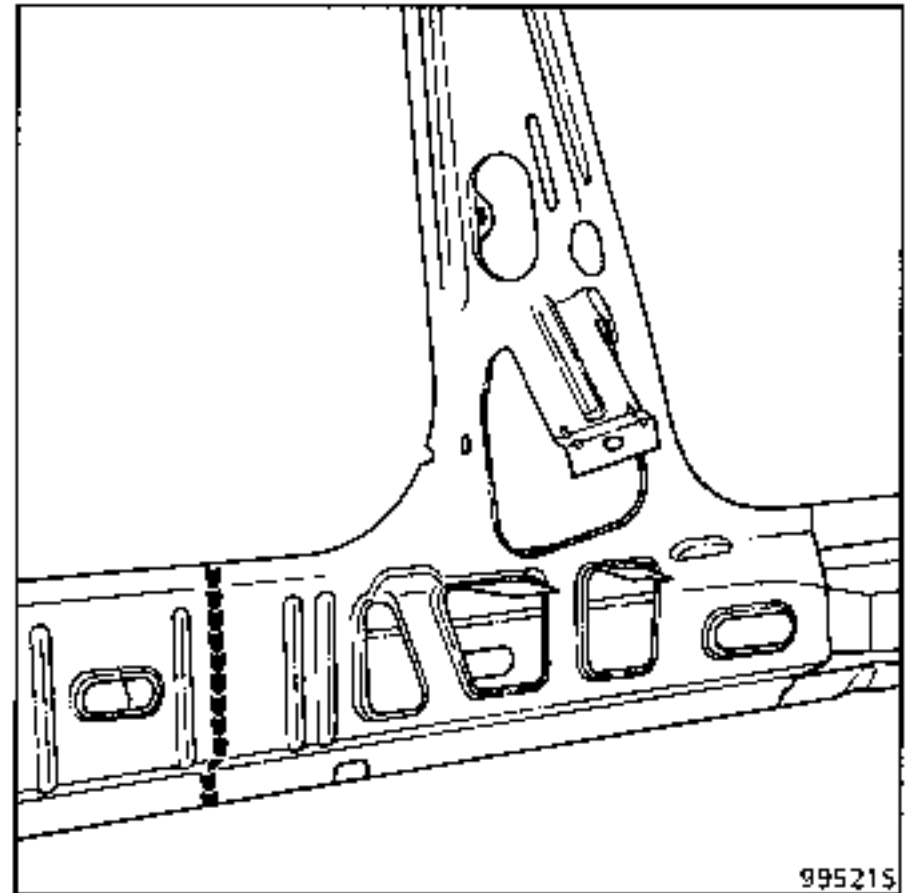
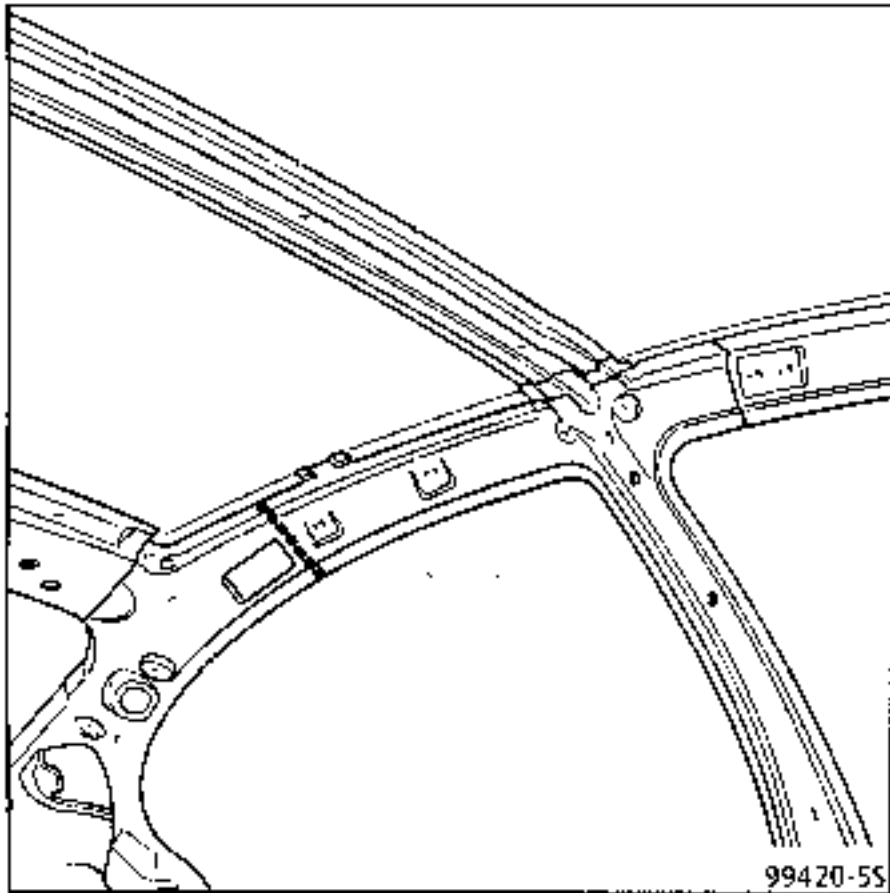
Rear quarter panel lining 0.7

Unpicking



250 mm – 100 mm on thickness 0.7 mm

Welding

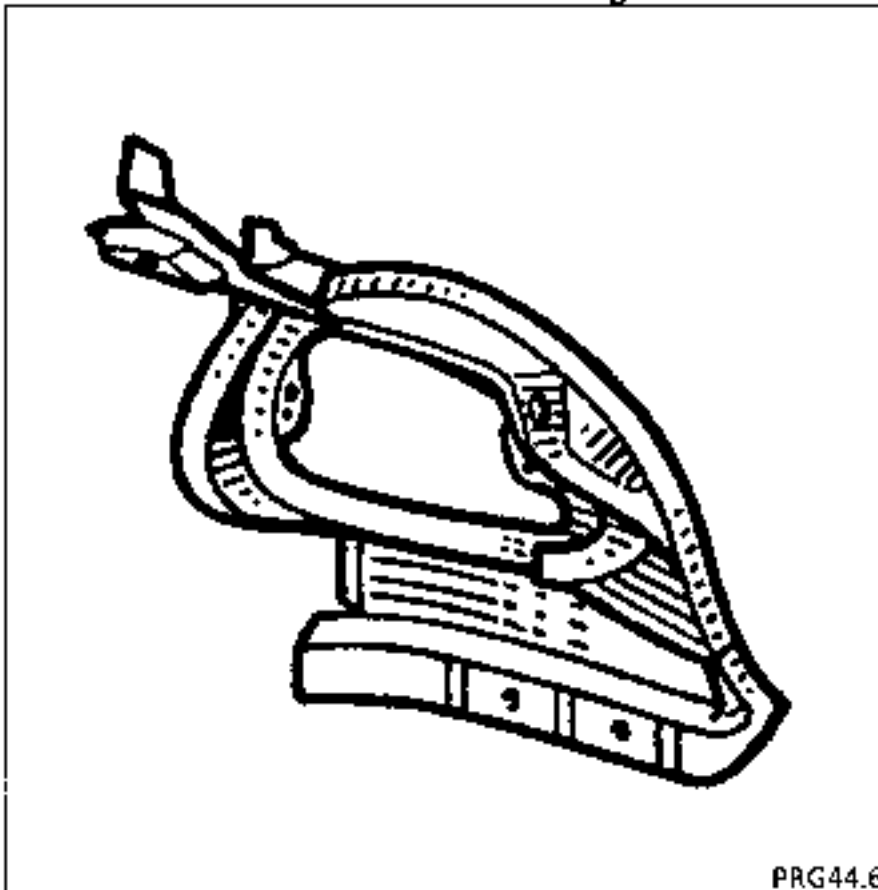


## INTRODUCTION

The replacement of this part is a complementary operation to the replacement of a wing panel or the rear end panel.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with shelf mounting.



**1** JOINT WITH WING PANEL

Thickness of panels concerned (mm)

Wing panel	0.8
Lights mounting	0.7

Unpicking

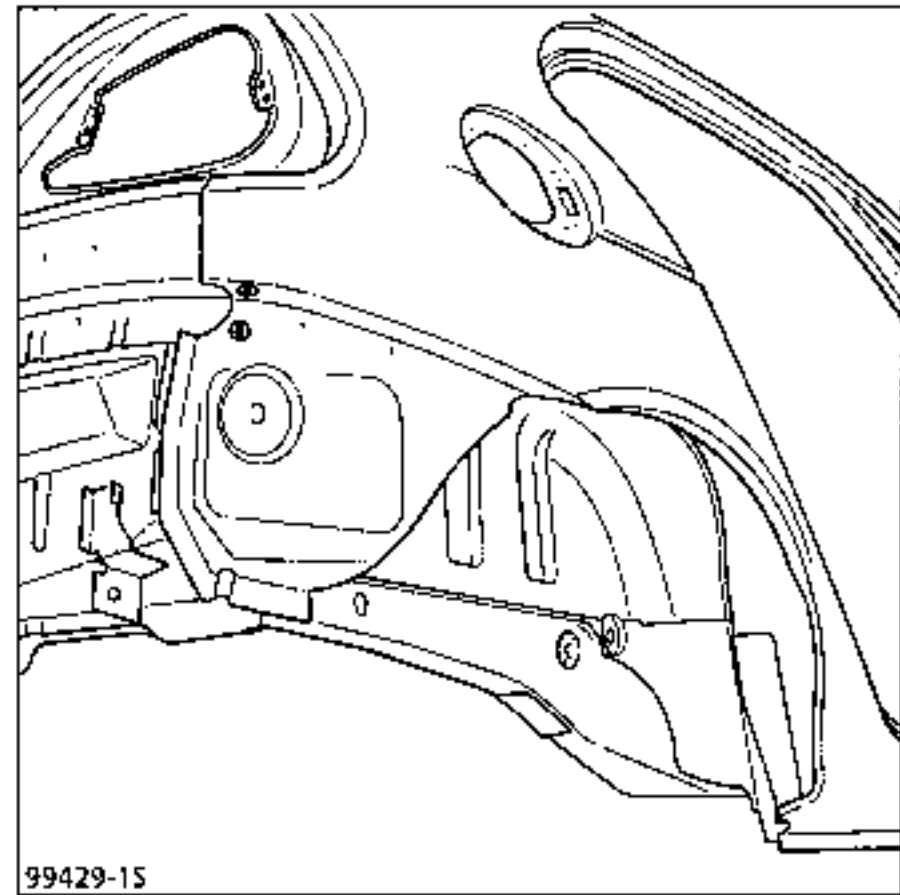
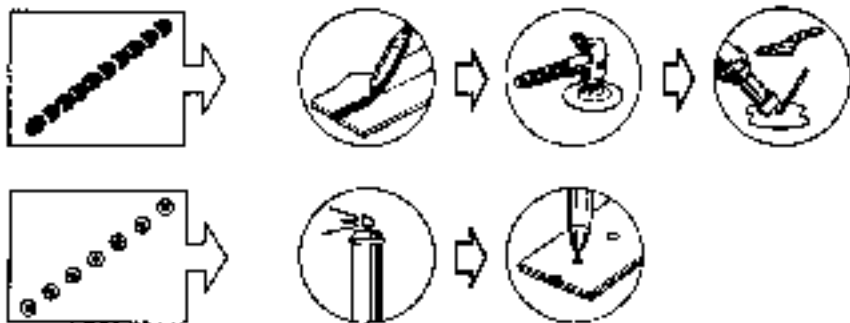
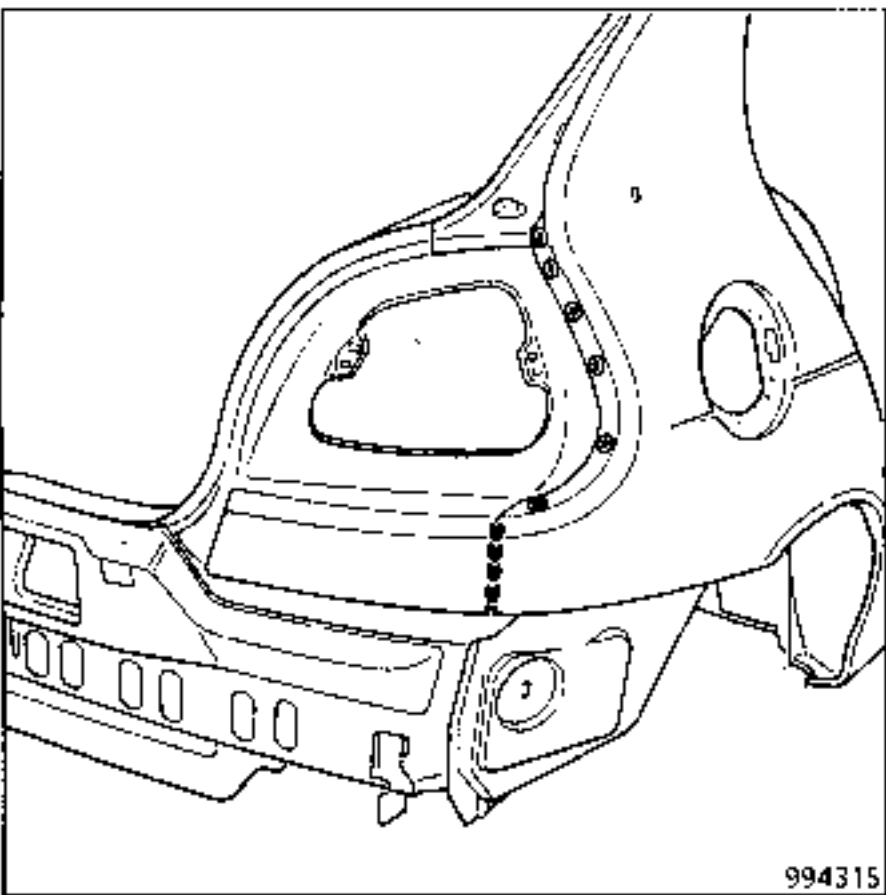


8 spot welds on thickness 0.8 mm



100 mm on thickness 0.8 mm

Welding



**2** JOINT WITH WING PANEL LOWER RAIN CHANNEL

Thickness of panels concerned (mm)

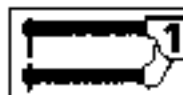
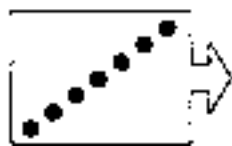
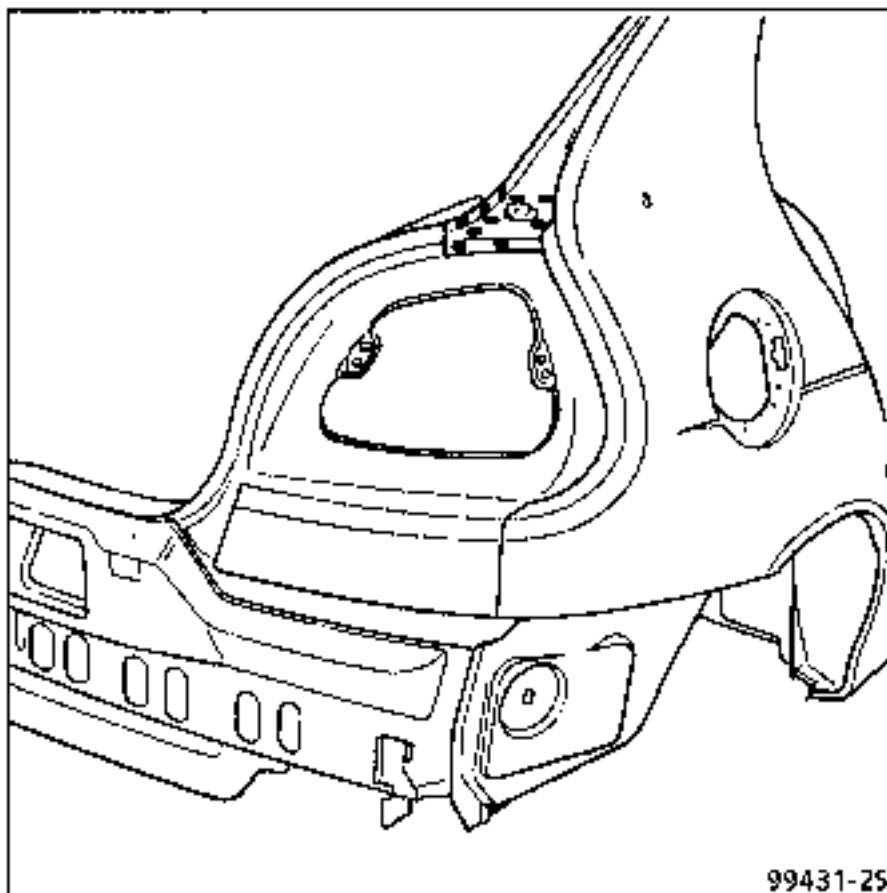
Wing panel lower rain channel	1
Lights mounting	0.7

Unpicking



10 spot welds on thickness 1 mm

Welding



**3** JOINT WITH REAR END PANEL ASSEMBLY

Thickness of panels concerned (mm)

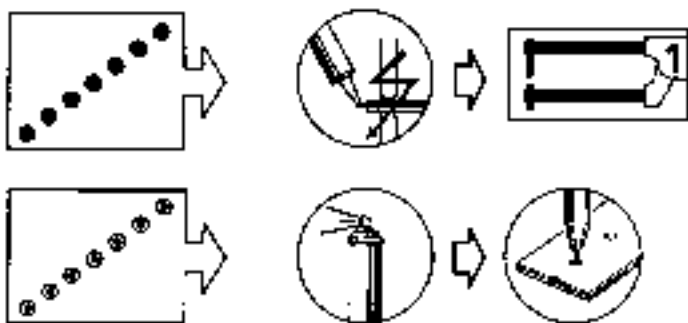
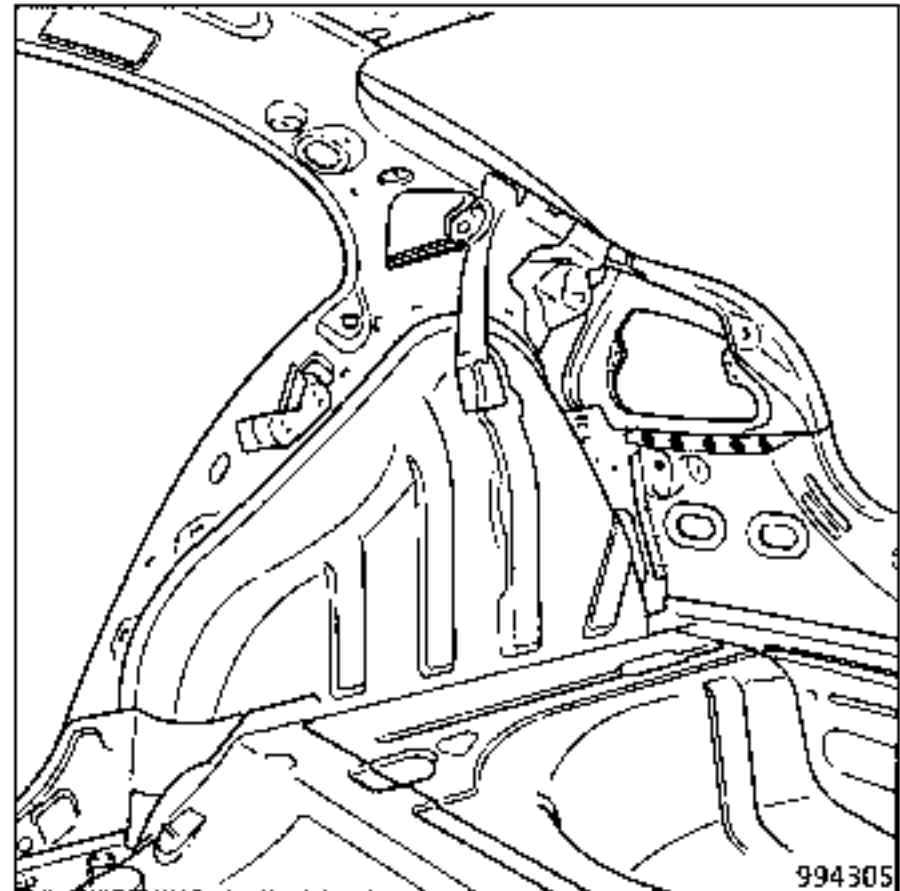
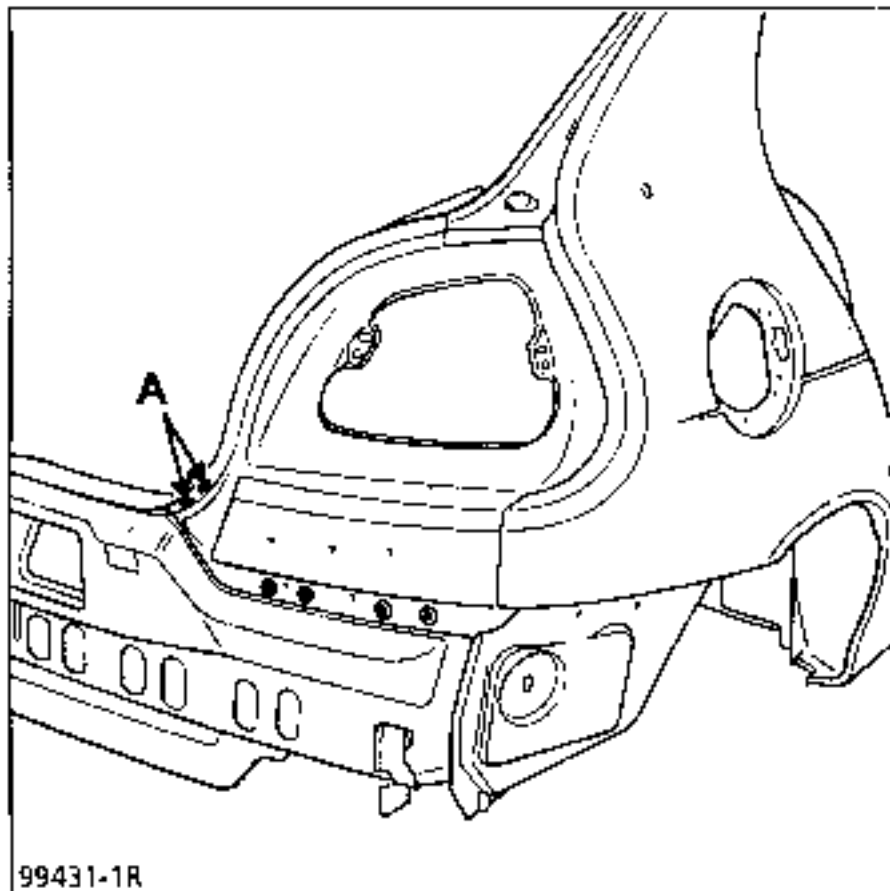
Rear end panel	0.7
Lights mounting	0.7
Rear end panel lining	0.7

Unpicking



11 spot welds on thickness 0.7 mm

Welding



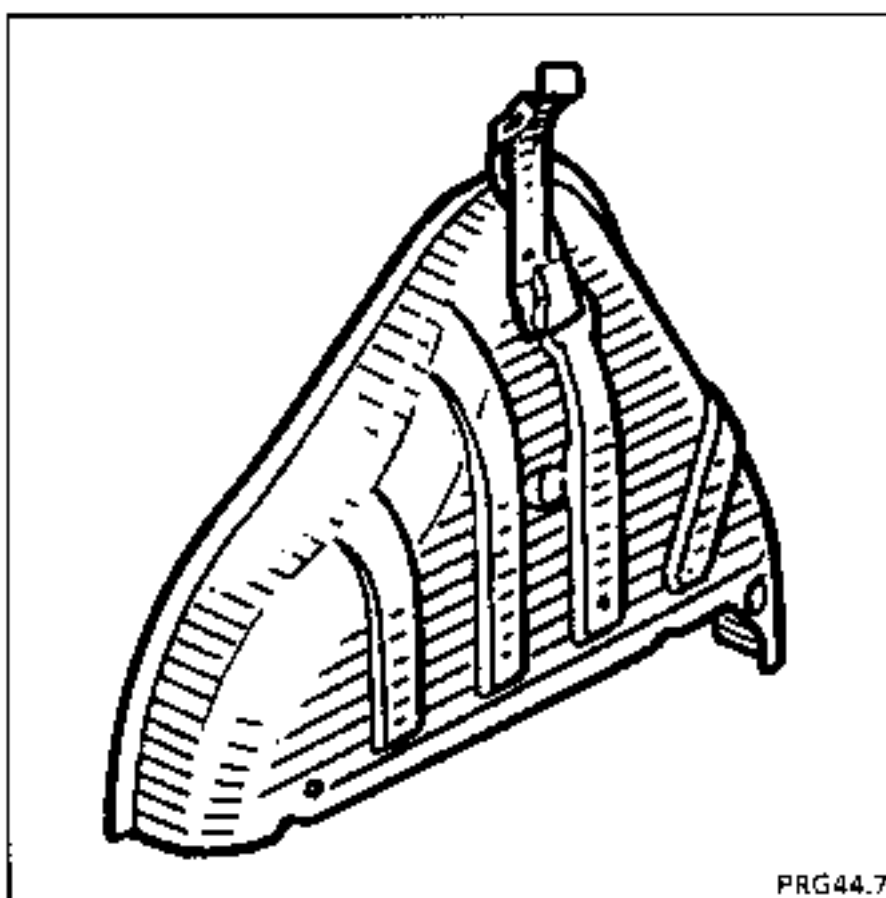
NOTE : at A, 2 welds are on 3 thicknesses.

## INTRODUCTION

The replacement of this part is a complementary operation to the replacement of a wing panel with rear quarter panel lining or a rear floor unit.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with inertia reel mounting reinforcement.



**1** JOINT WITH REAR QUARTER PANEL LINING

Thickness of panels concerned (mm)

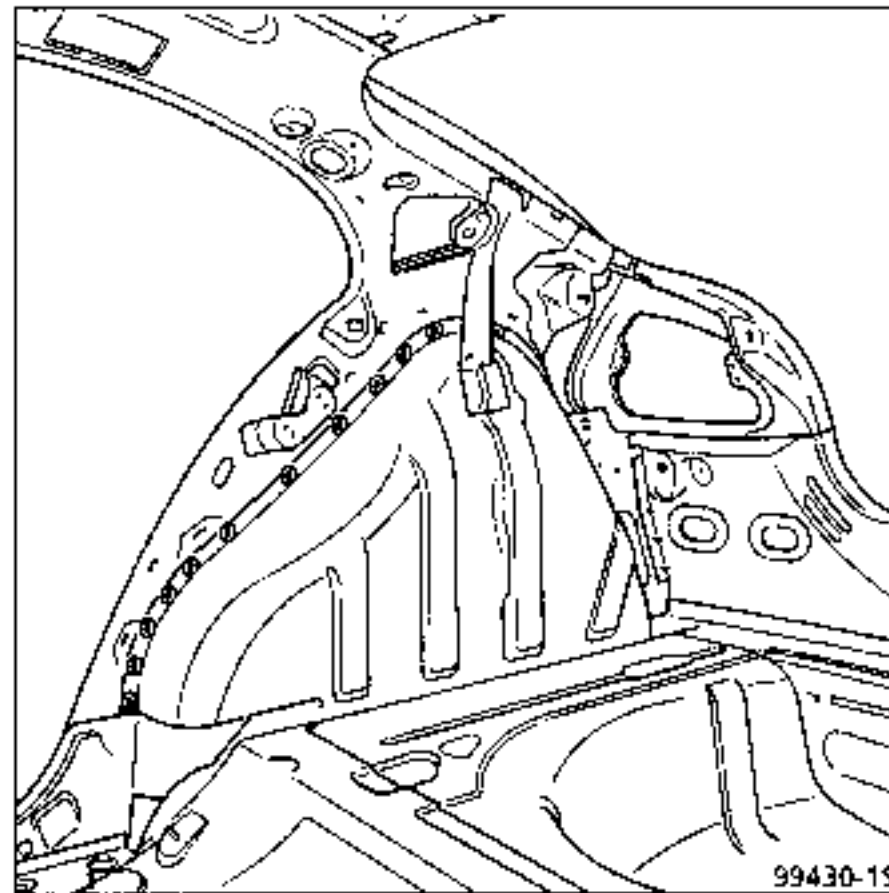
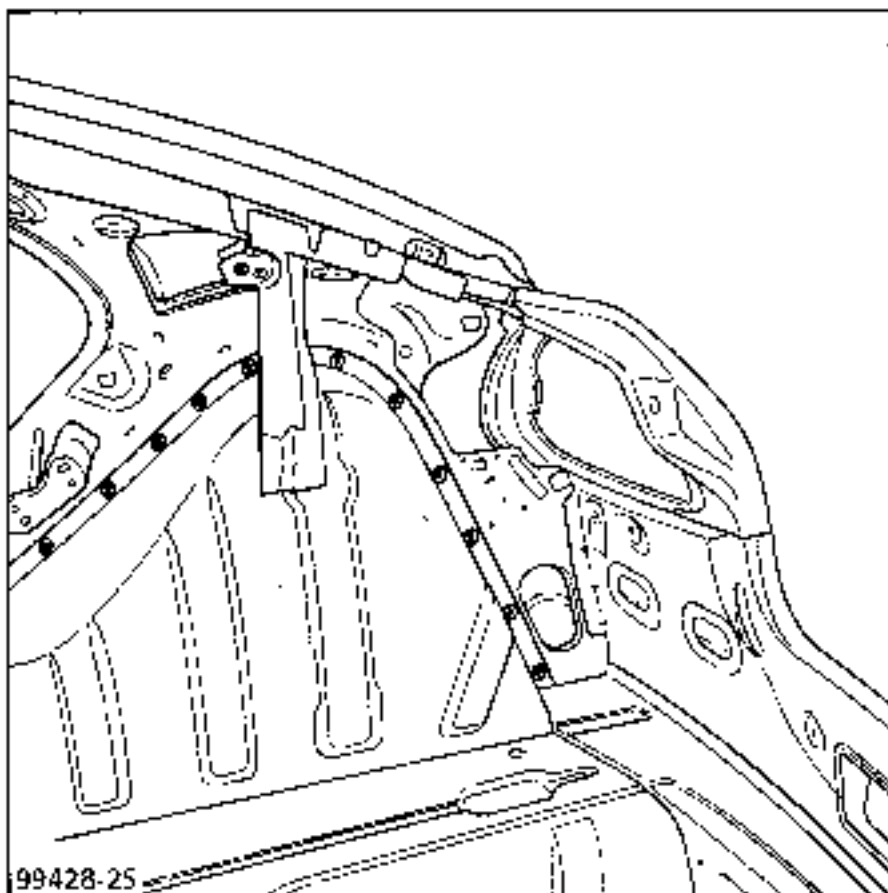
Rear quarter panel lining	0.7
Rear inner wheel arch	0.7

Unpicking



18 spot welds on thickness 0.7 mm

Welding



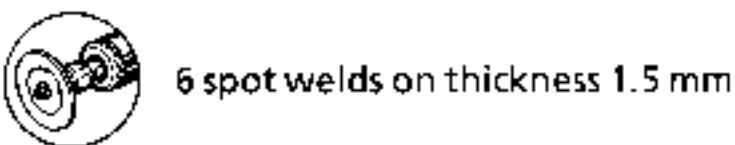


**2** JOINT WITH COMPLETE REAR SIDE MEMBER

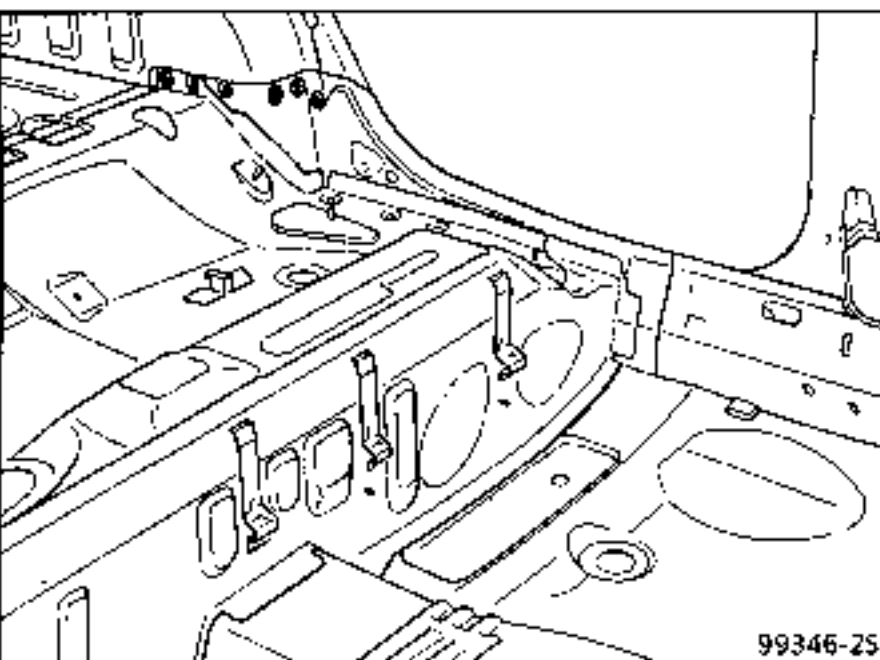
Thickness of panels concerned (mm)

Sill panel lining, rear section	1.5
Inner wheel arch	0.7

Unpicking



Welding

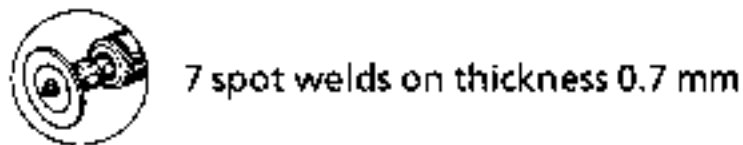


**3** JOINT WITH REAR FLOOR, REAR SECTION

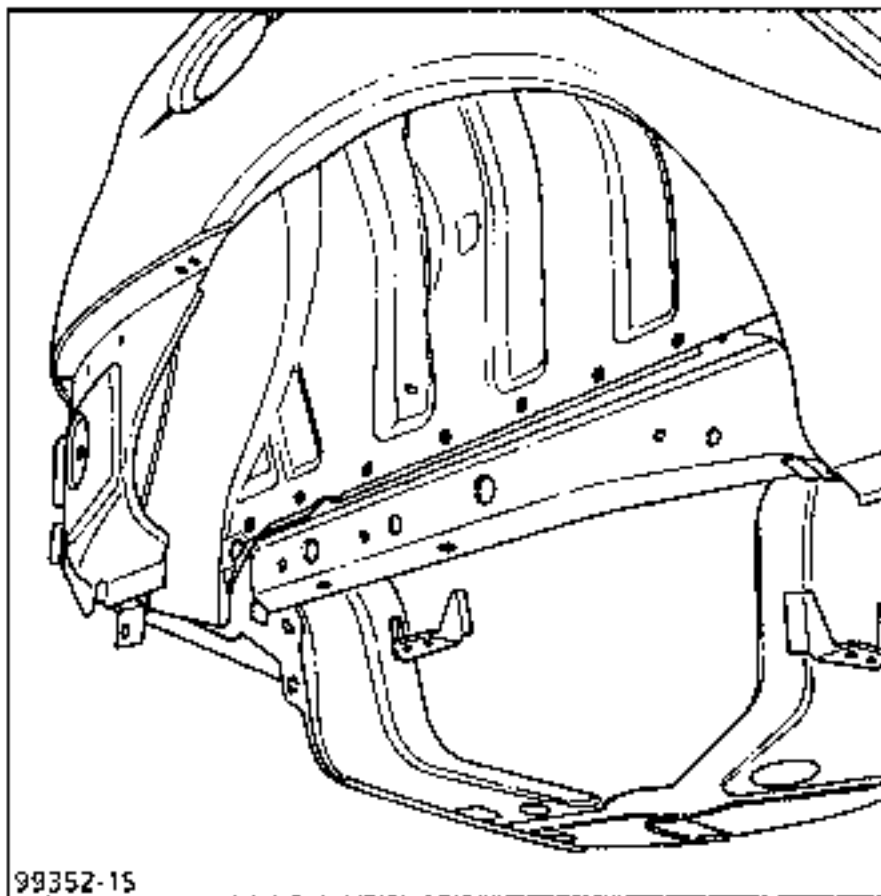
Thickness of panels concerned (mm)

Rear floor, rear section	0.7
Rear inner wheel arch	0.7

Unpicking



Welding



**4** JOINT WITH WING PANEL LOWER RAIN CHANNEL (RIGHT HAND SIDE ONLY)

Thickness of panels concerned (mm)

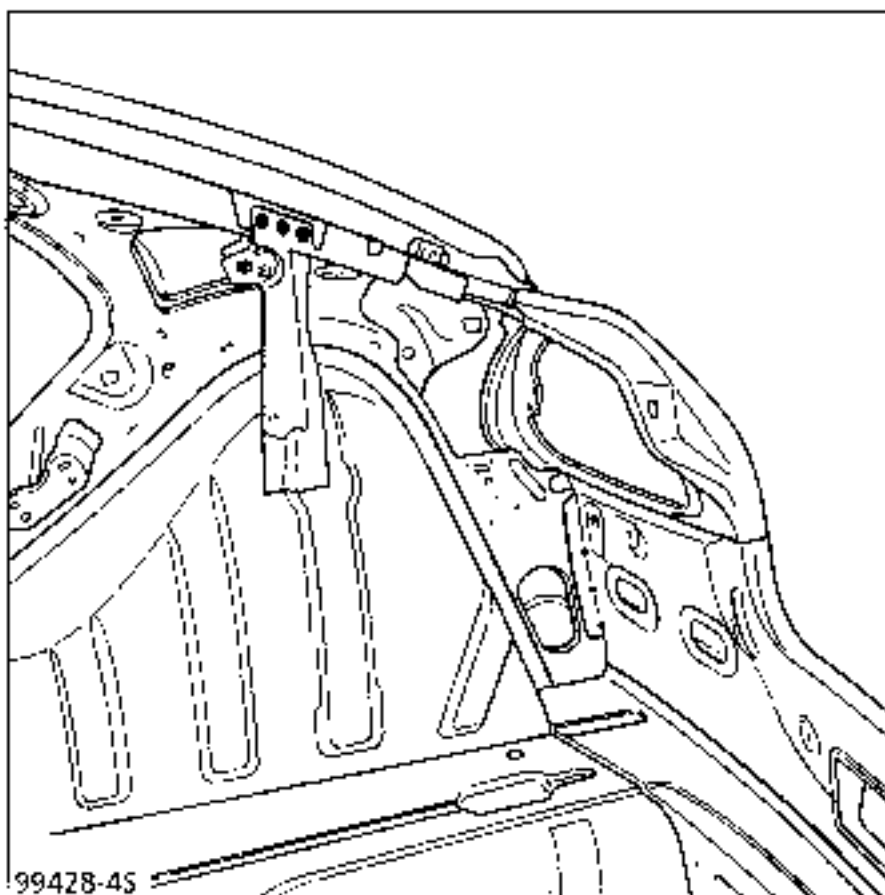
Wing panel lower rain channel	1
Seat belt mounting reinforcement	1.5

**Unpicking**



3 spot welds on thickness 1 mm

**Welding**



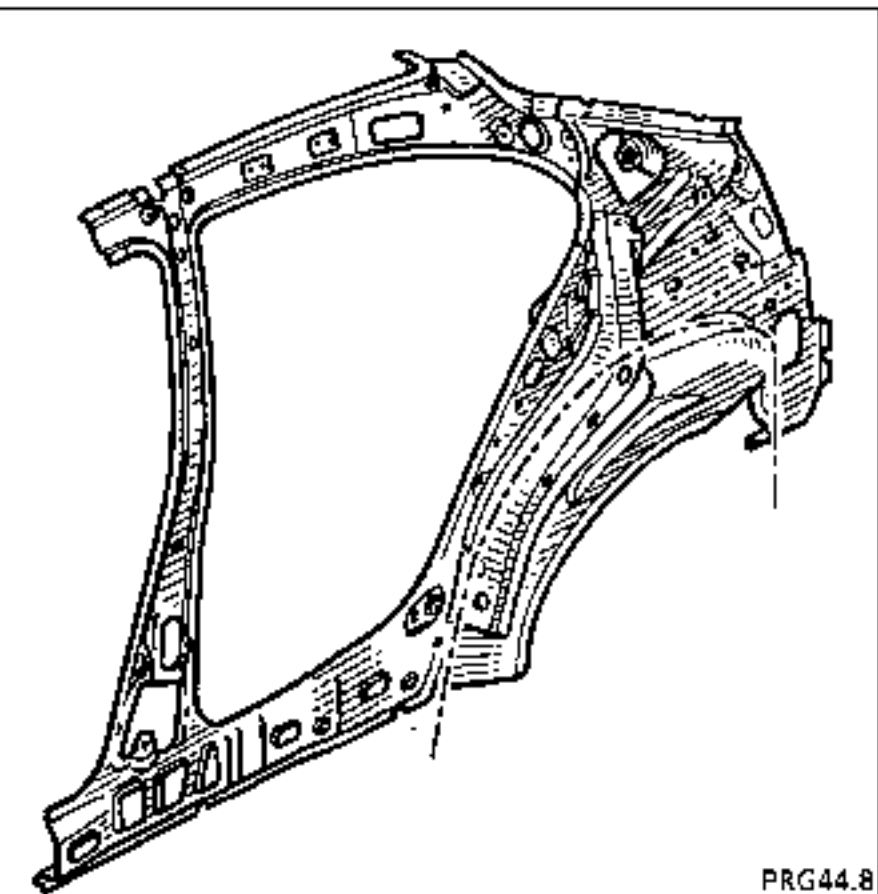
**INTRODUCTION**

The replacement of this part is a complementary operation to the replacement of a wing panel.

It should be cut from the body side lining, rear section.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



**1 JOINT WITH EXTERIOR WHEEL ARCH**

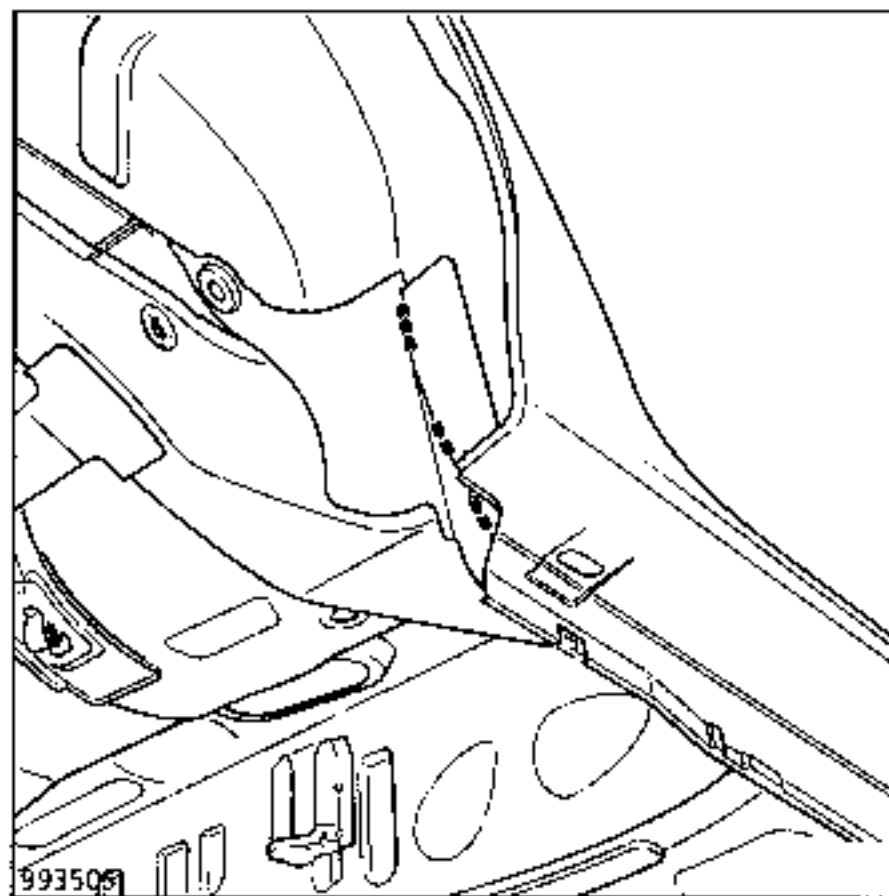
**Thickness of panels concerned (mm)**

Exterior wheel arch, part section	0.7
Rear end cross member	0.8

**Unpicking**



**Welding**



**2** JOINT WITH PART SECTION

Thickness of panels concerned (mm)

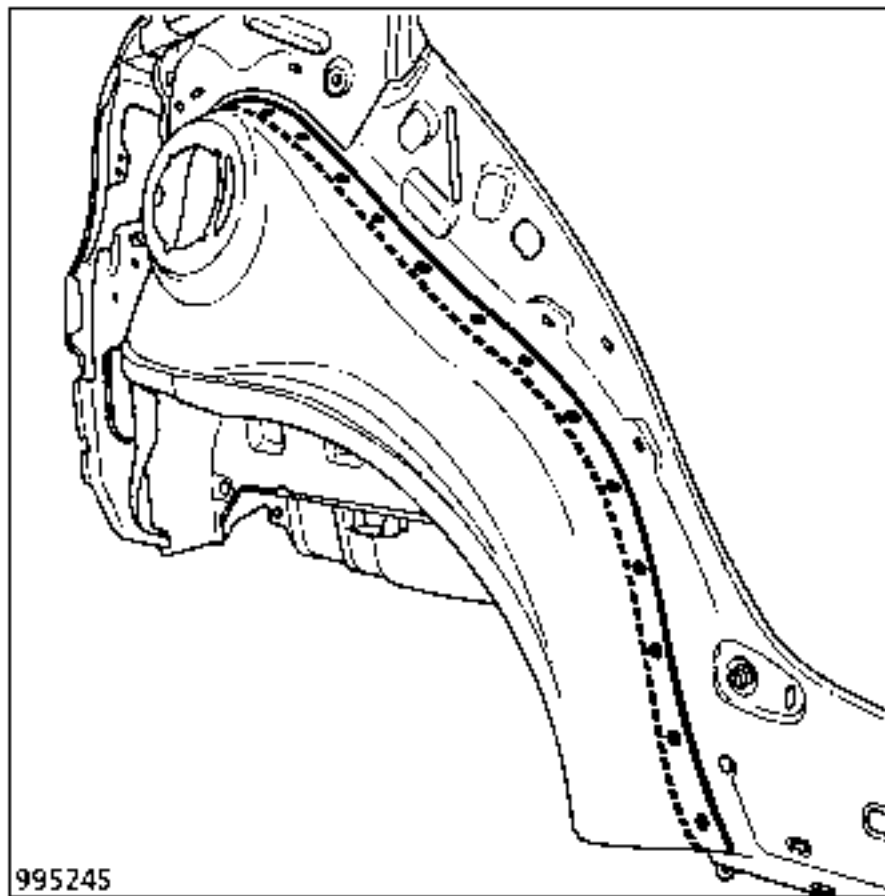
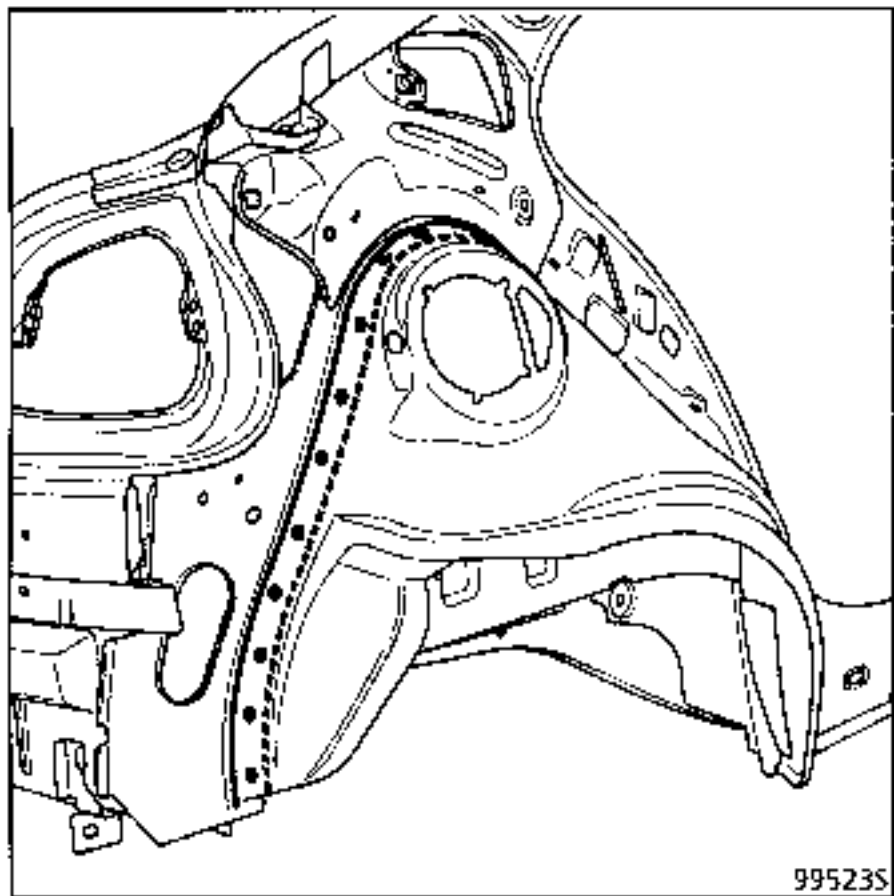
Exterior wheel arch, part section 0.7

Unpicking



1500 mm on thickness 0.7 mm

**Welding**



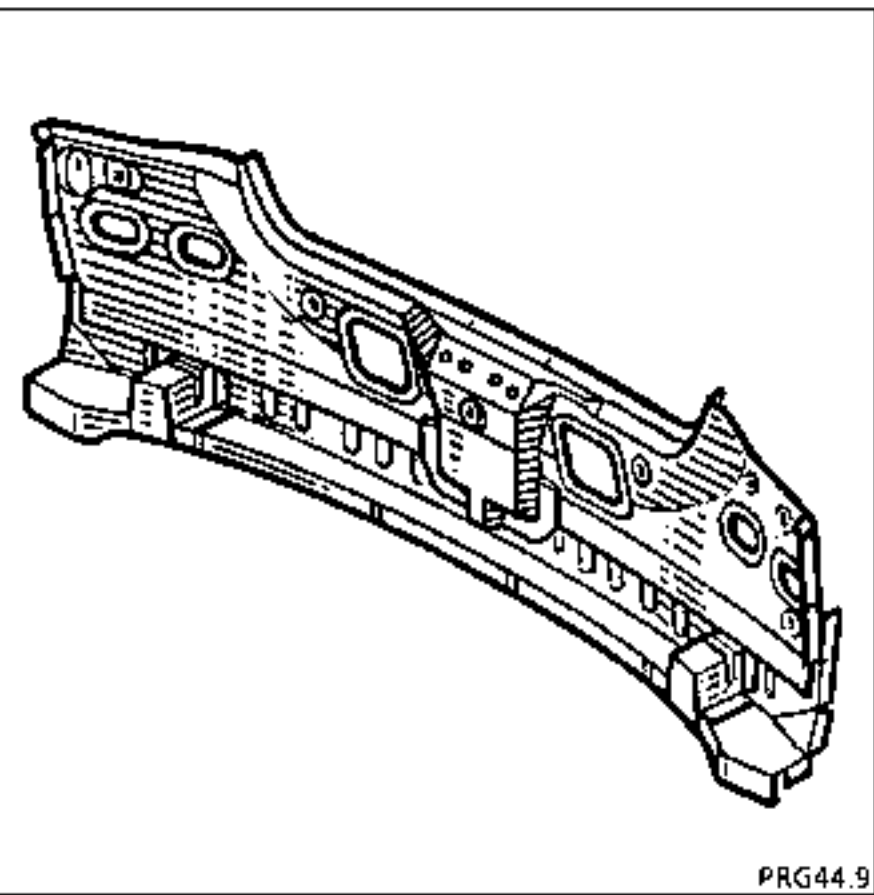
NOTE : 23 spot welds on 2 x 0.7 mm

**INTRODUCTION**

The replacement of this part is a basic operation for a rear collision.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

- Part assembled with :
- rear end panel,
  - rear end panel lining,
  - lock reinforcement.



**1 JOINT WITH REAR QUARTER PANEL LINING**

**Thickness of panels concerned (mm)**

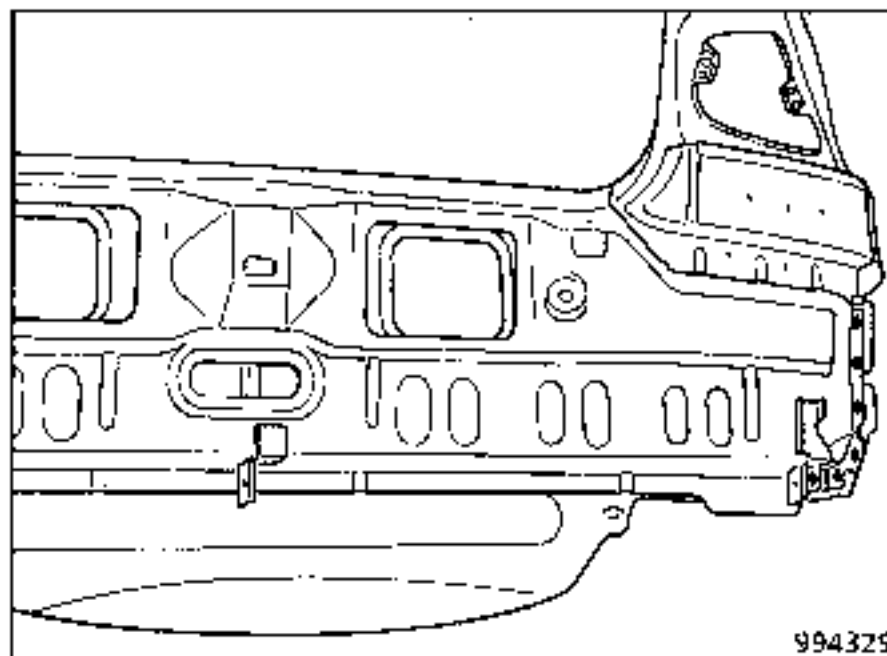
Rear quarter panel lining	0.7
Rear end panel	0.7
Wing panel	0.8

**Unpicking**



7 spot welds on thickness 0.7 mm

**Welding**



**NOTE :** welds are on 3 thicknesses.

**2** JOINT WITH LIGHTS MOUNTING

Thickness of panels concerned (mm)

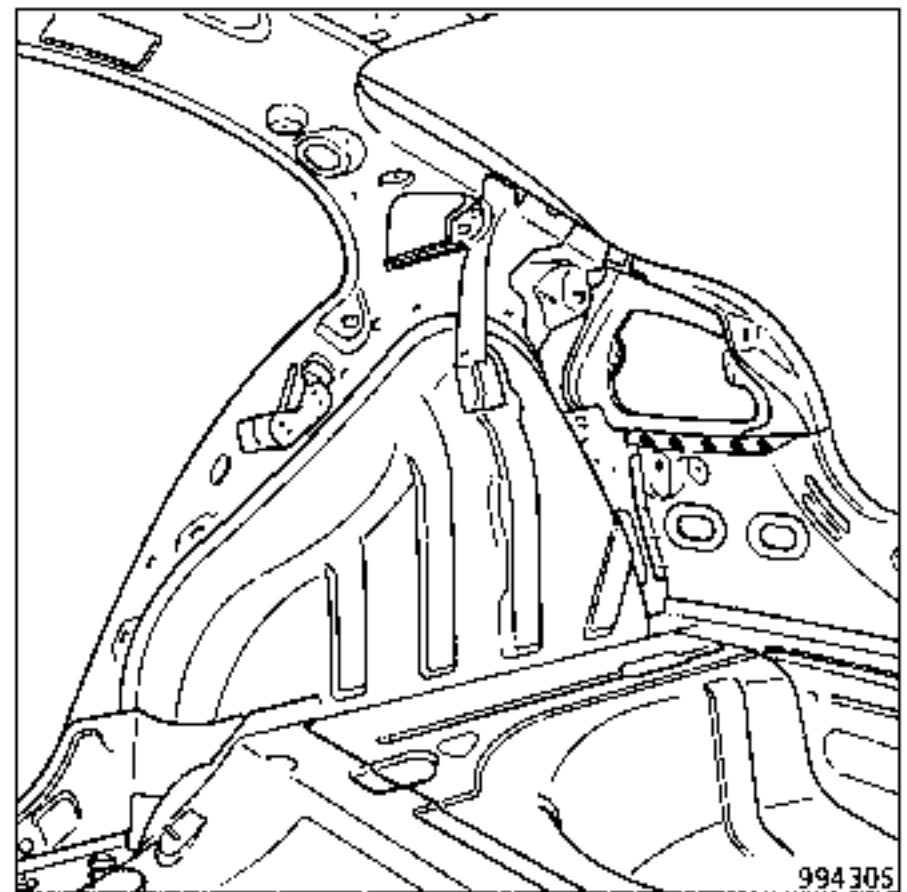
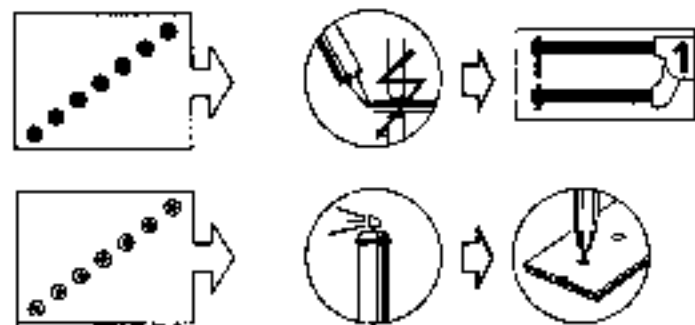
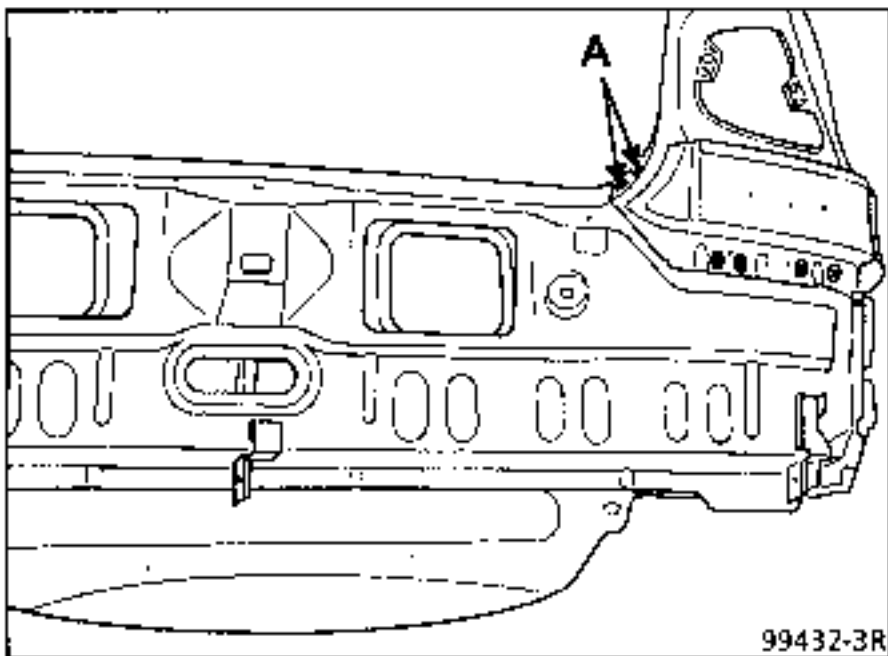
Rear end panel	0.7
Lights mounting	0.7
Rear end panel lining	0.7

Unpicking



11 spot welds on thickness 0.7 mm

Welding



NOTE : at A, 2 welds are on 3 thicknesses.

**3** JOINT WITH REAR END CROSS MEMBER

Thickness of panels concerned (mm)

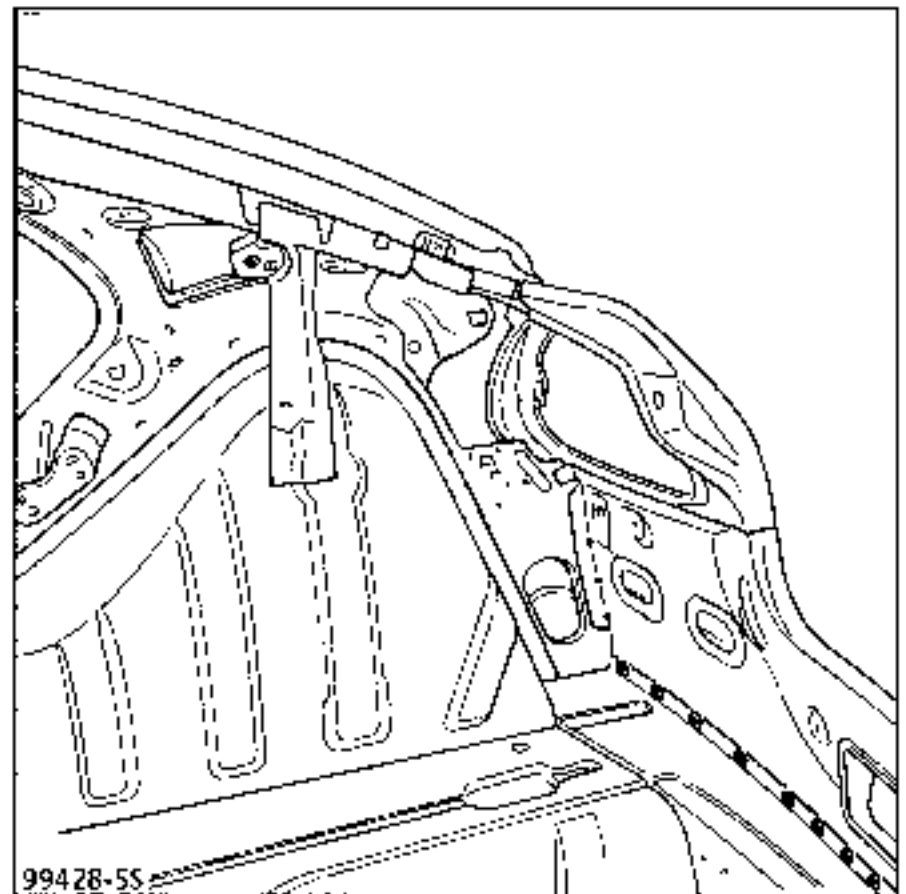
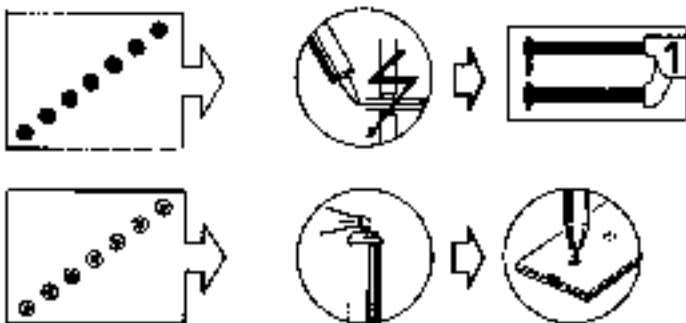
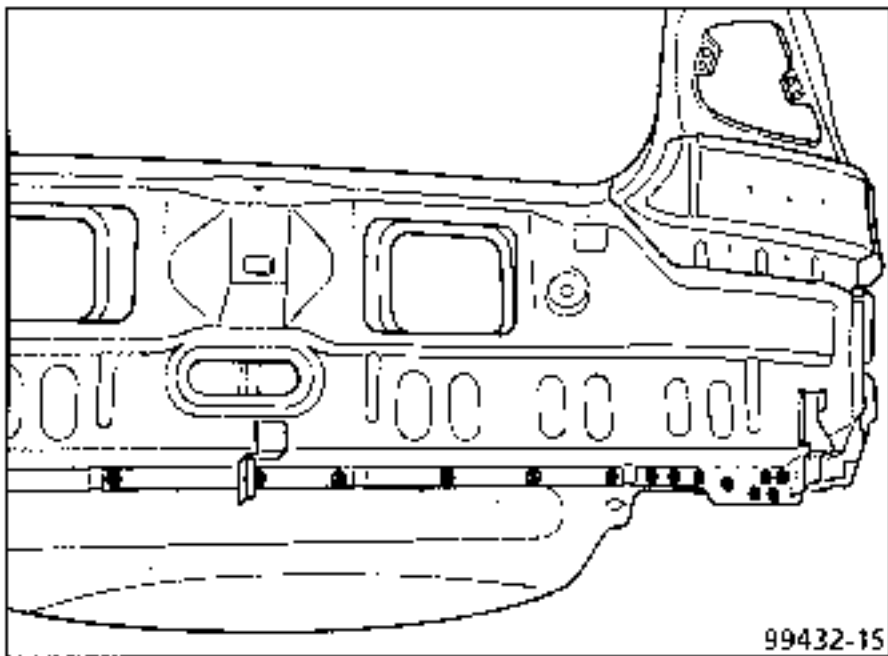
Rear end panel	0.7
Rear end cross member	0.8
Rear end panel lining	0.7

Unpicking



42 spot welds on thickness 0.7 mm

Welding

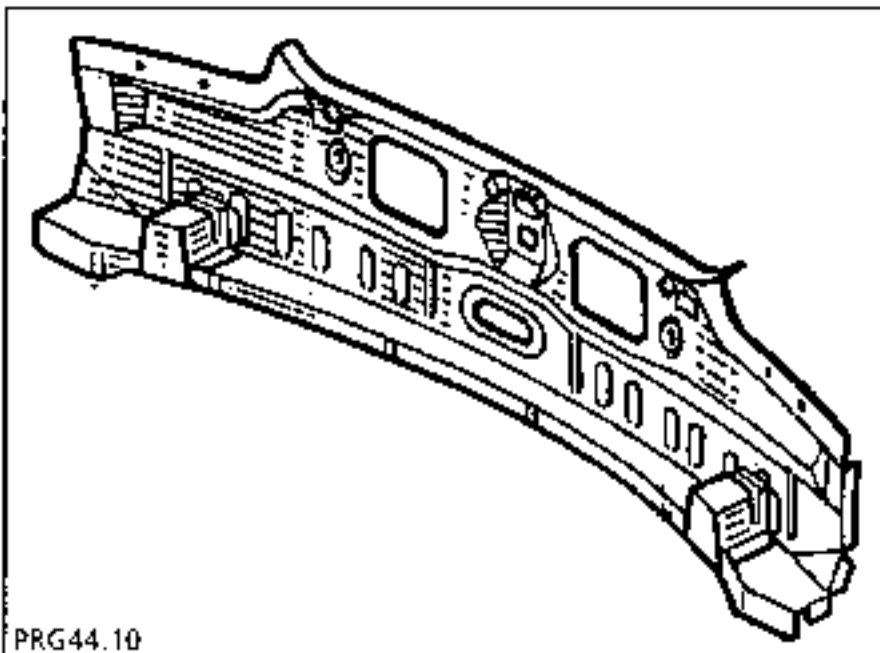


## INTRODUCTION

The replacement of this part is a basic operation for a rear collision.

## COMPOSITION OF PART FROM PARTS DEPARTMENT

Part assembled with bumper mountings.



PRG44.10



**1** JOINT WITH LIGHTS MOUNTING

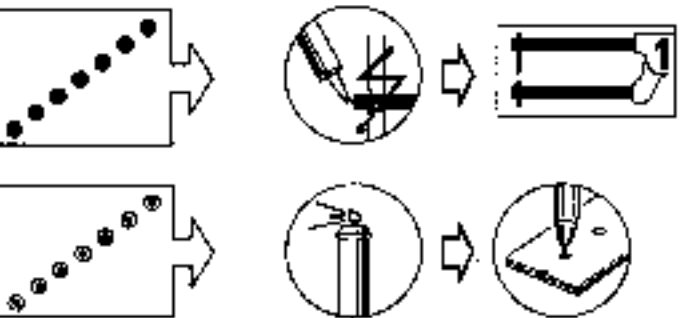
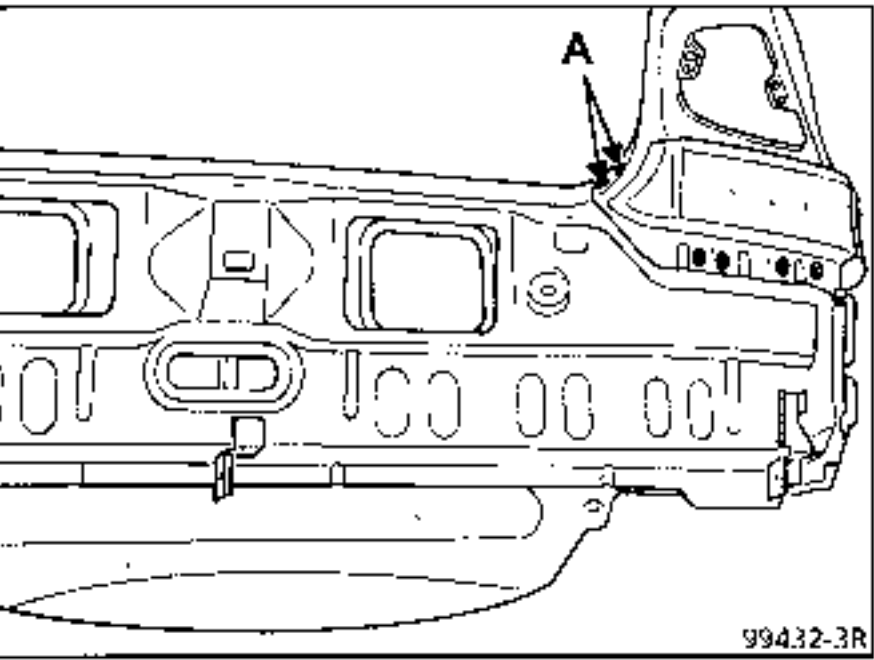
Thickness of panels concerned (mm)

Rear end panel	0.7
Lights mounting	0.7

Unpicking



Welding



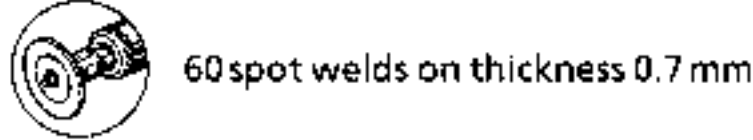
NOTE : at A, 2 welds are on 3 thicknesses.

**2** JOINT WITH REAR END PANEL LINING

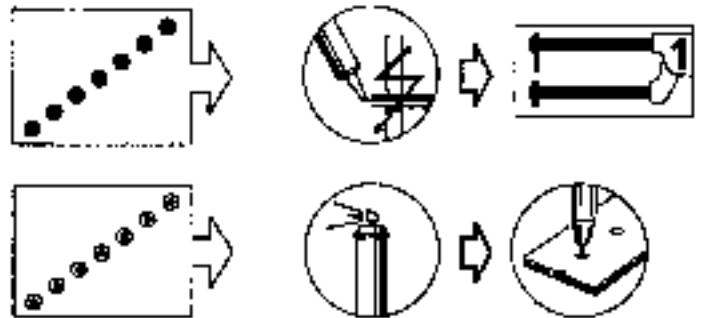
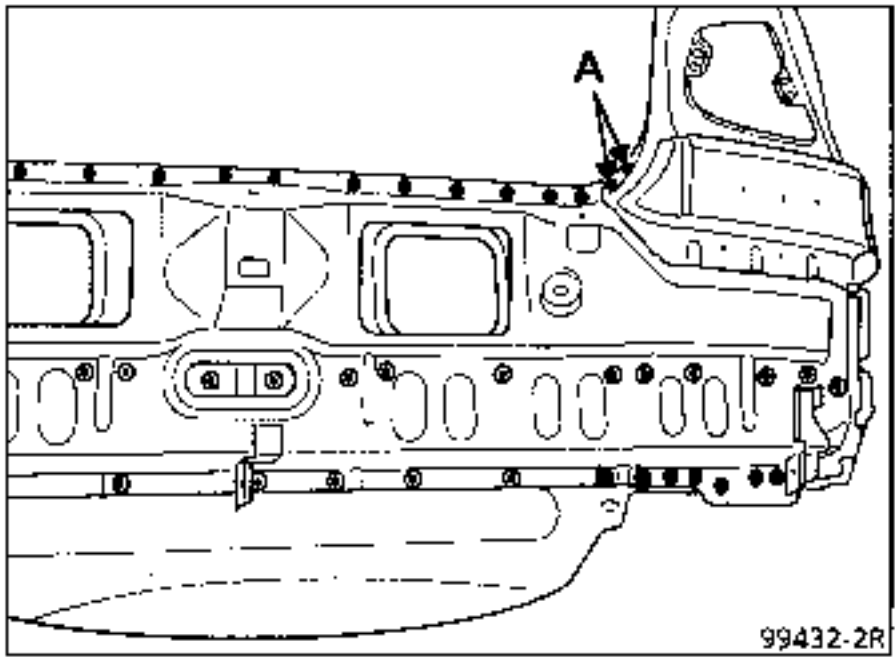
Thickness of panels concerned (mm)

Rear end panel	0.7
Rear end panel lining	0.7

Unpicking



Welding



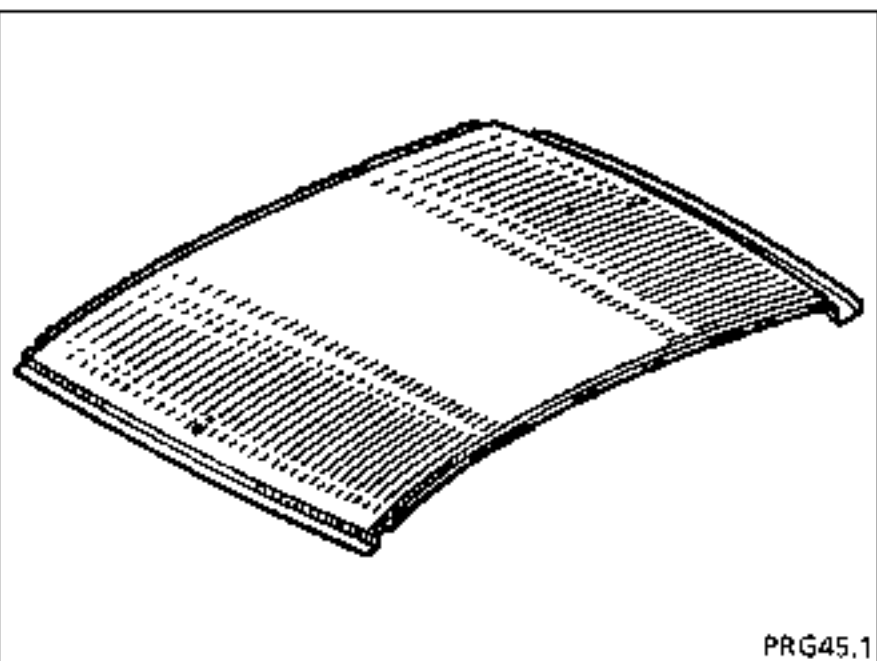
NOTE : at A, 2 welds are on 3 thicknesses.

**INTRODUCTION**

The replacement of this part is a basic operation for a side impact or if the vehicle has rolled over.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



PRG45.1

**1 JOINT WITH ROOF FRONT CROSS MEMBER**

**Thickness of panels concerned (mm)**

Windscreen pillar lining	1.5
Roof front cross member	0.7
Roof	0.7

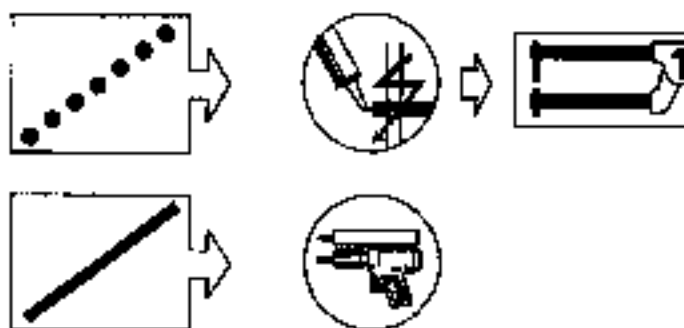
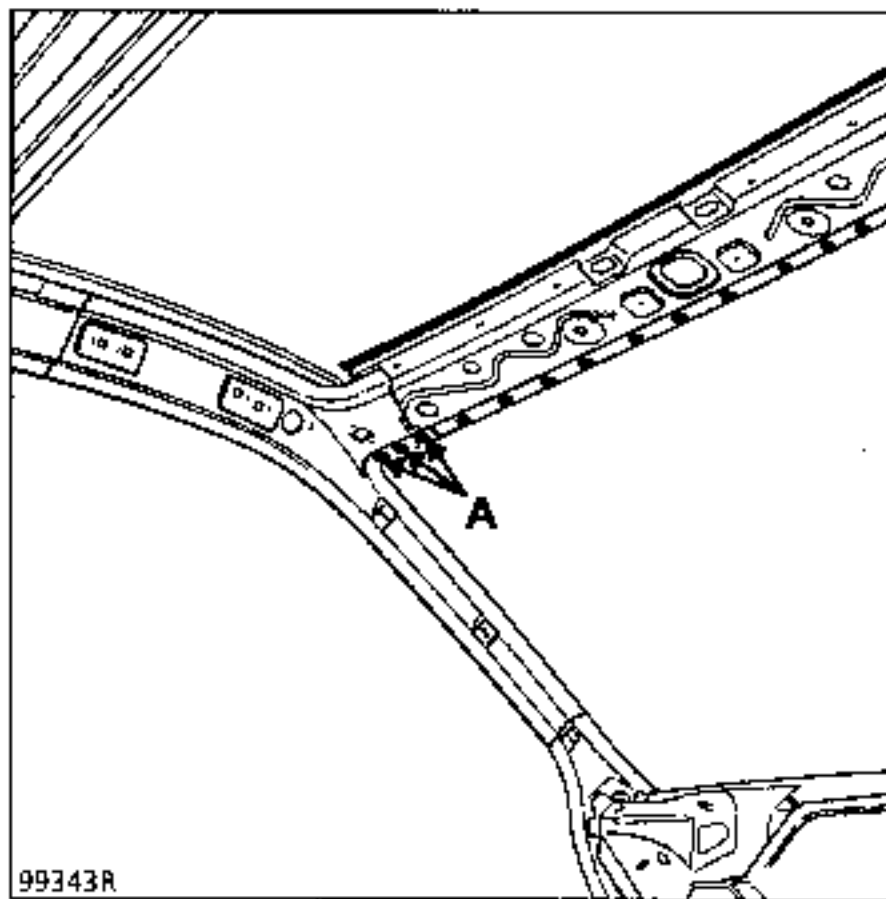
**Unpicking**



15 spot welds on thickness 0.7 mm

Unpick, using a hot air torch, 1200 mm bead.

**Welding**



1 bead of adhesive 1200 mm.

**NOTE :** at A, welds are on 3 thicknesses.

**2** JOINT WITH TOP OF BODY

Thickness of panels concerned (mm)

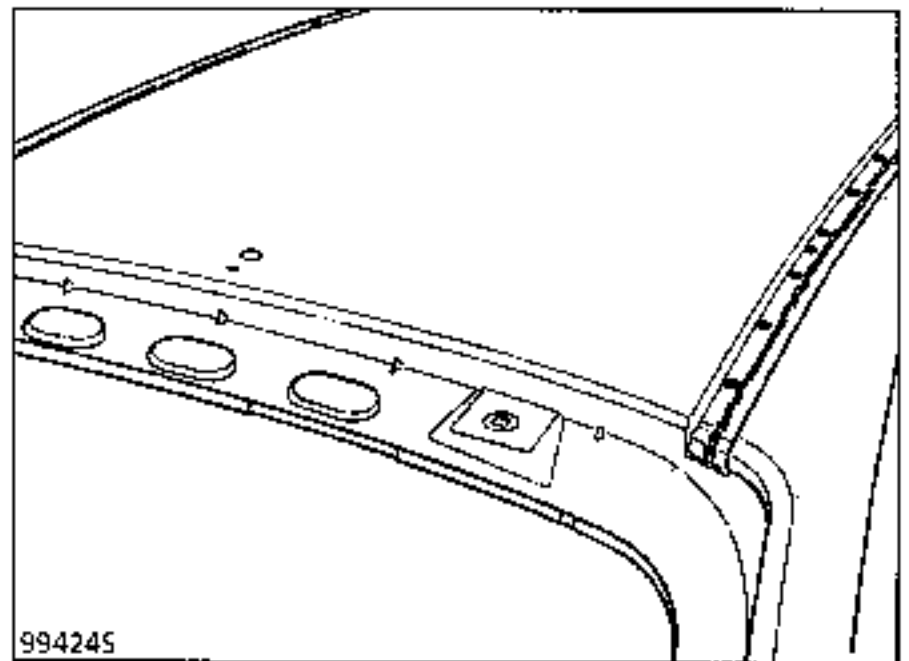
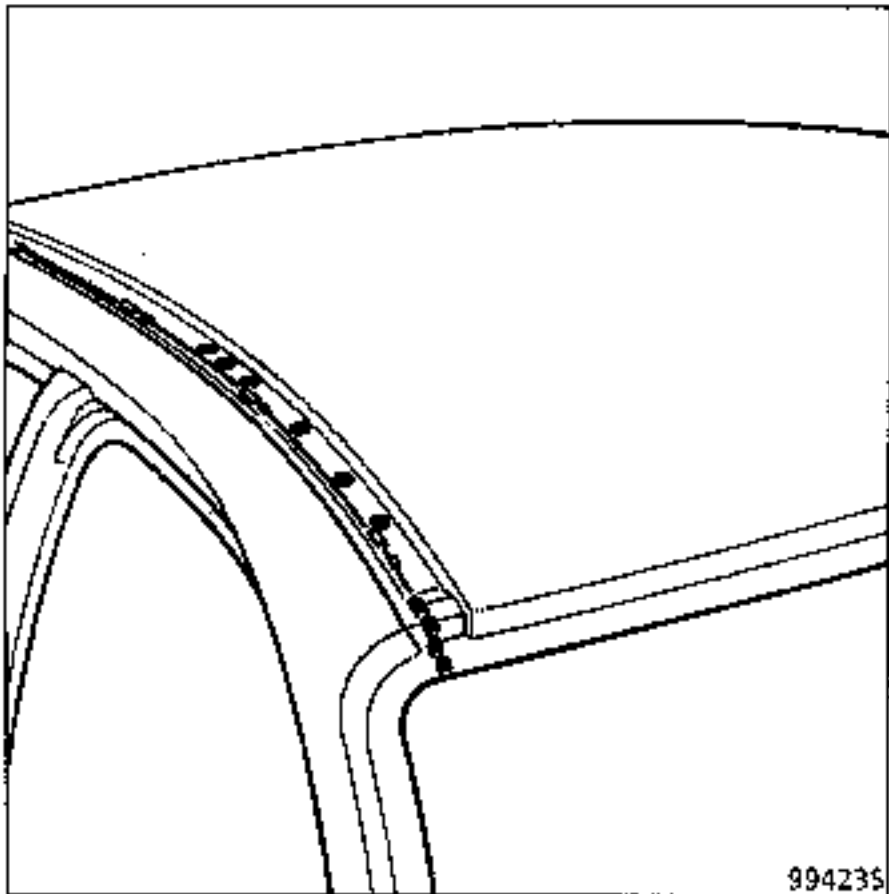
Roof	0.7
Windscreen pillar lining	1.5
Centre pillar lining	1.2
Rear quarter panel lining	0.7
Top of body	0.8

Unpicking



28 spot welds on thickness 0.7 mm  
4 MAG fillet of 50 mm

Welding



NOTE : all welds are on 3 thicknesses.

**3** JOINT WITH ROOF REAR CROSS MEMBER

**Thickness of panels concerned (mm)**

Rear quarter panel lining	0.7
Roof rear cross member	0.7
Roof	0.7

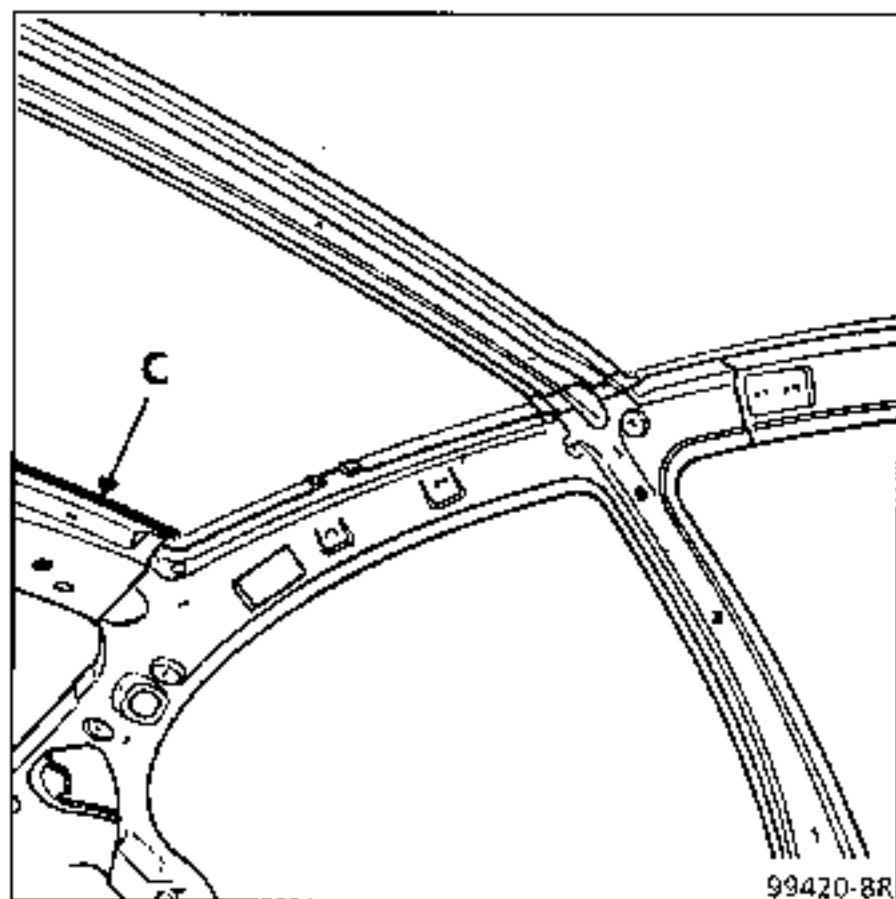
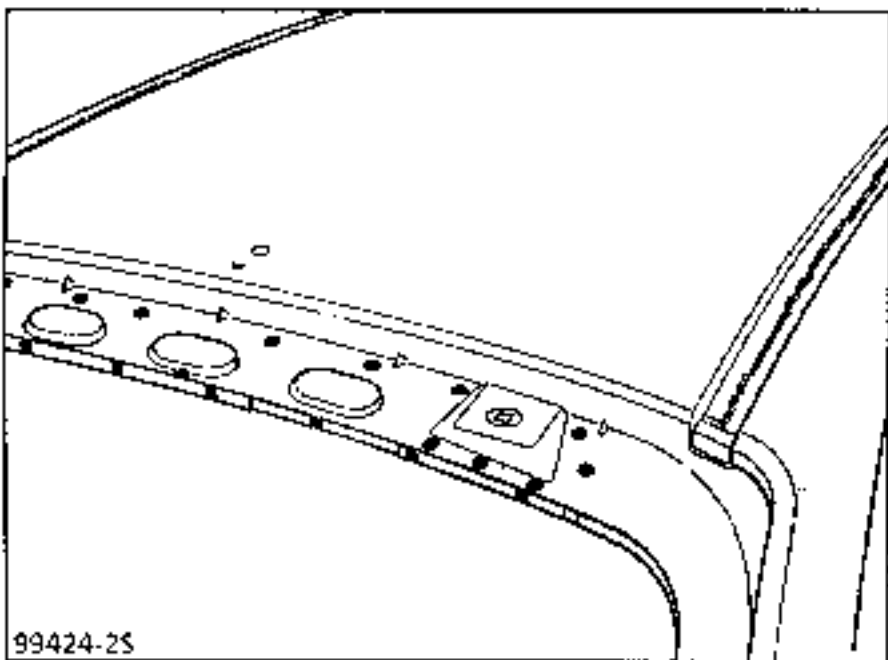
**Unpicking**



25 spot welds on thickness 0.7 mm

Unpick, using a hot air torch, 1200 mm bead.

**Welding**




1 bead (C) of adhesive, 1200 mm

**4 JOINT WITH WING PANEL UPPER RAIN CHANNEL**

Thickness of panels concerned (mm)

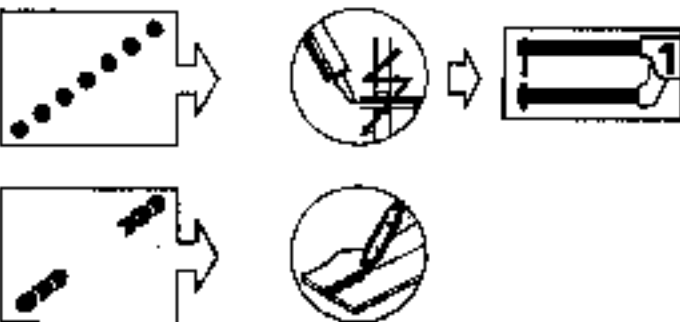
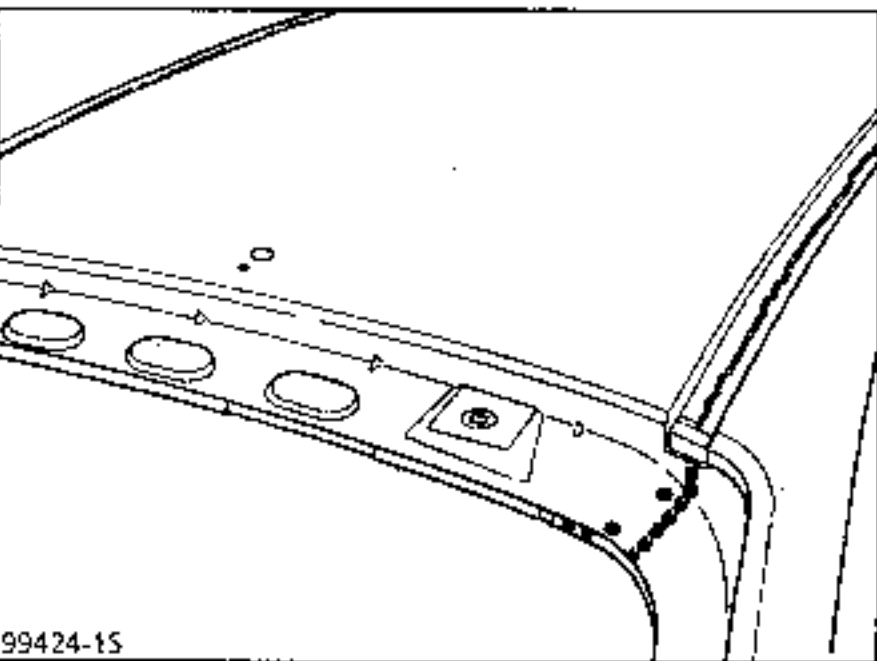
Wing panel upper rain channel	1.5
Roof	0.7

Unpicking



4 spot welds on thickness 1.5 mm  
1 MAG fillet of 100 mm

Welding



**5 JOINT WITH ROOF BOW**

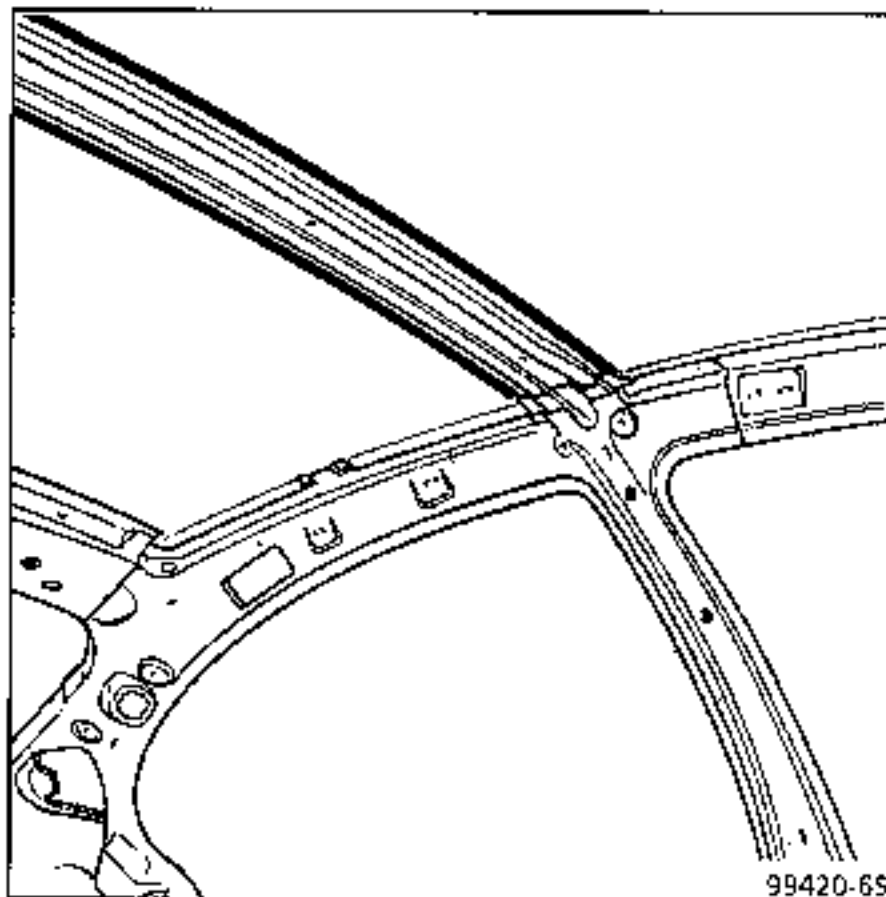
Thickness of panels concerned (mm)

Roof	0.7
Roof bow	1

Unpicking

Unpick, using a hot air torch, two 1200 mm beads.

Welding



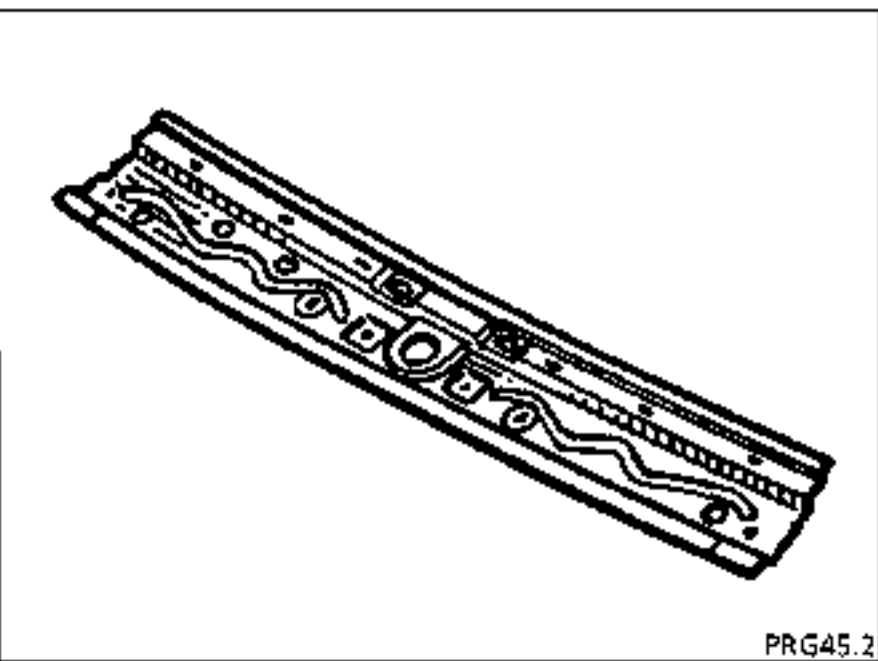
2 beads of adhesive, 1200 mm

**INTRODUCTION**

The replacement of this part is a complementary operation for the replacement of a roof if the vehicle has rolled over.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



**1 JOINT WITH WINDSCREEN PILLAR LINING**

**Thickness of panels concerned (mm)**

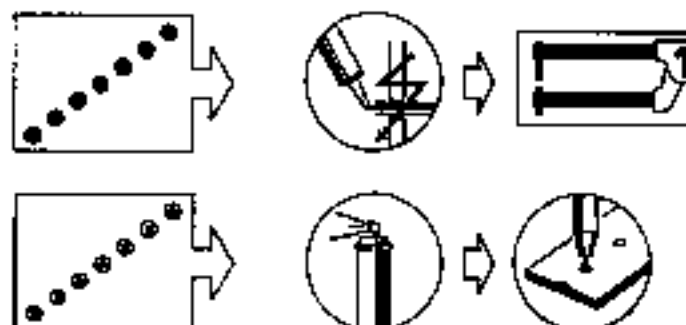
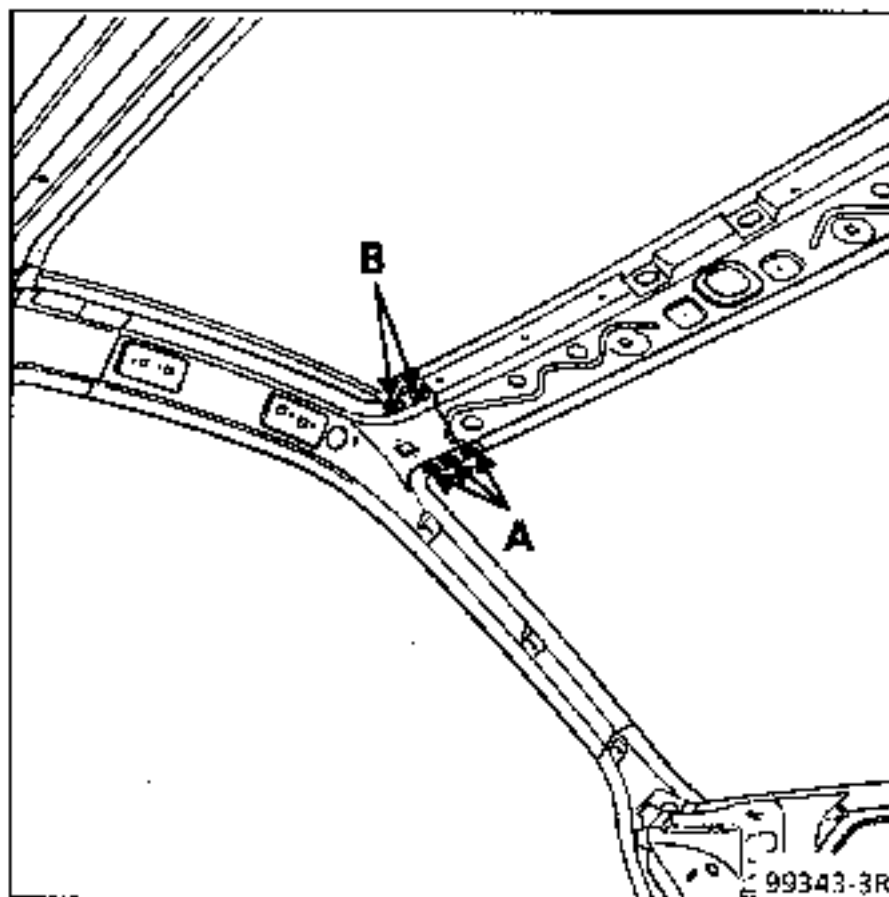
Windscreen pillar lining	1.5
Roof front cross member	0.7
Roof	0.7

**Unpicking**



5 spot welds on thickness 1.5 mm

**Welding**



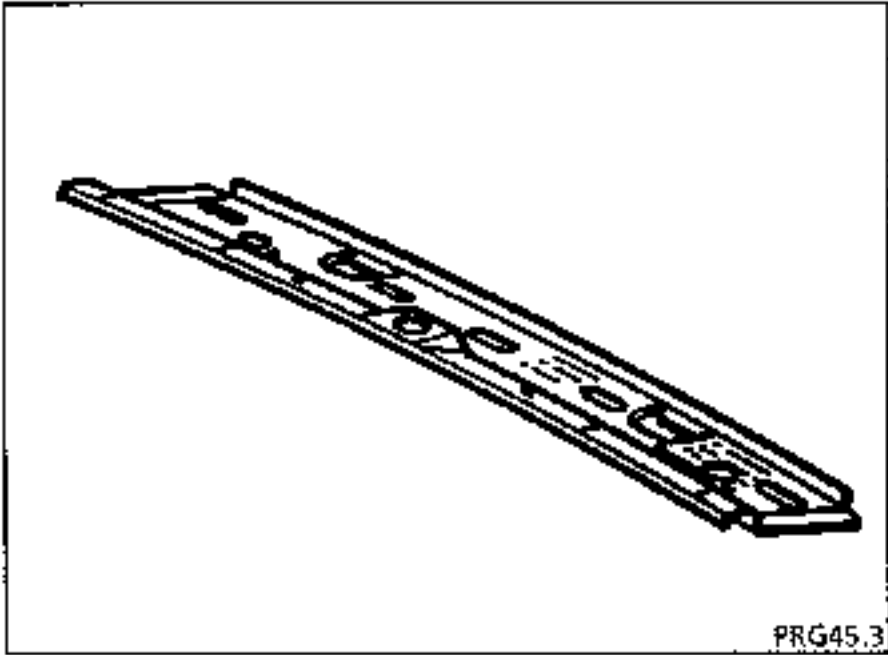
**NOTE :** at A, welds are on 3 thicknesses,  
at B, plug welds on 2 thicknesses.

**INTRODUCTION**

The replacement of this part is a complementary operation for the replacement of a roof if the vehicle has rolled over.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



**1 JOINT WITH REAR QUARTER PANEL LINING**

**Thickness of panels concerned (mm)**

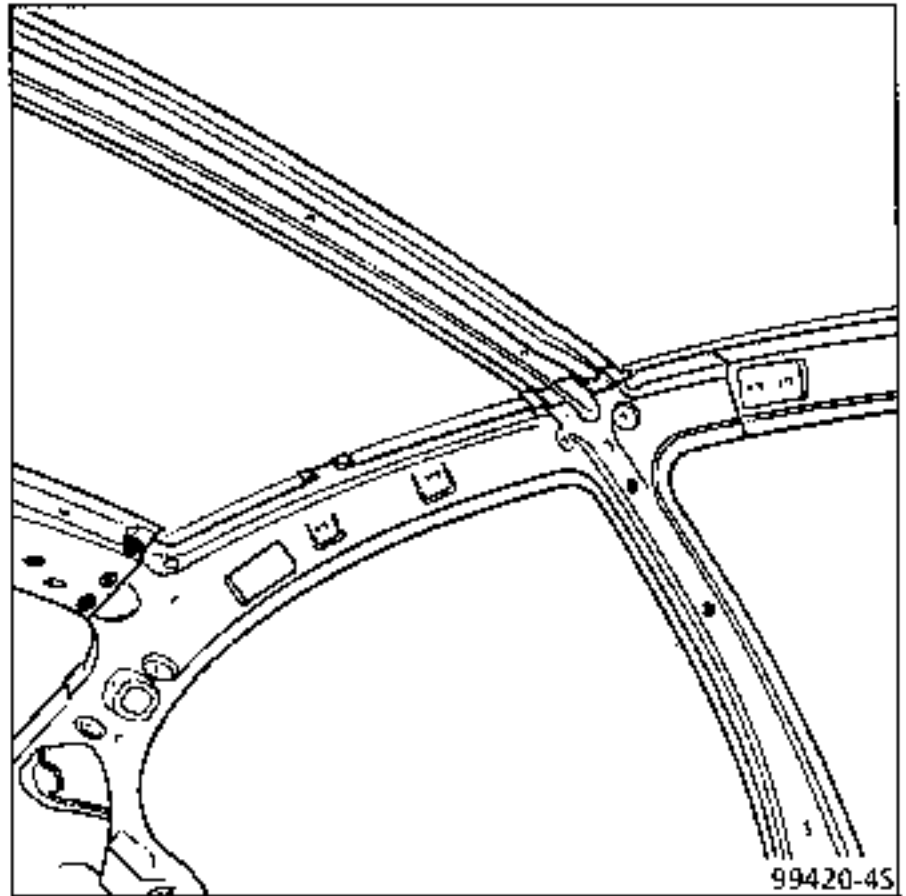
Rear quarter panel lining	0.7
Roof rear cross member	0.8
Roof	0.7

**Unpicking**



3 spot welds on thickness 0.8 mm

**Welding**

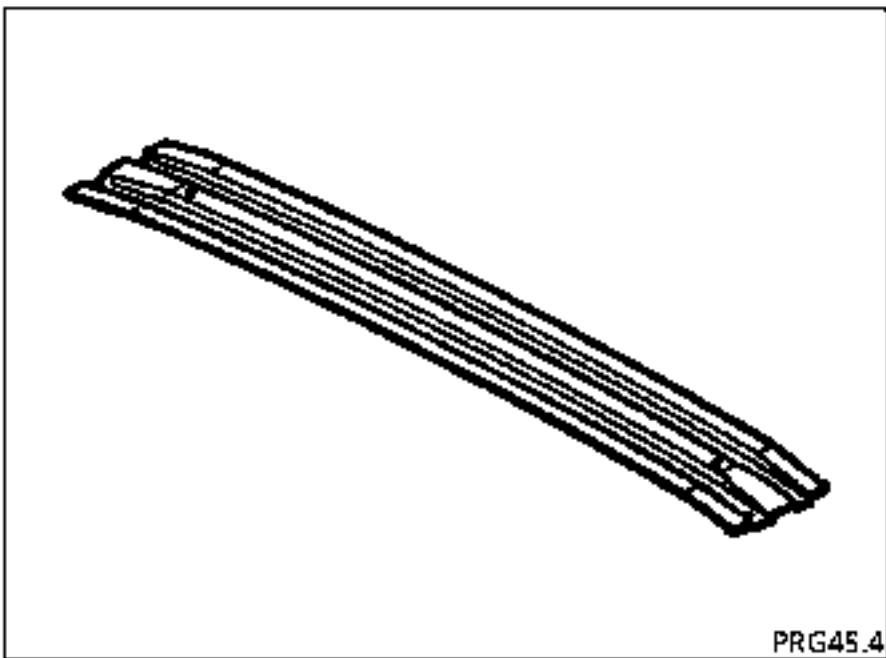


**INTRODUCTION**

The replacement of this part is a complementary operation for the replacement of a roof if the vehicle has rolled over.

**COMPOSITION OF PART FROM PARTS DEPARTMENT**

Single part.



PRG45.4

**1 JOINT WITH CENTRE PILLAR REINFORCEMENT**

**Thickness of panels concerned (mm)**

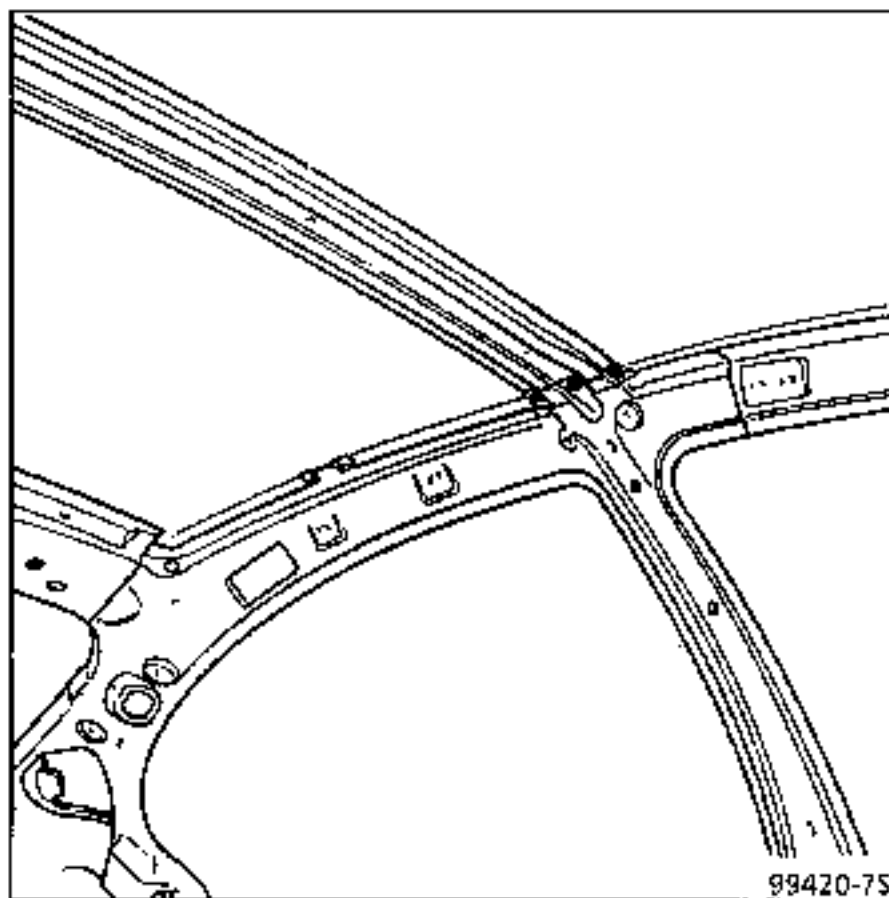
Roof bow	1
Centre pillar reinforcement	1.2

**Unpicking**



3spot welds on thickness 1 mm

**Welding**

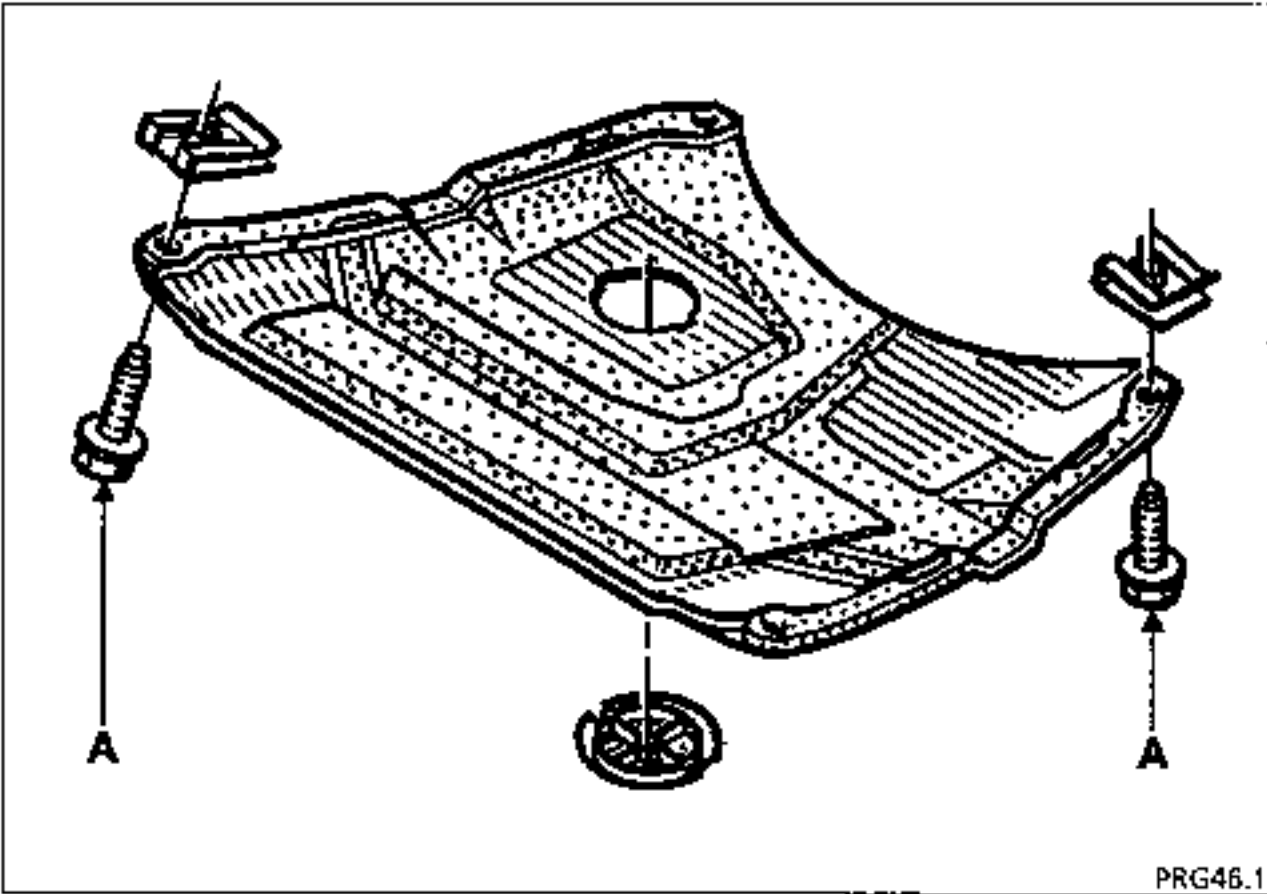


99420-75



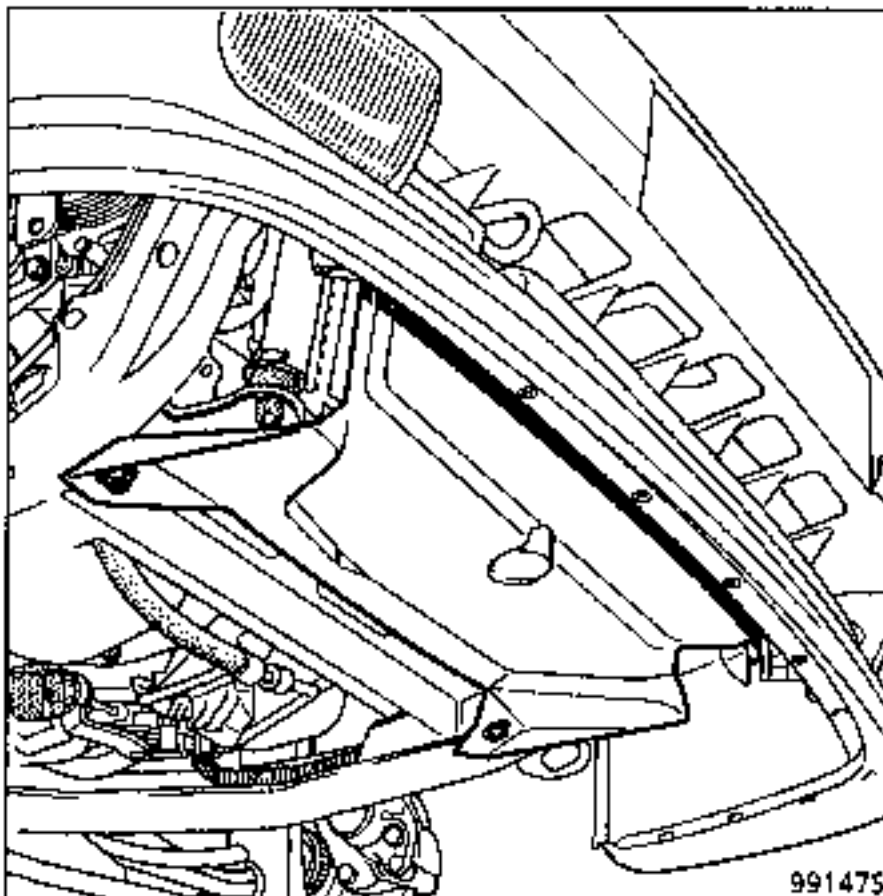
**NOTE :** the welds should be carried out before refitting the roof.



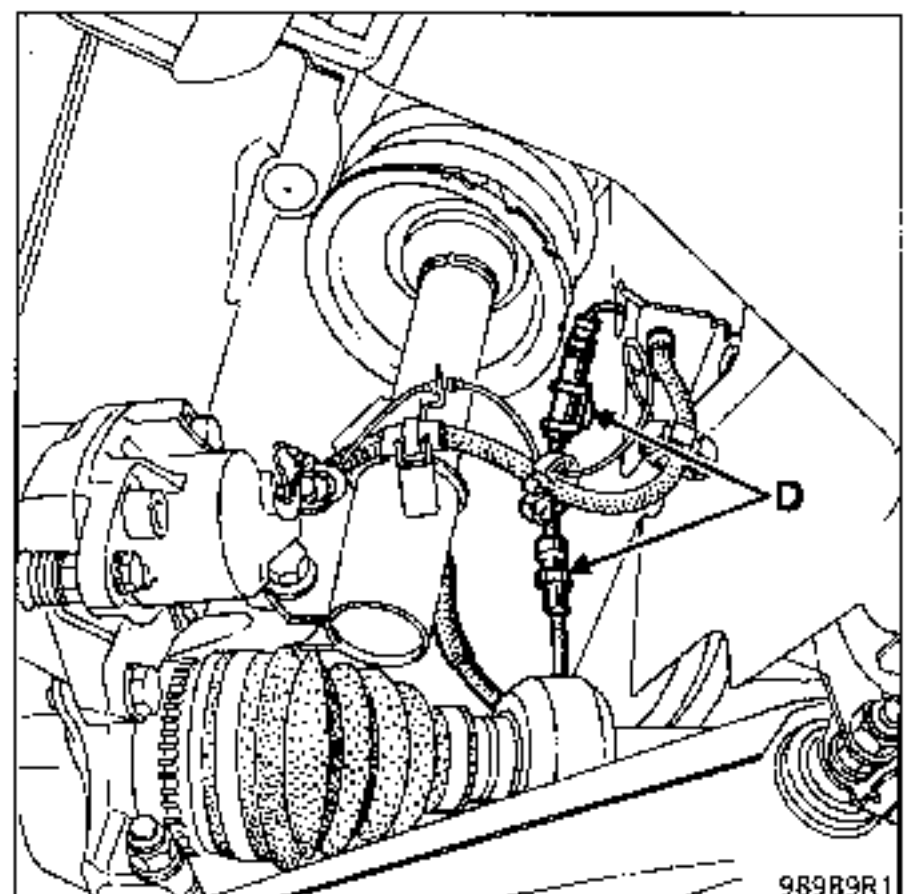
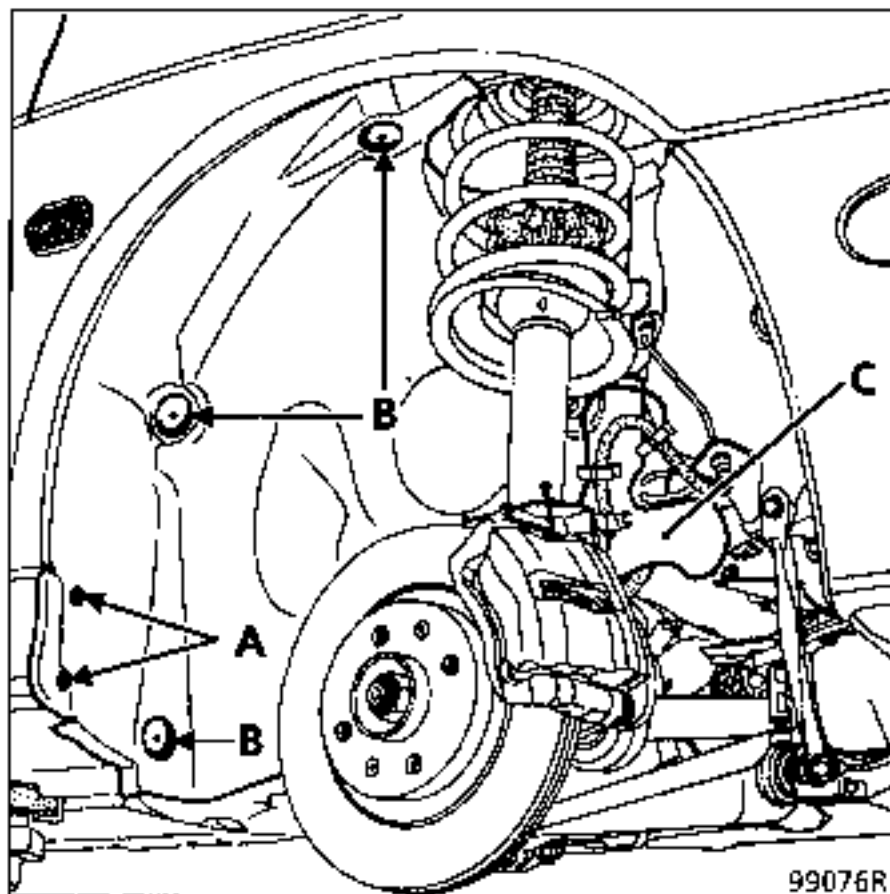
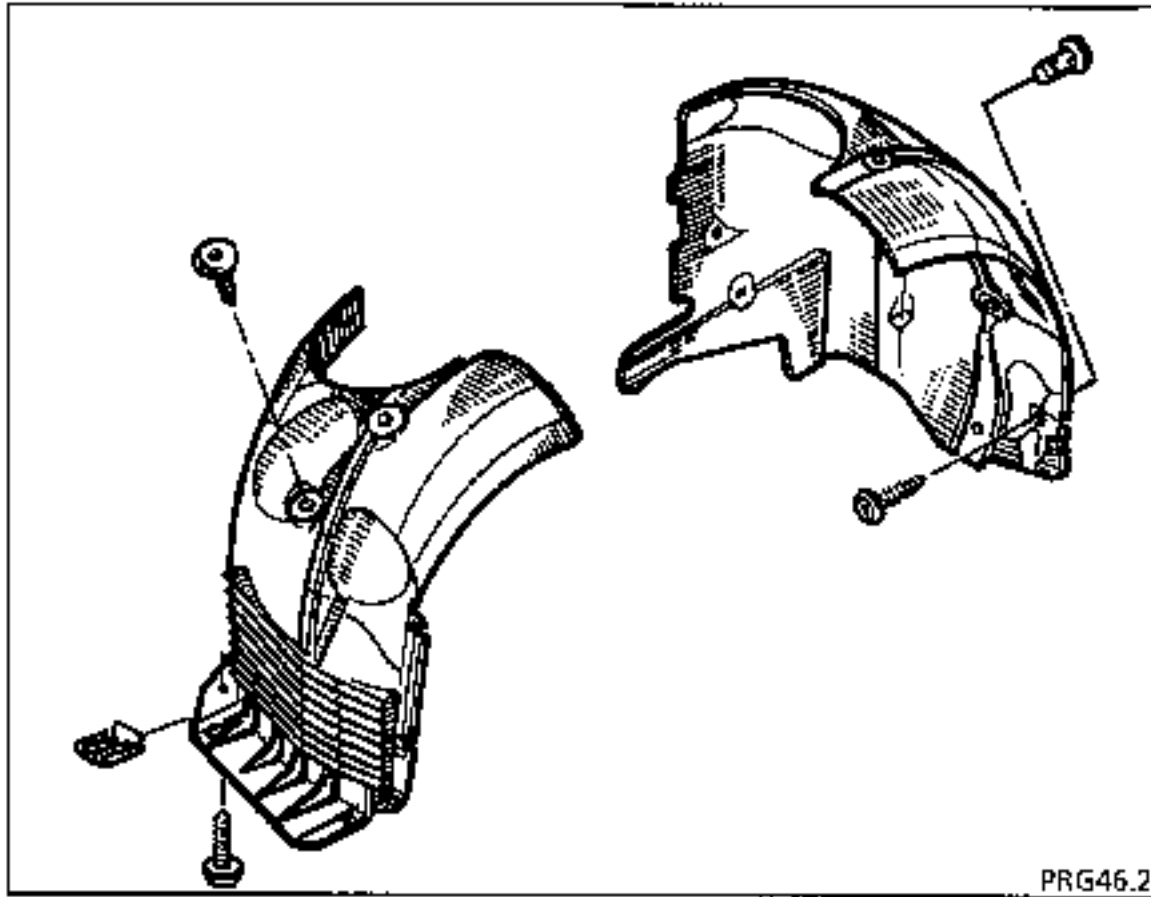


Remove the four bolts (A).

Remove the fairing.



**NOTE :** the two front bolts are also used for mounting the front bumper skid.



**REMOVING THE REAR SECTION OF THE PROTECTOR**

- Remove:
- the two mounting bolts (A),
  - the three retaining clips (B).

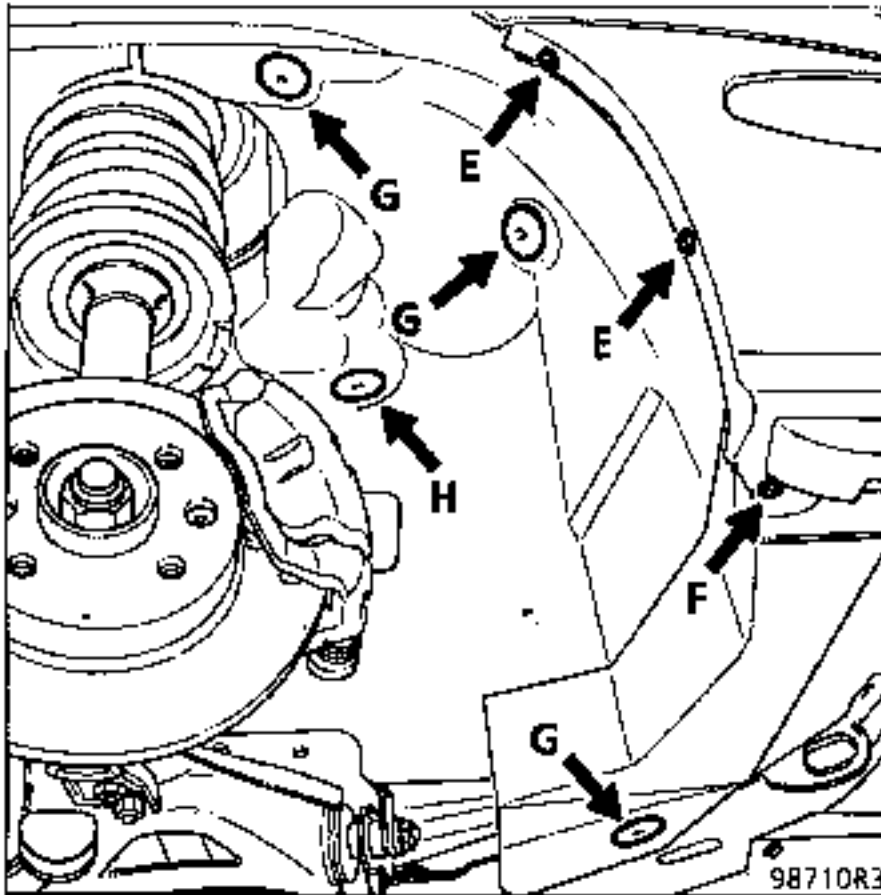
Release bracket (C) from its position on the front section of the protector.

On a vehicle fitted with ABS, release the wheel speed sensor wiring and the two clips (D) and remove them.

On a vehicle not fitted with ABS, the clips (D) are replaced by two retaining clips which should also be removed.

Tilt the protector to release it from the edge of the wing to remove it.

### REMOVING THE FRONT SECTION OF THE PROTECTOR



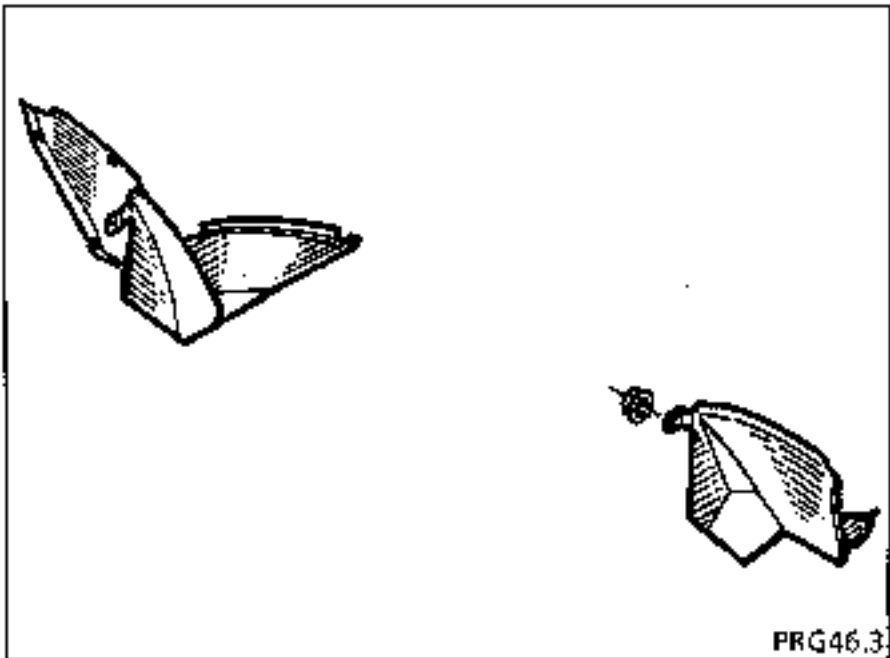
#### Remove:

- the two upper mounting bolts (E),
- the lower mounting bolt (F), from the front section of the front wing interior protector, from the front bumper,
- the three retaining clips (G) and retaining clip (H).

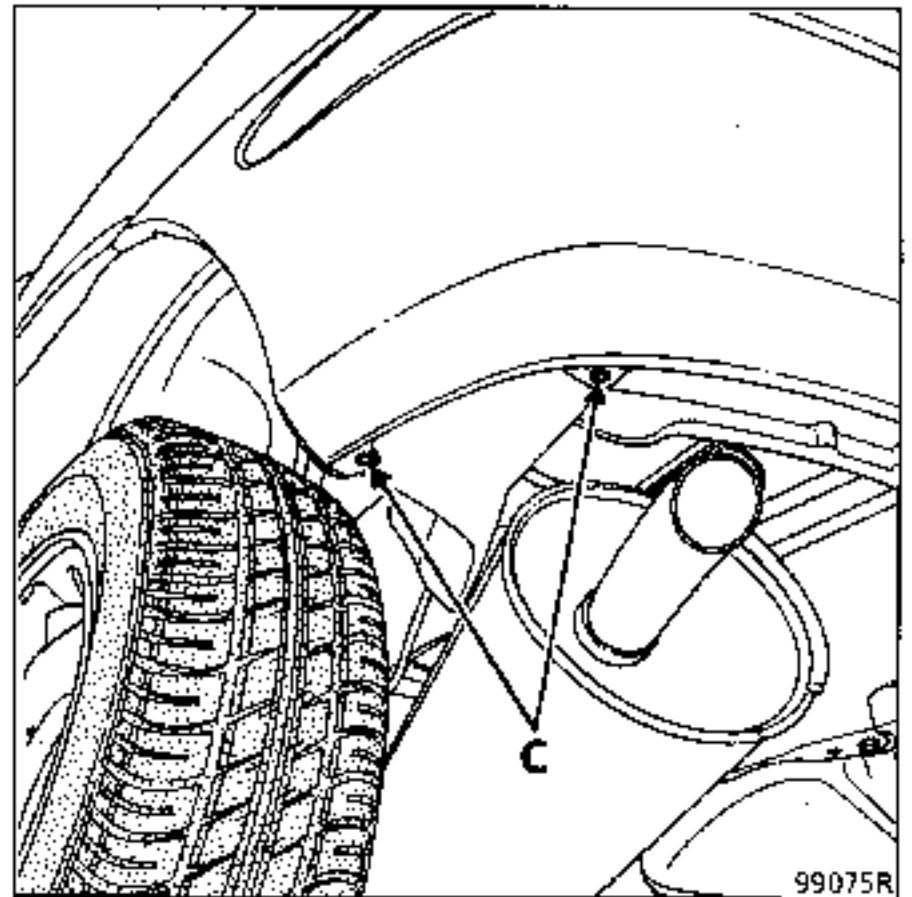
Tilt the protector to release it from the edge of the front wing to remove it.

#### REFITTING

The three retaining clips (D) and (G) must be renewed each time they are removed.  
Check the mounting nuts (E) and (F) are present before refitting the front section of the protector.



PRG46.3



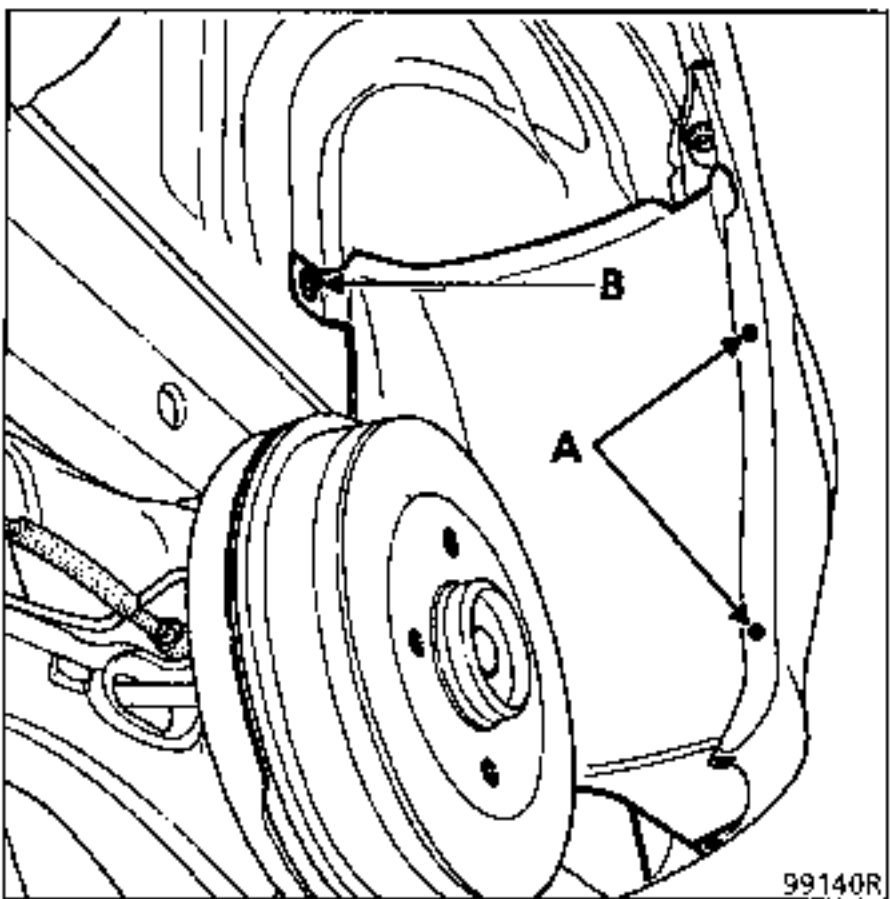
99075R

Remove the two lower mounting bolts (C) for the shield on the side of the rear bumper.

**REFITTING**

Ensure the four mounting nuts (A) and (C) are present on the bumper before refitting the shield.

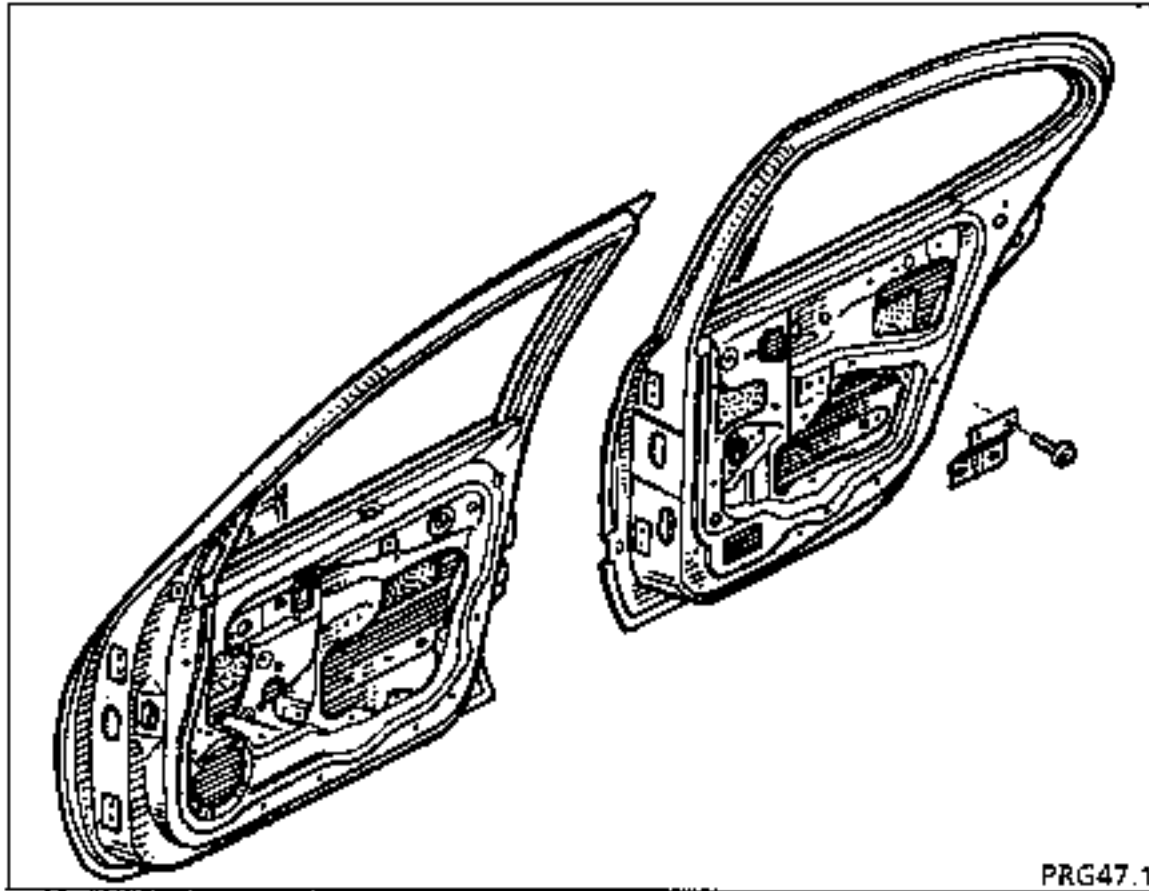
**REMOVAL**



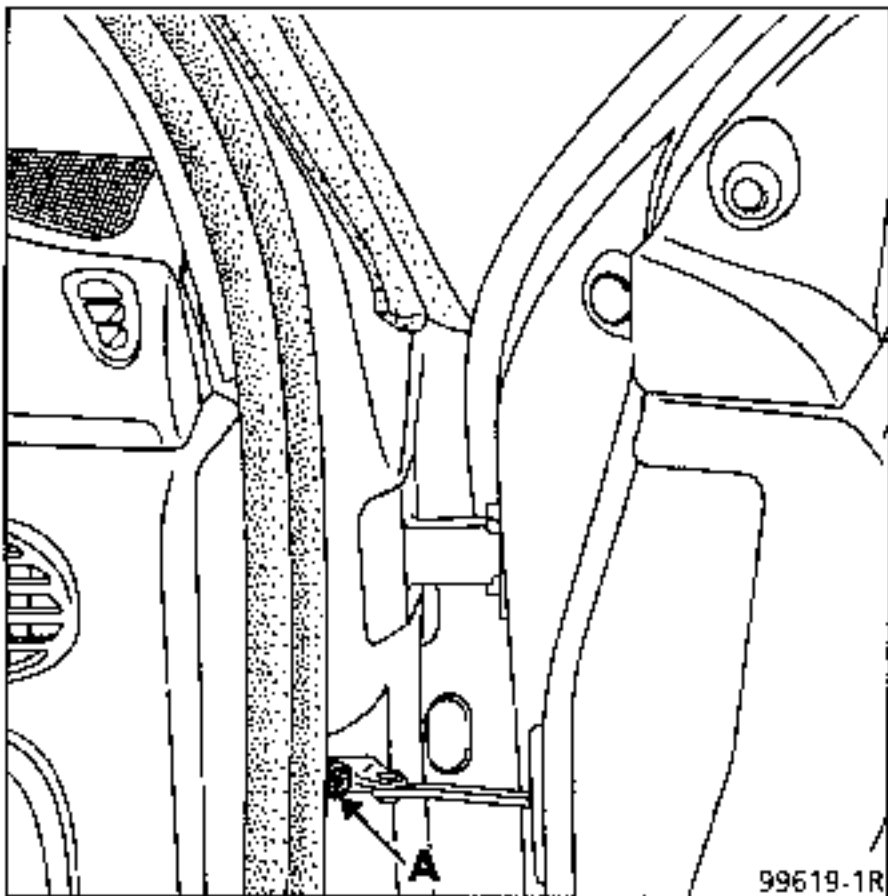
99140R

Remove:

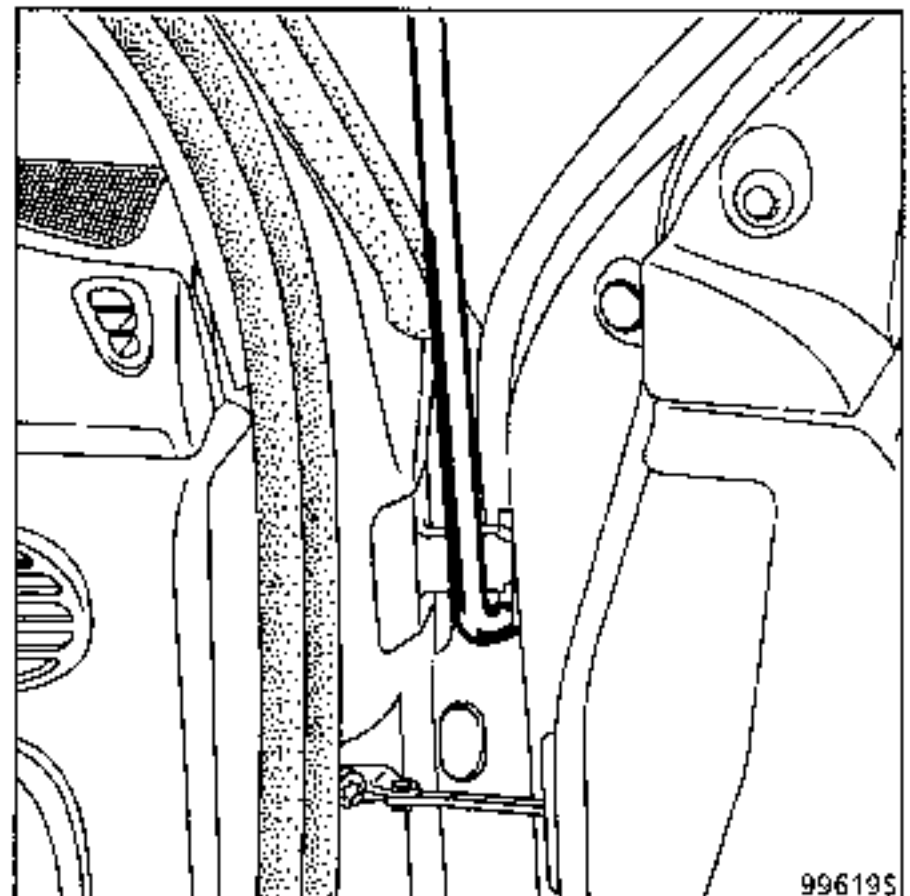
- the two shield upper mounting bolts (A), on the side section of the rear bumper,
- the self cleaning nut (B) mounting the wheel arch.



REMOVAL

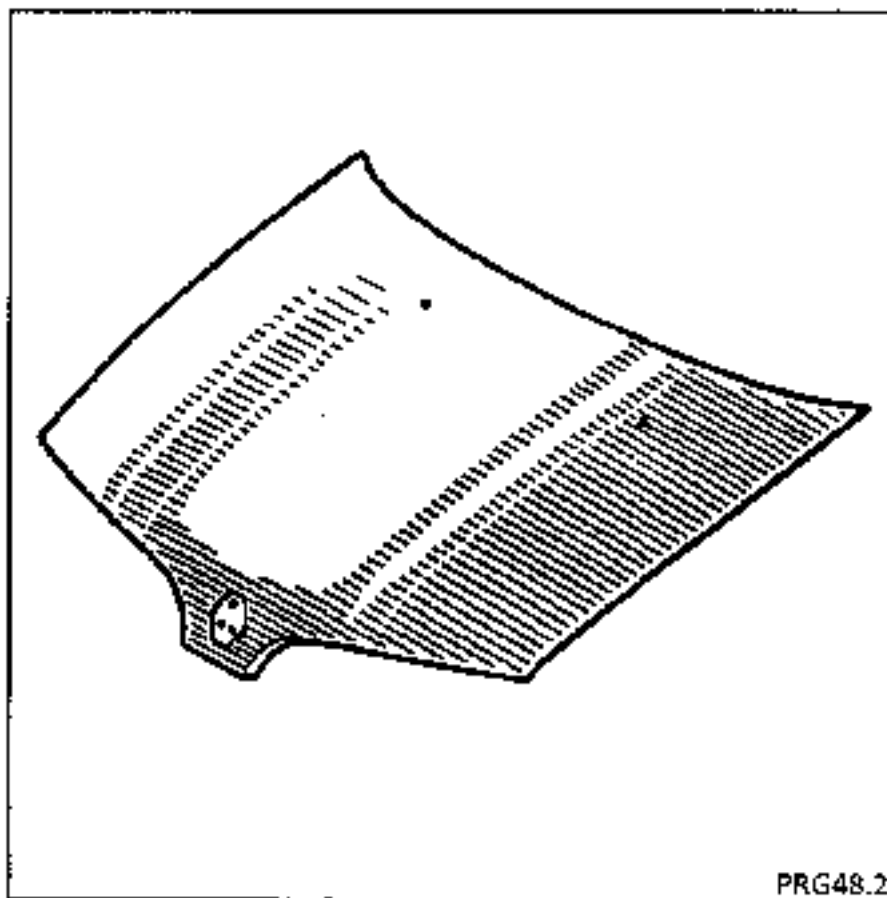


Remove the bolt from the door stay (A).

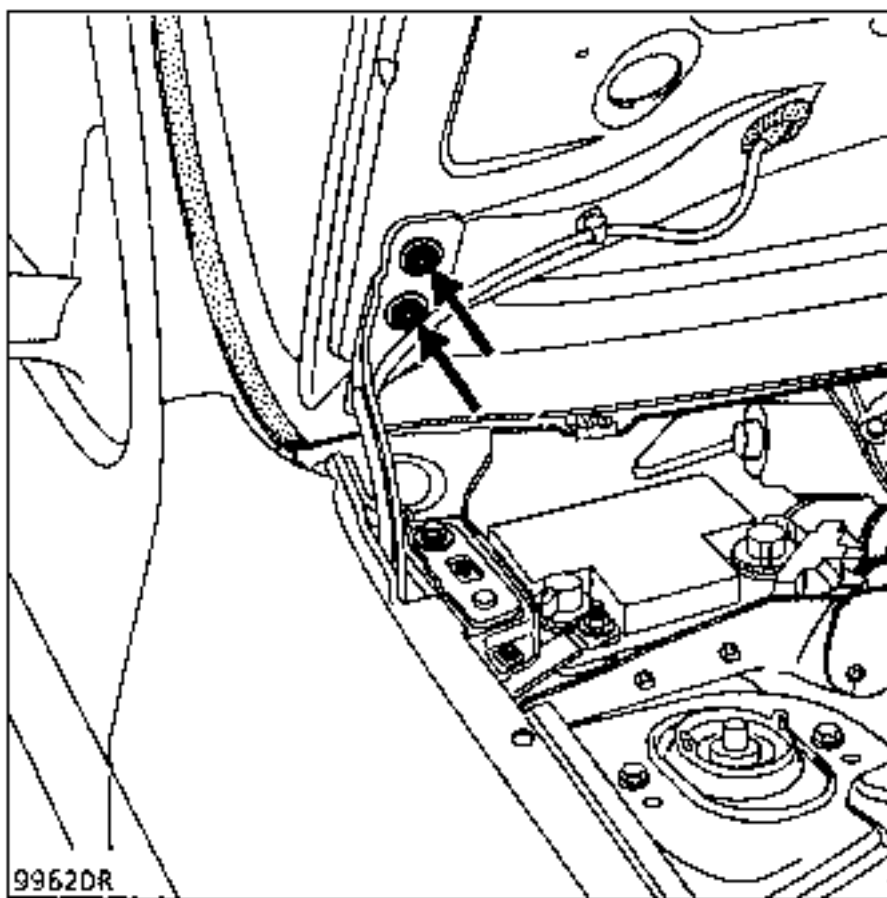


Remove the door pin clips.

Extract the door pins using tool **CAR. 1055-02** (this operation must be performed by two persons).



**REMOVAL**

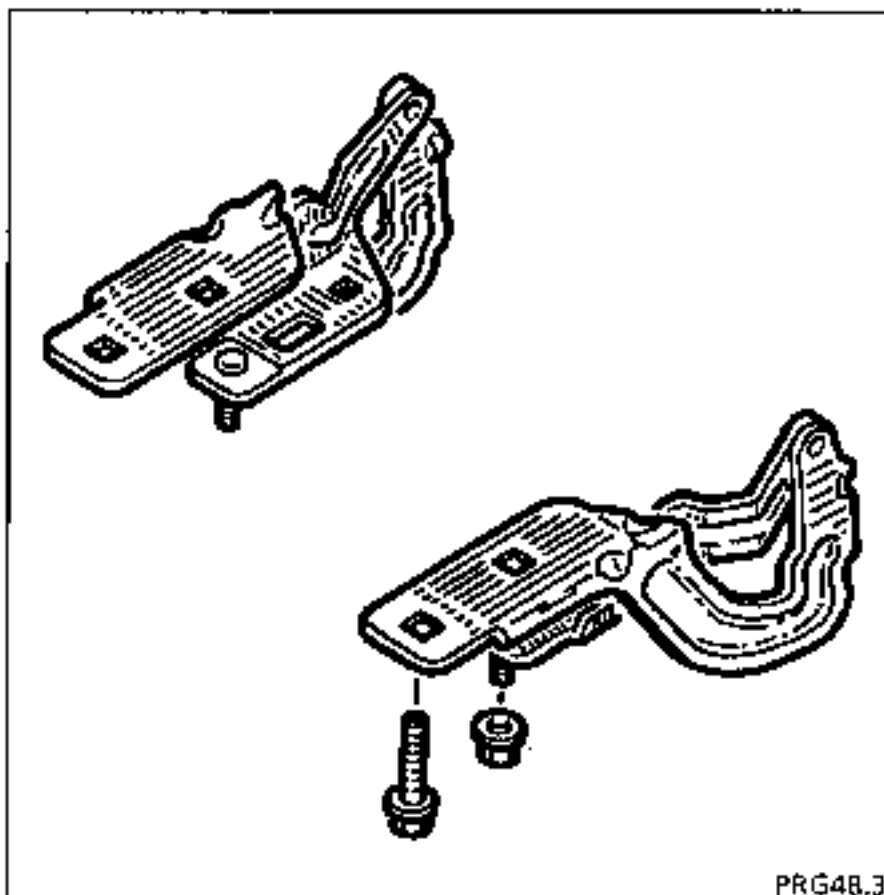


Open the bonnet.

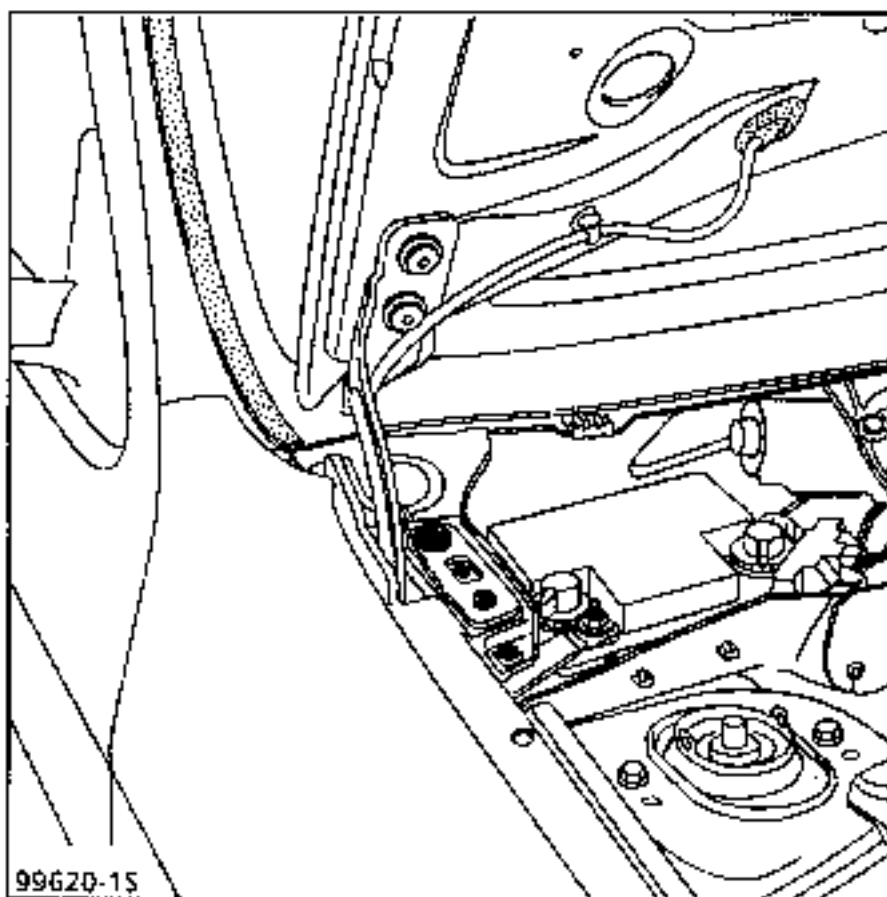
Put the bonnet stay into position.

Disconnect the windscreen washer pipe.

Remove the two left and right hand side mounting bolts (this operation must be performed by two persons).



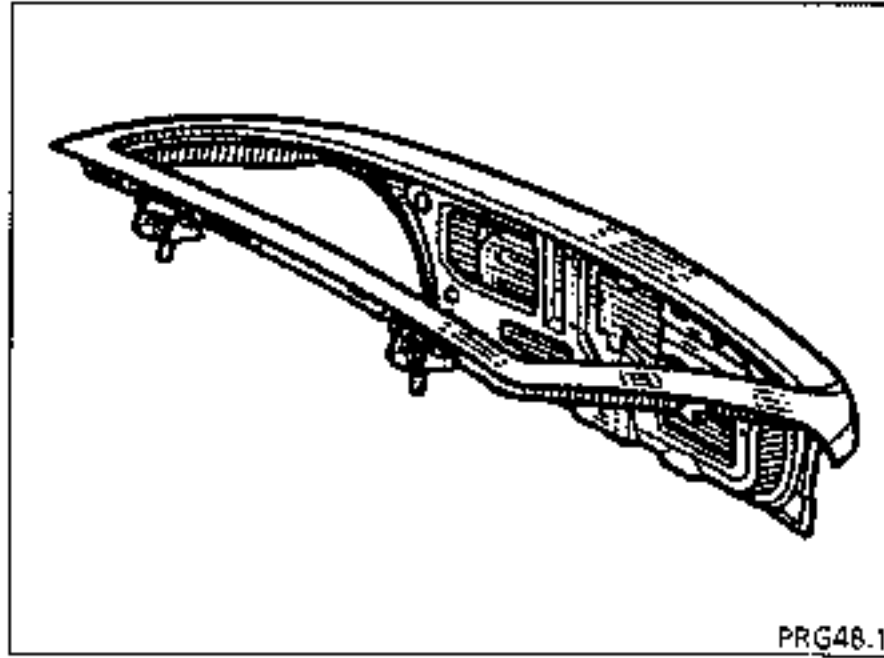
## REMOVAL



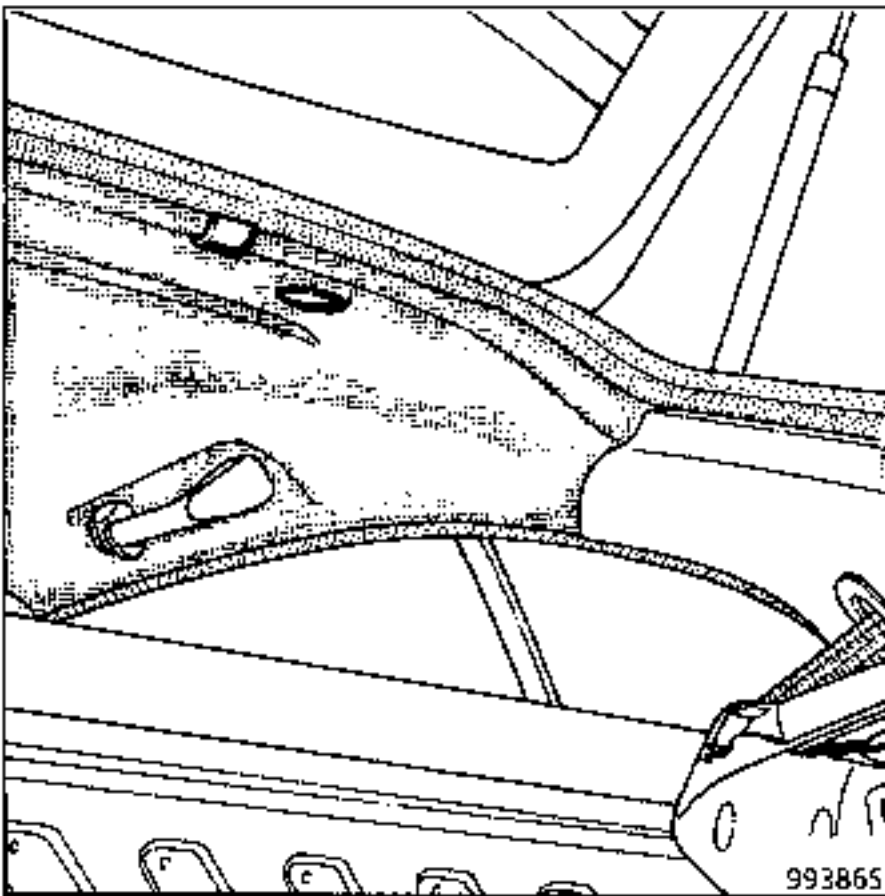
After removing:

- the bonnet,
- the scuttle panel grille (chapter **55-G**),

remove the bolt and the mounting nut.

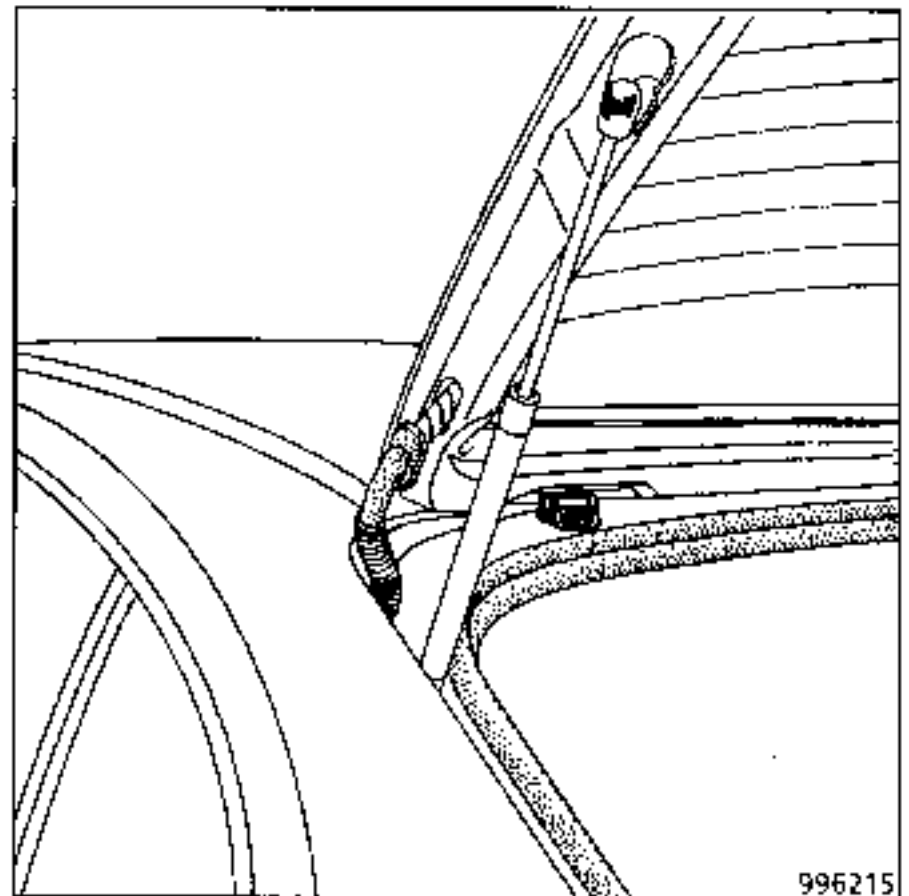


REMOVAL



Remove the trim and disconnect the various wires (chapter 52).

Remove the wiring.



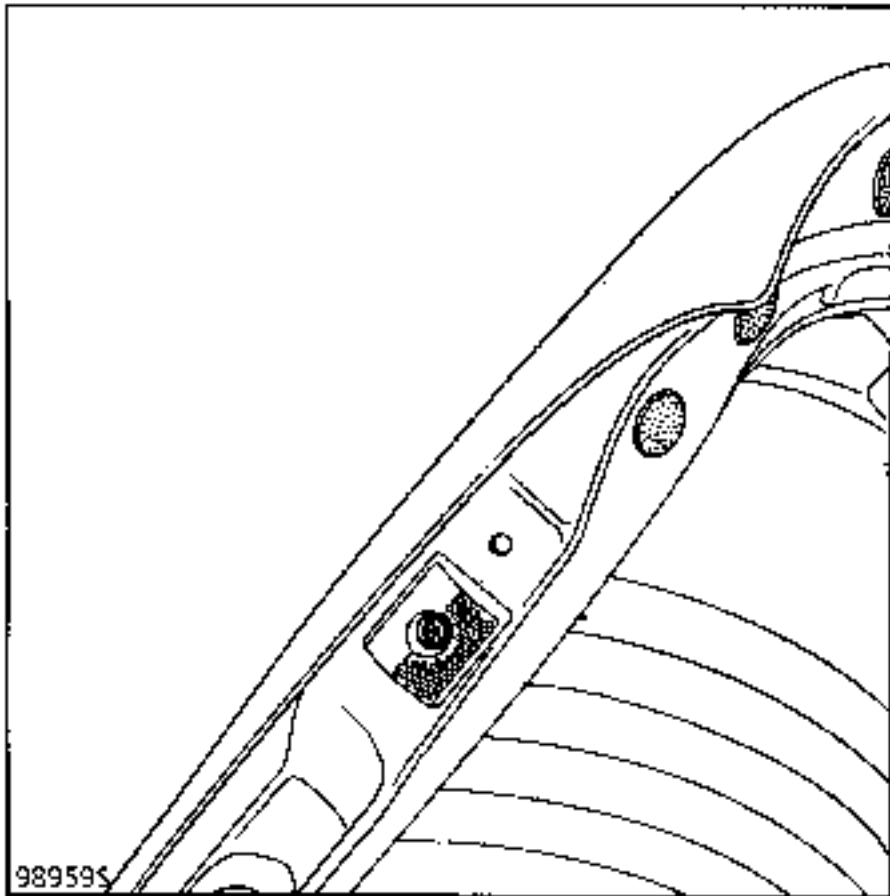
Remove the roof lining blanking plugs.

Unclip the balancers.

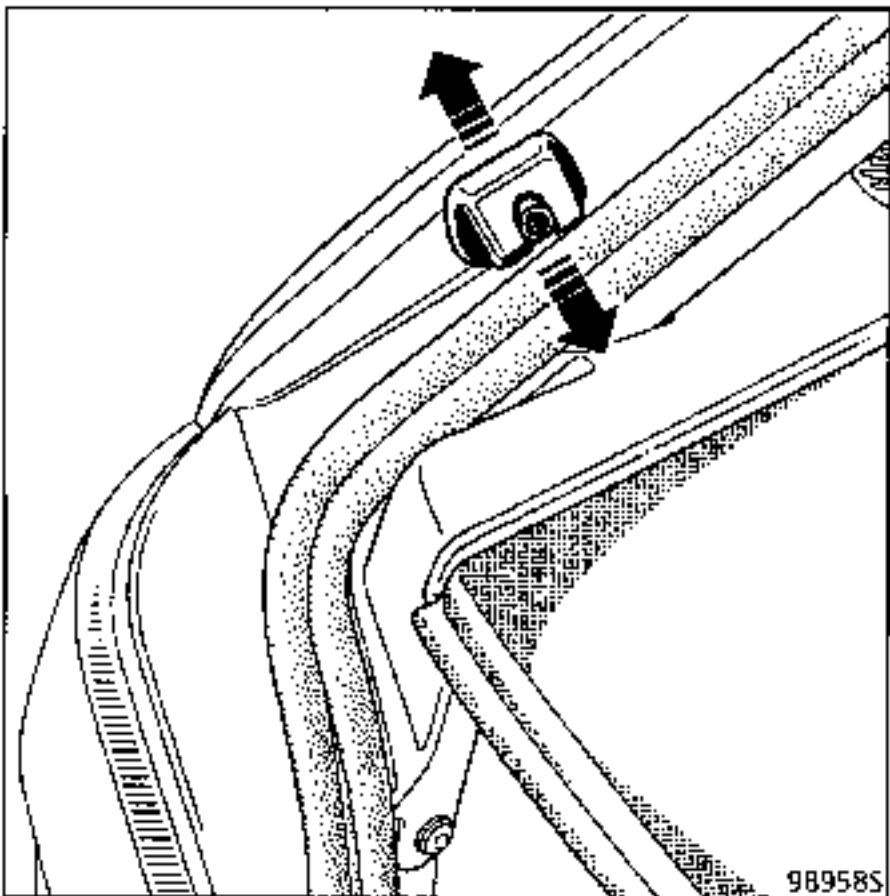
Remove the mounting nuts (this operation must be performed by two persons).



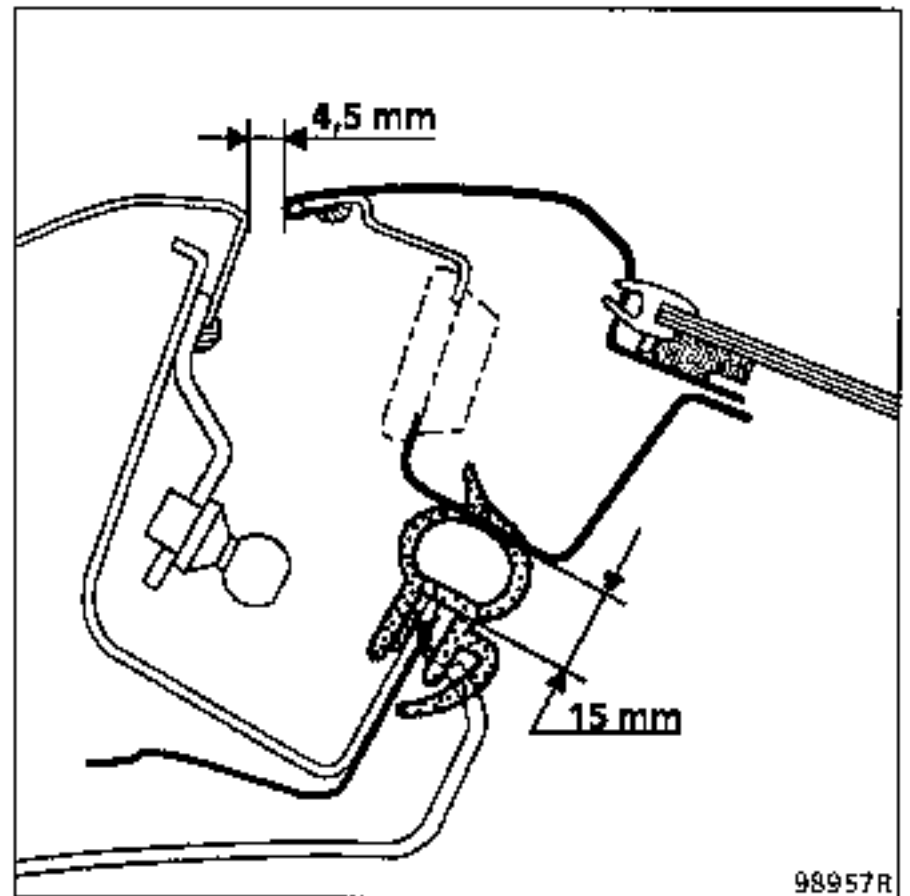
ADJUSTMENT



Position the fixed stops on the tailgate.



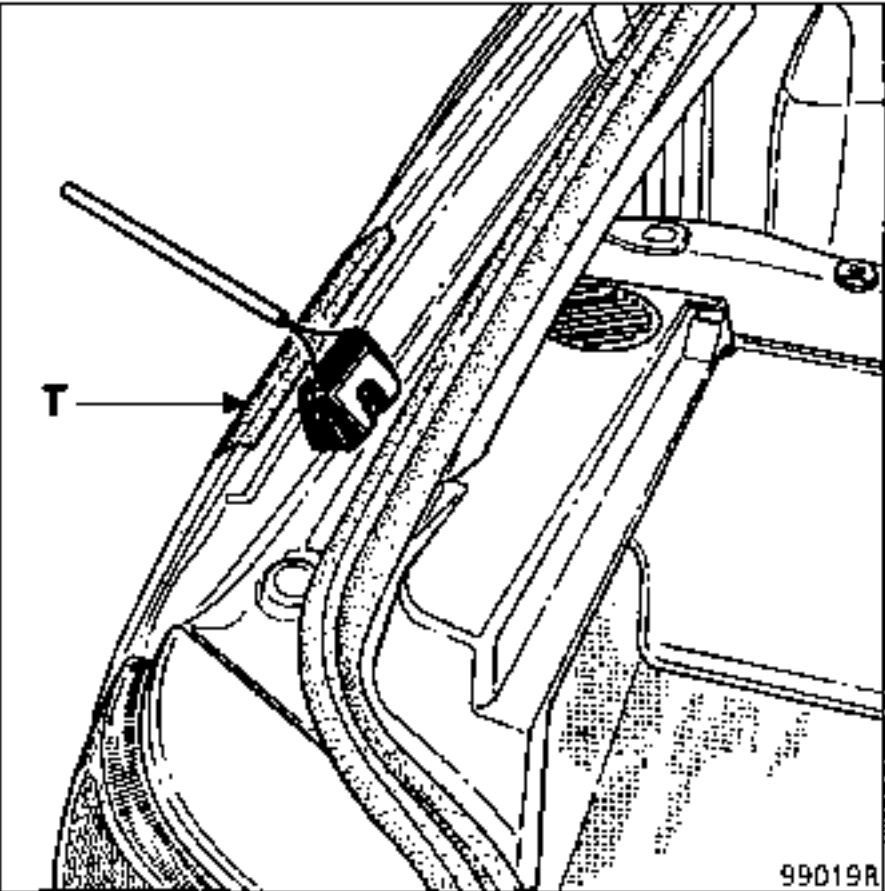
Fit the luggage compartment seal.  
Position the adjustable stops on the body in the low position but do not tighten them.



Check the tailgate clearance in relation to the wings ( $4.5 \text{ mm} \pm 1$ ) (if the tailgate is not correctly centred, adjust the hinges).

Adjust the striker plate to obtain sufficient pressure on the seal (dimension 15 mm).

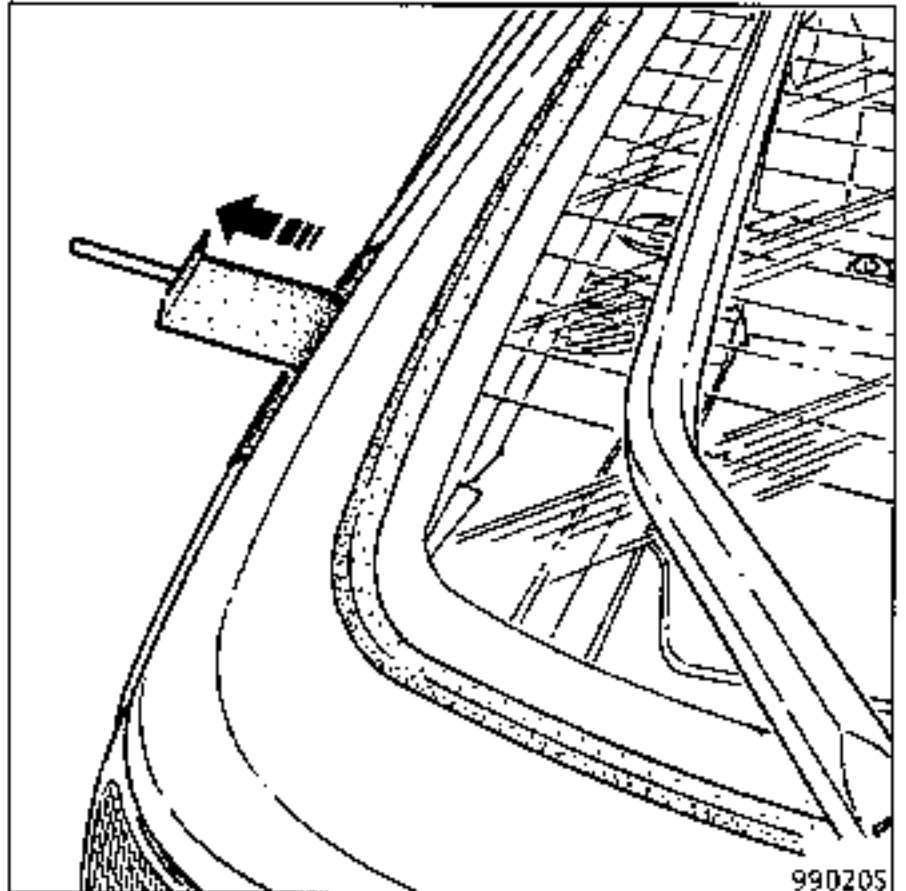
Now adjust the side stops as described on page 48-5.



Protect the bodywork with masking tape (T).

Using a welding rod (wire diameter 1.5 mm), make a loop around the stop as shown on the diagram above.

Insert a strip of masking paper between the tailgate and the stop, then close the tailgate.



Pull the wire to bring the stops into contact with the tailgate.

Using the strip of paper, check the adjustment (the paper should slide without tearing).

Open the tailgate again and tighten the stops.