RENAULT

0 General vehicle information

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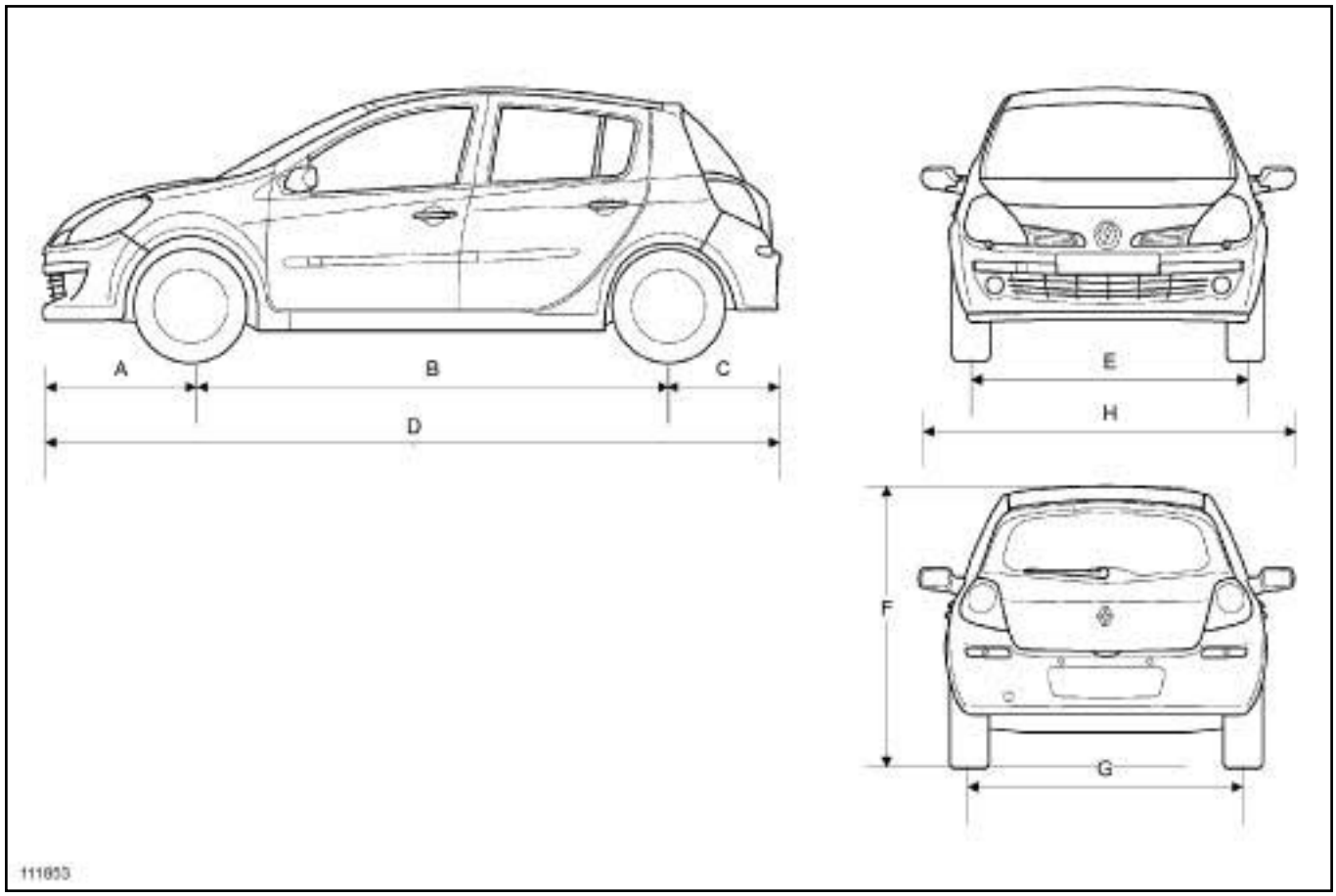
X85

NOVEMBER 2009 **EDITION ANGLAISE**

CLIO III - Chapitre 0

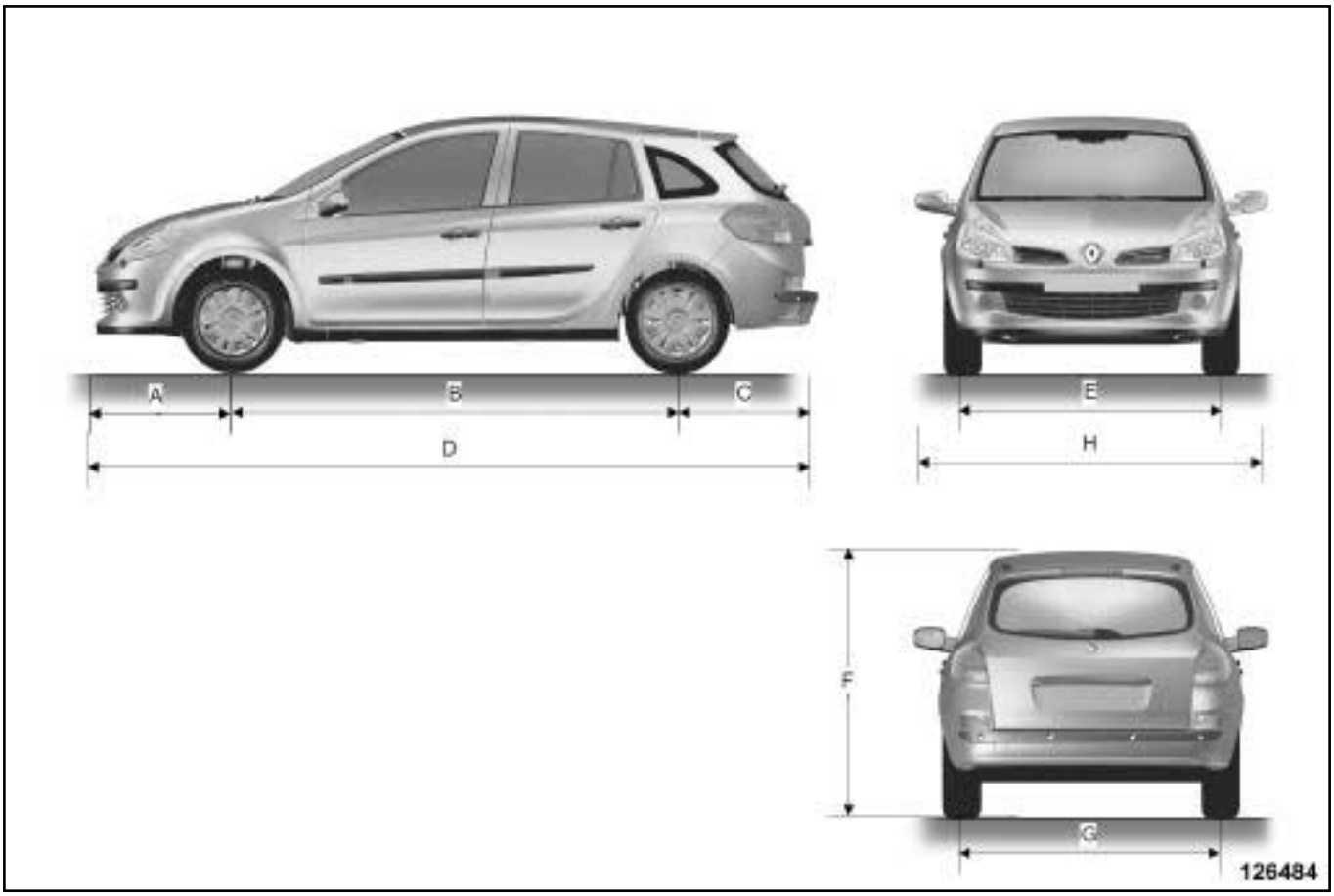
Contents

B85 or C85 or S85



111853

K85



126484

Dimensions in metres :

	all models except Clio RS	Clio RS only	Clio Estate	all Clio phase 2 models except Clio RS
A	0.805	0.800	0.805	0.805
B	2.575	2.585	2.575	2.575
C	0.606	0.606	0.822	0.621
D	3.986	3.991	4.203	4.017
E	1.472 (165/65 R15 81T and 195/50 R16 88V)	1.520	1.472	1.472
	1.458 (185/60 R15 84H)		1.458	1.458
F (unladen)	1.497	1.484	1.497	1.497

G	1.471 (165/65 R15 81T)	1.520	1.471	1.470
	1.460 (185/60 R15 84H)			1.460
	1.450 (195/50 R16 88V)		1.450	1.450
H	2.025	2.025	2.025	2.025

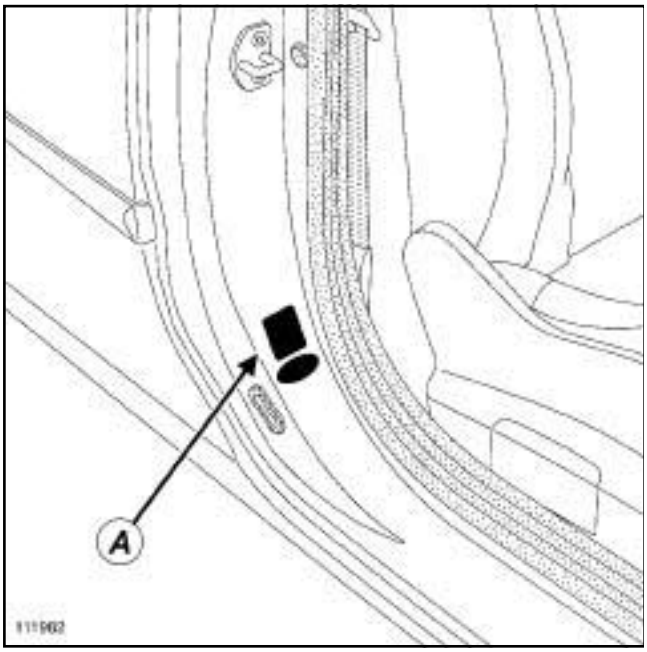
Engine type	Engine suffix	Gearbox	Gearbox suffix	Emissions standard
D4F	740	JH3	128 176	EURO 3, 4 and 5
	742 (a)			EURO 4
	764	JH3	128 176	EURO 4 and 5
		JA3	001	EURO 3 and 4
	784	JH3	184 185 186 187	EURO 4
	786		312 313 315	EURO 5
F4R	830	TL4	003 024	EURO 4
	832		024 031	
K4J	780	JH3	129 154 172 173 177	EURO 3 and 4

Engine type	Engine suffix	Gearbox	Gearbox suffix	Emissions standard
K4M	800	JH3	131 155 179	EURO 3 and 4
		JR5	138 171	US94, EURO 3 and 4
	801	DP0	074	EURO 3, 4 and 5
	804	JH3	131 155 179	EURO 4
	862	TL4	039	
K9K	750	JR5	113 162	EURO 1 and 3
	752	JH3	132 174	
	764	TL4	002	EURO 4
	766	JA5	001	
		JR5	124 128 164 322	
	768	JH3	141 175 189 190	
	772	TL4	002	EURO 4
M4R	700	TL4	008	EURO 4
	701	DP0	021	

a: Engine running on an ethanol/petrol mixture.

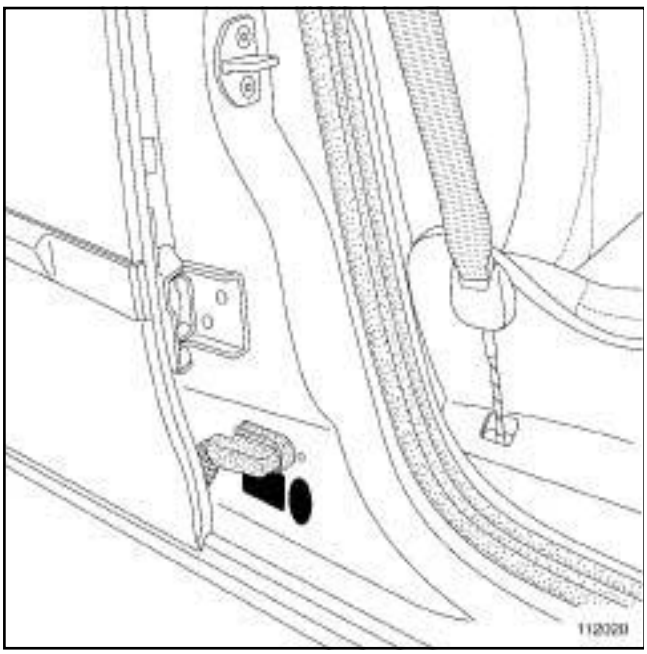
I - LOCATIONS OF THE VEHICLE IDENTIFICATION PLATE

C85 or S85

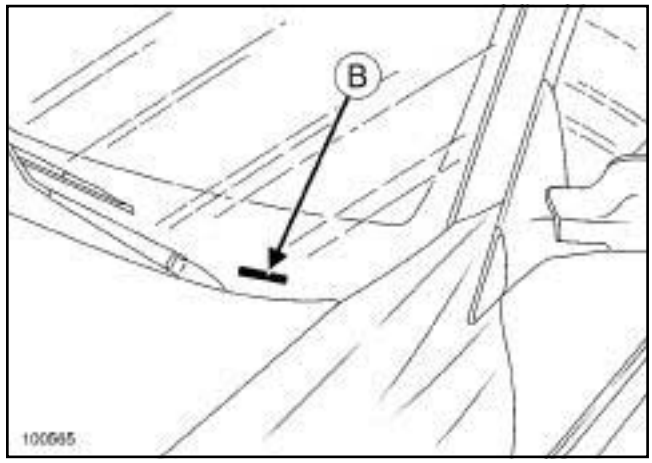


111982

B85 or K85

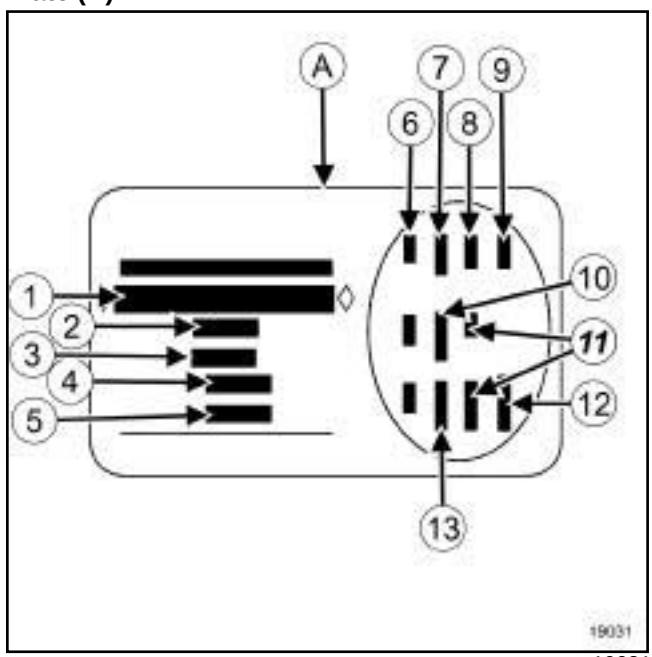


112020



100565

Plate (A):

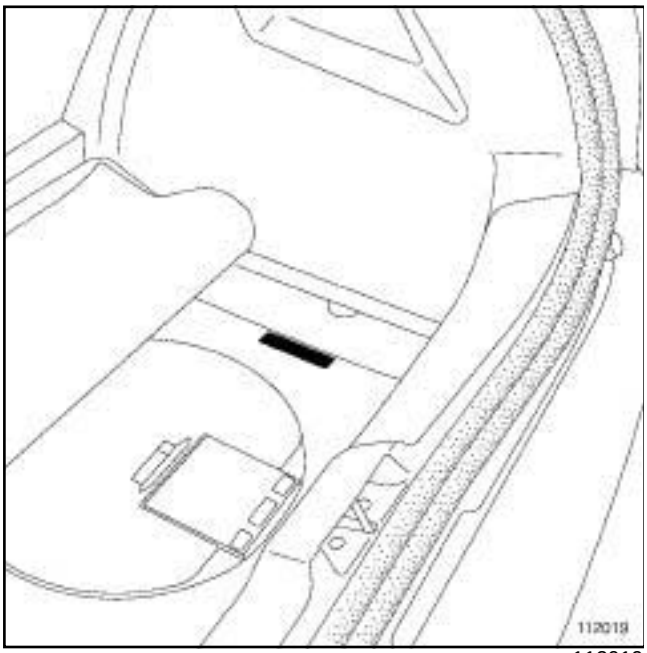


19031

(**1**)	Vehicle type mine and type number; this information also appears on marking (B)
(**2**)	MGVW (Maximum Gross Vehicle Weight)
(**3**)	GTW (Gross train weight, vehicle under load with trailer)
(**4**)	Maximum permissible front axle load
(**5**)	Maximum permissible rear axle load
(**6**)	Vehicle technical specifications
(**7**)	Paintwork reference number
(**8**)	Equipment level
(**9**)	Vehicle type

(**10**) Upholstery code
(**11**) Additional equipment details
(**12**) Fabrication number
(**13**) Interior trim code

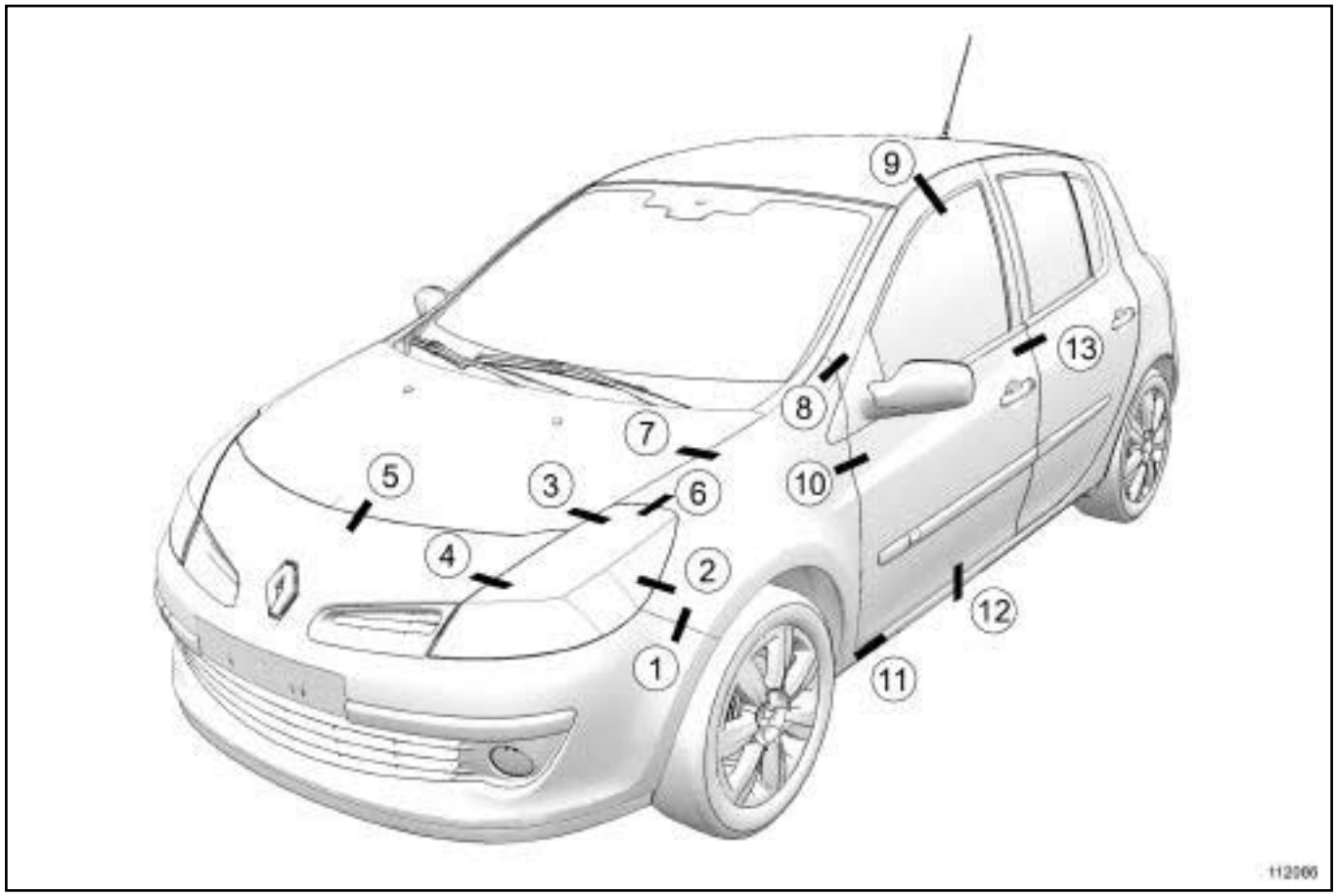
II - COLD-MARKING OF THE BODY



112019

Note:

If the complete body is being replaced, it must be marked in compliance with the current regulations.



112086

WARNING

The clearance values are given for information purposes.

Certain rules have to be followed when clearances are adjusted:

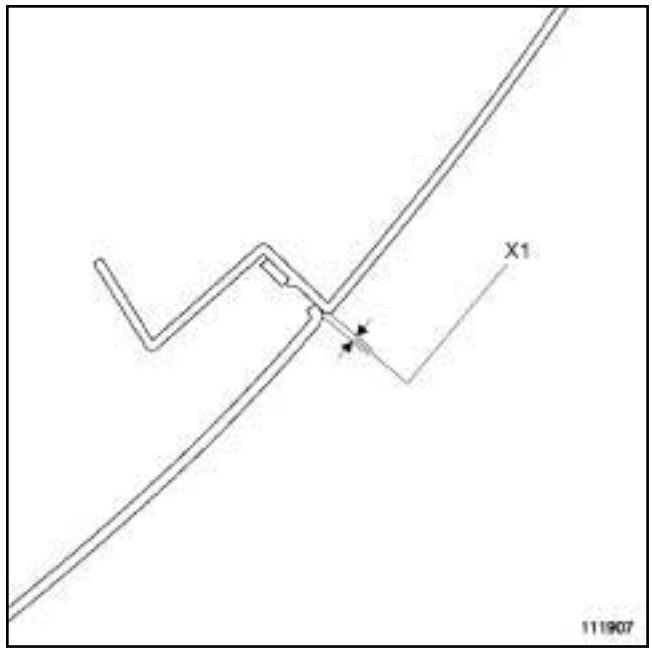
-maintain symmetry in relation to opposite side,

-ensure the flush fitting is correct,

-check correct operation of the opening, and water- and airtightness.

All values are given in millimetres.

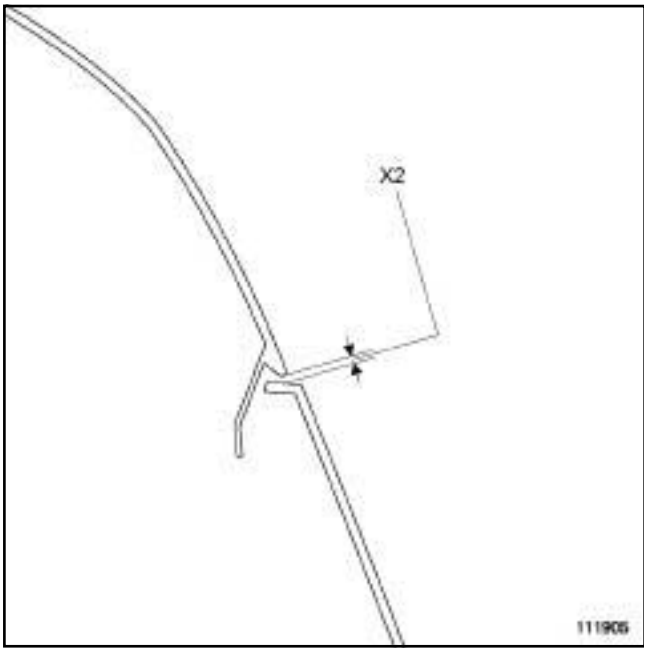
Section 1



111907

(**X1**) = **0.75** mm ± **0.75**

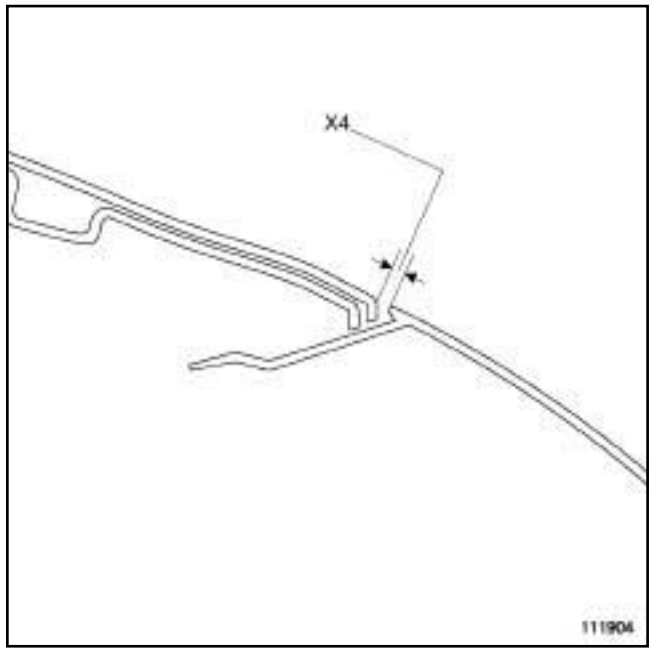
Section 2



111905

(**X2**) = **2** mm ± **1**

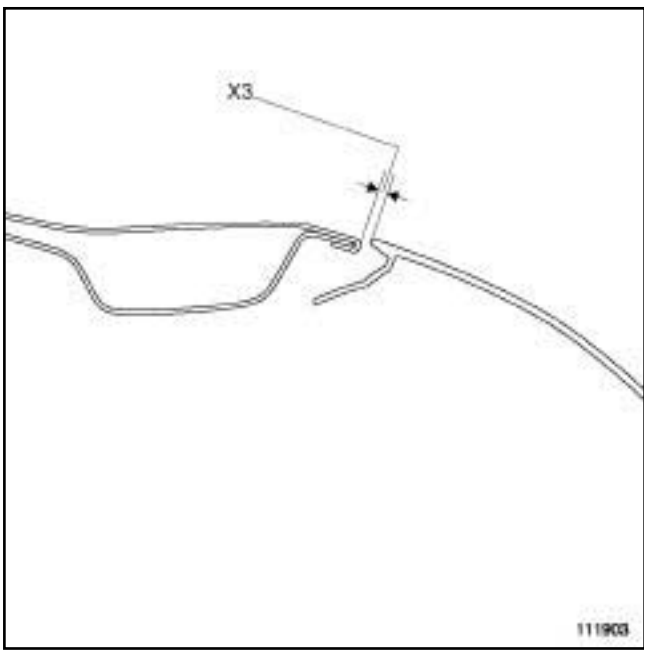
Section 4



111904

(**X4**) = **3.4** mm ± **1.5**

Section 3



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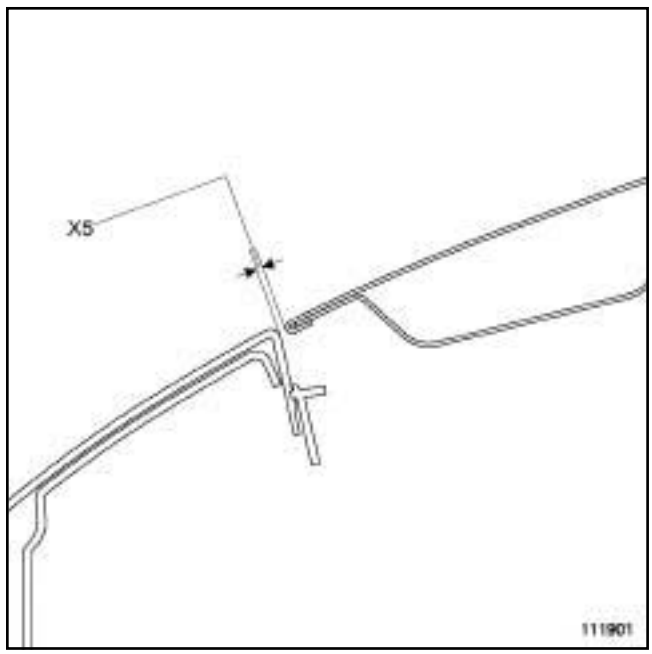
(**X3**) = **3.5** mm ± **1.5**

Section 5



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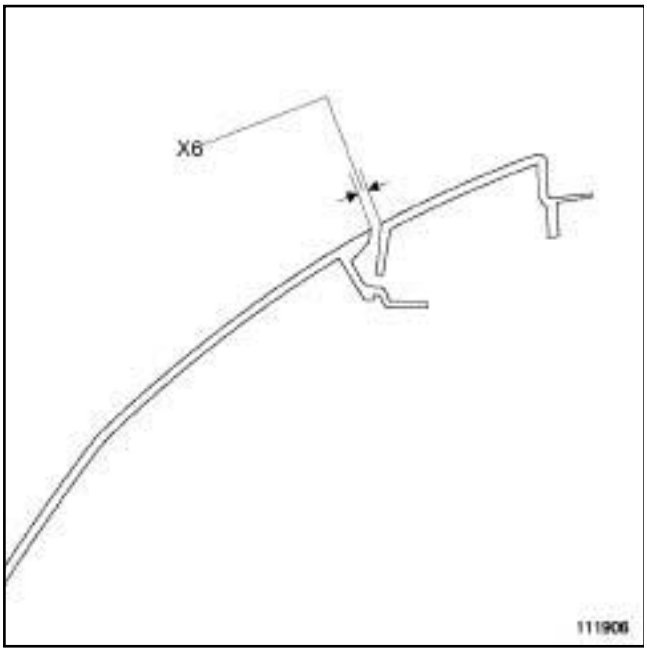
(**X5**) = **3.5** mm ± **1.5**

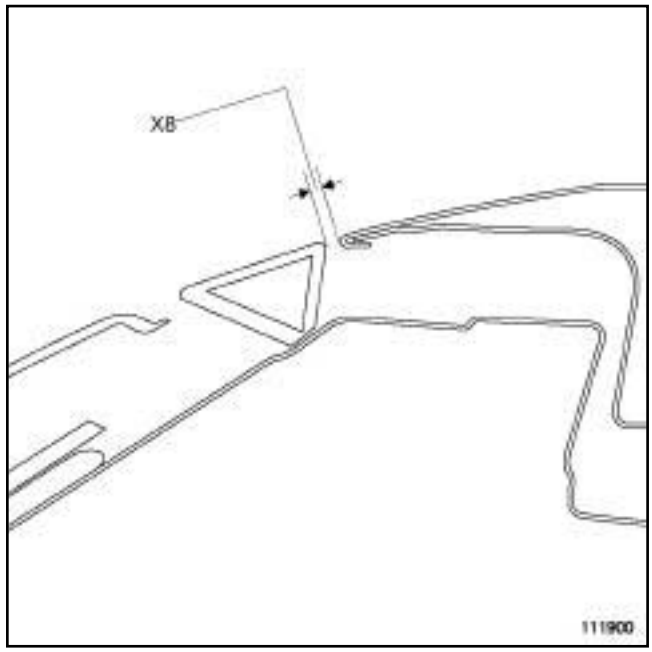
Section 6



111906

(**X6**) = **2** mm ± **1**

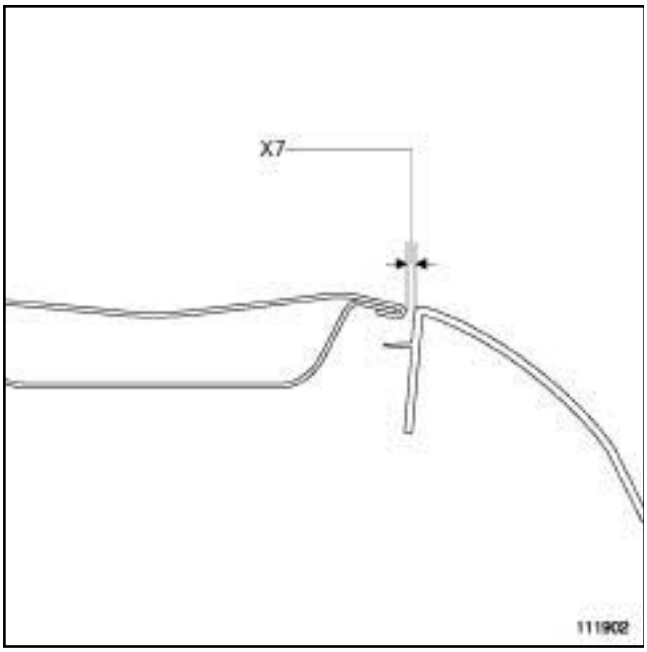
Section 8



111900

(**X8**) = **4** mm ± **1**

Section 7



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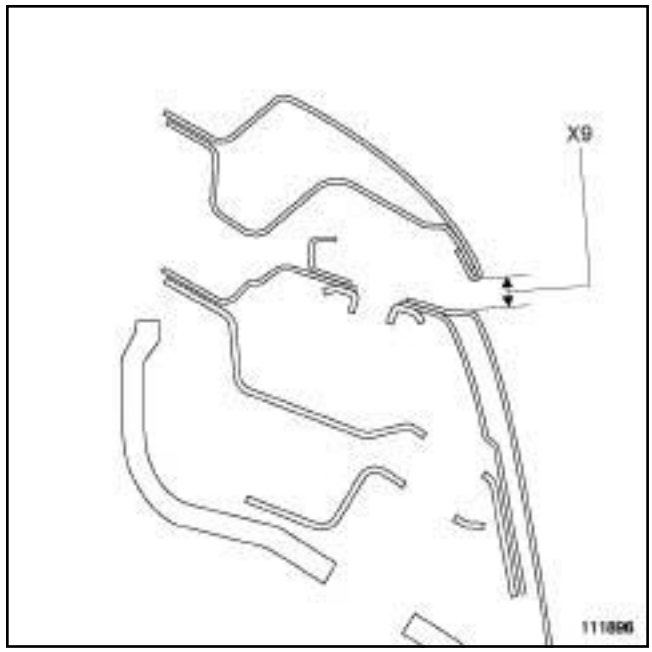
(**X7**) = **3.5** mm ± **1.2**

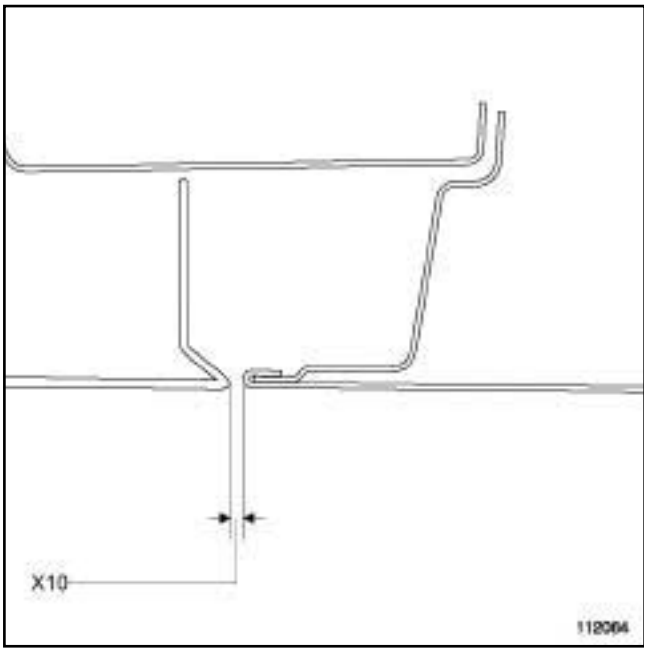
Section 9



111896

(**X9**) = **6mm** ± **1**

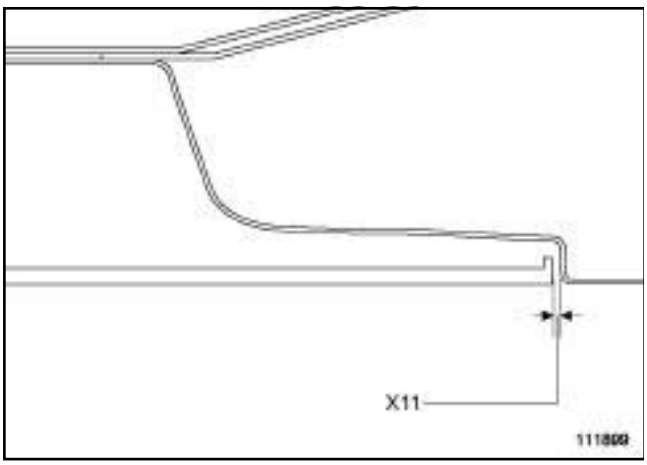
Section 10



112064

(**X10**) = **4** mm ± **1**

Section 11



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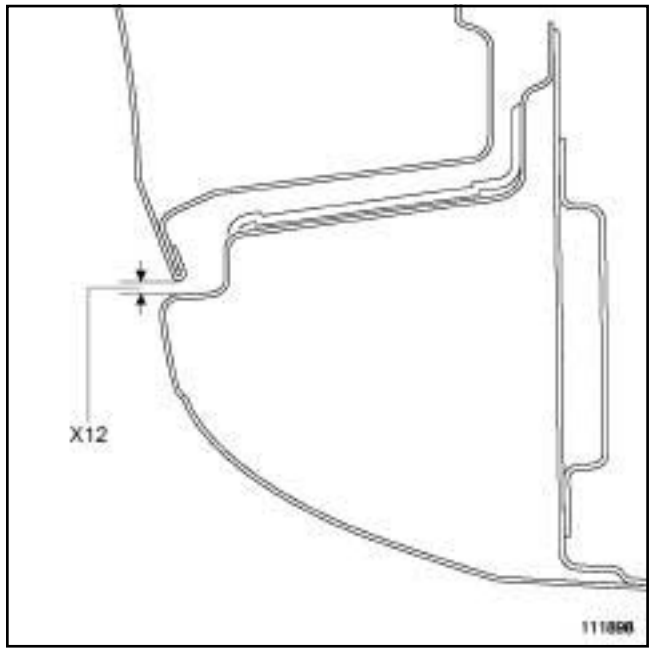
(**X11**) = **4.2** mm ± **1.5**

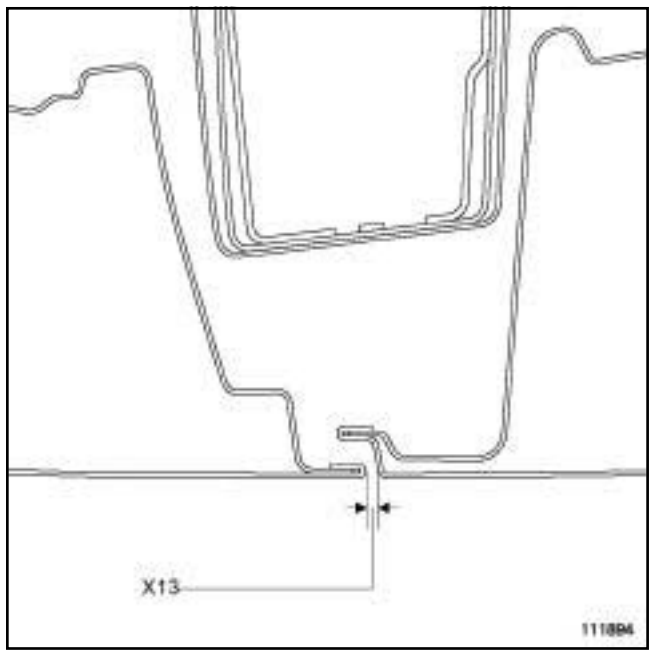
Section 12



111898

(**X12**) = **3mm** ± **1**

Section 13



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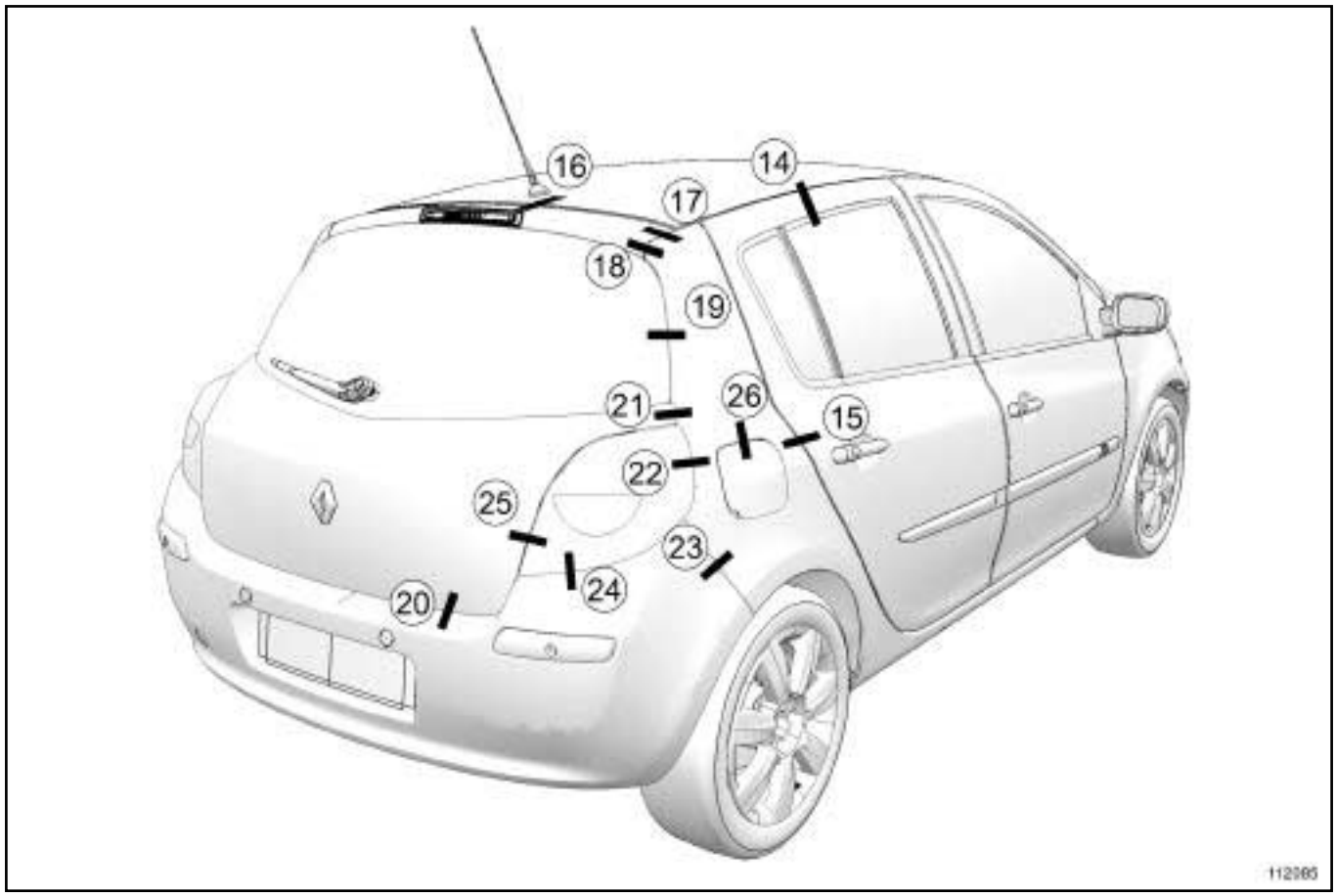
(**X13**) = **4.5** mm ± **1.5**

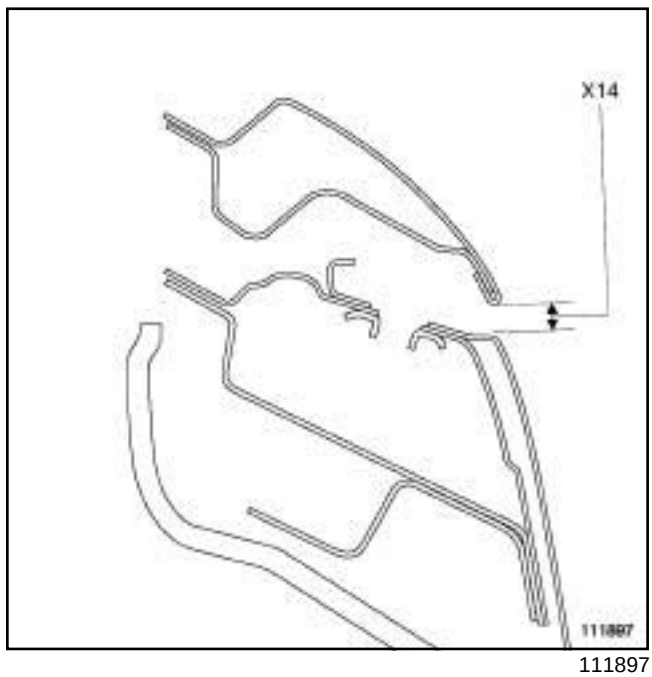
B85 or C85 or S85



112085

B85

Section 14



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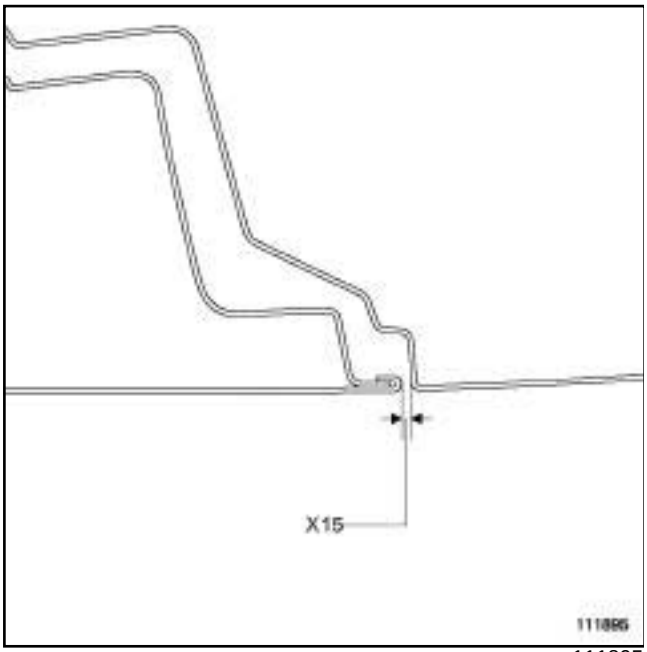
(**X14**) = **6** mm ± **2**

Section 15



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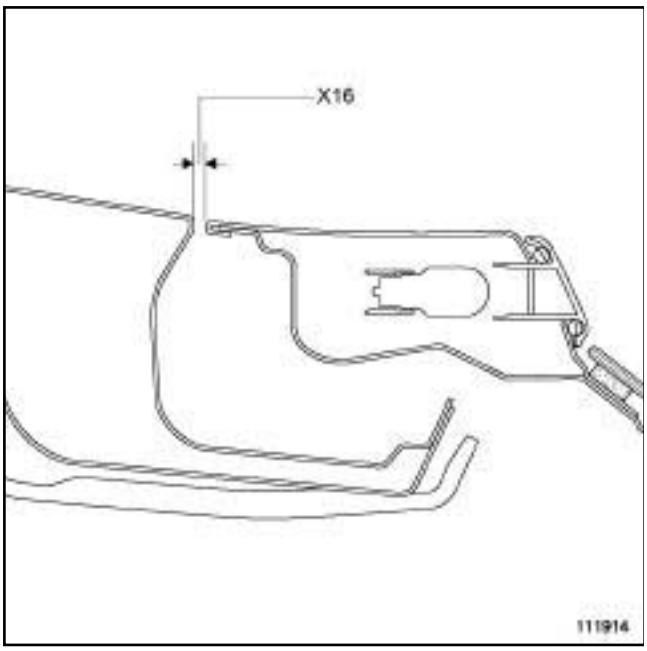
(**X15**) = **4** mm ± **1**

B85 or C85 or S85

Section 16



111914

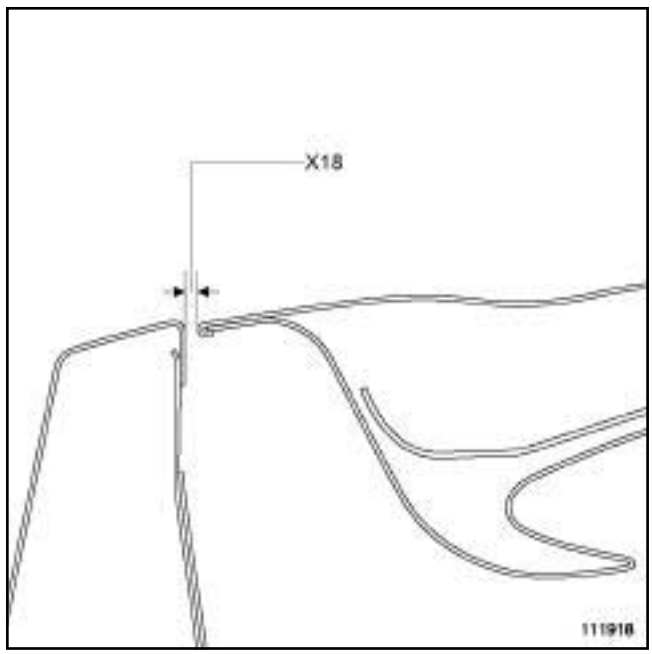
(**X16**) = **5** mm ± **1**

Section 17

111917

(**X17**) = **4.3** mm ± **1.5**

Section 18



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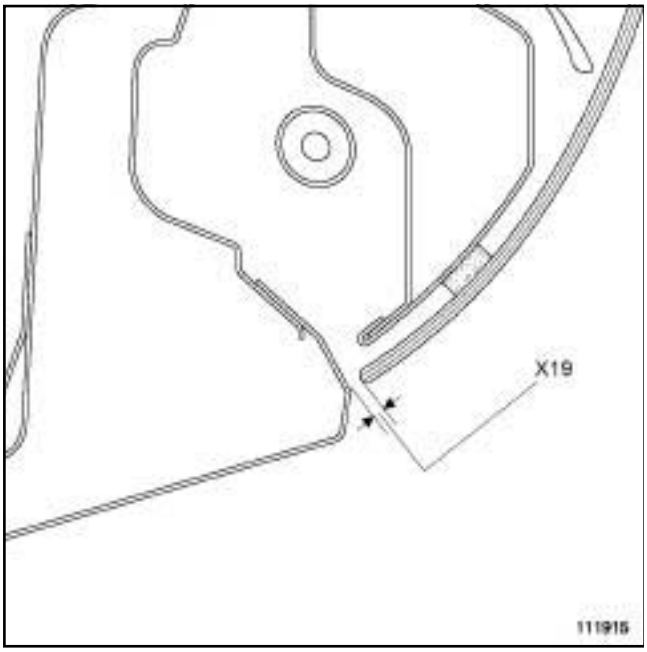
(**X18**) = **4** mm ± **1.5**

Section 19



111915

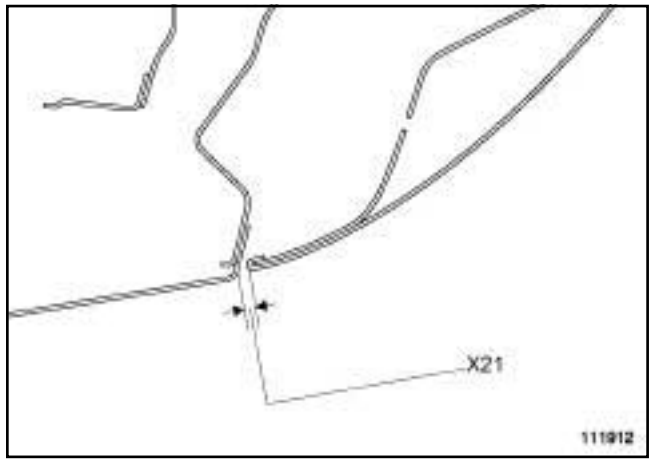
(**X19**) = **4** mm ± **2**

Section 20

111916

(**X20**) = **5** mm ± **2**

Section 21



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(**X21**) = **4** mm ± **2**

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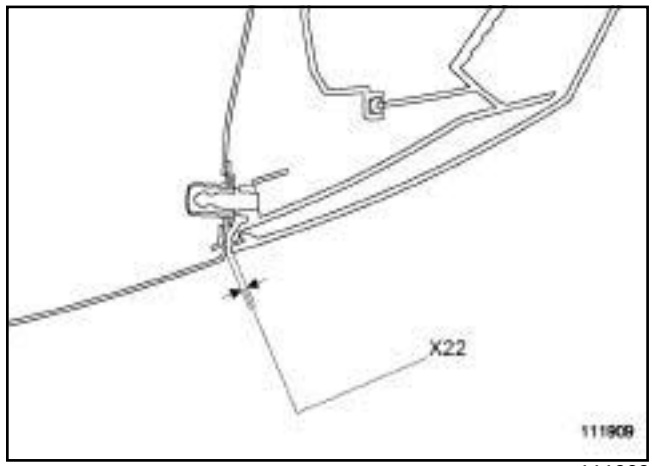


111909

(**X22**) = **1.5** mm ± **1**

Section 23

111913

(**X23**) = **0.75** mm ± **0.75**

Section 24

111910

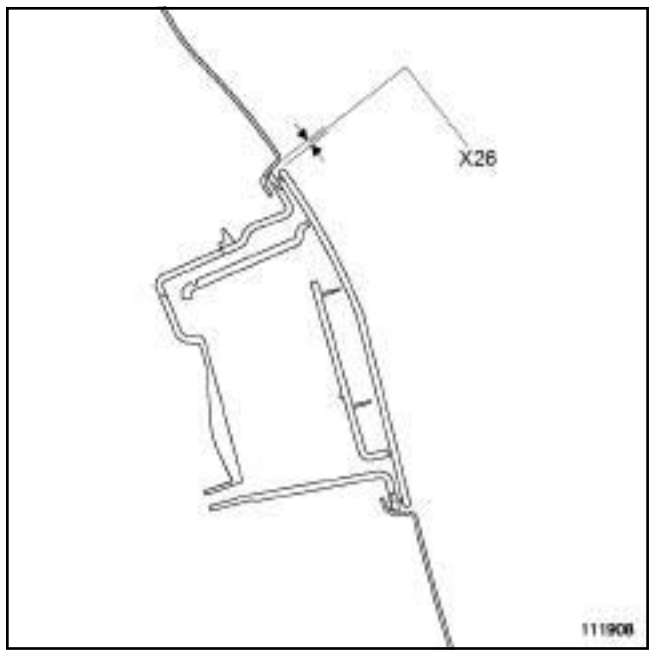
(**X24**) = **1.5** mm ± **1**

Section 25

111911

(**X25**) = **4** mm ± **2**

Section 26



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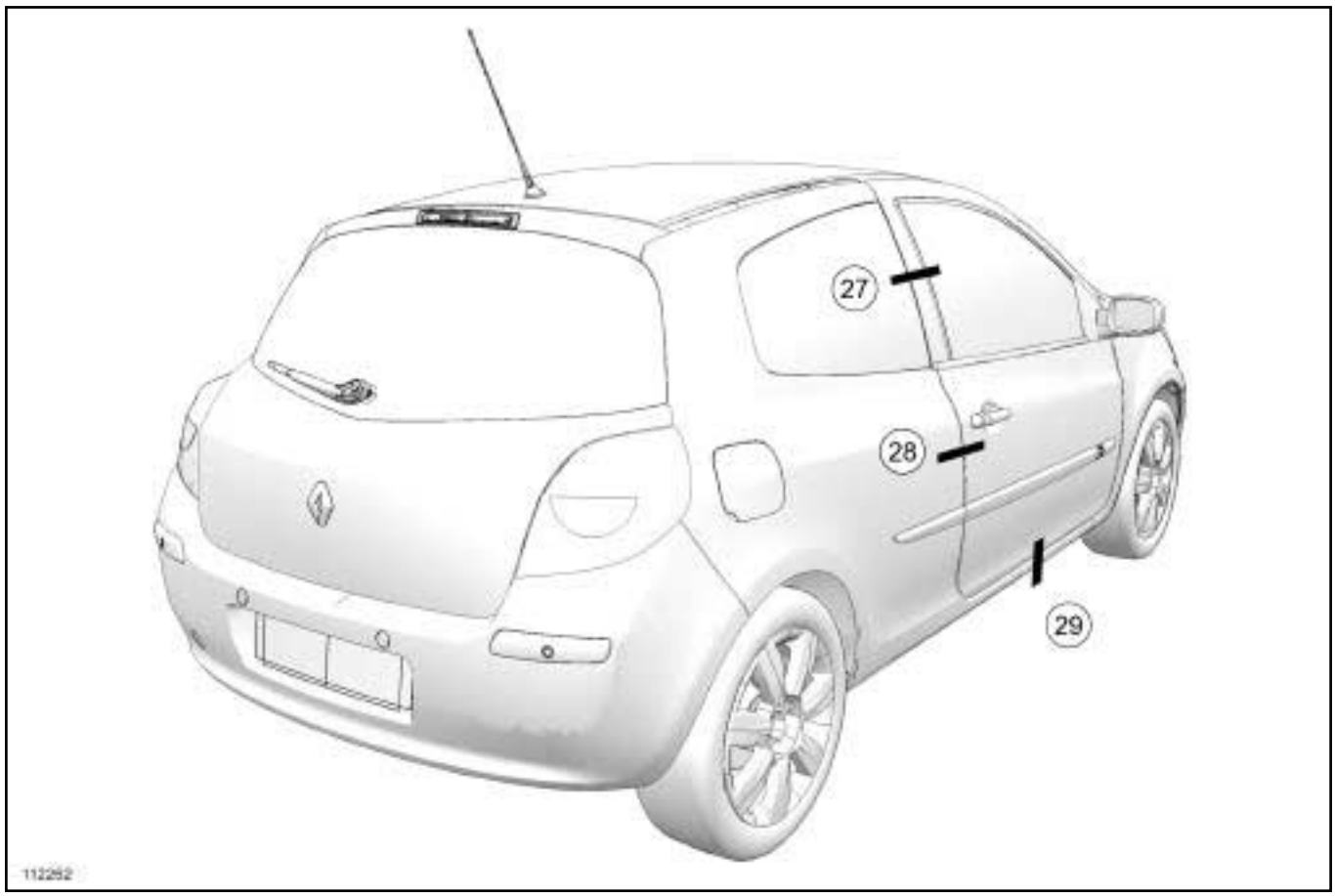
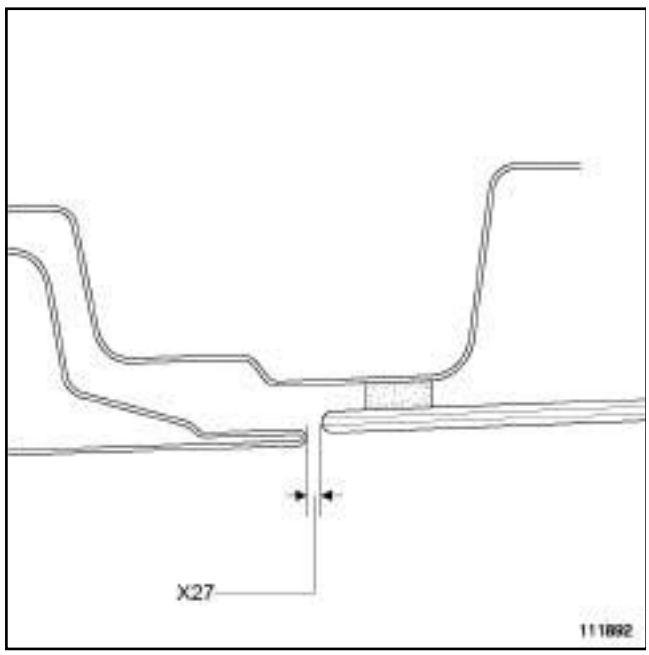
(**X26**) = **2.5** mm ± **1**

C85 or S85



112262

Section 27



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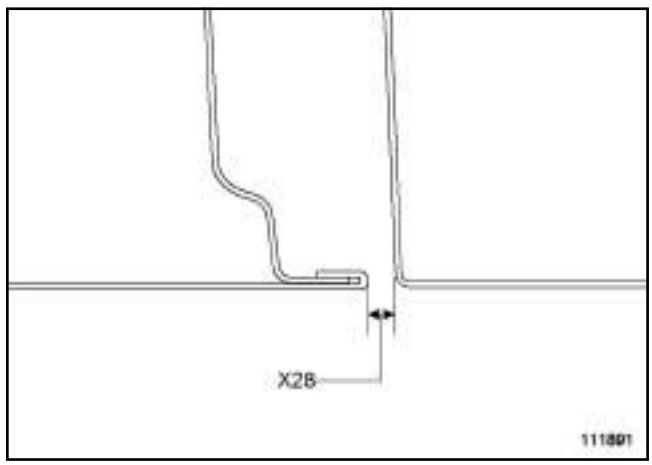
(**X27**) = **4** mm ± **1.5**

Section 28



111891

(**X28**) = **4** mm ± **1.3**

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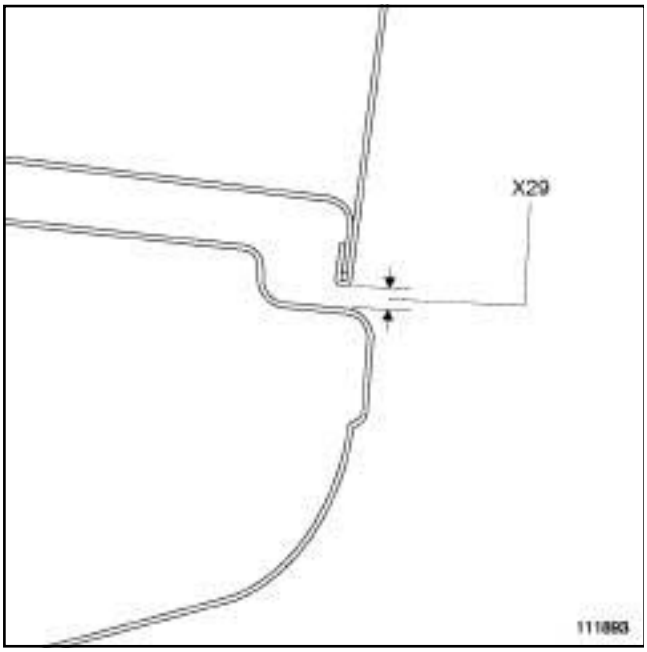
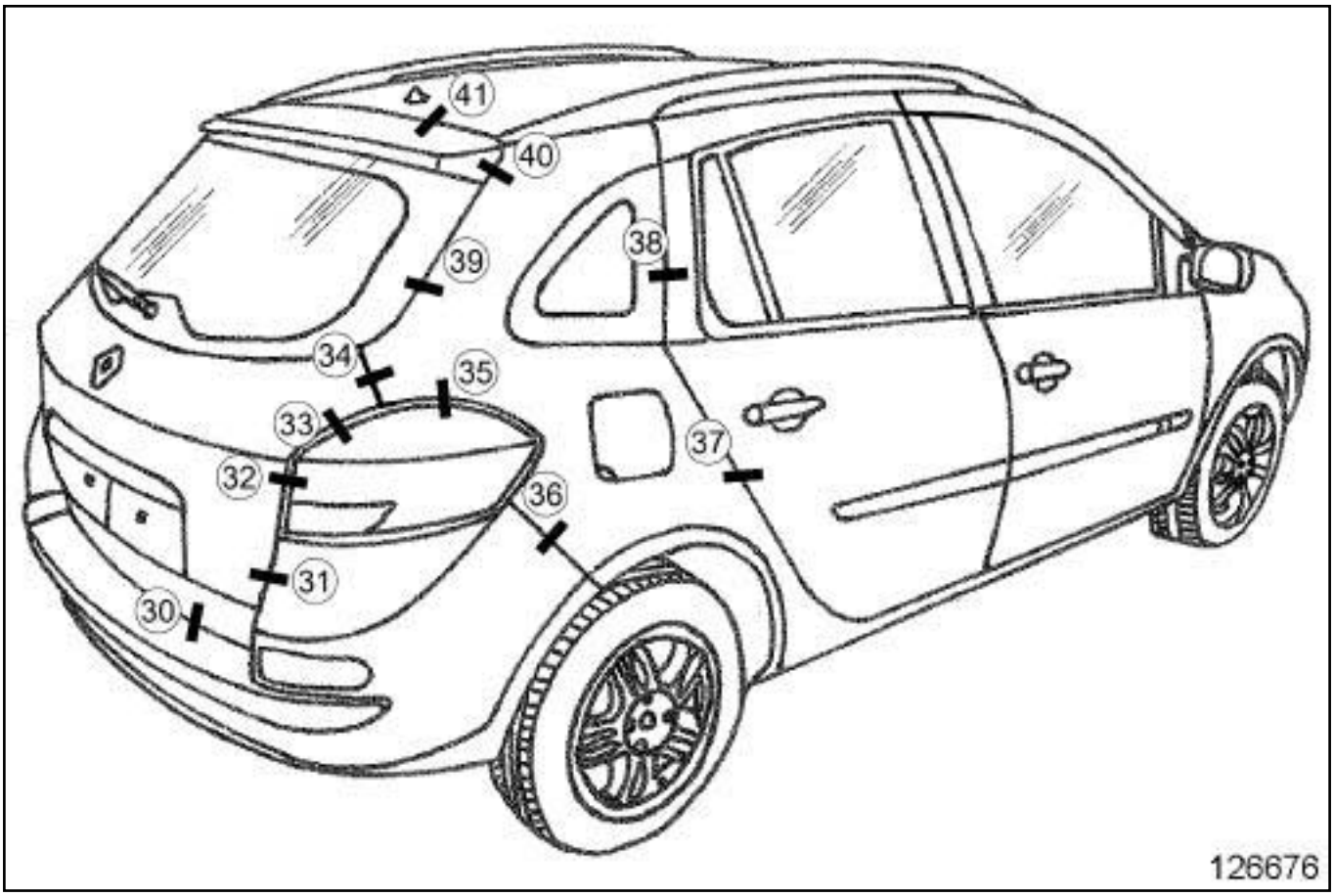


111893

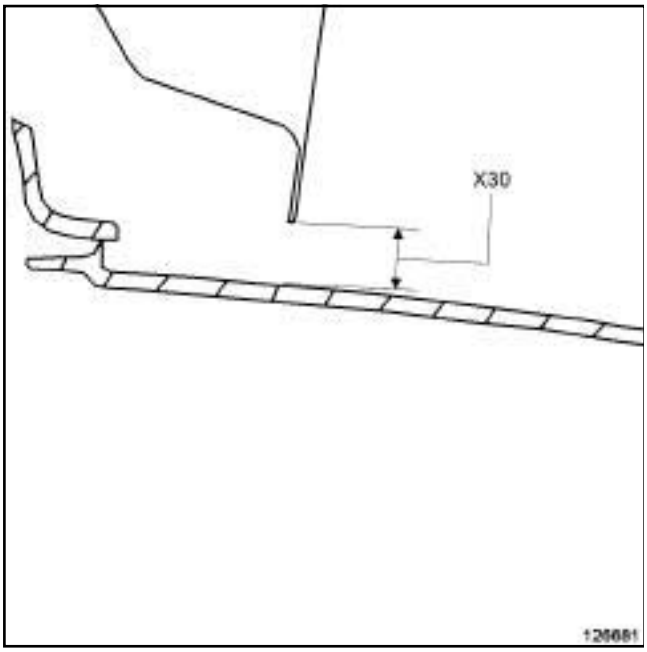
(**X29**) = **4.5** mm

K85



126676

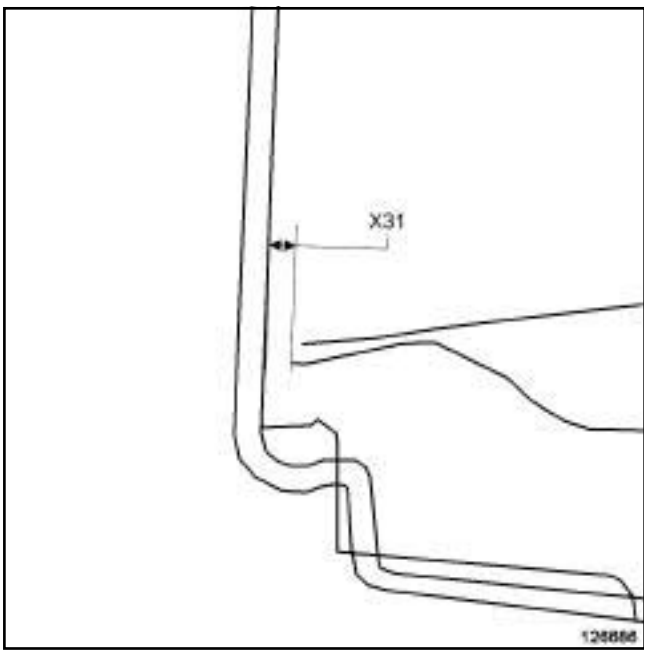
Section 30



126681

(**30**) = **6** mm ± **2.5**

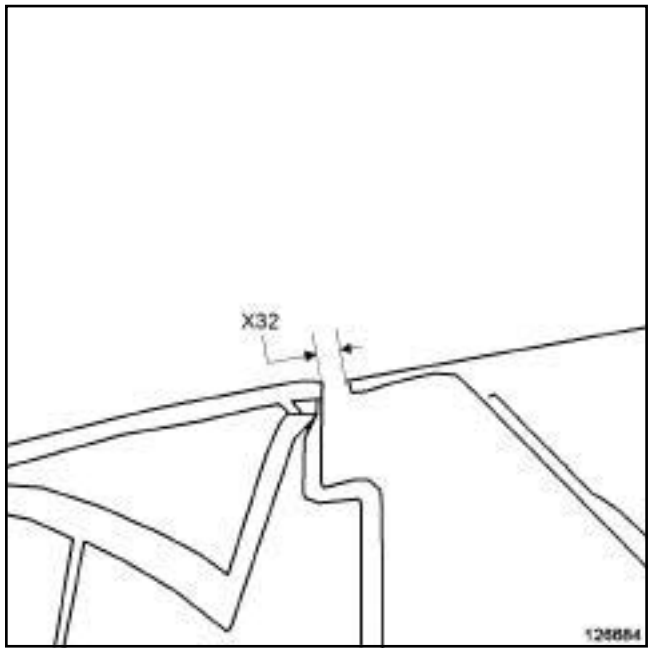
Section 31



126686

(**31**) = **4** mm ± **2**

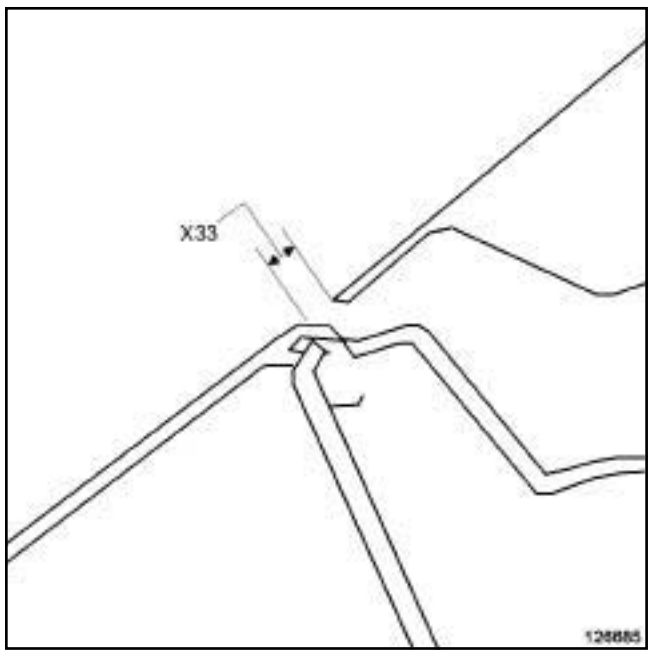
Section 32



126684

(**32**) = **4** mm ± **2**

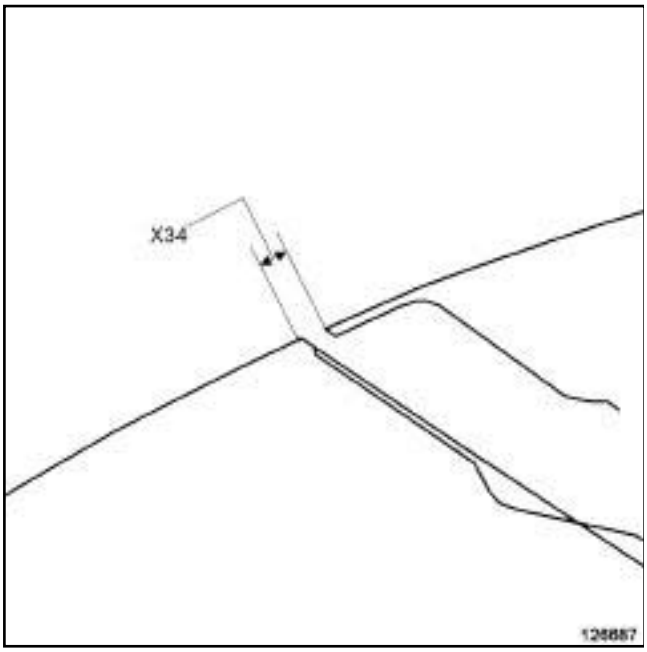
Section 33



126685

(**33**) = **4** mm ± **2**

Section 34



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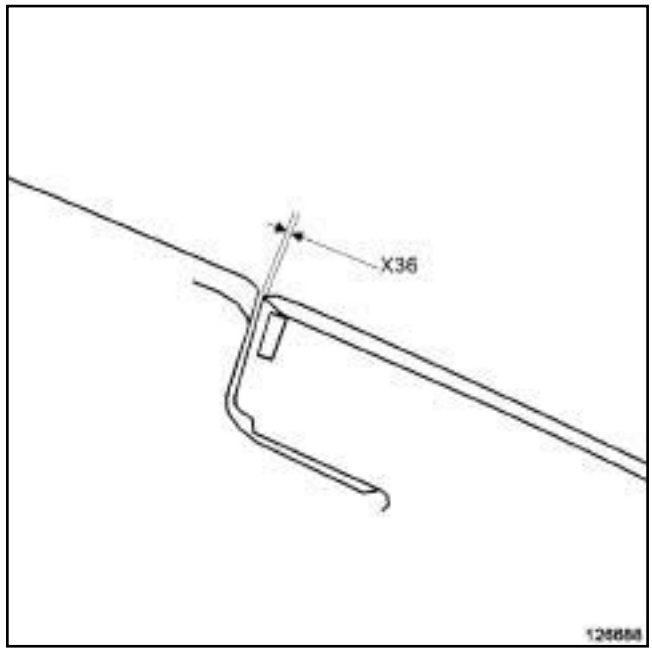
(**34**) = **4.3** mm ± **2**

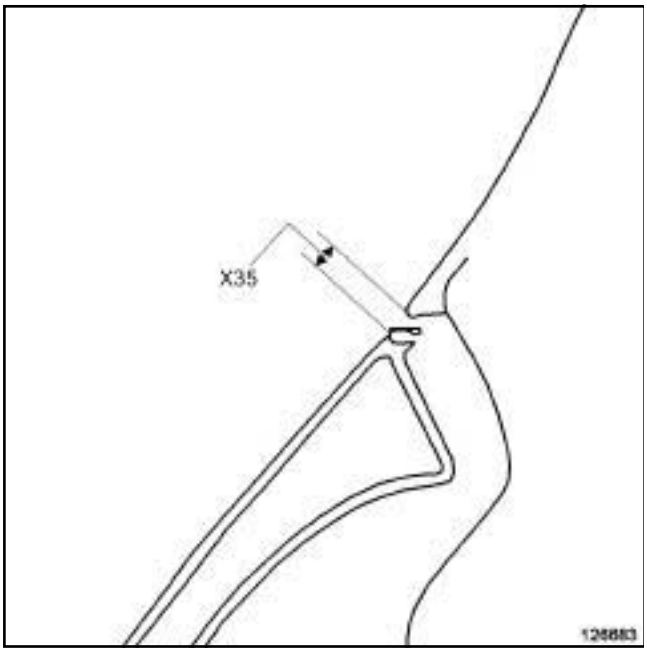
Section 36



126688

(**36**) = **0.5** mm ± **1**

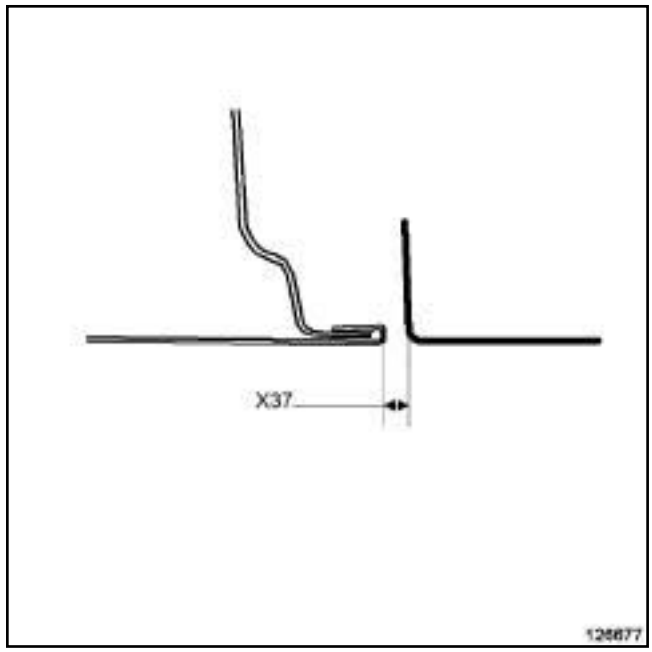
Section 35



126683

(**35**) = **1.5** mm ± **1**

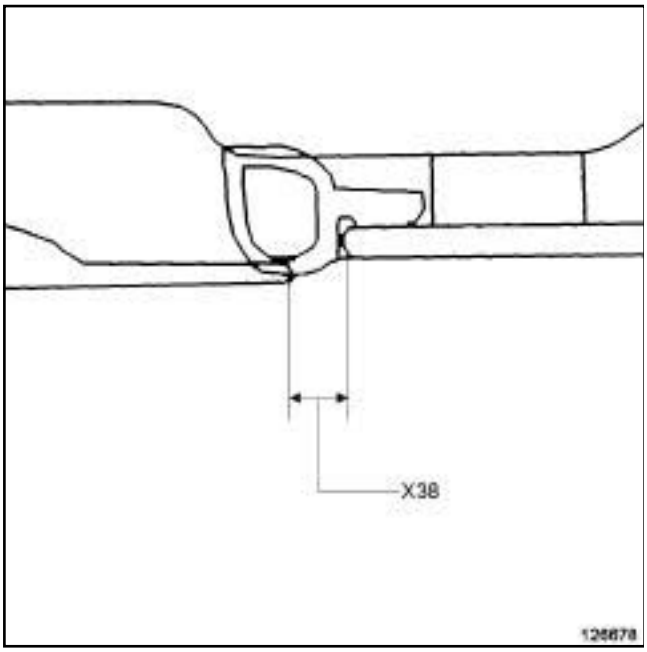
Section 37



126677

(**37**) = **4** mm ± **1.5**

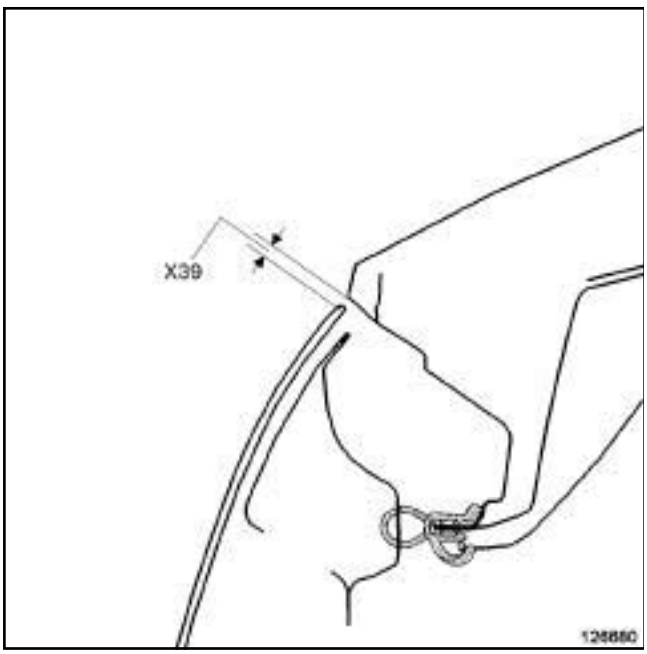
Section 38



126678

(**38**) = **4** mm ± **2.3**

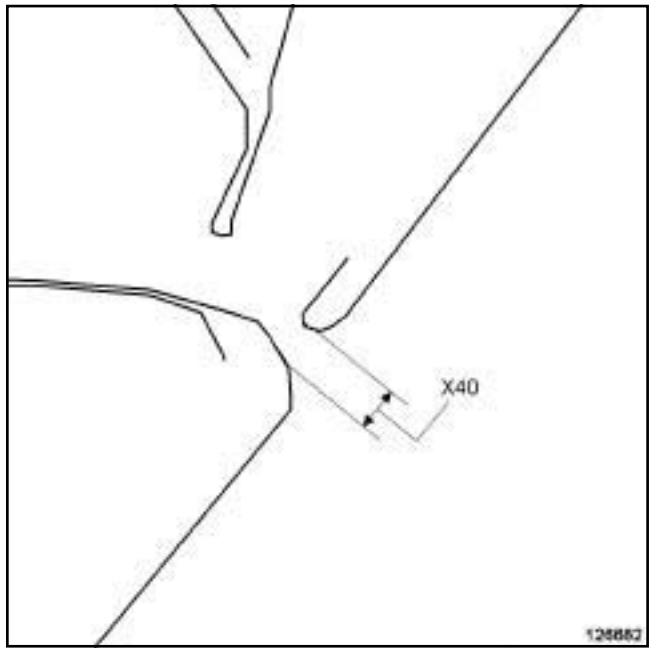
Section 39



126680

(**39**) = **4** mm ± **2**

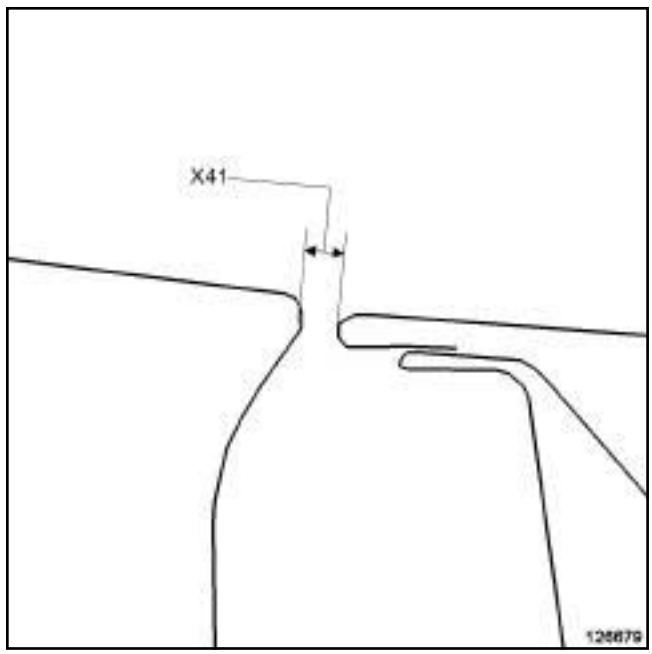
Section 40



126682

(**40**) = **4.3** mm ± **1.5**

Section 41



126679

(**41**) = **5.5** mm ± **1**

GENERAL INFORMATION

All information contained in these manuals is intended exclusively for automotive industry professionals.

The documentation is intended to cover all vehicles in the **RENAULT** range throughout the world, but may not cover equipment designed for use in specific countries.

The procedures and fault finding procedures recommended and described in this manual have been designed by automotive industry repair professionals.

1 - General recommendations

Observe basic principles of vehicle repair.

The quality of repair depends first and foremost on the care exercised by the person in carrying it out.

To ensure good repair:

- protect the sensitive areas of the vehicle (seats, steering wheel, wings, etc.),
- unless otherwise indicated, all repairs must be done with the ignition off,
- when welding on the vehicle, it is advisable to remove or disconnect components near the repair area that could be affected by the heat,
- use recommended professional products and original parts,
- observe the tightening torques,
- replace roll pins, self-locking or bonded nuts or bolts every time they are removed,
- take care with electrical and electronic components which cannot withstand excess voltage and improper handling; replace any electrical and electronic components which have experienced a voltage drop,
- make sure that the connectors are correctly clipped,
- do not pull on the wiring,
- check for the sealing plugs on the connectors,
- Do not splash any liquid, regardless of its type (oil, cleaner, etc.), on the electric and electronic components (computers, sensors, etc.)
- do not just replace parts one after the other, carry out detailed fault finding beforehand,
- carry out a final check before returning the vehicle to the customer (set the clock, check the alarm operation, check the lights and indicators etc.),
- clean and degrease the sections to be bonded (threads, stub axle splines) to ensure proper adherence,
- protect the accessories and timing belts, the electrical accessories (starter, blanking cover, electric power assisted steering pump) and the mating face to prevent diesel fuel spilling onto the clutch friction plate.

The design quality of our vehicles demands that nothing is left to chance in making a good repair, and it is essential to refit parts or components exactly as they were originally (for instance: heat shields, wiring routing, pipe routing, particularly in the area of the exhaust pipe).

Do not blow away asbestos particles or dust (brakes, clutch, etc.), vacuum them up or clean the component with a cleaning agent (such as a brake cleaning product).

Use professional products and apply them with care, for example do not apply too much sealing paste to the sealing surface.

Exhaust gases (petrol and diesel) are pollutants. Operate engines with care and always use exhaust gas extractors.

Ensure that there is no risk of a short circuit occurring when the electrical connections are reconnected (e.g. starter, alternator, etc.). Some points need greasing, others do not, therefore particular attention should be paid during refitting operations to ensure that they work properly under all conditions.

2 - Special tooling - ease of use

The repair procedures have been designed using special tools; they must therefore be carried out using these tools to ensure a high degree of working safety and quality of repair.

The equipment we have approved has undergone careful research and testing, and must be used and maintained with care.

3 - Reliability - updating

New repair procedures are constantly being developed in the interests of repair quality, either with new products (emission control, injection, electronics, etc.), or in fault finding. Be sure to consult the Workshop Repair Manuals or Technical Notes or fault finding summaries before any servicing operation.

Since vehicle specifications are subject to change during their commercial life, it is essential to check whether there are any updated Technical Notes when seeking information.

4 - Safety

Operations on certain equipment and certain parts (for instance: spring-shock absorber assembly, automatic transmission, brake system, ABS, airbag, common rail diesel injection, LPG, etc.) require particular attention to be paid to safety, cleanliness and care.

The safety symbol used in this manual indicates that special attention must be paid to the procedure or the tightening torque values.

Working safely:

- use suitable tools which are in good condition (use of « multi-purpose» tools, such as adjustable pliers, etc., should be avoided wherever possible),
- use supports and adopt a correct posture when performing heavy work or raising loads,
- make sure that the procedure used is not dangerous,
- Do not wear any jewellery or other small objects during an operation,
- use personal protection (gloves, safety glasses, work shoes, masks, skin barrier creams, etc.),
- always follow the safety instructions associated with the operation to be performed,
- do not smoke when working on vehicles,
- use smoke extractors (welding, exhaust gases, etc.),
- do not use harmful products in unventilated rooms,
- do not overstrain yourself or attempt inappropriate work operations,
- use axle stands when working under a vehicle raised on a jack,
- do not ingest any chemicals (brake fluid, coolant, etc.),
- do not open the cooling circuit when it is hot and pressurised,
- take care with components that are liable to start up suddenly (engine cooling fan, etc.).

Respecting the environment:

- do not allow waste refrigerants to escape into the atmosphere,
- do not dispose of waste vehicle fluids (oil, brake fluid, etc.) in drains,
- do not burn discarded products (tyres, etc.).

5 - Conclusion

The procedures contained in this document merit your attention. Please read them carefully in order to reduce the risk of injury, and avoid using incorrect procedures that could damage the vehicle or make it dangerous in use.

Following the recommended procedures will help you to provide a quality of service which will ensure the vehicles achieve the highest levels of performance and reliability.

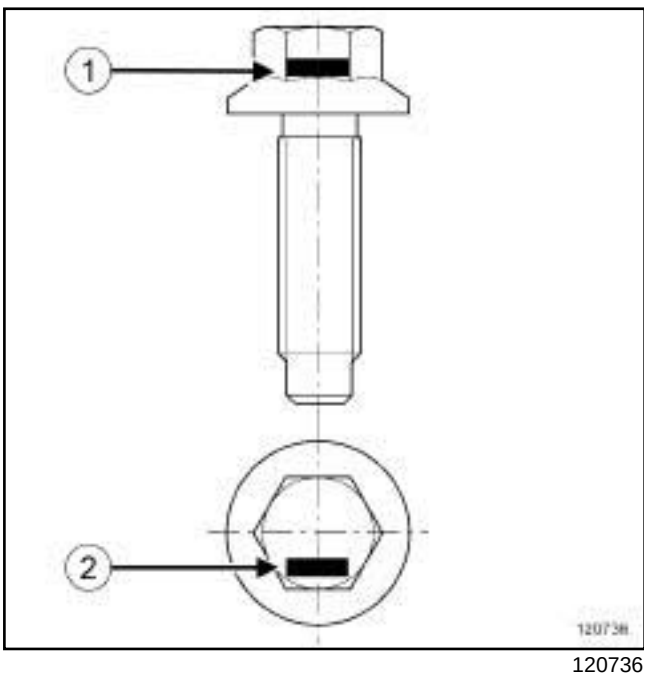
Maintenance and repair operations must be carried out under the proper conditions to ensure that our vehicles run safely and reliably.

I - TABLE OF STANDARD TORQUES

Fastenings		Standard tightening torque (N.m)
Diameter	**Property class**	
M6	8.8	10
M8	8.8	25
M10	8.8	50
M10	10.9	62
M12	10.9	105
M14	10.9	180
M16	10.9	280
M18	10.9	400

Special notes on electrical earths

Fastenings	Standard tightening torque (N.m)
Diameter	
M6	8
M8	21
M10	44



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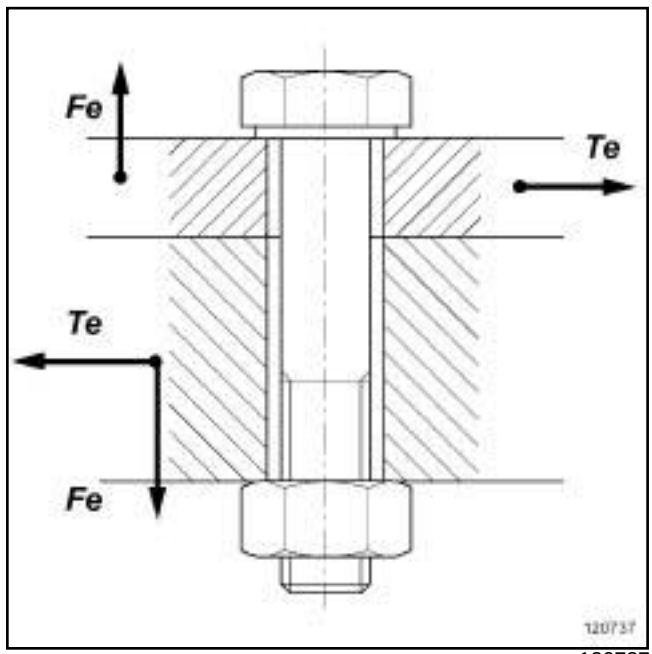
The property class is indicated on the bolt (**1**) or (**2**) .

II - FUNCTION OF A BOLTED ASSEMBLY

The bolting system connects parts of an assembly to prevent their separation or sliding when submitted to exterior forces.

Exterior forces



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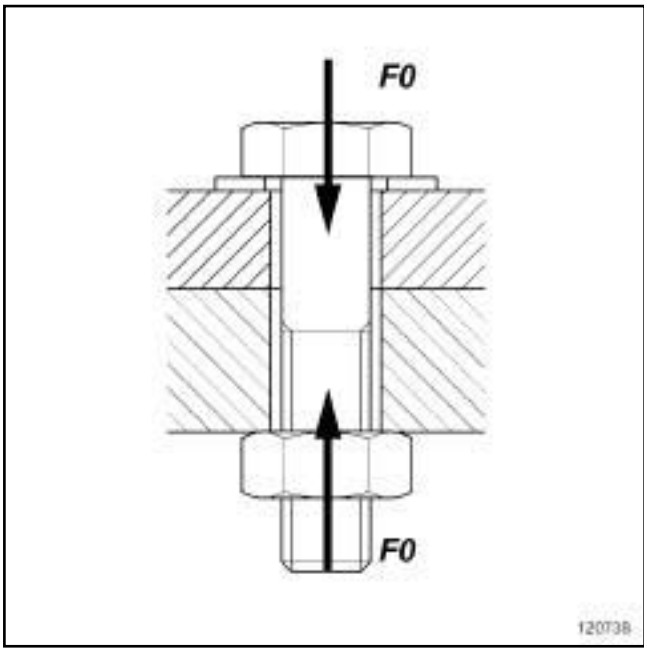
The assembly is submitted to forces that are:

- static and / or dynamic,
- simple (e.g. simple traction),
- multiple (traction + flexion + torsion).

Creating tension (or preload) F0



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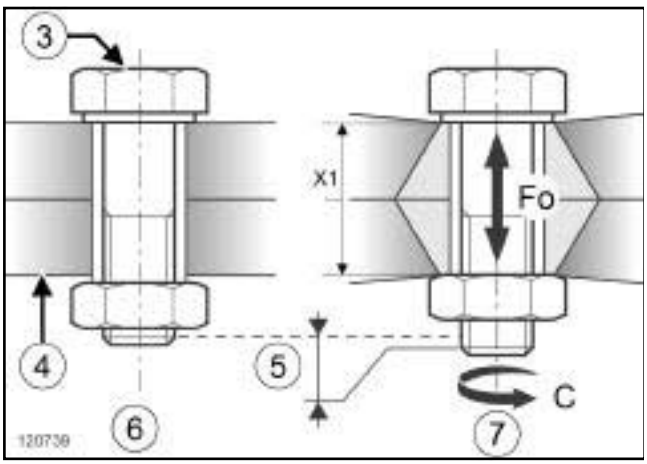
The assembly is held together by the tension created in the bolt when it is tightened.

A reliable assembly is only possible if the correct tension is used:

- insufficient tension: risk of loosening,
- too much tension: risk of deformation of the parts to be assembled, or shearing of the bolt.



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(**3**)	Bolt
(**4**)	Assembled components
(**5**)	Extension of the bolt
(**6**)	Non-tightened assembly
(**7**)	Tightened assembly
(**X1**)	compression of the assembly
(**Fo**)	tension
(**C**)	tightening torque

Customer complaints resulting from incorrect tightening may be, following assembly, a safety issue (fire, loss of control of the vehicle etc.), an immobilising fault or a noise.

III - TIGHTENING PROCEDURES

The two controlled tightening procedures adapted to automotive repairs because of their low cost and simple operation are torque tightening and angle tightening (also called torque and angle).

1 - Torque tightening

This is the most commonly used procedure. Is consists of tightening until a given resisting torque is reached, known as tightening torque.

The tightening torque is distributed in a large part as friction torque (under the head and in the thread) and in a small part as useful torque (to create the tension).

This practise spreads the tension significantly due to the variation in the friction coefficients from one assembly to another and the uncertainty of the tightening procedures and methods.

2 - Angle tightening

The principle consists of putting the parts of the assembly in contact using a mating torque (approximately 25 to 30% of the final torque) then to tighten to a determined angle.

This method, which is not dependent on the friction of the tightened assembly, gives more precise results than torque tightening.

IV - OBSERVING THE TIGHTENING TORQUES AND ANGLES

Bolted assemblies whose tightening torques and angles are explicitly specified in the removal / refitting procedures must be observed using the appropriate tools (torque wrench, angle measuring disc). Failure to observe this can lead to safety risks, immobilising faults or unwanted noises.

For other bolted assemblies, non-measured tightening (using standard spanners) is acceptable. Nevertheless, the corresponding tightening torque is indicated in the table of standard tightening torques.

V - RECOMMENDED TIGHTENING TOOLS

For measured tightening, the repairer must have available torque wrenches to tighten from **4 to 400 N.m** as well as an angle measuring disc.

The torque wrenches used may be click type or electronic.

For example:

- 1 torque wrench **4 - 40 N.m**,

- 1 torque wrench **20 - 100 N.m**,

- 1 torque wrench **80 - 400 N.m**,

- 1 angle measurement disc.

The torque wrenches used must comply with the **ISO 6789** standard. They must be calibrated regularly following the supplier's recommendations using the appropriate procedures.

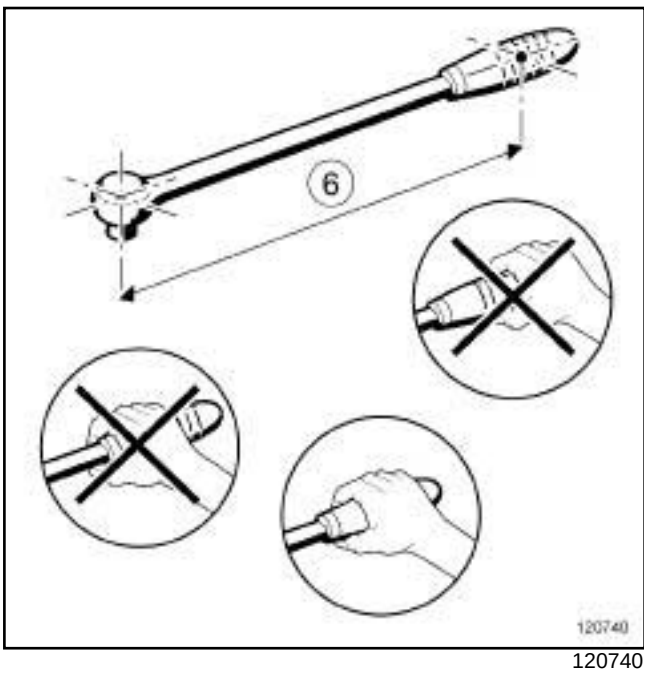
VI - PRECAUTIONS WHEN USING A CLICK TYPE TORQUE WRENCH

A click type torque wrench is a manual tightening tool. The trigger mechanism causes a break or disengagement of the wrench past a force threshold.

This threshold depends on the setting of the wrench but also depends on the way the wrench is handled.

When used following best practises, the accuracy of the tightness when using a click type torque wrench is ± 15%.

The instructions to be observed are:



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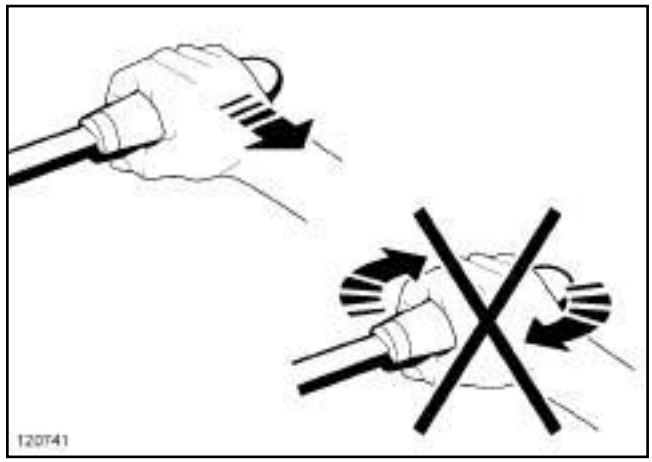
(**6**) lever arm

- Place the hand in the centre of the handle. An incorrectly positioned hand on the handle will alter the trigger threshold.



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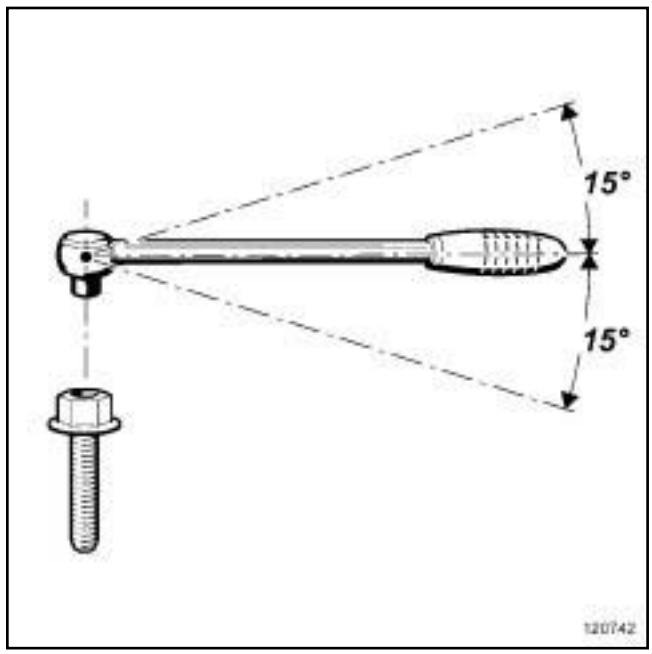
- Pull the wrench gently and steadily, without applying any torsion. Excessive tightening speed as well as jerkiness are major causes of overtightening. Any torsion applied to the wrench will alter the trigger threshold.

- Hold the wrench on the bolt using a minimum of effort. Any effort applied to the wrench head will alter the trigger threshold.



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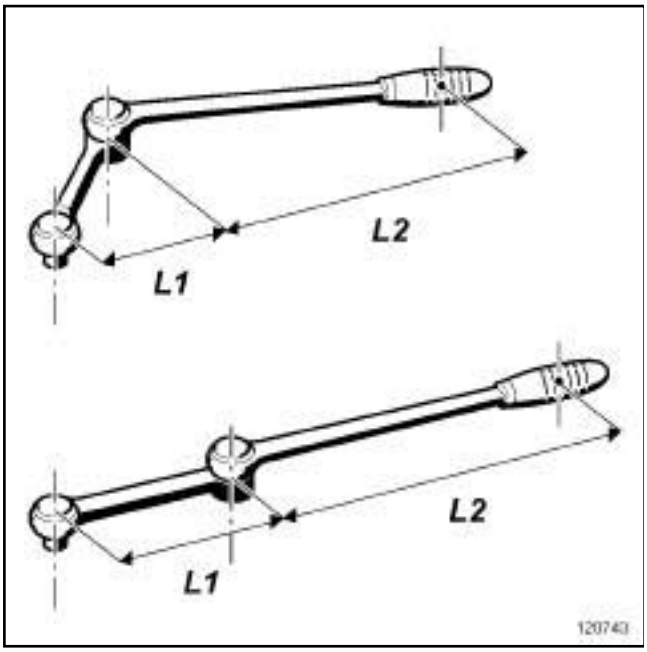
- Apply the tightening effort perpendicular to the mounting observing a tolerance of ± 15° relative to the perpendicularity. If the wrench is not perpendicular to the mounting axis, this will result in insufficient tightening.

- Stop tightening as soon as the wrench is triggered. Continued tightening after the wrench is triggered will lead to overtightening.



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If the length of the wrench is modified (extending the handle, adapting an end piece) it is essential to recalibrate the wrench to its new configuration.

Modifying the length of the wrench will modify its trigger threshold.

Use the formula: C1 = CO x L2 / (L1+L2)

- CO: torque to apply,

- C1: adjustment torque to be displayed on the wrench,

- L1: length of the extension,

- L2: length of the wrench.

Unless there are special instructions in the repair method, a universal joint (CARDAN joint type) should be used for measured tightening. Using a universal joint will result in a difference between the set torque of the wrench and the actual torque applied.

Before storing the wrench, loosen the adjustment spring completely. A wrench stored with a spring under tension will lose its tightening accuracy.

VII - PRECAUTIONS WHEN USING ELECTRONIC TORQUE WRENCHES

An electronic torque wrench is a manual tightening tool. The tightening torque and, depending on the model, the angle is read directly.

When used following best practises, the accuracy of the tightness when using an electronic torque wrench is ± 5%.

Electronic torque wrenches are not affected by the position of the operator's hand.

It is advisable to handle the wrench with care and to stop tightening when the required value is displayed on the wrench.

Equipment required
safety strap(s)

I - TOWING

WARNING

See the current towing regulations in each country.

Never use the drive shafts as attachment points.

The towing points may only be used for towing on the road.

Never use the towing points for removing the vehicle from a ditch or to lift the vehicle, either directly or indirectly.

Screw in and lock the towing ring before towing.

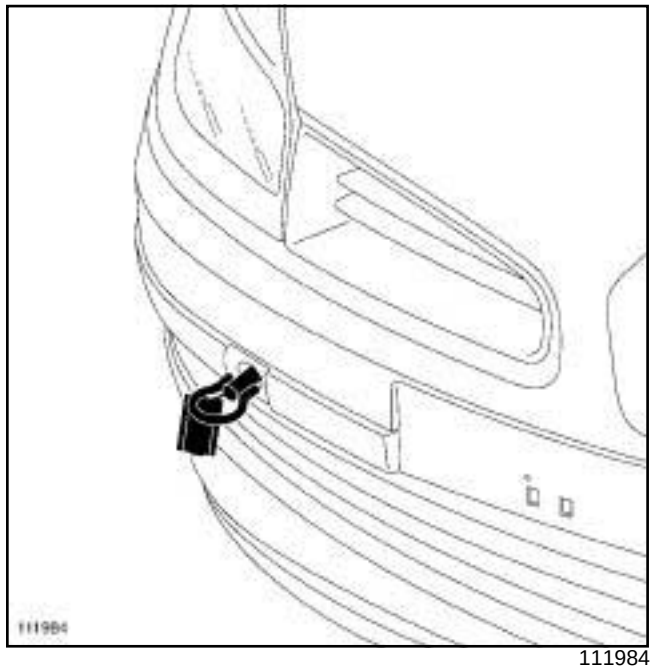
Vehicles fitted with automatic transmission:

- The vehicle should preferably be transported on a platform or towed by lifting the front wheels. As an exception, the vehicle may be towed with the wheels on the ground but at a speed below 12 mph (20km/h) and over a maximum distance of **18 miles (30 km)** (with the gear lever in neutral).

Vehicles fitted with Renault Card:

- If the vehicle battery is flat, the steering column remains locked. In this case, fit a new battery or connect to an electrical source to lock the airbag computer using the diagnostic tool, (see **Fault finding - Replacement of components**) (88C, Airbags and pretensioners), which unlocks the steering column.
- If it is not possible to lock the airbag computer, the front of the vehicle must be lifted.

1 - Position of front attachment point



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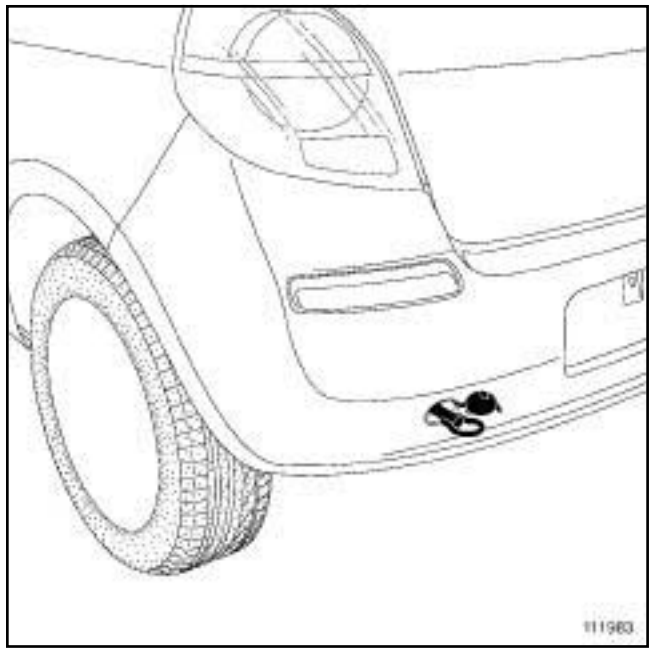
2 - Position of rear attachment point



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Fully screw in the tow eye supplied in the onboard vehicle tool kit located in the boot inside the emergency spare wheel.

II - LIFTING BY TROLLEY JACK

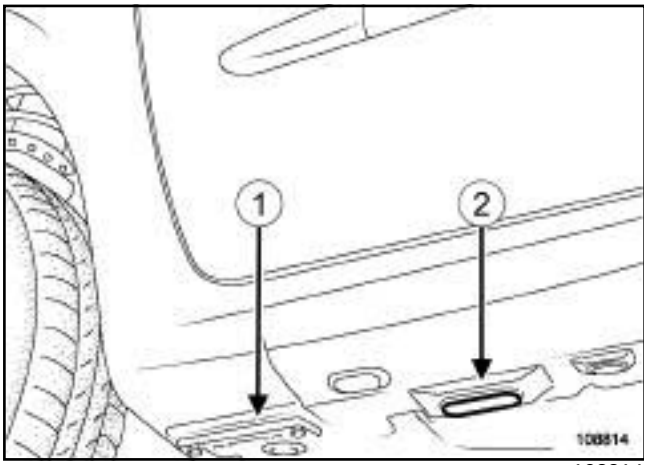
IMPORTANT

To prevent any accidents, the trolley jack must only be used to lift and/or move the vehicle. The vehicle height must be maintained with axle stands which are strong enough to support the weight of the vehicle.

WARNING

To avoid any damage to the original protection, use equipment fitted with rubber pads to prevent the equipment coming into direct contact with the vehicle.

To avoid any damage to the axle assemblies, the vehicle must not be raised using the front suspension arms for support or under the rear axle.



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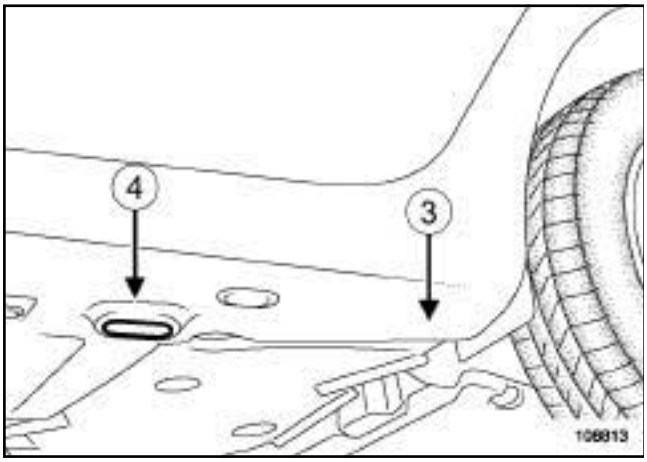

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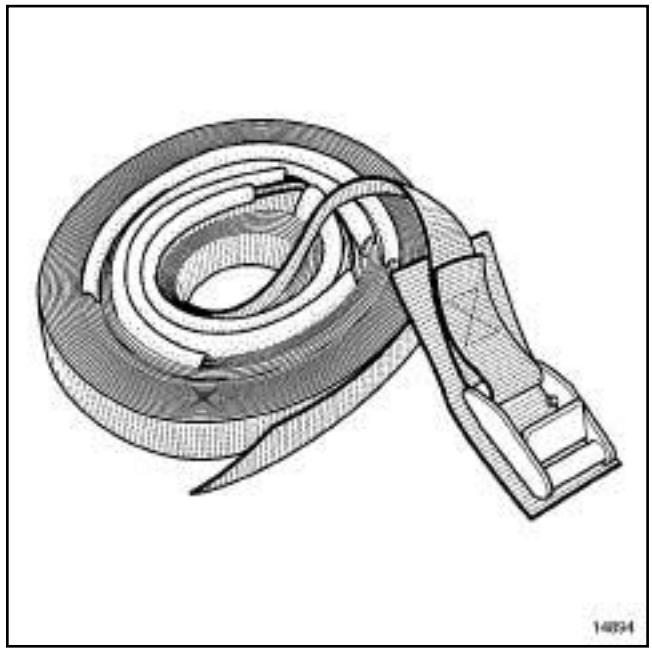
To mount the vehicle on axle stands, the entire vehicle must be lifted on one side and axle stands must be placed under the body reinforcements which are used as jacking points at ***(2)*** or ***(4)*** .

III - LIFTING ON A LIFT

1 - Safety advice reminder



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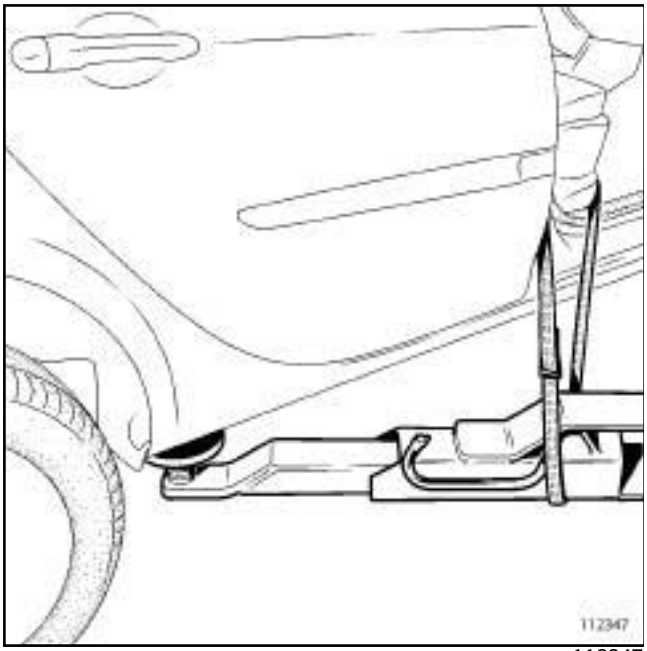
Safety advice reminder:

If it is necessary to remove heavy components from the vehicle, it is preferable to use a four-post lift.

There is a danger that the vehicle will tilt on a two-post lift after certain components have been removed (e.g. engine and transmission assembly, rear axle, gearbox). Fit the **safety strap(s)** available from the **Parts Department**.

2 - Fitting the straps



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Fitting the straps:

For safety reasons, these straps must always be in perfect condition. Replace them as soon as they show signs of wear.

When fitting the straps, check that the seats and fragile parts of the vehicle are correctly protected.

a - Tilting towards the front

Pass the strap under the rear right-hand arm of the lift.

Pass the strap through the inside of the vehicle.

Pass the strap under the rear left-hand arm of the lift.

Pass the belt through the inside of the vehicle again.

Tighten the strap.

b - Tilting towards the rear

Pass the strap under the front right-hand arm of the lift.

Pass the strap through the inside of the vehicle.

Pass the strap under the front left-hand arm of the lift.

Pass the belt through the inside of the vehicle again.

Tighten the strap.

3 - Permitted lifting points

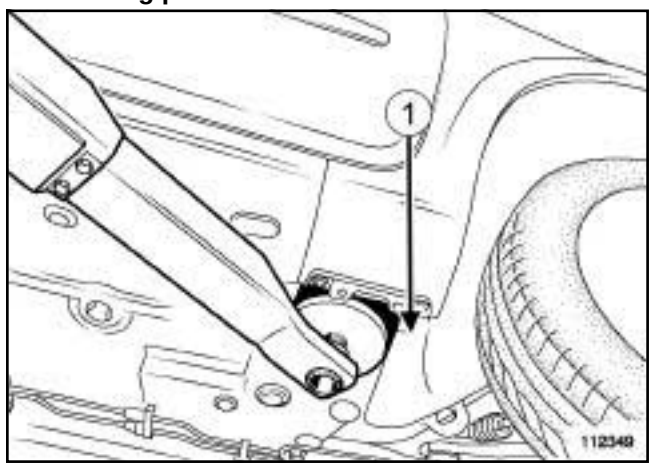
To raise the vehicle, position the pads of the lifting arms as indicated below, taking care not to damage the end of the front wing or the underside of the sill panel.

IMPORTANT

Only the jacking points described in this section allow the vehicle to be raised in complete safety.

Do not raise the vehicle using points other than those described in this section.

Front lifting points



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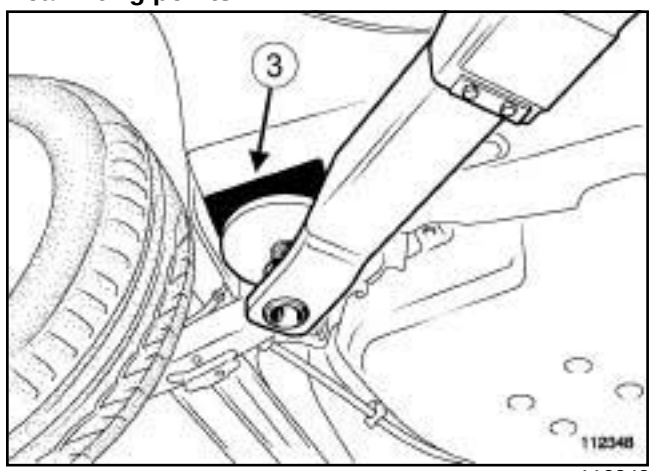
Position the lift arms under the side cross members (**1**) .

Rear lifting points



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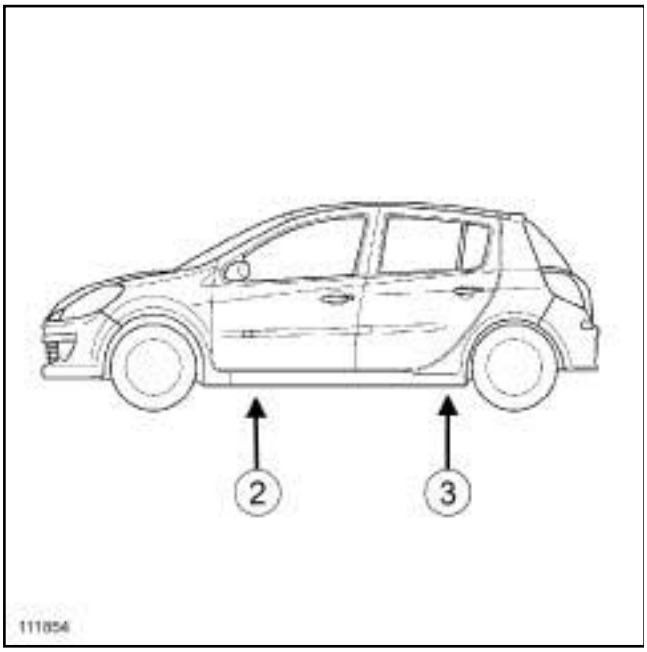
Position the lift arms under the end of the sill panel body flanges (**3**) .

Note:

If this arrangement is not possible, notably when underbody supports are being used for bodywork rebuilding on a body jig bench, proceed as follows:

IV - DISENGAGEMENT OF THE CROSS MEMBERS

Disengagement of the front side cross members:



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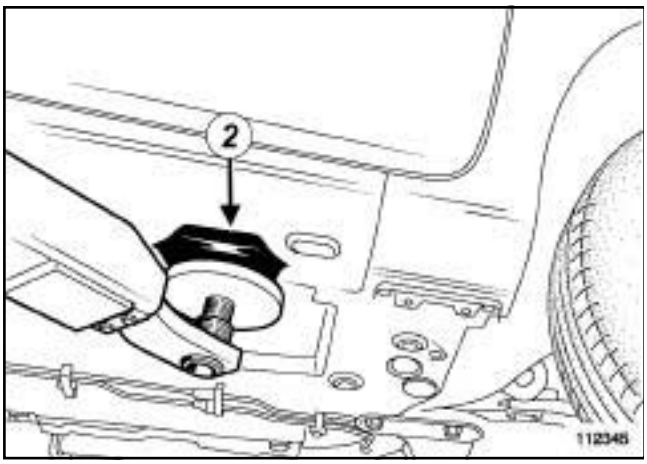
Support the vehicle at the jacking points at the front (**2**) and under the sill panel body flanges at the rear (**3**) .



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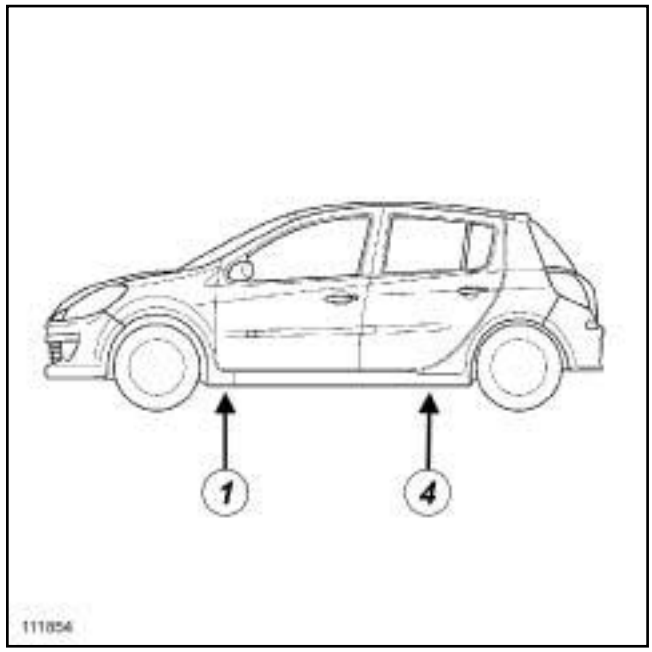
IMPORTANT

This situation increases the risk of the vehicle tilting forwards; removing components from the rear section of the vehicle is therefore prohibited.

Disengagement of the rear side cross members:



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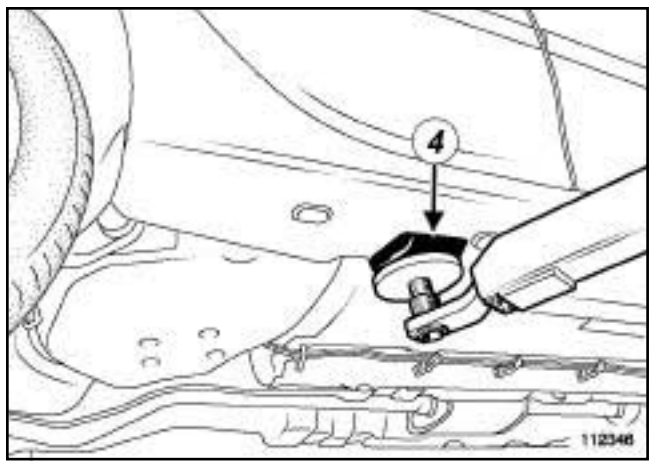
Position the lifting arms under the sub-frame body flanges.

Support the vehicle under the side cross members at the front (**1**) , taking care not to damage the end of the front wing, and under the jacking points at the rear ***(4)*** .



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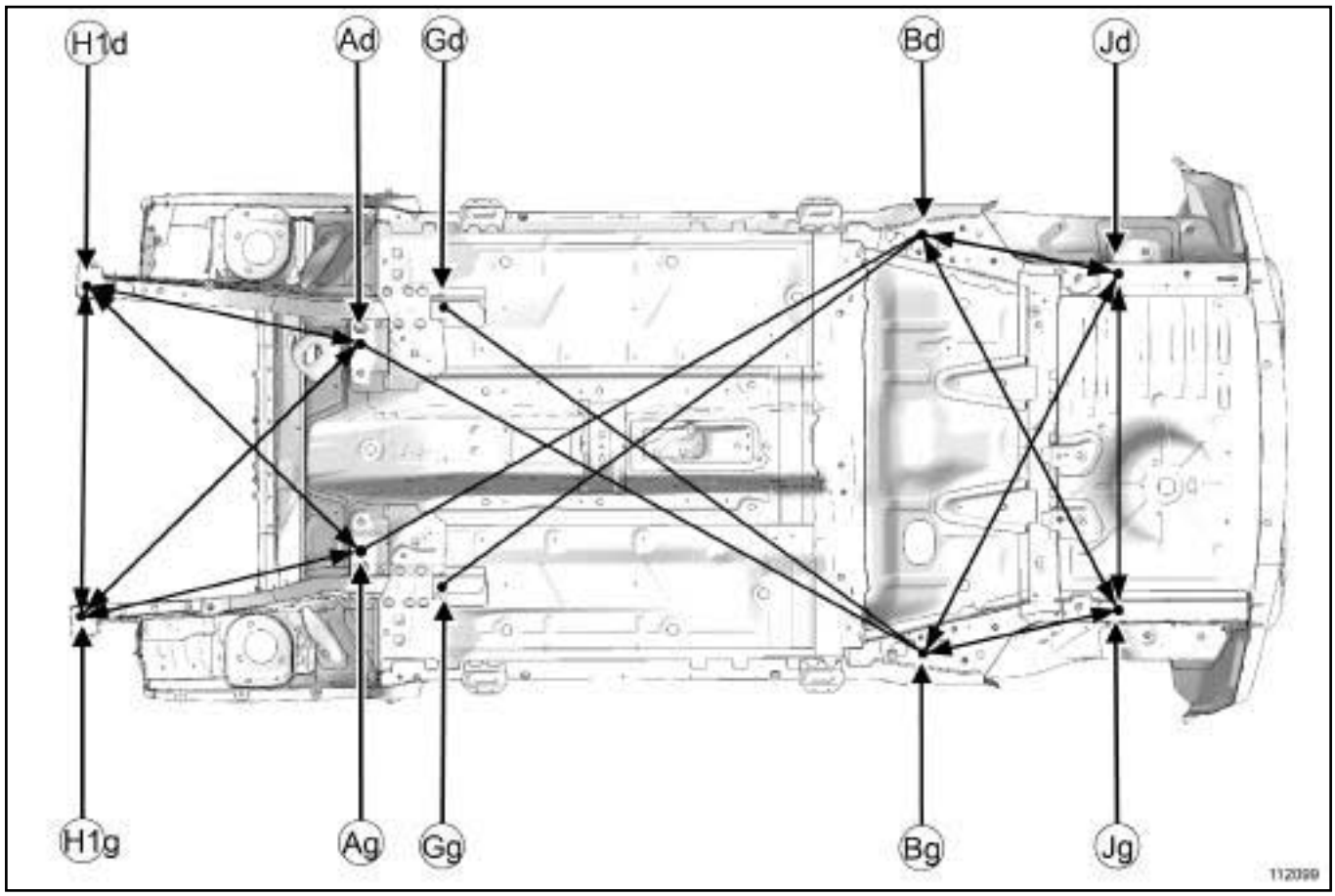
IMPORTANT

In this instance, the risk of the vehicle tilting towards the rear is high. It is forbidden to remove components from the front section of the vehicle.

SUB-FRAME INSPECTION



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❑

Chronological order of checks:

❑ FRONTAL impact

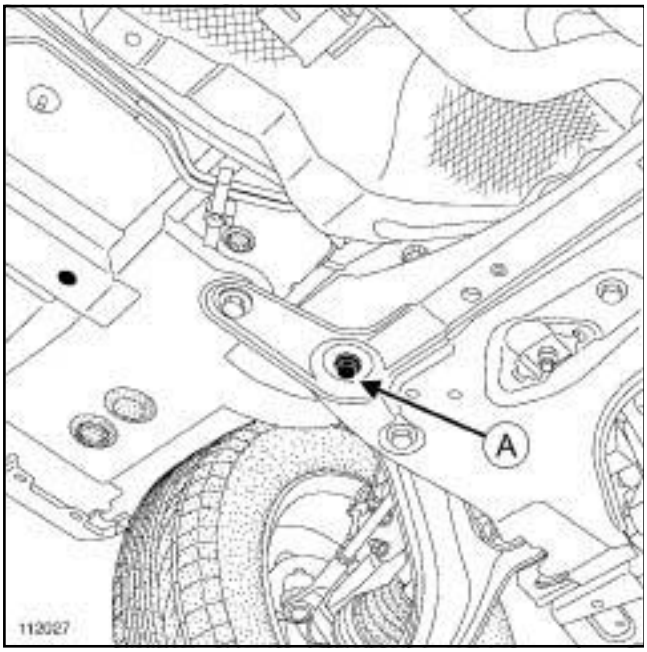
- 1: ***(Bd)*** - ***(Ag)*** = ***(Bg)*** - ***(Ad)***
- 2: ***(Bd)*** - ***(Gg)*** = ***(Bg)*** - ***(Gd)***
- 3: ***(Ad)*** - ***(H1g)*** = 1,148 mm
- 4: ***(Ag)*** - ***(H1d)*** = 1,120 mm
- 5: ***(H1d)*** - ***(H1g)*** = 968 mm

❑ REAR impact

- 1: ***(Ad)*** - ***(Bg)*** = ***(Ag)*** - ***(Bd)***
- 2: ***(Gd)*** - ***(Bg)*** = ***(Gg)*** - ***(Bd)***
- 3: ***(Bd)*** - ***(Jg)*** = 1,245 mm
- 4: ***(Bg)*** - ***(Jd)*** = 1,254 mm
- 5: ***(Jd)*** - ***(Jg)*** = 985 mm

Detailed view of inspection points

Points Ad, Ag: Front sub-frame rear mounting



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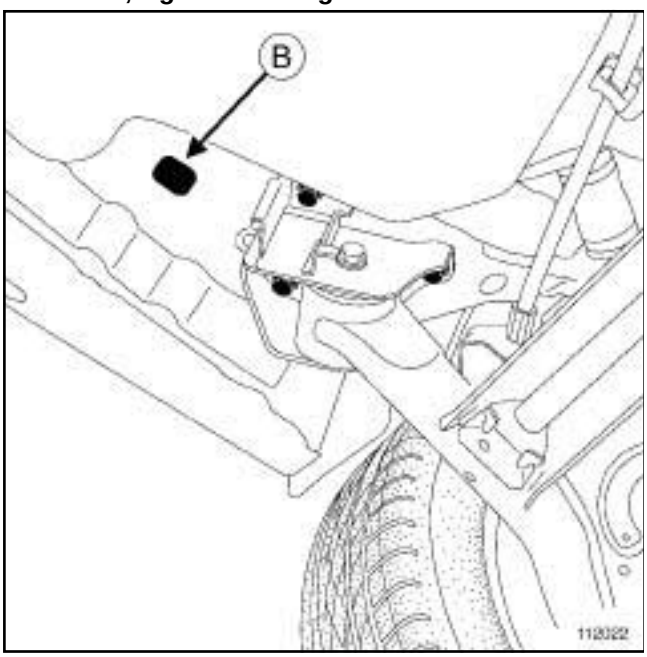
Points Bd, Bg: Rear axle guide



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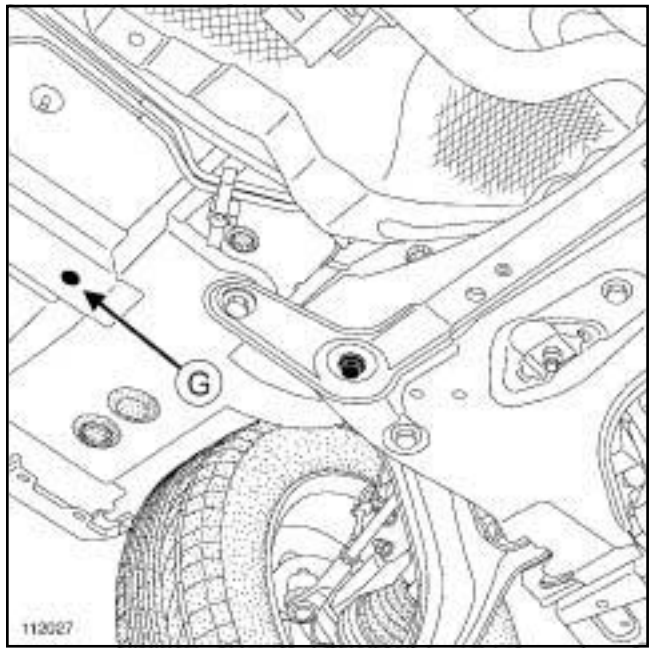
Points Gd, Gg: Front side member rear mounting



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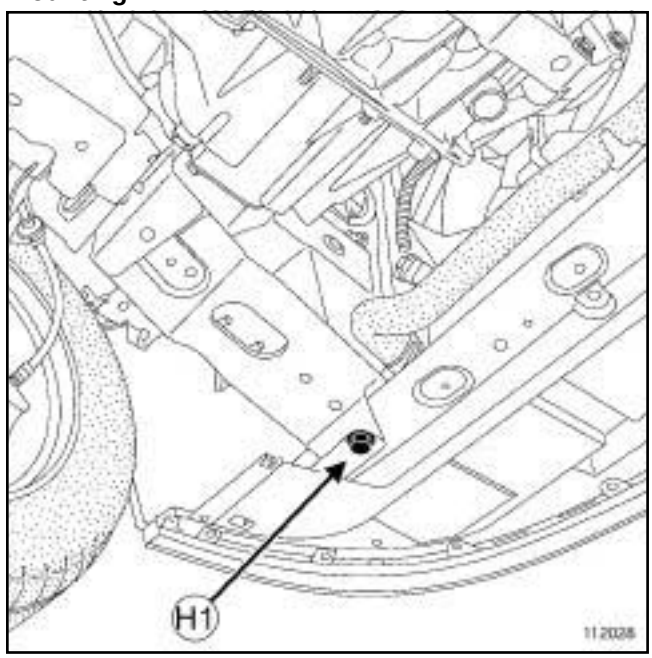
Points H1d, H1g: Front side member front mounting



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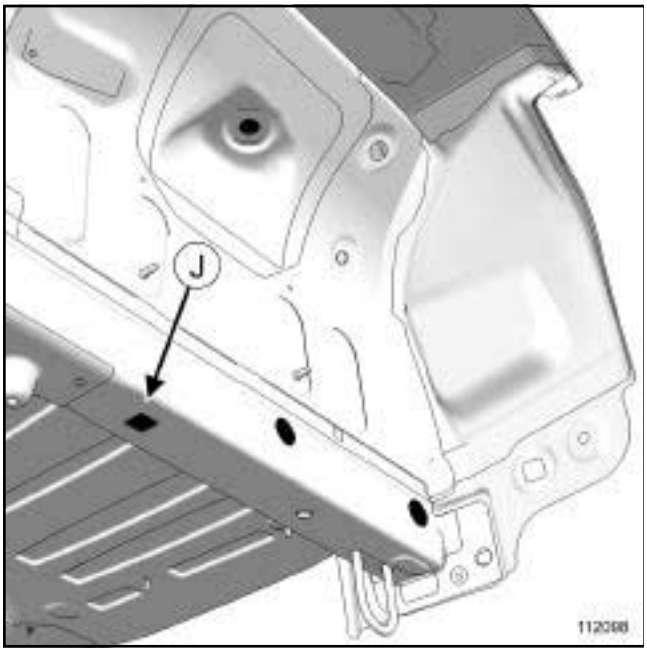
Points Jd, Jg: Rear side member rear guide



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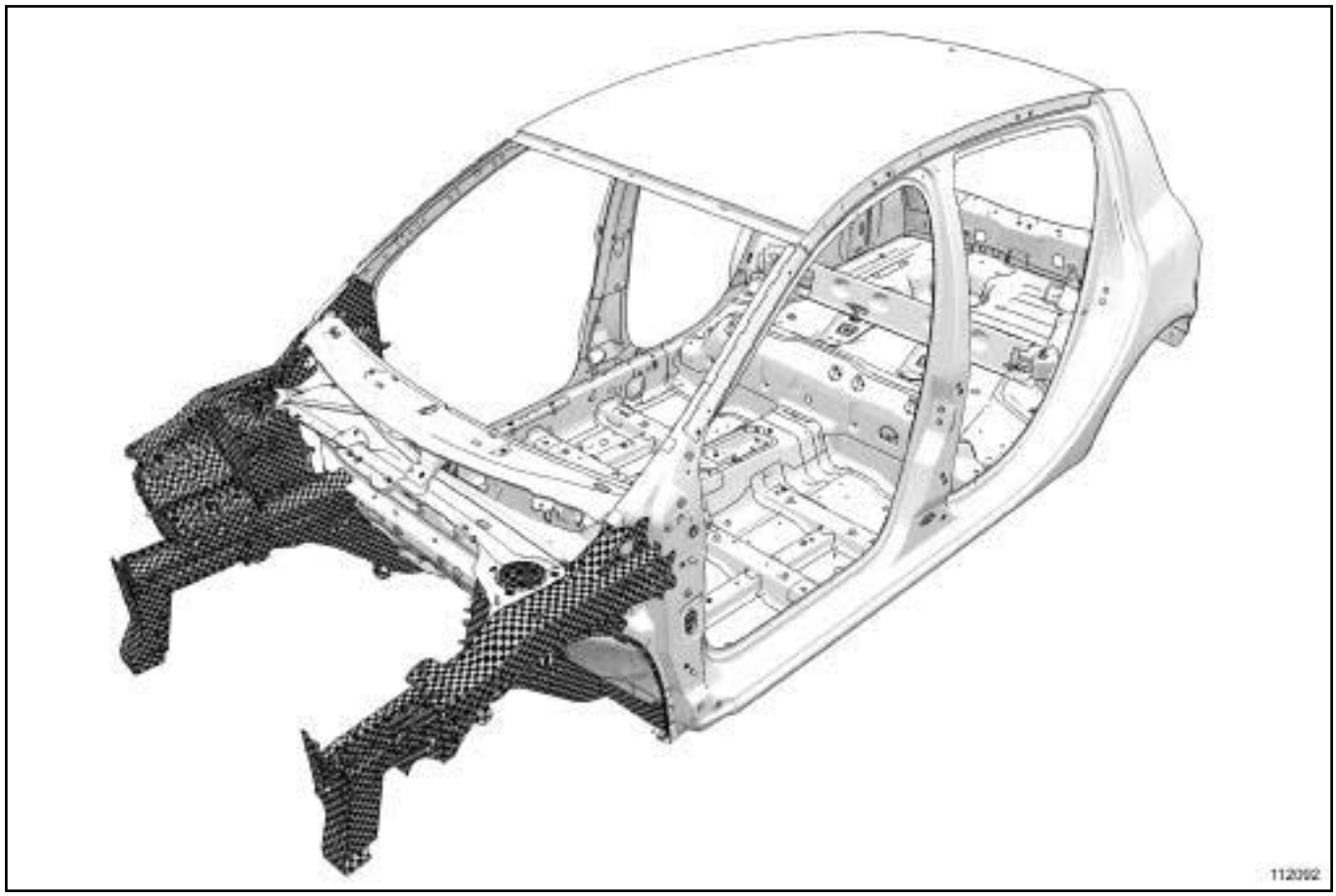
❑

COMBINATIONS FOR REPLACING WELDED STRUCTURAL PARTS IN ACCORDANCE WITH IMPACT SUSTAINED

B85



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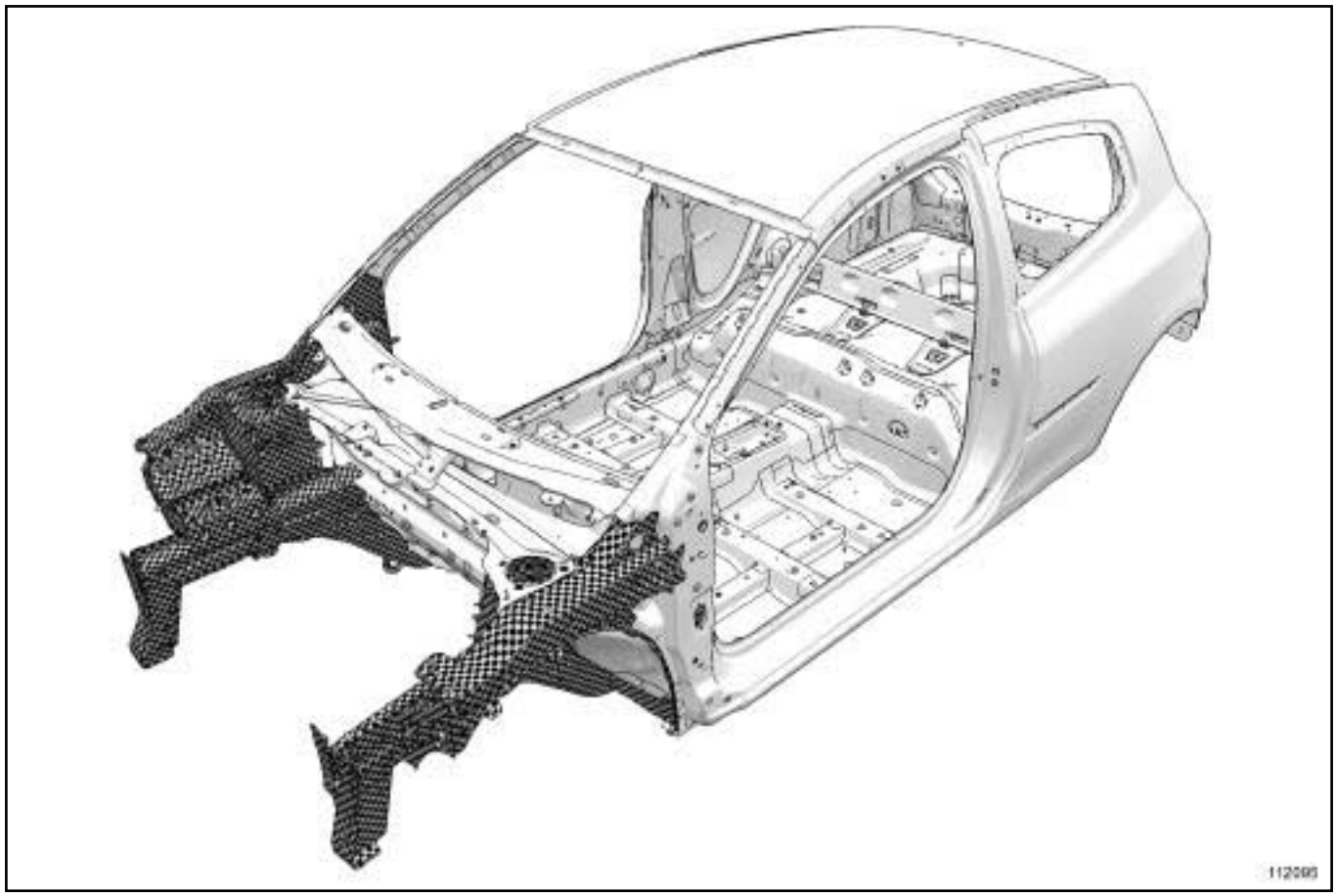
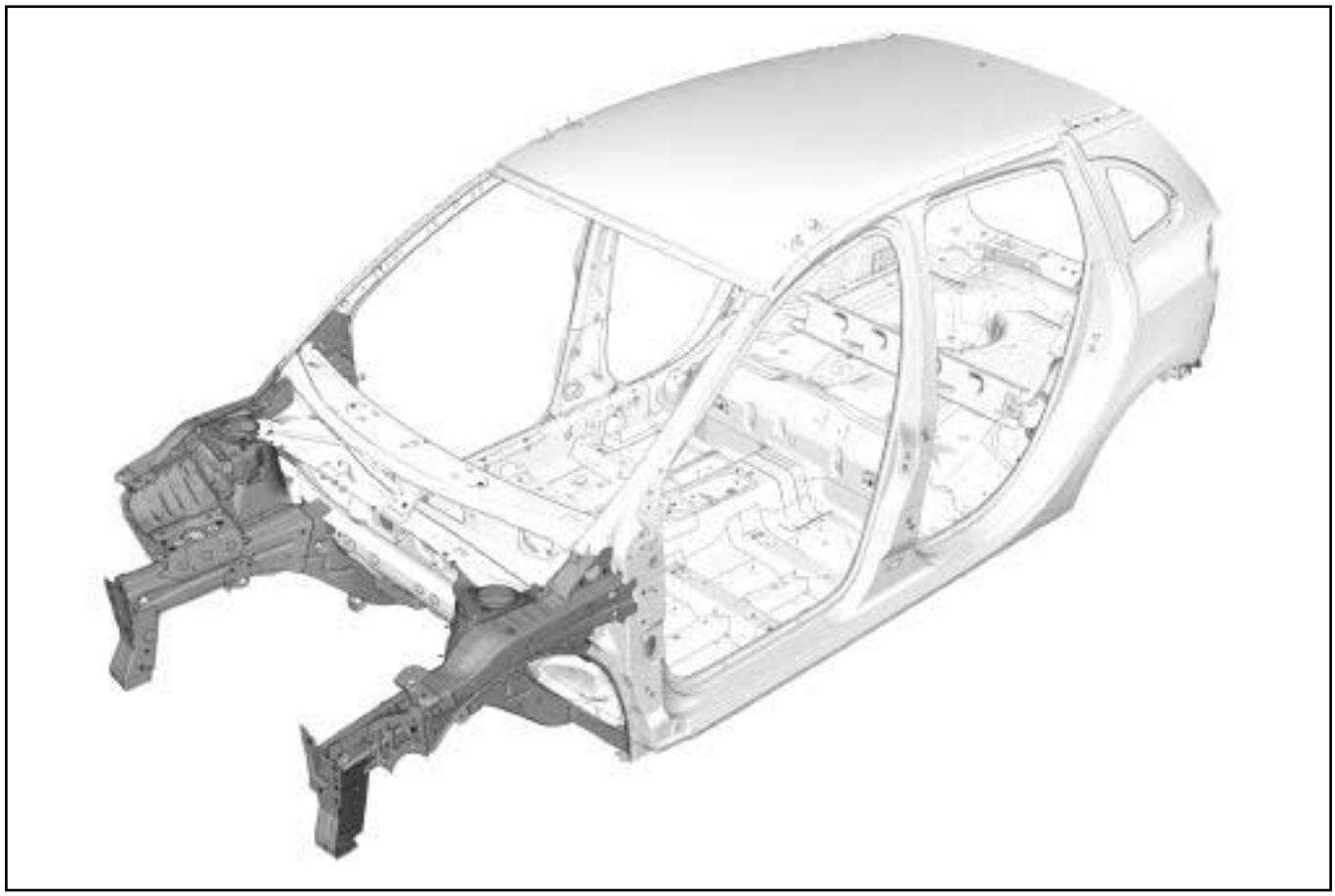
C85 or S85



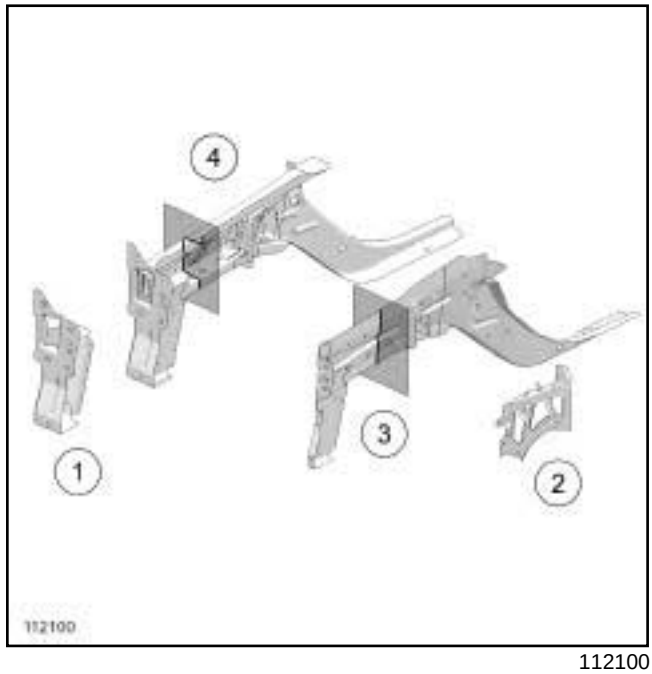
112095

K85



126748

1st degree

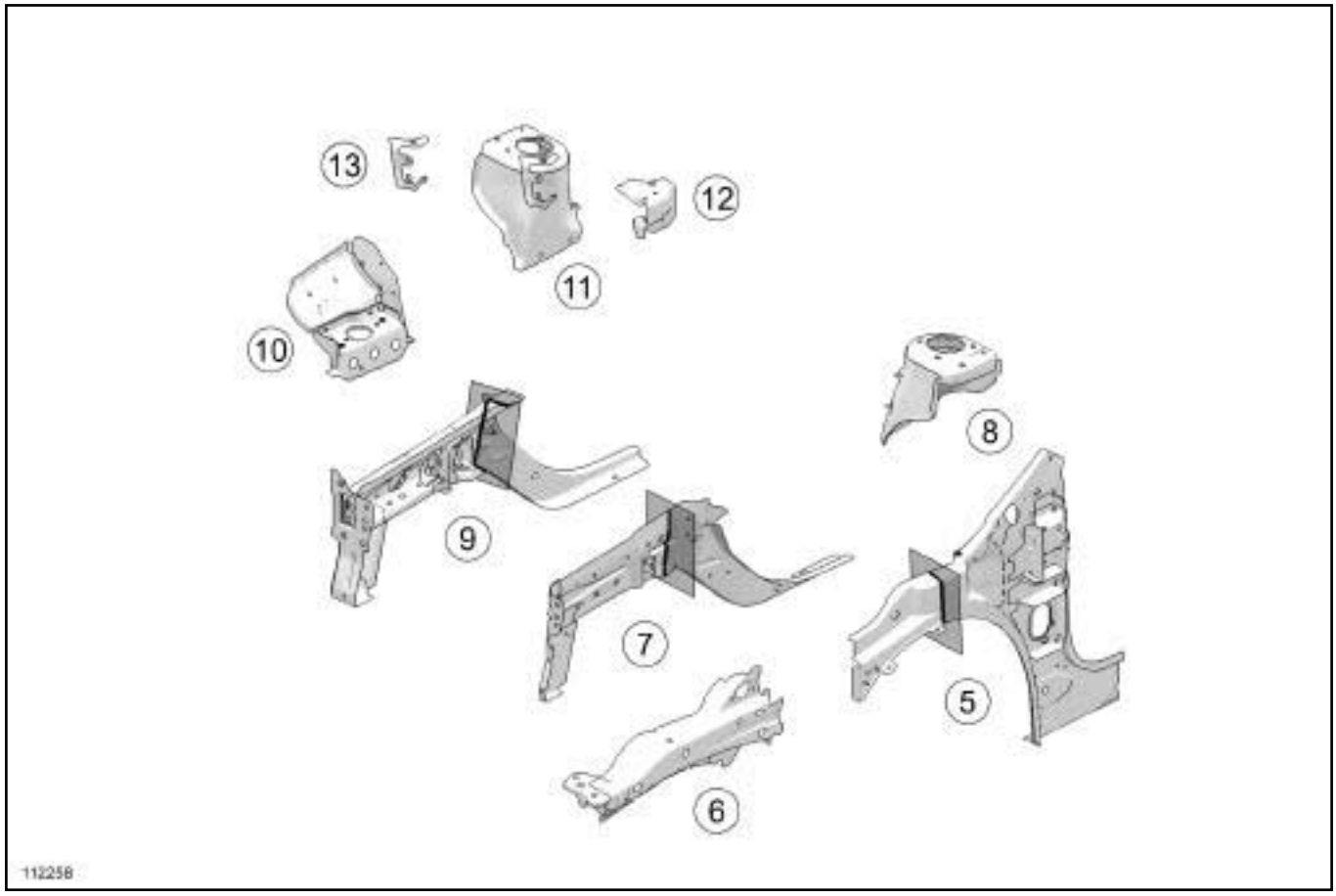


112100

- (**1**) Radiator cross member support
- (**2**) Front end side cross member

- (**3**) Front side member closure panel
- (**4**) Front side member

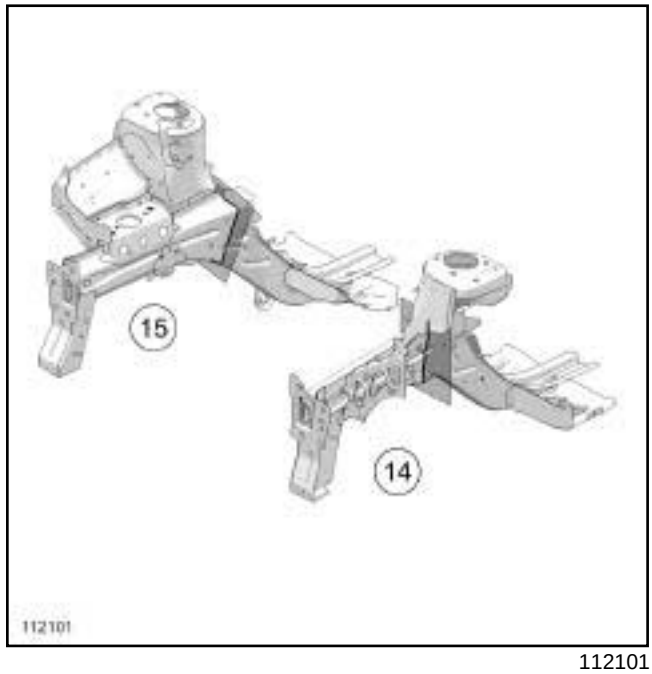
2nddegree



112258

- (**5**) Scuttle side panel
- (**6**) Scuttle side panel upper reinforcement
- (**7**) Front side member closure panel
- (**8**) Front left-hand wheel arch
- (**9**) Front side member
- (**10**) Engine stand
- (**11**) Front right-hand wheel arch
- (**12**) Engine tie-rod attachment
- (**13**) Acoustic tie-bar mounting

3rddegree

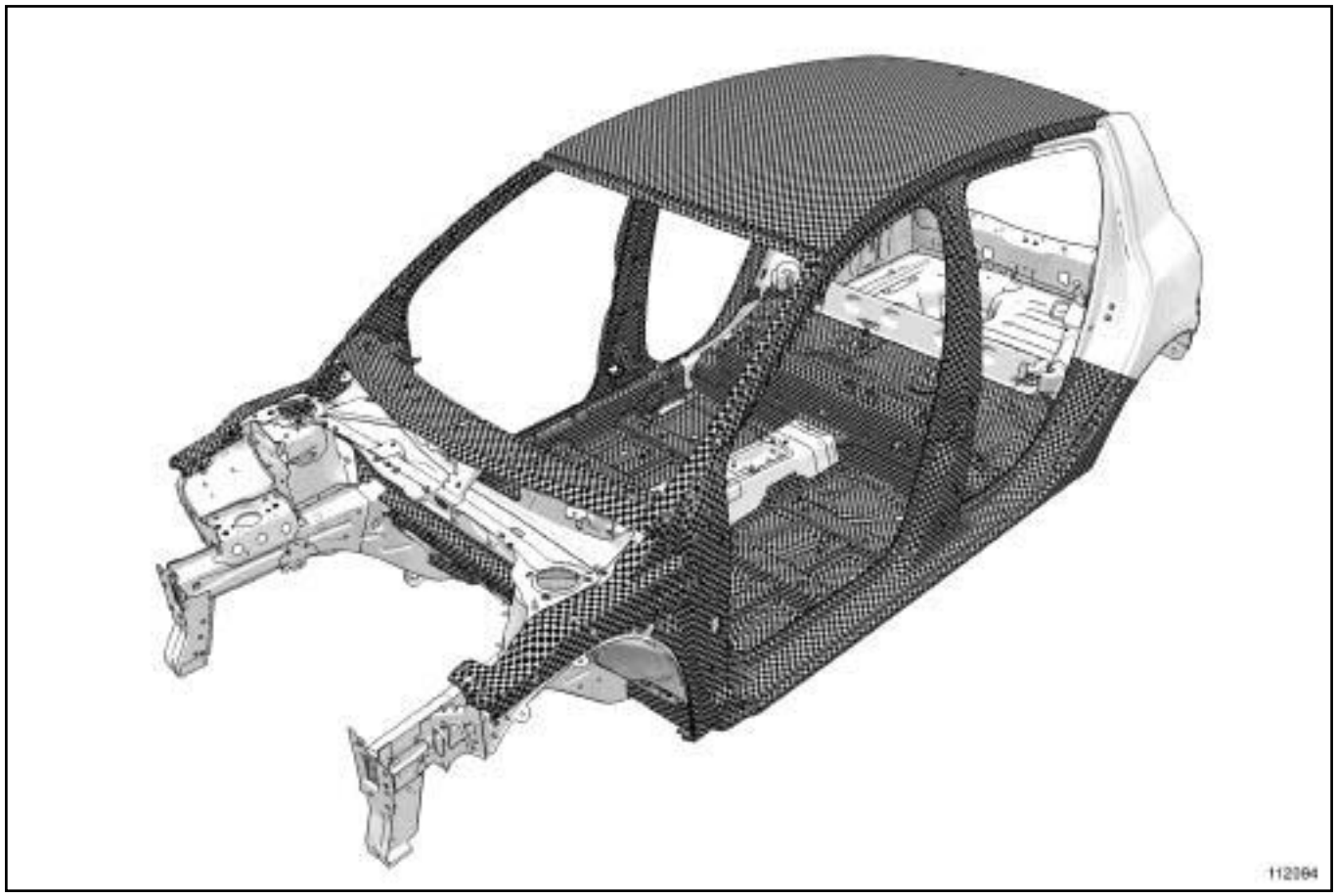


112101

- (**14**) Front left-hand half unit

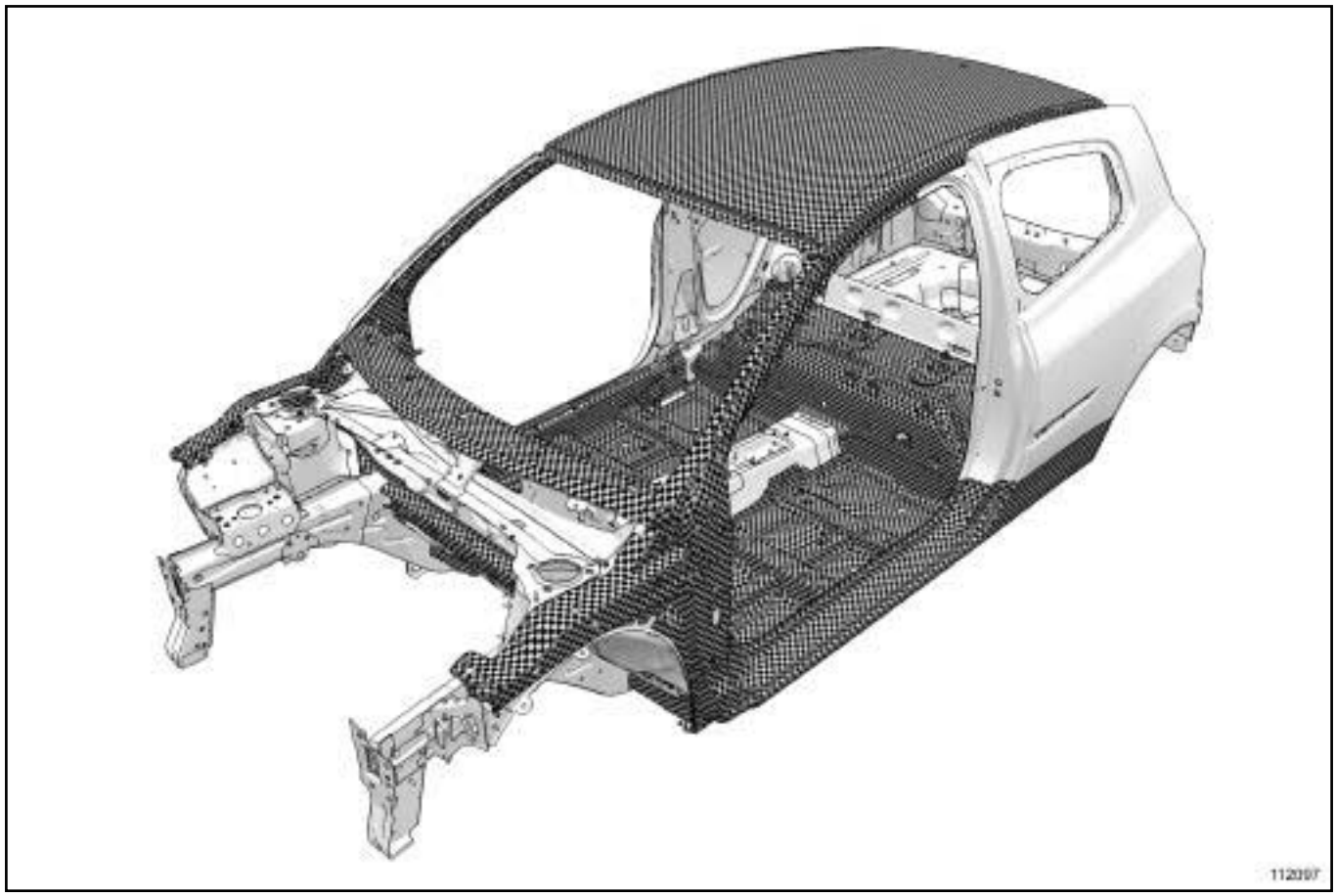
- (**15**) Front right-hand half unit

B85



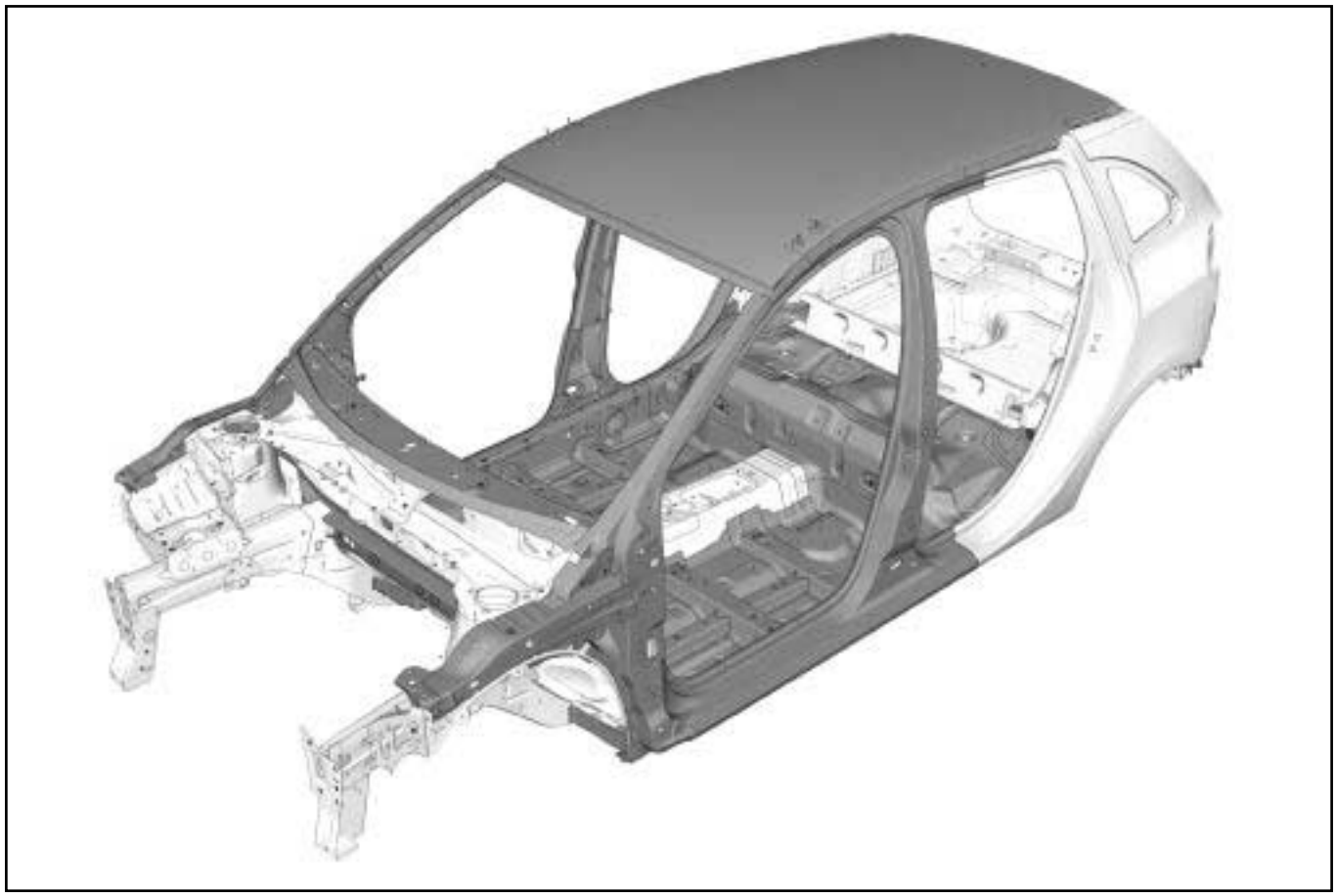
112094

C85 or S85



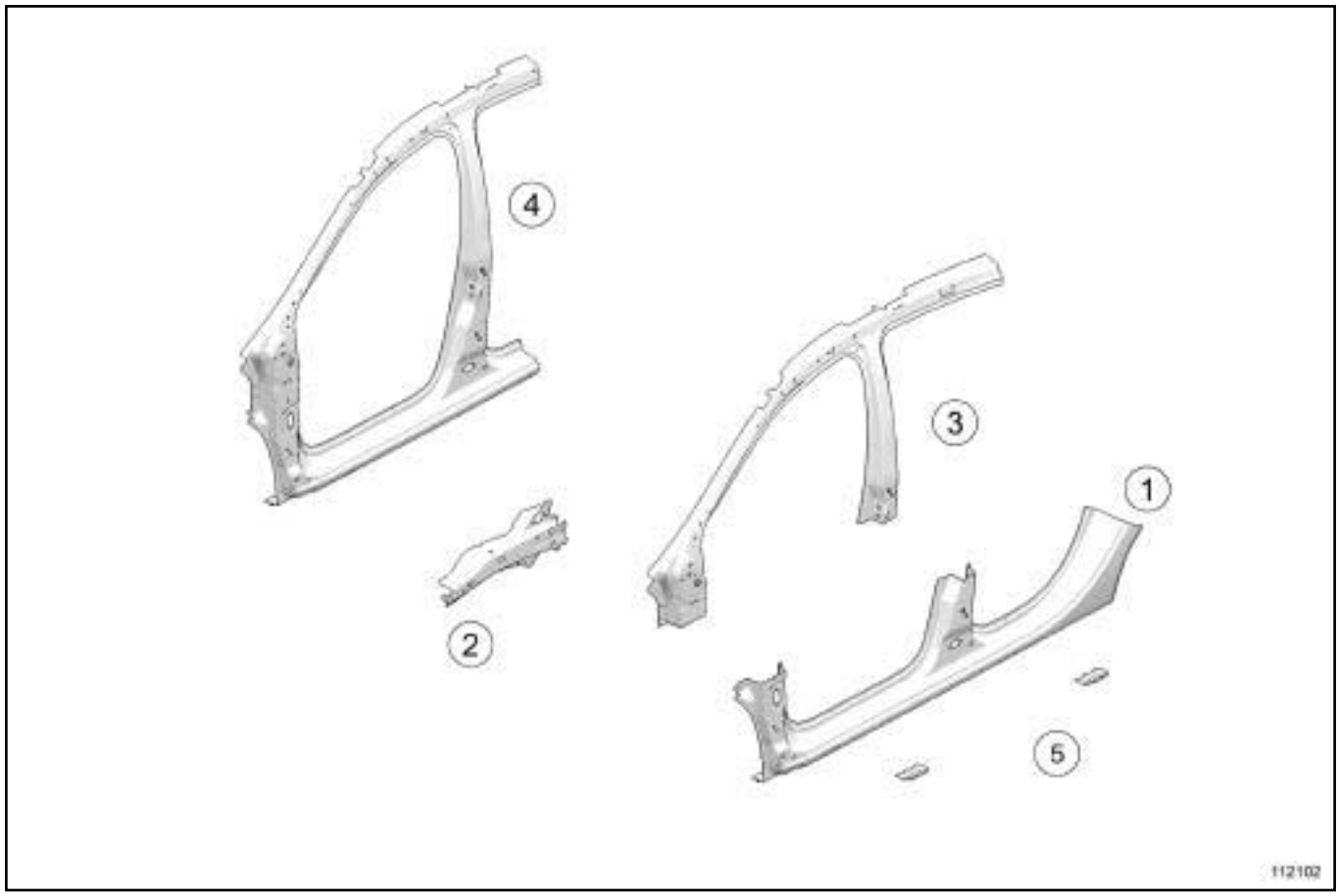
112097

K85



126749

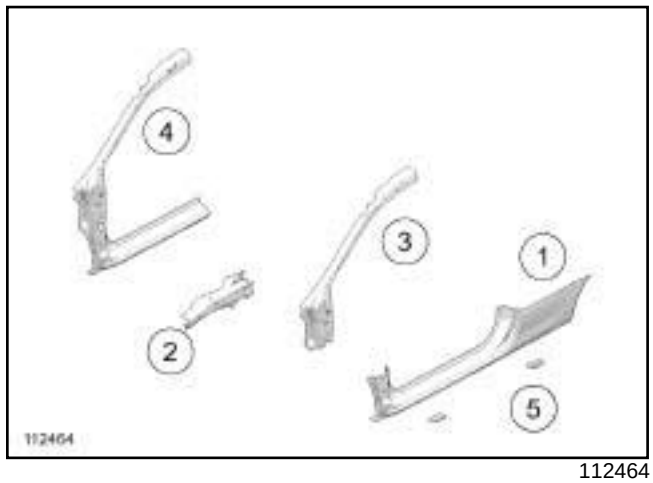
1st degree



112102

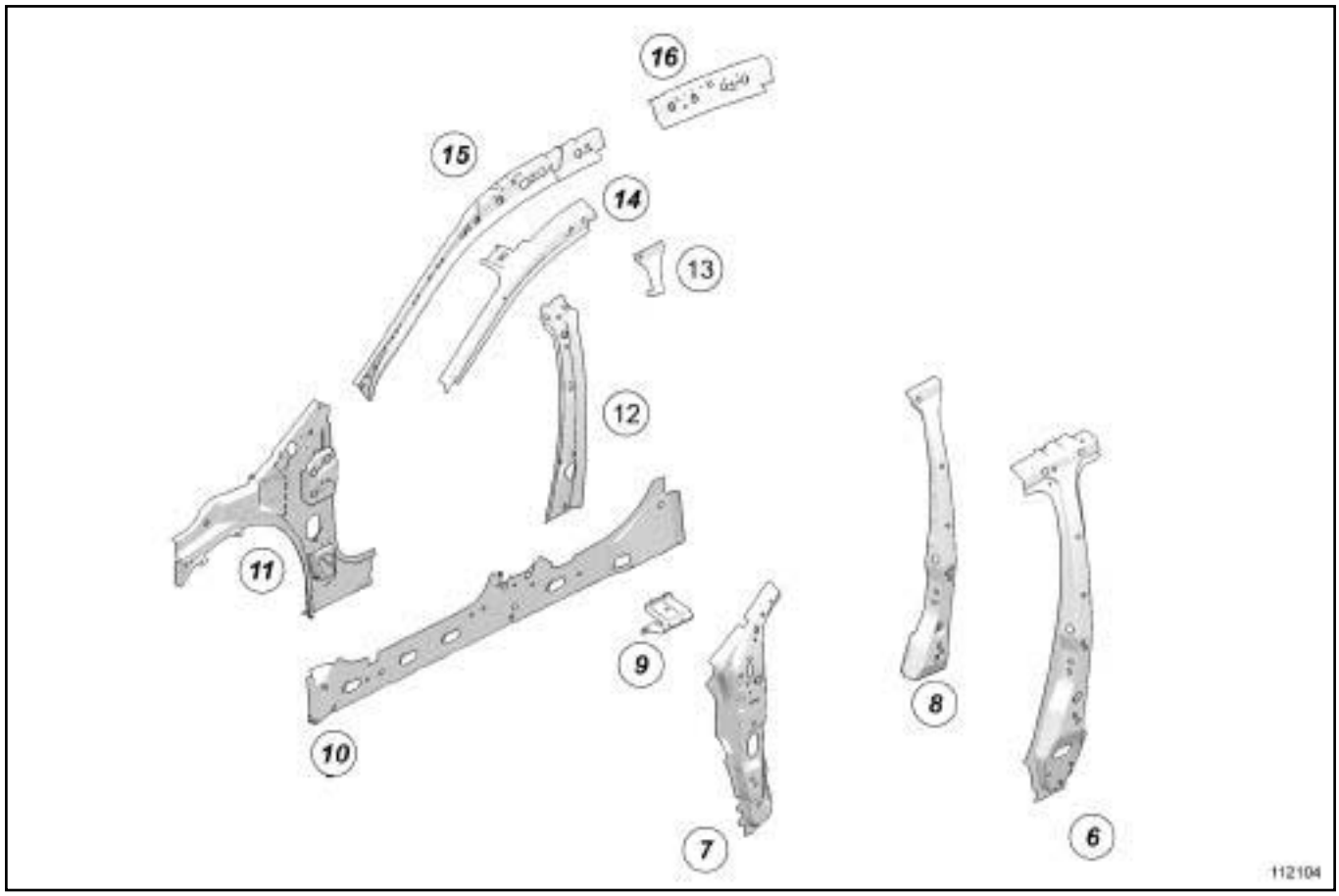
- (**1**) Sill panel
- (**2**) Scuttle side panel reinforcement
- (**3**) Upper body
- (**4**) Body side front section
- (**5**) Jacking point bridge piece

C85 or S85



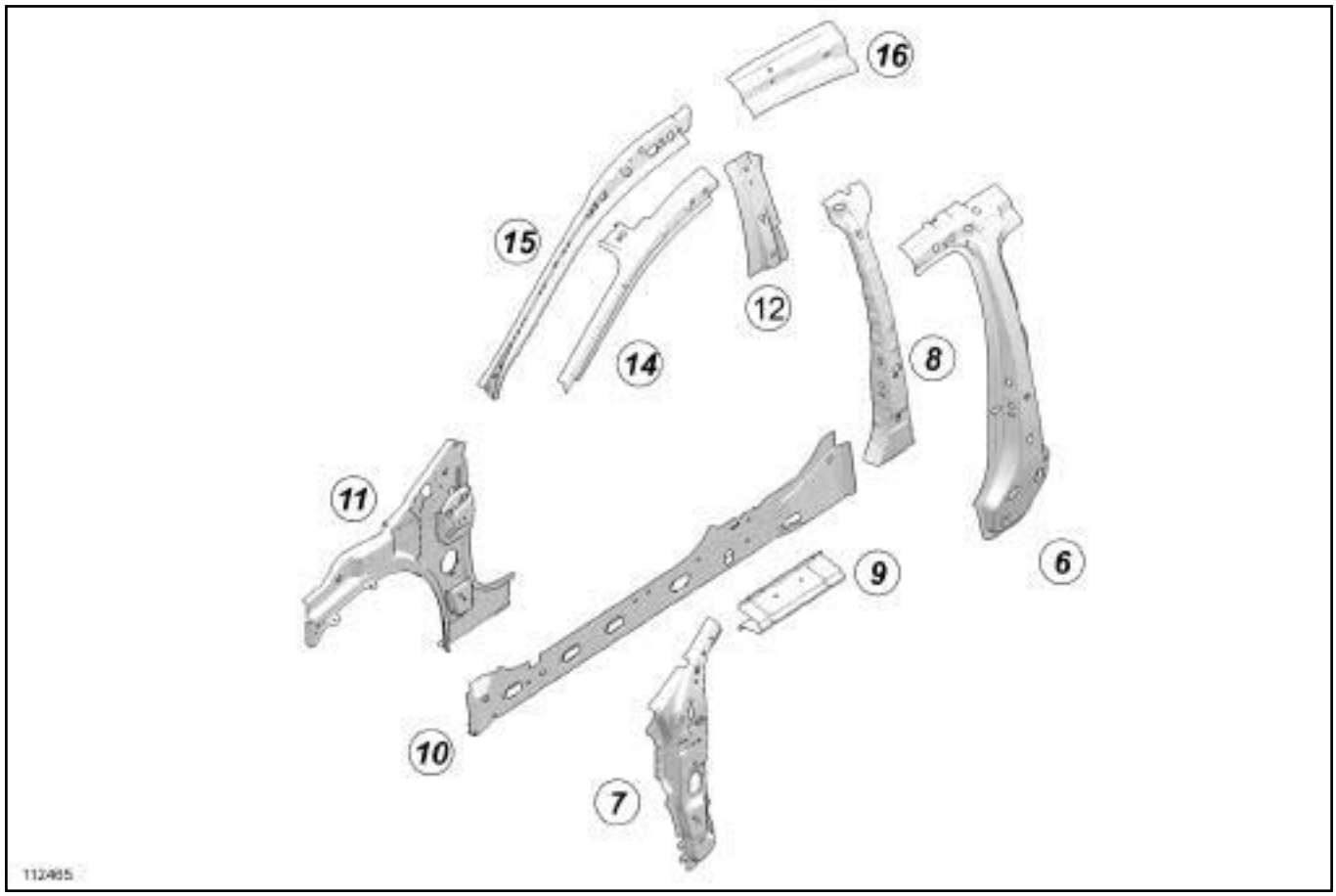
112464

2nd degree



112104

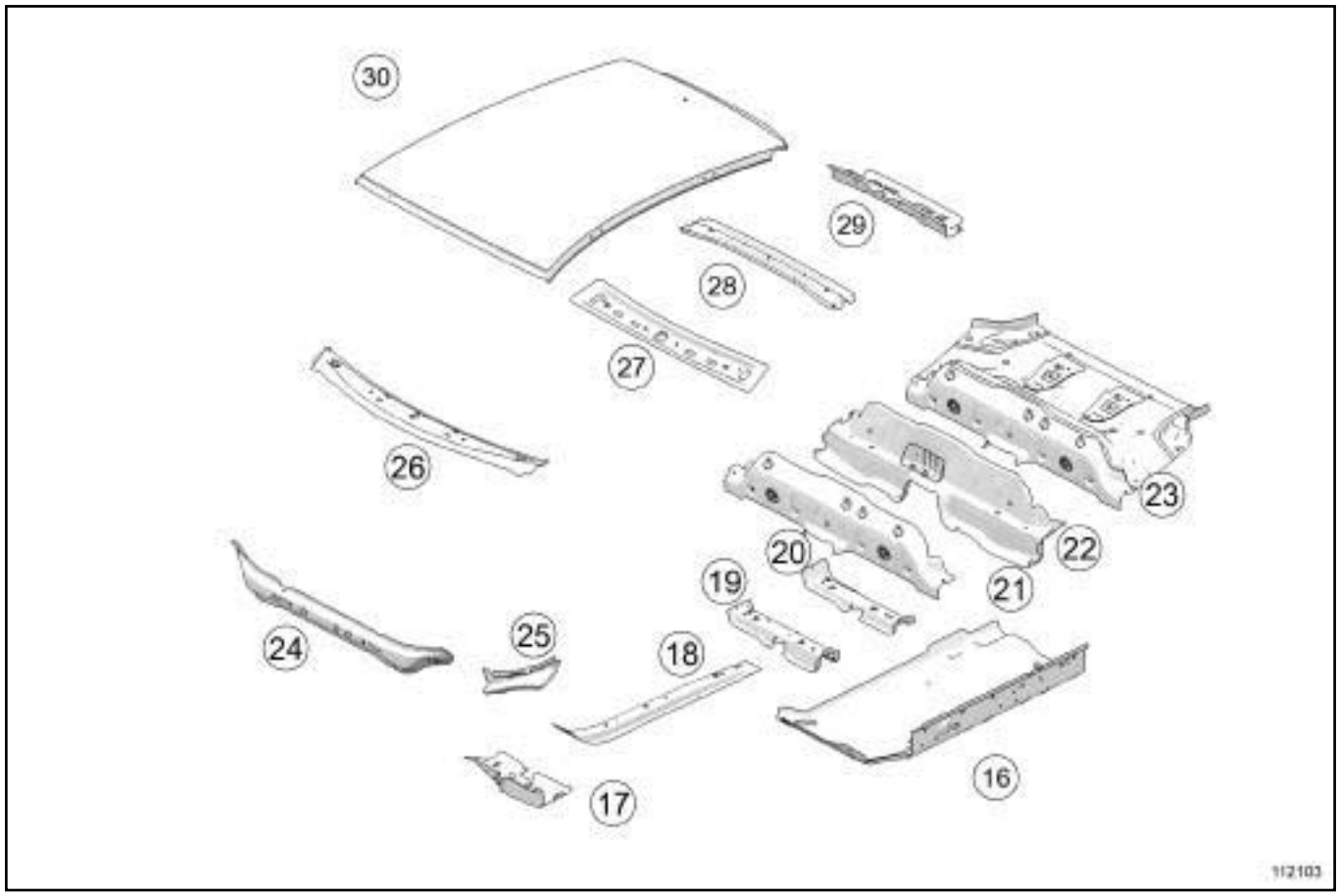
C85 or S85



112465

- (**6**) B-pillar reinforcement
- (**7**) A-pillar reinforcement
- (**8**) B-pillar hinge reinforcement
- (**9**) Impact reinforcement
- (**10**) Sill panel closure panel
- (**11**) Scuttle side panel
- (**12**) B-pillar lining
- (**13**) B-pillar upper reinforcement
- (**14**) Front roof drip moulding stiffener
- (**15**) A-pillar lining
- (**16**) Roof drip moulding lining

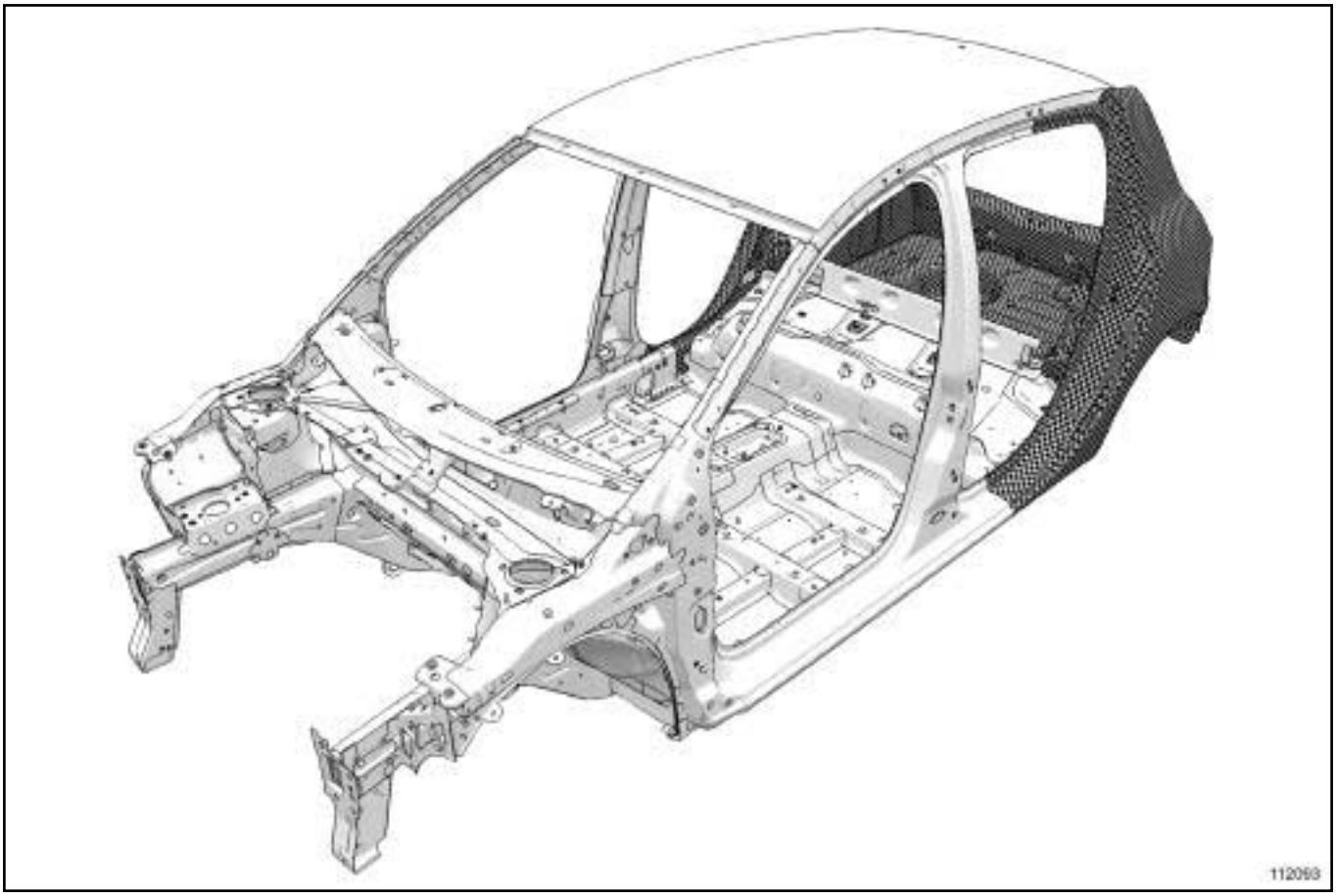
3rddegree



112103

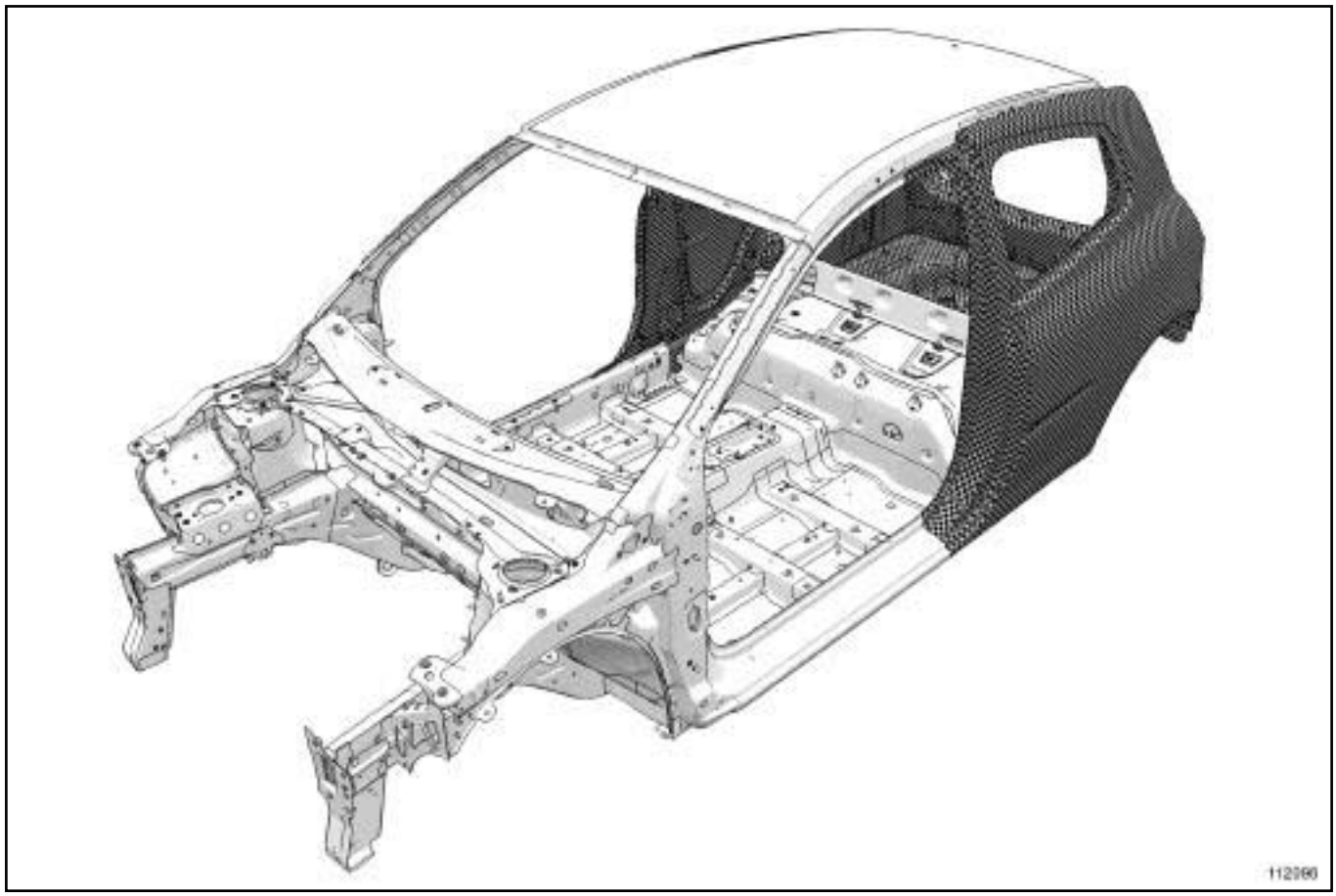
- (**16**) Centre floor, side section
- (**17**) Centre floor front side cross member
- (**18**) Front side member, centre section
- (**19**) Front cross member under front seat
- (**20**) Rear cross member under front seat
- (**21**) Floor partition cross member
- (**22**) Rear floor front cross member reinforcement
- (**23**) Front section of rear floor
- (**24**) Bulkhead lower cross member
- (**25**) Bulkhead side stiffener
- (**26**) Windscreen aperture lower cross member closure panel
- (**27**) Roof front cross member
- (**28**) Roof centre cross member
- (**29**) Roof rear cross member
- (**30**) Roof

B85



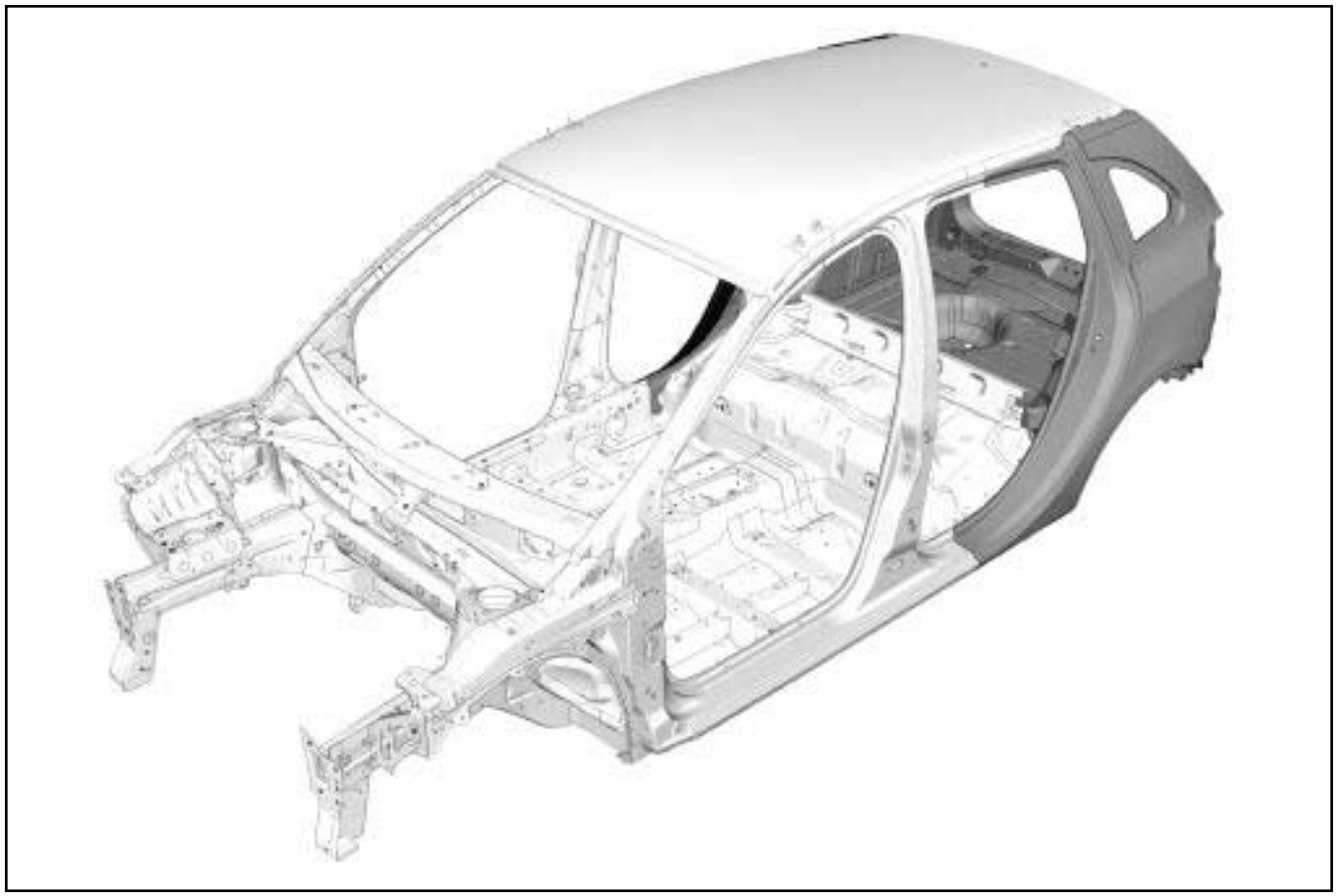
112093

C85 or S85



112096

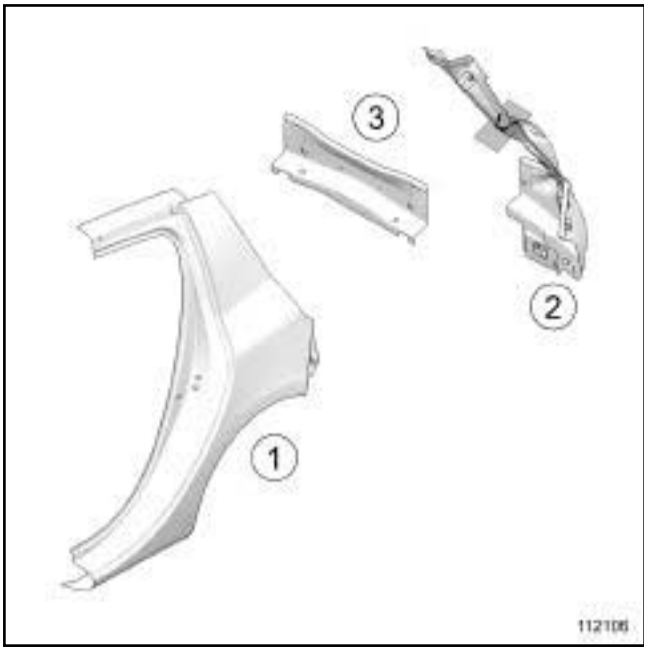
K85



126750

B85

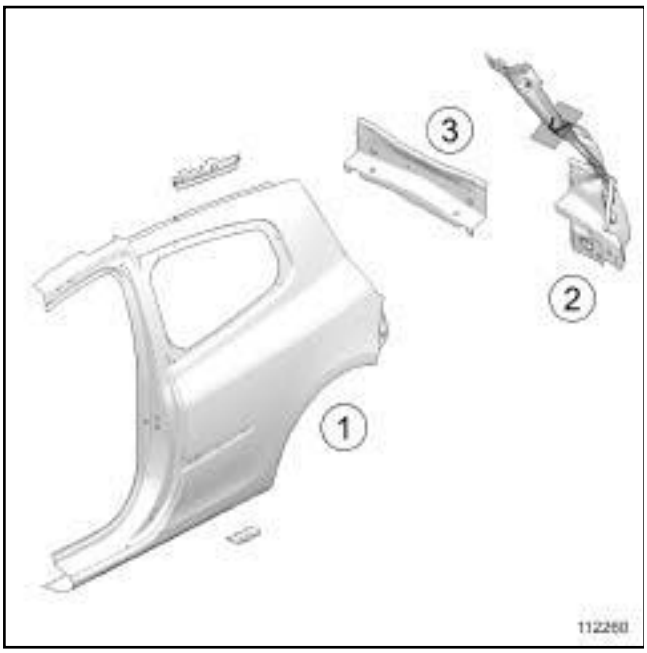
1st degree



112106

C85 or S85

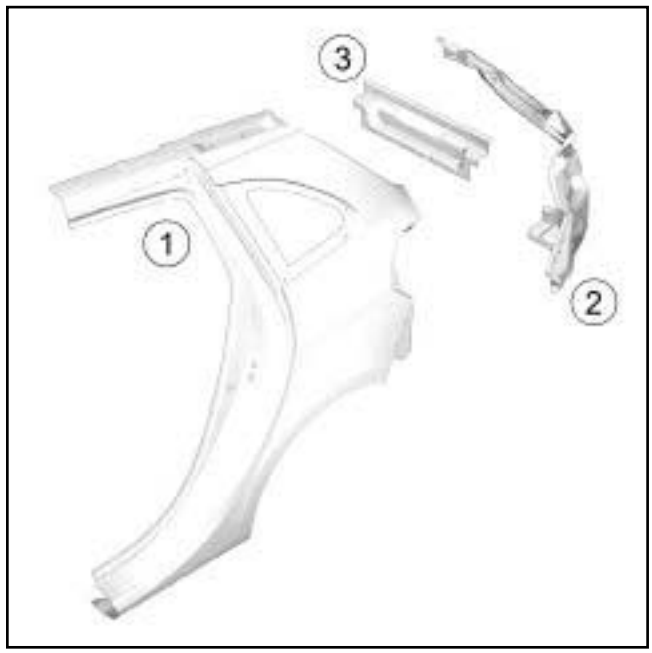
1st degree



112260

K85

1st degree

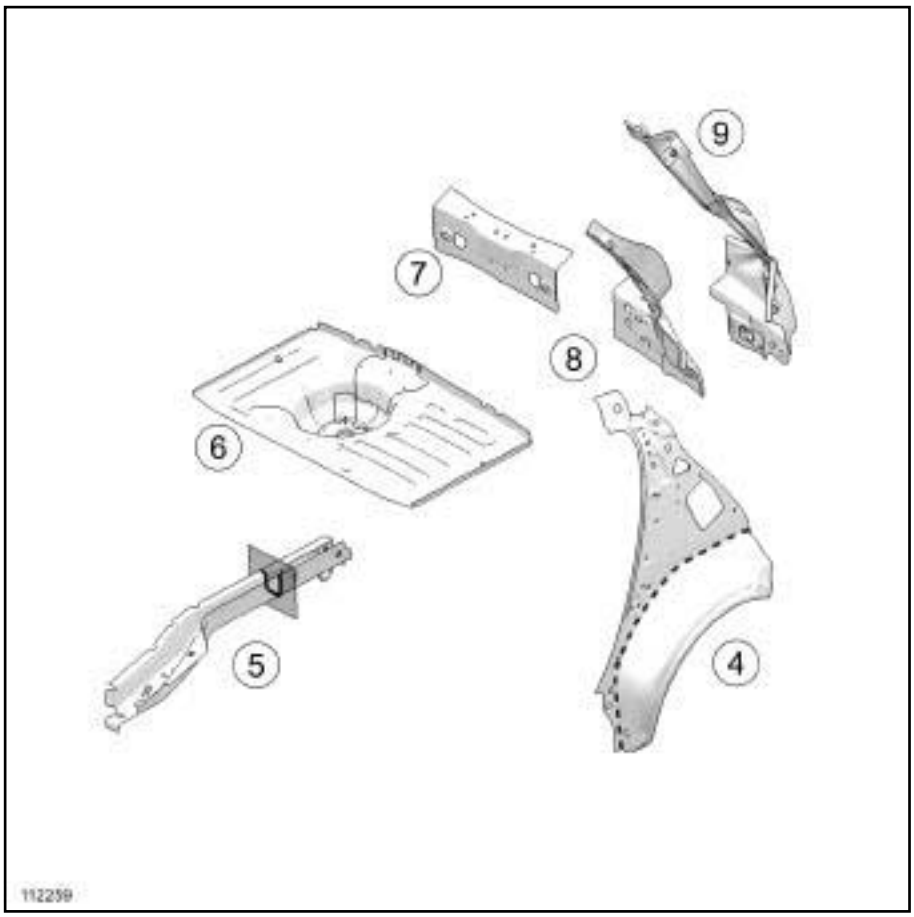


126751

- (**1**) Rear wing panel
- (**2**) Rear light mounting
- (**3**) Rear end panel

B85

2nd degree

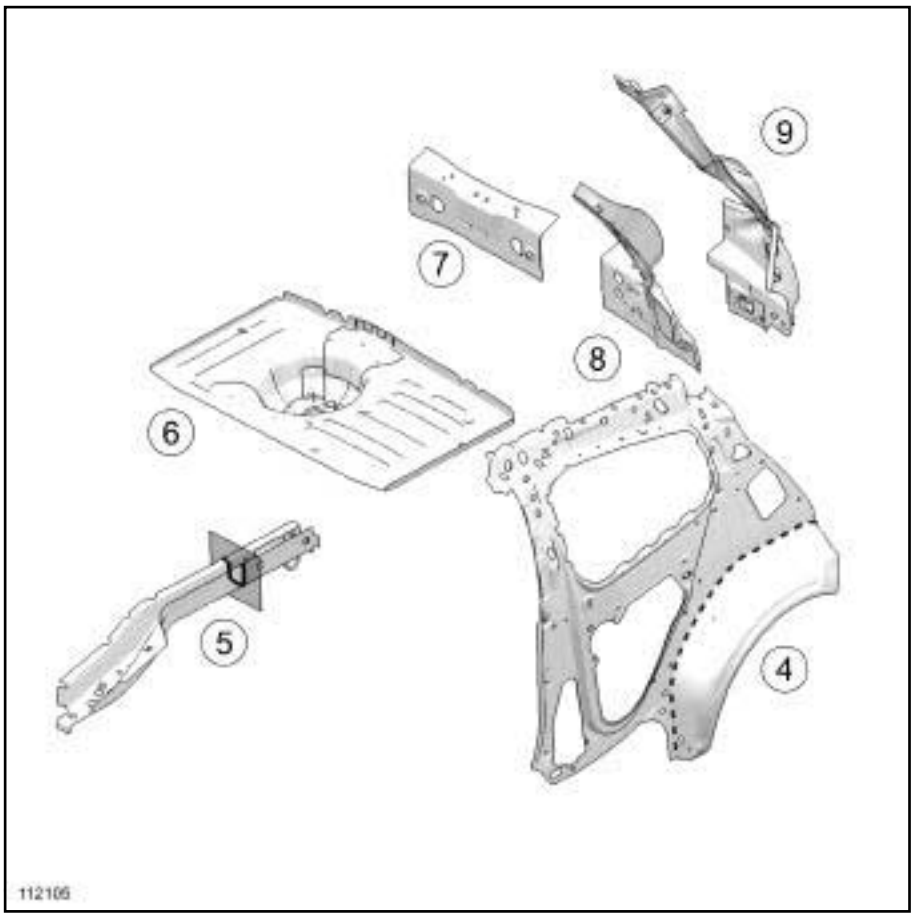


112259

- ***(4)*** Outer rear wheel arch
- ***(5)*** Rear section of rear side member
- ***(6)*** Rear floor rear section
- ***(7)*** Rear end panel lining
- ***(8)*** Rear light mounting lining
- ***(9)*** Rear light mounting

C85 or S85

2nddegree

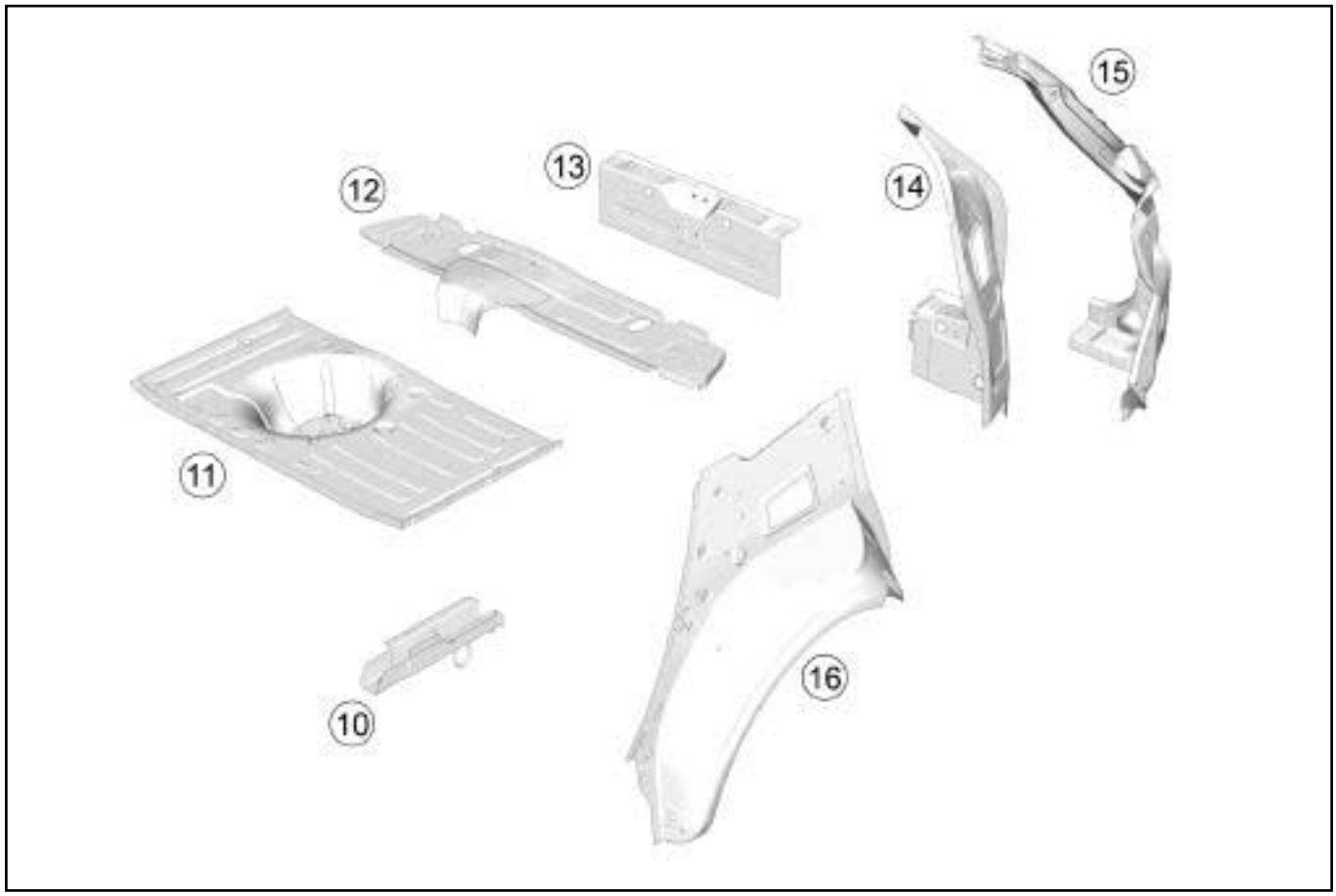


112105

- (**4**) Outer rear wheel arch
- (**5**) Rear section of rear side member
- (**6**) Rear floor rear section
- (**7**) Rear end panel lining
- (**8**) Rear light mounting lining
- (**9**) Rear light mounting

K85

2nddegree

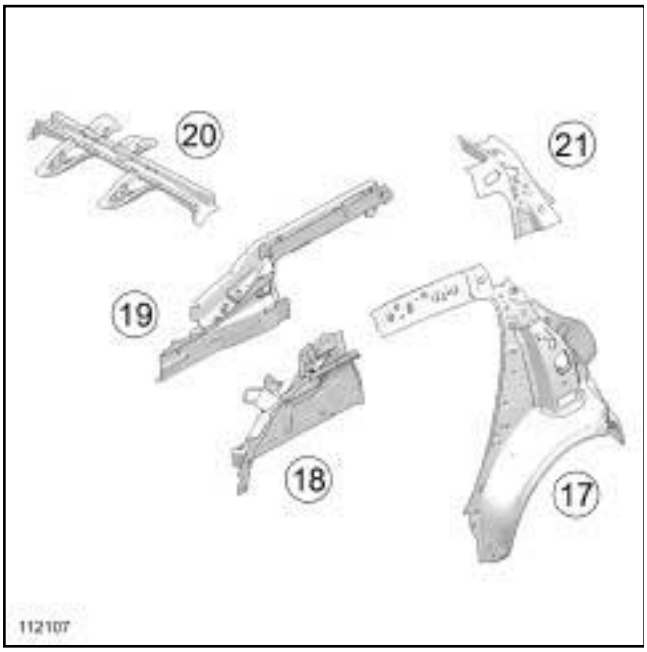


126752

- (**10**) Rear side member extension
- (**11**) Rear floor rear section
- (**12**) Rear floor extension
- (**13**) Rear end panel lining
- (**14**) Rear light mounting lining
- (**15**) Rear light mounting
- (**16**) Outer rear wheel arch

B85

3rddegree

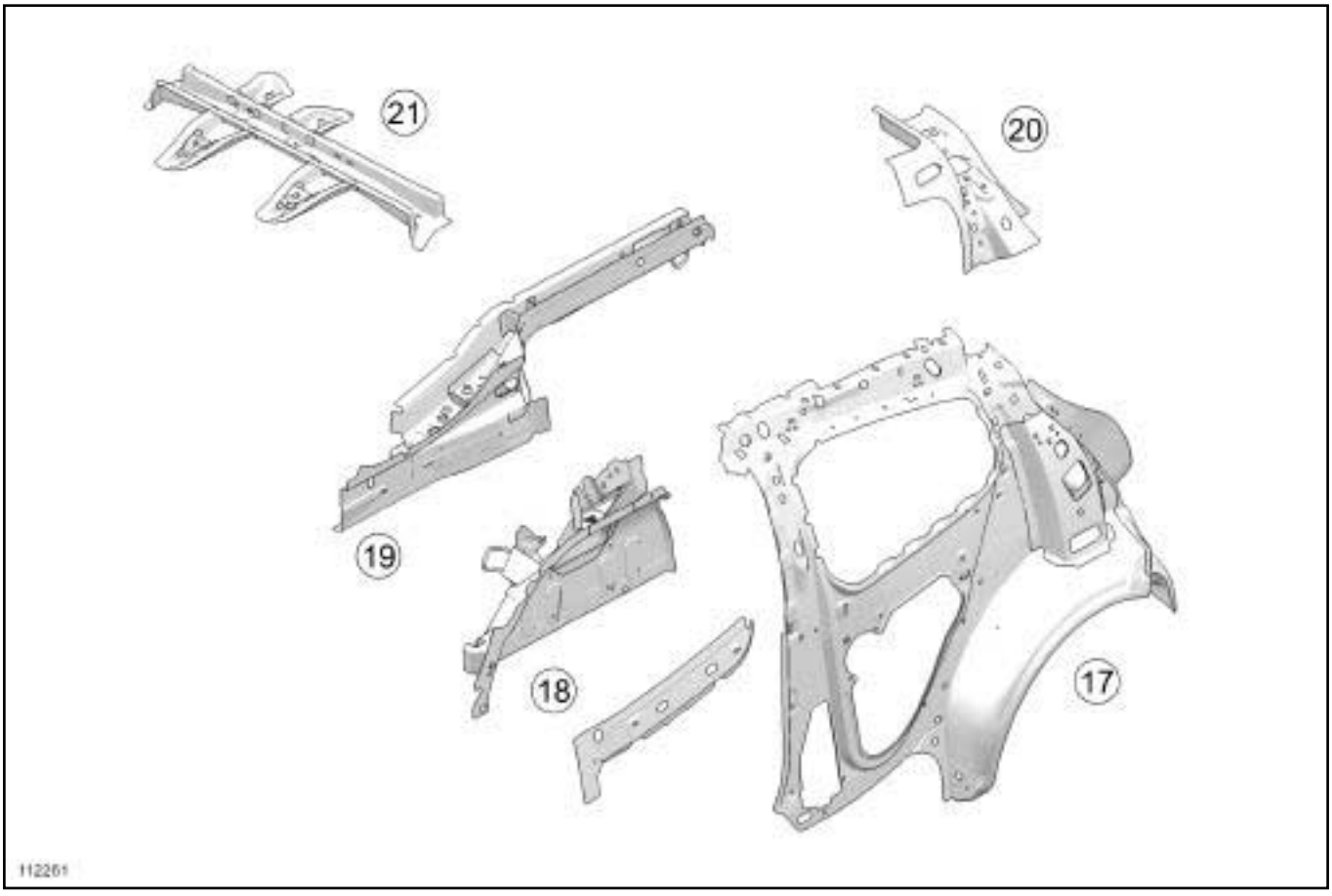


112107

- ***(17)*** Quarter panel lining
- ***(18)*** Inner wheel arch
- ***(19)*** Rear side member
- ***(20)*** Quarter panel upper reinforcement
- ***(21)*** Rear centre cross member

C85 or S85

3rddegree

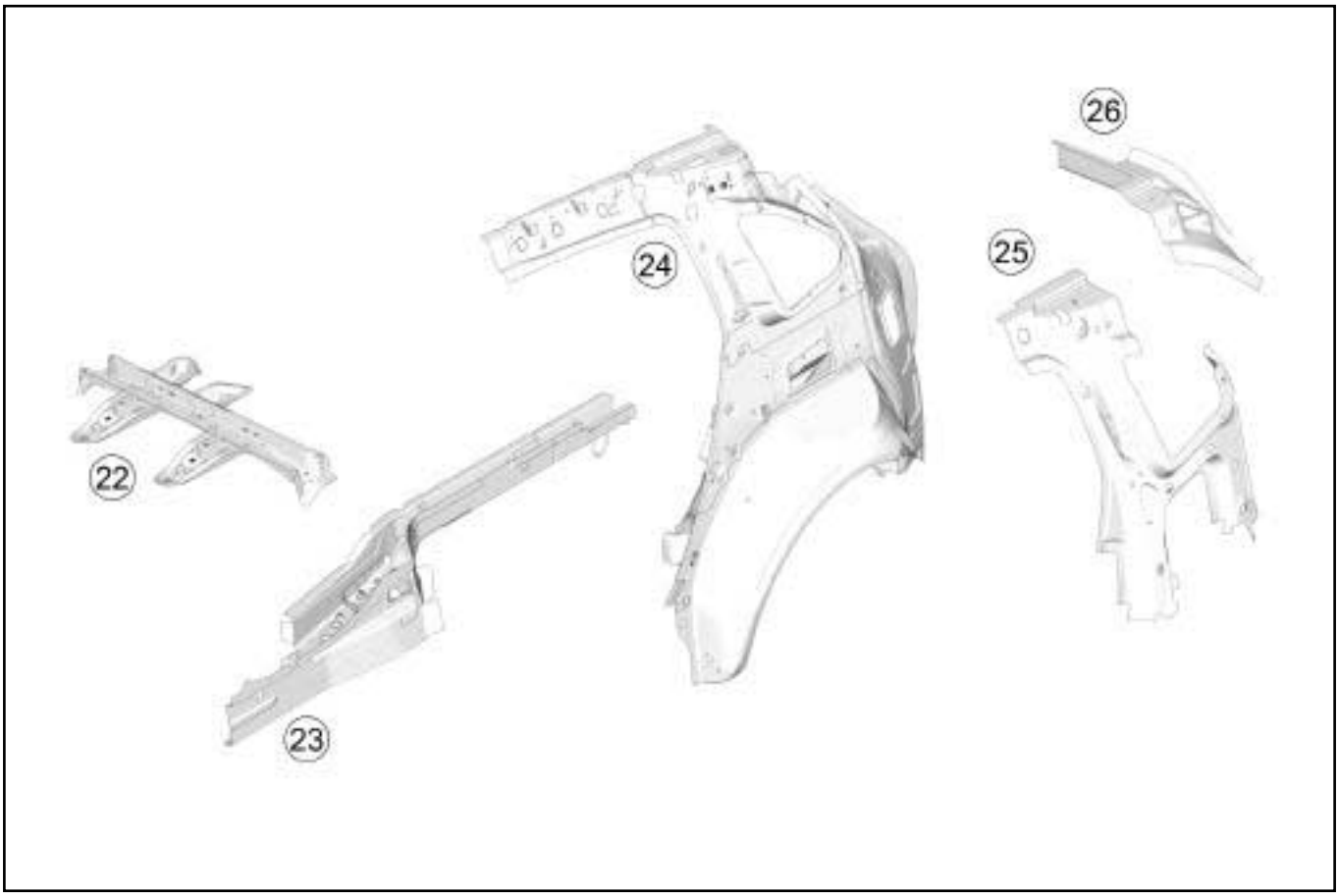


112261

- ***(17)*** Quarter panel lining
- ***(18)*** Inner wheel arch
- (**19**) Rear side member
- (**20**) Quarter panel upper reinforcement
- (**21**) Rear centre cross member

K85

3rddegree



126753

- (**22**) Rear centre cross member
- (**23**) Rear side member
- (**24**) Quarter panel lining
- (**25**) C-pillar stiffener
- (**26**) Quarter panel upper reinforcement

Consumables for mechanical repair:

DEFINITION	PACKAGING	PART NUMBER
MECHANICAL SEALANTS		
SILICOR sealing paste	**85 g** tube	**77 11 236 470**
MASTIXO Joint face seal	**100 g** tube	**77 11 236 172**
BEARING SEALING KIT For crankshaft bearing cap side sealing	Kit	**77 11 237 896**
SILICONE ADHESIVE SEAL Engine and gearbox sealing paste	**100 g** cartridge	**77 11 227 484**
TRANSPARENT SEALING MASTIC	**45 g** tube	**77 11 223 369**
SILICOJOINT	**90 g** tube	**77 11 236 469**
LOCTITE ADHESIVE 597 Sealing paste for PXX gearboxes	Cartridge	**77 11 219 705**
RESIN ADHESIVE or **SEALING RESIN** Sealing resin for engine and gearbox covers	**25 ml** tube	**77 11 237 640**
EXHAUST MASTIC For exhaust pipe union seals	**1.5 kg** tin	**77 01 421 161**
LEAK DETECTOR	**400 ml** aerosol	**77 11 236 176**
ADHESIVES		
FRENETANCHE Sealing the threading at low and medium pressure	**50 ml** bottle	**77 11 236 471**
HIGH-STRENGTH THREADLOCK For locking bolts	**50 ml** bottle	**77 11 230 112**
SEALING RESIN For locking the bearings	**50 ml** bottle	**77 11 236 472**
LUBRICANT CLEANERS		
NÉTELEC Avoid bad contacts in electrical circuits	**150 ml** aerosol	**77 11 225 871**

INJECTOR CLEANER	**355 ml** container	**77 11 224 188** or **77 11 225 539**
CLOTH FOR INJECTION SYSTEM		**77 11 211 707**
SUPER RELEASING AGENT	**500 ml** aerosol	**77 11 236 166**
SUPER RELEASING AGENT	**250 ml** aerosol	**77 11 420 439**
SUPER CLEANER FOR JOINT FACES For cleaning joint faces	**300 ml** aerosol	**77 11 238 181**
SURFACE CLEANER	**5 L** container	**77 01 404 178**
SILICONE LUBRICANT	**500 ml** aerosol	**77 11 236 168**
SILICONE-FREE LUBRICANT	**500 ml** aerosol	**77 11 236 167**
BRAKE CLEANER	**600 ml** aerosol	**77 11 422 413**
	150 ml aerosol	**77 11 422 414**
BIO BRAKE CLEANER	**750 ml** spray bottle	**77 11 427 217**
AIR CONDITIONING CLEANER	**250 ml** aerosol	**77 11 230 498**
CARBURETTOR CLEANER	Aerosol	**77 11 236 177**
IXTAR ENGINE CLEANER	**400 ml** can	**77 11 229 365**
GREASE		
BR2+ GREASE For: - the lower arm bearings, - the anti-roll bar grooves, - the driveshaft splines.	**1 kg** pack	**77 01 421 145**
SILICONE GREASE For: - the tubular rear axle bushes, - the anti-roll bar bushes.	**100 g** tube	**77 11 419 216**
COPPER ANTI-SEIZE GREASE Grease for turbochargers (high temperature)	**85 g** tube	**77 11 236 173**
COPPER-ALUMINIUM LUBRICANT Grease for turbochargers (high temperature)	**500 ml** aerosol	**77 11 236 169**
GREASE For driveshaft seals	**180 g** sachets	**77 11 420 011**

WHITE GREASE For wheel sensors	**400 ml** aerosol	**77 11 236 174**
MULTIPURPOSE GREASE	**500 ml** aerosol	**77 11 236 170**
	250 ml aerosol	**77 11 236 171**
FLUORSTAR 2L Silicone-free electric sealing grease	**100 g** tube	**82 00 168 855**
LACQUER		
JELT ARGENT Varnish for repairing heated rear screens	**5 g** bottle	**77 11 230 111**
BRAKE		
DOT 4, ISO CLASS 6, RENAULT STANDARD: 03-50-006, For vehicles with and without electronic stability program (ESP)	**0.5 L** container	**77 11 218 589**
	5 L container	**77 11 238 318**
	25 L container	**77 11 238 319**
DOT 4, ISO CLASS 4, RENAULT STANDARD: 03-50-005 Authorised for vehicles without ESP	**0.5 L** container	**77 11 172 381**
	5 L container	**77 01 395 503**
	25 L container	**77 11 171 926**
DOT 4 Authorised for vehicles without ESP, without clutch with hydraulic tappet	**0.5 L** container	**86 71 000 000**
	5 L container	**86 71 014 277**
	25 L container	**86 71 014 278**
COOLING SYSTEM		
ANTIFREEZE (TYPE D)	**1 L** container	**77 11 170 548**
COOLANT (TYPE D)	**1 L** container	**77 11 171 589**
	2 L container	**77 11 170 545**
	5 L container	**77 11 170 546**
OIL		
ENGINE OIL	(see **Engine oil: Specifications**) (Technical Note 6013A, 04A, Lubricants)	
GEARBOX OIL	(see **Manual gearbox oil: Specifications**) (Technical Note 6012A, 04A, Lubricants)	
	(see **Automatic gearbox oil: Specifications**) (Technical Note 6012A, 04A, Lubricants)	
	(see **Sequential gearbox oil: Specifications**) (Technical Note 6012A, 04A, Lubricants)	

AXLE OIL	(see **Rear axle oil: Specifications**) (Technical Note 6012A, 04A, Lubricants)	
ELF RENAULT MATIC D2 Oil for power-assisted steering: Pump connected, pump assembly (except Laguna III)	**2 L** container	**77 01 402 037**
TOTAL POWER-ASSISTED STEERING FLUID Oil for power-assisted steering: Pump assembly (Laguna III)	**1 L** container	no part number
PLANETELF PAG 488	**250 ml** container	**77 11 172 668**
SANDEN SP 10 Oil for air conditioning compressor		**77 01 419 313**
UNIVIS J26 Oil for retractable roof hydraulic system	**250 ml** container	**77 11 172 160**
TYRES		
TYRE PASTE	**1 kg** pack	**77 11 223 052**
	5 kg pack	**77 11 223 053**
TYRE REPAIR AGENT	**400 ml** tube	**77 11 221 296**
	300 ml tube	**77 11 222 802**
BLANKING PLUG		
Engine type	Injection type	Part no.
F5R		**77 01 206 382**
F8Q		**77 01 206 340**
F9Q		**77 01 208 229**
G9T AND G9U		**77 01 208 229**
K9K	**DELPHI**	**77 01 206 804**
K9K	**SIEMENS**	**77 01 476 857**
M9R		**77 01 209 062**
P9X		**77 01 474 730**
ZD3		**77 01 208 229**
MISCELLANEOUS		
GREY ABRASIVE PAD		**77 01 405 943**

Consumables for bodywork repair:

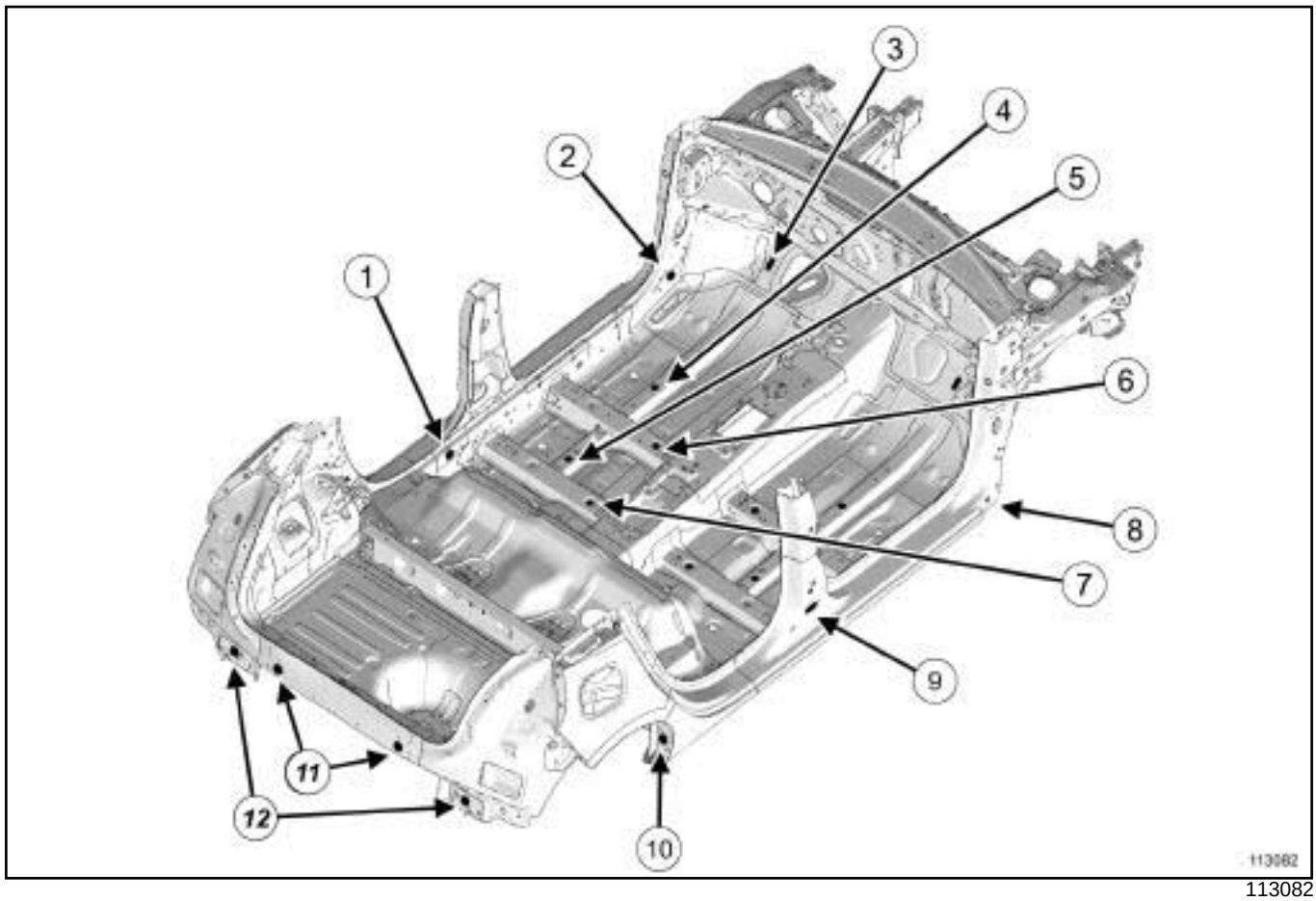
HOLLOW SECTION WAX		
SPR CC	**1 L** container	**77 11 172 672**
SPR CC SPRAY	**500 ml** aerosol	**77 11 211 654**
STRUCTURAL ADHESIVE		
STRUCTURAL ADHESIVE	Kit =2 **80 ml** cartridges	**77 11 219 885**
HIGH PERFORMANCE STRUCTURAL ADHESIVE	1 **195 ml** cartridge	**77 11 419 113**
GLAZING PRODUCTS AND ADHESIVES		
MONOPAC EVOLUTION ADHESIVE KIT	**310 ml** cartridge	**77 11 421 430**
MONOPAC EVOLUTION ADDITIONAL CARTRIDGE + NOZZLE	**310 ml** cartridge	**77 11 421 431**
S-P KIT ADHESIVE KIT	**310 ml** cartridge	**77 11 421 432**
ADDITIONAL S-P KIT CARTRIDGE + NOZZLE	**310 ml** cartridge	**77 11 421 433**
BIPAC EVOLUTION ADHESIVE KIT	2 **225 ml** cartridges	**77 11 421 434**
LINT-FREE CLOTH	Box of **340** cloths	**77 11 237 262**
WINDOW SEALING MASTIC	**310 ml** cartridge	**77 11 170 222**
SPECIAL ADHESIVE FOR WINDOWS		**77 11 425 759**
ADHESION PROMOTER For bonding double-sided adhesive tape	Cloth	**77 11 423 222**
MISCELLANEOUS		
DOUBLE-SIDED ADHESIVE	**18 mm** wide	**77 11 226 308**
DOUBLE-SIDED ADHESIVE	**8 mm** wide	**77 11 427 869**
FRENETANCHE	**50 ml** bottle	**77 11 236 471**
ADHESIVE PATCH		**82 00 043 181**
ADHESIVE PAD		**77 05 042 163**
SEALS		
BLACK MJ PRO (Electroweldable)	**310 ml** cartridge	**77 11 172 676**
WHITE MJ PRO II (Electroweldable)	**310 ml** cartridge	**77 11 426 951**

PREFORMED SEALING MASTIC BEAD	**2.6 m** roll	**77 01 423 330**
BRUSH MASTIC	**1 kg** pack	**77 11 228 113**
FILLER MASTIC	60 beads **Ø 6 mm by 0.3 m**	**77 11 170 230**
GREASE		
WHITE GREASE	**400 ml** aerosol	**77 11 236 174**
OPENING ELEMENT MECHANISM GREASE	**20 g** sachets	**77 11 419 865**
SILICONE LUBRICANT	**500 ml** aerosol	**77 11 236 168**
SILICONE-FREE LUBRICANT	**500 ml** aerosol	**77 11 236 167**
SOUNDPROOFING		
SPR GREY EVOLUTION	**1 l** cartridge	**77 11 419 114**
SPR GREY EVOLUTION SPRAY	**400 ml** aerosol	**77 11 419 116**
SPR BLACK EVOLUTION II	**1 l** cartridge	**77 11 419 115**
SOUNDPROOFING PAD (3.5 Kg/m²)	Pack of **10**	**77 01 423 546**
SOUNDPROOFING PAD (6.5 Kg/m²)	Pack of **5**	**77 01 423 269**
POLISHING		
POLISHING LIQUID	**1 L** container	**77 11 420 288**
FINISHING LIQUID	**1 L** container	**77 11 420 289**
MASTIC		
Universal mastic		
GALAXI	**2.5 kg** pack	**77 11 172 238**
OPTIMAX	**1.23 l** cartridge	**77 11 172 239**
EXCELLENCE +	**960 g** cartridge	**77 11 423 539**
For finishing plastic repair	**1 kg** pack	**77 11 423 540**
Plugging mastic		
XFIBRE FIBREGLASS MASTIC	**975 kg** pack	**77 11 172 235**
STANDARD BASIX POLYESTER MASTIC	**1.975 kg** pack	**77 11 172 234**
ALUX ALUMINIUM MASTIC	**975 kg** pack	**77 11 172 236**
Sprayable mastic		

PIXTO SPRAYABLE POLYESTER MASTIC	**1.5 kg** tin	**77 11 172 237**
Finishing mastic		
IXTRA POLYESTER MASTIC	**1.625 kg** pack	**77 11 172 233**
Anti-grit mastic		
MAG PRO 1	**310 ml** cartridge	**77 11 172 679**
MAG PRO 3 (Dual component)	**1.5 kg** tin	**77 11 218 364**
SURFACE CLEANER		
HEPTANE	**500 ml** container	**77 11 170 064**
SOLVENT SURFACE CLEANER	**5 L** container	**77 01 404 178**
WATER-BASED SURFACE CLEANER	**5 L** container	**77 11 421 337**
ANTISTATIC THINNER (for plastic materials)	**400 ml** aerosol	**77 01 408 493**
COMPOSITE MATERIAL REPAIR BY BONDING		
PLASTIC REPAIR KIT		**77 11 170 064**
NOZZLE FOR PLASTIC REPAIR KIT		**77 11 423 523**
PLASTIC REPAIR CLEANER	**1 L** container	**77 11 423 517**
PLASTIC REPAIR PRIMER	**150 ml** bottle	**77 11 423 518**
PLASTIC REPAIR ADHESIVE	**2 x 25 ml** bicomponent cartridge	**77 11 423 519**
PLASTIC REPAIR CLOTH	**90 m** roller	**77 11 423 520**
PLASTIC REPAIR NOZZLES	**12** nozzles	**77 11 423 522**
COMPOSITE MATERIAL REPAIR BY WELDING		
PLASTIC WELD REPAIR SET		**77 11 425 742**
PROTECTIVE STRIPS	Bag of **10** protective strips	**77 11 425 744**
STAINLESS STEEL MESH	Bag of **2** meshes	**77 11 425 743**
COOLER	**400 ml** aerosol	**77 11 425 745**
BRUSH	Box of **10** brushes	**77 11 237 793**
WINDOW MASKING TAPE		
10 MM WINDSCREEN TAPE		**77 11 171 708**
20 MM WINDSCREEN TAPE		**77 11 171 709**
PROTECTIVE WELDING		

ANTI-SPLASH SPRAY	**400 ml** aerosol	**77 11 218 270**
SPECIFIED UNDERCOAT		
PRE-TREATMENT PRIMER WITHOUT ZINC CHROMATE (I-Alpha) + **THINNER**	**1 L** container	**77 11 420 027** (Primer)
		77 11 420 028 (Thinner)
I-PREMIA REACTIVE PRIMER (do not use on aluminium)	**3.5 l** container	**77 11 239 243** (Primer)
		77 11 228 654 (Thinner)
I-PREMIA REACTIVE PRIMER (do not use on aluminium)	**400 ml** aerosol	**77 11 419 416**
ADHÉRA SPRAY (adhesion promoter for thermoplastics)	**400 ml** aerosol	**77 11 423 734**
PRIMARA BLACK (adhesion promoter/primer for thermoplastics)	**1 L** container	**77 11 423 735**
		77 11 171 514 (Activator)
PRIMARA (adhesion promoter/primer for thermoplastics)	**1 L** container	**77 11 171 513**
		77 11 171 514 (Activator)
UNDERCOAT		
LEVIA	**3.5 l** container	**77 11 228 651**
FORTIA	**3.5 l** container	**77 11 228 650**

I - POINTS LOCATED INSIDE THE VEHICLE



113082

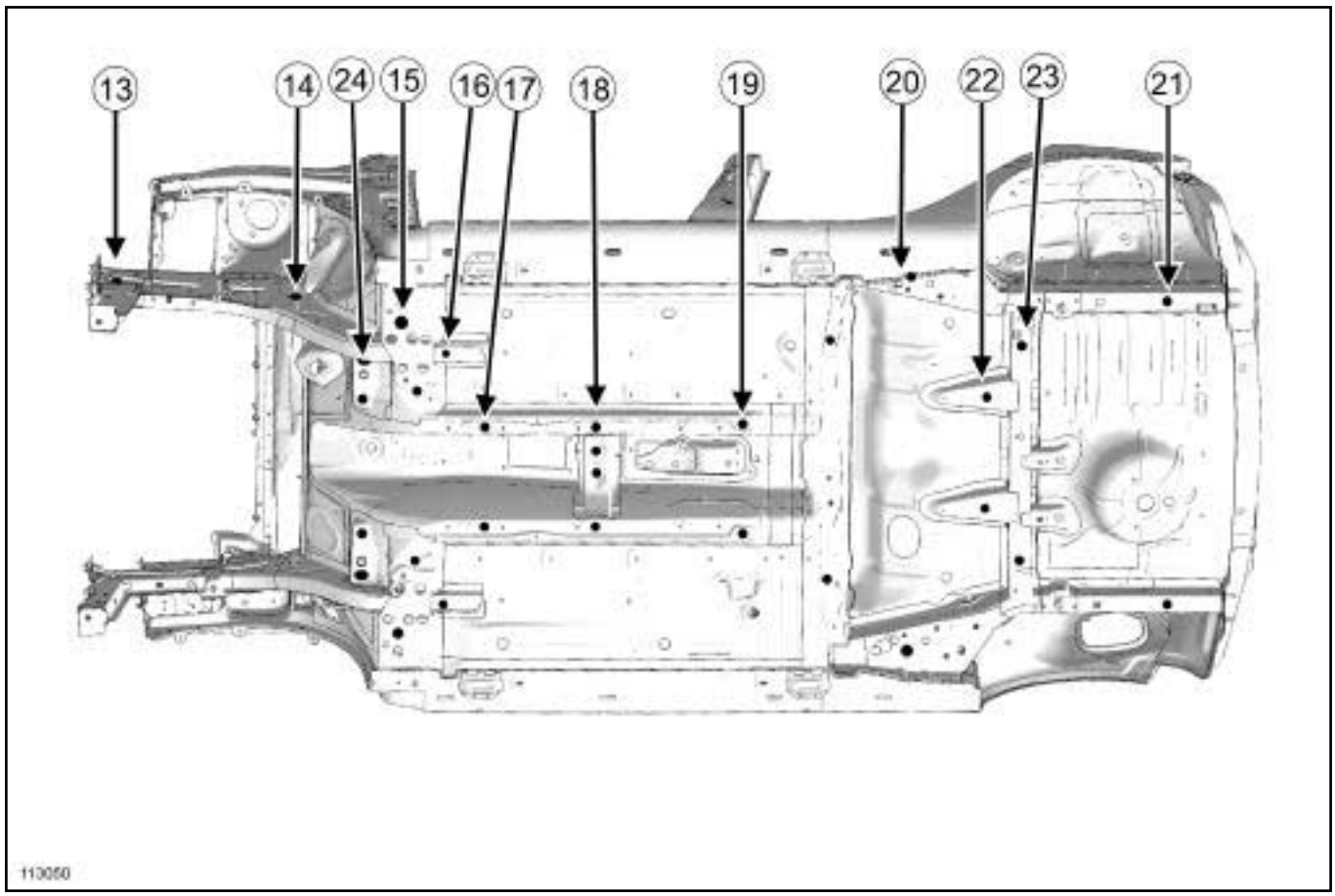
Note:

Hollow body parts to be treated from inside the vehicle must be treated after painting and before retrimming.

Side impact:

- replacing or repairing the sill panel:
  - protection of the join between the inner sill panel and the sill panel reinforcement: Wax injected into points 1 and 2,
  - protection of the join between the sill panel and the sill panel closure: wax injected into points 8, 9 and 10.
- replacing the centre floor:
  - protection of the join between the floor and the side member reinforcement: Wax injected into points 4 and 5,
  - protection of the join between the floor and the front seat mounting cross member: wax injected into points 6 and 7.
- replacing the centre side member beneath the floor:
  - wax injected into points 17, 18 and 19.

II - POINTS BENEATH THE VEHICLE



113050

Note:

Blanking pieces are fitted to the injection points located beneath the vehicle. When any work is carried out on the vehicle, plug all the points used for injection. Replace the damaged or deformed blanking covers.

Front impact:

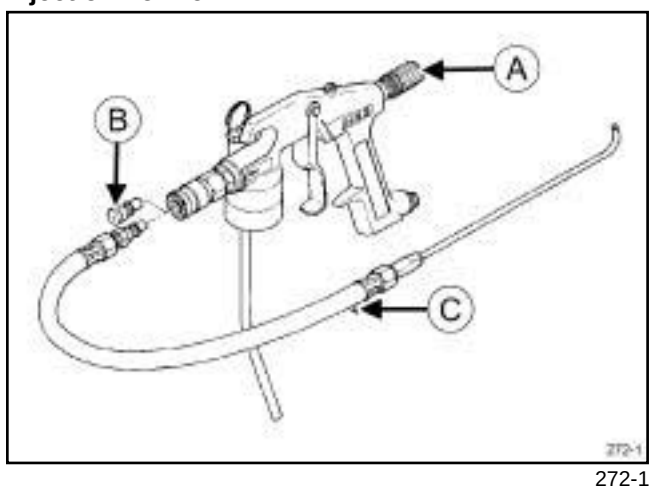
- replacing or repairing the front side member, the front side member closure panel and the front sub-frame mounting unit:
  - Wax injected into points 3, 13 and 14.
- replacing the front side cross member or the front half unit:
  - Wax injected into points 15, 16 and 24.

Rear impact:

- replacing the complete rear side member:
  - Wax injected into points 12 and 21.
- Replacement of the rear end panel:
  - wax injected into 11.
- replacing the rear floor centre cross member:
  - Wax injected into points 22 and 23.
- replacing the front section of the rear floor:
  - wax injected into 20.

1 - Equipment required

Injection nozzle



272-1

(**A**) Wax flow control

(**B**) Quick-release union end piece

(**C**) Interchangeable injection hose

Note:

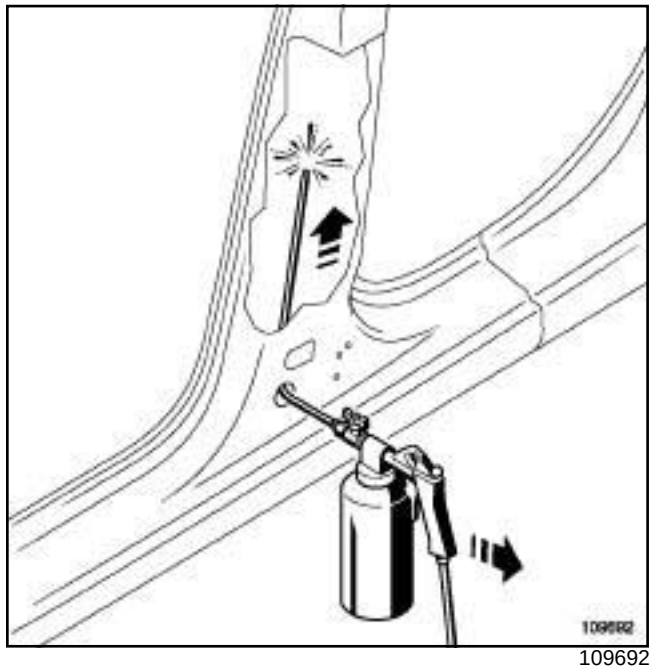
Choose the hose most suitable for the operation.

Can of wax

272

The subframe under the floor is protected with a special wax **SPR CC** (see **04B**, **Consumables - products**, **Vehicle: Parts and consumables for the repair**, page **04B-1**) (04B, Consumables - Products).

2 - Method of use



109692

1 - Insert the nozzle tip until it reaches the end of the hollow section

2 - Inject the wax whilst retracting the nozzle tip

Colour description	Colour code	Satin textured code
Liquid yellow	TEJ37	
Racing blue	OJ45	
Capsicum red	OV727	230 103
Blue grey	TEJ47	215 131
Glacier White	O389	220 112
Pearl black	NV676	205 255
Nimbus	TEF60	
Mercury	TED69	205 265
Extreme blue	TERNA	215 137
Deep black	TEGNA	205 288
Albi blue	TERNC	215 243
Stone	TEHNK	220 125
Star blue	TERNL	
Ruby red	TENNJ	230 114
Oyster grey	TEKNG	205 325
Ultra red	OVNNF	230 105
Malta blue	TERNT	215 156
Apple green	TEDNQ	
Alien green	TEDNR	