

RENAULT

0 General vehicle information

01A VEHICLE MECHANICAL SPECIFICATIONS

01C VEHICLE BODYWORK SPECIFICATIONS

01D MECHANICAL INTRODUCTION

02A LIFTING EQUIPMENT

03B COLLISION

04B CONSUMABLES - PRODUCTS

04E PAINT

X45

JANUARY 2009

Edition Anglaise

"The repair methods given by the manufacturer in this document are based on the technical specifications current when it was prepared.

The methods may be modified as a result of changes introduced by the manufacturer in the production of the various component units and accessories from which his vehicles are constructed."

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KOLEOS - Section 0

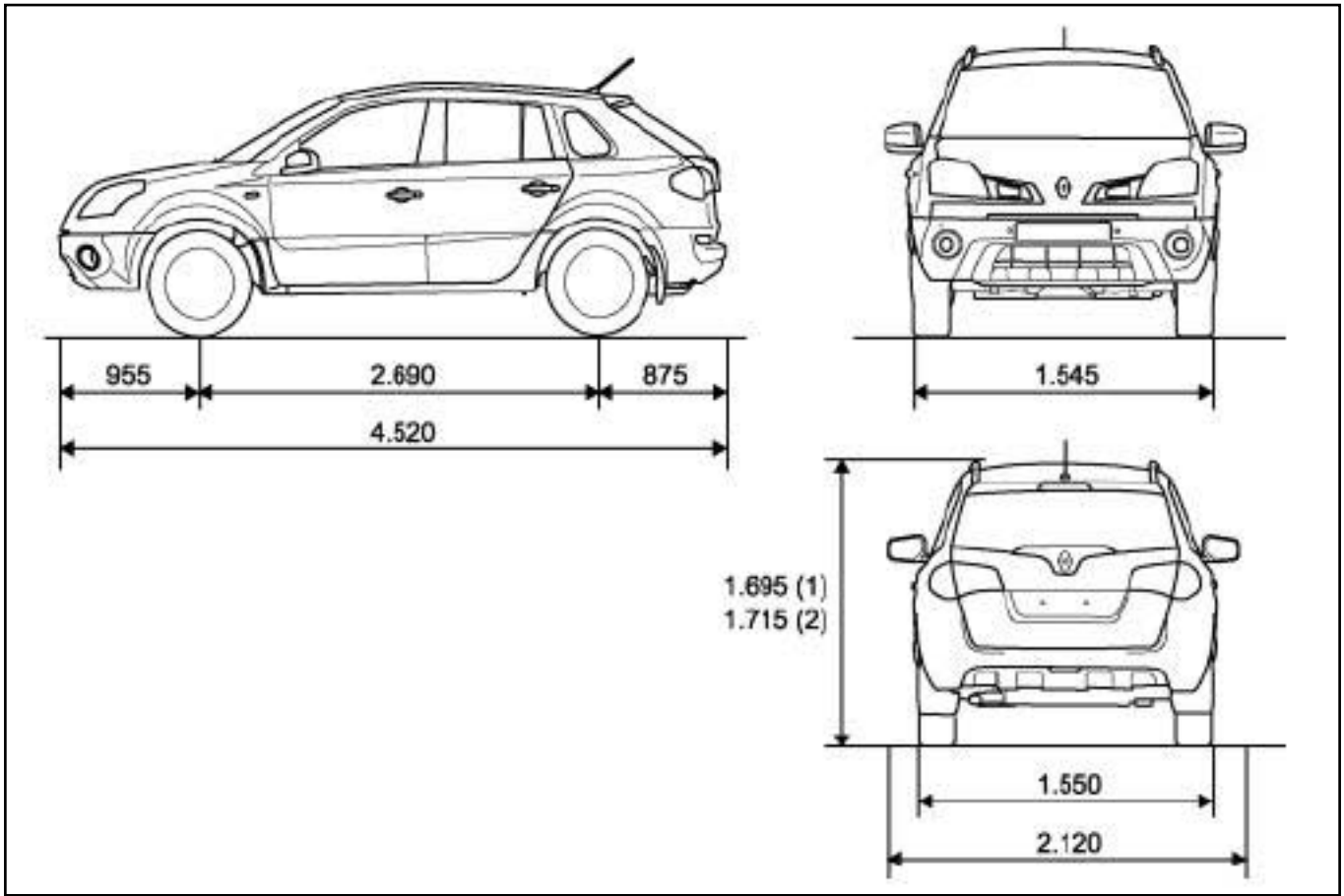
Contents

	Page		
01A	VEHICLE MECHANICAL SPECIFICATIONS	03B	COLLISION
	Vehicle: Specifications		Vehicle damaged at side: Description
			03B-7
			Vehicle damaged at rear: Description
			03B-11
01C	VEHICLE BODYWORK SPECIFICATIONS		
	Vehicle: Identification		
	Vehicle clearances: Adjustment values	04B	CONSUMABLES - PRODUCTS
			Vehicle: Parts and ingredients for the repairwork
			04B-1
01D	MECHANICAL INTRODUCTION		
	Vehicle: Precautions for repair	04E	PAINT
			Anti-corrosion protection product Description
			04E-1
02A	LIFTING EQUIPMENT		
	Vehicle: Towing and lifting		
03B	COLLISION		
	Damaged vehicle: Collision fault finding		
	Vehicle damaged at front: Description		

VEHICLE MECHANICAL SPECIFICATIONS

Vehicle: Specifications

01A



128815

Dimensions in metres:

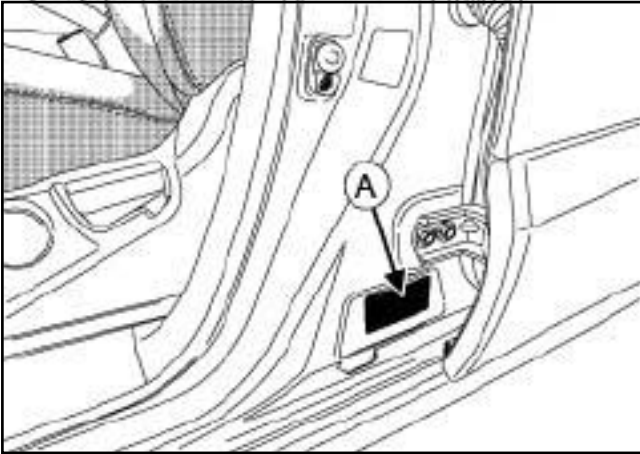
*No load

(1) Sans galerie de toit

(2) Avec galerie de toit

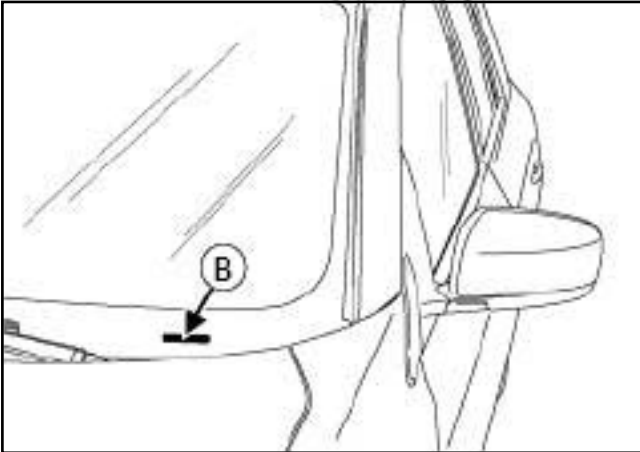
Vehicle type	Engine		Transmission type	Gearbox type
	Type	Capacity (cm ³)		
LHD	M9R	1995	4x2	ND5
				AJ0
			4x4	ND8
				AJ8
	M9RH	1995	4x4	AJ8
	TR2	2488	4x2	ND5
				FK0
			4x4	ND8
				FK8

I - LOCATION OF VEHICLE IDENTIFICATION
PLATE (A)



128816

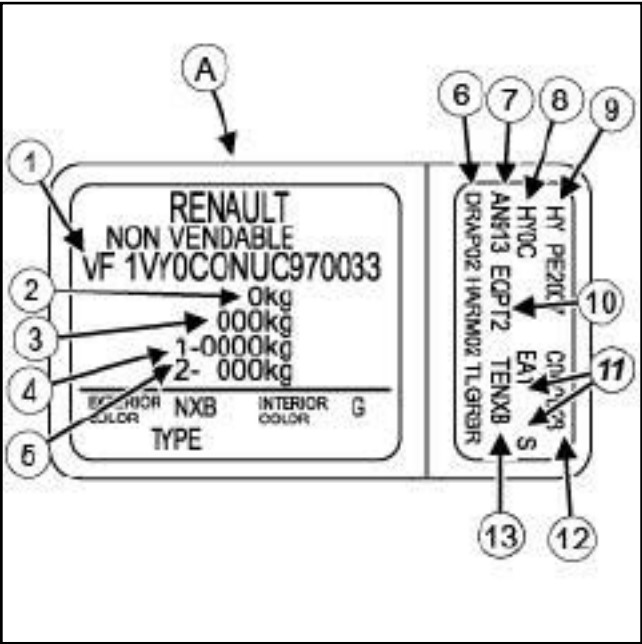
II - LOCATION OF THE VEHICLE IDENTIFICATION
NUMBER (B)



128817

III - DETAILED VIEW OF THE VEHICLE
IDENTIFICATION PLATE

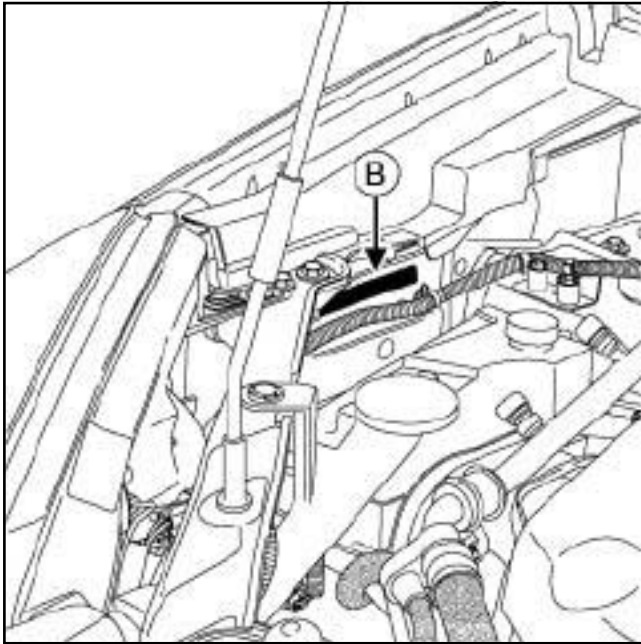
Plate (A)



128818

- (1) Vehicle type mine and type number; this information also appears on marking (B)
- (2) Maximum Gross Vehicle Weight
- (3) Gross train weight, vehicle under load with trailer
- (4) Maximum gross weight on front axle
- (5) Maximum gross weight on rear axle
- (6) Vehicle technical specifications
- (7) Vehicle paint reference
- (8) Equipment level
- (9) Vehicle type
- (10) Upholstery code
- (11) Additional equipment details
- (12) Fabrication number
- (13) Interior trim code

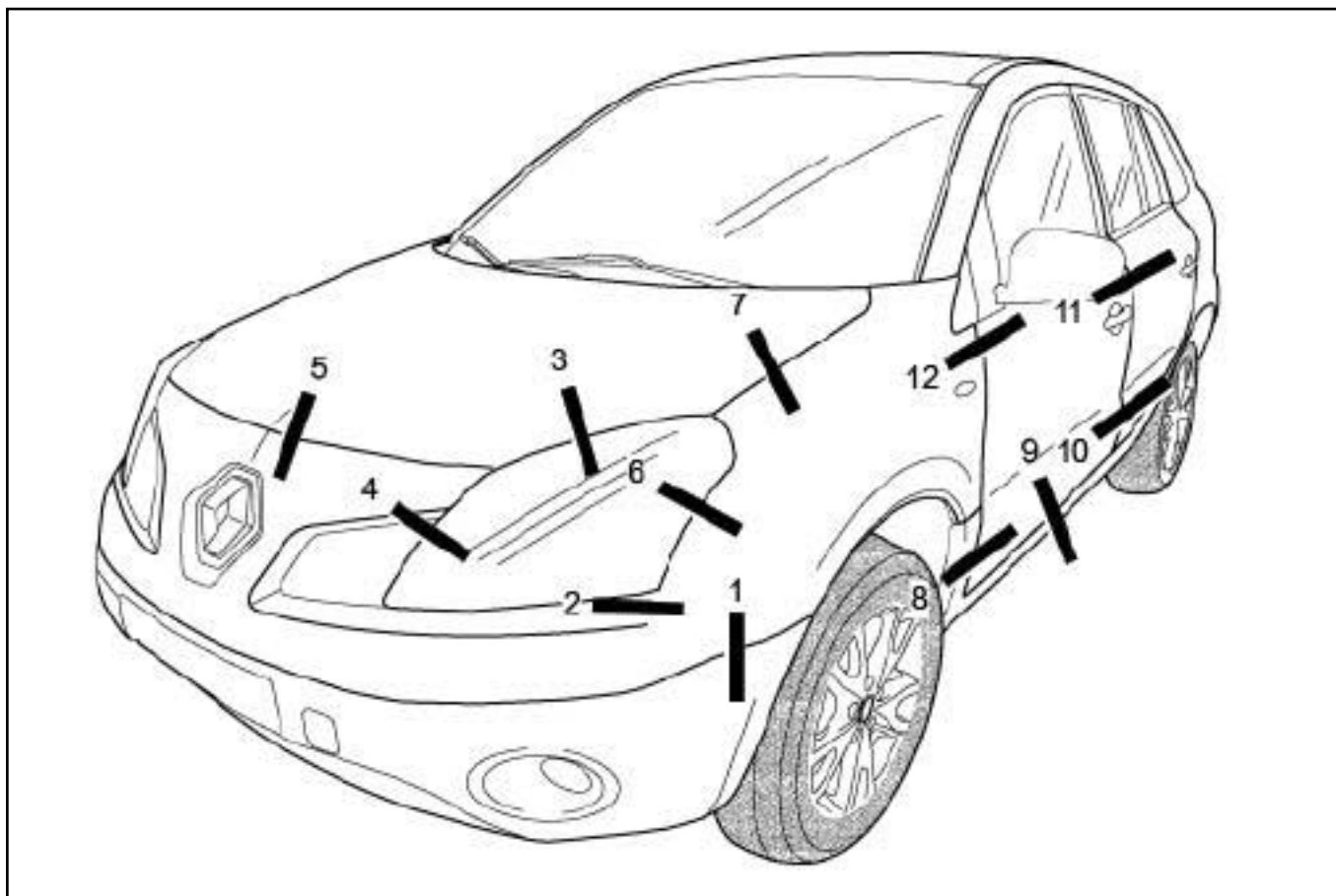
IV - COLD-MARKING OF THE BODY



128819

Note:

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



130974

WARNING

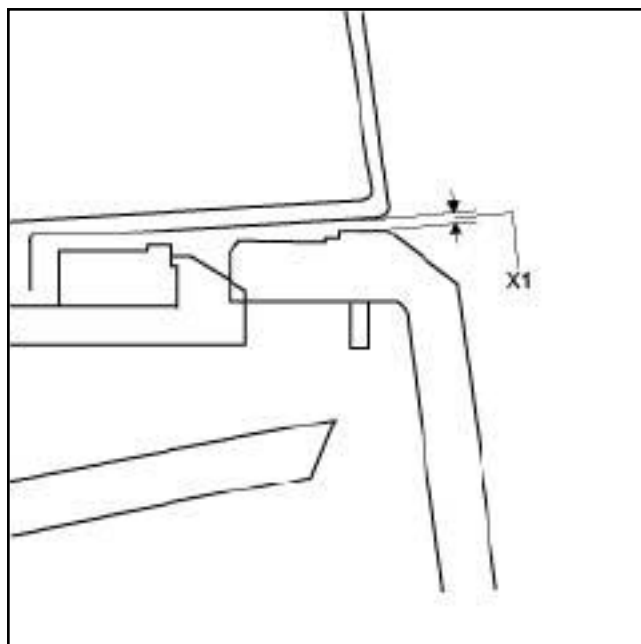
The clearance values are given for information purposes.

When adjusting clearances, certain rules have to be followed:

- maintain symmetry with respect to the opposite side,
- ensure the flush fitting is correct,
- check correct operation of the opening, and water/air-tightness.

All values are given in millimetres.

Section 1

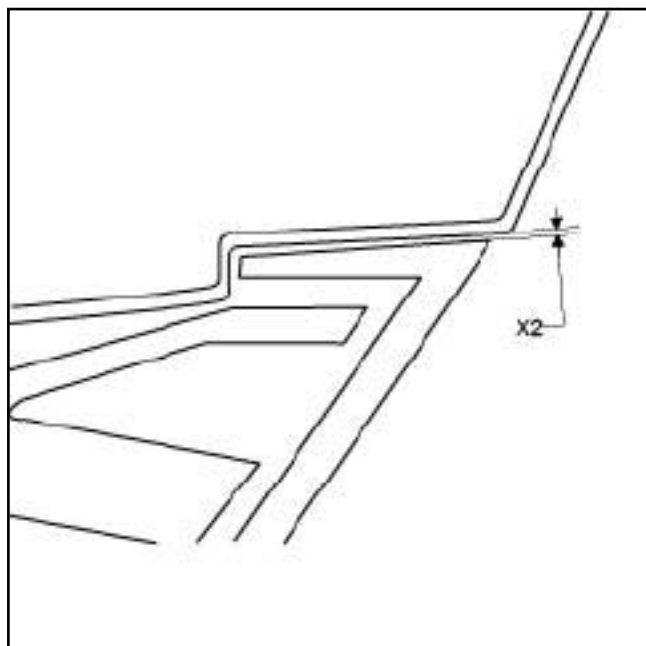


130975

(X1)

= 0 mm +1/-0

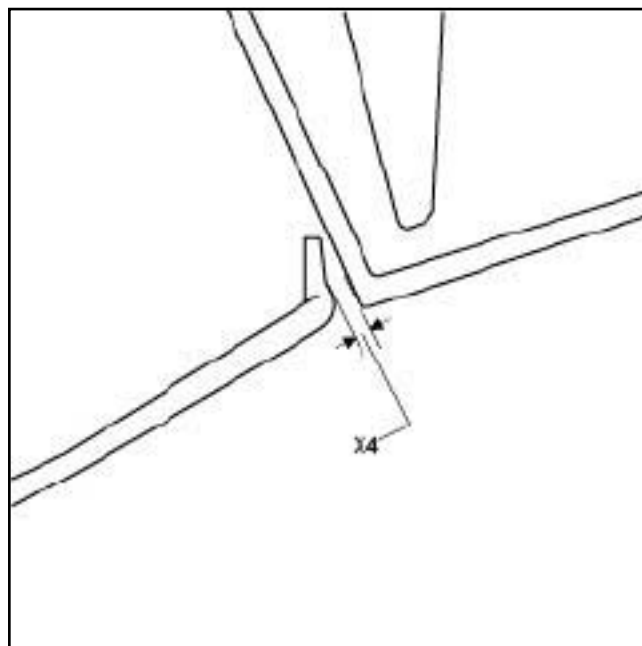
Section 2



130976

(X2) = 0 mm +1/-0

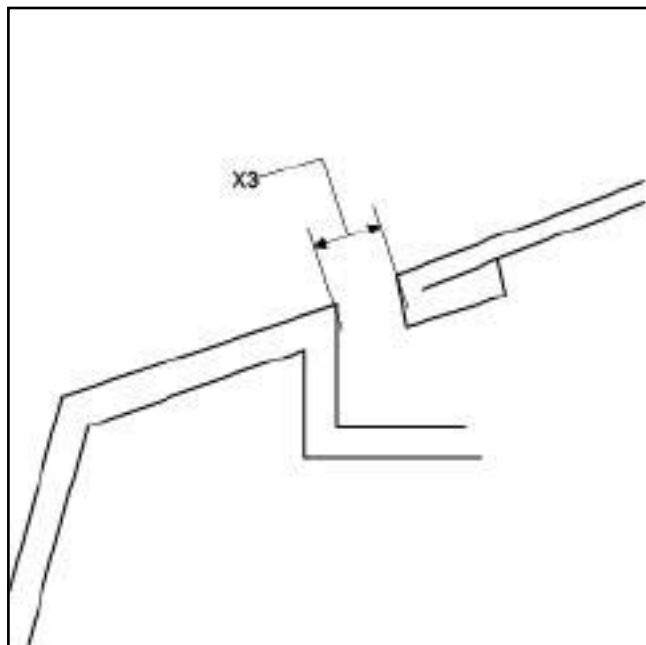
Section 4



130978

(X4) = 3 mm ± 1

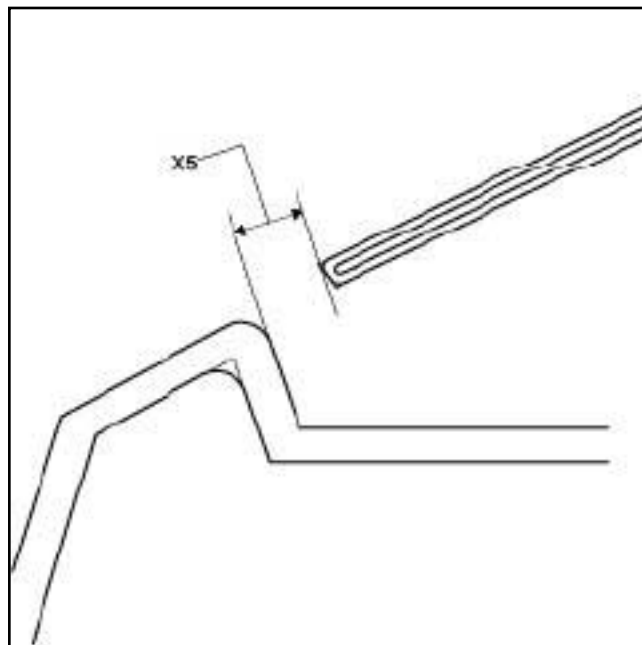
Section 3



130977

(X3) = 4 mm ± 2.5

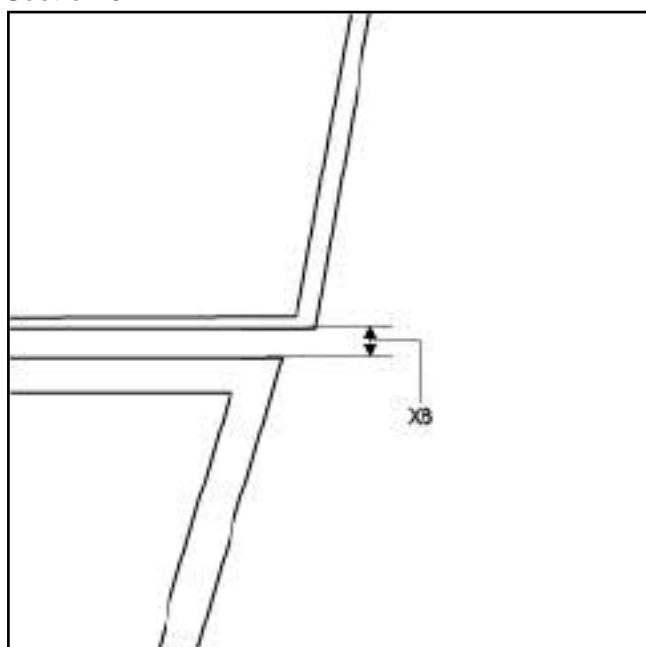
Section 5



130979

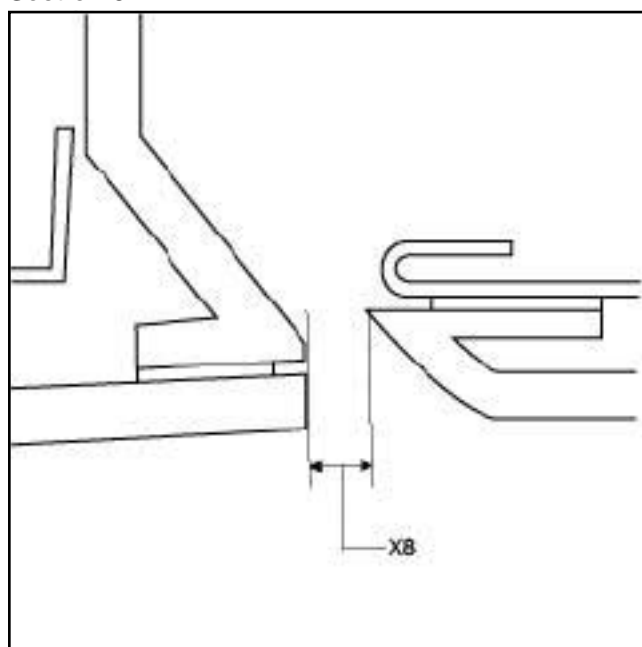
(X5) = 4.5 mm ± 2

Section 6



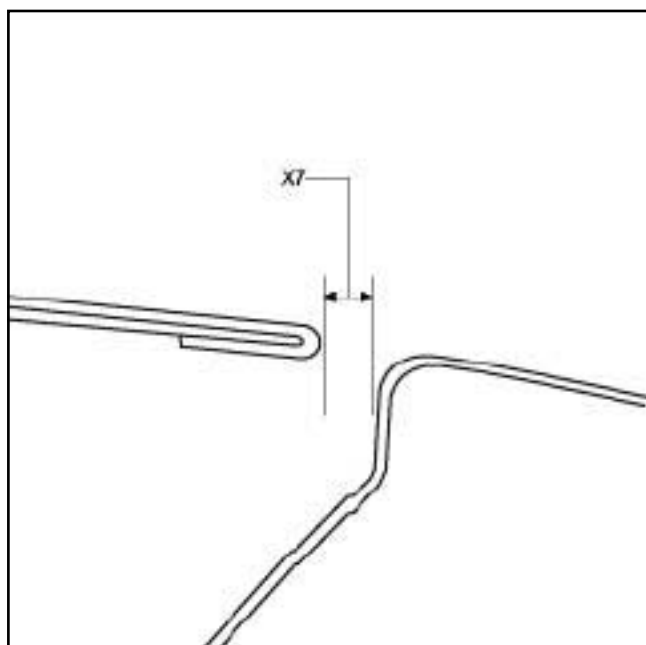
(X6) = 1.5 mm ± 1.4

Section 8



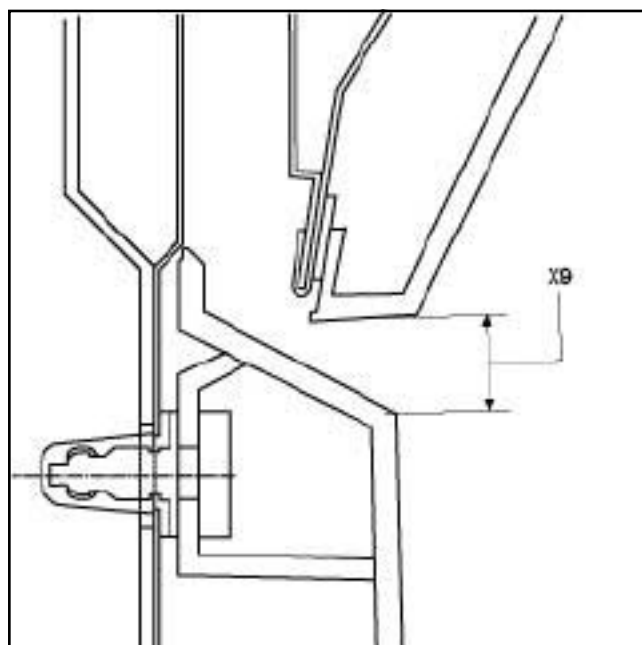
(X8) = 6.5 mm ± 2.2

Section 7



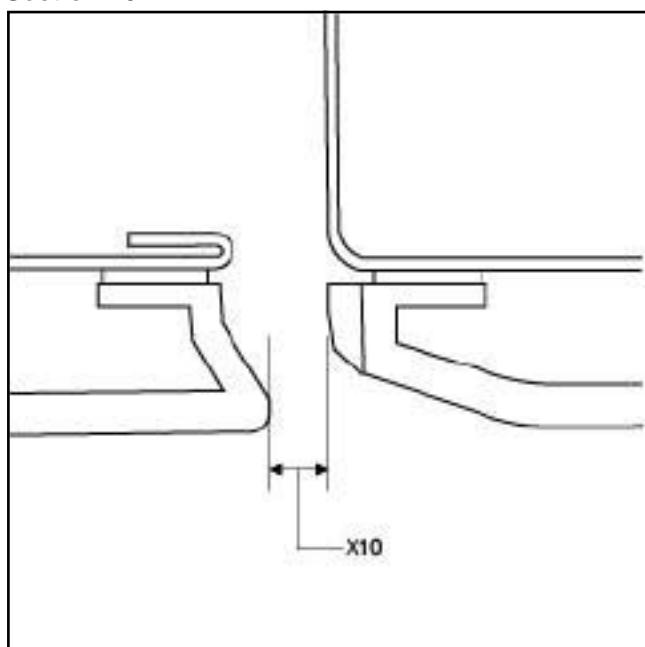
(X7) = 3.5 mm ± 1

Section 9



(X9) = 8 mm ± 2.5

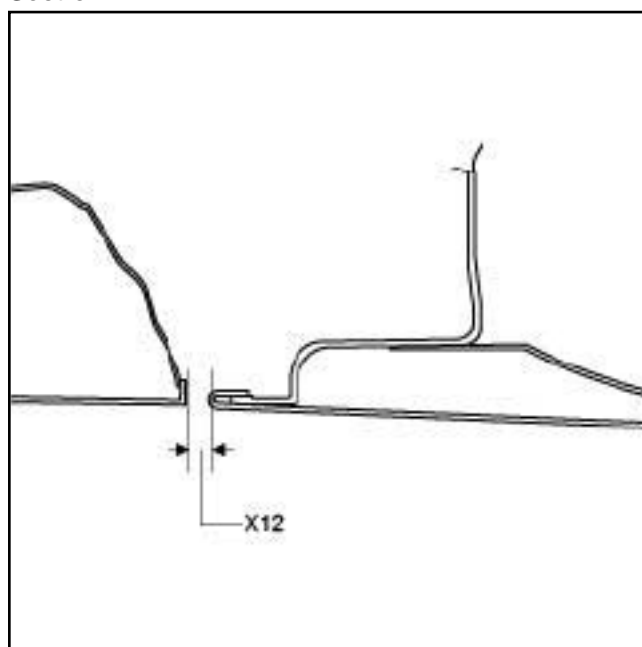
Section 10



130984

(X10) = 4.5 mm ± 2

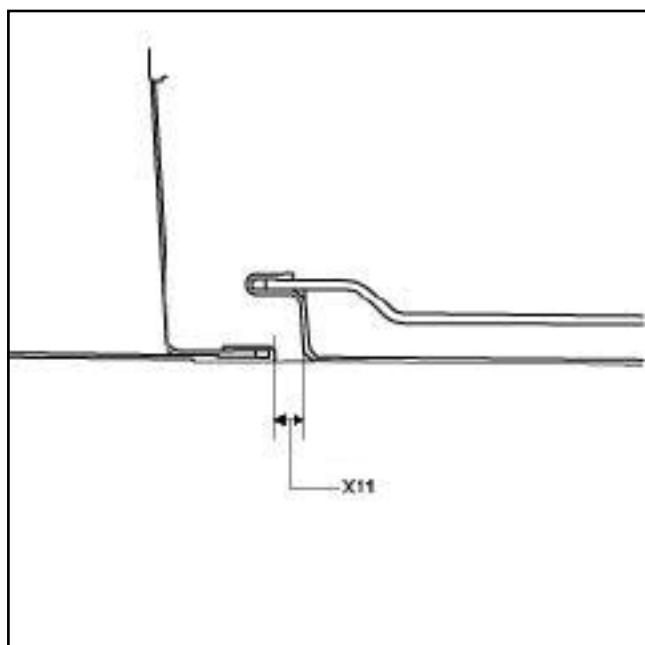
Section 12



130986

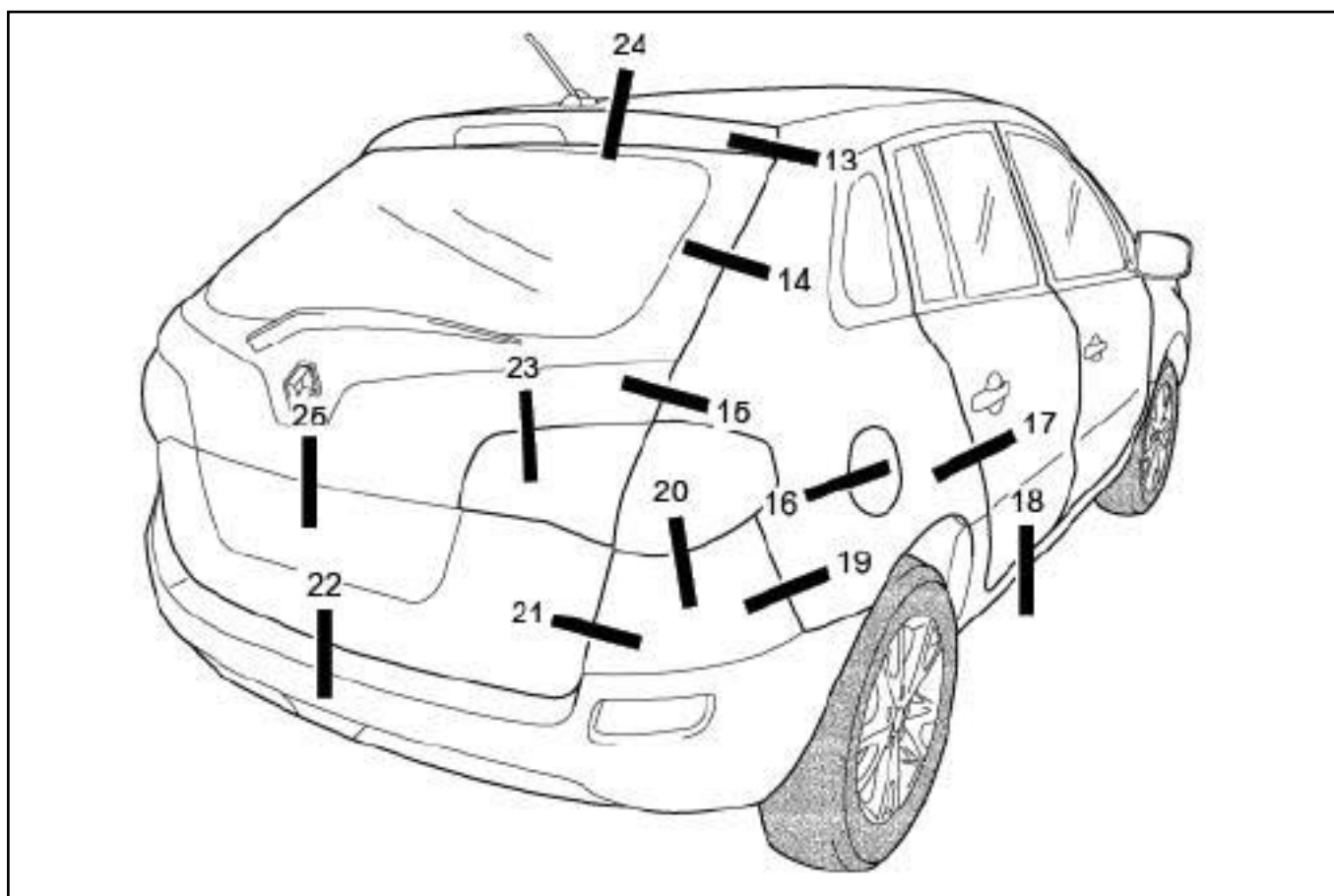
(X12) = 4.4 mm ± 1

Section 11



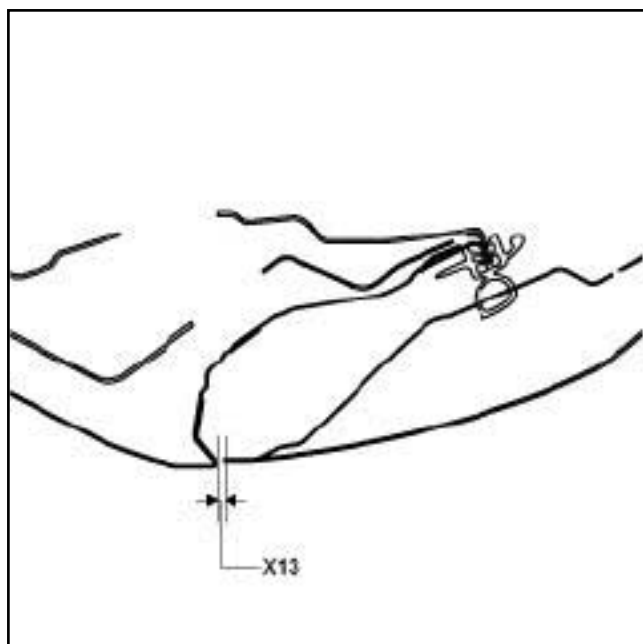
130985

(X11) = 4.4 mm ± 1



130987

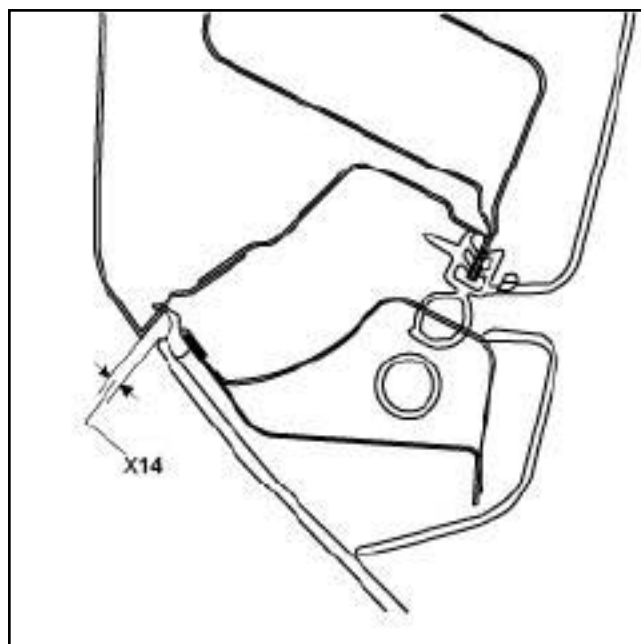
Section 13



130988

(X13) = 3.6 mm ± 1

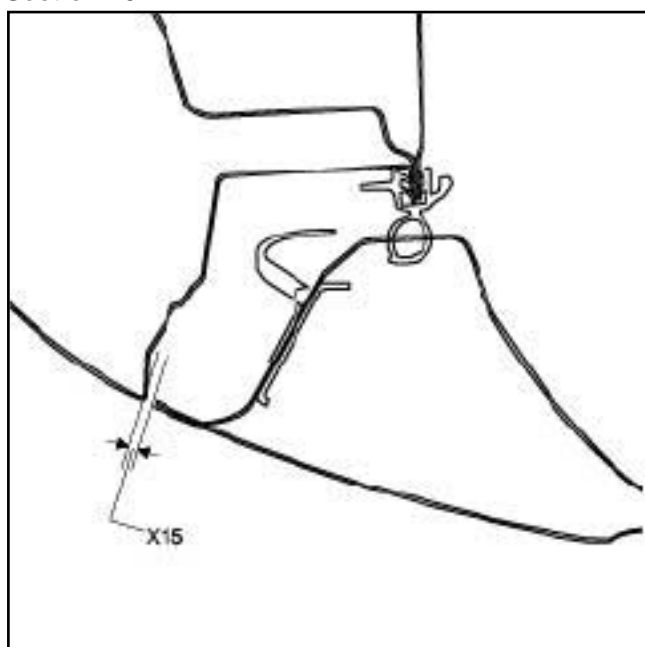
Section 14



130989

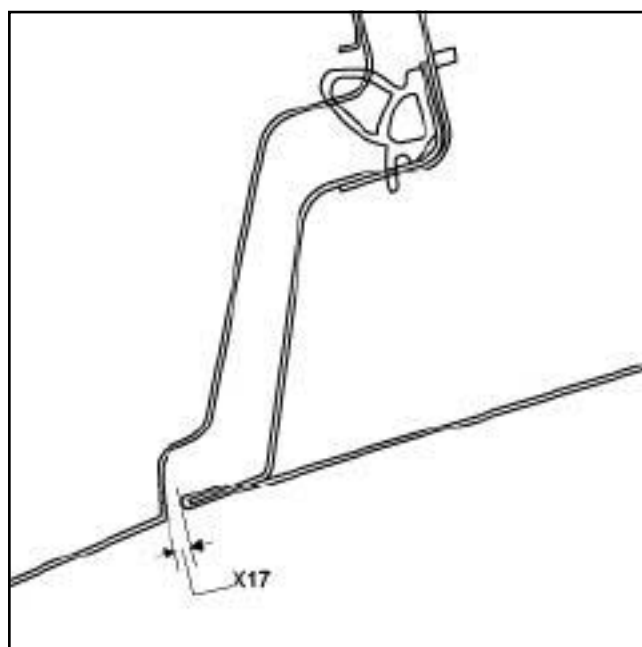
(X14) = 4 mm ± 2.3

Section 15



130990

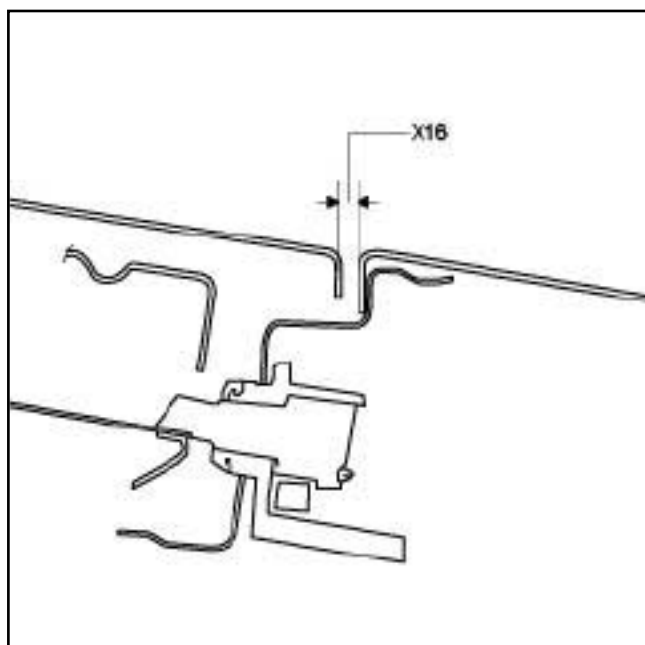
(X15) = 4 mm ± 1



130992

(X17) = 4.5 mm ± 1

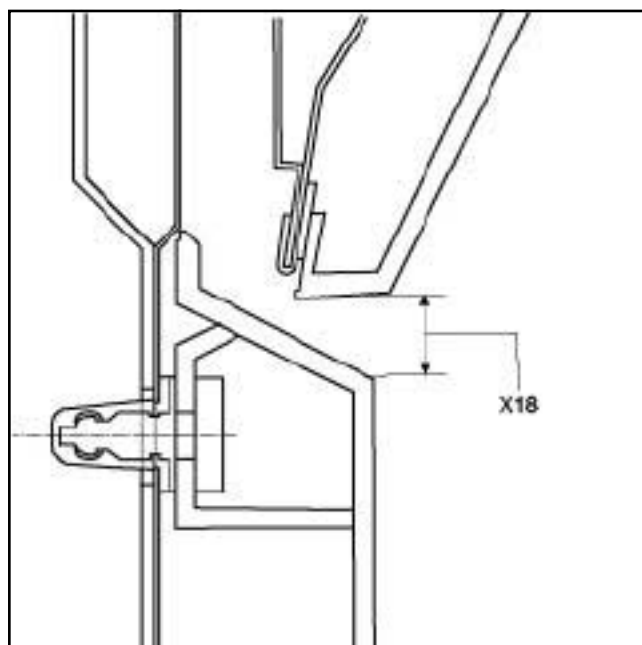
Section 16



130991

(X16) = 3.2 mm ± 1

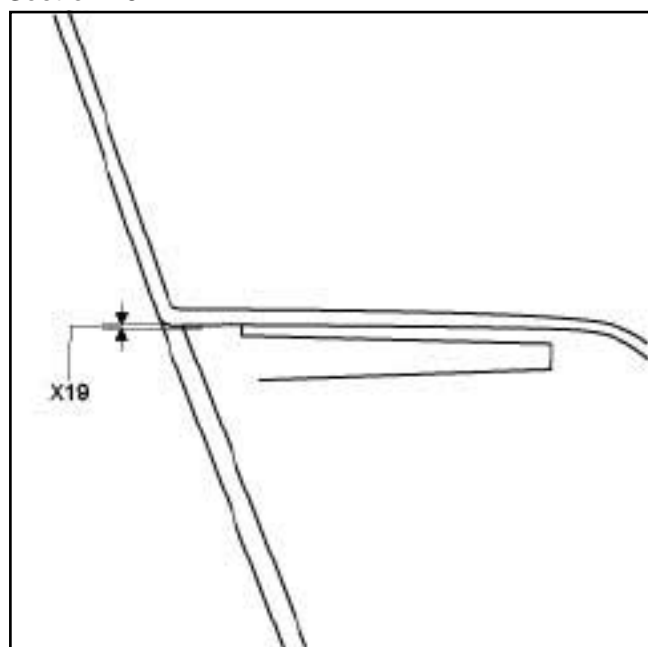
Section 18



130993

(X18) = 8 mm ± 2.5

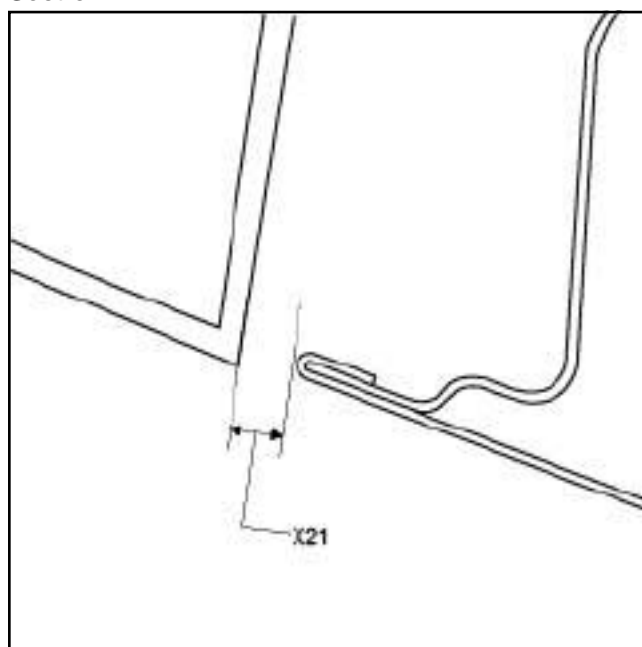
Section 19



130994

(X19) = 0 mm +1/-0

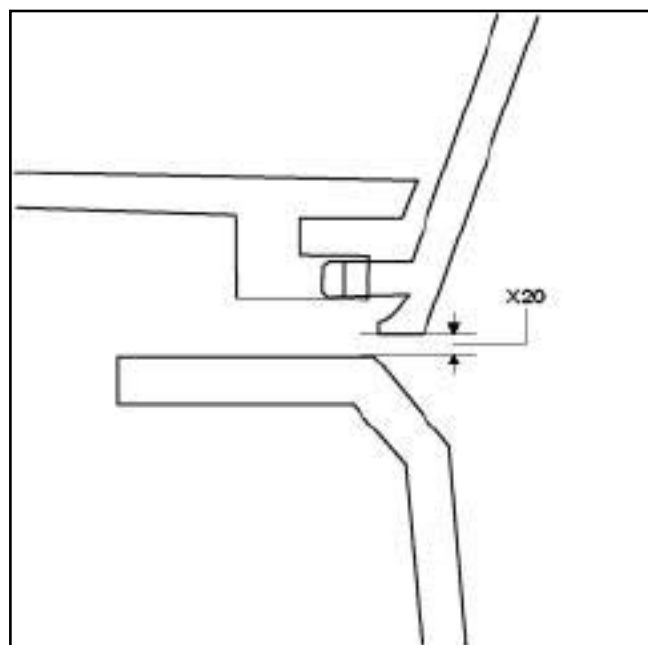
Section 21



130996

(X21) = 4 mm ± 2

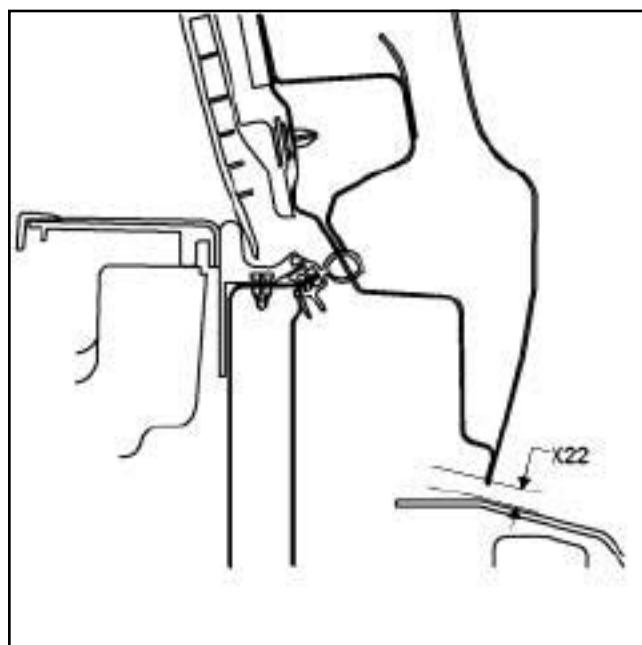
Section 20



130995

(X20) = 1.5 mm ± 1.5

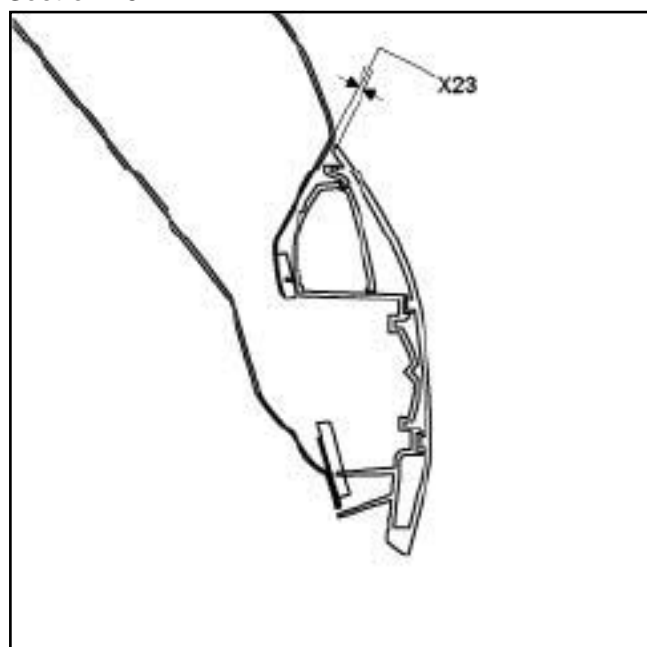
Section 22



130997

(X22) = 8 mm ± 2

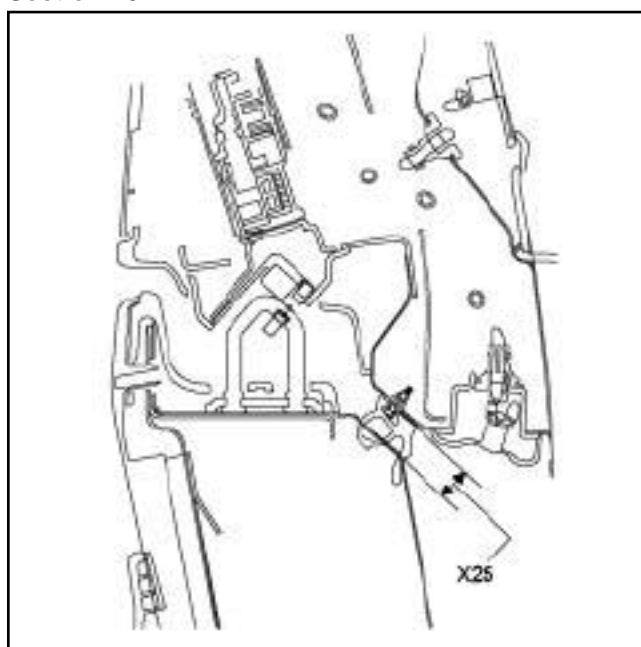
Section 23



130998

(X23) = 1.5 mm ± 1

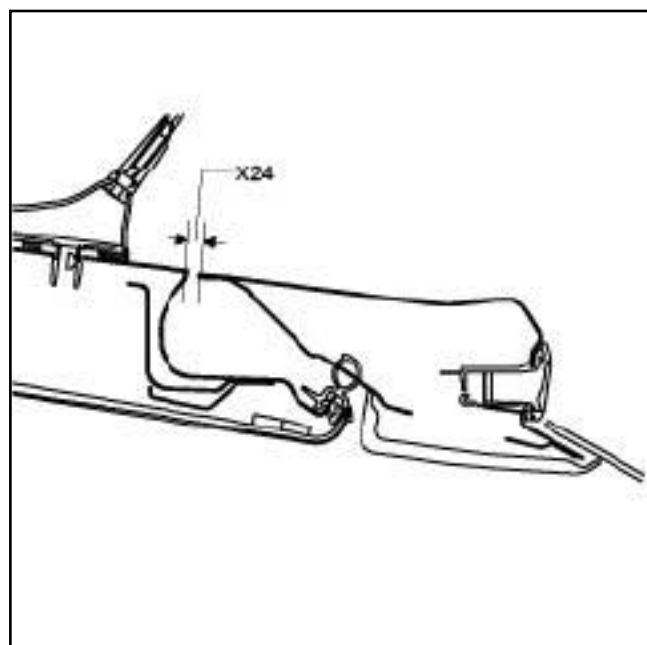
Section 25



131000

(X25) = 3 mm ± 1

Section 24



130999

(X24) = 6 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.),
- disconnect the battery wherever possible (prevents short circuits, erratic starting of the windscreen wiper motor, etc.),
- 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 on the electrical 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.

LIFTING EQUIPMENT

Vehicle: Towing and lifting

02A

Essential equipment

safety strap(s)

I - TOWING

4X4 TRANSMISSION

Note:

A 4-wheel drive vehicle must not be towed if one of its wheels touches the ground, regardless of the gearbox type.

For towing a 4-wheel drive vehicle, it is essential to use either a platform or a tow dolly positioned under the front or rear wheels.

AJ0 or AJ8 or FK0 or FK8, and 4X2 TRANSMISSION

Note:

A 2-wheel drive vehicle equipped with an automatic gearbox or a continuously variable gearbox should not be towed if its front wheels touch the ground.

For towing, it is essential to use a platform or a tow dolly positioned under the front wheels, or tow with the rear wheels only on the ground.

WARNING

See the current towing regulations in each country.

Never use the driveshafts, axle assembly components or suspension components as attachment points.

The towing points may only be used for towing the vehicle on roads.

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.

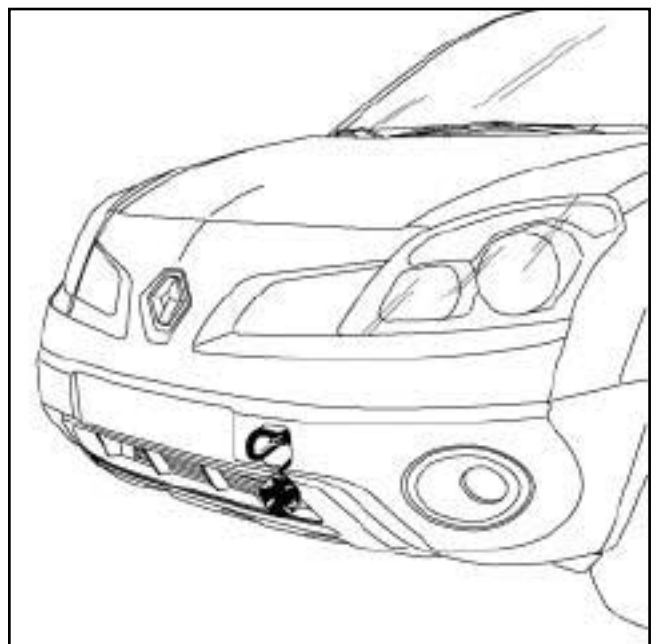
Vehicles fitted with automatic transmission:

- It is preferable to transport the vehicle on a flatbed or tow it 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 (20 km/h) and over a maximum distance of **18 miles (30 km)** (with the gear lever in neutral).

Vehicles fitted with Renault Card:

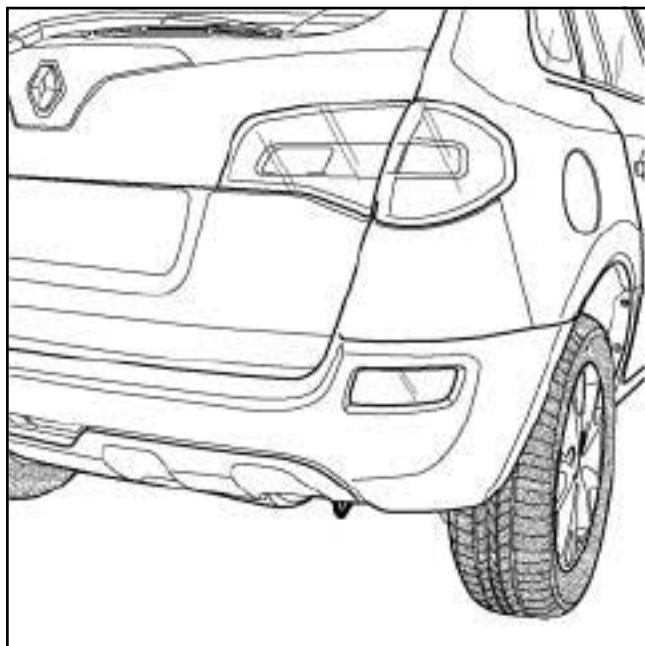
- If the vehicle battery is flat, the steering column remains locked. In this case, refit a battery or electrical supply and switch on the ignition to unlock the steering column.

1 - Position of front attachment point



128820

2 - Position of rear attachment point



128821

II - LIFTING POINT USING A TROLLEY JACK

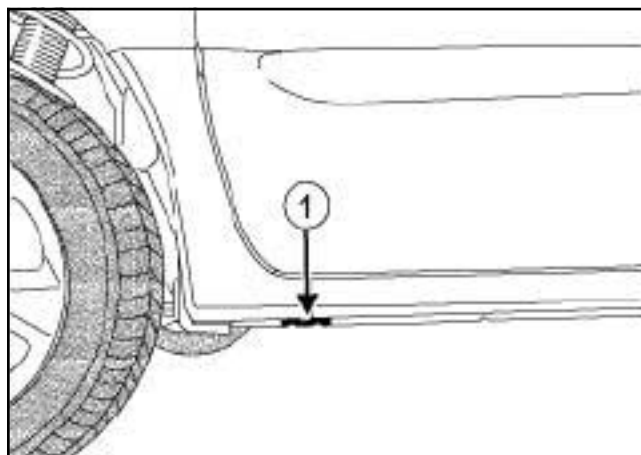
IMPORTANT

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.

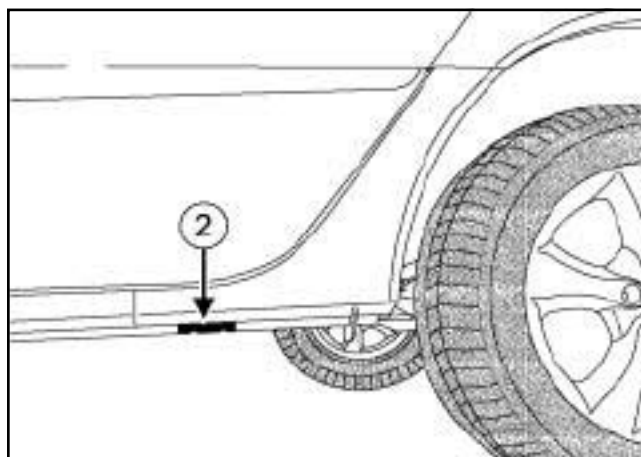
WARNING

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.



128822



128823

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 (1) or (2) .

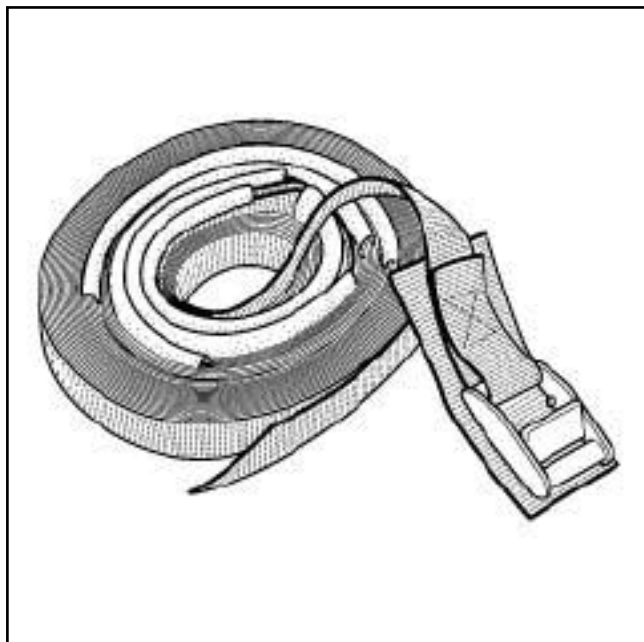
LIFTING EQUIPMENT

Vehicle: Towing and lifting

02A

III - LIFTING POINT USING A VEHICLE LIFT

1 - Safety advice reminder

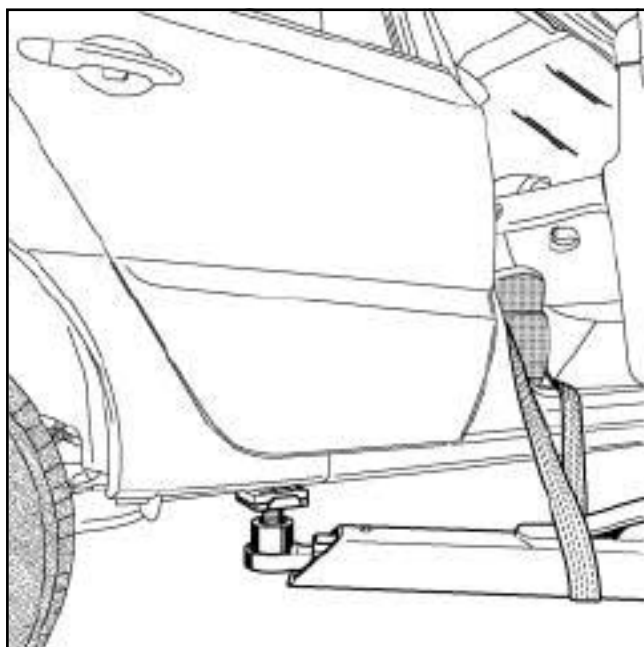


128824

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, gear-box). Fit the **safety strap(s)** available from the Parts Department.

2 - Fitting the straps



128825

Fitting the **safety strap(s)** :

For safety reasons, the **safety strap(s)** must always be in perfect condition; replace them if they show signs of wear.

When fitting the **safety strap(s)**, check that the seats and fragile parts of the vehicle are correctly protected.

a - Tilting towards the front

Place the **safety strap(s)** under the rear right-hand arm of the lift.

Pass the **safety strap(s)** through the vehicle interior.

Pass the **safety strap(s)** under the rear left-hand arm of the lift.

Pass the **safety strap(s)** through the vehicle interior again.

Tighten the strap.

b - Tilting towards the rear

Place the **safety strap(s)** under the front right-hand arm of the lift.

Pass the **safety strap(s)** through the vehicle interior.

Pass the **safety strap(s)** under the front left-hand arm of the lift.

Pass the **safety strap(s)** through the vehicle interior again.

Tighten the **safety strap(s)**.

3 - Permitted jacking points

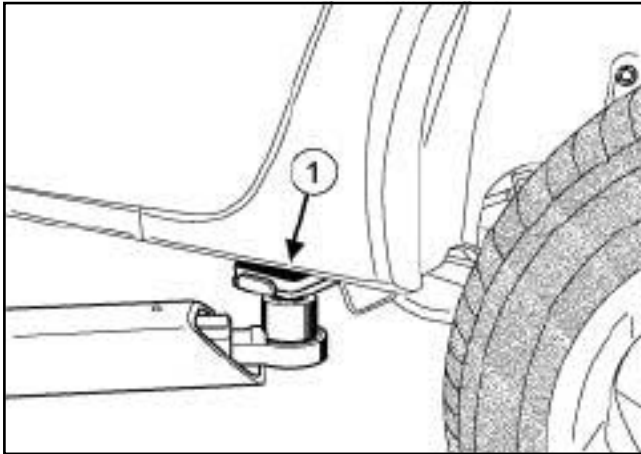
To raise the vehicle, position the lifting arm pads as indicated below, taking care not to damage the underside of the sill panel.

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.

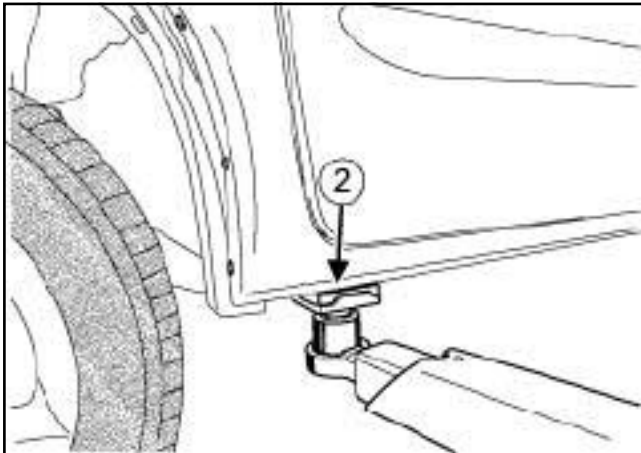
Front lifting points



128826

Place the lifting arms under the sill panel body flanges at the front jacking point (1) .

Rear lifting points

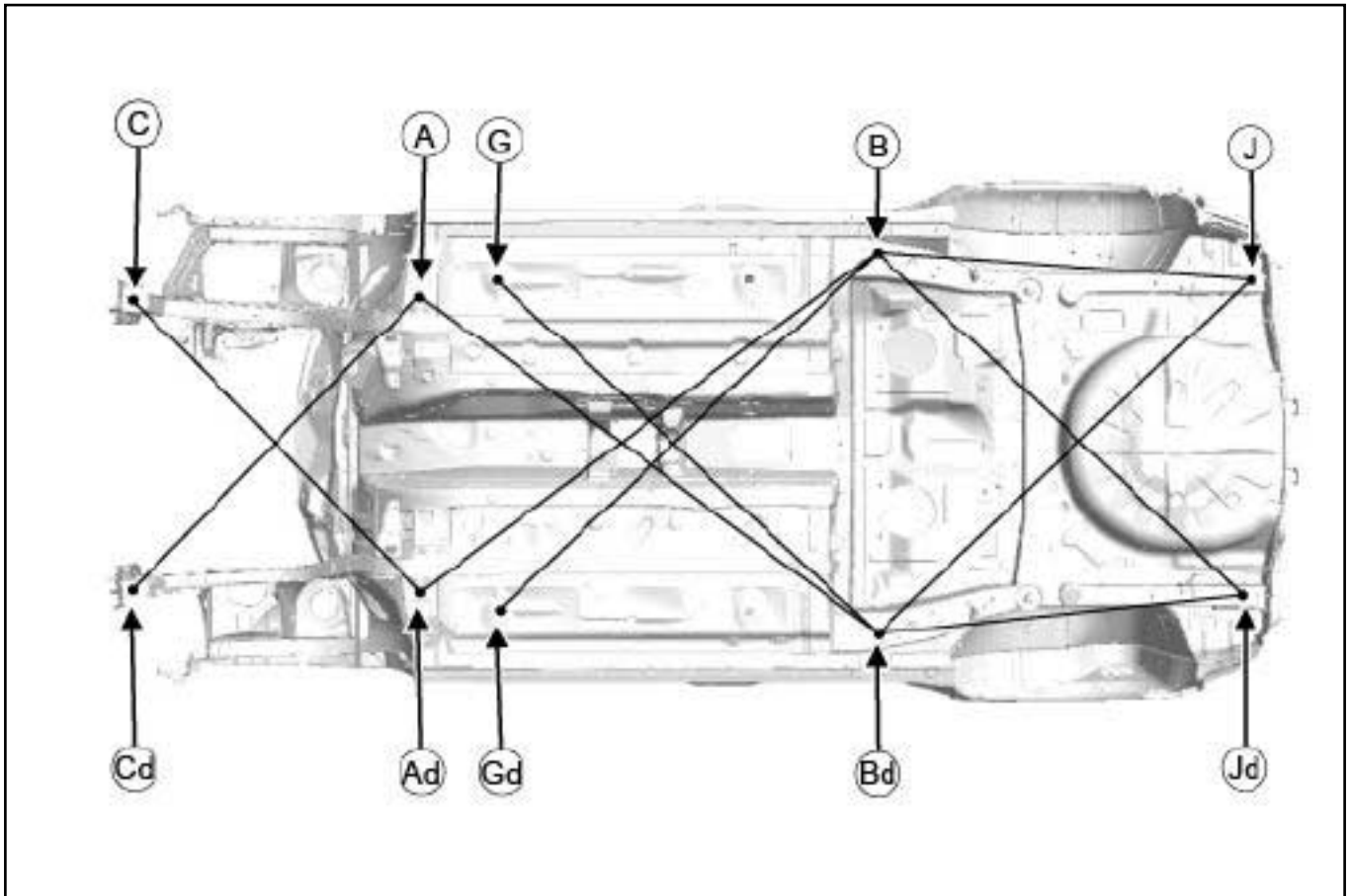


128827

Place the lifting arms under the sill panel body flanges at the rear jacking point (2) .

Damaged vehicle: Collision fault finding

I - CHECKING THE SUBFRAME



131009

□ Chronological order of checks:

- Frontal impact:

- $(B) - (Ad) = (Bd) - (A)$
- $(B) - (Gd) = (Bd) - (G)$

- Rear impact:

- $(A) - (Bd) = (Ad) - (B)$
- $(G) - (Bd) = (Gd) - (B)$

II - DETAILED VIEW OF INSPECTION POINTS

Points A, Ad: centre floor front side cross member leader pin



131010

Points B, Bd: rear side member front mounting



131011

Points G, Gd: front floor front leader pin



131012

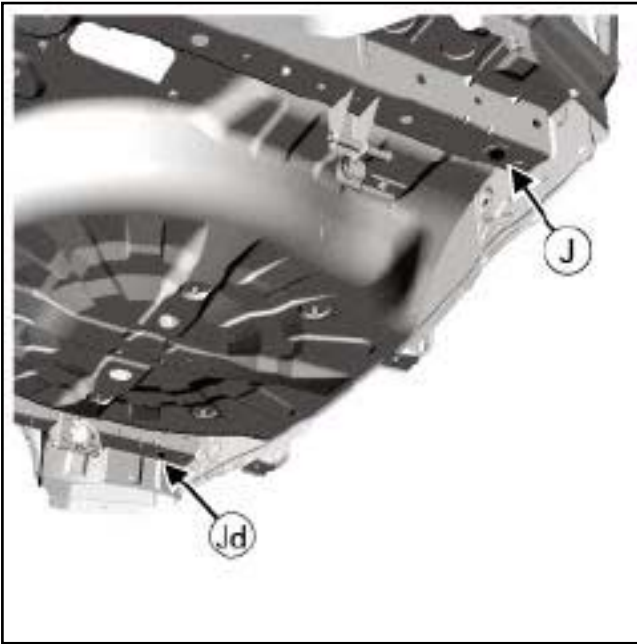
Points C, Cd: front side member front mounting



131013

Damaged vehicle: Collision fault finding

Points J, Jd: rear side member rear leader pin



131014



Vehicle damaged at front: Description

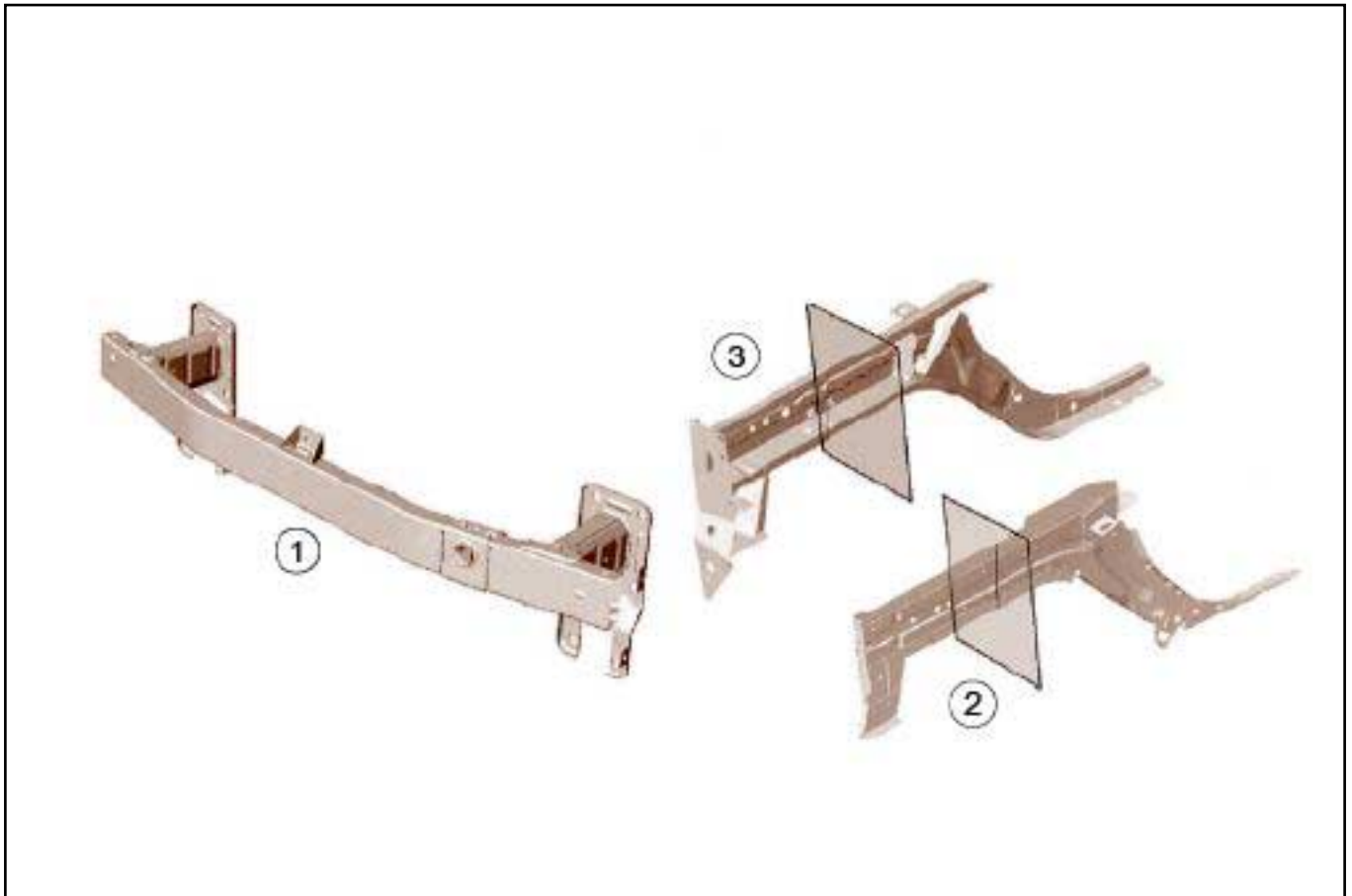
COMBINATIONS FOR REPLACING WELDED
STRUCTURAL PARTS IN ACCORDANCE WITH
IMPACT SUSTAINED



131015

Vehicle damaged at front: Description

1st Degree

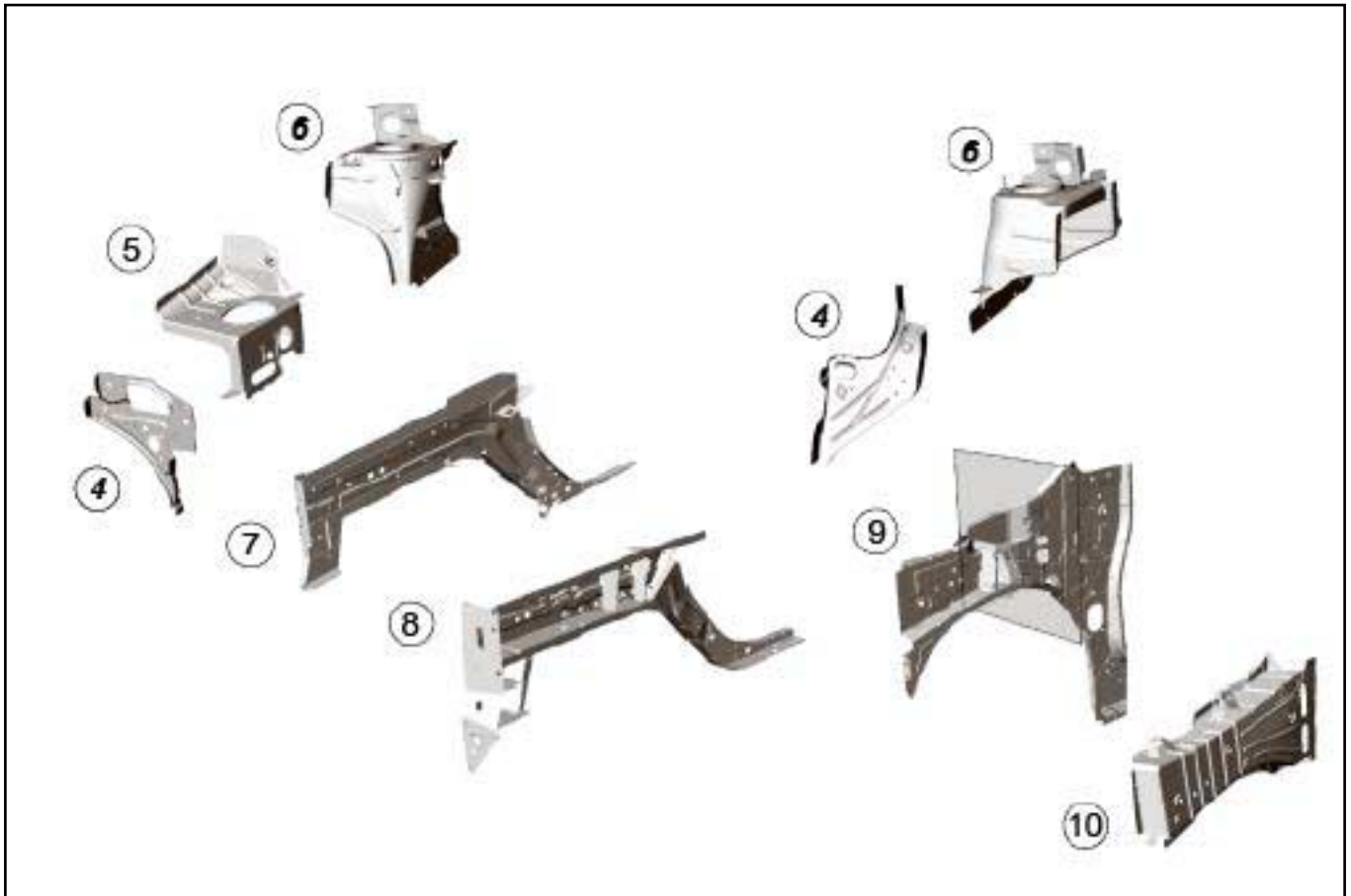


131016

- (1) front end cross member
- (2) front side member closure panel
- (3) front section of front side member (partial)

Vehicle damaged at front: Description

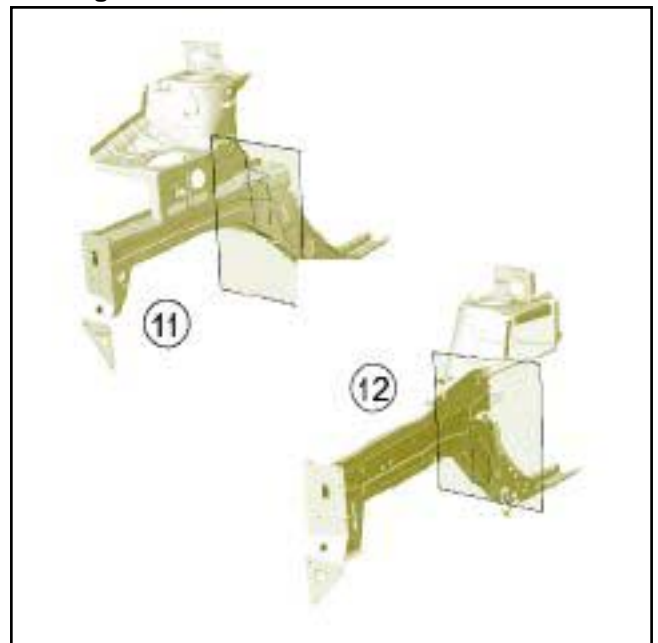
2nd Degree



131017

- (4) front side end cross member
- (5) engine support
- (6) front wheel arch
- (7) front side member closure panel, front section
- (8) front side member front section
- (9) scuttle side panel
- (10) scuttle side panel upper reinforcement

3rd Degree



131018

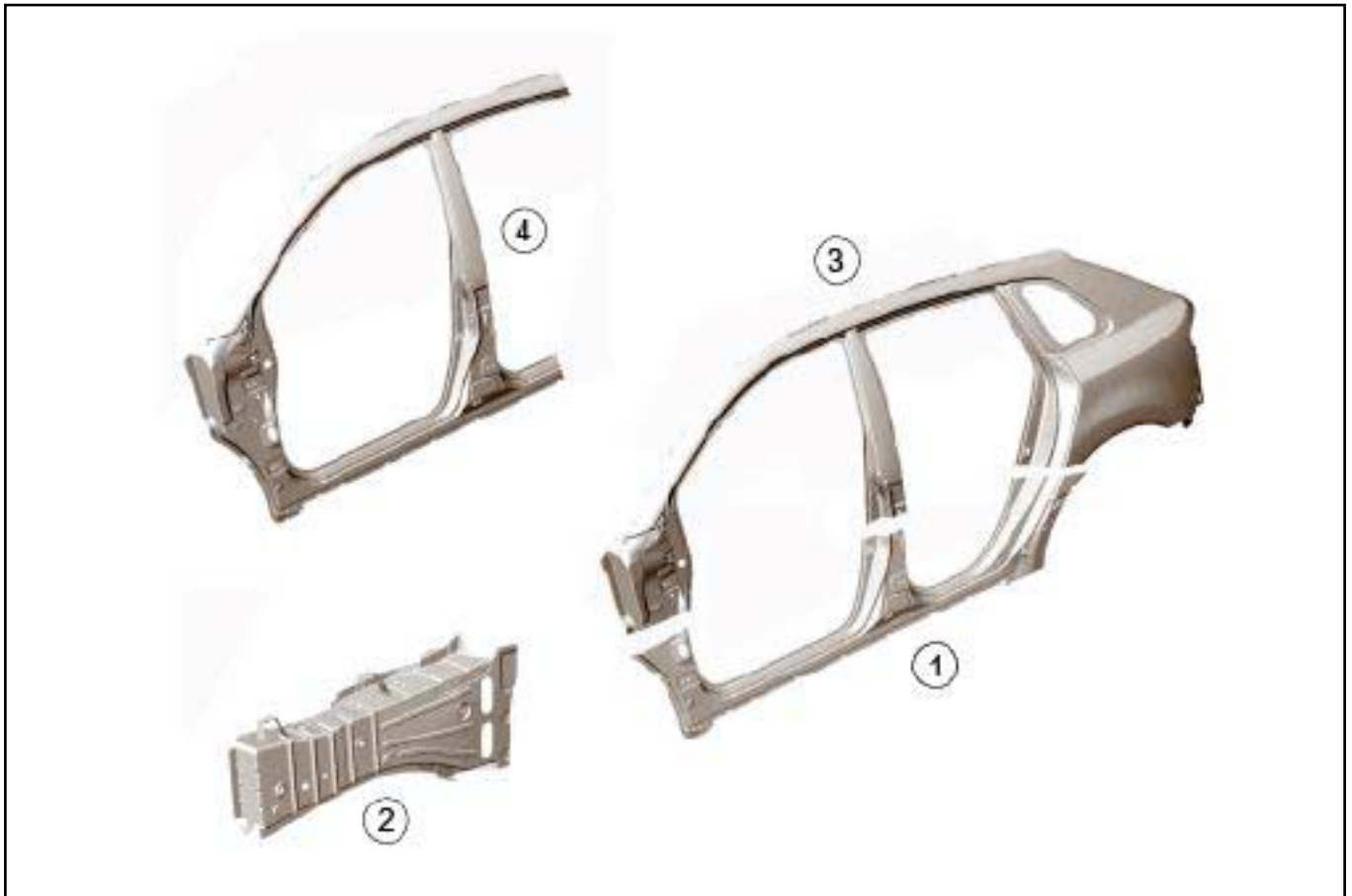
- (11) front right-hand half unit
- (12) front left-hand half unit



131019

Vehicle damaged at side: Description

1st Degree

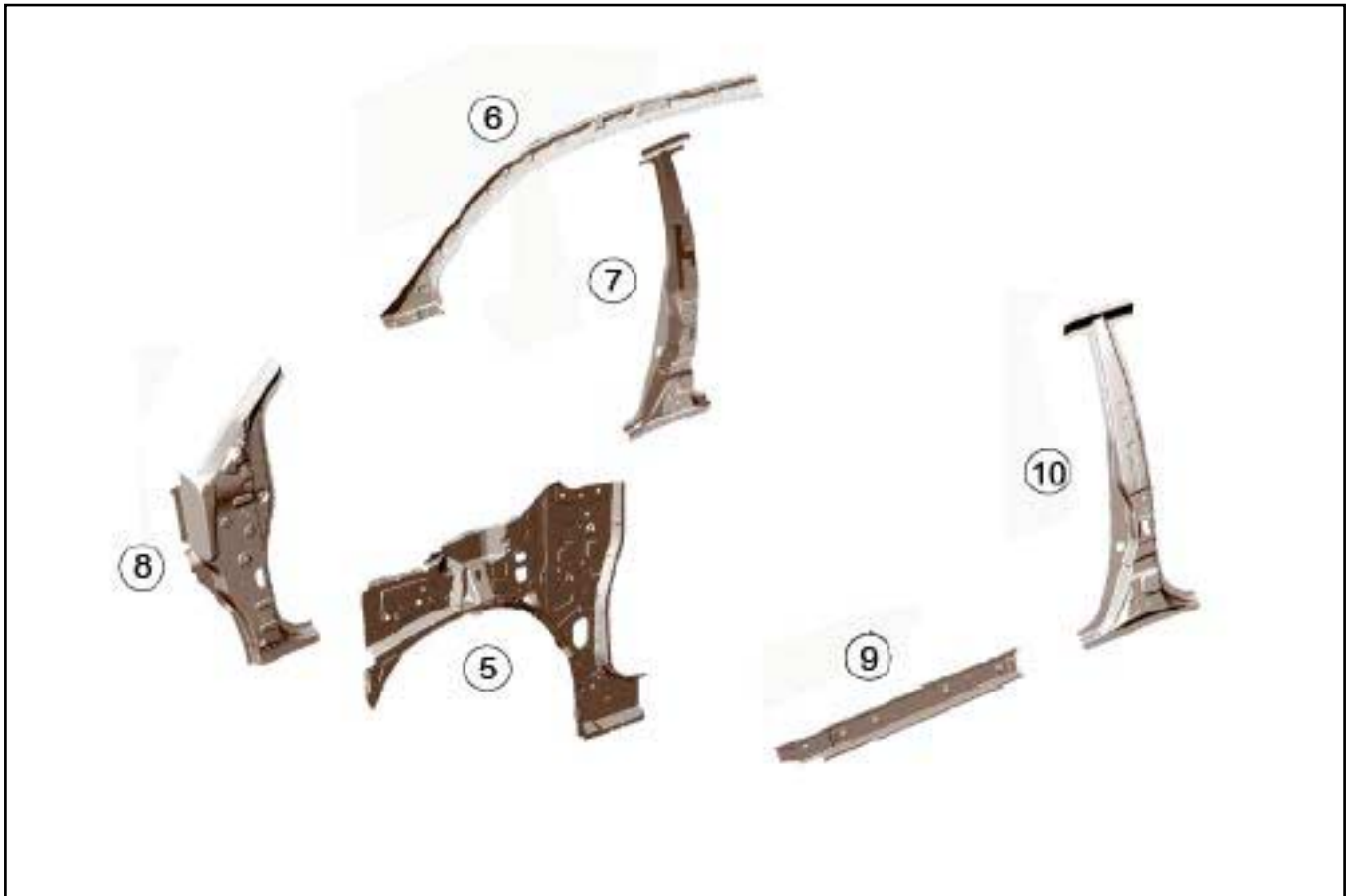


131020

- (1) sill panel
- (2) scuttle side panel reinforcement
- (3) upper body
- (4) body side, front section

Vehicle damaged at side: Description

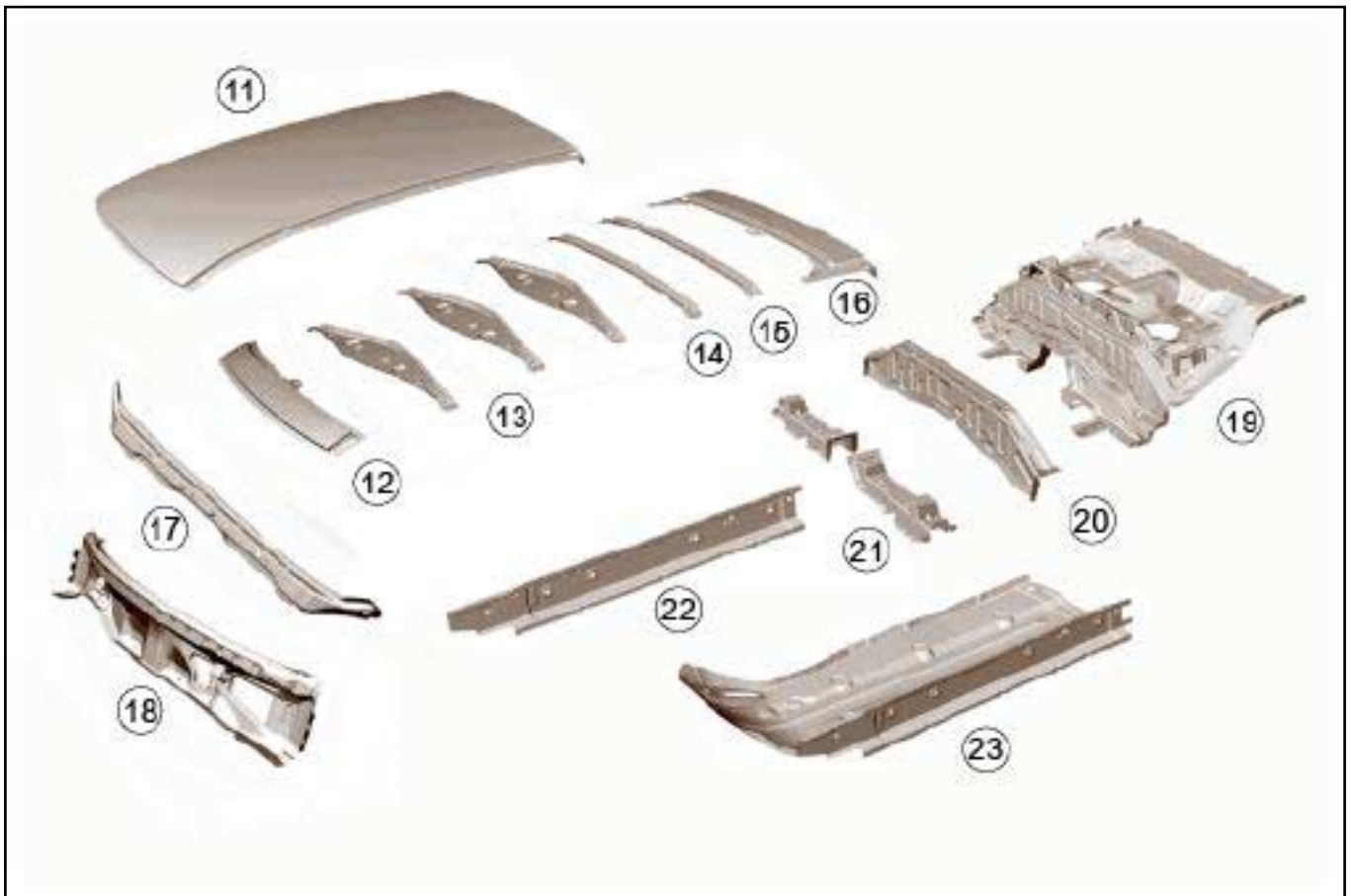
2nd Degree



135028

- (5) scuttle side panel
- (6) windscreen pillar lining
- (7) B-pillar lining
- (8) A-pillar reinforcement
- (9) inner sill panel
- (10) B-pillar reinforcement

Vehicle damaged at side: Description



131022

- (11) roof
- (12) roof front section
- (13) roof front cross member
- (14) roof centre cross member
- (15) roof rear cross member
- (16) roof rear section
- (17) bulkhead lower cross member
- (18) windscreen pillar lower cross member closure panel
- (19) rear floor
- (20) rear cross member under front seat
- (21) front cross member under front seat
- (22) inner sill panel
- (23) centre floor side section



131023

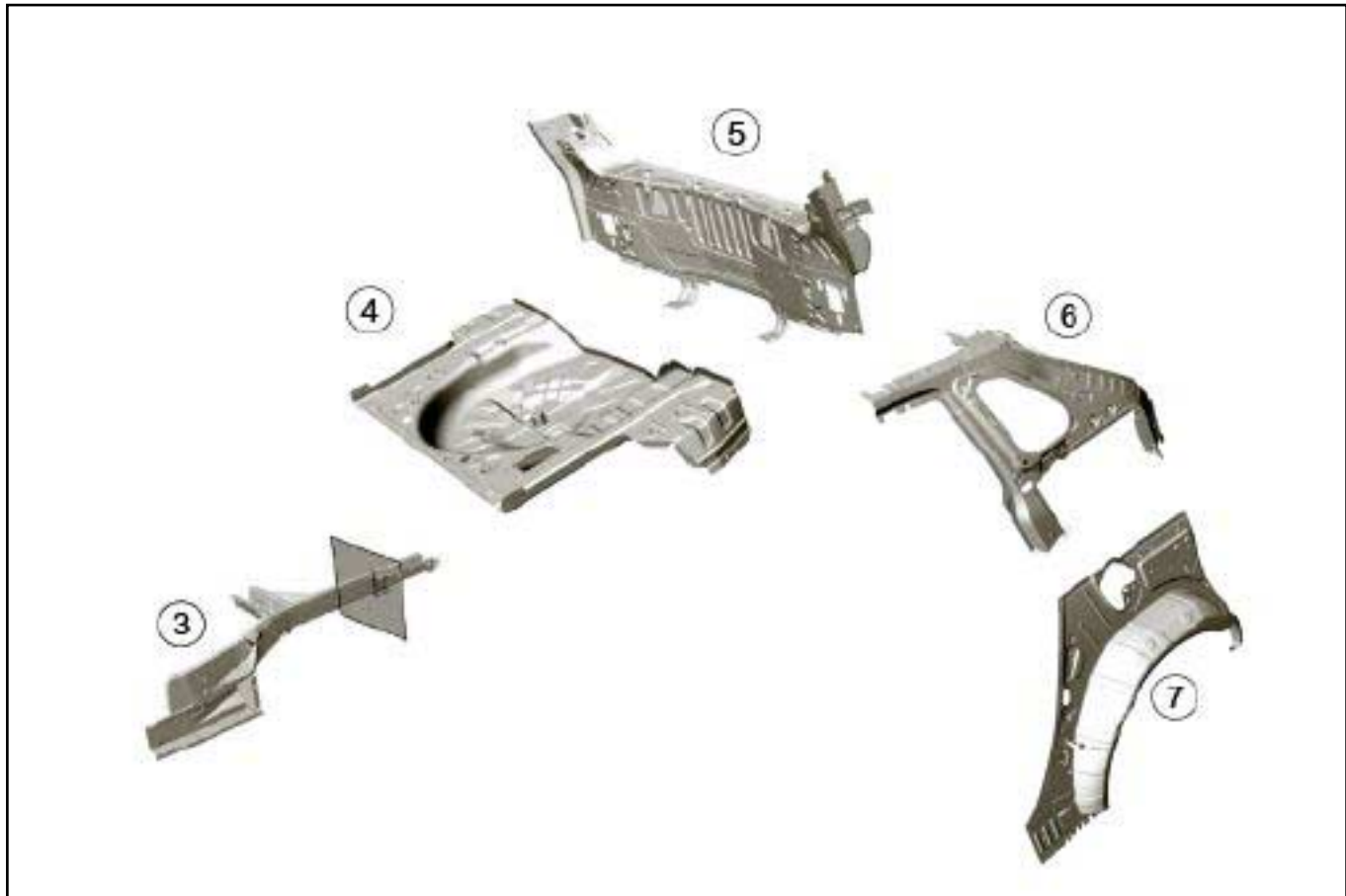
I - FIRST DEGREE REAR IMPACT



135029

- (1) Rear wing panel
- (2) Rear end panel

II - SECOND DEGREE REAR IMPACT



135030

- (3) rear side member (partial)
- (4) rear section of rear floor
- (5) rear end panel
- (6) quarter panel lining
- (7) outer rear wheel arch

III - THIRD DEGREE REAR IMPACT



135031

- (8) quarter panel lining
- (9) outer rear wheel arch

Vehicle damaged at rear: Description

- | | | |
|------|--------------------------|--|
| (10) | inner rear wheel arch | |
| (11) | rear side member | |
| (12) | rear centre cross member | |

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 forPXXgearboxes	Cartridge	77 11 219 705
RESIN ADHESIVE or SEALING RESIN Sealing resin for engine and gear-box 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	400 ml aerosol	77 11 236 168
SILICONE-FREE LUBRICANT	400 ml aerosol	77 11 236 167
BRAKE CLEANER	600 ml aerosol	77 11 422 413
	150 ml aerosol	77 11 422 414
AIR CONDITIONING CLEANER	250 ml aerosol	77 11 230 498
CARBURETTOR CLEANER	Aerosol	77 11 236 177
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 Vamish 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)	

CONSUMABLES - PRODUCTS

Vehicle: Parts and ingredients for the repairwork

04B

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	
PLANETELF PAG 488		77 11 172 668
SANDEN SP 10 Oil for air conditioning compressor	250 ml container	77 01 419 313
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

CONSUMABLES - PRODUCTS

Vehicle: Parts and ingredients for the repairwork

04B

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
METAL PRIMER	Bottle	77 11 419 599
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 to windows	Cloth	77 11 423 222
MISCELLANEOUS		
DOUBLE-SIDED ADHESIVE	20 m roll	77 11 226 308
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 (Electroweldable)	310 ml cartridge	77 11 172 677
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		

CONSUMABLES - PRODUCTS

Vehicle: Parts and ingredients for the repairwork

04B

CLEAN GREASE	300 ml aerosol	77 11 236 174
OPENING ELEMENT MECHANISM GREASE	20 g sachets	77 11 419 865
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 + For finishing plastic repair	960 g cartridge	77 11 423 539
	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		

CONSUMABLES - PRODUCTS

Vehicle: Parts and ingredients for the repairwork

04B

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

CONSUMABLES - PRODUCTS

Vehicle: Parts and ingredients for the repairwork

04B

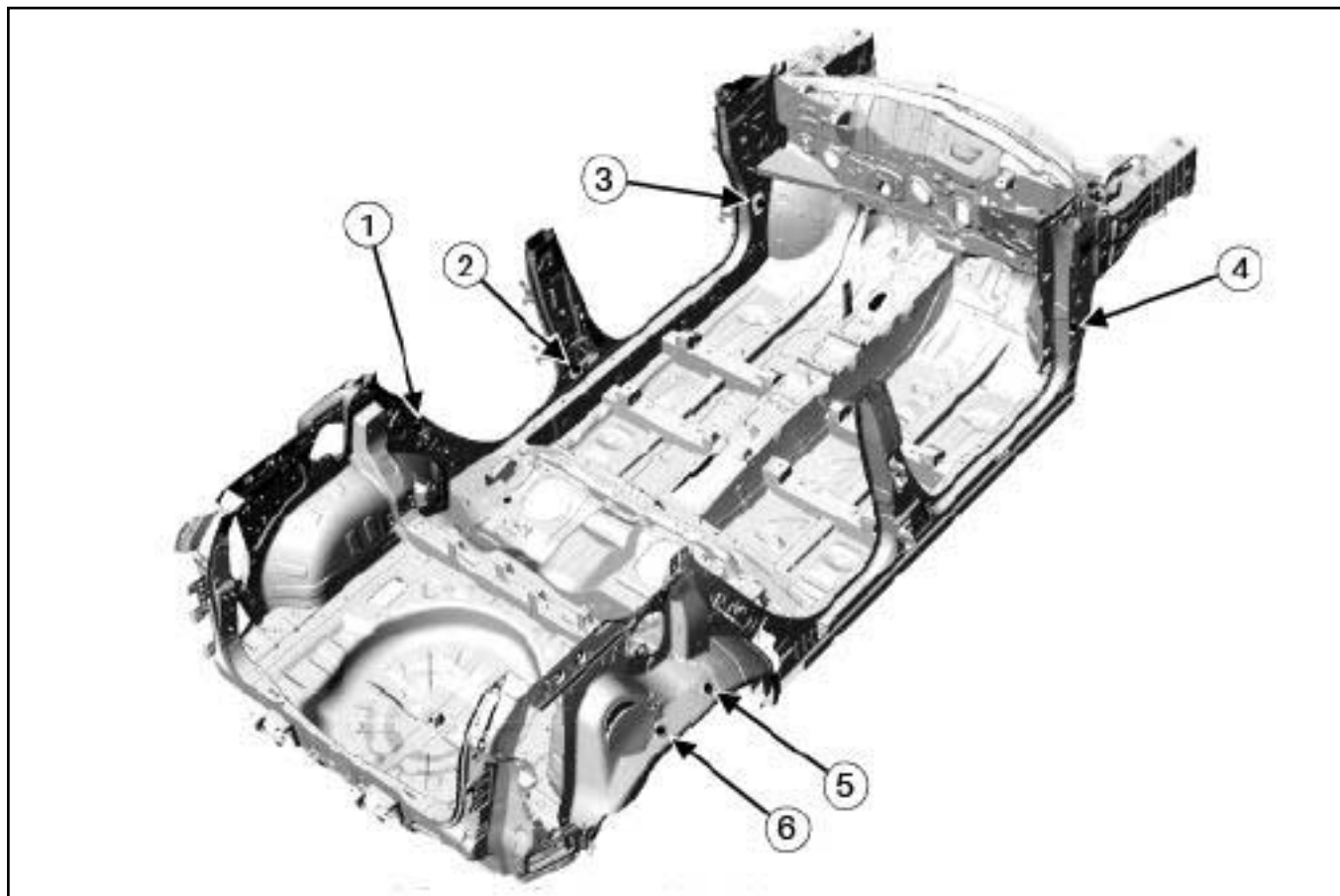
ADHÉRA SPRAY (adhesion promoter for thermoplastics)	400 ml aerosol	77 11 423 734
PRIMARA BLACK (adhesion promoter/primer for thermoplastics)	1 L container	77 11 423 735
		77 11 171 514 (Activator)
PRIMARA (adhesion promoter/primer for thermoplastics)	1 L container	77 11 171 513
		77 11 171 514 (Activator)
UNDERCOAT		
LEVIA	3.5 l container	77 11 228 651
FORTIA	3.5 l container	77 11 228 650

PAINT

Anti-corrosion protection product Description

04E

POINTS LOCATED INSIDE THE VEHICLE



132848

Note:

Hollow body parts must be treated from inside the vehicle 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: injection of wax through point **(2)** .

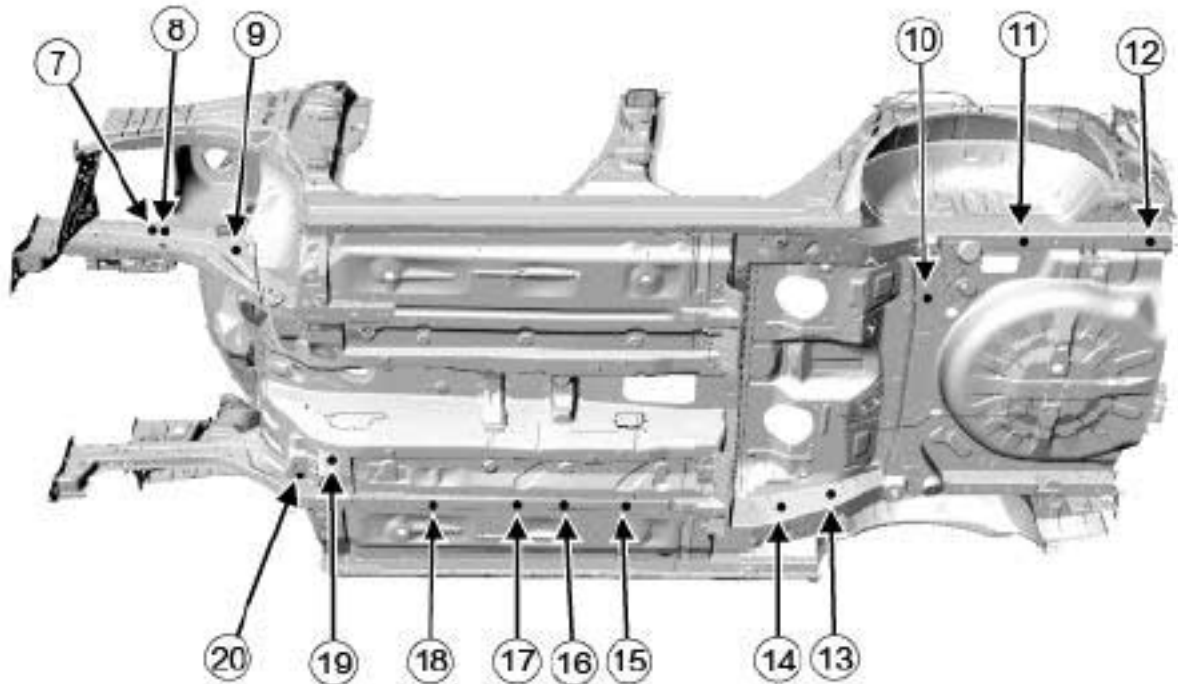
*Protection of the join between the inner sill panel and the inner sill panel: injection of wax through points **(3)** and **(4)** .

- replacing the quarter panel lining:

*Injection of wax in points **(5)** , **(6)** and **(1)** .

- replacing the centre side member under the floor:

*Injection of wax in points **(15)** , **(16)** , **(17)** and **(18)** .



132849

Note:

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

Frontal impact:

- replacing or repairing the front side member, the front side member closure panel and the front sub-frame mounting unit:

*Injection of wax through points (7), (8) and (9).

- replacing the front side cross member:

*Injection of wax in points (19) and (20).

Rear impact:

- complete replacement of the rear side cross member:

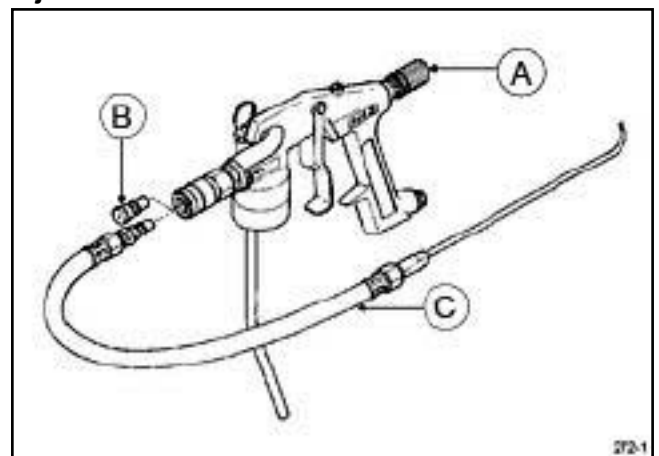
*Injection of wax through points (11), (12), (13) and (14).

- replacing the rear floor centre cross member:

*Injection of wax through point (10).

1 - Equipment required

Injection nozzle



272-1

- (A) Wax flow adjustment control
- (B) Quick-release union end piece
- (C) Interchangeable injection pipe

Note:

Choose the pipe most suitable for the operation.

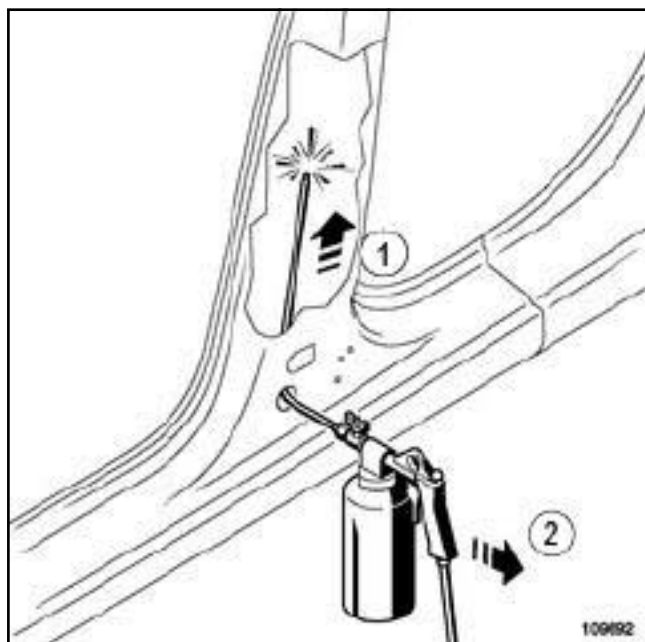
Can of wax



272

Apply the wax (see **04B, Consumables - products, Vehicle: Parts and ingredients for the repairwork**, page **04B-1**) (04B, Parts and consumables for the repair).

2 - Method of use



109692

- (1) Let the end piece of the nozzle penetrate to the bottom of the hollow section
- (2) Inject the wax by retracting the end piece of the nozzle.