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General

The body is all-steel construction.

All pillars and frame members are of thin wall sheet metal and have been deep-drawn for maximum strength, and also to enable all control cables, linkages, heater lines and cables to be accommodated in the spaces so formed.

The outer skin extending from the windshield pillar to the tail end is welded to the floor group, the wheel arches and pillars to form a rigid integral construction unit.

The aerodynamic contours of the body offer very low wind resistance.

Doors

The doors are fixed to the front pillars of the body by means of internally fitted hinges. They are opened from outside by means of a pushbutton located in the door handle which can be locked with the ignition key.

From inside the doors can be locked by pushbuttons. Opening of the doors from inside is effected by pushing a button on the front of the armrest.

Opening of the doors is limited by a strap which at the same time holds the door in the open position. It has been made possible by means of adjustable hinges and striker plates for the exterior contours of the door to be lined up exactly with the adjacent body contours.

Windows

The curved door window glass, vent windows and hinged rear side windows are of single-layer safety glass. The door windows can be raised and lowered by means of crank gear. Integral metal frames with fitted velvet sections ensure silent window operation.

The opening of the vent and rear side windows can be set according to the degree of ventilation desired. The catches can only be opened and closed from the car interior.

For reasons of safety high-grade laminated safety glass has been used for the windshield. It locates in a flexible rubber molding surround which compensates for slight variations between the shape of the windshield and the windshield opening.

The rear window glass (the remaining glass) is of single-layer safety glass. Fitment and location as for the windshield glass.

Front fenders

The front fenders are bolted on. The filler neck for the fuel tank is located in the left-hand front fender.

Bumpers

The bumpers fitted front and rear are detachable. They are cellulosed in the same color as the car and have trim strips with rubber or plastic inserts.

The bumper overrides are chromium plated.

Lids

The front and rear lids have internally fitted hinges. The lid catches can only be opened from the car interior by means of cable pulls. If the cable shears the catch opens automatically. For safety reasons however the front lid can only be opened after an additionally fitted safety catch has been disengaged by hand.

Built-in pneumatic springs retain the open lids in any desired position.

Under the front lid is located the trunk compartment with the toolkit, the spare wheel, the battery and the fusebox.

The rear lid covers the engine compartment and carries the air intake grille for the engine.

Seats

Both front seats are mounted on slide rails and are adjustable backward and forward. The seat backs can be set in stages by means of the reclining seat mechanism for any position down to horizontal.

The seat back of the front passenger seat has an additional catch and can only be folded forward when this catch has been disengaged.

Trunk compartment

Luggage space is provided by the front compartment under the front lid. The spare wheel, the toolkit, the battery and the fusebox are also located here.

Additional luggage space can be made in the back of the driving compartment if the seat backs of the occasional seats are folded forward.

Interior fittings

Padded leather cloth in various colors and patterns has been used for the upholstery of the instrument board paneling, the door panels, the rear side panels and the rear paneling. The leather cloth used for the roof lining is perforated.

The side panels in the front foot compartment, the tunnel, the side members and the occasional seat recess in the rear acting as a cross member, together with the trunk compartment are carpeted. The floor is covered with rubber mats or carpets according to vehicle type.

For sound proofing and insulation all hollow components are sprayed or painted with rust inhibitor before welding.

All surfaces which are not cellulosed in the body color, in particular the floor group with the wheel arch panels and the interior compartment are sprayed with an efficient anti-drum compound which at the same time provides rust protection.

For further sound proofing the interior compartment together with the front and rear compartments are covered on special instructions with bitumen board, bitumen felt, jute felt and cork felt mats.

For heating purposes the hot air from the engine fan is blown through heater ducts into the car interior, to the windshield and on the coupé also onto the windshield glass. The hot air volume can be controlled by means of a hand lever on the tunnel and by slides on the side members in the front foot compartment.

For fresh air ventilation air intake slots have been provided in the windshield pillar in front of the windshield glass. An air scoop conducts away any water and passes the fresh air through a louver into the car interior onto the center of the windshield.

A proportion of the fresh air is diverted by the air scoop through connecting hoses and passed through the side heater louvers onto the windshield glass. The fresh air flow can be regulated by means of a lever on the instrument panel.

By switching on the heater the incoming fresh air can be mixed with hot air.

DOORS

Special tools:

P 290 Extractor for door hinge pins

(Made up tools)

P 1000 Door flange gauge

P 1001 Door gap gauge

P 1003 Hinge adjusting plate

Note!

It is recommended that repair of accident damage should start with the fitting of the doors.

REMOVING AND STRIPPING DAMAGED DOOR

1 B0

1. Unscrew trim strip and button on door catch.
2. Remove cover from window crank, screw bolt out of crank and remove crank with bezel.
3. Unscrew armrest covering. Disengage door interior catch. Undo 3 bolts on the bottom of the armrest and remove armrest.
4. Unscrew door panel, pull off door panel with clips and remove.
5. Remove window glass well cover strip.
6. Undo door strap.

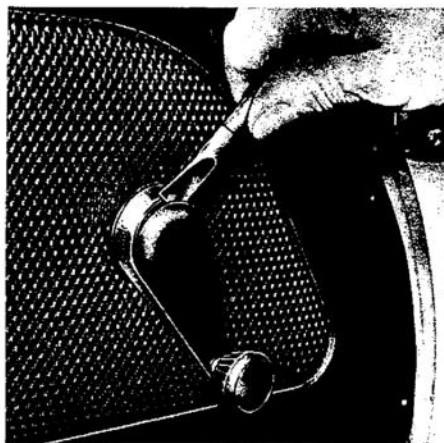


Fig. 1

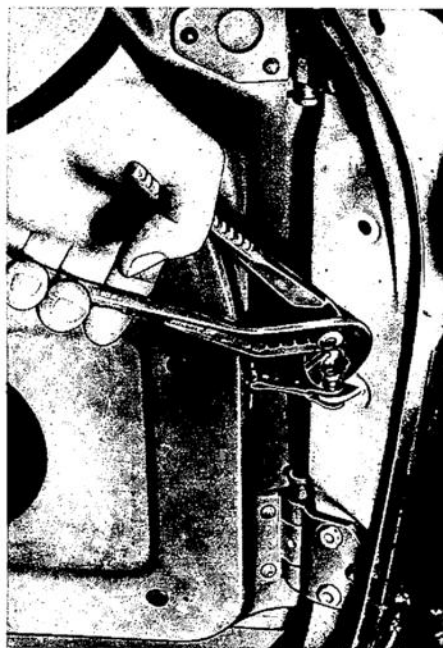


Fig. 2

7. Release door window frame and extract.



Fig. 3

8. Disengage door window glass and remove.

9. Remove crank gear.

10. Unscrew door exterior handle.



Fig. 4

11. Remove door lock with remote control.

12. Remove hinge pin with special tool P 290 and remove doors.

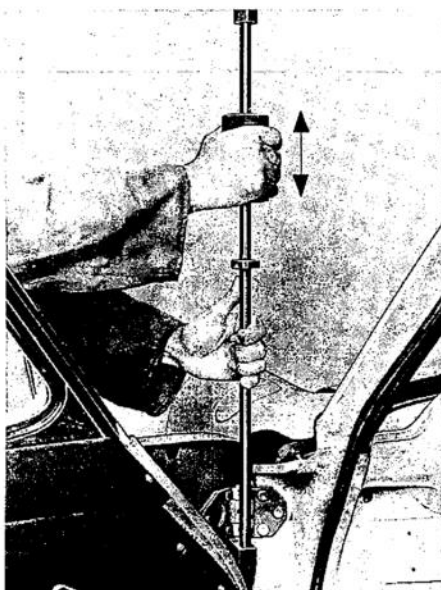


Fig. 5

1. Screw door shell onto hinge pillar. At first only screw up loosely one of each of the three screws per hinge. Final adjustment will be carried out lining up with the front fender.
2. Adjust door height and door gap. The exterior contour of the door must line up perfectly with the treadplate, the front fender and the rear fender.
The door can be moved outwards on the hinge side with the aid of special tool P 1003.

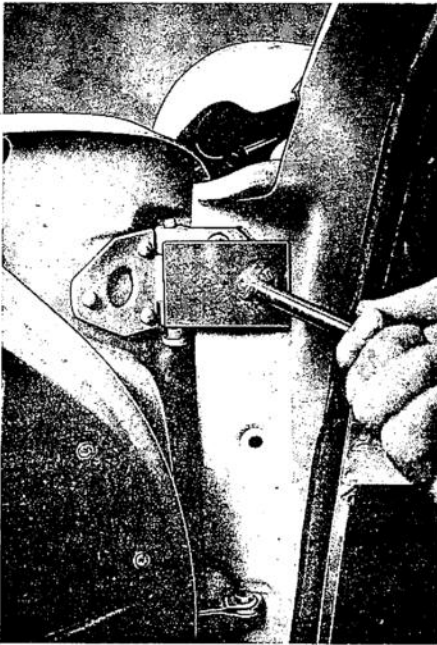


Fig. 6

Adjustment inwards should be carried out by tapping the hinge portion on the inside of the door with the door removed. On the door catch side adjustment is carried out by means of the striker plate.

Here it should be checked whether an additional packing piece is necessary for the striker plate. The door gap should be 3 - 4 mm (0.12-0.16") at the bottom, the front and the rear. At the top the front door gap should be a maximum of 4 mm (0.16") from the windshield pillar.

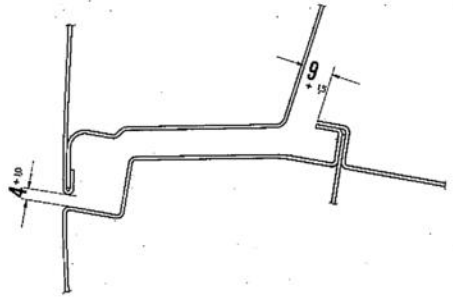


Fig. 7

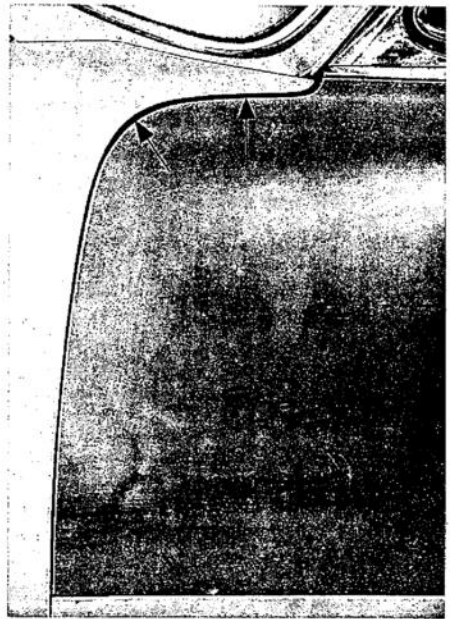


Fig. 8

Adjustment of the door gaps in a forward direction can be effected by tapping the hinge eye with a suitable piece of hardwood.



Fig. 9



Fig. 10

The opposite effect is achieved by using packing piece no. 901, 531, 945, 20. At the same time it should be ensured that the recommended distance from door to hinge and lock pillars as well as to tread plate is maintained.

Alignment of both hinge axes should be checked with a straight edge.

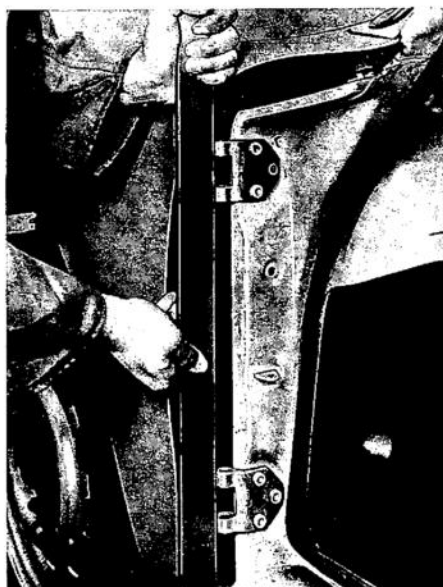


Fig. 11

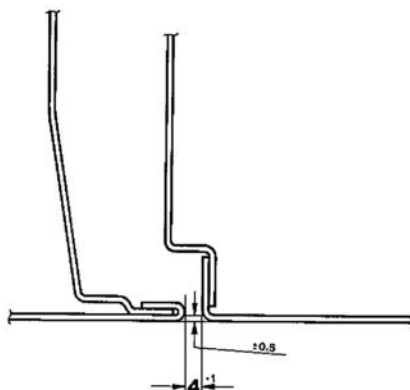


Fig. 12

3. When fitting the door lock it should be noted that there are various designs of lock. If an old-type lock is locked with the pushbutton on the inside of the door and at the same time the lock cylinder on the exterior door handle is pressed then the lock mechanism can jam. We recommend therefore that the new model lock should be fitted.

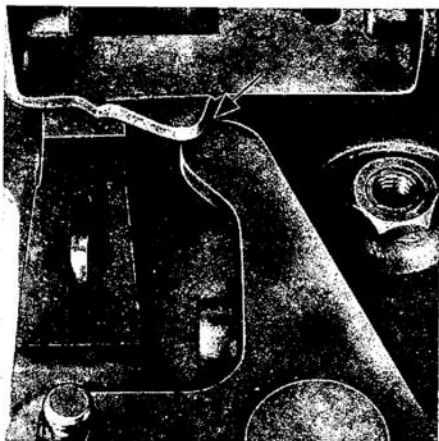


Fig. 13

- b. It should be ensured that the longer pressure pin part no. 901, 531, 919, 20 (left) 901, 531, 920, 20 (right) does not touch the lock pressure plate when disengaged. If this is not done there is the risk that as a result of heavy vibrations on bad roads the catch can disengage and the door spring open.



Fig. 15

Here the following should be noted:

- a. On the new lock the pressure plate which is operated by the exterior door pushbutton is located on a continuous spindle. The pressure plate has a more pronounced angle and increases the distance from the pressure pin of the door exterior handle. For this reason it is necessary to change the operating peg with the longer pressure pin.

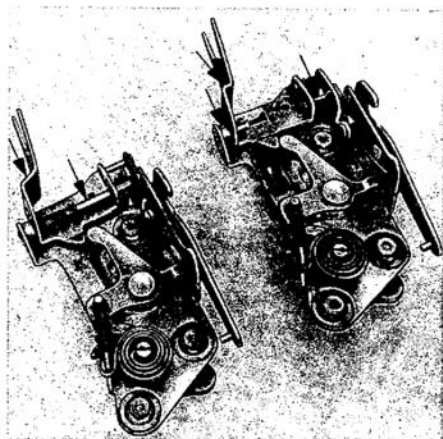


Fig. 14

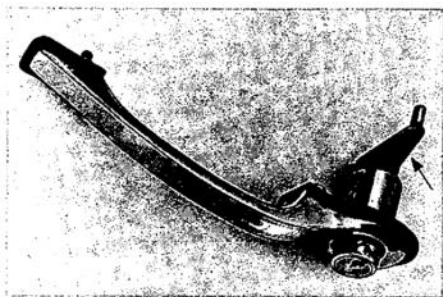


Fig. 16

- c. As a further safeguard against the door springing open the shape of the lock peg on the door lock and simultaneously the shape of the striker plate have been altered so that the lock peg is additionally supported in the striker plate. The hole for the lock peg should be enlarged to approx. 33 mm (1.3").

- d. A new type striker plate must always be fitted with a new type lock. Outer edge vertical - if necessary enlarge operating holes in lock pillar.

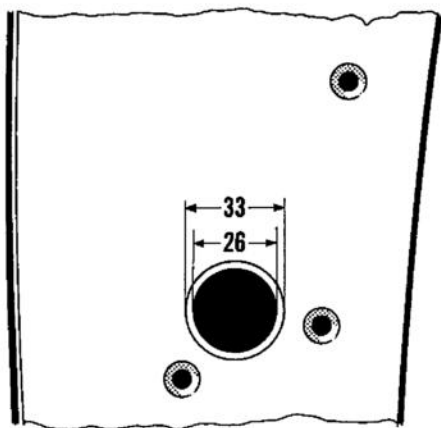


Fig. 17

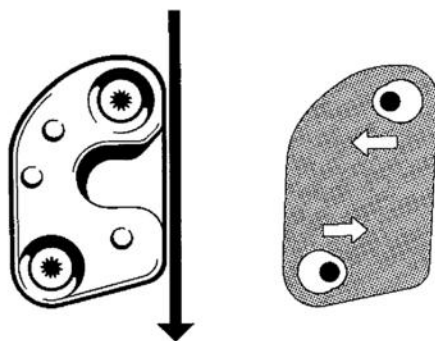


Fig. 18



Fig. 19



Fig. 20

Various lock positions

Doors closed - engaging the lock
Exterior door pushbutton - operation
Lock in normal position

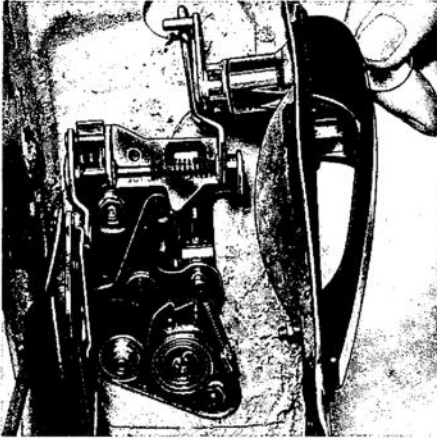


Fig. 21

Opening lock - operation

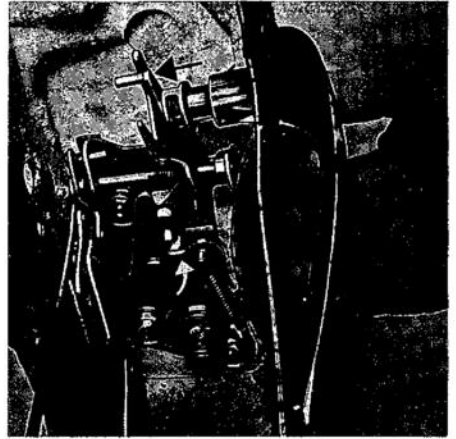


Fig. 23

Doors closed - disengaging lock
Exterior door pushbutton - operation

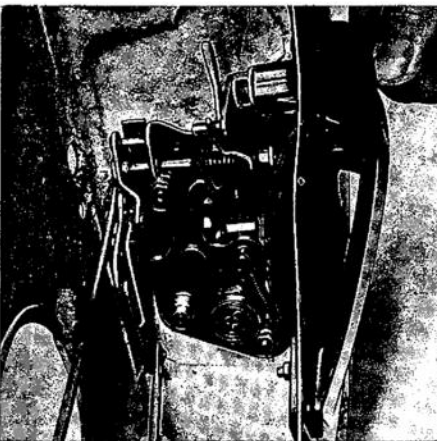


Fig. 22

Lock open - normal position

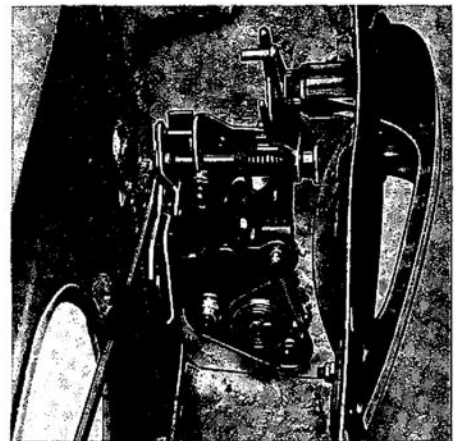


Fig. 24

e. Old type: the two doors can only be locked from inside in the closed position.

New type: if the right-hand door is locked when getting out it will remain locked after closing and can only be opened from outside if it is unlocked from outside with the door key or from inside by means of the pushbutton. This lock operation applies to vehicles with left-hand drive and will be the reverse with right-hand drive vehicles.

f. Secure remote control for interior door pushbutton and catch to lock before fitting lock.

4. As regards the door weather strip the necessary contact pressure on the molding strip will be achieved if the clearance from the top edge of the sealing flange to the inside of the door is 9 mm (0,35").



Fig. 25

Check sealing flange with gauge P 1000 and if necessary align flange. On the first vehicles of the 911 type a tubular rubber molding was used for door sealing.

In addition as a temporary measure a foam rubber molding of larger section was fitted. For both sections a gap of 12 mm (0,47") from top edge of sealing flange to inside of door was necessary.

When changing these door seals to the new design the gap should be reduced from 12 mm (0,47") to 9 mm (0,35").

It is recommended when adjusting the door shell that the door window frame should be fitted temporarily so that the distance from the top edge of the sealing flange to the door window frame can also be adjusted to 9 mm (0,35"). Here it should be noted that this clearance should be reduced from 9 mm (0,35") to 6 or 7 mm (0,23 or 0,27") for a length of approx. 300 mm (11,8") in the region between the screen pillar and the roof, to ensure that higher contact pressure is obtained at this point and the window will not flutter at high speed.

At the same time it should be ensured that the recommended clearance between window frame and screen pillar and roof frame to lock pillar are observed.



Fig. 26

Note

5. The door shell has not been welded at the points indicated in the illustration. It is thus possible to twist the door when fitting. When the door fits these points must be welded. In addition a cover plate must be cut to size for the door window frame and then welded on the top edge of the door front and rear and solder filled to give a clean finish.

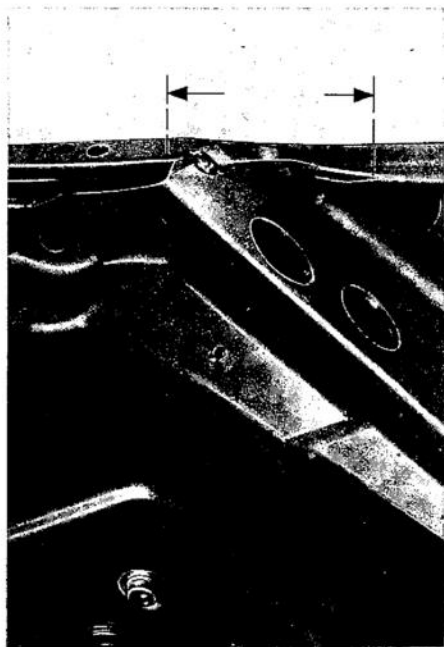


Fig. 27

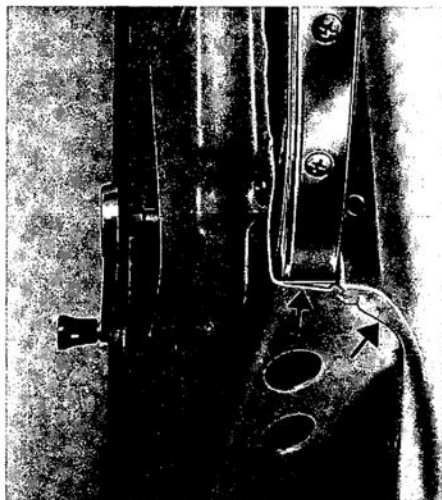


Fig. 28



Fig. 29

1. Fit door check strap.
2. Fit door lock with remote control and catch.
3. Insert crank gear and screw up loosely with 4 socket head screws. Don't forget washers and spring washer!

Note!

There are three different crank gears:



Fig. 30

- a. Type with metal rollers and short fixing plate.
- b. Type with plastic slide and short fixing plate.
- c. Type with plastic slide and long fixing plate.

For repairs we recommend that only crank gears of the new types "b" or "c" should be fitted with the appropriate raiser bar, because type "a" is prone to rattling.

4. Fit window glass.
Set crank gear to half-way position and push door window glass with raiser bar fixed in position backwards onto the slide pieces of the crank gear from the front.

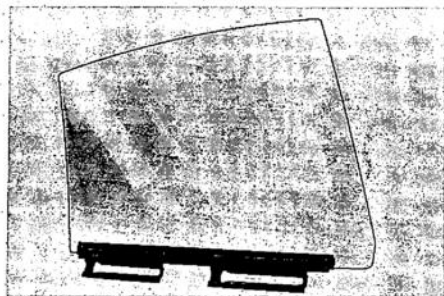


Fig. 31

5. To fit the door window frame crank the door window glass to half-way position and push the window frame into the door from above. The glass will slide in the velvet/rubber molding of the window frame. Adjust window frame and screw in position in the sequence shown in Fig. 32.

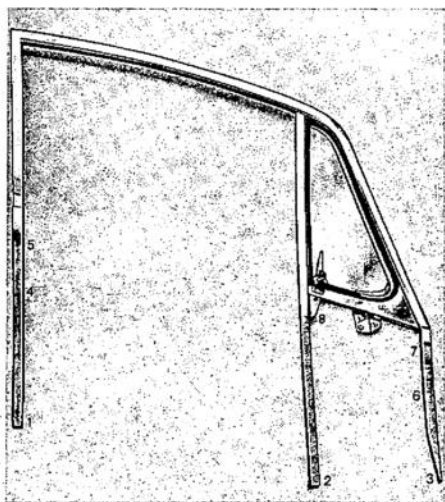


Fig. 32

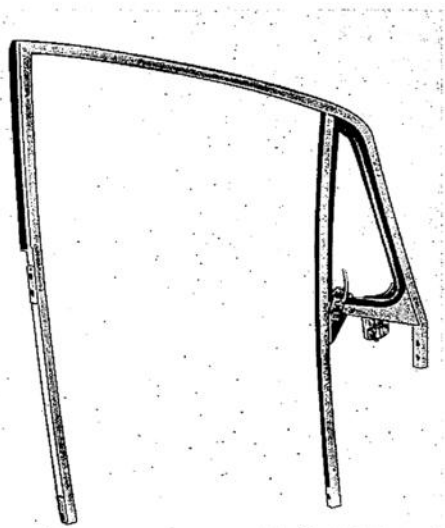


Fig. 33

Ensure that the fixing screws are not too long and therefore press on the window guide molding.

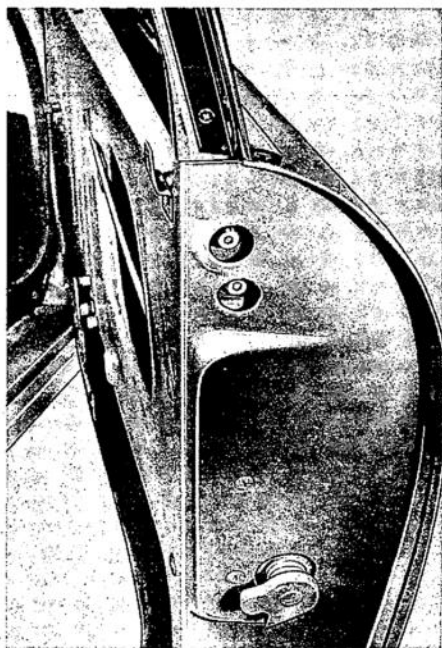


Fig. 34

6. Crank door glass up and adjust. Tighten fixing bolts of crank gear.

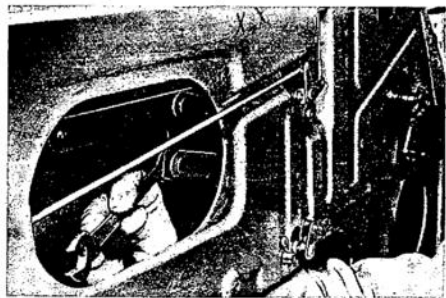


Fig. 35

7. Fit exterior door handle.
8. Secure window well bar together with packing and clips (push in rubber molding first).
9. Grease door lock and crank gear and check.
10. Glue in stop pad on crank gear.

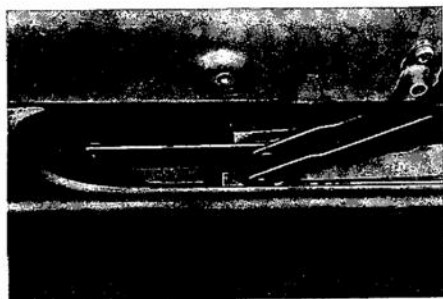


Fig. 36

11. For crank gear type "a" only.
To avoid rattling between raiser bar and crank gear a foam rubber strip of dimensions 50x50x8 mm (1,10 x 1,10 x 0,31") should be glued onto the raiser bar.
12. Stick felt packing pieces 6 mm (0,23") thick onto the door interior plate under the remote control rods.
13. Fit door weather strip.
Terokal No. 2444 is recommended as adhesive for this purpose. The door seal should be checked with a strip of paper wedged between the inside edge of the door and the weather strip. If the strip of paper can be pulled out quite easily the contact pressure is insufficient and the weather strip should be packed out from underneath at the place concerned with thin strips of foam rubber.
This test must be carried out right round the door including the window frame. If necessary check that the window frame is secure in the door.
14. All fitting holes in the door inner plate should be sealed over with leather cloth or plastic sheet to ensure water tightness.
15. Fix door panel on door frame with clips (push in rubber grommets beforehand).
16. Additional securing of door panels with screws. With old design ensure that the door pockets are secured against tearing at both ends with a screw.
17. Fitting the armrests:
 - a. Place armrest vertically and secure at the back with cylindrical head screw.

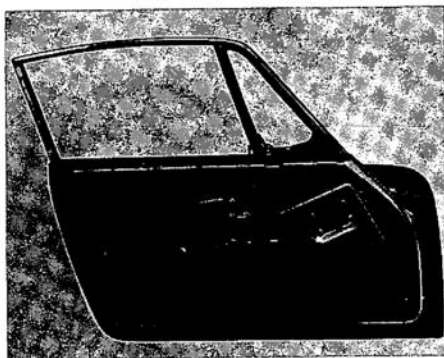


Fig. 37



Fig. 38