

CITROËN

BODY REPAIR MANUAL

ID 19 - DS 19



No. 471
EDITION 1964

METHOD OF USING THE REPAIR MANUAL

I. ORDER OF OPERATIONS:

1. Panelwork:

The repair manual deals only with the replacement of body parts sold by our Spare Parts Department. The lines for cutting, separating and welding indicated in the Manual should be observed. The work involved in removing dents caused by accident varies according to the length and depth of the deformation and is not dealt with. The special processes for repairing aluminium parts, however, are dealt with. The required tools are described and the products necessary for this work are mentioned.

2. Bodywork:

Only the operations requiring special precautions are described. For example: replacement of a window winder, of a windscreen glass, and of a rear light etc. Also described are maintenance operations requiring special attention. For example: maintenance of a Plexiglass rear light or the door glass channels.

3. Trimming:

The work involved in removing trimming is not dealt with. How one goes about it depends on what work is being done on the bodywork. An upholsterer should be able to carry out all the work without special instructions. Nevertheless, operations which require special instructions are described. For example: removing the lower body siderail trimming, or operations requiring the making of templates for cutting out parts in fabric or insulating material.

4. Paintwork:

Painting operations on aluminium panels and plastic appear in the manual.

II. ARRANGEMENT OF THE MANUAL:

1. Method of numbering:

The number is composed of:

a) One or more capital letters (indicating the type of vehicle) D, ID, DS, DF or DB.

NOTE: *When the operation applies equally to all vehicles of type D, only the capital letter D is used.*

b) A number of three figures (indicating a part or part of an assembly).

c) A code number (indicating the type of work) separated from the preceding number by a hyphen.

d) The code used.

The figure 0 indicates adjustments.

The figures 1, 4, 7 indicate removal and refitting.

The figures 2, 5, 8 indicate stripping down and assembling.

The figures 3, 6, 9 indicate reconditioning.

EXAMPLES: D932-0 : Adjustment of the front seats (Adjustment).

D825-1 : Replacement of a roof (Removal and refitting).

D741-2 : Fitting a rear lower front half axle fixing screw (Assembling).

D823-3 : Reconditioning a roof (Reconditioning).

NOTE: *When two operations relate to the same assembly of parts, we have chosen the number of the main part and, in order to differentiate between the operations, have added a suffix a, b, c, d, etc.*

EXAMPLES: D 741-1 : Replacement of a caisson front unit.
D 741-1a : Replacement of a caisson front unit side.
D 812-7 : Replacement of a front pillar (lower part).
D 812-7a : Replacement of a lower front pillar and scuttle side panel.

2. Illustrations

Each operation on the body panels is referred to on one or two illustrations. These illustrations show:-

- an assembly view of the bodywork, showing in full line the position of the part concerned.
- an enlarged view of the part to be replaced with complete details of the part shown in full line, and its location in relation to adjacent parts shown in dotted line.
- for the important operations a second illustration shows an enlarged view of the body when the part to be replaced has been removed.
- in certain cases, sectional views showing the assembly of the panels.

III. TOOLS:

At the beginning of each operation on the body panels we indicate whether the body should be placed on the jig base or not.

Pay particular attention to this remark.

When replacing or reconditioning the parts concerned with the fixing of the mechanical units, the body must be placed on the jig base (*) in order to permit working to exactly the same dimensions and tolerances as on a new body.

These conditions are imperative in order to obtain the correct fitting of all the mechanical and hydraulic units, and to obtain the adjustments indispensable for good road holding, normal tyre wear and balanced braking.

Illustrations 82 and 83 show the tools, hammers and dollies, indispensable in work on the body panels (**).

Illustration 81 indicates the types of jack used in body repair work (**).

For handling bodies in the workshop, we recommend the use of a type H vehicle trolley as in Plate 6. This trolley locates in the front half-axle crossmember.

In order to place the body on the jig base, use the lifting equipment shown on Plate 5.

If the repairs to be carried out are on the rear unit, it is possible to put the body on the jig base with the engine-gearbox assembly in position.

To do this, use one of the two types of lifting equipment shown on Plate 4.

In order to separate the panels, use a cutting chisel (this tool is sold under the number 2699-T (**)).

For cutting panels, we recommend a sheet metal cutter (sold under the number 2670-T (**)).

The "filling-in" with solder should be carried out with a "wooden spatula" (sold under number 2669-T (**)).

IV. TOWING:

Plates 72 - 79 show the apparatus for lifting and towing the vehicle.

NOTE: For any further information on the operations or tools, please apply to: Service Department, Citroen Cars Limited, Slough, Bucks, England.

(*) The ID and DS 19 "jig base equipment" is made by Établissements FENWICK, from Citroen drawings. It is sold under the number 2606-T.

(**) These tools are sold by Établissements FENWICK, 25 Rue Fénelon, Paris X^{eme}.

SUGGESTIONS

TO SEPARATE THE PARTS

The assembly of the parts is carried out by means of electric spot welding.

In order to separate two parts and to avoid tearing the panels, it is necessary to drill the spot welds, with a 6 mm diameter drill with a cutting angle of 150°, limiting the drilling if possible to the part to be removed.

It is also possible to use a special type of cutter, "Pickavant", sold by Établissements C.I.E., 42, avenue du Sénateur-Girard, Valenciennes (Nord).

In order to complete the separation of the panels, use a cutting chisel (sold under the number 2699-T).

TO ASSEMBLE THE PARTS

1. ELECTRIC SPOT WELDING:

Use a universal spot welder, with an electrode pressure which ensures contact of the panels to be welded.

In certain cases, use an arc welder (work requiring care).

2. GAS WELDING:

To be used in the case of inaccessibility with a spot welder.

Use of the nozzles:

The following blow-pipe nozzle sizes should be used for welding thin panels.

Thickness of panel : 0.5 mm,	calibration of nozzle : 40 l,	diameter of welding wire : 1 mm;
1 mm,	100 l,	2 mm;
1.5 mm,	150 l,	2 mm;
2 mm,	225 l,	3 mm;
2.5 mm,	225 l,	3 mm.

Protection of panels:

Arrange moist asbestos close to the edges of the welds to limit the deformation.

3. BRAZING:

To be used in a few particular cases only, indicated in the instructions.

Drill a series of holes in the part to be fixed, 6 mm diameter spaced approximately 80 mm apart.

Fix the part by filling the holes with brazing metal.

FINISHING PROCEDURE

APPLICATION OF SOLDER:

This procedure is frequently carried out in order to obtain a perfectly smooth surface, after gas welding or removing dents from the panels.

Proceed as follows:

- Clean the area to be filled in and rub down with a stone or an abrasive disc.
- Smear the areas to be tinned with a cleaning paste (HAMPTON). Spread this paste with a tallow cloth.
- Tin the panel. Use solder containing 27% tin (this solder melts at 231°C). Spread it by rubbing energetically with a cloth.

NOTE: One can also proceed in the following way:

Prepare a litre of cleaning paste consisting of:

250g of zinc chloride;

100g of aluminium chloride;

200 cu.cm. of denatured alcohol;

Water;

Add to this mixture:

400g of pure tin powder.

Apply a layer of this paste, with a paint brush, to the panel (previously pumiced). This product allows of both cleaning and tinning. Heat the area to be tinned with a blow pipe and rub it energetically with a rag.

d) Apply the tin (use sticks consisting of 18% of tin and 82% of lead, a solder that melts at 280°C), heating it with a blow pipe fitted with a nozzle calibrated 75 l. Obtain a "white" flame, that is to say a flame with a slight excess of acetylene. Spread the tin with a hardwood spatula (sold under No. 2669-T) smeared with tallow.

e) Finish the surface of the tin with a single cut file (Silexa).

Complete the polishing with emery cloth (the use of an abrasive disc is precluded for this operation, as the lead dust is extremely injurious).

FOR WELDING AND OTHER WORK ON ALUMINIUM PANELS

The bonnets, certain rear boot doors and certain roofs are made of aluminium panel AG3. Repairs to these can be carried out as easily as those on steel panelling by following the instructions given below:

1. TEARS

Remove the paint by burning with a blow pipe or removing with a scraper.

Bring the two torn edges together as closely as possible by rapid heating.

Degrease with trichlorethylene and carefully scrape the borders of the fracture, on both surfaces, with a scraper.

Carefully scrape the welding wire (1.5 mm diameter AG3 wire).

Fit a nozzle, of a size between 50 and 70 l, on a blow pipe, with the acetylene and oxygen pressures adjusted to 4.25 lb/sq.in.

Dilute the welding flux to a firm paste (with ordinary flux) or very moist (with non-corrosive flux).

Smear the reverse side of the break, as well as the rod.

NOTE: a) *If both faces of the torn edges are accessible, an ordinary flux should be selected for preference - Deoxydal or Fluxotalu.*

Having completed the welding, wash with water and brush vigorously. Ordinary flux is easier to use (it is sold by the manufacturer ready for use).

b) *If only one face is accessible, it is necessary to select a non-corrosive flux - Neutralinox - which does not require any washing.*

In order to hold the panels in position, tack weld the two torn edges at intervals of 15 to 20 mm, starting at the end of the fracture and working towards the outside. Weld along the tear, avoiding an excess of metal. File or scrape the excess metal from the welded strip.

2. HOLES

In the damaged part, cut a *lozenge*-shaped piece around the hole and remove it.

Cut from an aluminium panel a *lozenge* of the same dimensions, *same thickness and same composition*, as the one cut from the damaged part.

NOTE: *Always cut a lozenge-shaped piece in order to avoid cracks or serious distortion.*

Offer up the piece and tack it. Bring together the edges of the piece and those of the cut out. Starting at the top of the acute angles, spot weld at intervals of 15 to 20 mm.

Weld either two opposite sides, then the two other sides, or the two sides of one of the acute angles of the lozenge starting at the apex, then the other two sides.

Avoid welding the four sides successively and in order.

3. RELIEVING DEPRESSIONS (last shrinking)

Shrinking

Heat the damaged area to about 300°C with a blow pipe, from the underside for preference.

NOTE: *It is possible to check the temperature on the metal, using tallow or soap, which, at this temperature, will turn brown.*

As soon as this colour is observed, shrinking starts at the centre of the deformation. It is possible to achieve several successive "shrinkages", working out progressively from the centre on a spiral finishing round the outside edge of the deformation.

Beating out.

Heat the highest part of the deformation to about 300°C.

Beat rapidly with a mallet at the point previously heated (two or three blows with the mallet should be sufficient).

Cool the beating point immediately, with a cloth (or a sponge) moistened with water. One can carry out several successive "beatings" at the same point. Finish off by *lightly* planishing with a mallet.

IMPORTANT NOTE: *The tools and dollies used for working on aluminium panels should be perfectly clean and smooth.*

4. ARGON-ARC WELDING

This procedure (requiring a heavy material) consists of causing an arc to jump between a tungsten electrode and the part to be welded, the arc being protected by a current of "argon" gas which prevents the oxidation of the metal and permits welding without the use of flux. This procedure requires a bare welding rod of AG3.

5. SPOT WELDING

Thoroughly clean all the faces of the parts to be assembled (fine emery cloth, scraper). Spot weld as on steel panels. Nevertheless, certain spot welders are not powerful enough for welding certain thicknesses (2 sheets of 1.2 mm). It is sufficient in this case to put a covering of steel on both sides of the panels to be welded, i.e. in direct contact with the two electrodes. This can easily be removed after welding.

6. HOT AND COLD FILLING

IMPORTANT NOTE: *Resins can be applied only provided that the finish to be used is an air-drying paint, not an oven-baked lacquer.*

a) Cold Filling

For cold filling of shallow dents, there exists in the trade a compound MET-L-IT prepared with granulated aluminium and solvent; it is also possible to prepare the mixture at the time it is required, starting with the separate ingredients. This paste is to be applied with a spatula on an absolutely clean and degreased surface.

It is possible, according to the size of the hollow to be filled, to apply several coats, allowing a drying time of one to two hours between each coat. The finishing is carried out with a rasp or an abrasive disc approximately 24 hours after application.

The Societe SAINT-GOBAIN also markets resins not containing solvents, which make the above drying time unnecessary. Nevertheless, before application, it is necessary to mix a quantity of hardener specified by the manufacturer. This product is called Araldite 121.

b) Hot Filling

For hot filling of shallow dents, there exist products sold in stick form containing granulated aluminium and a solvent. The melting point is around 120°C. They are applied with a blow pipe on a clean surface which has been disked. The applied product is shaped with a pallet or a tallow cloth. When completely cool the surface can be cleaned up with a rasp or disc.

c) Finishing

Thoroughly degrease the parts to be painted.

Clean the parts to be painted with one of the following products:

Deoxydine 10, 624 or 205, Framanol or Parcodine.

Wash with water. Dry (except for the Deoxydine 205, where a vacuum brushing of the green powder is sufficient).

Apply one coat of special primer for light alloys, for preference a primer with a zinc-chromate base.

NOTE: *Do not use products with a lead salt base.*

Phosphate primers give very good results on degreased surfaces.

Fill with putty.

Rub down.

Prime.

Paint.

ADDRESSES OF THE MAIN SUPPLIERS

1. MASTIC

For weatherproofing

Electroplastic mastic - Société LAPORTE et Cie, 137 rue Jean-Jaurès, Maisons-Alfort (Seine). Tel. 368-14-15.

Vibradamp mastic - Société LE BONNEX, 26, rue Voltaire, La Garenne-Colombes (Seine). Tel. 242-21-31.

Alderit-V mastic - Société KELLER, 21, quai de Boulogne, Boulogne-sur-Seine (Seine). Tel. 605-65-10.

Glastol mastic - Société GLASTOL. Établissements BARTHELÉMY, 64, rue Defrance, Vincennes (Seine). Tel. 328-42-87.

Prestik mastic - Société BOSTON, route de Saint-Leu, Montmagny (S.-et.-O). Tel. 752-16-63.

Tom R3 mastic - Société BALOT, 38, rue du Parc, Alfortville (Seine). Tel. 368-39-50.

Plastijet-Mastic 307 - Société REXSON, 33, avenue du Général-Michel-Bizot, Paris 12^e. Tel. 307-79-56.

Sound deadening

Asophone mastic - Société KELLER, 26, rue Cadet, Paris 9^e. Tel. 770-84-10.

Insonastic mastic - Société BITUMASTIC, 8, rue Bayard, Paris 8^e. Tel. 359-41-40.

2. PASTE

Ask our Repair Methods Department for leaflet MR-3943-10.

3. PRODUCTS FOR WORK ON ALUMINIUM

Resins

Stical-Otalu - Établissements OTALU, 23 boulevard Richard-Lenoir, Paris.

MET-L-IT - Société PERRIER, Service WIHZ, 104 avenue Philippe-Auguste, Paris 11^e. Tel. 700-19-42.

Araldite - Établissements SAINT-GOBAIN, 1 place des Saussaies, Paris.

Flux and metal filler

Deoxydal

Fluxotalu

Neutralinox

OTALU, 23, boulevard Richard-Lenoir, Paris.

ODAM, 131, rue d'Avron, Paris.

S.A.F. 75, quai d'Orsay, Paris.

Material for argon-arc welding

S.A.F. - Établissements, 75, quai d'Orsay, Paris.
Sarazin - 47, boulevard de Levallois, Neuilly-sur-Seine.

Products for cleaning before painting

Deoxydine - Compagnie FRANÇAISE des PRODUITS INDUSTRIELS, 177, quai du Docteur-Dervaux, Asnières (Seine).
Framanol - Société LA FRAMALITE, 38, avenue Hoche, Paris.
Parcodine - Société PARKER, 42, rue Chance-Milly, Clichy (Seine).

Direct-adherence primers

Pyrimpro - Société PYROLAC, 51, rue de l'Echat, Créteil (Seine).
Primino - CELLOLAC, 49, rue du Vésinet, Croissy-sur-Seine (Seine-et-Oise).
Valimprex - VALENTINE, 185, avenue des Grésillons, Gennevilliers, (Seine).

4. PRODUCTS FOR PRESERVATION

Silicone oil for rubber door surrounds

Lissaprêt - Établissements, BIDAL, 35, rue Lucien-Sampaix, Paris 10^e. Tel. 607-48-10.

Rear lights in Plexiglass

Plexipol)
Siliplex) Société ALSTHOM, 24, rue des Petits-Hôtels, Paris 10^e. Tel. 824-97-12.

Chromium

LION NOIR-AUTOMIROR, 91, rue Gabriel-Péri, Montrouge (Seine). Tel. 253-46-00.
ABEL, 15 à 21, rue J.-R. Thorelle, Bourg-la-Reine (Seine). Tel. 702-06-93.

5. PAINTING AND ETCH PRIMERS

Black primer YS - Établissements LEFRANC, 15, rue de la Ville-L'Évêque, Paris 8^e. Tel. 265-03-70.
Yellow primer 4445 or black primer L2071 - Établissements MERVILLE et MORGAN, 67, rue des Cités, Aubervilliers (Seine). Tel. 325-20-22.
0/644 - Établissements NITROLAC, 130 à 146 rue Danielle-Casanova, Saint-Denis (Seine). Tel. 752-16-55 to 16-58.
G.122 - Établissements VALENTINE, 185 avenue des Grésillons, Gennevilliers (Seine). Tel. 473-19-24 to 19-29.

6. PRODUCTS FOR REPAIRING PLASTIC ROOFS

Resin 66 - Houillères du NORD, 35, rue Saint-Dominique, Paris 7^e. Tel. 385-45-79.
Microdol 5 Mu - Compagnie ADRISS, 117, quai du Docteur-Dervaux, Asnières (Seine). Tel. 473-28-70.
Lupersol DDM - Établissements ROUSSELOT, 50, rue Boileau, Paris 16^e. Tel. 288-81-04.
Stratyl XI - Établissements SAINT-GOBAIN 1 bis, place des Saussaies, Paris 8^e. Tel. 265-21-62.
Peroxyde Mec. - Laboratoires CHAMPIN, 176, quai de Jemmapes, Paris 10^e. Tel. 208-57-63.
Nuodex Cobalt à 6% - Établissements THEVENOT, 14, rue de Moscou, Paris 8^e. Tel. 387-40-91.
Fil Roving 60 brins - Établissements GENIN, 44, rue Paul-Valéry, Paris 16^e. Tel. 727-13-91.
Meule Carotte 407705 - Établissements NORTON, 91, avenue de la République, Paris 11^e. Tel. 023-29-69.

7. ANTI-CORROSION PRODUCTS

Jénolite-France - 110, rue Lamarck, Paris 18^e. Tel. 606-30-92.
Rustol - Établissements DURIEU, 3, rue Victor-Hugo, Gentilly. Tel. 253-77-73.

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TOOLS

NOTE: The following superficial examination (following a slight collision without apparent damage) avoids extensive dismantling, but indicates if the body should be placed on the jig base. The actual checking of the mechanical details can be carried out only on the jig base.

IMPACT AT THE FRONT

Checking the front unit

Preparation

- 1
- Remove the 2 front wings and the 2 front doors..
- 2
- Remove the front bumper and the front caisson closing panel.
- 3
- Remove the feed reservoir for the pump.
Remove the battery and its bracket.
- 4
- Remove the protection covers for the steering relay housings.
- 5
- Remove the front crossmember for the spare wheel (*vehicles produced until September 1962*).
- 6
- Remove the front axle arm brackets.
- 7
- Remove the steering relays.
- 8
- Remove the radiator in order to gain access to the screws fixing the caps on the upper front crossmember.
- 9
- Loosen the screws fixing the caps on the upper crossmember. Lower the engine slightly.

Checking

- 10
- Offer up the template on the right and left sidemembers of the body unit and on the sidemembers of the front caisson unit.

Cars produced until September 1962 : use template MR-3454-140 (see Pl. 16). The template must touch throughout its length, the two locating dowels in position in holes "e" (see Pl. 15)

Cars produced since September 1962 : use template MR-3454-150 (see Pl. 15C and 15D). The template must touch throughout its length (see Pl. 15C)
- 11
- Offer up the checking bar 2632-T in the bores for the steering relays on the front body unit (see Pl. 15C and 16). The bar should enter without being forced

Template MR-3454-140
Template MR-3454-150

Checking bar 2632-T

		TOOLS
12	Offer up the jig MR-3454-110, (see Pl. 15, 15C and 16), engage it in the steering relay bore on the front body unit (at "a") and in the 5th fixing hole of one front axle arm bracket (at "b")	Jig MR-3454-110
13	Offer up to the front body unit the cast gauges 2633-T (see Pl. 14A) and fix them with the screws and nuts provided for the purpose, or the pins (722 and 723) from the jig base equipment	Gauge 2633-T
	NOTE: On this question, you are reminded that the fixing of the axle arms was modified in April 1958 (see Pl. 14A). The gauges carry the marking "Avant avril 58" on one face and "Depuis avril 58" on the other. <i>Vehicles produced until April 1958</i> : the upper bosses are displaced by 2 mm with respect to the lower bosses. Apply the face marked "Avant avril 58" to these bosses. <i>Vehicles produced since April 1958</i> : all the bosses are in the same plane. Apply to these bosses the surface marked "Depuis avril 58".	
14	Offer up the checking bar 2632-T (see P. 16). It must enter freely the bores in the two gauges 2633-T (see Pl. 14A)	Checking bar 2632-T
15	<i>Vehicles produced until September 1962</i> : offer up to the sidemembers of the front caisson unit (see Pl. 15) a new front spare wheel crossmember D 741-7. Check that the fixing screws can be fitted.	
16	Offer up unit positioning template 2631-T and engage it on the rear lower stud for fixing the front axle arm bracket (at "c") and in the lower pilot hole in the front body pillar (at "d").	
	<i>Cars produced until September 1962</i> : see Pl. 15.	
	<i>Cars produced since September 1962</i> : see Pl. 15C	Template 2631-T
	IMPACT AT THE REAR	
	<u>Checking the rear lower unit</u> (without tools).	
	To do this the position of the bearing housings in the unit must be checked.	
17	Fit a new assembly, arm, hubs and wheels.	
18	Check the alignment of the wheels (see Pl. 15B).	
19	Check the camber (see Pl. 15A).	
	If the alignment and camber are correct, the rear lower unit can be considered good. If not, it will be necessary either to go on to check it with tool 2634-T or to place the body on the jig base.	

		TOOLS
	<u>Checking the rear lower unit</u> (using tool 2634-T) (see Pl. 14B).	
20	Remove the assemblies arms, hubs and rear wheels.	
21	Offer up the guide housing (A) in the left bore of the rear unit. Fix it with the help of the 3 nuts	Tool 2634-T
22	Offer up the second housing (B) in the right bore of the unit and fix it with the help of the nut (C).	
23	Offer up the aligning bar (2632-T) in the left-hand housing and in the bore in the right-hand housing	Aligning bar 2632-T
24	Fit the centring bush (D) in the right-hand housing and on bar 2632-T. Do up the three fixing nuts without tightening them. Move the bush (D) to allow the bar to slide freely. Tighten the grooved nuts. If the bar no longer slides, try adjusting the position of the bush (D) once more.	
25	Check the body. If the unit is not distorted, the bar should then slide <i>freely</i> in housing (A) and in bush (D). If it does not, the rear of the body is deformed.	
26	<i>In the special case of the cabriolet:</i> a) Offer up the bar in the bores of the unit. b) Fit the right-hand guide housing (B). c) Fit the left-hand guide housing (A). d) Then centre the bush and continue checking as described above.	

		TOOLS
<i>NOTE: For all movements of the body it must be secured so as to ensure that it can be handled safely and without damage.</i> Two cases can be quoted. <u>1st case</u> : the engine gearbox assembly together with the front half axles and the rear arms are removed. 1 Bring the body close to the jig base. 2 Put the lifting fixture in position (use fixture MR-3319-40, see Pl. 5) or 2641-T (see Pl. 5A) (Break) NOTE: Fixture 2641-T was used for lifting "light and big 15" bodies. 3 Lift the body over the jig base (in order to put in position for checking). <u>After repair:</u> 4 Put the lifting fixture in position (use fixture MR-3319-40, see Pl. 5) or 2641-T (see Pl. 5A) (Break) 5 Raise the body with a lifting tackle or a winch and disengage it from the jig base. 6 Place the body on a trolley (see paragraph 15). 7 Disengage the lifting fixture. <u>2nd case</u> : the two front half-axles and the two rear arms are removed, the engine and bonnet remaining on the car. 8 Bring the body close to the jig base. 9 Put the lifting fixture in position (use fixture MR-3319-30, or 3319-50, see Pl. 4) 10 Lift the body over the jig base.		Lifting fixture MR-3319-40 or 2641-T Lifting fixture MR-3319-40 or 2641-T Lifting fixture MR-3319-30 or MR-3319-50

		TOOLS
	<u>After repair</u>	
11	Put the lifting fixture in position (use fixture MR-3319-30, or MR-3319-50, see Pl. 4)	Lifting fixture MR-3319-30 or MR-3319-50
12	Raise the body with a lifting tackle or a winch and disengage it from the jig base.	
13	Place the body on a trolley (see paragraph 15).	
14	Disengage the lifting fixture.	
	HANDLING THE BODY IN THE WORKSHOP (see Pl. 6).	
	NOTE: <i>The car must be fitted with its rear wheels.</i>	
15	Put the crossmember MR-3662-80 on the trolley MR-3662-40. When the body is placed on the trolley, the cross-member MR-3662-80 must be engaged in the half-axle front crossmember	Crossmember MR-3662-80 Trolley MR-3662-40

TOOLS

NOTE: *The plates 10, 10A, 11 and 11A illustrate the jig base accessories, sold under No. 2606-T.*

Preparation of the rear (see Pl. 13).

- 1
- In the bores for the rear arm bearing housings, fit on the left the bush (725), and on the right the bush (726). Secure the bushes by tightening the nuts on the 3 screws fixed to the sidemembers. Tighten the nuts (729) from inside the boot.

Preparation of the front (see Pl. 12).

- 2
- Fit the brackets (714) to the faces to which the brackets for the front axle arms are fitted.
- NOTE: *For vehicles produced until April 1958, in which the upper bosses are displaced by 2 mm with respect to the lower bosses, it is not necessary to interpose distance pieces* (see Pl. 12A).
Since April 1958, to be able to use the front brackets (714), it is necessary to interpose distance pieces (750) to compensate the displacement (see Pl. 12A).
- Screw up first the lower pins (722) and (723) and tighten them. Then screw up the upper pins (722) and tighten them.

To locate the body at the rear (see Pl. 13).

- 3
- Lower the body between the two brackets.
- NOTE: *1) To centralise the body, there must be fitted on each side one distance piece (730) or (731) between the rear bracket and the bush (725) or (726). For preference use distance pieces (730) maximum.*
- The same thickness of distance piece must be used on both sides.*

2. Cabriolet:
Engage the pins before offering up the body to the jig base (see Pl. 13A). The pins should not project beyond the inner faces of the brackets. Then proceed as for a Berline or Break body. To remove the body after repair, position the pins as indicated in Pl. 13A. Lift off the body and take out the pins.

- 4
- Offer up the centring pin (727) in the fixed bracket (711) and the bush (725), fitting the distance piece (730) or (731).

- 5
- Offer up the 2nd centring pin (727) in the movable bracket (710), fitting the distance piece (730) or (731).

If the centring pin cannot be put in position, it will be necessary to move the bracket (710). To do this, slightly unscrew the screws fixing the bracket to the jig base (the brackets must not swing), and adjust the screws (L) so as to move the bracket along the slides (719).

NOTE: *The centreline of one rear bore can, by construction, be up to 5 mm out of line with the other, the two centrelines being parallel.*
After adjusting the bracket, tighten the screws securing it on the jig base.

TOOLS

- 6
- Put the bush nuts (734) in the brackets for the suspension cylinders, offer up the alignment pins (732) in the bushes (734), and tighten them. At this point, the pins should be in contact with the pads (733).
- To locate the body in position at the front (see Pl. 12 and 12A).
- 7
- Place on the crossmember (712) the spacing blocks (718). Let the body rest by the brackets (714) on the spacing blocks (718).
- Put the centring pins (728) in position in the brackets (715) and in the hole in the brackets (714).
- If the centring pins cannot be put in position, it will be necessary to move the crossmember (712) between the slides (713).
- Actually the distance between the front axle and the rear axle can vary by ± 5 mm in relation to the nominal dimension.
- After alignment of the crossmember and location of the centring pins, tighten the screws fixing the brackets (714) on the crossmember.
- 8
- Offer up the jig (751/752) for centring the lower front body pillars. Fix it on the crossmember (712). Offer up the mask (752) opposite the front wing dowels. Tighten the mask on its support (751).
- NOTE: *The centre distance between the front wing dowels has a tolerance of ± 2 mm.*
- A mark on the vertical centreline shows the position corresponding to the nominal dimension.*

TOOLS

To take account of modifications made to our vehicles, it will be necessary to carry out the following modifications to jig base equipment supplied until January 1st 1960.

1 Modifications for assembling "Break Commercial" bodies.

On these models the rear stops have been modified. The distance between the stops has been reduced (see Pl. 13B). This requires modification to the rear supports. Spot face the rear inner face of the 2 supports as shown in Pl. 13B.

2 Reinforcement of the front crossmember.

For certain work on reshaping the front assembly of the body, it is necessary to press against the end of the cross-member, with the risk of distorting it.

Make up 2 reinforcements (754) and 4 shouldered bolts (756-757) as shown in Pl. 20A.

Fit these reinforcements on the crossmember (see Pl. 20B). Arc weld the flanges of the reinforcements to the "U" piece (at "H", see Pl. 20B, fig. 3).

3 Support at the end of the crossmember.

To ensure proper support for the jack, make up support (755) as shown in Pl. 20C and fit this to the crossmember as shown in Pl. 20B, fig. 3.

4 Distance pieces for the lower bosses of the front supports.

Until April 1958 the 2 lower bosses were 2 mm higher than the upper bosses (see Pl. 20C, fig. 1).

Since this date the 4 bosses are the same level.

To compensate for this difference, make up 2 distance pieces (750) (fig. 3). These will be placed between the lower bosses of the unit and the lower bosses of the front supports (714) of the jig base equipment.

5 Thrust block for front supports (714).

To avoid distortion of the supports (714) during the work of reshaping, it is recommended that thrust block shown (Pl. 20B, fig. 2) be inserted in the body of the support (714).

6 Alignment gauge for front wings.

The first series of jig base was supplied with 2 supports (716 - 717) and 4 spindles (720 - 721) for the alignment of the front wing dowels and positioning of the lower front pillars.

The second series is supplied with one adjustable gauge (751 - 752).

This gauge can be made up (see Pl. 20D).

7 Use of the equipment for assembling bodies of the "Cabriolet" series.

The bodies of the "Cabriolet" series fit on the jig base. It will, however, be necessary to shorten the rear plugs by 60 mm to allow the rear end of the body to pass. Insert the plugs before placing the body on the jig base (see Pl. 13A). The plugs must be flush with the inner face of the supports.

For the removal of the body, put the plugs as shown in Pl. 13A .

TOOLS

Since September 1962, the bottom corners (A see Pl. 20E) of the front body unit have been strengthened; the bottom body panel forms an important moulding at this point.

This panel must never be cut in any way.

This change requires modification to the jig base equipment (see Pl. 20E).

- 1 Take note of the existing measurement between the front support (714) and the guide (715). This should be 17 mm. If it is less, it is necessary to modify the guides (715) as shown (fig. 3).

- 2 To modify the front supports (714):

- a) Cut part of the support and lower bosses as shown in fig. 4.
- b) Make the slots as shown in fig. 4 at "a" by opening the 20 mm holes towards the outside of the support.
- c) Make up 8 distance pieces as shown in fig. 4.
- d) Place these distance pieces on the front supports (714). Arc weld them at 3 points on the support bosses at "b".

NOTE: *To line up the holes, pass a rod of 20 mm $\begin{smallmatrix} + 0.05 \\ - 0 \end{smallmatrix}$ in the bosses and distance pieces.*

- e) If required, increase the chamfers to allow the reinforcement plate of the front body unit to pass.

- 3 Modify the front support base (712) by drilling 4 additional holes of 22 mm diameter as shown in fig. 5.
- 4 Modify the 6 male pins (722) as shown in fig. 7.
- 5 Modify the 2 female pins (723) as shown in fig. 6.

TOOLS

CHECKING THE REAR UNIT

- 1
- Position the front end (see Op. D 620-C paragraph 7).
- 2
- To position the rear end (see Pl. 13).

Fit the housings (725 and 726) in the holes for the arm bearing housings. Fix the sleeves by tightening the nuts of the 3 captive bolts in the sidemembers. Then tighten the locking rings (729) from the inside of the boot. Offer up a rear plug (727) in the left support (711) interposing the wedge (730) or (731). If necessary, alter the position of the front crossmember (712) by adjusting the plunger regulating screws (713) (see Pl. 12). The plug should offer some slight resistance in the holes of the support and sleeve.
- 3
- Place the rear plug (727) in the right support (710). If the plug cannot be positioned, move the support in its slides (719) to permit the introduction of the plug in the bore of the housing (726). For this, loosen slightly the screws holding the support of the jig base (the support must not rock or swing). Use the adjusting screw "L" to move the support in the slides. The plug must slide with some slight resistance in the holes of the sleeve and the support.

If one or both of the plugs cannot be positioned, the rear unit is out of true.

Checking the suspension cylinder supports (see Pl. 13).

Place in the bores of the rear suspension cylinder supports the socket screws (734) and screw into these the pins (732). The pins (732) must be in contact with the pads on the rear supports and on the same centreline. The pins (732) must also be flush with the sockets (734).

CHECKING THE FRONT UNIT (see Pl. 12 and 12A).

- 4
- Fix the supports (714), right and left, at the position for the axle brackets.

NOTE: *For vehicles issued until April 1958, of which the upper bosses are 2 mm lower than the bottom ones, it is not necessary to interpose the distance pieces (see Pl. 12A).*

Since 1958, to be able to use the front supports (714), it has been necessary to compensate for this difference by interposing the distance pieces (750).

Screw in first the lower pins (722) and (723) and tighten them. Then screw in the upper pins (722) and tighten them.

The body being pinned at the rear and the packing pieces (718) placed under the front supports (714), the two pins (728) must just fit in the bores of the guides (715) and of the supports (714).

NOTE: *If the pins cannot be so placed, it will be necessary to move the crossmember (712) between its slides (713).*

The distance between the front and rear axles can vary ± 5 mm from the standard measurement.

		TOOLS
5	<u>Checking the alignment of the steering relays</u> (see Pl. 15). Offer up the alignment bar (2632-T) in the steering relay bores. It should pass freely through the two holes Check each side, the relative position of the steering relay bore "a" and the 5th fixing hole "b" for the front axle arm bracket, using jig MR-3454-110.	Alignment bar 2632-T Jig MR-3454-110
6	<u>Checking front wing centring</u> (see Pl. 12). <u>First case</u> (<i>applicable to equipments sold until January 1960</i>). a) Fit the two columns (716-717) on the front crossmember (712). Fit in the columns (716-717) the lower locating pins (721) and the upper locating pins (720). Push them in as far as possible. NOTE: <i>The locating pins have a significant amount of play in the bores in the columns, to accommodate the tolerances of the front wing dowels. The locating pins must be able to engage on the dowels.</i> Check each front pillar using the fixture 2631-T (see Pl. 15). Offer up the fixture on the body. The bore must engage on stud 'c' and the dowel in pilot hole 'd' <u>Second case</u> (<i>applicable to equipments sold since January 1960</i>) (see Pl. 12A). b) Offer up the centring template (751-752) to the front crossmember, on the undamaged side of the vehicle. Shift the movable part (mask) of the template to allow the front wing dowels to enter the notches provided. Tighten the movable part by means of the upper screw. Place the template for the damaged side on the front crossmember (712). The wing dowels should enter the notches if the lower front pillar is not distorted.	Fixture 2631-T
7	<u>Positioning a lower front pillar.</u> It is possible to position a lower front pillar by using template (751-752). a) Either by carrying over to the damaged side the measurement made on the other side (see paragraph 7). b) Or by setting the template to the nominal position (a scratch on the vertical axis shows the corresponding position of the movable mask.	
8	<u>Checking the front caisson unit</u> (see Pl. 15 and 16). This check can be carried out when the car is on the jig base or on the ground. Offer up the template MR-3454-140 on each side of the front body unit and of the front caisson unit, the 2 positioning pegs in the holes "e". The template must touch for the whole of its length Offer up on the two sidemembers of the front caisson unit a sparewheel crossmember (D 741-7), using this as a spacing template. Make sure that the fixing screws can be put in position.	Template MR-3454-140

TOOLS

Chain MR-3319-20

We indicate (see Pl. 75-75A and 76) the method of towing and lifting the DS 19 and ID 19 using the chains MR-3319-20. Towing is possible even if the vehicle is in the "Low" position.

On no account should you hook onto the rings fixed under the front and rear of the body, nor raise the car by the front sidemembers.

In order to avoid damage under the body, it is absolutely necessary to insert a cushion of sacking or rubber at "a" (parts of an old tyre for example) between the car and the wooden plank (4).

N.B. *Since September 1962 a modification has been made to the finishing panel of the front caisson unit.*

The car can be towed without damaging the finishing panel by proceeding as before, with the planks and "cushion" placed as indicated in Pl. 75A.

NOTE: The height (H) varies from one vehicle to another. The length of the chains is determined by this height.

In the example $H = 700 \text{ mm}$.

The length of the chains is as follows:-

Chain A under the car:

$900 \text{ mm} + \text{hook (1)} + 2 \text{ links (3)}$.

Chain B for lifting:

$792 \text{ mm} + 1 \text{ link (3)} + 1 \text{ large round ring}$.

NOTE: *It is necessary to use a chain conforming to the standards of 12 CNM 601, in which the dimensions of the links are:*

length = 3 times the diameter of link material, thus : 36 mm,

width = 1.3 times the diameter of link material, thus : 15.6 mm.

TOOLS

The attachment must meet the following requirements:

- 1) The total weight of the loaded trailer must not exceed:
 - a) ID 19 Berlines produced until September 1961 - 1870 lb (850 kg).
 - b) ID 19 Berlines produced since September 1961, DS 19 Berlines and ID 19 Breaks (all models) - 2200 lb (1000 kg).
- 2) The distribution of weights on the trailer must be such that the towing gear rests lightly on the hook (approximately 66 lbs) (30 kg).
- 3) The trailer must be fitted with a braking system.

PREPARATION

- 1 Remove the lining of the boot for 6 inches (150 mm) from the rear.
- 2 Remove the lining from the bottom of the left-hand and right-hand sidemembers of the caisson for 8 inches (200 mm), starting from the rear.
- 3 Remove the protection panel for the rear corrector control.
- 4 Flatten the ribs in the bottom panel of the boot in the area where the fixing plate for the rear distance piece is to rest (see Pl. 74).
- 5 Make up the various fittings (see Pl. 73 and 74):
 - a) The attachment (assembly No. 2), using tubes (A) and (B), the rear distance piece (C) and the swivel fixing plate (D). The dimensions of plate (D) can vary according to the type of swivel used.
 - b) The rear fixing reinforcement (assembly No. 3), using the fixing angle brackets (E), the tube (G) and the fixing plate (F).
 - c) The counterplate (H) and the packing pieces (J).

ASSEMBLY

- 6 Mark the front to back centreline of the bottom of the boot. Mark out and drill the rear fixing holes for the attachment (see Pl. 74).
- 7 Put the rear fixing reinforcement (assembly 3) in position in the boot. Offer up the attachment (assembly 2) and fix it at the rear.
- 8 Drill the body for fixing the traction tube (A) and the sidemembers for fixing the angle brackets (E) on the inner reinforcement.
- 9 Fix the traction tube. Put the counterplate (H) inside the boot.
Fix the angle brackets of the rear reinforcement. Measure the clearance between the underside of the angle brackets and the sidemembers and insert enough packing pieces (J) to take it up.
- 10 Line the boot.
- 11 Refit the protection panel for the rear corrector control.

TOOLS

The attachment must meet the following requirements:

- 1) The total weight of the loaded trailer must not exceed 2200 lb (1000 kg);
- 2) The weight distribution on the trailer must be such that the towing attachment rests lightly on the hook (about 66 lbs) (30 kg).
- 3) The trailer must be equipped with a braking system.

PREPARATION (see Pl. 77, 78 and 79).

Remove the rear bumper, the bracket and the rear wings.

Remove the bumper reinforcement.

On vehicles produced until September 1962, remove the lower panel.

To prepare the attachment:

- a) Make up an attachment as illustrated in Pl. 77 and 78.
- b) Manufacture a swivel as shown in Pl. 77, fig. 2.
- c) Fit this swivel on the attachment.

Prepare an exhaust bracket (see Pl. 78, fig. 4).

Make some internal fixing reinforcements (see Pl. 79, fig. 2) in sheet steel 1/8 in. (3 mm) thick.

Make two electrical cable shields from sheet steel 0.8 mm thick (see Pl. 79, fig. 3).

To prepare the bumper:

- a) With the two ends of the original bracket, prepare two brackets as indicated in Pl. 79, fig. 1 (without distorting the existing end).
- b) In the bumper, cut two pieces whose developed length $l = 12.4$ in (315 mm) (see Pl. 77, fig. 1).

On vehicles produced until September 1962, cut the lower panel as well.

In these pieces drill the holes "a" for fixing the bracket and the holes "b" for fixing the reinforcements.

Remove the flap seats and the floor panels.

Remove the rear harness protection panels.

Remove the harnesses and dismantle them.

DS 19 - ID 19	OPERATION No. DF 620-F : <i>Attachment for towing (Break)</i>	Op. DF 620-F	25
		T O O L S	
10	Put the internal reinforcements in position and drill the body.		
11	Offer up the attachment and fix it: - on the rear of the body with the fixing screws (1) from the hinge of the lower door. - on the bottom of the boot, using the assembly screws (2) for the internal reinforcements.		
12	From the underside of the vehicle, drill, in the body and the internal reinforcements, the lateral fixing holes for the attachment, 3/8 in. (9.5 mm) in diameter.		
13	Fix the attachment to the interior reinforcements, using the screws (5).		
14	Remove the fixing strap for the exhaust welded on the sidemember.		
15	Fit the bracket for the one or more exhaust pipes (see Pl. 77) on the rear upper fixing screw for the left-hand internal reinforcement (see Pl. 77, fig. 1). If necessary, nick the metal support of the mudflap as required.		
16	Fix the buffer support bars on the vehicle.		
17	Fix the reinforcements on the bumpers.		
18	Fix the bumpers on the vehicle.		
19	Fit the electrical harnesses. Offer up the covering panels and the shields (4) (see Pl. 77, fig. 4). Cut the original covering panels flush with the shields and fix them.		
20	Fit the wings and connect up the harnesses.		
21	Line the body, fit the flap seats and the floor panels.		
	NOTES: - Depending on the type of swivel chosen, it may be necessary to provide a cut-out in the rear flap of the tail-board. - On the "Break familiale" the petrol tank must be removed for fitting.		

		TOOLS
1	WASHING The different shampooing preparations used in service stations are sufficient for complete cleaning of the bodywork. Nevertheless thorough rinsing is necessary. "Soapy" or "Teepol" type trade products give very good results if their application is followed by a good rinsing with clean water. Tar stains disappear with the aid of most of the special products sold, provided the instructions on the containers are followed. Xylene also gives very good results. After cleaning and drying, one application of a silicone-based product protects the paint. This application should only be repeated two or three times a year. Follow the instructions on the container.	
2	CLEANING : TRIMMING AND FABRICS The trimming fabrics of the DS 19 and ID 19 cars are laid on: a) Foam rubber, Dunlopillo type. b) Furnishing wadding. Whatever the base of the fabric it is essential: To proscribe the use of acetone, trichlorethylene and their derivatives, which attack the fabric. All cleaning products are inflammable. Do not use them hot. Do not iron dry, to avoid deterioration of the fabric. In order to avoid the formation of rings: a) Brush the portion to be cleaned carefully. b) Change the cleaning cloth frequently. c) If the stains to be removed are large, preferably clean the whole part. To avoid soaking the padding (rubber or wadding) use only wrung-out pads for cleaning (even if using pure water or diluted solvent). If the padding is foam rubber, this last precaution is of even greater importance; foam rubber forms a sponge and retains, for a long time, the product used. Secondly, the rubber is attacked by petrol and hydrocarbons (it swells and becomes sticky). 1) <u>Sugar stains.</u> On all colours: use soapy water at approximately 50°C. Rub with a clean cloth and rinse. Persist on stains on light-coloured fabrics.	

		TOOLS
2)	<u>Engine-oil stains.</u> Rub with a clean cloth dipped in industrial alcohol until the stain disappears. In the case of imperfect cleaning on light fabrics, finish off by a light rubbing with a cloth dipped in petrol.	
3)	<u>Lipstick stains.</u> A light rubbing with a cloth dipped in industrial alcohol, carried out immediately, turns the red to a pale pink. <i>It is impossible to remove the residual stain.</i>	
4)	<u>Tar and grease</u> Insert an absorbent cotton fabric (brushed cotton, suedette) between the pad impregnated with petrol and the stain. Recommence the operation, changing the cloth so that it does not become saturated with tar. When the tar has almost disappeared, finish off by directly rubbing the remaining stains with a clean pad dipped in petrol. On light coloured fabrics (champagne, rose grey, roof grey) traces of yellow will remain. On dark coloured fabrics, the stain should disappear.	
5)	<u>Stains from special fluid for the hydraulic controls.</u> Rub with a cloth dipped in industrial alcohol. On light coloured fabrics, very light marks may remain. On dark coloured fabrics, the stain should disappear.	
6)	<u>Chocolate stains.</u> If the stains are moist, leave to dry, then rub with a clean cloth dipped in water to which a detergent (e.g. Teepol) has been added, until the stain disappears. Suitable for all coloured fabrics.	
7)	<u>Grass stains.</u> In position these are difficult to remove. Rub with a cloth soaked in industrial alcohol.	
8)	<u>Dirt (dust caked by perspiration).</u> Dry brush vigorously to remove the dust. Clean by rubbing with a clean cloth dipped in water to which a detergent has been added (e.g. Teepol).	

TOOLS

Brush, after drying, in order to restore the pile of the fabric.

It is also possible to rub the part to be cleaned with a cloth dipped in petrol, not leaving time for the petrol to penetrate to the foam rubber.

If necessary repeat the operation several times until a clean surface is obtained.

9) Mud and dust stains.

In the case of mud stains, brush after drying. If the marks remain, rub with water to which a detergent has been added (e.g. Teepol).

10) Bloodstains.

Rub with a cloth dipped in a solution of:

1 part ammonia (alkali).

2 parts water.

In the case where brownish stains remain, remove by rubbing with peroxide (20 or 30 volumes).

NOTE: *Do not persist with peroxide, because this will fade the colours. Use this solution only on light colours.*

11) Ink stains.

a) Greasy ink (ball pen).

Light stains.

Rub gently with a cloth dipped in industrial alcohol, persisting on the obstinate marks, until they disappear completely.

Bad stains.

If the stain is still wet, the surplus ink can be removed with a clean dry cloth, without fear of spreading the stain and of forming rings.

Put a clean, dry cloth on the stain and using a second cloth dipped in alcohol rub the first, changing the latter frequently as soon as it has absorbed a little ink.

NOTE: *Do not use too much alcohol at one time, as this will cause the ink to penetrate the fabric and then the wadding or foam rubber.*

Finish cleaning off the rings by rubbing with a clean cloth dipped in alcohol.

b) Fountain-pen ink (Waterman type).

Rub the fabric with a cloth dipped in the following solution:

1 part ammonia (alkali).

2 parts water.

Continue until the stain disappears.

c) Ordinary black ink.

Light stains.

Same method as for fountain-pen ink (see paragraph b).

Bad stains.

Same method as for fountain-pen ink (see paragraph b).

Nevertheless removal of stains is difficult and often traces or rings remain.

NOTE: *All products used for cleaning the trimming and fabrics, industrial alcohol (methylated spirit), petrol (cleaning or dying spirit), are sold at all colour dealers and chemists.*

CLEANING A PLASTIC ROOF

A - Non-painted roof, exterior cleaning.

1. Prepare the following solution:

Xylene in the proportion of 40%.

Petrol in the proportion of 40%.

Buthanol or methylated spirits in the proportion of 20%.

2. Rub the stain using a cloth dipped in the solution.

NOTE: *In most cases the stains disappear with trichlorethylene. However, avoid wetting the flasher-light housing with the trichlorethylene soaked cloth.*

B - Cleaning a head-lining.

a) In nearly all cases (butter, fatty substances, clean engine oil, jam, chocolate), it is necessary to:

1. Rub the stained portions lightly with a pad of cotton wool soaked in neat Teepol.

2. Rinse thoroughly with a pad of wadding soaked in clean water.

3. Leave to dry.

b) Grease stains:

1. Remove the dust from the stained portion.

2. Soak a clean cloth in trichlorethylene and dab it on the grease stain.

3. Repeat the operation several times if necessary, until the stain nearly disappears.

4. Finish off by rubbing lightly with a clean cloth also moistened with trichlorethylene. Leave to dry.

TOOLS

- c) Dust marks.
 - 1. Blow over the marks with a jet of compressed air.
 - 2. Brush the remaining marks with a clean stiff brush.
If a mark still remains:
 - 3. Prepare a solution comprising 1% Teepol to 99% water.
 - 4. Rub the stained portion lightly with a clean cloth dipped in the solution. Continue rubbing without pressure.
 - 5. Rinse with a clean cloth dipped in clean water. Leave to dry.
- d) Water marks.
Difficult to remove:
Proceed as indicated in paragraph c) (dust marks), with a solution of water and Teepol.

4 PROTECTION OF CHROMIUM PLATING AND STAINLESS STEEL

NOTE: *The chromium plating and stainless steel are treated with a fine coat of silicone-based polish, which prevents atmospheric corrosion during the early months.*
In order to maintain this protection it is recommended that a coat of silicone-based polish (Car-Plate or Abel 54) to be applied about every 3 or 4 months.

- Proceed as follows:
- 1. Clean the chromium plating.
 - 2. Thoroughly wipe the chromium plating.
 - 3. Then rub lightly with a cloth or pad of liquid polish impregnated with the polish.

5 MAINTENANCE OF PLEXIGLAS REAR LIGHT

- 1. Wash with a strong water jet.
- To avoid creating scratches, do not rub.*
- 2. Leave the glass to dry thoroughly before starting the maintenance operation.
 - 3. Dip a pad of best quality lint-free polishing wadding in a product such as "Plexipol" or "Plexi No. 1" (Abel).
 - 4. Rub the inside and outside surfaces of the glass from top to bottom or side to side with this pad.
- NOTE: *Do not rub with a circular movement.*

TOOLS

5. After polishing, dip a pad of best quality lint-free polishing wadding in a product such as "Siliplex" or "Plexi No. 2" (Abel).

This product acts as an anti-static and prevents dust sticking to the glass.

Rub the glass without pressure from top to bottom or from side to side with this pad.

NOTE: *Do not rub with circular movements.*

REMARK: Plexiglas is attacked by certain chemical products, alcohol, the ketones, benzene. toluene, hydraulic fluid, petrol (when it contains benzol or tetra-ethyl lead).

Care must be taken to prevent these products coming in contact with the rear light.

6 MOVEMENT OF DOOR GLASSES.

To ensure that the door glasses slide easily on the door sealing rubbers, at approximately every 3750 miles (6000 km.) apply two coats of "Lissapret" with approximately 30 seconds between coats. Spread the product with a pad of polishing wadding.

7 RUSTPROOFING.

a) Rust stains can be removed with "Jenolite RR N/B".

- 1. Whenever possible, remove large rust spots or serious scaling with a wire brush or abrasive paper.
- 2. Apply the pure (undiluted) solution "Jenolite RR N/B" with a cloth or brush.

NOTE: *On easily accessible surfaces, to speed up the action of the Jenolite on very rusty parts it is advisable to use a wire brush.*

- 3. Let the Jenolite work for 15 to 30 minutes. Then wipe off and dry with dusters. If there are still traces of rust, a second application can be made under the same conditions.
- 4. When the treated surface is clean and dry (about 24 hours), it can be primed and painted.

NOTE: 1. *The treated surface need not be rinsed with water, as is sometimes necessary with other products.*

- 2. *Jenolite RR N/B is used on ferrous metals; it is coloured mauve. There are other Jenolite products for non-ferrous metals; these are green.*

b) RUSTOL can also be used. Use it according to the directions on the pack.

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i> DISMANTLING (see Pl. 22). 1 Drill the open the welding points, open the welds (cutting chisel) joining the caisson front unit to the body front unit. <i>(at AB - BC and symmetrically at A'B' - B'C').</i> 2 Open the welding points (cutting chisel) <i>(at DE - DF - FC) and symmetrically D'E' - D'F' - F'C').</i> 3 Separate (cutting chisel) the crossmember (1) (see fig. 2) from the right-hand and left-hand flanges of the unit <i>(at K and symmetrically at K').</i> 4 Cut the front crossmember (2) (blow pipe) <i>(at GH).</i> 5 Complete the separation of the panels (cutting chisel and disengage the unit. PREPARATION (see Pl. 22). 6 Clean up, by planishing, grinding or welding, all distortions, roughnesses or rents in the chiselled or cut edges. 7 Remove the steel band of the front crossmember remaining welded on the crossmember (2) (cutting chisel) <i>(at GH).</i> 8 Clean the edges of the panels (abrasive disc), where welding will be carried out. 9 Degrease the new part with petrol or white spirit. ASSEMBLY (see Pl. 22). 10 Offer up the caisson front unit, and fix it provisionally on the front body unit, using clamps. 11 Offer up the template (template MR-3454-140, see Pl. 15) on one side of the unit to locate it. Then offer up the template on the other side, fastening it on the two units		Template MR-3454-140

		TOOLS
12	Spotweld the front caisson unit on the front body unit. <i>(at AB and symmetrically at A'B').</i> <i>(at BC and symmetrically at B'C').</i> <i>(at DF and symmetrically at D'F').</i>	
13	Put a few points of brazing, as a precaution, in the angles not accessible with the spot welder.	
14	Braze the connecting panel (3) on the front crossmember (2) <i>(at GH).</i> Braze the crossmembers (1) on the right-hand and left-hand flanges <i>(at K and symmetrically at K').</i>	
15	Fill up the holes, previously drilled during the dismantling, with brazing metal <i>(at AB and symmetrically at A'B').</i>	
16	Braze each side <i>(at ED and symmetrically at E'D').</i>	
17	Planish and grind the welds.	
18	Paint the unit.	
19	Sound deaden the unit.	

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i> DISMANTLING (see Pl. 23).		
1	Drill and cut the welding points and detach (cutting chisel) the caisson front unit side from the front body unit <i>(at AB, AC, CD).</i> <i>(at ED, EF).</i> <i>(at L).</i>	
2	Cut the front crossmember (hack-saw) <i>(at GHK).</i> Keep only the undamaged portion of the crossmember.	
3	Remove the part.	
PREPARATION		
4	Remove, by planishing, grinding or welding, all deformations, roughnesses and tears in the chiselled or cut edges. NOTE: <i>The front caisson unit is sold complete by our Spare Parts Department.</i>	
5	Cut out the new part as required and fit it to the front caisson unit.	
6	Degrease the replacement part with petrol or white spirit.	
ASSEMBLY (see Pl. 23).		
7	Offer up the part of the caisson front unit and fix it provisionally with clamps.	
8	Offer up the template (use the template MR-3454-140, see Pl. 15) and fix it on the part and on the front body unit ...	Template MR-3454-140
9	Provisionally fix the part by a few welds <i>(at AB, AC).</i> Remove the jig.	

		TOOLS
10	Offer up a front spare wheel crossmember (see Pl. 15) and make sure that the fixing screws can be fitted.	
11	Braze the crossmember (I) on the flange of the unit (at L). Fill up the holes, previously drilled during the dismantling, with brazing (at AB).	
12	Spot weld the front unit side on the body unit (at AB, AC, ED). Braze (at EF).	
13	Weld (gas) the front crossmember (at GHK).	
14	Planish and grind the welding.	
15	Paint the unit.	
16	Sound deaden.	

		TOOLS
<i>This operation does not require use of jig base.</i>		
REMOVAL (see Pl. 22A).		
1	Drill and cut the welding and detach (chisel) the front body unit from the front caisson unit. <i>(at AB - CD and symmetrically at A'B' - C'D').</i>	
2	Drill, cut and separate the line of spot welding (chisel). <i>(at HG - GF and symmetrically at H'G' - G'F').</i>	
3	Drill, cut and detach (chisel) the lower lines of spot welding joining the front body unit and the front caisson unit. <i>(at ED and symmetrically at E'D').</i>	
4	Remove the front caisson unit.	
PREPARATING (see Pl. 22A).		
5	Remove by planishing, grinding or welding, distortions, jagged edges or tears from the edges chiselled or cut.	
6	Degrease with petrol or white spirit the new parts.	
FITTING (see Pl. 22A).		
7	Offer up the front caisson unit. Provisionally fix it on the front body unit with the aid of clamps.	
8	Offer up the gauge (gauge MR-3454-150, see Pl. 15C), on one side of the unit, to position it. Then offer up the gauge on the other side and clamp it to both units	Gauge MR-3454-150
9	Spot weld the front caisson unit on the front body unit. <i>(at AB and symmetrically at A'B').</i> <i>(at CD and symmetrically at C'D').</i> <i>(at GF and symmetrically at G'F').</i> <i>(at DE and symetrically at D'E').</i>	

		TOOLS
	Braze at several points the corners not accessible to the spot welder.	
11	Fill by brazing the holes previously drilled for dismantling <i>(at AB and symmetrically at A'B').</i>	
12	Braze each side <i>(at HG and symmetrically at H'G').</i>	
13	Planish and grind the welding.	
14	Paint the part.	
15	Sound deaden.	

		TOOLS
<i>The operation does not require use of the jig base.</i>		
REMOVAL (see Pl. 23 A).		
1	Drill and cut the welds and detach (chisel) the front caisson unit extension from the front body unit <i>(at AB, CD)</i> <i>(at GF and GH)</i> <i>(at EF).</i>	
2	Drill, cut and separate the welds holding the extension to the crossmember <i>(at JK, LM)</i> <i>(at JL, KM).</i>	
3	Remove the extension.	
PREPARATION		
4	Remove by planishing, grinding or welding, distortions, roughnesses or splits in the chiselled or cut edges.	
5	Degrease the new part with petrol or white spirit.	
FITTING (see Pl. 23 A).		
6	Offer up the front caisson unit extension and fix it provisionally in position by clamps.	
7	Offer up the gauge (use gauge MR-3454-150, see Pl. 15C) and fix it on the extension and front body unit	Gauge MR-3454-150
8	Fix the extension provisionally by several welds <i>(at AB and CD).</i>	
9	Remove the gauge.	
10	Spot weld or braze the points attaching the crossmember to the extension <i>(at JK, LM and at JL, KM).</i>	

		TOOLS
11	Spot weld the extension to the front body unit <i>(at AB, CD)</i> <i>(at GF, FE).</i>	
12	Braze the joining extension and body unit <i>(at GH).</i>	
13	Fill, by brazing, the holes made on dismantling <i>(at AB).</i>	
14	Braze several places for safety in the corners not accessible to the spot welder.	
15	Planish and grind the welds.	
16	Paint the part.	
17	Sound deaden.	

		TOOLS
<i>This operation does not require use of jig base.</i>		
REMOVAL		
1	Remove the 5 screws holding the front caisson unit closing panel to the valance.....	8 mm box spanner
2	Remove the 2 screws fixing the brake cooling ducts.....	8 mm box spanner
3	Remove the remaining 6 screws round the front caisson unit closing panel.....	8 mm box spanner
4	Remove the front caisson unit closing panel.	
FITTING		
5	Introduce the front part of the front caisson unit closing panel under the rear part of the valance.	
6	Offer up the screws joining the closing panel to the valance. Do not tighten the screws.	
7	Centralise the closing panel correctly and insert the screws fixing the brake cooling ducts. Do not tighten the screws.	
8	Insert the 6 fixing screws round the front caisson unit closing panel.	
9	Tighten the screws	8 mm box spanner

		TOOLS
	NOTE: <i>It is forbidden to assemble by hammering, as this would cause deformation of the unit.</i>	
1	Smear the plain portion of each screw with tallow or, failing this, oil.	
2	Use the fixture MR-4234 (see Pl. 17). Offer up the screw from the inside of the unit. Fit the short bush C on the threaded end of the screw. Screw a 14 mm diameter 150 pitch nut on the protruding portion of thread. Tighten this nut When the nut reaches the end of the thread on the screw, <i>stop tightening and remove the bush.</i>	Fixture MR-4234
3	Fit the long bush D on the screw. Tighten the nut until the screw is completely in position in the unit. (The tightening torque during the fitting of the screw is of the order of 87 ft.lbs approximately (12 m.kg approximately))	
4	Remove the bush D.	

		TOOLS
<i>This operation requires the body to be placed in the jig base.</i>		
CHECKING (see Pl. 15).		
1	If the buckling of the front unit is not too great, offer up the jig MR-3454-110. This should pass through the bore of the relay spindle (at "a") and in the 5th fixing hole (at "b") of the front axle arm bracket	Jig MR-3454-110
2	Pass the steering relay alignment bar 2632-T through the bore in the undamaged sidemember. If the bar will not enter the bore of the other sidemember, this one is out of alignment	Alignment bar 2632-T
PREPARATION (see Pl. 12).		
3	On the front unit, in place of the half-axles, fit the two exterior brackets (714) using the pins (722 and 723).	
4	Fit the packing piece (718) on the side of the undamaged sidemember.	
5	On this side of the unit fit the locating dowel (728) in the bracket (715) and the hole in the bracket (714).	
6	Fix the bracket (714) and the packing (718) on the front crossmember (712).	
7	Offer up the packing piece (718) on the other crossmember between the bracket (714) and the crossmember (712). The packing should enter without play. If it does not, the sidemember is out of alignment.	
8	Put the crossmember (736) on the two sidemembers (see Pl. 19). Using the hooks and jacks, achieve the fitting indicated on Pl. 19.	
STRAIGHTENING (see Pl. 12, 19).		
NOTE: <i>To facilitate jacking, it is sometimes necessary to heat the panels on the damaged side with a blow pipe.</i>		
9	Heat the joints of the panels, inside and outside (see Pl. 19) <i>(at AB, AC).</i>	
10	If necessary, heat the area where floor and front unit meet, inside the body.	

		TOOLS
11	Remove the packing piece (718) from the side of the damaged sidemember.	
12	Jack up a few millimetres beyond the position of alignment.	
13	Let the panels cool, leaving them under tension in the screw jack. Unscrew the jack after cooling.	
14	Offer up the packing piece (718) under its bracket. If the bracket rests on the packing, the sidemember is in position. If not, repeat the operation until the locating dowel passes freely.	
15	Fix the bracket (714) and the packing piece (718) on the front crossmember.	
16	Offer up the steering relay alignment bar (737) in the bores ("a") (see Pl. 15) for the relay fixing pins. If the bar enters, the alignment of the holes is satisfactory; if not, it is necessary to align the holes.	
TO CHECK THE ALIGNMENT OF THE STEERING RELAY FIXING PIN BORES (see Pl. 17).		
17	If the holes show little difference between them, one should be able to re-align them without heat. If they show a great difference in alignment, it will be necessary to heat the sidemember panel slightly around the boss of the pin.	
18	In the hole to be aligned fit the aligning pin (aligning pin MR-4234-10, see fig. 2) Fit the aligning pin (A) in the bore and lock it with the nut (B).	Alignment pin MR-4234-10
19	Using the two tube extensions, restore the boss to shape in the required direction.	
20	Remove the aligning pin and offer up the alignment bar 2632-T in the holes "a" (see Pl. 15). If it passes through the two holes, the alignment is satisfactory; if not, recommence the operation, but without heat NOTE: <i>If one has had to use heat around the bosses, the panels should not be left to cool with the alignment bar in position, to avoid deforming the bar.</i>	Alignment bar 2632-T
21	Planish the panels above the sidemember.	

		TOOLS
<i>This operation requires the body to be placed in the jig base.</i> CHECKING (see Pl. 15).		
1	Offer up the alignment bar 2632-T in the holes "a" of the steering relay fixing pins	Alignment bar 2632-T
2	Offer up the jig MR-3454-110. The latter should pass through the hole for the relay fixing pin at "a" and through the upper fixing hole of the front axle arm bracket at "b".	
	If these conditions are fulfilled, the unit is not out of line. But folds or creases on the front floor or underneath or inside the sidemember indicate that the unit is out of position in relation to the body	Jig MR-3454-110
OPENING THE PANELS (see Pl. 20-21).		
3	Fix the body at the rear as indicated in Op. D 620-C, paragraph 3 onwards on the side of the unit requiring attention.	
4	Drill and cut the welding points fixing the front unit to the body (at AB, BC).	
5	Cut away (chisel) the panel of the unit perpendicular to the sidemember (at CD).	
	Cut perpendicular to the sidemember (at DE, EF).	
6	Cut the floor panel along the sidemember (at FG).	
7	Cut away the floor panel from the front unit (chisel) (at GH).	
REPOSITIONING THE UNIT (see Pl. 20).		
8	Fit the front angle-iron on the jig base as indicated in Pl. 20.	
9	Fix the front crossmember (736) on the angle.	
10	Put inside the unit the two anchor plates (748 and 749), holding them flat by means of a screw jack.	
	Fit the brackets (714) in place of the half-axle brackets and fix them using the pins (722 and 723). Put the packing pieces (718) in position and let the brackets rest on them.	

		TOOLS
11	Put the long bar (746) in position on the top pin of the bracket (714) passing this bar through the hole in the cross-member (736).	Turn screw 2617-T
12	Put the short bar (747) in position on the pin on the anchor plate (on the damaged side), passing the bar through the hole in the front angle iron. Tighten the nut of the pin on the bracket (714), inserting a flat washer.	
13	Screw the turn screw 2617-T on the bar. Simultaneously tighten the turn screws to draw out the unit until the centring pin (728) (on the undamaged side) enters the bracket (714)	
14	Continue to draw the unit. Try to put the 2nd centring pin (728) (on the damaged side) in the bracket (724). It is useful to go beyond the correct position by a few millimetres, to allow for the contraction of the panels.	
15	Unscrew the turn screws 2616-T in order to release the unit.	
16	Offer up the centring pins (728) in the holes in the two brackets (714). They should slide freely or slightly stiffly, but by hand. If not, again correct the position of the unit.	Alignment bar 2632-T
17	Offer up the alignment bar 2632-T in the holes "a" (see Pl. 15) of the relay fixing pins. It should enter the two holes without force..... If it does, the unit has returned to its correct position and the panels can be welded again.	
18	Planish the panels of the sidemember and of the floor to remove any creases. If the panels will not join where they were cut, repair with a strip of metal.	
19	Clean the edges of the panels to be welded (abrasive disc) (at BC).	
20	Weld the panels (gas weld) (at CD, DE) (at EF, FG).	
21	Spot weld (at AB). Brace at several points (at AB).	
22	Join the floor by brazing or spot welding (end welder) (at GH).	
23	Planish and grind the welds.	
24	Paint the welded areas.	
25	Sound deaden.	

		TOOLS
26	It is possible to restore a slightly damaged side of a front unit to position by "pushing" with a hydraulic jack on a front bracket (714), using one of the rear brackets (710, 711) as a base. This procedure avoids detaching the panels, as described before, but does require a good support for the jack. It is advisable, in carrying out this operation, to insert in the hollow body of the bracket (714) a packing piece (see Pl. 20 B), cut away as required, to avoid damaging the sides of the U section of this bracket. STRAIGHTENING THE UNIT (see Pl. 19 A). If the body is slightly warped to the right of the front axle arm bracket, it is possible to straighten the panels of the sidemember of the front unit, proceeding as follows:	
27	Fix the rear of the body on the jig base.	
28	Fit the front brackets (714). Do not forget to insert the distance pieces (750) for bodies produced since April 1958.	
29	Place the packing piece (718) under the bracket (714) on the undamaged side. Fit the pin (728) in position in the bracket (715) and the guide in the front bracket (714). If necessary, shift the front crossmember (712) between its slides (713) in order to put the centring pin in place. Tighten the two screws (753) securing the bracket and the packing piece on the jig base. On the damaged side, fit the work bracket (755) at the end of the crossmember (712). Fix it with the shouldered screws (759). Fit between this bracket (755) and bracket (714) the jack to be used for straightening. Support the end piece of the jack, preferably on the flanks of the bracket (714), in order to avoid deformation. If this is not possible, it is wise to fill the hollow body of the bracket with a packing piece (see Pl. 20 B) and to take the weight on that. After jacking, fit the packing piece (718) under the bracket (714). Fit the pin (728) in the bracket (715) and the guide of the front bracket (714). It must pass freely. If it does not, screw the jack again until the required result is obtained.	
30	Offer up and tighten the two screws (753) securing the bracket (714) and the packing piece (718) on the crossmember (712). Offer up the alignment bar (2632-T) in the steering relay bores and check that it slides in them freely	Alignment bar 2632-T

TOOLS

This operation requires the body to be placed in the jig base.

NOTE: *Take the necessary precautions to avoid, in welding, setting fire to the plastic roof.*

IMPORTANT: Since September 1962 the bottom corners of the front body unit (A see Pl. 20 E, fig. 1) have been reinforced. It is absolutely essential that the sheet forming the webs should not be gashed or cut away; otherwise the rigidity of the assembly will be impaired.

Operation D 620-Cb gives the modifications to be made to the "Fenwick" equipment, so that these bodies can be mounted correctly on the jig base.

DISMANTLING (see Pl. 24-26).

- 1
- Drill and cut the welding (chisel) on the inside or on the outside of the body
(at AA').
- 2
- Cut the closing panel of the unit (chisel)
(at AB and symmetrically at A'B').
and perpendicular to the sidemember
(at BC and symmetrically at B'C')
(at CD and symmetrically at C'D').
- 3
- Cut the pedal-board panel at each side (chisel)
(at RS and symmetrically at R'S').
- 4
- Open up the brazing points assembling the scuttle side panels and the shelves (chisel)
(at E and symmetrically at E').
- 5
- Cut the floor panel (blow pipe)
(at FGG'F').
Stop cutting at the sidemembers.
- 6
- Cut the floor panel the length of the sidemembers (blow pipe)
(at FD and symmetrically at F'D').
- 7
- Remove the unit assembly (use lifting tackle).
- 8
- Open up the welding points of the siderail closing panels (chisel)
(at BHID and symmetrically at B'H'I'D').

		TOOLS
9	Open up the welding points at the end of the two sidemembers (chisel): <i>(at JKL and symmetrically at J'K'L')</i> <i>(at KM and symmetrically at K'M')</i> <i>(at BM and symmetrically at B'M')</i> <i>(at MN and symmetrically at M'N')</i> <i>(at IO and symmetrically at I'O')</i> <i>(at FJ and symmetrically at F'J')</i> <i>(at JP and symmetrically at J'P').</i>	
10	Cut the plate (1) fixing the heater duct (chisel) (see Pl. 25).	
11	Cut the gussets (2) of the siderail outer closing panels (chisel) (see Pl. 25).	
12	Cut away the right-hand and left-hand end pieces of the unit remaining in the siderails (blow pipe) <i>(at KJ, KM and symmetrically at K'J', K'M').</i> Remove these end pieces. Cut the heater duct (chisel) from the right-hand end piece (the duct should be re-utilised after reshaping if necessary. This part is not sold).	
13	Cut (chisel) the gussets (3) from the right-hand and left-hand sidemembers (see Pl. 25).	
14	Raise the siderail upper closing panel <i>(at NL and symmetrically at N'L').</i>	
15	Remove the wiring conduit from the left-hand siderail.	
16	Remove the previously cut metal from the sidemembers <i>(at KJ and symmetrically at K'J').</i> NOTE: <i>In order to raise the body, by pivoting round the centring pins, it is necessary to pass the lifting chain under the centre of the body in order to avoid damaging it.</i>	
17	Raise the body.	
PREPARATION		
18	Drill the welding points and remove (chisel) the strips of the front unit metal remaining welded to the body <i>(at FG and symmetrically at F'G')</i> <i>(at AB and symmetrically at A'B')</i> <i>(at RS and symmetrically at R'S').</i>	

		TOOLS
19	Planish the edges of the panels: <i>(at FG and symmetrically at F'G')</i> <i>(at AA').</i>	
20	Fill in the holes previously drilled (gas weld) (see paragraph 18).	
21	Clean up (abrasive disc) the edges of the panels where welding will be effected to fit the unit.	
22	Degrease the new unit with petrol or white spirit.	
ASSEMBLY (see Pl. 24-26).		
23	If necessary, reform the heater duct. Offer it up to the opening of the unit. Have it held by an assistant and spot weld (spot welder).	
24	Place the body visibly horizontal on the jig base. Offer up the new unit on the jig base (using a hoist).	
25	Fit the two lower fixing screws of the front half-axle (fixture MR-4234, see Pl. 17) (see Op. D 741-2)	Fixture MR-4234
26	Offer up the two front brackets (714) of the jig base equipment to the unit. Fix them using the pins (722 and 723). Offer up the packing (718) (see Pl. 12).	
27	Offer up the new unit in the body. Make sure it positions correctly in relation to the body (use the jig 2631-T, see Pl. 15). If need be, move the front crossmember (712) on the jig base. Fix the unit on the body, using clamps. Fix the brackets (714) on the crossmember (712). Put the centring pins (728) in position in their holes (see Pl. 12).	Fixture 2631-T
28	Flatten the edges of the panels to be welded.	
29	Beat down the siderail panels which were previously raised <i>(at KLMN and symmetrically at K'L'M'N').</i>	
NOTE: <i>If the raised panels are torn, replace them with parts cut from steel sheet of the same thickness.</i>		

TOOLS

- 30 Beat down the sidemember panels
(at KJ and symmetrically at K'J').
Fix with a few points of brazing.
- 31 On each side, from the outside of the siderail, drill a few holes on the gussets (2). Fill the holes with brazing in order to fix the gussets (see Pl. 25).
- 32 Spot weld (electric welder)
(at AA')
(at BHI and symmetrically at B'H'I')
(at AB and symmetrically at A'B')
(at IO and symmetrically at I'O').
- 33 Fix by brazing
(at FGG'F') (inside and outside the body)
(at BCD and symmetrically at B'C'D')
(at DF and symmetrically at D'F').
- 34 Braze on each side, inside the body
(at RS and symmetrically at R'S').
- 35 Reinforce with a few points of brazing
(at AA').
- 36 Planish and grind the welds.
- 37 Paint the parts.
- 38 Sound deaden.

TOOLS

This operation requires the body to be placed in a jig base.

NOTE: *Take precautions to avoid, in welding, setting fire to the plastic roof.*

IMPORTANT: Since September 1962 the bottom corners (A) (see Pl. 20 E, fig. 1) of the front body unit have been reinforced. To avoid inpairing the rigidity of the assembly, it is absolutely essential that the metal forming the webs should not be gashed or cut.

Operation D 620-Cb gives the modifications that must be made to the "Fenwick" equipment so that these bodies can be fitted correctly on the jig base.

DISMANTLING (see Pl. 24-26).

- 1
- Drill, cut and separate (chisel) the welding (on the inside or outside of the body
(at AA').
- 2
- Cut the closing panel of the unit (chisel)
(at AB and symmetrically at A'B').
and perpendicular to the sidemember:
(at BC and symmetrically at B'C')
(at CD and symmetrically at C'D').
- 3
- Cut the pedal-board panel at each side (chisel)
(at RS and symmetrically at R'S').
- 4
- Open up the brazing points assembling the scuttle side panels and the shelves (chisel)
(at E and symmetrically at E').
- 5
- Cut the floor panel (blow pipe)
(at FGG'G').
Stop cutting at the sidemember.
- 6
- Cut the floor panel the length of the sidemembers (blow pipe)
(at FD and symmetrically at F'D').
- 7
- Remove the unit assembly (use a lifting tackle).
- 8
- Open up the welding points of the siderail closing panels (chisel)
(at BHID and symmetrically at B'H'I'D').

		TOOLS
9	Cut (chisel) from the sidemember and its lining the parts of the floor panel <i>(at FDIH and symmetrically at F'D'T'H').</i> Cut these parts (chisel) <i>(at FT and symmetrically at F'T').</i> Remove them. PREPARATION.	
10	Drill the welds and remove the strips of the front unit panel remaining welded on the body (chisel) <i>(at FGG'F')</i> <i>(at AB and symmetrically at A'B')</i> <i>(at RS and symmetrically at R'S').</i>	
11	Planish the edges of the panels <i>(at FGG'F')</i> <i>(at AA').</i>	
12	Fill in the holes previously drilled (gas weld) (see paragraph 10).	
13	Clean (abrasive disc) the edges of the panels where welding will be effected, in order to fit the unit.	
14	Degrease the new unit with petrol or white spirit. ASSEMBLY (see Pl. 24-25).	
15	On the new unit: remove the end pieces (4) (see Pl. 25, fig. 5 and 6). To do this, drill and cut the welds and detach (chisel) <i>(at UV, WX, YZ, ZU).</i>	
16	Put the body visibly horizontal on the jig base. Offer up the new unit on the jig base (using lifting tackle).	
17	Fit the two lower fixing screws of the front half-axle (fixture MR-4234, see Pl. 17) (see Op. D 741-2)	Fixture MR-4234
18	Offer up the two front brackets (714) of the jig base equipment on the unit. Fix them with the pins (722 and 723). Offer up thick packing pieces (718) (see Pl. 12).	

		TOOLS
19	Offer up the new unit in the body. Make sure it positions correctly in relation to the body (use the fixture 2631-T, see Pl. 15). If need be, move the front crossmember (712) on the jig base. Fix the unit on the body, using clamps. Fix the brackets (714) on the crossmember (712). Put the centring pins (728) in position in their holes (see Pl. 12) ..	Fixture 2631-T
20	Flatten the edges of the panels to be welded.	
21	Spot weld (electric welder) <i>(at AA')</i> <i>(at BHI and symmetrically at B'H'I')</i> <i>(at AB and symmetrically at A'B')</i> <i>(at IT and symmetrically at I'T')</i>.	
22	Fix by brazing: <i>(at FGG'F')</i> (inside and outside the body) <i>(at BCD and symmetrically at B'C'D')</i> (refill the holes made during the preparation) <i>(at DF and symmetrically at D'F')</i>.	
23	Braze each side, inside the body <i>(at RS and symmetrically at R'S')</i>.	
24	Put a few points of brazing <i>(at AA')</i>.	
25	Planish and grind the welds.	
26	Paint the parts.	
27	Sound deaden.	

TOOLS

Since the DS 19 and ID 19 first came out, three methods have been adopted of fixing the axle arm brackets on the front body unit.

Case 1 (see Pl. 3, fig. 2).

On vehicles produced until October 1956 the upper axle arm fixing bosses were displaced by 2 ± 0.25 mm with respect to the lower bosses.

The fifth fixing boss was displaced by 19 mm with respect to the lower bosses.

Case 2 (see Pl. 3, fig. 3).

Since October 1956 to April 1958, the position of the four lower bosses was unchanged and the displacement remained at 2 ± 0.25 mm.

On the other hand, the upper boss was displaced by 22 mm, instead of 19 mm, with respect to the lower bosses.

Case 3 (see Pl. 3, fig. 4).

Since April 1958, the four lower bosses have been in the same place (tolerance ± 0.25 mm).

The fifth boss remains displaced by 22 mm.

Our Spare Parts Department no longer stocks any but axle arm brackets of the latest type.

Case 1

To fit the new brackets on bodies produced until October 1956, the spacing washer of diameter 17 x 28 mm and 3 mm thick sold under number DS 412-62 must be fitted on the upper boss, and on the lower bosses the required number of washers 14.5 x 28 mm in diameter and varying in thickness from 0.05 mm in 0.05 mm steps sold under the numbers D 412-81 to D 412-81p.

Case 2

Fit only the shims D 412-81 to D 412-81p on the lower bosses.

Case 3

Since April 1958 the axle arm bracket is mounted directly on the unit without fitting shims.

		TOOLS
	NOTE: <i>These bosses are not sold by our Spare Parts Department. Order them from our Repair Methods Service.</i> <i>These bosses are not in a machined state.</i>	
1	Face the undrilled end of the four bosses. Drill and ream the boss with the largest outside diameter to a diameter of $16 \begin{smallmatrix} + 0.15 \\ - 0 \end{smallmatrix}$ mm; drill and tap the other three bosses 14 mm diameter, 150 pitch.	
2	Weld on the outside of the bosses a washer of 60 mm outside diameter 3 mm thick, having regard to the dimension of 16 mm shown on fig. 3, Pl. 17 A. Case 1	
3	If the four bosses on one side of the unit have been removed, it is essential to make use of the bodywork jig base and its equipment (see fig. 1, Pl. 17 A). For this purpose: a) Offer up the body (engine removed) to the jig base. b) Offer up (on the side to be worked on) the bracket (A), the packing piece (B) and the pins (C). c) Position the pins (C) in the bracket (A) and screw the three bosses, previously tapped, on the pins. d) Fit the rear lower fixing screw for the half-axle (see Op. D 741-2) in the drilled boss. e) Fix the assembly (lower screw and boss) on the bracket (A), using nut (D). f) Offer up the bracket (A) to the packing piece (B), engaging the bosses in the holes in the unit. g) Bring up against the outer surface of the unit the washers previously welded on the bosses. h) Pin the bracket (A), using pin (E). j) Secure the bracket (A) on the packing piece (B) and on the crossmember of the jig base (F). k) Tack weld (preferably with an arc) the circumference of the washers that form a collar on the outside surface of the unit. Weld the bosses on the inside surface of the unit sidemember. Disengage the bracket (A) and complete the welding of the collars of the bosses on the outside surface of the unit. Case 2	
4	If only one or two bosses on the same side of the unit have been removed, it is possible to reposition them by using the two cast templates sold under the number 2633-T and the alignment bar sold under the number 2632-T This avoids placing the body on the jig base, but it is nonetheless necessary to remove the engine. Then proceed as described in paragraph 3.	Template 2633-T Alignment bar 2632-T

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 28).

- 1
- Clean (with a blow pipe flame and wire brush) to uncover the welding points:
(at AB)
(at CD)
(at HI)
(at FG).
- 2
- Drill and cut the welding points:
(at AB)
(at EC)
(at CD)
(at FG)
(at HI)
(at BG).
- 3
- Destroy the brazing points (blow pipe) fixing the closing panel on the siderail and the lateral panel
(at EC).
- 4
- Complete the separation of the closing panel (chisel). Remove the panel.
- PREPARATION
- 5
- Eliminate, by planishing, grinding or welding, the creases, roughnesses or splits in the separated edges.
- 6
- Drill a few 6 mm holes in the closing panel, to allow it to be fixed by brazing *(at HI)* (facing the gusset).
- ASSEMBLY (see Pl. 28).
- 7
- Offer up the closing panel, engage it under the scuttle side panel and under the outer siderail closing panel
(at EC and CD).

		TOOLS
8	Flatten the edges of the closing panel against the siderail. Fix the panel with clamps.	
9	Spot weld (electric welder): <i>(at AB)</i> <i>(at EC)</i> <i>(at JK)</i> (end welder or brazing). Fill (with brazing) the holes previously drilled: <i>(at HI)</i> .	
10	Reinforce by gas welding: <i>(at AB)</i> <i>(at BG)</i> . Reinforce by a few points of brazing, inside and outside the body: <i>(at EC)</i> .	
11	Planish and grind the welds.	
12	Paint the parts.	
13	Sound deaden.	

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i>		
REMOVAL (see Pl. 27).		
1	Drill and cut: <i>(at AB)</i> <i>(at AC)</i> <i>(at BD).</i>	
2	Complete the separation of the panel (chisel) and remove it.	
PREPARATION		
3	Eliminate, by planishing, grinding or welding, the creases, roughnesses or splits caused by opening the welds.	
4	Degrease the new closing panel with petrol or white spirit.	
ASSEMBLY (see Pl. 27).		
5	Offer up the closing panel and fix it with clamps.	
6	Spot weld (spot welder): <i>(at AC)</i> <i>(at BD)</i> <i>(at AB).</i>	
7	Planish and grind the welds.	
8	Paint the parts.	
9	Sound deaden.	

TOOLS

This operation requires the vehicle to be placed in the jig base.

REMOVAL (see Pl. 61-62).

NOTE: *To fix the front of the body on the jig base, take off only the half-axles and the wings. The engine-gearbox assembly (and the accessories) remain on the vehicle.*

- 1 Remove the roof (see Op. D 825-1).
- 2 Chock up the body horizontally by placing between it and the jig base a crossmember resting on two stands.
- 3 Drill and cut the welding points securing the fixings for the weatherproofing of the rear doors. Remove the fixings (chisel).
- 4 Drill and cut the welding points securing the lateral closing panels to the rear pillars:
(at AB and symmetrically at A'B')
(at HI and symmetrically at H'I')
 Complete the separation of the panels (chisel).
- 5 From inside and outside the body, drill and cut the welds assembling the quarter panels and the upper rear cross-member of the body:
(at CDE and symmetrically at C'D'E')
 Complete the separation of the panels (chisel).
- 6 Drill and cut the welding points of the reinforcements (1) joining the pillars and the wheel arch assemblies:
(at FG and symmetrically at F'G')
- 7 Drill and cut the welding points fixing the floor to the rear-unit crossmember and to the siderail end pieces:
(at KL).
 Complete the separation of the panels (chisel).
- 8 Remove (chisel) the right-hand and left-hand jacking plates. The jacking plates have to be used again.
Vehicles produced until October 1962.
- 9 Cut (chisel) the rear crossmember closing panel (2) from the rear pillars.
- 10 Mark the position of the sidemember lining, on the panels (2). Drill and cut the welds:
(at TU and symmetrically at T'U')
 Drill and cut the welds holding the crossmember to the sidemembers:
(at VW and symmetrically at V'W').

TOOLS

- 11 From the inside of the body, cut (chisel) the crossmember of the unit, from the siderail sidemembers.
- 12 Cut (chisel) the upper panel of the crossmember, from the upper panels of the sidemembers.
- 13 Remove the screws fixing the front brackets (714). Remove the packing pieces (718) so that the body can be pivoted (see Pl. 12).
- Withdraw the elbow tube from the lifting fixture (MR-3319-30, see Pl. 4) and raise the body from the rear.
- The body pivots on the front centring pins (728)
- 14 Complete the separation of all the panels (chisel).
- Remove the rear of the body, using lifting tackle.
- 15 Lower the body on the jig base, and let it rest on the props described in paragraph 1.

Lifting fixture
MR-3319-30

PREPARATION

- 16 Eliminate by planishing, grinding or welding, the creases, roughness or splits in the separated edges.
- Cut away the strips of metal remaining on the sidemembers, on the lateral panels of the rear pillars and on the linings of the quarter panels (chisel).
- 17 Degrease the new parts with petrol or white spirit.
- 18 Fit on the new lower unit the bushes (725 and 726) of the jig base equipment. Fix by three screws and the lower nuts (729) (see Pl. 13).

ASSEMBLY (see Pl. 61-62).

- 19 Offer up the rear caisson lower unit between the brackets (710 and 711) and on the body bottom siderail end pieces.
- Introduce the distance pieces (730 and 731). Offer up the centring dowels (727) the alignment pins and their nuts (732 and 734) in the brackets of the suspension cylinder. Screw in the alignment pins as far as possible (see Pl. 13).
- 20 Braze the crossmember of the caisson unit on the sidemembers. Make sure beforehand that the panels are flat: (at LM and symmetrically at L'M').
- 21 Gas weld the floor panel, under the sidemembers: (at LX and symmetrically at L'X').
- Gas weld or braze the floor to the crossmember of the unit: (at LK).

		TOOLS
22	Spot weld, at both sides, the crossmember on the sidemember lining <i>(at UX and symmetrically at U'X').</i>	
23	Mark the position of the sidemember and of its lining on the panel (2). Drill a few holes in the panel (2) for fixing and fill the holes with brazing: <i>(at TU, VW and symmetrically at T'U', V'W').</i>	
24	Offer up the rear upper unit of the body on the rear lower unit of the caisson, and engage it between the rear pillars in the optimum position. Put the rear door jigs in position (jigs 2635-T, see Pl. 18) NOTE: <i>During this operation, make sure that the alignment pins (732) remain in contact with the pads (733) (see Pl.13)</i>	Jig 2635-T
25	Offer up the lateral closing panels, the rear lower crossmember and the wheel arch closing panels by engaging these panels under the rear shelf. Fix the parts on the two units by means of clamps.	
26	Position the upper body unit on the lower caisson unit and hold it in position by a few points of welding on the periphery <i>(at NP and symmetrically at N'P').</i>	
27	Offer up the roof jig (jig 2635-T, see Pl. 18)	Jig 2635-T
28	Complete the welding (in spots) on the periphery of the two units: <i>(at NP and symmetrically at N'P').</i>	
29	Spot weld (end welder and spot welder) the lateral closing panels, the rear lower crossmember and the wheel arch closing panels.	
30	Spot weld the intermediate reinforcements (1). Braze at a few points to reinforce the fixing.	
31	Remove the fixings (3) from the replaced unit. Reshape them if necessary and spot weld them on the new unit: <i>(at CS and symmetrically at C'S').</i>	
32	Spot weld the quarter panel linings: <i>(at CDE and symmetrically at C'D'E').</i>	
33	Offer up the jacking plates and position them with their screw. Spot weld them. Gas weld a strip round the upper portion to reinforce the fixing. <i>Vehicles produced until October 1962.</i>	

TOOLS

- 34 Offer up and weld the rear sealing strip fixings for the rear doors. Spot weld them.
- 35 Putty (Vibradamp) the panel joints inside the boot:
(at NP and symmetrically at N'P')
(at PP')
(at GCEY and symmetrically at G'C'E'Y').
- Putty the joints of the fixings for the weatherproofing on the rear pillars.
- 36 Planish and grind the welds.
- 37 Paint the parts.
- 38 Sound deaden the underside of the lower unit, the sides and the outside of the wheel arch closing panels.
- 39 Fit the roof (see Op. D 825-1).

		TOOLS
<i>This operation requiring the body to be placed on the jig base.</i> REMOVAL (see Pl. 59-60). NOTE: <i>In order to fix the front of the body on the jig base, take off only the half-axle and the wings. The engine-gearbox assembly (and the accessories) remain on the car.</i>		
1	Remove (chisel) the right-hand and left-hand jacking plates. The jacking plates have to be used again. <i>Vehicles produced until October 1962.</i>	
2	Drill and cut the welding points of the floor, and detach (chisel) it from the crossmember: <i>(at AB).</i>	
3	Drill and cut the welding points fixing the upper crossmember of the body to the crossmember of the unit: <i>(at CD).</i>	
4	Drill and cut the welding points fixing the panel (1) on the sidemember linings: <i>(at EF and symmetrically at E'F').</i>	
5	From inside the body, cut (chisel) the crossmember of the unit the length of the sidemembers: <i>(at MN and symmetrically at M'N').</i>	
6	Detach the crossmember upper closing panel from the sidemember panel: <i>(at GE and symmetrically at G'E').</i>	
7	Remove the screws fixing the front brackets (714). Remove the packings (718) so as to be able to pivot the body <i>(see Pl. 12).</i> Withdraw the elbow tube from the lifting fixture (MR-3319-30, see Pl. 4) and raise the body at the rear. The body pivots on the front centring pins (728)	
8	Drill and cut the welding points fixing the panel (1) on the sidemembers: <i>(at GH and symmetrically at G'H').</i> Complete the separation of the panels (chisel): <i>(at EF and symmetrically at E'F')</i> <i>(at GH and symmetrically at G'H').</i>	Lifting fixture MR-3319-30
9	Drill and cut the welding points on the periphery of the two units: <i>(at KL and symmetrically at K'L')</i> <i>(at LL').</i> Complete the separation of the panels (chisel).	
10	Remove the lower body unit.	

TOOLS

PREPARATION

- 11 Reshape the siderail end pieces. Eliminate by planishing, grinding or welding the creases, roughness or splits in the welded edges.
- 12 Detach (chisel) the strips of metal remaining on the sidemembers:
(at MN and symmetrically at M'N').
- 13 Degrease the new part with petrol or white spirit.
- 14 Fit on the new unit the bushes (725 and 726) of the jig base equipment. Fix them by the three screws and the inner nuts (729) (see Pl. 13).

ASSEMBLY (see Pl. 59-60).

- 15 Offer up the rear lower caisson unit between the brackets (710 and 711). Introduce the distance pieces (730 or 731). Offer up the centring dowels (727), the alignment pins and their nuts (732 and 734) in the brackets of the suspension cylinder. Screw in the alignment pins as far as possible (see Pl. 13).
- 16 To prevent the unit from pivoting during the lowering of the body, it is necessary to hook a chain or screw jack in the rear rings of the unit and in the rings fixed under the brackets (710 and 711).
- 17 Lower the body on to the caisson unit.
- 18 Put a spot of brazing:
(at G, at H, at G', at H'),
and a few spots of brazing
(at AB).
- 19 Flatten the panels and braze the crossmember on the siderail sidemembers:
(at NM and symmetrically at N'M').
- 20 Gas weld the floor to the unit crossmember:
(at AB).
- 21 Braze the closing panels (1) on the sidemembers:
(at GH and symmetrically at G'H').
- 22 Spot weld the periphery of the two units:
(at KL and symmetrically at K'L')
(at LL').

TOOLS

and the body lower crossmember on the unit crossmember:
(at CD).

23 Offer up the jacking plates and position them with their screws. Weld them. Gas weld a strip round the upper portion to reinforce the fixing.
Vehicles produced until October 1962.

24 Planish and grind the welds.

25 Putty (Vibradamp) the joints of the panels inside the boot:
(at KL and symmetrically at K'L').

26 Paint the parts.

27 Sound deaden the underside of the lower unit, the sides and the line of welding:
(at AB).

TOOLS

This operation requires the body to be placed on the jig base.

REMOVAL (see Pl. 50).

NOTE: *To fix the front of the body on the jig base, remove only the half-axles and the wings. The engine-gearbox assembly (and the accessories) remain on the car.*

1

Drill and cut the welding points and detach (chisel) the upper closing panel (1) of the box:
(at ABC).

2

Separate the closing panel (1) from the crossmember:
(at CD).

Remove this panel.

3

Remove the screws fixing the front brackets (714). Remove the packing pieces (718) so as to be able to pivot the body (see Pl. 12).

Withdraw the elbow tube from the lifting fixture (MR-3319-30, see Pl. 4).

Remove the rear centring pin (727) (see Pl. 13) from the undamaged side.

Raise the car at the rear.

The body pivots on the front centring pins (728)

Lifting fixture
MR-3319-30

4

From inside the body, drill and cut the welds holding the closing panel (2) on the crossmember of the unit:
(at EF).

Cut away the panel (2) from the crossmember of the unit:
(at CE).

5

Cut (chisel) the crossmember of the unit:
(at CG).

6

Separate the closing panel (2) from the closing panel (3):
(at BH).

Remove the panel (2).

PREPARATION

7

Eliminate, by planishing, grinding or welding, the creases, roughness or tears in the separated edges.

TOOLS

- 8
- Fill in (by gas welding) the holes drilled in the panel (2) during removal.

NOTE: *This panel is not sold by our Spare Parts Department. It is therefore necessary to use the panel again. Should it be impossible to use the panel again, it is necessary to replace the caisson rear unit (see Op. D 742-1).*
- 9
- Make an angle piece from 0.8 mm sheet, length 170 mm, flanks 15 mm.

Spot weld it on the outside of the panel (2) (see fig. 3).

ASSEMBLY (see Pl. 50).
- 10
- Offer up the panel (2) in the crossmember of the unit.
- 11
- (See Pl. 13). Mount the corresponding bush of the jig equipment (725 or 726) on the body. Offer it up in the closing panel (2). Offer up the nut (729) on the bush and on the panel. Tighten the nut.

Lower the body with a lifting tackle on to the rear brackets (710 and 711) of the jig base. Offer up the packing pieces (730 or 731) and the centring pins (727) in their holes.

If the centring pin enters the box assembly, the box is in position. If not, disengage the body from the brackets (710 and 711), remove the nut (729) and draw back the bush (725 or 726) to disengage the closing panel (2). The outer panel of the sidemember may be deformed. Replace the housing and fix it. Straighten the panel using the centring pin (727) as a lever.

NOTE: *Smear the bore of the housing with chalk. The rubbing marks of the centring pin indicate the direction of the deformation. Lower the body on to the brackets and offer up the centring pin (to check).*
- 12
- Raise the body and remove the bush (725 or 726).
- 13
- Offer up the closing panel (2) again on the box.

Offer up the bush (725 or 726) in the two holes in the two panels of the box. Tighten the inner nut (729).

Lower the body between its rear brackets (710 and 711). Offer up the packing pieces (730 or 731) and the centring pin (727) in the holes.
- 14
- Fill (with brazing) the holes previously drilled for removal of the panel (2) on the crossmember of the unit: *(at EF)*.

and on the closing panel (3): *(at BH)*.
- 15
- Braze the closing panel (2) on the crossmember of the unit: *(at CG)*.

		TOOLS
16	Offer up the closing panel (1) on the box and fix it with a clamp. Fill the holes (with brazing): <i>(at AB, BC, CD, DA).</i> Let the panels cool.	
17	Check the alignment again, using the centring pin (727).	
18	Paint the unit.	
19	Sound deaden.	

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 51).

- 1
- Wedge up the vehicle at the rear to a height sufficient to give access to the underside of the unit.
- 2
- Remove the trimming from inside the boot.
- 3
- Mark the welds fixing the boot floor panel.
To so do, remove the sound deadening with a blow pipe, clean (with a wire brush) the periphery of the bottom of the boot outside the body:
(at AB, BC, CD, DA).
- 4
- Drill and cut the welds and detach (chisel) them from the underside of the body:
(at AB, BC, CD, DA).
Remove the boot floor panel.

PREPARATION

- 5
- Eliminate by planishing, grinding or welding the creases or rents in the separated edges.
- 6
- Clean the new boot floor panel with petrol or white spirit.
- 7
- Clean (abrasive disc) the periphery of the boot floor on the body.

ASSEMBLY (see Pl. 51).

- 8
- Offer up the boot floor panel and fix it with clamps. Flatten the panel on the sidemembers of the unit using a jack and a piece of wood.
- 9
- Spot weld (end welder) all round the periphery inside the boot:
(at AB, BC, CD, DA).
- 10
- Braze at four points in the four corners of the boot floor:
(at A, at B, at C and D).
- 11
- Braze at a few points (outside) on the periphery of the boot floor:
(at AB, BC, CD, DA).
- 12
- Putty (Vibradamp) the joints of the panels inside the boot.
- 13
- Paint the boot floor panel.
- 14
- Sound deaden.

TOOLS

This operation does not require the body to be placed on the jig base .

REMOVAL (see Pl. 42 A).

NOTE: *The crossmember under the front seats does not figure in the catalogue but can be supplied against a special order sent to our Spare Parts Department.*

1 Drill and cut the welds holding the crossmember to the body floor :
(at AB and CD).

2 Drill and cut the welds holding the crossmember to the siderail inner closing panels:
(at AEFC and symmetrically at BGHD).

3 Finish detaching with a chisel. Remove the crossmember.

PREPARATION.

4 Eliminate by planishing, grinding or welding, any creases, roughnesses or splits in the chiselled or cut edges.

5 Reshape or make good, if necessary, the floor panel *(vehicles supplied until September 1962)* or the edges of the floor panels *(vehicles supplied since September 1962).*

6 Clean the new part with petrol or white spirit.

ASSEMBLY (see Pl. 42 A).

7 Offer up the new crossmember in the place of the one removed.

8 Hold the crossmember in place with a few spots of brazing.

9 Spot weld (end welder):
(at AB)
(at DC)
(at AEFC and symmetrically at BGHD).

10 Planish and grind the welds.

11 Paint the parts.

12 Sound deaden.

This operation does not require the use of the jig base.

Our Spare Parts Service supplies this heel board against special order only.

REMOVAL (see Pl. 62 A).

- 1
- Mark, drill and detach (chisel) the joining edges of the heel board.
- a)

At the interior closing panel of the bottom body siderail:
(at AB and symmetrically at A'B').
- b)

Under the body, at the interior closing panels of the bottom body siderail:
(at BC and symmetrically at B'C').
- c)

Under the body at the intermediate panels of the bottom body siderail:
(at DE and symmetrically at D'E').
- d)

Under the body on the front floor board:
(at DD').
- e)

Under the body on the rear chassis crossmember:
(at CC').

- 2
- Remove the petrol tank heel board.

PREPARATION.

- 3
- Remove by planishing, grinding or welding the distortion, jagged edges or splits at the cut or unwelded edges.

FITTING (see Pl. 62 A).

- 4
- Offer up the heel board under the body. Insert it between the floor and rear chassis crossmember. Follow the measurement f = 500 mm.

Place the joining edges under the intermediate panels, and the inner closing panel of the body siderails.

- 5
- Place the side edges (*AB and A'B'*) on the inner closing panels of the body siderails.

- 6
- Hold in place with clamps. Bring the joining surfaces in contact. To support the parts in this work, it is advisable to use 2 "U" shaped iron pieces (open end towards the ground *at EE' and DD'*). These "U" pieces should be held up by jacks or props.

		TOOLS
7	Spot weld (end welder) the joining faces of the heel board. a) On the interior closing panel of the lower body siderail: <i>(at AB and symmetrically at A'B').</i> b) On the joining faces of the floor board: <i>(at DD').</i> c) On the joining faces at the rear chassis crossmember: <i>(at EE').</i> d) Under the body at the joining faces of the inner bottom body siderail closing panels: <i>(at BC and symmetrically at B'C').</i> with spot welder e) The joining faces of the intermediate bottom siderail panels: <i>(at DE and symmetrically at D'E').</i>	
8	Planish and grind the welds.	
9	Paint the parts.	
10	Sound deaden and apply mastic weatherproofing compound.	

TOOLS

We allow the following conversions to the various Break vehicles.

1 FROM COMMERCIAL TO BREAK LUXE.

To carry out this conversion, it is necessary:

a) To order from our Spare Parts Service:

- 2 fixed board brackets DB 744-35
- 2 hinges (female) for removable rear board DB 744-139
- 2 fixed rear boards DB 744-37
- 2 trimmings for removable board DB 989-97
- 2 movable rear boards DB 744-36
- 2 rubbers DB 744-176
- 2 board retaining studs 613-164
- 2 flap seats with boards DB 935-1
- 4 board rubbers DB 744-179
- 1 cheese-head screw, 5 x 12, for fixing stop 124-S 30
- 4 countersunk screws, 5 x 14, for fixing hinges 155-S 30
- 20 hexagon-head screws for fixing hinge plate and board 621.062

b) To discard the following parts on the vehicle to be converted.

- 2 rear board hinge pins DC 744-103
- 2 rear board hinges (female) DC 744-143
- 2 rear board hinges (male) DC 744-138
- 1 rear board DC 744-34

All these parts are fixed by screws.

2 BREAK CONFORT TO BREAK LUXE

To carry out this conversion, it is necessary:

a) To order from our Spare Parts Service:

- 1 intermediate board (between floor and flap seat..... DB 744-41
- 1 supporting cross piece for cushion hinge DB 744-39
- 1 left side finishing panel DB 744-166
- 1 right side finishing panel DB 744-166a
- 1 cushion board stop DB 744-38
- 2 rubber stops A 615-84
- 1 removable rear seat back board DB 744-49
- 1 hinge stop H 844-93a
- 1 support spring for removable board DB 744-104
- 1 support spring for removable board DB 744-47
- 2 rear bench back fasteners DB 863-12
- As required - fastener shims (2 mm) DB 863-61
- As required - fasteners shim (1 mm) DB 863-61a
- 2 female hinges H 844-101

TOOLS

1 removable rear cushion board	DB 744-48
2 cushion fixing pins	DB 923-120
1 added cushion frame	DB 923-10
1 padded squab frame	DB 923-5
4 countersunk screws, 5 x 15, for hinge	155-S 30
8 raised countersunk head screws, 4.85 x 16, for stop	2.508-S
17 raised countersunk head screws, 5 x 20, for seat back board and cushion	2.510-S
1 cheese-head screw, 5 x 16, for spring stop	2.548-S 30
17 shakeproof washers, 5.2, for screws for seat back board and cushion	3.234-S
2 rubber buffer stops	233.400
4 washers, 7.5 x 30, for siderail board bracket	619.067
14 washers, 5.25 x 15 x 1.5, for intermediate board and fasteners	619.133

- b) Discard the following parts of the vehicle being converted:
the intermediate board (between floor and flap seat);
the squab supporting crosspiece;
the seat;
the squab.

All these parts are fixed by screws.

3

BREAK TO AMBULANCE.

To achieve this conversion, it is necessary:

- a) To bolt on board support crosspiece DB 744-39:
- | | |
|-----------------------|----------|
| 2 female hinges | H 844-01 |
| 2 male hinges | H 844-63 |
- b) Weld, on the intermediate board DB 744-41a, a tapped plate for fixing the strut.
- c) Order from our Spare Parts Service:
- | | |
|--|-----------|
| 1 board for removable rear seat squab, left-hand side | DA 744-15 |
| 1 board for removable rear seat cushion, right-hand side | DA 744-16 |
| 1 removable cushion board, left-hand side | DA 744-19 |
| 1 removable board for rear seat squab, right-hand side | DA 744-24 |
| 1 padded squab frame, right-hand side | DA 932-35 |
| 1 padded squab frame, left-hand side | DA 932-36 |
| 1 padded cushion frame, right-hand side | DA 932-44 |
| 1 padded cushion frame, left-hand side | DA 932-45 |
| 1 rear seat back strut, right-hand side | DA 932-52 |
| 2 strut securing studs | DS 932-9a |
- b) Discard the rear bench on the vehicle being converted.

NOTE: *To mount the stretcher and its rails, it is necessary to approach a specialist, who will ensure that it is correctly fitted.*

TOOLS

- 4
- AMBULANCE TO BREAK LUXE.
- To achieve this conversion, it is necessary:

a) To order from our Spare Parts Service:

2 fixed board supports	DB 744-35
2 female hinges for removable back board	DB 744-139
2 fixed back boards	DB 744-37
2 removable board trimmings	DB 989-97
2 movable back boards	DB 744-36
2 rubbers	DB 744-176
2 board retaining studs	613-164
2 flap seats with board	DB 935-1
4 board rubbers	DB 744-179
1 cheese-head screw, 5 x 12, for stop	124-S 30
4 countersunk screws, 5 x 15, for hinge	155-S 30
20 hexagon head screws, 5 x 14, for hinge and board	621.062

b) To discard:

the back board and its hinges on the vehicle to be converted.

All these parts are fixed by screws.
- 5
- BREAK LUXE TO BREAK CONFORT WITH FIXED REAR SEAT.
- To make this conversion, it is necessary:

A) To order from our Spare Parts Service.

a) If two separate front seats are fitted (DS type Berlins).

For vehicles produced between July 1960 and June 1963:

1 left side front seat complete, without upholstery	DS 932-011
1 right side front seat complete, without upholstery	DS 932-011a
1 set of replacement loose covers (as sample)	D 984-100a
2 left-hand front seat supports	DM 922-118
2 right-hand front seat supports	DM 922-118a

For vehicles produced since June 1963 and equipped with double action front seat locking system.

1 left side front seat complete, without upholstery	DS 932-011b
1 right side front seat without upholstery	DS 932-011c
1 replacement set of loose covers (as pattern)	D 984-100a
2 left side front seat supports	DS 932-153
2 right-hand front seat supports	DS 932-153a

TOOLS

- b) If a "Break Family Type" bench seat is being fitted, the "Break luxe" slides can be used:
- 1 front bench seat frame DS 922-62
 - 3 front bench seat supports DF 922-118a
 - 1 front bench seat cushion trimming DS 922-53
 - 1 front bench seat squab trimming DS 922-58
- c) In all cases:
- 1 intermediate board (between floor and flap seat) DB 744-41
 - 1 squab supporting crosspiece DB 923-20
 - 1 padded spring case (seat) DS 923-10
 - 1 padded spring case (squab) DM 923-5c
 - 2 lateral squab top fixing hooks DM 923-128a
 - 1 central squab top fixing hook DM 923-135a
 - 1 seat squab closing panel DB 923-97
 - 1 closing panel between rear crossmember and seat squab, left-hand DB 923-130
 - 1 closing panel between rear crossmember and seat squab, right-hand DB 923-130a
 - 1 rear seat squab arm rest DS 941-82a
 - 10 hexagon head screws, 5 x 16, for fixing intermediate board to body 624.072
 - 10 washers, 5.25 x 15 x 1.5, for screws fixing intermediate board to body 619.133
 - 4 hexagon head screws, 5 x 16, for fixing rear squab supporting crosspiece on wheel arches 621.072
 - 4 spring washers, 5.2 x 9.4, for fixing rear squab supporting crosspiece on wheel arches 2.334-S
 - 4 hexagon nuts, 5 x 75, for fixing rear squab supporting crosspiece on wheel arches 2.319-S
- d) Discard the following parts on the "Break luxe".
- Where two separate seats (DS Berline type) are being fitted:
- 1 front bench seat ("Luxe" type) complete, its movable slides and its supports.
- e) Where a "Family Type" bench seat is being fitted, discard:
- 1 front bench seat ("Luxe" type) complete, preserve the slides on vehicles produced since September 1962.
- f) In all cases:
- 1 intermediate board (between floor and flap seats) DB 744-41
 - 1 supporting crossmember for cushion hinging DB 744-39
 - 1 left side finishing panel DB 744-166
 - 1 right side finishing panel DB 744-166a
 - 1 cushion board stop DB 744-38
 - 2 rubber stops A 615-84
 - 1 removable rear squab board DB 744-49
 - 1 hinge stop H 844-93a
 - 1 removable board support spring DB 744-104
 - 1 removable board support spring DB 744-47
 - 2 rear bench squab fasteners DB 863-12

TOOLS

Fastener shims (2 mm)	DB 863-61
Fastener shims (1 mm)	DB 863-61a
2 female hinges	H 844-101
1 removable rear cushion board	DB 744-48
2 cushion fixing pins	DB 923-120
1 padded spring case (cushion)	DB 923-10
1 padded spring case (squab).....	DB 923-5
2 rubber buffer stops	233.400

All these parts are simply fixed with screws.

6 BREAK CONFORT (collapsible rear seat) TO BREAK CONFORT (fixed rear seat).

To make this conversion, it is necessary:

- A) To order from our Spare Parts Service:
- | | |
|---|-------------|
| 1 centre arm rest for padded squab | DS 941-82a |
| 2 flexible bushes for positioning cushion | D 923-90a |
| 1 padded rear squab spring case | DM 923-5c |
| 1 padded rear cushion spring case | DS 923-10 |
| 2 side hooks for fixing squab | DM 923-128a |
| 1 centre hook for fixing squab | DM 923-135a |
| 1 squab closing panel | DB 923-97 |
| 1 closing panel between rear crossmember and squab (left side) | DB 923-130 |
| 1 closing panel between rear crossmember and squab (right side) | DB 923-130a |
| 1 squab supporting crossmember | DB 923-20 |
| 2 cheese-head screws, 5 x 40, for cushion | 135-S |
- B) Discard the following parts of the "Break confort with collapsible rear seat":
- | | |
|--|------------|
| 1 padded rear squab spring case | DB 923-5c |
| 1 padded rear cushion spring case | DB 923-10b |
| 1 removable panel forming cushion base, 35 mm buffer bracket | DB 744-48b |
| 9 raised countersunk headed screws, 5 x 20, for fixing board | 2.510-S 30 |

All these parts are simply fixed by screws.

7 BREAK CONFORT (fixed rear seat) TO BREAK CONFORT (rear seat collapsible).

To make this conversion, it is necessary:

- a) To replace the rear seat squab spring cases to allow the folding rear seat to tip up. These spring cases have a deeper base, so that they can absorb the folding movement of the rear seat.

TOOLS

b) To order from our Spare Parts Service:

- 2 padded squab spring cases DB 932-90
- 1 padded rear squab spring case DB 923-5c
- 1 padded rear cushion spring case DB 923-10b
- 1 removable board forming cushion base, 35 mm buffer bracket DB 744-48b
- 9 raised countersunk headed screws, 5 x 20, for fixing board 2.510-S 30

c) Discard the following parts on the "Break confort with fixed rear seat":

- 1 central squab arm rest with padding DS 941-82
- 1 central squab arm rest with padding DS 941-82a
- 2 flexible bushes for positioning cushion D 923-90a
- 1 padded rear squab spring case DB 923-5a
- 1 padded rear squab spring case DM 923-5c
- 1 padded rear cushion spring case DS 923-10
- 2 side hooks for fixing squab DM 923-128a
- 1 central hook for fixing squab DM 923-135a
- 1 squab closing panel DB 923-97
- 1 closing panel between rear crossmember and squab (left side) DB 923-130
- 1 closing panel between rear crossmember and squab (right side) DB 923-130a
- 1 squab supporting crossmember DB 923-20
- 2 cheese headed screws, 5 x 40, for fixing cushion 135-S

All these parts are simply fixed by screws.

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i>		
REMOVAL (see Pl. 58).		
1	Remove the roof (see Op. D 825-1).	
2	Prop up the body horizontally with two stands.	
3	Drill and cut the welds fixing the quarter panels: <i>(at ABC and symmetrically at A'B'C').</i>	
4	Detach (chisel) the linings of the quarter panel from the rear upper crossmember, from inside the body: <i>(at AB and symmetrically at A'B').</i> from outside, the upper gussets: <i>(at BC and symmetrically at B'C').</i>	
5	Drill and cut the welds and detach the intermediate reinforcements (1) from the wheel arches and the upper cross-member only.	
6	Drill and cut the welds and detach the wheel arch panel from the closing panels: <i>(at EF and symmetrically at E'F').</i>	
7	Drill and cut the welds and detach the front wheel arch closing panels from the rear shelf: <i>(at G).</i>	
8	Drill and cut the weld and detach the two units round the outside: <i>(at FH and symmetrically at F'H')</i> <i>(at HH').</i>	
9	Detach the wheel arch panel from the lower body crossmember: <i>(at L and symmetrically at L').</i>	
10	Disengage the unit from the body and remove it using lifting tackle.	
PREPARATION		
11	Eliminate by planishing, grinding and welding the creases, roughness or splits in the cut-away edges.	
12	Degrease the new part with petrol or white spirit.	

		TOOLS
	ASSEMBLY (see Pl. 58).	
13	Offer up the rear body unit, on the caisson unit (use lifting tackle). Engage it between the rear pillars and the wheel arch closing panels. Position it. Offer up the rear door and roof jigs (jigs 2635-T, see Pl. 18)	Jigs 2635-T
14	Spot weld the periphery of the two units: <i>(at FH and symmetrically at F'H')</i> <i>(at HH')</i> .	
15	Flatten the wheel arch panels on their closing panels and spot weld them: <i>(at EF and symmetrically at E'F')</i> .	
16	Reshape the reinforcements (1) if necessary. Then spot weld on the upper crossmember and on the wheel arch panels. Braze a few points to reinforce the fixing: <i>(at A and symmetrically at A')</i> .	
17	Remove the fixings (2) from the replaced unit. Reshape them if necessary and spot weld them on the new unit.	
18	Spot weld the quarter panel linings and the siderail extensions, on the rear upper crossmember: <i>(at ABC and symmetrically at A'B'C')</i> .	
19	Planish and grind the welds.	
20	Putty (Vibradamp) the joints of the panels inside the boot, and on the periphery of the quarter panel surrounds outside.	
21	Paint the parts.	
22	Sound deaden.	
23	Fit the roof (see Op. D 825-1).	

		TOOLS
<i>This removal does not require the body to be placed on the jig base.</i> REMOVAL (see Pl. 38).		
1	Put the vehicle on a level surface. Wedge the front and rear at the same height.	
2	Remove the roof (see Op. D 825-1).	
3	Remove the weatherstrips from the front and rear doors (on the side to be worked on).	
4	Remove the trimming from the lower body siderail (see Op. D 981-2).	
5	Place under the body longitudinally and on the side of the siderail to be repaired a "U" shaped beam (flanks towards the bottom). Hold the beam with a screw jack to avoid damaging the body.	
6	Remove the anchor stud of the change wheel stand.	
7	Drill and cut the welds and separate (chisel) the floor from the sidemember lining (4). <i>(along D, see section XY), (at AB).</i>	
8	Cut the sealing strips on the roof siderail for a length of about 80 mm on each side of the centre pillar fixing. Remove the cut portions.	
9	Drill and cut the welds and separate the centre pillar from the roof siderail.	
10	Drill and cut the welds and separate the caisson crossmember (1) from the sidemember (3) and the heel board (2) from the sidemember (3) <i>(see section XY)</i> .	
11	Cut (hacksaw) the damaged part of the siderail: <i>(at AA' and BB').</i> Stop cutting at floor level: <i>(at CC'), (see section XY).</i>	
12	Separate (chisel) the sidemember (3) from the body floor: <i>(at AB, along E) (see section XY).</i> Terminate the cutting of the sidemember (3) at the floor: <i>(at AA' and BB').</i> Remove the siderail assembly and centre pillar.	

TOOLS

PREPARATION

13 Eliminate by planishing, grinding or welding the folds or splits of the separated edges.

14 Recover the rear seat positioning cup located on the sidemember removed. Recover the support tube for the anchor stud of the change wheel stand.

15 Clean the new parts with petrol or white spirit.

ASSEMBLY (see Pl. 38).

16 Cut the new sidemember as required following the cuts:
(at AA' and BB').

Offer up the change wheel anchor stud support tube in its passage on the sidemember and weld it in position (gas weld).

17 Offer up the sidemember (3) on the body floor. Flatten it on the caisson crossmember (1) and on the heelboard (2).
Fix the assembly with clamps.

18 Spot weld the sidemember (3) on the caisson crossmember (1) and on the heelboard (2).

Gas weld the sidemember:
(at AA' and BB').

19 Offer up and spot weld the rear seat positioning cup on the sidemember upper panel. (This part is sold by our Spare Parts Service under No. D 923-92).

20 Cut the new sidemember lining (4) 40 to 50 mm longer at each end than the length cut when removing. Offer up the lining (4) by engaging the cut for the gusset on it and on the tube of the anchor stud. The panel should cover the remaining edges. Fix the lining with clamps.

21 Spot weld the ends of the lining (4):
(at AA' and BB').

22 Gas weld the anchor stud support tube and the anchor stud on the lining of the sidemember.

Spot weld the centre gusset on the upper portion of the sidemember (3) and on the lining of the sidemember (4).

23 Cut the new siderail closing panel (5) as required, following the cuts:
(at AA' and BB').

		TOOLS
24	Offer up the closing panel (5) on the siderail, fix it by clamps and gas weld it: <i>(at AA' and BB')</i> .	Jigs 2635-T
25	Offer up the centre pillar on the body and fix it with clamps. Offer up the door opening jigs (jigs 2635-T, see Pl. 18), to position the centre pillar. Spot weld the centre pillar on the roof siderail and on the siderail outer panel (5)	
26	Spot weld the siderail outer panel (5) on the sidemember (3): <i>(at HH')</i> .	
27	Offer up the centre pillar reinforcement (6) and braze it on the pillar, the sidemember and the closing panel (5). Put a few spots of brazing between the centre pillar and the roof siderail (inside the body).	
28	Offer up and weld on the roof siderail the two parts of the sealing strip fixings cut when dismantling. Offer up the fixings on the centre pillar. Spot weld them on the pillar and on the outside panel (5).	
29	Spot weld the sidemember lining on the body floor: <i>(along D, see section XY),</i> <i>(at AB).</i>	
30	Planish and grind the welds.	
31	Paint the parts.	
32	Trim the bottom body siderail (see Op. D 981-2).	
33	Sound deaden.	

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 39-40).

- 1
- Put the car on a level surface. Wedge up the front and the rear to the same height.
- 2
- Remove the roof (see Op. D 825-1).
- 3
- Remove the weatherstrips for the front and rear doors (at the side to be worked on).
- 4
- Remove the trimming from the lower body siderail (see Op. D 981-2).
- 5
- Place under the body longitudinally and on the side of the siderail to be repaired a "U" shaped beam (flanks towards the bottom). Hold the beam with a screw jack to avoid deforming the body.
- 6
- Remove the anchor stud of the change wheel stand.
- 7
- Drill and cut the welds and separate (chisel) the floor from the sidemember lining (4):
(along D, see section XY)
(at AB).
- 8
- Cut the sealing strips on the roof siderail for a length of approximately 80 mm on each side of the centre pillar fixing. Remove the cut portions.
- 9
- Drill and cut the welds and separate the centre pillar from the roof siderail.
- 10
- In the area of the part to be replaced:
(at AF, EB).

Scribe a line approximately 30 mm from the inside edge of the sidemember:
(at EF).
- 11
- Cut (chisel) the sidemember lining (4) and the exterior closing panel (5):
(at AF and BE).

Stop cutting at floor level:
(at CC', see section XY).
- 12
- Cut (chisel) the sidemember upper panel:
(at EF).

Remove the centre pillar and siderail assembly.

TOOLS

- 13 At each end of the lining (4):
(at R and at S).
- Scribe a cutting line 150 mm from these ends:
(at G and at K).
- 14 Cut (chisel):
(at EKL and at FGM)
(at LN and at MP).
- Do not cut the ends of the sidemember lining.
- 15 Drill, cut and separate (chisel) the linings of the sidemember:
(at RK and at SG).
- 16 Remove the cut portions.
- 17 If the sidemember is to be reshaped, drill, cut and separate (chisel) the pillar gusset. Avoid damaging the gusset
(this gusset is not sold alone by our Spare Parts Department). It is sold welded on the sidemember).
- PREPARATION.
- 18 Eliminate by planishing, grinding or welding the folds or splits of the separated edges.
- NOTE: *In the case of deformation of the caisson crossmember (7) make an opening in the sidemember panel (3)
level with the crossmember (7) to allow a dolly to enter.
After removing the dents from the crossmember, close the opening made, by welding.*
- 19 Take the dimensions of the sidemember upper panel:
(at MTUL).
- Take them from the undamaged sidemember.
- Scribe the contour MTUL on a sheet (8) (see section WZ). Cut the sheet (metal shears) leaving an additional strip
10 mm wide on each long side to form an edge:
(at TU and at ML).
- 20 Bend the two edges at right angles:
(at TU and at ML, see section WZ).
- 21 Mark and drill in the panel (8) the 9 mm diameter hole (6) and the rear seat positioning hole.

TOOLS

- 22 Recover the rear seat positioning cup from the old sidemember panel. (This part is sold by our Spare Parts Service under the number D 923-92).
- 23 Degrease the new parts with petrol or white spirit.

ASSEMBLY (see Pl. 39, 40).
- 24 Offer up the panel (8) previously prepared (in paragraphs 19 and 20) on the siderail. Fix it at the rear by two screws fitted in the holes (6).
- 25 Weld the panel (8) (spot welder):
 (at TU)
 (at GK)
 (at RK)
 (at SG).

Offer up the centre gusset on the sidemember (3) (if this has been removed). Spot weld it or drill holes in the sidemember in order to fix by brazing.
- 26 Gas weld:
 (at KL)
 (at GM).
- 27 Offer up the rear seat positioning cup on the sidemember (3) and weld it.
- 28 Reshape if necessary, the two reinforcing gussets situated on the sidemember (3) in the extension of the caisson crossmember (7) and spot weld. Reinforce by brazing.
- 29 Cut the new sidemember lining (4), 40 to 50 mm longer at each end, than the length cut when removing:
 (at AF and at BE).
- 30 Offer up the lining (4), engaging the cut out for the gusset on the gusset and on the tube of the anchor stud. The panel should recover the remaining edges. Hold the lining in position with clamps.
- 31 Spot weld the ends of the lining (4):
 (at AS)
 (at BR).
- 32 Gas weld the anchor stud support tube and the anchor stud on the lining of the sidemember.

Spot weld the centre pillar gusset on the upper portion of the sidemember (3) and on the lining of the sidemember (4).

		TOOLS
33	Cut the new siderail closing panel (5) as required according to the distance between the cuts: <i>(at PM and NL).</i>	Jigs 2635-T
34	Offer up the closing panel (5) on the siderail, fix it with clamps and gas weld it: <i>(at PM and NL).</i>	
35	Offer up the centre pillar on the body and fix it with clamps. Offer up the door opening jigs (jigs 2635-T, see Pl. 18) in order to position the centre pillar. Weld the centre pillar on the roof siderail and on the siderail outer panel (5)	
36	Spot weld the closing panel (5) on the sidemember upper panel (8): <i>(along V, section WZ)</i> <i>(at ML).</i>	
37	Offer up the centre pillar reinforcement (1) and braze it on the pillar, the sidemember and the closing panel (5). Put a few spots of brazing between the centre pillar and the roof siderail (inside the body).	
38	Offer up the two parts of the fixings for the sealing strips cut during dismantling and weld them on the siderail. Offer up the fixings on the centre pillar. Spot weld them on the pillar and on the outside panel (5).	
39	Spot weld the sidemember lining on the body floor: <i>(along D, see section XY)</i> <i>(at AB).</i>	
40	Planish and grind the welds.	
41	Paint the parts.	
42	Trim the bottom body siderail (see Op. D 981-2).	
43	Sound deaden.	

TOOLS

This operation does not require the use of the jig base.

Since September 1962 the bottom body siderails have been reinforced.

This routine applies only to vehicles issued before that date.

According to the state of the siderail panels, it is possible to apply one of the following solutions.

In each case, it is necessary:

To strip the bottom body siderails (felt, hydraulic piping, manual height control, fuel pipe).

1st SOLUTION - Reinforcement of the front part of the centre unit sidemembers (see Pl. 40D).

- 1 Make up in 1.5 mm sheet steel, 2 parts (one for the left side and one for the right side) as indicated in fig. 1 and fig. 2.
- 2 Drill several 10 mm holes distributed over the panel. (These holes will serve to fix the reinforcement by brazing on to the existing panel).
- 3 Offer up the panel by setting it on the pedal boards and foot board.
- 4 Spot weld (end welder) and run brazing metal into the holes previously drilled to fix the reinforcement on the vertical sides and top of the sidemember.
- 5 Spot weld (end welder) or braze the turned edges of the reinforcement on the sidemember and floor.

2nd SOLUTION - Reinforcement of linings of the centre crossmember (see Pl. 40C).

- 6 Make up, in 1.5 mm sheet steel, 2 parts as shown in fig. 2.
- 7 Drill several 10 mm holes, spaced on the panel as indicated in fig. 1. (These holes will serve to fix the reinforcement by brazing to the existing panel).
- 8 Offer up the panel as shown in fig. 1, centring it with respect to the centre gusset.
- 9 Spot weld the reinforcement on the sidemember (at "a" and "b" - see section BB) and run brazing metal in the holes previously drilled to fix the panel on the vertical side of the sidemember. Spot weld or braze the turned edges of the reinforcement on the gusset under the centre pillar.

		TOOLS
3rd SOLUTION - <u>Reinforcement of the centre unit sidemembers</u> (see Pl. 40 E).		
10	Make up in 1 mm sheet metal, 2 parts as shown in fig. 3.	
11	Drill several 10 mm holes in this panel (as shown in fig. 1). (These holes are for fixing to the sidemember).	
12	Drill and cut the welds and separate (chisel) the crossmember under the front seats: <i>(along DD' and symmetrically).</i> Detach the heel board in the same way: <i>(along EE' and symmetrically).</i>	
13	Introduce the reinforcing panel between the sidemember and the crossmember under the front seats on the one hand and the heel board on the other. Lower it by tapping lightly with a mallet until it lies perfectly flat on the floor.	
14	Spot weld the reinforcement on the top of the sidemember (see section CC) and run brazing metal in the holes previously drilled to fix the reinforcement on the vertical flange of the sidemember. Braze the reinforcement also to the floor (along GG', see fig. 2).	
15	Spot weld (end welder) or braze the joining faces of the crossmember under the front seats (on the reinforcement): <i>(at DD' and symmetrically).</i> also the heel board on the reinforcement: <i>(at EE' and symmetrically).</i>	
16	Planish the panels lightly, if required. After repair, stick on the felt trimming. Fit the hydraulic pipe assembly, the mechanical controls and the petrol pipe.	
4th SOLUTION - <u>Reinforcement of the linings and the sidemembers of the centre unit.</u>		
If the siderail has badly deteriorated, double reinforcements can be carried out as indicated above.		

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 41, 42).

1 Remove the roof (see Op. D 825-1).

2 Drill and cut the spot welding and separate (chisel) the quarter panel lining:
(at AB, BC, CD, DA).

Remove the panel.

Separate (chisel) the rear pillar from the roof siderail:
(at A).

3 Cut (hacksaw) the roof siderail in the middle of the windscreen opening:
(at EE').

4 Drill and cut the spot welding and separate (chisel) the upper front body pillar from the lower pillar:
(at F) (see Op. D 812-1).

5 Drill and cut the spot welding and separate (chisel) the centre pillar from the bottom body siderail:
(at G).

Remove the assembly of siderail and pillars.

PREPARATION.

6 Eliminate by planishing, grinding or welding the folds, roughness or splits from the cut or chiselled edges.

7 Reshape the upper part of the rear pillar.

8 Degrease the new parts with petrol or white spirit.

ASSEMBLY (see Pl. 41, 42).

9 Offer up the outer closing panel (4) of the upper front pillar and fit it in the lower pillar:
(see section HH').

10 Offer up the front door opening jig (jig 2635-T, see Pl. 18) and fit it on the lower front pillar with clamps.

		TOOLS
	Fix the upper front pillar on the jig.	
	With a few spots of brazing provisionally fix the pillar.	Jig 2635-T
11	Offer up the centre pillar on the body and fix it on the door opening jig, leaving a door operating clearance of approximately 3 mm.	
	Clamp the pillar on the body bottom siderail.	
	With a few spots of brazing, provisionally fix the pillar on the bottom body siderail.	
12	Offer up the rear door opening jig (jig 2635-T, see Pl. 18). Check the position of the centre pillar. Remove the two jigs	Jig 2635-T
13	Cut the new roof siderail as required, and offer it up on the body. With one or two spot welds fix it provisionally at the ends: (at EE').	
14	Offer up the roof jig (jig 2635-T, see Pl. 18). Check the position of the roof siderail	Jig 2635-T
15	Offer up the side panel (5) and the inner closing panel (3). Hold them in position with clamps (see section HH'). Fix provisionally with a few spots of brazing.	
16	Offer up the corner panels (1) on the roof siderail: (see section KK'). Offer up the reinforcement (9): (see section EE'). Fix the corner panels (1) and the reinforcement (9) provisionally with a few spots of brazing.	
17	Offer up the windscreen central surround reinforcement (6): (see section EE'). on the reinforcement (9). Offer up the windscreen opening jig (jig 2635-T, see Pl. 18). Hold the reinforcement with clamps. Fix provisionally with a few spots of brazing	Jig 2635-T
18	Offer up the surround reinforcement (8) on the windscreen opening. Hold it in position by clamping on the reinforcement (6). Provisionally fix the reinforcement (8) with a few spots of brazing: (see section EE').	
19	Check the position of the various parts on the body by jigs 2635-T	Jig 2635-T
20	Drill a few holes 6 mm diameter in the siderail (7) (limit the drilling on the part (7)). Fill the holes with brazing in order to fix the part (9) on the siderail (7). Braze the upper front pillar on the lower pillar: (at F).	

TOOLS

21

Spotweld:

the reinforcement (8) on the siderail (7) and on the reinforcement (6) and the reinforcement (6) on the reinforcement (9):
(see section EE').

the corner (1) on the siderail (7):
(see section KK').

the side panel (5) on the inner closing panel (3) and on the outer closing panel (4):
(see section HH').

the outer closing panel (4) on the inner closing panel (3):
(see section HH').

the upper ends of the closing panels (3 and 4) on the roof siderail.

the centre pillar on the roof siderail:
(at L).

and on the bottom body siderail:
(at G).

the rear pillar on the roof siderail:
(at A).

22

Gas weld the new parts on the roof siderail on the siderail:
(at EE').

23

Offer up the quarter panel lining. Engage it under the roof siderail extension:
(at AB).

Hold it with clamps and spot weld it:
(at AB, CD and DA).

24

Spot weld the gusset (10) on the rear upper body crossmember and on the siderail extension:
(at B).

25

Put a few spots of brazing as reinforcement:
(at AB and BC).

26

Offer up the sealing strip fixings (2) in the door surrounds (see section KK'):
Spot weld them on the roof siderail and on the pillars.

27

Planish and grind the welds.

28

Paint the parts.

29

Putty the panel joints.

30

Sound deaden.

31

Fit the roof.

T O O L S

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 40 and 40 B).

- 1 Place the vehicle on a level surface. Wedge the front and the rear at exactly the same height.
- 2 Remove the sealing strips from the front and rear doors (on the side to be worked on).
- 3 Remove the trimming from the bottom body siderail (see Op. D 981-2).
- 4 Place under the body, longitudinally and on the side of the siderail to be repaired, an iron U shaped section (flanks downwards). Support the section on a jack, to avoid distortion of the body floor.
- 5 Drill, cut and separate the caisson crossmember under the front seats from the sidemember, (see Op. D 743-1, Pl. 42A).
- 6 Drill, cut and separate the heel board from the sidemember (see Op. D 744-1).
- 7 Drill, cut and separate the joining surfaces of the sidemember and floor:
(at D section XY).
- 8 Cut away the bottom body siderail assembly to the right of the front pillars (at A) and the rear pillars (at B)
(see fig. 1).
- 9 Cut the centre pillar:
(along C).
- 10 Drill, cut and separate the sidemember lining on the floor:
(at E section XY).
- 11 Remove the assembly of bottom body siderail and lower part of the centre pillar.
- 12 Burn off (with a blow pipe) the sound deadening materials to the right of the front pillar from the scuttle panel and the sidemember. Drill and cut the welds of the sidemember gussets, the outer closing panel and the front sidemember closing panel
(at FG and HI, fig. 2).
- 13 Detach the siderail closing panel and the sidemember gussets, from the scuttle side panel and front pillar.

TOOLS

- 14 Detach the lateral closing panel of the sidemember and the closing panel of the front unit and siderail from the scuttle side panel and the floor (see Op. D 741-7 and D 741-7a).
- 15 Drill, cut and separate the welds on the sidemember gussets and the floor:
(at JG and IK, see fig. 2).
- 16 Burn off (with blow pipe) the sound deadening materials to the right of the rear pillar from the wheel arch closing panel and the lateral closing panel. Drill, cut and separate the gusset with the jack support tube *(for vehicles supplied until September 1962).*
- 17 Drill, cut and separate the welds on the joins of front pillar and siderail *(at LM, fig. 4)*, rear crossmember and sidemember *(at N, fig. 3 and 4)*, rear crossmember and sidemember, lining and outer panel *(at OP and QR, fig. 5)* and sidemember and lining on the floor). Remove the section of bottom body siderail.
- 18 Drill, cut and separate the fixings for the door opening sealing strips remaining on the upper part of the centre pillar.

PREPARATION

- 19 Eliminate by planishing, grinding or welding, any deformations, roughness or rents on the cut or chiselled edges.
- 20 Degrease the new parts with petrol or white spirit.
- 21 Cut to length the Armco tube. Fit the tube for the height control and the electric wiring harness. Secure the tubes.

ASSEMBLY (see Pl. 40 A and 40 B).

- 22 Offer up and position the front sidemember. Spot weld it to the floor and the front unit.
- 23 Offer up and position the sidemember (1) (section XY). Spot weld it to the caisson crossmember under the front seats, to the heel board, the front sidemember, the floor, and the crossmember under the rear seats.
- 24 Braze the reinforcements of the centre pillar to the floor. Spot weld.
- 25 Position the centring cup for the rear seat. Weld it on the sidemember.

		TOOLS
	Offer up and position the lining (2) (section XY), offer up the jack bracket <i>(for vehicles produced until September 1962)</i> . Weld to the sidemember, floor, crossmember under the rear seats, reinforcement of centre pillar, and front sidemember.	
27	Weld the bracket for the jack on the lining <i>(for vehicles produced until September 1962)</i> .	
28	Position the lower gusset of the front pillar and spot weld on floor and front sidemember.	
29	Offer up and position the siderail outer closing panel (3) (section XY, weld it to the sidemember, the rear pillar, the front pillar and the lower gusset of the front pillar.	
30	Position the reinforcements of the siderail and weld them.	
31	Offer up and position the lateral closing panel of the front sidemember. Weld it to the siderail outer closing panel, the front sidemember, the floor and the scuttle side panel. Weld it as reinforcement on the unit and on the floor. Braze it as reinforcement to the scuttle panel, the front sidemember and the siderail.	
32	Weld the sidemember and the siderail closing panel to the rear seat crossmember.	
33	Offer up and position the gusset with rear jack support tube, <i>(for vehicles supplied until September 1962)</i> , and weld it to the crossmember under the rear seats and to the rear pillar.	
34	Cut the centre pillar to length. Offer it up on the siderail outer closing panel. Offer up the front and rear door jigs and position the pillar. Tack it on the siderail. Braze it to the siderail. Remove the jigs	Jigs 2635-T
35	Gas weld the two parts of the centre pillar.	
36	Fit the striker of the front door and the pivot brackets of the rear door.	
37	Offer up on the centre pillar (front and rear if necessary) the fixings for the sealing strips for the door apertures. Spot weld them to the pillar.	
38	Fit the sealing strips.	
39	Trim the bottom body siderail (see Op. D 981-2).	
40	Sound deaden.	

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i>		
REMOVAL (see Pl. 29).		
1	Remove the roof (see Op. D 825-1).	
2	Drill and cut the welds, separate (chisel) the front pillar from the roof siderail: <i>(at CD).</i>	
3	Drill and cut the welds, separate (chisel) the front pillar from the lower pillar for about 6 inches (150 mm): <i>(at AF).</i>	
4	Separate (chisel) the fixing (1): <i>(see section HH').</i> for the front door sealing strip: <i>(at B).</i> Drill, cut and separate the door opening reinforcement for approximately 100 mm: <i>(at GB).</i>	
5	Cut the upper pillar, to detach it from the lower pillar: <i>(at EE').</i> Remove the two parts.	
PREPARATION.		
6	Eliminate by planishing, grinding or welding, the roughnesses in the cut or chiselled edges.	
7	Degrease the new parts with petrol or white spirit.	
ASSEMBLY (see Pl. 29).		
8	Offer up the windscreen jig (jig 2635-T, see Pl. 18). Hold the jig on the roof siderail by means of clamps	Jig 2635-T
9	Offer up the interior closing panel (2): <i>(see section EE')</i> of the front pillar.	

		TOOLS
	Fix on the jig 2635-T by means of clamps. Provisionally fix the panel (2) with a few spots of brazing.	
10	Offer up the outer closing panel (3): <i>(see section EE')</i>. engaging it at A between the lower pillar panel and the lower pillar closing panel. Fix it on the jig 2635-T and on the roof siderail: <i>(at CD)</i>.	
11	Flatten the door opening reinforcement on the pillar outer closing panel: <i>(at GB)</i>. Fix the panel provisionally with a few spots of brazing.	
12	Flatten the lower pillar on the upper pillar and on the closing panel: <i>(at AF)</i>. Remove the windscreen jig.	
13	Offer up the panel (4): <i>(see section EE')</i>, between the outer and inner closing panels. Close up the panels by means of clamps. Fix provisionally with a few spots of brazing.	
14	Check the position of the upper pillar using a door with the glass raised.	
15	Spot weld (spot welder): The outer closing panel (3) on the inner closing panel (2). The panel (4) on the outer closing panel (3) and on the inner closing panel (2): <i>(see section EE')</i>. The outer closing panel on the roof siderail: <i>(at CD)</i>.	
16	Join with brazing, by filling the holes drilled for removing the pillar: <i>(at AF)</i>.	
17	Gas weld the end of the upper pillar on the roof siderail: <i>(at D)</i>.	
18	Braze: the closing panel on the lower pillar <i>(at AI)</i>. The lower end of the pillar on the closing panel: <i>(at J)</i>.	

		TOOLS
19	Offer up the fixings for the door opening sealing strips (1). Spot weld them.	
20	Planish and grind the welds.	
21	Paint the parts.	
22	Putty between the roof siderail and the reinforcing panels in order to ensure perfect sealing.	
23	Fit the roof (see Op. D 825-1).	

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i>		
REMOVAL (see Pl. 37).		
1	Remove the roof (see Op. D 825-1).	
2	Drill, cut and separate (chisel) the centre pillar from the roof siderail: <i>(at AA')</i> .	
	from the bottom body siderail: <i>(at DD' and FF')</i> .	
3	Separate (chisel), the fixings for the sealing strips from the roof siderail: <i>(at BB' and CC')</i> .	
4	Separate (chisel) the centre pillar lower reinforcement from the bottom body siderail: <i>(at EE')</i> .	
5	Remove the centre pillar.	
PREPARATION.		
6	Eliminate by planishing, grinding or welding the folds, roughnesses or splits in the cut or chiselled edges.	
7	Degrease the new centre pillar with petrol or white spirit.	
ASSEMBLY (see Pl. 37).		
8	Offer up the centre pillar on the body and fix it with clamps.	
9	Offer up the front and rear door jigs (2635-T, see Pl. 18).	
	Check the position of the pillar.	
	Provisionally fix by a few spots of brazing at the top and bottom.	
	Remove the jigs	Jigs 2635-T

		TOOLS
10	Offer up the lower reinforcement (1) (see fig. 3) of the centre pillar. Then braze on the siderail and on the pillar: <i>(at EE')</i> .	
11	Spot weld the pillar (spot welder): on the roof siderail <i>(at AA')</i> , on the bottom body siderail: <i>(at DD' and FF')</i> .	
12	Put a spot of brazing between the pillar and the roof siderail (inside the body).	
13	Offer up the sealing strip fixings (2) on the centre pillar and spot weld them.	
14	Flatten the upper fixings for the sealing strips on the siderail reinforcements. Spot weld them: <i>(at BB' and CC')</i> .	
15	Spot weld the fixings (2) on the body siderail: <i>(at DD' and FF')</i> .	
16	Planish and grind the welds.	
17	Paint the parts.	
18	Fit the roof (see Op. D 825-1).	

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i>		
REMOVAL (see Pl. 46).		
1	Remove the roof (see Op. D 825-1).	
2	Drill and cut the welds and separate (chisel) the rear pillar from the roof siderail: <i>(at A).</i>	
3	Drill and cut the welds and separate (chisel) the reinforcement (1) from the pillar: <i>(at CB and at BH).</i>	
4	Cut (chisel) the sealing strip fixing on the pillar: <i>(at D).</i> Drill and cut the welds and separate (chisel) the sealing strip fixing from the siderail outer panel: <i>(at GE).</i>	
5	Drill and cut the welds and separate the pillar from the lateral closing panel: <i>(at LG and symmetrically at L'G').</i>	
6	Drill and cut the welds and separate the pillar from the quarter panel: <i>(at FB).</i> Remove the rear pillar.	
PREPARATION.		
7	Eliminate by planishing, grinding or welding the deformation, roughnesses or splits in the cut or chiselled edges.	
8	Reshape the reinforcement (1), if possible (this part is not sold). If necessary, make up a reinforcement (1), cutting it from 0.8 mm sheet.	
9	Degrease the new parts with petrol or white spirit.	
ASSEMBLY (see Pl. 46).		
10	Offer up the rear pillar on the body and hold it in position with clamps.	

		TOOLS
11	Offer up the door, with the glass raised, to adjust the position of the rear pillar.	Jig 2635-T
12	Provisionally fix the pillar in position with a spot of brazing: <i>(at E and at A).</i>	
13	Offer up the roof jig (jig 2635-T, see Pl. 18), to make sure that the roof siderail is in position	
14	Spot weld (end welder): <i>(at EG).</i> Spot weld (spot welder) the pillar on the roof extension: <i>(at A).</i> Spot weld (spot welder) the pillar on the lateral closing panel: <i>(at LG and symmetrically at L'G').</i>	
15	Offer up the reinforcement (1), and fix it with clamps, and weld it: <i>(at B, C, H).</i> Add a few spots of brazing for security.	
16	Offer up the door opening sealing strip fixing and fix it by means of clamps. Spot weld it on the pillar and on the bottom body siderail: <i>(at DE).</i>	
17	Planish and grind the welding.	
18	Paint the parts.	
19	Sound deaden.	
20	Fit the roof (see Op. D 825-1).	

		TOOLS
<i>This operation does not require the body to be placed on the jig base, and it avoids having to remove and replace the roof.</i>		
REMOVAL (see Pl. 46 A).		
1	Starting at the bottom, loosen the sealing strip to about 20 cm above the lock striker boss: <i>(at BE).</i>	
2	Drill and cut the welds and separate (chisel) the sealing strip fixing from the siderail outer panel: <i>(at AB).</i>	
3	Drill and cut the welds and separate the lower part of the pillar in the area to be replaced: <i>(at AC and symmetrically at A'C').</i>	
4	Cut (hacksaw) the rear pillar at the level of the lock striker boss: <i>(at CD).</i>	
5	Remove the lower part of the pillar.	
PREPARATION.		
6	Eliminate, by planishing, grinding or welding, any deformations, roughness or rents in the chiselled or cut edges.	
7	Reshape, if necessary, the edge of the lower lateral closing panel of the rear pillar: <i>(at AC).</i>	
8	Degrease the new parts with petrol or white spirit.	
9	Cut the new part at the level of the lock striker boss <i>(along CD)</i> to the same sizes as the part removed.	
10	Cut the sealing strip fixing to the same size as the piece removed.	
ASSEMBLY (see Pl. 46 A).		
11	Offer up on the body the cut-out part of the new rear pillar.	
12	Fix the lower part of the pillar on the body by means of clamps.	

		TOOLS
13	Offer up the door, glass raised, to adjust the position of the lower part of the rear pillar.	
14	Provisionally fix the part of the pillar in place with 2 or 3 spots of brazing <i>(at C and B).</i>	
15	Spot weld (end welder): <i>(at AB).</i> Spot weld the pillar to the lateral closing panel: <i>(at CA and symmetrically at C'A').</i>	
16	Gas weld the join of the rear pillar: <i>(at DC).</i>	
17	Offer up the lower part of the door opening sealing strip fixing and hold it with clamps. Spot weld it on the pillar: <i>(at CA).</i> and on the bottom of the body (end welder): <i>(at AB).</i>	
18	Braze the join of the fixings in a few places.	
19	Planish and grind the welding.	
20	Paint the parts.	
21	Fit the sealing strip in its fixing.	
22	Sound deaden.	

		TOOLS
<i>This operation does not require the body to be placed on the jig base, and it avoids having to remove and replace the roof.</i>		
REMOVAL (see Pl. 37A).		
1	Starting at the bottom, loosen the sealing strips up to about 20 cm above the lock striker boss: <i>(at AB and symmetrically at A'B').</i>	
2	Drill and cut the welds and separate (chisel) the sealing strip fixing from the siderail outer panel: <i>(at AC and symmetrically at A'C').</i>	
3	Separate (chisel) the lower reinforcement of the centre pillar on the bottom body siderail: <i>(at EE').</i>	
4	Cut (hacksaw) the centre pillar at the level of the boss housing the rubber plugs for adjusting the glass guides: <i>(at DD').</i>	
5	Remove the lower part of the pillar.	
PREPARATION		
6	Eliminate by planishing, grinding or welding, any deformations, roughness or rents in the chiselled or cut edges.	
7	Degrease the new parts with petrol or white spirit.	
8	Cut the new part at the level of the boss housing the rubber plugs for adjusting the glass guides <i>(along DD')</i> to the same dimensions as the part removed. Cut the sealing strip fixings to the same dimensions as the parts removed.	
ASSEMBLY (see Pl. 37a).		
9	Offer up the new section of centre pillar, on the body.	
10	Hold the lower part of the pillar on the body with clamps.	

		TOOLS
11	Fit the door pivots on the centre pillar and offer up the doors, glass raised, to adjust the position of the lower part of the centre pillar.	
12	Remove the doors and provisionally fix the section of pillar in position with a few spots of brazing.	
13	Offer up the lower reinforcement (1), see fig. 3, of the centre pillar. Braze it to the siderail and to the pillar: <i>(at EE')</i> .	
14	Spot weld the pillar on the bottom body siderail: <i>(at AC and symmetrically at A'C')</i> .	
15	Gas weld the join of the centre pillar: <i>(at DD')</i> .	
16	Offer up the lower parts of the door aperture sealing strip fixings. Hold them with clamps. Spot weld them to the pillar: <i>(at CD and symmetrically at C'D')</i> . on the bottom of the body (arc welder): <i>(at AC and symmetrically at A'C')</i> .	
17	At the joins of the sealing strip fixings, put a few spots of brazing.	
18	Planish and grind the welds.	
19	Paint the parts.	
20	Fit the sealing strips in their fixings.	
21	Sound deaden.	

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i> REMOVAL (see Pl. 43-44).		
1	Remove the roof (see Op. D 825-1).	
2	Drill and cut the welds and separate (chisel) the lining of the quarter panel: <i>(at AB, BC, CD, DA).</i> Remove the lining of the panel.	
3	Drill and cut the welds and separate (chisel) the pillar from the roof siderail extension: <i>(at C and G).</i>	
4	Drill and cut the welds and detach the reinforcement (1): <i>(at AD and DE).</i> Remove the reinforcement.	
5	Drill and cut the welds and separate the pillar from the bottom body siderail: <i>(at FH).</i> the pillar from the lower lateral closing panel: <i>(at IJ and symmetrically at I'J').</i> Remove the pillar assembly.	
6	Drill and cut the welds and separate the wheel arch closing panel from the lateral panel: <i>(at MJ).</i> Remove the lateral panel.	
7	Drill and cut the welds and separate the wheel arch front closing panel from the lower body crossmember: <i>(at JK).</i> the wheel arch closing panel from the wheel arch panel: <i>(at KN).</i> the wheel arch closing panel from the rear shelf: <i>(at PR).</i> Remove the wheel arch closing panel.	
8	Drill and cut the welds and separate the wheel arch panel from the rear lower body crossmember: <i>(at S),</i> the lower body crossmember from the crossmember of the unit: <i>(at JL).</i>	

		TOOLS
9	Cut (hacksaw) the damaged portion of the lower body crossmember: <i>(at L).</i> Remove the cut portion of the crossmember. PREPARATION.	
10	Eliminate by planishing, grinding or welding, the folds, roughness or splits in the cut or chiselled edges.	
11	Reshape the reinforcement (1) (this part is not sold). If necessary, make up a reinforcement from 0.8 mm sheet.	
12	Cut the replacement part as required from a new lower crossmember.	
13	Degrease the new parts with petrol or white spirit.	
	ASSEMBLY (see Pl. 43-44).	
14	Offer up the new part of the crossmember and clamp it to the crossmember of the unit. Gas weld the crossmember part.	
15	Offer up the rear pillar and fix it on the body by means of clamps.	
16	Offer up the rear door opening (jig 2635-T, see Pl. 18), the trimming having previously been removed from the door opening and the siderail.	
	Offer up the roof jig	Jig 2635-T
17	Position the pillar, leaving clearance round the jig for door movement (3 mm approximately). Put a spot of brazing: <i>(at G).</i>	
18	Offer up the lower lateral closing panel, engaging it behind the pillar. Position the panel, held by clamps, on the pillar. Spot weld it on the pillar (spot welder): <i>(at IJ and symmetrically at I'J').</i>	
19	Offer up the wheel arch front closing panel. Position the panel and hold it by means of clamps. Using a screw jack bearing on the opposite wheel arch closing panel, flatten the wheel arch closing panel on the rear pillar lower lateral closing panel.	

TOOLS

- 20 Spot weld (end welder and spot welder):
the wheel arch panel on the closing panel:
(at NK),
the pillar on the roof and body siderails:
(at CG and FH),
the wheel arch closing panel on the lateral closing panel:
(at JM),
the wheel arch closing panel on the rear shelf:
(at PR),
the rear lower crossmember on the crossmember of the unit:
(at JL),
the wheel arch front closing panel on the lower body crossmember:
(at JK),
the wheel arch panel of the rear lower crossmember:
(at S),
the reinforcement (1) on the pillar and on the lateral closing panel:
(at AD and DE).
- 21 Braze the edges of the wheel arch panel on the lower crossmember to seal them thoroughly.
- 22 Fill with brazing metal the holes drilled in the rear shelf for dismantling purposes (protect the area to be brazed with moist asbestos).
- 23 Offer up the quarter panel lining, engaging it under the roof siderail extension:
(at BC).
Hold in position by means of clamps on the siderail extension.
Spot weld the panel lining:
(at AB, BC, CD and DA),
the upper gusset:
(at B).
- 24 Offer up the door opening sealing strip fixings on the rear pillar.
Hold them in position with clamps, then spot weld:
(at GH).
- 25 Planish and grind the welds.
- 26 Paint the parts.
- 27 Putty, inside and outside the body, the periphery of the quarter panel lining:
(at AB, BC, CD and DA).
- 28 Sound deaden.
- 29 Fit the roof (see Op. D 825-1).

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 47).

- 1
- Remove the roof (see Op. D 825-1).
- 2
- Remove the rear pillar (see Op. D 812-1b).
- 3
- Drill and cut the welds and separate (chisel) the reinforcement (1) from the lateral panel of the rear pillar:
(at BD).
Remove the reinforcement.
- 4
- Drill and cut the welds and separate the lateral closing panel from the wheel arch closing panel:
(at BC),
the lateral closing panel from the quarter panel lining:
(at BD).
Remove the closing panel.

PREPARATION.

- 5
- Eliminate by planishing, grinding or welding the folds, roughness or splits in the cut or chiselled edges.
- 6
- Re-shape the reinforcement (1) if possible (this part is not sold). If necessary make up a new reinforcement cutting it from 0.8 mm steel.
- 7
- De-grease the new parts with petrol or white spirit.

ASSEMBLY (see Pl. 47).

- 8
- Offer up the rear pillar lateral closing panel and hold it in position by means of clamps.

		TOOLS
9	Spot weld (end welder) the lateral closing panel on the wheel arch panel: <i>(at BC)</i> , on the quarter panel lining: <i>(at BD)</i> .	
10	Fit the front pillar (see Op. D 812-1b).	
11	Planish and grind the welds.	
12	Paint the parts.	
13	Sound deaden.	
14	Fit the roof (see Op. D 825-1).	

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 48).

- 1
- Remove the roof (see Op. D 825-1).
- 2
- Remove the rear pillar and the lateral panel (see Op. D 812-4a).
- 3
- Drill and cut the welds and separate (chisel): the wheel arch closing panel from the rear lower body crossmember:
(at AB),
from the wheel arch panel:
(at AC),
from the rear light shelf:
(at FG) (see fig. 2).
Remove the closing panel.

PREPARATION

- 4
- Eliminate by planishing, grinding or welding the folds, roughness, or splits in the cut or chiselled edges.
- 5
- Degrease the new parts with petrol or white spirit.

ASSEMBLY (see Pl. 48).

- 6
- Offer up the wheelarch front panel and hold it in position by means of clamps.
- 7
- Offer up the lateral closing panel and the pillar and hold them in position by means of clamps.
- 8
- Using a screw jack bearing on the opposite wheel arch closing panel, flatten the wheel arch closing panel on the lower lateral closing panel of the rear pillar.
- 9
- Spot weld (end welder and spot welder):
the wheel arch panel on the wheel arch closing panel:
(at AC).

		TOOLS
	on the lateral closing panel: <i>(at HB)</i>. the rear light shelf on the wheel arch closing panel: <i>(at FG)</i> (see fig. 2), the wheel arch closing panel on the rear lower crossmember: <i>(at AB)</i>.	
10	Braze the edge of the wheel arch closing panel on the lower crossmember to ensure thorough sealing: <i>(at AE)</i> .	
11	Fill with brazing metal the holes drilled in the rear light shelf during dismantling (protect the area round the brazing with moist asbestos).	
12	Complete the fixing by welding the pillar and the lateral panel (see Op. D 812-4a).	
13	Planish and grind the welding.	
14	Paint the parts.	
15	Sound deaden.	
16	Fit the roof (see Op. D 825-1).	

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 30).

NOTE: *Where the replacement of a front pillar is connected with the replacement of a front unit (operation carried out on the jig base) it is necessary to position the pillar with the aid of brackets (716 and 717) and the pins (720 and 721) (see Pl. 10, 11).*

- 1
- Remove the trimming from the body siderail, up to the centre pillar.
- 2
- Drill and cut the welds and detach (chisel) the fixing for the sealing strips (a few centimetres above the upper edge of the lower front pillar):
(at AB),

the fixing, from the bottom body siderail:
(at AC).

Remove the fixing.

Remove the lower body pillar:

from the lateral scuttle panel:
(at DE),

from the upper closing panel:
(at FG),

from the upper pillar:
(at FH).

Remove the lower pillar.

PREPARATION.

- 3
- Eliminate by planishing, grinding or welding, the folds, roughnesses or splits in the cut or chiselled edges.
- 4
- Clean the new part with petrol or white spirit.

ASSEMBLY (see Pl. 30).

- 5
- Offer up the lower pillar on the scuttle side panel and the upper closing panel.

Hold it in position with clamps.

		TOOLS
6	Offer up the jig (2631-T, see Pl. 15), one side in the pilot hole (j) and the other on the half-axle fixing screw (K)	Jig 2631-T
7	Offer up the sealing strip fixing on the front pillar: (at CB).	
8	Offer up the front door jig (2635-T, see Pl. 18). Position the pillar. Hold the pillar in position by means of clamps. Remove the jig	Jig 2635-T
9	Spot weld (end welder and spot welder) the lower pillar on the scuttle side panel and the siderail: (at DE), on the upper closing panel: (at GF), on the upper pillar: (at FH), the sealing strip fixing, on the pillar: (at AB), and on the bottom body siderail: (at AC).	
10	Planish and grind the welds.	
11	Paint the part.	
12	Trim the body siderail.	
13	Sound deaden.	

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 31, 32).

NOTE: *Where the replacement of a front pillar is connected with the replacement of a front unit (operation carried out on the jig base) it is necessary to position the pillar with the head of the brackets (716 and 717) and the pins (720 and 721) (see Pl. 10, 11).*

- 1 Remove the trimming from the body siderail, up to the centre pillar.
- 2 Drill and cut the welds and detach (chisel) the sealing strip fixings (a few centimetres above the upper edge of the lower front pillar):
(at AB),

the fixing from the bottom body siderail:
(at AC).

Remove the fixing.
- 3 Cut (chisel)

the lower pillar:
(at DE, CF),

the upper closing panel:
(at GH).

Remove the pillar.
- 4 Drill and cut the welds and separate (chisel):

the scuttle dome panel from the scuttle side panel:
(at LK),
the scuttle side panel from the upper dashframe:
(at MN),
from the scuttle shelf and its reinforcement:
(at NP, PR, RS),
from the upper body pillar:
(at TU),
from the front body unit:
(at VW),
from the bottom body siderail:
(at XY).
- 5 Remove the scuttle side panel.

		TOOLS
	PREPARATION Eliminate by planishing, grinding or welding the folds, roughnesses or rents in the cut or chiselled edges. Clean the new parts with petrol or white spirit. ASSEMBLY (see Pl. 31, 32).	
6		
7	Offer up the scuttle side panel on the unit and the body siderail, engaging the upper part of the side panel under the scuttle dome panel: (at KL). Hold the scuttle side panel in position by means of clamps: (at KL, TU and VW). Provisionally fix the side panel with a few spots of brazing.	
8	Offer up the windscreen jig (2635-T, see Pl. 18). Check the position of the side panel	Jig 2635-T
9	Spot weld (end welder and spot welder) the scuttle lateral panel on the unit: (at VW), on the scuttle shelf: (at NP, PR, RS), on the scuttle dome panel: (at KL), on the upper dashframe: (at MN), on the bottom body siderail: (at XY), on the upper pillar: (at TU).	
10	Offer up the lower pillar and position it with the jig 2631-T (see Pl. 15), one side engaged in the pilot hole (j) and the other side on the half-axle fixing screw (z). Offer up the front door jig (2635-T, see Pl. 18). Make sure that the assembled position of the pillar leaves sufficient clearance for the opening and closing of the door (3 mm approximately)	Jig 2631-T Jig 2635-T
11	Offer up the upper closing panel by engaging between the side panel and the pillar. Hold it in position with clamps. Fix the assembly in position with a few spots of brazing.	

		TOOLS
12	Offer up the fixings for the sealing strips: <i>(at CB).</i>	
13	Make up a reinforcement (1) as indicated on Pl. 31, fig. 2.	
14	Put the reinforcement (1) in position and fix by means of clamps.	
15	Spot weld (end welder and spot welder) the reinforcement (1) on the scuttle side panel and the upper pillar on the lower pillar: <i>(at TU).</i> The lower pillar on the scuttle side panel and siderail: <i>(at DE),</i> on the upper closing panel: <i>(at GH),</i> on the upper pillar: <i>(at FH).</i> The sealing strip fixing: <i>(at AB),</i> and on the bottom body siderail: <i>(at AC).</i>	
16	Planish and grind the welding.	
17	Paint the parts.	
18	Sound deaden.	
19	Trim the body siderail.	

TOOLS

This operation does not require the body to be placed on the jig base.

NOTE: *There have been two successive fittings for fixing the bonnet hinge on the front pillar closing panel.
In the first, the holes for fixing the bonnet hinge are 144 mm between centres.
In the second, the holes for fixing the bonnet hinge are 163.5 mm between centres.
Only the parts for the second type are sold by our Spare Parts Department. However, if the bonnet is fitted with a hinge of the first type it is possible to alter the hole centres. To do this, weld under the closing panel (before fitting) two steel squares 20 x 20 mm approximately by 5 mm thick at the desired centres, then drill and tap 7 diameter 100 pitch.*

REMOVAL (see Pl. 34).

- 1
- Drill and cut the welds and detach (chisel) the closing panel from the scuttle side panel:
(at AB),

from the upper edge of the scuttle panel and from the upper pillar:
(at BK),

from the lower front pillar:
(at CD),

and the end of the pillar closing panel:
(at AC).

Remove the closing panel.

PREPARATION

- 2
- Eliminate by planishing, grinding or welding the deformations, roughnesses or rents in the cut or chiselled edges.
- 3
- Clean the new part with petrol or white spirit.

ASSEMBLY (see Pl. 34).

- 4
- Offer up the front pillar upper closing panel, engaging it between the scuttle side panel and the lower body pillar.

Hold in position by means of clamps.

		TOOLS
5	Spot weld (end welder and spot welder) the closing panel: on the scuttle side panel: <i>(at AB)</i> , on the lower pillar: <i>(at AC, CD)</i> , on the scuttle side panel and the upper pillar: <i>(at BE)</i> .	
6	Planish and grind the welding.	
7	Paint the parts.	
8	Sound deaden.	

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 49).

- 1
- Drill and cut the spot welding and separate (chisel):
the wheel arch front closing panel from the rear body lower crossmember:
(at AB),
the wheel arch panel from the rear lower crossmember:
(at C),
the body lower crossmember from the crossmember of the unit:
(at EF),

- 2
- Cut the damaged part of the crossmember (hack saw):
(at DE).
Remove the damaged part of the crossmember.

PREPARATION.

- 3
- Eliminate by planishing, grinding or welding the folds, roughness or splits on the welded or cut edges.
- 4
- Cut the replacement part required from a new crossmember.
- 5
- Degrease the new parts with petrol or white spirit.

ASSEMBLY (see Pl. 49).

- 6
- Offer up the crossmember part by engaging under the wheel arch panel and under the wheel arch closing panel.
Hold in position on the body by means of clamps.
- 7
- Gas weld the end of the crossmember:
(at ED).
- 8
- Spot weld (end welder and spot welder):
the body lower crossmember on the crossmember of the unit:
(at FE).

		TOOLS
	on the wheel arch closing panel: <i>(at AB),</i> on the wheel arch panel: <i>(at C).</i>	
9	Braze the edges of the wheel arch panel on the lower crossmember to ensure thorough sealing: <i>(at CF).</i>	
10	Planish and grind the welding.	
11	Paint the parts.	
12	Sound deaden.	

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i> REMOVAL (see Pl. 56). 1 Remove the roof (see Op. D 825-1). 2 Drill and cut the spot welding and separate (chisel) the rear body upper crossmember: from the rear light shelf: <i>(at AB and symmetrically at A'B')</i>. from the quarter panel linings and the roof siderail extensions: <i>(at BC and symmetrically at B'C')</i>. Remove the crossmember. PREPARATION 3 Eliminate by planishing, grinding or welding, any distortion, roughness or splits on the welded or cut edges. 4 Degrease the new part with petrol or white spirit. ASSEMBLY (see Pl. 56) 5 Offer up the body upper crossmember on the rear light shelf. Engage the crossmember between the quarter panel linings. Position the crossmember using the roof jig (2635-T, see Pl. 18). Also check the position of the crossmember by using the rear light glass . Hold the crossmember in position by means of clamps 6 Spot weld (spot welder): the rear body upper crossmember on the rear light shelf and the wheel arch panels: <i>(at AB and symmetrically at A'B')</i>, on the quarter panel linings: <i>(at BC and symmetrically at B'C')</i>.		Jig 2635-T

		TOOLS
7	Fill the holes drilled in the rear light shelf and the wheel arch panels during removal, with brazing: <i>(at AB and symmetrically at A'B'),</i> and on the quarter panel linings: <i>(at BC and symmetrically at B'C').</i>	
8	Planish and grind the welding.	
9	Paint the part.	
10	Sound deaden.	
11	Fit the roof (see Op. D 825-1).	

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 57).

- 1
- Drill and cut the spot welding and separate the body upper crossmember from the rear light panel (chisel):
(at AB and symmetrically at A'B').
- 2
- Separate the sealing strips from the shelf panel (chisel):
(at CC).
- 3
- Drill and cut the spot welding and separate (chisel):
the rear light shelf, from the reinforcements on the wheel arch panels:
(at DE and symmetrically at D'E'),
from the wheel arch panels and the body upper crossmember:
(at GH and symmetrically at G'H'),
from the wheel arch closing panels:
(at GF and symmetrically at G'F').
Remove the rear light shelf.
- PREPARATION
- 4

Eliminate by planishing, grinding or welding, distortion, roughness or splits on the welded or cut edges.

5

Degrease the new part with petrol or white spirit.
- ASSEMBLY (see Pl. 57).
- 6

Offer up the rear light shelf by engaging between the wheel arch panels and under the body upper crossmember.
Flatten on the reinforcements and hold in position by means of clamps.

7

Spot weld the rear light shelf (spot welder):
on the body upper crossmember and the wheel arch panels:
(at GH and symmetrically at G'H').

		TOOLS
	on the wheel arch reinforcements: <i>(at DE and symmetrically at D'E'),</i> on the wheel arch closing panels: <i>(at GF and symmetrically at G'F'),</i> on the rear light crossmember and the wheel arch panels: <i>(at AB and symmetrically at A'B').</i>	
8	Fill the holes drilled in wheel arch panels and their reinforcements, in the closing panels and in the body upper crossmember during removal, with brazing.	
9	Put a few spots of brazing: <i>(at GH and symmetrically at G'H').</i>	
10	Gas weld the sealing strips on the rear light shelf: <i>(at C and symmetrically at C').</i>	
11	Planish and grind the welding.	
12	Paint the parts.	
13	Sound deaden.	

TOOLS

This operation does not require the body to be placed on a jig base.

REMOVAL (see Pl. 53-54).

NOTE: *Place the car on a level surface. Wedge the rear at exactly the same height on both sides.*

- 1
- Cut the boot closing panel (chisel):
(at AB).
- 2
- Drill and cut the spot welding and separate the boot closing panel (chisel):
from the chassis lower unit:
(at BC),
from the connecting panel:
(at W, D, E),
from the boot inner reinforcement:
(at FG),
from the wheel arch panel:
(at FE),
from the bumper support:
(at H).
- Remove the rear boot closing panel.
- 3
- Drill and cut the spot welding and separate the wheel arch panel (chisel):
from the chassis lower unit:
(at KL),
from the rear light shelf and the upper crossmember:
(at MN),
on the rear light crossmember reinforcement:
(at PR),
from the body lower crossmember:
(at S),
from the wheel arch closing panel:
(at LT).
- Remove the wheel arch panel with its rear connecting panel.
- 4
- Remove the bumper bracket boss, from the panel (this part is not sold).

PREPARATION.

- 5
- Eliminate by planishing, grinding or welding, the folds, roughness or splits on the welder or cut edges.
- 6
- Degrease the new parts with petrol or white spirit.

TOOLS

ASSEMBLY (see Pl. 53-54).

- 7
- Offer up the wheel arch panel and position it from the non damaged side of the car.
Hold in position by means of clamps.
- 8
- Offer up the boot rear closing panel. Hold in position by means of clamps.
Offer up the bumper brackets boss and hold in position by means of clamps.
Align the holes (UU') of the boot closing panel with those of the bumper brackets.
Make sure that the upper edge of the closing panel is horizontal.
Check this position with a spirit level.
- 9
- Spot weld the wheel arch panel (spot welder):
on the chassis lower unit:
(at KL),
on the wheel arch closing panel:
(at LT),
on the rear light shelf and upper crossmember:
(at MN),
on the rear light crossmember reinforcement:
(at PR),
on the body lower crossmember:
(at S).
- 10
- Spot weld the bumper bracket boss (end welder) on the wheel arch panel.
- 11
- Spot weld the boot closing panel (spot welder and end welder):
on the chassis lower unit:
(at BC),
on the connecting panel:
(at E, D, W),
on the boot inner reinforcements:
(at FE and symmetrically at F'E'),
on the bumper bracket bosses:
(at H and symmetrically at H').
- 12
- Offer up the rear connecting panel and hold by clamps on the wheel arch panel and on the rear closing panel.

		TOOLS
13	Spot weld the connecting panel (spot welder): on the wheel arch panel: <i>(at VE'')</i>, on the rear panel: <i>(at E'D'W')</i>. The section (1) on the wheel arch panel.	
14	Put a spot of gas welding in the corners formed by the boot closing panel, the wheel arches and the rear light shelf.	
15	Put a few spots of brazing for reinforcement: <i>(at KL, BC and S)</i>. Fill the holes drilled in the parts for removal, with brazing.	
16	Planish and grind the welding.	
17	Paint the parts.	
18	Sound deaden.	

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 45).

- 1
- Remove the roof (see Op. D 825-1).
- 2
- Drill and cut the spot welding and separate the quarter panel (chisel):
from the rear pillar:
(at AB),
from the rear pillar lateral closing panel:
(at BC),
from the rear upper body crossmember:
(at CD),
from the roof siderail extension:
(at AF),

- 3
- Drill and cut the spot welding and separate the gusset (1) and remove it.

PREPARATION.

- 4
- Eliminate by planishing, grinding or welding, the folds, roughness or splits on the welded or cut edges.
- 5
- Degrease the new part with petrol or white spirit.

ASSEMBLY (see Pl. 45).

- 6
- Reshape, if possible, the reinforcement (1) (this part is not sold). If necessary, make up a reinforcement from 0.8 mm thick sheet steel (see Pl. 68, fig. 10).
- 7
- Offer up the quarter panel lining by engaging it under the roof siderail and hold it in position by means of clamps.
- 8
- Spot weld the quarter panel lining (spot welder):
on the rear pillar:
(at AB),
on the rear pillar lateral closing panel:
(at BC).

		TOOLS
	on the roof siderail extension: <i>(at AF),</i> on the rear upper body crossmember: <i>(at CD).</i>	
9	Offer up the gusset (1) and weld it (end welder): on the quarter panel and the roof siderail extension: <i>(at FD),</i> on the rear upper body crossmember: <i>(at DE).</i>	
10	Planish and grind the welding.	
11	Paint the parts.	
12	Sound deaden.	
13	Fit the roof (see Op. D 825-1).	

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 52).

- 1
- Drill and cut the spot welding and separate the connecting panel (chisel):

from the wheel arch panel:
(at AB),

from the boot rear closing panel:
(at BC).

Remove the connecting panel.

PREPARATION.

- 2
- Eliminate by planishing, grinding or welding, the folds, roughness or splits on the welded or cut edges.
- 3
- Degrease the new part with petrol or white spirit.

ASSEMBLY (see Pl. 52).

- 4
- Offer up the connecting panel and hold it in position by means of clamps.

Spot weld the connecting panel (spot welder):

on the wheel arch panel:
(at AB),

on the boot rear closing panel:
(at BC).
- 5
- Fill the holes drilled in the parts for removal, with brazing.
- 6
- Planish and grind the welding.
- 7
- Paint the part.
- 8
- Sound deaden.

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 33).

- 1
- Drill and cut the spot welding and separate the scuttle panel (chisel):
from the scuttle side panels:
(at AB and CD),
from the upper bulkhead:
(at BD).
Remove the scuttle panel.
- 2
- Remove the two straps positioning the instrument surround, from the scuttle panel. These parts are not sold and must be used again.

PREPARATION.

- 3
- Eliminate by planishing, grinding or welding, the folds, roughness or splits on the welded or cut edges.
- 4
- Degrease the new part with petrol or white spirit.

ASSEMBLY (see Pl. 33).

- 5
- Offer up the scuttle panel and hold it in position by means of clamps.
- 6
- Offer up the windscreen jig (jig 2635-T, see Pl. 18). Jig 2635-T
- 7
- Fix the panel provisionally with a few spots of brazing.
Remove the jig.
- 8
- Spot weld the scuttle panel (spot welder):
on the side panels:
(at AB and CD),
on the bulkhead:
(at BD).

		TOOLS
9	Offer up the finishing panel between windscreen and dashboard on the scuttle panel: <i>(at AC).</i> Punch the fixing holes in the scuttle panel. Then remove the finishing panel.	
10	Position the anchor straps of the instrument surround by offering up the instrument surround. Mark the position of the anchor plates and spot weld them under the upper edge of the scuttle dome.	
11	Planish and grind the welding.	
12	Paint the parts.	
13	Sound deaden.	

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i>		
REMOVAL (see Pl. 35-36).		
1	Drill and cut the spot welding and separate the dashframe (chisel): from the front unit and from the scuttle shelf: <i>(at AA')</i> .	
2	Cut (chisel) the reinforcement and the shelf, from inside the body: <i>(at ACEF and symmetrically at A'C'E'F')</i> .	
3	Cut (chisel) the dashframe: <i>(at AB and symmetrically at A'B')</i> .	
4	Cut and drill the spot welding and separate (chisel) the scuttle panel from the scuttle side panels: <i>(at BD and symmetrically at B'D')</i> .	
5	Remove the dashframe, the shelf and the scuttle panel.	
6	Remove the two straps positioning the instrument surround from the scuttle panel. These parts are not sold and must be used again.	
PREPARATION.		
7	Drill and cut the spot welding and separate (chisel) the strips of sheet remaining on the scuttle side panels. Limit the drilling to the parts to be removed: <i>(at AB and symmetrically at A'B'),</i> <i>(at AC and symmetrically at A'C')</i> .	
8	Eliminate by planishing, grinding or welding, the folds, roughness or splits on the welded or cut edges.	
9	Degrease the new parts with petrol or white spirit.	
ASSEMBLY (see Pl. 35-36).		
10	Offer up the scuttle shelf on the unit and engage between the scuttle side panels: <i>(at AA')</i> .	

T O O L S

Offer up the upper dashframe on the shelf. Hold them together by means of clamps.
Offer up the scuttle panel and fasten it on the assembly.

11 Offer up the windscreen jig (jig 2635-T, see Pl. 18).....

Jig 2635-T

12 Provisionally fix the parts with a few spots of brazing.

13 Spot weld the upper dashframe (spot welder):
on the front body unit and the shelf:
(at AA'),

on the scuttle side panels:
(at AB and symmetrically at A'B'),

on the scuttle panel:
(at BB'),

the scuttle shelf and its reinforcement

on the scuttle side panels:
(at ACEF and symmetrically at A'C'E'F').

NOTE: *Flatten the scuttle side panels on the scuttle shelf, using a lever passing through a hole made in the front pillar closing panels.*
Then fill in the holes made in the closing panels.

Spot weld the scuttle panel:
on the scuttle side panels:
(at BD and symmetrically at B'D').

14 Put a few spots of brazing (for reinforcement) between the scuttle shelf and the side panels.

15 Put a few spots of brazing for security:
(at AA'),
(at ACEF and symmetrically at A'C'E'F').

16 Offer up the finishing panel between the windscreen and the dashboard on the scuttle dome:
(at DD').

Punch the fixing holes in the scuttle panel.
Then remove the finishing panel.

17 Position the anchor straps of the instrument surround by offering up the surround. Mark the position of the anchor straps and spot weld them under the upper edge of the scuttle dome.

18 Planish and grind the welding.

19 Paint the parts.

20 Sound deaden.

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i> REMOVAL (see Pl. 55). NOTE: <i>Place the car on a level surface. Wedge the rear at exactly the same height on both sides.</i>		
1	Drill and cut the spot welding and separate (chisel) the boot rear closing panel: from the caisson lower unit: <i>(at AA'),</i> from the connecting panels: <i>(at BCD and symmetrically at B'C'D'),</i> from the boot interior reinforcements: <i>(at FG and symmetrically at F'G'),</i> from the wheel arch panels: <i>(at FE and symmetrically at F'E'),</i> from the bumper brackets: <i>(at H).</i> Remove the boot rear closing panel. PREPARATION:	
2	Eliminate by planishing, grinding or welding, the folds, roughness or splits on the welded or cut edges.	
3	Degrease the new part with petrol or white spirit. ASSEMBLY (see Pl. 55).	
4	Offer up the boot rear closing panel and hold it in position by means of clamps. Align the holes (K and K') of the boot closing panel with those of the bumper brackets. Make sure that the upper edge of the panel is horizontal. Check this position by means of a spirit level.	
5	Spot weld the boot closing panel (spot welder and end welder): on the caisson lower unit: <i>(at AA').</i>	

		TOOLS
	on the connecting panels: <i>(at BCD and symmetrically at B'C'D'),</i> on the interior boot reinforcements: <i>(at FG and symmetrically at F'G'),</i> on the wheel arch panels: <i>(at FE and symmetrically at F'E'),</i> on the bumper bracket bosses: <i>(at H and symmetrically at H').</i>	
6	Put a spot of gas welding in the corners formed by the boot closing panel and the wheel arch panels.	
7	Fill the holes drilled in the parts for removal, with brazing.	
8	Planish and grind the welding.	
9	Paint the parts.	
10	Sound deaden.	

		TOOL S
REPLACEMENT OF A FRONT BUMPER.		
<u>Removal.</u>		
1	Remove the two fixing screws from the securing straps on the four wings (on the inside, engine side)	14 mm box spanner
2	Remove the town horn, left side	12 mm box spanner
3	Remove the four fixing screws (two on each side) from the bumper brackets on the front body unit. (Do not mislay the packing pieces; they will be replaced on refitting)	14 mm box spanner
4	Remove the screws at the ends of the bumper (on the shoulders, wheel side)	12 mm box spanner
5	Remove the bumper.	
<u>Fitting.</u>		
6	Offer up the bumper, inserting, if necessary, the packing pieces found on removal.	
7	Check that the rubber seals for the front wings are correctly positioned.	
8	Offer up the fixing screws to the ends of the bumper (on the shoulders, wheel side). Do not tighten the screws.	
9	Offer up the four screws for fixing the bumper brackets on the front body unit. Do not tighten the screws.	
10	Offer up the two screws for fixing the securing straps on the front wings (on the inside, engine side).	
11	Tighten the screws	12 mm and 14 mm spanner and box spanners
12	Fit the town horn	12 mm spanner
REPLACING THE UPPER BAR OF A FRONT BUMPER.		
<u>Removal.</u>		
13	Remove the rubber stops (3 studs for fixing)	12 mm box spanner
14	Remove the bumper end pieces.	

		TOOLS
15	Remove the upper bar (4 end-screws, 5 mm diameter)	8 mm box spanner
16	Remove the brackets fixing the bumper to the registration plate (5 bolts, 5 mm diameter)	8 mm spanners and box spanners
	<u>Fitting.</u>	
17	Join the upper bar of the bumper to the brackets	8 mm spanners and box spanners
18	Fix the bar to the registration plate.	
19	Fit the bumper end pieces.	
20	Fit the rubber stops (3 studs for fixing)	12 mm box spanner
	REPLACING THE LOWER HALF BAR OF A FRONT BUMPER.	
	<u>Removal.</u>	
21	Remove the central rubber embellisher and the central chromed embellisher (3 screws for fixing)	8 mm box spanner
22	Remove the rubber stop (3 studs for fixing)	12 mm box spanner
23	Remove the bumper end pieces.	
24	Remove the two Parker screws securing the half-bar to the central bracket and the registration plate.	
25	Remove the lower half-bar of the bumper.	
	<u>Fitting.</u>	
26	Offer up the bumper half-bar.	
27	Offer up the two Parker screws securing the half-bar to the central bracket and the registration plate.	
28	Offer up the chromed central embellisher and the two fixing nuts.	
	Fit a flat washer and a shakeproof washer under each nut.	
	Fit the upper fixing screw (flat and shakeproof washers)	8 mm box spanner

		TOOLS
29	Offer up the bumper end piece.	
30	Offer up the rubber stop (3 studs for fixing)	12 mm box spanner
31	Tighten the screws	8 mm and 12 mm box spanners
REPLACING A FRONT BUMPER.		
<u>Removal.</u>		
32	Remove the rubber stop (3 studs for fixing)	12 mm box spanner
33	Remove the lower fixing screw from the end piece on the lower bumper bar	8 mm box spanner
34	Remove the upper fixing nut from the end piece on the lower bumper bar. (For this, the arm must be inserted inside the wing, engine side)	12 mm box spanner
35	Remove the bumper end piece.	
<u>Fitting.</u>		
36	Offer up the bumper end piece. Insert the upper fixing screw, leaning on the lower bar of the bumper to allow it to enter. (Take care not to scratch the bumper bar).	
37	Fit the rubber weatherproof gasket in the correct position on the front wing.	
38	Offer up the upper nut for securing the end piece on the lower bumper bar (flat and shakeproof washers)	12 mm box spanner
39	Offer up the lower screw for securing the end piece on the lower bumper bar (flat and shakeproof washers)	8 mm box spanner
40	Refit the rubber stop (3 nuts, flat and shakeproof washers).....	12 mm box spanner

		TOOLS
REPLACING A FRONT NUMBER PLATE.		
<u>Removal.</u>		
41	Remove the two rubber stops	12 mm box spanner
42	Remove the four cross headed Parker screws securing the bottom of the plate to the lower bumper bar.	
43	Remove the five hexagon headed screws with nuts securing the plate to the upper bumper bar	8 mm spanner or ring spanner
44	Remove the fixing nut from the central rubber embellisher (flat and shakeproof washer)	8 mm spanner
45	Remove the number plate by the right.	
NOTE: <i>On the DS model, one of the horns must be taken off before the plate can be removed.</i>		
<u>Fitting.</u>		
46	Offer up the number plate from the right and position it correctly.	
47	Offer up the five hexagon headed screws with nuts that secure the plate to the lower bumper bar, fitting the two flat washers and the shakeproof washer under each screw	8 mm spanner or ring spanner
48	Offer up the four Parker screws with cruciform heads securing the number plate to the lower bumper bar.	
49	Offer up the central rubber embellisher and tighten the fixing nut, not forgetting to fit the flat and shakeproof washers.	8 mm spanner
50	Fit the two rubber stops, right and left	12 mm box spanner

		TOOLS
DISMANTLING.		
1	<u>To remove the support plate:</u> a) Unstick the felt on the scuttle for approximately $\frac{3}{4}$ inch and all the way up at the junction of the support plate with the scuttle. Remove the two Parker screws thus uncovered. b) Remove the two main screws securing the heater tube trimming panel under the scuttle. c) Unstick the felt at the junction of the support plate with the right-hand front door pillar. Remove the two Parker screws thus uncovered. d) Remove the support plate.	
2	<u>To remove the shutter:</u> a) Unscrew the knob from the control rod. b) Remove the locking spring. c) Remove the hinge screw. d) Remove the shutter. ASSEMBLY.	
3	<u>To refit the shutter:</u> a) Put the shutter in position by engaging the control rod. b) Fit the hinge screw and tighten the locknut. c) Put the locking spring in position. d) Screw the knob on the control rod.	
4	<u>To refit the support plate:</u> a) Put the support plate in position and fix it by using the four Parker screws. b) Stick down the felt. c) Put the heater tube trimming panel in position under the scuttle. Fix with two Parker screws. Check the functioning of the shutter.	

		TOOLS
1	<u>To adjust the doors</u> (see Pl. 66). a) Fit the doors, adjust their height so that the front upper corner of the front door is at a distance of 577.5 mm from the top of the trimming of the siderail; that the rear upper corner of the rear door is at a distance of 505 mm from the top of the trimming of the siderail. b) Fit the wings. c) Without altering the dimensions given in paragraph 1, adjust the position of the doors so that the gap AA' is equal at the top and the bottom. Adjust also the shutting of the front door. The rear edge of the front door should stand proud of the front edge of the rear door by 1 to 2 mm in order to avoid whistling noises at high speeds. d) Check that the gap BB' between the front wing and the front door is equal at top and bottom, and that the same applies to CC' between the rear wing and the rear door. The gaps AA', BB', CC' should be equal to within about 2 mm. If necessary alter the position of the wings. NOTE: If it is necessary to move the front wing forwards, insert washers as required between the caisson front unit and the wing fixing (at "d"). One can alter the position of the rear wing: towards the rear, by moving the wing fixing plate on the boot closing panel, towards the front, by moving the positioning pins or the alignment brackets of the wing.	
2	<u>To adjust the bonnet.</u> a) <u>To adjust the hinges</u> (see Pl. 66, fig. 3). 1. In the lateral direction, on the closing panels of the lower front pillar, using the slots "a". 2. In the longitudinal direction, by moving the screws in the slots "b". 3. The bonnet on the hinges, using the slots "c". b) <u>To adjust the locking of the bonnet</u> (see Pl. 66, fig. 2). If the bonnet unlocks when the car is moving or if it is difficult to lock, it is necessary to: 1. Adjust the locks fixed on the wings so that the closing pegs engage to the bottom. To do this: Unscrew the fixing screws. Adjust the locks by moving them in their slots. After adjustment, tighten the fixing screws 2. To adjust the closing pegs: Untighten the nuts locking the closing pegs. Unscrew (or screw up) the closing pegs (2). Check the locking. Lock the pegs by tightening their locknuts	12 mm spanner 8 mm spanner 12 mm spanner

TOOLS

The front and the base of the chassis of the Cabriolet are the same as those of the Berlines and Breaks. The rear upper part is in Chapron* coachwork.

The car can be repaired on the jig base (see Op. D 620C). In the case of serious accidents, Chapron undertake repair or replacement of the rear upper part.

SPARE PARTS.

1 DS type Cabriolet.

- a) Front body unit
- Vehicles produced from July 1960 to September 1962*

Same front unit as on the Berline model DS 741-04c

Vehicles produced since September 1962

Same front unit as on the Berline model DS 741-04d
- b) Lower body siderail
- Vehicles produced from July 1960 to September 1962*

Same siderail assembly as on the Break types, with sidemembers strengthened by a gusset 1 mm thick

Left side : DB 743-1

Right side: DB 743-1a

Vehicles produced since September 1962

Same siderail assembly as on the Break types, with sidemembers strengthened by a gusset 2 mm thick

Left side : DB 743-1c

Right side : DB 743-1b
- It is also possible to effect a repair by fitting these later assemblies on vehicles of the earlier model.
- c) Lower rear caisson unit
- Vehicles produced from July 1960 to September 1962*

Same rear unit as on Berline model DS 742-01

Vehicles produced since September 1962

Same rear unit as on Berline model DS 742-01

2 ID type Cabriolet

- d) Front body unit
- Vehicles produced from July 1960 to September 1962*

Special front body unit (to house the damper) DM 741-04h

Vehicles produced since September 1962

Same front unit as on Berline model DM 741-04g

e) Lower body siderail

Vehicles produced from July 1960 to September 1960

Same siderail assembly as on the Breaks, with sidemembers strengthened by a gusset 1 mm thick

Left side : DB 743-1

Right side : DB 743-1a

Vehicles produced since September 1962

Same siderail assembly as on the Breaks, with sidemembers strengthened by a gusset 2 mm thick

Left side : DB 743-1b

Right side : DB 743-1b

This last assembly can be fitted to all bodies, even the old type.

f) Lower rear caisson unit

Vehicles produced from July 1960 to September 1962

Same rear unit as on Berline DS 742-01

Vehicles produced since September 1962

Same rear unit as on Berline DS 742-01

3

DS type Cabriolet, mechanical. (This model has been produced since February 1963).

g) Front body unit

Same front unit as on Berline DF 741-04d

h) Lower body siderail

Same siderail assembly as on the Breaks Left side : DB 743-1c
Right side : DB 743-1b

j) Lower rear caisson unit

Same rear unit as on the Berline DS 742-01

MAINTENANCE.

Maintenance of the paintwork:

The cabriolets are finished with cellulose lacquer. These vehicles should be rinsed very carefully after washing with shampoo, to prevent the paint dulling or blooming.

It is also advisable to maintain the gloss on the paintwork by cleaning it from time to time with polish.

5

Maintenance of the leather of the seats:

The leather covering the seats is cleaned simply with soap and water. There is a risk with any other product of discolouring it or altering its appearance.

After cleaning, polish it with a clean, dry woollen duster.

6

Repairing the plastic boot cover: Chapron undertake the repair of the covers.

* Carrosserie CHAPRON, 114 avenue Aristide-Briand, Levallois (Seine). 737-50-84.

		TOOLS
	REMOVAL.	
1	Disconnect the negative battery cable.....	12 mm spanner
2	Remove (by hand) the interior rubber finishing strip round the body roof joint. Remove the sun-visor.	
3	<u>To remove the right-hand and left-hand rear quarter panels:</u> Pull the lower part of the panel sideways with an upward movement, in order to unhook the upper part from the body support panel.	
4	<u>To remove the direction indicator housings:</u> 1st case: long housing a) Remove the reflector and glass assembly by pulling on the lower tongue of the glass to disengage the hood. b) Remove the hood by unscrewing the reflector retaining spring screw. c) Remove the three screws, situated under the rear door surround. Disengage the housing from the edge of the body to the limit allowed by the length of the feed wires. Unscrew the nut fixing the earth wire. Disconnect the terminal connecting the flasher wire. Disconnect the wires from the housing Disengage the housing. 2nd case: short housing d) Remove the upper finishing strip from the rear pillar by unscrewing the upper and lower fixing screws. e) Remove the reflector and glass assembly by pulling on the lower tongue of the glass to disengage the hood. f) Remove the hood by unscrewing the reflector retaining spring screw. g) Remove the screw fixing the front of the housing. Disengage the housing to the limit allowed by the wires. Unscrew the nut fixing the earth wire. Disconnect the terminal connecting the flasher wire. Disengage the wires from the housing. Disengage the housing.	
5	Remove the joint cover, situated on the join between the two edges of the front right-hand and left-hand finishing strips, by means of a screwdriver. Remove the two finishing strips by removing the nut situated near each windscreen upright (these screws also fix the front of the roof).	
6	<u>To remove the roof:</u> Unscrew the nuts fixing it to the body. At the front: Windscreen side, five nuts on the inside of the siderail supporting the roof. On each side: Five nuts on the outside of the body under the siderail supporting the roof. At the rear: On the inside of the body on each side one nut under the siderail. Remove the rear finishing strip from the roof (remove by hand) (see Op. D 854-1). Remove the roof from the body.	12 mm box spanner
7	Remove roof rubber sealing strip and the rear rubber sealing strip.	
8	Scrape and clean the joint seatings. Remove the mastic.	

		TOOLS
	ASSEMBLY.	
9	<u>Place on the body, where the rubber sealing strip will fit, two strands of mastic, side by side (VIBRADAMP mastic).</u> NOTE: <i>Approximately 10 metres of strip mastic will be required.</i>	
10	Put the roof rubber sealing strip in position. Paste the rear sealing strip in position (BOSTIK paste 294C).	
11	Offer up the roof on the body and put the fixing screws in position (except the two front right-hand and left-hand screws, which also hold the front finishing strips). Tighten the nuts using flat and shakeproof washers. Put a strip of mastic (VIBRADAMP) in the groove of the front finishing strips to make sure of the sealing. Fix each front finishing strip with its screws, inserting a spring washer under the nut. Put a strip of mastic at the joint of the two finishing strips and fit the joint cover.	
12	<u>To refit the direction indicator housings:</u> <u>1st case: long housing:</u> a) Make sure that the rubber sealing joint is correctly in position. If necessary hold this joint by sticking it on the housing (BOSTIK 294C paste). b) Put the housing in position on the body, passing the feed wire harness into the housing. Tighten the fixing screws. c) Connect the wiring. Fix the earth wire on the rear fixing screw of the roof. Fit the hood, tighten the reflector retaining spring screw. Put the reflector and glass assembly in position. <u>2nd case: short housing:</u> d) Pass the wiring through the housing and then fit the housing. Tighten the front fixing screw. e) Connect the wires and fix the earth wire on the rear fixing screw of the roof f) Fit the hood, tighten the reflector retaining spring screw. Put the reflector and glass assembly in position.	12 mm box spanner
13	Put the rear finishing strip in position on the roof (see Op. D 854-1).	
14	Fit the quarter panels. Fit the sun-visors.	
15	Put the interior rubber finishing strip in position.	
16	Connect the earth cable to the battery	12 mm spanner

TOOLS

- 1
- In order to proceed with the repairs indicated below, it is necessary to obtain the following composition:
Make up the main mixture of:

85 g of "Resine 66"
and of 15 g of "Carbonate of Calcium" or for preference
"Microdol 5 Mu".

Then add the following:

2 cm³ of catalytic fluid
either of "Lupersol DDM"
or of "Stratyl XI"
or of "Peroxide MEC"
then three drops of "Nuodex Cobalt at 6%"
finally 20 grammes of "Roving Wire 60 strands" cut in lengths of about 5 mm.

Well mix the composition.

IMPORTANT NOTE: *This mixture dries rapidly, and should not be prepared until required and then only in small quantities (120 g approximately).*
- 2
- Cracks (see Pl. 64).

In the case of small cracks, whose depth does not exceed 1.5 mm, it is necessary:

 - a) To make these totally disappear by rubbing the roof with abrasive paper No. 320.
 - b) Reconstruct the original shape of the roof by using the cellulose mastic.
 - c) Rub down and renew with cellulose paint, applying in thin coats.

In the case of larger cracks, provided the strength of the roof is not affected, it is necessary to:

 - d) Grind the split part in such a manner so as completely to remove the crack. Use a special grinding wheel (NORTON grinding wheel, Citroen reference No. 407705).
 - e) Surround the part to be repaired with a large strip of adhesive paper, to protect the good part of the roof from the risk of accidental splashing of the mixture.
 - f) Fill the depression produced by grinding, by using the plastic mixture, the composition of which is given in paragraph 1.
 - g) Place a plate made of plastic or steel material and conforming to the shape of the roof on the part repaired with the mixture.
To prevent the mixture sticking to the plate, insert cellophane foil between the latter and the mixture.
 - h) Press the plate heavily on the roof in such a way so as to compress the mixture in the part to be repaired. Whenever possible, clamp it in position under pressure.
If the position of the repair does not allow it to be clamped (the centre part of the roof, for example), load the plate with a weight, after having taken care to prop up the part to be repaired, in order to avoid deformations (see fig. 1 and 2).

T O O L S

- i) Leave to dry for not less than 12 hours.
- j) Reform the roof to its original shape, removing surplus material by grinding, then by rubbing with abrasive paper.
- k) Repaint the roof (in the case of a painted roof).

3 Cracks on the edges (see fig. 3).

It is necessary to reinforce the roof round the crack. To do this:

Use an aluminium plate 1.5 mm thick and fix with aluminium rivets in the depression obtained by grinding as indicated in the illustration, having carefully prepared the depression in such a way that it is possible to cover the plate with a layer of plastic mixture not less than 1 mm thick.

Fill the depression and mask the plate with plastic mixture as indicated in the case of a crack, observing the same precautions as for cracking (see paragraph 2).

4 Splits (see fig. 4).

It is necessary to reinforce the roof by means of sunken aluminium plates round the split.

According to the seriousness of the damage, it may be necessary to use one or more plates, placing them as indicated in the illustration.

Proceed as indicated in paragraph 2 h and fig. 2. Treat both faces of the roof in the same manner.

		TOOLS
	(see Pl. 69).	
1	Insert in the slot in the door the lower plate (1) and wedge it to rest in position on the plate (2).	
2	Insert in the slot in the door the upper plate (3) held firmly on the plate (2) on the inside of the door by an assistant.	
3	Put moist asbestos in the immediate neighbourhood of the welding. Also insert a sheet of asbestos in the inside of the door in order to protect the paintwork.	
4	Weld the parts (1, 2 and 3) (arc weld): <i>(at A).</i>	

TOOLS

REMOVAL.

Boot door:

1 Remove the female stays by pressing upwards in order to compress the springs and release the stays from their lower stops.

2 Remove the springs remaining on the male stays.

3 To remove the boot door.

Unscrew and remove from each side the two nuts fixing the boot door on the movable hinges.

Remove the male stays with the door brackets. Remove the door.

12 mm box spanner

4 Remove the rubber grommets between the movable hinge and the boot door.

Boot door hinges:

5 Remove the rear wings.

6 Remove the direction indicator lights.

7 Remove the rear pillar upper finishing strip.

8 To remove the hinges:

Unscrew and remove the quarter panel fixing screws.

Unscrew and remove the nut securing the fixed hinges on the body.

Remove the hinge and quarter panel assembly.

Dismantle the fixed hinges from the quarter panels.

8 mm box spanner

ASSEMBLY.

Hinges and boot door:

9 Mount the fixed hinges on the quarter panels.

8 mm box spanner

10 Offer up these assemblies on the body.

11 Fasten the fixed hinges on the body

12 mm box spanner

12 Put the rubber grommets on the movable hinges.

		TOOLS
13	Offer up the boot door.	12 mm box spanner
14	Offer up the male stays on the door brackets. Then fix them with the nuts	
15	Offer up the return springs on the male stays. Lightly grease the springs.	
16	Offer up the female stays on the springs. Then push them upwards, compressing the springs in order to engage the head in the lower stops.	
17	Test the door operation.	
	NOTE: <i>If operation of the door is faulty, it is necessary to insert one or more washers under the fixing of the fixed hinge on the body, to bring the hinge pins into line.</i>	
18	Fix the quarter panels on the body.	
19	Fit the direction indicator lights.	
20	Fit the rear pillar upper finishing strip.	
21	Fit the rear wings.	
	NOTE: <i>Our Spare Parts Department supplies only new type hinges, without direction indicator fixing bosses. The hinge pin centre line is in a different position on the old type hinges. It is therefore necessary to replace both hinges at the same time. The new hinges are mounted without modification to the drilling.</i>	

		TOOLS
REMOVAL (see Pl. 63).		
1	Disconnect the battery to save burning the rear boot light	12 mm spanner
2	Remove the rear bumper	26 mm box spanner
3	Remove the two rear wings.	
4	Disconnect the number plate. To do this, remove the four screws from the inside of the boot. Do not remove the stop lamp wires	12 mm box spanner
5	Remove the two Parker screws fixing the lateral sealing rubber on the rear closing panel of the boot: (at A and B). Remove the two lateral sealing rubbers.	
6	With a screwdriver, open up the gripper edge (a) of the sealing strip fixings (see fig. 2).	
7	With a lever open up the outer gripper edge (b) of the rear boot sealing strip fixing. Disengage and remove the boot door sealing strip (see fig. 3).	
ASSEMBLY (see Pl. 63).		
8	Offer up the new rubber sealing strip at the end of rear boot sealing strip fixing: (at A or at B). Position it.	
9	With a hammer beat down the outer gripper edge (b) of the fixing.	
10	Beat down the inner gripper edge (c) of the fixing, using a drift.	
11	Cut the rear rubber sealing and chamfer to a point towards the bottom (see fig. 4).	
12	Engage the lateral sealing rubbers in the fixings.	
13	Beat down the lower end of the lateral rubber sealing strip on the rear rubber sealing strip and fix with a Parker screw: (at A and B).	

		TOOLS
14	Beat down the gripper edge (d) of the sealing strip fixing on the lateral sealing rubbers (see fig. 4). Pass the lateral sealing rubber <u>under</u> the boot surround upper rubber: <i>(at C).</i>	
15	Cut the ends of the lateral sealing rubbers 2 cm approximately from the fixing screws: <i>(at A and B).</i>	
16	Mastic the joints of the panels.	
17	Fit the rear number plate	12 mm box spanner
18	Fit the bumper	26 mm box spanner
19	Fit the wings.	
20	Connect the battery leads	12 mm spanner

		TOOL S
REMOVAL.		
1	Put the vehicle on a lift.	
2	Remove the thirteen 5 mm fixing screws at the lower rear of the trimming panel	8 mm box spanner
3	Remove the four 5 mm screws fixing the trimming panel to the front body unit	8 mm box spanner
4	Undo the rear screws securing the cooling ducts of the brake discs (1 screw only) to the brake disc protection panel.	
5	Remove, by the front, the trimming panel with the cooling ducts of the brake discs.	
6	If necessary, remove the cooling ducts	10 mm box spanner
FITTING.		
7	Offer up the front trimming panel, centring it correctly on the front caisson unit.	
8	Offer up, at each side and at the left-hand and right-hand ends, one screw to hold the panel in place. Do not tighten the screws.	
9	Offer up the rear fixing screws of the brake disc cooling ducts, the four screws fixing the trimming panel on the front caisson unit, and the lower rear fixing screws of the trimming panel.	
10	Tighten all the screws	8 mm and 10 mm box spanners

		TO O L S
REMOVAL (see Pl. 71).		
1	Remove the direction indicator light housings (see Op. D 825-1, paragraph 4). Turn the roof rear finishing strip (1) by hand in the direction indicated by the arrow F' (see fig. 2).	
2	Raise this finishing strip in the direction indicated by the arrow F.	
3	Remove the finishing strip.	
ASSEMBLY (see Pl. 71).		
4	Offer up the roof rear finishing strip (1) on the hooks (2) in the direction indicated by the arrow P (see fig. 2).	
5	Turn the finishing strip in the direction indicated by the arrow P' and fix the strip on the hooks (2) at A.	
6	Refit the direction indicator light housings (see Op. D 825-1).	

TOOLS

REMOVAL (see Pl. 70, fig. 3 and 70 C).

- 1 Remove the door (see Op. DS 961-1, paragraph 1).
- 2 Remove the upper and lower rubber grommets on the end of the door, lock side.
- 3 Unscrew and remove the upper and lower nuts fixing the glass guide, lock side
- 4 Remove the glass guide, lock side, the glass and the inner trimming panel (see Op. D 961-1a).
- 5 Remove the three lock fixing screws (3).
- 6 Remove the lock by disconnecting the interior handle control rod (15).
- 7 Remove the interior handle (21), in this way.
Unscrew the handle fixing screw (17) by turning the hexagon (19) in a clockwise direction.
Turn the handle a quarter of a turn to remove it from the door together with the control rod (see fig. 3).
- 8 Remove the exterior door handle (14) by unscrewing the fixing screw (1) from the inside. Disengage the handle from the door by turning it a quarter of a turn.

12 mm box spanner

ASSEMBLY (see Pl. 70, fig. 3 and 70 C).

- 9 Offer up the interior door handle (21) together with the shouldered rubber washer with its control rod (15) and anti-rattle plate (23), introducing the rod through the hole provided in the door.
- 10 Make sure that the handle fixing screw (17) is in position on the panel. This screw passes through the hexagon (19) and is held by the split washer (20). A fibre anti-rattle washer (18) is inserted between the hexagon and the door panel.

Turn the handle a quarter of a turn in its hole in order to bring its end opposite the second fixing hole.
Fix the handle by turning the hexagon (19) in an anti-clockwise direction.
- 11 Offer up the lock on the door.
- 12 Offer up the control rod (15) on the lock catch (16).
- 13 Fix the lock on the door by its three screws (3).

		TOOLS
14	Check the operation of the lock.	12 mm box spanner
15	Offer up the exterior door handle (14) (together with its shouldered rubber washer (7) in its slot. Then turn the handle a quarter of a turn. Offer up the fixing plate (4) from inside the door, on the hub of the handle. Turn the plate (4) a quarter of a turn. Fix it by the screw (1) through the interior of the door, interposing the washer (2) between the handle and the door panel.	
16	Fit the door on the car and adjust it.	
17	Fit the glass guide and the glass (see Op. D 961-1a). Fit the door panel (see Op. D 983-2). Put the rubber grommets in position	

		TOOLS
	REMOVAL. (See Pl. 70 A and 70 B). 1 Raise the window to the top position. 2 Remove the window winder (30). For this purpose, press on the escutcheon (38) of the handle, using tool MR-3978-10 (DS) or MR-3978-20 (ID) as shown in Pl. 70 and drive out the pin (29). Remove the handle (30), the escutcheon (38), the cup (42) and the spring (43) 3 Remove the interior door finishing panel, secured by clips. 4 Partially unstick the Vinyl sheet, from the opening nearest the point at which the handle reaches the door lining. (See Pl. 70 C). 5 From inside the door, unscrew the rear fixing screw (1) from the handle. 6 Remove the door handle by turning it through a quarter turn. Hold the retaining plate (4) on the inside of the door. Remove it. 7 Unscrew the locknut (6) and the adjusting screw (5) and remove them. 8 Slide out the push button (11) and its return spring (13). 9 Remove the lock barrel circlip (9) and remove the lock barrel (10). FITTING. (see Pl. 70 C). 10 Fit the ignition key in the lock barrel (10). 11 Fit the barrel (10) in the push button (11). CAUTION: Take careful note of the direction in which the barrel is fitted and push it right to the bottom of the push button, so that it can be secured by its circlips. 12 Fit the return spring (13) in the door handle. 13 Fit the push button (11) in the door handle.	Tools MR-3978-10 or MR-3978-20

		TOOLS
14	Exert pressure on the push button and offer up the adjusting screw (5) and its locknut (6). Screw them together into the button.	
15	Offer up the handle (14) complete with the shouldered rubber washer (7) to the door. Insert it in its slot and turn it through a quarter turn.	
16	Offer up the fixing plate (4), from the inside of the door, on the hub of the handle.	
17	Turn the plate a quarter turn. Fix it by the screw (1) from inside the door, fitting the shakeproof washer on the inside and the washer (2) on the outside between handle and door panel. Tighten the screw.	
18	Stick back the Vinyl door lining sealing sheet.	
19	Fit the interior door trimming panel (see Pl. 70 A and 70 B).	
20	Offer up the spring (43), the cup (42), the escutcheon (38) and the handle (30). Pin the assembly with the help of the pin (29).	

TOOLS

The seats are fixed on the car at an average height. It is possible to alter the position in the following manner:

1) To lower the seat:

Remove the two front and two rear wooden packing pieces, to be found between the slides and the crossmember.

2) To raise the seat:

Add four packings to obtain the desired height.

3) To alter the angle of the seat:

Add the packings to the front or to the rear.

In lowering the seat, the 7 mm diameter, 100 pitch screws can still be used. In the two other cases it is necessary to use longer screws.

NOTE: Since September 1962 the wooden packing pieces between the slides and the crossmember under the front seats have been dispensed with.

		TOOLS
REMOVAL (see Pl. 70 A).		
<u>To remove the door:</u>		
1	Unscrew the door lower pivot bracket screw, after having unscrewed its nut.	
NOTE: <i>Do not unscrew the upper pivot bracket screw in order to avoid altering the adjustment of the door.</i>		
Remove the door by lifting it upwards.		
<u>To remove the window winder mechanism:</u>		
2	Remove the interior rubber door glass sealing strip (24), fixed by clips to the upper part of the door.	
3	Remove the outer door sealing strip (25), fixed by cruciform screws to the upper part of the door.	
4	To remove the window winder handle. Press strongly on the handle escutcheon with the tool MR 3978-10 (see fig. 2) or MR 3978-20 (see fig. 4, Pl. 70), in order to gain access to the fixing pin (29). Drive out the pin	MR 3978-10 MR 3978-20
5	Remove the interior trimming panel of the door. This panel is fixed by clips (see Op. D 983-2).	
6	Remove the vinyl sealing covers, stuck over the openings on the inside of the door, under the interior trimming panel.	
NOTE: <i>Avoid tearing the covers when unsticking.</i>		
7	Bring the glass to the half-way position to obtain access to the winder mechanism (40).	
8	Remove the two window winder lockwashers by turning back the edges.	
9	Disengage the bottom of the glass (32) from the window winder.	
10	Remove the two movable stops (31 and 33) from the bottom of the glass.	
11	Remove the felt-lined steel clamps (36) for retaining the door glass.	
12	Pull the glass upwards and remove.	
13	Remove the upper and lower rubber grommets from the front and rear faces of the door. Unscrew the nuts fixing the glass guides. Remove the glass guides (28 and 41)	12 mm box spanner

TOOLS

ASSEMBLY (see Pl. 70 A).

- 14
- Offer up the front and rear glass guides (28 and 41) in the interior of the door.
- 15
- Insert the washers and fix the glass guides by means of their nuts (26 and 39)
- 16
- Offer up the glass in the glass guides (28 and 41) and lower to the bottom.
- NOTE: *The glass is fitted with its glazing rubber (32) and its rubber seal (27) (if not, fit the sealing rubber and glazing rubber).*
- 17
- Offer up and fix the outer door sealing strip on the upper part of the door (25).
- 18
- Offer up and fix the interior door sealing strip on the upper part of the door (24).
- NOTE: *It is necessary to use only the sealing strip with felt padding (for front doors = DS 961-30a, for front doors, right-hand = DS 961-31b, for front left-hand = DS 961-31a).*
- 19
- Raise the glass to its maximum height.
- 20
- Engage the window winder mechanism (40) in the interior of the door. Fix it by four screws, maintaining it flat against the interior door panel. Tighten the screws.
- 21
- Fit the (felt-lined) flexible steel clamps (36) on the glass by means of pliers.
- 22
- Introduce the two window winder pegs (37 and 34) in their housings in the bottom channel. Fit the flexible washers and the lockwashers (35).
- 23
- Fit the two movable stops (31 and 33) to the ends of the bottom glass channel.
- 24
- Offer up the window winder handle (30) without pinning it. Operate the winder mechanism if the glass does not slide freely, lightly tallow the glass guides (28 and 41). Remove the handle (30).
- 25
- Stick the vinyl sealing covers in position (paste EC 1236 Minnesota).
- 26
- Stick the three felt grease washers on the interior door panel (BOSTIK paste).
- 27
- Put the upper and lower rubber grommets in position on the front and rear faces of the door.
- 28
- Offer up the interior trimming of the door. Fix it by means of its clips (see Op. D 983-2).
- 29
- Refit the winder handle (30) and pin it.
- 30
- Fit the door on the car. Then adjust it.
- 31
- To adjust the closing of the window:
Remove the rubber grommets and adjust the glass in the glass guides (28 and 41) by interposing, on the fixing of the latter, the shims (26 and 39) provided for this purpose.

12 mm box spanner

		TOOLS
REMOVAL (see Pl. 70 B).		
<u>To remove the door:</u>		
1	Unscrew the door lower pivot bracket screw after having unscrewed its nut.	
NOTE: <i>Do not unscrew the upper pivot bracket screw in order to avoid altering the adjustment of the door.</i>		
Remove the door by lifting upwards.		
<u>To remove the window winder mechanism:</u>		
2	Remove the interior rubber door glass sealing strip (24), fixed by clips to the upper part of the door.	
3	Remove the outer door sealing strip (25), fixed by clips to the upper part of the door.	
4	Remove the window handle (30). Press strongly on the handle escutcheon with the tool MR-3978-10, (see fig. 2) or MR-3978-20 (see fig. 4, Pl. 70), to gain access to the fixing pin (29). Drive out the pin	MR-3978-10 or MR-3978-20
5	Remove the interior trimming panel of the door. This panel is fixed by clips (see Op. D 983-2).	
6	Remove the vinyl sealing covers, stuck over the openings on the inside of the door, under the interior trimming panel.	
NOTE: <i>Avoid tearing the covers when unsticking.</i>		
7	Bring the glass to the half-way position to obtain access to the winder mechanism (40).	
8	Remove the two window winder lockwashers (35) by beating down the turned up edge.	
9	Disengage the bottom channel (32) from the window winder.	
10	Separate the felt lined flexible steel clamp (36) for retaining the door glass.	
11	Pull the glass upwards and remove it.	
12	If necessary, separate the nylon glass guides (45) from the bottom channel	8 mm box spanner
13	Remove the upper and lower rubber grommets from the front and rear faces of the door. Unscrew the nuts fixing the glass guides. Remove the glass guides (28 and 41).....	12 mm box spanner

		TOOLS
ASSEMBLY (see Pl. 70 B).		
14	Offer up the front and rear glass guides (28 and 41) in the interior of the door.	
15	Fix the glass guides with the aid of their nuts, interposing washers (26 and 39)	12 mm box spanner
16	Fit the nylon glass guides (45) on the bottom channel (5). Do not forget to engage the rubber packings (44) in the glass guides (45)	8 mm box spanner
17	Offer up the glass with slides in the glass guides, and lower to the bottom.	
NOTE: <i>The glass is fitted with its bottom channel and its glazing rubber (if not, fit the glazing rubber and bottom channel).</i>		
18	Offer up and fix the outer door sealing strip (25) on the upper part of the door.	
19	Offer up and fix the interior door sealing strip (24) on the upper part of the door.	
20	Raise the glass to its maximum height.	
21	Engage the window winder mechanism (40) in the interior of the door. Fix it by four screws, holding it flat against the interior panel of the door. Tighten the screws.	
22	Fit the felt lined flexible steel clamps (36) on the glass by means of pliers.	
23	Introduce the two window winder pegs (37 and 34) in their housings in the bottom channel. Fit the flexible washers and the lockwashers (35), and turn down the lockwashers.	
24	Offer up the window winder handle (30) without the pin. Check the working of the raising mechanism. If the glass does not slide freely, lightly tallow the glass guides (28 and 41). Remove the handle.	
25	Stick the vinyl sealing covers in position (paste EC 1236 Minnesota).	
26	Stick the three felt grease washers on the interior door panel (BOSTIK paste).	
27	Put the upper and lower rubber grommets in position on the front and rear faces of the door.	
28	Offer up the interior trimming of the door. Fix it by means of its clips (see Op. D 983-2).	
29	Refit the window winder handle and pin it.	
30	Fit the door on the car and adjust it.	
31	To adjust the closing of the glass: Remove the rubber grommets and adjust the glass in the glass guides (28 and 41), by interposing on their fixing the shims (26 and 39) provided for this purpose.	

		TOOLS
	REMOVAL (see Pl. 65A).	
1	Remove the upper rear door window and its rubber sealing from the outside, after cutting the lip of the rubber weatherproofing with a knife.	
	PREPARATION.	
2	Fit the glazing rubber of the upper rear door on the glass. To do this, start putting it in position at the middle of the bottom of the glass, and bend the rubber at right angles to enlarge as far as possible the groove that is to accept the backlight. Continue the fitting, working always in the same direction. Stretch the rubber so that the two ends join up when fitting is complete.	
	NOTE: <i>The higher the ambient temperature, the easier this fitting operation is. If fitting is carried out in cold surroundings, it is advisable to warm the rubber slightly (on a radiator, for instance).</i>	
3	Fit, in the groove provided to accommodate the backlight panel, a greased cord 3 mm in diameter (at "a" in fig. 2), the ends crossing at the centre of the bottom edge. Fitting the cord is made easier by using tool MR-3714-25 (see fig. 3)	Tool MR-3714-25
	FITTING (see Pl. 65 A).	
4	Offer up the glass, complete with the rubber, to the window aperture in the upper door. Let the ends of the cord drop through on the inside of the door.	
5	Tie the assembly with the help of a strap (leather or webbing) to hold it in its correct position in the frame. NOTE: <i>Some pieces of felt must be placed here and there between glass and strap to prevent the glass from being scratched.</i>	
6	Press the top and bottom rounded corners well into the window opening.	
7	Make the backlight panel enter the groove in the sealing rubber by pulling on one end of the cord, while an assistant taps the glass, to the right of the point where the pull is being exerted, with a rubber mallet.	

		TOOLS
8	Do not tap the glass with the mallet at the rounded parts. Tap only on the outside edge of the rubber to make the corners enter the frame correctly.	
9	Complete the fixing by tapping with a mallet all round the rubber to ram the outside edge well home.	
10	Insert the trimming under the inner lip of the sealing rubber, using a "bone" spatula.	
11	If there are creases in the outer lip of the rubber, they can be removed with the help of the same spatula, by slipping it between the lip of the rubber and the door panel.	

		TOOLS
PREPARATION.		
1	Apply paint with a brush (finishing paint) on: - the inner fixing at the bottom of the door, - the front rubber sealing strip fixing, - the door stop spring fixing flange, - The top part of the edges of the interior panel, in which the glass will slide the two interior bosses receiving the interior locking handle.	
FITTING.		
2	Put the sealing rubber in the fixing on the front face of the door. Beat down the edge of the fixing with a hammer, in order to grip the rubber.	
3	Offer up the lower door rubber sealing strip in the upper fixing at the bottom of the door. Use a screwdriver to insert the rubber under the lip. Beat down the edge of the fixing with a hammer in order to grip the rubber.	
4	Insert the second lip of the rubber in the lower fixing lip at the bottom of the door (see Pl. 68 G, fig. 15 and 16 for positioning the rubber). Bend down the edge of the fixing with pliers.	
5	Fit the door stop spring and the fixing flange, using two screws.	
6	Paint the door.	
7	Fit the window winder mechanism (see Op. D 961-1).	
8	Fit the lock and its controls (see Op. D 861-1).	
9	Offer up the tread plate on the bottom of the door and pierce the holes. Fix the tread plate.	

		TOOLS
NOTE: <i>After the end of October 1957, the fitting on the car is modified. A central fixing has been added. It is recommended that this modification be carried out on cars not fitted with the central fixing. The holding of the windscreen is improved.</i> REMOVAL (see Pl. 65).		
1	Remove the bonnet by disconnecting the hinge mechanism	12 mm box spanner
2	Remove the windscreen wiper blades.	
3	Loosen the screws fixing the pressure pads, without removing them	12 mm box spanner
4	Pass the windscreen above the pressure pads. Disengage the windscreen from the upper part of the opening, using a screwdriver as a lever, passing it between the rubber and the upper edge of the opening (see fig. 4).	
5	To fit the central reinforcement on the body (<i>vehicles produced until October 1957</i>). a) Clean the centre part of the scuttle dome (in the area round the hole giving access to the fourth sparking plug). b) Offer up the central reinforcement as indicated in fig. 2 and 3. c) Fix the reinforcement. Three methods can be used: 1. Arc welding. 2. Fixing by two 6 mm Parker screws (insert fibre washers under the heads in order to seal them). 3. Gas weld (in this case, it is necessary to strip the instrument board completely).	
GLASS FITTING. <u>1st arrangement</u> (without central fixing).		
6	Remove the steel surround from the windscreen to be replaced.	
7	Put the rubber glazing joint on the windscreen glass. Moisten the joint with a mixture of glycerine and water.	
8	Put the steel surround in position on the rubber joint by tapping with a mallet.	
<u>2nd arrangement</u> (with central fixing).		
9	Cut the inner lip of the glazing rubber, 50 mm at each end.	
10	Fit the glazing rubber on the glass.	

		TOOLS
ASSEMBLY (see Pl. 65).		
11	Offer up the windscreen glass in the opening by first engaging the upper edge. Make sure of the positioning of the upper corners, by hand.	
12	Put the lips of the glazing rubber in position on the inside and outside of the windscreen opening, using a screwdriver or a wooden spatula.	
13	Make sure of the positioning of the windscreen in the upper part by striking with the palm of the hand and obtaining a good fit.	
14	Offer up the lower lining and its rubber on the windscreen (arrangement with central fixing).	
15	Using a screwdriver, pass the glass over the pressure pads. The pressure pads should press on the steel lining. Beat down the rubber on each pressure pad.	
16	Fit the windscreen by levering with a screwdriver resting on the flat of the pressure pad fixing washer (see fig. 1). Lever on the lower lining with a punch, resting in the hole of the central reinforcement (2nd arrangement, with central fixing). Tighten the pressure pad fixing screw, at the same time maintaining pressure on the screwdriver. Tighten the central reinforcement screw, inserting a flat washer under the head	12 mm spanner 10 mm box spanner
17	Fill with mastic the space between the windscreen and the opening, at each right-hand and left-hand lower part. Apply the mastic from the body pillar up to the pressure pads.	
18	Fit three fibre packings, as indicated in fig. 4 (from inside the body) between the edge of the surround and the outer edge of the body (one packing at each end of the windscreen and one in the centre). Press the windscreen towards the outside by pressing the packings with a screwdriver.	
NOTE: <i>These packings are not originally fitted, but can be used as anti-rattle packings.</i>		
19	With a wooden block and a hammer, strike on the bottom of the windscreen surround, to flatten it against the glass (see fig. 1) (2nd arrangement with central fixing).	
20	Fit the rubber stops for the windscreen wiper blades. Fit the windscreen wiper blades, suitably positioned.	
21	Fit the bonnet and adjust it	12 mm spanner
NOTE: The fitting of Triplex windscreens on cars produced until the end of October 1957 requires special precautions. For details apply to the Service Department. It is necessary to use the special plates shown in figs. 5 and 6. After the end of October 1957 the arrangement is the same for both Triplex and Securit windscreens.		

		TOOLS
REMOVAL.		
1	Remove the rear boot door by disconnecting the right-hand and left-hand stays	12 mm box spanner
2	Remove the three pressure pads. Disengage the rear light glass	12 mm box spanner
3	Disengage the upper sealing rubber from the opening. Unstick the lower sealing rubber and remove it (if it is to be replaced).	
ASSEMBLY		
4	Fit and stick the lower sealing rubber on the contour of the rear shelf (BOSTIK paste). Smear the inside edge of the rear light with a silicone oil ("Lissapret"), using a pad of cotton wool moistened with this product.	
5	Put the upper sealing rubber on the opening. Start fitting at the upper centre part of the opening, leaving an equal length of rubber each side of this position. Cut the lip of rubber at each end (about 200 mm), pressing on the interior face of the glass.	
6	Offer up the glass by engaging the two lower corners in the sealing rubber. Make sure the lips of the rubber are correctly positioned, using a wooden palette or a screwdriver.	
7	Fit the glass by striking it with the palm of the hand.	
8	Offer up the right-hand and left-hand pressure pads (together with their rubber protector). Raise the glass by applying pressure with a hammer handle resting on the edge of the boot lid opening.	
9	From inside the boot, using a punch, perforate the rubber joint and line up the pressure pad by putting the punch in the holes of the body and those of the pressure pad Offer up the screws, screw on the nuts and tighten.	12 mm box spanner
10	Lever with a screwdriver, using the edge of the boot opening as fulcrum, to bring the glass to its correct position.	
11	Cut away the surplus pressure pad rubber, which overlaps the glass.	
12	On the ends of upper sealing rubber, resting on the body, punch the holes existing in the body (one each side).	

		TOOLS
13	Fix each end of the sealing rubber, with two screws and nuts.....	8 mm box spanner
14	Cut the surplus rubber approximately 20 mm beyond the fixing screws.	
15	Offer up the central pressure pad by sliding it in position from one side between the glass and the edge of the boot.	12 mm box spanner
16	Offer up the screw, from inside the boot, and with a screwdriver between the glass and the edge of the boot, lever the glass upwards and line up the pressure pad. Tighten the screw.	
17	If, one the lateral sides, the sealing rubber does not fit correctly, insert two all the way up, using a screwdriver, between the opening and the outer lip of the sealing rubber.	

TOOLS

REMOVAL.

1 Using a screwdriver, very carefully separate the panel frame at each side of the squab from the top and from the bottom of the panel.

2 Unstick the leathercloth in this area to give access to the four fixing screws on the squab.

NOTE: *Avoid damaging the leathercloth if it is to be used again.*

3 Remove the four screws with a Phillips screwdriver.

4 Unfasten the bottom of the leathercloth lining from the seat frame. Remove the panel and lining assembly.

ASSEMBLY.

5 Stick the leathercloth lining on the panel frame (BOSTIK 1500 paste). Do not stick the top and bottom and each side of the leathercloth, so that the fixing screws may be introduced into the holes provided.

NOTE: *Do not damage the leathercloth.*

6 Offer up the panel on the rear squab.

7 Offer up the four fixing screws. Do not tighten completely, so that the unstuck parts of the leathercloth can be refitted under the panel cover.

8 Fasten the bottom of the leathercloth lining on the seat frame.

9 Smear the paste (BOSTIK 1500 paste) on the parts of the leathercloth not pasted and insert them under the panel frame.

NOTE: *On the later models the panel frame fixing screws are visible (cruciform screws with chromium plated heads).*

		TOOLS
(See Pl. 85).		
A sagging seat can be easily restored to shape by going about it in the following way:		
1	Untack the two rows of stitching at the back of the cushion trimming.	
2	Remove the trimming (jersey or hélanca).	
3	Lever up with a screwdriver the hooks that secure the hessian to the frame.	
4	Unclip the hessian, with the stuffing, from the frame, and fold it back.	
5	Put over the cushion springs a piece of felt about $\frac{1}{2}$ in. (10 mm) thick. Secure this felt to the frame by means of clips (MERINOS type).*	
6	Spread horsehair on the felt.	
NOTE: The thickness of horsehair should not be too great; otherwise it will prevent the canvas from being refitted on the frame.		
7	Fold back the stuffing and hessian, and clip it to the circumference of the frame with hooks.	
8	Flatten the hooks with a hammer.	
9	Fit the trimming (jersey or hélanca) over the stuffing, stretch it and stitch the two rear fixing seams.	
* Pinces et agrafes "MERINOS", 57 bis, avenue du Maréchal-Joffre, Nanterre (Seine).		

TOOL S

To remove dents from a small area of the bonnet, it is necessary to remove part of the trimming.

- 1
- Cut, with a knife, in the trimming felt, an area slightly greater than the area to be repaired.
- 2
- Heat the outside of the bonnet around this area. Employ for preference infra-red heat or, at a pinch, a blow pipe, using a high output nozzle, and "sweeping" continuously over the marked out area.
- 3
- During this time, an assistant will unstick the felt by inserting the blade of a putty knife between the felt and the metal of the bonnet.
- 4
- Continue until it is completely unstuck.
- 5
- Then soften, with a blow pipe, the bituminous sound proofing, and immediately scrape off, with a putty knife, the greater part of it.
- 6
- Remove the rest of the sound proofing with a duster soaked in trichlorethylene.
- 7
- Carry out the work on the panelling.
- 8
- Stick back the felt removed in paragraph 3, using Glutafix-T or Sakolfeutre.

		TOOLS
NOTE: <i>In the course of work requiring the removal of the bottom body siderail trimming and in order to avoid tearing level with the heel board, it is necessary to take the following precautions:</i>		
REMOVAL (see Pl. 84).		
1	Remove the rear door check strap links, and the securing plate for the check strap links.	
2	Remove the bottom body siderail finishing panel (1) (DS 19 only).	
3	Unstick the upper portion of the leathercloth lining from the heel board: <i>(at AB).</i>	
4	Unstick the underfelt up to its intersection with the sidemember panel: <i>(at D).</i>	
5	Unstick the leathercloth lining, fixed on the siderail outer closing panel: <i>(at E).</i>	
6	Unstick the underfelt from the sidemember upper closing panel, starting at the rear towards the front and following the petrol tank housing panel: <i>(at FG).</i> Stop unsticking level with the heel board.	
7	Unstick the underfelt from the sidemember panel, starting at the bottom and stopping at the upper corner of the siderail, up to the level of the caisson crossmember under the front seats: <i>(at K and H).</i>	
8	Finish the unsticking completely, avoiding any tearing at the junction of the siderail and the heel board.	
ASSEMBLY (see Pl. 84).		
9	Stick the lining on the siderail and on the heel board (GLUTAFIX or BOSTIK).	
10	Fit the door check strap links. Fit the check strap securing plate.	

TOOL S

REMOVAL.

- 1 Remove the window winder handle (see Op. D 961-1a).
- 2 Insert between the trimming panel and the steel panel, a screwdriver in order to lever out the panel clips.
- 3 Continue in this manner round the periphery of the panel.
- 4 Lift the panel upwards in order to remove from the arm rest support plate.
- 5 Do not remove the three felt pads, stuck on the steel panel of the door.
- 6 Unstick the vinyl sealing panels from the interior openings of the door.
- 7 Remove the tread plate from the bottom of the door (if the tread plate has deteriorated).

ASSEMBLY.

- 8 Stick the vinyl sealing panels on the edges of the interior openings of the door (paste EC 1236 Minnesota).
- 9 Offer up the door trimming panel by sliding towards the bottom and by anchoring on the arm rest support plate.
- 10 Offer up the fixing clips to the holes in the inner steel door panel and push them in position with the palm of the hand.
- 11 Fit the tread plate to the bottom of the door (if this has been removed).
- 12 Fit the window winder handle (see Op. D 961-1a).

TOOLS

This operation requires the removal of the roof.

NOTE: *The roof lining is sold stuck on the sound deadening lining by our Spare Parts Department.*

REMOVAL

- 1
- Remove the roof (see Op. D 825-1).
- 2
- Unstick (by hand) the lining and sound deadening lining assembly from the roof.
- 3
- Clean the under surface of the roof.
Freely moisten the foam rubber remaining stuck to the roof (trichlorethylene) and scrape with knife (putty knife).

ASSEMBLY

NOTE: *If the sound deadening lining is unstuck from the roof without tearing, this can be restuck on the roof, in spite of the presence of old paste on the lining.
In each case it is necessary to clean the under surface of the roof.
On the other hand, if the sound deadening lining is torn, it is necessary to replace the lining and sound deadening lining assembly.*

- 4
- Smear the underside of the roof with paste (GLUTAFIX-T).

NOTE: *The time between the application of the paste and the fitting of the lining on the roof should not be longer than 15 minutes.*
- 5
- Put the roof lining in position. In order to avoid the folding of the material, hold it on all the periphery with a strip of adhesive paper, fitted partly on the lining.

Leave to set for approximately 5 hours before returning the roof to its position on the car. Remove the adhesive paper.
- 6
- Fit the roof (see Op. D 825-1).

TOOLS

1st case: the roof having been painted previously (DS 19).

- 1 Rub down the paint from the roof using abrasive paper No. 80 and water (rub to the plastic if necessary).
- 2 Clean with water and dry.
- 3 Apply a thin coat of cellulose primer.
- 4 Apply two or three coats of cellulose sealer.
- 5 Rub down with No. 220 paper moistened with water.
- 6 Stop up, if necessary, and rub down.
- 7 Apply three coats of cellulose colour (Cross coat).
- 8 Again rub down (No. 320 paper moistened with soapy water). Do not use soap which contains caustic.
- 9 Apply a coat of diluted colour in the following proportions:
30% colour, 70% thinners.
- 10 Leave to dry (5 hours approximately, in a temperature of 18 to 20°C).
- 11 Carry out the polishing operation (muslin and cotton disc).

2nd case: the roof not previously painted (ID 19).

- 12 Rub down the roof with abrasive paper No. 80 and water in order to remove the polished surface (dry rubbing down produces harmful dust).
- 13 Blow and wipe the roof.
- 14 Apply one coat of cellulose primer.
- 15 Apply two coats of cellulose sealer.
- 16 With a knife, apply two coats of cellulose stopper (G 112).
- 17 Rub down with No. 220 paper moistened with water.
- 18 Apply three coats of cellulose colour (cross coat).
- 19 Again rub down (No. 320 paper moistened with soapy water).
- 20 Apply a coat of diluted colour in the following proportions:
30% colour, 70% thinners.
- 21 Leave to dry (5 hours approximately, in a temperature of 18 to 20°C).
- 22 Carry out the polishing operation (muslin and cotton disc).

		TOOLS
	In order to paint an aluminium roof, bonnet or a rear boot door, proceed as follows:-	
1	Remove the polish from the complete surface of the part to be painted, with abrasive paper No. 150.	
2	Smear the part with a coating of metal etch primer. Green metal etch primer (0/644).	
3	Allow the coating to harden for 2 hours.	
4	Prepare and paint normally as on a steel panel.	

TOOLS

Our Spare Parts Department supply:

- a) The parts or components of the body (units, frames, sheet steel and panels) in bare metal covered with an anti-rust grease.
- b) The components of the body for finishing trimming (wings, doors, bonnets, etc.), covered with a protecting preparation (black coloured).

To paint the steel parts covered with anti-rust grease, it is necessary to:-

- 1 Degrease these parts with petrol or white spirit.
- 2 After work on the panel work, apply one or two coats of cellulose primer with a spray gun (dilute to 50-50).

To paint the parts covered with a protecting preparation (black coloured), it is necessary to:-

- 3 Carry out a light rubbing down on this preparation which makes a good primer.
- 4 Complete the painting as usual.

TOOLS

Different parts (described in the text) are coated with a product intended to sound deaden the body.

This coating has a bitumen and asbestos base, having a paste consistency and is used as such. Nevertheless should it become hard it can be diluted with water.

This coating should be applied with a knife or a brush to a thickness of 1 to 3 mm.

Air dry for 10 to 12 hours.

This product burns when in contact with a flame, but the combustion stops when the flame is removed.

This coating improves the sound deadening and also the sealing.

The illustrations 87 - 87 A - 87 B - 87 C - 87 D - 87 E - 87 F of the Manual indicate the areas for sound deadening on the different parts.

We use Asophone and Insonastic in our workshop.

TOOLS

(see Pl. 86).

In painting a wheel rim it is absolutely essential not to cover the following parts with lacquer:

- a) the wheel securing screw.
- b) the inner central hub.

You are advised to obtain from our Spare Parts Department:

1 wheel screw protector DM 854-3

1 wheel protector fixing spring DS 854-90

so as to be able to mask the wheel locking screw at B. It is also possible to use a cardboard disc about 2.5/8" (65 mm) in diameter, stuck at B by means of adhesive paper.

- 1 Cut from a piece of fairly strong cardboard a disc about 4.5/8" (116 mm) in diameter.
- 2 Fix it by means of adhesive paper on the inside surface of the wheel, as indicated at A.
- 3 Fit on the outside of the wheel rim the wheel screw protector complete with its spring, or cut out a piece of fairly strong cardboard a disc with an outside diameter about 2.5/8" (65 mm) in diameter. Fix it at B by means of adhesive paper.
- 4 Paint the wheel inside and out.
- 5 Let it dry.
- 6 Remove the protector, its spring and the cardboard discs (or the cardboard discs where these were fitted at A and at B).
- 7 If necessary, touch up the places that were occupied by the strips of adhesive paper.

NOTE: *To be able to use the protector several times, it is advisable to remove the paint from it whenever necessary.*

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i>		
I. REMOVAL (see Pl. 97 and 97 A).		
1	Saw through the weld at the front end of the unit: <i>(at AB).</i>	
2	Drill and cut the spot welds: <i>(along BCDEF).</i>	
3	Remove (chisel) the front part of the unit from the siderail of the roof. <i>(at DF).</i>	
4	Carry out the same operations on the right side.	
5	Cut away (chisel): - the front and rear faces of the rear pillar: <i>(along GH and IJ).</i> - the lower front crossmember of the rear unit: <i>(along JK),</i> - the wheel arch: <i>(along KL).</i>	
6	Cut away the right-hand side symmetrically.	
7	Cut away the rear crossmember: <i>(along LL').</i>	
8	Remove the rear unit.	
9	Drill and cut any welding points of the joining surfaces of the rear unit that are left on the rear body crossmember and on the rear lower caisson unit.	
10	Detach the panel assembly surfaces. To detach the assembly surface JK, it is necessary to open the sheet metal fold: <i>(along J'K' and the corresponding line on the other side).</i>	
II. PREPARATION.		
11	Remove, by planishing, grinding or welding, the deformations or tears in the chiselled or cut edges.	
12	Remove the paint from the surfaces to be used for mounting the panels.	
III. ASSEMBLY.		
13	Offer up and position the rear unit with the help of clamps.	

TOOLS

- 14
- Beat down the sheet metal fold (J'K') over the joining area (JK) of the lower front crossmember of the unit.
- 15
- Do the same thing on the right-hand side.
- 16
- Spot weld the rear unit:
 - to the sidemember of the roof (spot welder):
(at BCDEF),
 - to the bottom body sidemember (arc weld):
(at GH and IJ),
 - to the lower rear unit:
(at JK, KL and symmetrically on the right-hand side (spot welder),
(at LL') (arc weld).
- 17
- Offer up to the rear pillar the fixing for the weatherproof trim for the door opening.
- 18
- Spot weld (spot welder) the fixing on the rear pillar.
- 19
- Weld the front end of the rear unit to the sidemember of the roof:
(at AB).

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i> I. REMOVAL (see Pl. 96 and 96 A).		
1	Saw through the weld at the front end of the quarter panel: <i>(at AB).</i>	
2	Drill and cut the spot welds: <i>(along BCDEF)(fig. 4).</i>	
3	Detach (chisel) the front part of the quarter panel from the sidemember of the roof: <i>(at DF).</i>	
4	Detach the upper rear crossmember from the quarter panel (see Op. DF 813-1).	
5	Cut away (chisel): - the front and rear faces of the centre pillar: <i>(along GH and IJ) (fig. 1 and 2).</i> - the front panel of the rear pillar: <i>(along GI).</i> - the wheel arch: <i>(along KLM) (fig. 2), (OPQ) (fig. 3), (VWXY) (fig. 1).</i>	
6	Remove the quarter panel.	
7	Drill and cut the welding points of the joining surfaces of the quarter panel left on the rear lower siderail and the rear lower unit.	
8	Unbrazed with a blow pipe: <i>(at SU) (fig. 3), (VWX)(fig. 1), (NML and GI) (fig. 2).</i>	
9	Separate the panel assembly surfaces.	
II. PREPARATION.		
10	Remove, by planishing, grinding or welding, the deformations or tears in the chiselled or cut edges.	
11	Remove the paint from the surfaces to be used for mounting the panels.	
III. ASSEMBLY.		
12	Offer up and position the quarter panel with the help of clamps.	

TOOL S

- 13
- Spot weld the quarter panel:

- to the sidemember of the roof (spot welder):
(at BCDEF) (fig. 4),

- to the bottom sidemember of the body (arc weld):
(along GH and IJ) (fig. 1 and 2),

- to the lower rear caisson unit (arc weld):
(along KLMN) (fig. 2), (OPQ) (fig. 3),

- to the rear lower crossmember (arc weld):
(along QRSTU) (fig. 3), (VWXY) (fig. 1).
- 14
- Weld the end of the quarter panel to the sidemember of the roof:

(along AB) (fig. 4).
- 15
- Braze:

(at SW) (fig. 3), (VWX) (fig. 1), (NML and GI) (fig. 2).
- 16
- Offer up to the rear pillar the fixing for the weatherproof trim for the door opening.
- 17
- Spot weld (spot welder) the fixing on the rear pillar.

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i> REMOVAL (see Pl. 95).		
1	Drill, cut and detach (chisel) the surface of the crossmember joining it to the sidemember of the roof at the outside: <i>(at AB and symmetrically at A'B').</i>	
2	Cut (chisel) the inner closing panel of the crossmember: <i>(at CD and symmetrically at C'D').</i>	
3	Break (chisel) the spots of brazing connecting the rear upper crossmember to the rear part of the sidemember of the roof and quarter panel: <i>(at EF and symmetrically at E'F').</i>	
4	Remove the rear upper crossmember.	
PREPARATION.		
5	Complete the separation of the joining surface remaining on the sidemember of the roof: <i>(at CD and symmetrically at C'D').</i>	
	Spring with a chisel the spot welds securing the inner closing panel of the crossmember to the sidemember of the roof.	
6	Remove, by planishing, grinding or welding, the deformations, roughness and tears in the chiselled or cut edges.	
7	Remove the paint from the joining surfaces to be used for assembly with the sidemember of the roof and quarter panel: <i>(at AB and symmetrically at A'B').</i>	
ASSEMBLY (see Pl. 95).		
8	Offer up the rear upper crossmember and position it at the end of the sidemember of the roof, level with the rear part of the quarter panel.	
9	Fasten it on the extension of the sidemember of the roof with clamps.	
10	Spot weld (spot welder) the outside joining areas on the extension of the sidemember: <i>(at AB and symmetrically at A'B').</i>	

		TOOLS
11	Gas weld two or three points to join the inner closing panel of the crossmember to the sidemember of the roof: <i>(at CD and symmetrically at C'D').</i>	
12	Fasten the rear joining areas of the crossmember to the rear parts of the quarter panel with several spots of brazing: <i>(at EF and symmetrically at E'F').</i>	
13	Planish and grind the welds.	
14	Paint and sound deaden the part.	

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i> REMOVAL (see Pl. 98).		
1	Drill and cut the spot welds and detach (chisel) the wheel arch closing panel from the lower rear body crossmember: <i>(at ABCD and symmetrically at A'B'C'D').</i>	
2	Drill and cut the spot welds and detach (chisel) the quarter panel from the lower rear body crossmember: <i>(at EFGHJ and symmetrically at E'F'G'H'J').</i>	
3	Drill and cut the spot welds and detach (chisel) the lower rear body crossmember from the rear wheel arch: <i>(at KLM and symmetrically at K'L'M').</i>	
4	Drill and cut the spot welds and detach (chisel) the lower rear body crossmember from the rear caisson unit: <i>(at NO).</i>	
5	Use heat to undo the existing brazing: <i>(at EF and symmetrically at E'F'),</i> <i>(and at GHJ and symmetrically at G'H'J').</i>	
6	Remove the lower rear body crossmember.	
PREPARATION.		
7	Remove by planishing, grinding or welding, the deformations, roughnesses or rents in the chiselled or cut edges.	
8	Remove the paint on the joining surfaces to be used in assembling the lower crossmember and the various parts that are welded to it, as well as on the joining surfaces of the parts that make up the crossmember (closing panels).	
ASSEMBLY (see Pl. 98).		
9	Offer up the lower rear crossmember of the body to the body. Position it and fasten it with clamps.	

		TOOLS
10	Spot weld (spot welder) the joining surface of the crossmember on the lower rear caisson unit: <i>(at NO).</i>	
11	Spot weld (spot welder or end welder) the joining surfaces of the crossmember to those of the wheel arch; <i>(at KLM and symmetrically at K'L'M').</i>	
12	Spot weld (spot welder or end welder) the joining faces of the crossmember on the quarter panel: <i>(at EFGHJ and symmetrically at E'F'G'H'J').</i>	
13	Spot weld the joining faces of the crossmember on the wheel arch closing panels: <i>(at ABCD and symmetrically at A'B'C'D').</i>	
14	Offer up the lower closing panel on the crossmember and spot weld (see Op. DF 813-1).	
15	Offer up, on the ends of the crossmember their lateral closing panels and spot weld them.	
16	Reinforce the join of the quarter panel and crossmember with the aid of strips of brazing: <i>(at EF and symmetrically at E'F'),</i> <i>(and at GHJ and symmetrically at G'H'J').</i>	
17	Planish and grind the welds.	
18	Paint the parts and sound deaden.	

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 99).

- 1
- Remove the rear bumper bracket (see Op. DF 851-1).
- 2
- Cut (chisel) the side closing panel of the crossmember:
(at AD).
- 3
- Drill and cut the spot welds, and detach (chisel) the side closing panel of the crossmember:
(at ABCD).
- 4
- Remove the side closing panel of the crossmember.
- 5
- Drill and cut the spot welds and detach (chisel) the bottom closing panel of the lower rear body crossmember:
(at EF),
(and at DG).
- 6
- Remove the bottom closing panel of the lower rear body crossmember.

PREPARATION.

- 7
- Remove by planishing, grinding or welding, the deformations, roughnesses or rents in the chiselled or cut edges.
- 8
- Carry out the work indicated in paragraphs 5 to 14 (see Op. DF 851-1).
- 9
- If necessary, restore the lower rear body crossmember to shape.
- 10
- Remove the paint from the joining areas to be used in assembling the new lower closing panel and the crossmember:
(at EF),
(and at DG).
and the new side closing panel of the crossmember and the bottom closing panel:
(at ABCD),
(and at AD).

TOOL S

ASSEMBLY (see Pl. 99).

- 11 Offer up the closing panel of the lower crossmember, and fit it in the crossmember.
- 12 Match up the joining surfaces, and fix the assembly with clamps.
- 13 Spot weld (spot welder) the joining areas of the two parts:
(at EF),
(and at DG).
- 14 Offer up the side closing panel of the lower body crossmember, and fit it in the end of the crossmember.
- 15 Match up the joining areas and fix the assembly with clamps.
- 16 Spot weld (spot welder) the joining surfaces of the three parts:
(at ABCD),
(at AD).
- 17 Offer up and fix the rear bumper bracket (see Op. DF 851-1).
- 18 Planish and grind the welds.
- 19 Paint and sound deaden the parts.

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i> REMOVAL (see Pl. 101).		
1	Drill and cut the spot welds and detach (chisel) the rear closing panel of the rear wheel arch: <i>(at ABCDEFGHI)</i> (fig. 1 and 2).	
2	Heating it with the blow pipe, spring the brazing: <i>(at BCD)</i> , and remove the closing panel with the gusset from the top.	
PREPARATION.		
3	Remove by planishing, grinding or welding, the deformations or tears in the detached edges.	
4	Remove the paint from the surfaces to be used in assembling the panels.	
5	Prepare a gusset (1) shaped according to the diagram.	
ASSEMBLY.		
6	Offer up the rear closing panel of the wheel arch.	
7	Insert the edge (D) of the panel in the fold of the quarter panel.	
8	Spot weld (end welder): - to the quarter panel: <i>(along ABD)</i> , - to the wheel arch: <i>(along DEFI)</i> , - to the rear upper crossmember (fig. 1 and 2): <i>(along FGHI)</i> .	
9	Offer up the gusset (1) for fixing the top. Hold it with clamps.	
10	Spot weld the gusset to the quarter panel and to the wheel arch: <i>(at BC and CD)</i> .	
11	Braze the closing panel and the gusset (1) to the quarter panel: <i>(along ABCD)</i> .	

TOOLS

This operation does not require the body to be placed on the jig base.

REMOVAL (see Pl. 100).

- 1
- Cut away (chisel) the wheel arch:
(along AB) (fig. 1 and 3), (CDE) (fig. 3), (FGHI) (fig. 2), (JA) (fig. 1), (LMNP and QRS) (fig. 4).

Remove the wheel arch.

Drill and cut the spot welds and detach (chisel) the joining surface of the wheel arch:
(along AB) (fig. 1 and 3), (CDE) (fig. 3), (FGHI) (fig. 2), (JA) (fig. 1), (LMNOPQRST)(fig. 4).

Between J and A cut from bottom to top and undo, so as to open the sheet metal fold of the quarter panel.

Using a blow pipe, unbrazed:
(at AB) (fig. 1 and 3), (CD) (fig. 3), (HI) (fig. 2) and (MON) (fig. 4).

NOTE: *Do not remove the inside closing panel of the rear pillar.*

PREPARATION.

- 2
- Remove from the wheel arch (new part) the inside closing panel of the rear pillar. Cut the welds:
(at AB) (see fig. 1 and 3).

Remove, by planishing, grinding or welding, the deformations or tears in the chiselled or cut edges.

Remove the paint from the surfaces to be used in assembling the panels.

ASSEMBLY.

- 3
- Offer up the rear wheel arch and position it with clamps.

Engage edge N (fig. 4) of the rear closing panel in the sheet metal fold of the quarter panel.

Spot weld the wheel arch:
(at AB) (fig. 1 and 3), (CDE) (fig. 3), (FGHI) (fig. 2), (J) (fig. 1), (QRST and LMON) (fig. 4).

Beat down the fold of the quarter panel over the edge of the wheel arch:
(at JA).

Weld (spot welder):
(at JA) (see fig. 1).

Braze:
(at A) (fig. 1 and 3), (BC-CD-DE) (fig. 3), (LM-MO and ON) (fig. 4).

		TOOLS
<i>This operation does not require the body to be placed on the jig base.</i> REMOVAL (see Pl. 102).		
1	Drill and cut the welds and detach (chisel) the rear bumper bracket: - from the rear lower body crossmember: <i>(at AB and symmetrically at A'B'), (at BC and symmetrically at B'C'), (at DE and symmetrically at D'E').</i>	
2	Remove the bumper bracket.	
3	If possible, recover the lower tapped plate (H) and upper tapped plate (K).	
PREPARATION (see Pl. 102).		
4	Remove by planishing, grinding or welding, the deformations, roughnesses and tears in the chiselled or cut edges.	
5	If necessary, make up the tapped plates as indicated in fig. 3.	
6	Make up the support plate for the upper tapped plate as indicated in fig. 4.	
7	Assemble the two parts (L and M) by inserting the joining area of part L under the rear part of part M. Centre the parts, matching up the holes (N) on the two parts (see fig. 2).	
8	Offer up the tapped plate (K) inside part M (see fig. 2) and centre the tapped holes in it in relation to the slots in part M.	
9	Fit the support plate inside part M, centring the slots in it on the centre lines of the tapped holes in the plate.	
10	Hold the assembly in place with a clamp.	
11	Weld (spot welder) the bent edges of the support plate to parts M and L: <i>(at PQ and symmetrically at P'Q').</i>	
12	Spot weld parts L and M to each other: <i>(at QRS and symmetrically at Q'R'S').</i>	

TOOL S

- 13
- Bend over the top end of the support plate (K) to hold the plate in position:
(at T fig. 2).
- 14
- Remove the paint from the joining areas to be used in the assembly with the lower rear body crossmember:
(at AB and symmetrically at A'B'),
(at BC and symmetrically at B'C'),
(at DE and symmetrically at D'E').
- ASSEMBLY (see Pl. 102).
- 15
- Offer up the bumper bracket assembly to the lower crossmember, not forgetting to fit the tapped plate (H) at the bottom (see fig. 1).
- 16
- Fix the assembly on the crossmember with clamps.
- 17
- Spot weld (end welder) the bumper bracket on the crossmember:
(at AB and symmetrically at A'B'),
(at B'C'),
(at D'E').
- 18
- Spot weld (spot welder):
(at BC),
(at DE).
- 19
- Planish and grind the welds.
- 20
- Paint and sound deaden the part.

Printed in England
by
PHOTOLITH TECHNICAL SERVICES LTD., HOUNSLOW.

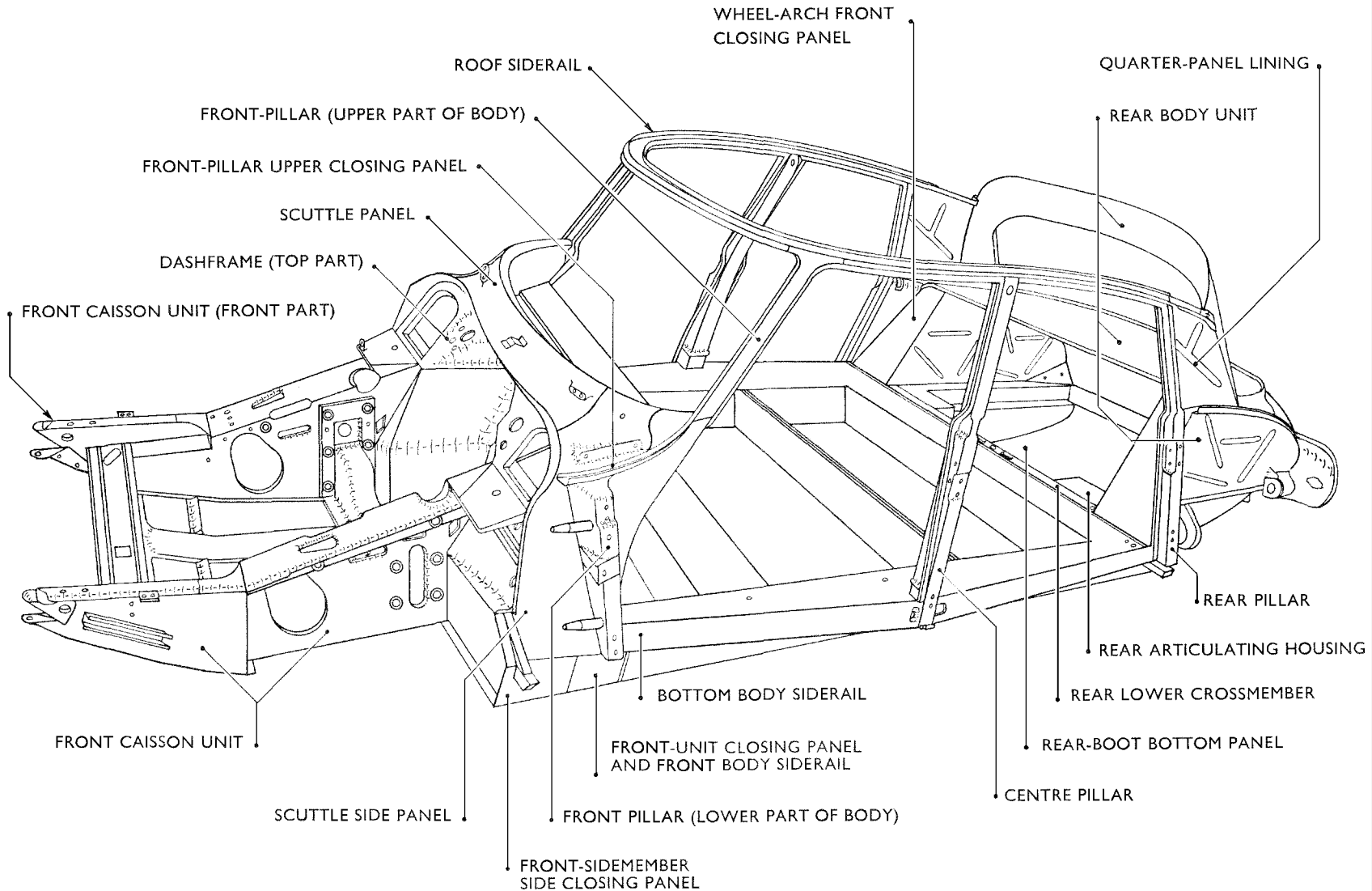
COMPONENT	No. of Illustration	DESCRIPTION
BODYWORK	1	Side view of the body (Berline).
	1A	Side view of the body (Break).
	2	Rear view of the body (Berline).
	2A	Rear view of the body (Break).
	3	Main dimensions of the body.
LIFTING AND HANDLING APPARATUS	4	Lifting the vehicle.
	5	Lifting the body (Berline).
	5A	Lifting the body.
	6	Handling the body.
JIG BASE AND JIGS	7	Setting up the jig base.
	7A	Wooden supports for jig base.
	7B	Brickwork supports for jig base.
	8	Using the jig base (<i>until January 1960</i>).
	8A	Using the jig base (<i>since January 1960</i>).
	9	Position of the supports (<i>equipment produced until January 1960</i>).
	9A	Position of the supports (<i>equipment produced since January 1960</i>).
	10	Jig base accessories (<i>equipment produced until January 1960</i>).
	10A	Jig base accessories (<i>equipment produced since January 1960</i>).
	11	Jig base accessories (<i>vehicles produced until January 1960</i>).
	11A	Jig base accessories (<i>vehicles produced since January 1960</i>).
	12	View of pinning of front of body (<i>equipment produced until January 1960</i>).
	12A	View of pinning of front of body (<i>equipment produced since January 1960</i>).
	13	View of pinning of rear of body.
	13A	Rear pinning of the body (Cabriolet).
	13B	Modification of rear brackets (Break).
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	14A	Checking the front of a body, without using the jig base.
	14B	Checking the rear of a body, without using the jig base.
	15	Checking a front unit and a front caisson unit (<i>until September 1962</i>).
	15A	Rapid check without dismantling (checking the camber).
	15B	Rapid check without dismantling (checking the position of the arms).
	15C	Checking a front unit and a front caisson unit (<i>since September 1962</i>).
	15D	Jig for checking front caisson unit (<i>since September 1962</i>).
	16	Jig for front body unit.
	17	Various tools.
	17A	Replacing the fixing bosses of the front axle arm supports.
	18	Using the jigs.

COMPONENT	No. of Illustration	DESCRIPTION
PAINTWORK (BERLINE)	19	Straightening a front unit sidemember (sidemember off).
	19A	Straightening a front unit sidemember.
	20	Repositioning of a front unit.
	20A	Gusset for reinforcing front crossmember (<i>equipments produced until January 1960</i>).
	20B	Fitting the front crossmember reinforcement (<i>equipments produced until January 1960</i>).
	20C	Front crossmember end support (for lateral thrusts).
	20D	Checking jig for front wing centring dowels (<i>equipments produced since January 1960</i>).
	20E	Supplementary machining on front supports (<i>equipments produced since January 1960</i>).
	21	Repositioning a front unit (drawing of cut-outs).
	22	Replacing a front caisson unit (<i>until September 1962</i>).
	22A	Replacing a front caisson unit (<i>since September 1962</i>).
	23	Replacing a front caisson unit side (<i>until September 1962</i>).
	23A	Replacing a front caisson unit side (<i>since September 1962</i>).
	24	Replacing a front body unit.
	25	Replacing a front body unit (without opening the siderails).
	26	Replacing a front body unit (opening the siderails).
	27	Replacing a front unit closing panel and front body siderail.
	28	Replacing a front sidemember side closing panel.
	29	Replacing a front pillar (upper part of body).
	30	Replacing a front pillar (lower part of body).
	31	Replacing a front pillar and a scuttle side panel (lower part of body).
	32	Replacing a front pillar and a scuttle side panel.
	33	Replacing a scuttle panel.
	34	Replacing a lower front pillar closing panel.
	35	Replacing a scuttle panel, upper dashframe and scuttle shelf.
	36	Replacing a scuttle panel, upper dashframe and scuttle shelf.
	37	Replacing a front pillar.
	37A	Replacing lower part of a centre pillar.
	38	Replacing a bottom body siderail and centre pillar.
	39	Replacing a siderail closing panel, a sidemember lining and a centre pillar.
	40	Replacing a siderail closing panel, a sidemember lining and a centre pillar.
	40A	Replacing a bottom body siderail with front sidemember and lower part of centre pillar.
	40B	Replacing a bottom body siderail with front sidemember and lower part of centre pillar.
	40C	Repairing the bottom body siderails.
	40D	Repairing the bottom body siderails (<i>until September 1962</i>).
	40E	Repairing the bottom body siderails (<i>until September 1962</i>).
	41	Replacing part of the roof siderail, pillars and quarter panel lining.
	42	Replacing part of a roof siderail, pillars and quarter panel lining.
	42A	Replacing the crossmember under the front seats.
	43	Replacing a rear pillar, crossmember, panels and side panels.
	44	Replacing a rear pillar, crossmember, panels and side panels.
	45	Replacing a quarter panel lining.

COMPONENT	No. of Illustration	DESCRIPTION
CHECKING AND USE OF THE JIGS	46	Replacing a rear pillar.
	46A	Replacing lower part of a rear pillar.
	47	Replacing a rear pillar and lateral closing panel.
	48	Replacing a pillar, a lateral panel and a wheel arch closing panel.
	49	Replacing part of a rear body lower sidemember.
	50	Replacing a housing for rear axle arm bearing.
	51	Replacing a rear boot floor panel.
	52	Replacing a rear connecting panel.
	53	Replacing a rear wheel arch panel and rear boot closing panel.
	54	Replacing a rear wheel arch panel and rear boot closing panel.
	55	Replacing a rear boot closing panel.
	56	Replacing an upper rear body crossmember.
	57	Replacing a rear light shelf panel.
	58	Replacing a rear body unit.
	59	Replacing a rear caisson unit.
	60	Replacing a rear caisson unit.
	61	Replacing a rear body unit.
	62	Replacing a rear body unit.
	62A	Replacing a petrol tank heel board.
FITTINGS	63	Replacing rear boot door sealing rubbers.
	64	Reconditioning a plastic roof.
	65	Replacing a windscreen glass.
	65A	Replacing an upper rear door window.
	66	Aligning the doors, wings and bonnet.
	69	Welding the connecting rod fixing plates of the rear door stays.
	70	Replacing a window winder.
	70A	Replacing a window winder (<i>vehicles produced until May 1957</i>).
	70B	Replacing a window winder (<i>vehicles produced since May 1957</i>).
	70C	Replacing a door lock and its controls.
	71	Replacing a roof rear finishing strip.
	72	Attachment for trailer (Berline).
	73	Attachment for trailer (Berline).
	74	Attachment for trailer (Berline).
	75	Towing the vehicle by lifting (<i>until September 1962</i>).
	75A	Towing the vehicle by lifting (<i>since September 1962</i>).
	76	Towing the vehicle by lifting.
	77	Attachment for trailer (Break).
	78	Attachment for trailer (Break).
	79	Attachment for trailer (Break).

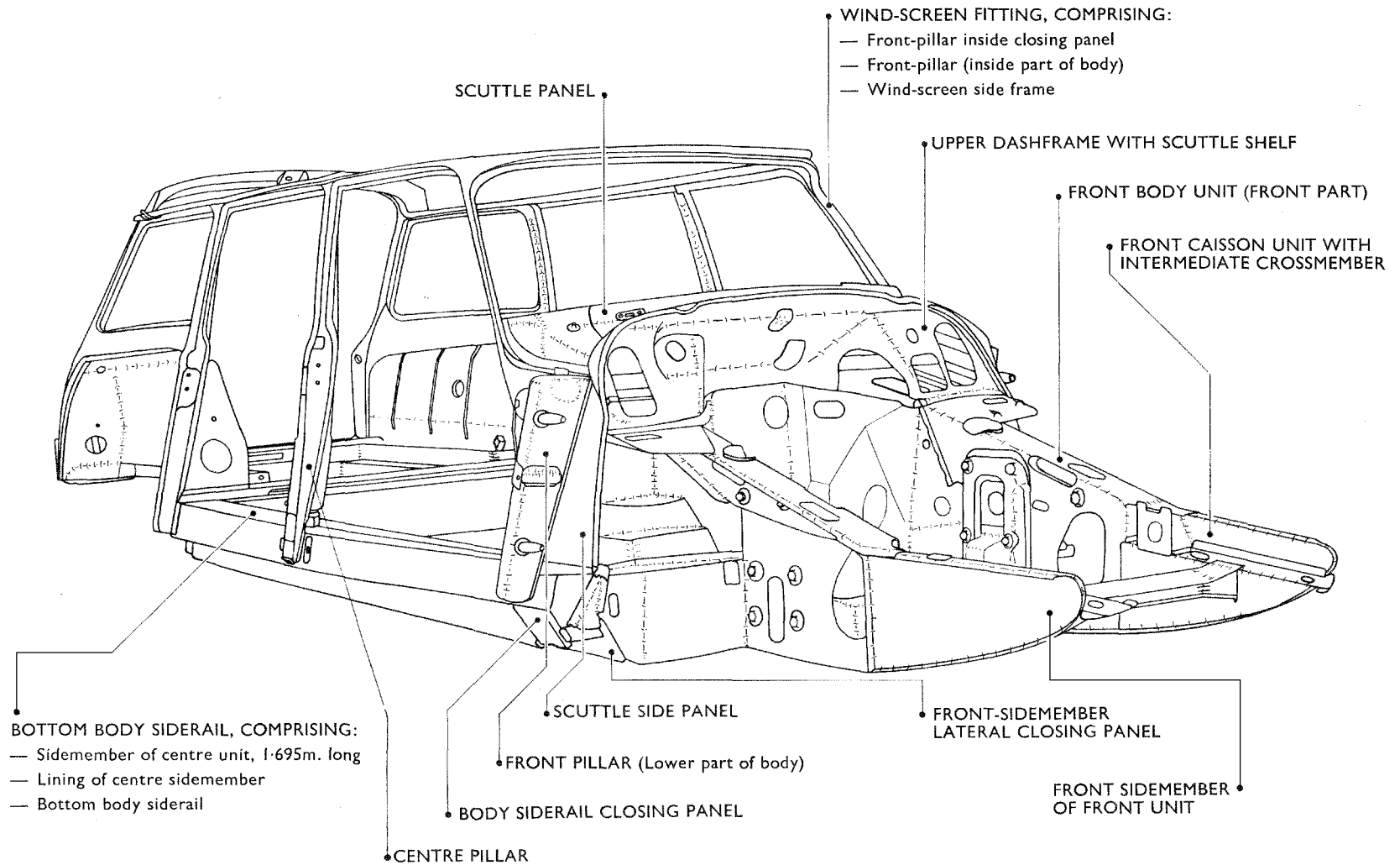
COMPONENT	No. of Illustration	DESCRIPTION
TOOLS	81	Making up a screw jack.
	82	Various tools.
	83	Various tools.
UPHOLSTERY	84	Removing the bottom body siderail trimming.
	85	Restoring a seat to shape.
PAININGT	86	Painting a wheel rim.
	87	Sound deadening the body (<i>before September 1962</i>).
	87A	Sound deadening the body (<i>since September 1962</i>).
	87B	Sound deadening the body (<i>since September 1962</i>).
	87C	Sound deadening the body (<i>since September 1962</i>).
	87D	Sound deadening the body (<i>since September 1962</i>).
	87E	Sound deadening the body (<i>since September 1962</i>).
	87F	Sound deadening the body (<i>since September 1962</i>).
DIMENSIONS	88	Dimensions (Berlines).
	89	Dimensions (Break confort).
	90	Dimensions (Break luxe).
	91	Dimensions (Commercial).
	92	Dimensions (Familiale).
	93	Dimensions (Ambulance).
	94	Dimensions (Cabriolet).
PANELWORK (BREAK)	95	Replacing an upper rear body crossmember.
	96	Replacing a quarter panel and wheel arch, assembled.
	96A	Replacing a quarter panel and wheel arch, assembled.
	97	Replacing a rear body unit.
	97A	Replacing a rearbody unit.
	98	Replacing a lower rear body crossmember.
	99	Replacing the closing panels of the lower rear body crossmember.
	100	Replacing a rear wheel arch.
	101	Replacing a rear wheel arch, rear closing panel.
	102	Replacing a rear bumper bracket.

SIDE VIEW OF THE BODY

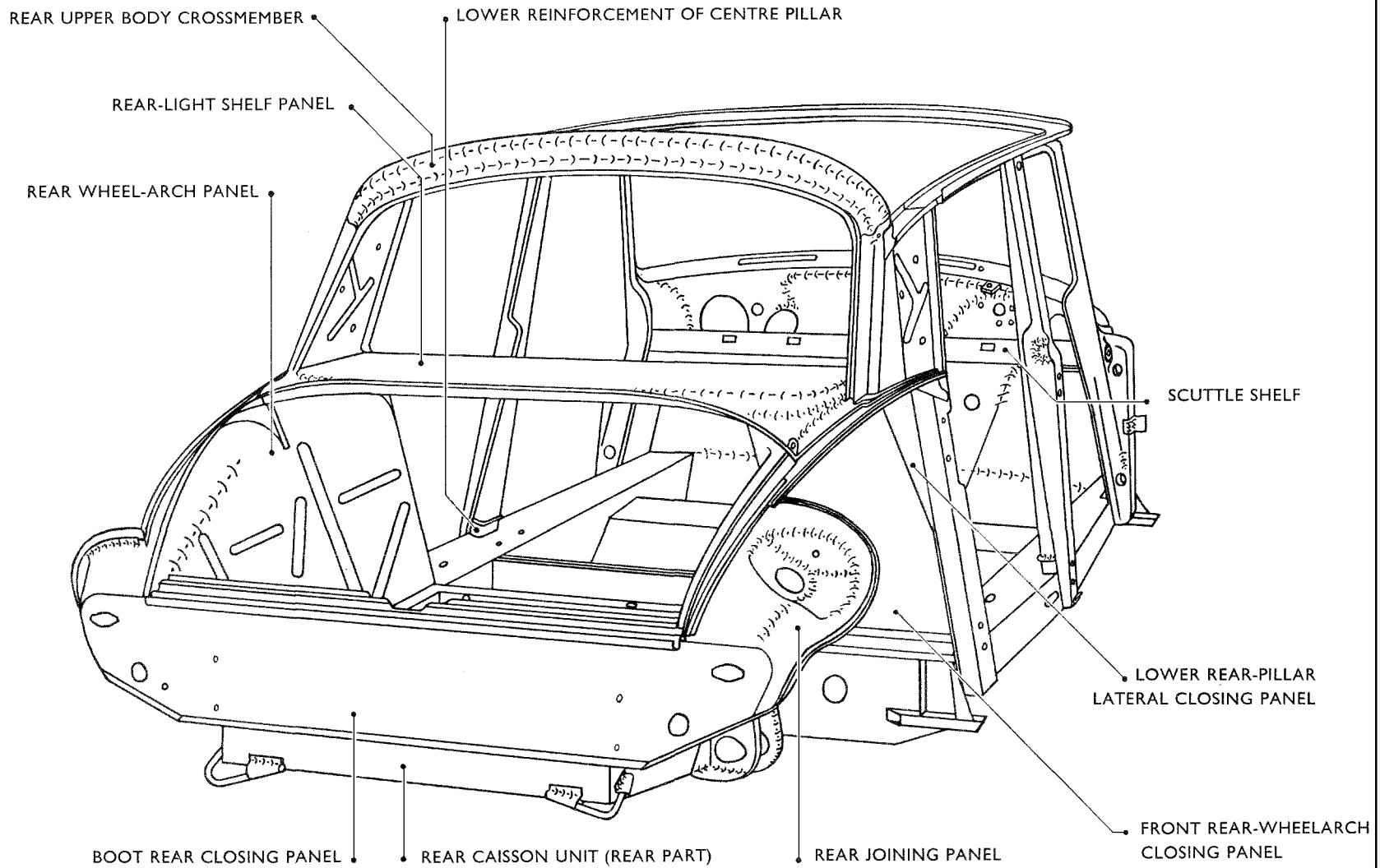


SIDE VIEW OF THE BODY

BREAK

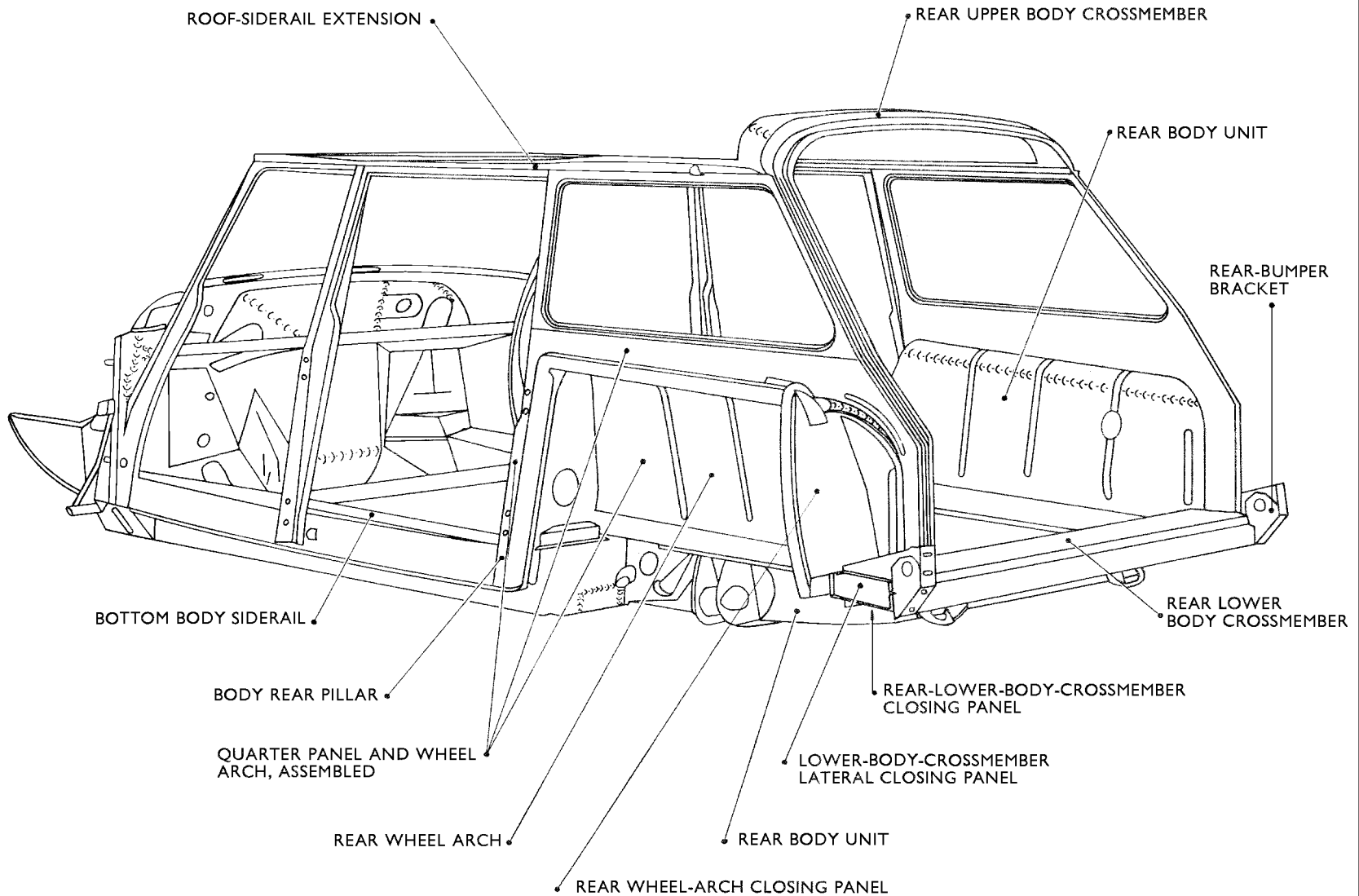


REAR VIEW OF THE BODY



REAR VIEW OF THE BODY

BREAK



MAIN DIMENSIONS OF THE BODY

Fig. 1

NOTE:
THE TOLERANCE ON THE
CENTRES DISTANCE OF
THE FRONT-WING GUIDES
IS $\pm 2\text{mm}$.

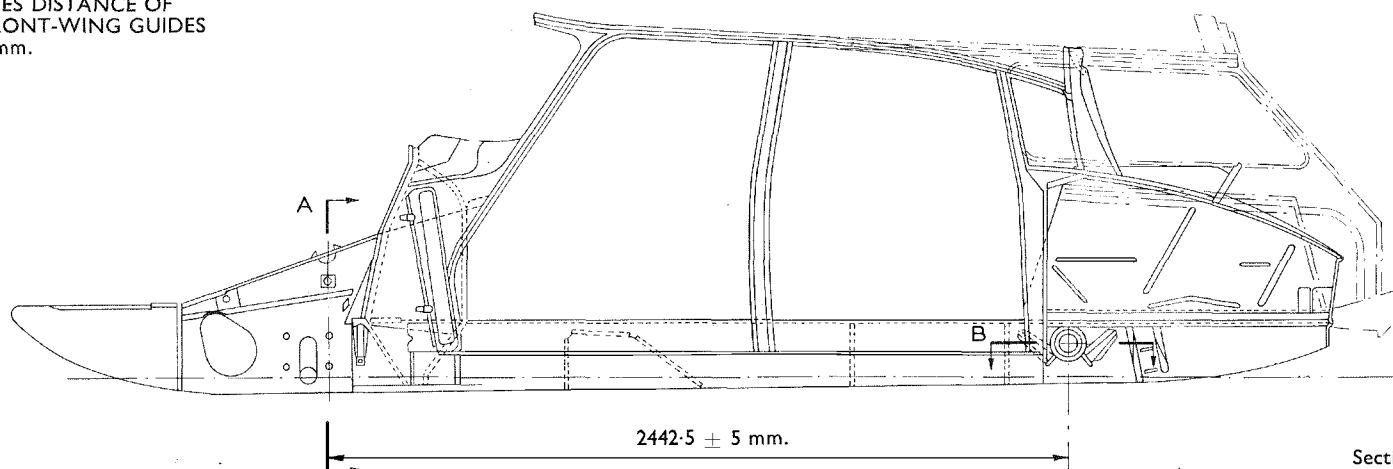


Fig. 2
Section A
up to October 1956

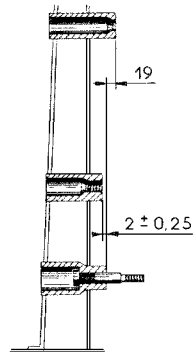


Fig. 3
Section A
from October 1956
to April 1958

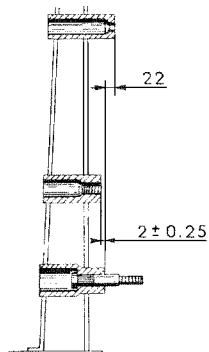
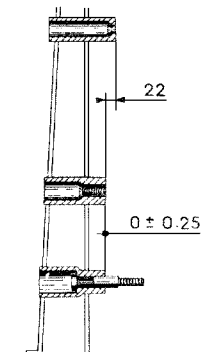
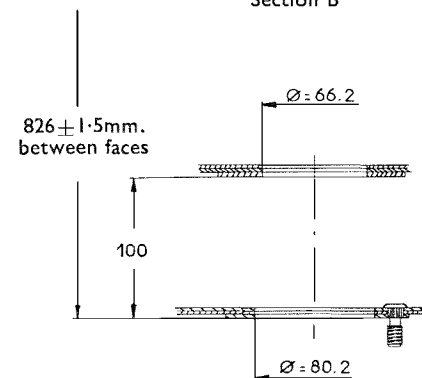


Fig. 4
Section A
since April 1958



Section B

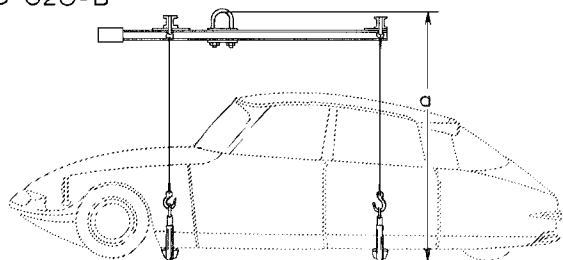


NOTE:
THE CENTRE-LINE OF THE
BORE FOR ONE REAR-ARM
ARTICULATING BEARING CAN
BE UP TO 5 mm . OUT OF LINE
WITH THE CENTRE-LINE OF
THE OTHER, THE TWO CENTRE-
LINES BEING PARALLEL.

D 620-B

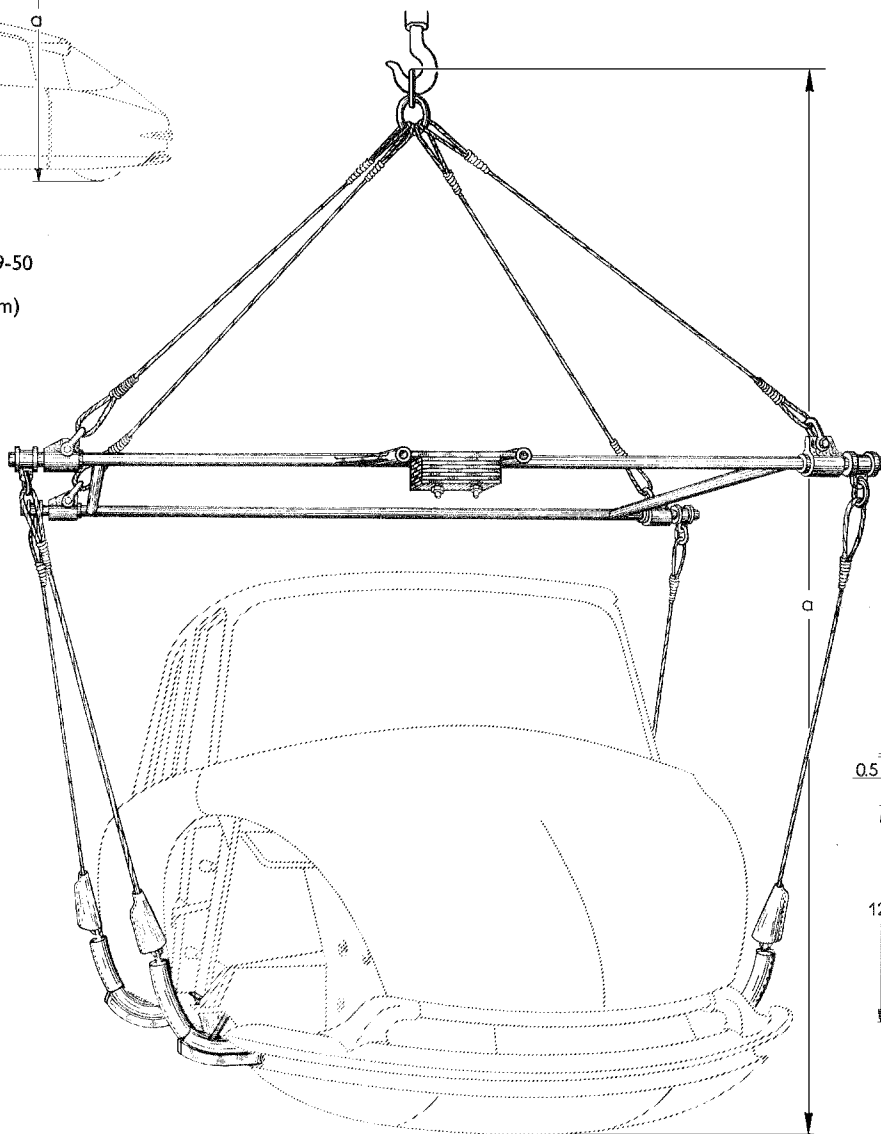
PL. 4

LIFTING THE VEHICLE



LIFTING TACKLE MR-3319-50
not sold
height $a=6$ ft. 1 in. (1.85m)

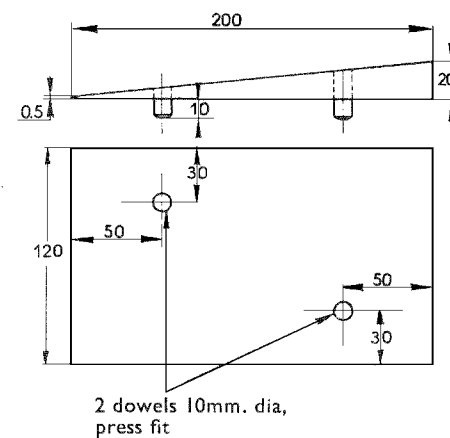
CAN BE USED WITHOUT
REMOVING ENGINE-
GEARBOX ASSEMBLY



LIFTING TACKLE MR-3319-30
not sold
height $a=9$ ft. 10 in. (3m)

CAN BE USED WITHOUT
REMOVING THE ENGINE-
GEARBOX ASSEMBLY

2 parts
Semi-hard steel



2 dowels 10mm. dia,
press fit

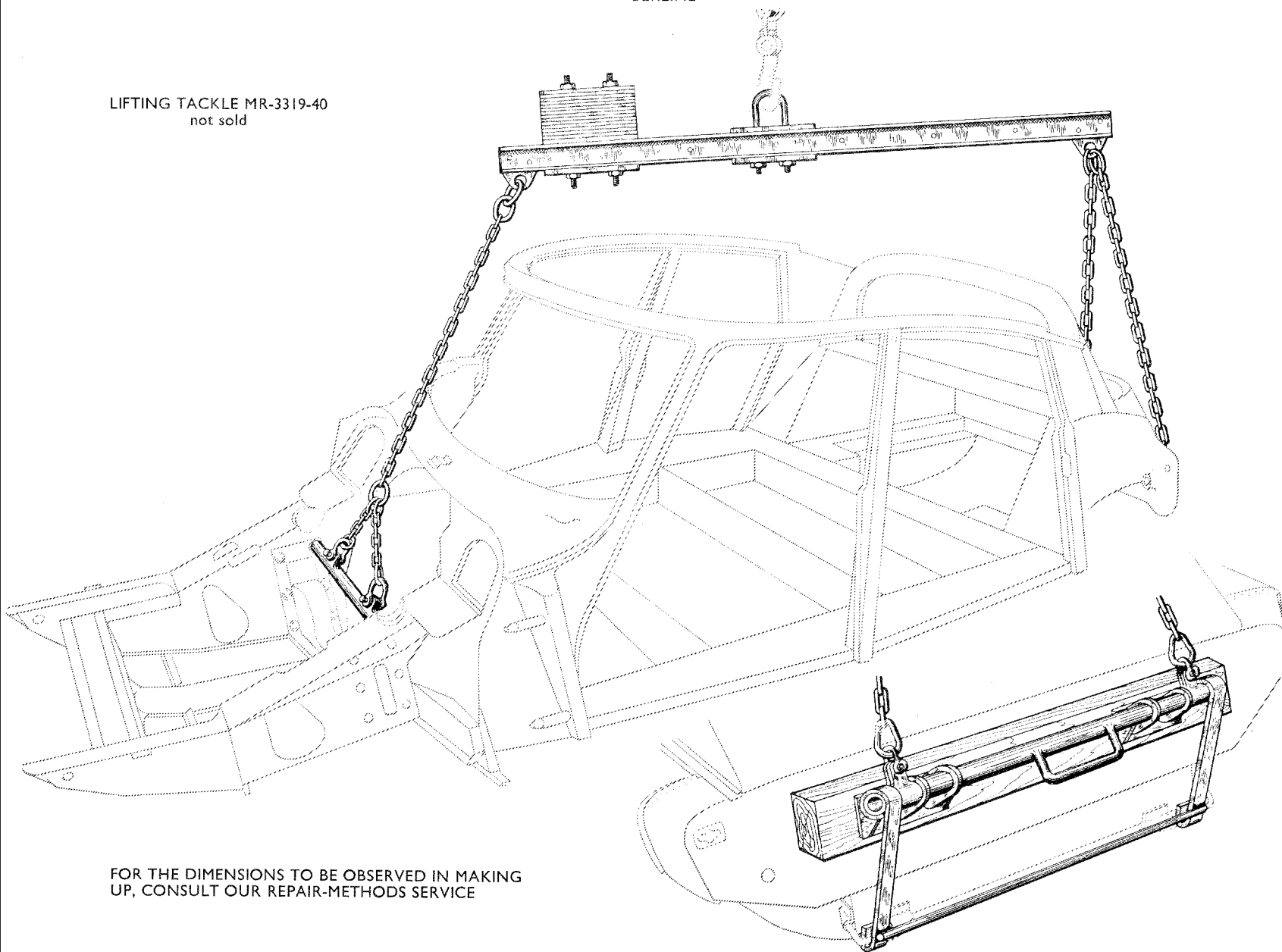
FOR THE DIMENSIONS TO BE
OBSERVED IN MAKING THESE
TWO PIECES OF APPARATUS,
CONSULT OUR REPAIR-METHODS SERVICE

Packing pieces to be used at the
front, on the slinging pads MR-3319-30
and MR-3319-50, for vehicles
produced since September 1962.

LIFTING THE BODYPL. **5**

BERLINE

LIFTING TACKLE MR-3319-40
not sold



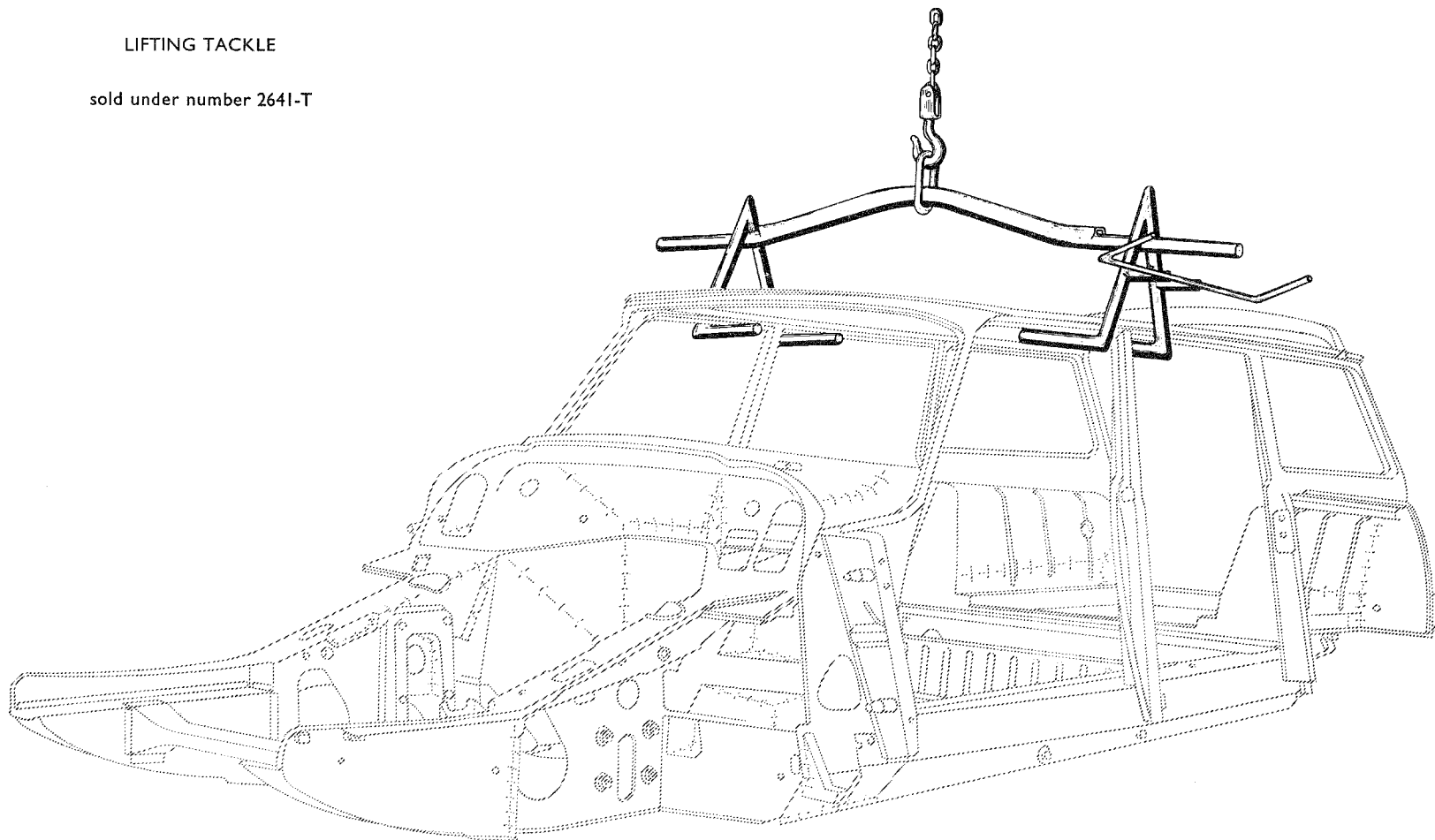
FOR THE DIMENSIONS TO BE OBSERVED IN MAKING
UP, CONSULT OUR REPAIR-METHODS SERVICE

LIFTING THE BODY

BREAK

LIFTING TACKLE

sold under number 2641-T

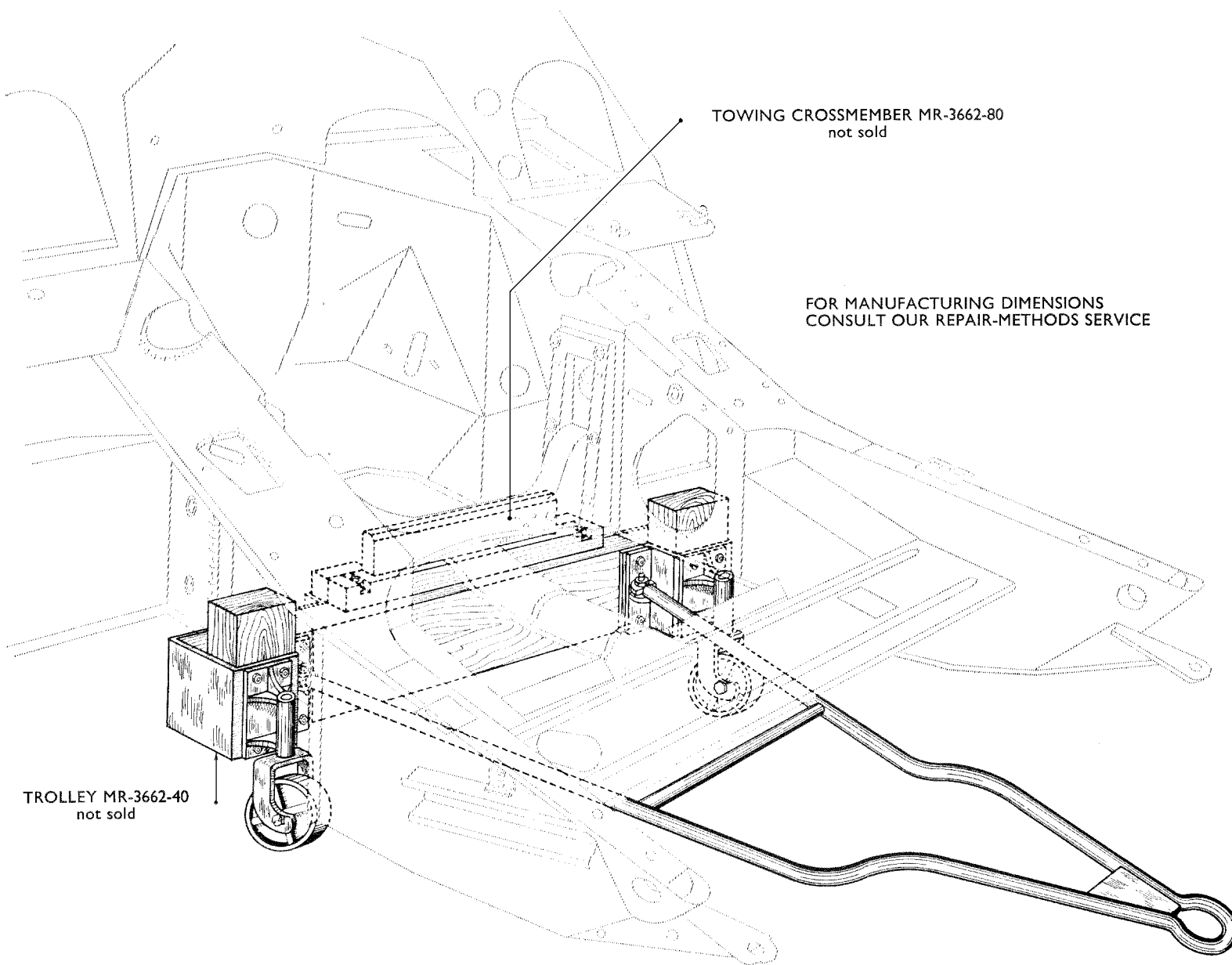


HANDLING THE BODY

TOWING CROSSMEMBER MR-3662-80
not sold

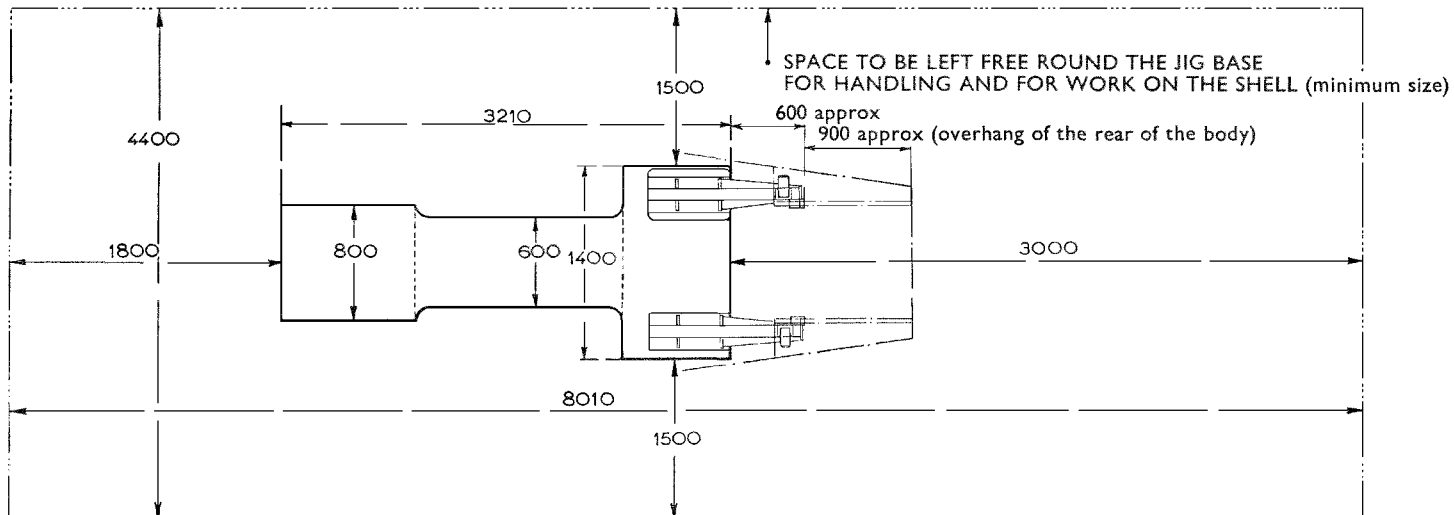
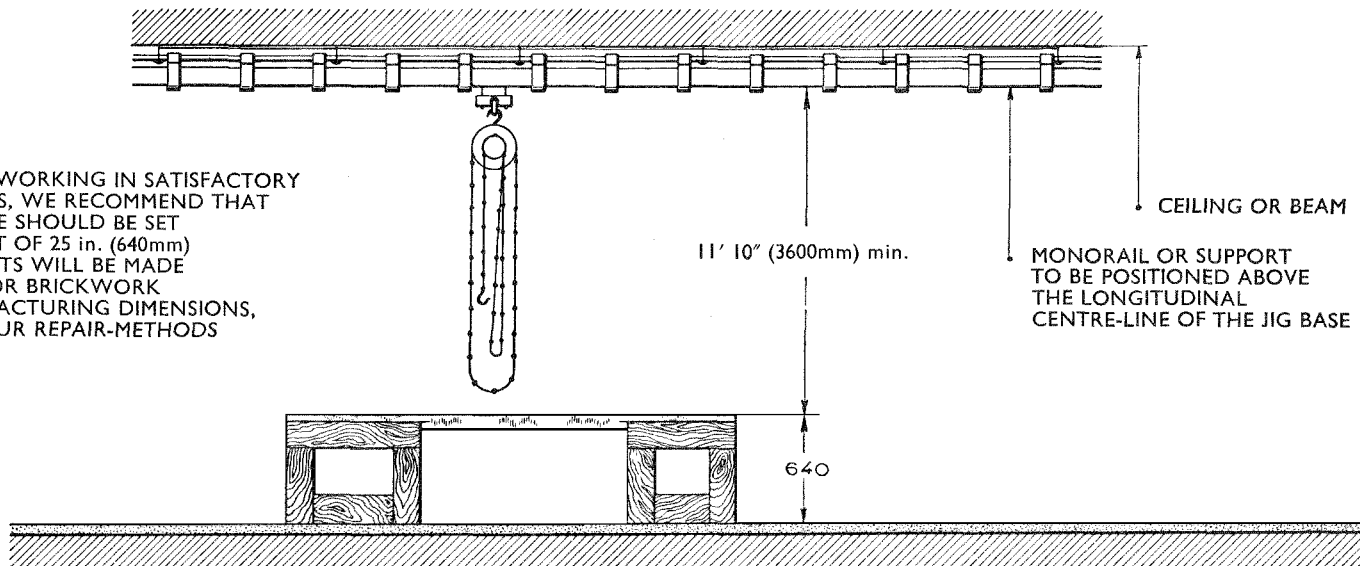
FOR MANUFACTURING DIMENSIONS
CONSULT OUR REPAIR-METHODS SERVICE

TROLLEY MR-3662-40
not sold

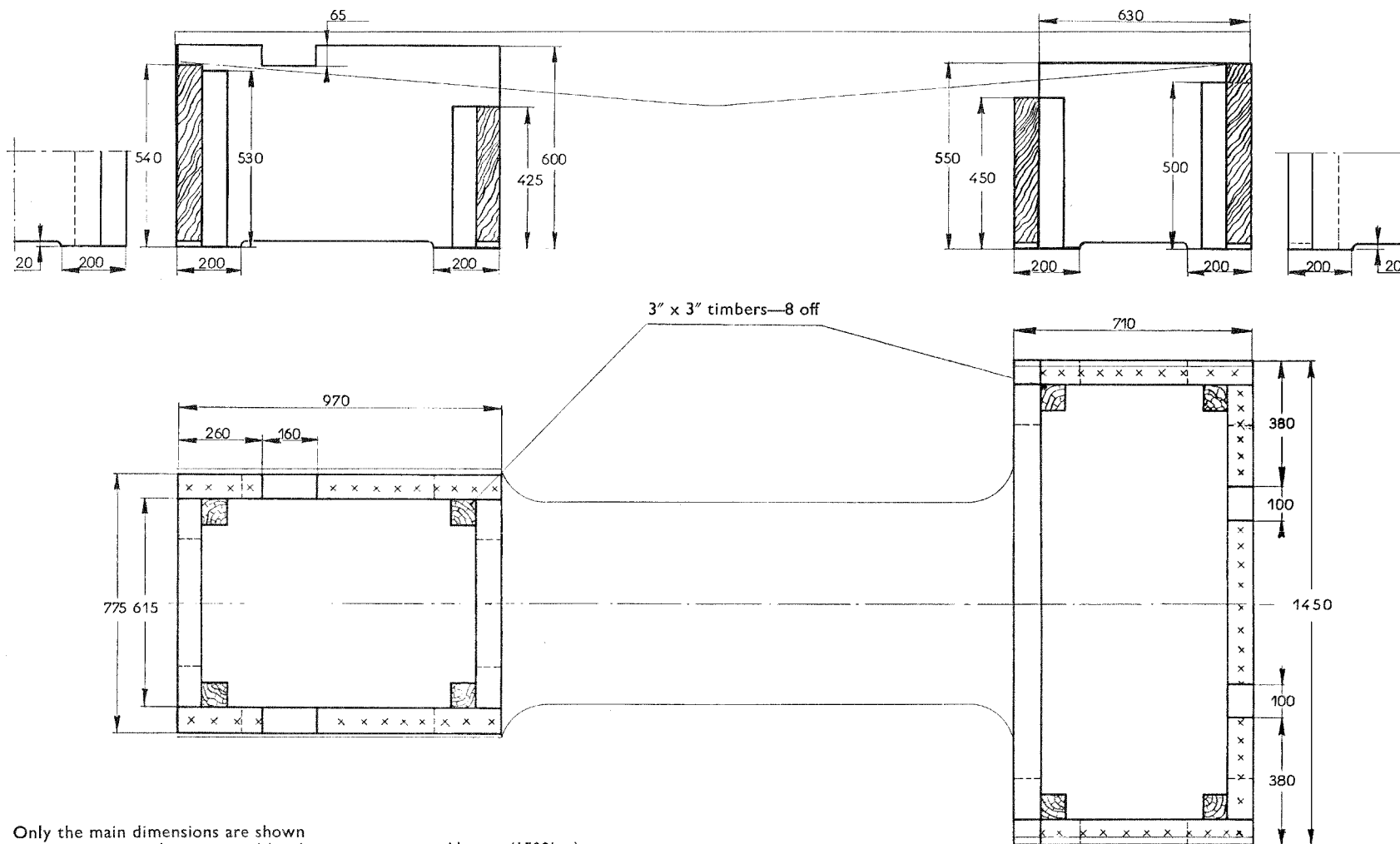


SETTING UP THE JIG BASE

TO ALLOW WORKING IN SATISFACTORY
CONDITIONS, WE RECOMMEND THAT
THE JIG BASE SHOULD BE SET
AT A HEIGHT OF 25 in. (640mm)
THE SUPPORTS WILL BE MADE
OF WOOD OR BRICKWORK
FOR MANUFACTURING DIMENSIONS,
CONSULT OUR REPAIR-METHODS
SERVICE



WOODEN SUPPORTS FOR JIG BASE



Only the main dimensions are shown

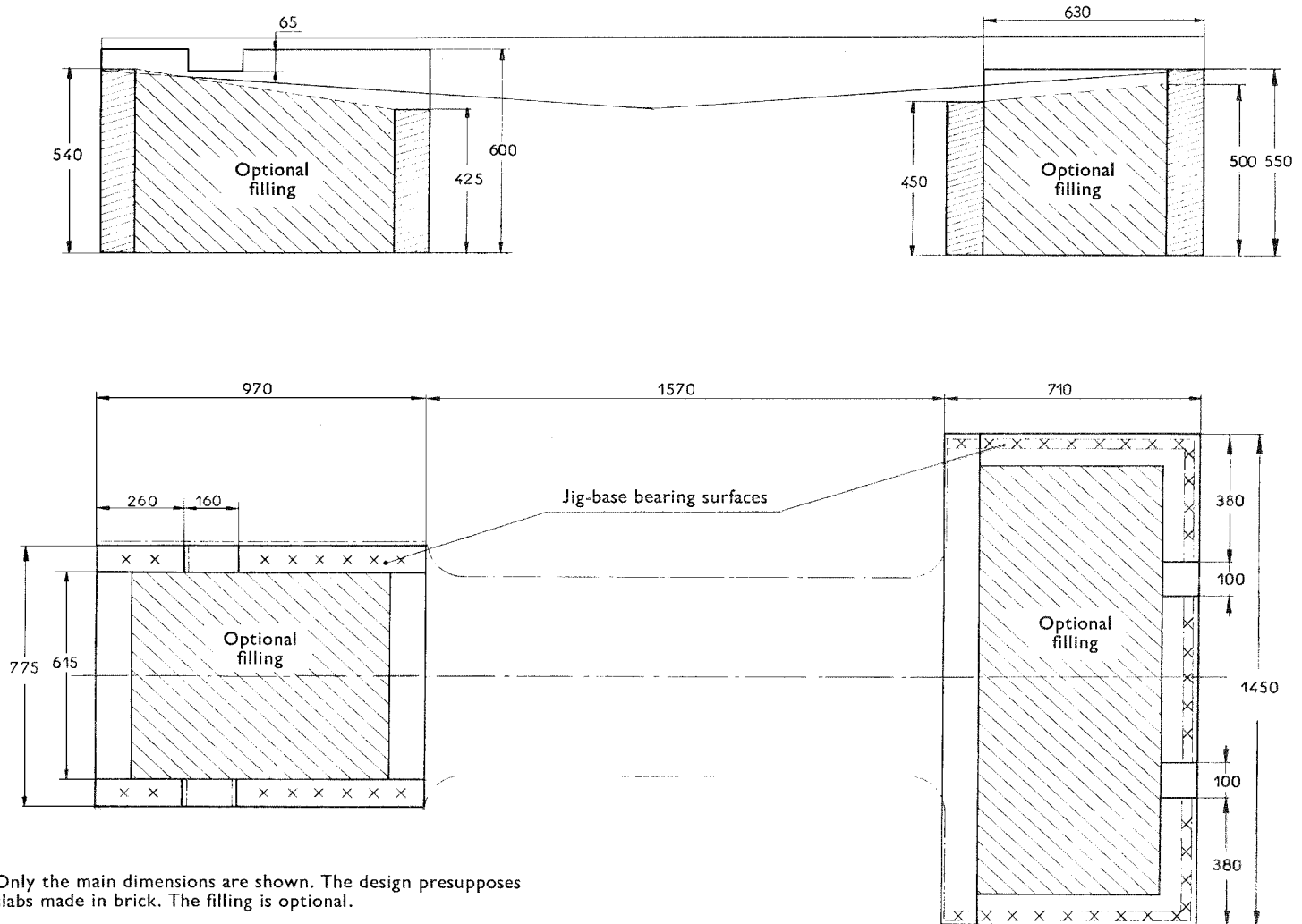
Approximate weight supported by the two structures $1\frac{1}{2}$ tons (1500kg.)

Bearing surface of jig base shown by lines x x x

Nailed together, not mortised or tenoned.

BRICKWORK SUPPORTS FOR JIG BASE

PL. 7B



BODYWORK
USING THE JIG BASE

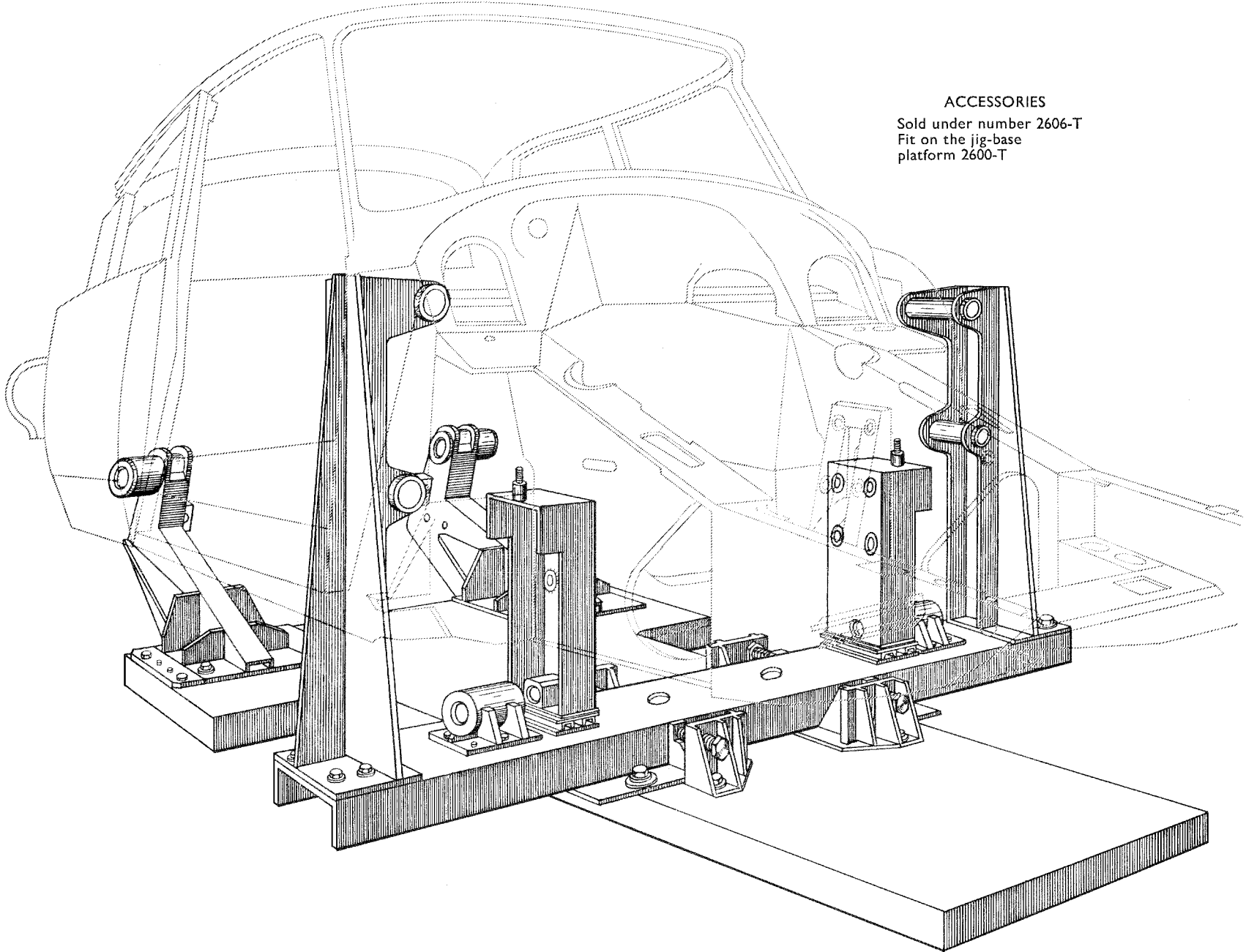
UP TO JANUARY 1960

ID 19 - DS 19

PL. 8

ACCESSORIES

Sold under number 2606-T
Fit on the jig-base
platform 2600-T

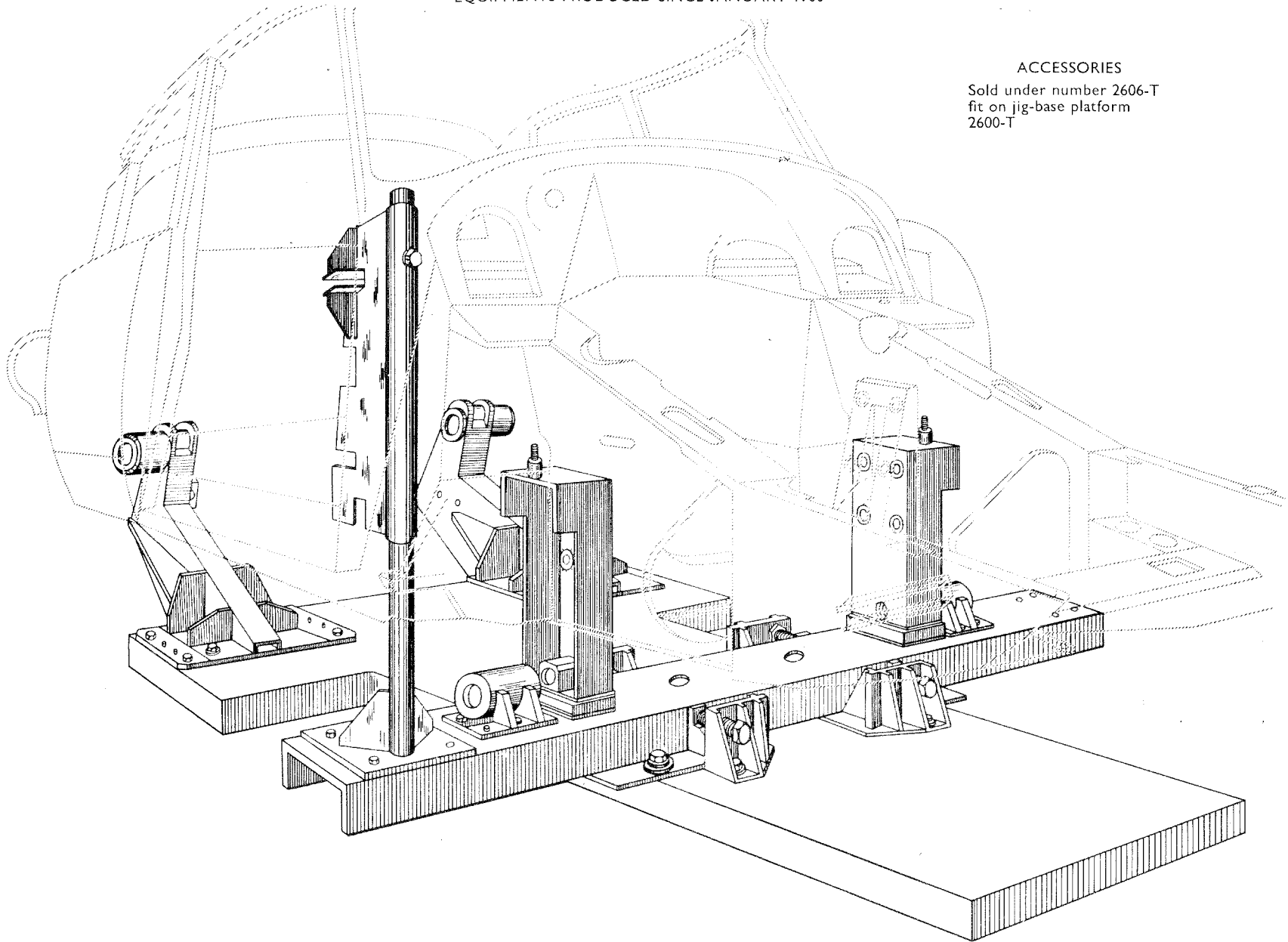


USING THE JIG BASE

EQUIPMENTS PRODUCED SINCE JANUARY 1960

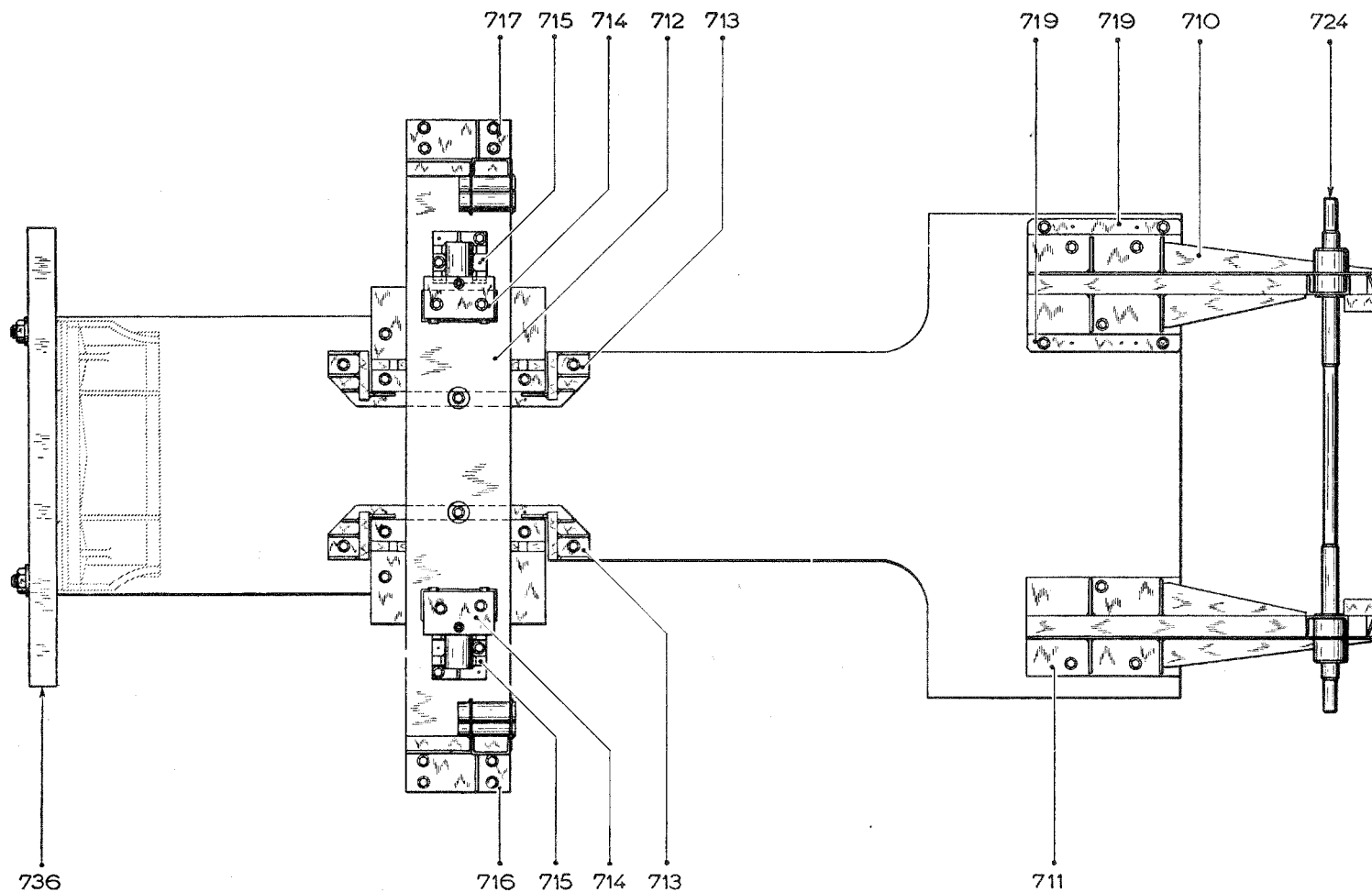
ACCESSORIES

Sold under number 2606-T
fit on jig-base platform
2600-T



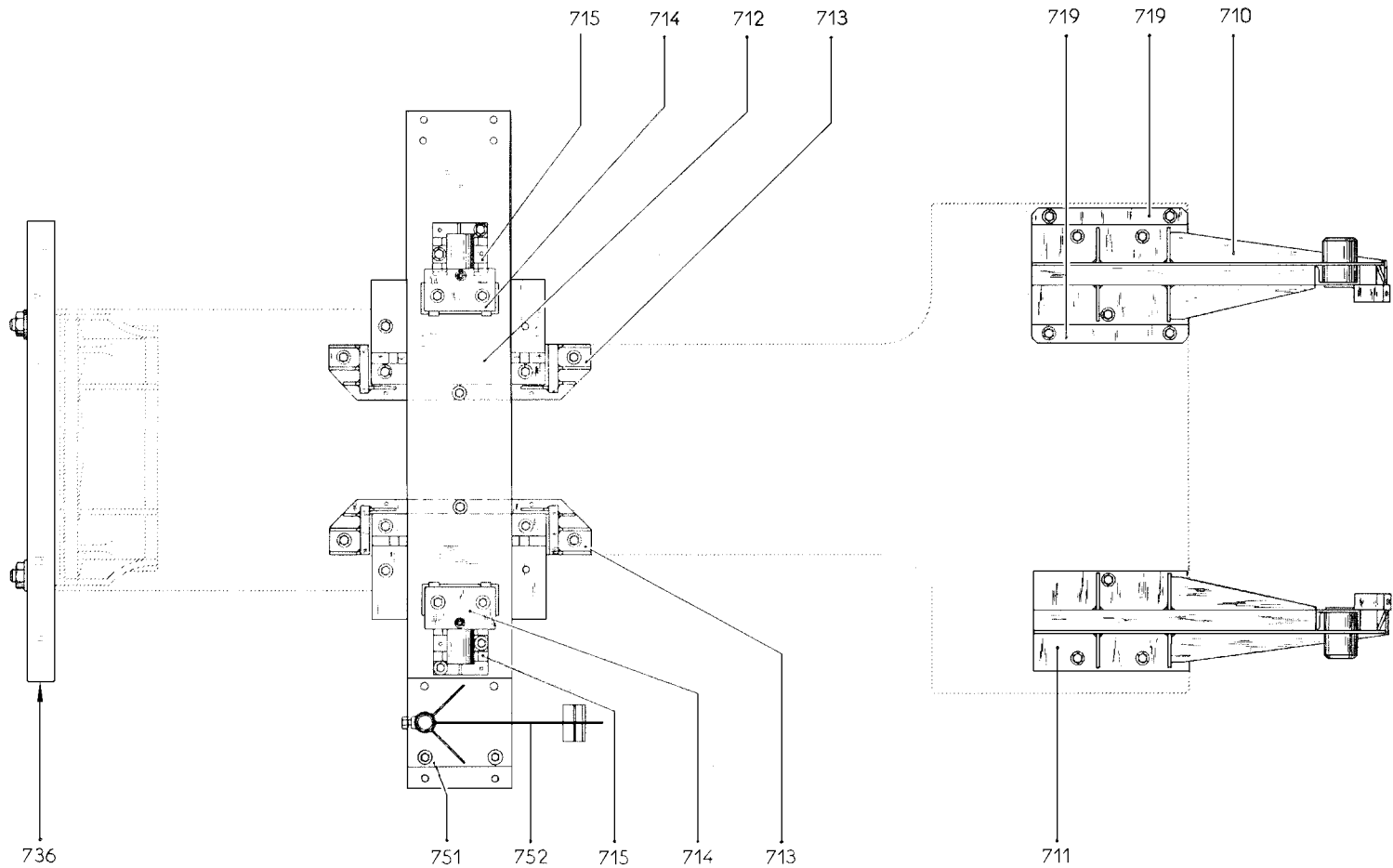
POSITION OF THE SUPPORTS

EQUIPMENTS PRODUCED UP TO JANUARY 1960



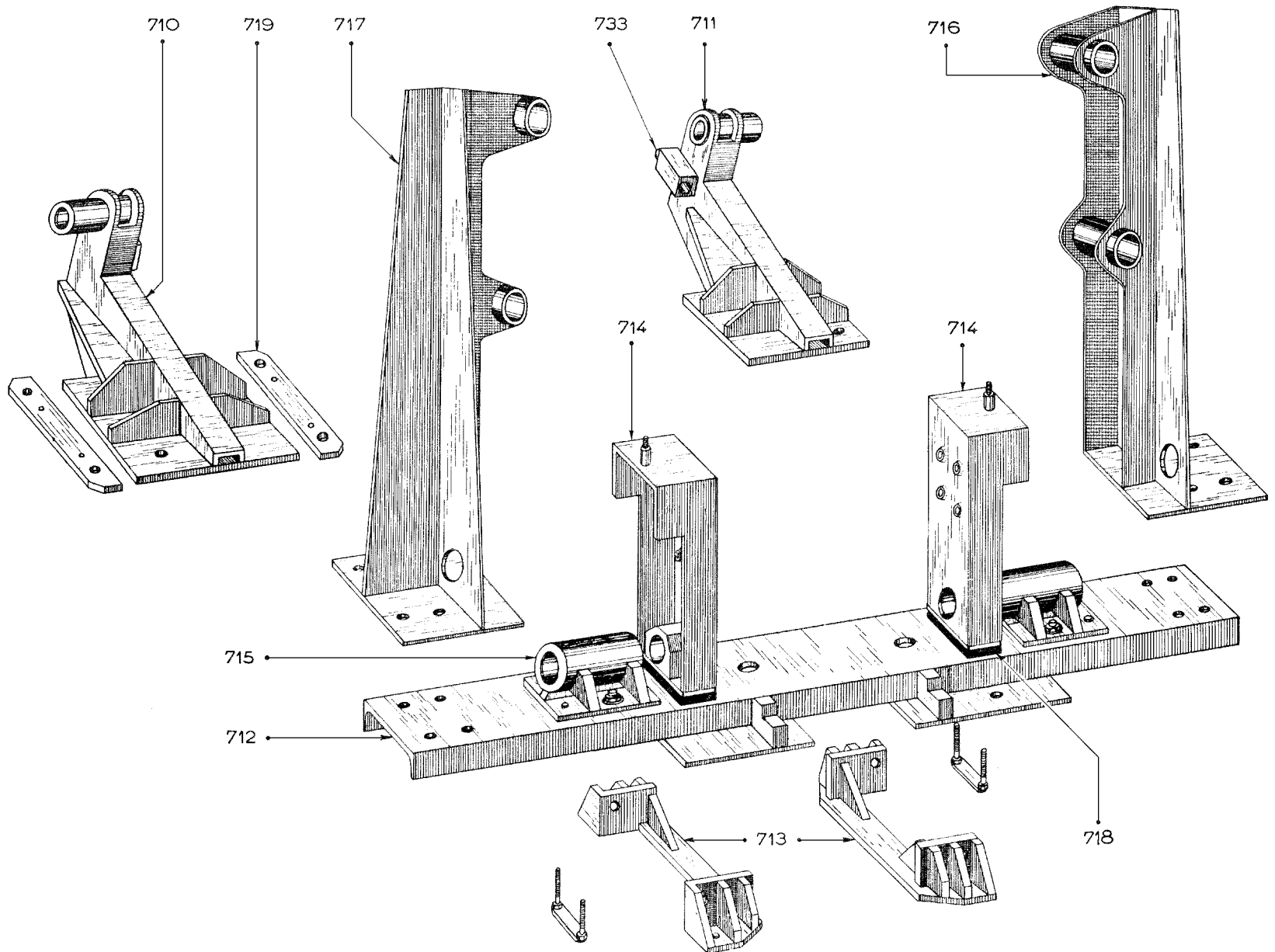
POSITION OF THE SUPPORTS

EQUIPMENTS PRODUCED SINCE JANUARY 1960



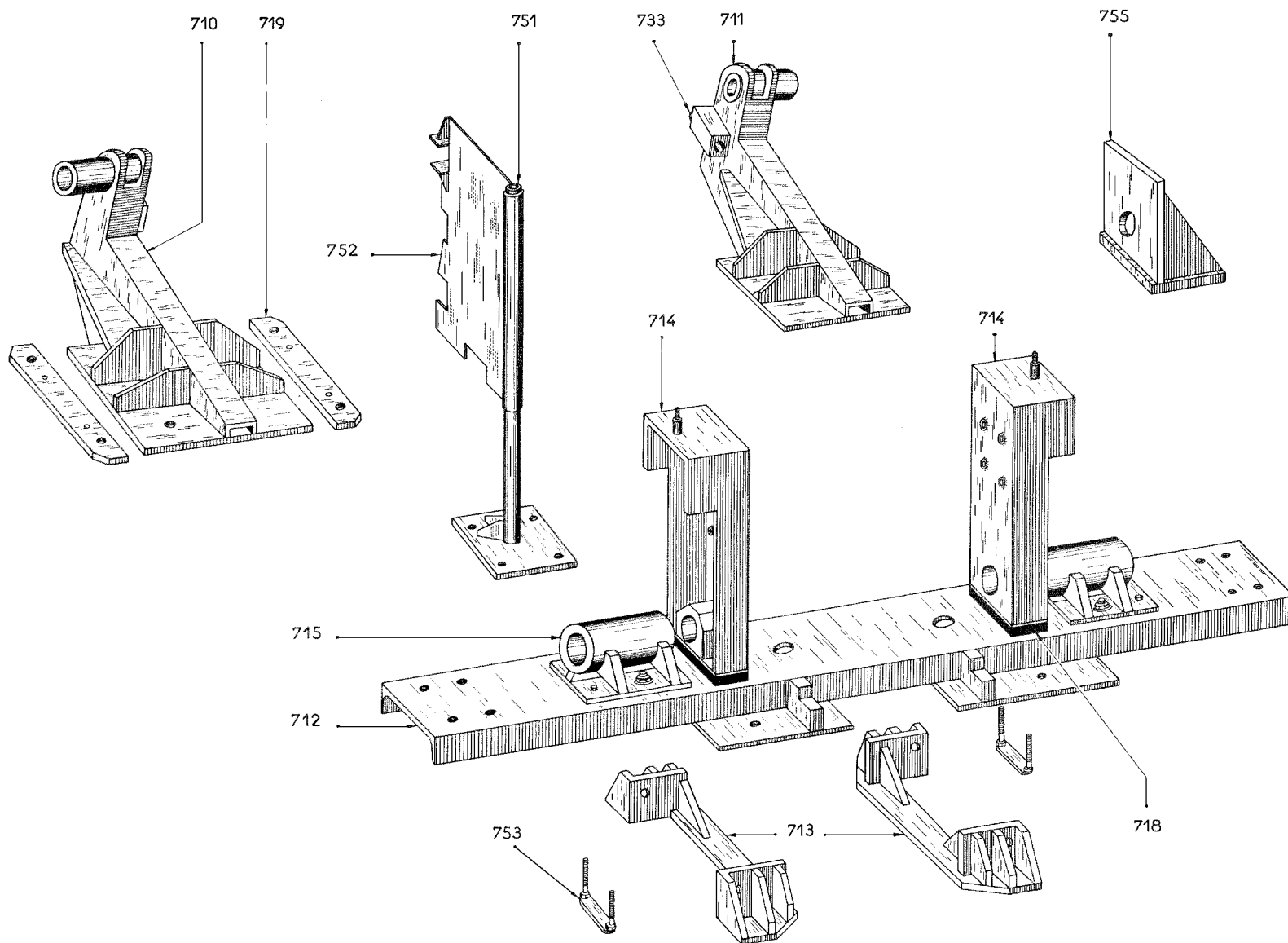
JIG-BASE ACCESSORIES

EQUIPMENTS PRODUCED UP TO JANUARY 1960



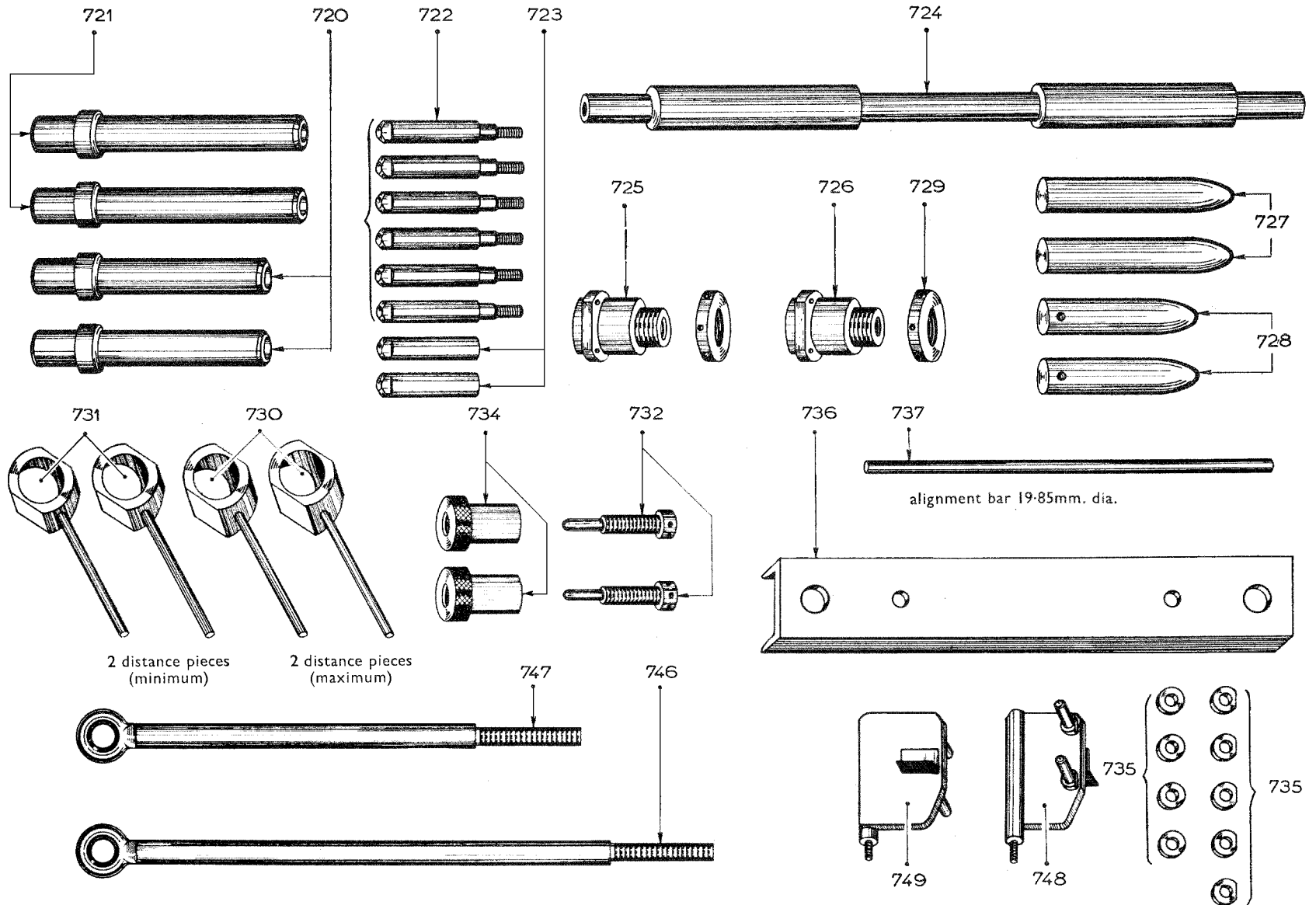
JIG-BASE ACCESSORIES

EQUIPMENTS PRODUCED SINCE JANUARY 1960



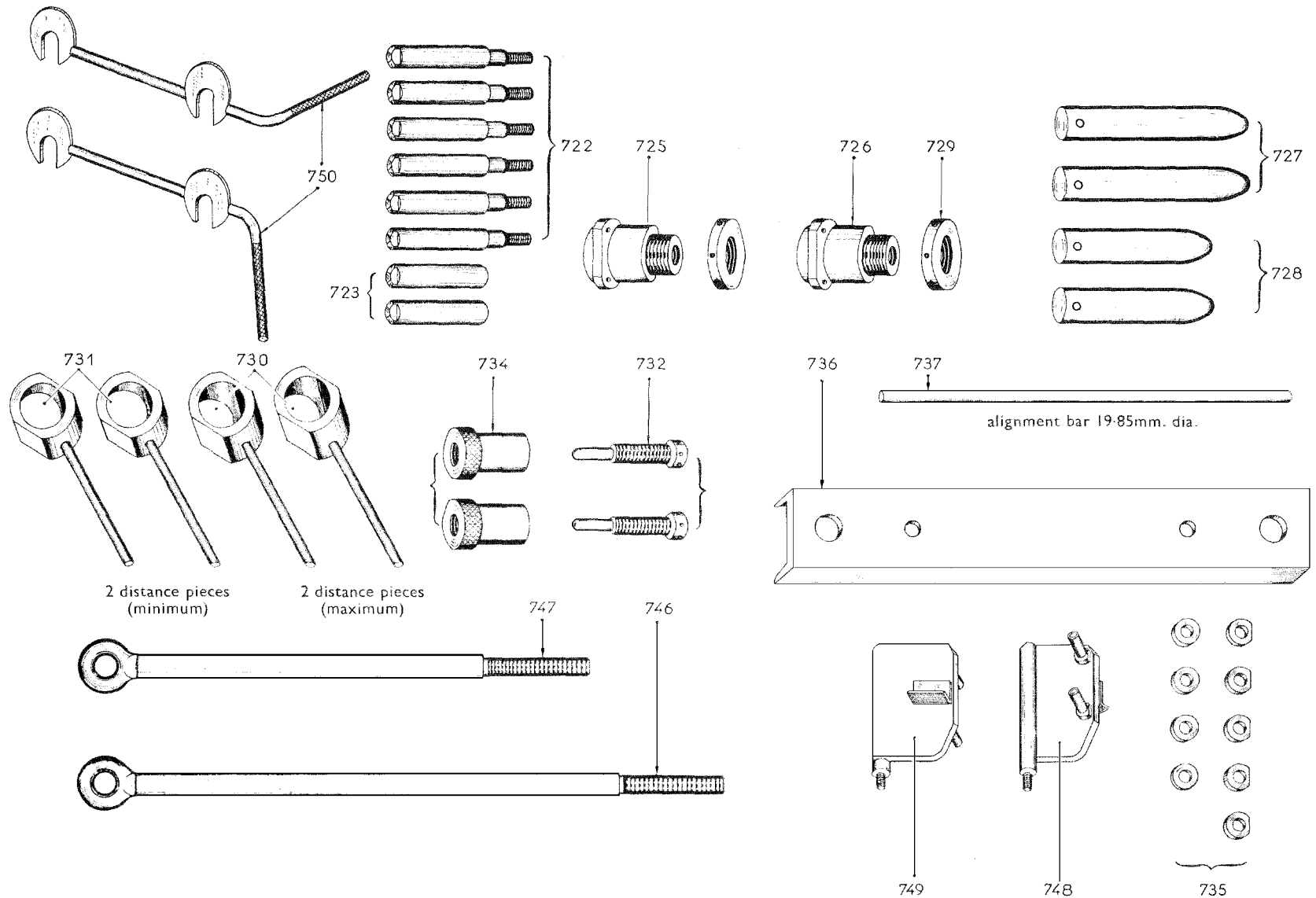
JIG-BASE ACCESSORIES

EQUIPMENTS PRODUCED UP TO JANUARY 1960



JIG-BASE ACCESSORIES

EQUIPMENTS PRODUCED SINCE JANUARY 1960



D 620-C

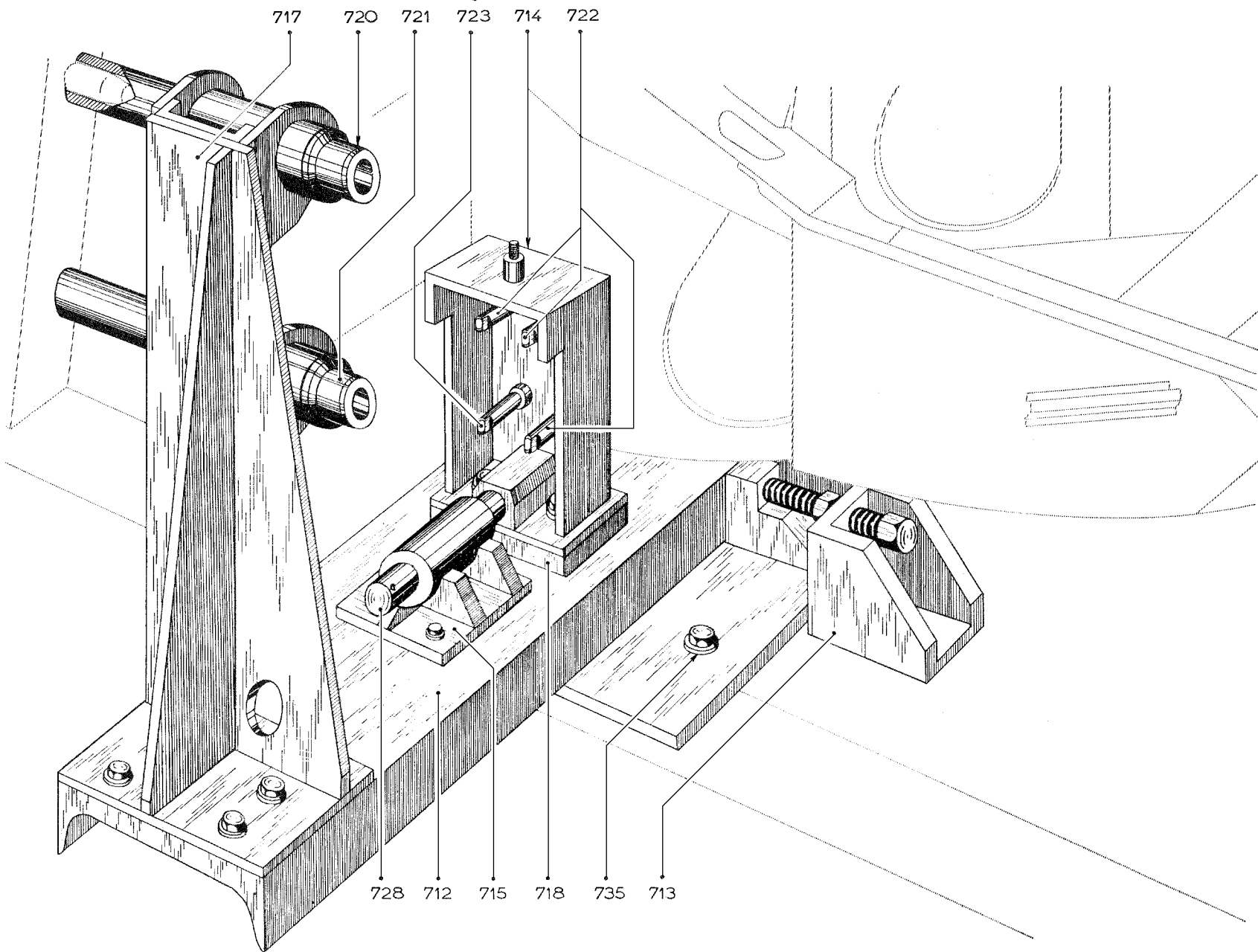
D 620-D

D 741-3a

VIEW OF PINNING OF FRONT OF BODY

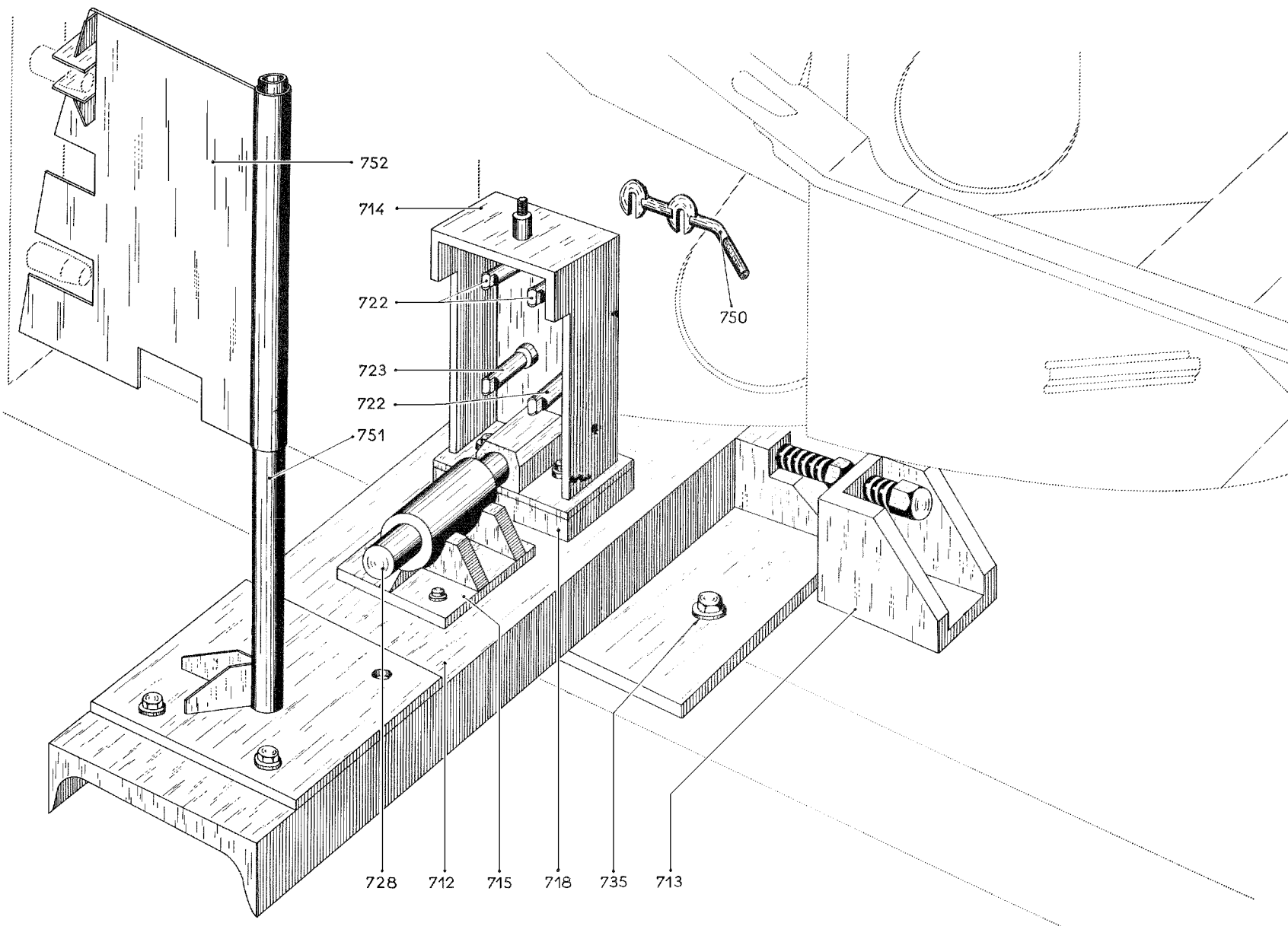
PL. 12

EQUIPMENTS PRODUCED UP TO JANUARY 1960

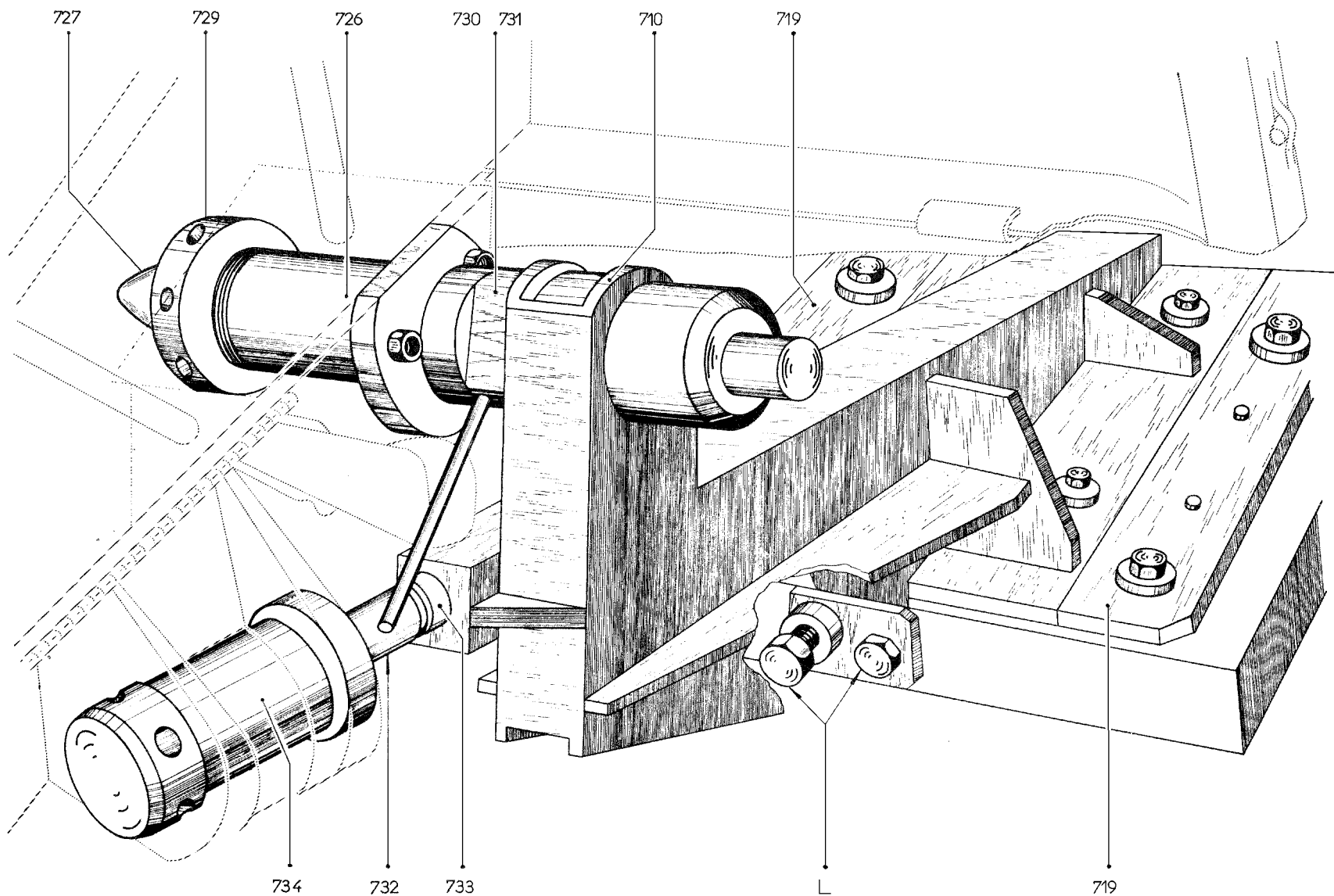


VIEW OF PINNING OF FRONT OF BODY

EQUIPMENTS PRODUCED SINCE JANUARY 1960



VIEW OF PINNING OF REAR OF BODY



OPERATIONS

D 620 _C

D 620 _Ca

D 620 _D

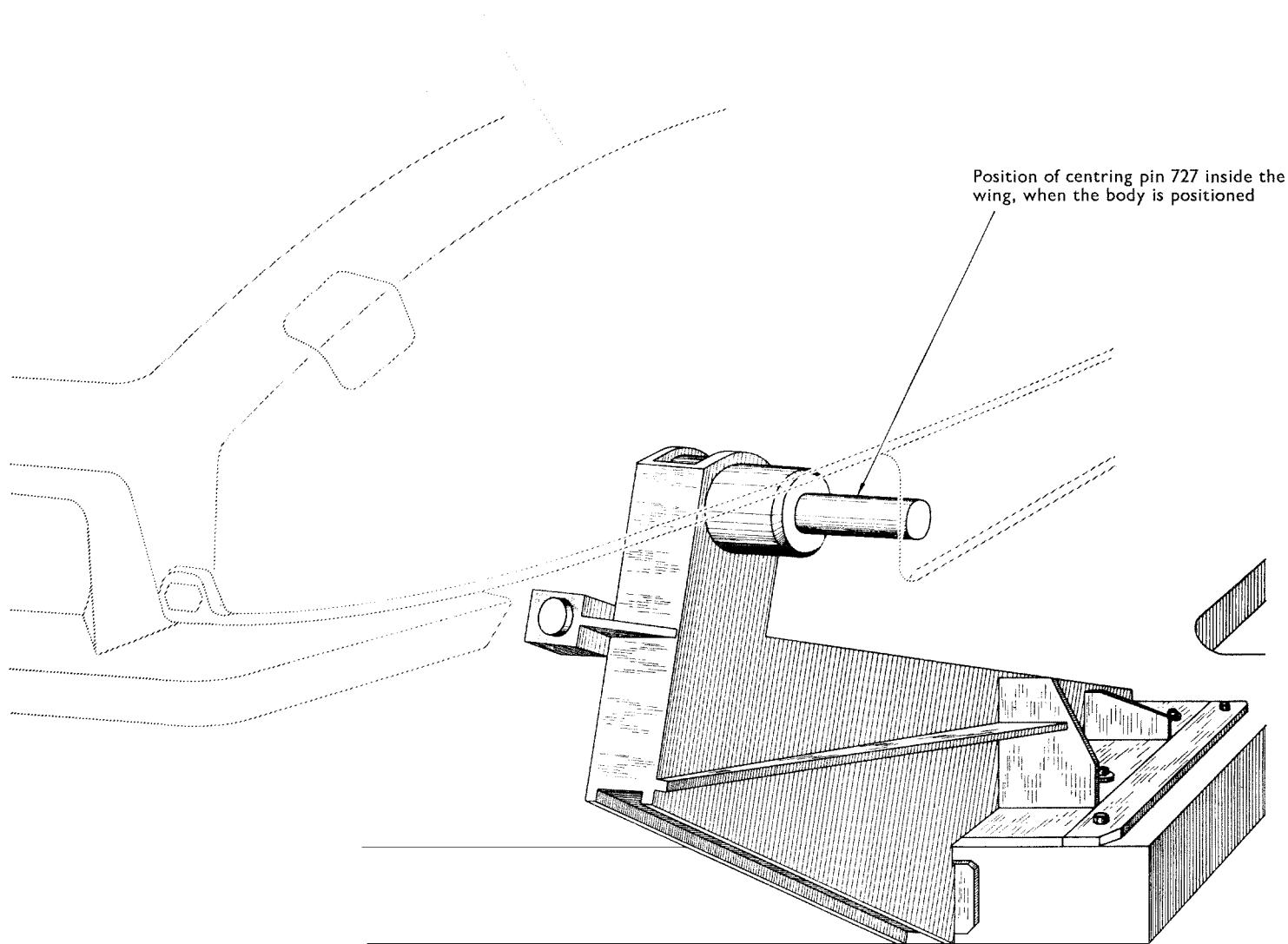
BODYWORK

ID19-DS19

PL. 13A

REAR PINNING OF THE BODY

CABRIOLET



MODIFICATION OF REAR BRACKETS

BREAK

FOR EQUIPMENTS PRODUCED UP TO JANUARY 1960

Fig.1

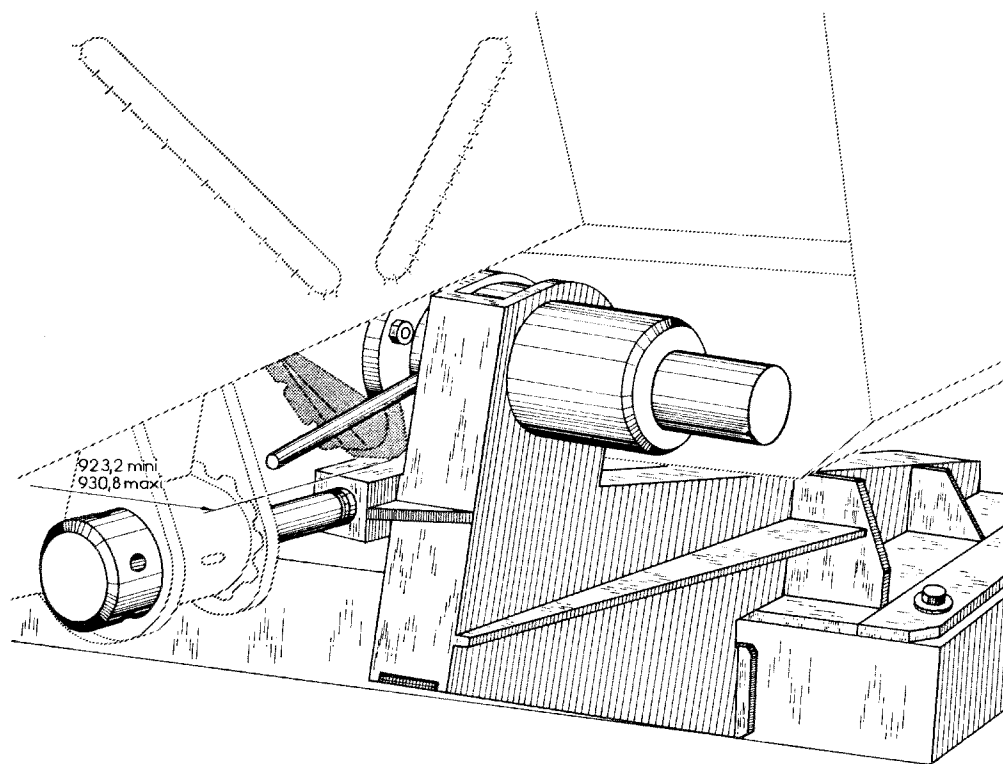
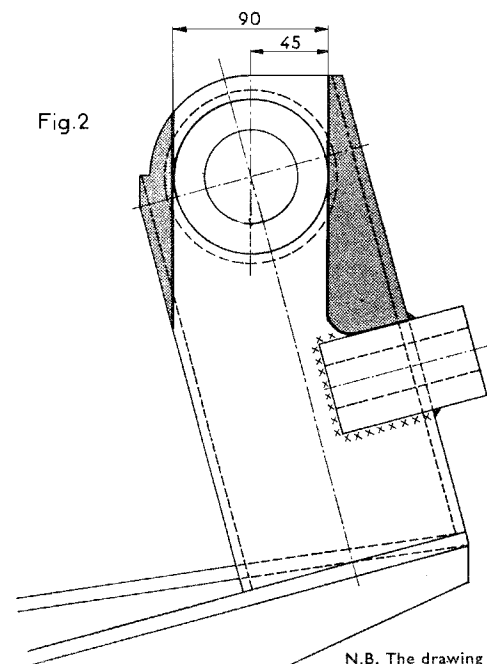
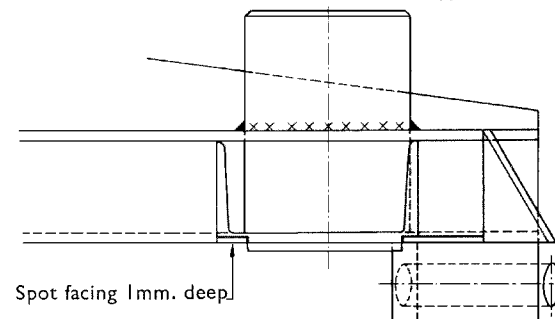


Fig.2



N.B. The drawing shows
the internal view of
the right-hand rear support.

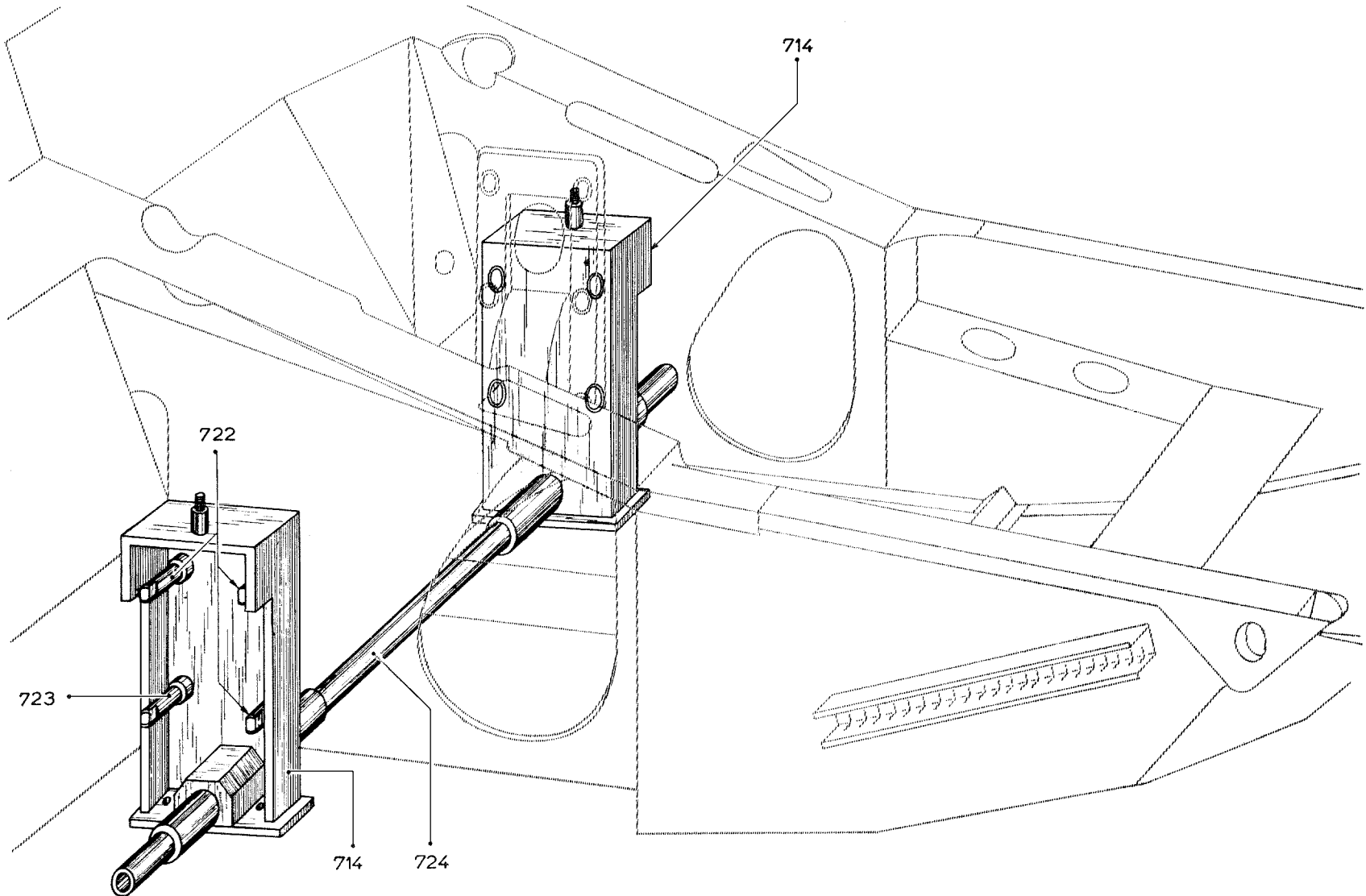
The same spot facing
must be carried out
symmetrically on the
left-hand rear
support.



Spot facing 1mm. deep

CHECKING THE FRONT OF A BODY

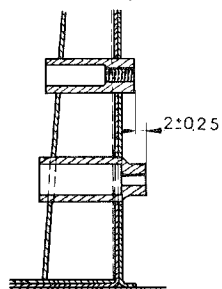
WITHOUT USING THE JIG BASE
EQUIPMENTS PRODUCED UP TO JANUARY 1960



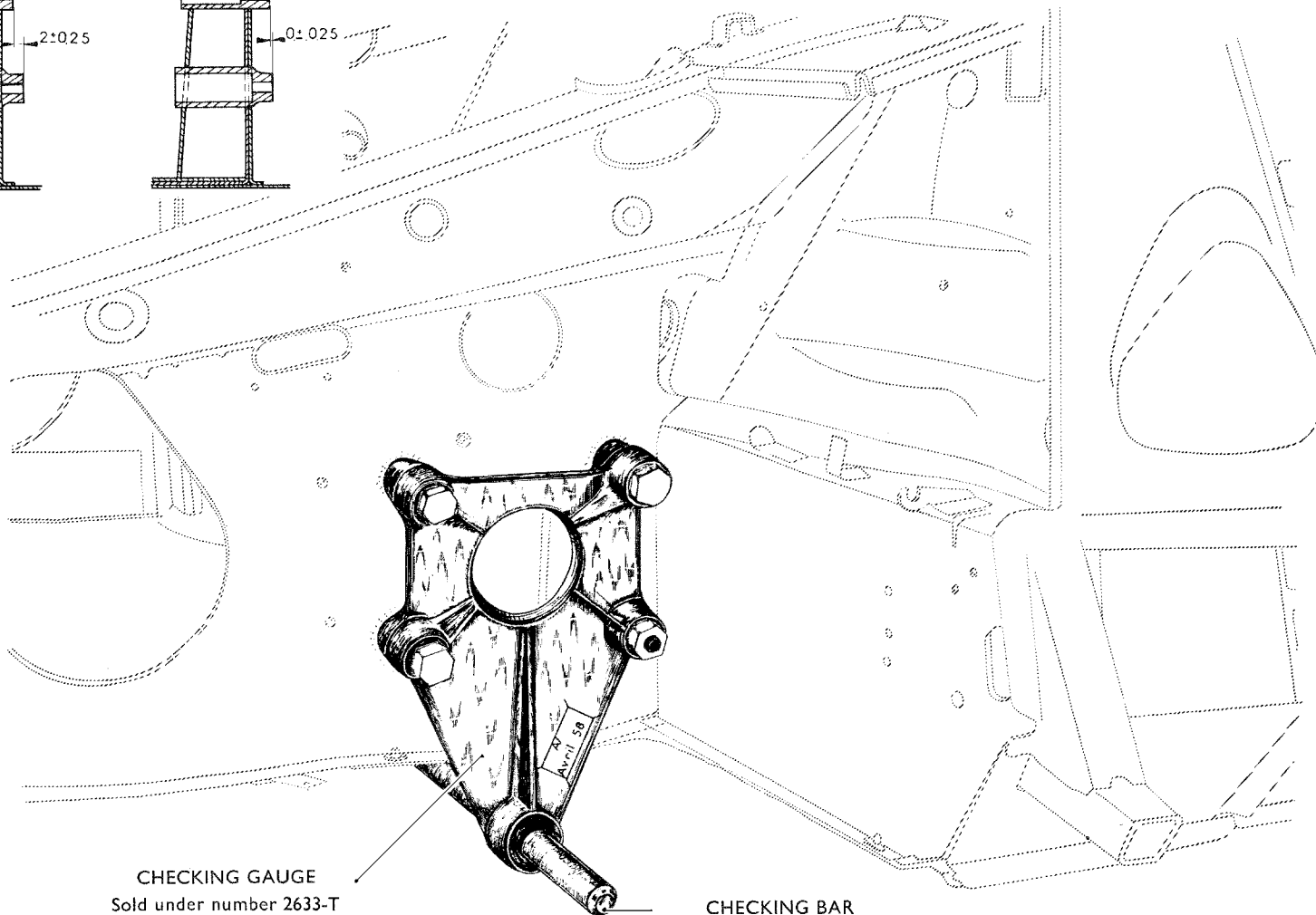
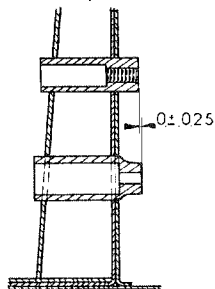
CHECKING FRONT OF A BODY WITHOUT USING JIG BASE

POSITION OF THE BOSSES

Before April 58



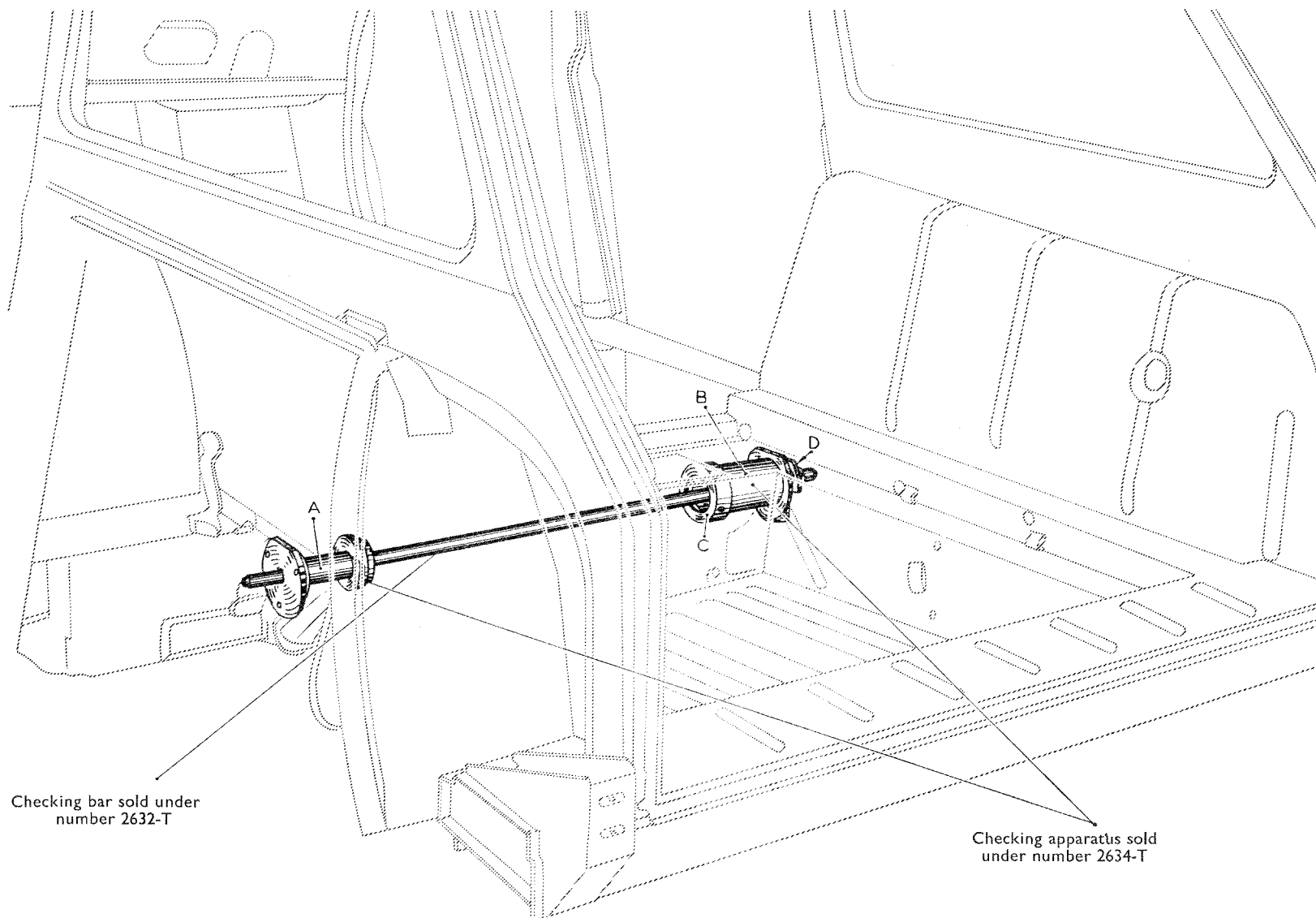
Since April 58



CHECKING GAUGE
Sold under number 2633-T

CHECKING BAR
Sold under number 2632-T

CHECKING REAR OF A BODY WITHOUT USING JIG BASE



D 620-A

D 620-D

D 741-1

D 741-1a

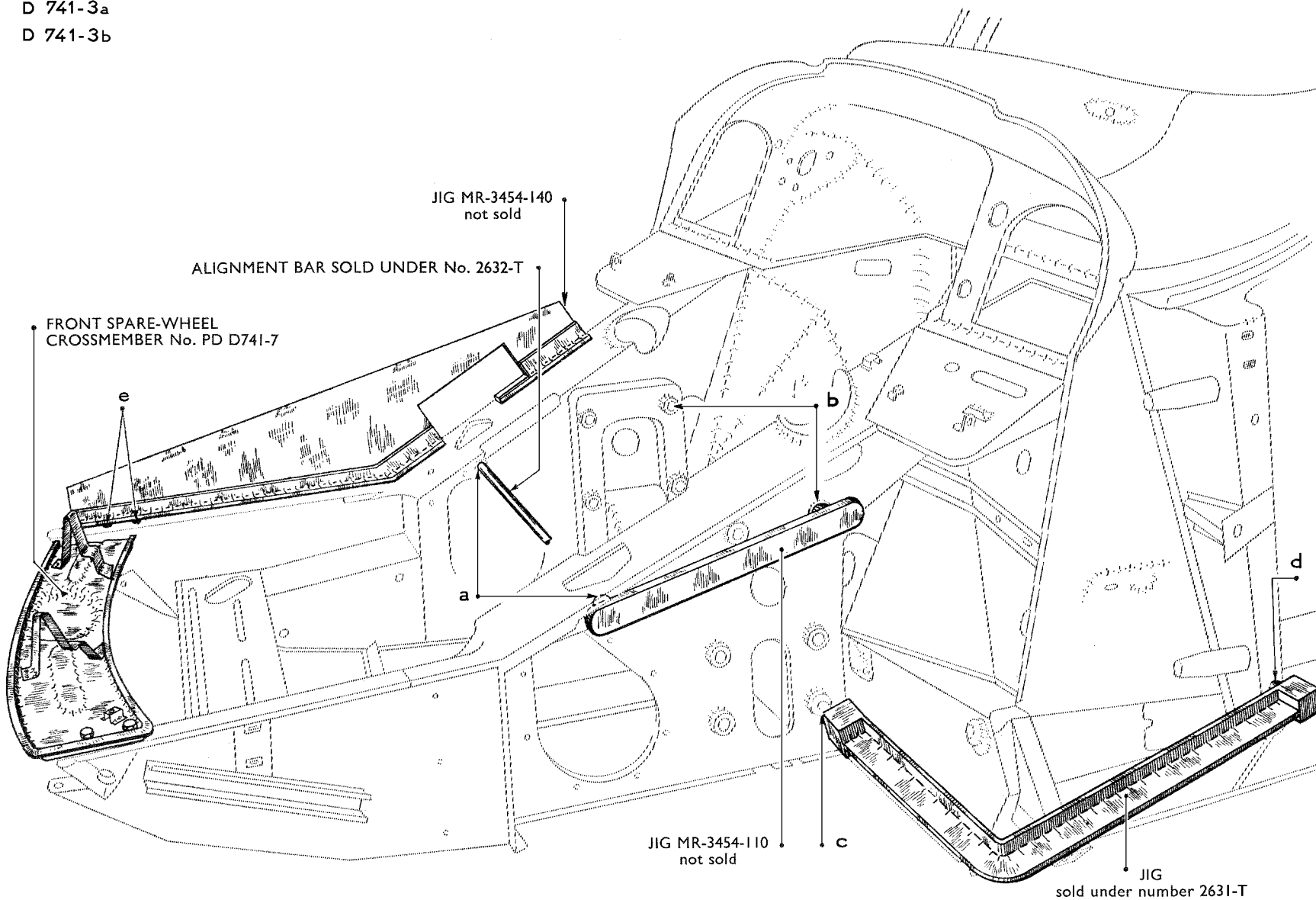
D 741-3a

D 741-3b

CHECKING A FRONT UNIT AND A FRONT CAISSON UNIT

UP TO SEPTEMBER 1962

PL. 15



RAPID CHECK WITHOUT DISMANTLING

CHECKING THE CAMBER

Fig. 1 USING THE CHECKING APPARATUS

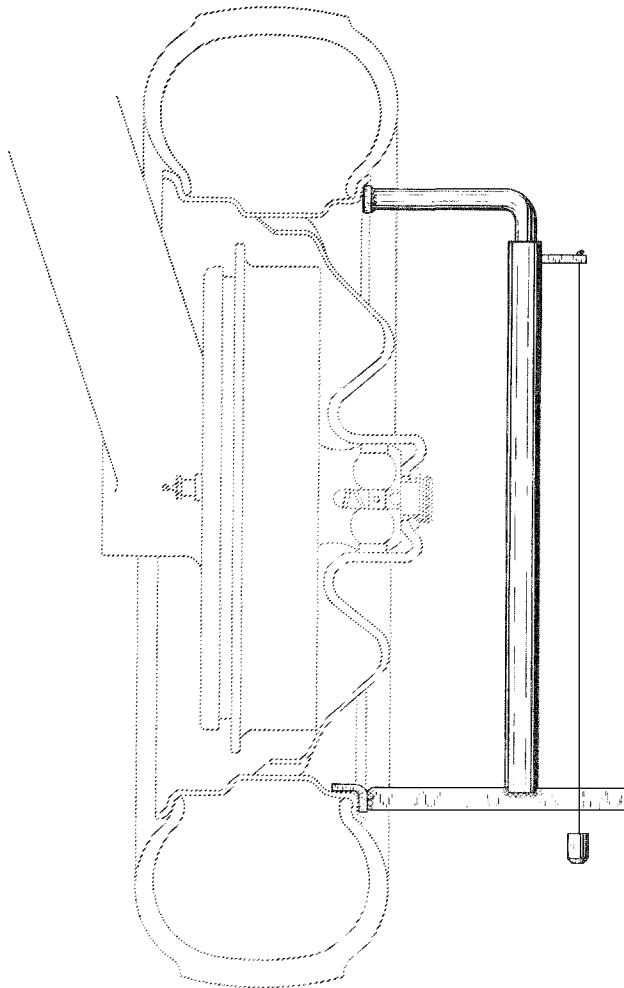
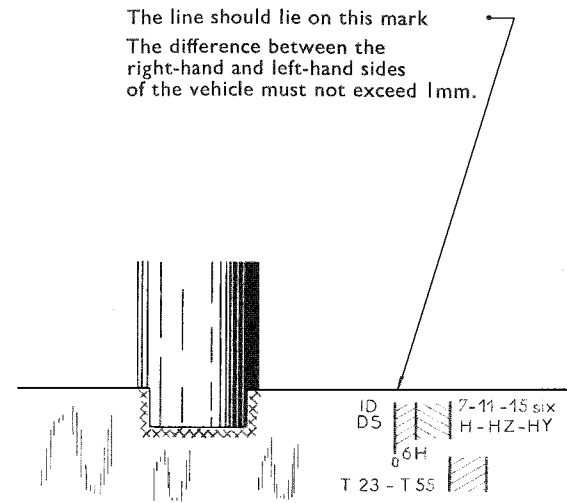


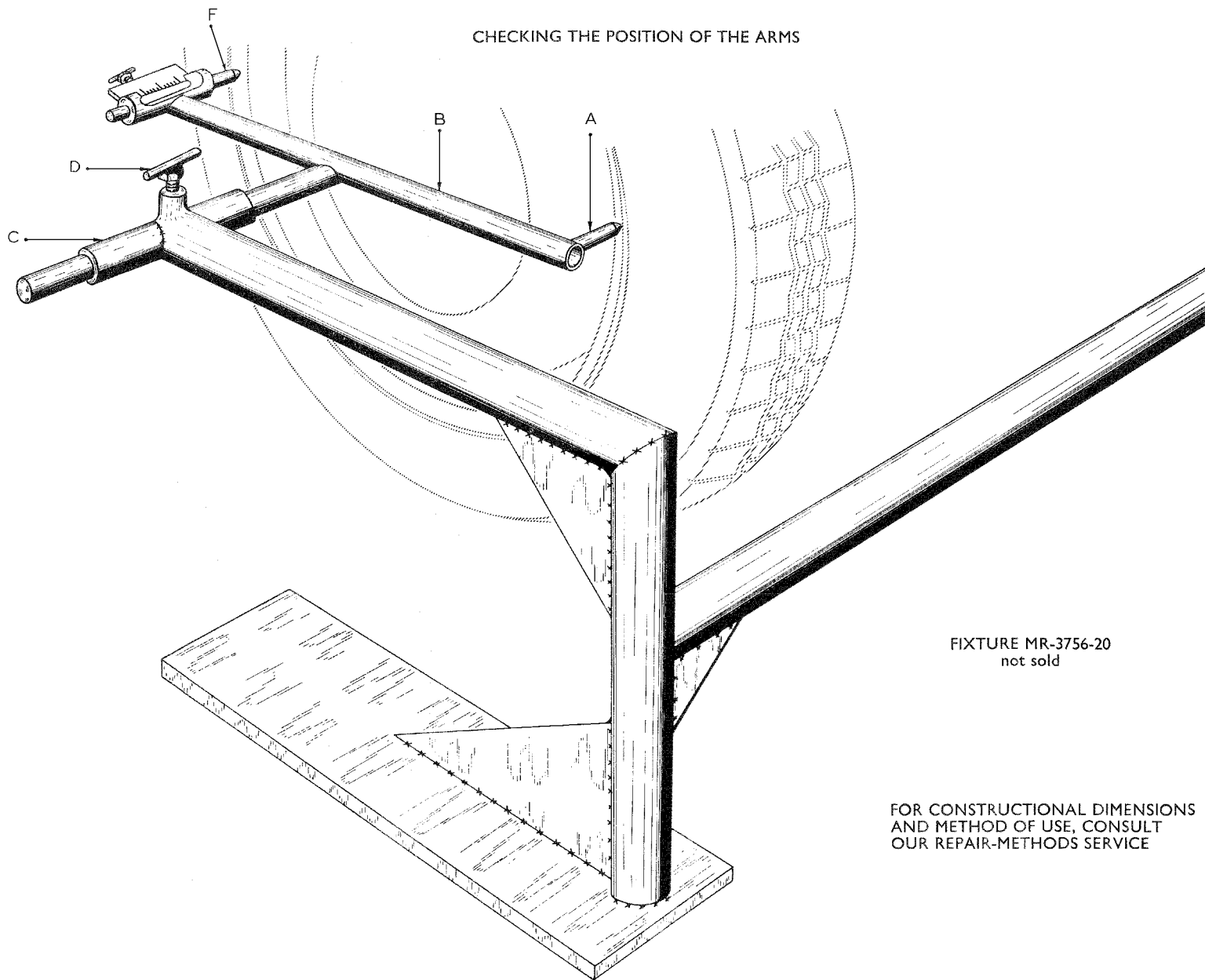
Fig. 2 DETAIL OF THE GRADUATION



CHECKING APPARATUS
sold under number 2314-T

RAPID CHECK WITHOUT DISMANTLING

CHECKING THE POSITION OF THE ARMS



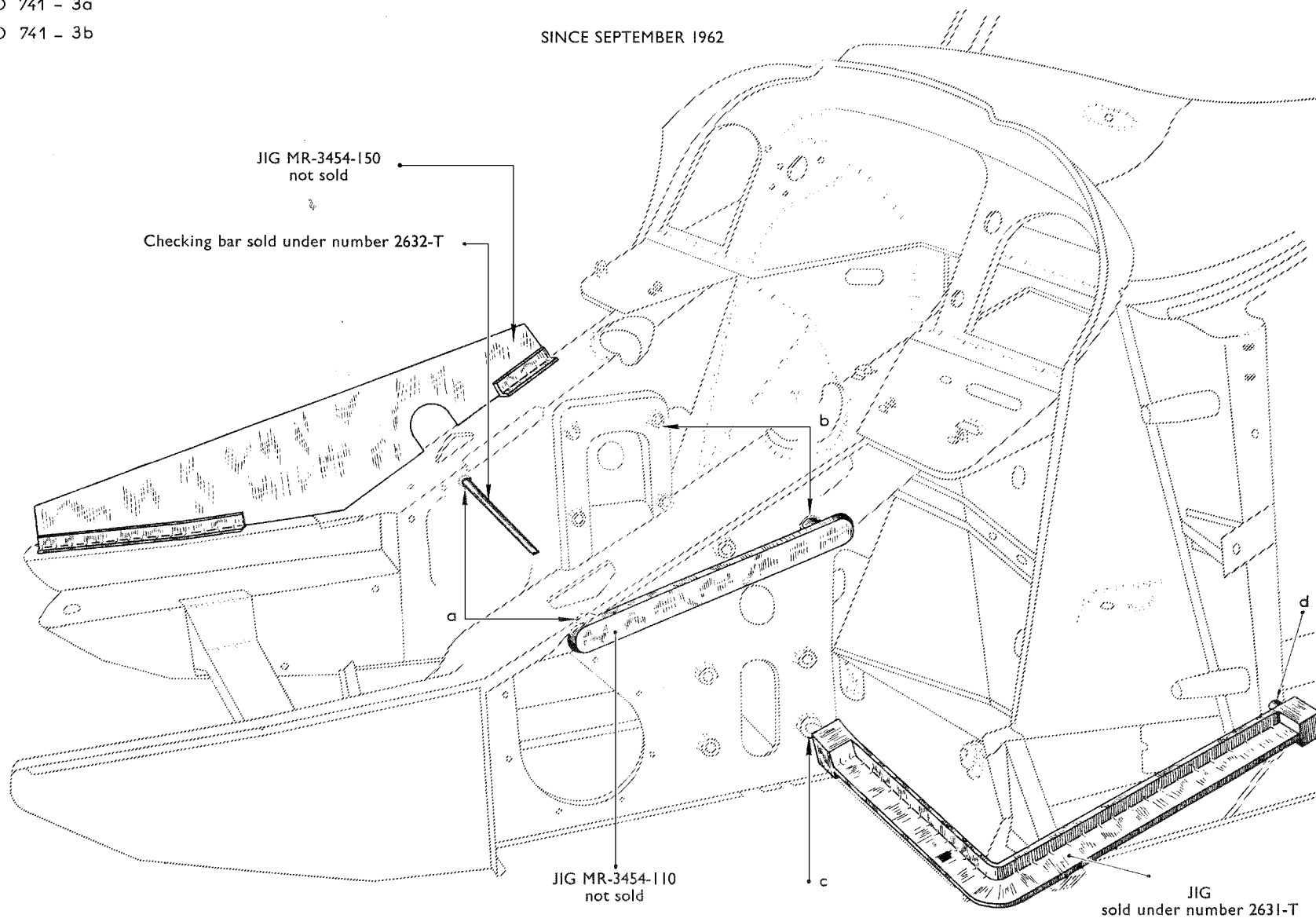
FIXTURE MR-3756-20
not sold

FOR CONSTRUCTIONAL DIMENSIONS
AND METHOD OF USE, CONSULT
OUR REPAIR-METHODS SERVICE

- D 620 - A
- D 620 - D
- D 741 - 1
- D 741 - 1a
- D 741 - 3a
- D 741 - 3b

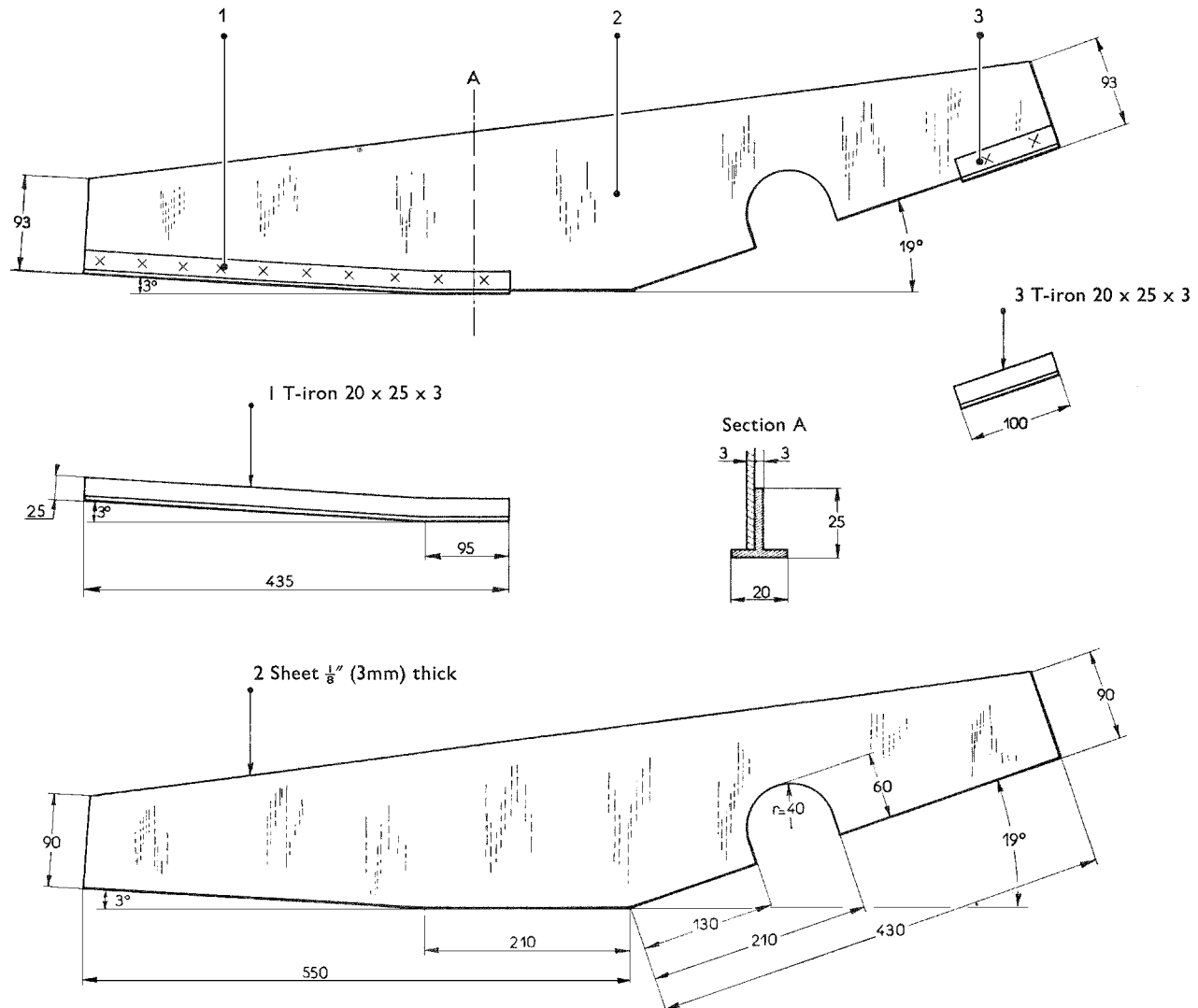
CHECKING A FRONT UNIT AND A FRONT CAISSON UNIT

SINCE SEPTEMBER 1962

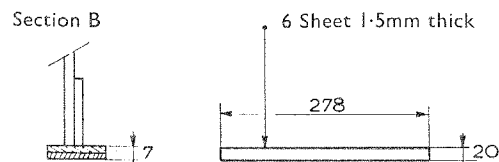
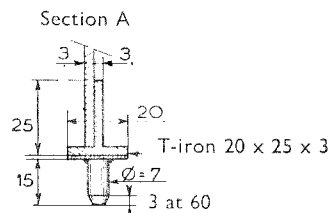
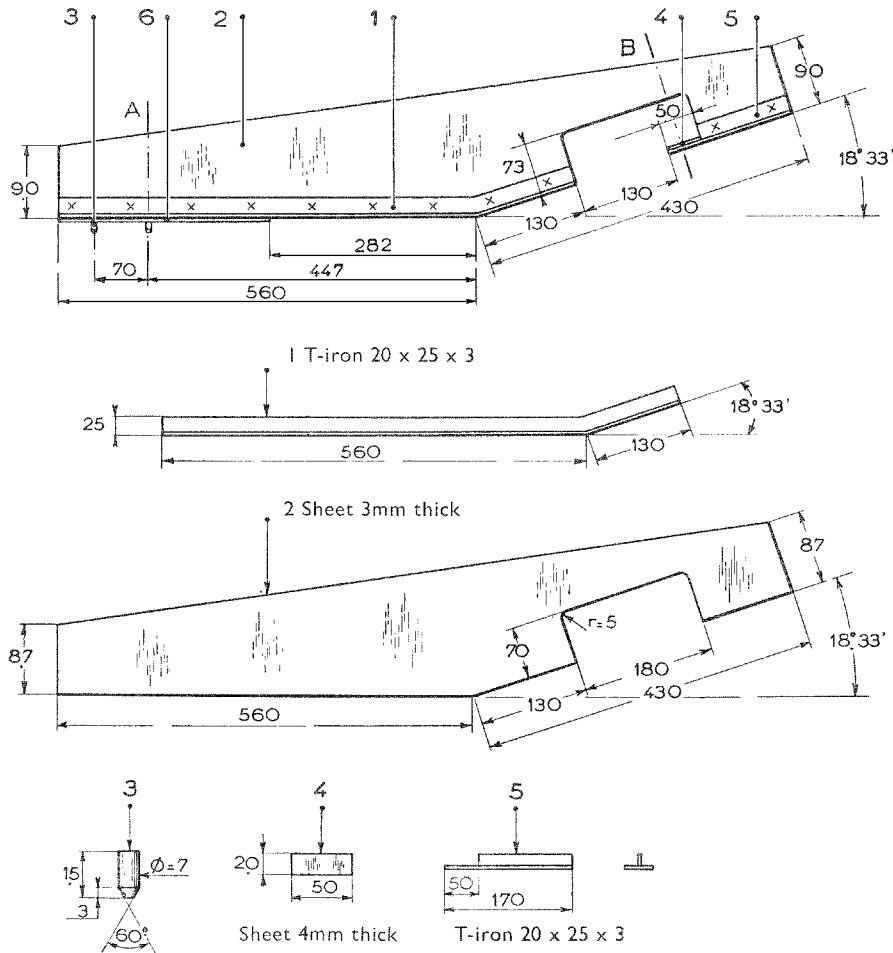
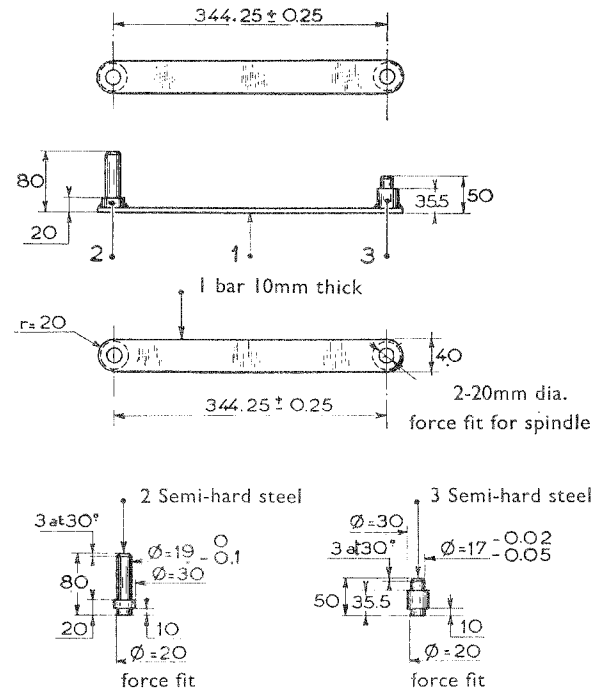
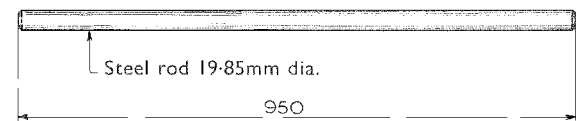


JIG FOR CHECKING FRONT CAISSON UNIT

SINCE SEPTEMBER 1962



JIG FOR FRONT BODY UNIT

Fig. 1 JIG MR-3454-140 (not sold)
up to September 1962Fig. 2 JIG MR-3454-110
not soldFig. 3 ALIGNMENT BAR FOR STEERING RELAY
sold under number 2632-T

D 741-2

D 741-3a

PL. 17

VARIOUS TOOLS

Fig. 1 FITTING THE REAR LOWER FIXING SCREWS OF A FRONT HALF-AXLE

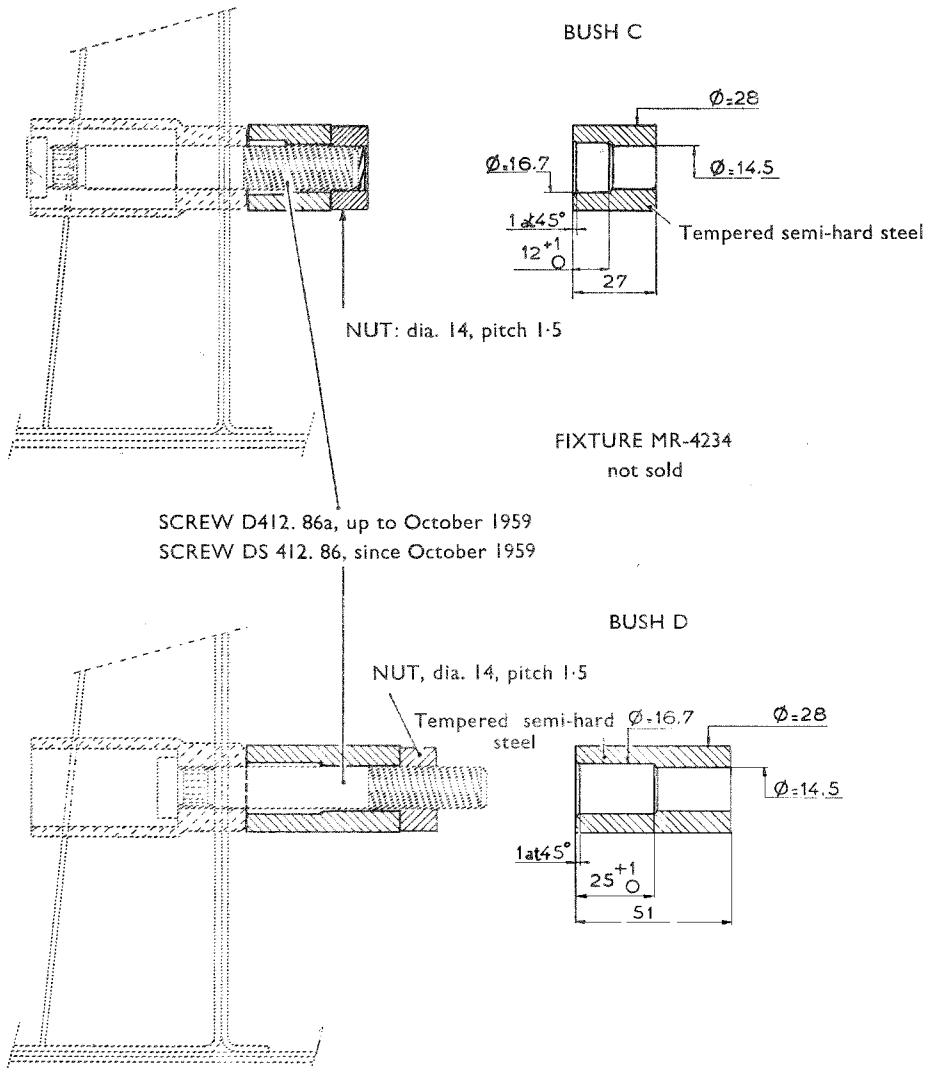
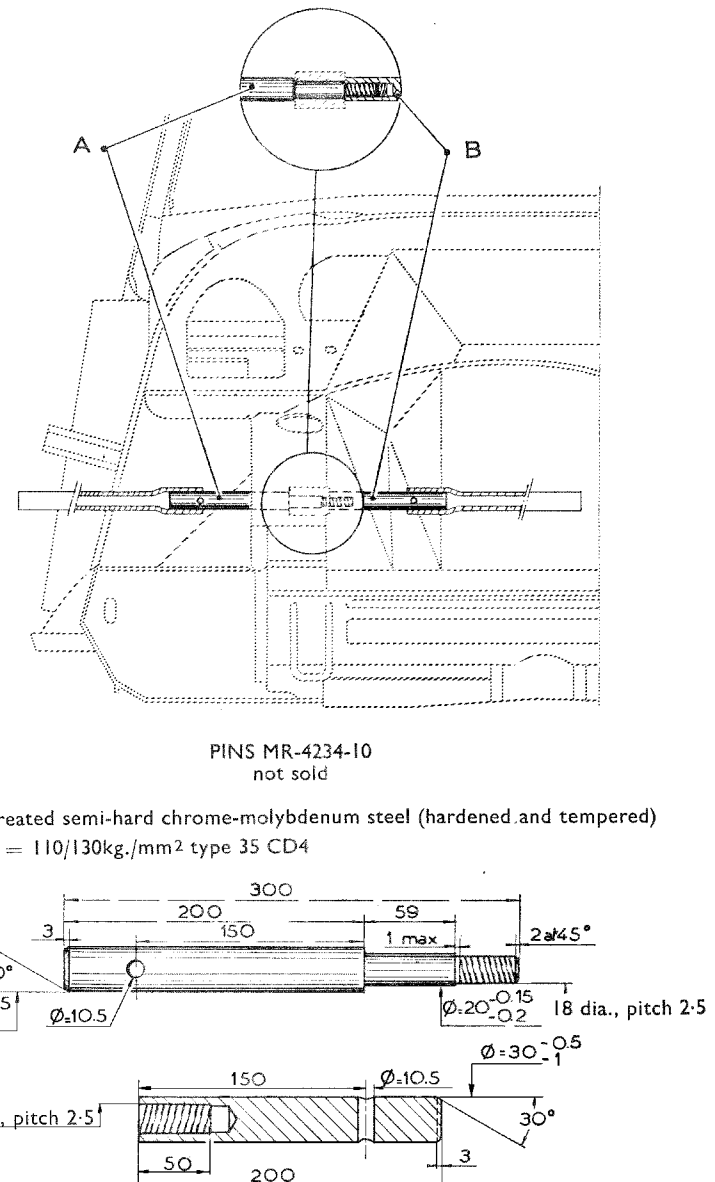


Fig. 2 STRAIGHTENING THE STEERING-RELAY BOSSES



REPLACING THE FIXING BOSSES OF THE FRONT-AXLE-ARM SUPPORTS

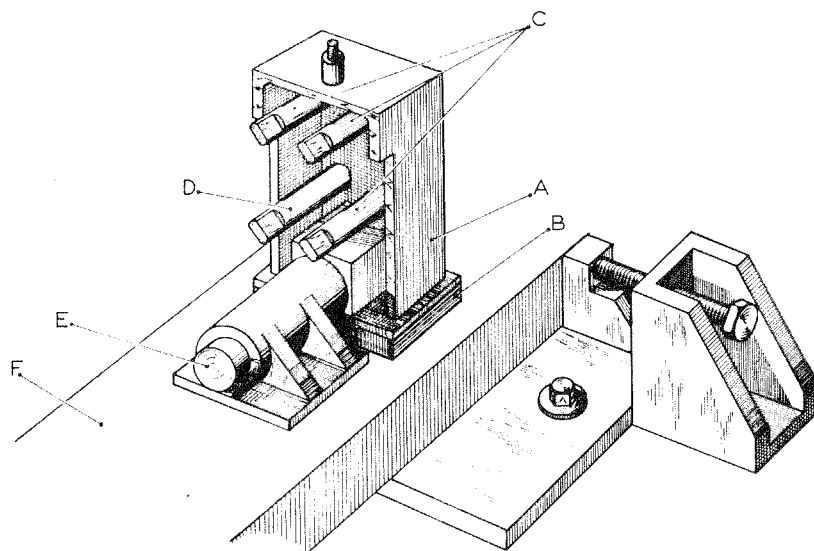


Fig. 1

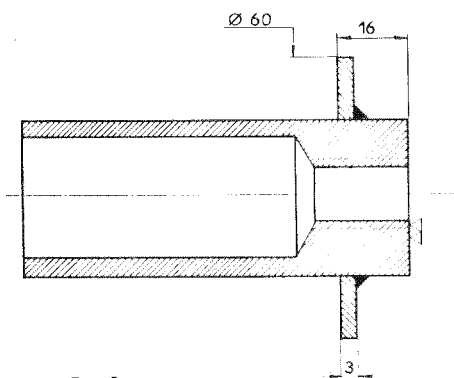


Fig. 3

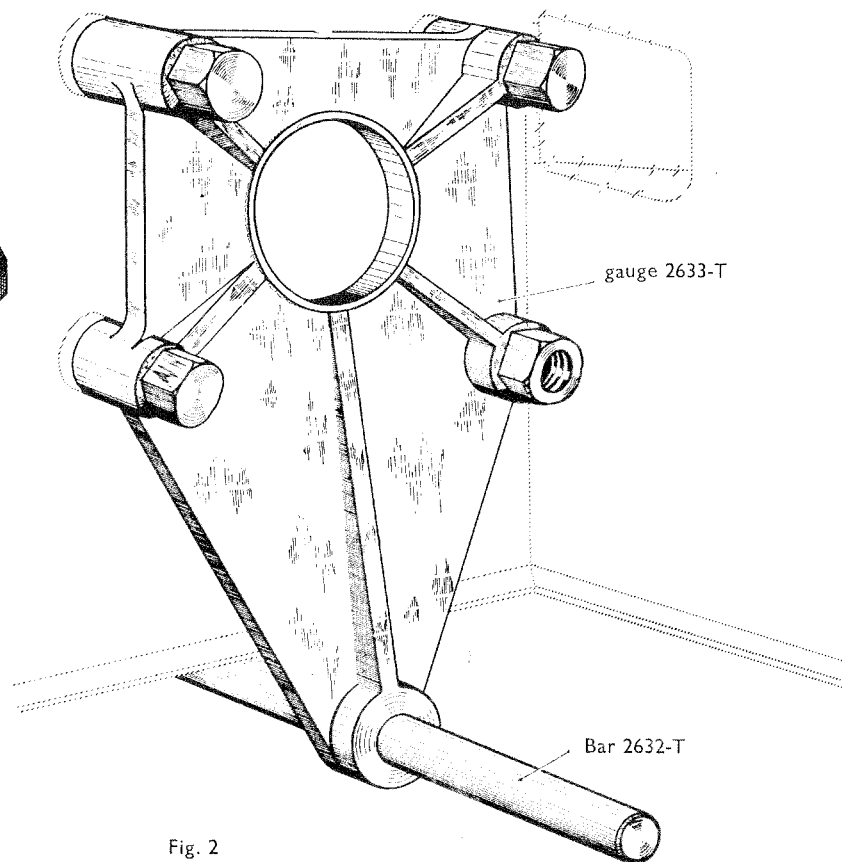
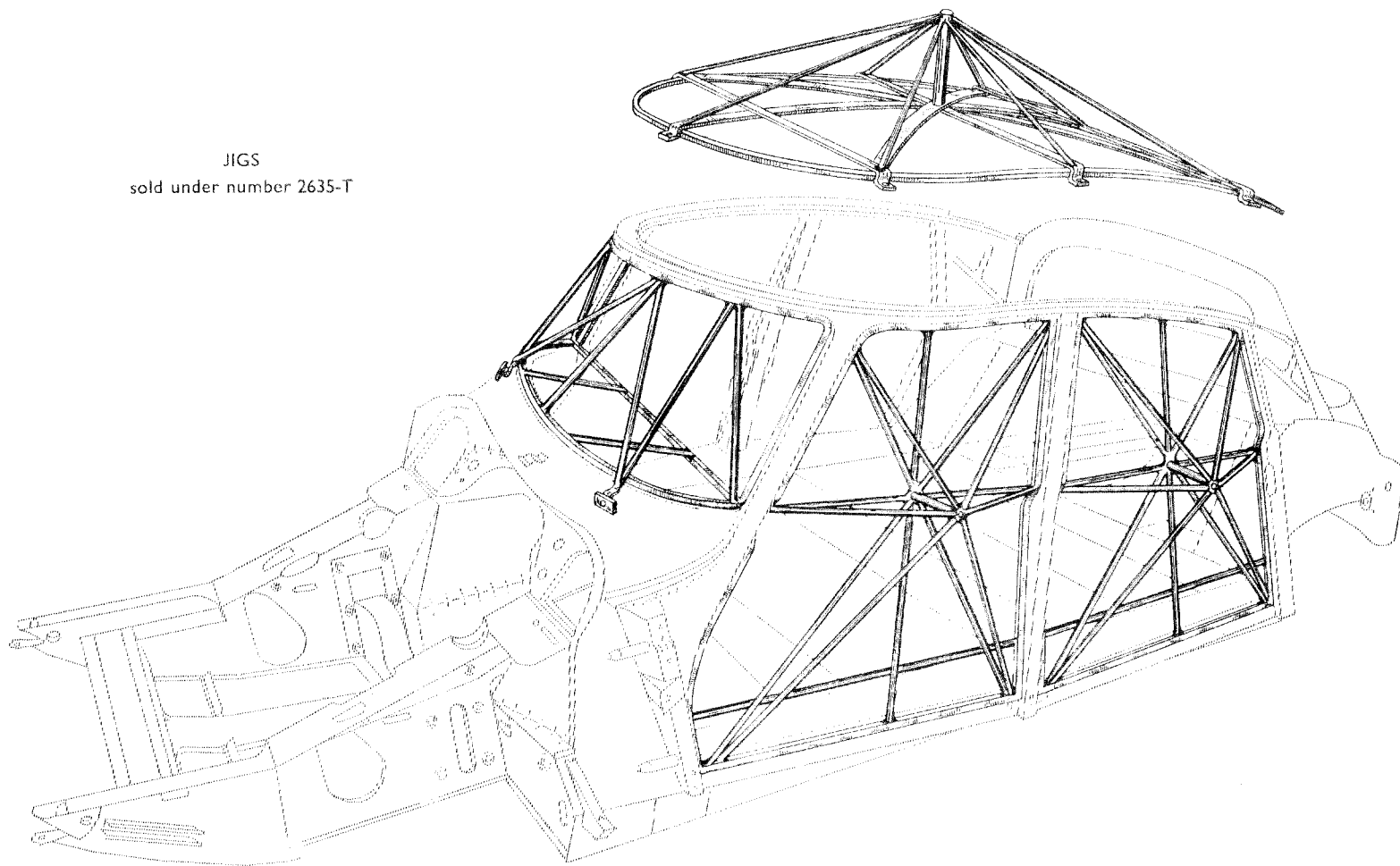


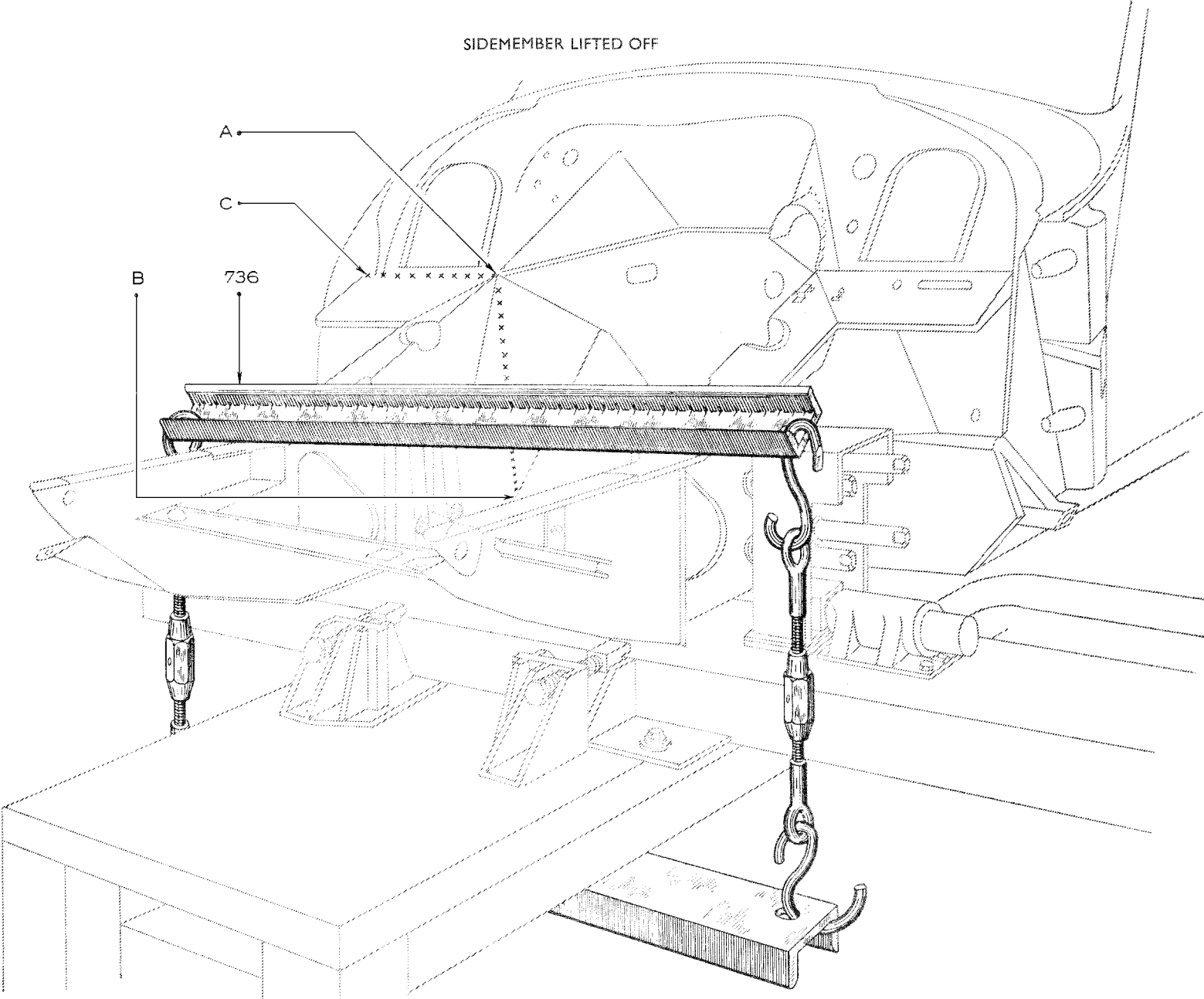
Fig. 2

USING THE JIGS

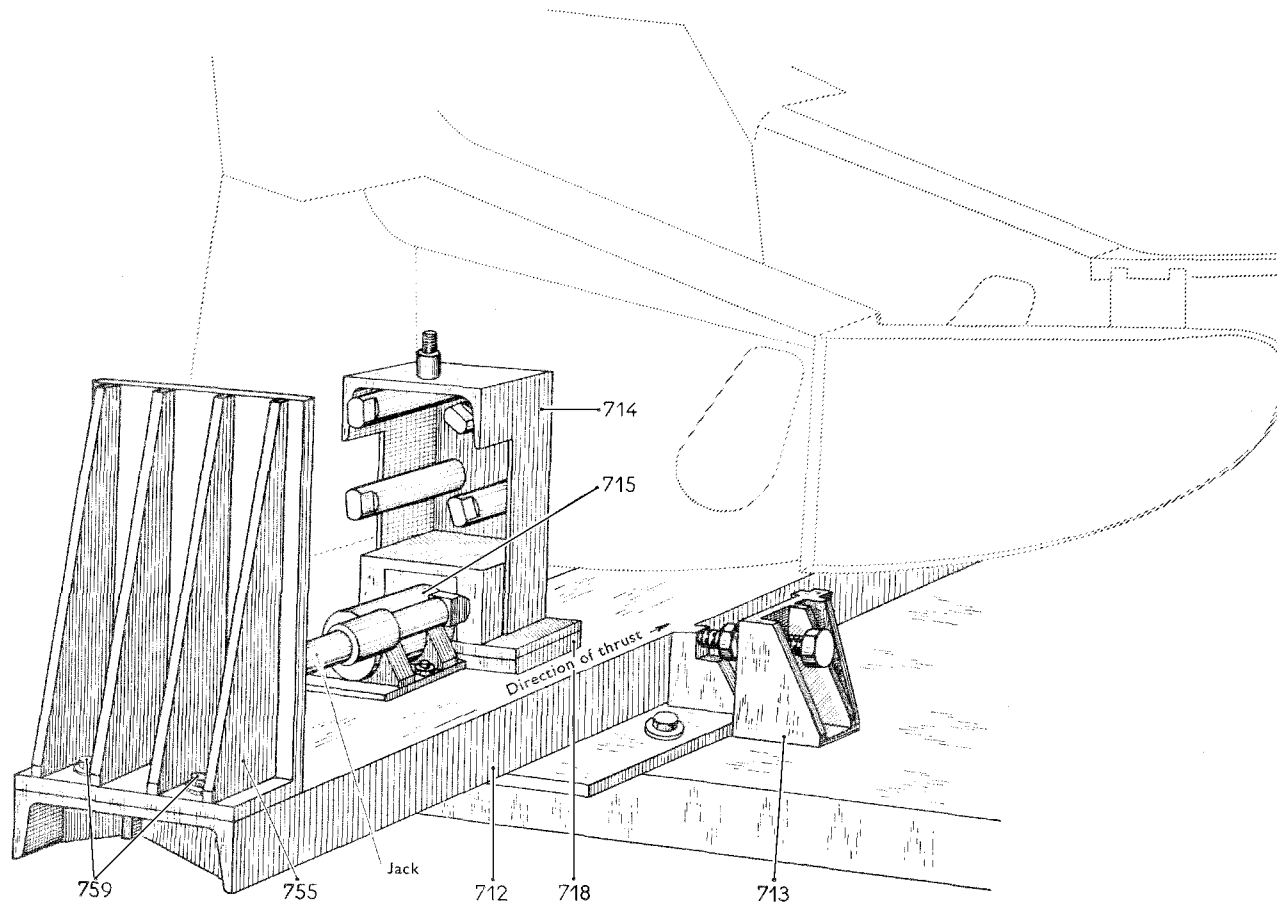
JIGS
sold under number 2635-T



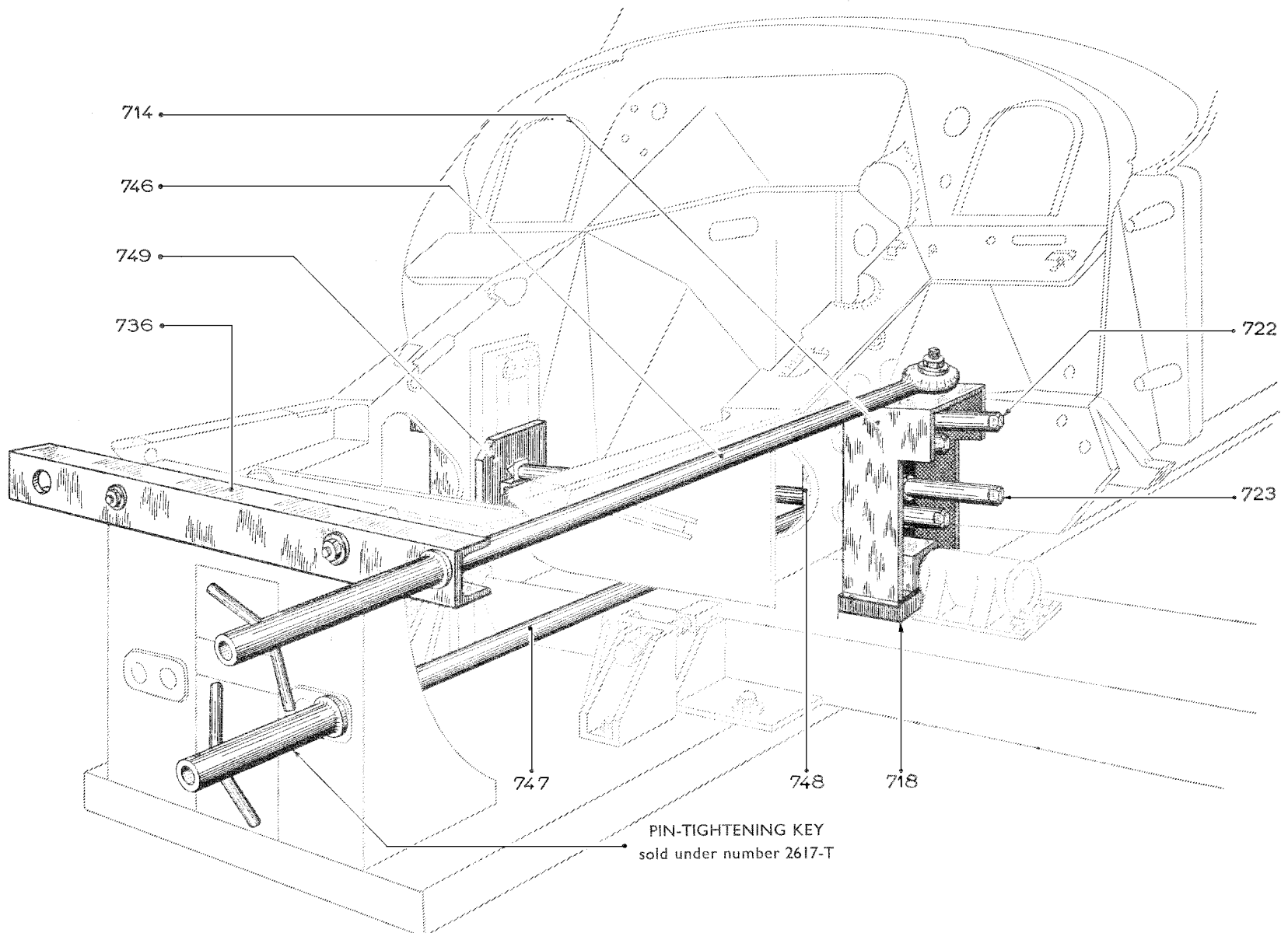
STRAIGHTENING A FRONT-UNIT SIDEMEMBER



STRAIGHTENING A FRONT-UNIT SIDEMEMBER



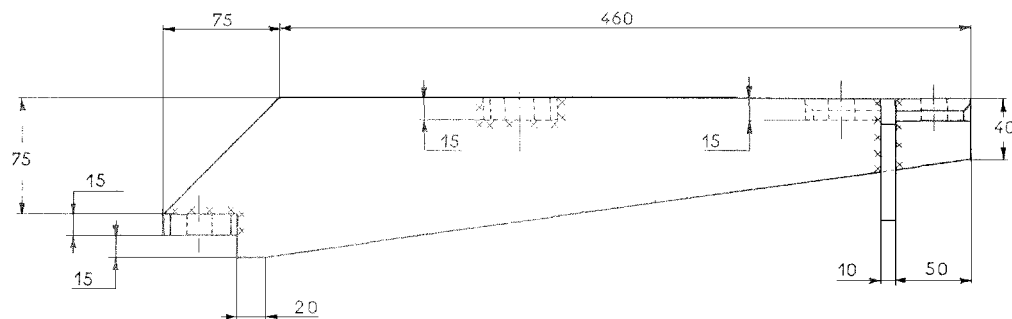
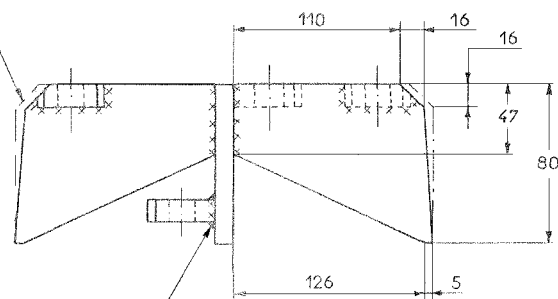
REPOSITIONING A FRONT UNIT



GUSSET FOR REINFORCING FRONT CROSSMEMBER

A following inside shape of U-iron

EQUIPMENTS PRODUCED BEFORE JANUARY 1960

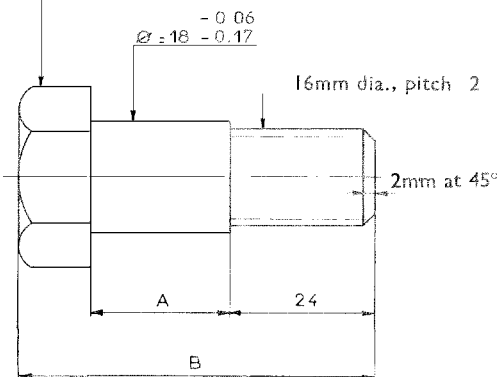


Mild steel
Detail 754-2 off

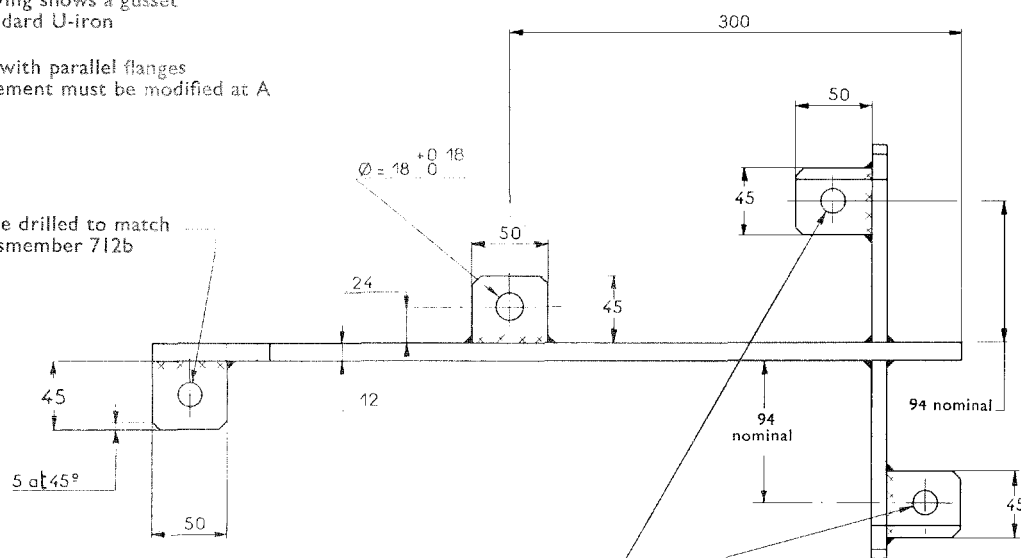
hexagon, 26mm across flats

A—the drawing shows a gusset fitting a standard U-iron

For U-irons with parallel flanges the reinforcement must be modified at A



To be drilled to match crossmember 712b



Semi-hard steel
Detail 756-2 off
Detail 757-2 off

	dim. A	dim. B
756	23	59
757	29	65

FITTING THE FRONT-CROSSMEMBER REINFORCEMENT

EQUIPMENTS PRODUCED BEFORE JANUARY 1960

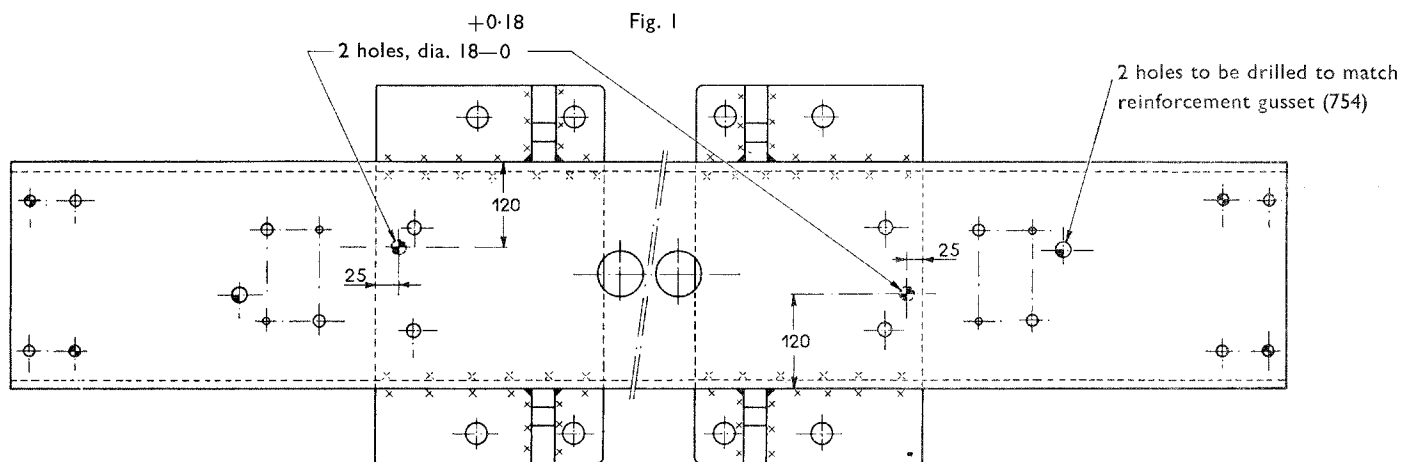


Fig. 2
PACKING PIECE

mild steel
1 off

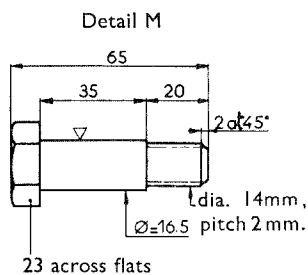
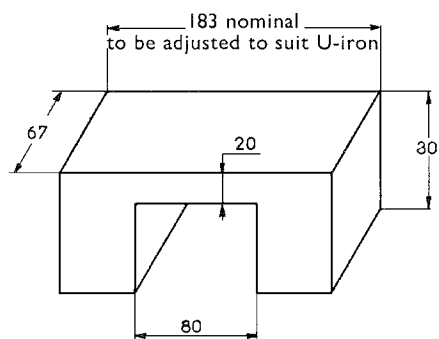
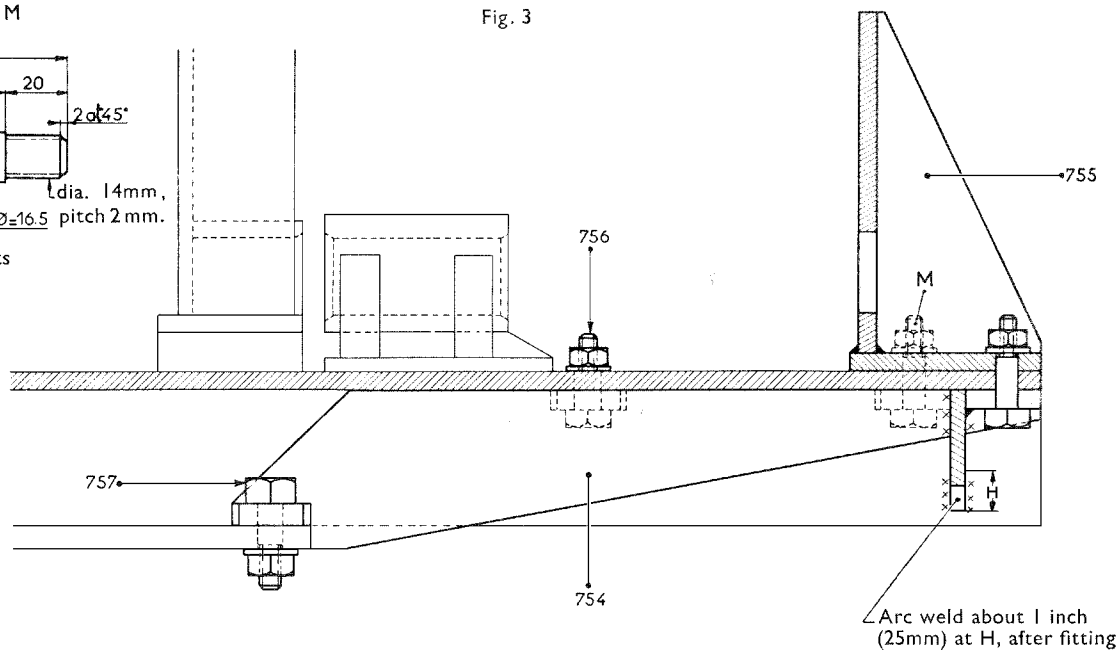


Fig. 3



FRONT-CROSSMEMBER END SUPPORT

FOR SIDE THRUSTS

Fig. 1 POSITION OF BOSSES

Before April 1958

Since April 1958

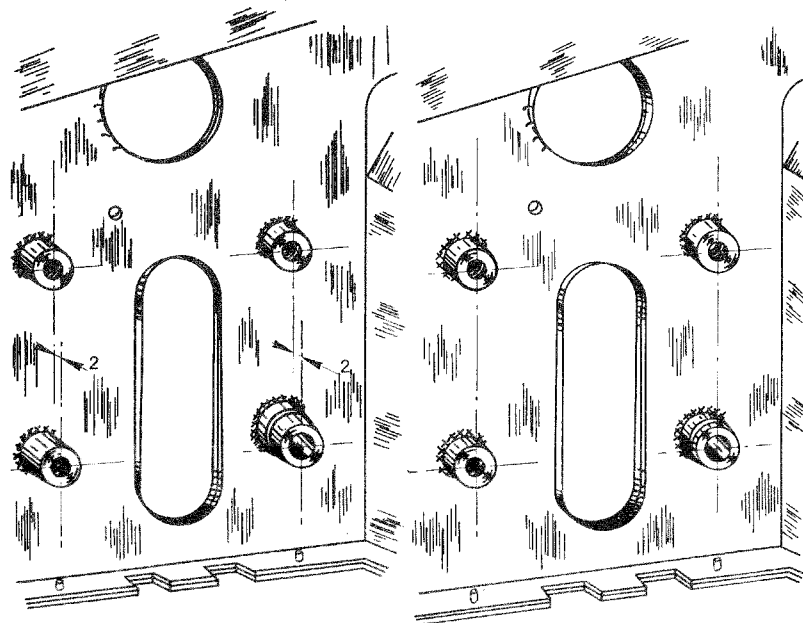


Fig. 2 REINFORCEMENT 755

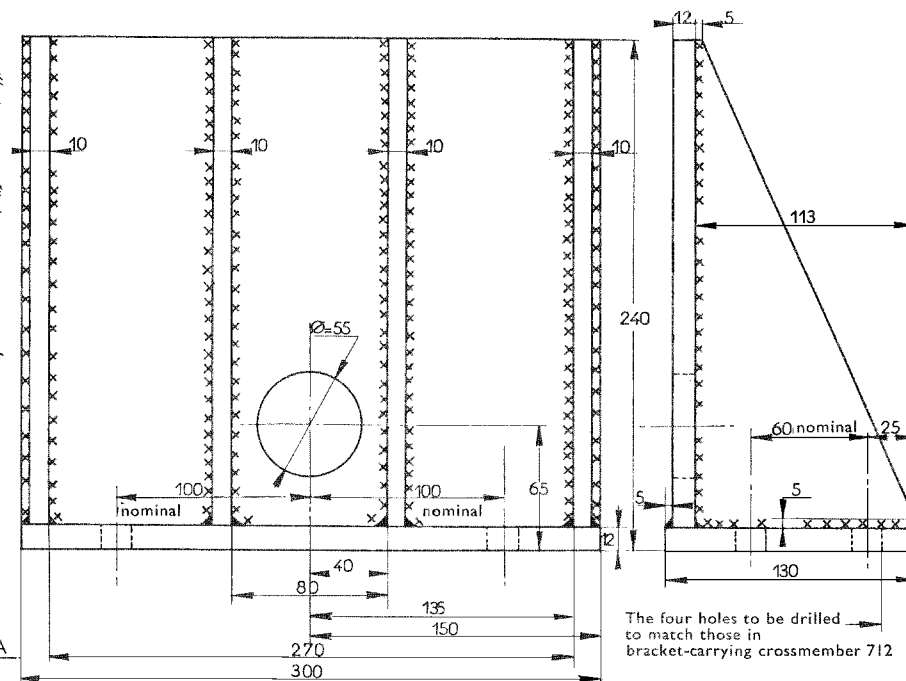
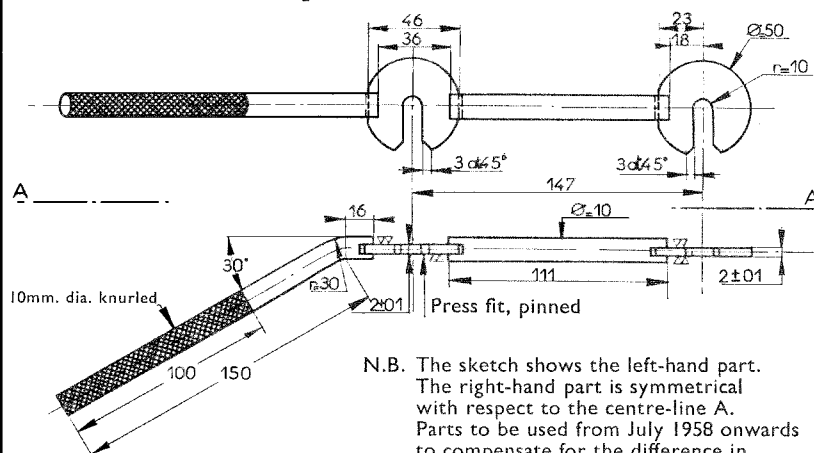


Fig. 3 DISTANCE PIECE 750

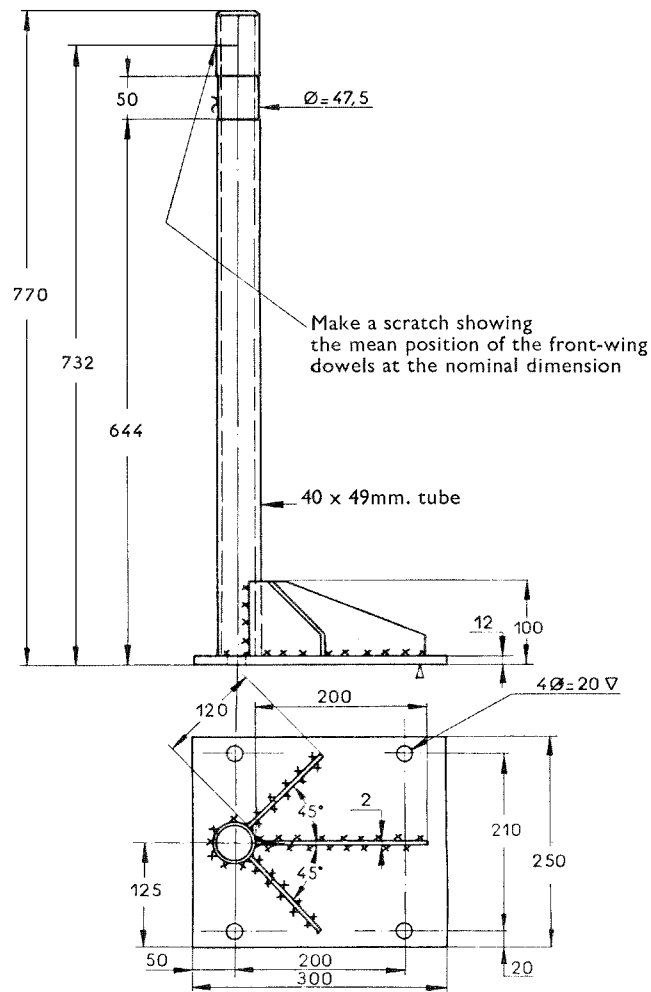


N.B. The sketch shows the left-hand part.
The right-hand part is symmetrical
with respect to the centre-line A.
Parts to be used from July 1958 onwards
to compensate for the difference in
height of the bosses on brackets 714

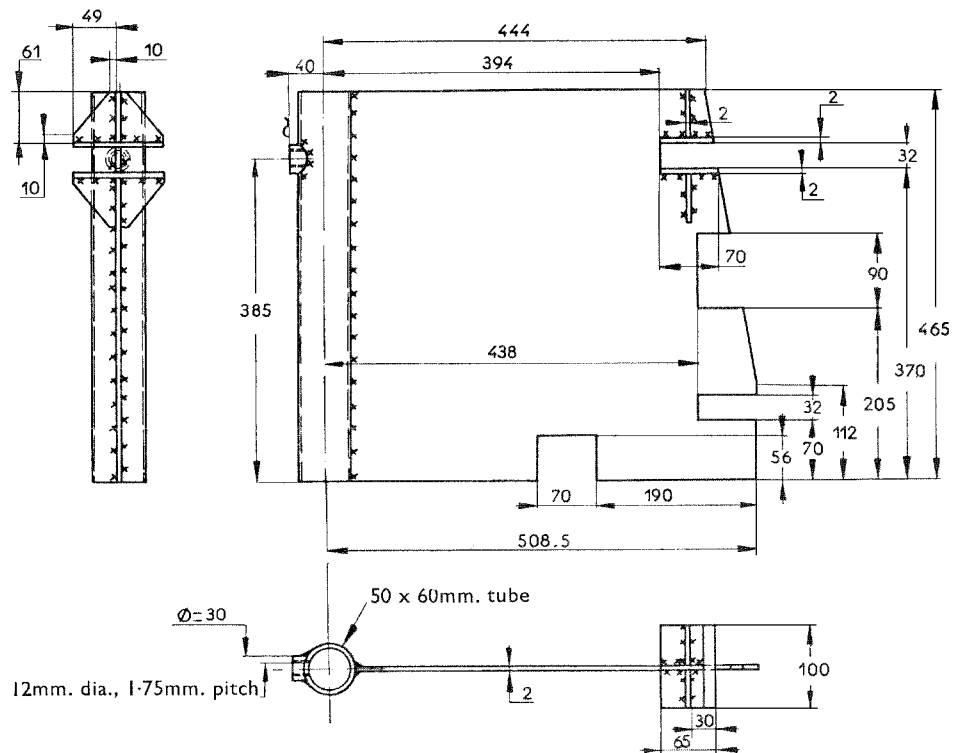
CHECKING JIG FOR FRONT-WING CENTRING DOWELS

EQUIPMENT PRODUCED SINCE JANUARY 1960

JIG 751



JIG 752



SUPPLEMENTARY MACHINING ON FRONT SUPPORTS

FOR EQUIPMENTS PRODUCED SINCE SEPTEMBER 1962

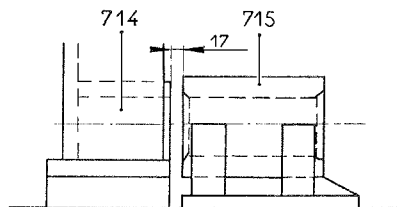
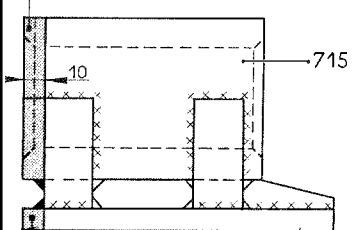


Fig. 2

Part to be removed if measurement is less than 17mm.



Part to be removed in all cases
Fig. 3

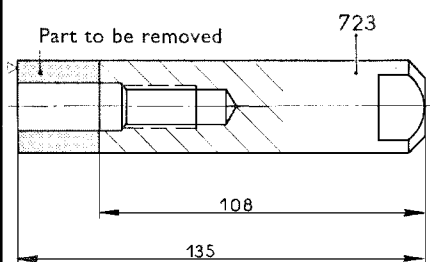


Fig. 6

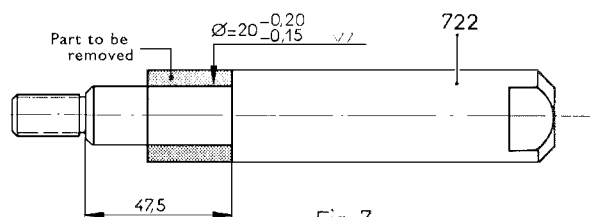


Fig. 7

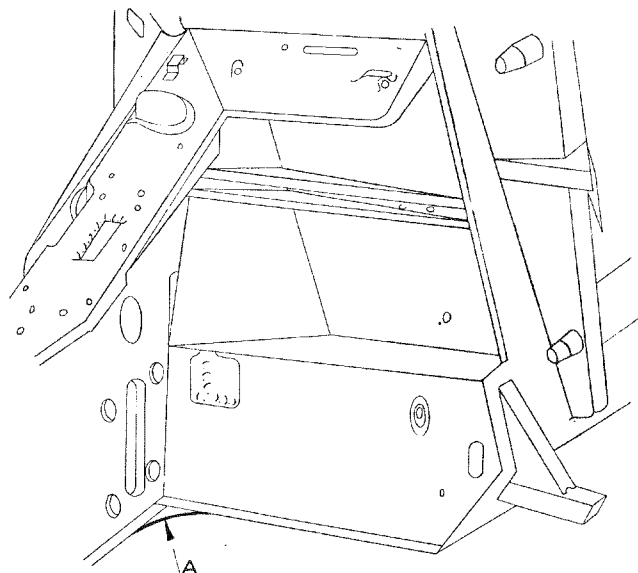
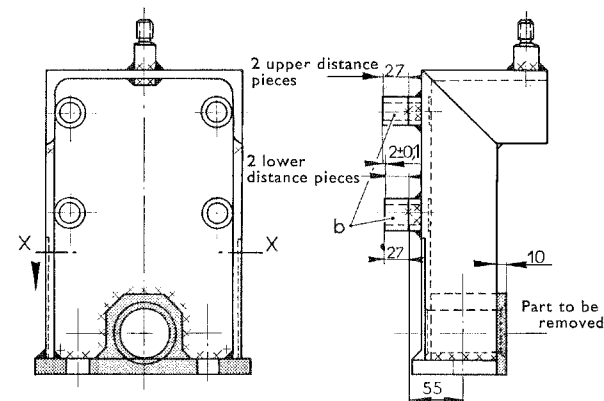
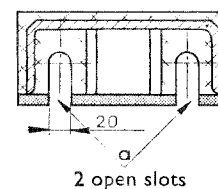


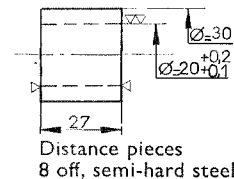
Fig 1



Section X Fig. 4



2 open slots



4 22mm. holes for displacing the front supports towards the outside

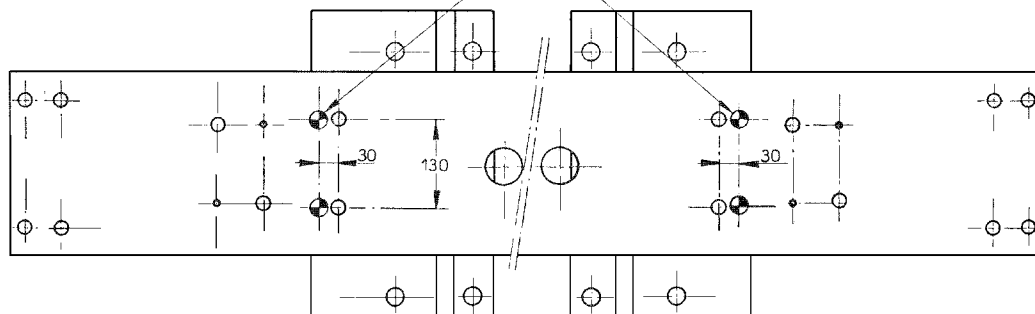
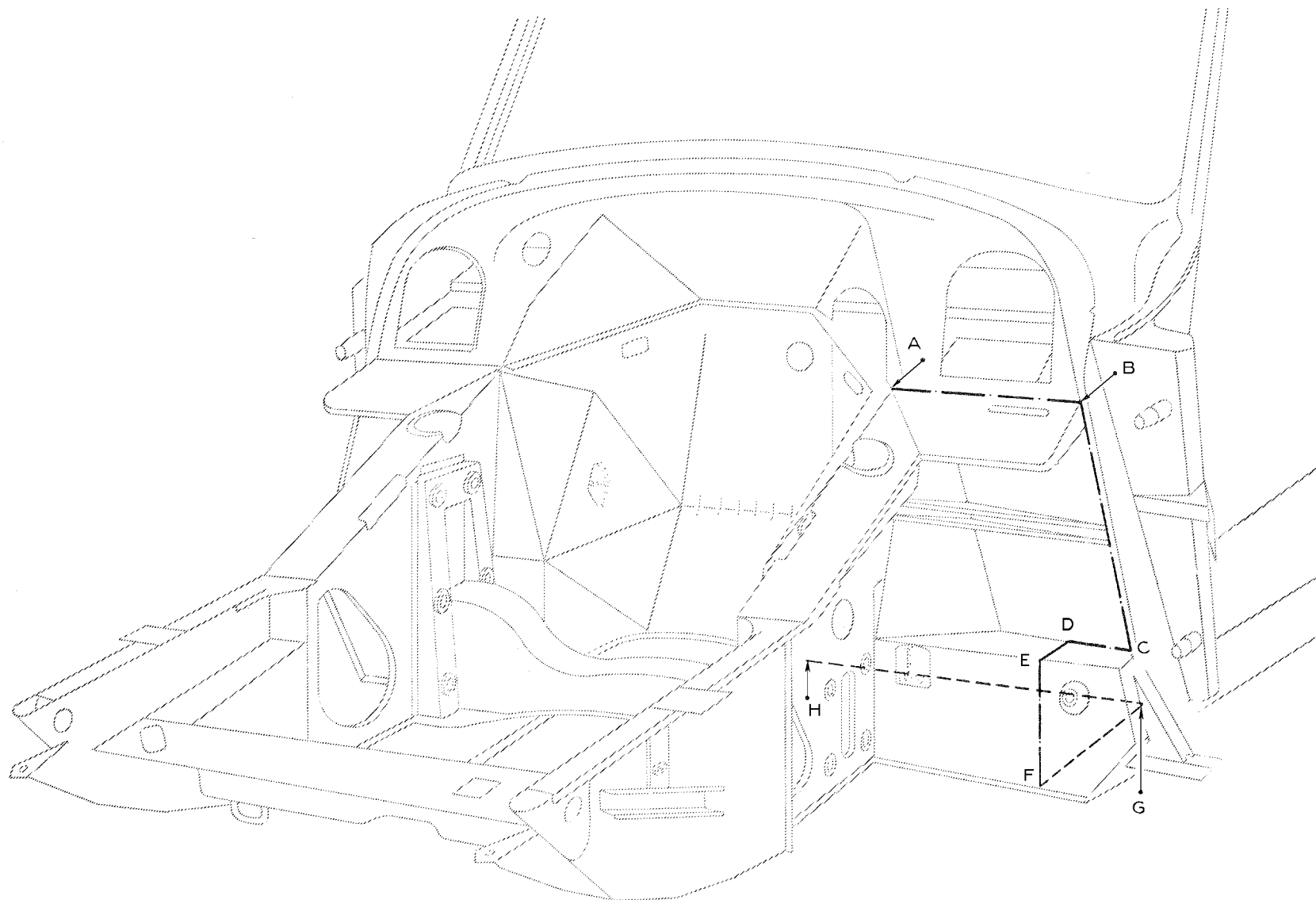


Fig.5

RE-POSITIONING A FRONT UNIT

DRAWING OF CUT-OUTS



REPLACING A FRONT CAISSON UNIT

UP TO SEPTEMBER 1962

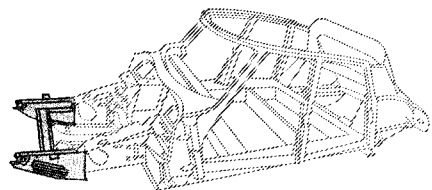
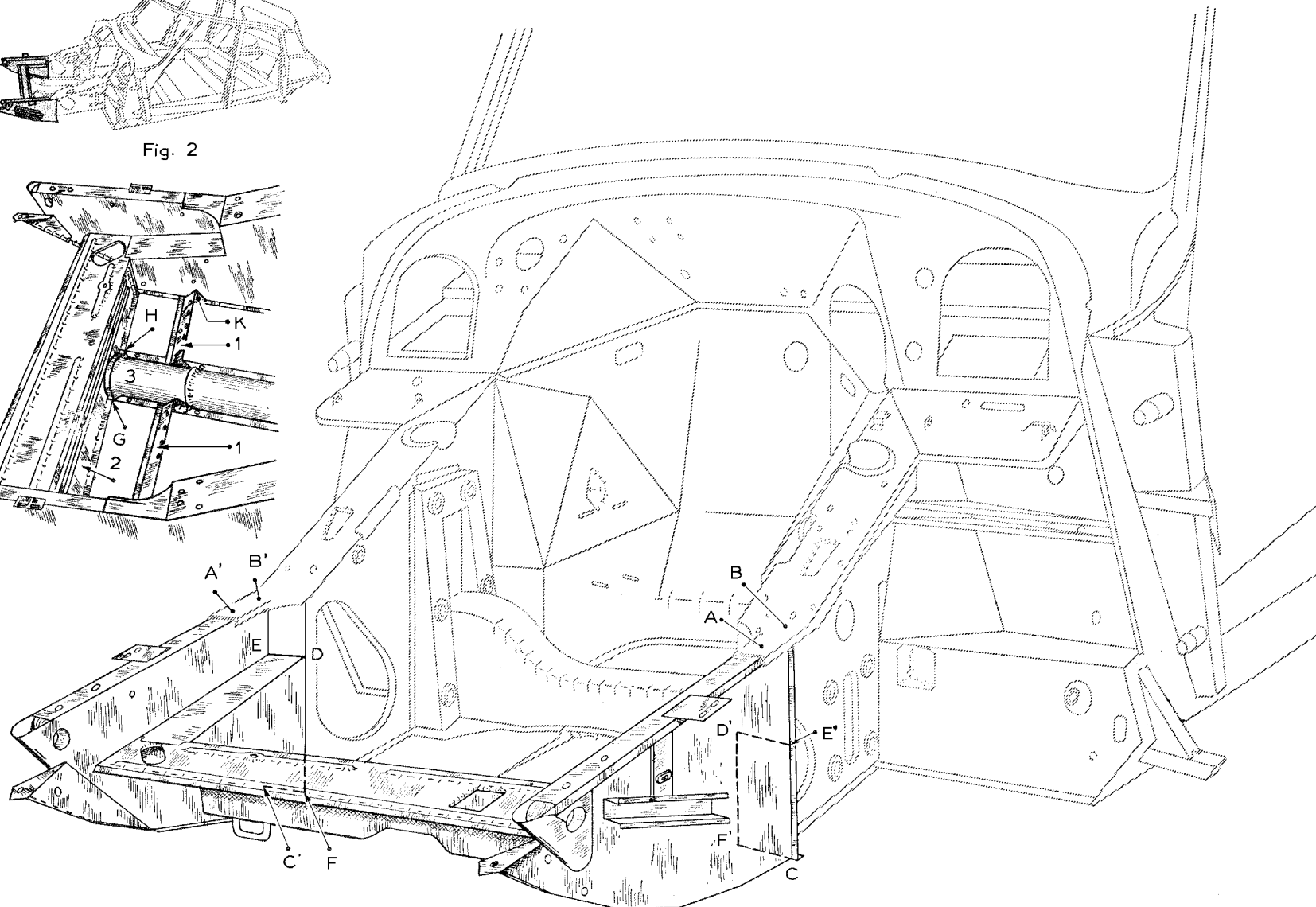
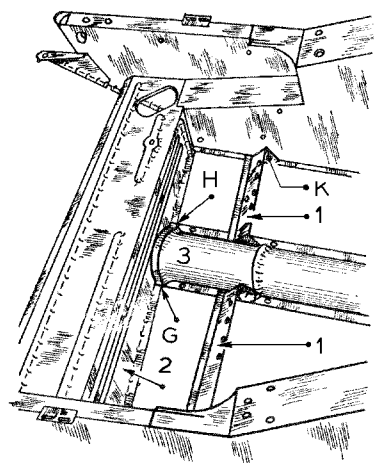
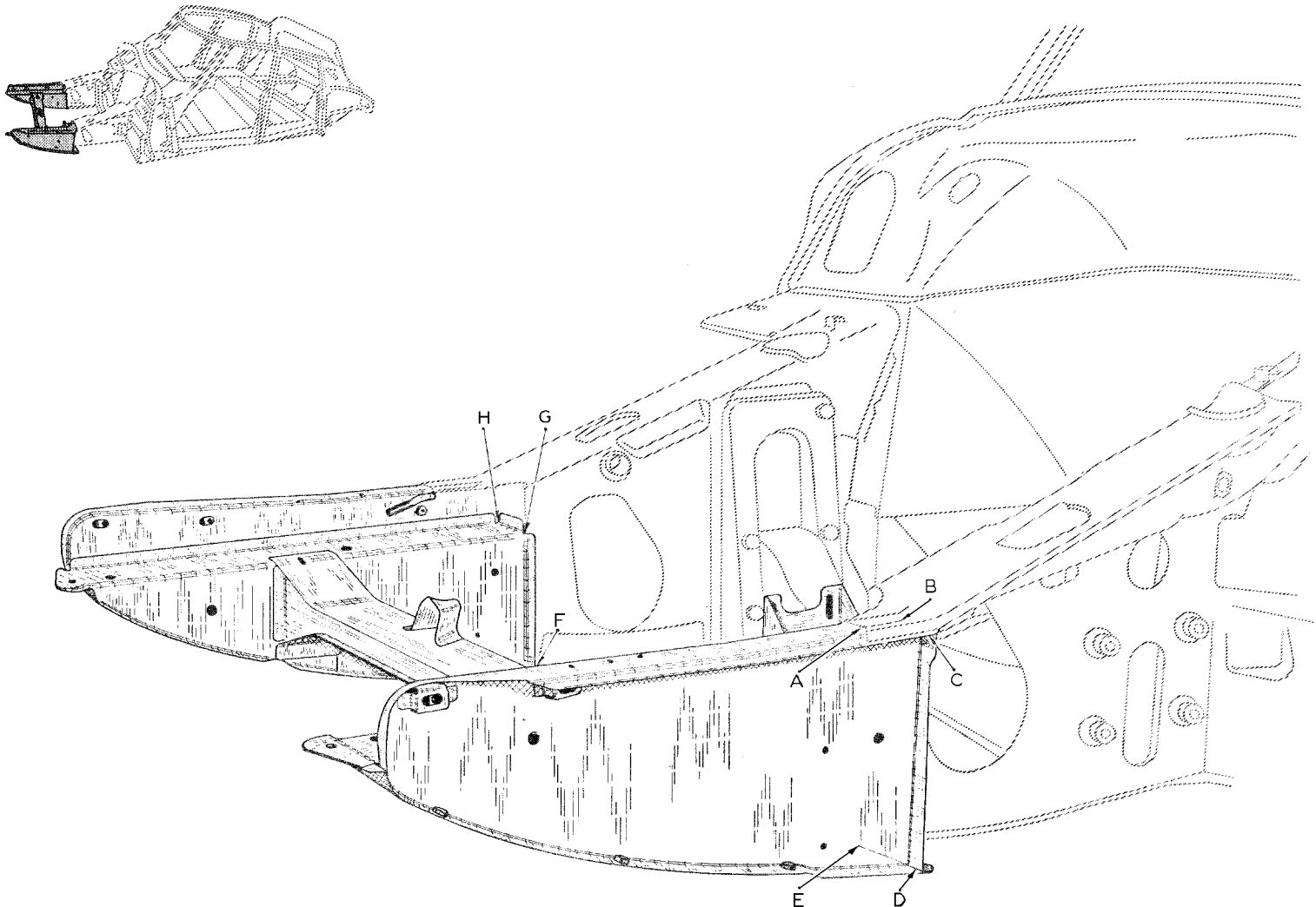


Fig. 2



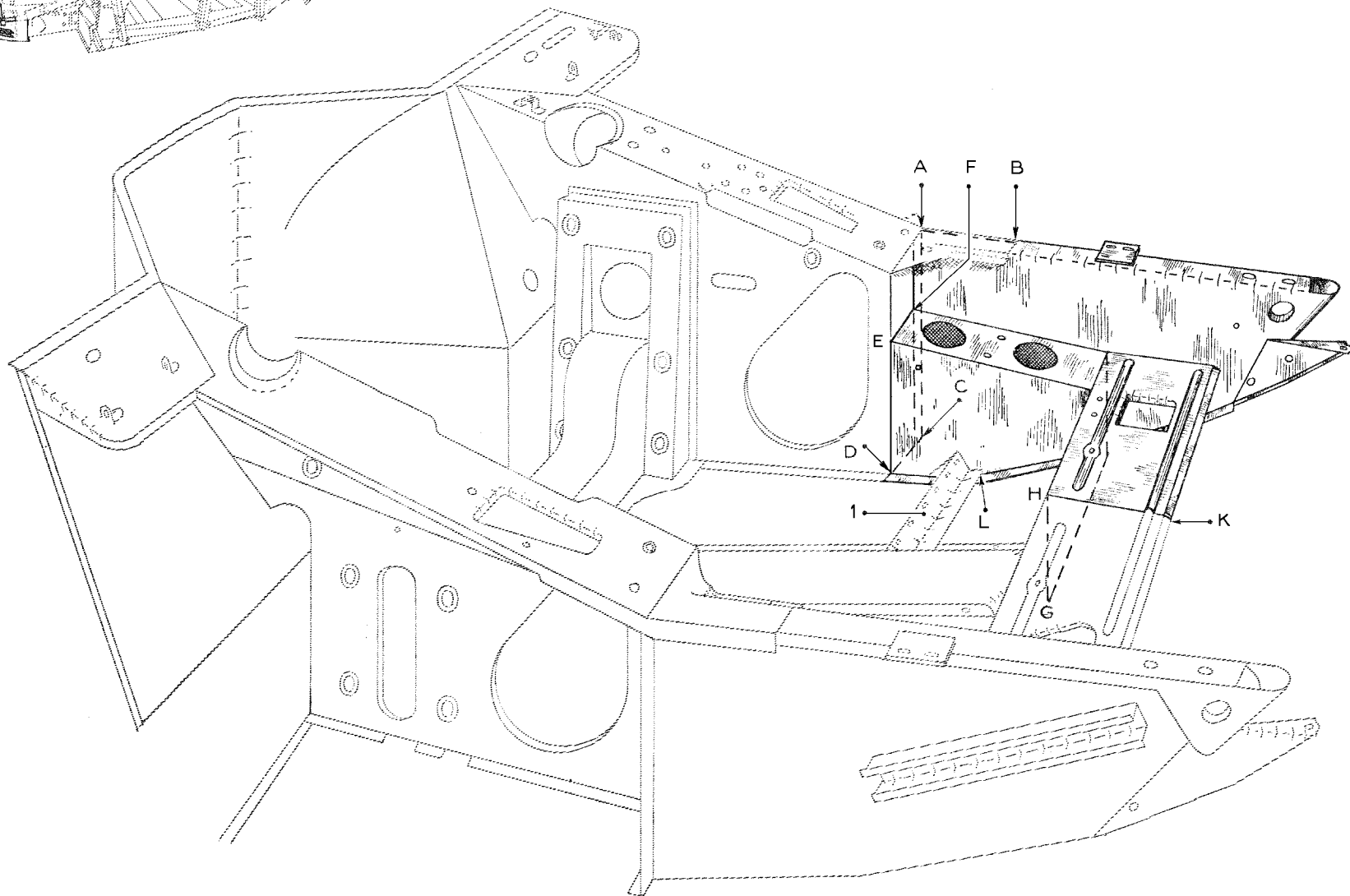
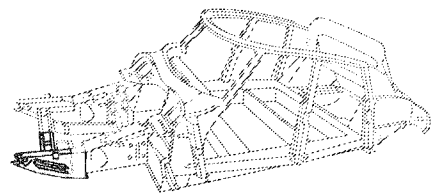
REPLACING A FRONT CAISSON UNIT

SINCE SEPTEMBER 1962



REPLACING A FRONT-CAISSON UNIT SIDE

UP TO SEPTEMBER 1962



REPLACING A FRONT-CAISSON UNIT SIDE

SINCE SEPTEMBER 1962

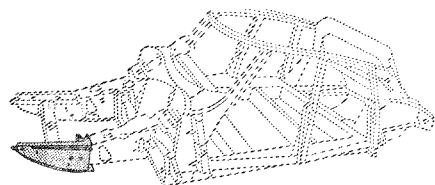


Fig. 2

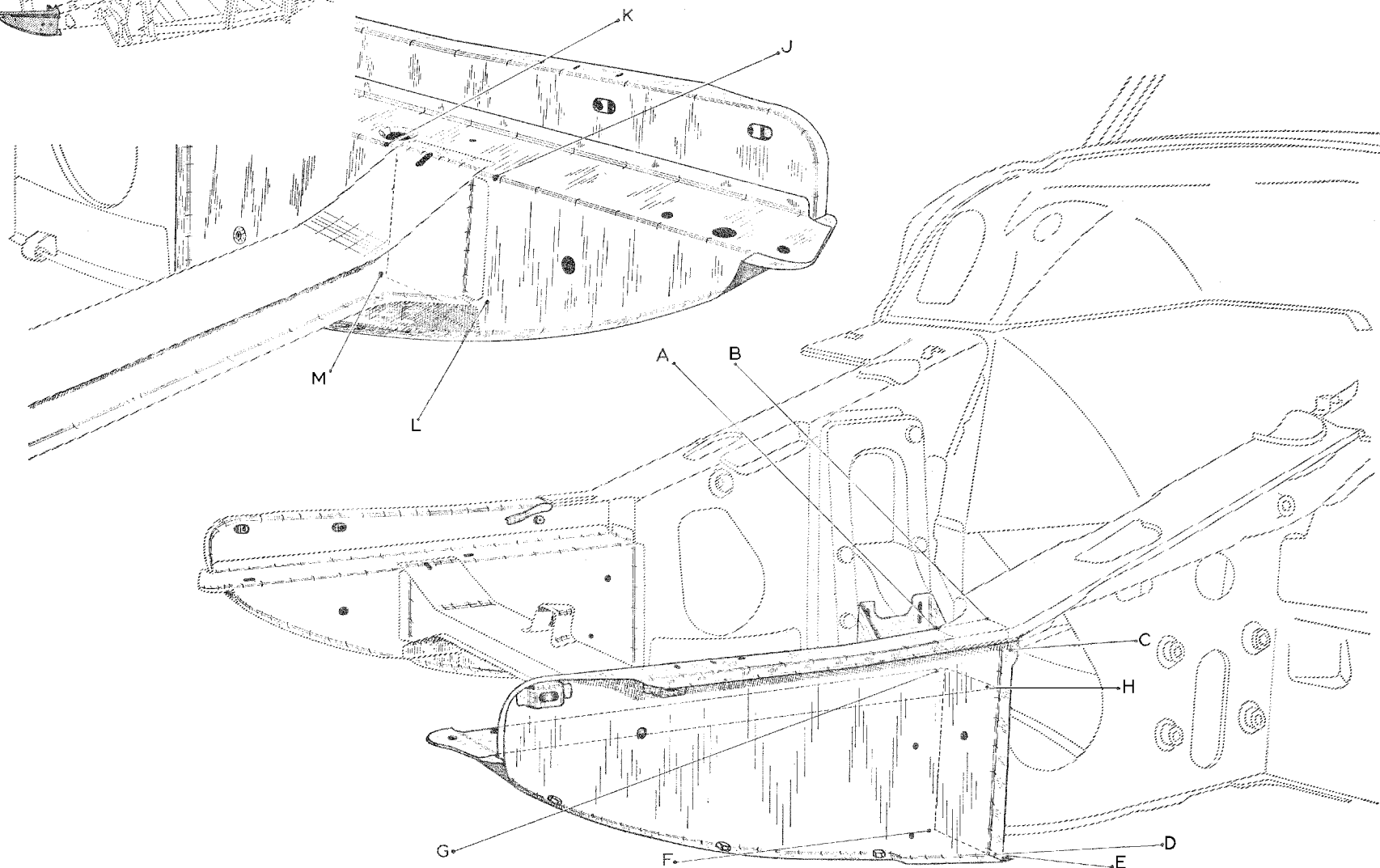


Fig. 1

D 741-4

D 741-4a

PL. 24

REPLACING A FRONT BODY UNIT

Fig. 1

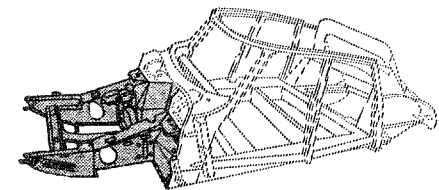


Fig. 3

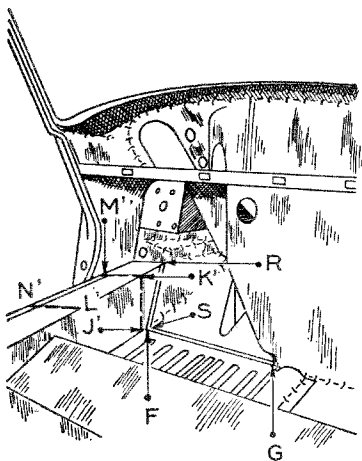
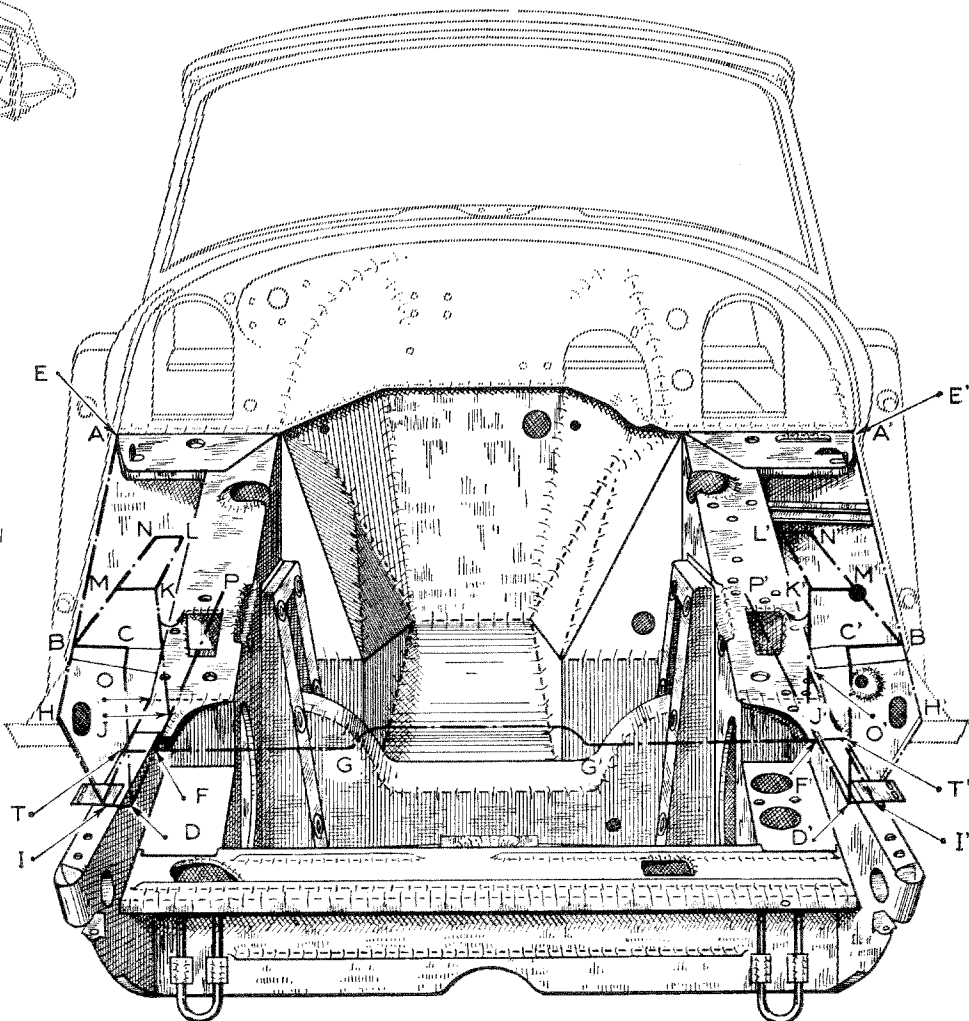
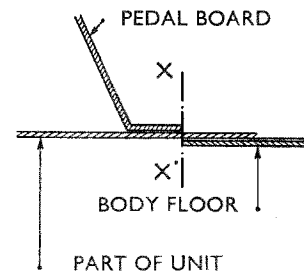


Fig. 2



REPLACING A FRONT BODY UNIT

WITHOUT OPENING THE SIDERAILS

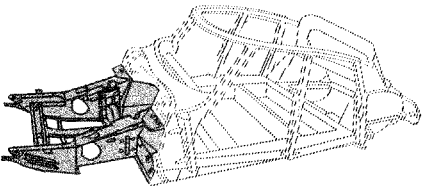


Fig. 4

Fig. 5

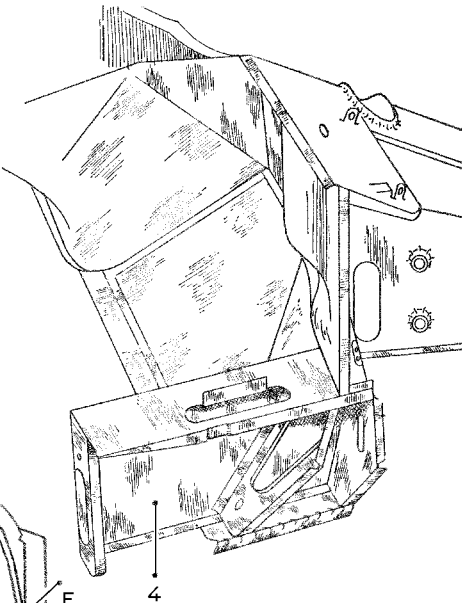
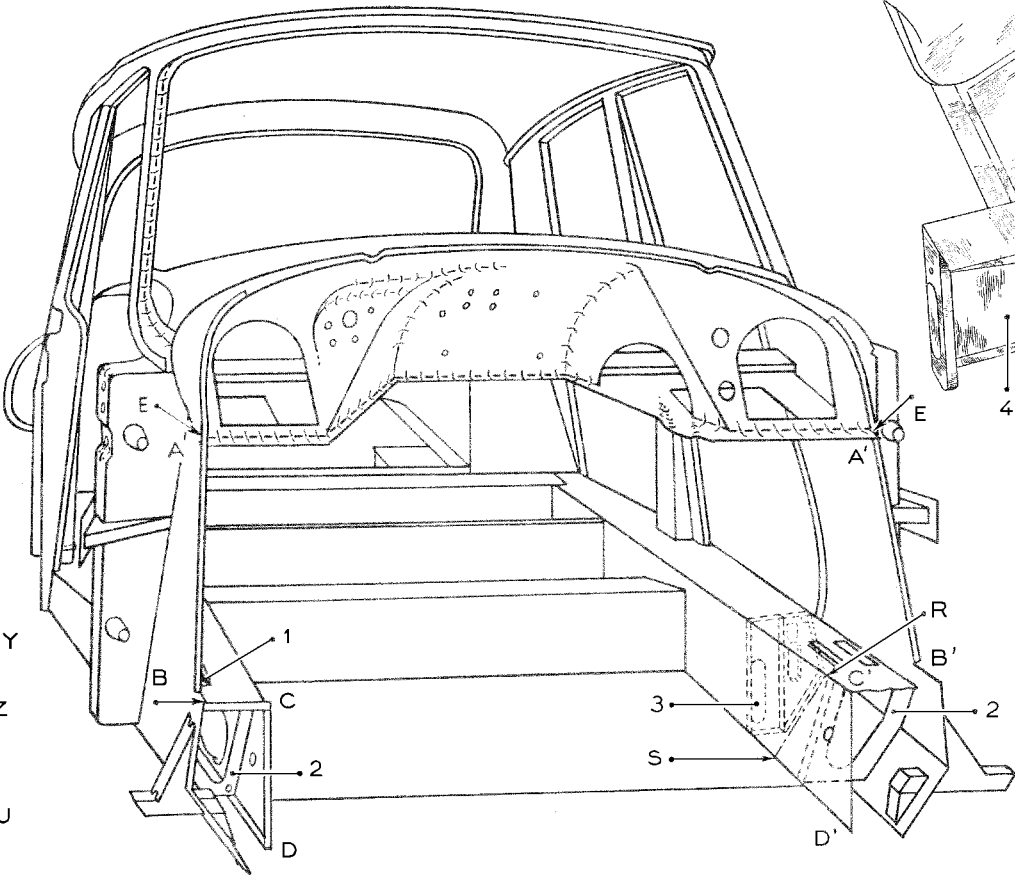
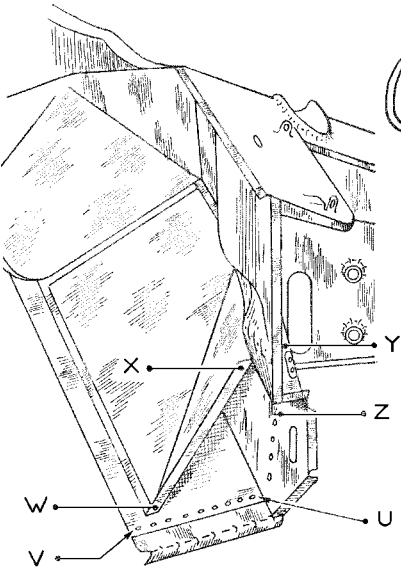


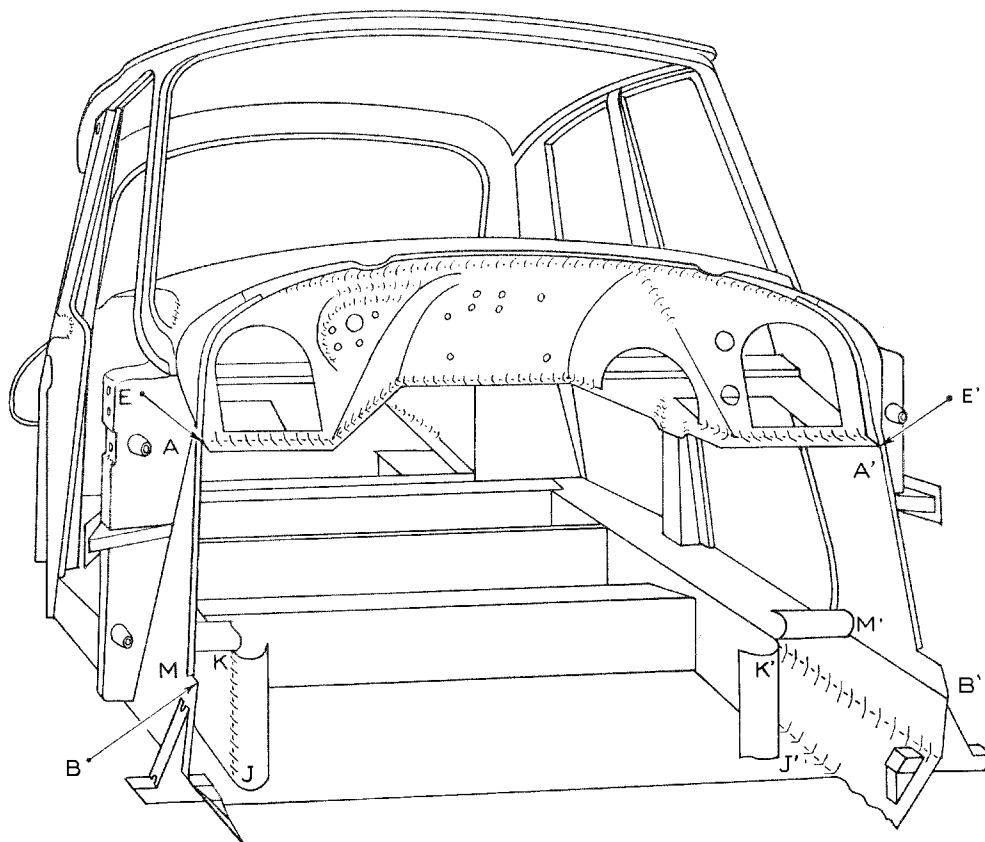
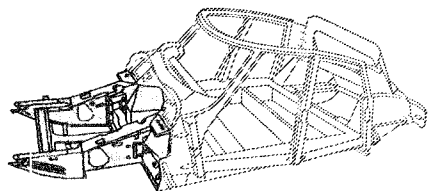
Fig. 6



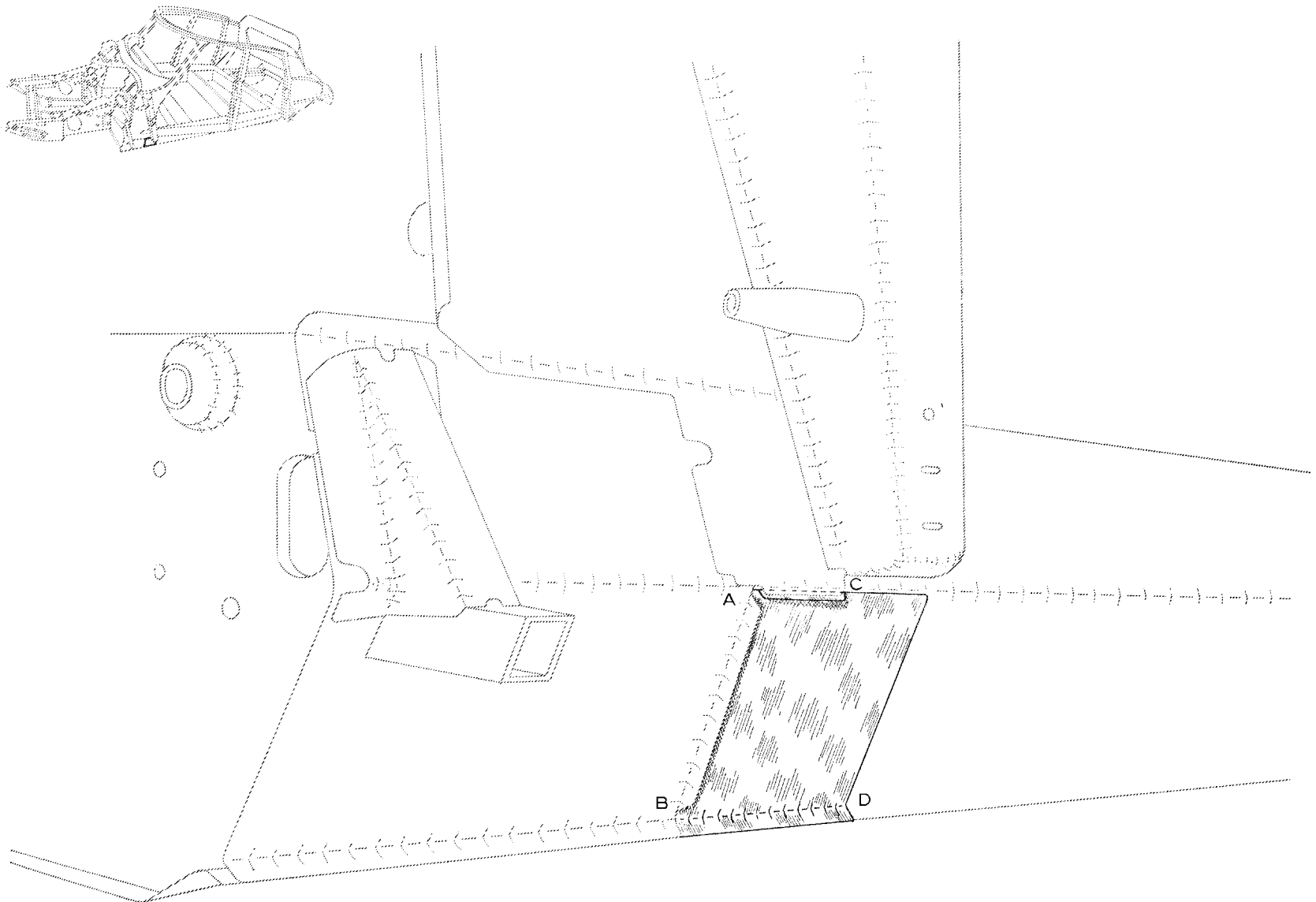
REPLACING A FRONT BODY UNIT

OPENING THE SIDERAILS

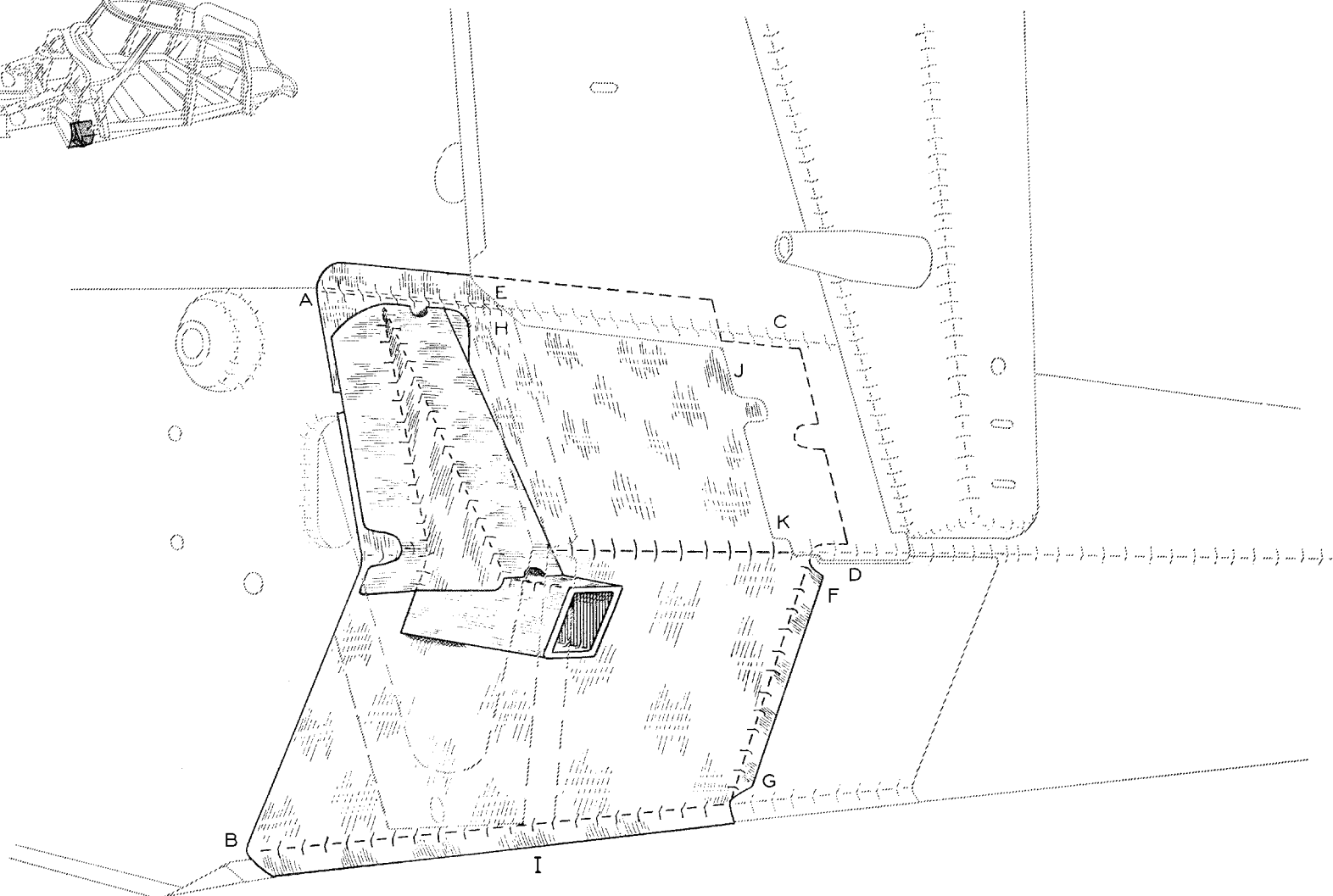
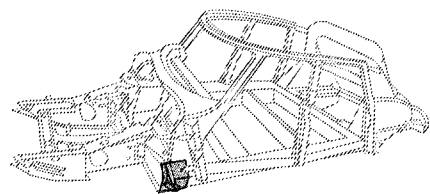
Fig. 7



REPLACING A FRONT-UNIT CLOSING PANEL AND FRONT BODY SIDERAIL

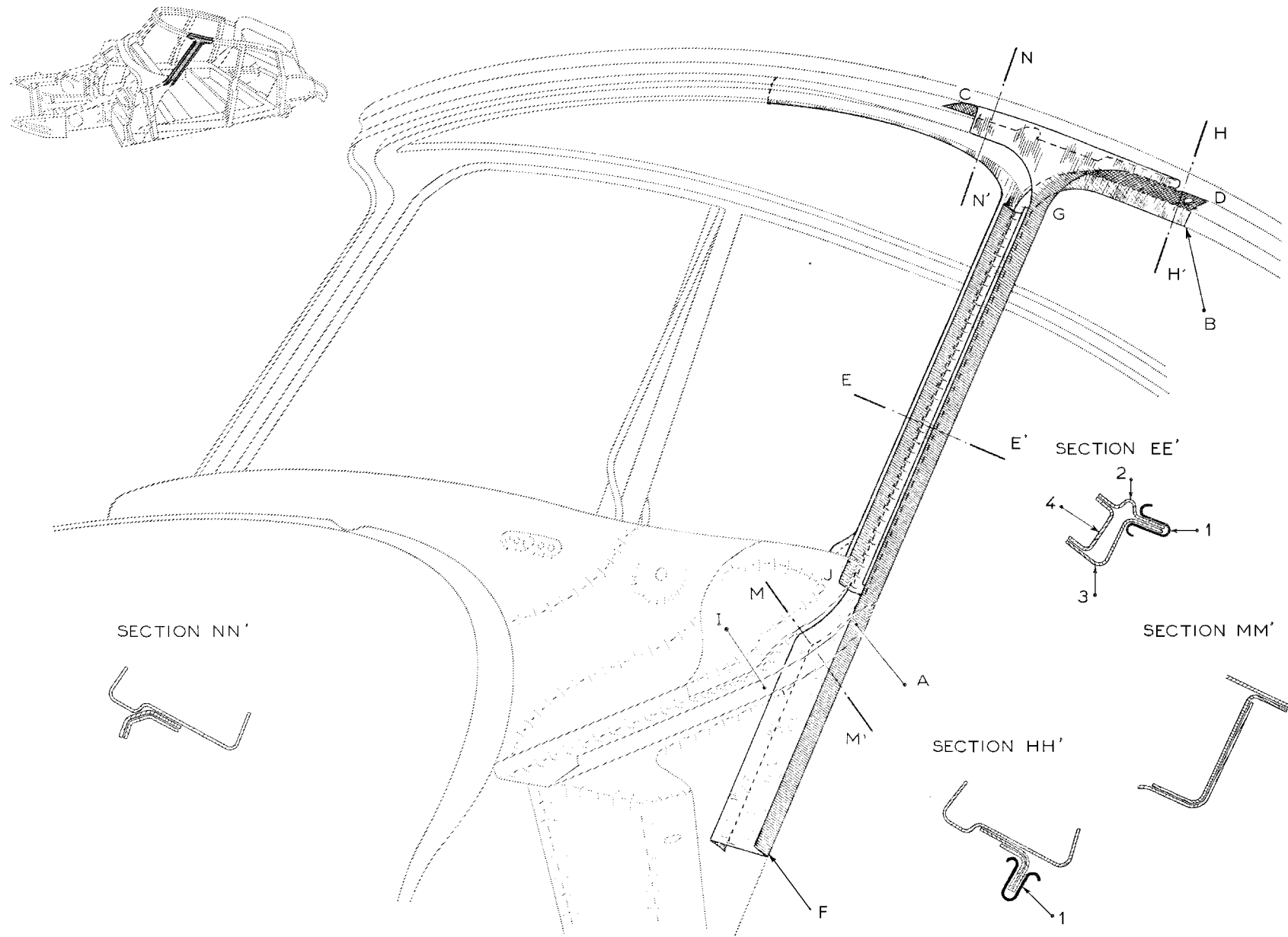


REPLACING A FRONT- SIDEMEMBER SIDE CLOSING PANEL



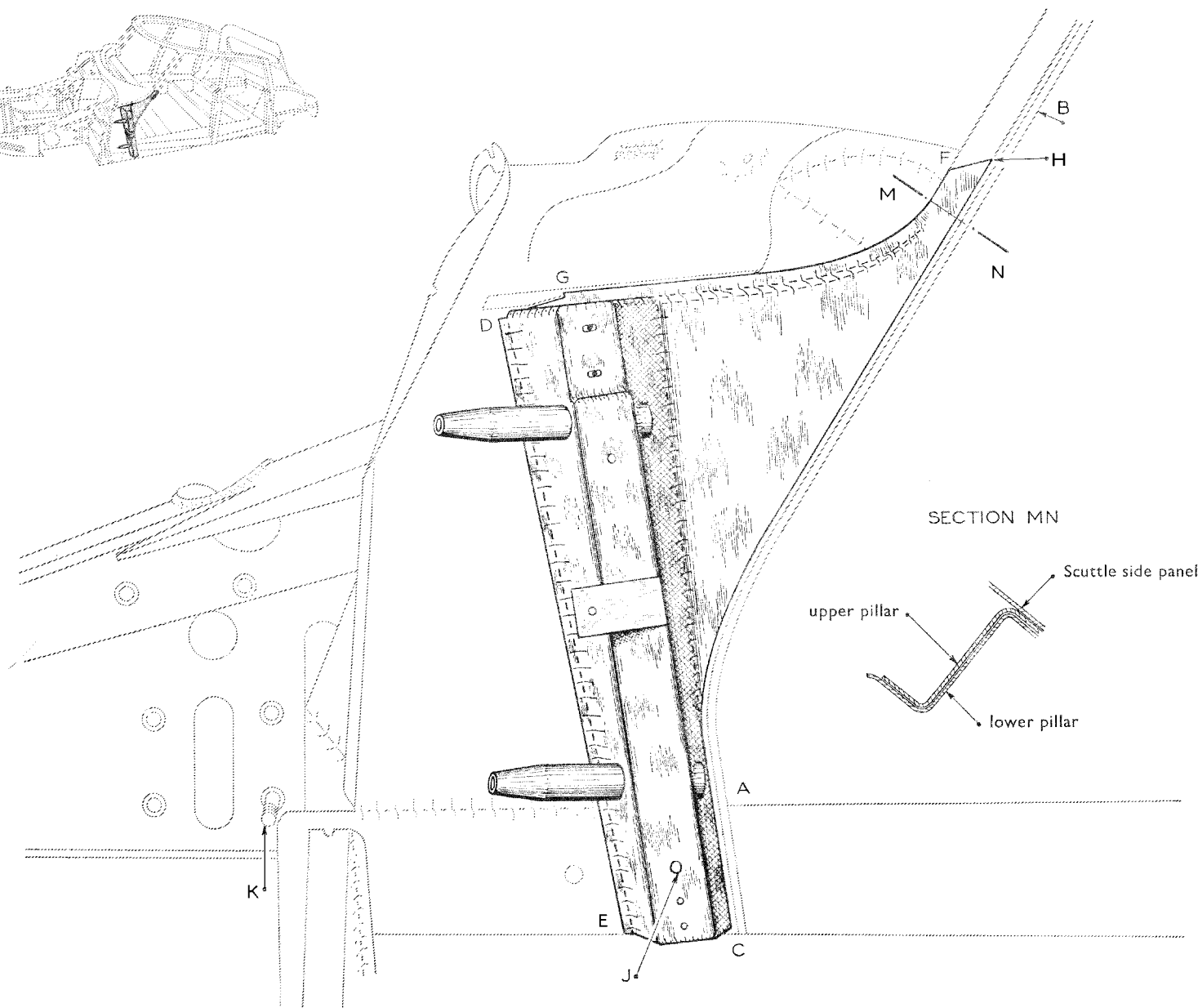
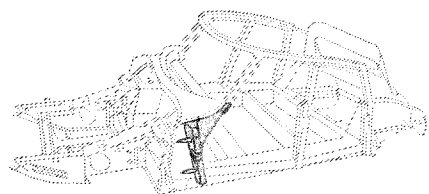
REPLACING A FRONT PILLAR

UPPER PART OF BODY

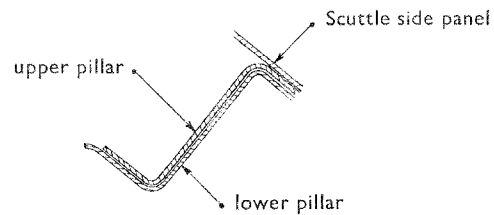


REPLACING A FRONT PILLAR

LOWER PART OF BODY



SECTION MN



REPLACING A FRONT PILLAR AND A SCUTTLE SIDE PANEL

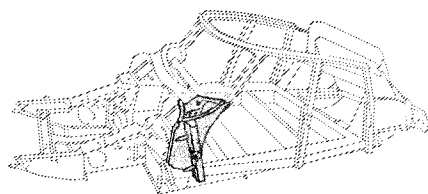


Fig. 1

LOWER PART OF BODY

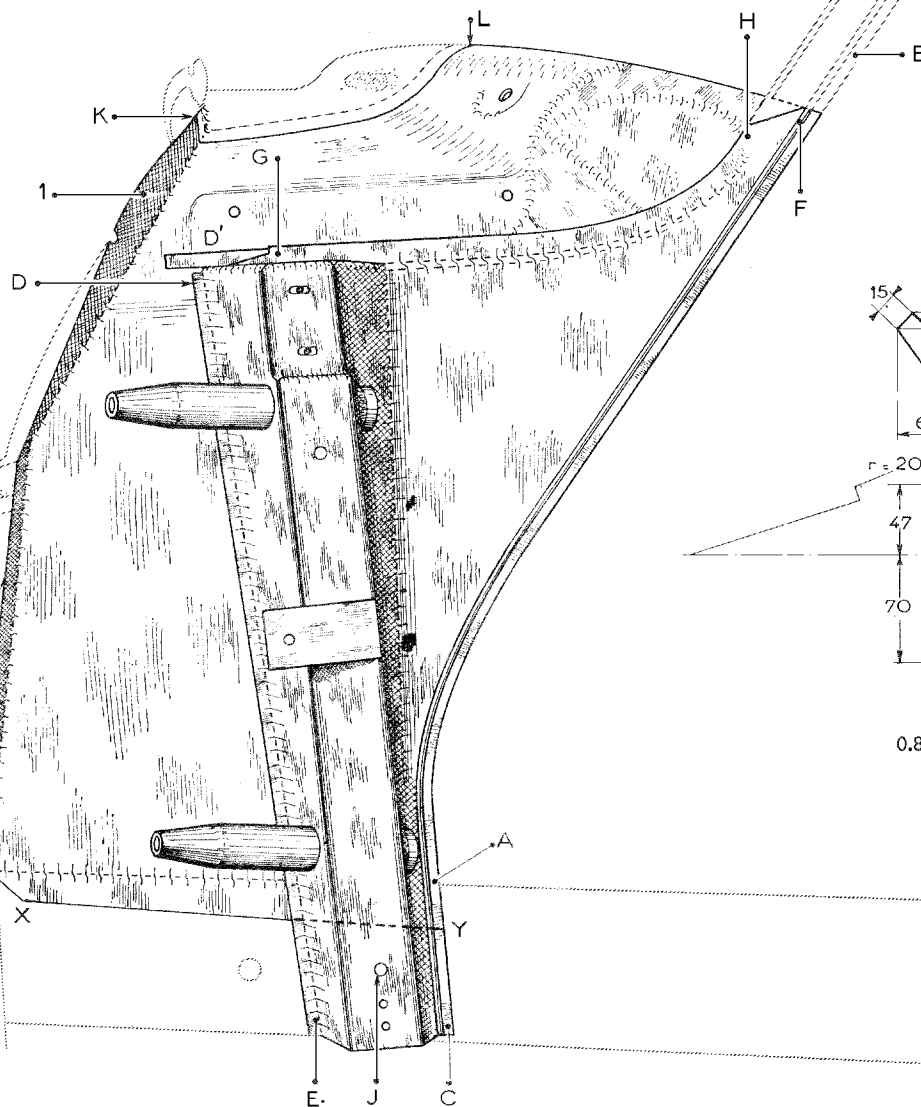
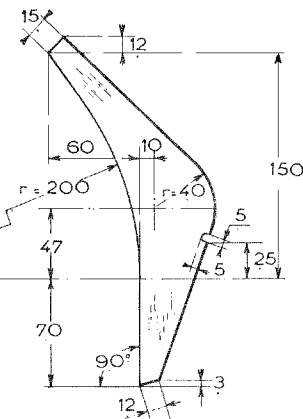


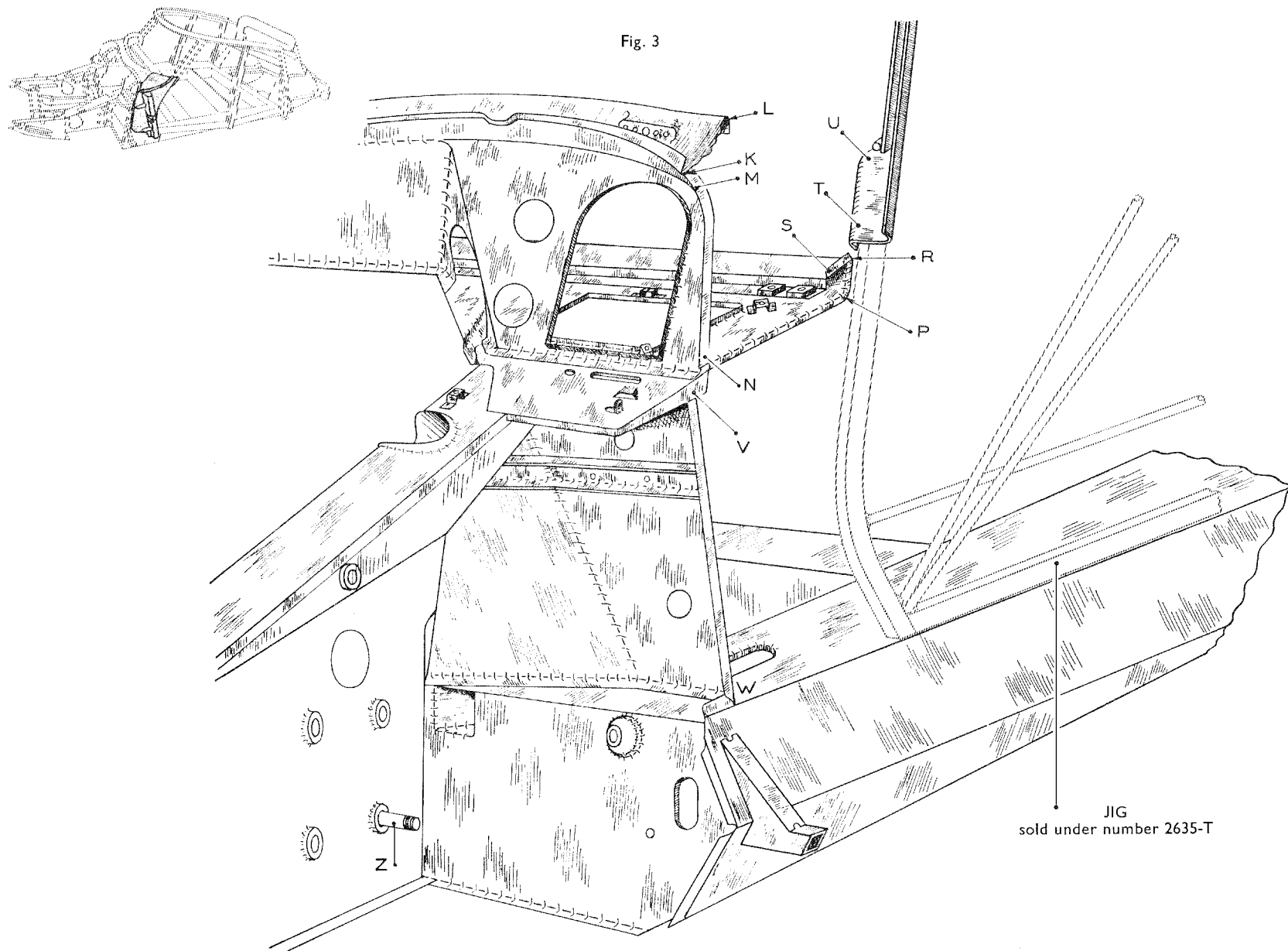
Fig. 2



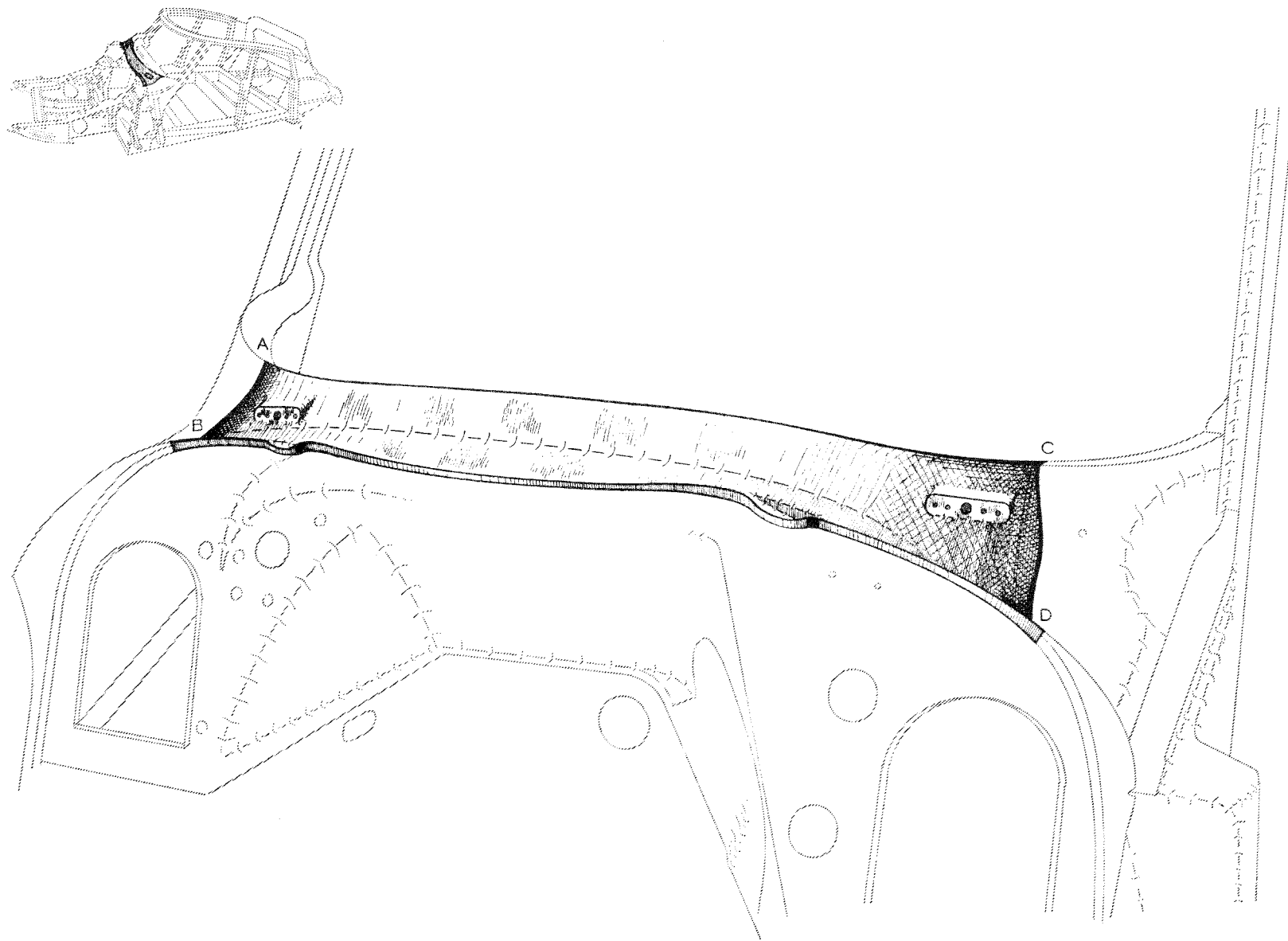
0.8mm or 1mm sheet

REPLACING A FRONT PILLAR AND A SCUTTLE SIDE PANEL

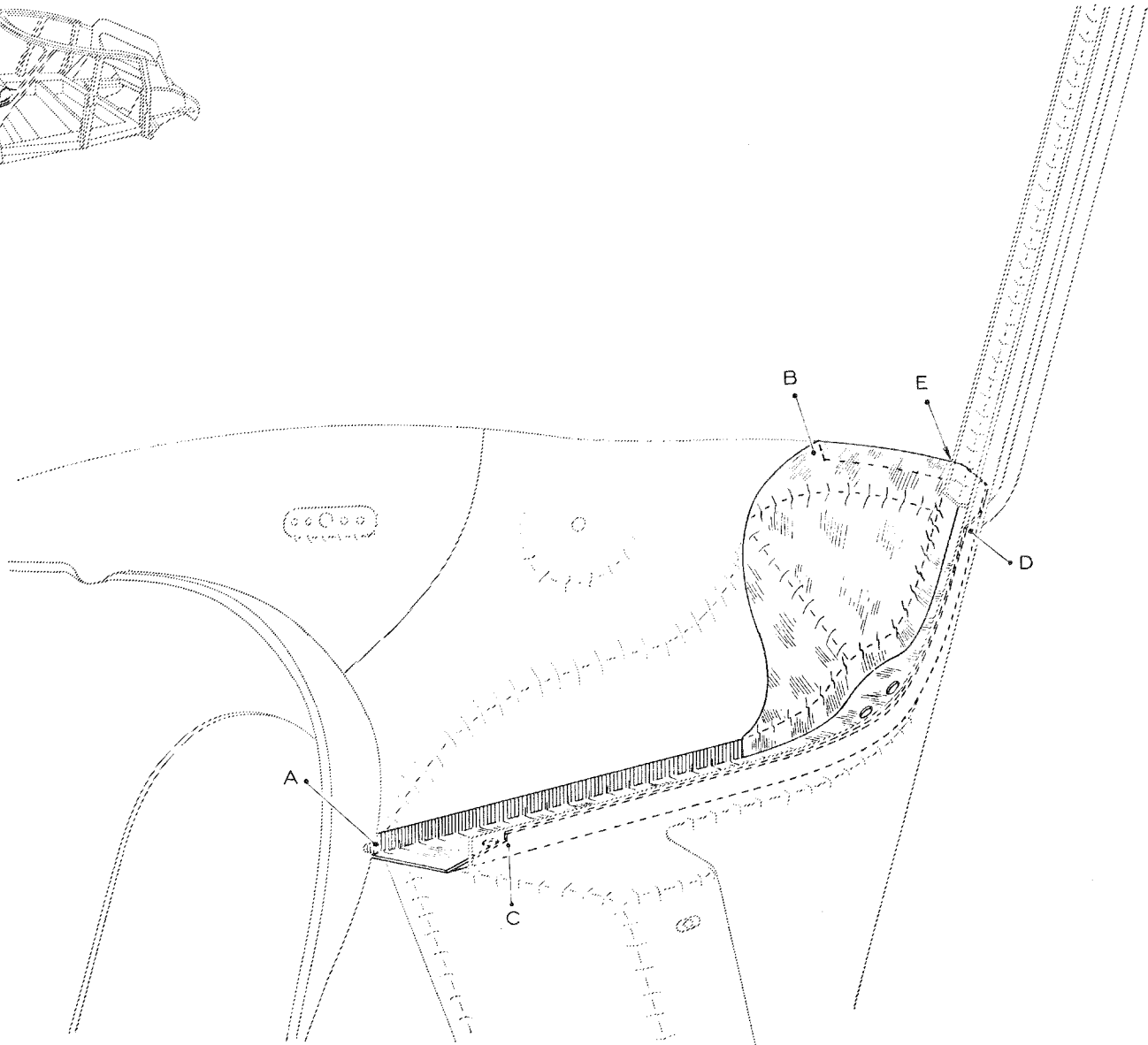
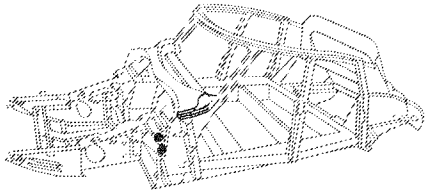
Fig. 3



REPLACING A SCUTTLE PANEL



REPLACING A LOWER-FRONT-PILLAR CLOSING PANEL



REPLACING A SCUTTLE PANEL, UPPER
DASHFRAME AND SCUTTLE SHELF

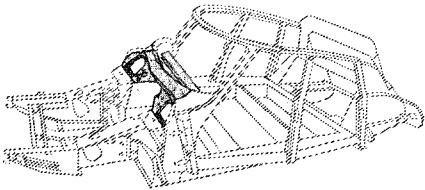


Fig 1

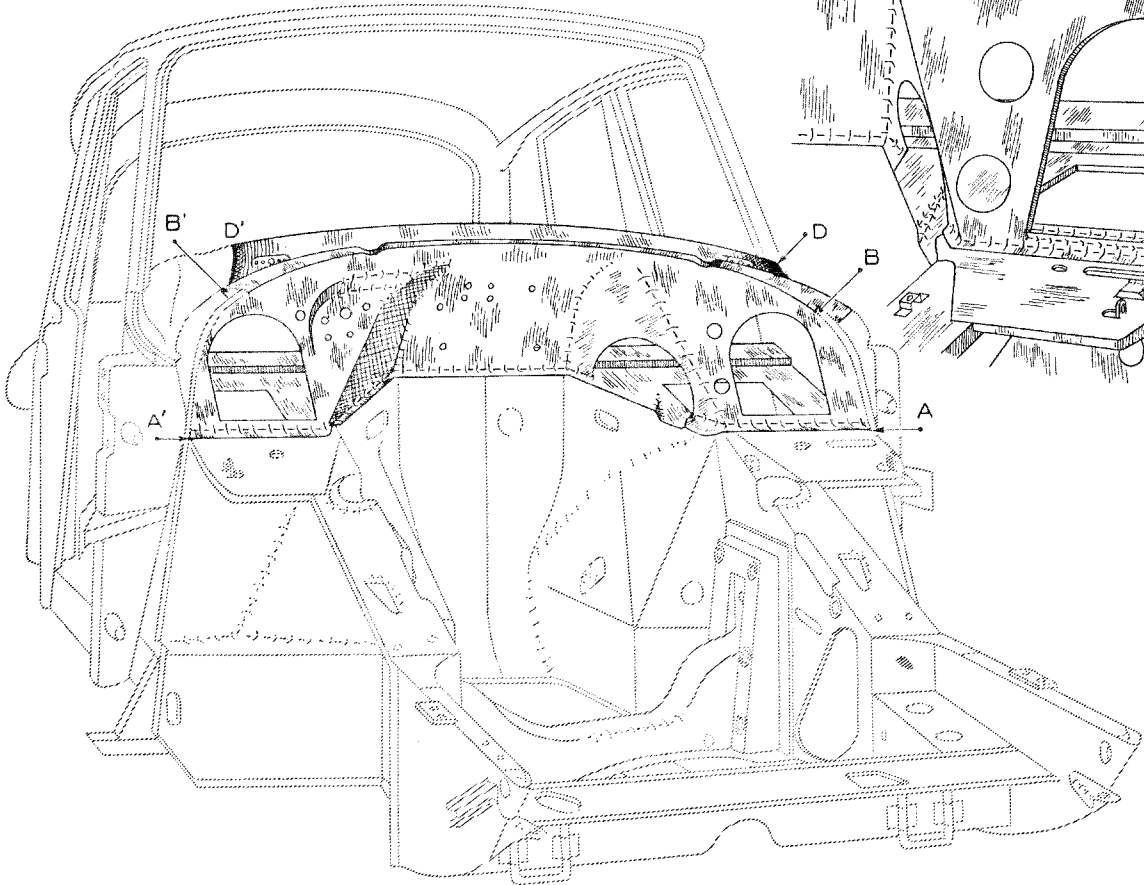
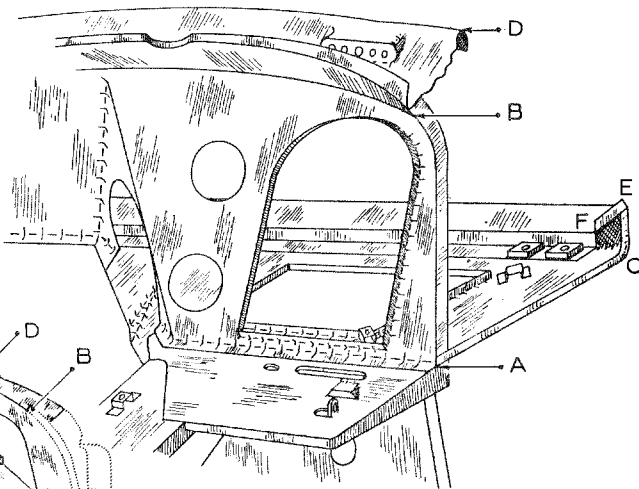


Fig.2



REPLACING A SCUTTLE PANEL, UPPER DASHFRAME AND SCUTTLE SHELF

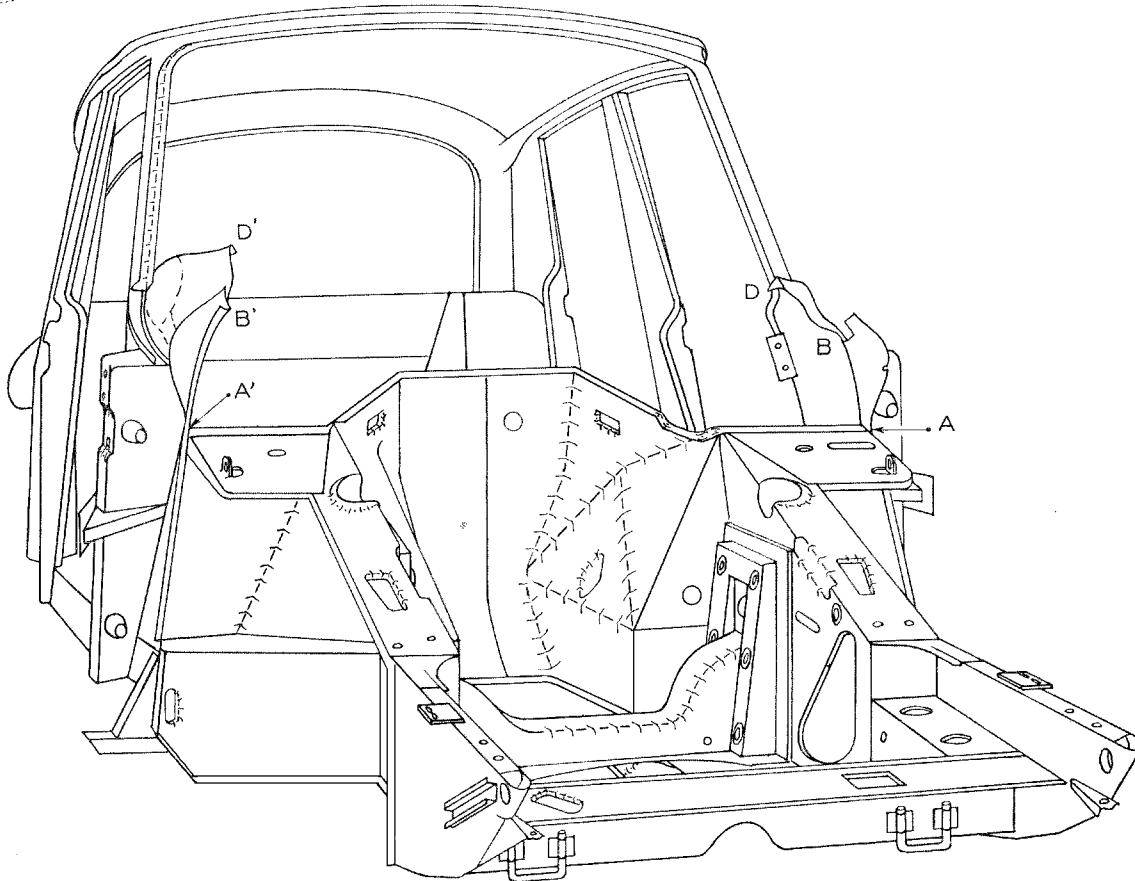
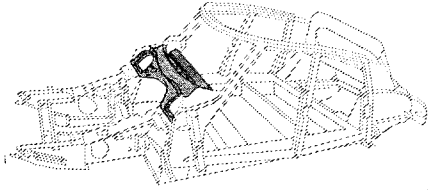
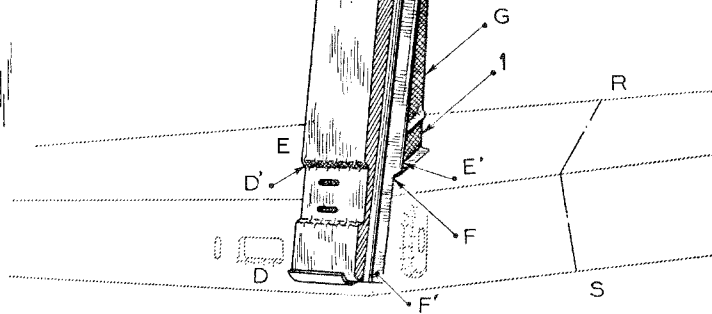


Fig. 1



REPLACING LOWER PART OF A CENTRE PILLAR

Fig. 1



Fig 3

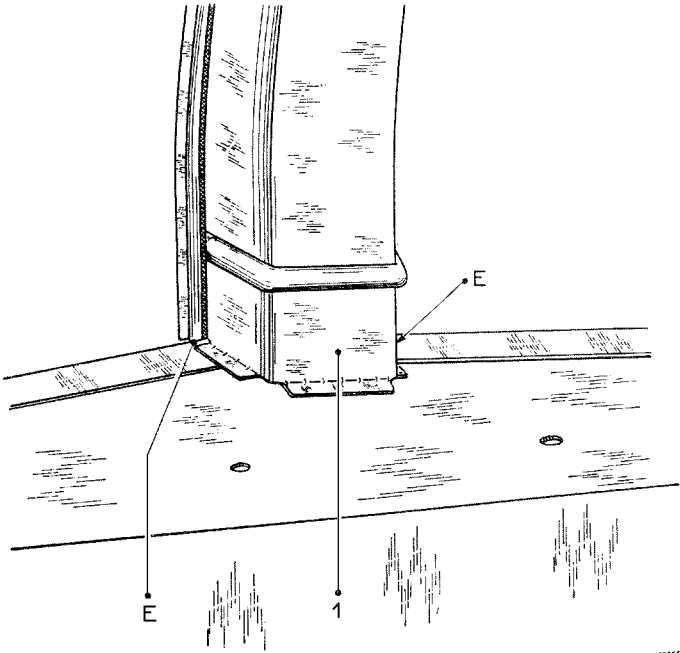
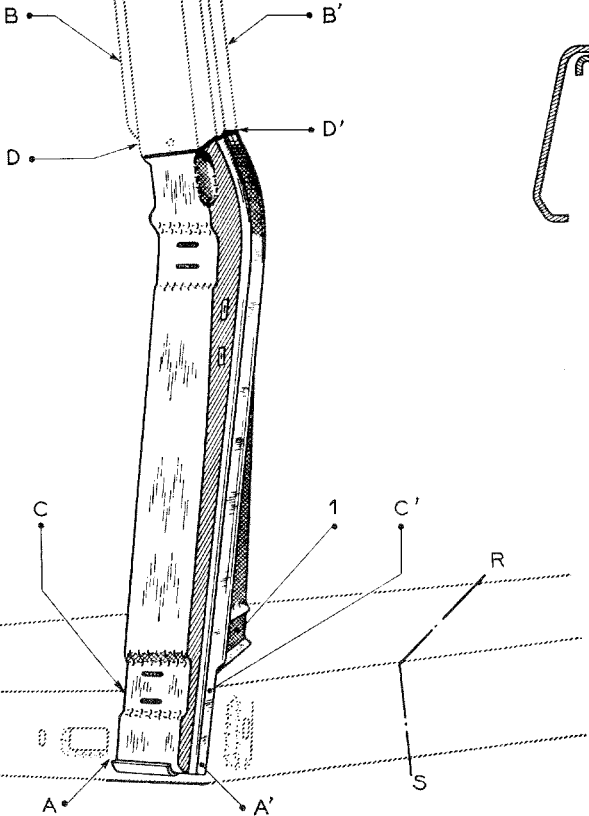
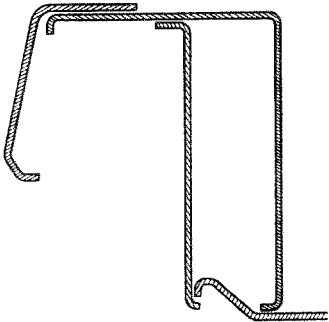
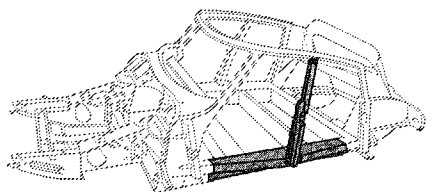


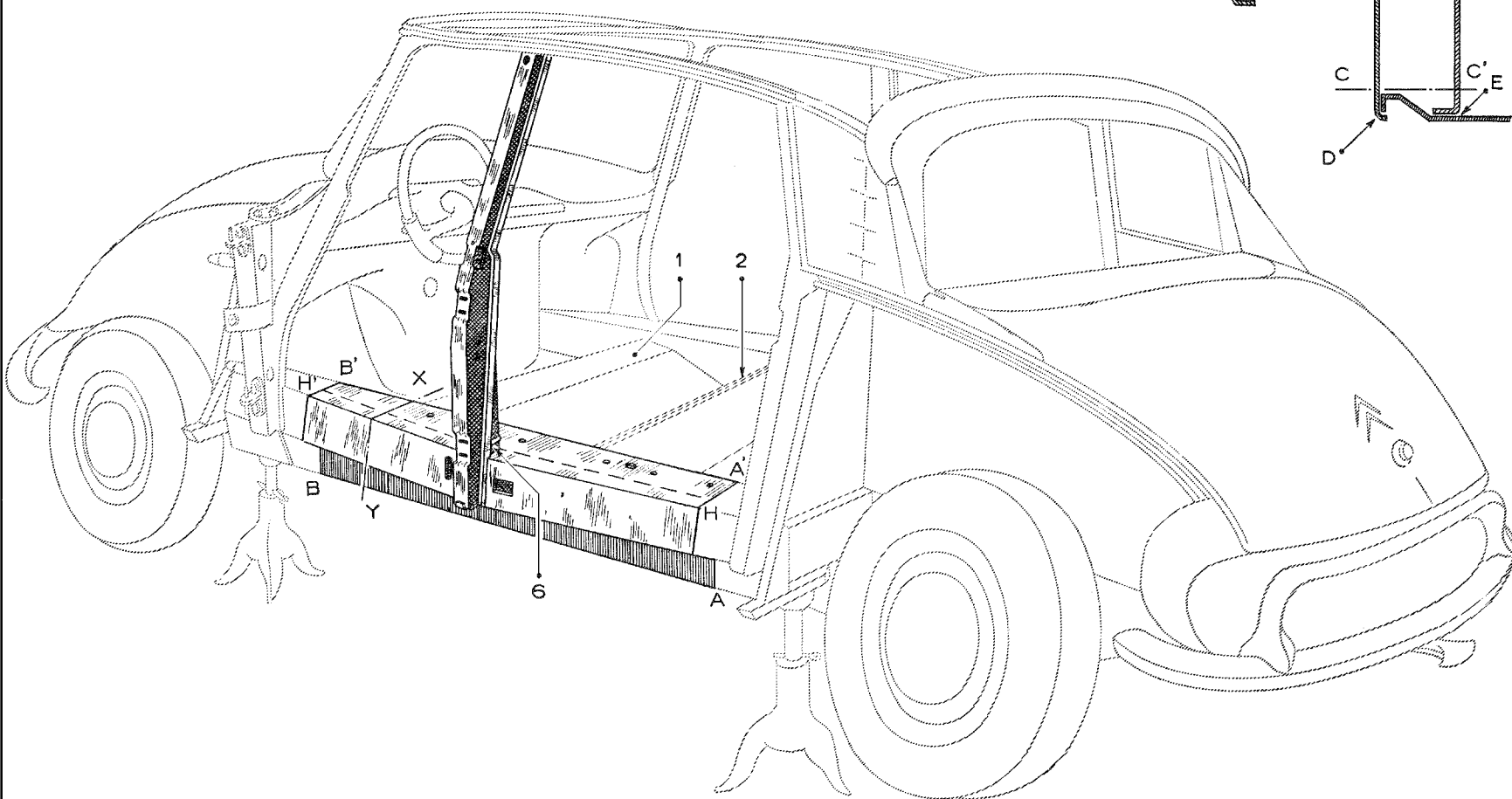
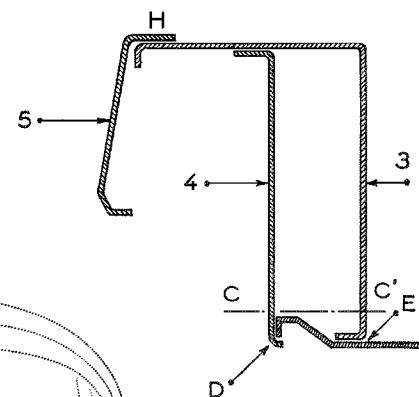
Fig. 2
SECTION RS



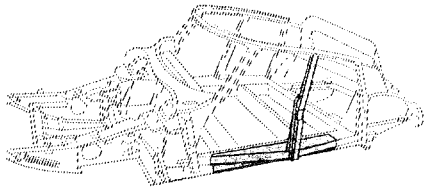
REPLACING A BOTTOM BODY SIDERAIL AND CENTRE PILLAR



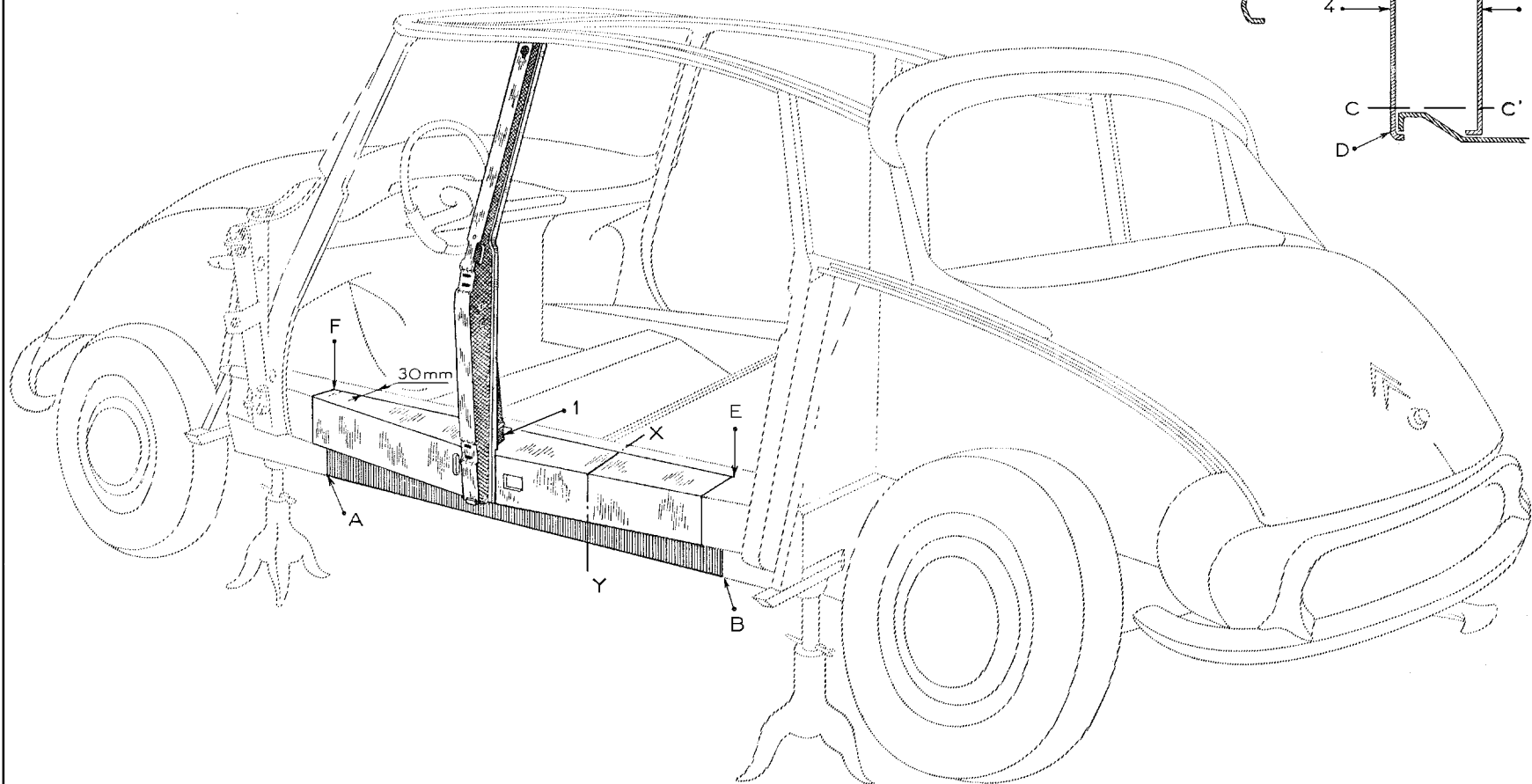
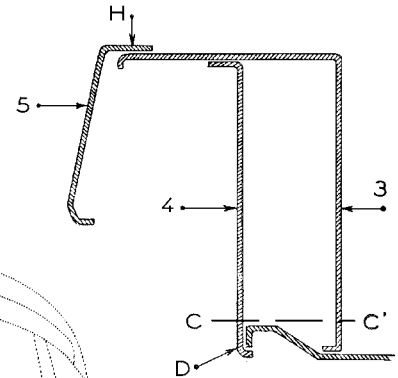
SECTION XY



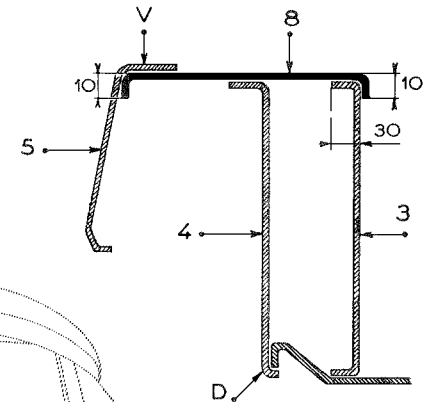
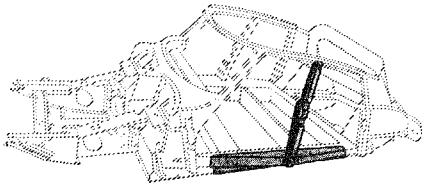
**REPLACING A SIDERAIL CLOSING PANEL,
A SIDEMEMBER LINING
AND A CENTRE PILLAR**



SECTION XY



REPLACING A SIDERAIL CLOSING PANEL, A SIDEMEMBER LINING AND A CENTRE PILLAR



SECTION WZ TO BE
ACHIEVED AFTER
REPAIR

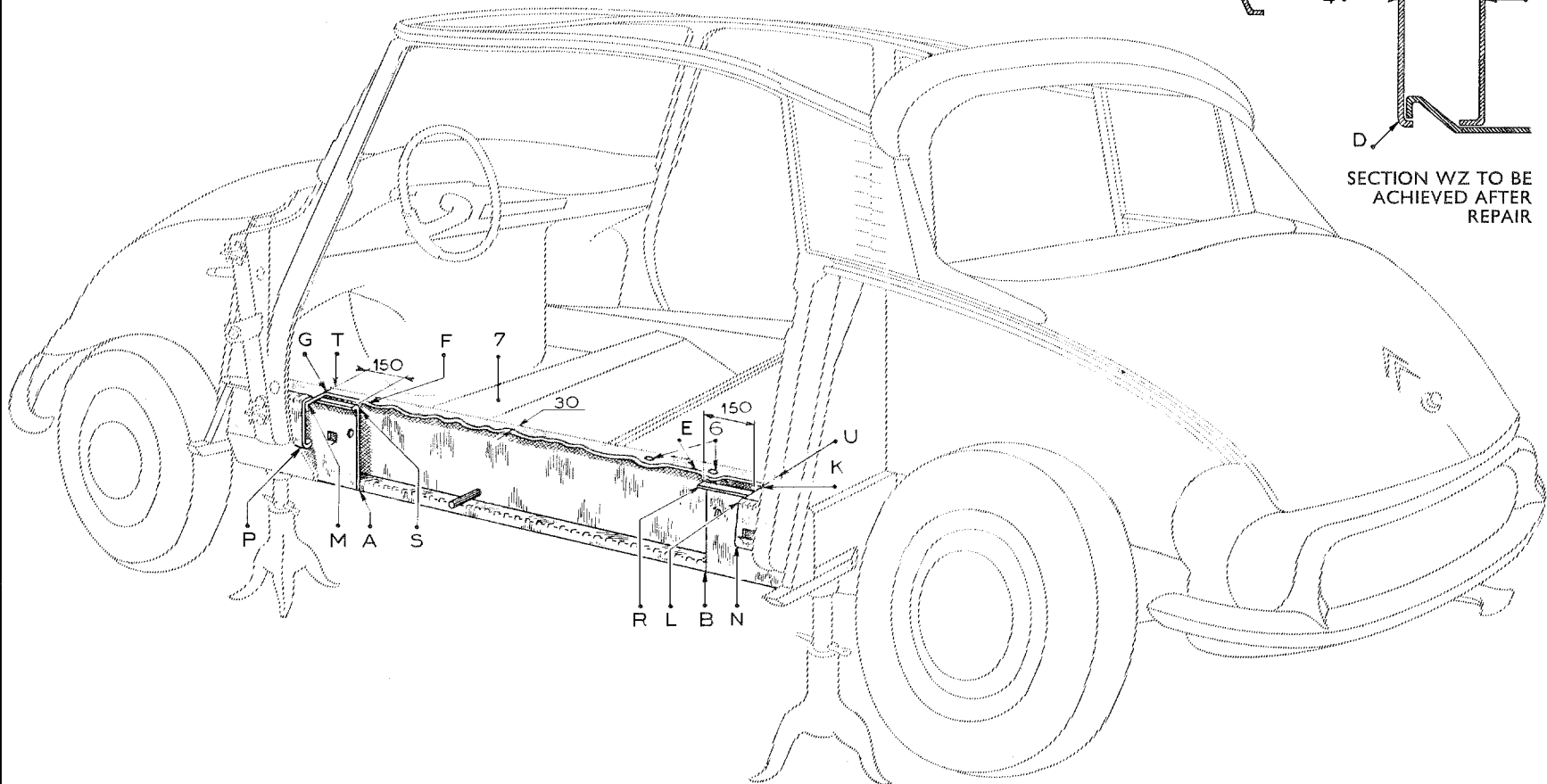


Fig. 1

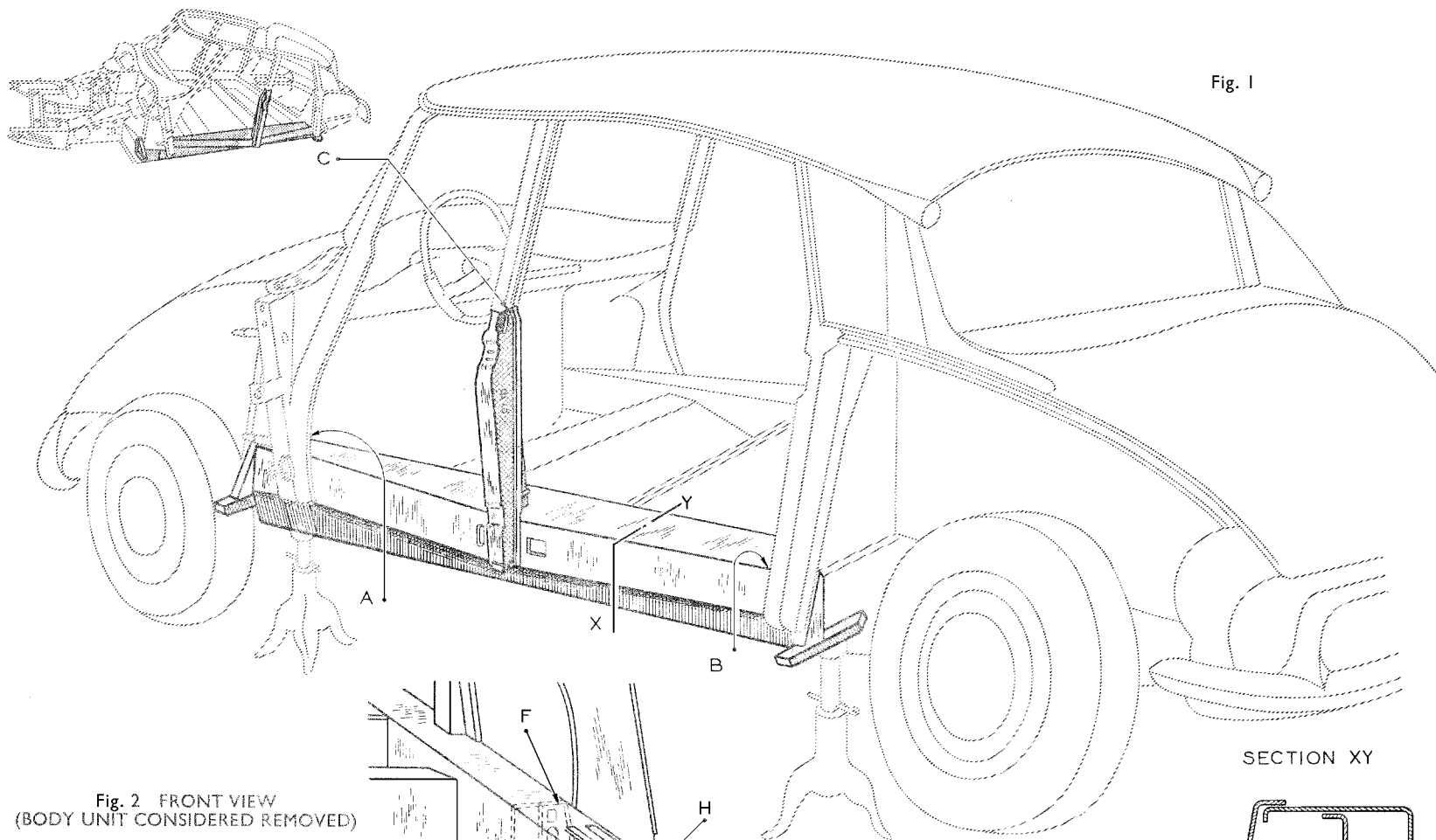
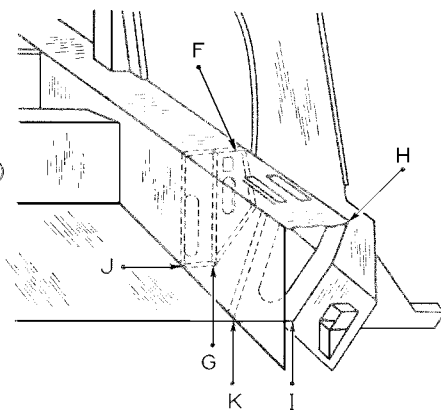
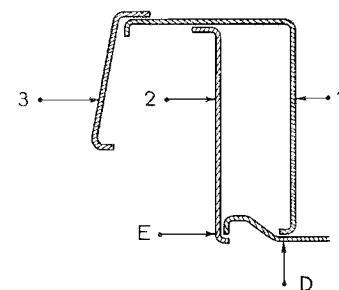


Fig. 2 FRONT VIEW
(BODY UNIT CONSIDERED REMOVED)



SECTION XY



REPLACING A BOTTOM SIDERAIL WITH FRONT SIDEMEMBER AND LOWER PART OF CENTRE PILLAR

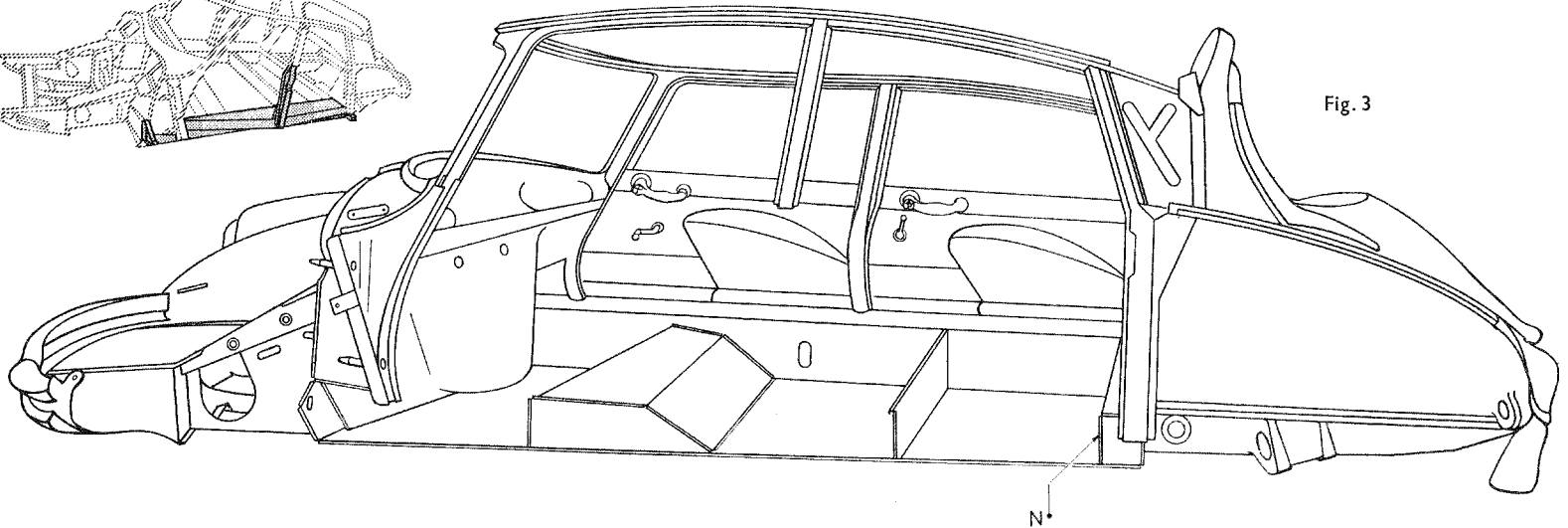
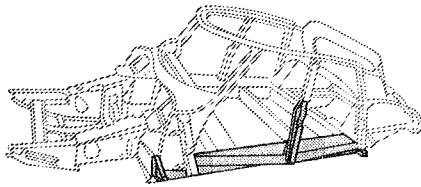


Fig. 3

Fig. 4 VIEW OF REAR
(THROUGH LEFT-HAND REAR-
DOOR OPENING)

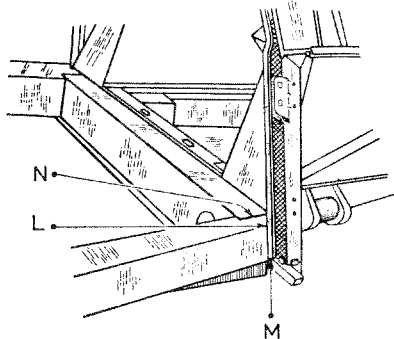
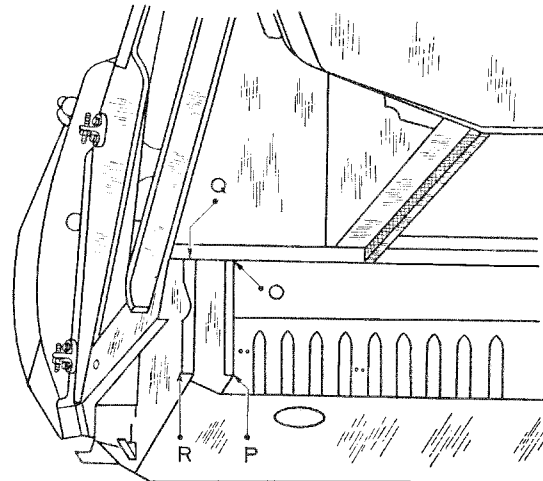


Fig. 5 REAR VIEW
(BODY UNIT CONSIDERED REMOVED)



REPAIRING THE BOTTOM BODY SIDERAILS

FOR VEHICLES PRODUCED BEFORE SEPTEMBER 1962

Fig. 1

Make a series of holes in the reinforcement panel, 10mm. dia, to be filled with brazing

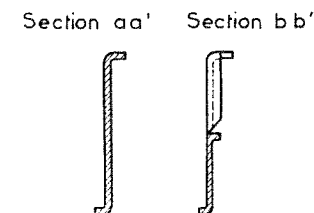
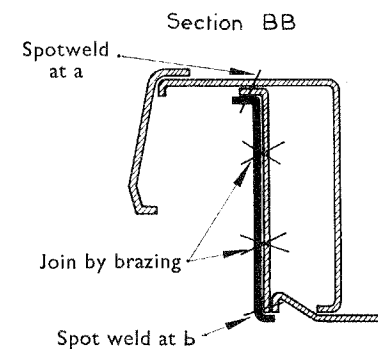
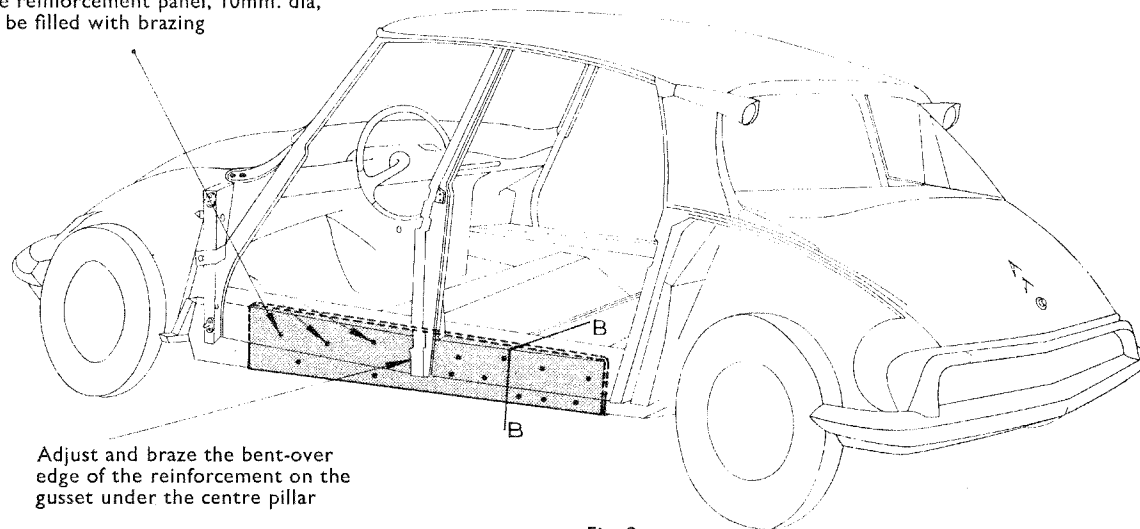
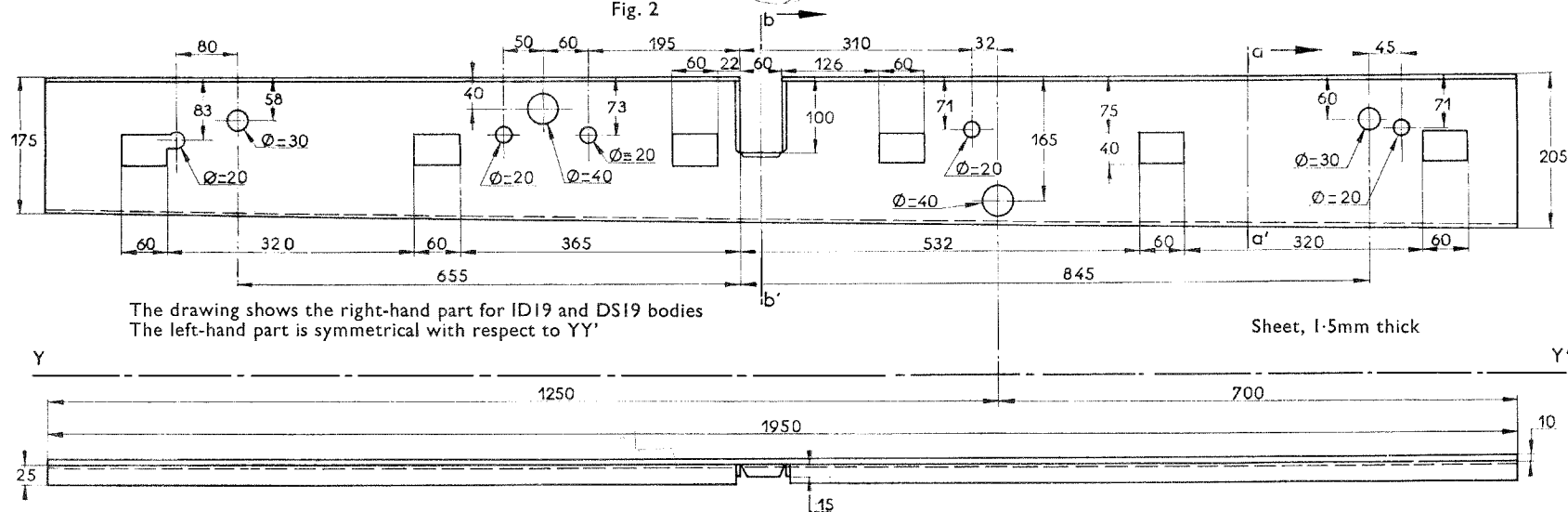
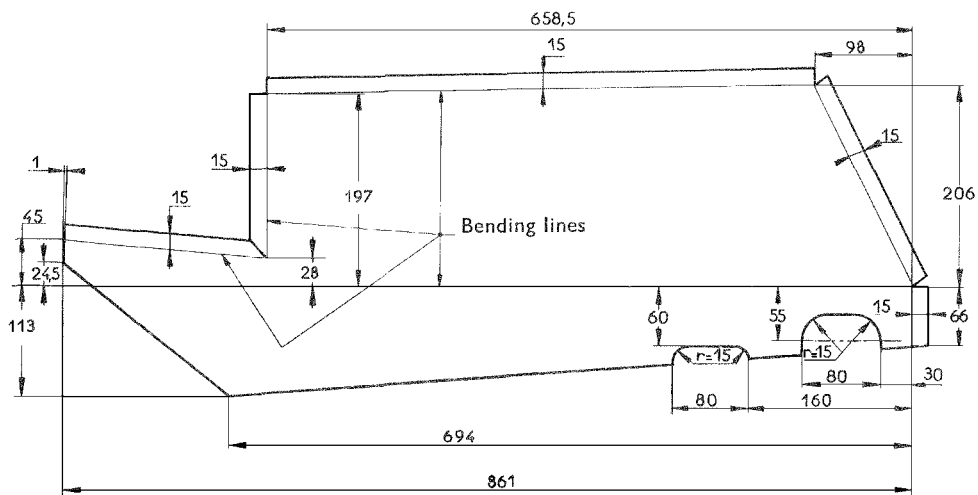


Fig. 2



REPAIRING THE BOTTOM BODY SIDERAILS

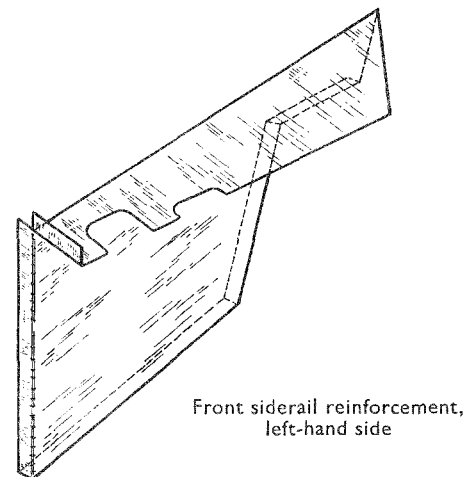
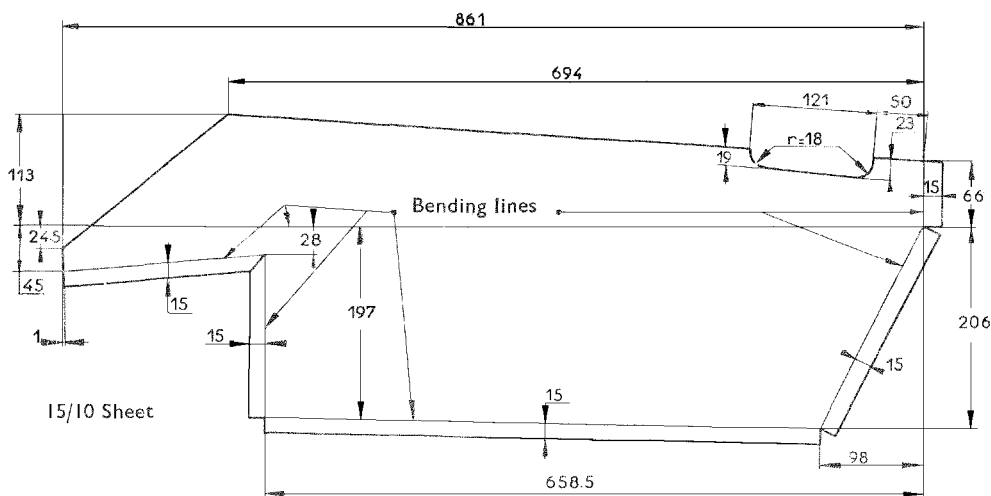
FOR VEHICLES PRODUCED BEFORE SEPTEMBER 1962



15/10 Sheet

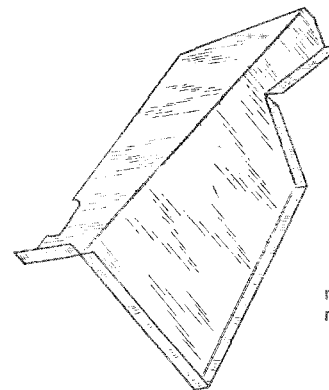
N.B. The above dimensions are average
Take account of the manufacturing
tolerances on the body

Fig. 1

Front siderail reinforcement,
left-hand side

15/10 Sheet

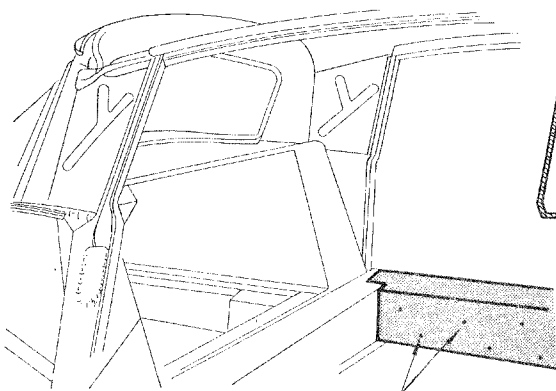
Fig. 2

Front siderail
reinforcement,
right-hand side

REPAIRING THE BOTTOM BODY SIDERAILS

VEHICLES PRODUCED BEFORE SEPTEMBER 1962

Fig. 1



Make a series of holes in the reinforcement panel, 10mm dia., to be filled with brazing.

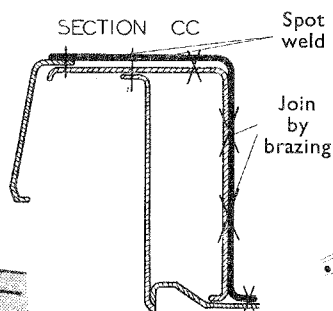


Fig. 2

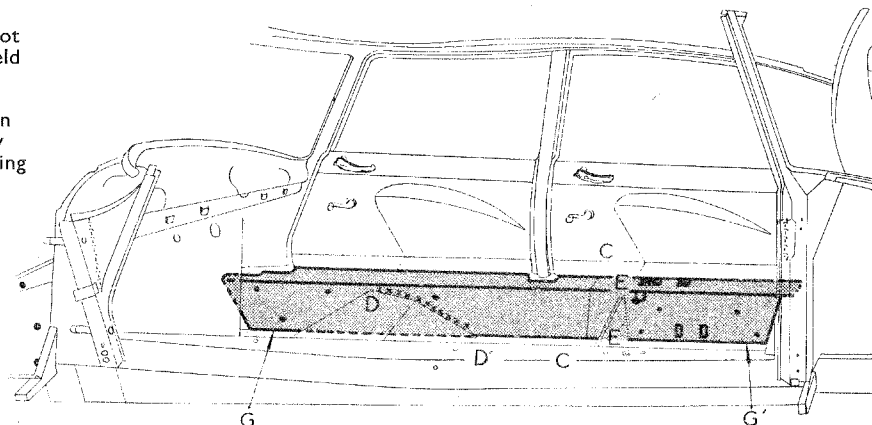
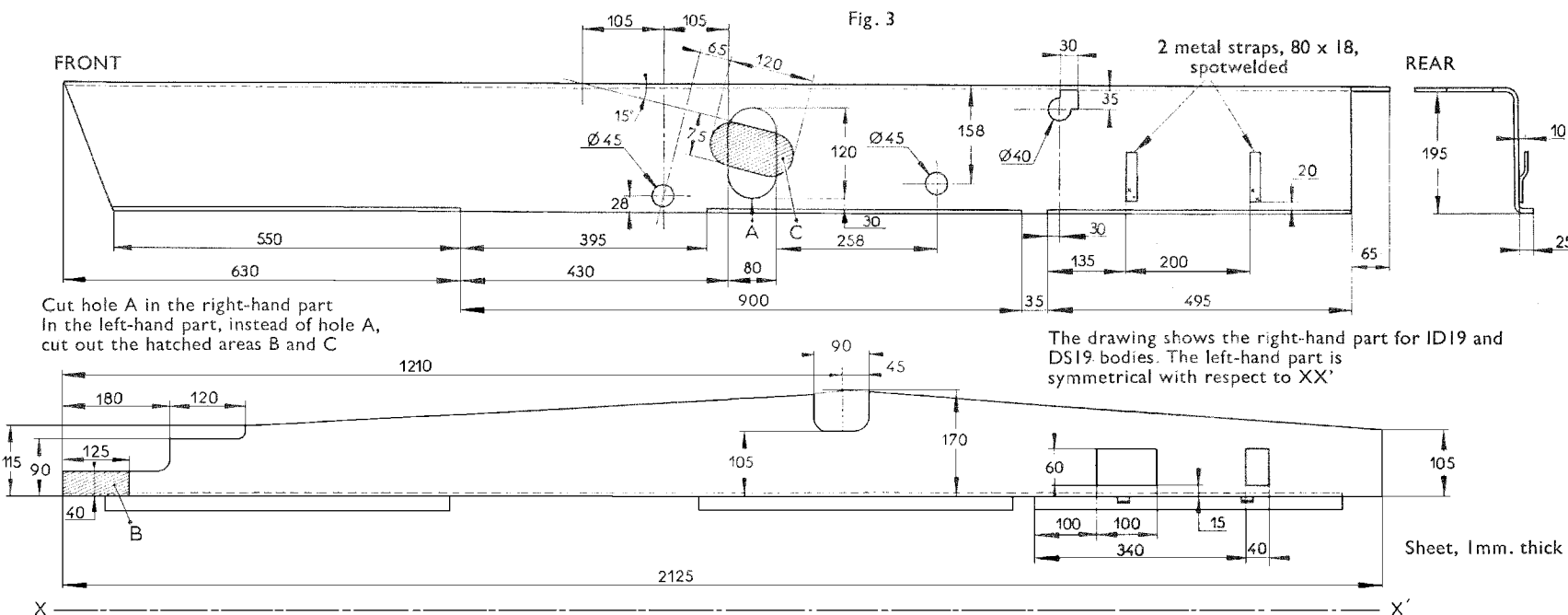
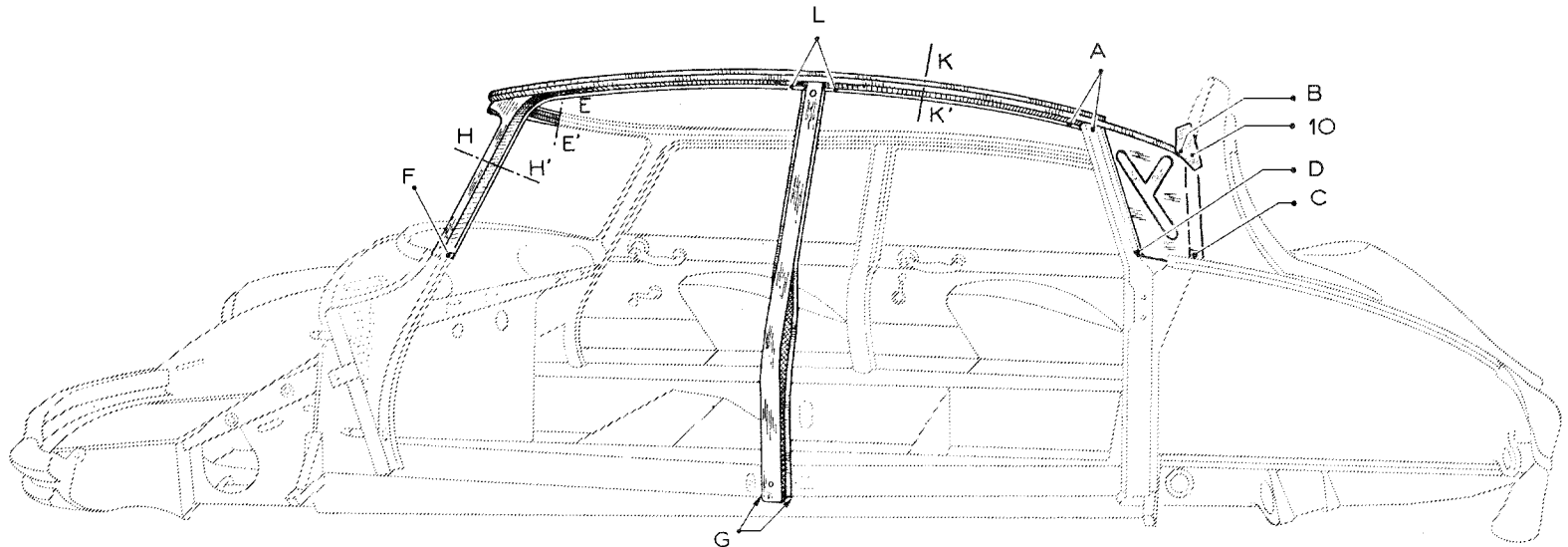
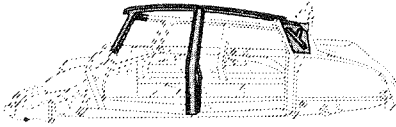


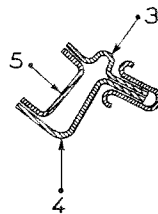
Fig. 3



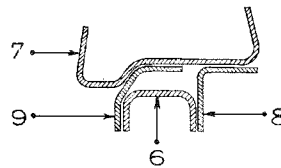
REPLACING PART OF THE ROOF SIDERAIL, PILLARS AND QUARTER-PANEL LINING



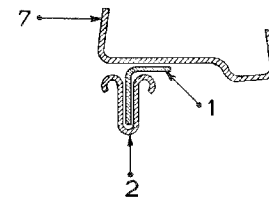
SECTION HH'



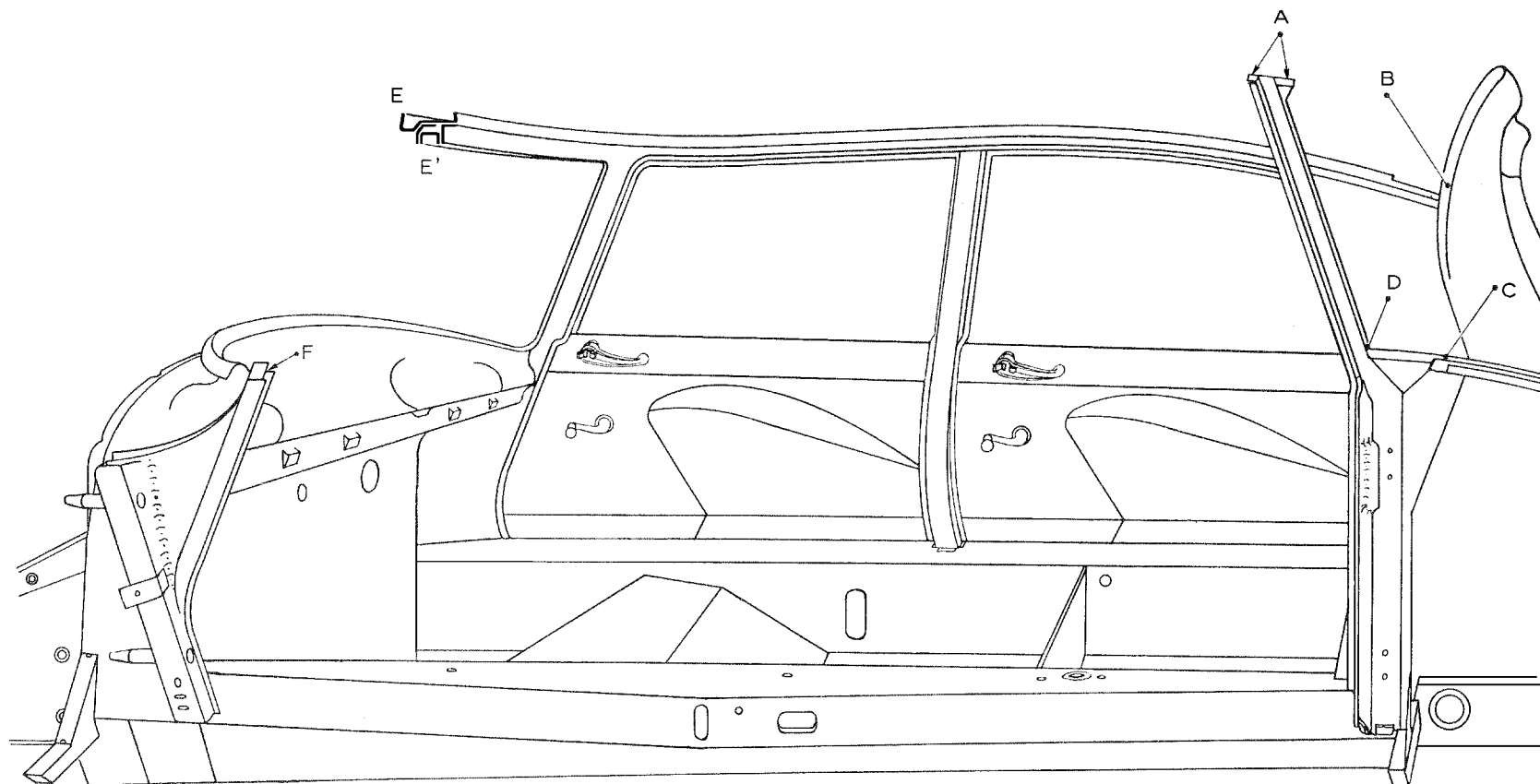
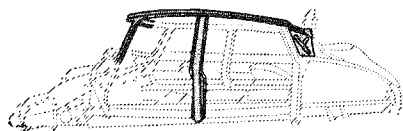
SECTION EE'



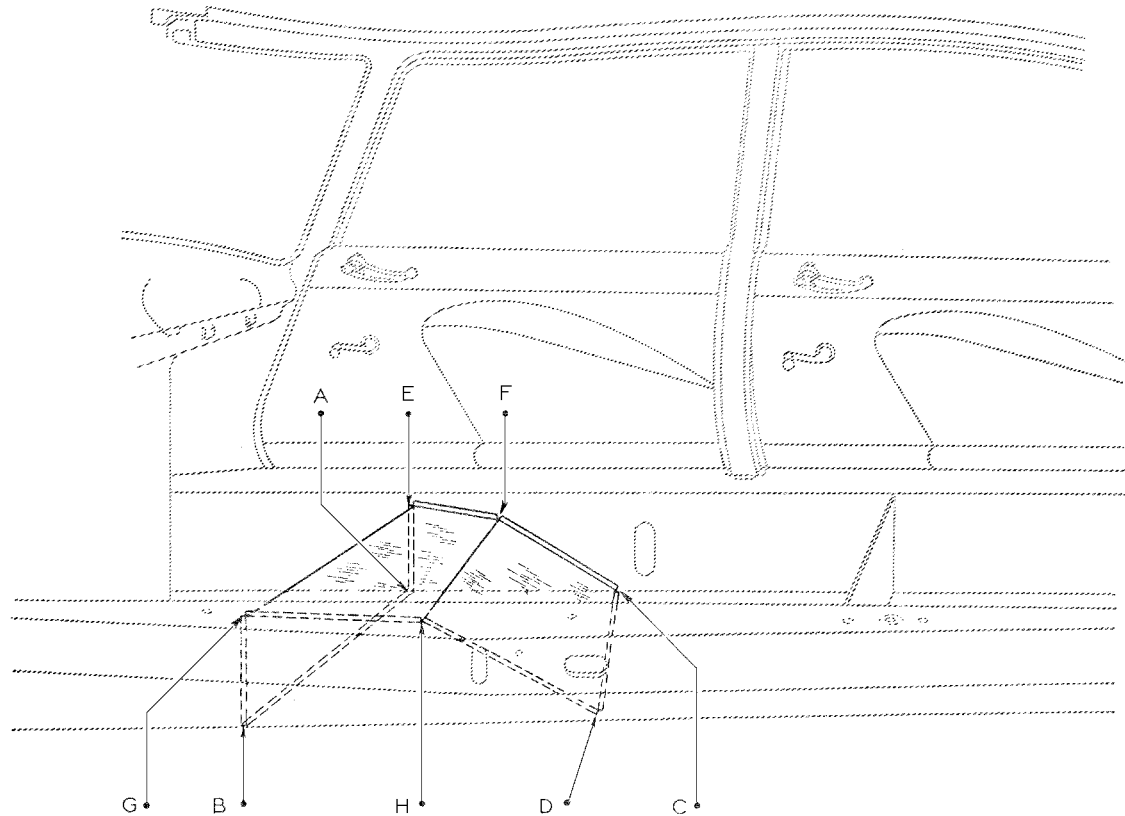
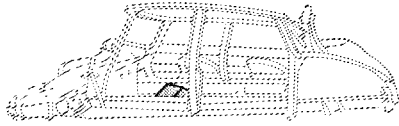
SECTION KK'



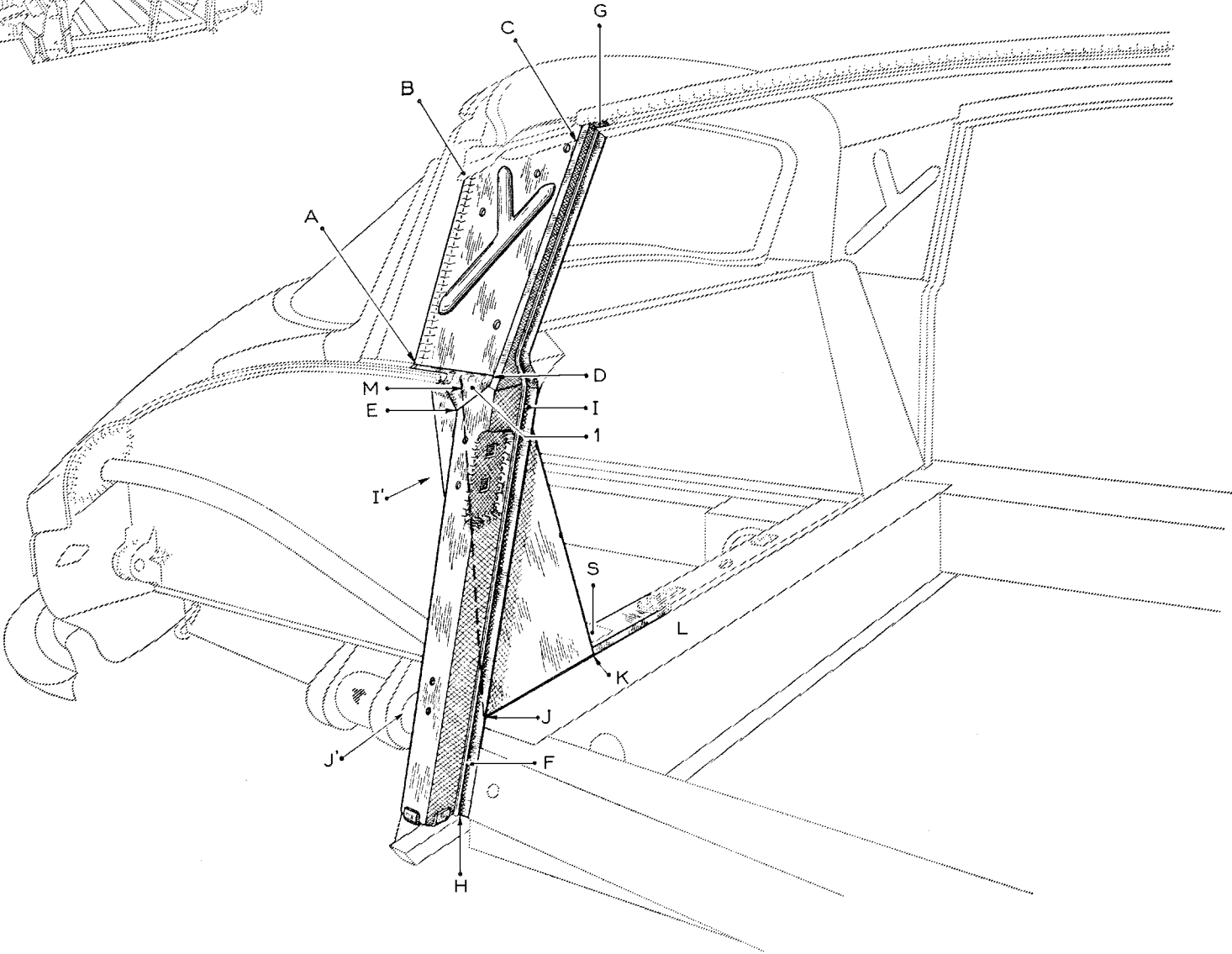
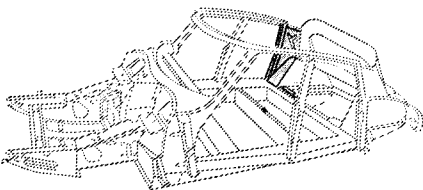
REPLACING PART OF THE ROOF SIDERAIL, PILLARS AND QUARTER-PANEL LINING



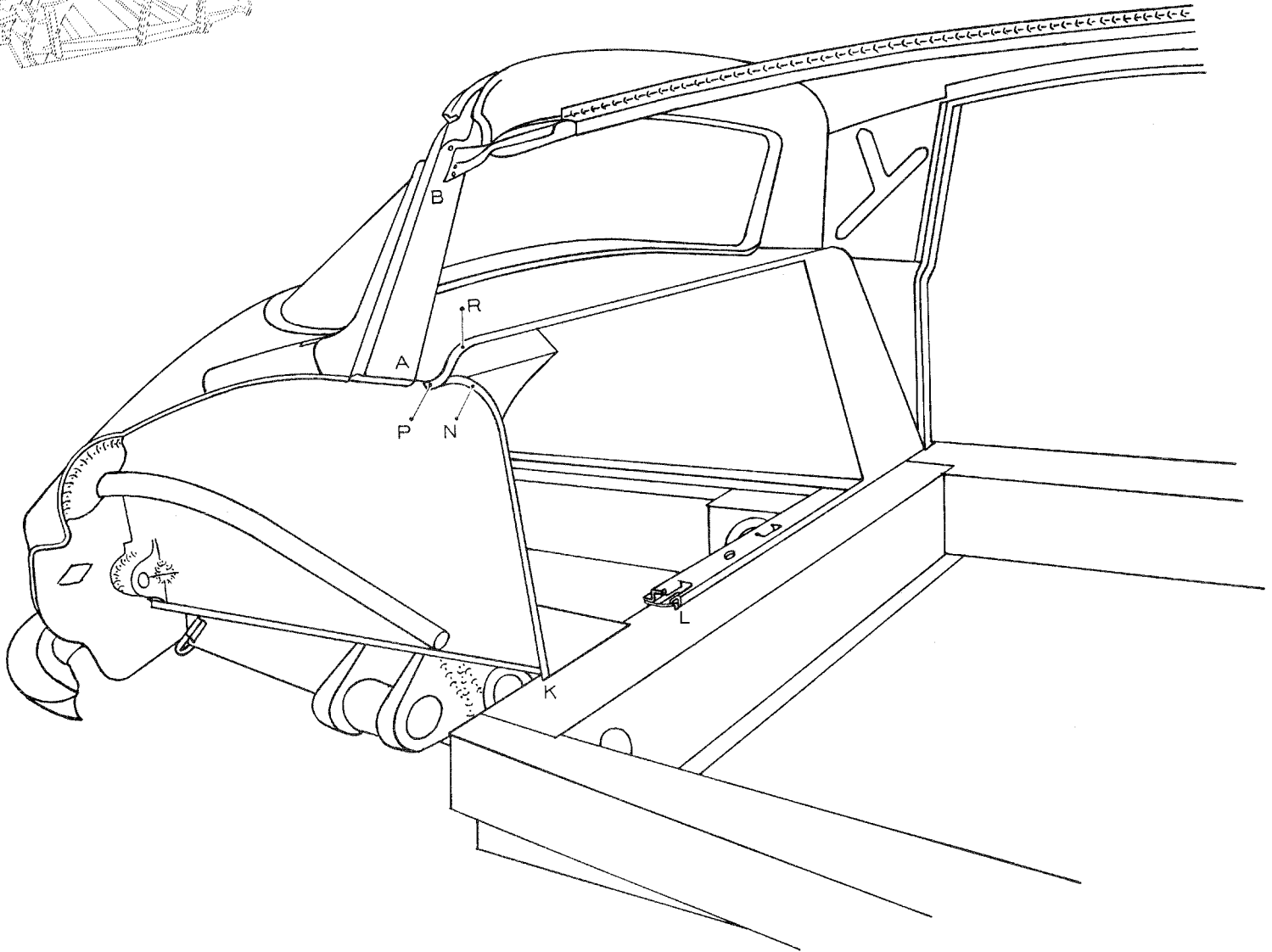
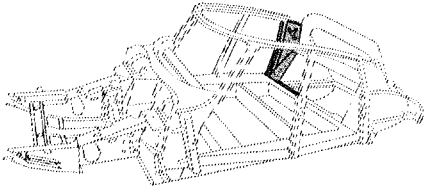
REPLACING THE CROSSMEMBER UNDER THE FRONT SEATS



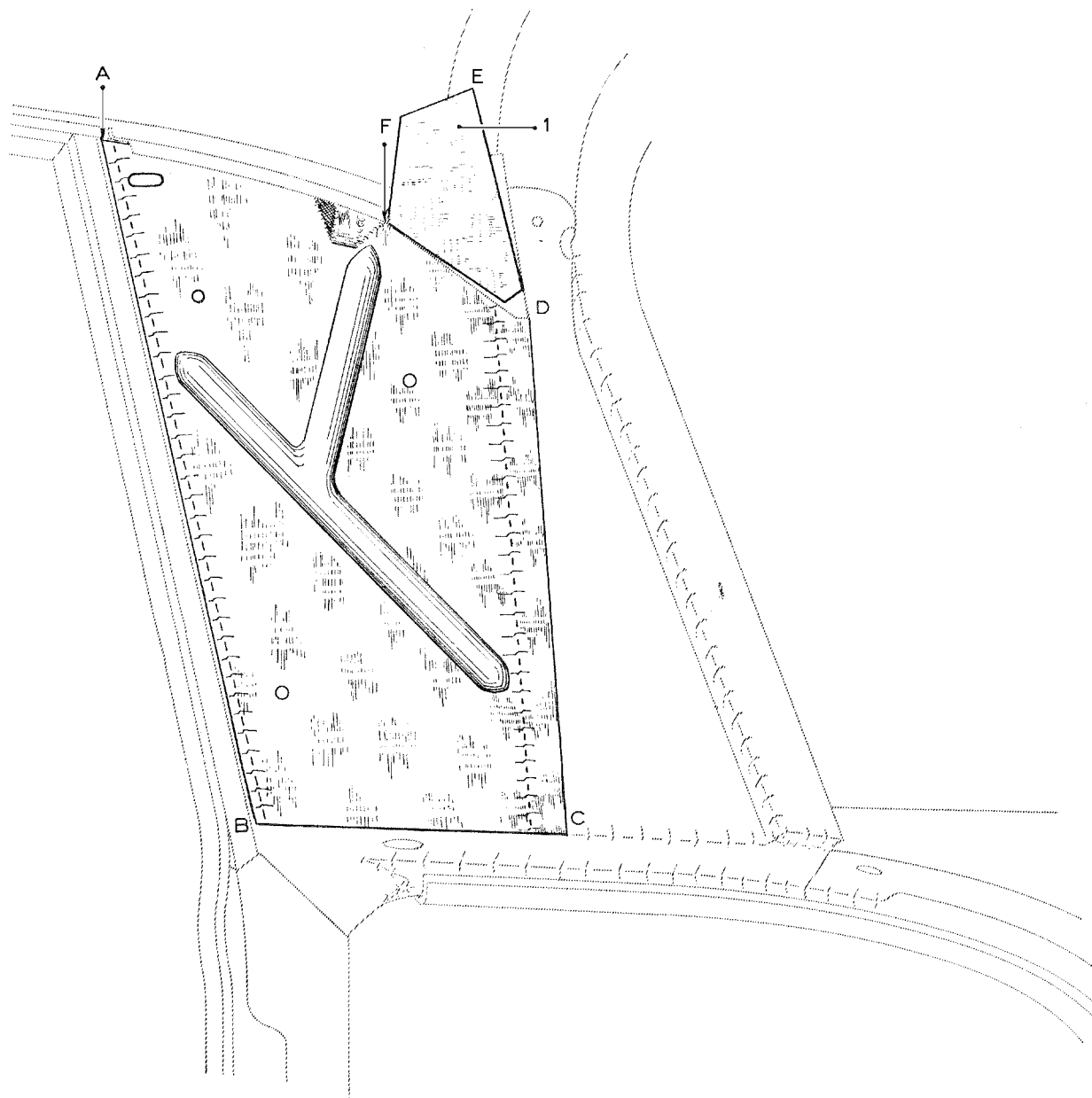
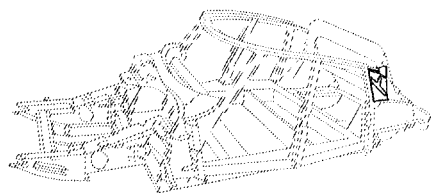
REPLACING A REAR PILLAR, CROSSMEMBER,
PANELS AND SIDE PANELS



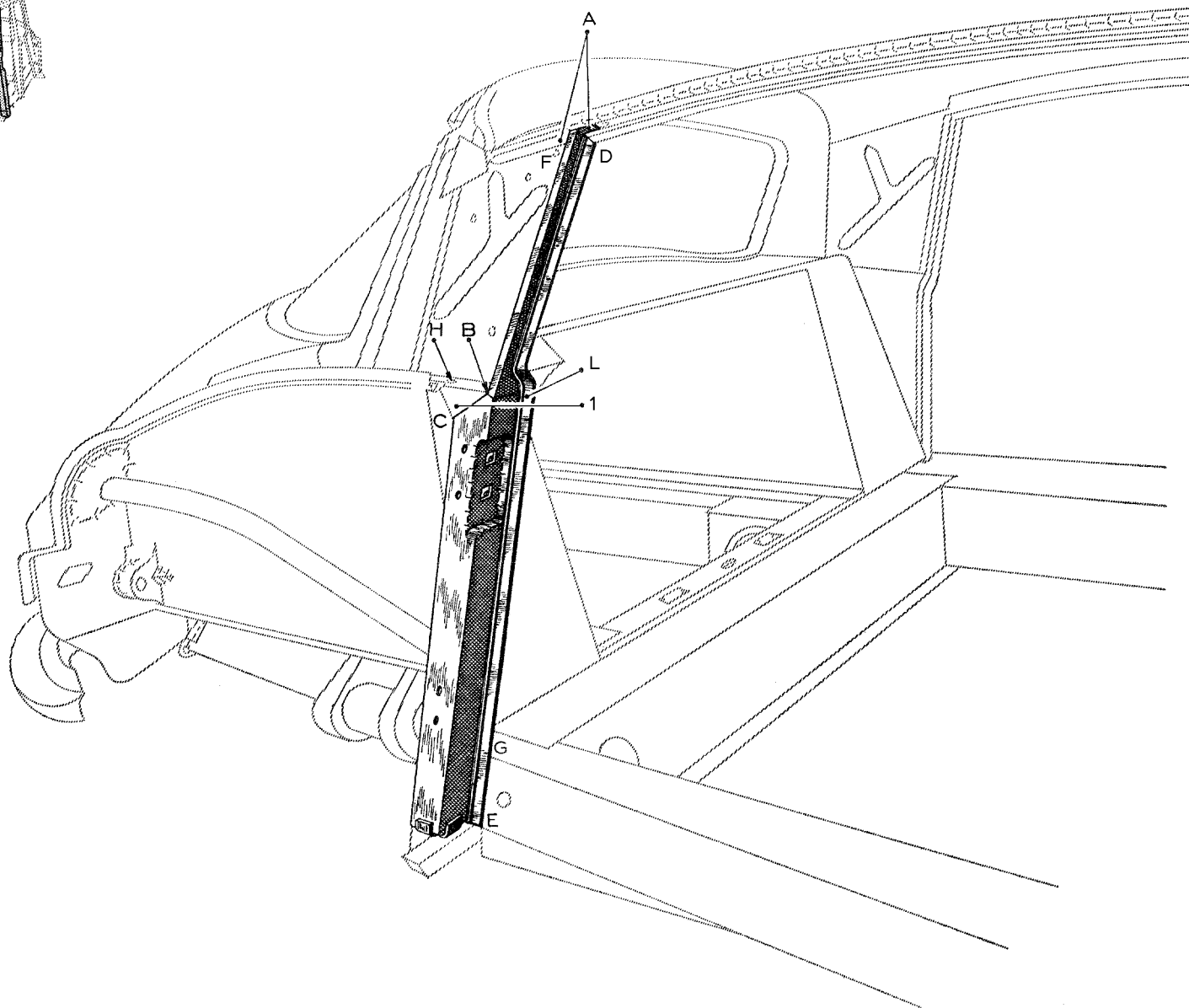
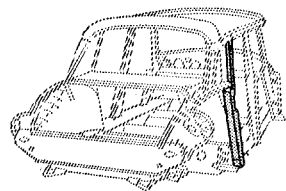
REPLACING A REAR PILLAR, CROSSMEMBER, PANELS AND SIDE PANELS



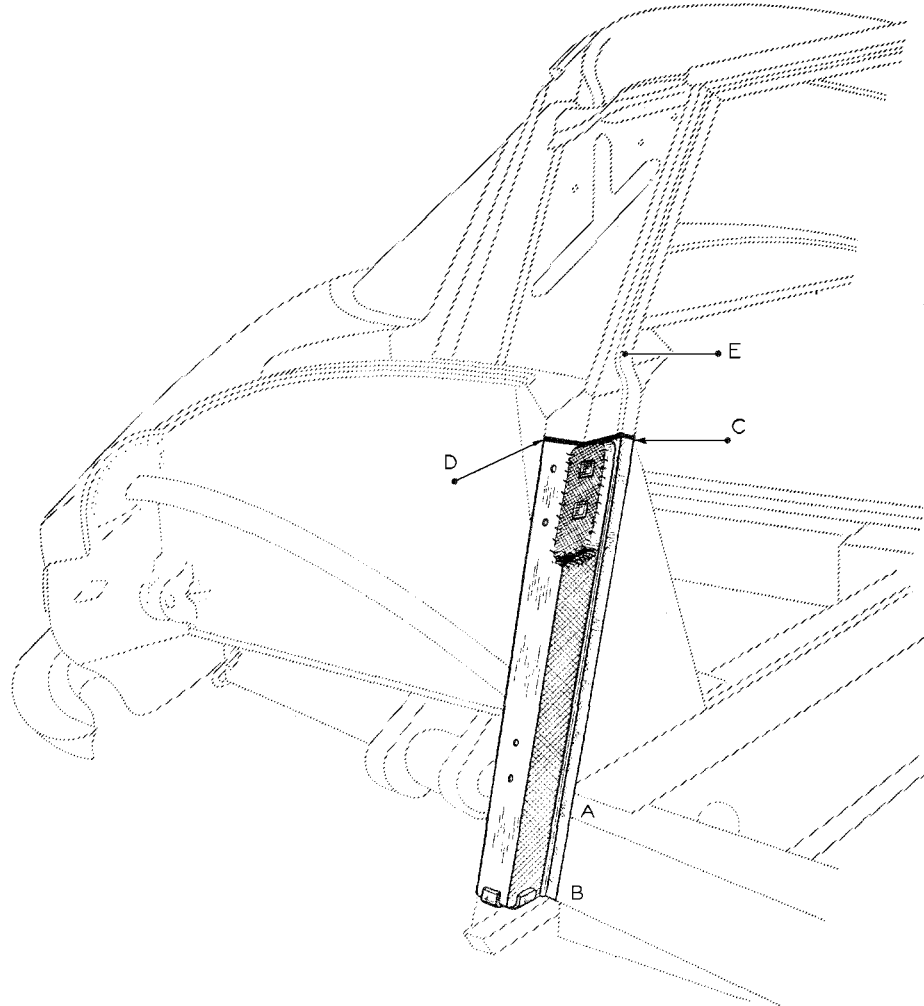
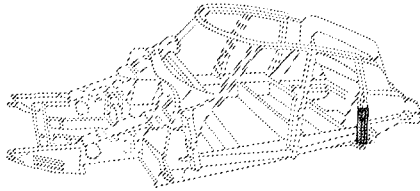
REPLACING A QUARTER-PANEL LINING



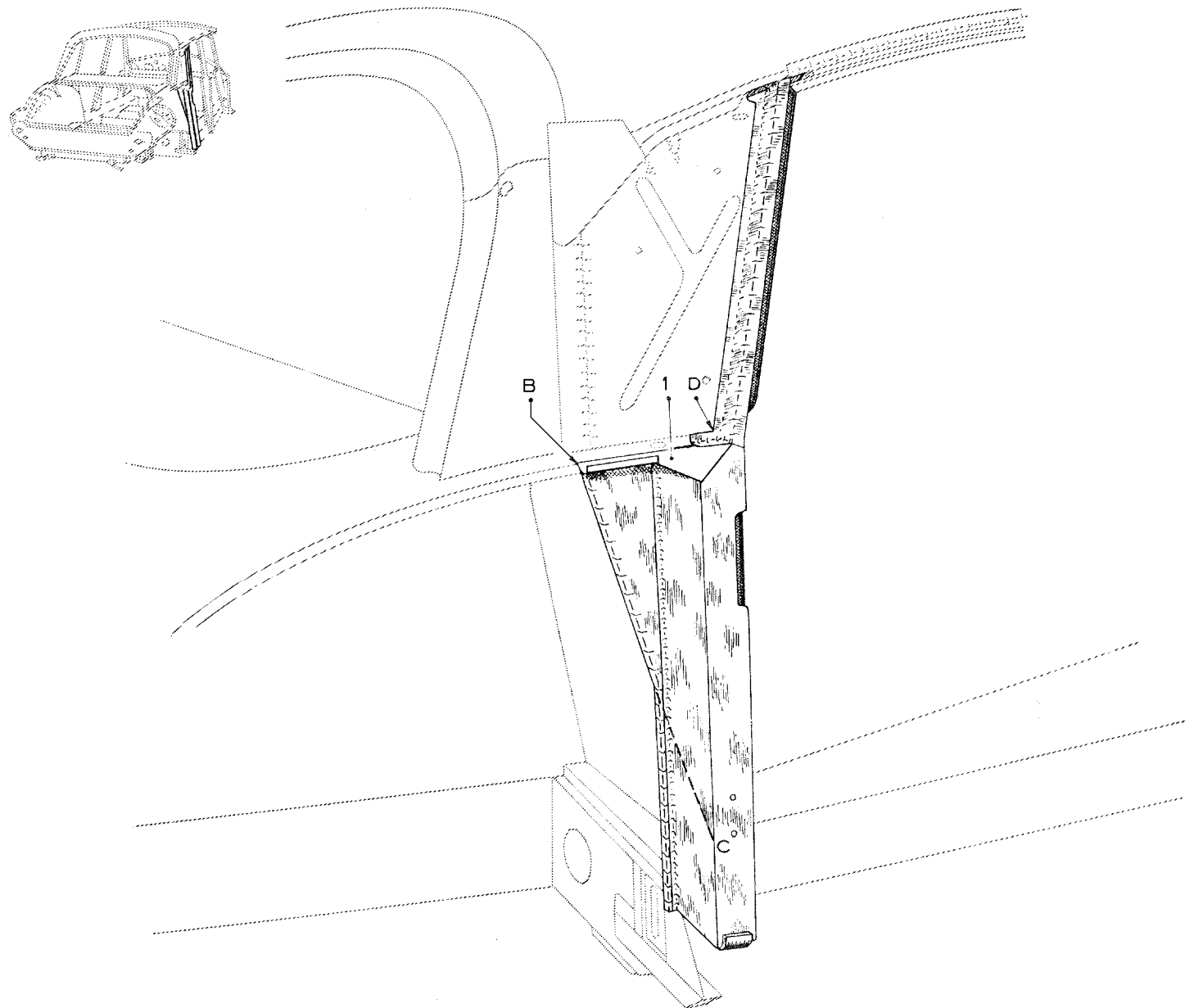
REPLACING A REAR PILLAR



REPLACING LOWER PART OF A REAR PILLAR



REPLACING A REAR PILLAR AND LATERAL CLOSING PANEL



REPLACING A PILLAR, A LATERAL PANEL AND A WHEEL-ARCH CLOSING PANEL



Fig. 1

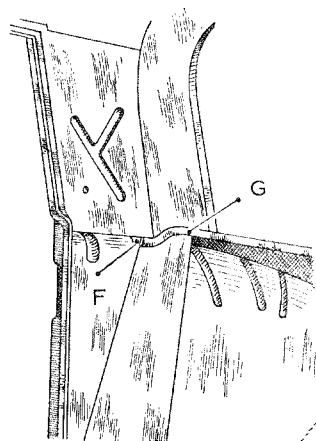
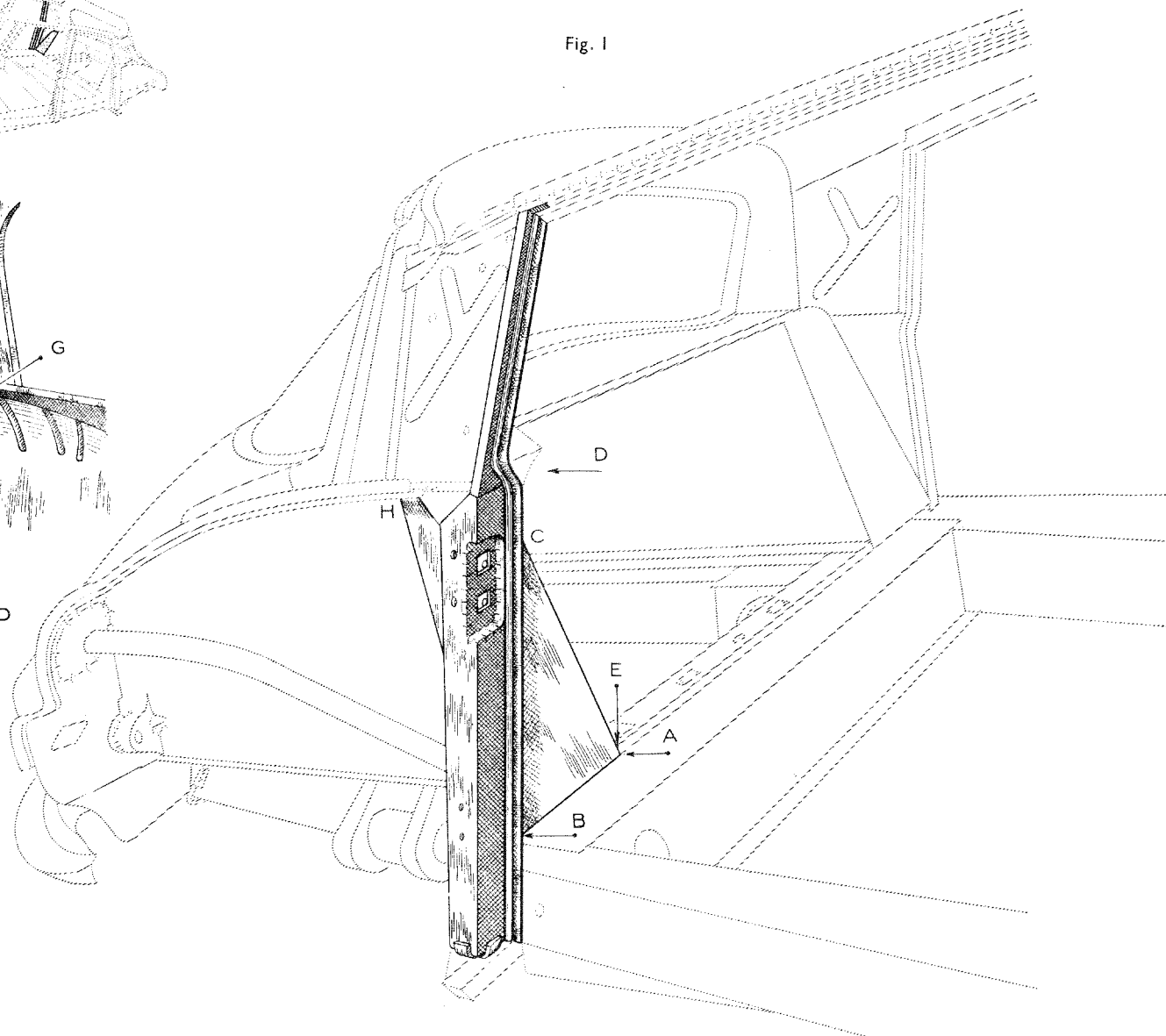
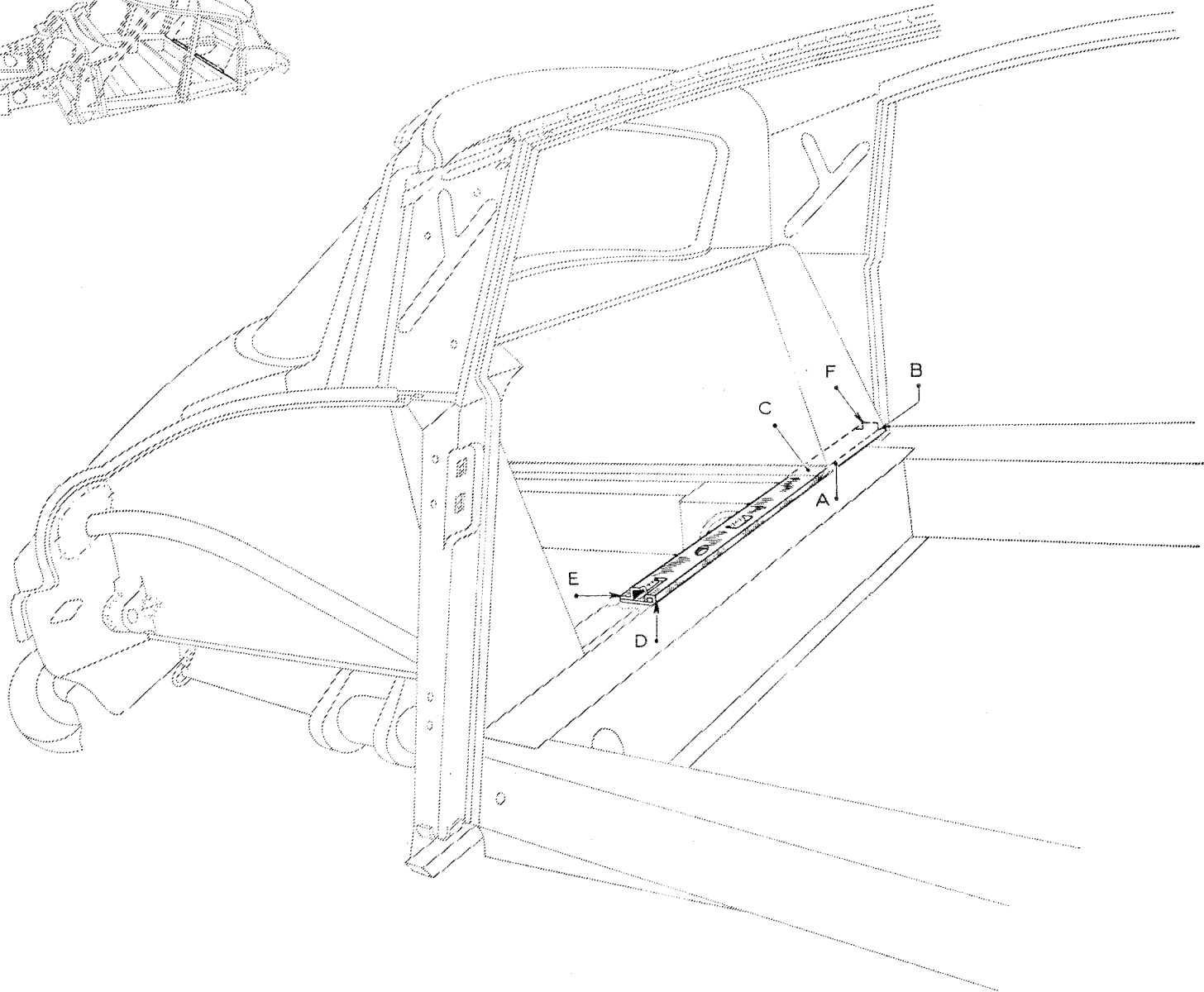
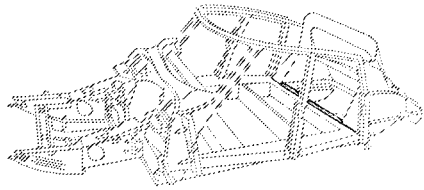


Fig. 2 VIEW ALONG D



REPLACING PART OF A REAR BODY LOWER SIDEMEMBER



REPAIRING A HOUSING FOR REAR-AXLE-ARM BEARING

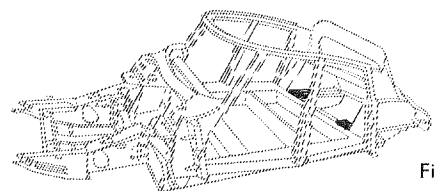


Fig. 1

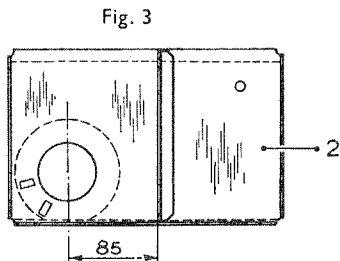
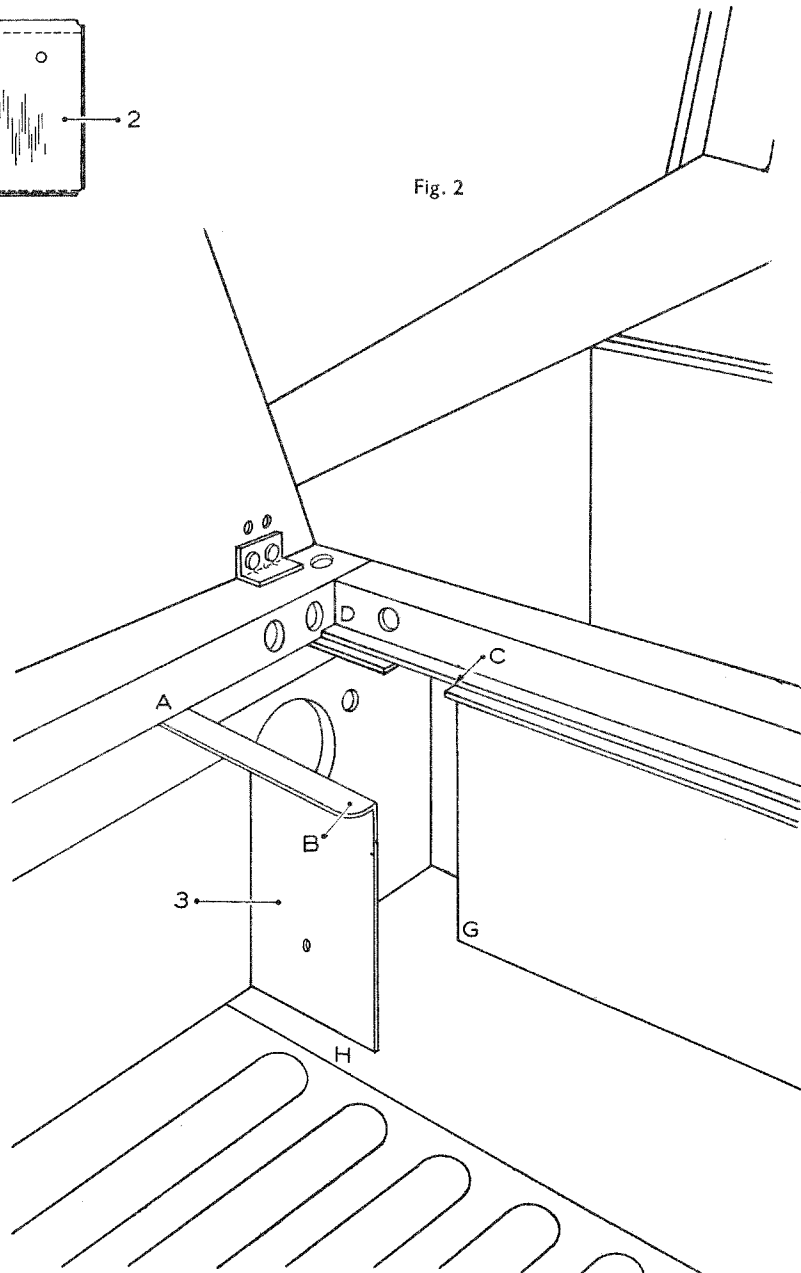
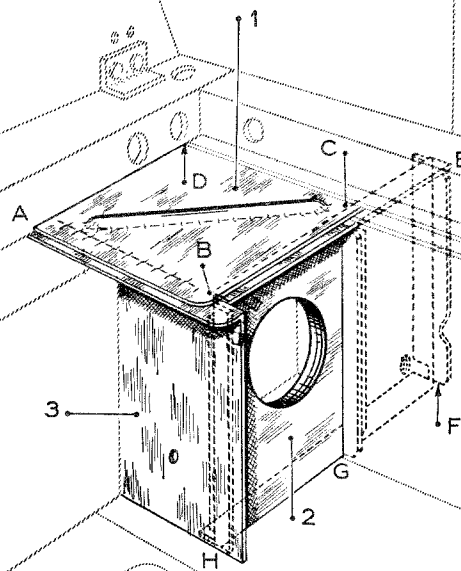
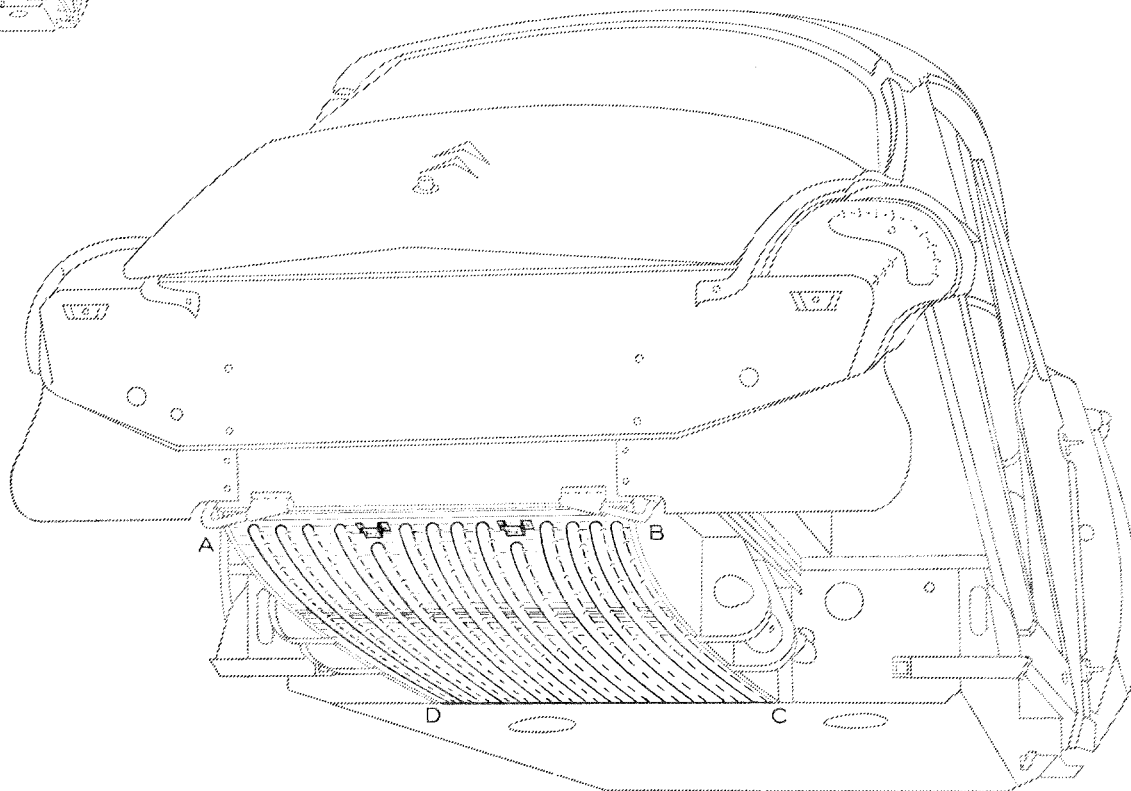
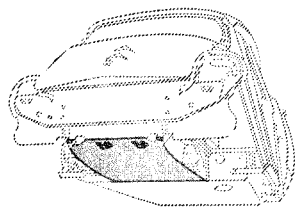


Fig. 3

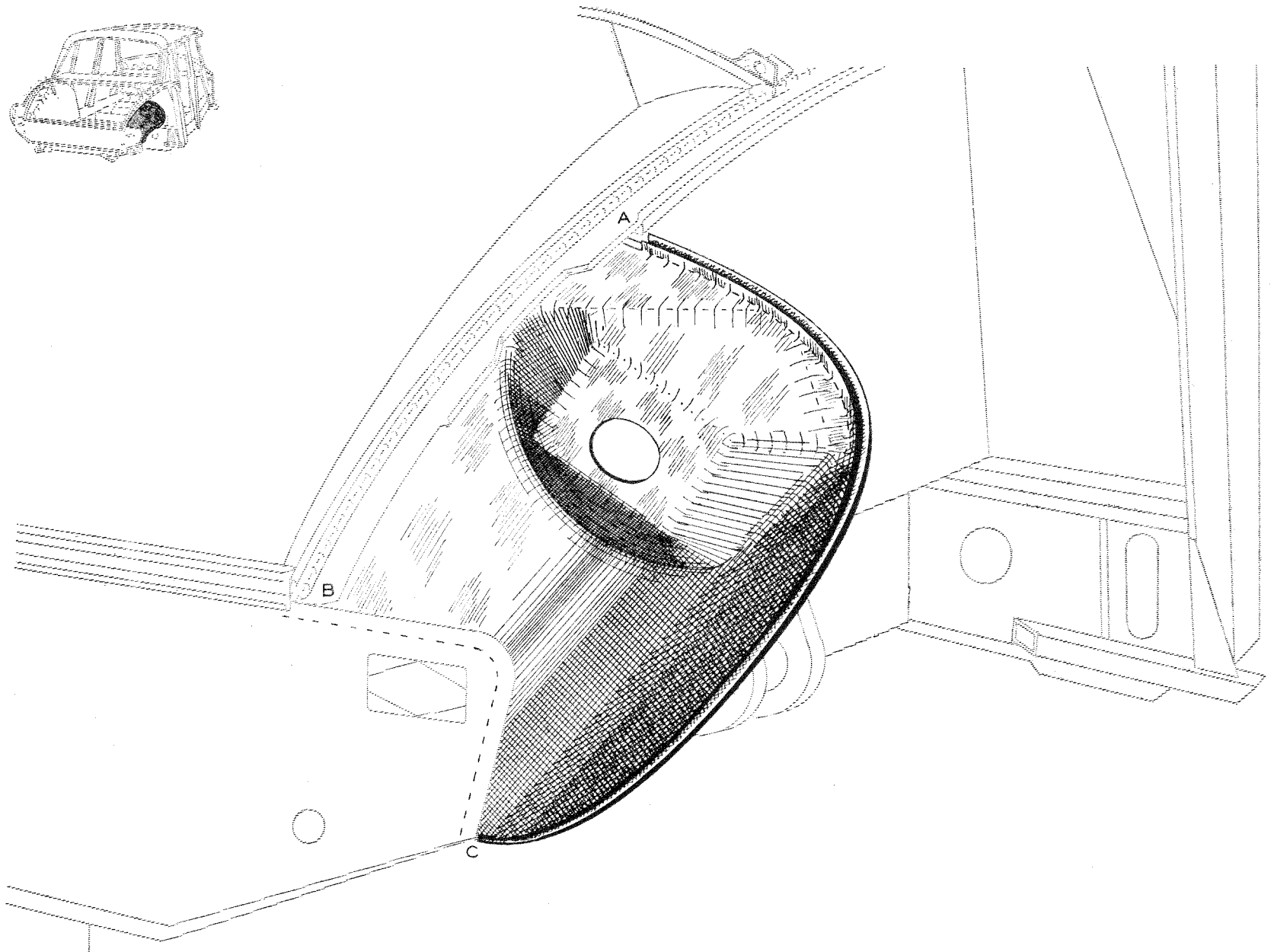
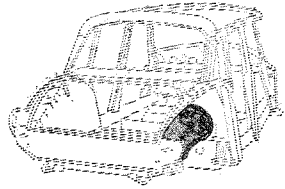
Fig. 2



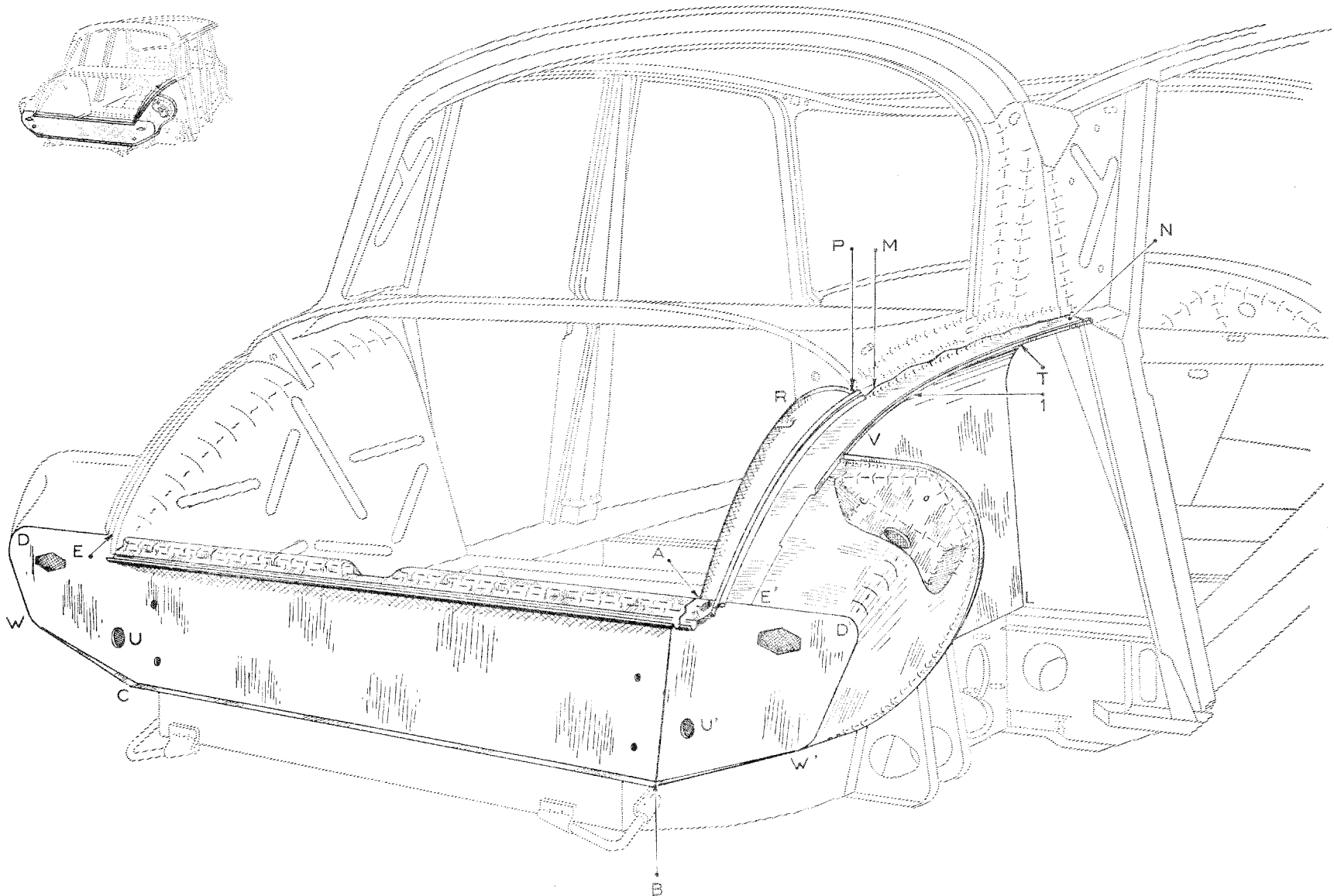
REPLACING A REAR BOOT FLOOR PANEL



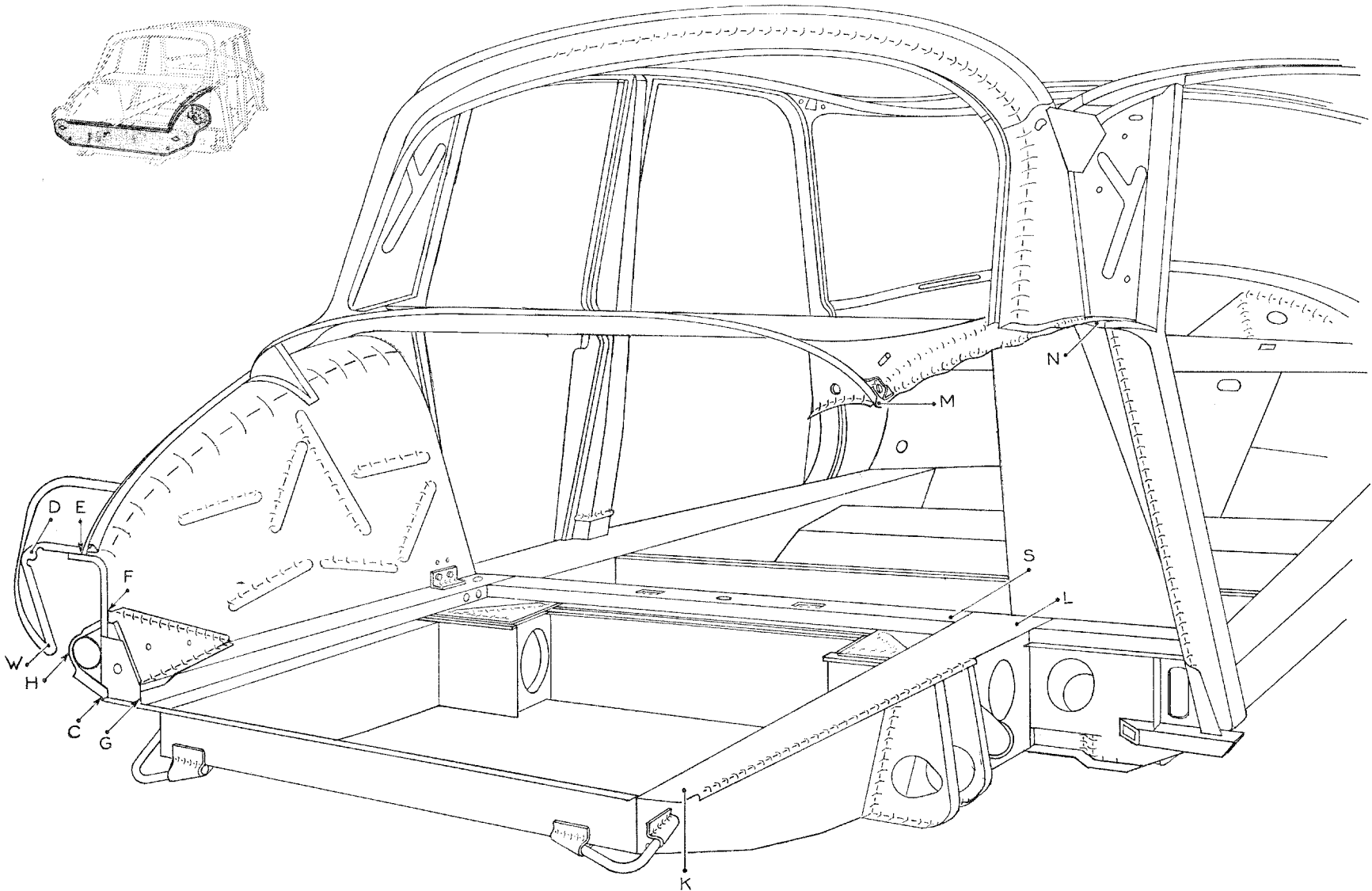
REPLACING A REAR CONNECTING PANEL



REPLACING A REAR WHEEL-ARCH PANEL AND REAR BOOT CLOSING PANEL



REPLACING A REAR WHEEL-ARCH PANEL AND REAR BOOT CLOSING PANEL



REPLACING A REAR BOOT CLOSING PANEL

Fig. 1

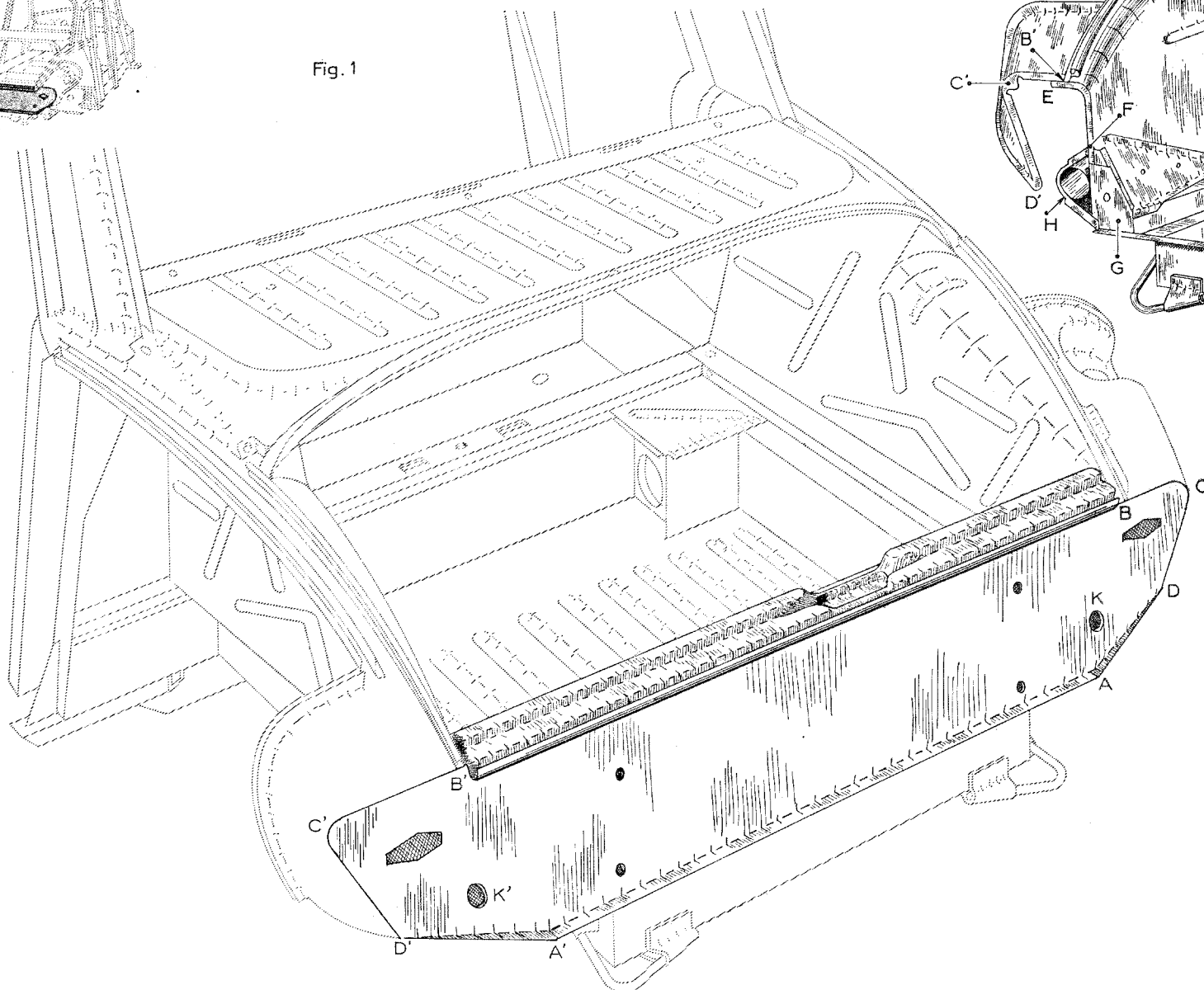
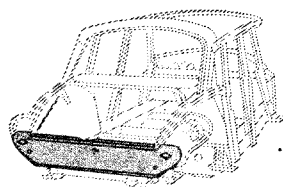
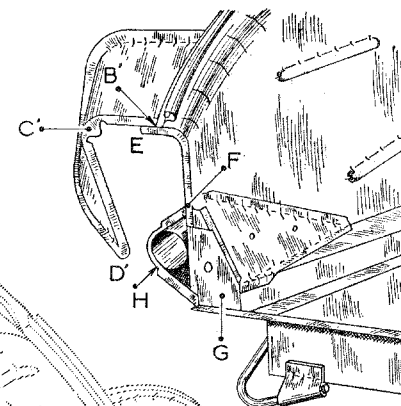
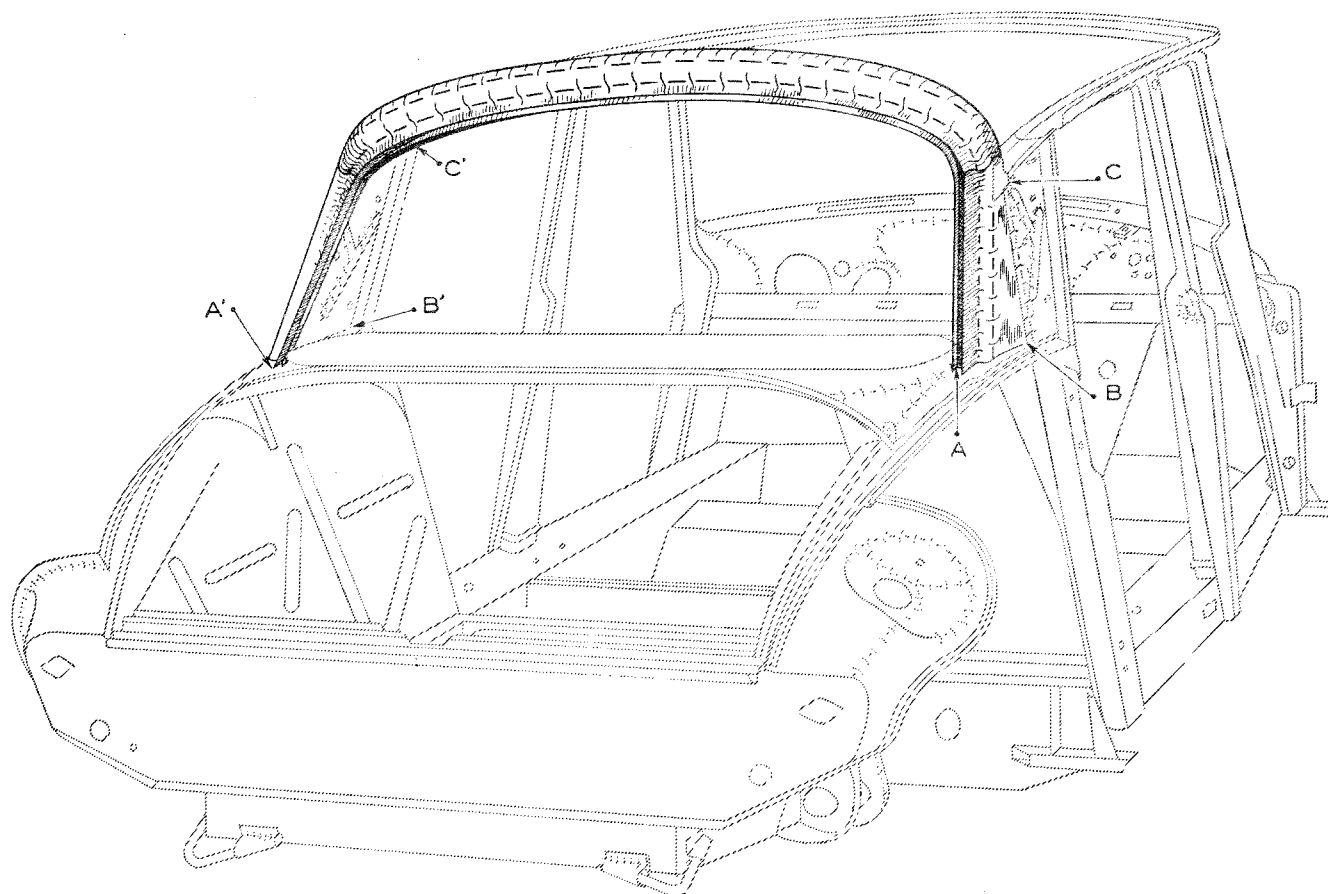
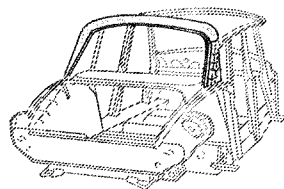
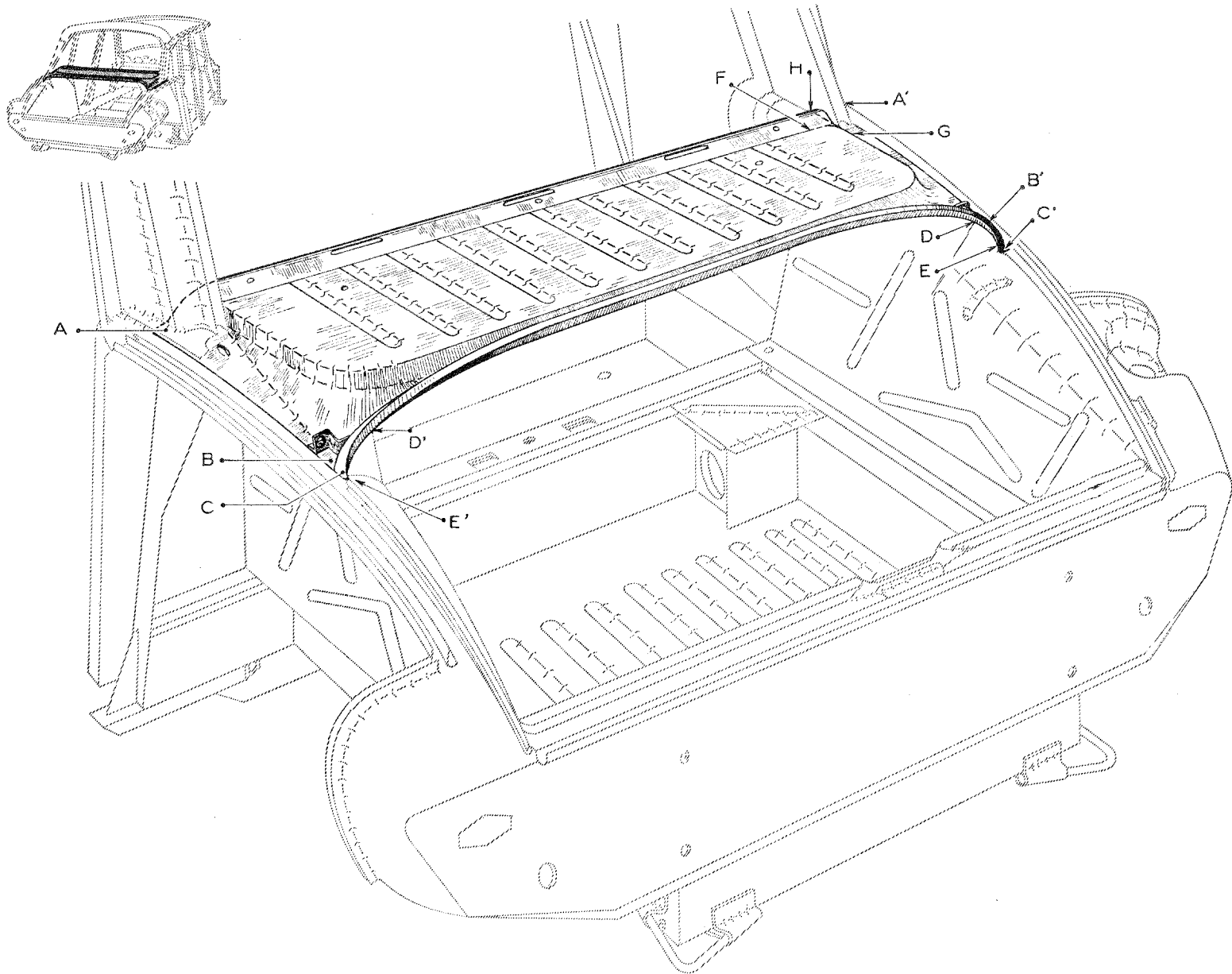


Fig. 2

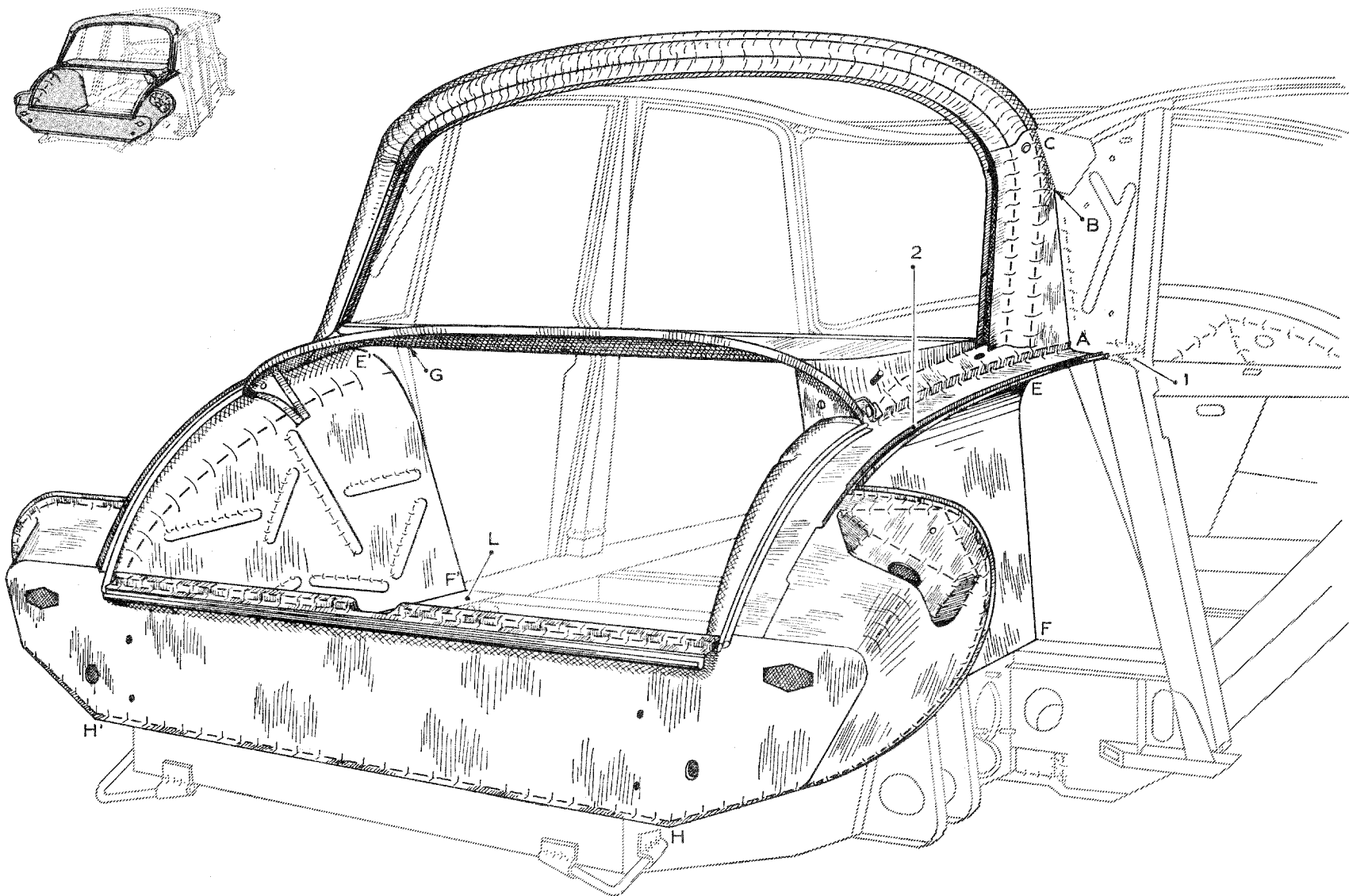


REPLACING AN UPPER REAR BODY CROSSMEMBER

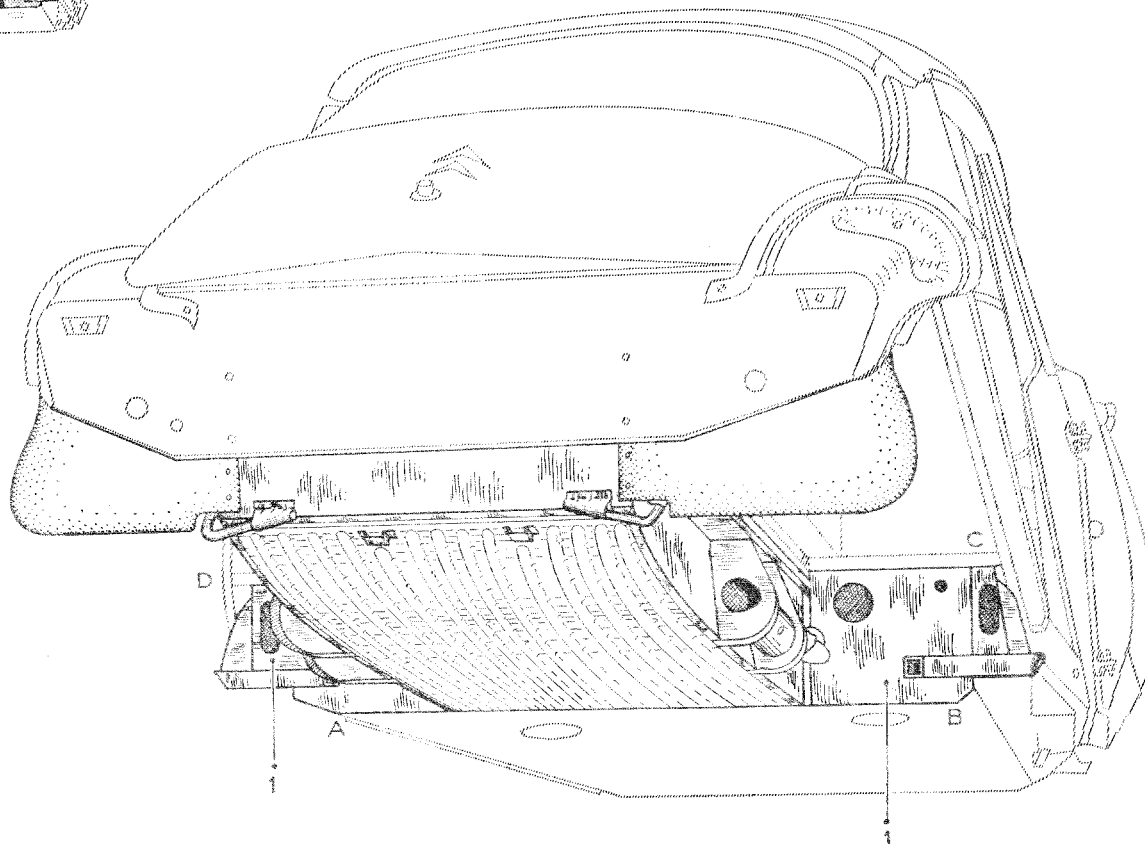
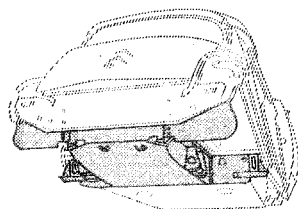


REPLACING A REAR-LIGHT-SHELF PANEL

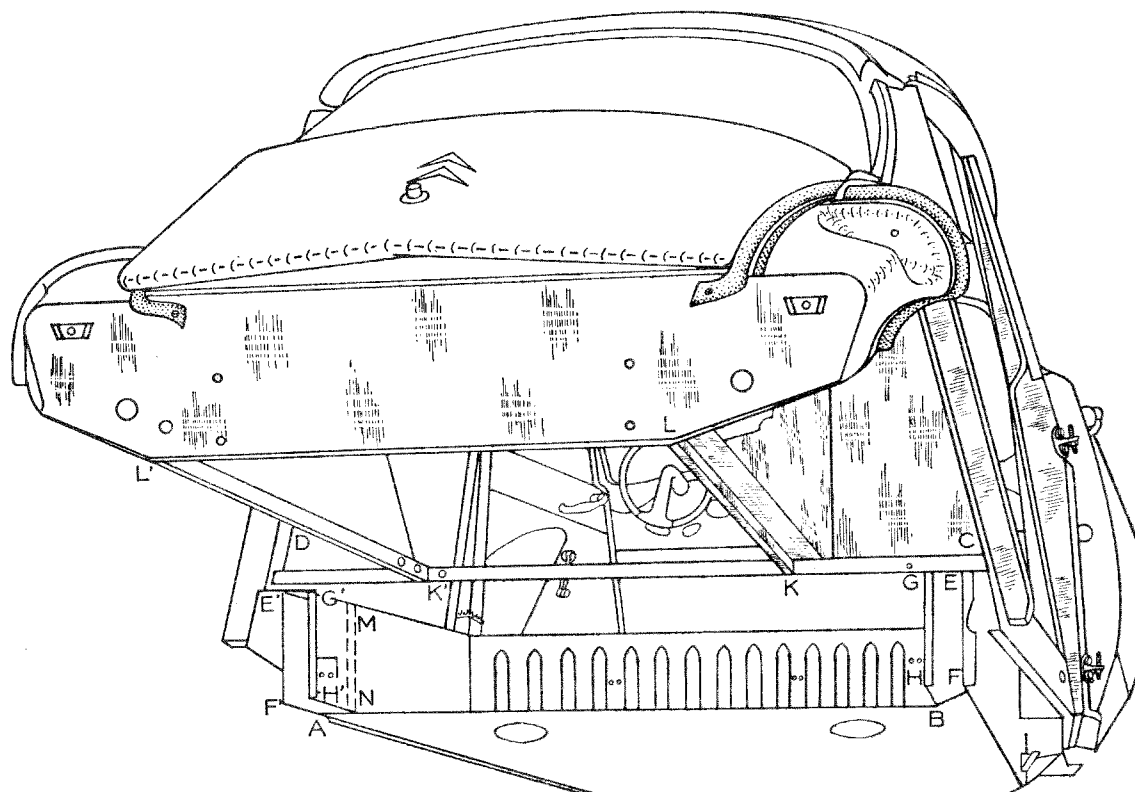
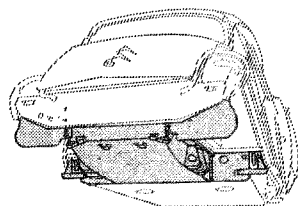
REPLACING A REAR BODY UNIT



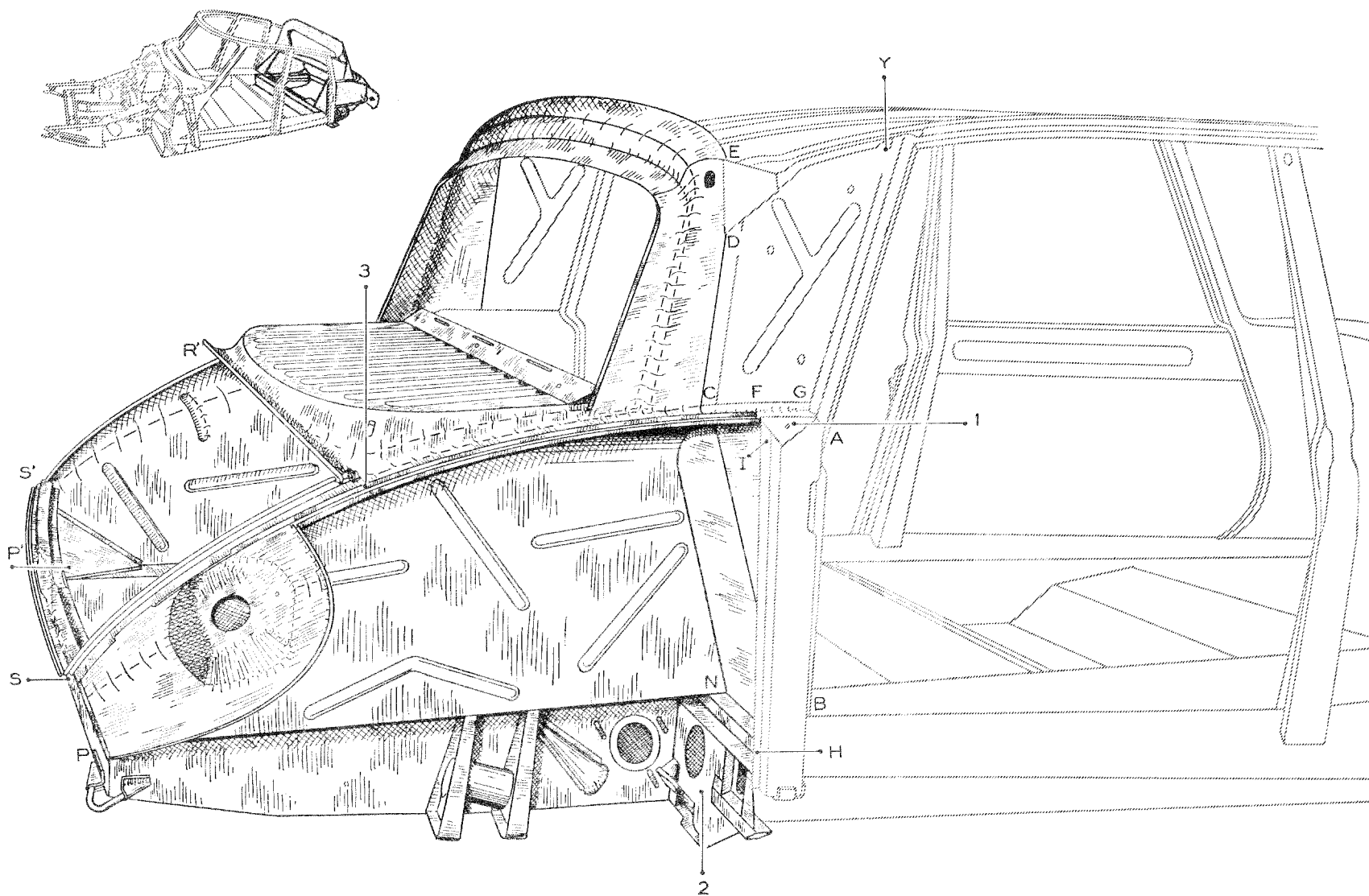
REPLACING A REAR CAISSON UNIT



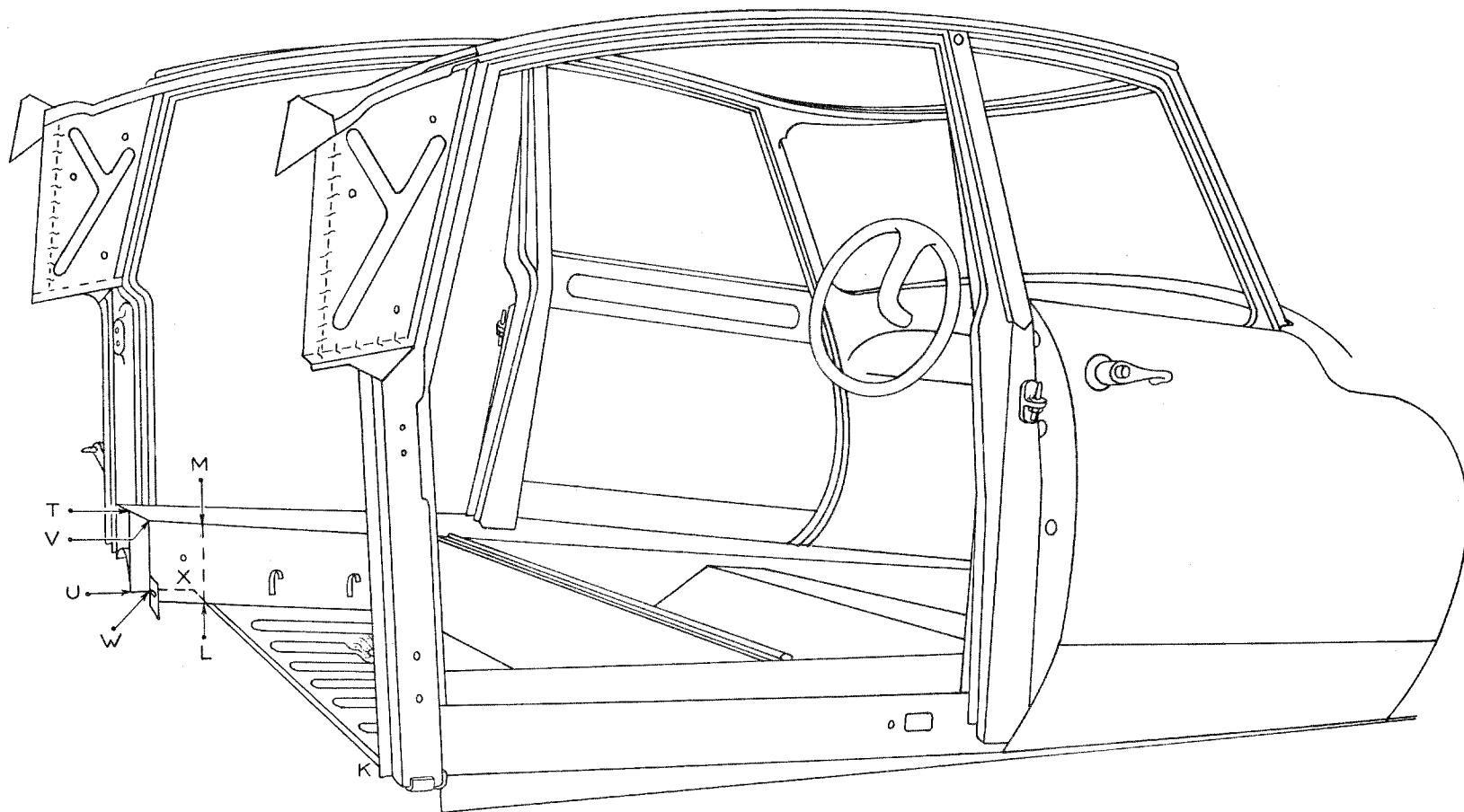
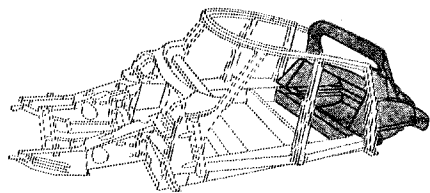
REPLACING A REAR CAISSON UNIT



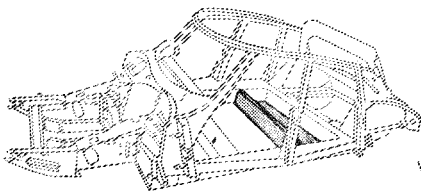
REPLACING A REAR BODY UNIT



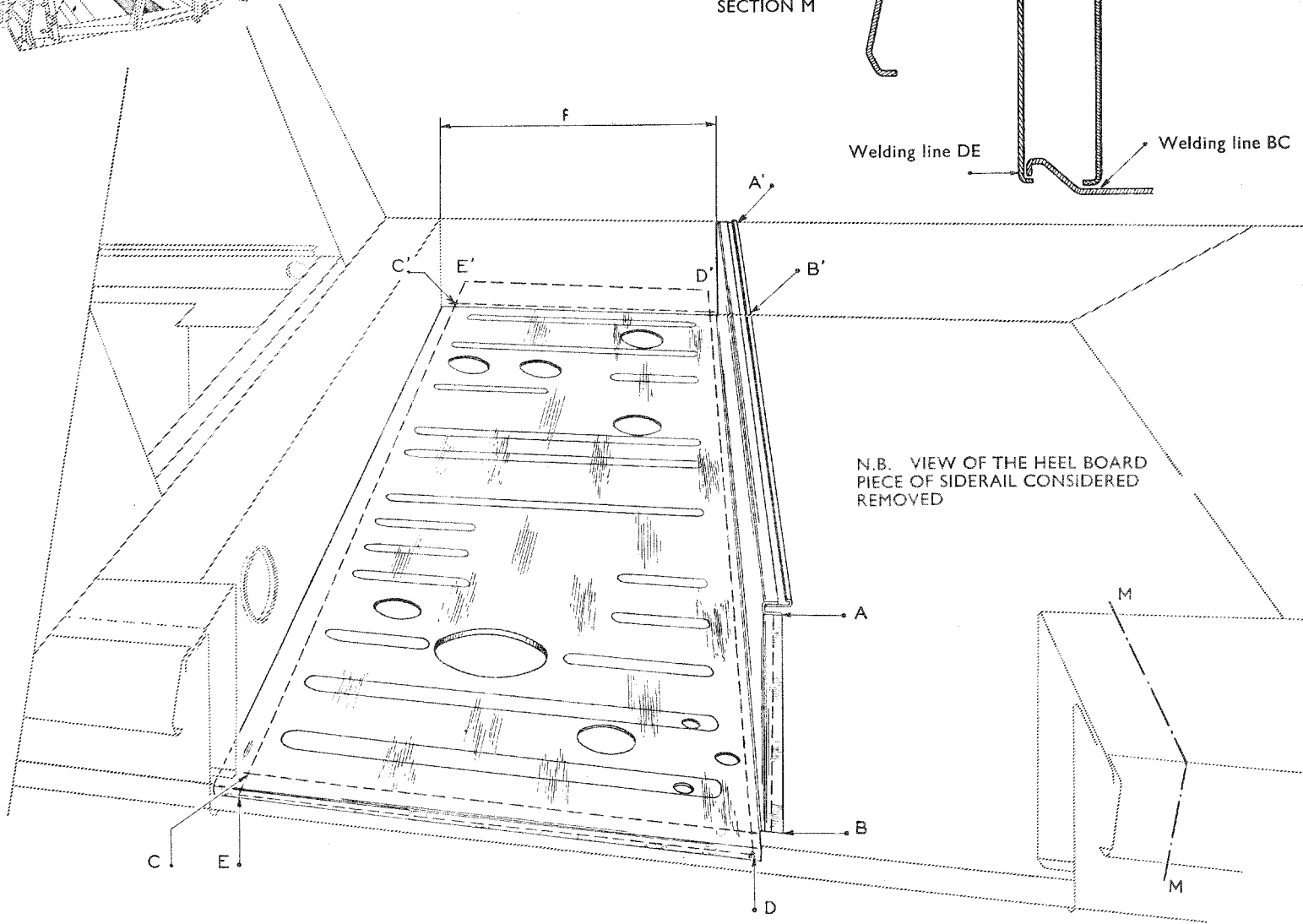
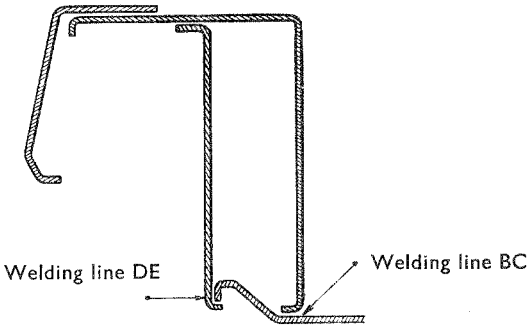
REPLACING A REAR BODY UNIT



REPLACING A PETROL-TANK
HEEL BOARD



SECTION M



REPLACING REAR-BOOT-DOOR SEALING RUBBERS

Fig. 1

Fig. 2 SIDE FIXINGS

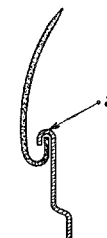


Fig. 3 REAR FIXING

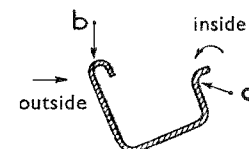
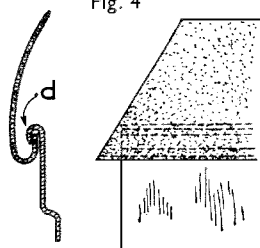


Fig. 4



RECONDITIONING A PLASTIC ROOF

Fig. 2

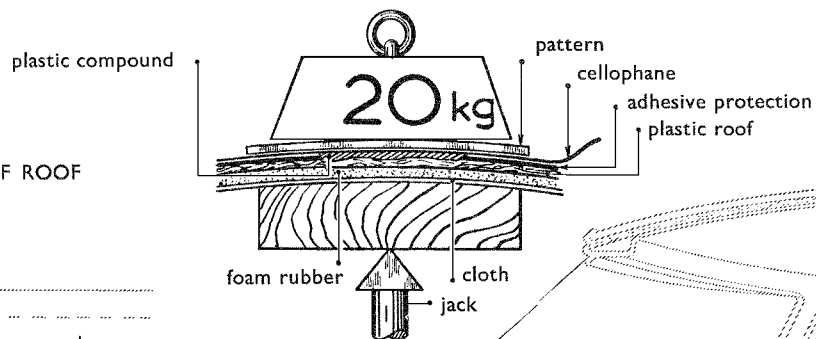


Fig. 1

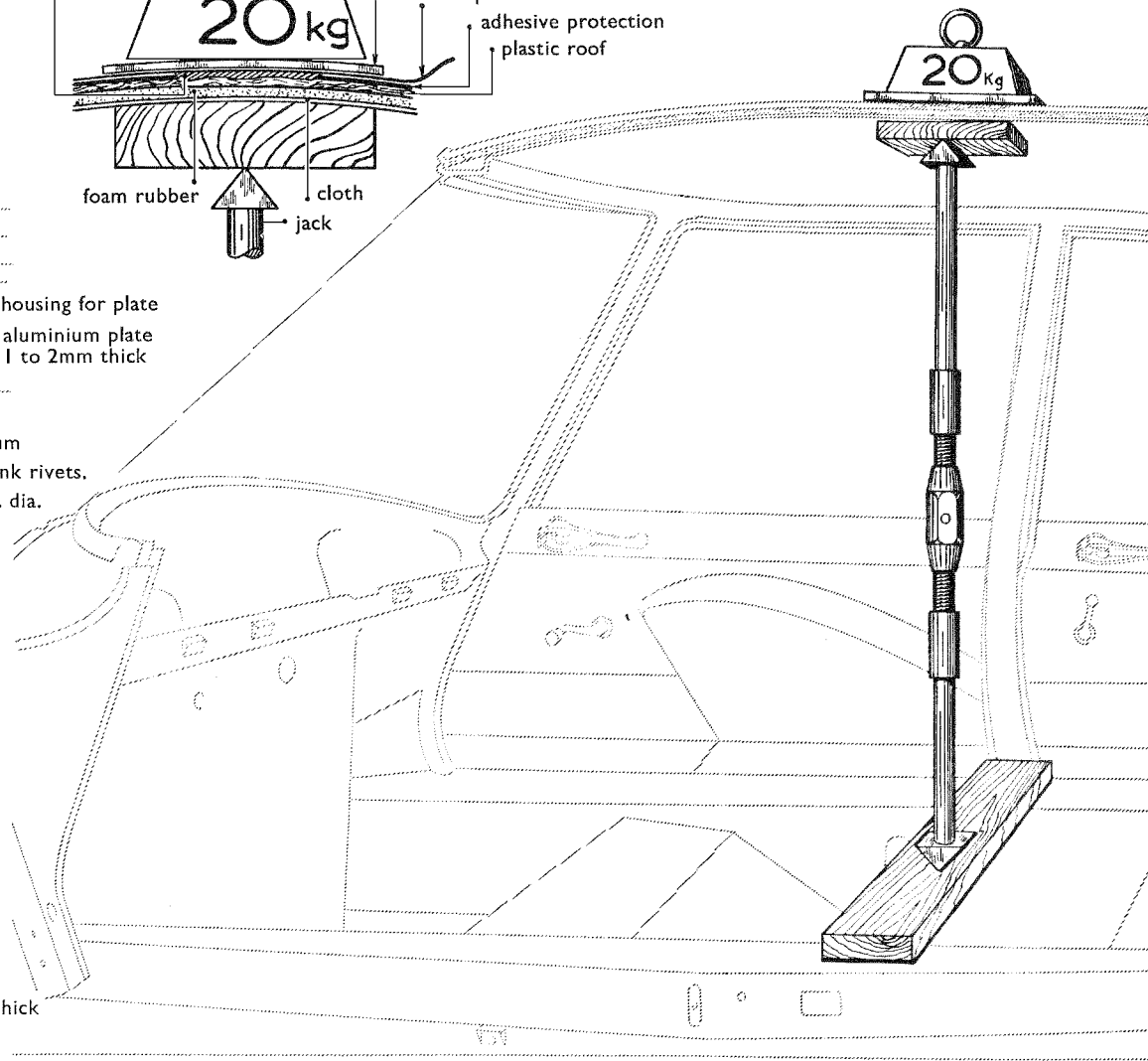


Fig. 3

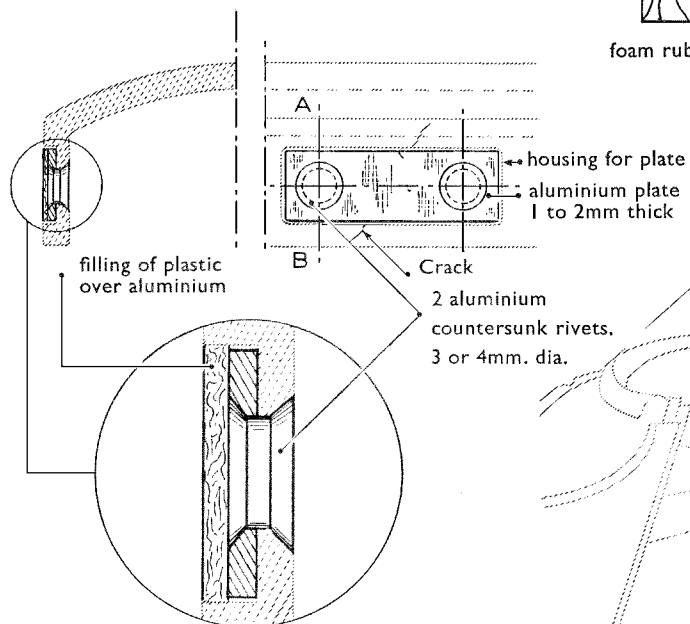
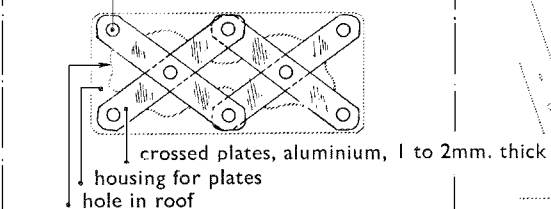
SECTION OF REAR PART OF ROOF
ALONG AB

Fig. 4

countersunk aluminium rivets, 3 or 4mm. dia.



REPLACING A WINDSCREEN GLASS

Fig. 1

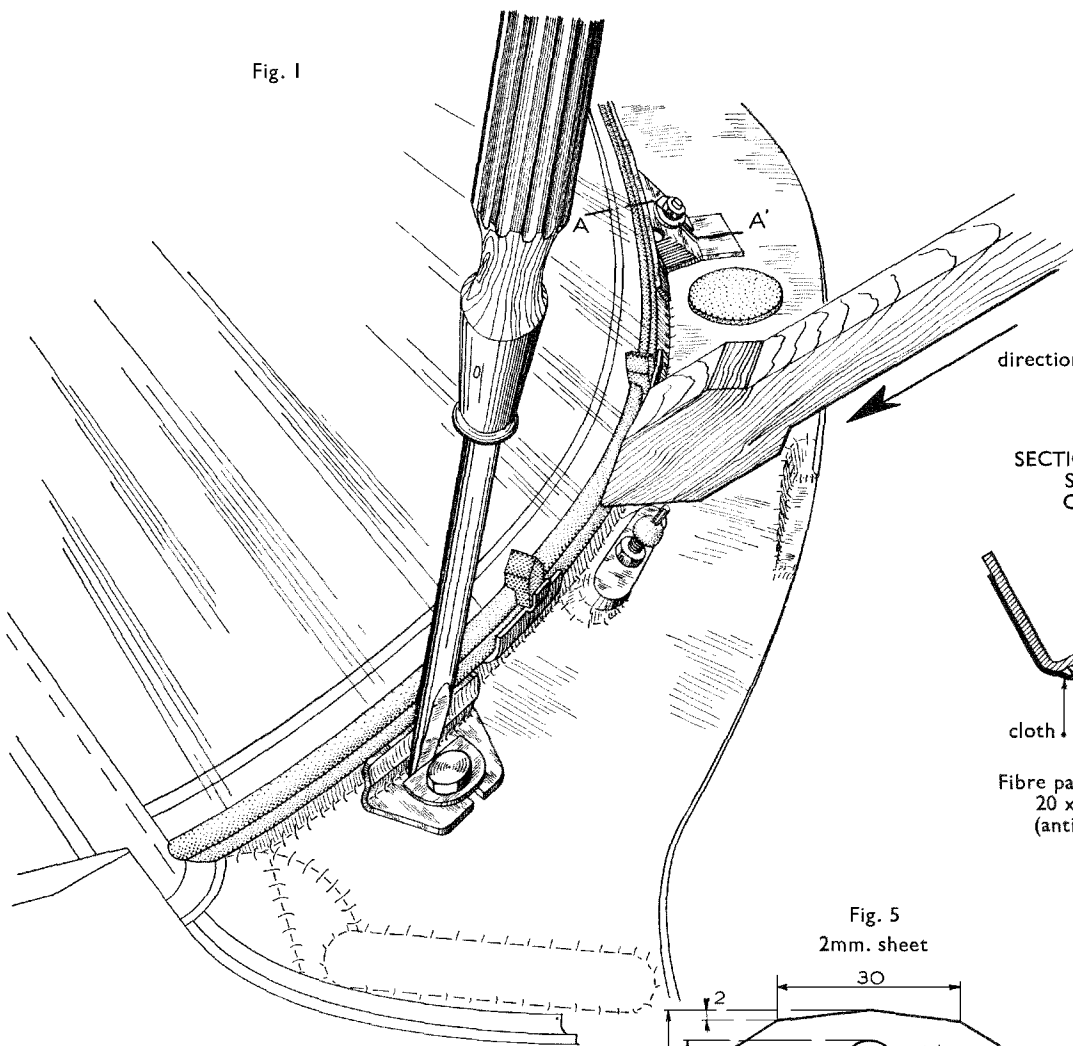
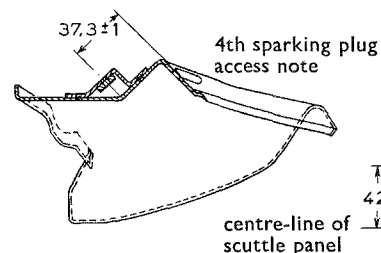
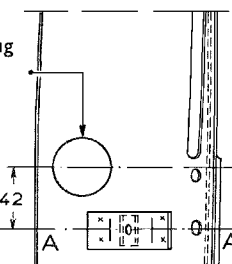
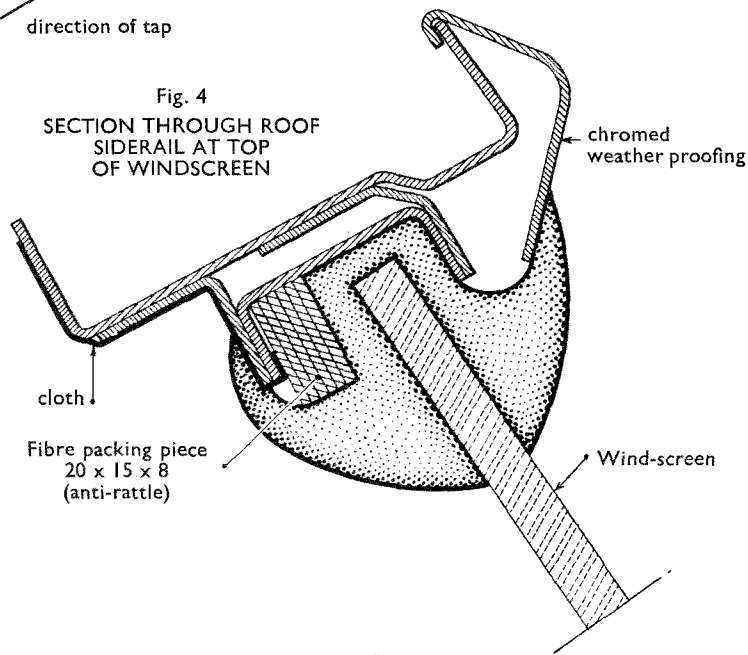
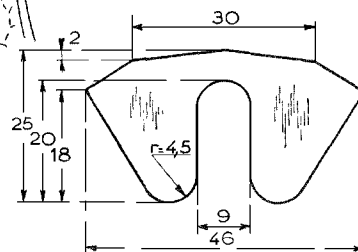
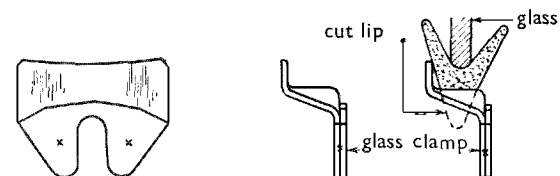
Fig. 2
POSITIONING
OF THE CENTREFig. 3
TOP VIEWFig. 4
SECTION THROUGH ROOF
SIDERAIL AT TOP
OF WINDSCREENFig. 5
2mm. sheet

Fig. 6



REPLACING AN UPPER-REAR-DOOR WINDOW

BREAK

Fig. 3
TOOL MR-3714-25
not sold

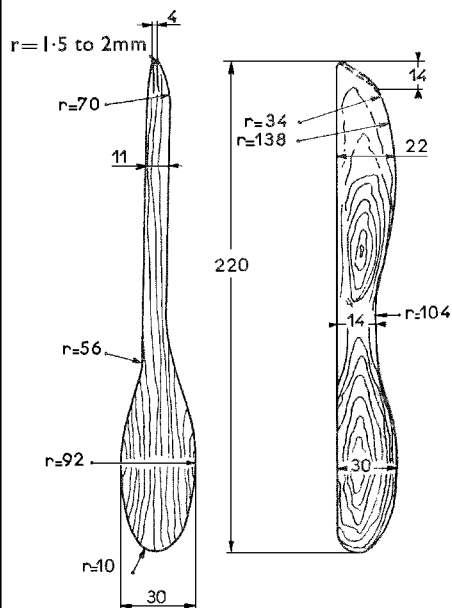


Fig. 2

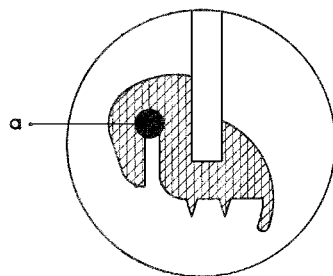
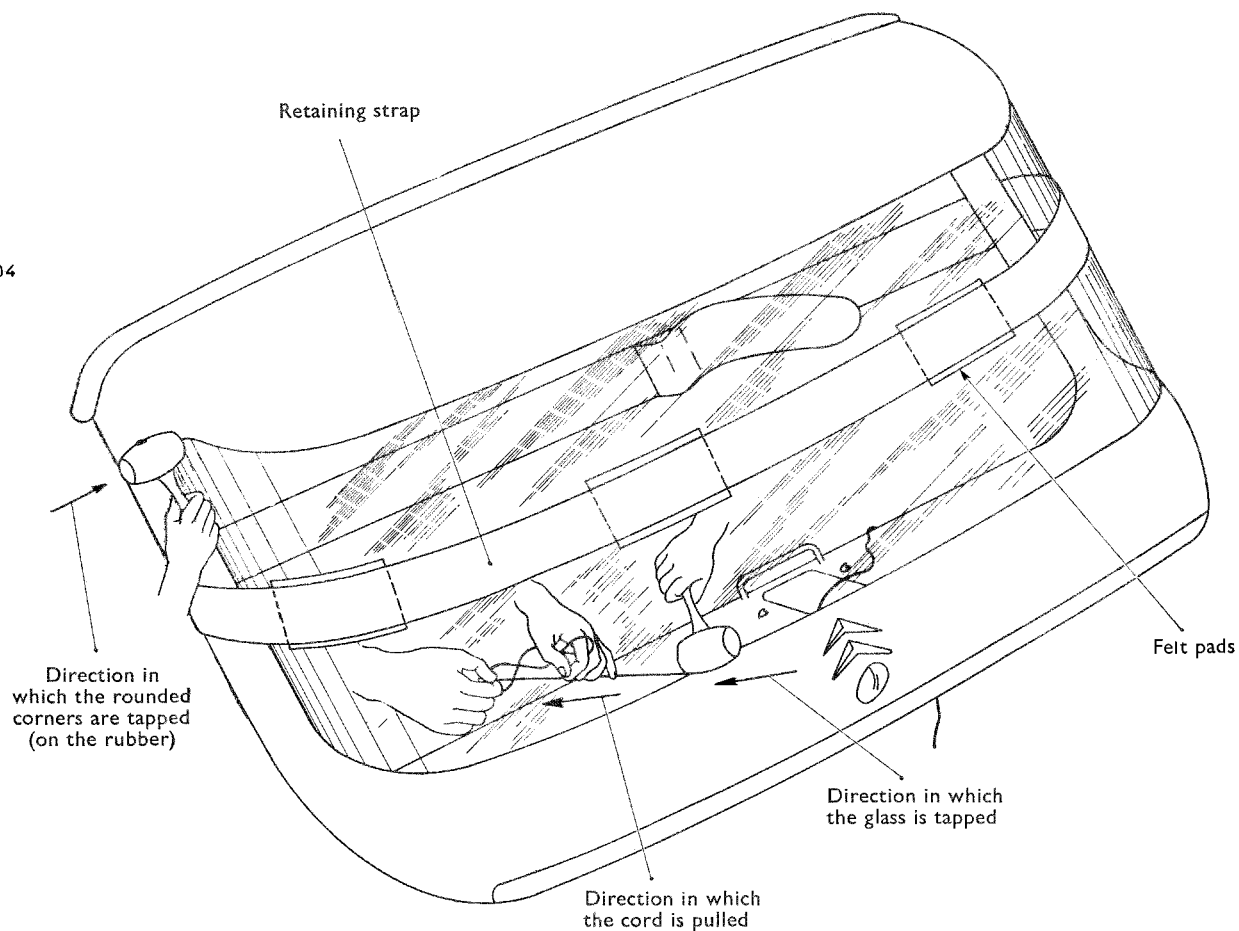
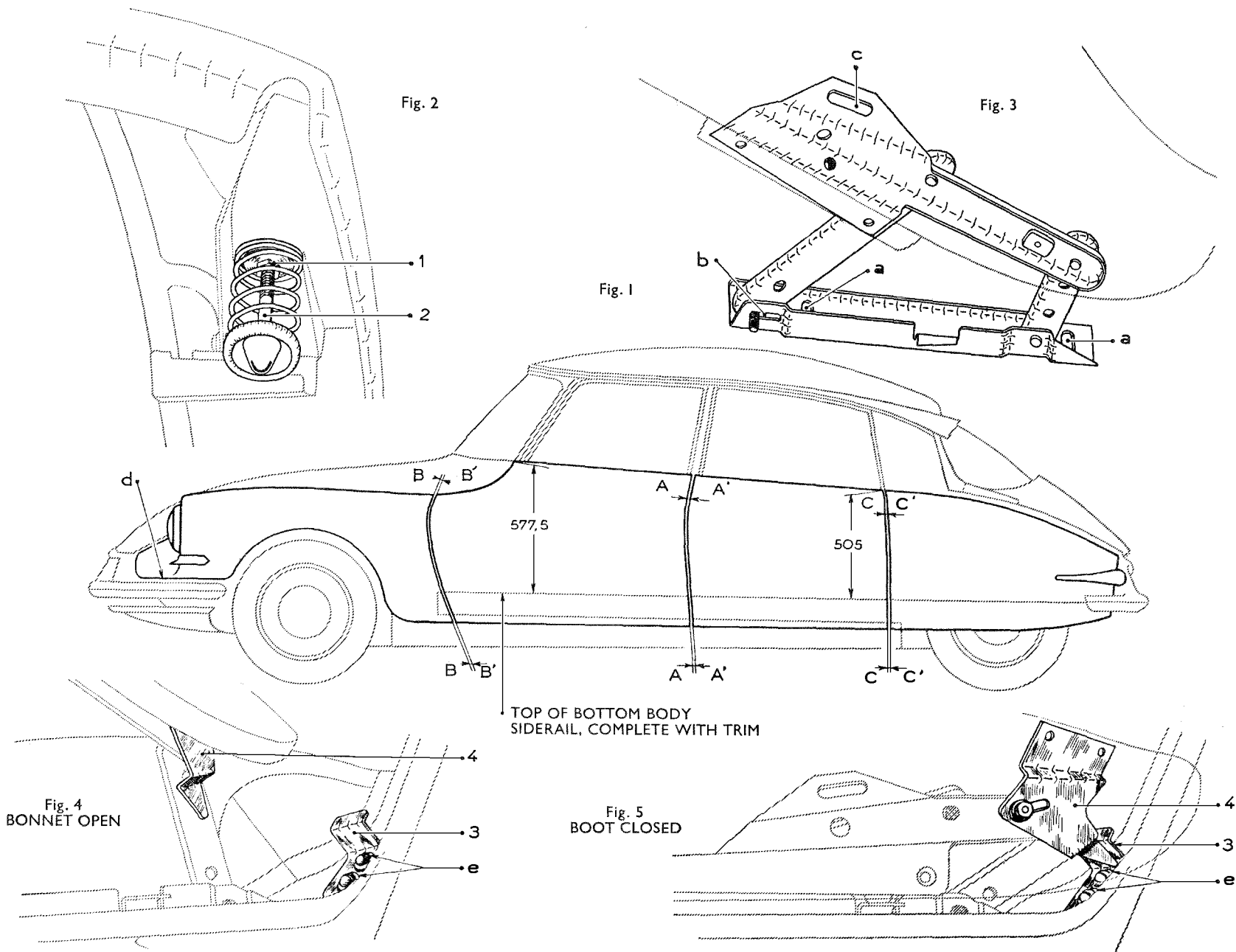
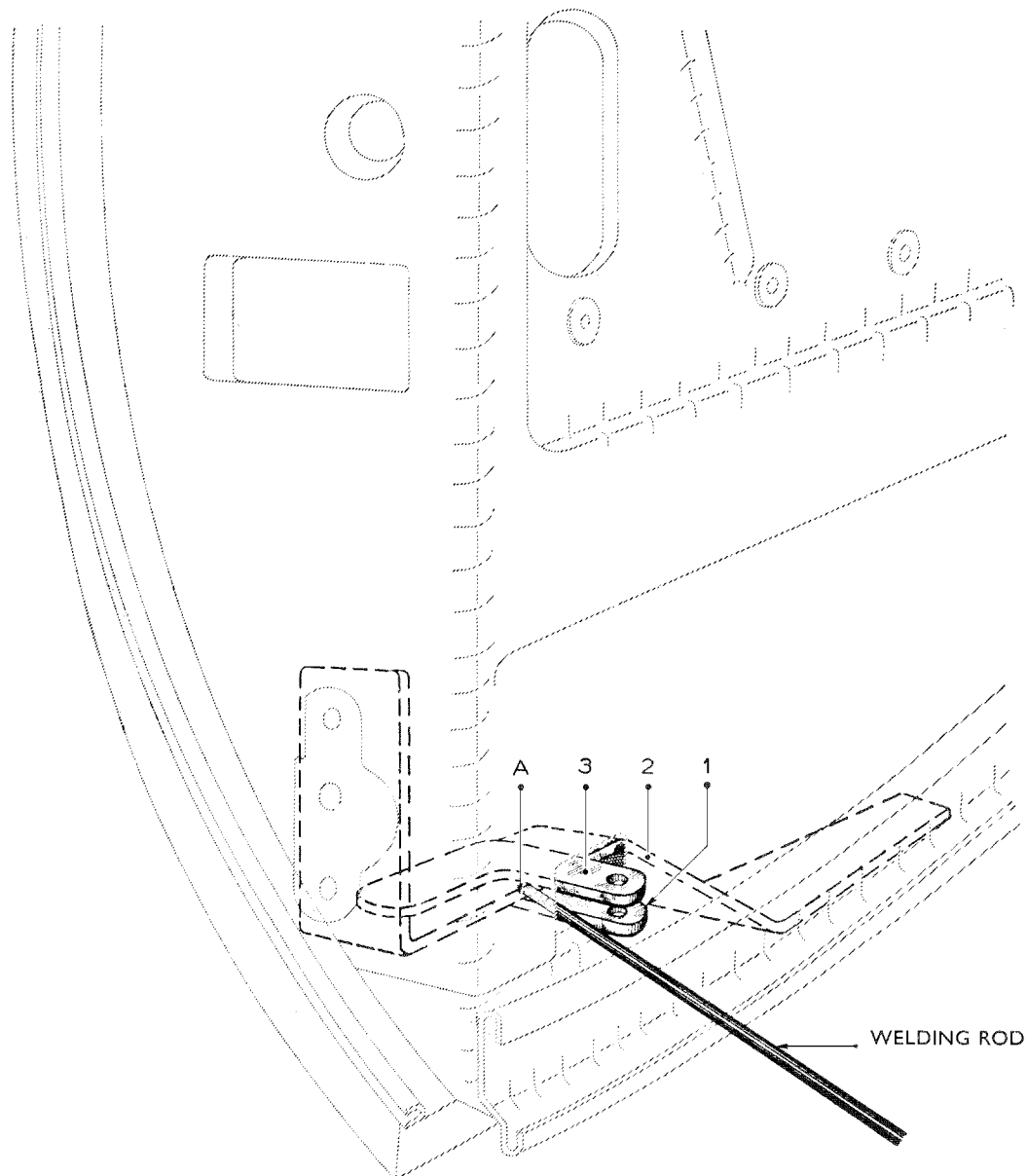


Fig. 1



**ALIGNING THE DOORS, WINGS
AND BONNET**

WELDING THE CONNECTING-ROD FIXING PLATES OF THE REAR-DOOR STAYS



OPERATION

DS 961_1

DS 961_1a

DS 861_1

BODYWORK

ID 19 _ DS 19

PL. 70

REPLACING A WINDOW WINDER

Fig. 4 FORK MR-3978-20
not sold

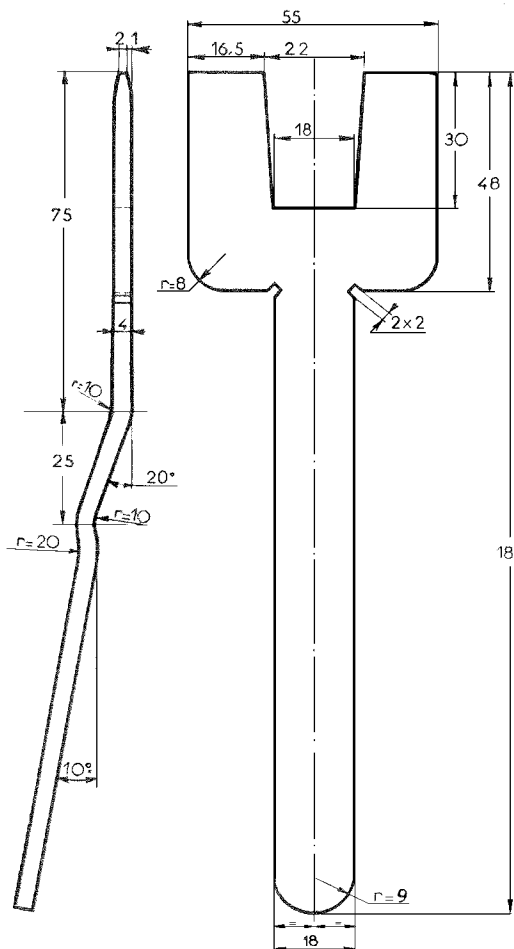


Fig. 3

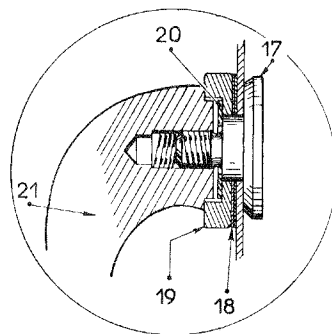


Fig. 2 FORK MR-3978-10
not sold

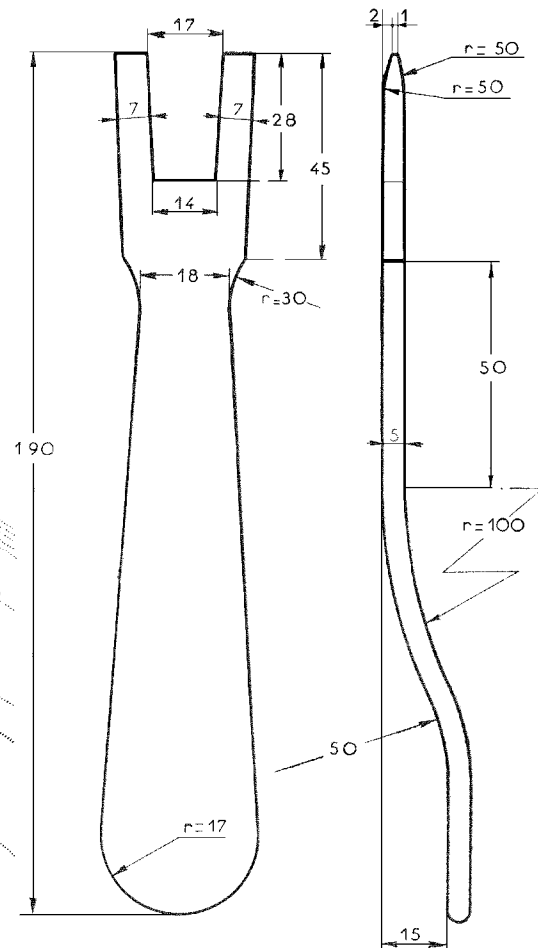
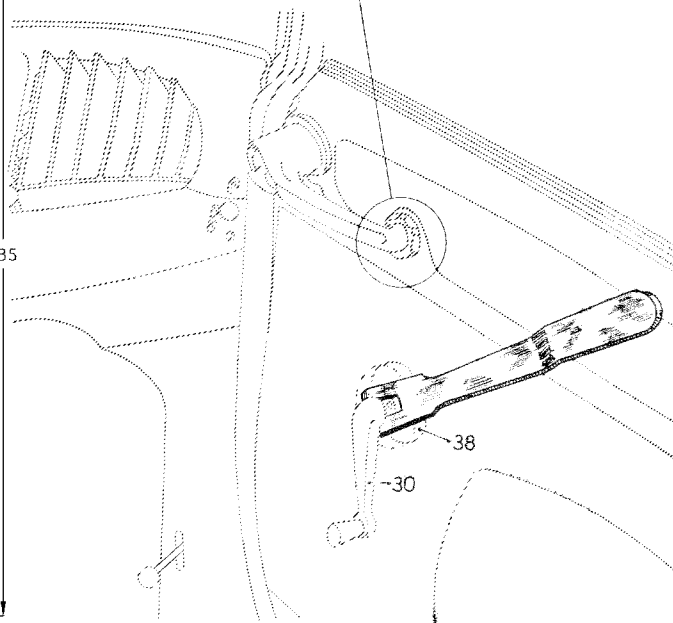
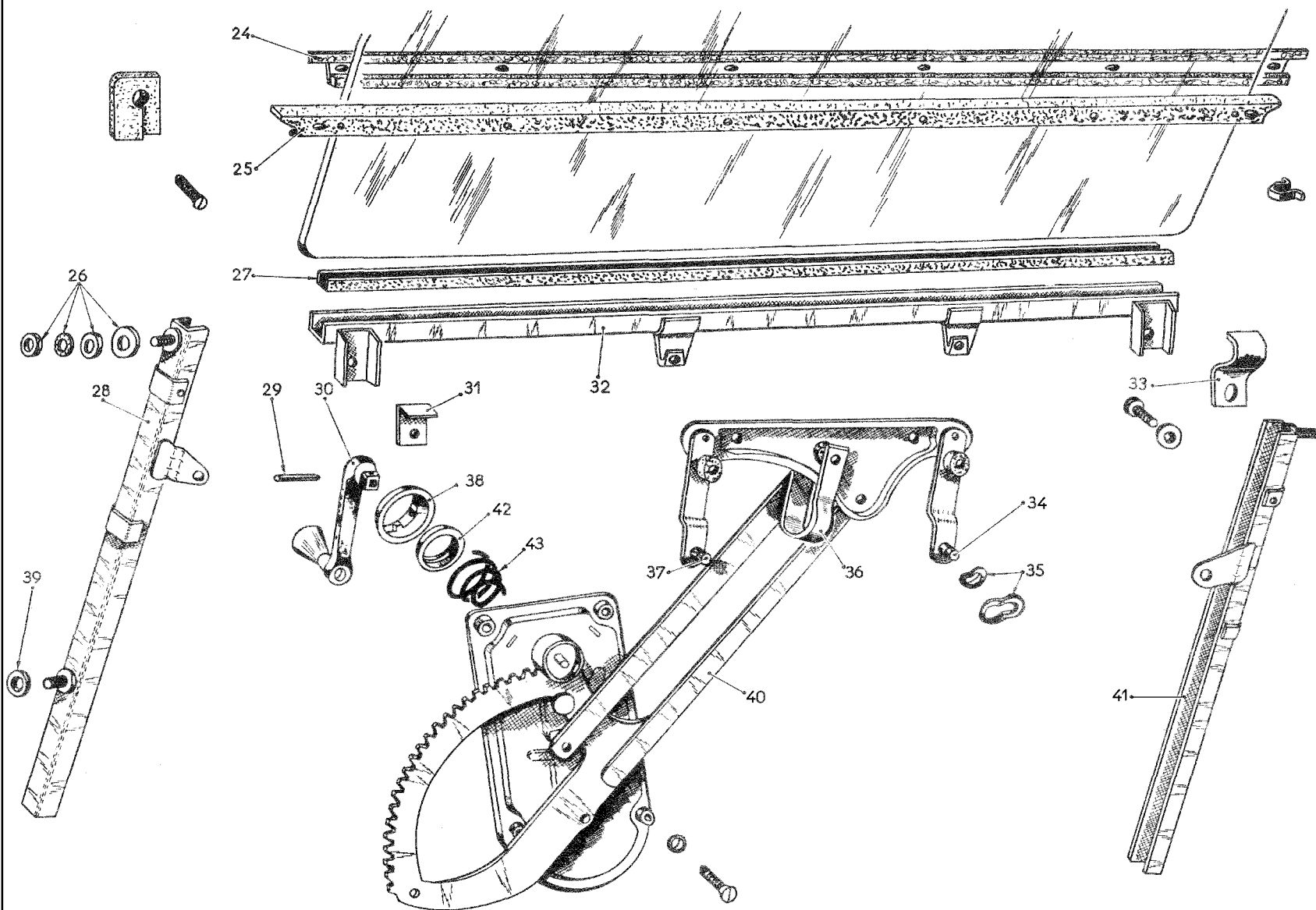


Fig. 1



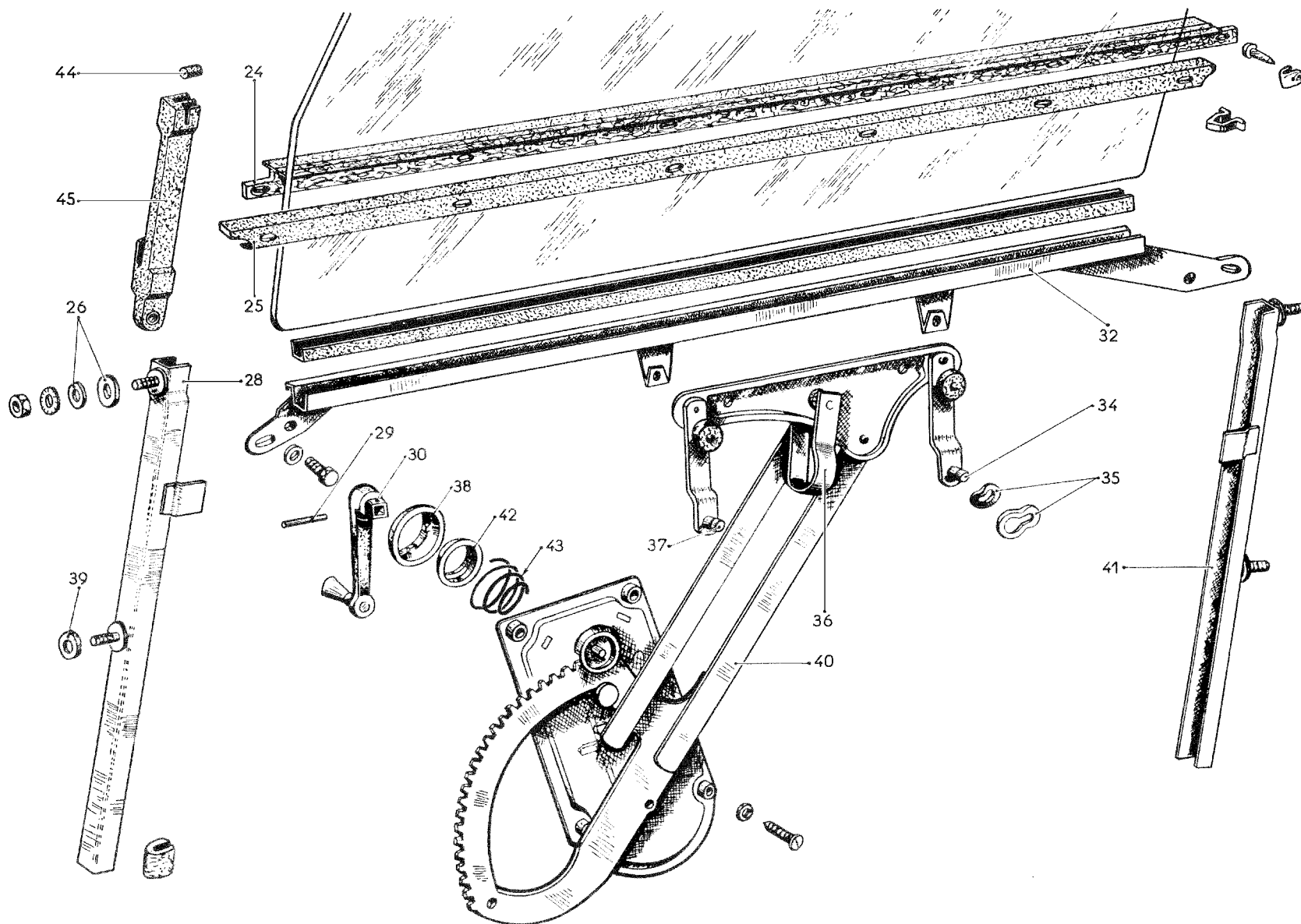
REPLACING A WINDOW WINDER

VEHICLES PRODUCED UP TO MAY 1957

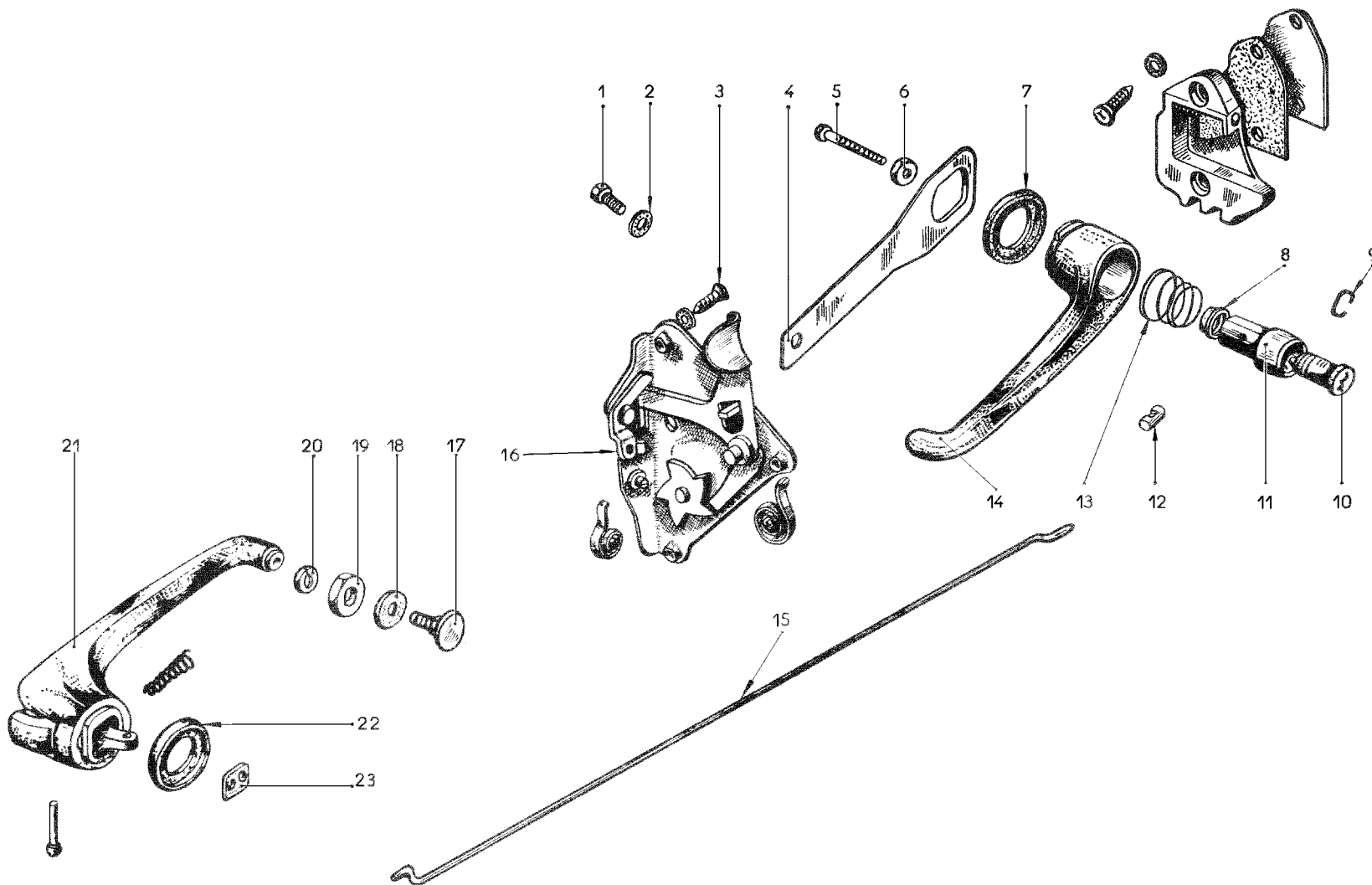


REPLACING A WINDOW WINDER

VEHICLES PRODUCED SINCE MAY 1957



REPLACING A DOOR LOCK AND ITS CONTROLS



REPLACING A ROOF REAR FINISHING STRIP

Fig. 1

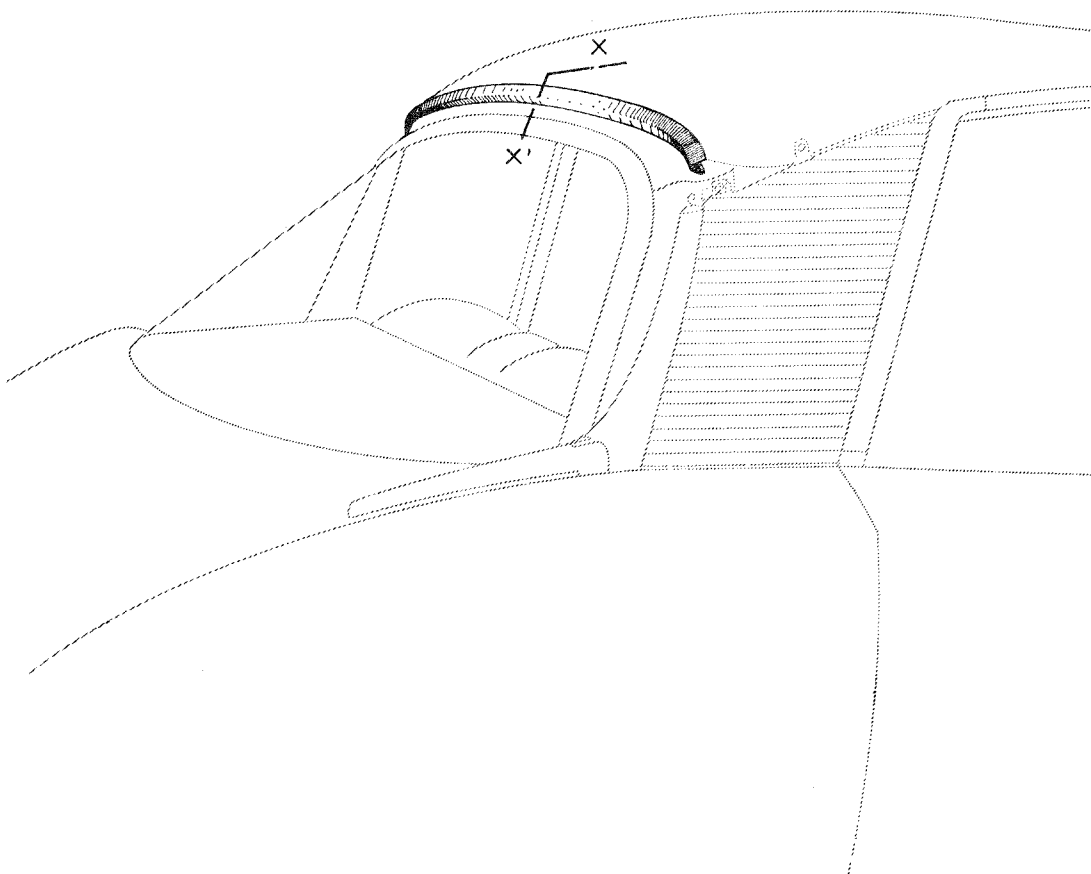
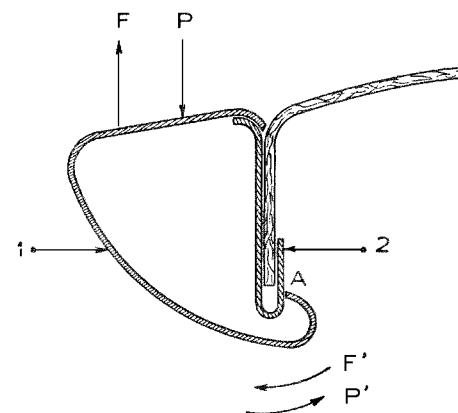


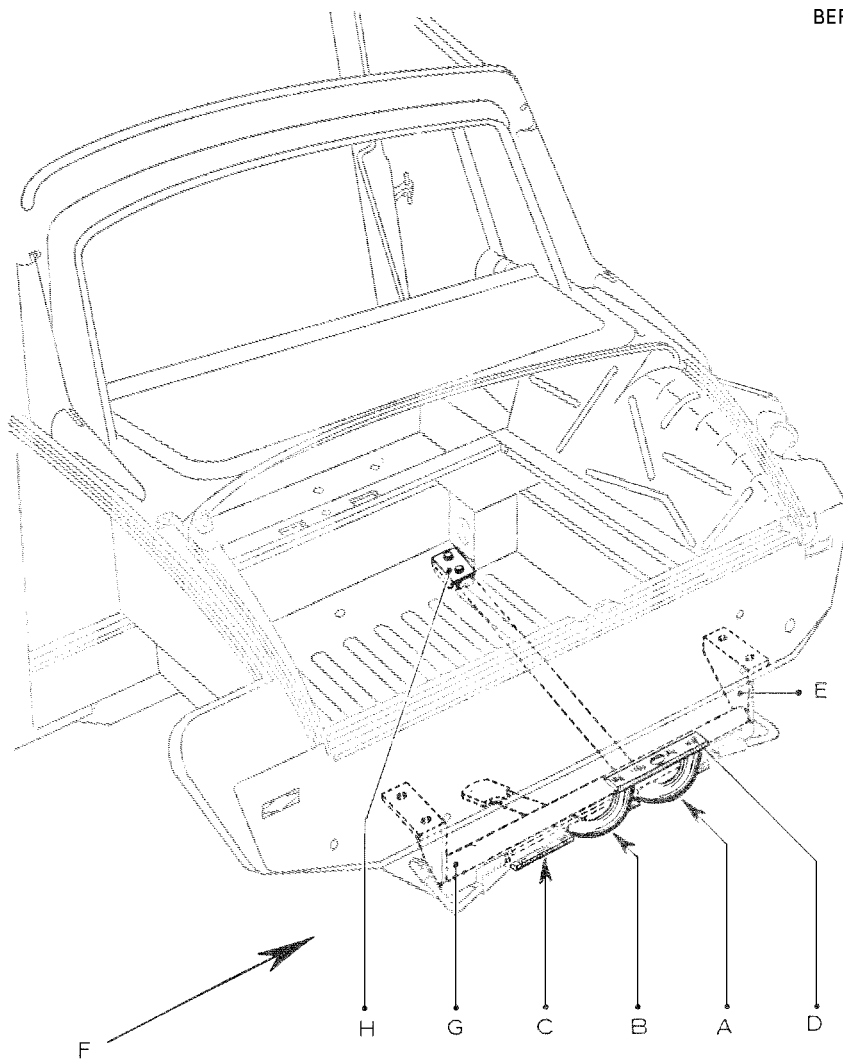
Fig. 2 SECTION XX'



ATTACHMENT FOR TRAILER

ASSEMBLY

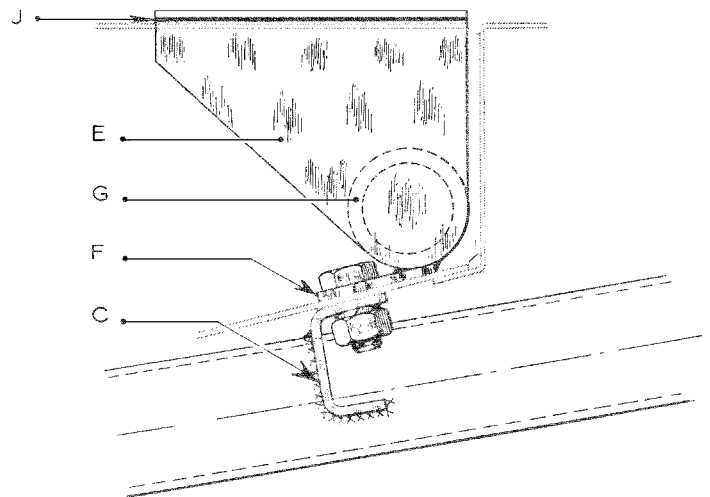
BERLINE



A	1	Steel tube 37 x 42 or 33 x 42 seamless, cold-drawn	Traction tubo, right-hand
B	1	Steel tube, 37 x 42 or 33 x 42, seamless, cold drawn	Traction tube, Left-hand
C	1	3mm sheet	Traction-tube rear distance piece
D	1	8mm sheet	Swivel fixing plate
E	2	3mm sheet	Rear-distance-piece fixing bracket
F	1	3mm sheet	Rear-distance-piece fixing plate
G	1	Steel tube 30 x 39, seamless, cold drawn	Rear transverse tube
H	1	4mm sheet	Right-hand-tube front-fixing plate
J	1	Sheet; thickness as required	Packing piece

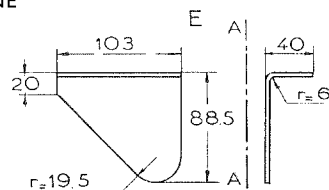
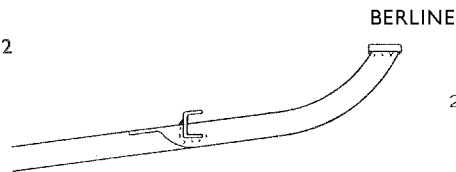
WEIGHT OF LOADED TRAILER: 1 ton (1000kg.)

VIEW IN DIRECTION OF F



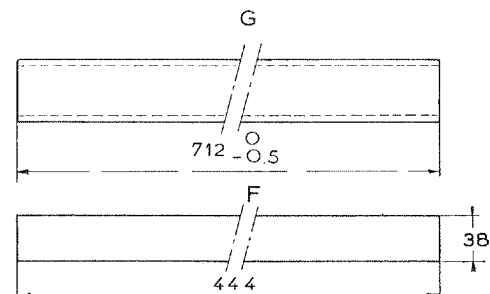
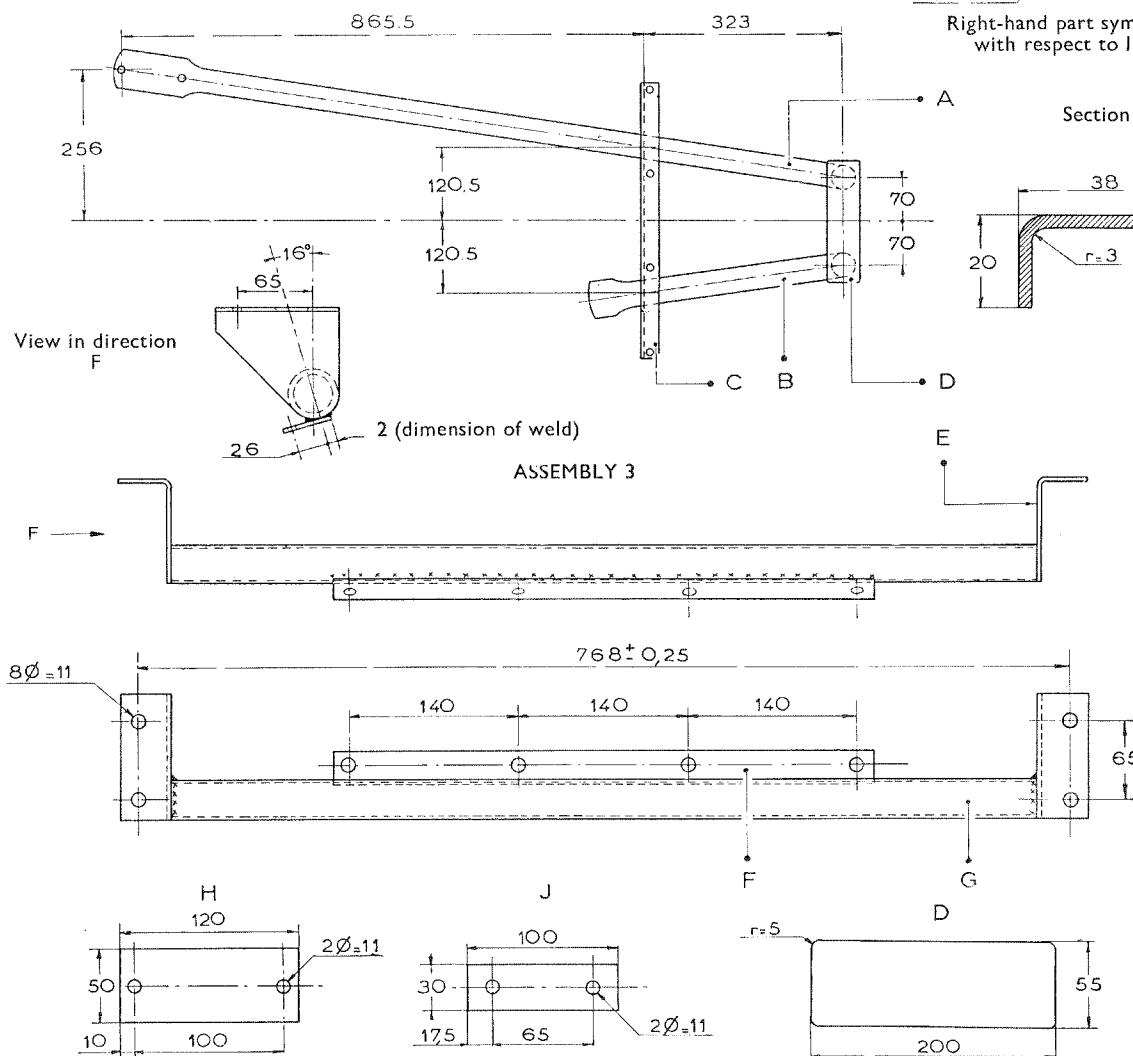
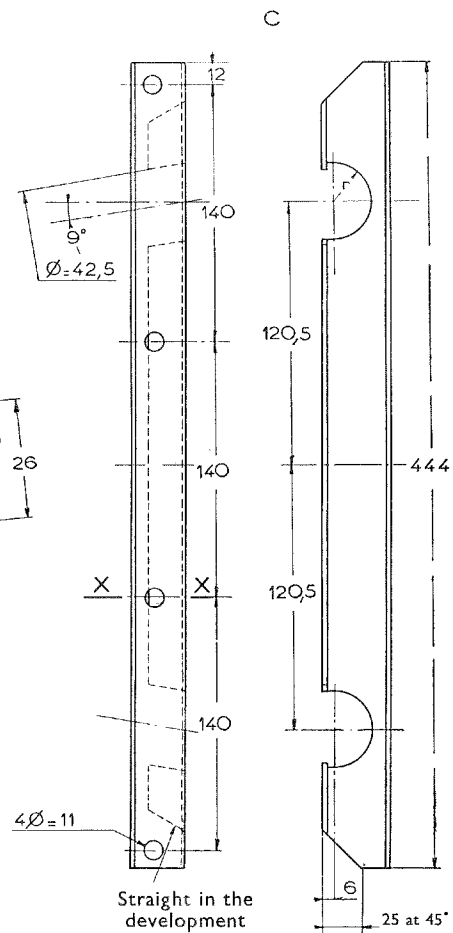
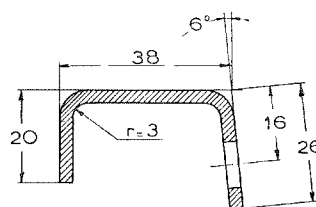
ATTACHMENT FOR TRAILER

ASSEMBLY 2



Right-hand part symmetrical
with respect to line A

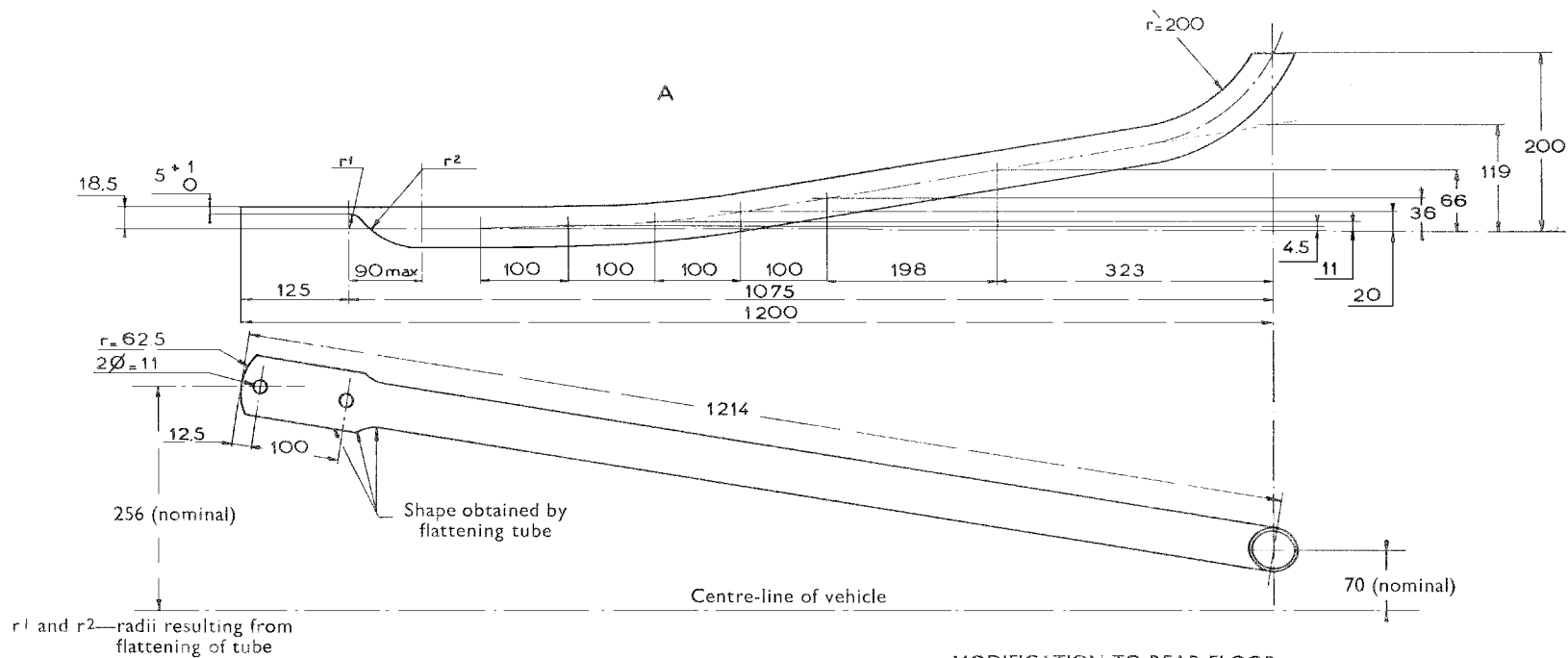
Section X



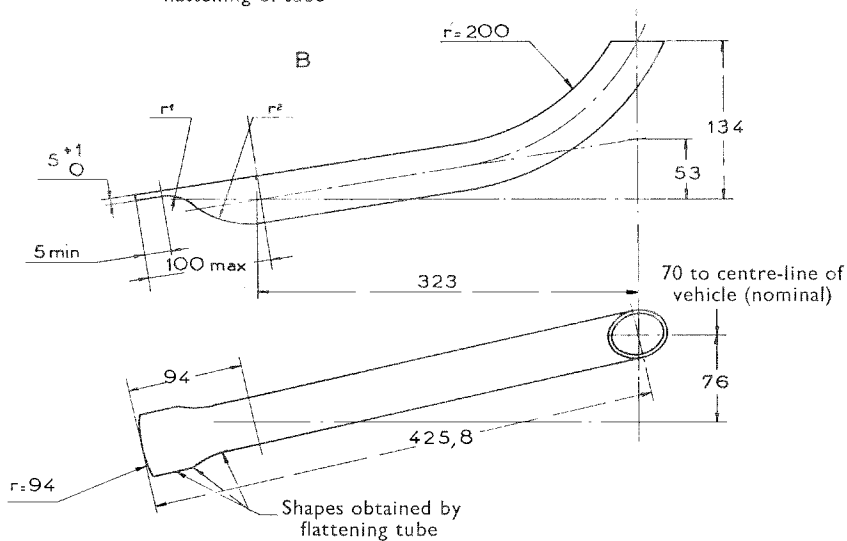
ATTACHMENT FOR TRAILER

BERLINE

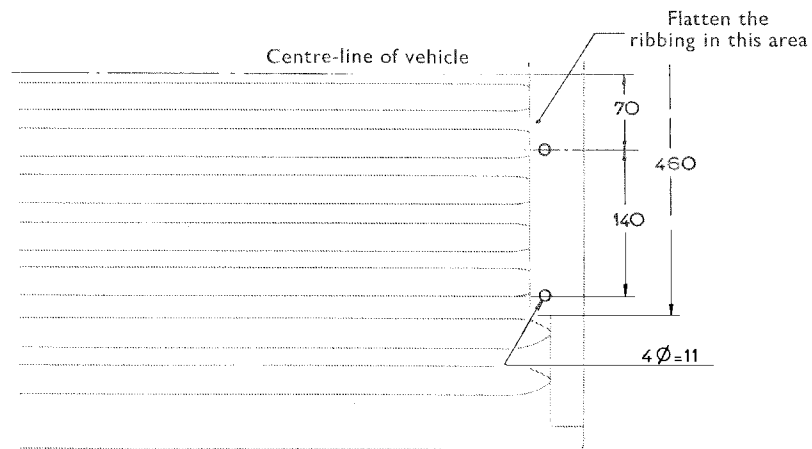
A



B

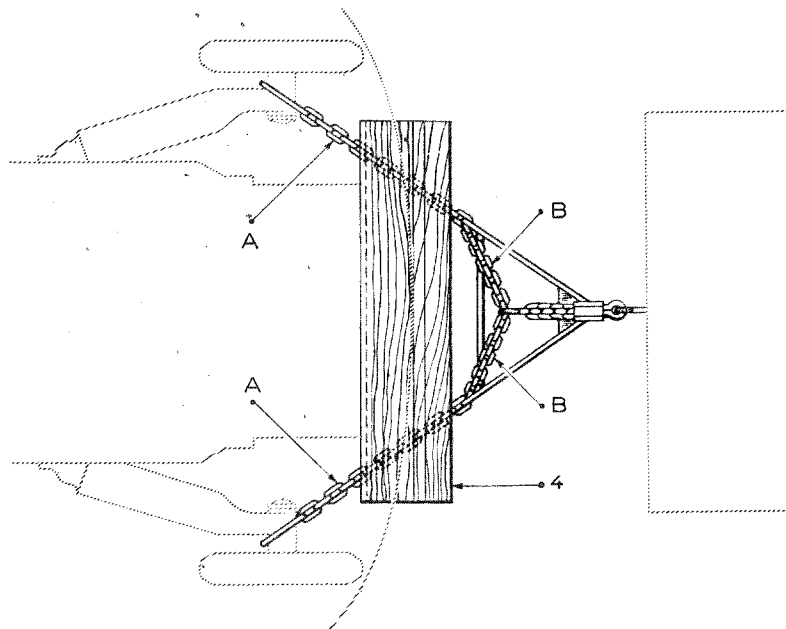
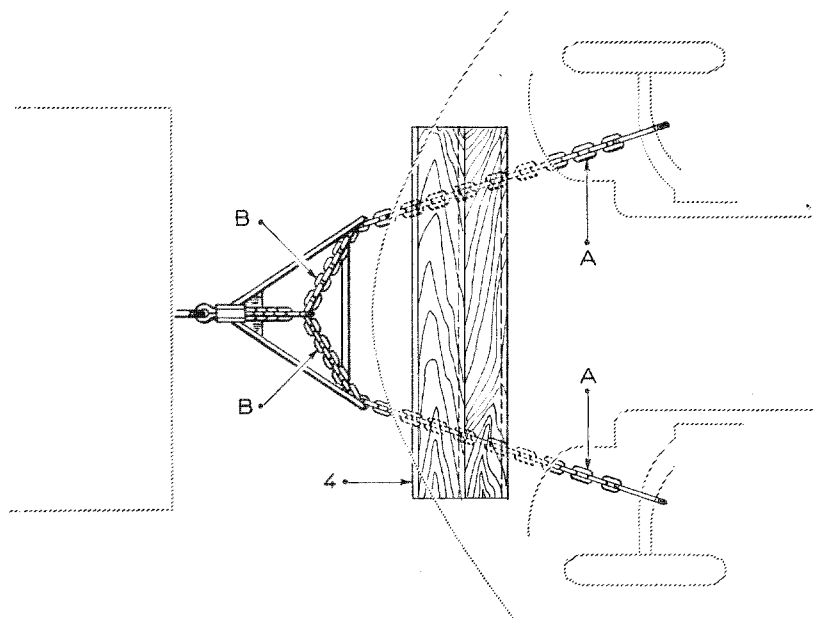
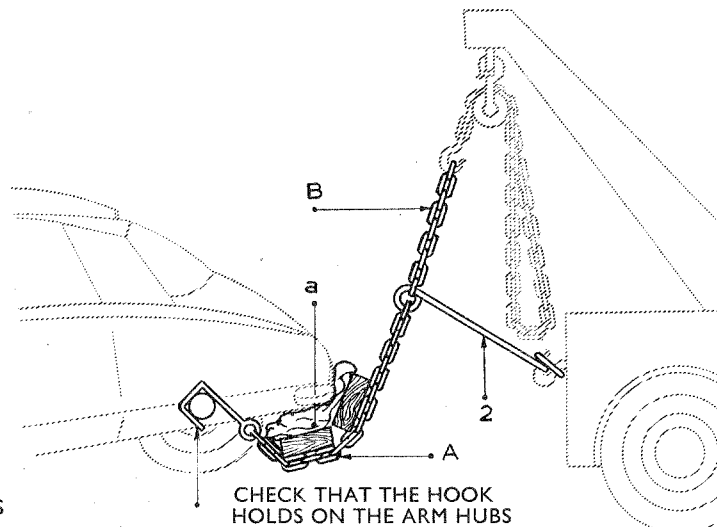
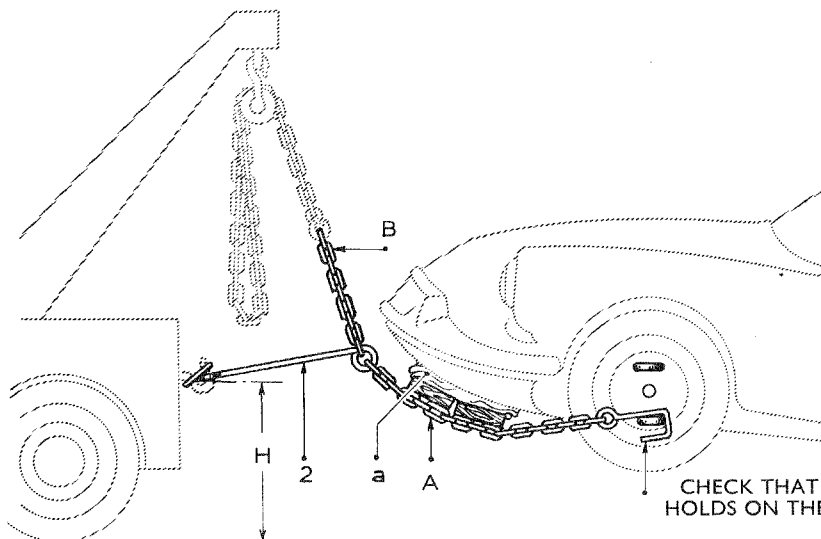


MODIFICATION TO REAR FLOOR OF REAR UNIT



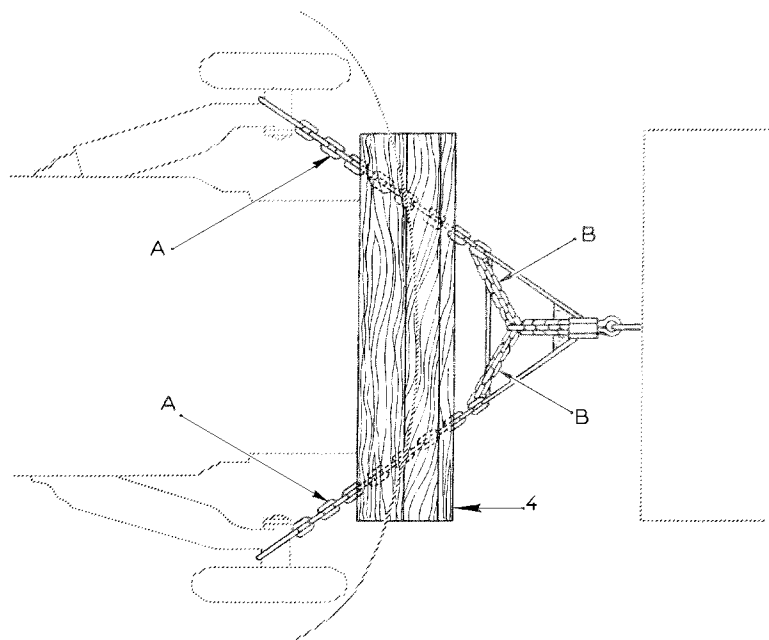
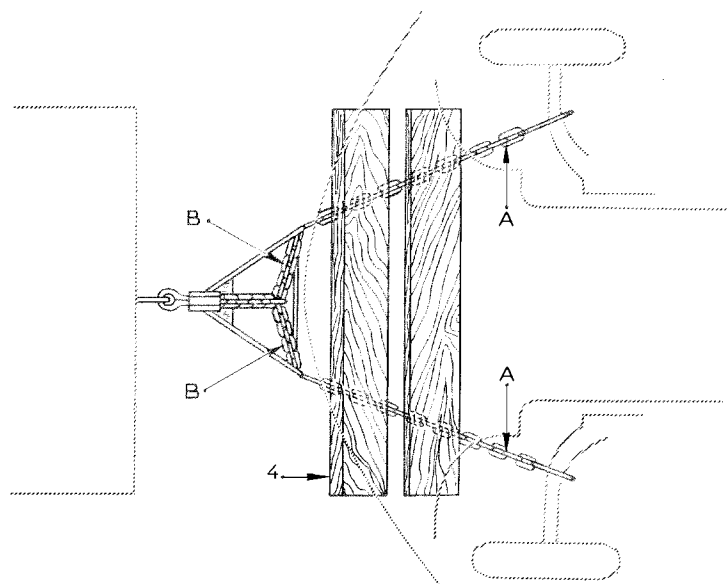
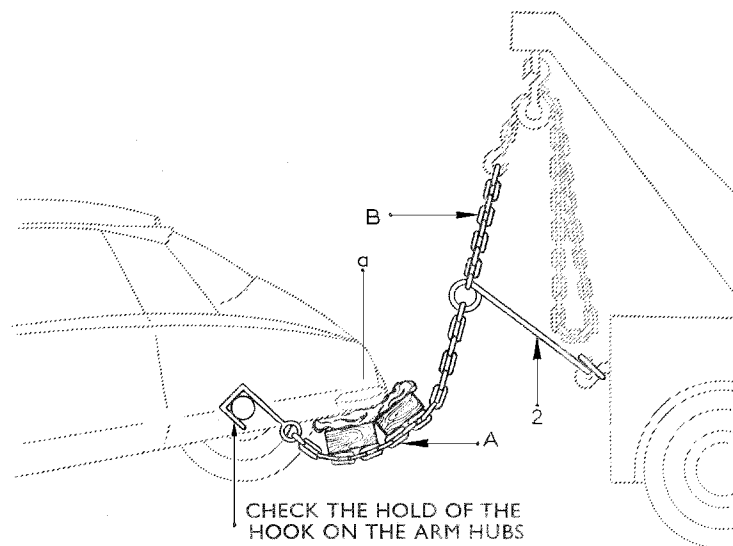
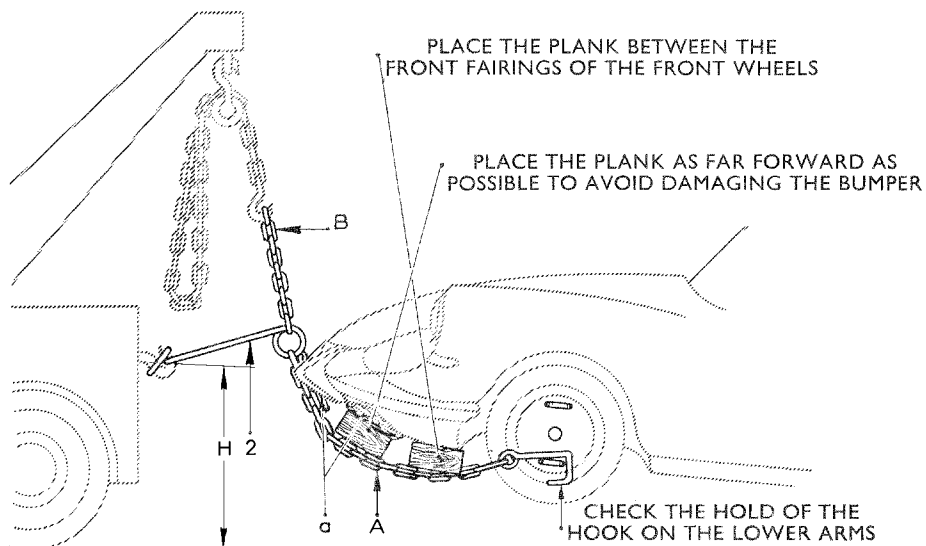
TOWING BY LIFTING THE VEHICLE

UP TO SEPTEMBER 1962



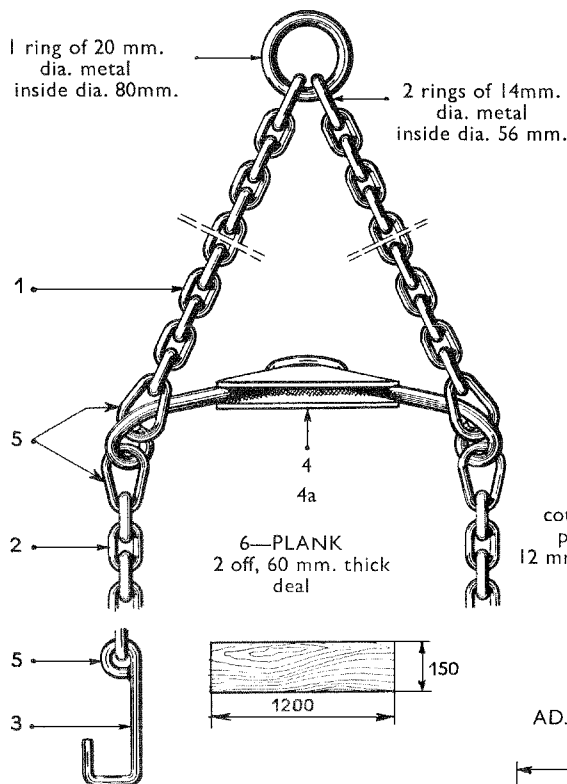
TOWING BY LIFTING THE VEHICLE

SINCE SEPTEMBER 1962

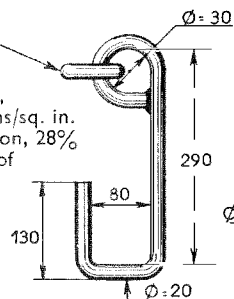


TOWING BY LIFTING THE VEHICLE

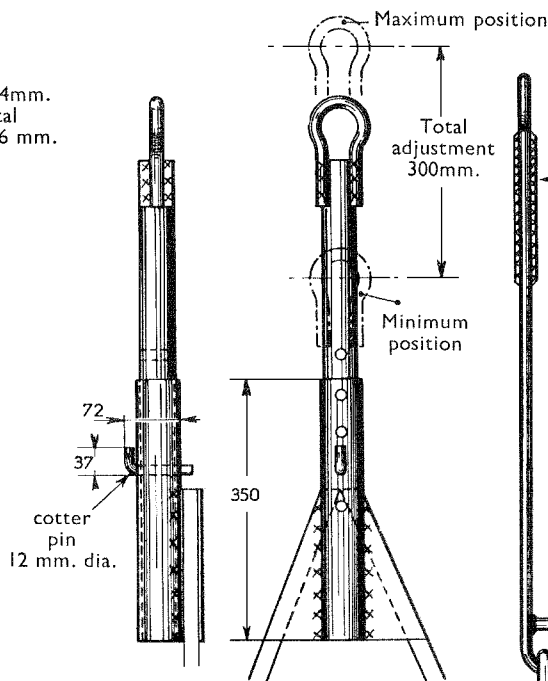
CHAIN ASSEMBLY
MR 3319-20



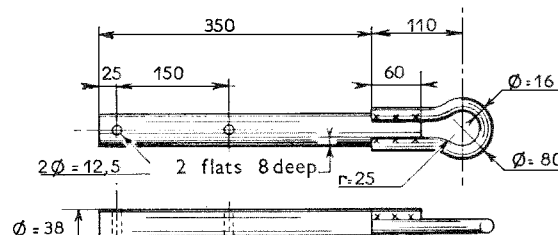
3—HOOK
2 off



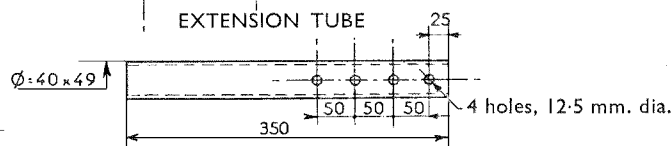
4b—EXTENSION
FOR TOWING TRIANGLE



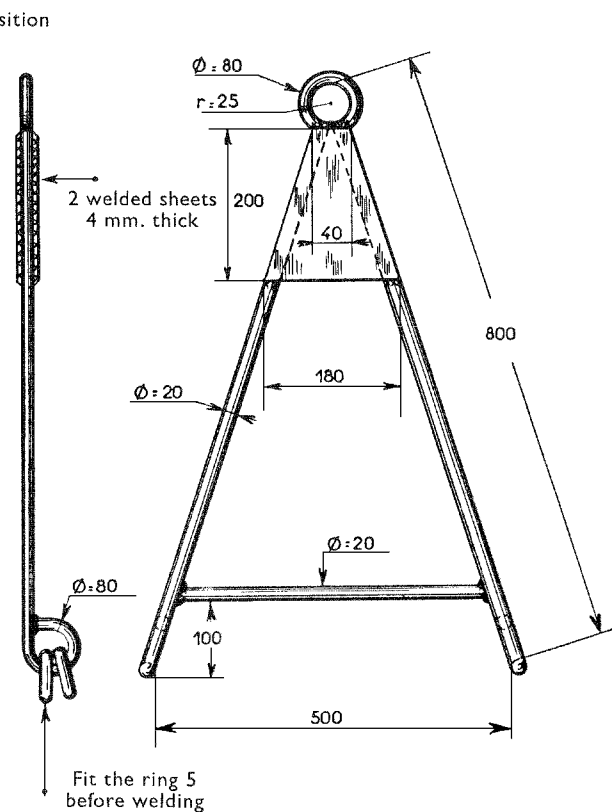
ADJUSTABLE RING (drawn steel)



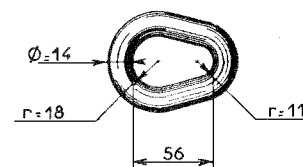
EXTENSION TUBE



4—TOWING TRIANGLE
Martin mild steel



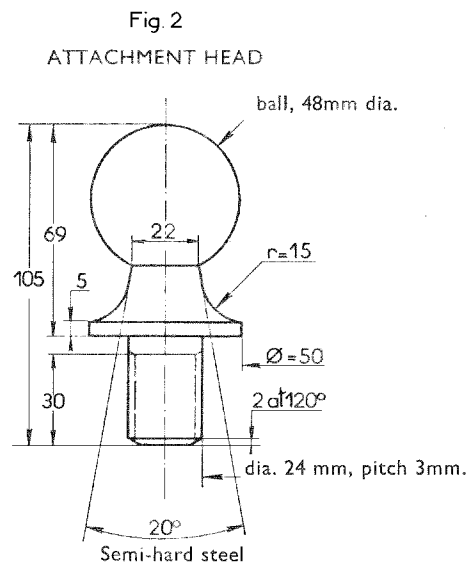
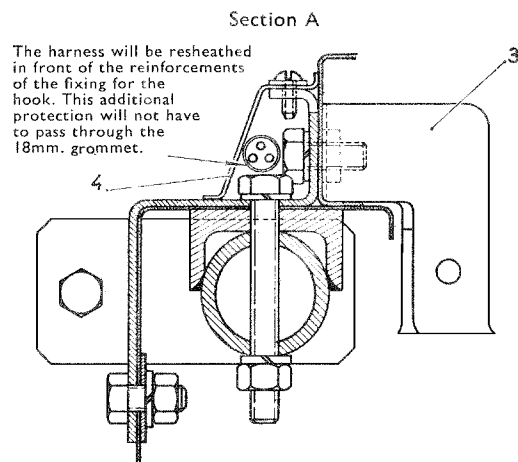
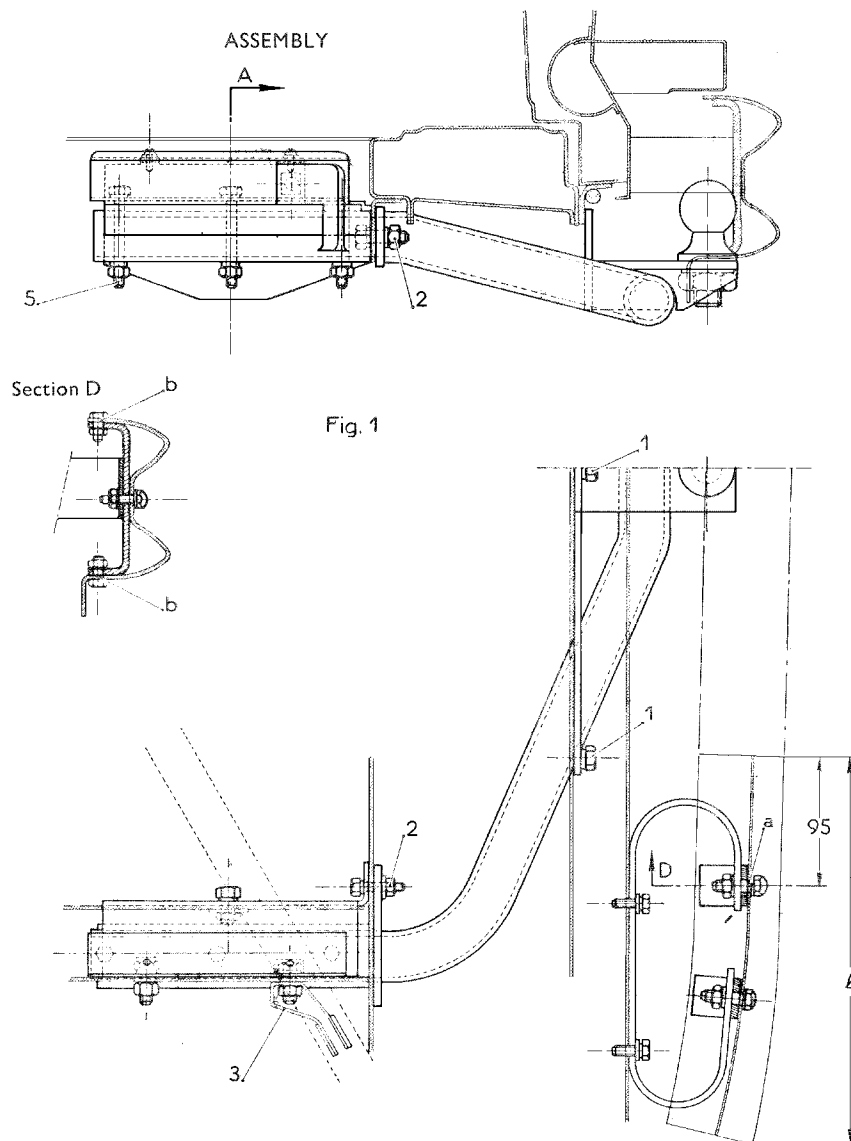
5—ANCHOR LINK
6 off



Martin mild steel, breaking strain 22-25 tons/sq. in. (35-40 kg./mm²). Elongation, 28% minimum, at load of 600 lb (275 kg.)

ATTACHMENT FOR TRAILER

BREAK



ATTACHMENT FOR TRAILER

BREAK

Fig. 1

Attachment-head bracket—I off

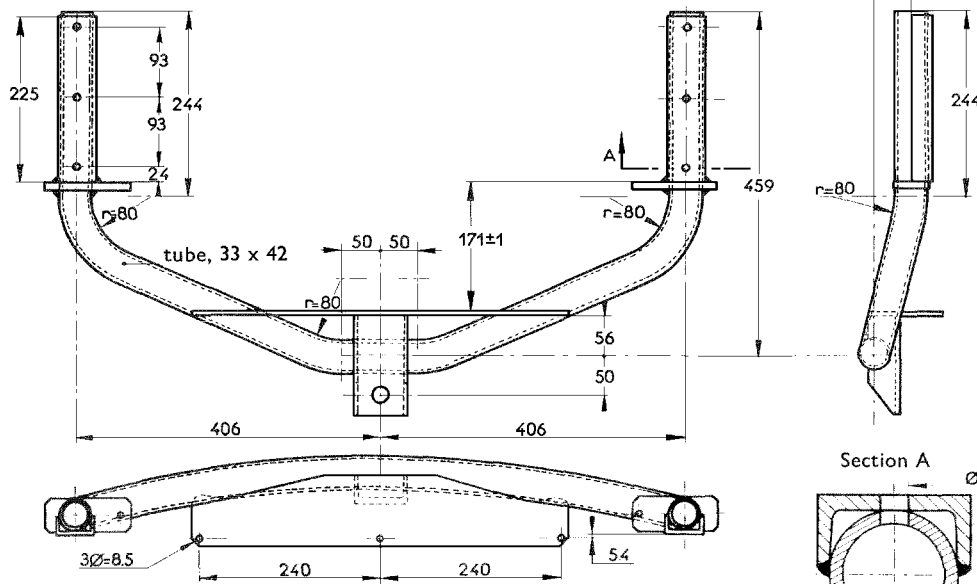


Fig. 2

Bridle, flat bar 50 x 8

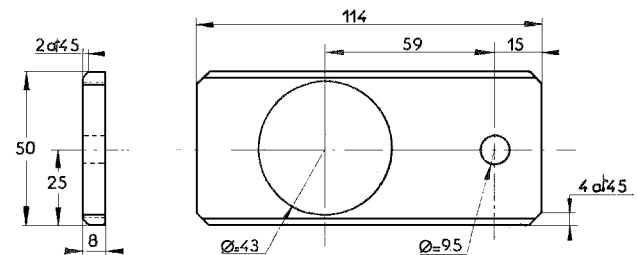


Fig. 4

Exhaust-pipe fixing strap
I-off, 15 mm. sheet

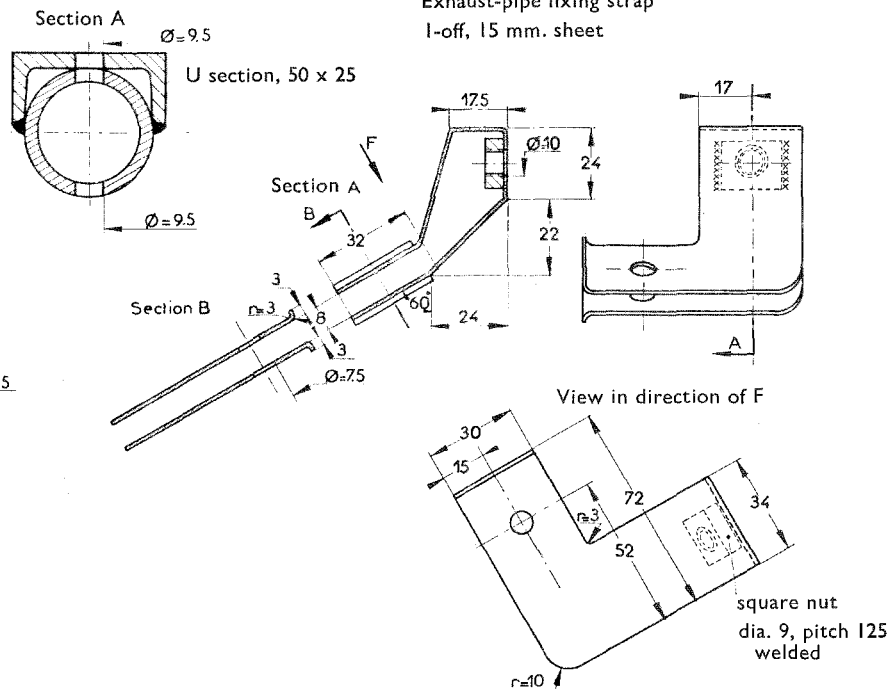
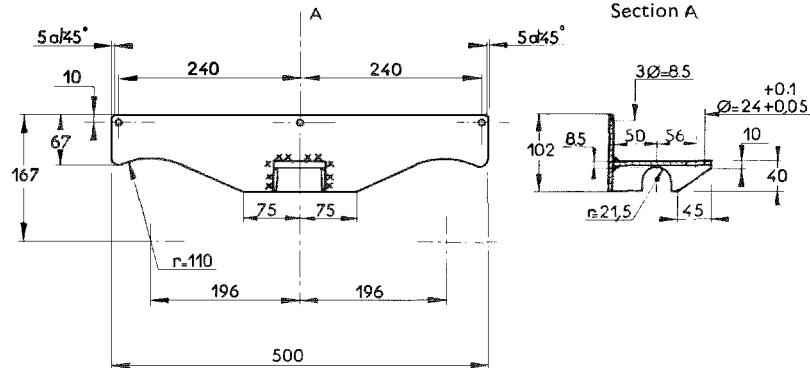


Fig. 3

Rear part of bracket, I off, 3 mm. sheet



ATTACHMENT FOR TRAILER

BREAK

Fig. 1
Bumper iron

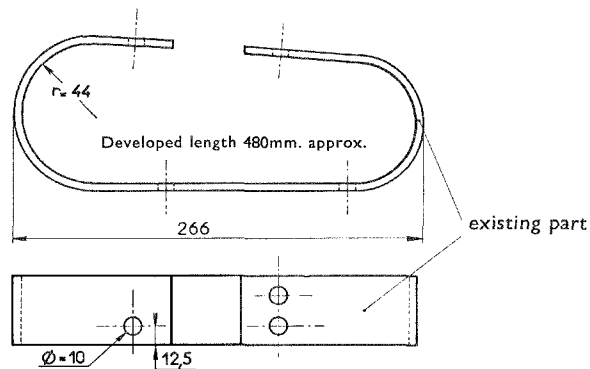


Fig. 3
Rear harness protection, 2 off, 0.8 mm. sheet

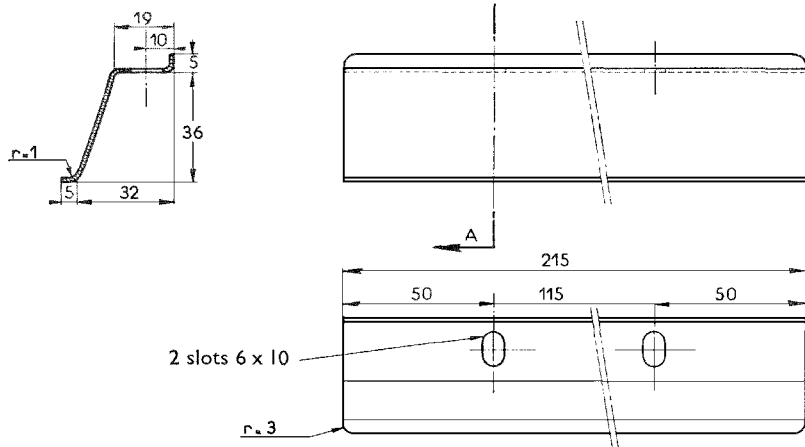
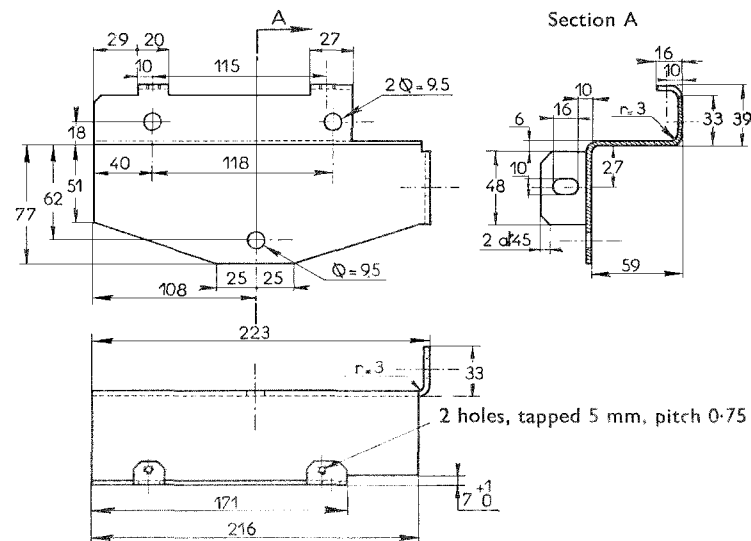
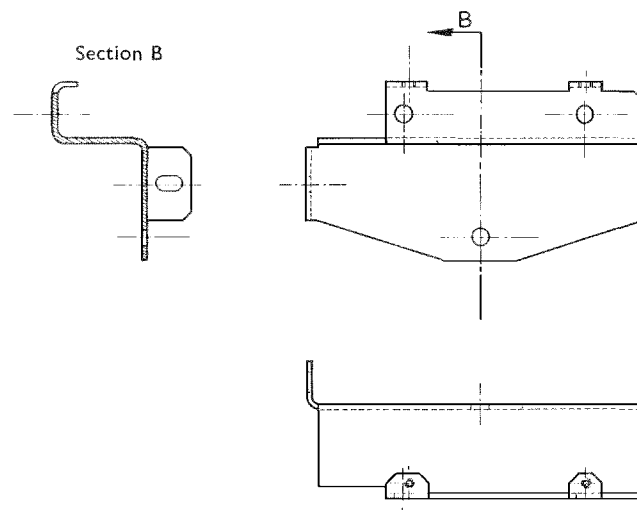


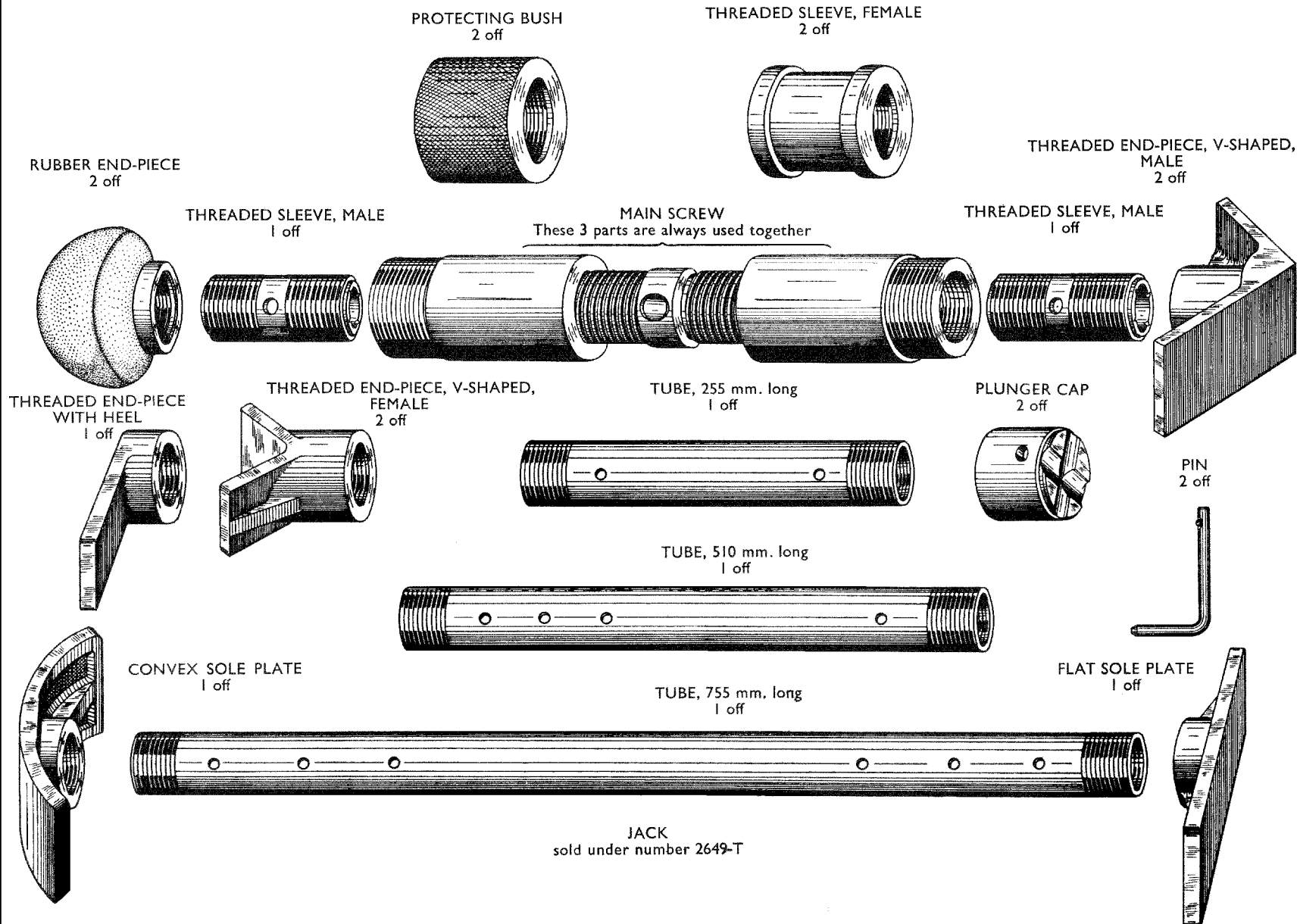
Fig. 2
Internal caisson reinforcement (left-hand)—1 off, 3 mm. sheet



Internal caisson reinforcement (right-hand)—1 off, 3 mm. sheet

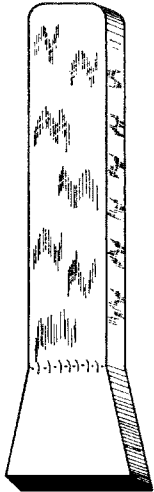


MAKING UP A SCREW JACK



VARIOUS TOOLS

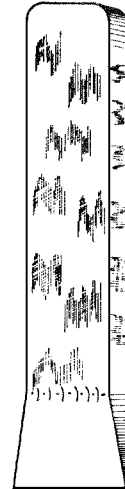
FLAT DRIFT
2698-T



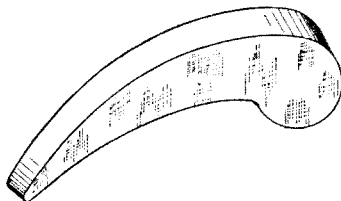
SPOT WELD BREAKING CHISEL
2699-T



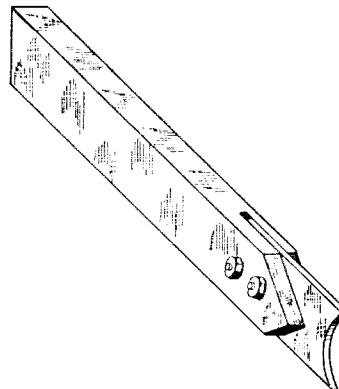
ANGLED DRIFT
2697-T



DOLLY
2679-T



CUTTING TOOL 2670-T
SPARE BLADE 2671-T

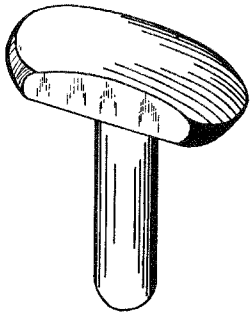


DOLLY
2690-T

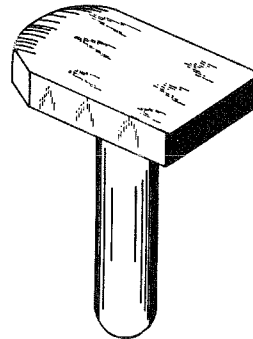


VARIOUS TOOLS

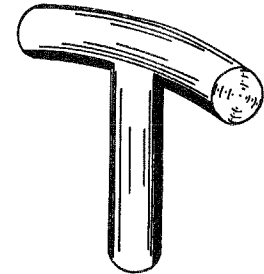
MEDIUM RADIUS BLOCK
2678-T



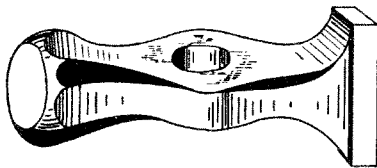
HORSE-SHOE ANVIL DOLLY
2675-T



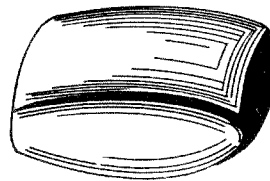
HORN HEAD DOLLY FOR WINGS
2672-T



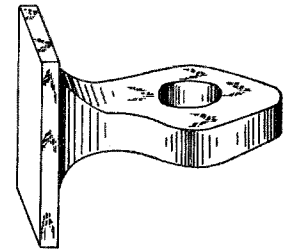
SQUARE-HEAD AND ROUND-HEAD
PLANISHING HAMMER
2685-T



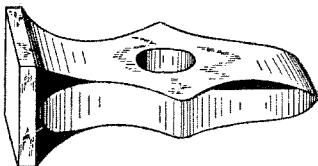
AMERICAN DOLLY
2673-T



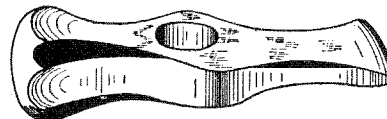
PLANISHING BLOCK
2683-T



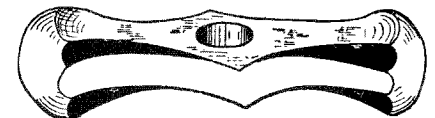
TRIMMING HAMMER
2684-T



CROSS-PEIN HAMMER
2686-T



DOUBLE-HEADED BALL HAMMER
2687-T



REMOVING THE BOTTOM-BODY-SIDERAIL TRIMMING

Fig. 1 SECTION THROUGH
TRIMMED SIDERAIL

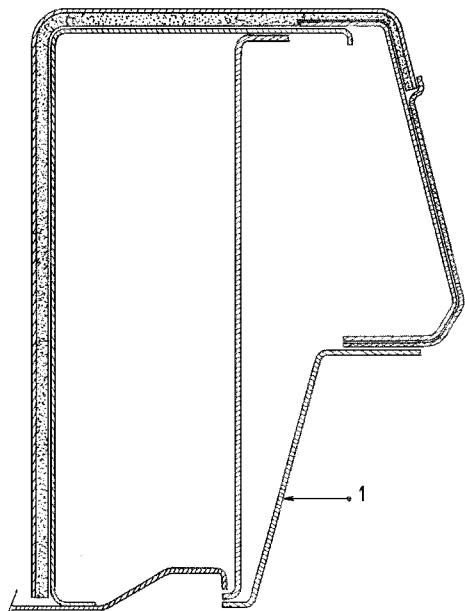


Fig. 2

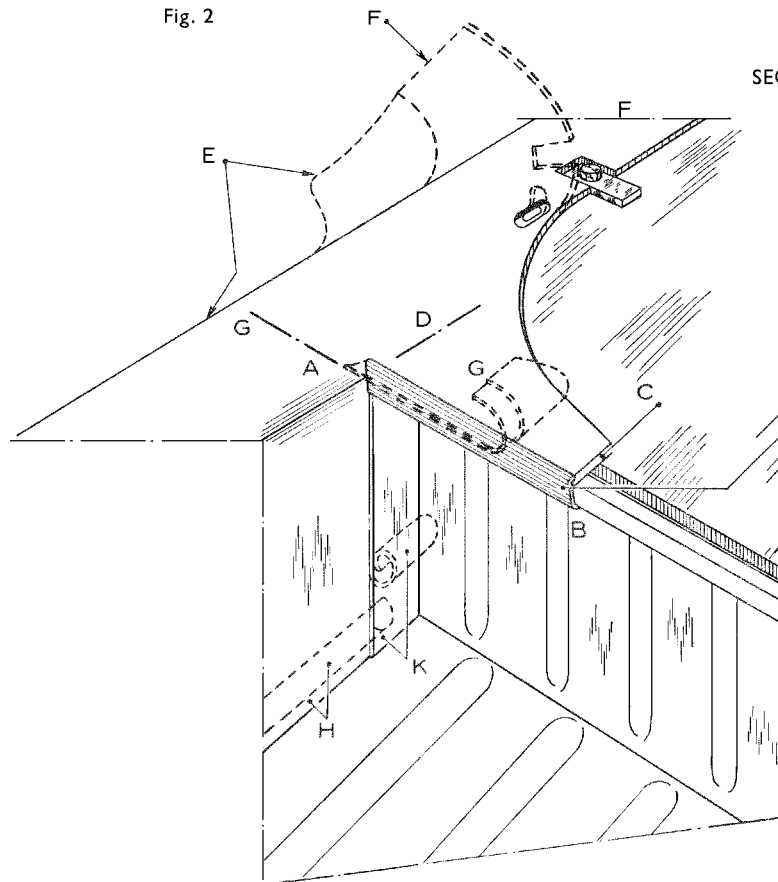
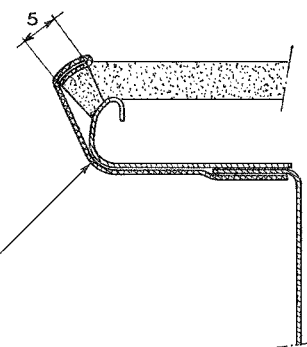
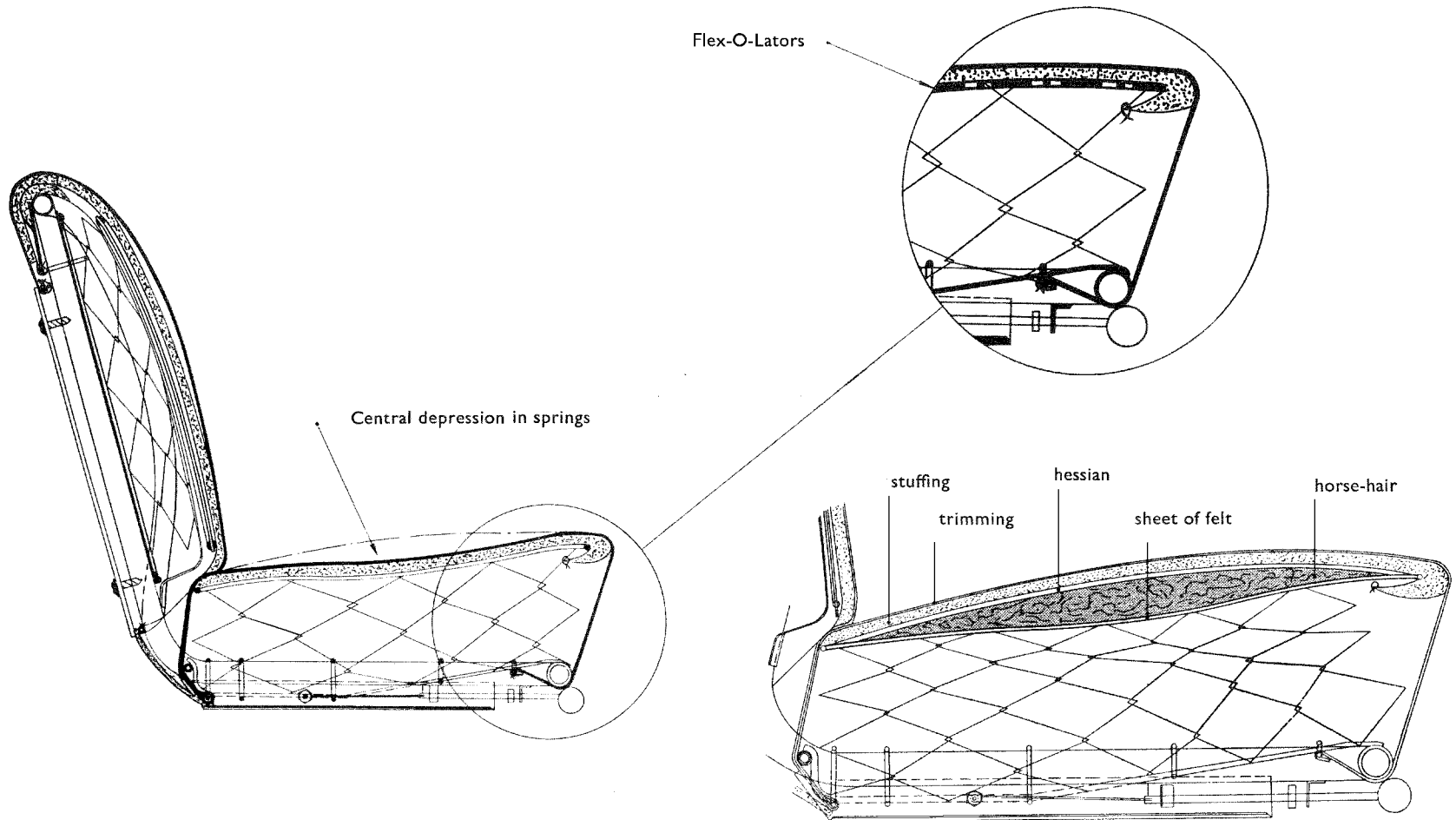


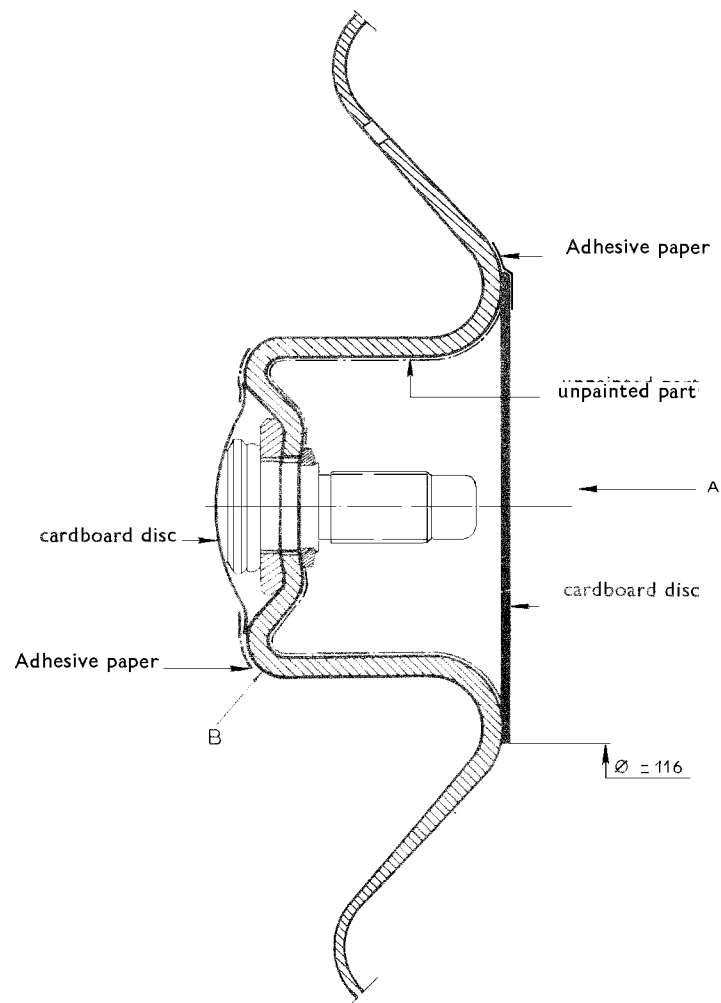
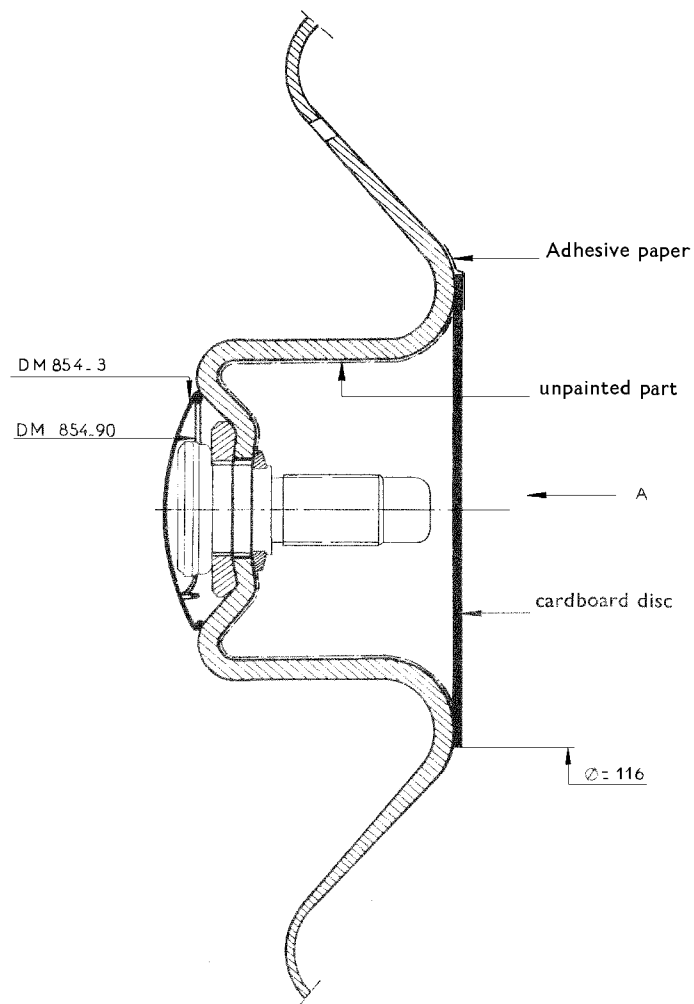
Fig. 3
SECTION THROUGH HEEL BOARD



RESTORING A SEAT TO SHAPE



PAINTING A WHEEL RIM

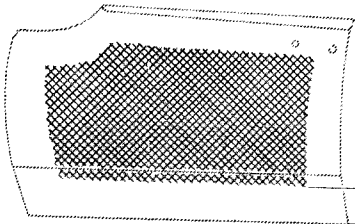
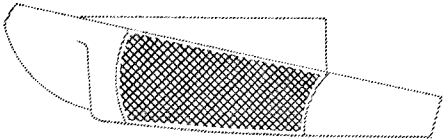
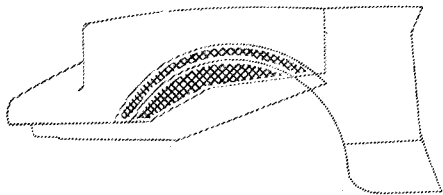


SOUND-DEADENING THE BODY

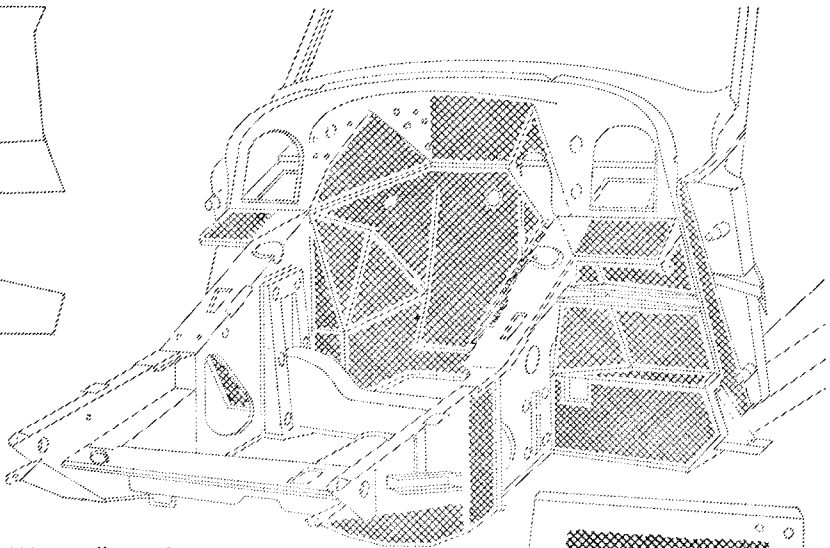
PL. 87

SINCE SEPTEMBER 1962

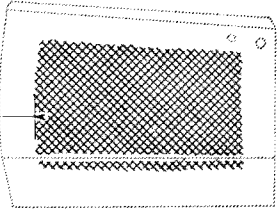
FRONT WING



FRONT DOOR

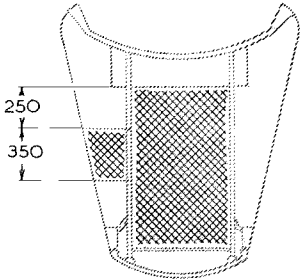


120mm. all round

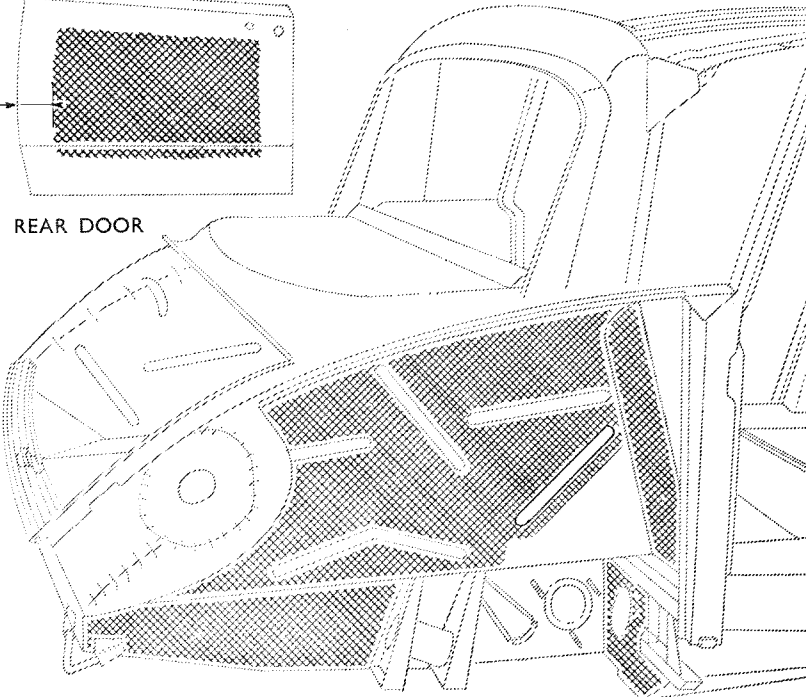
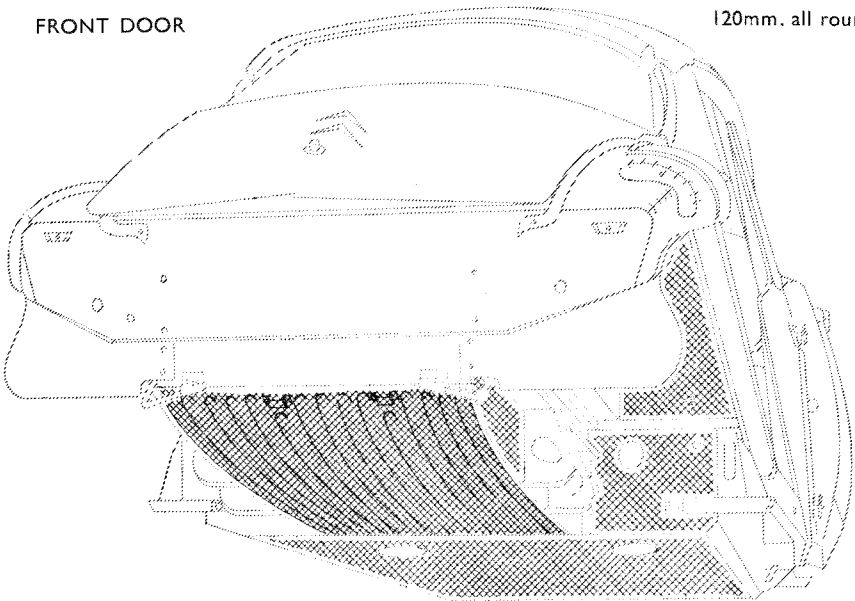
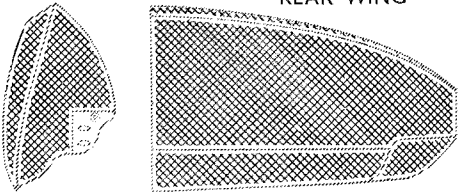


REAR DOOR

BONNET



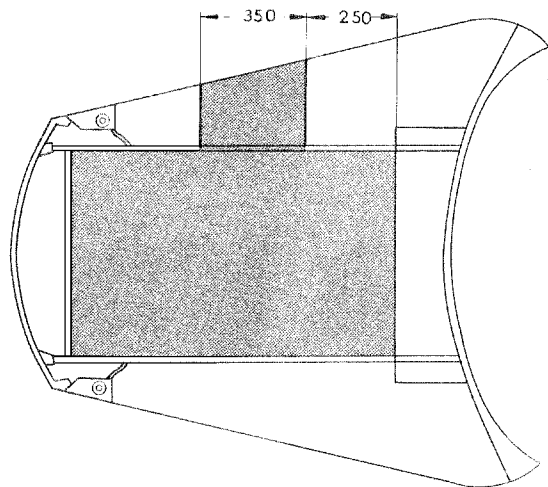
REAR WING



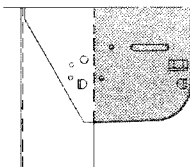
SOUND-DEADENING THE BODY

SINCE SEPTEMBER 1962

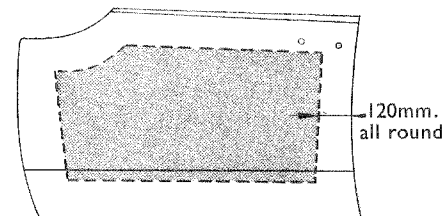
Boot (ID)



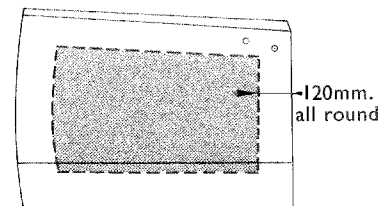
View in direction of F5



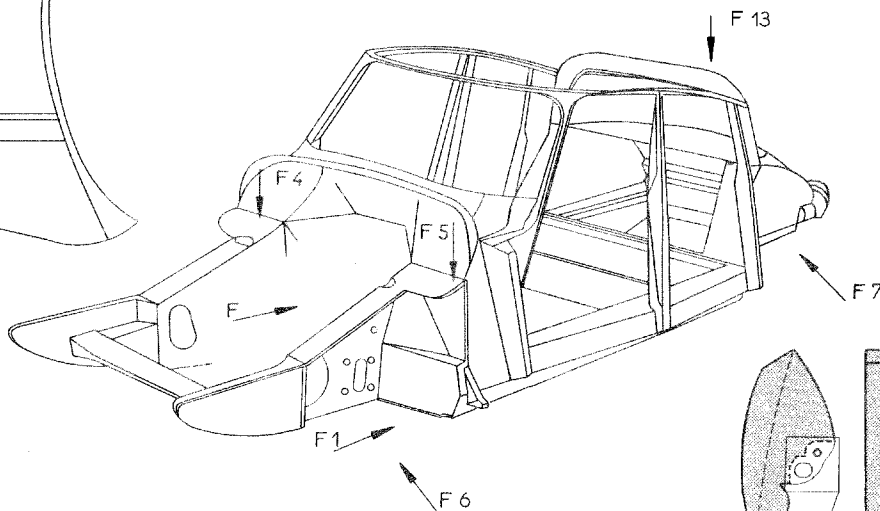
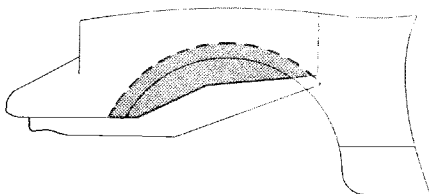
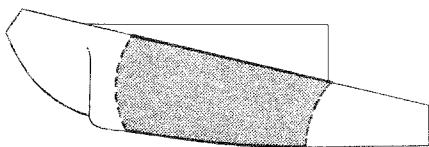
Front doors



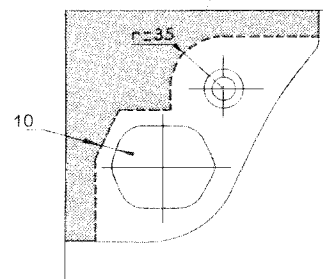
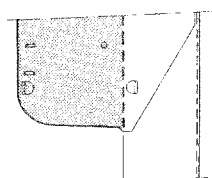
Rear doors



Front wings



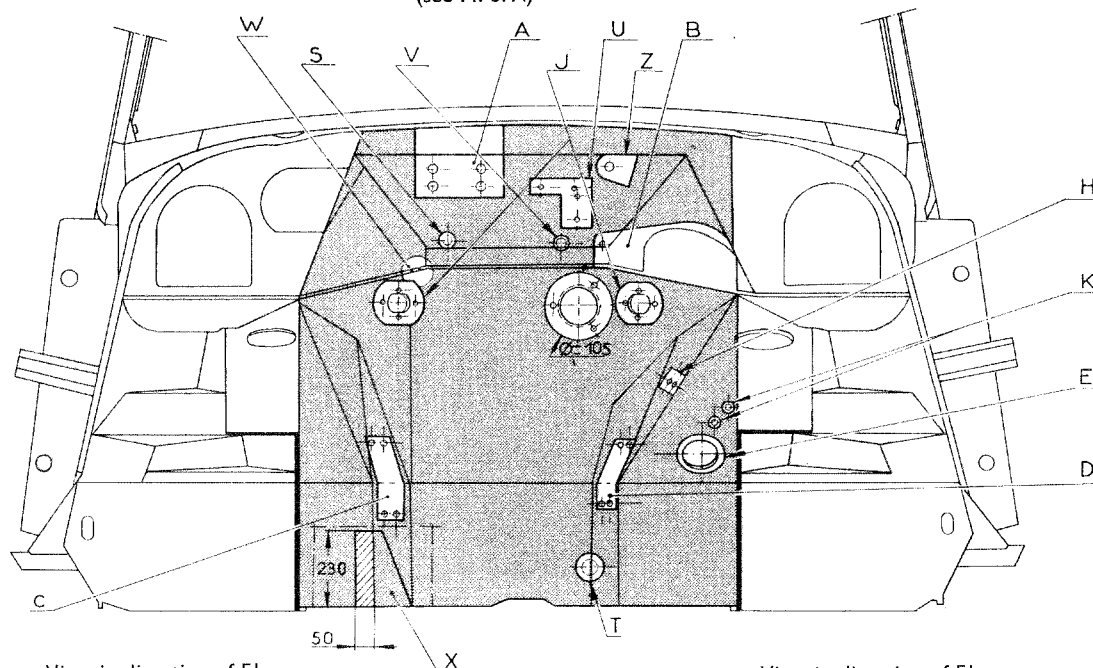
View in direction of F4



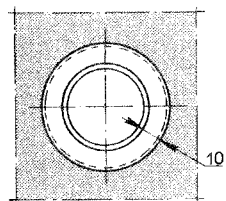
SOUND-DEADENING THE BODY

SINCE SEPTEMBER 1962

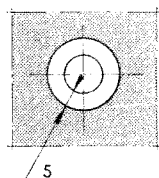
View in direction of F
(see Pl. 87A)



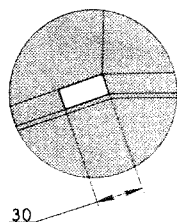
Detail E



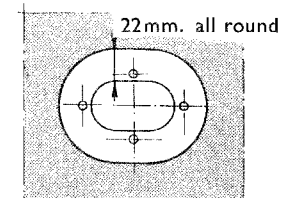
Detail V



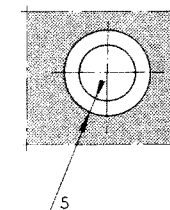
Detail W



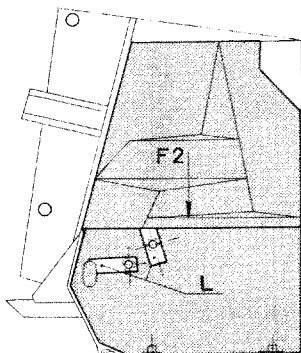
Detail J



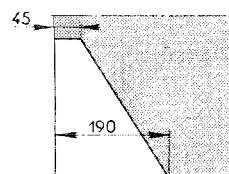
Detail S



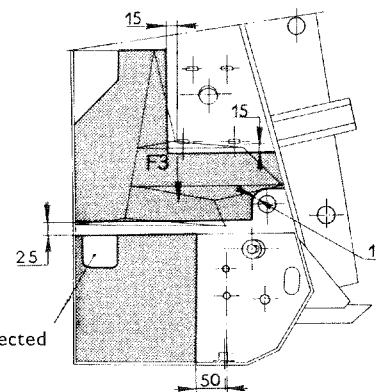
View in direction of F1
(see Pl. 87A)
Right-hand side



Detail X

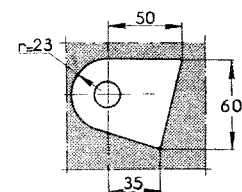


View in direction of F1
(see Pl. 87A)
Left-hand side



to be protected

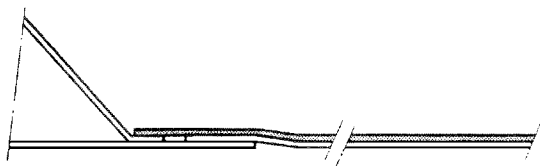
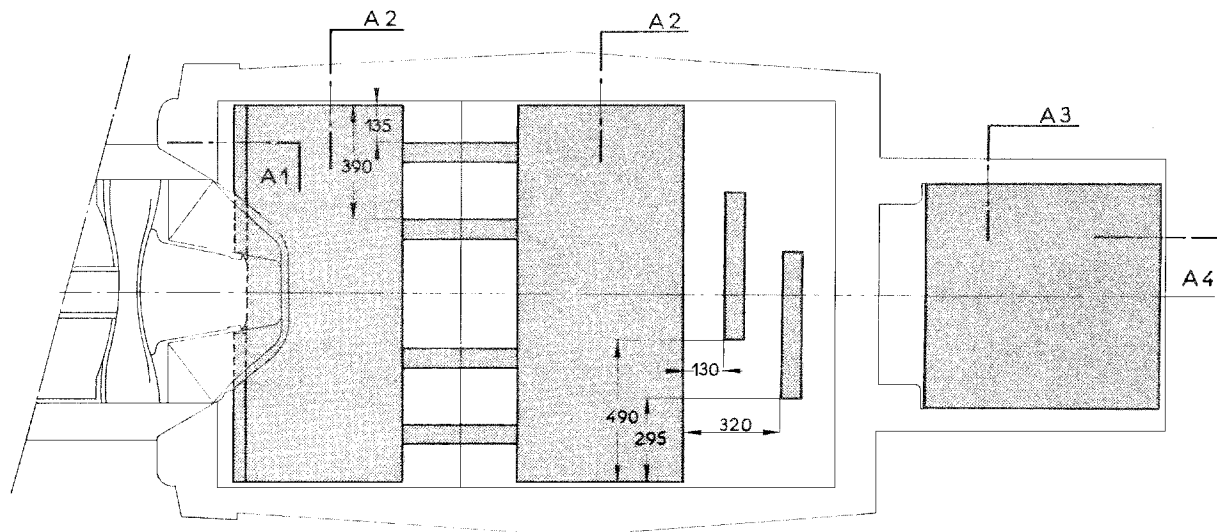
Detail Z



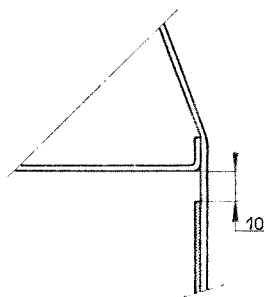
SOUND-DEADENING THE BODY

SINCE SEPTEMBER 1962

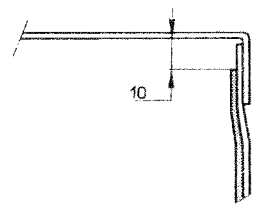
Top view of body



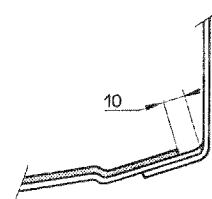
Section A 1



Section A 2



Section A 3

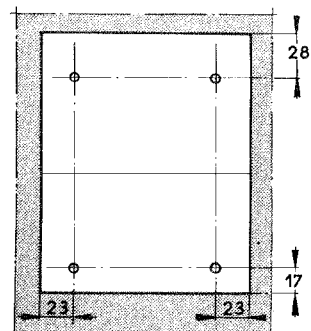


Section A 4

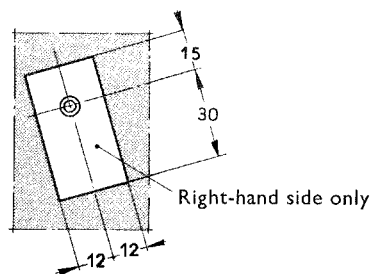
SOUND-DEADENING THE BODY

SINCE SEPTEMBER 1962

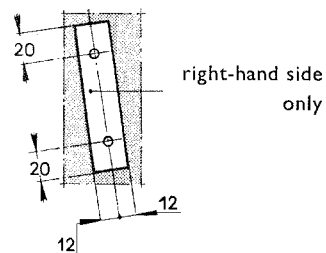
Detail C (see Pl. 87B)



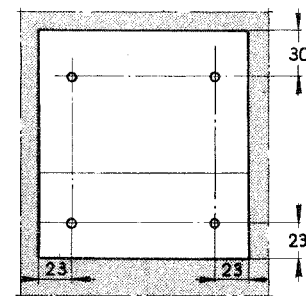
Detail M



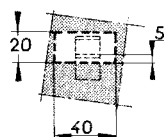
Detail N



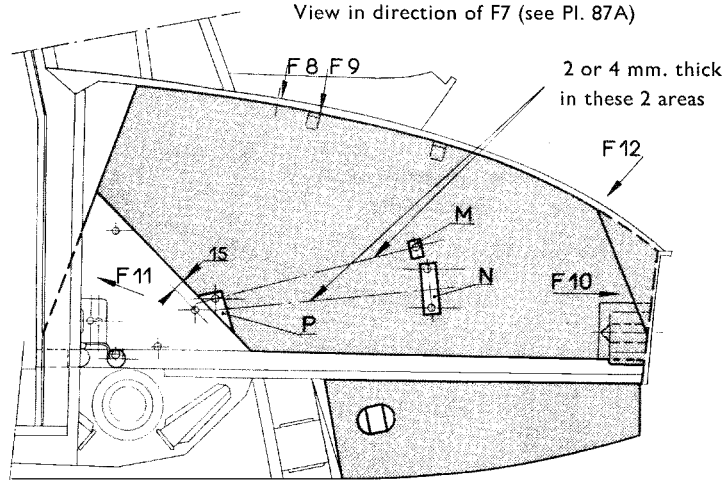
Detail D (see Pl. 87B)



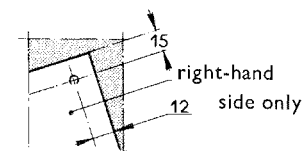
View in direction of F9



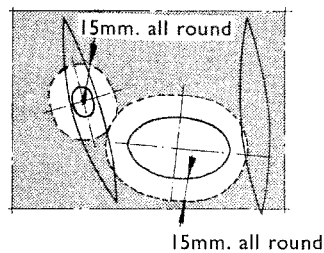
View in direction of F7 (see Pl. 87A)



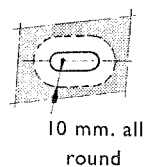
Detail P



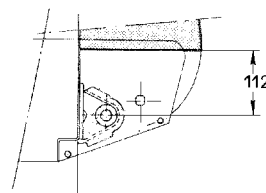
View in direction of F12



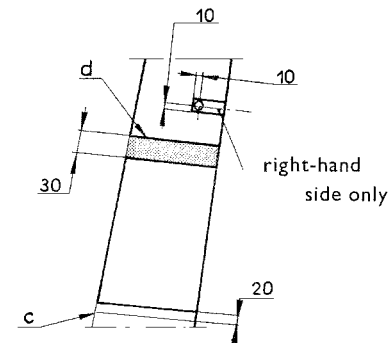
View in direction of F8



View in direction of F10



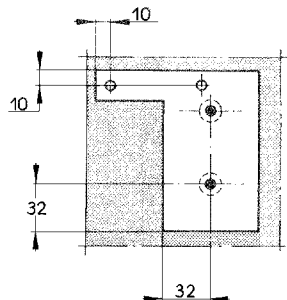
View in direction of F11



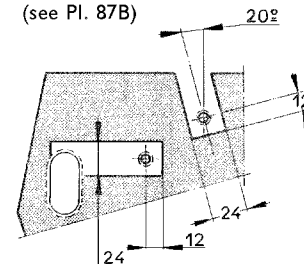
SOUND-DEADENING THE BODY

SINCE SEPTEMBER 1962

DETAIL U
(see Pl. 87B)



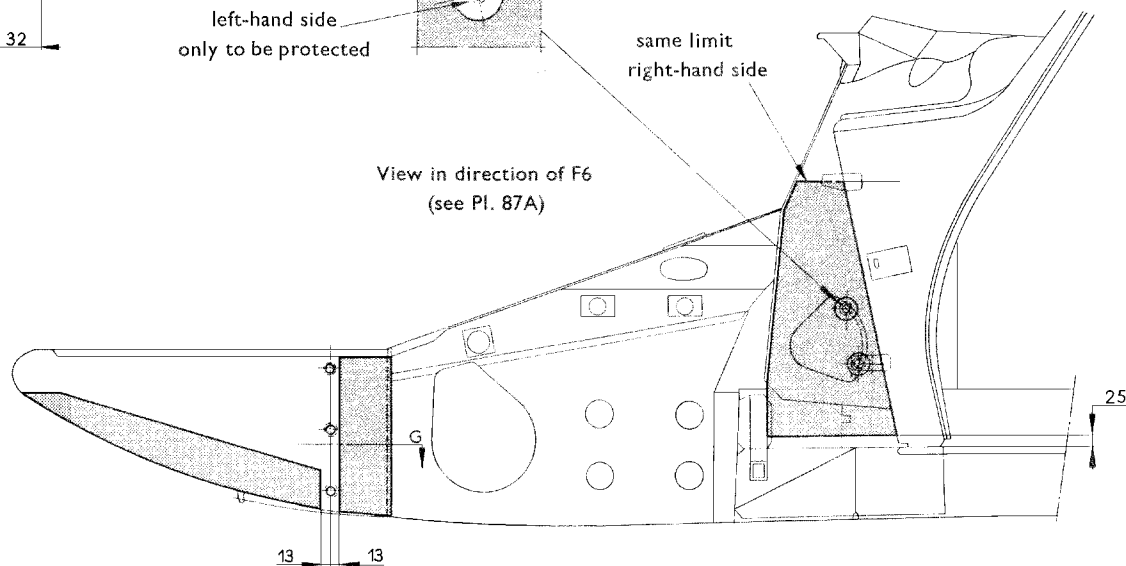
DETAIL L
(see Pl. 87B)



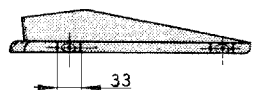
left-hand side
only to be protected

same limit
right-hand side

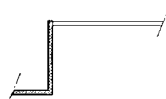
View in direction of F6
(see Pl. 87A)



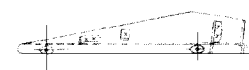
View in direction of F2
(see Pl. 87B)



Section G



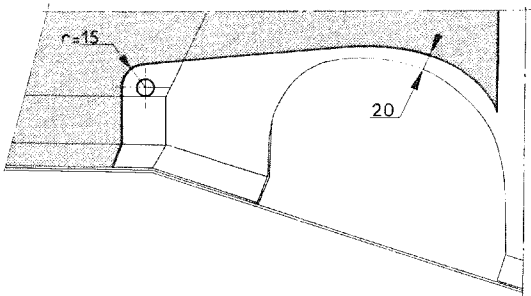
View in direction of F3
(see Pl. 87B)



SOUND-DEADENING THE BODY

SINCE SEPTEMBER 1962

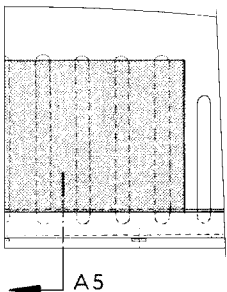
DETAIL B
(see Pl. 87B)



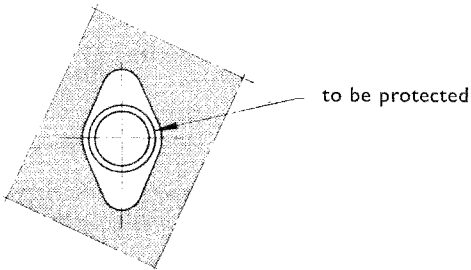
SECTION A5



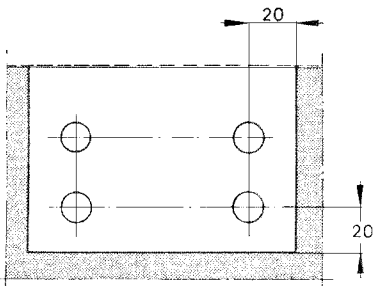
View in direction of F13
(see Pl. 87A)



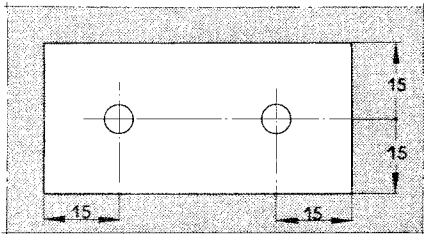
DETAIL K
(see Pl. 87B)



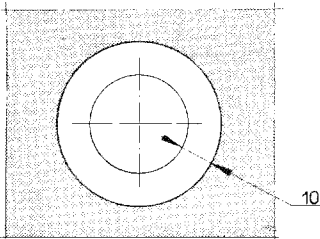
DETAIL A
(see Pl. 87B)



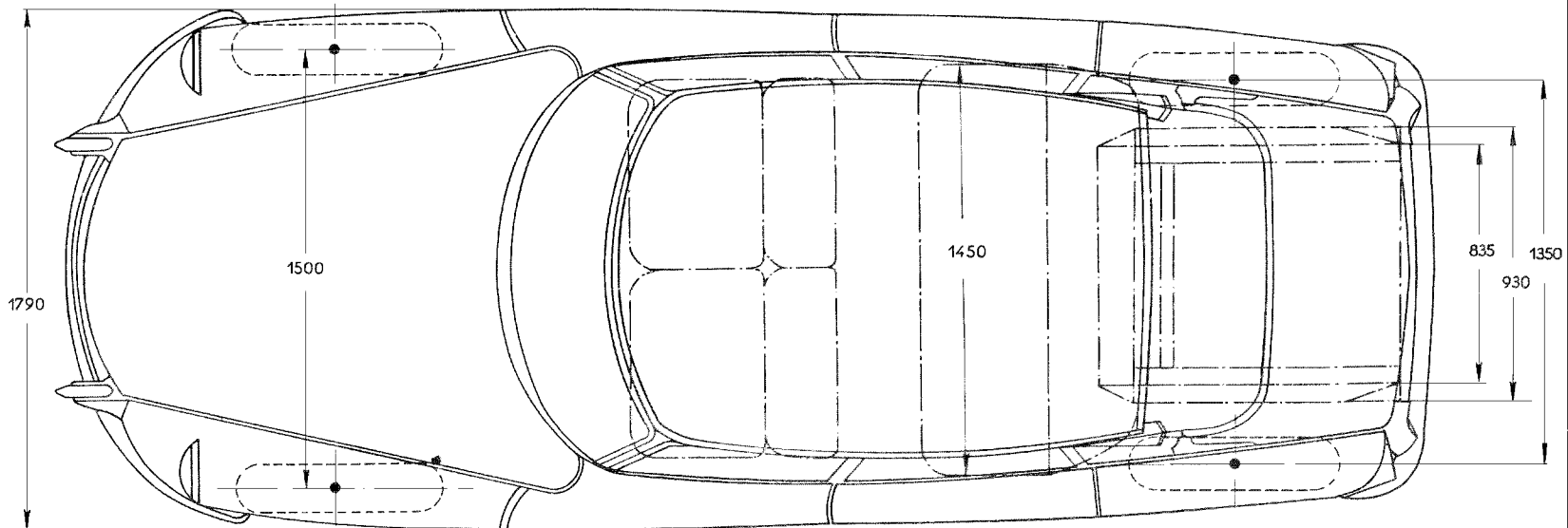
DETAIL H
(see Pl. 87B)



DETAIL T
(see Pl. 87B)

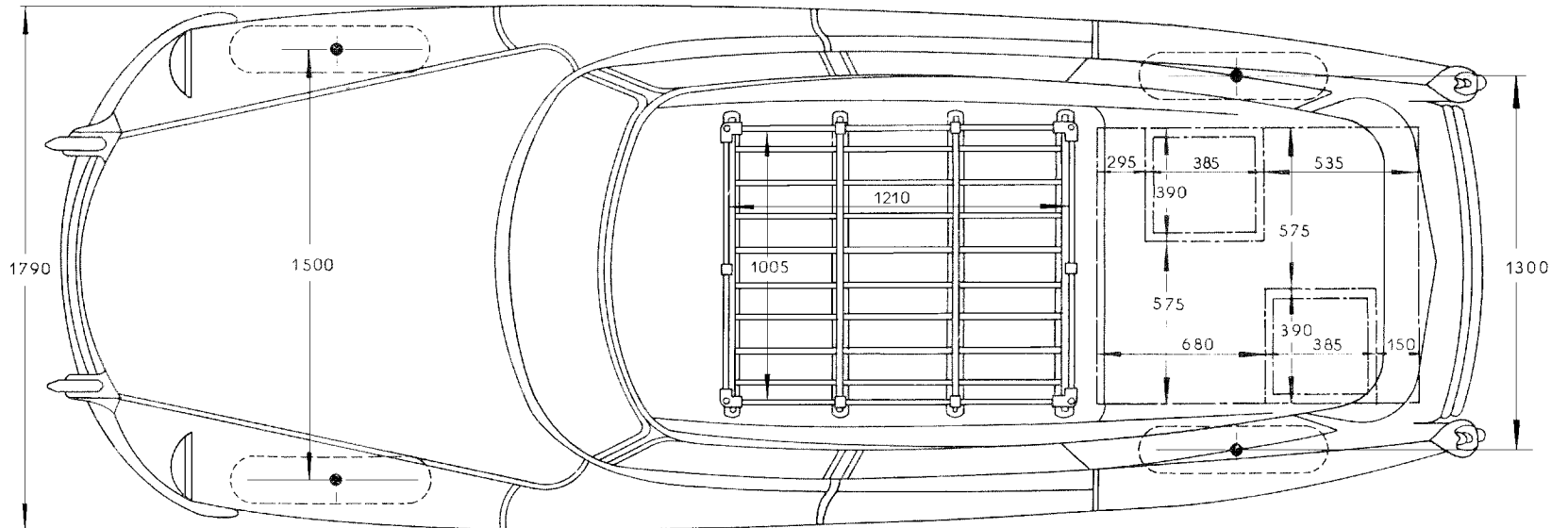
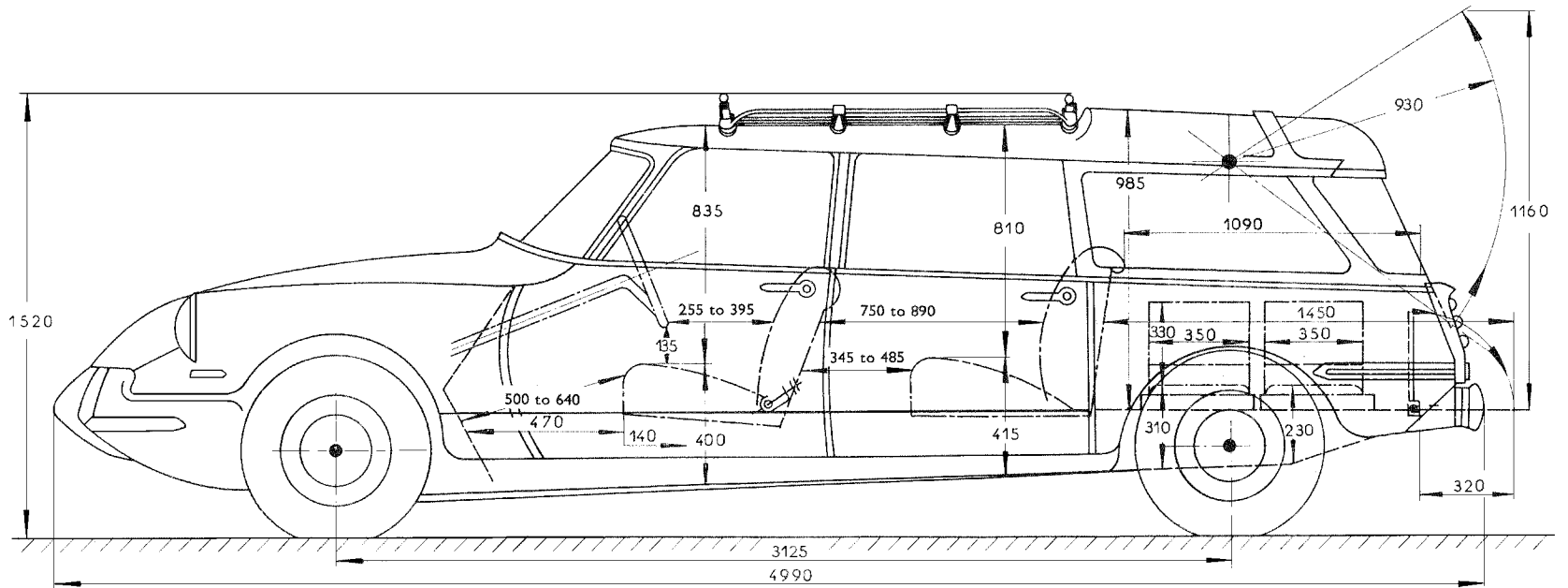


Technical drawing of a car side profile with dimensions in mm. The drawing shows a side view of a car with various dimensions labeled. Key dimensions include: overall height 1470, wheel height 270, wheel offset 200, wheel width 100, wheel radius 800, wheel center offset 170, wheel offset 200, wheel offset 220, wheel offset 660, wheel offset 420, wheel offset 200, wheel offset 155, wheel offset 500, wheel offset 830, wheel offset 255 to 395, wheel offset 135, wheel offset 400, wheel offset 500 to 640, wheel offset 470 to 610, wheel offset 140, wheel offset 440, wheel offset 200, wheel offset 170, wheel offset 800, wheel offset 3125, wheel offset 4830. A note indicates "Seat locked in 4th notch, average slope of back".



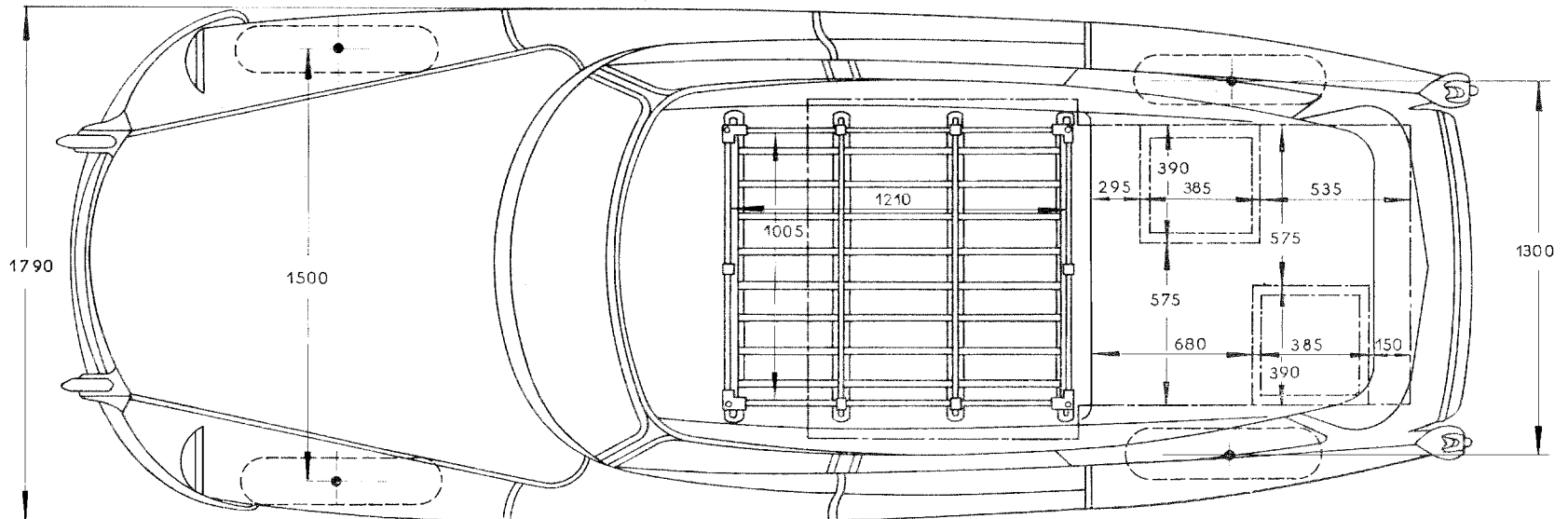
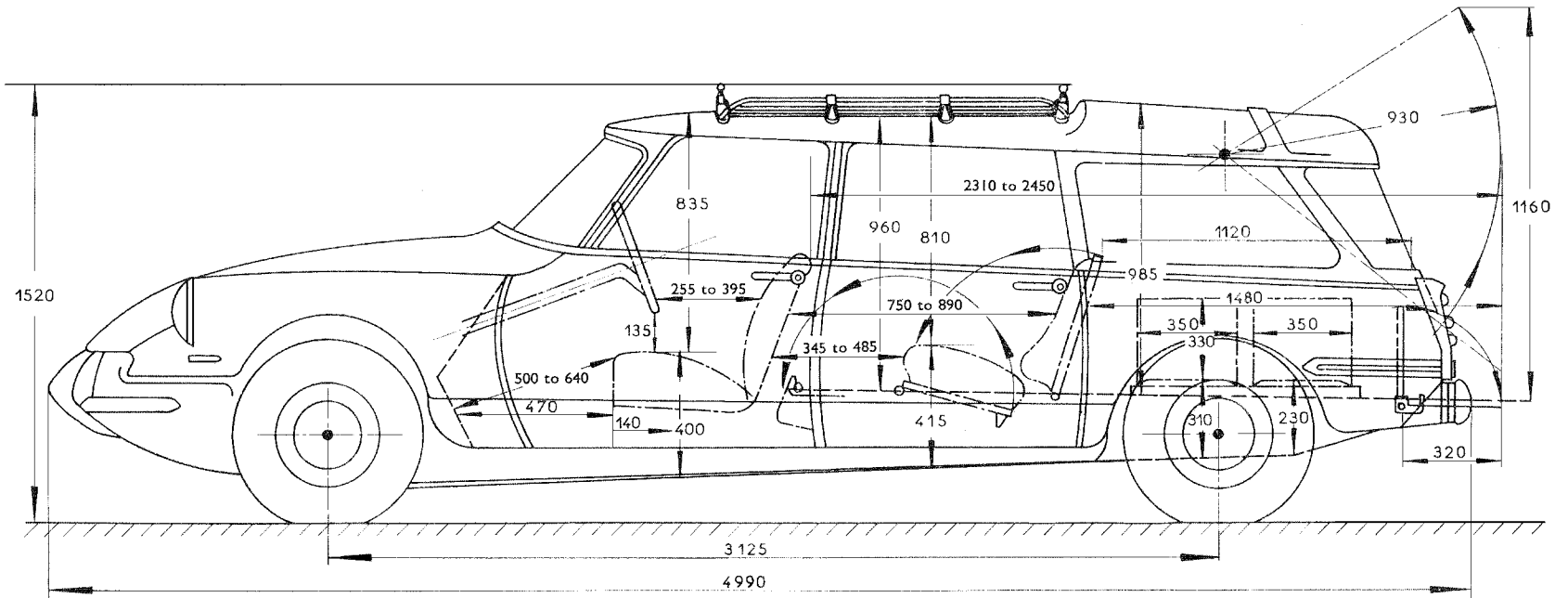
DIMENSIONS

BREAK CONFORT



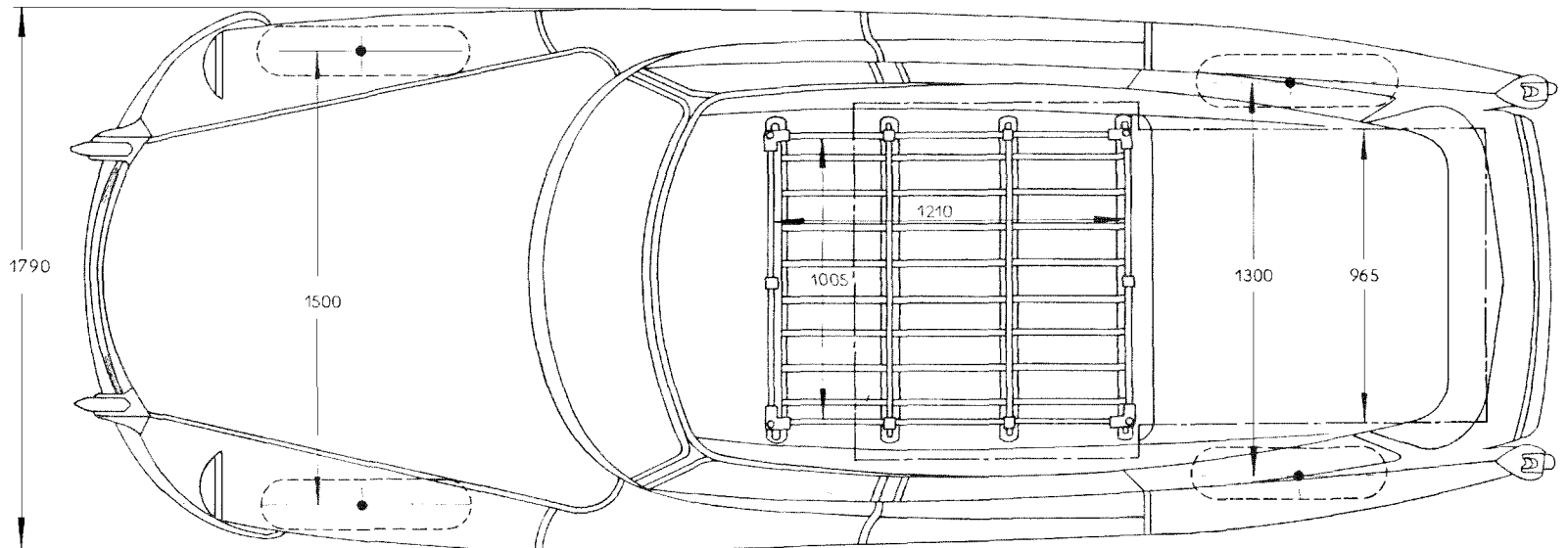
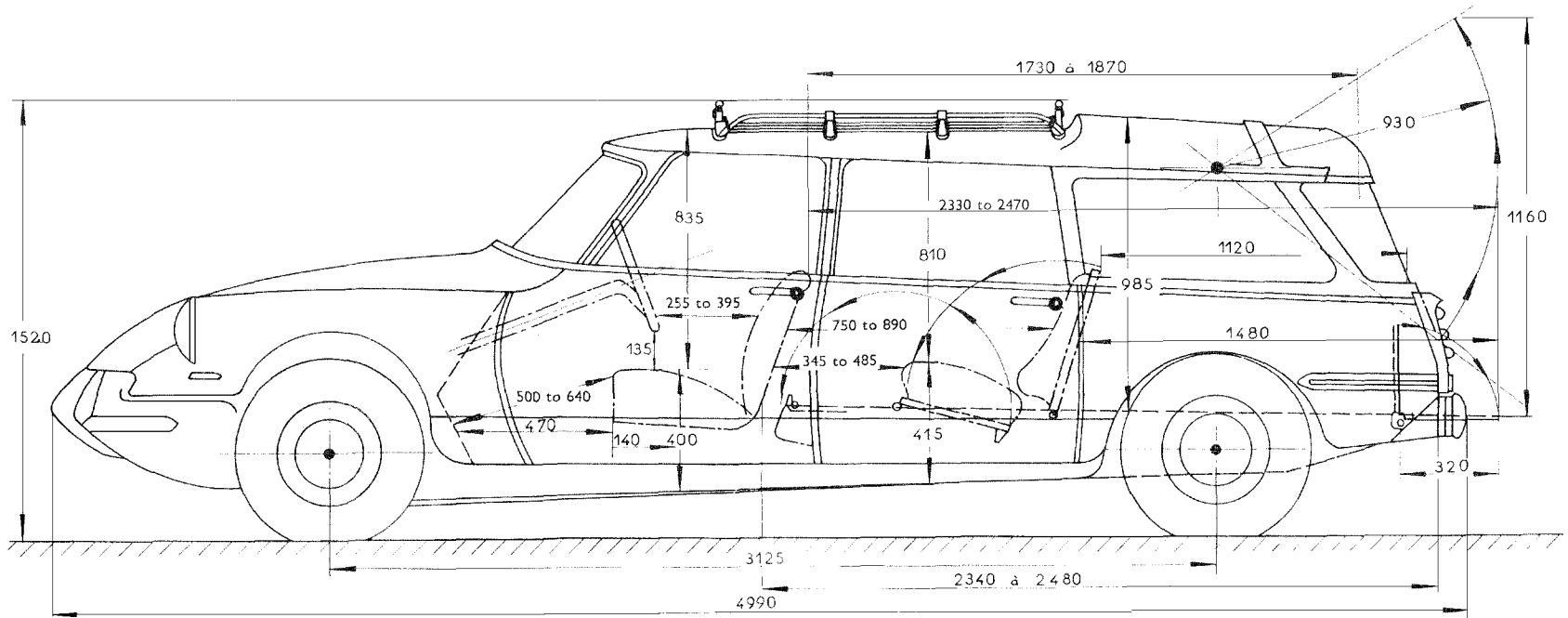
DIMENSIONS

BREAK LUXE



DIMENSIONS

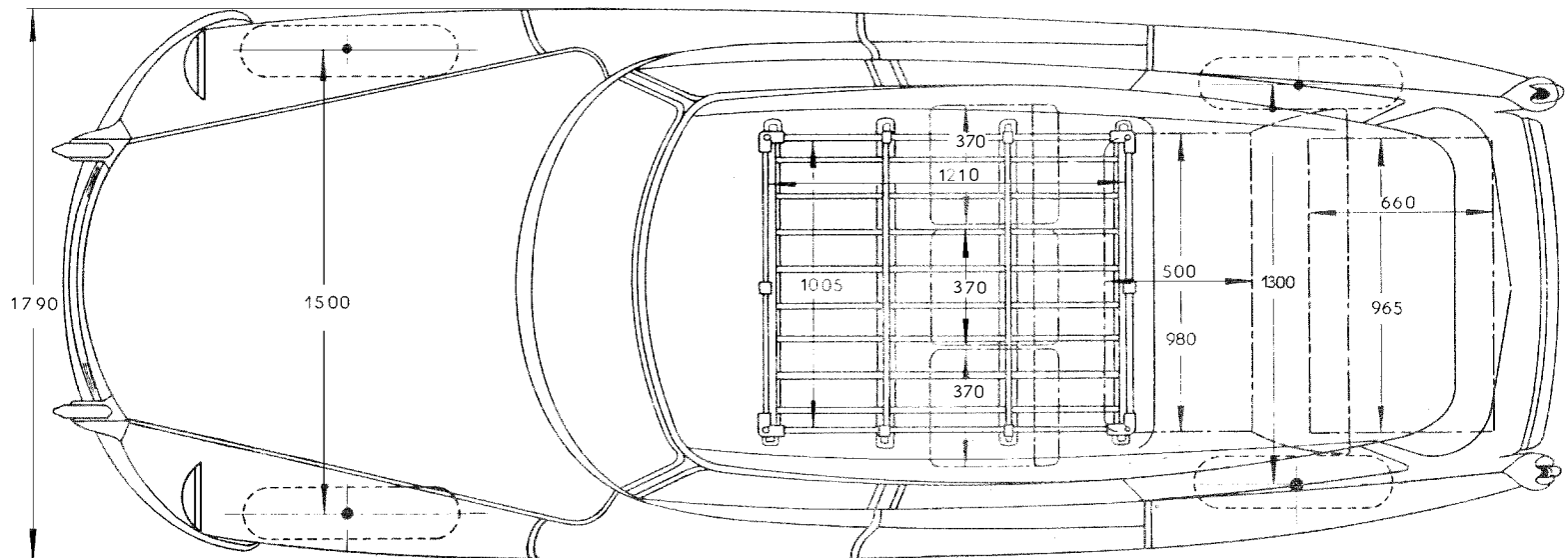
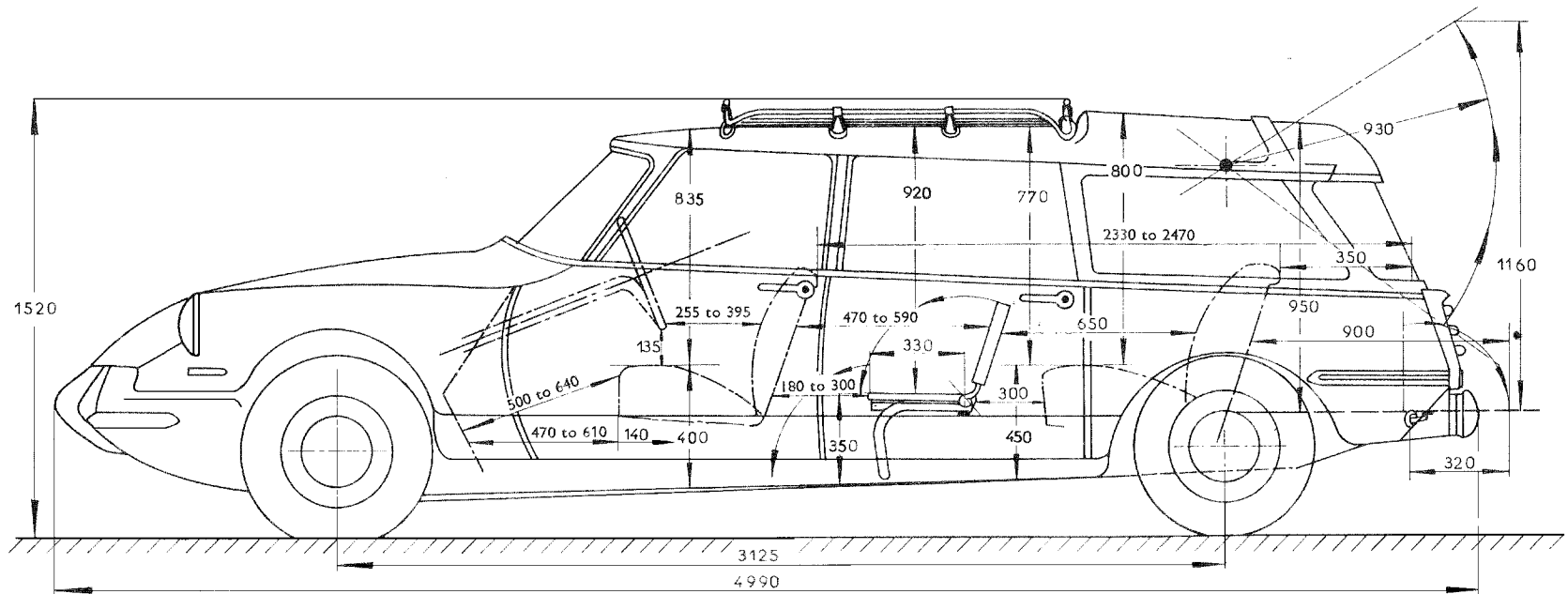
COMMERCIALE



DIMENSIONS

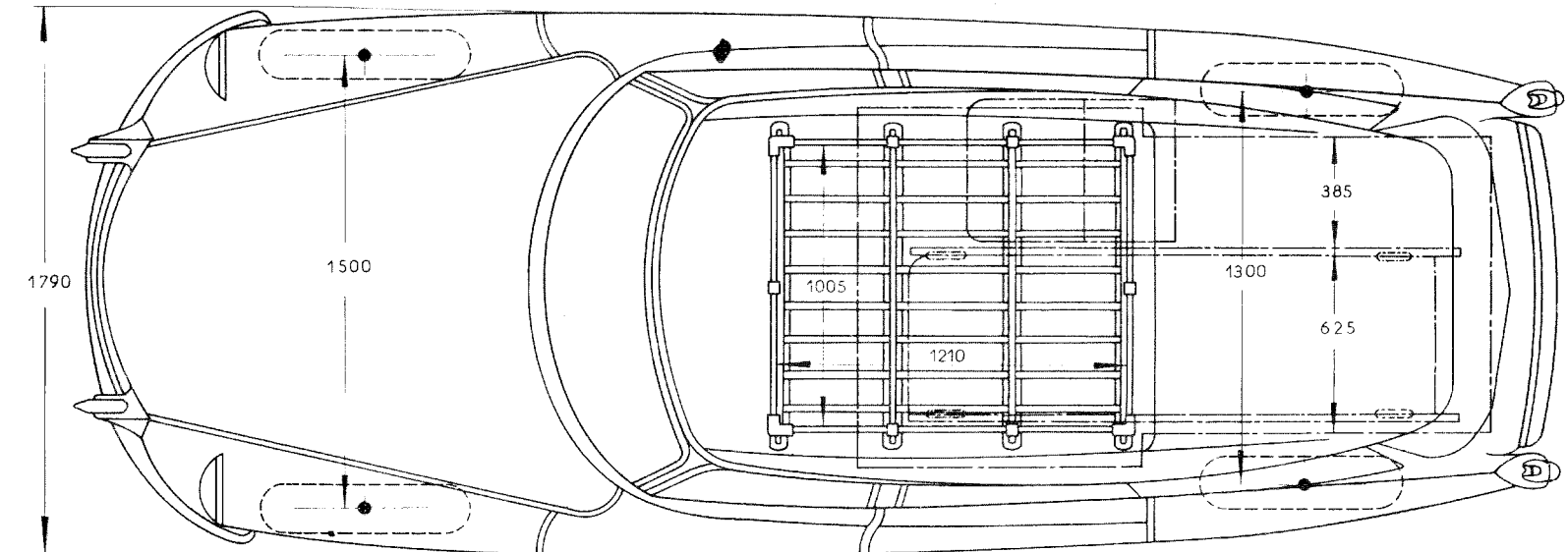
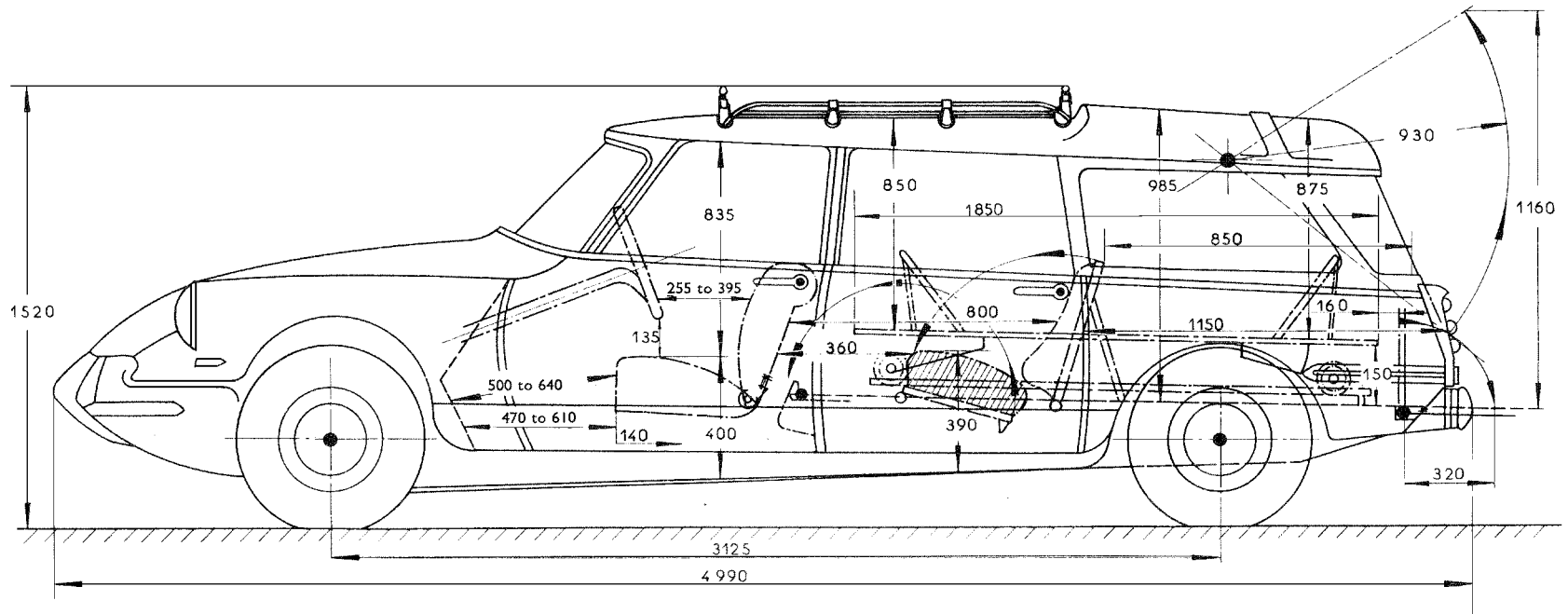
PL. 92

FAMILIALE



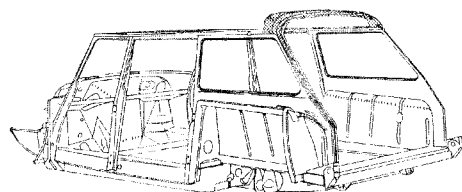
DIMENSIONS

AMBULANCE

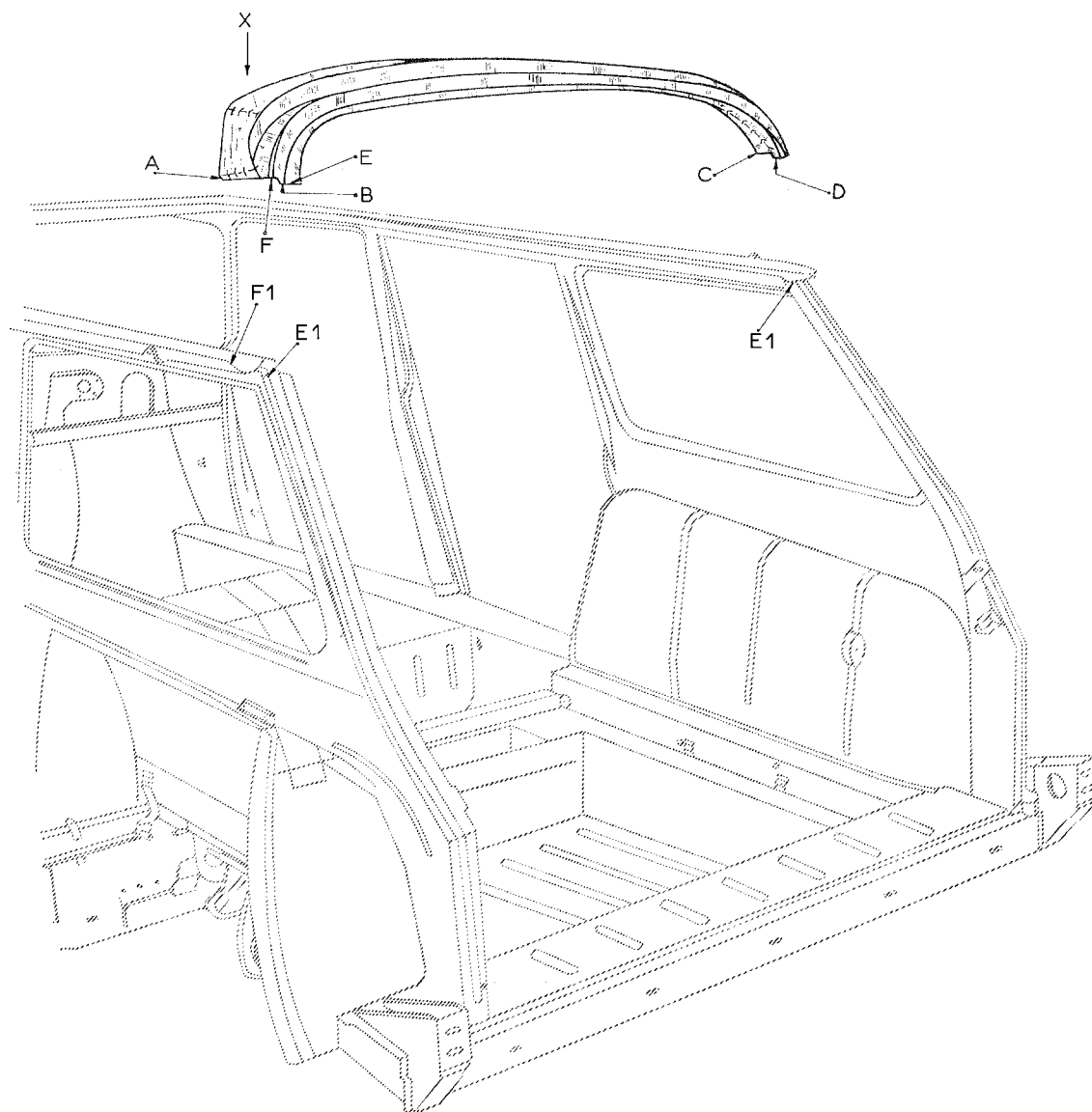
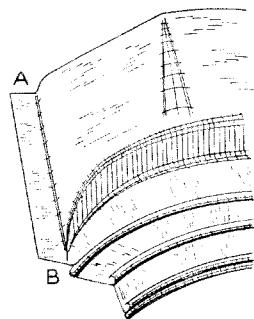


REPLACING AN UPPER REAR BODY CROSSMEMBER

BREAK



View in direction of X



REPLACING A QUARTER PANEL AND
WHEEL ARCH, ASSEMBLED

BREAK

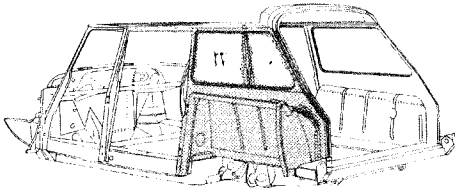


Fig. 1

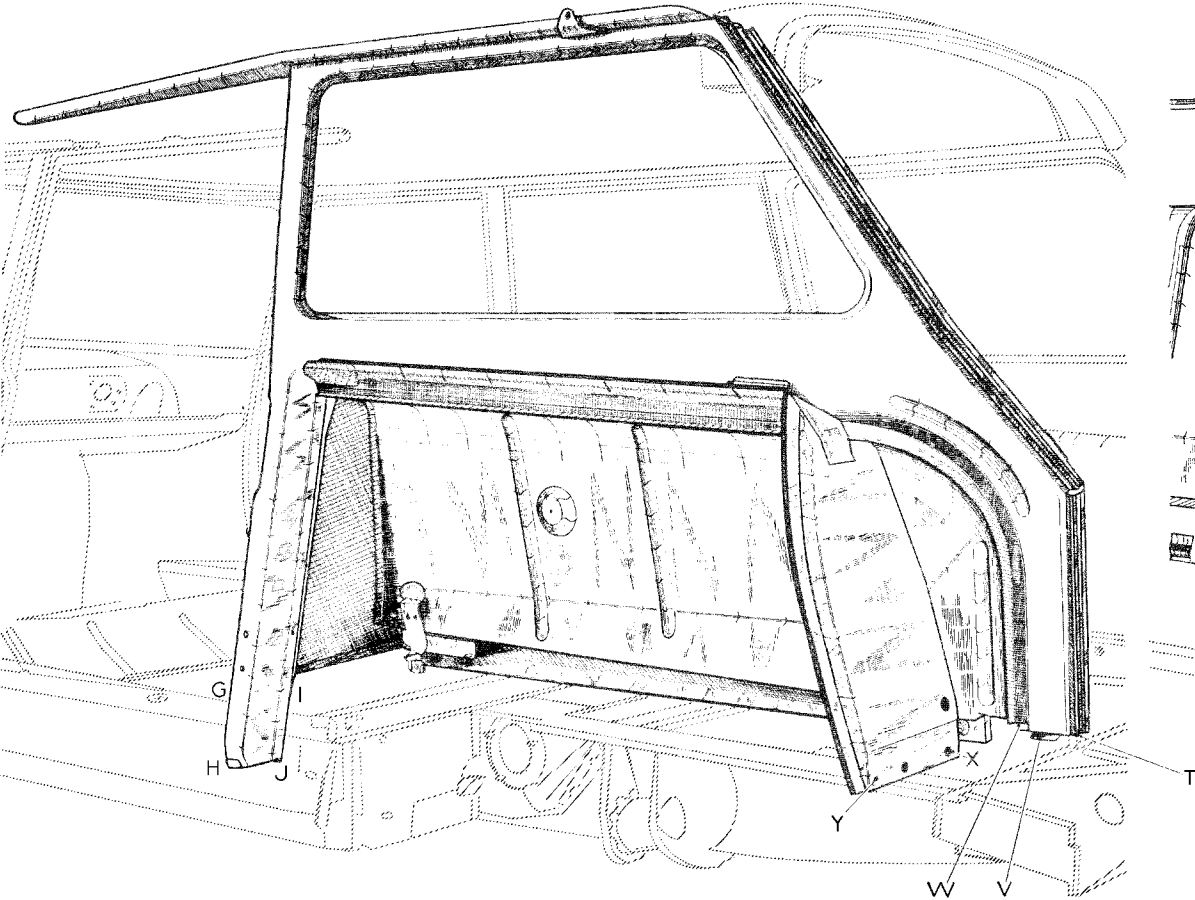
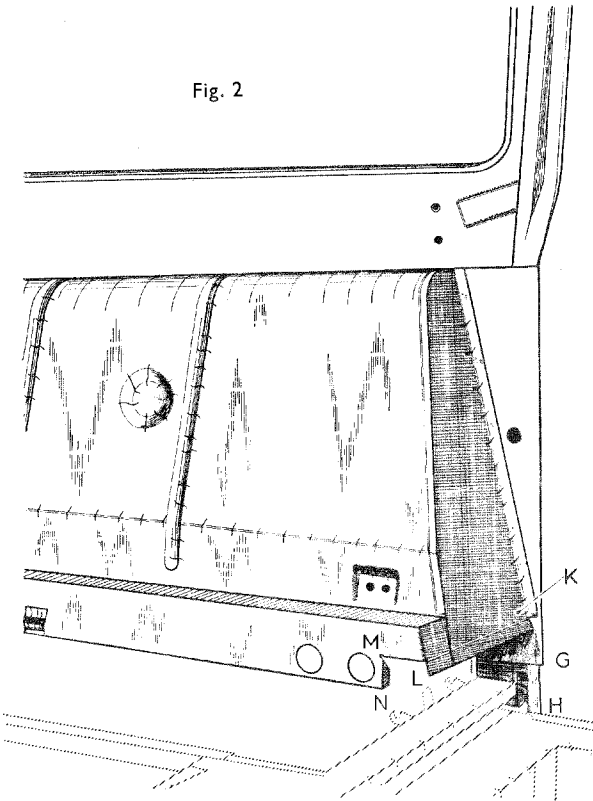


Fig. 2



REPLACING A QUARTER PANEL AND WHEEL ARCH, ASSEMBLED

BREAK

Fig. 3

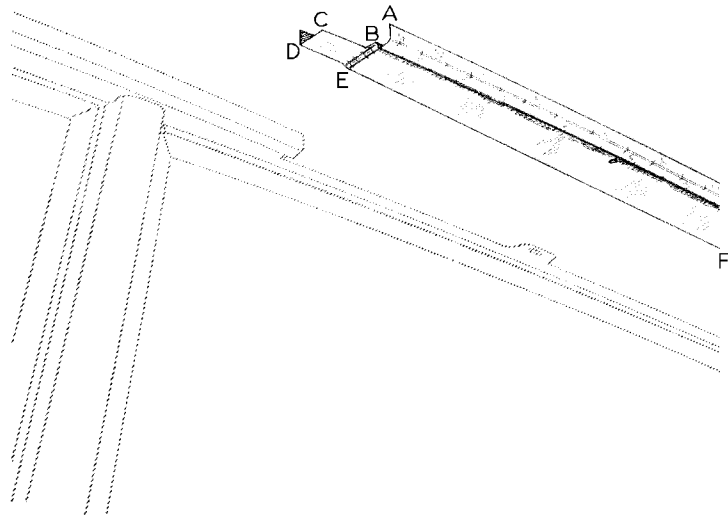
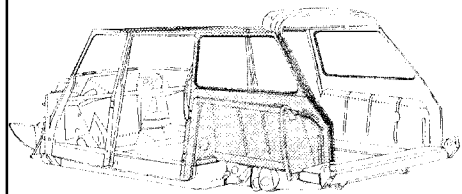
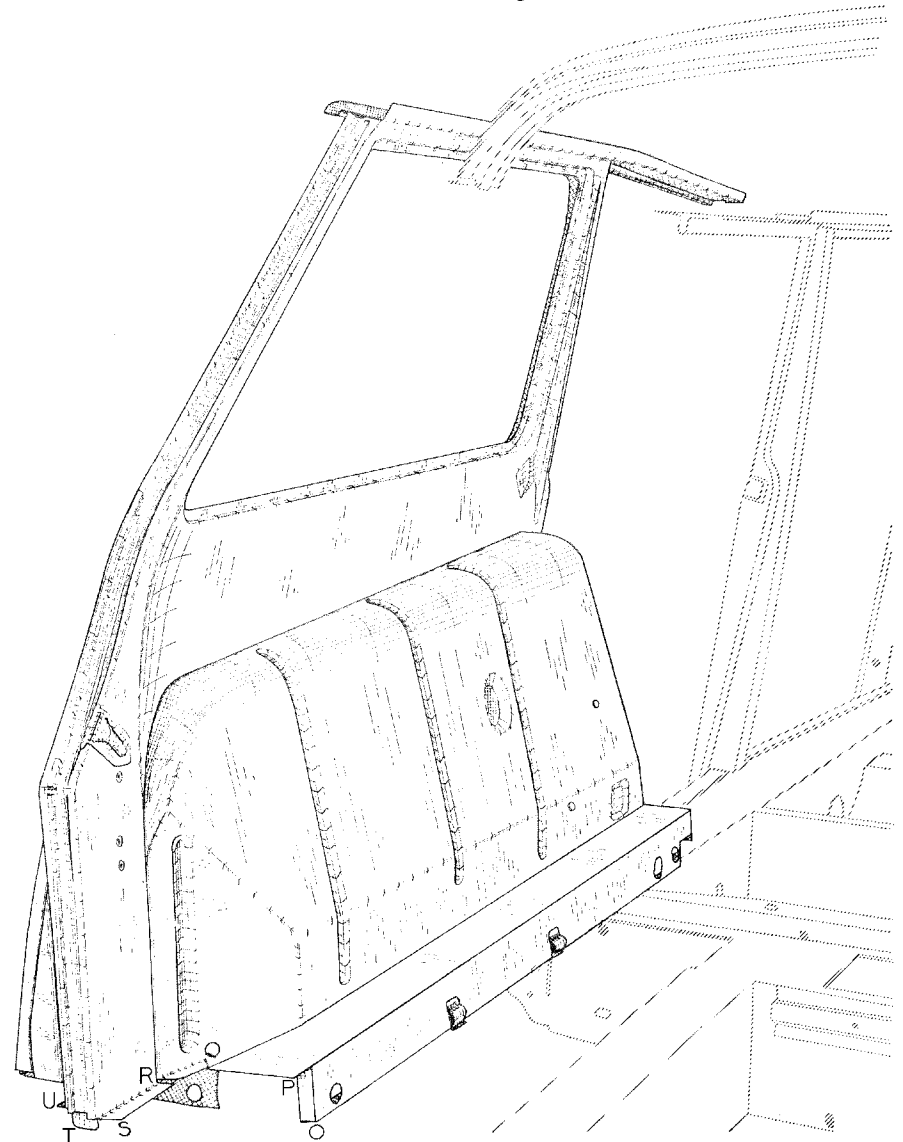


Fig. 4



REPLACING A REAR BODY UNIT

BREAK

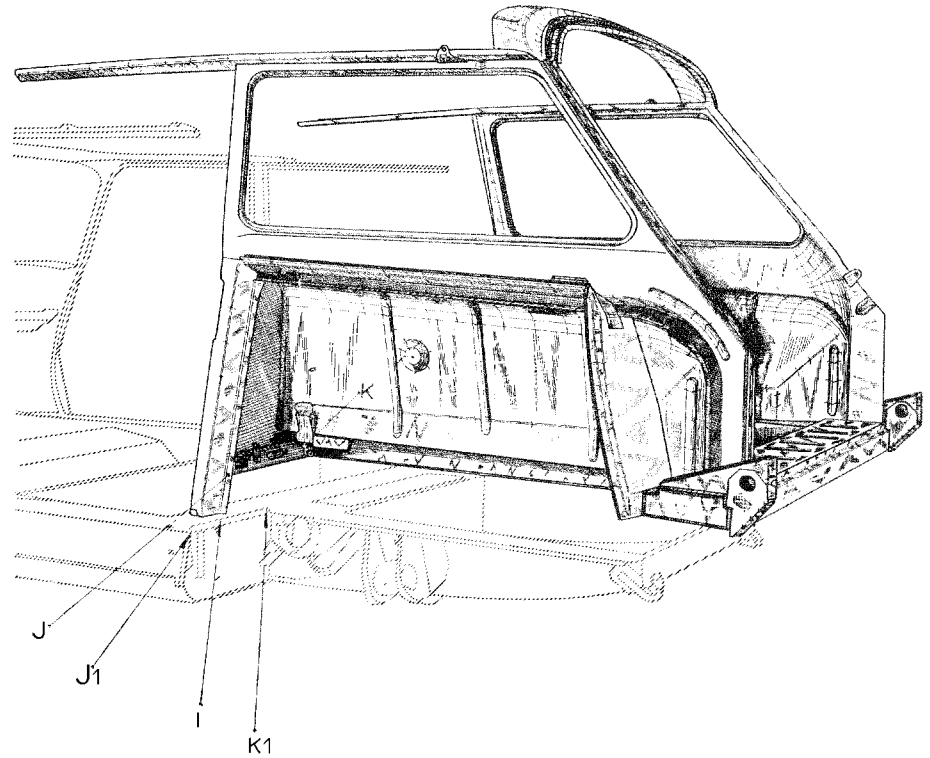
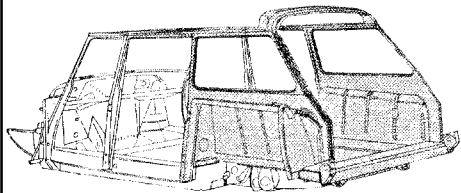


Fig. 1

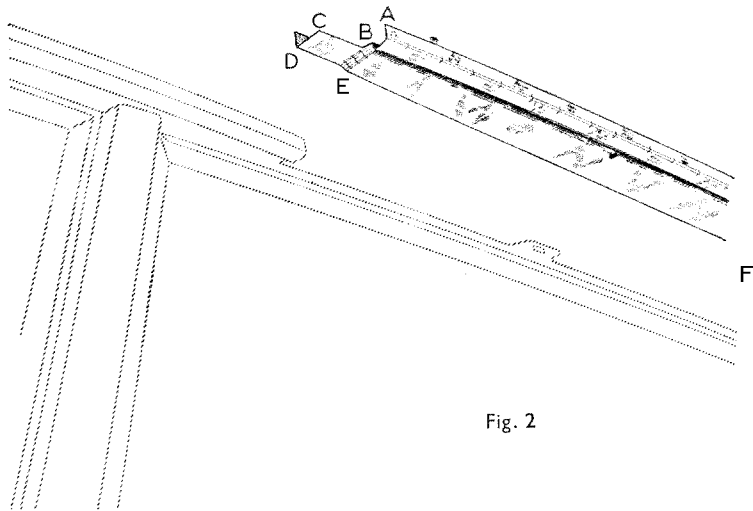


Fig. 2

REPLACING A REAR BODY UNIT

BREAK

Fig. 1

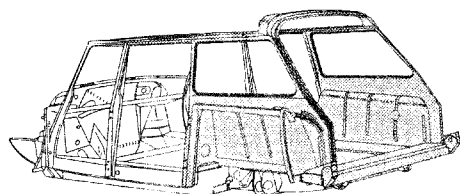
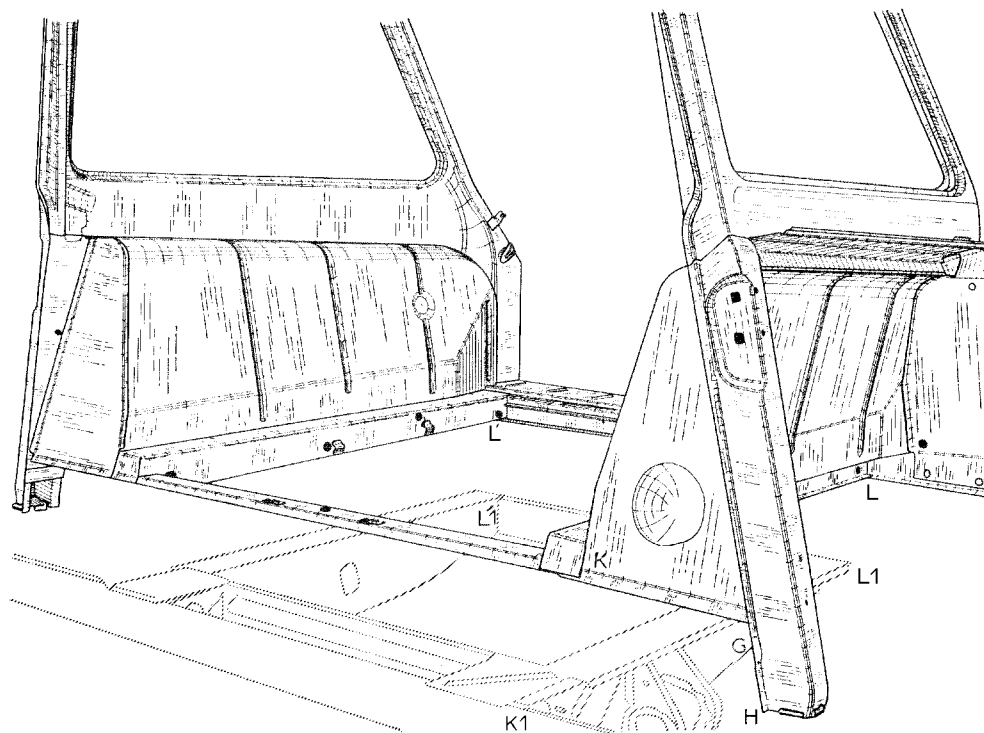
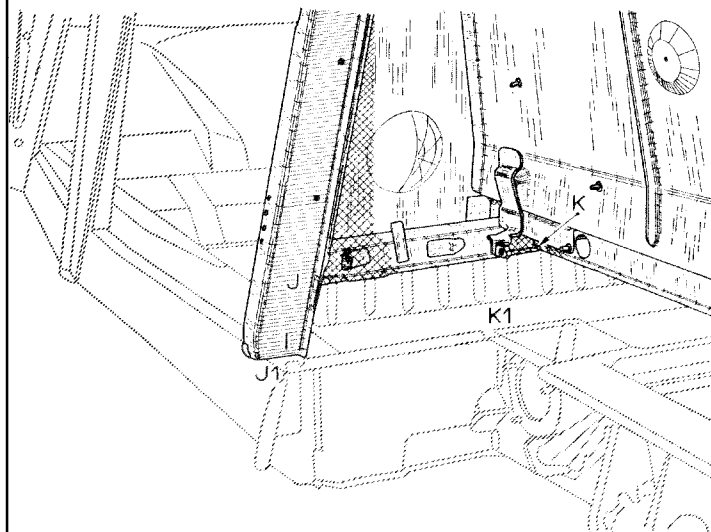


Fig. 2



REPLACING A LOWER REAR BODY CROSSMEMBER

BREAK

Fig 1

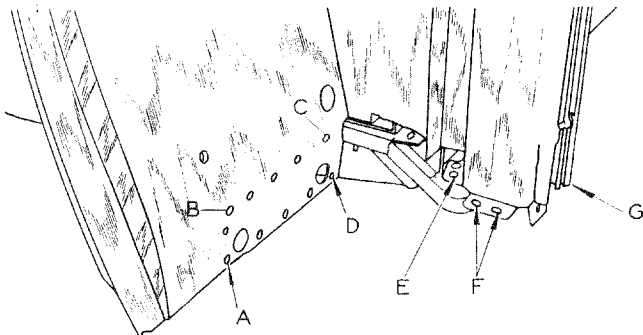
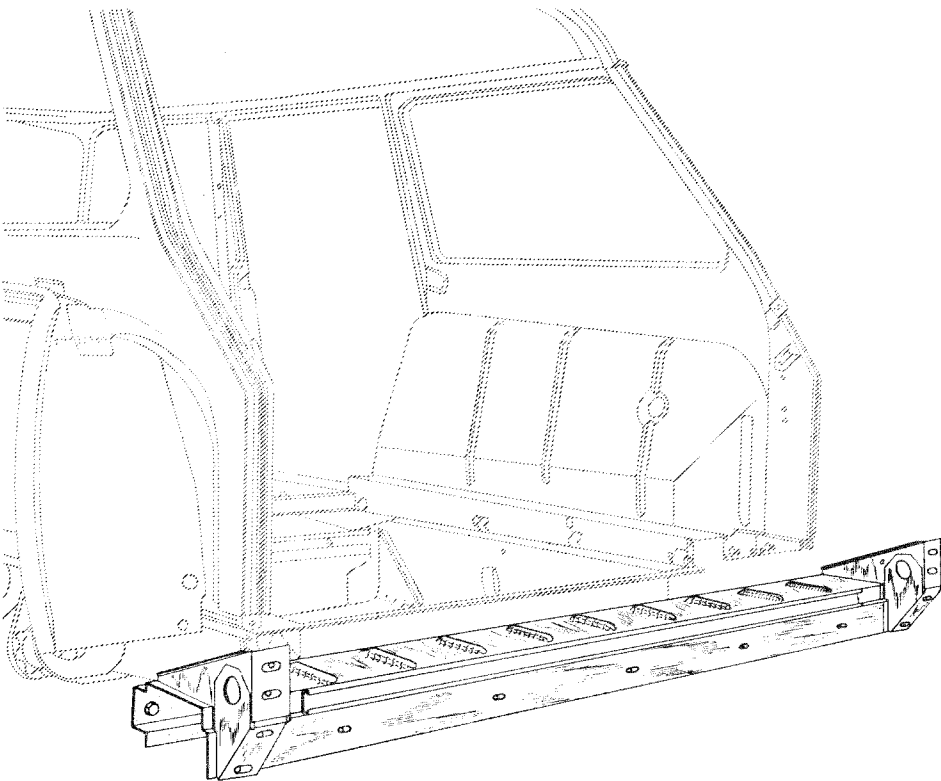
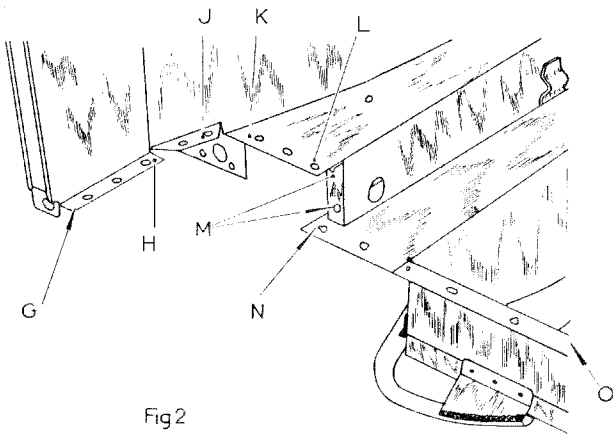
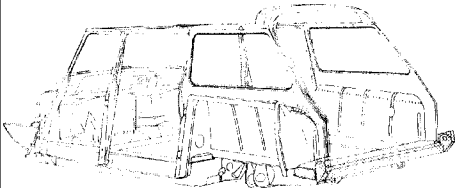
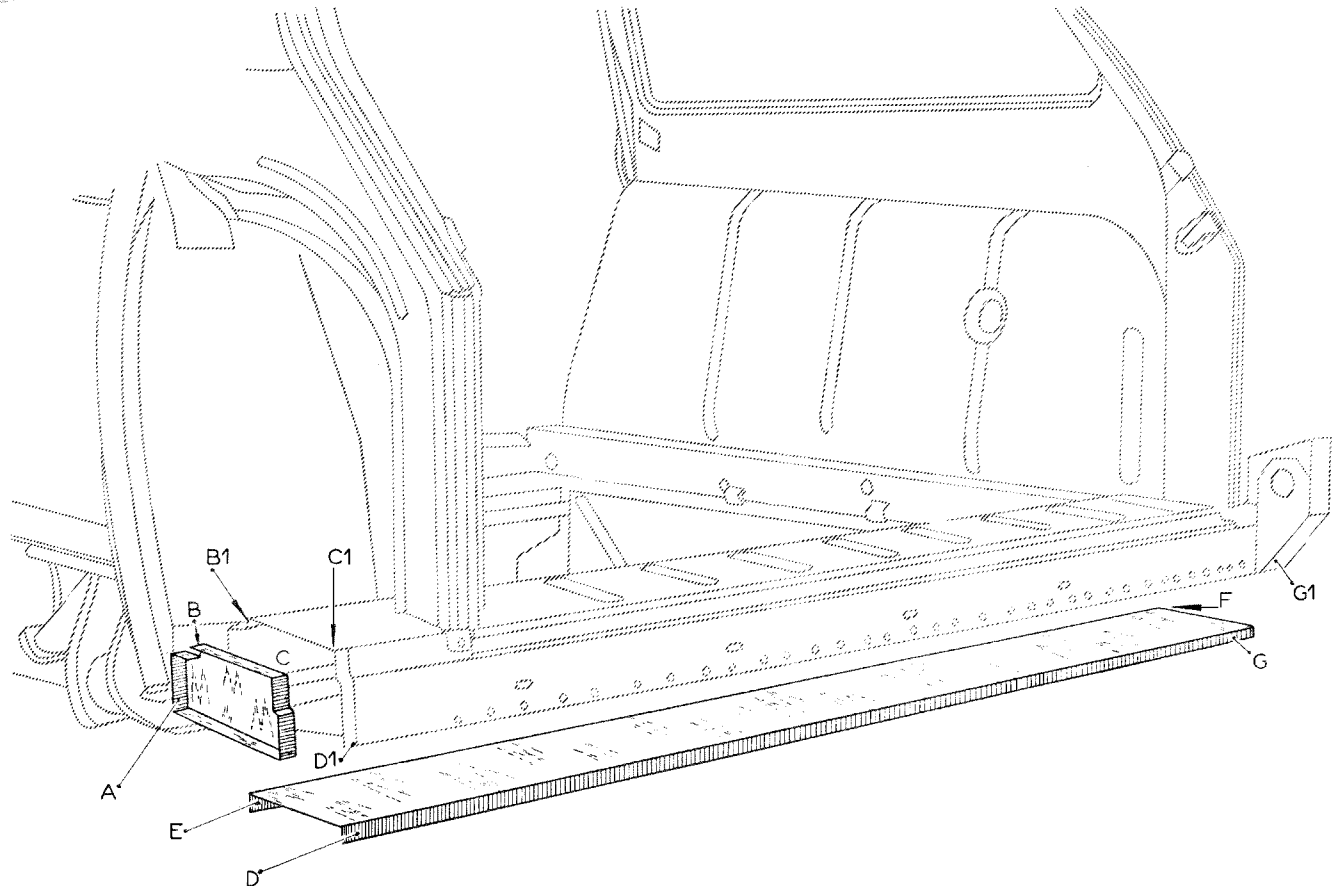
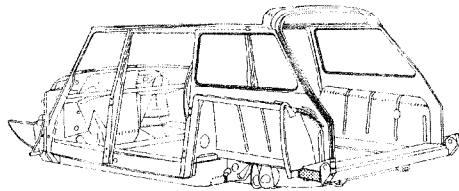


Fig 3

REPLACING THE CLOSING PANELS OF THE LOWER REAR BODY CROSSMEMBER

BREAK

Fig.1



REPLACING A REAR WHEEL ARCH

BREAK

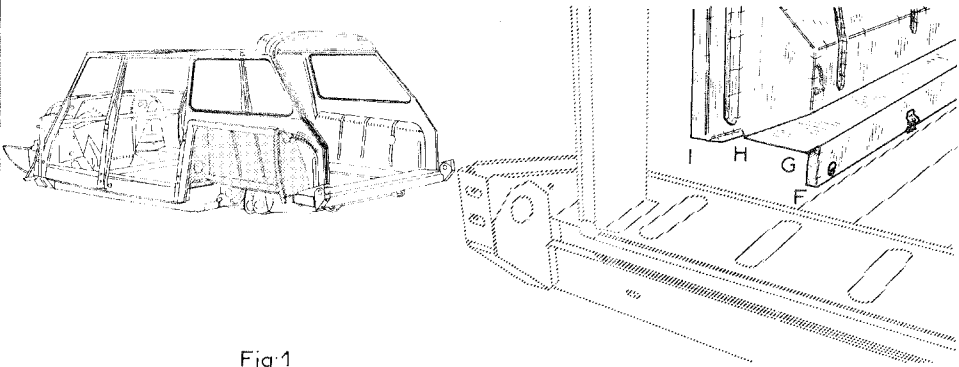


Fig 2

Fig 3

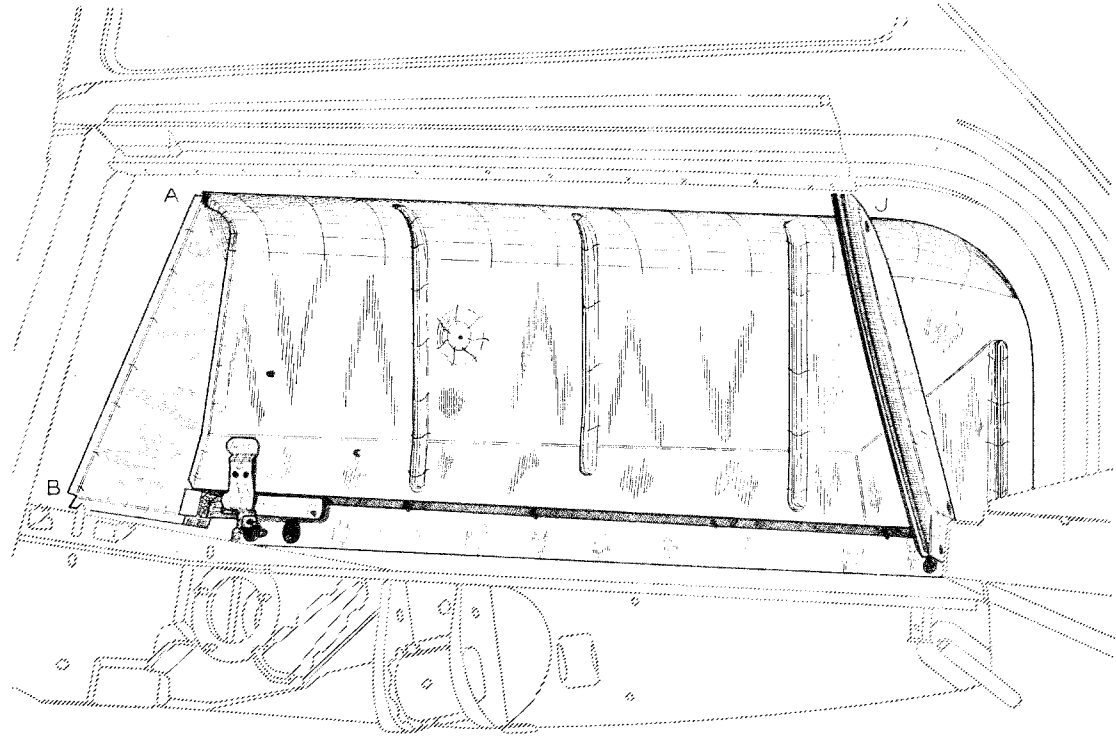
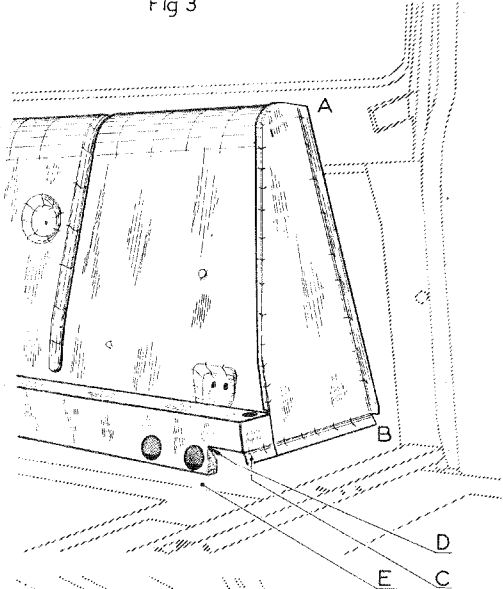
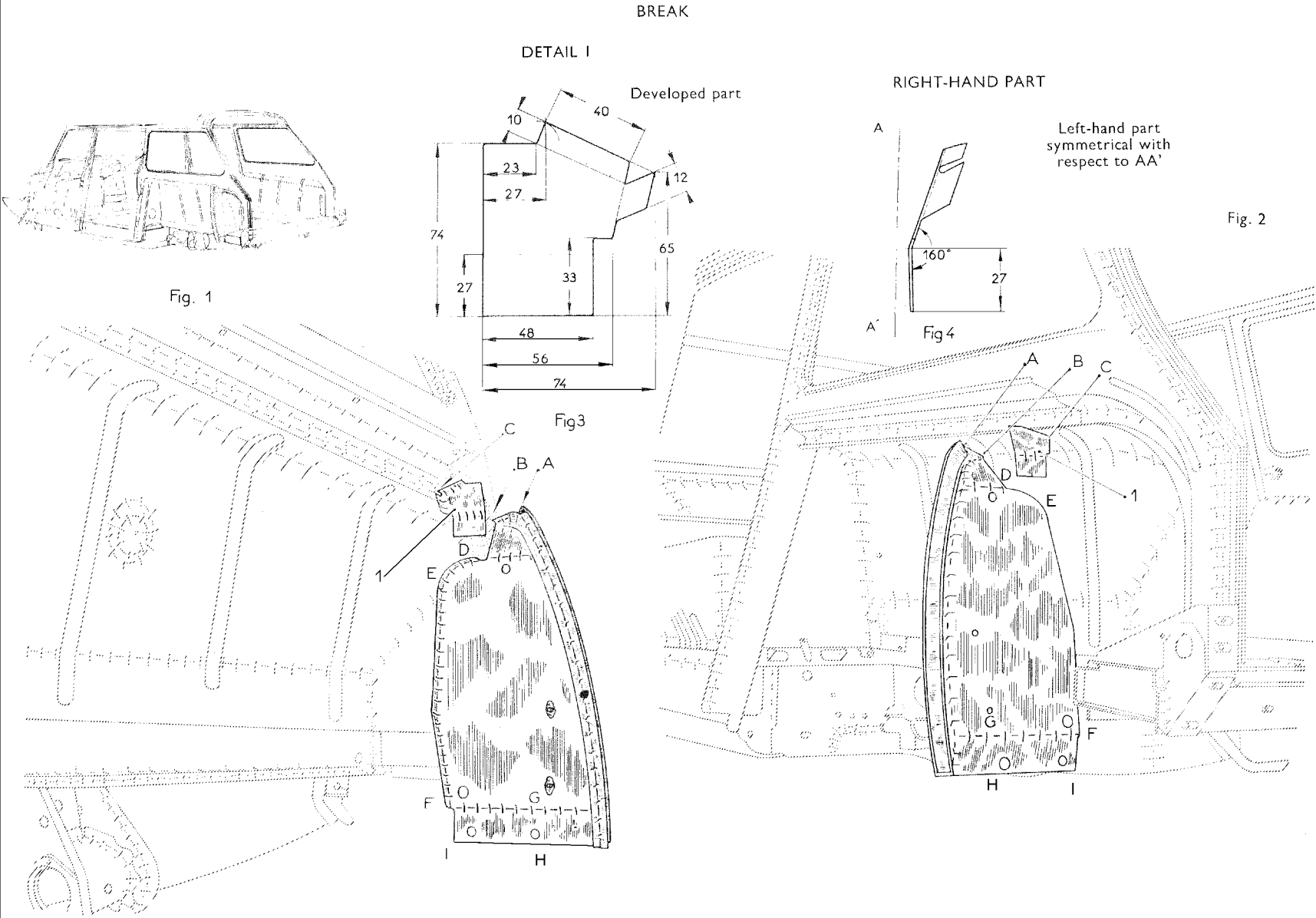


Fig 4

REPLACING A REAR-WHEEL-ARCH REAR CLOSING PANEL



REPLACING A REAR-BUMPER BRACKET

BREAK

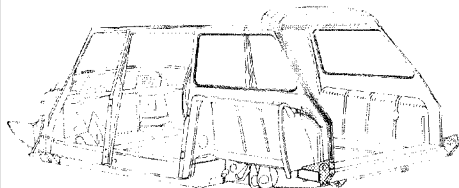
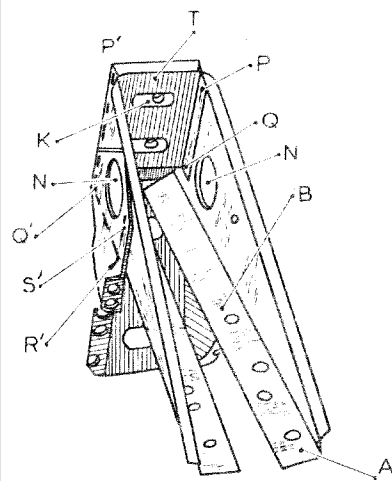


Fig. 2



Inside view in direction
of arrow X

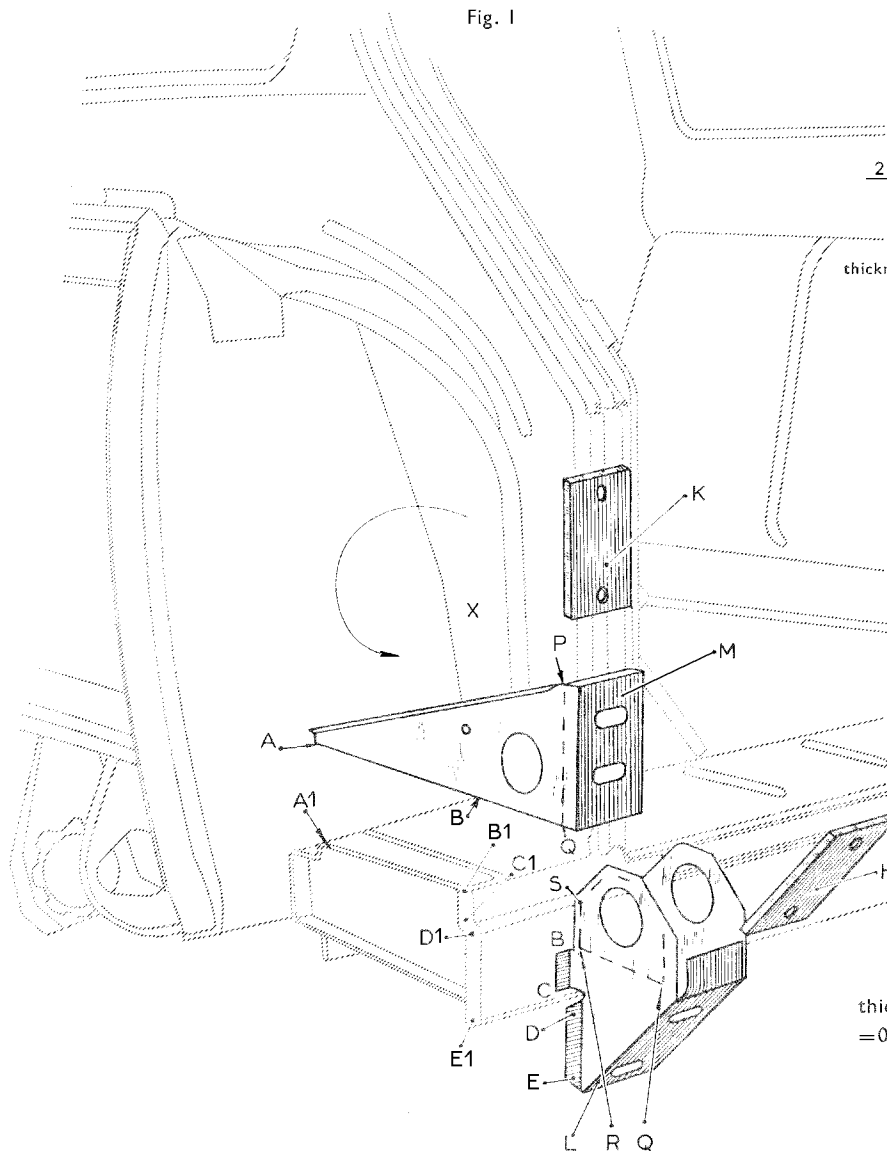


Fig. 1

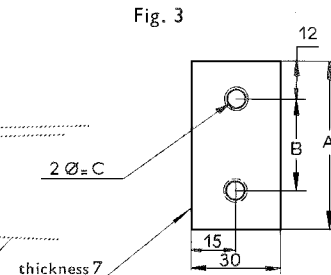


Fig. 3

I off, mild steel
K
A=55mm.
B=30mm.
dia. C=6 x 100
I off, mild steel
H
A=90
B=65
dia. C=8 x 1-25

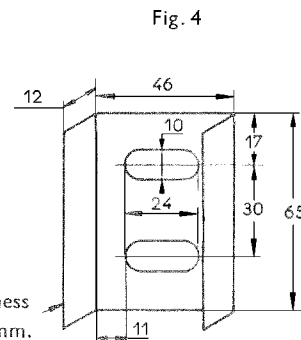


Fig. 4

I off