STANDARD TRIUMPH

BODY
HERALD RANGE
VITESSE

SERVICE TRAINING NOTES

TO BE USED WITH FILMSTRIP
No. 566

INTRODUCTION

This booklet and its accompanying filmstrip shows the main features of the Herald Body, including the Vitesse.

There are six main sections :-

Body Assembly

Theory of Body Mounting

Door Assembly Sequence

Herald 12/50 Details

Herald Convertible Details

Herald Estate Car Details

Where the filmstrip is used for instructional purposes, it should be remembered it is not an end in itself. At best it is an aid from which can be formed an introduction or summary to practical instruction.

The book by itself provides a handy pocket manual for ready reference.

FRAME No. 4

The design and construction of the Triumph Herald body is a combination of the conventional chassis construction and monoconstruction principles. The body consists of sub-assemblies which are bolted together on a separate frame of advanced design, producing a light and rigid structure.

Continued

FRAME No. 3

We wish to introduce to you our body instructor, Mr. Alf Welch.

He will endeavour by the medium of this body filmstrip, to show you the fundamental principles, that are so essential to the building and good servicing of the Herald and Vitesse bodies.

Throughout the book the build of the Herald body is described in detail and special features of the other models are dealt with in their respective sections.

Remember your craftsmanship and personal attention is the answer to a satisfactory job.

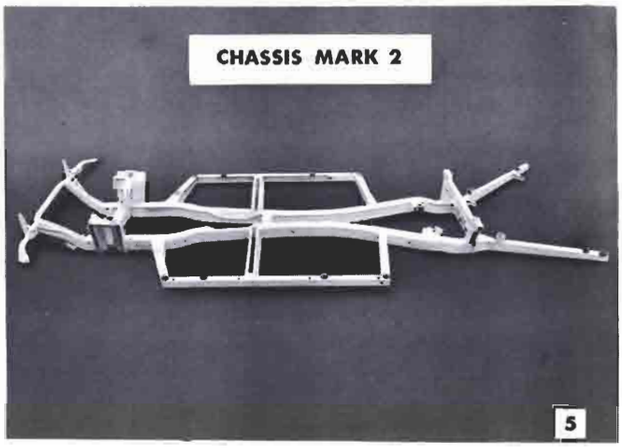
This design has numerous advantages :–

(a) Body design is unrestricted, as the main strength of the structure is in the chassis frame.

(b) A free hand in design is possible without involving modifications to the main structural components at reduced tooling costs.

(c) The repair of accidental damage is simplified as the damaged parts can be removed and in the event of repair being impossible can be replaced, in some cases without disturbing undamaged parts.

FRAME No. 5



HERALD CHASSIS. MARK 2

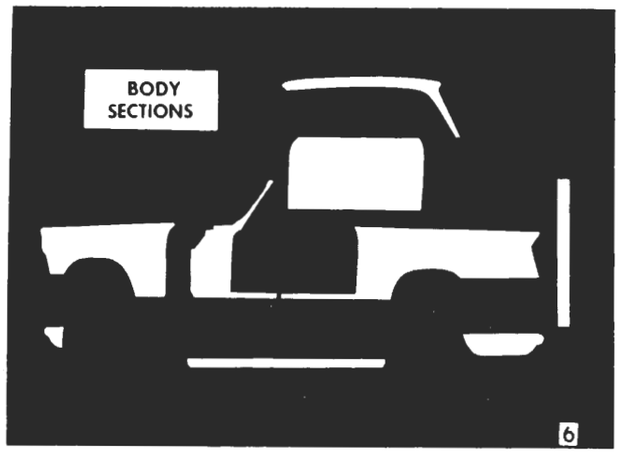
This chassis is strengthened and modified in detail but remaining the same in principal as the Mark 1.

It was first incorporated for the Herald 1200 and all models from Commission No.GA 80,000.

NOTE: The Mark 1 and 2 chassis are NOT interchangeable due to different body mounting positions.

The Vitesse chassis is NOT interchangeable with the Herald chassis due to differences in bonnet mountings and overrider brackets etc.

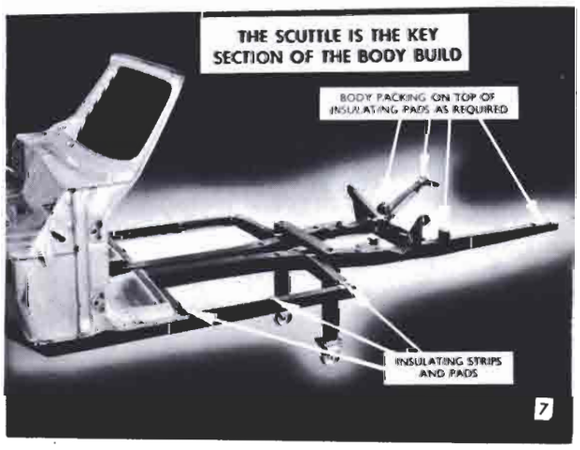
FRAME No. 6



Illustrated are the main sub-assemblies of the body :–

1. Scuttle (Key Section)
2. Rear end (includes item 8)
3. Bonnet
4. Front Valance
5. Doors
6. Sills
7. Roof
8. Detachable rear Valances.
   - R.H.
   - Centre
   - L.H.

FRAME No. 7

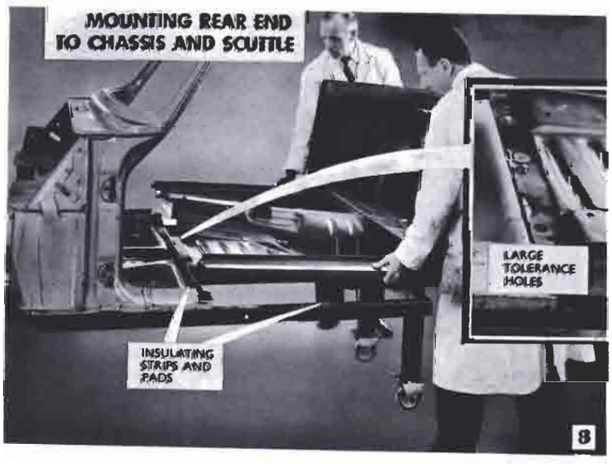


Before assembling body to chassis insulating pads are placed in position over mounting points, and are attached by an adhesive.

The Scuttle is the key section. It is located to the frame with 6 bolts (Close tolerance holes).

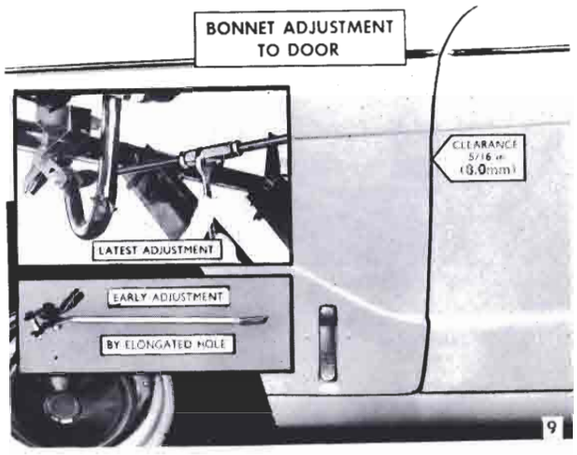
NOTE: The original Mark 1 chassis is being used in this picture. The main difference being the rear cross member, compare with Frame No. 5.

FRAME No. 8



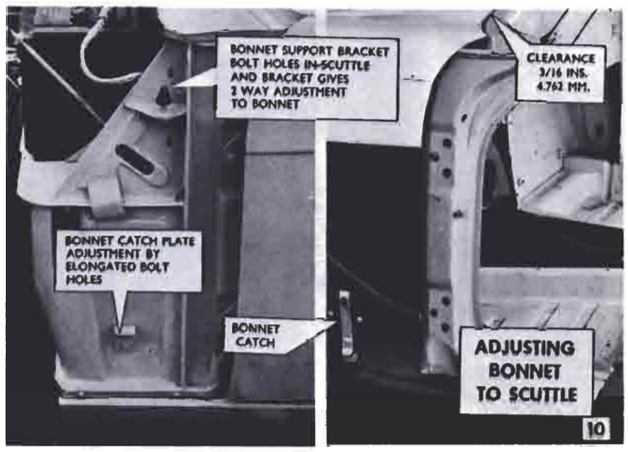
The rear end assembly is placed on the chassis. At this stage the 12 locating bolts are fitted finger tight into the large tolerance holes which give all round adjustment.

FRAME No. 9



The mounting points for bonnet and wing assembly are on the overrider bracket. Each consists of 2 links having a pivot and a slotted hole. The slot gives either up or down adjustment. Having set the bonnet to correct clearance with scuttle 2 adjustable support stays maintain the bonnet in its correct position. An ideal clearance between the bonnet, scuttle and door is 5/16ins. (8.0 mm).

FRAME No. 10



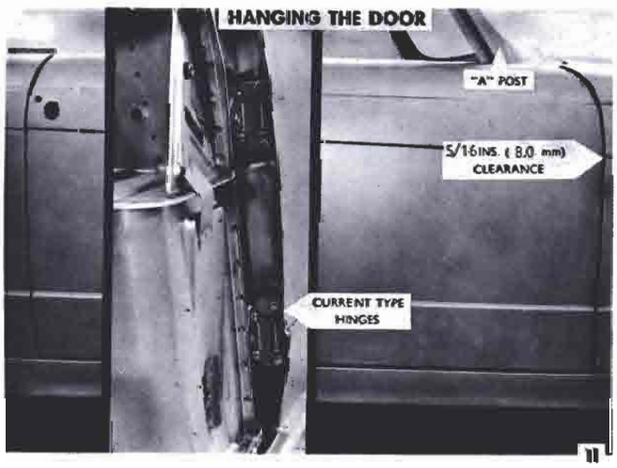
The following method gives adjustment of the scuttle :-

a. The bonnet has a fixed bracket in which a conical spigot locates.

b. The scuttle has an adjustable spigot with a conical shaped rubber end.

c. The catch plate which holds the bonnet in the locked position is adjusted by slotted holes.

FRAME No. 11



The current type Hinge is secured (a) to the door frame by 2 Hexagon bolts and 1 C/Sunk bolt, into a tapped plate with ample room for all round adjustment, and (b) to the A. Post by 3 Hex bolts again into a tapped plate with all round adjustment. Before fitting Hinge to A. Post it is important to fit the fibre washer. This prevents ingress of water into the body through the adjustment Holes.

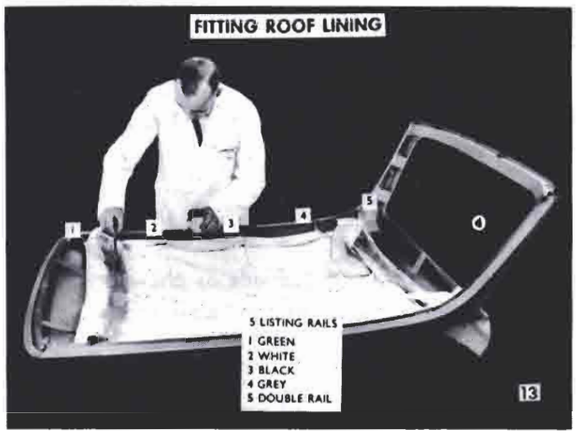
FRAME No. 12

Once the doors have been correctly hung to the scuttle, the rear end can be positioned to give a clearance of 3/16 ins. (4.8 mm) between the door and the "B" post. All the rear end mounting bolts can now be tightened to their correct torque, and the 6 hexagon spire bolts locating the floor to scuttle and frame may be tightened, also two spire bolts (one either side) holding the outside edge of the floor.

Continued

The sill is now fitted to the body with 9 spire screws and nuts, with an additional screw to the underside of the rear wheel arch. There are four brackets from the sill which enable it to be secured to the underside of the chassis frame using spire screws and nuts.

FRAME No. 13



Before the roof is mounted to the car it is essential to fit the headlining.

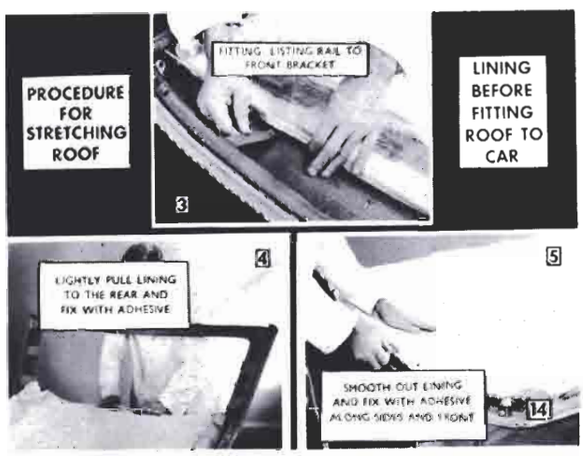
Continued.

The Procedure is as follows :-

1. Fit the five listing rails into positioning brackets in Roof. **Note**: As each rail has a different curvature, there is a "Colour Code" sequence which must be followed :
   1. Green 2. White 3. Black
   4. Grey 5. Double Rail.

2. Apply adhesive to surrounds as shown.
   (Sequence is continued in next frame).

FRAME No. 14



3. Position the front listing rail (green) to the two hooked brackets attached to the head rail.

4. Lightly pull the head cloth towards the rear and attach to the back light flange by the adhesive.

Continued

5. Having secured the rear, return and secure the front and sides.

6. Finally trim off surplus material and complete by fixing strips to lower edge at the back end of the roof.

NOTE: Before fitting the headlining to the Vitesse, make sure the roof light cable is in position along the left hand edge and the insulation pads are firmly secured with adhesive.

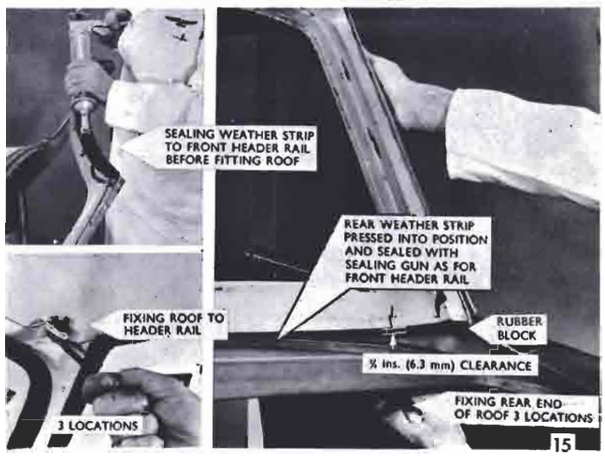
3. Secure the roof to the header rail with two hexagon clamping bolts, one at either end and a screw in the centre.

4. At the rear there are three locating studs passing through holes in the deck and secured by nuts and washers.

NOTE: Tighten the nuts to make a clearance between roof and deck of a 1/4 ins. (6.0mm.). This clearance is maintained by the rubber blocks.

5. Press the rubber sealing strip into position between the roof, deck and seal.

FRAME No. 15



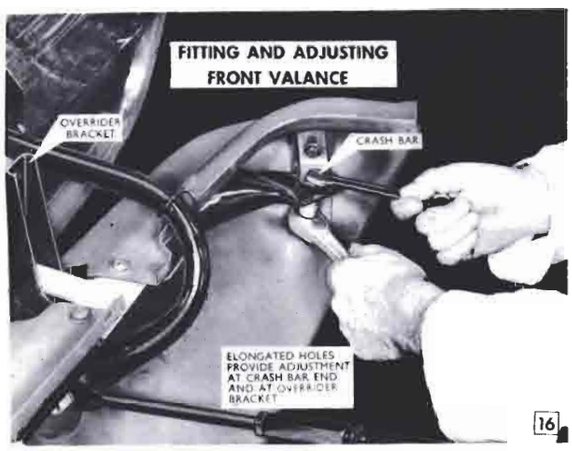
The following procedure must be adopted when fitting the roof to the body :–

1. Fit rubber weather strip to the scuttle header rail and apply sealing compound.

2. Place the roof in position. Fit 3 rubber spacing blocks over mounting studs at rear.

Continued

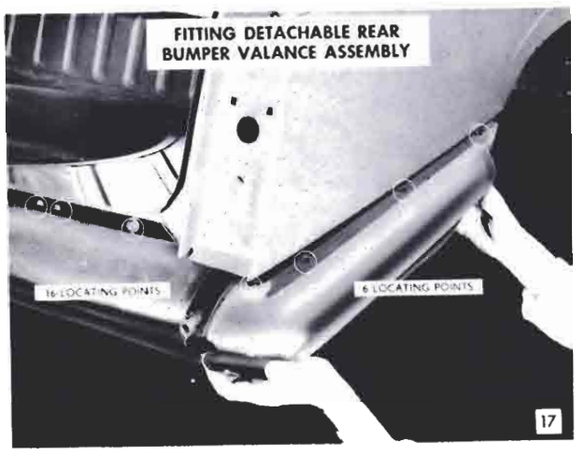
FRAME No. 16



The front valance is attached to the frame by two adjustable brackets, located behind the overrider brackets with tolerance holes for up and down adjustment.

The ends of the valance are mounted to "L" shaped brackets with slotted holes. These slotted holes allow an all round adjustment to conform to bonnet shape.

FRAME No. 17



There are three parts to the rear valance, a centre and two side sections.

The centre section is located by bolts and some screws.

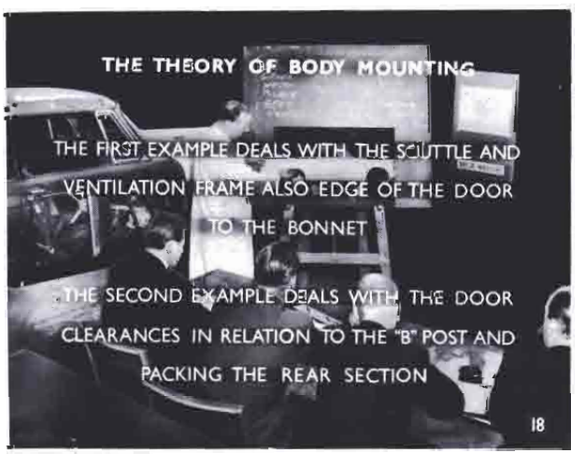
Continued

The two side sections each are attached by screws only.

On early models, the valances were an integral part of the body. In cases of accidental damage, the valances should be cut away flush with the panels, fitting the latest type sections.

NOTE : Full details are given in "Service Information Sheet. Ref. No. 5/38".

FRAME No. 18



The Theory of Body Mounting

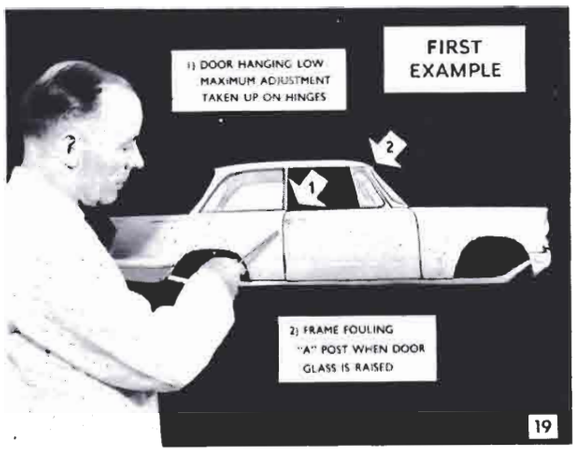
Body mounting is an interesting subject. In the following frames we are going to investigate the theories and apply them to some examples in an effort to help you overcome some of your problems. These problems apply mainly to accidental repair work. The body being a separate unit is mounted on the chassis and insulated with pads of varying thickness. By adding additional packings at the right place, doors, appertures and pillars etc., can be adjusted very quickly.

Continued

The first of these examples deals with the Scuttle and ventilation frame, also front edge of the door to the bonnet.

The second example deals with the door clearances in relation to the "B" Post.

FRAME No. 19



Example 1.

The door is low and the frame is fouling the "A" post, when the glass is raised.

FRAME No. 20

In order to solve this problem the following two operations should be carried out :–

(a) By removing the sill and slackening off mounting bolts at scuttle and inserting the appropriate packing at point shown, (Rear mounting bolts) the scuttle will be lifted and also the door.

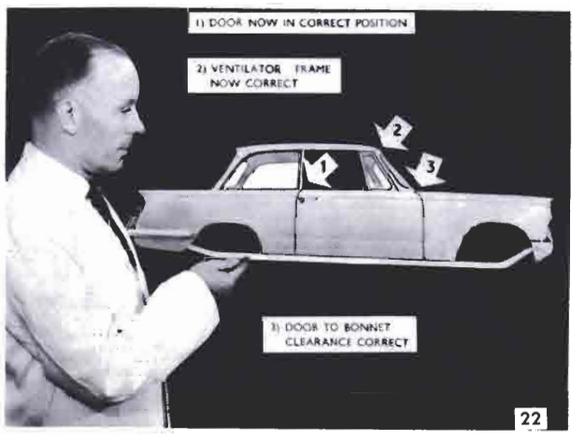
(b) By making the door high by means of this packing as shown, in the next frame.

FRAME No. 21

The door is shown high and the ventilator frame close to "A" post as before and door also close to bonnet.

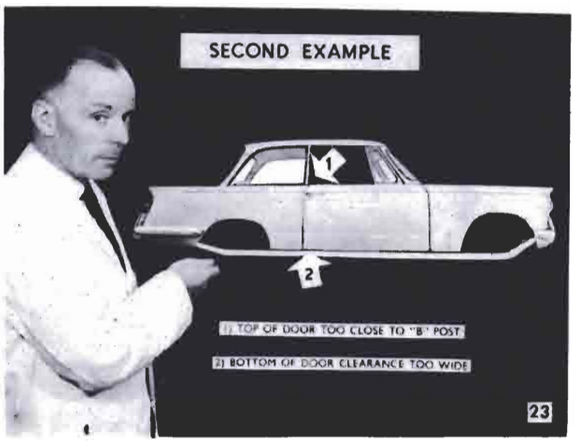
All that remains is to lower door on top hinge. This will bring door to correct level with the rear end and also move ventilating frame away from "A" post as shown in the next frame.

FRAME No. 22



The door to bonnet clearance is now correct, also the position of the door and ventilator frame.

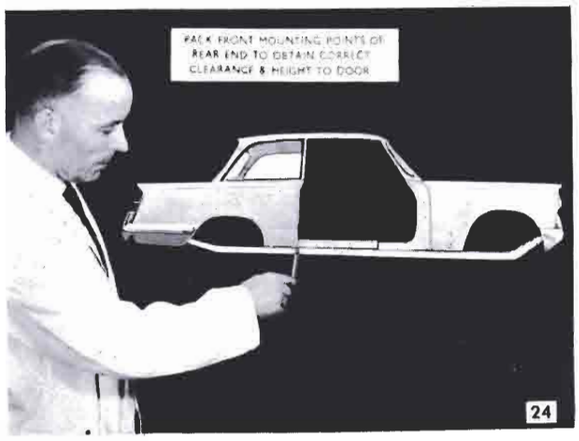
FRAME No. 23



Example 2

The door height is correct but the clearance at the top of "B" post is too close. The clearance at the bottom is wide.

FRAME No. 24



Remove the sill. Slack off the mounting bolts at the side and place packing between body and frame at rear mounting point as shown. Tighten the bolts.

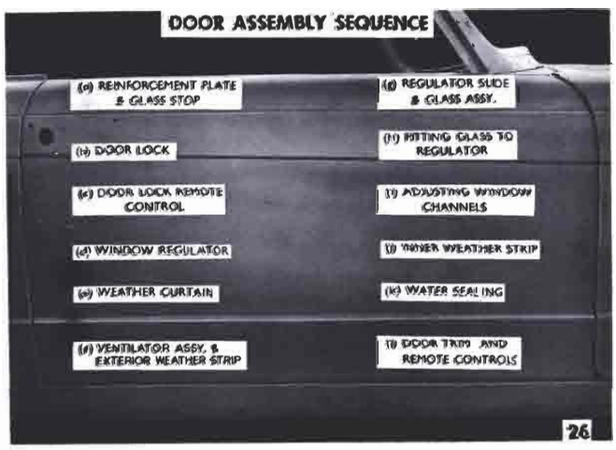
This packing has raised the "B" post in relation to the door. It remains now to lift the door to correct height by adjusting on Bottom Hinge. This not only lifts the door but will also close the clearance at the bottom.

Any alteration to Bonnet can be rectified as previously described.

FRAME No. 25

This shows the body correctly mounted. With clearances at 1 and 2 correctly adjusted and all other door and bonnet adjustments made.

FRAME No. 26



DOOR ASSEMBLY SEQUENCE

It is desirable when carrying out these operations that a definite sequence is followed owing to the restricted space for manipulation of the various components.

a. Reinforcement plate and glass stop.

b. Door Lock.

c. Door lock remote control.

d. Window regulator.

Continued

e. Weather curtain.

f. Ventilator assembly and exterior weather strip.

g. Regulator slide and glass assembly.

h. Fitting glass to regulator.

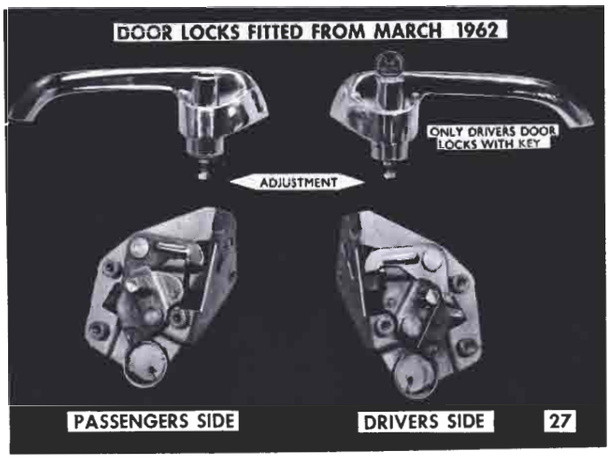
i. Adjusting window channels.

j. Inner weather strip.

k. Water sealing.

l. Door trim and remote controls.

FRAME No. 27



Door lock fitted from March, 1962.

These locks differ from previous models as follows :

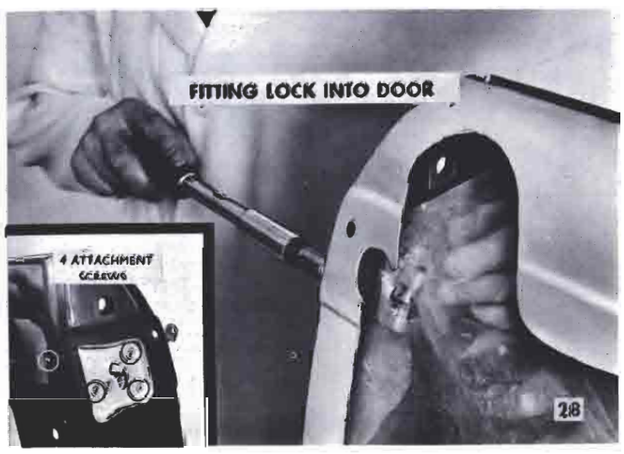
Only the drivers door can be locked with a key.

Continued

The passengers door is locked from inside with the remote handle. It can also be locked from outside if the remote handle is placed in the locked position before closing the door.

The barrel and plunger is separate from the lock being incorporated in the handle. Before fitting the handle the plunger length must be adjusted to give 1/32" clearance between plunger and lock lever as shown.

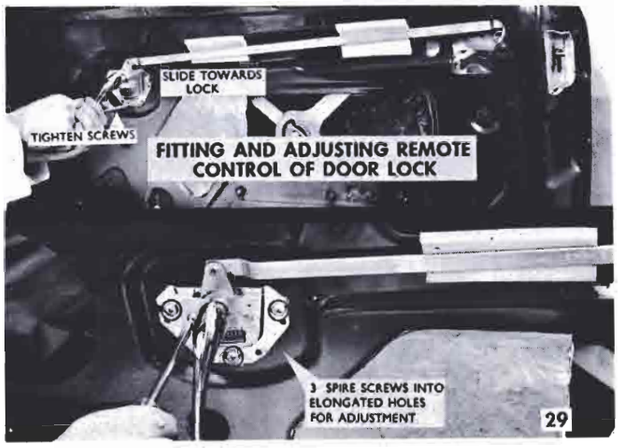
FRAME No. 28



FITTING OF DOOR LOCKS

1. Lubricate lock.
2. Fit Polythene curtain to lock, and insert through aperture of inner panel.
3. Attach dovetail plate with three screws and shake-proof washers. These pass through the plate and door frame into the lock. Tighten screws. Secure lock to inner door panel with a fourth screw.

FRAME No. 29



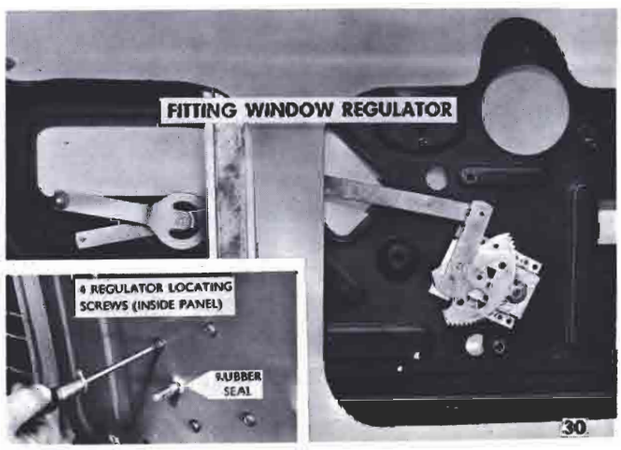
Fit remote control assembly to door with three screws (loosely at this stage) and connect linkage to the lock.

Continued

The following sequence is necessary for setting up the lock correctly.

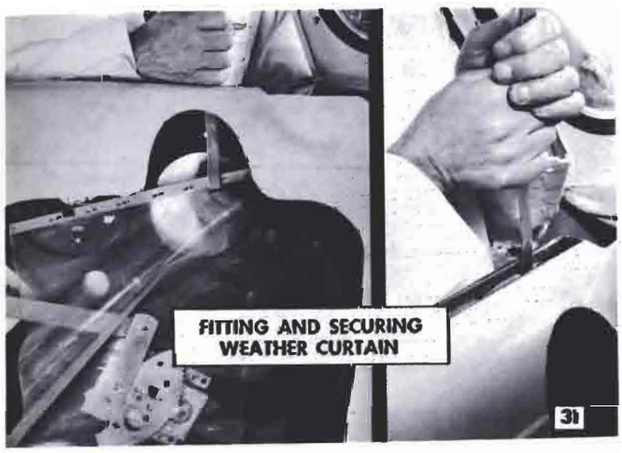
1. Press down latch.
2. Move remote handle to put lock in the locked position and insert a 1/8" split pin through hole in the body of the remote control to secure it in this position.
3. Slide the complete assembly towards the lock and tighten the three screws. Remove split pin.

FRAME No. 30



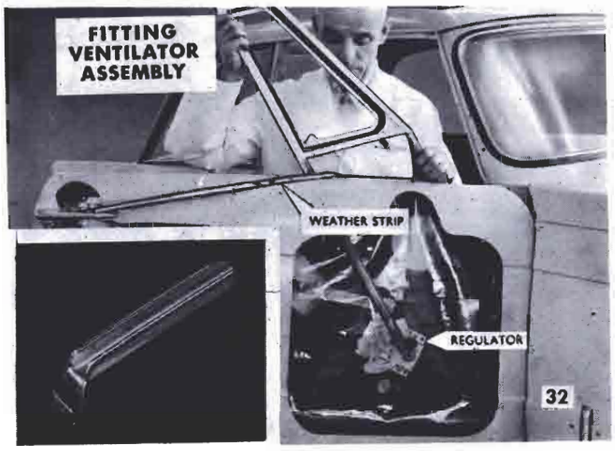
Insert the regulator into the door making certain that the rubber seal is in position on the spindle. Make the necessary hole in the weather curtain to enable the spindle to come through the inner panel. Attach the regulator to the door with four screws making necessary holes in weather curtain. At this stage allow regulator arm to rest at bottom of the door.

FRAME No. 31



The weather curtain is attached to inside flange at door top with three clips with the use of a special tool which is easily made.

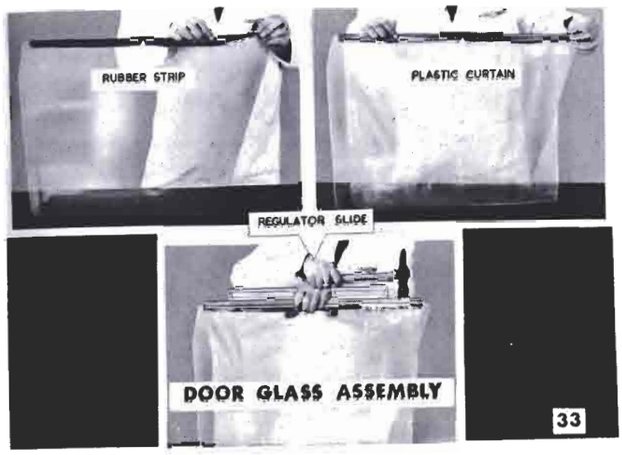
FRAME No. 32



FITTING VENTILATOR FRAME ASSEMBLY

1. Attach the exterior weather strip with clips using the special tool as shown in insert.
2. Insert ventilator frame assembly and attach loosely with bolts to the inner panel.
3. Attach remaining clips to weather strip.

FRAME No. 33



DOOR GLASS ASSEMBLY

As it is quite easy to make a mistake the operator uses the following method :-

For the R.H. Glass as shown the front edge is to the left of the operator and for the L.H. side it would be to the right of the operator.

Continued

PROCEED AS FOLLOWS :-

1. Cover the bench with protective material.
2. Place the rubber along the edge of the glass.
3. The plastic curtain is then placed between the operator and the glass and laid over the rubber as shown in the top right hand picture.
4. The regulator slide assembly is now placed in position and with a hammer tapped in place as shown, working from either end.

NOTE : The front end of the slide is longer than the rear.

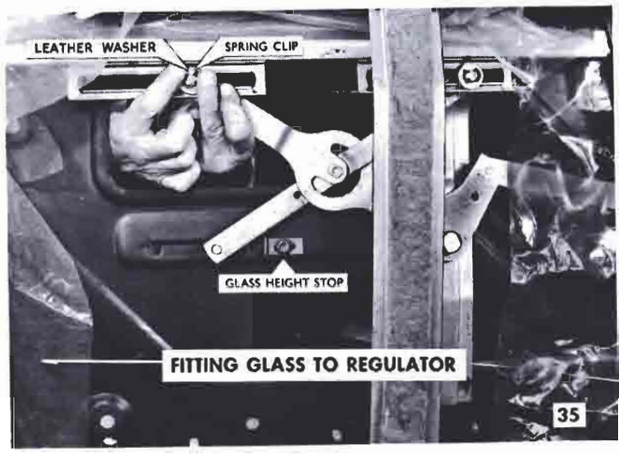
FRAME No. 34

This frame shows the glass being lowered into the door.

Attention must be paid to ensure that the plastic weather shield is not trapped in the glass channel when fitting.

NOTE : How the operator is holding the plastic weather shield against the face of the glass. Also the leather washers on the regulator arms must be fitted at this stage.

FRAME No. 35



Having located the slide onto the regulator fit a further leather washer at each point and slide on the retaining spring clips as shown.

FRAME No. 36

Having fitted the door glass we can now fit the interior weather strip.

It is made easier by pushing a wedge covered with felt between the inner panel and the glass to give more freedom of movement.

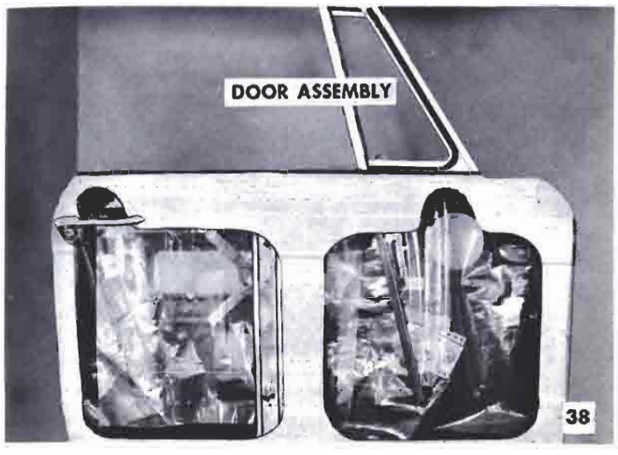
As the strip has to be lifted up to the flange inside the door a useful hint is to use a piece of string holding one end whilst the tool is used to locate the strip into position with the clips.

FRAME No. 37

Lower door glass and adjust the ventilator frame to the "A" Post and tighten all channel locating bolts. Then raise the door glass and fit the short glass channel. This is located with three bolts. Nip up the top one, attach wire round the channel, locate the lower two bolts and wind down the glass as shown. This will put the channel into correct relation to the glass. Then tighten all channel locating bolts.

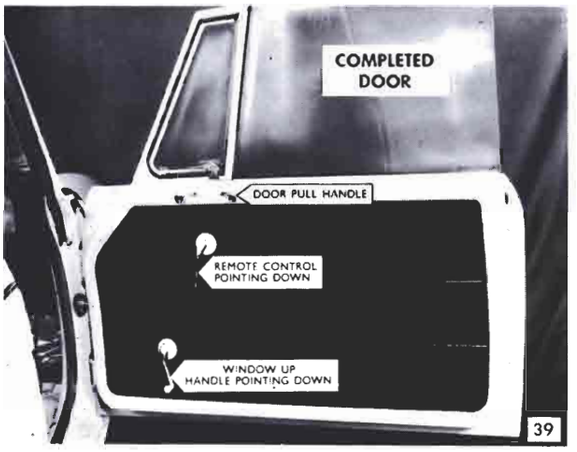
NOTE : This operation will ensure free and easy movement in glass run.

FRAME No. 38



This frame shows the door with all internal mechanism completely assembled and polythene deflectors in their correct positions.

FRAME No. 39



This frame shows the door complete with trim.

NOTE : The window winding handle is in the downward position when the glass is in the up position. The remote control handle is also fitted pointing downwards.

Continued

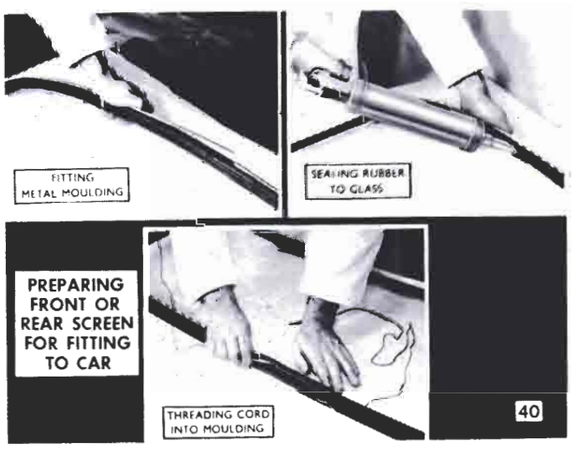
Before pressing the door trim fully home place a coil spring on the remote control and regulator control.

NOTE : On the spindles between door and trim panel, both springs are fitted with the small coil pressing against the door panel.

The trim panel can then be pressed fully home. Place the plastic escutcheon over the spindle and press towards the panel exposing retaining hole in spindle. Fit handle and secure with retaining pin.

The door pull handle is secured by two screws.

FRAME No. 40



Before fitting the front screen the following details must be carried out.

1. Fit the weather seal rubber backing around the glass and press in metal moulding as shown.
2. Force in sealing compound between glass and weather seal.
3. Thread cord with the aid of a piece of metal tube round outer edge of weather seal backing and finish in a central position with both ends crossing along the top edge of the glass. This screen is now ready for fitting to the car.

NOTE : This procedure is the same for fitting backlight.

FRAME No. 41

Place the screen into position. Then start by pressing on the outside while the person on the inside pulls the cord, drawing the rubber over the lip of the frame surround. This process is carried on around the screen until the screen finally falls into position.

FRAME No. 42

This shows the rear quarter light being fitted into position. The method is the same as for fitting the front screen. The point to remember in this case is to pull one cord to the roof joint bottom corner. Then pull second cord to meet at bottom roof corner and finish by pulling both cords together. This will prevent possibility of tearing rubber.

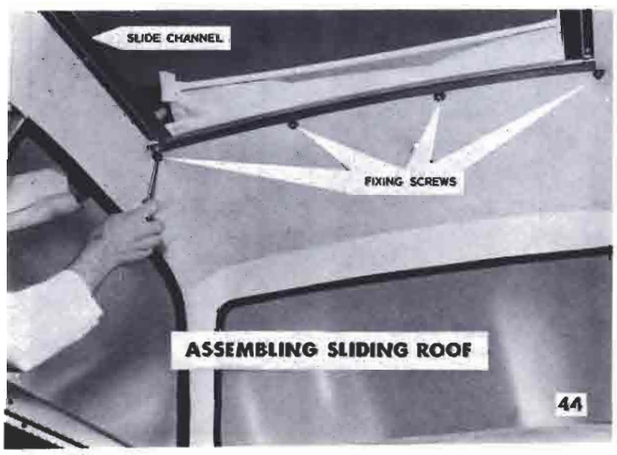
NOTE : Do not forget to seal exterior.

FRAME No. 43

The body construction of the Herald 12/50 is fundamentally the same as the 1200 .

In the following frames the variations are shown.

FRAME No. 44



12/50 SALOON

The head lining is fitted as for the 1200, using only the rear two Listing Rails, Grey and a double one. The head lining is attached to the sliding roof aperture with adhesive. Before fitting the slide channels it is important to use a strip seal to prevent water ingress. The two side channels are attached with screws and nuts and the front and rear finishing channels with a pop rivet.

Continued

Before assembling the sliding roof to the roof panel it is again necessary to use a strip seal. There are four fixing screws as shown in the picture for securing the sliding roof to the roof panel. It is at these points that adjustment for tension is made and at this stage the screws are located but not tightened.

FRAME No. 42

This shows the rear quarter light being fitted into position. The method is the same as for fitting the front screen. The point to remember in this case is to pull one cord to the roof joint bottom corner. Then pull second cord to meet at bottom roof corner and finish by pulling both cords together. This will prevent possibility of tearing rubber.

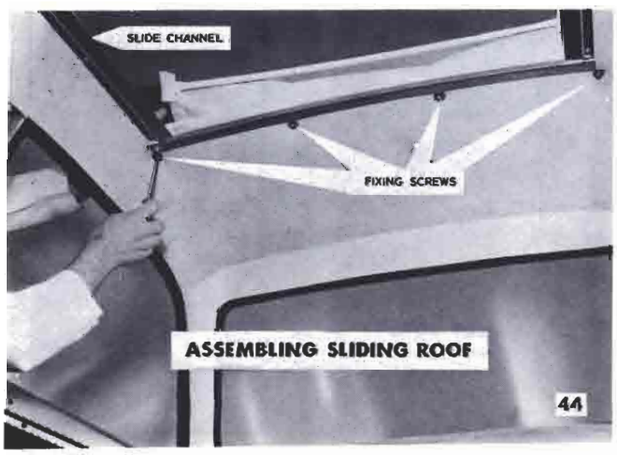
NOTE : Do not forget to seal exterior.

FRAME No. 43

The body construction of the Herald 12/50 is fundamentally the same as the 1200 .

In the following frames the variations are shown.

FRAME No. 44



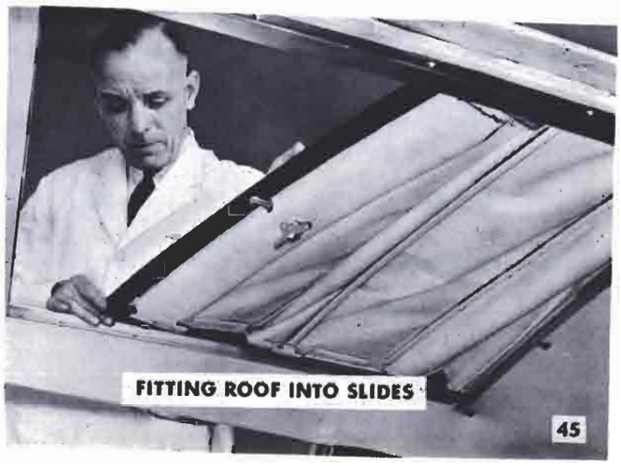
12/50 SALOON

The head lining is fitted as for the 1200, using only the rear two Listing Rails, Grey and a double one. The head lining is attached to the sliding roof aperture with adhesive. Before fitting the slide channels it is important to use a strip seal to prevent water ingress. The two side channels are attached with screws and nuts and the front and rear finishing channels with a pop rivet.

Continued

Before assembling the sliding roof to the roof panel it is again necessary to use a strip seal. There are four fixing screws as shown in the picture for securing the sliding roof to the roof panel. It is at these points that adjustment for tension is made and at this stage the screws are located but not tightened.

FRAME No. 45



This picture shows the method of fitting the roof into the slides.

Having done this, close the roof and secure with catch and tighten the fixing screws at the rear.

FRAME No. 46

This frame shows the operator using a simple tool for forming the front rail of the roof to conform to the contour of the roof panel. The tool is made of wood suitably protected with felt to prevent any damage to the roof fabric.

FRAME No. 47

HERALD CONVERTIBLE

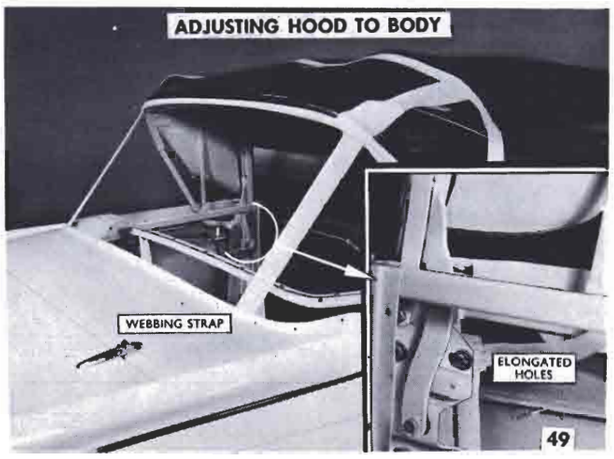
The body construction of the Herald Convertible is fundamentally the same as the Saloon.

In the following frames the variations are shown.

FRAME No. 48

This frame shows the complete hood assembly before fitting to the car.

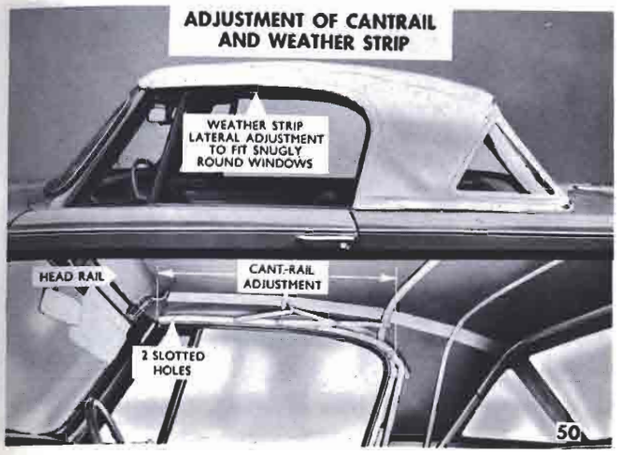
FRAME No. 49



The hood frame is secured to the "B" post with four bolts. The mounting plate has tolerance holes to give fore and aft adjustment towards the door glass.

The webbing strap is attached to rear deck flange by two small bolts.

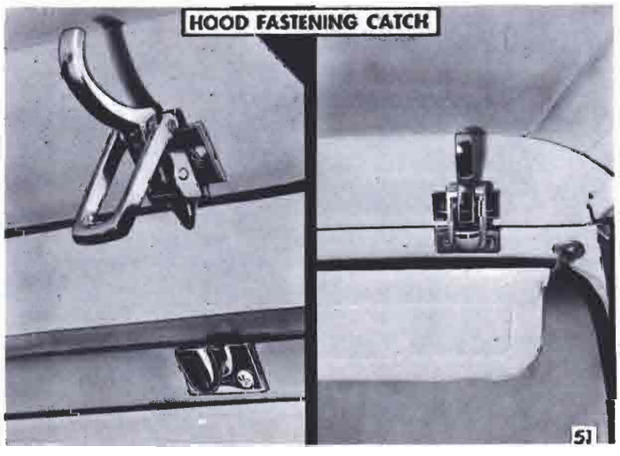
FRAME No. 50



The length of the Cantrail is governed by 2 slotted holes at the front to which is attached the Head rail. This adjustment is to ensure a perfect fit of Hood frame to rear of door glass.

When the door glass is raised to full height the weather strip (which fits into a metal channel and is bolted to the cantrail) can be moved either in or out to fit the glass by slackening the bolts. There is ample tolerance in the mounting holes for this purpose.

FRAME No. 51



The front headrail is secured to the header rail with two toggle fasteners.

It will be noted there is a guide on the toggle catch for lining up with counter part on header-rail which serves to prevent movement when secured.

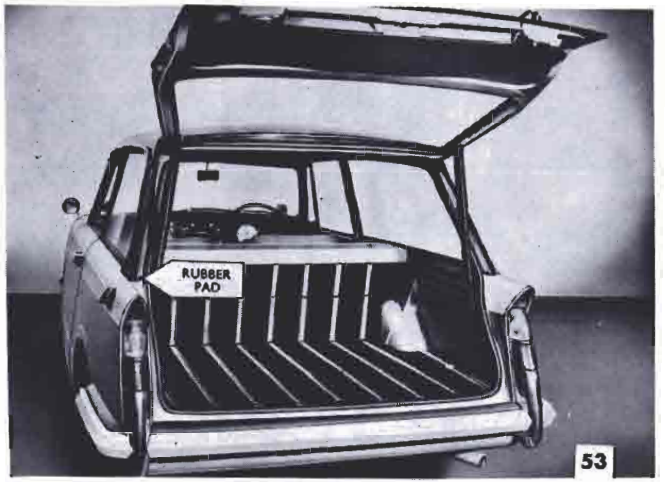
FRAME No. 52

HERALD ESTATE CAR

The body construction of the Herald Estate Car is fundamentally the same as the Saloon.

In the following frames the variations are shown.

FRAME No. 53



The roof is secured at the front as for the Saloon

At the rear it is secured by three studs at each side of Tonneau panel with a rubber insulating pad between roof and tonneau panel.

The short centre pillar as for the saloon.

Continued

The head-lining is fitted after the roof is mounted.

There are six listing rails and the identification colours are as follows. Commencing from the screen: GREEN. WHITE. BROWN. YELLOW PURPLE. and one double rail.

Removal and replacement of the side window is as already described for windscreen etc.