Tudor Webasto Sun Roofs

The Tudor Webasto Sun Roof has been a market leader for more than 25 years. Originally developed in West Germany, it is now exclusively manufactured in Great Britain. With the demise of the 'convertible' car, sun roofs have increasingly gained popularity throughout the world.

This publication has been prepared exclusively for customers and franchise holders of Tudor Webasto and should assist them with the proper execution of the conversion. Whilst the quality of the components supplied by us if fully guaranteed it is, nevertheless, the quality of the workmanship by the ultimate convertor that will ensure complete customer satisfaction. It is with this aim in mind that this publication has been prepared. It must be made quite clear, however, that nothing can take the place of a proper training course at one of our Fitting Stations and that the guidance given in these notes is to be looked upon as an 'aide-memoire' only.

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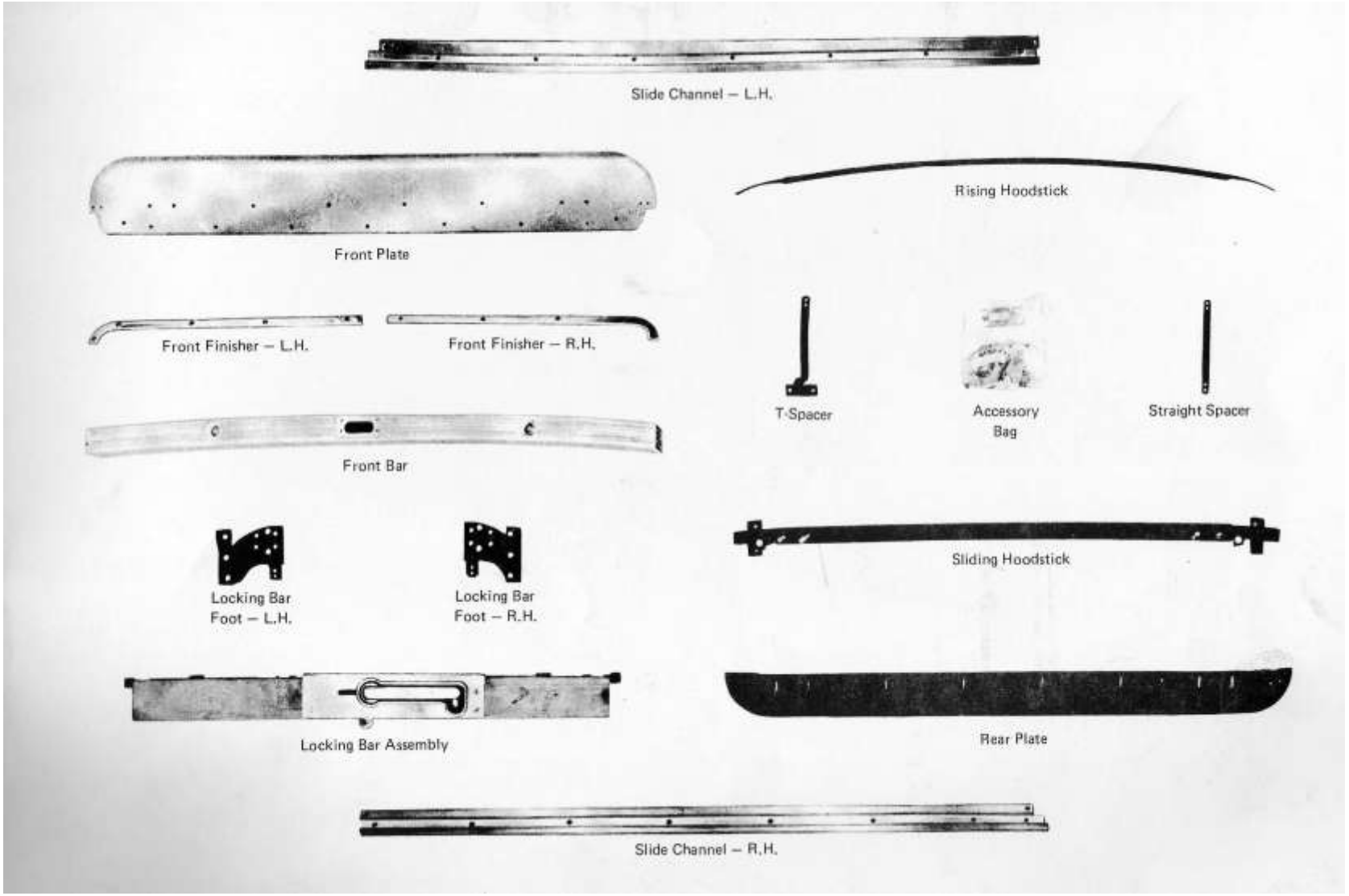
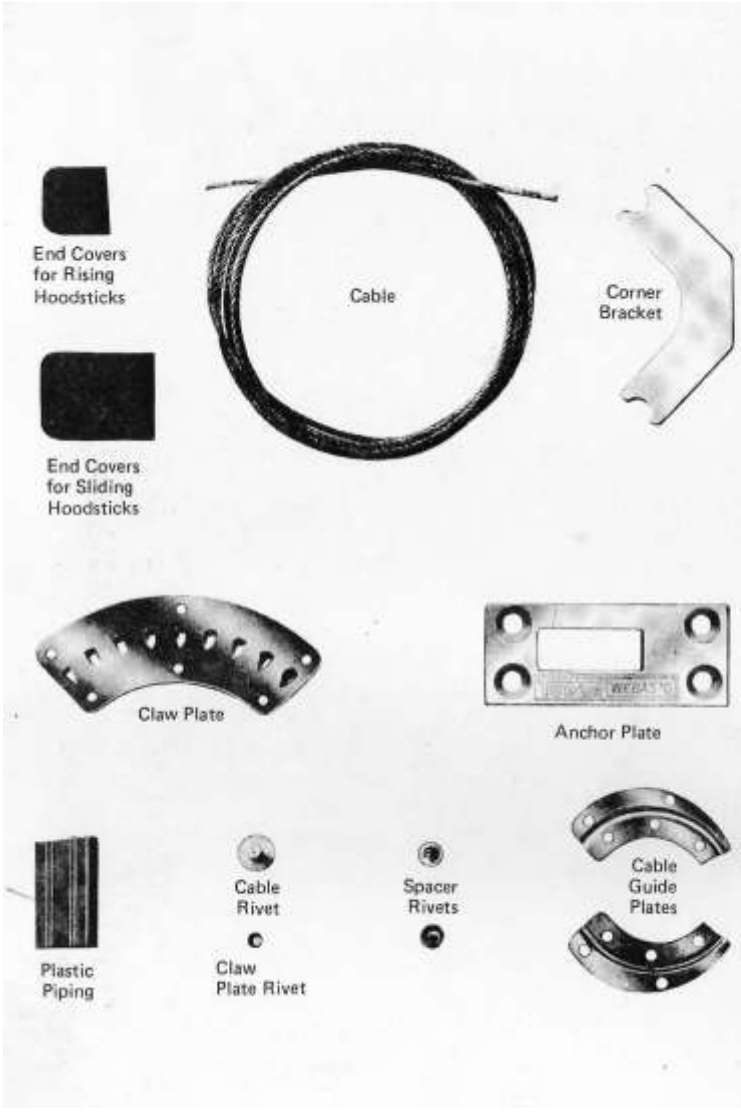
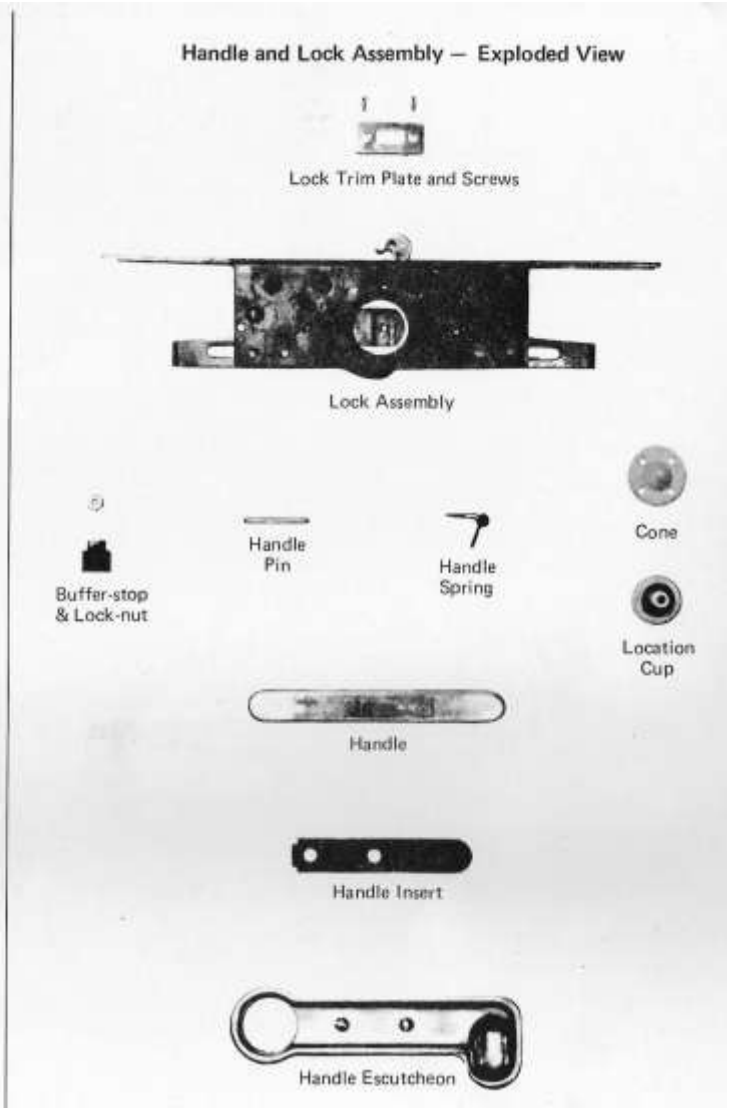


Sun Roof Kit Components


End Covers for Rising Hoodsticks
Cable
Corner Bracket
End Covers for Sliding Hoodsticks
Claw Plate
Anchor Plate
Plastic Piping
Cable Rivet
Claw Plate Rivet
Spacer Rivets
Cable Guide Plates


Handle and Lock Assembly — Exploded View
Lock Trim Plate and Screws
Lock Assembly
Buffer-stop & Lock-nut
Handle Pin
Handle Spring
Cone
Location Cup
Handle
Handle Insert
Handle Escutcheon

1. PREPARATION

a. Disconnect the battery.

b. Remove seats, carpets and any other easily moveable interior items.

c. Protect rear seat squab, floor and door treads by covering the sheets of suitable material.

d. Cover steering wheel and dashboard.

e. Cover console and gear lever with purpose-made plywood boxes.

f. Drop headlining. Remove any anti-drum material from the roof panel and if necessary remove any metal cross-piece.

2. INSTALLING THE FRAME

a. Ensure that the correct frame is available for the make and model of vehicle (see Tudor Webasto Fitting List).
b. Locate the frame on the outside of the car roof at the prescribed distance from the windscreen rubber, and centralise between the side gutters by careful measurement. If in any doubt as to the correct location of the frame relative to the windscreen rubber, judge it according to the location of the sun visors; make sure that the front list pocket seam in the headlining will not coincide with the vertical face of the front frame member when retrimmed. If brackets are to be used in the conversion, the front ones can be offered up to provide an additional guide to frame location.
c. Mark the opening with a felt-tip pen, allowing a margin of 25mm inboard of the front frame member. Mark a line 25mm outboard of the inner edges of both side trim boards. Mark along the leading edge of the rear trim board, thus allowing an overhang of metal of about 25mm of final adjustment.
d. In the case of a glass fibre-bodied car, the aperture must e marked so that the edge will lie flush with the frame all round; at the sides it must not protrude over the rebate.

Photograph 1 & 2

Photograph 1

Photograph 2

c. Using a cold chisel, cut a hole in the centre of the opening to insert metal cutting tool and remove all the marked area. In the case of a glass-fibre car, use a power jig saw.

Photographs 3 & 4

Photograph 3

d. Offer frame to underside of car roof, and locate firmly by inserting four jacks or wooden props, one at each corner, from the car floor to the frame so that the frame is held tight against the roof panel. It may be necessary to chamfer the top of the frame with a plane or Surform, taking care not to remove any timber from the inside edge.

e. Re-check the measurements before making the final cut.

Photograph 4

f. Mark the roof panel with a gauge for the final cut. The gauge for marking the sides and back should leave about 6mm of metal for turning down into channel rebate and across the back bar.

Photograph 5.

Photograph 5

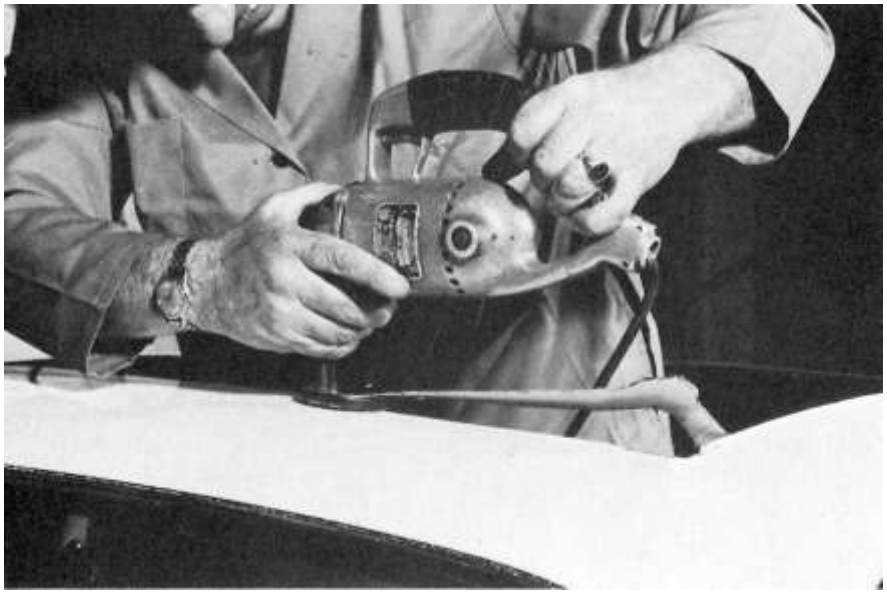
g. Mark corners of opening for steel corner brackets. (This applies only to steel-bodied cars). The front edge should be cut with the frame in position the metal being cut level with the front bar.

Photograph 6

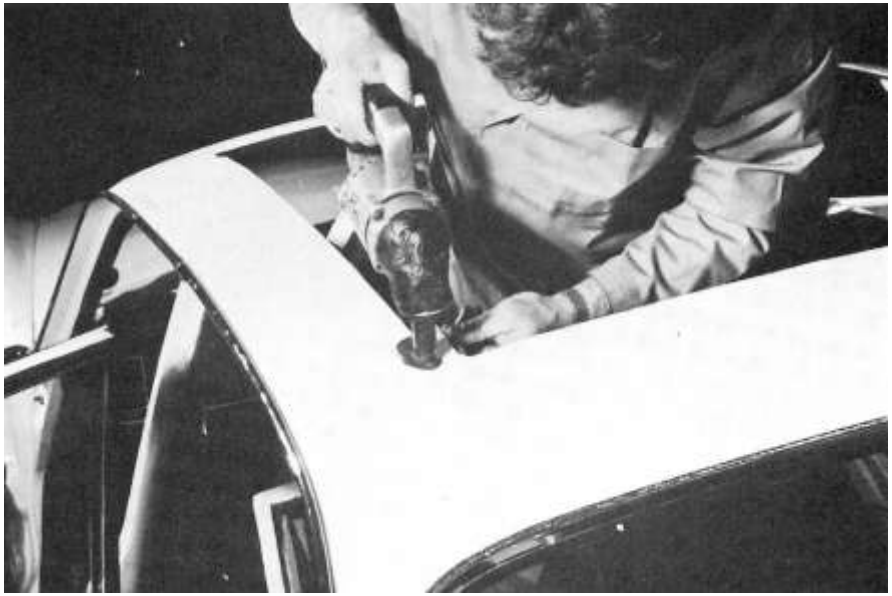
Photograph 6

h. Remove the frame and cut the roof to the gauge marks.

Photographs 7 & 8



Photograph 7



Photograph 8

j. Using a rotary wire brush, clean paint from outside and inside of all four corners, ensuring that on top no more than 7mm of paint is removed in order that the channels and finishers will cover the treated area.

Photograph 9

k. Stop weld the corner brackets thoroughly to underside of roof panel. This strengthens the corners and prevents any chance of the car roof panel cracking

Photographs 10 & 11

Photograph 9

Photograph 10

Photograph 11

l. Re-position frame with jacks or props as before. Gauge and mark a drilling line no more than 5mm outboard of metal turn-down line to allow maximum coverage by channels and finishers on the gauge lines. Note double row of screws at rear and only.

Photographs 12 & 13

Photograph 12

m. Screw the frame in place using 19mm x 6 countersunk “Posi-Driv” Parker-alon self tapping screws, spaced 25mm between centres, and adequately countersunk into the roof panel.

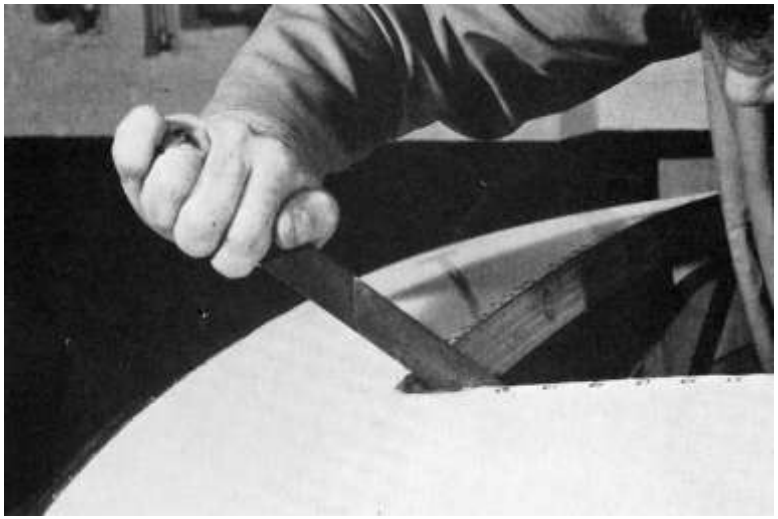
Photograph 13

n. When the frame has been screwed in place, turn down the metal on the back and sides, finishing off the sides with a metal chasing tool to allow the channels an easy fit. Clean the top edge with a file if necessary. Photographs 14, 15, 16 & 17.

Photograph 14

Photograph 15

Photograph 16



Photograph 17

3. FITTING THE BRACKETS

e. Reinforcing brackets are specified for most cars – please refer to Tudor Webasto Fitting List, and check that the correct bracket set is available

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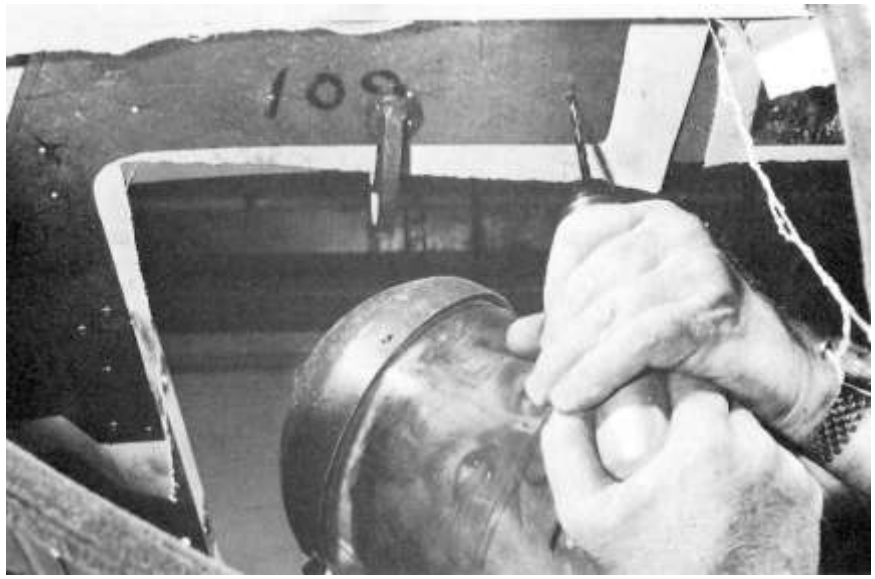
f. Offer the brackets up in position, and if necessary adjust them to fit by hammering on an anvil. When they are a good fit, cover their top surfaces with off-cuts of vinyl or foam to prevent squeaking.

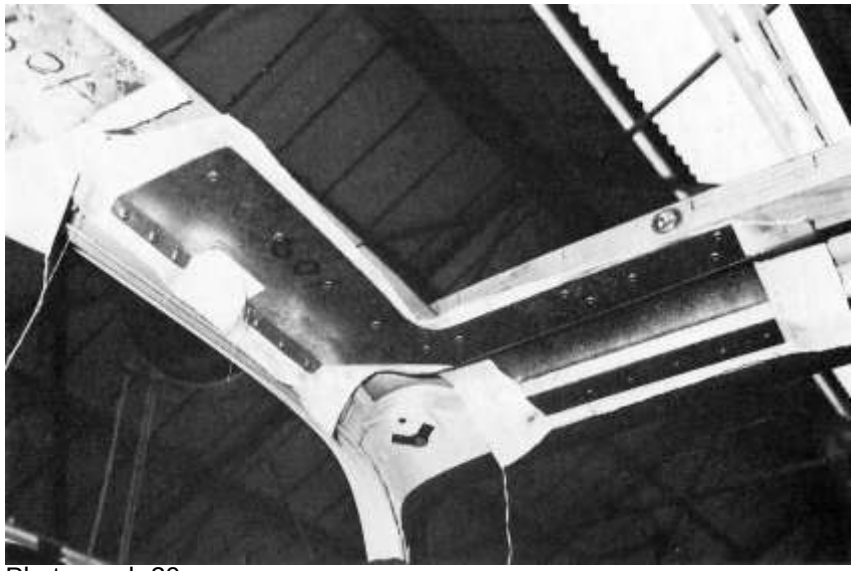


Photograph 18

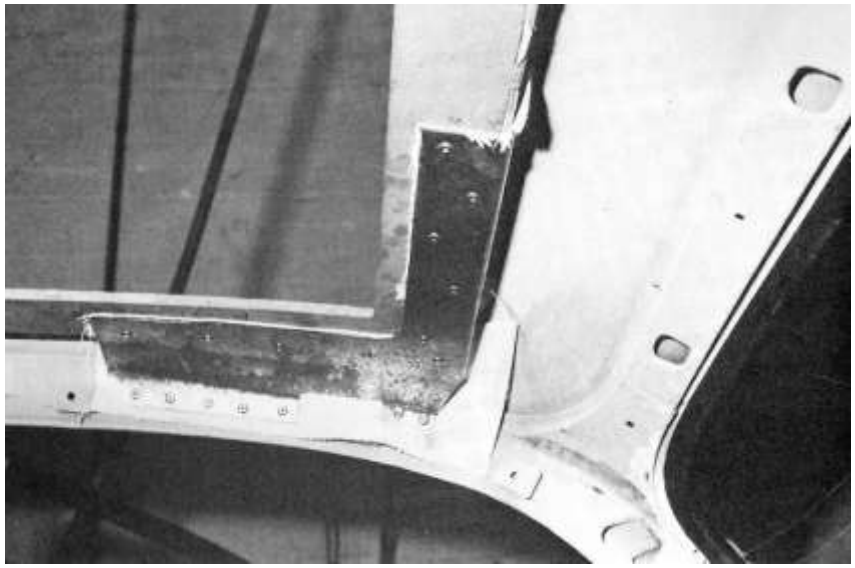
Photograph 19

g. Cramp brackets in position, drill and use a generous number of rivets to fasten rigidly to the frame and bodywork. (Remember to protect the car's paintwork by inserting pads under the G-cramps).

Photographs 18, 19, 20 & 21



Photograph 20

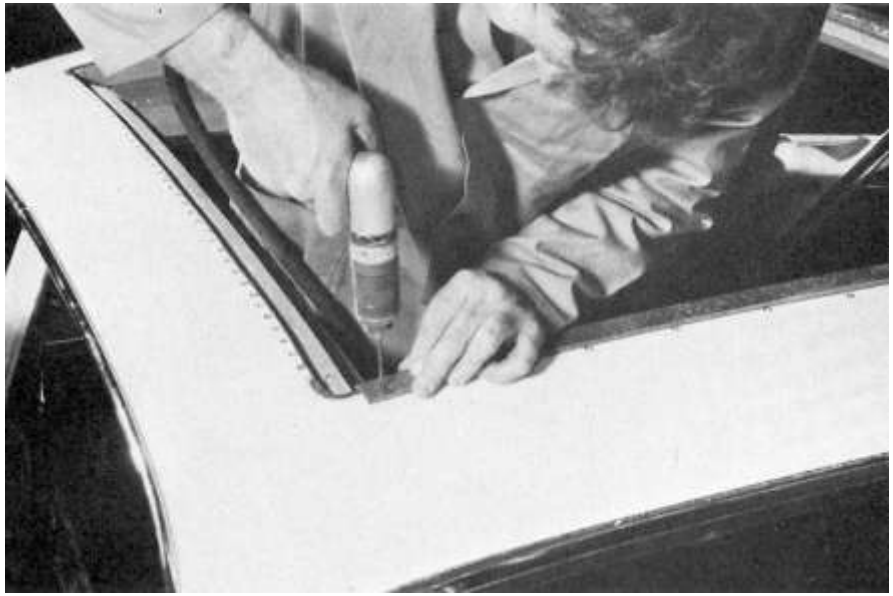


Photograph 21

4. FITTING THE ROOF KIT

a. Screw a strip of hardboard 25mm wide across the top of the car, level with the front edge of the rear frame member.

Photographs 22 & 23



Photograph 22

Photograph 23

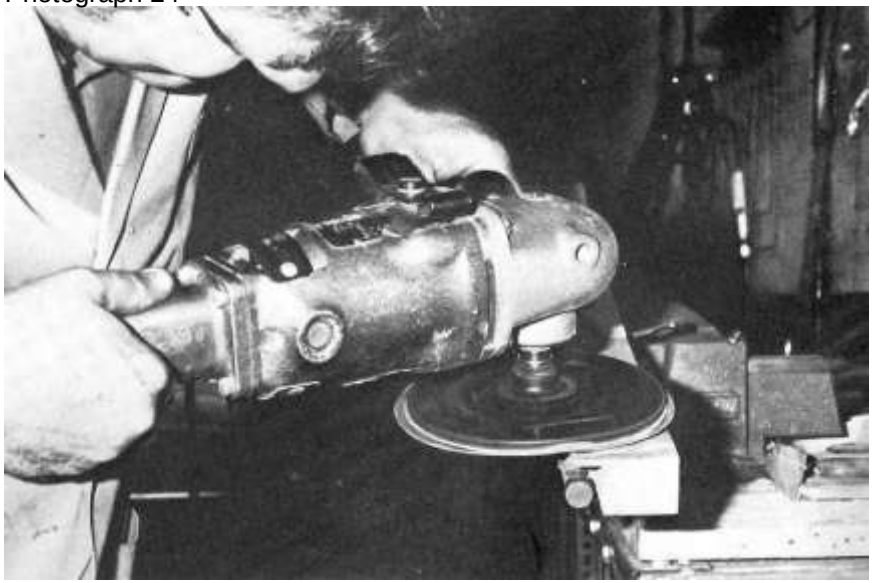
b. Use an air-line to clean off all debris from the roof area. Surround the aperture with wide masking tape to protect the paintwork when fitting the kid components.

Photograph 24

Photograph 24

c. Chamfer underside ends of the locking bar 50mm inwards and approximately 3mm deep on the outboard edge tapering to nothing inboard, to ensure clearance between the locking bar and the trim board when covered with headlining material etc. Re-check when fitted.

Photograph 25



Photograph 25

d. Shape the ends of the sliding hoodsticks to a smooth contour.

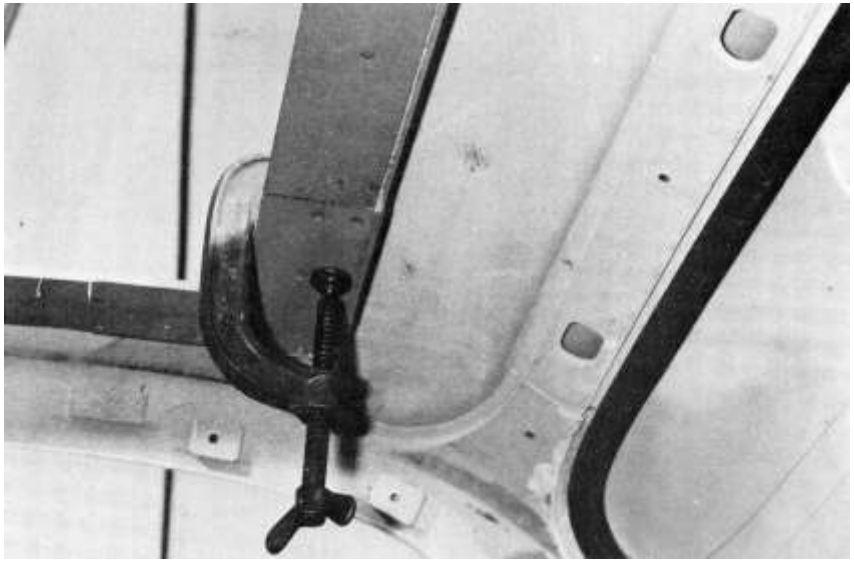
Photograph 26.

Photograph 26

Photograph 27

e. Using a hammer as necessary, shape the back plate so that when clamped in position it fits the car roof contour snugly. Take care to shape this place accurately to avoid indentation of the roof panel when clamped Screw the back plate in position when satisfactorily shaped.

Photograph 27, 28 & 29.

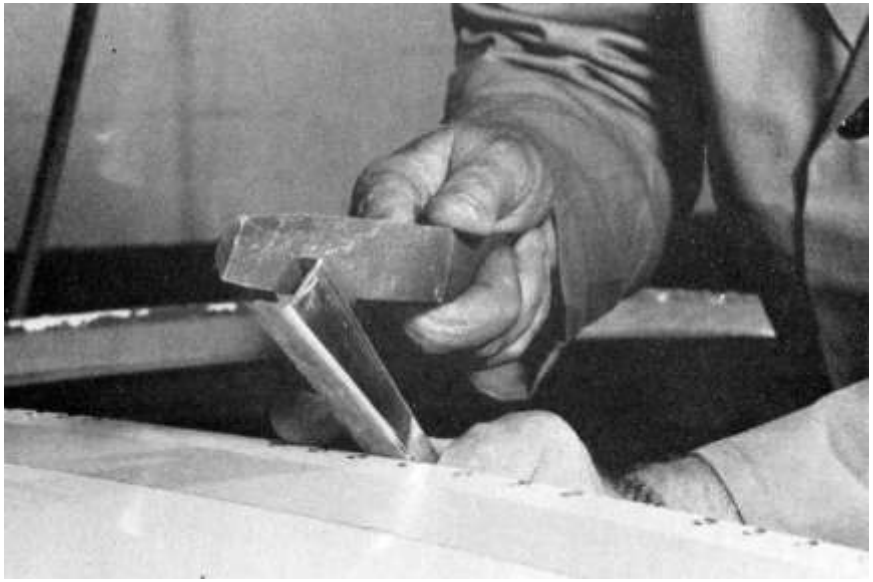


Photograph 28

Photograph 29

f. File any sharp corners from the channels.

Photograph 30



Photograph 30

g. Position the left hand channel and finisher, taking care to leave clearance for three thicknesses of headlining material behind lip of finisher. Drill fixing holes for the channel and finisher, and screw them in place. The screw at the right hand end of this finisher must be no more than 7mm long, to avoid fouling the action of the locking hook.

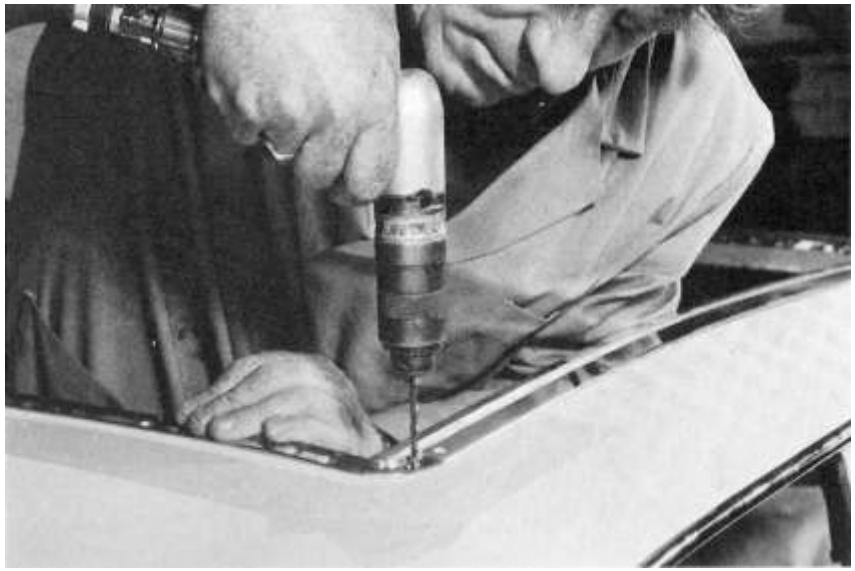
Photograph 31

Photograph 31

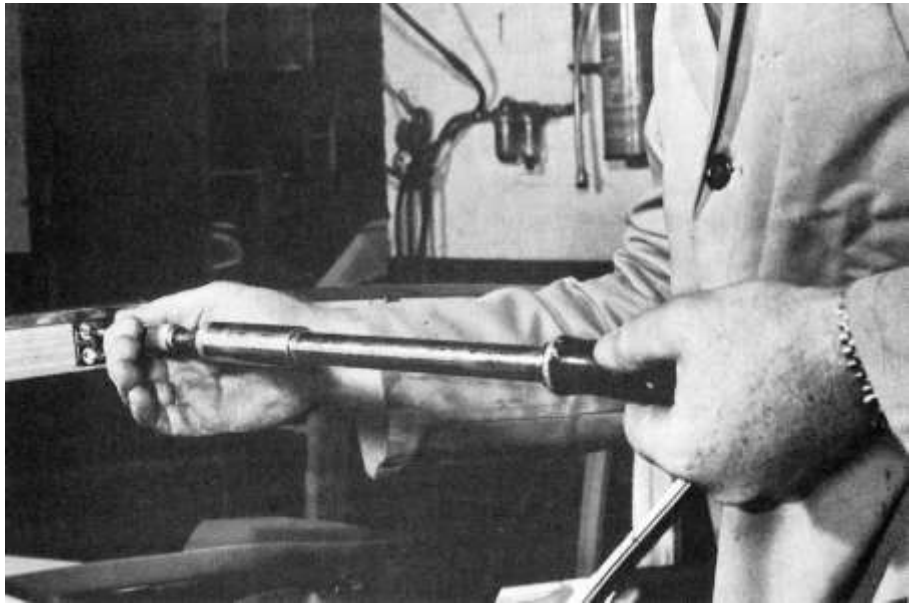
h. Position right hand channel and finisher. Mark the finisher and cut to appropriate length for a neat butt joint with the left finisher. Drill fixing holes and screw right channel and finisher in place. Screw anchor plate and cups in position to ensure clearance. Using a tape measure, check that the channels are parallel with one another over their whole length to ensure that the sliding components will slide freely.

Photographs 32, 33 & 34

Photograph 33



Photograph 32



Photograph 34

j. Lock the locking bar into the front of the frame; clamp the sliding feet in position on each side ensuring that the leather pads abut on the inboard vertical faces of the channels. Drill screw holes and screw the feet to the bar. Check that the locking bar slides freely backwards and forwards, then adjust the rubber buffers to provide a firm and even locking action.

k. Clamp the front plate centrally to the locking bar, with the rear edges aligned together; drill and screw in place.

Photographs 36 & 37

Photograph 36

Photograph 35

Photograph 37

l. Insert sliding hoodsticks in channels, and adjust to curvature of back plate. Ensure that they slide freely. When satisfactory, tighten screws on underside.

Photographs 38 & 39

m. Shape the rising hoodsticks to curvature as above.
n. Screw a backstop, such as a hexagonal nut, in each channel at a point 20mm forward of the rear bar. This will prevent kinking of the hood cables caused by excessive rearward travel of the sliding components.
p. Check all round to ensure that all components are fitting, sliding and locking satisfactorily as appropriate, and that all holes are drilled.
q. Remove all the kit components from the car, taking great care no t to scratch the polished surfaces of the finishers and channels.

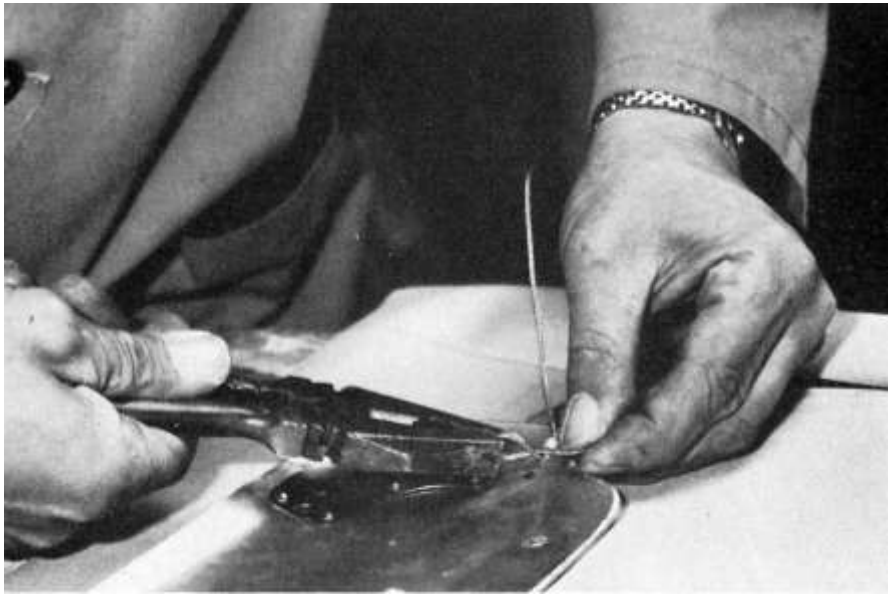
Photograph 38

Photograph 39

5. ASSEMBLING THE TOP COVER

a. Insert cable through outermost hole in the front plate and turn a few times to make a loop for a rivet.

Photograph 40



Photograph 40

b. Insert rivet through underside of plate to hold cable loop, and hammer flat on top of plate.

Photograph 41

Photograph 41

c. Lay front plate, bottom up, in position on hooding, with cables pulled tight against ends of stitching; centre of front edge of plate should lie on marked line. Pull hooding to allow 8-10mm clearance between this line and outboard ends of front edge of plate.

Photographs 42 & 45

Photograph 42

d. Apply adhesive to underside of front plate and to hooding.

Photographs 43 & 44

Photograph 43