



**UPPER FRONT  
LONGERONS 6B11-1**

The longer straight section is the front.

Identify the front and rear portion of the longeron (front is longer than the rear).

Photo of left longeron



Note: The longeron is 22mm below the top edge of the side skin.

Clamp the longeron underneath the upper engine mount fittings 6B6-4 and underneath the top rear longeron 6B2-1



Detail of right side: Longeron clamped underneath the Upper Engine Mount Fitting 6B6-4.

Inside view: check that the front of the longer overlaps the firewall flange.



CHECK: The vertical L angles on the side skins are not too long, there is a small gap between the top of the L angle and the longeron.

Longeron splice detail: Longeron 6B11-1 underneath rear top longerons 6B2-1  
Photo of right side looking forward.



Level: The top of the square beam between the left and right longerons must be level

Longeron support: Cut a furring strip or small board 470mm long. Positioned on top of the gear channel to the top flange of the longeron.



Board to support longerons.

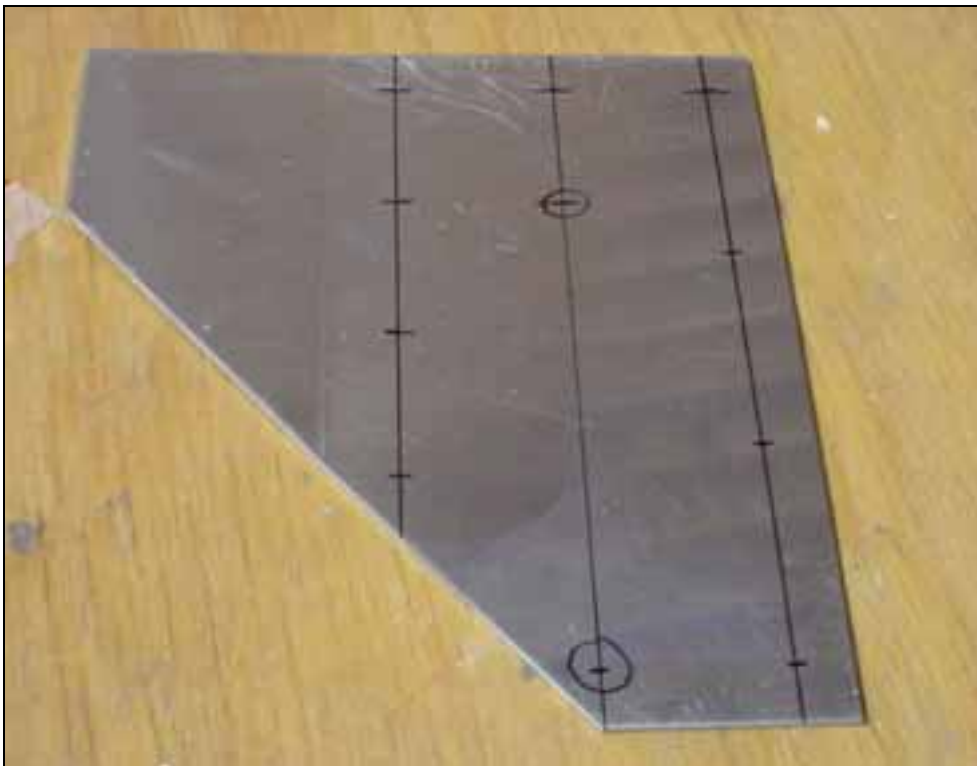
Check: 497mm from top of longeron to underside of gear channel  
Ref. 6-B-5.





Lay out the end hole in the upper engine mount fitting 6B6-2 (edge distance in longeron = 9.5mm)

Drill and cleco the aft hole in 6B6-2 into the longeron 6B11-1 (left and right side).



**ATTACH PLATE  
6B5-4**

Qty: 1L + 1R

**The 3-degree bend is towards the front.**

**11 RIVETS A5**

Ref 6-B-5 top left diagram

Layout the rivet lines.

Pre-drill the O/B rivet line with #40 pilot holes. The I/B holes are drilled later through the Channel 6B5-6



**REAR FRAME CHANNEL  
6B5-2**  
Qty=1

Orientation: 90 degrees  
flange is up. Web is  
towards the front  
Only drill the 4 inboard  
holes.

Clamp the attach plate, 6B5-4, on the front side of the rear frame channel 6B5-2, with the 50mm line (3 degree bend) flush with the end of the channel.

Trace the sloped edge of the attach plate on the channel. Remove the plate.

The Inboard edge is square to the top flange of the Channel.  
The 3 degree bend is towards the front (the wings are tapered)



The cutout in the side skin is to allow room for attach plate 6B5-4

Position the Rear channel 6B5-2 on the fuselage to lay out the cutout in the side skin for the attach bracket 6B5-4.



NOTE: 19mm spacer block underneath fuselage in line with the front bottom corner of the side skin.

Cutout in the side skins 6B3-1 to make room for the attach plate 6B5-4



The rear channel 6W7-1 overlaps on the back side of the attach plate 6B5-4.

Install the wing jig. 6-B-13 to the center spar.





Level the top of the web template.



Clamp the attach plate 6B5-4 to the rear channel.



Inside view of the left wing jig.



Detail of back side of wing jig: rear channel overlaps on the back side of the attach plate 6B5-4



Photo looking forward.

CHECK: Use the 77.5-degree plywood template with level.



Layout the location of the instrument panel and seat back **Ref 6-B-14**

Distances are measured long the longeron.

475mm to the instrument panel  
895mm to the seat back 6B16-6

OBJECTIVE: To set the width across the top of the fuselage.





**1120mm** measure from outside to outside between left and right longerons at the seat support 6B16-6



**SUGGESTION:** Clamp an extrusion straight edge approximately 100mm in front of the seat back to have enough room to drill the front flange of 6B15-1 to 6B16-6



Trim the top to bend to fit underneath the Longerons 6B11-1. Use a round rat-tail file to radius the corner.

Install the top of the support 6B16-6 flush with the top of the Longerons 6B11-1.



**UPPER SEAT & BAGGAGE FLOOR SUPPORT 6B16-6**

Orientation: 90 degree flange is towards the rear



**GUSSET  
6B15-1**

Qty: 1L + 1R

Orientation: The short  
5mm flange is I/B

Photo of left side (rear view of the inboard corner).  
Taper back the front corner of the side flange to make room for the top bend  
on the support 6B16-6. Touch up the corner with a round file.



Note: The 2 outboard  
holes on the front flange  
are drilled later through  
the channels 6B16-3

Photo of right side.  
Clamp the front flange of the Gusset to the 30mm flange of the Support  
6B16-6  
Trim the outboard edge of the gusset flush to the outboard side of the  
longeron.



Drill & Cleco

**2 RIVETS A4**

6B15-1 to 6B16-6  
(End hole 10mm from I/B  
end, PITCH 20)

**2 RIVETS A4**

6B15-1 to 6B11-1

Drill the two end holes.  
NOTE: The 2 middle  
rivets will also be drilled  
when the Longeron  
Doubler 6B16-4 is  
installed.

Photo of left side.  
Lay out the rivet line 9.5mm from the edge of the longeron.



Aircraft center on 6B16-6  
is plumb with aircraft  
center line on 6B1-4

Fuselage is square when center lines are plumb.





Rear fuselage with seat support 6B16-6 installed.  
Photo looking forwards.



Rear fuselage with rear frame channel 6B5-2 installed.  
Photo looking towards the rear.