



Clamp a reference edge (or a piece of extrusion such as 6T3-6) on the front flange of the elevator rib 6T3-1.



**ELEVATOR RIB  
6T3-1**



**ORIENTATION:** The longest flange is the top.



Layout:

110mm TOP  
85mm BOTTOM



Connect the top and bottom;  
mark with a straight line.

LINE: The line marks the position of the channel 6T3-2.



**L ANGLE**



**2 RIVETS A5**  
"L" angle to 6T3-1

Clamp a piece of L angle to the web of the rib: the front flange is on the line.

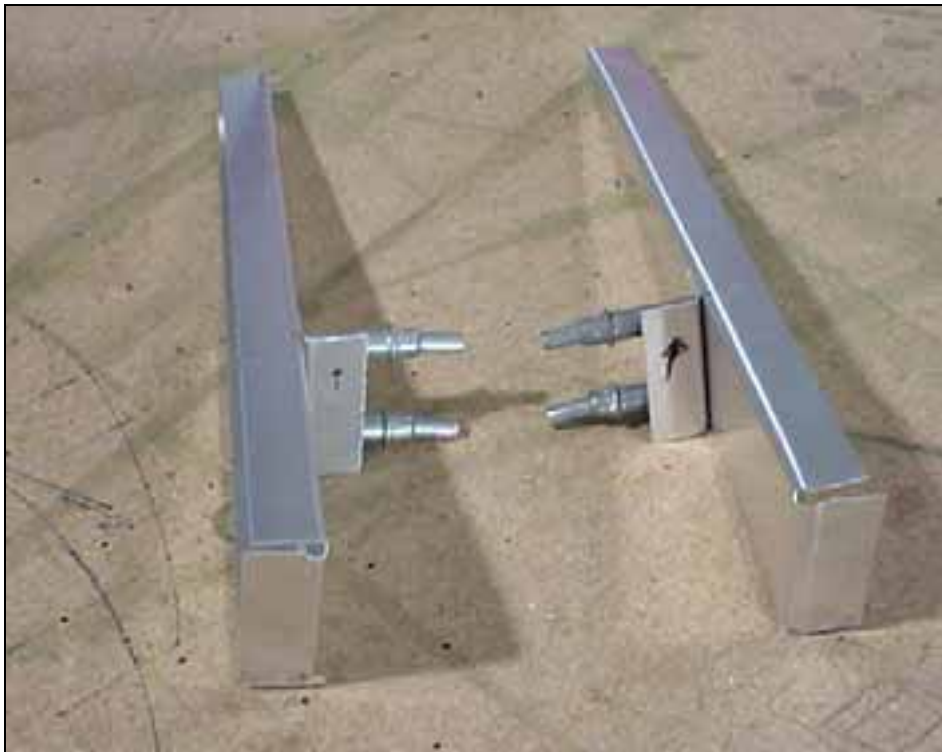
Drill & cleco.



Trim the top and bottom flange of the "L" Angle even with the bent tangent line of the rib flange.



Cut top and bottom of "L" angle even with bent tangent line of rib flange.



Left and right ribs (the flanges point outboard) with "L" Angles.



Fit the ribs to the end of the channel (flanges point forward).



**ELEVATOR CENTER CHANNEL  
6T3-2**



Clamp the channel on the front side of the "L" Angle.



CHECK: Channel top and bottom flange flush with rib flanges.



**2 RIVETS A5  
6T3-2 to "L" angle**



Use your finger on the edge of the flange to draw a straight line.



Mark the rivet line on the three rib flanges.



Skin supplied pre-drilled with #40 pilot holes at the rib stations: rivet line along top, bottom and front side.

ORIENTATION: The short flange is top front (for the piano hinge).



**ELEVATOR SKIN  
6T3-3**

**#40 pilot holes**



Position the ribs inside the skin.

**ORIENTATION:** Flange on the end ribs point inboard; flanges on the middle ribs point outboard.



Line up the flange center line over the pre-drilled holes.



**2 RIVETS A4**

Front flange 6T3-3 to 6T3-1  
Outboard & middle ribs

**2 RIVETS A5**

Front flange 6T3-3 to 6T3-1  
Center ribs.

First drill & cleco the 2 holes in the front flange.



**8 RIVETS A4**  
Rib bottom flange.  
Outboard & center ribs.

**8 RIVETS A5**  
Rib bottom flange.  
Inboard ribs.

**CHECK:** There is no twist in the elevator.

**ORIENTATION:** Turn the elevator assembly over.

Drill & Cleco through the bottom flange.



**ORIENTATION:** Turn the elevator assembly over to rivet the top side of the ribs. Because of the Clecos in the bottom side, steel beams are used to raise the elevator assembly off the workbench (it is not a good idea to work on top of clecos).

Misalignment of front top corner of skin with the elevator top flange, approximately 2.5mm (flange can be left as shown in above photo or trimmed flush to edge of skin).



Position a 2x4 across the trailing edge of the skin.

CHECK: There is no twist in the elevator.

**8 RIVETS A4**  
Though top flange.

Drill & cleco the topside.



**PIANO HINGE**  
**6T2-5**

Edge distance = 7.5mm

CHECK: Rivet line is in the middle of the piano hinge flange.

Layout the rivet line on the skin to maintain edge distance in the piano hinge flange.  
The piano hinge fits between the top skin and the flange of the elevator skin.





CHECK: Elevator is centered on the stabilizer.

A4 PITCH 40  
**A5 between middle ribs,**  
**Ref bottom left diagram**  
**on drawing 6-T-3**

6T3-3 to 6T2-5

Position the hinge on the elevator, between the flange and the top skin.  
 Layout the rivet pitch across from the rivets in the stabilizer.



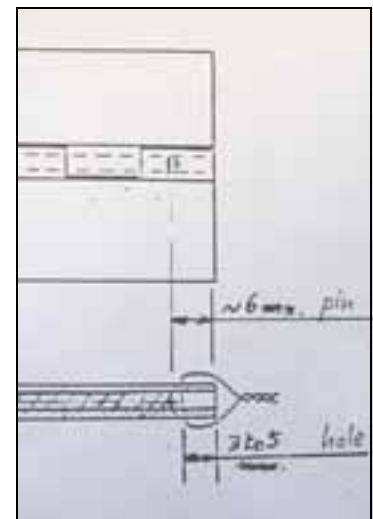
Locate the end holes  
 10mm from the end of the  
 piano hinge; then locate  
 the intersection holes with  
 the ribs.

**IMPORTANT:** Leave a no rivet zone between the top middle ribs for the Upper Horn 6T3-4.



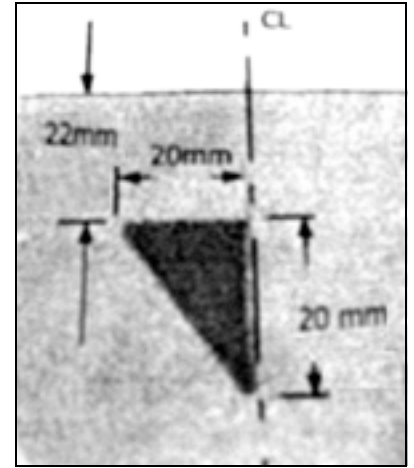
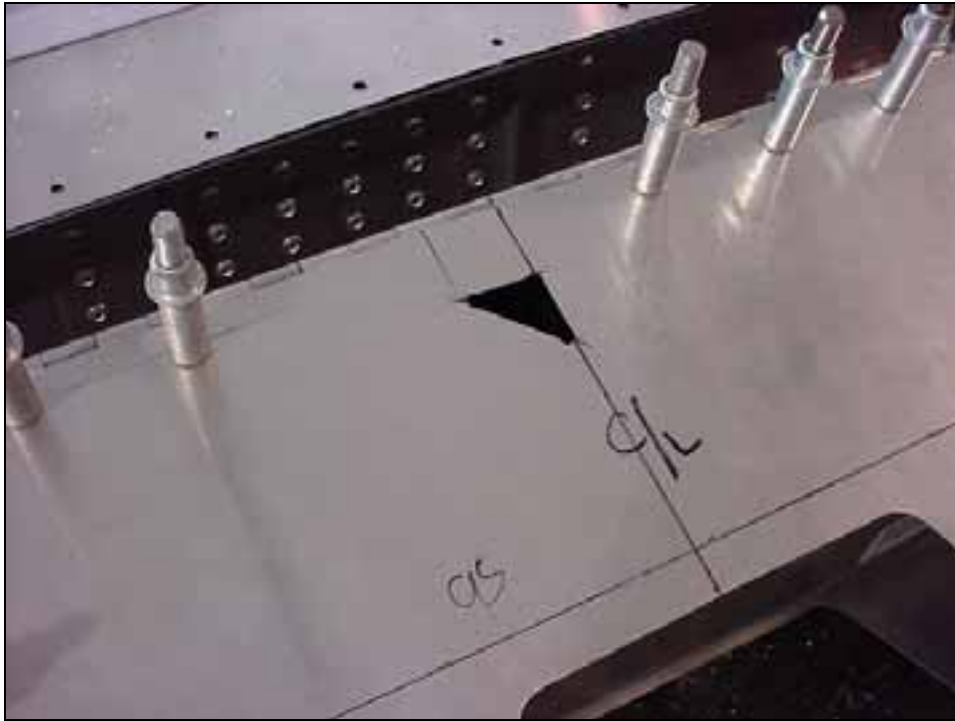
Finish drilling the holes from the end of the hinge to the O/B end of the elevator and stabilizer.

A4 PITCH 40 (5 rivets in line with the rivets in the stabilizer) between the end of the piano hinge and the end of the elevator.



Wait to drill the 1/16" hole for the safety wire until after the pin has been moved out of the way.

Photo of left O/B end to show rivets beyond the end of the piano hinge.



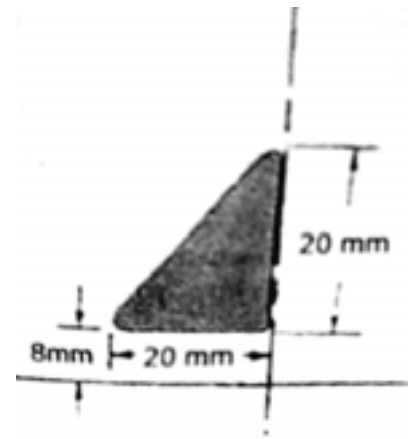
20mm x 20mm cutout

Cutout for the Elevator Horn Doubler 6T3-6.  
Cutout is on the left side of the aircraft centerline.



**TOP**  
22mm from front edge of skin  
(behind the top flange)

Drill 3 corner relief holes #20; use the snips to cut between the holes.



20mm x 20mm cutout.

CHECK: Cutout is on the left side of center line (same side as top cutout).



**BOTTOM**  
8mm from the bottom bend.

Cutout for the Elevator Horn Doubler 6T3-6.