

STOL CH 801 STABILIZER ASSEMBLY – SECTION 2
“INSTALLING SKINS”



STABILIZER SKIN
8H6-3

Skin is supplied wrapped in an 8ft cardboard sheet
CAUTION: The skin will spring open when the tape is cut.

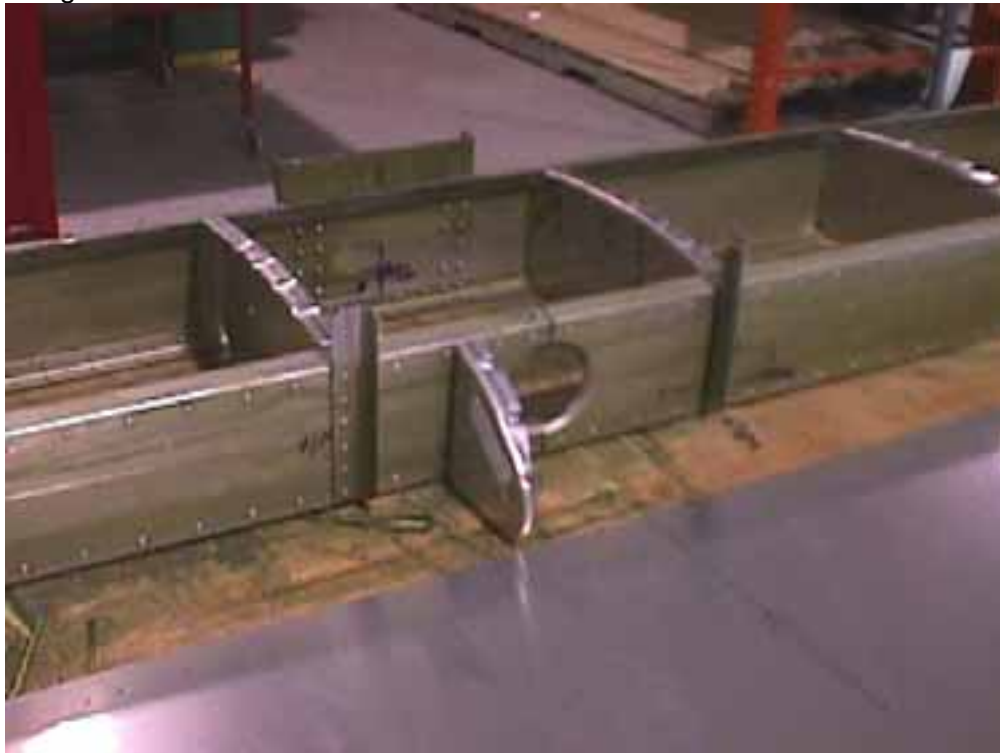


To move the skin, use two hands to lift up along one edge.



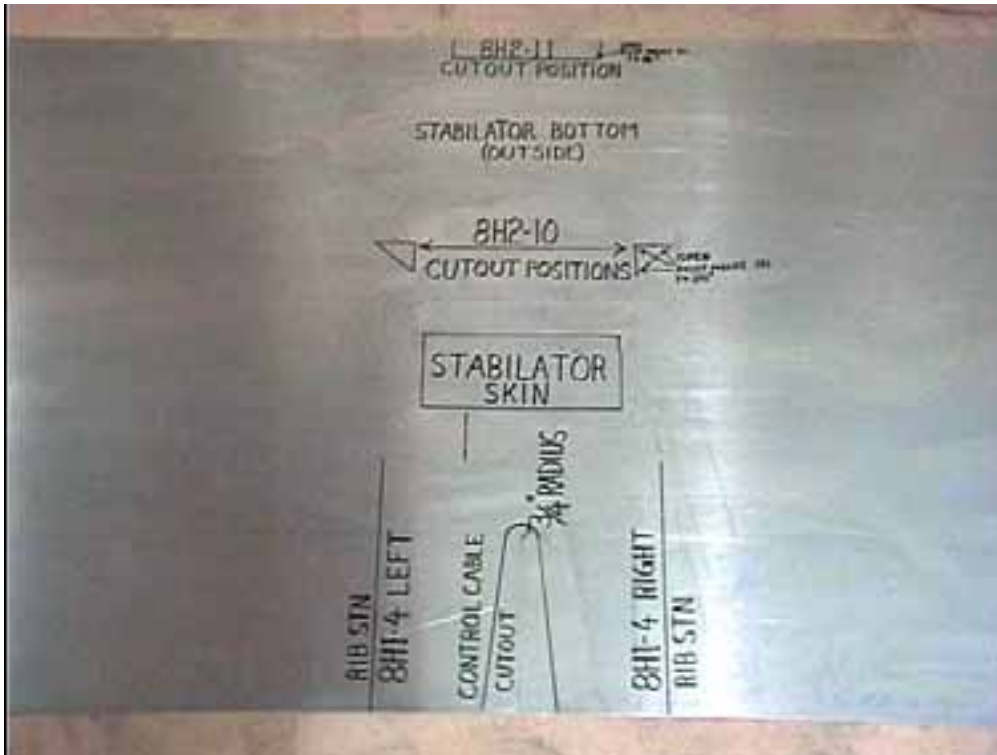
Stabilizer skeleton

CHECK: The front of the ribs are all in line – the aft edge of the spar is straight.



Top side of stabilizer skeleton resting on the work. Top side is flat – curvature is on the bottom.

The attach brackets will go through the bottom side of the stabilizer skin.

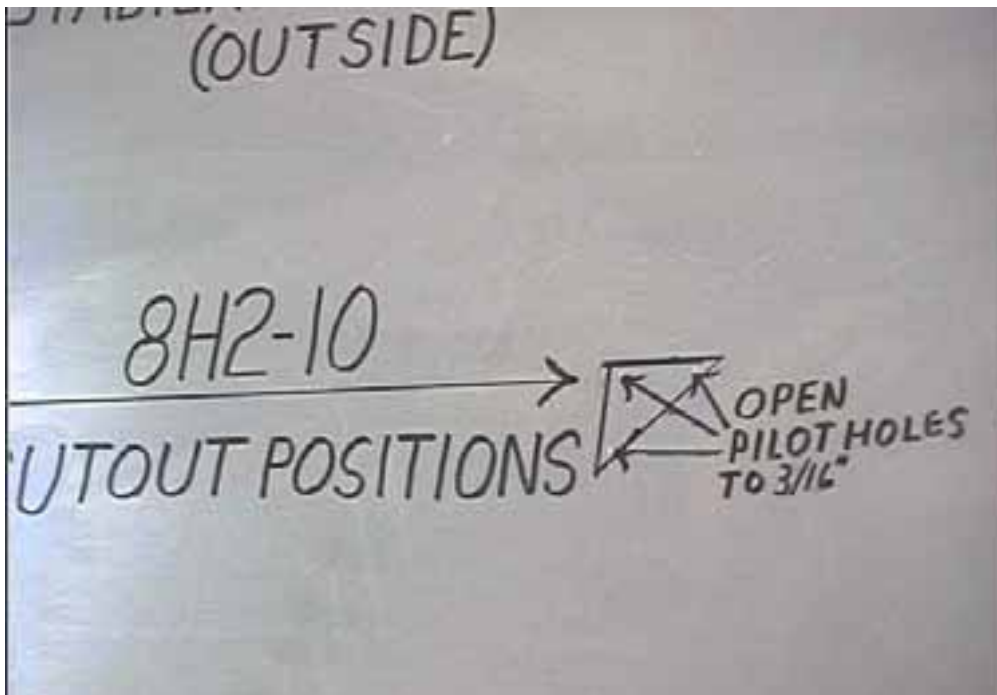


The first step in the skin installation process is to make the cutouts in the skin.
The centers for drilling and laying out the cutouts are predrilled in the skin.

The width of the control cable cutout is 85 mm at the edge of the skin, and the height is 215 mm from the edge of the skin.

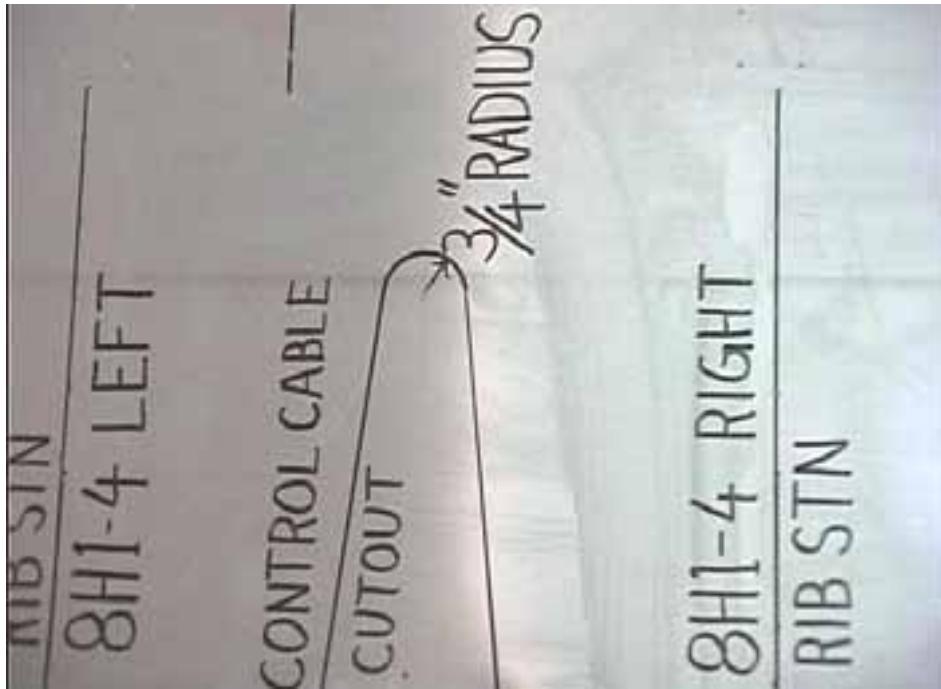
NOTE: The control cable cutout is the top half of the skin

The best way to layout the cutouts is to first drill the holes then lay in the trimming lines as shown in the photos.

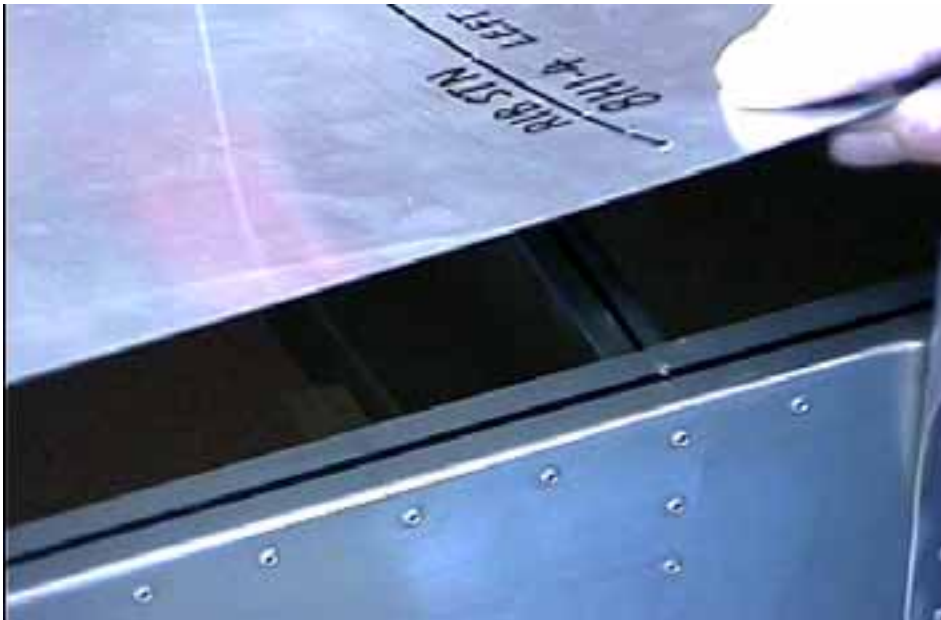


3/16" corner relief hole.

Drill the holes then cut and file to size.



The rib positions are detailed on the skins in this photo for reference purposes only.
 After trimming to size, file and deburr all cut edges.



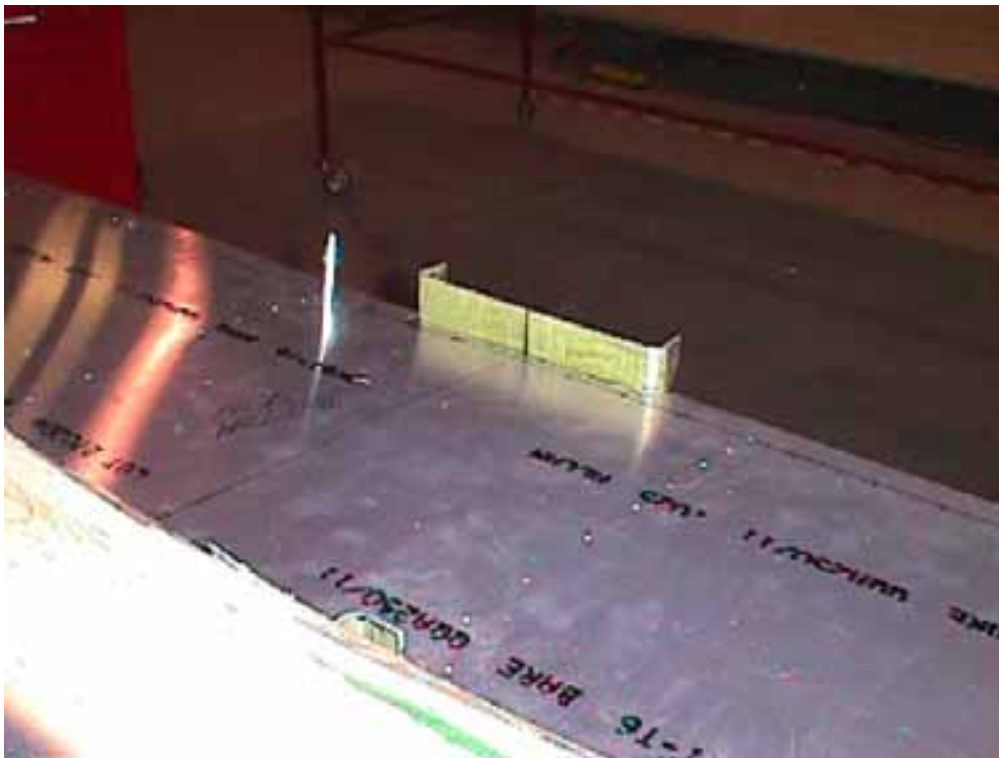
The skeleton is placed with the flat rib flanges on the table ie: the skeleton is upside down.

The centerline on the flanges align the skin with ribs and spar through the predrilled rivets holes in the skin.
 The rear edge of the skin should extend 15 to 18 *mm.* beyond the rear edge of the spar and the same amount past the tip ribs.



Triangular cutout

Cutout in bottom side of skin to make room for the front brackets 8H2-10



Trim the bottom of the skin around the bracket to allow for the 15 to 18 mm. overhang.

Cutout along aft edge to make room for the stabilizer rear brackets 8H2-11



Clamp aft flange of spar to workbench

2x4 on top of skin to push skin down on ribs.



The skin overhang approximately 20mm past the end of the ribs.

Take care to align the spar flange centerline and the skin predrilled holes. A poorly aligned skin will cause some difficulty when drilling the opposite side.

After carefully aligning the skin / skeleton drill and cleco the spar rivet line first. Pitch 40, #20 drill.
Now drill the rib holes, also #20 drill. Deburr.
Rivet this side of the skin to the skeleton.



Be careful when handling the unattached portion of the skin. It will crinkle easily at this stage of assembly.

Flip assembly over.



Hang the attachment bracket off the edge of the bench.



Slide a support beam between the bottom of the sterilizer and the workbench.

CHECK: Check there is no twist in the assembly: Lay a spirit level across the top of each ribs and the spar.

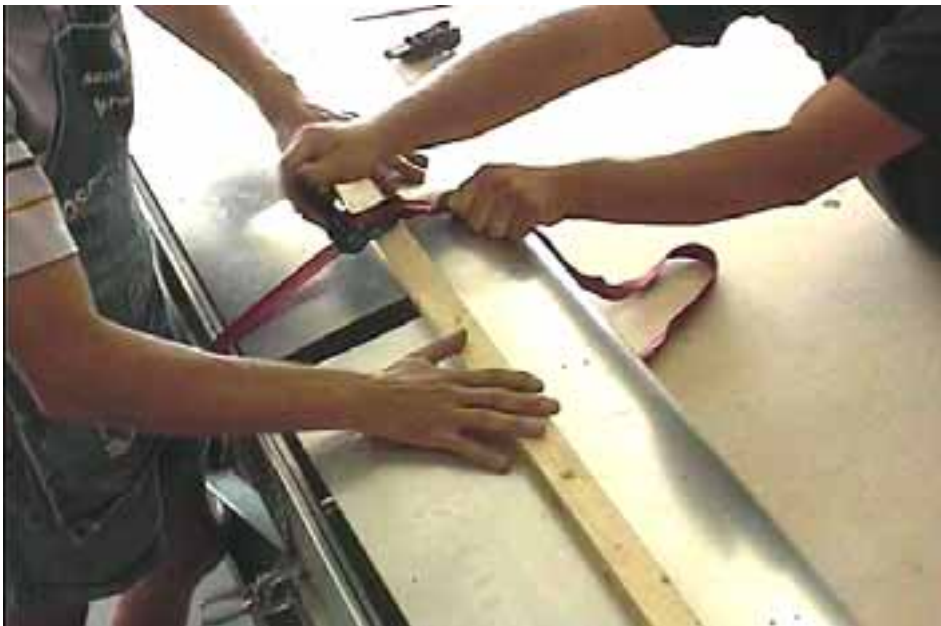


#11699
www.highlandusa.com

(Available at Wal-mart).

Qty = 4

12ft endless ratchet tie down



Use ratchet straps to tighten the skin. To protect the 18mm overhang of the previously installed side of the skin place blocks of wood under the straps and next to the spar.

Use a piece of wood to help wrap the skin. Strap and tighten.

Make sure that there is no twist in the stabilizer before drilling.



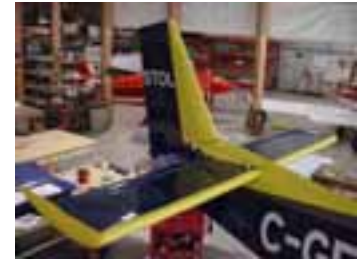
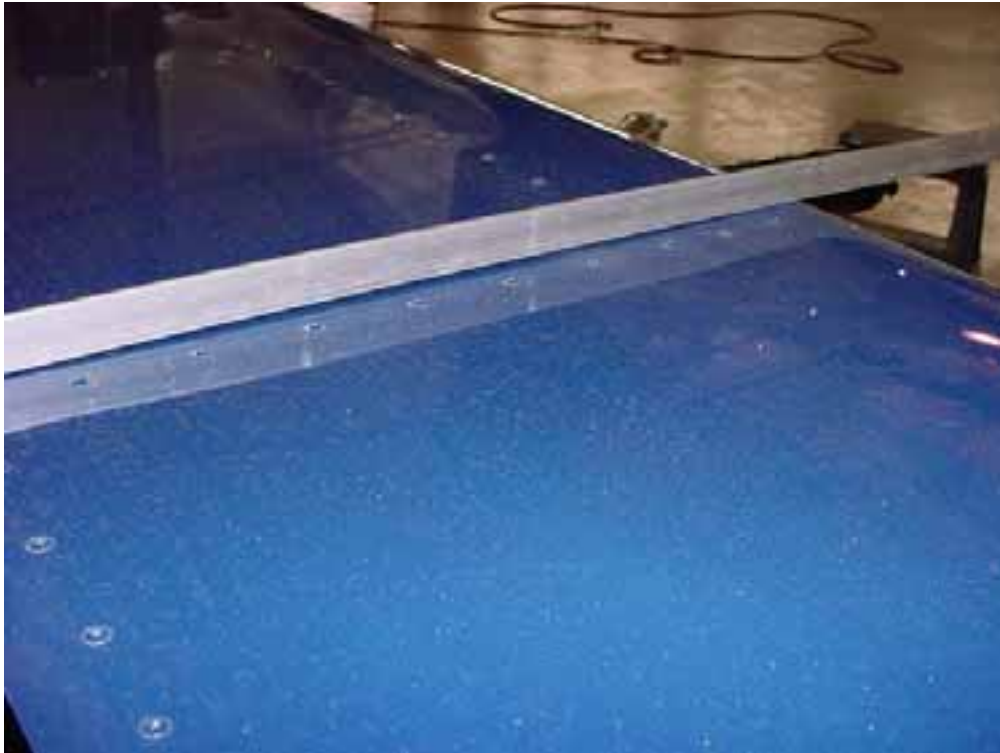
A5 RIVETS PITCH 40
Skin to ribs and spars

A little protection will help.
Drill and rivet all holes in the same manner as the other side except drill the ribs first then the spar.

Make sure that there is no twist in the stabilizer before drilling.



The 1x2 boards underneath the straps help apply a more even pressure on the skin.



The top of the stabilizer is straight
Straight edge on top of the stabilizer at the full rib 8H2-1



Acceptable gab between
straight edge and the front
spar.

A small gap between the straight edge and the front spar rivet line is acceptable.