



Elevator and stabilizer skins are both packaged together in the same cardboard box.



Looking inside end of box.



Part number labels are on the box.



Hold the top of the box with one hand, cut all the pieces of tape, and slowly open the box. The Elevator skin is wrapped in paper.



Stabilizer skin is folded in box.



To move the skin, pick it up along the edge, let the bottom hang unsupported.



**STABILIZER SKIN
6T2-4**



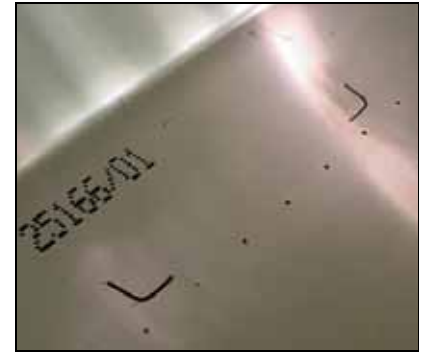
Handle the skin with care!
Lift the skin along one edge only.



Stabilizer skin 6T2-1

Ref. left middle diagram on drawing 6-T-2

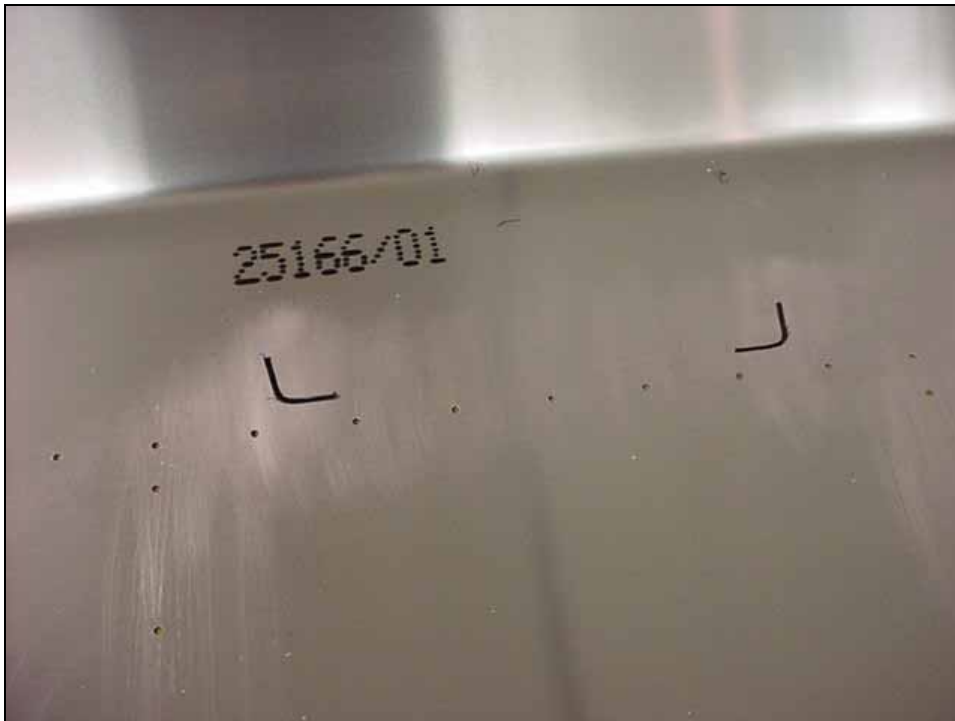
Identify the top and bottom side. The topside is longer than the bottom.



Detail: Cutouts for the Front Spar Attachment 6T2-1 (bottom side only).

ORIENTATION: The side with pre-drilled holes along the aft edge is the bottom side (no holes along top aft edge).

Center line: Mark the aircraft center line on the skin.



Top view (looking down on the inside surface).



CHECK: The flange rivet line is marked on the ribs and spar (stabilizer skeleton).

Position the skin on the skeleton; let the top side overhang down in front of the workbench.

TIP: Use piece of duct tape to temporarily hold the skin to the spar.



Line up the pre-drilled holes in the skin over the front and rear spar. Drill and cleco when spar rivet line is visible.

CHECK: Rivet lines are visible through the pre-drilled pilot holes.



Skeleton is secured to the workbench.

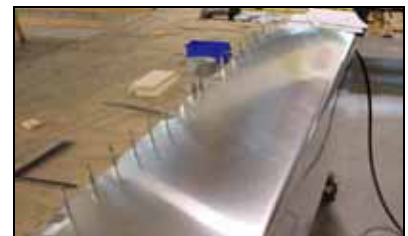


Front Spar Attachment 6T2-1 through the slot cutout.

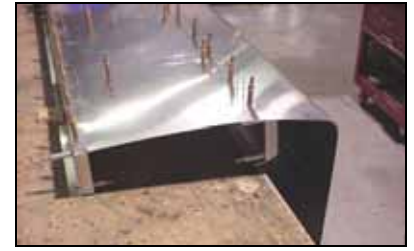
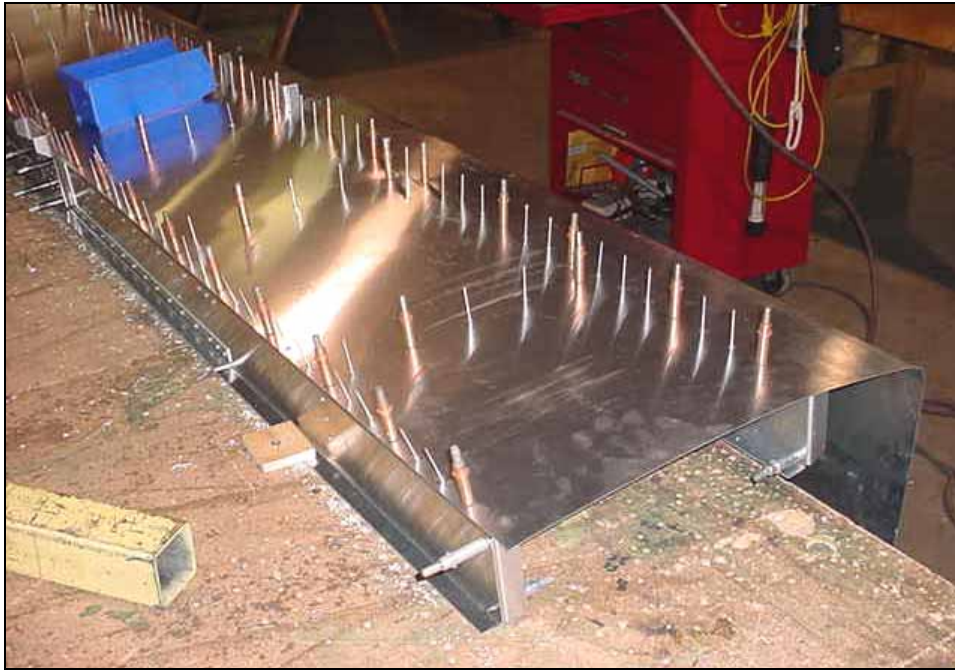
CHECK: Aircraft center line on the skin lines up with aircraft center line marked on the rear spar.



Detail of aft edge: the skin ends approximately even with the spar web.



Drilling sequence: Rear Spar, Center Ribs, Front spar.



TIP: Set the rivets between the clecos; first insert the rivets in the holes, then go along and pull the rivets. Remove the clecos and finish riveting.

Remove the skin, debur and reinstall with clecos in every 3rd hole.



Detail of the machined nosepiece on the riveter (custom heads must be used on both the hand riveter or on the pneumatic riveter when using the A4 or A5 rivets).

NOTE: The diameter of the cup = the diameter of the rivet head.

Rivet the bottom side of the stabilizer skin to the skeleton.

TIP: Keep the riveter square to the skin, no need to push down, let the weight of the riveter bear down on rivet.

CHECK: The riveter does not leave an imprint or mark on the skin. Check there is not gap between the rivet head and the skin.



Let the Rear Spar Attachment overhang past the edge of the workbench.

Turn the assembly over to close the topside of the skin.



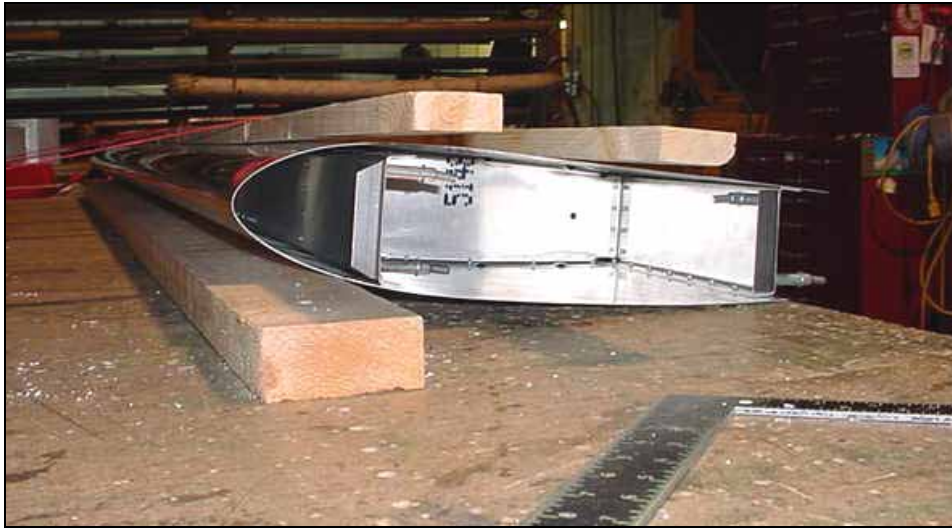
Detail of A4 Rivets before it is pulled (type: flush counter sunk rivet).



Details of an A4 rivet pull with the custom nosepiece (formed dome head).

Trim the top front corner of the attachments to make room for the top skin.

Ref. top middle diagram on drawing 6-T-2



Lay an 8ft long 2x4 board underneath the front part of stabilizer (to raise the assembly off the workbench to make room for the front spar attachment 6T2-2).



Note: Tip rib is installed after the skin is Clecoed to spar.
Trial fit of tip rib.



12 ft. endless ratchet tie down.
Qty: 5



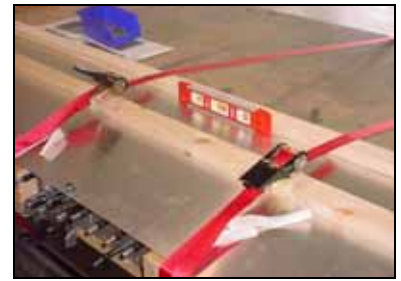
Push down on a furring strip (1x2 boards) to bring the skin down on the skeleton. Do not push directly on the skin with your hands. Use ratchet straps to hold the skin down. Do not over tighten.



#11699
www.highlandusa.com
(Available at Wal-Mart).



Extra set of hands to install straps.



CHECK: The rear and front spars are level.



CHECK: Distance from workbench to leading edge is the same at left and right ends.

Add a piece of 2x4 on the backside of the spar to keep the straps from pushing down on the edge of the skin.
 Straps go underneath the workbench.
 Before drilling check for twist. There should be no twist in the stabilizer.



Clamp the front spar flange to the skin.

Clamp the rear spar flange to the skin.

Drill & Cleco. First the front spar, then the ribs.

CHECK: The front spar rivet line is visible through pre-drilled holes.
 If necessary, readjust the clamps and check that the spars are level.
 Make sure that there is no twist in the stabilizer before drilling.



Mark the rivet line on the “L” angle, then mark the rivet line on skin (top and bottom (front and rear spar “L” angle).



END RIBS
6T1-1
Qty: 2

NOTE: Ribs are symmetrical.



Install the end rib.

CHECK: The aft end of the rib is approximately flush with the aft edge of the top spar flange.

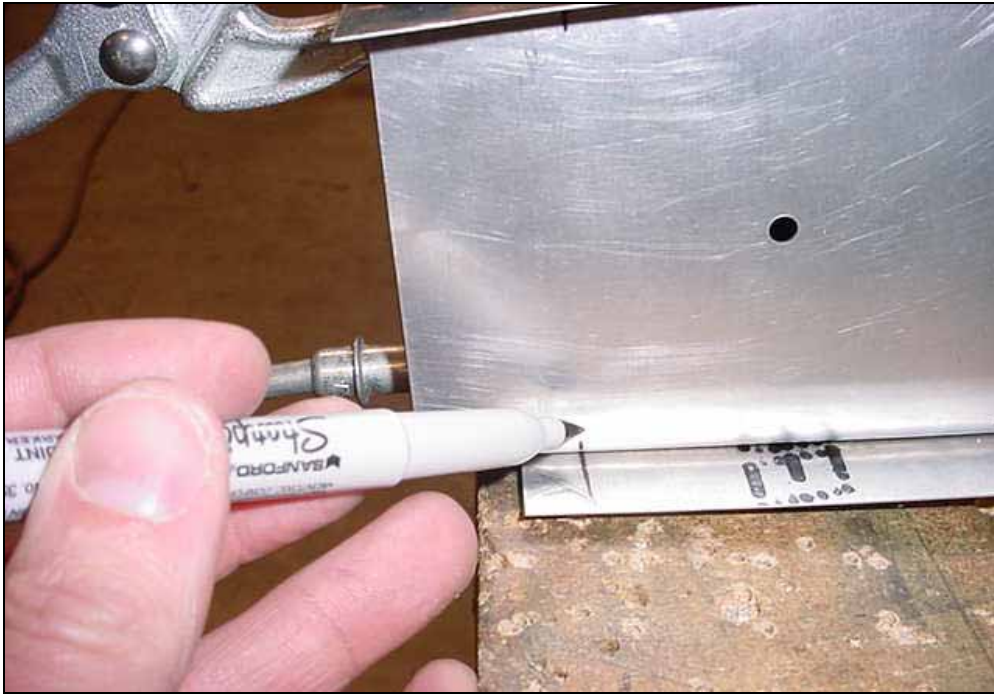
Clamp the rib flange to the spar flange.



Right leading edge



Left leading edge



Transfer the mark from the skin to the end rib.



Drill the skin to the rib flange.

A4 pitch 35
(13 rivets positioned between the crimps in the rib flange).

Drill the end rib to the "L" angles.
Install the left and right end ribs (photo of left end).



Photo of left side; elevator in the down position.



Detail of elevator in down position (underneath looking up).

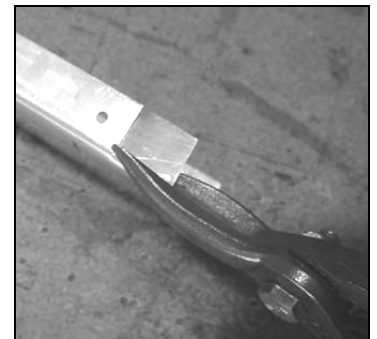
Cut off the bottom aft corner of the end rib flange 6T1-1 (left and right sides).



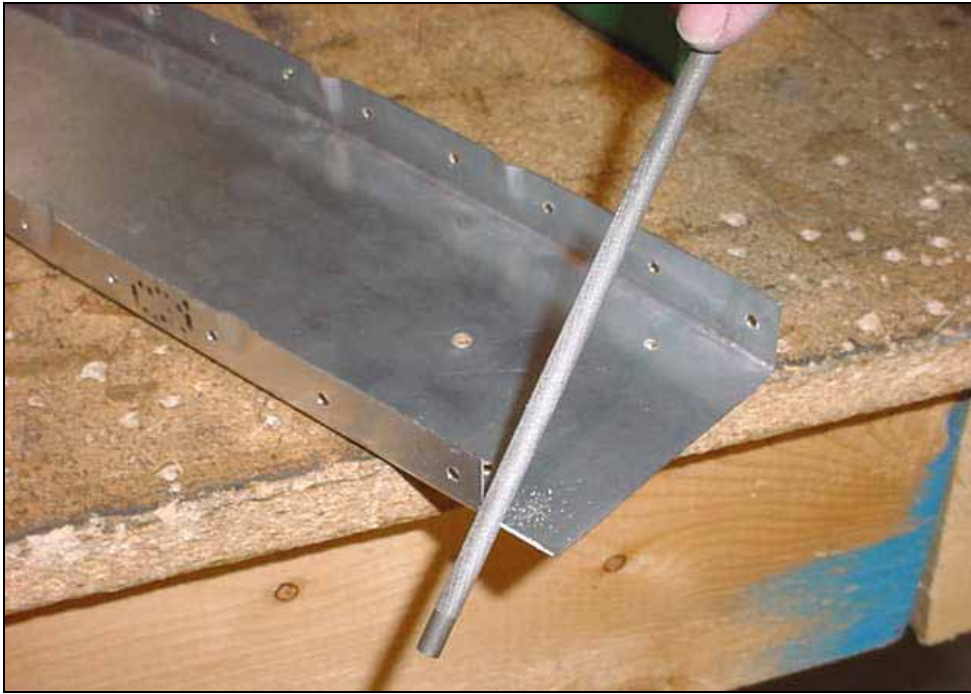
Trace the spar on the flange.



Remove the rib from the stabilizer.



Do not over-cut.



Filed corner relief hole.

If you don't drill a corner relief hole, use a round file to radius the corner. File to the end of the snip marks.



Photo of left side.



Detail of right side.

Photo of left side.