



Handle the skin with care.
Pick up the skin along the front edge.



TRAILING EDGE SKIN 6T5-2

Do not hold the skin by the trailing edge. Use 2 hands to carry the skin.

CAUTION: The edges of the skin may be sharp.



Deburr the edges of the skin.

Pull the tool towards you, do not apply too much pressure or the tool will start to skip.

Using a flat file is also acceptable to deburr the edges of the skin.

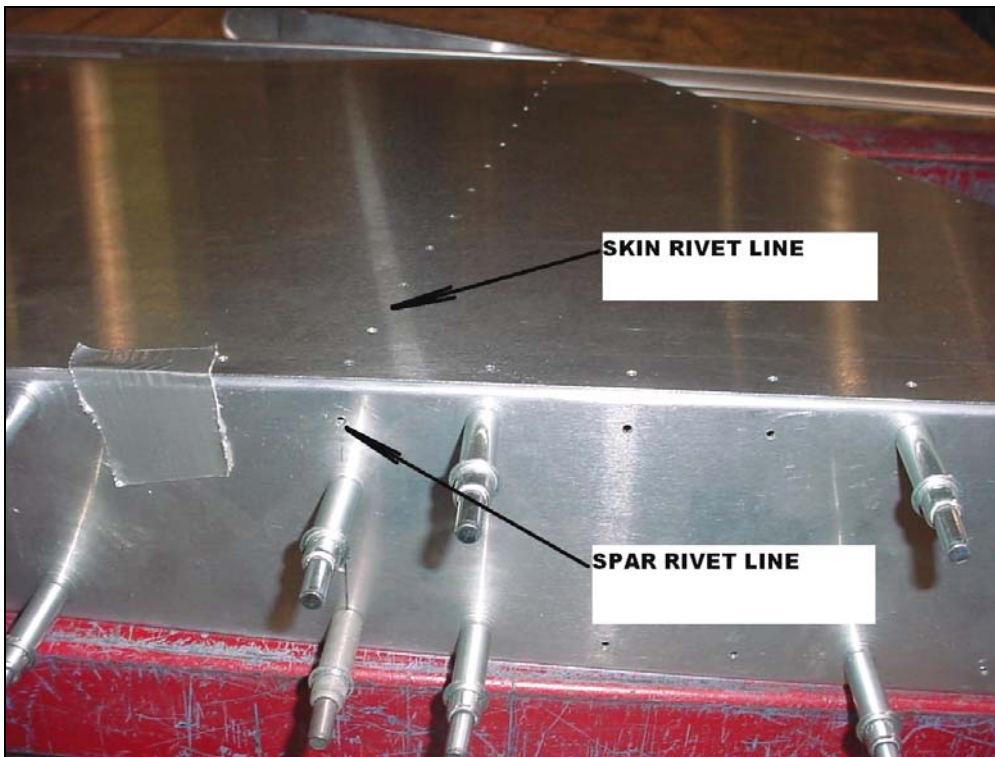


Deburring tool.
Deburs both sides of the sheet at once.



IMPORTANT: The spacer is always positioned under the bottom trailing edge of the rudder assembly (between the workbench and the beam).

Square 2"x2" Steel beams (5ft long) or straight wood boards, such as a 2x4, can also be used instead of the steel beams.



Only one end of the beam is raised with the 3/4" spacer.

Note: The purpose of the beams is to support the trailing edge when the spacer block is positioned under the bottom trailing edge.

Line up the skin rivet line with the spar rivet line. Check the two rivet lines at RR#2 and RR#3.
Tape the skin to the spar.

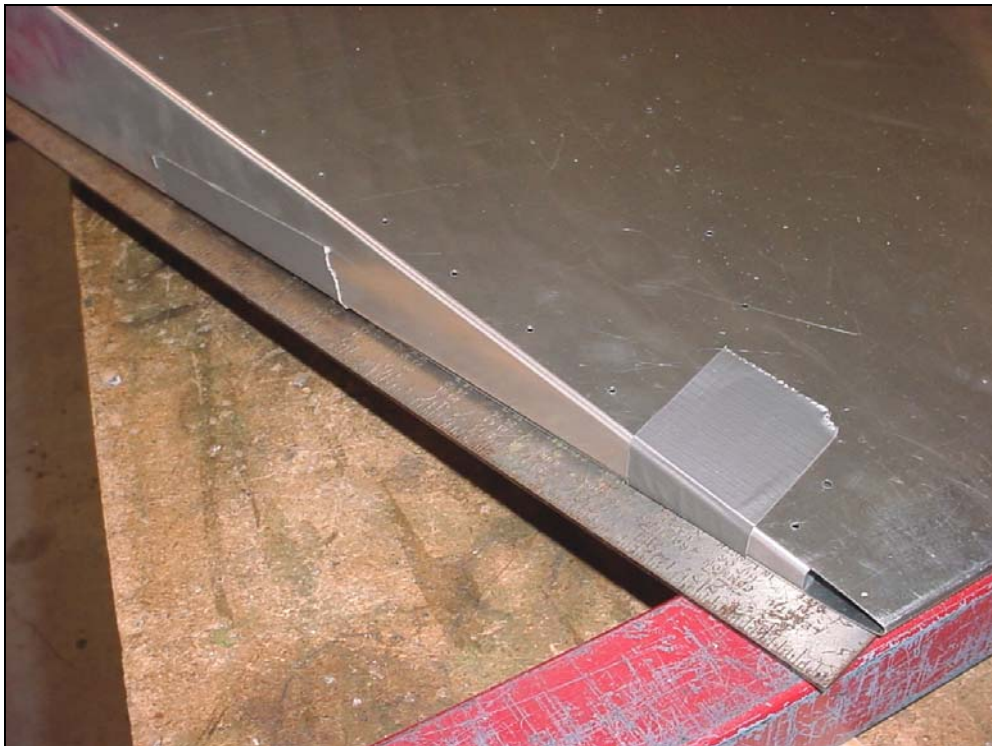


Position a large carpenter square across the two beams. The purpose for the straight edge is to eliminate the bow (sag) in the bottom skin.



Line up the front edge of the skin even with the front of the spar web.

Drill and Cleco through the spar. 4 clecos (RR2, RR3, RR4 and one at the top of the spar).



Add another piece of tape lengthwise to hold the bottom skin to the rib.

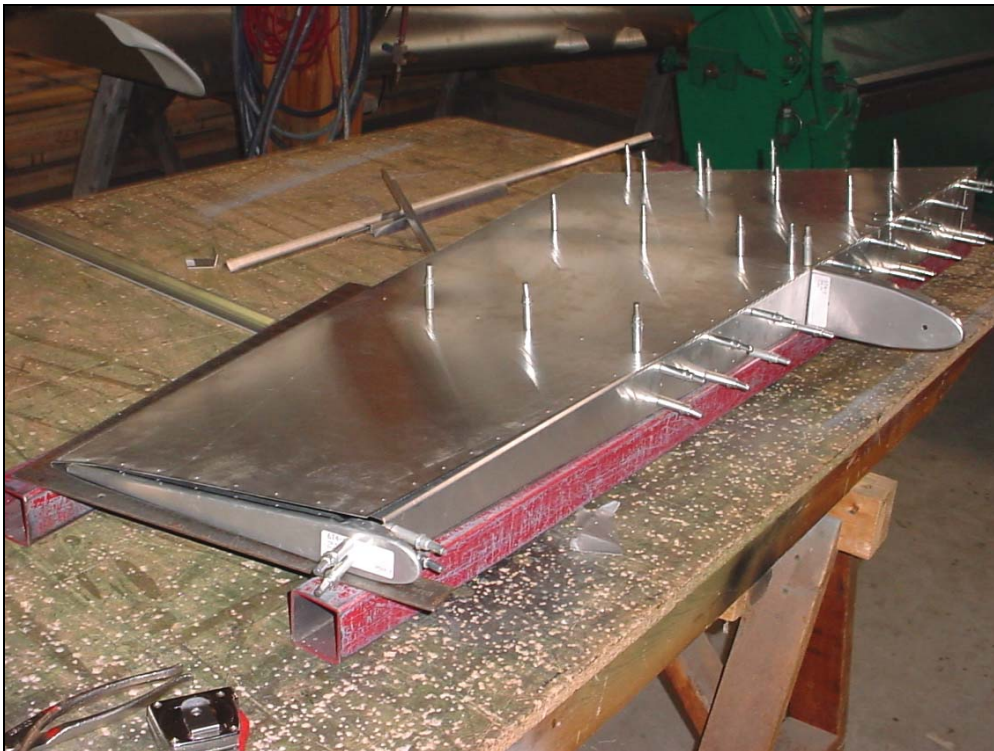


Start with a piece of tape underneath the bottom skin, push down on the skin to keep the trailing edge in line with the sides of the rib. Draw the tape over to the top skin. Do not cover the last hole.



Lift up on the spar, reach in to move the ribs. Adjust the position of the ribs until the flange rivet line is visible through the pre-drilled holes in the skin.

Drill and Cleco RR#2, RR#3 and RR#4
Start at the trailing edge and proceed forward. Cleco every 3rd hole.



Lay a large carpenter square across the top end of the steel beams.

Or a yard stick (or any other material that is not too thick with some rigidity).

Cleco the bent strip and tip rib to the spar.

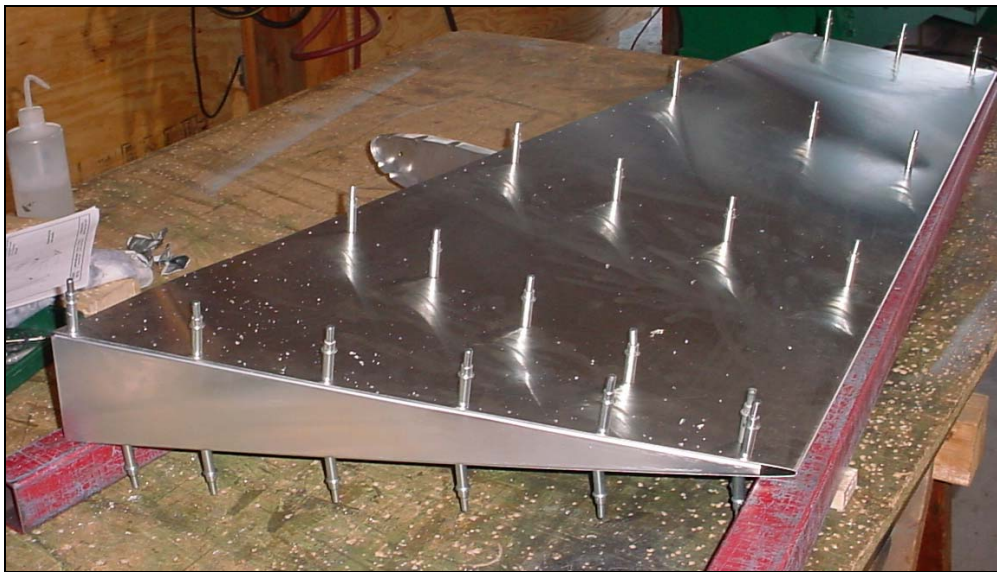


Push the skin flap on the straight edge.

Use 2 pieces of tape.



Start with a piece of tape underneath the bottom skin (do not cover up the last hole).



Finish drilling between the clecos.

Turn the rudder over. Reposition the $\frac{3}{4}$ " spacer block under the bottom aft corner (between the workbench and the beam).

Start by clecoing the last hole in each rib. Cleco every 3rd hole. Then go back and drill between the Clecos.



LACQUER THINNER

Do not rivet on top of labels. To remove labels, soak it with lacquer thinner, it will peel right off.

CAUTION: Before squeezing the plastic container, cover up the little hole in the top with your finger.



Keep a hand on top to keep the skin from jumping out.

6T5-1 Leading Edge Skin

Slide the Nose Skin in between the Spar and the Rear Skin. Start at the bottom, squeeze the left and right ends to slide them between the rear skin and the spar. When positioning skin, **DO NOT** squeeze from the leading edge of the skin, this will cause denting in the radius.



Push down on the nose skin to close the gap between the leading edge of the nose rib and the skin. Grab the ends of a long piece of duct tape 10" and tape down the nose skin to the sides of the rear skin.

Line up the aft top corner of the nose skin even with the top of the rear skin.



On the bottom flange of the nose rib, mark a line approximately 5mm from the web



Position the bottom of a square on the 5mm line. Bring the top of the nose rib against the top of the square.



With the nose skin taped to the side skin, reposition the bottom of the square against the bottom of the rib web and gently tap the top of the nose rib towards the tip of the rudder. This will stretch the tape and hold the nose rib at 90 degrees to the spar.



With the square on the 5mm line, tape the sides of the nose skin to the rear skin (left and right).



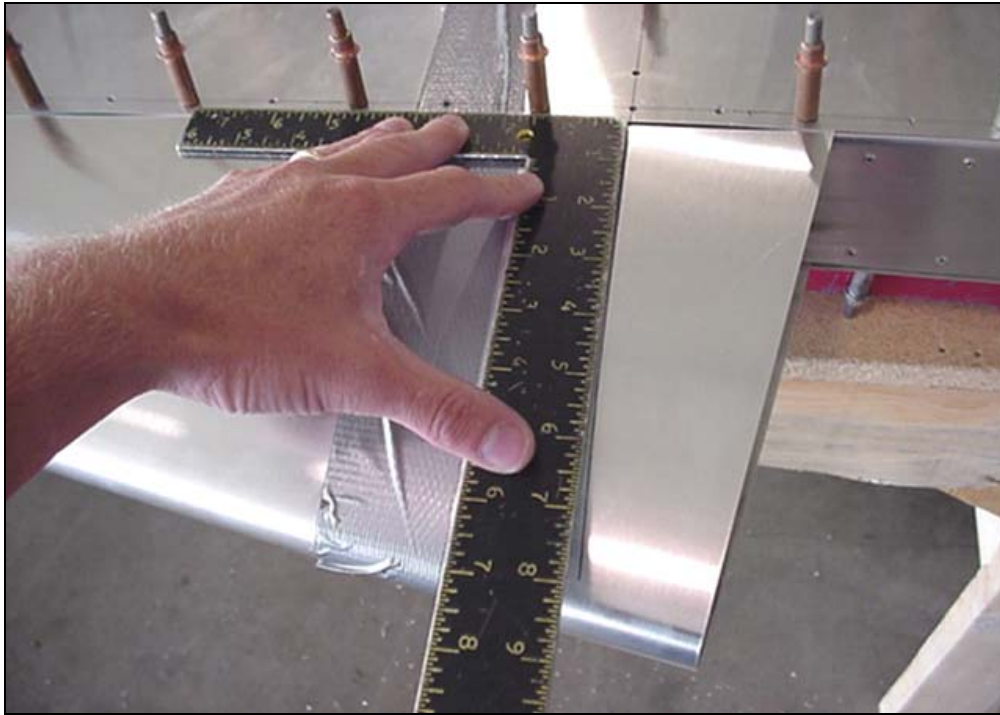
Spacer under aft bottom corner.

Before drilling make sure the Rudder is correctly positioned on the boards or beams with the spacer under the bottom trailing edge.



Start drilling from the center, working towards each end.
Drill both sides.

Trace around the Tip Rib as tight as possible to mark the overhang. This area will be trimmed when the skin is removed.
Do not try to mark the overhang by extending the top edge of the rear skin; chances are you will trim the skin below the rib!



6T5-1 Leading Edge Skin

Layout the rivet line for the Nose Rib. The Nose Rib will be in line with Rear Rib #3. Using a square to position the rivet center line will work very well.



5 RIVETS A4

Layout the rivet pitch between the crimps. The first hole is approx. 10mm from the end of the rib flange. Before drilling make sure that the holes are between the crimp areas.



6T5-1 Leading Edge Skin

HINT: Handle the .016" skin with care.
To remove a crease, push the inside of the skin with the backside of a spoon.

Un-cleco the Leading Edge Skin.

The distance from the edge of the skin to the center of the holes may be more than 10mm (as shown above). The distance may also be uneven at the top and bottom (the skin is supplied slightly oversized to ensure proper edge distance).

Layout a 10mm line from the center of the rivet.

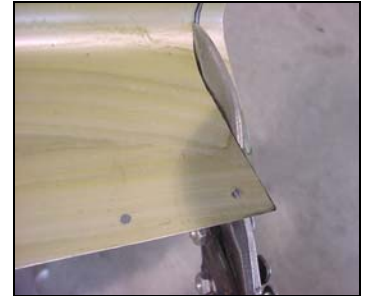


6T5-1 Leading Edge Skin

Trim off the excess material from the Nose Skin. Finish by filing to straight smooth line.



“Red” snips



SUGGESTION: Hold the snips upside down to make it easier to continue to trim around the leading edge.

Cut the top of the Nose Skin 6T5-1 flush with the Tip Rib. First snip a couple of “rough cuts” to practice holding the snips “upside down” to work around the leading edge.

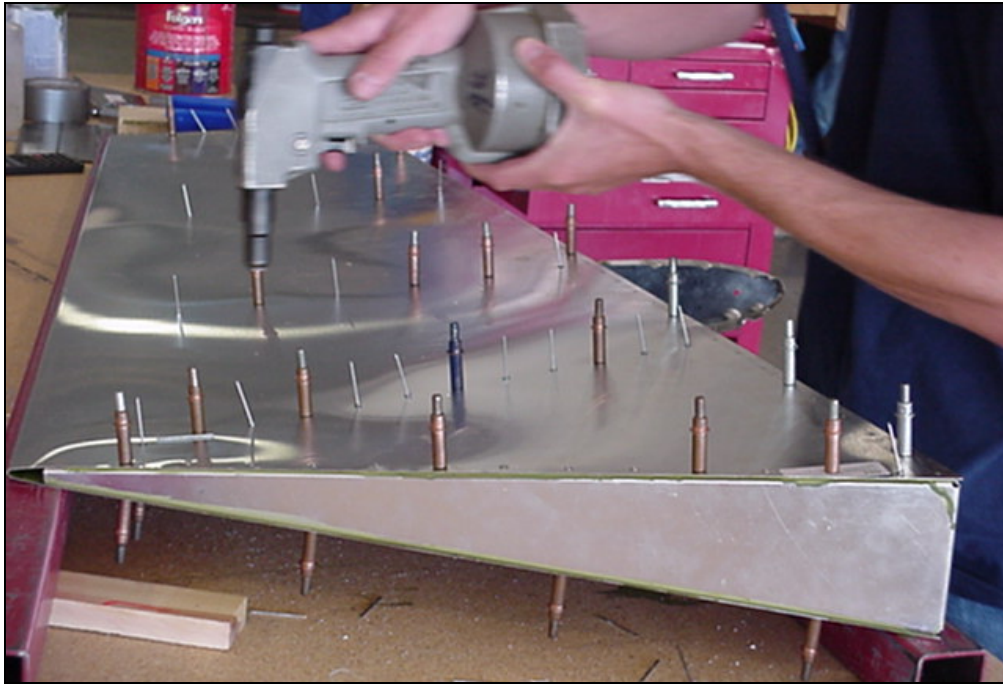


Cut to remove the line



Looking down at the nose skin.

File to remove any sharp edges once the cut is complete.



OVERLAP: Cleco the nose skin 6T5-1 overlapping on the outside of the rear skin 6T5-2.

Don't rivet the lower section below the Nose Skin on the Spar, just cleco. This will be done later when fitting the Spar Fairing (6T5-4 Fairing).

Rivet the assembly with A4 rivets.

Cleco both sides of the rear skin to the ribs. Cleco one side of the Nose Skin, then Cleco the other side of the Nose Skin to the spar. Cleco every 3rd hole.



Line up the trailing edge in the middle of the spar at the top, then check the bottom.



There is no twist in the rudder when the trailing edge splits the tapered spar down the middle.