

# STOL CH 801 WING ASSEMBLY

## SECTION 15

**“Installing Outboard Wing Tip”**

**AND**

**“Flap Attachment Stiffeners”**

**AND**

**“Drill and Rivet Leading Edge Skin to  
Rib / Slat Stiffeners”**

### **Compass Check**

1. Cut skin to size.
2. Locate and drill skin.
3. Fit fiberglass tip.
4. Install wiring.
5. Rivet tip and skin in place.

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## SECTION 15

**“Installing Outboard Wing Tip”**

**AND**

**“Flap Attachment Stiffeners”**

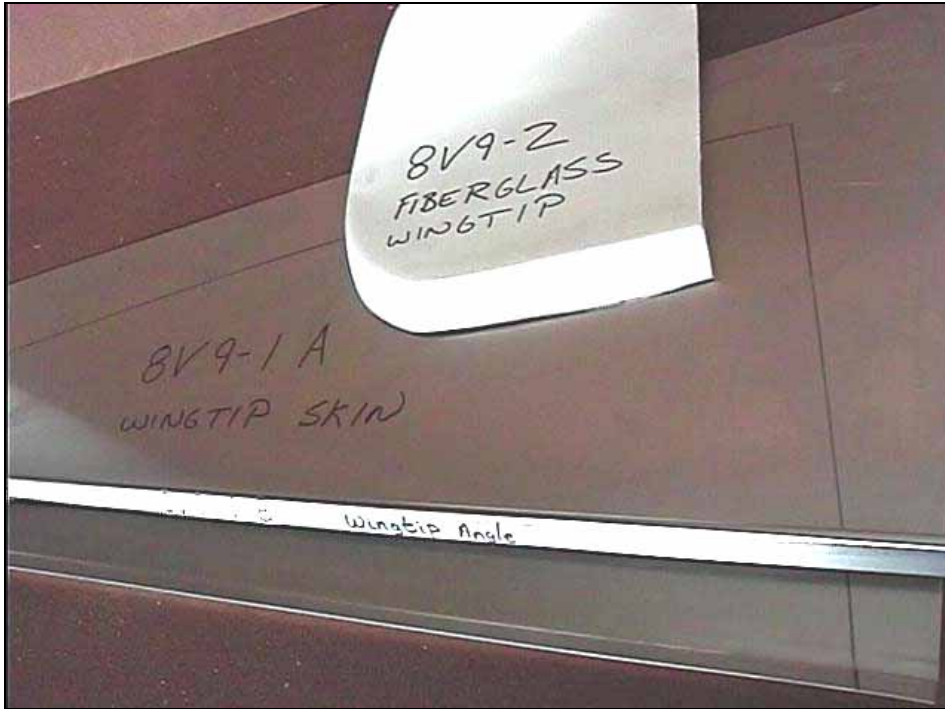
**AND**

**“Drill and Rivet Leading Edge Skin to  
Rib / Slat Stiffeners”**

### **Helpful Building Tips**

1. Just like the root end tip, work carefully.
2. Keep “L” and fiberglass tip in alignment to develop a nice smooth skin installation.
3. This is a highly visible area, concentrate your efforts on appearance.

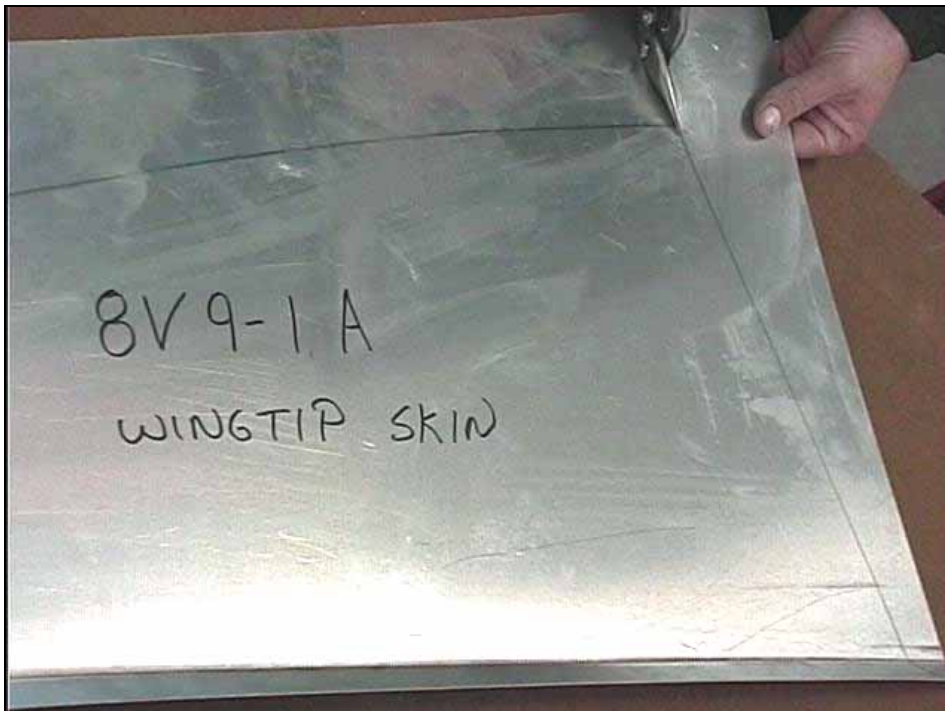
**SECTION 15: Finishing the Wings...**



file V2-29

Photo V15-1

The outboard wing tip skin and fiberglass parts.

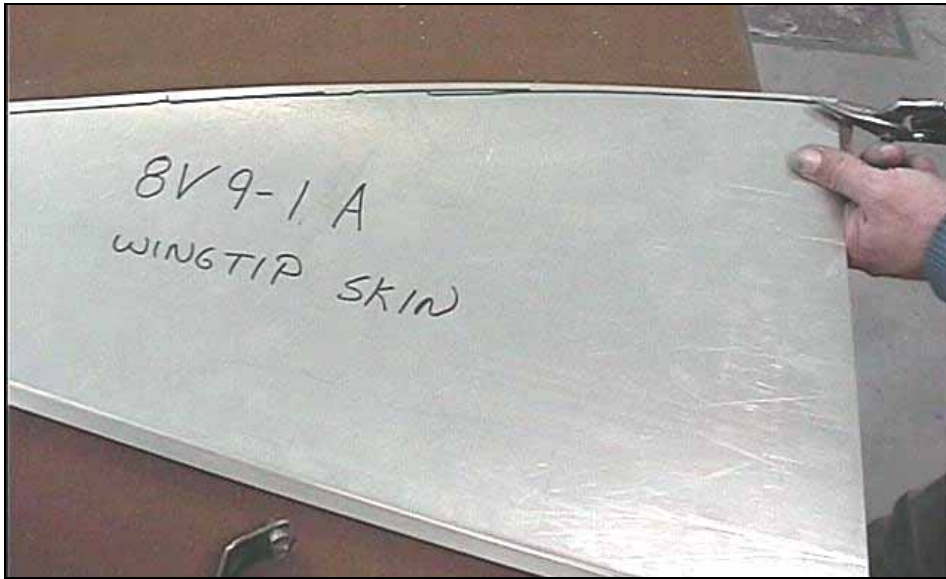


file V2-40

Photo V15-2

The wing tip skin is supplied with its cutout profile traced on it.

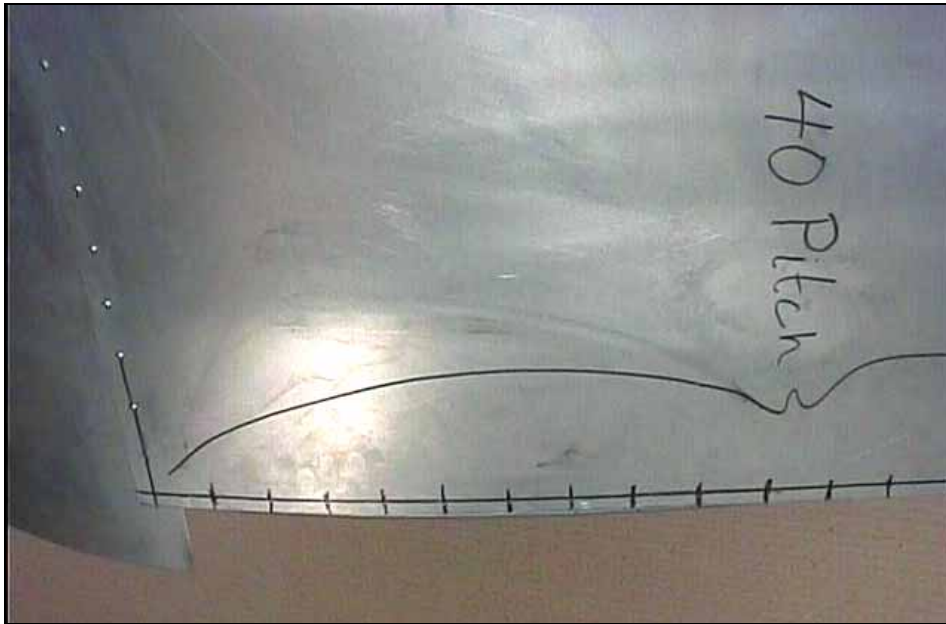
Cut approximately 3 to 6mm oversize.



file V2-43

Photo V15-3

Now trim to just inside the line.



file V2-30

Photo V15-4

Lay out the rivet pitch lines on the top and bottom rear wing skins 10mm in from the edge.



file V2-31

Photo V15-5

Position the wing tip angle, part 8V9-1B at the edge of the top skin as shown.



file V2-32

Photo V15-6

Transfer the rivet locations from the top skin to the wing tip angle. See photo V15-7.



file V2-33

Photo V15-7

The crimps are placed between the rivet positions transferred from the wing skin earlier.

Crimp the wing tip angle to conform to the share of the top wing skin.



file V2-34

Photo V15-8

It's best to use a 3/32 drill then open holes to #30 after all items have been installed.

Drill and cleco the wingtip angle to the top rear wing skin.



file V2-41

Photo V15-9

The forward edge of the 8V9-1A skin will extend approximately 40mm past the front of the main spar.

See photo V15-13 and V15-14.

Place the rear wing tip in position.  
 Locate the bottom edge first.  
 Drill and cleco 4 - 5 evenly spaced holes in the bottom edge.  
 Locate and drill the top edge to the wing tip angle in 4 - 5 holes.  
 Check fit - proceed to drill the rest of the holes.



file V2-42

Photo V15-10

Drill and cleco every fourth to fifth hole.

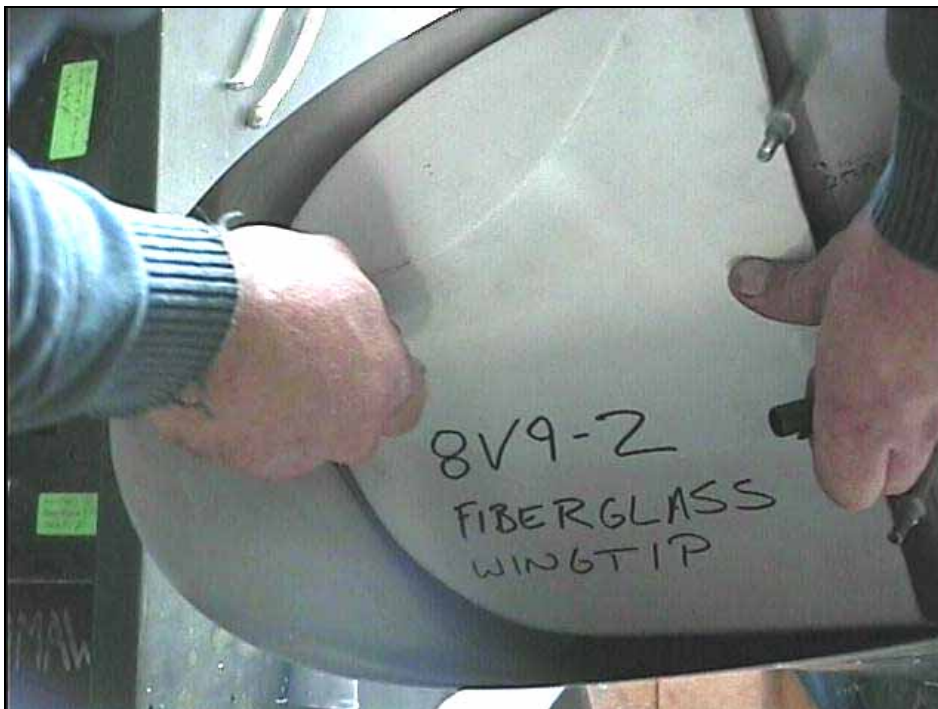


file V2-44

Photo V15-11

The rivets in the "L" on the spar are pitched at 40mm.

Mark skins and tip for final trim.



file V2-46

Photo V15-12

Trim the nose skin oversize then cut progressively smaller while recharting the fit of the fiberglass tip. A number of trial cuts are faster than replacing the skin.

Make a trial fit of the fiberglass wing tip and mark roughly where to cut the skin.





file V2-48

Photo V15-13

Refit the fiberglass tip and remark the trim line. Again cut over size leaving a 1/4 - 1/2" of excess material.



file V2-49

Photo V15-14

Remove the rear tip skin.  
Fit the fiberglass, layout rivet lines and drill 3/32.

The fiberglass tip does not extend back to the spar; it is attached to the forward edge of the wing tip skin. Position the fiberglass so that it aligns smoothly with the rear skin that is riveted to the spar.



file V2-50

Photo V15-15

Drill all the holes.

Keep a close eye on the position of the tip in relation to the  $\mathcal{L}$  on the spar.  
A smooth line from the fiberglass to the "L" and onto the tip skin is objective.



file V2-56

Photo V15-16

Install a piece of std  $\mathcal{L}$  on the rear spar.



file V2-57

Photo V15-17

Two - A4 rivets



file V2-58

Photo V15-18

The L should be flush at either end.



file V300-1

Photo V15-19

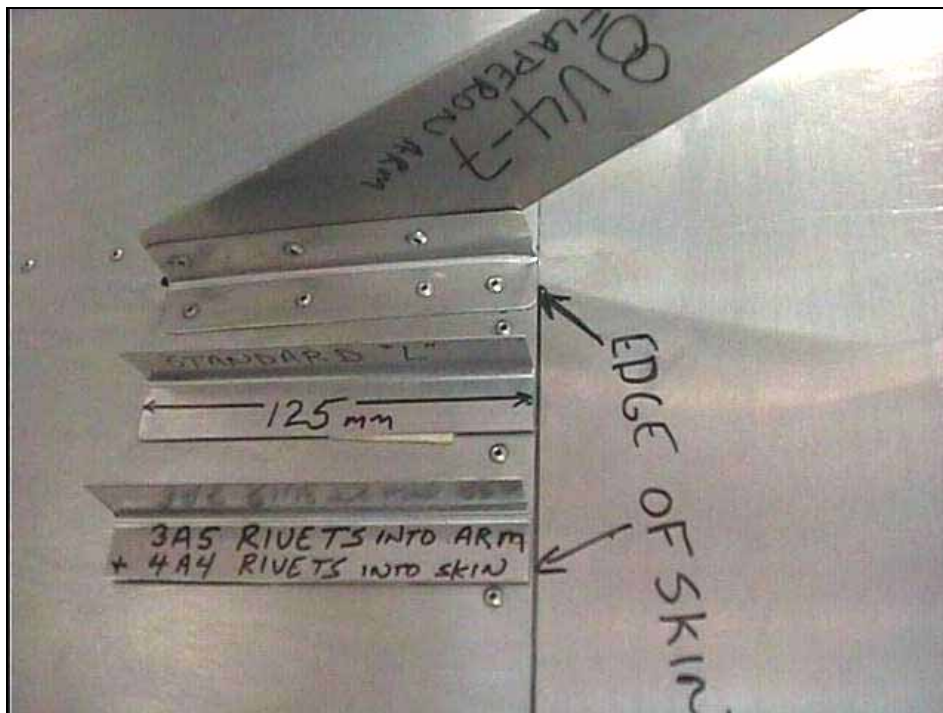
Re cleco the fiberglass tip and tip skin in position. Mark and trim the skin to fit the contour of the fiberglass tip. Drill a line of rivet holes to attach the fiberglass tip to the tip skin.



file V200-99

Photo V15-20

Fit and wire the optional navigation / strobe lights (if so equipped) to the fiberglass tip. Rivet the tip and skin in place.



The last task is to install the std L stiffener on the flap arm.

file V200-94

Photo V15-21

Cut and attach one piece at each arm as shown.

That's it. The wing is complete. Repeat the process for the second wing and job is done except for the final trimming of the root skin which is done when attaching the wing to the fuselage.

I have checked my work and parts list and confirm to myself, that all items listed in this portion of the elevator hinge have been installed.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

**Revision List:**

<b>Revision</b>	<b>Summary</b>	<b>Revised By:</b>	<b>Date:</b>
3.0	Reformat	SH	8/18/1999