

# STOL CH 801 FLAPERON ASSEMBLY

## SECTION 2

### “INSTALLING THE LEADING EDGE SKIN (NOSE SKIN) AND THE SPLICE PLATES”

#### Compass Check

1. Make cutouts in lower side of leading edge skin.
2. Rivet leading edge skin to lower side of rear skin assembly.
3. Wrap and rivet upper side of leading edge skin.
4. Install splice plates.

# STOL CH 801 FLAPERON ASSEMBLY

## SECTION 2

### “INSTALLING THE LEADING EDGE SKIN (NOSE SKIN) AND THE SPLICE PLATES”

#### Helpful Hints

1. Mark top, bottom on skins.
2. Identify each leading edge skin and rear skin pair as a set to avoid mixing them.
3. Lay out all rivet lines from the rib centers.
4. Use ratchet straps.
5. Don't rush the splice plate installation.

**STOL CH801 FLAPERON ASSEMBLY - SECTION 2**  
"INSTALLING THE LEADING EDGE SKIN AND THE SPLICE PLATES"



file FR100-24

Photo FR2-1

The flaperon leading edge skin.

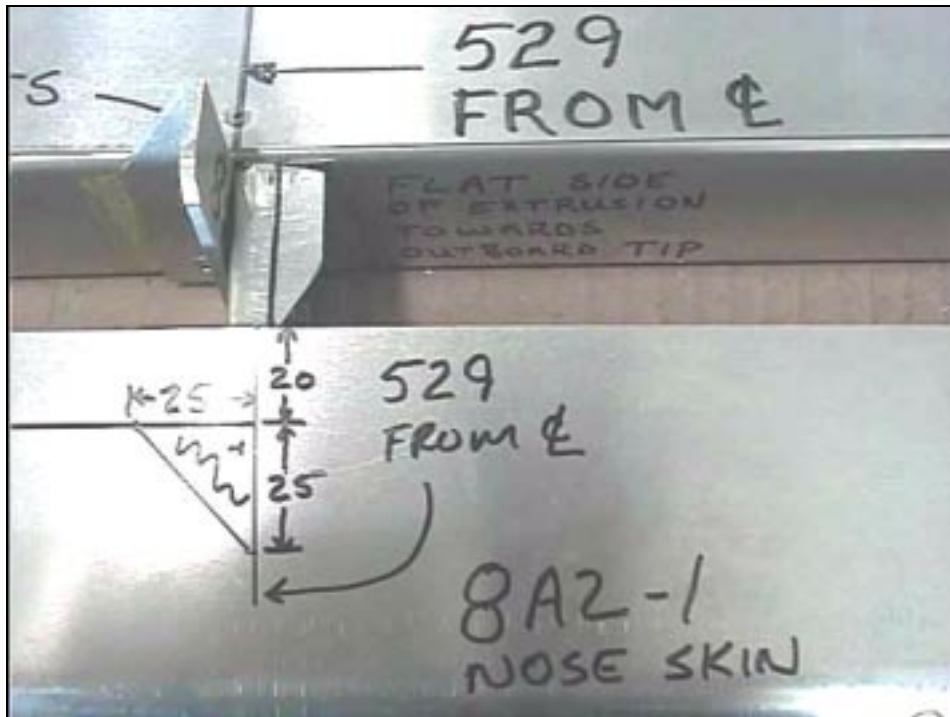


file FR100-25

Photo FR2-2

This is how these two skins are positioned.

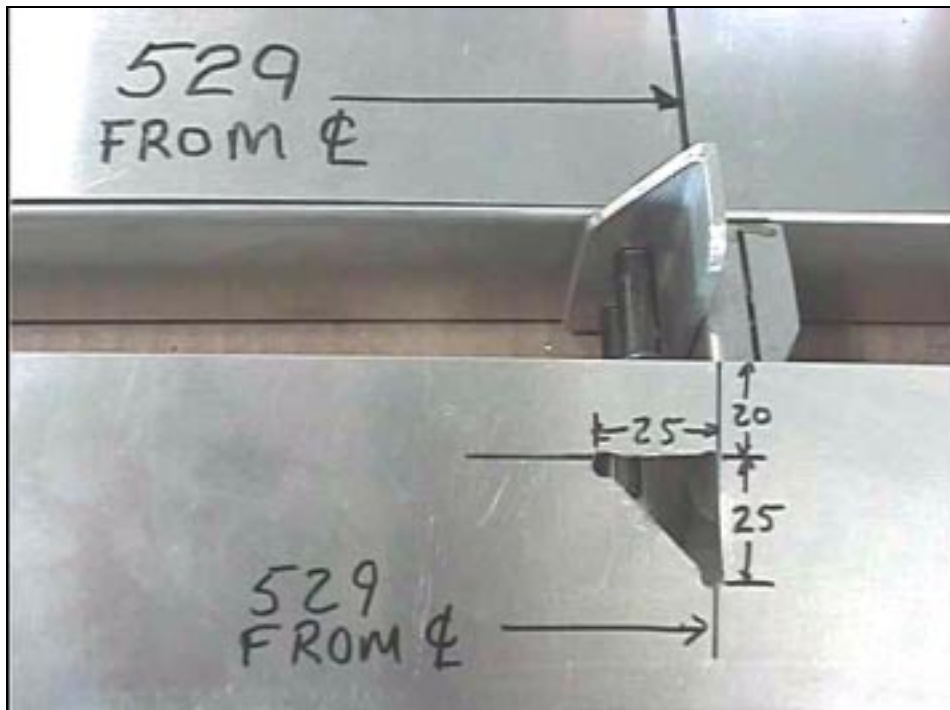
The first part of the leading edge skin installation is to fit and drill the lower side.



file FR100-19

Photo FR2-3

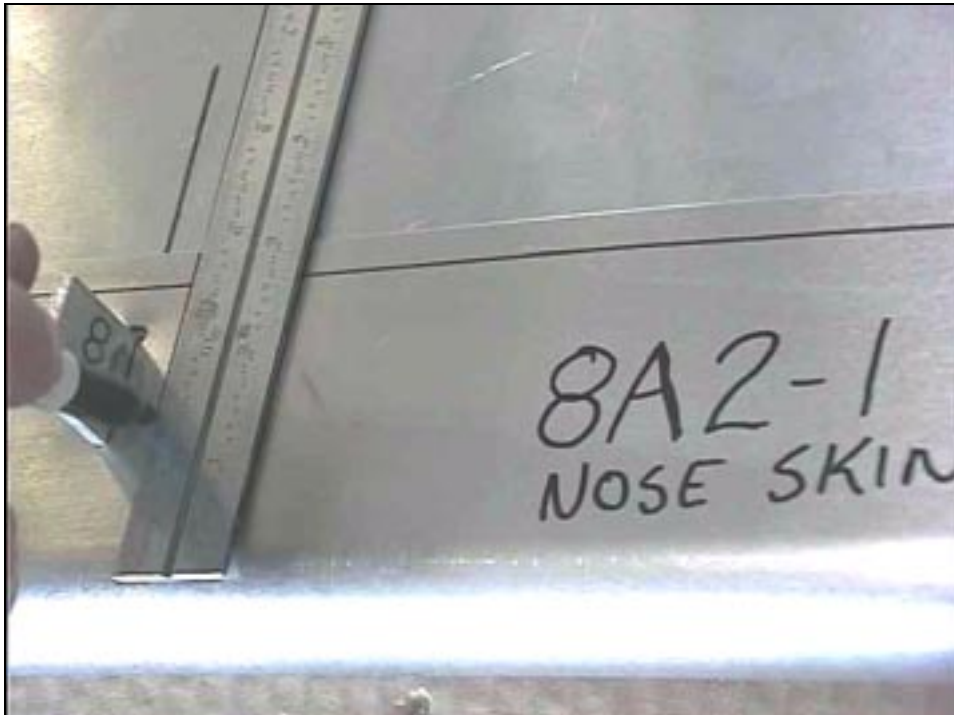
Position the leading edge skin in front of the rear skin assembly with the ends of both flush with one another. Layout the cutouts for the slat attachment brackets.



file FR100-20

Photo FR2-4

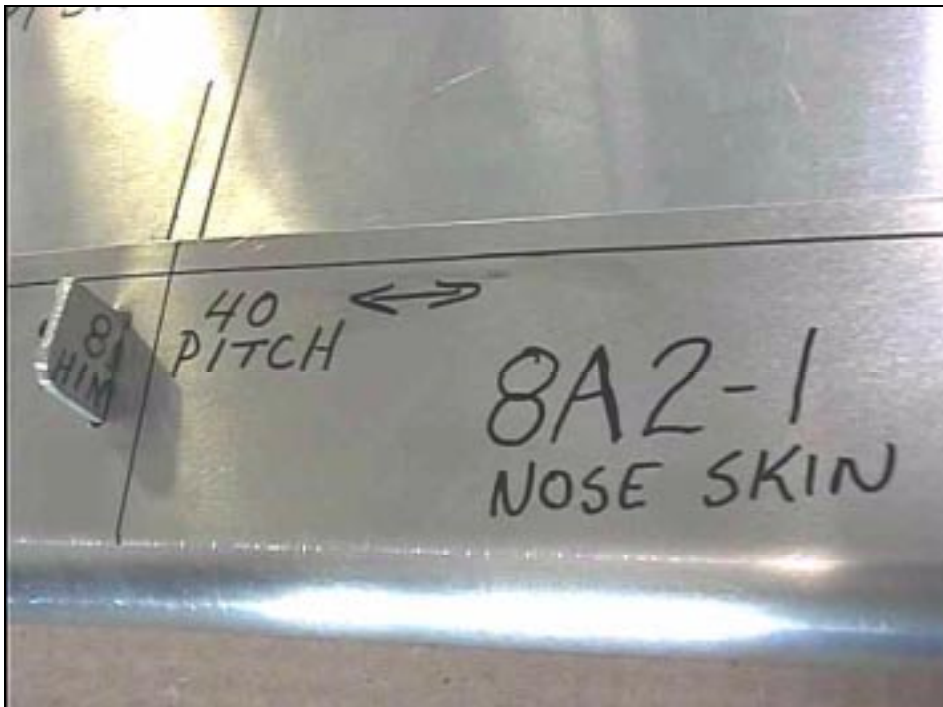
Drill a 1/4" diameter hole at each corner of the layout, cut and trim the cutout to size.



file FR100-26

Photo FR2-5

Place the skin in position. Extend the nose rib centerline from the rear skin assembly onto the leading edge skin.



file FR100-27

Photo FR2-6

Mark a centerline the length of the skin, 10mm in from the rear edge. Pitch out the rivet position along this line starting at each of the rib rivet centerlines.

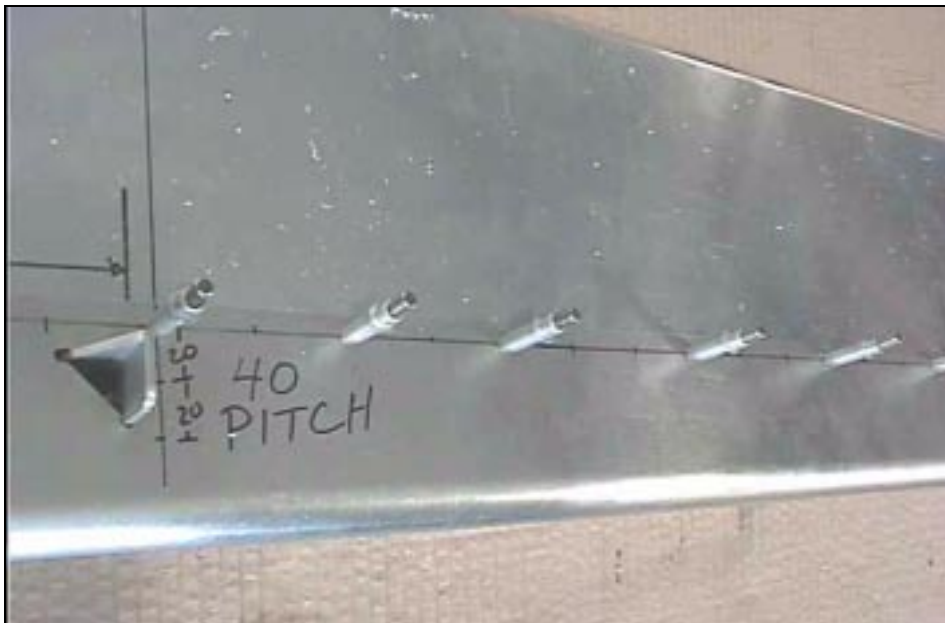


Set skins parallel to one another.

file FR100-28

Photo FR2-7

The leading edge skin overlaps the rear skin by 20mm. Position the leading edge skin and clamp one end. Use an adjustable square to measure from the rear of the rear skin to the rear of the leading edge skin. Set and clamp the other end of the assembly to that dimension.



Drill at 3/32, then open to #30 later.

file FR100-30

Photo FR2-8

Drill and cleco every second to third hole. Layout the pitch for the nose rib. Then drill and cleco. Check that everything is aligned nicely, drill all holes with a #30 drill, deburr and rivet together.





file FR100-34

Photo FR2-9

Turn the assembly right side up, wrap the leading edge skin in place with a ratchet strap located at each nose rib.  
Take a measurement as shown in the photo FR2-9.



file FR100-35

Photo FR2-10

The edges of the skin are to be parallel with one another.

Use the same measurement taken in photo FR2-9 and adjust either end of the assembly to match.



file FR100-36

Photo FR2-11

Sight down the inside of the assembly to confirm that the skin is tight to the nose ribs.



file FR100-38

Photo FR2-12

Extend the nose rib rivet line from the rear skin forward over the leading edge skin.





Double check the location of these pitch lines before drilling.

file FR100-40

Photo FR2-12

Layout the rivet pitch on the nose rib as well as the pitch along the length of the leading edge skin.



file FR100-42

Photo FR2-13

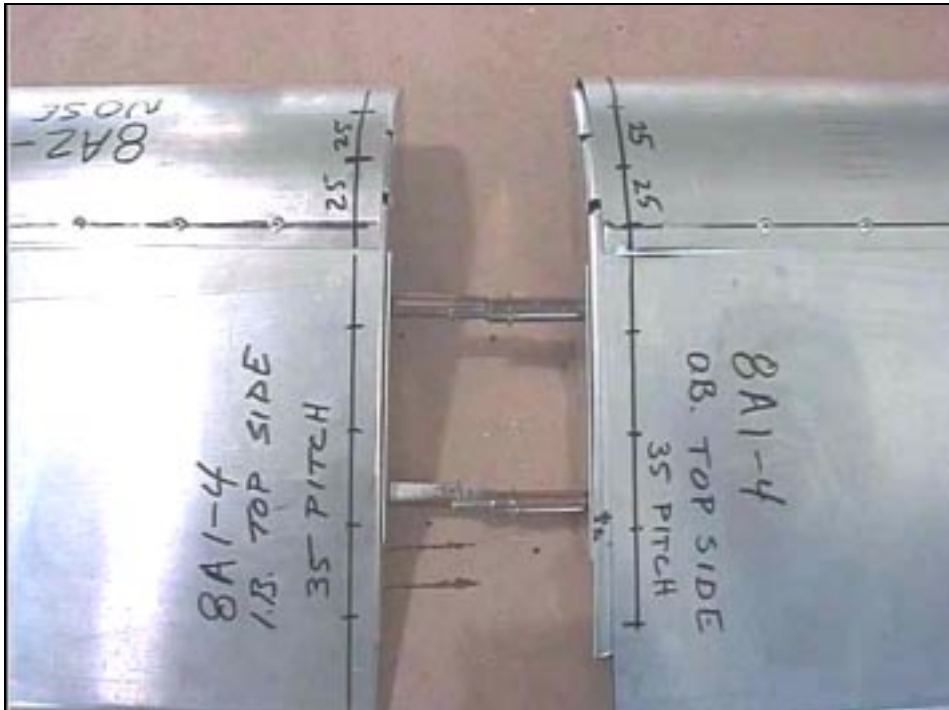
Drill every second to third hole and cleco. Check the assembly for trueness.  
Open all holes with #30 drill, deburr and rivet.



file FR100-50

Photo FR2-14

After riveting the flaperon skins assembly it will look like this.  
Complete the other three section to this point of assembly.



file FR100-49

Photo FR2-15

For this stage disregard the four clecos in the photo.

Install an end rib in each half of the flaperon assembly at the center location - Refer to photo FR1-1.  
Layout the rivet location, drill and rivet.

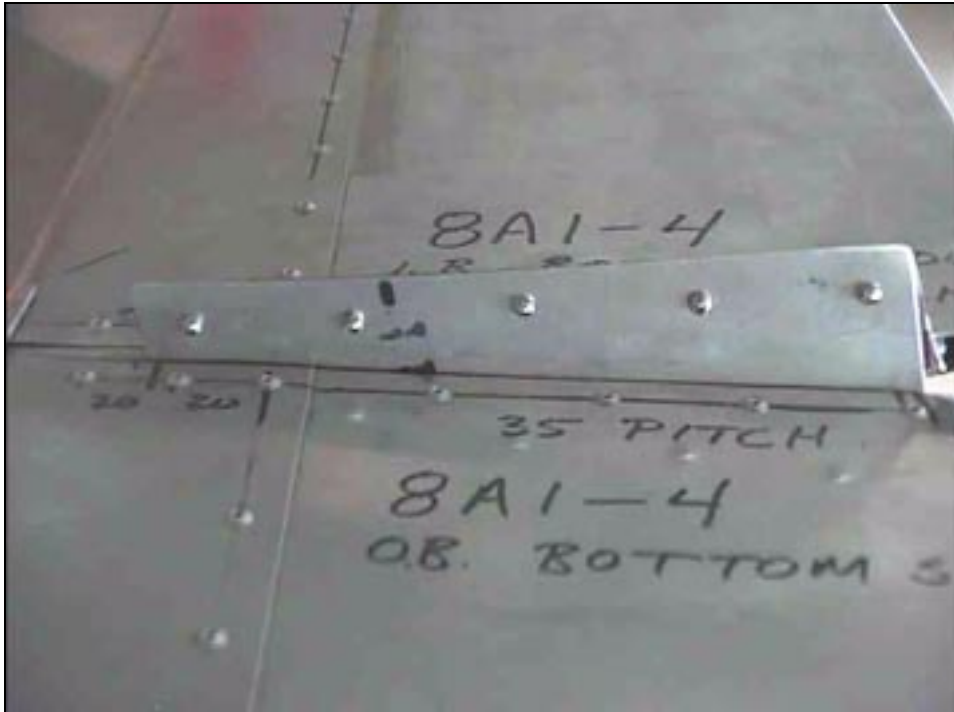
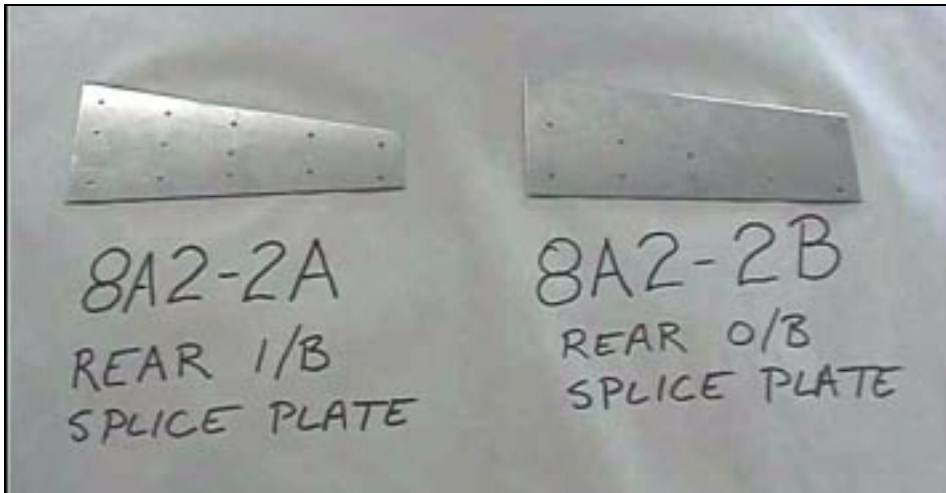


Photo shows the splice plates riveted however, do not rivet at this time.

file FR100-68

Photo FR2-15

The assembly is spliced together at the centerline.  
 A splice plate is installed on the side of each of the center location ribs.  
 The splice plates then riveted together.



Part # 8A2-2B is mounted on the outboard section of the flaperon.

file FR100-69

Photo FR2-16

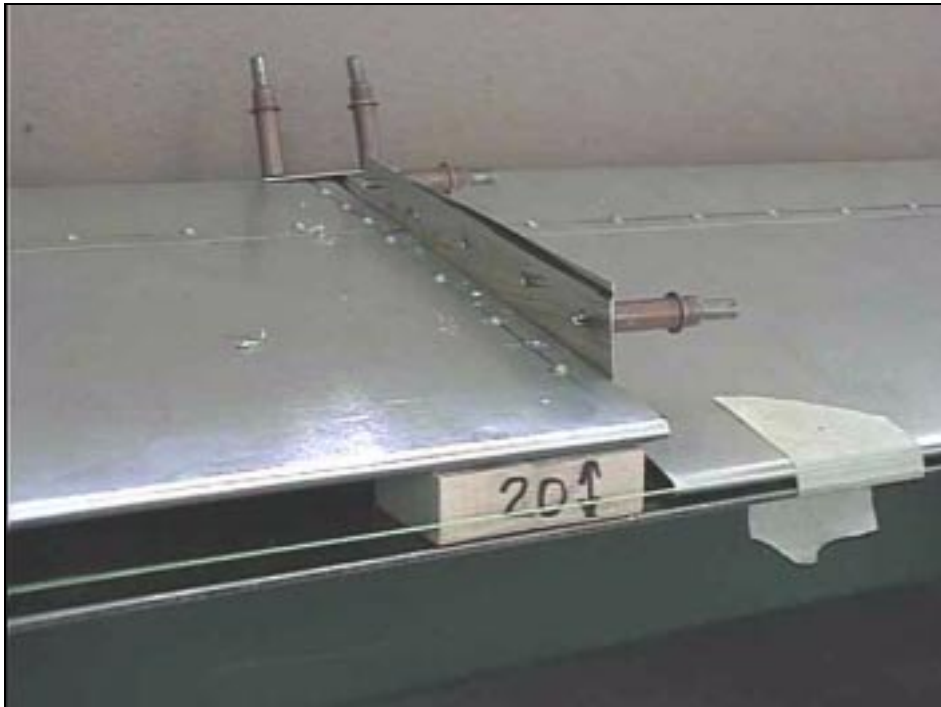
Details of the splice plate



file FR100-70

Photo FR2-17

Locate each splice plate as shown above.  
The lower edge and small end flush with the rib.



file FR100-51

Photo FR2-18

Position the two flaperon sections as shown. Make sure your table is flat. We used a thread pulled taut to aid in the alignment. The 20mm blocks are placed under each end of the inboard section.

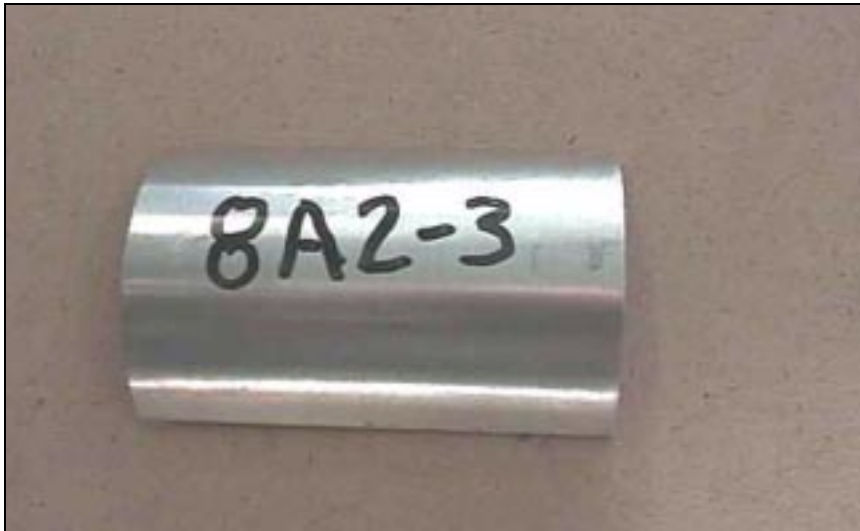
The flat table and two 20mm blocks are important. There is a lot of flexibility in the splice plates therefore the straightness of the two sections is not overly critical.



file FR100-52

Photo FR2-19

Drill five evenly spaced #30 holes 10mm from the bottom edge of the splice plates and cleco together.

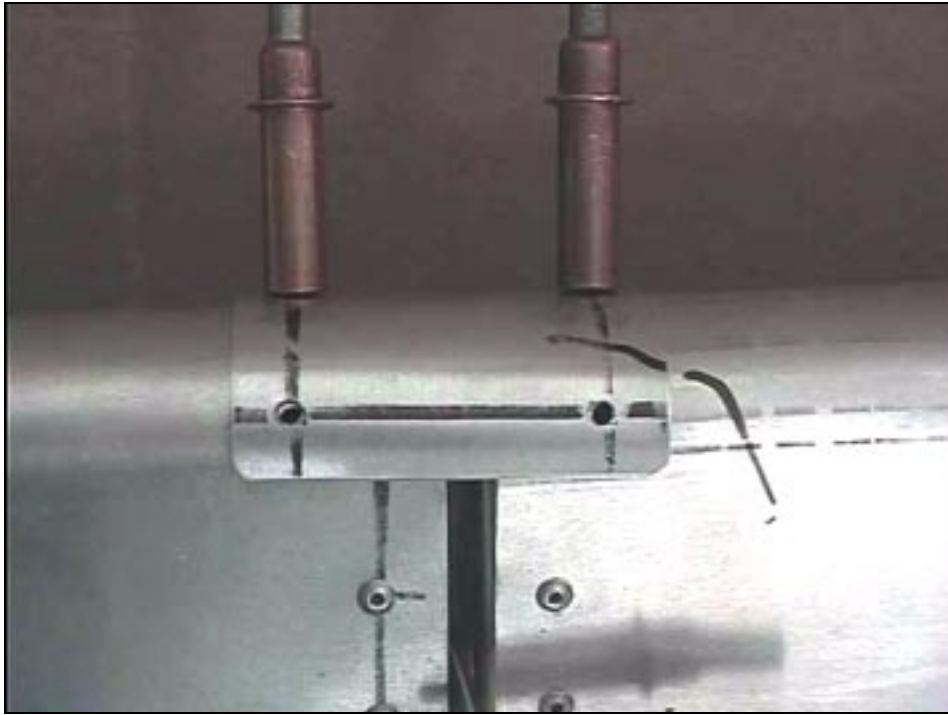


file FR100-54

Photo FR2-20

Shape the leading edge splice plate to fit at the forward edge of the assembly.





file FR100-55

Photo FR2-21

Install the splice plate as shown. Use a #30 drill and cleco.  
That's it for now, don't rivet the sections together yet.  
They are easier to store as is.

The rest of the flaperons is completed when they are installed on the wing.

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	5/5/1999