

STOL CH 801 FLAPERON ASSEMBLY

Ref. Drawing 8XA-1 Exploded view

SECTION 1

“REAR SKIN AND NOSE RIBS ASSEMBLY”



The slope on the back side of each hinge bracket 8A1-5 face inboard towards the fuselage for both the left and right wing

Work on both the I/B and O/B sections of one assembly (wing) simultaneously to maintain the centerline concept.



**FLAPERON TRAILING
EDGE SKIN 8A1-4
Qty=4**

The rear portion of the flaperon is assembled from two formed skin assemblies, 8A1-4 IB and 8A1-4 OB.

Suffix
I/B = Inboard
O/B = Outboard

Place two sections of the flaperon rear skin upside down and together as shown in the photo. When placed tight together consider the joint between them to be the "Centerline" of the assembly. The photo reveals two rivets near the front lower bend. There are actually four in each half of the flaperon assembly. Locate the rivets at 100, 529, 1649 and 2160mm either side of the "centerline" and 10mm from the edge of the skin.



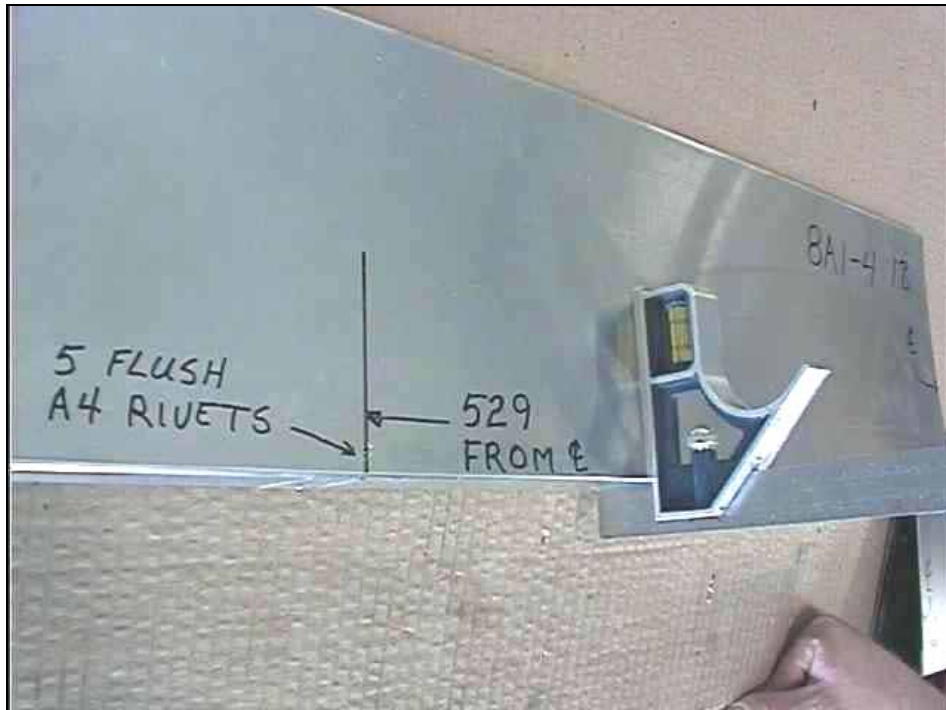
4 holes #30 in IB and OB section.

A4 rivets

Flush tack rivets: First countersink the skin with a drill bit, then set the standard A4 rivets with a flat nose piece on the riveter head.

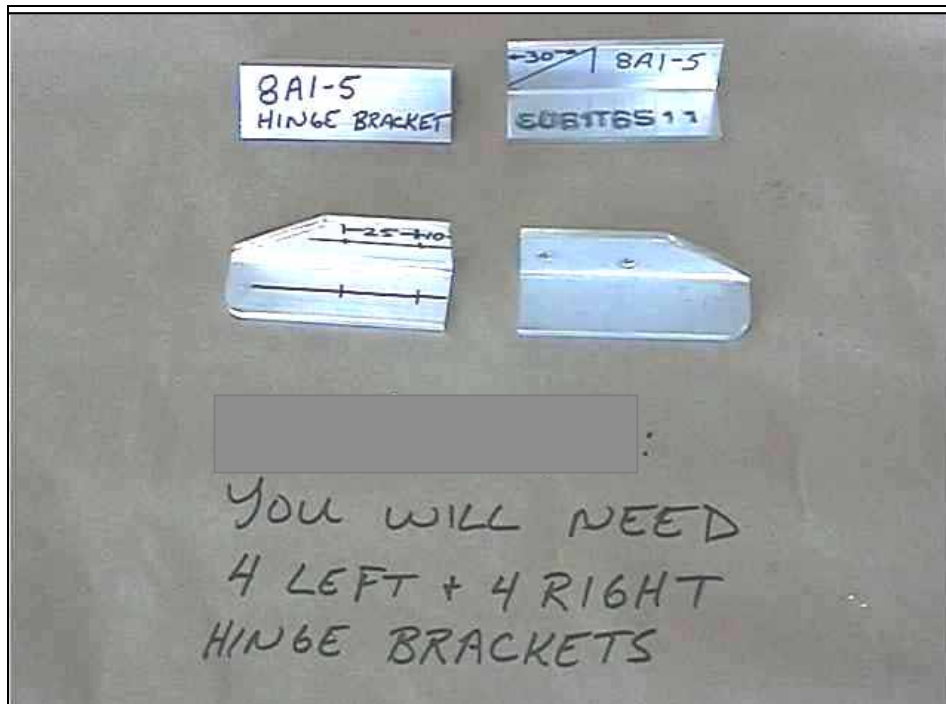
Note: The Flaperon Nose Skin 8A2-1 will overlap on top of the flush tack rivets.

Hold the skin square (front with bottom) drill and Cleco. Countersink the top skin and pull the 8 flush tack rivets.



Keep the front square to bottom.

Flush Tack rivets installed.



right wing bracket (all 4 look the same)

FLAPERON HINGE BRACKETS 8A1-5
Qty=4L + 4R

4 RIVETS A5
Edge distance = 10mm
from the top surface,
25mm between rivets.

Pre-drill 2 pilot holes #40 or 3/32" flange that is not tapered. The top hole is 10mm from the top, 25mm between the hole.

The next step is to install the hinge brackets: on the centerlines at 529, 1649 to both the right and left of the flaperon assembly centerline.

The brackets, are placed as shown, at a right angle to the skin / channel



I/B section Right Wing: station 1649



I/B section Right Wing: station 1649



O/B section, Right Wing: station 529



O/B section, Right Wing: station 1649

Photos of the assembly in the upside down position: looking at the bottom side.



**FLAPERON NOSE
RIBS**
8A1-1
qty=4L + 4R

2 hole in the rear flange
30mm apart.

Prepare the nose ribs by laying out and drilling pilot holes for the rivet holes.



Note the orientation of the rib.

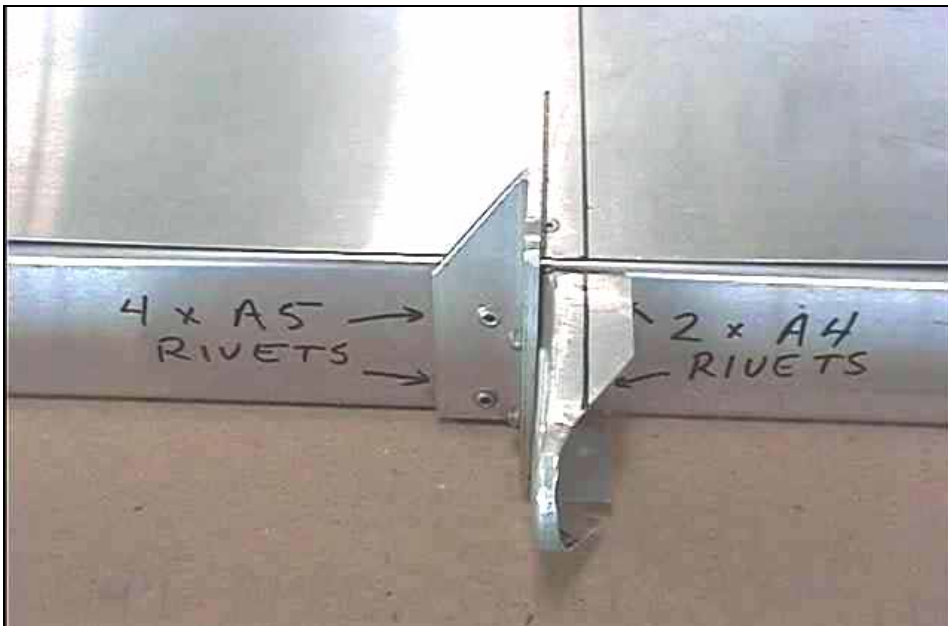
Remember the assembly is upside down.

Position the ribs tight against the hinge brackets. The piece of "L" is used to position the edge of the rib flush with the skin.



Suggestion: keep the drill chuck way from front face of the rear skin (wrap tape on the chuck to prevent damage to the skin).

Drill the two holes through the hinge brackets and into the ribs.
Repeat the process for all the ribs.



2 RIVETS A5
(Bracket to spar)

2 RIVETS A5
(Bracket to Rib)

2 RIVETS A5
(Rib to spar)

Open the holes with an #20. Deburr and prime. Rivet the Bracket and Rib to the Rear Skin.
Layout the rivet line on the rib flange.



Rivet line is square to the flaperon trailing edge.

Extend the rib flange rivet line to the rear of the skin.



Turn the assembly over to layout the rivet line on the top side.