

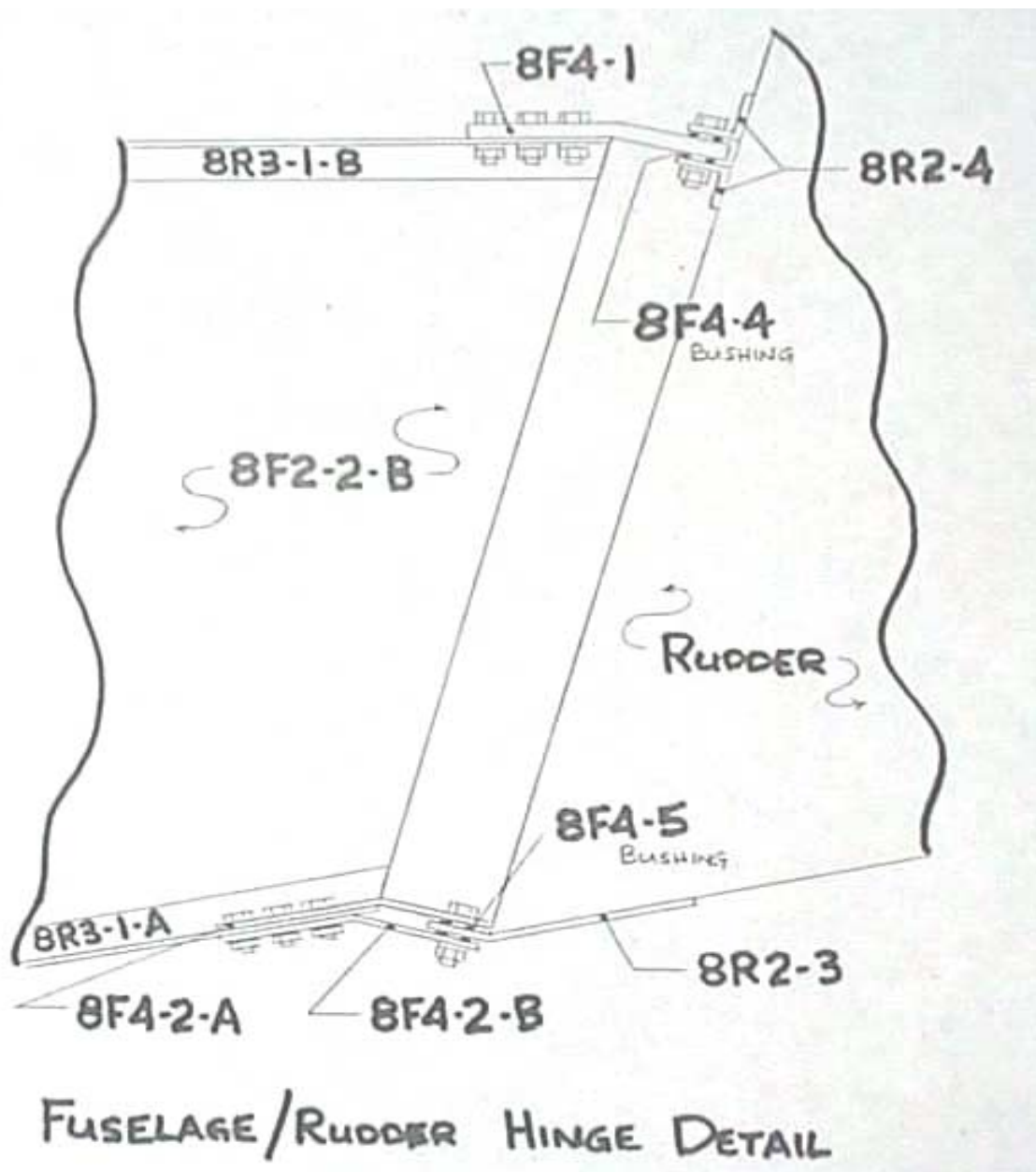
STOL CH 801

REAR FUSELAGE ASSEMBLY

SECTION 5

Tail Attachments on Fuselage

Ref Dwg 8RU-3



The rudder hinge line (HL) is parallel to the aft edge of the fuselage skin



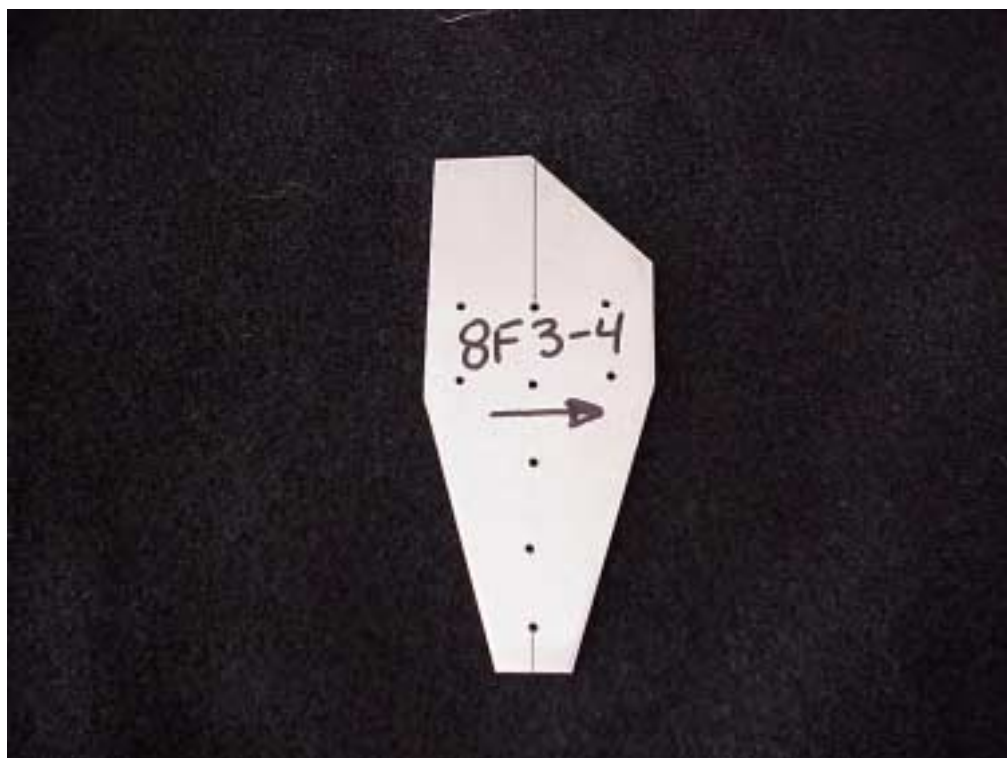
Looking at the top of the rear fuselage.

Stabilizer Attachment Brackets

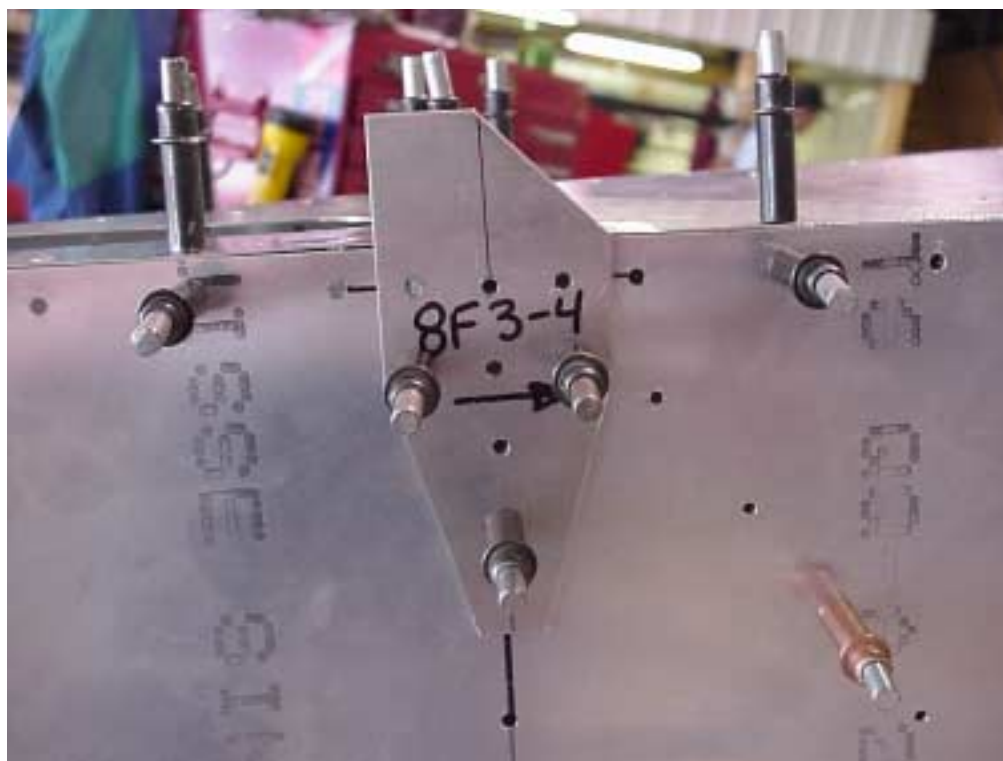


Looking at the end of the rear fuselage.

LOWER & UPPER RUDDER HINGE



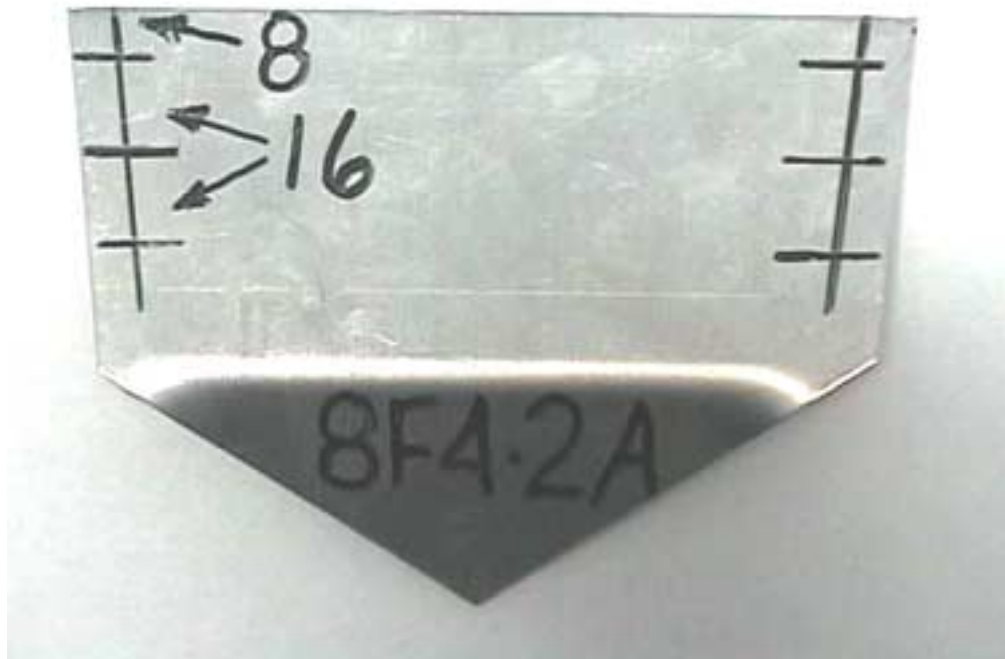
**H.T. ATTACHMENT
BRACKET
8F3-4**



**Detail of the Rear right
Attachment**

9 RIVETS A5

Top rivet line is through the Longeron 8F3-1B; the vertical rivet line is through the H.T. frame.8F1-3.
The Front rivet is through the diagonal L angle.



**LOWER RUDDER
HINGE PLATE
8F4-2A**

Shown as it is installed,
the bent part goes down

Edge distance to front of
plate = 8mm

Distance between holes =
16mm

IMPORTANT:

Mark the aircraft centerline square to the aft edge.



Shown upside down
(looking at the inside of
the bend)

Layout a 60mm reference line on the underside of 8F4-2A. Place the part in position on top of the lower longeron with the line even with the rear edge of the longerons and clamp it in place.

Layout the bolt hole locations as shown: 3 bolts each side.
The lateral location is established using the center of the longerons.
Remove the part and drill #40 pilot holes in the Bracket.



CHECK: Check that the aircraft center lines line up.

Clamp the Hinge Plate in place and back drill the six holes in the Longerons with #40 drill bit.



LOWER RUDDER HINGE PLATE 8F4-2B

To obtain the 8 -9 mm spacing, slide 8F4-2B fore or aft.

Place the bottom rudder hinge plate, 8F4-2B under bottom skin and position it as shown with a space of 8 to 9mm between them.
Drill the mounting holes through the longeron and the bottom plate.



**TIE DOWN RING
P/N 42412**

Remove Lower Hinge Plate assembly to install Tie Down Ring.
Drill a 5/16" hole 20mm from the forward edge along the centerline.



**AN3-5A bolts and SL nuts
Qty = 6**

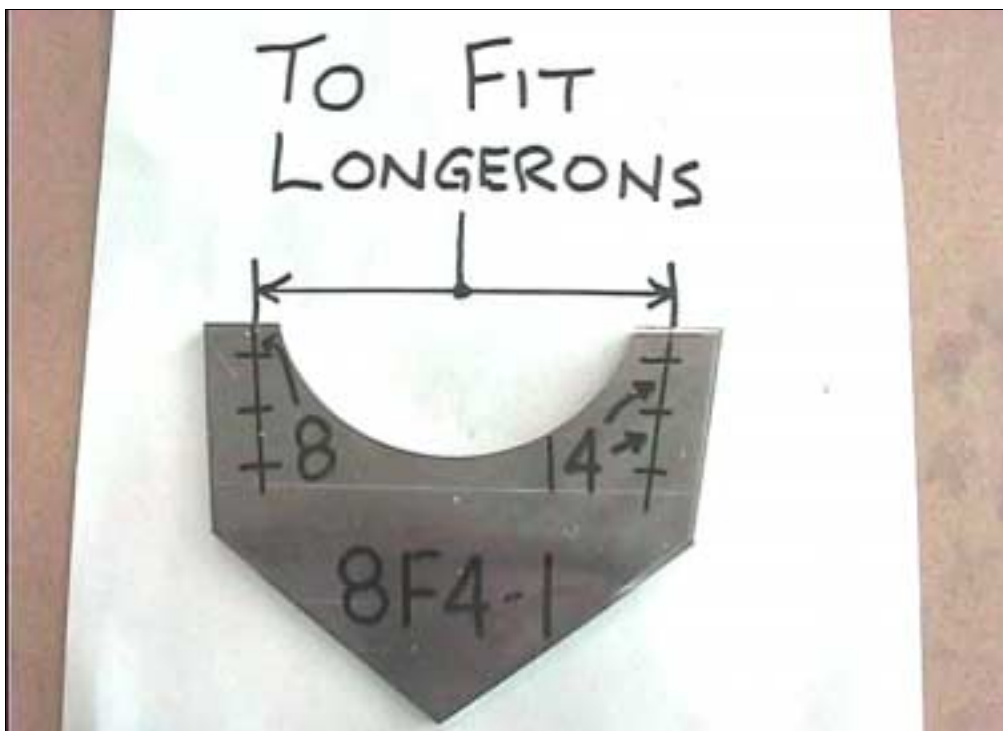
Open the hinge plate holes to 3/16" diameter. Cleco with 3/16" Clecos or install temporary bolts as drilling proceeds.



**UPPER RUDDER HINGE
PLATE
8F4-1**

IMPORTANT:
Mark the aircraft
centerline in the middle of
the part.

Layout the 45mm reference line on the underside of 8F4-1. Place the part in position on top of the upper longeron with the line even with the rear edge of the longeron (even with the aft edge of the fuselage side skins) and clamp it in place.



Edge distance to front of
plate = 8mm

Distance between holes =
14mm

Layout the bolt hole locations as shown. The lateral location is established using the center of the longerons.



AN3-5A bolts and SL nuts
Qty: 6

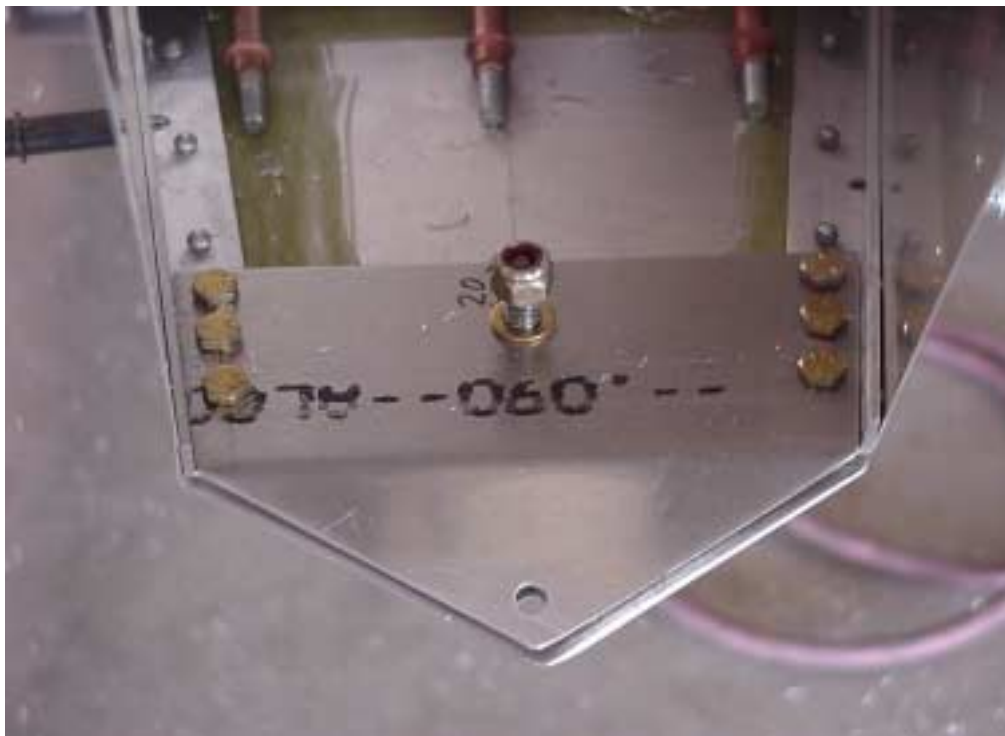
Detail of upper hinge
Ref. CAD drawing 8RU-3

Hinge hole = $\frac{5}{16}$ "
(Bushing diameter 8F4-4)

Edge distance = 9mm
(From the edges to the center of the $\frac{5}{16}$ " hole)

Check: the aircraft center line drawing on Upper Hinge plate 8F4-1 is in line with the aircraft centerline on the top skin.

Drill and cleco in place.



Detail of lower hinge, nut in the middle is for the tie down ring.

Ref. CAD drawing 8RU-3
Hinge hole = $\frac{1}{4}$ " for the AN4-7A bolt.

Edge distance = 9mm
(From the edges to the center of the $\frac{1}{4}$ " hole)

Check: The rudder hinge line is parallel to the aft edge of the fuselage side skin.

Add a .090" shim between to compensate the thickness of the Longerons between the skin and the Upper plate.



Check: Rudder fits fuselage.

The rudder hinge line is vertical when the top of the fuselage is level.



**REAR FUSELAGE SKIN
STIFFENER
8F4-3**

A4 PITCH 40

NOTE: The rudder hinge line is parallel with the aft edge of the side skins.

Install 8F4-3 on the back edge of each side skin as shown.