# <u>Updates to the STOL CH 701 Photo Assembly Guides</u> 10/31/2003

## **RUDDER**

- RUDDER: Section 2 Rev 1.3 (08/02)
   Page 5 and 9, change 10mm and 8mm to 9mm edge distance Rev. 1.4 (04/25/03)
- 2. TAIL Stabilizer Section 2 Revision 1.1 (08/02 Added additional photo to identify the bottom side of the skin, from the aft edge to the bend = 399mm on the bottom side, Top = 381mm Correction Revision 1.2 (01/31/03)

### HORIZONTAL TAIL

- 3. Title page Rev 1.2 (02/04/03) change description of sections: section 1 = stabilizer skeleton, Section 2 = stabilizer skin **Rev** (04/25/03)
- 4. Section 3 page 3 of 8 (Rev 0, of 02/02)
  The length of the elevator is shown correctly in the drawings as 2216, half of which is 1108 **Revision 1.1 (08/02)**

Section 3 page 2 of 8 Rev 1.1 08/02

The rear ribs are symmetrical, 2 ribs each side of the aircraft center line, rib flange point outboard. Rev 1.2 04/03

5. Elevator Skeleton 7-H-4 Section 3 page 4 of 8 Rev 1.1 (08/02

Page 3, the Rear Rib 7H1-7 is symmetrical **Rev 1.2 (04/25/03)** 

## ORIENTATION of 7H1-6 and 7H1-5

- a) Mark the center line on rear rib 7H1-7
- b) Position nose rib7H1-6 and rear rib 7H1-7 on top of tip rib 7H1-5
- c) Remove Nose rib and mark center line on rear rib to tip rib.
- d) Extend center line forward
- e) Check the position of the leading edge or the front of the rib: The front of the tip rib is 8mm above the center line of the rear rib.
- f) Top side of Tip Rib & 7H1-6 the leading edge is above the center line. **Rev 1.2 (04/25/03)**

### WINGS

- 6. Section 0 Rev 1.3 (02/04/03)
  - Change descriptive of wing sections: Section 1 = wing Skeleton, Section 2 = Wing Rear Channel, Section 3 = Wing Rear Skins Rev. 1.4 (04/25/03)
- 7. Section 2 page 3 of 8 (draft 12/01) Change 425 to 404, change 435 to 425 (no changes to drawing 7-V-6) 02/02
- 8. Section 3 page 3 of 9 Revision 1.1 (01/02)

Rear top skin 7V7-2, the skin is not supplied pre-rivet wit the rivet line through the rear channel, the pre-drilled rivet line goes along the trailing edge. **Rev 1.2 (04./03)** 

9. WINGS: Section 3 page 5 of 9 Revision 1.1 (01/02)

"The first rivet in the rear channel is 20 mm from the rib center. Then layout pitch 40 in between the ribs." My question: Is there supposed to be a rivet on the rib centers as well? If not, could you tell me the reason.

Clarification: Also Drill a hole at the intersection of the rib center line with the rivet line through the rear channel. **Rev 1.2 (04/03)** 

10. WINGS: Section 4 page 6 of 8 Revision 1.0 (12/01)

Text at bottom of page, delete "but at this time do not rivet the leading nose skin" replace with, wait to re-install the nose skin until after the wing is turned over. It is difficult to turn the wing over with the nose skin riveted in place. Turn the wing over, then Cleco and rivet the bottom side of the nose skin. **Rev 1.1** (04/03)

- 11. Wing Assembly, Section 5 page 9 of 9 Rev. 1.0 (12/01)
- 12. Part number correction, change US tool TP5094 to TP116 Hand rivet squeezer **Rev. 1.1** (04/03)

## FLAPERON & LEADING EDGE SLATS

13. Section 0 current Rev 1.2 (04/25/03)

Change descriptive of sections: Flaperon Skeleton = 1, Flaperon skin = 2, Slat Assemblies = 3, Slat position = 4

## **FUSELAGE**

14. Section 0 (Rev 1.1 04/28/03)

Updated Rev 1.2 10/20/03 Revised Rev 1.3 10/31/03

15. Section 1, page 1 of 10 Rev 1.1 08/02

Layout the aircraft center line on the sheel, top and bottom side. Rev. 1.2 (04/03)

16. Section 2 page 6 of 12 (Rev 1.1 08/02)

Position the Bottom Longeron Doubler 7F3-2 to the Bottom Skin, then slide a piece of .016" material between the Doubler 7F3-2 and the Longeron 7F3-1 (to represent the fuselage side skin 7F2-2. CHECK that the .016" material is not pushed down too far or it will interfere with the bend radius of the Longeron).

Clamp the side flanges together. Rev 1.2 (04/03)

# 17. Section 2 page 6 of 12 (Rev 1.2 04/02)

REFERENCE LINE: To prevent misalignment of the holes in the Longeron and bottom skin, first trace the edge of the Longeron on the <u>underside</u> of the bottom skin, then remove the Clecos to install the Doubler.

LAYOUT: Mark the rivet line 10mm along the inboard edge of 7F3-2

POSITION: The aft edge of the Doubler is even the front face of the Bottom Channel 7F6-1

NO RIVETS ZONE ALONG THE FRONT EDGE (drilled through 7F10-1)

Layout and drill the rivet line along the inboard edge of the Doubler. Check that the last rivet is not drilled into the side of the Longeron. **A5 PITCH 40** 

From the underside, back drill the holes through the Longeron.8 **RIVETS A5** The side flanges on 7F3-1 & 7F3-2 will be trimmed even with the front edge of the fuselage side skin. The Bottom of the Doubler 7F3-2 will be trimmed flush with the front edge of the bottom skin. Trimmed later Sec. 4 page 9) **Rev 1.3 04/03** 

## 18. Section 3 page 10 of 16 (Rev 1.1 08/02)

Check: the rivet line on the top skin 7F2-1 for 7F5-2SP is in line with the rivet line in the fuselage side skin for 7F5-3SP Rev 1.2 04/04)

### 19. Section 4 (Rev1.1 of 08/02)

There is, I think, a mistake. In the bottom photo the parts called out are identified as 7F5-4 UPRIGHTS. Shouldn't this be 7F5-2 CHANNEL?

You are right, thanks for pointing this out.

I have also correct the way the channel is shown on drawing 7-F-00 (shown incorrectly as a Z of some kind!)

Page 12, the fist hole in the Upper Longerons is through the Side Channel 7F5-2SP

Page 4 of 15, the left and right bottom gusset on the first L angles in front of the Front HT Frames are cutout even with the L angles to make room for the rudder cables. **Rev 1.2 04/03** 

Page 4, Photo of top front Longerons: The top flange is <u>square</u> to the to the bend Cut the Front Longerons even with the front edge of the fuselage side skins.

Also trim the side flange of the Doubler 7F3-2 flush with the front edge of the side skin. Trim the bottom of the Doubler even with the front edge of the fuselage bottom skin. **Rev 1.3** 10/03

### 20. Section 5 page 7 of 9 (Rev 1.1 08/02)

Before drilling the Upright Doubler 7F11-6, check that the side of the fuselage makes a straight line from top to bottom (along the sides) **Rev 1.2 04/03** 

# 21. Section 7 page 3 of 9 (Rev 1.1 08/02)

Check: The Nose Gear leg is parallel to the firewall. Rev 1.2 04/03

## 22. Section 8 page 5 of 11 (Rev 1.1 08/02)

Text at bottom of page: 1300 is shown correctly in the drawings, measured to the front of the rear flange, note the "back of 7F10-1 flange" **Rev 1.2 04/03** 

page 3 NOTE: correction, only 5 rives are shown in the above photo, correction number of rivets is 6 RIVETS A5 ( Rev 1.3, 10/03)

page 5 SUGGESTION: Wait to drill the rivet line through the L angle on the Cabin side: location A-A on drawing 7-F-9. Rivet line is drilled after the cabin frame is installed Ref Fuselage Cabin Frame Section 10 page 11

NOTE: The width firewall at the front of the Front Uprights 7F9-7 and the width of the rear fuselage assembly at the aft end of the cabin side 7F9-1 will set the angle between the side of the cabin side and the floor skin. ( **Rev 1.3, 10/03**)

page 8 CUT: Trim the end of the rear Channel Pick Up (welded on the Gear Strut fitting 7F17-1SP) to make room for the 6 rivets in the Doubler 7F10-2. Ref bottom left diagram on drawing 7-F-17 ( **Rev 1.3, 10/03**)

page 10 THE TOP DISTANCE ACROSS THE AFT EDGE OF THE CABIN SIDES 7F9-1 IS NARROW AT THE TOP Ref Rear Fuselage uprights Section 5 page 9 ( **Rev 1.3, 10/03**)

Wait to drill the Channel Pick Up (Gear Strut Fitting 7F17-1SP) to the side of the Bottom Channel 7F10-1 until after the Cabin frame is installed, Ref Fuselage Cabin Frame Section 10 page 11( **Rev 1.3, 10/03**)

23. Section 10 - pages 4 and 5 of 14 (Revision 1.1 08/02)

Added photo to the on right margin to show how the Bottom Longeron Doubler 7F3-2 and the Bottom Skin 7F2-2 overlap underneath the aft flange of the Bottom Channel 7F10-1

Page 5 of 14 top right text, part number correction, change 7F2-3 to 7F3-2

Page 9 of 14 Drill the gusset 7F13-1 to the cabin side with the Upright Doubler clecoed to the fuselage Check: the sides of the fuselage is straight.

Page 10 of 14 Doubler Strip 7F16-4 NO RIVET ZONE: Plane for a no rivet zone for the installation of the striker plate 7F15-3D

Also plan for a no rivet zone on the aft portion of the Strip 7F16-4 for the

installation of the Gusset 7F13-1 Rev 1.2 04/03

### **POWERPLANT**

24. 912 firewall forward package, Section 2 page 3 of 7 Added the torque for the hexagonal bolt M10x1.25x20 at 25 Nm or 220 in/lbs

\*\*end\*\*