

From: "Tandy Walker" <rdb435021@icloud.com>

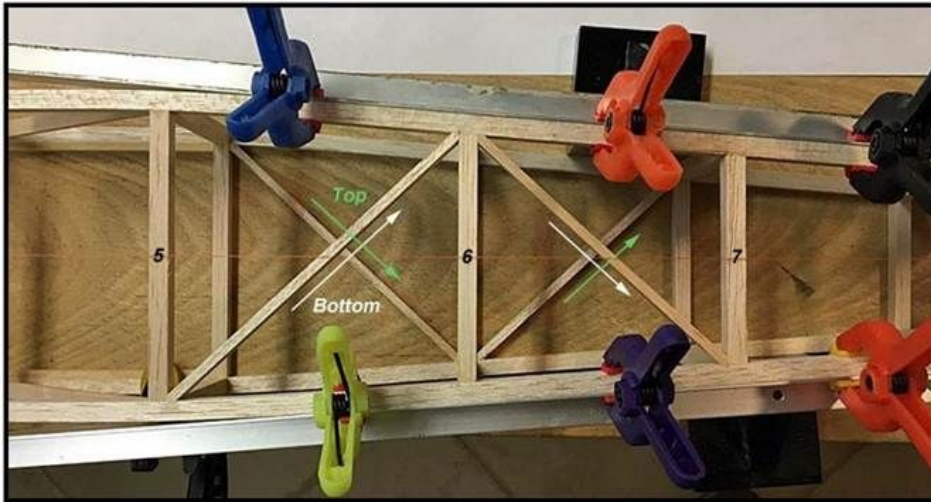
To: "Tandy Walker" <rdb435021@icloud.com>

Date: 2/28/2018 2:50:37 PM

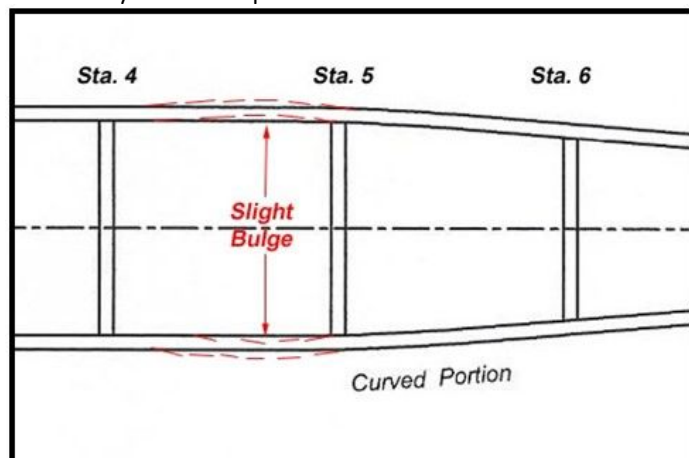
Subject: 75 Lancer 850 - Joining the Two Sides (Part 4)

Report No. 75
 New Cyclone Lancer 850
 February 28, 2018

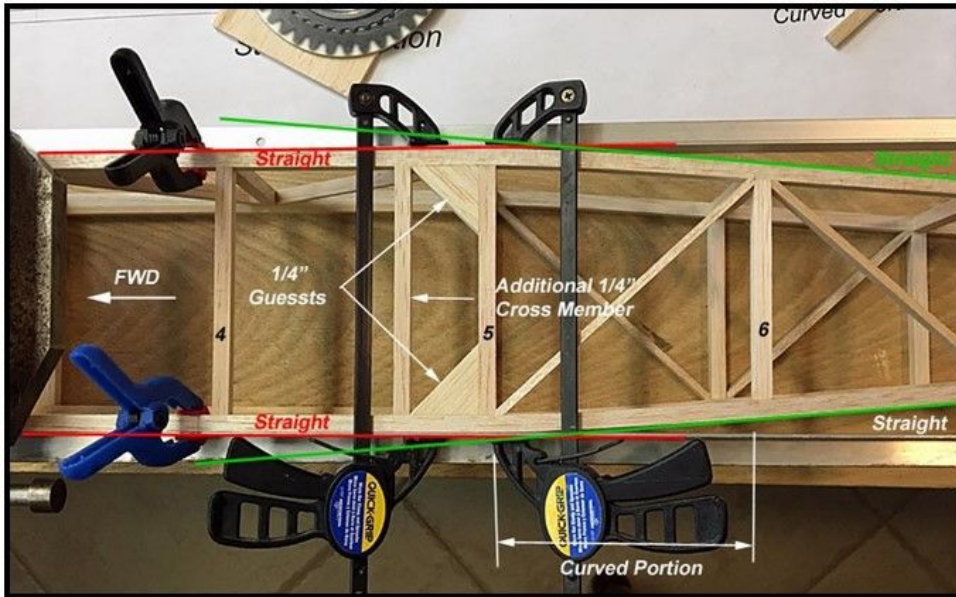
The fuselage's 1/4" sq. longerons have to start bending behind Sta. 5 and then straighten out behind Sta. 6. In yesterday's report No. 74, you saw the two sets of 1/8" X 1/4" diagonals used to lock the curve portion of the top and bottom longerons in place in the picture below.



This morning when the clamps and aluminum angles were removed on each side, I discovered a slight bulge between Sta. 4 and Sta. 5 on both bottom longerons as illustrated below. The top longerons did not bulge because they were restrained by the inside spruce doublers.



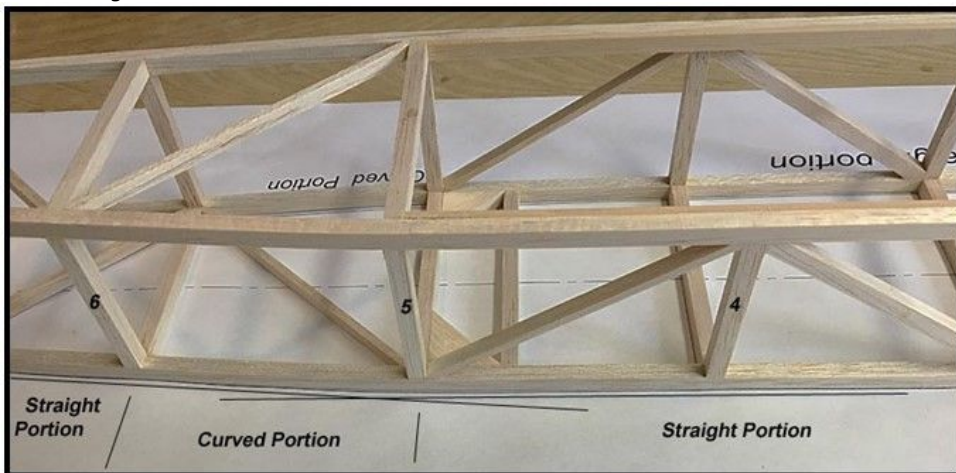
To eliminate the bulging, the aluminum angles were clamped with plastic clamps on either side of the forward fuselage's bottom longerons. A Quick-Grip clamp was clamped on the aluminum angles just slightly aft of Sta. 5. Then a second Quick-Grip clamp was placed about ~ 1" forward of Sta. 5 on the aluminum angles and tightened down to squeeze down the bulging in the bottom longerons. To prevent the bulging, two 1/4" thick gussets were glued in the forward corners of the Sta. 5 cross member as shown below. Then an additional 1/4" sq. cross member was glued in at the ends of the gussets also shown below. The glue was allowed to thoroughly dry all morning.



After lunch, there were three checks that needed to be performed to evaluate the accuracy of the fuselage's 1/4" square frame work.

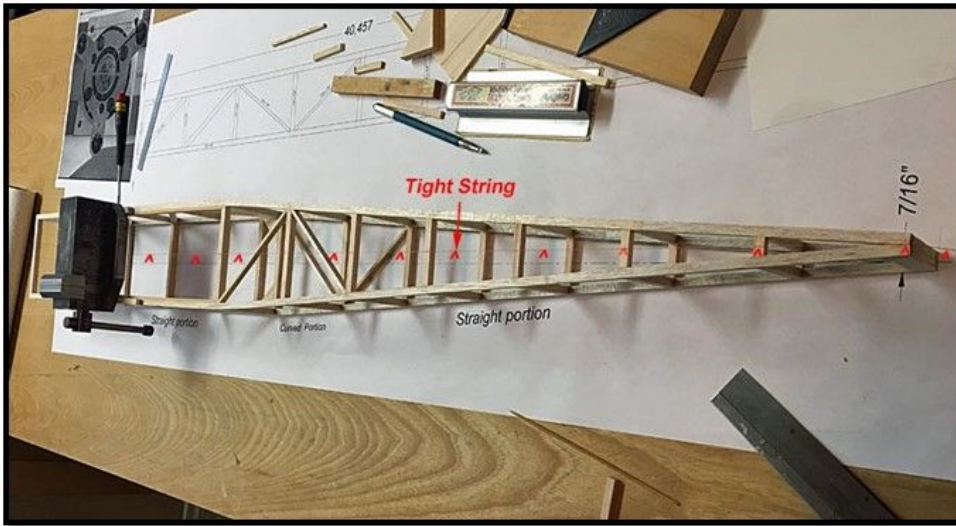
Check No. 1

The frame was placed on the top view drawing to check the bottom longeron bulge between Sta. 4 and Sta. 5. As you can see on this view from the right side, the two gussets and the additional cross member completely eliminated the bulges.



Check No. 2

With the frame weighted down on the top view drawing, a tight string was used to check the symmetry of the two sides. The tight string was centered on the first cross member in front and stretched to the center of the tail post as shown below. An inspection of the string showed it was aligned with the center marks on cross members at Sta. 3 and Sta. 5. This verified symmetry of the two sides as did the frame's match with the top view ACAD drawing.



Check No. 3

The last check was to make sure the aft end of the frame (the tail post) is vertical. This was done by weighting the frame down in front with the small heavy steel vise and then placing a metal square close to the tail post. As you can see, the tail post is vertical, which verifies that there is no twist in the fuselage's frame. Also notice how straight the longerons are.....Tandy

