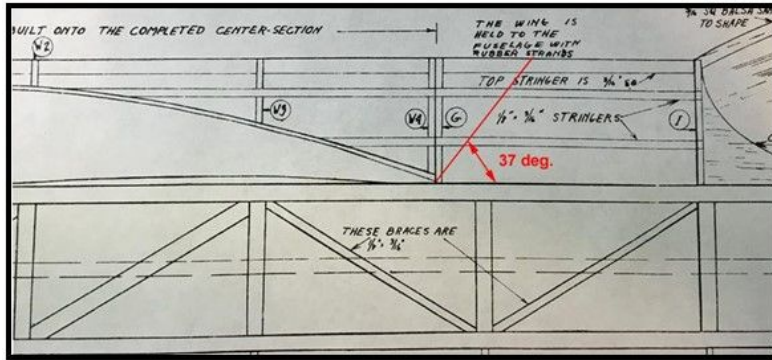


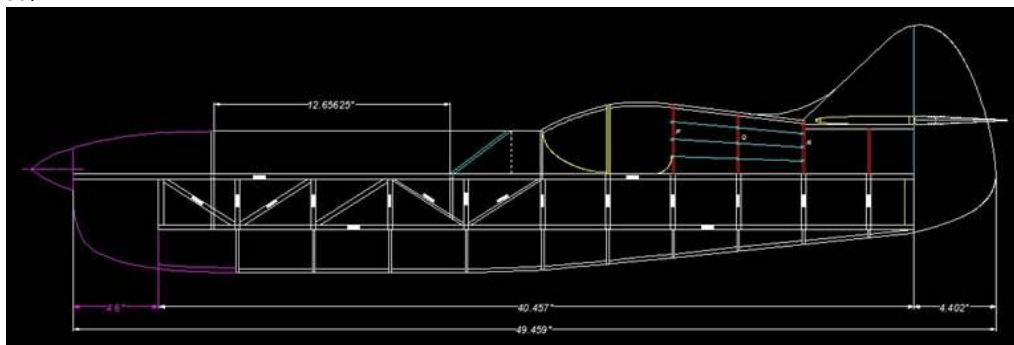
From: "Tandy Walker" <rdb435021@icloud.com>  
 To: "Tandy Walker" <rdb435021@icloud.com>  
 Date: 2/20/2018 12:27:59 PM  
 Subject: 68 Lancer 850 - Wing Attachment Concern

Report No. 68  
 New Cyclone Lancer 850  
 February 20, 2018

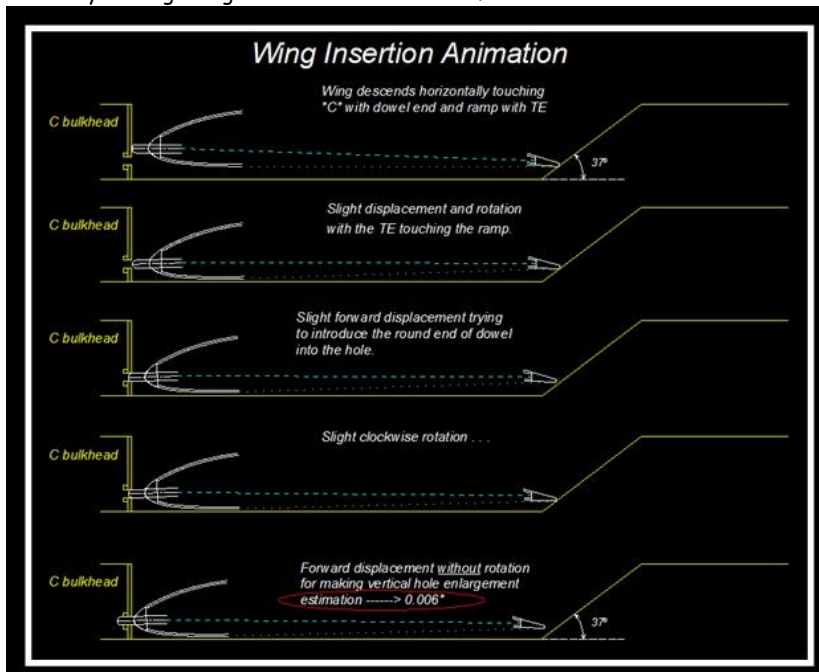
Since the decision was made to use two dowels for the forward wing attachment, I became concerned about the wing's interface with the fuselage with part of the fuselage structure over the wing as shown below. I decided to incline the "G" bulkhead aft 37° as shown in red below. However, the wing will have to slide forward to insert the two dowels into holes in the forward plywood bulkhead so there was still about the dowel insertion.



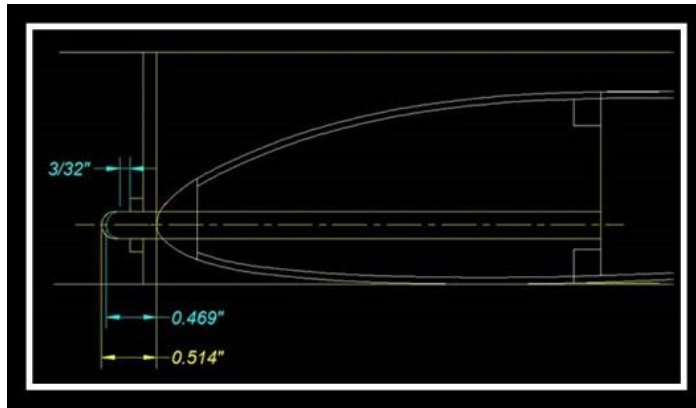
I relayed this concern to Alfredo who then incorporated the 37° inclination in his ACDC drawing below in order to do an animated analysis on this potential problem. He said one of the most remarkable virtues of the ACAD software is that it is so easy to create drawings of the movement and rotations of the moving and fixed parts involved.



Alfredo's sequential drawing animation is shown below. He said according to the progressive positioning of the wing's center section and its dowels producing small displacements and rotations, the insertion should not be much of a problem by making a slight vertical ovalization of 0.006" in the bulkhead 1/4" holes.



From his analysis, he recommended a 0.469" dowel length between leading edge and the end of the dowel's dome as shown below.



As a result, I cut and sanded the end of the 1/4" wooden dowels so that the distance from the leading edge out to end of the dowel's dome was 0.47" as shown below.



With the dowels fully inserted, the outside of the aluminum tube liners were coated with epoxy, carefully slid onto the dowels, and pushed into the leading edge holes as shown below. Then the excess epoxy was wiped off with alcohol and the liners were allowed to cure overnight.



This morning the dowels were removed and the aluminum tube liners were filed down flush with the wing's leading edge contour as shown below. The nice thing about using aluminum is that it is soft and relative easy to file.....Tandy

