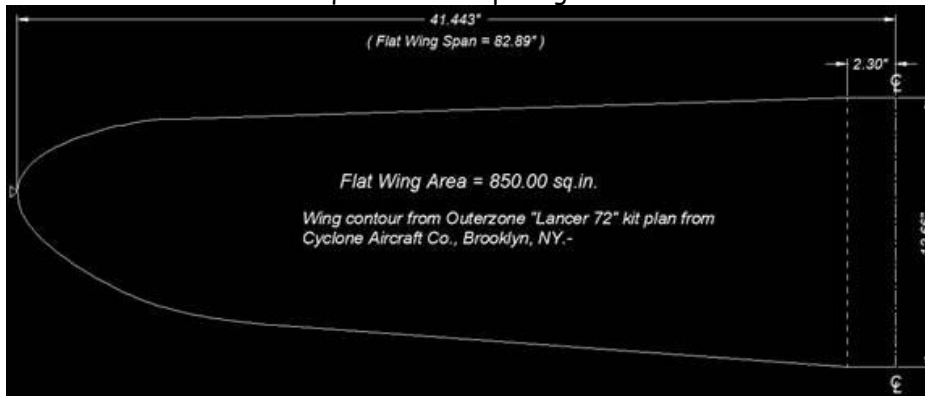


From: "Tandy Walker" <rdb435021@icloud.com>  
 To: "Tandy Walker" <rdb435021@icloud.com>  
 Date: 1/2/2018 8:43:32 AM  
 Subject: 25a Lancer 850 - Wing's Root Rib Jig (Correction)

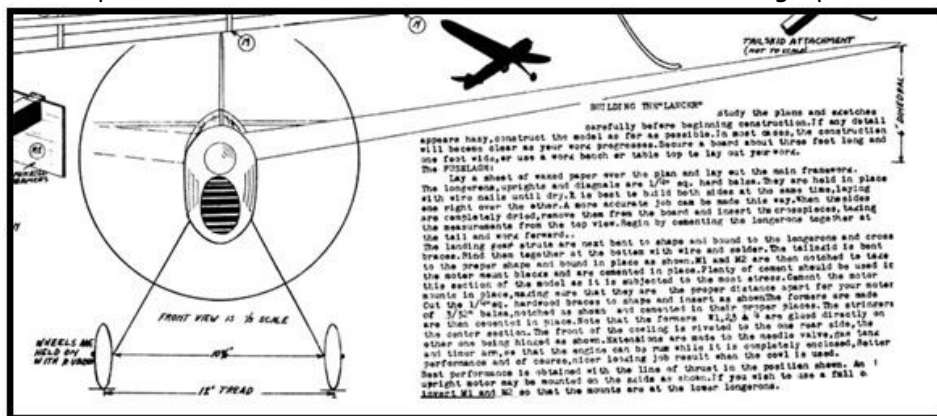
### New Cyclone Lancer 850

January 2, 2018

The wing's dihedral angle was calculated from the two figures below.  
 850 sq.in. Scaled Up wing Planform



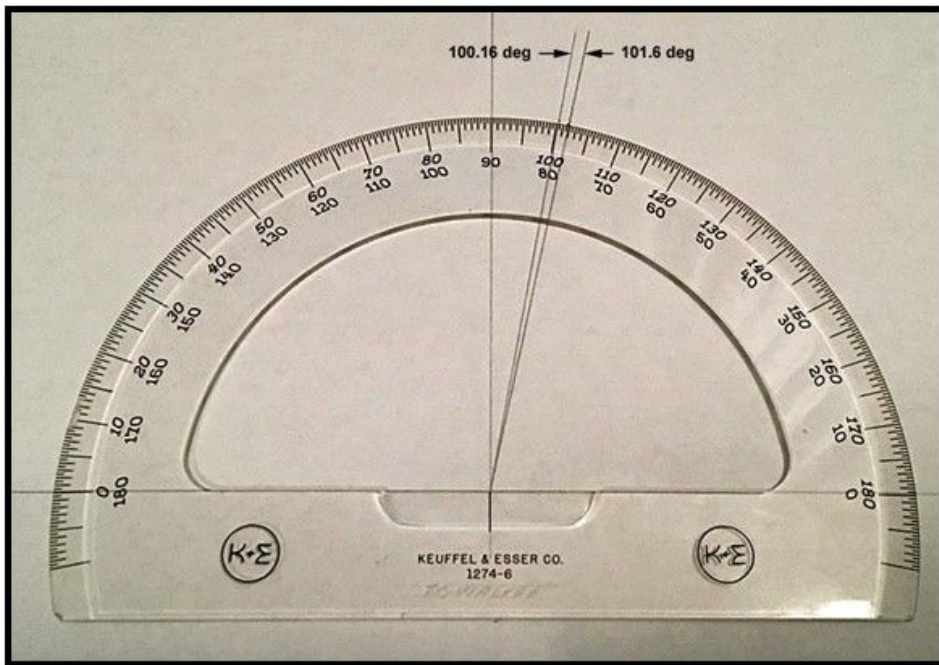
Excerpt from the Lancer 72 Plan shows the rise out at the wing tip to be 6".



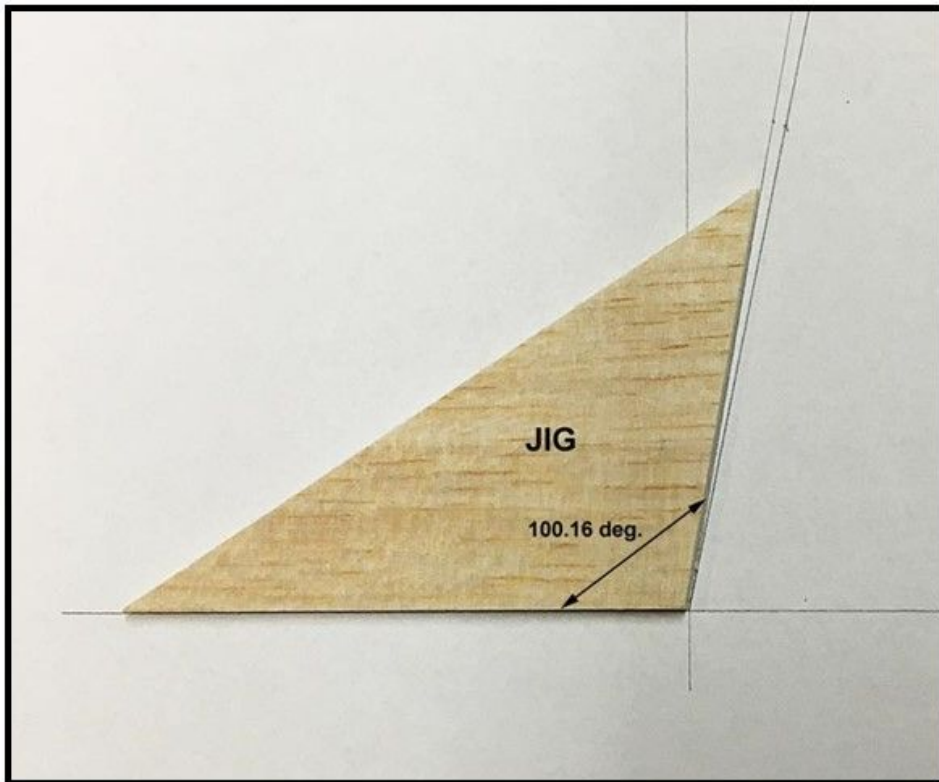
In Report No. 3, the scale factor was calculated as  $\sqrt{850/641.396} = 1.1512$ . Therefore, the scaled up rise at the tip is  $1.1512 \times 6 = 6.9071$ ". The exposed span of the wing is  $41.443 - 2.3 = 39.143$ ". The dihedral angle is calculated as  $\text{ArcSin}(6.9071/39.143) = 10.164^\circ$ . Finally the inclination angle of the wing's root rib relative to the work table is  $90 + 10.164 = 100.164^\circ$ . This angle was laid out on a piece of bond paper with a K&E protractor as shown below.

#### MY STUPID MISTAKE

Shortly after posting this report yesterday, Sergio Montes from Australia brought to my attention that I had laid out the inclination angle incorrectly at  $101.6^\circ$  instead of the desired  $100.16^\circ$  as shown below.



This morning I modified the wooden jig made from med-hard 1/8" sheet balsa as shown below.



The modified jig will be used to set the inclination angle of the root rib to  $100.16^\circ$  when it is glued in place as shown below.....Tandy

