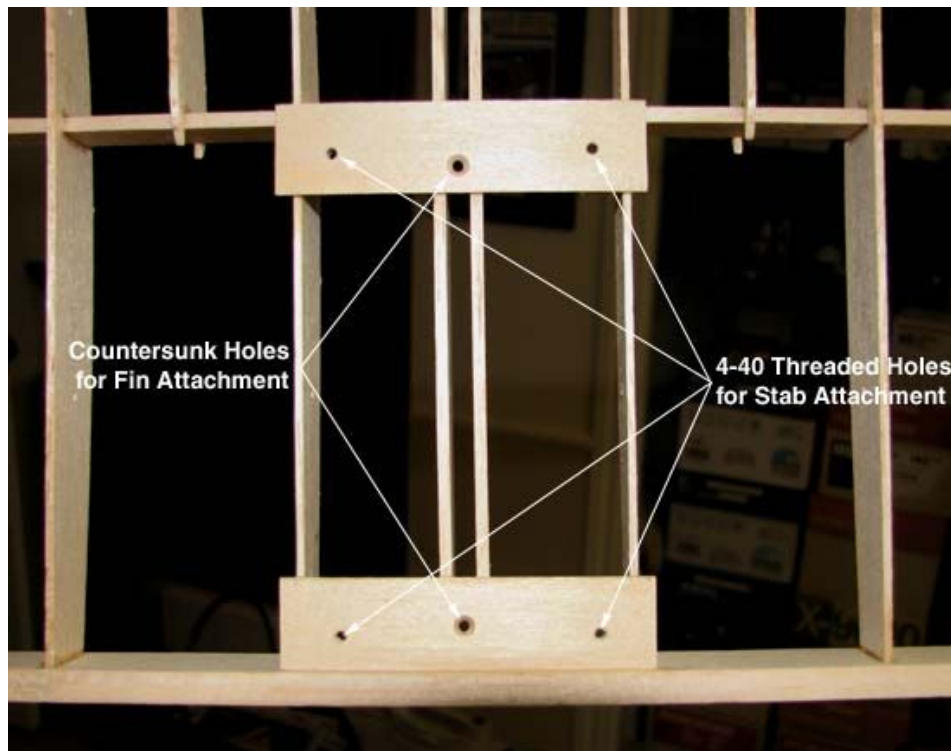


From: ["Tandy C. Walker" <tandyw@flash.net>](mailto:tandyw@flash.net)
To: ["Walker, Tandy C." <tandyw@flash.net>](mailto:tandyw@flash.net)
Date: 12/20/2008 2:16:25 PM
Subject: 21 Sailplane Stab and Fin Mounting Structure

Well, surprising enough I have been finding time off and on to continue building on the Sailplane. I drilled and threaded two pieces of 1/8" plywood for 2-56 screws and integrated them into the base of fin root as shown below.



I cut out two pieces of 1/16" sheet plywood and glued them to the bottom of the stab's center section as shown below. Three holes described below were drilled in each piece before the plywood was glued to the stab.



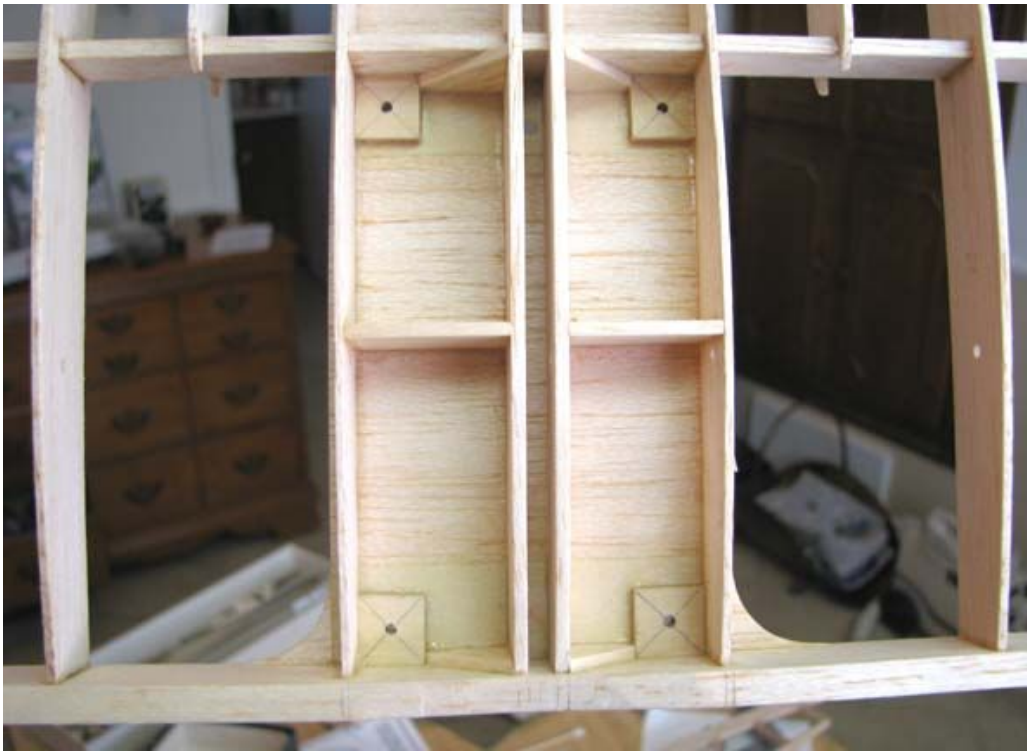
This picture shows the two 2-56 countersunk screws holding the fin structure in stab center slot.



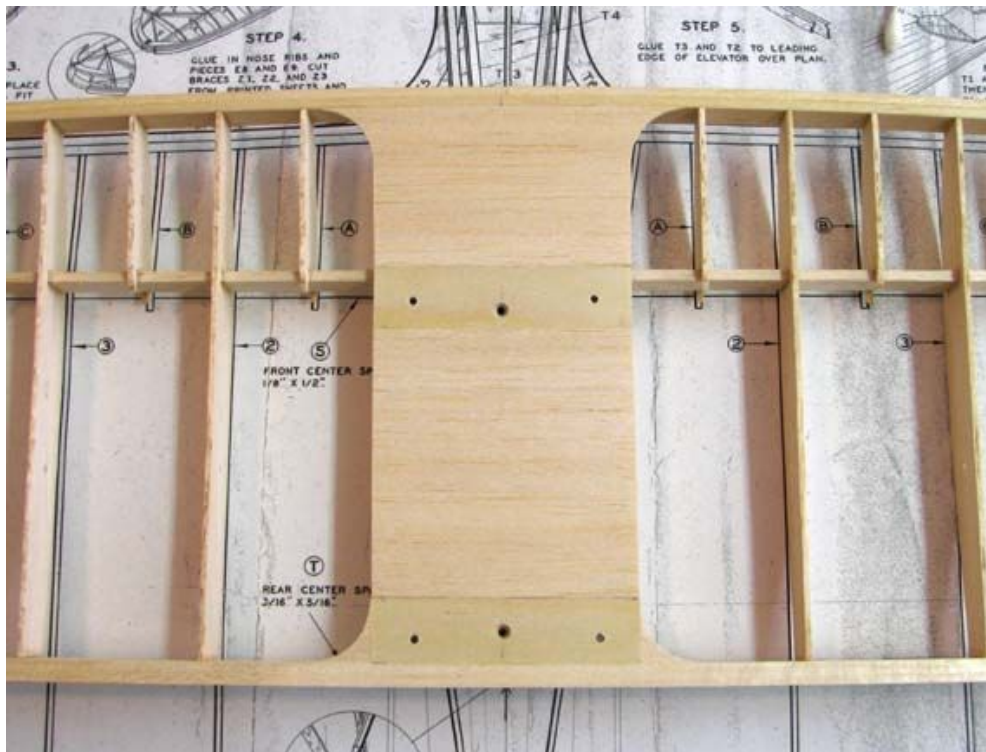
This shows a close up of one of the 2-56 countersunk screws.



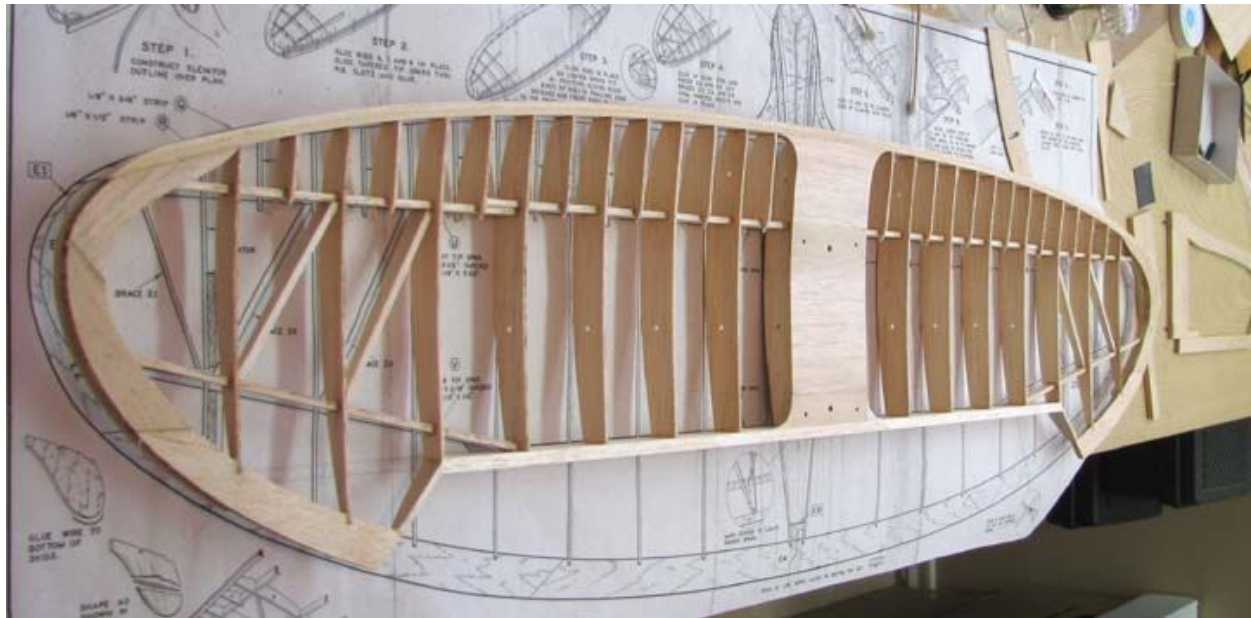
One-half inch squares of 1/8" plywood were glued to the top of stab's plywood pieces and threaded with 4-40 size threads as shown below. Notice the triangular bracing on either side of the stab slot ribs.



This shows the bottom of the stab center section planked with 1/16" sheet balsa back to the stab's rear spar.



This is a good shot of the bottom of the stab showing the undercambered planking on the center section. The fixed portion elevator's center section still has to be added.



To maintain proper undercamber contour, a jig was made with the top of the jig runners to fit the undercamber contour of the stab's center section rib as shown below. Notice the two notches made to straddle the bottom of the yet untrimmed rear spar.



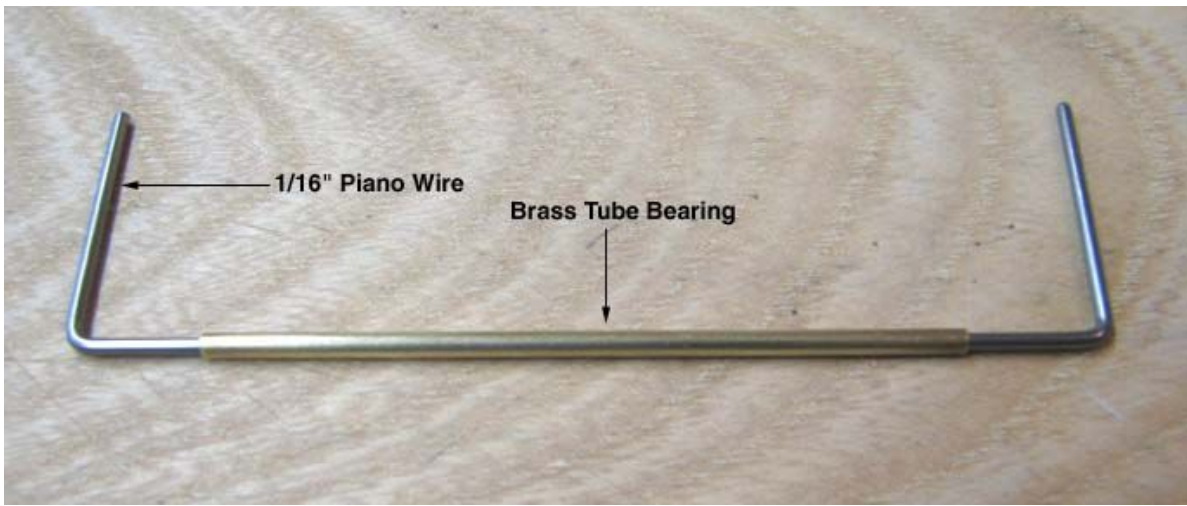
This picture was taken to show how the jig was clamped onto the stab to locate and set the proper angle of the fixed portion elevator's center section while it was being glued in place.



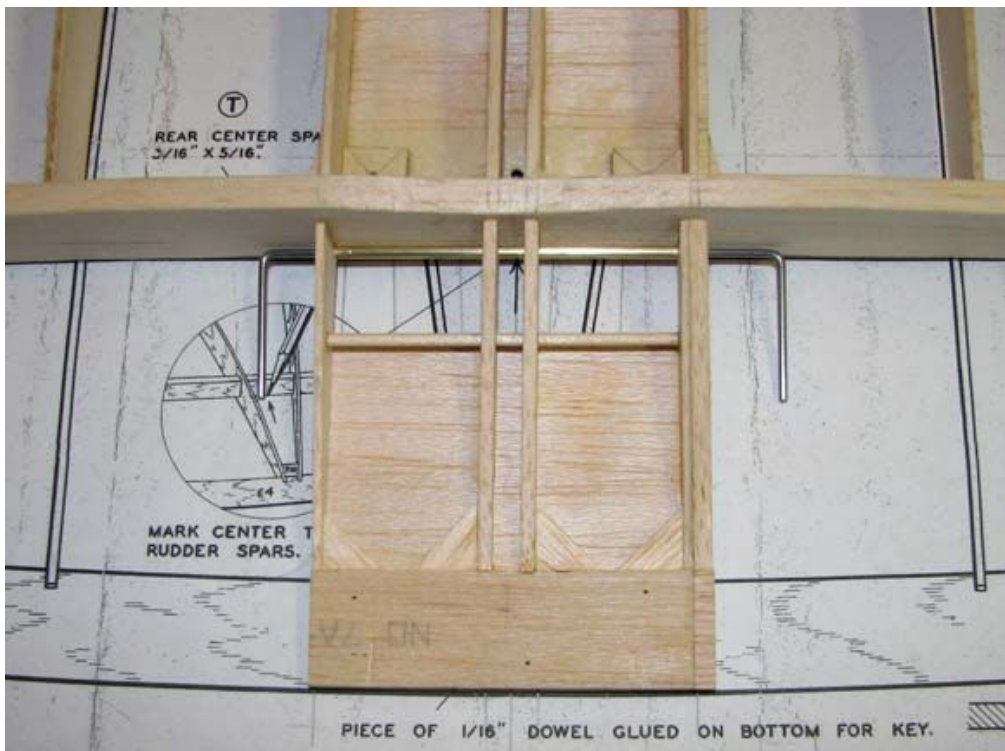
This shows the fixed portion elevator's center section glued in place on the back of the stab's rear spar.



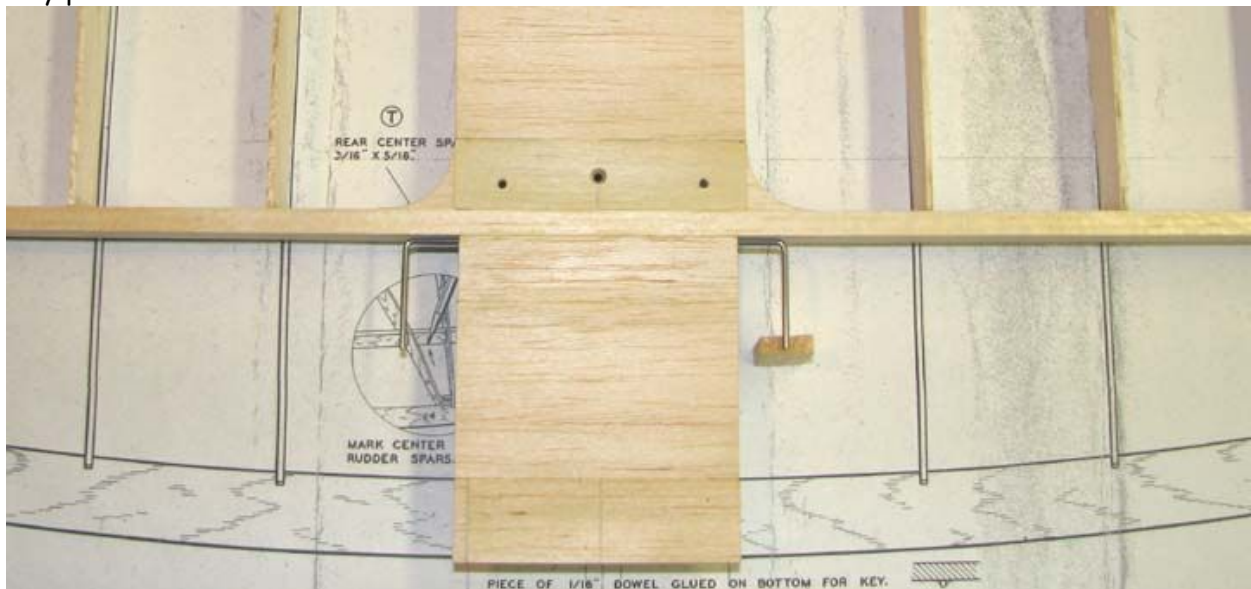
This shows the elevator carry through fitting made to connect the two sides of the elevator through the fixed portion elevator's center section, which is composed of 1/16" piano wire in a brass tube that serves as a bearing.



This shows the elevator carry through fitting glued in place inside the fixed portion elevator's center section.



This is a close up of elevator carry through fitting once the fixed portion elevator's center section had been completely planked on the bottom.



This shows the bottom of the stab with the undercambered planking on the complete center section including the fixed portion elevator's center section.....Tandy

