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Subject: 56 Lancer 850 - Bottom Right Leading Edge Planking (Part 3)

Report No. 56

New Cyclone Lancer 850

February 9, 2018

L. A. Johnston and John Forehand brought to my attention a different method for bonding balsa planking to a wing structure, which is called "Super Sheeting". The method was introduced by Randy Randolph in an article in the 1981 June issue of Model Airplane News. To summarize, this method involves applying Titebond aliphatic glue to both the sheeting and the wing structure. When the glue has completely dried, the sheeting is put in place on the structure and the sheeting is ironed with a heating iron, which activates the dried aliphatic glue producing the bond. This method eliminates having to have access inside a closed structure like the bottom leading edge planking on the Lancer 850 wing.

So I ran a test case this morning on this method of bonding balsa sheeting. A bead of Titebond Extend wood glue was applied to the surface of a scrap 1/4" sq. spruce spar. I pressed a scrap piece of 1/16" sheet balsa on the spar. I wiped the excess glue off of both pieces and let the glue dry for about 30 minutes. I turned my heating iron up to a No. 3 setting (pretty hot). Then I placed the 1/16" balsa sheet on the spruce spar and ironed the back of the balsa with medium pressure. I never got any bonding between the two pieces what so ever as shown below. The problem may have been the fact I was using Titebond Extend wood glue instead of Titebond's original formula or that I did not let the glue dry long enough. In any case, since I was not proficient with this method, I decided not to try using it on the Lancer 850 bottom planking.



The forward edge of the bottom planking was glued to the wing's leading edge from the outside using thin CA. Twenty strips of the green masking tape was cut and stuck to the bottom planking. A bead of aliphatic glue was spread on the bottom edges of the 12 rib and along the bottom of spruce spar. A small brush was used to spread out the beads of glue and the planking was pushed down curving it over the ribs. At the same time, the green masking tape was pulled tightly around and stuck down onto the vertical shear webs. Just as before, this was done starting from the center of the wing panel and working out in either direction. An aluminum straight edge was placed on the bottom planking where it made contact down the bottom spruce spar. Five heavy metal items were placed on and along the straight edge for a weight press as shown below. Notice that the right wing panel was placed on two throw pillows to support it with the left wing panel hanging off the end of the work table.



This picture shows the little balsa prop under the leading edge to stabilize the wing panel on the pillows. Also three 1/4" square steel rod were placed on the trailing edge of the panel as counterbalance to further help stabilize the panel on the pillows.



The wing will be left on the work table shown below overnight to allow the aliphatic glue to thoroughly dry under the bottom leading edge planking.....Tandy

