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Date: 4/3/2018 12:09:19 PM

Subject: 103 Lancer 850 - Completing the Horizontal Tail

*Report No. 103
New Cyclone Lancer 850
April 3, 2018*

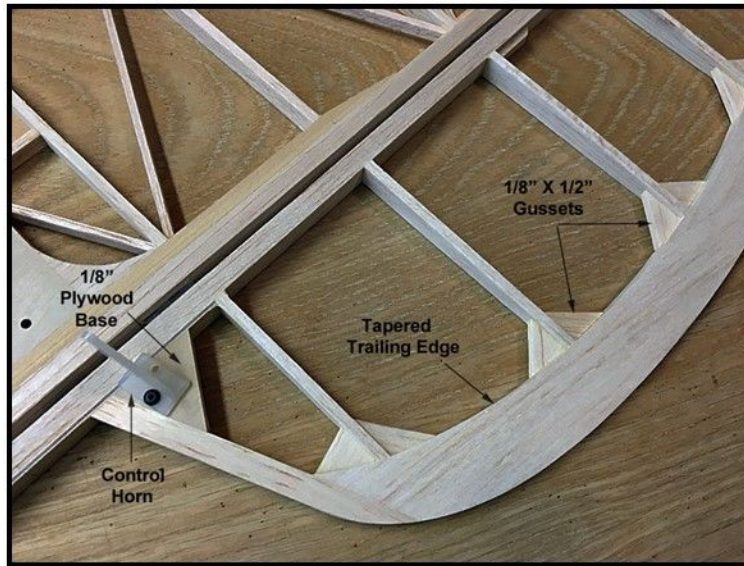
I failed to mention in the last report that a point was ground on one end of the 0.031" hinge pin wires shown below to make it easier to feed through the hinge loops. This was done by inclining the end of the wire to the side of a running Dremel cutoff wheel and the wire was slowly rotated to grind the point on the end.



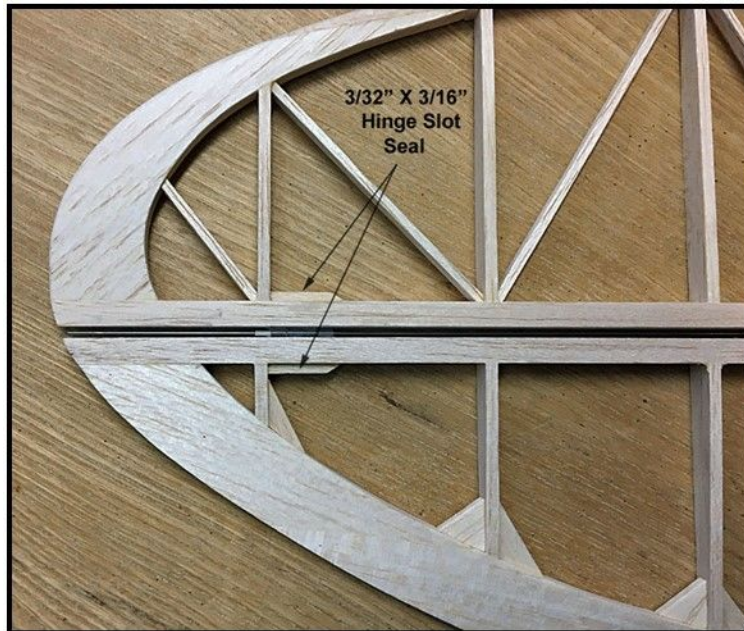
In addition, a dome was ground on the other end of the wires with the white stops on them.



To finish up the Lancer 850 horizontal tail, a considerable amount of time was spent yesterday carving and sanding the elevator's 3/4" wide trailing edge to taper it down from a 1/4" to ~ 3/32" at back edge. This also included tapering all of the 1/8" X 3/8" ribs. Triangular 1/8 X 1/2" gussets were added to reinforce the rib joints at the wide trailing edge shown below. A triangular piece of 1/8" plywood was laminated with a piece of 1/8" sheet balsa to form a base mount for the elevator's control horn, which was then glued in place as shown below. Notice that only one hole was drilled and taped in the plywood base with 2-56 threads to secure the control horn with a single 2-56 button head screw. Later on when the elevator push rod is installed, the control horn will be rotated to align it with axis of the push rod. Then the second hole will be drilled and taped in the plywood base.



The slots for the two sets of outer hinges exit the back of the stab and elevator's 3/8" spar and leading edge, respectively. To seal off the back sides of the hinge slots, pieces of 3/32" X 3/16" X 0.70" balsa strips were glued in place as shown below. Notice these strips are tapered on the ends.



This is a bottom view picture of the completed horizontal tail.....Tandy

