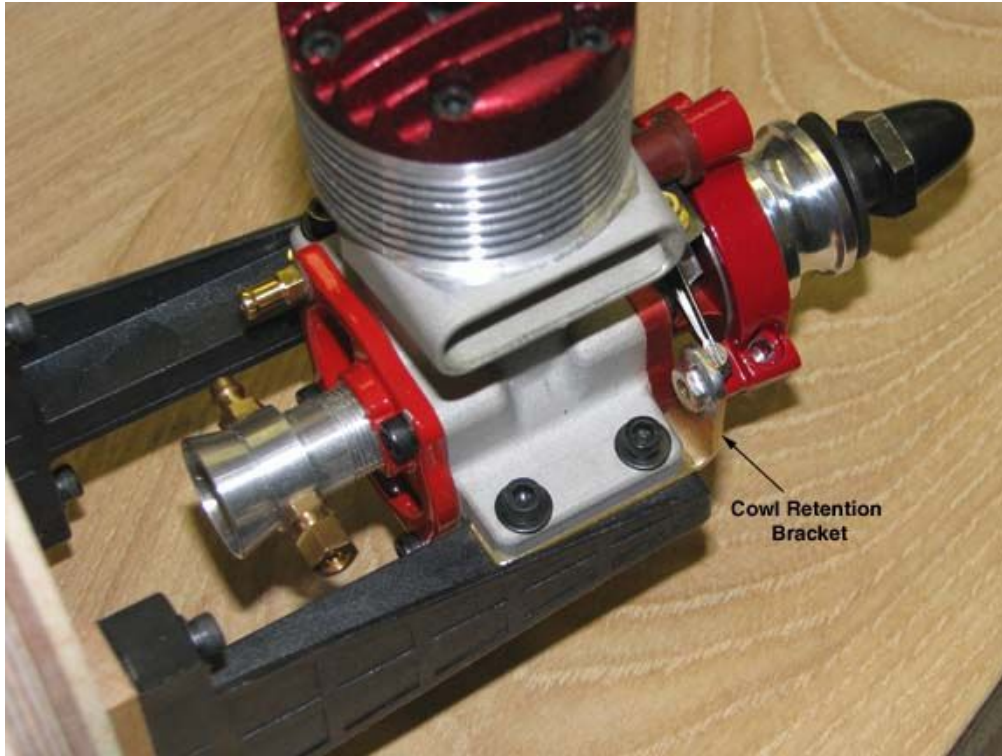


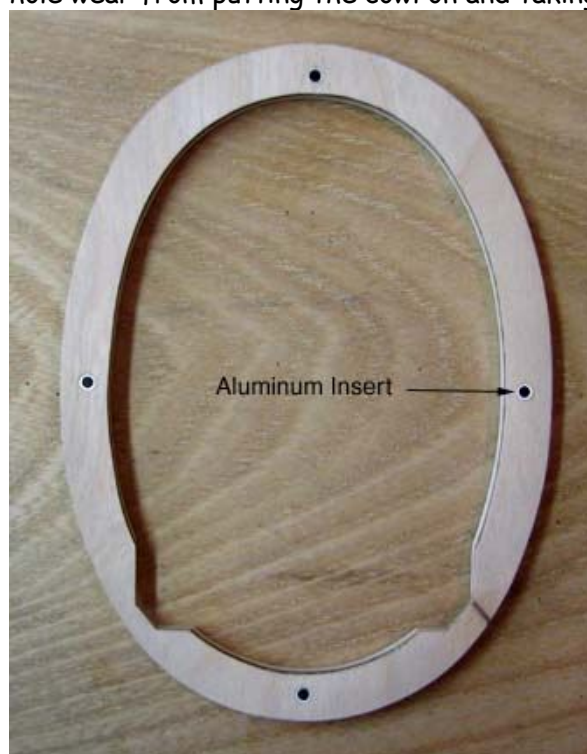
From: ["Tandy C. Walker" <tandyw@flash.net>](mailto:tandyw@flash.net)  
To: ["Walker, Tandy C." <tandyw@flash.net>](mailto:tandyw@flash.net)  
Date: 3/25/2009 3:37:32 PM  
Subject: 62 Sailplane Cowl Retention Brackets Mounting

### *Comet Sailplane Project*

Once both cowl retention brackets were completed, they were installed between the McCoy 60's mounting lugs and the composite motor mounts for the trial fit shown below. This report will now discuss the design and implementation of the two internal structural assemblies used to retain the cowl on the fuselage.



In the picture below you see the backside of the rear cowl bulkhead. The cowl rear bulkhead has been notched out at the bottom to clear the motor mounts and aluminum inserts have been installed in each of the four alignment holes to prevent hole wear from putting the cowl on and taking it off.

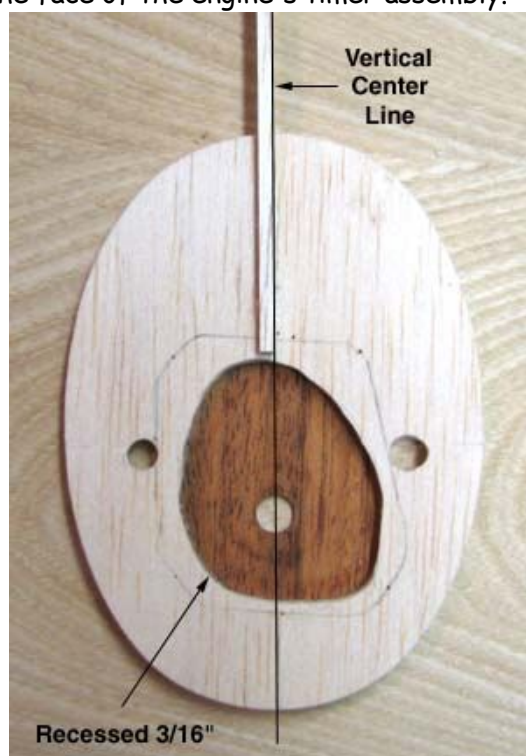


The picture below was taken from the front of the engine to show several things:

- (1) With the rear cowl bulkhead installed on the four centering pins, a vertical balsa strip has been attached to the firewall for the purpose of aligning the cowl front bulkhead.
- (2) Two 3/16" X 1/4" notches have been made in the in the 1/8" balsa rear bulkhead overlay for the cowl attachment structure.
- (3) A nylon washer has been CA'd to the front face of each of the cowl's brass retention brackets for cushion.



The backside of the front cowl bulkhead is shown below along with its attached vertical balsa strip for the purpose of alignment with the vertical strip on the firewall. Notice that the 3/16" thick bulkhead has been cut out to clear the McCoy's timer assembly and a piece of 1/16" plywood has been glued to the front face of the bulkhead. The purpose is to mount this bulkhead on the crankshaft of the engine such that the front face of the bulkhead is coplanar with the face of the engine's timer assembly.



This picture shows how the alignment of the cowl's front bulkhead with the firewall was accomplished. Notice that the McCoy's prop spool was removed, the cowl's front bulkhead slipped onto the crankshaft and over the timer assembly, then the prop spool, and a nut was used to tighten the prop spool against the front bulkhead. The cowl's front bulkhead is now jugged in place and aligned to the cowl's rear bulkhead on the fuselage's firewall.



A hole for a 4-40 screw was drilled in a 1/4" square spruce piece. This spruce piece was screwed to the cowl brass retention bracket as shown below. A strip of 3/16" X 1/4" spruce was cut to length to fit snugly between the front and rear bulkheads. The 1/4" square spruce piece was then marked and cut to length so that the 3/16" X 1/4" strip of spruce made contact with it when put in place. The two spruce pieces were then glued together in place in the jig set up. The screw was removed and a 1/4" balsa triangle was glued in to reinforce the structural assembly. Finally the spruce assembly was glued to both the front and rear cowl bulkheads as shown below.



This picture looking forward shows both the left and right spruce assemblies glued in place.

6/13/2018



From this point, I can now proceed to plank the cowl. However, because of its length, I will stop this report and post it for your review.....Tandy