

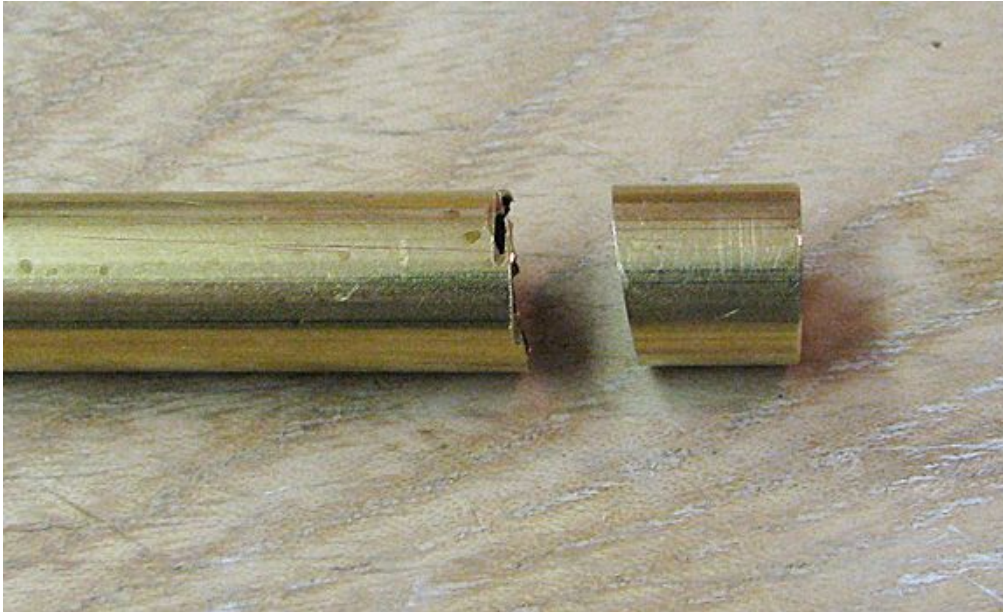
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Date: 10/9/2010 9:17:12 PM

Subject: 185 Sailplane's Cowl Needle Valve Hole Brass liner

In Report No. 183, I reported that the raw edges of the needle valve hole were coated and sealed with epoxy from inside the Sailplane's cowl. However, I decided that I did not like this. So I went to the model shop this afternoon and picked up a piece 3/8" K&S brass tubing that the needle valve ratchet wheel would go through. I enlarged the hole in cowl to receive this 3/8" tube. One end was shaped to fit the outside contour of the cowl and a short piece of the tubing ~ 7/16" long was cut off to serve as a needle valve hole liner in the cowl as shown below.



A trial fit of the liner in the cowl hole is shown below.



Several passes were made at exactly matching the curvature of the liner with the cowl's curvature as shown below because once in place, no filing or shaping of the liner's external edge could be done without damaging the exterior surface of the cowl finish. The hole and the liner were each coated with epoxy and the liner was inserted into the hole in the cowl and aligned with the cowl surface as shown below. Alcohol was used to clean off the excess epoxy on the outside surface of the cowl.



The liner was sealed with a good coat of epoxy inside the cowl as shown below. The epoxy was allowed to cure bonding the brass needle valve hole liner firmly in place.



The cowl was installed and the needle valve was screwed into place as shown below. I think you will agree this has a much more finished appearance.....Tandy

