

## David Harding

**From:** Tandy Walker [tandyw@flash.net]  
**Sent:** Monday, December 14, 2009 11:46 AM  
**To:** Undisclosed-Recipient: ;@smtp104.sbc.mail.mud.yahoo.com  
**Subject:** 30 Speed 400 Cloudster - Method for Notching Wing Ribs

### *Speed 400 Cloudster Project*

I know that many of you are seasoned modelers and build equally as well or better than I, so some of the material I report on seems rudimentary and too tutorial for most you. However, I had a response from a particular modeler indicating he was having trouble cutting accurate notches in his wing ribs and wanted to know how I do it. So I decided to make the answer to his question one of my Cloudster reports.

We all have specific tools for specific jobs that work best for each of us. Balsa can be a difficult wood to cut because it tends to crush along the cut if the blade you are using isn't extremely sharp. Throughout my many years of modeling I found that there is only one brand single edge razor blade that has an exceptional edge sharpness that approaches surgical steel. It is the "GEM" single edge razor blade by Personna shown below. These blades are sometimes hard to find, but here in North Texas Walgreen's drug stores do carry them and they are expensive at \$5.15 for package of 10 blades. However, I never use any razor blade but the GEM when I am building models.

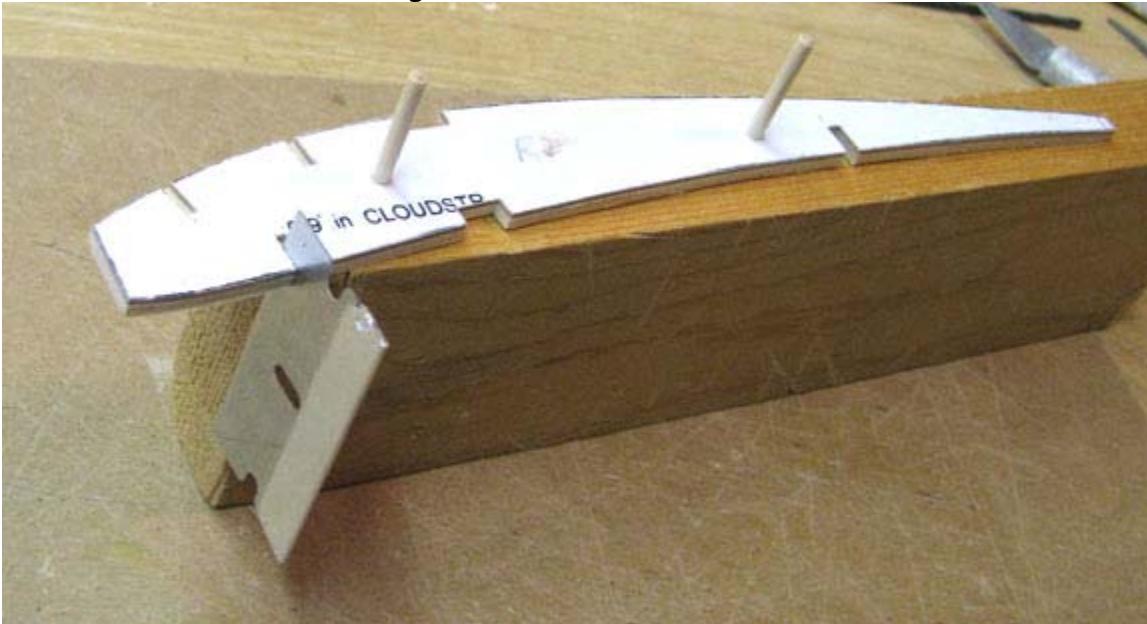


The collection of tools I use for cutting out notches in 1/16" balsa wing ribs are shown below as follows: (1) the knife is used for cutting out the bottom of notches because the razor blade will not work, (2) The GEM razor blade, (3) a small flat file with a thickness just under 1/16" (*probably 3/64"*), and (4) a 6" flat file with a

thickness just under  $3/32$ ".

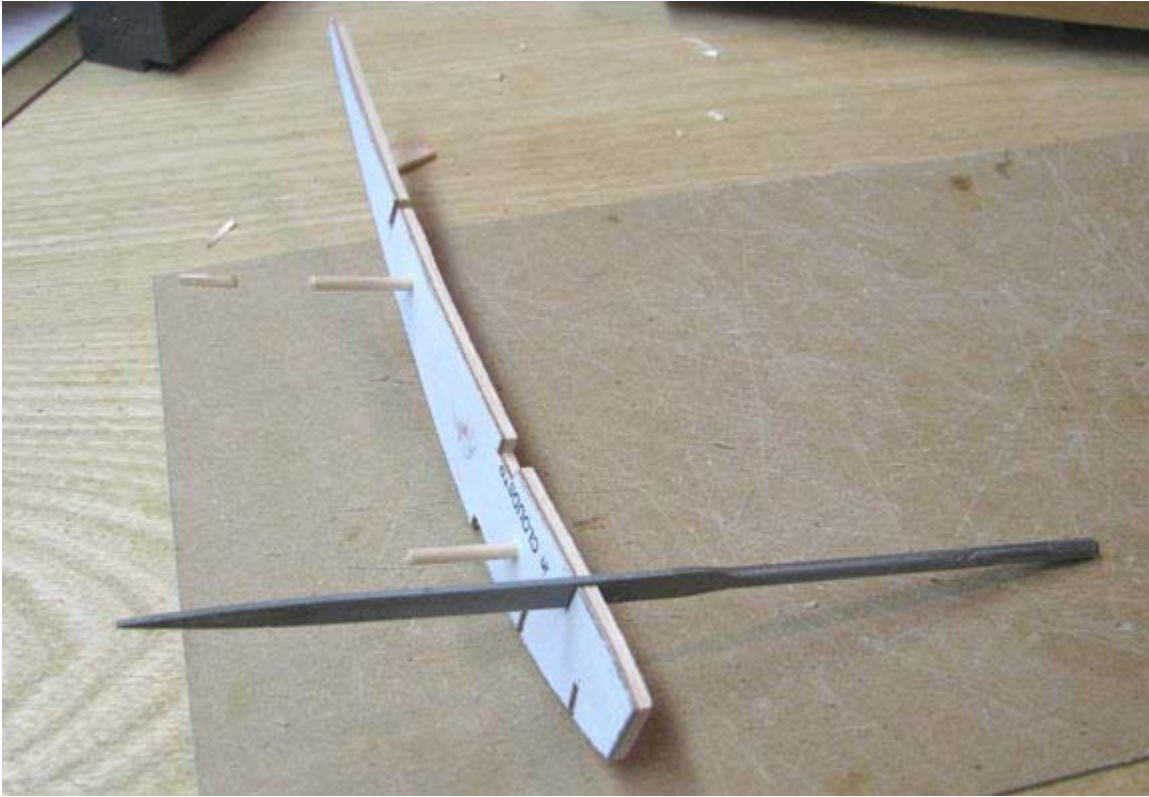


Using one of the  $1/16$ " X  $3/16$ " notches as an example, the procedure is to first carefully cut down the template notch sides with the razor blade as shown below, cutting a little at a time on each side until you have reached the depth of the notch. Do not worry about the squareness of your cut at this point, in fact it is better to have the blade tilted slightly to the inside of the notch. Use the knife to cut across the bottom of the notch and get rid of the balsa material in the notch.

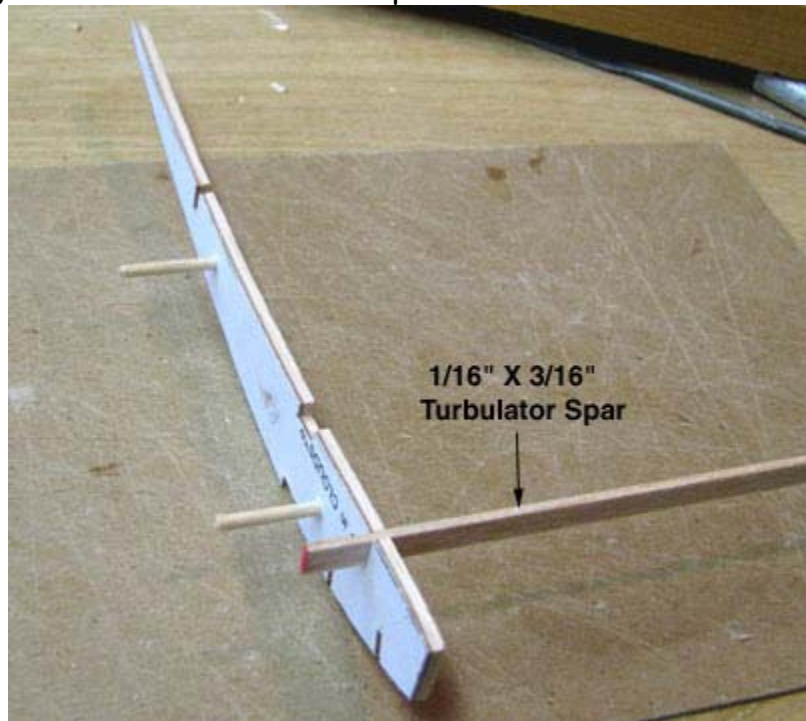


Now, using the small flat file, carefully square up the edge cuts of the notch a little at a time as shown below, which opens up the width of the notch. Do not try to reach the final width on the first filing. By the way, the 6" file is used to square up the edged of the  $3/32$ " X  $3/16$ " notch at the rear of the rib

seen below.

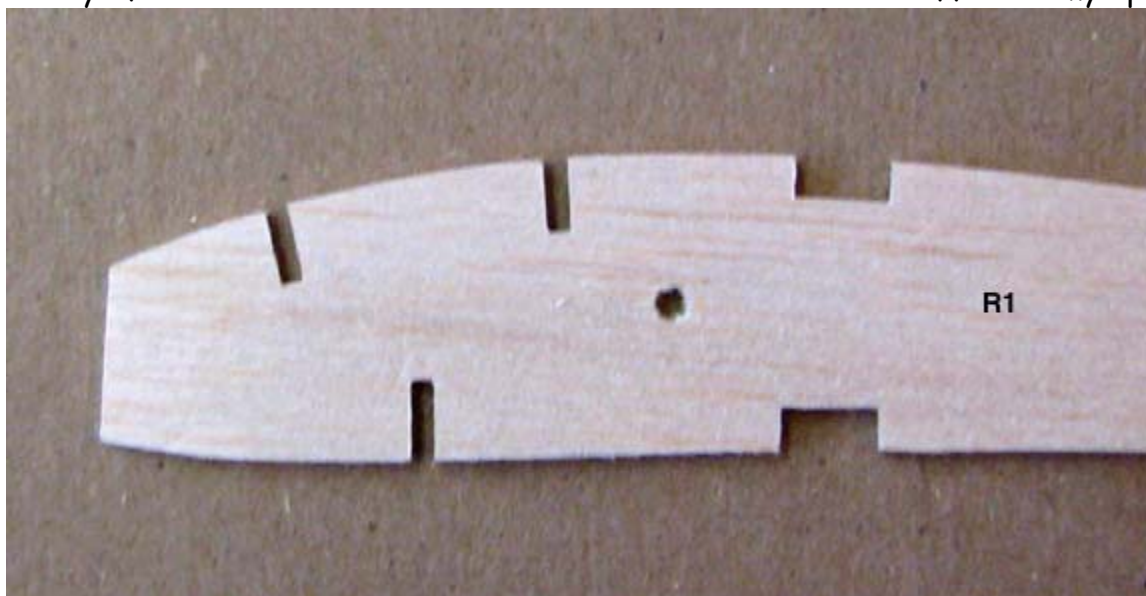


Using the 1/16" X 3/16" balsa spar stock, check the tightness of spar in the notch as shown below. Then go back with the file and widen the notch just slightly. This is an iterative process, but with a little practice, you can get the desired fit in a couple of tries.



Some of you will think this is simply too much work for just notching out a rib. However, we are all

modelers after all and building models is part of what we do and enjoy. So it takes a little extra time, the notch accuracy of the end result shown below is well worth the extra effort in my opinion.



I hope this information will be helpful, especially to the more inexperienced model builders that are having trouble. Of course you must realize that over time all modelers have developed their own way of doing everything. This is only one of many ways to notch ribs and probably not the best way.....Tandy