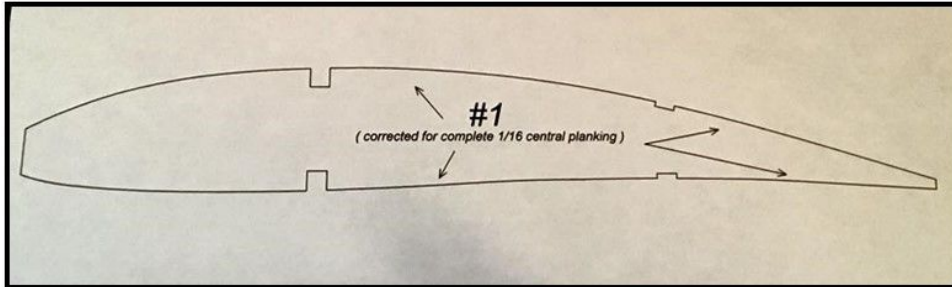


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 Date: 12/8/2017 10:02:06 AM  
 Subject: 14 Lancer 850 - Cutting Out Wing Ribs

### New Cyclone Lancer 850

December 8, 2017

As most of you know, cutting out wing ribs for scratch building a tapered wing where each rib is different is one of the more time consuming jobs. However at my age (83), I consider the task an important part of model building. Actually cutting and sanding balsa is almost therapeutic for me. In the case of the Lancer 850, it all starts with Alfredo's ACDC drawing of the #1 rib shown below.



I use three tools for making ribs. The first is a sanding board shown below that salons use on ladies sculptured nails. The board has a coarse grit on one side and a fine grit on the other, a No. 44 drill bit, and a GEM single edge razor blade.



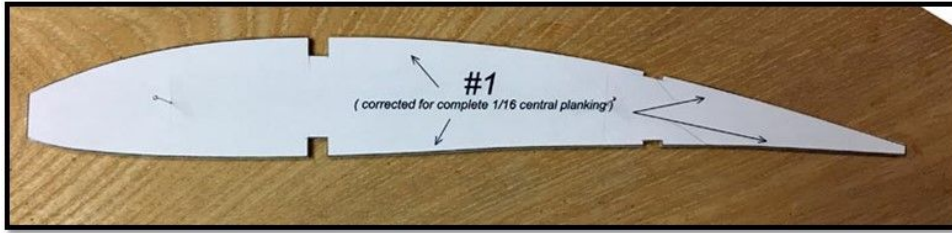
Personna's GEM single edge razor blades are super stainless steel and come in a vault (pack) of 10 blades shown below. Over the years I have tried many different blades for cutting out wing ribs and the GEM blades are absolutely the sharpest razor blades I have ever found.



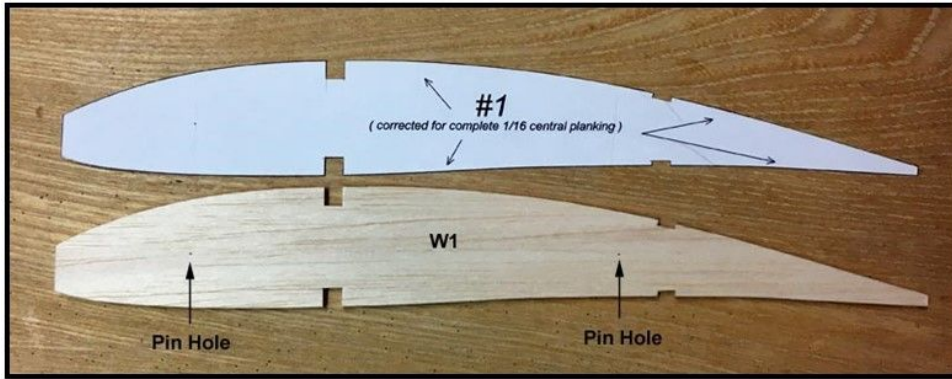
First the paper pattern for the rib is cut out, but not notched. The paper pattern is pinned down with two straight pins on a sheet of 1/8" medium balsa sheet and the rib is carefully cut out with a GEM razor blade and sanded smooth with the sanding board as shown below. This is tedious and it takes time and patience because the paper pattern is not very stiff.



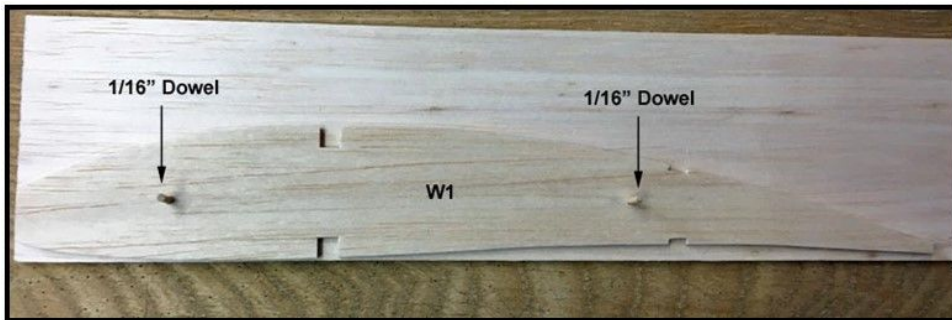
Next the paper pattern is removed and the 4 spar notches are cut out. The paper pattern is re-pinned to the 1/8" balsa rib and the notches cut out as shown below. A fresh sharp GEM blade is required so as not to crush the balsa notch edges.



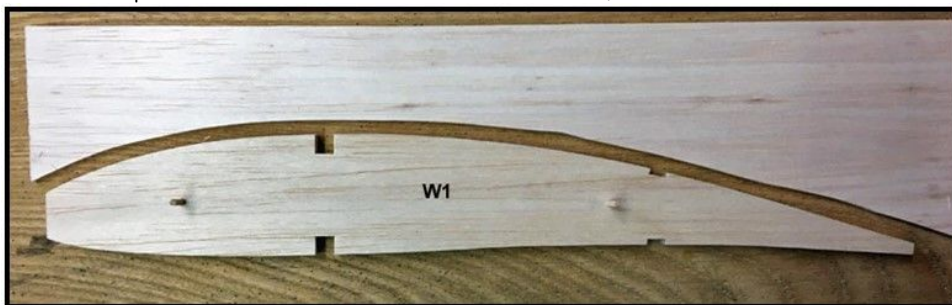
This produces the accurate 1/8" balsa #1 rib shown below that I refer to as W1. Note the two pin holes.



These two pin holes in the rib are drilled out with a No. 44 bit to fit an 1/8" dowel snugly. Now the first W1 rib can be used as a pattern to make the second one. The rib is positioned on the 1/8" balsa sheet and the No. 44 bit is finger twisted by hand in both holes and the two 1/16" dowels hold the W1 Rib in place for cutting out the second W1 rib as shown below.



This picture shows the second W1 rib cut out and sanded, but still doweled to the first.



This picture shows the two matched W1 ribs ready for assembly. The two holes in each rib serve as vent holes between rib bays. I know you may think this is a lot of work, but final result is so rewarding to an old scratch builder like myself. Now all I have to do is make the remaining 13 X 2 wing ribs!.....Tandy

