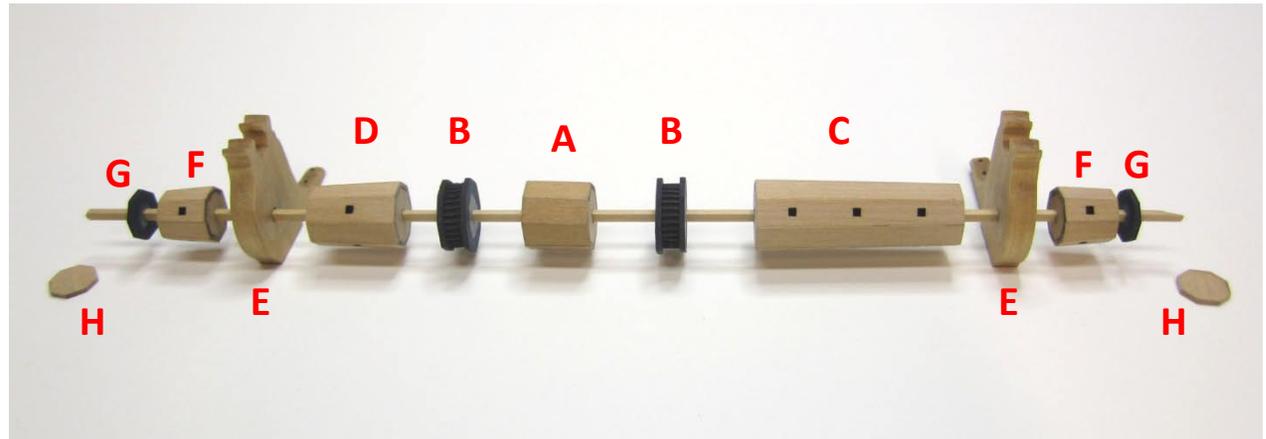


## Building Your Syren Ship Model Company Windless.

The windless is laser cut with over 50 boxwood pieces. You will be building each segment of the windless separately on a 1/16" x 1/16" strip and then removing them for final assembly later. See the photo at the right for identification of each lettered segment. Each lettered segment is cut on one or two sheets of the appropriate thickness of boxwood to make finding them easy.

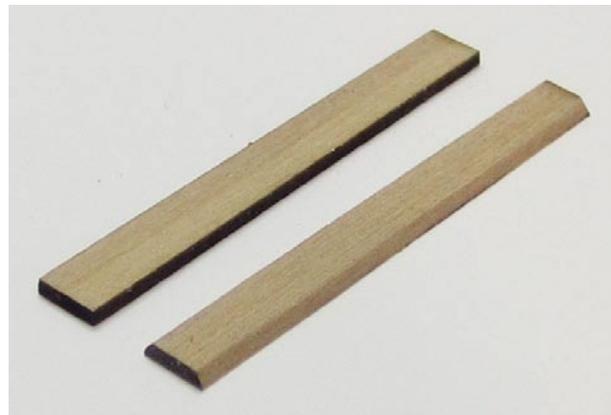
**Getting Started....**To build each segment you will be sliding the octagon end pieces onto a 1/16" x 1/16" strip. The parts are meant to be snug so they don't move and tilt too much while on the strip. For this reason they may not fit initially. Do not try and enlarge the square holes on each octagonal piece. That may alter its placement. It is best to run the strip through some fine sandpaper until you can slide the pieces onto it. Remember, they must be a snug fit but you don't want to struggle with it.

**Segment A** – Each segment including this one will have two octagonal end pieces. Remove them from the laser cut sheet. DO NOT sand the laser char from the edges. They are precision cut and each side is



equal. If anything, just lightly file the tan that held it into the sheet along one of the edges.

Slide both pieces onto the strip.  
Approximate the distance for now. Do not



glue these to the strip. You want to be able to slide each finished segment off the strip.

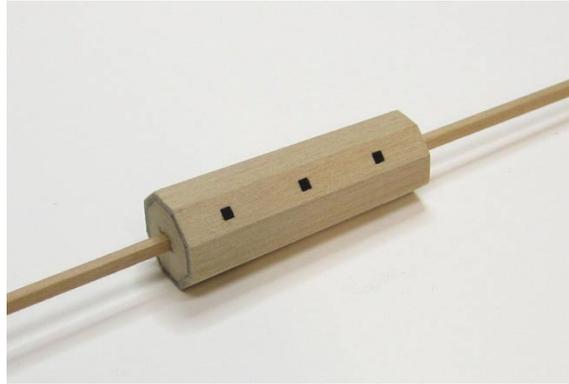
This segment has no holes in it for the windlass bars. Remove the windless sides for this segment. These will need to be beveled to get a nice tight joint along each edge as they are glued together. In the picture below left you can see the top piece which has NOT been beveled. The bottom piece has been beveled properly. With a little practice you will quickly find the appropriate angle. Use a wide, flat needle file to create the bevels. You can use the laser char on the edge to check the progress of your bevel. You want to bevel it so the edge on one side remains untouched. Try not to alter the shape on one side of the piece or they won't fit as nicely and you will have gaps along the corners of your octagonal segment. Once the laser char is no longer visible or a very faint sliver remains visible along the bottom edge...you are done.

You will begin by gluing one of these pieces to the top and bottom of the octagonal piece you pushed onto the strip of wood. Glue one end to the octagonal piece first. Then slide the other octagonal piece over where you will need it on the strip. It can be tricky to find the proper spacing at first. By the second or third segment you will be a pro. Each segment has a large and slightly smaller end. Make sure you orient all of the outer shell pieces correctly. You should



start with a shell piece on top and on the bottom first as shown below. This will stabilize the segment and make it easier to add the remaining outer shell pieces. Carefully line them up on each face of the octagonal pieces or you may have some gaps when you try to insert the final piece.

Bevel the remaining six pieces of the outer shell to complete this segment. Slide it off the strip and sand it clean. Be very careful to maintain the octagonal shape you worked so hard to create.



**A finished segment above ready to be removed from the strip.**

**Repeat this process for segments C, D and F. These will have holes on every other face for the windlass bars. Remember to alternate them.**

**Segment B** – This segment is comprised of the sprocket and two outer ends. Just slide them onto the strip and glue them together with the sprocket sandwiched between the two ends. But be careful NOT to glue them to the strip. You can carefully remove the laser char from the outer ends pieces which are Octagonal. Just don't sand too much away. You just want to smooth them out to prepare for painting. These would have been metal and should be painted black.

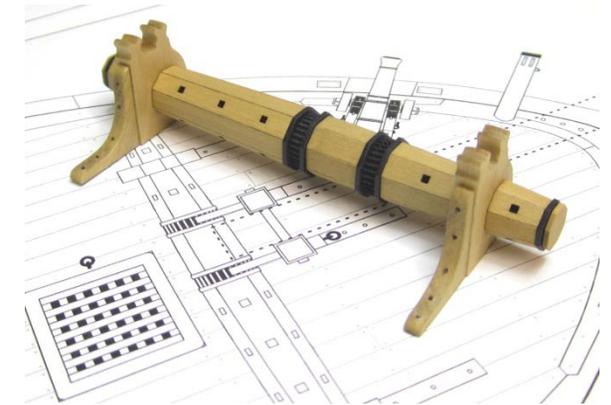
**Segment E** – These are the brackets that hold the windlass on deck. They are pretty straightforward. Sand away the laser char carefully and

glue the standards (1/8" thick knees) to the appropriate side of the brackets.

Set them aside until you are ready to assemble all of the segments onto the strip.

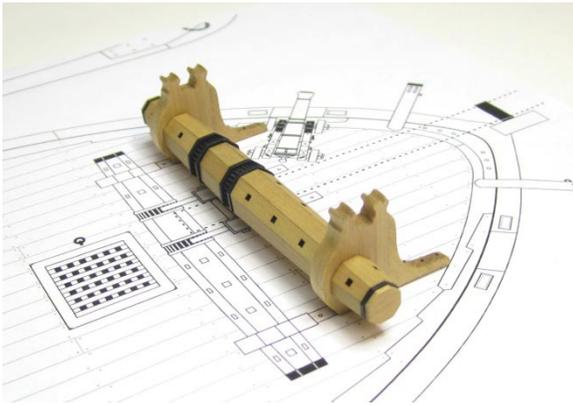
**Segment G** - This is just one octagonal piece that should be painted black. It is slightly larger in diameter than the segments on either side of it. After final assembly it will stand slightly proud of the surface and simulate an Iron Band around the windlass used for strengthening.

**Segment H** - This is the octagonal end cap for each end. Lightly sand each edge to remove the laser char. An emery board as a sanding stick does a really nice job of removing the laser char. These will be the last pieces you glue onto each end after you assemble the other segments onto the strip.



**Final Assembly** - Slide all of the segments onto a strip. Sandwich them together tightly as a dry fit test. Remember to place them in the correct order and orient the holes properly on

each face of the windlass. If you are happy with how it all fits together, spread them apart slightly and apply some yellow carpenters glue to the strip. Slide them all together tightly. Once the glue sets...snip off the excess strip from each end and carefully glue the Encap (segment H) onto each end. Be certain to line it up with octagonal sides properly to complete the illusion of a one piece windlass drum.



You are all DONE!!!!

