

## Chapter Fourteen

### *Foresail Halliard...*

The foresail halliard was rigged using .018 tan rope. You will need two 3/16" single blocks. One should have a hook seized to its end. The hook can be made from 24 gauge black wire. This block is hooked to an eyebolt at the stem on top of the cap rail. See the photo below.



That same photo shows the jib inhaul and outhaul belayed to the bowsprit step knights as well. But we will get to that shortly. Let us concentrate on that foresail halliard.

The other 3/16" single block should have a long length of .018 tan rope seized to it. This block is also seized to the lower stay on the starboard side as shown in the next photo above right. It is seized pretty far up the stay directly under the heel of the topmast.

The running end is taken through the single block hooked to the stem and then brought back through the block seized to the stay. Finally, the loose end is brought down and



belayed to a cleat around the base of the lower mast.

### *Jib halyard, inhaul and outhaul...*

This aspect of the running rigging can get tricky. Not just to model but also to explain. I will do my best to break down each of these three elements.

The jib sail halyard or halliard depending on how you prefer to spell it, is rigged using .018 tan rope. You will need two 3/16" single blocks. The first has a hook seized to it. This block will be hooked to the jib traveler ring's hook. The other single block is seized to the eyebolt on the forward side of the cap. On some contemporary models it is also seized to the lower stay like the foresail halliard but this time on the port side. This keeps it from interfering with the bottom of the topsail when set flying because it is much lower. Either place will do.

The halliard is seized to this block as well (2) with the running end brought through the

block on the traveler ring. From here it is brought back up to single block on the cap and then down to a cleat on the mast for belaying. I left this very loose for now so I could adjust this line along with the inhaul and outhaul which are next.



The outhaul is rigged using .018 tan rope. This has a large stopper knot formed on one end so it won't slip through the shackle on the traveler ring. But to simplify this, you could just seize it directly to the shackle.

The running end is run through the sheave on the end of the bowsprit and then also through the sheave on the stem (starboard). From here you can bring it up and inboard so it can be belayed to the bowsprit step uprights.



Again I just clamped it to the upright for now and will adjust the tension when everything is finished.

The inhaul is also rigged using .018 tan rope. A short length of rope was seized to the traveler ring on both sides. It was long enough that it would form a "V" after seizing another line to its center as shown after forming an eye. The end of the inhaul was seized to this eye.



The loose end was brought inboard to the bowsprit step upright on the port side.

With all three elements in place, I was able to tension each individually by trial and error. Slowly I was able to glue the running ends permanently to their belaying points and finish them off with rope coils.

**IMPORTANT NOTE: As I was preparing to shape my yards I discovered that the lengths shown for both on the plans was very wrong. At some point I must have inadvertently clicked on them and stretched them. You may have an older set of plans that has the yards shown the incorrect length.**



**To fix the problem I have attached a PDF at the end of this chapter that shows the yards the correct length and fitted out with blocks etc. Please use this updated sheet to make your spars.**

### ***The lower yard...***

To make the lower yard I used the same process that was used to make the masts and bowsprit. I started with a square stock of boxwood the proper dimensions. But I left an extra half inch on both sides so I could chock it in my hand drill to round off the outsides later. Then I used the 7/10/7 template to mark up each side of the strip.

Before commencing with shaping the stick into an octagon, I did create the simulated sheaves on each end of the yard. You can take the measurements and positions from the plan and complete just like the others were described for the bowsprit etc.

Once completed, I started shaping that square strip into an octagon.

Unlike the masts I was extra careful to create a neat and tidy octagon shape for

the middle of the yard. You can see that the center of the yard will remain as an octagon so try and keep it neat and sharp. I used a #11 blade to slice most of the excess wood from each corner then I switched to sanding sticks to get a nice clean edge on all eight sides.

See the image above of the lower yard fitted out.

I chocked it in my hand drill and rounded off the outsides of the yard and created the taper at the same time. I stopped periodically to check my progress against the plans. To finish up the yard, I made up the chocks that you see in the center and ends of the yard. This is pretty straight forward. The entire assembly was sanded smooth and then painted black so I could begin adding the blocks, pendants and footropes.

### **The other half of the sling...**

To make the other half of the sling that wraps around the center of the yard, I



served a length of .035 dark brown rope its entire length. On one end I then seized a thimble as shown above. Note how I left a bit extra on that short end sticking out from the seizing. This is important because you will seize over this after the next step. Once it was done, the entire length was cut to 2  $\frac{3}{4}$ " long.

Take the long end and but the end against the little nib sticking out from the seizing as shown in the second photo above. You can barely see the seam. Glue it together well. Don't skimp on the glue. CA is fine for this but yellow glue works fine too. Wait until it dries thoroughly before you finish it up.

Complete the seizing by wrapping a bit further back so the joint is covered and a bit further. Then take the loose end of the seizing line and wrap it length wise around



the center of the seizing as shown above. Twice around is just fine. Glue it in place and this half of the sling is completed.



Placed on the yard above.



If you examine that photo of the yard fitted out, you will see the horses and stirrups (footropes), and the brace pendants and other blocks fixed to the yard. This is all pretty straight forward and the info for the block sizes and rope sizes are shown on the plan.

The brace pendants were set up for the fore and aft braces and the clue line blocks hung from the center of the yard. I used .025 dark brown rope for the stirrups and horses. The stirrups were wrapped three times around the yard and then the end with an eye formed on it was hung down the aft side. It hangs 11/16" below the yard with a simple eye seized on its end so I could run the horse through it. The stirrups also hang on the outside of the yard as opposed to the inside of the three wraps.

### ***Lower Yard Braces and Lifts...***

To rig the lower yard I hung it in place by hooking the slings together. Then I began rigging all of the braces and lifts. I rigged the lifts according to the plans but didn't finalize any of the lines. I found it best to rig all the lines including the braces before gluing any rope to a belaying point.

Once the braces were completed too, I was able to pull all of these lines until I achieved the correct tensions and also make sure that the lower yard was straight. It was important that it was straight across the ship by working the lifts and also not set with one side higher than the other. So constantly working and tweaking the braces were needed. I stopped periodically to view the yard from many angles until I was



satisfied. This exercise took quite a bit of time to complete.

Slowly I was able to permanently belay the lines and add the rope coils to finish them up. The rope and block sizes can be found on the plans.

### ***The topsail yard...(shown above)***

The topsail Yard was made the same way as the lower yard. So rather than repeat the process here let's talk about what was different.

The sling on the topsail yard was made the same way but this time out of .025 dark brown rope. You could serve it the entire length as well but in this case it will be optional. I have seen it referred to in both configurations. The length was much shorter as well but I apologize, in that I didn't note that length when I completed mine. It was done by trial and error basically. I kept cutting the sling shorter and holding it against the yard to see how it would look wrapped around it. If it seemed too long then I repeated the process until it looked good and matched the plans as best as possible.

In the photo above you will also notice along length of dark brown rope tied to the center of the yard with one side and left loose. This line is the optional truss. I have shown this on sheet two of the plans. This is also optional as many contemporary examples show the topsail yard flying rather than secured to the yard with a truss.

I was thinking that using a truss for the topsail yard will make it easier to rig. The topmast and the yard are so thin that it will be prone to bending. I thought it would be easier to adjust the tension in all of the rigging lines if the yard was secured to the mast before I began rigging the braces and cluelines. I used .025 dark brown rope for truss.

It was tricky to complete the other end of the truss to secure it on the yard but after spending a bit of time I was able to pull it off. There are really no tricks to this and just following the plan and taking my time I was able to seize the other end of the truss and thus secure the yard in position.



### ***Rigging the Topsail Yard...***

Once again, to risk repeating myself here unnecessarily, rigging the braces, the topsail halliard and lifts was no different than rigging the lower yards. All of these lines were rigged on the model and left loose. After about 15 minutes of adjusting them, I glued them to their belaying pints one by one and finished them off with rope coils. At this stage of this project I am sure you can easily follow the plan to find the correct dimensions and block sizes.

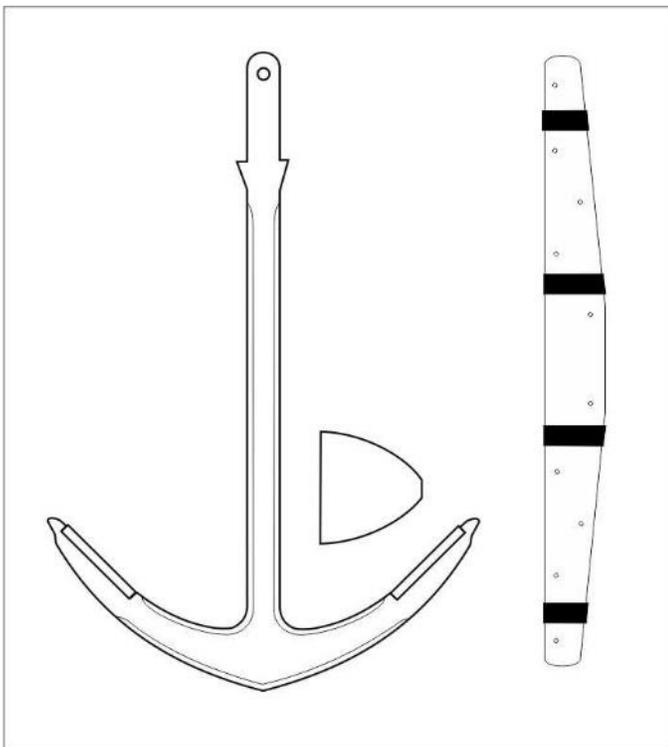
The same is true for the cluelines. The only difference here is that you must be very

careful applying tension to these lines to avoid bending the topmast or even the topsail yard. Try to apply only enough tension so the lines won't go slack before you start to see some bending of the yard and mast.

### ***Anchors...***

The anchors were made using the mini-kits available from Syren Ship Model Company.

The anchors are not made of metal but are laser cut using boxwood. The various elements of the anchor were glued together after removing the laser char from them.



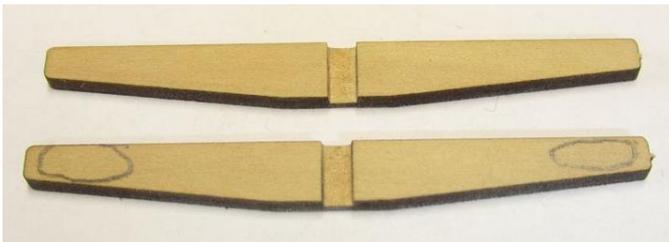
The assembly was quite self-explanatory but I would note that the laser char was

removed from each piece first and then the two main pieces glued together without the flukes/palms. This made it easier to sand the bevels in according to the drawing (left). The shank is more or less an octagon and I used an emery board, files and sandpaper to shape it like the drawing.

Then the palms/flukes were added and shaped along with the very points which needed some attention to match the drawing. I made sure all of the joints were tight and any cracks were filled wood filler. But luckily the laser cutting was so precise there weren't any gaps. This should make painting them black and finishing them so they look like metal a lot easier.

I painted them black being careful to not have any brush strokes showing when it was done. I used several coats of thinned down acrylic paint. Then as done earlier with the other parts to simulate a metal look, I brushed on some weathering powder.

The anchor stock is composed of the usual two pieces. The slot is laser etched for the shank but isn't quite deep enough. So I cleaned that up with some chisels. You will have to do the same if you are using one of these mini-kits. Note that I did not remove any laser char from the edges of the anchor stock pieces yet. It is best to remove it after the two halves are glued together. The whole piece comes out better if shaped after both halves are glue together. I applied the glue only where you see the two circled areas in pencil.



I didn't want any glue in the center because once glued up I will slip it onto the shank and the center will spread apart slightly which is what you want it to do. This is an air gap and prevented rotting. Once the laser char was removed and the ends rounded off, I also tapered the ends thinner. The ends are gradually taper thinner when viewed from above. The photo above right shows what the stock

looks like when slid onto the shank for a test fit.



Below is a photo of the completed anchors.



I had also drilled and simulated the treenails that went through the anchor stock. I did it just like the treenails we made in the hull planking. The metal bands were made using blue painters tape. I painted a length of tape black after adhering it to my workbench. Then I cut thin strips from it. The tape was wrapped around the anchor stock to simulate the metal bands. Follow up with a bit of

weathering powder to really make it look nice.

The anchor ring is provided in the mini-kit. To make it more authentic, I used .008 dark brown rope to create the pudenning on the ring before adding it to the shank of the anchor.

The pudenning can basically be compared to serving the entire length of the ring. Then three more served areas on top of that finish it off.



You can show the anchor buoys as well but this is an optional detail.

The buoys should be about 1/4 to 1/3 of the length of the anchor, original sources are sketchy. These buoys are 15mm long and also come supplied in the mini-kit. They are two black beads which happen to be the perfect shape and size for our purposes here. The beads have a hole through them already but it is too large. So I filled it and then re-drilled for the eyebolts. This is not how a real anchor buoy is fashioned but I have simulated the details like this for years

and I think it does a nice job of it using the eyebolts. It makes rigging the buoys easier as well. The eyebolts are not glued in all the way. They are left about 1/32" from the buoy end so I can seize the loose ends of the rigging around them. See the image on the next page which detail all of the steps.

First the eye bolts are added and the buoy is touched up and painted black. Then I prepare two rope assemblies for each buoy. Each assembly contains two lengths of .025 brown rope with an eye formed on one end. Then they are both slid onto another length of rope to complete the rope assembly. Two are needed for each buoy. One on each side of the buoy. Normally the rope is served for these but I think they will look fine as is. Adding these two assemblies to the buoy is tricky enough without added complications like serving. You will soon see. But I do hope you will give it a try because this detail really does add a lot to the finished look of your model.

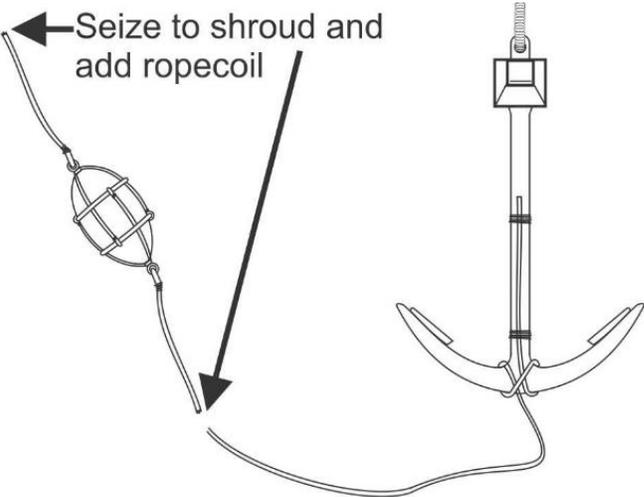
This rope is spliced around the buoy and the two loose ends brought down to the eyebolt. Here is where I seize them around the bases of the eyebolt and snipped off the loose ends. See that photo which shows the second buoy in this stage but I haven't snipped off the excess rope yet after seizing the two loose ends. I repeat this process on the other side but note how the two loose ends will now be run under the first assembly first as they work their way towards the eyebolt on the other side. It's difficult to explain in writing but hopefully the photo does the trick.



Then I touch up the black paint and apply some weathering powder. I don't want them to be solid black. You can see the completed buoy in front (right).

***Let's rig these anchors...***

The drawing (right) shows the configuration for rigging the anchor and buoys. To start, I used .025 light brown rope and seized it to the shank of the anchor as shown in that drawing. I left the loose end rather long and it will eventually be fixed to the



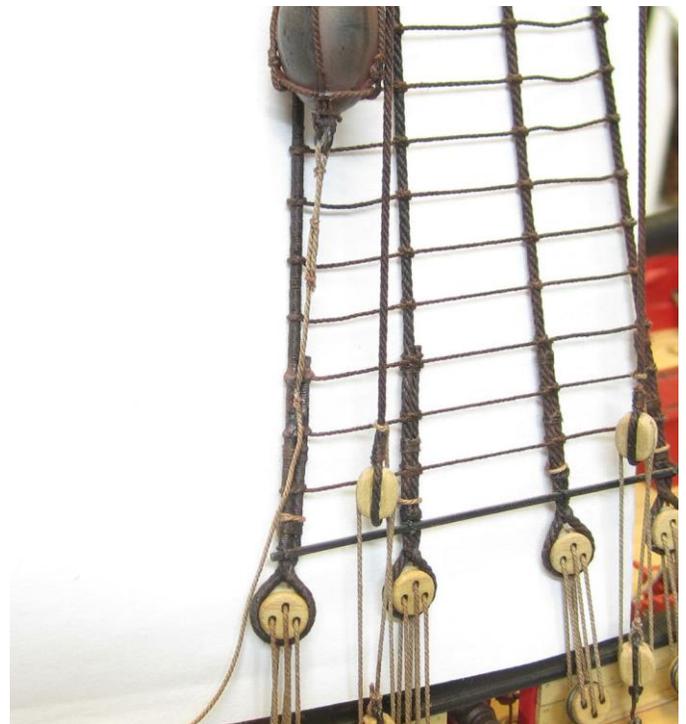
forward shroud. But that won't be done until the anchor is lashed in position on the model. This is a simple affair, I just wrapped some .025 rope to make a loose coil. It was long enough to fit over the timberhead at the bow (through the forward port) and also through the anchor ring so it would hang naturally. I didn't want it to be too stiff and getting the anchor to hang correctly and "look" right



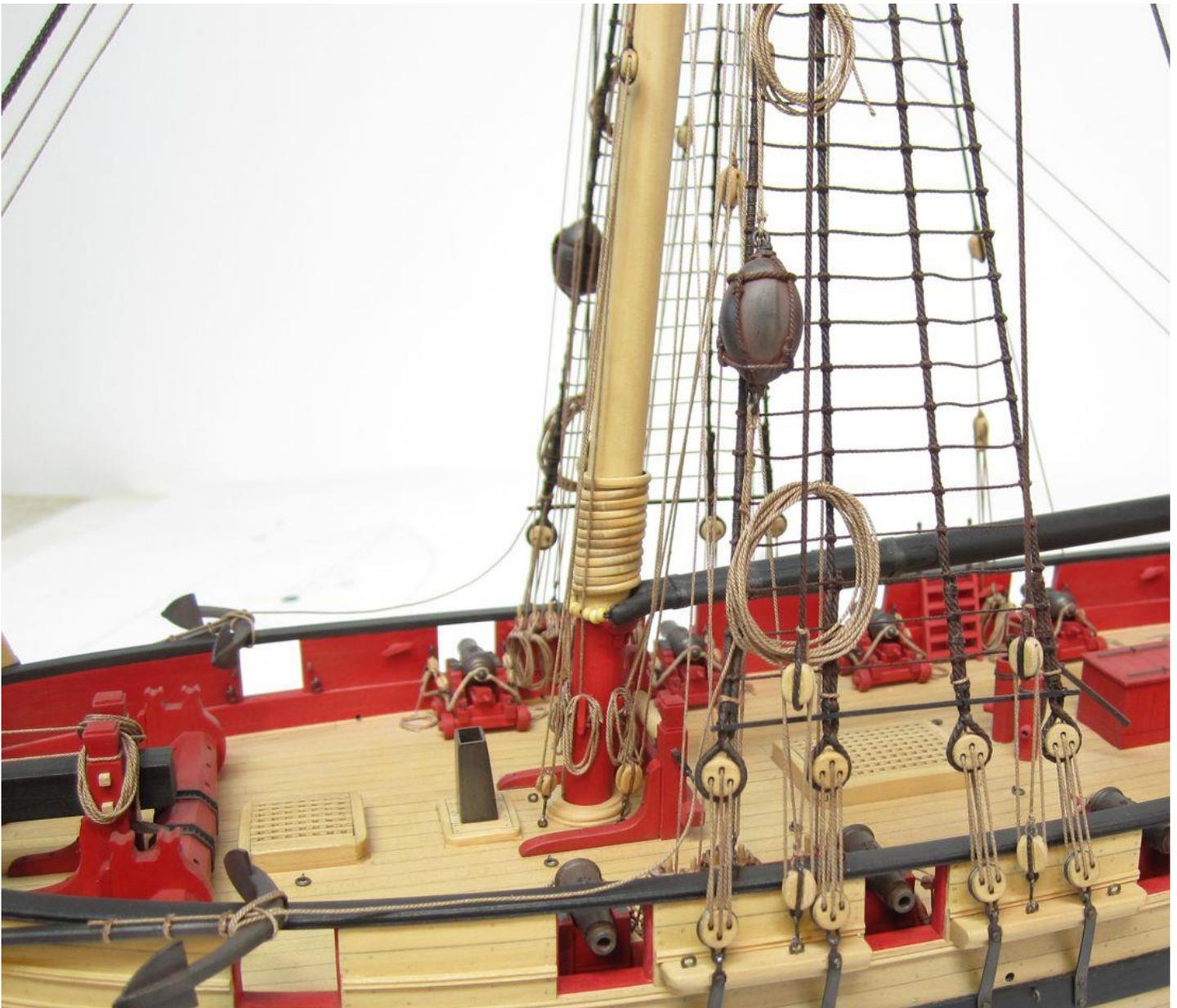
was my main concern. I am pretty sure this is not very historically accurate but is very similar to how it was done on many contemporary models. So it is good enough for mine as well.

A second coil was formed around the flukes and the second port so they would sit atop the cap rail neatly and securely. Note the buoy rope we added earlier trailing off to the right which we will glue (not seize) to the forward shroud next.

You can see in the photo (right) the buoy rope was taken up to the first shroud and glued into position. It doesn't actually extend up to the buoy. We are just simulating this look. I attached another line to the bottom and top rings of the buoy



which were also glued to the first shroud. They were glued inconspicuously to the front side. You cannot even see the seam where the two lengths butt together. The



rope on the top of the buoy was also glued inconspicuously to the first shroud just a bit above it. I made sure there was enough room for the rope coils to hang down neatly.

I made two largish rope coils from the same .025 rope and tried to hide both ends so you couldn't see them. A dab of glue did the trick and the ends were tucked deep inside the coils. I then glued the coils to the shrouds very careful to place them in a way that it looked like they were part of the

same buoy rope. This requires a tiny seizing to secure the top/center of the coil to the second shroud. This was customary and these rope coils were neatly tied off to the shrouds when not in use.

A second, slightly smaller coil was made for the other buoy rope which extends from the top of the buoy. When you glue that one to the shrouds, make sure it looks like it's a continuation of the small piece leading to the eyebolt on the buoy. It is all a bit of trickery. But that's OK. Nobody will be able



to tell if done neatly and you tuck all of the ends away so they cant be seen. The trick is really taking the time to make sure all of the ropes hang in a very natural way. Especially the one that runs along the top of the cap rail to the anchor.

### ***Entry Way Stanchions...***

We are just about to the end of our project now. I had left the task of making the entry way stanchions to the very end. They will be quite fragile and I would have certainly broken them a few times had I not waited.

These were made just like the belaying pins. I chocked a length of 3/64" boxwood strip in my dremel rotary tool. I used some files to shape the stanchions. The hole in the top of the stanchions were drilled ahead of

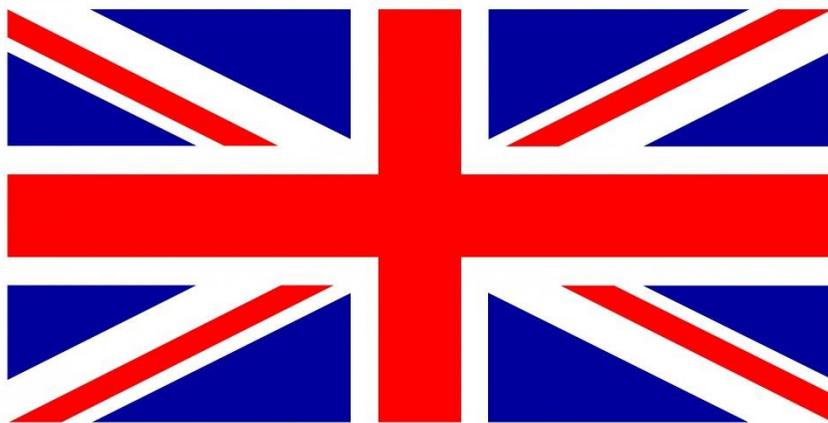
time. I only had to make four of these so took my time trying to get matching pairs. Between you and me, the two on my port side are not a perfect match to those on the starboard side. Luckily you can only look at one side at a time.

While shaping them, I left the bottom a bit long creating a pin that could be inserted into a pre-drilled hole in the cap rail. They were painted black and weathering powders was applied.

You can see how they look in the photo above.

### ***Hoisting the colors...***

***Finally!!!*** At long last, I can add the flag to the model.



The flag above can be printed out onto tissue paper with an ink jet printer. Any tissue paper will do the trick.

My flag was made from the tissue paper you use to pack a gift with. Its white....you

can buy this stuff anywhere. I don't have a brand to share with all of you because I literally went into some old boxes we use to wrap up Christmas presents and took some out of a box. But you should experiment with different brands and thicknesses.

I basically use a jpg. image of the flag which has been sized in Microsoft word. You could skew your flag ahead of time in the program to make it easier to shape but I didn't do that. I just printed out the standard rectangle.

First you print out the flag on normal 8 ½ x 11 paper so you can see where on the

paper the flag will print. Then you carefully tape the tissue paper over that image on all four sides...the tissue paper being slightly larger than the flag. Then print the flag again after placing the paper back in your printer.

Cut the flag free from the tissue paper after it dries. Cut it right along the edges with no white space showing. This next step is important. The tissue paper is so thin that the ink will soak through to the other side, but NOT entirely. So the first thing you need to do is flip the flag over and spray the REVERSE side with some Krylon Matt fixative. Don't be afraid to spray too much. This will facilitate the ink soaking through to the back side further and it will look like it is literally printed on both sides. Then after it dries flip it over and spray the front side.

Shape it to suit with various sizes dowels. You can also spray the fixative more to really soak it because this makes it easier to shape. You can do this several times if need be. Once dry, it holds its shape.

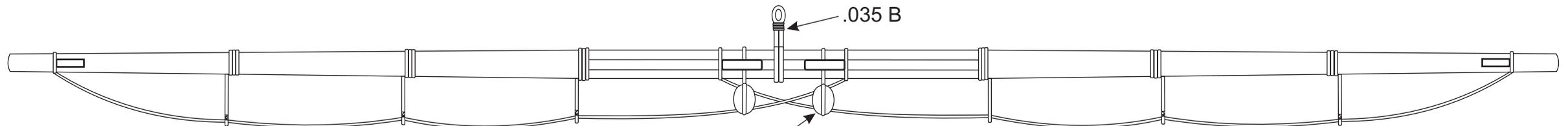
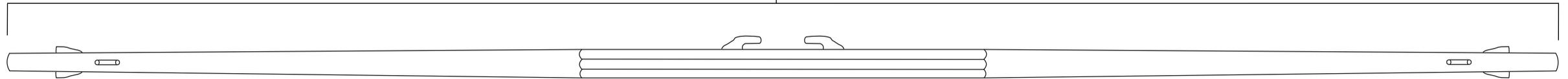
Then I poke a hole with a sharp awl in the two corners so I can lash it to the flag halliard with some .008 tan rope.

That about does it. I hope you enjoyed the Cheerful project. Thanks for reading and taking part in the project.



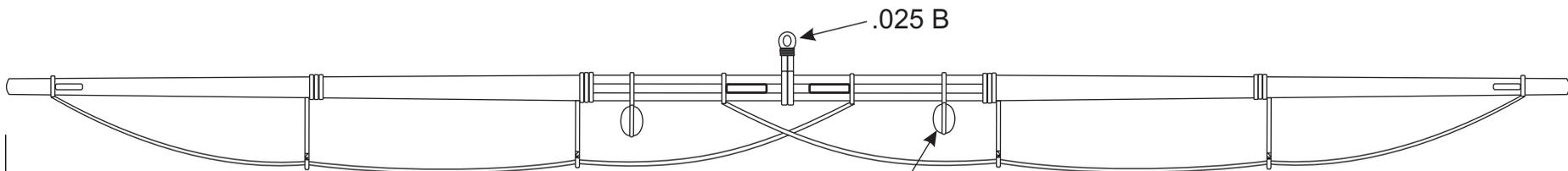
# Corrected and updated Yard plan for the Cutter Cheerful 4-15-17

12 1/2"



Footropes on Yards (.025B)

1/4"



3/16"

9 9/16"

