

## Chapter Twelve

### *Starting the rigging process...*

Before I begin describing the rigging process, I must remind folks that it would be a great time to slip that traveler ring onto the bowsprit. I forgot to mention this in the previous chapter. Traveler rings are also available for this model at SSMC. They are made already blackened and simply need to be slid onto the bowsprit before we begin rigging.



I will be rigging the model in a specific order that I find comfortable to work in. I am assuming that this is probably not your first model and you may have developed a different order to rig your model that has become comfortable for you. But even so, I will describe the different tasks to rig the Cheerful in the order I proceeded in.

Before I start, let me describe a few things that you may not have detailed on your earlier models that I am going to add to mine.

-Serving portions of the standing rigging – You may opt to not show served ropes on your model. This is purely a personal decision. Many of the ropes for the standing rigging will be shown completely served over their entire length or partially served. To serve your rope you will need a serving tool. I

have used the Serv-o-matic available at Syren Ship Model Company. It's a simple device and you could no doubt make one similar should you want to.



A served rope basically has a thinner line wrapped around it as shown above. It can be needed for a ropes entire length. The serving machine allows you to wrap a standard rope with a thin thread for an unlimited length. See below for a photo showing a served line ...bottom...in comparison to a non-served length of rope.



Thimbles- Whenever a thimble is needed I will show this detail. This is yet another optional detail. You can create a thimble very easily. I will be using thin wall brass tube from Albion. They were 1.5mm and 1.2mm and 1.7mm in diameter when made. I have no idea which will be used where yet but making a bunch in advance is always a great idea. It will save me from having to stop while rigging to make them.

Blanks of various lengths were cut and then I used the blunt punch shown in the photo to shape each end, and flare it. Just a few light taps will do the

trick. Then you can blacken them or even paint them depending on what your preference is.



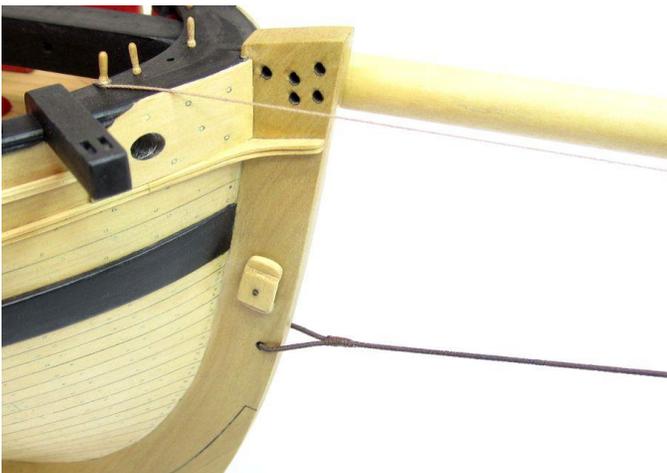
You can see one blank before I used the punch on it in the lower left hand corner. Can you see the difference between the others?

Let us begin...

I will be using a dark brown rope for all of my standing rigging and a light brown rope all of my running rigging.

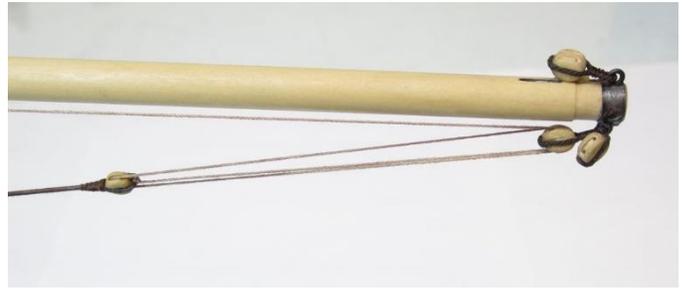
### **The Bobstay**

I used a length of .025 dark brown rope that was served its entire length on the serving machine. A 3/16" single block was seized to one end while the other end was placed through the hole in the stem. That end was seized to itself as shown in the photos.



The bobstay tackle (photo top left) was set up with .012 light brown rope. The lower double block on the tip of the bowsprit was used. The running end of the tackle being brought inboard and belayed to the

pin rail at the bow. I did not glue the belaying point at all. It is simply fixed on the belaying pin by using a simple twist of the loop around the pin's bottom. I will leave the running end a bit long for now as with all of the other lines. This line may go slack depending on the tensions from other ropes etc. So not using any glue until much later (if at all) will give me an easy opportunity to loosen it at the belaying pin and re-tension to suit. This will be



extremely important when I turn in the deadeyes for the shrouds and set up the backstays. Once the backstays are rigged it has a tendency to make the aft shrouds go a bit slack....being able to re-tension is a huge plus so none of the lines will be made permanent until much later, if at all. The rigging is not pulled to tight at this point. Just enough tension so it doesn't go slack. I see so many models with the rigging so tight it causes big issues.

I have restored many models that were 100+ years old and many times the lines were never glued permanently to the belaying points. This made fixing them and re-tensioning so easy that I have decided to give it a try on my models. Just pull out the belaying pin and the line is free to be re-tensioned.



This end is hooked to the eyebolt at the bow. They are hooked to the eyebolts on the sides of the bowsprit that have the 3/16" single blocks on them. These cutters had many lines that sometimes utilized the same belaying point or eyebolt etc. Take a look at this photo below of a contemporary model of a cutter from the same time period.



I figured it was also a good time to seize all of the blocks that will be called for onto their respective eyebolts on the tip of the bowsprit. You will need two 3/16" single blocks and two 3/16" double blocks. I used .018 dark brown rope to seize the blocks to the eyebolts.

Here is a photo of how it will look on your Cheerful once hooked.

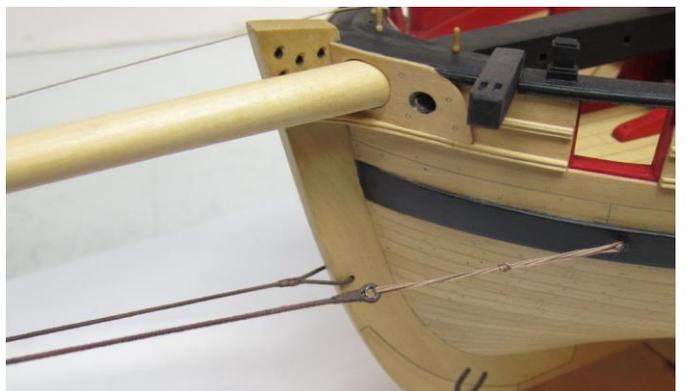
### **The Bowsprit Guys**

The bowsprit guys were also served their entire length. Thimbles were seized into both ends of each. I used .025 dark brown rope for these. There are two of these and both were made at the same time to ensure they came out the same length.



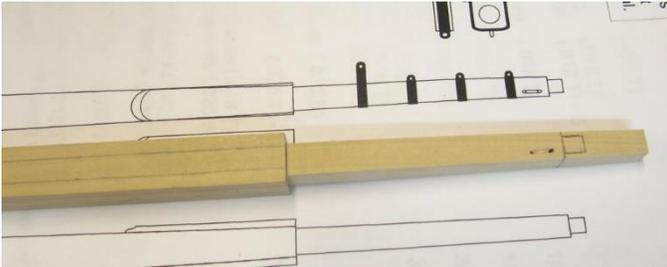
The other end has a lanyard that stretches across from the thimble to an eyebolt in the hull. See below. I used .018 light brown rope for these.

The forward ends have hooks fashioned from 24 gauge black wire.



## Time to make the lower mast...

To begin, I started with square boxwood stock dimensioned to match the widest part of the mast. Then I squared up and tapered the top according to the plans using some chisels and sanding sticks. But before doing that I drilled the holes for the sheave as you can see.



Once the top portion was squared off and tapered I finished up the sheave by rounding it off and cleaning it up. You can also see the 7/10/7 ratio applied to the lower mast. I am about to chisel it to an octagon in preparation for rounding it off just like the bowsprit. The entire mast was left a bit long so I have some extra meat to chock it in my hand drill. The square tennon at the top of the mast won't be shaped until the mast has been rounded off.

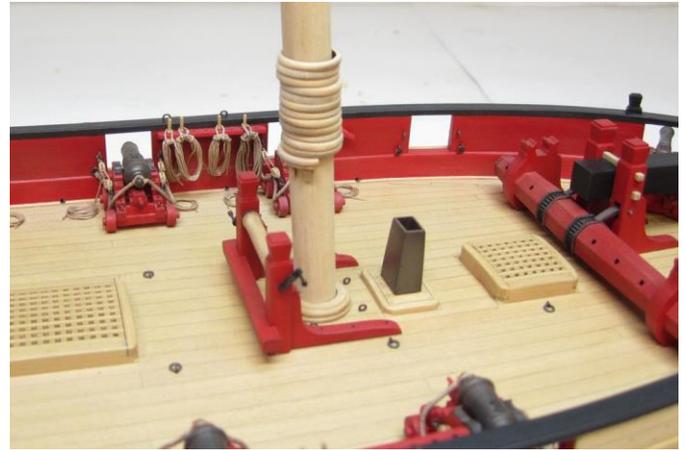


It was chocked and rounded off with some sandpaper. I also carefully created the taper to the rounded portion while sanding it. The mast has a slight taper to a smaller diameter as you get closer to the squared off section at the top of the mast.

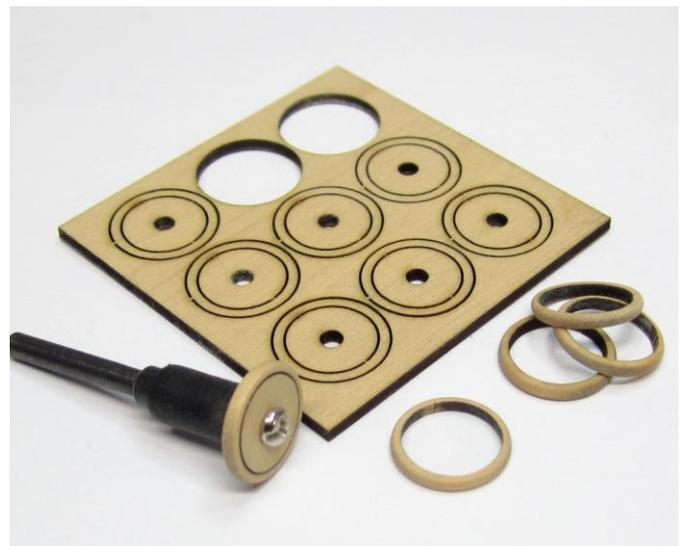
Once satisfied with the rounding off of the mast, I created the square tennon with some sharp chisels.

The boom rest was fabricated from a washer of boxwood 3/32" thick. Just like the mast coat it was shaped to its profile using needle files and sanding sticks. It was cut in half and then the small chocks

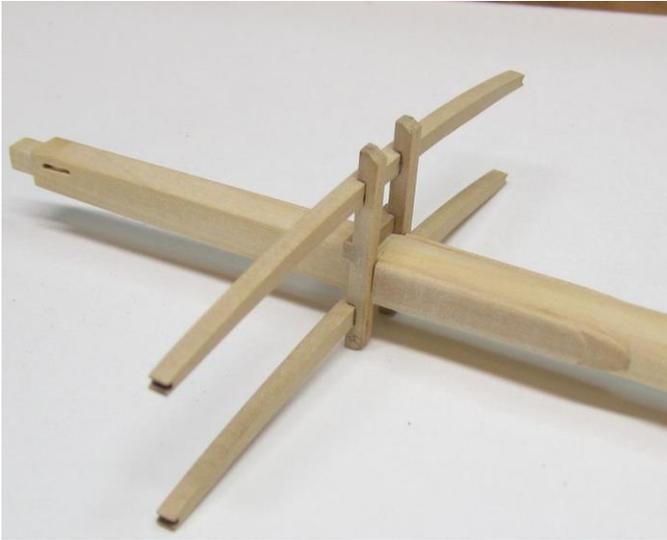
were added around the perimeter after it was glued into position.



I made sure to make the mast hoops using the mini-kits from Syren Ship Model Company and slip those on the mast before adding the trestle tree permanently. I was afraid that I would forget but luckily I didn't. Above you can see the mast test fit into position. The cleats will be added around the base of the mast before I paint it. The photo below shows the mast hoops. I used a dremel to sand them and round off the outside edges after securing them with the dremel shaft that is used for the sanding drums. You can use the little screw to tighten the hoops in position. Once rounded off the center section is punched out to leave a nicely shaped mast hoop. I didn't bother trying to sand the laser char from the inside edge of each hoop because it won't be seen. These hoops are very fragile and it isn't worth the effort because the hoops can split easily.



The trees were crafted from boxwood using the plans as a guide. It was pretty straight forward except for the fact that it must be angled properly on the mast. Once the cheeks were shaped and glued to the mast, the proper angle for the trees was filed into the top of each cheek so the trees would be level with the deck after it was installed. The mast is angled or raked aft and the trees must remain parallel to the deck. So considerable time was used to establish the correct angle.

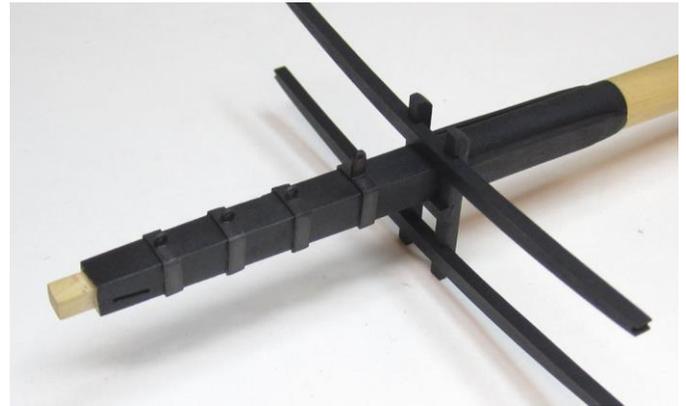


Finally the cleats were added and the lower portion painted red.



Then the masthead area from the bottom of the cheeks upwards was painted black. That was done after adding the mast bands and eyebolts. These will be used for the boom and gaff rigging later. I used painters tape for the bands. The tape was painted black and then cut into thin strips the same

width as the bands. I used 24 gauge black wire to form the eyebolts. The lowest metal band doesn't get an eyebolt. Instead a short length of brass strip the same width as the metal band was shaped accordingly. I filed a sharp peg or spike into the end that will be inserted into a hole drilled through the band. The other end was rounded off and a hole drilled through it to accept the block later in the rigging process.



### The topmast...

I won't describe in detail the process used to make the topmast. It is basically the same process used to make the lower mast. I started with square stock. Then I used the 7/10/7 ratio to chisel it to an octagon. Then it was chocked in my hand drill and rounded off. A tenon was made at the top for the ball truck. All of the sheaves were drilled and shaped beforehand while the stock was still square. Reference the plans for the details.

The mast cap was cut from the appropriate sized wood and shaped. Eyebolts were added and the topmast was tested in position. There is a small hole at the base of the topmast and the fid was inserted into it. The fid is a small pin of wood that prevents the topmast from falling through the trees.

On the next page you can see some photos of the topmast being tested in place as well as painted black when completed.



### **Boom and Gaff...**

**I figured I might as well just skip ahead and make the boom and the gaff. The same techniques were used.**

**See photos on the next page. Although I will describe them more in depth when it comes time to rig them.**

Jaws for the boom were added after the sides were flattened to accept them. Dimensions taken from the plans. Painters tape was used for the bands. The bead trucks are small wooden beads I had in my stash of parts from projects done previously.

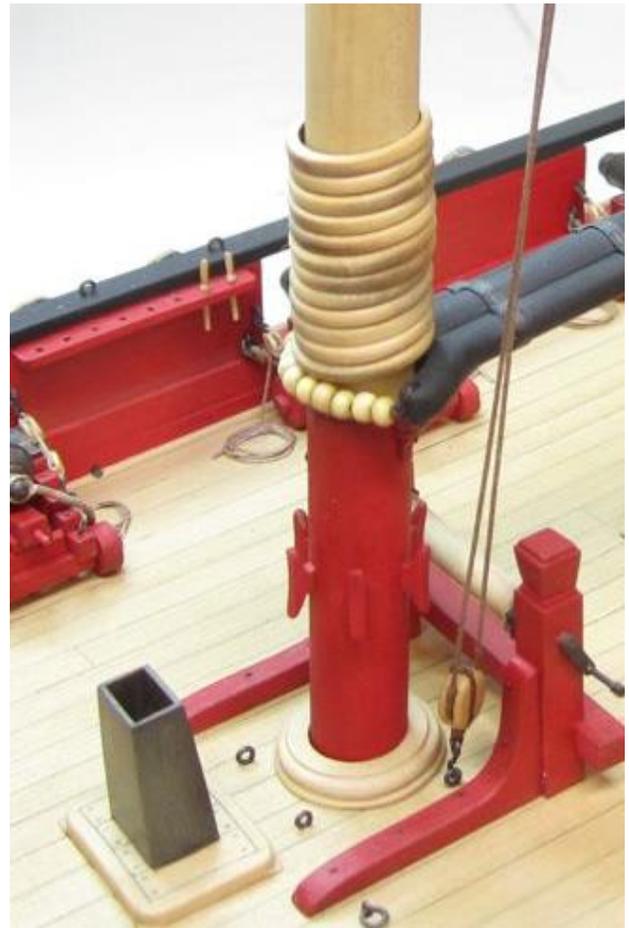


The tip of the boom has the 1/4" single block added in advance for the topping lift. A 1/4" triple block for the main sheet was also seized to the boom at this point in preparation to rig it. The photo above shows the .018 light brown rope I used for the main sheet left extra-long and left loose after seizing the triple block to the boom. As I finish the boom, gaff and yards I try to add whatever blocks would be seized to them in advance of the rigging process.

As I progress with my rigging, I like to work from the inside .....outward. Meaning that I will be rigging the Boom and Gaff next rather than continue with the standing rigging. It will be much easier to rig the boom and gaff now without having the shrouds and backstays in the way.

With the blocks added to the boom I prepared a bunch more taking their sizes from the plans and I seized another 1/4" triple block to the horse for the main sheet.

We are now ready to secure the boom to the lower mast. Place the jaws on top of the boom rest and tie off the parrel on the opposite jaw to secure it. You can let the tip of the boom rest on the top of the transom for now.



### Topping Lift...

To rig the boom in place I tackled the topping lift first. You will need a really long length of .025 light brown or tan rope for the topping lift. A 1/4" single block was seized to the eyebolt on the aft side of the mast cap with this rope. It was seized in a way that left the long running end of the topping lift on the block so it could be run through the single



block you seized to the tip of the boom. Then it is brought back up to the block on the cap. The long running end is now ready for you to create the topping lift tackle secured on deck. The boom should still be just resting atop the transom at this point.

### **Topping lift tackle...**

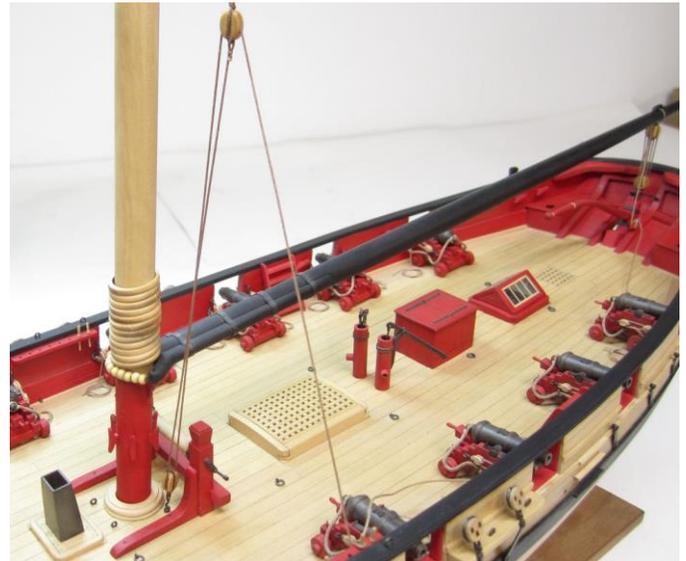
The topping lift tackle is made up of two ¼” single blocks. The first is seized to the end of the topping lift. Use the plans to find the height of this block off the deck. Examine the photos carefully as well.

The tackle will be made using .018 light brown rope. You will need to prepare another ¼” single block and strop it with a metal hook made of from 24 gauge black wire.

The tackle runs from the upper block through the hooked block. Then bring it back up to the upper block in that tackle and keep the loose end a bit long for now.

The tackle is hooked to the eyebolt on the port side next to the base of the mast. Check the plans for the belaying points. At this point you can hook the lower block of the tackle so you can establish the height of the boom. The tackle can be worked so the tip of the boom lifts off the transom. Establish a “reasonably correct height” off of the transom by working the tackle. Use the plans and photographs as a guide. The loose end of the tackle can be belayed around the pin along the bulwarks. Photo above right. But remember, don’t glue it yet. Just secure it to the pin and snip off the excess so you have a bit left over. This will be needed if you must adjust the tension on this later. No need to add a rope coil just yet either. Leave that until after you make adjustments in the rigging tension later on.

The topping lift will be “slack” and rather loose now. But that is only because we need to rig the main sheet next.



### **The Main Sheet...**

The main sheet runs from the ¼” triple block on the boom to another seized to the horse above the tiller.



Run that line through the triple blocks. Take the loose end and secure it to the cleat on the stern frame as shown. But no glue as before. Tension it so the boom is pulled down tight but...not too tight. You don’t want to pull the mast back or bend the boom etc. Just make it snug. After a little time the rigging will relax and you will have to make it tighter.

### **The gaff....**

The gaff was made in the usual manner like the boom. It was painted black when completed. An interesting feature of the gaff is that the blocks for the peak halliard and throat halliard are not seized



to it. These blocks are all stropped with hooks which will be hooked into thimbles or eyebolts.

You can prepare the gaff with parrell beads just like the boom. Then seize a 1/8" single block on the tip of the gaff for the flag halliard.

There are two thimbles seized to the gaff. Below you can see a close up photo of the blocks for the peak halliard hooked into them. You can prepare these thimbles and seize them around the gaff ahead of time.



Once completed, secure the gaff to the lower mast by tying off the parrell. It will want to slide down the mast but that is ok. We are going to rig the peak halliard next which should start to secure it in place.

You will need to prepare six 3/16" single blocks with hooks for the peak halliard. Hook five of them to the mast and gaff. Two on the gaff.....and three on the eyebolts on the aft side of the masthead.

### **The Peak Halliard...**

The peak halliard is a really long length of .018 light brown rope. Give yourself a really long piece so you have enough of it to run through all of those blocks.

Secure one end of the rope to the appropriate cleat on the aft side of the lower mast (V). Take the loose end and run it through the hooked blocks following the plan. Try and establish the correct angle and height for the gaff when you are done. It should hold in that position somewhat.



### **Peak halliard tackle...**

The loose end of the peak halliard has a 3/16" single block seized onto its end. This will be positioned the same height off the deck as the tackle from the topping lift. Set up a similar tackle as the topping lift with the remaining hooked 3/16" single block. It should be hooked on the eyebolt on the cap rail (starboard side). Don't glue the loose end to the belaying pin yet. You will certainly have to adjust this tackle later.

### **Throat halliard...**

Prepare two 1/4" double blocks stropped with hooks for the throat halliard. Photo at right. Use .018 light brown rope to set up the halliard. The



loose end is brought down to the pin rail on the port side.

To finish rigging the gaff, the flag halliard can be rigged at this time. Use .012 light brown rope. Begin by securing the rope to the cleat on the stern knee on the port side. Run it through the 1/8" single block on the tip of the gaff and back down to the same cleat. Secure it temporarily to the cleat without glue.

