

Armed Virginia Sloop - Part 5 – Rigging the Boat and Finishing Up

In general, the instructions in the kit are very thorough and if you follow them step by step you should have few problems. Dr. Feldman's work is also a valuable resource. I also referred to *The Masting and Rigging of English Ships of War 1625–1860* by James Lees and other books mentioned below.

If you have the capability to make your own rope, you can enhance the appearance of the model. The kit supplies only three sizes of rigging cord, whereas Dr. Feldman lists nine different sizes. In addition, the forestay and anchor cables should be left-hand lay rope. For this model, I used DMC cotton crochet thread in a variety of sizes (100 to 20). For the smallest rope, I used the thread as it came off the spool. Most of the ropes were twisted from three or more strands on my rope-making machine. Before I started rigging, I made up ropes from each size of thread and carefully measured the diameters to determine which threads made which size rope. Then, when I needed a particular size for rigging, it was simple to make up new rope using the original reference rope.

Although the DMC thread is available in an ecru color, it was lighter than I prefer for running rigging. I briefly soaked the finished rope for the running rigging in Minwax Puritan Pine stain and was very pleased with the results. For standing rigging that needed to simulate the tarred look, I used Minwax Jacobean stain. The stain was very effective at taming fuzzies but, of course, one can run the line thru beeswax as well.

Standing Rigging

As the instructions say, rigging the lower shrouds is the first step to completing the standing rigging. Don't neglect, however, the backstays and the horse that should go on the mast before the shrouds. Refer to Detail 5-F on plan sheet 5 for the proper sequence.

The first step in rigging the shrouds is to install the chain plates. They should be installed in line with the shrouds rather than exactly perpendicular to the waterline. Start by gently applying a strip of low-adhesion masking tape to the hull in the area of the chain plates, just below the wale. Then, tie a string to the masthead, run it down through the first notch in the channel in a continuous line down to the masking tape. Mark the angle of the string on the tape. Repeat for each notch in the channel. You can use the marks on the masking tape as an alignment guide for installing the chain plates.



Photo 1: Aligning the chain plates

The shrouds must be partly served. The instructions suggest one way to serve. Another approach is to tie the line tightly between two dowels, then tie your serving thread to one end and wrap the thread over and over and over until you've served the required distance. A drop of CA on each end will prevent the serving from unraveling. It's a pretty time consuming process but fortunately, there's not a whole lot of serving to do on this boat and at 1:48 scale, it is not something you should neglect to do. I used ordinary black cotton sewing thread for the serving.

Note that the shrouds are not completely served. All of one leg is served, the portion that forms the eye is served, and the serving continues on down the other leg a short distance below where the eye will be formed. If this sounds a bit confusing, picture the shrouds as four individual ropes numbered 1-4 from the bow working aft. Number 1 is entirely served, numbers 2 and 3 are served to just below the eye, and number 4 is completely served. You'll want to roughly calculate how much serving you'll need to cover that area and then serve a bit more. Once the shroud is in place around the deadeye, you can cut off the excess.

The shroud lanyards have to be tied off properly and the instructions are a bit sketchy about that part. The best illustration I found was in *The Masting and Rigging of English*

Ships of War 1625–1860 by James Lees on page 42. Note that there are two drawings – one for cable-laid shrouds and the other for shroud-laid. The AVS uses shroud-laid so you’ll want to follow that scheme. As E. J. Petrejus says in *Modeling the Brig of War ‘Irene’*:

“The end [of the lanyard], which came up on the inside of the deadeyes, was passed through between the upper deadeye and the shroud and then round both parts until it was expended, being stopped to the shroud with rope yarn.”

I advise against tying the ratlines at this point. You have yet to install any of the stays or other part of the standing rigging that could slightly alter the position of the shrouds. Since the shrouds remain pretty accessible for a long time into the rigging process, ratlines are usually one of the last things I tackle before finishing up the standing rigging. Although the kit says to use 0.021” line for the ratlines, that really is much too thick. Dr. Feldman’s work says the ratlines would have been 0.38” in real size and that converts to just 0.008” at 1:48. I used a dark brown sewing thread that was about the right diameter for my ratlines. I always use a paper template to space my ratlines evenly (see Photo 2). I draw parallel lines, the correct distance apart, for 6 inches or so on a piece of paper. As I tie the ratlines, I frequently hold the paper behind them to assure I’m getting the correct spacing. Once I’ve tied 5 or 6 ratlines, I touch each knot with a tiny drop of thin CA.

Many modelers prefer to use diluted white glue for securing knots, believing that CA will make the shrouds brittle and liable to cracking. I have found that if the CA is applied very sparingly to the ratline knots, it doesn’t soak into the shrouds. It’s easy to make a CA applicator from a sewing needle. Cut off one half of the eye, leaving a fork-shaped piece. Glue the other end of the needle into a small dowel. This applicator allows you to pick up and apply very small amounts of thin CA.

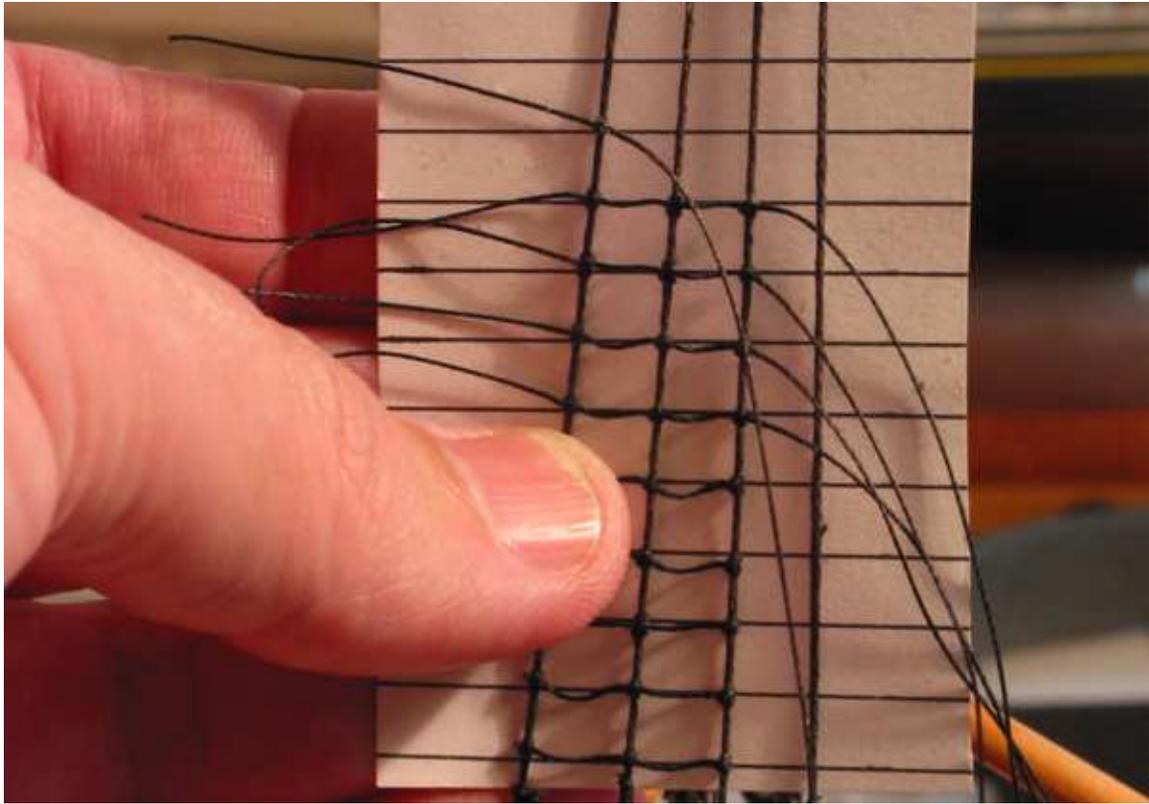


Photo 2: Spacing the ratlines



Photo 3: Deadeyes and lanyards – port side, outboard looking in.

With the shrouds in place, we can now turn our attention to the forestay and jib stay. These each need to have a mouse and eye at the masthead. Making the mouse can be an interesting little project should you choose to tackle it. I looked at a number of sources for ways to make the mouse. The one that gave me a start was Bernard Frölich's *The Art of Ship Modeling*, page 202. He used a single notched disk that made sense to me but I had a hard time understanding how to deal with all the lines at the other side of the mouse. I decided to alter his idea by using two disks (see Photo 4).

I started by cutting each disk from a large dowel. I then cut 15 notches into the edge of each disk. The choice of how many lines you want to use is up to you, but there must be an odd number of them. I glued each disk to a brass tube. Next, I made up a simple three-sided frame from scrap boards. In each upright piece of the frame, I drilled a hole that would allow the brass tube to slide in with a snug fit. This enabled me to adjust the tension of the lines as I was weaving the mouse. As you weave, the lines around the disk will get tighter as they are pulled together. You can move the disks closer together to relieve this tension.

There needs to be a small wooden bead on the stay to form the mouse around. I made the bead from dowel stock. First, I drilled a hole into the center of a short length of dowel. (The hole needs to be as close as possible to the size of the stay.) Then I chucked the dowel into a drill press and shaped the bead using files. The bead is held in place on the stay with a dot of medium CA and must of course, be put on before the stay is threaded into the mouse-making fixture. The ends of the stay are inserted through the tubes, positioning the bead in the center between the disks. Hold the stay in place with tape.

With the fixture complete and the stay inserted through the tubes, I wound on the thread for the mouse, starting with a simple knot around one of the tubes behind the disk, then through a notch on the disk, over to the other disk and through the corresponding notch, down to the notch across from the first, and back to the original disk, repeated over and over until there were 15 lines in place. Note that in Photo 4, the thread is white and rather large. This was done for the picture only. I recommend using ordinary black or dark brown, cotton sewing thread, the same as you use for serving. I think button thread is too thick at 1:48.

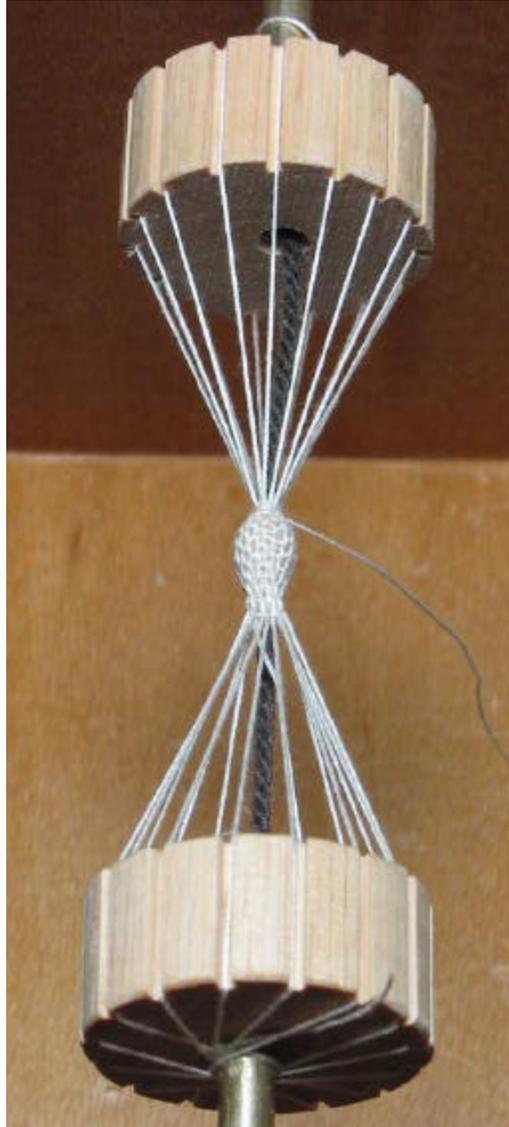


Photo 4: Mouse-making fixture

To make the mouse, tie a length of thread around the stay a short distance below the bead. Wrap the thread around the stay (as if serving) until you get to the bead, then begin weaving the thread through the lines around the disks. A large needle tied onto the end of the thread will ease the process. Adjust the lines and thread as you weave to make everything nice and even. When you reach the top of the bead, make a few turns around the stay to finish off the mouse. It doesn't really take long to do this and its kind of fun. Once the mouse is woven, you can then cut off the excess threads and serve the portion of the stay that makes up the eye. You'll also want to serve a bit below the mouse as well.



Photo 5: Finished mouse and eye

Traveler Ring

The traveler ring is shown as a simple ring on the plans but typically, there was a roller attached to the top of the ring for the stay to ride through. There is a good illustration of a traveler ring on page 60 of Darcy Lever's *The Young Sea Officer's Sheet Anchor* (Fig. 333). This is simple enough to solder up with a bit of extra brass wire (you don't need to make the roller – just a squared-off loop to simulate it). Be sure you seize the inhauls onto the ring before you install it on the jibboom so you don't have to fool around trying to tie them on later. When I have to add lines like this, that I know I won't be able to rig right away, I simply coil them up and hold the coil together with a piece of tape to help keep it under control and out of the way.

The remainder of the standing rigging is straightforward and, as long as you follow the instructions and plans, you should find it to be fairly simple. I make a habit of not permanently tying off all the standing rigging until it's all in place. Tensioning one line can slacken another and if the first was already tied off and glued, you'd have a problem. Once all the standing rigging is in place, I adjust the lines as needed and tie them off permanently. A bit of diluted white glue (about 50/50 water/glue) will help keep the knots from coming undone.

Running Rigging

The running rigging is also quite straightforward and well documented in the kit instructions, so it should not present any great problems. One area of a model that I often

see done poorly is the rigging of the anchors to the catheads. The kit anchors are not very heavy, of course, so if they are rigged to hang from the hoisting tackle, there's simply not enough weight to pull the hoisting tackle taut. This is easy to overcome. Rig the line through the cathead and the block as you normally would. Then, hang a large fishing weight on the hook and coat the line with diluted white glue. Once the glue has dried, the line will hold its shape and look much more natural. You may also find that the anchor hawser doesn't drape well and this can be corrected in the same way (although you'll likely need a much smaller weight).



Photo 6: Weighting the anchor hoist tackle

The block on the anchor tackle needs a large hook. This can be easily made from a piece of brass wire. Hammer the wire flat, then bend to shape around the block, leaving extra wire below the block. Solder the extra wire together then bend it into a hook. File the hook to round it and remove any excess solder. Then you can either blacken the hook or paint it and slip it over the block (be sure you orient the sheave holes toward the hook end). A bit of thin CA will hold it in place or you can drill for and insert a simulated sheave pin made from brass wire.

As many modelers do, I tie off ropes to cleats (or whatever fixture they are supposed to be tied off to) and glue them in place, cutting the end of the line off close. Then, I separately make fake rope coils to go over top of the cleats. I typically make the coils by looping the rope around a couple of headless nails and then coating the coil with diluted white glue to hold the coil together. As you make the coils, think about how much rope would be coiled up. If, for example, a bit of tackle was hauled all the way up, there would likely be a large coil of rope. If the tackle was let out all the way, there would likely be only a very small coil of rope. So don't make all your coils the exact same size.

With the running rigging complete, the model is essentially done. Tidy up any loose ends, touch up and paint nicks, then sit back and admire your work. If you would like to see additional pictures of my AVS both under construction and completed, you can visit my web site at <http://modelboatyard.com>. If you have any questions on building the model feel free to send me an email at jhearl@modelboatyard.com.