

Bluenose II – Part 8

Rigging is divided into two parts – the standing rigging, which is a more or less unmovable part of the boat – and the running rigging, which is run through blocks so that it moves around. Standing rigging on the real Bluenose II is mostly wire rope of various sizes. Use the dark brown line supplied in the kit for the standing rigging. Running rigging is mostly manilla and polypropylene on the real vessel, so use the light brown line in the kit. Before you use the dark brown line, I'd advise coloring it black. Liquid shoe polish works well for this. You won't need to color the light brown line. Whenever you are ready to use a piece of line, you should run it through a block of beeswax a few times.

Shrouds and Serving

Use the thick black line for all lower shrouds. To make up the foremast shrouds, cut 4 pieces of the thick black line about 29 inches long and apply beeswax. You'll need to serve 2 inches of each line in the middle. As mentioned earlier, the shrouds on Bluenose II are made from wire. If the wire shroud eye was placed around the mast unprotected, it wouldn't take long for the wire to saw right through the mast. So, the shrouds are served, which is simply the process of wrapping thin line around the shroud. (It's slightly more complex than this in real life. Research "worming, parceling, and serving" sometime when you feel like learning more. For a model, serving is the only necessary step.)

Use black button thread for your serving line. I use a simple serving device, which is a couple of 1/2" dowels stuck into some holes about 12 inches apart in my workbench (Photo 1). Wrap the line to be served around the dowels and secure with masking tape, allowing the springiness of the dowels to provide tension. Tie the serving thread to the line with an overhand knot then wrap the serving thread around the line, over and over until you get the desired length of serving. Tie an overhand knot at the end of the serving then secure each end of the serving with a tiny drop of CA on the knot. Don't glue the rest of the serving – it will become stiff and won't bend into an eye.

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Photo 1: Serving setup

You'll also need to serve the shroud ends where they wrap around the deadeyes. To determine the location of the end servings, you need to make sure the mast is centered from side to side. Tie loops on one end of two pieces of string. Put the loops around the mast head and run the ends down to the eyebolts on the rail just aft of the deadeyes. Hold

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in place with clamps and check with a square to make sure the mast is correctly aligned. Then, fold the shroud in half. Put the served part of the shroud around the masthead and pull the ends down tight toward the lower deadeyes. Measure 15mm up from the top of the lower deadeyes and mark that point on each leg of the shroud with a piece of masking tape. The general rule of thumb is that there should be 3 deadeye widths (in this case, 15mm) between the upper and lower deadeyes. Serve 1 inch on each side of that point.

With all the serving complete, you can finish off the shrouds by adding the deadeyes. First, make a loop at the center of the shroud and seize it with thread. The loops should be fairly loose. The seizing should lie down around the trestle trees – not right up against the mast (See Photo 6).

Seizing is simple. Cut a piece of black thread about 8 inches long and pull it through a block of beeswax. Tie an overhand knot with the thread around the two legs of the shroud where you want the seizing to start and pull the short end of the thread down along the shroud. Then, make four or 5 wraps of the long end of the thread around the shroud and the short piece of thread (in the direction away from the knot). Finish off with another overhand knot. (There are more sophisticated ways to do this, but at this scale, this method will work just fine.)

Touch a tiny amount of thin CA just to the knots to hold the seizing in place then cut off the excess thread. You can make a good glue applicator from a large sewing needle. Cut half the eye off, leaving a fork shape on the end. Jam the other end into a dowel. Touch the fork of the needle to a pool of thin CA and it will pick up a tiny amount of glue. When you touch the applicator to the line, it will transfer the glue to a very small location. The eye will become clogged with glue fairly often, but you need only hold the tip in a flame for a second to burn off the CA.

Place this loop over the mast head. Now, you can make up a little jig that will help you position the deadeyes exactly (Photo 2). Drill holes in each end of a piece of scrap strip wood with the correct spacing and glue brass nails (from the kit) in the holes. The jig needs to be sized for the desired gap between the deadeyes (in this case, about 3 deadeye widths or 15mm). Orientation of the deadeyes is important too. The deadeye holes form a triangle. The lower deadeye should be oriented with the point of the triangle facing down. The upper deadeye should be oriented with the point of the triangle facing up. The photo shows two deadeyes. You'll only use one, of course – the pins on the other end will be inserted into a deadeye already installed at the rail.

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Photo 2: Deadeye jig

Now, run your shroud around the upper deadeye and use a clamp or masking tape around the shroud to mark the location of the loop. Once marked, pull the whole shroud off the mast and seize the loops around the deadeyes. This is where a 3rd hand device will be essential. Use three seizings, spaced evenly apart. The first should be right up against the deadeye so the loop is pulled tight around the deadeye. Cut off the short leg of the shroud just above the serving (put some thin CA on the shroud line before you cut it off). Repeat this operation until all the deadeyes are seized onto the shrouds. Paint the deadeyes black and allow to dry.

Now you can install the shrouds permanently. Start with the starboard side. This shroud pair attaches to the first and third lower deadeyes (see page 36 of Jenson). Use the thin black rigging thread for the lanyards (be sure to wax it). Refer to instruction D.10 in AL's manual for a diagram of the way the lanyards are reeved. Be sure to orient the short leg of the shroud so it is to your right (looking inboard) no matter which side of the ship you're on. Also be sure you start reeving the lanyard in the right-most hole of the upper deadeye, the way AL's diagram shows. **Don't tie off the end of the lanyards yet.**

With the first starboard-side pair in place, add the first port-side pair. Again, orient the short leg of the shrouds to the right. In this way, the short legs of the starboard-side shrouds are facing forward and the short legs of the port-side shrouds are facing aft. Shift

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back over to the starboard side and add the second pair of shrouds to the 2nd and 4th deadeyes. Repeat for the port side and you're nearly done.

The last step to finishing the shrouds is to seize the sheer pole onto the outboard side of the shrouds. The sheer pole is a length of blackened .028" brass wire. Start by tying a piece of thin, waxed thread to one end of the sheer pole (secure with thin CA). Wrap the thread around the inboard side of the shroud, over the sheer pole, then back around the shroud and over the sheer pole again. Repeat, then tie off and secure the knot with thin CA. Do this for each shroud. With the sheer poles seized on, you'll need to tie off the ends of the lanyards. See Photo 3 for a suggested method. Once the lanyards are tied off, secure the free end of the lanyard with thin black thread. Photo 4 shows the completed shrouds at the deadeyes.

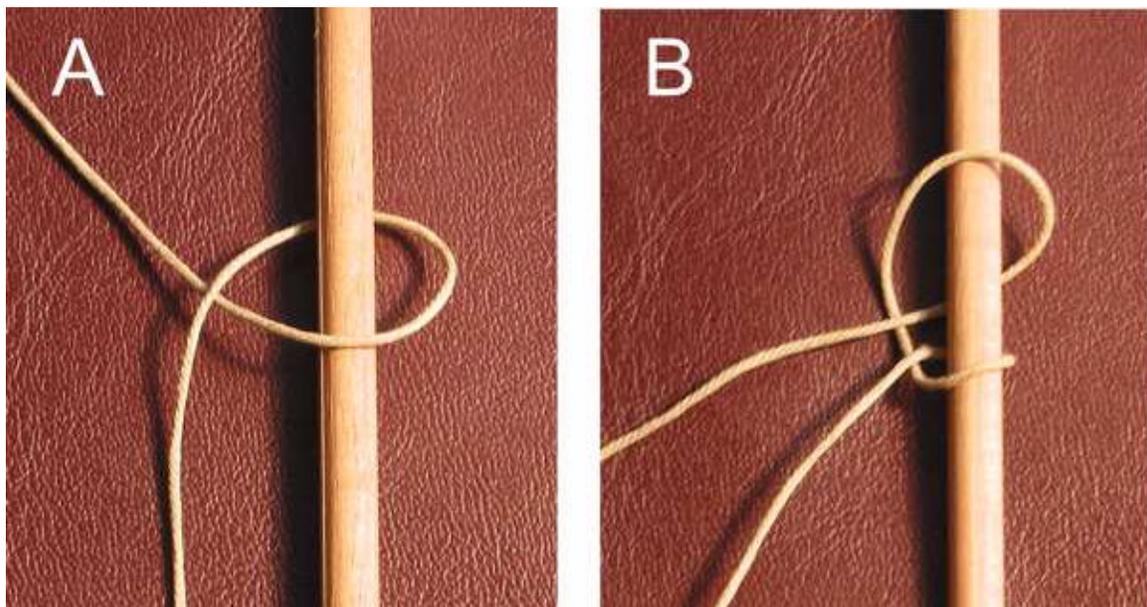


Photo 3: Suggested method for tying off lanyards



Photo 4: Completed shrouds

Repeat all of the above for the main shrouds. Note that there is a 5th shroud on the main mast. It is made up a bit differently. You need to first serve the ends of two separate pieces of line. Overlap these to form an eye that will fit around the masthead. Seize each side of the eye, and cut off the excess serving. In this case, you will want to soak the end of the serving in thin CA before cutting so that the serving doesn't unravel. Measure and serve the ends of the shroud after the eye is made up in the middle. This shroud attaches to the 5th deadeye.

Make up the forestay by serving 2 inches of the end of a piece of thick black line and seize it to form an eye. The eye goes over the foremast and runs down to an eyebolt just forward of the jumbo boom on the bowsprit. Loop the line thru the eyebolt and secure with two seizings. You can see a picture of this in Part 7 of this series.

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Ratlines

Now is the time to tie on the ratlines on the lower shrouds. This is the tedious part of rigging. The AL instructions show you how to tie clove hitches around the shrouds. Use waxed button thread for the ratlines and place 5mm apart (about 15 inches in the real world, which would be typical spacing). To space the ratlines evenly, draw a series of parallel lines on a small piece of paper that you can hold in place behind the shrouds. Check your measurements frequently and make sure everything is even before you glue.

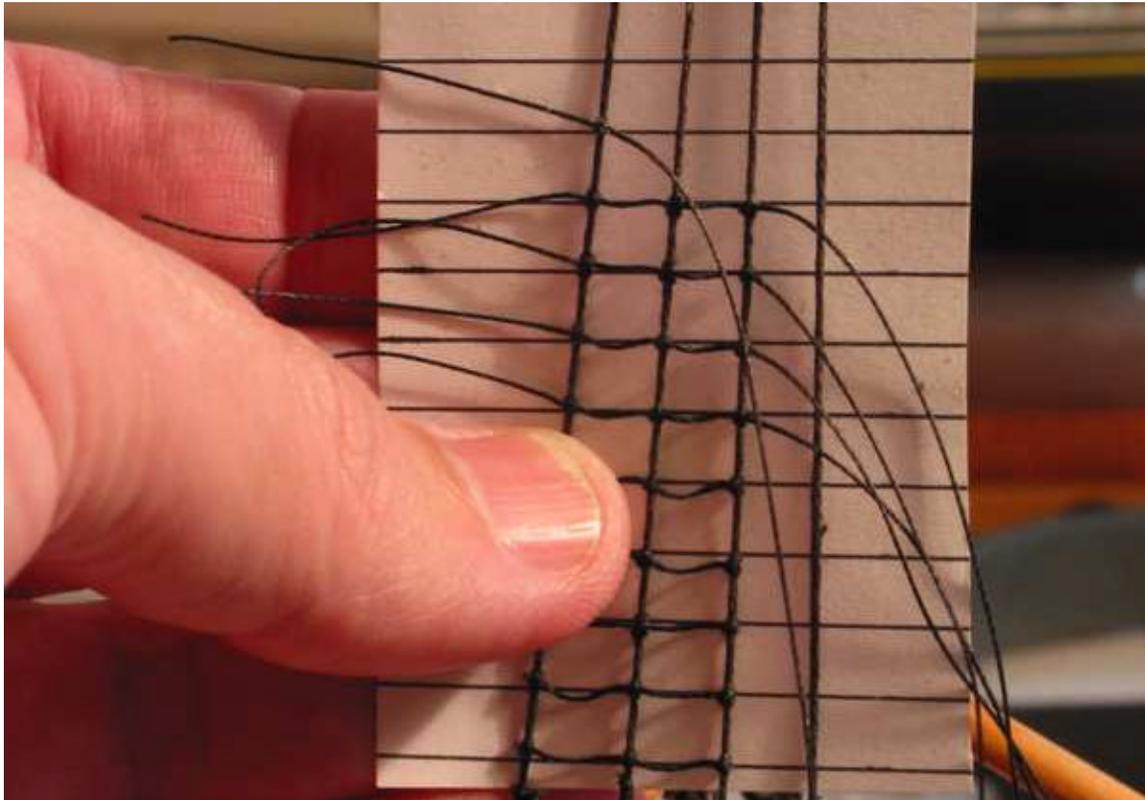


Photo 5: Spacing ratlines evenly

I tie only 5 or 6 ratlines at once. More are hard to keep aligned while tying. I coat the knots and ratlines with white glue, diluted 50/50 with water. After cutting the rat tails off, touch the just the outside knots with thin CA (applied with the needle applicator) for extra security. Some modelers object (with good reason) to using clove hitches on the outer shrouds. In the real vessel, the ends of the ratlines have eyes that are seized to the shrouds. For alternative ways to tie ratlines, see the November/December 1989 issue of SIS for an article by Dan Pariser.

Pay close attention to the pattern of ratlines as shown on page 29 of Jenson. AL's scheme is completely incorrect. On the main mast, the ratlines cover three shroud lines for about $\frac{3}{4}$ of the distance up from the deck, then four shroud lines the rest of the way to the top. As you get close to the top, you'll probably need to skip some of the inside lines to avoid a big mess of knots.

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Next, rig the jumper stay from the bail at the mast cap on the main mast to the eye at the back of the mast cap on the foremast. Finally, you can rig the jib stay from the bail at the top of the foremast to the aft-most wye on the bowsprit. Use the thicker black line for both of these. Neither line is served – just make simple seized eyes.

The Top Masts

The top masts each need a band about 20 mm down from the top. This band should be fairly thick – there will be several rope eyes sitting on it. The band and all of the mast above it should be painted white. Don't install the balls on top of the mast until after you've finished rigging. I did not install any blocks on the topmasts because I didn't want to use any running rigging there. If you plan to add running rigging to that area, rig the blocks to the mast band (in reality, a wye) before you add the standing rigging. AL didn't make any provision for securing the lower end of the topmasts. I drilled a hole through the trestle trees and the topmast and inserted a piece of wire to hold the mast in place. Put your mast hoops on before you start adding the standing rigging.

All of the standing rigging for the topmasts is done with the thinner black line. Although you could serve all the eyes, I elected not to. Put on the starboard shrouds first, then the port shrouds. The lower ends are tied off with two seizings. You'll need to seize a piece of straight wire on each shroud pair (here called futtock rods rather than sheer poles), then ratlines every 5mm just to level of the top of the main mast.

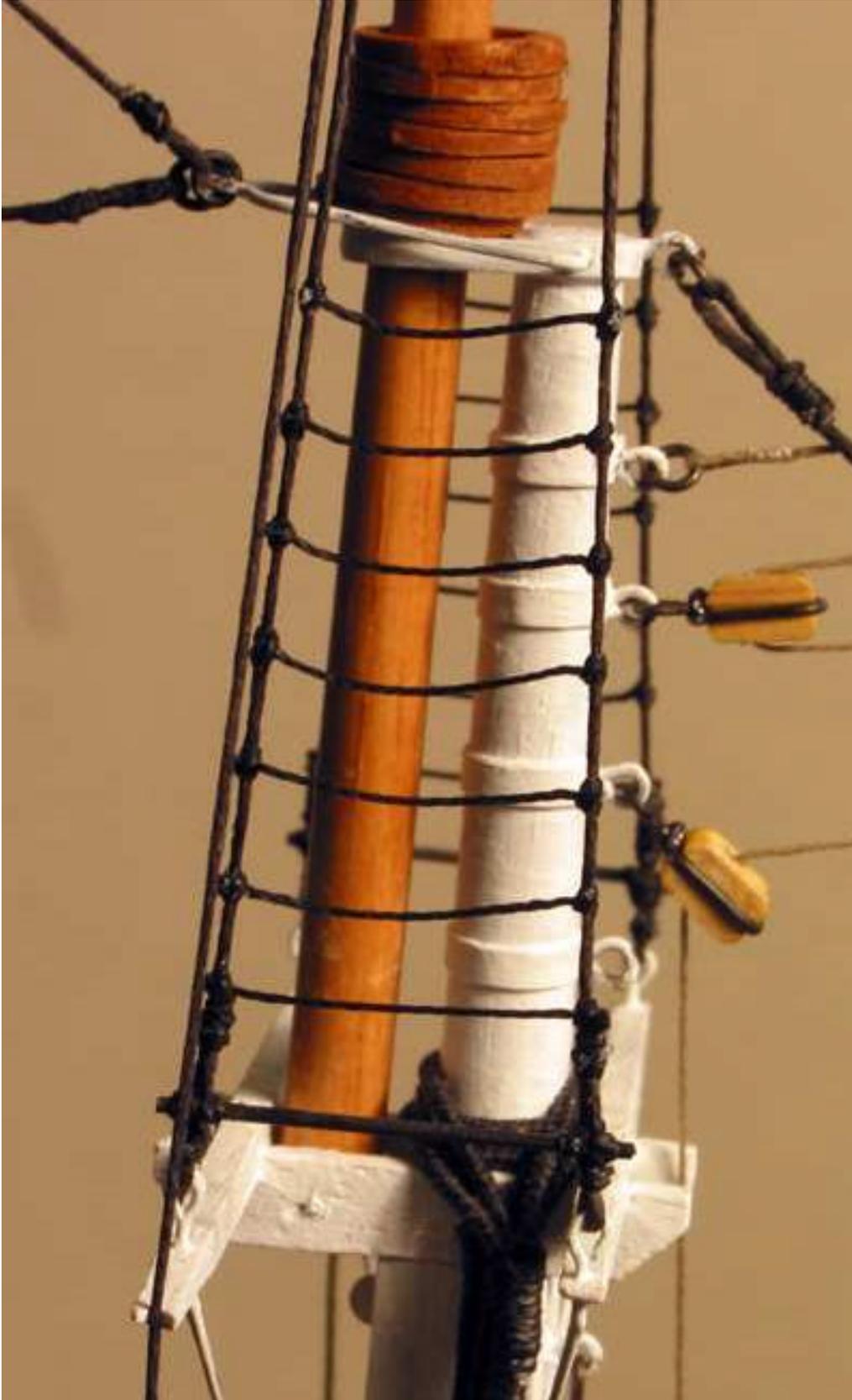


Photo 6: The topmast shrouds

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Next, add the outriggers. These ride in a notch on the end of the widest cross-tree arm and are secured to the eyebolt in the rail between the deadeyes. Again, use two seizings at the eyebolt and a seized eye at the mast head.

Now add the triatic stays between the foremast and the main mast. (Again, simple eyes seized on each end). Then add the jib topsail stay from the top of the foremast to a ring on the forward-most wye on the bowsprit. There are two other pieces of standing rigging needed – the running backstays. There is a pair on each mast. The upper part of these stays is made from the thinner black line, about 12 inches long, with an eye seized in each end. A double block with a becket should be added to the eye at the lower end. Don't do any more rigging on the running backstays until later. Otherwise, they will be in the way. With all the standing rigging in place, you can add the balls to the top of the masts.

Running Rigging

It's all downhill from here! I generally find it simplest to work aft and up. Start with the fore boom (see page 36 of Jenson). Use the thin tan colored thread for the sheet. Tie off the sheet around the port-side mast cleats. The fore boom end lift pendant is about 24 ft long on the real boat so it should be about 97mm long on the model. Use the smaller size black line. Make an eye in each end, put a ring in one eye and attach to the foremast eyebolt at the futtock collar. Attach a single block to the other eye. Refer to page 36 of Jenson for a diagram of how the running rigging is done. You will note that Jenson says the jumbo sheet belays on the lower sheet block and there appears to be a metal bar of some sort on that block. Rather than make a special block, I took an easier path and belayed mine on the lowest port-side mast cleat.

You can essentially repeat the above for the foremast boom. The sheet is belayed on a belaying pin in the five rail around the main mast. Finally rig the main sheet and tie it off around the port-side quarter bitt.

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Photo 7: Fore sheet rigging and main fife rail and bitts.

Now you can rig the gaffs. Follow AL's rigging and belaying scheme for this simplified rigging rather than trying to replicate the more advanced rigging on the real boat. My preference is to tie the gaffs up as if sails were installed. In order to get some needed tension on the end of the gaff, I tie a piece of white thread between the gaff and the boom at the ends farthest from the mast. On the main gaff, use the ringbolt below the one on the mast cap for the end of the main sail peak halyard. The top-most eyebolt will be used for the main boom topping lift. Don't simply tie the rigging line in a knot to these eyebolts. Seize the line into an eye and attach the eye to the eyebolt with a small ring.

The main boom topping lift is made up of a pendant (thin black line, 13 inches long) that has a single block without becket on the end. The remainder of the topping lift rigging uses the thin tan line with the end of the line belayed to a pin on the port side of the gaff jaw. I simplified this rigging somewhat by using only a single-sheave block and simulating only one sheave in the boom.

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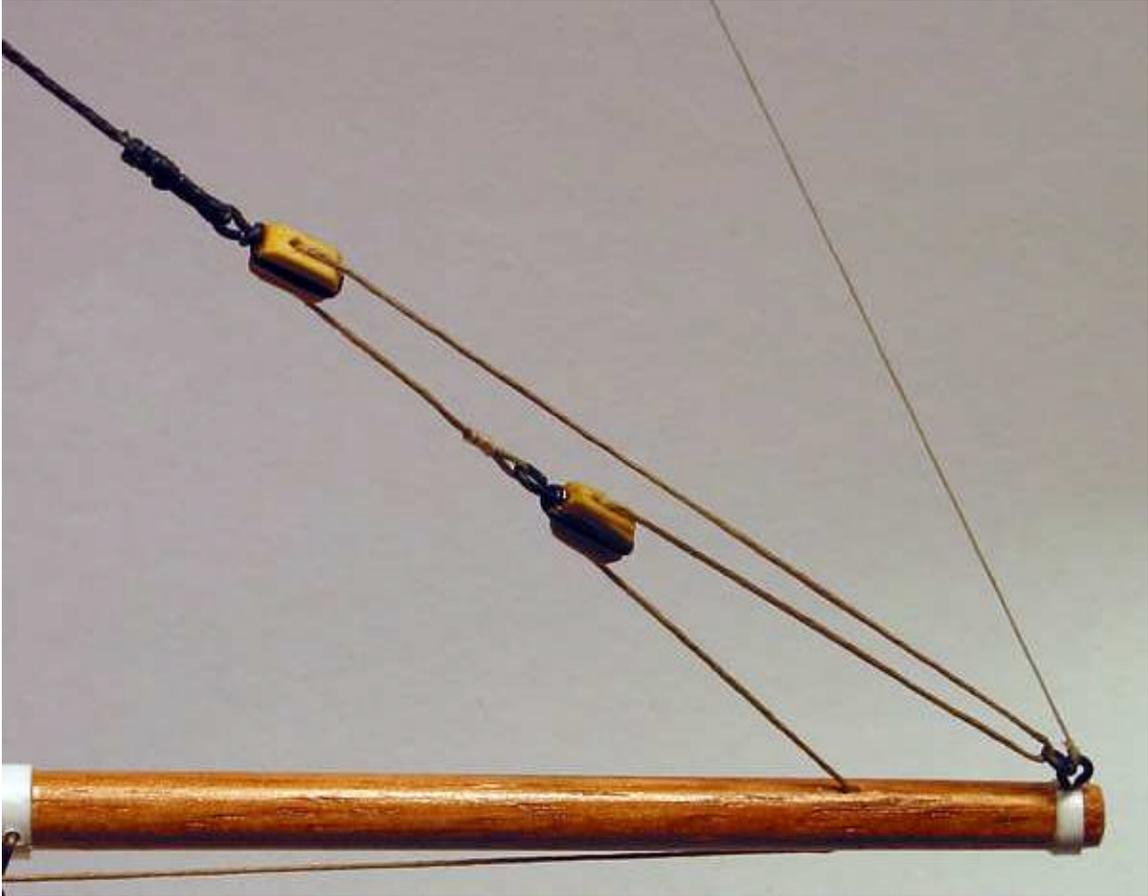


Photo 8: Main boom topping lift

Now, you can rig the running backstays. On the real vessel, these stays are moveable depending on how the sails are set. I chose to run the foremast pair back to ringbolts in the deck just aft of the break beam. I ran the main mast pair back to ringbolts in the deck near the quarter bitts. If you prefer, you can run these stays to the eyebolts in the rails just aft of the deadeyes. Either position is correct. For the double block that attaches to the eyebolts, leave the wire end in a hook rather than closing it off into an eye. This tackle is movable on the real vessel.

The last bit of running rigging is the flag halyard. It belays on the small cleat on the side of the main boom. That completes the model. Mount it to its permanent base and check for any final touch-ups.