

# "ATALANTA"



## VOLUME II

### A Photo Journal

By Tom Cummings

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## Part 13

*During the course of building the Atalanta, I purchased the masting and sparring plan and later as it became available, Volume IV "Rigging a Sixth Rate Sloop of 1767-1780" authored by David Antscherl. It was my intention from the beginning to fully rig with sails upon completion of the Admiralty Model.*

*In preparation for this, I had the sails sewn by Wendy Thompson in Australia. Volume IV picks up where the practicum finishes, with Chapter 13 to Chapter 26. I will continue to explain my progress through photos with a brief explanation of what I am doing.*

*In Chapter 13 (Part 13), David explains in perfect detail how to draft and carve masts and yards. I skipped this chapter as I turn mine on a Taig lathe. In addition rather than drafting them, I had purchased the sparring drawings from David a few years back, which saves me the tedious job of doing them myself.*

*So onward to Part 14 where the real work begins.*

# Part 14

*Part 14 takes us through the process of making the masts and spars through to the jibboom. I had turned my lower masts years ago when I was making the steps in the bottom of the ship back in Part 5.*

## *14.1 Making the lower mast spindle*

*I turned my masts to scale using a Taig lathe with an extended bed.*



#### **14.2 The lower mast cheeks**

*The photograph below shows the lower fore mast completed. The head of the mast, being square, I made separately and attached it to the mast using a dowel. The cheeks, bibs, trestle tree assembly and cap are all shown in the photo below.*



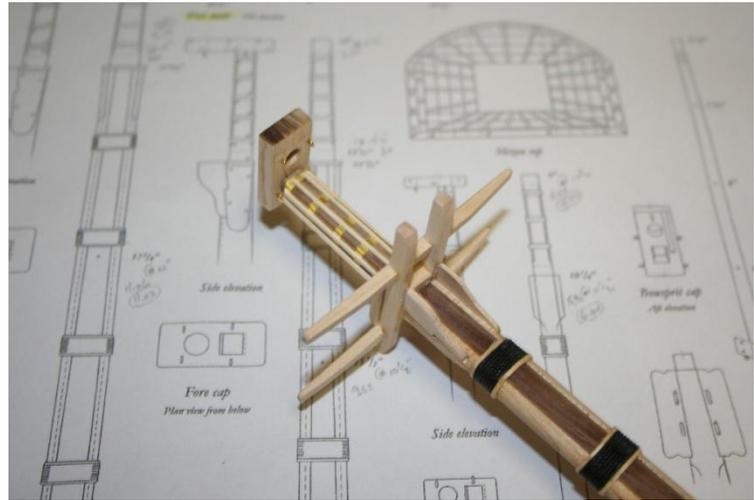
#### **14.5 Wooldings**

*The wooldings were fun to make and hold the cheek in place to reinforce the mast. The hoops were made from wood shavings. I did this by cutting a strip of boxwood to the thickness of the hoop then using a mini planer, shaved the edge of the wood.*



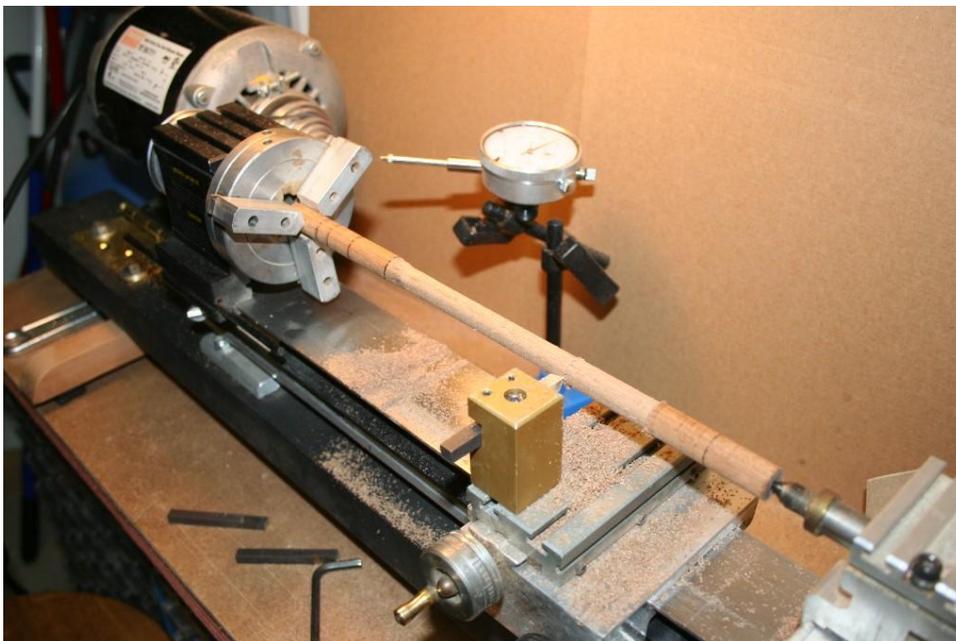
#### 14.9 Lower mast trestle trees

The trestle trees for all three masts are basically the same. The photo below shows the assembly with the cap, chocks, bolsters and masthead battens. I choose to leave the straps on the mast head brass rather than blackened. All assemblies to this point are not fixed in place as I want to rig the standing rigging up to the mast head prior to continuing with the upper masts.



#### 14.14 Fore and main topmasts

The fore and main topmasts are basically the same. I marked the area of the wood stock that would not be round and turned the rest of the mast on the lathe.

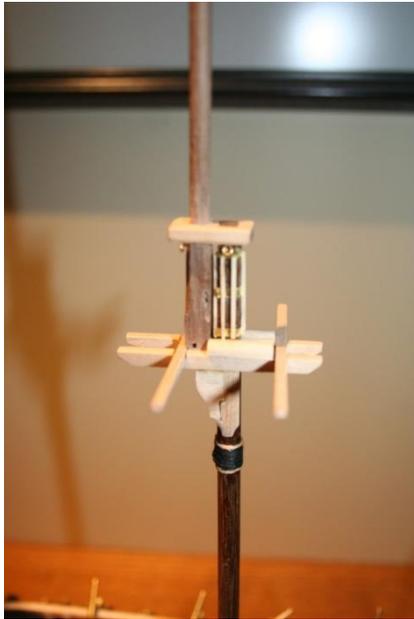


#### 14.15 Mizzen Topmasts

*The mizzen topmast is very similar to the others, but has no octagon on the heel. As with the others there are sheaves in the poles and a truck on the pole head.*

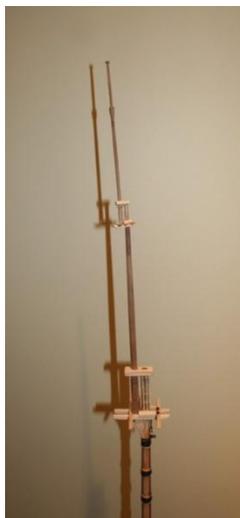
#### 14.17 Topmast trestle-trees, cross-trees, caps and bolsters.

*I found it fun to cut and fit these parts; however the challenge is to get them level and properly aligned. One has to be careful that the trestle trees are in line with the lower mast trestle. The first photo below shows the mizzen topmast fitted to the lower trestle tree. The heel is between the trestles. Whereas the second photo shows the trestle tree assembly on the top mast. The double cheek blocks are installed. Note once again that all assemblies are loose fitted until the standing rigging is done on the lower level.*



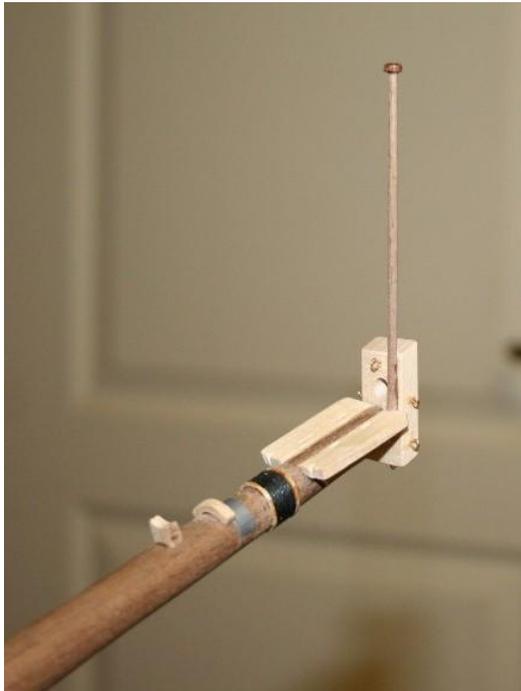
#### 14.18 Topgallant masts

*In turning the topgallant masts, I included the mast trucks at the same time. Photos below show the fore and mizzen top and topgallant masts and trestles. Once the various parts are assembled and glued, they will be straight and aligned.*



#### **14.20 The Bowsprit**

*The bowsprit was also made back in part 5 many years ago. The gammoning was done back in part 11, prior to making the head assemblies.*

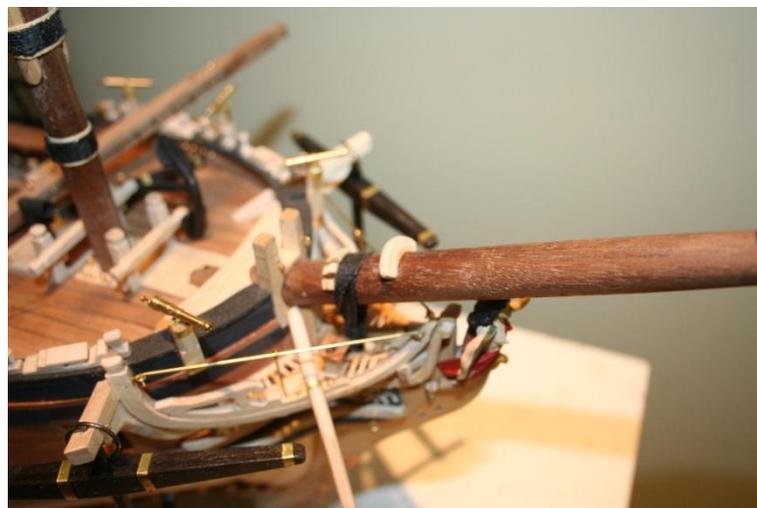


#### **14.22 The Bees, woolding, sling cleat and jibboom saddle**

*I did not square the end of the jib boom, but rather built on it. The bees and their supporting structure can be seen against the cap and staff. The hoops on the wooldings are made of wood as with the masts. The lead shield, (duct tape) can be seen up against the sling cleat. The requisite eyebolts are installed in the cap along with the pole for the jack. The saddle is for the jibboom.*

#### **14.24 The Saddle**

*The saddle to control the rigging for the spritsail and jib is just above the gammoning on the bowsprit. The gammoning cleats were fitted just prior to winding the gammoning. The cleats prevent the gammoning from sliding down the bowsprit.*



**14.27 The Jibboom**

*The jibboom and misc. hull fittings finalize part 14.*

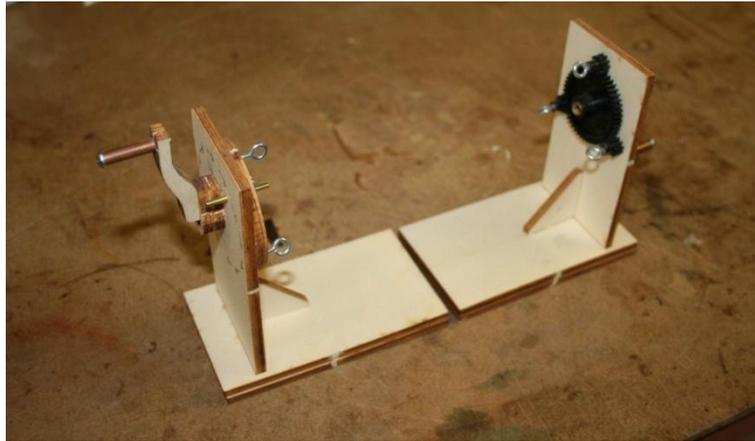


# Part 15

*The lower standing riggings are the next tasks that will be undertaken in Part 15. Although I enjoy rigging a ship, it can be challenging to say the least. Remembering the objective that everything was to be to the scale of 1:48, this includes the rigging. Being leery I purchased a manual ropewalk from Model Expo. Having practiced this process for a number of weeks, I decided to purchase all required sizes in both baize and black and get on with it. As we get more detailed the photos have a tendency to get more "cluttered" and the object in the picture more difficult to distinguish. I will do my best to explain things as we move along.*

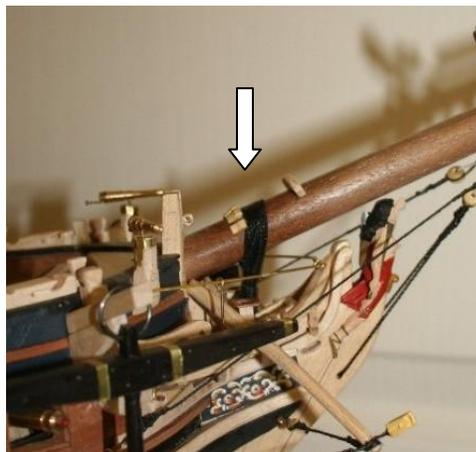
## 15.1 The Ropewalk

*The ropewalk I purchased from Model Expo was a very inexpensive manual tool which I quickly realized would take me another 10 years to turn all the rope I was going to need for the rigging. David was very thorough in his explanations of everything from material to the anatomy of the rope in describing both right hand rope and left hand cable. (When I finished I came back to this paragraph to tell you that I used 500+ yards of different sizes of thread to do the rigging.)*



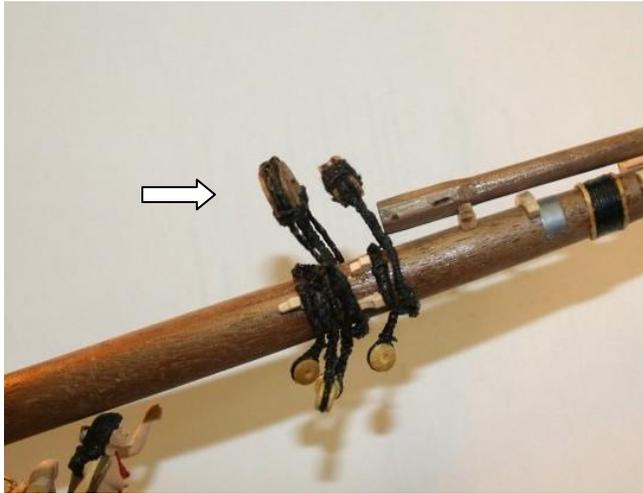
## 15.7 Bowsprit Gammoning

*I had gammoned the bowsprit quite some time ago when I was working on the details of the items on the head. I had to be sure that the bowsprit did not keep moving on me. The gammoning is shown in 11.27. The photo below was taken after most of the detail on the head was completed.*



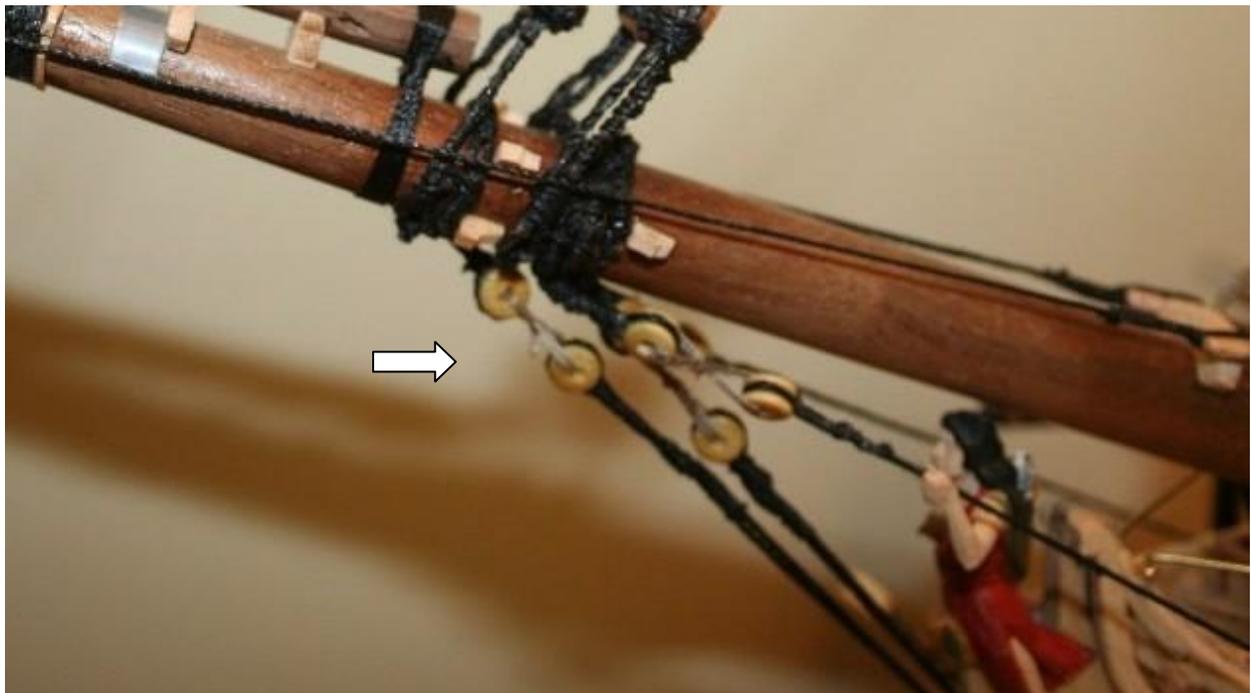
**15.13 The fore and fore preventer stay collar**

*The fore stay is fixed to the open heart which is the taller of the two. (left photograph below)  
The photo below on the right shows the collars rigged with their respective hearts.*



**15.14 The outer bobstay collars**

*These collars were worked at the same time as the above collars and required cleats attached to the bowsprit to prevent them from moving aft. The grouping of thimbles is the collars shown in the photo below as rigged.*



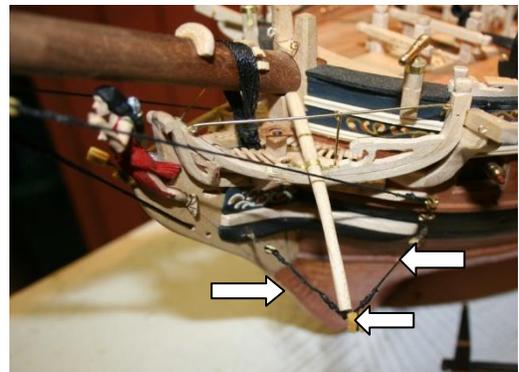
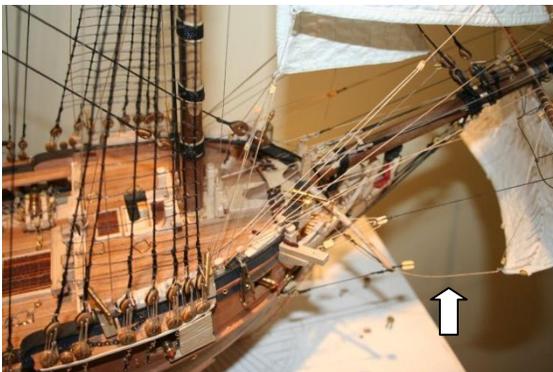
### 15.18 Bobstays

The bobstays are doubled, inner and outer. They attach between the thimbles, above, and the bobstay holes in the knee of the head.



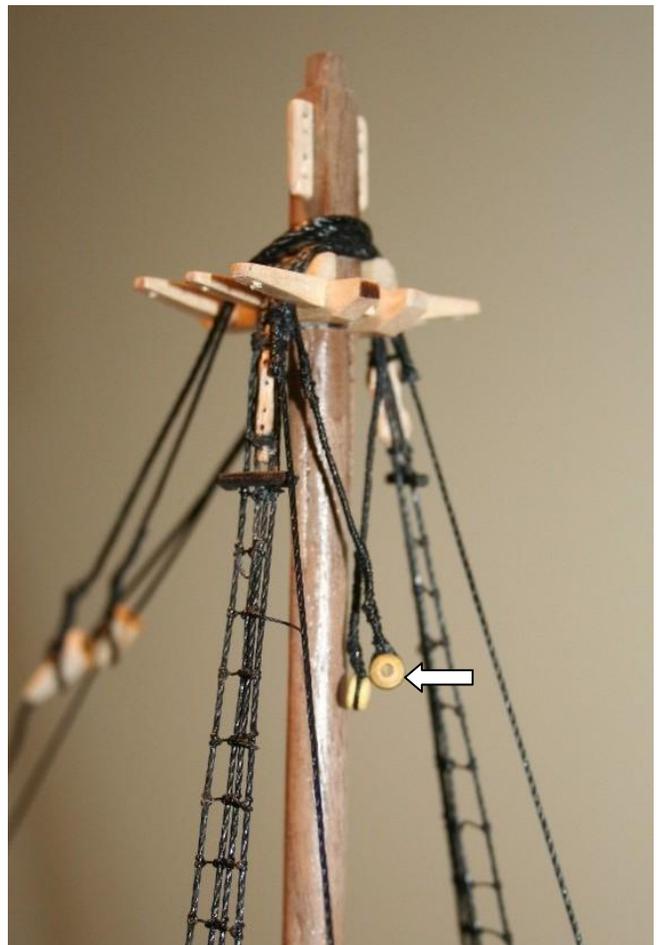
### 15.21 Boomkin Shrouds

The boomkins were carved and installed back in chapter 11.37-38. There are two shrouds per side. The fore one is attached to a thimble and eyebolt below the figure in the knee of the head while the aft one is attached to a thimble and eyebolt on the lower cheek of the bow. Eye splices are on the outboard ends of the shrouds which are looped over the outer ends of the boomkins. The fore tack block is on the end of the boomkin.



### 15.22 Burton Pendants

*Pendants were installed on all mastheads. They were slipped on the heads prior to stepping the masts. Blocks and tackle were then attached to them and used for hauling up the tops and other items of rigging.*

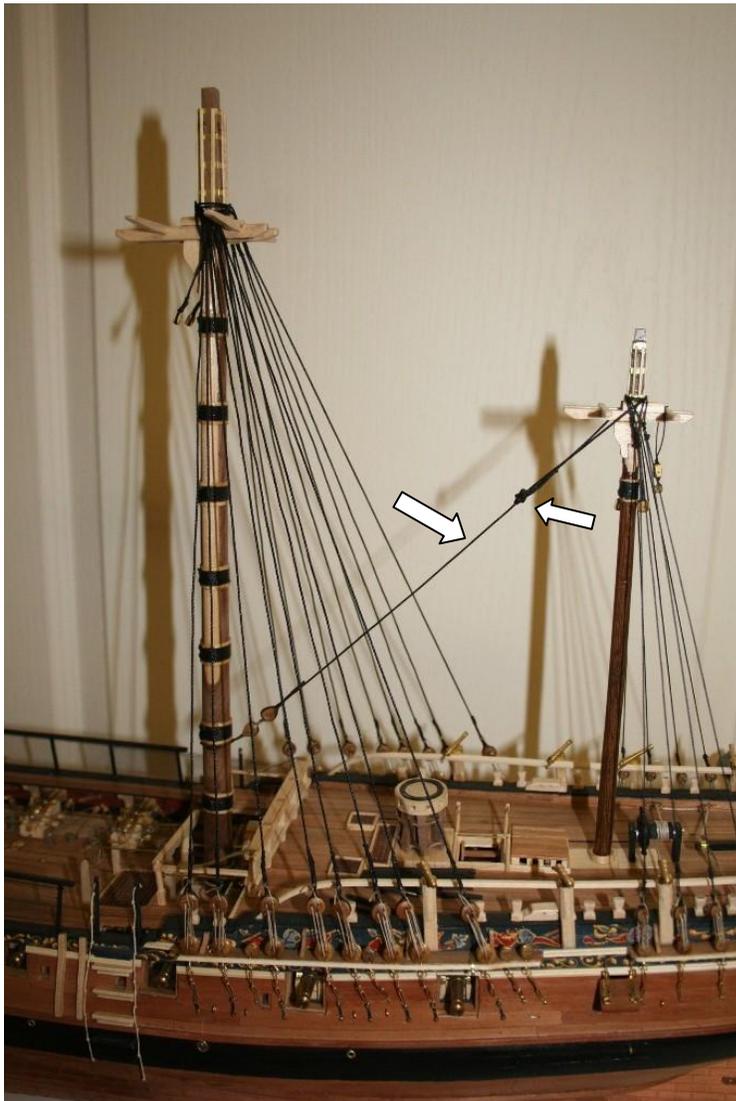


### 15.23 the Mizzen Shrouds

*The mizzen shrouds are made up of 2 pair or four shrouds per side. Each shroud belays to a set of deadeyes alternating between starboard and port sides of the ship*

#### **15.24 Fore and Main Shrouds**

*The fore and main shrouds are similar to the mizzen shrouds except that the cabling is of a larger diameter. Both the fore and main shrouds have a single cable as the foremost shroud.*

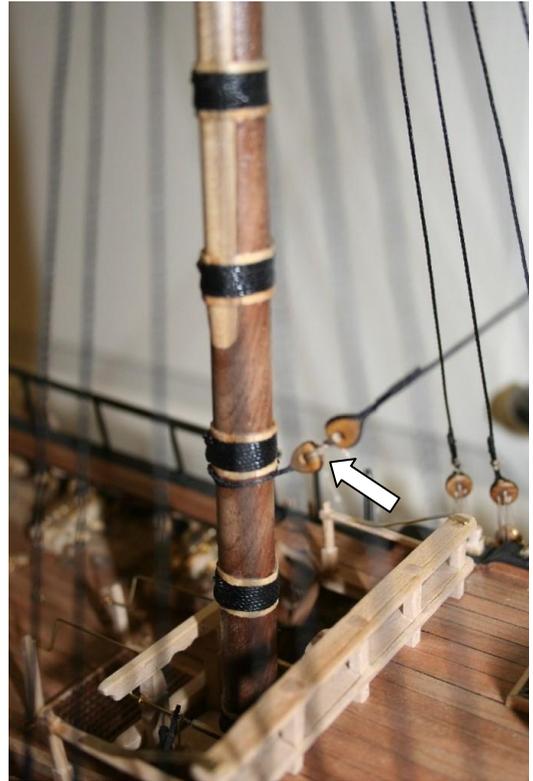


#### **15.25 The Mizzen Stay**

*The upper end of the stay has an eye splice worked into it and the line passes back through this eye and loops around the masthead. As a stop to prevent this loop from closing completely it has a mouse worked into it. The mouse is a conically shaped swelling that is raised on the stay.*

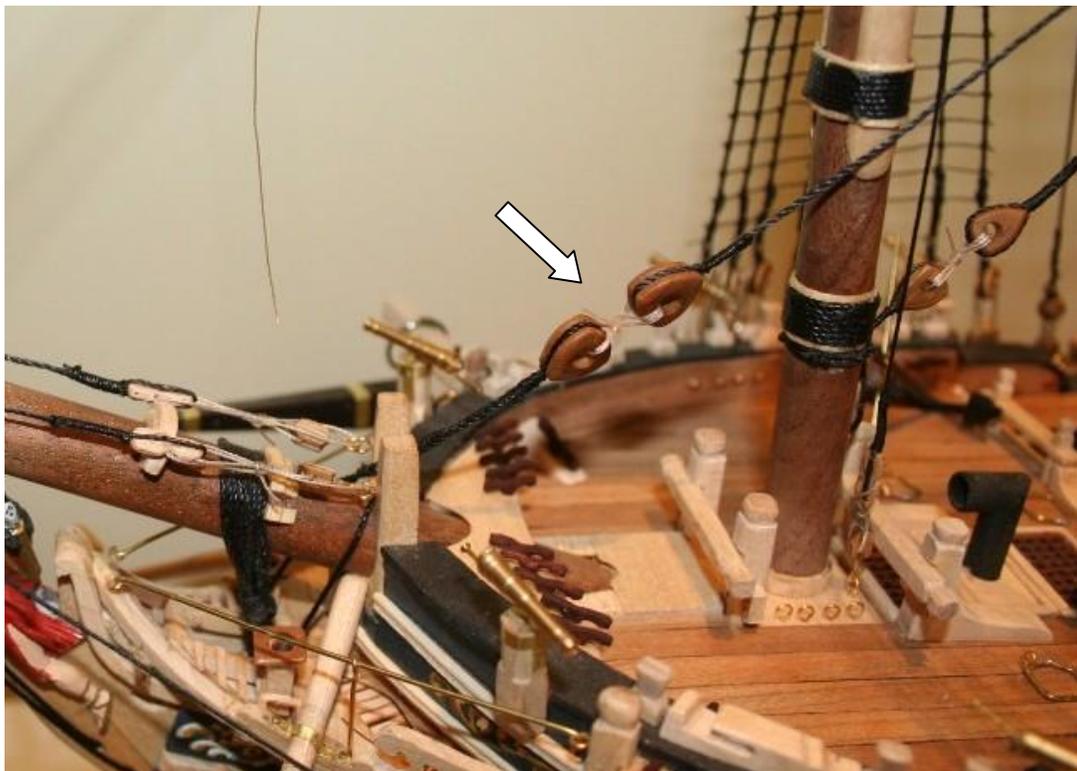
**15.26 The Mizzen Stay Collar**

*This collar made up of two hearts and was attached to the main mast. It was used to tension the stay.*



**15.27 The Main Stay Collar**

*The main stay collar's attachment is threaded deep into the headwork through the grating on the starboard side and doubles back up on the port side. It also is made up of two hearts, larger than those of the mizzen collar.*



### 15.29 The Main Preventer Stay Collar

*This collar is a smaller version of the main stay collar and is lashed to the foremast about 6 feet above the forecastle deck. The preventer stays are used to backup the main stays in holding and tensioning the rake of the masts.*



### 15.32 The Fore Preventer Stay

*The fore stay and the fore preventer stay both, similar to the other stays loops around the mast head and belays to the collars we prepared previously on the jib boom. (15.13)*

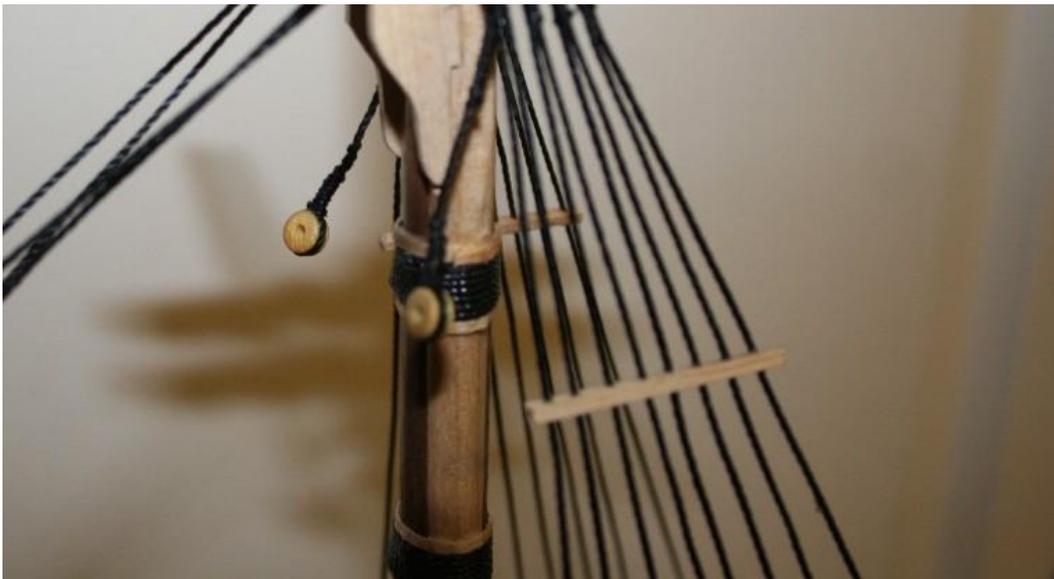


*This photo shows all stays and shrouds in place.*



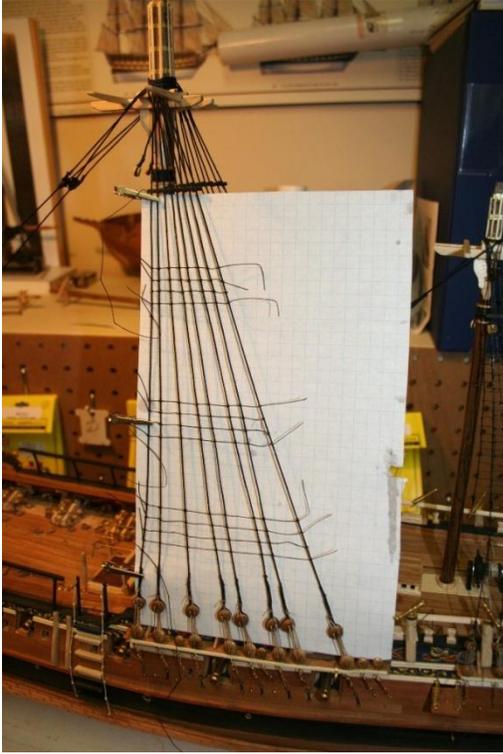
### ***15.33 Futtock Staves***

*I made the futtock staves from toothpick size pieces of boxwood. The staves add rigidity to the shrouds. I cut the boxwood to the width of the shroud just above the last ratline a little wider than the diameter of the rigging. I then drilled holes in the strip for the shroud lines to pass. I cut the strip in half lengthwise and applied the strips to each side of the shroud lines then glued the boxwood back together with super glue.*



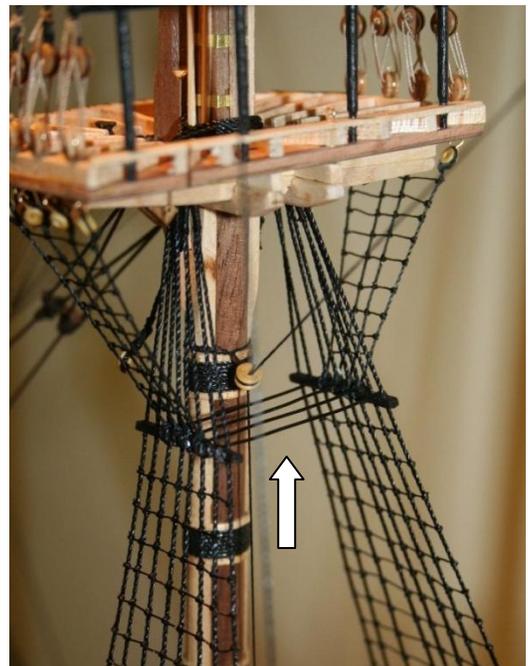
### 15.34 Ratlines

To "rattle down" the ratlines is a repetitive job that requires a lot of patience but is very rewarding in the end. I used quadrille paper as a template attached to the back of the shroud. I then started tying off the ratlines at three different levels to avoid getting the bottle effect in running the lines. The line itself was clove hitched to each shroud and touched with a dab of "fishing fly glue". I find that this glue holds the knot while leaving the line flexible. It does not harden like CA.



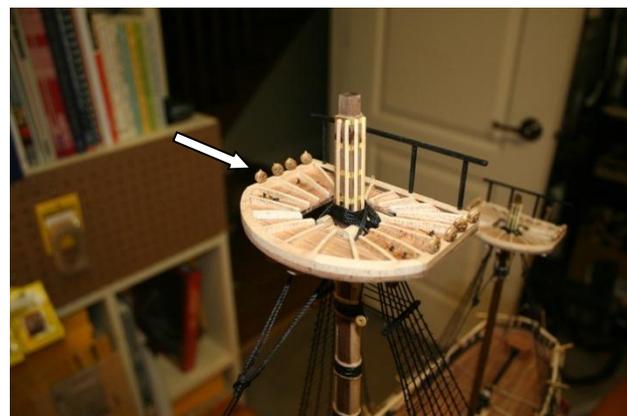
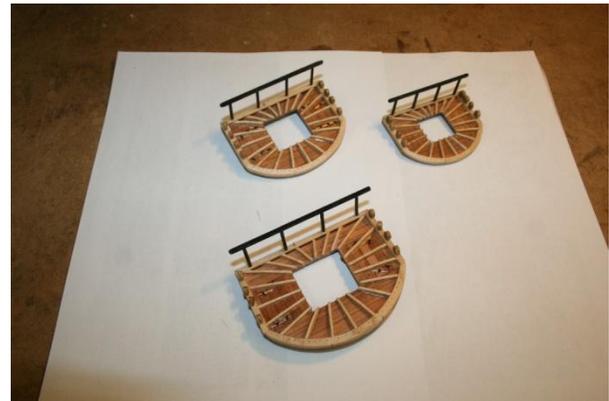
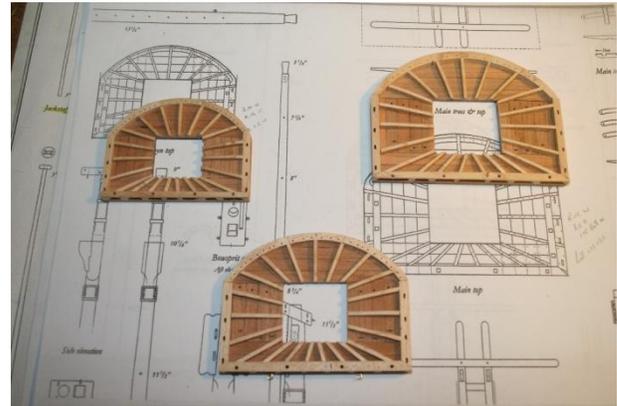
### 15.35 Catharpins

The catharpins are a span of rope between the fore and main shrouds that are seized to the futtock staves and provide tension to the shrouds. I used brass wire painted black.



### 15.37 Tops

The tops are the platforms at the upper ends of the lower masts that sit on the trestle and cross trees. They need to be light and rigid so they do not become distorted due to the tension on the rigging. I used 1/16" plywood for the base then cut strips of cherry the same as the deck for the platform. The battens for the sides and rear of the top are cut from maple. I then drilled holes for the shrouds and railing. The blocks hanging under the tops are pre-installed for the various yard related rigging. There are also several eyebolts and cleats installed on the tops. The last picture in the series below shows the deadeyes for the shrouds installed.



#### **15.42 Futtock Shrouds**

*The deadeyes on my shrouds are set up with a brass harness through the top and bent to align with the futtock stave below. The photo at the right shows the "fresh" ratlines in place.*

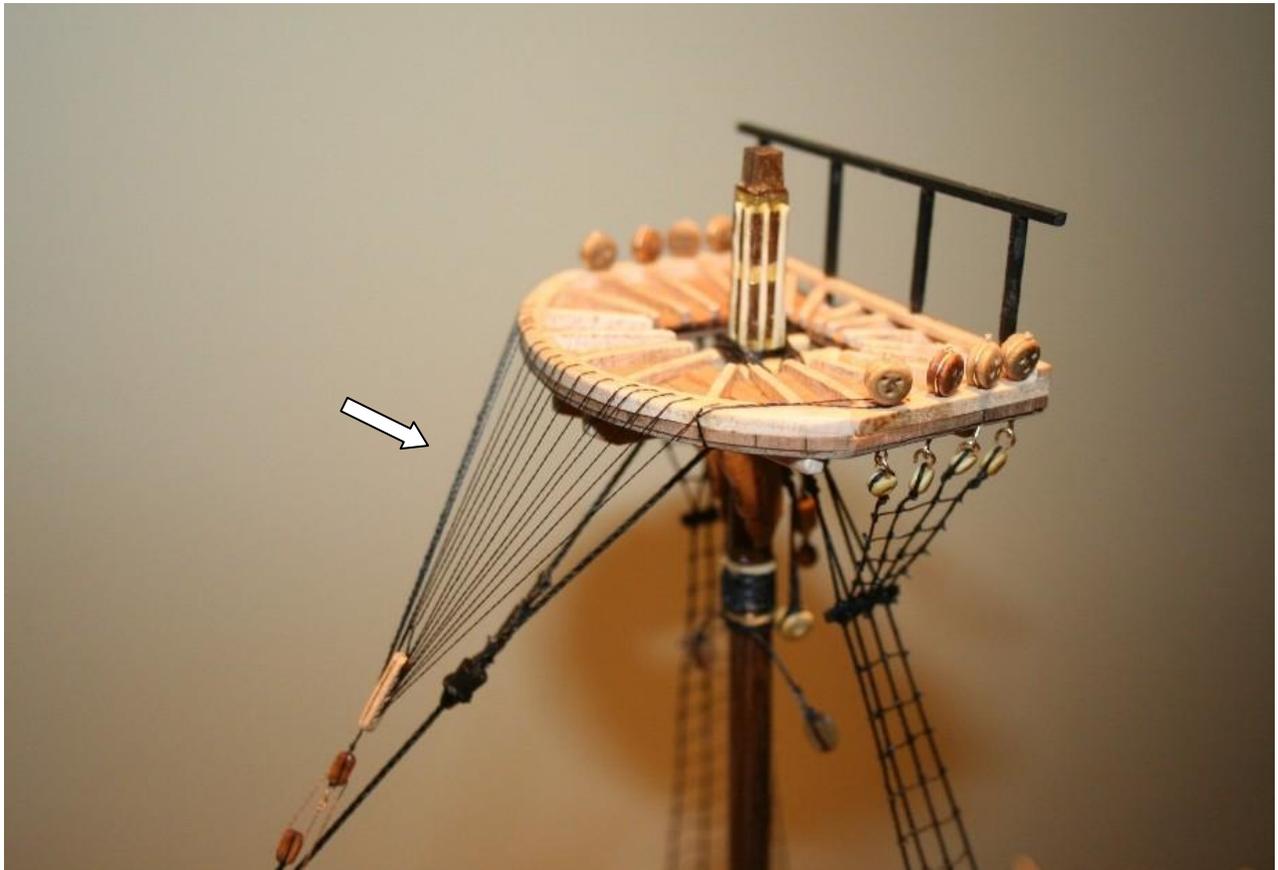


#### **15.44 Euphroe tackle**

*The euphroe is a specialized wooden block that spread the crowsfeet. The crowsfeet are a system of radiating lines that protect the stays from abrasion by the lower edges of the topsails as well as preventing the sails from catching the rim of the tops.*

**15.45 The crowsfeet**

*The line for the crowsfeet is belayed to the end of the euphroe and run up underneath the top rim and up through the next hole to port. This sequence is repeated until the last leg leads the line down the outermost hole on the starboard side of the top.*

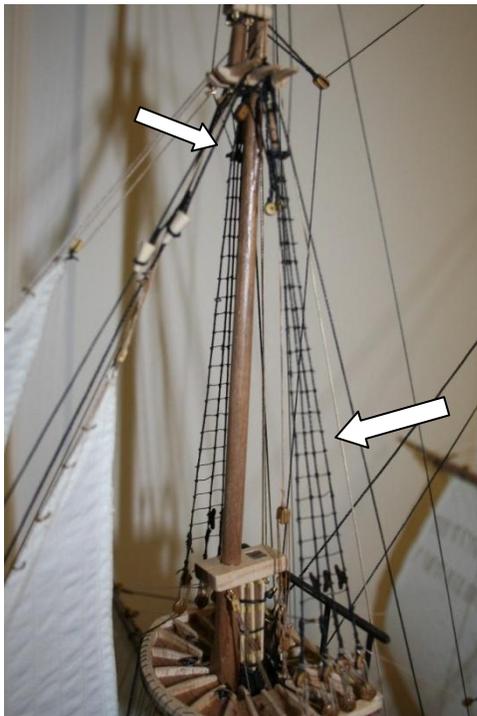
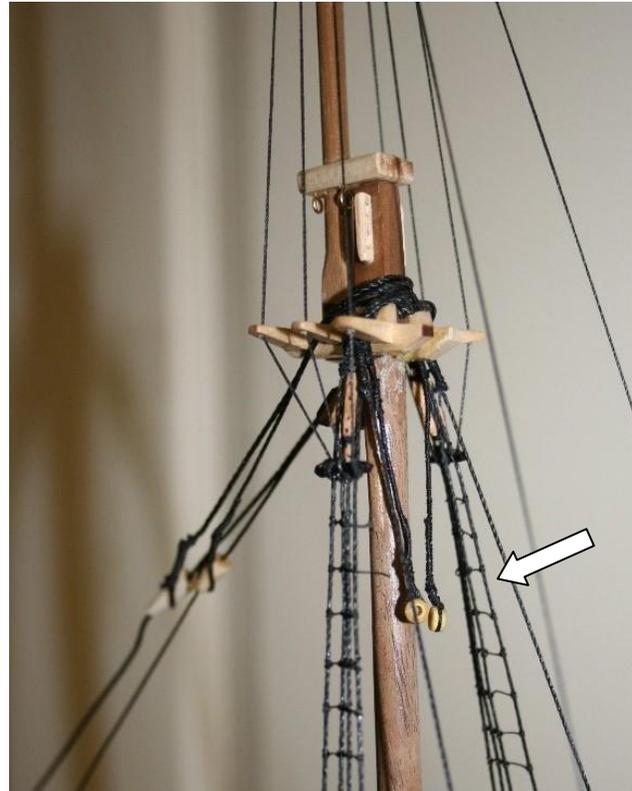


# Part 16

*The standing rigging for the topmasts is the subject of part 16. We turned the topmasts in part 14. First we must set the cross and trestle tree in place and position the topmast to the lower masts*

## **16.1 Burton pendants.**

*The pendants are tackle similar but smaller than those we made for the lower masts and they are mounted only on the fore and main topmasts. They are made to hang several feet below the trestle tree.*

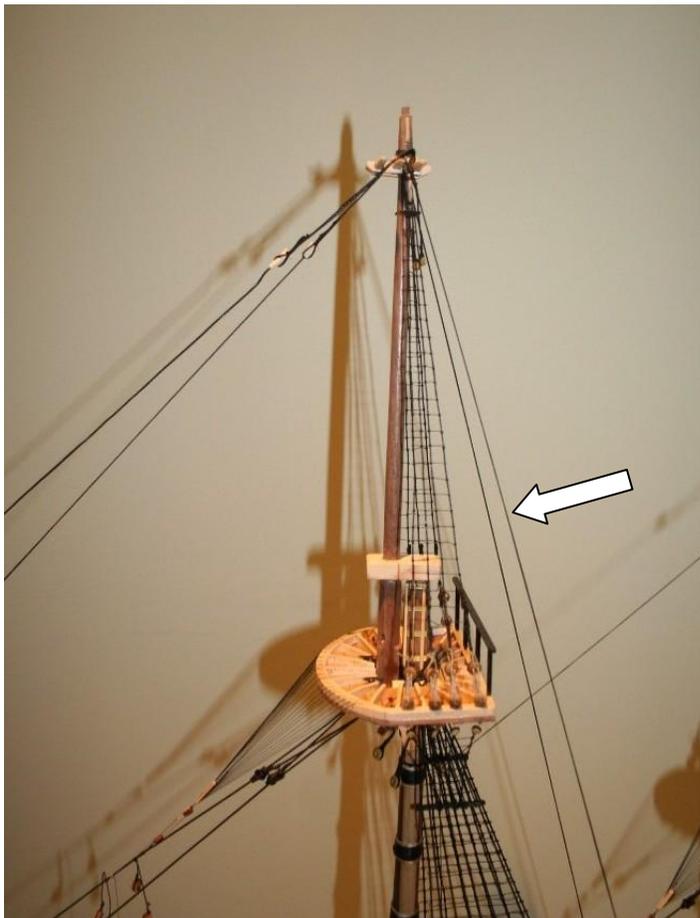
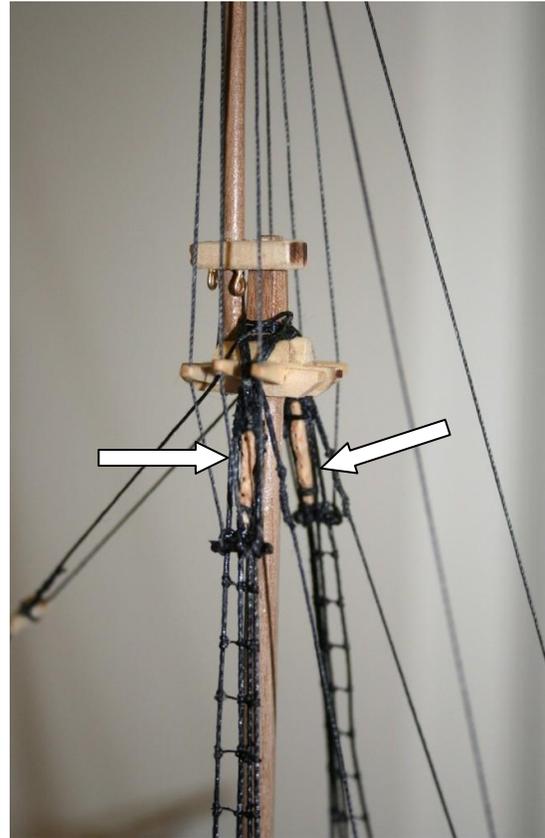


## **16.2 Fore and main topmast shrouds**

*The topmasts have two sets of shrouds on the fore and main masts. The ratlines are the same as before, stopping at the futtock staves.*

#### 16.4 Sister blocks

*These are a special block which consists of two narrow sheaves built in one shell, one smaller than the other, mounted between the second and third shroud line just above the futtock staves. There is one set mounted on both the port and starboard side. They will be used for the yard lift lines in a later chapter.*

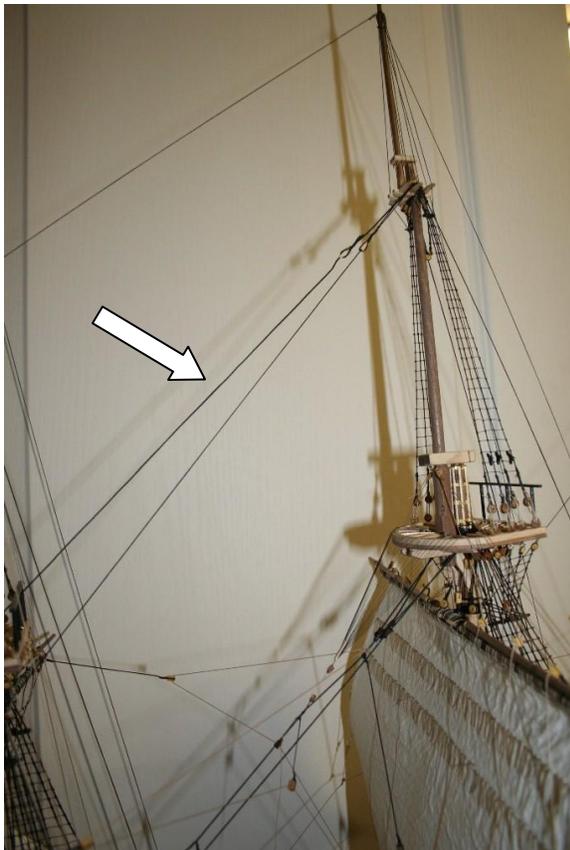
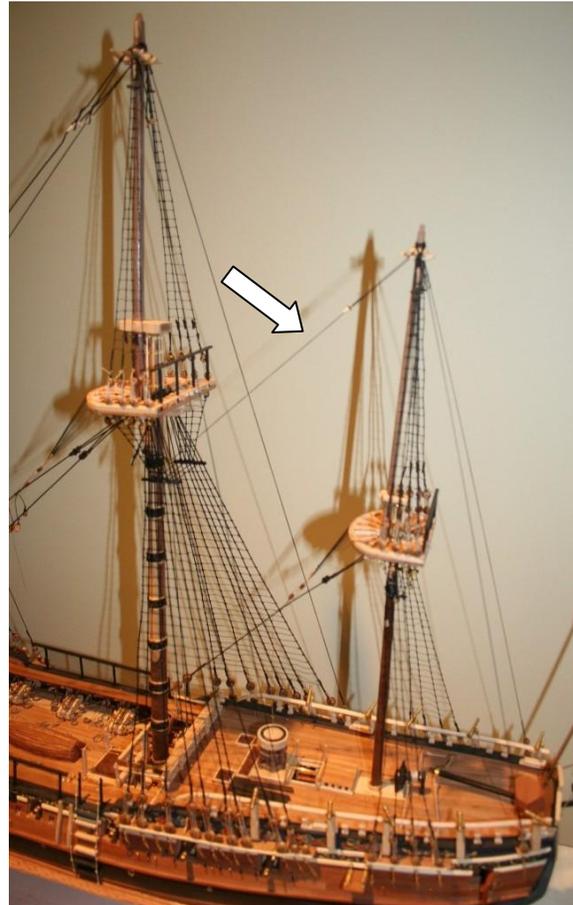


#### 16.7 Fore and main topmast backstays

*As with the lower masts, the fore and main topmast backstays are permanent. For this size of ship there is only one on each side, port and starboard. The photo is of the main top mast.*

**16.8 The Mizzen topmast stay**

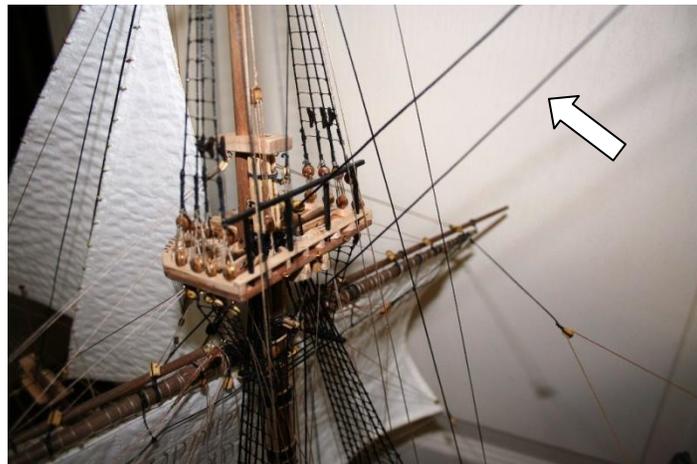
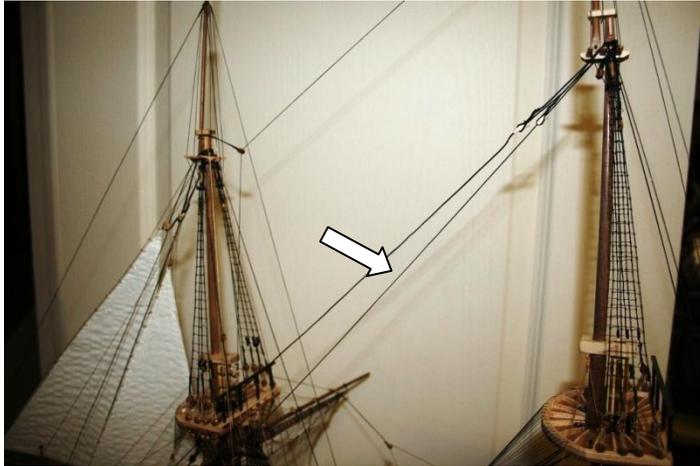
*The stay on the mizzen mast runs forward and down from the mizzen topmast head and is counterbalanced by the backstay and shrouds.*



**16.9 The main topmast preventer stay**  
*The preventer stay is always the upper of the two stays on the mast.*

**16.12 The main topmast stay, collar and tackle**

*The main topmast stay goes through a single block under the fore trestle tree and belays to deck.*



**16.13 The jibboom crupper**

*The crupper is the lashing on the heel of the jibboom to keep it from moving inboard.*



#### 16.14 The fore topmast stay

Both the topmast preventer stay and stay belay on the jibboom and is used for the stay sails. The second picture shows where the stays belay to the tackle at the foot of the jibboom.



*The end of this chapter saw the completion of the standing rigging at the topmast level of the ship. "A milestone picture that I found encouraging."*



## Part 17

*The jibboom and the rigging for the topgallant mast pretty much completes the standing rigging. Starting in this section I am using a Tamron #272E macro lens on my camera for most of the pictures. You will see a huge difference with the detail and now the background is blurred out. I am certainly not a photographer but the improvement is fantastic!*

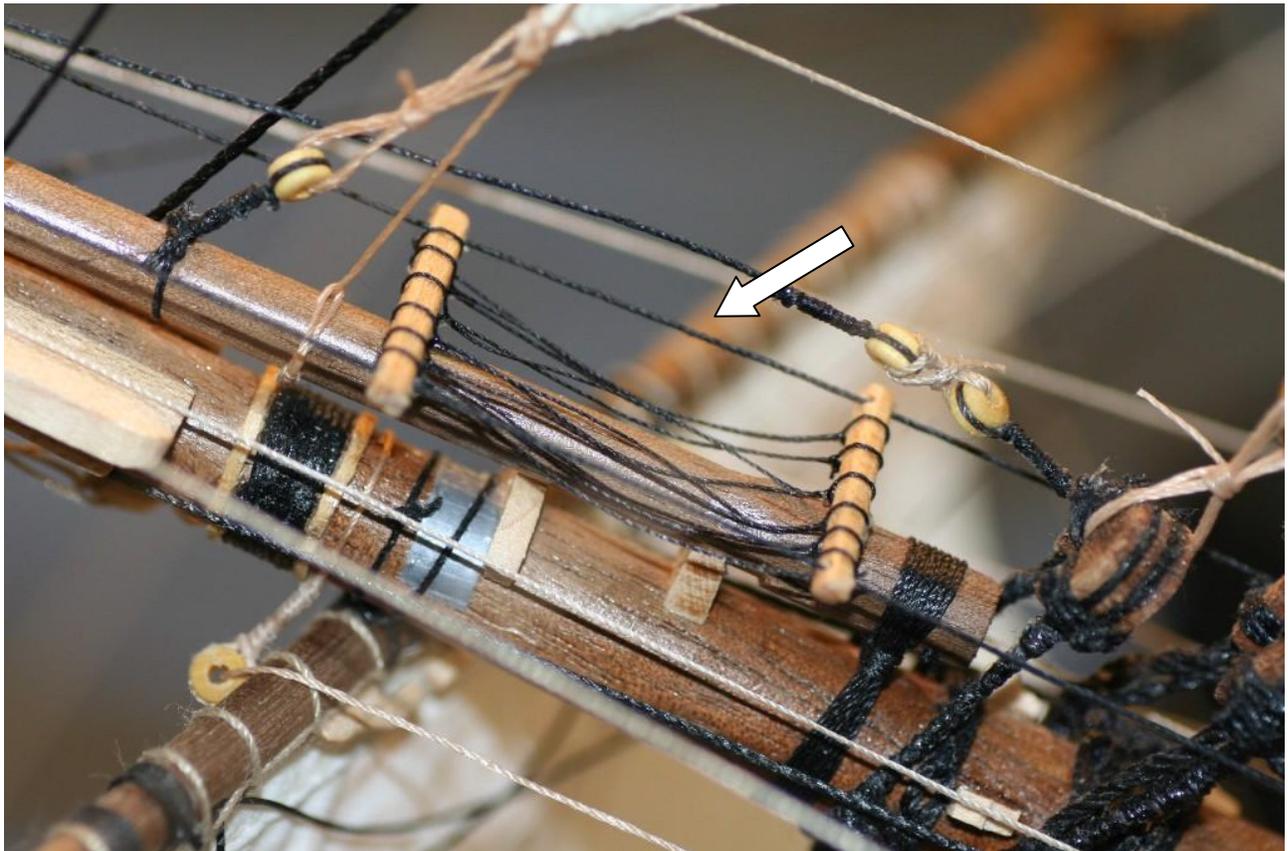
### **17.1 The Jib Traveller**

*I made my traveller out of a piece of costume jewelry and silver soldered a hook on it to be able to attach the tack cringle of the jib sail. The paint didn't take to the plating on the jewelry so I will have to touch up again on the "spot".*



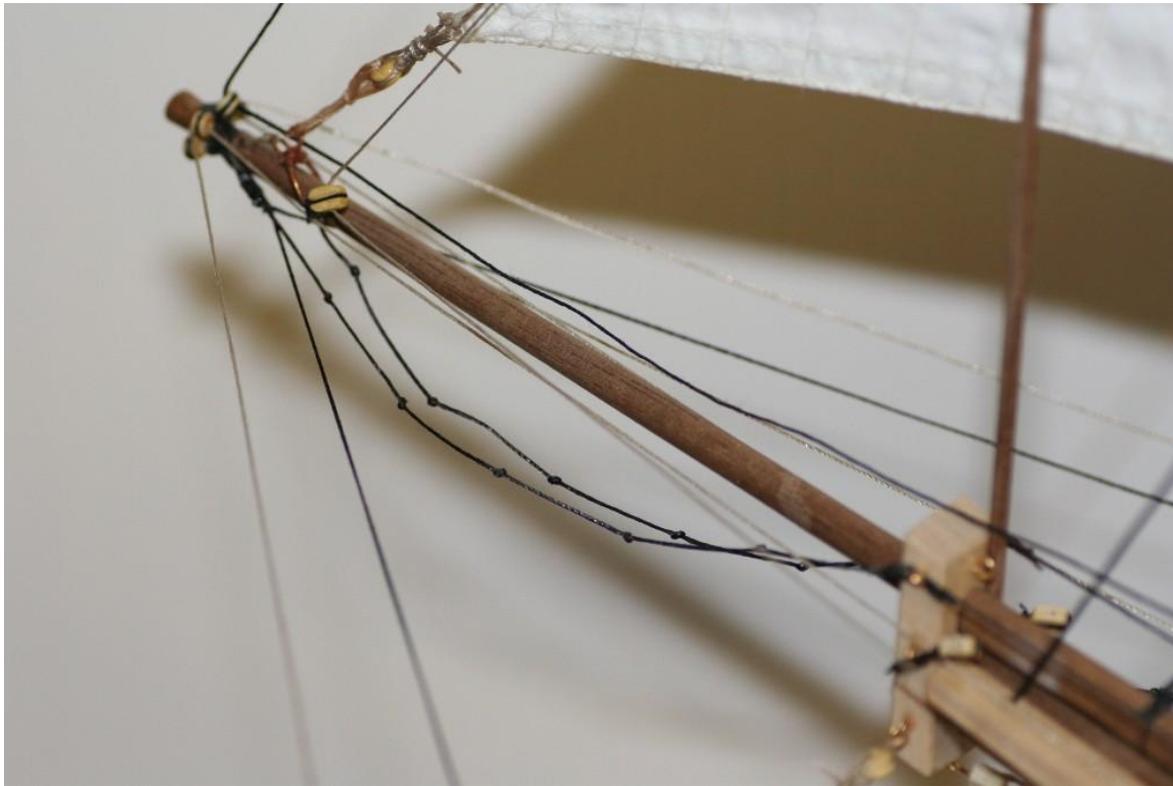
### 17.2 Bowsprit horses and fore topmast staysail netting

The bowsprit horses is the outermost standing line on which the netting rides. Both my skill and patience were at the limit when I tried to make the diamond zigzagging, so I left the "netting" without being completed with the cross threads. To make the net itself, I cut a template out of cardboard, and then I cut the horses approximately to the length they would require. The staves I friction fitted into the cardboard, then proceeded with the rigging of the "partial" net. Once all the rigging is finished on the bowsprit, there is so much detail that one really must be looking for the net to know it is not complete.



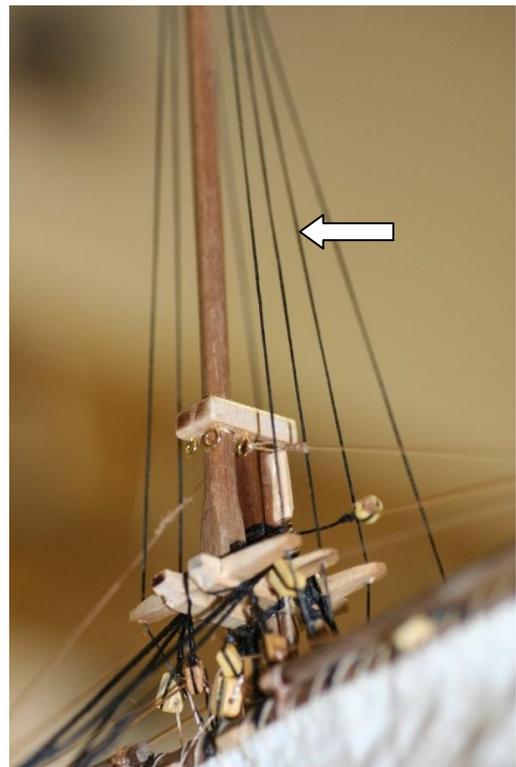
### **17.3 The jibboom horses**

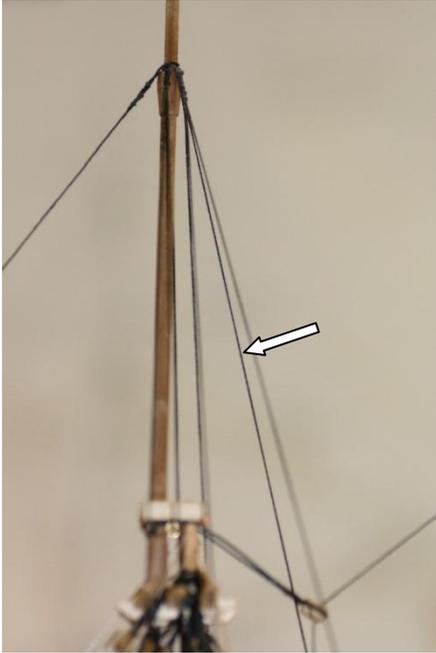
*The jibboom horses are footropes rigged between the bowsprit cap and the end of the jibboom. They are knotted to help the sailors that have to go out to the end of the boom. The horses on the bowsprit are hand ropes and therefore not knotted.*



### **17.4 Main topgallant shrouds and backstays**

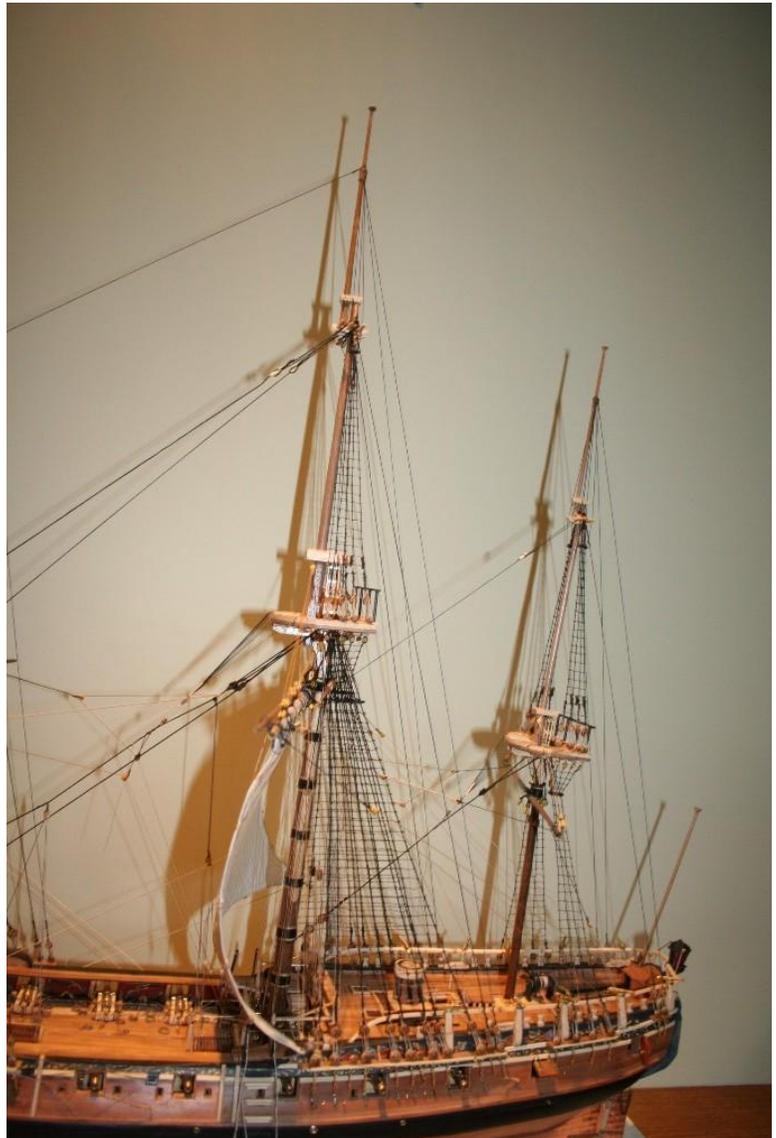
*There are three shrouds on the topgallant mast. In this photo one cannot see the standing end of the backstay which is higher on the mast. There are no ratlines at this level of the masting.*



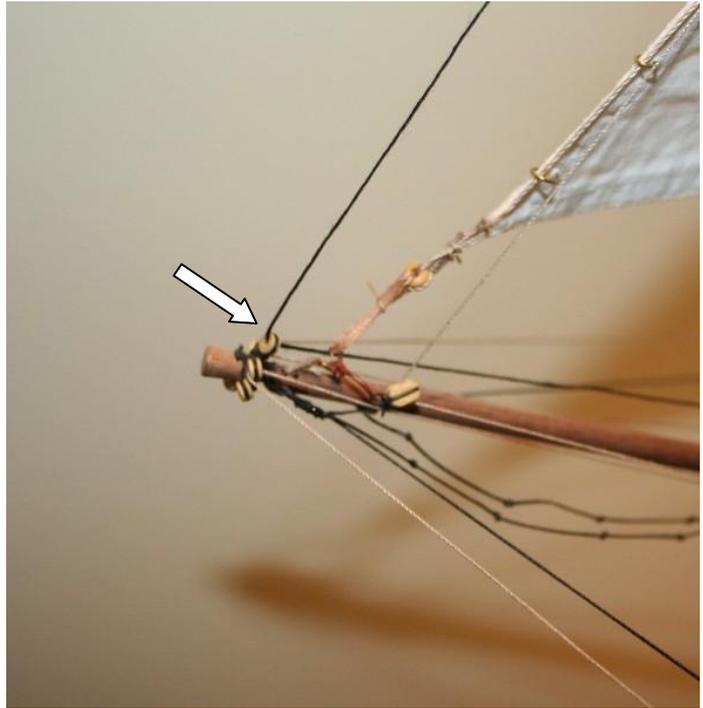


**17.5 Fore topgallant shrouds and backstays**  
The backstay of the fore topgallant mast shows up well. As with the main masting, there are three shrouds port and starboard. One is difficult to see as it is aligned on the topgallant mast.

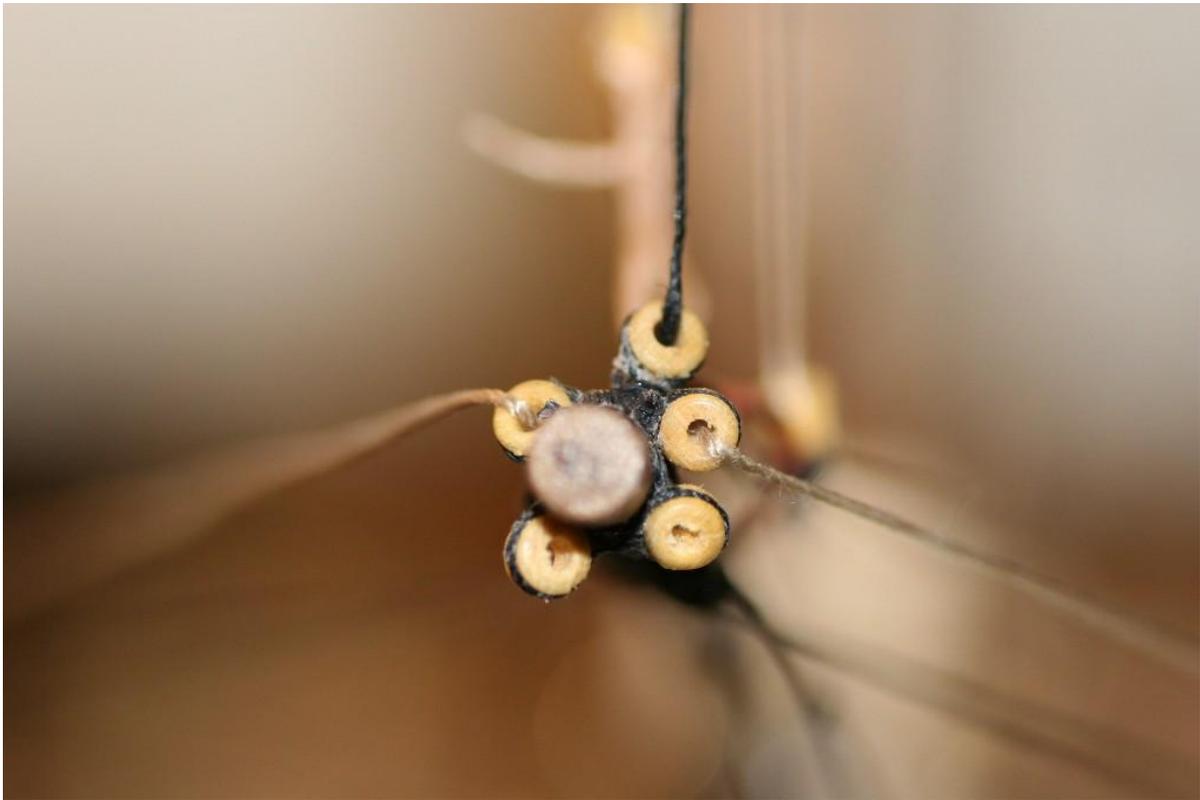
**17.6 The main topgallant stay**  
All the stays on the main and mizzen mast are evident. At this point I have not rigged a topgallant stay on the mizzen topgallant mast.



**17.9 Collar for the fore topgallant stay and fore topgallant bowlines**  
The fore topgallant stay goes through the uppermost thimble of the collar. Bowsprit yard lift and bowlines go through the other thimbles both port and starboard. The rigging then follows the jib boom and belays to cleats in the forecabin.

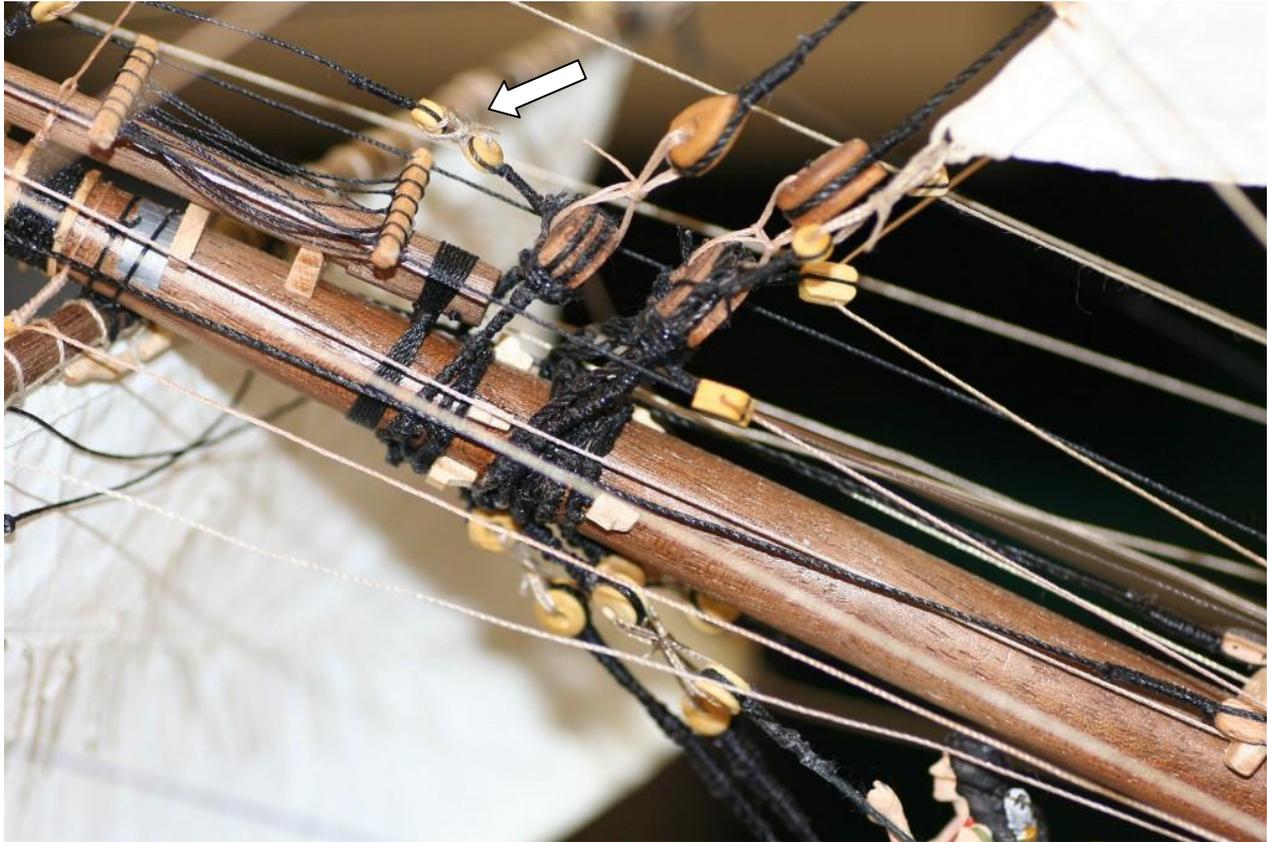


**17.10 Spritsail yard lift collar**  
The two uppermost thimbles serve for the sprit yard lift. The bottom most thimbles have yet to be rigged.



**17.11 The fore topgallant stay**

*The stay runs down through the thimble on the bowsprit and forward to a thimble attached to the fore side of the main preventer stay thimble and collar.*



# Part 18

*Part 18 is all about making the yards and rigging them to the masts. However, in my case I had decided from the outset to also raise the sails. This implied that we had the additional job to rig the sails at the same time we raise the yards. To do this I had to study ahead both in David's book on "Rigging a sixth rate sloop" as well as other books that I have in my library. From here on I re-sequenced the steps to merge the rigging of the sails with the basic rigging. So as we proceed I have attempted to group the remaining chapters touching the yards and sails together.*

*Prior to undertaking anything I made up two extra sheets to help me along. One was a list of the steps and the other a diagram of the sail showing the rigging including blocks, line sizes and belaying points. I have included the sequencing for the spritsail and jib/fore sails below. I will not include in my journal the lists for all sails as they are closely repetitive.*

*(Most of the photos in this chapter were taken after the fact and not during the assembly work)*

## SPRITSAIL

### *Atalanta Spritsail Installation Sequence*

*1770's (Period 1760 – 1800)*

- 18.1 *Make Spritsail yard*
  - *Sling cleat*
  - *Stop cleat*
  - *Yard end eyebolt*
- 18.2 *Halliard thimble and strop (2)*
- 18.4 *Clueblocks and strop on yard (2)*
- 18.5 *Jib Guy thimbles and strop (2)*
- 18.6 *Stirrups – tarred line (4)*
- 18.7 *Yard footropes (horses)*
- 24.8 *Sew Sail*
  - *Reef Points*
  - *Bend sail – (carp. glue 60/40 solution)*
  - *Lace Sail to yard*
- 18.9 *Yard sling*
- 18.3 *Halliard tackle (2)*
- 18.8 *Standing Lift*
- 18.10 *Running lift*
- 18.11 *Brace Pendants*
- 18.12 *Braces*
- 18.13 *Jib Guy Falls*
- 24.9 *sail cluelines (2)*
- 24.10 *sail buntlines (2)*
- 24.11 *sail sheets (2)*
- XX *Bend sail (2nd time)*

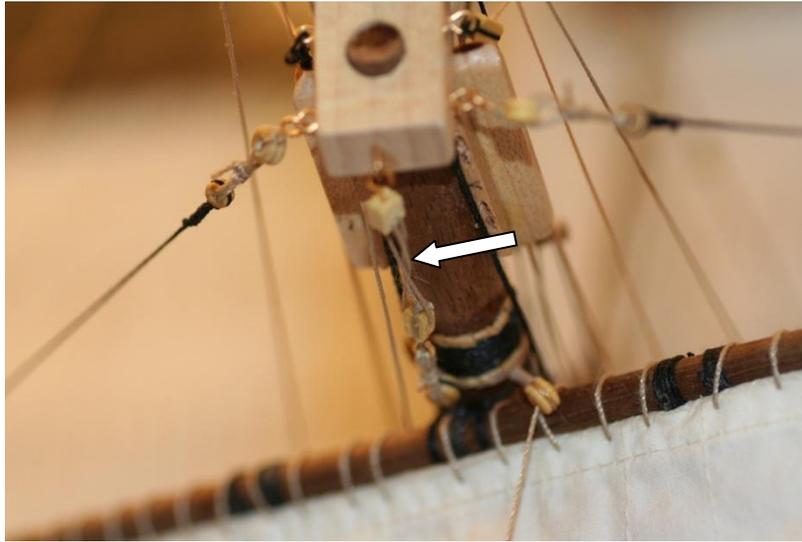
***At this point all tackle; sail and sail rigging are attached to the yard and ready to install.***



### **18.1 The spritsail yard**

*The above photograph, I am showing the spritsail already installed. The rigging running up the fore side of the sail is the buntlines (24.10). The reefers I will show more clearly in some later photos.*

- *Make Spritsail yard*
- *Sling cleat*
- *Stop cleat*
- *Yard end eyebolt*



**18.2 Spritsail halliard block and strop**

*Although a little blurred, the halliard block and strop are tied to the center of the yard and helps in securing it to the boom.*



**18.4 Spritsail clueline blocks and strops**

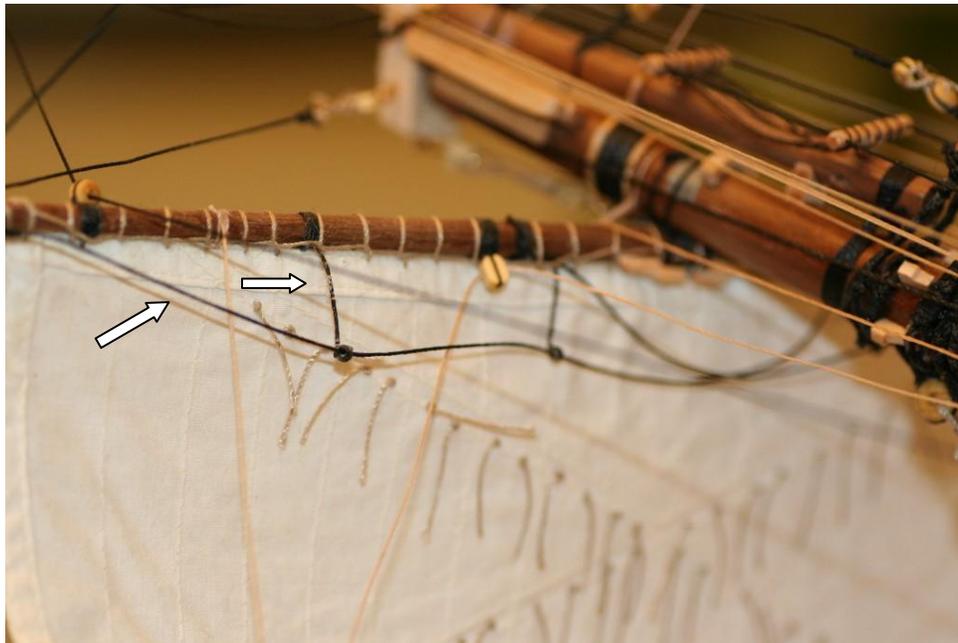
*There is one block on the yard and another on the corner clue cringle of the sail itself. In the above photos the clue line's standing end (24.9) is tied to the yard, runs to the corner block, back up to the block on the yard then belays to the breast. The course rigging in the above photo running from the clue cringle to the right of the photo is the sheet rigging (24.11).*





**18.5 Jib guy pendant thimbles and strops**

*The jib guy runs through the thimbles on the upper sides of the spritsail yard.*

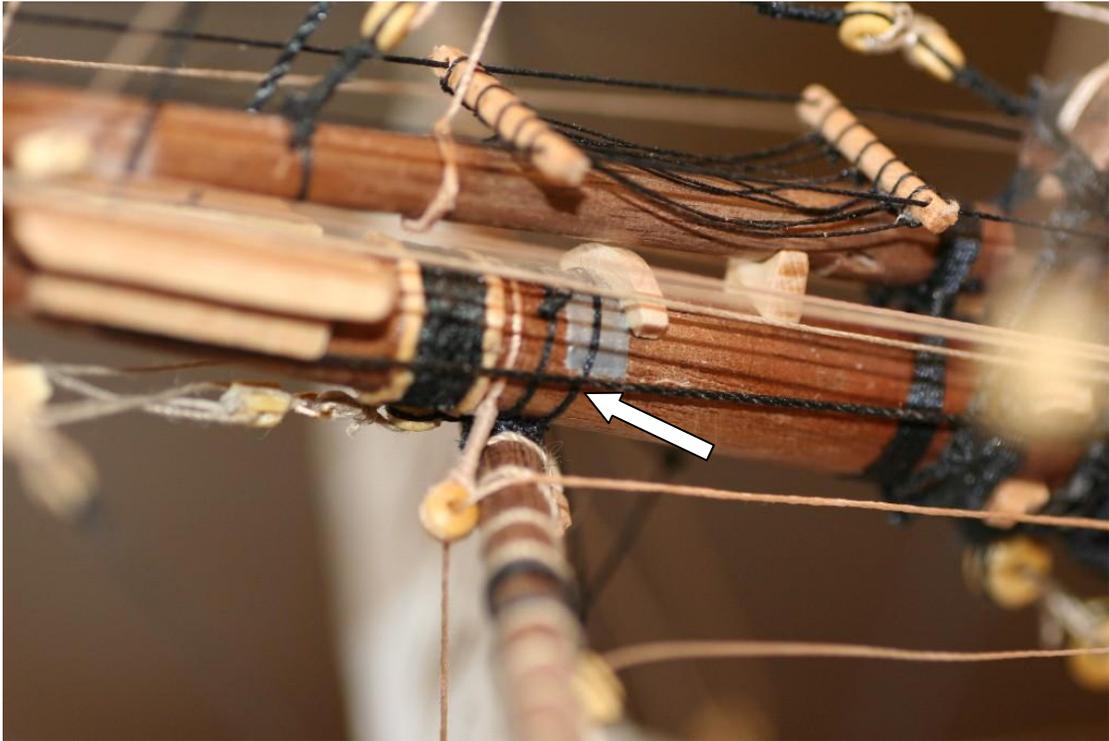


**18.6 Spritsail yard stirrups**

*This is the aft side of the sail where one can see both the stirrups and the horses (footropes) installed. There are four stirrups, two on each side of the yard.*

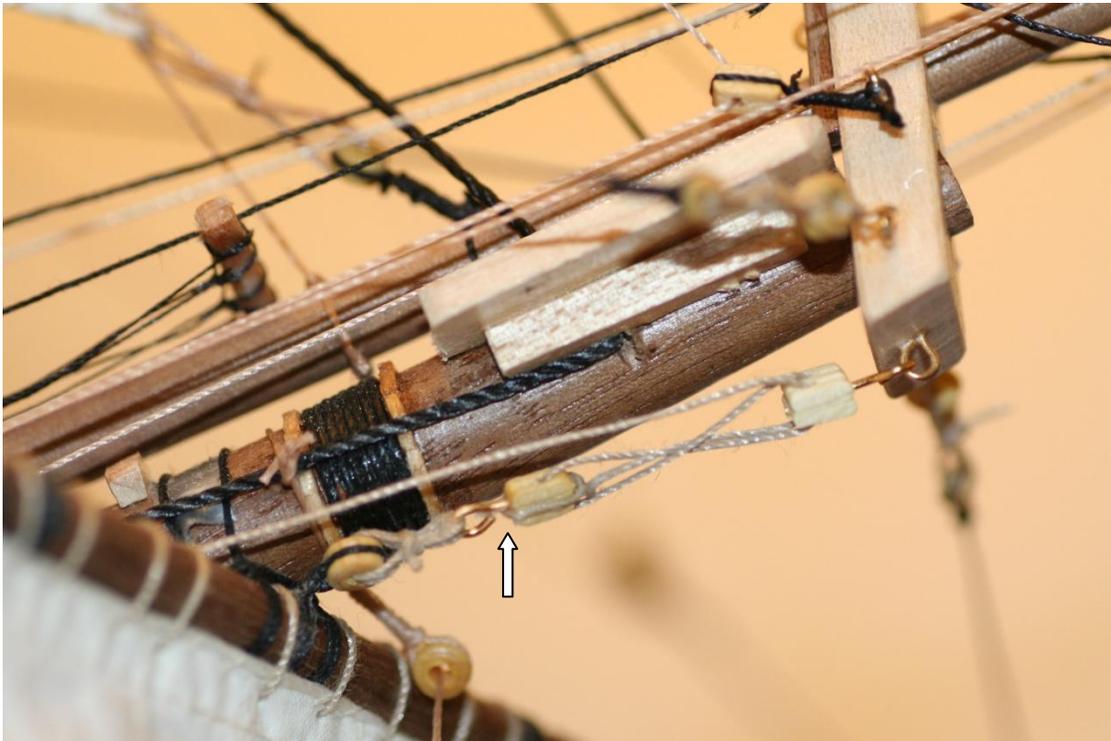
**24.8 Sew Sail**

- Reef Points
- Bend sail - (carp. glue 60/40 solution)
- Lace Sail to yard



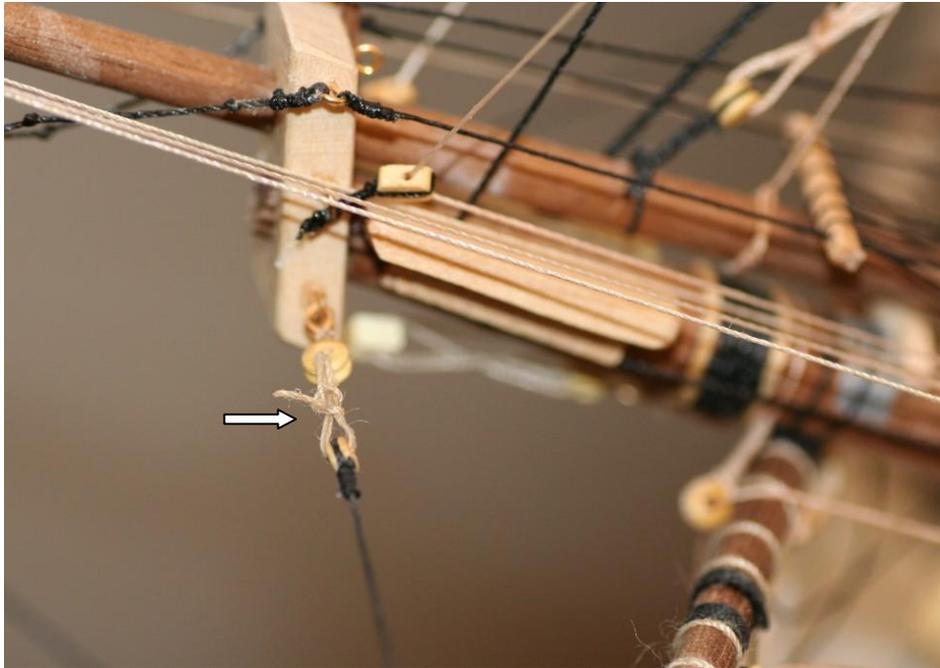
**18.9 The Spritsail yard slings**

*The sling can be seen in the above photo holding the spritsail yard tight to the underside of the boom. From this point on the sail is laced to the yard. The rigging specific to the sail is also in place but not yet installed.*

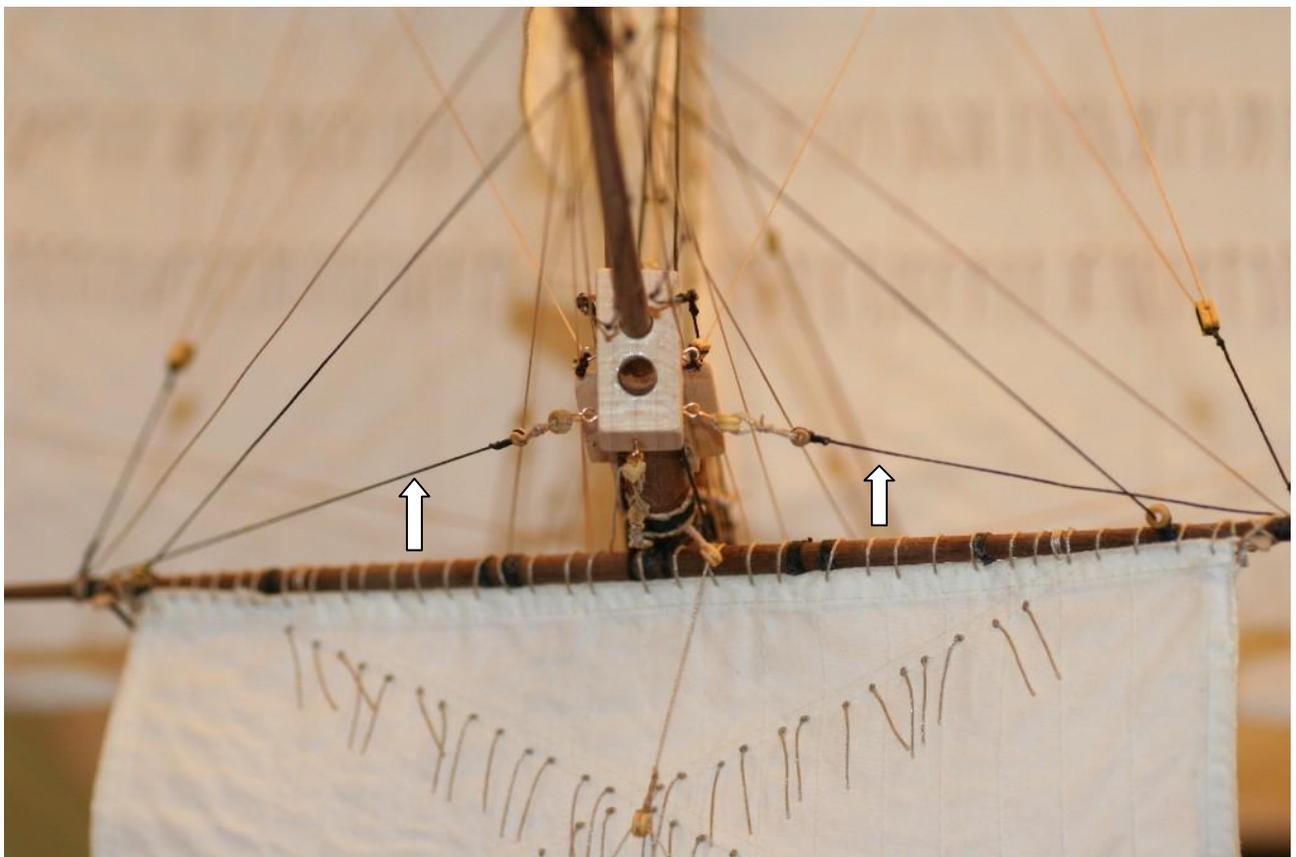


**18.3 Spritsail halliard**

*A better view of the halliard block, hook and thimble.*



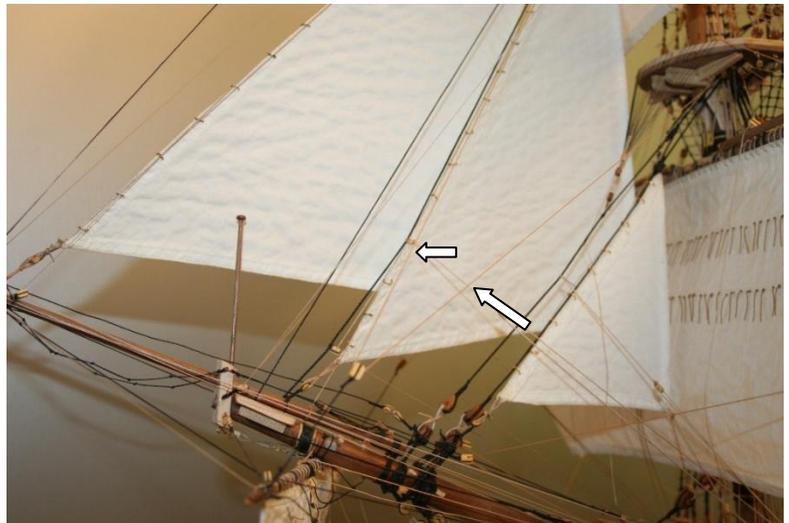
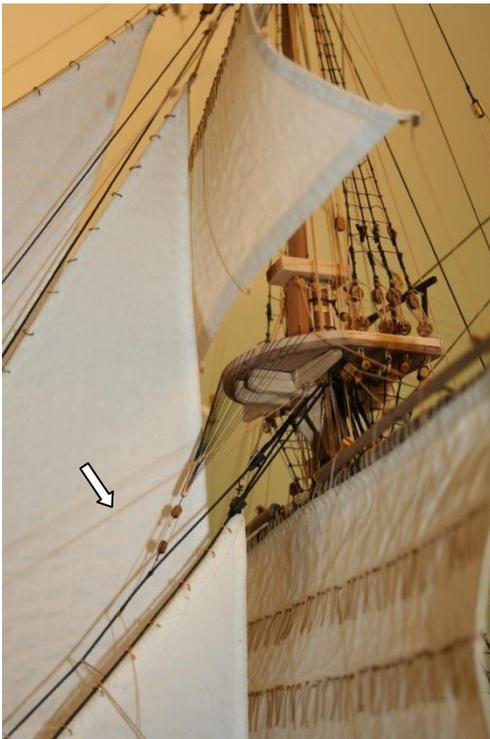
**18.8 The spritsail yard standing lift**  
*We are looking at the tackle for the standing lift, which consists of two thimbles, a lanyard and a hook. This assembly is attached to the bowsprit cap.*



**18.10 Spritsail yard lifts**  
*The lifts are now in place belaying to either side of the bowsprit cap.*



**18.11 Spritsail yard brace pendants**  
*The pendants are shown here in a rigged position.*



**18.12 Spritsail yard braces**

*The braces for the spritsail are long as the standing end is hitched to the top end of the fore stay, then runs down through the brace pendant and back up to blocks under the fore top and down to belay on a rail beside the belfry.*



### **18.13 Jib guy falls**

*The jib guy falls can now be rigged. They run from the end of the jib boom, through the thimble on the spritsail yard and down through tackle that belays to the cathead.*

*The guy falls can be tensioned at this point. No rigging was "fixed" until all ropes for one or more sails were belayed and being held in place with alligator clips. This way with the braces, sheets, tacks etc. I could angle the yards and square the sails at random.*

# Jib and Fore Staysails

## *Atalanta Jib and Fore Staysails Installation Sequence 1770's (Period 1760 – 1800)*

### 25.11 *The Fore Staysail (#13)*

- *Sew sail*
- *Bend sail – (carp glue 60/40 solution)*

### 25.12 *The Fore Staysail Halliard*

### 25.14 *The Fore Staysail Downhaul*

### 25.15 *The Fore Staysail Tack*

### 25.13 *The Fore Staysail sheets*

### 25.6 *The Fore Topmast Staysail (#20)*

- *Sew sail*
- *Bend sail – (carp glue 60/40 solution)*

### 25.7 *The Fore Topmast staysail stay*

### 25.8 *The Fore Topmast staysail Halliard*

### 25.10 *The Fore Topmast staysail Downhaul*

### XX *The Fore Topmast staysail Tack*

### 25.9 *The Fore Topmast staysail Sheets*

### 18.13 *Jib Guy Falls*

### 18.14 *Jib Traveler Outhaul*

### 25.1 *The Jibsail (#18)*

- *Sew sail*
- *Bend sail – (carp glue 60/40 solution)*

### 25.2 *The Jibsail Halliard*

### XX *The Jibsail Tack*

### 25.5 *The Jibsail Downhaul*

### 25.4 *The Jibsail Outhaul*

### 25.3 *The Jibsail Sheets*

***For the installation of the fore sails I decided to start with the inner most sail first. So we jumped to step 25.11 The Fore Staysail. It was necessary to shorten the sail so it would not drag to low on the jib and fore deck. The sails were made by Wendy Thompson in Australia several years ago. She did a fantastic job. The sails were randomly numbered for reference during this process. The following photo shows the "Jibsail" on the outside. Center is the "Fore Topmast staysail" and our beginner on the inside, "Fore Staysail".***



### 25.11 The Fore Staysail (#13)

- Sew sail
- Bend sail - (carp glue 60/40 solution)

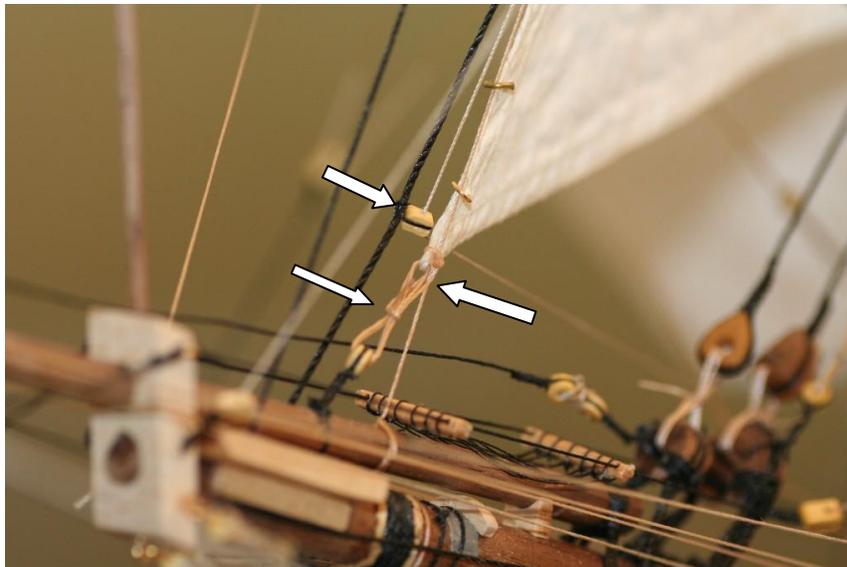


### 25.13 The fore staysail sheets

The staysail sheets for the three sails can be seen here, although the fore staysail sheet is under the main course.

### 25.6 The Fore Topmast Staysail (#20)

- Sew sail
- Bend sail - (carp glue 60/40 solution)



### 25.10 The fore topmast staysail downhaul

The downhaul, tack and stay are in the above photo. At this time the topmast staysail had its own stay.

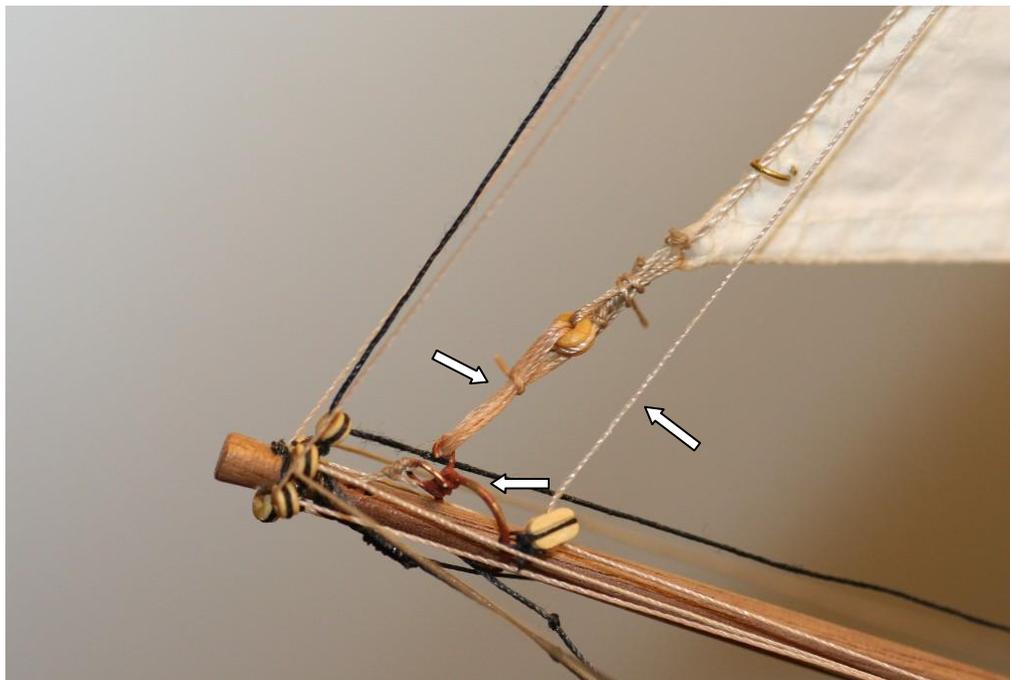


**25.9 The Fore Topmast staysail sheets**

The sheet rigging for the fore topmast staysail sheet is clear in this photo. The rigging running to the top left corner is the sheets for the jib sail.

**25.1 The Jibsail (#18)**

- Sew sail
- Bend sail - (carp glue 60/40 solution)



**25.5 The Jib downhaul**

The jib downhaul, traveller and tack are in the above photo.



**25.2 The Jibsail halliard**

*The halliard runs up from the boom, through a block under the fore topmast head and down to belay on a timberhead aft of the foremast shrouds.*

# The Fore yard and sail



## 18.16 The fore and main yards

My masts and yards were turned on a Taig lathe with an extended bed. The picture upper left, I prepared a series of sanding sticks of different grits for the lathe. Upper right I built a jig to make hexagon center pieces for the yards. The plans for the jig came from H. Sicard, "Model Shipbuilding for Dummies". My yards are three pieces. The two ends turned to scale following the dimensions on David's plans and the center hexagon. The sling cleat was built in at the time of turning the yard. The stop cleat was added when the hexagon was completed. The eye bolts and the studdingsail fittings have yet to be added. In the bottom photo I am assembling the tackle on the main yard. The stirrups have the alligator clips hanging. The rigging for the stirrups is clove hitched to the pin then fixed in super glue to hold the "eye" for the horse once the pin is removed. Once the yards were completely dressed we laced the bent sail to the yard along with its rigging ready to install.

I decided to install the fore yard and sail before the main. I feel it is easier to rig from fore to aft.



**18.21 Lower yard brace and pendant blocks**  
There are two pendants on each end of the fore and main yards. This photo show the fore course laced to the fore yard. The sail rigging is in place but not yet installed.

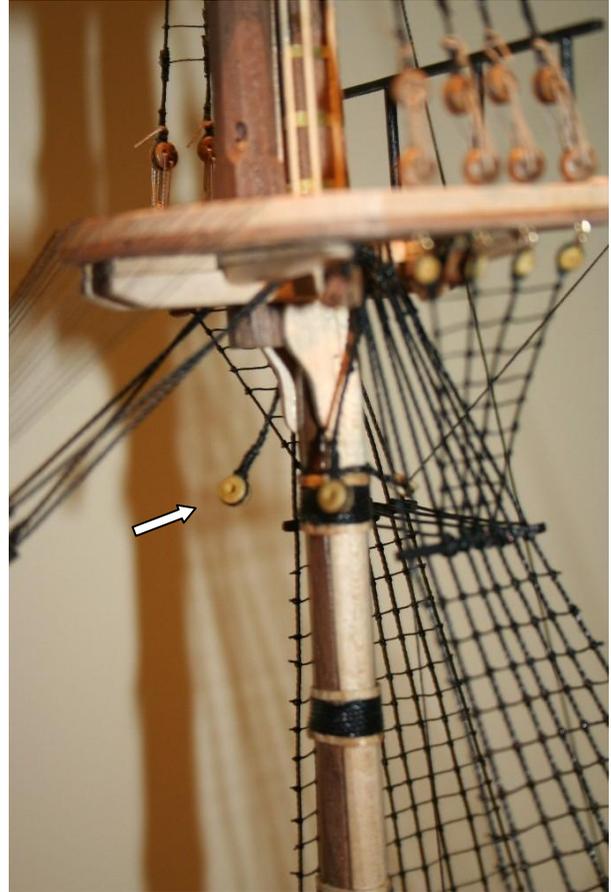


### **22.13 The fore course**

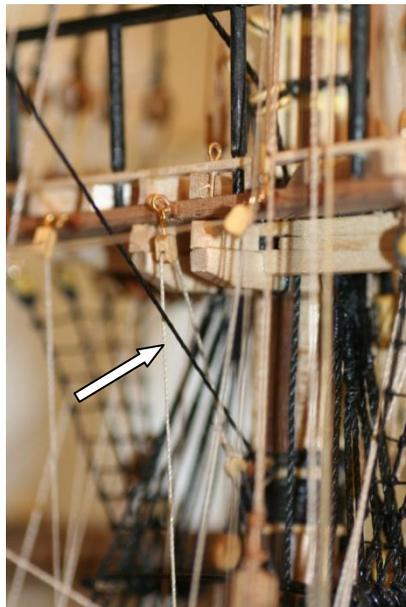
- Sew sail
- Reef points
- Bend sail - (carp. Glue 60/40 solution)
- Lace sail to yard



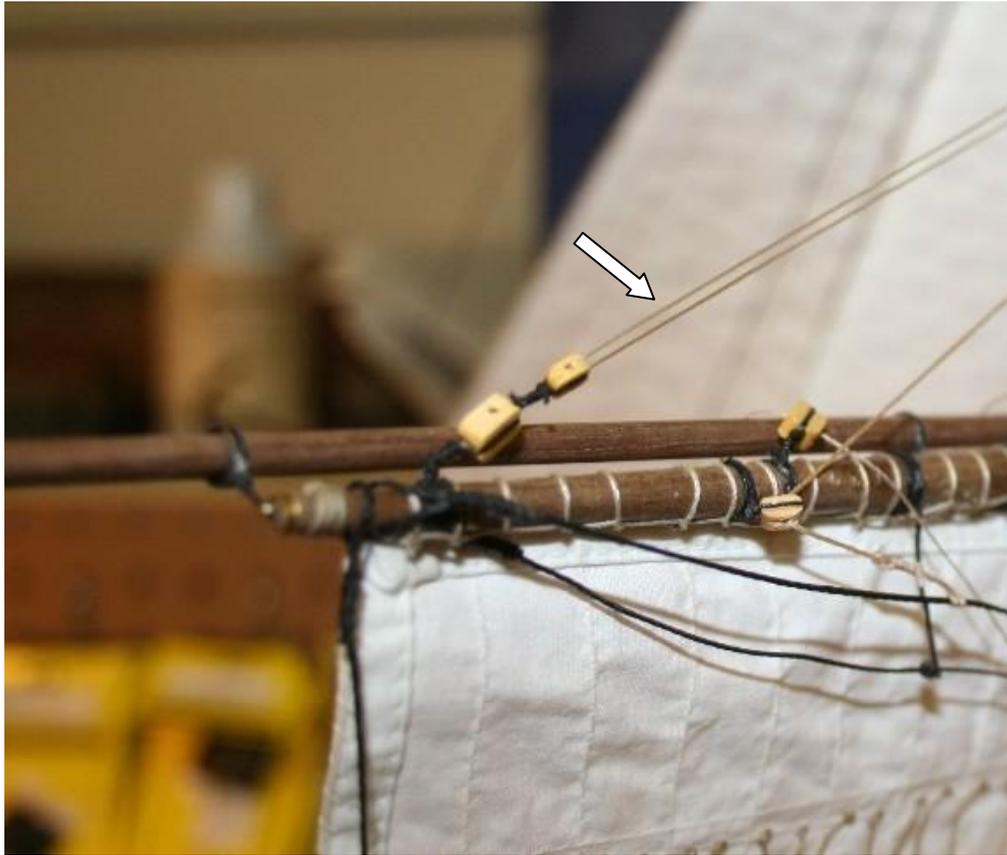
**22.14 Fore course cluelines**  
The cluelines, bunt lines and leech lines were all installed prior to crossing the yard to the mast.



**18.30 The truss pendant tackle**  
The truss pendant tackle is in place ready to cross the yard on the mast.

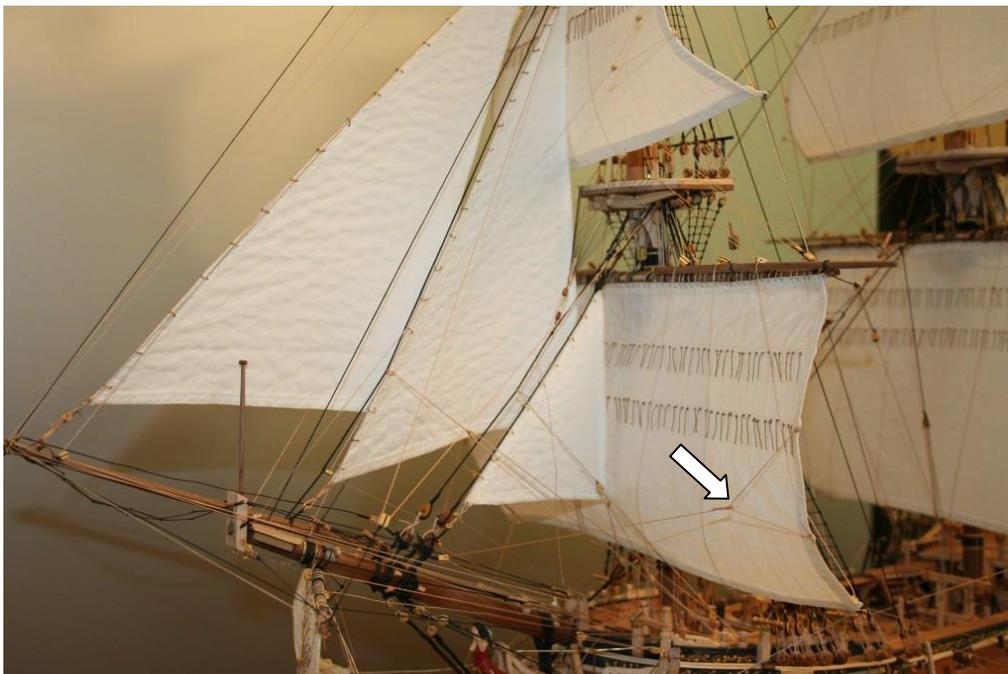


**18.31 The nave line**  
The nave line is in place and the yard is raised.



**18.33 Lower yard lifts**

*The lifts are now in place on the lower fore yard and I am finalizing the rigging.*



**22.17 Forecourse bowlines and bridles**

*The fore course in this photo is fully rigged. The bowline, sheets, braces and tack were used to tension and square the sail as well as angle the yard.*



**22.18 The fore sheet**

*The fore sheet as well as the cluelines can be seen in this photo.*

# The Main yard and sail

*The paragraphs in chapter 18 that referred to the fore yards above also apply to the main yards.*



## **22.1 The main course**

- **Sew sail**
- **Reef points**
- **Bend sail - (carp. Glue 60/40 solution)**
- **Lace sail to yard**

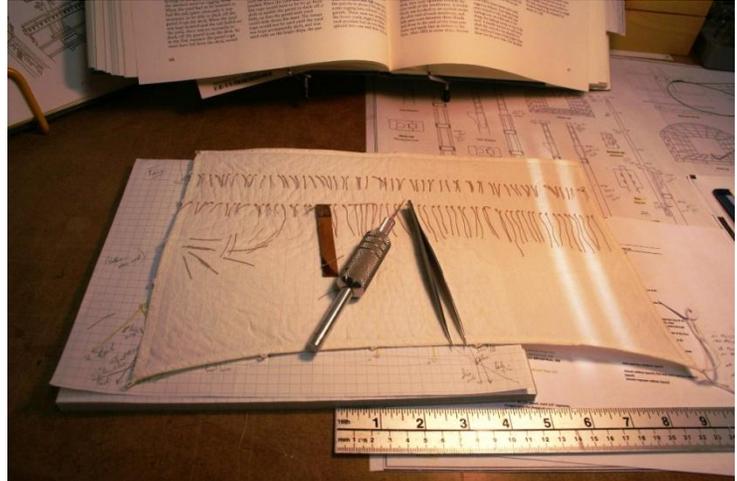
*The photos above show the fore and aft side of the sail already laced to the yard. The sail rigging has not been attached yet. This sail has been bent once with the glue and water solution prior to lacing to the yard. Notice the reefers are not hanging properly. This is why I paint the solution on a second time just prior to installing the sail.*



*I use a 6" diameter foam "exercise roller" covered with wax paper so the glue does not stick to the foam. After tying the various sail rigging, I pin the sail to the roller then paint it with the solution. Let dry over night and we are ready to go. Notice how the reefers are now well positioned.*



*Laced to the yard and crossed to the mast we are ready to rig!*



### **22.2 The reef points**

*The reef points are a tedious job that my wife likes to do when vacationing in Florida. She sews the points as illustrated in David's book, knots the thread on both sides of the sail, after which I use a jig made from a stick for uniform length and cut them with knife and tweezers. Fun.....fun.....*

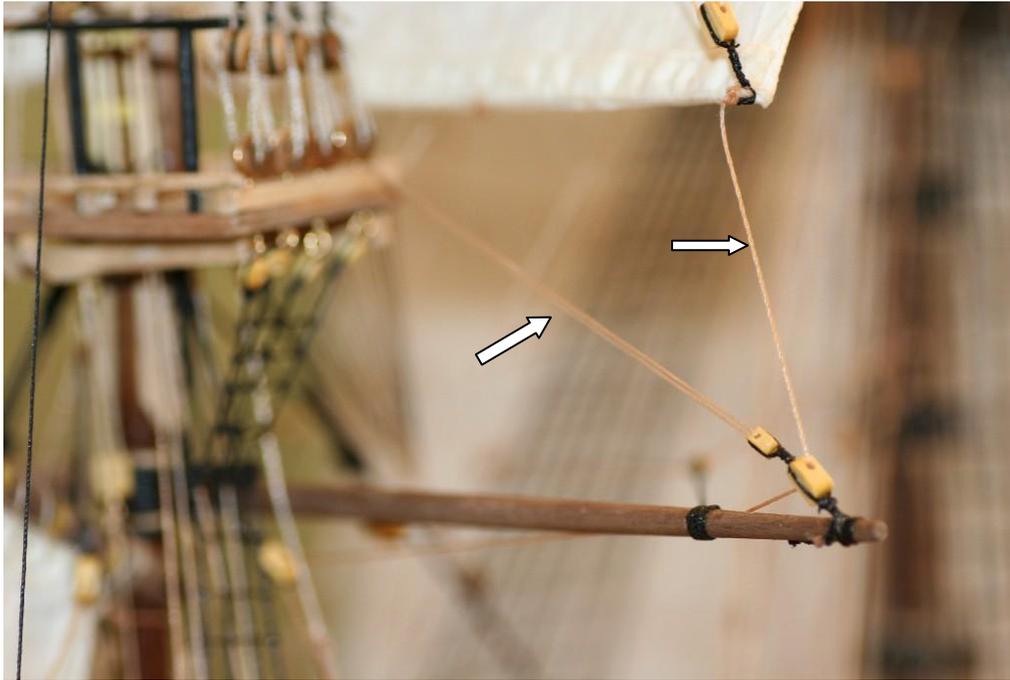
### **22.6 Lines controlling the courses**

*Only the belaying points change for the lines controlling the courses. They are basically all the same.*



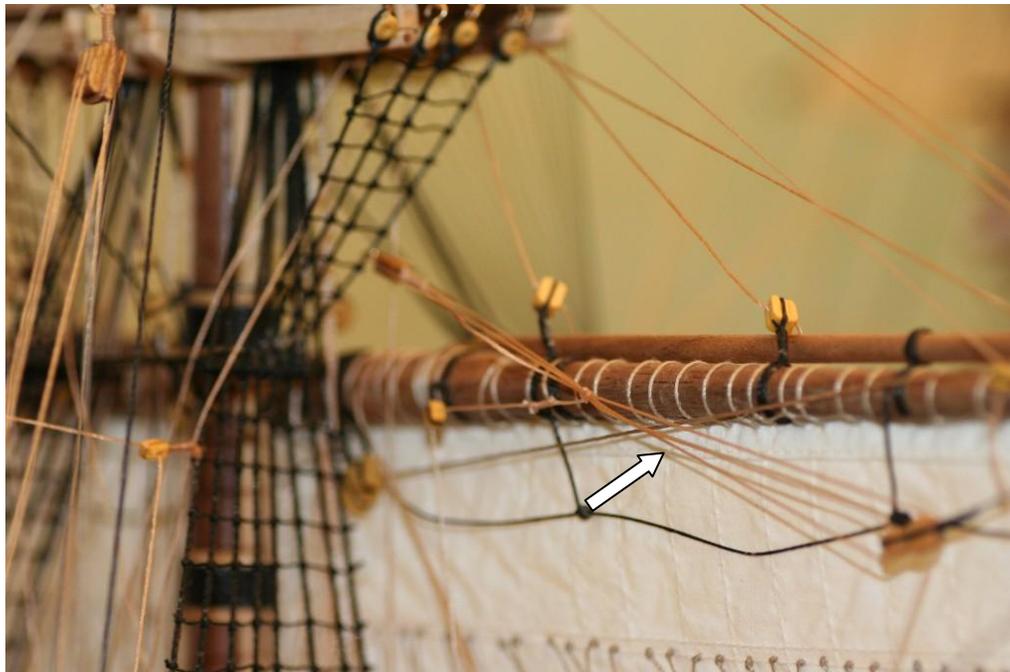
### **18.34 The cross-jack yard fittings**

*The cross-jack does not carry a sail. I opted not to fit it with stirrups and horses. It does have a number of blocks for bracing and lifting. The sling and truss are similar to the spritsail yard.*



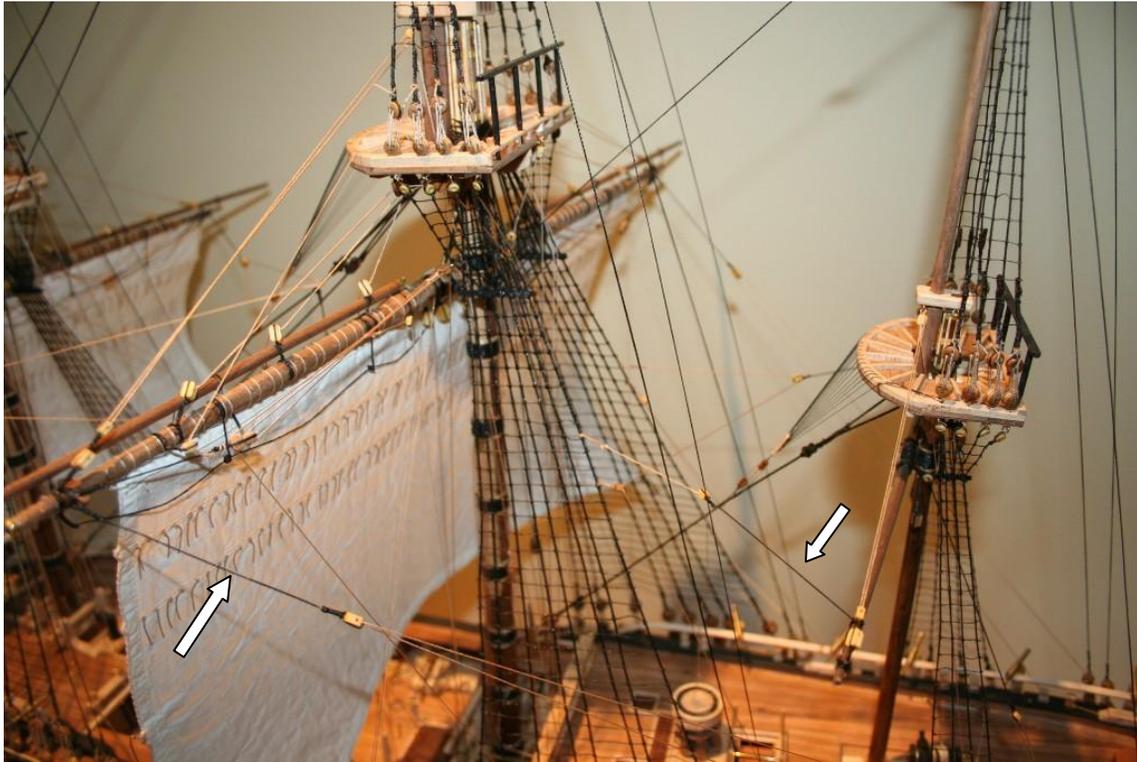
**18.37 Cross-jack yard lifts**

*The standing end of the lift belays to the mast cap, while the running end belays on deck to a timberhead inside the mizzen shrouds. This photo also shows the mizzen topsail sheet running through the sheet block on the cross-jack.*



**18.40 The outer tricing line**

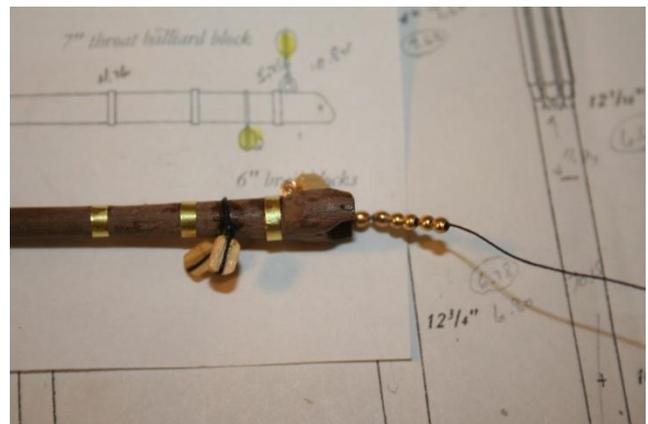
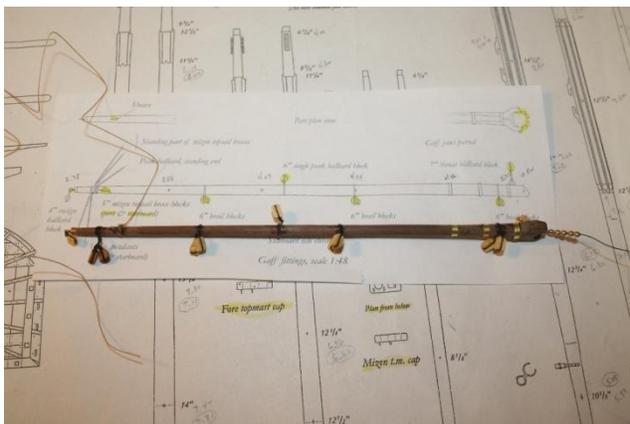
*On both the port and starboard side I show the tricing line secured to the yard. These lines are used in conjunction with the yard and stay tackle to load items such as the boats, canons etc. into the waste.*



**18.43 Main yard braces**

The main yard braces can be seen on the lower left of the photo. The cross-jack braces are to the lower right.

## The Mizzen sail or Mizzen course



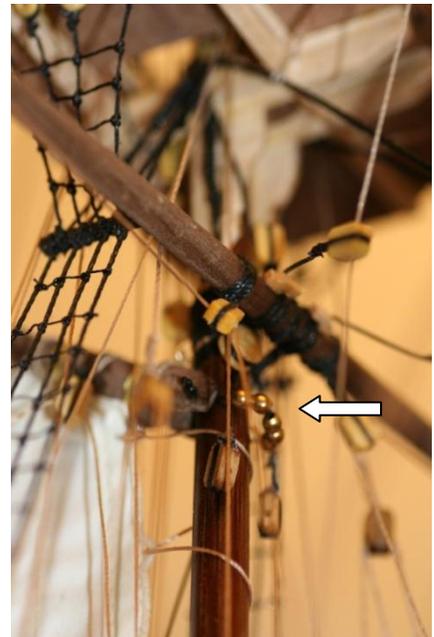
**18.45 Preparing to raise the gaff**

At this point I was back to the lathe to turn the gaff and dress it with the requisite tackle.

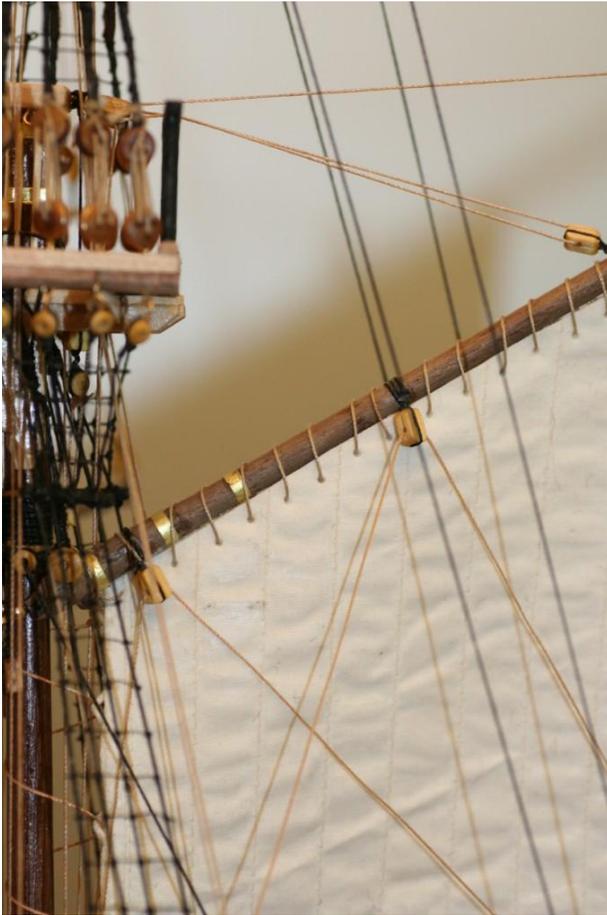


**25.47 The mizzen sail**  
*The mizzen course is now rigged to the gaff.*

**18.49 The gaff parrel**  
*I made the parrel from brass beads. It can also be seen clearly in the photo with ph 18.45*

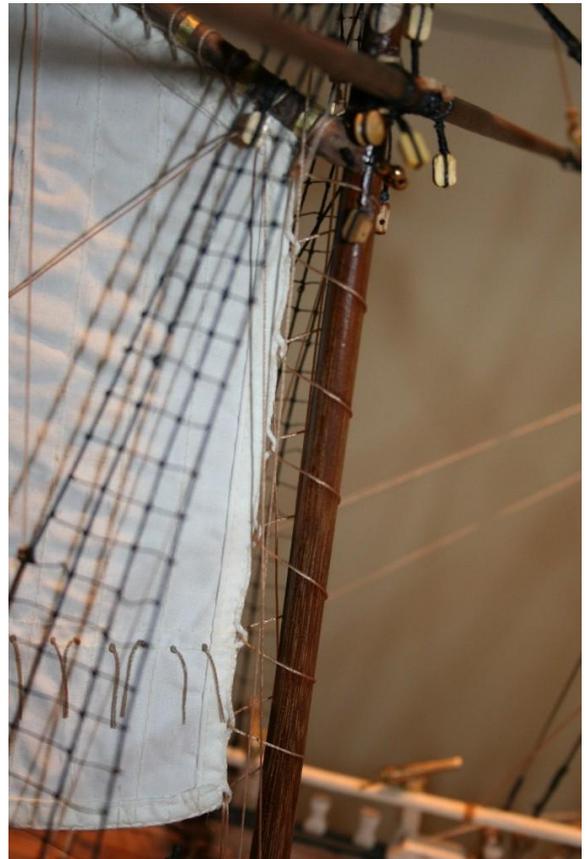


**18.53 The ensign halliard block**  
*Hanging on the end of the gaff is the ensign block. I will have a flag in the breeze before I am finished.*



*25.49 The mizzen sail lacing to the gaff  
In addition to the lacing, this photo also  
shows the brails against the sail. The  
lines belay to the quarter deck rails.*

*25.50 The mizzen sail lacing to the mast  
The sail is laced through the earrings from the  
bottom tack to the top cringle*



# Part 19

*Part 19, similar to part 18, we will be moving up the masts to the next level to install and rig the Topmast yards and sails. When building the masts, I had put the long pole on the top of the mizzen mast and had just assumed that I would be installing a mizzen topgallant, but this was not to be. So the mizzen topsail is as high as I go. You will see in some of the pictures I rigged a mizzen topgallant fore stay to "fill" the space. As before, I re-sequenced the steps to merge the rigging of the sails with the basic rigging. This chapter goes hand in hand with chapter 23 to marry the yards and sails together. I have included the sequencing for the topsails below.*

*(Most of the photos in this chapter were taken after the fact and not during the assembly work)*

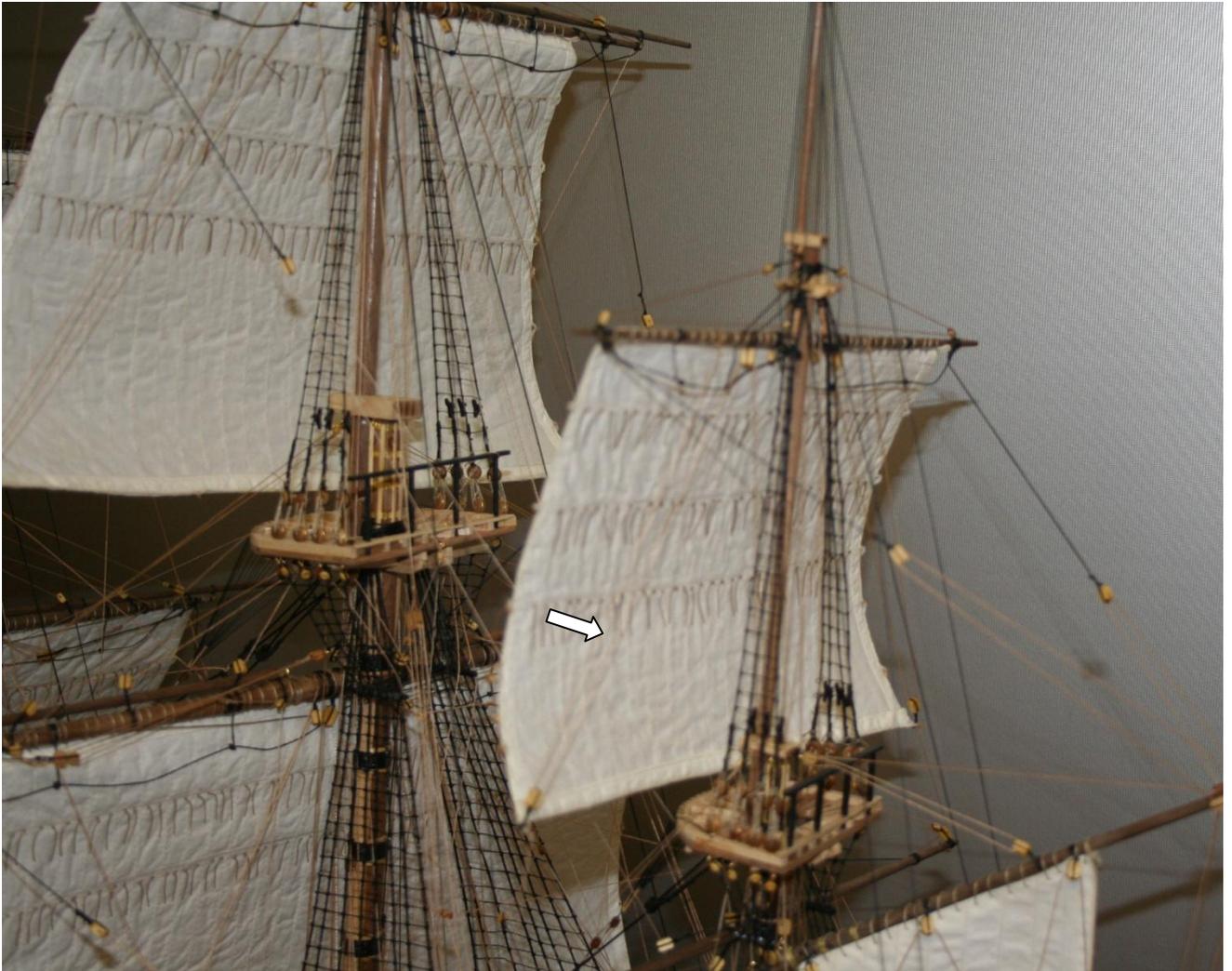
## Mizzen Topsail

### *Atalanta Mizzen Topsail Installation Sequence*

*1770's (Period 1760 – 1800)*

- 19.1 *Make Topsail yard*
  - *Sling cleat*
  - *Stop cleat*
- 19.2 *Yard horses and stirrups (4)*
- 19.3 *Yard sheet blocks (2)*
- 19.4 *Yard clueline blocks (2)*
- 19.5 *Yard brace pendants (2)*
- 19.8 *Yard lift blocks (2)*
- 23.1 *Sew Sail*
  - *Reef Points*
  - *Bend sail – (carp. glue 60/40 solution)*
  - *Lace Sail to yard*
- 19.7 *Yard tye and halliards*
- 19.9 *Yard lifts*
- 19.10 *braces*
- 19.11 *Vangs*
- 23.16 *sail cluelines (2)*
- 23.17 *sail buntlines (2)*
- 23.18 *sail bowlines and bridles(2)*
- 23.19 *sail sheets (2)*
- XX *Bend sail (2nd time)*

***At this point all tackle; sail and sail rigging are attached to the yard and ready to install.***



### **19.1 The mizzen topsail yard**

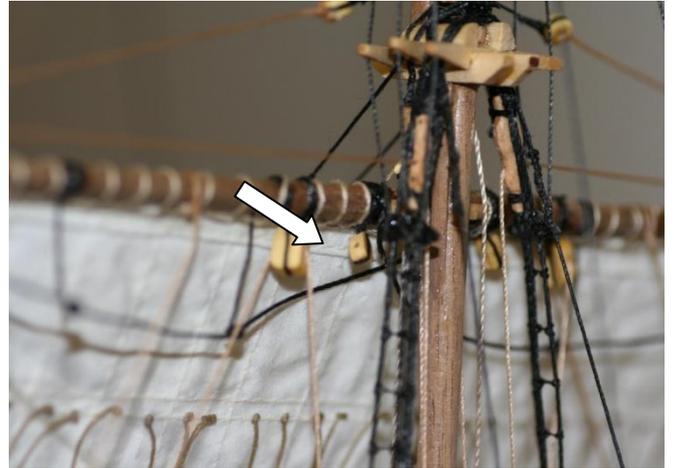
*The above photograph, I am showing the mizzen topsail already installed. There will be no topgallant yard on the mizzen mast, so I followed the steps as suggested by David. The rigging running up the aft side of the sail are the cluelines (23.16). I will show the rigging on the sails in some later photos.*

- *Make mizzen topsail yard*
- *Sling cleat*
- *Stop cleat*

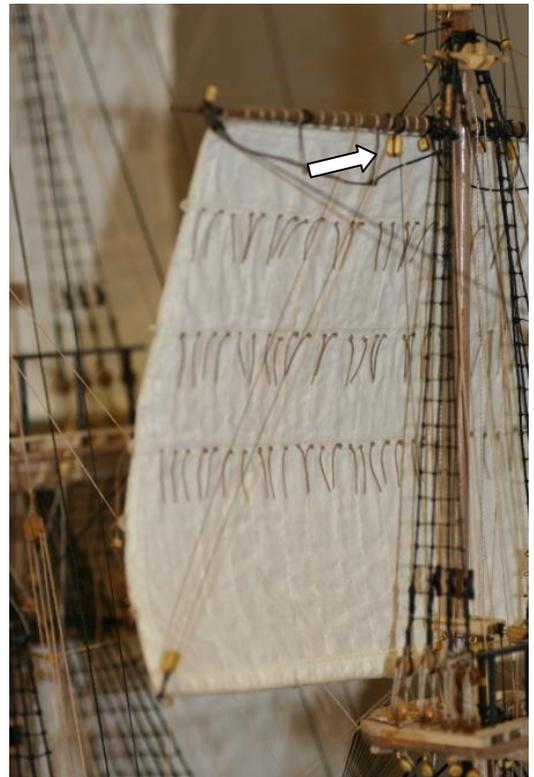


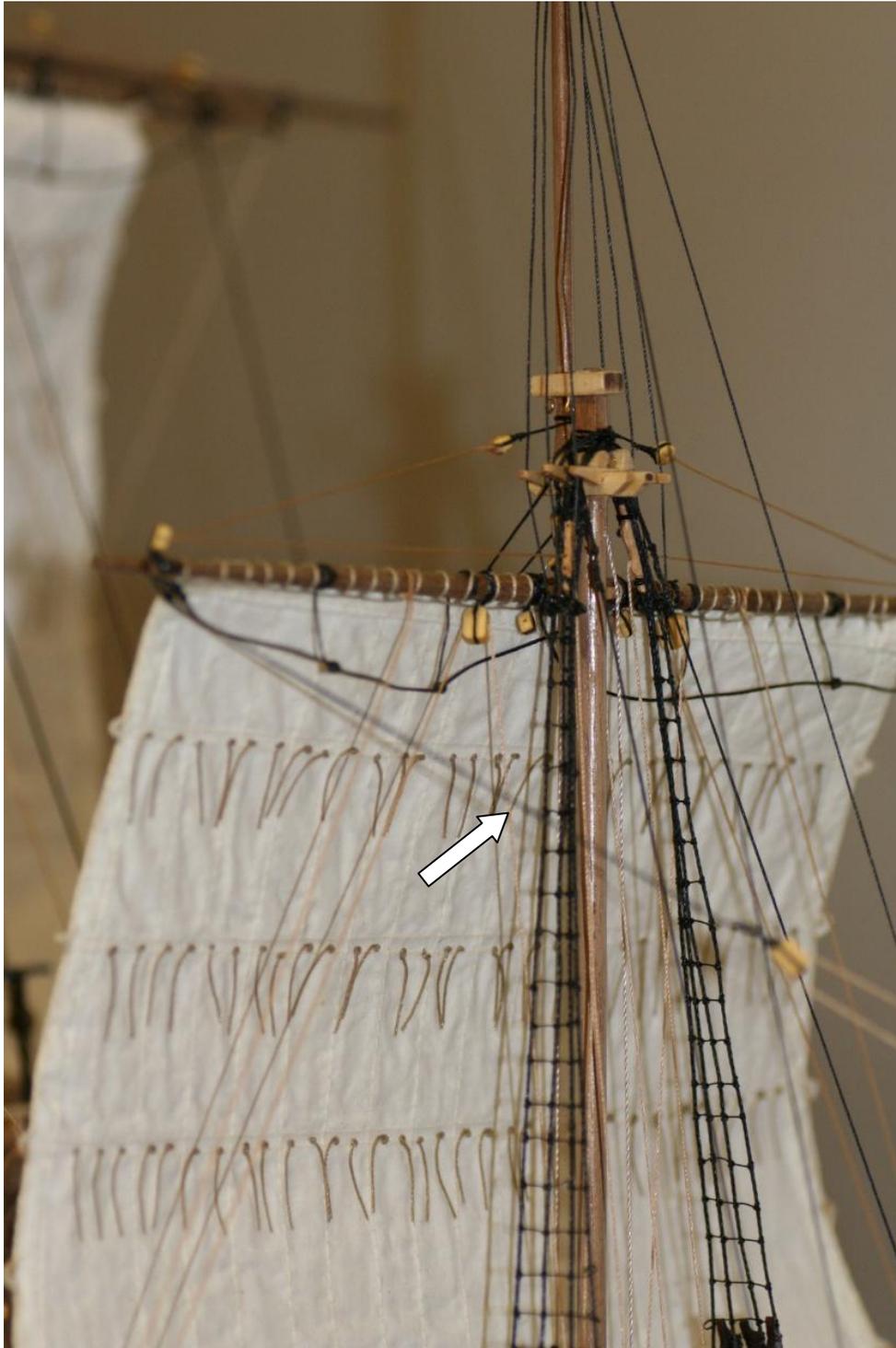
**19.2 Mizzen topsail yard horses and stirrups**  
 The first item on the yard is the horses and stirrups. I installed two per side the same as the fore and main topsail yards.

**19.3 Mizzen topsail yard sheet blocks**  
 The sheet blocks you see in the photo are not used as I did not install the topgallant yard and sail. These blocks, two of them were used for the topgallant sheets.



**19.4 Mizzen topsail yard clueline blocks**  
 Two clueline blocks are stropped and attached on the inboard side of the first quarter of the yard. Two other blocks are attached to the clueline cringle on the bottom corners of the sail.





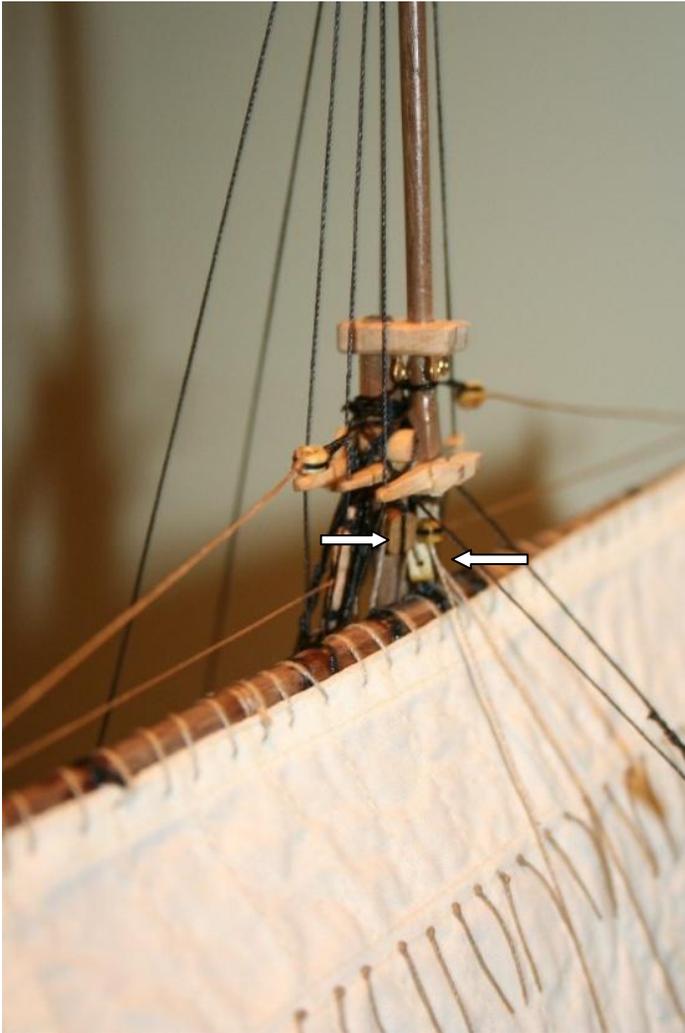
*19.5 Mizzen topsail  
yard brace pendants  
One goes on each  
end of the yard with  
a single block spliced  
into the end for the  
running rigging a  
little later in the  
chapter. I rigged  
my pendants with  
1.5 inch standing  
rigging (tarred) and  
used the running  
rigging for the  
brace falls.*

### **23.1 Sew Sail**

*Reef Points*

*Bend sail - (carp. glue 60/40 solution)*

*Lace Sail to yard*



**19.7 Mizzen topsail yard tye and halliards**

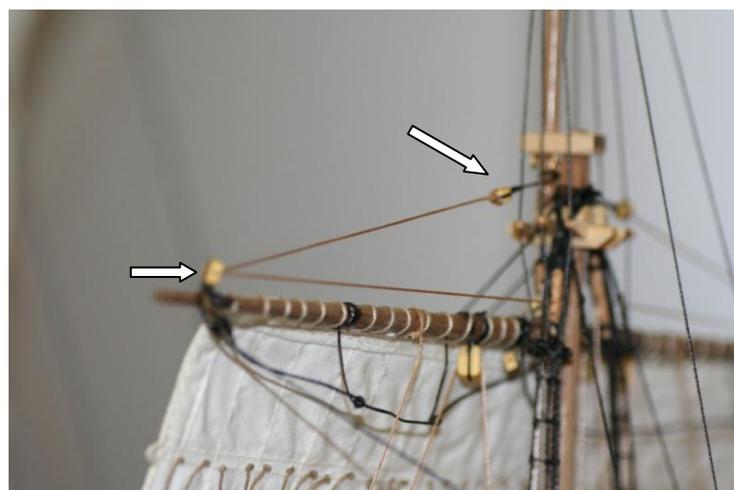
*I opted to rig the tye block the same as the fore and main topsail yards, Two tye blocks under the trestle, one for each starboard and port sides with the main tye on the center of the yard.*

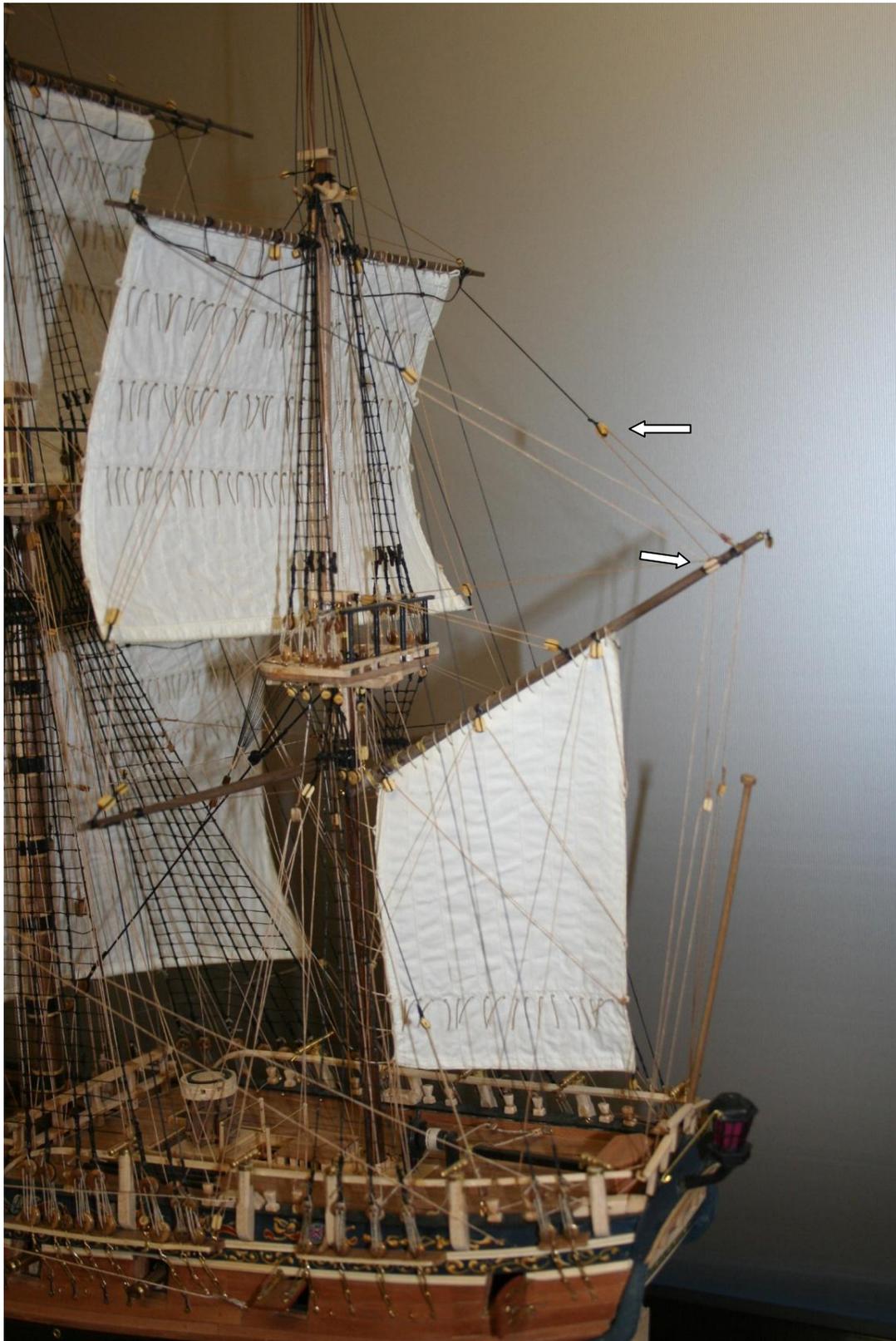
**19.8 Mizzen topsail yard lift blocks**

*The yard lift blocks are stropped and attached to the end of each yard. (right photo) I opted to use blocks even though I was not going to install the topgallant.*

**19.9 Mizzen topsail yard lifts.**

*The photo at right also shows the standing end of the yard lift as being under topsail mast cap. The line passes through the lower block at the yard end then across through the sister block in the topmast shrouds and belays on the deck rail inside the mizzen shrouds.*





#### **19.10 Mizzen topsail yard braces**

*The standing end of the braces are eye spliced to the end of the gaff and reeves through the block on the brace pendant then back to a block attached to the end of the gaff and on down to the deck.*

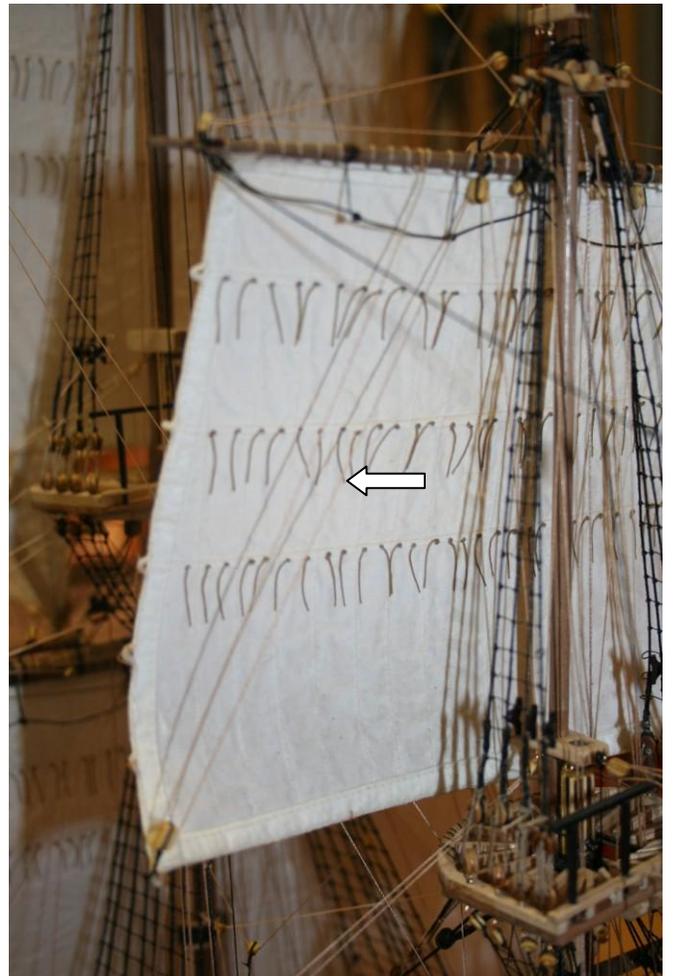


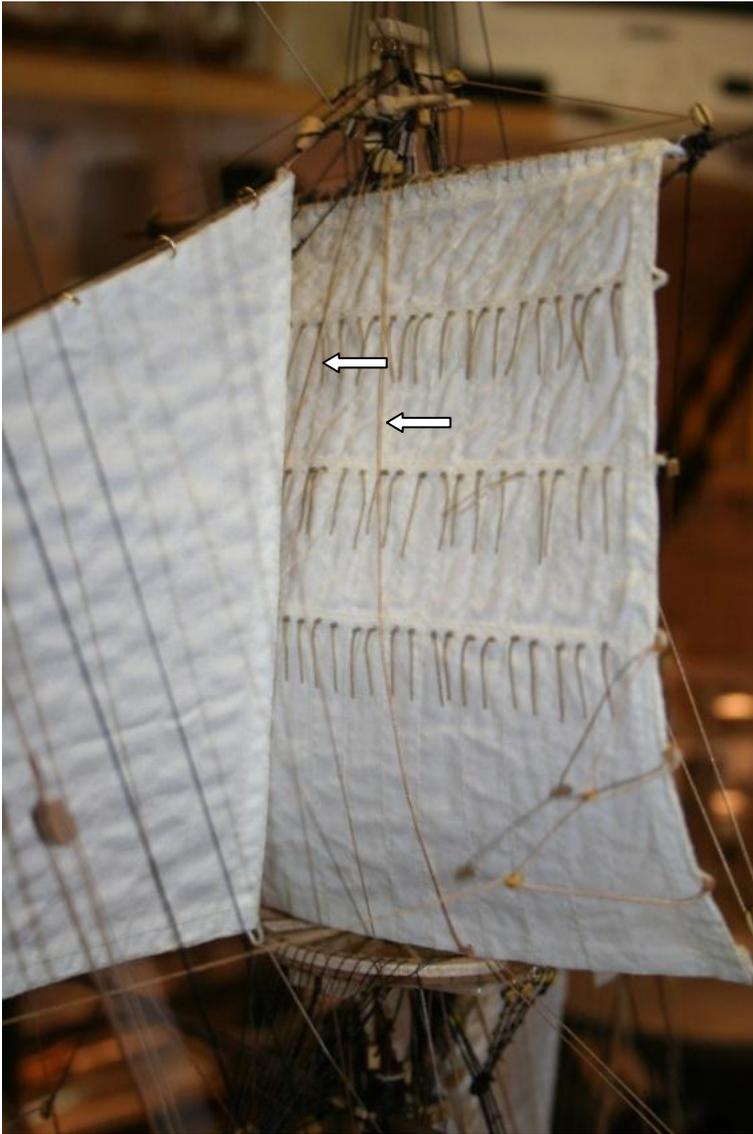
### **19.11 The Vangs**

*The vangs control the swing of the gaff. The standing end is spliced to the end of the gaff between the ensign block at the end and the brace blocks. There is a pendant on each side with a block splice to the end. The standing end of the falls are on deck and reeve up through the pendant block then down to another cleat on deck.*

### **23.16 Mizzen topsail cluelines**

*The standing end of the clueline is attached to the yard outside the clueline block installed in 19.4. It then runs down to the clueline block installed on the lower cringle at the bottom corner of the sail then up to the clueline block on the yard then down to the base of the mizzen mast.*



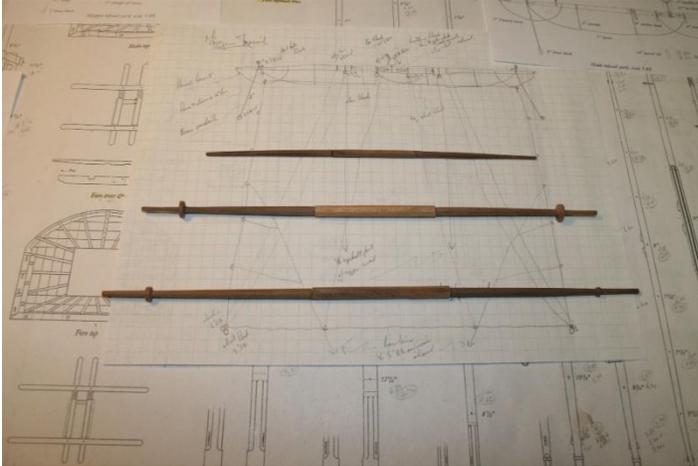


**23.17 Mizzen topsail buntlines**  
*The buntlines run up the face of the sail, through a block on the yard and down to belay on the quarterdeck rail.*

**23.18 Mizzen topsail bowlines and bridles**  
*The bowlines lead forward, cross and seize to the aftermost main shroud then down to belay on the quarterdeck. The mizzen topsail sheet lines (lower right) is attached to the corner clueline cringle and reeves down to the cross jack to belay on deck.*

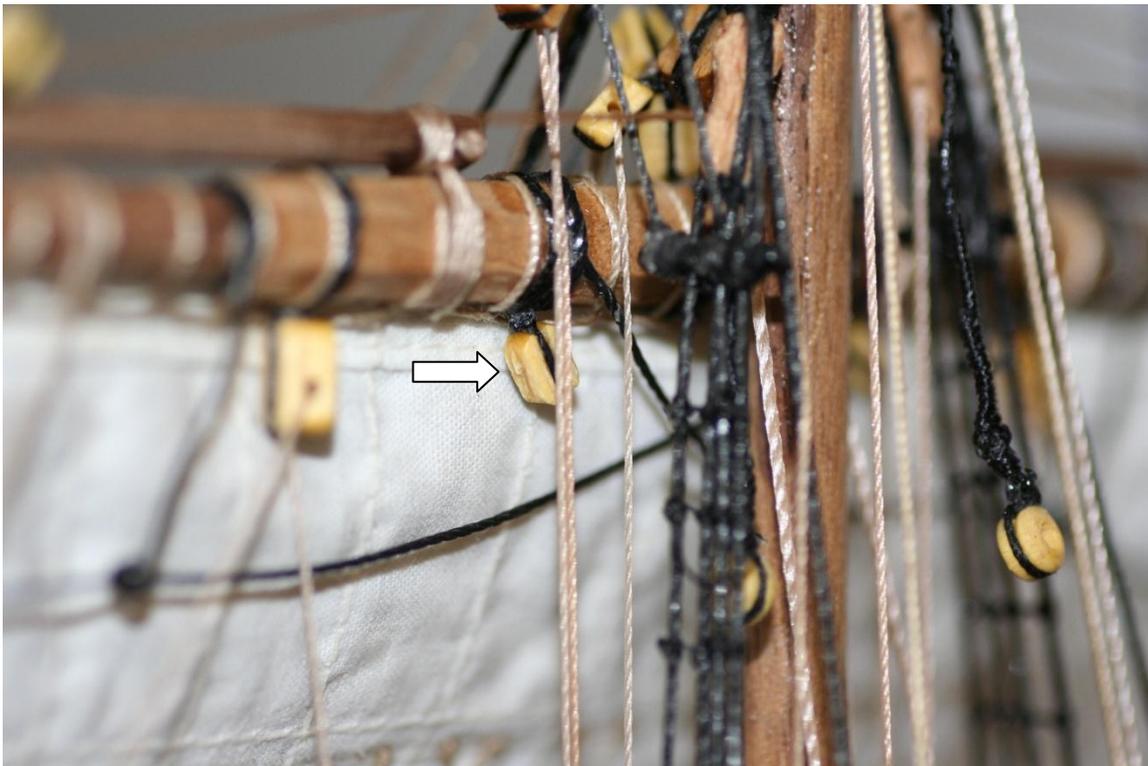


# Fore and Main Topsail



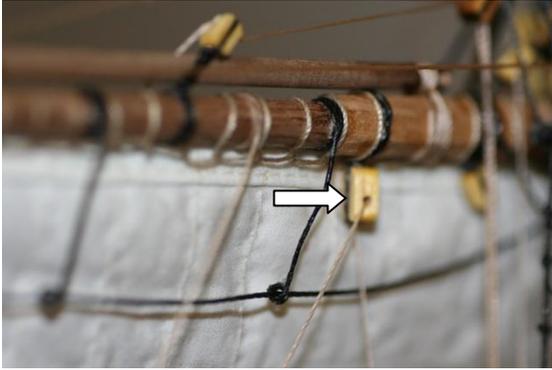
## 19.14 Main and Fore topsail yards

Above photo shows the main, fore and mizzen yards assembled. The stop cleats on the end of the main and fore have yet to be carved. The sling cleats are not installed at this point. The yards consist of three parts, hexagon center and port/starboard ends. Picture above right shows the fore topsail sail installed.



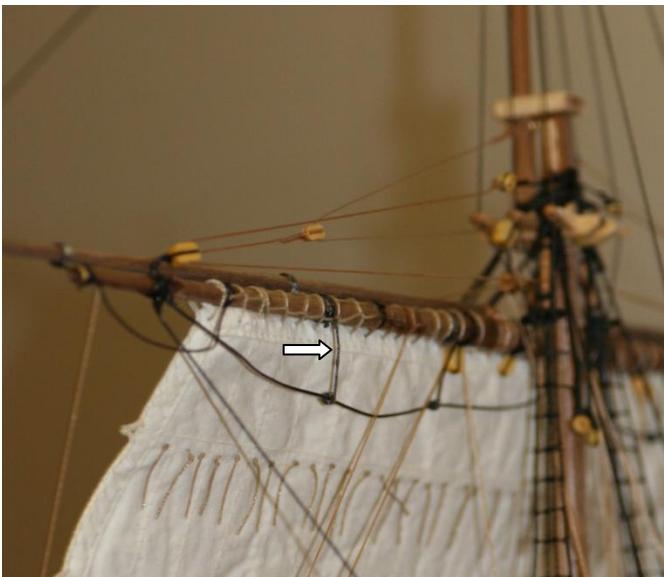
## 19.16 Topgallant sheet blocks

The topgallant sheet blocks are lashed to both the fore and main yards just outside the sling cleat.



**19.17 Topsail clueline blocks**

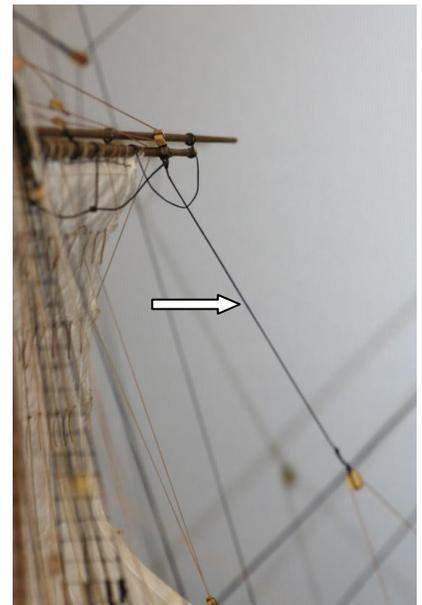
*Both the main and fore clueline blocks are the same. Two on the opposite side of the yard just outside the clueline blocks and one in each clueline cringle at the bottom corner of the sail.*



**19.18 Topsail yard stirrups and horses**  
*Once again the main and fore yards are identical. Two stirrups each side, the inner end overlaps the other side.*

**19.19 Brace Pendants**

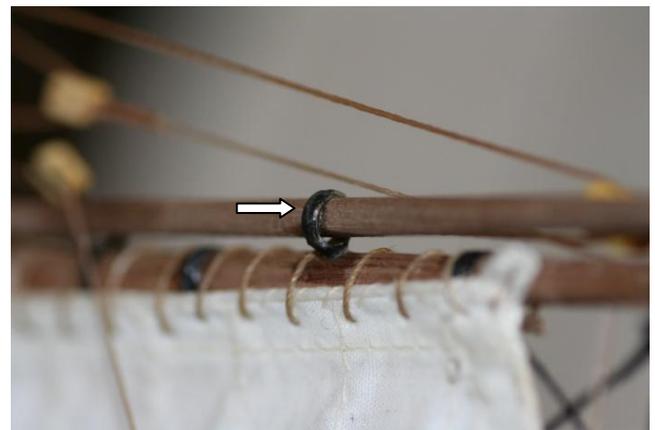
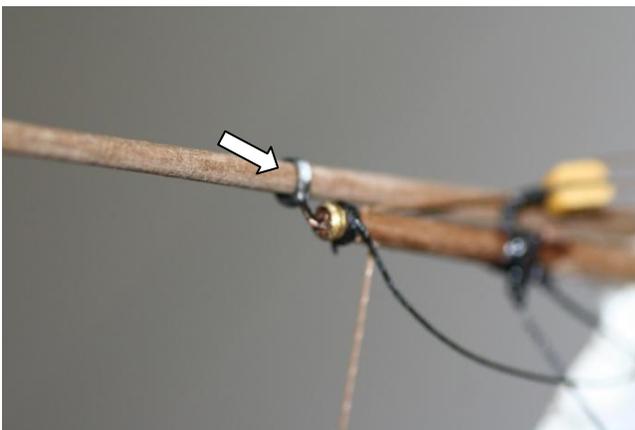
*The brace pendants are eye spliced to each end of the yard with a single block spliced to the end.*





**19.20 Lift blocks**

The lift blocks are the same for all three topsail yards. They are at the end of the yard arm against the brace pendants.

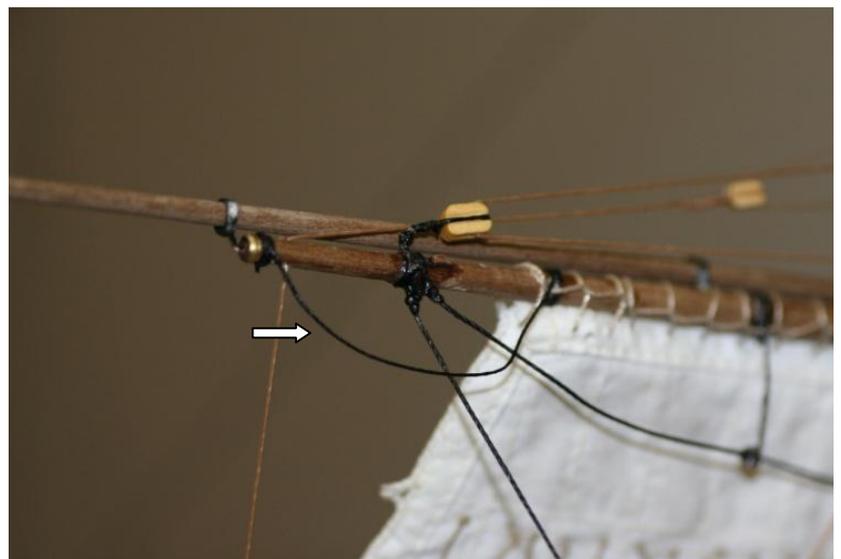


**19.21 Boom irons to the topsail yards**

There are two yard irons for each studdingsail boom. The main and fore topsail yards are fitted for studdingsails. The inner irons are fitted through the yard a couple of feet from the end, while the outer boom iron is fixed to the end of the yard. They are aligned so the booms are straight along the yard.

**19.22 Flemish horses**

A Flemish horse is a horse rigged to the outer end of the yard. They run from the tip of the yard arm to the stop cleat. They allowed the sailors to service the boom iron and yard band.





### 19.23 Upper studdingsail booms

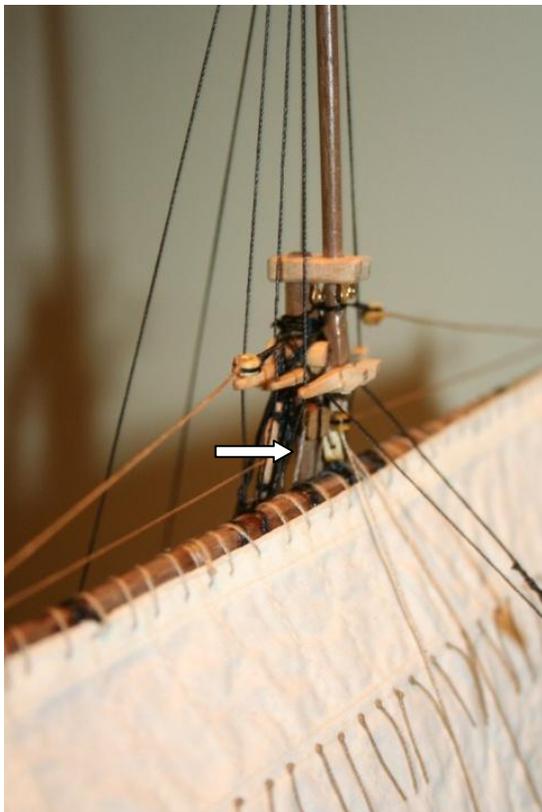
The booms have a slight taper and are fitted in the boom irons on the top side of the main and fore topsail yards. They are lashed to the yard at their inboard ends.

### 23.1 Sew Sail

Reef Points

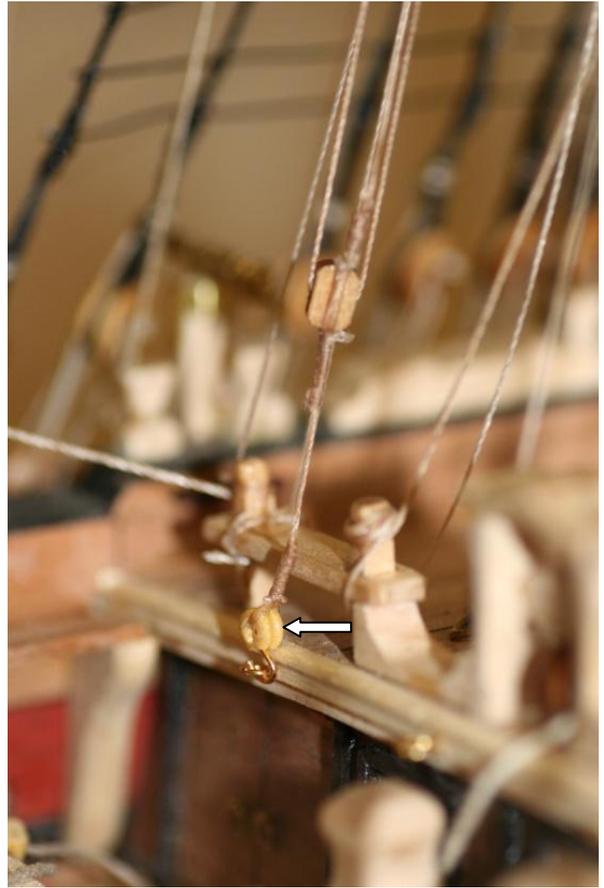
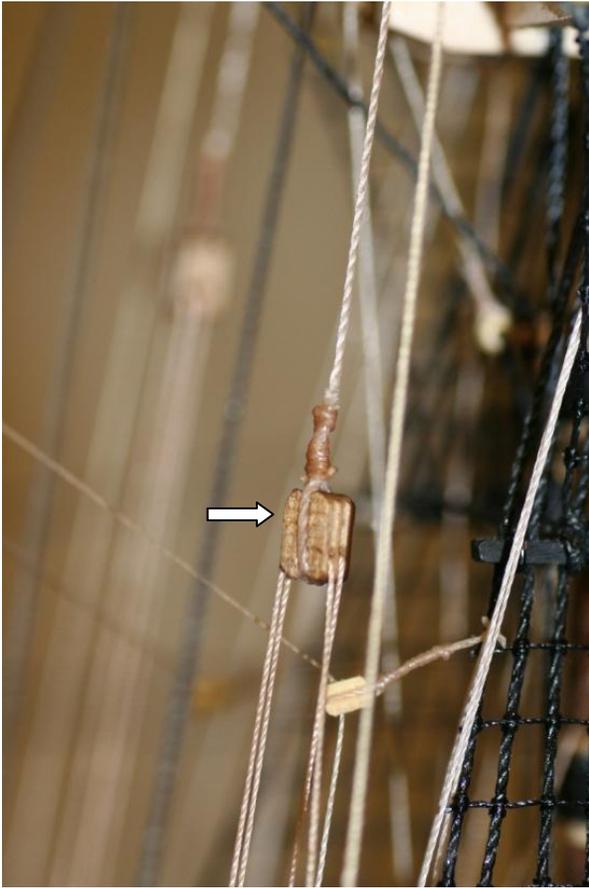
Bend sail - (carp. glue 60/40 solution)

Lace Sail to yard



### 19.24 Topsail yard tyes

There are two tyes for the main and fore topsail yards. (I made the mizzen tyes the same way rather than use a sling.) There is a single block suspended from the topmast head on both the port and starboard side. The rigging comes up through one block, reeves through the main tye on the yard then down through the starboard block. A double block is seized to the ends on both sides.

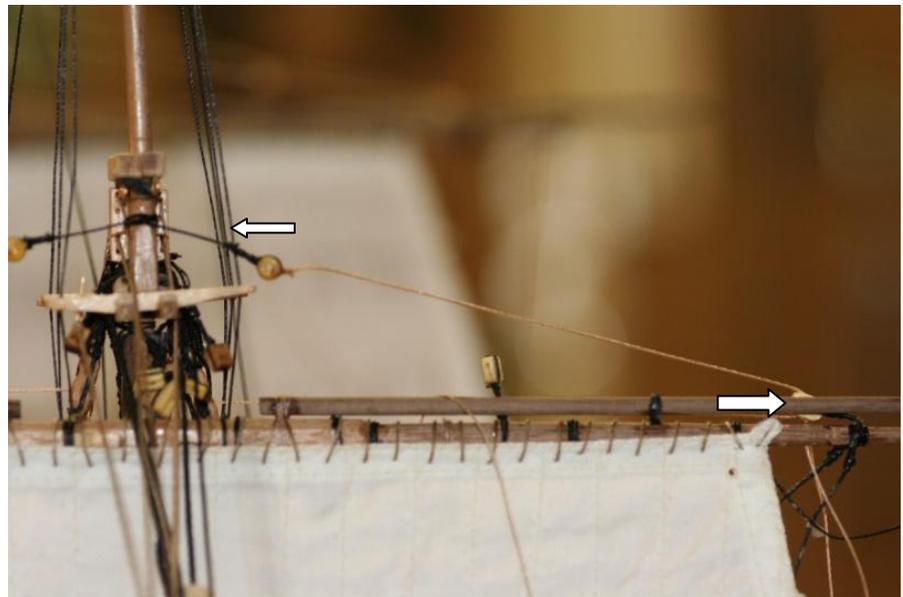


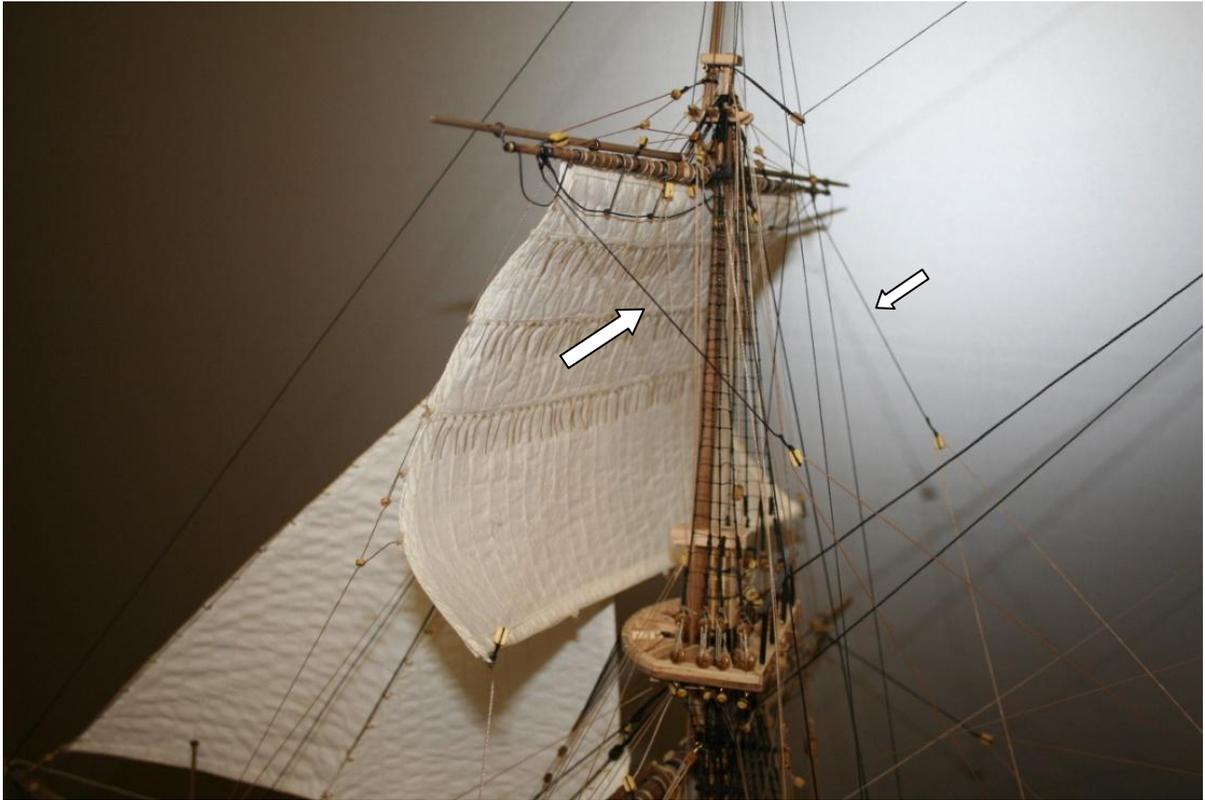
**19.25 Fore and main topmast yard tye falls**

Each fall requires approx. 240 feet of line. A single block is stropped to one end along with a lead and hook to belay the falls to a convenient place on deck. Photo upper left shows the fall reeved through the double block on the tye fall. Photo on the right shows the standing end of the fore topsail tye fall hooked to the breast board on the forecastle.

**19.27 Fore and Main topsail yard lifts**

A span of tarred rope is used with a thimble spliced to each end. This span raps around the topmast caps. The lift blocks (lower right) were previously installed. The lifts standing end is the thimble. The line reeves from the thimble to the block back to the sister block in the shrouds and down to belay on a timber head or rail.





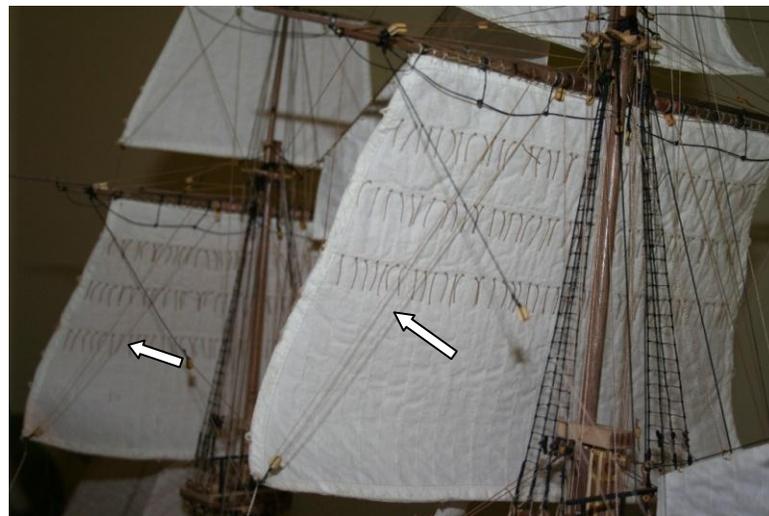
**19.29 The fore topsail yard braces**

*The main and fore topsail yard braces are similar to the lower yard braces, in that they are pendants secured to the ends of the yards with a block seized at the hanging end. The standing end of the halliards are hitched to the stays, reeve up to the pendants, then back down through the various accommodating blocks to belay on the deck rails, or timberheads, whichever is convenient. The arrows in both of the above pictures point to the fore topsail brace pendants. Note on the second photo the maze of running rigging that the halliards falls imply.*



### 23.1 The main topsail

Upper left photo shows the main topsail sail laced to the yard. Preliminary rigging has been completed. Upper right the sail is ready for a second coat of glue solution. The reason to do this is to straighten the reefs prior to crossing the assembly to the mast. Bottom left the sail has been raised using the main tye on the yard. Bottom right: The method I use to drop the running rigging to deck. You will notice the line I was working on at the time has a small fishing weight clipped to the line. This allows me to drop it pretty much on target.



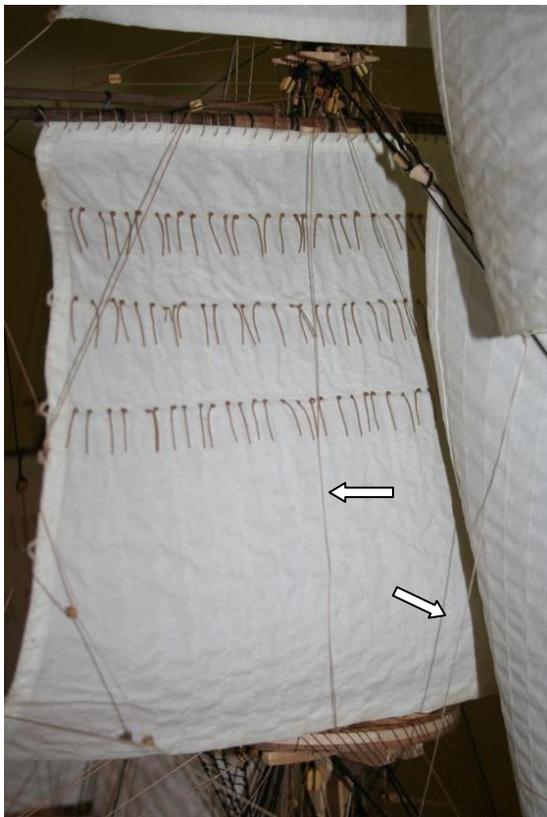
### 23.2 Main topsail cluelines

The cluelines are rigged the same as previously noted. Cluelines on the fore topsail sail can be seen in the background.



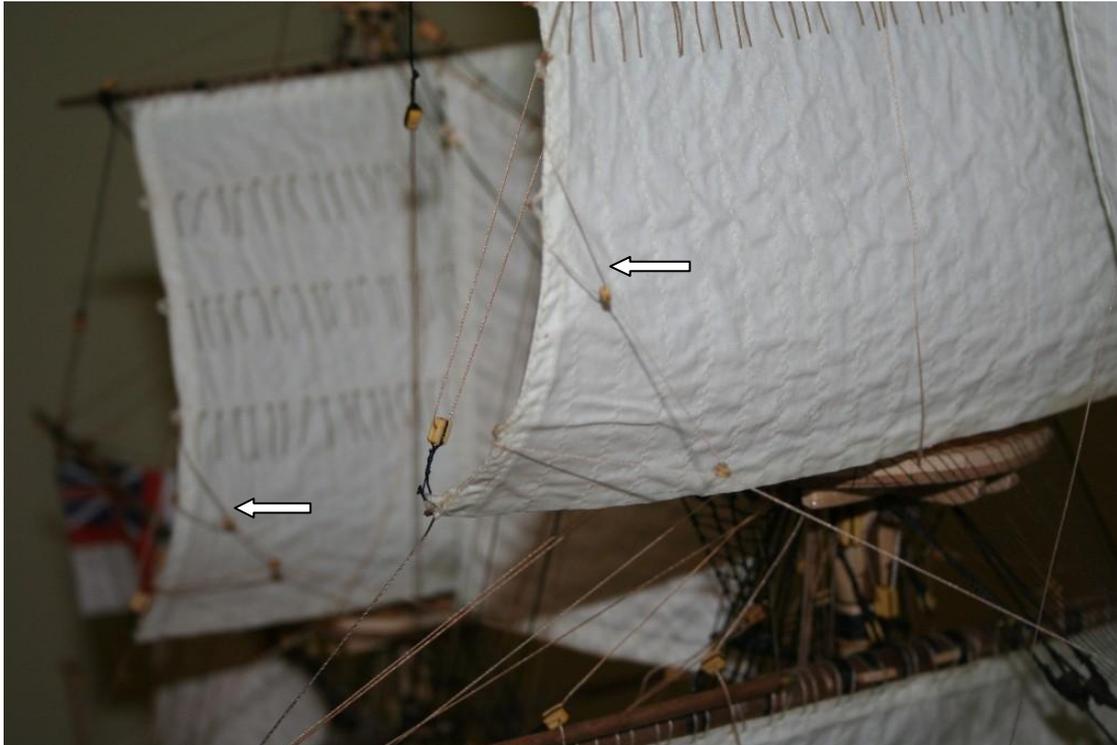
### 23.3 Main topsail leechlines

Although David was not sure that this ship had leechlines, I decided to rig them anyway as they seemed fairly straight forward. A block was secured to the yard in previous steps. The standing end is the upper bowline cringle. The line reeves up to the block on the topsail yard, then through the outer sheave of the double block under the tree and on down to the deck at the foot of the mast.



### 23.4 Main topsail buntlines

There is a buntline on each side of the sail with the standing end attached to the cringles on the bottom of the sail. They reeve up through the buntline blocks on the tye block attached to the yard, then through the single blocks under the crosstree and down to the deck rail.



### **23.5 Main topsail bowlines and bridles**

*The bowlines and bridles are similar to the courses. Both the fore and main topsail bowlines can be seen in this photo.*



### **23.7 Main topsail reef tackles**

*This tackle is required to help the sailors to shorten the sail. It consists of a pendant with a block attached for the falls above the yard. The standing end is seized to the reef cringle on the side of the sails. The line runs up through the sheave in the end of the yard then the fall or halliards is reeved through the block on the pendant then through the block under the crosstrees and down to the deck rail.*



### ***23.8 Fore topsail***

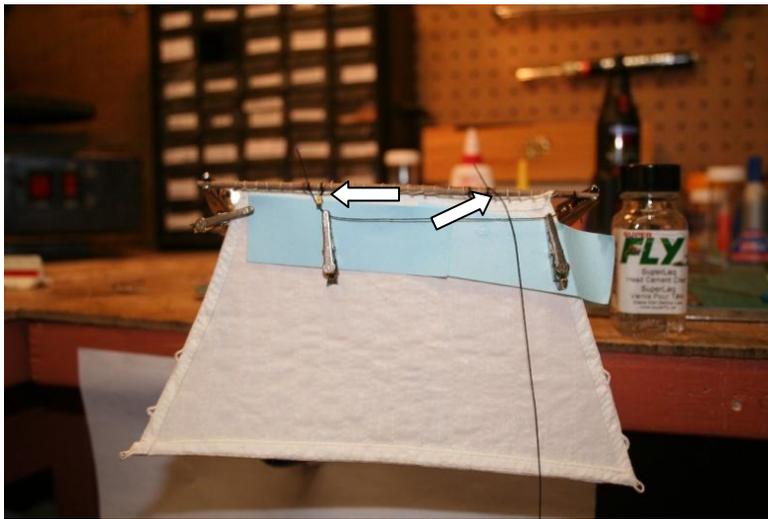
***In position to cross to the mast. It is the same as the main topsail except for the dimensions. All the lines rigged on the fore topsail sail are the same as the main topsail sail with exception of course for the belaying points.***

## Part 20

*Part 20 moves us to the top of the masts to install the final square sails with their yards. There are less steps as there is less rigging on both the yards and the sails. As previously I resequenced the steps in order to include the sails. This chapter goes hand in hand with parts of chapter 24 to marry the yards and sails together.*

*(Most of the photos in this chapter were taken after the fact and not during the assembly work)*

### Main and Fore topgallant sails



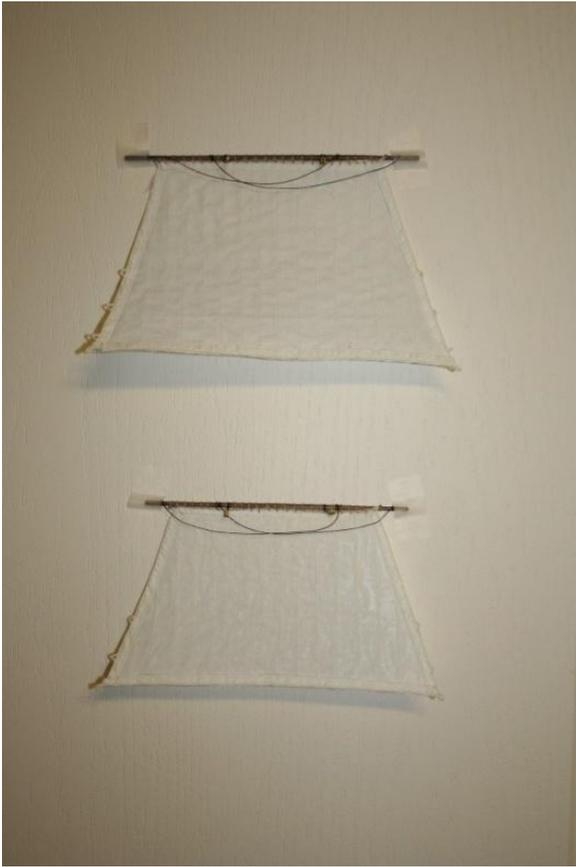
**20.1 Topgallant yard clueline blocks**  
*The only blocks attached to the topgallant yards are the clueline blocks. The photo above shows the fore topgallant sail bent to the yard. I should have installed the horses first.*

**20.3 Topgallant yard horses**  
*On the topgallant yards there are no stirrups rigged for the horses.*



#### 24.1 Sew Sail

*Bend sail - (carp. glue 60/40 solution)  
Lace Sail to yard*

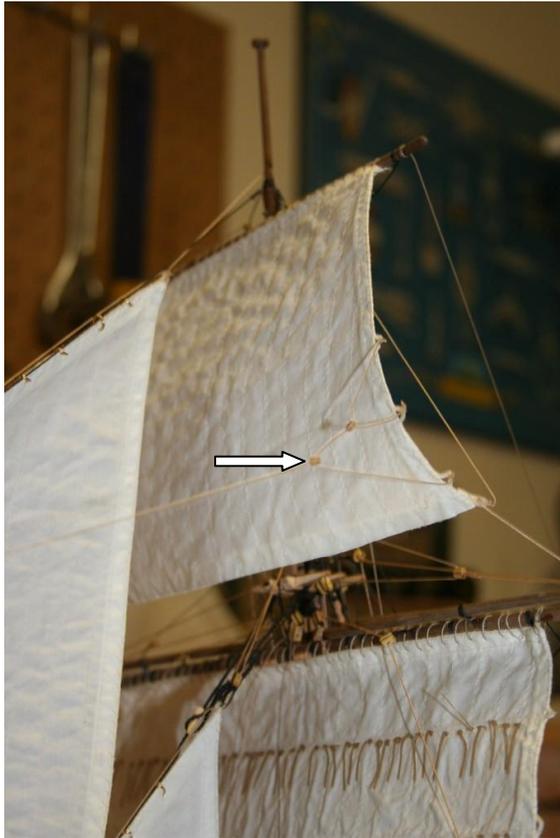


*Main and fore topgallant sails ready to raise to the mast.*



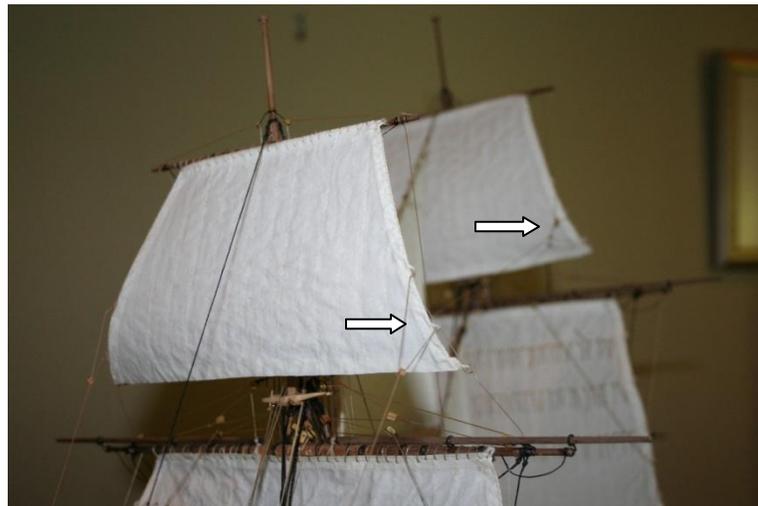
#### **24.2 Main topgallant cluelines**

*The cluelines can be seen on both the main and fore topgallant sails in photo above.*



### **24.3 Main topgallant bowlines and bridles**

*The bowlines are rigged as the other bowlines and bridles. However they reeve down through a sheave in the aft end of the fore topmast trestletree, then down to belay at one of the shroud cleats above the fore top.*



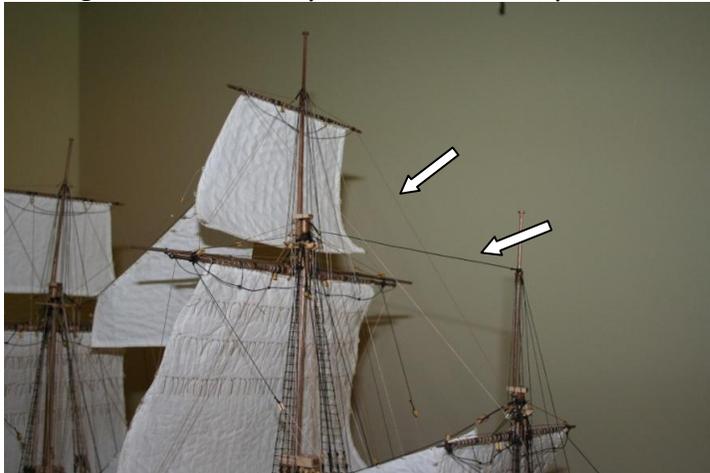
### **24.7 Fore topgallant bowlines and bridles**

*The bridles are similar to those of the main topgallant sail, however the bowline leads down and forward to the thimbles at the end of the jibboom. They then reeve down the jibboom to belay at a cleat inside the forecastle bulwark. In the above photo one can also see the bowline and bridles on the main topgallant sail.*



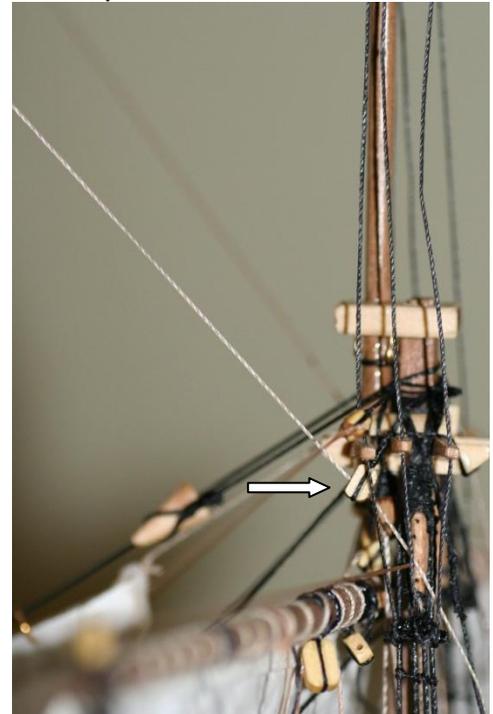
**20.7 Fore topgallant yard braces**

*There are no pendants on the topgallant yards. The fall is eye spliced to each end of the yard. A ten foot span with single blocks spliced in each end, is clove hitched to the main topmast stay near the mouse. The fall passes through these blocks, down through another block hooked to the aft edge of the fore top and down to belay at the cleat on the belfry.*



**20.8 Main topgallant yard braces**

*These braces are similar to the fore topgallant yard braces, except the fall goes down and reeves through blocks attached to a span which goes around the mizzen topmast head. They then reeve down through the mizzen top to belay on the quarterdeck rail. The above left photo shows the stay I rigged from the mizzen mast to the upper trestle tree of the main mast. Not called fore but in view that I had installed the long pole on the mizzen mast I felt it did not look right without a stay.*





### **20.9 Shroud cleats**

*I set up a little jig to make my shroud cleats uniform. They were much easier to make than anticipated.*



### **20.10 Fore and main topgallant yard lifts**

*The lifts are single and are eye spliced around the yard arms. The line passes up to the topgallant mast hound where it reeves through a thimble attached to a short pendant, then on down to belay on a shroud cleat on the fourth topmast shroud.*

## Part 21

*Part 21 contains a number of misc. items which David labeled "necessary ropes". Throughout the practicum there have been a number of items which I considered to be misc. items that would be perhaps easier to do as the final touch-up items when coming into the homestretch. I decided to move all of these tasks to the final chapter, part 26.*

## Part 22

*I moved part 22 in its entirety to part 18. My reasoning here was to bend the main sails to the yards and to cross them to the masts at the same time.*

## Part 23

*As above I moved part 23 in its entirety to part 19. My reasoning here was to bend the topmast sails to the yards and to cross them to the masts at the same time.*

## Part 24

*Part 24.1 to 24.7 was moved to part 20 to keep the topgallant sails together with their yards. The spritsail, 24.8 to 24.11 was merged with part 18. I did not rig any of the studdingsails. Therefore I dropped part 24.12 to 24.24. The booms were installed the same time as their respective yards.*

## Part 25

*Part 25.1 to 25.15, the jib sails and the fore staysails were moved to Part 18 to match up with the various rigging called for in chapter 18. The resequenced steps are listed in part 18. The remaining steps in part 25, that is 25.16 to 25.53 deal with the remaining main and mizzen staysails which will complete the raising of the sails. I did not install the main or mizzen staysails. I wanted to keep the decks clear for "visual inspection" and really the main reason is that my clumsy fingers are too big to get in there to do the rigging.*

*(Most of the photos in this chapter were taken after the fact and not during the assembly work)*

### Main Topmast Staysail

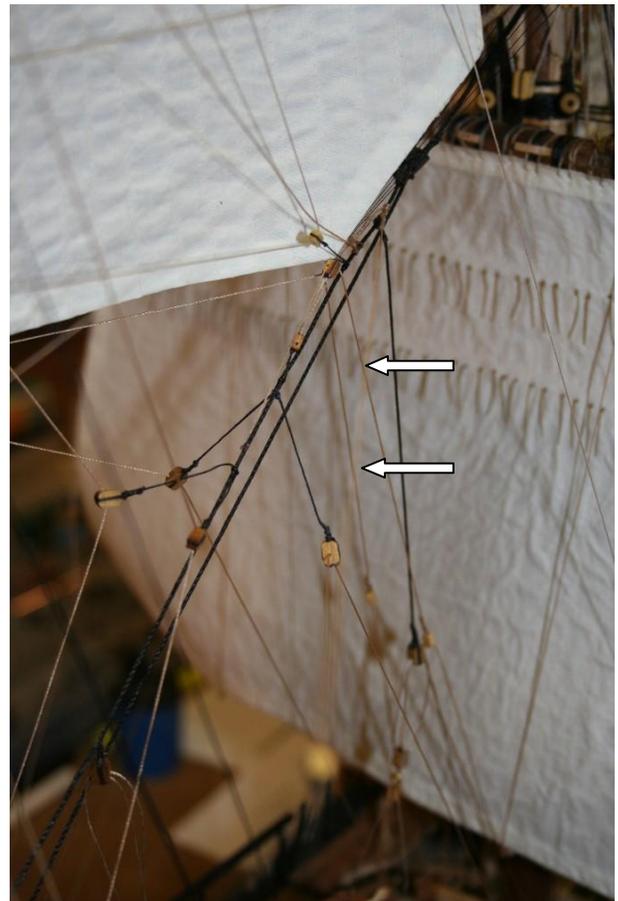


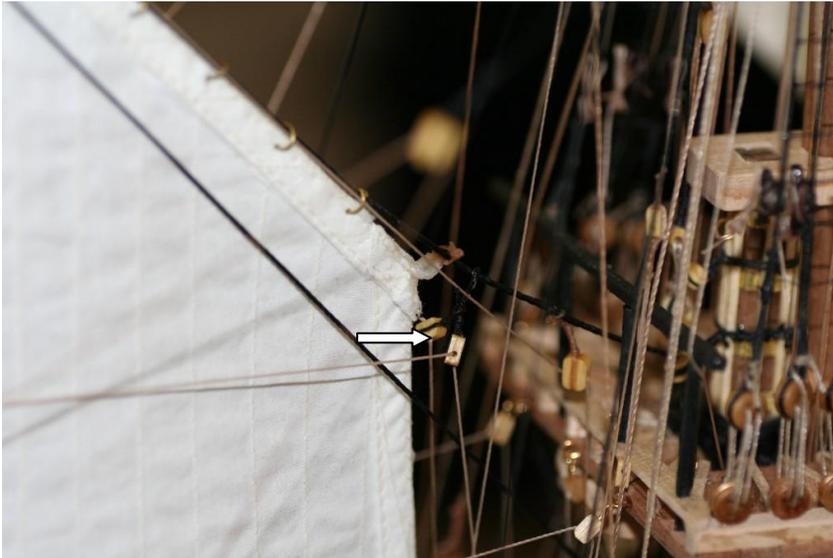
*25.23 The main topmast staysail  
The sails were made to specifications, however I knew I would have to do some trim and adjustments in order to raise them properly. I had to cut quite a bit off the bottom of the main topmast staysail as well as trim the corner so as not to drag on the main top crowsfeet. After it was bent to the wind and rigged, it looked quite okay.*



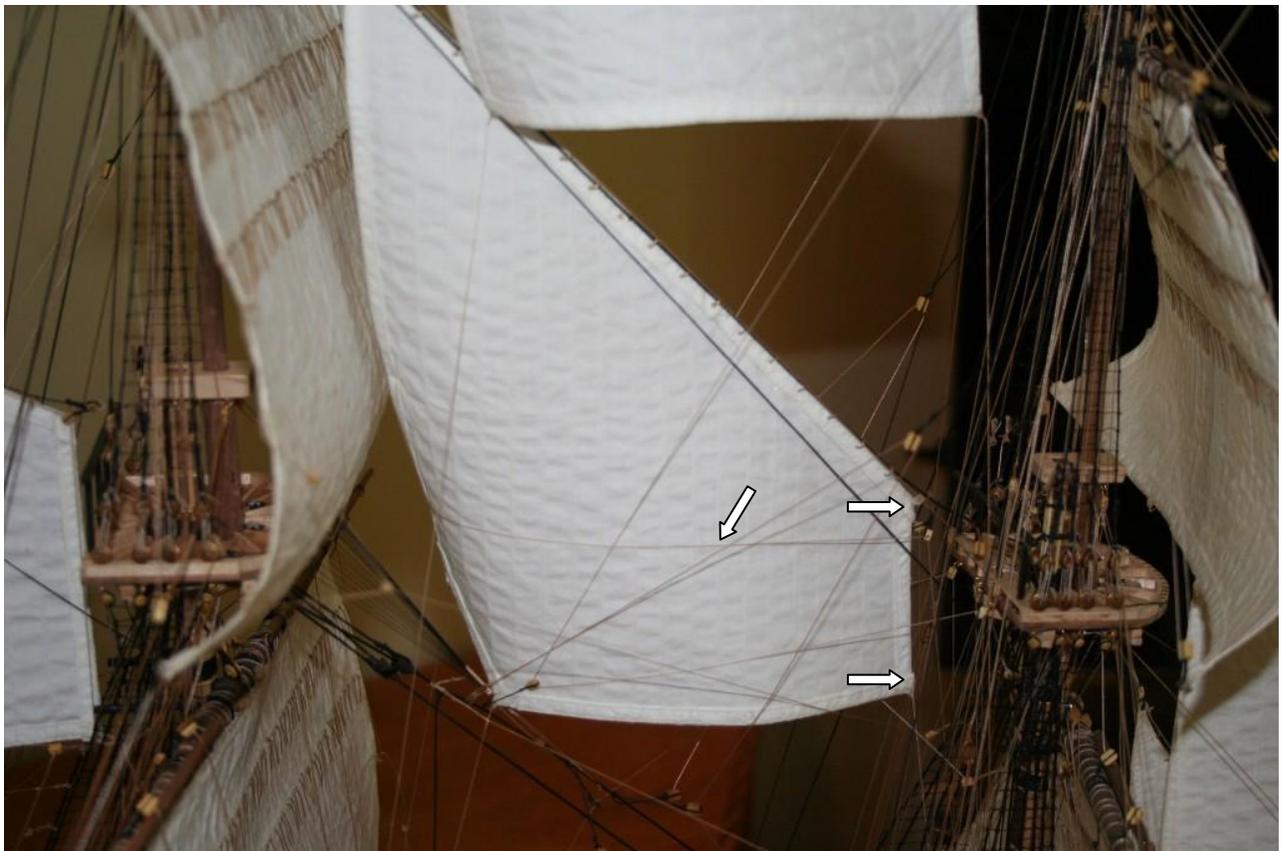
**25.24 the main topmast staysail halliard**  
 The standing end of the halliard is eye spliced and goes around the main topmast head above the cheek blocks. It reeves down to a block which is attached to the peak cringle then back up through the lower sheave in the starboard cheek block and on down to belay at the main jeer bitts on deck.

**25.25 The main topmast staysail sheets**  
 Single blocks are attached to a pendant which is middle on the bottom corner cringle of the sail. The standing ends of the falls are belayed to eyebolts on the outer end of the breast beam. The running ends are taken up through the block on the pendant and back down to belay on the quarter deck rails. Note the corner cut on the sail which follows the crowfoot.





**25.26 The main topmast staysail downhaul**  
 The line is attached to the peak cringle then reeves down, through several hanks to a block seized to the preventer stay, then down to belay on the fore jeer bitts on deck.



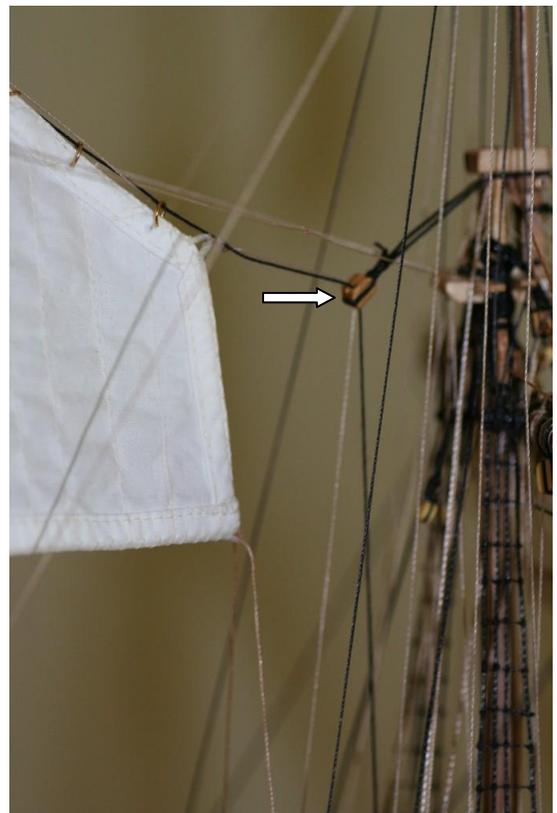
**25.27 The main topmast staysail tack**  
 As this is a quadrilateral sail, two tack lines are needed. The first is attached between the nook cringle and the stay above the lead block. The second tack reeves through the tack cringle at the corner of the sail. Each end leads down their respective sides through a thimble seized to the inside of the shrouds then belays on a shroud cleat just above the dead eyes. The brails are the horizontal line rigged across the sail. They act the same as buntlines on the square sails.

# Main Topgallant Staysail



**25.29** *The main topgallant staysail  
No trimming was required on this one. It fit nicely in place.*

**25.30** *The main topgallant staysail stay  
An additional stay is required to rig this sail.  
The upper end is spliced into the existing  
topgallant stay. A block is seized to the  
center of the aft fore topmast crosstree. The  
stay reeves through this block and belays to  
the fore top. The rest of the rigging for this  
sail is similar to the other topmast staysails.*

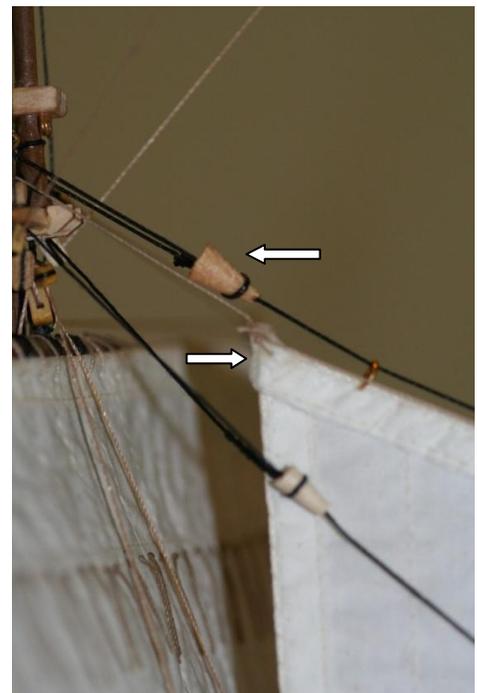


# Mizzen Topmast Staysail



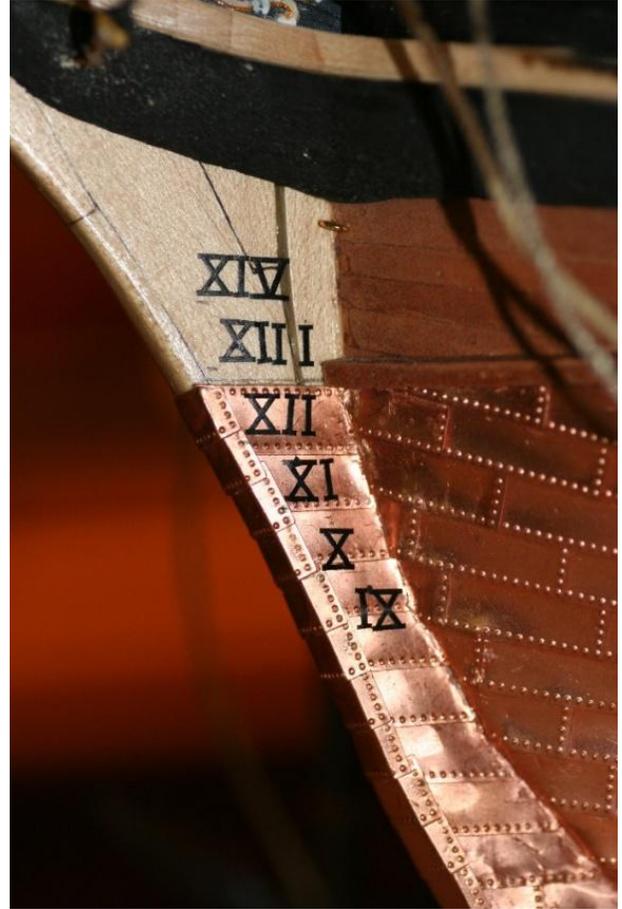
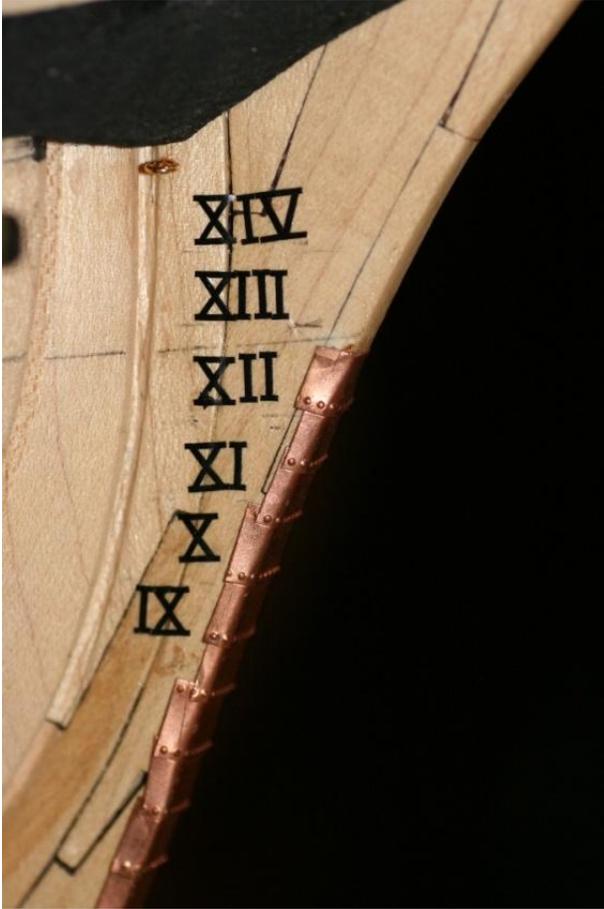
*25.42 The Mizzen topmast staysail  
This sail required trimming on both sides as well as the rigging of a stay on which to raise the sail. I had my doubts when I started to raise this sail but in the end it looks quite good.*

*25.43 The mizzen topmast staysail halliard  
The standing end of the halliard is attached to the peak cringle the same as the other staysails.  
The sheets, downhaul and tacks are also similar. I rigged the additional stay with a mouse and looped it around the mizzen topmast.*



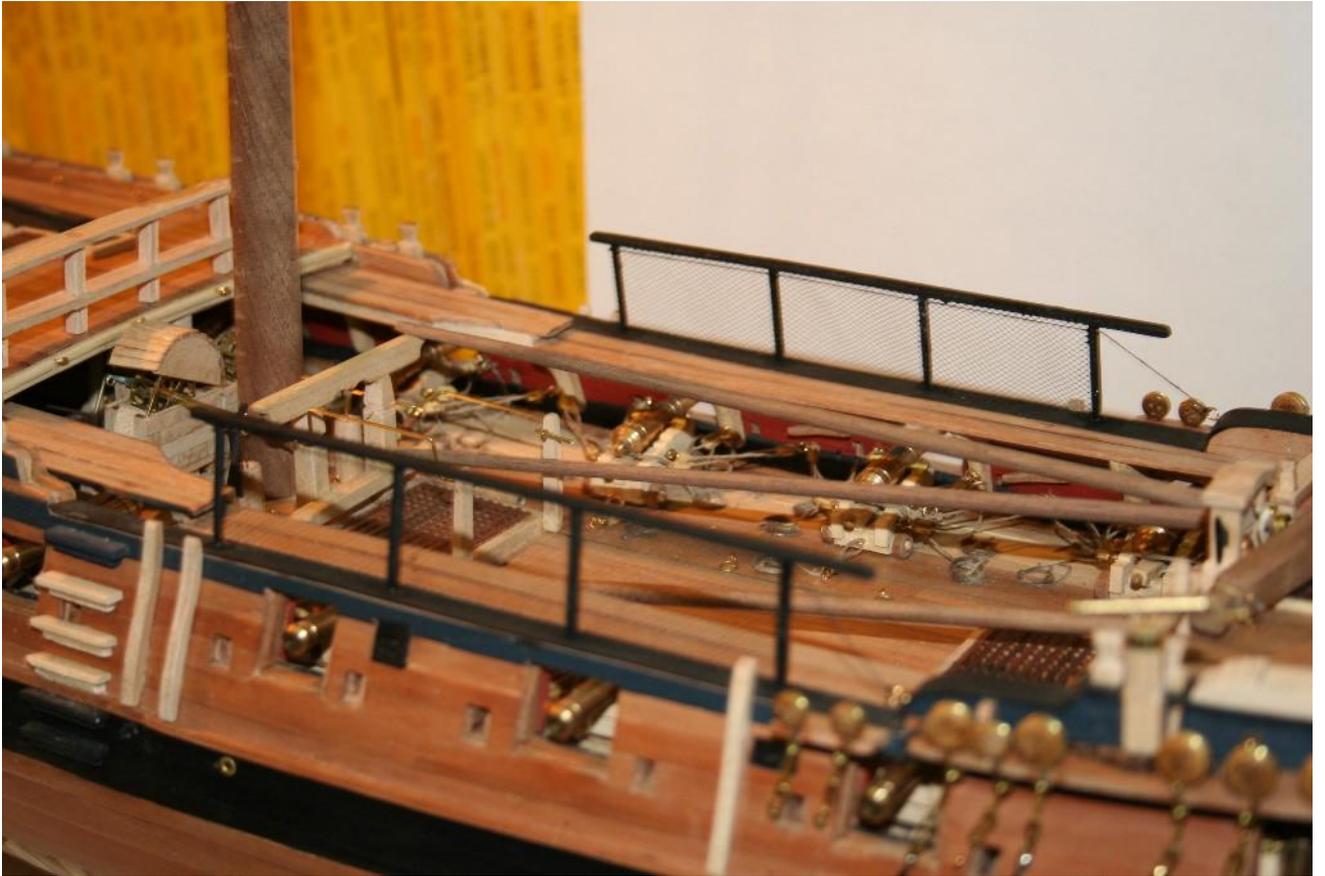
## Part 26

*I used part 26 as a catch-all for a number of items throughout the build that I felt would be easier for me to install at the end.*



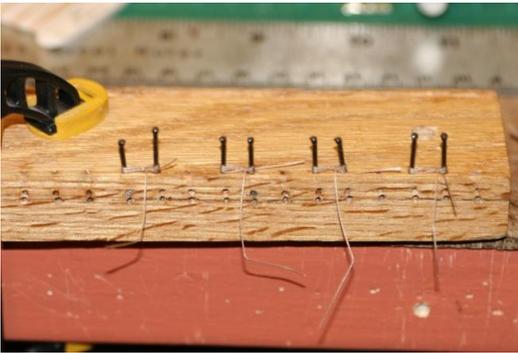
### **7.32 Draught marks**

*I was a bit afraid of these for a long time, years! I did not like the idea of chiselling the knee nor the copper plates. My son who had undertaken the painting of the frieze was no hot about painting the marks either. Finally I found self-adhesive pre-cut vinyl lettering developed specifically to mimic draught marks. I purchase them from the same source as the flags, "ModelFlag.com" They do a super job.*

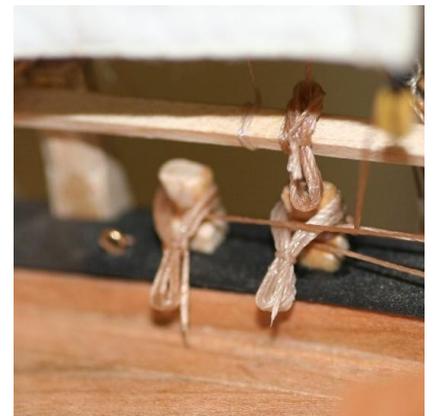


***12.14 Waist stanchions and rough tree rail***

***Although I had installed the waist rail back in chapter 12, I wound up taking it down and putting it aside until the end. When I was working the riggings I kept knocking them over. They were really in the way as one would say!***



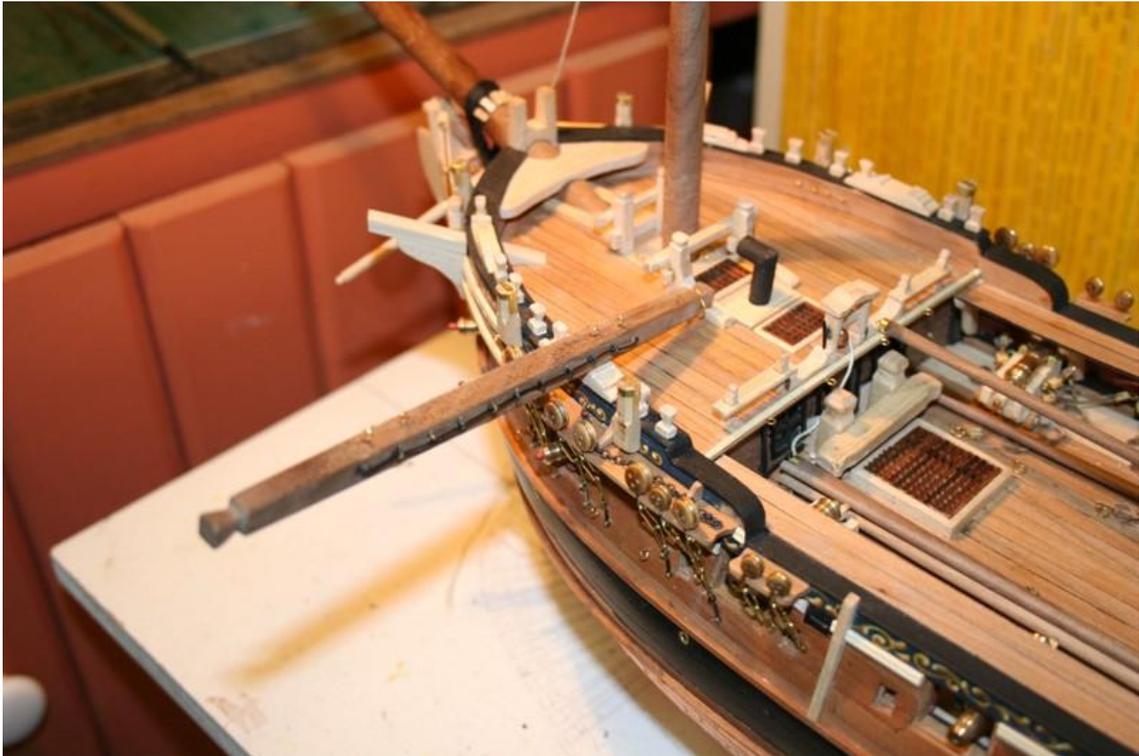
**18.29 Faking down**  
Fakes are the rolls or coils of line made when stowing excess line. Faking down is the process of doing this. I made four or five jigs to fake the different ways of stowing the line. Ex: Timberhead, shroud cleat, deck rail, deck coil, fore & main bitts. Once I had the line hanging properly I used a drop of ca glue to hold it in place. I should have used something "flat" so they wouldn't be so shiny.





### 19.13 Ensign and Jack

The very last item rigged was the Ensign which I decided to fly from the gaff ensign halliard. I must admit that I did not make them myself but ordered them from "ModelFlags.com" in England. To hang them in the wind I used a trick that I have used many times. Cut an aluminum can, make a sheet then put waves in it. Place the flags on the sheet and coat them with the same solution I used for the sails; carpenters glue and water (60/40). The Jack I hung from the Jack staff on the jib cap.



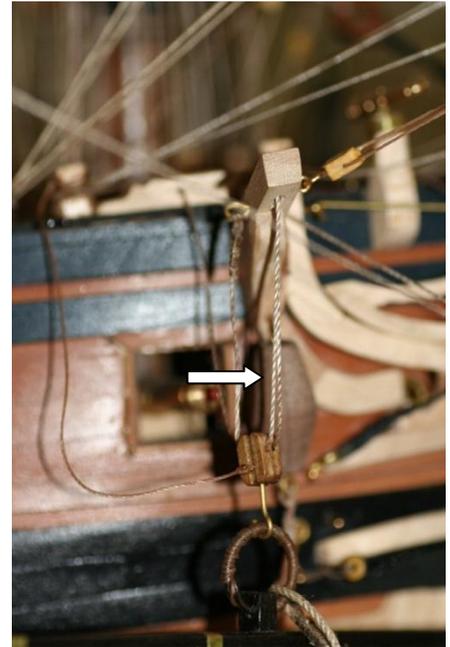
### 21.1 The Fish Davit

*The fish davit was made back in section 12.9. I remember at the time that I wanted to show it off by rigging it with the anchors. When I came to do this, I found that the fish davit cleat was positioned behind the foremast shrouds and therefore could not be raised. Both David's text and illustration in section 12.12 and the original drawings of the Atalanta show the fish davit and the snatch block as being in the right position. I never solved this one, so I stored the fish davit in the waist with the workboats.*



### 21.6 The cat blocks

*The cat blocks are hung from the cathead. It functions as part of the tackle to raise the anchor.*



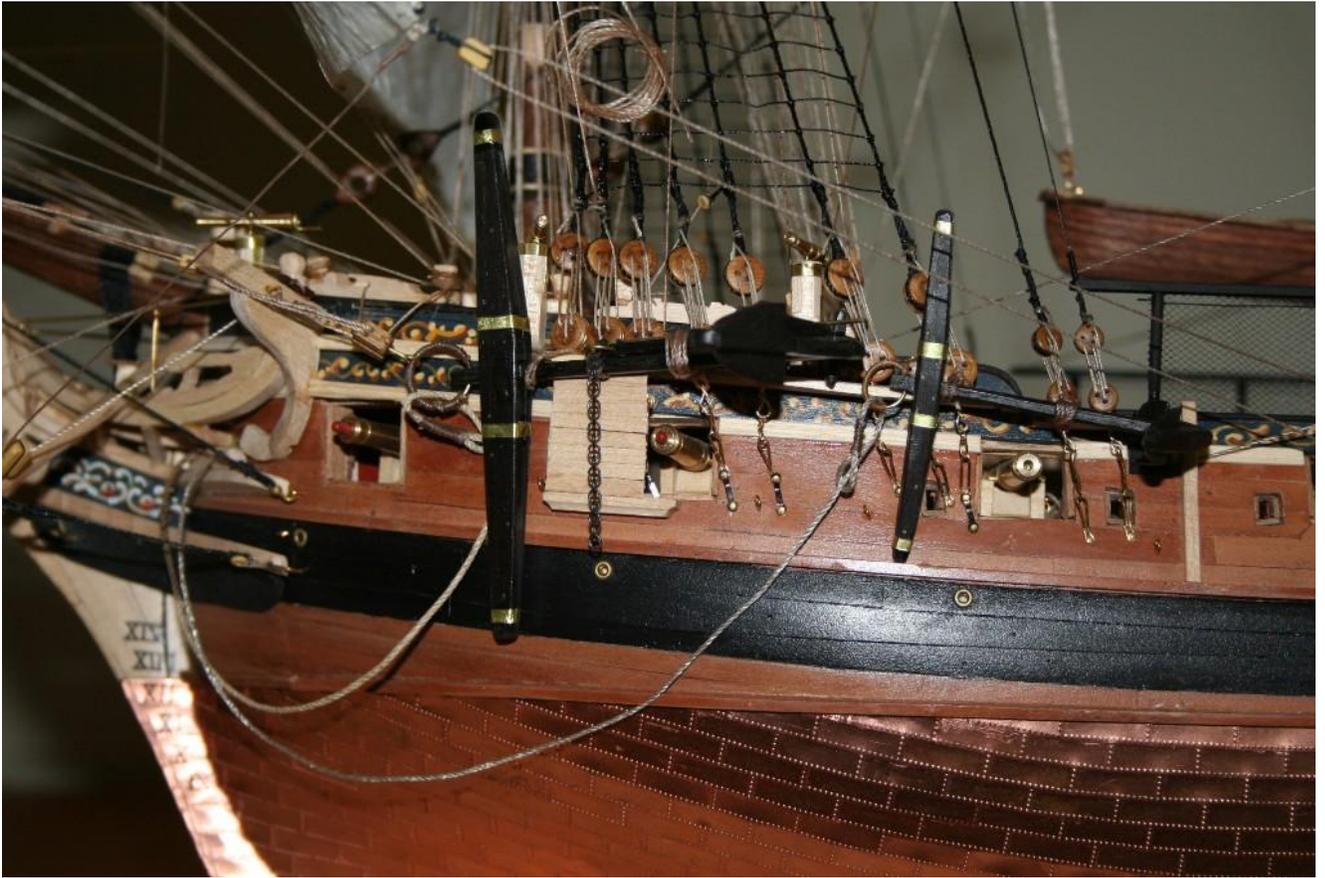
### 21.7 The cat falls

The cat falls is the line that reeves through the catblock and hangs it from the cathead. The standing end is seized to an eyebolt on the aft side of the cathead. The line reeves down through the cat block, up through the sheave in the cathead, back down and up again, then around the snatch block and belays to the forecandle rail. In the left photo above, I have the anchors stowed as you will see below. However, the photo on the right I have the anchor hanging to show the rigging of the nun buoy, again below.



### 21.8 The cat backs

The cat back lines are exactly that, to pull back the cat block. There are two lines, one lashed to the hook on the cat block and the other to a small eyebolt in the side of the cat block.

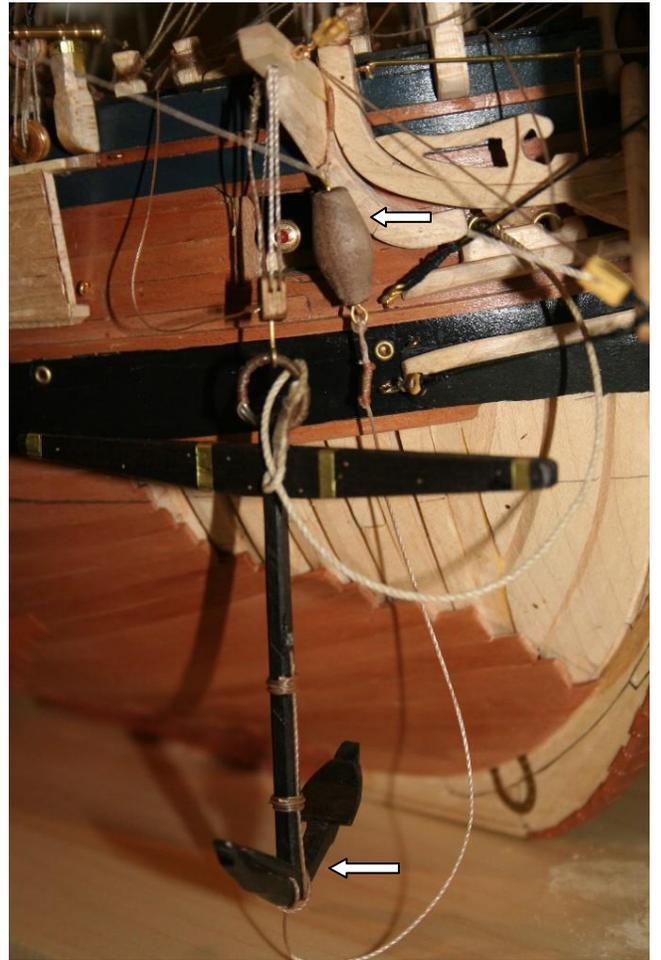


### **21.9 Anchor stowage**

*I have four anchors, 2 bowers, 1 stream and 1 kedge anchor. For display purpose I stowed three of them on the port side. The starboard bower I left hanging on the cathead. Above right is the stream anchor stowed.*



**21.10 Port bower and kedje anchor stowage**  
*The kedje anchor is strapped to the bower for stowage.*



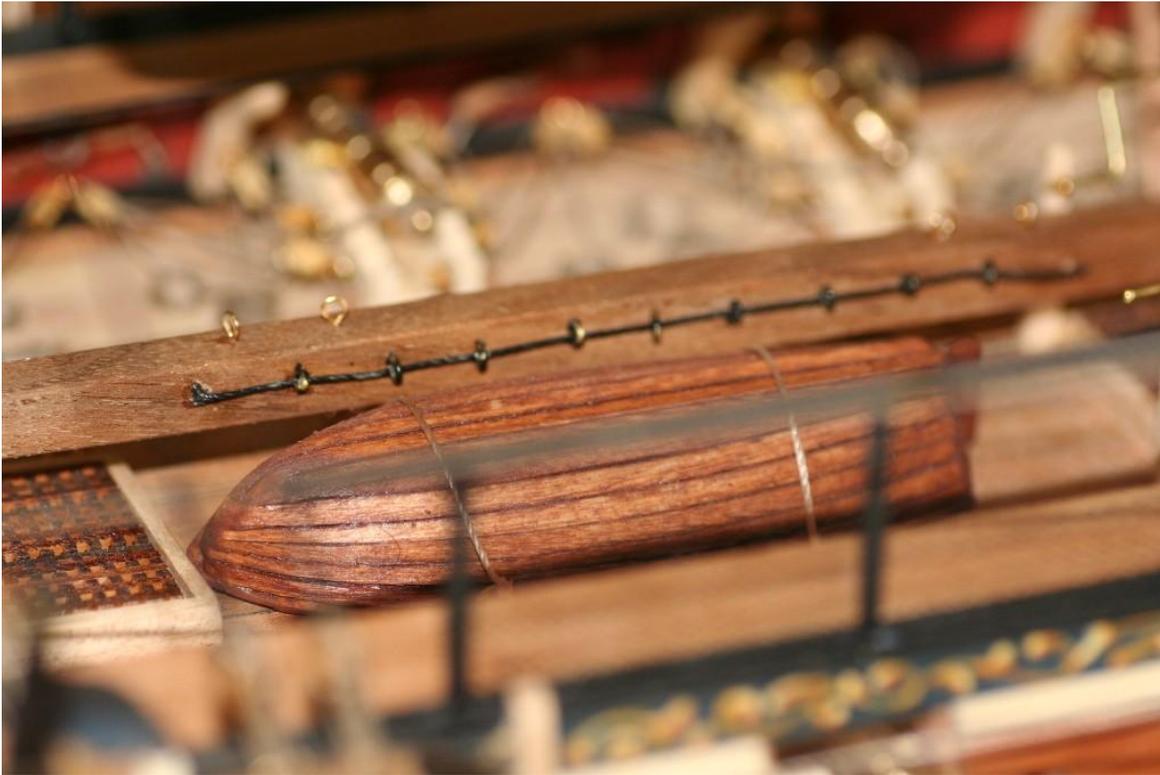
**21.11 The nun buoy**  
*The buoy was deployed to be able to locate the anchors. I was unsuccessful in rigging the net around the nun buoy, so I attached the lanyard and hung the buoy on the port side on the foremast shrouds. On the starboard side I attached the lanyard to the shank of the anchor with a clove hitch. The buoy is being retrieved beside the cathead with the anchor. (photo above right)*



**21.12 Shankpainter chains and ropes**

*Once the sheet anchor or bower was catted, the shankpainter chain is passed around the shank and then taken up and inboard where the top portion is belayed around a suitable timberhead.*





### **26.9 Ships boats**

***I built the ships boats back in section 12.3A while wintering in Florida. Of the four boats I decided to use three. I hung one on the tackle to load into the waist. I have another floating beside the Atalanta at the waterline and the third one is stowed in the waist with the fish davit.***

# PHOTO GALLERY

*Model finished*

*July 20<sup>th</sup> 2002 - Aug. 20<sup>th</sup> 2014*

*Conclusion*

*This build has been without a doubt the most challenging model I have ever made. It has been the only model that I have built everything in the interior. It was for this reason that I made and wrote comments in a photo journal to go with the model. No doubt there are many things that are just a little different from the real thing, but trust me they are so close. There are some things however that are not so realistic, such as the sails blowing in the wind with an anchor still on the cathead. Dragging a work boat, and loading one in the waist with the sails bellowing, as well as exposed frames on the starboard side. I am sure it never happened that way, however that is all related to my artistic expression! I hope you have enjoyed the trip!*

**Tom Cummings**

[tom.cummings2@sympatico.ca](mailto:tom.cummings2@sympatico.ca)











