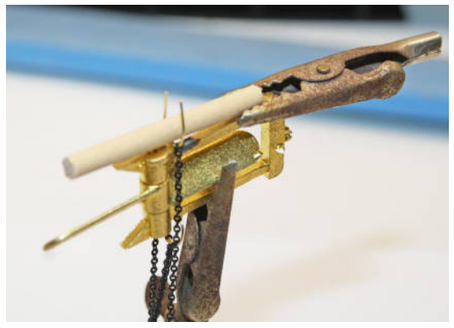
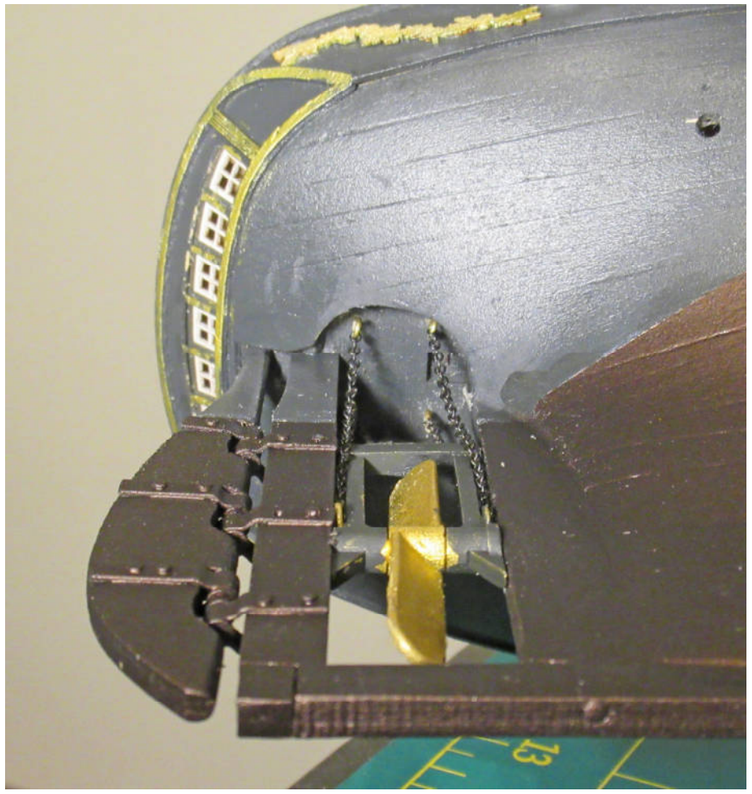
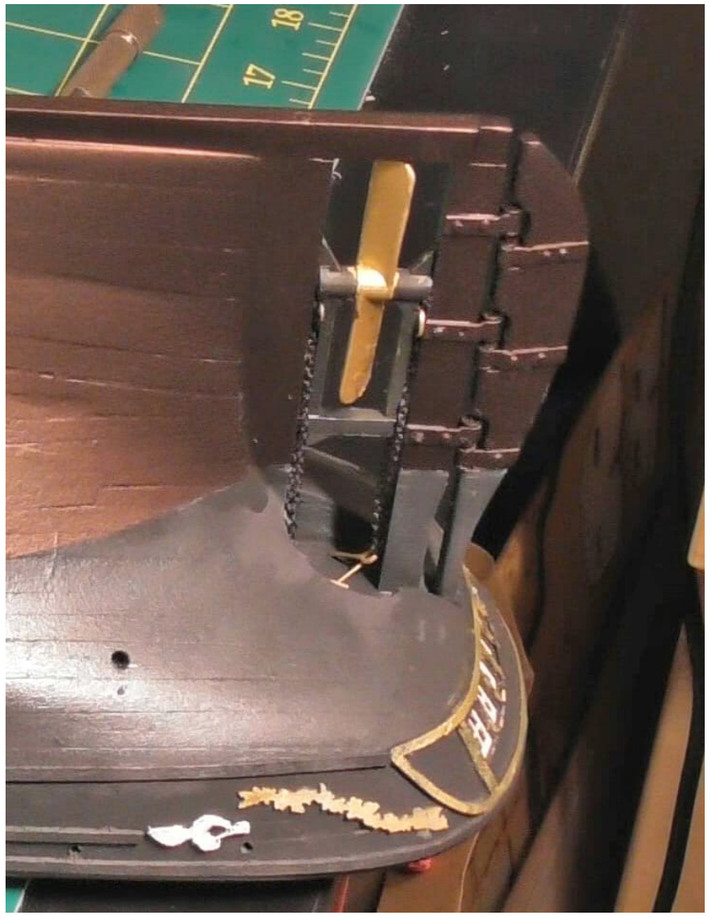
8.10 Propeller Assembly

Identify the propeller assembly P66 - notice the two 0.6mm holes in the casting on each up-right on the shaft. Identify the 0.5mm brass wire P75 - cut two x 30mm lengths. Feed the wire through the two holes and bend as shown. Identify 1.5mm chain P76 - cut 4 x 60mm lengths - feed on end of each chain onto one end of the wire - repeat for the other chains and wire - this will give a length of chain on either side of the propeller frame. Use a length of 4mm dowel P282 - place between the ends of the wire and trim excess - fold the wire over and around the dowel as shown - apply a dab of super glue to seize the wire ends together - remove the dowel leaving a 4mm ring as shown. Repeat for the other side. Identify the brass eye pins P77 - fix in place 4 eye pins into the holes laser cut into the roof of the propeller cavity as shown. Fit and glue in place the propeller assembly with the chain attached in place - Using a length of 0.25mm cord C5 P280 - attach one end to the eye pin - apply a dab of super glue to seize knot - use other end to attach to the chain so as to pull it straight - do not over pull - once satisfied apply super glue to the knot and trim-off excess cord and chain as required. Repeat for the other chains.





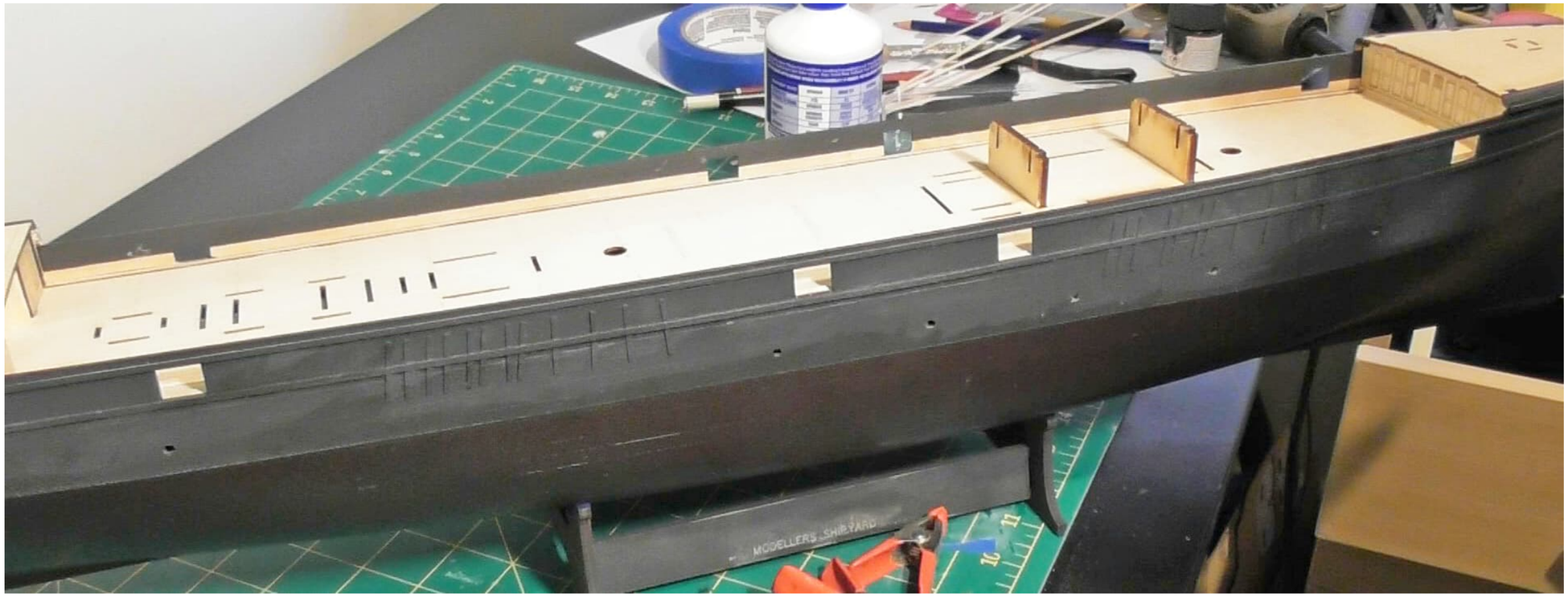


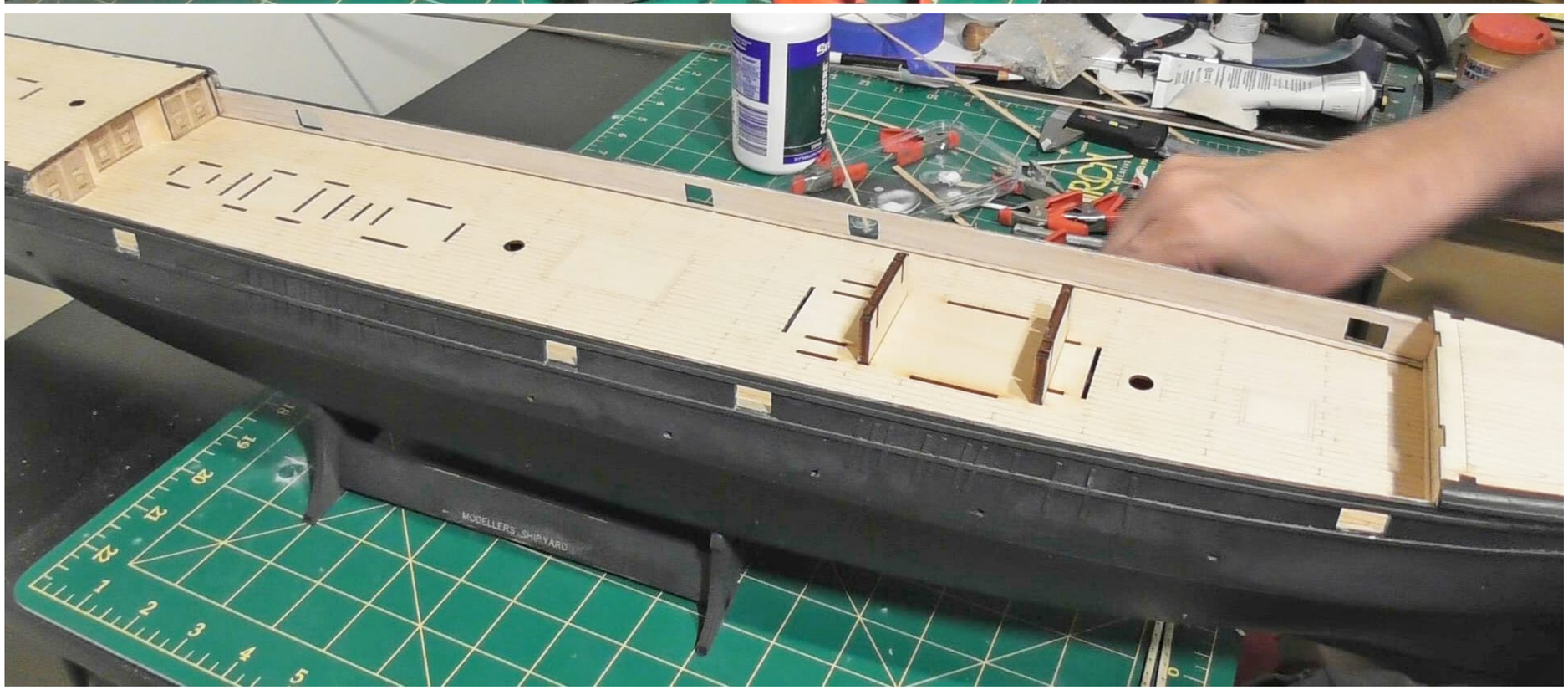




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9.0 Inner Bulwark Planking

Identify the inner bulwark planking P78. Trial fit a plank along the base of the inner bulwark - fractionally shape at both ends to fit along the bulwark - once satisfied glue the plank in place. Cut away the planking that crosses the gun ports as shown. Fit and glue in place another two planks. Sand-off the last plank to be flush with the top of the bulwark. Repeat for the other bulwark. Mix some white paint with water and apply to the planking to give a white washed effect.





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9.1 Deadeye Channels

The deadeye channels for the foremast and main mast are placed on the inside of the bulwark. Identify the foremast channels P79 and channel bases P80. Identify the main mast channels P81 and channel bases P82. To identify the location of the foremast channel place a bull dog clip on the bulwark so that it is aligned with the front deadeye strap as shown. On the inside of the bulwark mark a pencil line on the straight edge of the clip as shown. Place the foremast channel base at this line and mark the position of the other end onto the inner bulwark as shown. Repeat for the other side of the hull. Apply the same process to determine the location of the main mast deadeye channels. Identify the inner bulwark framing P83. Cut and fix lengths either end of the inner bulwark. Cut and fix a length along the top of the gunports - glue the foremast and main mast channel bases at their marked positions immediately below this length of framing. Glue the foremast and main mast channels in place onto their respective base - note the small angled edge on each channel - this denotes the rear end of the channel. Cut and fix framing lengths either side of the gunport opening. Cut and fix other lengths along the inner bulwark as shown. Mix some white paint with water and apply to the inner bulwark to give a white washed effect.

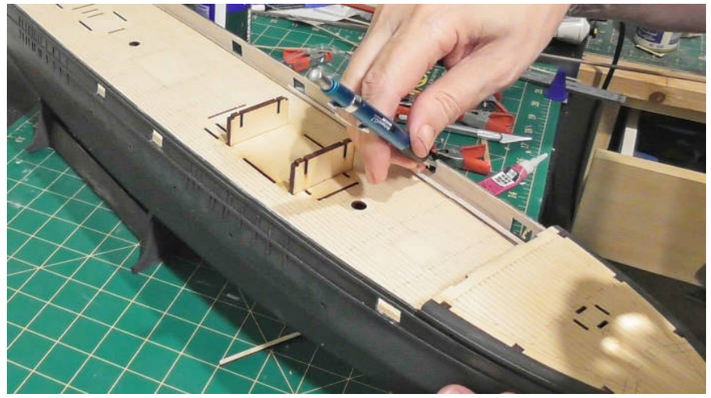


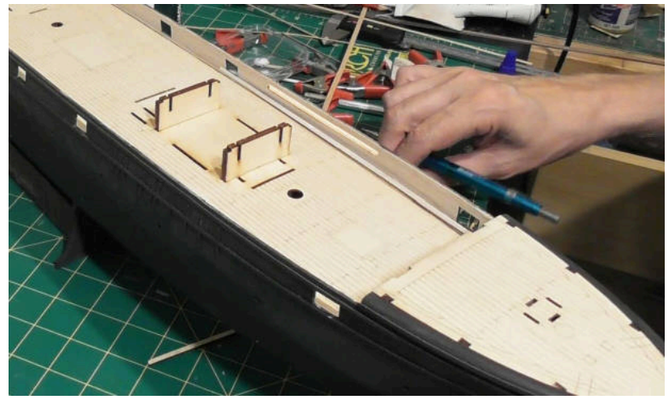
Foremast Channels

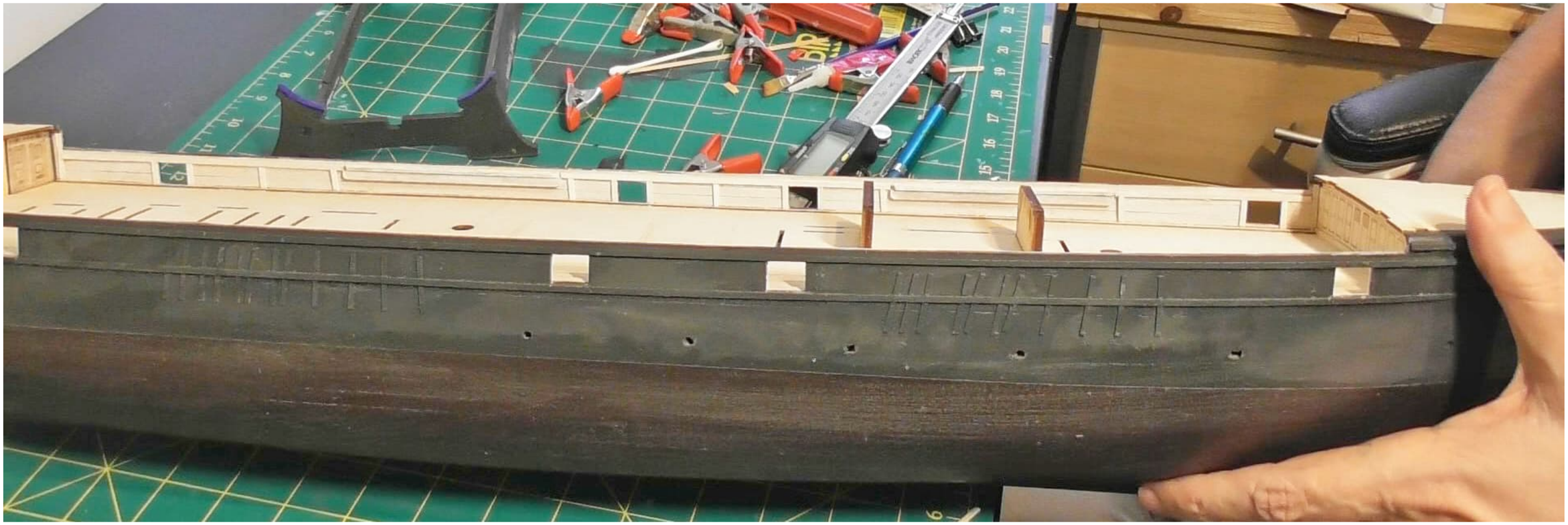


Main mast Channels









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9.2 Gunport Doors

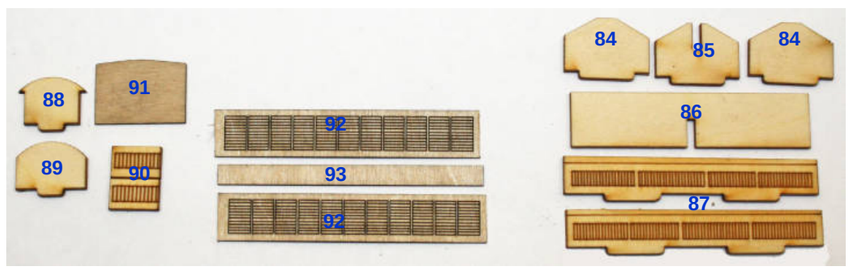
Identify the gunport doors P45. Paint the reverse face and sides of each gunport matt white. Starting with 1* at the front gunport glue in place either side of the gunports as shown. Repeat for the other side of the hull. **NOTE: If presenting the model as Sea King skip this section.**

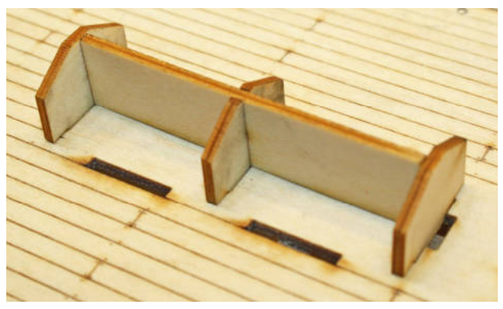


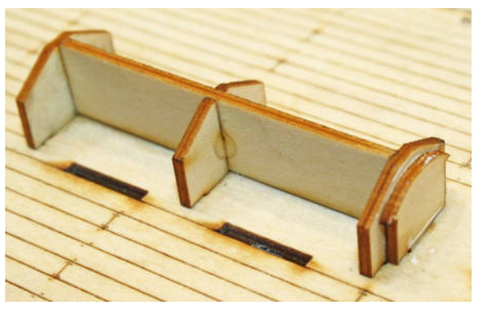


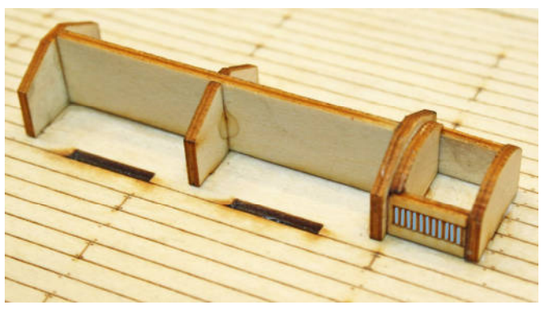
9.3 Wardroom Skylight - Quarter Deck (WR)

The wardroom skylight is fitted into the laser cut slots on the quarter deck. Identify the wardroom skylight parts P84 - P93. Lightly sand all parts. Trial fit and glue in place P84, P85 & P86 on the deck as shown. Glue in place P88, P89 and P90 as shown. Chamfer the top edge of the side windows P87– glue in place as shown. Glue in place the skylight central capping P93 and then skylights P92. The entrance roof P91 needs to be curved - place in a container of boiled water for approximately 15 minutes - use string to hold it in place around the barrel of a glue syringe or similar device - leave in place and allow to dry naturally for 24 hours. Once dry trial fit in place - note the straight edge is located against the wall of P84 - use super glue to fix the roof in place. Paint the roof a light grey as shown. Use a blue pencil to colour the skylight windows.

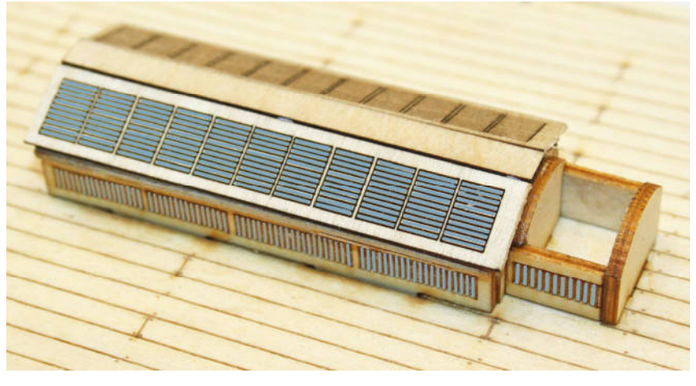


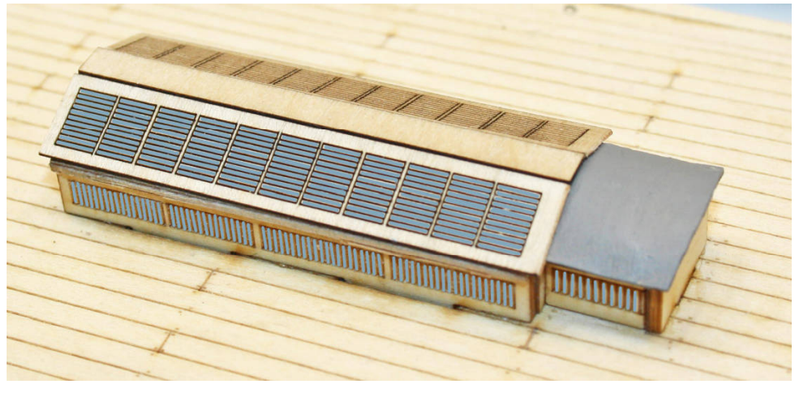




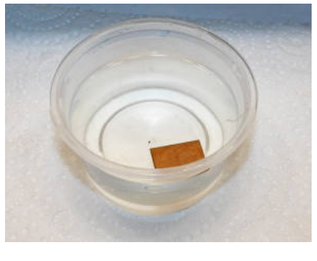








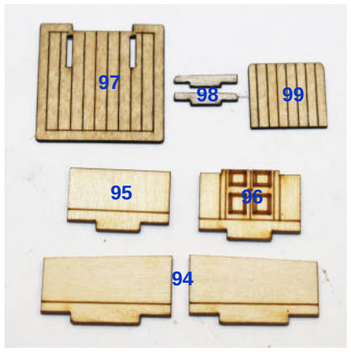


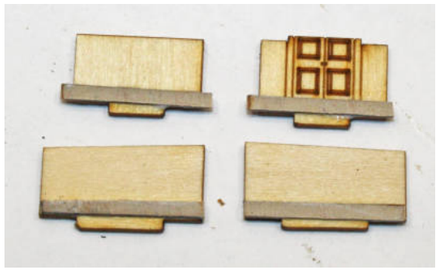


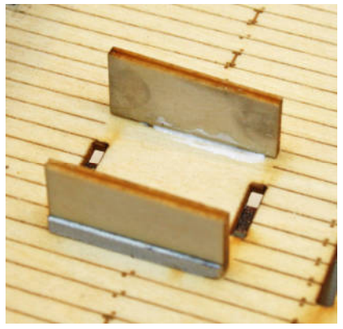
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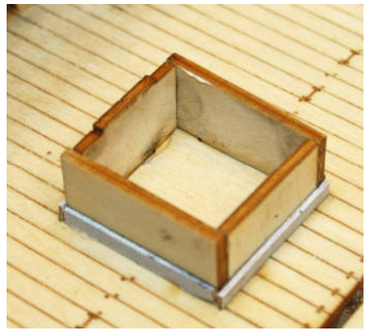
9.4 Companionway

The companionway is located on the main deck immediately in front of the quarter deck cabin entrance as shown. The entrance doors face the quarter deck cabin entrance. Identify the sides P94, rear wall P95, entrance wall P96, roof P97, hatch runners P98 and hatch P99. As coaming glue batten strips P25A to the side walls as shown - cut flush with the length of the wall. Repeat for the rear and front wall except make the length long enough to cover the edges of the side walls when glued in place. Glue the side wall in place - glue the rear and front walls in place. Trim-off the excess coaming on the rear and front walls as shown. Glue the roof in place followed by the hatch runners. Glue the hatch in place as shown.









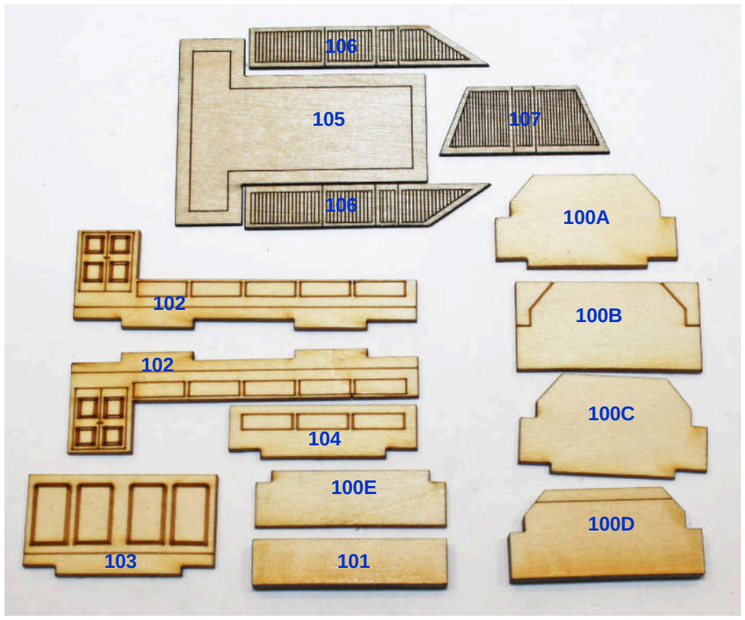


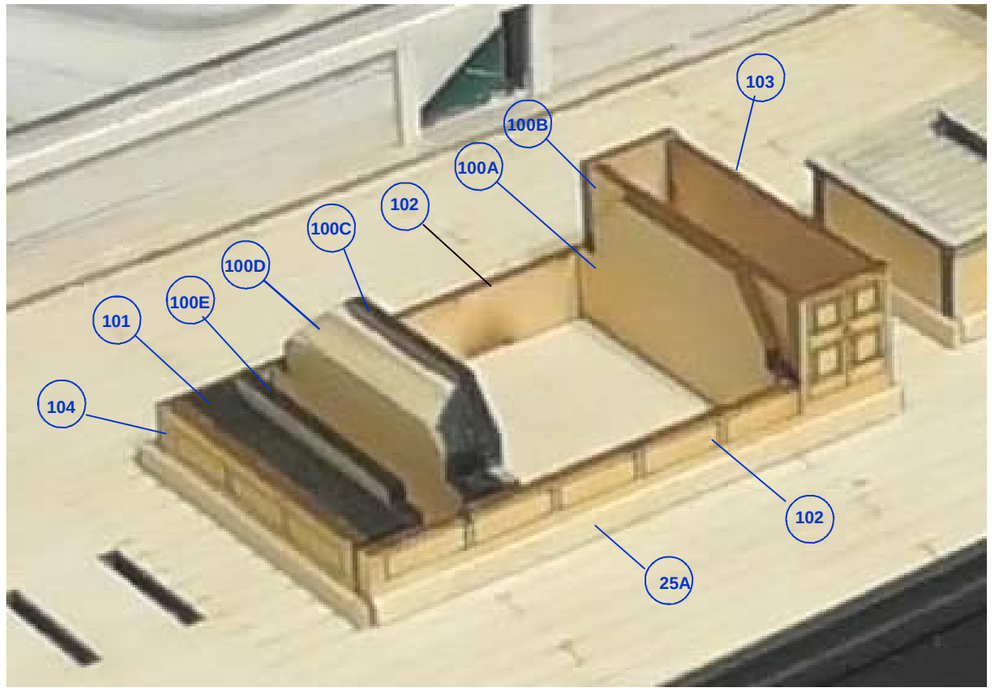




9.5 Engine Room Skylight (ERS)

The engine room skylight is located on the main deck immediately in front of the companionway. Identify the ERS parts P100 - 107. For P100D shape a chamfer from the score line to the reverse face as shown. Glue P100A to P100B as shown. Glue P100C in place. Glue P100D in place. Glue P103 in place. Glue P104 in place. Glue P102 in place. Glue P101 in place - not the slight curve on one longer edge - this is to accommodate the deck curvature - this side goes against the deck . Glue P100E in place. As coaming cut and glue batten strips P25A around base as shown.



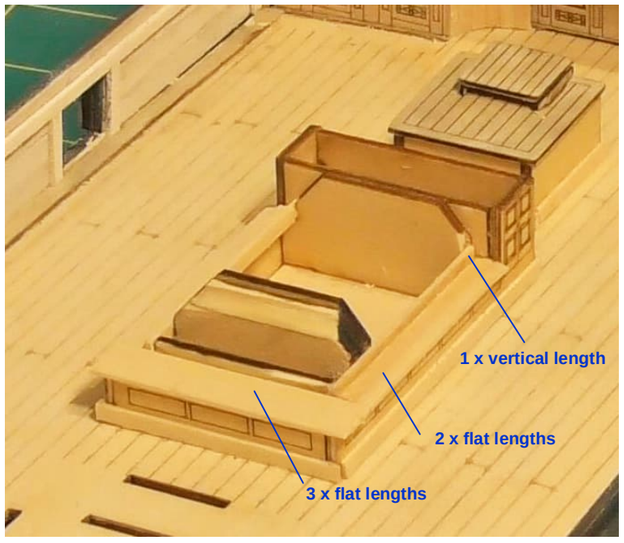


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9.5 Engine Room Skylight continued

To cover the plywood edges use batten strips P25A. Cut and glue lengths in place as shown. Identify the ERS roof P105 - paint the roof a light grey as shown. Glue and glue the roof in place as shown. Glue the fore skylight P107 in place as shown. Glue the side skylights P106 in place as shown. Use a blue pencil to colour the skylights.

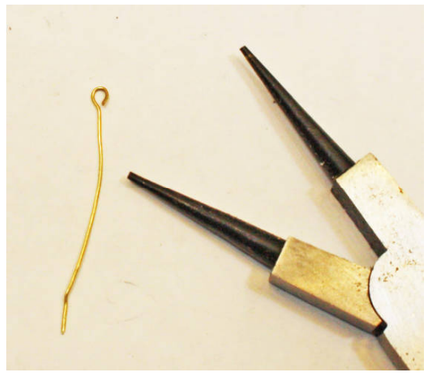






9.6 Deadeye Loops

The lower deadeyes are attached to the channels with deadeye loops - this need to be done before the deck becomes congested. To make the deadeye loops take a 40mm length of 0.5mm brass wire P75 and use round nose pliers to make a hoop at one end of the wire as shown. Fold the wire around a 5mm deadeye P108 as shown - seize the wire and tighten by twisting the tail around the base of the deadeye as shown - make sure lower deadeye hole is positioned as shown. Apply a dab of super glue to fix the wire to the deadeye. Trim off the tail. Open the loop of an eye pin P77 and attach to the deadeye loop and close the eye pin loop. Make another 65 deadeye loops. Use a 0.7mm drill to widen the holes in the main mast channel drilling into the channel base. Trial fit the eye pin with deadeye loop into a hole - once satisfied use super glue to fix the deadeye loop tail in place. Repeat for the other side of the hull. Repeat for the foremast.







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9.6 Deadeyes Loops - continued

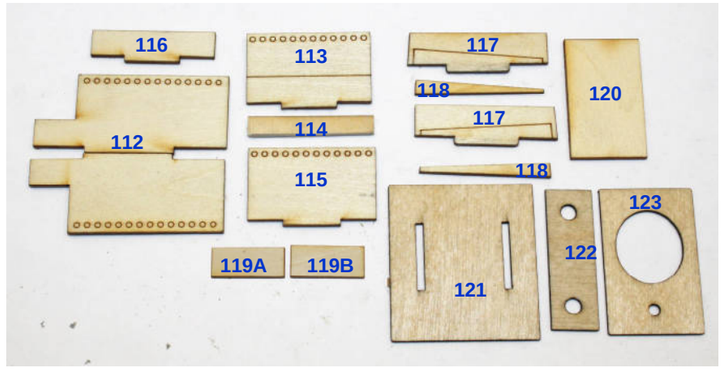
For the mizzen mast drill 0.7mm holes into the base of the quarter deck rail base as shown. Fit and fix the deadeye loops in place as shown. Repeat for the other side of the hull.





9.7 Telescopic Stack

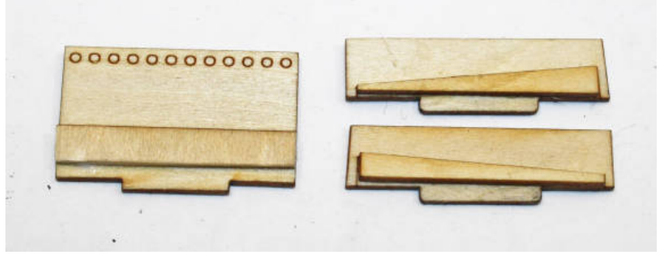
Identify the stack parts P110 - P123. Glue 11 x large stack rings P110 together taking care to align. Glue the two smaller stack rings P111 either side a large ring as shown. Glue together as shown. Once dry sand to remove any misalignments. Once satisfied paint matt black. Glue P114 to P113 - align P114 with the score line as shown. Glue P118 to P117 as shown. Paint P112, P113, P115, P116, P117, P19A-B, P121, P122 and P123 matt black as shown. Note: The front edge of P117 is slightly angled. P119B is slightly higher than P119A as it fits to the front edge of P117.

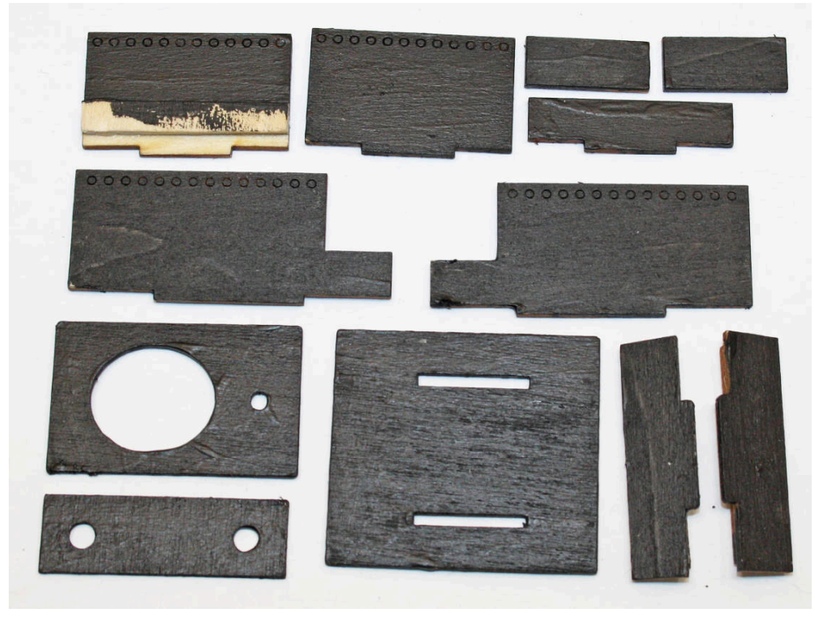








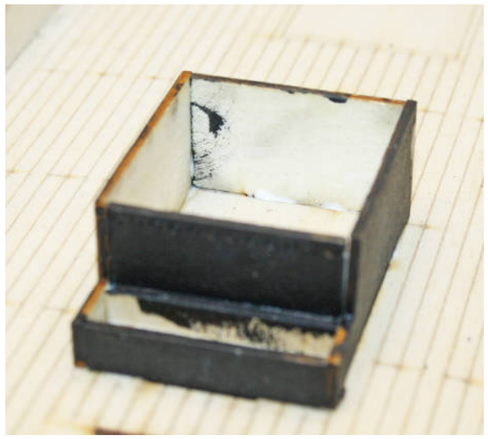
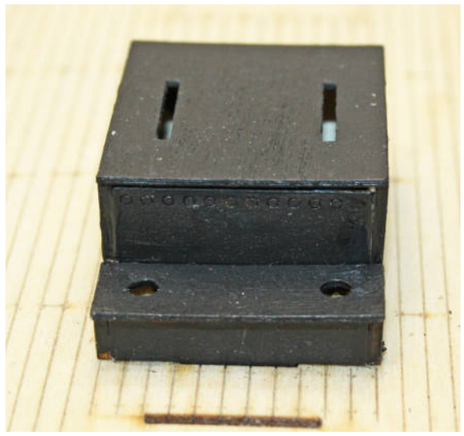
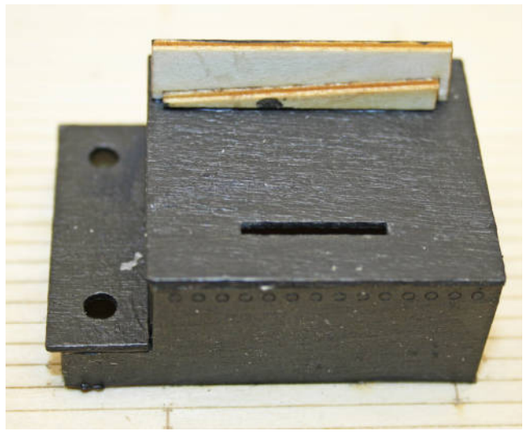
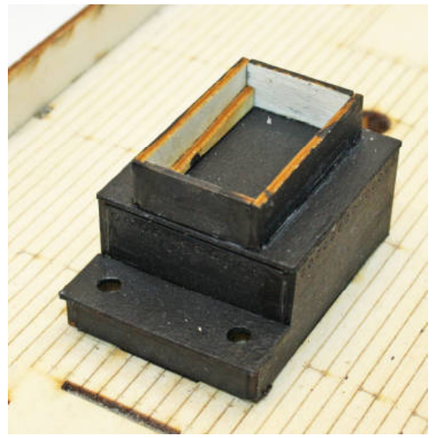
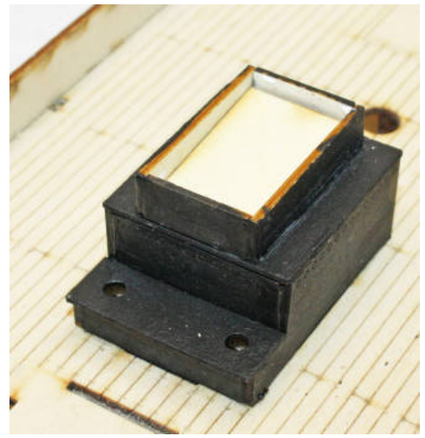
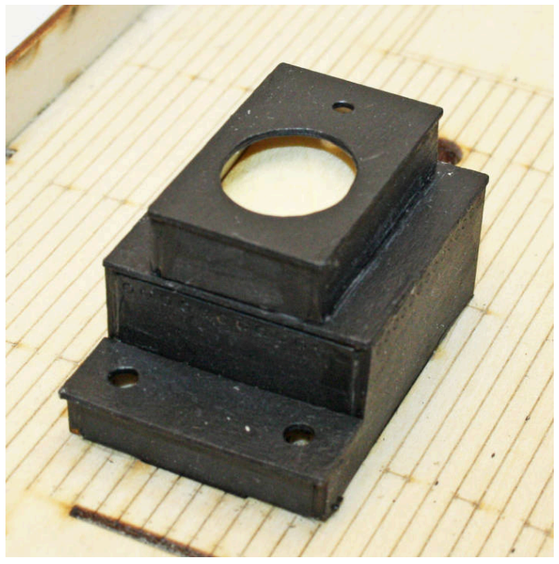


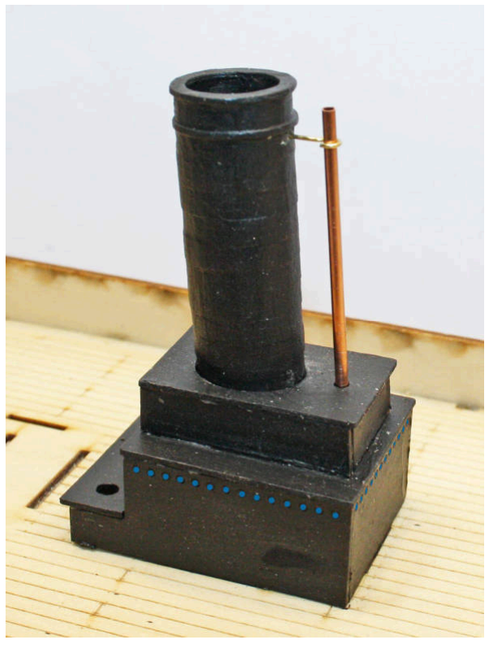
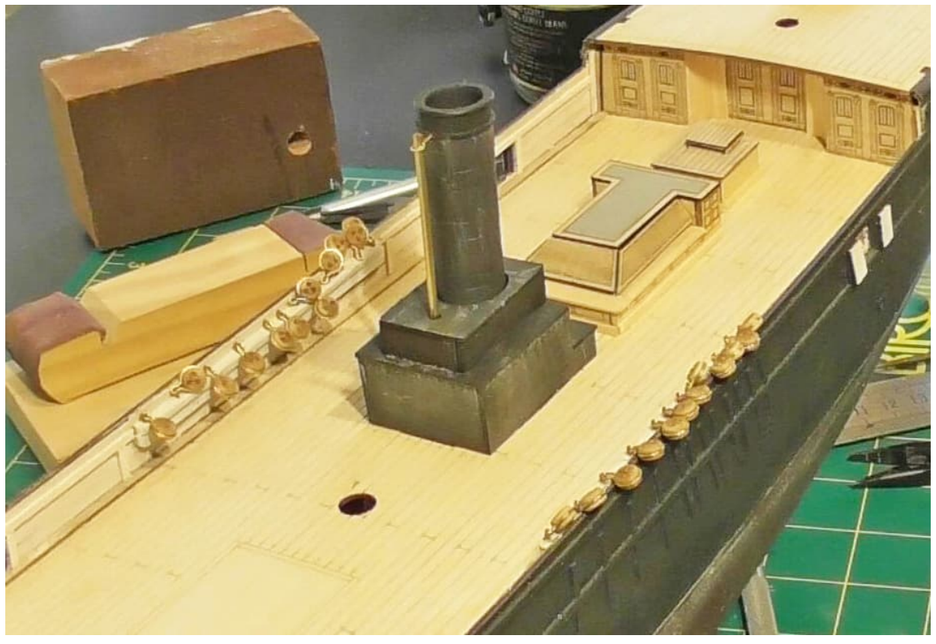


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9.7 Telescopic Stack continued

Trial fit and glue in place P112, P113, P115 and P116. Clamp together while glue sets. Glue in place P121 and P122 as shown. Glue in place the assemble P117, P119A-B as shown - Note P119B is higher than P119A and is placed at the front. Insert and glue in place P120 as shown. Trial fit the stack into P121 - fractionally adjust as required. Glue in place P121 as shown. Drill a 0.7mm hole into the front of the stack immediately below the lower ring. Take an eye pin P299 and the 2mm copper tube P124 - open the eye pin so it fits over the tube. Fit the eye pin into the previously drilled hole - adjust the eye pin length so the tube and stack are parallel - fix the eye pin in place. Use a blue pencil to colour the light holes.

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9.8 Port Holes

Identify the 3mm port holes P135 and the 2mm ports holes P136. Paint matt black. Use a glue syringe with white wood glue mixed with some blue paint to give a light blue shade. Apply a drop of the glue-paint mixture into each port hole as shown. Once dry fix the 3mm port holes into the previously drill holes in the hull. Then fix the 2mm port holes into the previously drill holes in the forecastle and quarter deck.



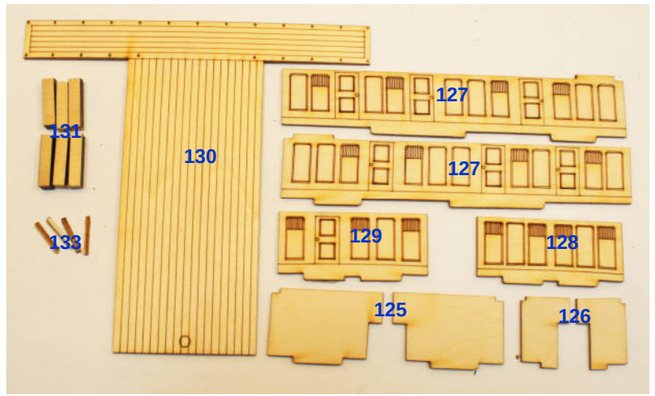




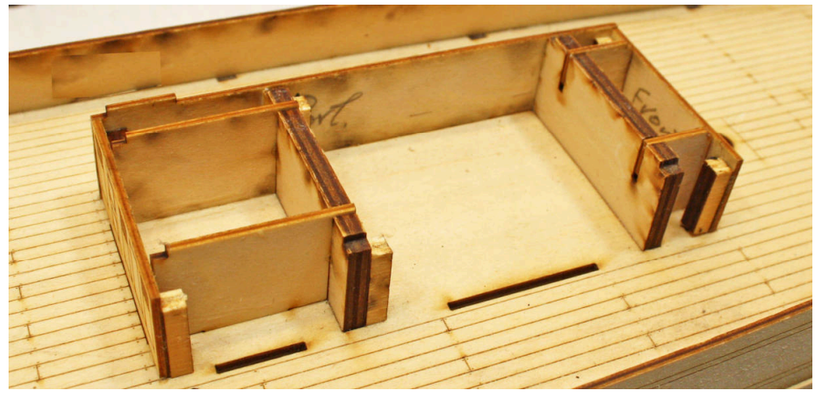
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9.9 Deck House

Identify the deck house parts P125 - P132. Trial fit and fix the structure P125 & 126 as shown. Trial fit and fix the rear and front walls P128 and P129 as shown - clamp in place if required. Fix the wall supports P131 in place as shown. Trail fit and fix the side walls in place as shown - clamp in place if required. Identify the roof edging P132A-D. Lightly sand to remove the laser burn. Shape each part to have a rounded long edge. Stain walnut or teak. Place the roof in place and trial fit each part - fractionally adjust as required. Glue capping in place - temporarily fit the roof in place while the glue sets. As coaming cut and glue batten strips P25A as side strips and 25B as end strips around base as shown. Use a blue pencil to colour the windows.



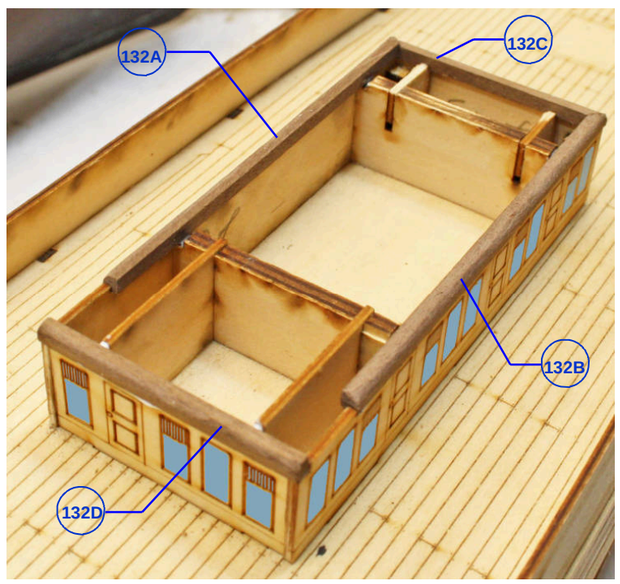


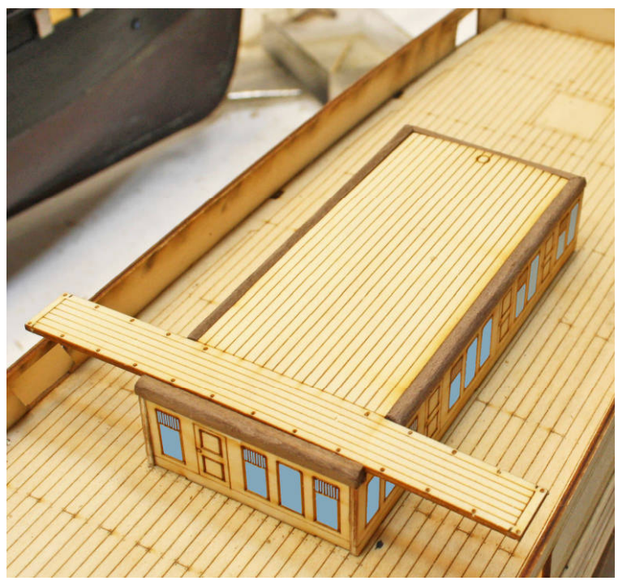










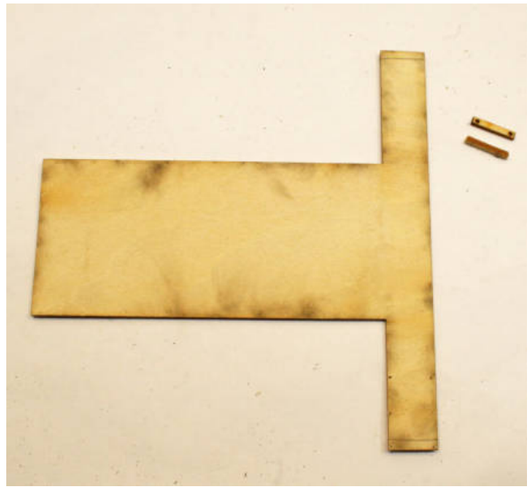


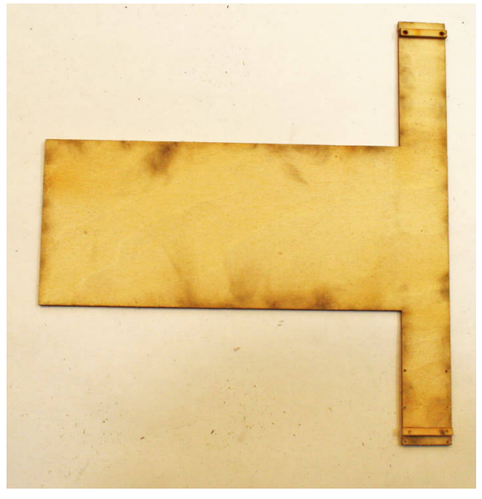


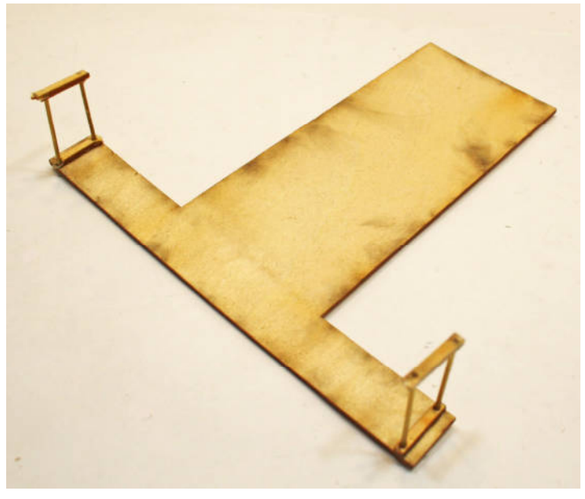
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9.9 Deck House continued

Notice on the roof bridge the two laser cut marks 2mm from the end of each arm - mark a pencil line across these points. Glue in place two rod bases P133 along this line as shown. Identify the brass rod P134 - cut 4 x 21mm lengths. Super glue the rods into the rod supports as shown - fit the remaining two rod bases to the ends of the rods as shown - apply glue to the base of these parts - turn the roof over and glue in place - carefully position the lower rod bases onto the score marked positions on the deck. Place a weighted object at the end of the arms to hold the rod supports in place while glue sets.







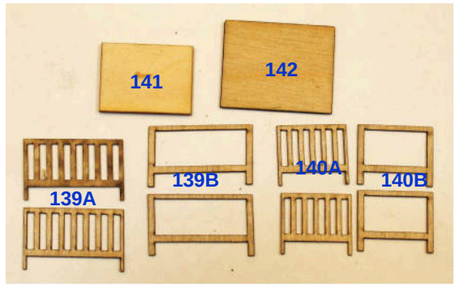


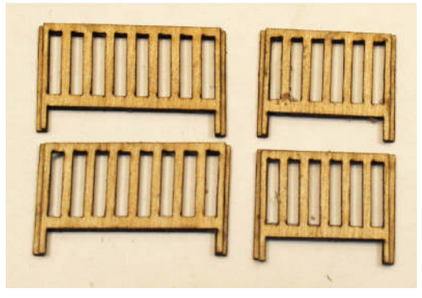
9.10 Hatches and Pig House

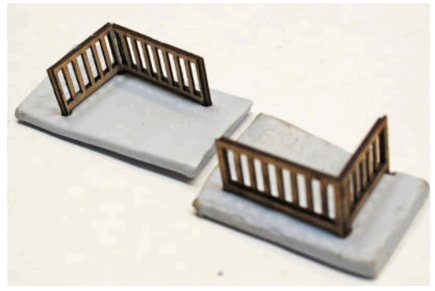
Identify the main hatch P137A and coaming P137B. Light sand the coaming to remove the laser burn. Shape the outside edges to be rounded. Stain the coaming walnut or teak. Glue coaming in place as shown. Glue the assembled hatch in place in the score marked position on the deck. Identify the fore hatch P138A and coaming P138B. Repeat preparation and assembly as for the main hatch. Glue the assembled hatch in place in the score marked position on the deck as shown. For both hatches fix eye pins P77 into the pre-cut holes. Identify the pig house (PH) parts P139 - P142. Glue the frames to each grill as shown. Glue side and end walls together as shown. Trial fit the floor - glue in place. Use antique brown to paint the floor as shown. Glue the roof in place. Paint the assembled pig house antique brown. Fix the pig house to deck at the score mark locations.



















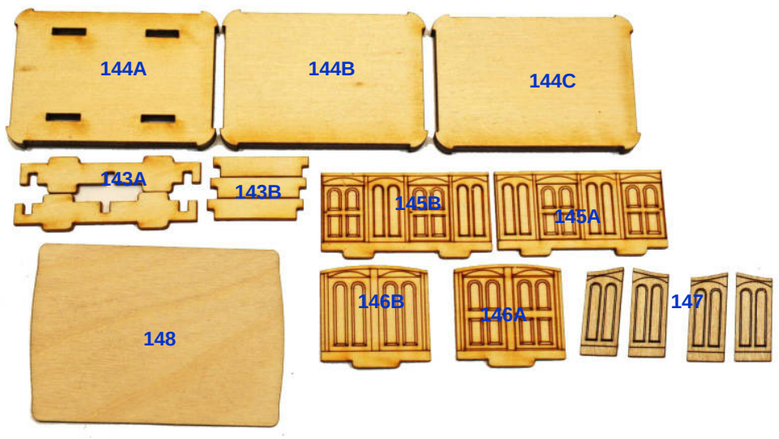


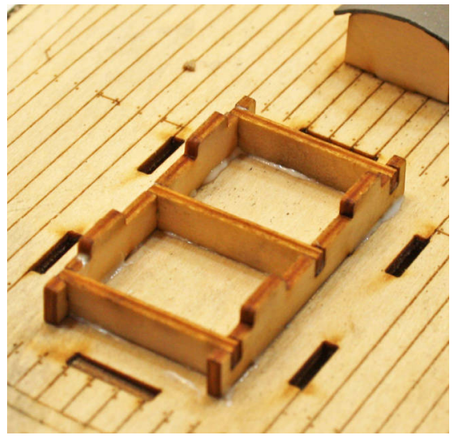
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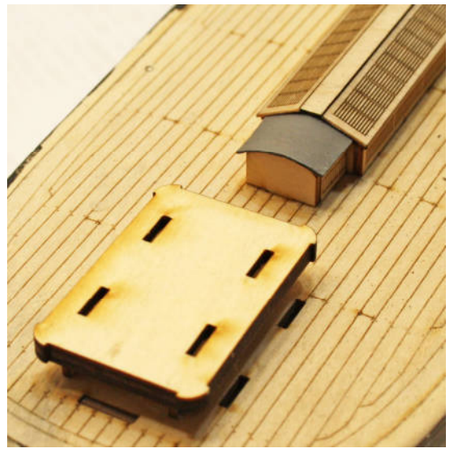
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9.11 Wheel House (WH)

Identify the WH parts P143 - 148. Glue the base frame P143A & P143B in place. Glues base block P144A in place followed by P144B & P144C. Glue the port and starboard side walls P145A & P145B in place. Cut two lengths of scrap 2x5mm basswood P48 and glue in place along the edge of P144C as shown - chamfer the edge as shown. Place the corner pieces P147 into a container of boiled water for approximately 15 minutes - remove and using a length of 8mm dowel P246 and string wrap the corners around the dowel. Once fully dry repeat using a 5mm length of dowel P245. Allow to fully dry naturally. Glue the corner pieces in place and use elastic bands to secure until glue has set. Place the roof P148 into a container of boiled water for 15 minutes - remove and secure to a can until dry. Glue the roof in place and paint light grey as shown. Use a blue pencil to colour the windows.





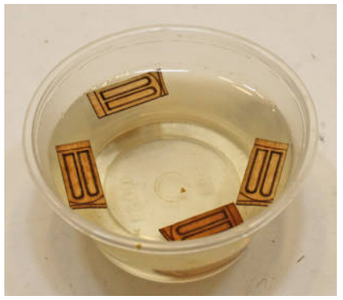


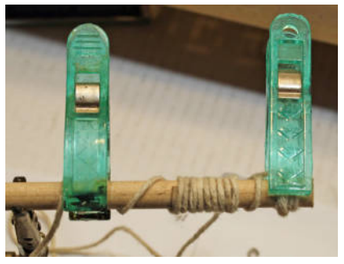


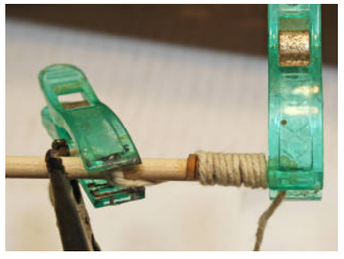




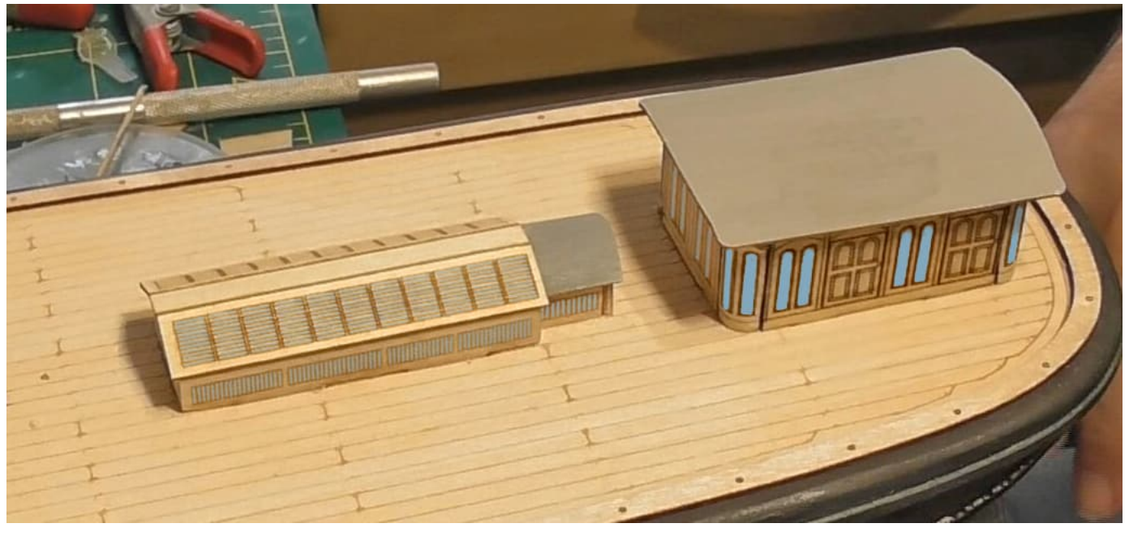










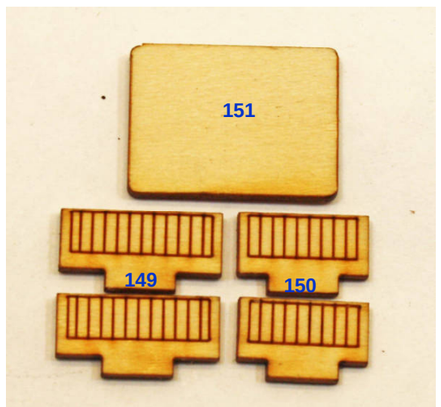


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9.12 Forecastle Skylight

Identify the skylight sides P149, skylight ends P150 and skylight roof P151. Glue the sides and ends in place on the forecastle as shown. Glue the roof in place and paint light grey as shown. Use a blue pencil to colour the skylight.

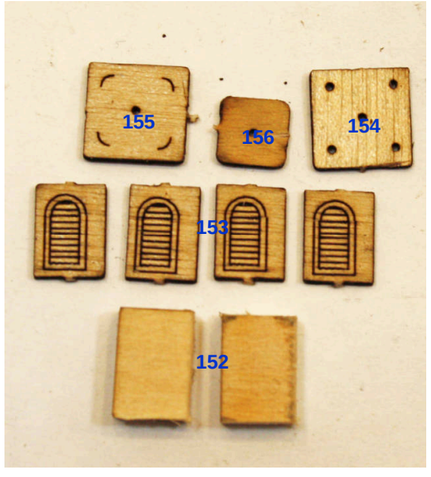






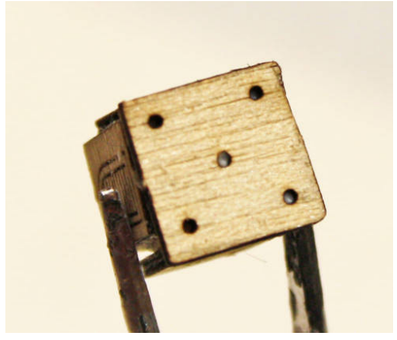
9.13 Chicken House (CH)

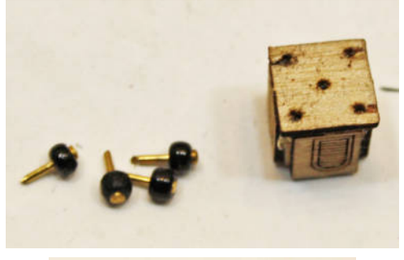
Identify the CH parts P152 - P156. Glue the blocks P152 together. Trial fit the frames P153 - fractionally adjust the block width as required - once satisfied glue frames in place as shown. Glue the floor P154 in place. Identify parrals P157 and fit to a brass nails P68 - glue in place and cut the nail length down as shown. Drill 0.7mm holes into the base as shown and glue feet in place. Glue the roof P155 in place and then the top P156 - fix a parral with nail into the top as shown. Drill a 0.7mm hole into the centre of the base and glue in place a locating pin. Paint the assembled chicken house antique brown. Drill a 0.7mm hole in the location point on the quarter deck. Glue the chicken house in place.



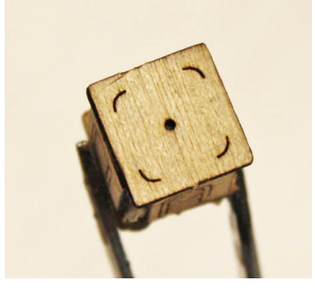
















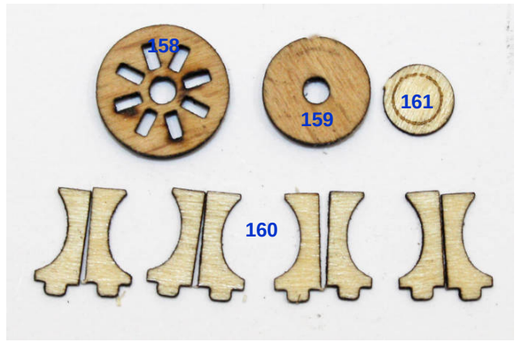


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9.14 Capstan

Identify the capstan parts P158 - P161. Cut a 12mm length of 2mm dowel P308 - glue into base P158. Glue the whelps P160 into the slots on base. Glue head P159 in place. Cut-off excess dowel. Glue cap P161 in place as shown. Paint the assembled capstan matt brown. Set aside to be fitted to the forecastle deck later.





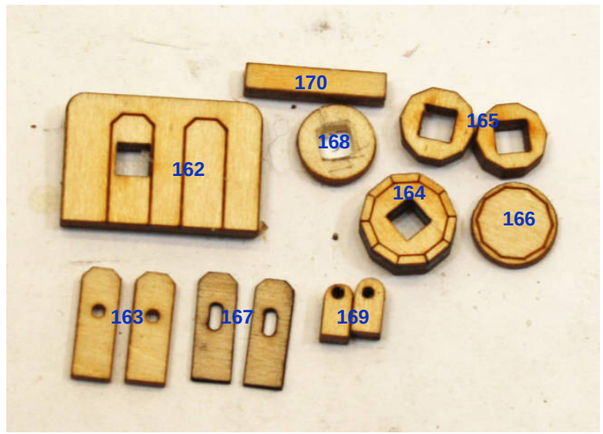


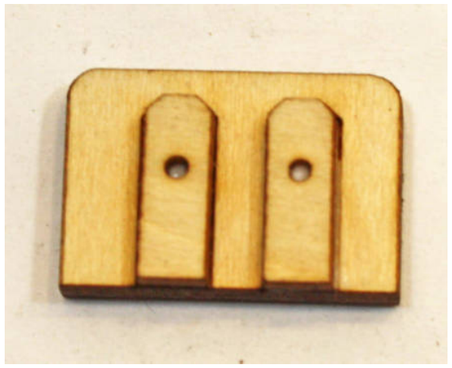


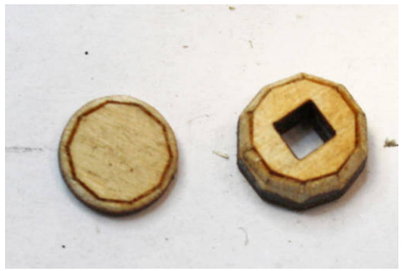


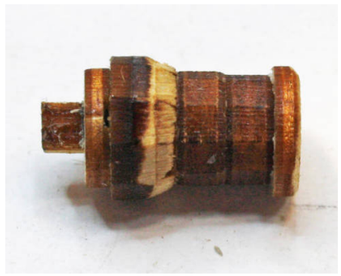
9.15 Windlass (WL)

Identify the windlass parts P162 - P170. Glue P163 to P162. Shape P164 and P166 as shown. Glue P168, P164, P165 and P166 to the key P170 as shown. Glue assembled barrel to the frame as shown. Glue P167 in place as shown. Drill 1mm holes into the frame through the openings. Cut two x 20mm lengths and one length x 30mm of 1mm brass rod P134. Carefully drill 1mm holes into the base of P169 - drill pilot hole first. Glue the 20mm brass rods into these holes as shown. Glue these arms into the frame block - fit the 30mm length of rod as shown and glue in place. Paint the assembled windlass matt black. Set aside to be fitted to the forecastle deck later.

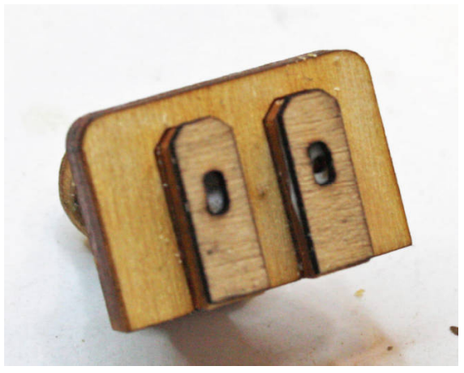


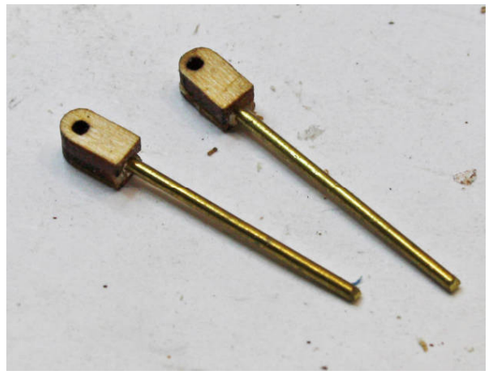


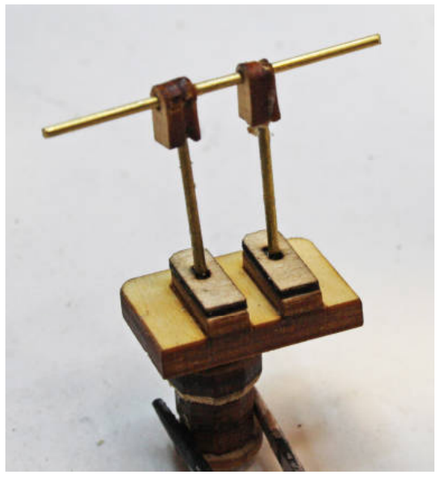


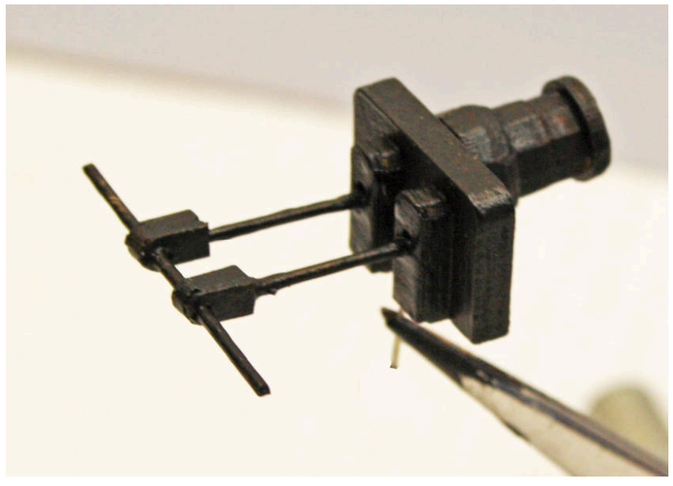










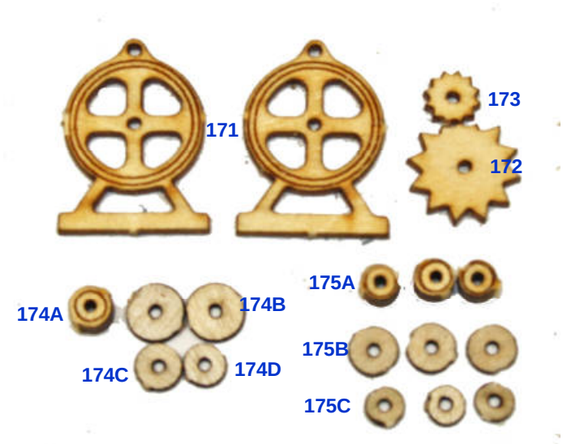


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9.16 Winches

There are two winches on the main deck - below shows the assembly of one winch. Identify the winch parts P171 - P175. Shape P174A as shown. Cut 4 x 15mm lengths of 1mm brass rod P134. To assemble the large drum temporarily fit P174B to one length of rod - fit P174C to the rod followed by P174A and then P174D - glue parts together and remove from rod. To assemble the small drums shape P175A as shown. Temporarily fit P175B to a length of brass rod followed by P175A and then P175C - glue parts together and remove from rod - repeat for the other two small drums. Paint these 4 assembled drums with gold/brass paint as shown. Identify the winch cheeks P171 and the gears P172 and P173 - paint matt black. Cut 30mm lengths of 5mm dowel P245 and 3mm dowel P244 - drill a 1mm hole in the centre of the ends of each dowel. Stain the dowels with shellac. Fix the assembled large drum to a length of brass rod - attach to one cheek P171 and attach gear P172 as shown. Fix the 5mm dowel onto the geared cheek as shown. Fix the gear P173 to the end of the 3mm dowel - position this dowel and gear in place and glue to the cheek. Fix the second cheek in place. Fix the assembled three small drums in place as shown. Repeat for the second winch. Set the winches aside to be fitted to the deck later.

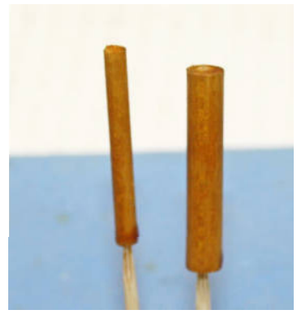










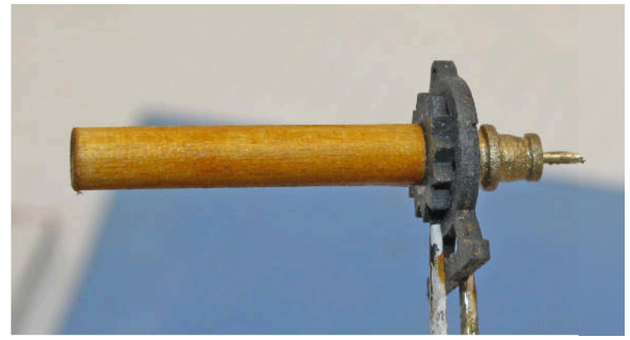


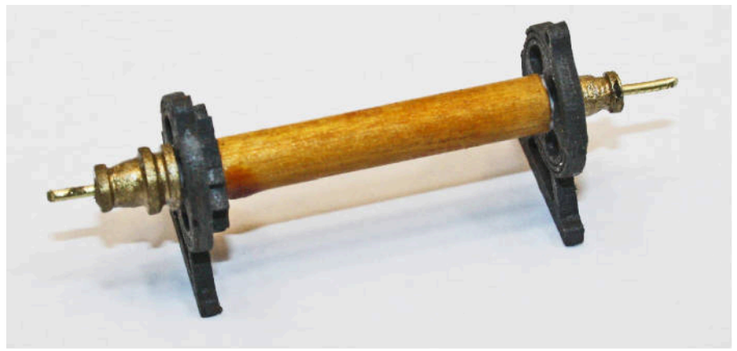


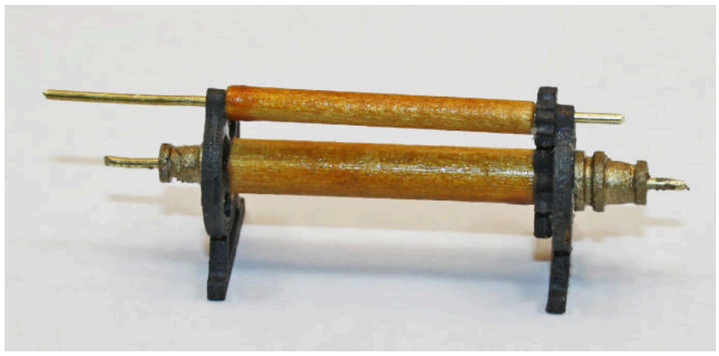


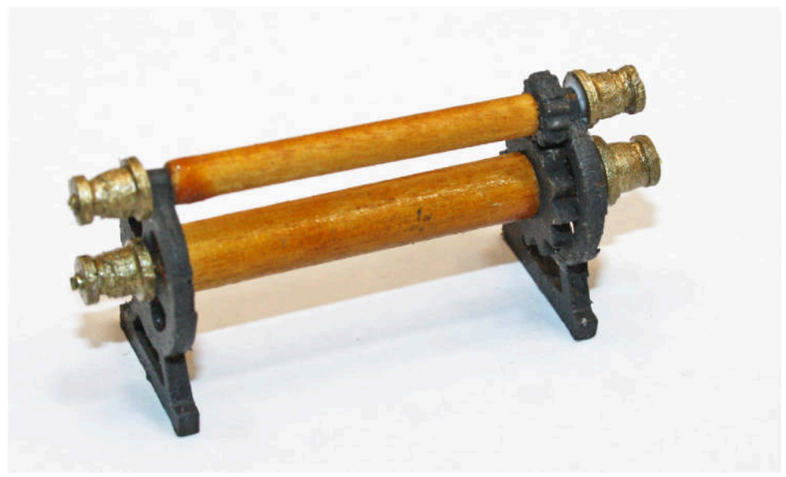










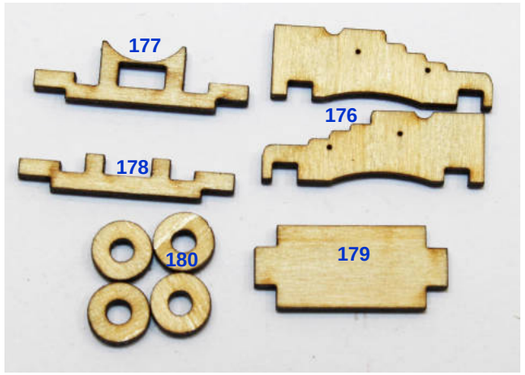


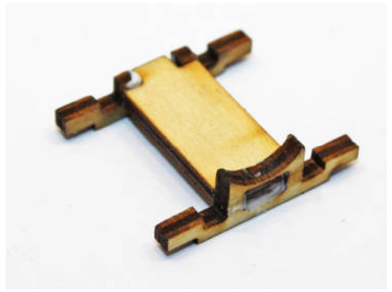
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9.17 Gun Carriages & Cannons

There are four cannons supplied. Identify the cannon parts P177 - P180. Glue P179 to P177 & P178 as shown. Glue P176 in place followed by gluing the wheels P180 in place as shown. Assemble the remaining three carriages. Paint each carriage matt black. Fix eye pins P77 at the front and back of the carriage as shown. Identify the cannon barrel P181 - paint matt black and glue to the carriages as shown. Set assembled cannons aside to be fitted to the main deck later.





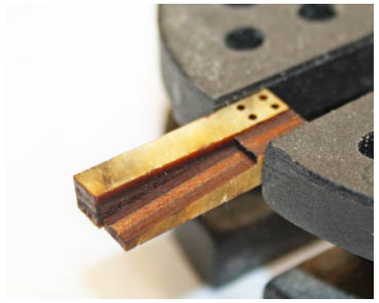


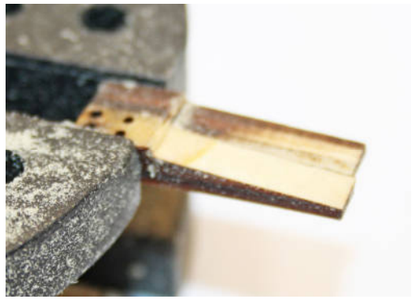


9.18 Cat Heads

Identify the cat heads P182 and the template P183. Use the template to shape each cat head as shown. Paint the shaped cat heads matt black as shown. Set aside to be fitted to the forecastle deck later.





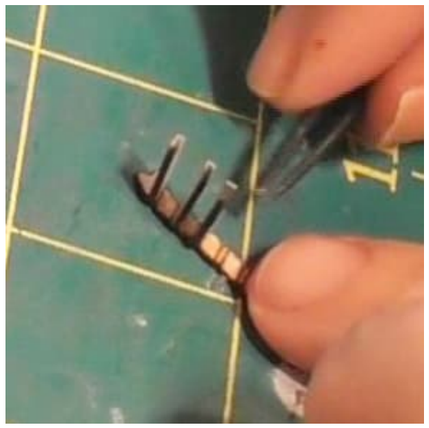




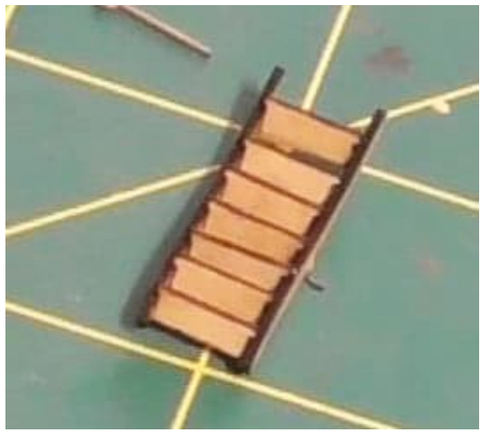
9.19 Steps - Fore & Aft

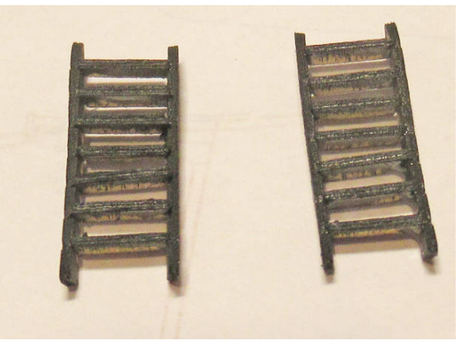
Identify the fore step strings P185 and the step treads P186. Trial fit the treads into the string slots - fractionally adjust the tread end to easily fit into the slot. Use super glue to fix the treads into the slots of one string as shown. Fix the second string in place as shown. Trial fit in place. Assemble the second fore steps. Then assemble the two aft steps. Paint all steps matt black and set aside to be fitted later.







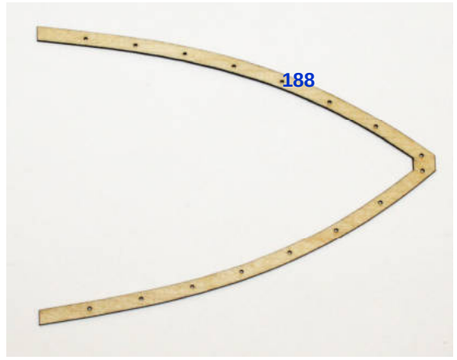


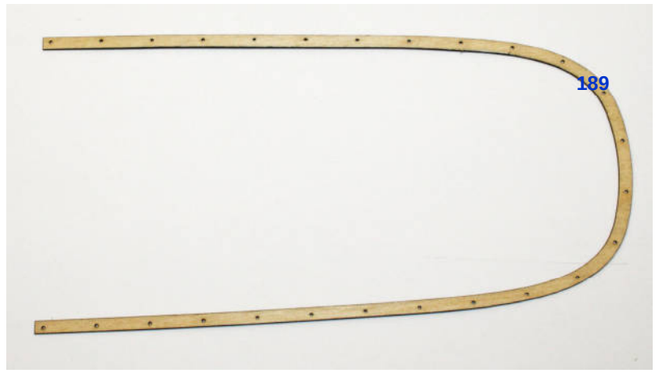


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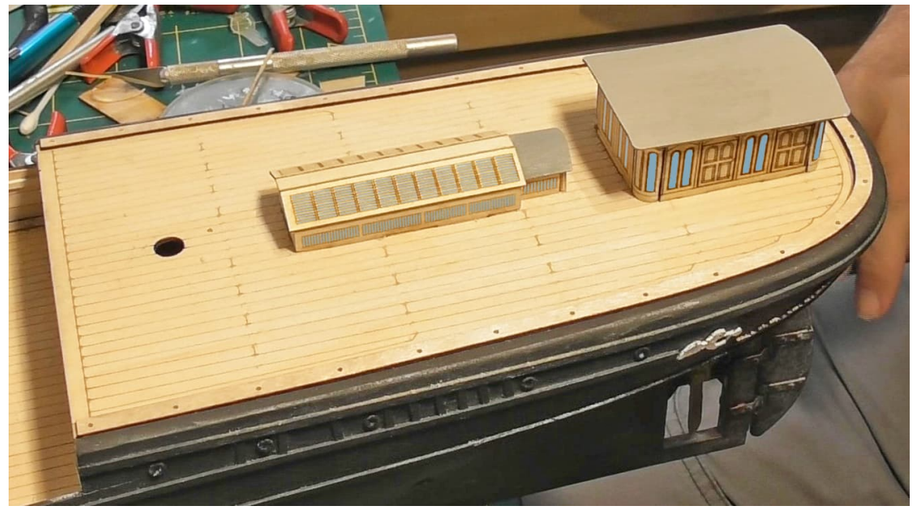
9.20 Forecastle Deck and Quarter Deck Stanchion Base

Identify the forecastle deck stanchion base P188 and the quarter deck stanchion base P189. Trial fit each in place on their respective deck as shown - fractionally adjust as required. Remove and paint matt black - glue in place.









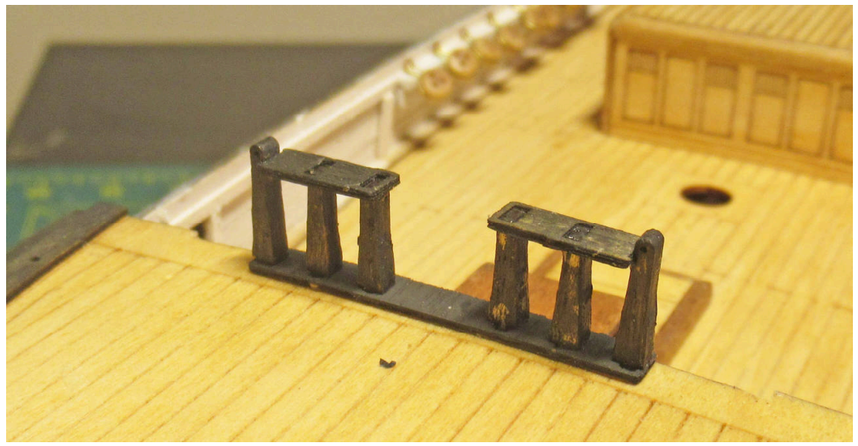
9.21 Forecastle (FC) Deck Balustrade and Belfry

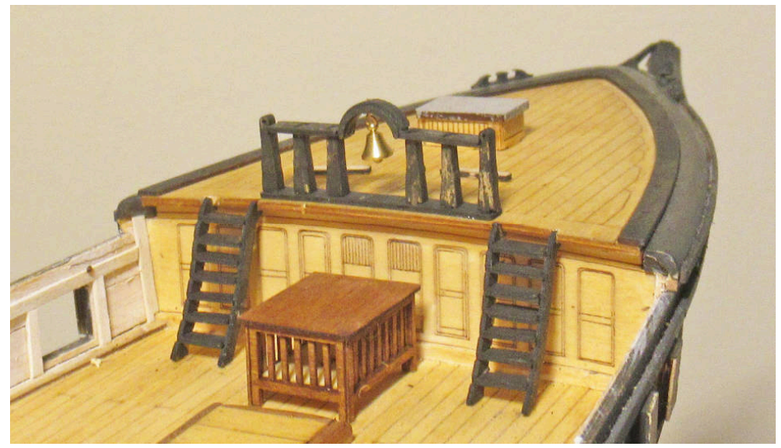
Identify the FC balustrade base P190, FC balustrade tops P191, FC balustrade caps P192 and FC balusters P193A and FC balustrade posts P193B. Paint P190, P191, P193A & P193B matt black. Glue the base P190 in place as shown. Glue the balusters P193A in place followed by the posts P193B as shown. Glue the tops P191 in place as shown. Glue the belfry extensions P195B either side of the belfry P195A - paint matt black. Cut a 25mm length of 0.5mm brass wire P75. Identify the bell P196. Shape a loop at one end of the wire and fit the bell in place. Drill a 0.7mm hole in the centre of the belfry - feed the wire through and glue in place - trim-off excess wire as shown. Glue the assembled belfry in place. Glue the cap P192 in place to cover the balustrade ends - do not paint the cap. Retrieve the fore steps - glue in place as shown.









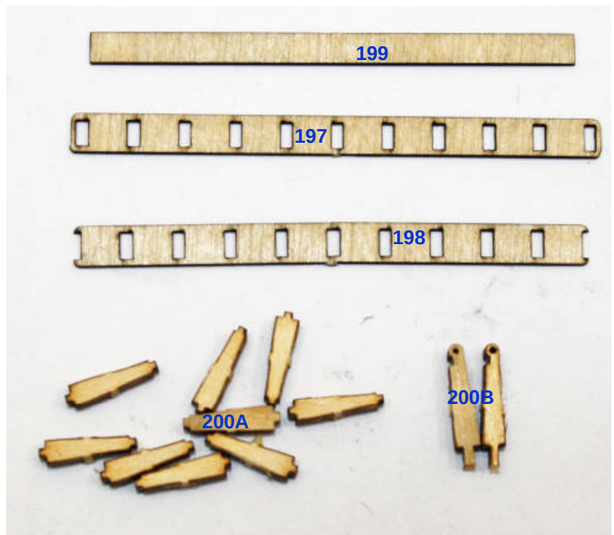


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9.22 Quarter Deck (QD) Balustrade

Identify the QD balustrade base P197, QD balustrade top P198, QD balustrade cap P199, QD balusters P200A and QD balustrade posts P200B.

Paint P197, P198 and P193A & P193B matt black. Glue the base P197 in place as shown. Glue the balusters P200A in place followed by the ends P200B as shown. Glue the top P198 in place as shown. Glue the cap P199 in place to cover the balustrade ends - do not paint cap. Retrieve the aft steps - glue in place as shown.







9.23 Hand Rails

Identify the hand rail jig P201.Cut 8 x 60mm lengths of 0.5mm brass wire P75 - use the jig to shape each length as shown. Identify the hand rail post feet P202. and the hand rail posts P203. Glue the feet to the posts as shown. Paint the assembled posts matt black as shown. Use a drill to clean-out the hole in the post top. Fix a pin into the centre of each post and fix the post to the quarter deck and forecastle deck as shown. Drill a 0.7mm hole into the main deck adjacent to the ladder feet. Fix the hand rails as shown.















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9.24 Forecastle Deck Fittings

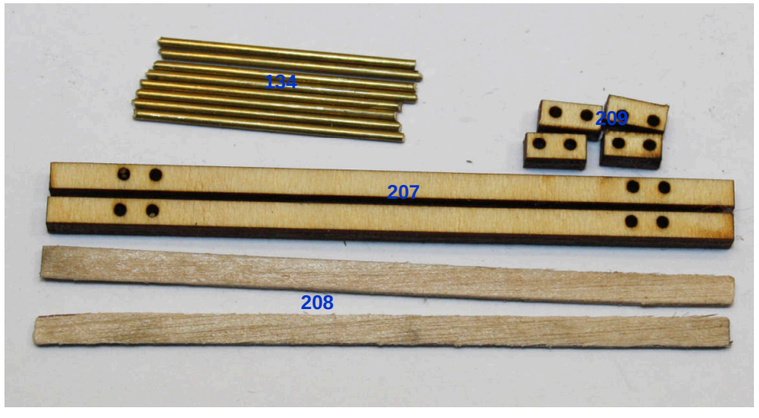
Identify the catheads previously made. Cut through the forecastle deck trims as shown - trial fit the catheads in position - fractionally adjust as required - once satisfied glue each cathead in place. Retrieve the windlass previously assembled - glue in place at the marked position on the deck. Retrieve the previously assembled capstan - glue in place at the marked position on the deck.

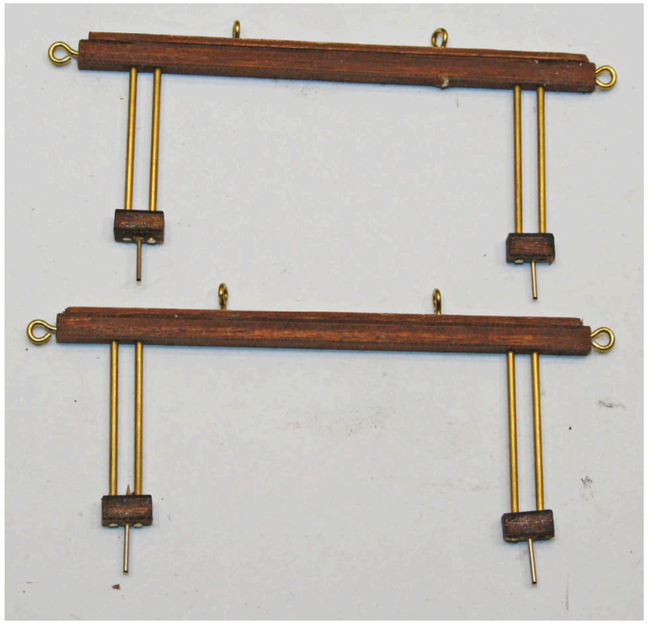


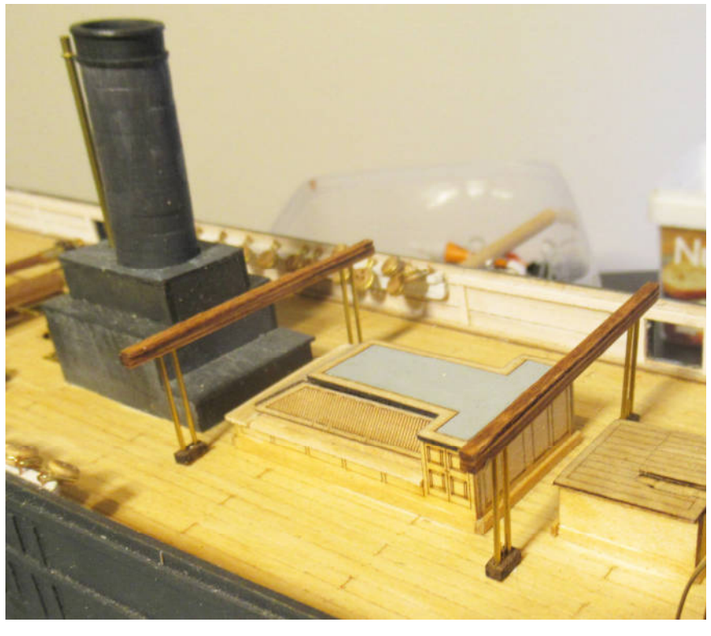


9.25 Boat Racks

Identify the racks P207, rack caps P208 and the bases P209. Cut 8 x 25mm lengths of 1mm brass rod P134. Glue the caps to the top of each rack. Use a cloth to apply matt brown to colour the racks. Use walnut stain to colour the bases. Fix eye pins P77 centrally in the ends of each rack. Fix eye pins in place to the rack top 20mm from each end as shown. Fix a pin centrally to the underside of each base. Fix the brass rods into the bases and fix to the racks. Drill a hole centrally at pre-marked base positions on the deck and glue the assembled racks in place as shown.





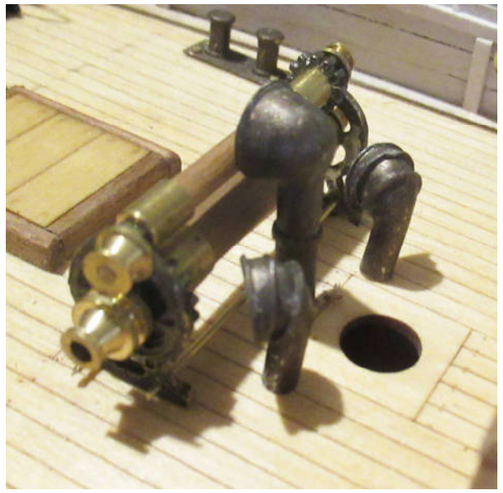


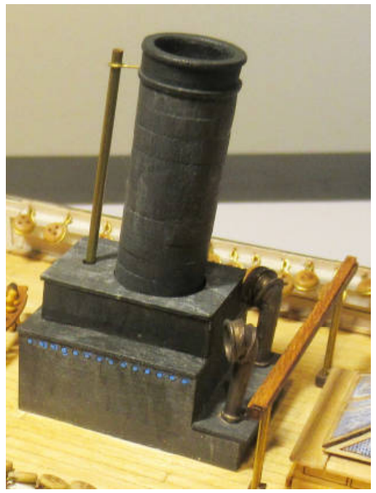
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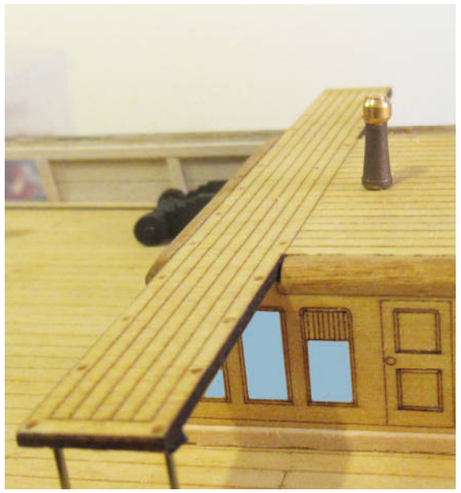
9.26 Ventilators, Binnacles, Winches, Pump and Galley Chimney

Identify the 15mm ventilators P210 and 20mm ventilators P211. Paint each ventilator matt black. At the foremast drill a 3mm hole at the pre-marked position to accept a 20mm ventilator. Fix the 20mm ventilator in position. Fix pins to the base of each of the15mm ventilators, drill holes at the pre-marked positions and fix the ventilators in position - align the ventilators as shown. On the boiler housing fix two 20mm ventilators into the pre-cut holes - align ventilators as shown. Retrieve a winch previously assembled - fix in place on the deck in front of the foremast ventilators at the pre-marked position. Identify the binnacles P212 - drill 2mm holes at the pre-marked locations on the deck house and between the wheelhouse and companionway as shown.

Identify the pump parts P214A-B. Glue the two crossheads P214B together - align the parts so a gap remains between them and the holes are aligned. Take two eye pins P299 - cut the shank on each to approximately 8mm. Drill a 0.7mm hole into the top of the each cylinder to a depth to accept the eye pins. To assemble the pump - fit the eye pins in place - place the crosshead onto the column and fit a nail P68 as shown. Adjust the height of the eye pins to align with the holes and fit a nail through each as shown. Apply a dab of glue to each nail and trim-off excess shank length. Cut two 18mm lengths of 1mm brass rod P134 - fit in place as shown. Fix the assembled pump in position at the pre-marked position in front of the main mast. Fix the second previously assembled winch in place at the pre-marked position in front of the pump. For the galley chimney cut a 13mm length of 4mm dowel P282 and a 8mm length of 3mm dowel P244. Shape one end of the 4mm dowel to accept the 3mm dowel. Glue the 3mm dowel in place as the cross chimney. Paint the assembled funnel matt black and fix in place at the pre-marked position on the deck house roof as shown.













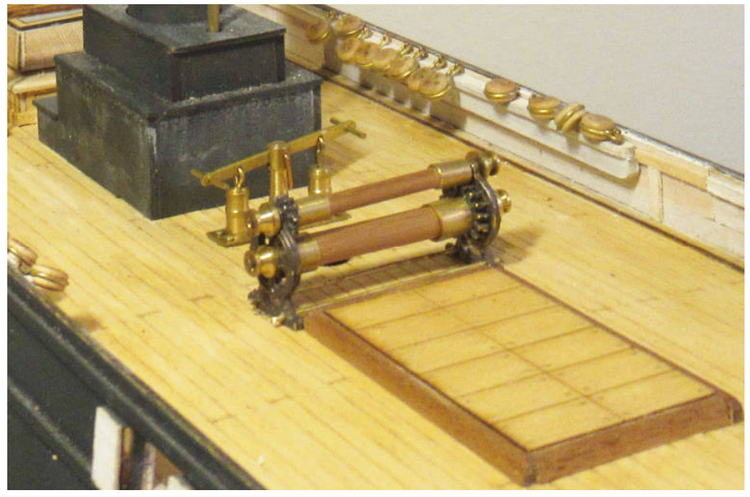










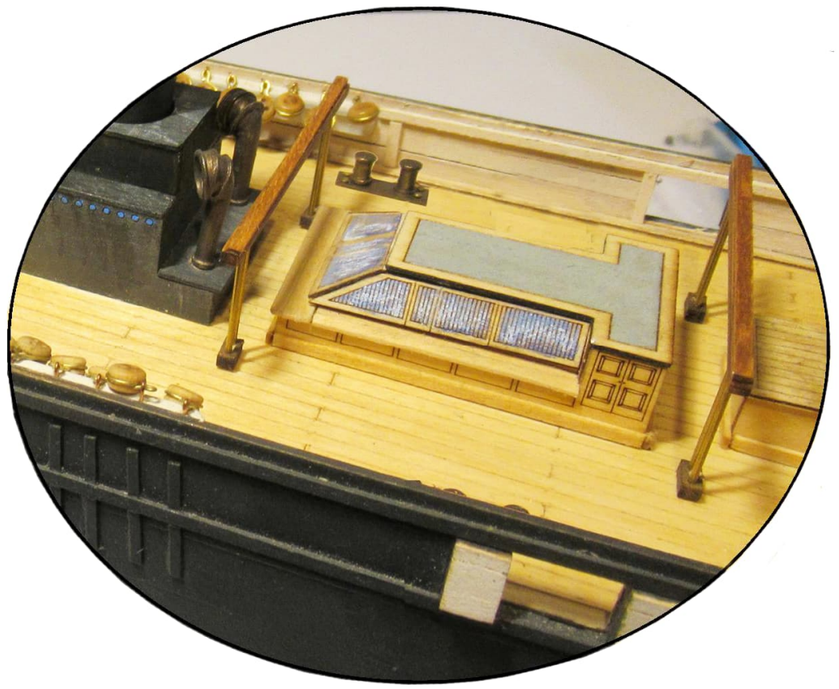


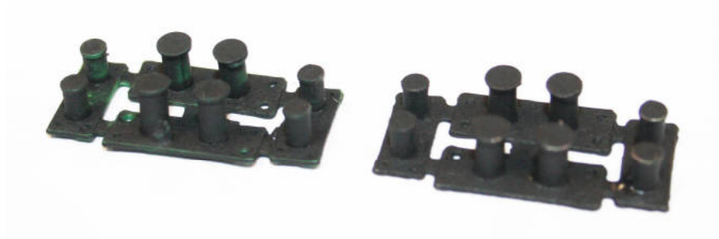
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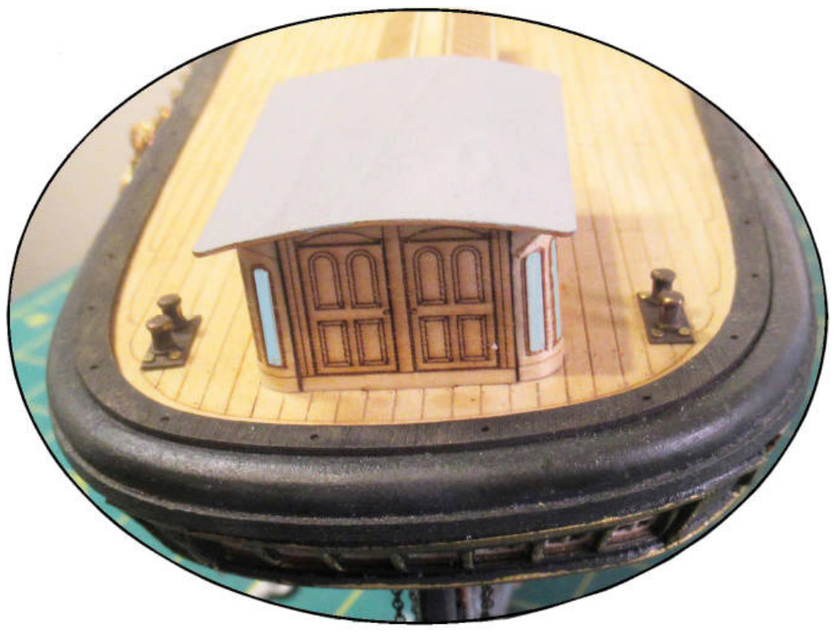
9.27 Main Deck, Quarter Deck and Forecastle Deck Bollards

Identify the 4mm bollards P213 and the 6mm bollards P228. Paint matt black paint - allow to dry. Remove each bollard from their frame. Fix the 4mm bollards to the pre-marked positions on the forecastle and quarter decks as shown. Fix the 6mm bollards to the pre-marked positions on the main deck as shown.











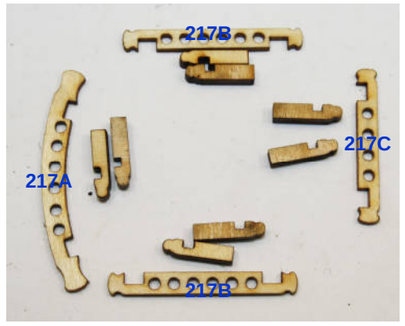
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9.28 Pin Rails, Fife Rail and Mast Plates

Identify the mizzen, main and fore mast plates P204-P206 respectively. Apply matt brown paint to each with a soft cloth. Fix each mast plate in place at its mast hole on the pre-marked positions. Identify the pin rail posts P215, mizzen mast pin rail P216, main mast pin rails P217A-B, foremast pin rails P218, forecastle fire rail posts P219 and forecastle fife rail P220. Fix a pin to the base of all rails posts. Stain all rail posts teak. Assemble each pin rail and the fife rail as shown. Drill holes at the pre-marked positions on the decks. Fix the assembled pin rails and fife rail in place as shown.





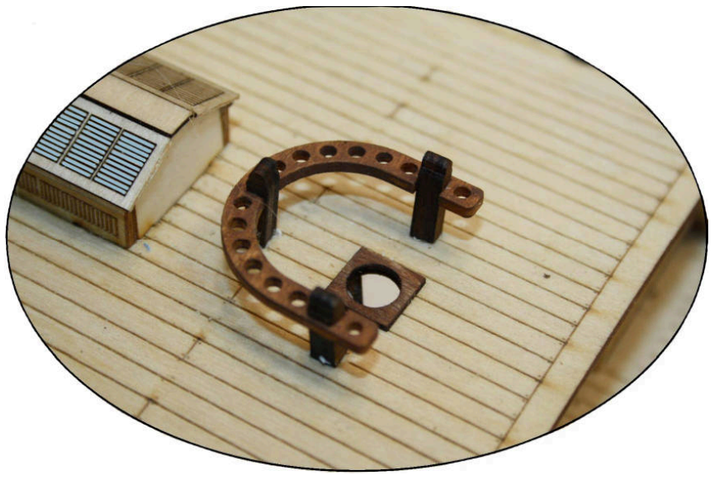




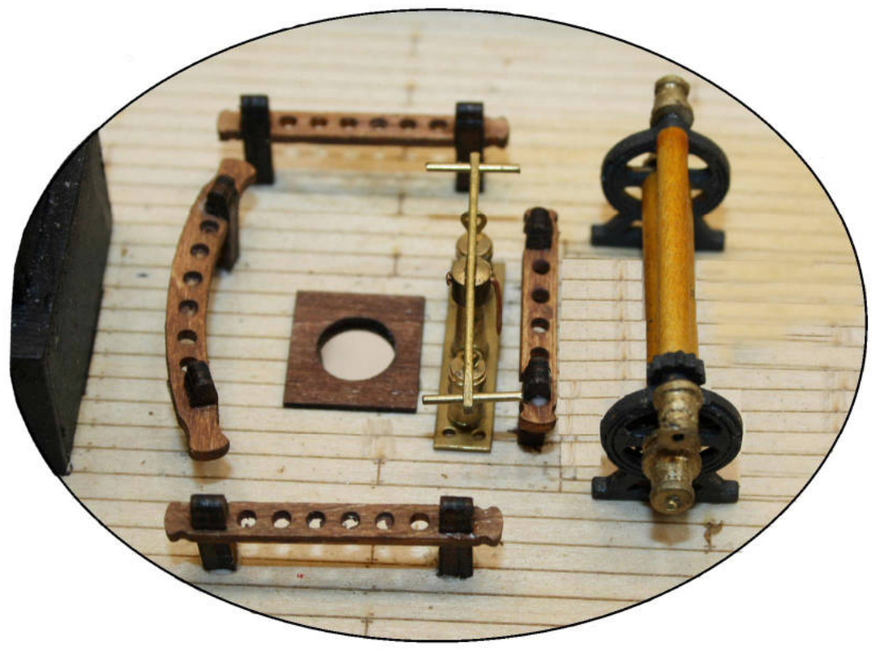




Forecastle Fife Rail



Mizzen Mast



Main Mast



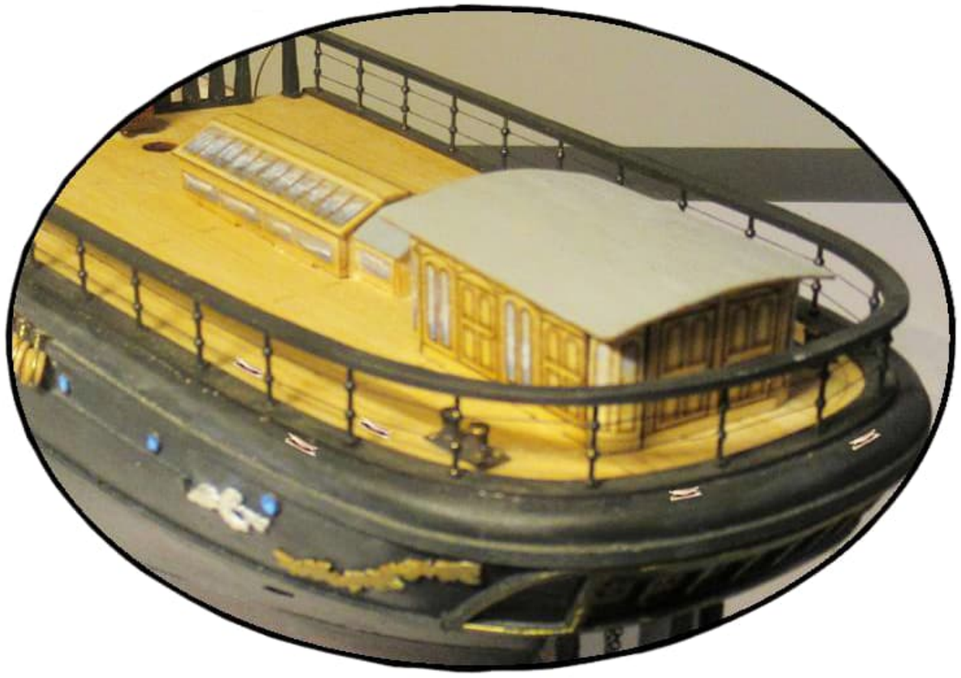
Foremast

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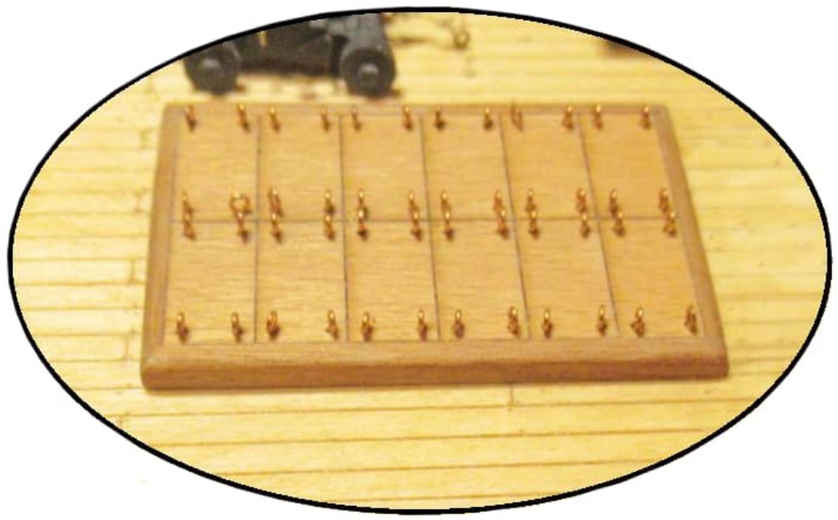
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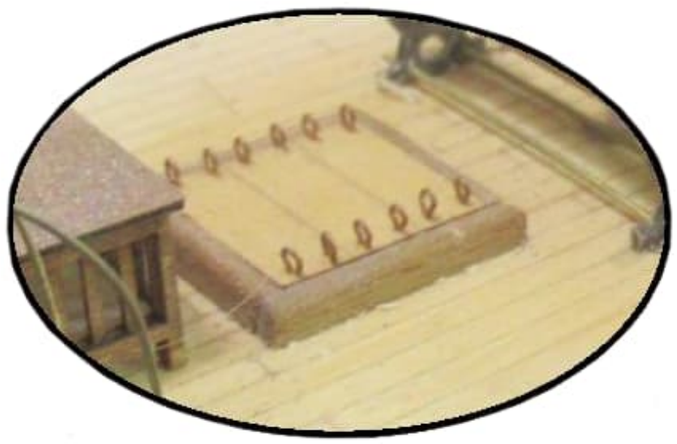
9.29 Cleats
Identify the cleats P240. Fix the cleats in place at the pre-marked positions on the forecastle deck and quarter deck as shown. Also fix cleats to the base of the catheads as shown.





9.30 Hatch Eye Pins
Identify the eye pins P77 - fix in place on the two hatches as shown.

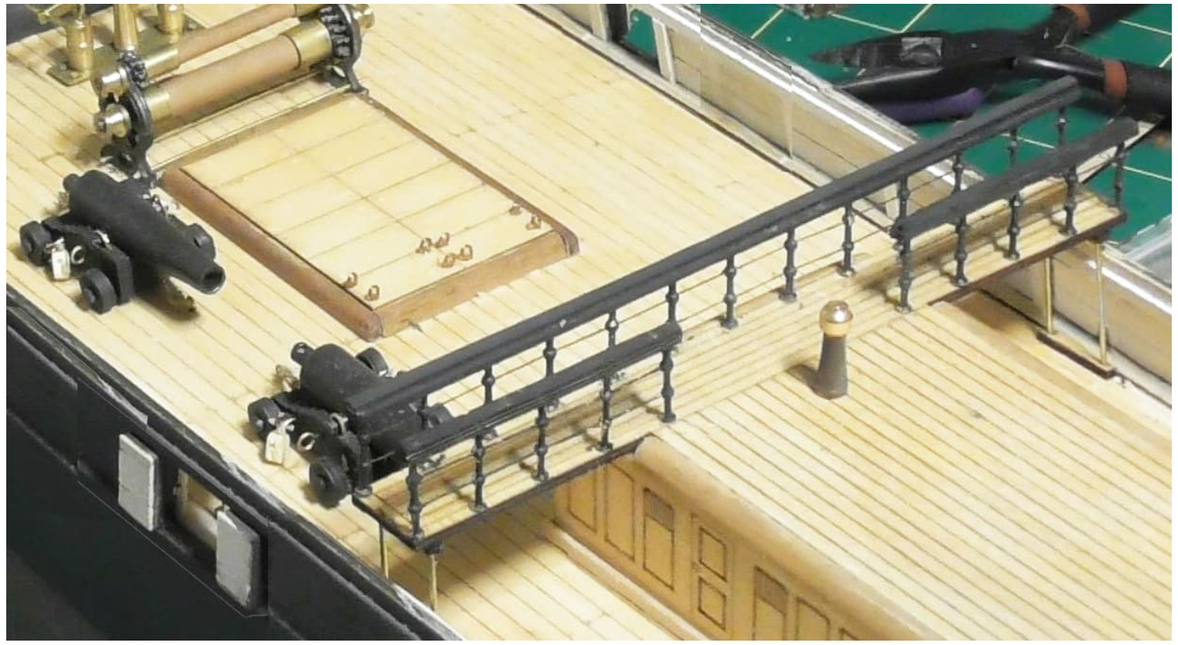




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9.31 Railings - Deck House Bridge, Forecastle and Quarter Deck.

Identify the stanchions P221. Identify the deck house bridge rail tops P222A - P222C. Identify the rail caps P222C - P222D. Fix the stanchions into the pre-cut holes in the bridge. Thread 0.25mm grey rigging cord C5 280 through the stanchion holes. Seize ends with a dab of super glue. Paint the stanchions and thread matt black. Fix the rail tops in place then fix the rail cap in place. Paint matt black as shown. Identify the forecastle rail top P223. Fix the stanchions in place along the stanchion base. Fix eye pins P77 in place as shown. Thread the cord through the stanchions holes - seize ends at the eye pins. Paint the stanchions and thread matt black. Fix the rail top in place - fill holes with wood filler - paint matt black. Identify the quarter deck rail top P224. Fix the stanchions in place along the stanchion base. Thread the cord through the stanchions holes - seize ends with super glue. Paint the stanchions and thread matt black. Fix the rail top in place - fill holes with wood filler - paint matt black.







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9.32 Anchors and Sea King Figurehead

Identify the anchors P225 and assemble as shown - feed the stock hook end through the shank hole - use a needle file to fractionally adjust the hole to fit the stock - once satisfied fit the stock in place and use super glue at the joint of the stock and shank.

Identify the Sea King figurehead P61 - paint matt white and fix to the stem post as shown.



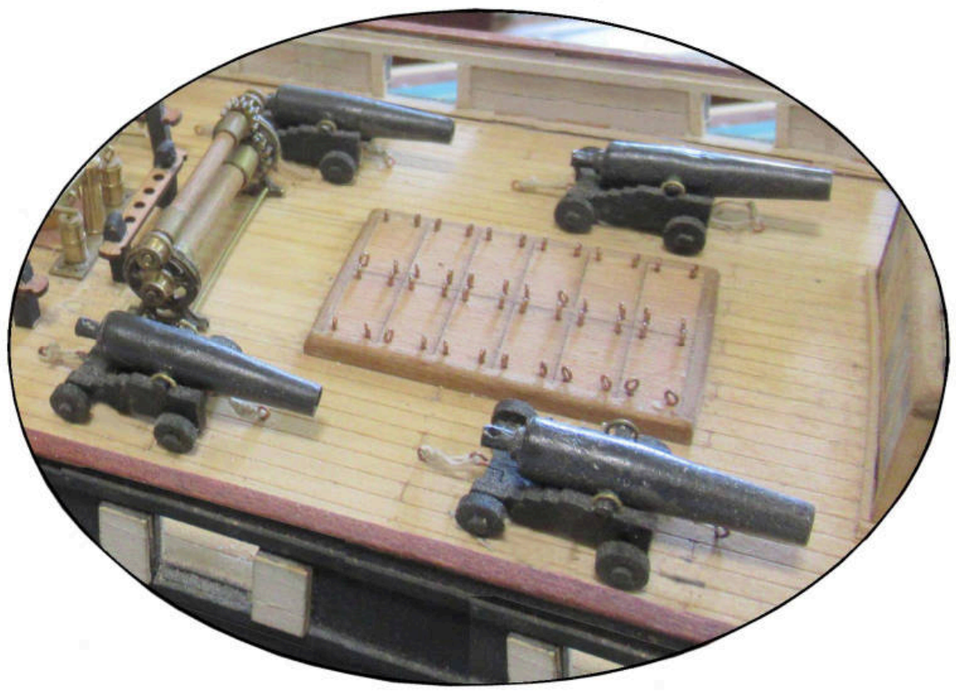




9.33 Cannons

Retrieve the assembled cannons. Indentify the pre-marked circles on the main deck - fix eye pins P77 at each point. Place each cannon in place - fix in place if desired. Rig 0.25mm grey cord C5 P280 between the eye pins on the cannon carriage to the deck eye pins as shown.





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9.34 Boat A Assembly

There are two Boat A. Identify Boat A parts P229 to P223. Follow the steps below to assemble the boat.



Step 1 Shape layer 1 as shown.



Step 2 Glue layer 1 to the keel .



Step 3 Fit layer 2 in place as shown and draw the outline of layer 1 on the underside as shown.



Step 4 Shape layer 2 from the pencil line as shown. Turn the layer over and shape internally from the score line to the internal cut line as shown.



Step 5 Glue layer 2 in place as shown.



Step 6 Fit layer 3 in place as shown and draw the outline of layer 2 on the underside as shown.



Step 7 Shape layer 3 from the pencil line as shown. Turn the layer over and shape internally from the score line to the internal cut line as shown.



Step 8 Glue layer 3 in place as shown.



Step 9 Paint inside of hull matt white.



Step 10 Glue the seat capping in place.



Step 11 Sand the hull to ensure a smooth transition between layer. Use a water moistened wood filler to fill any gaps.



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9.34 Boat A Assembly continued

Step 12 Sand the hull again until satisfied. Repeat use of wood filler if needed.



Step 13 Stain the seat capping with shellac. Repeat for the second boat.

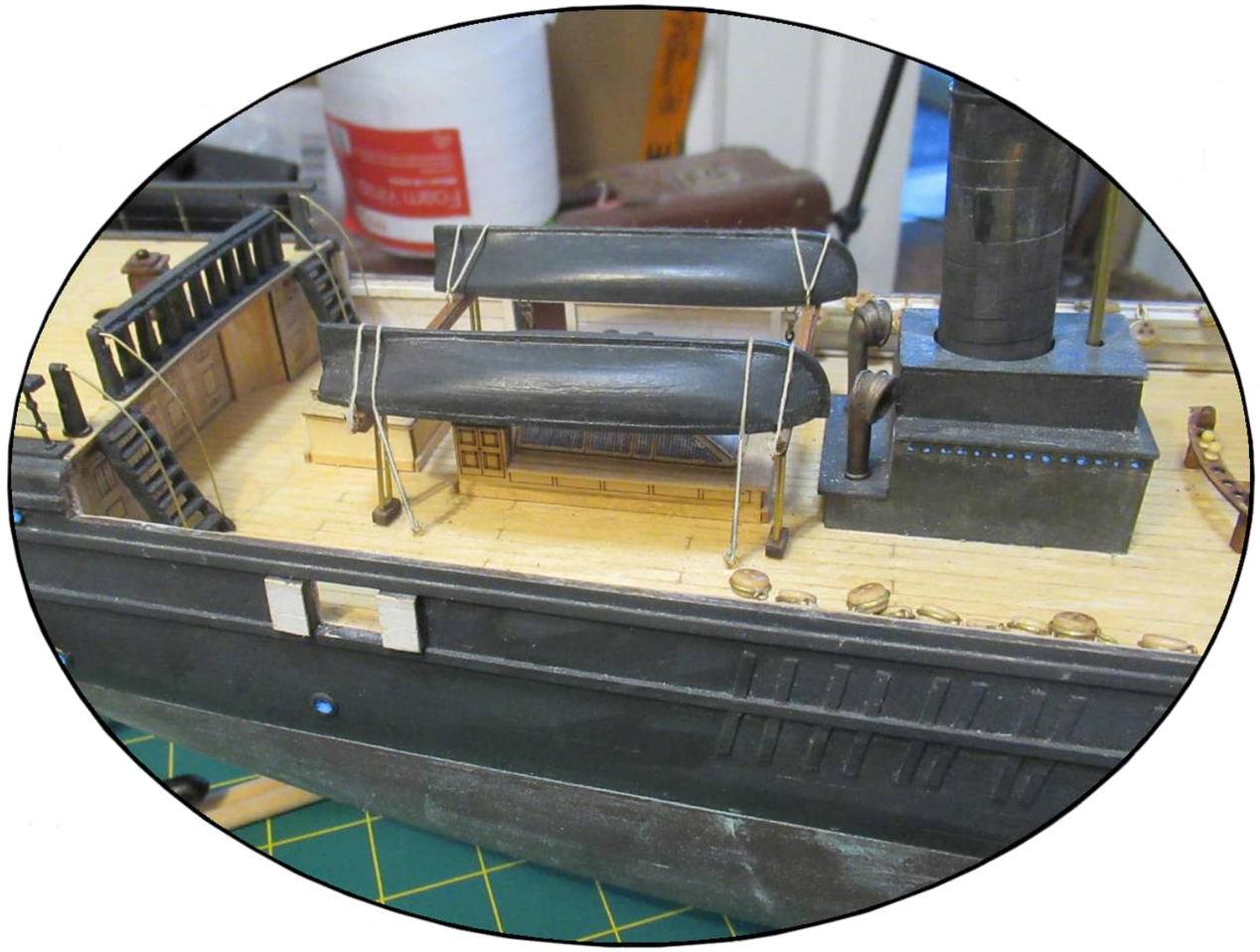


Step 14 Paint the hulls matt black as shown



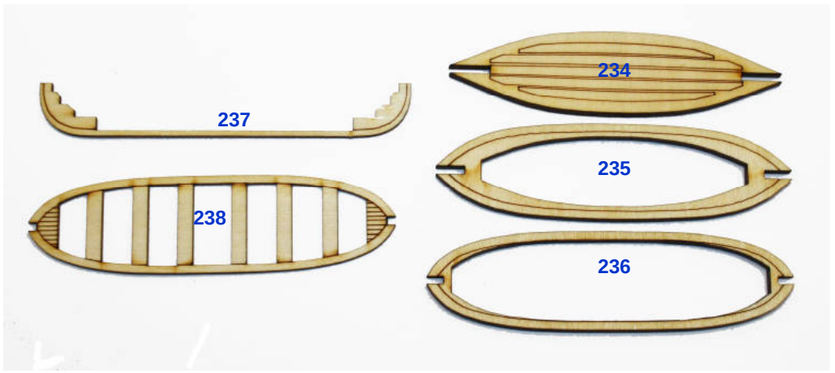
9.35 Boat A Placement

Fix eye pins P77 at the pre-marked locations on the deck. Place the two boats on the boat rack as shown. Use cord C6 P281 to tie the boats in position attaching to the previously fixed eye pins on the racks and deck as shown.



9.36 Boat B Assembly

There are four Boat B. Identify Boat B parts P234 to P238. Turn layer 1 over and shape as for Boat A. Apply shellac to the top side of layer 1. Glue layer 1 to the keel. Paint the stem posts matt white. Take layers 2 & 3 and shape externally and internally as for Boat A. Glue the two layers together - paint matt white as shown. Apply shellac to the seat capping as shown. Glue the assembled layers 2 & 3 in place above layer 1. Glue the seat capping in place as shown. Fix eye pins P77 in place as shown on the four boats. Take two boats and drill a 1.0mm hole 2mm behind the eye pins. Cut two 90mm lengths of 1mm brass wire P242 - straighten the wire - bend one end at 90 degrees - measure to fit the other end into the second hole - bend this end at 90 degrees. Fix the wire into the holes as shown. Identify the calico P239 - cut two 35 x 70mm pieces. Apply white wood glue to the top edges of the boat and fit one piece of calico over the boat as shown - apply the glue to the calico and allow to fully dry. Use a pointed blade knife to trim the excess calico leaving approximately 5mm over hang. Set the four boats aside to be fitted to the model later.



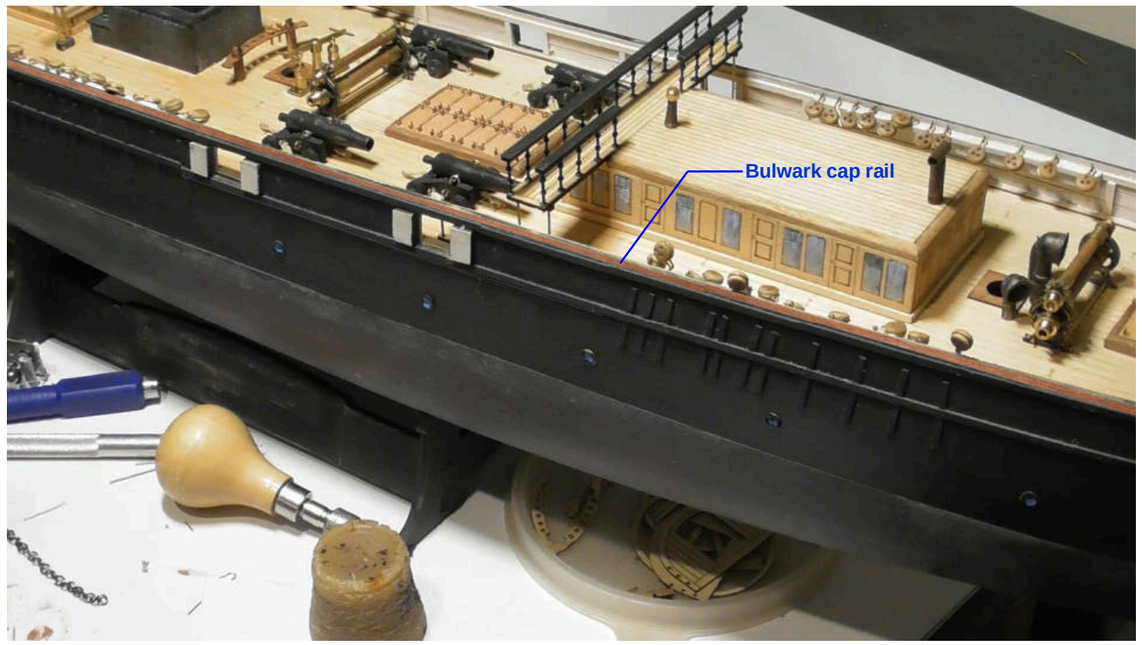


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9.37 Bulwark Cap Rail

Identify the bulwark cap rail P241. Trial fit in place - fractionally adjust as required. Stain rail walnut or paint white as desired. Glue cap rail in place. Repeat for the other side of the hull.







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10.0 Masts, Yards, Gaff, Booms and Bowsprit

The next step is to shape and assemble the masts, yards, bowsprit, gaffs , boom and dolphin striker. Use a mini plane, file and sandpaper to taper and shape the dowels in the diagrams below.

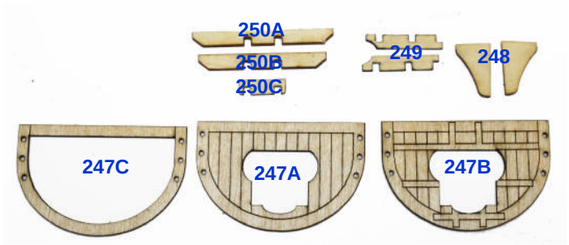
10.1 Mast Tops, Trestle Trees & Cross Trees

10.1.1 Mast Tops

Identify the foremast (FM) mast top parts P247A-C, FM cheeks P248, FM trestle trees P249 and FM cross trees P250A-C. Identify the mainmast (MM) mast top parts P251A-C, MM cheeks P252, MM trestle trees P253 and MM cross trees 254A-C. Identify the mizzenmast (MZ) mast top parts P255A-C, MZ cheeks P256, MZ trestle trees P257 and MZ cross trees P258A-C. To assemble the foremast mast top glue 247A on top of 247B. Use a cotton bud to apply a coat of Tung Oil to both faces of the mast top. Paint 247C matt black and glue in place on top of 247A. Assemble the trestle trees and cross trees as shown - paint matt black and glue in place on the underside face 247B - align with the pre-scored line - as shown. Paint the whole outer edge of the mat top matt black. Set assembled foremast top aside to be fitted to the mast later. Repeat steps for the mainmast and mizzen mast.

10.1.2 Topmast Trestle Trees & Cross Trees

Identify the foremast (FTM) trestle trees P259, cross trees P260 and cheeks P261. Identify the main topmast (MTM) trestle trees P262, cross trees P263 and cheeks P264.Identify the mizzen topmast (MZTM) trestle trees P265, cross trees P266 and cheeks P267. Assemble each topmast trestle and cross trees as shown - paint matt black. Set each aside to be fitted to their respective mast later.





Foremast Mast Top

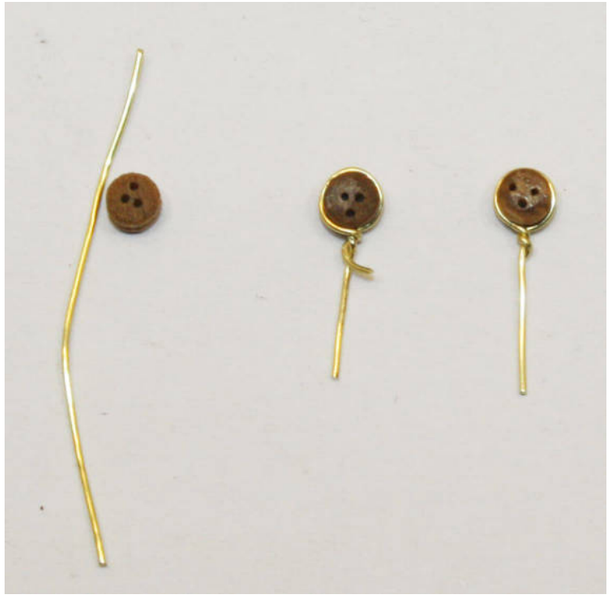


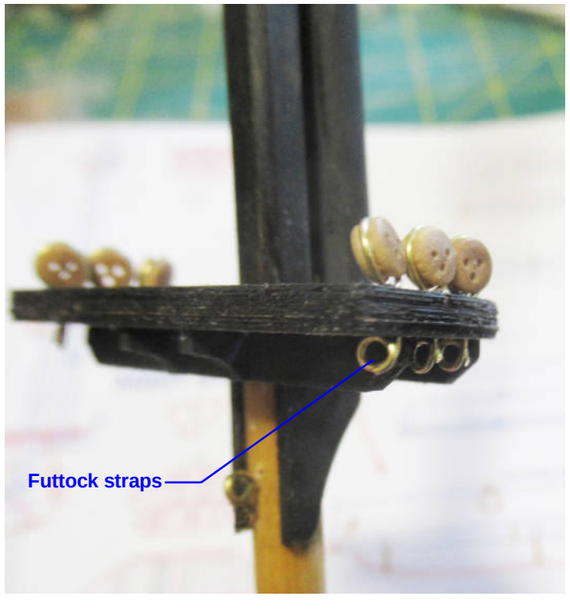


Fore Topmast Trestle & Cross Trees

10.1.3 Mast Top Deadeyes

Before assembling the masts fit the lower deadeyes to futtock straps for the topmast shrouds. Identify the 3mm deadeyes P109.Cut 18 x 35mm lengths on 0.5mm brass wire P75.Wrap a length of the wire around the deadeye as shown - align deadeye holes as shown - twist wire once with pliers - trim-off one tail as shown. Fit to the mast top and use round nose pliers to create a pig-tail as shown - trim-off any excess length if needed. Repeat for each mast top.







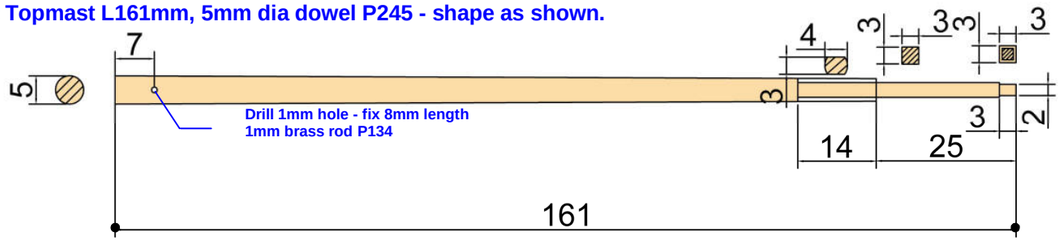
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10.2 Masts

10.2.1 Foremast

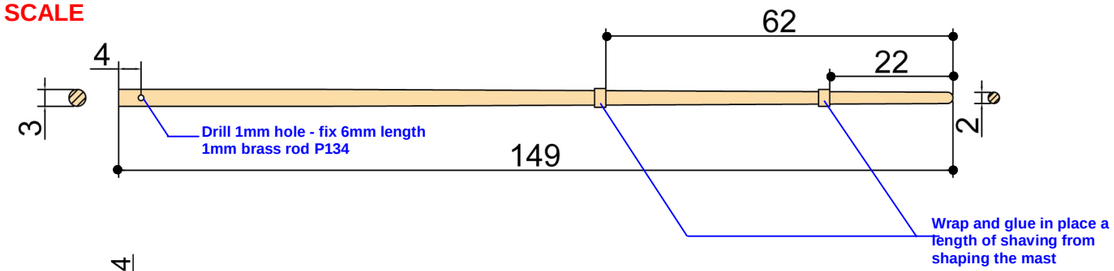
Identify the 3mm dowel P244, 5mm dowel P245 and 8mm dowel P246.Cut each to length and shape according to the figures below. Apply shellac to the masts.

Fore Topmast L161mm, 5mm dia dowel P245 - shape as shown.

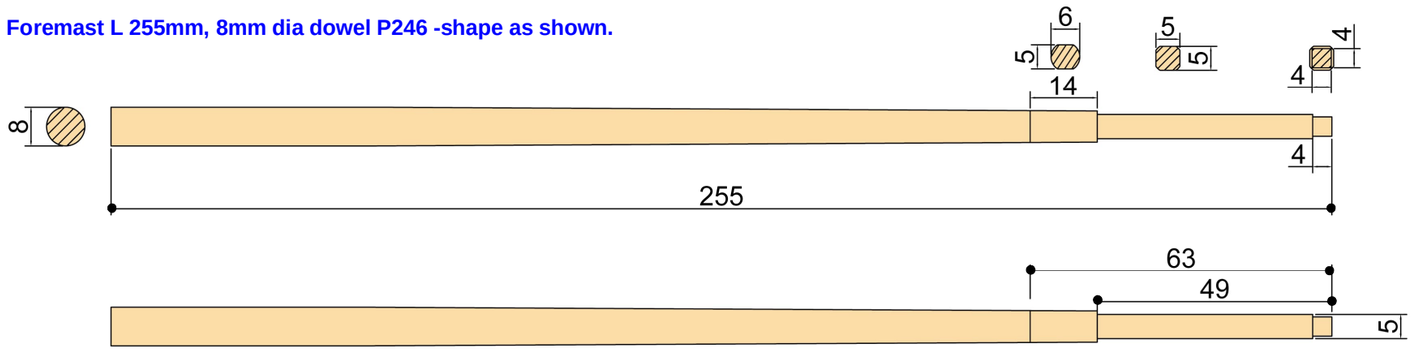


Fore Topgallant Mast L149mm, 3mm dia dowel P244 - shape as shown

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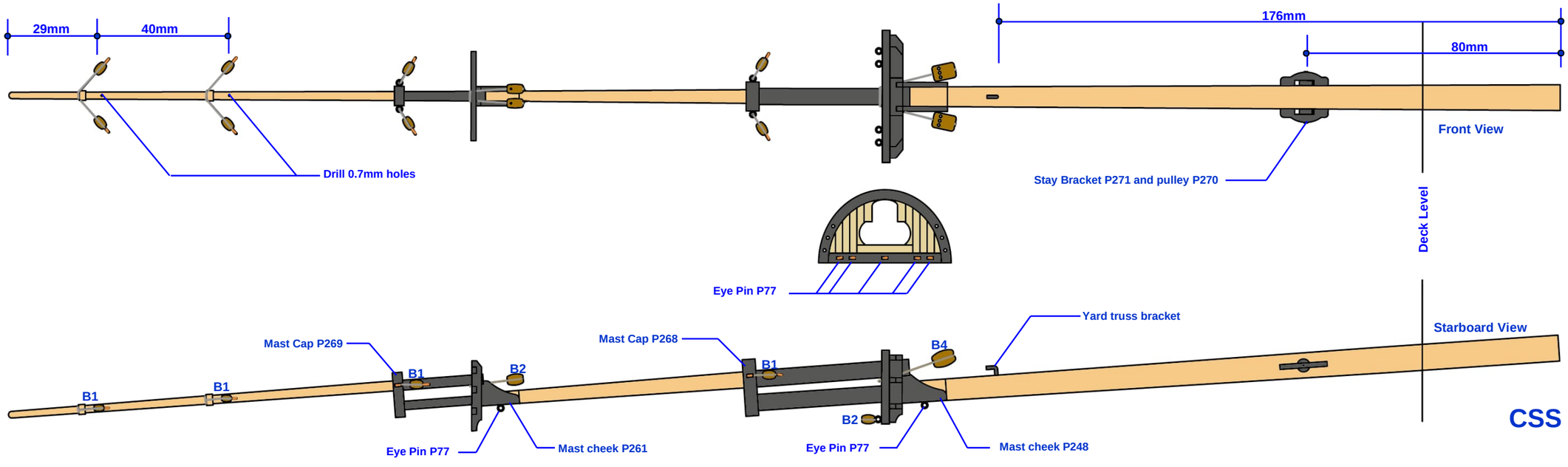


Foremast L 255mm, 8mm dia dowel P246 -shape as shown.



10.2.2 Foremast Assembled

Retrieve the mast top and topmast trestle and cross trees. Fix the mast cheeks P248 in place - make sure they are flush with the back of the mast. Trial fit the mast top in place onto the mast cheeks - once satisfied glue in place. Identify the mast cap P268 - fix in place as shown. Fix the topmast cheeks P261 in place - make sure they are flush with the back of the topmast. Trial fit the assembled topmast trestle and cross trees in place onto the mast cheeks - once satisfied glue in place. Identify the topmast cap P269 - fix in place as shown. Trial fit the topmast in place - once satisfied glue in place. Trial fit the topgallant mast in place - once satisfied glue in place. To make the yard truss bracket use a 10mm length of 1mm brass wire P242 - bend one end at a right angle and fix in place as shown. Identify the stay pulley wheels P270 and brackets P271 - fix in place with a nails P68. Also glue bracket to mast - note wheels are off-set in the bracket to give a larger gap at the top as shown. Paint matt black the parts/areas as shown. Identify blocks B1, B2 and B4 - use cord C5 to attach ring P303 to the lower end of blocks as shown. Fix eye pins P77 as shown. Use cord C6 P281 to tie blocks in place as shown.



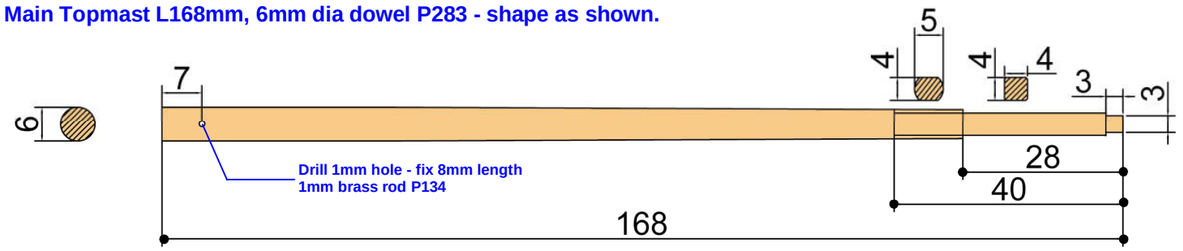
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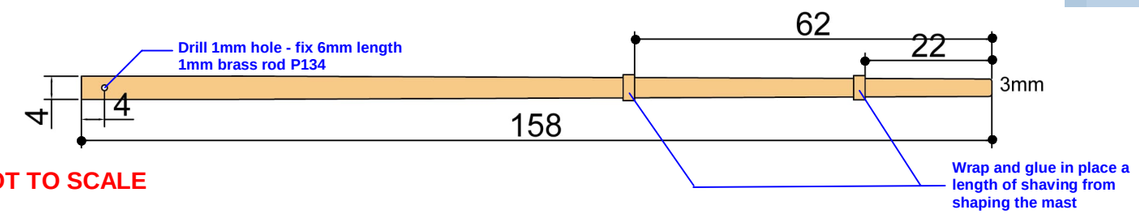
10.2.3 Mainmast

Identify the 4mm dowel P282, 6mm dowel P283 and 8mm dowel P246.Cut each to length and shape according to the figures below. Apply shellac to the masts.

Main Topmast L168mm, 6mm dia dowel P283 - shape as shown.

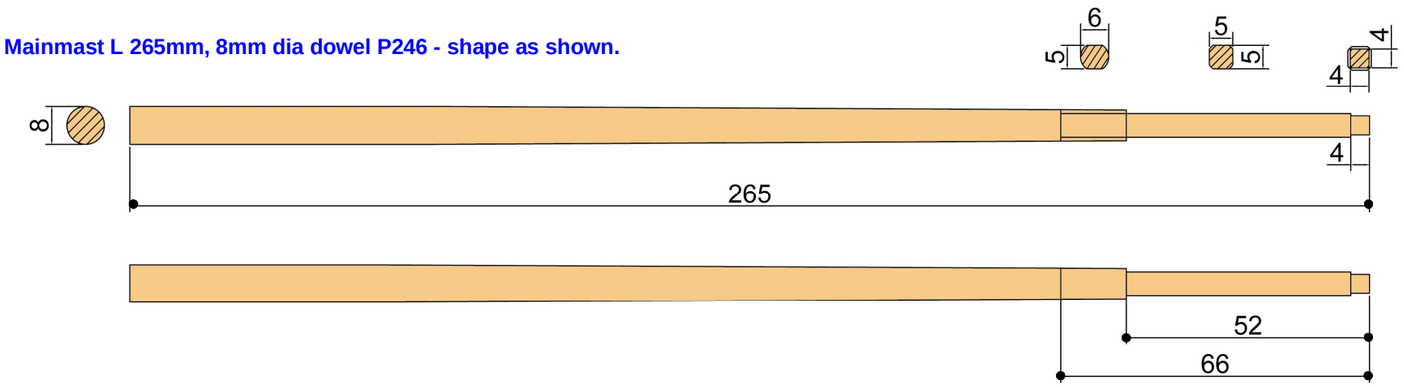


Main Topgallant Mast L158mm, 4mm dia dowel P282 - shape as shown.



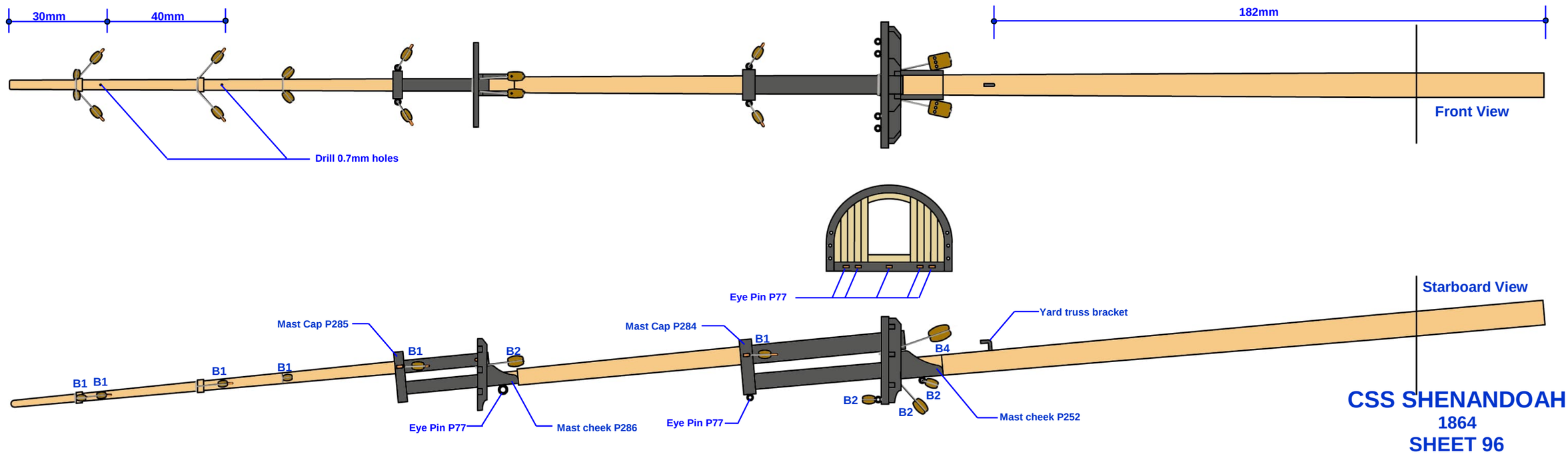
NOT TO SCALE

Mainmast L 265mm, 8mm dia dowel P246 - shape as shown.



10.2.4 Mainmast Assembled

Retrieve the mast top and topmast trestle and cross trees. Fix the mast cheeks P252 in place - make sure they are flush with the back of the mast. Trial fit the mast top in place onto the mast cheeks - once satisfied glue on place. Identify the mast cap P284 - fix in place as shown. Fix the topmast cheeks P286 in place - make sure they are flush with the back of the topmast. Trial fit the assembled topmast trestle and cross trees in place onto the mast cheeks - once satisfied glue in place. Identify the topmast cap P285 - fix in place as shown. Trial fit the topmast in place - once satisfied glue in place. Trial fit the topgallant mast in place - once satisfied glue in place. To make the yard truss bracket use a 10mm length of 1mm brass wire P242 - bend one end at a right angle and fix in place as shown. Paint matt black the parts/areas as shown. Identify blocks B1, B2 and B4 - use cord C5 to attach ring P303 to the lower end of blocks as shown. Fix eye pins P77 as shown. Use cord C6 P281 to tie blocks in place as shown



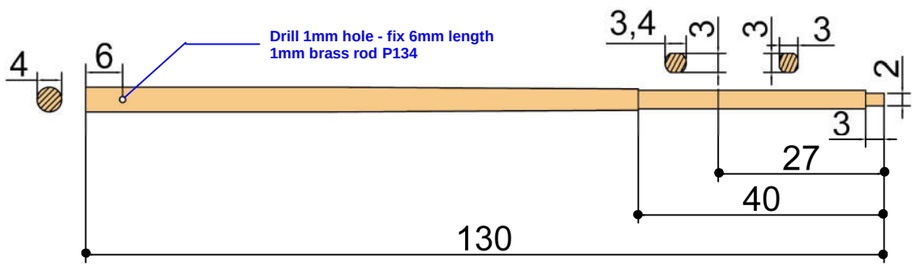
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10.2.5 Mizzenmast

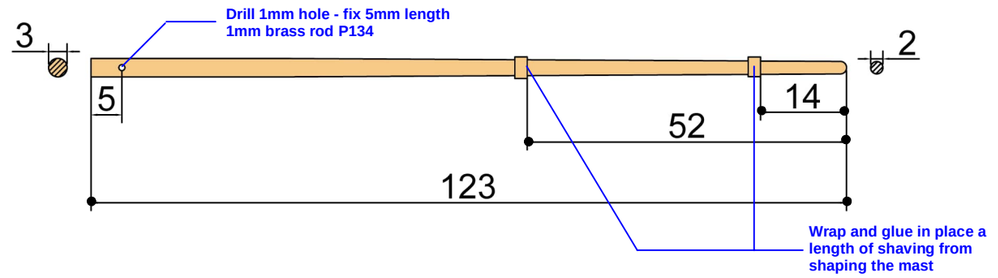
Identify the 3mm dowel P244, 4mm dowel P282 and 6mm dowel P283. Cut each to length and shape according to the figures below. Apply shellac to the masts.

Mizzen Topmast L130mm, 4mm dia dowel P282 - shape as shown.

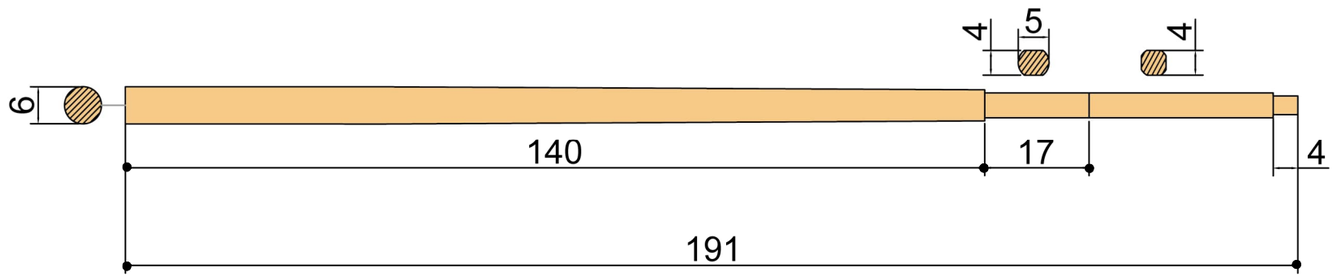
NOT TO SCALE



Mizzen Topgallant Mast L123mm, 3mm dia dowel P244 - shape as shown.

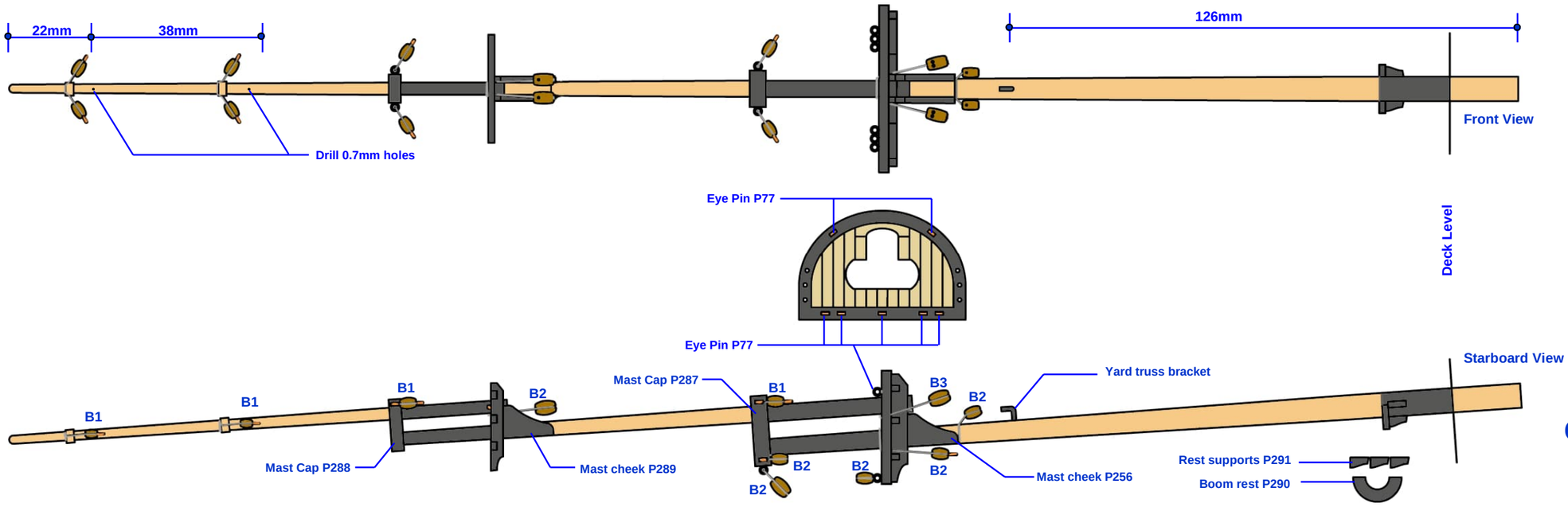


Mizzenmast L 191mm, 6mm dia dowel P283 - shape as shown.



10.2.6 Mizzenmast Assembled

Retrieve the mast top and topmast trestle and cross trees. Fix the mast cheeks P256 in place - make sure they are flush with the back of the mast. Trial fit the mast top in place onto the mast cheeks - once satisfied glue on place. Identify the mast cap P287 - fix in place as shown. Fix the topmast cheeks P289 in place - make sure they are flush with the back of the topmast. Trial fit the assembled topmast trestle and cross trees in place onto the mast cheeks - once satisfied glue in place. Identify the topmast cap P288 - fix in place as shown. Trial fit the topmast in place - once satisfied glue in place. Trial fit the topgallant mast in place - once satisfied glue in place. To make the yard truss bracket use a 10mm length of 1mm brass wire P242 - bend one end at a right angle and fix in place as shown. Identify the boom rest P290 and supports P291 - Fix supports and boom rest in place as shown. Paint matt black the parts/areas as shown. Identify blocks B1, B2 and B3 - use cord C5 to attach ring P303 to the lower end of blocks as shown. Fix eye pins P77 as shown. Use cord C6 P281 to tie blocks in place as shown



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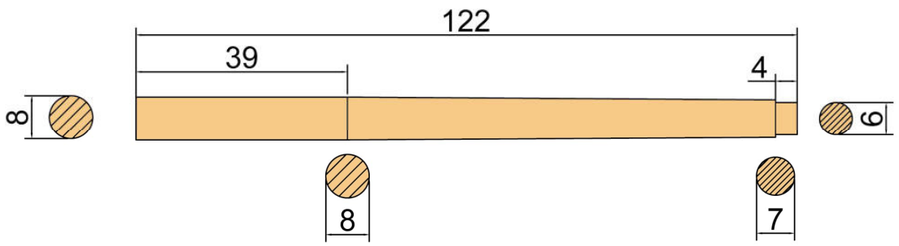
10.3 Bowsprit, Jib boom

Identify the 8mm dowel P246 and 5mm dowel P245. Cut each to length and shape according to the figures below. Identify the bowsprit caps 292 and 293. Assemble the bowsprit and jib boom as shown - fix the bowsprit caps in place as shown. Fix eye pins P243 as shown. Apply shellac to the assembled bowsprit and jib boom. Paint the caps matt black as shown.

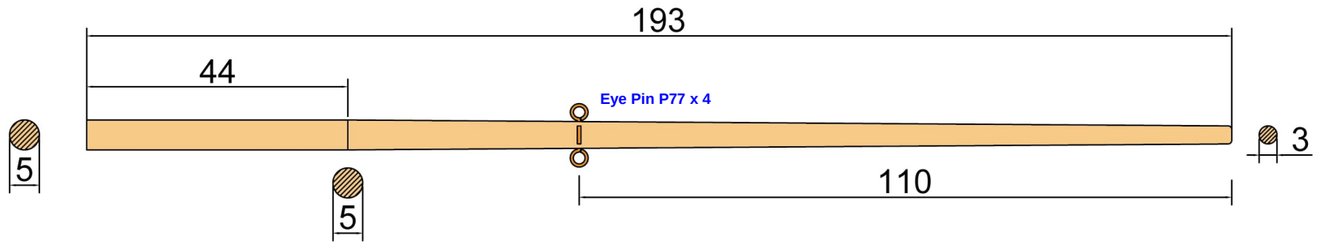
10.4 Dolphin Striker

Identify the 3mm dowel P244. Cut to length and shape as shown. Fix eye pins P77 as shown. Apply shellac.

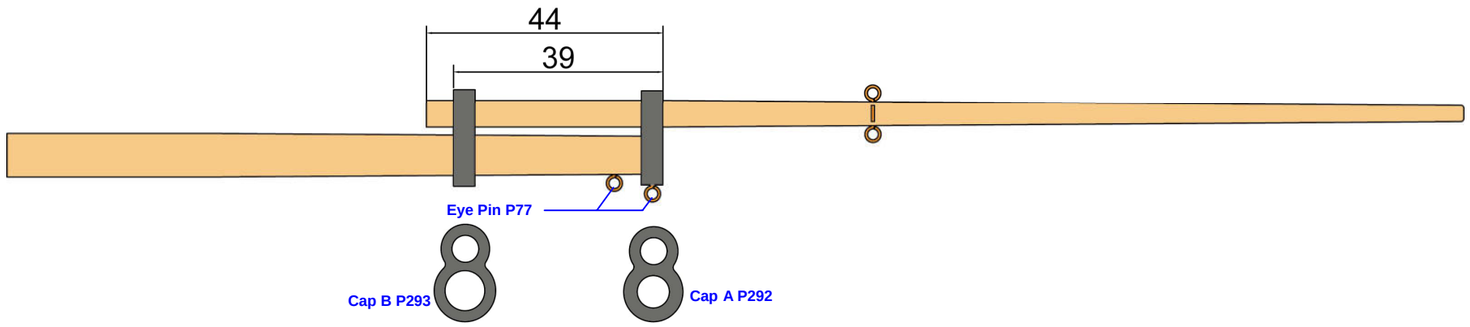
Bowsprit L122mm, 8mm dia dowel P246 - shape as shown



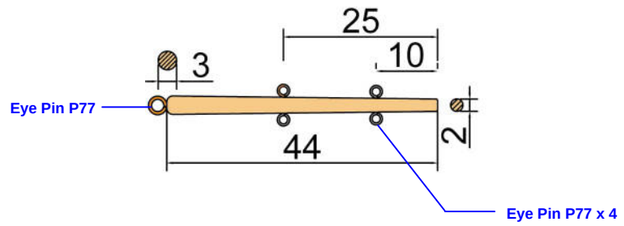
Jib boom L193mm, 5mm dia dowel P245 - shape as shown



NOT TO SCALE



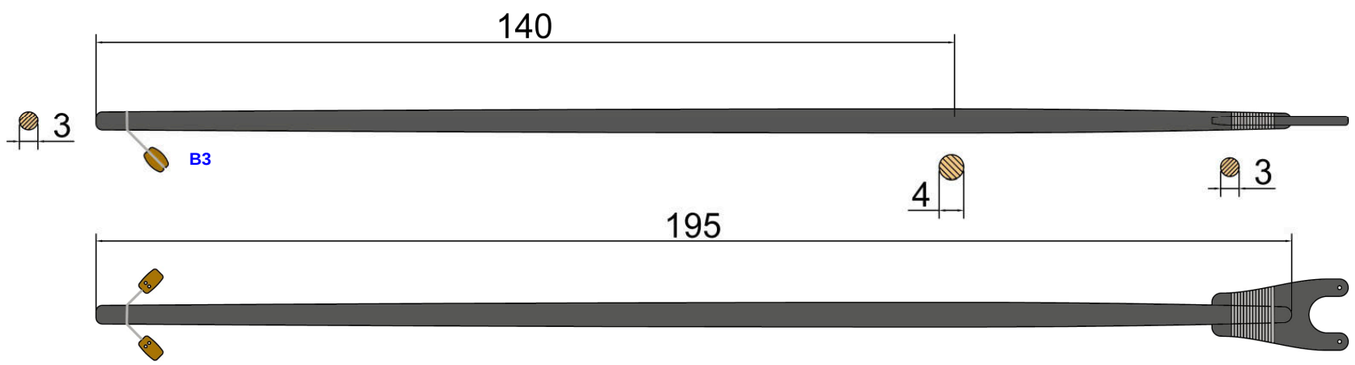
Dolphin striker L44mm 3mm dia dowel P244 - shape as shown



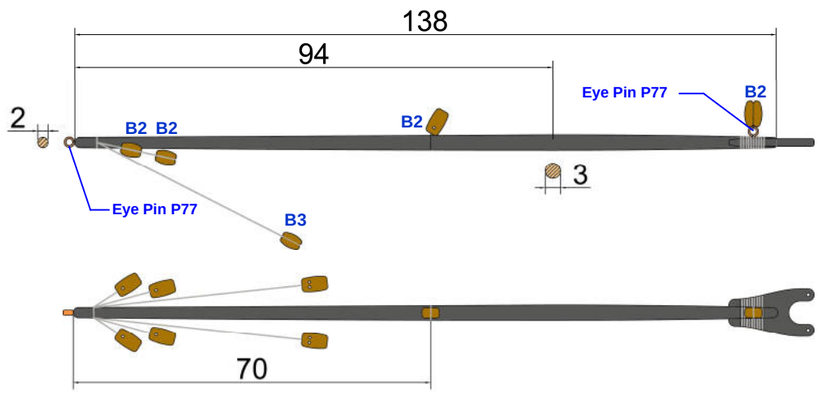
10.5 Mizzen Boom and Gaff

Identify the mizzen boom yoke P294 and the mizzen gaff yoke P295. Identify the 4mm dowel P282 and 3mm dowel P244. Cut each to length and shape according to the figures below. Shape and fit the yokes. Paint the boom and gaff matt black as shown. Fit eye pins P77 as shown. Identify blocks B2 & B3. Use cord C6 P281 to tie the blocks in place as shown. Use cord C6 as lashing over each yoke joint.

Mizzen Boom L195mm, 4mm dia dowel P282 - shape as shown.



Mizzen Gaff L138mm, 3mm dia dowel P244 - shape as shown.



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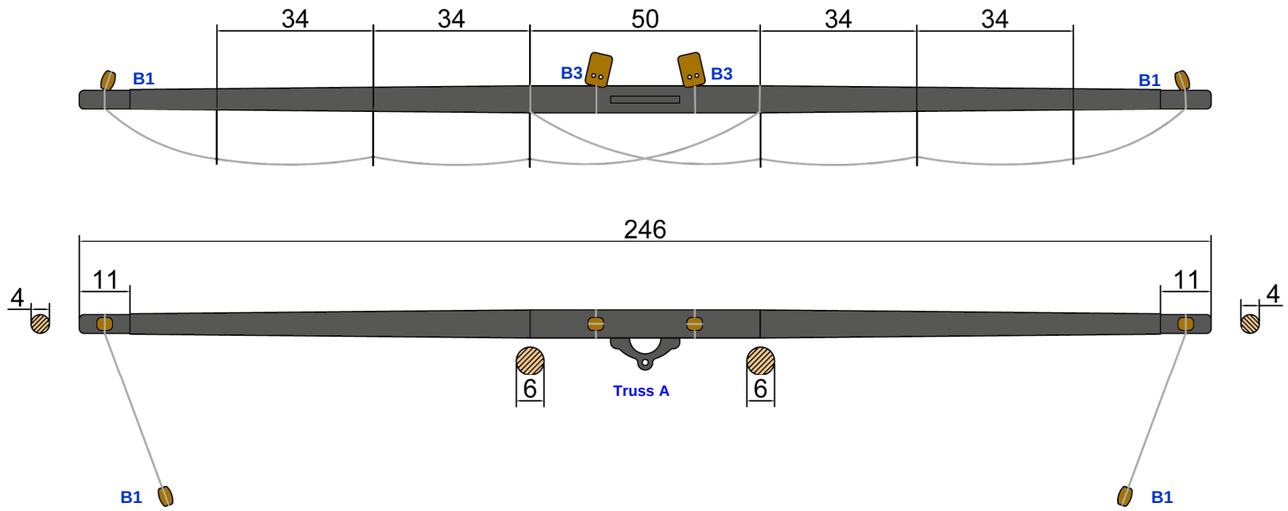
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10.6 Foremast Yards

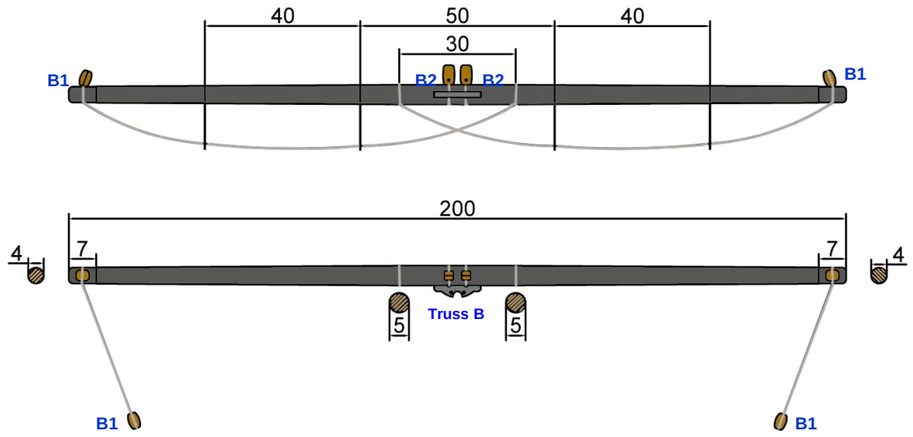
Identify the relevant dowels. Shape as shown. Identify the yard trusses A P296, B P297, & C P298 - pin and glue each in place at the centre of yards as shown. Identify eye pins P299 - drill 0.7mm holes into yard as shown and fix the eye pins in place as footrope stirrups. Identify blocks B1, B2 and B3 - use cord C6 to attach to yards as shown. Use cord C6 as the footropes and pendants. All pendants are 65mm in length.

Yard L246mm, 6mm dia dowel P283 - shape as shown

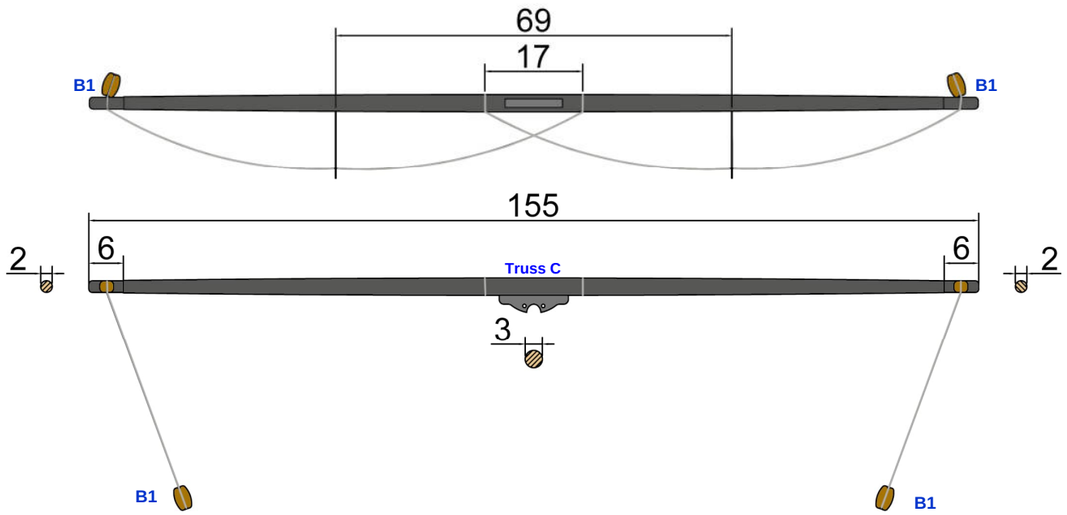
NOT TO SCALE



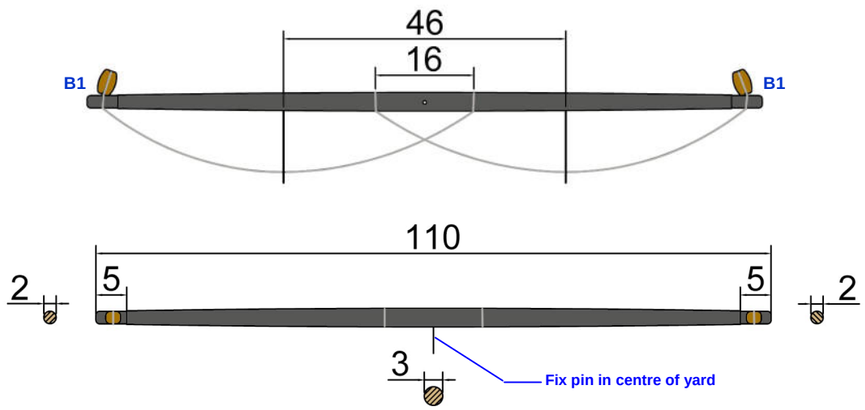
Lower Topsail Yard L200mm, 5mm dia dowel P245 - shape as shown

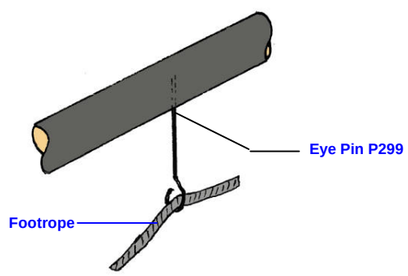


Upper Topsail Yard L155mm, 3mm dia dowel P244 - shape as shown



Topgallant Yard L110mm, 3mm dia dowel P244 - shape as shown





Footrope Stirrup & Footrope

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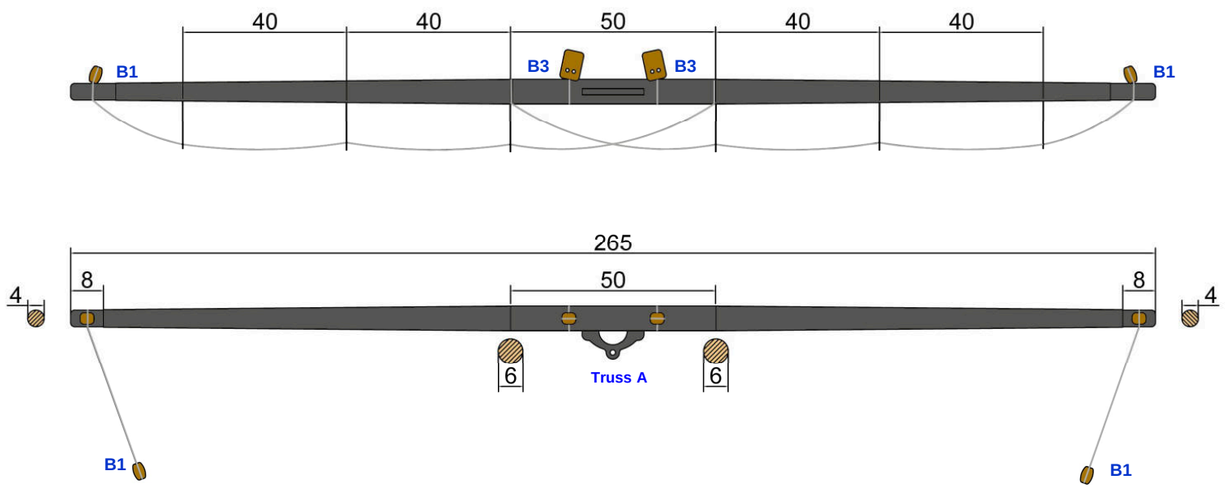
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10.7 Mainmast Yards

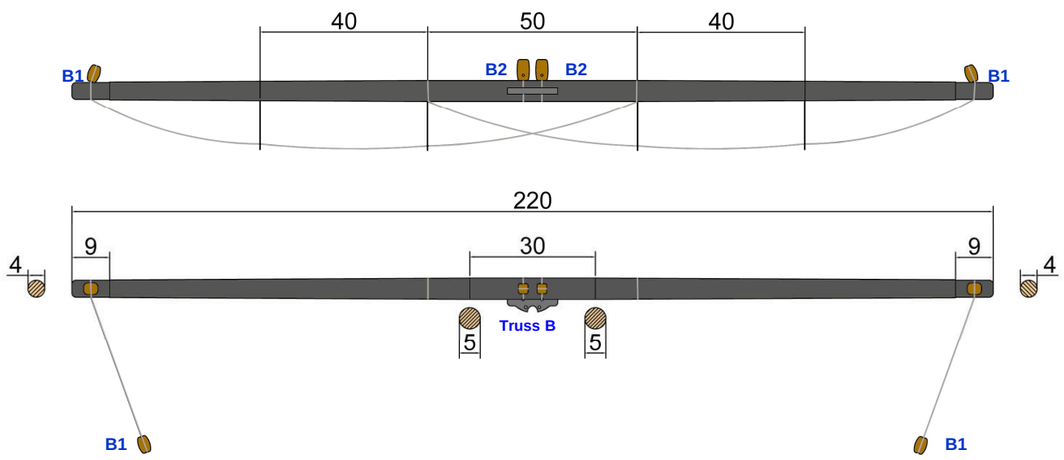
Identify the relevant dowels. Shape as shown. Identify the yard trusses A,P296, B P297, & C P298 - pin and glue each in place at the centre of yards as shown. Identify eye pins P299 - drill 0.7mm holes into yard as shown and fix the eye pins in place as footrope stirrups. Identify blocks B1, B2 and B3 - use cord C6 to attach to yards as shown. Use cord C6 as the footropes and pendants. All pendants are 65mm in length.

NOT TO SCALE

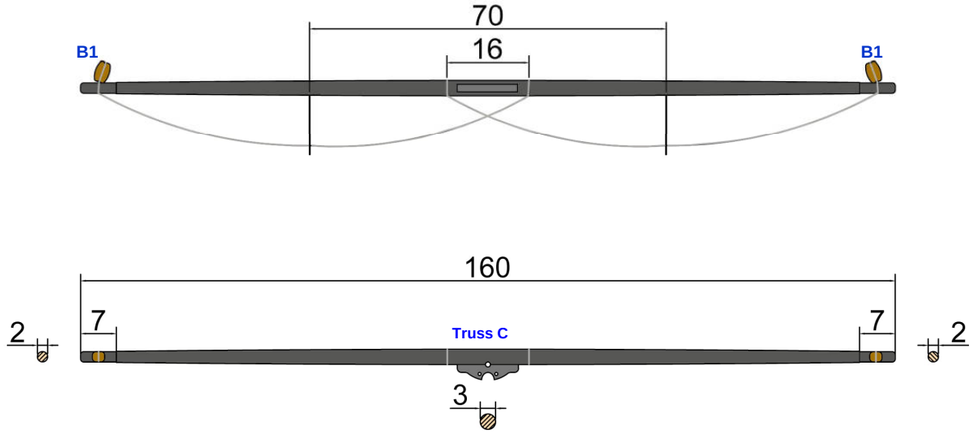
Yard L265mm, 6mm dia dowel P283 - shape as shown



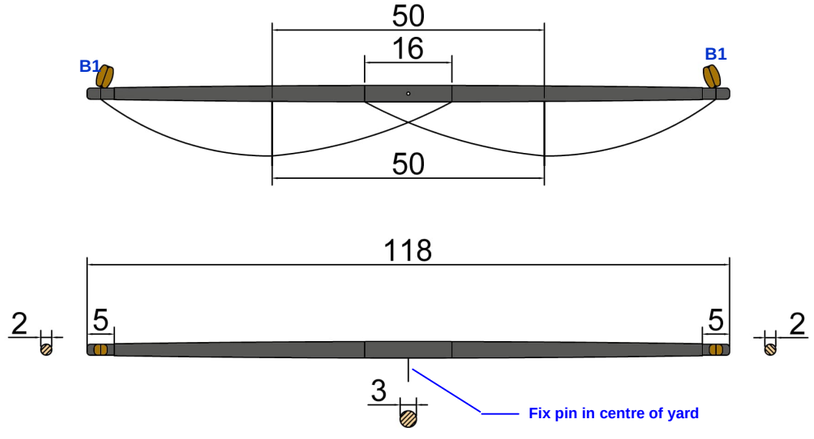
Lower Topsail Yard L220mm, 5mm dia dowel P245 - shape as shown



Upper Topsail Yard L160mm, 3mm dia dowel P244 - shape as shown



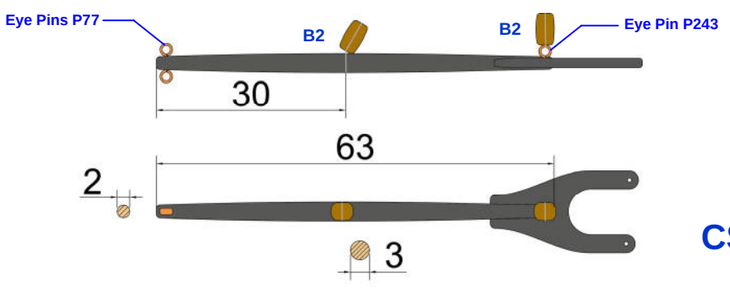
Topgallant Yard L118mm, 3mm dia dowel P244 - shape as shown



10.8 Main Gaff

Identify the main gaff yoke P302 - identify the 3mm dowel P244. Cut to length and shape according to the figure below. Shape and fit the yoke. Paint the gaff matt black as shown. Fit eye pins P77 as shown. Identify blocks B2. Use cord C6 P281 to tie the blocks in place as shown.

Main Gaff L63mm, 3mm dia dowel P244 - shape as shown



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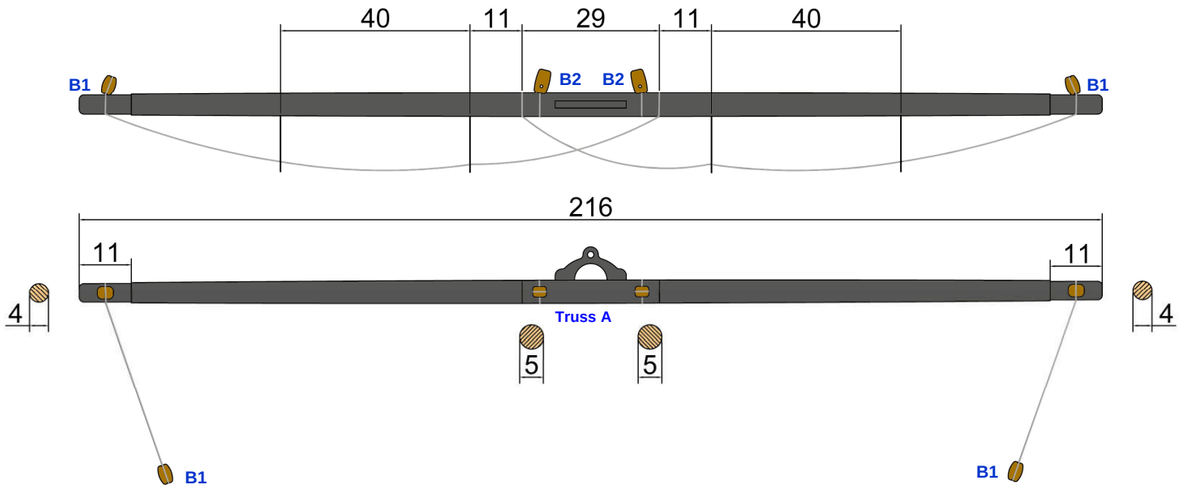
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10.9 Mizzenmast Yards

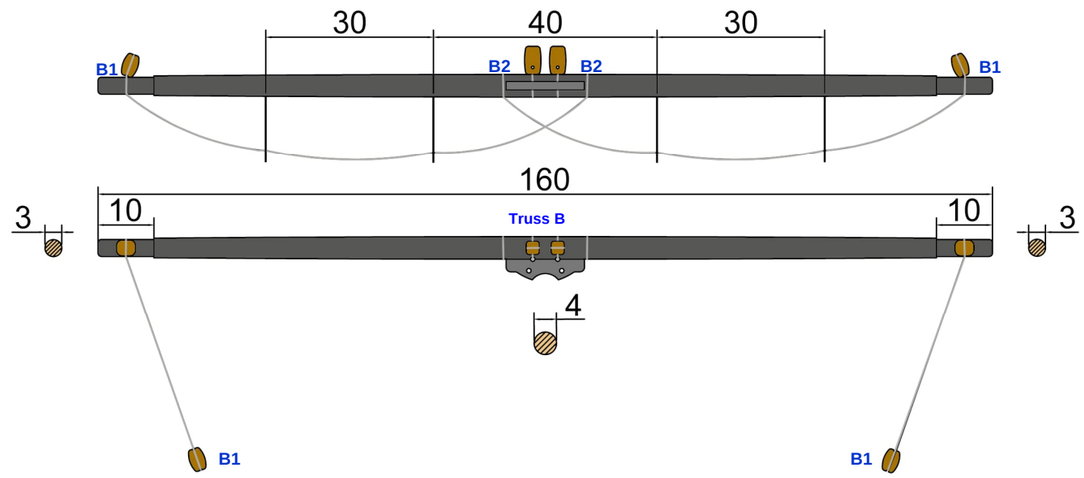
Identify the relevant dowels. Shape as shown. Identify the yard trusses A, P296, B P297, & C P298 - pin and glue each in place at the centre of yards as shown. Identify eye pins P299 - drill 0.7mm holes into yard as shown and fix the eye pins in place as footrope stirrups. Identify blocks B1 and B2 - use cord C6 to attach to yards as shown. Use cord C6 as the footropes and pendants. All pendants are 65mm in length. **Note:** Pendant direction on main yard is forward.

NOT TO SCALE

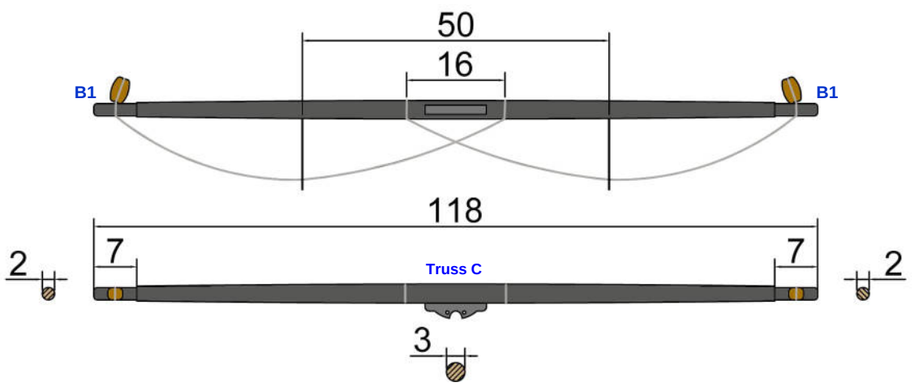
Yard L216mm, 5mm dia dowel P245 - shape as shown



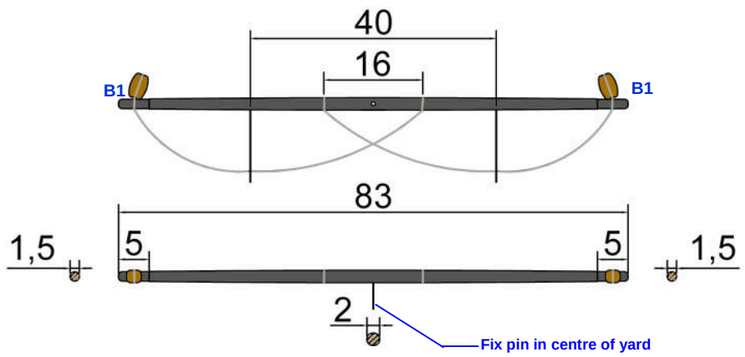
Lower Topsail Yard L160mm, 4mm dia dowel P282 - shape as shown



Upper Topsail Yard L118mm, 3mm dia dowel P244 - shape as shown



Topgallant Yard L83mm, 2mm dia dowel P308 - shape as shown



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11.0 Rigging

Completing the rigging can be complicated and time consuming. However, following the “golden rule” for rigging of working from the centre and lower parts of the model and working up and out trying to avoid difficult and confined spaces, will assist in the process. Also taking your time with this building step will produce a superior looking model.

11.1 Types of Rigging

The rigging of a ship can be divided into two main parts:
1. “Standing” rigging, which is used to support the masts and bowsprit.
2. “Running” rigging, which is used to manipulate yards and sails through pulley blocks.

On an “actual” ship any rigging that did not pass through a pulley block was coated with tar to help prevent it rotting. To simulate this the cord supplied in the kit for the standing rigging is black. The running rigging is grey.

11.2 Preparation for Rigging

If needed drill out the holes in the blocks and deadeyes to facilitate the threading of the rigging cord when the time comes. For the most inaccessible blocks, insert a short piece of thin rigging cord through the hole and glue it to itself forming a loop. Later, when you wish to insert the permanent running rigging you cut the loop, glue the new cord to one end and pull it through the hole using the other end of the pilot cord. Use rigging wax to eliminate the “fur” on the rigging cords.

There are a few points to remember when rigging.
- Never cross rigging lines with each other.
- Never run rigging lines on the forward side of the yards.
- Never bend rigging lines around obstacles.
- Never run rigging lines through ratlines.
- Never make knots in rigging lines.

11.3 Typical Rigging Applications

The following figures represent a range of rigging applications that may be encounter when rigging a model.

Rigging References:

1. Petersson, Lennarth: “Rigging Period Ship Models” Chatham Publishing, London 2000.
2. Mansir, A. Richard: “A Modeller’s Guide to Rigging” Moonraker Publication, USA 1981.
3. Mastini, Frank: “Ship Modeling Simplified” International Marine, Maine 1990.
4. zu Mondfeld: “Historic Ship Models” Sterling Publishing, New York 1989.

Reeving Blocks



One hole blocks



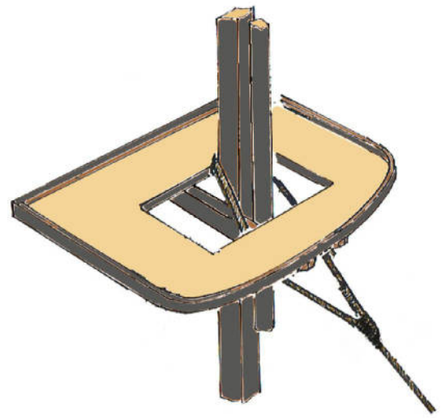
One hole to two hole blocks



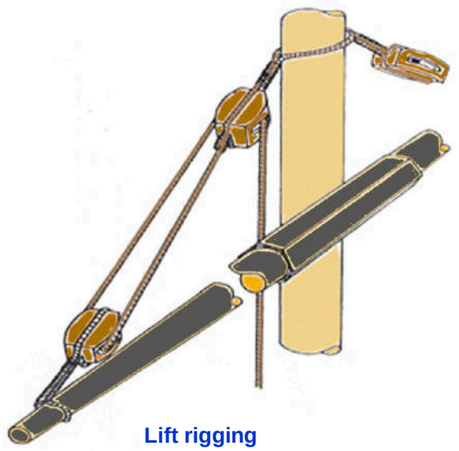
Two hole to three hole blocks



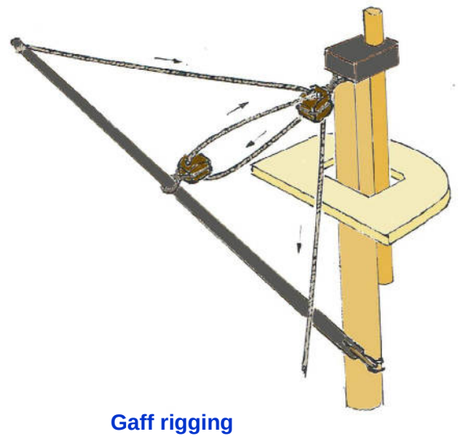
Forestay at topmast head



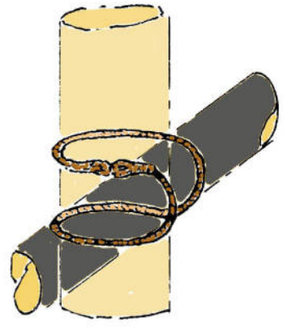
Forestay at mast head



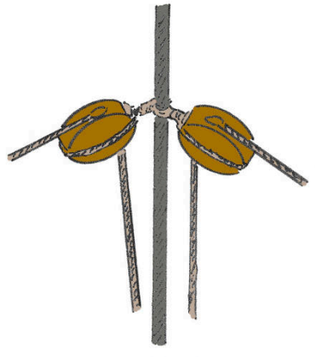
Lift rigging



Gaff rigging



Rope Truss



Brace blocks

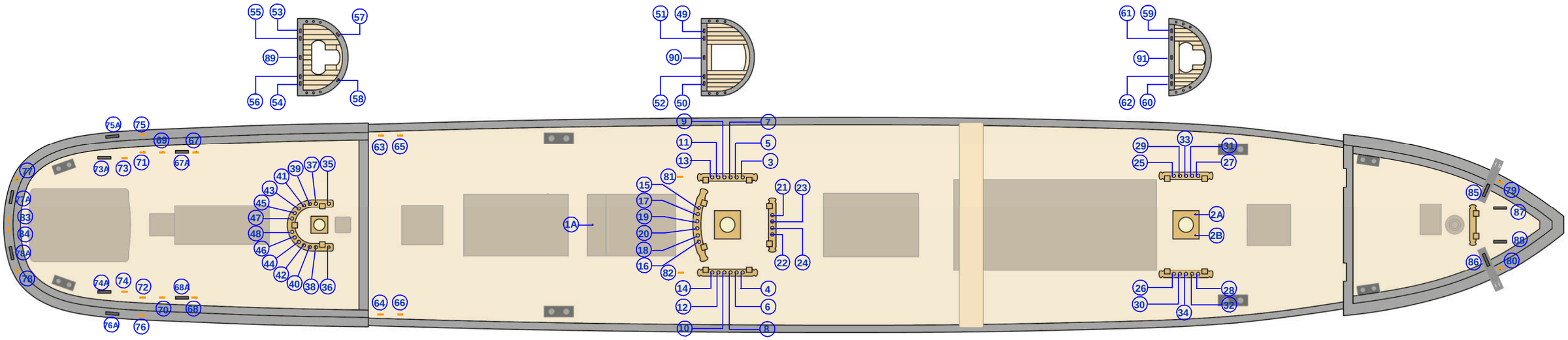


Sling

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11.4 Belaying Plan

The Belaying Plan shows where rigging cords are terminated. Fit and fix eye pin P77 at points: 1A, 2A, 2B and 49 to 82 and 89, 90 & 91. Fix cleats P240 at points 67A, 68A, 73A, 74A, 75A, 76A, 77A, 78A, 85, 86, 87 and 88. Attached block B1 with ring P302 to points 73, 74, 77 & 78. Attach block B1 to points 62, 67, 68, 89, 90 & 91. Attach block B2 with ring P302 at points 77 & 78. Fit belaying pins P304 to the fore, main and mizzen mast pin rails.



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11.5 Fit Masts and Bowsprit

Retrieve the assembled masts and bowsprit. Trial fit each mast in place - make sure the three masts are in line along the length of the hull. Once satisfied glue each mast in place. Allow the glue to set fully. Trial fit the bowsprit - make sure it is in line with the masts - once satisfied glue in place. Allow the glue to set fully. Attach the dolphin striker as shown.

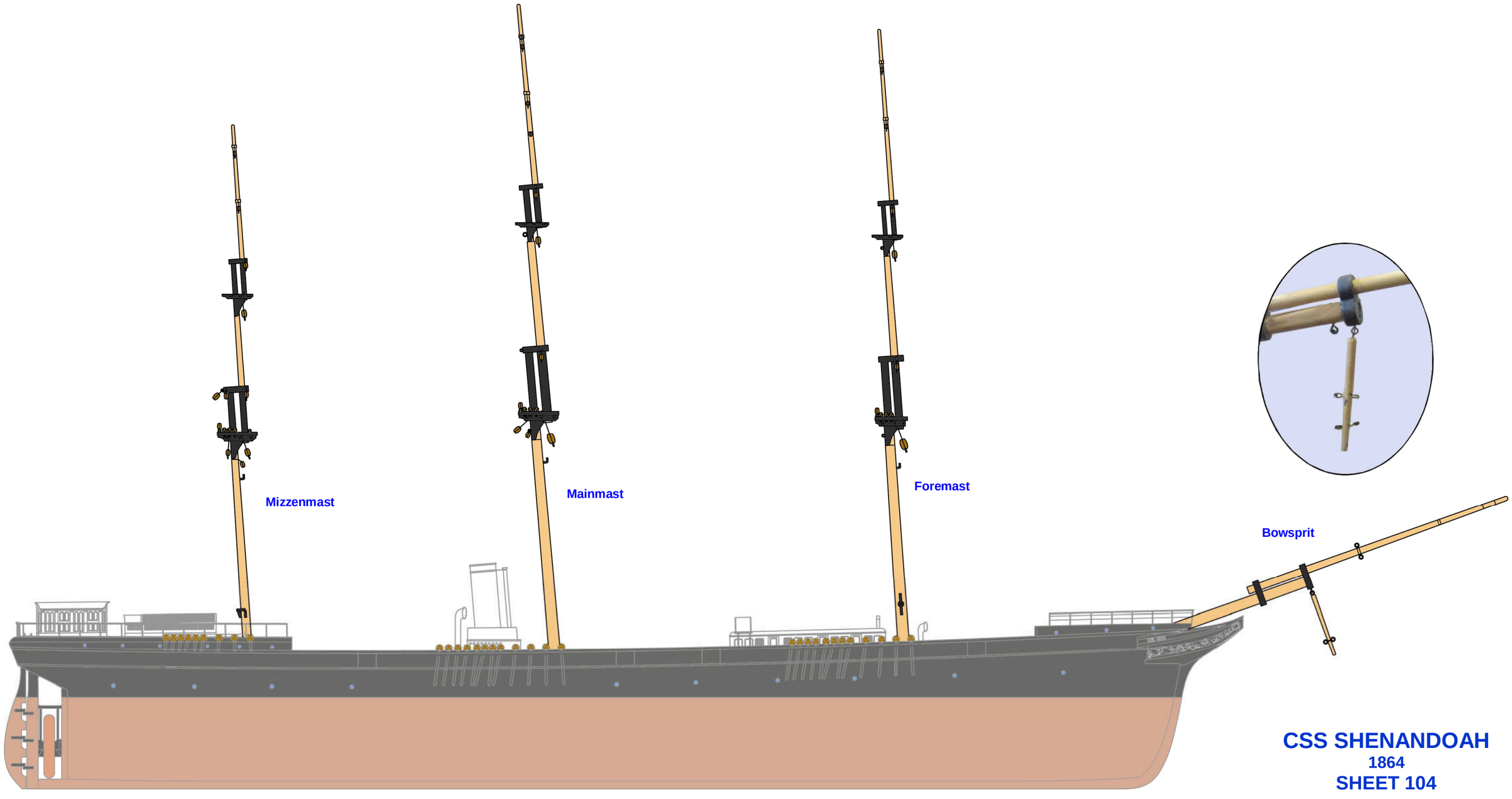
12.0 Standing Rigging

The standing rigging includes the rigging of the forestays, backstays, bowsprit stays and is completed before the running rigging. Completing the standing rigging is fairly straightforward and should present few difficulties. The "golden rule" for rigging is to work from the centre and lower parts of the model and work up and out trying to avoid difficult and confined spaces.

It is recommended to complete the standing rigging in the following sequence:

1. Forestays
2. Shrouds
3. Backstays - Note: before fitting backstays install the mainmast gaff and mizzenmast gaff and boom.
4. Bowsprit rigging

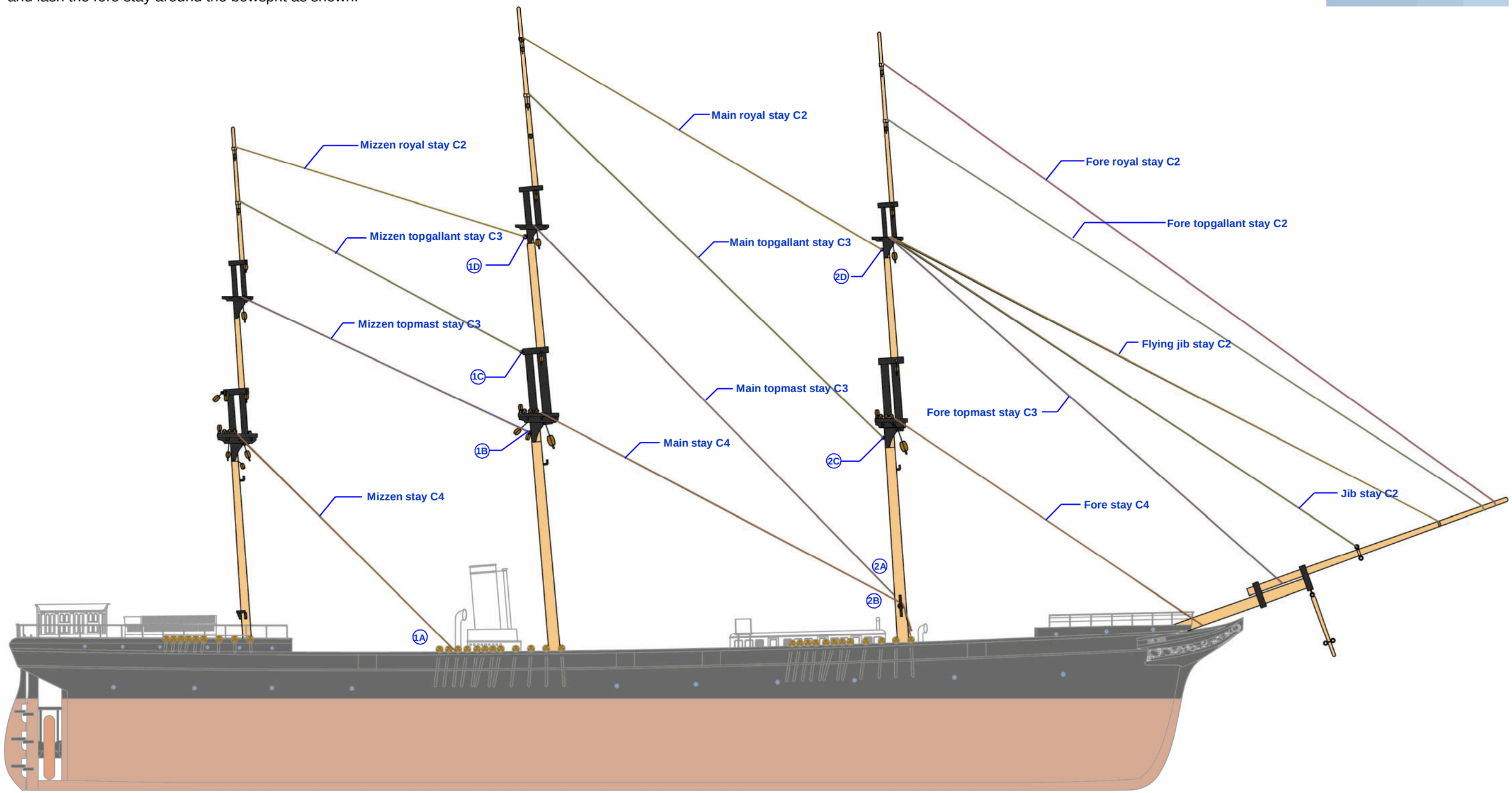
The instructions follow this sequence.



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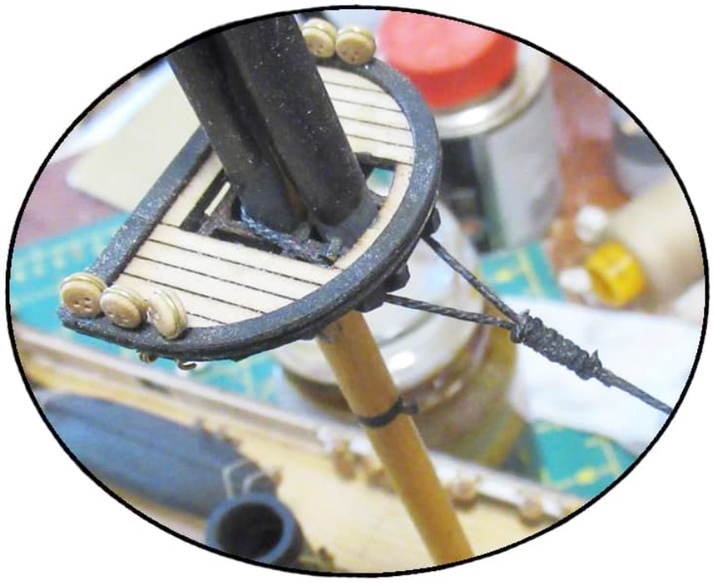
12.1 Forestays

Rig the forestays as shown - refer to images on next sheet to attach and terminate the stay to the relevant mast. See images for the termination of mizzen stay at point 1 and main stay and main topmast stay at points 2A and 2B. Use cords C2, C3 & C4 for the stays as shown. Identify the slip blocks P300 - glue in place at the base of the bowsprit as shown on the image on the next sheet and lash the fore stay around the bowsprit as shown.



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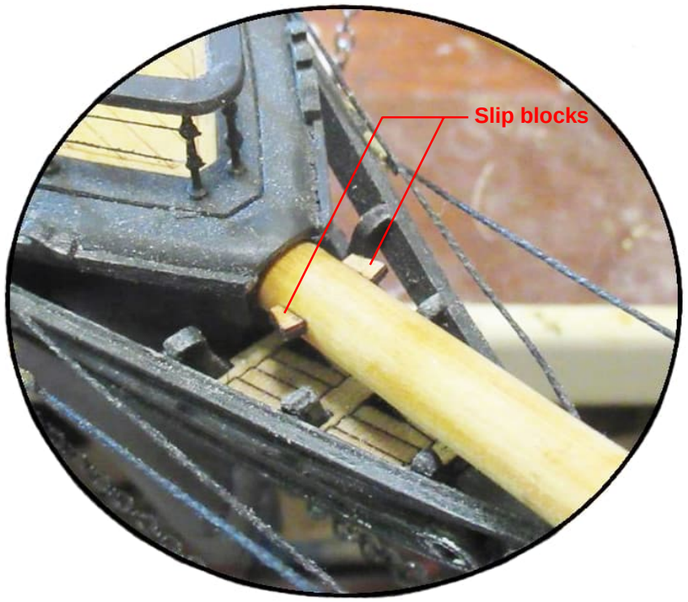
12.1 Forestays continued
The images below refer to the attachment and termination of the various forestays.



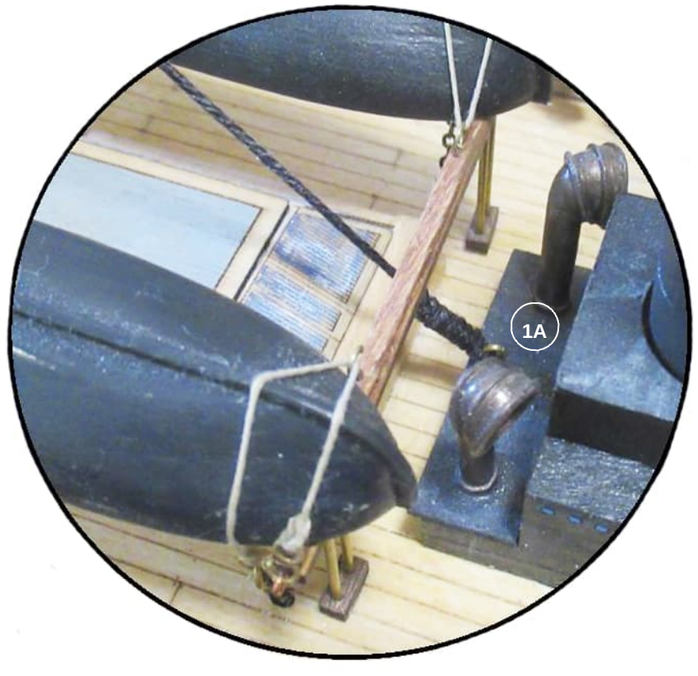
Lashing of stay



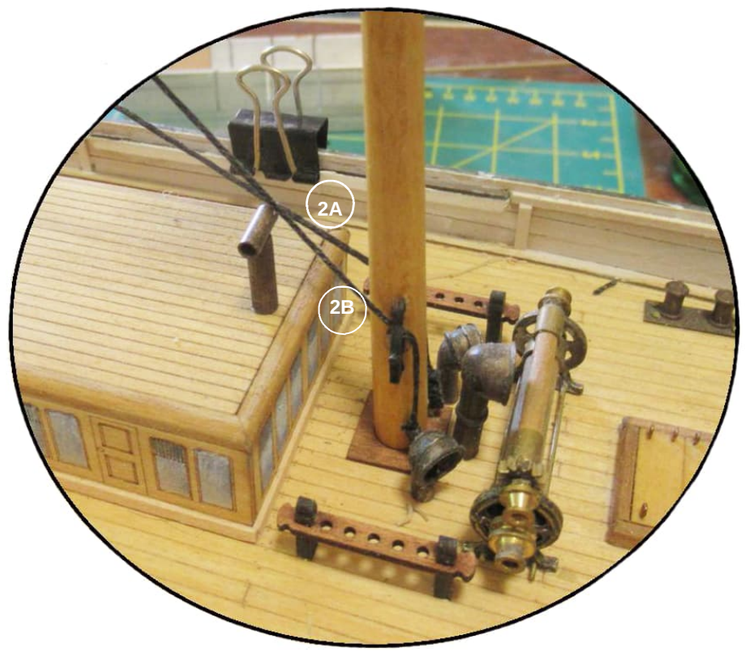
Termination of stay on mast



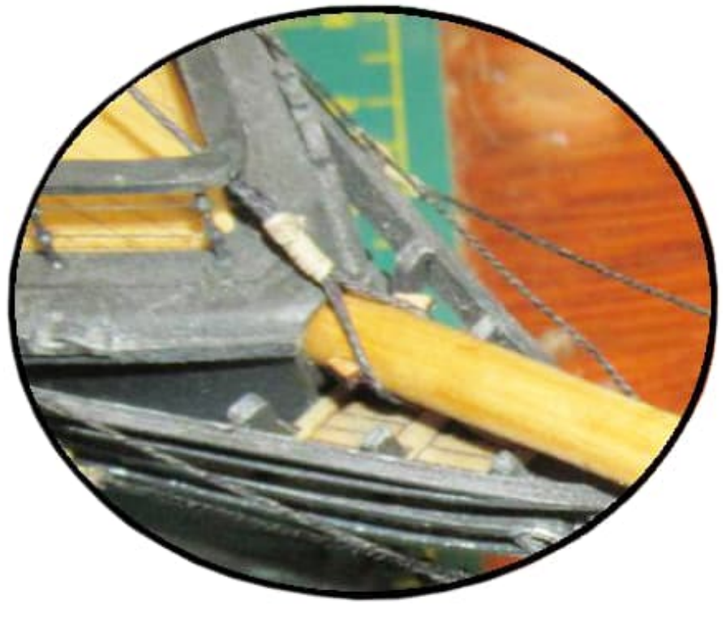
Slip blocks on bowsprit



Mizzen stay terminated at point 1



Main stay and main topmast stays terminated at points 2A & 2B



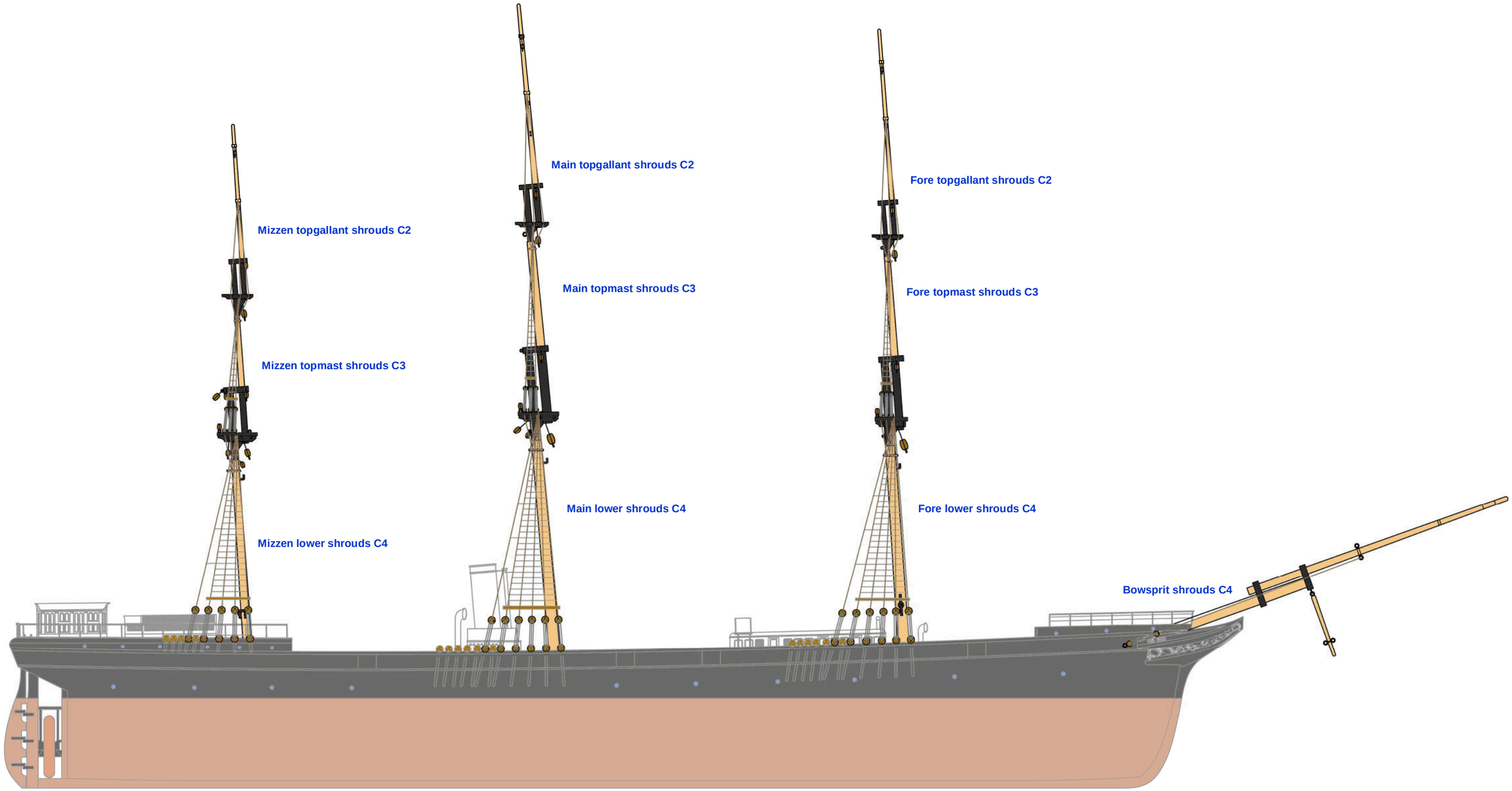
Fore stay lashed to bowsprit

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12.2 Shrouds

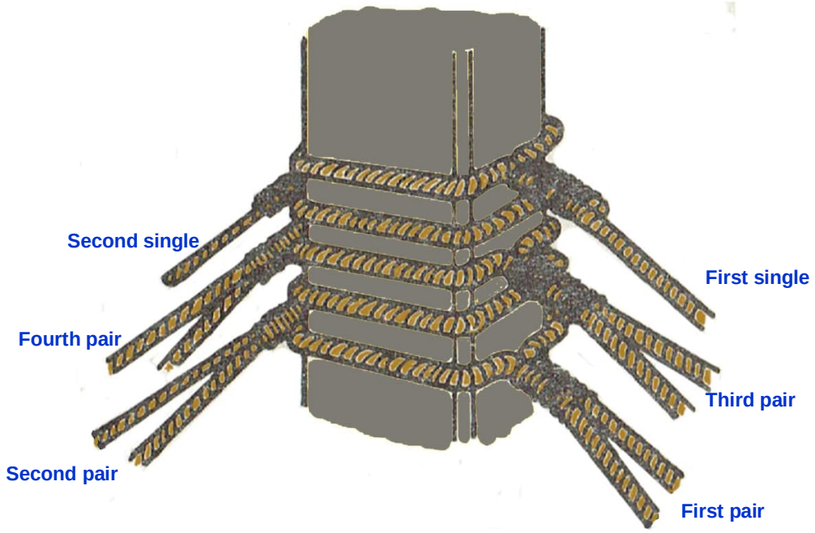
Fit the shrouds to each mast as shown - refer to images on the next 3 sheets for details on fitting the shrouds. For the lower shrouds on each mast notice the gap between the rear two lower deadeyes. Note the cord sizes for the various shrouds.



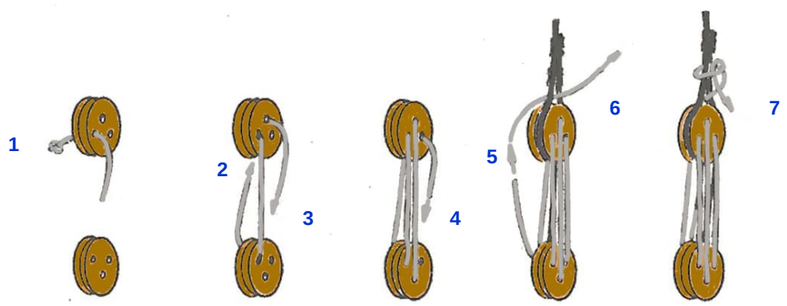
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12.2.1 Shrouds - Lower

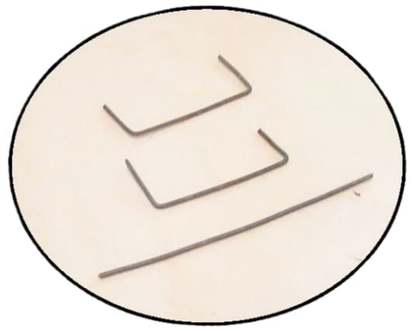
Use cord C4 for the lower shrouds. Use a stiff wire to make a deadeye jig as shown to keep the gap between the lower and upper deadeyes the same distance - bend two lengths of the wire so that the distance between the right-angle bends is 17mm. Use another length of the wire to hold the shaped wires in place. Fit the shrouds in pairs - starting with the fore most shrouds attach the lower shrouds to the mast head lashing each in the sequence as shown. Fit one pair at a time on one side of the hull and then repeat for the other side of the hull. Identify the 5mm deadeyes P108 - attach each to the shroud as shown using the jig. Use cord C6 to lash the shroud end around the deadeye. Use cord C6 to reeve the two deadeyes together as shown. Repeat the process for the next pair moving along the channel. Fit single shrouds if there is an odd number of shrouds. Repeat for each mast.

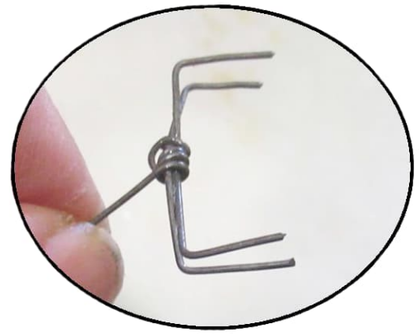


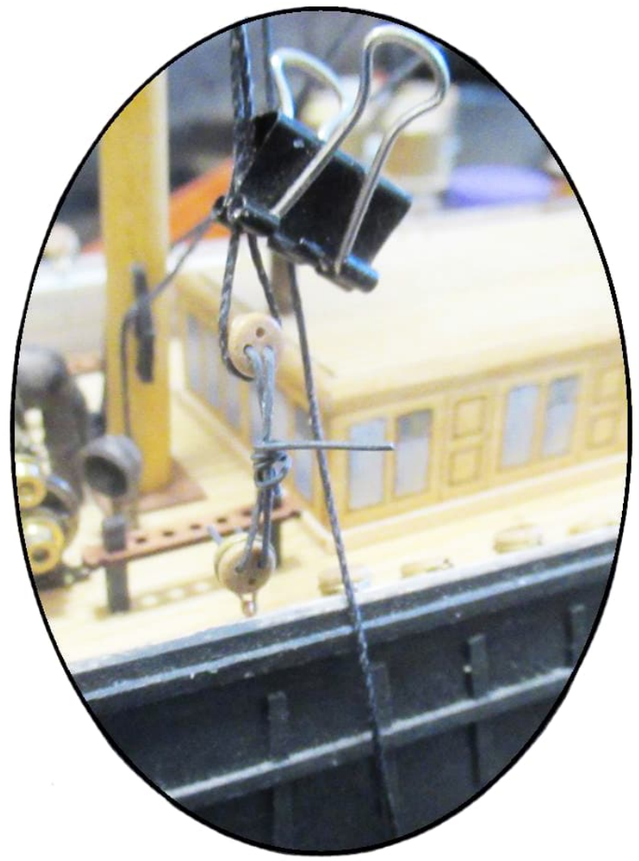
Shroud sequence at mast head

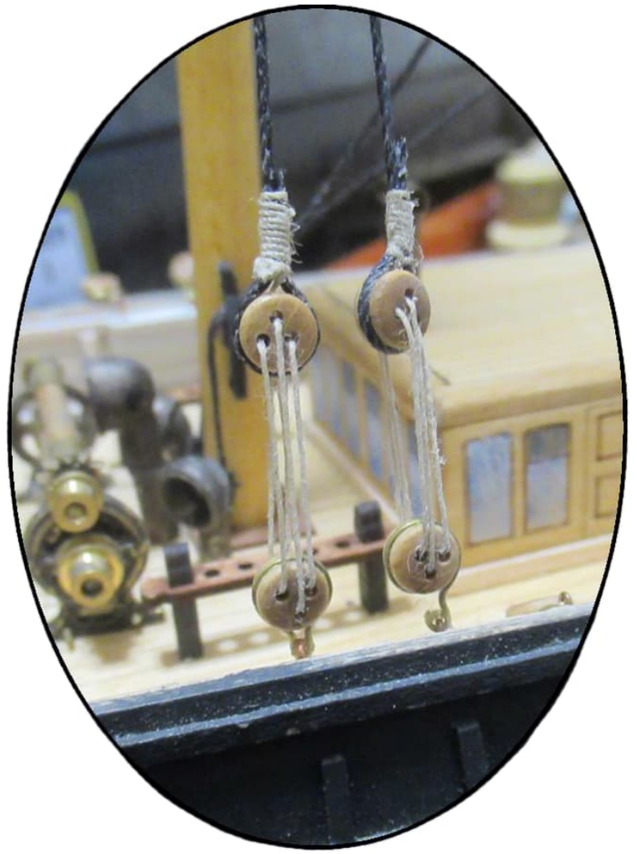


Deadeye Reeving sequence









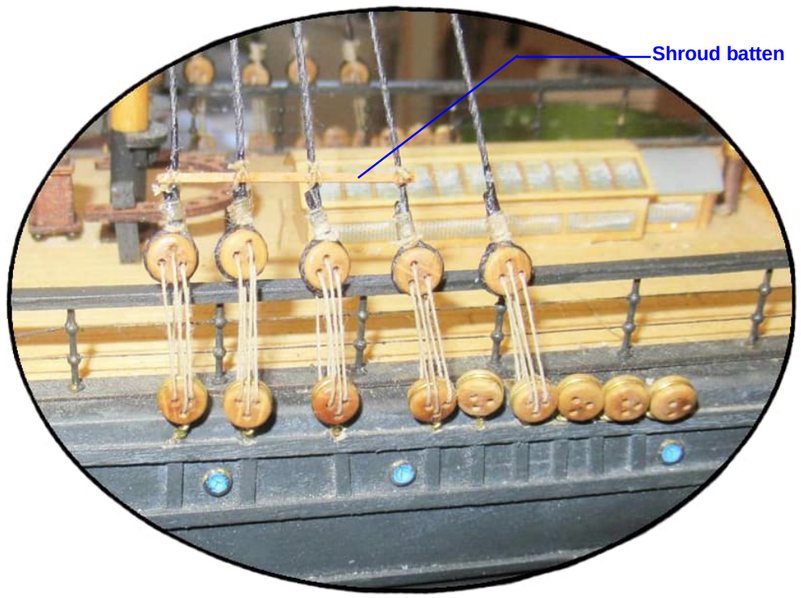
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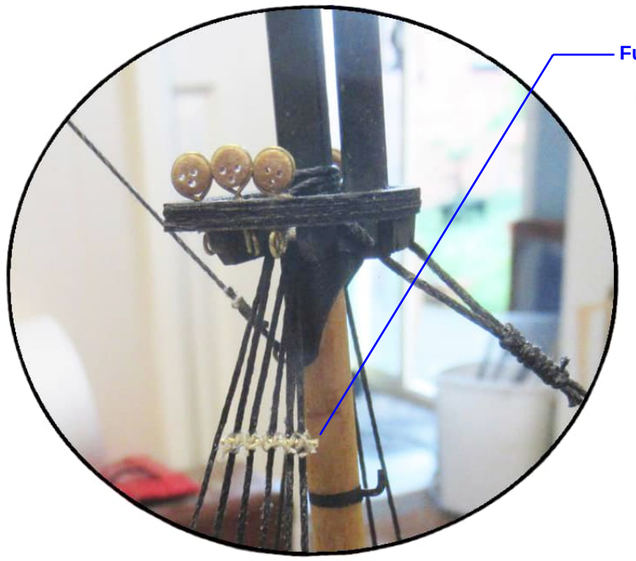
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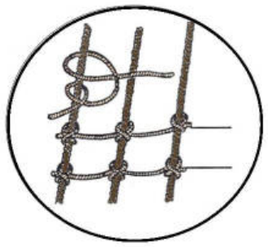
12.2.1 Shrouds - Lower continued

Identify shroud batten P302 - cut lengths to fit across the shrouds and lash in place as shown. Repeat for each mast. For the futtock stave identify the 1mm brass rod P134 - cut a length to fit across the shrouds at approximately 20mm below the underside of the mast top - tie to the shrouds as shown. Repeat for the other side and for each mast. Use cord C4 to fit the futtock shrouds from the stave to the futtock straps as shown. Use cord C2 as a catharpin to brace in the shrouds as shown. Use cord C6 as ratlines - tie as shown. Set the distance between ratlines at approximately 4mm. Complete the ratlines for the lower shrouds on each mast and the futtock shrouds as shown.

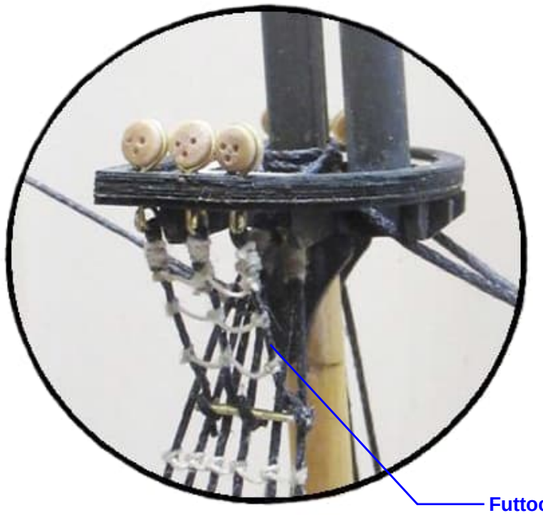


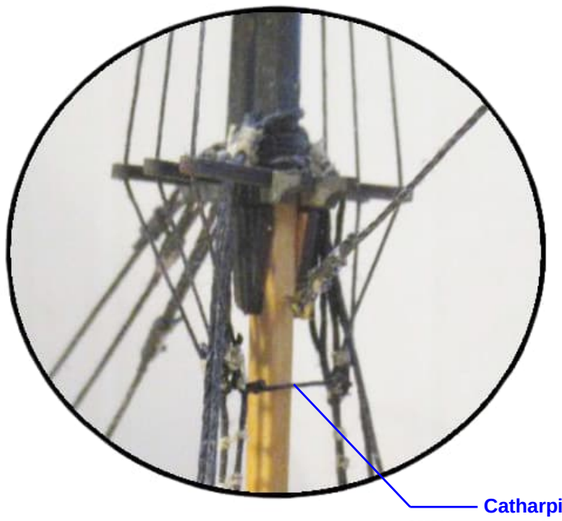


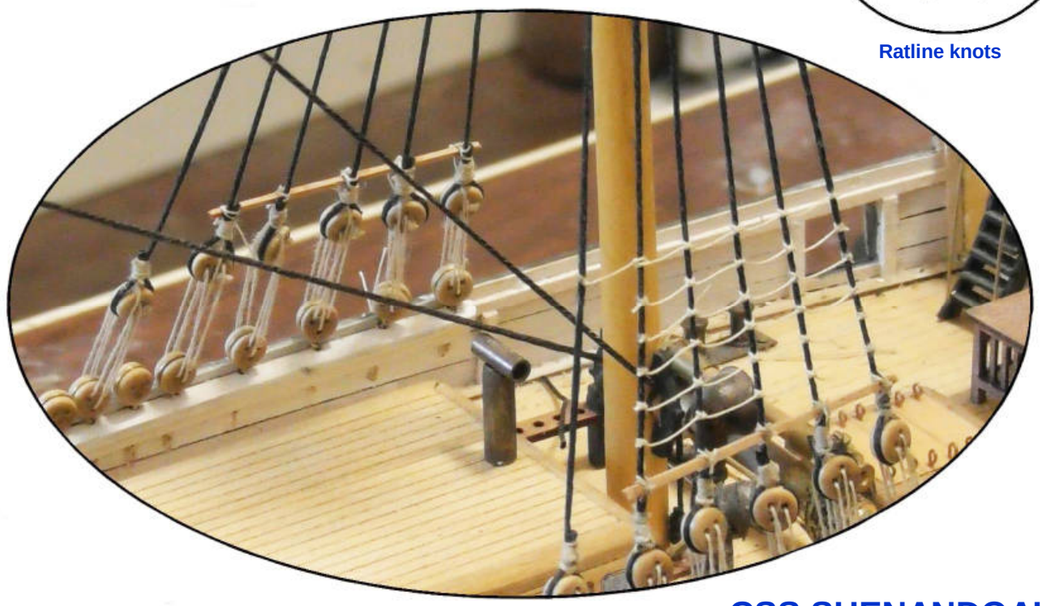




Ratline knots







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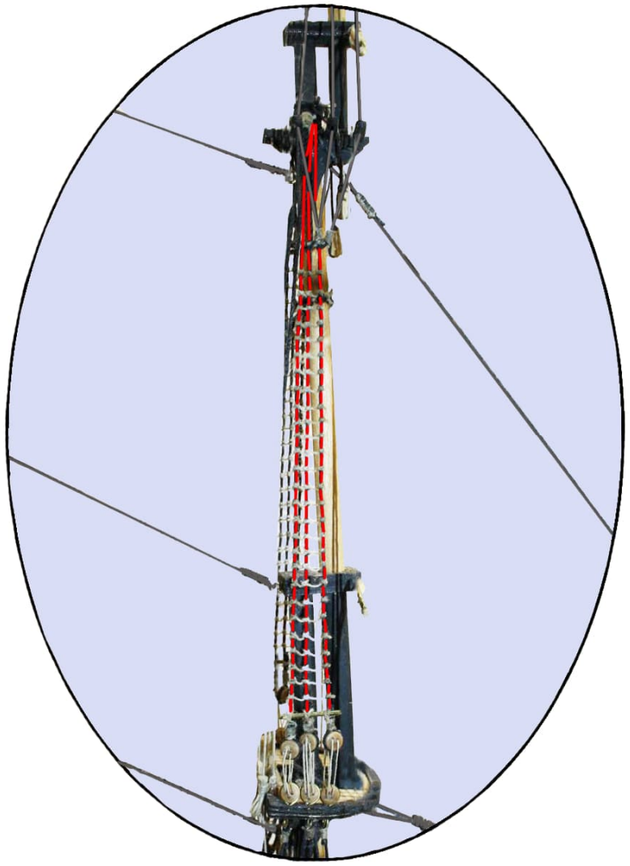
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12.2.2 Shrouds - Topmast

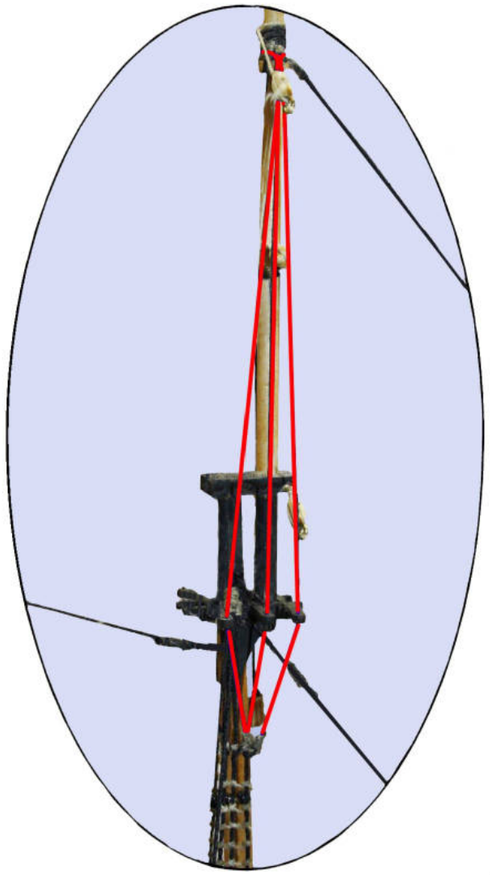
Use cord C3 for the topmast shrouds - fit shrouds as shown. Make a deadeye jig with the distance between the right-angle bends set to 12mm. Identify the 3mm deadeyes P109. Use cord C6 to reeve the deadeyes together As the shroud battens cut lengths of 1mm brass rod P134 to fit across the shrouds and lash in place as shown. Use cord C6 as ratlines. Repeat for each mast

12.2.3 Shrouds - Topgallant

Use cord C2 for the topgallant shrouds - fit shrouds as shown. Tie-off the topgallant futtocks to the topmast shrouds approximately 20mm below the underside of the topmast trestle & crosstree. Repeat for each mast.



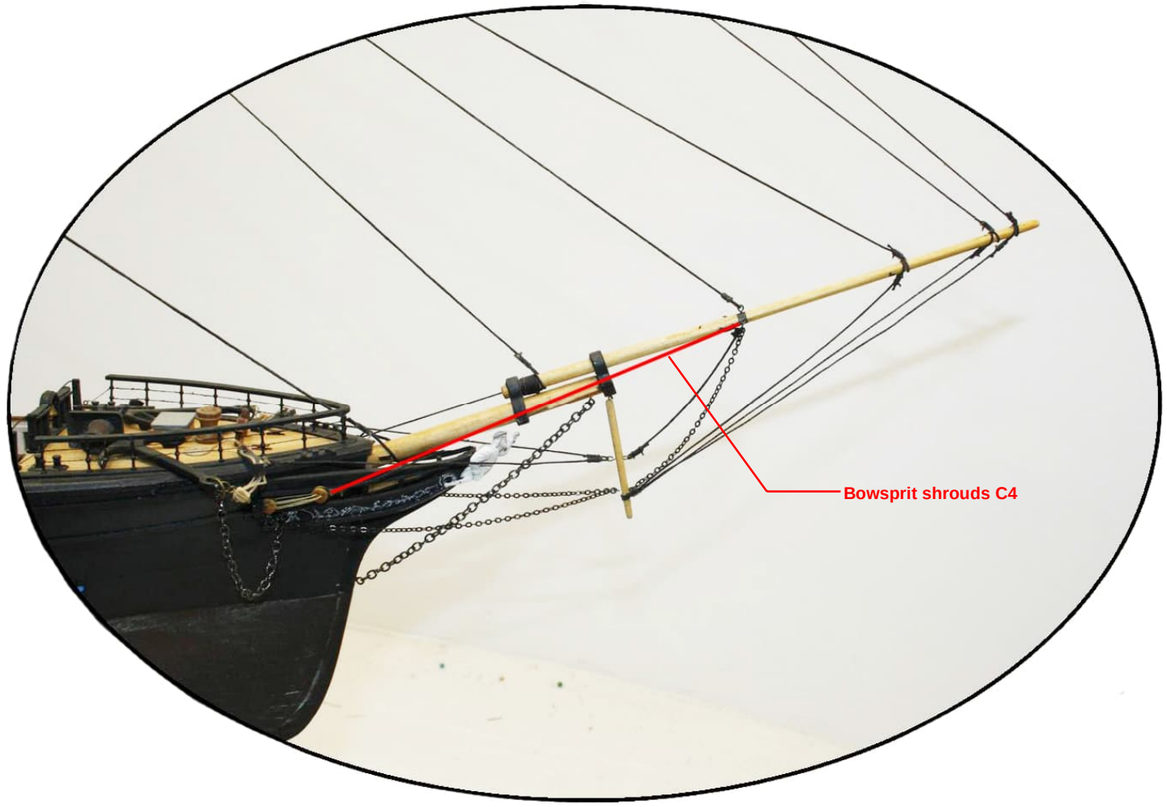
Topmast Shrouds



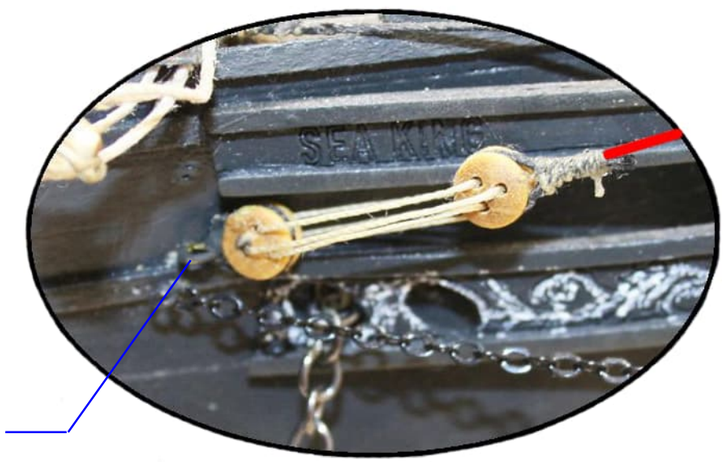
Topgallant Shrouds

12.2.4 Shrouds - Bowsprit

Fix an eye pin P77 below the cathead and immediately above the lower hull batten as shown. Tie a 5mm deadeye P108 to this eye pin. Use the 17mm deadeye jig run a length of cord C4 to the bowsprit as shown. Repeat for the other side.



Bowsprit Shroud



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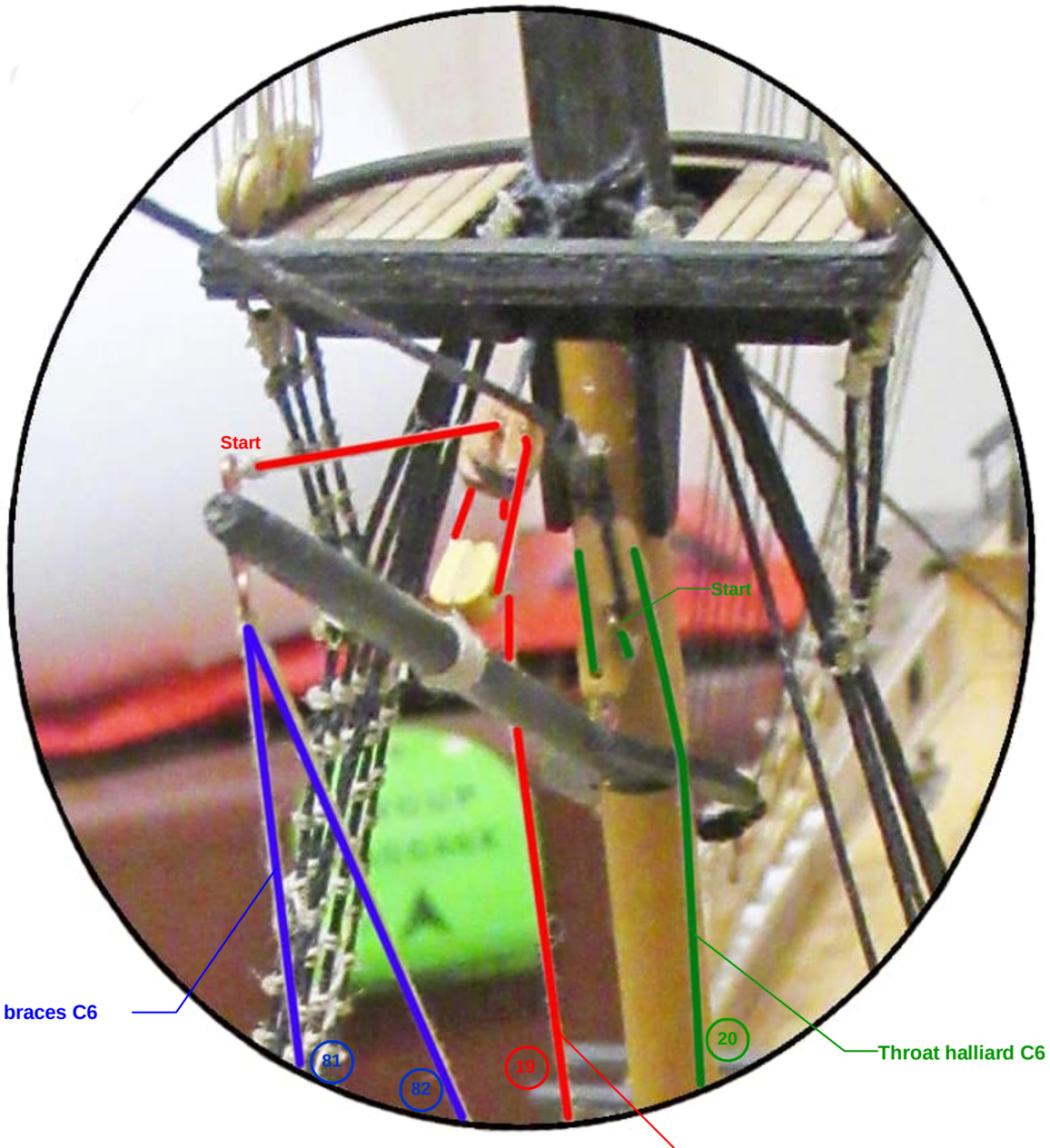
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12.3 Mainmast Gaff

Retrieve the assembled mainmast gaff. Identify the parrals P157 - run the parrals onto a length of cord C5 on the yoke - place the gaff in place and tie-off the parral cord as shown. Rig the throat halliard as shown and terminating at point 20. Rig the peak halliard as shown and terminating at point 19. Rig the gaff braces as shown and terminate at points 81 & 82.



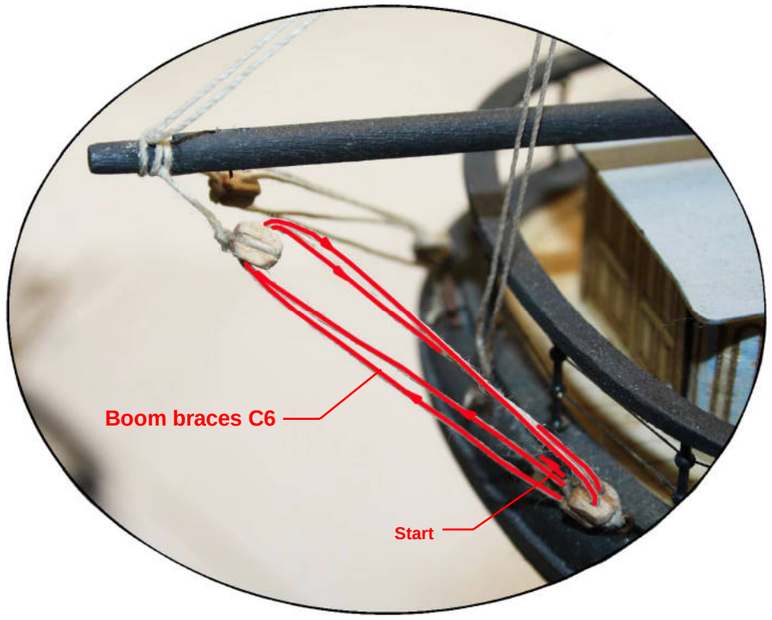




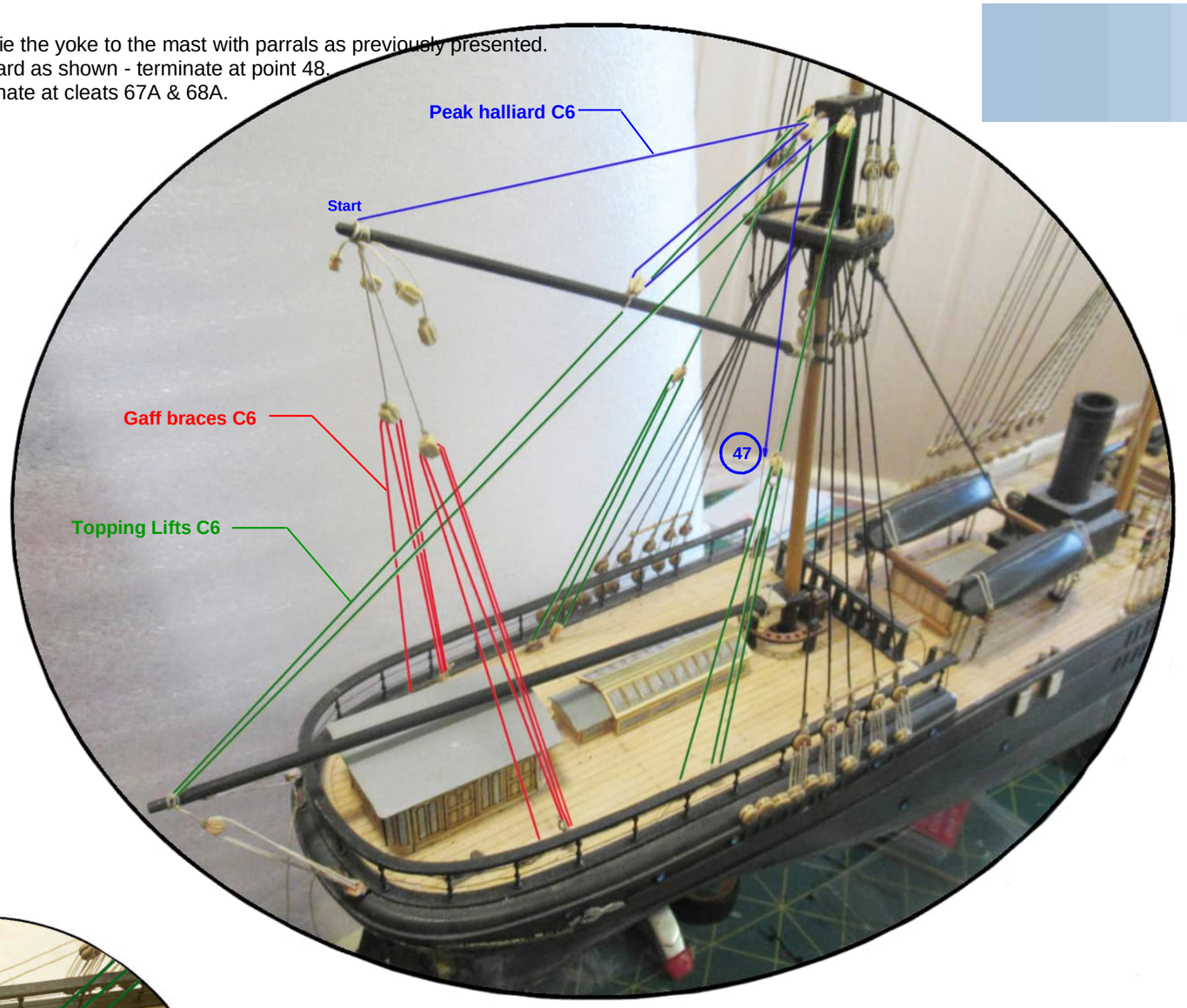
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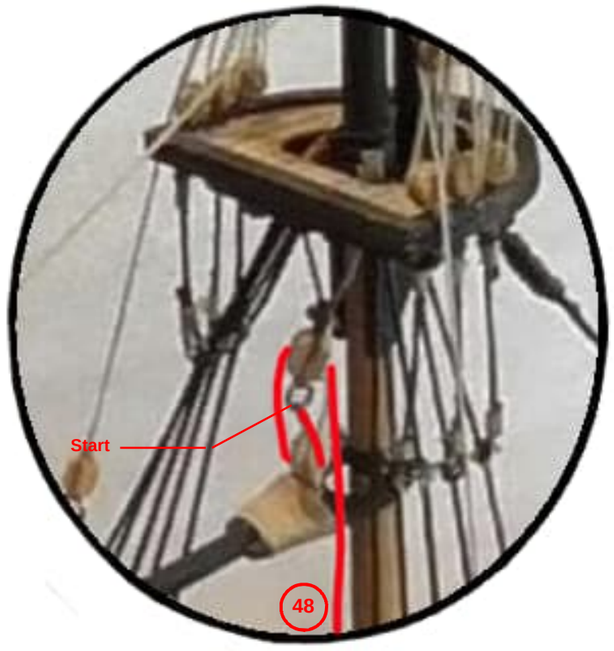
12.4 Mizzenmast Boom & Gaff

Retrieve the assembled mizzen boom - fit in place with the yoke resting on the boom rest - tie the yoke to the mast with parrals as previously presented.
Reeve the boom braces as shown - terminate at cleats point 77A & 78A. Rig the throat halliard as shown - terminate at point 48.
Rig the peak halliard as shown - terminate at point 47. Rig the topping lifts as shown - terminate at cleats 67A & 68A.
Rig the gaff braces as shown - terminate at cleats 73A and 74A.

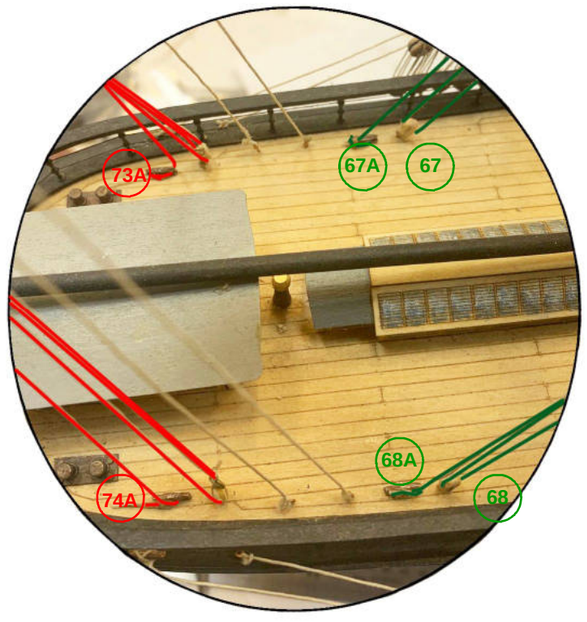


Boom Braces





Throat Halliard C6

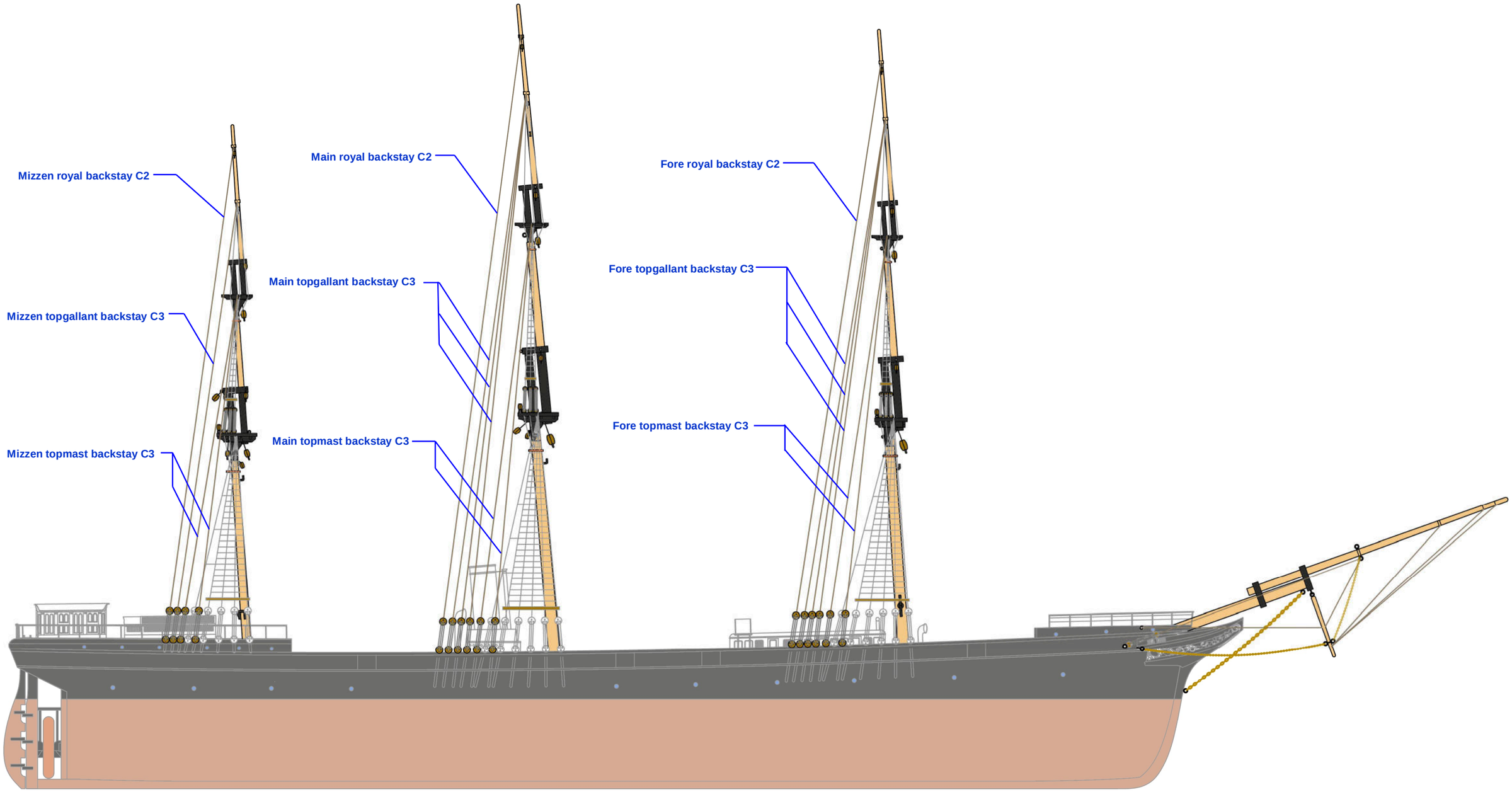


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12.5 Backstays

Rig the backstays as shown. Use 5mm deadeyes P108 - use the 17mm deadeye jig to set the gap between the upper & lower deadeyes. Use cord C6 to reeve the deadeyes.

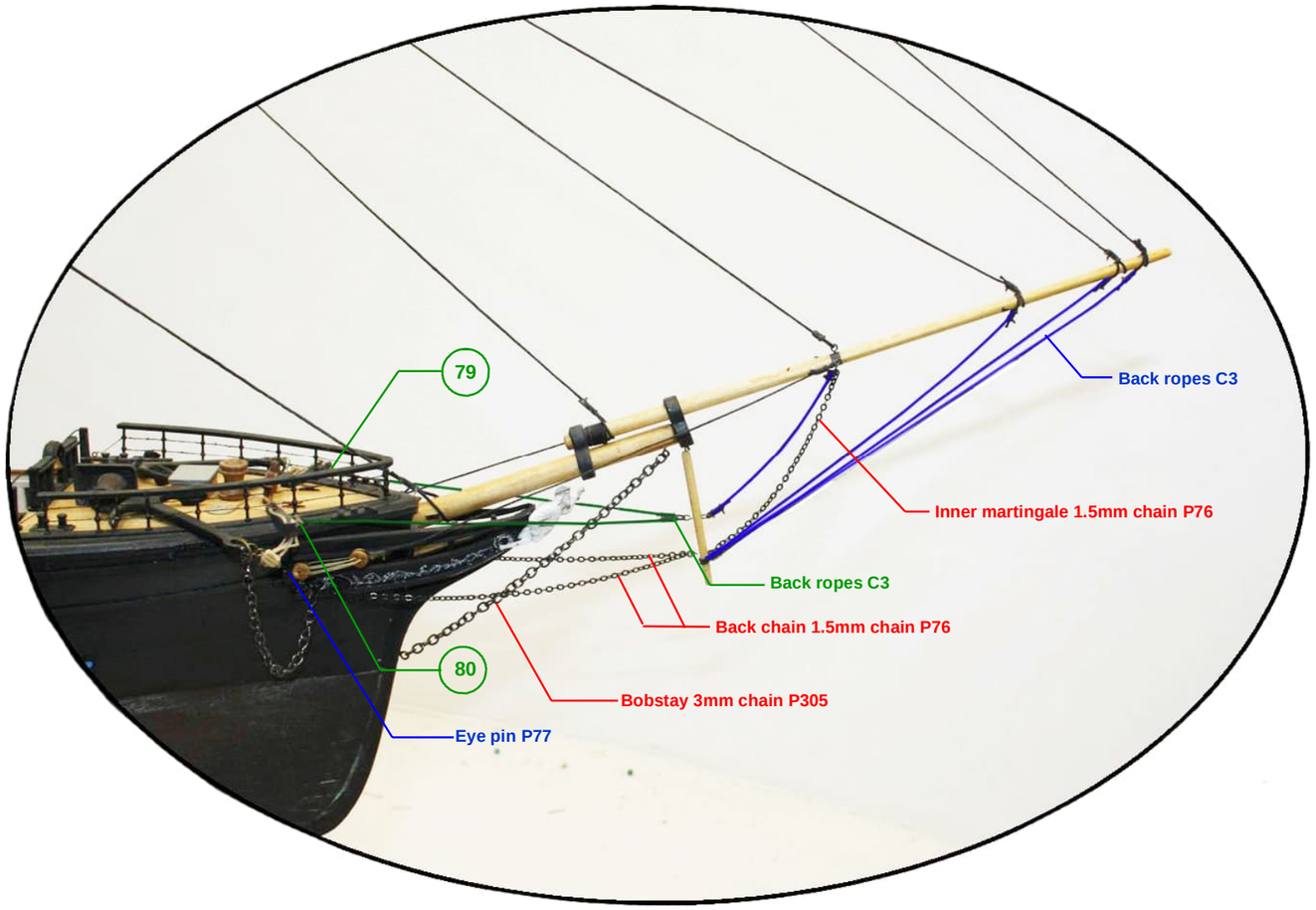


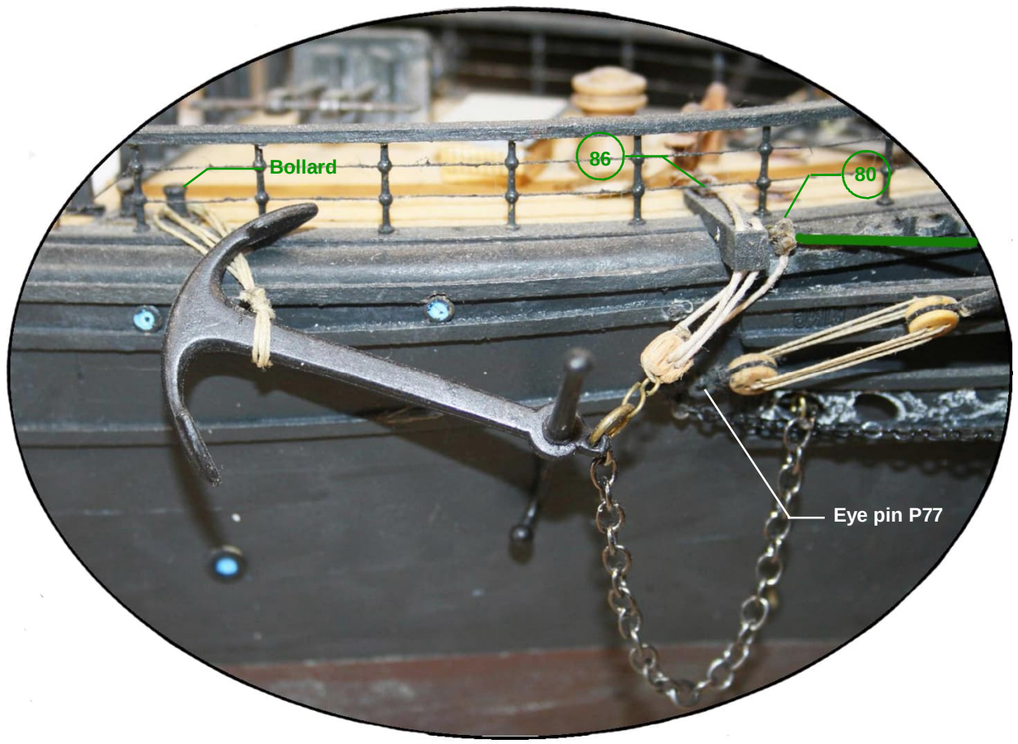
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12.6 Bowsprit Rigging & Anchor Crane

Rig the bowsprit as shown. Rig the back ropes from the dolphin striker to points 79 & 80. Rig the back ropes from the jib boom to the dolphin striker. Rig the inner martingale from the jib boom to the dolphin striker. Fix an eye pin P77 on the lower hull batten immediately below the cathead as shown - repeat for other side of hull. Rig the back chains between these eye pins and the dolphin striker. Fix an eye pin P77 approximately 5mm above the copper line on the front centre of the stem post - rig the bobstay chain from the eye pin to the bowsprit as shown. For the anchor crane shape a length of 1mm brass wire P134 with a closed loop at one end and a hook at the other.

Attach & rig the anchors to the anchor crane - retrieve the anchors previously assembled - paint matt black. Indentify the 4mm chain P226 - cut two x 100mm lengthsn. Identify the 1mm brass wire P242 - cut 2 x 20mm lengths - wrap around a length of 5mm dowel P245 to create a ring - trim off excess. Fit ring to loop at top of the anchor shank. Attach one end of the chain to the ring. Apply glue to the other end of the chain and feed the chain into the hawse. Attach a block B3 to the ring as shown. Use cord C6 start at point 80 and reeve the block to the cathead as shown terminating at point 86 cleat. Use cord C6 to lash the anchor shank to the forecastle bollard as shown. Repeat for the other side of the hull.





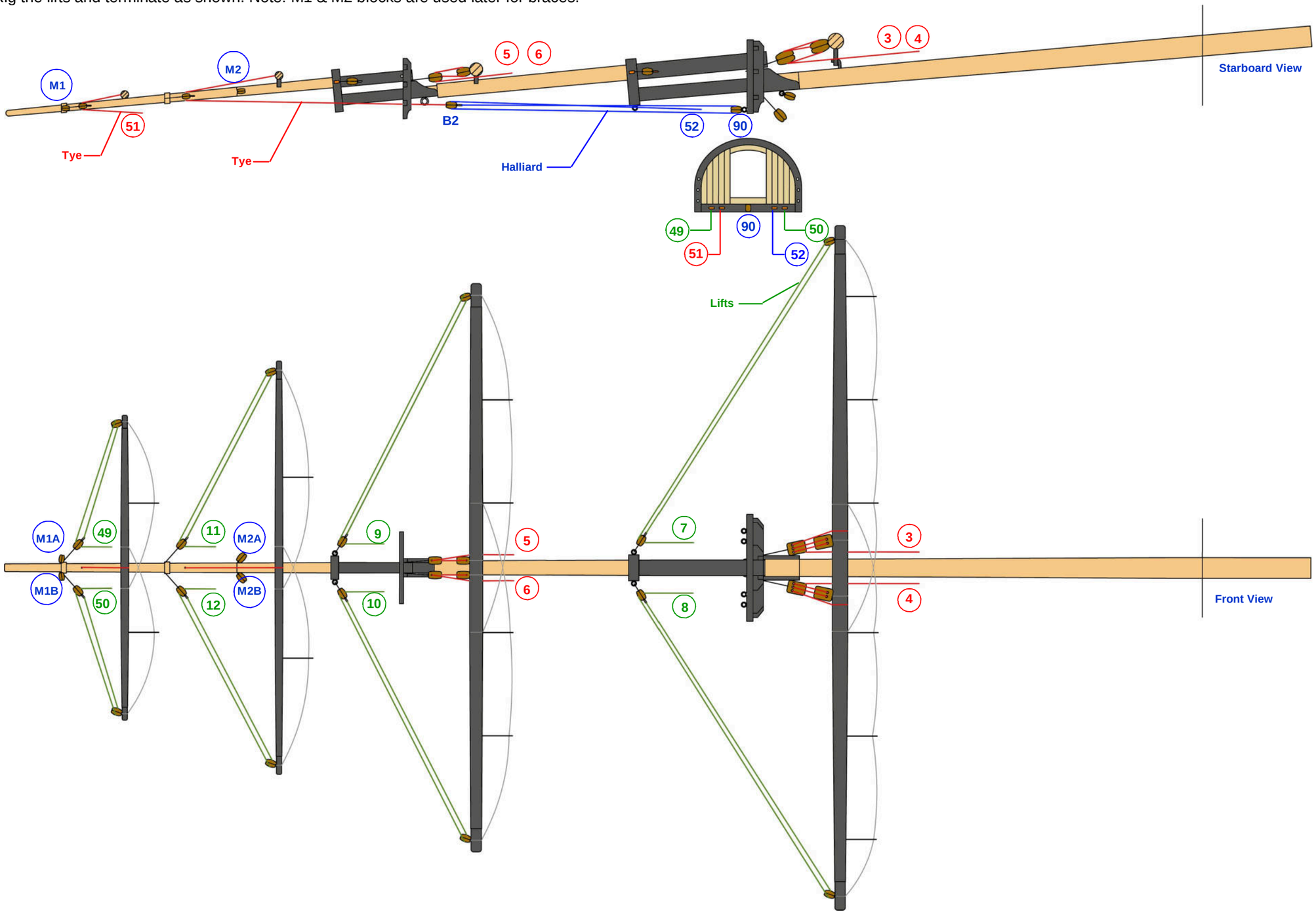
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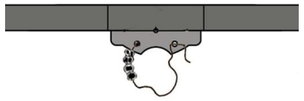
13.0 Running Rigging

The next step is to complete the running rigging. The running rigging includes rigging for the yard jeers, lifts, pendants, braces and halliards. Use cord C6 for all running rigging.

13.1 Mainmast

Retrieve the previously completed main mast yards and fit each in place as show. For the main yard attach the truss to the bracket. For the lower topmast yard attach cord and parrals P157 to the truss and tie cord around the mast. For the upper topmast yard fit a sling to the yard and fit a cord with parrals P157 tied around the mast. For the topgallant yard fit a sling to the yard and a rope truss as shown - at the chosen yard location drill a 0.7mm hole into the mast. As the model is static all yards can be glued in place - make sure they are at a right angle to the mast. Rig the jeers for the main and lower topmast yards and terminate as shown. For the upper topmast yard attach the tye to the sling - run cord as shown - fit block B2 with ring P302 to the end of the tye as shown - rig the halliard and terminate as shown. For the topgallant yard attach the tye to the sling - rig and terminate as shown. Rig the lifts and terminate as shown. Note: M1 & M2 blocks are used later for braces.





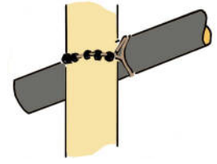
Truss & parrals



Sling



Rope truss

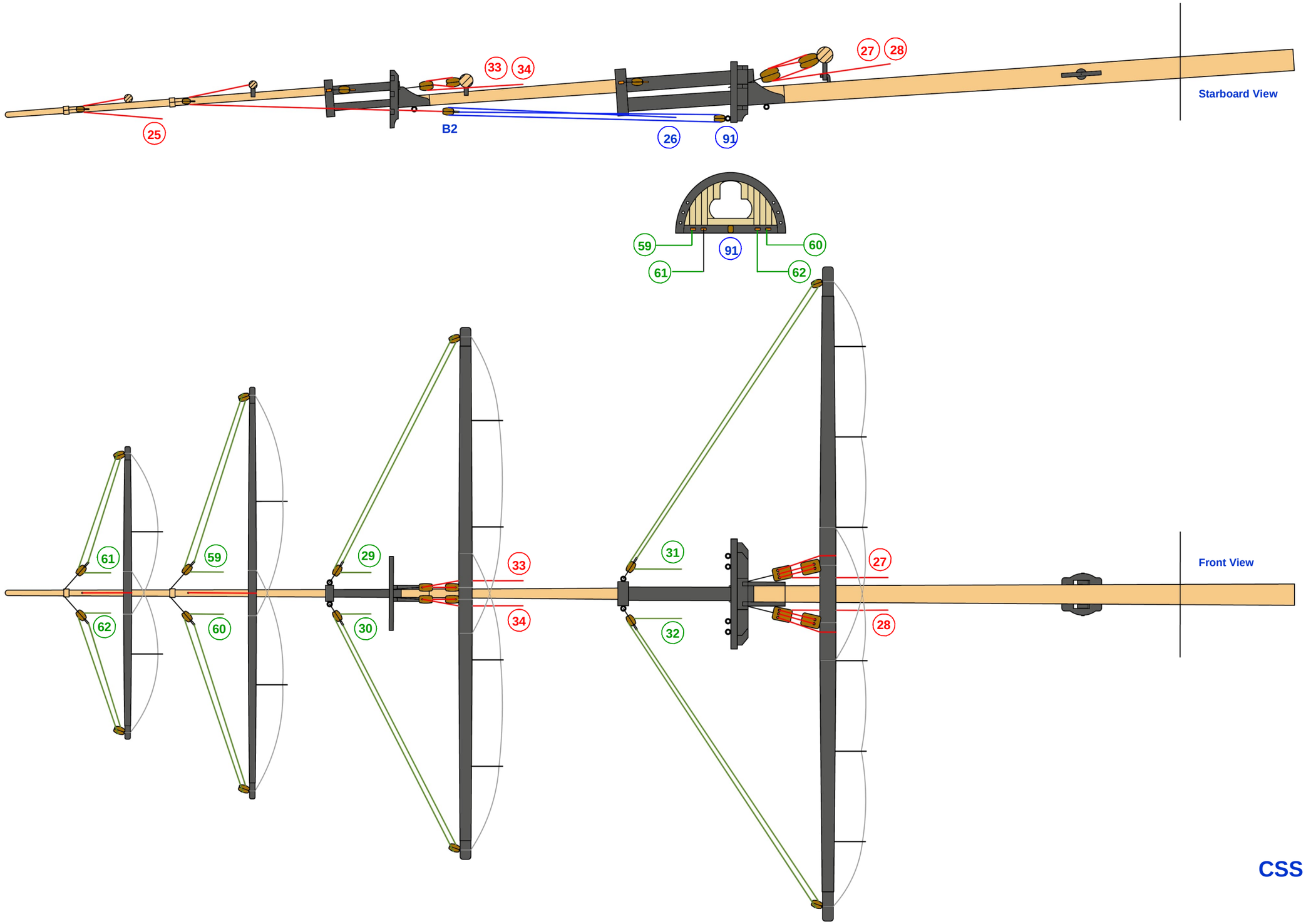


Rope truss with parrals

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13.2 Foremast

Retrieve the previously completed foremast yards and fit each in place as show. For the fore yard attach the truss to the bracket. For the lower topmast yard attach cord and parrals P157 to the truss and tie cord around the mast. For the upper topmast yard fit a sling to the yard and fit a cord with parrals P157 tied around the mast. For the topgallant yard fit a sling to the yard and a rope truss as shown - at the chosen yard location drill a 0.7mm hole into the mast. As the model is static all yards can be glued in place - make sure they are at a right angle to the mast. Rig the jeers for the main and lower topmast yards and terminate as shown. For the upper topmast yard attach the tye to the sling - run cord as shown - fit block B2 with ring P302 to the end of the tye as shown - rig the halliard and terminate as shown. For the topgallant yard attach the tye to the sling - rig and terminate as shown. Rig the lifts and terminate as shown.

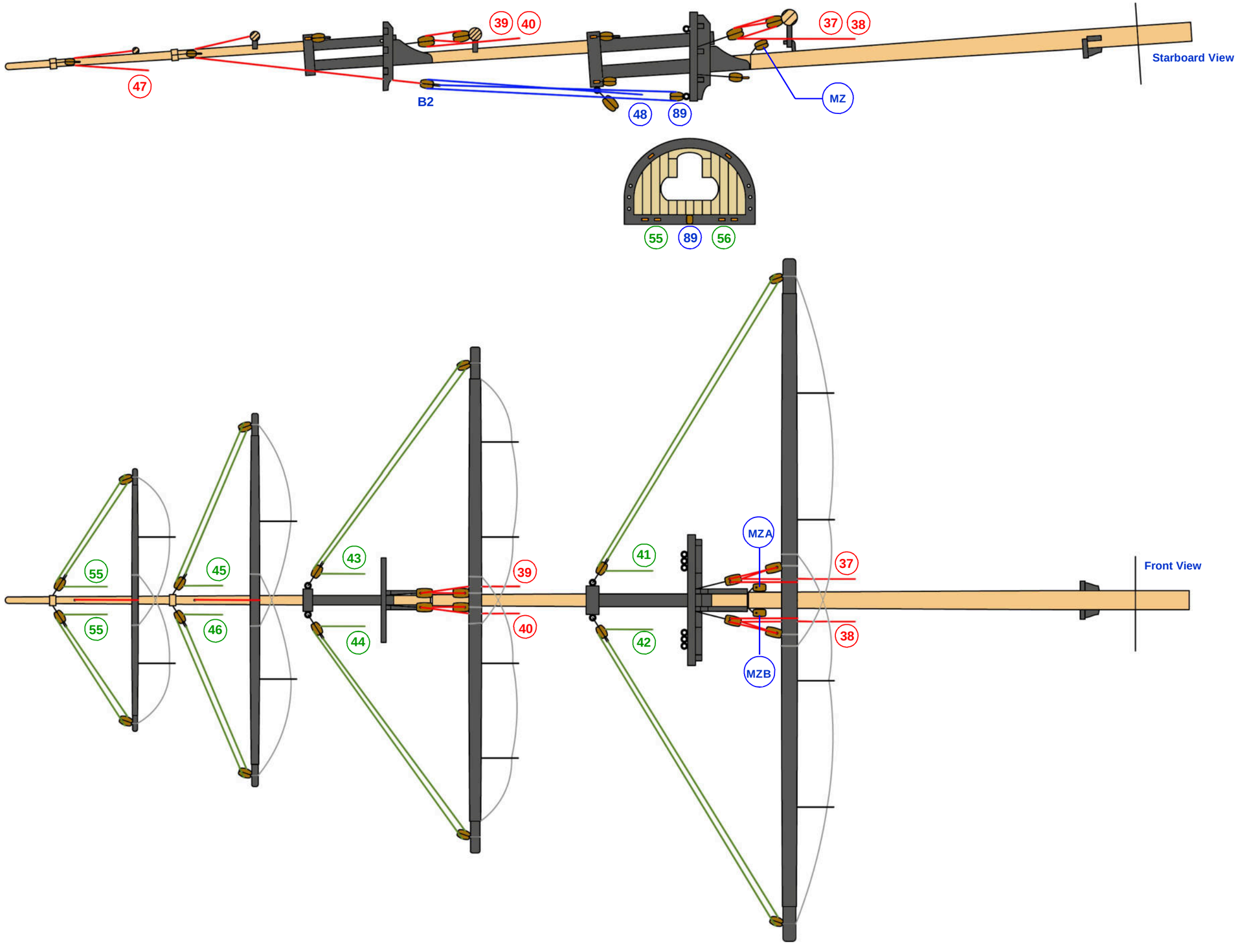


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13.3 Mizzenmast

Retrieve the previously completed mizzenmast yards and fit each in place as show. For the mizzen yard attach the truss to the bracket. For the lower topmast yard attach cord and parrals P157 to the truss and tie cord around the mast. For the upper topmast yard fit a sling to the yard and fit a cord with parrals P157 tied around the mast. For the topgallant yard fit a sling to the yard and a rope truss as shown - at the chosen yard location drill a 0.7mm hole into the mast. As the model is static all yards can be glued in place - make sure they are at a right angle to the mast. Rig the jeers for the main and lower topmast yards and terminate as shown. For the upper topmast yard attach the tye to the sling - run cord as shown - fit block B2 with ring P302 to the end of the tye as shown - rig the halliard and terminate as shown. For the topgallant yard attach the tye to the sling - rig and terminate as shown. Rig the lifts and terminate as shown. Note: MZ blocks are used later for braces.

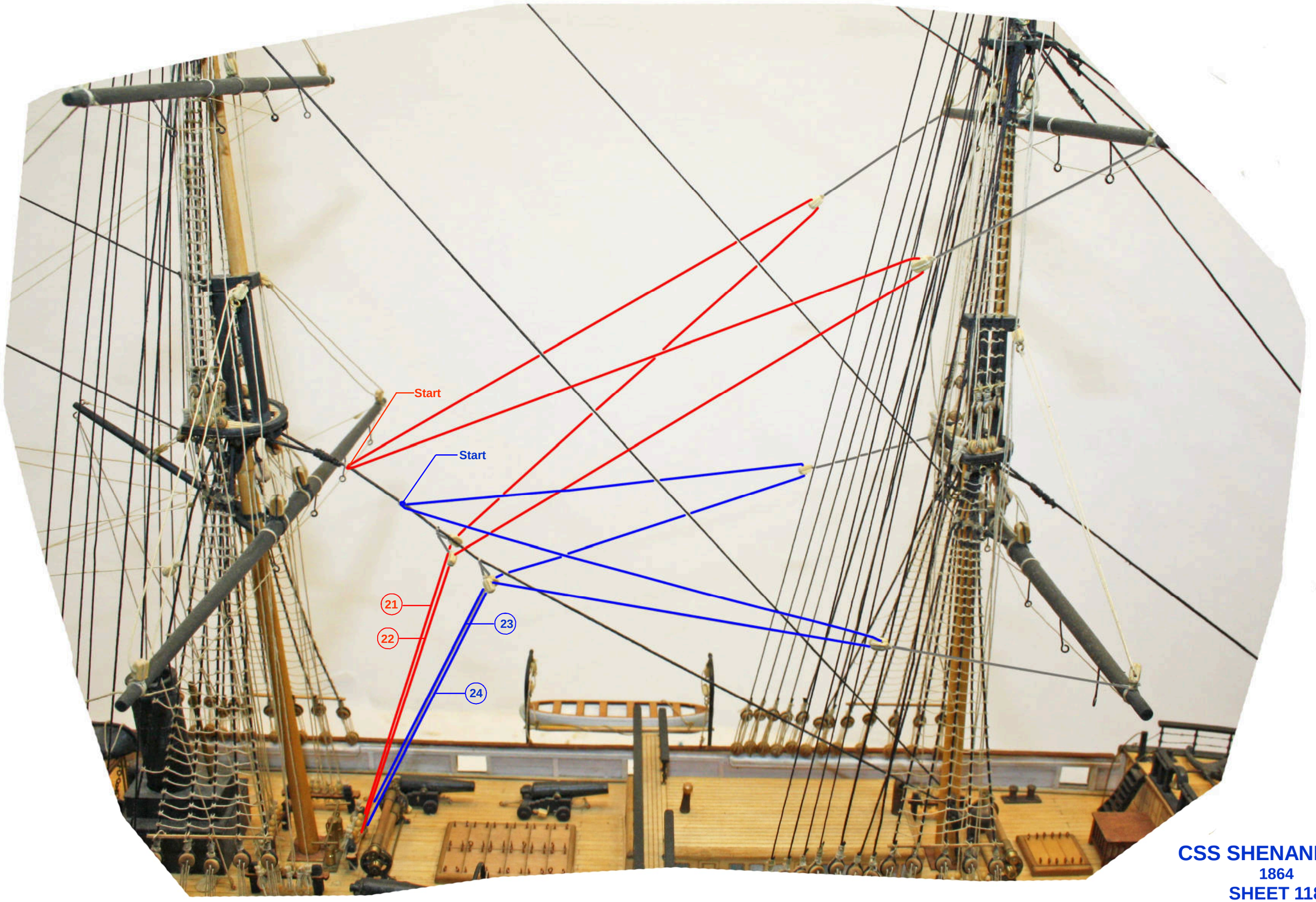


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13.4 Braces

13.4.1 Fore & Fore Lower Topsail

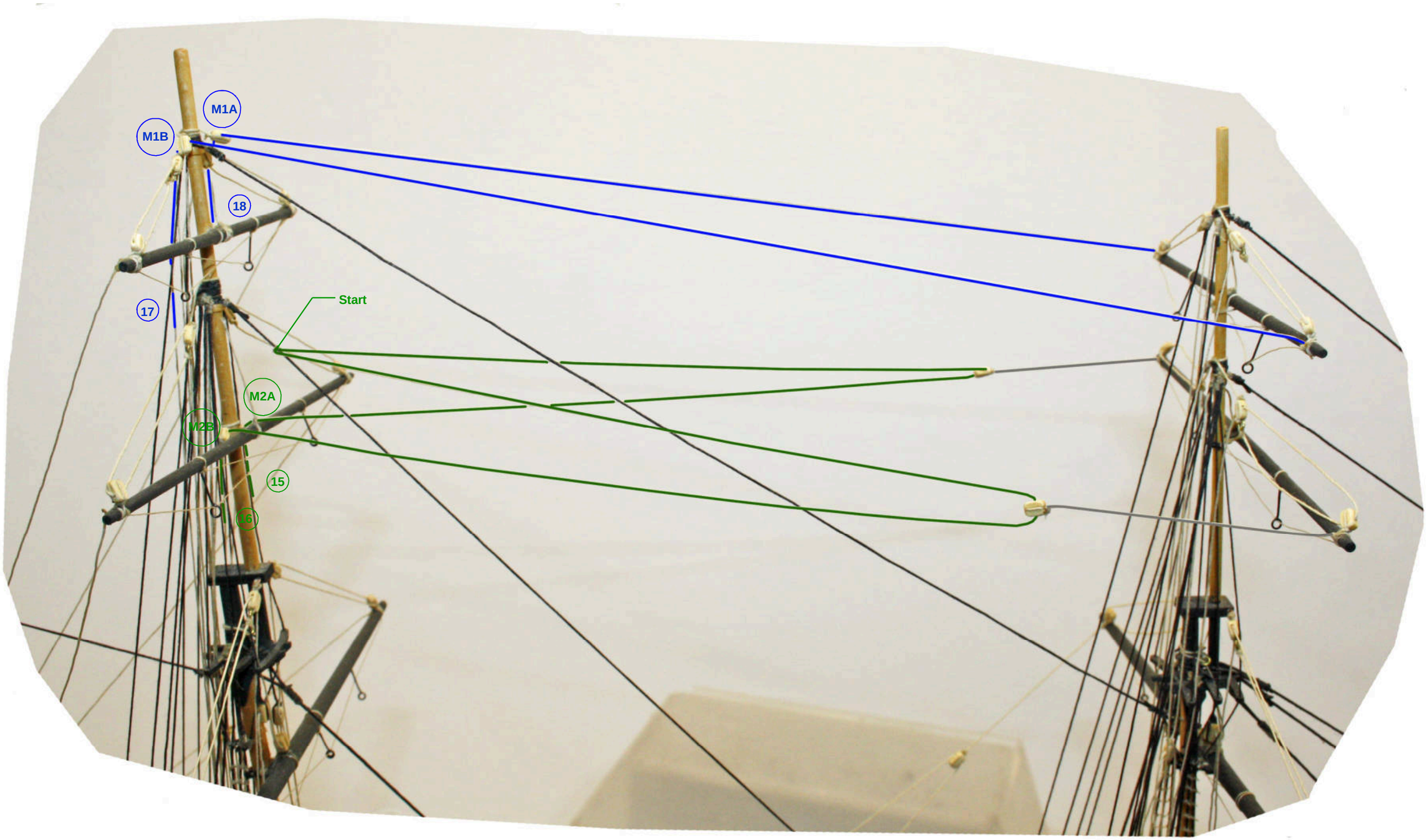
Attach blocks B1 to the main stay as shown. Rig and terminate the braces as shown.



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13.4.2 Fore Upper Topsail & Fore Topgallant

Rig and terminate the braces as shown. Note: Upper topsail braces pass through blocks M2A & M2B and the topgallant braces pass through blocks M1A & M1B.

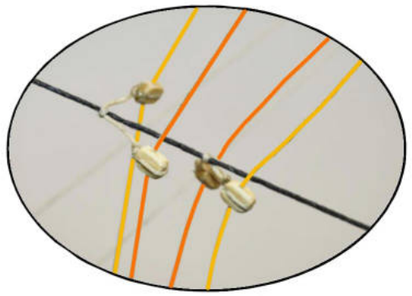


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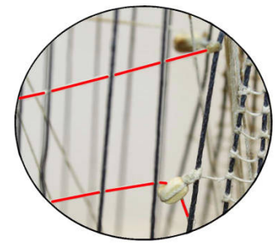
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13.4.3 Main, Main Lower Topsail, Main Upper Topsail & Main Topgallant

Attach blocks B1 to the mizzen topmast stay as shown Insert 1. Attach blocks B1 to mainmast lower shroud as shown Insert 2. Rig and terminate the braces as shown.
Note: Lower topsail braces pass through blocks MZA & MZB.



Insert 1



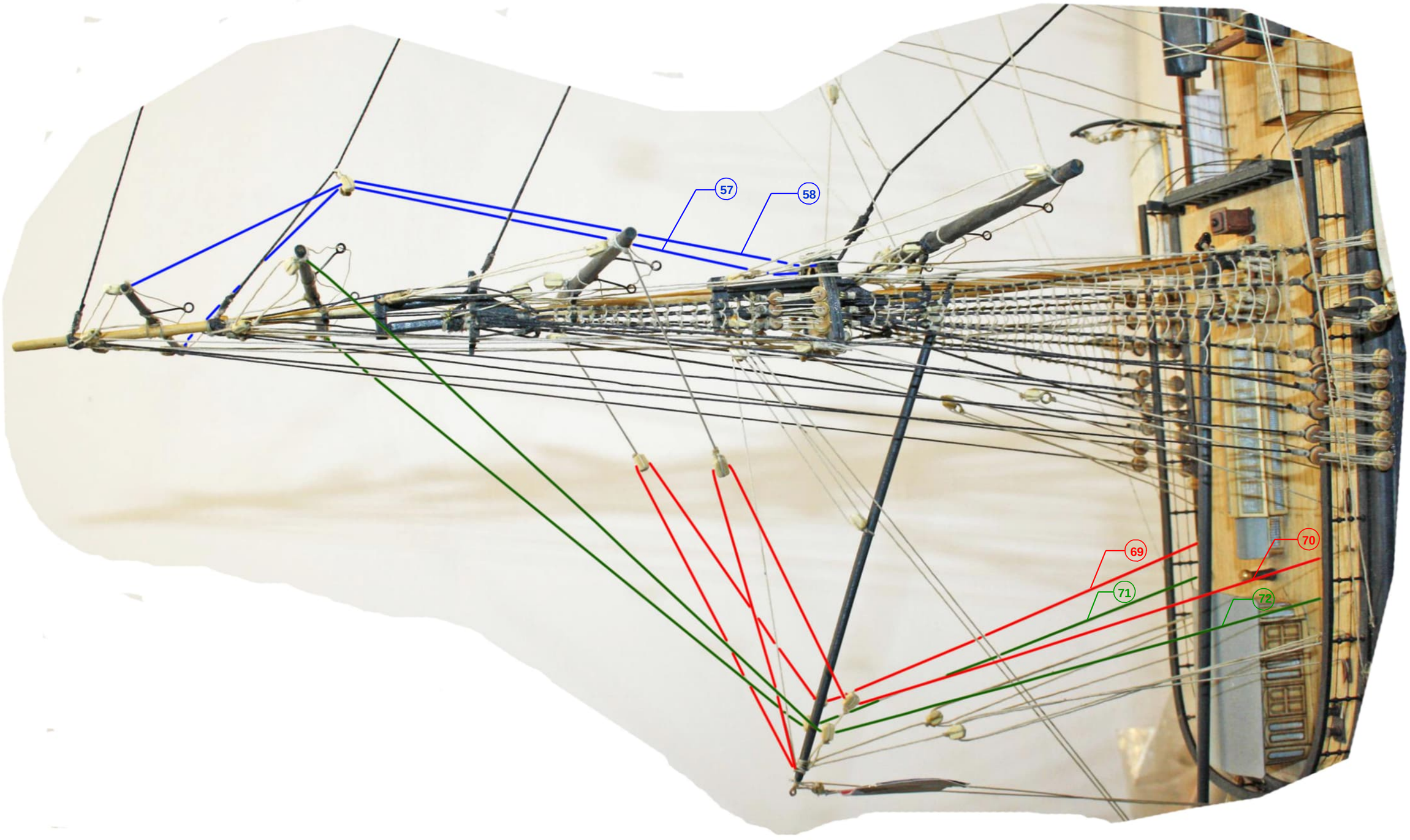
Insert 2

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13.4.4 Mizzen Lower topsail, Upper Topsail & Topgallant

Attach blocks B1 to the mizzen topgallant stay as shown. Rig and terminate the braces as shown.

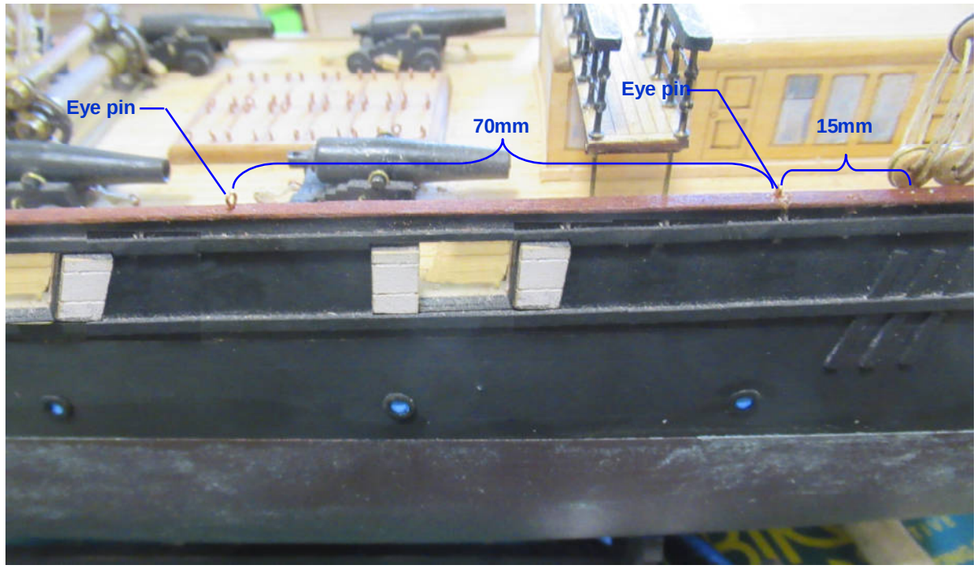


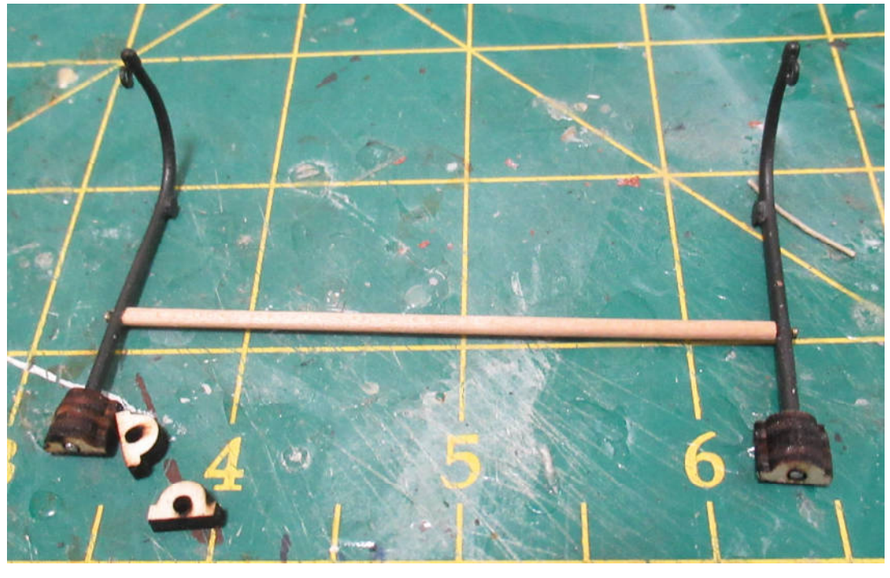
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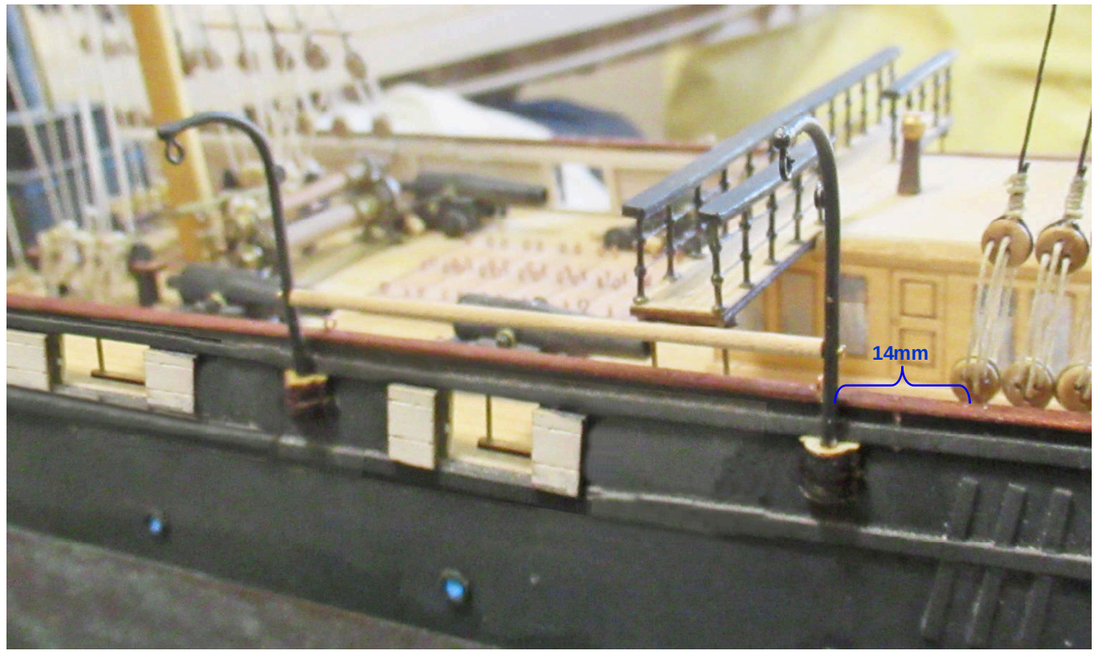
14.0 Davits

14.1 Mid-Ship Davits

Fix eye pins P77 into the cap rail at the points shown. Identify the four davit pairs P306 and the davit bases P307. Take one davit pair and fit two bases to each arm (do not glue). Identify the 2mm dowel P308 - cut 4 x 75mm lengths - apply a coat of shellac to each length of dowel. Drill a 0.7mm hole into the end of each length of dowel. Lay one pair of davit on the bench as shown - fit a pin through hole in the davit are glue the pin into the end of the dowel - repeat for the second davit arm as shown. With the davits attached glue the davit bases to the bulwark as shown - pin the bases if needed. Retrieve the two uncovered boats - attach block B1 using cord C6 to the eye pins previously fitted. Attach a 3mm ring P302 to block B1 - use cord C6 attach the block to the loops on the davit arms as shown. Starting at the ring, rig the two blocks as shown - tie-off the cord to eye pins. To secure the boat in position tie a length of cord over the boat and tie around the dowel. Repeat for the other side of the hull.





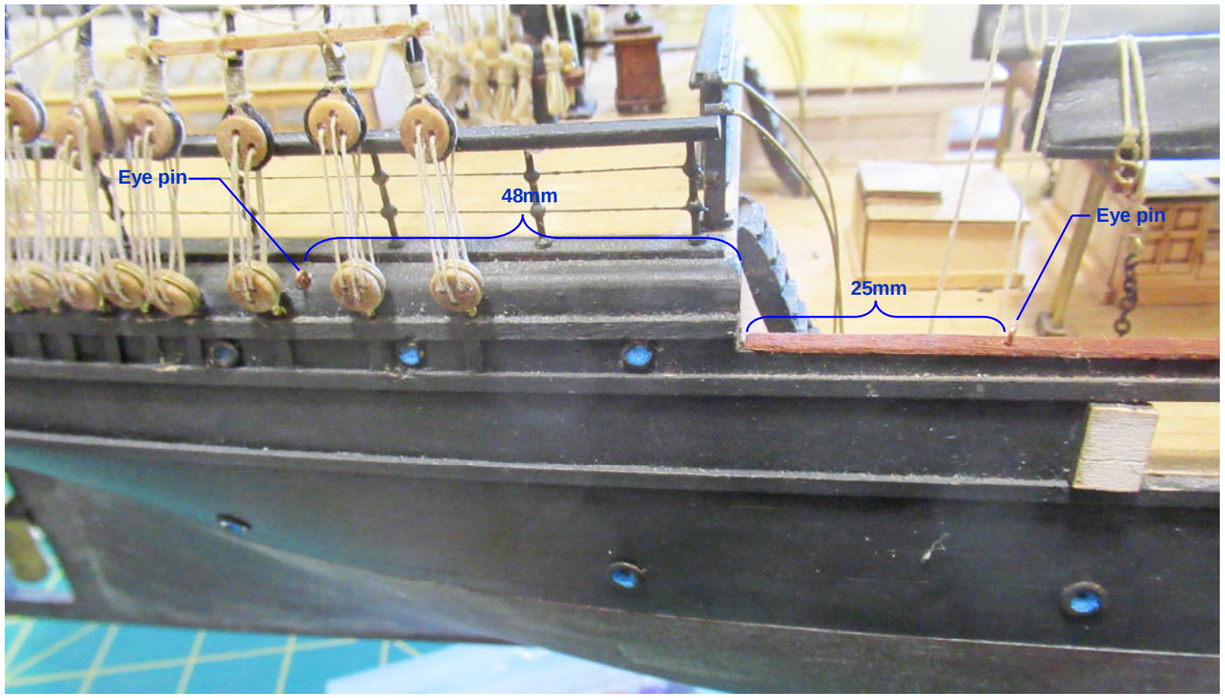


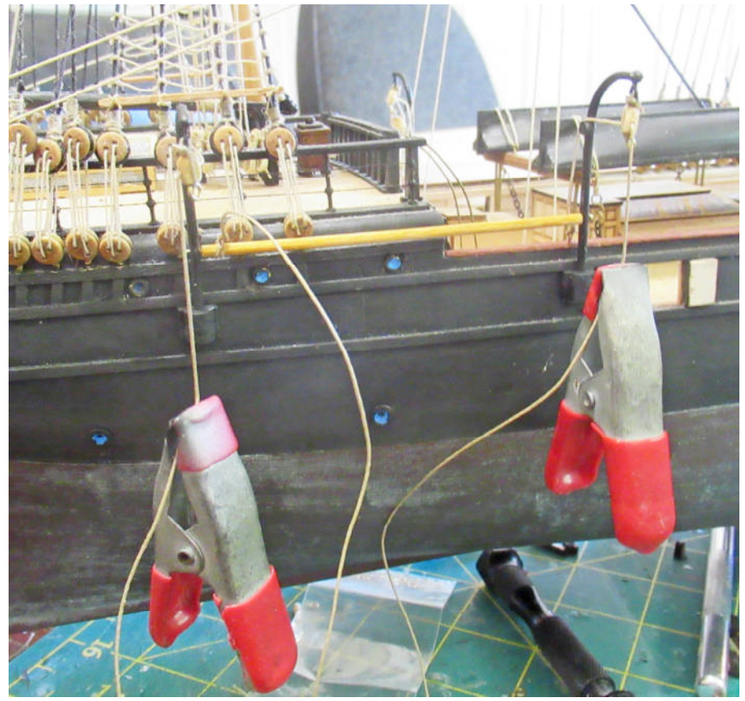


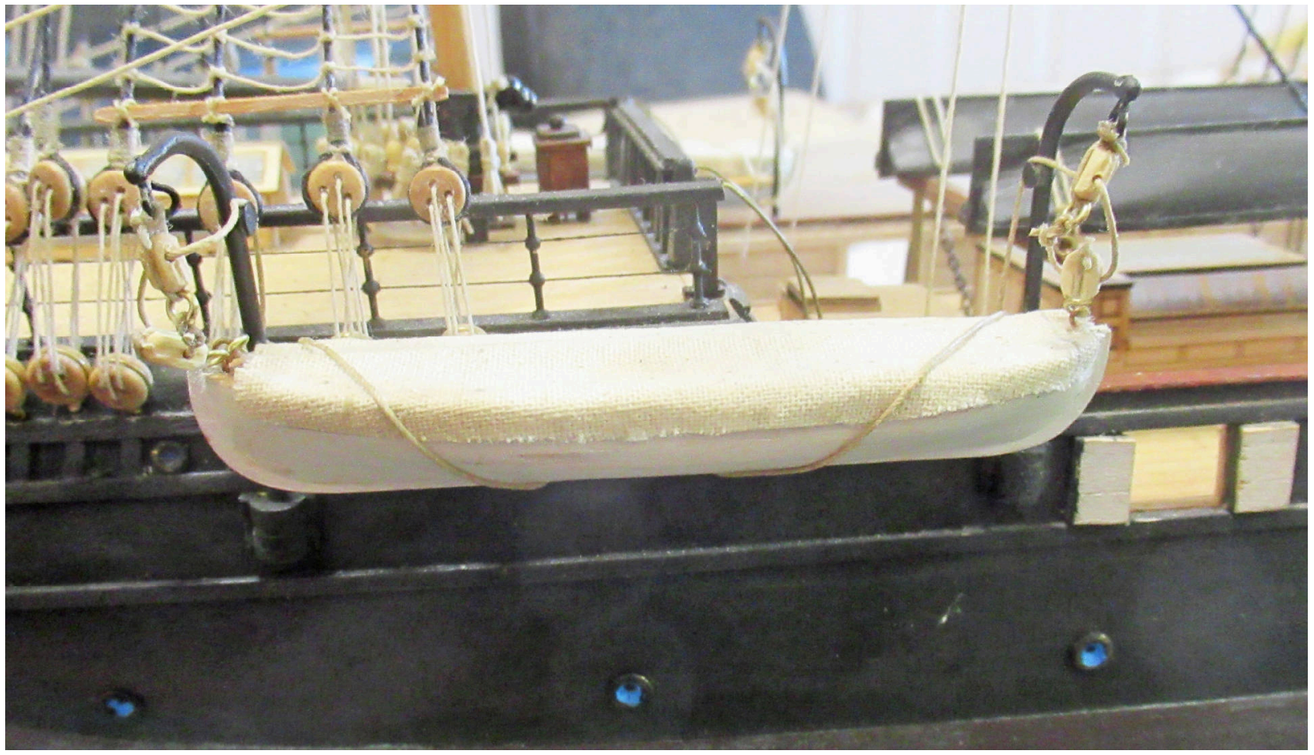
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14.2 Aft Davits

Fix eye pins P77 into the quarter deck rail base and the bulwark cap rail at the points shown. Take one davit pair and fit two bases to each arm (do not glue). Lay one pair of davit on the bench as shown - fit a pin through hole in the davit are glue the pin into the end of the dowel - repeat for the second davit arm as shown. With the davits attached glue the davit bases to the bulwark as shown - pin the bases if needed. Retrieve the two covered boats - fit blocks B1 and rig as previously presented. Repeat for the other side of the hull.





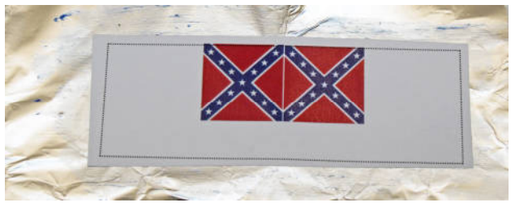


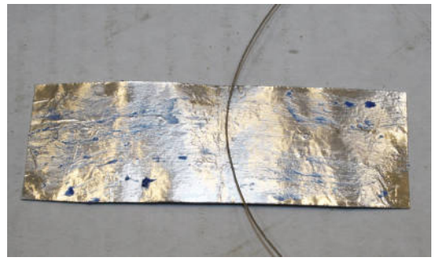
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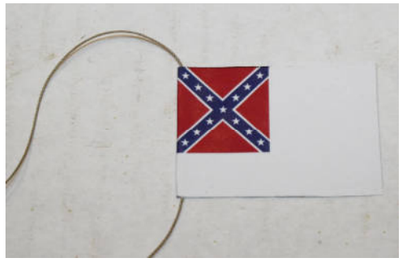
15.0 CSS Shenandoah Battle Ensign

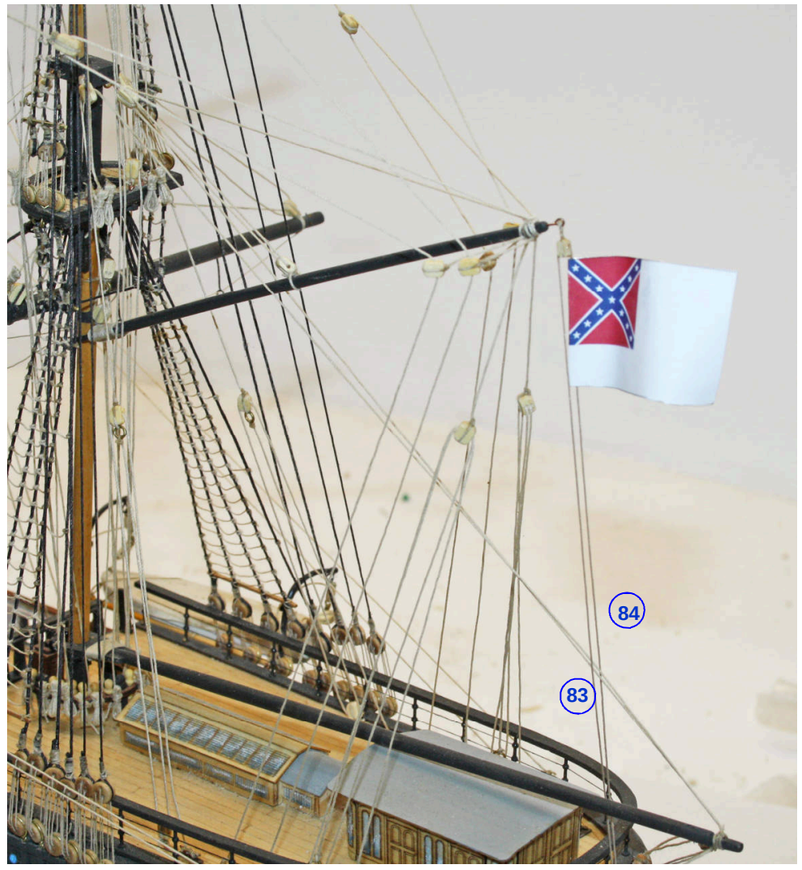
Identify the flag P309. To create the effect of wind blowing the flag select a paper based glue and aluminium foil. Cut around the flag as shown. Cut a piece of foil slightly larger than the flag as shown. Lay the flag face up onto the foil. Press firmly down on the flag to remove any air bubbles. Turn the flag over - cut around the edge of the flag. Turn the flag over, apply the glue to the foil surface and lay a 400mm length of cord C6 across the mid-point on the overturned flag as shown. Fold the flag in half around the cord and press firmly and allow the glue to dry. Attach a block B1 to the eye pin on the end of the mizzen gaff as shown. Feed the cord through block - adjust cord so the flag is at the top of the block as shown and tie-off at points 83 & 84. Once in place shape the flag to give the appearance of blowing in the wind as shown.







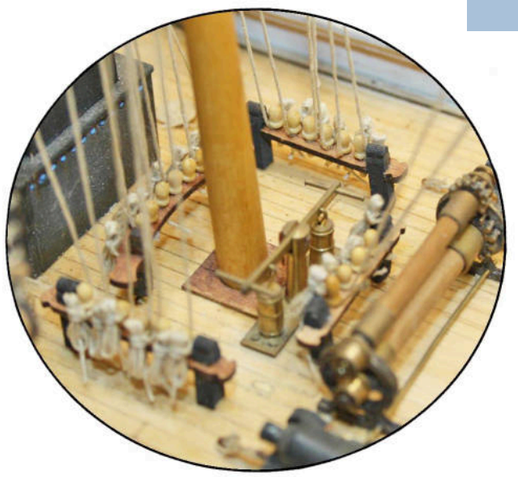




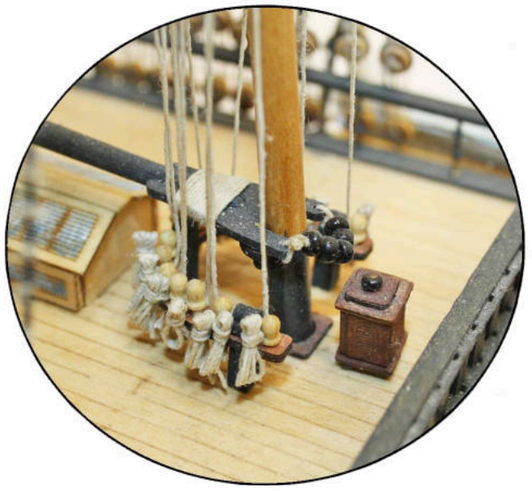
16.0 Rope Coils

Use cord C6 to make rope coils. Place these on pin rails and termination points on the model

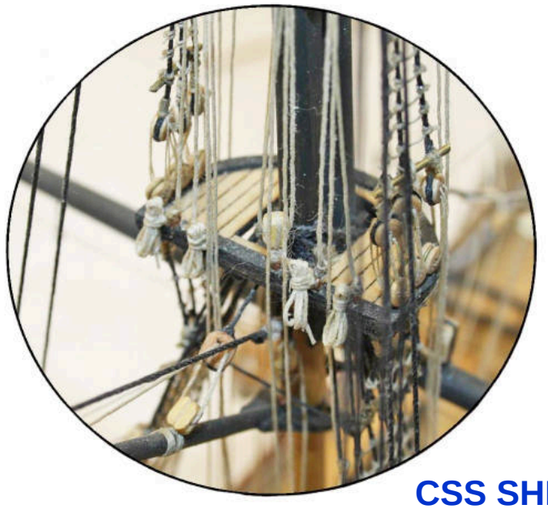












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17.0 Completed Model
Identify the name plates P310 Shenandoah or P311 Sea King. Using a soft cloth, gently rub diluted brown acrylic paint into the chosen name plate. Apply Tung Oil if desired.









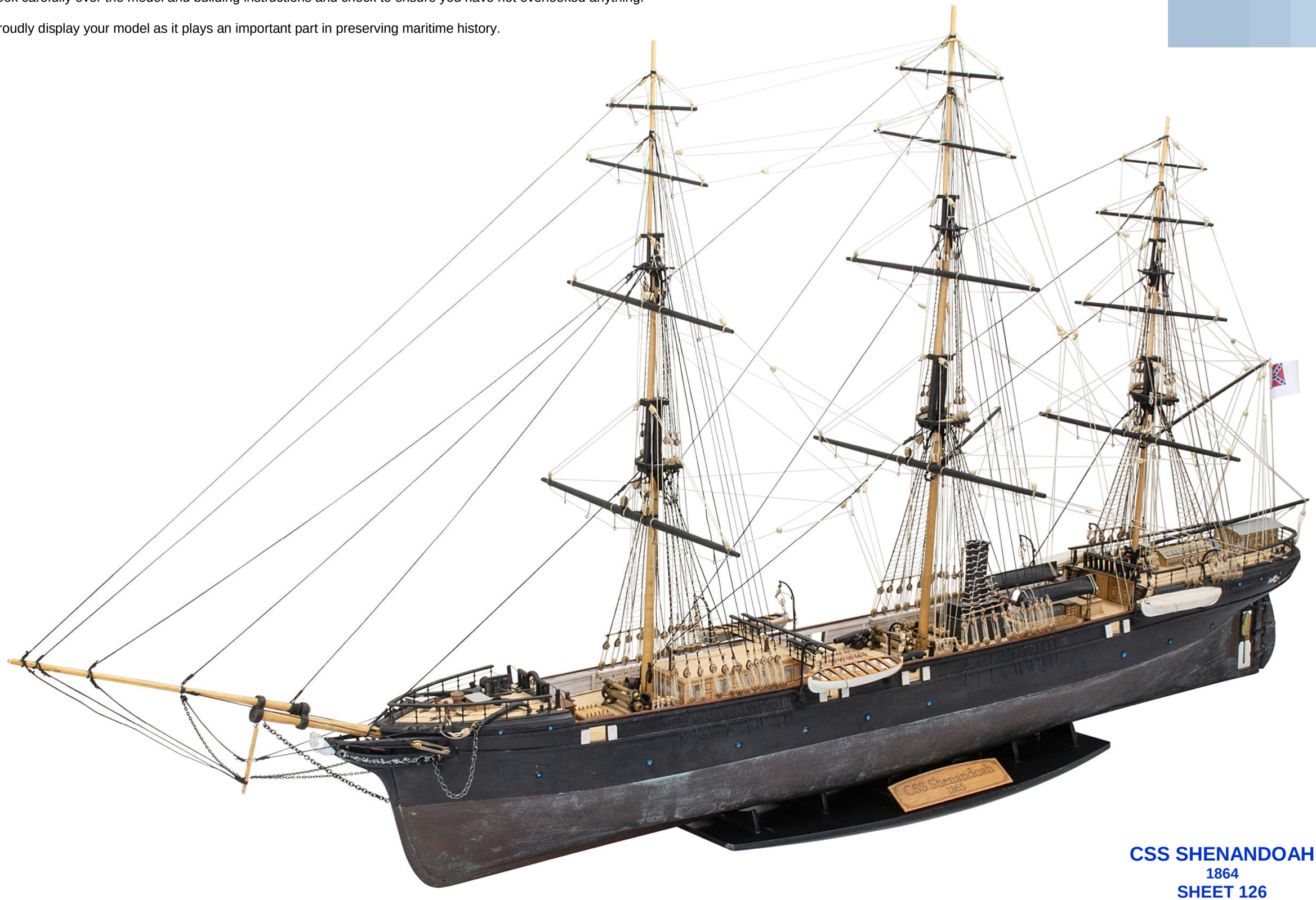
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17.0 Completed Model

Look carefully over the model and building instructions and check to ensure you have not overlooked anything.

Proudly display your model as it plays an important part in preserving maritime history.



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Model of CSS Shenandoah, Museum of the Confederacy, Richmond, Virginia, United States. Built by O.L. Raines, 2004.

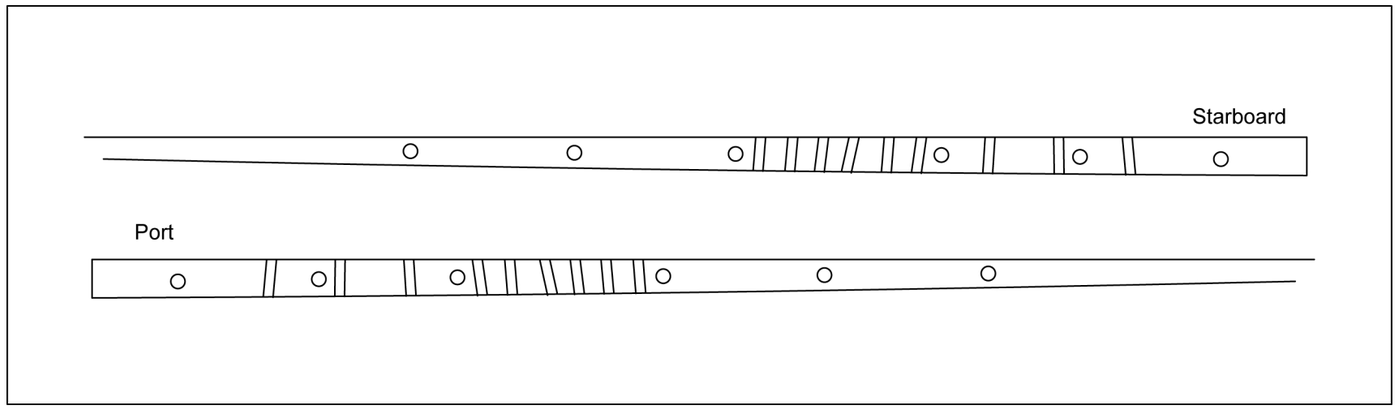


Photo by Gary Renshaw February 2010

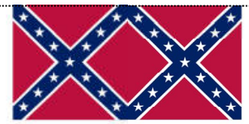
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BLANK

P62 Quarter Deck Port Hole and Mizzen Deadeye Strap Template



P309 CSS Shenandoah Battle Ensign



CSS SHENANDOAH
1864
SHEET 128

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