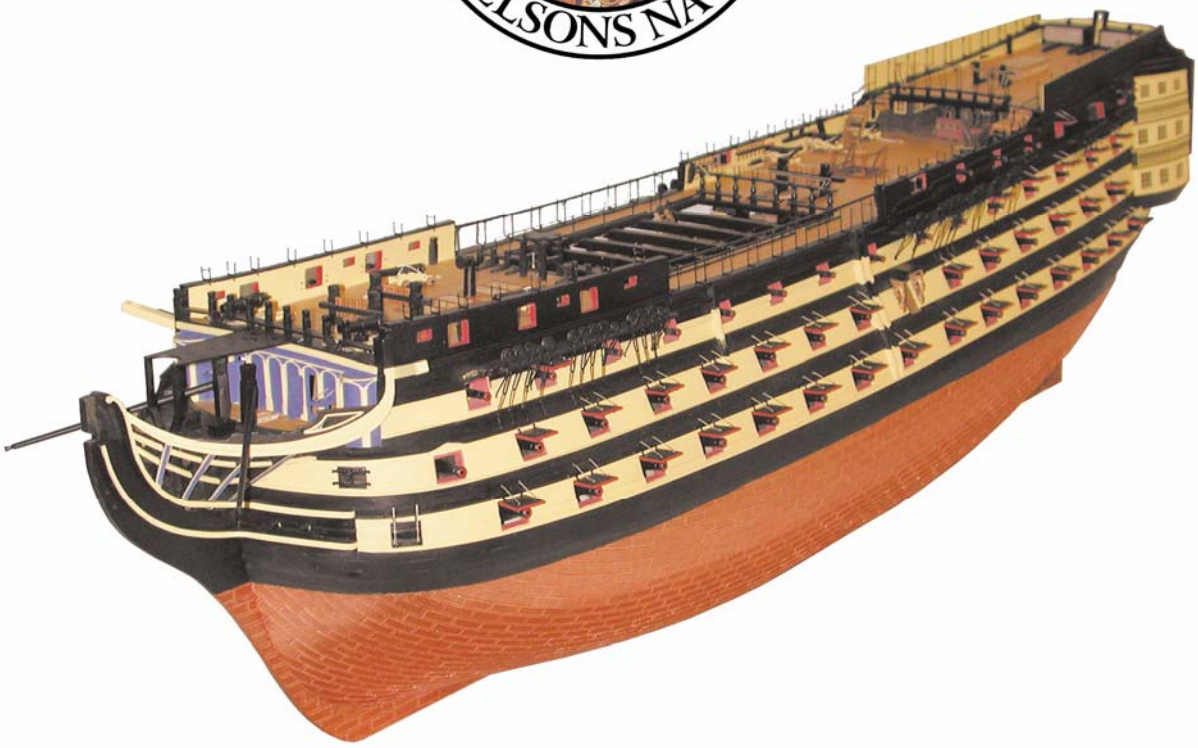
H.M.S Victory 1805

Exact scale model of the 100-Gun British Ship of the Line.

Ordered by the Navy Board on 6th June 1759, Victory was designed by Sir Thomas Slade. Construction commenced on 23rd July 1759 under the Master Shipwright John Lock at Chatham Dockyard. Launched on 7th May 1765 and after initial sea trials, she was laid up in ordinary for thirteen years until France joined the War of American Independence. On 12th March 1778, Victory received her first commission under Captain John Lindsay and so her career had begun.



Manual 1 of 3
Hull Construction

Additional photos of every stage of construction can be found on our website at:
http://www.jotika-ltd.com

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H.M.S. Victory 1805

After more than two years of extensive research and development, using information and sources previously unavailable, this is the most historically accurate, highly detailed model of Victory in her Trafalgar condition available.

Forever associated with Nelson's last battle, H.M.S. Victory is one of the most famous ships of all time, and is now preserved as a major part of the Royal Naval Museum in Portsmouth. The ship's survival is particularly appropriate since Victory is not only an example of the ultimate sailing warship ~ the three decker First Rate ~ but she was also the most popular and successful 100-Gun ship of the period.
Forty years old by the time of Trafalgar (1805), she had been the flagship of half a dozen Admirals, and was to continue in active service until 1812.

This was not the first ship of the Royal Navy to bear the name Victory; there were in fact four predecessors:

1. The first Victory was built in 1559. In 1586, she was rebuilt to 800 tons and carried 34 guns with a crew of 750. At the defeat of the Spanish Armada in 1588, she was the flagship of Sir John Hawkins.
2. Phineas Pett designed the second Victory. She was built at Deptford and launched in 1620. Rebuilt in 1666 to 1029 tons and carried 42 guns and a crew of 500.
3. The Royal James of 1675 was renamed the third Victory in 1691. She was rebuilt in 1695 to 1486 tons and carried 100 guns and a crew of 754.
4. The fourth Victory suffered a tragic fate. Launched in 1737, she was of 1920 tons, carried 100 guns and had a crew of 900. She was lost during a gale while off the Casquets in October 1744. Her whole crew perished with her ~ this tragedy caused the name Victory to be deleted, temporarily, from the Admiralty's list of ship names.

This, the fifth Victory, was one of twelve ships ordered by the Navy Board on June 6th 1759 ~ more than 40 years before the battle of Trafalgar for which she is famed. Designed by Sir Thomas Slade, construction began at Chatham Dockyard on July 23rd 1759, the 'marvellous year' (Annus Mirabilis). This, the year of victories, marked the turning point of the 'seven years war' for Britain. These facts may well have played a significant part in the naming of the vessel and the name Victory being restored to the Admiralty list of ships.

As with all of our models, Victory has been designed using the latest CAD/CAM technology. With this versatility, continual refinements can be made to ensure the model matches the most recent research available.

Nelsons' Prayer:

In the hours before the battle of Trafalgar, Nelson, in the Great Cabin onboard Victory composed the following prayer:

"May the Great God, whom I worship, grant to my Country and for the benefit of Europe in general, a great and glorious victory: and may no misconduct, in any one, tarnish it: and may humanity after victory be the predominant feature in the British Fleet.
For myself individually, I commit my life to Him who made me and may His blessing light upon my endeavours for serving my Country faithfully. To Him I resign myself and the just cause which is entrusted to me to defend.
Amen, Amen, Amen."

At approximately 13:15 this same day, Nelson was struck by a musket shot fired from the French Ship Redoubtable. As Nelson died some three hours later he was heard to say:

"Thank God, I have done my duty."

Getting started

Victory is an exact scale model designed using original Admiralty plans. All fittings, masts and rigging have been researched using contemporary sources and the most up to date reference material available.
Although the kit is as prefabricated as we can make it, basic woodworking skills are required. Estimated build time is between 2400 to 3000 hours, so a work space will have to be put aside for the job. Do not remove parts from the CNC cut sheets until actually required.
Carefully study the plans in conjunction with the instructions until you are confident to tackle each stage of construction. Patience is the key word when building any model. Treat each stage as a separate project and the overall effect of the completed subject will be enhanced.

Recommended Tool List

1: Craft knife
2: A selection of needle files
3: Razor saw
4: Small wood plane
5: Pin vice or small electric drill (the latter is the more recommended item)
6: Selection of drill bitts from 0.5mm to 3mm
7: Selection of abrasive paper and sanding block
8: Selection of good quality paint brushes
9: Long nose pliers and wire cutters
10: Good quality tweezers
11: Dividers or compass
12: Steel rule (300mm)
13: Clothes pegs or crocodile clips
14: Tee-Square
15: Good quality pencil or Edding pen
16: Masking tape

Paints, stains and adhesives

1: White PVA wood glue
2: Walnut wood dye (for masts)
3: Cyanoacrylate (super glue) thick and medium viscosity (Admiralty Glues, Thick (AG9103) & Medium (AG9102))
4: Walnut wood filler
5: White spirit
6: Matt polyurethane varnish (not satin or gloss)
7: Black paint for ‘woodwork’ (Admiralty Paints: Dull Black, AP9105)
8: Black paint for ‘ironwork’ (Admiralty Paints: Matt (Metal) Black, AP9106)
9: White paint (Admiralty Paints: Matt White, AP9111)
10: French blue paint (Admiralty Paints: French Blue, AP9117)
11: Yellow ochre paint (Admiralty Paints: Yellow Ochre, AP9115)
12: Red ochre paint (Admiralty Paints: Red Ochre, AP9116)
13: Copper paint (Admiralty Paints: Copper, AP9126)
14: Gold paint (Admiralty Paints: Gold/Brass, AP9125)
15: Brown (wood/leather) paint (Admiralty Paints: Wood (Walnut) Brown, AP9119)
16: Olive green paint (Admiralty Paints: Olive Green, AP9118)

We highly recommend the use of Admiralty Paints; this is a new brand of paint which contains a specific range for 17th / 18th / 19th Century Man of War colours. This range of scale paints has been colour matched to the Admiralty colours, as still used on HMS Victory in Portsmouth. Unlike other manufacturers, these **are not** toy paints and have been designed specifically for use on model ships to give consistent coverage and colour. In order to achieve this, they may contain lead / lead chromate and as such should not be used on children’s toys or surfaces that may be chewed.

Before You Begin.

Before you start building this model a little forethought now will be well worth the time given to it throughout the building process.
Although the majority of suggestions will be second nature to the more experienced modeller, this kit and others in the series can be built by the less experienced, given sufficient information.
The instructions and parts manual has been compiled to give as much information as practicable together with additional diagrams, photos and a complete set of actual scale technical plans.
Wherever possible we have tried to explain technical terms, in particular nautical terminology but it pays to have a good selection of reference books to hand.

Despite the 1:72 scale of the model, the overall size of the model is rather large. You should consider this when setting aside a work area for the build. You will also need regular access to both sides of the model, especially when rigging, you will therefore need an area large enough to walk around the model or large enough to easily turn the model through 180 degrees without risking damage. Also ensure the cords for any power tools will not interfere with the model.
A 5mm ply stand is provided with the kit. This will primarily be used to support the hull during build process. Ideally this stand should be secured to an adequate baseboard. Upon completion, the model can be placed on a display stand of your choice.

During the build it will be necessary to sand down large areas, (after the first and second planking and at other stages) it is therefore advisable to work in a well ventilated area and / or wear appropriate protection. The same applies when using paints, stains, glues, fillers etc. Good lighting is also essential to the modelmaker.
The structural parts of the model are cut from high quality birch plywood, the remaining wood parts are cut from high quality walnut ply and walnut.
Take particular care when removing parts with a craft knife and ensure all parts are identified and marked with pencil before removal. Lay the sheet from which you are going to cut the parts on a rigid flat cutting board for removal. Use a heavy-duty craft knife with a good strong blade to cut through the tabs holding the parts in place. It will also be an advantage to paint the brass etched fittings prior to removal from the sheet, they can then be touched up again when in place. Alternatively when cutting brass or copper parts, a good pair of stout scissors will suffice.

Before each stage of construction, study both the manual and the plans until you are confident in the task ahead.
The majority of the model will be painted during various stages of the build. It is important to think ahead to the next stage in the construction process and paint the various parts at a convenient time, usually before securing on the model. It is often a good idea to paint parts for the next stage and while they are drying you can be working on the current stage.
Wherever possible, offer the parts together in a ‘dry’ fit before final assembly.

Before Planking The Hull ~ A Note

In order that the final width of the planked hull will match the width of the stern post, some sanding will be required prior to both first and second planking.

Before the first planking is applied as described on page 6:

1. Using ***Plan Sheet 2*** for reference, mark the bearding line onto the keel.
2. Gently sand the shaded area, sternwards, until you have a taper that runs from 5mm wide at the bearding line to 2mm wide at the stern.
3. Continue as instructed with the first planking and upon completion the width at the stern will be 5mm.

Before the second planking is applied as described on page 9:

1. Note the bearding line onto the first planking, again using ***Plan Sheet 2*** for reference.
2. Gently sand the shaded area, sternwards, until you have a taper from the bearding line to 3mm wide at the stern.
3. Continue as instructed with the second planking and upon completion the width at the stern will again be 5mm.

Hull Construction

Cut out the main keel (19) from the 5mm ply sheet, together with the 5mm walnut pieces; stem (55), front keelson (56).
Glue the walnut pieces into position along the ply keel edges using PVA wood glue. Tape can also be used to assist. Make sure that the structure remains perfectly flat, straight and in line whilst drying.
A suitable building board should be considered at this point. Construct the board from MDF or similar sturdy material. The board should be long enough and wide enough to protect the hull throughout construction.
After numbering all the parts of the 5mm ply sheet, remove all the bulkheads (1-18), the middle gun deck (22) and the plank termination patterns (20 & 21). Using ***Plan Sheet 1*** for reference, dry fit the bulkheads and middle gun deck into position and make sure that the whole assembly is square.
Remove bulkhead (1) and put it to one side, it will be fitted in the next building sequence.
If you are happy with the remaining bulkheads they can now be fitted and glued into position with PVA, together with the middle gun deck.
Supplied with the kit in 5mm ply are four dummy barrel strips (39). These strips will be used as fixing points for the 32 pounders on the lower gun deck and the 28 pounders on the middle gun deck. These strips will be inserted into the slots in the bulkheads running fore and aft throughout bulkheads (2) to (17).
When the keel and bulkhead assembly has dried to a rigid form, you will notice the slots in the bulkheads and the slight curve to which they run. In order to insert the dummy barrel strips they will either have to be warmed with a heat gun or soaked in water for a short time, only a slight curve in necessary!
Push these strips into the bulkheads (2 - 17), from the front. Once inserted they should be as far forward as possible while still allowing bulkhead 1 to be positioned, they can now be secured. Once the structure has dried thoroughly, remove any excess of the barrel strips behind bulkhead 17.
Bulkhead (1) can now be glued into position.
When this part of the construction has completely dried, it will be necessary to remove a small section of the uppermost dummy barrel strip between bulkheads (9) and (10) on both sides of the hull to allow for the positioning of the side entry ports, port and starboard (*Photo 001*).
Glue the bow forward supports (40 – 42) into position on bulkhead 1, then glue the plank termination patterns (20 & 21) into position. Also glue the stern extensions (105 & 106) into position on bulkhead 18, as shown on ***Plan Sheet 1***, care should be taken to ensure they remain square to bulkhead 18.
At this stage, consideration should be given to how the finished model is to be displayed. It is recommended that using a 3mm drill, drill 3 holes up into the keel one in the centre and one in each end at an even distance apart. Upon completion of the model, three brass or stainless steel rods can be used to support the model on your chosen display board.

Photo 001

Photo 002

Now the 1.5mm ply gunport patterns (270, 271, 272, 276) can be fitted.
There are a number of important points to consider at this stage and they are as follows:

1. Care should be exercised to ensure the gunport patterns are fitted correctly because, at a later stage, the gunports must correspond with the gunports in the upper gun deck, quarterdeck and forecastle inner bulwark gunport patterns (273, 274, 275, 276).
2. Make sure that the openings have been cleared of any debris. It will also be an advantage if the openings are made square in the corners to greatly assist you when the gunport linings are fitted.
3. Make full use of glues and pins to secure the patterns, even though some of the bulkhead top sections will be removed during later building stages.

Temporarily pin the quarterdeck (446) in place.
Starting with the top gunport pattern (270), position the pattern so that:

1. The back edge is flush with the outer stern extension pattern (106), (*Photo 002*).
2. The rearmost upper gun deck gunport back edge is flush with the front of bulkhead 17.
3. Make sure that the top edge of the gunport pattern lies 1mm above the ply quarterdeck (446) between bulkheads 6 & 9, this will allow the deck planking to sit flush with the pattern at a later stage, (*Photo 003*).
4.

Photo 003

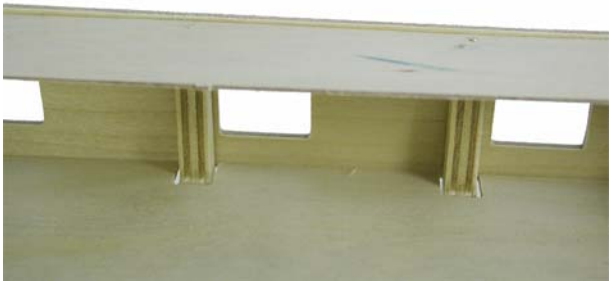
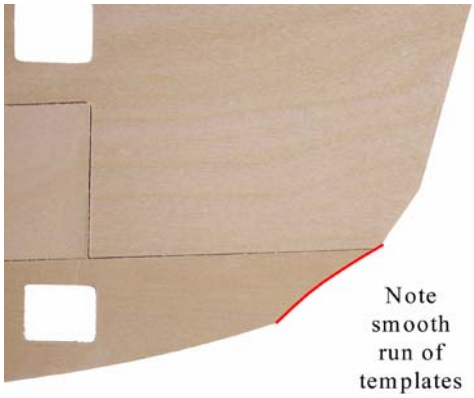


Photo 004

Once that you are happy with the positioning, pin and glue into place, remove any excess from the front of the pattern so that it is flush with the front of bulkhead 1. Repeat the procedure with the opposite pattern.
Glue and pin the patterns alternatively left and right throughout the building stage.
If building to the Trafalgar condition, the outer forecastle gunport strip (276) should now be fitted so that the rearmost edge sits flush with the raised lip of the top gunport pattern (270). (If you have decided to build to the Portsmouth (2003) specification this pattern (276) should be emitted.)
Note: The forward edge does not sit flush with the forward edge of bulkhead 1, (*Photo 004*). You will also notice that the bulkhead tops foul the gunports, do not worry as they are removed at a later stage.
The middle gunport pattern (271) can now be offered into position directly under (270), (*Photo 005*).
However, this pattern will fit around the bow and fit flush against the stem. In order to achieve this, the pattern will have to be soaked in water. It will also be necessary to bevel the edges of the plank termination patterns (20 & 21), the bow forward supports (40 - 42) and also bulkheads (1 & 2). Pin and glue as necessary.
The lower gunport pattern (272) can now be fitted in a similar manner. The leading edges of the forward bulkheads will require bevelling and the pattern will have to be soaked in water.
Refer to the drawings and make sure that the rear part of pattern (270) and (272) run in a uniform manner (*Photo 006*), **any excess material should be removed from the front edge.**

Photo 005

Photo 006



The quarterdeck (446) can now be removed and the whole assembly set aside to dry thoroughly.

First Planking

Before the first planking begins, it will be necessary to bevel the edges and undersides of the bulkheads at the bow and at the stern. Bulkhead (18) will need to be bevelled along its underside to quite an angle, (*Photo 007*).
Also, taper the keel as previously instructed on page 3.
With the side patterns in position and thoroughly dry, now is the best time to bevel the bulkheads, as the structure is very rigid and sturdy.
Place a single piece of 1.5x6mm limewood across the bulkheads and you will see quite clearly where the bevelling is required.
After bevelling, the first planking can be applied using 1.5x6mm limewood strip.

The first plank is laid directly against the lower edge of the lower gunport pattern (272). As the plywood bulkheads are very strong, it is recommended that 0.5mm holes be drilled into the bulkheads before the insertion of the pins. When pushing the brass pins into the planks and bulkheads, leave at least 3mm protruding so that they can be easily removed once the planks are secure, (*Photo 007*) Glue the planks into position using PVA wood glue. Ensure that you glue every area of contact with the planks and bulkheads.
The first ten planks on each side are relatively straight forward, as they require little or no tapering. As you start down to the curved side of the bow, the planks will need to be tapered to follow the natural run of the planks. In order to determine the amount of taper required for each plank to lie naturally, lay the plank from the 6th bulkhead around to the bow, mark the excess area of the plank that overlaps the plank immediately above it. Repeat this process for the stern also.
Before cutting the taper into the planks, soak them in warm water for an hour or so as this will minimise the chance of the knife blade following the grain of the wood rather than the edge of the steel rule.
Lay the first wet plank to be tapered on a clean, flat surface (a cutting mat is ideal). Press firmly with a steel rule onto the marked taper line on the plank and score down the line with a heavy-duty craft knife **several times** until the excess is cut off (**do not attempt to cut the plank in one pass!**).
Pin and glue the tapered planks into position on the hull leaving a little excess across the bottom edge of bulkhead (18) which can be trimmed to shape once the planking is complete, (*Photo 007*).
Glue two or three planks alternatively each side, this method should prevent any possible warping or twisting of the bulkheads and keel.
Use this planking method right down the hull. When planking is almost complete you will notice triangular shaped gaps at the stern (and bow to a lesser degree). This was also the case in full size practise, although not so simplified. The use of triangular shaped planks (called stealers) is needed for these gaps. Cut these to shape using the excess limewood from the ends of the planking and glue them into the gaps.
Trim the excess stern planks at bulkhead (18) to shape and leave the hull to fully cure for at least 24 hours.
The next stage is to sand the hull with a coarse grade abrasive paper, followed by a medium grade. This will obviously entail a few hours work but it will form the basis for the second planking, remember to remove all pins before sanding begins.
The building cradle (43, 44 & 45) can now be constructed and secured to the building board of your choice.

Photo 007

Quarter Galleries

Refer to (*Fig 001*) for the correct assembly of the quarter galleries. Time patience and care will be required during this stage of construction but you will be greatly rewarded by the end product.
During this stage of construction, it will be necessary to glaze the quarter pattern skins (365, 367, & 369) **before** they are glued into position. Should these skins require any filing or sanding then it should be done prior to glazing.

Cut out the main quarter gallery inside pattern (373) from the 1.5mm walnut sheet together with the stern fascia inner skin (374) and upper stern counter pattern (371).
Identify, label and remove all the quarter gallery patterns from the 2mm walnut sheet.
Temporarily pin the inner stern fascia pattern (374) centrally across the stern extensions. The lower edge of the fascia pattern should follow the angles of the stern extensions, (*Fig 002*).
Insert into the side slots of (374) the top quarter gallery pattern (215) and at the same time fit this top pattern (215) into the pattern (373).
The main quarter gallery inside pattern (373) should now locate into the two slots in the top gunport pattern (270), at the same time the downward and outward angle of the top quarter gallery pattern (215) should be maintained, (*Photo 008*).

Fig 001

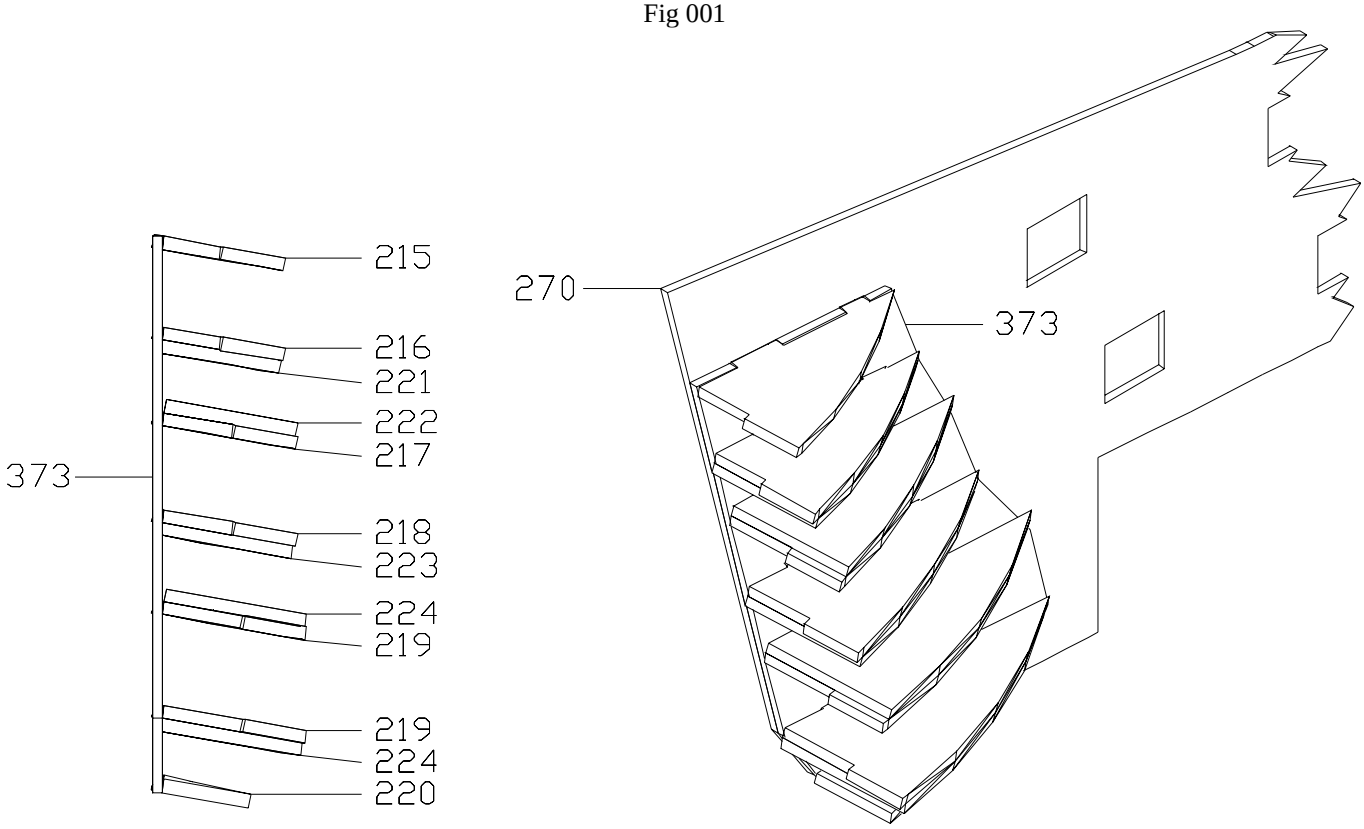
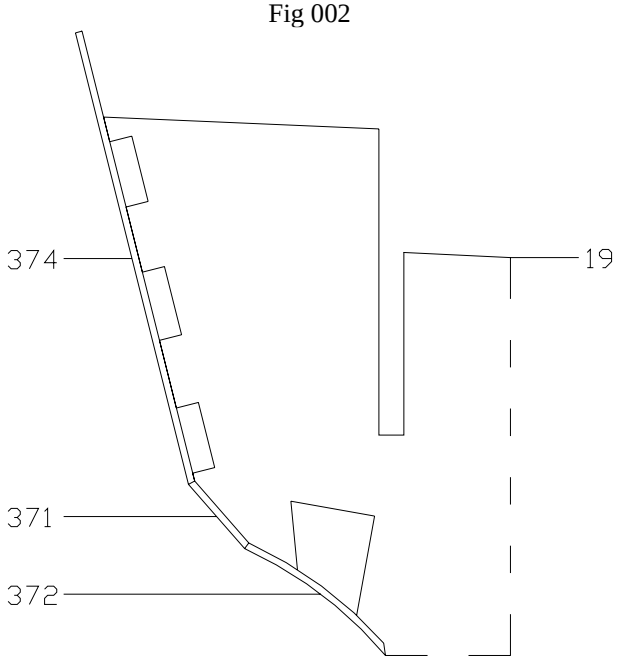


Photo 008

Photo 009

Fig 002

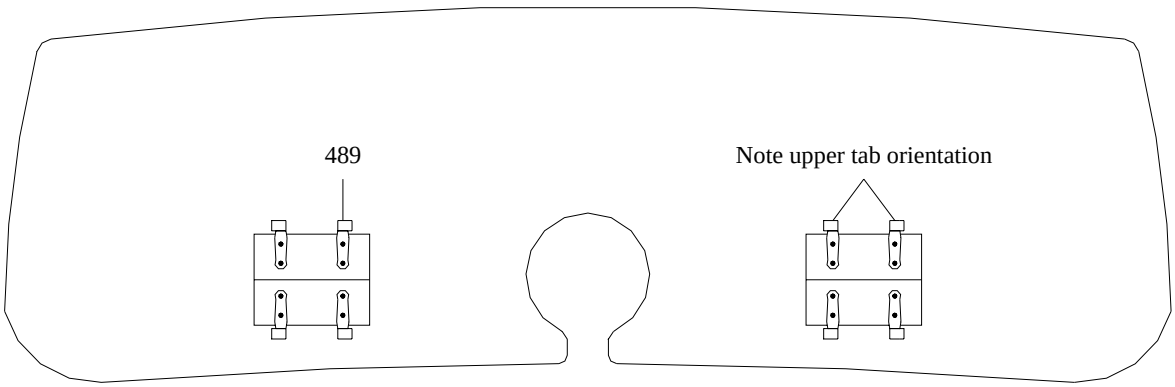


This building stage may appear to be more complicated than it really is, there is a need for several pieces of the structure to fit together at the same time. However, with a little patience, thought and care it will all come together.

Check the pieces fit first, re-check and check again!

When you are completely satisfied with the fit and building process then the main quarter gallery inside pattern (373) can be glued into position.
The stern fascia inner skin (374) can also be glued into position. If it is decided to use pins, take care not to distort the fascia's natural curve across the stern extensions.
Once these pieces have been glued into position, the remaining quarter gallery patterns (215-219) can also be glued in place. Work alternatively each side maintaining the correct downward angle.
You will notice that there are two patterns (219) each side. They are the same size and one fits into the full slot and the other into the half slot on the bottom edge of the stern fascia (374). Glue both patterns into place.
From the 1.5mm walnut sheet remove the upper stern counter pattern (371) and offer its top edge to the bottom edge of the stern fascia (374). These two edges are to butt up against each other and slight bevelling will be required, (*Fig 002*).
Glue the counter pattern (371) into position.
The 7th quarter gallery pattern (220) can now be glued into position and its bottom edge should sit flush with the bottom edge of the upper stern counter pattern (371).
From the 1.5mm walnut sheet remove the lower stern counter pattern (372). This pattern can be fitted and glued into position in a similar manner. However, it will have to be soaked in water first but only for a short period – bear in mind that the ply wood is held together by a water soluble glue!
When you are able to offer this pattern (372) into position the top edge will also require bevelling. You will also be in a position to see how much of the first planking may need be to be sanded from the lower edge of bulkhead 18 to ensure a good fit in preparation for the second planking. With the lower stern counter pattern in place, you can attach the brass etched double door vent hinges as shown (*Fig 003*), and painted black.

Fig 003



Once this stage has been completed, it will become obvious that the 1.5mm walnut quarter gallery skins (365-370) will join along these patterns, you will also notice the downward and outward lie of these skins. **N.B. All trimming of these skins should be made along the foremost edge, do not trim the rear edge that sits flush against the stern fascia (374)!**
The 2mm walnut quarter gallery insert patterns (221-224) can now be glued into position (*Fig 001*). They will require bevelling to form the basic shape, it is advisable to check the skins against their respective locations as you progress down the galleries. Again work on alternating sides.
Before the quarter gallery skins with windows (365, 367 & 369) are glued into position, it is advisable to clean out the corners of the recess in preparation of fitting the window frames, also they will have to be glazed with the plastic glazing provided. Glue the sheet to the inside of the skin to cover the three openings. **Use PVA to do this as the fumes from super glue will discolour and cloud the glazing**, (*Photo 009*).
In conjunction with the drawings provided, work down the skins fitting and gluing into position. Bevelling and shaping will be required.

Take extra care not to damage the glazing on the skins.
The stern fascia will be glazed at a later time between the inner and outer patterns.

Middle Gun Deck Planking

A small area of this gun deck will be visible through the upper gun deck companionways and the side entry ports. Using 1x4mm Tanganyika, plank the middle gun deck between bulkheads (4) and (12) and across the beam to the bulkhead risers and plank completely across the beam at the side entry ports position. Make sure the main mast hole is cleared. Glue into position the main mast sleeves (154), the mast sleeves will requiring filing to allow the main mast to pass through at the correct angle (as determined by the slot in the keel).
When planked, lightly sand the deck smooth. Apply a coat or two of matt polyurethane varnish to seal the grain.
It is advisable at this stage to paint the areas between the outside faces of the dummy barrel strip and the deck area up to the inner side of the ships sides. These areas will be visible to some degree and painting is better achieved at this stage, paint the areas matt black (Humbrol 85).
Using 1x16mm walnut strip, line the entry ports.
Cut the strips to length and glue on the vertical sides first, followed by the top and bottom sills. When complete, sand the outer sills flush with the side of the hull. If necessary, a smear of super glue over the strip, prior to cutting, can be used to avoid splitting.

Second Planking

The second planking is laid using 1x5mm walnut. The gluing of the second planking also differs from the first as the whole under surface of the walnut strip is glued to the surface of the first planking as well as edge to edge.
Before progressing, taper the first planking as previously instructed on page 3.
Referring to ***Plan Sheet 2***, mark the position of the upper edge of the middle wale onto the hull, this is best achieved by measuring the distance from each gunport lower edge to the point of intersection with the wale and joining these points with a smooth line (formed by temporarily positioning a plank against the hull). This line now denotes the upper edge of the first plank, of the second planking, which can now be laid.
Once the first walnut strip has been laid, work down to the keel using the same planking method as the first planking. Some slight tapering will be required at the bows and it should be treated in a similar manner to the first planking method. The walnut planking around the bows will have to be soaked in water first.
The best glue to use above the waterline is medium super glue. This is to avoid the use of pins, eliminating pinholes that would have to be filled prior to painting. Super glue will stick the planks as well, if not better than, PVA wood glue. Around the bow area, where the walnut strip has been soaked in water, take extra care – wet wood and super glue will bond more or less instantly! Great care is needed to attain as neat a job as possible to minimise the need for filling. If desired, PVA wood glue can be used for the planking beneath the waterline in conjunction with pins temporarily pushed half way in, until the glue has cured.
After the lower planking has been laid, identify and fit the back keelson (57) and stern post (58).

Note: Lay one or two planks on alternative sides when planking, to avoid ‘pulling’ the keel out of shape, cutting the gunport openings as you progress: cut the gunports to exactly the same size as the gunport patterns.

Note: With the lower planking completed, you can continue to plank upwards but at this stage **do not** plank over any of the gunport openings of the upper deck! This area will be planked at a later stage because eight of the centre gunports have to be lined first and this cannot be done until the upper deck inner bulwark pattern (275) has been fitted.

The Upper Gun Deck

Work can now commence on the upper gun deck. It is necessary to suspend work on the remainder of the uppermost area of the hull planking until this deck is almost completed. It is the easiest option and the way in which the prototype was constructed.
From the 5mm ply sheet identify, label and remove the upper deck camber beams (26, 28, 29, 30, 31 & 32). These beams correspond to the bulkheads as identified in the cutting list. Remove the upper gun deck (445) from the 0.8mm ply sheet. Remove both of the upper gun deck inner bulwark gunport patterns (275) from the 1.5mm ply sheet.
Locate, fit and glue into position the upper gun deck camber beams as identified earlier, referring to ***Plan Sheet 1*** noting the location of the camber beams either in front of, or behind the bulkheads. When dry, the upper gun deck (445) can be fitted. Locate and fit the deck into position on the beams so that it lies perfectly flat and even both across the beams and fore and aft. Some slight shaping may be required along the outside edges and in the slots, the deck must fit neatly. Before the deck is glued into position, offer into place the inner bulwark pattern (275) making sure the inner and outer gunport openings are aligned: back, front, top & bottom. The pattern (275) has been designed to allow some lateral movement.
When completely satisfied with the fit, glue the deck into position, making sure the mast holes (cut outs) align to the deck below and the angled slots in the keel.
Once the deck has dried and having regard to the foregoing instructions fit and glue into position the upper gun deck inner bulwark patterns (275).

Planking the Upper Gun Deck

The beakhead bulkhead (205) will be fitted at a later stage across bulkhead (1). Offer the bulkhead (205) into position, on the front of bulkhead (1), and mark a line in pencil across the ply deck behind the bulkhead (205). This pencil line is where the planking will terminate. Now mark a centre line down the ply deck.
Using 1x4mm Tanganyika strip, plank from the centre line alternatively across the deck to each inner bulwark, clearing all hatches, companionways and mast holes as you progress.
Note: If you wish to accurately represent the plank length and four butt shift system used on Victory, each plank should be either cut to a length of 85mm (approximately 20ft) or the planks can be laid full length and scored with a craft knife every 85mm, this latter method often looks the most convincing at this scale. The four butt shift system simply implies that the end of each neighbouring plank is offset by 1/5 of twice the length of the planks (34mm) such that the end of every fifth plank athwartships only is aligned (i.e. separated by a four plank shift).
Once completed, lightly sand the deck smooth and apply several coats of matt polyurethane varnish.
Glue into position the mast coats (155 & 157), make sure the mast holes are cleared, the mast sleeves will requiring filing to allow the mast to pass through at the correct angle (as determined by the slots in the keel). The mast coats should be varnished.
Before the inner bulwarks of the upper gun deck can be planked, several gunports will have to be lined.
The only gunports that need to be lined at this stage are those without gunport lids. Referring to ***Plan Sheet 2***, you will notice that the 3rd to the 10th gunports inclusive do not have lids. Using 1x16mm walnut strip, cut to length and glue on the vertical sides followed by the top and bottom sills. When complete, sand the inner and outer sills flush with the side of the hull and inner bulwark patterns. If necessary, a smear of super glue over the strip, prior to cutting, can be used to avoid splitting.
Using 1x4mm walnut strip, plank the inner bulwark patterns (275), clearing the gunports as you progress. Refer to ***Plan Sheet 1***, noting the location of the quarterdeck camber beams. However, do not glue them into position, merely temporarily fit them to give you their positions whilst planking, then put them to one side.
The inner bulwarks will be painted yellow ochre (Humbrol 74).
It is now possible to resume the second outer hull planking. Continue as before using 1x5mm walnut strip and in the same manner.
Continue planking until you reach a position over the top of the gunports you have already lined. Your last plank at this stage should just come below the last gunport on the quarterdeck.
All work will now concentrate on the ships side.

The Wales

Referring to ***Plan Sheet 2*** and (*Photo 10, 11, 12 & 13*) carefully mark the position of the lower wale.
Note: the wales do not follow the yellow and black bands (as described in 'Lining the Gunports' Page 12), but the outline of the wales are clearly visible in the photos.
Because the positioning of all three wales are critical to maintain the natural line and aesthetics of the ships side, take your time. As with all planking, work alternately each side, remembering where necessary to soak the planks in water.
When you are satisfied with the positioning of the lower wale, planking can begin. The uppermost plank is 0.5x4mm walnut strip, the remaining four lower planks are 1x5mm walnut strip. Cut out the gunports as you progress, including both entry ports.
The best glue to use for the wales is medium super glue, again this is to avoid pin holes that would need to be filled prior to painting.
Another important point is to make sure that the top and bottom planks of each wale sit tight against the hull. At a later stage when painting the hull, colour changes take place across the wales. The better they fit, the better the painting will be.
Continue up the ships side and apply all three wales.
The middle wale is made up of three walnut strips 1x3.5mm.
The top wale is also made up of three walnut strips 1x3.5mm.
Take extra note of the way in which the top wale, bow section, centre plank runs under the roundhouse as shown ***Plan Sheet 2***.
The centre plank of the top wale curves around the bow and will sit approximately 1mm above the 0.8mm ply deck. When the deck area has been planked, both the centre wale plank and the deck will be level.
Note: the top plank of this wale terminates at the beakhead bulkhead.

Photo 010

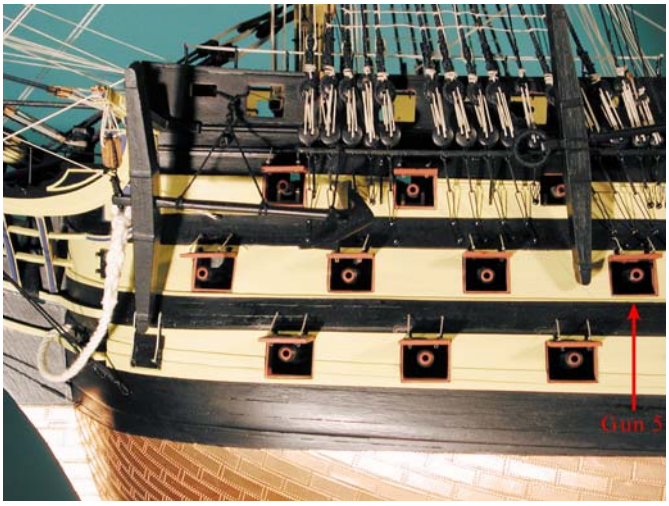


Photo 011

Photo 012

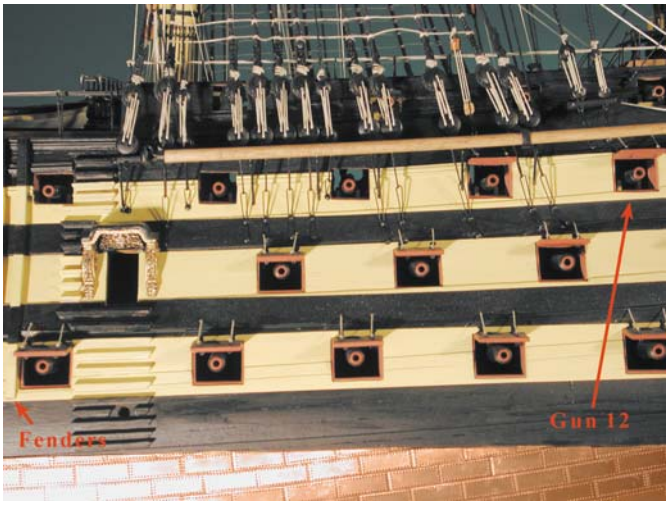
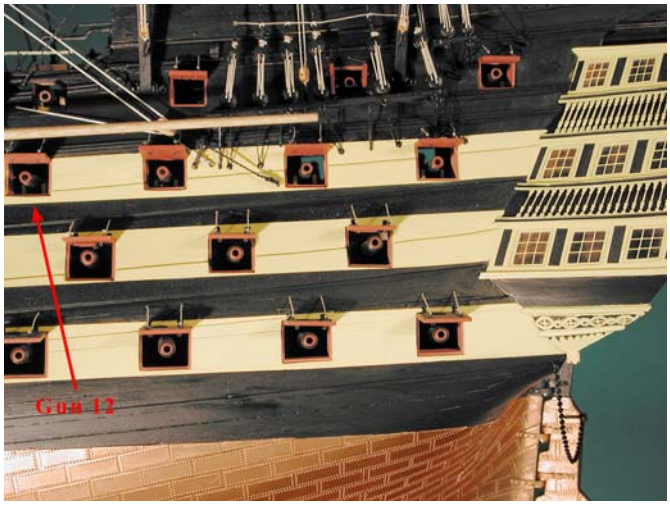


Photo 013



Lining the Gunports

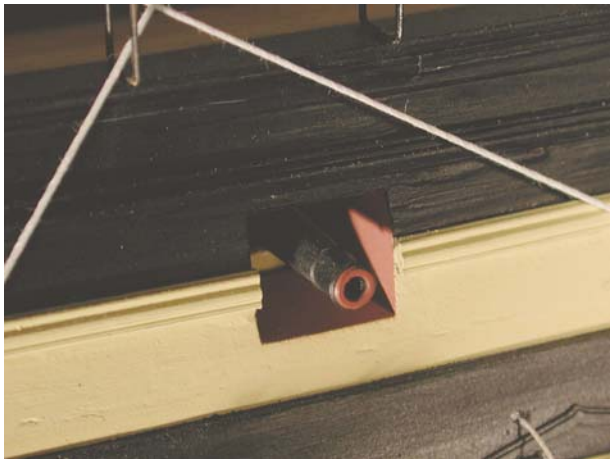
Note: for all gunports, the linings are to be painted red ochre, it should be noted however that the gunports without lids should have red ochre applied to the whole inner surface. For gunports with lids, the linings are painted red ochre and the 1mm deep lip should be the colour of the surrounding ships side.
The lower and middle deck gunports can now be lined. The way in which these gunports are lined differs from those gunports without lids. Line them with 1x6mm walnut strip in the same way as the gunports without lids except the lining must be set back 1mm from the ships side, refer to ***Plan Sheet 2, 'Gunports with lids'***. It is of absolute importance that the linings are set back into the openings by 1mm. The gunport lids themselves have been cut to allow for this and the brass etched hinges have also been designed likewise. The hinges are glued into position onto the gunport lid and the ships side as shown on ***Plan Sheet 2, 'Attaching gunport lids and hinges'***. If the recessing has not been carried out correctly then the hinges will not fit.
The remaining gunports on the upper gun deck can now be lined in the same way using 1x16mm walnut strip. Once lined, cut off any excess along the inner walls. Touch up the painting after sanding down the sills on the inboard side.
Before decking out the upper gun deck consideration should be given as to how the hull is to be painted. If the hull is to be sprayed / air brushed for example, masking will be almost impossible when the gun carriages on this deck are in place. It is worth considering.

The two colours used for the ships side are black and yellow ochre. The matt black is applied from the top of the copper plating to the top of the side and is broken up by three bands of yellow ochre. Using the photos (*Photo 10, 11, 12 & 13*) for reference, the following points should be taken into consideration:

1. The yellow bands do not follow the run of the gunports, neither do they correspond exactly to the wales.
2. The yellow bands vary in width throughout their length, being widest at midships and diminishing towards the bows and transom.
3. Referring to the photographs (*Photo 10, 11, 12 & 13*) you can clearly see that the upper edge of each yellow band (except that at the upper gun deck) roughly follows the top edges of the gunports, while the lower edge is well below the ports at midship rising and reducing in width fore and aft.

The forward most gunports on the lower and middle gun decks should now be marked in position. Taking their locations from ***Plan Sheet 2***, mark in pencil their locations. They are then scored with a sharp craft knife, simply to represent the gunports in a closed position. All necessary associated fittings can be applied (brass etched hinges, eyelets and rigging). Take great care not to split the walnut planking.
Note: the middle deck gunport is a double door gunport similar to that shown (*Fig 025*).
The locating holes for the dummy barrels on the lower and middle gun decks can now be drilled. The spigots of both sets of dummy barrels are 2mm. Using a slightly oversized drill, drill into the dummy barrel strip to take the barrel spigots. Ensure that the holes are drilled horizontally so that the barrels sit about 90 degrees to the keel.
Do not glue the barrels into place at this stage. They should be painted black and their muzzle facings painted red ochre as shown (*Photo 14*).

Photo 014



The Copper Plating

Using ***Plan Sheet 2*** for dimensioning, mark onto the hull the waterline. Make sure the hull is completely level when marking. When coppering, the hull will have to be laid on its side. To protect the hull lay it on some large towels or similar.
Start coppering from along the keel upwards working from stern to bow. Each line of plates should be staggered by 50% to the plate below (similar to laying bricks) (*Photo 015*). To glue the plates to the hull use a medium to thick super glue. Apply a spot of glue to the middle of the underside of the copper plate. Apply the plate to the hull using a pair of tweezers and then gently push the plate onto the hull to spread the glue.
To cut the plates to the correct shape at the curves and when you reach the waterline, mark off onto the plate the excess area to be cut, lay the plate on a hard flat surface and cut off the excess with a heavy-duty craft knife. Alternatively the plate can be cut with scissors but will then need to be rolled back to flat using a small piece of softwood doweling on top of a block of flat soft wood (*Photo 016*).
If on reaching the waterline you have not achieved an absolutely straight line this can easily be overcome. Apply sellotape all around the hull just above the waterline. Press the edges down firmly to avoid any paint seepage. Using a fine brush paint the area between the top of the copper plates and the bottom edge with copper paint. Once dry remove the sellotape for a near perfect waterline. The underside of the keel and the end of the rudder and rudder post can either be coppered or, for ease, copper painted.
Note: The copper plates are supplied in two bags, when you are ready to start plating it is advisable to open both bags and mix them together. We have found that opening one bag, using these plates, then opening the second bag results in a colour variation between the plates due to different oxidation rates.

Photo 015

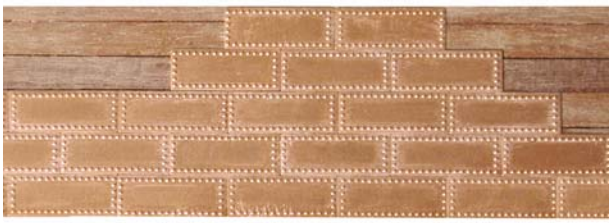
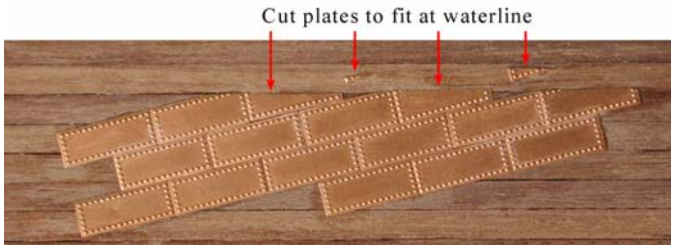


Photo 016



Upper Gun Deck Fixings

Make up seven sets of grating kits from the grating strips (720) which are to be slotted together as shown (*Fig 004*). When completed, brush on watered down PVA glue to secure the strips and once dry trim to fit in their respective deck openings. The coamings on the outside of the gratings are made from 3x4mm walnut strip. The coaming should be level with the grating. When the grating assemblies are in place, cut out and glue the shot garlands (244-251) into place as shown on ***Plan Sheet 3***.

Fig 004

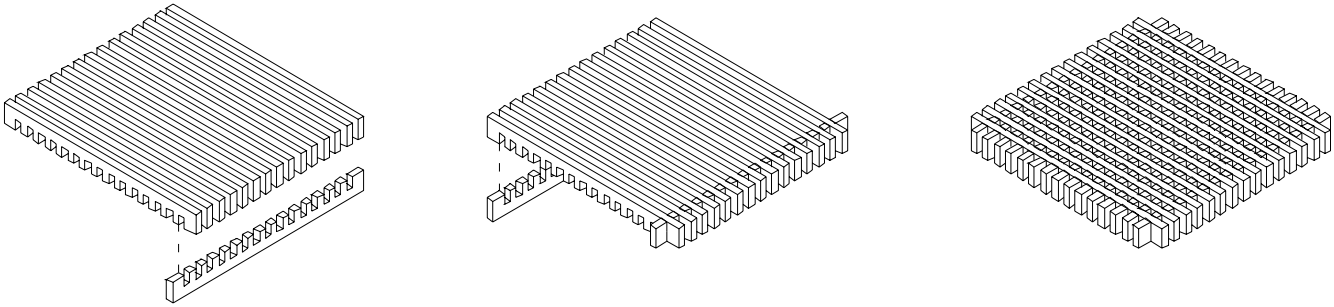
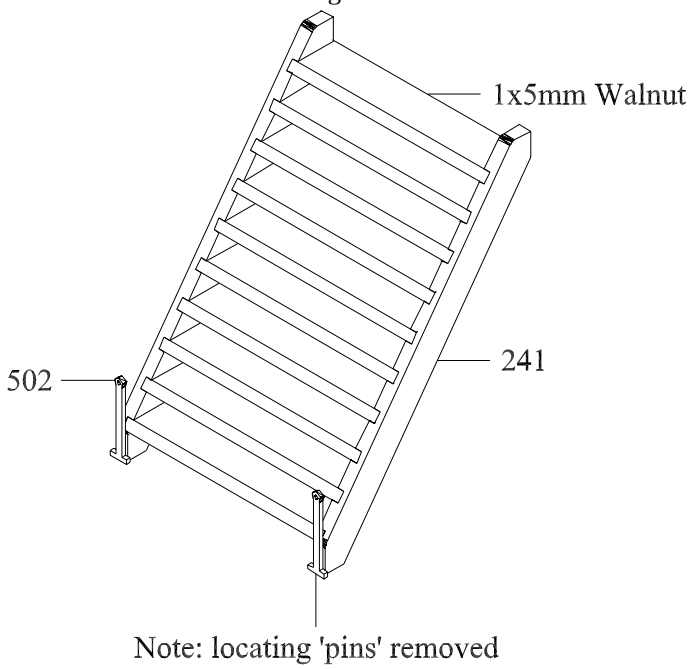


Fig 005



From the 2mm walnut sheet remove the upper deck main companionway shot garlands (252), the main companionway coaming is 2x4mm walnut. With the companionway coamed, glue the shot garlands into position – this lining is intentionally lower than the other companionway and grating linings as was the case on Victory.
Identify the companionway ladder sides (241), make three sets up using 1x5mm walnut strip for the treads. The treads should be cut to a length 3mm less than the width of the companionway it fits into.
To assemble the ladders, slot a tread into the top and bottom of each ladder and glue into place, ideally a small jig should be made to keep the assembly square. The remaining treads can then be pushed into the slots and brushed with watered down PVA to seal the assembly. An upper deck stanchion (502) (painted black) should be glued directly to the front edge of each ladder side, as shown (*Fig 005*) with a 0.25mm natural thread tied through the end in preparation of the companionway guard rail assembly.
Glue the completed assemblies into position.
Carefully glue the small 12 pounder cannon balls (705) into the holes in the shot garlands using super glue and tweezers for placement.
Paint black and fit four large cleats (660) into position on the inner bulwarks as shown on ***Plan Sheet 5***.

Gun Carriage Assemblies

The gun barrels used in the carriage assemblies are all 12 pounders (700, 701 & 702)

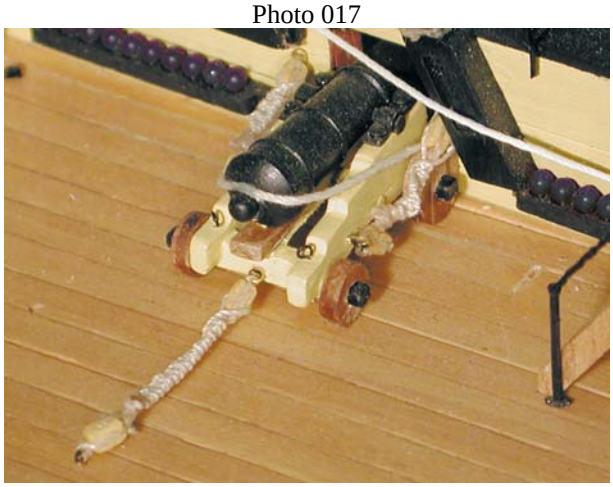
The dummy barrels are either 24 pounders for the middle deck (699), or 32 pounders for the lower deck (698) and will be fitted towards the end of construction.

This section will deal with complete gun carriage assemblies. Although all the cannons are 12 pounders, there are three different sizes of barrel (small, medium & long) and each respective carriage differs in its assembly.
It will be an advantage to the builder to build the carriages one size at a time, as required.
For all guns, the tackles are made up of 0.1mm natural thread together with pairs of 2mm single blocks and the breaching ropes are of 0.5mm natural thread.

Upper Gun Deck 30 x 12 Pounder Long Gun

Identify the 12pdr long gun brass cannon barrel (700).
When completed, the gun carriage should be painted yellow ochre. The barrel and other ironwork should be painted black and the gun muzzle should be painted red ochre.
Make up all of the gun carriage assemblies as shown on the ***Plan Sheet 4, 'Cannon carriage assemblies'***. The shorter wheel axle is located at the front to give the carriage a taper when viewed from above.
Note: do not fit the wheels until the carriage has been assembled.
The larger wheels fit on the front of the carriage to compensate for the deck camber. The wheels themselves are simply varnished, not painted. The stub ends of each axle should be painted black.
Cut a bed bolt for each carriage from the 1mm brass wire (746) and glue into place. Glue the quoin (163) to the stool bed and glue the stool bed into place.
Note: the stool beds for these carriages are flush with the rear of the carriage sides, the stool beds for all cannons are 0.5x3mm walnut.
Mark the eyelet positions on each carriage and drill with a 0.5mm drill. There is also an eyelet at the centre of the rear and front axles. Cut the stems of the brass eyelets (480) from their brass etch sheet leaving 2mm for gluing into the carriage and glue in place.
When completed, paint the carriages as previously described. Carefully push the wheels onto the axles.
Cannon trunnions are cut from 1.5mm brass wire and should be long enough to reach the outer wall of the carriage sides. Glue in place through the cannon and onto the carriage.
Note: check the cannon orientation beforehand, the trunnion hole is drilled slightly off centre and should be nearer the bottom of the barrel when in place.
All cannons should be painted black and their muzzles red ochre.
Cut out the trunnion brackets (501) from their brass etched sheet. Fit by bending the thinned centre of the bracket around the trunnion, carefully drill down through the holes in the bracket, with a 0.7mm drill, into the carriage sides. Fix in place with the brass pins (696), these can be cut short before fixing. Paint the trunnion brackets black.
All thirty 12 pounder long guns on the upper gun deck were fully rigged on the prototype and sufficient rigging has been provided to allow you to do the same. Using (*Photo 017*) for reference, if you wish to rig these guns it should be done now. However, it must be remembered that when the quarterdeck is in place the majority of the cannons and rigging will be inaccessible. It is important therefore, to realise that the gun carriages themselves should be secured to the deck with a small amount of super glue.
At each gunport location, four eyelets (480) should be positioned as shown on ***Plan Sheet 3, 'Eyelet arrangement for cannon tackle'***. There is also one eyelet directly behind the carriage secured to the deck as shown on ***Plan Sheet 3***.
Once the rigging is in place, brush on watered down PVA over the ropes and blocks. Again, time effort and patience is required for best results.

Photo 017



Screen to Admiral Nelson's Quarters

From the 1.5mm walnut sheet cut out the upper deck screen bulkhead (389) and fit into place. Glue the screen to the deck and to the front of the camber beam supports of bulkhead (13).
Directly in front of this screen, two support pillars (722) need to be fitted. The top and base of the support pillars need to be squared off, using a sanding block, to the shape as shown (*Photo 018*). Any discoloration should be stained back to the original colour. The pillars sit on the coaming of the grating as shown on ***Plan Sheet 5***. You will need to shorten the pillar to fit, to do this it will be necessary to remove material from both the top and bottom of the pillar.

Photo 018

1. Pillars before sanding.
2. Pillars after sanding.
3. Pillars after staining walnut.

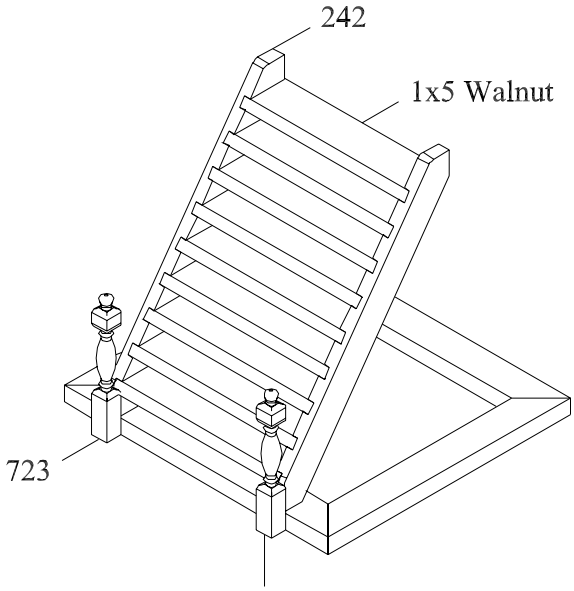
The Main Companionway Ladder Assembly

Remove the ladder sides (242) from the 2mm walnut sheet and construct the ladder in the same manner as before to an overall width of 24mm. There is a reason for this apparent leap in building instructions. Identify two small staircase balusters (723), they will be used to support the handrails in the next building sequence but have to be fitted now. The top and base of the balusters need to be squared off, using a sanding block, to the shape as shown (*Photo 019*). Any discoloration should be stained back to the original colour. The main companionway ladder, when fitted, sits on the edge of the coaming of the quarterdeck companionway, centrally. Directly in front of the ladder sides will sit the balusters to hold the ladder handrail, they should be glued in place onto the deck now, as shown (*Fig 006*). The ladder itself will be fitted later.

Photo 019

1. Balusters before sanding.
2. Balusters after sanding.
3. Balusters after staining walnut.

Fig 006



Note: Balusters sit directly on the deck
not on the coaming.

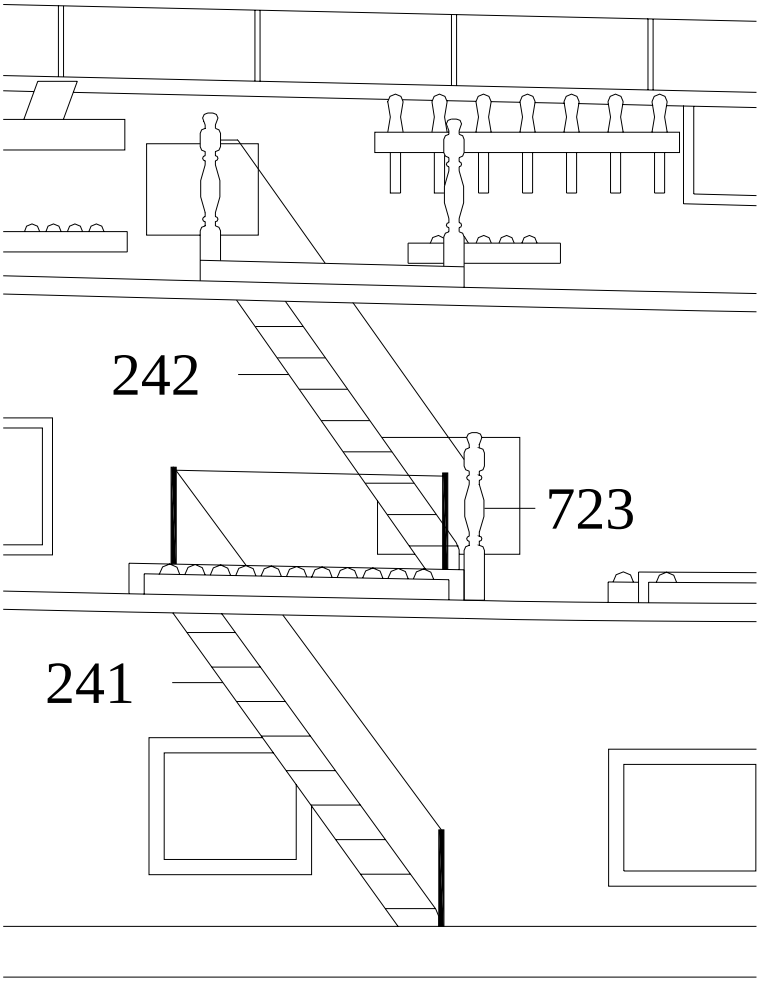


Illustration of main companionway

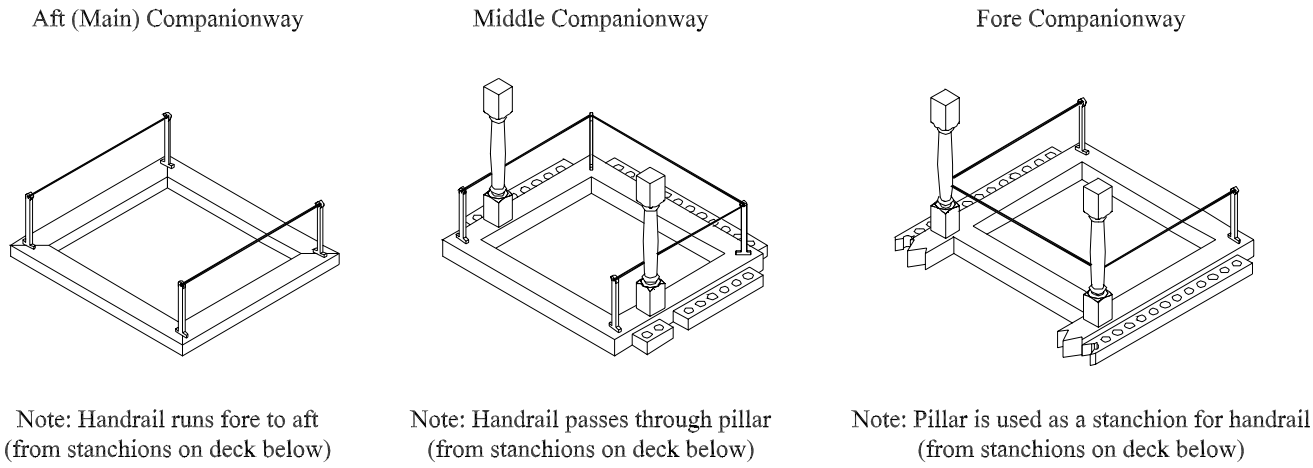
Elm Tree Pump Assembly

Remove the two elm tree pump bases (85) from the 4mm walnut sheet, the elm tree pump iron top plate (497) from the brass etched sheet, and assemble as shown on ***Plan Sheet 3, 'Elm tree pump assembly'***. The rod is made up from 0.7mm brass wire, with a small loop fashioned in one end to pass through the pump handle (498). Now insert the wire into the hole in the centre of the pump base assembly and at the same time glue the handle to the side. This whole assembly should be painted black. Glue the assembly into position as shown on ***Plan Sheet 3***.

The Upper Gun Deck Companionway Guard Rails

The upper gun deck stanchions (502) (painted black) can be removed from the brass etched sheet and fitted as shown (*Fig 007*). They fit onto the hatch coamings.
Using a 0.75mm drill, drill into the hatch coamings and secure the stanchions with super glue. The rope handrail of 0.25mm natural thread, previously attached to the stanchions on the deck below, can now be passed up and rigged around the main companionway sides only (*Fig 007*).
Note: the foremost two companionway guardrails on the upper gun deck are formed by stanchions (502) and skid beam support pillars (722), the handrail will therefore be shipped at a later stage.

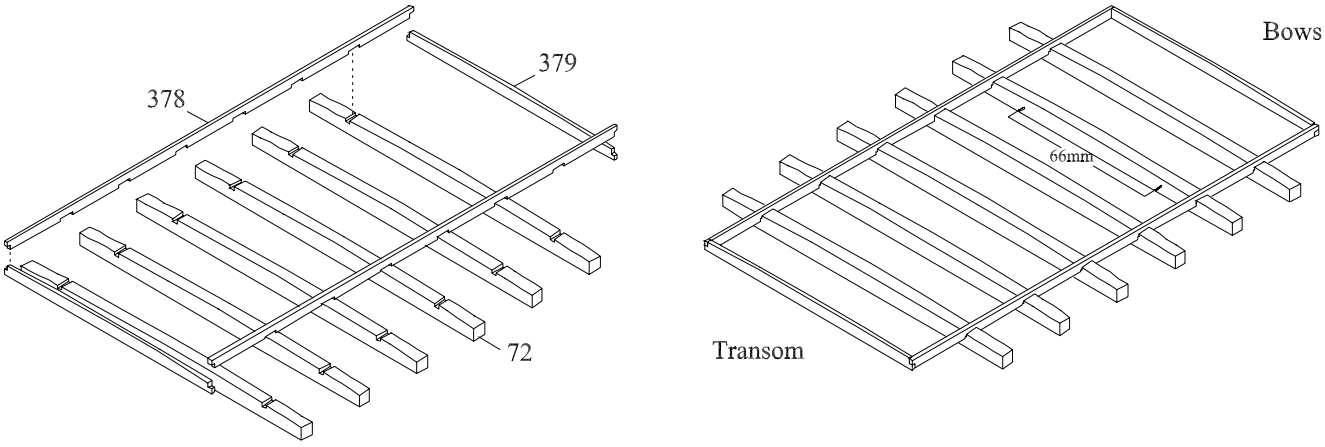
Fig 007



Steam Trunk Assembly

Identify and remove the four steam trunk sides (396) from the 1.5mm walnut sheet. Assemble the steam trunk as shown on ***Plan Sheet 3, 'Steam trunk assembly'***. NB, the assembly is not square. It sits on the upper gun deck as shown on ***Plan Sheet 3*** and under the forward hatch gratings on the forecastle and is therefore best glued into place during the quarterdeck fitting stage.

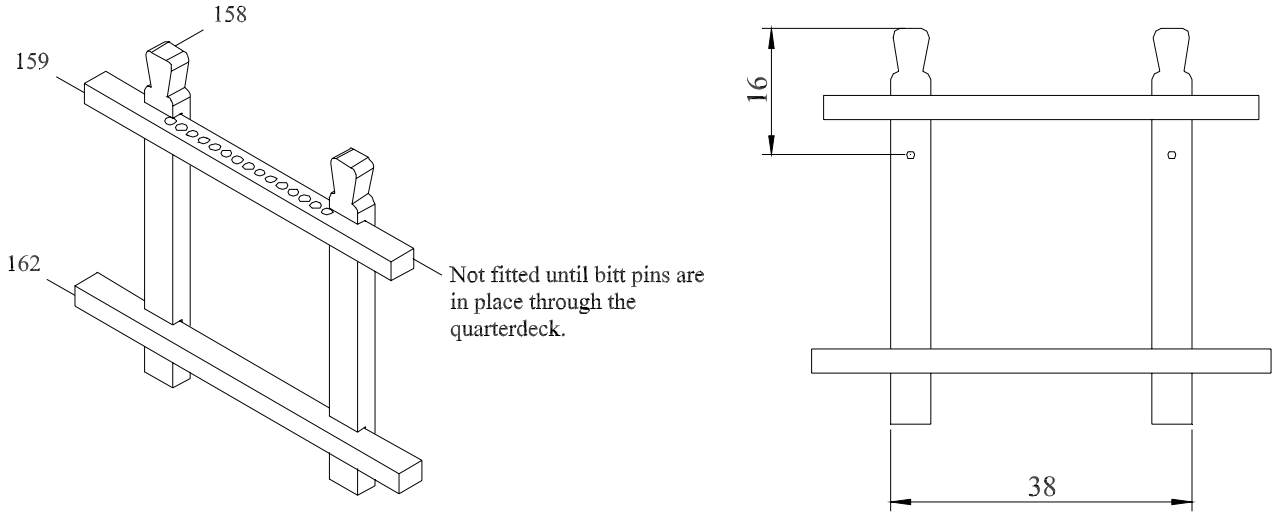
Fig 008



Fitting the Quarterdeck

The ‘quarterdeck’ (446) as referred to during this stage of construction incorporates the forecastle (at the front), the quarterdeck (at the rear) and the area in between often referred to as the waist or boat deck.
Glue (and pin as necessary) into position the quarterdeck camber beams (23 – 25, 27 & 33 – 37).
Note: their position either in front of or behind the bulkheads as shown on ***Plan Sheet 1***, the top edge of the beams should be level with the top edge of the bulkhead upright stubs, as shown ***Plan Sheet 1***. Allow to dry thoroughly.
By this stage, all work on the upper gun deck should be completed (except the steam trunk, bitt pins and bitts). Check all fixtures are secure, especially the gun carriages.
Remove the quarterdeck (446) from the 0.8m ply sheet and offer it into position. **Do not glue into position.** The first thing to note is that the companionway to the Admirals dining cabin is offset, it is therefore important to fit the deck the right way up so that the companionway is offset to port as shown on ***Plan Sheet 4***. Make sure that the deck fits with ease, should there be no tight spots, sand as necessary. Familiarise yourself with both fitting and removal of the deck. At this stage, note the position of the steam trunk assembly and secure in place with super glue.
From the 1.5mm walnut sheet, remove the side linings (378) and the fore and aft linings (379) of the skid beam assembly, and from the 5mm walnut sheet remove the skid beams (72). Glue the assembly together (*Fig 008*) so that it will fit into the quarterdeck opening, the whole assembly should be painted black.
Note: two 0.7mm holes should be drilled (fore and aft) through the second from the front skid beam (33mm from the centreline) and 0.7mm brass wire (10mm long) inserted through the holes and secured as shown. **Again do not glue this completed assembly in place.**
Position the assembly into the opening and mark off where the beams lie under the ply deck. Drill into the deck using a 0.7mm drill, also drilling part way into the under slung skid beams. Remove the skid beam assembly and put it to one side.
The quarterdeck can now be fitted. The reason for the familiarisation of the fitting of the quarterdeck is because although it is fitted as one piece, it is done in several stages.
For the fitting of the quarterdeck, the following components will be required, the quarterdeck (446), the skid beam assembly, the fore brace bitt pins (91 & 158), and the upper deck fore brace bitt (162).
Assemble the fore brace bitt pin assembly (using the upper deck fore brace bitt (162)) as shown (*Fig 009*).
Note: a hole (sheave for the fore yard brace) needs to be drilled fore to aft through the bitt pins (158) at a distance 16mm down from the uppermost edge, the distance between the outer edges of the bitt pins should be 38mm and the quarterdeck fore brace bitt (159) should not be used. This whole assembly should be painted black.
Using PVA and pins, locate and glue into position the quarterdeck from bulkhead (18) to bulkhead (13). It should be possible to lift the forward end of the quarterdeck to allow the skid beam assembly and bitt pin assembly to be positioned from underneath, **do not glue them into position at this stage**.
Temporarily position the skid beam assembly in the quarterdeck opening and check that the quarterdeck will still lie true to the bulkhead camber beams with the assembly in place, sand as necessary. When you are completely satisfied with the fit, glue and pin the skid beam assembly in place, it is essential that the assembly is permanently secured. Do not be concerned by the excess material of the skid beam surrounds standing proud of the ply deck, this will be dealt with at a later stage.
Now, apply glue to the remainder of the bulkhead camber beams (12 to 1) and also to the base of the bitt pin assembly. The bitt pin assembly is to be pushed up through the quarterdeck and at the same time lower the quarterdeck down into position. Make full use of pins and glue to secure.
When thoroughly dry, the upper deck fore brace bitt pins (91) and bitt (162) can be assembled and fitted as shown on ***Plan Sheet 3 & 5***. Again the distance between the outer edges of the bitt pins should be 38mm. This whole assembly should be painted black.

Fig 009



Skid Beam Support Pillars

The skid beam support pillars (722) can now be fitted. The top and base of the support pillars need to be squared off, using a sanding block, to the shape as shown (*Photo 018*). Any discoloration should be stained back to the original colour. The pillars are positioned under the first, second, third, fifth and sixth skid beams only, as shown on ***Plan Sheet 5***. As before the pillars will require shortening to sit on top of the coaming. The first and fourth pair of support pillars will also need a 0.5mm hole drilled through them, fore and aft, 11mm from the base for the rope handrails, as shown (*Fig 007*). These handrails of 0.25mm natural thread can now be rigged.

The Beakhead Bulkhead

Remove the beakhead bulkhead (205), removed from the 2mm walnut sheet earlier, and glue it into position against the forward face of bulkhead 1. It should fit onto the ply upper deck at the point where the upper gun deck planking was terminated. The beakhead bulkhead should be painted blue.

Planking the Quarterdeck

Before planking commences, it will be necessary to remove the bulkhead uprights of bulkheads 1 to 5 and 10 to 13 (Note 14 to 17 are not removed). Grip them firmly with a pair of long nosed pliers and twist them off, sand the remaining parts of the stub debris to deck level. Extra care will have to be taken when removing the forecastle bulkhead uprights.
The quarterdeck screen assembly should now be made up (329, 330, 331, 332, 333). The windows should be glazed and framed using the respective brass etched frames (503, 504, 505 ~ all painted yellow ochre). The assembly is not fitted at this time but the correct positioning must now be found and marked on the bulwark as follows. Offer the assembly onto the quarterdeck so that the forward face of parts 329 and 333 are flush against the back edge of the bulkhead 14 upright, some sanding may be necessary. When you are happy with the fit, mark the position of the assembly onto the bulwark. The assembly should now be set to one side and the uprights of bulkhead 14 removed.
Using 1x4mm tanganyika strip, plank the quarterdeck in the same manner as the upper gun deck, starting from the centreline and work across the deck, clearing hatches and mast holes as you proceed. Do not forget to clear the four square holes for the main top bowline and fore topsail sheet bitts (92) around the fore mast. Plank up to the skid beam assembly edges and sand these edges flush with the decking upon completion. The top edge of both ‘sides’ (378) of the skid beam assembly should be topped with 1.5x1.5mm walnut strip which will need to be painted black.
Once completed, lightly sand the deck smooth and apply several coats of matt polyurethane varnish.

Lining the Gunports

(If you have decided to build to the Portsmouth (2003) specification, the raised forecastle inner bulwark pattern (276) should not be fitted. Instead, refer to your Portsmouth Pack and follow steps 1 – 5. Remember to follow the instruction below for the quarterdeck bulwark.)
The raised forecastle inner bulwark gunport pattern (276) and the quarterdeck inner bulwark gunport patterns (273 & 274) can now be fitted. Note that the forecastle pattern (276) and the quarterdeck pattern in front of the screen assembly (274) fit flush against the outer bulwark patterns while the quarterdeck pattern behind the screen assembly (273) is secured to the bulkhead uprights. Again the gunports should be carefully aligned and the patterns should fit over the deck planking, some sanding may be necessary to ensure the screen assembly and bulwark patterns all fit together. The forecastle snatch block (61) should also be fitted into the locating slot as shown (*Fig 017*).
The forecastle bulwark openings and the forward four openings on the quarterdeck should now be lined with 1x4mm walnut and sanded flush, both inside and out. Finally the inner bulwarks should be planked with 1x4mm walnut and painted yellow ochre, this planking should butt up flush against the screen assembly when it is finally secured in place. The inner edges of the lined openings should be painted red ochre. The forward face of bulkhead 18 can also now be lined with 1x4mm walnut and painted yellow ochre.

Second Planking

The second outer hull planking of 1x5mm walnut can now be finished. It continues up the hull and terminates flush with the top edge of the gunport patterns. The aftermost three gunports on the quarterdeck can now be lined with 1x10mm walnut strip (painted red ochre), noting that they should be recessed back by 1mm from the outer hull side.

Quarterdeck Fixings

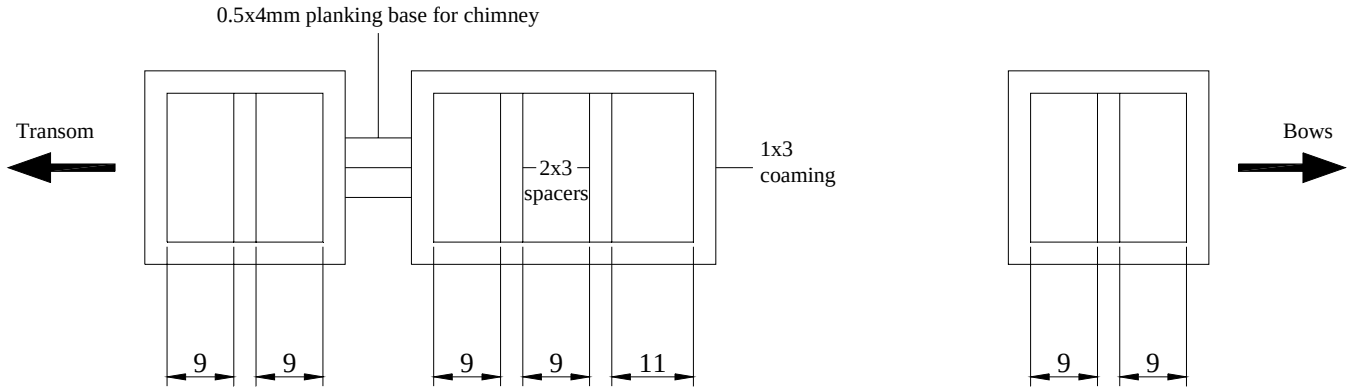
Begin by fitting a piece of 1x5mm walnut strip to the after edge (vertical) of the forecastle bulwark and to the forward edge (vertical) of the quarterdeck bulwark and sand flush inside and out. The forecastle capping rail (393) and the quarterdeck capping rail (391) can now be fitted in their respective positions. Once fitted they will also need to be sanded flush with the bulwarks, inside and out. All capping should be painted black. The ships waist capping (392) can now be fitted between the quarterdeck and forecastle bulwarks, you should note that the inner edge of this capping should lie flush to the inner edge of the quarterdeck and forecastle bulwarks and overhang the outer hull by approximately 2mm.

Forecastle Gratings

Make up three sets of gratings and cut to the dimensions as shown (*Fig 010*). These gratings will then be recessed into their respective holes on the forecastle as follows:

1. Insert the first grating into the opening so that it is recessed with just 1mm standing proud of the deck, and secure the edges to the deck with super glue.
2. Insert the 2x3mm walnut spacer into the opening flush against the grating, again this should be 1mm proud of the deck and secured with super glue.
3. Insert the next grating into the opening, again standing 1mm proud of the deck and secured with super glue.
4. Repeat stages 2 & 3 as necessary until the opening is filled.
5. When the gratings are all in position, the opening can be coamed with 1x3mm walnut strip.
6. Finally sand the completed structure until it is just 0.5mm proud of the deck, following the camber.

Fig 010



Main Top Bowline & Fore Topsail Sheet Bitts

The main top bowline and fore topsail sheet bitt pins (92) can now be positioned on the model.
Note: a hole (sheave for the fore yard brace) needs to be drilled fore and aft through the aft pair (the main top bowline bitts) at a distance 16mm down from the uppermost edge.
The pins can then be passed down through their respective slots on the forecastle and secured in position, ensuring they remain vertical. The bitts (160 & 161) can then be secured to the bitt pins, centrally and the assembly painted black.

Galley Stove Chimney

An area 8mm wide between the aft forecastle gratings needs to be planked with 0.5x4mm walnut as shown (*Fig 010*). The galley stove chimney is then painted black and positioned centrally on this planking.

Forecastle Breast Beam Assembly

(*Photo 020*) Assemble the belfry (134, 135, 209, 340, 541, 645, 662) as shown on ***Plan Sheet 4, 'Belfry assembly'***. You will notice the aft belfry support pillars are 1mm shorter than the fore, this is correct, do not level them. Line the forward edge of the skid beam assembly with 1x3mm walnut. The belfry is positioned centrally across this lining, with the shorter (aft) pillar supports placed directly onto the lining. Using (*Fig 011*) and ***Plan Sheet 4, 'Section through bulkhead 5'*** for reference the forecastle breast beam supports (193) are also fitted along the lining. The forecastle breast beam (60 & 338) completes the whole assembly. This assembly should be painted black.

Fig 011

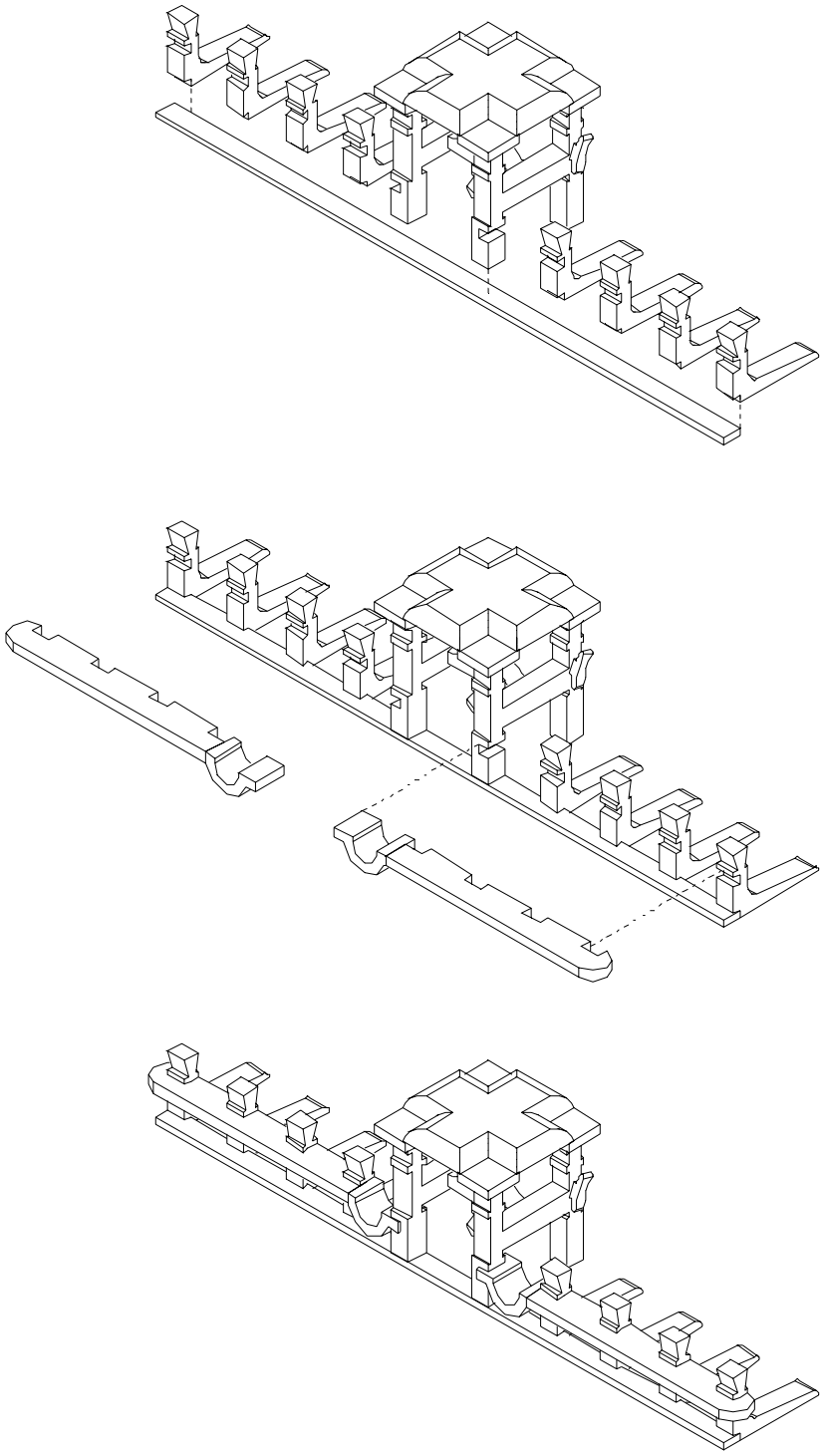


Photo 020

Photo 021

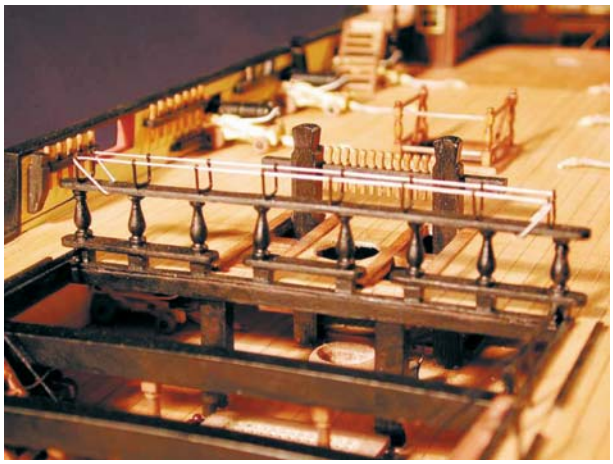
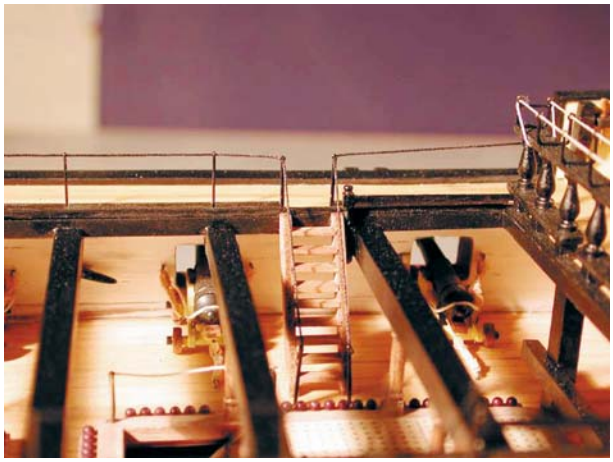


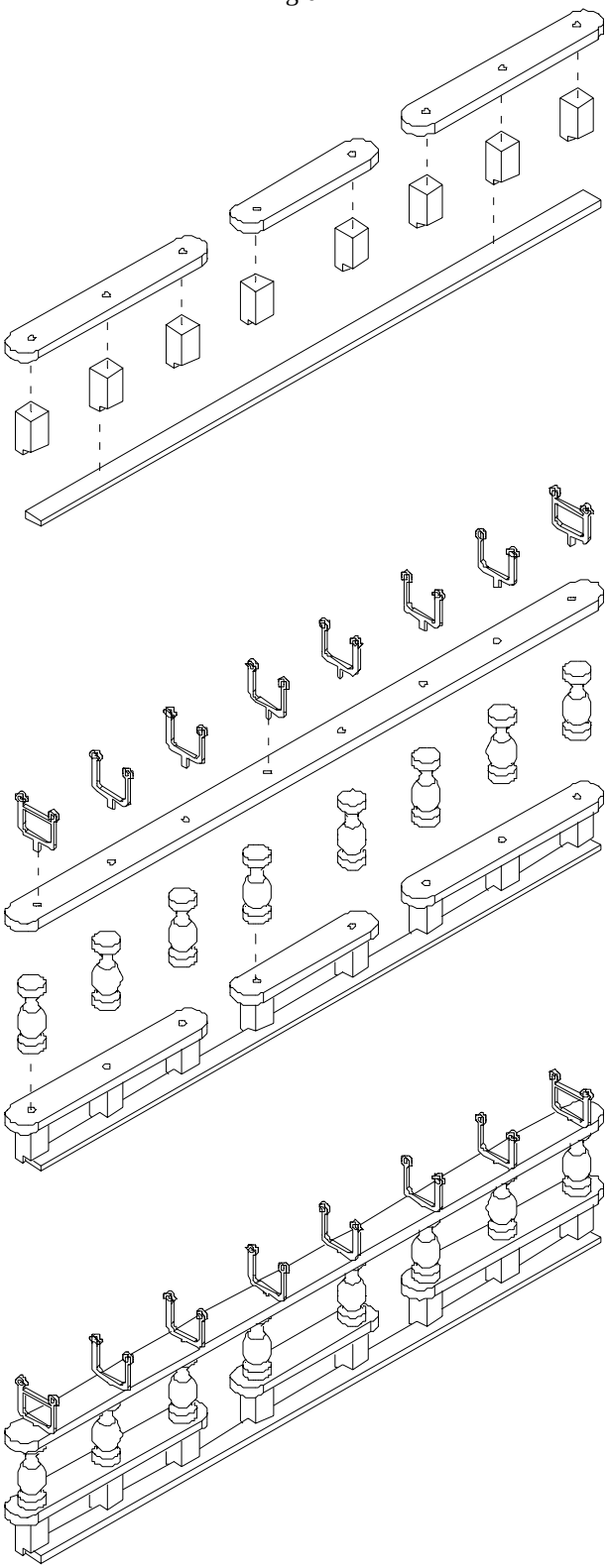
Photo 022



Quarterdeck Barricade Assembly

(*Photo 021*) Line the aft edge of the skid beam assembly with 1x3mm walnut. Using ***Plan Sheet 4*** for reference, cut eight supports each 6mm long from 3x3mm walnut. Into the front lower edge of these supports, a 1x1.5mm notch needs to be filed out so they sit half on and half off the 1x3mm lining as shown (*Fig 012*). Next, fit the middle rails (362 & 363) and the turned columns (723) onto the pillars and finally the upper rail (364). It is a good idea not to fit the hammock cranes (524 & 525) until a later stage, as they are easily damaged. **Note:** the supports, pillars and hammock cranes should all remain vertical while the beams follow the deck camber, holes have been drilled into the beams to aid alignment. This whole assembly should be painted black.

Fig 012



Waist Ladders

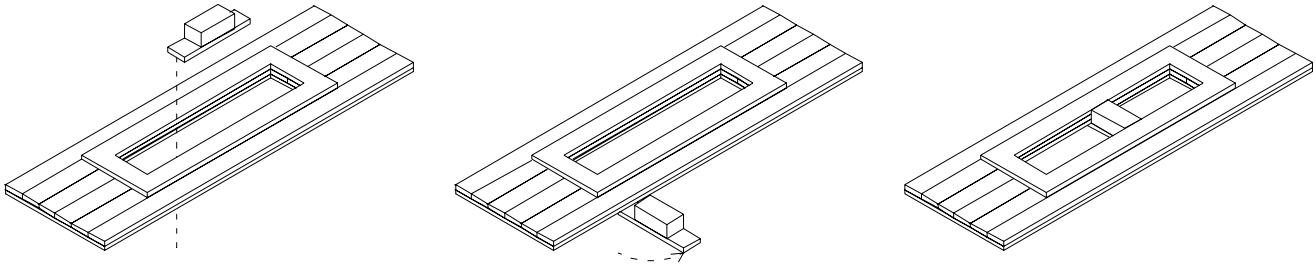
The waist ladders can now be assembled using the sides (243) and 1x5mm walnut for treads. The overall width of the ladders should be 12mm. Before fitting the ladders, paint black and fit the ships waist baluster (663). This fits against the skid beam and the lining as shown (*Fig 029*), a 1.5x1.5mm walnut rail (painted black) is fitted between this baluster and the outer quarterdeck barricade assembly supports. Using (*Fig 029*) and ***Plan Sheet 5*** for reference, fit the ladders in position.
Note: the after pair of ladders fit tight against the waist baluster, (*Photo 022*).

Lining the Quarterdeck Rigging Opening

The quarterdeck rigging openings (either side of the main mast), are lined with 1x3mm walnut. There is also a centre cross beam which is fitted as follows (*Fig 013*):

1. Cut two pieces of 3x4mm walnut to a length of 8mm.
2. Glue a piece of 1x4mm walnut (16mm long) centrally to the underside of the 3x4mm piece.
3. Insert this assembly down 'through' the rigging openings, rotate and pull back up so that the 3x4mm walnut strip sits 15mm from the front of the opening, with the 1x4mm walnut strip against the underside of the quarterdeck.
4. Glue the 1x4mm walnut strip to the underside of the quarterdeck, ensuring a secure fit as this beam will take the strain of the jeers when rigged.
5. Sand the 3x4mm walnut flush with the coaming.

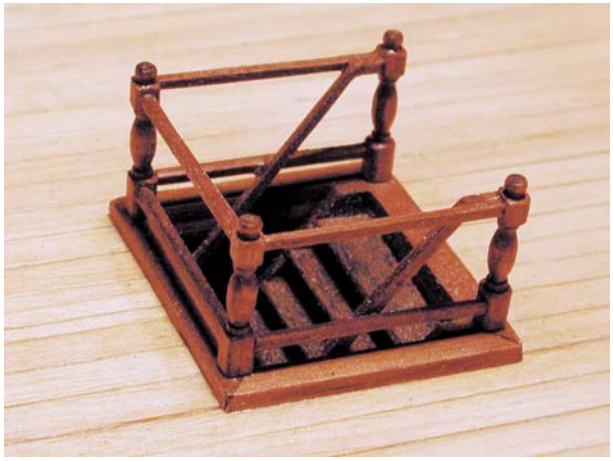
Fig 013



Main Companionway

Using 2x3mm walnut, form a coaming around the main companionway. Temporarily fit the main companionway ladder (as constructed earlier). Identify four staircase balusters (724) and reduce their overall height to 14.75mm, taking the excess from the base only. As with the previous balusters, square off and stain back to walnut. Referring to (*Photo 023*) you will notice that the hand rail from the upper gun deck fits onto the handrail that surrounds the companionway opening. Therefore, the position of the balusters on the quarterdeck is dictated by the position of the handrail from the upper gun deck. These handrails are constructed from 1.5x1.5mm walnut reduced to 1x1mm walnut. When you are happy with the positioning of the balusters, they can be secured into position on top of the coaming. Make sure that the balusters are vertical and square.
With the balusters in position, the ladder handrail and surround handrail can be constructed as shown (*Photo 023*). A second surround rail is also shipped approximately 2mm off the companionway coaming.

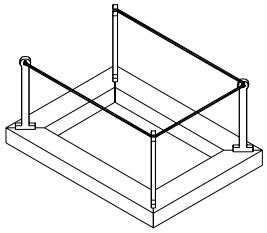
Photo 023



Companionway to Admirals Dining Cabin

Using 1x3mm walnut, form a coaming around the companionway. Assemble the ladder (240) using 1x5mm walnut for the treads. The overall width of the ladder should be 11mm. Glue two upper deck stanchions (502) to the forward lower face of the ladder and at the same time attach the 0.25mm natural handrail to each stanchion in the same manner as shown (*Fig 005*). Glue the ladder into position in the companionway. Four quarterdeck stanchions (515) should now be positioned at each corner of the companionway on top of the coaming. The rope handrails now pass up from the upper gun deck, around the companionway (through the stanchions) and are tied together at a suitable point (*Fig 014*).

Fig 014

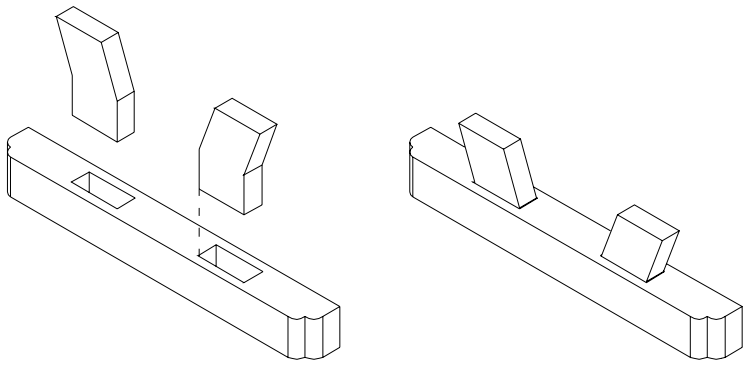


Handrail passes from deck stanchions
below and round 3 companionway sides

Kevels, Pinrails and Shot Garlands

All kevels, pinrails and shot garlands will be painted black (the belaying pins are left natural). Start by locating the quarterdeck shot garlands (256, 257, 258, 259), these are positioned on the bulwark approximately 2mm off the deck. They do not run parallel to the deck, instead they run horizontally (as per the gunports). In order to identify the correct positioning of the aftermost shot garland, the screen assembly will again need to be temporarily fitted, the shot garland should then be placed at least 3mm in front of the cabin screen. When you are happy with their fit, glue into place with super glue. Now, carefully glue the small 12pdr cannon balls (705) into the holes in the shot garlands using super glue and tweezers for placement.
Identify the quarterdeck kevels (167 & 168) and assemble the quarterdeck staghorns (166 &387) (*Fig 015*). The foremost kevel (168) requires a 1mm hole drilled fore to aft (to simulate a sheave), approximately 5mm up from the base of the kevel, for the main yard lift when rigged. Using ***Plan Sheet 4*** for reference, position and glue into place.
Note: the kevels are raised up off the deck.
Identify forecastle kevels (62 & 93), the foremost pair of kevels (62) require a 1mm hole drilled fore to aft (to simulate a sheave), approximately 5mm up from the base of the kevel, for the fore yard lift when rigged. Using ***Plan Sheet 4*** for reference, position and glue the kevels to the bulwark and deck.
Note: these kevels all sit on the deck.
Identify the quarterdeck pinrails (254 & 255). Using ***Plan Sheet 4*** for reference, glue **and pin** the pinrails in place.

Fig 015



The Quarterdeck and Forecastle Cannons

The 12 quarterdeck cannons are all 12pdr short guns (702) and the two forecastle cannons are 12pdr medium guns (701). Make up the carriage assemblies as before noting that the chock and stool beds align to the back of the rear axle as shown on ***Plan Sheet 4, 'Cannon carriage assembly'***. Rig the cannons as previously described, you will note from ***Plan Sheet 4***, the third (from the back) cannon on the quarterdeck and the forecastle cannon are lashed down to the deck in the position shown, again the screen assembly will have to be temporarily fitted to ensure correct positioning. (When in battle, the screen assembly was folded up into the deck head, on hinges, in order to manoeuvre the cannons). When the cannons are fitted and rigged, the quarterdeck screen assembly can be secured in place.

The Quarterdeck Mizzen Mast Sleeve

The quarterdeck mizzen mast sleeve (152) should now be fitted. Great care should be taken to ensure that the mizzen mast will pass through the deck(s) cleanly and to the correct rake as determined by the slot in the keel.

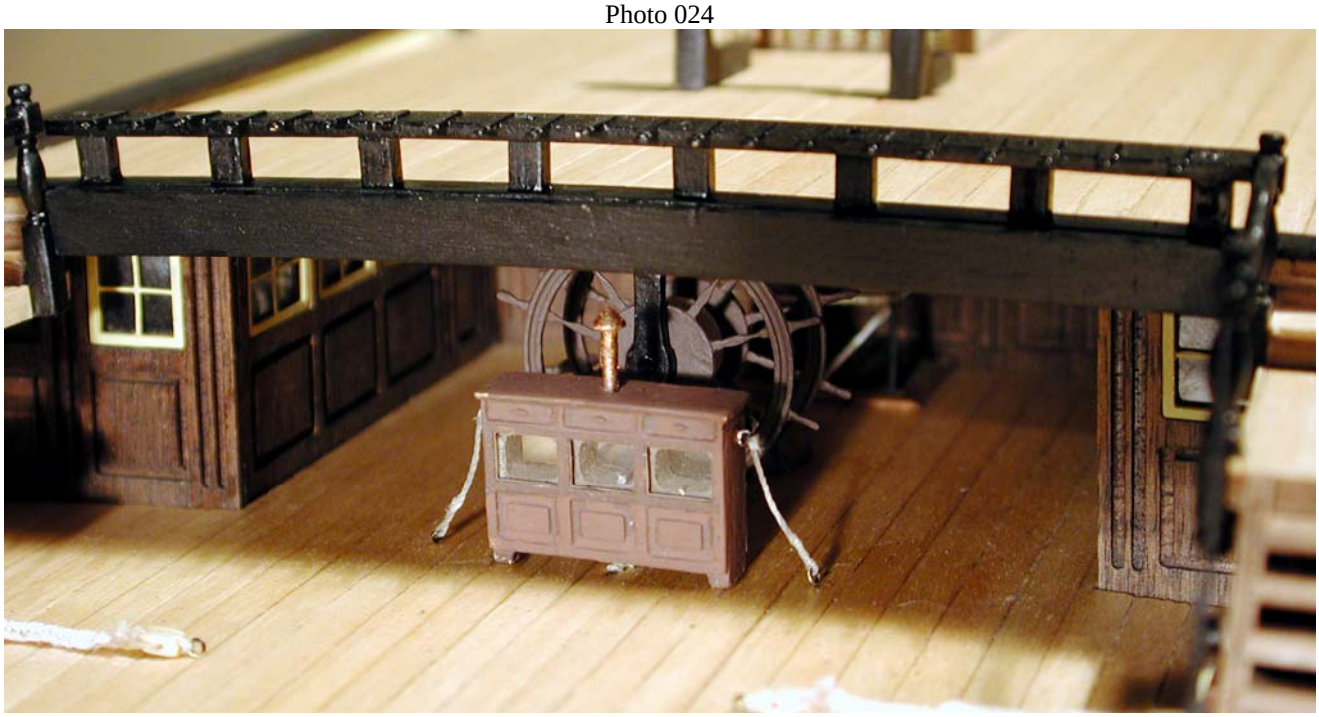
The Ships Wheel

(*Photo 024*) Assemble the ships wheel as shown on ***Plan Sheet 4, 'Ship's wheel assembly'***. When fitting the wheel to the quarterdeck, it will be necessary to remove some material from the top only of the fore ships wheel standard (342), to allow the poop deck to lie true. For authenticity, a length of 0.5mm natural thread can be lashed around the barrel a number of times and secured through two 1mm holes drilled into the quarterdeck, to represent the tiller rope.

The Binnacle

(*Photo 024*) Assemble the binnacle as shown on ***Plan Sheet 4, 'Binnacle assembly'***. You should note that a small groove should be filed out of the front and rear of the binnacle across the apertures to accommodate the glazing material. The assembly should be painted brown (wood effect) with a copper coloured chimney. This should be glued to the quarterdeck (half under the poop), and secured with two 0.25mm natural thread guy ropes (one either side), to the deck between brass eyelets (480).

Photo 024



The Cat-Tails

The cat-tails (64, 131) are now secured in position. The 3mm cat-tail (131) goes on first and is glued to the deck and the after edge of the beakhead bulkhead. The 5mm cat-tail (64) is then glued to the deck and after edge of the 3mm cat-tail. When thoroughly dry, sand the beakhead bulkhead flush with the cat-tails.
Identify the forecastle shot garlands (191), paint them black and fit into the corner of the forecastle, on the deck, flush against the bulwark and cat-tails. The shot garlands should be positioned so that the 'straight' end is to the inboard, as shown on ***Plan Sheet 4***.

The Beakhead Capping Assembly

(*Photo 025*) Identify the beakhead bulkhead plank sheer (380). The plank sheer is positioned directly on to the top of the 3mm cat-tail. Some sanding may be required for the plank sheer to fit neatly between the bulwarks.
Note: the back edge of the plank sheer sits directly at the join of the 3mm & 5mm cat-tails, and the pre-cut timberhead locating holes are set to the rear, as shown on ***Plan Sheet 18***.
The bow main rail inner timberhead (125) is now secured in position against the front edge of the bulwark, at the end of the plank sheer. The 'head' of this timberhead must also be shaped, but **only** on the **inboard**, **after** and **forward** faces, to accept rigging, as shown (*Photo 25 & 26*). When the headrail is fitted at a later stage, it forms the outboard face of the main rail timberhead and it too will need this shaping.
The beakhead bulkhead timberheads (121 & 122) are now glued into their respective locating holes in the plank sheer, take care to ensure the timberheads remain vertical.
Note: the timberheads with notches (122) are positioned in the outermost holes with the notches facing inward toward each other, as shown on ***Plan Sheet 4, 'Section through bulkhead 1'***.
Identify the beakhead bulkhead fiferail parts (63, 404 & 405). The U-pieces are positioned into the 'notches' in the outermost timberheads (122), with their aft edge flush with the aft edge of the timberheads. The fiferail centre and ends (404 & 405) then run between these U-pieces and the bulwarks, following the camber of the plank sheer beneath.
Using ***Plan Sheet 5*** for reference, identify brass profile 2. A length of this profile should be painted yellow and secured across the beakhead bulkhead, butted up directly under the plank sheer.

Photo 025

Beakhead Bulkhead Decoration

The Roundhouses

Remove the roundhouse patterns (328) from the 1.5mm walnut sheet and dry fit into their respective slots on the beakhead bulkhead. The lower pattern should fit directly onto the 0.8mm ply deck. In order to achieve this, a small amount of the centre plank of the upper wale will have to be removed. Glue the roundhouse patterns into position as shown on ***Plan Sheet 4, 'Section through bulkhead 1'***. To form the roundhouses, plank the patterns vertically with 0.5x3mm walnut strip. Fix the roundhouse top pattern (206), to the top of the roundhouse and when complete, slightly sand the planking to form a smooth and 'round' shaped roundhouse. The roundhouses should be painted blue.
The upper gun deck, fore of the beakhead bulkhead, should now be planked with 1x4mm tanganyika, remembering to clear the hole for the bowsprit as you progress. The deck should now be flush with the centre plank of the top wale as mentioned earlier. Apply several coats of matt polyurethane varnish to the deck.

The Beakhead Pilasters

Identify the beakhead pilasters (634, 635 & 636). They should be painted as shown (*Photo 025*), yellow with blue top relief. Start by dry fitting the centre pilaster (634), some material will need to be removed from the base of each pilaster, following the deck camber, until the uppermost edge of the pattern sits flush with the uppermost edge of the roundhouses. Form the roundhouse pilaster to fit neatly around the roundhouses (a suitably sized piece of dowel is ideal for this), likewise the base of the pilasters will require some reducing. When you are satisfied with the fit of all of the parts, secure in place with super glue. You will notice two of the pilasters of the centre section have two small holes through them, drill these out with a 0.75mm drill and fit a copper eyelet into each, these will take the beakhead bulkhead door hinges.

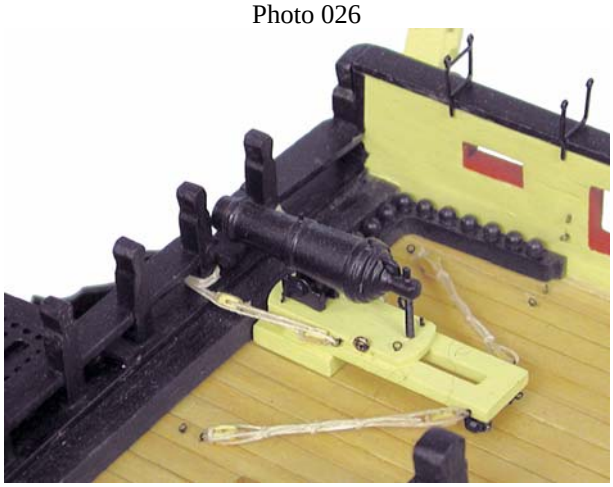
The Beakhead Doors & Gunports

Identify and paint blue the doors and gunport lids (124 & 327). Identify and paint blue their respective hinges (490 & 492). Dry fit the door to the beakhead bulkhead opening and mark the alignment of the eyelets to the hinges, glue the hinges to the door and hang on the eyelets. The door can then be left fully functioning or glued at a position of your choosing.
Glue the hinges to the gunport lids, allowing for a recess of 1mm as shown on ***Plan Sheet 2, 'Attaching gunport lids and hinges'***, and fix in position on the beakhead bulkhead.
Note: the gunport is not lined, and 0.25mm natural thread will be needed to rig the port open.
Identify and paint blue the roundhouse ports (637), these are to be glued centrally to the roundhouse as shown on ***Plan Sheet 4, 'Section through bulkhead 1'***, and the centres can either be drilled out and glazed or painted black.

The Forecastle Carronade

Locate the carronade components, the barrel (647), the trunnion (648), the deck block (133), the sling bed (208), the carriage (339), brass etched eyelets (480), the trucks (506) and the wheels (parrell beads) (708). Assemble the carronades as shown on ***Plan Sheet 4, 'Carronade assembly'***, using a piece of 3x3mm walnut cut and shaped as a chock and a length of 1.5mm wire to pass through the trunnions and barrel. Bend the trucks to shape along the profiled 'fold' line and secure parrell beads as wheels with a brass etched eyelet through the hole.
Paint the whole carriage yellow, the carronade, trucks, trunnions and eyelets black.
Using brass etched eyelets, 2mm single blocks and 0.1mm natural thread, rig the carronade in position on the forecastle as shown (*Photo 026*). Two copper eyelets are also attached to the carriage as shown to accommodate a breach rope of 0.5mm natural thread.

Photo 026



The Bows

In order to complete this part of the construction, it may be of benefit to read 'The Bows' instructions and dry fit all of the component parts together before anything is finally glued into position.
Using ***Plan Sheet 5*** for reference, fit the bow curved rails (126 & 127) to the stem, remembering that the figurehead scroll work (652 & 653) has to fit against the stem, between these two rails. The hair bracket (120) and lower bow cheek rail (123) can then be secured to the hull and bow curved rails as shown. The hawse hole balsters are then fitted against the lower bow cheek rail, at a distance of 13.5mm from the stem, and the hawse holes of 6mm diameter drilled out. Some sanding of these parts will be required to ensure a good, neat fit. These parts are painted as shown (*Photo 27 & 28*).
Next, fit, with pins and glue, the four head timbers (107, 108, 109 & 110) into their respective slots in the stem and paint black, their bases will require sanding to sit tight against the upper bow curved rail. When the aftermost head timber (107) is fitted, the remaining gap above should be filled with scrap 5mm walnut. **It is essential that these parts remain absolutely square, level and central.**
The rails (painted yellow) are now fitted using 2x2mm flexible beech. Using ***Plan Sheet 5*** for reference, the rails join the slots in the outer edges of the head timbers, terminating against the hull and upper bow curved rail as shown. The slots will require bevelling to ensure a 'true' fit. When the rails are in position, paint the outer edge of the timberheads yellow and they should then be lined with 0.5x3mm (reduced to 0.5x2mm) walnut, painted blue as shown (*Photo 27 & 28*).
The bow main rail (394) can now be fitted. Using ***Plan Sheet 5*** for reference, the upper edge of the 'head' of the bow main rail will sit flush with the top of the bow main rail inner timberhead (125) as fitted earlier. The lower edge of the bow main rail then follows the four head timbers and terminates flush against the upper bow curved rail, in order to achieve this, the head timbers will require bevelling.
Note: the bow main rail inner timberhead (125) should not be bevelled. Instead, the bow main rail will run past the fore outer corner of this timberhead and the bow main rail outer timberhead (395) should be bevelled to fit behind the bow main rail and against the inner timberhead. When the bow main rail is shipped, the upper edge (directly above the profiled area, running into the timberhead) should run parallel to the deck, and the 'head' of the bow main rail inner timberhead as shaped earlier should also now be worked into the main rail and main rail outer timberhead. Also note that the bow main rail should be painted as shown in (*Photo 27*), it is also shown correctly painted on the front cover of this manual.

Photo 027

Photo 028

The Bow Gratings

Two lengths of 2x3mm walnut (painted black) should now be secured against the front edge of the second and third head timbers (108 & 109) as shown (*Fig 016*). The lower, aft edge of the beakhead platform (321) should also be lined with 2x2mm flexible beech. This beakhead platform can now be painted black and glued in position, the aft edge will sit on top of the decked area fore of the beakhead bulkhead, just touching the roundhouses. The fore edge should just come over the 2x3mm walnut plank on the front edge of the second head timber.
The second beakhead platform (322) sits flush against the first, at an angle so that it sits on the 2x3mm beam across the front of the third head timber. You should clear any obstructions (such as the 2x3mm beam) from the openings in each of the gratings when the assembly is thoroughly dry.
The Stools (76 & 77) can now be located and secured in position on top of the gratings, as shown (*Fig 017*).
There is a handrail of 0.7mm brass wire, which runs from the bow main rail at the roundhouse to the bow main rail at the stem, passing through a stanchion mid way. The stanchion is made to fit from 0.7mm wire, the small loop can be formed by twisting the wire around the end of a pair of long nosed pliers. The stanchion is positioned onto the grating and against the inboard edge of the bow main rail. To fit the rail, a 0.75mm hole will need to be drilled into the top face of the bow main rail at the start and end points, a 90 degree bend is then made in each end of the rail and glued into these holes, remembering to pass the rail through the stanchion first.

Fig 016

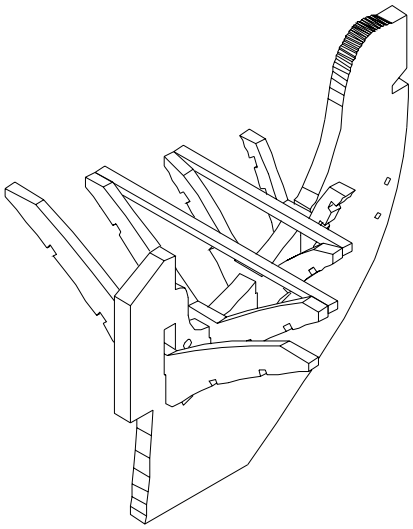
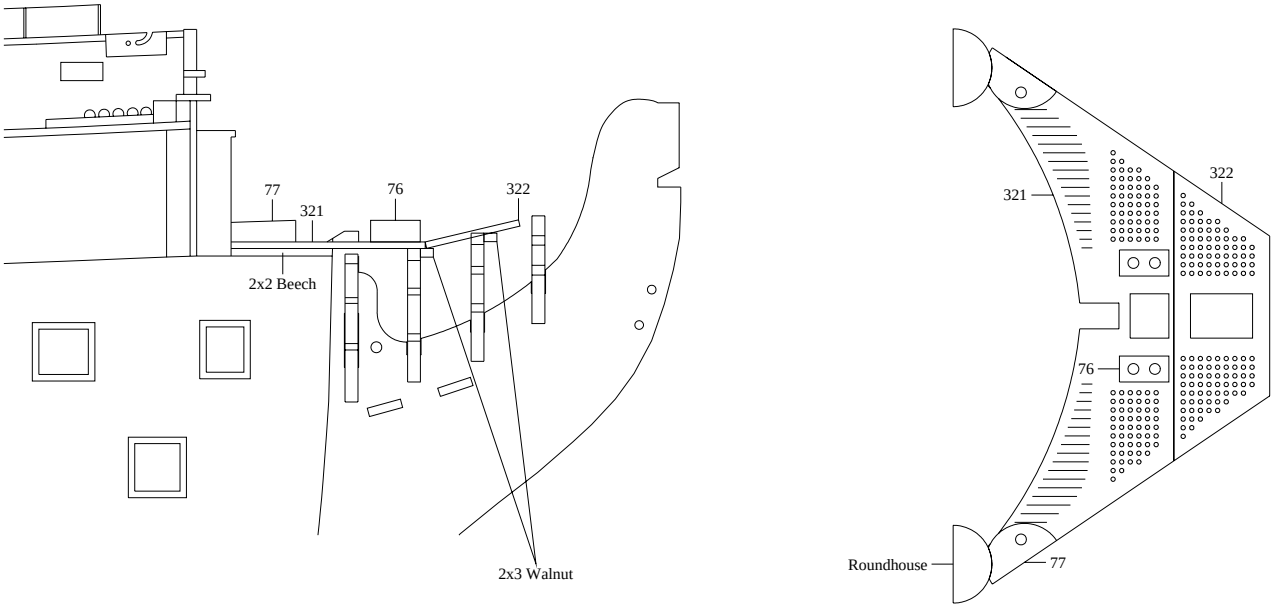


Fig 017



The Knightheads & Boomkin

Using ***Plan Sheet 7***, make up the boomkins as shown, these will need to be painted black.
Temporarily insert a piece of 12.7mm dowel into the bowsprit slot. Locate, and paint black, the knightheads (65) and mark their position on the deck, do not yet fit them. The knightheads are positioned as close to the bowsprit as possible, and flush against the aft edge of the grating. Insert a brass wire pin into the underside of each knighthead and drill locating holes into the deck, again do not yet secure the knightheads. With the knightheads temporarily fitted in their locating holes, the boomkin orientation can be determined. The boomkins sit flush against the outermost edge of the knightheads at a distance of 20mm from the deck, and pass downward and outward, resting in the semi-circular cut of the bow main rails as shown on ***Plan Sheet 5***. The end of the boomkins will require sanding to sit flush against the knightheads. When you are happy with the positioning of the boomkins they should be glued and pinned to the knighthead. As this assembly is fragile you can choose either to glue the knightheads (and attached boomkins) in position now or at a later stage.

The Figurehead

Using (*Photo 029, 030 & 031*) for reference, paint and fit the figurehead as shown.
Note: the starboard figurehead (Cherubim) has a blue sash while the port figurehead (Seraphim) has a red sash.

A Cherubim, indicated by the colour blue, relates to the second order of angels representing wisdom.

A Seraphim, indicated by the colour red, relates to the highest order of angels representing love of God.

Photo 029

Photo 030

Photo 031

The Cat-Heads

The cat-head is constructed as shown (*Fig 018*) from 1x5mm walnut, 0.5x5mm walnut, and a length of 1mm brass rod. The stop cleat is made from 1x3mm walnut. When assembled, paint the whole assembly yellow, with two blue rectangles on the fore face as shown (*Photo 032*) and attach a 1mm wide strip of cartridge paper as banding.
The cast crown (674) is painted as shown (*Photo 033*) and glued to the end. The assembly is attached to the hull, with the cat-head knee (129) against the aft edge and the cat-head support (130) against the underside, all of the parts will require sanding to sit flush against the hull. The cat-head knee is painted black, the support is painted as shown.
Note: the cat-head should be positioned such that it appears to be a continuation of the 5mm cat-tail on the forecastle.
A length of brass profile 1 should be warmed and shaped to run between the cat-head support and the upper rail (of 2x2mm beach).
Note: where the brass profile intersects the wale, this section of the wale should be removed to allow the profile to sit flush against the hull. Also, the brass profile should run over the top of the foremost middle gun deck gunport at a sufficient distance to accommodate the gunport rigol to be fitted at a later stage.

Photo 032

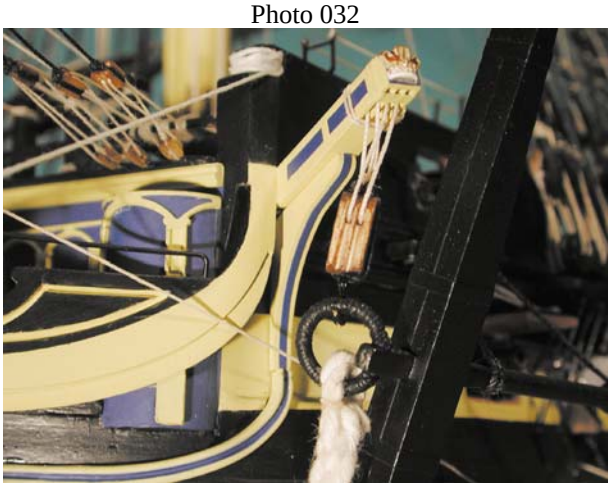


Photo 033

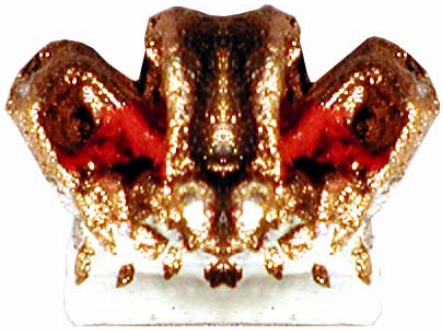
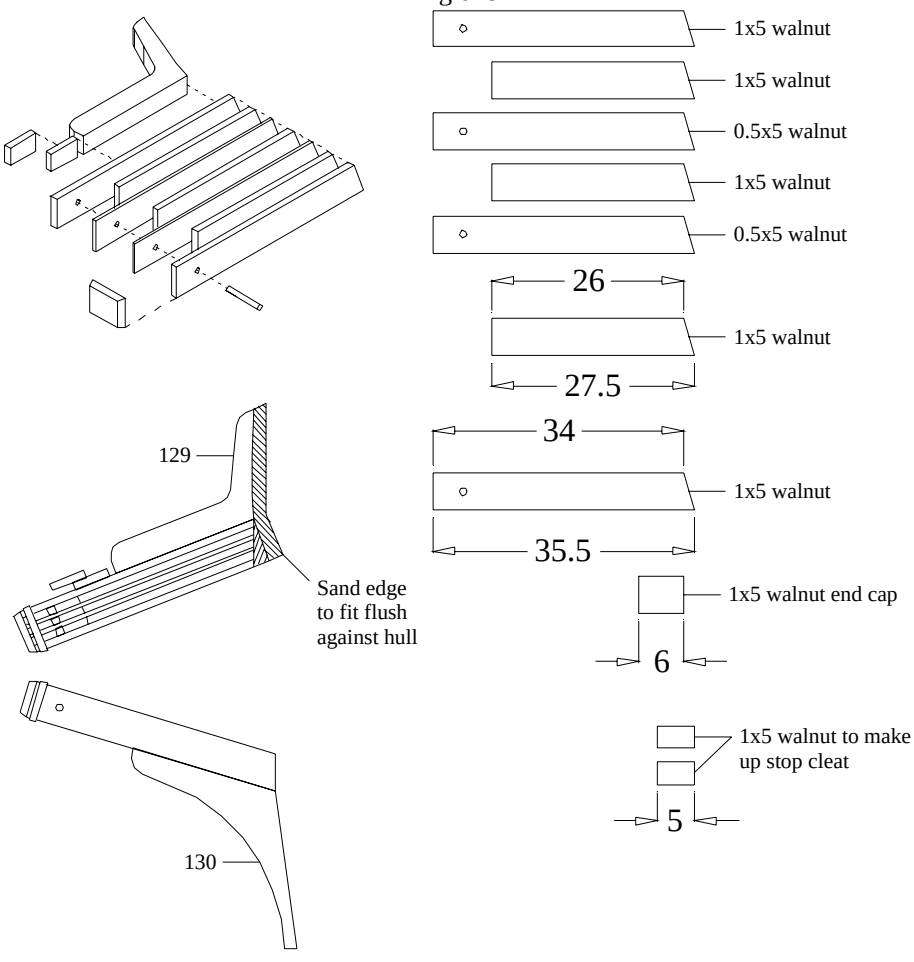


Fig 018



The Marines' Walk & Pillars

Identify the marines' walk (406) and pillars (128) and paint black. The pillars fit through the foremost opening in the second beakhead platform, and flush against the forward face of the third head timber, with the notch in the pillar securing to the beakhead platform. The marines' walk then fits directly on top of the pillars with the aft end resting on the beakhead bulkhead plank sheer, flush against the forward face of the fourth and fifth timberheads and inside the third and sixth timberheads.

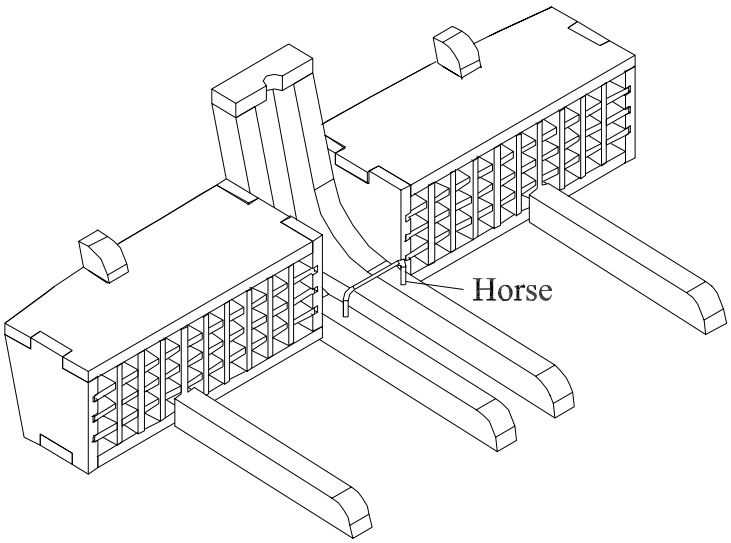
The Poop Deck

Locate and fit the poop deck camber beam (38) as shown on ***Plan Sheet 1***. Fit the 0.8mm ply poop deck, sand for fit and when satisfied, secure in position with pins and glue. Remove the upright stubs from the bulkheads and sand flush with the deck. Using 1x4mm Tanganyika strip, plank the deck from the centre out to the bulwark (currently consisting of the top gunport pattern and second planking), remembering to clear the openings as you progress. Cut a template from scrap 1.5mm ply, to fit against the inside face of the bulwark, glue in position and line with 1x4mm walnut. Identify and fit the poop deck capping (390), the capping should overhang the hull by approximately 1mm, the quadrant between the poop and quarterdeck capping can now be 'capped' with 1x5mm walnut and sanded flush with the inner and outer hull faces.
The front edge of the poop deck is 'capped' with a plank sheer of 1x4mm walnut, between the bulwark capping rails, flush with the front edge of the decking. The fore end of the bulwark capping rails should now be gently sanded flush with this 1x4mm plank sheer.
Locate the two poop deck support knees (403) and paint yellow. The knees are fitted against the quarterdeck bulwark, directly in front of the quarterdeck screen assembly, and tight against the deck head.

Flag Lockers

Locate and paint black the inner transom knees (173). These are fitted on the poop deck, flush against the inner face of the stern fascia, the knees are positioned 6mm apart, and the ensign staff support (260) is secured on top, across the knees.
Identify the flag locker components, it is highly recommended that you number these parts prior to removal from their sheets. When you have removed the parts from their sheet, assemble the lockers as shown on ***Plan Sheet 4, 'Flag locker assembly'***. The 1.5mm walnut outer components (399 & 400) should be painted black while the 0.8mm parts are left natural. The lockers fit onto the poop deck and flush against the knees and the inner face of the stern fascia. The outer transom knees (174 & 175) can now be fitted, the bases sit on the poop deck 20mm from the inner knees, and the tops sit on the top of the flack locker. An 'iron' horse made from 0.7mm brass also runs between the inner transom knees approximately 10mm in front of the flag lockers as shown (*Fig 019*). The horse is secured into two 0.75mm holes drilled into the upper face of the knees.

Fig 019



Snatch Block, Cleats & Kevels

Identify the two poop snatch blocks (78). These are to be painted black and secured centrally to the poop capping, directly in front of the stern fascia.
Using ***Plan Sheet 4*** for reference, four medium cleats, painted black should be secured to the poop deck, two large cleats, also painted black, should be secured to the poop bulwark and a small cleat, painted black, should be secured to the starboard inner transom knee.
Identify and paint black the poop kevels (169). These are secured to the poop bulwark and poop decking as shown on ***Plan Sheet 4***.

Skylight

The skylight (335, 336, 337) is assembled as shown on ***Plan Sheet 4, 'Skylight assembly'***.
Note: the side and end piece windows are cut off centre, and the skylight should be assembled such that the deepest edge sits on the deck, as shown (*Fig 020*).
All of the windows are glazed and framed, the glazing can either be cut individually and pressed into the openings with the brass etched frames, or a strip of glazing can be applied to the back of the skylight components. The brass etched frames should be painted brown (wood effect) and the whole assembly left unpainted and varnished. Glue the assembly into position over the opening in the poop deck.

Fig 020

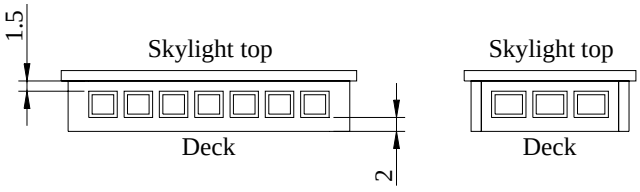
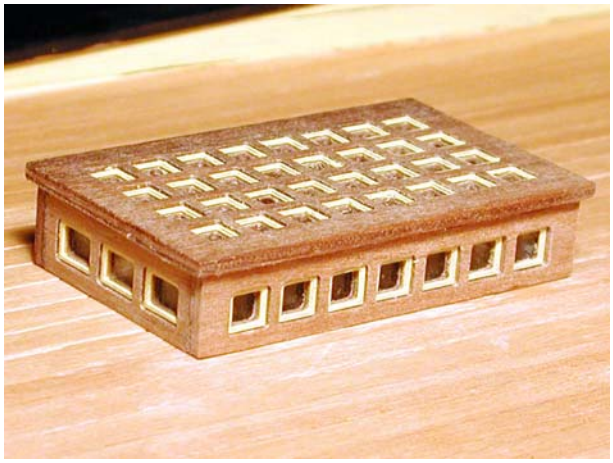


Photo 034

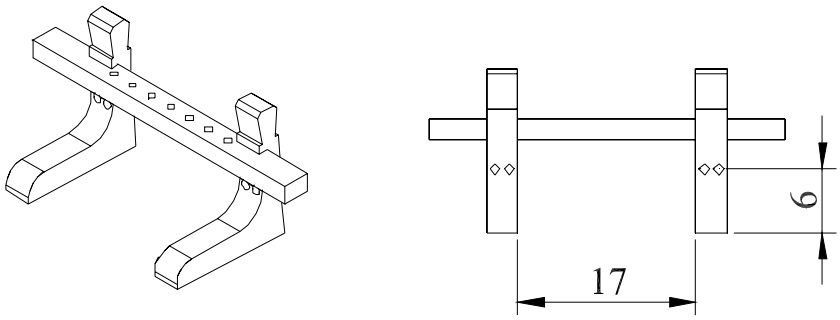


Note: paint window frames brown (wood effect), they have been painted yellow here for photographic purposes.

Mizzen Topsail Sheet Bitts

Assemble the mizzen topsail sheet bitts as shown on ***Plan Sheet 4, 'Mizzen topsail sheet bitts assembly'*** . The bitts should be pinned and glued to the poop deck separated by a gap of 17mm, you should also notice the bitts will follow the rake of the mizzen mast.
Note: a pair of holes (sheave for the main topsail braces and mizzen topsail sheets, when rigged) should be drilled fore to aft through the mizzen topsail sheet bitts approximately 6mm off the deck, (*Fig 021*).

Fig 021



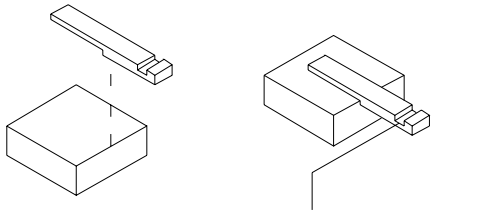
Poop Ladder Assembly

Identify the poop ladder steps (176 & 177), glue these steps together as shown on ***Plan Sheet 4, 'Poop ladder assembly'***. Glue the steps to the aft edge of the ladder extension and plank the extension up to the steps with 1x4mm Tanganyika. Line the outer faces of the extension with 1x3mm walnut strip.
Assemble the ladder (402) using 1x5mm walnut for the treads, the overall width of the ladder assembly should be 15mm and the ladder is to be glued centrally to the fore face of the extension as shown.
This entire assembly is secured to the underside of the poop deck, so that the fore face of the first step is flush with the edge of the poop deck, some sanding of the base of the ladder may be required to ensure the extension runs parallel to the deck.
The inner hand rail should now be constructed using two staircase balusters (sanded square and stained back to walnut), one quarterdeck stanchion and a brass etched eyelet. The handrail between the staircase balusters is 1.5x1.5mm walnut and the handrail between the stanchion and the brass etched eyelet on the staircase baluster is of 0.25mm black thread. It may be advantageous, using the dimensions from the ladder assembly, to construct the handrail 'off' the model and fit on as a complete assembly when constructed. The step in the 1.5x1.5mm walnut handrail is achieved by using three pieces of walnut scarfed together and sanded smooth. The outer handrail will be dealt with at a later stage.
The poop deck termination rail (401) should now be glued into position across the face of the poop deck, level with the poop deck plank sheer, between the two staircase balusters.

Poop Deck Barricade Assembly

Using ***Plan Sheet 4, 'Section through bulkhead 14***' for reference, cut eight lengths of 3x4mm walnut, each 5mm long. These rail supports are secured to the poop deck plank sheer and the poop deck barricade rail (388) is glued to the top face of the supports. The positioning of the supports is determined by the locating holes drilled in the barricade rail, and when attached to the plank sheer, the supports should remain vertical. The bucket pegs (546) should be secured to the top of the barricade rail as shown (*Fig 022*). This whole assembly will be painted black.
Identify the brass buckets (695). These will each need to be cross drilled with a 0.5mm drill, as close to the top edge as possible. Form a handle through the holes with 0.1mm natural thread and paint the bucket and thread black. Hang a bucket on each bucket peg and secure with a drop of super glue.

Fig 022



The Stern Fascia

Paint the edges of the windows of the inner stern fascia yellow. Identify the outer stern fascia, and clean out the corners of each window frame with a needle file. Paint the outer stern fascia black, and the window surrounds yellow as shown (*Photo 035*), including the inner sills. Glue three broad strips of glazing across the window frames on the inner stern fascia, with PVA wood glue. Glue the outer stern fascia onto the inner stern fascia, ensuring the outer edges and the window frames all line up. It is important to ensure a good fit, as the brass etched window frames will fit into the window frame recess created between the two fascia patterns. Sand the outer facing edges of the inner and outer stern fascia patterns flush with each other and line them with 1x3mm walnut, sanded flush inside and out. The walnut 'capping' will need to be soaked in water to follow the curve of the fascia, it should also be applied in several pieces, one for each curve, one for the top and one for each side.
Identify the stern fascia window frames (513) and paint them yellow. It is a good idea to paint the frames while they are still on the brass etched sheet and only remove each individual frame as it is used, the frames are all similar in size but each has been designed to fit into one specific window. After painting, remove and fit each frame individually, the yellow paint can be re-touched upon completion.
Identify the two stern fascia false baluster patterns (631 & 632), they are painted as shown (*Photo 035*) with a black line running through the relief top and bottom. Glue the patterns to the outer stern fascia as shown, ensuring they are central and run true.
Identify and paint yellow the stern fascia edge moulding (608), It should be glued onto the stern fascia approximately 1mm in from the edge (the depth of the capping) all the way round.
Now, identify and paint as shown, the stern figures (665 & 666), the flowers (667 & 668) and the scrolls (669 & 670) and secure to the fascia as shown.
Locate and paint as shown (*Photo 036*) the stern trophy of arms (671) and the stern fascia top moulding (633).
Note: as you can tell from the picture, the trophy of arms sits over the top moulding, in order to achieve this a small section will need to be filed from the back of the trophy of arms. When completed, glue into position.
Identify the Victory name plate (621), paint the relief black and the raised text and surround yellow, glue into position, centrally, as shown (*Photo 035*).
Identify, paint and assemble the large and medium lantern components (538, 654, 655, 539, 656 & 657), these can be attached now or at a later stage of your choosing, using lengths of 0.7mm brass wire. We would suggest, to bend the brass etched lantern parts as follows:

1. Saw a 0.5mm groove into a piece of scrap soft wood, to a depth of no more than 0.75mm.
2. Lie the half etched bend line of the brass etched component across this groove.
3. With a heavy duty craft knife blade, gently apply pressure to the bend line, pressing the material into the groove, until the desired angle is achieved.
4. Repeat for each bend line.

With the transom now completed and using (*Fig 023*) for reference, attach 9 small cleats (662) and 4 copper eyelets (690) to the taffrail and inboard face of the inner stern fascia as shown.

Fig 023

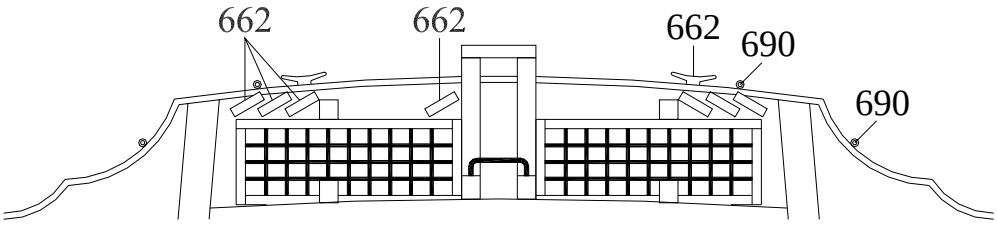


Photo 035

Photo 036

Paint the quarter gallery as shown (*Photo 037*).
Note: the black and yellow bands do not follow the black and yellow bands of the hull painting.
Identify and paint yellow, the quarter gallery window frames (510, 511 & 512), again do not remove these components until required. Fit the frames into their respective openings, taking care not to push through the recessed area and glazing.
Identify the quarter gallery false baluster patterns (627, 628, 629 & 630) and paint as shown on (*Photo 037*), with a black line running through the relief top and bottom. Fit the patterns to the quarter galleries as shown, any shortening of these patterns should be done at the fore end, and they should be bevelled to run into the hull side, some tweaking may be required to ensure a good fit.
Identify and paint the quarter gallery lower finishing and drop decoration (672 & 673). Secure the pattern to the underside of the quarter galleries and the hull side, some shaping may be required to ensure a good fit.
Note: there should be a slight overhang where this decoration joins the lower stern counter pattern (372).
The two quarter gallery top decoration patterns (73 & 178) can now be glued to the top of the quarter gallery, the outer edges of these pattern will require bevelling to follow the run of the quarter gallery. Likewise the inner and aft edges will need to be bevelled to sit flush against the hull and stern fascia.
Using ***Plan Sheet 5*** for reference, four lengths (each side) of brass profile 1 are fitted to the quarter galleries. The first is painted black and runs along the outer edge of the uppermost quarter gallery top decoration pattern (178). The remaining three are to be painted yellow and secured to the quarter galleries. The first runs along the topmost edge of the first skin, directly above the windows. The second runs along the join of the 5th and 6th skin, directly below the windows. The third runs along the top edge of the quarter gallery drop decoration. The second and third should also be joined across the transom, following the curve of the upper stern counter pattern, also with brass profile 1. In order to achieve this, they will have to be mitred. The fore end should also be bevelled to run neatly into the hull.

Photo 037

The Side Entry Port & Steps

Identify the side entry port castings (675, 676, 677) and paint as shown (*Photo 038*). Secure the castings around the entry port as shown on ***Plan Sheet 5***.
Identify the steps (181 – 190) and the elm tree pump tube lining (604). Secure to the hull with super glue as shown on ***Plan Sheet 5***, each component should be painted to match the yellow and black bands of the hull behind.

Photo 038

The Fenders & Chesstrees

Identify the fenders (170) and chesstrees (171). Fit to the hull as shown on ***Plan Sheet 5***, they should be painted to match the yellow and black bands of the hull behind.
Note: The top edge of the fenders sits flush with the top of the waist capping rail, to achieve this a small section of the capping rail will have to be filed flush with the hull where each fender intersects it. The chesstree, however, butts up against the underside of the waist capping rail. Where the fenders and chesstrees intersect any wales, the section of wale behind will need to be removed to allow them to sit flush against the hull, alternatively a section can be filed from the back of the fenders and chesstrees.

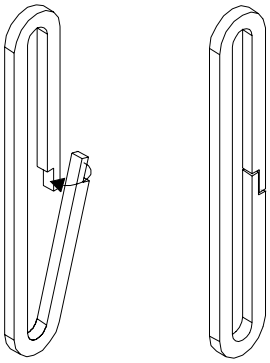
The Channels

Identify the channels (200, 201, 202, 203 & 204). Temporarily pin the channels in place as determined from ***Plan Sheet 5***, take care with both the positioning and orientation of the channels. The position is critical to ensure correct fit of the chainplates and the orientation is critical to ensure the pre-cut slots for the shroud deadeyes are in the correct position. It is easy to fit a channel upside down therefore reversing the position of the shroud deadeyes, take care. Using ***Plan Sheet 2*** for reference, fit the appropriate size deadeyes, in strops, to the channels. After fitting the deadeyes and strops, a strip of 1.5x1.5mm walnut is secured across the edge of the channel, covering the slots, the strip should be positioned centrally to produce a 0.25mm lip above and below. The copper eyelets and studding sail boom bracket (684) and support (685), as shown on ***Plan Sheet 18***, can also be fitted now. These whole assemblies should be painted black, glued and pinned to the hull.
Note: take care when painting the deadeyes and strops to ensure the deadeyes are rotated to the correct alignment for rigging as shown on ***Plan Sheet 12***, as after painting it will be almost impossible to rotate them.

The Chainplates

Before fitting any chainplates, read this section, ‘The Chainplates’, and the following section, ‘The Gunport Assemblies’, taking note of the positioning of each part as they are all fitted relative to one another. Each chainplate assembly and each gunport assembly should also be treated as an individual mini-project.
Identify the chainplates assemblies (554 - 591) on the brass etch sheet. Do not remove them from the sheet until you are ready to fit them, they all vary in length by small degrees and have been designed to fit in their own unique position. Paint all of the assemblies black while they are still in the brass sheet.
Note: the whole length of the assemblies are black regardless of the hull colour behind, do not paint any areas yellow. Some photographs show the chainplate colour corresponding to the hull colour behind (black and yellow bands), the most recent research has shown this to be incorrect.
You will notice that the chainplate assembly has also been designed in such a way that it forms a completely closed structure. To achieve this ‘tuck’ the long end of the chain behind the short and secure with super glue as shown (*Fig 024*).
Note: the aft pair of chainplates on the main channel will foul the rigol below, this is not an error and a section of the rigol should be filed out to accommodate the chainplates.

Fig 024



The Gunport Assemblies

When assembling and fitting the gunports, it is a good idea to concentrate on one deck at a time, starting from the top and work down.
Identify the respective lids and hinges for each deck, and scuttle hinges for the lower gun deck. The outer face of each lid should be painted black (along with the scuttles, rigols and hinges), the edges and inner face should be painted red.
Each lid is fitted with its corresponding hinges as shown on (*Fig 025 & 026*).
Note: The hinges are 'paired' and the upper 'tabs' facing away from each other. Also the hinges are positioned 1mm from the gunport lid inside edge, allowing the hinge to butt up against the hull when the lid is positioned in the gunport recess.
Four brass etched eyelets (480) are fitted to each lid, two to the upper face through the hole in the end of each hinge and two as close as possible directly opposite on the underside.
Note: the two eyelets on the upper face are at 90 degrees to the hull and the two on the underside are parallel to the hull, as shown on (*Fig 026*).
When assembled, glue the gunport lid into the gunport lining recess. At a distance of approximately 6mm above the lid (you will find exceptions to this, for example under the channels), in line with each hinge, drill a 0.5mm hole. Pass a length of 0.25mm natural thread into the hole and secure with super glue, secure the opposite end to the eyelet at the end of the hinge. Trim any excess.
When convenient, referring to 'Arrangement of Rigols' on page 48, the appropriate rigol for each gunport is fitted to the hull, between the gunport lid and the 0.5mm holes. Some of the rigols for the lower gun deck may intercept the wale, where this happens, the section of wale should be removed to allow the rigol to sit flush against the hull, likewise areas of the wales will need to be removed if they intersect gunport hinges. Also, where any rigols intercept with fenders, chesstrees or side steps, the rigols themselves should be trimmed to fit.
The scuttles are made up of a 5mm length of 0.5x3mm walnut, glue the hinge to the walnut and glue the whole assembly to the gunport lid (lower gun deck only), as shown (*Fig 025 & 026*).
Note: the second (from the stern) quarterdeck gunport lid is a double door as shown (*Fig 025*).

Fig 025

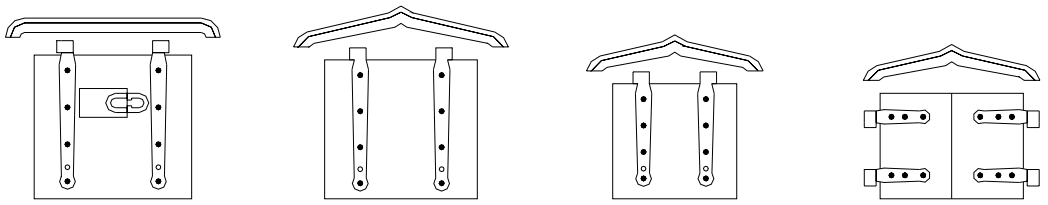
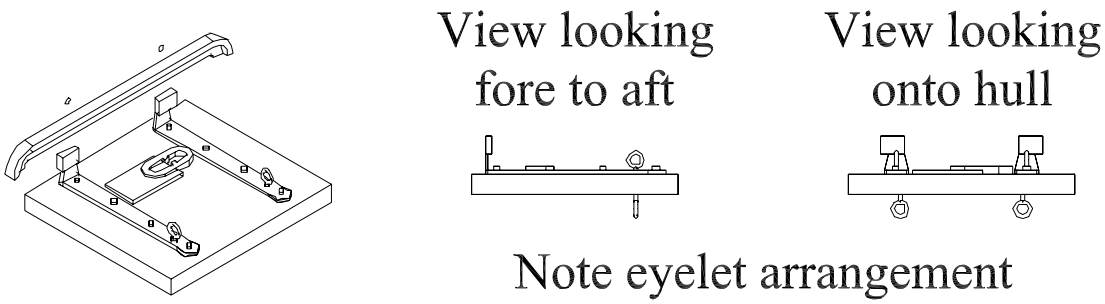


Fig 026



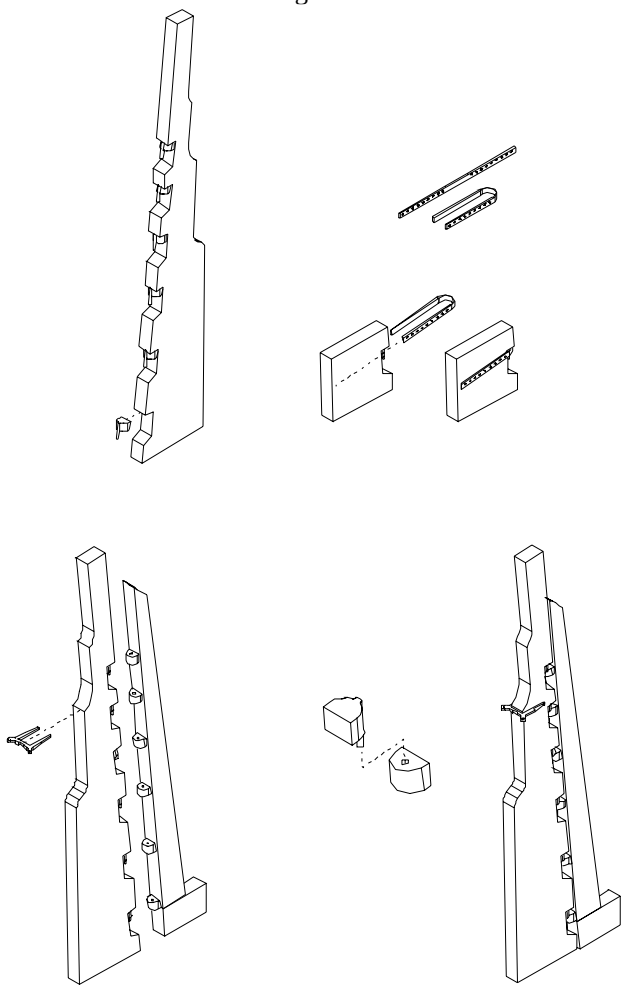
The Dummy Barrels

Locate the dummy barrels (698 & 699). The 32pdr barrels are for the lower gun deck and the 24pdr barrels are for the middle gun deck, paint the barrels black with red muzzles. With a 2mm drill, drill locating holes into the dummy barrel strips, through the gunports. These holes need to be square and level as they dictate the angle of the dummy barrel. With all the holes drilled, temporarily fit all of the dummy barrels, they should not all be pushed all the way into their locating holes, instead try to position the barrels to follow a similar curve to the cannons on the upper gun deck. When you have achieved the desired effect, remove one barrel at a time and re-secure it into position with super glue.

The Rudder

Identify the rudder (59), cast rudder hinges with pins (680), cast rudder hinges without pins (681), chain (703), the brass etched rudder straps (609 – 620) and spectacle plate (624). The rudder should be copper plated, as per the hull, up to the waterline, the area above the waterline should be painted black. Paint copper and secure the rudder hinges with pins to the rudder as shown on (*Fig 027*). Paint copper and attach the brass etched 'rudder' rudder straps to the rudder, they wrap around the hinges and the indentations can be drilled and pinned if desired using dome headed pins (696).
Locate and paint black, the spectacle plate and fit to the rudder as shown.
When this assembly is complete, offer the rudder up to the hull and mark on the position of the rudder hinges without pins. Paint the hinges without pins copper and secure to the hull. Paint the 'hull' rudder straps copper and secure them to the hull, they wrap around the hinges, the indentations can be drilled and pinned if desired using dome headed pins (696). The rudder can now be passed up through the locating hole in the lower stern counter and hung on the hinges.
Run a length of chain from the holes in the spectacle plate to a copper eyelet positioned under each casting drop of the quarter gallery, as shown on ***Plan Sheet 5***. The chain should be painted black.

Fig 027



The Waist Deck Stanchions

Using (*Fig 029*) for reference, secure the 18 quarter deck stanchions (515) to the deck as shown, eight upper gun deck stanchions should also be secured to the upper gun deck, directly in front of the waist ladder sides.
The waist stanchions should also have lengths of 1.5x1.5mm walnut running between them (except at the top of the ladders) as shown (*Fig 029*).
Rig hand ropes between the stanchions with 0.25mm black thread as follows:

1. From the forward most stanchion on the upper gun deck to the forward most stanchion on the waist.
2. From the second stanchion on the upper gun deck, up to the second on the quarterdeck. Along through the third to seventh stanchions on the quarterdeck and down to the third on the upper gun deck.
3. From the aftermost stanchion on the upper gun deck to the aftermost stanchion on the quarterdeck and secured to the end of the upper rails of the quarterdeck barricade assembly.

Hammock Cranes

All hammock cranes are to be painted black with natural hand ropes of 0.1mm thread.

Forecastle Hammock Cranes

(If you have decided to build to the Portsmouth (2003) specification, identify the Portsmouth hammock cranes (P09 & P10) and follow step 6 of the Portsmouth Pack.)
Identify the forecastle hammock cranes (516 & 517). Paint them black and using ***Plan Sheet 5*** for reference, fit them to the top of the forecastle bulwark.
Note: the pin on the inside of the hammock crane fits flush against the inside face of the bulwark, the pin toward the middle of the hammock crane should be secured with glue into a 0.7mm hole drilled into the capping rail. The closed hammock cranes (517) are located at the foremost and aftermost positions.
Using 0.1mm natural thread, rig the hammock cranes from front to back, one length of thread inboard and one length of thread outboard.

Waist Hammock Cranes

Identify the waist hammock cranes (518 & 519), waist rail stanchions (520) and waist rail supports (521). Paint them black and using ***Plan Sheet 5*** for reference, fit them to the top of the waist capping rail, the 'U' pieces positioned to the inboard.
Note: the locating holes should be drilled centrally across the capping rail, resulting in the hammock cranes overhanging the hull. The closed hammock cranes are located at the foremost and aftermost but one positions, the aftermost position is occupied by the rail stanchion (520).
Rig the outside, from closed hammock crane to closed hammock crane with 0.1mm natural thread.
A piece of 1.5x1.5mm walnut strip, painted black, is secured into the 'U' end of the hammock cranes, along the entire length of the waist, the rail supports (521) are secured to the underside of the rail and to the closed hammock cranes, there should also be two supports, one either side, attached to the middle hammock crane and underside of the rail.

Quarterdeck Barricade Hammock Cranes

Identify the waist rail hammock cranes (524 & 525). Paint them black and using ***Plan Sheet 4, 'Section through bulkhead 9'*** for reference, fit them centrally to the top of the upper rail of the quarterdeck barricade assembly.
Using 0.1mm natural thread, rig the hammock cranes from port to starboard, one length of thread fore and one length of thread aft.
Note: The closed hammock cranes (525) are located at the outermost positions.

Quarterdeck Hammock Cranes

Identify the quarterdeck hammock cranes (522 & 523). Paint them black and using ***Plan Sheet 5*** for reference, fit them to the top of the quarterdeck bulwark.
Note: the pin on the inside of the hammock crane fits flush against the inside face of the bulwark, the pin toward the middle of the hammock crane should be secured with glue into a 0.7mm hole drilled into the capping rail. The closed hammock cranes (523) are located at the foremost and aftermost positions.
Using 0.1mm natural thread, rig the hammock cranes from front to back, one length of thread inboard and one length of thread outboard.

Poop Deck Barricade Hammock Cranes

Identify the poop rail hammock cranes (526 & 527). Paint them black and using ***Plan Sheet 4, 'Section through bulkhead 14'*** for reference, fit them centrally to the top of the barricade rail.
Using 0.1mm natural thread, rig the hammock cranes from port to starboard, one length of thread fore and one length of thread aft.
Note: The closed hammock cranes (527) are located at the outermost positions.

Poop Hammock Cranes

Identify the poop hammock cranes (528 - 537). Paint them black and using ***Plan Sheet 5*** for reference, fit them centrally to the top of the poop capping rail.
Note: The closed hammock cranes (528 & 537) are located at the foremost and aftermost positions and the aftermost hammock crane is positioned on top of the poop snatch block.
Using 0.1mm natural thread, rig the hammock cranes from front to back, one length of thread inboard and one length of thread outboard.

Poop Ladder Hand Rail

Position one quarterdeck stanchion (515) on the outboard side of the poop ladder extension and one at the foot of the ladder, on the quarterdeck as shown on ***Plan Sheet 4, 'Poop ladder assembly'***. Rig a length of 0.25 black thread between the two.
Fashion a length of 0.7mm brass wire, painted black, to the same shape as the inboard 1.5x1.5mm walnut handrail and glue or solder in position between the stanchion on the ladder extension and the inboard post of the foremost poop hammock crane.

Poop Deck Bulwark Barricade

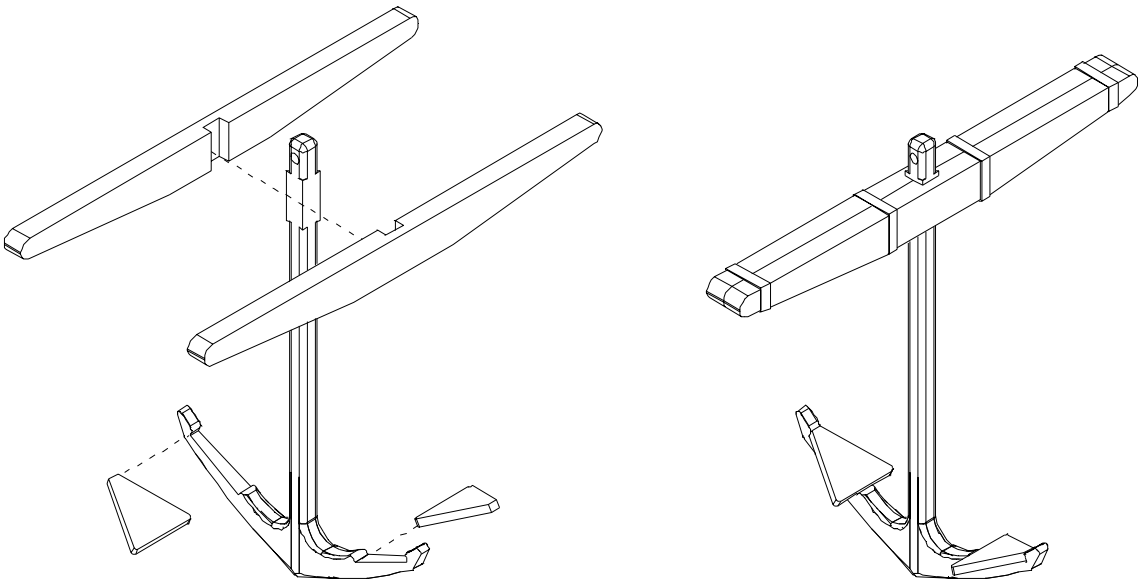
(If you have decided to build to the Portsmouth (2003) specification, this stage should be ignored.)
Glue 5 lengths of 0.5x4mm walnut together, edge to edge, creating a 'board' approximately 230mm long and 20mm wide.
Using ***Plan Sheet 5*** as a guide, cut a barricade from the board to fit against the outer edge of the poop hammock cranes, the barricade should run from the stern fascia to the front edge of the poop deck. The top plank should be positioned just below the 'O' of the hammock crane, and run the full length, i.e. all cutting across planks should be made from the lower edge. The outer face of the bulwark should be painted black and the inner face painted yellow. When the barricade is complete, it should be glued to the outside of the hammock cranes and secured with thread as shown (*Photo 039*).
The barricade was initially fitted to Victory in 1780 when she carried 6 carronades of 18 pounds on the poop deck and were intended as protection, for the hammocks, against the flash back of these carronades. Although the carronades were removed from the poop deck at the time of Trafalgar (they were removed during the re-fit of 1803), the barricade still remained. Likewise the six gunports (three per side) were also still present in the barricade and they should be cut from the barricade now, using ***Plan Sheet 5*** for their positioning.

Photo 039

Anchor Assembly

The bower and sheet anchors on Victory are all the same size. Identify and paint black, the anchors (678), the anchor palms (679), the anchor stocks (94) and the anchor palm block components (74, 75 & 407). Using (*Fig 028*) for reference, glue the pairs of anchor stocks together, with the anchor located between their notches, and simulate iron bands with cartridge paper.
Note: the stocks run perpendicular to the arms, they are not parallel.
Glue the palms to the anchors in the locating slots of the anchor blade. When the assembly is complete, using a length of 1.5mm brass wire form a ring through the eye of the anchor, the ring should have a diameter of approximately 15mm and have 0.5mm black thread applied as 'puddening'.
Assemble the sheet anchor palm block (74 & 407). The top (407) should be glued to the base so that its outer edge is overhanging the outer edge of the base by 1mm and the slot should run from inboard fore, to outboard aft. Using ***Plan Sheet 5*** for reference, the completed palm block should then be secured against the hull, with the top secured against the top of the waist capping. The inner edge of the top should be sanded flush with the inner edge of the capping below.
Using ***Plan Sheet 5*** for reference, the bower palm block (75) should be positioned between the first and second gunports of the upper gun deck and secured to the hull with the 'notch' of the inner face resting on the middle wale.
The anchors will be rigged in position at a later stage.

Fig 028



Brass Rails

Using ***Plan Sheet 5*** and (*Photo 040*) for reference, identify the three different brass profiles (692, 693, 694). Again using ***Plan Sheet 5*** for reference, fit the brass rails to the hull. The rails should all be painted to correspond to the hull colour behind.
Note: the rail of brass profile 1 above the quarter gallery runs along the outer face of the quarter gallery second top decoration (178). When the rails are fitted, locate and fit to the hull the fore lower studding sail boom bracket (194) and the D-block for crossjack lifts (180), using ***Plan Sheet 5*** for reference.

Photo 040

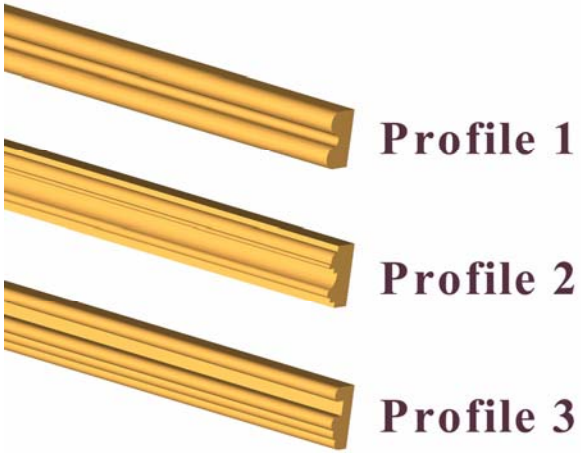
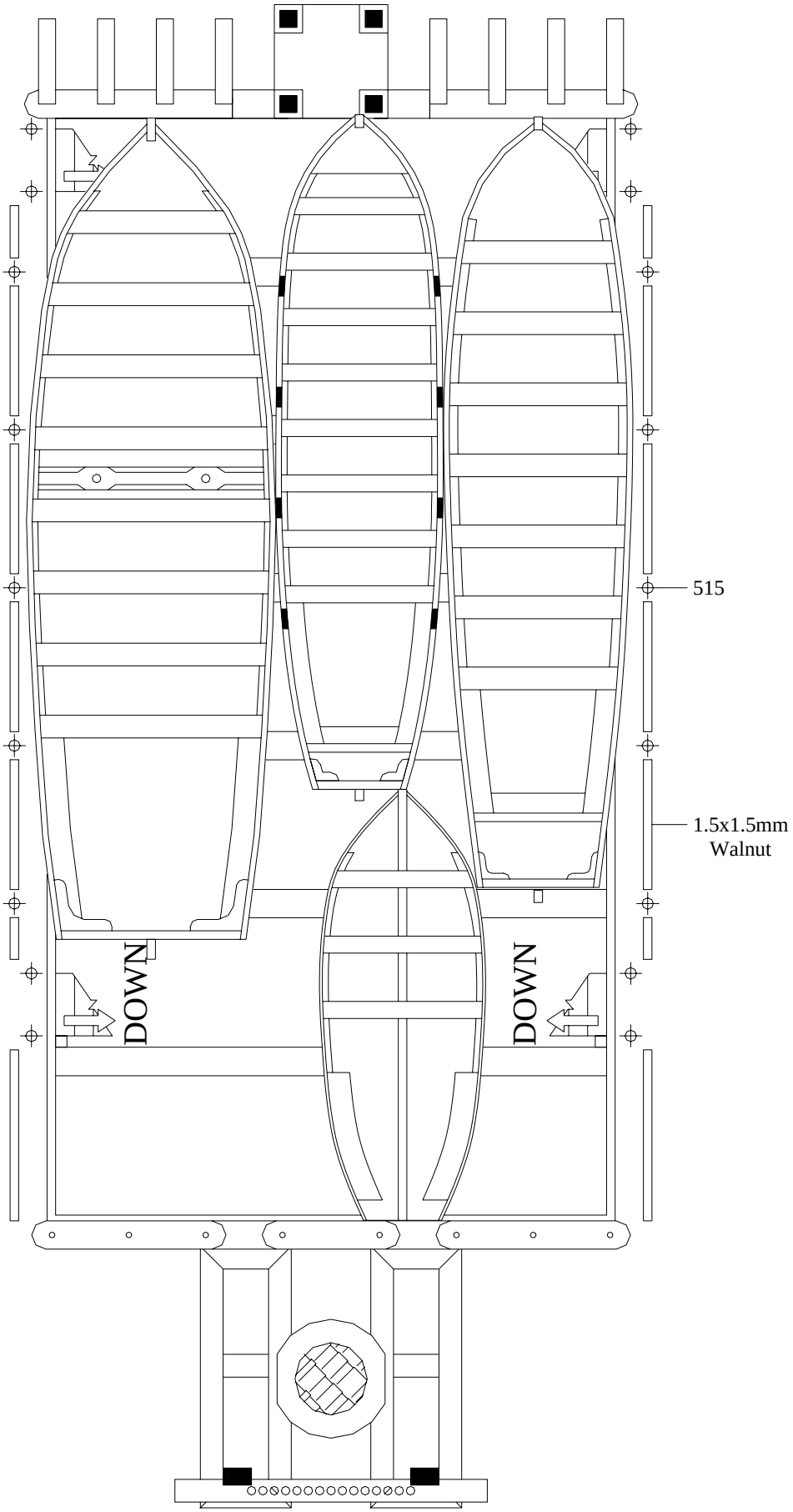
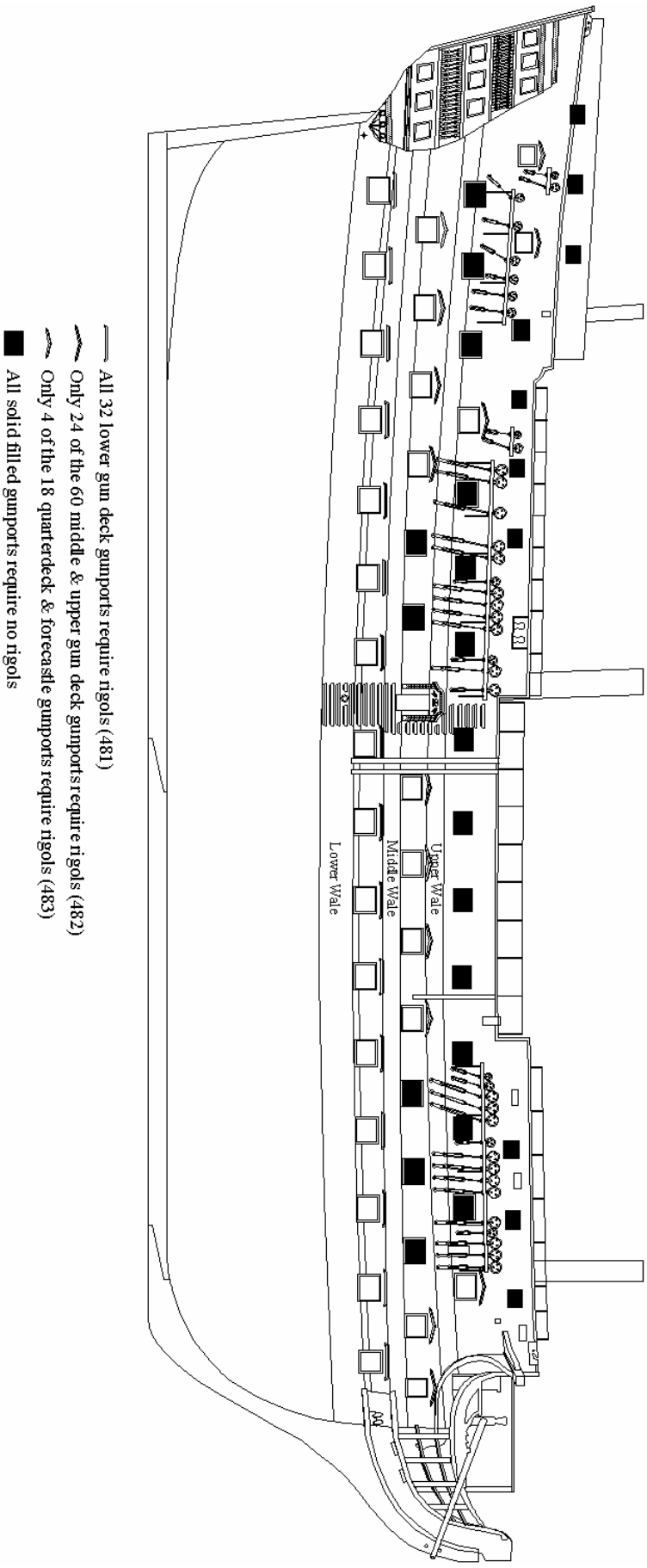


Fig 029



Arrangement of Rigols



All 32 lower gun deck gunports require rigols (481)

Only 24 of the 60 middle & upper gun deck gunports require rigols (482)

Only 4 of the 18 quarterdeck & forecastle gunports require rigols (483)

All solid filled gunports require no rigols

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H.M.S Victory 1805

Exact scale model of the 100-Gun British Ship of the Line.

This, the fifth ship of the Royal Navy to bear the name Victory, had three major battle honours. The first being the Battle of Ushant 1781, the second, the Battle of St. Vincent 1797 and the third, for which she is most famed, the Battle of Trafalgar 1805. By the end of the Battle of Trafalgar, there was not a mast, spar, shroud or sail on board Victory that had not been severely damaged, lost or destroyed in the conflict.

Manual 2 of 3
Masting & Rigging

Additional photos of every stage of construction can be found on our website at:
http://www.jotika-ltd.com

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You may find it easier to avoid turning the round dowel into an oval dowel when tapering by using a David plane, draw knife or similar as follows:

1. Slice the dowel (running with the grain), from a round at the start point of the taper to a square at the end of the taper.
2. Repeat this process so that the dowel runs from round at the start of the taper to an eight sided polygon at the end of the taper.
3. Repeat step two as desired so that the dowel runs from a round at the start of the taper to a 16 or 32 sided polygon at the end, of a diameter marginally more than that required.
4. Using medium sandpaper, followed by fine sandpaper the taper can be gently sanded round along its length.

The general construction of the masts are identical, therefore, a detailed construction of the foremast only will be given.

Bowsprit

Using ***Plan Sheet 7*** for reference, construct the bowsprit to the dimensions shown. You should note that the bowsprit top and sides of the bowsprit, at the positioning of the bees, should be filed flat to accommodate the bees and sheaves. Using ***Plan Sheet 11*** for reference, fit the bees and sheaves (415, 416, 417 & 418), the spritsail yard saddle (334), the jibboom support (414) and stop cleats constructed from 1.5x1.5mm walnut. The gammoning saddles are constructed from 1.5x1.5mm walnut, glued to the bowsprit and sanded round.
Note: the ends of gammoning saddles and the spritsail yard saddle should be vertical when the bowsprit is positioned on the model.
The banding is made from 2mm wide strips of cartridge paper and positioned as shown on ***Plan Sheet 11***.
The bowsprit cap (69) is made as shown on ***Plan Sheet 11***.
Note: it is extremely important that the bowsprit and jibboom holes through the cap are offset to the port as shown, this will allow the flying jibboom to butt up against the cap when the assembly is complete. It is also important that the cap, when fitted, is perpendicular to the keel and the top and bottom are bevelled to follow the angle of the bowsprit. The holes through the cap should also be angled, this can be achieved by drilling small holes and filing them out with needle files.
Note: when the bowsprit assembly is complete, the bowsprit and jibboom are in line with each other while the flying jibboom is offset at 45 degrees from them, above and to the starboard.
The dolphin striker and jack staff should also be made up and fitted using ***Plan Sheet 7 & 11*** for reference.
Note: the flying jibboom has a vertical notch in the end to accommodate the fore topgallant flagstaff stay (page 18). Likewise, the dolphin striker has a notch fore and aft in the end to accommodate the fore topgallant flagstaff stay. The dolphin striker also need three holes drilled fore and aft as shown on ***Plan Sheet 11***, to accommodate the martingales (page 18).

The Fore Lower Mast

Using ***Plan Sheet 6*** for reference, make up the fore lower mast to the dimensions given as follows:
On the top of the fore lower mast, mark out an 8mm square. Follow the lines of the square down the dowel to a distance of 73.1mm.
Using a fine razor saw, saw at right angles across the dowel to each pencil mark at the 73.1mm line. Form the square section using a craft knife, plane, saw, file or similar.
When completed, mark out the 6mm square on the dowel to a depth of 5mm and repeat the process, making sure that the 6mm square is central to the 8mm square.

Offer the cheeks (343) to either side of the mast and mark their positions onto the mast. Using a plane, draw knife or similar, remove the area of the mast on which the cheeks will fit so that the surface of the cheek will sit flush against the mast.
Note: the front and back of the mast in this area should remain rounded with a diameter of 12.7mm.
Before the cheeks are glued into position, it may be an advantage to fit the bands of 2mm wide cartridge paper, that pass under the cheeks, as shown on ***Plan Sheet 10***.
Glue the cheeks to the mast taking care to ensure they are at the same height as each other, remembering that the 'tops' will be located directly on top of them.

Identify the fore lower mast top platform (345), gunwale (346), crosstrees (137 & 138) and trestletrees (136). Using ***Plan Sheet 6, 'Fore mast tops'*** for reference, glue the gunwale to the platform and using 1.5x1.5mm walnut for the battens, glue them to the platform, within the gunwale as shown.
Glue together the crosstrees and trestletrees as shown. The 'notch' in the trestletrees is a locator for the fid of the topmast when fitted and should be toward the front of the assembly.
Note: the crosstrees are of different lengths, ensure the front is put to the front and the rear is put to the rear in relation to the fid notch.
When complete, glue the crosstree and trestletree assembly to the underside of the top platform.
At this stage, put the lower mast and top assembly to one side, do not glue them to one another.

The Fore Topmast

In a similar manner to the lower mast, mark an octagon on the top of the topmast. Using a pencil, mark down the complete length of the dowel all eight lines parallel to each other. Hold the pencil in a normal manner between thumb and forefinger and using your middle finger as a guide, draw down the mast. This is a simple method which becomes very efficient and accurate with a little practise. With the eight lines drawn down the mast, draw the octagon to the base of the mast also. These lines will enable you to easily carve each of the octagonal areas onto the mast in-line with each other.
Using ***Plan Sheet 6*** for reference, make up the topmast to the dimensions given.
Note: for the two octagons at the base of the topmast, the lowest (smallest) octagon is offset from centre so that the aft face runs directly into the aft face of the second octagon above, as shown. All other octagons are central to the dowel. Also take care in drilling the locating hole for the fid through the second octagon as shown, as this will be fitted into the notch on the fore top trestletrees and if drilled at the wrong height will make correct alignment of the mast impossible. Beware not to fit the fid at this stage or the topmast will not pass through the cap. All fids are made from 1.5x1.5mm walnut to a length of 5mm longer than the width of their respective mast.

The octagon at the top of this mast is tapered from a diameter of 5.5mm to a diameter of 6.5mm along a length of 18mm. The remaining 4mm of the octagon has a constant 6.5mm diameter.

The top 37mm of the mast is 4mm square. Two side faces of this square section should be inline with the two flat sides of the centre octagon, where it will fit into the 'top', remembering that the lowest octagon is offset to the aft of the mast.

The sheave assembly can be made up as shown from 1.5x1.5mm walnut and a length of 1x4mm walnut however, the sheaves should not be attached to the mast until the whole mast assembly, including the tops, has been glued together. This also applies to the 0.5x1.5mm battens.

Identify the fore topmast trestletrees (139) and fore topmast crosstrees (210) and assemble the topmast top as shown.

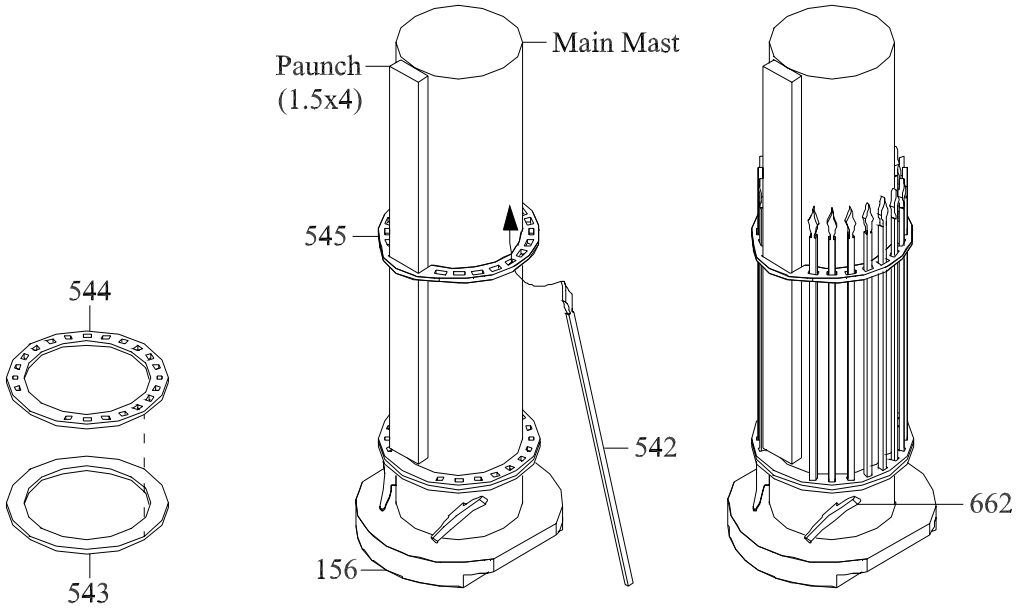
The Fore Topgallant Mast

Using ***Plan Sheet 6*** for reference, make up the topgallant mast to the dimensions given.
Mark the octagons and squares onto the mast as described previously, taking care that they are all in-line. Take care also with the positioning of the fid.

With all three sections of the foremast constructed, the mast as a whole can be assembled.
Starting with the lower mast, identify the bibbs (344). Glue them into position as shown so that the straight back edge and the top edge are flush with the cheeks.
With the mast banding fitted, glue the rubbing paunch of 2x4mm walnut to the front of the lower mast as shown 12.7mm off the deck, taking care that it runs vertically and centrally, when in place it should be reduced to 1.5x4mm.
Assemble the fore mast boarding pike rack as shown on (*Fig 030*), and attach it to the mast, the base should be 10mm off the deck and the top should be 25mm above the base. The lower mast banding can now be finished and when completed, the boarding pikes can be glued into the rack. The pikes and pike racks are to be painted black.

Identify the foremast cap (66) and fore topmast cap (88). Dry fit the fore top and foremast cap to the lower mast. Do not secure. Now dry fit the topmast, through the cap, insert the fid and position it into its locating notches on the trestletrees. Dry fit the topmast top, topmast cap and topgallant mast in a similar manner. None of the individual components (lower mast, topmast, topgallant mast, caps & tops) should be glued to one another at this stage.
With everything dry fitted together, manoeuvre the topmast to run parallel and in-line vertically with the lower mast, at the same time, the lower top should remain parallel to the keel. When you are happy with the alignment, glue the lower mast, lower top, cap, fid & topmast securely.
This process should be repeated with the topmast, topmast top, cap, fid and topgallant mast.
With the assembly complete, attach the bolsters, of 4x4mm walnut sanded or filed to quarter rounds as shown, to the lower top and the bolsters, of 3x3mm walnut sanded or filed to quarter rounds as shown, to the topmast top.
Using lengths of 0.5x3mm walnut cut to 0.5x1.5mm attach the battens to the top square section on the lower mast as shown (ensure the mast banding has been applied first). Also, secure the jeer block strop cleats (144) to the sides.
Identify the fore mast hand mast (149) and glue it into position between the crosstree and the underside of the cap. some sanding of the top and bottom will be required to ensure a good fit and the centre section should be filed or sanded round.
The topmast sheaves, constructed earlier can now be fitted.
Identify the foremast cap saddles (348 & 349) and secure to the cap as shown on ***Plan Sheet 10*** & (*Fig 036*). Finally locate and fit the mast finishing cap (347).

Fig 030



Mast Colours

The masts are painted as follows:

The lower mast including banding, cheeks, rubbing paunch etc. is painted yellow up to the bibbs, from the bibbs to the lower mast cap is painted black. The whole of the lower top is also painted black. The hand mast is painted yellow.
The topmast is painted black from the base to the lower mast cap. From the lower mast cap to the topmast top is left natural (stained walnut). From the topmast top to the cap is painted black. The whole of the topmast top is painted black.
The topgallant mast is painted black from the base to the topmast cap. From the topmast cap to the start of the octagonal of the hounds is left natural (stained walnut). From the start of the octagonal of the hounds to the end of the square of the hounds is painted black. From the top of the square of the hounds to the top is left natural (stained walnut).
This is all visible on the box art.

The Main Mast

Using ***Plan Sheets 6 & 9*** for reference, the main mast is constructed in the same manner as the fore mast with the following points of note:

1. There is a pronounced rake on the main mast as can be seen on the drawings. This angle is pre-determined by the main mast slot in the keel.
2. The cheeks and bibbs both have angled upper edges to match the rake of the mast. This is to allow the lower top to run parallel to the keel when in position, i.e. the top is not at 90 degrees to the mast. Ensure these angled edges are identified and the cheeks and bibbs fitted accordingly.
3. This same angle should be introduced to the topmast top when it is fitted so that it too runs parallel to the keel.
4. Both the lower mast caps and topmast caps are at 90 degrees to the mast, i.e. they are not parallel to the keel.
5. Remember to fit the boarding pike rack into position as described for the fore mast.

The Mizzen Mast

Using ***Plan Sheets 6 & 8*** for reference, the mizzen mast is constructed in the same manner as the fore mast with the following points of note:

1. There is a pronounced rake on the mizzen mast as can be seen on the drawings. This angle is pre-determined by the mizzen mast slot in the keel.
2. The cheeks bibbs and tops are to be fitted with the same considerations as listed for the main mast.
3. The mizzen lower mast should not be tapered to accommodate the mizzen cheeks, instead the cheeks are fitted directly to the mizzen mast.
4. There is no rubbing paunch on the mizzen mast.
5. There is no mizzen topgallant mast fid. The topgallant mast sits directly into the tops without the need for a fid.
6. The tolerances, particularly for the topgallant mast are critical. As a result, the topmast cap has had to be produced in two halves. The build process for the mizzen mast remains the same as the other masts except for this.
7. Referring to ***Plan Sheet 6*** you should notice on the topgallant mast that the octagonal pattern is tapered along its entire length. In other words, it is tapered from 2.5mm to 4mm along the entire 7mm length and there is no straight octagonal on the top.
8. Do not forget to fit the mizzen mast circular fife rail (207), it is positioned 13mm off the deck, there is no boarding pike rack for the mizzen mast.

Yards & Booms

Using ***Plan Sheet 7*** for reference, make up the yards and booms to the dimensions shown.

The centre, octagonal sections, of the fore and main yards are constructed by securing 8 lengths of 0.5x4mm walnut to the dowel.
Note: the batten on the aft face is twice the length of the other seven. For the fore yard it measures 188mm compared to 94mm for the other seven. For the main yard it measures 216mm compared to 108mm for the other seven.

The centre, octagonal sections, of the fore and main topmast yards are constructed by securing 4 lengths of 0.5x3mm walnut to the dowel, with spacers also of 0.5x3mm walnut as shown.

The centre of the mizzen crossjack yard has a length of 05x1mm walnut (cut from 0.5x3mm) secured to its aft face. Also, the mizzen topmast yard has four lengths of 0.5x2mm walnut (cut from 0.5x4mm) secured to the top, bottom, fore and aft faces.

The stop cleats on all yards are constructed from 1.5x1.5mm walnut shaped as required.
Note: the stop cleats on the aft only of the topmast yards double as snatch blocks for the topgallant yard sheets. To simulate this, cut a piece of 1.5x1.5mm walnut (or scrap 1.5mm ply) to length and, using a needle file, file a semi-circular notch out of one face. This face is then glued against the yard as shown (*Fig 031*).

Fig 031

Cut cleat from 1.5mm walnut, file a notch in one face, glue to aft face only of topmast yards.

Note: all booms are secured to the yards through yard rings as shown and are offset through 45 degrees above and fore of the yard. The outermost rings are located, using brass wire, to holes drilled into the end of their respective yards, through the brass etched boom iron straps where appropriate.

Mast & Yard Blocks

With the masts and yards assembled and referring to ***Plan Sheets 8, 9, 10 & 11*** & (*Fig 33 - 44*) fit the blocks, eyelets, horses and flemish horses to the masts, yards and tops as shown. Unless directed otherwise on the plan, the smaller blocks (2 - 5mm) should be attached with 0.25mm black thread and larger blocks (7mm +) should be attached with 0.5mm black thread.
Note: all of the blocks on the yards should be positioned directly on top of or directly underneath the yards, i.e. they are all ‘behind’ the booms.

Note: when instructed to use the pre-cut blocks (10mm & 7mm open heart blocks, 10mm triple & double jeer blocks and the 8.5mm triple cat blocks), you will need to file a slight groove around the outer edge to take the strop as shown (*Photo 041*).

Photo 041

Shipping the Masts

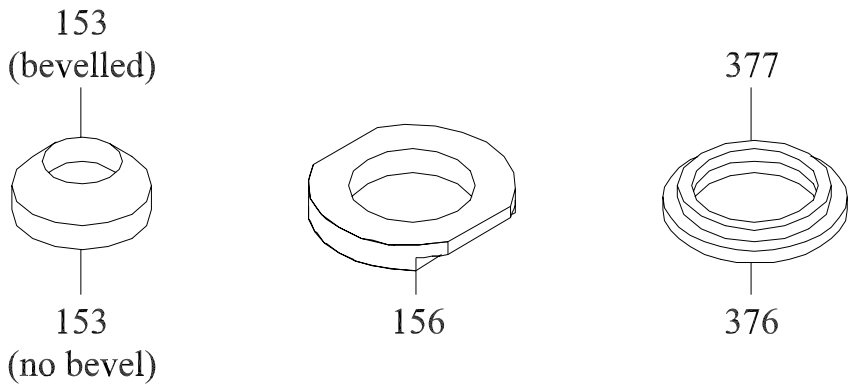
Using ***Plan Sheets 8, 9, 10 & 11*** for reference, temporarily drill and pin the yards in place on the masts and bowsprit. With the locations marked, drilled and pinned, remove the yards and set them to one side, they will not be finally fitted until needed for the running rigging.

Identify the mizzenmast poop sleeve (153), main mast quarterdeck sleeve (156) and fore mast quarterdeck sleeves (376 & 377). Construct the sleeves as shown (*Fig 032*). Pass the masts through their respective sleeves and step the masts into their locating holes on the deck, adjust the masts to the desired rakes and secure the sleeve to the deck (ensure the masts are all aligned when viewed fore and aft). Secure the masts in place.
With the masts in place, a pair of small cleats (662) are secured to the base of both the main and fore lower masts, just forward of the centreline and between the mast sleeve and pike rack base, as shown (*Fig 030*).

'Top' Rails & Lantern

Identify and paint black the rail stanchions for the tops (514). The stanchions are fitted to the top of the gunwale, equally spaced along the aft edge. There are five stanchions fitted across the back of the fore top, five across the main top and four across the mizzen top. Cut to length and paint black lengths of 1.5x1.5mm walnut to fit into the 'U's' of the rail stanchions across the tops.
Identify, paint and assemble the small Admiral's lantern components (540, 658 & 659). The lantern can be assembled in the same manner as the transom lanterns. The lantern is fitted, on brass wire, into the centre of the aft face of the main top.

Fig 032



Fore Lower Top Blocks

Fig 033
Fore Lower Top ('Top')

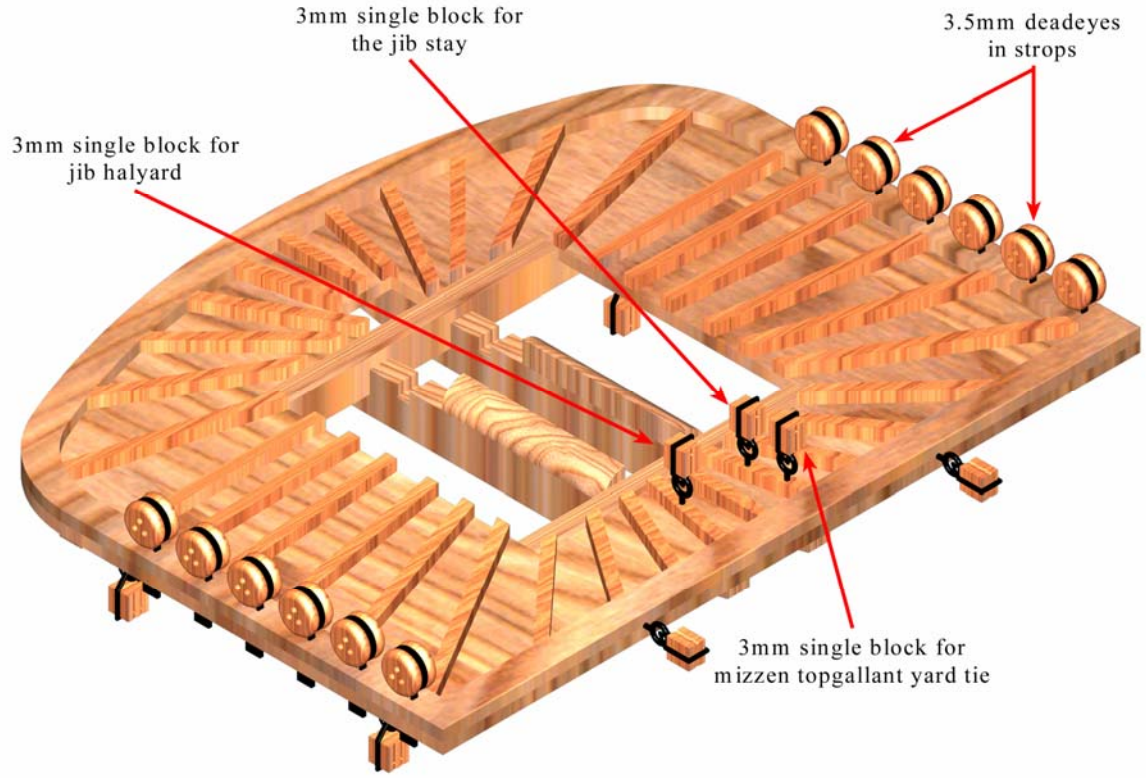
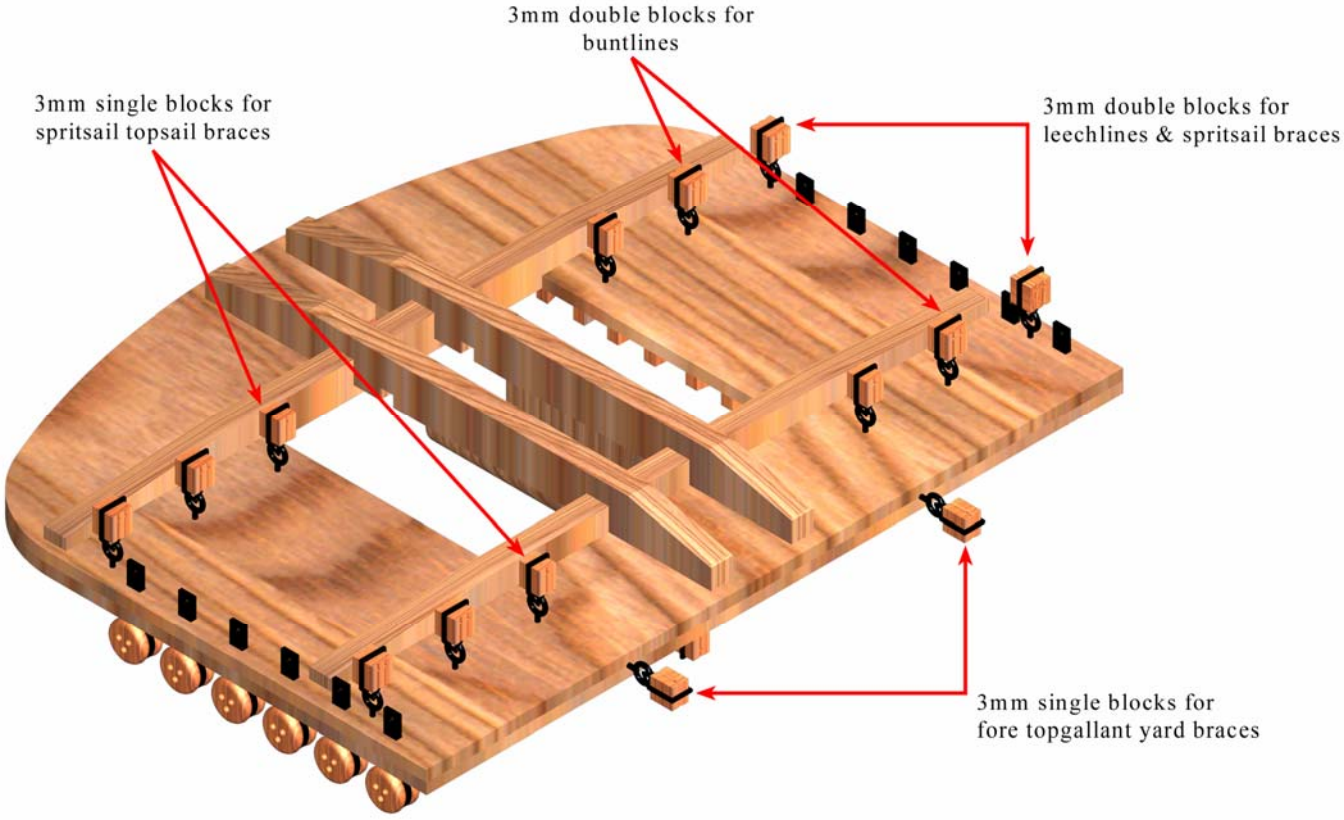
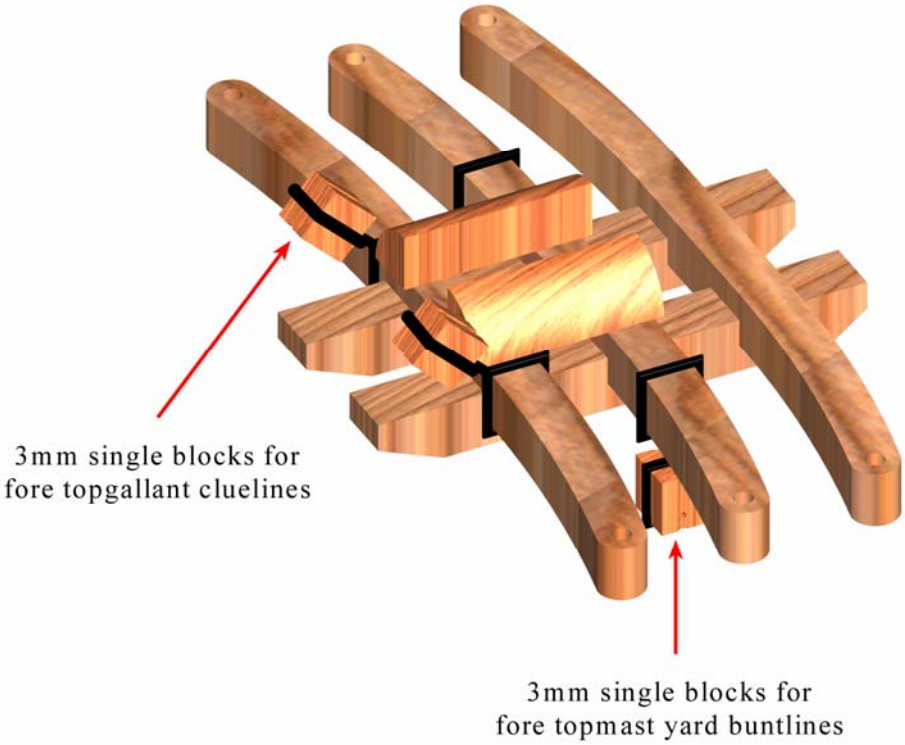


Fig 034
Fore Lower Top (Underside)



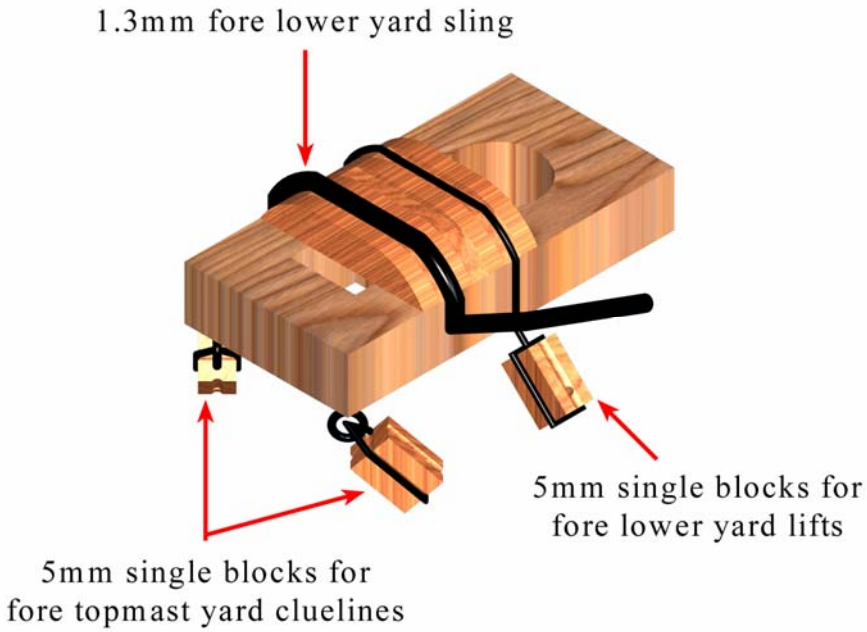
Fore Topmast Top Blocks

Fig 035
Fore Topmast Top



Fore Lower Mast Cap Blocks

Fig 036
Fore Lower Mast Cap



Main Lower Top Blocks

Fig 037
Main Lower Top ('Top')

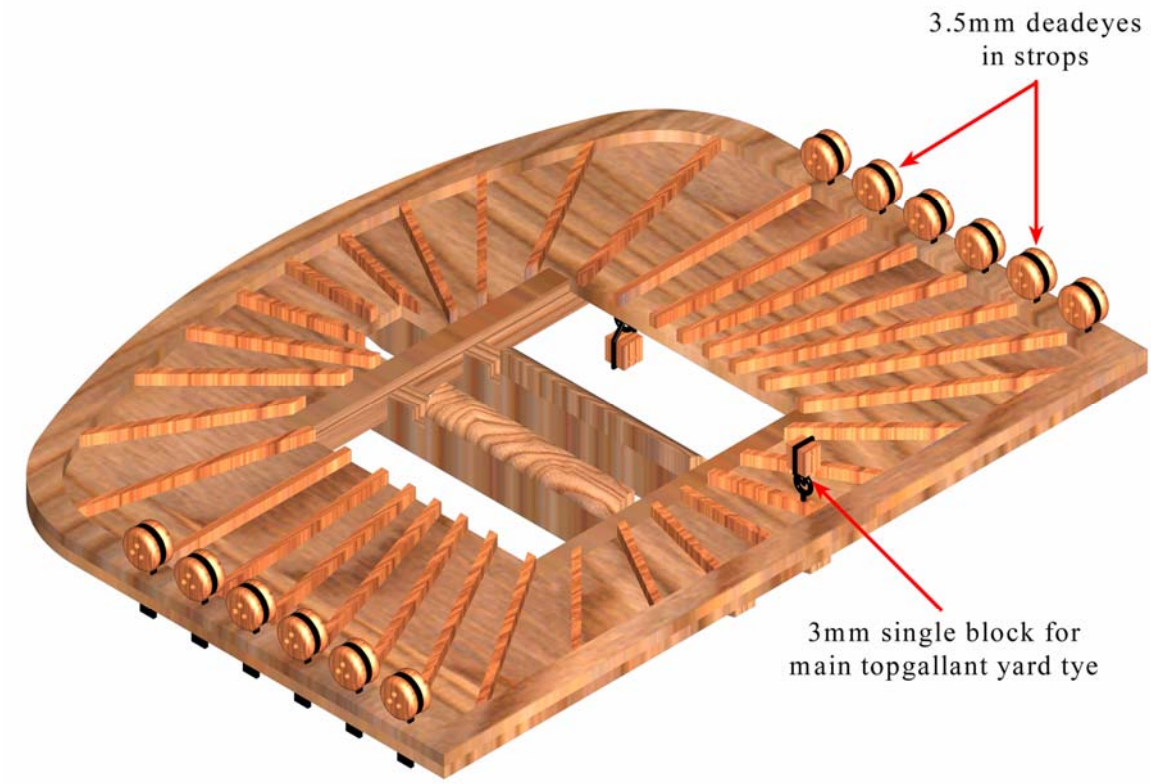
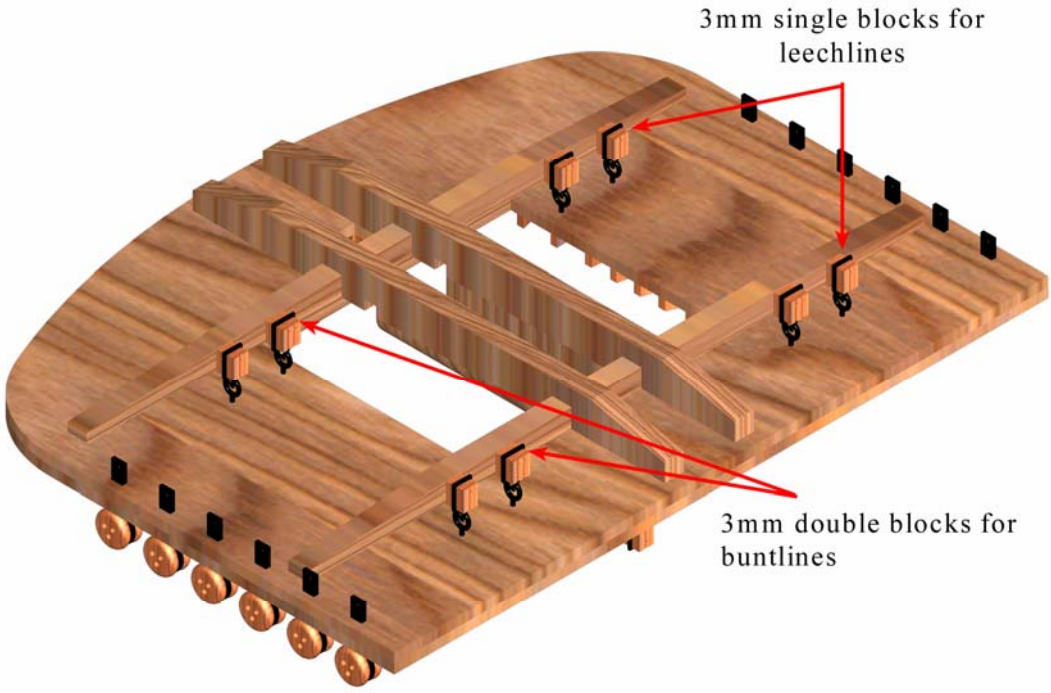
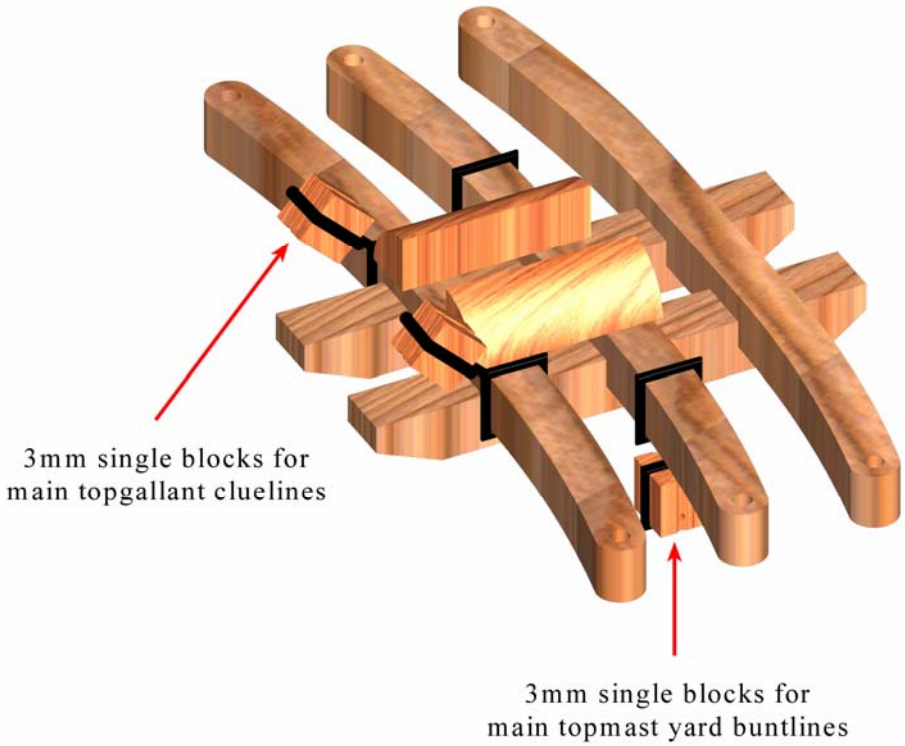


Fig 038
Main Lower Top (Underside)



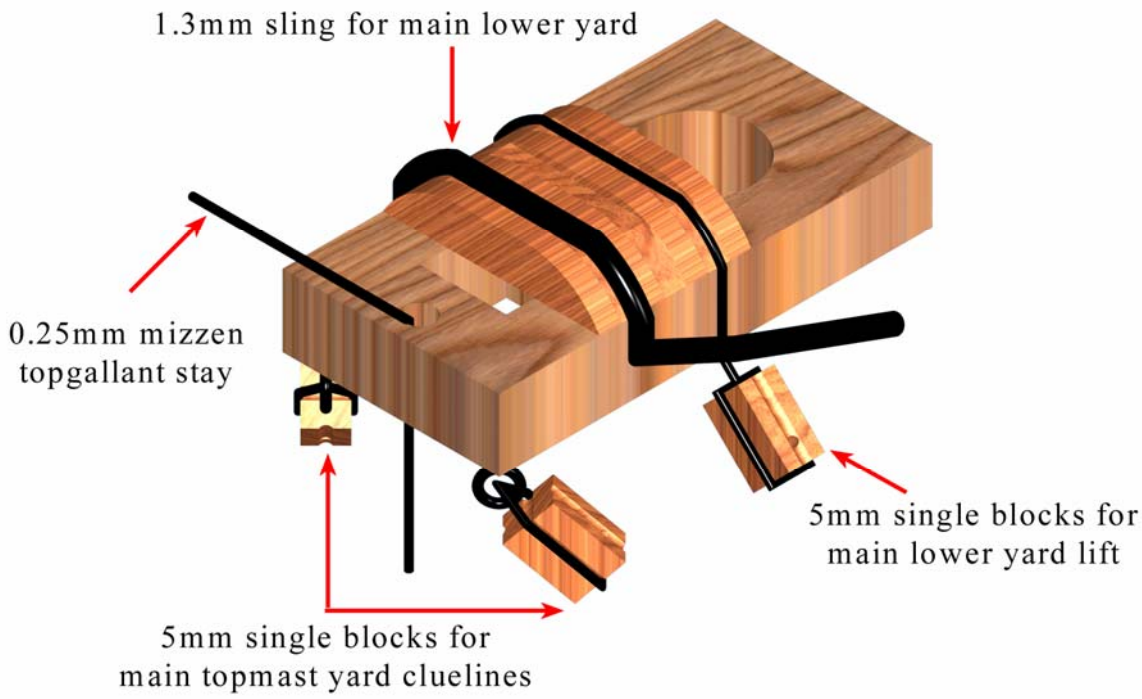
Main Topmast Top Blocks

Fig 039
Main Topmast Top



Main Lower Mast Cap Blocks

Fig 040
Main Lower Mast Cap



Mizzen Lower Top Blocks

Fig 041
Mizzen Lower Top ('Top')

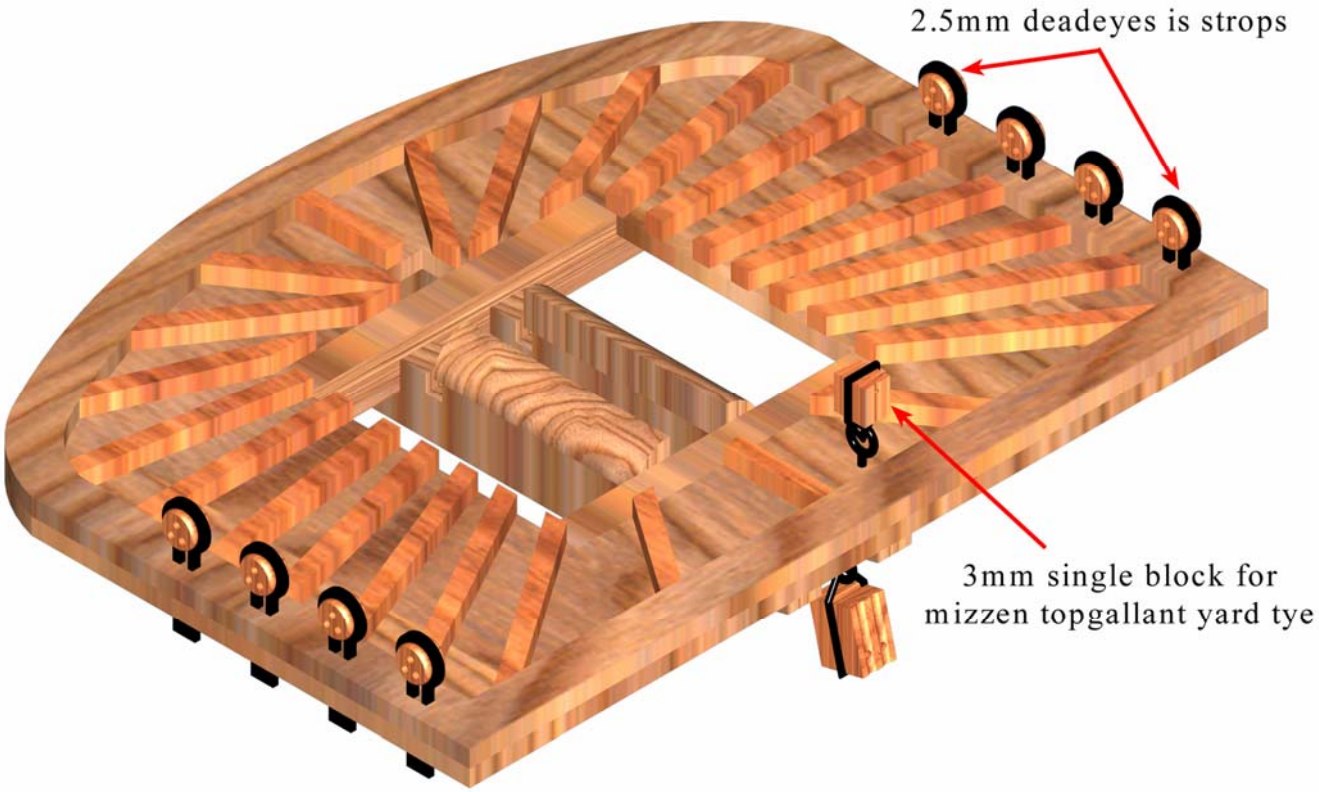
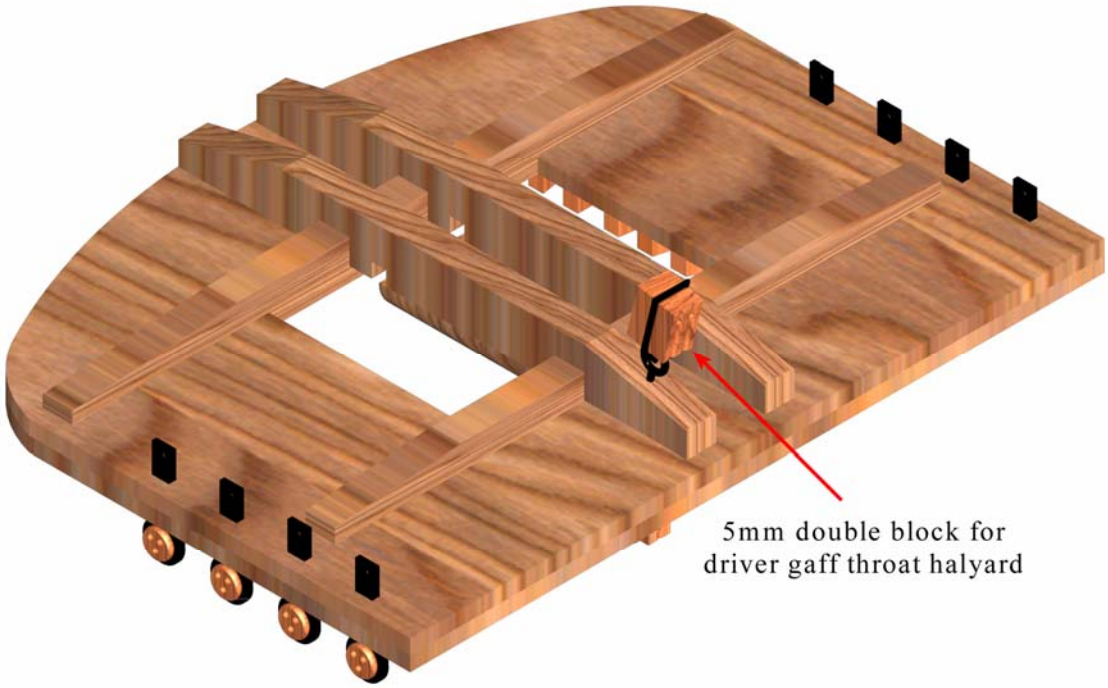
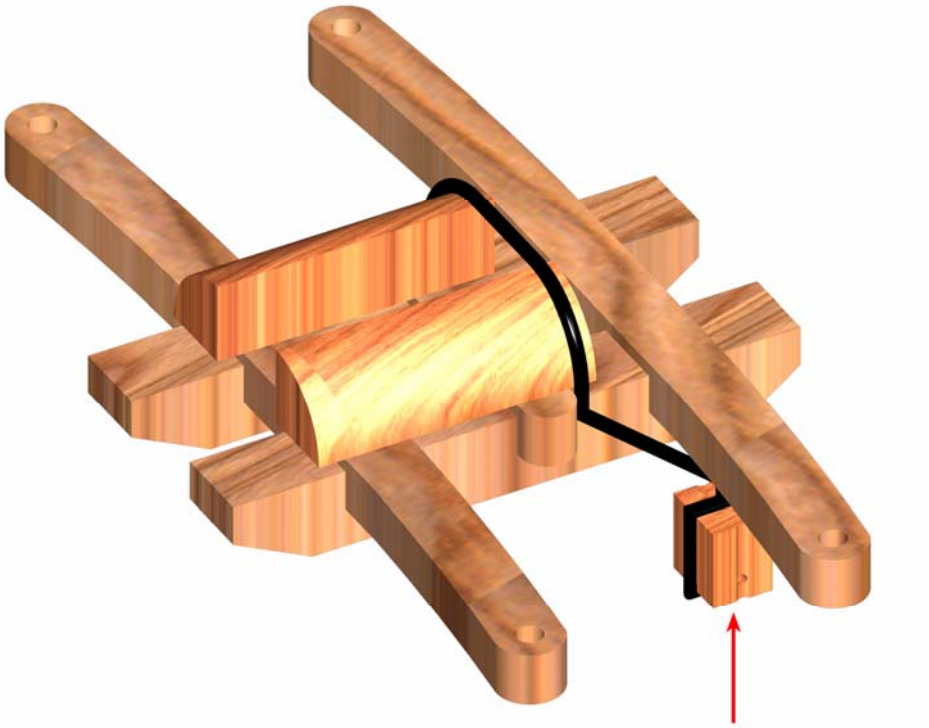


Fig 042
Mizzen Lower Top (Underside)



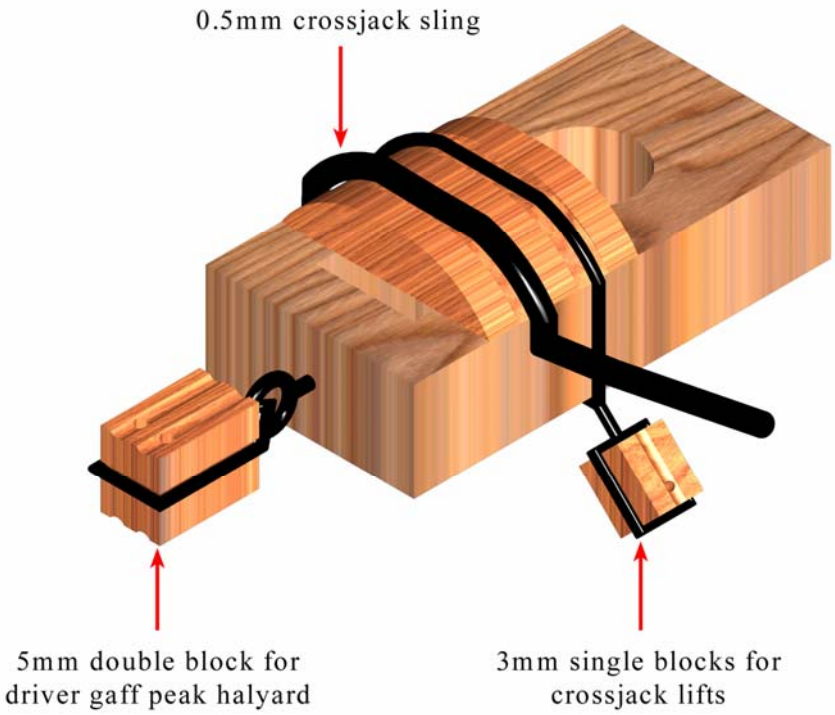
Mizzen Topmast Top Blocks

Fig 043
Mizzen Topmast Top



Mizzen Lower Mast Cap Blocks

Fig 044
Mizzen Lower Mast Cap

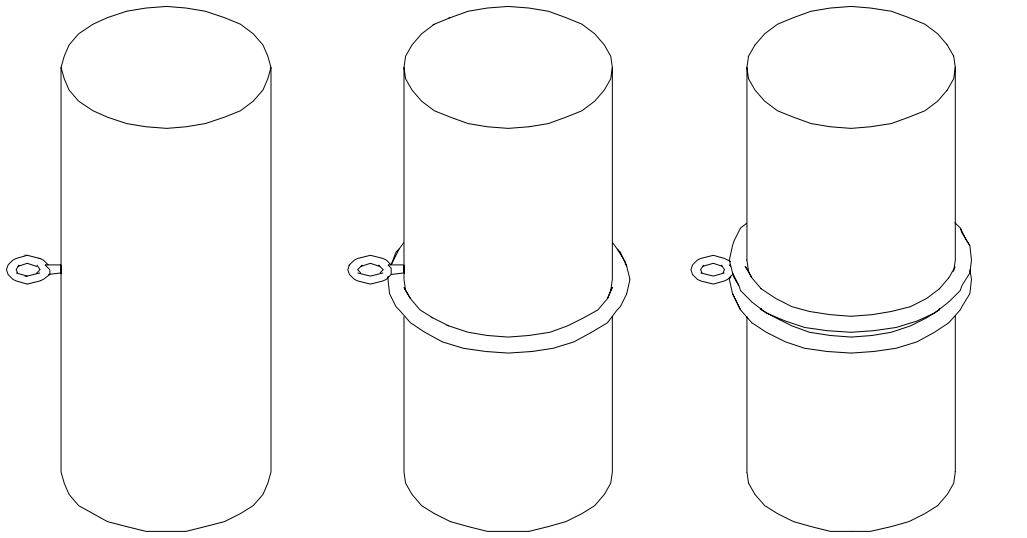


Note: all ***b*** numbers in these rigging instructions refer to belaying points as described. All of these points can be found on ***Plan Sheet 18***, unless otherwise stated.

The rigging plans have been drawn following extensive research, contemporary and modern. We would recommend that you follow these drawings exactly unless you are converting the model to an earlier or later version of the ship.
Note: never use super glue on the rigging unless specifically stated in the instructions. Brushed on watered down PVA should be used for the majority of the knots. Super glue can be applied to the end of the rigging to aid threading through the blocks.

Where a copper eyelet (with rigging passing through it) is secured directly to a mast, a turn of 0.25mm black thread should be lashed around the mast, once close below the eyelet and once close above the eyelet. This is to simulate a thimble as shown (*Fig 045*).

Fig 045



Insert eyelet. Rig one turn of thread below. Rig one turn of thread above.

Tackle Pendants:

Starting with the tackle pendants, for the lower masts there are two pairs on the fore and main mast, and one pair on the mizzenmast (called the burton pendants). The main and fore mast are of 1.3mm black thread, seize a small loop in both ends and run one end through the lower mast top (starboard for the first pair), around the main mast until the pair are at equal lengths running abreast of the masts. They should be level with the futtock stays and catharpins as shown on the rigging plans. Tie the two halves together with 0.25mm black rigging thread and push the knots to the top of the mast near the bolsters. The mizzen burton pendant is made in a similar manner from 0.5mm black thread. For the topmasts, there is one pair on each side of the fore and main and none on the mizzen. These are again constructed in the same manner as the lower mast pendants from 0.75mm black thread.

Lower Mast Shrouds:

Shrouds are next to be set-up and a formal sequence must be adhered to. Forward starboard, forward port alternating. The fore and main mast shrouds are from 1.3mm black thread and the mizzen are from 0.75 black thread, as shown on ***Plan Sheet 12*** together with the appropriate deadeye sizes (The deadeyes are attached to the channels as shown on ***Plan Sheet 2***). Roughly measure out the length of each pair of shrouds and cut the required number of pairs before setting up (they get longer as you progress). Rig one end of each shroud with the appropriate size deadeye. The upper and lower deadeyes need to be correctly and uniformly spaced. The spacing for the lower mast deadeyes should be 20mm . A small jig can be made as follows, cut two lengths of 1mm wire approximately 40mm long, bend 10mm from each end to an angle of 90 degrees. This should leave 20mm between each end. A similar jig can be made (in different size material) for different size blocks. The spacing for the fore and main topmast deadeyes should be 15mm and the mizzen 13mm. One end of the jig can be slotted into the middle hole of the lower deadeye with the other end into the middle hole of the shroud deadeye. Thread the loose end of the shroud through the 'top' around the mast, back through the 'top' and down to the second deadeye. Insert a loose deadeye into the second spacing jig with the other end of the jig in the corresponding deadeye. The loose end of the shroud should then be wrapped around the deadeye with 0.25mm black thread. Tie the pair of shrouds together near the tops and then push the knot up to the bolster. Rig the lanyards (cable laid) to the deadeyes using 0.5mm natural thread as shown on ***Plan Sheet 12, 'Rigging detail'***. Continue this procedure until all the lower mast shrouds have been set up. There is a futtock stave to each set of shrouds (both lower and topmast shrouds). These are cut from 1mm brass to the length of the spread of the shrouds at the position to which they are to be tied using 0.25mm black thread, as shown on ***Plan Sheet 12***. Tie each shroud to the futtock stave with a simple clove hitch. Note: the futtock stave is positioned across the shrouds at a distance as far below the 'top' as the mast cap is above the 'top' as shown on ***Plan Sheet 12, 'Shroud, futtock stave & catharpin assembly'***.
Each port futtock stave is tied to the opposite starboard futtock stave by ropes called catharpins as follows:

There are six catharpins on the fore and main lower mast made from 0.75mm black thread, they are tied in position between shrouds 4 through 9.
The mizzen lower mast has two catharpins of 0.5mm black thread tied between shrouds 5 and 6.
The topmast futtock staves will be dealt with at a later stage.

Futtock Shrouds:

Identify the deadeye and futtock strop sizes from the plan. Insert the deadeye into the strop and position the strop into the slots as shown on ***Plan Sheet 12, 'Fitting of deadeye futtock strops'***. The futtock strops are attached to the futtock staves by the futtock shrouds and small brass etched rigging hooks (547), as shown. The futtock shrouds are 0.75mm black thread for the fore and main masts and 0.5mm black thread for the mizzen.

Topmast Shrouds:

The topmast shrouds are set up in a similar manner to the lower mast shrouds using the appropriate size material as shown on ***Plan Sheet 12***. There is a pair of 0.7mm brass futtock staves on the topmast shrouds as already described above, there are no catharpins.
Note: two 3mm single blocks (one per side) should be secured between the first and second topmast shrouds as close under the 'top' as possible, on all masts and are used for the topmast yard lifts when rigged.

Topgallant Shrouds:

The topgallant shrouds are secured to the top of the mast as shown on ***Plan Sheet 12*** and lead through the holes in the end of the topmast top crosstrees and are tied off to the topmast futtock staves. There are three pairs for the fore and main mast of 0.5mm black thread and two pairs of 0.25mm black thread for the mizzen.
Note: two 3mm single blocks (one per side) should be secured between the first and second shrouds as close under the 'top' as possible, on all masts and are used for the topgallant mast yard lifts when rigged. These blocks are shown on Plan Sheet 8, 9 & 10 as blocks secured in a strop around the topgallant shrouds. As the topgallant shrouds are close together, at this scale, you may find it of benefit to rig these blocks in a strop as shown and run the first and second shrouds as falls from the arse of the blocks.

Ratlines:

This stage will require a considerable amount of time and patience but the end result will be its own reward.
0.1mm natural thread is used and is secured to each shroud with a clove hitch as shown on ***Plan Sheet 12, 'Rigging detail'***. They should be uniformly spaced approximately 4.5mm apart. Leave about 15mm of excess thread at each end of each row of ratlines, this will make the process of trimming the ends much easier. For the lower masts only, the foremost and aftermost shrouds are omitted for the first six ratlines above the deadeyes and below the futtock staves. You may also find it beneficial not to apply the two or three lower ratlines until after the shroud cleats have been fitted. Identify the locations of the shroud cleats from ***Plan Sheet 18*** and secure them into position (inboard) with 0.1mm natural thread . The cleats and 0.1mm thread should be painted black when in position. Finish the ratlines, brush on watered down PVA and finally trim the ratlines only when dry.
Note: the ratlines on Victory are not black.

Bowsprit:

The bowsprit can now be glued into position, ensuring that the cap remains vertical both from the front and side views. The bowsprit is also held in position by two sets of gammoning each of 9 turns in 1mm black thread. The gammoning passes over the bowsprit between the saddles, down past the headrails and through the gammoning slots in the stem. Tie off the gammoning and using 0.5mm black thread lash the nine turns together around the centre within the headrails again with nine turns.

Driver Boom and Driver Gaff:

It would be normal practice to attach these now, however in order to keep the model to a more manageable size it will be beneficial to ship them at a later stage as described. If you prefer to ship them now, all required instruction can be found on page 26.

The Mizzen Stay:

The mizzen stay is 1mm black thread and requires an eye and mouse as follows

1. Seize a loop at the end of the stay large enough for the stay to run through it. This loop is called an eye.
2. Thread the eye end of the stay under the 'top' around the mast and back down through the 'top'.
3. Lead the running end of the stay through the eye.
4. Mark a position on the stay where the eye is approximately 50mm below the 'top'. And remove the stay from the mast.
5. Using 0.5mm black thread, wrap the thread around the position marked on the stay and create a bump large enough to simulate a mouse and prevent the eye from passing over it.
6. Feed the eye end back under the 'top' from the port side, around the mast and back down through the 'top' on the starboard side.
7. Lead the running end of the stay back through the eye until the mouse holds the eye.

The running end now leads through the copper eyelet as shown on ***Plan Sheet 13*** and is tied off to the copper eyelet on the deck, port side of the main mast (***b1***).

The Mizzen Topmast Stay:

The mizzen topmast stay is 0.5mm black thread and requires an eye and mouse approximately 28mm below the topmast top. The running end now leads through the copper eyelet on the main mast just below the catharpins. It is then secured to the copper eyelet on the deck, starboard side of the main mast (***b2***).

The Mizzen Topgallant Stay:

The mizzen topgallant stay is 0.25mm black thread. The standing end is made fast at the mizzen mast hounds as shown on ***Plan Sheet 13***. It then leads through the hole at the rear of the mainmast cap (*Fig 040*) and secures to a copper eyelet in the main top, port side (***b3***).

The Main Stay:

The main mast stay is 1.8mm black thread and requires an eye and mouse approximately 70mm below the top. Into the running end seize a 10mm closed heart block so that its centre point lies approximately 15mm in front of the fore mast, **note, the stay passes on the starboard side of the fore mast**. The main stay collar of 1.8mm black thread passes through the aftermost holes in the marines' walk, between the knighthead and bowsprit and through the hole in the stem, back up through the marines' walk and is lashed to the starting end. The collar should be of a length that it terminates approximately 25mm in front of the main stay. The collar can be moved round until the lashed ends are hidden at the stem and a 10mm open heart block seized in the uppermost part with 0.5mm black thread. The main stay closed heart block is now lashed to the main stay collar open heart block with 0.75mm natural thread. This is illustrated on **Plan Sheet 13, 'Method of seizing open heart 'collar' to closed heart of 'stays''**.

The Main Preventer Stay:

The main preventer stay and collar are 1.3mm black thread and the preventer stay requires an eye and mouse approximately 80mm below the top. The main preventer stay and collar are made up in the same way as the main stay and collar but with the following alterations:

1. The open and closed heart blocks are 7mm.
2. The closed heart block in the preventer stay lies approximately 25mm in front of the fore mast, also to the starboard side.
3. The preventer stay collar passes through the foremost hole in the marines' walk and around the bowsprit.
4. The main preventer stay closed heart block is lashed to the main preventer stay collar open heart block with 0.5mm natural thread.

Snaking:

The snaking is 0.1mm natural thread and alternates from the main stay to the main preventer stay and back for the full length between the eye and mouse and closed heart blocks, forming a zigzag pattern. It is advisable to use either an over hand or marling hitch knot at each point.

The Main Stay Tackle Pendant:

Referring to ***Plan Sheet 13*** for position, the main stay tackle pendant is of 0.5mm black thread with falls of 0.25mm natural thread. The tackle is made up of a 7mm double block seized into the end of the pendant, and a 7mm single block together with a rigging hook (548). At this stage, loosely belay the falls to the fifth skid beam, it can be finally secured after the boat positioning has been determined at the end of the rigging process.

The Main Stay Fore Stay Tackle Pendant:

The main stay fore stay tackle pendant is made up as per the main stay tackle pendant, again refer to ***Plan Sheet 13*** for position. At this stage, loosely belay the falls to the second skid beam, it can be finally secured after the boat positioning has been determined at the end of the rigging process.

The Main Topmast Preventer Stay:

The main topmast preventer stay is 0.75mm black thread and requires an eye and mouse approximately 50mm below the topmast top. The running end then passes through a copper eyelet below the catharpins (close to the bibbs) on the foremast and travels down to the deck. At a point approximately 25mm above the deck, seize a small loop in the end of the stay. It is then secured by a 0.5mm natural lanyard of several turns to a copper eyelet on the port side of the fore mast (***b4***).

The Main Topmast Stay:

The main topmast stay is 1mm black thread and requires an eye and mouse approximately 45mm below the topmast top. The running end then passes through the 7mm single block lashed to the fore lower mast between the 'top' and the cap. It is then secured by lanyard of several turns to a copper eyelet on the starboard side of the fore mast (***b5***) in the same manner as the main topmast preventer stay.

The Main Topgallant Mast Stay:

The main topgallant mast stay is 0.5mm black thread. The standing end is tied off at the main mast hounds as shown on ***Plan Sheet 13***. The running end passes through a 3mm single block below the fore topmast cap then down to a span around the fore top trestletrees as shown on ***Plan Sheet 13 & Plan Sheet 18 'Fore top'***. A loop is formed in the span and the stay and they are secured together using a 0.25mm black thread lanyard of several turns (***b6***).

The Main Topgallant Flagstaff Stay:

The main topgallant flagstaff stay will not be rigged until after the fore topmast preventer stay.

The Fore Mast Stay:

The fore mast stay is 1.8mm black thread and requires an eye and mouse approximately 55mm below the top. The running end has a 10mm closed heart block seized in it approximately 45mm from the bowsprit. A collar is made up in the same manner as the main stay collar from 1.8mm black thread again with a 10mm open heart block seized in the uppermost part 25mm from the closed heart block. These two blocks are then lashed together with 0.75mm natural thread.

The Fore Mast Preventer Stay:

The fore mast preventer stay and collar are 1.3mm black thread and the preventer stay requires an eye and mouse approximately 60mm below the top. The fore mast preventer stay and collar are made up in the same way as the fore mast stay and collar but with the following alterations:

1. The open and closed heart blocks are 7mm.
2. The main preventer stay closed heart block is lashed to the main preventer stay collar open heart block with 0.5mm natural thread.

Snaking:

The snaking is 0.1mm natural thread and alternates from the fore mast stay to the fore mast preventer stay and back for the full length between the eye and mouse and closed heart blocks, forming a zigzag pattern. It is advisable to use either an over hand or marling hitch knot at each point.

The Fore Topmast Preventer Stay:

The fore topmast preventer stay is 0.75mm black thread and requires an eye and mouse approximately 40mm below the topmast top. The running end passes through the sheave in the port bee of the bowsprit and runs down the port side of the bowsprit with a 7mm double jeer block seized into the end of the stay approximately 35mm from the knighthead. At the same time a 0.5mm natural falls must be seized into the arse of the 7mm double jeer block. A brass rigging hook is now seized into the arse of a 3mm double block which in turn is hooked through a copper eyelet in the forward side of the knighthead. The 0.5mm natural falls are made up into a tackle between the 7mm double jeer and 3mm double block and is belayed to the knighthead below the eyelet (***b8***).

The Fore Topmast Stay:

The fore topmast stay is 1mm black thread and requires an eye and mouse approximately 45mm below the topmast top. The running end passes down through the sheave in the starboard bee of the bowsprit and runs down the starboard side of the bowsprit. A block and tackle is made up, to the starboard knighthead, in a similar manner as the fore topmast preventer stay but 10mm double and 5mm double blocks are used in place of the 7mm and 3mm blocks respectfully. The falls belay to the starboard knighthead below the eyelet (***b7***)

The Main Topgallant Flagstaff Stay:

The main topgallant flagstaff stay is of 0.25mm black thread. The standing end is made fast at the main topgallant mast cap. The running end passes through an eyelet above the hounds on the fore topgallant mast and then travels down and is secured by a lanyard to a copper eyelet positioned directly above the foremast preventer stay (***b9***).

The Fore Topgallant Mast Stay:

The fore topgallant mast stay is of 0.5mm black thread. The standing end is made fast at the fore mast hounds as shown on ***Plan Sheet 13***. The running end passes down and through the copper eyelet behind the collar casting in the top of the jibboom and runs down the port side of the bowsprit. Seize a 3mm double block in the end of the fore topgallant mast stay approximately 30mm from the port knighthead under the marines' walk. A 3mm single block is lashed to a brass eyelet in the forward side of the knighthead, at the same time a falls of 0.25mm natural thread it tied to the arse of the 3mm single block and forms a tackle between the 3mm single and double blocks and belays to the top of the port knighthead (***b10***).

The Fore Topgallant Flagstaff Stay:

The fore topgallant flagstaff stay will be fitted at a later stage after the dolphin striker and martingales have been fitted.

The Mizzen Topmast Standing Backstay:

The mizzen topmast standing backstay is 0.5mm black thread. Using ***Plan Sheet 14*** for reference the mizzen topmast standing backstay is set up in a similar fashion to the shrouds using two 5mm deadeyes seized onto the mizzen backstay channel as shown.

The Mizzen Topmast Shifting Backstay:

The mizzen topmast shifting backstay is 0.5mm black thread. Using ***Plan Sheet 14*** for reference, seize a 3mm double block into either end of the stay at a distance from the channel as shown on the drawings. Set up a 3mm single block with a rigging hook (548) seized into the arse together with the tackle falls (in the crown) of 0.25mm natural thread, hook the 3mm single block into the copper eyelet on the mizzen channel and set up the tackle with the 3mm double block. The running end of the tackle is secured around the hook on the 3mm single block.

The Mizzen Topgallant Mast Backstay:

The mizzen topgallant mast backstay is of 0.25mm black thread. Using ***Plan Sheet 14*** for reference the mizzen topgallant mast backstay is set up in a similar fashion to the shrouds using two 3.5mm deadeyes seized into the mizzen backstay channel as shown.

The Main Topmast Breast Backstay:

The main topmast breast backstay is of 0.75mm black thread and runs down outside the main lower mast 'top'. Using ***Plan Sheet 14*** as reference seize a 5mm single block into the lower end of the stay. Through this block reeves a 0.50mm black thread runner, whose after end is made fast to the strop of the third deadeye (from the front) of the main channel. A 5mm single block is turned into the fore end of the runner and a tackle is made up using a 5mm double block seized around the first deadeye strop (from the front) on the channel. The falls are made of 0.25mm natural and are belayed to the breast backstay above the 5mm single block.

The Main Topmast Standing Backstays:

There are three pairs of main topmast standing backstays each of 0.75 black thread. The lanyards are of 0.25mm natural. Each pair are set up in a similar manner to the shrouds using a pair of 5mm deadeyes. Using ***Plan Sheet 14*** for reference, the first pair are set up to the foremost deadeye of the main backstay channel, the second pair to the 6th deadeye from the rear of the main channel and the third pair to the 11th deadeye from the rear of the main channel.

The Main Topmast Shifting Backstay:

The main topmast shifting backstay is of 0.75mm black thread and is made up in the same manner as the mizzen topmast shifting backstay, to an eyelet in the rear of the main channel as shown on ***Plan Sheet 14***.

The Main Topgallant Mast Standing Backstay:

The main topgallant mast standing backstay is of 0.5mm black thread. It is set up in a similar manner to the shrouds using 3.5mm deadeyes into the aft of the main backstay channel as shown on ***Plan Sheet 14***. The lanyards are of 0.25mm natural thread.

The Main Topgallant Mast Royal Backstay:

The main topgallant mast royal backstay is of 0.25mm black thread. Each end is secured directly to an eyelet (with a whipping) in the aft of the main backstay channel as shown on ***Plan Sheet 14***.

The Fore Topmast Breast Backstay:

The fore topmast breast backstay is of 0.75mm black thread, and runs down outside the fore lower mast 'top'. Using ***Plan Sheet 14*** as reference, seize a 5mm single block into the lower end of the stay. Through this block reeves a 0.50mm black thread runner, whose after end is made fast to the strop of the third deadeye (from the front) of the fore channel. A 5mm single block is turned into the fore end of the runner and a tackle is made up using a 5mm double block seized around the first deadeye strop (from the front) on the channel. The falls are made of 0.25mm natural and are belayed to the breast backstay above the 5mm single block.

The Fore Topmast Shifting Backstay

The fore topmast shifting backstay is of 0.75mm black thread. Set up in the same manner as the mizzen topmast shifting backstay into a copper eyelet behind the second deadeye from the rear of the fore channel as shown on ***Plan Sheet 14***.

The Fore Topmast Standing Backstays:

There are three pairs of fore topmast standing backstays each of 0.75mm black thread. They are made up in the same manner as the main topmast standing backstays with 5mm deadeyes. They are set up to each of the three 5mm deadeyes on the fore channel as shown on ***Plan Sheet 14***.

The Fore Topgallant Mast Standing Backstay:

The fore topgallant mast standing backstay is of 0.5mm black. Set up in the same manner as the main topgallant mast standing backstay with two 3.5mm deadeyes into the aft of the fore channel as shown on ***Plan Sheet 14***.

The Fore Topgallant Mast Royal Backstay:

The fore topgallant mast royal backstay is of 0.25mm black thread. It is set up in the same manner as the main topgallant mast royal backstay, to an eyelet in the aft of the fore channel as shown on ***Plan Sheet 14***.

The Jib Stay:

The jib stay is of 0.5mm black thread. The standing end is made fast at the end notch of the jibboom (near the collar casting), it then travels up to the starboard sheave of the fore topmast as shown on ***Plan Sheet 13***. It then passes down to a block and tackle on a copper eyelet on the starboard side of the fore top (*Fig 033*) (using a 3mm single and 3mm double block), the falls of which are of 0.25mm natural. The running end of the tackle then runs down through the 'top' and is belayed to the main top bowline bitts, pin 9, (***b11***).

The Jib Halyard:

The jib halyard is of 0.5mm black thread. The standing end is made fast at the end notch of the flying jibboom. It then travels up and through a hole drilled fore to aft in the fore topgallant mast as shown on ***Plan Sheet 13***, then down to a block and tackle on the port side of the fore top as shown (*Fig 033*). The block and tackle are made up of a 3mm single and 3mm double block into an eyelet with 0.25mm natural falls. The running end of the tackle then runs through the 'top' and belays to the main top bowline bitts, pin 4, (***b12***).

The Inner Martingale:

The inner martingale is of 0.5mm black thread. Referring to ***Plan Sheet 14***, the standing end is made fast at the collar casting on the jibboom. It then passes through the top hole in the dolphin striker and up through a 3mm single block lashed to the starboard side of the bowsprit behind the bees. It is then belayed to the starboard knighthead (***b13***).

The Outer Martingale:

The outer martingale is of 0.5mm black thread. The standing end is made fast as per the inner martingale. It then passes through the second hole in the dolphin striker and up to a 3mm single block lashed to the port side of the bowsprit also behind the bees. It is then belayed to the port knighthead (***b14***).

The Flying Martingale:

The flying martingale is of 0.5mm black thread. The standing end is made fast to the notch in the end of the flying jibboom. It then passes through the lower hole in the dolphin striker and also travels through a 3mm single block lashed to the bowsprit behind the bees on the starboard side. It is then belayed to the starboard knighthead (***b15***).

The Fore Topgallant Flagstaff Stay:

The fore topgallant flagstaff stay is of 0.25mm black thread. The standing end is made fast at the fore topgallant mast cap. It then travels down through a vertical notch in the end of the flying jibboom, down through the notch in the end of the dolphin striker and up to a 3mm single block lashed to the port side of the bowsprit behind the bees. It is then secured on to the fore stay collar.

The Flying Jib Horses:

There are two flying jib horses each of 0.5mm black thread and they travel from the end of the flying jibboom to the collar casting on the flying jibboom. The horses are formed from overhand knots approximately 8mm apart.

The Jibboom Horses:

There are two jibboom horses each of 0.5mm black thread and they travel from the collar casting on the jibboom to the bowsprit cap. Again they are formed from overhand knots approximately 8mm apart.

The Man Ropes:

There are two man ropes each of 0.5mm black thread. The first runs from a copper eyelet in the top of the port side of the bowsprit cap to a copper eyelet in the front of the port knighthead, just below the ‘notch’. The second is identical but on the starboard side. Each is formed from overhand knots approximately 8mm apart.

The Boomkin Stays:

The boomkin stays are of 0.5mm black thread, one pair per boomkin. They are looped around the groove in the end of the boomkin and each end passes to its respective copper eyelet in the prow as shown on ***Plan Sheet 11***.

The Bowsprit Shrouds:

The bowsprit shrouds are of 1mm black thread. There are four shrouds (two either side) made up using 5mm deadeyes and arranged as shown on ***Plan Sheet 11***. The standing end is hooked (548) into the copper eyelets in the hull. The lanyards are of 0.5mm natural thread.

The Bobstays:

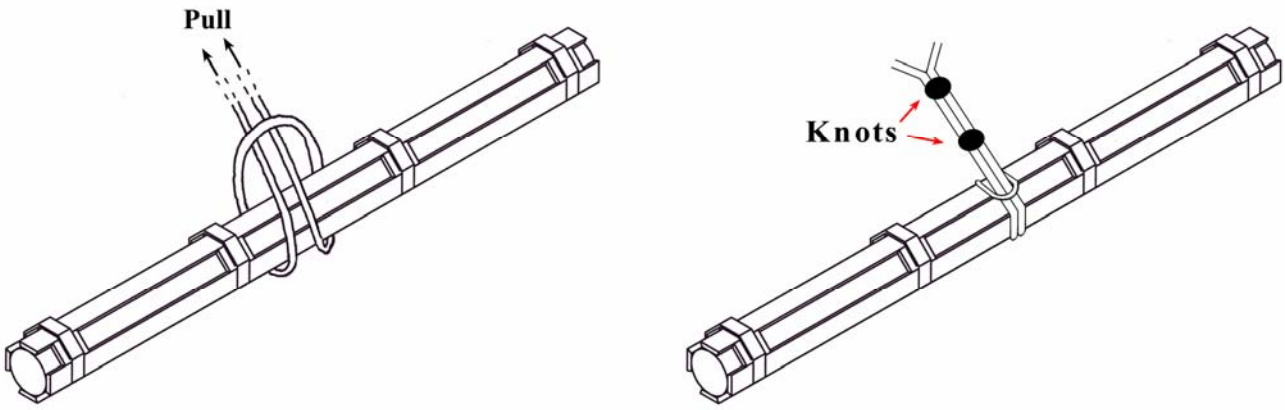
There are three bobstays each of 1mm black thread. They are set up in a similar manner to the shrouds also using 5mm deadeyes. The first two bobstays are tied off through the holes in the stem as shown on ***Plan Sheet 11***. The third bobstay runs down to the stem below the first two where it is secured to a span of 1mm black thread either end of which is hooked to copper eyelets in the hull as shown on ***Plan Sheet 11***.

The yards should now be fitted to the masts as follows.

The Fore Yard:

The fore yard is held in place by a sling, truss pendants and jeers.
The sling is of 1.3mm black thread. Loop the sling over the yard within the sling cleats and as the thread passes through itself tie a knot. Tie a second knot just above the first (to simulate two thimbles and a lanyard) (*Fig 046*). Pass the two ends of the sling up through the hole in the 'top' in front of the hand mast and up around the mast cap, between the aftermost slot formed by the cap saddles and tie together using a whipping.
There are two truss pendants of 1mm black thread. Tie a loop in one end of the thread just large enough for the opposite end to pass through it, a dab of super glue can be applied to the loop to create a hard 'eye'. Rig this end off around the yard against the inner edge of the sling cleats so that the eye is aft of the yard. Repeat for the opposite side. Pass the running end of each pendant through the 'eye' of the opposite. They then pass down towards the deck and have a 5mm double block seized in their ends approximately 50mm from the deck, with a 0.25mm natural falls tied into the arse of the block at the same time. A second 5mm double block is to be hooked to a copper eyelet on the deck (position shown on ***Plan Sheet 18***). The two 5mm double blocks are formed into a block and tackle with the falls belaying to a small cleat on the side of the base of the fore mast (***b16***).
Referring to ***Plan Sheet 10 & 15***, rig the mast head lashings of seven turns of 0.5mm black thread through the jeer block strop cleats. Next, the two upper triple jeer blocks are to be tied into a strop of 1mm black thread, the strop passes up through the 'top' and is lashed to the mast head lashings so that the jeer block is positioned as close to the underside of the 'top' as possible. A pair of 10mm double jeer blocks are now lashed to the yard, either side of the sling. The jeer falls themselves are of 1mm natural and is secured around the yard (between the strop and the sling) with a timber hitch and passes up through the triple jeer block and forms a tackle with the double jeer block. The running end passes behind the yard and through the sheaves in the main top bowline bitts and belayed at that point (***b17***).

Fig 046



The Fore Topmast Yard:

The fore topmast yard is held in place by parrells and beads and a tye.
11 parral ribs and 20 parral beads are secured in position with 0.25mm black thread within the sling cleats.
For the tye, there are two 7mm single blocks lashed around the mast above the shrouds as shown on ***Plan Sheet 15***. The blocks hang in a strop and fall below the trestletrees. The 7mm double tye block together with a pair of 3mm single buntline blocks are secured to the centre of the yard with 0.5mm black thread. The pair of tyes are of 0.75mm natural. They are secured directly above the strop (holding the 7mm single blocks). The first tye leads down from the port side and into the rearmost sheave of the tye block then up to the starboard 7mm block and then through the truck on the starboard topmast standing backstay as shown on ***Plan Sheet 15***. The starboard tye travels in the same manner as the port tye (through the foremost sheave in the tye block). A 7mm double block is seized into the end of the tyes just below the trucks and a tackle is formed with 7mm single block held on a pendant (approximately 50mm long) seized to a copper eyelet at the rear of the fore channel. The falls are of 0.25mm natural and belay to the aftermost kevel on the forecastle (adjacent to the belfry) (***b18***).

The Fore Topgallant Yard:

The fore topgallant yard is held in place by parrells and beads and a tye.
Cut 4 parral ribs in half and use 7 halves and 6 parral beads secured in position with 0.25mm black thread within the sling cleats.
For the tye of 0.5mm natural thread, the standing end is tied to the centre of the yard. The running end travels up and reeves through a hole drilled (fore to aft) through the hounds and down towards the fore top. A 3mm double block is tied into the end of the tye just below the topmast cap. A 3mm single block is lashed to a copper eyelet on the fore top as shown (*Fig 033*) and the falls of 0.25mm natural are tied into the arse of the block at the same time. A tackle is then formed between the 3mm double and 3mm single blocks and the falls then pass down through the top and belay to the pin seven of the main top bowline bitts (***b19***).

The Main Yard:

The main yard is held in place by a sling, truss pendants and jeers.
The sling is of 1.3mm black thread and is set up as per the fore yard.
The truss pendants are of 1mm black thread and are also set up as per the fore yard truss pendants with a block and tackle and belay to small cleats either side of the base of the main mast (***b20***).
The Jeers are set up as per the fore yard jeers and pass through the foremost hole in the quarterdeck (either side of the main mast) and belay to the aftermost upper deck bitts (***b21***). Use a thin piece of wire as a messenger to thread around the bitts and then attach the jeer to the wire and pull through (repeat several times as several turns will be required). When the jeers are in position, make fast and add a spot of super glue to secure.

The Main Topmast Yard:

The main topmast yard is held in place by parrells and beads and a tye.
11 parral ribs and 20 parral beads are secured in position with 0.25mm black thread within the sling cleats.
The tye is made up as per the fore topmast yard tie, passing through a truck on the main topmast standing backstay as shown on ***Plan Sheet 15***. The falls belay to the aftermost kevel on the quarterdeck (just in front of the poop ladder) (***b22***).

The Main Topgallant Yard:

The main topgallant yard is held in place by parrals and beads and a tye.
Cut 3 parral ribs in half and use the 6 halves and 5 parral beads secured in position with 0.25mm black thread within the sling cleats.
For the tye of 0.5mm natural thread, the standing end is tied to the centre of the yard. The running end travels up and reeves through a hole drilled (fore to aft) through the hounds and down towards the main top. A 3mm double block is tied into the end of the tye just below the topmast cap. A 3mm single block is lashed to a copper eyelet on the main top as shown (*Fig 037*) and the falls of 0.25mm natural are tied into the arse of the block at the same time. A tackle is then formed between the 3mm double and 3mm single blocks and the falls then pass down through the top and belays to the eleventh pin of the fore brace bitts (***b23***).

The Crossjack Yard:

The crossjack yard is held in place by a sling and a truss pendant.
The sling is rigged as per the fore main yard and is of 0.5mm black thread.
There is only one truss pendant, of 0.5mm black thread, for the crossjack which leads from the starboard side round the back of the mizzen mast, through an eye on the port side then down the port side of the mizzen mast towards the deck. A 3mm double block is tied into the end of the truss approximately 100mm from the deck. A 3mm single block is hooked to a copper eyelet on the deck (position shown on ***Plan Sheet 18***), and the falls of 0.25mm natural are tied into the crown of the block at the same time. A tackle is formed between the two blocks and belays to the circular fife rail on the mizzen mast (***b24***).

The Mizzen Topmast Yard:

The mizzen topmast yard is held in place by parrals and beads and a tye.
7 parral ribs and 12 parral beads are secured in position with 0.25mm black thread within the sling cleats.
The tye is of 0.5mm natural. The standing end is made fast to the mizzen topmast between the topmast cap and the crosstrees, it then travels down to a 5mm single block lashed to the centre of the yard. It then travels back up and through a sheave drilled (fore to aft) in the hounds. Then down through a truck on the starboard aftermost mizzen topmast stay. A 5mm double block is then seized into the end of the tye approximately 25mm below the mizzen top. A 5mm single block is tied into a strop together with the falls of 0.25mm natural in the crown of the block at the same time. The strop should be of a length that the block is positioned just above the poop hammock cranes when the end is tied into a copper eyelet in the after end of the mizzen channel as shown on ***Plan Sheet 15***. A tackle is formed between the two blocks and the falls are belayed to the medium cleat (***b25***) on the poop deck directly in front of the large main brace cleat.

The Mizzen topgallant yard:

The mizzen topgallant yard is held in place by parrals and beads and a tye.
Cut 3 parral ribs in half and use 5 of the halves and 4 parral beads secured in position with 0.25mm black thread within the sling cleats.
The tye is of 0.25mm natural. The standing end is secured to the centre of the yard and passes up through a sheave drilled (fore to aft) in the hounds. It then travels down and has a 3mm double block tied into the end just above the topmast top. A 3mm single block is tied to a copper eyelet on the mizzen top as shown (*Fig 041*) with falls of 0.1mm natural tied to the crown of the block at the same time. A tackle is formed between the two blocks and belays to pin four in the mizzen topsail sheet bitts (***b26***).

The Spritsail Yard:

The spritsail yard is held in place by a sling and a strop.
The yard is positioned directly in front of the foremost bobstay. The sling is of 0.75mm black thread and passes around the centre of the yard, up over the bowsprit against the front of the jibboom saddle.
The strop is of 0.75mm black thread. It is made fast to a copper eyelet in the centre of the bottom aft face of the bowsprit cap. The other end is made fast to another copper eyelet in the front of the centre of the spritsail yard.

The Spritsail Topsail Yard:

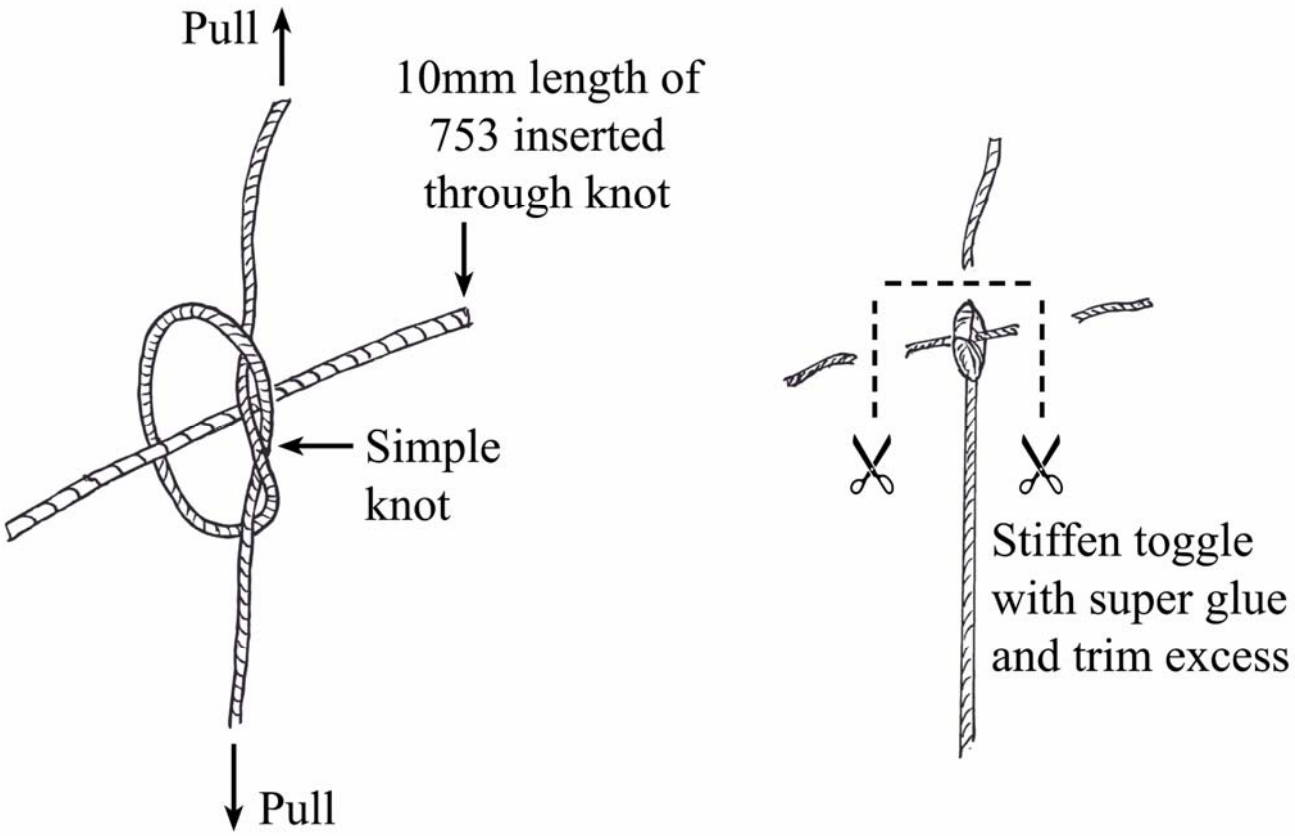
The spritsail topsail yard is held in place by parrals and beads and a halyard.
Cut 3 parral ribs in half and use the 6 halves and 5 parral beads secured in position with 0.25mm black thread.
The halyard is of 0.25mm natural thread. A 3mm single block is held in a strop to the collar casting in the end of the jibboom with the falls tied to the arse of the block at the same time. A second 3mm single block is tied around the centre of the yard. A tackle is formed between the two blocks and is belayed to the centre pin in the fore topsail sheet bitts (***b27***).

The next stage is the lifts, buntlines and leechlines for each yard as follows.

The Fore Yard:

The fore yard lifts are of 0.5mm natural thread. Two 5mm single blocks are tied in a span round the mast cap in the foremost slot created by the cap saddles as shown (*Fig 036*), the lift is tied into the arse of these blocks at the same time. It then travels out to the 5mm single lift block on the yard (lashed to the sheet block), back up through the block in the span around the cap. Then down through the 'top' and through the sheave drilled (fore to aft) in the foremost kevel on the forecastle and belays there (***b28***).
The fore yard buntlines are of 0.25mm natural. Tie a toggle in the end of the buntlines (*Fig 047*). The inner buntline passes through the inner 3mm single buntline block on the yard and travels up through the innermost sheave of the middle 3mm double block under the front of the fore top. It then runs along the underside of the top and through the innermost sheave of the middle 3mm double block at the back of the fore top as shown on ***Plan Sheet 16, 'Fore top under-hanging block usage'*** and down to the 3rd and 6th forecastle breast beam supports (adjacent to the belfry) (***b29***). The outer buntline follows the same route but through the outer sheave of the same 3mm double blocks and belays at the same point.
The leechlines are of 0.25mm natural and are set up in the same manner as the buntlines but pass through the outermost sheave in the outer 3mm double blocks under the top. They then pass down and belay to the 1st and 8th forecastle breast beam supports (***b30***).

Fig 047



The Fore Topmast Yard:

The fore topmast yard lifts are of 0.5mm natural thread. The standing end is made fast to the topmast cap and the running end travels down to the 5mm single block at the stop cleat on the yard, back up and through the 3mm single block strapped into the topmast shrouds. It then travels down 'through' the fore top and is belayed to the second (from the front) shroud cleat on the fore channel (***b31***).
The buntlines are of 0.25mm natural thread. Two 3mm single blocks are lashed to the middle topmast crosstrees as shown (*Fig 035*). Again tie a toggle in the end of the buntline. Pass the line through the 3mm single buntline block on the yard and it then travels across and through the 3mm single buntline blocks held in a span to the tye block and up through the 3mm single blocks lashed either side to the centre crosstree. It then leads down outside the 'top' and belays to the fourth (from the front) shroud cleat on the fore channel (***b32***).

The Fore Topgallant Yard:

The fore topgallant yard lift is of 0.25mm natural thread. The standing end is made fast above the topmast rigging (shrouds, backstays etc.) and leads down to the 5mm single lift block at the stop cleat on the yard, back up through the 3mm single block strapped into the topgallant shrouds. It then passes down and is secured to a futtock strop on the fore top (***b33***).

The Main Yard:

The main yard lifts are of 0.5mm natural thread and are rigged as per the fore yard. The falls pass through the sheave drilled (fore to aft) in the foremost kevel on the quarterdeck abreast the main mast and belays there (***b34***).
The buntlines are of 0.25mm natural and are rigged as per the fore yard, passing through the inner double blocks under the main top as shown on ***Plan Sheet 16, 'Main top under-hanging block usage'*** and they belay to the main top bowline bitts pins five & six (***b35***).
The leechlines are of 0.25mm natural thread and are rigged as per the fore yard, passing through the outer 3mm single blocks under the main top and belay pins four and twelve of the fore brace bitts (***b36***).

The Main Topmast Yard:

The main topmast yard lifts are of 0.5mm natural thread and are rigged as per the fore topmast yard. The lift belays to the foremost pin of the fife rail abreast the main mast (***b37***).
The buntlines are of 0.25mm natural thread and are rigged as per the fore topmast yard. They come down outside the tops and belay to the third pin of the fife rail abreast the main mast (***b38***).

The Main Topgallant Yard:

The main topgallant yard lift is of 0.25mm natural thread and is rigged as per the fore topgallant lift. It belays to a futtock strop on the main top (***b39***).

The Crossjack Yard:

The crossjack yard lift is of 0.25mm natural thread, rigged as per the fore yard (but substituting 3mm blocks in place of the 5mm blocks). It belays to the mizzen mast circular fife rail (***b40***).

The Mizzen Topmast Yard:

The lift is of 0.25mm natural thread rigged as per the fore topmast yard (again substituting 3mm blocks in place of the 5mm blocks). It belays to the first shroud cleat (from the front) of the mizzen channel (***b41***).
The buntlines are of 0.25mm natural thread and are rigged as per the fore topmast yard. they belay to the second shroud cleat (from the front) of the mizzen channel (***b42***),

The Mizzen Topgallant Yard:

The lift is of 0.25mm natural thread. The standing end is made fast to the end of the yard, against the outside of the stop cleats. They pass up and through the 3mm single blocks strapped to the topgallant shrouds and lead down into the top and belay around a deadeye strop (***b43***).

The Spritsail Yard:

The standing lift is of 0.5mm black thread. One end is tied around the yard approximately 70mm from the centreline of the yard and the opposite end is tied to a copper eyelet directly under the aft edge of the bees.
The lift is of 0.5mm natural thread. A pair of 5mm single blocks are seized in a span around the bowsprit cap, between the bowsprit and jibboom. The standing end of the lift is seized to a copper eyelet on the side of the bowsprit cap. It then runs through the 5mm single lift block in the end of the yard and back through the 5mm single block in the span around the cap and leads down to the forecastle, belaying to the second and seventh timberheads on the beakhead (***b44***).
The buntlines are of 0.25mm natural thread. A toggle is tied in one end. It then passes through the 3mm single buntline block on the yard, it then leads up to and through copper eyelets on the bowsprit (under the eyelets for the standing lift). They then lead in to the forecastle, belaying to the fourth and fifth timberheads on the beakhead (***b45***).

The Spritsail Topsail Yard:

The lift is of 0.25mm natural thread. The standing end is made fast to the end of the yard (against the outer edge of the stop cleats). It leads up to two copper eyelets, one each side of the jibboom collar casting and down to the forecastle where they belay to the first and eighth timberheads on the beakhead (***b46***).

The next stage is the cluelines and sheets as follows. You should note that the lower yard cluelines and sheets run between the lower yards and the hull, the topmast yard cluelines and sheets run between the topmast yards and lower yards and the topgallant yard cluelines and sheets run between the topgallant yards and topmast yards. This is worth bearing in mind and may appear to be obvious but this stage of the rigging can become confusing.
The fore and main lower yard cluelines and sheets will not be rigged until the end (along with the tacks) to allow easier access for the rest of the rigging.
Refer to ***Plan Sheet 16*** for the clueline standing end positioning of each yard.

The Spritsail Yard:

The spritsail yard sheet is of 0.5mm natural thread. The standing end is seized to a copper eyelet in the ships' side as shown on ***Plan Sheet 16*** and travels towards the 3mm single clue block. A 3mm single block is seized into the end of the sheet approximately 25mm from the spritsail yard.
The clueline is of 0.25mm natural thread and the standing end is tied to the spritsail yard as shown on ***Plan Sheet 16***. It reeves through the 3mm single sheet block, then up through the 3mm single clueline block and belays to the third and sixth timberheads on the beakhead (***b47***).

The Spritsail Topsail Yard:

The spritsail topsail yard sheet is of 0.5mm natural thread. The standing end is made fast to the end of the spritsail yard (outside the lift etc.) and leads up towards the 3mm single clueline block on the spritsail topsail yard. A 3mm single block is seized in the end of the sheet approximately 30mm from the spritsail topsail yard.
The clueline is of 0.25mm natural thread and the standing end is made fast to the spritsail topsail yard as shown on ***Plan Sheet 16***. It reeves through the 3mm sheet block, back up through the 3mm clueline block and belays to the beakhead fife rail (***b48***).

The Fore Topmast Yard:

The fore topmast yard sheet is of 1mm natural thread. **The easiest method of rigging the sheet is to work backwards, that is to say you will start at the belayed end and work to the sheet block.** The sheet is belayed to the outer parts of the fore topsail sheet bitts (***b49***). The sheet is then led through the inner 7mm shoulder block (on the fore **lower** mast yard), along the yard and through the 7mm sheet block on the end of the **lower** yard. It then leads up towards the 5mm single clueline block on the **topmast** yard. A 5mm single block is seized in the end of the sheet approximately 25mm from the clueline block.
The clueline is of 0.5mm natural thread. The standing end is made fast to the **topmast** yard as shown on ***Plan Sheet 16***. It then reeves through the 5mm single block in the end of the sheet, back up through the 5mm single clueline block, through the 5mm single block seized into a copper eyelet on the aft underside of the lower mast cap and leads down through the lower 'top' and belays to the 3rd (from the front) lower shroud cleat on the fore channel (***b50***).

The Fore Topgallant Yard:

The fore topgallant yard sheet is of 0.25mm natural thread. Again it is worked backwards. The sheet is belayed to the 6th (from the front) lower shroud cleat on the fore channel (***b51***). It passes up (through the lower 'top') to the 3mm single shoulder block on the **topmast** yard, along and through the snatch block on the aft of the **topmast** yard and then leads up towards the 3mm clueline block on the **topgallant** yard. A 3mm single block is seized in the end of the sheet approximately 30mm from the clueline block.
The clueline is of 0.25mm natural thread. The standing end is made fast to the **topgallant** yard as shown on ***Plan Sheet 16***. It then reeves through the 3mm single block in the end of the sheet, back up through the 3mm single clueline block on the yard, down and through the 3mm single clueline block on the aft of the topmast top (see page 7) and leads down outside the lower 'top' and belays to the 7th (from the front) lower shroud cleat on the fore channel (***b52***).

The Main Topmast Yard:

The main topmast yard sheet is of 1mm natural thread. The sheet is belayed to the aftermost upper deck bitts (***b53***) (as per the main yard jeers). It passes up through the foremost opening in the quarterdeck (abreast the main mast) and is then rigged as per the fore topmast yard sheets.
The clueline is of 0.5mm natural thread. The standing end is made fast to the **topmast** yard as shown on ***Plan Sheet 16*** and is rigged as per the fore topmast cluelines. It belays to the second pin of the small fife rail abreast the main mast (***b54***).

The Main Topgallant Yard:

The main topgallant yard sheet is of 0.25mm natural thread. It is rigged as per the fore topgallant yard with the sheet belayed to the first pin of the large fife rail on the quarterdeck (***b55***).
The clueline is of 0.25mm natural thread. The standing end is made fast to the **topgallant** yard as shown on ***Plan Sheet 16***. It is then rigged as per the fore topgallant yard and belays to the second pin on the large fife rail on the quarterdeck (***b56***).

The Mizzen Topmast Yard:

The mizzen topmast yard sheet is of 0.5mm natural thread. It is rigged as per the fore topmast yard sheet (substituting the 7mm blocks with 5mm blocks), the running end passes through the sheave in the mizzen topsail sheet bitts and belays there (***b57***).
The clueline is of 0.25mm natural thread. The standing end is made fast to the **topmast** yard as shown on ***Plan Sheet 16***. It then reeves through the 5mm single block in the end of the sheet, back up through the 5mm single clueline block, it then leads down outside the lower 'top' and belays to the 3rd (from the front) lower shroud cleat on the mizzen channel (***b58***).

The Mizzen Topgallant Yard:

The mizzen topgallant yard sheet is of 0.25mm natural thread. It is rigged as per the fore topgallant yard (substituting the 5mm blocks with 3mm blocks) and belays to the second and fifth pins of the mizzen topsail sheet bitts (***b59***).
The clueline is of 0.1mm natural thread. The standing end is made fast to the **topgallant** yard as shown on ***Plan Sheet 16***. It is rigged as per the fore topgallant cluelines and belay to 5th (from the front) lower shroud cleat on the mizzen channel (***b60***).

The next stage is the braces, attach all brace blocks as shown on ***Plan Sheet 8, 9 & 10*** (all, except the mizzen topgallant yard, use pendants), they are then rigged as follows.

The Spritsail Yard:

The spritsail brace is of 0.25mm natural thread. The brace is made fast around the main fore stay collar, just above the mouse. It then reeves through the 5mm single brace block on the spritsail yard and then up, under the fore top sharing the 3mm double blocks (fore and aft) with the leech line. They then pass down belaying to the 2nd and 7th timberheads abreast the belfry (***b61***).

The Spritsail Topsail Yard.

The spritsail topsail brace is of 0.25mm natural thread. The brace is made fast to the end of the spritsail topsail yard and reeves under the fore top, through the 3mm single blocks (fore and aft). They then pass down and belay to the 4th and 5th timberheads abreast the belfry (***b62***).

The Fore Yard:

The fore yard brace is of 0.5mm natural thread. The standing end is made fast to the collar of the main stay (above the mouse). It passes through the 5mm single brace blocks on the fore yard and then travels through the two (one per side) 5mm single blocks tied in a span to the collar of the main stay, above the standing end of the brace. It then leads down to the quarterdeck, through the sheave holes in the fore brace bitts and belay here (***b63***).

The Fore Topmast Yard:

The fore topmast yard brace is of 0.5mm natural thread. The standing end is made fast to the collar of the main stay (above the mouse). It then passes through the 3mm single brace blocks on the fore topmast yard and then travels through the two (one per side) 5mm single blocks tied in a span to the collar of the main stay, below the standing end of the brace. It then travels down the main stay to two (one per side) 5mm single blocks tied in a span onto the main stay as shown on ***Plan Sheet 17***. Each brace then travels through two (one per side) single blocks tied into copper eyelets located into the aft edge of the front skid beam surround (each 33mm off centre as per the brass rod passing through the second skid beam). They are positioned between the second and third and the sixth and seventh timberheads abreast the belfry. After passing through these 3mm blocks, the brace belays to pins positioned inline with the 3mm blocks through the second (from the front) skid beam (b64).

The Fore Topgallant Yard:

The fore topgallant yard brace is of 0.25mm natural thread. The standing end is made fast to the collar of the main topmast stay (above the mouse). It then passes through the 3mm single brace block on the topgallant yard and then travels through the two (one per side) 3mm single blocks tied in a span to the collar of the main topmast stay, below the standing end of the brace. It passes forward to the 3mm single blocks tied into copper eyelets in the back edge of the fore top and pass down and belay to the cleats on the belfry supports (***b65***).

The Main Yard:

The main yard brace is of 0.5mm natural thread. The standing end is tied into a copper eyelet on the outer hull just below the poop snatch block as shown on ***Plan Sheet 17***. It then passes through the 5mm single brace block on the main yard and back down to and through the poop snatch block. It belays to the large cleat on the poop deck (***b66***). A lizard and span of 0.25mm natural thread, as shown on ***Plan Sheet 17, 'Lizard & span'***, should also be rigged between the brace and the aftermost mizzen shroud.

The Main Topmast Yard:

The main topmast yard brace is of 0.5mm natural thread. The standing end is made fast to the collar of the mizzen stay (above the mouse). It then passes through the 3mm single brace blocks on the main topmast yard and travels through two (one per side) 3mm single blocks tied in a span around the mizzen mast below the bibbs. The braces then pass through the sheaves in the mizzen topsail bitts and belay there (***b67***).

The Main Topgallant Yard:

The main topgallant yard brace is of 0.25mm natural thread. The standing end is made fast to the collar of the mizzen topmast stay (above the mouse). It then passes through the 3mm single brace block on the topgallant yard and then travels back and through two (one per side) 3mm single blocks tied in a span to the collar of the mizzen topmast stay, below the standing part of the brace. It passes down, outside the 'top', and belays to the fourth (from the front) lower shroud cleat on the mizzen channel (***b68***).

The Crossjack Yard:

The crossjack yard brace is of 0.25mm natural thread.
Note: the brace block is tied in a pendant approximately 35mm in from the end of the yard. It should also be noted that the braces will pass forward and cross each other (port brace to starboard shroud and starboard brace to port shroud).
The standing part of the starboard brace is made fast to the aftermost port main lower shroud, just below the catharpins. It then leads back and through the starboard 3mm single brace block on the crossjack yard. It then passes back to the aftermost port main shroud and through a 3mm single block tied directly under the standing end. It then leads down and belays to the 6th pin (from the front) on the large fife rail on the quarterdeck (***b69***). The port brace is rigged in the same manner.

The Mizzen Topmast and Topgallant Yards:

The mizzen topmast and topgallant yard braces will be rigged with the driver gaff.

The driver boom and driver gaff should now be fitted as follows.

The Driver Gaff:

The driver gaff is held in place by parral beads, a throat halyard and a peak halyard.
Use 12 parral beads secured in position with 0.25mm black thread.
The throat halyard is of 0.5mm natural thread. Using ***Plan Sheet 17 & 18*** for reference, one 5mm double block is secured to a copper eyelet on the top of the driver gaff throat and a second 5mm double block is secured to a copper eyelet under the mizzen top (starboard side), (*Fig 042*), and the falls are secured to the arse of this block at the same time. A tackle is set up between these two blocks to hold the gaff at an angle that positions the outer end directly over the transom, the jaws should be bevelled to sit flush against the mast when the gaff is at the correct angle. The running end passes down to a 5mm single block attached to a copper eyelet into the poop deck (starboard side of the mizzen mast, in line with belaying cleat) and belays to the starboard, foremost medium cleat on the poop deck (***b70***).
The peak halyard is of 0.5mm natural thread. The standing end is made fast to the end of the driver gaff as shown on ***Plan Sheet 17***. It then passes through a 5mm double block attached to a copper eyelet in the aft face of the mizzen lower mast cap, it then passes across and through the 5mm single block lashed to the driver gaff as shown. Back through the double block at the cap and down through a 5mm single block attached to a copper eyelet into the poop deck (port side of the mizzen mast) and belays to the port, foremost medium cleat on the poop deck (***b71***).

A pair of 3mm single blocks tied in a span are put over the end of the driver gaff next (for the mizzen topmast yard braces).
The mizzen topmast yard braces are now rigged of 0.25mm natural thread. The standing ends can now be made fast to the end of the driver gaff. The running ends then reeves through the 3mm single brace blocks on the mizzen topmast yard and back down, through the two (one per side) 3mm single blocks tied in a span to the end of the driver gaff. They then belay to the outboard cleats of the three cleats on the inboard face of the taffrail (***b72***).

A pair of 3mm single blocks are now tied in a span around the end of the driver gaff (for the mizzen topgallant yard brace) as shown (*Fig 048*).
The mizzen topgallant yard brace is now rigged of 0.1mm natural thread. The standing part is made fast directly on to the yard arm (there are no brace blocks). It passes down through the 3mm single blocks (one per side) tied in a span to the end of the driver gaff and down to the poop deck where it belays to the middle of the three cleats on the inboard face of the taffrail (***b73***).

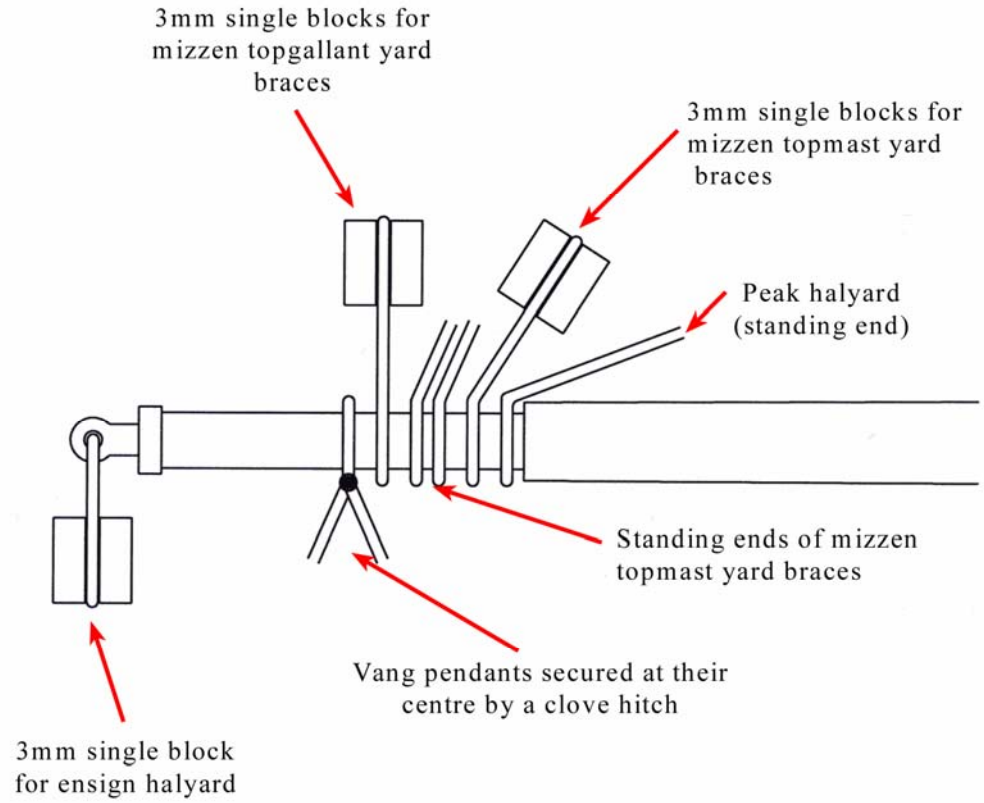
The vang pendants of 0.5mm black thread are now rigged. Measure the length of thread required (approximately 250mm total). At the centre of the vang, throw a clove hitch over the end of the driver gaff. Tie a 3mm double block into each end (approximately 120mm from the end of the driver gaff). A 3mm single block is attached with a rigging hook to a copper eyelet in the first curve of the taffrail capping as shown on ***Plan Sheet 18***, the falls of 0.25mm natural thread are tied into the crown of this block at the same time. A tackle is set up between these blocks and the running end belays to the inboard of the three cleats on the inboard face of the taffrail (***b74***).
A 3mm single block is now tied to the copper eyelet in the end of the driver gaff for the signal halyard of 0.25mm natural thread. Each end of the halyard belays to the cleat on the inboard face of the taffrail, outside the starboard inner transom knee, above the flag lockers (***b75***).

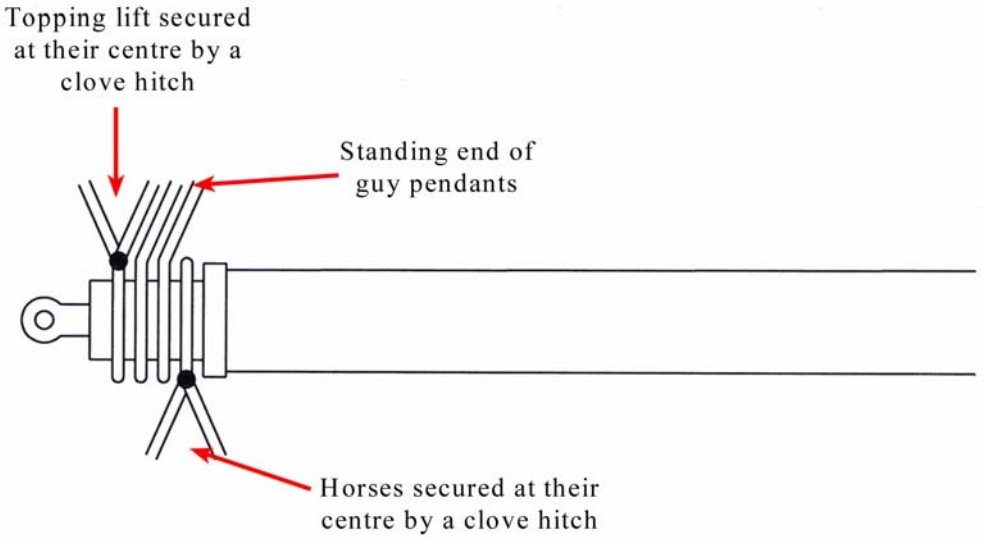
The Driver Boom:

The driver boom is held in place by parral beads and the driver boom saddle.
Use 12 parral beads secured in position with 0.25mm black thread.
There are a pair of horses on the driver boom which run from the end of the driver boom extending to just in front of the comb cleat on the driver boom. The horses are formed from overhand knots approximately 8mm apart.
The guy pendants of 0.25mm black thread go over the end of the driver boom next in a similar manner to the driver gaff vang pendants. Tie a 3mm double block into each end (approximately 75mm from the end of the driver boom). A 3mm single block is attached with a rigging hook to a copper eyelet in the top curve of the taffrail capping (approximately 10mm in from the end) (position shown on ***Plan Sheet 18***), the falls of 0.25mm natural thread are tied into the crown of this block at the same time. A tackle is set up between these blocks and the running ends belay to cleats approximately 5mm in from the eyelets holding the 3mm single blocks on the taffrail (***b76***). The boom itself should be positioned off centre to the port side to allow the ensign staff to be shipped.
The toping lift of 0.5mm natural thread is now put over the end of the driver boom with a clove hitch as per the vang pendants on the driver gaff. They run upwards and forwards to a pair of 5mm single blocks (one per side) in a span under the lower mizzen mast cap. The running end then passes down outside the lower mast ‘top’ (between the second and third topmast shrouds) and a 5mm double block is seized in the ends approximately 40mm below the lower mast ‘top’. A 5mm single block is hooked to a copper eyelet on the mizzen channel (position shown on ***Plan Sheet 18***), the falls of 0.25mm natural thread are tied into the crown of this block at the same time. A tackle is set up between these blocks and the running end belays to the mizzen circular fife rail (***b77***).
The driver boom sheets are rigged as follows. A 3mm double block is tied to the iron horse between the inner transom knees, a second 3mm double block is lashed to the driver boom within the comb cleat, and the falls of 0.25mm natural thread are tied into the arse of this block at the same time. A tackle is set up between these two blocks and the running end belays to the small cleat on the starboard inner transom knee (***b78***)

The ensign staff should now be shipped.

Fig 048
Rigging sequences for the end of the driver boom & gaff

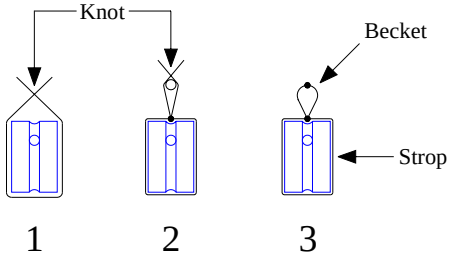




The fore and main lower yard cluelines, sheets and tacks are now rigged.

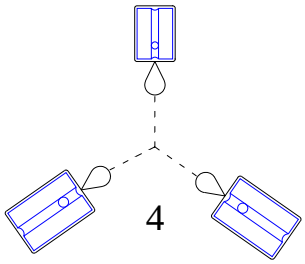
It is important that you read the following instructions for the cluelines, sheets and tacks thoroughly before starting as they are joined and all have to be rigged at the same time. The tack, sheet and clue garnet strop assembly should be constructed prior to rigging the clueline, sheet and tack. The method of assembly is shown in (*Fig 049*). In each case the clue block is a 5mm single and the sheet and tack blocks are 7mm singles.

Fig 049

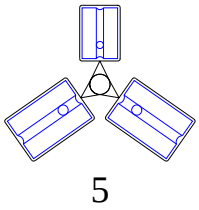


1. Tie a strop around the block.
2. Using a piece of 2mm dowel or similar, tie a becket into the strop.
3. With the strop and becket complete, harden the becket with a touch of super glue.

Repeat steps 1 – 3 until you have eight 7mm single blocks tied in strops with beckets and four 5mm single blocks tied in strops with beckets.



4. Take two 7mm single blocks and one 5mm single block and align their beckets.



5. Tie the beckets together, forming the tack, sheet and clue garnet strop assembly.

Repeat steps 4 – 5 until you have four tack, sheet and clue garnet strop assemblies.

The Fore Yard:

The fore yard clueline is of 0.5mm natural thread. The standing end is made fast to the fore yard to the extreme end of the octagonal on the yard as shown on ***Plan Sheet 16***. It then reeves through the 5mm single clueline block (of the tack, sheet and clue garnet strop assembly) positioned approximately 20mm directly below the standing end, back up through the 5mm single shoulder block and down to the fore topsail sheet bitts where it belays (***b79***).

The fore yard sheet is of 0.75mm natural thread. The standing end is made fast to a copper eyelet on the hull, just in front and below the seventh gunport of the upper gun deck (from the front) as shown on ***Plan Sheet 16***. It travels through the 7mm sheet block (of the tack, sheet and clue garnet strop assembly) and back behind the above-mentioned gunport where it passes through the ships side and belays to the aftermost large cleat on the upper gun deck (***b80, Plan Sheet 5***).

The fore yard tack is of 0.75mm natural thread. The standing end is made fast to the end of the boomkin, it then travels up and through the 7mm single tack block (of the tack, sheet and clue garnet strop assembly). It then passes back down and through a 7mm single block seized to the boomkin outside the standing end, and belays to the top of the headrail (***b81***).

For the benefit of the model, when the clueline, sheet and tack are finally rigged there should be no slack.

The Main Yard:

The main yard clueline is of 0.5mm natural thread. The standing end is made fast to the main yard to the extreme end of the octagonal on the yard as shown on ***Plan Sheet 16***. It then reeves through the 5mm single clueline block (of the tack, sheet and clue garnet strop assembly) positioned approximately 25mm directly below the standing end, back up through the 5mm single shoulder block. It then passes down through the foremost opening in the quarterdeck abreast the main mast and belays to the aftermost bitts on the upper gun deck (***b82***) as per the main yard jeers.

The main yard sheet is of 0.75mm natural thread. The standing end is tied to a copper eyelet on the hull, below the spider as shown on ***Plan Sheet 16***. It then leads up and through the 7mm single sheet block (of the tack, sheet and clue garnet strop assembly), back down and through another 7mm single block held in a pendant, of 0.75mm black thread, passing through the spider (the standing end of which is tied to a copper eyelet behind the spider). It then passes up, across and through a sheave hole in the hull as shown on ***Plan Sheet 16*** and belays to the staghorn on the quarterdeck (***b83***).

The main yard tack is of 0.75mm natural thread. The standing end is tied to a copper eyelet in the hull below and behind the fifth (from the front) gunport of the upper gun deck, as shown on ***Plan Sheet 16***. It then passes up and through the 7mm single tack block (of the tack, sheet and clue garnet strop assembly). It then leads back down and passes through the chesstree and through the sheave in the hull (forward of the chesstree) and belays to the foremost large cleat on the upper gun deck (***b84, Plan Sheet 5***).

The Quarter Davits:

The quarter davits are constructed as shown (*Fig 050*).

The boat falls are of 0.25mm natural thread. A 5mm single block has the 0.25mm falls at its crown and a hook (548) at its arse. The falls form a tackle with the sheaves in the end of the davits, with the running end belayed to the cleat at the davit base (***b85,*** *Fig 050*). The 5mm single block can be hooked to a copper eyelet on the underside of the base of the davits for stowage. For ease, this should be done prior to fitting to the hull.

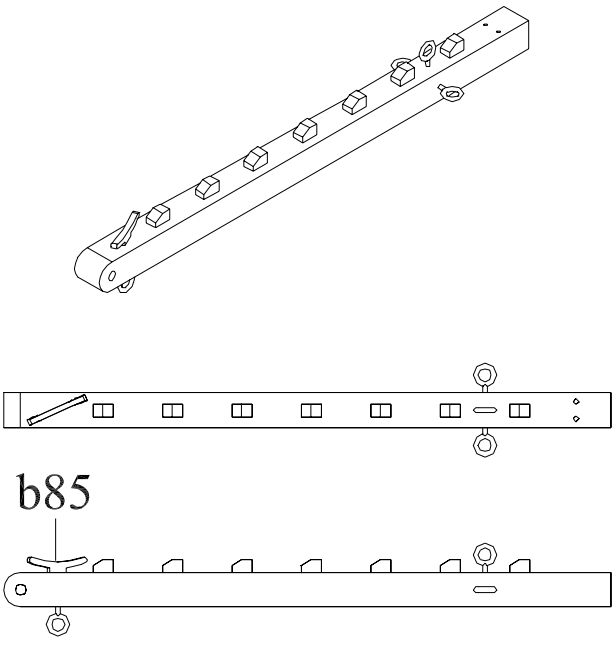
The davits are secured to the hull by their brackets (625), either with super glue or by drilling and securing with a dome headed nail.

The guys are of 0.5mm black thread. Both ends are seized to copper eyelets, one in the outer side of the davits, the other in the hull as shown on ***Plan Sheet 17***.

The jackstay is of 0.5mm black thread. The ends are seized to the copper eyelets on the inner side of the davits.

The span of 0.5mm black thread and the lift of 0.75mm natural thread can now be rigged together. The ends of the span are seized to the copper eyelets on the upper face of the davits (not taught, they should be slack to form an inverted 'V' when attached to the lift. A thimble is formed in the end of the lift around the centre of the span. The running end travels up and through the 7mm single blocks (one per side) seized in a span under the bibbs of the mizzen mast and belay to the mizzen circular fife rail (***b86***).

Fig 050



The travelling guy, guy pendant and flying jibboom guy should now be rigged as follows.

To begin, seize a 3mm single block to a copper eyelet with falls of 0.25mm natural thread tied into the crown of the block at the same time. Repeat this until you have six individual sets. The copper eyelets are then secured into the front face of the beakhead bulkhead plank sheer (380), one directly above each outer edge of the roundhouses and the remaining two above the roundhouse in between them (at the centreline of the roundhouse).

The travelling guy is of 0.5mm black thread. This is made from one piece of thread, the centre of the thread is made fast to the jibboom between the bowsprit cap and spritsail topsail yard. Each end then leads out and through the innermost copper eyelet on the top of the spritsail yard out towards the innermost copper eyelets on the beakhead bulkhead plank sheer. 3mm double blocks are seized into the ends approximately 35mm from the plank sheer. A tackle is set up between these blocks and the falls belay to the beakhead bulkhead fiferail (405) above the 3mm single block (***b87***).

The guy pendant is of 0.5mm black thread. This is formed in a similar manner to the travelling guy and the centre of the thread is secured to the necking of the jibboom. It travels back and through the middle copper eyelets on the top of the spritsail and is set up in the same manner as the travelling guy with a tackle to the middle (above the roundhouses) 3mm single block on the plank sheer. The falls are belayed to the beakhead bulkhead fiferail (405) above the 3mm single block (***b88***).

The flying jibboom guy is of 0.25mm black thread. This is formed in a similar manner to the travelling guy and the centre of the thread is secured to the necking of the flying jibboom. It then passes through the outer copper eyelet on the top of the spritsail. It is set up in the same manner as the travelling guy with a tackle to the outer 3mm single block on the plank sheer. The falls are belayed to the beakhead bulkhead fiferail (405) above the 3mm single block (***b89***).

Anchors:

The cat falls are of 0.25mm natural thread. The standing end is secured to a copper eyelet on the underside of the cathead directly behind the sheaves. Large rigging hooks are tied into the arse of the 8.5mm triple cat blocks. A tackle is then set up between the 8.5mm triple cat block and the cathead sheaves, the running end belaying around the cathead at the cathead cleat (***b90***).
The anchor ring of 1.5mm brass wire has 0.5mm black thread wound around it to represent puddening. The anchor ring is positioned in the hook of the 8.5mm cat block, and the anchor palm sits against the anchor palm block on the hull.
The bower anchor cable of 2.5mm natural rope should be secured to the ring of the anchor with either an inside clinch or with an eye splice. The cable then leads through the innermost hawse hole where it is secured.
The anchor should then be secured in a span to the bulwark openings as shown (*Photo 042*) ensuring the anchor palm rests on the anchor palm block.
The sheet anchors are secured in a similar manner as shown, but without a cable. Again ensure the anchor palm rests in the anchor palm block.
The kedge anchor is secured to the aft end of the starboard mizzen channel by a strop.

Photo 042
Bower Anchor

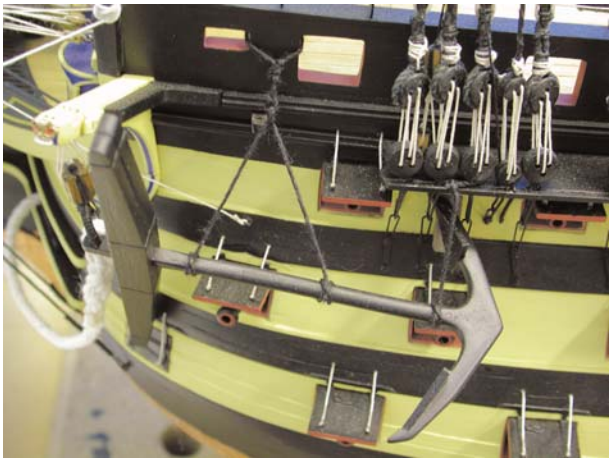
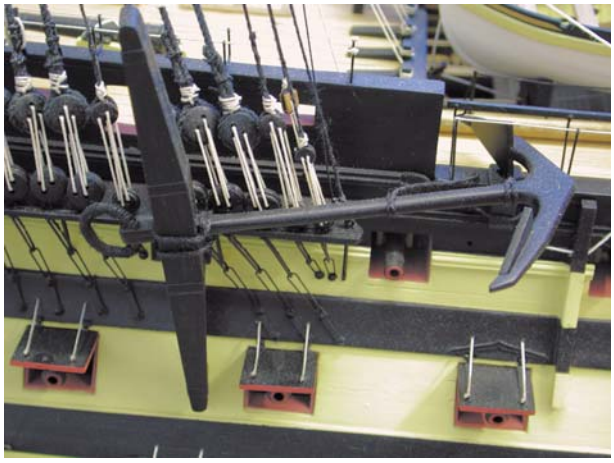


Photo 043
Sheet Anchor



Ships Boats

The construction of the ships boats will take about two weeks of evening work. While they can be built at any time during the construction of the model, they should not be fitted until after the rigging has been completed. This is to allow for the rigging that belays to the skid beam assembly to be shipped at suitable positions without being fouled by the boats.
At Trafalgar (1805) there were four boats onboard Victory, they were as follows:

1. 1 x 34' Launch
2. 1 x 32' Barge
3. 1 x 28' Pinnace
4. 1 x 18' Cutter (Jolly boat)

Identify and label the bulkheads and plank termination patterns for the boats from the 1.5mm ply sheet. Likewise, identify and label the keels, rudders, knees, bulkheads 6 for the barge and pinnace and the launch davit sides from the 1.5mm walnut sheet and the barge, launch and pinnace floors from the 0.8mm ply sheet. Due to the small size of these boats many of the bulkheads are very similar in size, they are however different and it is vitally important that all parts are clearly labelled in pencil and should only be removed from their sheets when required.

Painting instructions for each boat can be found on pages 34, 36, 38 & 40. Referring to the paint schemes as you build each boat, you will find it a great benefit to paint component parts accordingly prior to fitting.

General Construction:

Working on one boat at a time, remove the keel and bulkheads from their respective sheets. Using a needle file, gently clean out the slots and insert the bulkheads into the keel. Where appropriate, remove the floor(s) from the 0.8mm ply sheet. Trace around the floor(s) onto A4 paper, there is no need to trace the locations of the slots for the bulkheads, put the tracing(s) to one side. Gently file out the slots in the floor and position it into the bulkheads until it is sitting flush to the keel. With the keel, bulkheads and floor in position, check by eye that the bulkheads are aligned and sitting at 90 degrees to the keel. Gently tweak them until you are satisfied and then glue the bulkheads, keel and floor with PVA wood glue and leave to dry thoroughly.
When dry, identify the plank termination patterns and secure them in position with super glue.
Gently sand and bevel the bulkheads and plank termination patterns in the same manner as you did for Victory. Double planking of the hull with 0.5x3mm walnut can now commence. As pins can not be used to hold the planks in place, they are secured to the bulkheads with super glue. Use the glue sparingly as the area of the ply bulkheads above the floor has to be removed on completion.
Note: The cutter bulkheads will all have to be removed completely after planking (using a pair of long nose pliers). The 1.5mm walnut bulkheads 6 for the barge and pinnace are not removed at all. The 1.5mm ply bulkhead 1 for the pinnace should only have the top stubs removed as shown (*Fig 054*). Likewise, the 1.5mm ply bulkheads 1 and 5 on the launch should only have the top stubs removed.
Planking is carried out in exactly the same way as the main hull. Start planking at the top of the bulkheads and work your way down to the keel. When the first planking is complete, give the shell a gentle rub down with a fine abrasive paper before continuing with the second planking. Take your time and try to ensure no gaps are left between the planks. When complete, brush on some watered down PVA wood glue over the entire outer hull to ensure all of the planks are bonded. Lightly sand the outer hull until a smooth finish is obtained, any slight imperfections can be filled and re-sanded.
Cut out the tracings of the floors taken previously. These tracings should then be planked with 0.5x3mm walnut, start by placing a strip down the middle of the tracing and work outward. Paper templates for the fore and aft decking of the launch will need to be cut and planked in the same way, these decks run from bulkhead 1 forward (at the level determined by the keel and bulkhead 1 after removal of the stubs), and from bulkhead 5 aft (at the level determined by the keel and bulkhead 5 after removal of the stubs).
Note: All of the decks are single planked but, the area of the deck in front of thwart two and behind thwart seven on the barge should be double planked with 0.5x3mm walnut (*Fig 053 & Photo 051*). The area in frond of thwart two and behind thwart eight on the pinnace should be double planked with 0.5x3mm walnut (*Fig 054 & Photo 054*). With the floors planked and the bulkhead stubs removed, they can be glued to the deck in the hull. If you prefer, the paper backing can be removed by lightly soaking in water and rubbing.
The hull ribs are constructed from 0.5x3mm walnut cut to 0.5x1.5mm strips. Glue the ribs to the inside of the hull, their locations should be measured from (*Fig 52, 53, 54 & 55*). The ribs can be made longer than required and then trimmed to be flush to the top of the hull on completion.
With a pair of dividers, compass or similar mark a locating line for the 'rising plank' onto which the thwarts will sit. The locating line should be 5mm down from the top of the hull for the launch and barge and 4mm down from the top of the hull for the pinnace and cutter. With the line marked, fit the 'rising plank'. The 'rising plank is 1.5x1.5mm walnut (sanded to 1.5x1mm) for the barge, pinnace and cutter and 1x3mm walnut for the launch.

The thwarts (and sternsheets ~ benches in the aft of the boat(s)) are 1x4mm walnut for the launch and barge and 1x3mm walnut for the pinnace and cutter. Using (*Fig 052, 053, 054 & 055*) for reference, cut and fit the thwarts onto the 'rising plank'. Using (*Fig 052, 053 & 055*) for reference, file the 2x2mm slots (crutches/rowlocks) into the top of the hull and fit the knees.
Note: the crutches for the pinnace are brass etched and are secured to the inside of the hull with super glue (*Fig 054*).
Note: the top of bulkhead one (after removing the stubs) forward to the hull should be planked with 0.5x3mm walnut for the pinnace only (this planking will be left natural). The area behind bulkheads 6 for the barge and pinnace are left open as storage areas and standing room for the helmsman and all obstruction (keel) in this area should be removed.

Additional Fittings for the Launch:

As well as standard duties, the launch was required to work the anchors of Victory and as such was fitted with a davit and windlass for raising the buoy rope. The davit is constructed from the davit sides (429). The profiled faces are glued to one another (*Fig 051*) and the assembled davit is glued to the floor and transom of the launch as shown (Fig 052). With the davit in place, strengthening beams of 1.5x1.5mm walnut are glued between the inner face of the transom and the aft face of the aft thwart, flush against the davit.
The windlass is constructed from 4x4mm walnut. It is cut to octagonal along most of its length but left square at the position of the bar holes as shown (*Fig 052*). The bar holes are cut front to back and top to bottom through the square section. The windlass is fitted between thwarts four and five as shown (*Fig 052*).

Additional Fittings for all Boats:

Each of the boats is fitted with:

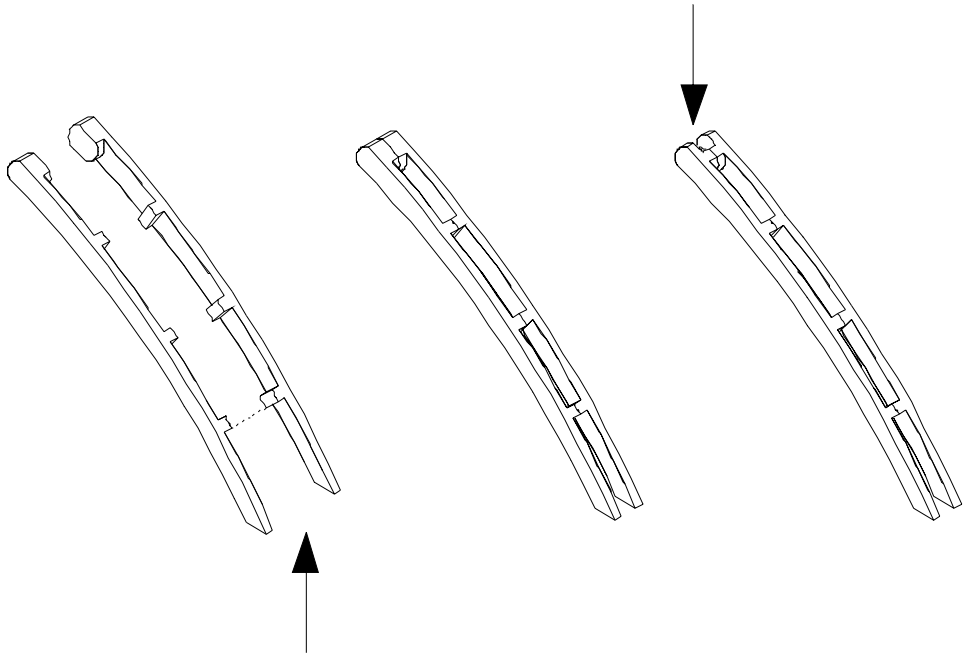
1. Two boat hooks (599) each.
2. 16 oars for the launch (595), 14 oars for the barge (594), 8 oars for the pinnace (597) and 4 oars for the cutter (596).
3. 84lb grapnel for the launch, 56lb grapnel for the barge and pinnace and 40lb grapnel for the cutter.
4. Rudders (the rudders should not be fitted to the boat but stored inside, it was only fitted when in use).

Securing in position:

The boats are secured to their stands on the skid beams as shown (*Fig 029*). The stands for the launch are pinned and glued to the first (from the front) and fourth skid beams. The stands for the pinnace are pinned and glued to the first and third skid beams. The stands for the barge are pinned and glued to the first and fourth skid beams. The stands for the cutter are pinned and glued to the fifth and sixth skin beams. With the stands in place, temporarily fit the boats and secure the falls of the main stay tackle pendants to the skid beams at a position such that they are not fouled by the boats. The boats can now be glued in position and lashed to the skid beams.

Fig 051

File a small notch in the after end to accept a rope.



Glue the two halves together, profiled surface to profiled surface.

Launch (Actual Size) Fig 052

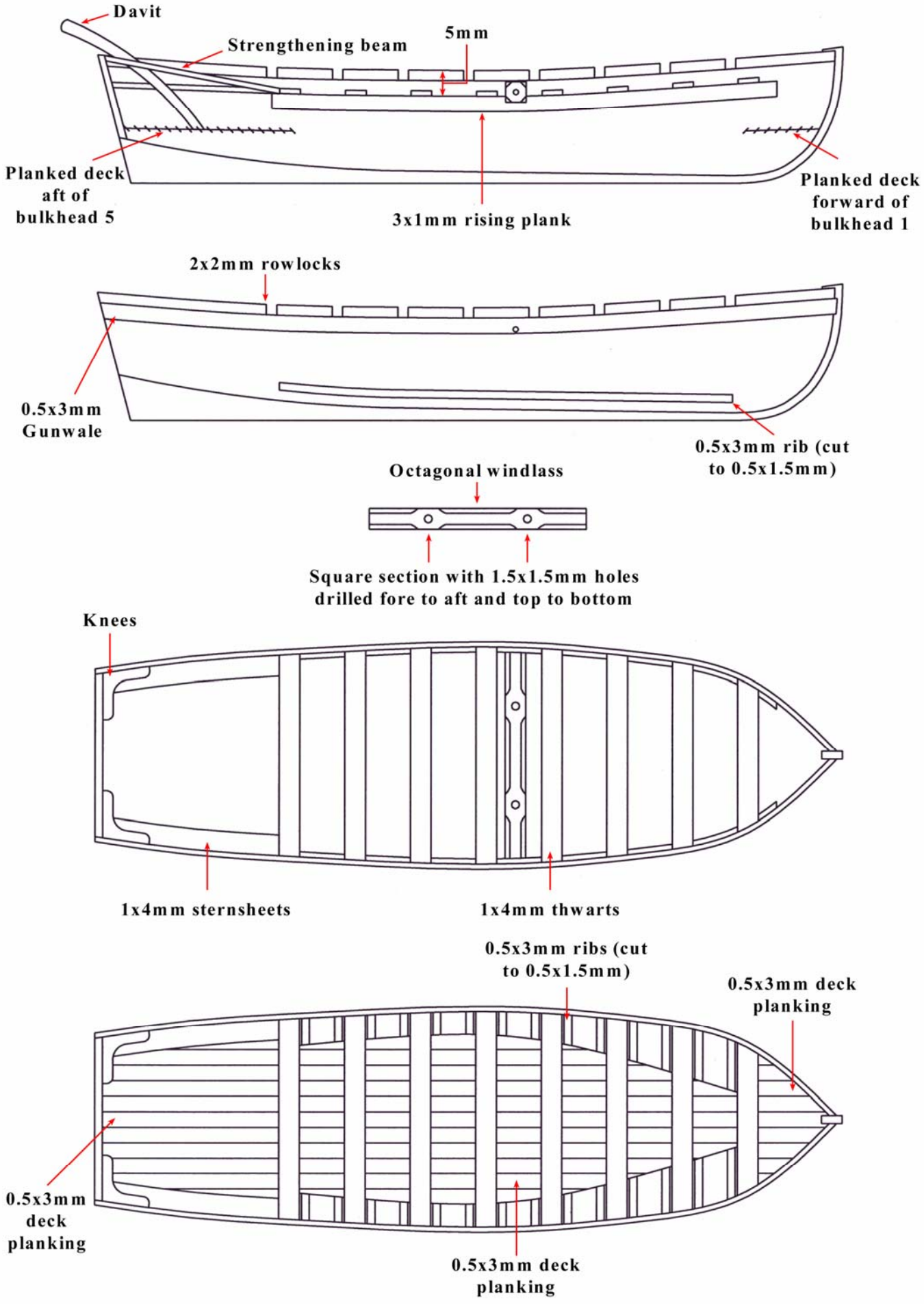


Photo 044

Planked paper deck and aft raised deck

Photo 045

Planked paper deck fitted

Photo 046

Hull detail

Photo 047

Completed launch with fittings, note fore raised deck

Photo 048

Internal hull detail

Launch paint scheme:

The launch should be painted as shown.
It has a yellow interior with thwarts and sternsheets left natural. The outer hull should be a dull white up to the gunwale. The gunwale is yellow with the washstrake above the gunwale painted black.
The transom is painted as per the sides, i.e. white with continuations of the yellow and black hull bands.
The washstrake fore and aft of the rowlocks is decorated with gold mouldings. This can be achieved with a steady hand or by painting a length of masking tape gold. Trim the masking tape to the required width secure to the washstrake and seal it in position with varnish.

Note: there were no hard and fast rules for ships boat paint schemes and the gunwale and washstrake colours were often switched (black gunwale, yellow washstrake)

Barge (Actual Size)

Fig 053

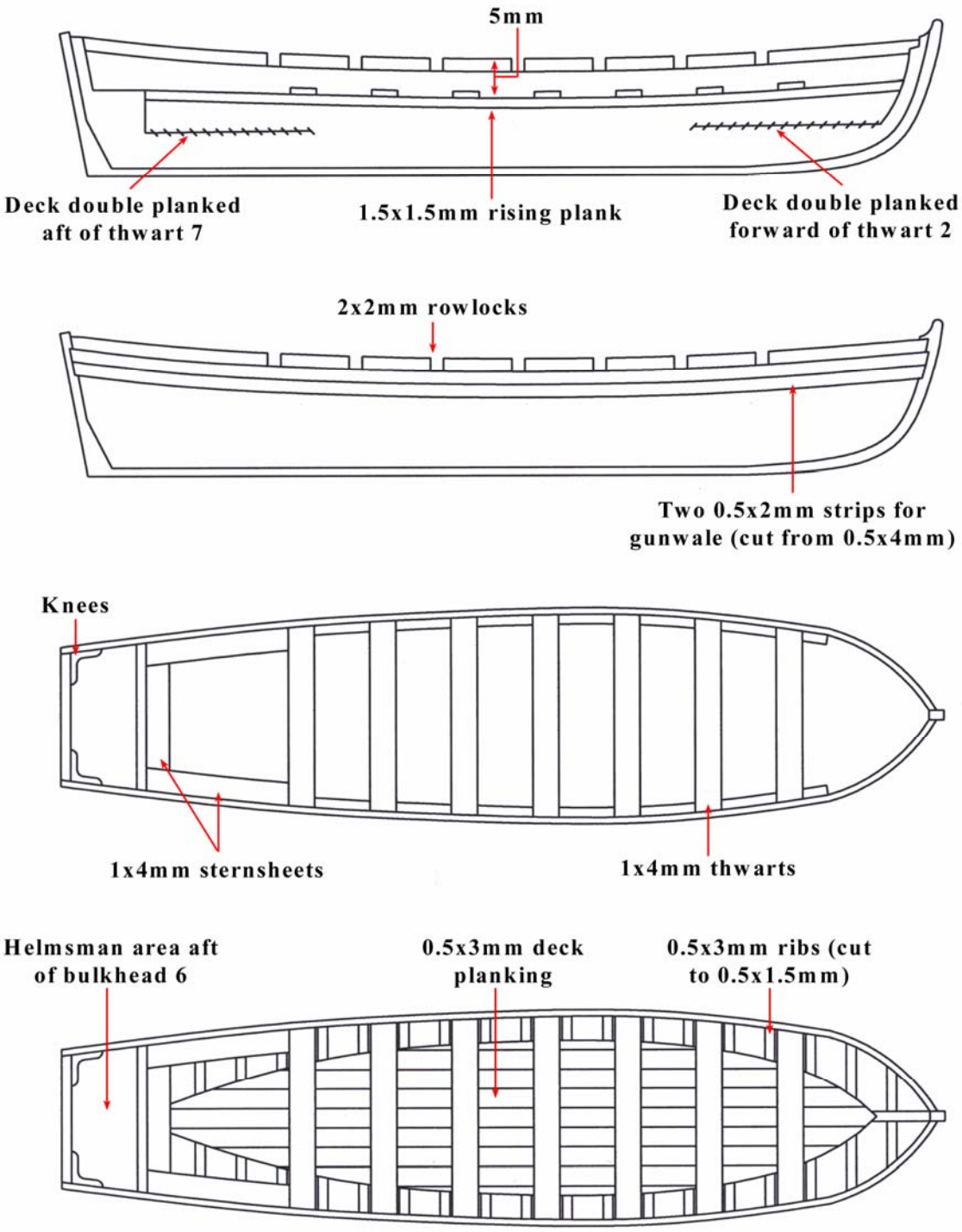


Photo 049

Planked paper deck, note double planked areas

Photo 050

Planked paper deck fitted

Photo 051

Hull detail, note gold banding

Photo 052

Completed barge with fittings, note helmsman area

Photo 053

Internal hull detail, note blue and gold bands around the inner transom

Barge paint scheme:

The barge should be painted as shown. It has an olive green interior with thwarts and sternsheets left natural. The panelling around the stern is highlighted with gold and blue bands. The outer hull should be a dull white up to the gunwale. The gunwale is olive green with gold banding. The washstrake above the gunwale is dull white.

The transom is painted olive green with continuations of the gold bands.

Pinnace (Actual Size)

Fig 054

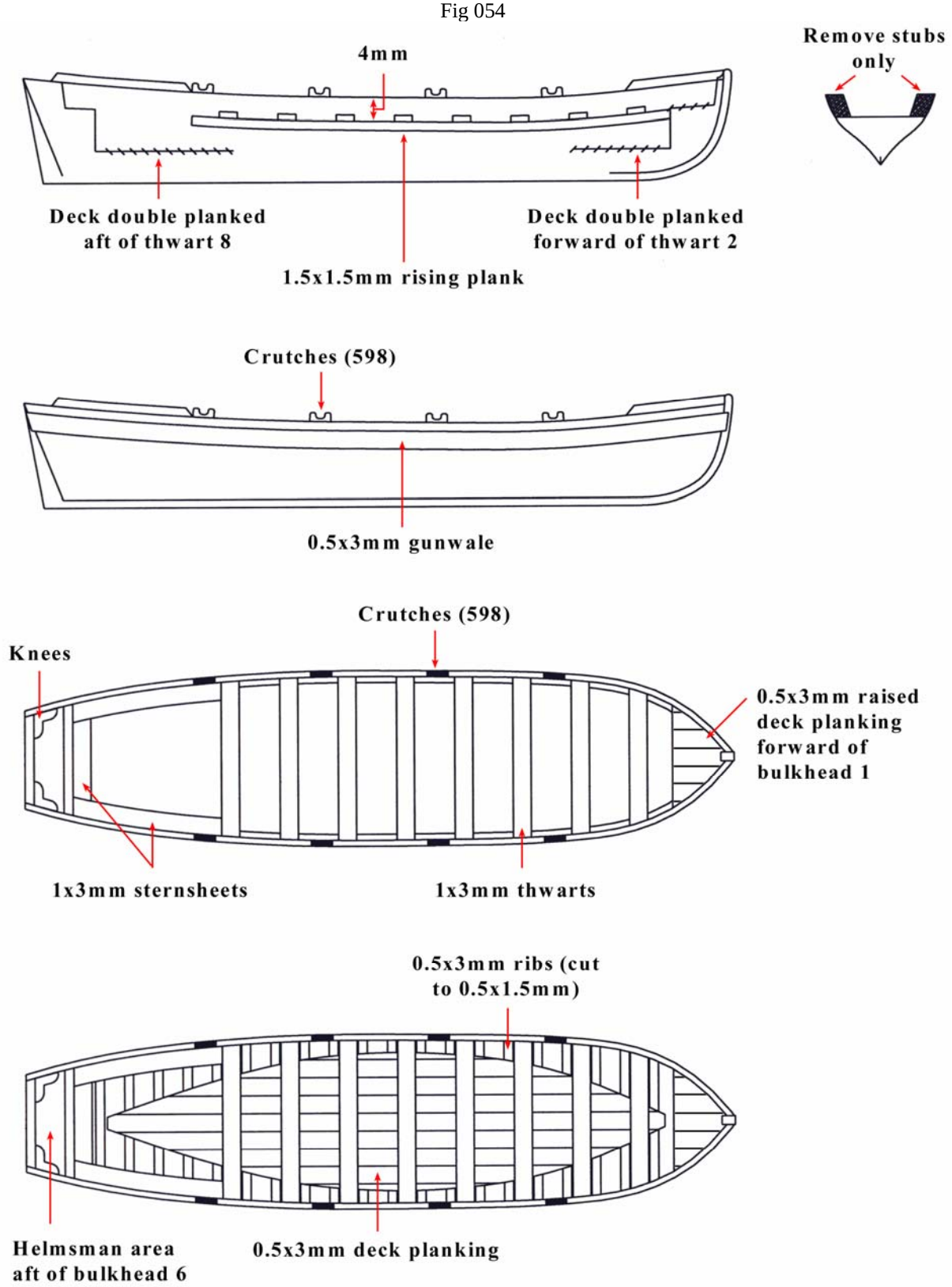


Photo 054

Planked paper deck, note double planked areas

Photo 055

Planked paper deck fitted

Photo 056

Hull detail

Photo 057

Completed pinnace with fittings, note helmsman area

Photo 058

Internal hull detail, note fore raised deck

Pinnace paint scheme:

The pinnace should be painted as shown.
It has a yellow interior with thwarts and sternsheets left natural. The outer hull should be a dull white up to the gunwale. The gunwale is yellow with the washstrake above the gunwale painted black.
The transom is painted as per the sides, i.e. white with continuations of the yellow and black hull bands.
The raised washstrake fore and aft of the rowlocks is decorated with gold mouldings.

Note: there were no hard and fast rules for ships boat paint schemes and the gunwale and washstrake colours were often switched (black gunwale, yellow washstrake)

Cutter (Actual Size)

Fig 055

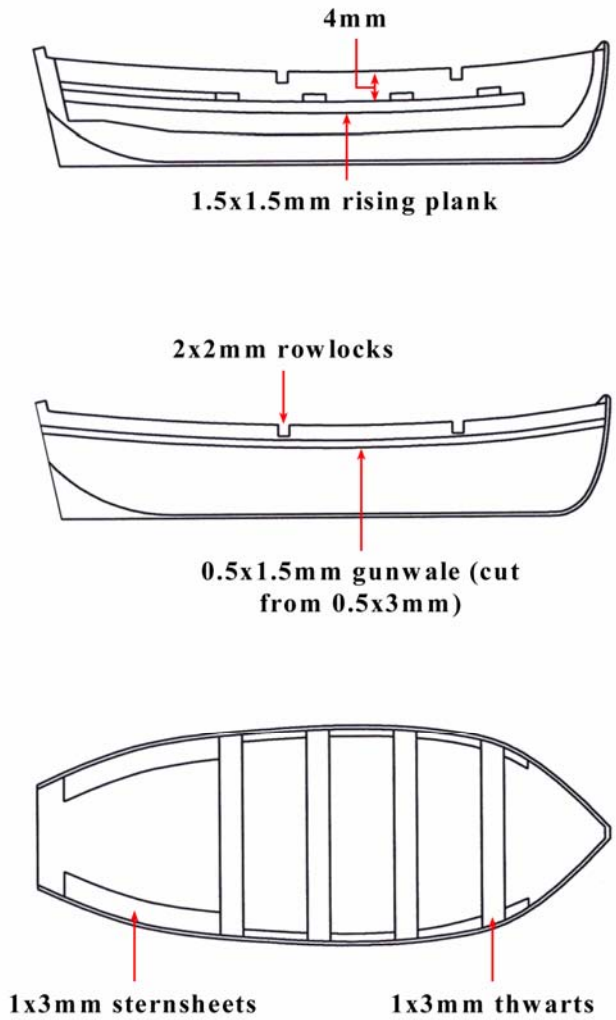
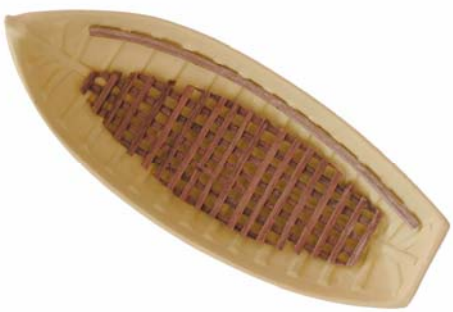


Photo 059

If desired, a grating (deck) can be constructed for the cutter from 0.5x3mm walnut (cut to 0.5x1.5mm)

Photo 060

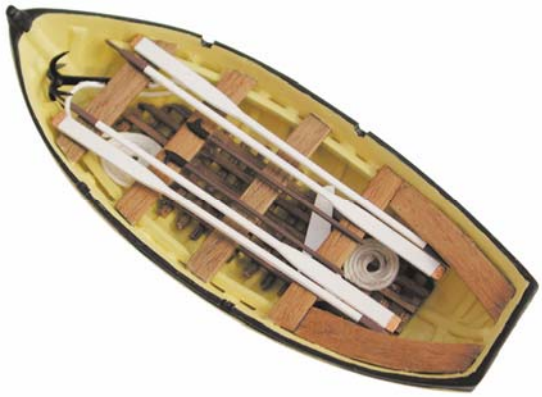


Deck fitted

Photo 061

Hull detail

Photo 062



Completed cutter with fittings

Photo 063

Internal hull detail

Cutter paint scheme:

The cutter should be painted as shown.
It has a yellow interior with thwarts and sternsheets left natural. The outer hull should be a dull white up to the gunwale. The gunwale is yellow with the washstrake above the gunwale painted black.
The transom is painted as per the sides, i.e. white with continuations of the yellow and black hull bands.

Note: there were no hard and fast rules for ships boat paint schemes and the gunwale and washstrake colours were often switched (black gunwale, yellow washstrake)

JoTiKa Ltd., Model Marine Warehouse, Hadzor, Droitwich, WR9 7DS, UK.
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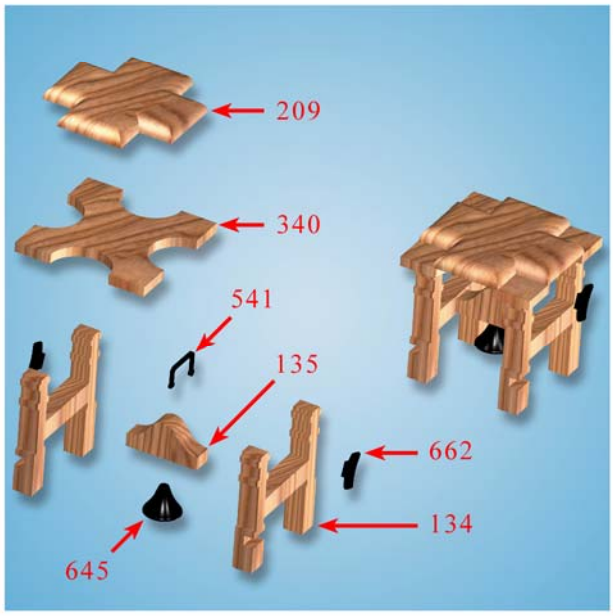
Email: Nelsonsnavy@jotika-ltd.com
Web Address: http://www.jotika-ltd.com

H.M.S Victory 1805

Exact scale model of the 100-Gun British Ship of the Line.

In 1759, although oak was the primary wood source for the construction of Victory, elm, fir, beech and pitch pine were also used. Being built at Chatham Dockyard, under the Master Shipwright John Lock, most of the timber used in the construction of Victory would have come from the nearby Wealden Forests and also from The Forest of Dean which supplied large volumes of timber to all dockyards.



Manual 3 of 3
Parts List & Part Identification

Additional photos of every stage of construction can be found on our website at:
http://www.jotika-ltd.com

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For easy reference, the parts list and part identification manual has been split into well-defined categories as follows:

Notes on Handling Components

During the build it will be necessary to sand down large areas, (after the first and second planking and at other stages) it is therefore advisable to work in a well ventilated area and / or wear appropriate protection. The same applies when using paints, stains, glues, fillers etc. Good lighting is also essential to the modelmaker.
The structural parts of the model are cut from high quality birch plywood, the remaining wood parts are cut from high quality walnut ply and walnut.
Take particular care when removing parts with a craft knife and ensure all parts are identified and marked with pencil before removal. Lay the sheet from which you are going to cut the parts on a rigid flat cutting board for removal. Use a heavy-duty craft knife with a good strong blade to cut through the tabs holding the parts in place. It will also be an advantage to paint the brass etched fittings prior to removal from the sheet, they can then be touched up again when in place. Alternatively when cutting brass or copper parts, a good pair of stout scissors will suffice.

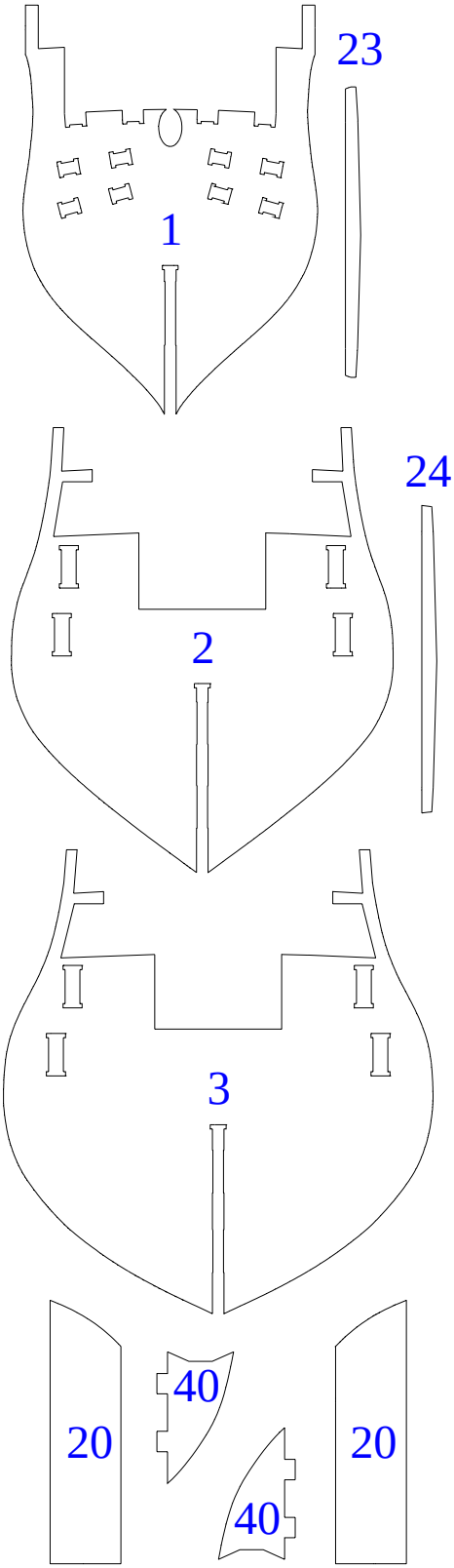
Before each stage of construction, study both the manual and the plans until you are confident in the task ahead.
The majority of the model will be painted during various stages of the build. It is important to think ahead to the next stage in the construction process and paint the various parts at a convenient time, usually before securing on the model. It is often a good idea to paint parts for the next stage and while they are drying you can be working on the current stage.
Wherever possible, offer the parts together in a ‘dry’ fit before final assembly.

Note: we strongly recommend that you register your H.M.S. Victory kit. Not only will this allow us to quickly send out any replacement parts, but as we continue to receive ongoing research information we will be manufacturing some new components, (such as the correct taffrail decoration in place of the Prince of Wales Feathers), and these parts will be forwarded to registered customers free of charge.

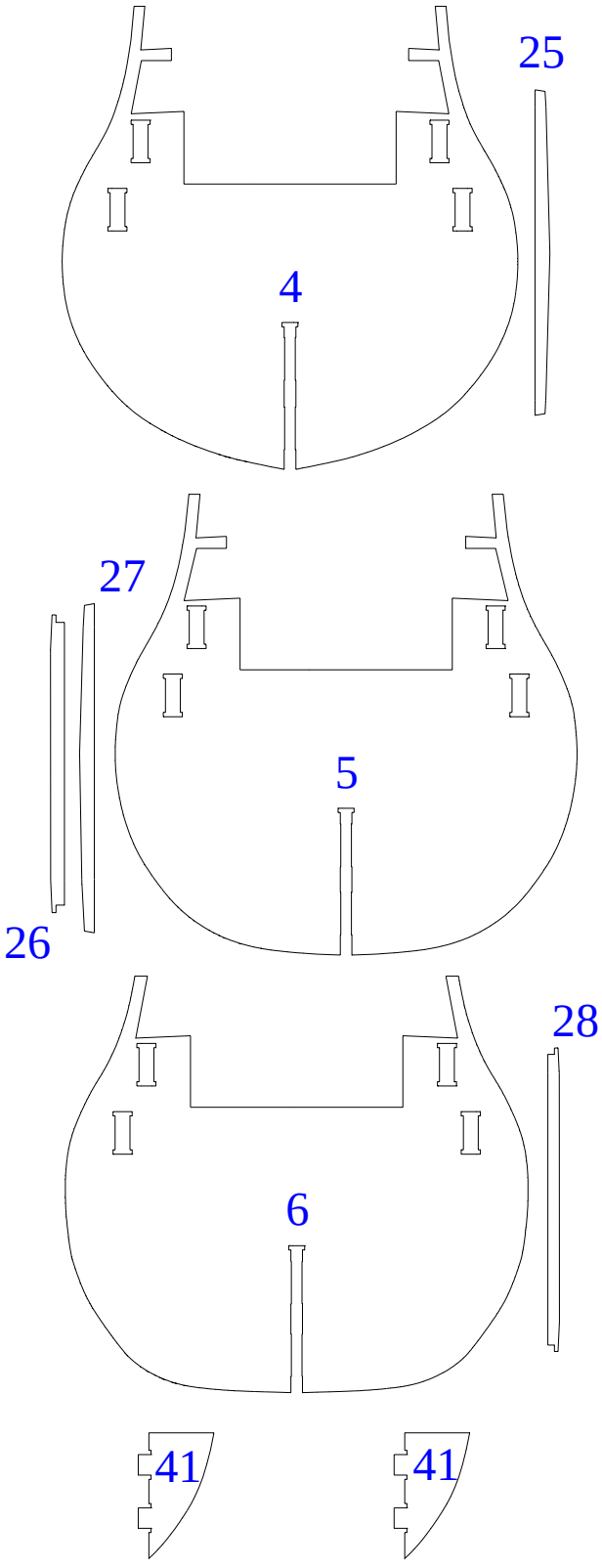
5mm Ply

Part No.	Part Description	Material	Qty
1	Bulkhead	5mm Ply	1
2	Bulkhead	5mm Ply	1
3	Bulkhead	5mm Ply	1
4	Bulkhead	5mm Ply	1
5	Bulkhead	5mm Ply	1
6	Bulkhead	5mm Ply	1
7	Bulkhead	5mm Ply	1
8	Bulkhead	5mm Ply	1
9	Bulkhead	5mm Ply	1
10	Bulkhead	5mm Ply	1
11	Bulkhead	5mm Ply	1
12	Bulkhead	5mm Ply	1
13	Bulkhead	5mm Ply	1
14	Bulkhead	5mm Ply	1
15	Bulkhead	5mm Ply	1
16	Bulkhead	5mm Ply	1
17	Bulkhead	5mm Ply	1
18	Bulkhead	5mm Ply	1
19	Keel	5mm Ply	1
20	Plank termination pattern	5mm Ply	2
21	Plank termination pattern	5mm Ply	2
22	Middle gun deck	5mm Ply	1
23	Quarterdeck camber beam (Bulk 1)	5mm Ply	1
24	Quarterdeck camber beam (Bulk 2)	5mm Ply	1
25	Quarterdeck camber beam (Bulk 4)	5mm Ply	1
26	Upper gun deck camber beam (Bulk 5)	5mm Ply	1
27	Quarterdeck camber beam (Bulk 5)	5mm Ply	1
28	Upper gun deck camber beam (Bulk 6)	5mm Ply	1
29	Upper gun deck camber beam (Bulk 7)	5mm Ply	1
30	Upper gun deck camber beam (Bulk 9)	5mm Ply	1
31	Upper gun deck camber beam (Bulk 10)	5mm Ply	1
32	Upper gun deck camber beam (Bulk 11)	5mm Ply	1
33	Quarterdeck camber beam (Bulk 11)	5mm Ply	1
34	Quarterdeck camber beam (Bulk 12)	5mm Ply	1
35	Quarterdeck camber beam (Bulk 13)	5mm Ply	1
36	Quarterdeck camber beam (Bulk 14)	5mm Ply	1
37	Quarterdeck camber beam (Bulk 16)	5mm Ply	1
38	Poop deck camber beam (Bulk 17)	5mm Ply	1
39	Dummy barrel strip	5mm Ply	4
40	Bow forward support (Upper)	5mm Ply	2
41	Bow forward support (Middle)	5mm Ply	2
42	Bow forward support (Lower)	5mm Ply	2
43	Stand end (Aft)	5mm Ply	1
44	Stand end (Fore)	5mm Ply	1
45	Stand sides	5mm Ply	2

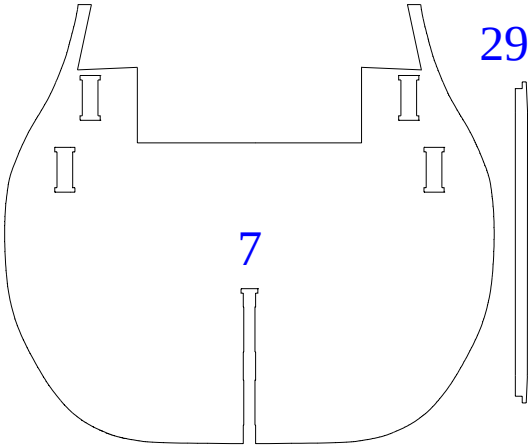
5mm Ply Sheet 1

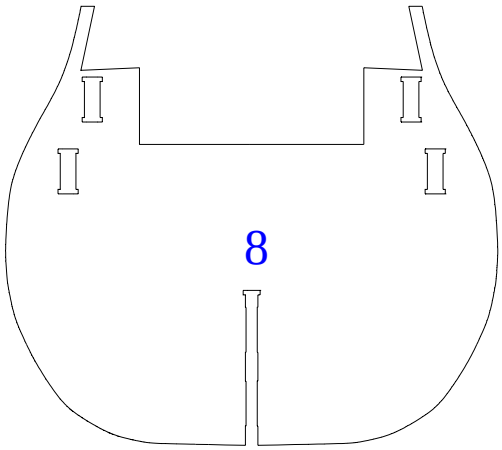


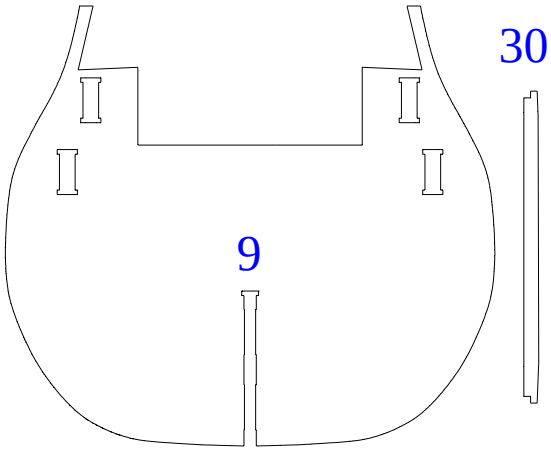
5mm Ply Sheet 2



5mm Ply Sheet 3







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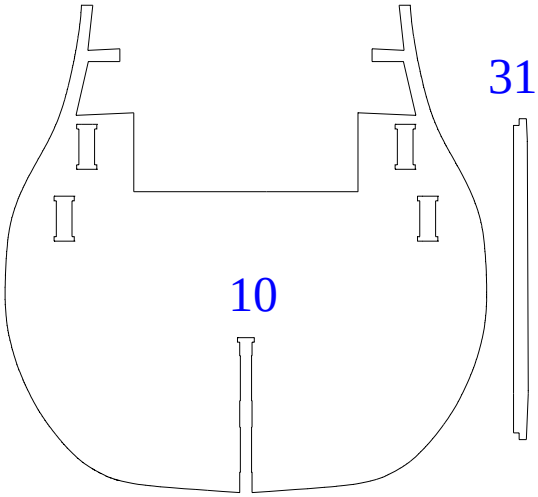

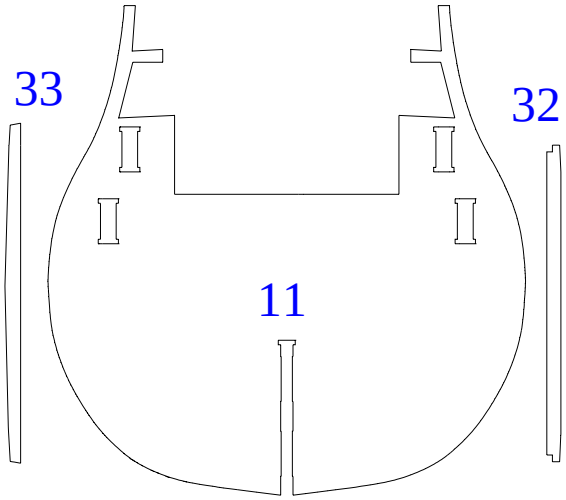

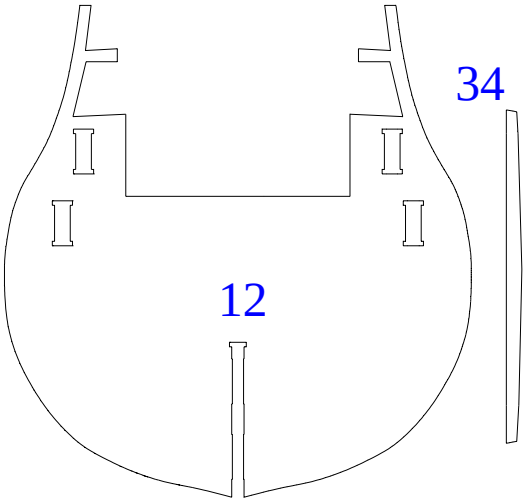

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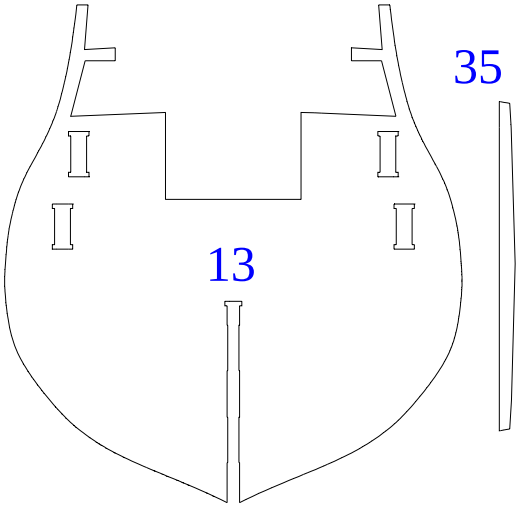
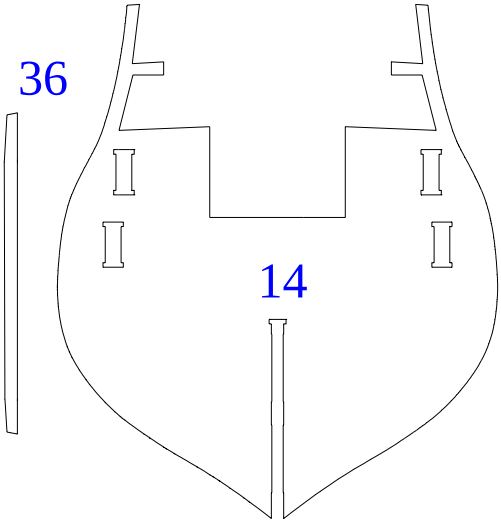
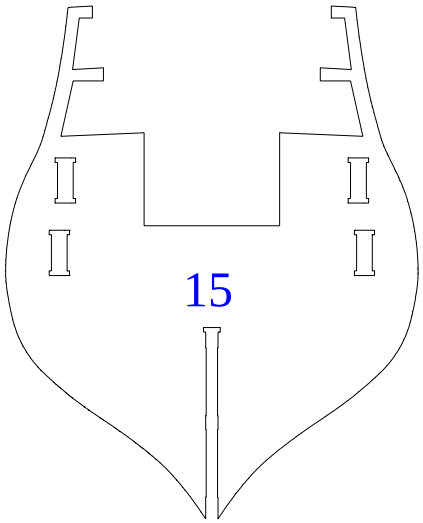
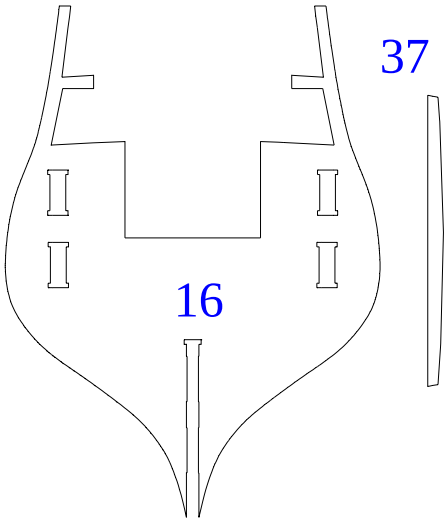
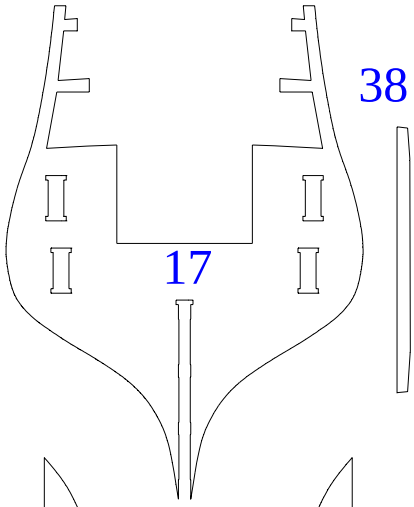


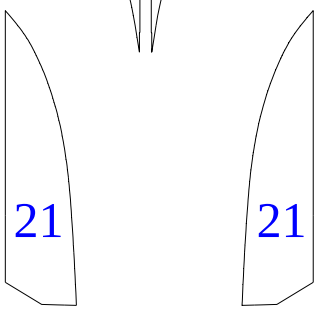


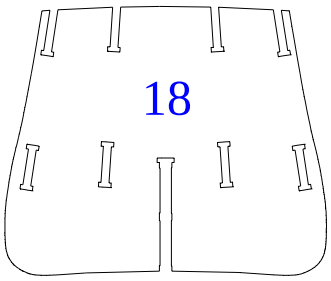


5mm Ply Sheet 6









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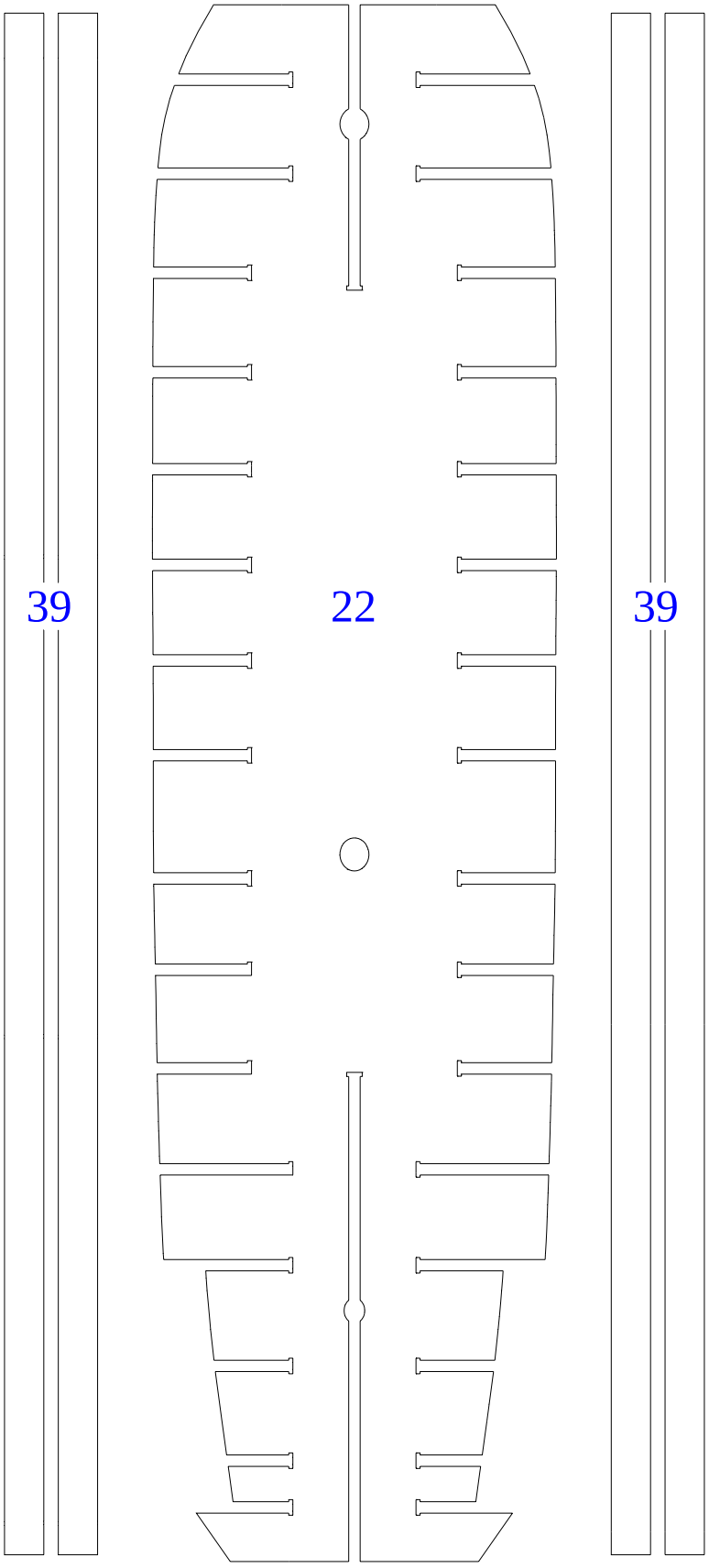
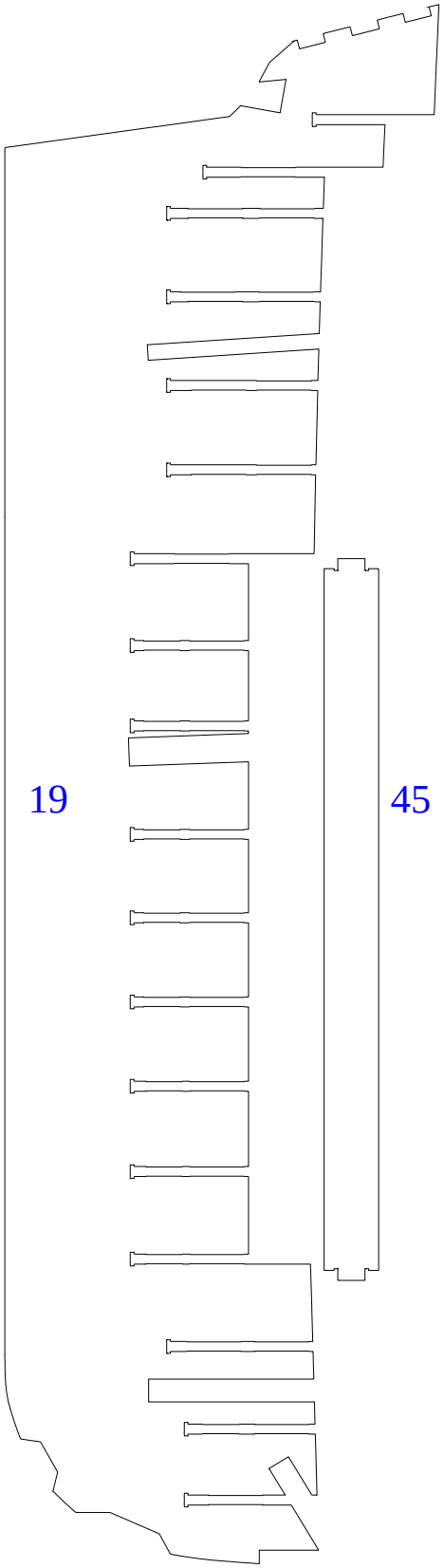
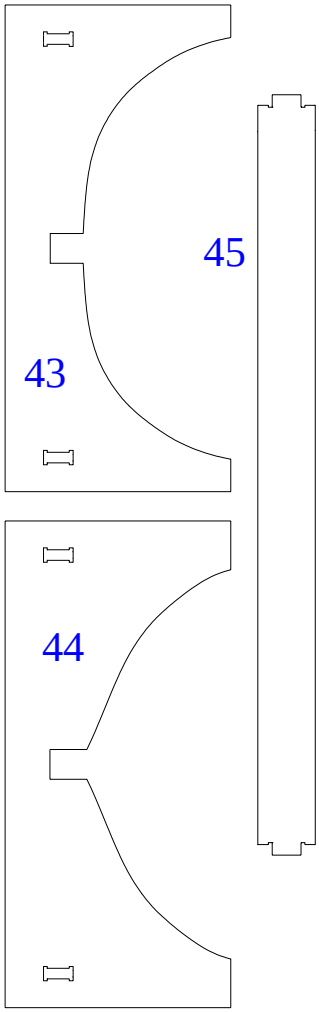


5mm Ply Sheet 8



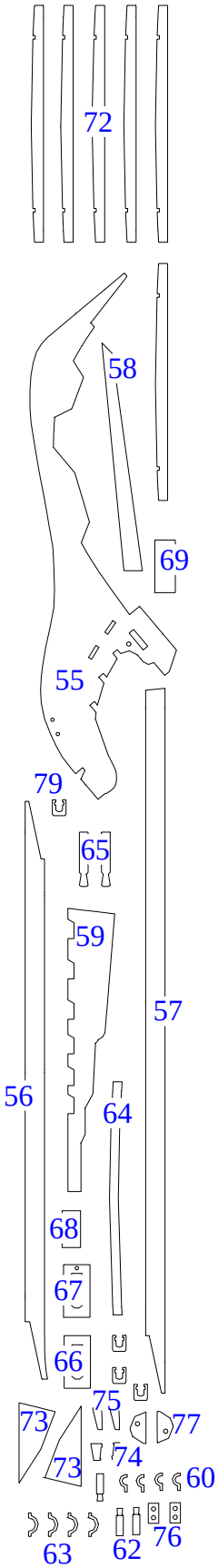
5mm Ply Sheet 9



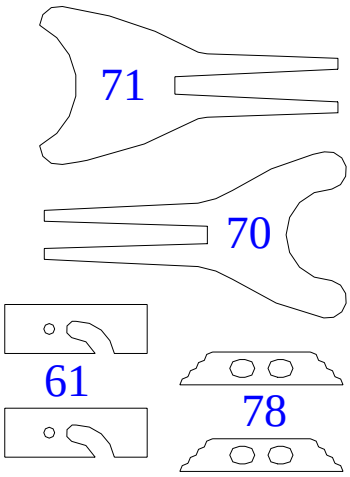
5mm Walnut

Part No.	Part Description	Material	Qty
55	Stem	5mm Walnut	1
56	Keelson (Front)	5mm Walnut	1
57	Keelson (Back)	5mm Walnut	1
58	Stern post	5mm Walnut	1
59	Rudder	5mm Walnut	1
60	Forecastle breast beam (U-piece)	5mm Walnut	2
61	Forecastle snatch block	5mm Walnut	2
62	Forecastle kevel	5mm Walnut	3
63	Beakhead bulkhead fiferail (U-piece)	5mm Walnut	2
64	Cat-tail	5mm Walnut	1
65	Knighthead	5mm Walnut	2
66	Fore mast cap	5mm Walnut	1
67	Main mast cap	5mm Walnut	1
68	Mizzen mast cap	5mm Walnut	1
69	Bowsprit cap	5mm Walnut	1
70	Jibboom jaws	5mm Walnut	1
71	Driver gaff jaws	5mm Walnut	1
72	Skid beams	5mm Walnut	6
73	Quarter gallery 1st top decoration	5mm Walnut	2
74	Sheet anchor palm block base	5mm Walnut	2
75	Bower anchor palm block	5mm Walnut	2
76	Stool	5mm Walnut	2
77	Stool	5mm Walnut	2
78	Snatch block (Poop)	5mm Walnut	2
79	10mm open heart block	5mm Walnut	2

5mm Walnut Sheet 1



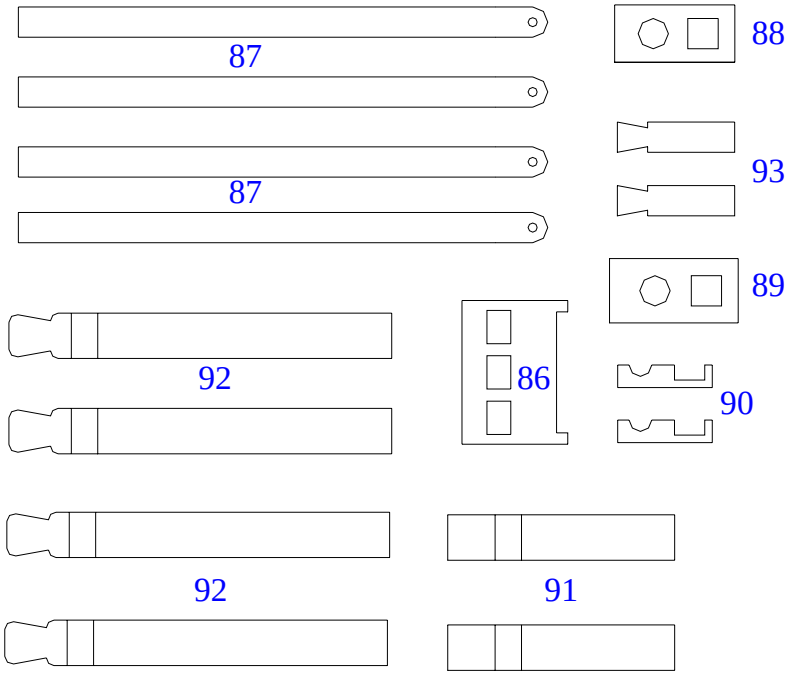
5mm Walnut Sheet 2



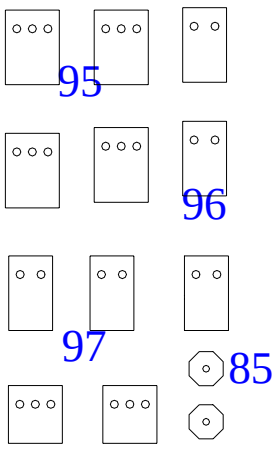
4mm Walnut

Part No.	Part Description	Material	Qty
85	Elm tree pump base	4mm Walnut	2
86	Binnacle	4mm Walnut	1
87	Quarter davits	4mm Walnut	4
88	Fore topmast cap	4mm Walnut	1
89	Main topmast cap	4mm Walnut	1
90	Mizzen topmast cap	4mm Walnut	2
91	Fore brace bitt pins (Upper deck, fore)	4mm Walnut	2
92	Main top bowline & Fore topsail sheet bitt pins (Around fore mast)	4mm Walnut	4
93	Forecastle kevel	4mm Walnut	2
94	Anchor stock	4mm Walnut	8
95	10mm triple jeer block	4mm Walnut	4
96	10mm double jeer block	4mm Walnut	5
97	8.5mm triple cat block	4mm Walnut	2

4mm Walnut Sheet 1



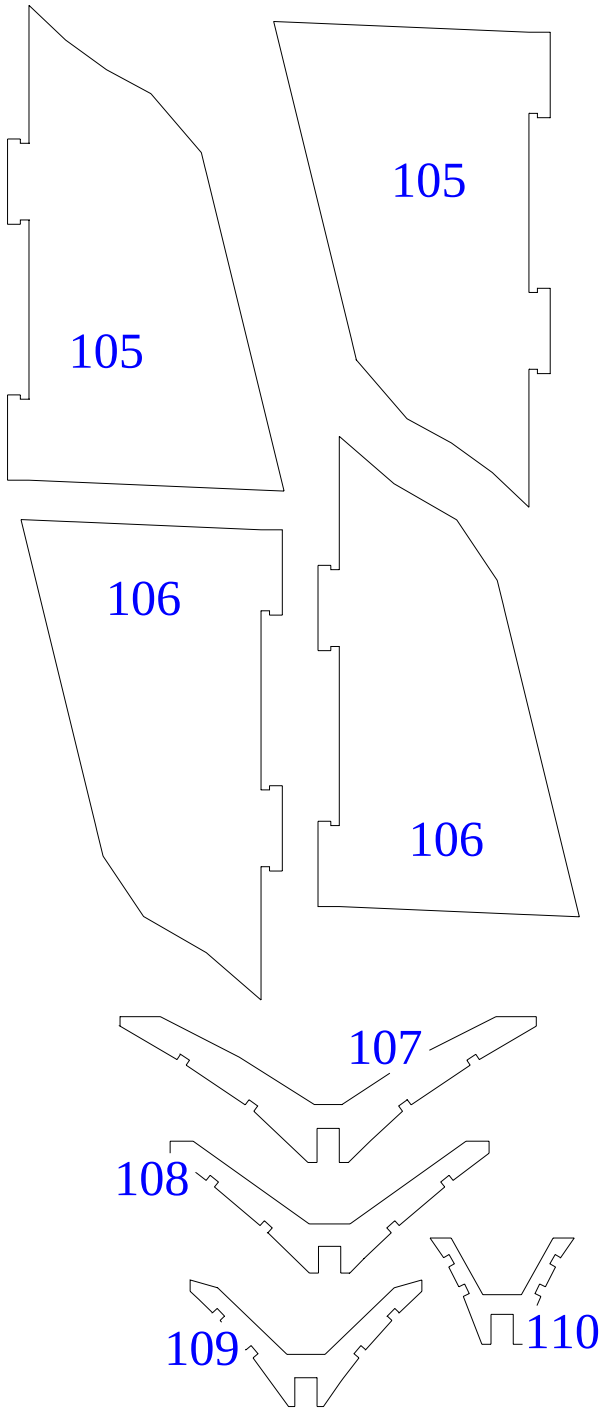
4mm Walnut Sheet 2



3mm Ply

Part No.	Part Description	Material	Qty
105	Inner stern extension	3mm Ply	2
106	Outer stern extension	3mm Ply	2
107	Head timber	3mm Ply	1
108	Head timber	3mm Ply	1
109	Head timber	3mm Ply	1
110	Head timber	3mm Ply	1

3mm Ply Sheet 1

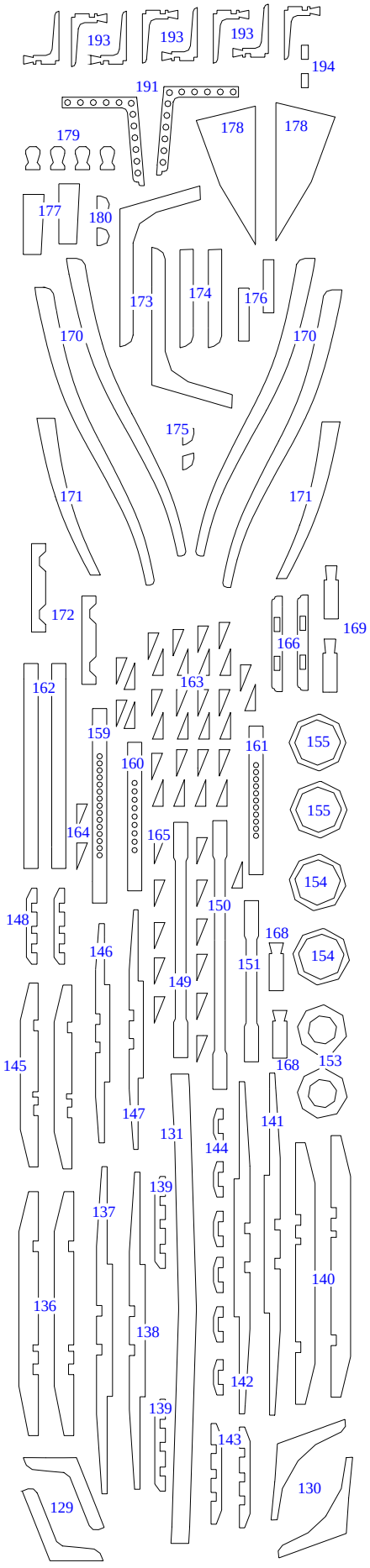


3mm Walnut

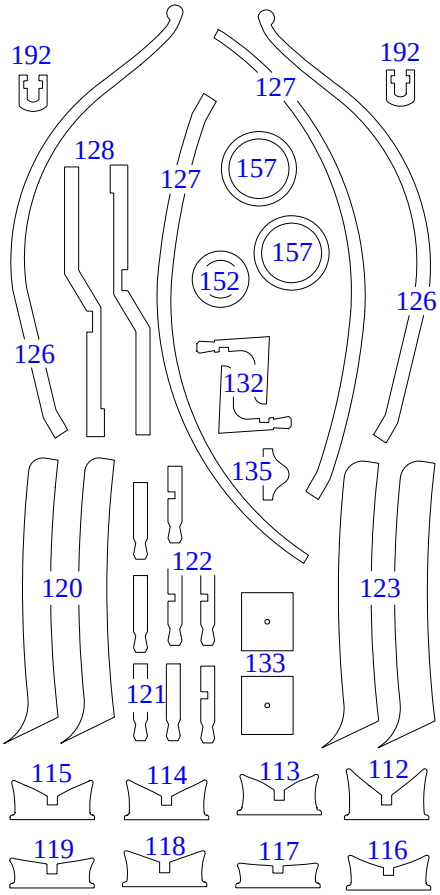
Part No.	Part Description	Material	Qty
112	Barge stand (Fore)	3mm Walnut	1
113	Barge stand (Aft)	3mm Walnut	1
114	Pinnace stand (Fore)	3mm Walnut	1
115	Pinnace stand (Aft)	3mm Walnut	1
116	Launch stand (Fore)	3mm Walnut	1
117	Launch stand (Aft)	3mm Walnut	1
118	Cutter stand (Fore)	3mm Walnut	1
119	Cutter stand (Aft)	3mm Walnut	1
120	Hair bracket	3mm Walnut	2
121	Beakhead bulkhead timberheads	3mm Walnut	4
122	Beakhead bulkhead timberheads (With notch)	3mm Walnut	4
123	Lower bow cheek rail	3mm Walnut	2
124	Door for beakhead bulkhead	3mm Walnut	2
125	Bow main rail inner timberhead	3mm Walnut	2
126	Bow (Curved rail upper)	3mm Walnut	2
127	Bow (Curved rail lower)	3mm Walnut	2
128	Marines' walk pillars	3mm Walnut	2
129	Cat-head knee	3mm Walnut	2
130	Cat-head support	3mm Walnut	2
131	Cat-tail	3mm Walnut	1
132	Mizzen topsail sheet bitt pins	3mm Walnut	2
133	Carronade deck block	3mm Walnut	2
134	Belfry support pillars	3mm Walnut	2
135	Belfry cross bar	3mm Walnut	1
136	Fore top trestletree	3mm Walnut	2
137	Fore top crosstree (Rear)	3mm Walnut	1
138	Fore top crosstree (Front)	3mm Walnut	1
139	Fore topmast trestletree	3mm Walnut	2
140	Main top trestletree	3mm Walnut	2
141	Main top crosstree (Rear)	3mm Walnut	1
142	Main top crosstree (Front)	3mm Walnut	1
143	Main topmast trestletree	3mm Walnut	2
144	Jeer block strop cleat	3mm Walnut	6
145	Mizzen top trestletree	3mm Walnut	2
146	Mizzen top crosstree (Rear)	3mm Walnut	1
147	Mizzen top crosstree (Front)	3mm Walnut	1
148	Mizzen topmast trestletree	3mm Walnut	2
149	Fore mast hand mast	3mm Walnut	1
150	Main mast hand mast	3mm Walnut	1
151	Mizzen mast hand mast	3mm Walnut	1
152	Mizzen mast sleeve (Quarterdeck)	3mm Walnut	1
153	Mizzen mast sleeve (Poop deck)	3mm Walnut	2
154	Main mast sleeve (Middle deck)	3mm Walnut	2
155	Main mast sleeve (Upper gun deck)	3mm Walnut	2
156	Main mast sleeve (Quarterdeck)	3mm Walnut	1
157	Fore mast sleeve (Upper gun deck)	3mm Walnut	2
158	Fore brace bitt pins (Aft)	3mm Walnut	2
159	Fore brace bitts	3mm Walnut	1
160	Fore topsail sheet bitts	3mm Walnut	1

161	Main top bowline bitts	3mm Walnut	1
162	Fore brace bitts (Upper deck)	3mm Walnut	2
163	12pdr (Long) cannon carriage quoin	3mm Walnut	30
164	12pdr (Medium) cannon carriage quoin	3mm Walnut	2
165	12pdr (Short) cannon carriage quoin	3mm Walnut	12
166	Quarterdeck staghorn base	3mm Walnut	2
167	Quarterdeck kevel	3mm Walnut	2
168	Quarterdeck kevel	3mm Walnut	2
169	Poop deck kevel	3mm Walnut	2
170	Fenders	3mm Walnut	4
171	Chesstrees	3mm Walnut	2
172	Hawse hole bolsters	3mm Walnut	2
173	Transom knees (Inner)	3mm Walnut	2
174	Transom knees base (Outer)	3mm Walnut	2
175	Transom knees top (Outer)	3mm Walnut	2
176	Poop deck to quarterdeck 1st step	3mm Walnut	2
177	Poop deck to quarterdeck 2nd step	3mm Walnut	2
178	Quarter gallery 2nd top decoration	3mm Walnut	2
179	Quarterdeck framed timberheads	3mm Walnut	4
180	D-block for crossjack lifts	3mm Walnut	2
181	Side steps	3mm Walnut	8
182	Side steps	3mm Walnut	2
183	Side steps	3mm Walnut	2
184	Side steps	3mm Walnut	2
185	Side steps	3mm Walnut	10
186	Side steps	3mm Walnut	2
187	Side steps	3mm Walnut	2
188	Side steps	3mm Walnut	16
189	Side steps	3mm Walnut	2
190	Side steps	3mm Walnut	2
191	Forecastle shot garland	3mm Walnut	2
192	7mm open heart block	3mm Walnut	2
193	Forecastle breast beam support	3mm Walnut	8
194	Fore lower studding sail boom bracket	3mm Walnut	2

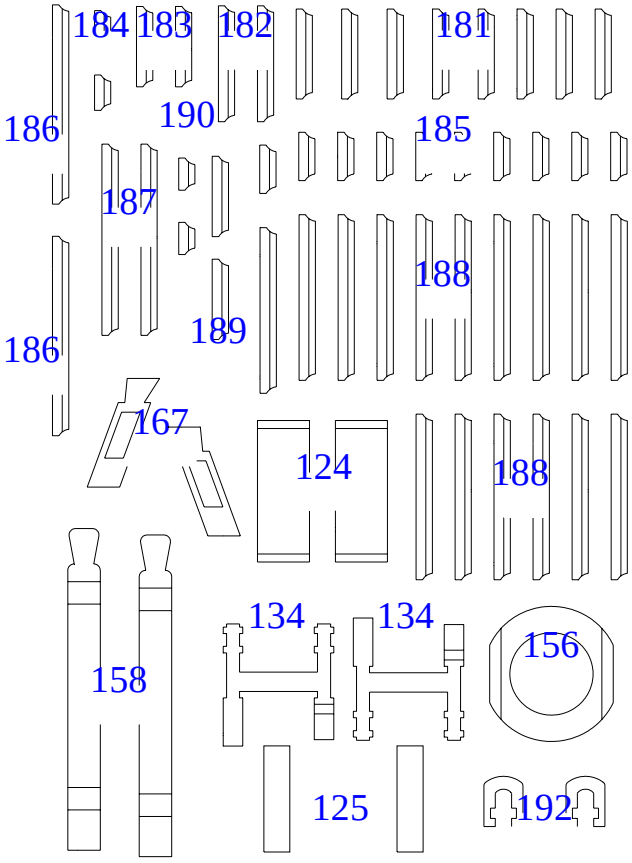
3mm Walnut Sheet 1



3mm Walnut Sheet 2



3mm Walnut Sheet 3

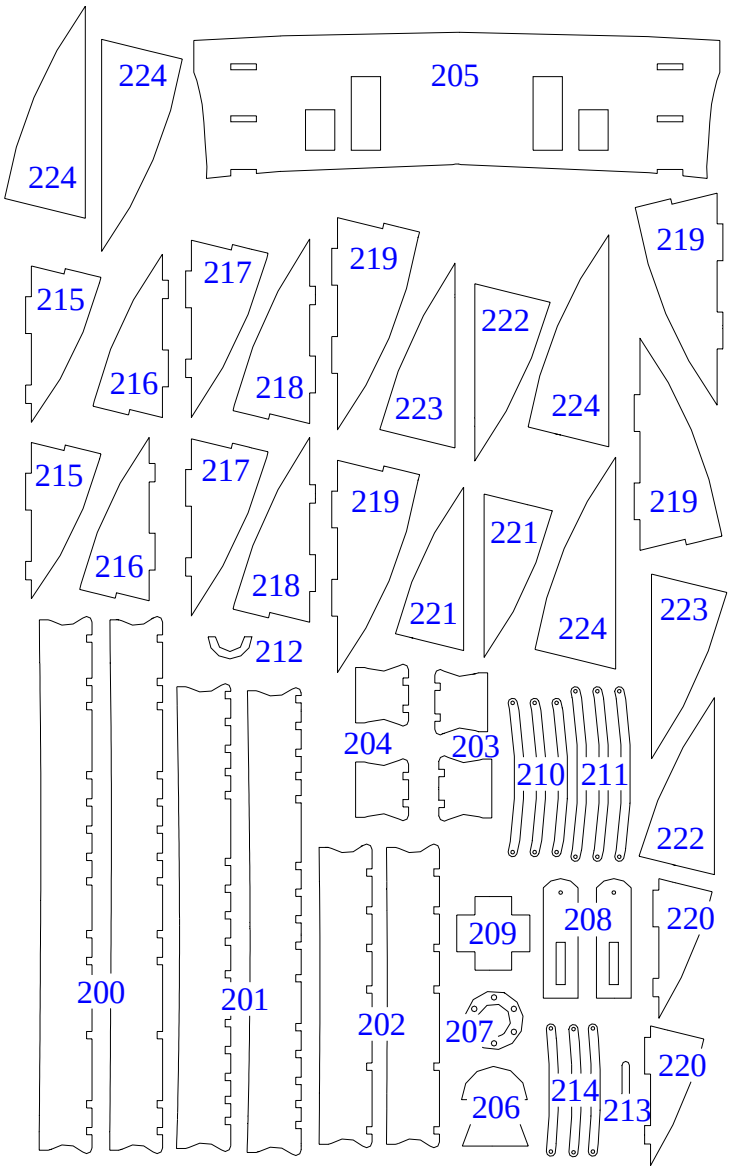


2mm Walnut

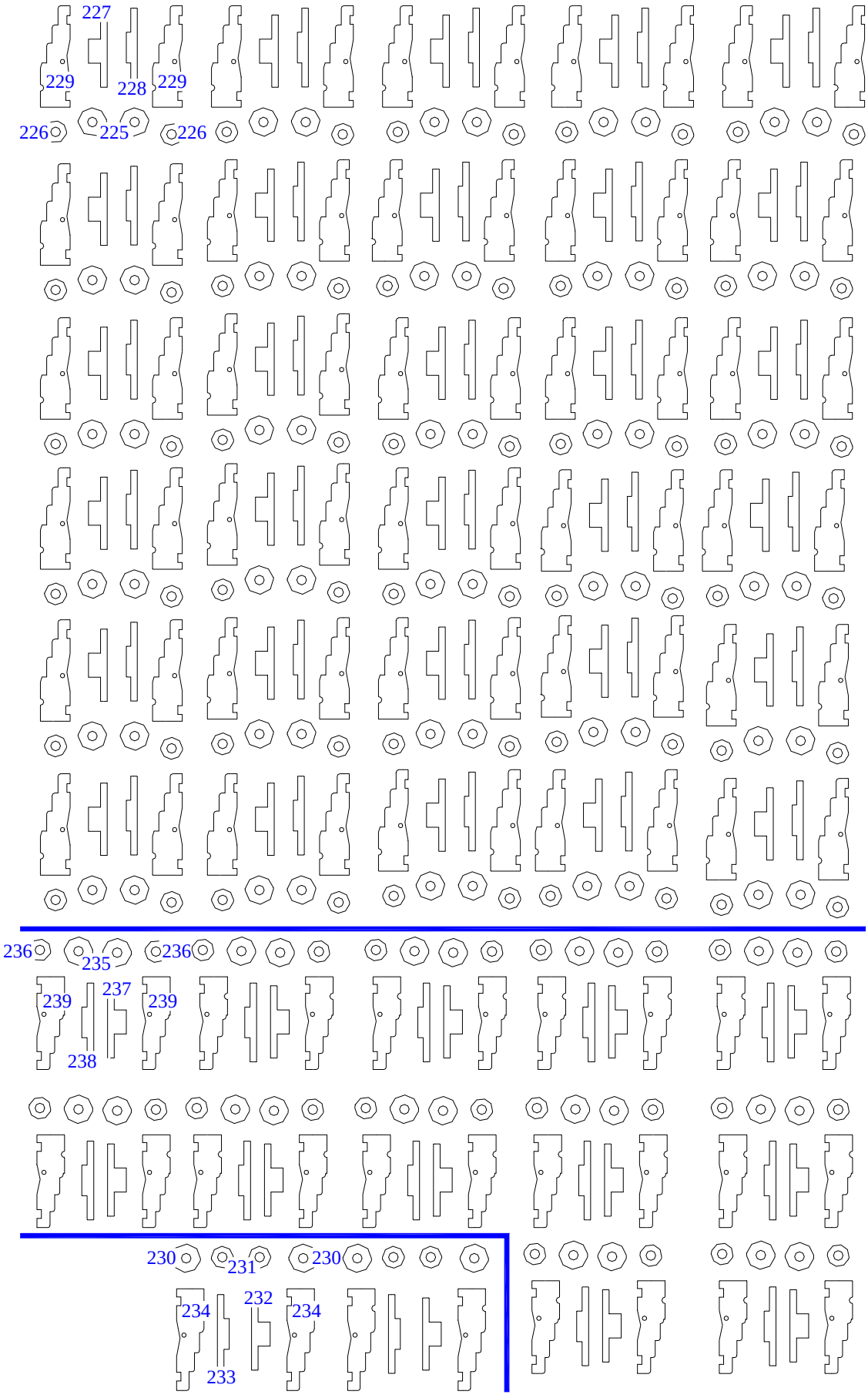
Part No.	Part Description	Material	Qty
200	Main channel	2mm Walnut	2
201	Fore channel	2mm Walnut	2
202	Mizzen channel	2mm Walnut	2
203	Main backstay channel	2mm Walnut	2
204	Mizzen backstay channel	2mm Walnut	2
205	Beakhead bulkhead (Bulk 1)	2mm Walnut	1
206	Roundhouse top	2mm Walnut	2
207	Mizzen mast circular fife rail	2mm Walnut	1
208	Carronade sliding bed	2mm Walnut	2
209	Belfry roof	2mm Walnut	1
210	Fore topmast crosstree	2mm Walnut	3
211	Main topmast crosstree	2mm Walnut	3
212	Driver boom saddle	2mm Walnut	1
213	Mizzen topmast middle crosstree	2mm Walnut	1
214	Mizzen topmast crosstree	2mm Walnut	2
215	1st quarter gallery pattern (Top)	2mm Walnut	2
216	2nd quarter gallery pattern	2mm Walnut	2
217	3rd quarter gallery pattern	2mm Walnut	2
218	4th quarter gallery pattern	2mm Walnut	2
219	5th & 6th quarter gallery patterns	2mm Walnut	4
220	7th quarter gallery pattern	2mm Walnut	2
221	2nd quarter gallery insert pattern	2mm Walnut	2
222	3rd quarter gallery insert pattern	2mm Walnut	2
223	4th quarter gallery insert pattern	2mm Walnut	2
224	5th & 6th quarter gallery insert patterns	2mm Walnut	4
225	12pdr (long) cannon carriage front wheel (Large)	2mm Walnut	60
226	12pdr (long) cannon carriage rear wheel (Small)	2mm Walnut	60
227	12pdr (long) cannon carriage front axle (Short)	2mm Walnut	30
228	12pdr (long) cannon carriage rear axle (Long)	2mm Walnut	30
229	12pdr (long) cannon carriage side	2mm Walnut	60
230	12pdr (medium) cannon carriage front wheel (Large)	2mm Walnut	4
231	12pdr (medium) cannon carriage rear wheel (Small)	2mm Walnut	4
232	12pdr (medium) cannon carriage front axle (Short)	2mm Walnut	2
233	12pdr (medium) cannon carriage rear axle (Long)	2mm Walnut	2
234	12pdr (medium) cannon carriage side	2mm Walnut	4
235	12pdr (short) cannon carriage front wheel (Large)	2mm Walnut	24
236	12pdr (short) cannon carriage rear wheel (Small)	2mm Walnut	24
237	12pdr (short) cannon carriage front axle (Short)	2mm Walnut	12
238	12pdr (short) cannon carriage rear axle (Long)	2mm Walnut	12
239	12pdr (short) cannon carriage side	2mm Walnut	24
240	Ladder to Admirals dining cabin sides (Pair)	2mm Walnut	1
241	Companionway ladder sides (Down from upper gun deck) (Pair)	2mm Walnut	3
242	Main companionway ladder sides (Down from quarterdeck) (Pair)	2mm Walnut	1
243	Waist ladder sides (Pair)	2mm Walnut	4
244	Shot garland (Upper deck)	2mm Walnut	2
245	Shot garland (Upper deck)	2mm Walnut	2
246	Shot garland (Upper deck)	2mm Walnut	3
247	Shot garland (Upper deck)	2mm Walnut	2
248	Shot garland (Upper deck)	2mm Walnut	1

249	Shot garland (Upper deck)	2mm Walnut	1
250	Shot garland (Upper deck)	2mm Walnut	1
251	Shot garland (Upper deck)	2mm Walnut	2
252	Shot garland (Upper deck)	2mm Walnut	2
253	Main and fore yard sling cleats	2mm Walnut	4
254	Quarterdeck pinrail (Large)	2mm Walnut	2
255	Quarterdeck pinrail (Small)	2mm Walnut	2
256	Quarterdeck shot garland	2mm Walnut	2
257	Quarterdeck shot garland	2mm Walnut	2
258	Quarterdeck shot garland	2mm Walnut	2
259	Quarterdeck shot garland	2mm Walnut	2
260	Ensign staff support	2mm Walnut	1
261	Mizzen topsail sheet bitt	2mm Walnut	1

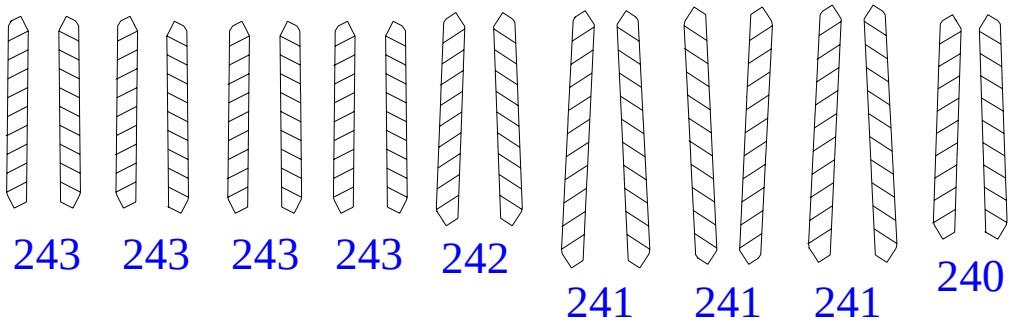
2mm Walnut Sheet 1



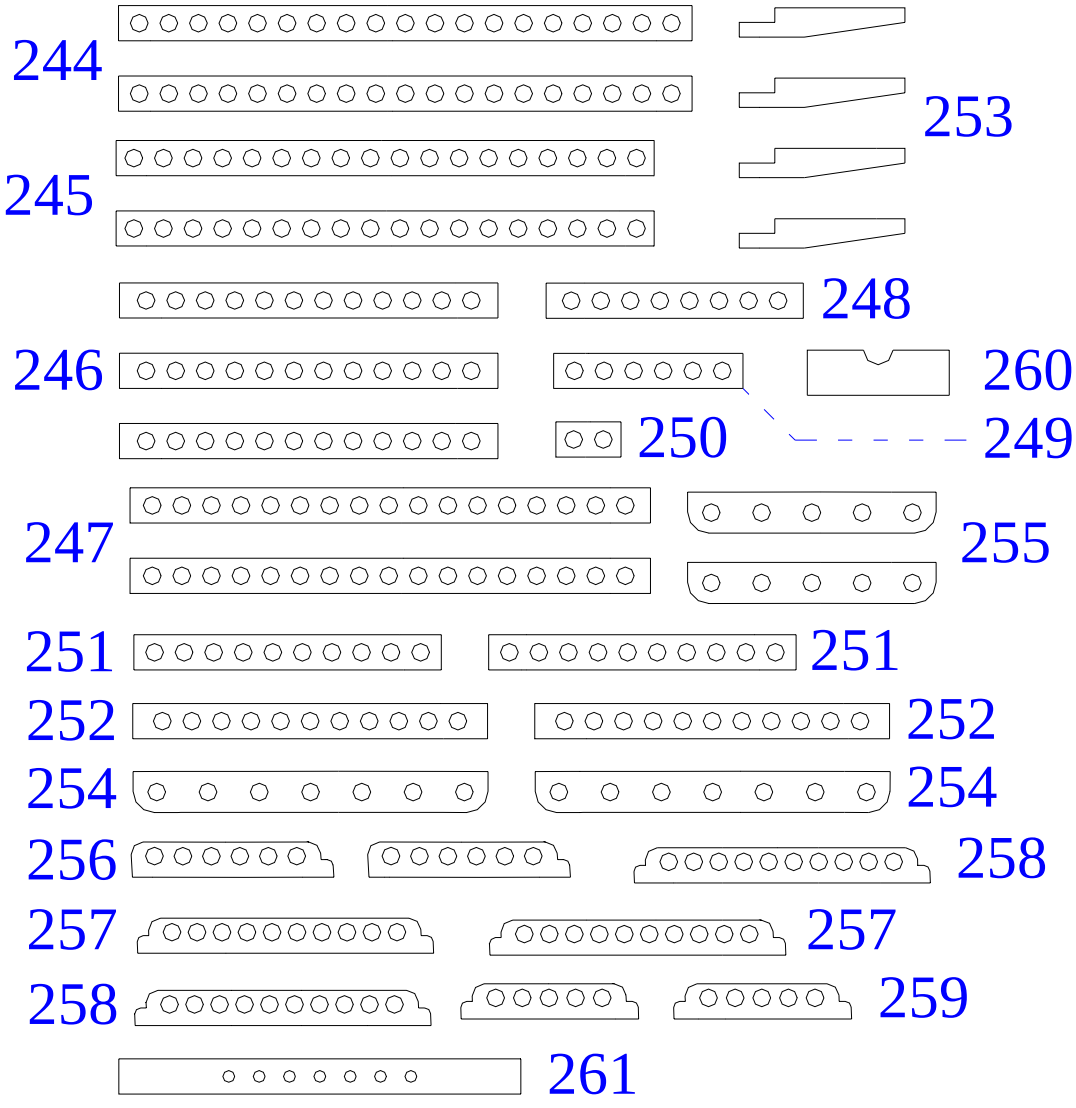
2mm Walnut Sheet 2



2mm Walnut Sheet 3



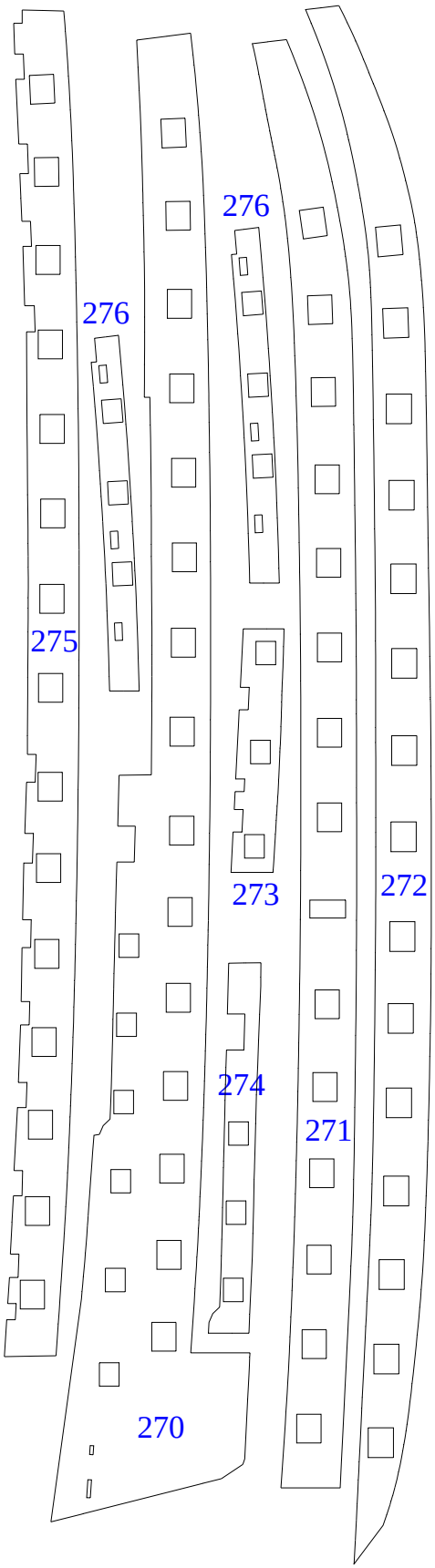
2mm Walnut Sheet 4



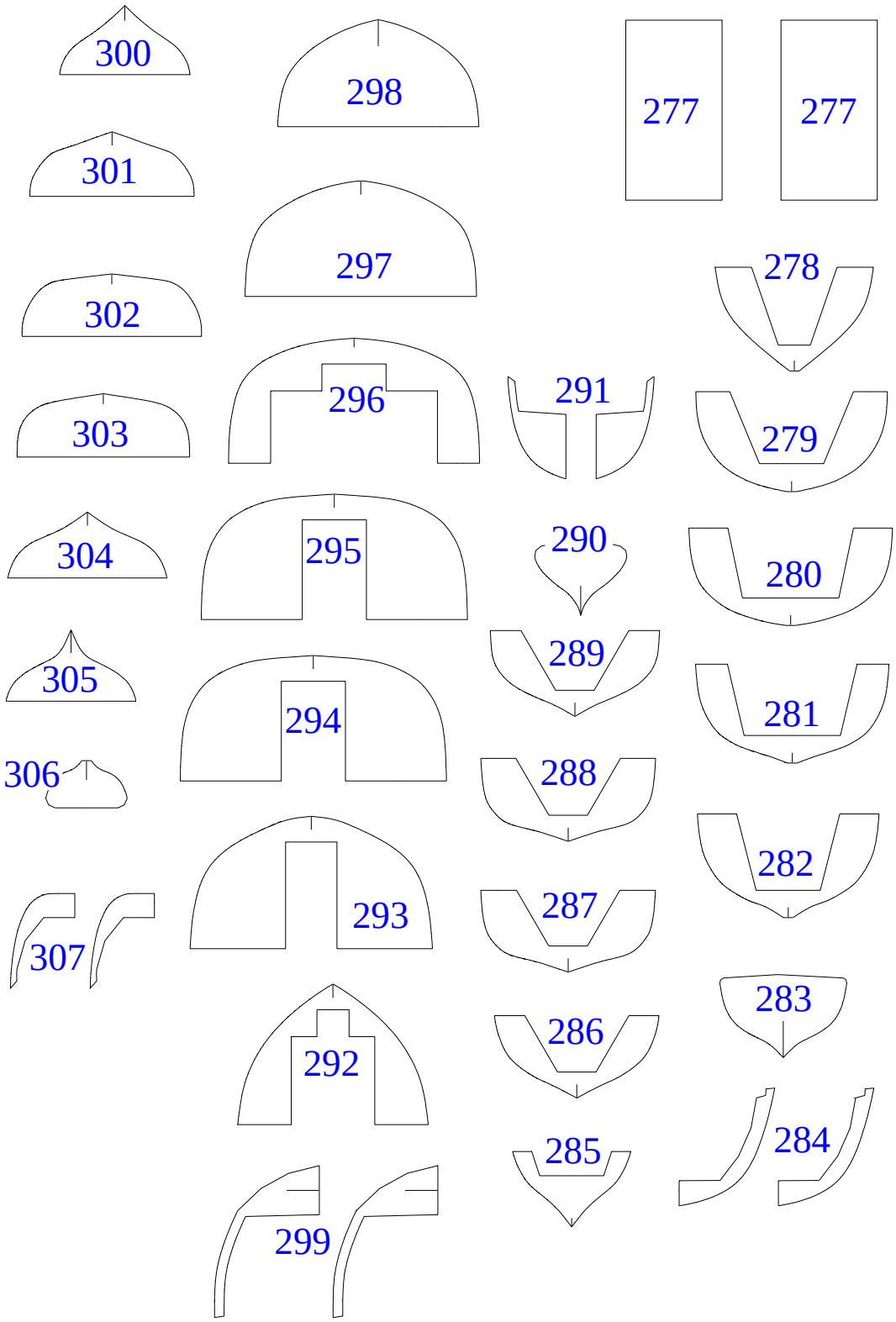
1.5mm Ply

Part No.	Part Description	Material	Qty
270	Top gunport pattern	1.5mm Ply	2
271	Middle gunport pattern	1.5mm Ply	2
272	Lower gunport pattern	1.5mm Ply	2
273	Quarterdeck inner bulwark gunport pattern (Behind cabin)	1.5mm Ply	2
274	Quarterdeck inner bulwark gunport pattern (In front of cabin)	1.5mm Ply	2
275	Upper gun deck inner bulwark gunport pattern	1.5mm Ply	2
276	Raised forecastle gunport (& inner bulwark) pattern	1.5mm Ply	4
277	Poop deck to quarterdeck ladder extension	1.5mm Ply	2
278	Barge bulkhead 1	1.5mm Ply	1
279	Barge bulkhead 2	1.5mm Ply	1
280	Barge bulkhead 3	1.5mm Ply	1
281	Barge bulkhead 4	1.5mm Ply	1
282	Barge bulkhead 5	1.5mm Ply	1
283	Barge bulkhead 7	1.5mm Ply	1
284	Barge forward plank termination	1.5mm Ply	2
285	Pinnace bulkhead 1	1.5mm Ply	1
286	Pinnace bulkhead 2	1.5mm Ply	1
287	Pinnace bulkhead 3	1.5mm Ply	1
288	Pinnace bulkhead 4	1.5mm Ply	1
289	Pinnace bulkhead 5	1.5mm Ply	1
290	Pinnace bulkhead 7	1.5mm Ply	1
291	Pinnace forward plank termination	1.5mm Ply	2
292	Launch bulkhead 1	1.5mm Ply	1
293	Launch bulkhead 2	1.5mm Ply	1
294	Launch bulkhead 3	1.5mm Ply	1
295	Launch bulkhead 4	1.5mm Ply	1
296	Launch bulkhead 5	1.5mm Ply	1
297	Launch bulkhead 6	1.5mm Ply	1
298	Launch bulkhead 7	1.5mm Ply	1
299	Launch forward plank termination	1.5mm Ply	2
300	Cutter bulkhead 1	1.5mm Ply	1
301	Cutter bulkhead 2	1.5mm Ply	1
302	Cutter bulkhead 3	1.5mm Ply	1
303	Cutter bulkhead 4	1.5mm Ply	1
304	Cutter bulkhead 5	1.5mm Ply	1
305	Cutter bulkhead 6	1.5mm Ply	1
306	Cutter bulkhead 7	1.5mm Ply	1
307	Cutter forward plank termination	1.5mm Ply	1

1.5mm Ply Sheet 1



1.5mm Ply Sheet 2



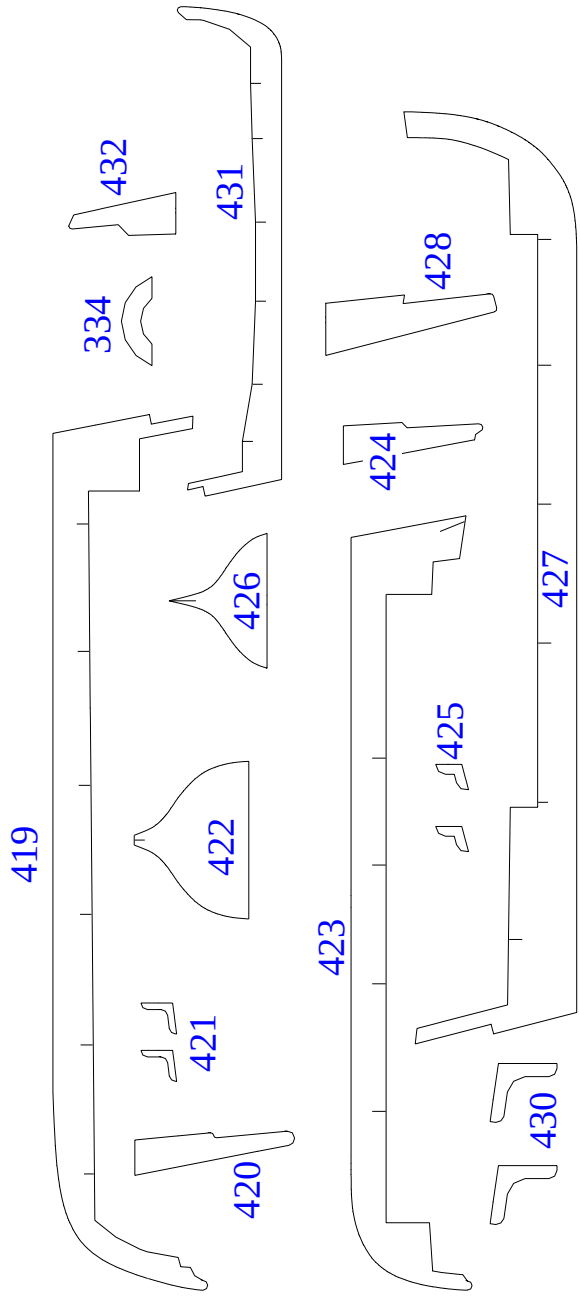
1.5mm Walnut

Part No.	Part Description	Material	Qty
321	Beakhead platform	1.5mm Walnut	1
322	Beakhead platform	1.5mm Walnut	1
323	Lower gunport lids	1.5mm Walnut	32
324	Middle and upper gun deck gunport lids	1.5mm Walnut	42
325	Quarterdeck gunport lids	1.5mm Walnut	4
326	Quarterdeck gunport half lids	1.5mm Walnut	4
327	Gunport lid for beakhead bulkhead	1.5mm Walnut	2
328	Roundhouse pattern for beakhead bulkhead	1.5mm Walnut	6
329	Quarterdeck screen bulkhead (Starboard)	1.5mm Walnut	1
330	Quarterdeck screen bulkhead (Starboard)	1.5mm Walnut	1
331	Quarterdeck screen bulkhead	1.5mm Walnut	1
332	Quarterdeck screen bulkhead (Port)	1.5mm Walnut	1
333	Quarterdeck screen bulkhead (Port)	1.5mm Walnut	1
334	Spritsail yard saddle	1.5mm Walnut	1
335	Skylight end piece	1.5mm Walnut	2
336	Skylight side piece	1.5mm Walnut	2
337	Skylight top	1.5mm Walnut	1
338	Forecastle breast beam	1.5mm Walnut	2
339	Carronade carriage	1.5mm Walnut	2
340	Belfry roof	1.5mm Walnut	1
341	Ships wheel standard (Aft)	1.5mm Walnut	1
342	Ships wheel standard (Fore)	1.5mm Walnut	1
343	Fore mast cheek	1.5mm Walnut	2
344	Fore mast bibb	1.5mm Walnut	2
345	Fore top platform	1.5mm Walnut	1
346	Fore top gunwale	1.5mm Walnut	1
347	Fore, main, mizzen and flagstaff finishing cap	1.5mm Walnut	4
348	Fore mast cap saddle (large)	1.5mm Walnut	4
349	Fore mast cap saddle (small)	1.5mm Walnut	3
350	Main mast cheek	1.5mm Walnut	2
351	Main mast bibb	1.5mm Walnut	2
352	Main top platform	1.5mm Walnut	1
353	Main top gunwale	1.5mm Walnut	1
354	Main mast cap saddle (large)	1.5mm Walnut	4
355	Main mast cap saddle (small)	1.5mm Walnut	3
356	Mizzen mast cheek	1.5mm Walnut	2
357	Mizzen mast bibb	1.5mm Walnut	2
358	Mizzen top platform	1.5mm Walnut	1
359	Mizzen top gunwale	1.5mm Walnut	1
360	Mizzen mast cap saddle (large)	1.5mm Walnut	3
361	Mizzen mast cap saddle (small)	1.5mm Walnut	2
362	Quarterdeck barricade centre, middle rail	1.5mm Walnut	1
363	Quarterdeck barricade outer, middle rail	1.5mm Walnut	2
364	Quarterdeck barricade upper rail	1.5mm Walnut	1
365	Quarter gallery 1st (Top) skin	1.5mm Walnut	2
366	Quarter gallery 2nd skin	1.5mm Walnut	2
367	Quarter gallery 3rd skin	1.5mm Walnut	2
368	Quarter gallery 4th skin	1.5mm Walnut	2
369	Quarter gallery 5th skin	1.5mm Walnut	2

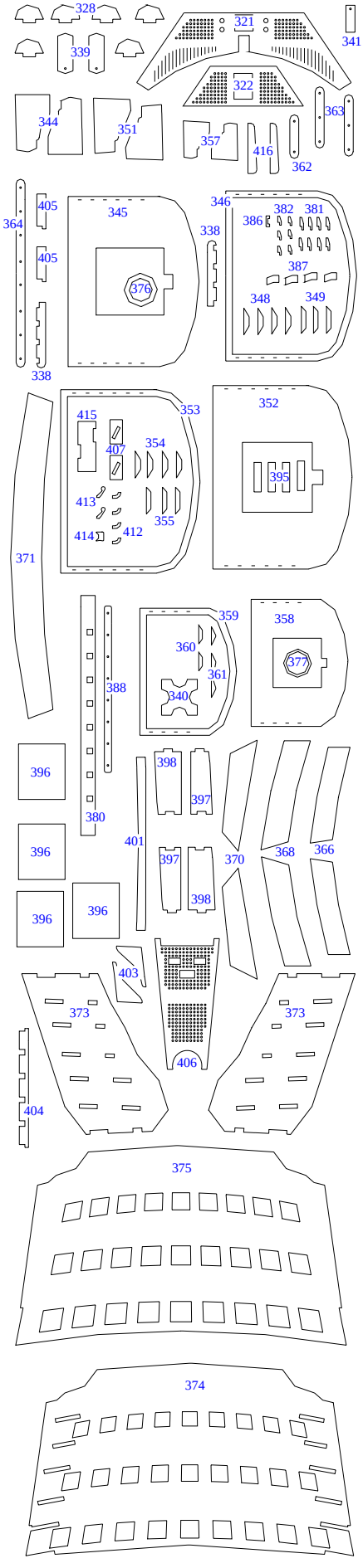
370	Quarter gallery 6th skin	1.5mm Walnut	2
371	Stern counter pattern (Upper)	1.5mm Walnut	1
372	Stern counter pattern (Lower)	1.5mm Walnut	1
373	Main quarter gallery inside pattern	1.5mm Walnut	2
374	Stern fascia (Inner skin)	1.5mm Walnut	1
375	Stern fascia (Outer skin)	1.5mm Walnut	1
376	Fore mast sleeve lower (Quarterdeck)	1.5mm Walnut	1
377	Fore mast sleeve upper (Quarterdeck)	1.5mm Walnut	1
378	Skid beam assembly, side lining	1.5mm Walnut	2
379	Skid beam assembly, fore & aft lining	1.5mm Walnut	2
380	Beakhead bulkhead plank sheer	1.5mm Walnut	1
381	Crossjack yard, fore and main topmast yard, spritsail yard sling cleats	1.5mm Walnut	8
382	Mizzen topmast yard, fore and main topgallant yard sling cleats	1.5mm Walnut	6
383			
384			
385			
386	Driver boom comb cleat	1.5mm Walnut	1
387	Quarterdeck staghorn horns	1.5mm Walnut	4
388	Poop deck barricade rail	1.5mm Walnut	1
389	Upper gun deck screen bulkhead	1.5mm Walnut	1
390	Poop deck capping	1.5mm Walnut	2
391	Quarterdeck capping	1.5mm Walnut	2
392	Ships waist capping	1.5mm Walnut	2
393	Forecastle (Raised) capping	1.5mm Walnut	2
394	Bow main rail	1.5mm Walnut	2
395	Bow main rail outer timberhead	1.5mm Walnut	2
396	Steam trunk sides	1.5mm Walnut	4
397	Flag locker base	1.5mm Walnut	2
398	Flag locker top	1.5mm Walnut	2
399	Flag locker inner side	1.5mm Walnut	2
400	Flag locker outer side	1.5mm Walnut	2
401	Poop deck termination rail	1.5mm Walnut	1
402	Poop deck to quarterdeck ladder sides (Pair)	1.5mm Walnut	2
403	Poop deck support knees	1.5mm Walnut	2
404	Beakhead bulkhead fiferail (Centre)	1.5mm Walnut	1
405	Beakhead bulkhead fiferail (Ends)	1.5mm Walnut	2
406	Gangboards (Marines' walk)	1.5mm Walnut	1
407	Sheet anchor palm block top	1.5mm Walnut	2
408	Moulding swirl left (Small)	1.5mm Walnut	3
409	Moulding swirl right (Small)	1.5mm Walnut	3
410	Moulding swirl left (Large)	1.5mm Walnut	1
411	Moulding swirl right (Large)	1.5mm Walnut	1
412	Moulding 90 degree	1.5mm Walnut	4
413	Moulding termination foot	1.5mm Walnut	2
414	Jibboom support	1.5mm Walnut	1
415	Bowsprit bee flat	1.5mm Walnut	1
416	Bowsprit bee	1.5mm Walnut	2
417	Starboard bee sheave	1.5mm Walnut	1
418	Port bee sheave	1.5mm Walnut	1
419	Barge keel	1.5mm Walnut	1
420	Barge rudder	1.5mm Walnut	1
421	Barge stern knee	1.5mm Walnut	2

422	Barge bulkhead 6	1.5mm Walnut	1
423	Pinnace keel	1.5mm Walnut	1
424	Pinnace rudder	1.5mm Walnut	1
425	Pinnace stern knee	1.5mm Walnut	2
426	Pinnace bulkhead 6	1.5mm Walnut	1
427	Launch keel	1.5mm Walnut	1
428	Launch rudder	1.5mm Walnut	1
429	Launch davit side (Pair)	1.5mm Walnut	1
430	Launch stern knee	1.5mm Walnut	2
431	Cutter keel	1.5mm Walnut	1
432	Cutter rudder	1.5mm Walnut	1

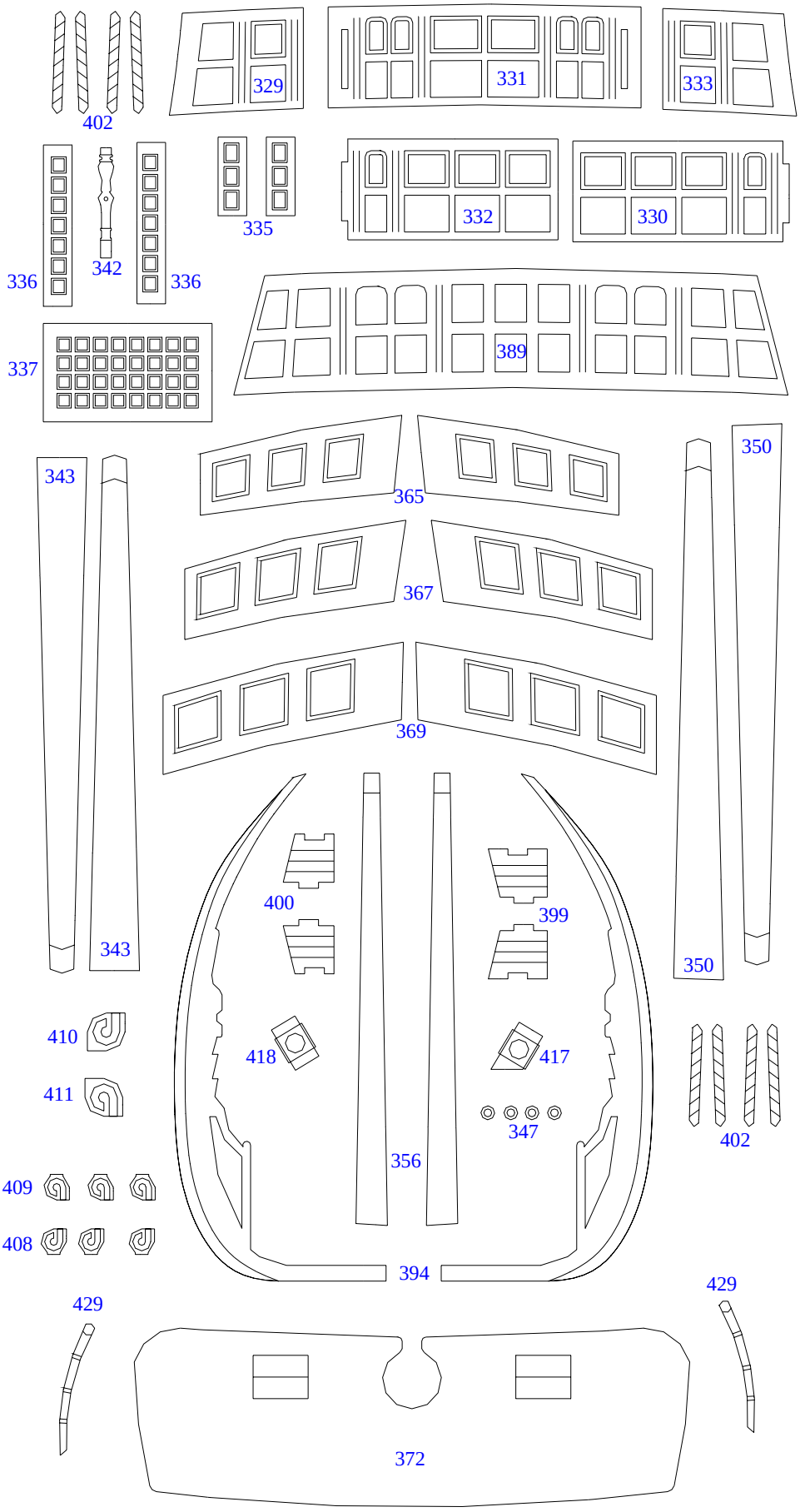
1.5mm Walnut Sheet 1



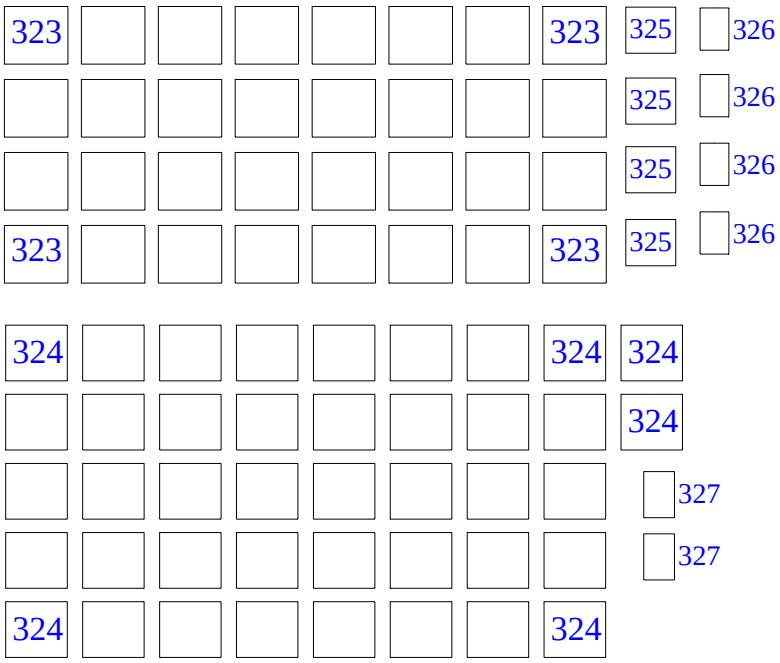
1.5mm Walnut Sheet 2

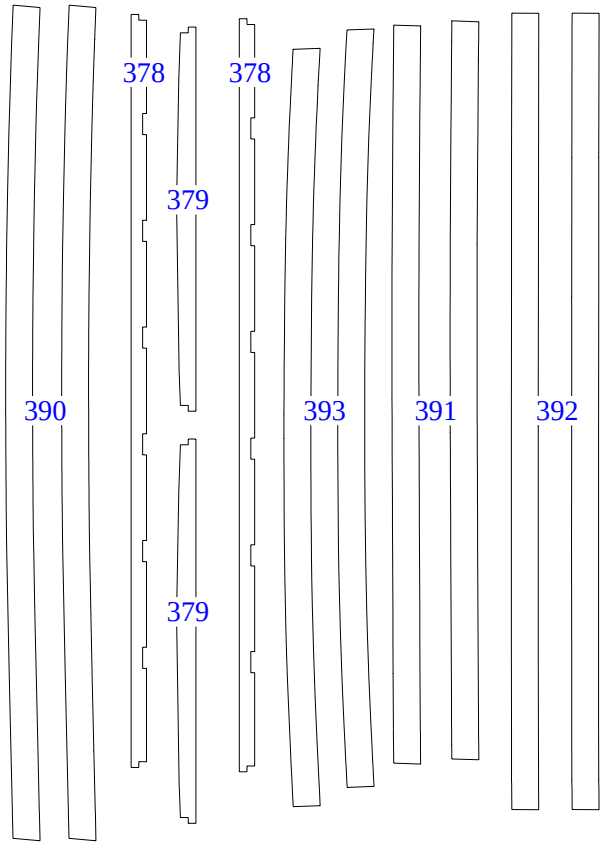


1.5mm Walnut Sheet 3



1.5mm Walnut Sheet 4

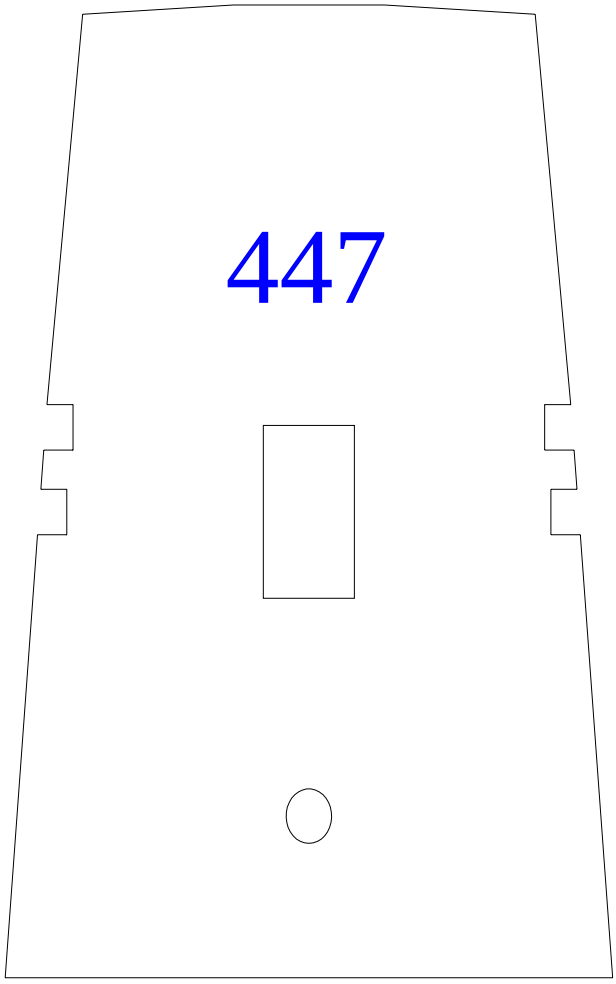




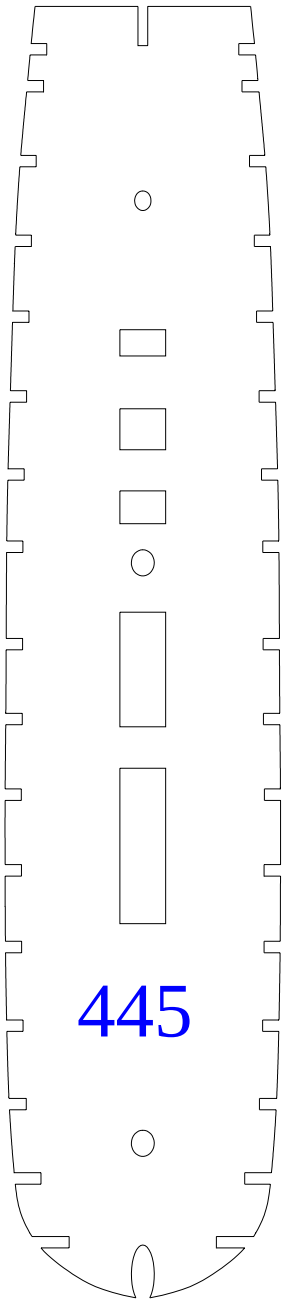
0.8mm Ply

Part No.	Part Description	Material	Qty
445	Upper gun deck	0.8mm Ply	1
446	Quarterdeck	0.8mm Ply	1
447	Poop deck	0.8mm Ply	1
448	1st vertical flag locker template	0.8mm Ply	2
449	2nd vertical flag locker template	0.8mm Ply	2
450	3rd vertical flag locker template	0.8mm Ply	2
451	4th vertical flag locker template	0.8mm Ply	2
452	5th vertical flag locker template	0.8mm Ply	2
453	6th vertical flag locker template	0.8mm Ply	2
454	7th vertical flag locker template	0.8mm Ply	2
455	8th vertical flag locker template	0.8mm Ply	2
456	9th vertical flag locker template	0.8mm Ply	2
457	1st horizontal flag locker template	0.8mm Ply	2
458	2nd horizontal flag locker template	0.8mm Ply	2
459	3rd horizontal flag locker template	0.8mm Ply	2
460	Barge floor	0.8mm Ply	1
461	Pinnace floor	0.8mm Ply	1
462	Launch floor	0.8mm Ply	1

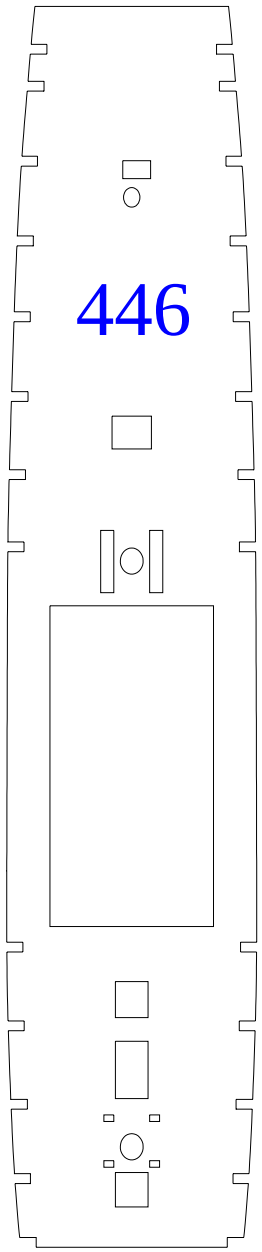
0.8mm Ply Sheet 1



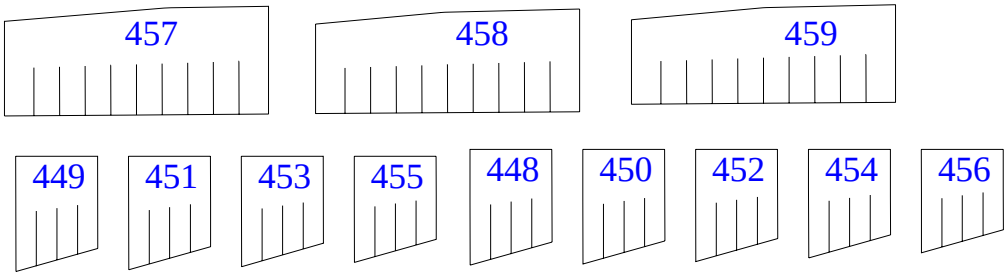
0.8mm Ply Sheet 2



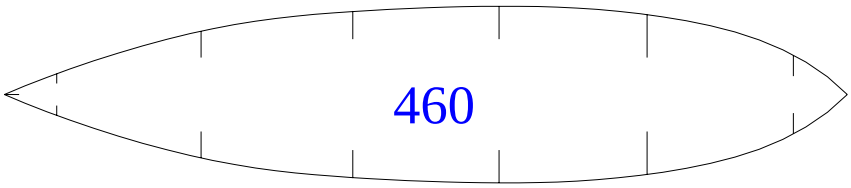
0.8mm Ply Sheet 3

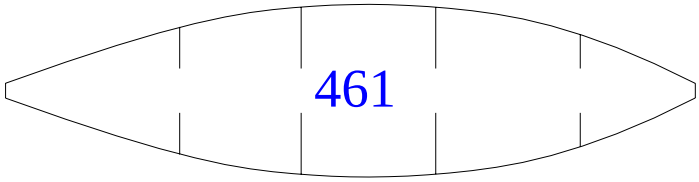


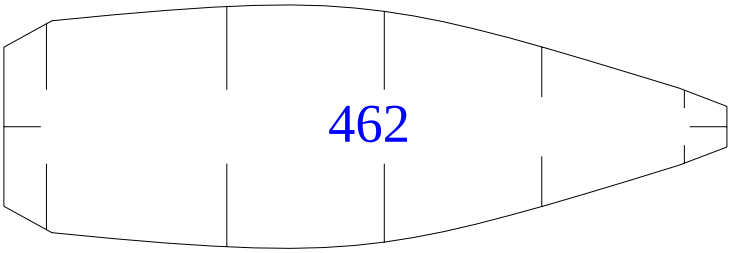
0.8mm Ply Sheet 4



0.8mm Ply Sheet 5







Brass Etched Components

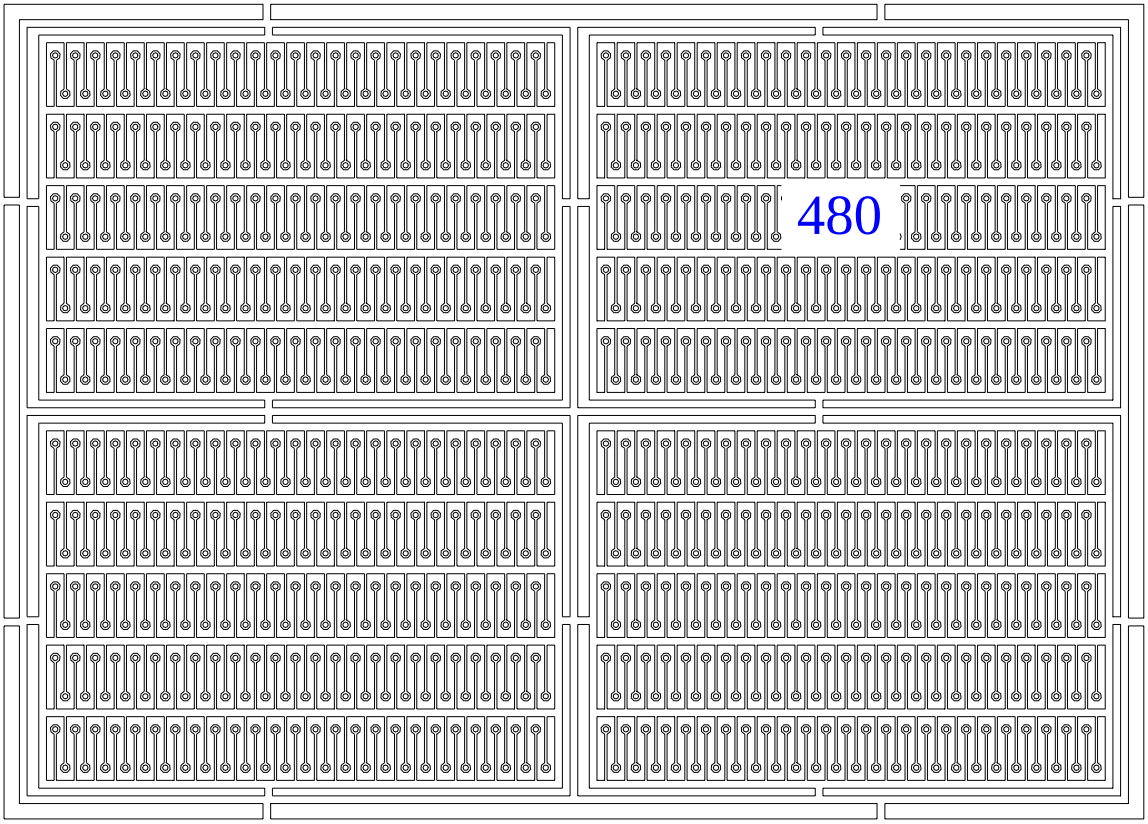
Part No.	Part Description	Material	Qty
480	Brass eyelets	0.3mm Brass	850
481	Lower gun deck gunport rigols	0.5mm Brass	32
482	Middle gun deck and upper gun deck gunport rigols	0.5mm Brass	24
483	Quarterdeck gunport rigols	0.5mm Brass	4
484	Lower gun deck gunport hinges (Right & left hand)	0.5mm Brass	64
485	Middle gun deck and upper gun deck gunport hinges (Right & left hand)	0.5mm Brass	84
486	Middle gun deck double door gunport hinges (Right & left hand)	0.5mm Brass	8
487	Quarterdeck gunport hinges (Right & left hand)	0.5mm Brass	8
488	Quarterdeck double door gunport hinges (Right & left hand)	0.5mm Brass	8
489	Lower stern counter double door vent hinges (Right & left hand)	0.5mm Brass	8
490	Beakhead bulkhead gunport hinges	0.5mm Brass	4
491	Lower gun deck gunport scuttle hinges	0.5mm Brass	32
492	Beakhead bulkhead door hinges	0.5mm Brass	4
493	Main yard stunsail boom iron strap	0.5mm Brass	2
494	Main topmast yard stunsail boom iron strap	0.5mm Brass	2
495	Fore yard stunsail boom iron strap	0.5mm Brass	2
496	Fore topmast yard stunsail boom iron strap	0.5mm Brass	2
497	Elm tree pump iron top plate	0.5mm Brass	1
498	Elm tree pump handle	0.5mm Brass	1
499	Binnacle top	0.5mm Brass	1
500	Binnacle front / back	0.5mm Brass	2
501	Cannon trunnion bracket	0.5mm Brass	88
502	Upper gun deck stanchions	0.5mm Brass	12
503	Window frames for quarterdeck screen bulkheads (Left and right)	0.5mm Brass	8
504	Window frames for quarterdeck screen bulkhead	0.5mm Brass	6
505	Window frames for quarterdeck screen bulkheads (Left and right)	0.5mm Brass	2
506	Carronade trucks	0.5mm Brass	2
507	Window frames for skylight sides	0.5mm Brass	14
508	Window frames for skylight ends	0.5mm Brass	6
509	Window frames for skylight top	0.5mm Brass	32
510	Window frames for quarter gallery 1st skin	0.5mm Brass	6
511	Window frames for quarter gallery 3rd skin	0.5mm Brass	6
512	Window frames for quarter gallery 5th skin	0.5mm Brass	6
513	Window frames for stern fascia	0.5mm Brass	27
514	Rail stanchions for tops	0.5mm Brass	14
515	Quarterdeck stanchions	0.5mm Brass	35
516	Forecastle hammock cranes (Trafalgar)	0.5mm Brass	12
517	Forecastle end (Closed) hammock cranes (Trafalgar)	0.5mm Brass	4
518	Waist hammock cranes	0.5mm Brass	14
519	Waist end (Closed) hammock cranes	0.5mm Brass	4
520	Waist end hammock crane rail stanchions	0.5mm Brass	2
521	Waist hammock crane rail supports	0.5mm Brass	8
522	Quarterdeck hammock cranes	0.5mm Brass	16
523	Quarterdeck end (Closed) hammock cranes	0.5mm Brass	4
524	Waist rail hammock cranes	0.5mm Brass	6
525	Waist rail end (Closed) hammock cranes	0.5mm Brass	2
526	Poop rail hammock cranes	0.5mm Brass	6
527	Poop rail end (Closed) hammock cranes	0.5mm Brass	2
528	Poop end (Closed) hammock crane	0.5mm Brass	2

529	Poop hammock crane	0.5mm Brass	2
530	Poop hammock crane	0.5mm Brass	2
531	Poop hammock crane	0.5mm Brass	2
532	Poop hammock crane	0.5mm Brass	2
533	Poop hammock crane	0.5mm Brass	2
534	Poop hammock crane	0.5mm Brass	2
535	Poop hammock crane	0.5mm Brass	2
536	Poop hammock crane	0.5mm Brass	2
537	Poop end (Closed) hammock crane	0.5mm Brass	2
538	Large lantern	0.5mm Brass	1
539	Medium lantern	0.5mm Brass	2
540	Small lantern	0.5mm Brass	1
541	Belfry handle	0.5mm Brass	1
542	Boarding pikes	0.5mm Brass	42
543	Boarding pike rack base (Without holes)	0.5mm Brass	2
544	Boarding pike rack base (With holes)	0.5mm Brass	2
545	Boarding pike rack top	0.5mm Brass	2
546	Poop bucket pegs	0.5mm Brass	21
547	Small rigging hooks	0.5mm Brass	32
548	Large rigging hooks	0.5mm Brass	30
549	7mm deadeye strops	0.5mm Brass	44
550	5mm deadeye strops	0.5mm Brass	26
551	3.5mm deadeye strops	0.5mm Brass	6
552	3.5mm deadeye futtock strops	0.5mm Brass	24
553	2.5mm deadeye futtock strops	0.5mm Brass	8
554	Fore channel 1st chainplate assemblies	0.5mm Brass	2
555	Fore channel 2nd chainplate assemblies	0.5mm Brass	2
556	Fore channel 3rd chainplate assemblies	0.5mm Brass	2
557	Fore channel 4th chainplate assemblies	0.5mm Brass	2
558	Fore channel 5th chainplate assemblies	0.5mm Brass	2
559	Fore channel 6th chainplate assemblies	0.5mm Brass	2
560	Fore channel 7th chainplate assemblies	0.5mm Brass	2
561	Fore channel 8th chainplate assemblies	0.5mm Brass	2
562	Fore channel 9th chainplate assemblies	0.5mm Brass	2
563	Fore channel 10th chainplate assemblies	0.5mm Brass	2
564	Fore channel 11th chainplate assemblies	0.5mm Brass	2
565	Fore channel 12th chainplate assemblies	0.5mm Brass	2
566	Fore channel 13th chainplate assemblies	0.5mm Brass	2
567	Fore channel 14th chainplate assemblies	0.5mm Brass	2
568	Fore channel 15th chainplate assemblies	0.5mm Brass	2
569	Main channel 1st chainplate assemblies	0.5mm Brass	2
570	Main channel 2nd chainplate assemblies	0.5mm Brass	2
571	Main channel 3rd chainplate assemblies	0.5mm Brass	2
572	Main channel 4th chainplate assemblies	0.5mm Brass	2
573	Main channel 5th chainplate assemblies	0.5mm Brass	2
574	Main channel 6th chainplate assemblies	0.5mm Brass	2
575	Main channel 7th chainplate assemblies	0.5mm Brass	2
576	Main channel 8th chainplate assemblies	0.5mm Brass	2
577	Main channel 9th chainplate assemblies	0.5mm Brass	2
578	Main channel 10th chainplate assemblies	0.5mm Brass	2
579	Main channel 11th chainplate assemblies	0.5mm Brass	2
580	Main channel 12th chainplate assemblies	0.5mm Brass	2

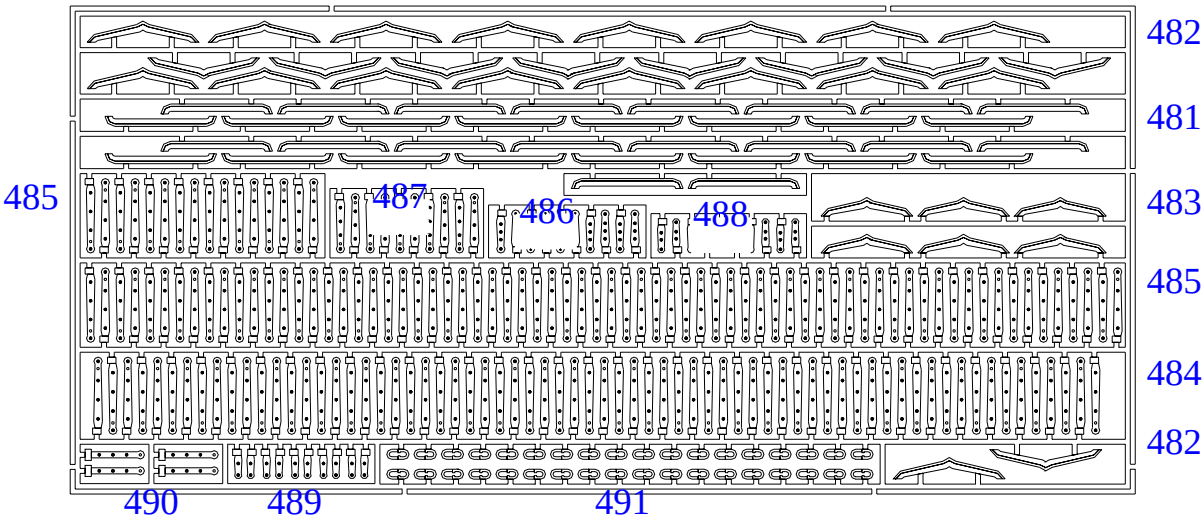
581	Main channel 13th chainplate assemblies	0.5mm Brass	2
582	Main backstay channel 1st chainplate assemblies	0.5mm Brass	2
583	Main backstay channel 2nd chainplate assemblies	0.5mm Brass	2
584	Mizzen channel 1st chainplate assemblies	0.5mm Brass	2
585	Mizzen channel 2nd chainplate assemblies	0.5mm Brass	2
586	Mizzen channel 3rd chainplate assemblies	0.5mm Brass	2
587	Mizzen channel 4th chainplate assemblies	0.5mm Brass	2
588	Mizzen channel 5th chainplate assemblies	0.5mm Brass	2
589	Mizzen channel 6th chainplate assemblies	0.5mm Brass	2
590	Mizzen backstay channel 1st chainplate assemblies	0.5mm Brass	2
591	Mizzen backstay channel 2nd chainplate assemblies	0.5mm Brass	2
592	Kedge anchor	0.5mm Brass	1
593	Kedge anchor palms	0.5mm Brass	2
594	Barge oars	0.5mm Brass	14
595	Launch oars	0.5mm Brass	16
596	Jolly boat oars	0.5mm Brass	4
597	Pinnace oars	0.5mm Brass	8
598	Pinnace crutches	0.5mm Brass	8
599	Boat hooks	0.5mm Brass	8
600	40lb grapnel for jolly boat	0.5mm Brass	1
601	56lb grapnel for pinnace and barge	0.5mm Brass	2
602	84lb grapnel for launch	0.5mm Brass	1
603	Main sheet block spider brackets	0.5mm Brass	4
604	Elm tree pump tube lining	0.5mm Brass	2
605	Ships wheel	0.5mm Brass	4
606	Ships wheel washer	0.5mm Brass	2
607	Parral ribs	0.5mm Brass	42
608	Stern fascia edge moulding	0.5mm Brass	1
609	1st Rudder strap on hull	0.5mm Brass	1
610	1st Rudder strap on rudder	0.5mm Brass	1
611	2nd Rudder strap on hull	0.5mm Brass	1
612	2nd Rudder strap on rudder	0.5mm Brass	1
613	3rd Rudder strap on hull	0.5mm Brass	1
614	3rd Rudder strap on rudder	0.5mm Brass	1
615	4th Rudder strap on hull	0.5mm Brass	1
616	4th Rudder strap on rudder	0.5mm Brass	1
617	5th Rudder strap on hull	0.5mm Brass	1
618	5th Rudder strap on rudder	0.5mm Brass	1
619	6th Rudder strap on hull	0.5mm Brass	1
620	6th Rudder strap on rudder	0.5mm Brass	1
621	Victory name plate (Solid)	0.5mm Brass	1
622			
623			
624	Rudder spectacle plate	0.9mm Brass	1
625	Quarter davit brackets	0.9mm Brass	8
626	Channel support brackets	0.9mm Brass	28
627	Quarter gallery 2nd skin false baluster pattern (Port)	0.9mm Brass	1
628	Quarter gallery 2nd skin false baluster pattern (Starboard)	0.9mm Brass	1
629	Quarter gallery 4th skin false baluster pattern (Port)	0.9mm Brass	1
630	Quarter gallery 4th skin false baluster pattern (Starboard)	0.9mm Brass	1
631	Stern fascia lower false baluster pattern	0.9mm Brass	1
632	Stern fascia upper false baluster pattern	0.9mm Brass	1

633	Stern fascia top moulding	0.9mm Brass	1
634	Beakhead bulkhead central decorative pilaster	0.9mm Brass	1
635	Beakhead bulkhead port roundhouse decorative pilaster	0.9mm Brass	1
636	Beakhead bulkhead starboard roundhouse decorative pilaster	0.9mm Brass	1
637	Roundhouse porthole frame	0.9mm Brass	2

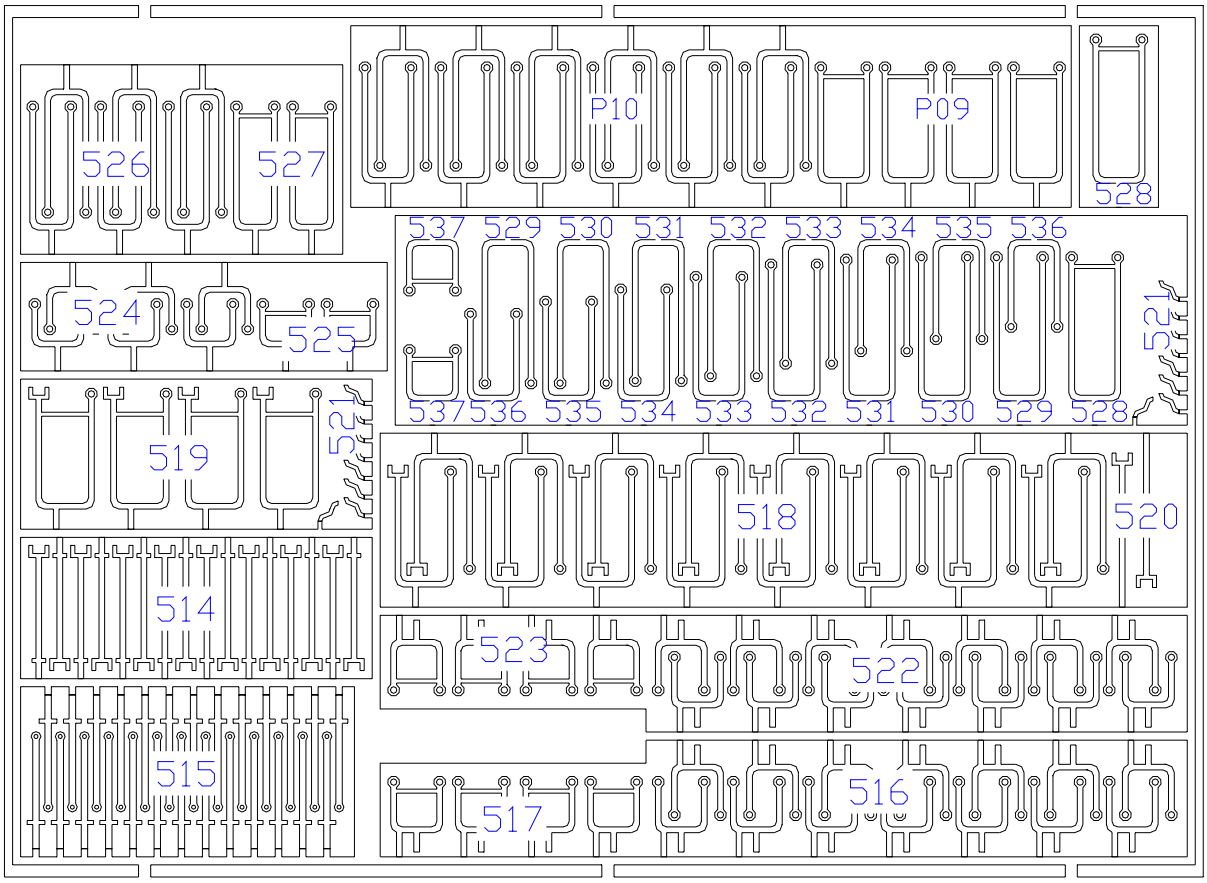
0.3mm Brass Etched Sheet



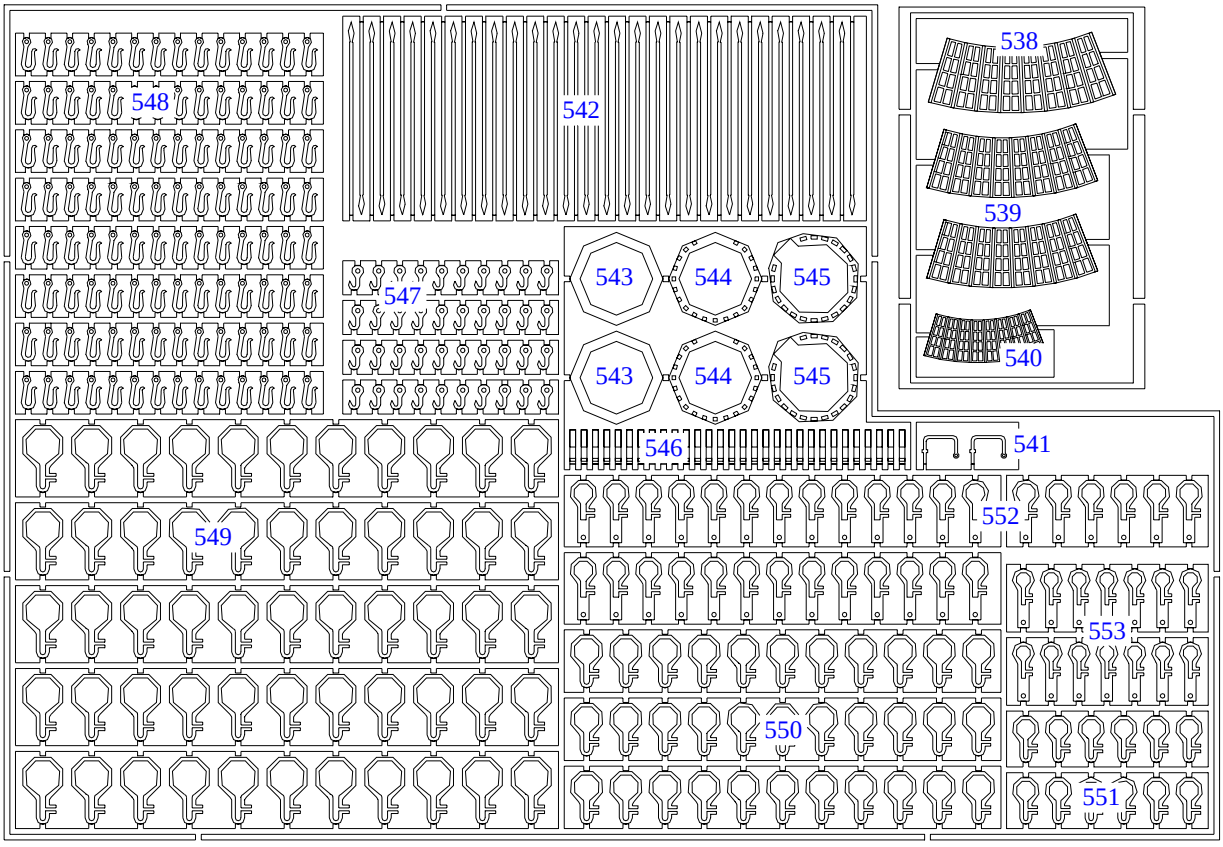
0.5mm Brass Etched Sheet 1



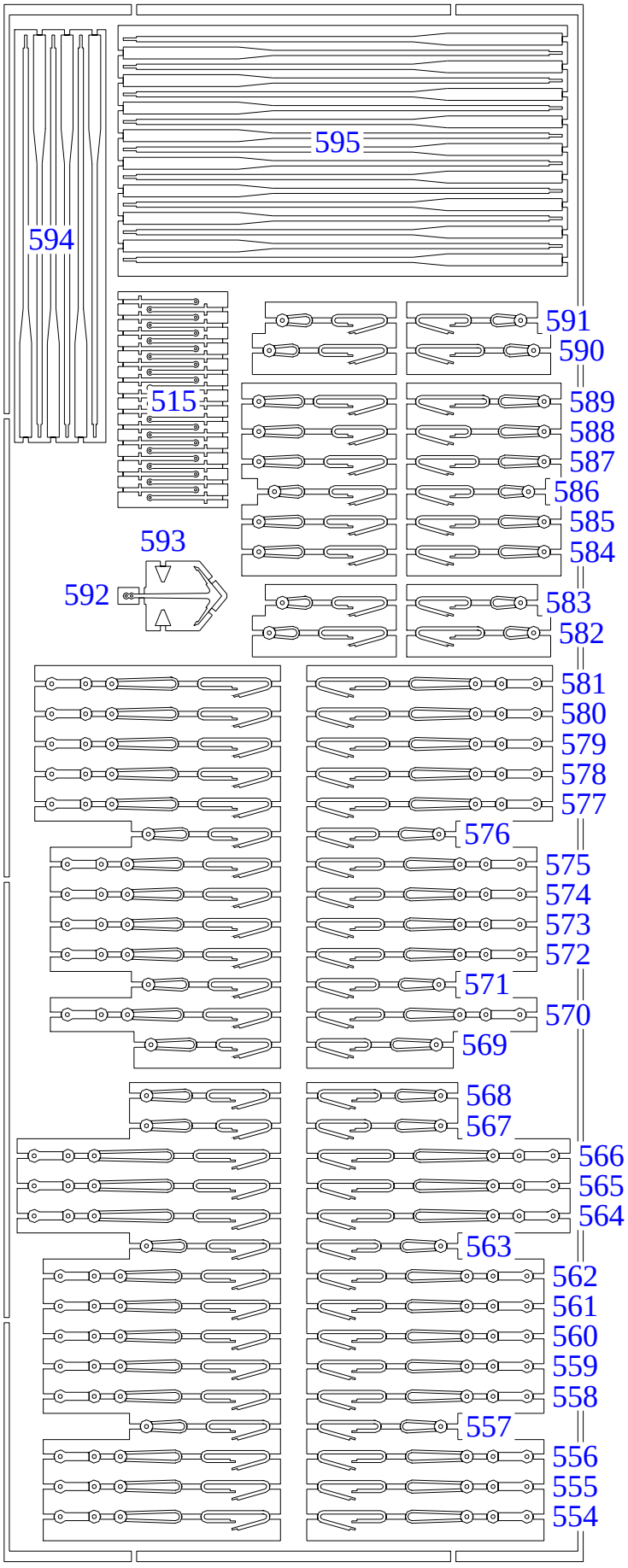
0.5mm Brass Etched Sheet 3



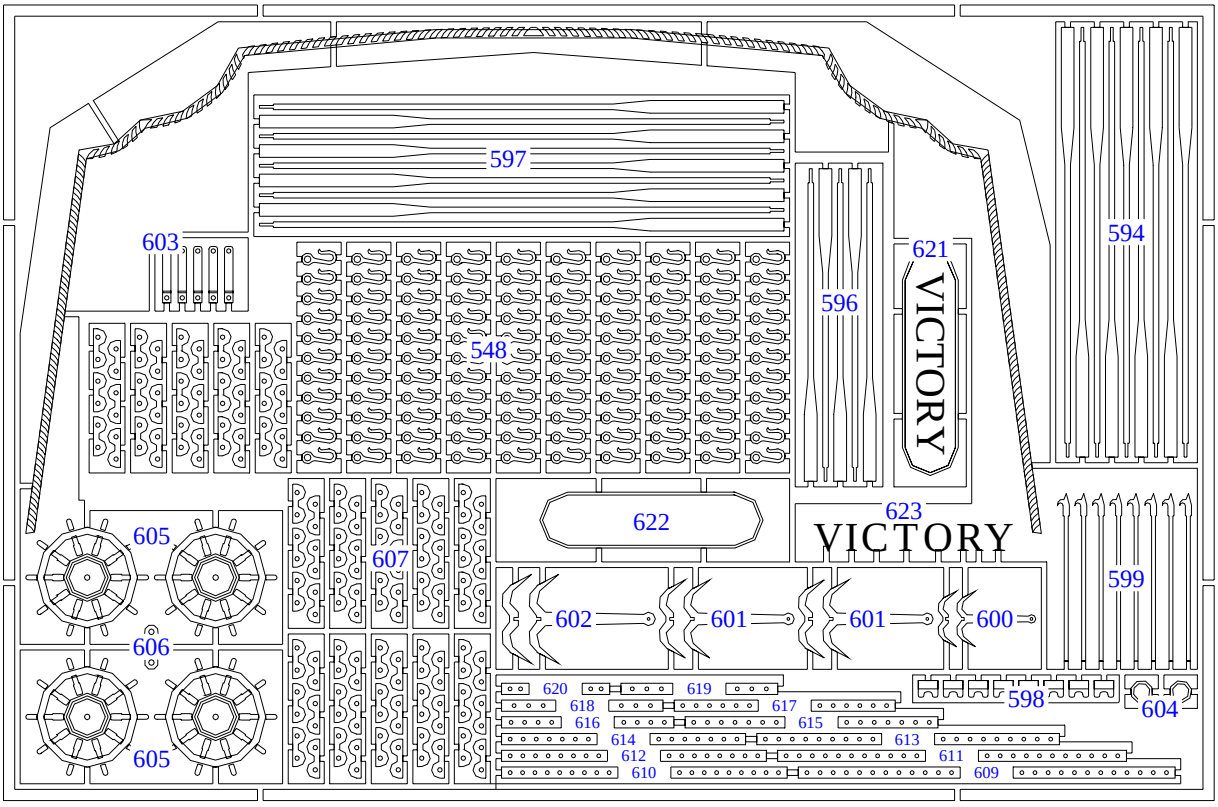
0.5mm Brass Etched Sheet 4



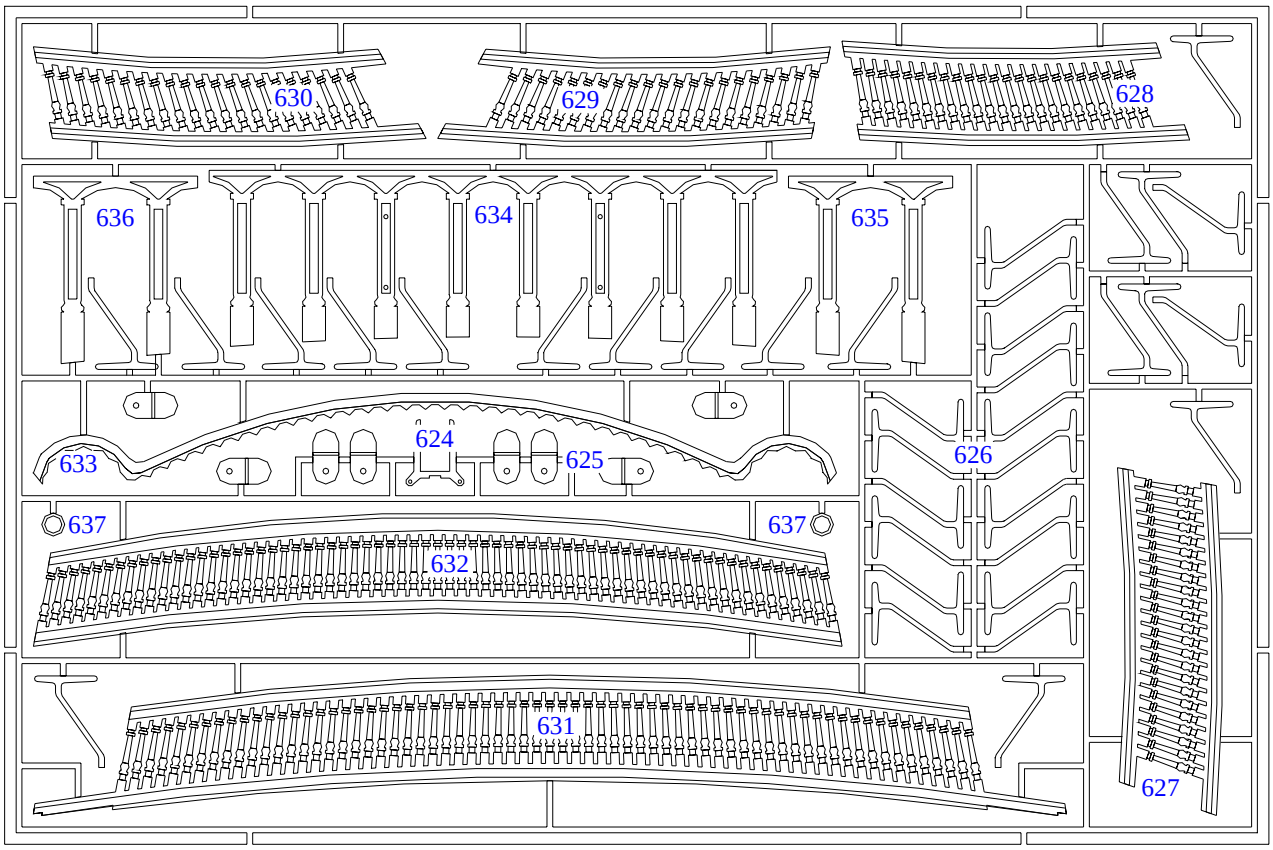
0.5mm Brass Etched Sheet 5



0.5mm Brass Etched Sheet 6



0.9mm Brass Etched Sheet



White Metal Castings

Part No.	Part Description	Material	Qty
645	Ships bell	Casting	1
646	Galley stove chimney	Casting	1
647	68pdr carronades	Casting	2
648	Carronade trunnion	Casting	4
649	Figurehead crest	Casting	1
650	Figurehead cherubim	Casting	1
651	Figurehead seraphim	Casting	1
652	Figurehead scrollwork (Port)	Casting	1
653	Figurehead scrollwork (Starboard)	Casting	1
654	Large lantern base	Casting	1
655	Large lantern top	Casting	1
656	Medium lantern base	Casting	2
657	Medium lantern top	Casting	2
658	Small lantern base	Casting	1
659	Small lantern top	Casting	1
660	Large cleat	Casting	6
661	Medium cleat	Casting	4
662	Small cleat	Casting	21
663	Ships waist baluster	Casting	2
664	Binnacle chimney	Casting	1
665	Stern decoration figure with swirl (Port)	Casting	1
666	Stern decoration figure with swirl (Starboard)	Casting	1
667	Stern decoration flower swirl (Port)	Casting	1
668	Stern decoration flower swirl (Starboard)	Casting	1
669	Stern decoration scroll (Port)	Casting	1
670	Stern decoration scroll (Starboard)	Casting	1
671	Stern decoration trophy of arms with Prince of Wales feathers	Casting	1
672	Quarter gallery lower finishing and drop decoration (Port)	Casting	1
673	Quarter gallery lower finishing and drop decoration (Starboard)	Casting	1
674	Cat-head crown decoration	Casting	2
675	Side entry arch decoration	Casting	2
676	Side entry arch support decoration	Casting	4
677	Side entry floral decoration under arch	Casting	2
678	Sheet/bower anchors	Casting	4
679	Sheet/bower anchor palms	Casting	8
680	Rudder hinge (With pins)	Casting	6
681	Rudder hinge (Without pins)	Casting	6
682	Rigging trucks	Casting	5
683	Shroud cleats	Casting	24
684	Main lower studding sail boom bracket	Casting	2
685	Main lower studding sail boom support	Casting	2
686	Yard rings	Casting	5
687	Yard rings	Casting	2
688	Yard rings	Casting	15
689	Yard rings	Casting	4

Copper, Brass & Plastic Fittings

Part No.	Part Description	Material	Qty
690	Copper plates	Copper	2600
691	Copper eyelet	Copper	150
692	Brass profile 1	Brass	2m
693	Brass profile 2	Brass	3m
694	Brass profile 3	Brass	1m
695	Buckets	Brass	21
696	Long nails (Dome head)	Brass	280
697	Short nails (Flat head)	Brass	750
698	32pdr cannon dummy barrels	Brass	30
699	24pdr cannon dummy barrels	Brass	28
700	12pdr cannon long guns	Brass	30
701	12pdr cannon medium guns	Brass	2
702	12pdr cannon short guns	Brass	12
703	Chain	Brass	0.25m
704	Cartridge paper	Paper	A4
705	Cannon balls (Small, 2.0mm)	Plastic	264
706	Cannon balls (Large, 2.5mm)	Plastic	24
707	Glazing	Plastic	A4
708	Parral beads	Plastic	100

Dowel & Wood Fittings

Part No.	Part Description	Material	Qty
710	12.7mm birch dowel	Dowel	2
711	8mm birch dowel	Dowel	3
712	6mm birch dowel	Dowel	4
713	4mm birch dowel	Dowel	3
714	3mm birch dowel	Dowel	2
715	2mm birch dowel	Dowel	1
716			
717			
718			
719			
720	Grating kits (30pcs)	Wood	10
721	Belaying pins	Wood	72
722	Skid beam support pillars	Wood	12
723	Staircase balusters	Wood	10
724	Turned columns	Wood	8

Blocks, Wire & Rigging Thread

Part No.	Part Description	Material	Qty
728	7mm deadeye	Block	88
729	5mm deadeye	Block	66
730	3.5mm deadeye	Block	60
731	2.5mm deadeye	Block	16
732	2mm single block	Block	292
733	3mm single block	Block	153
734	3mm double block	Block	41
735	5mm single block	Block	81
736	5mm double block	Block	18
737	7mm single block	Block	35
738	7mm double block	Block	11
739	7mm closed heart block	Block	2
740	10mm closed heart block	Block	2
741			
742			
743			
744			
745	0.7mm brass wire	Wire	3m
746	1.0mm brass wire	Wire	2m
747	1.5mm brass wire	Wire	2m
748			
749			
750	0.10mm natural thread	Thread	215m
751	0.25mm natural thread	Thread	225m
752	0.25mm black thread	Thread	225m
753	0.50mm natural thread	Thread	105m
754	0.50mm black thread	Thread	200m
755	0.75mm natural thread	Thread	45m
756	0.75mm black thread	Thread	35m
757	1.00mm natural thread	Thread	10m
758	1.00mm black thread	Thread	30m
759	1.30mm black thread	Thread	20m
760	1.80mm black thread	Thread	4m
761	2.50mm natural thread	Thread	0.50m

Strip Wood

Part No.	Part Description	Material	Qty
765	1x4mm Tanganyika	Strip wood	100
766	1.5x6mm Lime	Strip wood	70
767	2x2mm Beech	Strip wood	1
768	1x5mm Walnut	Strip wood	130
769	0.5x3mm Walnut	Strip wood	30
770	1.5x1.5mm Walnut	Strip wood	25
771	1x4mm Walnut	Strip wood	18
772	1x3.5mm Walnut	Strip wood	12
773	1x6mm Walnut	Strip wood	6
774	0.5x4mm Walnut	Strip wood	4
775	1x3mm Walnut	Strip wood	3
776	1x16mm Walnut	Strip wood	3
777	3x4mm Walnut	Strip wood	2
778	2x3mm Walnut	Strip wood	2
779	4x4mm Walnut	Strip wood	1
780	3x3mm Walnut	Strip wood	1
781	2x4mm Walnut	Strip wood	1
782	1x10mm Walnut	Strip wood	1
783	0.5x5mm Walnut	Strip wood	1

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