INSTRUCTION MANUAL

Modeling The *Kate Cory*

✦ Whaling Brig, 1856 ✦

Technical Characteristics

Scale: 3/16" = 1 ft.

Overall Length: 23-5/8"; Hull Length: 15-1/4"

Width: 9-1/4" (width of fore lower yard, 13" with studding sails); Hull Beam: 4"

Height: 19" (top of main mast to bottom of keel)

MODEL SHIPWAYS
• QUALITY KITS SINCE 1946 •

Instructions prepared by Ben Lankford

Manufactured by Model Shipways, Inc. • Hollywood, Florida
Sold by Model Expo, a division of Model Shipways, Inc. • www.modelexpo-online.com

Model Shipways Kit No. MS2031

HISTORY

Throughout the middle of the 19th century, activities in the Atlantic whale fishery were carried out in small fore-and-aft schooners and brigs. The latter are hermaphrodite brigs, or "half-brigs", or simply "brigs" to use the jargon of laconic whalemen.

Kate Cory was built in 1856 by Frank Sisson and Eli Allen in Westport Point, Massachusetts for Alexander H. Cory, one of the leading merchants of that community. The ship was named after Alexander's daughter. Registered at 132 tons net, *Kate Cory* was 75' 6" in length between perpendiculars, 9' 1-1/2" depth, and had a beam of 22' 1". The last large vessel to be built within the difficult confines of that port, she was also one of the last small whalers to be built specifically for her trade; most of the later whaling brigs and schooners were converted freighters or fishermen.

While originally rigged as a schooner, *Kate Cory* was converted to a brig in 1858, this rig affording steadier motion in heavy seas or while cutting-in whales, not to mention saving much wear and costly repair to spars, sails and rigging.

Five voyages of moderate success culminated in *Kate Cory*'s destruction off the Brazilian coast in 1863, when she was captured by *C.S.S. Alabama* and burned. Subsequent suits for war losses caused her owners to assemble all business papers and receipts for the vessel as evidence for their claims. The careful storage of these documents and their subsequent recovery have afforded a nearly unique opportunity to examine a small whaler in great detail.

The first Model Shipways kit of the *Kate Cory* was developed in 1972 by the original company in Bogota, New Jersey. The plans and instructions were prepared by noted marine artist and historian Erik A.R. Ronnberg, Jr. The design is based on plans and other documentation published by the Old Dartmouth Historic Society in 1970. These particular documents were also prepared by Erik Ronnberg and developed from historical records. These excellent documents are available as a plan set and booklet from the New Bedford Whaling Museum (See Bibliography).

In 1995, Model Shipways had been sold and became a division of Model Expo, Inc. in Mt. Pocono, PA. The kit was reissued at that time with some additional parts such as laser-cut whaleboat lifts. However, the plans and instructions were the same as those used for the original kit.

Our new 2007 kit is another reissue by Model Shipways (now located in Hollywood, Florida). The original plans have been retained, but the kit has been updated with a completely new instruction manual which follows the most recent format developed for Model Shipways kits. In addition, a more complete set of supplies for building the model is provided, especially more rigging line sizes and wood strips and sheets. The fittings are cast from lead-free Britannia metal and there are more laser-cut wood parts for ease of construction. Templates are provided to aid in hull carving and unlike older Model Shipways solid hull kits which featured solid block deck structures, this kit features structures built up from stripwood and sheets. Easier to detail, more fun, and more like the real thing.

In addition to the brig rig, the plans show the early schooner rig. However, the instructions and parts provided in the kit are for the brig rig only.

Construction Stages & Table of Contents

Before You Begin

The *Kate Cory* is an interesting model for beginner and expert alike. This kit contains a solid hull which has been machine-carved from select, medium-hard, fine-grained basswood. This style hull provides a quick and easy lesson in the basic shapes and proportions of hull design and helps to develop woodworking skills. Although the exterior of the hull has been carved close to the hull lines as shown on the plans, further carving is necessary for reasons of accuracy. Carving and finishing the hull to its final shape are discussed in the instructions.

Constructing the *Kate Cory* model also will provide you with the opportunity to develop some scratch-building techniques. During construction, you may want to substitute some of the kit fittings with your own creations. By all means try them, especially if you think you can improve the model.

If you are a beginner, completing this model will prepare you for a more complicated model such as the *Pride of Baltimore II* and *Constitution*, which are outfitted with a plank-on-bulkhead hull. In the meantime, happy modeling!

Working with the Plans & Parts

Before starting model construction, examine the kit and study the plans carefully. Familiarizing yourself with the kit will serve two purposes. First, it will let you determine that all parts have been supplied as listed. And second, you'll be surprised at how quickly handling the parts allows you to better understand the kit requirements. Try to visualize how every part will look on the completed model. Also, determine ahead of time what must be done first. The instructions will help you in this regard, but a thorough knowledge of the plans at the outset is essential.

It is also suggested that all small fittings and hardware be sorted into labeled boxes or compartments to avoid loss during the building process.

Three Plan Sheets and One Template Sheet are provided:

1. Hull Plan - Sheet 1 of 3

2. Rigging Plan - Sheet 2 of 3

3. Rigging Details - Sheet 3 of 3

4. Hull Templates (heavy stock paper)

In addition, a set of sketches appears throughout the instruction manual to further illustrate the various stages of construction.

The *Kate Cory* kit is manufactured to a scale of 3/16" = 1'0" and matches the plans. Consequently, most of the dimensions can be lifted directly from the plans using a "tick strip". This is simply a piece of paper (a roll of calculator paper tape works very well). Mark a dimension from the plan onto the tick strip and transfer it to the model.

The *Kate Cory* kit is supplied with Britannia metal, brass, as well as wooden fittings to eliminate problems in making such parts from scratch. Because the Britannia metal contains no lead, there are no possible corrosion problems. Many of these fittings will require final finishing before installing on the model.

Before painting the cast-meal fittings, clean them up by removing all the mold-joint flash. To do this, use a No. 11 hobby blade to cut the flash, then sand with fine sandpaper. It is also suggested that you clean the fittings thoroughly with warm soapy water before applying primer. Make sure they are rinsed thoroughly and allowed to dry before painting.

What You'll Need To Start

The following tools and supplies are recommended for the construction process. Modelers who have built before may have their own favorites. Almost all are available at Model Shipways web site, www.modelexpo-online.com.

A. Tool Set

A small carving tool set, or individual chisels and gouges for shaping the hull and whaleboats.

B. Sharpening Stone

Necessary to keep the tools razor sharp

C. Knives and Saws

1. Hobby knife with No.11 blades
2. Razor or jeweler's saw

D. Files

Set of needle files

E. Clamps

1. A few small C-clamps
2. Several wooden clothespins
3. Rubber bands

F. Boring Tools

1. Set of miniature drills: #60 to #80
2. Larger bits for holes such as mast, hawse pipe, and mooring pipe holes
3. Pin vise

G. Miscellaneous

1. Tack hammer
2. Tweezers
3. Small fine pointed scissors
4. Miniature pliers
   a. Small round
   b. Flat nose
5. Bench vise
6. Soldering iron or torch
   a. Solder (lead-free solder recommended)
   b. Flux
7. Beeswax block (for treating rigging lines)
8. Masking tape
9. Wire cutters (for cutting fine wire & strip metal)

H. Sandpaper

Garnet or aluminum oxide sandpaper (#100 to #400 grit)

I. Finishing

1. Paint brushes
   a. Fine point for details
   b. 1/4" to 1/2" flat square for hull

J. Supplies

(will be covered in detail in the Painting & Staining section and throughout instructions)

1. Paints
2. Primer
3. Stain and Varnish
4. White or Carpenter's (yellow) Wood Glue
5. Five-minute epoxy
6. Cyanoacrylate (Super) Glue

Note about glues: White or Carpenter's yellow wood glue will suffice for most of the model. Five-minute epoxy provides extra strength for gluing fittings. Cyanoacrylate (Super) glue, called CA glue for short, such as Zap is excellent for quick adhesion and is ideal for dabbing onto a rigging seizing to hold it in place. The best CA glue for most applications is a medium viscosity gap-filling type. The watery-thin type is recommended only to fill a narrow crack by capillary action. For CA glue, you can also purchase a liquid accelerator such as Zip Kicker. A spray or drop of the accelerator will instantly cure the glue. This is handy to eliminate clamping parts for long periods of time waiting for glue to harden.

Use CA glue with caution. You can easily glue your fingers or eyelids together and the fumes can burn your eyes. It would be a good idea to have a bottle of CA Debonder on hand. This product will dissolve the glue if you do get it on your body.

Painting and Staining

It may seem strange to begin an instruction manual with direction on applying the finishes to the model. Not so! Much time and effort can be saved and a more professional result can be obtained if the finishing process is carried out during construction. Proper timing in application of finishes and the use of masking tape to define painted edges should eliminate unsightly glue marks and splotchy stained surfaces. In the end, following these general suggestions will be to your advantage.

Paint Colors:

The color scheme for *Kate Cory* is as follows:

Hull below waterline (copper line)
- Copper sheathing or copper paint

Hull planking from copper line to underside of cap rail - Black

Planksheer outboard, bulwark cap rail, buffalo rail, topgallant rail, catheads, cheek knees, whaleboat davits and cranes and tail feathers, channels, belaying pin rails, and outboard guard stanchions on both sides of gangway (cap rail to copper line) - White

Ironwork - Chain plates Red-Lead; smaller items Black. Large items such as windlass gear and anchors Black or Red-Lead.

Bulwarks Inboard (underside of cap rail to and including the planksheer inboard) - Light Green

Deck planks and deck sheathing - Natural Varnish*

Companionways, galley, binnacle chest, and skylight - Light Green sides and top.

Hatches - Light Green coamings with Gray covers.

Try Works - Black try-pots; Copper clad or Copper paint top around pots, and chimneys; Gray siding around the try works; Brick color front with Black fire doors.

Cooling tank - Copper or Copper paint box with a Natural Varnish* top cover.

Cooper's bench with chicken coop under - Light Green with weathered dark brown bench top; Black bench vise.

Tiller and steering wheel - Mahogany Brown.

Windlass barrel - Dark Brown with Black whelps and ratchets.

Riding bitts, main bitts, and samson post - Light Green

Quarterbitts , fluke and belly chain bitts, and log pump barrels - Natural Varnish*. However, since these are castings in the kit, paint to look like stained wood. In addition, the bitts have a copper sheet or copper paint cap.

Scroll work on trailboards between cheek knees, and billethead - Gold

Transom Eagle - Gold; Red eyes; Yellow beak; Green olive branch; Brown arrows.

Transom Name - White lettering and moulding strips above and below name.

Fore Masts - Light Green from deck (including mast coat) up to the belaying pin spider band, then White to the top of foremast cap including the cross trees and topmast doubling below the cap; then Natural Varnish* up to the topgallant mast futtock band; White to the topmast cap including the cross trees and topgallant doubling below the cap; Natural Varnish* to a White pole at the top. Also, the royal cross trees are White.

Main Masts - Light Green from deck (including the mast coat) up to and including the boom saddle. Above the boom saddle, Natural Varnish* up to the topmast futtock shroud band, then White from the futtock band to top of the mainmast cap including the cross trees and topmast doubling below the cap. The topmast portion above is Natural Varnish* except the cross trees for the lookout shrouds and the pole at top are White.

Yards, gaff, and boom - White

Bowsprit - Light Green inboard; Black outboard to the billethead, then White.

Martingale (Dolphin Striker) - White

Jibboom - Black out to the billethead (same line as on bowsprit), then White to the bowsprit cap; then Natural Varnish* with White pole.

Blocks - White (varnished when new but painted later)

Deadeyes and Bullseyes - Black (tarred)

Pennant - Dark Blue field with White "C" and Bright Scarlet tail.

Whaleboats - The color scheme for these boats can be quite bright and to the fancy of the model builder:

Inboard ceiling - Gray and other parts Light Green

Gunwale & gunwale (top) strake - Black

Sheer strake (second strake down) - White, Blue, or Dark Green

Bottom - White, Dark Green, Blue, or Black

Many boats also had a bright slash of color painted across the bow (as if the bow had been dipped in paint); this could be any bright color. Simple geometric designs may have been painted as well. These bright colors served as identification marks for boats belonging to specific vessels, to avoid confusion in crowded whaling grounds.

* Natural Varnish items should be a light tan stain such as pine or oak with a final coat of clear flat or satin finish (see notes on stains & finishes below).

Note - Within the boundaries of painted areas, the ironwork was usually painted the same color. This is especially true for masts and spars.

Paint:

Use a flat-finish paint. Model Shipways line of acrylic paints are available in the recommended colors. You may also purchase an already assembled *Kate Cory* paint kit from Model Shipways web site, www.modelexpo-online.com.

Primer:

Use a grey primer (one is provided with the *Kate Cory* paint kit). The grey color will highlight sanding scratches and other defects better than white primer. Prime all woodwork to be painted, and prime all metal fittings. Lightly sand the primed items. Use a spackling compound such as Pic-n-Patch brand to fill any scratches and defects, then re-prime.

Stains & Finishes:

For natural finished wood, use a protective coating after staining, such as low-sheen polyurethane varnish. You can also use an oil-resin mix like the ones sold by Model Shipways or Minwax.

For the deck and natural masts and spars, Model Shipways stain or Minwax can be used. These are a combination stain-finish that will provide a light tone to the wood. The deck plank edges can be painted prior to installation with any dark color to simulate caulking.

The staining of all wood parts should be done before gluing, especially if any CA glue is used. The stain will not penetrate dried glue and leave ugly white areas in the finish.

Brushes & Procedures:

Use good quality soft sable or synthetic hair artist's brushes. A small pointed brush is good for details. For the main hull areas, use a 1/4" to 1/2" flat brush.

Before painting, clean the model with a tack rag. Apply your paint in smooth and even strokes, overlapping them as you go. Thin the paint enough to eliminate brush strokes, but not run. You will need three or four coats of the light colors to cover the grey primer and maybe only two coats of the dark. Check your finish between coats, sand and add spackle as necessary to get rid of any blemishes.

Anywhere two colors meet, use masking tape. Electrician's black plastic tape or any of the hobby tapes made of plastic film are ideal. They leave a nice edge and are not overly sticky. Do not use drafting tape unless it is Chart-pak brand. The edges are somewhat wrinkled and paint may run under them. A good trick; seal the edge of masking tape with a clear flat finish and let dry thoroughly. This will really prevent paint from running under the tape.

STAGE A: SHAPING THE PRE-CARVED HULL

Sanding alone will not shape the hull enough to precisely match the hull lines. Some carving is required, especially at the rail, keel, bow, & stern areas.

1. Using the Templates

For exact carving to hull lines, a template is required for the hull profile and each of the stations. You will find a template set printed on heavy stock paper in the kit. Cut the templates out carefully with a No. 11 hobby knife. Do not use scissors! You will want a nice smooth edge.

2. Carving the Hull

Cut a wooden block from scrap to about 4" x 1" x 3/4" thick. Screw the block to the deck (forward of the quarter deck step) so the model can be held in a bench vise for carving. First, check the accuracy of the profile using the profile template and correct it as necessary.

Next, mark the centerline, rabbet lines (where hull meets keel) and station lines on the model (Figure A-1). Note that the width at the keel, stem, and sternpost (rabbet to rabbet) is 3/16". Keep these areas flat as the 3/16" keel, stem post, and sternpost will be glued on later. Place the station marks on the center of the hull bottom and on top of the rails so the marks won't be carved off as you work. Also, add marks for the width of the hull at each station on top of the rail. Measure the marks from the centerline of the model so the marks will be the same port and starboard.

As shown on the sketch, a good way to start is to cut a slope at the rail back to the hull width marks to establish the width of the hull at the rail for the entire hull length. You now have a line to carve to as you fit the templates. Next, start carving approximately at mid length (maximum beam) and progress forward, then aft, using chisels and gouges to cut away excess wood. Avoid carving against the grain by shifting forward or aft until you find a spot where you are going with the grain. Basswood carves easily, so you probably won't have much problem with the grain.

Carve very slowly and take off a little wood at a time. Fit the templates as you go. Carve until the template fits reasonably well, then use sandpaper to obtain the final shape. At first, the templates will not fit very well, especially at the stern where a fair amount of wood needs to be carved off. You must compare the template to the hull and visually decide where to remove wood. Cut a little off, then re-check the template.

Finally, draw a few horizontal pencil lines (like waterlines) and the vertical station lines on the hull. Use these to visually check the shape of the hull. Hold the hull at various angles, and look to see if the pencil lines are fair (even). If you have any unfairness, dips or bumps, they can usually be found with this visual check. You can also use a stiff stick of wood, about 3/32" square, and lay it on the hull at various locations. Dips and bumps in the hull will show up under the stick.

Wales - The wales of the real ship are a strake of thicker planks located along the hull sides below the outboard edge of the plankshеer. The hull templates used for shaping the hull do not include the protruding wale planks. For our solid hull model, it is much easier to shape the hull smooth according to the templates, then apply the additional thickness of the wales using basswood strips. The installation of the wales will be discussed in Stage B.

3. Carving the Bulwarks

Make yourself a temporary cradle to secure the hull while carving. This cradle also will serve to hold the model for most of the remaining work. Make the cradle so the model sits in it with its waterline parallel to the baseboard and table. The tops of the cradle should be below the waterline. Later, when you are ready to paint, attach a pencil on top of a wooden block and slide it along the table to mark the location of the waterline.

The machine-carved hull has bulwarks thicker than scale so they won't break while inside the kit box and because of carving machine limitations. The upper surface is cut to the underside of the cap rail. After finishing the outside of the hull, the bulwarks will probably still be too thick. The bulwark should be about 1/32" thick from about the forward side of the forward mooring port back to the stern. If not, you will also need to carve the inside of the bulwarks. Forward of the forward mooring port the real ship bulwarks consist of the bulwark planking, stanchions, hawse timbers, and knightheads, and covered inboard with ceiling planks. For the solid hull model the bulwarks in this area can therefore be thicker to account for the ceiling planked area.

Carving the bulwarks is the most difficult part so work slowly as you carve (Figure A-2). After carving, sand the surfaces smooth. If you happen to have or want to buy a powered rotary tool like a Dremel, there are many cutters available to quickly reduce the bulwark thickness.

Option: If you find carving the bulwarks too tedious, cut off the bulwark flush with the deck and build the bulwark with basswood sheet (not included in kit), then add the stanchions.

Gangway - The bulwark on the starboard side will need to be cut out In way of the gangway. For now, leave it as is for strength. Cutting the bulwark and framing the gangway will be discussed in Stage B.

4. Carving the Inside of the Stern

Carving the stern area is essentially the same as the side bulwarks, only you have to deal with the curve and the slope. Just be extra careful while carving. The stern is also thicker like the bow bulwarks as on the real ship it is composed of transom plank, stern frames, and covered by ceiling planks inboard.

5. Carving the Deck

The deck will be planked. All that is needed now is to clean out the corners with a chisel and smooth out the machine-carved deck with a scraper or sandpaper, making sure you have a nice smooth camber and all the intersections with the bulwarks, stern, and quarter deck step, are clean, ready for the planking.

FIG. A-2 CARVING BULWARKS

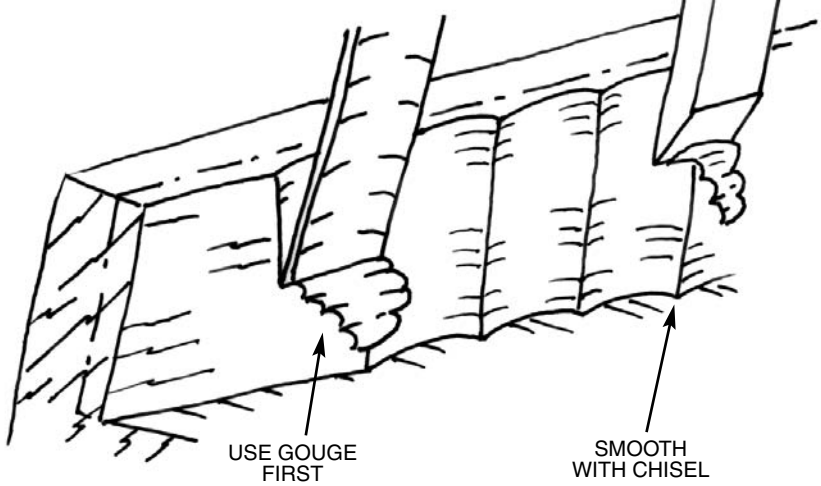
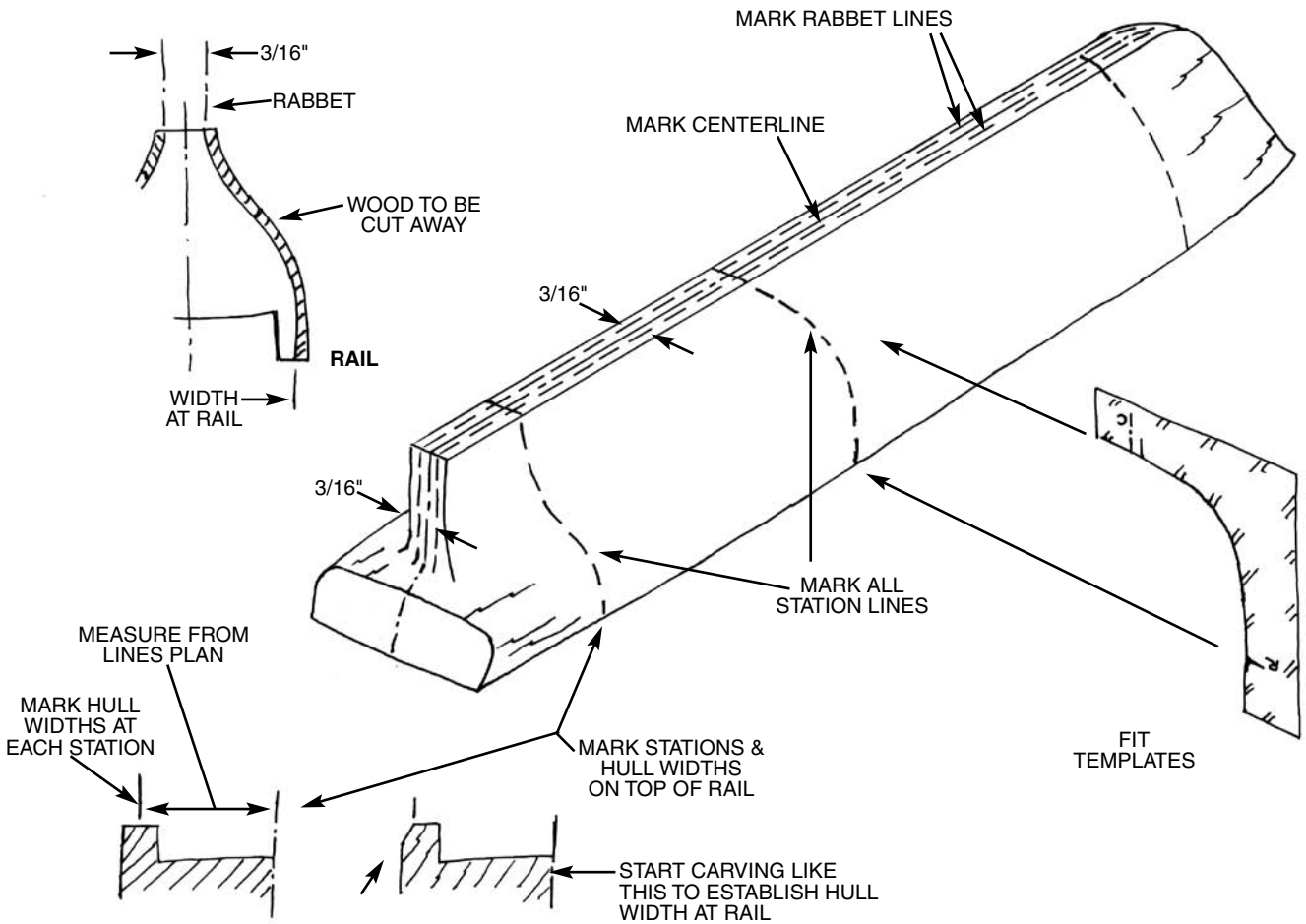


FIG. A-1 MARKING THE HULL



STAGE B: COMPLETING THE BASIC HULL STRUCTURES

The following paragraphs are numbered in order of a suggested step-by-step procedure, but you are the final judge. Proceed in a way that suits your building methods best, keeping in mind how you will hold the hull while adding the various components, avoiding interferences, and preventing any damage to already assembled units.

Note - Basswood strips are used for a number of components. Narrow strips bend edgewise fairly well. However, when you run into a situation where the strip will not bend to conform to the proper curve, you will need to either steam-bend the strip or cut the part out of wider wood sheet. Several sheets are provided in the kit for this purpose.

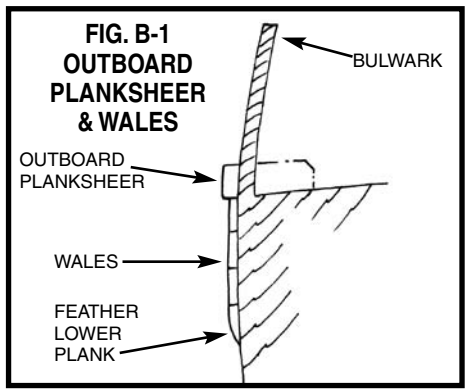
1. Outboard Planksheer Strip and Wales

Outboard Planksheer Strip - On the main deck of the real ship, the planksheer is a continuous unit at the deck edge inboard to outboard with holes where the bulwark stanchions (timberheads from frames below) penetrate. For our solid hull model with a carved bulwark, the main deck planksheer will be added in two separate strips; one inboard and one outboard. Make sure the two separate strips are in line. Aft of the quarter deck step the planksheer is only outboard on the model as well as the real ship.

Fit the outboard planksheer strips (3/32"vertical x 1/16") on both sides of the hull. On the real ship the outer edge of the planksheer has a "hawksbill" shape (large and small half-rounds) but for this small scale model just a half-round edge is sufficient.

Wales - For the model, the thicker wale planks will be indicated by adding four 1/32" x 3/32" basswood strips on the solid hull, bow to stern. The top strip butts up under the outboard planksheer strip. After applying the strips, feather the lower edge of the bottom plank into the hull.

Figure B-1 is a section thru the wales and outboard planksheer strip.



2. Transom Moulding

Above and below the stern name there are two moulding strips. Use 1/32" square basswood and round the edges after they are in place.

3. Keel, Stem Post, Stem Knee & Sternpost

The keel, stem post, stem knee, & sternpost are laser-cut parts. Taper the stem post and stem knee and install the parts. Use pins or dowels to position the parts before gluing. Scrape off any glue squeeze-out. Fill any gaps remaining at the glue joints with wood filler and then sand (Figure B-2).

Note: The plan shows a shoe on the bottom of the keel. The shoe is a replaceable keel bottom plank on a real ship as the bottom of the keel tends to deteriorate from dry dock-

ing and lack of painting. For the model, the shoe has been incorporated into the laser-cut keel, so is not a separate piece.

Billethead - The billethead is part of the laser-cut stem knee but needs to be carved. A simple design is appropriate (Figure B-3).

Cheek knees and trailboards - The cheek knees with a trailboard in between are best installed now to strengthen the stem knee. The 1/16" thick cheek knees are curved in two planes. You can cut the plan view shape from a thicker piece, then carve the curve looking from the side. Another option is to steam bend the profile, but a more positive alternative for holding the curve is to laminate two 1/32" thick pieces together. You will need a simple form to hold the shape while the glue dries. A 1/32" thick trailboard with Gold painted scroll work over black background can be fitted between the knees or just paint the scroll work on the stem knee (Figure B-4).

4. Rudder

The rudder is a laser-cut part. Drill the hole in the hull for the stock. The rudder is tapered and has a round front edge. The stock portion is round. The pintles & gudgeons can be made from brass strip, self-adhesive copper tape. See Figure B-5 for construction.

Option - The stock (also called the rudder post) need not go completely thru a hole. You could have a shallow hole on the bottom of the hull with a short stock in the hole. Up on the deck, drill another short hole and fit the upper end of the stock separately.

5. Mast Holes, & Bowsprit Hole

The mast holes should be about 1" deep. Later, cut the mast dowels to fit this depth. Make a guide jig for your drill so you get the correct rake angle aft and have the hole perpendicular to deck looking fore and aft. It would be a good idea to drill the hole a little oversize and use shims around the masts for fine tuning.

Cut the hole at the bow under the cap rail for the bowsprit (1/4" wide x 5/16" high). The top and bottom of the hole needs to follow the angle of the bowsprit. Use a scrap wood piece same dimensions as the bowsprit (assuming you have not yet made the bowsprit) as a guide to shape the hole.

6. Holes to be Drilled as Work Progresses

There will be many small holes to drill as the work progresses. For example, holes for scuppers, port lights, Britannia fittings, eyebolts, and belaying pins.

7. Coppering the Bottom

You have the option of painting the hull bottom or sheathing it with thin copper. Sheathing is not that difficult but it is tedious and time consuming. Self-adhesive copper tape is included in the kit. This is a lot easier to apply than using contact cement or some other type of glue with bare copper. Each plate should be 3/4" long. When removing the backing from the tape, be careful and not touch the adhesive side any more than you need to. Grease and dirt will reduce the adhesive power. After the coppering job is completed you can touch any loose ends with thin CA glue, and apply a flat clear coating.

Each side of the hull is coppered in two distinct "belts": upper and lower. Within each belt the plates are more or less parallel. The gore line is the intersection of the upper and lower belt.

Re-attach the temporary deck block if you have removed it, and place the model upside down in your vise. Start the coppering at the keel and at the stern. Work forward and downward (with model upside down), lapping the plates about 1/32" as you go. The lower belt is installed down to the gore line. At the gore line extend the plates just below the line. Now, start the upper belt at the gore line. The plates lap over the lower belt plates. Continue to the waterline. Figure B-6 illustrates the general layout and process. Figure B-7 is a pictorial view of how the sheathing looks at the bow, stern, and on the rudder.

Note - The bottom of the keel, stem, stern-

FIG. B-2 KEEL, STEM POST, STEM KNEE & STERN POST

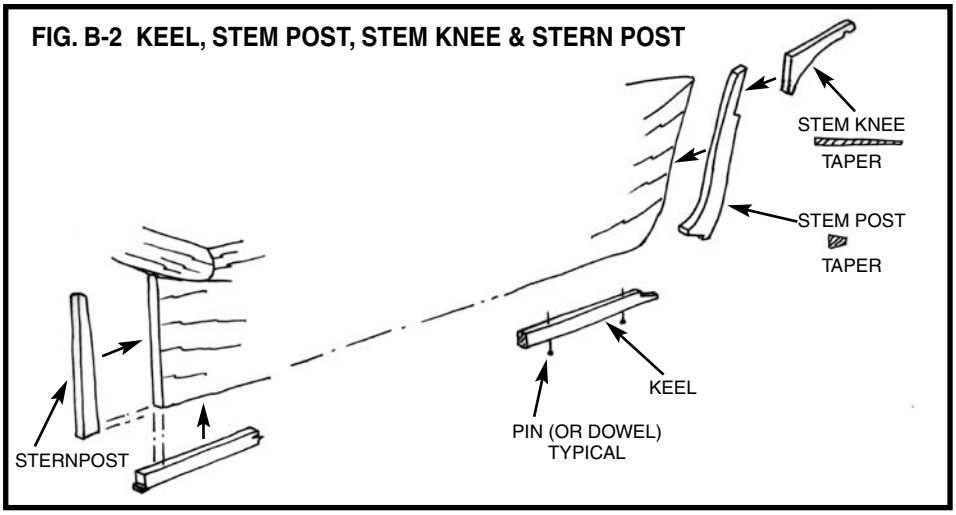


FIG. B-3 BILLETHEAD

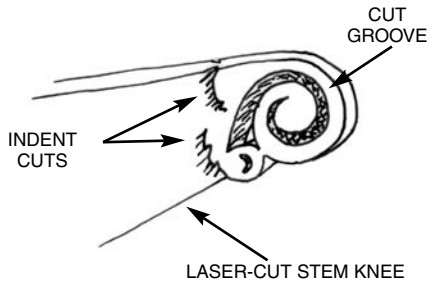


FIG. B-4 CHEEK KNEES

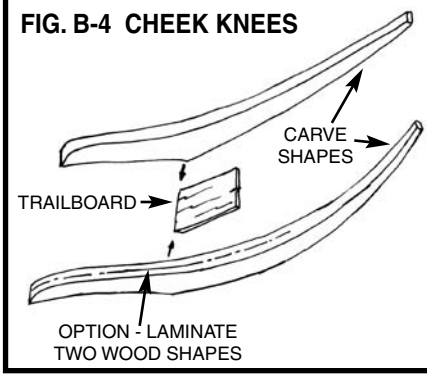
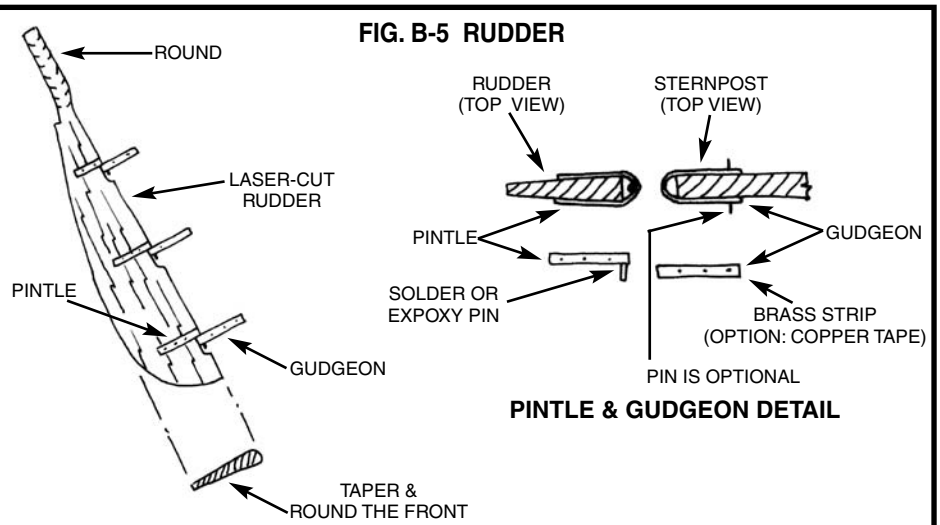


FIG. B-5 RUDDER



PINTLE & GUDGEON DETAIL

post, and rudder have a cap plate (Dressing Belt) at the edge. The cap plates will go over the other plates.

When you finish the lower belt, and before starting the upper belt, it would be a good idea to cut the plates parallel to the gore line and about 1/16" from the line under the upper belt. As you can see in the sketch this would eliminate the triangular ends which would show under the thin tape upper belt plates.

8. Main Deck Planksheer, Planking, & Sheathing

The main deck (forward of the quarter deck step) is planked but is mostly covered with pine sheathing to protect the deck from excessive wear while cutting-in whales and mincing blubber. Only a narrow strip of deck planking between the sheathing and the planksheer, and an area forward of the forward companionway is visible. The deck planking is smaller in width than the sheathing planks. For the model, there is no need to actually plank the deck under the sheathing. The visible deck planked areas will be planked with 1/32" thick basswood strips and the sheathing planked areas with 1/16" thick strips.

Inboard Planksheer - Start the decking by adding the inboard planksheer strip (3/32" thick x 3/16" wide) along the bulwarks. Up forward the planksheer strip is smaller in width as the bulwark is planked with ceiling planks. Also, the planksheer becomes a little deeper forward. You will need to taper a thicker planksheer. The inboard edge of the planksheer is chamfered. See Figure B-8.

Deck Planking - Next, add a 1/32" thick x 1/16" wide strip along the planksheer from the quarter deck step to the bow. This will be the visible portion of deck plank along the planksheer. Just forward of the forward companionway add the 1/32" thick x 3/32" wide visible deck planks (Figure B-9).

Deck Protective Sheathing - The sheathing can now be added using 1/16" thick x 1/8" wide planks. Notice there is an athwartship fairing piece at the forward end of the sheathing planks, covering the end grain. After the planks are installed, round the edge of the forward fairing piece and the side planks (Figure B-10).

Padding - Around the masts and under the riding bits there is a pad, actually just thicker planks on the real ship. To indicate the pads, add 1/32" thick planks on top of the installed planks.

Note - Notice that on the main deck both the deck planks and the sheathing planks are parallel to the centerline.

Reminder - Don't forget to darker the edge of each plank to represent the caulking between planks. Refer to the painting section.

9. Quarter Deck Planking

Instead of a planksheer there is a similar margin plank on the quarter deck inboard only. This is called a waterway or covering board (3/32" thick x 3/16" wide with a chamfered inboard edge). It runs along the bulwarks and also across the stern. Since there is no protective sheathing on the quarter deck, the deck will be planked with 1/32" thick x 3/32" wide planks. Across the step in the deck add the end plank which covers the decking end grain (Figure B-11).

Note - Unlike the main deck, the quarter deck planks are laid parallel to the waterway and not the centerline.

Reminder - Don't forget to darker the edge of each plank to represent the caulking between planks. Refer to the painting section.

10. Gangway Framing and Sheathing

On the starboard side of the hull cut out the section of the bulwark from the forward side of the forward guard stanchion back to the after side of the aft guard stanchion and down to the top of the planksheer strips. Cut cleanly and you can use the cut out portion for the false bulwark. If you mess it up it can easily be replaced by 1/32" thick basswood.

Within the same area as above cut back the outboard edge of the planksheer to be flush with the wale plank below (Figure B-12).

The next step is to shape the two end guard stanchions from 1/8" thick basswood and glue them in place. The bulwark and cap tenons will fit into the grooves cut in the guards so keep this in mind when you make the false bulwark. Figure B-13 illustrates the assembly thus far.

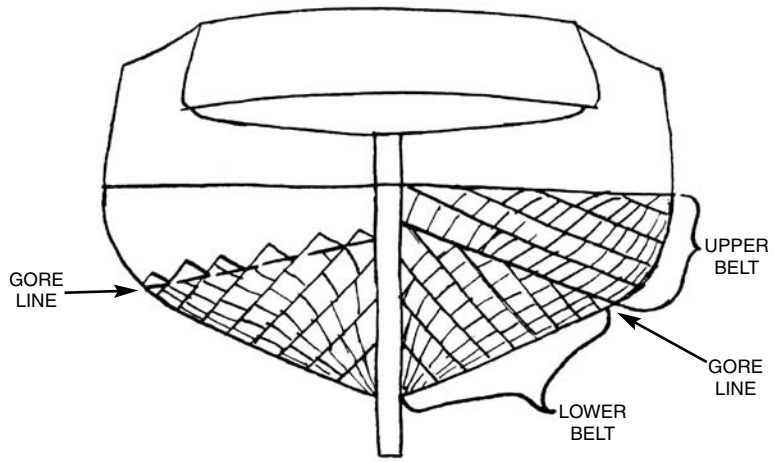
Once the guards are in place add the pad on top of the planksheer. The pad (1/16" thick) fits between the guards. The extent inboard is to the edge of the inboard planksheer chamfer. Outboard it goes to 1/32" beyond the planksheer and wales. The pad has the square holes to fit the bottom of the false bulwark stanchions. The outer edge of the pad is covered with a metal angle on the real ship but can just be painted on the model. At the forward corner of the guard stanchion and pad there is a small chock (Britannia casting). You can then add the sheathing below the pad. Use 1/32" x 3/32" vertical strips, then feather the bottom into the hull (Figure B-14).

Note - The hull padding just aft of the gangway is there to cover the lower ends of two main shroud chain plates. Hold off adding the padding until the chain plates have been installed. The padding is a little thicker than the sheathing in way of the gangway.

False bulwark - Using the section removed from bulwark or a new piece of 1/32" basswood, add the cap rail with tenons on each end, and the stanchions (Figure B-15).

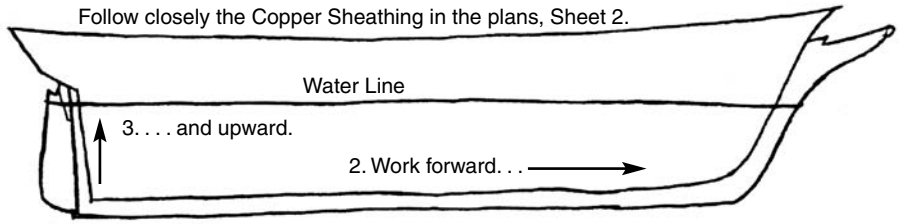
Display - You can display your model with the false bulwark in place or removed. If removed, it probably was lashed to the lashing rail somewhere near on the bulwarks.

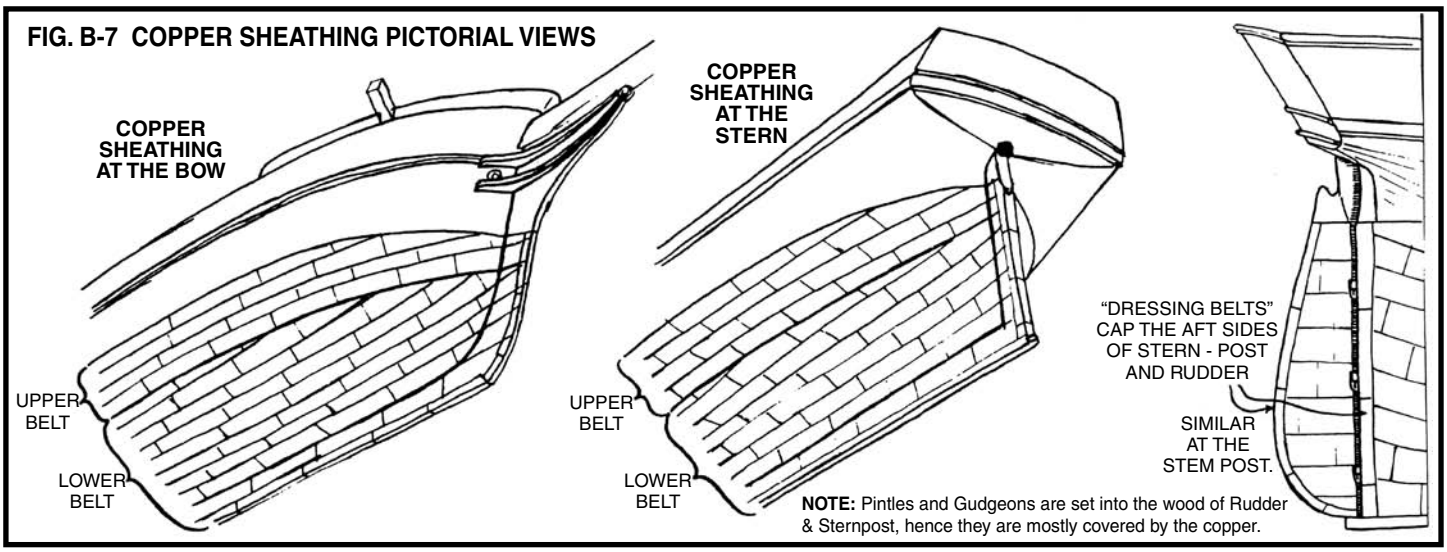
FIG. B-6 COPPER SHEATHING PROCESS



Begin coppering at keel bottom; start aft and work forward. Work upward to the Gore Line, overlapping it slightly.

Begin the upper belt at the gore line; start aft, work forward, work upward to the water line, feathering the top plates to suit the waterline profile. Waterline "Dressing Belts" were seldom found on Whalers.





Cutting Stage - Elaborate cutting stages commonly associated with whalers are difficult to trace to the pre-Civil War period. Most likely such stages did not appear until the 1870s. A simple stage would be appropriate for *Kate Cory*. Though not shown on the plans a suggested stage is shown in Figure B-16. Use it or not.

11. Bulwark Stanchions, Cap Rails, Pin Rails, & Channels

Stanchions - Install the bulwark stanchions on the inside of the carved bulwarks on top of the plankshеer (main deck) and waterway (quarter deck). The stanchions (3/32" square basswood) should have a slight upward taper as they are timberheads tapering from larger frames below. However, using the square strip without tapering is an option. Sand the top of the stanchions flush for the bulwarks ready for the cap rail (Figure B-17).

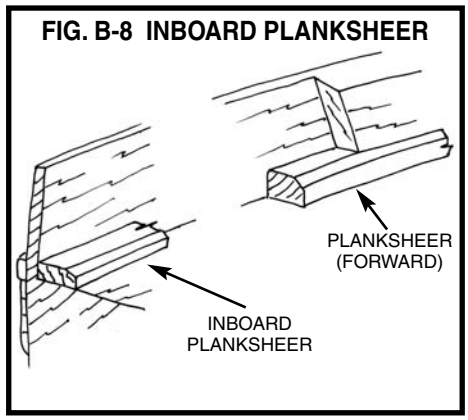
Cap rails, pin rails, & channels - The channels and pin rails can be an integral part of the cap rails since they are the same thickness (1/16") and in the same plane. However, it would be easier to use a 1/16" x 3/16" strip for the cap rail and glue on separate strips for the pin rails and channels. The channels have an additional thin strip on the edge that will cover the chain plates after they are installed. It would be a good idea to drill the holes and insert the belaying pins before gluing the pin rails to the cap rail. Use pins or dowels to help locate the cap rail in place and secure it on the bulwark.

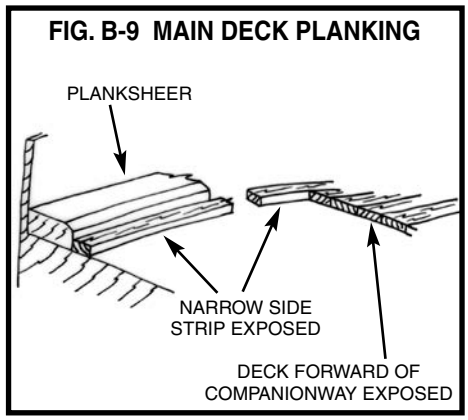
The cap rail butts against the guard stanchions at the gangway. Forward of the forward pin rail the cap rail gets progressively wider to the bow. Cut this area from sheet wood. There is a belaying pin port and starboard near the inboard edge of the cap rail behind the knightheads. Drill the holes and install the belaying pins.

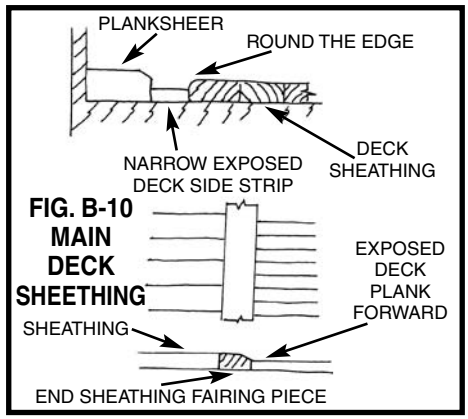
The cap rail continues across the stern, but here it is called a taffrail.

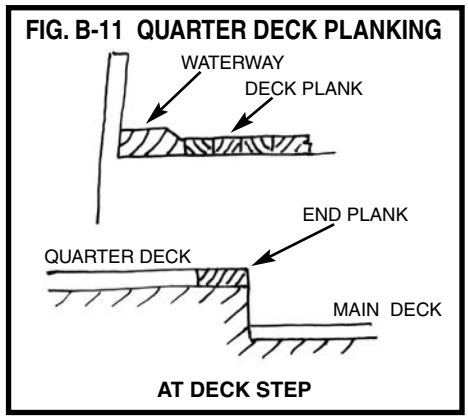
Note - Like the plankshеer, the outboard edge of the cap rail has a "hawksbill" shape (large and small half-rounds) but for this small scale model just a round edge is sufficient.

Figure B-18 illustrates the cap rail construction.





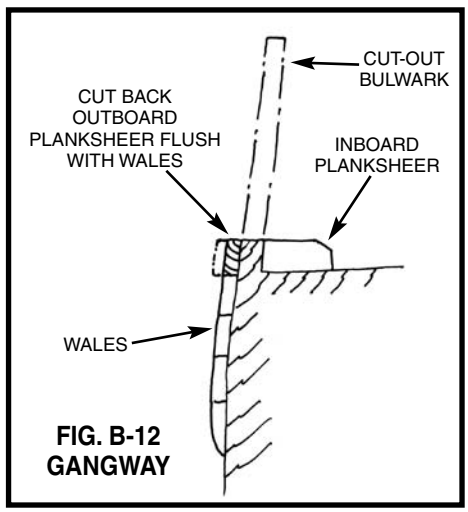




12. Buffalo Rail, Knightheads, & Topgallant Rail

Buffalo rail and knightheads - The buffalo rail (sometimes called a bow rail or spray rail on other ships) sits atop the cap rail. Cut it from a strip of 3/64" thick basswood. You will probably need to steam bend it. Add the extensions of the knightheads above the cap rail behind the buffalo rail. The knightheads below the cap rail are assumed to be covered by the ceiling plank, thus a part of the thick carved bulwark.

The rail has a slot for the catheads. You can cut this now or wait until you are ready to



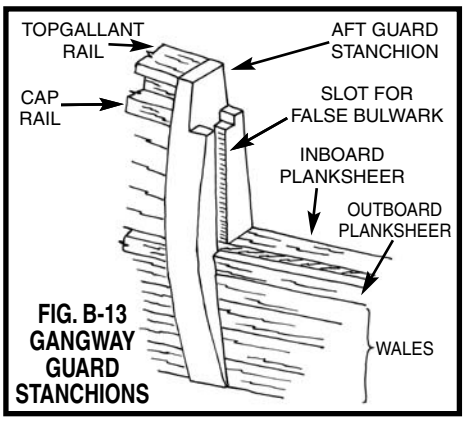


FIG. B-13 GANGWAY GUARD STANCHIONS

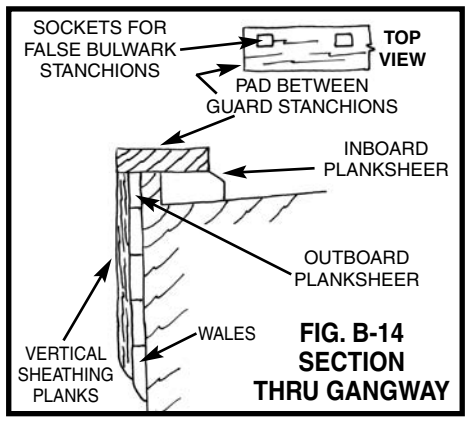
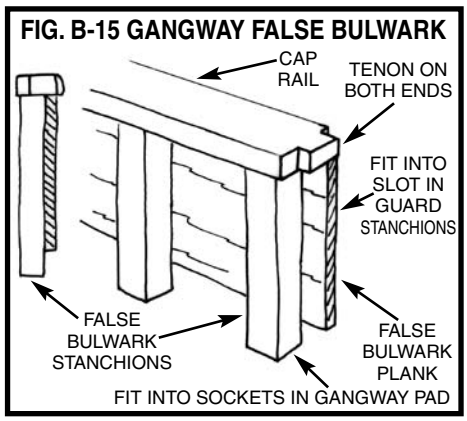


FIG. B-14 SECTION THRU GANGWAY



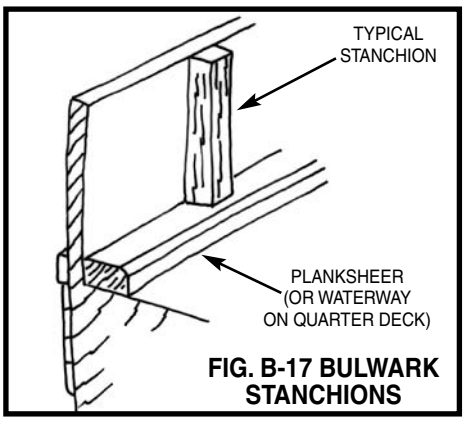
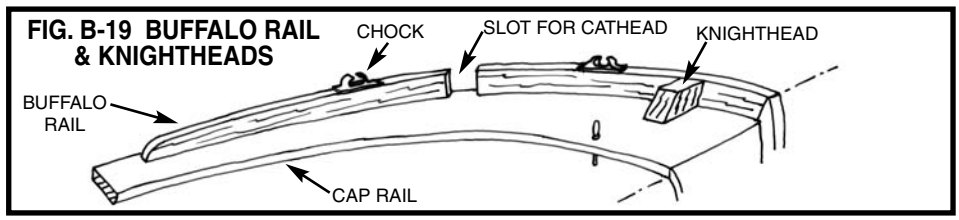
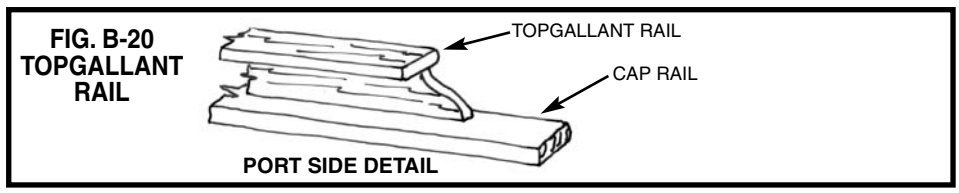


FIG. B-17 BULWARK STANCHIONS

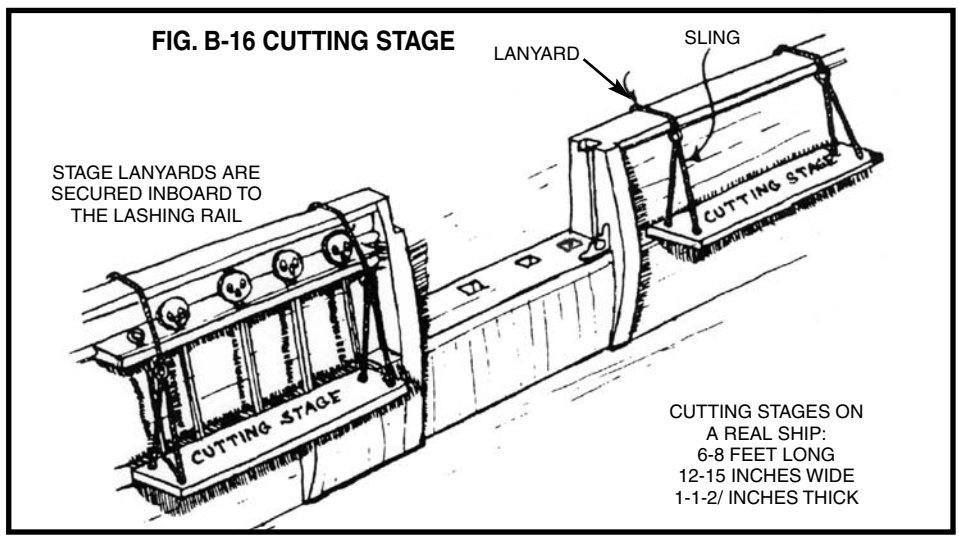




install the catheads. There are two open chocks (Britannia castings) on top of the rail, port and starboard (Figure B-19).

Topgallant rail - The topgallant rail is a T-shaped rail atop the cap rail. It continues across the top of the taffrail. Use 3/64" thick strips for the vertical web and the cap. The width of supplied strips need to be trimmed a bit for correct width. At the aft end of the topgallant rail, port and starboard, cantilevered support beams for the stern whaleboat are fitted into the rails. These beams are called “tail feathers” or “rooster tails”. Refer to Stage D for details.

The topgallant rail on the starboard side butts against the gangway guard stanchion. On the port side the vertical web is shaped into a small knee down to the cap rail. (Figure B-20).



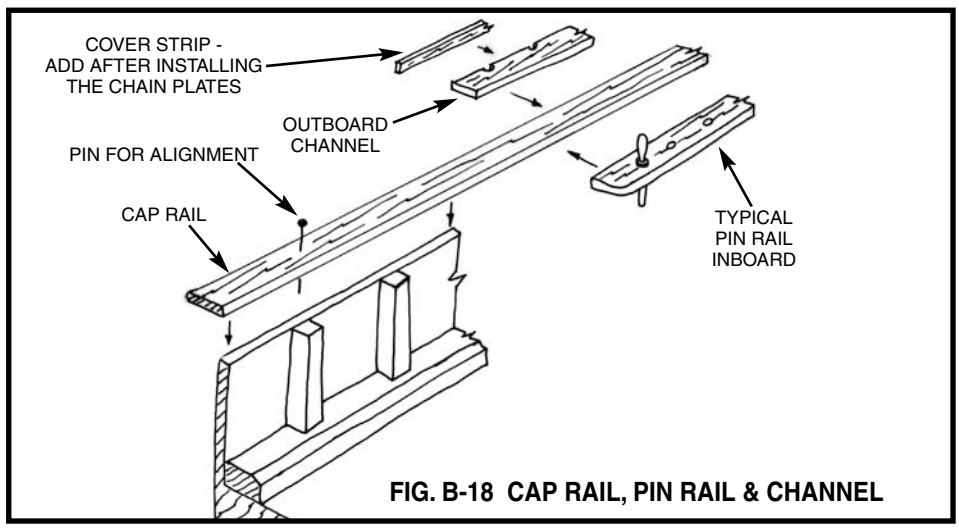


FIG. B-18 CAP RAIL, PIN RAIL & CHANNEL

STAGE C: MOUNTING THE HULL

Before proceeding with additional work it is best to mount the hull. This step will help prevent details from becoming damaged during handling and will allow you to make any alignments that require a true waterline. Proper mounting of the hull is very important and will allow the accurate building and aligning of the remainder of the model. The kit does not include any parts for mounting. However, the following mounting is suggested.

Mounting Board with Two Pedestals - A common mounting for ship models is a baseboard with two pedestals. For a homemade board, a nice looking hardwood such as cherry, walnut, and maple would be ideal. You can round the top edges of the baseboard, or cut a simple chamfer. If you own a router, or can borrow one, you will be able to cut a nice fancy edge on the baseboard. Stain the base if necessary and give it a few coats of varnish or finish like Minwax.

The pedestals could be wood or brass. One pedestal needs to be longer than the other because you should have the model mounted with the waterline parallel to the baseboard. If you decide on this type mounting drill pilot holes for the screws thru the keel. For *Kate Cory*, the pedestals should be located near station D and 12. If something went awry and the waterline is not level, you can add a brass shim under one pedestal to correct it.

Baseboards and pedestals are available from Model Shipways web site, www.modelexpo-online.com.

STAGE D: ADDING THE HULL DETAILS

1. General Notes

Don't forget to file off any flash on Britannia metal fittings, clean the fittings and then prime them with grey primer before final paint.

Mark the positions of fittings and structures. Drill holes for the fittings or for locating-pins or dowels. Before permanent installation, paint the parts according to the *Kate Cory* color scheme. If wooden parts are not painted prior to installation, at least make sure you have the part sanded and ready for painting in place. Use as little glue as necessary on parts. Watch out for that glue squeeze-out. It's hard to remove if left to harden.

2. Completing the Bulwark Details

Before installing anything on the deck, complete all the remaining bulwark details while there are no obstacles to contend with.

Catheads - Refer to paragraph 5 below regarding catheads and anchors.

Doublers for fore sheet sheave holes and mooring ports - The mooring ports have doublers (pads) inboard and outboard. Use a 1/32" thick pad outboard, and 1/8" inboard. For the inboard pads, notch the pads on the sides so they fit between the stanchions then lap over the stanchions a bit. The fore sheet doubler is only inboard (3/32" thick). Fit the doublers, then drill/file the holes thru the doublers and the bulwark. For the fore sheets, an actual sheave need not be used for the sheet unless you desire the additional detail. A simple hole should suffice. The lips for the mooring ports are Britannia castings and fit on both the outboard and inboard side. See Figure D-1 for some details.

Lashing Rails - Trim the lashing rail from 3/64" x 1/8" wide basswood to 3/32" wide and glue to the bulwark stanchions in location shown on Plan Sheet 1. Note that the rail is interrupted by the gangway on the starboard side.

Cavils - There are three cavils on each side. Cut these from 3/64" x 1/8" basswood (width should be 3/32") and glue to the bulwark stanchions as shown on the plan.

Jib Fairleader Blocks - Port and starboard there is a fairleader block on the bulwark near the bow. Drill the four holes for lines and glue to the bulwark . A detail is shown on Plan Sheet 1 below the deck plan.

FIG. D-1 BULWARK DOUBLERS

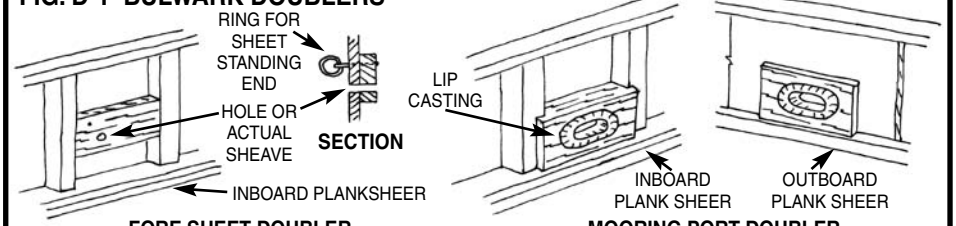
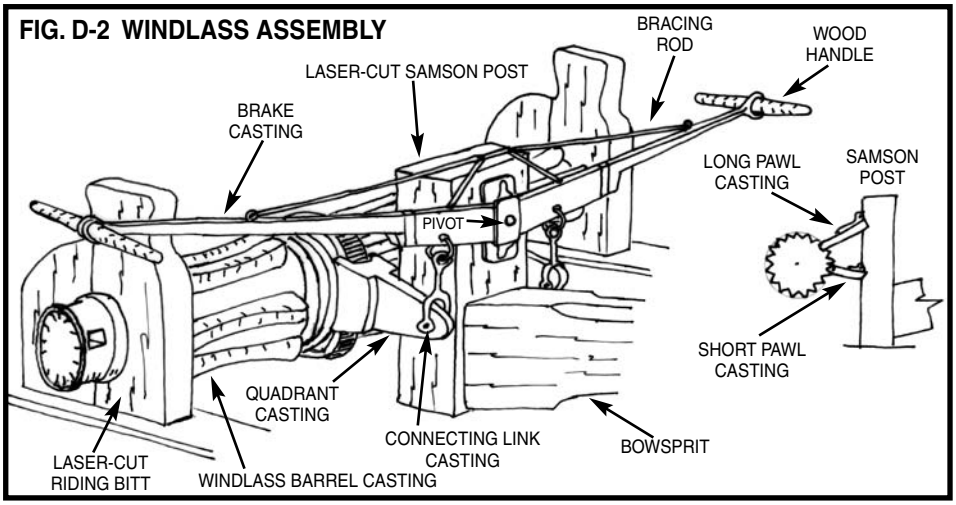


FIG. D-2 WINDLASS ASSEMBLY



Scuppers - There are three scupper pipes port and starboard. Drill an angled hole (see Section B-B on Plan Sheet 1). Outboard you can just have the hole or you could insert a small brass eyelet (not supplied) in the holes.

3. Port Lights and Hawse Pipes

Port Lights - There are two port lights port and starboard (for cabin light) in the wales aft. Just a simple hole is sufficient or you could fill the holes with epoxy to represent glass. Another option, use a brass airport fitting (not supplied).

Hawse Pipes - Inboard there are wooden pads on the deck up against the plankshеer port and starboard where the hawse pipe holes penetrate. Drill the holes, then add the hawse pipe lips (Britannia castings). The deck plan, inboard profile, and inside bulwarks view on Plan Sheet 1 adequately illustrates the construction.

4. Samson Post, Riding Bitts, Windlass, & Anchor Chain Rings

Samson Post and Windlass Brake - The samson post is a laser-cut part. Cut a mortise in the post for the tenon on the bowsprit. Drill a hole in the bottom and glue in a dowel for securing the post to the deck. Before installing the post it would be a good idea to attach the windlass brake. The pivot strap can be made from brass bar. On top of the brake there is a bracing rod that can be made from brass wire. At the ends of the brake arm add round wood handles cut from stripwood.

Riding Bitts - The riding bitts are laser-cut parts. Each bitt is split in half so it can be fitted onto the Windlass Barrel Britannia

casting. After assembly, add the iron strap at the bottom of the bitt using a brass strip or self-adhesive copper tape. On the real ship the top of the split bitt is held together by a drift bolt which is not necessary on the model.

Windlass - In addition to the windlass barrel, the brake, pawls, quadrants, and connecting links are also Britannia castings. Glue the windlass riding bitts to the deck, but make sure you have added the pads on deck under the riding bitts. Add the two pawls between the windlass and samson post. Add the quadrants and connecting links to the brake arm.

Figure D-2 illustrates the windlass assembly.

Anchor Chain Rings - The anchor chain rings are large rings in an eyebolt (called ring bolts) in the deck. Use 1/8" split rings and fit into an eyebolt. Both are supplied in the kit.

Note - The plan indicate an anchor chain ring port and starboard on deck on each side of the foremast, and another pair on each side of the main hatch. These rings were apparently used for securing the end of the anchor chain as noted on the plan at the aft pair. The forward pair is simply noted anchor chain ring. The reason for the locations of the rings and exactly how they were used is unknown.

5. Catheads & Anchors

Catheads - The catheads are laser-cut parts. If you have not already done so, cut a slot in the buffalo rail for the catheads. You probably will need to shape the lower part of the catheads to fit flush against the carved bulwark. Add an eyebolt on the forward side of each cathead for attaching the jibboom guys. Drill a hole thru the end of the cathead for the cat fall rope and add a rod cleat thru the cathead just below the cap rail for belaying the fall (Figure D-3).

Anchors - The anchors and anchor stocks are Britannia castings. A large bower and small kedge anchor are provided. Add a shackle on the end of the bower anchor shank and a ring on the kedge anchor, using brass wire or split rings.

Anchors were seldom used by whalers, except when provisioning at the less-frequented whaling stations. Consequently, the simple cat fall noted in the paragraph above was used in lieu of a more elaborate tackle. Also, the anchor chain was always stowed when the anchor was not in use. For the model, hang the anchors without anchor chain, and with the flukes aft of the cathead. The anchor fluke end would most likely be lashed to the rail but the plans do not indicate how. You could add a cleat on the bulwarks inboard for this purpose, or add a ringbolt in the deck near the bulwark and lash the anchor there. A chain lash may be better than rope (Figure D-4).

6. Forward & Aft Companionway

Both companionways are essentially the same construction, but are slightly different in dimension. So measure each from the plan. Also, though not shown on the plan, the forward companionway has double panel doors and the aft one has single panels (Figure D-5).

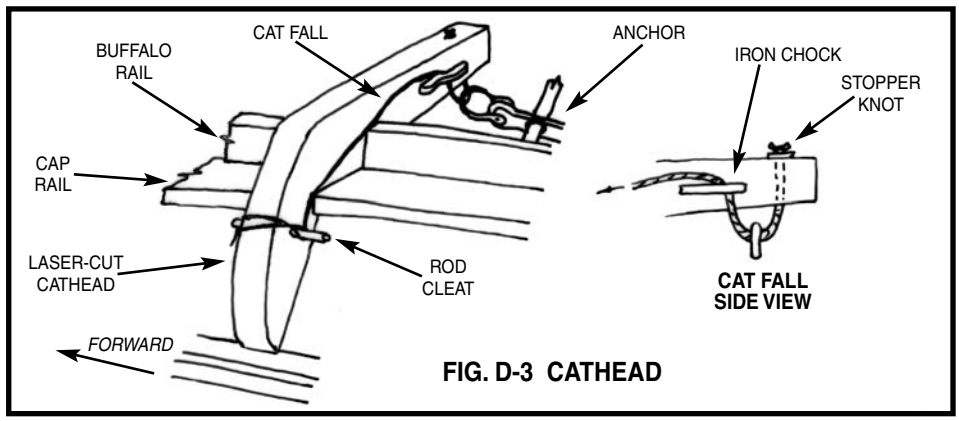


FIG. D-3 CATHEAD

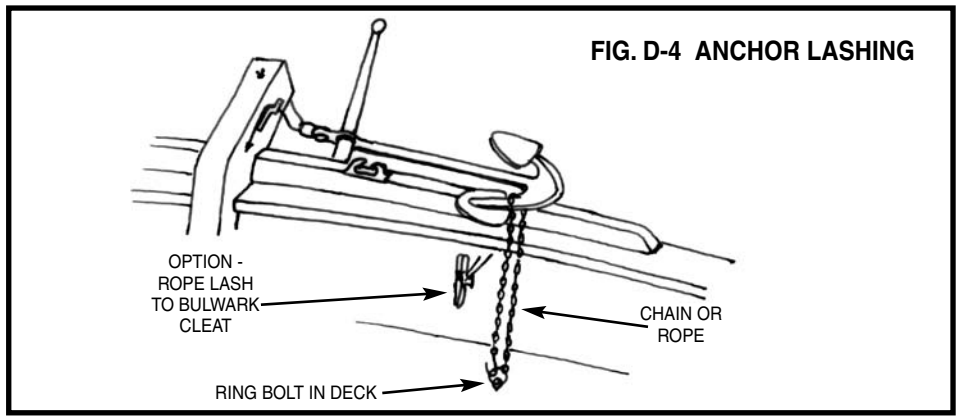


FIG. D-4 ANCHOR LASHING

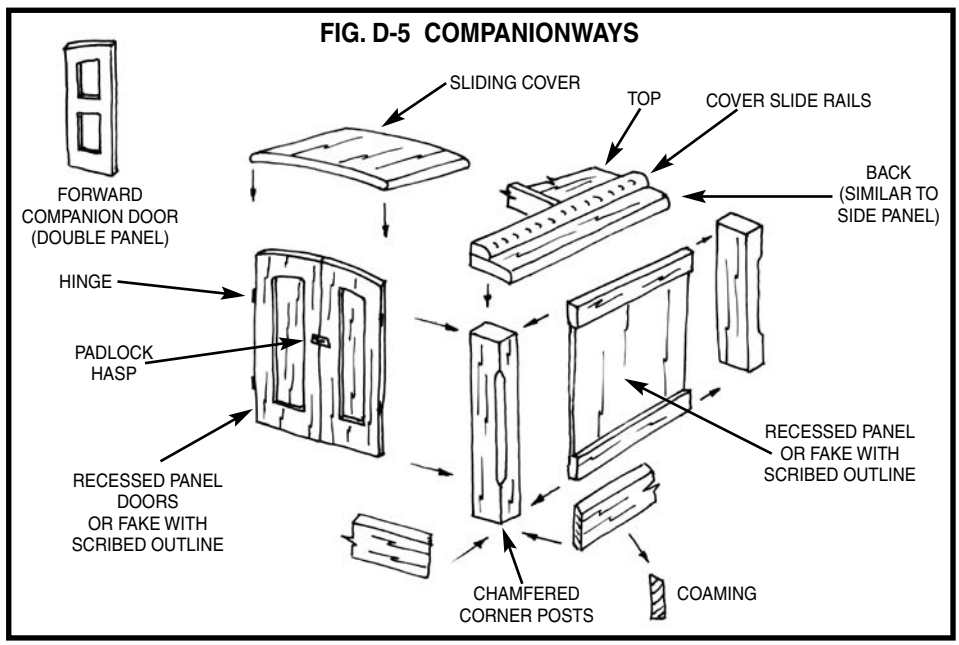


FIG. D-5 COMPANIONWAYS

7. Main & Aft Hatch

The two hatches differ in dimension, but both have two hatch covers with ring bolts at the corners (Figure D-6).

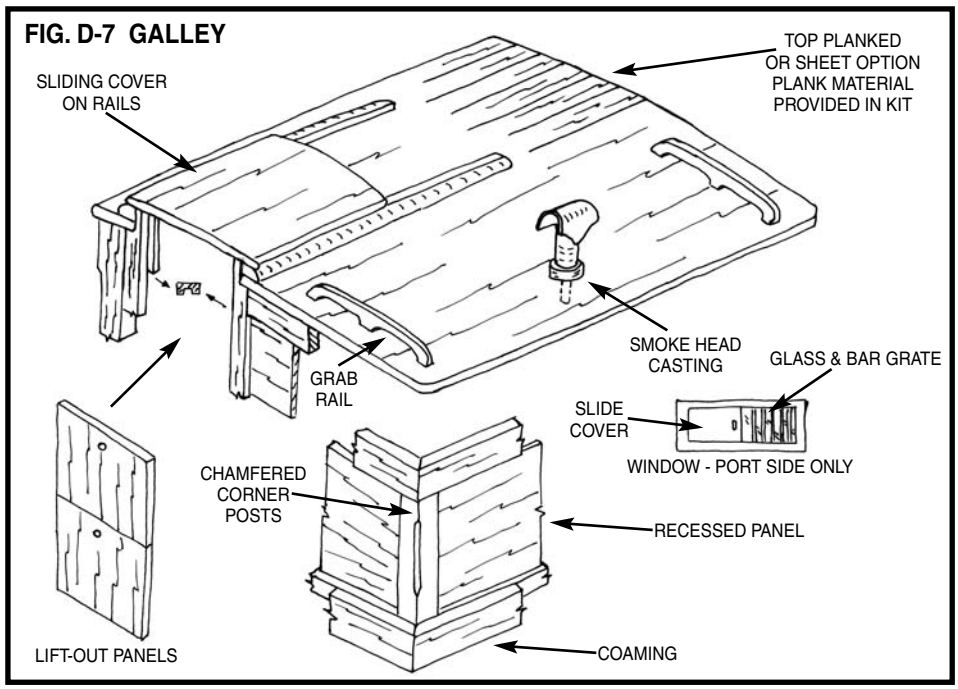
8. Galley

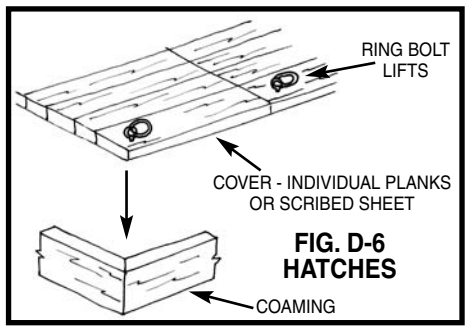
The galley is nice little structure to build. A companionway with lift-out panels is on the starboard side. On the port side there is a sliding panel window with bars in the opening. If you like the detail you can install bars using brass wire or pins. Otherwise, a painted window of light blue with black inked bars would still look ok. The fore and aft ends of the galley is plain, no windows.

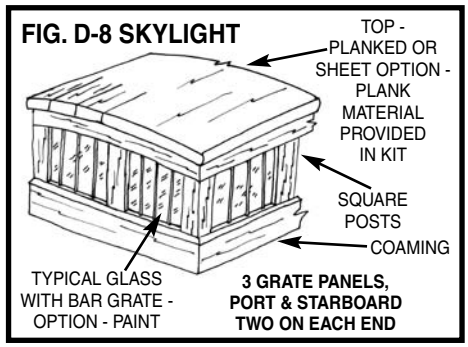
The smoke head on top is a Britannia casting. The grab rails are wood and can be carved from wood strip. Figure D-7 illustrates the galley construction.

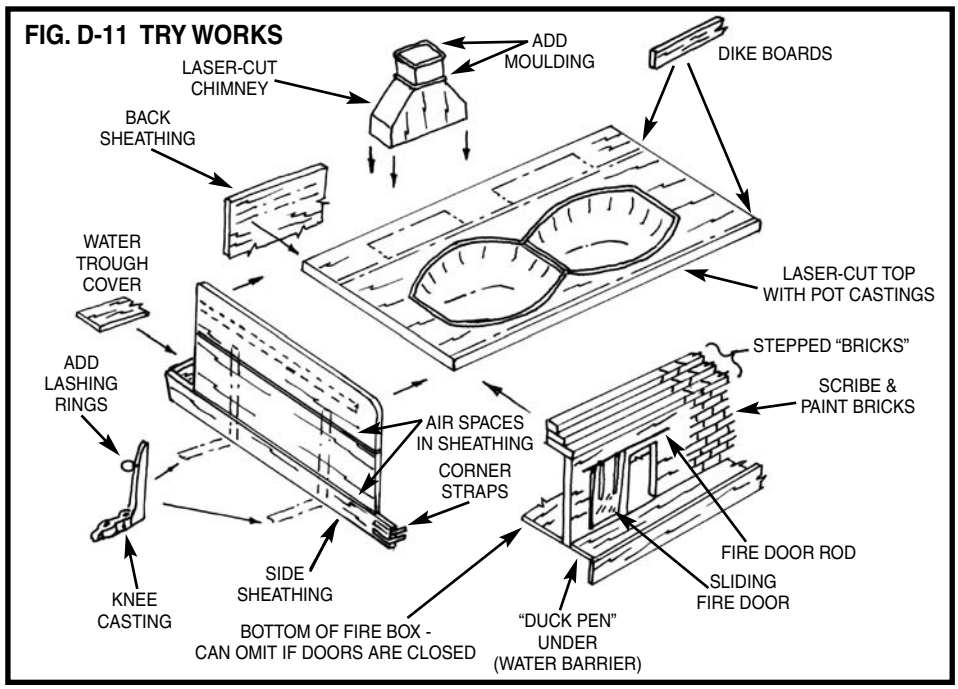
9. Skylight

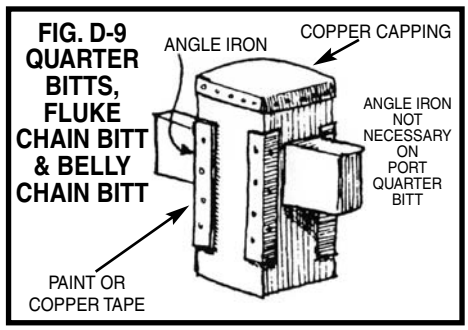
The skylight has three barred glass window panels port and starboard and there are two on the fore and aft ends (not shown on plan). Like the galley windows, install bars or fake with paint and ink (Figure D-8).

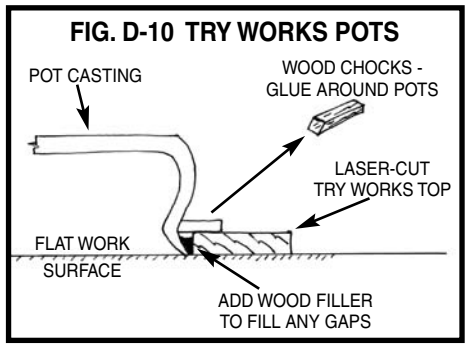












10. Main Bitts, Quarter Bitts, Fluke Chain Bitt, & Belly Chain Bitt

The bitts are all Britannia castings. Locate as shown on the plans. As noted in the painting & staining section, the bitts are Natural varnished wood but need to be painted to represent wood.

Main Bitts - Drill the holes and insert the belaying pins in the cross bar.

Quarter, Fluke Chain & Belly Chain Bitts -The cap on top can be covered with self-adhesive copper tape or just copper paint. In addition to the copper caps, the real ship has vertical angle irons on each of the four corners except for the port quarter bitt (Figure D-9).

11. Try Works

The try works construction is challenging so take your time and you will have an interesting model in itself. The chimneys and the top are laser-cut parts. The side knees and the try pots are Britannia castings. You should build the try works along with the cooling tank and cooper's bench and chicken coop. The tank must fit between the starboard try works knees and the bench is attached to the aft side.

The model construction is basically a boxed structure. 1/16" sheet basswood will be used for the sheathed sides and back. The top laser-cut part will fit the rim of the try pots. Add the pots with the top upside down on a flat surface and glue around the pots. Add some wood pieces, glued against the pots to securely hold the pots in place (Figure D-10). The top is copper clad or copper paint as are the chimneys .

Before adding the knee castings, add the ring bolts to the knees for lashing the cooling tank. Notice the rings are on all four knees; probably for lashing the tank on either side.

The brickwork is covered by sheathing on the sides and back, but the forward side above the "duck pen" is exposed brickwork, with the top three rows staggered back. The bricks can just be painted, or you can purchase some scribed decking material and scribe in the vertical mortar joints. Paint the scribing light gray, then paint the bricks. Also, you can probably find some printed brickwork from a doll house supplier.

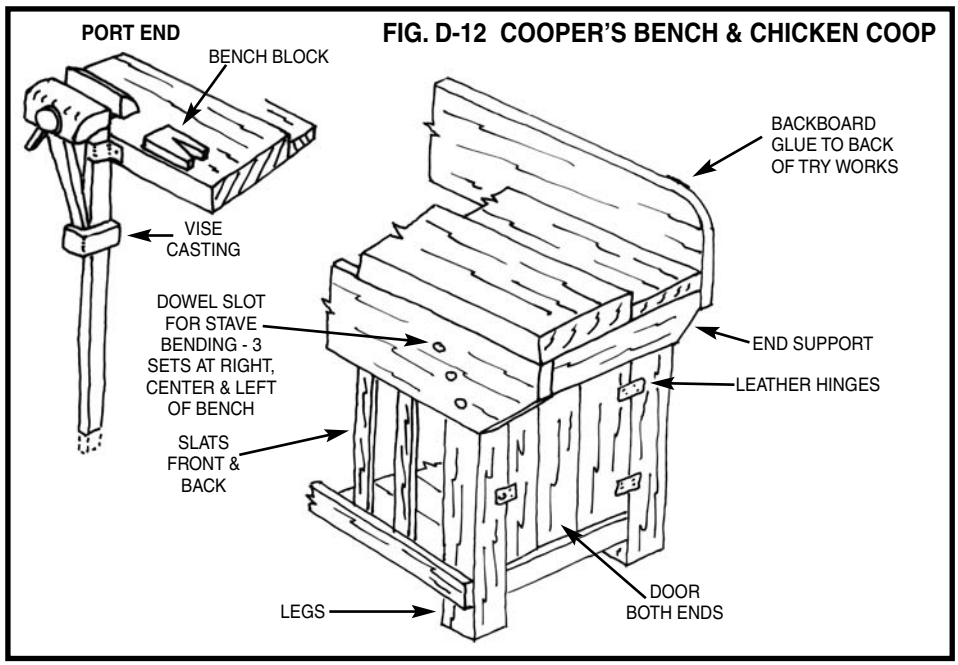


FIG. D-12 COOPER'S BENCH & CHICKEN COOP

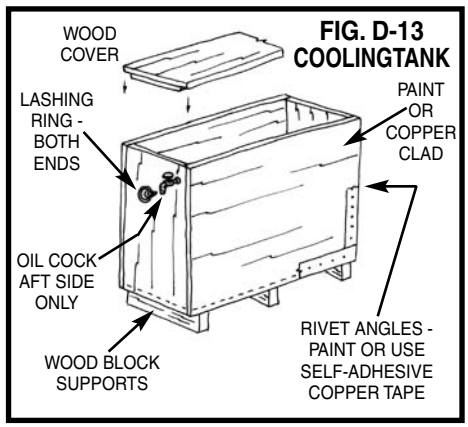


FIG. D-13 COOLINGTANK

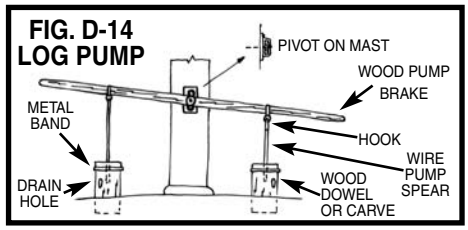


FIG. D-14 LOG PUMP

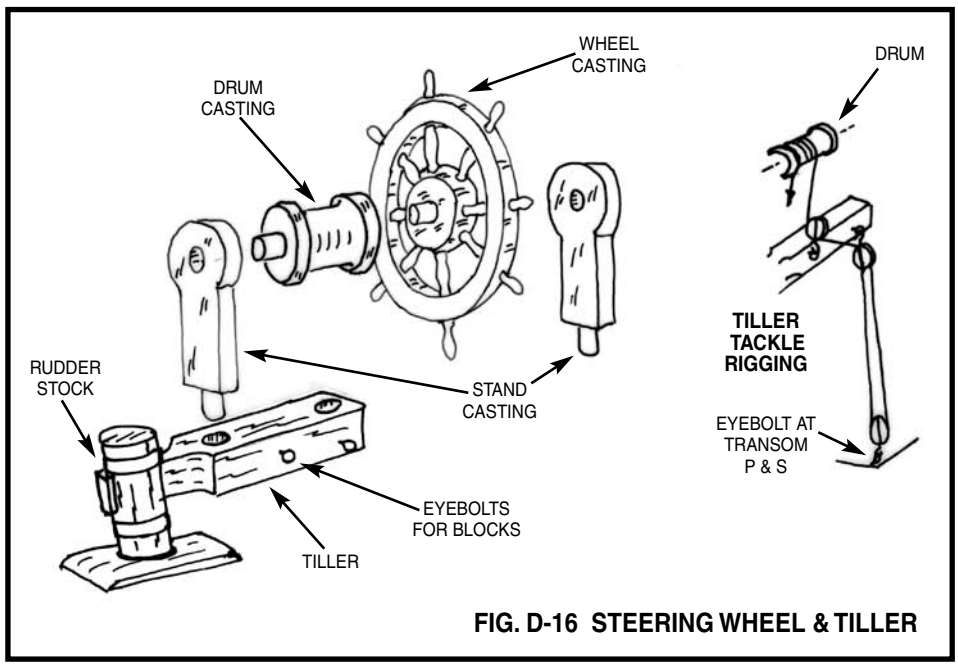


FIG. D-16 STEERING WHEEL & TILLER

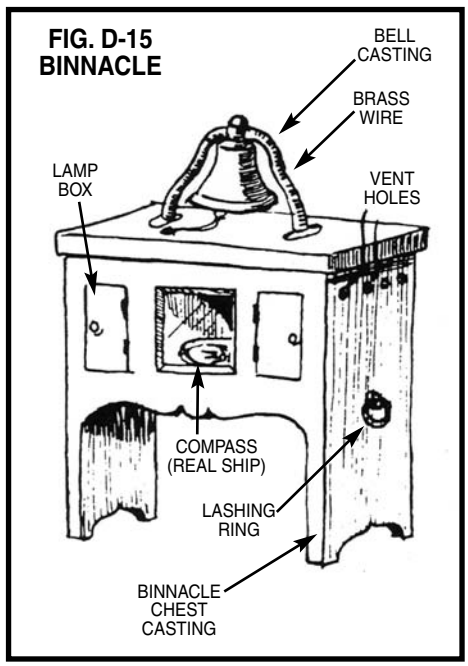


FIG. D-15 BINNACLE

Note - The "duck pen" is a name given to the space under the try works providing a water jacket to protect the deck from heat of the fires. The water is added thru the covered trough on the aft side of the try works. The cover may have been hinged but was usually a lift-off cover.

Figure D-11 illustrates the basic try works model construction.

12. Cooper's Bench & Chicken Coop

This is really an interesting item and fun to build. There is a coop door on both ends. The backboard of the bench is attached to the back of the try works. The bench vise is a Britannia casting (Figure D-12). Sorry, but Model Shipways does not stock any miniature chickens.

13. Cooling Tank

The cooling tank is a copper tank riveted together with copper angles, sitting on wood blocks. The tank is fixed by lashings to the starboard try works knees. The top is a wooden cover. There is also a copper oil cock on the aft side of the tank.

For the model, the tank sides and bottom can be made from wood and clad with self-adhesive copper tape or painted copper color. The angles can be self-adhesive copper tape and if you are into small detailing the tape can be punched on the underside before installing to form rivet heads.

The tank is illustrated in Figure D-13.

14. Log Pump

The log pump is a fairly simple item, and mostly wood. The pump pivots on the aft side of the mainmast and has a straight wood brace (Figure D-14).

15. Binnacle and Bell

The binnacle chest and the bell on top are both Britannia castings. The chest is secured to the deck with lashings to eyebolts (Figure D-15).

16. Steering Wheel & Tiller

The steering wheel, stands, and drum are Britannia castings. The tiller is a square wood piece. Assemble the parts to the tiller first, then the tiller to the rudder stock. As noted earlier, the rudder stock could be the stock on the laser-cut rudder, or just a short fake stock above deck. The steering tackle can be added now or later but at least add the blocks on the tiller. Figure D-16 shows the entire assembly and rig.

17. Whaleboats

Building the whaleboats is probably the most difficult and time consuming task for this model. The hull must be carved and there is a lot of detail in each boat. To help you along with the basic hull, a set of laser-cut lifts is provided. When initially glued up you will have a block shaped close to the plan view and partially cut out inboard.

The real whaleboats were lap strake, but for the model a smooth hull is easier to carve. Inside the boat, the frames below the thwart stringers were covered with ceiling planks so most of the bottom interior will also be smooth. For the model, short sections of frames will appear in way of and above the thwart stringers.

First, glue the three solid lifts together (Lift A, B, & C) which form the bottom of the boat. Carpenter's Yellow Wood Glue is probably the best choice for the glue-ups. Make sure there is good glue coverage. Clamp the lifts while drying. When finally carved to shape the hull will be fairly thin so a good glue joint is essential. If during the carving process you find a gap, you can save the day by applying thin CA glue to the joint.

Next, add the hollowed-out Lift # 8 on top of the solid three lifts, and so on up to Lift # 1. Glue each lift separately, clamp and let dry. Gluing them all at once may cause them to move out of place when clamping. Figure D-17 is a section thru the centerline.

Shaping to the profile - Make a template for the rail sheer and the lower bow and stern. Cut the shape (Figure D-18).

Carving the interior - Using the lines plan make some section templates for the interior and exterior of the hull. The hull below the bottom of the thwart stringers should be about 1/16" thick. This thickness represents the hull plank, frames, and inboard ceiling planks. Above the bottom of the thwart stringers carve so the hull will be 1/32" thick. This is the area where you will add the short visible frame pieces.

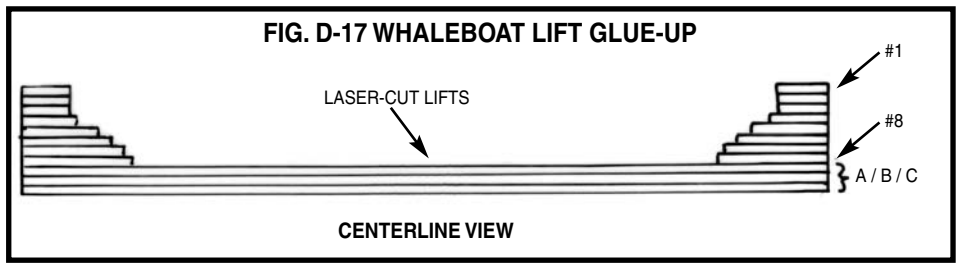
Carving outboard - Draw a centerline on the bottom of the hull. Start carving the outboard shape at midships and work forward and aft. Shape to the templates you developed. Use calipers to check the thickness of the hull as you carve.

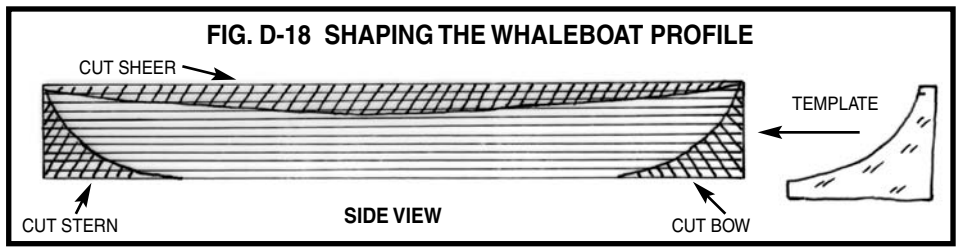
Figure D-19 illustrates the carving.

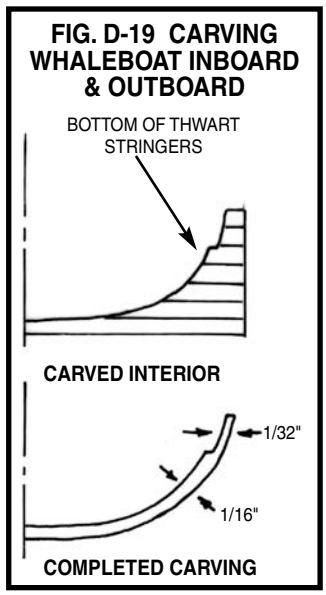
Finish sanding the carved hull inboard and out and re-check to see that the hull thickness is about the same throughout.

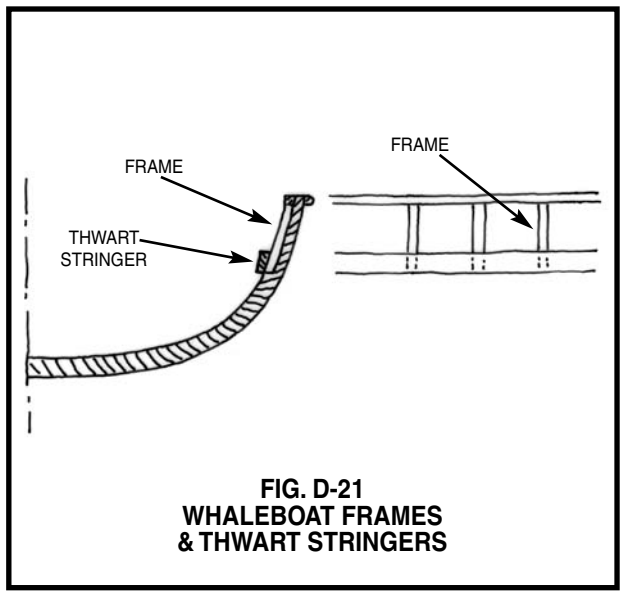
Details - Add the flat keel using 1/32" x 3/32" strip. At the bow and stern, transition the keel into the exposed portion of the stem and sternpost. Use 1/32" x 1/16" strip here. Also, add the extension of the sternpost above the rail.

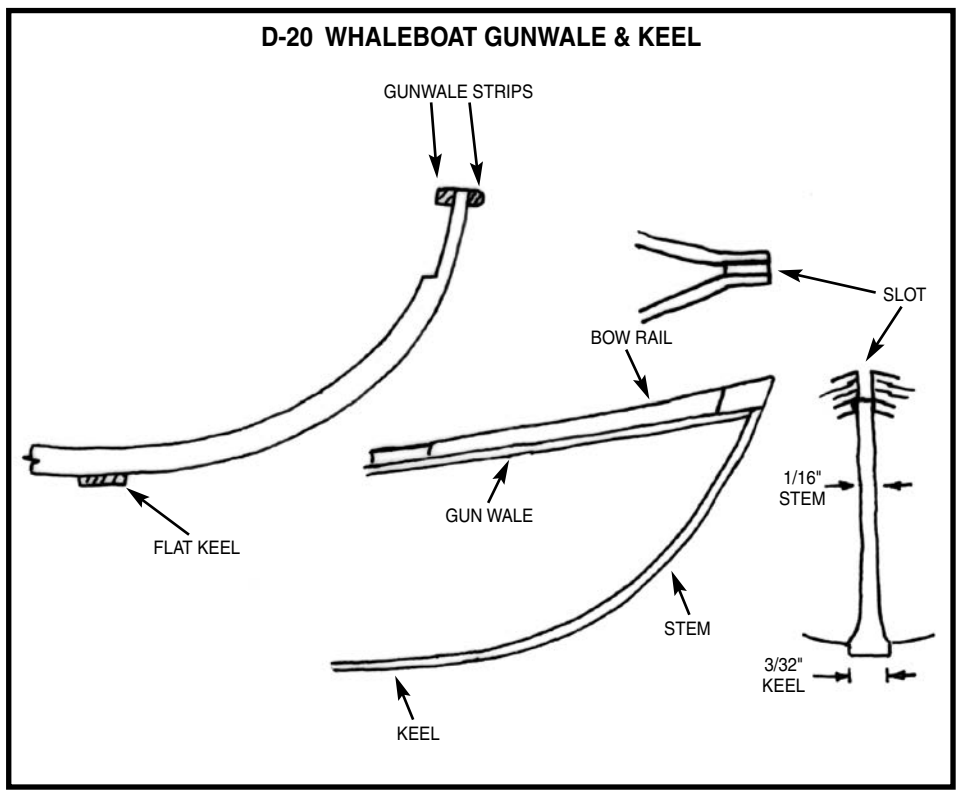
At the top of the hull add a gunwale strip inboard and outboard of the carved hull. This will form a rail. Use 1/32" square strip for











both and round the outboard strip. On top of the rail forward add the bow rails. The bow rail is open at the stem forming a slot. This is where a harpoon line would run after harpooning a whale (Figure D-20).

Inboard, add the short exposed frames from under the gunwale strips down to the step in the hull thickness (bottom of thwart stringers). Use 1/32" square strips for the frames and space them about 1/4" along the hull.

Glue the thwart stringers (1/32" x 1/16") onto the bottoms of the short frames. The top of the stringers should be about parallel to the rail and 5/32" below the top of the rail (Figure D-21).

Soles, Cuddy-Board, Bow Box, & Lifting Ring Boards - Up forward there is a harpooner's standing sole and aft the boat steerer's standing sole. These are horizontal boards. A Lifting ring board with a lifting eyebolt is fitted at each end of the boat and are in line with the rail. the eyebolt is at the top of a long rod secured to the keel. Use 1/16" thick wood for the boards.

From the stern forward to the aft lifting board, plank the area at rail level. this is called a cuddy-board. On top fit the steering arm rest and the Logger Head (shape from dowel). When catching a whale, the harpoon line from over the bow is wound around this fitting like a windlass.

At the bow, there is a bow box below and forward of the lifting board.

Figure D-22 illustrates some of the above item details.

Rowlocks - Glue a small block with a rowlock (make from wire) on top of the rail. Note there are 2 rowlocks on the port side and 3 on starboard side

Thwarts - Make the thwarts from 1/32" x 1/8" stripwood. The ends sit on the thwart stringers. Add the thwart knees at the center of each thwart port and starboard (Figure D-23).

Outfitting the Boats - Oars, harpoons, lances, line tubs, and an assortment of other items carried on each whaleboat are shown on the plans with a note of how many of each were carried. It's your decision how many items you want to make and fit into the boats. All must be scratch-built as no specific items are provided in the kit.

18. Whaleboat Davits, Cranes and Bearer Posts, & Tail Feathers

Davits - The davits are Britannia castings. Drill holes in the deck for the davit socket. At the cap rail there is a strap securing the davit. Make the strap from brass bar or self-adhesive copper tape. Note that the forward port davit for the waist whaleboat is on the outside of the bulwark. The bottom of the davit is secured at the plankshear. You will need to file off some of the casting base to fit. A strap is fitted at the outboard edge of the cap rail. Add the brace wires, davit to rail, and the guard wire between the davits for the port boats.

Before installing the davits it would be a good idea to add the blocks and the tackle.

Cranes and Bearer Posts - The bearer posts are for lashing down the whaleboats and provide a guide when the boats slide down. On the posts, there are hinged cranes which provide a cradle for the boats. The posts are secured outboard on top of the plankshear and at the cap rail. See Figure D-24 for davit, bearer, and crane details.

Tail Feathers - Projecting from the stern port and starboard are cantilevered beams for supporting the stern whaleboat on cradles. Figure D-25 illustrates the beams called "tail feathers" and sometimes "rooster tails".

For rigging the davits and the lashings refer to Stage I. Another option, use a brass airport fitting (not supplied).

FIG. D-22 WHALEBOAT INTERIOR DETAILS

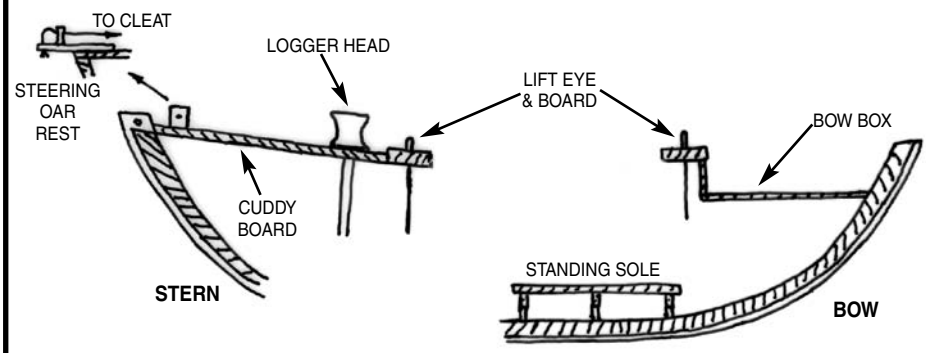


FIG. D-23 WHALEBOAT THWARTS

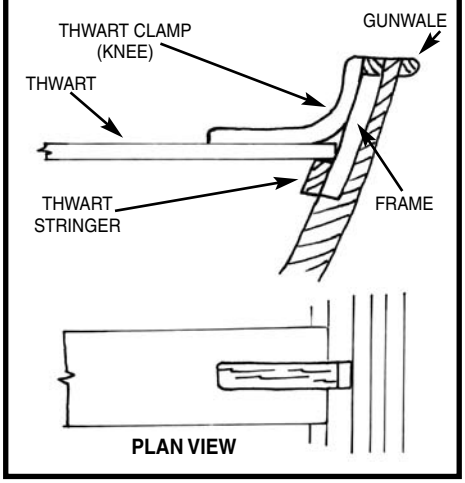


FIG. D-25 TAIL FEATHERS

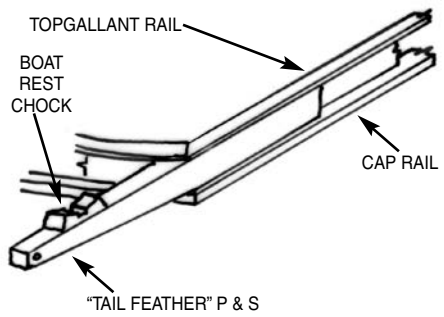
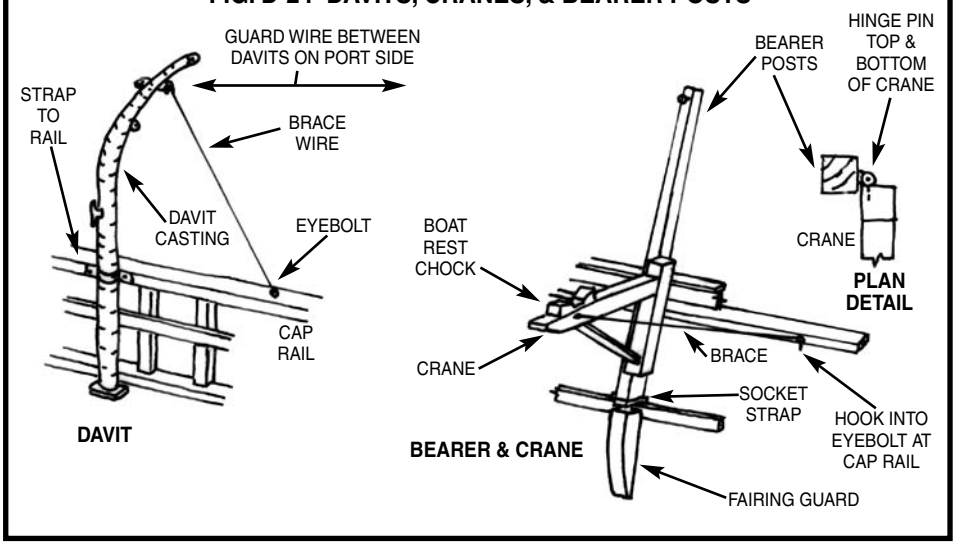


FIG. D-24 DAVITS, CRANES, & BEARER POSTS



STAGE E: GENERAL MASTING & RIGGING INFORMATION

1. Rigging Identification

As noted in the introduction, these instructions and the kit parts are developed only for the brig rig.

2. Block, Deadeye, Bullseye, and Line Sizes

The sizes for the blocks, deadeyes, bullseyes, and rigging line are not given on the plans. The list to follow identifies the kit supplied sizes to use for the various rigs. These sizes were scaled (to available model sizes) from the actual ship sizes published in the *Kate Cory* Museum booklet (See Bibliography). Block sizes are given in length inches. Bullseye, Deadeye, and Rigging Line sizes are in diameter inches. The ship used a few hearts as well as bullseyes and deadeyes. For the model, bullseyes have been substituted since proper model size hearts are not available.

For running rigging use the tan line, and for standing rigging use the black. Paint the blocks, deadeyes, and bullseyes according to the color section before installing on the model.

Standing Rigging (Black Lines)

Note - Some lines such as footropes, lifts, tyes, and pendants associated with a particular sail or rig are black standing lines but have been included under running rigging or miscellaneous rigging for convenience.

Fore-and-Aft Stays for Masts

Fore royal stay	0.018"	
Fore topgallant stay	0.018"	3/32" bullseyes
Outer fore topmast stay	0.021"	3/32" bullseyes
Inner fore topmast stay	0.021"	3/32" bullseyes
Forestay	0.040"	
Main topmast spring stay	0.018"	
Main topmast stay	0.021"	
Spring stay & outer main stay	0.028"	
Inner main stay	0.040"	1/8" bullseye

Lines Under/Aside the Bowsprit and Jibboom

Single backrope	0.021"	
Backropes P & S	0.021"	3/32" bullseyes
Inner and Outer bobstay	0.028"	1/8" bullseyes
Jibboom guys	0.021"	3/32" bullseyes
Jibboom foot/man ropes	0.012"	

Shrouds and Backstays

Fore & main shrouds	0.028"	9/64" deadeyes
Fore topmast shrouds	0.021"	3/32" bullseyes
Futtock shrouds	Wire	
Fore topgallant shrouds	0.018"	3/32" bullseyes
Futtock shrouds	Wire	
Fore royal shrouds	0.012"	
Main topmast shrouds	0.018"	3/32" bullseyes
Main lookout shrouds	0.012"	
Fore topmast backstays	0.021"	9/64" deadeyes
Fore topgallant backstay	0.018"	(set to chain plate thimble)
Main topmast backstay	0.021"	(set to chain plate thimble)

Lanyards for the Bullseyes and Deadeyes

9/64" Deadeyes	0.018"
3/32" Bullseyes	0.012"
1/8" Bullseyes	0.018"

Running Rigging
(Tan Lines except where noted)

Jib

Sheets pendant and fall	0.012"	5/32" blocks
Halliard	0.018"	3/16" blocks
Downhaul	0.012"	5/32" block

Flying Jib

Sheets pendant	0.018"	
Sheets fall	0.012"	5/32" blocks
Halliard	0.012"	5/32" blocks
Downhaul	0.008"	1/8" block

Main Topmast Staysail

Sheets	0.008"	(fairlead block on shrouds)
Halliard	0.012"	5/32" blocks
Downhaul	0.008"	1/8" block

Main Outer Staysail

Sheets	0.012"	(fairlead block on shrouds)
Halliard	0.012"	5/32" blocks
Downhaul	0.008"	1/8" block

Main Inner Staysail

Sheet	0.012"	(direct to main bitt)
Halliard	0.018"	3/16" blocks
Downhaul	0.012"	5/32" block

Main Gaff Topsail

Sheet (or outhaul)	0.018"	3/16" block
Clewline	0.008"	1/8" blocks
Halliard	0.018"	3/16" blocks
Tack	0.018"	

Mainsail

Sheets & Boom tackle	0.018"	3/16" blocks
Peak & Throat halliards	0.018"	3/16" blocks
Reef tackle	0.012"	5/32" blocks
Outhaul	0.018"	
Topping lift pendant	0.021"	(black line)
Topping lift tackle	0.012"	5/32" blocks
Boom footropes	0.012"	(black line)

Foresail

Sheets & Tacks	0.018"	3/16" blocks
Clue garnet & Reef tackle	0.012"	5/32" blocks
Leechlines & Buntlines	0.012"	5/32" blocks
Lifts & Braces	0.018"	3/16" blocks
Yard footropes	0.018"	(black line)

Fore Topsail

Sheets	Chain	
Clew Lines & Reef tackle	0.012"	5/32" blocks
Leechlines & Buntlines	0.012"	5/32" blocks
Lifts	0.018"	(black line)
Braces	0.012"	5/32" blocks
Halliard tye	0.018"	(black line)
Halliard fall	0.012"	5/32" blocks
Yard footropes	0.018"	(black line)

Fore Topgallant Sail

Sheets	0.012"	5/32" blocks
Clew Lines & Leech /Buntlines	0.012"	5/32" blocks
Lifts	0.012"	(black line)
Braces	0.008"	1/8" blocks
Halliard tye	0.012"	(black line)
Halliard fall	0.008"	1/8" blocks
Yard footropes	0.012"	(black line)

Fore Royal Sail

Sheets	0.012"	5/32" blocks
Clew Lines	0.008"	1/8" blocks
Lifts	0.008"	(black line)
Braces	0.008"	1/8" blocks
Halliard tye	0.012"	(black line)
Halliard fall	0.008"	1/8" blocks
Yard footropes	0.008"	(black line)

Studding Sails

No studding sails are shown in the 1856 sail plan, but are mentioned in the log and sail inventory for the 1858 voyage. No specifications for *Kate Cory* are available, but would follow those for a 200 ton brig as outlined in Biddlecombe, *The Art of Rigging, 1848* (See Bibliography).

Miscellaneous Rigging (Line color as noted)

Rudder tiller tackle	0.012"	Tan Line 5/32" blocks
Cutting tackle pendants	0.040"	Black line (at main masthead)
Cutting tackle falls	0.028"	Tan line 1/4" blocks
Cutting tackle guy pendants	0.021"	Black line (at fore mast head)
Cutting tackle guy falls	0.021"	Tan line 3/16" blocks
Whaleboat lashings	0.018"	(gripes)
Line is lightly tarred; use tan line stained darker or black line		
Whaleboat davit tackle	0.012"	Tan line 5/32" blocks
Note: triple block only available in 3/16". File down to 5/32".		
Cat stopper (on catheads)	0.018"	Black line
Cutting stage slings & lanyards	0.018"	Black line

3. Sails and Sail Lines

Models with Sails

The plans for this model include a full open set of sails, but you have the option of building the model with sails furled, partially furled, or with no sails.

Most of the rigging text and detail sketches provided in the instructions will be addressing the model without sails. However, the following provides some typical model procedures if you prefer to add sails. Follow the plans for the specifics on each sail:

Making a model sail (Figure E-1) - Choosing the proper material is critical. Sailcloth for models must be lightweight, yet fairly opaque. Although linen is ideal, most is too heavy for small scale models, so select tightly woven cotton fabric. Wash the sailcloth several times to pre-shrink it. When dry, iron the fabric, but be careful not to scorch it. Lightly pencil in seams, tabling (hem) lines, and other reinforcements, then sew the seams using light tan cotton thread. A sewing machine makes fast work of the project. Practice on scrap fabric and balance the needle thread tension so it doesn't pucker the material. Stitch lines to represent reinforcement patches.

Before proceeding, iron the sails again and be careful not to scorch them. Next, cut the sail shape using Line A shown in the sketch. Fold the hem, iron it flat, and sew as close to Line B as possible. Tuck the ends and hand stitch the comers. The sail is now ready for stretching.

Stretching the material assures the sail's proper shape, since sewing may have altered it. Using the original pattern, trace the sail's outline onto a piece of paper. Place the paper on a solid but porous backing, such as a wood or cork board. Now wash the sail again and lay it over the outline. Stretch the wet material to the sail's outline's, then secure with stick pins through its outer edges. When dry, the sail will have resumed its proper shape. Iron it one more time.

Boltropes and Reef Points (Figure E-2) - Although boltropes (rope sewed to the edge of a sail to give it strength and prevent the fabric from ripping) can be omitted on small scale models, they add immeasurably to larger ones. The sketch shows the correct way to sew boltropes and install reef points.

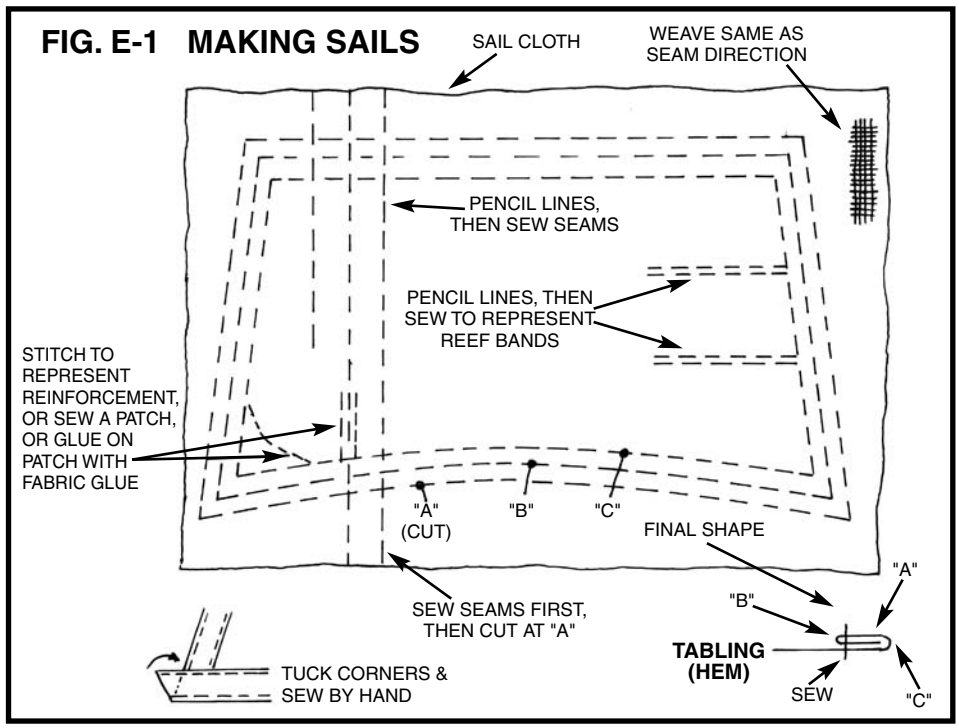
Sewing Aids - Visit a fabric shop and purchase a squeeze bottle of Fray-Chek, a light adhesive. Running or brushing a bead along the edge of a sail prevents the material from unraveling. Do this before attempting to roll the hem. Painting Fray-Chek on untreated fabric makes cutting easier and produces a crisp edge.

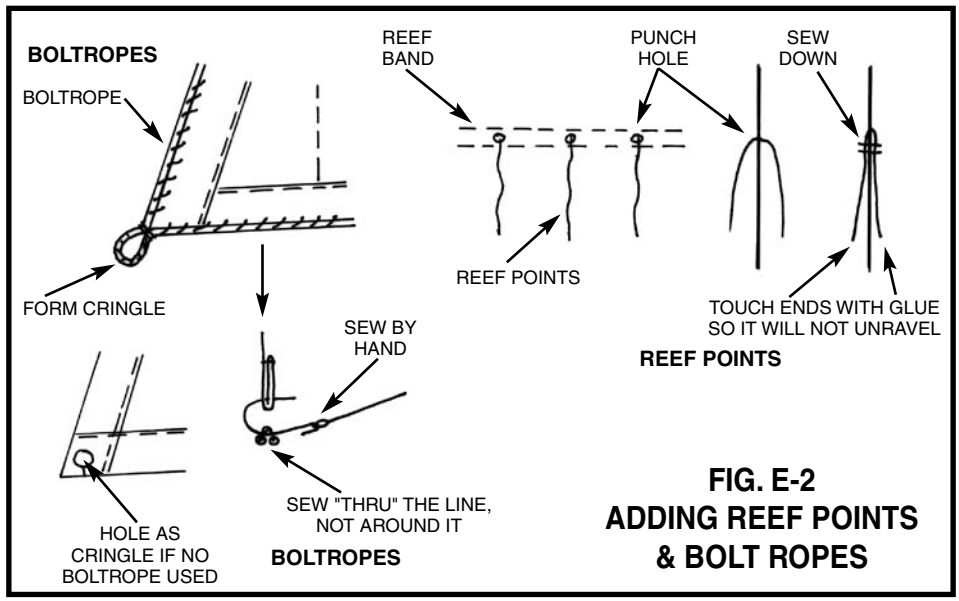
Stitch-Witchery and Wonder-Under are heat-fusing bonding tapes that resemble thin mat fiberglass. Stitch-Witchery comes in a roll and is bond-sensitive on both sides. To join two clothes, simply place a strip between them and iron. Wonder-Under comes in sheets with a thin paper backing on one side. While not needed for *Kate Cory,* it is useful for bonding letters and numbers to a scale sailboat's sail (maybe one of your future models). First, buy the colored fabric for the numbers. Place the Wonder-Under sheet on the cloth with the paper backing up. Iron the sheet to bond it to the fabric. Next, cut out the letters, numbers, logo, or whatever with scissors or a sharp blade. Peel off the paper backing, position the letter on the sail, and iron. This technique also works for making flags from colored fabric.

Material for Furling Sails - A sail cut to the original's scale size is impossible to furl. The fabric is usually too heavy, resulting in a bulky furled sail. To solve this problem, either buy a lighter material such as Silkspan (model airplane covering tissue) or proportionally reduce the size of a sail by one-third when using sailcloth (Figure E-3). Depending on their size, even Silkspan sails may require reducing by one-third. Test the percentage reduction to determine how much fabric is needed for a tight furl. Don't forget to add some seams and hems, for these details are visible even on furled sails.

Furled and Partially Furled Sails (Figure E-4) - Sails are often left partially furled, perhaps for drying the sail. This is a practice especially suited to square sails, with the sail pulled up with their clew lines and bunt lines. The sketch illustrates some “looks” of furled and partially furled sails.

Note: Model Shipways has silkspan and a balooner cotton sail cloth. Check their web site. The balooner cloth may be a little heavy for this model. A lighter cotton cloth would be a better choice.





Model without sails

Even without sails, some of the rigging lines such as sheets, halliards, downhauls, and clew lines are to remain, along with their lead blocks. Some of the lines are to be hooked together, such as head staysail halliards and sheets, and yard clew lines and sheets. The hauling ends of these lines should be belayed at their proper locations. Installing these sail rigging lines on the model adds tremendously to the look of the model, especially at the stays where the contrasting black stay and light running lines, along with their blocks, create interesting visual detail.

4. Applying Beeswax to the Lines

Before placing rigging lines on the model, run the line through a block of beeswax several times. Then, run the line through your fingers. This heats the wax slightly and rubs it into the line. The beeswax will cut down on fuzz and protect the line from moisture.

5. Seizing Rigging Lines

Seizing of lines (binding or securing two lines or different parts of the same line) can be done as shown in Figure E-5. To prevent seizings from unraveling, add a touch of CA glue. For seizings, use the smallest line in the kit or sewing thread.

6. Fittings & Block Strops

Making Fittings -This model is of a period when iron fittings were used extensively throughout the ship. Most of these fittings on the model must be made from scratch unless a casting is provided. Brass is a preferred material for these fittings, which may or may not require soldering, but there are other options that can be considered. The following listed sketches illustrate some typical fittings and some simplified methods for modeling them. The methods can be applied to any similar fitting.

Figure E-6 - Rigging bands found around such items as masts, yards, booms, gaffs, bowsprits, and jibbooms.

Figure E-7 - Fixed yard truss. The *Kate Cory* kit includes a casting for the crane, but it needs to be shaped a bit. Or, you could substitute a square brass or simple wire crane.

Figure E-8 - Moving yard parrel. The *Kate Cory* has a rope parrel fixed to wood cheeks on the yard. This is a simple inexpensive solution. Many ships could have a hinged metal strap.

Note that brass strip, self-adhesive copper tape, and eyebolts are provided in the kit. Sufficient quantities are supplied no matter which method you choose for your fittings.

Block Strops - A strop is an iron or rope band or grommet around the shell of a block for attaching lines. The blocks in the kit are fairly small so it will not be easy for you to create the exact detailing. Some modeling shortcuts are in order. See Figure E-9 for some life-size ship details and model options.

Note: For the *Kate Cory,* like the other metal fittings, iron stropped blocks will be used quite often. However, rope stropped blocks were also used and often preferred to prevent chafing of sails, safety, and other reasons. You won't be wrong, no matter which method you use. The reprint of the book *Spars and Rigging from Nautical Routine* (See Bibliography) is an excellent text to consult for the period. Both iron and rope stropped blocks are discussed.

FIG. E-3 SAIL SHAPES FOR FURLING

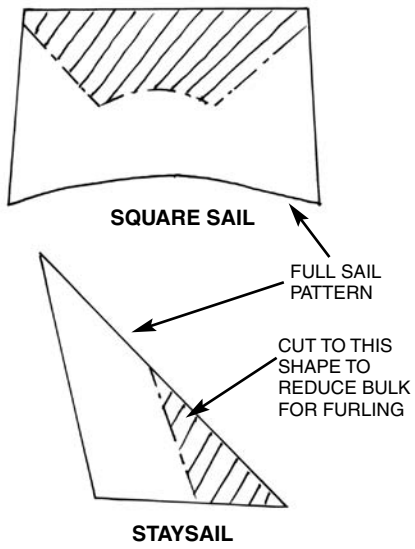


FIG. E-5 SEIZINGS

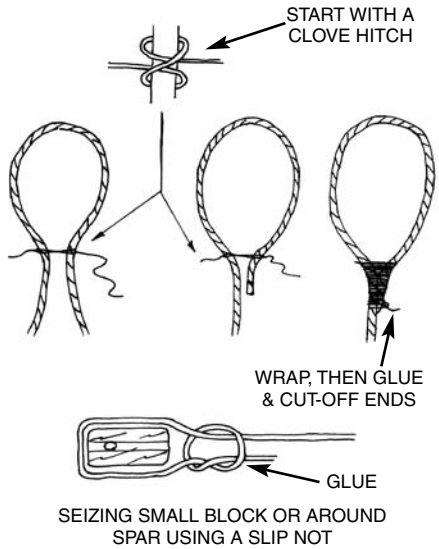
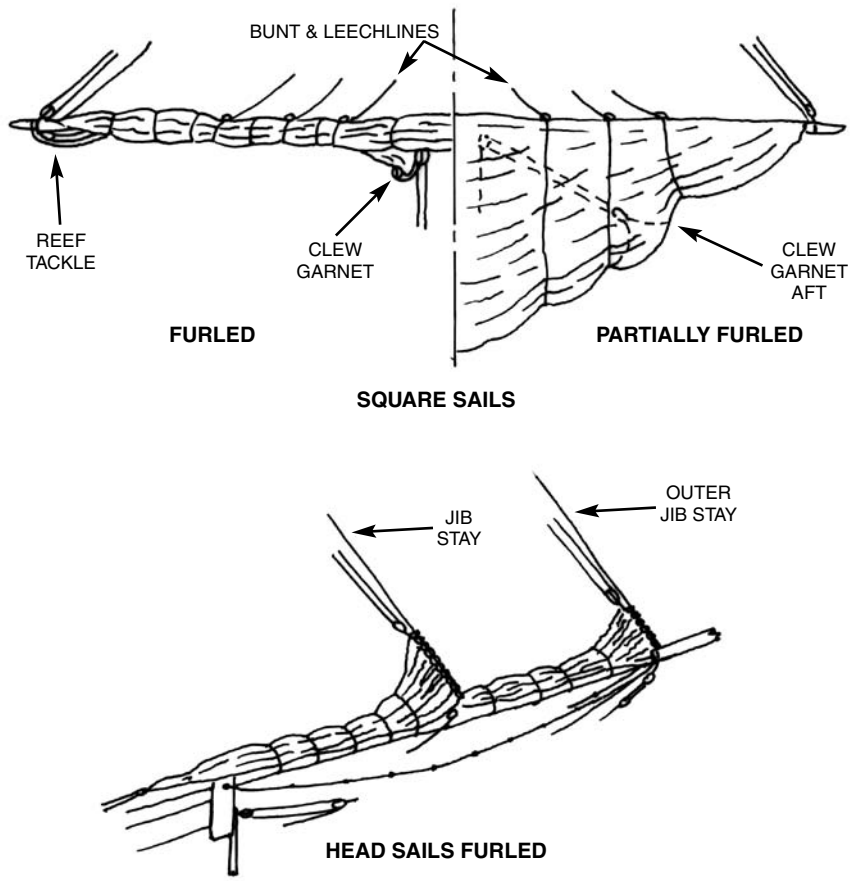


FIG. E-4 FURLED & PARTIALLY FURLED SAILS



7. Rigging Tools & Belaying Lines

To aid the rigging process homemade tools can be made from brass rod with a push fork end or a hook end (Figure E-10). Use a brass rod long enough to reach in where your hand cannot. Such tools are also available commercially.

When belaying lines on small scale models it is best to secure the line to pins or cleats first. Then add a coil of line on the belaying point separately. See Figure E-11.

A word of advice - Rigging plans are sometimes hard to follow. Lines may cross each other and they sometimes go behind something or seem to disappear into thin air. Before you start the rigging, get a notebook and do a small sketch of each rigging line on a separate page. Sketch in where the lines end such as at an eyebolt and label these points. If something seems to be missing when you view your sketches, seek help or find the answer in a rigging text (consult the bibliography). Use the final sketches as you rig the model. You won't need to crawl your way thru the rigging plan again.

When rigging such items as yards, booms and gaffs, do as much rigging as possible with the item in hand before installing the part on the model. Seize the lines to the part and have enough running rigging line so it can reach to its final destination, such as a belaying pin, with a little line left. Better to be too long than too short. Standing rigging such as yard footropes are included as these would be very difficult to do with the spar hanging at the mast.

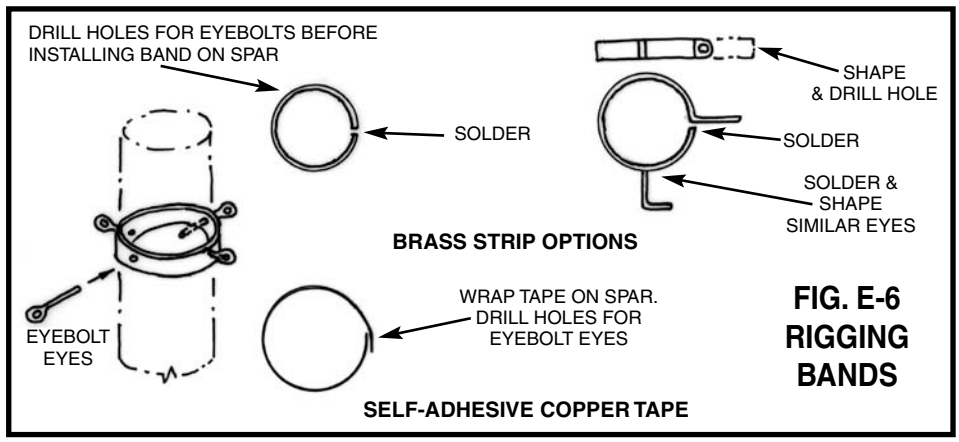


FIG. E-6 RIGGING BANDS

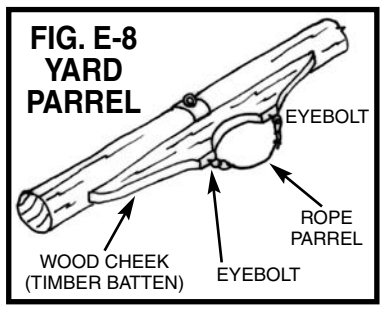


FIG. E-8 YARD PARREL

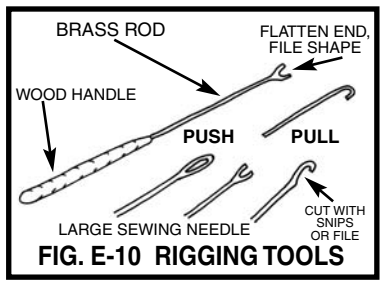


FIG. E-10 RIGGING TOOLS

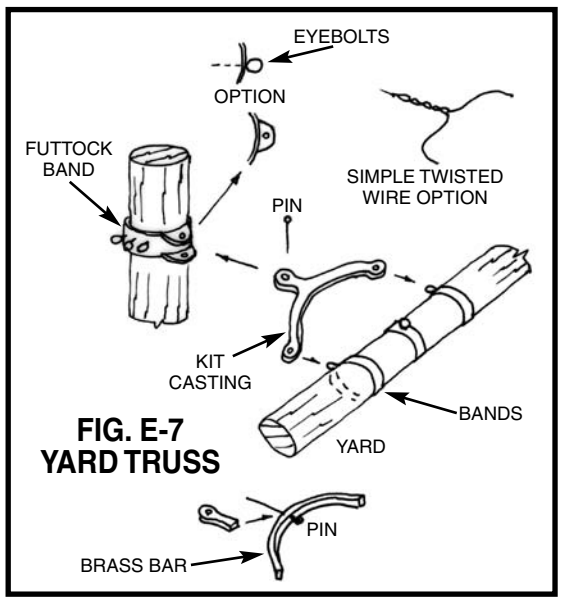


FIG. E-7 YARD TRUSS

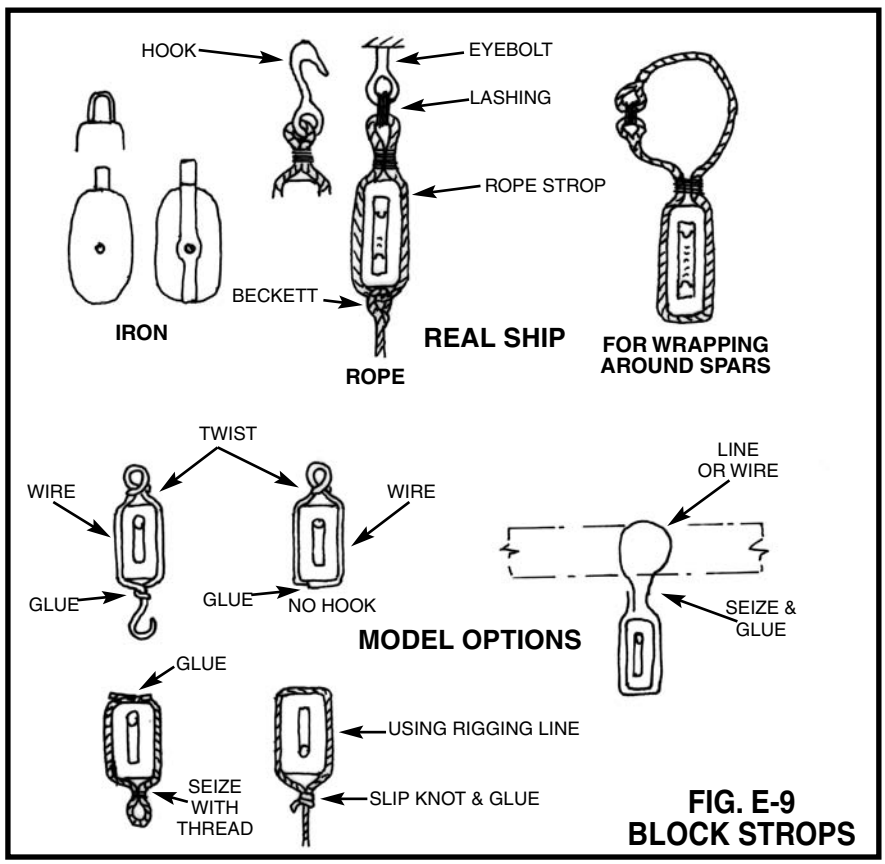


FIG. E-9 BLOCK STROPS

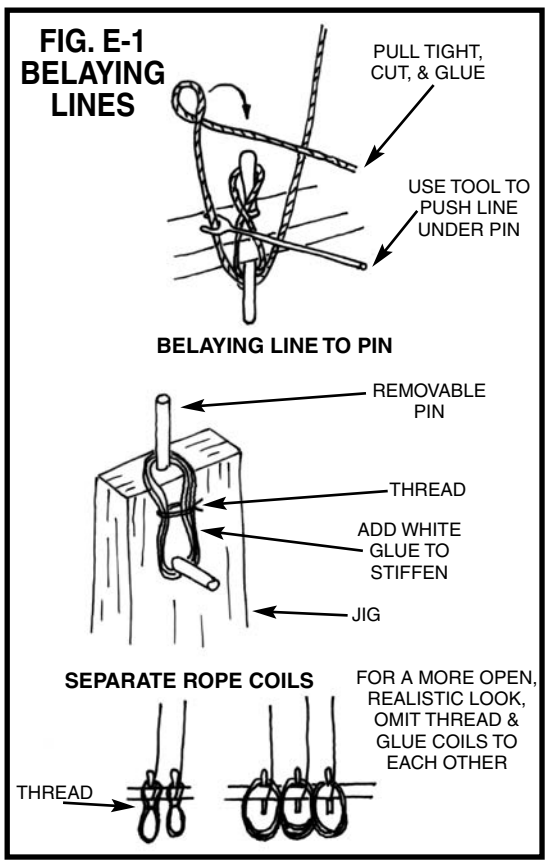


FIG. E-1 BELAYING LINES

Most references call a mast a mast, and anything else such as a boom, yard, gaff, and bowsprit a spar. Let's stick with that definition.

Except for the bowsprit, the mast and spar dowels included in the kit are round. True to scale, masts and spars must be tapered for their full length.

1. Shaping the Masts & Spars

Tapering the Masts and Spars

The correct shape of the masts and spars are shown on the plans. Each of the mast and spars are generally tapered in a slight (parabolic) curve. However, for models, it may be difficult to accomplish a parabolic shape. A straight line taper should be sufficient. The best way to taper masts and spars from dowels is to cut the taper into squares, then octagons, and finish by sanding into a round shape (Figure F-1).

The fore topgallant and royal mast, and main topmast and lookout mast, are actually single masts. At the royal and lookout trestletrees the mast diameter steps down at that point.

At the top of the royal and lookout masts there is a pole which also steps down (a rigging stop). A rigging stop is simply a shoulder formed by the reduction of the mast diameter going above. The shoulder prevents the lines from sliding down the mast. For the model, the poles are getting rather thin at the step. To actually cut these particular shoulders could weaken the mast and it could break. Instead, as an option, wrap the mast with thread or the self-adhesive copper tape and glue to form a fake shoulder (Figure F-2).

Shaping the Mastheads & Heels

After tapering, the next areas of the masts to be shaped are the mastheads and heels where the masts join together at the doublings (see plans for location).

The fore and main lower mastheads and the fore topmast head have a square tenon at the top for fitting the mast cap. The foremast also has flat sides below the top for the trestletree cheeks.

The heels of the fore and main topmast and the fore topgallant masts are square, then transitions into the round shape . A fid is located in each topmast and topgallant mast heel to prevent them from falling through the holes formed by the trestletrees and cross trees.

Figure F-3 illustrates the shaping of the mastheads, heels and the fid. Since you are dealing with wood dowels, the sketch also shows how to build the square ends by adding wood to the cut-end. Adding wood is necessary because the dimension across the flats of the square must be the same as the dowel diameter. Consequently, the diagonal of the square is greater than the dowel diameter.

FIG. F-1 TAPERING DOWELS

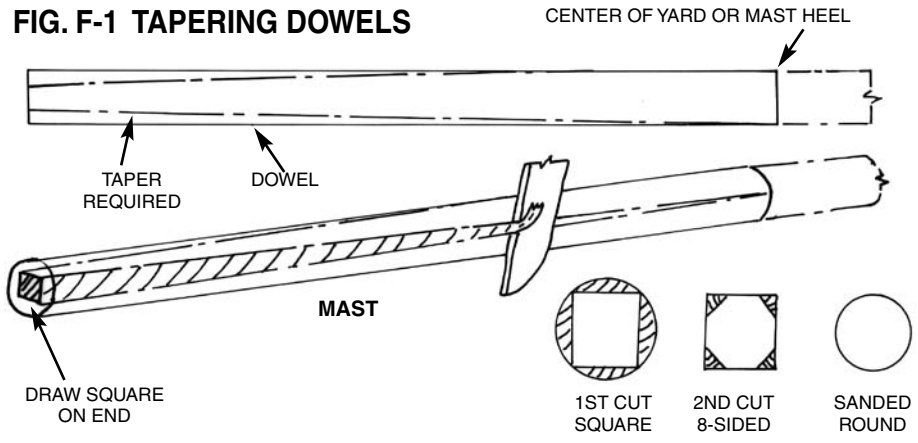
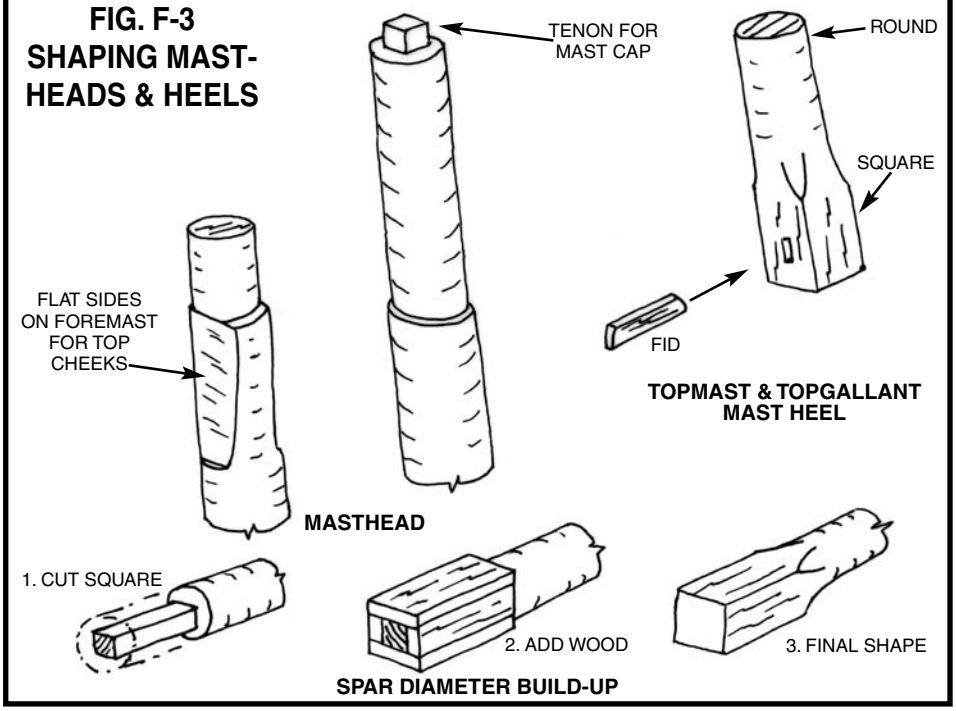


FIG. F-3 SHAPING MAST-HEADS & HEELS



2. Assembling the Masts

The mast caps are laser-cut parts. Add all bands and fittings to the caps before assembling the masts, or at least before you install the assemblies into the holes in the deck. The fore top in this kit is a Britannia casting but you could substitute wood if you prefer. Other trestletrees and cross trees must be made from stripwood. Fit the topmasts and topgallant masts in the mast caps, then fit the assembly to the mast below. Make sure the masts at the doublings are aligned per the plan.

Mast Details - Before painting and staining the masts there are a few details to add. Drill the holes representing sheaves thru the masts for yard halyard tyes. The mainmast has a rest for the boom. This is a casting provided in the kit. Slide and glue the casting onto the mast. You may need to file out the hole for a proper fit. Also, the chocks are a bit long so should be filed down somewhat. Add the spider band on the foremast near the deck. Add the trucks

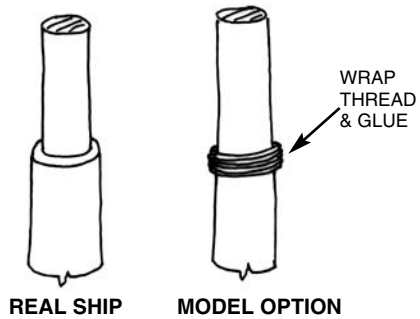


FIG. F-2 RIGGING STOPS

on top of the royal and main lookout mast poles. Add the throat and peak halliard bands, futtock bands and lower yard truss, and any eyebolts required for rigging. Figure F-4 illustrates some assembled mast details.

Mainsail and Main Gaff Topsail Mast Hoops - These need to be put on the mainmast before installing the masts if you elect to include them. Refer to Stage H for a discussion on the hoops.

3. Shaping & Detailing the Spars

Yards

Shape the yards in the same manner as the masts. The maximum diameter of each yard is at its center. Taper the yards outward from each center.

Yard Details - You need to detail the yards as much as possible before placing them on the masts. Drill holes (sheaves on real ship) in the ends of the yards for the sheets from the sail above. Add the necessary eyebolts for the various rigs.

Jackstays are wood, typical of whalers, and are laser-cut parts. Note that the jackstays are on top of the yard but slightly forward of the yards centerline. Add all the parrel and truss fittings.

Figure F-5 illustrates a typical yard.

Boom & Gaffs

The main boom and gaff also taper, but the maximum diameter of each spar should be about one-third from its fore end. Add all the fittings like the boom sheet band, gaff halliard bands, and any cleats.

The boom and gaffs also require that jaws be added to their throats for joining to the masts. The jaws are laser-cut wood parts (Figure F-6).

Bowsprit, Jibboom, & Dolphin Striker

The bowsprit is rectangular inboard with chamfered edges, changing to round just beyond the bow. To save adding wood to create the rectangular shape like you did with mast heels, stripwood is provided in the kit for the bowsprit. A tenon is required at both ends of the bowsprit to fit the bowsprit cap and the samson post on deck.

The bowsprit should be 1/4" wide x 5/16" maximum in the rectangular area. Your first step is to plane one side of the 5/16" square strip provided down to 1/4". You can then proceed to add the tapers, chamfers inboard, and transition to a round spar outboard per the plan.

The jibboom is round and tapers inboard and outboard of the bowsprit cap. On the inboard end, cut the tenon to fit into the jibboom heel block at the bow on top of the bowsprit. Add the rigging bands and other fittings. Drill the holes for stays to pass thru.

The Dolphin Striker is a simple tapered round spar. Add the fitting at the top and bottom of the spar. The cleats at the bottom can be a bent wire with flattened ends.

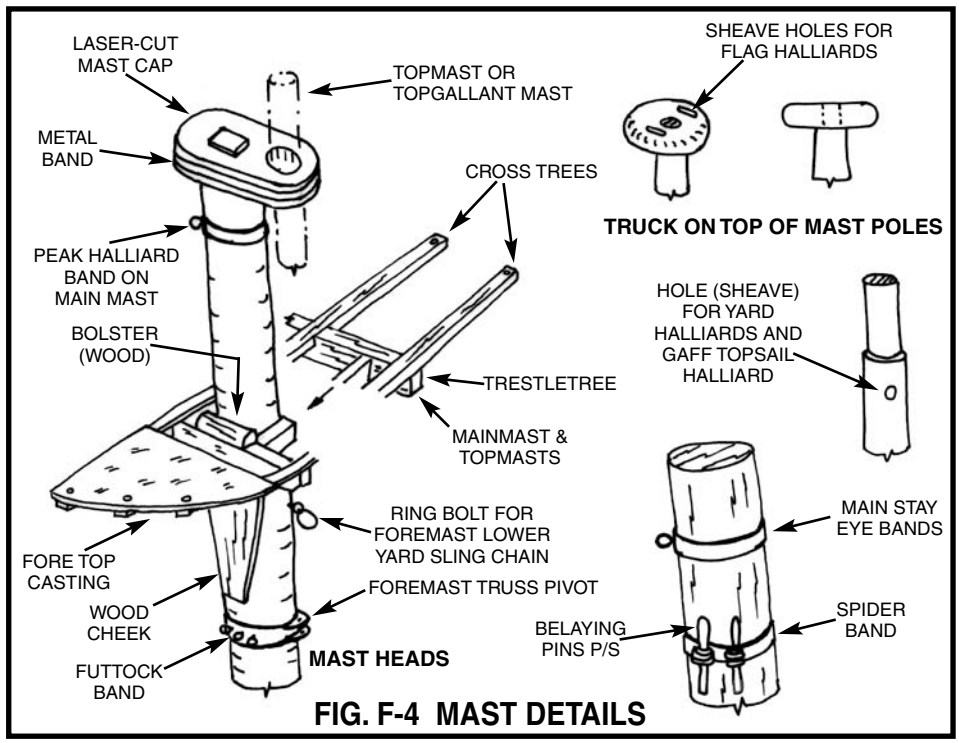
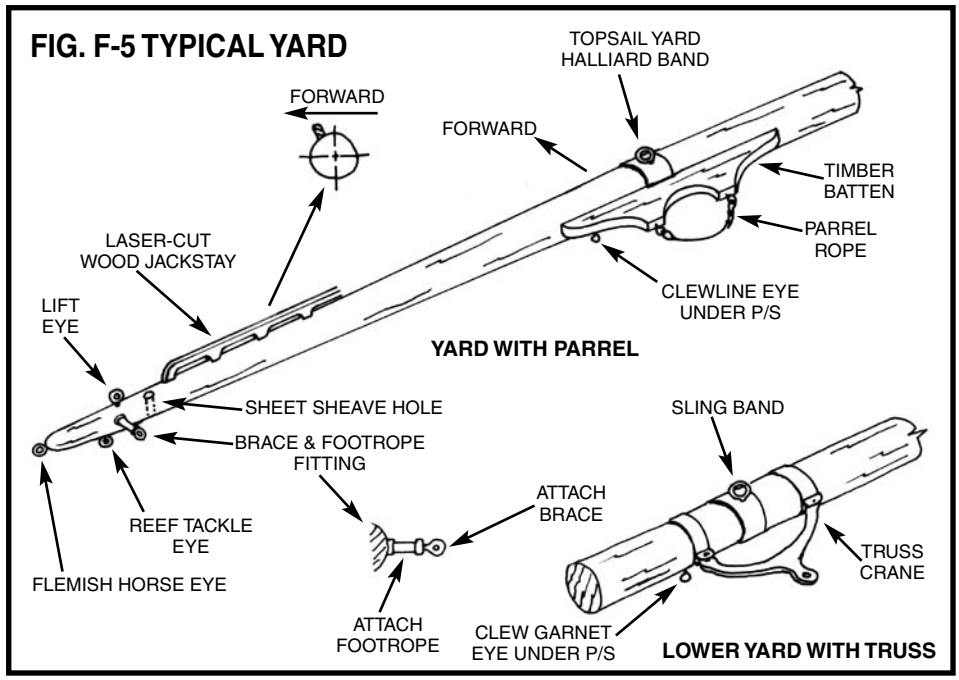


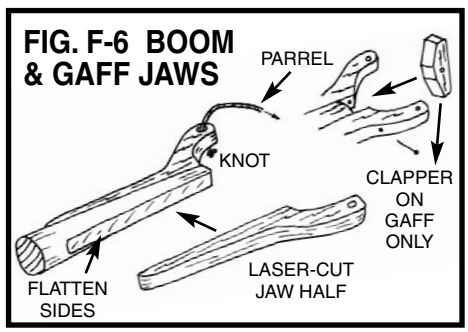
FIG. F-4 MAST DETAILS

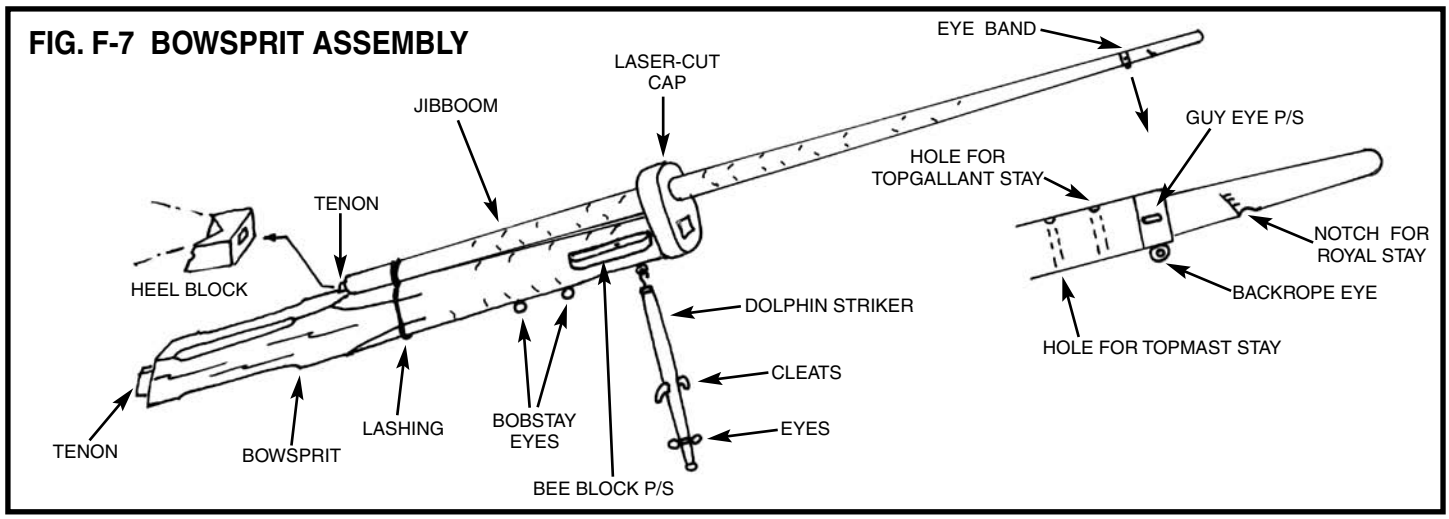


Assembly and Installation - Glue the bowsprit cap (laser-cut part) onto the bowsprit. Insert the jibboom, and fit into a block on top of the bowsprit at the bow. Fit the dolphin striker (proper name martingale) to the bowsprit eyebolt. Add the side bees for the inner fore topmast stay (Figure F-7).

4. Installing the Mast Assemblies

It is recommended that before installing masts, secure the yards, boom and gaff to the masts. Temporarily hang them with some line so they don't flop all around. Install the mast assemblies in the holes drilled into the deck. Check the alignment and shim if necessary, then add the mast coats. The mast coats are actually canvas covers over the wedges on a real ship holding the masts in place. For the model, mast coat halves are laser-cut parts. Add these at the deck around the masts.





STAGE G: STANDING RIGGING

1. Bowsprit Rigging

Begin the standing rigging with the bowsprit. Install the two bobstays, the inner and outer martingale stays, the port and starboard martingale backstays (all chain). Next, rig the footropes, bowsprit shrouds, and the jibboom shrouds. Figure G-1 illustrates the rig to this point. Rigging at the bowsprit will be completed while and after installing the foremast (head) stays. But first, the mast shrouds need to be installed since the head stays and all fore and aft stays go over top of the shrouds at the mastheads.

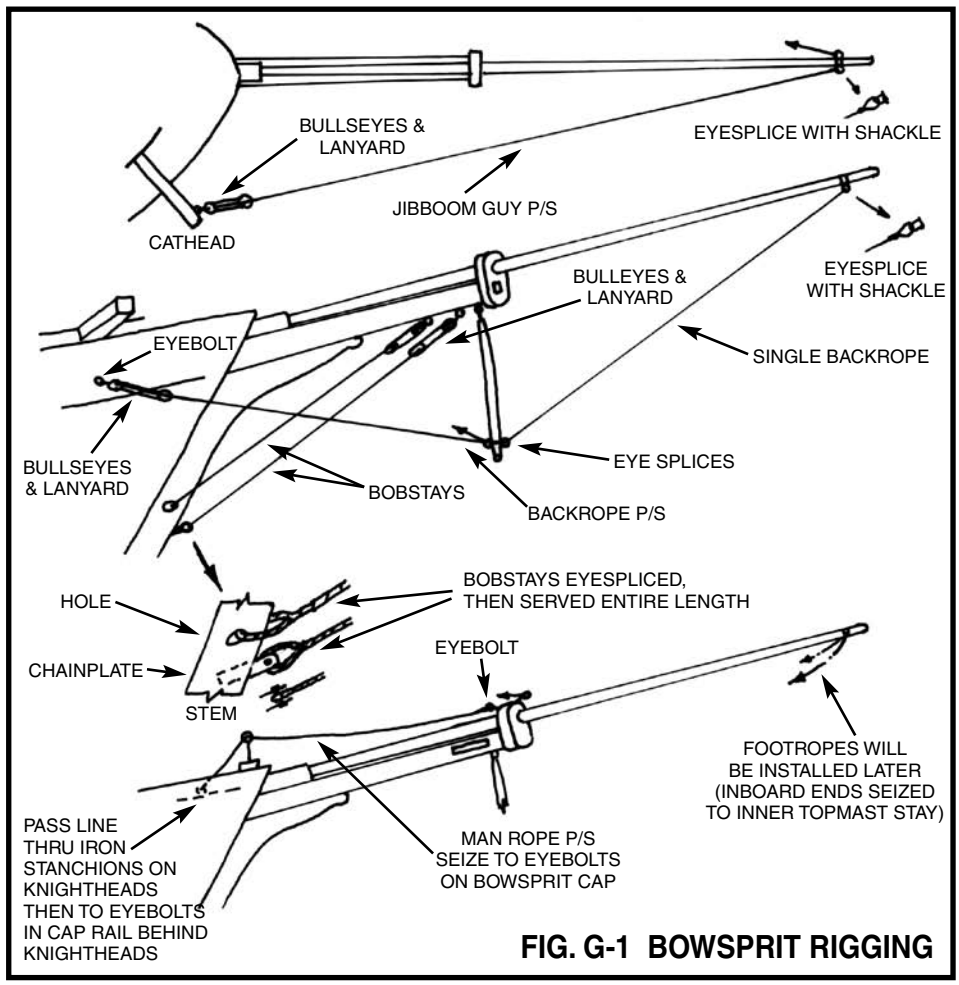


FIG. G-1 BOWSPRIT RIGGING

2. Shrouds & Backstays

Shrouds - The lower shrouds are set up with deadeyes and lanyards at the channels and attached along the outside of the ship using chain plates and backing links. These fittings are to be made of wire provided in the kit (Figure G-2). Note that the real ship had formed metal rod with brazed ends that avoided the more common separate deadeye strops bolted to the chain plate.

To set up the shrouds, make a temporary jig of wire to space the deadeyes as you do the seizings (Figure G-3). The sketch also shows the sequence for reeving the lanyards and the proper sequence for the shrouds going around the mastheads. Keep an eye on the masts as you rig the shrouds, so you will not pull them out of line.

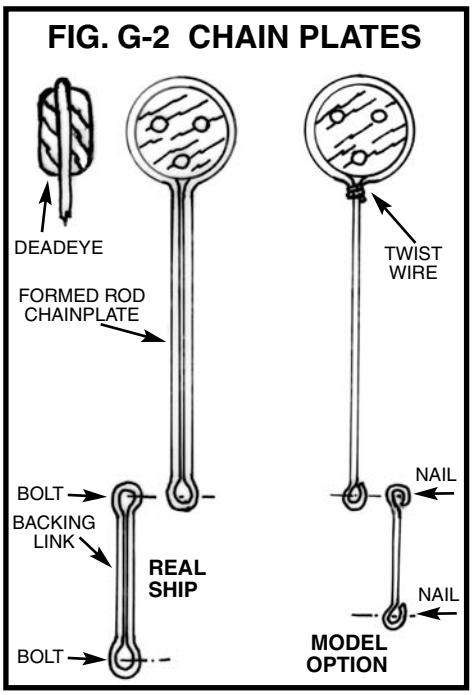
The fore topmast and topgallant shrouds, and the main topmast shrouds are set up to single bullseyes on the cross trees supported by iron (brass wire for model) futtock shrouds. The lower end of the futtock shrouds are bolted onto the futtock bands on the mast.

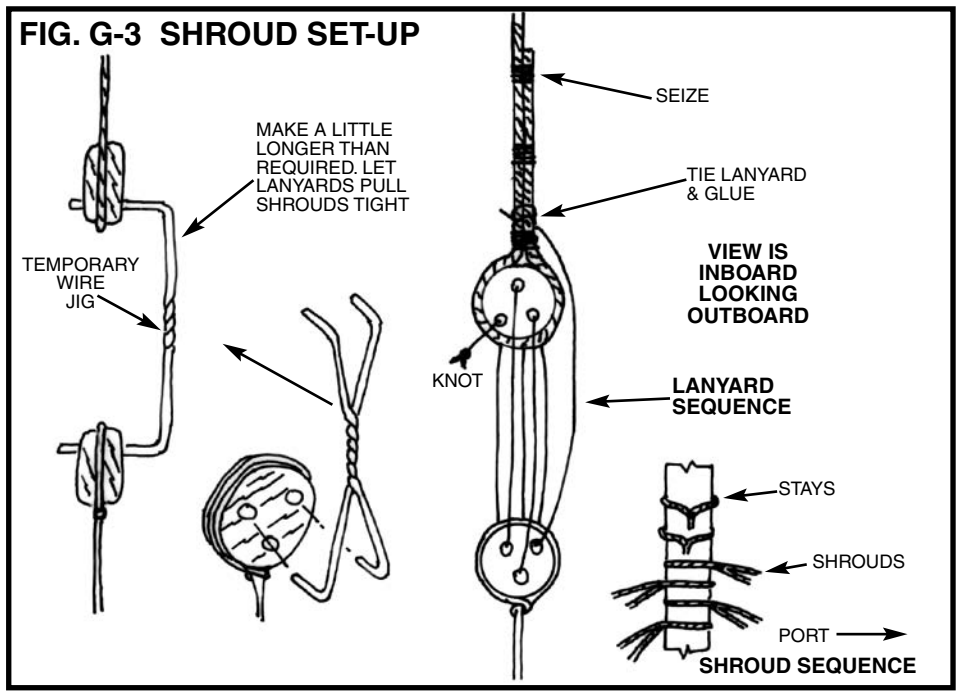
The fore royal and main lookout shrouds have no deadeyes or bullseyes and pass thru holes in the cross trees and are seized to the shrouds below. The fore royal and the main lookout shrouds have life lines about 9/16" (model) above the cross trees. Seize the line on the aft shroud, then around the fore shroud. From there to the mast, wrap around mast, then to the opposite shrouds. This life line is for the lookout seaman and is a simpler version than metal hoops found on many larger whalers.

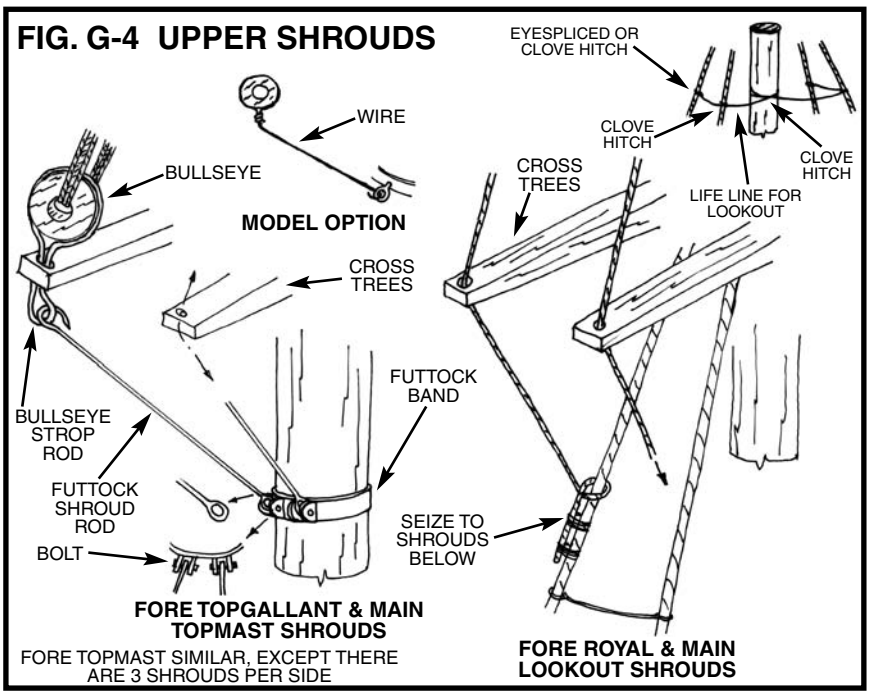
Figure G-4 illustrates the upper shrouds.

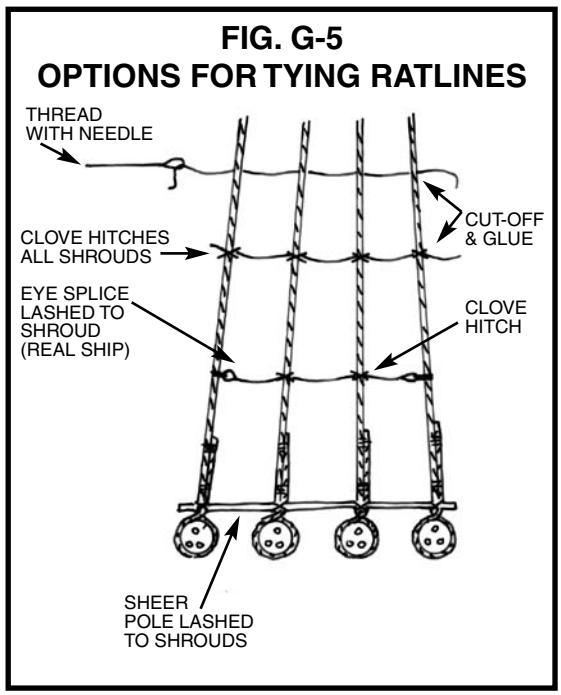
Backstays - The fore topmast backstays are set up with deadeyes and chain plates at the hull similar to the shrouds. The fore topgallant backstays and the main topmast backstays are set up at the hull with a chain plate but the lines are whipped and seized around a thimble in eyes of the chain plates.

Ratlines - After the shrouds and backstays are in place, proceed to add the ratlines. They are fitted on all shrouds except the royal and lookout shrouds. Also, add the sheer poles on the lower shrouds. The sheer poles could be an iron rod or wooden batten. The dimensions for both types are shown on the sail plan. Figure G-5 shows real ship practice and various model options.









3. Foremast (Head) Stays

Forestay -The forestay is not fully defined on the rigging plan. It is a double line passing around the masthead and under the bowsprit. Cut a groove under the bowsprit for the loop. Just below the masthead and above the bowsprit seize the two lines together (Figure G-6). A point of note; this stay is the original schooner rig jib stay shortened.

Inner Fore Topmast Stay (or jib stay) -This stay is also double and is seized together just below the masthead and above the bowsprit. The lower ends pass thru the port and starboard bee holes on the bowsprit and are seized to a bullseye at the bow (Figure G-7).

Note - The rigging plan labels the stay "fore stay" from the bees back to the hull bullseyes. This is incorrect.

Outer Fore Topmast Stay (or flying jib stay) - The single line feeds thru a hole in the jibboom, down under the starboard cleat on the dolphin striker and is set to bullseyes and lanyards on the starboard side of the hull (Figure G-8).

Fore Topgallant Stay - This single line stay feeds thru another hole at the end of the jibboom, then under the port cleat on the dolphin striker, and is set to bullseyes and lanyards on the port side of the hull (Figure G-9).

Fore Royal Stay - This is a single line seized around the masthead and at the end of the jibboom. Cut a groove around the lower side of the jibboom for seating the loop.

4. Mainmast Stays

Inner Mainstay - This is a single line eyespliced around the masthead. The lower end sets to a single bullseye on a band around the foremast (Figure G-10).

Outer mainstay - This is a single line eyespliced around the masthead. Lower end sets to a single bullseye on the fore top (Figure G-11).

Spring stay - Single line seized to eyebolt on mainmast cap. Lower end seized to eyebolt on fore topgallant trestletrees (Figure G-12).

Main topmast stay - Single line eyespliced around topmast at lookout trestletrees. Lower end seized to eyebolt in fore topgallant trestletrees (Figure G-13).

Main topmast spring stay - Single line eye-spliced around main topmast pole (rigging stop). Lower end seized to eyebolt in fore royal trestletrees (Figure G-14).

5. Yard Lifts, Footropes, Stirrups, Sling, & Truss

These lines and fittings are actually a part of the standing rigging but we will defer the instruction to running rigging, Stage H. These rigs are best installed along with some running rigging while working with the yards.

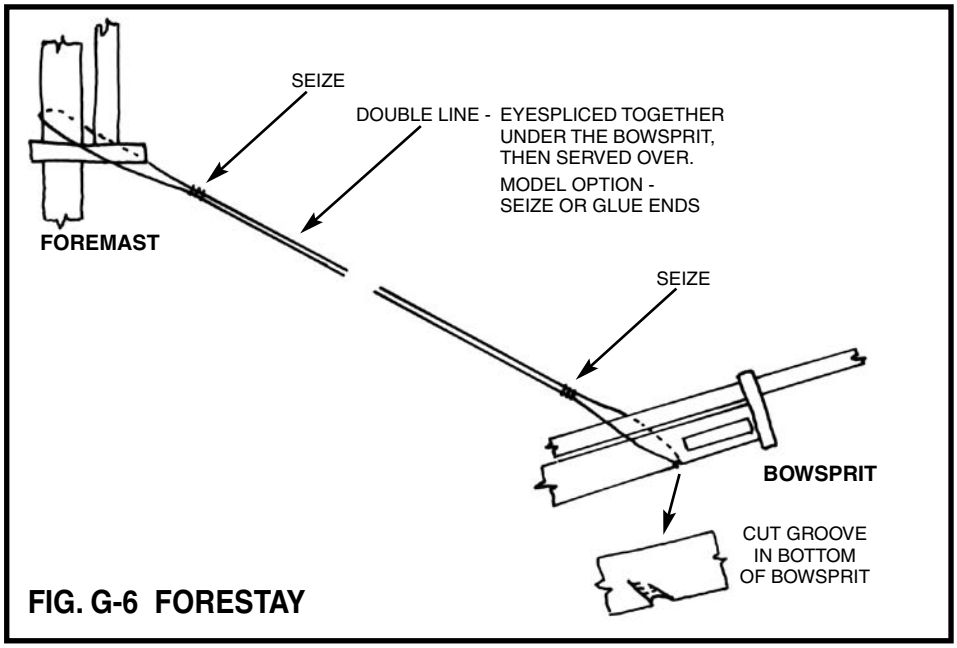


FIG. G-6 FORESTAY

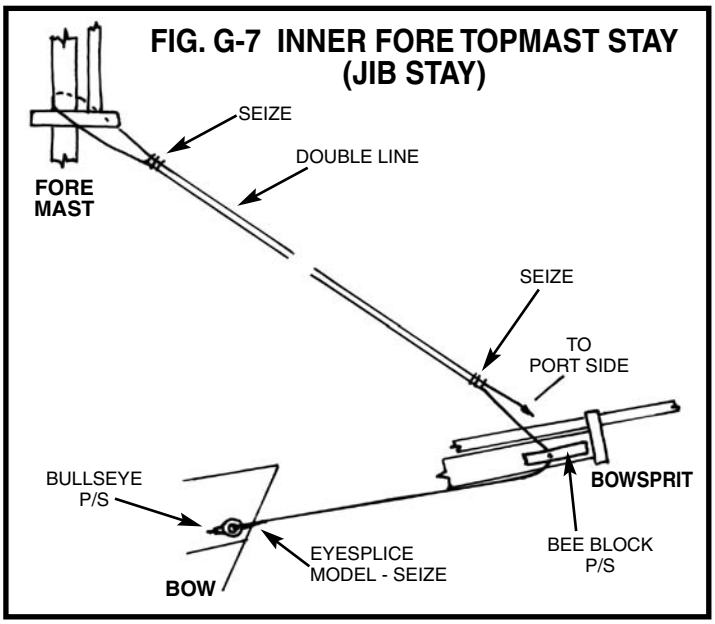


FIG. G-7 INNER FORE TOPMAST STAY (JIB STAY)

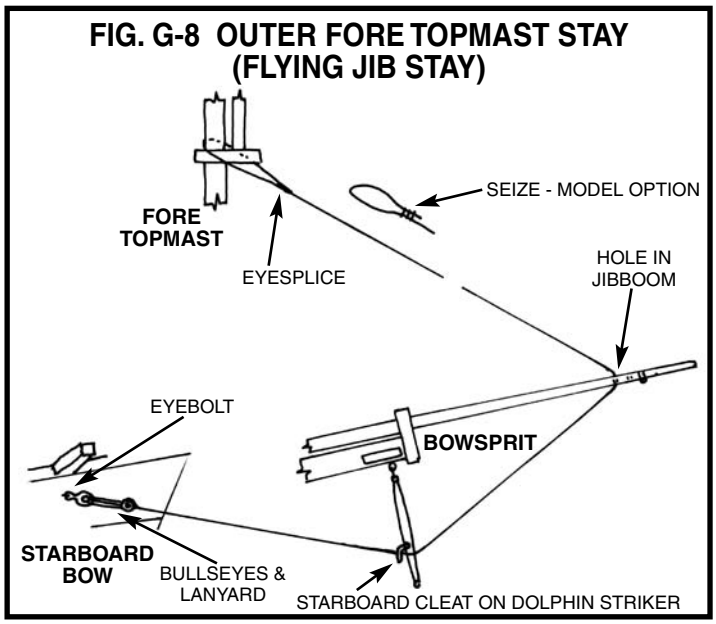


FIG. G-8 OUTER FORE TOPMAST STAY (FLYING JIB STAY)

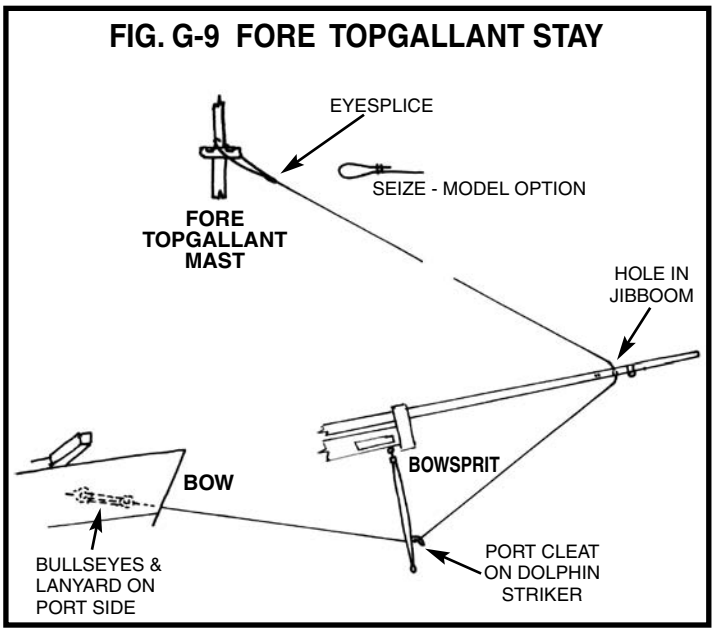


FIG. G-9 FORE TOPGALLANT STAY

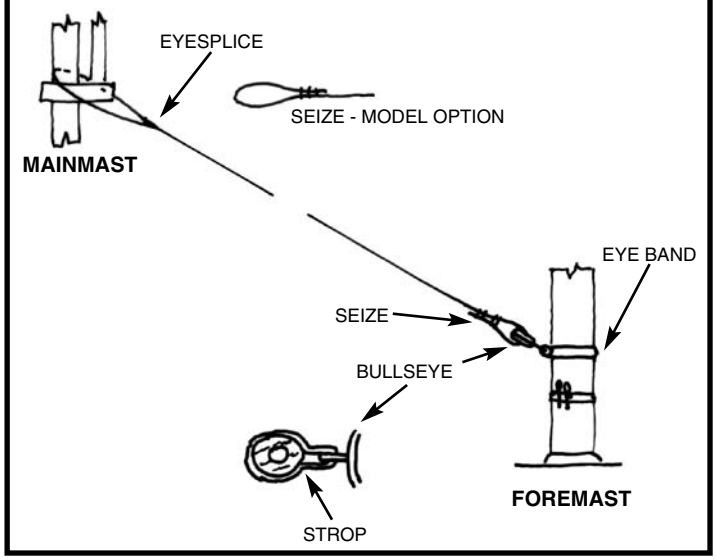
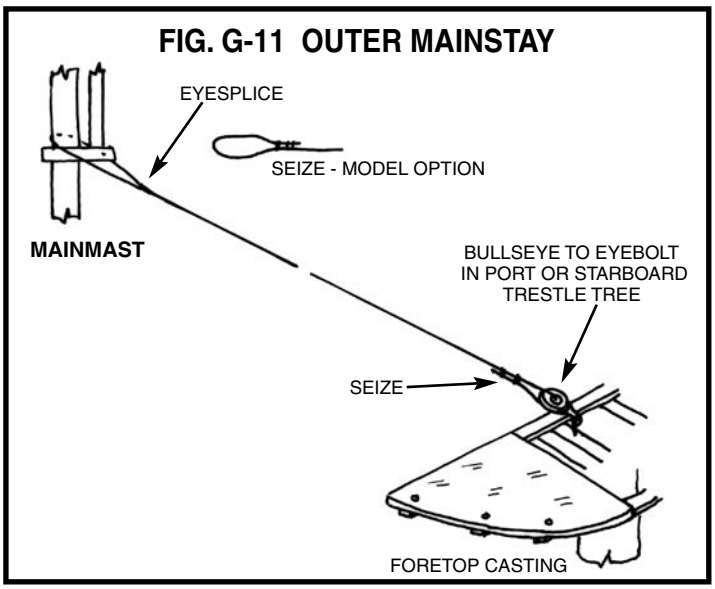
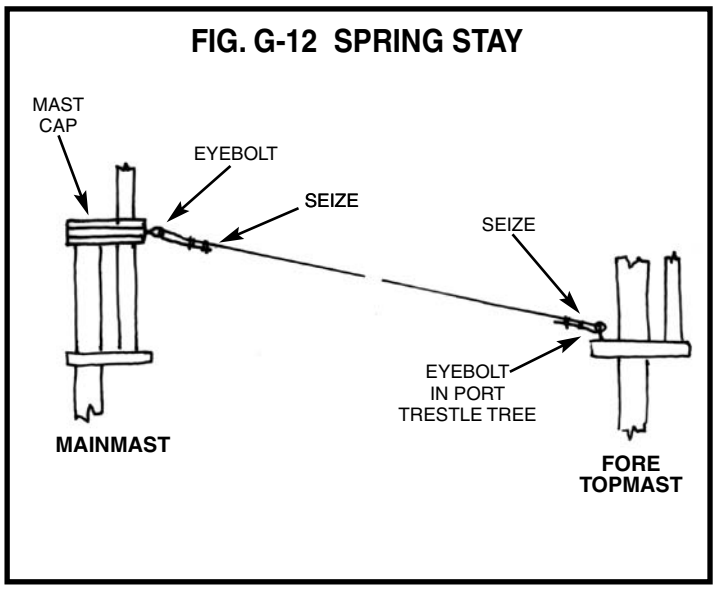
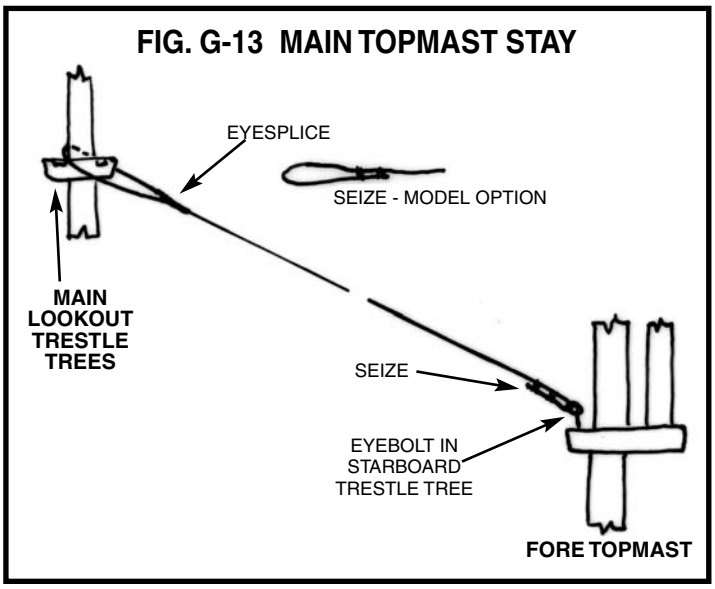
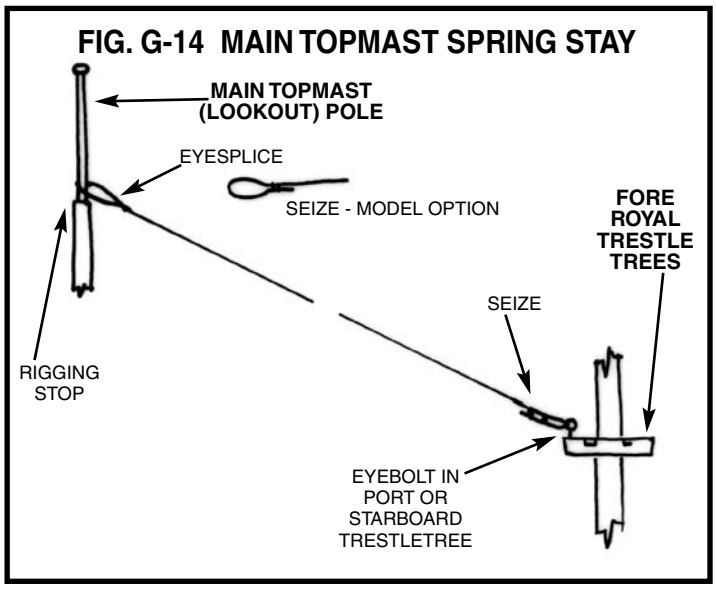


FIG. G-10 INNER MAINSTAY









STAGE H: RUNNING RIGGING

Before starting on the running rigging, have all your blocks stropped and/or seized to a line as much as possible.

As noted in Stage E, the instructions concentrate on a rig without sails. However, if you intend to install sails, either full-up or furled, refer back to Stage E for some of the suggested model details.

1. Foremast Staysail Rigging

The jib and flying jib are both rigged essentially the same. They have a halliard, downhaul, and sheets which are fitted port and starboard. With sails removed, the sheets are generally removed along with the sails. The halliard and downhaul can remain and be hooked together. Place the hook point just above the downhaul block which is seized to the lower end of the stay just above the jibboom.

If fitted, the sheets are attached by a knot and fed back thru the fairlead bars on the bulwark port and starboard.

The downhauls belay to the pins in the cap rail near the knightheads. Topside, each halliard feeds thru a single block seized to the eye of its respective stay. The halliards go to the deck and are belayed to belaying pins on the foremast spider band. Refer to the belaying diagram on Plan Sheet 3.

Figure H-1 illustrates the jib and flying jib rig.

2. Main Staysail Rigging

Like the head stays, the main topmast staysail, main outer staysail, and main inner staysail are rigged in a similar manner with just a few differences. The halliard for the main topmast staysail has only one block (none at the sail). They all belay on the pin rail. The downhauls belay to the pin rail except for the inner staysail which belays to a cleat on the foremast.

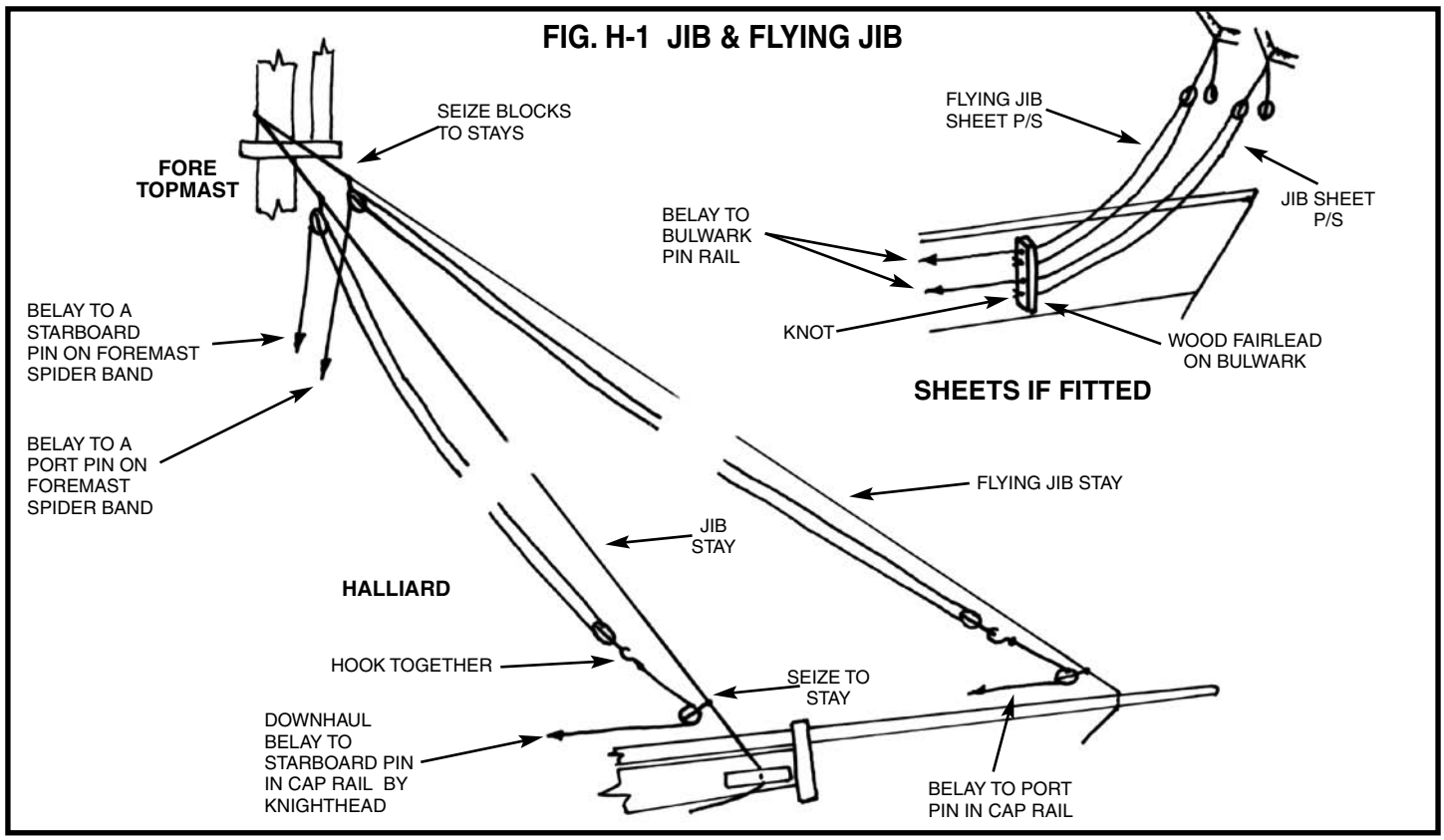
Seize all downhaul blocks at the bottom of their stays. For model without sails, hook the downhaul to the halliard just above the downhaul block. The figure provided for the head stays is similar.

Note that if sheets are fitted, the upper sail sheets feed thru fairleads seized to the shrouds port and starboard. The fairleads are similar to a deadeye or bullseye. The inner staysail is a single line and belays at the main bitts on deck.

3. Mainsail & Main Gaff Topsail Rigging

The mainsail is often called a “spanker” on many ships.

With no sails you must decide how to display the gaff; up or down. The appropriate decision is down and about parallel with the boom. Some modelers like it up to fill the space aft of the mast. Our prototype model



is rigged in this fashion. You can do this but with no vangs on this particular rig, the gaff would tend to flop sideways. One solution is to glue or pin the gaff jaws to the mast.

We will assume the gaff is down and proceed on that basis. You were advised earlier to add mast hoops on the mainmast before it was installed. You should have some mast hoops for the mainsail and the gaff topsail on the mast. However, these are not supplied in the kit. Ignore them or make your own from wood or use some brass rings.

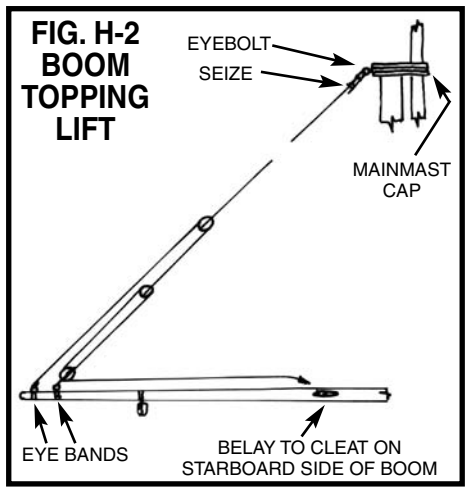
Boom Topping Lift & Boom Sheet - Rig the topping lift first to position the boom, then the sheet to hold it down. The topping lift pendant (black line) is fixed to an eyebolt at the mast cap. Rig the running tackle and belay it to a cleat on the starboard side of the boom. Locate the cleat about 1/3 length of boom from the boom jaws (Figure H-2).

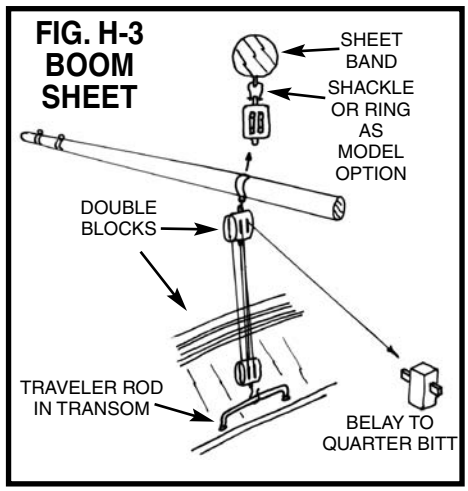
The lower block for the boom sheet has a hook fitted to hook the traveler rod on the inside of the transom. The upper block is shackeled to a band eye on the boom. Belay the fall to the port quarter bitt on deck (Figure H-3).

Mainsail outhaul - Without a sail you can eliminate the outhaul or for more detail tie a knot at the outer end of the boom. Run the outhaul thru the hole in the boom and belay it to a cleat on the port side of the boom about same location for topping lift.

Reef tackle - Without sails this rig can be eliminated.

Boom tackle - There is a band with eye on the bottom for the boom tackle. This band is





located forward of the sheet band. Rig the tackle, and for storage, run it along the boom and lash it to the boom. This tackle is an added support for the boom when under sail. When in use, the tackle would probably be hooked to a quarter bitt.

Boom Footropes (black line) - These are fitted port and starboard. The outer ends are seized to the band at end of the boom, and fore ends to the side eyes of the main sheet band.

Gaff Throat and Peak Halliards - Rig the halliards per the plan. The throat halliard is the simpler rig of the two with a tackle at the gaff jaws and the running end goes directly to the port pin rail. As shown on Plan Sheet 3, mainmast view, the peak halliards have a take-up tackle on the port side, and a hauling end on the starboard side, belaying to the pin rails (Figure H-4).

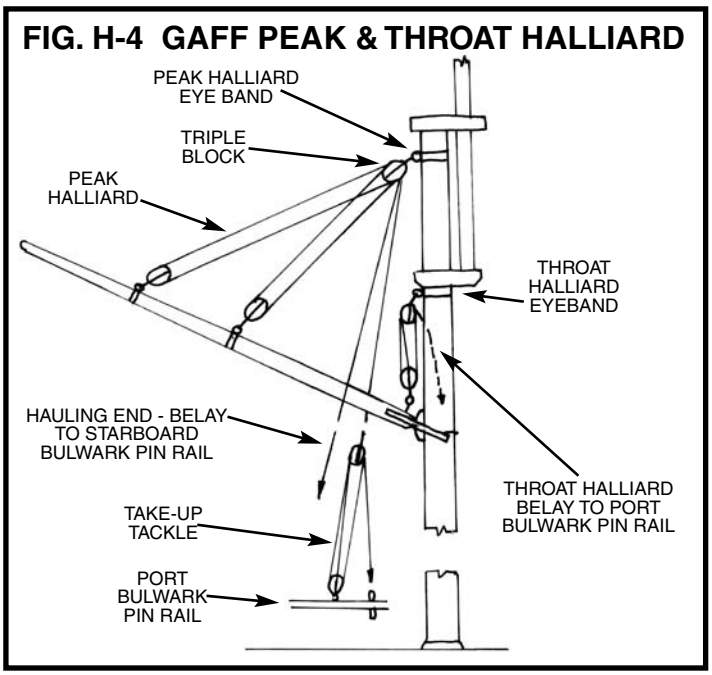
With the gaff just above the boom, to prevent the gaff from swinging sideways on the model, loop a line around the aft end of the boom and gaff.

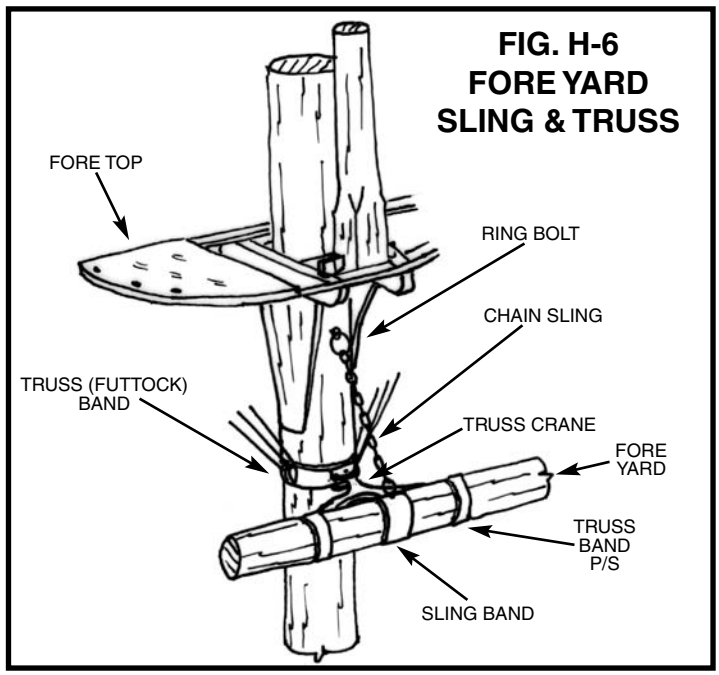
Gaff Topsail Halliard & Sheet (or outhaul) - With sail off, most likely the tack and clewline would be removed also. The sheet and halliard can be hooked together just above the gaff for added detail.

Flag Halliard - With the gaff in the down position, the flag halliard can be removed. Otherwise, it would bundled up and lashed to the gaff.

4. Fore Course Yard Rigging

Footropes, Stirrups, & Flemish Horses (black line) - Beeswax the footropes and flemish horses heavily so you can droop





them into a natural hanging curve and they will stay in place (Figure H-5).

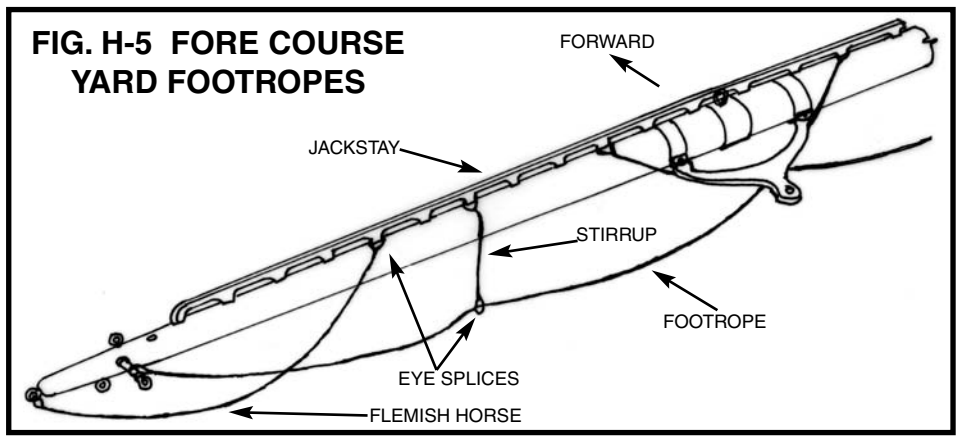
Sling & Truss - The course yard has no halliard or parrel, but a fixed sling and truss since the yard is not hoisted like other yards. The truss fitting band (also the futtock band) and truss fittings should already be on the yard and mast. When fixing the yard to the mast, connect the truss and add the chain sling (Figure H-6).

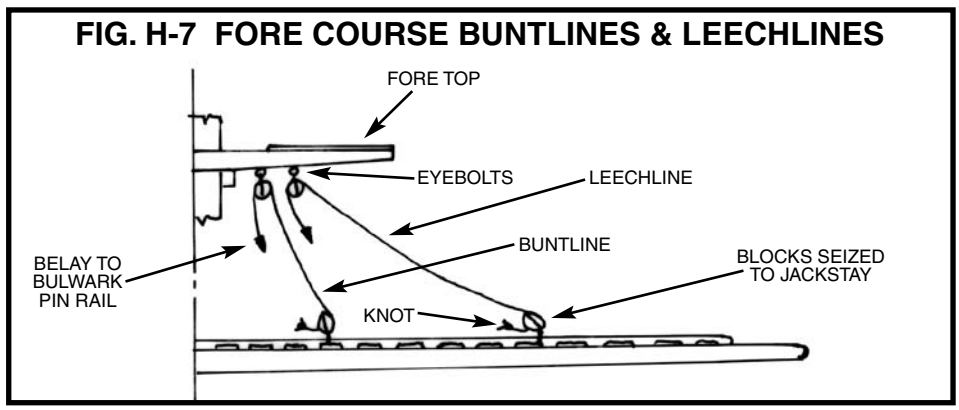
Lifts - The lifts are port and starboard. The outer blocks hook to an eyebolt on the yard and the upper blocks to eyebolts on side of mast cap. The running ends belay at the bulwark pin rail.

Buntlines & Leechlines - These port and starboard lines pass thru blocks on the yard and blocks under the fore top cross trees, then proceed down and are belayed to the bulwark pin rail. Without sails, the lines could be omitted. However, for added detail knot the lines under the yard blocks, or connect the ends of the leechline and buntline together (Figure H-7).

Reef Tackle - This port and starboard rig could also be omitted on the model without sails, or the rig installed and the block that would be attached to the sail just pulled up under the block on the yard. The more lines you add to the model certainly enhances the detail.

Sheets, Tacks, & Clew Garnets - All lines port and starboard. With sails off, hook the sheet, tack, and clew garnet together. Locate the hook point just below clew garnet block on the yard (Figure H-8). Unlike the fore and aft head sails where the sheets would clutter the deck, the lines for the course sail hang nicely in place and all belay at the rail. Note that the clew garnet fall passes thru a fairlead block seized to the shrouds. This block is a 3 hole block similar to a deadeye.





Braces - Add the port and starboard brace blocks at the ends of the yard. The brace standing end and the lead block are seized to the main shrouds. The fall belays at the bulwark pin rail (Figure H-9).

5. Fore Topsail Yard Rigging

Footropes, Stirrups, & Flemish Horses (black line) - The footropes, stirrups, and flemish horses are rigged essentially the same as for the course yard.

Lifts (black line) - The lifts are fixed lines.

The upper ends are whipped and seized around the masthead over top of the shrouds and stays. The ends at the yard are sister-hooked to an eyebolt in the yard (Figure H-10).

Parrel - The topsail yard moves up and down. To hold the yard against the mast a parrel is used. You should already have the parrel fittings on the yard. You need to add the parrel line to hold the yard against the mast. Refer to Figure F-5 for a sketch.

Halliard - The halliard is made up of three

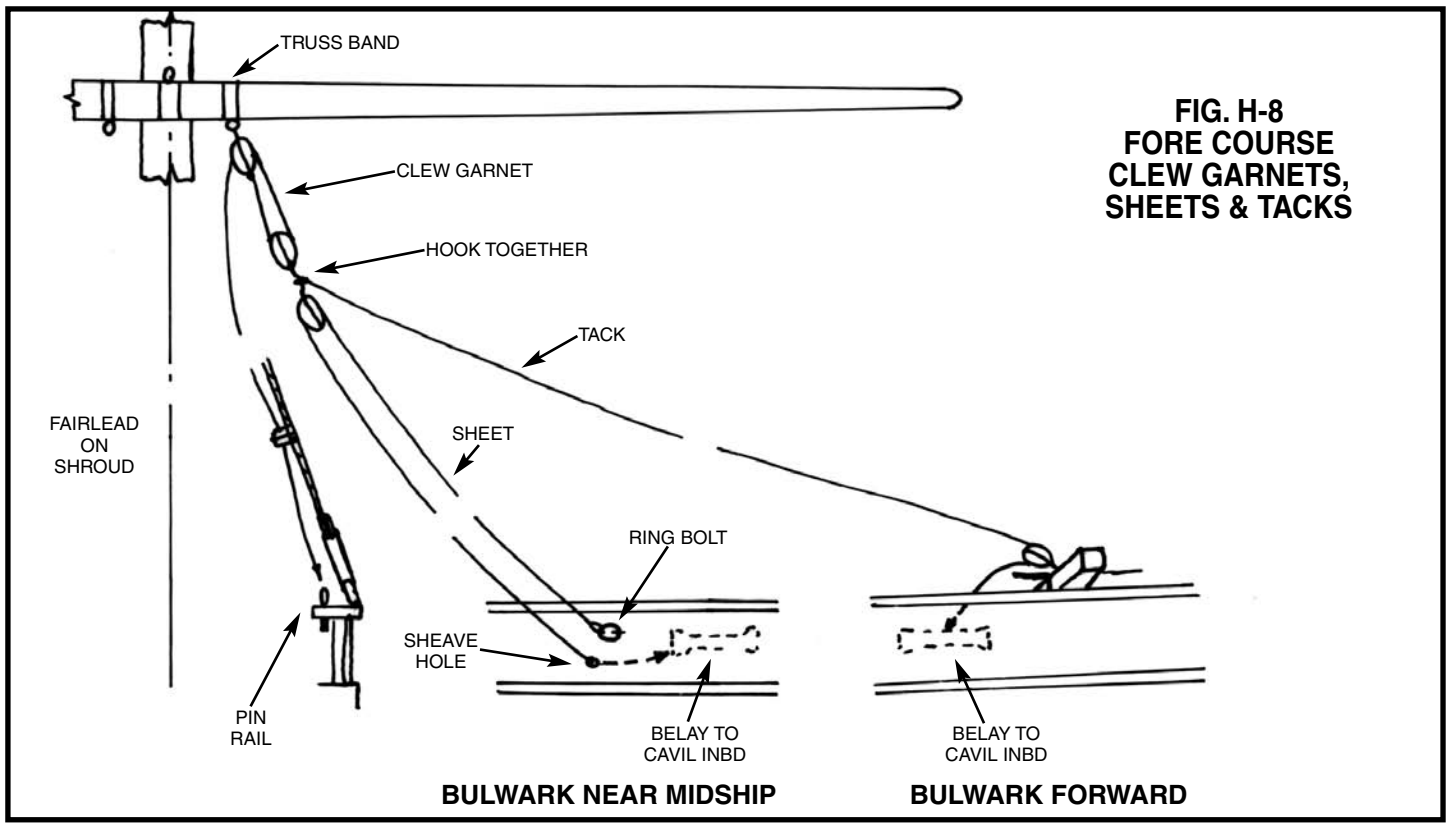


FIG. H-8
FORE COURSE
CLEW GARNETS,
SHEETS & TACKS

parts. A tye (black line) is shackled to the iron band at center of the yard. The tye feeds thru the hole (sheave) in the mast and a single block is fitted into the end of the tye. A pendant is hooked to an eyebolt at the aft end of the port lower top trestletree. The pendant then reeves thru the tye block and down to a double becketed block. This is the top block of the halliard. Another double block is hooked to an eyebolt in the starboard cap rail. The halliard is reeved thru the double blocks and belays at the starboard pin rail (Figure H-11).

Buntlines - Rig similar to the course yard, knotted under the yard blocks for model without sails.

Reef tackle - Similar rig as course.

Clew lines and Sheets - The sheets for the topsail are chains. Hook the clew lines and sheets together just below the clew line block on the yard. The sheet passes thru a hole in the end of the course yard, thru a block under the center of the course yard, then down to a purchase tackle on the deck. The lower purchase block is hooked to an eyebolt in the deck next to the mast. The running ends are belayed to pins in the spider band. The clew line fall has no purchase and goes directly to the bulwark pin rail (Figure H-12).

Braces - The braces are rigged similar to the course yard except the standing end of the brace and the lead block are hooked to eyebolts in the main top trestletrees. The running ends belay at the bulwark pin rail.

6. Fore Topgallant Yard Rigging

Footropes (black line) - The footropes are single lines with no stirrups, and there is no flemish horse.

Lifts (black line) - Rig similar to topgallant yard.

Parrel - Similar to topgallant yard.

Halliard - The halliard is made up of a tye (black line) and halliard runner. The tye is hitched to the yards centerline and not to a metal band like the topsail yard. A single block is fitted into the tye. The halliard lower block is hooked to an eyebolt on the starboard trestletree. After reeving the fall is belayed to the port bulwark pin rail (Figure H-13).

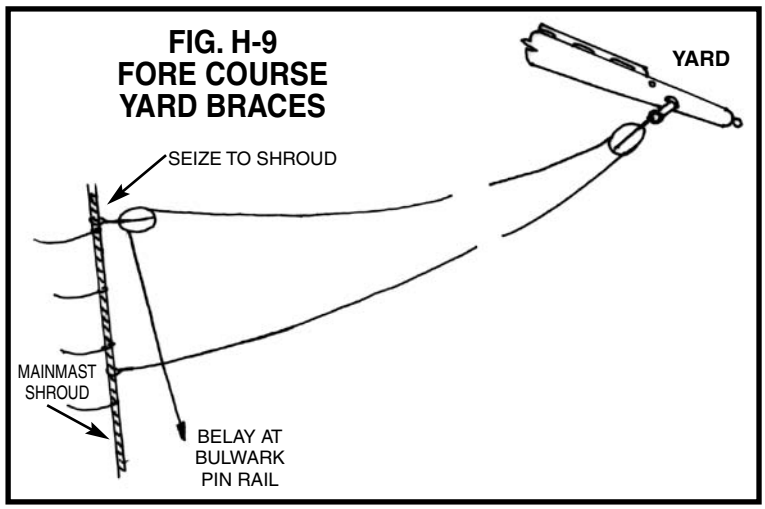


FIG. H-9
FORE COURSE
YARD BRACES

Buntlines - The topgallant has a combination buntline/leech line. Best install the blocks and leave the lines off the model. There is no convenient way to hang them except perhaps to bundle them up and lash to the yard.

Clew lines and Sheets - Hook the clew lines and sheets together just below the clew line block on the yard. The sheet passes thru a hole in the end of the course yard, thru a block under the center of the topsail yard. Both the clewlines and sheets belay at the bulwark pin rails and go via the fairlead blocks on the shrouds.

Braces - The braces are single lines with no block at the yard. Lead blocks are seized to the throat of the spring stay and line belayed at the bulwark pin rail.

7. Fore Royal Yard Rigging

Footropes, lifts, parrel, clewlines, and sheets - Rig similar to topgallant. Note there are no buntlines.

Halliard - Rig similar to topgallant except the halliard runner is set to eyebolt on the port trestletree and the fall runs to starboard (Figure H-14).

Braces - Rig similar to topgallant except lead blocks are seized at throat of main topmast stay.

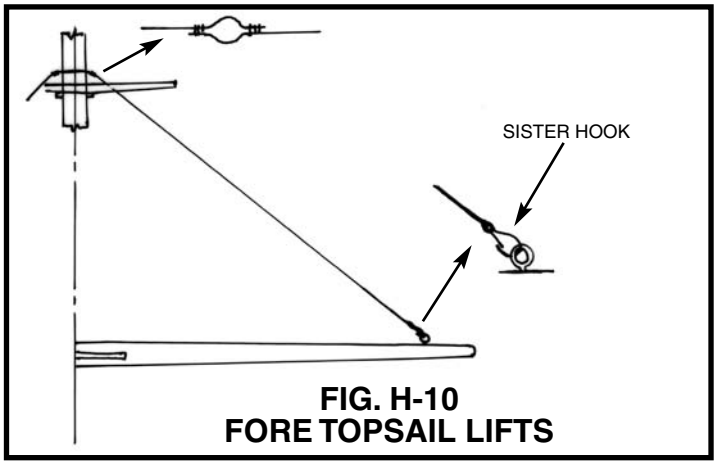


FIG. H-10
FORE TOPSAIL LIFTS

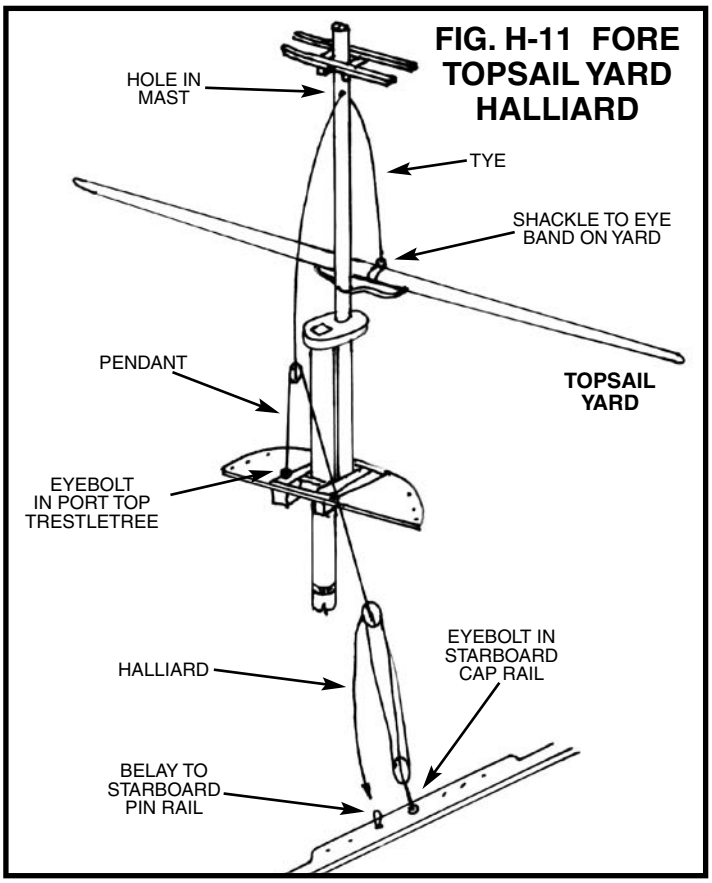


FIG. H-11 FORE TOPSAIL YARD HALLIARD

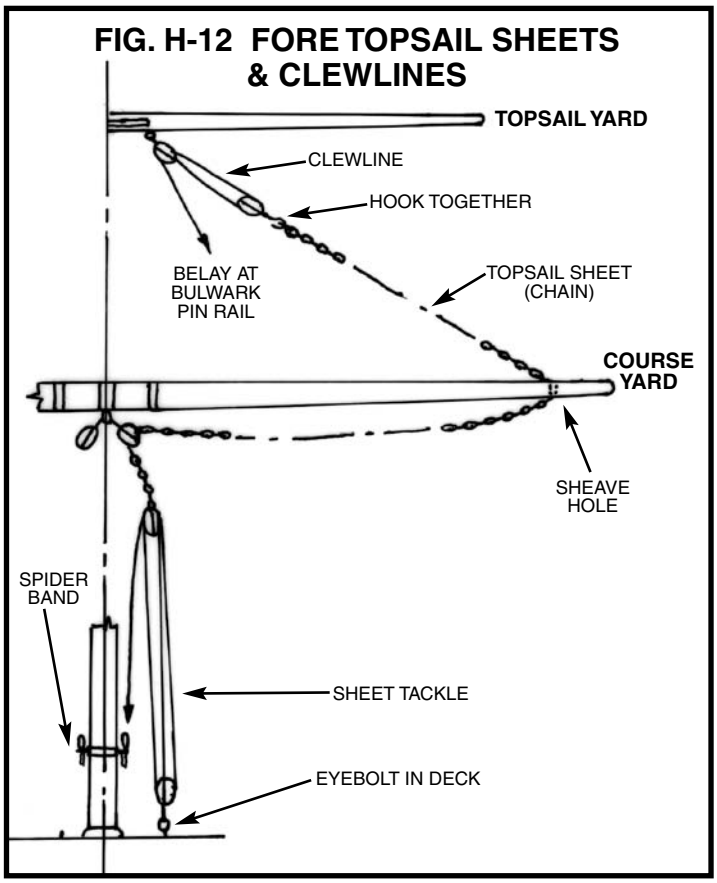


FIG. H-12 FORE TOPSAIL SHEETS & CLEWLINES

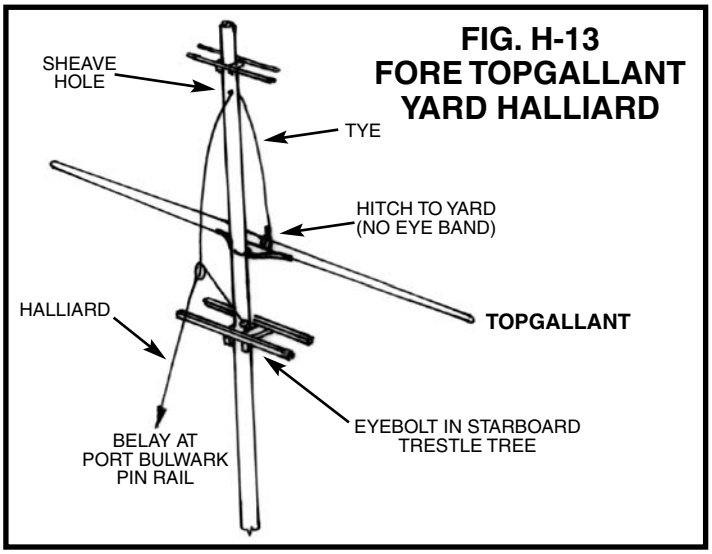


FIG. H-13
FORE TOPGALLANT YARD HALLIARD

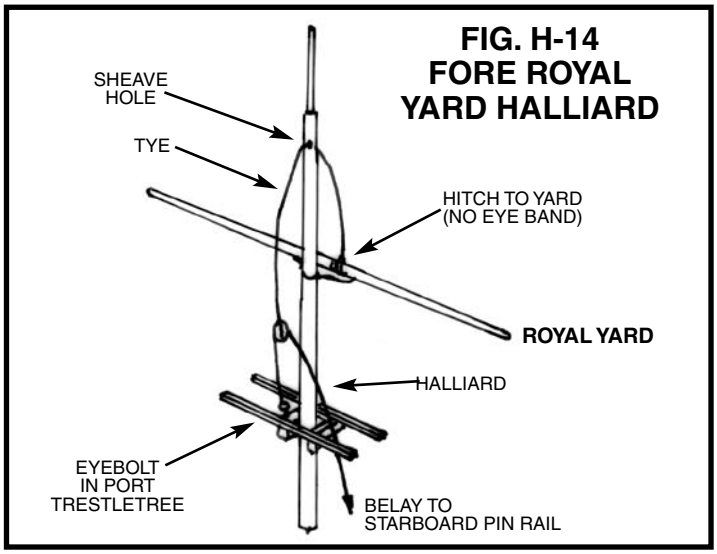


FIG. H-14
FORE ROYAL YARD HALLIARD

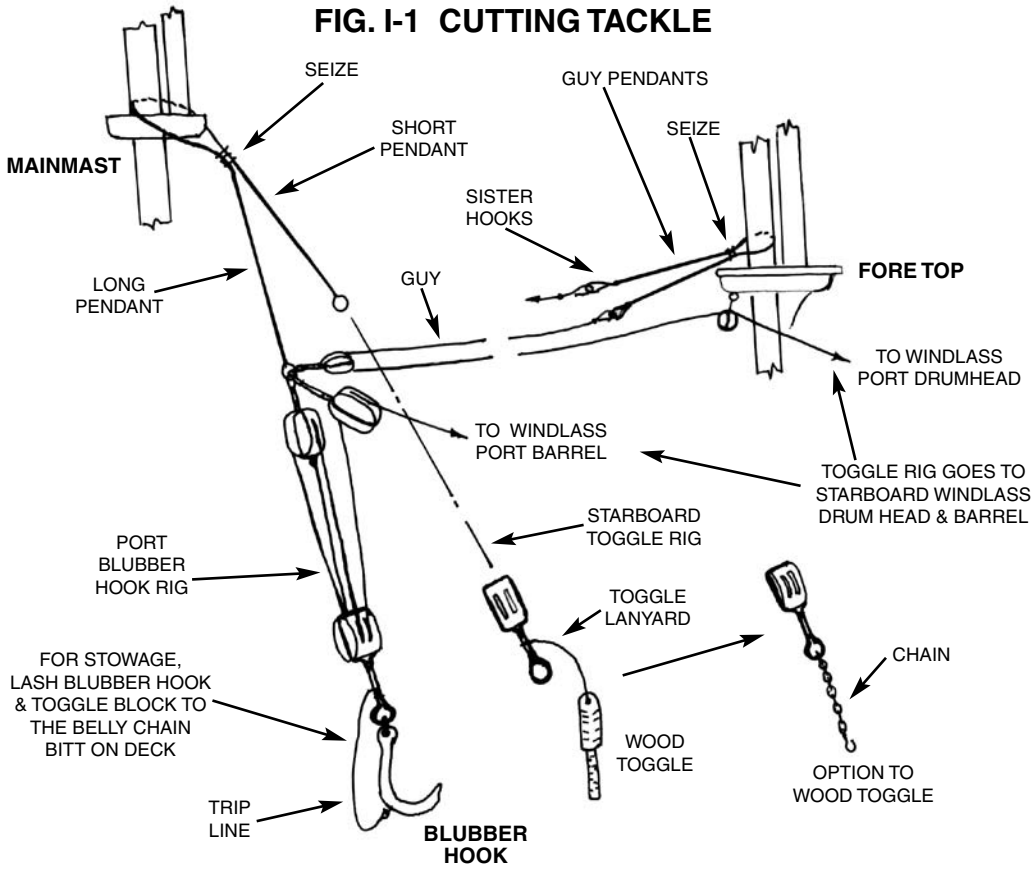
Cutting tackle - The cutting tackle is unique to a whaler. The tackle has two identical rigs held aloft by a pendant around the main masthead. The tackle is positioned fore and aft by guy rigs from the foremast. The basic tackle has a blubber hook on one tackle and toggle on the other. These two rigs are used to pull off the blubber from a whale and to position the whale alongside. The plans show a wooden toggle but on occasion a hook and chain is used. The falls of the tackles go to the barrel on the windlass. The guy falls go to the windlass drum heads. Figure I-1 illustrates the rig.

For stowage, and the best arrangement for the model, lash the hook and toggle ends to the belly chain bitt on centerline.

Whaleboat rigging - All the davits are rigged basically the same (Figure I-2).

The lashings for the boats are illustrated in Figure I-3. The figure shows the lashings for the boats on davits and the stowed boat on the stern.

FIG. I-1 CUTTING TACKLE

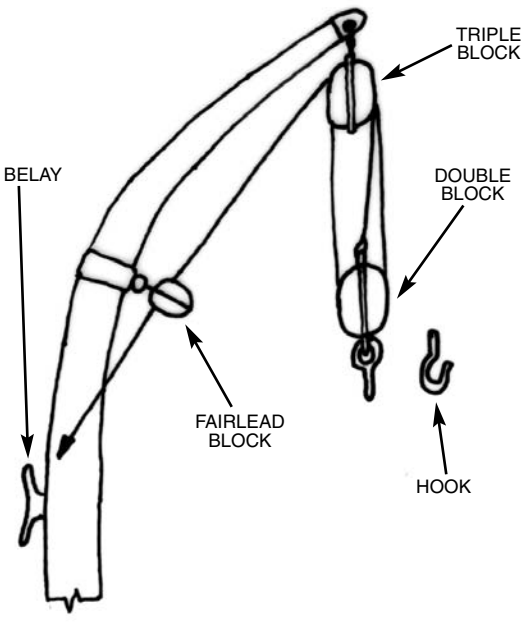


PORT & STARBOARD RIGS IDENTICAL EXCEPT AS SHOWN

Cutting stage slings & lanyards - Refer to the figure in Stage B.

Rudder tiller tackle - See detail of steering wheel in Stage D.

FIG. I-2 DAVIT RIGGING



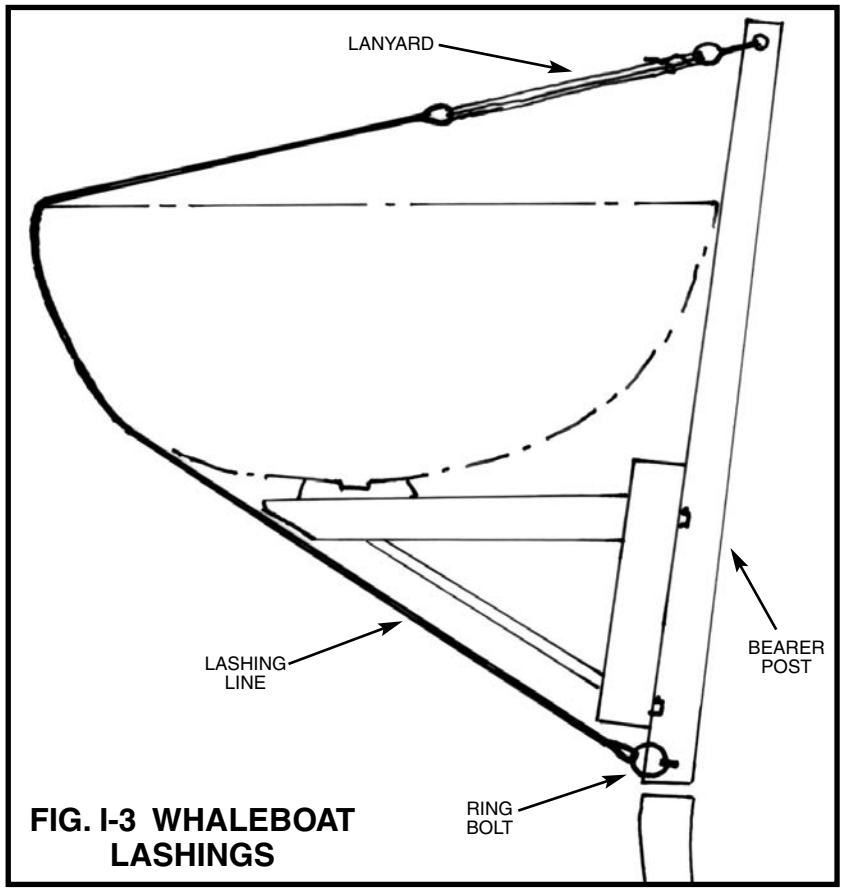


FIG. I-3 WHALEBOAT LASHINGS

Final Touches

After all the rigging is in place, re-check every line, and make sure all the seizings are sound. If necessary, add another touch of CA glue to seizings. Check to see if there are any shiny places on the rigging. If necessary, tough-up standing rigging with black paint, or black liquid shoe polish. For running rigging, use a tan stain, or brown liquid shoe polish.

Check to see if any of the painted wooden parts were marred or scratched during the rigging process and touch-up as necessary.

BIBLIOGRAPHY

1. Kate Cory Plan Set and Booklet by Erik A.R.Ronnberg, Jr. Old Dartmouth Historic Society 1970. Set is available from the New Bedford Whaling Museum.

This is a set of 9 highly detailed plans of *Kate Cory* developed from historical records and shows complete details including the internal structure. The set also includes a booklet with rigging specifications and color notes.

2. Whale Ships and Whaling by Albert Cook Church. 1938 (reprinted by Bonanza Books).

Excellent photo record of all kinds of whaleships.

3. Whale Ships and Whaling: A Pictorial Survey

by George Frances Dow. Marine Research Society (reprint by Dover Publications 1985).

Vintage photos and drawings of whaleships ans whaleship gear.

4. To Build a Whaleboat

by Erik A.R.Ronnberg, Jr. Model Shipways.

This is a Model Shipways publication which accompanies the Model Shipways whaleboat kit (the book is also available by itself). Wonderful for a close-up view of the small whaleboats carried by the whalers.

5. Masting and Rigging the Clipper Ship & Ocean Carrier

by Harold A. Underhill. Brown, Son and Ferguson, LTD, 1946.

An excellent reference for masting and rigging details in the age of iron fittings.

6. Spars and Rigging From Nautical Routine, 1849

by John M'Leod Murphy. Ship Model Society of Rhode Island, 1933 (Reprinted by Dover Publications 2003).

The Ship Model Society of Rhode Island reprinted in a limited edition the section on spars and rigging from Nautical Routine published in 1849 by Murphy and Jeffers, past midshipmen, U. S. N. It presents a detailed description of the spars, rigging, sails, and other gear of a full-rigged ship. In addition to his own experience at sea, Murphy consulted the most experienced riggers he could find in order to ensure that the book represented the state of the art in 1849. The result is a treatise of great value and reliability to anyone interested in understanding the rigging of a sailing vessel.

7.The Art of Rigging, 1848 (reprinted) by George Biddlecombe.

This is essentially an update of David Steel's earlier work, giving rigging sizes for various ship types and tonnage.

8. The Neophyte Shipmodeller's Jackstay

by George F. Campbell. Model Shipways, 1962.

Excellent visuals and background information on building models from kits. Good detail on hulls and rigging. Great for beginners.

9. How to Built First-Rate Ship Models From Kits

by Ben Lankford. Model Expo 2002.

Comprehensive reference covers construction methods for solid hull, plank-on-bulkhead, and plank-on-frame kits. The book is profusely illustrated and includes glossary of nautical terms.

Note: Many books are available through Model Shipways website, www.modelexpo-online.com.
Please check current catalog or website for availability.

Latest Releases from Model Shipways

HARRIET LANE, UPDATED!
BACK BY POPULAR DEMAND

Built in New York for the U.S. Revenue Service in 1857, the *Harriet Lane* was powered by a combination of steam and sail. She was 180 ft. long, with a 30 ft. beam, and carried a 30 lb. Parrott rifle, plus three 9" smooth-bore Dahlgrens. Her design clearly illustrates the transition from sail to steam.

Harriet Lane features a machine carved hardwood hull which needs only light shaping and sanding. We provide plank-scored basswood for decking and cabins, spars and hardwood blocks. Ladders, anchors, paddle wheels, two ship's boats, four cannon with carriages and numerous other fittings are finely cast Britannia metal. We've upgraded the kit to include laser cut paddle wheel covers. Newly Detailed plans and newly written clear instructions by master ship modeler, Ben Lankford, are easy to follow. (Baseboard and brass pedestals are not included.)

Solid Hull Kit • Entry Level • No. MS2010 • Length 13-1/2" / Height 13-1/2" / Scale 1/8" = 1 ft. (1:96)

Harriet Lane Paint Set: *Seven 1 oz. bottles of Model Shipways paint:* ***No. MS2010MS***

Walnut Display Base: *Routed and ready for finishing. 20" x 4-1/2".* ***No. RH4520***

Brass Display Pedestals: *Pre-drilled from top to bottom and slotted to fit the keel. You'll need three. Height 1-1/8"* ***No. MS0812***

DESPATCH #9
SOLID HULL KIT

The Diesel harbor tug Despatch #9 was built for the Marine Corps in 1945 at Tampa, FL from a US Army design. Later sold to Standard Oil of California, she worked oil barges in the San Francisco Bay area. Powered by a Busch-Sulzer 6-cylinder engine, she was equipped with practically every modern device of the time, including electric capstan, electric towing machine and watertight doors. Despatch #9 was 85 ft. long with a 23 ft. beam.

Kit features a pre-shaped, machine carved solid wood hull, shaped deck house and superstructure. Other wooden parts include dowels, strips, sheets and blocks. Brass wire and airports, plus over 80 cast Britannia metal fittings outfit your model just like the real tug. Clear plans and instructions make building easy. (Wooden display base and brass pedestals are not included.)

Entry Level • No. MS2011 • Length 13-1/2" / Height 7-1/2" / Scale 5/32" = 1 ft.

Despatch No. 9 Paint Set: *Eight 1 oz. bottles of Model Shipways paint: 1 each/MS4839 Primer, MS4830 Hull/Spar Black, MS4801 Bulwarks Dark Green, MS4816 Deck House Dark Buff, MS4835 Bright Red Trim, MS4828 Iron/Cannon Black, MS4823 Clipper Pearl Gray, MS4962 Aluminum.* ***No. MS2011MS***

Walnut Display Base: *Routed and ready for finishing.* ***No. RH4512***

Brass Display Pedestals: *Pre-drilled from top to bottom and slotted to fit the keel. You'll need two.* ***No. MS0812***

FAIR AMERICAN,
REVOLUTIONARY WAR BRIG, C. 1778
PLANK-ON-BULKHEAD KIT

Fair American is a reproduction of a model built over 200 years ago, now on exhibit at the U.S. Naval Academy Museum at Annapolis, MD. She is said to represent the 14-gun privateer Fair American sailing out of Charleston in 1778.

Plank-on-bulkhead construction uses high quality basswood, the preferred wood of professional modelers. All structural hull parts and major fittings are laser cut, so they fit together with remarkable ease. The kit contains over 60 cut or shaped wooden parts, plus 120 extra wood strips for a second layer of planking, should you wish to build your model with a double planked hull. More than 500 fittings of wood, brass and Britannia metal fittings include 14 brass guns on wooden carriages, cannon, chainplates, bell, anchors and wheel. Seven plan sheets a 48 page instruction book by Erik A.R. Ronnberg, Jr. and Ben Lankford, plus a 38-page guide to planking the hull make building easy.
(Display base and brass pedestals are not included.)

Intermediate Level • No. MS2015 • Length 26-1/2" / Height 22" / Scale 1/4" = 1 ft.

Fair American Paint Set: *Six 1 oz. bottles of Model Shipways paint: 1 each/MS4839 Primer, MS4830 Hull/Spar Black, MS4803 Hull Tallow, MS4802 Bulwarks Red, MS4825 Deck Light Gray, MS4969 Gold.* ***No. MS2015MS***

Walnut Display Base: *Routed and ready for finishing. 20" x 4-1/2"* ***No. RH4520***

Brass Display Pedestals: *Pre-drilled from top to bottom and slotted to fit the keel. You'll need two sizes for level display.* ***No. MS0812*** *Height 1-1/8"* ***No. MS0813*** *Height 1-3/8"*

DAPPER TOM
SOLID HULL KIT

During the early 19th century, many Baltimore clippers were granted privateering licenses by the US government. Only a fast, well handled ship could be reasonably sure of reaching its destination. Privateers like the *Dapper Tom* depended on their sailing abilities and fire power to prey on foreign shipping and to escape the British men-of-war patrolling the high seas.

Kit features a machine carved basswood hull with accurately shaped bulwarks and transom. Fittings include 8 cast metal cannon, mast caps, anchors, capstan and gratings, brass eyebolts and belaying pins, plus hardwood blocks and deadeyes. Scribed decking, wooden masts and yards, and three diameters of cotton rigging provide the finishing touches of authenticity. With the help of clearly drawn plans and illustrated instructions, even first time builders can finish an impressive model. (Display base and brass pedestals are not included.)

Entry Level • No. MS2003 • Length 24"/Height 18"/Scale 5/32" = 1 ft.

Dapper Tom Paint Set: *Six 1 oz. bottles of Model Shipways paint: 1 each/MS4839 Primer, MS4830 Hull/Spar Black, MS4801 Bulwarks Dark Green, MS4803 Hull Tallow, MS4835 Bright Red Trim, MS4828 Iron/Cannon Black.* ***No. MS2003MS***

Walnut Display Base: *Routed and ready for finishing. 20" x 4-1/2".* ***No. RH4520***

Brass Display Pedestals: *Pre-drilled from top to bottom and slotted to fit the keel. You'll need two sizes for level display.* ***No. MS0812*** *Height 1-1/8"* ***No. MS0813*** *Height 1-3/8"*

1:16 SCALE AMERICAN CIVIL WAR ARTILLERY
WHITWORTH BREECH-LOADING 12-POUNDER

Designed by Sir Joseph Whitworth, the cannon that bore his name became a favored weapon of the Confederacy. Unusual in appearance as well as operation, the Whitworth was a breech-loader that fired an elongated 12-pound iron shell from a finely rifled 1,100 pound barrel. Accurate and easy to maneuver, it had a range of 4.5 miles and made a shrill, whistling noise which could be distinguished from all other cannon of the period. The Whitworth saw action at Gettysburg, Charleston, Vicksburg, Fredericksburg and many other American Civil War battlefields.

- Historically accurate and perfectly scaled
- Cleanly cast Britannia metal components
- Authentically detailed cannon barrel
- One-piece ready to assemble wheels
- Clearly written illustrated instructions
- Easy to build – assembly and painting time 5-10 hours

Entry Level • No. MS4001
Length 10" / Width 4" / Height 3-1/4"
Weight 1 lb., 4 oz. / Scale 1:16

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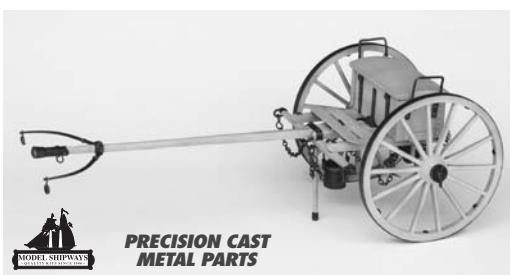
1:16 SCALE AMERICAN CIVIL WAR ARTILLERY
LIMBER AMMUNITION CHEST



The limber was an indispensable piece of equipment during the American Civil War. It was a simple two-wheeled cart designed to carry an ammunition chest containing gunpowder and shot for the artillery pieces. A team of horses was hitched to the limber and a cannon was hooked on to its rear when the army was on the move.
The ammunition chest lid was large enough to seat up to three men. However, sitting above the gunpowder was dangerous, so after the first few months of the War, only the driver rode on the limber. In times of battle, the limber and horses were left behind the lines of fire.

- Historically accurate and perfectly scaled
- Cleanly cast Britannia metal components
- Authentically detailed ammuntion chest
- One-piece ready to assemble wheels
- Clearly written illustrated instructions
- Easy to build – assembly and painting time 5-10 hours

Entry Level • No. MS4002
Length 10" / Width 4" / Height 3-1/4"
Weight 1 lb. / Scale 1:16

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The Latest Kits from Model Shipways*

*As of the printing of this manual, some of these kits were not yet released. Please see our website (www.modelexpo-online.com) or call 1-800-222-3876 (Mon-Fri 9-5 ET) for availability, prices and expected in-stock dates.

KATE CORY, WHALING BRIG SOLID HULL KIT

The 132 ton whaling brig *Kate Cory* was built at Westport Point, MA in 1856. Seventy-five and a half feet long with a 22-foot beam, she was one of the last whalers built specifically for the trade. Originally rigged as a schooner, *Kate Cory* was converted to a brig in 1858. This rig made for smoother motion in heavy seas, and steadied the ship while the crew was cutting in whales.

Model Shipways' kit features machine carved basswood hull, which needs only light shaping. For an authentic plank-on-frame look, we're including over 50 feet of basswood strips for deck planking. Genuine copper covers the hull below the waterline. Plank-scored wooden sheets are supplied for the companionways, cabins and hatches. Deadeyes and blocks are pre-finished wood; all other fittings are brass and Britannia metal. Four laser-cut wooden whaleboats plus deck furnishings, including the try-pots (large iron pots for boiling down the whale oil), add life-like detail. Three sheets of plans by Erik A.R. Ronnberg, Jr. and new 36-page instruction book by Naval Architect and Master Modeler, Ben Lankford see you through construction. (Display base and brass pedestals are not included - see below.)

Solid Hull Kit • Entry Level • No. MS2031 • Length 24" / Height 18-3/4" / Scale 3/16" = 1 ft. (1:64)

Kate Cory Paint Set: *Six 1 oz. bottles of Model Shipways paint:* ***No. MS2031MS***

Walnut Display Base: *Routed and ready for finishing. 20" x 4-1/2".* ***No. RH4520***

Brass Display Pedestals: *Pre-drilled from top to bottom and slotted to fit the keel. You'll need two.* ***No. MS0812***

GLAD TIDINGS, PINKY SCHOONER PLANK-ON-BULKHEAD KIT

The Pinky received its name from its uplifted, narrow, or "pinked" stern. These sturdy, seaworthy craft ruled the New England fishing industry from 1815 to 1840.

Plans are based on original drawings by Howard I. Chapelle for a typical Maine pinky, a boat he had built and actually sailed.

Our *Glad Tidings* contains features never before seen on any commercially available kit. We've laser cut the bulwark strakes, and our plans show the spiling and placement of the hull planking strips to exact dimension. Single plank-on-bulkhead construction uses laser cut plywood, basswood and cherry components. Expertly cast Britannia metal castings include anchor shanks, smoke stacks, windlass, cabin port-lights and turnbuckles. Brass is used for eyebolts, split rings, nail and other fittings. Keel, stem, hull and deck planking strips, dowels for masts and yards are fine basswood. Six diameters of beige standing and black running rigging, deadeyes and four sizes of blocks guarantee a realistic replica. Five sheets of detailed plans and illustrated step-by-step instruction manual assure trouble-free assembly. (Display base and pedestals are not included, see below.)

Intermediate Level • No. MS2180 • Length 29-1/2" / Height 23" / Beam 5-1/4" / Scale 1/2" = 1 ft. (1:24)

Glad Tidings Paint Set: *Ten 1 oz. bottles of Model Shipways paint:* ***No. MS2180MS***

Walnut Display Base: *Routed and ready for finishing. 20" x 4-1/2"* ***No. RH4520***

Brass Display Pedestals: *Pre-drilled from top to bottom and slotted to fit the keel. You'll need two sizes for level display.* ***No. MS0812*** *Height 1-1/8" and* ***No. MS0813*** *Height 1-3/8".*

ELSIE, AMERICAN FISHING SCHOONER SOLID HULL KIT

Built in 1910 at Essex, Massachusetts by Arthur D. Story, the *Elsie* was designed with a semi-knockabout schooner rig, reflecting the influence of the safer but costlier knockabout schooners. She was outfitted with power after her 1921 race with the Canadian schooner *Bluenose*.

The model is easy to build with its machine carved solid hull, which needs only light shaping and sanding.Blocks and deadeyes are pre-finished hardwood; other fittings are expertly cast Britannia metal. Deck planking is basswood, and there's plenty of wood material for deck houses, furnishings, keel, stem, rudder and trim. Four dory nests and cordage complete the kit. Three sheets of plans by Erik A.R. Ronnberg, Jr. are based on surveys by Howard Chapelle and photographs of the original vessel. A thorough 32-page instruction book updated by Ben Lankford concentrates on modeling techniques for 1/8" scale. (Display base and brass pedestals are not included.)

Solid Hull Kit • Intermediate Level • No. MS2005 • Length 21-1/2" / Height 16" / Scale 1/8" = 1 ft. (1:96)

Elsie Paint Set: *Five 1 oz. bottles of Model Shipways paint:* ***No. MS2005MS***

Walnut Display Base: *Routed and ready for finishing. 20" x 4-1/2".* ***No. RH4520***

Brass Display Pedestals: *Pre-drilled from top to bottom and slotted to fit the keel. You'll need two.* ***No. MS0810*** *Height 7/8"* ***No. MS0811*** *Height 1"*

NEWSBOY, 1854 BRIGANTINE SOLID HULL KIT

The clipper-bowed merchant brigantine *Newsboy* is one of the earliest designs of Dennison J. Lawlor. She was built by Elisha Brown in 1854 at Owls Head, ME. She carried New England manufactured goods to the Mediterranean, where she picked up wine, oils and fruits bound for the West Indies. From there, she returned to New England, her holds filled with rum, molasses and sugar.

Kit features a solid wooden hull that's machine carved to the proper shape. We supply laser cut basswood parts for the cabin, companionways, keel, rudder and sternpost, plus beech dowels for masts and yards. Properly scaled Britannia metal castings include anchor, windlass, pump, binnacle, figurehead and lifeboat. Chains, nails, eyebolts, belaying pins and other small parts are brass and copper. More than 200 blocks and deadeyes plus five diameters of miniature rope recreate life-like rigging. Hull templates, two sheets of plans and updated instruction book by Ben Lankford help you build a beautiful model. (Wooden display base and pedestals shown are not included - see below.)

Entry Level • No. MS2108 • Length 24"/Height 18"/Scale 5/32" = 1 ft.

Newsboy Paint Set: *Six 1 oz. bottles of Model Shipways paint:* ***No. MS2108ms***

Walnut Display Base: *Routed and ready for finishing. 20"x 4-1/2"* ***No. RH4520***

Brass Display Pedestals: *Pre-drilled from top to bottom and slotted to fit the keel. You'll need two.* ***No. MS0810*** *Height 7/8"* ***No. MS0811*** *Height 1"*

KATY OF NORFOLK SOLID HULL KIT

Toward the end of the 18th century, "Virginia built" boats were used as pilot boats from the Delaware Capes to Hatteras. During the American Revolution and the War of 1812, the U.S. government issued privateering commissions to many privately owned vessels of this type.

We've designed the *Katy* especially for the novice modeler. The kit features a solid basswood hull, already carved to the correct shape. It needs only a bit of light sanding before you lay the deck and construct the cabin. Ready-to-use fittings include shaped and drilled wooden blocks and deadeyes. Precision cast Britannia metal parts faithfully replicate pumps, galley stacks, and anchors. Eyebolts, strops, rings and chainplates are brass. Accurately scaled rigging line is supplied in three sizes. And since real ships had wooden mast hoops, your model will too! Detailed plans, 40-page instruction book are also included. (Display base and pedestals are not included.)

Entry Level • No. MS2001 • Length 20" / Height 18" / Scale 1/4" = 1" (1:48)

Katy Paint Set: *Eight 1 oz. bottles of Model Shipways paint:* ***No. MS2001MS***

Walnut Display Base: *Routed and ready for finishing. 20"x 4-1/2"* ***No. RH4520***

Brass Display Pedestals: *Pre-drilled from top to bottom and slotted to fit the keel. You'll need two sizes for level display.* ***No. MS0812*** *Height 1-1/8"* ***No. MS0813*** *Height 1-3/88"*

H.M.S BOUNTY'S LAUNCH PLANK-ON-FRAME KIT

In a remarkable feat of seamanship, Bligh navigated the dangerously overcrowded boat on a 47-day voyage to the Dutch colony of Timor, equipped only with a sextant and a pocket watch. He recorded the distance as 3,618 nautical miles. While struggling to survive, he kept a log and produced highly accurate charts and surveys of the seas and the terrain, such as the Fijian Islands.

The *Bounty's* launch was typical of boats issued to Royal Navy ships of the period. Historically accurate and highly detailed, Model Shipways' kit is based on original plans from the Nautical Maritime Museum in Greenwich, England. It features true plank-on-frame construction with laser cut wooden components, laser engraved rabbet and bearding lines. Beautiful cherry wood is provided for the frames and deck beams. Hull and quarterdeck planking, floorboards and mold stiffeners are flexible basswood. The fitting package replicates authentic gear, including ten oars, eight lathe turned wooden barrels, wooden chest, cast metal anchor, brass gudgeons and pintles, plus cotton sails and cordage. Five sheets of plans and illustrated instruction manual assure trouble-free assembly.

Intermediate Level • No. MS1850 • Length 17-1/4" / Height 14-3/4" / Beam 5-3/8" / Scale 3/4" = 1' (1:16)

Bounty Launch Paint Set: *Five 1 oz. bottles of Model Shipways paint:* ***No. MS1850MS***

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SULTANA
Model Shipways Kit No. MS2016

WILLIE L. BENNETT
Model Shipways Kit No. MS2032

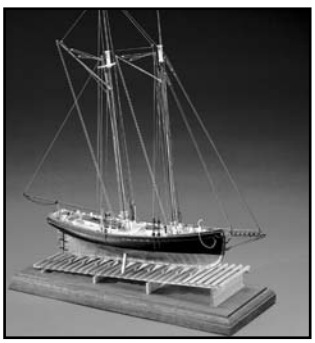
BLUENOSE
Model Shipways Kit No. MS2130

RATTLESNAKE
Model Shipways Kit No. MS2028

CHARLES MORGAN
Model Shipways Kit No. MS2140

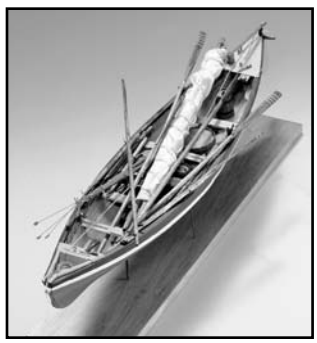
BENJAMIN LATHAM
Model Shipways Kit No. MS2109

OUR GUARANTEE
If less than delighted, return your purchase within 30 days in original condition.



PHANTOM
Model Shipways Kit No. MS2027

EMMA C. BERRY
Model Shipways Kit No. MS2150



BEDFORD WHALEBOAT
Model Shipways Kit No. MS2645

USS CONSTITUTION
Model Shipways Kit No. MS2040

NIAGARA
Model Shipways Kit No. MS2240

FLYING FISH
Model Shipways Kit No. MS2018

PRINCE DE NEUFCHATEL
Model Shipways Kit No. MS2110

PRIDE OF BALTIMORE II
Model Shipways Kit No. MS2120

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