AUSTRALIAN COLONIAL SERIES WOODEN MODEL KIT

BRIG PERSEVERANCE 1807

SCALE 1:48

LENGTH: 880mm HEIGHT: 740mm

ITEM CODE: KTMS1003

SEAL OF Modellers Shipyard QUALITY

Modellers Shipyard

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BUILDING INSTRUCTIONS

Version 3

1.0 Introduction

Modeller's Shipyard is proud to present another wooden model ship in our Australian colonial vessel series. We are the only manufacturer of wooden period model ships in Australia.

Our model of the Colonial Brig *Perseverance* was designed and built by Leon Griffiths, Master Period Ship Modeller. Our kit is double planked on bulkhead construction with laser cut plywood. The kit comes complete with all timber, rigging cord and fittings. All parts and fittings are of the highest quality.

2.0 Historical Notes

The Colonial Brig *Perseverance* was owned by Robert Campbell, a noted Sydney merchant of the time. Campbell launched his first ship the *Perseverance*, a 136 ton brig, at the site of Australia's first shipbuilding yards in 1807. At the time The Dutch East India Company had a monopoly on trade in the South Asia region. In fact it was only in 1806, Governor King proclaimed that 'every British subject is forbid entering into any Mercantile Contract with the Subjects of Foreign Powers, on pain of being sent from the Colony' and stressed that 'no intercourse whatever, will be allowed between this colony and the Honourable East India Company's Territories and the Coasts of China and the islands adjacent thereunto, where European Nations resort'.

Governor Bligh also continued this embargo, yet Campbell's Colonial Brig *Perseverance*, sailed for Canton (Guangzhou, China) in February 1807 with the Governor's blessing. In the early 1800's Robert Campbell's firm was Campbell & Co, and was heavily involved in Australian trade.

In 1810, the *Perseverance* was fitted out for a trip to the southern oceans in search of new sealing grounds. She returned to Sydney on Friday, 17 August, 1810 and was reported as simply arriving "from the Southward, having left part of her crew for the purpose of procuring skins". Every effort was made by the firm Campbell & Co., to keep their new sealing ground secret for as long as possible. Preparations were underway as soon as she returned to Sydney to despatch the *Perseverance* and the *Elizabeth and Mary* for the voyage back to the scene of the new seal oil and skin harvest.

The day after her arrival the owners placed the following advertisement in the "Sydney Gazette":—

> *"Wanted immediately, Ten or Twelve able Hands, to engage on a Sealing and Whaling Voyage, to whom good encouragement will be given. Apply at the office of Messrs. Campbell and Co."*

The new sealing grounds were actually Campbell Island, which was discovered in January, 1810 by Captain Frederick Hasselborough of the colonial Brig *Perseverance*. Hasselborough named the island after his employers, Robert Campbell and Co. of Sydney. During his return voyage on the 11 July 1810 Captain Frederick Hasselborough discovered Macquarie Island, which he named after the then Governor of New South Wales. Though it is interesting to note Frederick observed a wreck "of ancient design" on the island, possibly indicating Polynesian navigators had reached there before.

Campbell Island is a large sub-Antarctic Island which is now a territory of New Zealand situated 700 km south of New Zealand's mainland**.** Macquarie Island is governed by Tasmania, situated approximately mid-way between the south-east of Tasmania and the Antarctic continent, 800 nautical miles from Tasmania.

Hasselborough's main interest was in the enormous numbers of seals on the island - especially fur seals, estimated at the time to number between 200,000 and 400,000. The commercial reaction to his discovery was immediate: during the first 18 months of commercial operations at least 120,000 fur seals were killed for their skins and ten years later the population was almost wiped out.

The *Perseverance* never had less than twenty officers & men on board. There was also a gang of additional men on board to be left at the islands with provisions for the purpose of sealing. The vessel would return from her voyage without these men and to return with fresh supplies and collect the skins and oils that had been collected. The men that were left behind would face months of isolation, with only the hope that the ship would return.

Sadly on his return voyage to the Islands, Captain Hasselborough, along with a woman called Elizabeth Farr and a young boy George Allwright, drowned when their jollyboat capsized in Perseverance Harbour, Campbell Island, 4th November 1810.

The last voyage of the *Perseverance* began on the 7th September 1828, when she departed Sydney with fishing stores, and a call at New Zealand in her programme. Twelve months past before anything was heard of her, when on 22nd September, 1829, the *"Elizabeth and Mary"* returned to Sydney with her crew, with the news that the *Perseverance* had been wrecked at Campbell Island in October, 1828. Sadly the colonial Brig Perseverance and her Captain that discovered Campbell Island both ended their lives there.

The *Perseverance*, was employed in the Southern New Zealand trade the whole of her career, with the exception of a short period when used as a hulk at Sydney.

3.0 General Instructions

These instructions and kit are designed to make the construction of the model as trouble free as possible. Everyone who completes their model in accordance with these instructions and using the materials supplied will have good cause for pride and satisfaction in their achievement.

1. It is **essential** that the modeller study these instructions and associated drawings thoroughly before commencing construction. While reading these instructions, familiarise yourself with the contents of the kit.

2. Parts are numbered in the approximate order of assembly—note there are some minor variations in this numerical order. Parts are identified as, for example P25 — means Part No 25.

3. Few, if any, parts can be simply glued in place without some preparation. Always dry fit parts and if necessary reshape the parts before final gluing.

4. Don't hurry. Take your time. If you are uncertain of anything take the time to study the instructions, the diagrams and photos and your kit parts. Most problems will be overcome with a little time spent pondering the issue at hand.

5. Check the contents of the kit against the Parts List. Note that some parts need to be made by the modeller from the stock of timber supplied in the kit. Parts that need to be made by the modeller from timber supplied in the kit are noted in the Parts List.

6. The construction of a wooden model ship can be divided into the following steps.
   - Hull Construction
   - Deck & Deck Furniture
   - Masts & Yards
   - Rigging

These written building instructions are to be followed to build your model.

For the modeller who would like additional detail on particular techniques on building this model, a DVD on *"How to Build the Colonial Brig Perseverance"* is available from Modeller's Shipyard. In this DVD there is 5 hours of narration and demonstration by a master modeller as the model is built. There are many techniques and tips presented on every detail of building the *Perseverance* from opening the box to putting the finishing touches of the rigging. ***Note:*** **There are some features and fittings shown on the model being built in the DVD that may not be in the kit. Also the DVD may not necessarily follow the same building steps presented in the written instructions.**

For further details on this DVD see our website www.modelshipyard.com.au — see Training Materials on our home page or call our office.

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SHEET 1

4.0 **Parts List** (Modeller's Shipyard reserves the right to make changes to the instructions, components &/or kit contents at any time without notice)

Part No	Description	Quantity	Material
1	Keel	1	Plywood Board
2-13	Bulkhead	12	Plywood Board
14A/B	Bow Blocks	2	Plywood Board
15	False Deck	1	Plywood Board
16	Planking— 2x5x700mm	60	Limewood
17	Planking— 0.6x5x700mm	70	Mahogany
18	Deck & Wale Planking 0.6x4x650mm	35	Silver Ash
19A-D	Cradle Parts	4	Plywood Board
20A-D	Transom Block 1A	4	MDF Board
21A-D	Transom Block 1B	4	MDF Board
22A-D	Transom Block 2A	4	MDF Board
23A-D	Transom Block 2B	4	MDF Board
24	Transom	1	Plywood Board
25	Stern Post	1	Plywood Board
26	Stem Post	1	Plywood Board
27	False Keel	1	Plywood Board
28	Rudder	1	Plywood Board
29	Rudder Hinges	4	Parts card 1
30	Nails	Pkt	Parts card 1
31	Upper Gunwale	—	Note 1
32	Lower Gunwale	—	Note 2
33A/B	Fore Deck Cap Rail	2	Plywood Board
34	Aft Deck Cap Rail	—	Note 3
35	Cap Rail Up-rights	—	Note 3
36	Bowsprit	1	10mm dowel
37	Jibboom	1	6mm dowel
38	Dolphin Striker	1	3mm dowel
39	Bowsprit Cap	1	Plywood Board
40	Bowsprit Saddle	1	Plywood Board
41	Figurehead	1	Parts card 1
42	Fore Deck Stanchions	28	Plywood Board
43	Aft Deck Stanchions	18	Plywood Board
44A/B	Banister Rails	2	Plywood Board
45	Netting	1	Parts card 4
46A/B	Mast Heels	2	Plywood Board
47	Transom Decoration	1	Parts card 1
48	Cargo Ports	2	Parts card 1
49A/B	Head Rails	2	Plywood Board
50	Forward Companion Roof	1	Plywood Board
51	Forward Companion Side	1	Plywood Board
52	Forward Companion Front	1	Plywood Board
53	Forward Companion Side	1	Plywood Board
54	Forward Companion Rear	1	Plywood Board
55	Forward Companion Hatch Cover	1	Plywood Board
56	Hatch Cover Runners	4	Note 4
57	Companionway Planking	—	Note 5
58	Door Trims	—	Note 6
59	Door Hinges	8	Parts card 1
60	Main Companionway Roof	1	Plywood Board
61	Main Companionway Rear	1	Plywood Board
62	Main Companionway Side	1	Plywood Board
63	Main Companionway Front	1	Plywood Board
64	Main Companionway Side	1	Plywood Board
65	Companionway Trimming	—	Note 7
66	Main Cargo Hatch Grating	1	Parts card 1
67	Hatch Surround	—	Note 8
68	Hatch Covers	—	Note 9
69	Eye Pins	Pkt	Parts card 1
70	Rings	Pkt	Parts card 1
71	Forward Cargo Hatch Grating	1	Parts card 1
72	Pumps	2	Parts card 1
73	Winch	1	Parts card 1
74	Rudder Tiler	1	Plywood Board
75	Knightheads	2	Note 10
76	Footrope Stirrups	24	Parts card 1
77	Hawse Pipes	4	Parts card 1
78	Cat Heads	2	Note 10
79A/B	Cathead Knees	2	Plywood Board
80	Anchors	2	Parts card 2
81	Block 7mm 2 hole - L	8	Parts card 2
82	Blocks—7mm 1 hole - J	3	Parts card 2
83	Anchor Rope 2mm	1	Parts card 3
84	Pin Rail Racks	4	Plywood Board
85	Belaying Pins	22	Parts card 2
86	Belfry Frame	1	Note 10
87	Belfry Bell	1	Parts card 2
88A/B	Mast Pin Rails	2	Plywood Board
89	Pin Rail Supports	8	Parts card 4
90A/B	Boat Cradles	2	Plywood Board
91	Boat 1	1	Parts card 4
92	Boat 2	1	Parts card 4
93A/B	Davits	2	Plywood Board
94	Jolly Boat	1	Parts card 4
95	Block 4mm 1 hole - S	6	Parts card 2
96	Block 4mm 2 hole - T	2	Parts card 2
97	Fore mast top	1	Plywood Board
98	Main mast top	1	Plywood Board
99	Tressle Tree—Fore Mast	1	Plywood Board
100	Tressle Trees—Main Mast	1	Plywood Board
101	Crosstree—Fore Mast	1	Plywood Board
102	Crosstree—Main Mast	1	Plywood Board
103	Foremast Lower	1	10mm dowel
104	Fore Topmast	1	8mm dowel
105	Fore Topgallant Mast	1	5mm dowel
106	Main Mast Lower	1	10mm dowel
107	Main Topmast	1	8mm dowel
108	Main Topgallant Mast	1	5mm dowel
109	Mast Strengtheners (Fish)	—	Note 11
110	Foot Grips	—	Note 12
111	Fore Main Yard	1	6mm dowel
112	Fore Top Yard	1	5mm dowel
113	Fore Topgallant Yard	1	3mm dowel
114	Main Yard	1	6mm dowel
115	Main Top Yard	1	5mm dowel
116	Main Topgallant Yard	1	3mm dowel
117	Gaff	1	5mm dowel
118	Gaff Yoke	1	Plywood Board
119	Boom	1	6mm dowel
120	Boom Yoke	1	Plywood Board
121	Stunsail Boom—Main Yard	2	3mm dowel
122	Stunsail Boom— Main Top Yard	2	3mm dowel
123	Stunsail Boom Fore Yard	2	3mm dowel
124	Stunsail Boom Fore Top Yard	2	3mm dowel
125A-D	Channels	4	Plywood Board
126	Channel Capping	4	Note 13
127	Deadeye Straps	16	Parts card 2
128	Deadeyes 7mm - P	34	Parts card 2
129	Lanyard Strip	4	Note 7
130	Sheerpole	4	Note 7

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Part No	Description	Quantity	Material
131	Cord—0.25mm Fawn - C	1	Parts card 3
132	Cord—1.00mm Black - B	1	Parts card 3
133	Deadeyes 5mm - N	24	Parts card 2
134	Cord—0.5mm Fawn - D	1	Parts card 3
135	Cord—1.3mm Black - A	1	Parts card 3
136	Boom Yoke Rest	1	Plywood Board
137	Mast Cheeks—Fore Mast	2	Plywood Board
138	Mast Cheeks—Main Mast	2	Plywood Board
139	Cleats	4	Plywood Board
140	Mast Cap Lower Main & Fore Masts	2	Plywood Board
141	Mast Cap Top & Gallant	2	Plywood Board
142	Blocks—5mm 1 hole - H	55	Parts card 2
143	Blocks—5mm 2 hole - K	10	Parts card 2
144	Blocks—7mm 3 hole - M	4	Parts card 2
145	Deadeye Heart 10mm - Q	2	Parts card 2
146	Deadeye Heart 7mm - R	4	Parts card 2
147	Flag—Red Ensign	1	Parts card 2
148	Flag—Campbell House Flag	1	Parts card 2
149	Binnacle	1	Parts card 4
150	Parrel Beads	Pkt	Parts card 4
151	Mast top edge trim	1	Note 14
152	Main stay slip blocks	2	Note 1
153	Bolster	4	Note 8
154	Transom Template T1	1	Plywood Board
155	Transom Template T2	1	Plywood Board
156	Pin Rail Stands	8	Note 10

Notes:

1. To be cut from 2x3mm limewood
2. To be cut from2x4mm limewood
3. To be cut from 2x5mm limewood
4. To be cut from 3x3 L section walnut
5. To cut from 0.6x5mm tanganika strip
6. To be cut from 1x4mm limewood
7. To be cut from 1x3mm walnut
8. To be cut from the 3x3mm walnut
9. To be cut from 1x7mm walnut
10. To be cut from 5x5 walnut
11. To be cut from 0.6x5mm mahogany strips
12. To be cut from 1x1mm walnut
13. To be cut from 2x3mm walnut
14. To be cut from 1x5mm tanganika

Timber

Limewood	2x5x700mm	60 lengths
	2x3x650mm	2 lengths
	2x4x600mm	2 lengths
	1x4x330mm	1 length
	2x5x250mm	2 lengths
Silver Ash	0.6x4x650mm	35 lengths
Mahogany	0.6x5x700mm	70 lengths
Tanganika	0.6x5x500mm	2 lengths
	1x5x500mm	1 length
Walnut L section	3x3x200mm	1 length
	3x3x500mm	1 length
	5x5x500mm	1 length
	1x1x250mm	5 lengths
	1x3x600mm	1 length
	2x3x400mm	1 length
	1x7x330mm	1 length

Dowels

10mm dia	1x600mm length
10mm dia	1x400mm length
8mm dia	1x450mm length
6mm dia	2x500mm lengths
5mm dia	2x600mm length
3mm dia	3x500mm length

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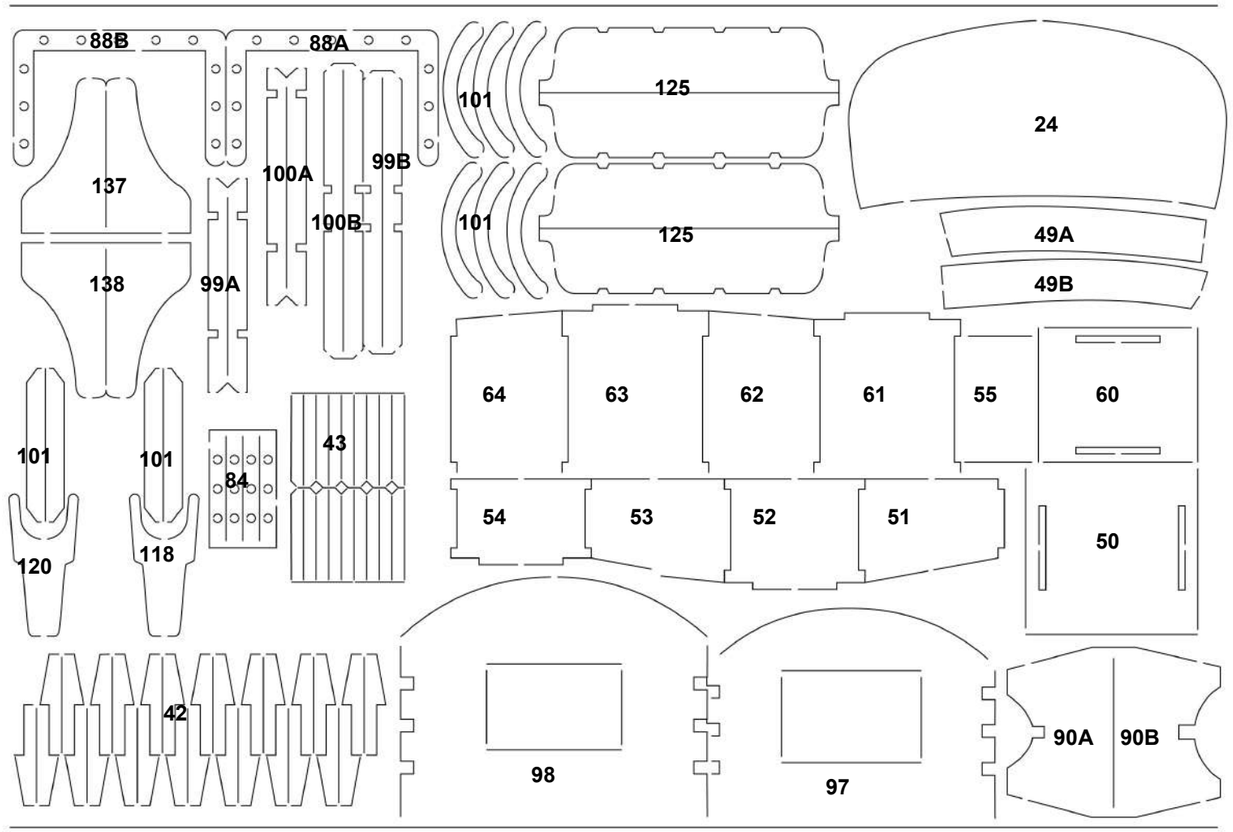

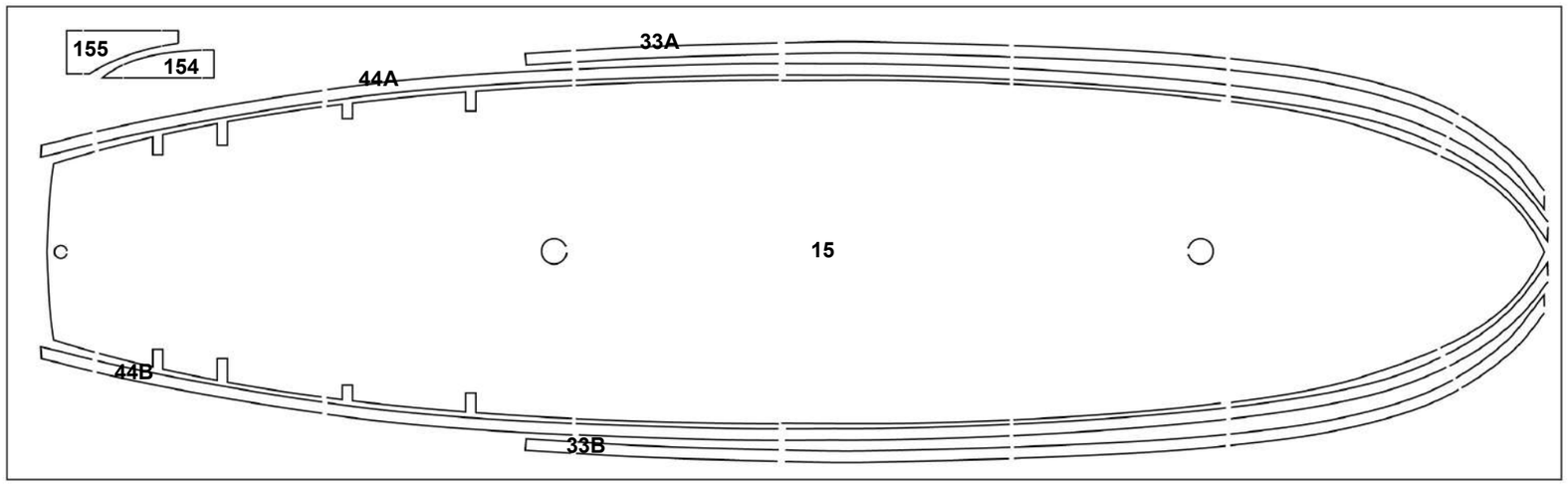

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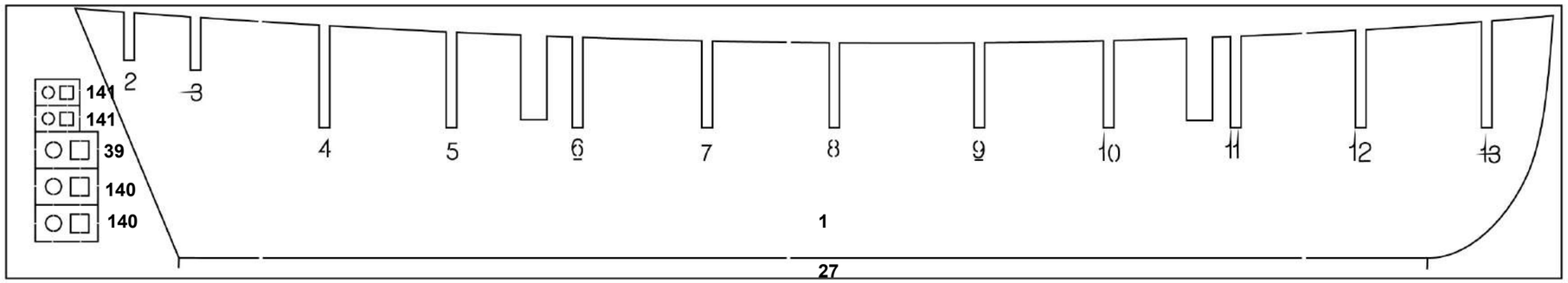

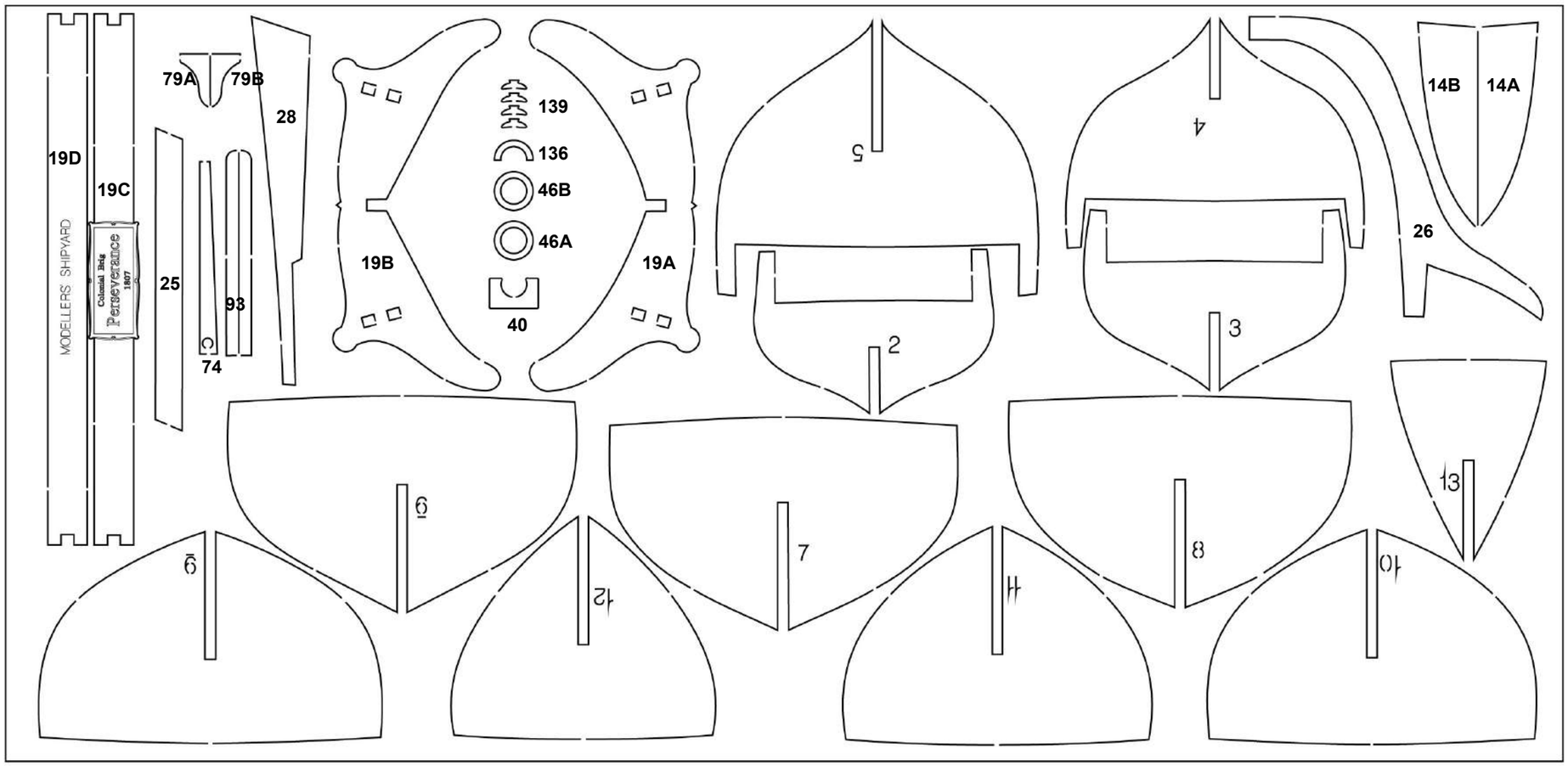

20A	20B	21A	21B
20C	20D	21C	21D
22A	22B	23A	23B
22C	22D	23C	23D

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SHEET 4

5.0 Hull Construction
5.1 Assemble the Keel & Bulkhead Frames

Step 1 On the laser cut sheets in your kit use a pencil to mark the relevant numbers on each piece before removing them from the sheet. Remove the keel, bulkhead frames and transom from the 4mm plywood sheet. Use a snap blade knife to carefully cut through the tabs holding the parts to the main sheet.

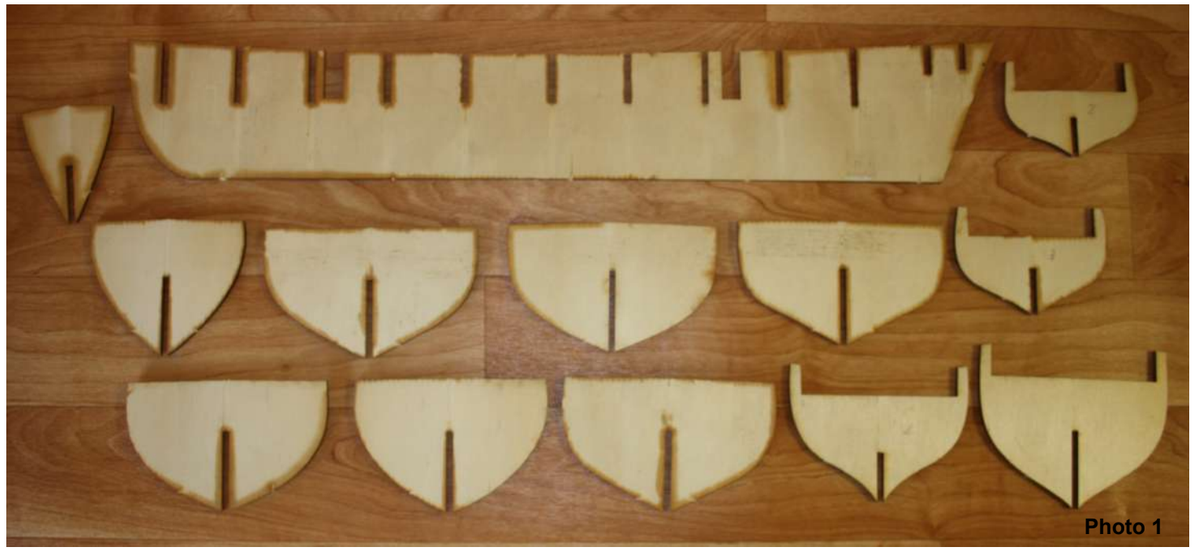

Photo 1

Step 2 Dry fit the bulkhead frames into the keel slots. Do not glue anything at this stage. Do not force the bulkhead frame into the keel slot. You may need to use a flat needle file to fractionally open the slot in both the keel and bulkhead frame. The fit should be firm but no loose.

There may be a need to adjust the slot depth in the keel and/or bulkhead frames to ensure the top edge of each bulkhead frame is flush with the top edge of the keel. Do not glue anything at this stage. Also ensure

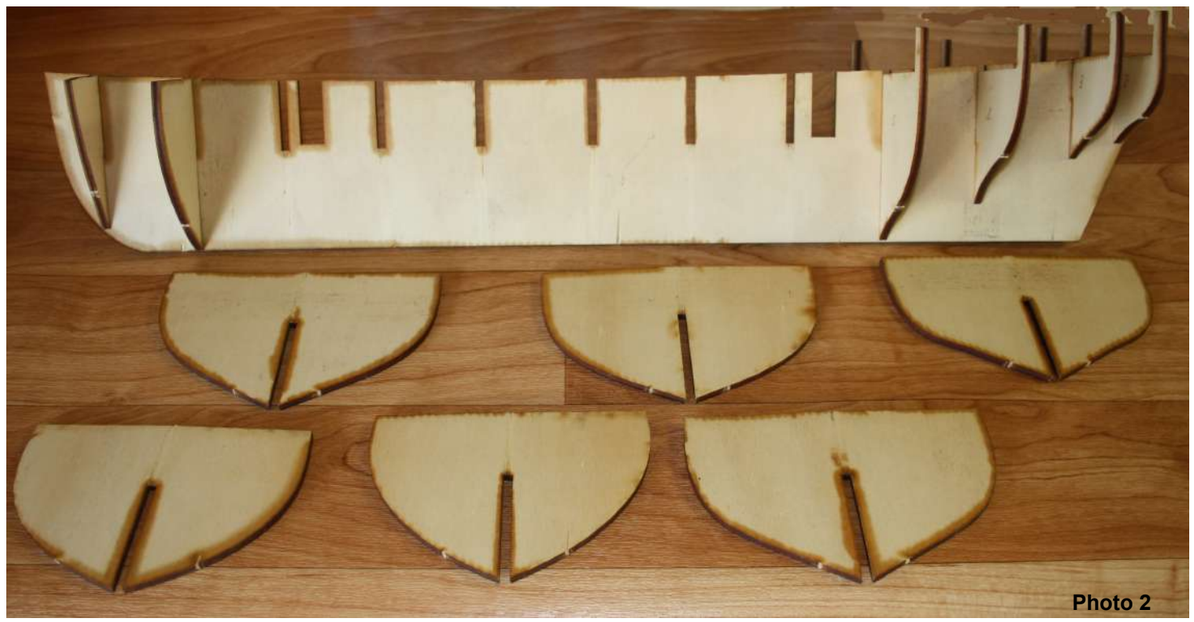

Photo 2

Step 3 You may wish to make a working base as shown Figure 1. This will help to ensure the keel does not become distorted. Cut the slots in the keel supports to correspond with the bulkhead frames.

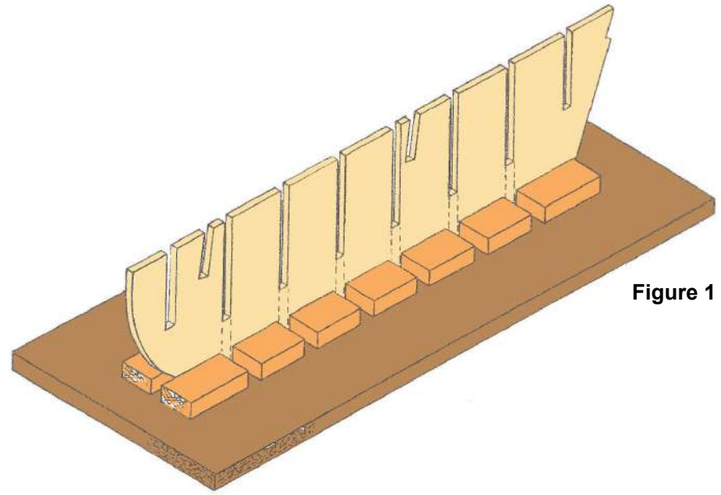

Figure 1

Step 4 Once you are satisfied with the dry fit of the frames and keel, glue each frame and the transom in place with PVA. It is important to make sure the frames are square to the keel. Using a square piece of timber place it along the keel against a frame. Adjust the frame to ensure it is square to the keel. Place a “bull dog” clip on each side of each frame to ensure it remains square while the glue sets. Place the keel and frame construction aside and allow 24 hours for the glue to set.

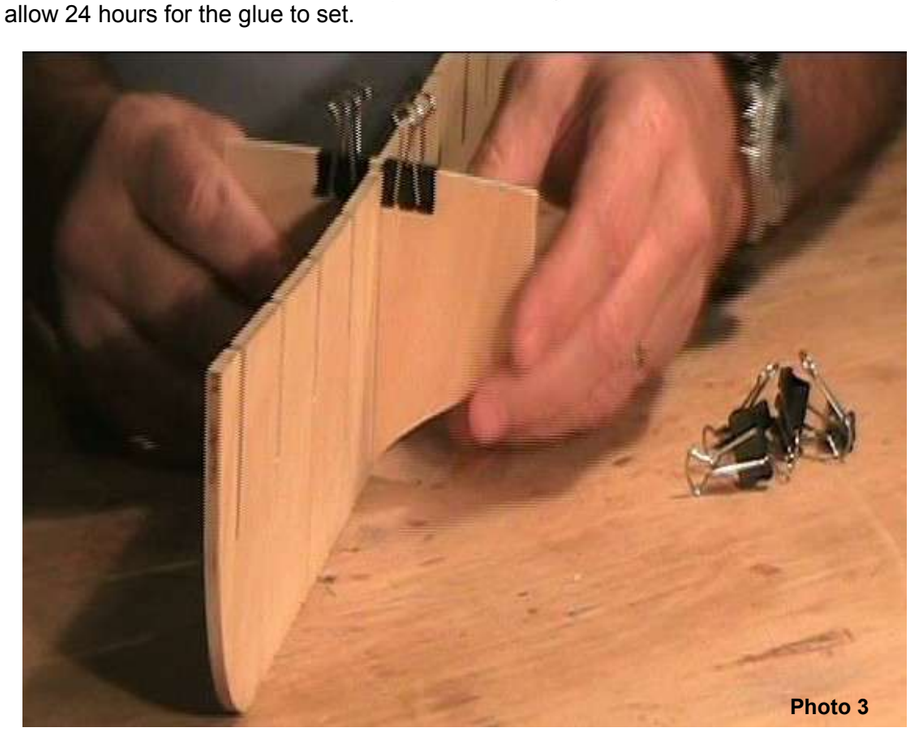

Photo 3

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5.2 Fairing the Frames

“Fairing” the frames is a very important part of the preparation for planking the hull. The principle of “fairing” the frames is to ensure the planks lay flat on the edge of each frame to ensure a good glue bond is established between each plank and the frame of the model and to ensure that when planked the hull is smooth and free of bumps or hollows. Take your time. Completing this process properly will ensure a good finish to the hull.

Lay a plank over a few frames. You will see that the plank does not sit flat across the edge of all the frames—especially at the bow and stern areas. To fair the frames use a file to move across the edges of two frames at a time starting at the deck level and moving towards the toe of the keel.. Once two frames are complete move to the next one.
Always make sure you are filing across two frames. Regularly check by laying a plank/batten across the frames. Move to the bow applying the same approach as above—at the bow fair only the bow blocks—leave the keel untouched. Move to the stern and transom applying the same approach as above. Check across all frames along the complete length of each. Move the plank across all frames to ensure a good fit. Continue the fairing process until you can see the plank/batten will sit flat across each frame.


Photo 4

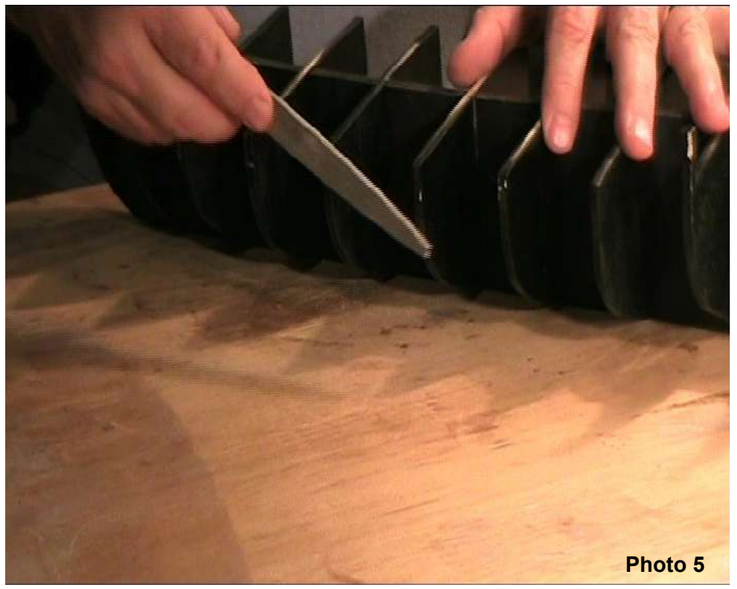
Photo 5


Photo 6


Photo 7

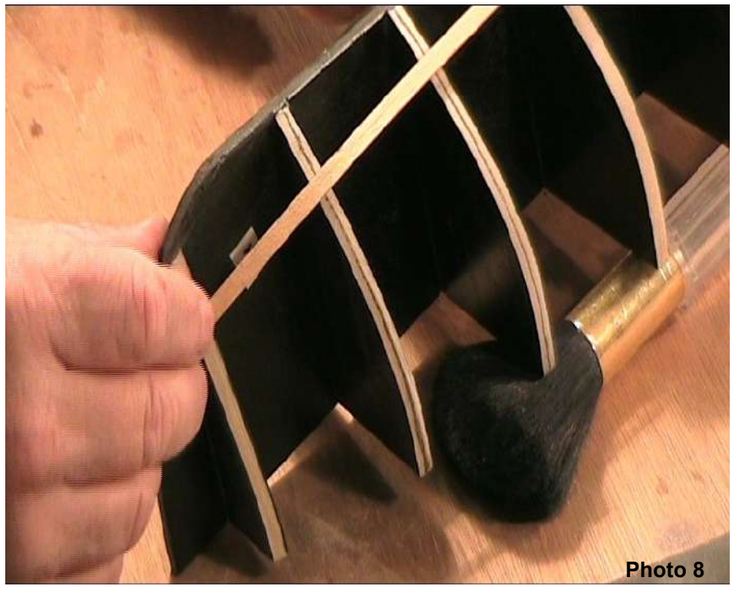
Photo 8


Photo 9

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5.3 Bow Filler Blocks

The bow filler blocks are Parts 14A & 14B. They provide an area for gluing the planks at the bow. Glue a bow block to each side of the keel. Allow 24 hours for the glue to set. Use a file to “fair-in” each bow block. File only to the side edge of the keel as the full width of the keel will be needed to attach the stem post later.

Photo 10

5.4 Fit the False Deck

The next step is to fit and fix the false deck to the hull skeleton. The false deck P15 is on the 2mm plywood sheet. Fitting the false deck at this stage will provide added strength to the whole hull structure. Dry fit first adjusting slots to fit the bulkhead horns. Once the dry fit is satisfactory remove false deck and apply PVA glue to the tops of the bulkheads. Refit false deck and insert map pins through the false deck into the bulkheads to hold deck in place while the glue sets. Allow 24 hours to dry. Once dry remove all pins. Use a flat file to fair the edge of the deck to the bulkheads.

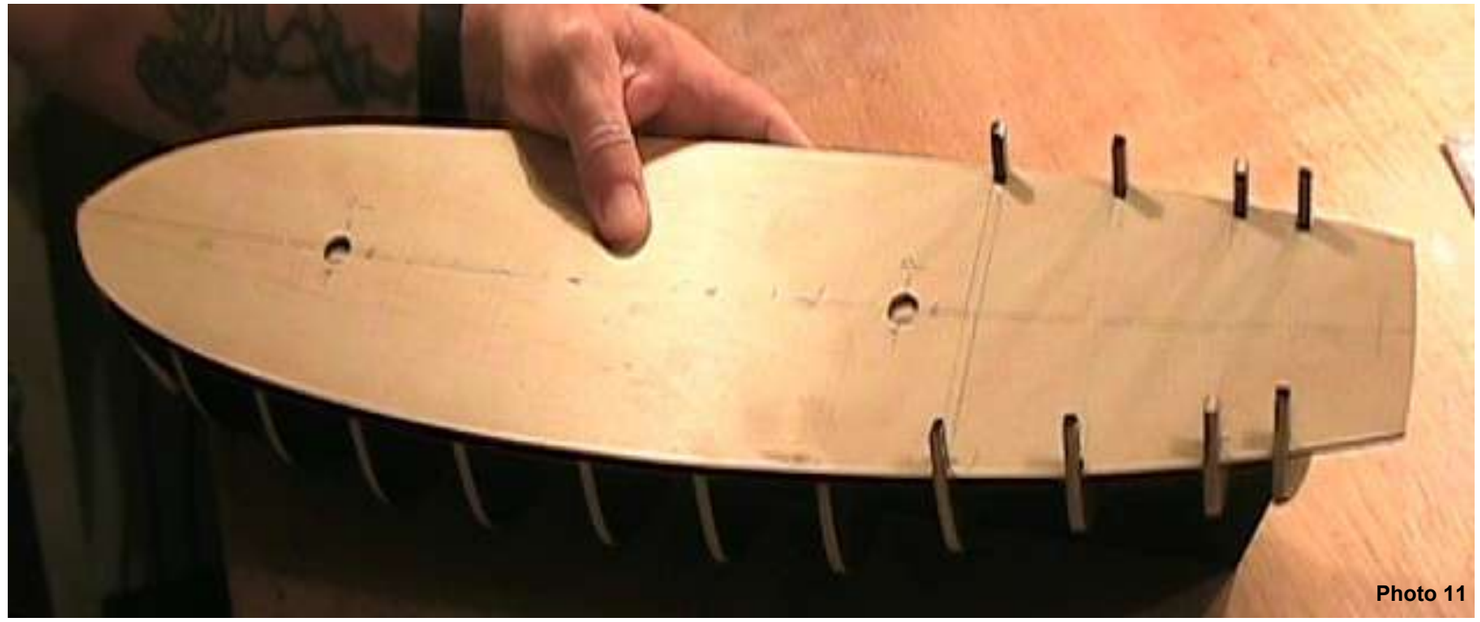

Photo 11

Photo 12

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5.5 Deadwood Area

The area between the bottom edge of the keel and the bottom of the bulkhead frames at the stern is known as the **deadwood area**. The deadwood area will be planked with two layers of planking consistent with the rest of the hull.

The stern post and rudder however will only be planked with the second layer of planking. So when the stern post and rudder are eventually fitted you need to ensure there is a consistent thickness between stern post, rudder and the stern area of the keel.

The keel, stern post & rudder are all 4mm plywood. The stern post and rudder will be planked with 0.6x5mm mahogany P17. However the keel in the deadwood area will be planked with the first layer of planking—2mm thick (on each side) and then planked with the second layer of planking. Clearly, if no adjustment is made when the stern post and rudder are fitted there will be a significant discrepancy between the thickness of the stern area of the keel and the stern post and rudder.

To ensure there is consistency of thickness between the stern post, rudder and the hull in the deadwood area there is the need to ensure that when the first layer of planking is fixed in place the total thickness does not exceed the thickness of the stern post/rudder post.

To achieve this you will need to take two steps.
Step 1. Before fitting the first layer of planking reduce the thickness of the keel in the deadwood area by approximately 1mm on each side— i.e. reduce the keel thickness by about half in the deadwood area.
Step 2. Once the **first layer of planking** has been fitted then reduce the thickness of this planking by approximately 1mm on each side as well—fractionally adjusting to meet required thickness.

This will then reduce the total thickness of the keel and first layer of planking in the area to be 4mm thick thus meeting the requirement for consistency of thickness. This will ensure that when the second layer of planking is fitted there will be the same thickness between the keel, stern post and rudder.

Photo 13

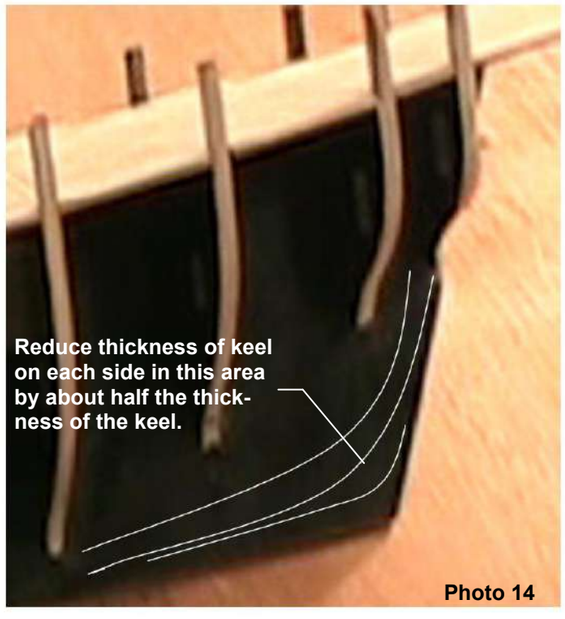

Photo 14

5.6 Transom Blocks

The transom blocks are used to give a large surface area at the stern of the model to fix the first layer of planking in place. The transom blocks are in two parts with each being assembled from layers of 4mm plywood and shaped using a template. The photos below show how the transom blocks are assembled and fitted in place.

5.6.1 Transom Blocks 1

Identify P20A—D and P21A—D from the 4mm MDF sheet. Glue these transom block pieces together as shown. Once assembled and glued together these pieces form the transom blocks P20 and P21.


Photo 15

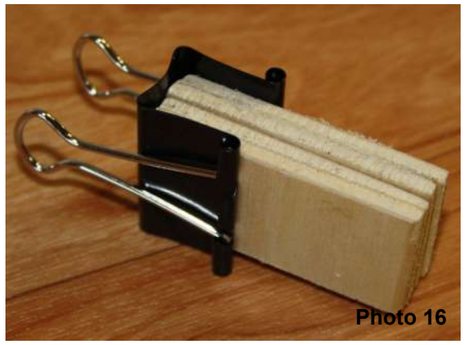
Photo 16

5.6.2 Transom Blocks 2

Identify P22A—D and P23A—D from the 4mm MDF sheet. Glue these transom block pieces together as shown. Once assembled and glued together these pieces form the transom blocks P22 and P23.

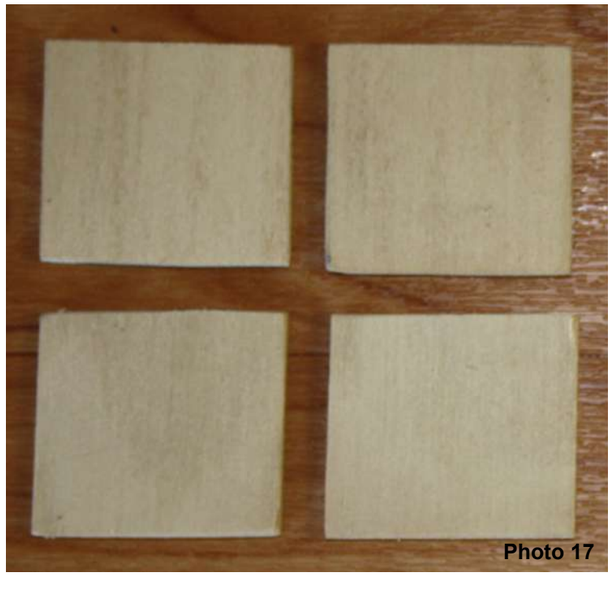
Photo 17

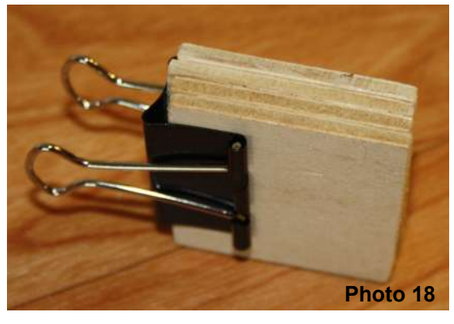
Photo 18

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5.6.3 Fitting Transom Blocks 1
Identify the stern post P25 and temporarily fit in position as shown Photo 19. Do **not** glue it in position yet.

Draw a pencil line 16mm below the false deck on bulkhead frame 2. Fit and glue the transom blocks P20 and P21 in place along this line leaving a 16mm gap between the top of the blocks and the underside of the false deck —Photo 19. Allow 24 hours for the glue to set.

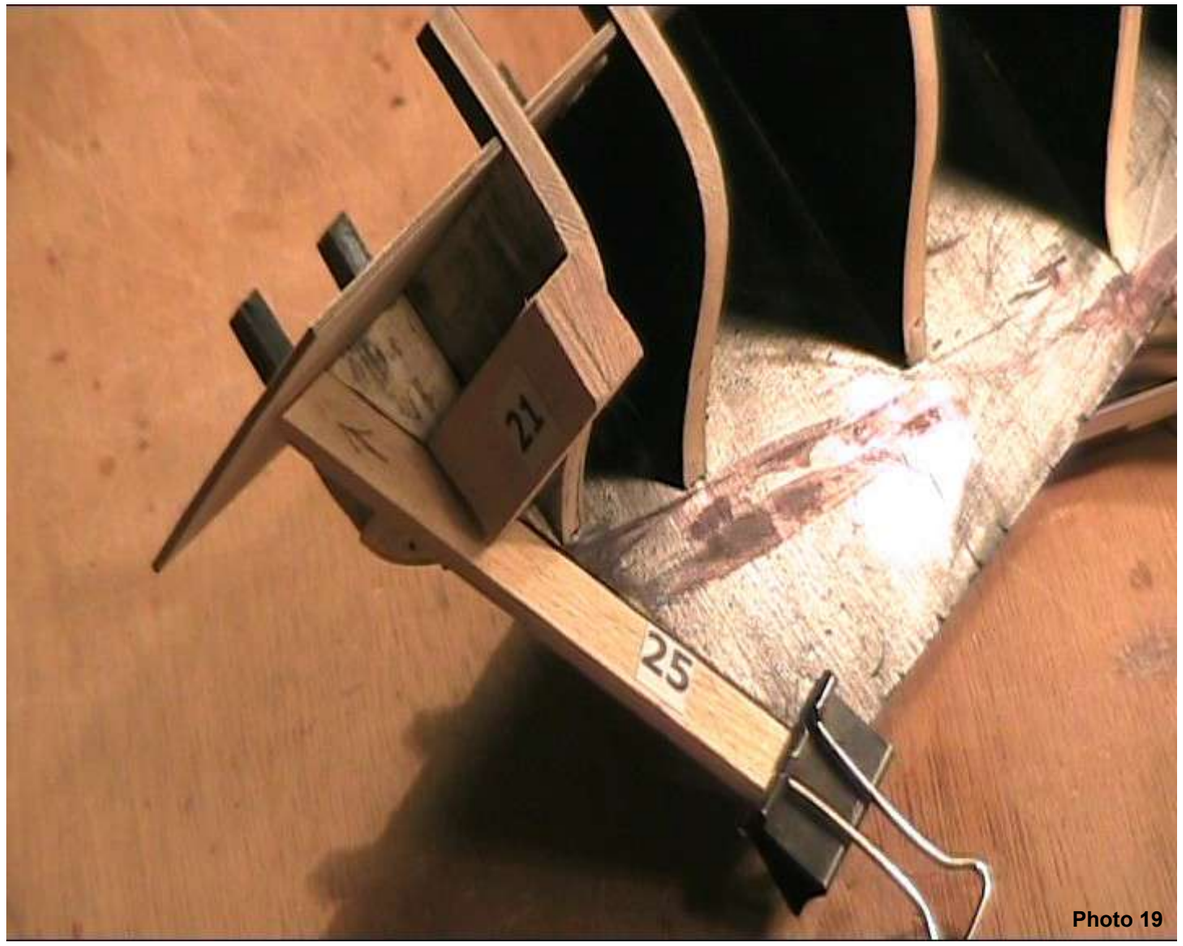

Photo 19

5.6.4 Shaping Transom Blocks 1
Shape the blocks to follow the contour of bulkhead frame 2—Photo 20

Mark-out the area as shown Photo 21 and remove this section of the block. **Take your time**. Do this for both P20 & P21.

Identify transom template T1 P154 from the 2mm plywood sheet. Using the template T1, place it on the top side of P20 and trace the template shape on to the top side of the transom blocks —see Photo 20. Shape each block to the template line. **Take your time**.


Photo 20


Photo 21


Photo 22

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5.6.5 Shaping Transom Blocks 2

Using transom blocks P22 & P23 fit into place—Photo 23 - Do not glue in place yet. Identify the transom template T2 P155 from the 2mm plywood sheet. Using this template place it on the side of P23 and trace the shape onto the side face—Photo 23. Extend the lines from the side onto the other faces of P23—Lines A & B —Photo 23. Holding P23 in place trace the stern part of the false deck onto the block—Photo 24. Remove each block and shape to the marked lines—Photo 27. Re-insert each block and mark the area C—Photo 27. Take the blocks out again and remove area C—Photo 28.

Re-insert each block and hold in place with a bull-dog clip. Use a curved file and sandpaper to shape the blocks P22 & P23 to follow the contour of P20 & P21. Also shape the side of the block from the edge of bulkhead 2 along the underside of the false deck. **Take your time.** Once the block is shaped glue in position and allow 24 hours to dry.

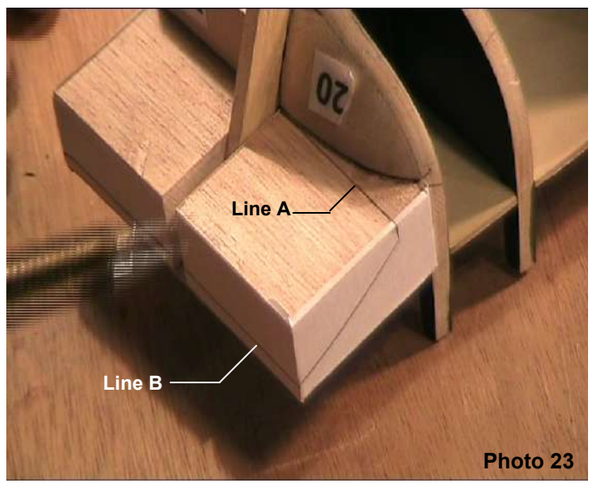

Photo 23

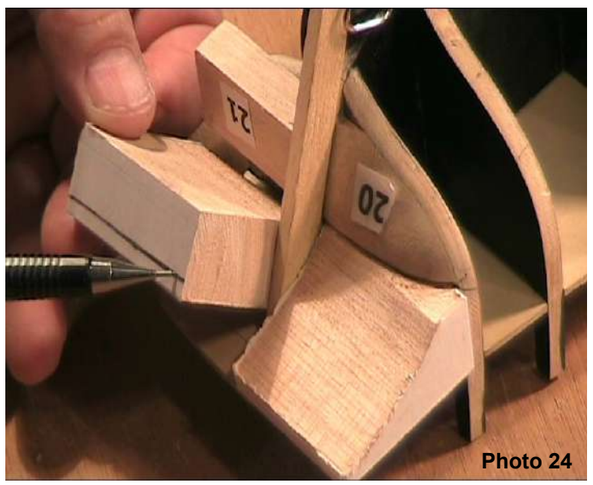

Photo 24

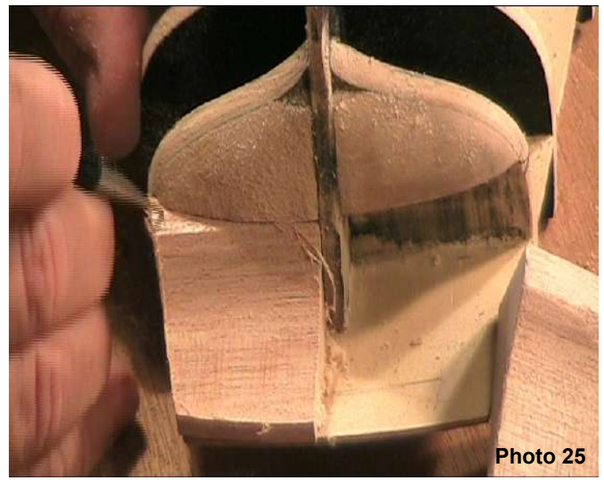
Photo 25

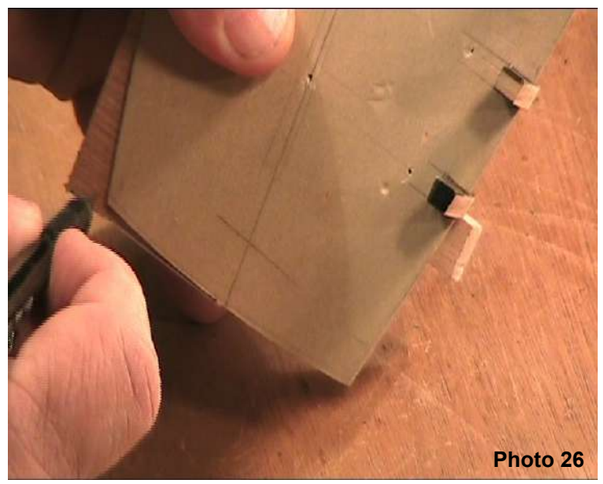
Photo 26

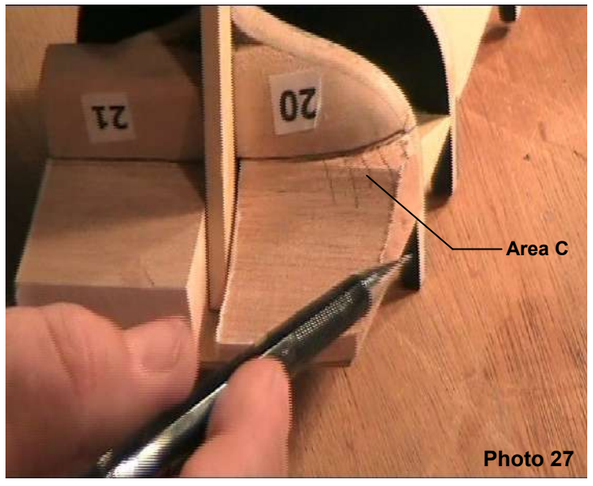

Photo 27

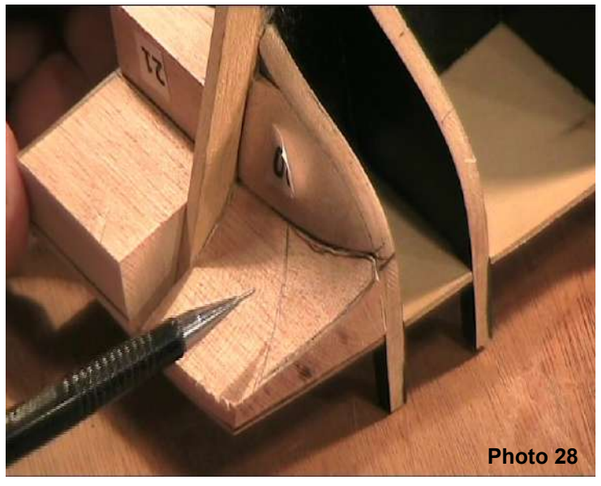

Photo 28

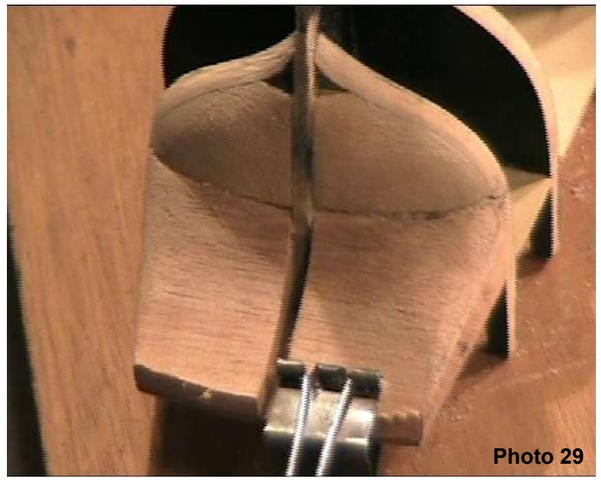
Photo 29


Photo 30

5.7 Hull Planking

Hull planking is not technically difficult but does require some thought and study so that the principles are understood. It also requires some patience. Once mastered the process is straight forward. A few points to remember are:

- Use a mini plane to taper the planks.
- Always taper the **lower** edge of the plank.
- Prepare two planks together—one for each side of the hull. It is most important to fit and glue the planks in pairs—one on each side of the hull—as this will minimise the chance of the keel being distorted or bent.
- It should be noted that the hull planking of a model starts at or near the deck level.

5.7.1 Hull Planking—First Principles

Spend a few moments with a dressmakers tape measure and measure from the top of the each bulkhead frame around the outside of the frame to the toe of the bulkhead frame where it meets the keel. You will notice that the measurements around the bulkhead frames in the middle or “mid-ship” of the model are greater than the measurement around the bulkhead frames at the bow (front) of the hull.

We always assume that the “mid-ship” frames are the largest distance and it is at this part of the model the planks are at their full width. The mid-ship frames on the Perseverance are frames 7, 8 & 9.
From your measurements it will be clear that the planks will need to be tapered at the bow (front) across frames 13, 12 & 11.

When making your measurements of the stern (rear) frames 2, 3 & 4, include the “deadwood” which is the distance from the bottom of the frame where it fits into the keel to the bottom of the keel.

Across these frames you will find the measurement from the first plank to the bottom of the keel will be greater across say frames 3 & 4 than it is at “mid-ships”. Where this occurs we will be inserting short triangular planks known as “Stealers” or “Wedges” to cover the extra distance. This will be shown later.

This model is “double planked”. This means there are two layers of planking. The first layer of planking provides strength to the whole hull and a solid base for the second layer of planking which is a more decorative timber.

5.7.2 First Layer of Planking

The first layer of planking timber is limewood P16. It is a white/cream coloured timber 2x5x700mm long. Clearly identify these planks before proceeding further.

a) Fitting the First Plank

The first plank is placed flush with and along the line of the deck. There is no need to taper this first plank. Using one of the identified planks spring it gently around the curve of the bow. Note where it starts to bend. With a pencil mark this as Point A on the plank. Use a hand held plank bender to create a gentle curve around the bow starting at Point A. Using this same plank spring it gently around the curve of the stern. Do not taper this plank. Fit this first plank along the line of the false deck starting at the bow and work towards the stern. Apply PVA glue to this plank and use planking screws to hold the plank in place while the glue sets. Repeat this process for the other side of the hull.

Photo 31

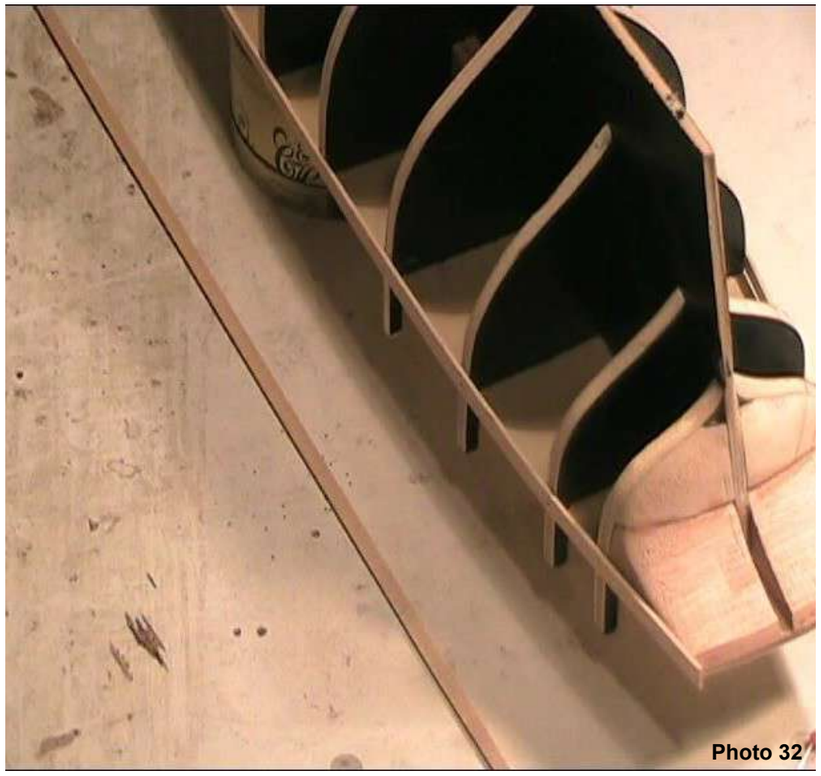

Photo 32

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b) Hull Bands—Figures 1 & 2

To complete the first layer of planking a technique is presented where the hull is divided into three bands—Band A, Band B and Band C. To determine these bands across the bulkheads and hull carefully follow the steps below:

Line 1: The underside of the first plank fitted earlier is Line 1.

Line 2 The lower edge of the wale is Line 2—place a plank starting from point D and allow it to follow the natural sheer around to the bow. This plank will finish approximately 15mm below the first plank fitted. Glue this plank in place. Do not taper this plank.

Line 3 The point where bulkhead frame 2 meets the keel is the start of Line 3—this is point C. Place a plank starting at point C and allow it to follow the natural sheer around to the bow. Temporarily fix this plank in place. Do not taper this plank.

Band A is the area between Line 1 and Line 2.
Band B is the area between Line 2 and Line 3
Band C is the area below Line 3 to the keel.

Mark off on each bulkhead frame the lower edge of **Line 2 and Line 3.** Repeat these steps for the other side of the hull. **Note the dimension between Point C & Point D is "T"**

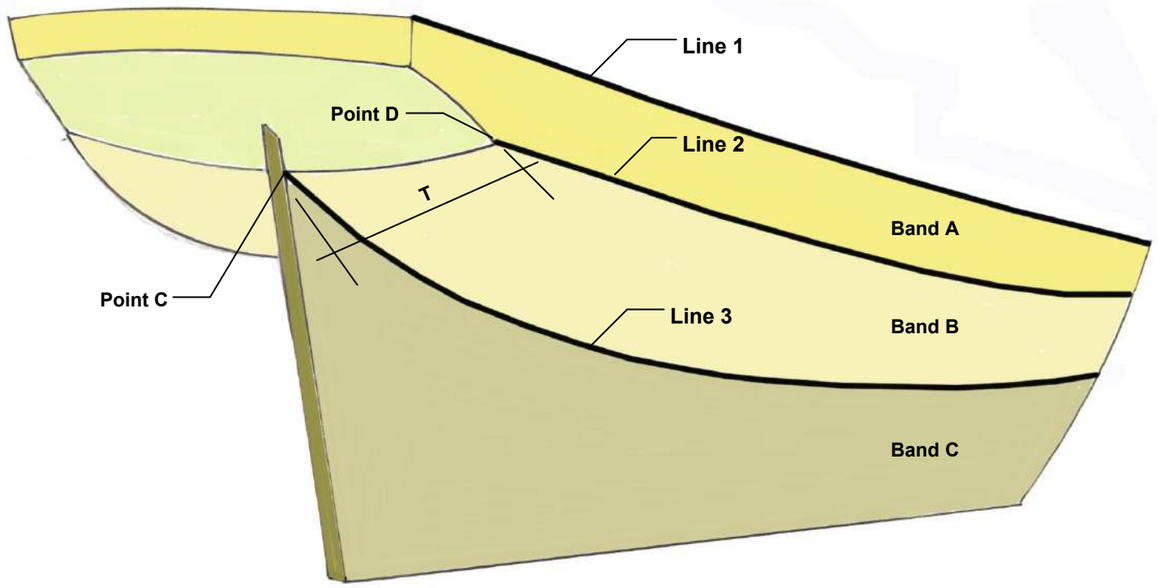

Figure 1

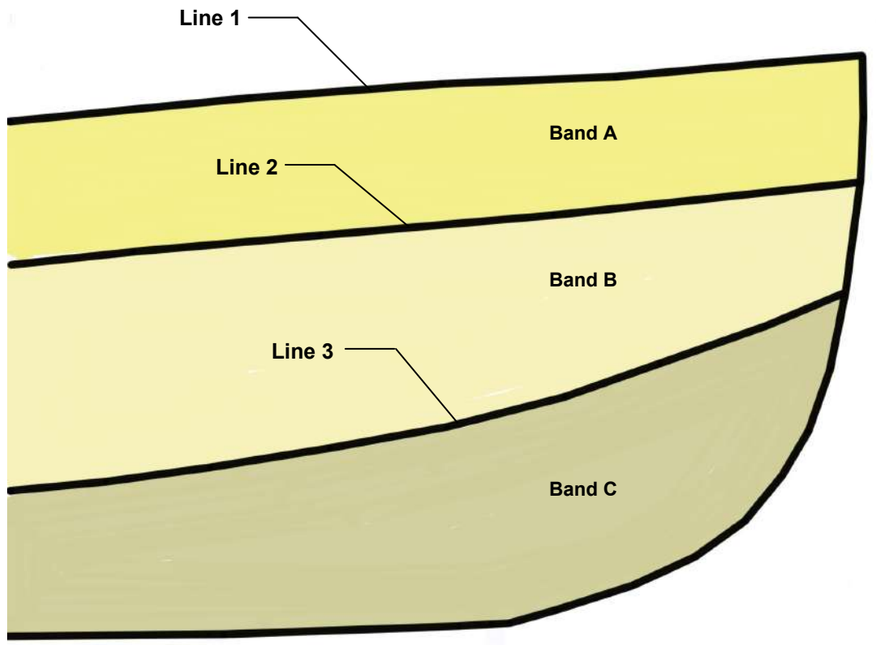

Figure 2

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c) Band A

Plank from Line 1 down to Line 2. You may need to taper these planks marginally at the bow. Remember to fit and glue the planks in pairs—one for each side of the hull.

d) Band B

Use a dressmakers tape measure to measure the distance between Line 2 & Line 3 at each bulkhead frame. Record these distances in Table 1 below.

The distance between Lines 2 & 3 at the mid-frames is approximately 55mm. The plank width is 5mm. Therefore there will need to be 55/5 = 11 planks to be fitted within Band B and within the distance between Points C & D—dimension T. Using the measurements made above divide each by 11 (number of planks) to determine the plank width at each bulkhead frame and T. Record in Table 1 below.

Bulkhead Frame	13	12	11	10	9	8	7	6	5	4	3	2	T
Measurement mm													
Plank Width mm													

Table 1

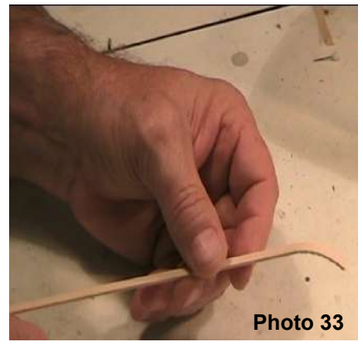

Photo 33

Taking a pair of planks taper them to the required width using a mini plane. Use a plank bender to bend the stern end of each plank to fit around the transom area within T—Photo 34
Fit and glue in place these planks starting from the underside of Line 2. After fitting each pair of planks recheck the measurements to ensure the correct plank width.
Adjust as necessary. Repeat this process until Band B is closed.

Photo 34

Photo 35

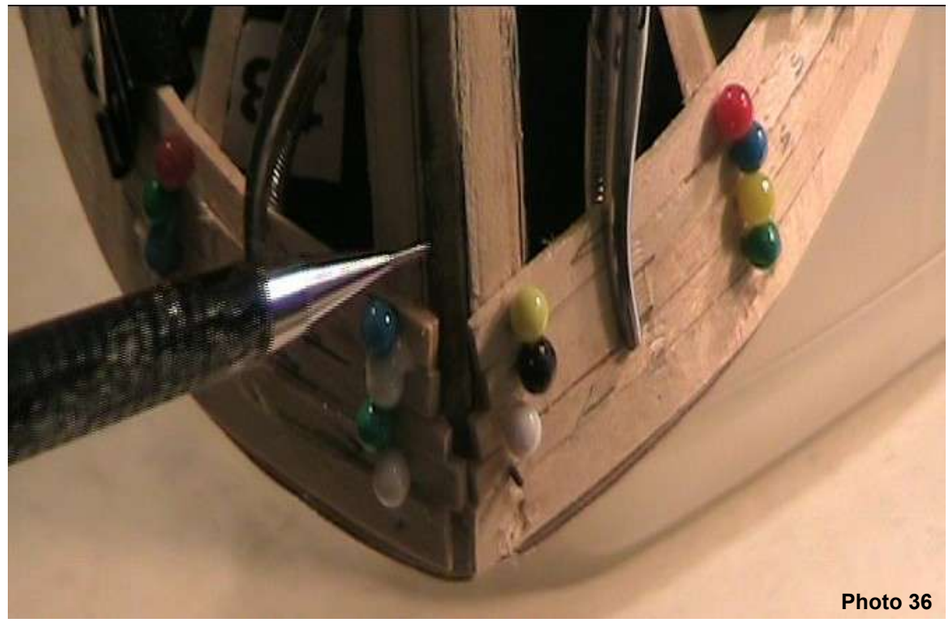

Photo 36

e) Band C

Fix a plank along the edge of the keel on each side of the hull —this is called the garboard plank — Photo 37. Do not taper this plank.

Measure the distance between Line 3 & the garboard plank at each bulkhead frame. Record these distances in Table 2 below.

Bulkhead Frame	13	12	11	10	9	8	7	6	5	4	3	2
Measurement mm												
Plank Width mm												

Table 2

Taking a pair of planks taper them to the required width using a mini plane. The planks at the stern will not need to be tapered. Fit and glue in place these planks starting from the underside of Line 3. After fitting each pair of planks recheck the measurements to ensure the correct plank width. Adjust as necessary. Allow these planks to follow their natural course across the bulkhead frames. Do not force them.

At frames 2, 3 & 4 there is a gap between the bottom of the frame and the keel—this is called the “deadwood” area. As you plank cross this area gaps will form between the planks. This is where a “Stealer” or “Wedge” will be fitted to fill the gap. To make the Stealers use off-cut planking pieces and cut and fix triangular lengths into the gaps as required. Repeat this process until Band C is closed.

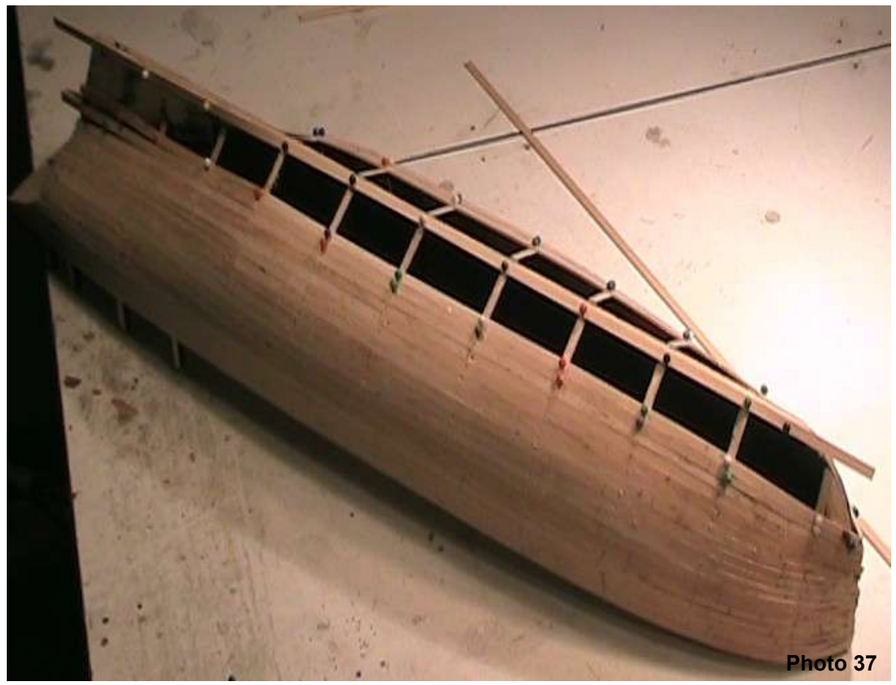

Photo 37

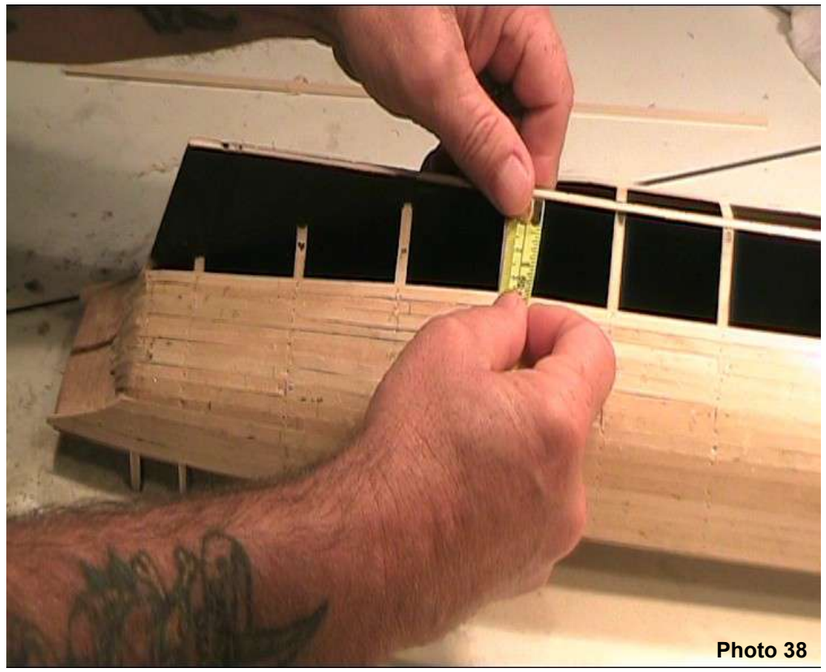

Photo 38

Photo 39

Photo 40

f) Bulwark

Place a length of masking tape over the protruding bulkhead frame horns at the stern—this is done to stop the bulwark planks being glued to the horns. These horns will be removed later. Fit a plank along the full length of the hull above the first plank fitted. Do not taper this plank. Only glue this plank along the edge of the first plank. Allow a minimum overhang at the stern of approximately 5mm. Draw a line across the false deck from the centre of the main mast hole. Cut 4 length of planking to a length of 205mm. Fit two of these planks on each side above the last plank fitted starting from the mast line. Only glue these planks along their edge. Allow a minimum overhang at the stern of approximately 5mm. Fix planks across the tuck (underside) of the transom—Photo 43.

Use a wood filler to fill any hollows and file off any humps in the hull. Sand the hull to a smooth finish.

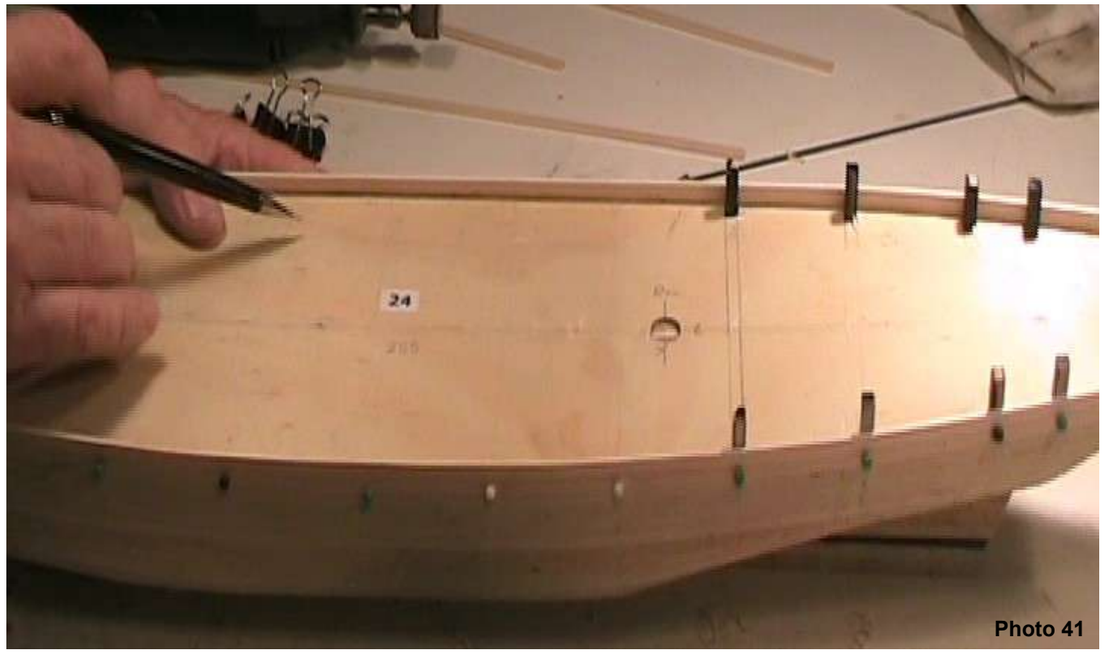

Photo 41

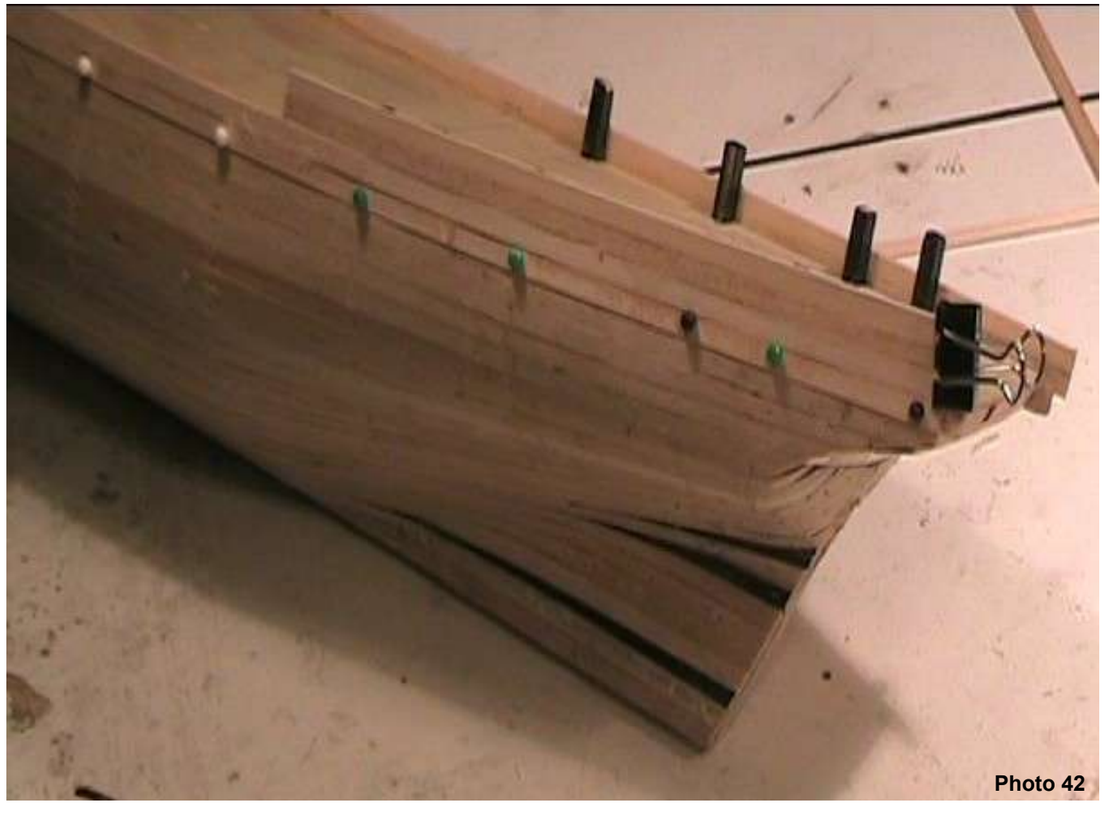

Photo 42

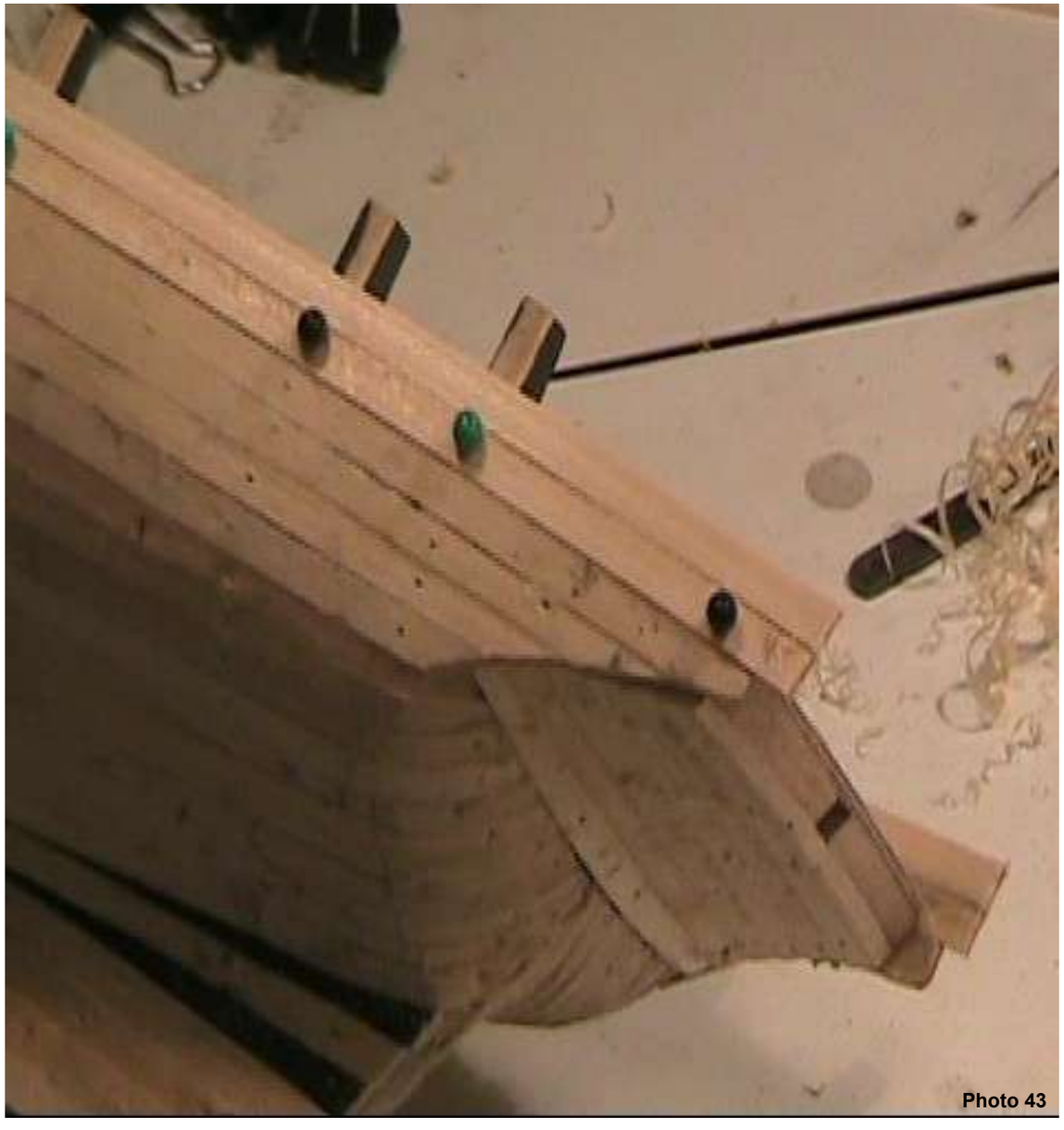

Photo 43

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g) Removal of Bulkhead Frame Horns
Use a razor saw blade to remove the frame horns—file and sand to be flush with the false deck line.

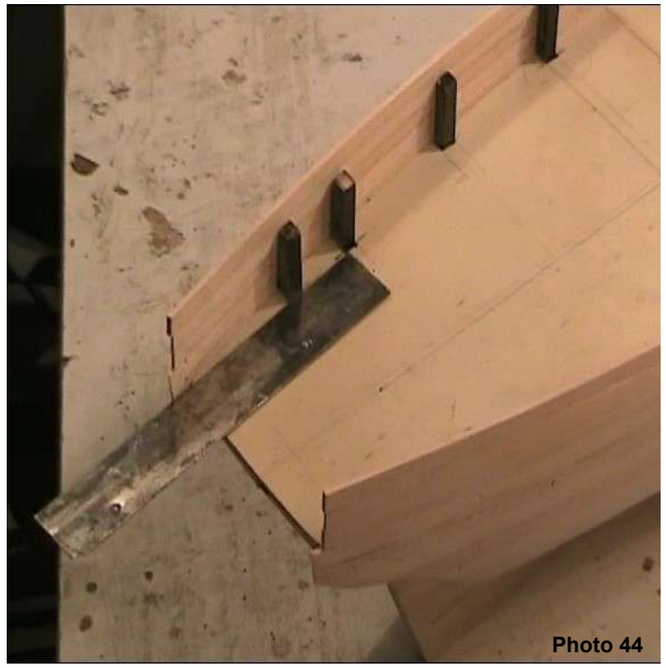
Photo 44

h) Plank Inside of Bulwark
Identify the mahogany strips P17 supplied. Use these timber strips to plank the complete inside of the bulwark.

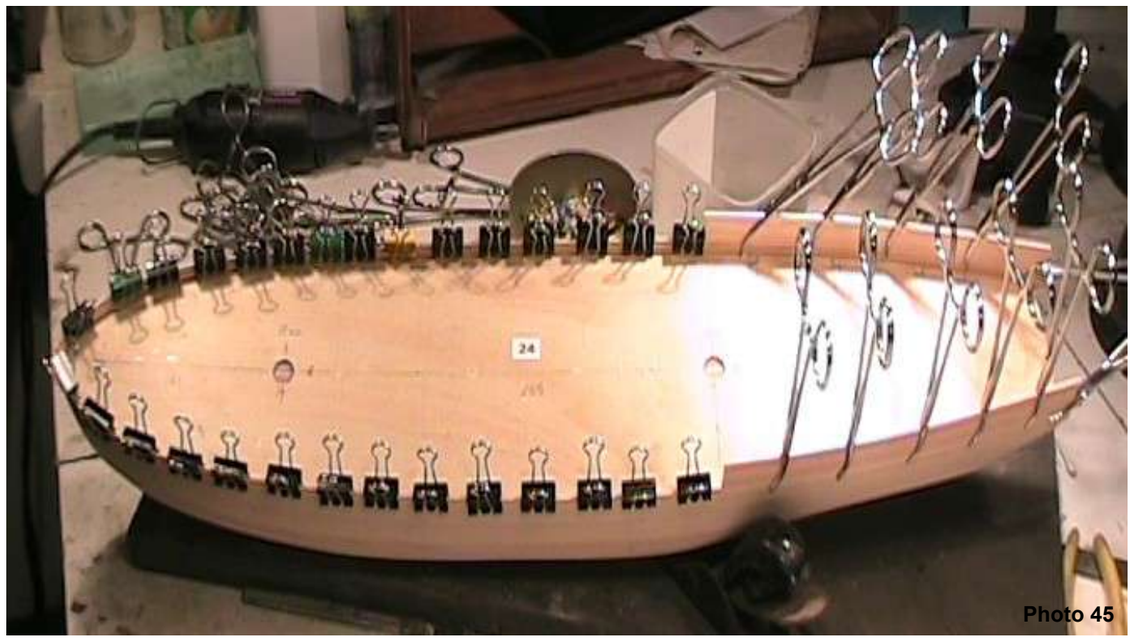
Photo 45

5.8 Deck Planking
Mark with a pencil a line down the centre of the false deck P15. Identify the silver ash timber strips P18. This timber will be used to cover the false deck to simulate deck planking.

Using the silver ash timber strips cut enough into 100mm length pieces to cover the deck. Use the jig Figure 3 to achieve this. Bundle approximately 10 lengths at a time of these pieces together using “dog clips”. Run a dark soft pencil along the edge and end of the bundled planks. This will simulate tar caulking between the deck planks. Repeat this until all the deck planks are finished.

Apply a thin film of PVA glue on some planks. Always be sure to remove any excess glue with a damp cloth. Lay these planks end-to-end along the right hand side of the centre line marked on the false deck for the full length of the deck. Note where the holes are for the masts. Leave approximately 3mm over hang at the stern to be trimmed off later. Be sure to mark where the mast holes are.

For the next line of planks on the right hand side off-set them by half the length of the plank. Repeat this process until the right hand side of the deck is covered. Repeat the process again for the left hand side of the deck but off-set the planks by half the length of the plank. Put the deck aside for 24 hours to allow the glue to set. Use a scapel to trim any excess planking. At the mast hole and the rudder hole drill through the deck planks. Scrape and finish the deck with a sharp straight edge piece of glass. Spray the completed deck with a clear satin or matt finish to seal the surface. Set aside the completed deck to dry.

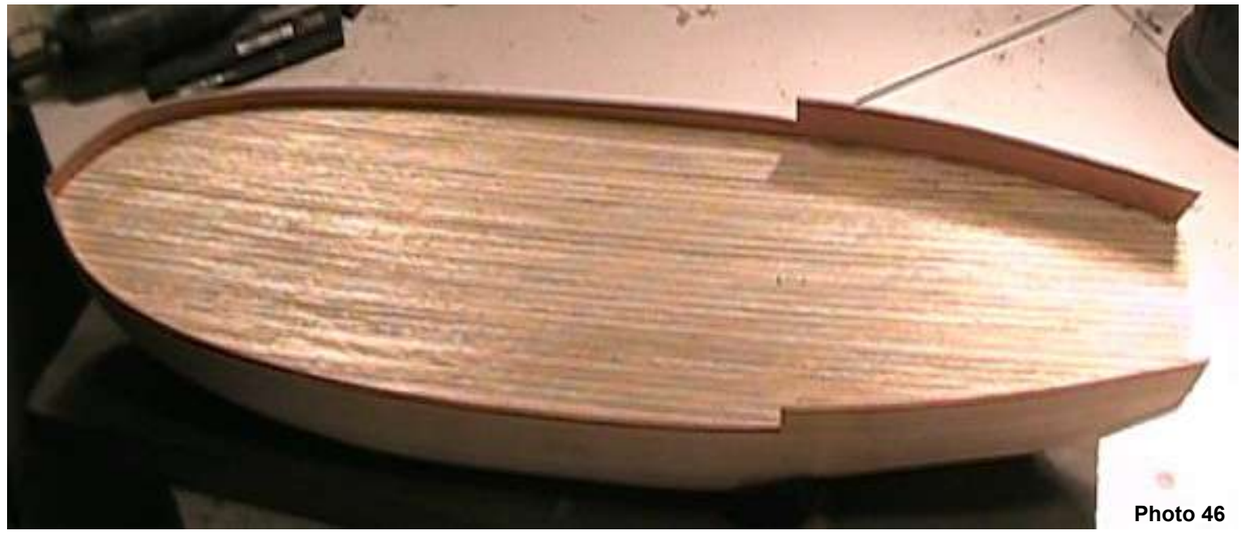
Photo 46

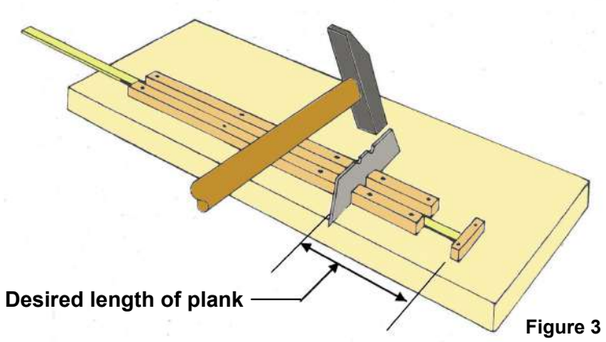

Figure 3

5.9 Stern Post

The stern post is P25 on the 4mm ply sheet. Remove this part. Place the stern post against the back of the keel and hold in position as shown—Photo 47. Mark with a pencil where the stern post will enter the underside of the tuck of the transom. Use a knife blade to fit the stern post. Do not fix the stern post in place yet—this will be done following the completion of the second layer of planking. Trim off the overhang of the hull and deck planking at the stern.

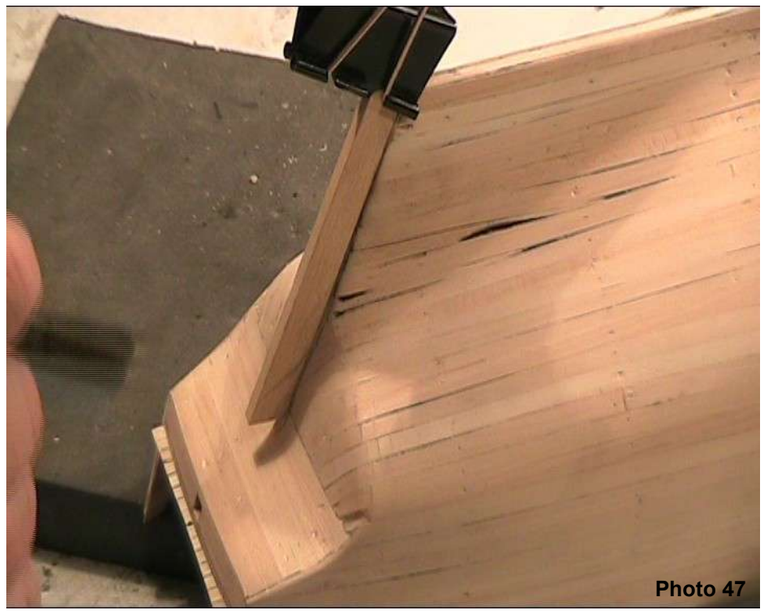

Photo 47

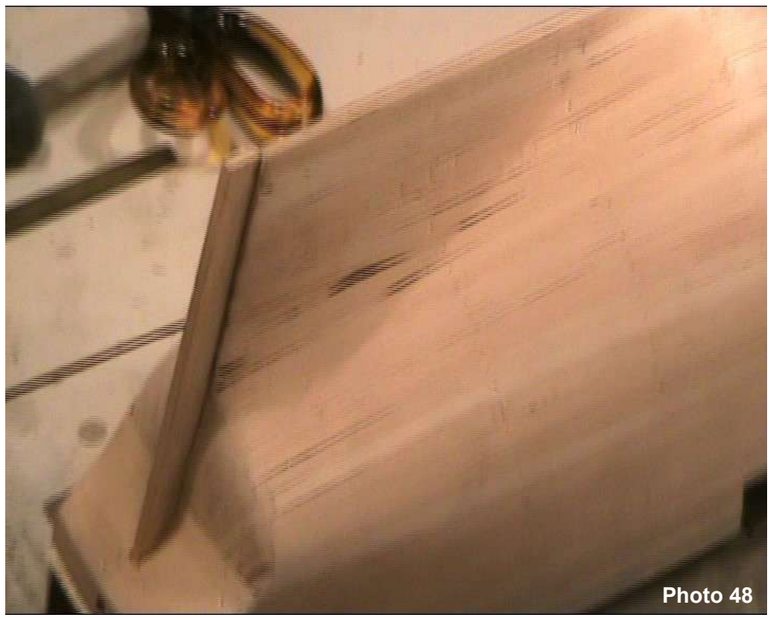

Photo 48

Photo 49

6.0 Second Layer of Hull Planking

Completing the second layer of hull planking is largely a repetition of the process for completing the first layer but with the added advantage of having a more solid foundation on which to work. The second layer of hull planking is the 0.6x5x700mm mahogany strips P17. Identify these planks before proceeding. Also 6 lengths of silver ash P18 are used. To glue the planks in place use a non-drip contact type adhesive. This type of glue will help stop any tendency for the edges of the thin second layer of planking to buckle and at the same time generally speeds up the planking process. Assemble the cradle P19A-C and use it as a stand while completing the model.

a) Band A

Start the second layer of planking along the line of the mid-section of the hull. The first two planks are mahogany P17. The next three planks are silver ash P18. Fix these planks in place. Do not taper these planks. Follow the line of the first layer of planking to fix these planks. Complete the planking on the stern area of the bulwark.

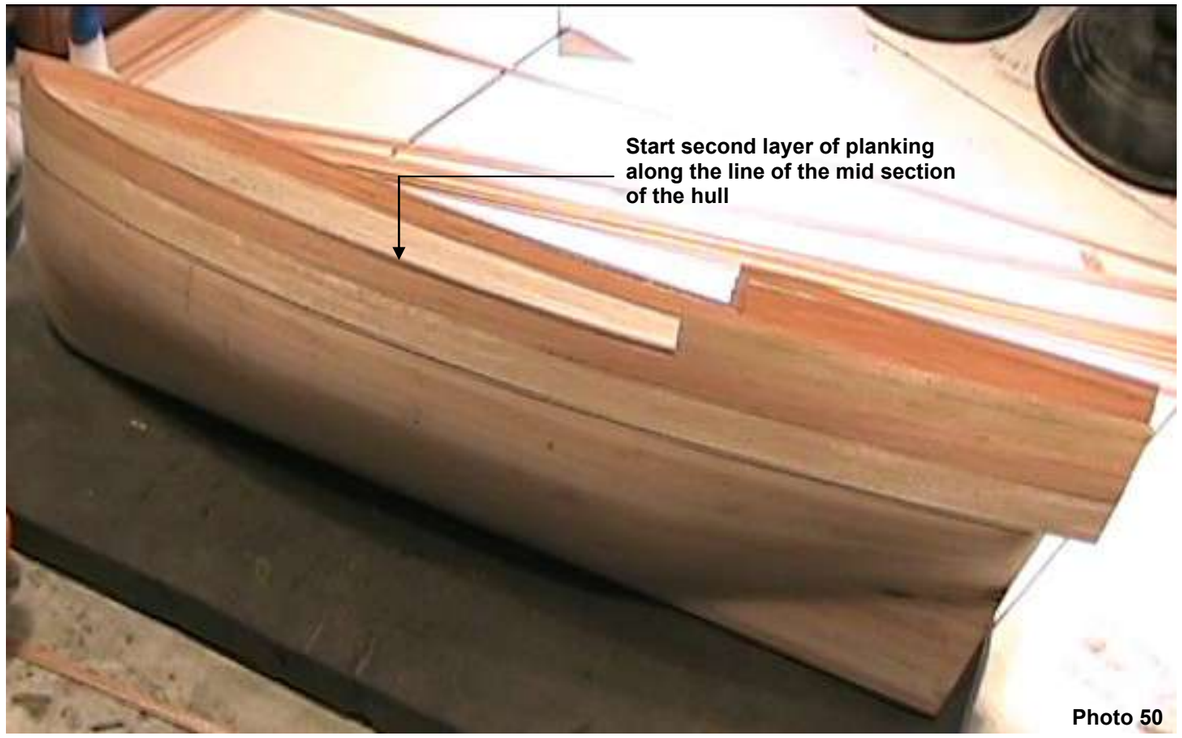

Photo 50

b) Band B & Band C

Determine band B and band C areas by applying the same approach as for the first layer of planking. Mark these areas on the hull. Follow the same approach to complete band B and then band C as previously described. Insert “stealers or wedges” where necessary in the deadwood area of the stern.—Photo 52.Trim the excess planking off.

Photo 51

Photo 52

6.1 Transom

The transom is P24. Identify this part from the 2mm plywood sheet. The transom will have to be curved to follow the shape of the stern of the model. To achieve this fully immerse the transom in boiling water for approximately 10 minutes. Remove the transom from the water. With a clamp and two small lengths timber approximately 4mm square—place the two lengths of timber under side each end of the transom and place the clamp in the centre of the transom and clamp it to a bench. This will achieve the required curvature in the transom. Allow 24 hours to fully dry.

Use mahogany strips P17 to plank the inside and outside of the transom. Centrally fix the transom to the stern of the hull as shown—Photo 54. Use mahogany strips P17 to plank across the tuck of the transom.

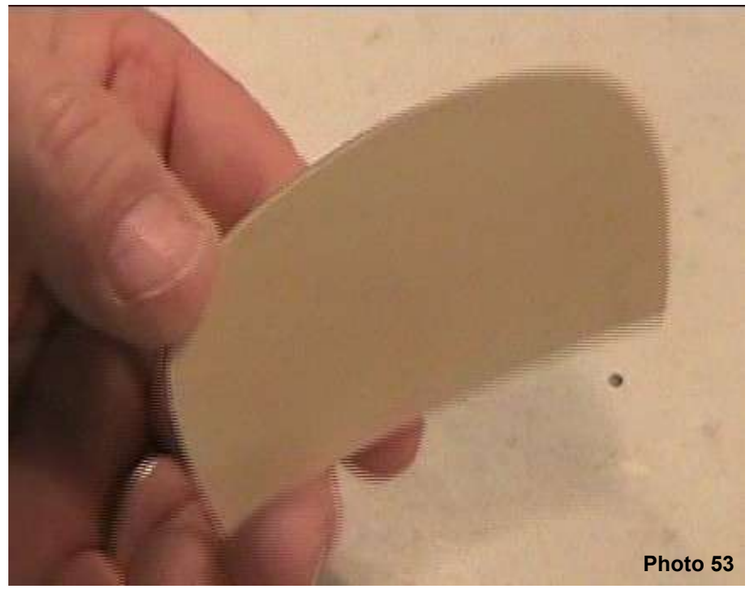

Photo 53

Photo 54

6.2 Stem Post, False Keel and Stern Post

The stem post is P26. Identify the part on the 4mm plywood sheet. Fix the stem post in position as shown—Photo 55
The stern post is P25. Identify the part on the 4mm plywood sheet. Fix the stern post is position as shown—Photo 56
The false keel is P27. Identify the part on the 4mm plywood sheet. Fix the false keel in position as shown—Photo 56
Some fitting and adjustment of these parts may be required.

Plank the stem post, false keel and stern post with the mahogany strips P17.

Sand the hull using a range of fine grade sandpaper. Spray the hull with a clear satin or matt polyurethane finish. Give three coats to protect the hull.

Photo 55

Photo 56

6.3 Rudder Post

The rudder is P28. Identify this part and remove from the plywood sheet. Drill a 4mm hole into the tuck of the transom and through the deck to take the rudder post. Use a round file to shape this hole to allow the rudder to be fitted through to the deck. Also use a file to shape the neck of the rudder post to allow it to fit through to the deck. Cut four 3x7mm slots in the rudder starting 7mm from the bottom of the rudder. Space the slots 14mm apart up the edge of the rudder as shown Photo 58. Plank the rudder with mahogany strips P17.

6.3.1 Install Rudder Post

Identify the rudder hinges P29. Fit the rudder hinges to the rudder post as shown Photos 59 & 60. Ensure the male piece is fitted on the bottom. Use brass nails P30 supplied to fix the hinges to the rudder post—Photo 59. Fit the rudder post in place and fix the hinges to the stern post as shown. Use brass nails supplied to fix the hinges to the stern post. Ensure a uniform gap between the rudder post and stern post—Photo 60.

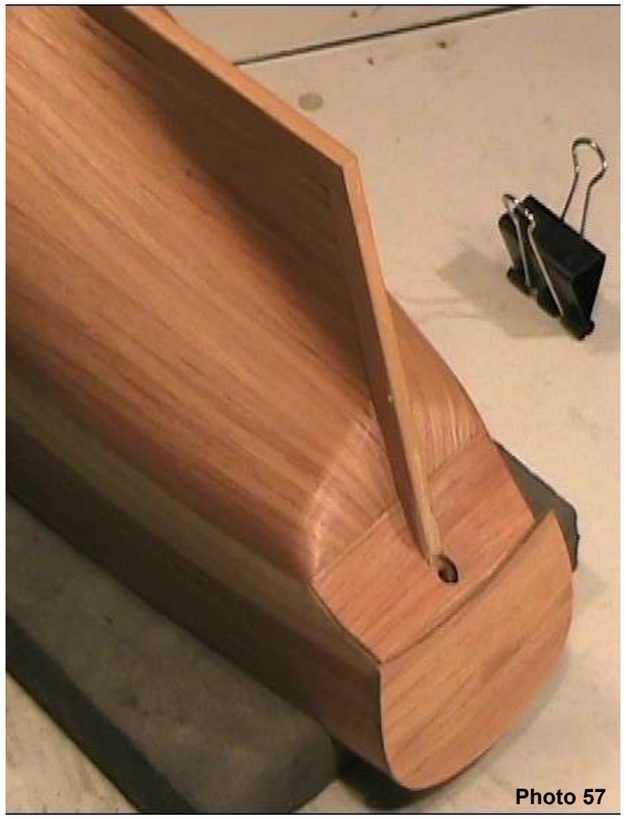

Photo 57

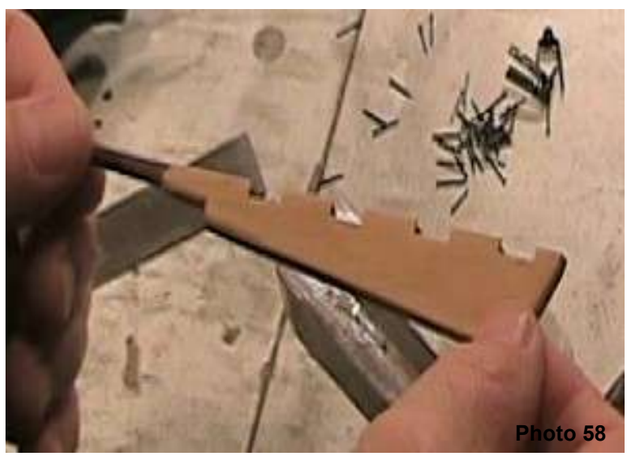

Photo 58

Photo 59

Photo 60

6.4 Gunwales and Deck Cap Rails

The gunwales are in two parts—upper and lower. The upper gunwale is 2x3mm limewood—P31. The lower gunwale is 2x4mm limewood—P32.

Upper Gunwale: Use a plank bender to shape the upper gunwale to fit around the bow. Paint black or stain a teak or walnut colour. Fix the upper gunwale along the top edge of the silver ash strips.

Lower Gunwale: Use a plank bender to shape the lower gunwale to fit around the bow. Paint black or stain a teak or walnut colour. Fix the lower gunwale along the bottom edge of the silver ash strips.

The **Deck Cap Rail** is in two parts. The forward deck cap rails are P33A & 33B. Identify these parts from the 2mm plywood sheet.

The aft deck rails are P34. The aft deck rail is 2x5mm limewood.

Fit the forward deck cap rail in place—ensure each is flush with the inside of the bulwark. Paint black or stain a teak or walnut colour. Fix in place.

Fit the aft deck cap rail in place—ensure each is flush with the inside of the bulwark. Paint black or stain a teak or walnut colour. Fix in place.

The cap rail upright P35 is 2x5mm limewood. Cut to length and shape these pieces. Paint black or stain a teak or walnut colour. Fix in place.

Photo 61

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6.5 Bowsprit & Jib Boom

The next step is to shape, assemble and fit the bowsprit P36, jib boom P37 and dolphin striker P38. Refer to Sheet 35 for the dimensions of these parts.

Locate and identify the dowels and bowsprit cap P39. Shape both dowels accordingly. Fit the mast cap P39 and attach the bow sprit and jib boom together. Fit the bow sprit ,jib boom and dolphin striker in place. The bow sprit runs across the top of the stem post and ends 40mm from the inside of the bulwark and is glued to the deck.

Identify the bow sprit saddle P40 from the 4mm plywood sheet. Fix the bow sprit saddle in place across the bow sprit—Photo 62. Fit the figurehead P41 to the end of the stem post - Photo 63

Photo 62

Photo 63

6.6 Banister Stanchions, Rails and Netting

There are two types of banister stanchions—the fore deck stanchions P42 and the aft deck stanchions P43. Identify these parts from the 2mm plywood sheet.

Banister Stanchions

Fore Deck Stanchions: Identify these from the 2mm plywood sheet. Fit these stanchions on the inside of the forward bulwark and flush with cap rail—Photo 64. Fix them in place at 25mm spacing starting from Point A Photo 64

Aft Deck Stanchions: Identify these from the 2mm plywood sheet.
Fit these stanchions on the inside of the aft bulwark and flush with the underside of the cap rail. Fix them in place at 25mm spacing starting from Point A and going aft.

Banister Rail

The banister rails are P44A & P44B. Identify these from the 2mm plywood sheet. The rails run the full length of the model across the aft deck cap rail and across the fore deck banister stanchions and finishes on top of the bow sprit saddle. Trial fit the rail and shape as needed. Fit the two rails where they join on top of the bow sprit saddle. Paint the rail and saddle black or stain a teak or walnut colour. Fix both banister rails in place.

Netting

The netting is P45. The netting starts at stanchion 1—Photo 65, and runs to the forward most stanchion. It is fixed to the outside of the stanchions. Fit the netting in place cutting it to shape as required. Use clamps to hold netting in place. Use a super glue to fix the netting to the stanchions.

Mast Heels

The mast heels are P46A & P46B. Identify these on the 4mm plywood sheet. Fix the mast heels in place.

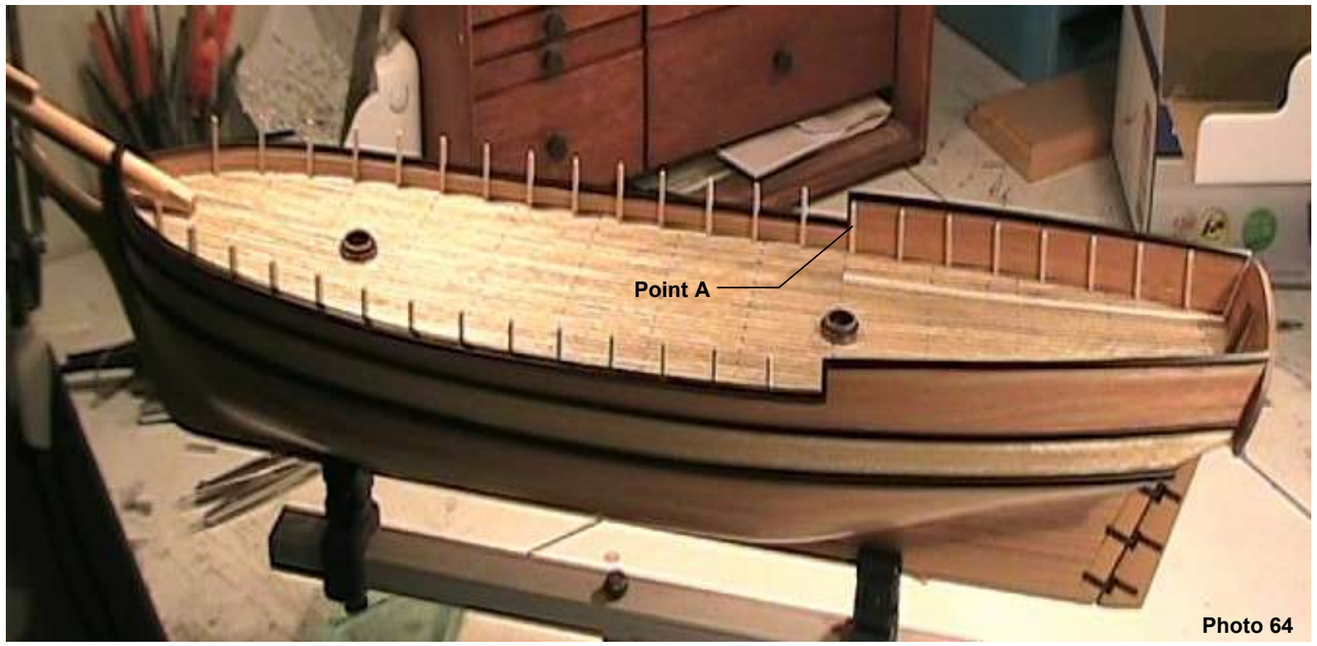


Photo 64

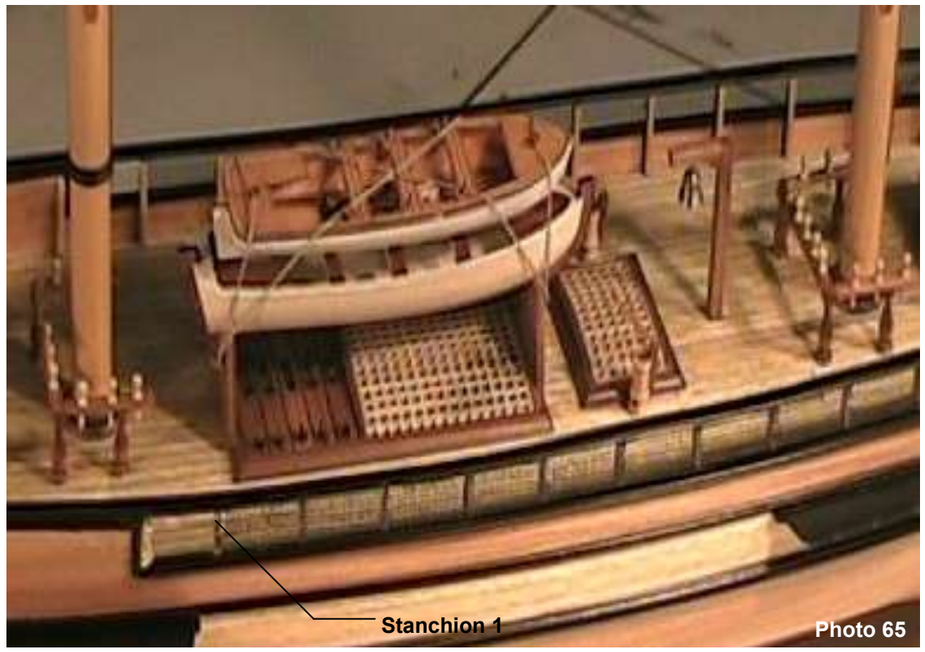


Photo 65

6.7 Transom Trim

Cut three lengths of silver ash strip P18 to 170mm long. Use a plank bender to shape each strip around the top of the transom. Glue each strip across the transom individually. Trim off excess. Paint black or stain a teak or walnut colour. Paint and fix the transom decoration P47 in the upper centre of the transom—Photo 67

Photo 66

Photo 67

6.8 Cargo Ports

The cargo port frames are P48. Fit one each side of the bulwark between aft stanchions 4 & 5 (counting from the transom).

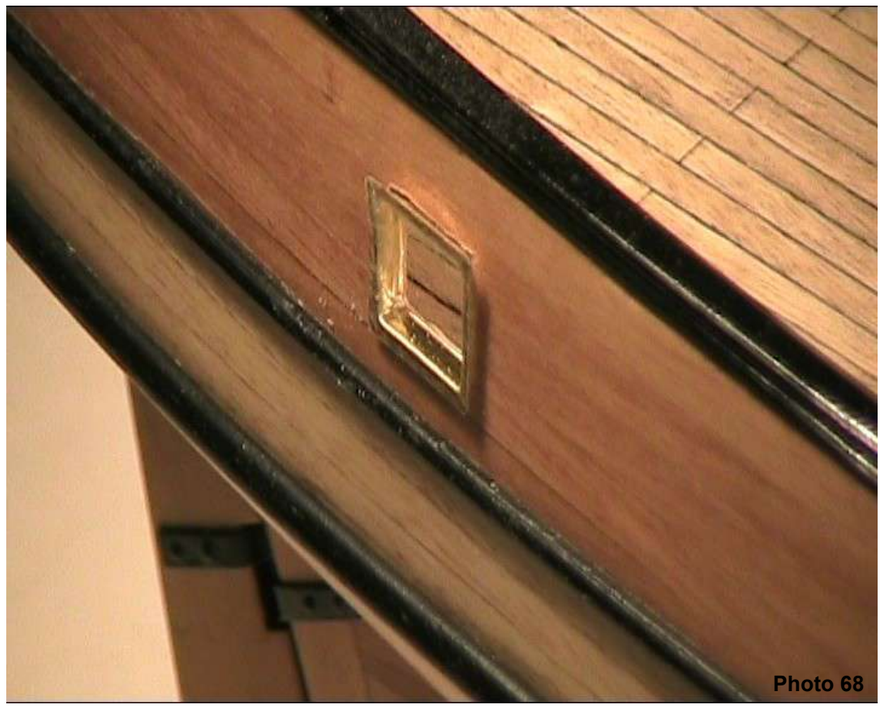


Photo 68

6.9 Head Rails

The head rails are P49A & P49B. Identify these parts from the 2mm plywood sheet. Note there is a left & right side. The head rails will need a bend to be placed in them. To achieve this soak them in a bowl of boiling water for approximately 10 minutes. Remove them and place a clamp on one end and clamp to a bench—note the right and left sides. Lift the other end and place a length of 10mm dowel under this end. Allow to dry for 24 hours—Photo 69

Once dry apply some white undercoat. After drying sand to a smooth finish and paint gold. Fit a trim on the two sides using some scrap mahogany strip P17. Paint this trim black—Photo 70. Once dry fix the head rails as shown Photo 71.

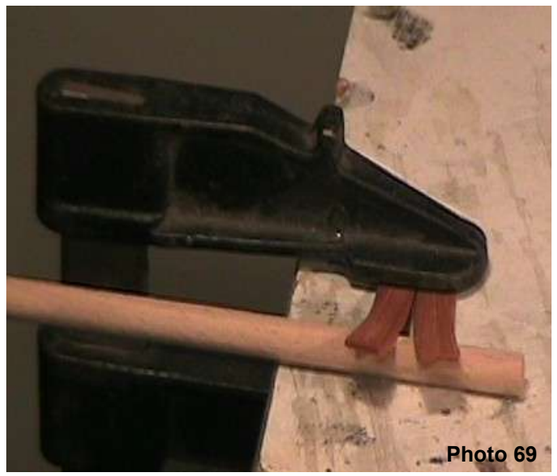


Photo 69

Photo 70

Photo 71

6.10 Deck Furniture

The next step is to assemble and fit in position the deck furniture. The deck furniture includes the companion ways, winch, belfry pumps binnacle, pin rails, cargo hatches, davits, boats and anchors. The following describes the assembly and placement of each of these items. The placement of the deck furniture is as shown Sheet 31. Assemble all items before placing on the model.

6.10.1 Forward Companionway

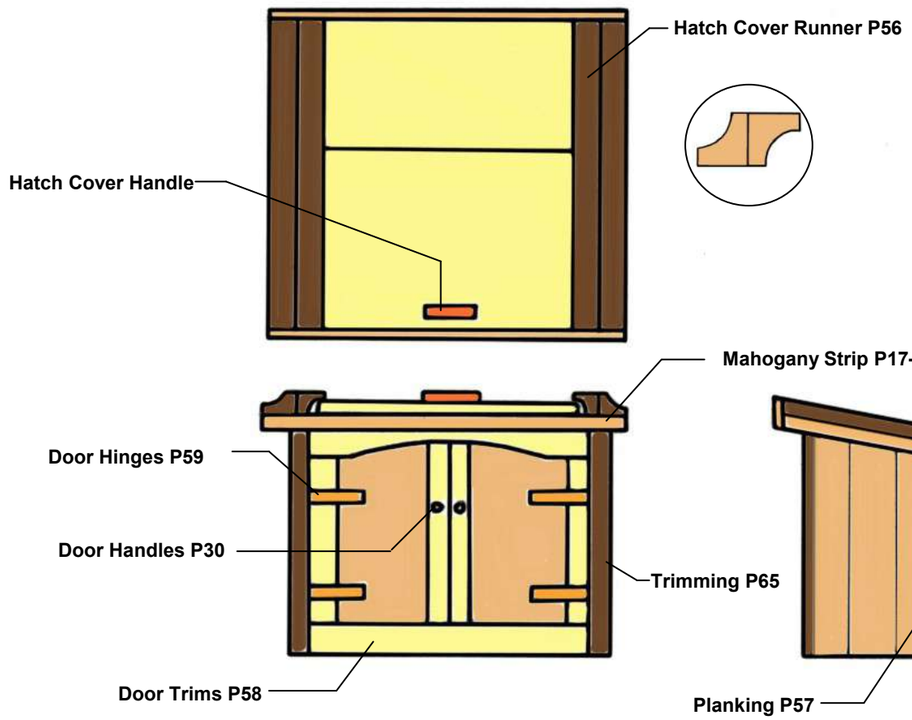
The forward companionway is made-up from P50 to P55. Identify these parts from the 2mm plywood sheet. Assemble and glue the companionway parts together. Plank the four side using 0.6x5mm tanganika strip P57. For the companionway trimming P65 use 1x3mm walnut on the corners and fix in position.

For the top, bottom, sides and centre door trims P58 use 1x4mm limewood Fit the door hinges P59 as shown. Paint the door panels black or stain a teak or walnut colour.

Make the hatch cover runners P56 with lengths of 3x3mm L section walnut to create a runner on each side of the roof to take the hatch cover P54. Use a scrap piece of walnut to create the hatch cover handle.

Fix a length of scrap 0.6x5mm mahogany P17 as trim for the rear roof and front roof. Fix the head of two brass nails P30 as the door handles.

Fix the Forward Companionway in place on the deck.



P50 Roof
P51 Side
P52 Front
P53 Side
P54 Rear
P55 Hatch Cover

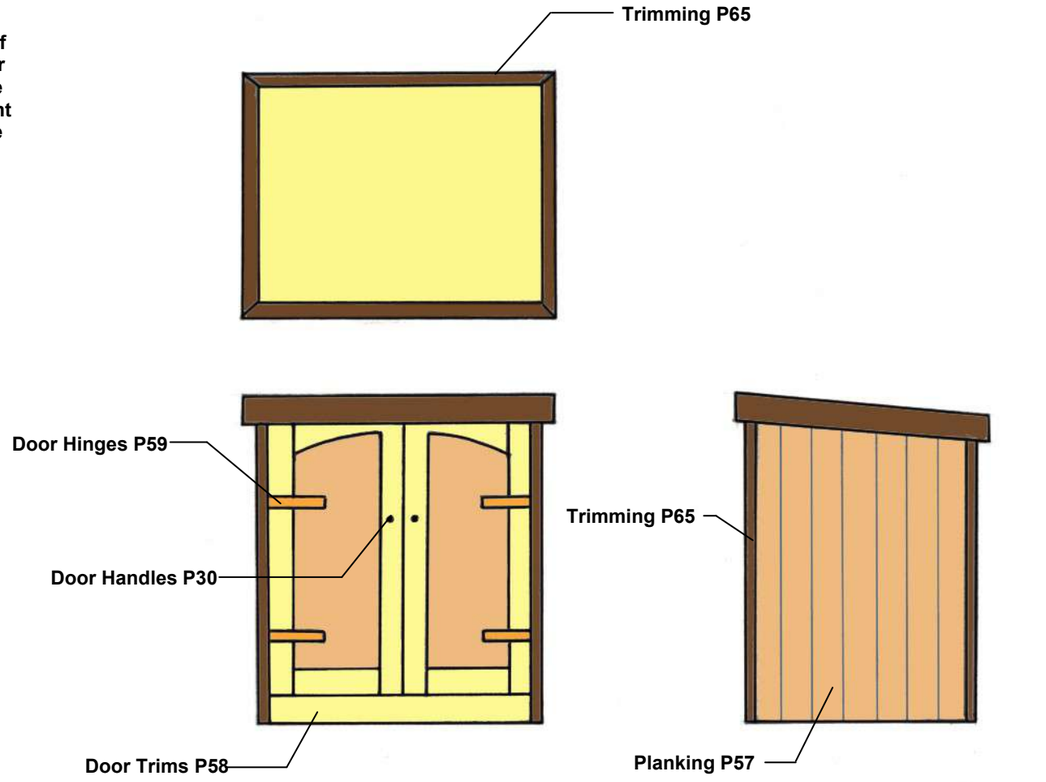
Figure 4

6.10.2 Main Companionway

The forward companionway is made-up from P60 to P64. Identify these parts from the 2mm plywood sheet. Assemble and glue the companionway parts together. Plank the four sides using 0.6x5mm tanganika strip P57. For the companionway trimming P65 use 1x3mm walnut on the corners and roof surround andfix in position.

For the top, bottom, sides and centre door trims P58 use 1x4mm limewood Fit the door hinges P59 as shown. Paint the door panels black or stain a teak or walnut colour. Fix the head of two brass nails P30 as the door handles.

Fix the Main Companionway in place on the deck.



P60 Roof
P61 Rear
P62 Side
P63 Front
P64 Side

Figure 5

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6.10.3 Main Cargo Hatch

Identify the main cargo hatch grating P66. Use 3x3mm walnut P67 as the surround. Use 1x7mm walnut P68 for the hatch covers. Cut the timbers and assemble the frame as shown Figure 6. Fit eye pins P69 and brass rings P70 as shown. Fix the Main Cargo Hatch in place.

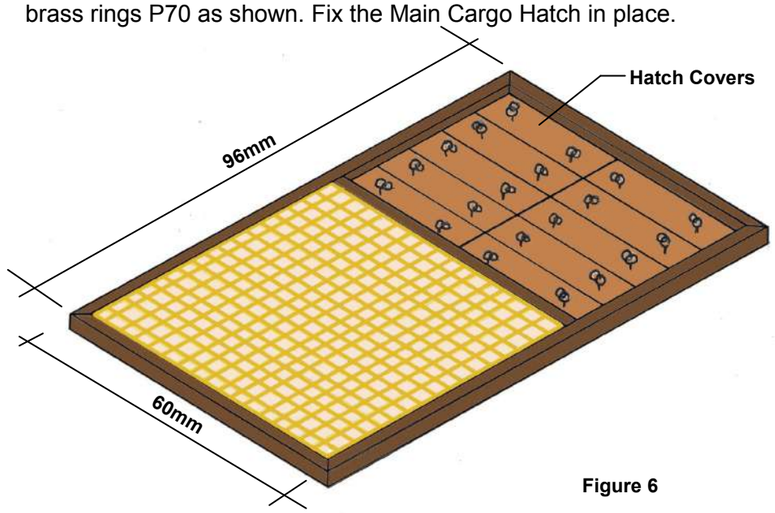

Figure 6

6.10.4 Forward Cargo Hatch

Identify the forward cargo hatch grating P71. Use 3x3mm walnut P67 as the surround. Cut the timbers and assemble the frame as shown Figure 7.Fix the Forward Cargo Hatch in place.

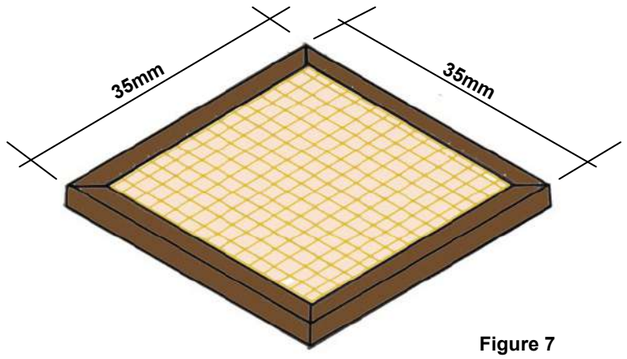

Figure 7

6.10.5 Winch

Identify the winch P73. Assemble as shown. Fix the Winch in place.

Figure 8

6.10.6 Pumps

Identify the pumps P72. Assemble the pumps as shown. Fix the pumps in place.

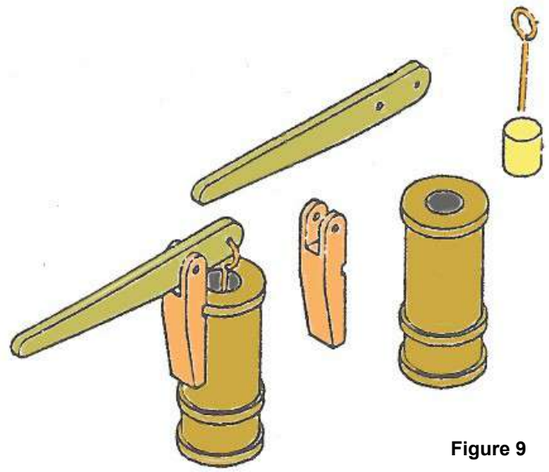

Figure 9

6.10.7 Rudder Tiller

The rudder tiller is P74. Identify this part on the 4mm plywood sheet. Use a file to round the edges of the tiller. Stain a teak or walnut colour. Shape the hole in the tiller to accept the rudder shaft. Fix the rudder tiller in place—Photo 72.

6.10.8 Foot Grips

Identify the 1x1mm walnut P110. Refer to Sheet 31 to cut lengths as the foot grips—Photo 72. Fit & fix as shown.

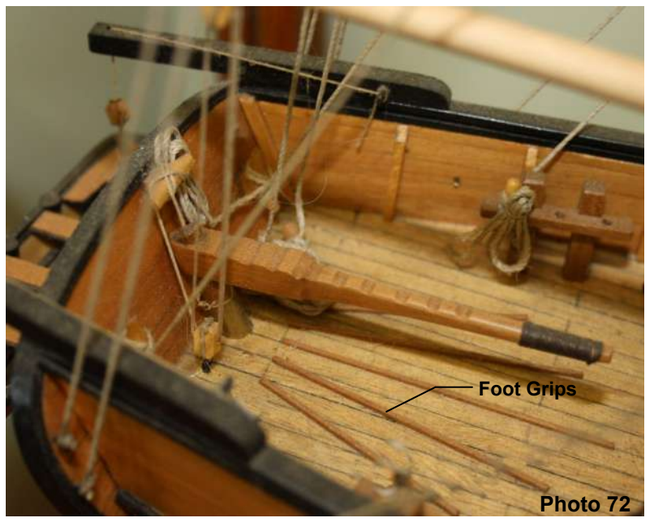

Photo 72

6.10.9 Knight Heads

Cut two lengths of 5x5mm walnut P75 to 22mm. Shape each to fit at the base of bowsprit as shown Figure 10 and Photos 73 & 74.

Glue the knightheads to the deck and bowsprit. Drill a 4mm hole in the port and starboard bulwark at the bow as the hawse holes as shown Photo 74. Fit a hawse pipe P77 in each hole.

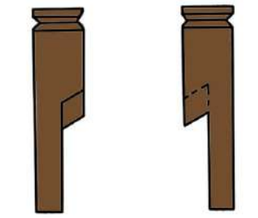

Figure 10

Photo 73

Photo 74

6.10.10 Cat Heads

Cut two 45mm lengths of 5x5mm walnut P75. Drill four 0.8mm holes in one end of each length as shown Figure 12. Cut two 16mm lengths of 5x5mm walnut. Shape and assemble as shown Figures 11 & 12. Fix the cat heads P78 as shown Photos 68 & 69. Identify the cat head knees P79A P79B on the 4mm plywood sheet. Fix each under the cat head as shown Photo 76.

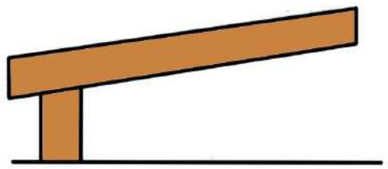

Figure 11

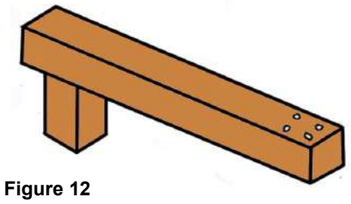

Figure 12

Photo 75

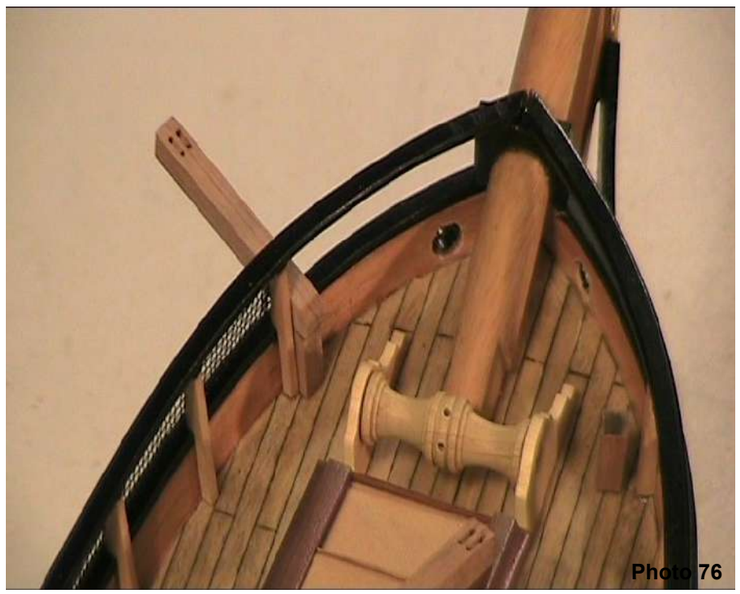

Photo 76

6.10.11 Anchors and Anchor Pulley

Identify the anchors P80. Assemble as shown Photo 77. Using a 7mm 2 hole block P81 and 0.5mm fawn cord P134 assemble the anchor pulley—Figure 13. Repeat the process for the second anchor.

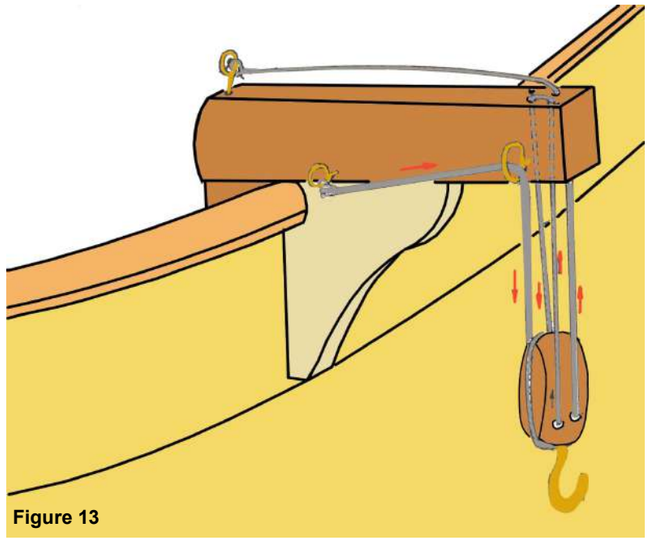

Figure 13

Photo 77

6.10.12 Anchors & Anchor Rope

Drill two 4mm holes in the deck as shown and fit two brass eyelets—hawse pipes P77—see Photo 78. Paint the pipes black if desired. Shape an eye pin P68 as a hook. Fit & fix to the anchor pulley block and attach each anchor to the hook. Using 2mm cord P83 cut two lengths 250mm long. Taking one end of the 2mm cord, thread it through the large brass ring on the end of the anchor shaft, wrap approximately 15mm back on itself and secure with 0.25mm fawn cord P131. Feed the other end of the 2mm cord through the hawse hole and wrap around the winch—note the direction shown in Photo 79. Thread the remaining 2mm cord into the anchor rope hole.

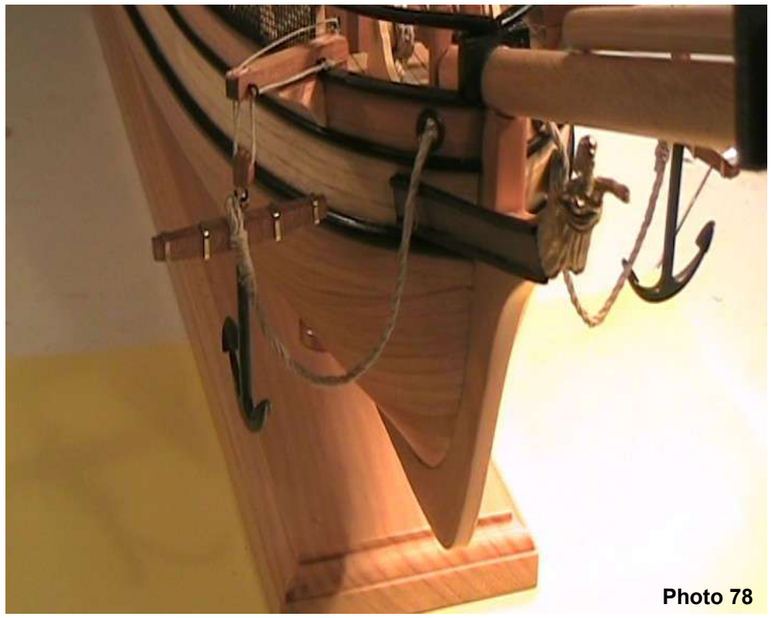

Photo 78

Photo 79

Colonial Brig
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6.10.13 Belfry
Cut a length of 5x5mm walnut to 45mm P86. Cut a second length to 17mm. Assemble as shown. Fit the bell P87. Fix the belfry in place.


Photo 80

6.10.14 Binnacle
The binnacle is P149. Identify this part and fix in place.


Photo 81

6.10.15 Pin Rail Stands
There are four pin rails. The stand P156 for each is made from 5x5mm walnut. Cut eight 20mm lengths of 5x5mm walnut P75. Identify the pin rail racks P84 on the 2mm plywood sheet. Cut a 2mm wide slot 2mm deep in each 5x5mm walnut length 5mm from the top of each to accommodate the pin rail rack. Fix the pin rails in position. Fit the belaying pins P85.

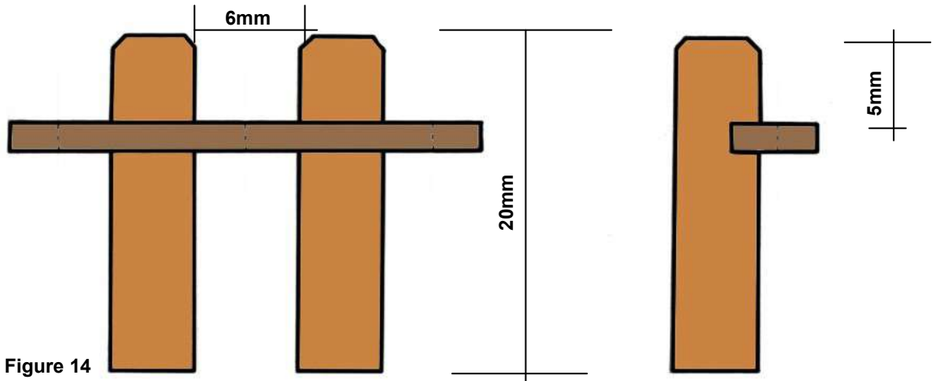


Figure 14

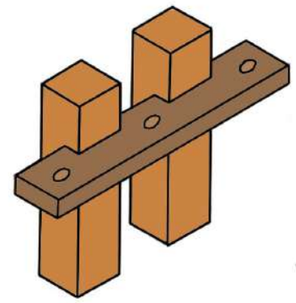


Figure 15

6.10.16 Pin Rails—Fore and Main Masts
The main and fore masts pin rails are P88A P88B. Identify these parts on the 2mm plywood sheet. The pin rails are placed on pin rail supports P89. Fit the pin rail to the stands as shown Photo 82. Fix both pin rails at the base of the masts. Fit the belaying pins P85 to the pin rails.


Photo 82

6.10.17 Boat Cradles & Boats

The boat cradles are P90A & P90B on the 2mm plywood sheet. Identify these parts. The two boats are P91 & P92. Assemble both boats as shown. Fix the cradles central and on the end of the main cargo hatch—Photo 83. Fit and tie down both boats as shown.

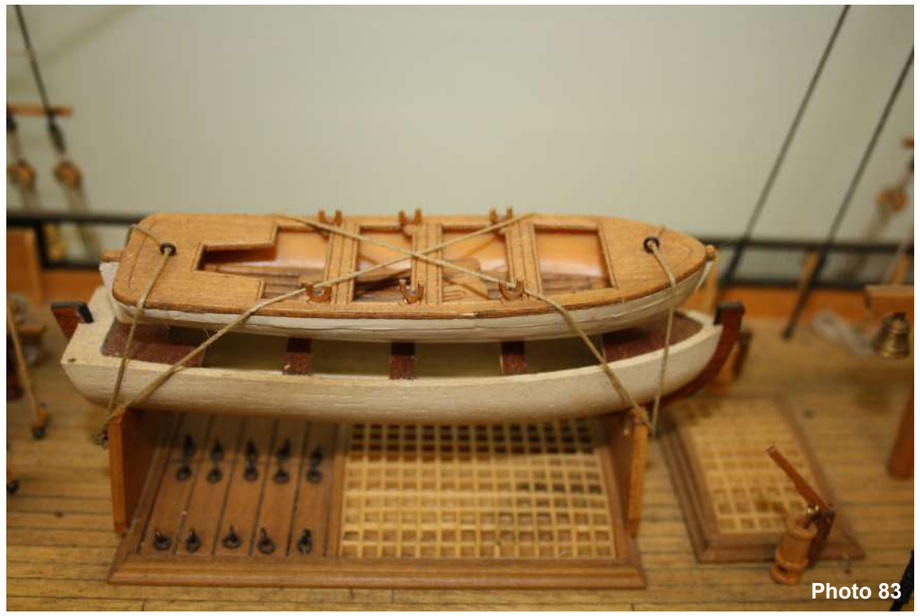
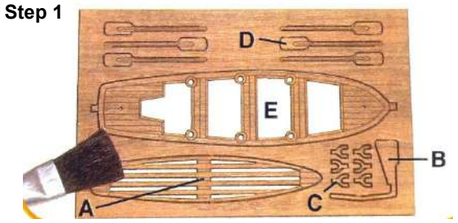


Photo 83

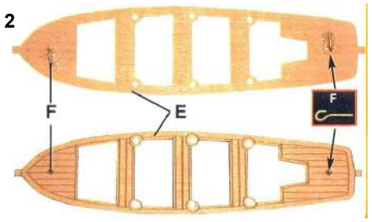
Boat 2 and Jolly Boat Assembly

Step 1



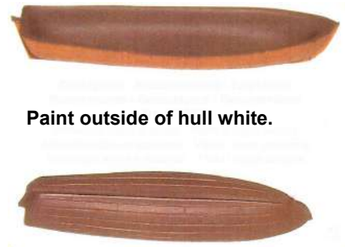
Apply a walnut or teak stain to plywood sheet

Step 2

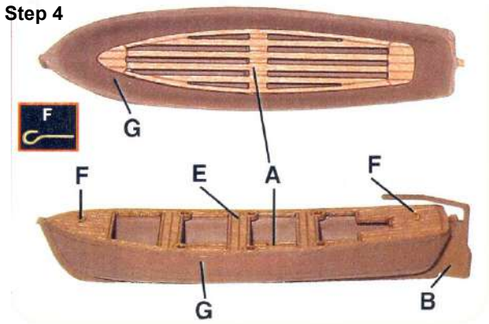


Remove E from plywood sheet and fit eye pin F

Step 3

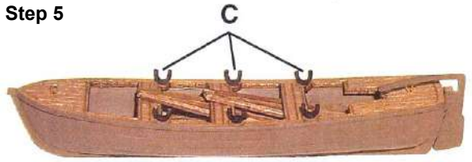

Paint outside of hull white.

Step 4



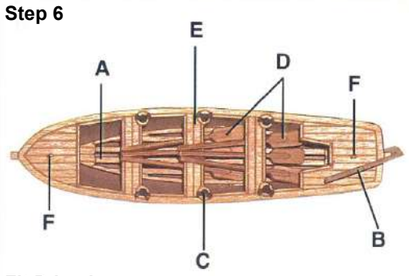
Fit A in place. Fit E in place. Fit B in place.

Step 5



Fit C in place.

Step 6



Fit D in place

Figure 16

6.10.18 Davits & Jolly Boat

The davits are P93A & P93B on the 4mm plywood sheet. Fix each in position ensuring the davit extends 25mm beyond the transom. Paint black or stain walnut or teak if desired. Drill a 0.7mm hole in the end of each davit. Fix an eye pin on the inside inner edge of each davit as shown.

The jolly boat is P94. Assemble and paint the boat. Fix eye pins to the stern and bow of the boat as shown. Fix a block S P95 to each eye pin. Attach a block T P96 by 0.25mm cord to the davit and reeve the two block together—as shown. Tie off to the eye pin P69 on inside of davits.

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

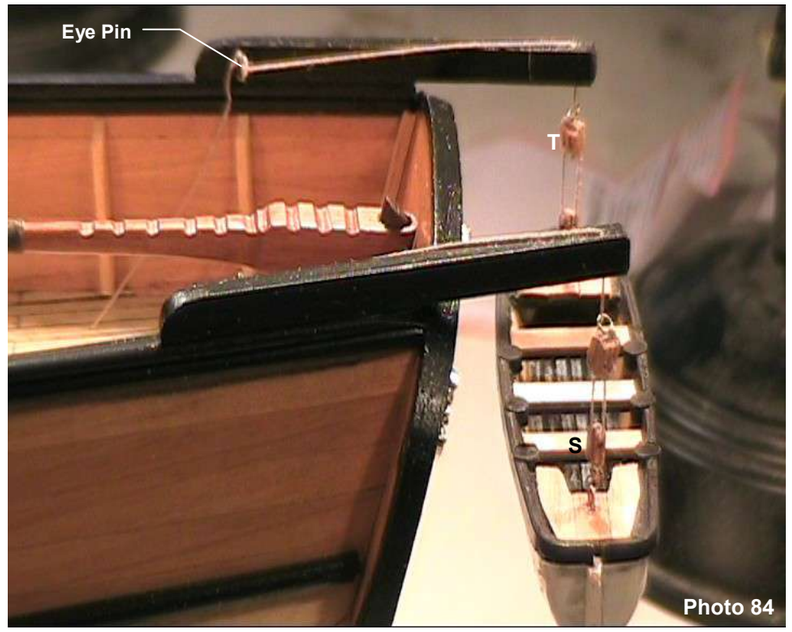


Photo 84

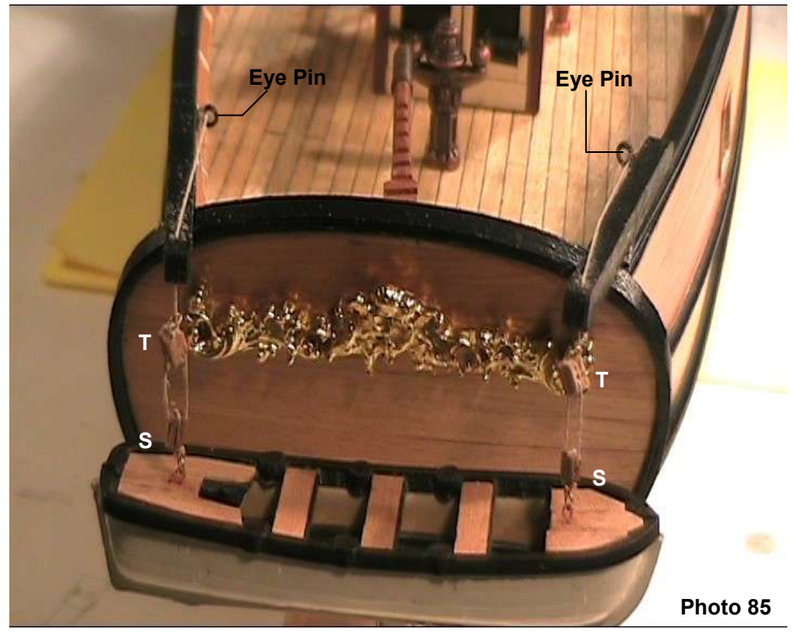


Photo 85

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7.0 Masts, Yards and Bowsprit

The next step is to shape and assemble the masts, yards, bowsprit, gaff & boom. Referring to Sheets 33 & 34 locate and identify the various sizes of dowels, blocks and fittings to be used for this stage.

The masts, yards, bowsprit, gaff and boom will need to be shaped and tapered. This can be achieved using a mini plane, a file and sandpaper and using the technique presented in Figure 18.

Once they have all been shaped and tapered apply a walnut or teak stain to each if desired. Alternatively apply a clear matt or satin polyurethane spray finish. Fit any eye pins, blocks and stirrups as shown on Sheets 33 & 34. **Do not fit the masts or yards to the model yet.**

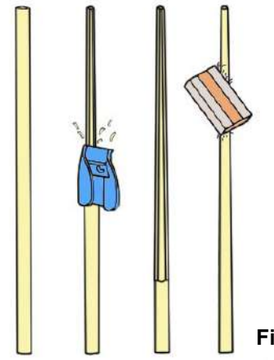


Figure 18

7.1 Mast Tops

Before progressing the mast tops and cross trees & trestle trees need to be assembled.

7.1.1 Main & Foremast Mast Tops

Identify the mast tops P97 & P98 from the 2mm laser cut plywood sheet. Using 1x4mm silver ash timber strip cover both faces of each mast top—see Photo 86. Fit a length of 1x5mm tanganika P151 timber strip around the edge of each mast top. For the footgrips use 1x1mm walnut P110—fit & fix to each mast top as shown.

7.1.2 Main and Foremast Cross Trees & Trestle Trees

Identify the cross & trestle trees P99 & P100 from the 2mm laser cut plywood sheet. Assemble the cross trees & trestle trees and fix to their respective mast top.

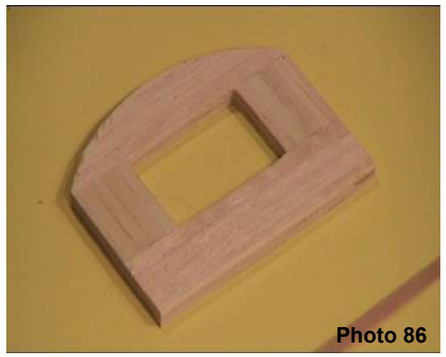


Photo 86

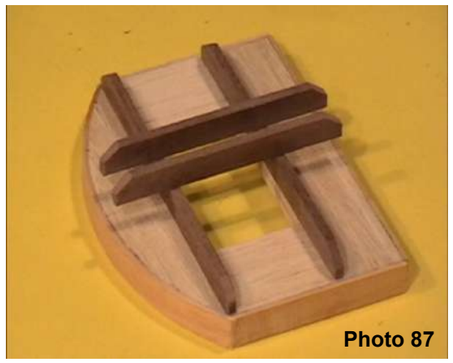
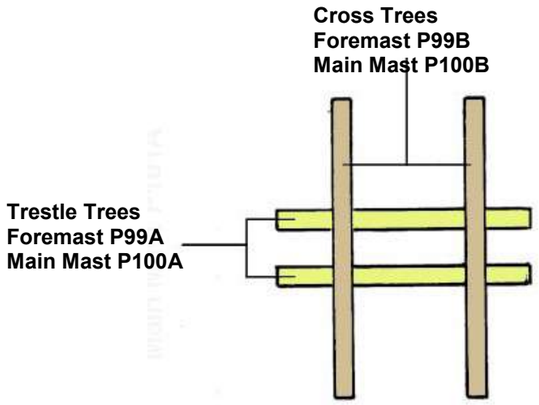
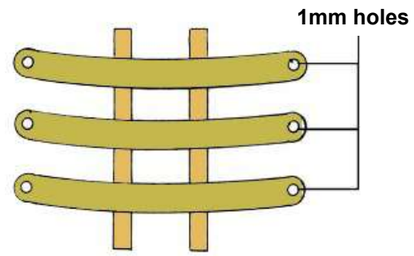


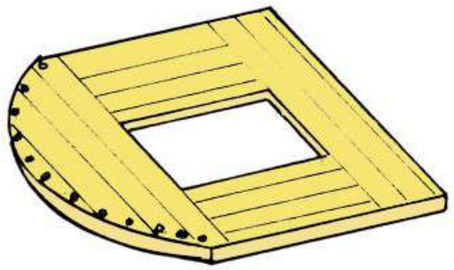
Photo 87

Photo 88

Fit 1x1 walnut lengths P110 as foot grips to the top side of each mast top. Photo 88.







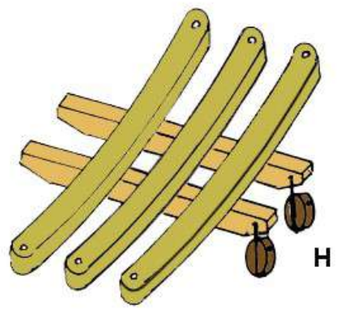


Figure 20

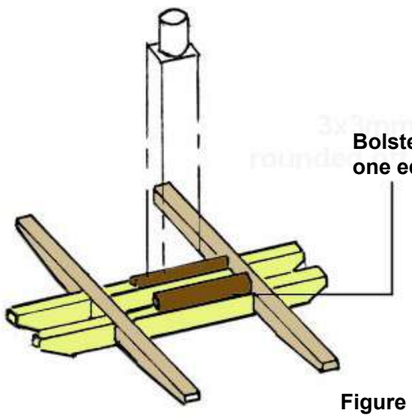


Figure 19

Colonial Brig
PERSEVERANCE
1807
SHEET 32

7.2 Masts

7.2.1 Foremast

Identify the various dowels. Cut each to length and shape according to the figures. Assemble the foremast as shown. Fit the mast strengtheners (Fish) P109. Fit the assembled mast top in place. Fit the cross trees & trestle trees Fit any blocks as shown. To attach blocks in place fix eye pins P69 in place and attach block to eye pin using cord C.

NOT TO SCALE

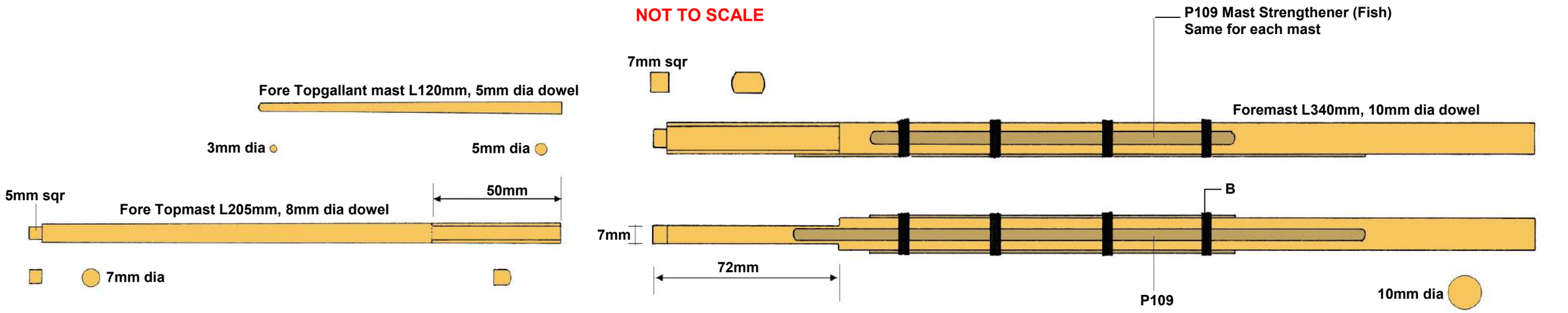


Figure 21

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

Foremast Assembled

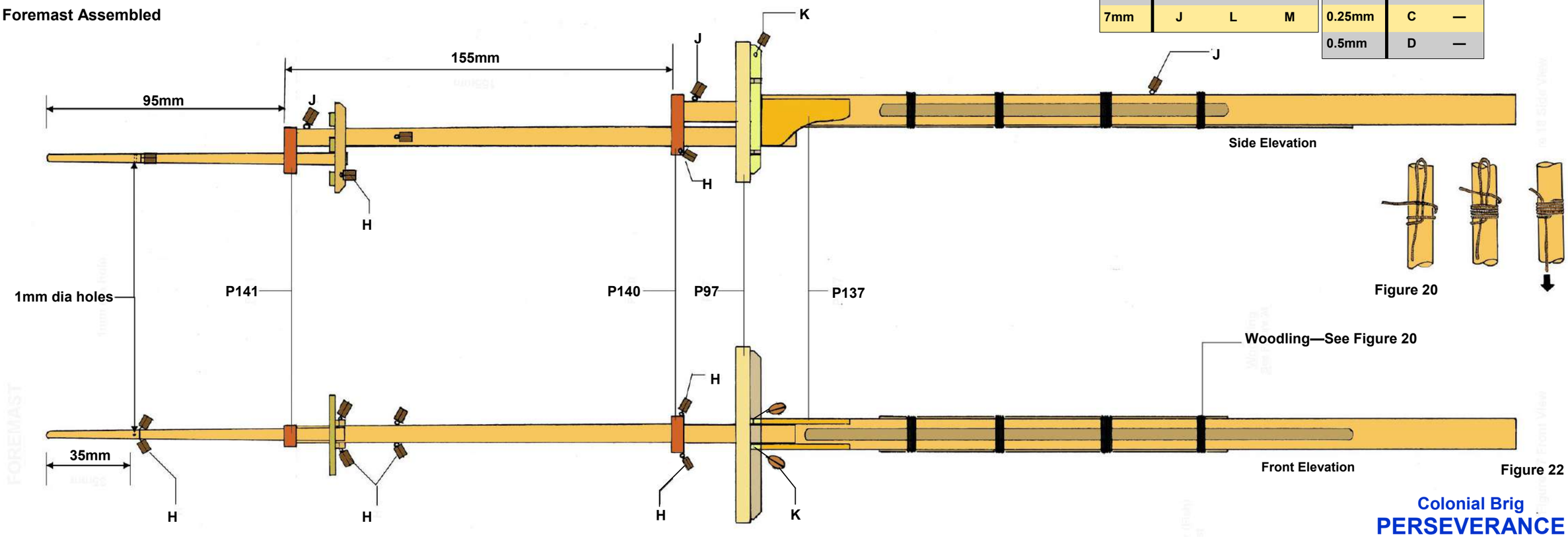


Figure 20

Figure 22

Colonial Brig
PERSEVERANCE
1807
SHEET 33

7.2.2 Main Mast

Identify the various dowels. Cut each to length and shape according to the figures. Assemble the main mast as shown. Fit the mast strengtheners (Fish) P109. Fit the assembled mast top in place. Fit the cross trees & trestle trees Fit any blocks as shown. To attach blocks in place fix eye pins P69 in place and attach block to eye pin using cord C.

NOT TO SCALE

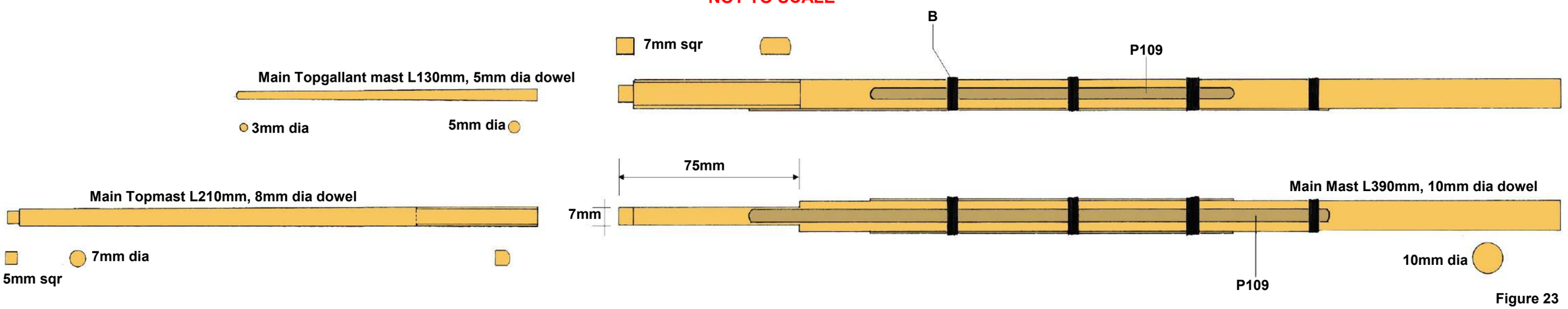
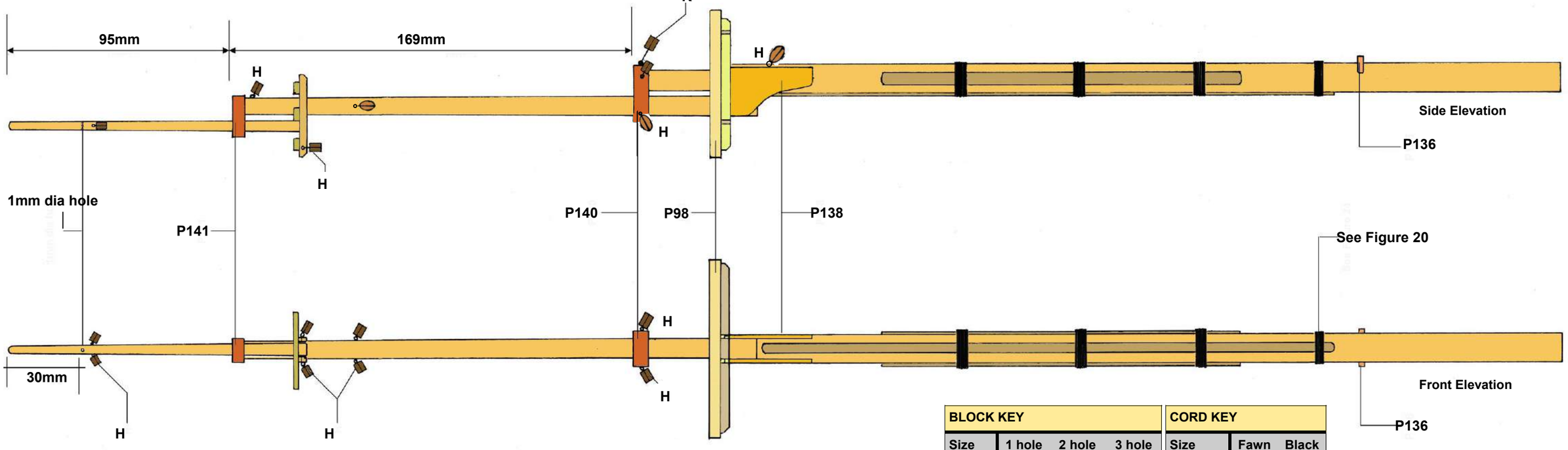


Figure 23

Main Mast Assembled



BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

Figure 24

Colonial Brig
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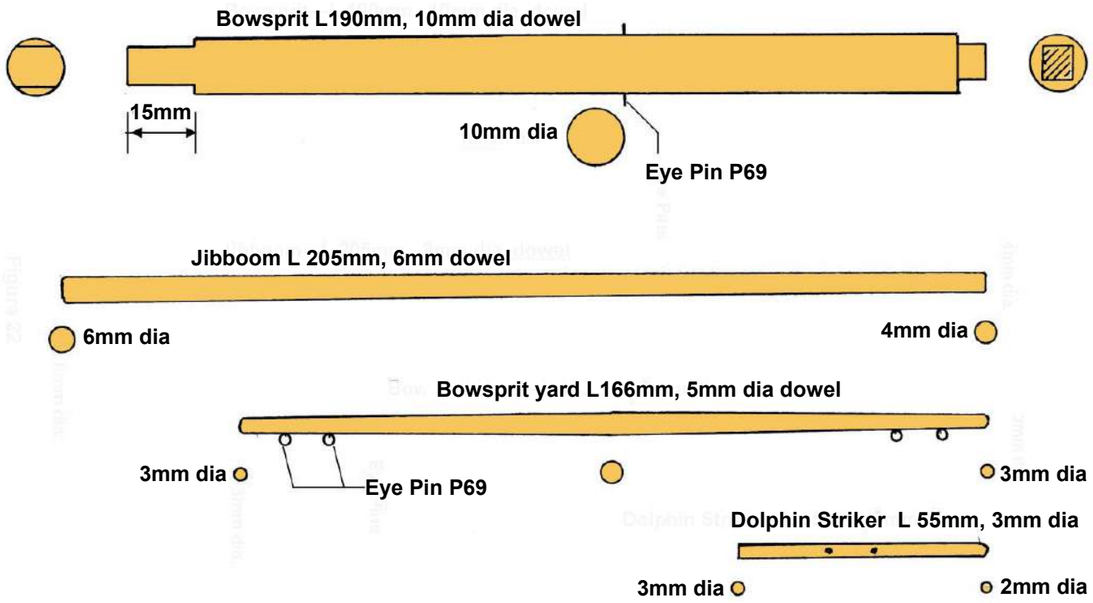
1807
SHEET 34

7.2.3 Bowsprit ,Jib-Boom, & Dolphin Striker

Identify the various dowels. Cut each to length and shape according to the figures. Assemble the bowsprit, jib-boom and dolphin striker as shown. The bowsprit yard will be fitted later. Fit any eye pins as shown.

NOT TO SCALE



BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

Bowsprit Assembled

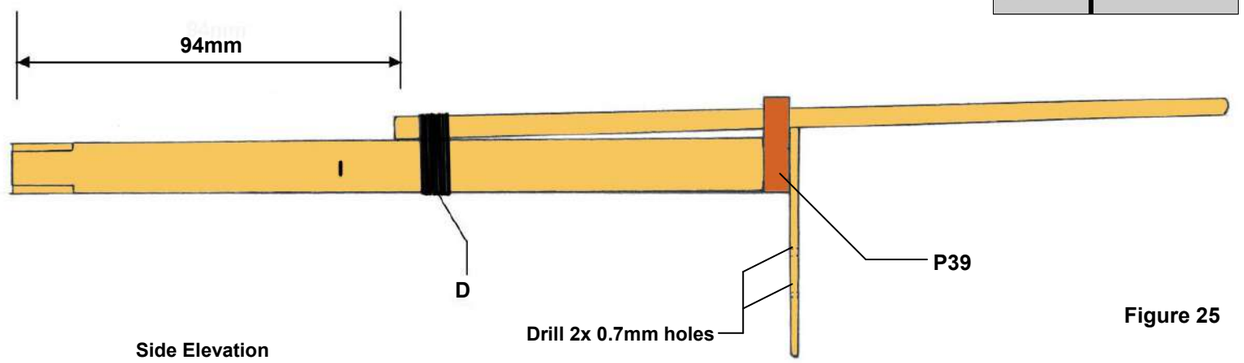


Figure 25

7.2.4 Fit Masts to Model

Fit and fix the foremast and main mast in place. The bowsprit has already been fitted to the model.

8.0 Yards

The next step is to shape and assemble the foremast yard, main mast yards, the gaff, boom and stunsail booms. The yards will need to be shaped and tapered. Taper dowels as previously described. Once all yards have been shaped and tapered paint the yards matt black or apply a walnut or teak stain if desired. Finish by spraying with a clear matt or satin polyurethane finish. Once all yards are finished put them safely aside to fitted to the model later. **Do not fit any yards to the model yet.**

8.1 Fore Mast Yards—Sheet 36

Identify the various dowels. Cut each to length and shape according to the dimensions given. Fit any blocks and fittings as shown.

8.2 Stunsail Booms—Sheet 36

Identify the various dowels. Cut each to length and shape according to the dimensions given. Attach the relevant stunsail boom to the yards as shown.

8.3 Main Mast Yards—Sheet 37

Identify the various dowels. Cut each to length and shape according to the dimensions given. Fit any blocks and fittings as shown.

8.4 Gaff— Sheet 37

Identify the dowel for the gaff. Cut to length and shape according to dimensions given. Fit the gaff yoke P118 as shown. Fit any blocks as shown.

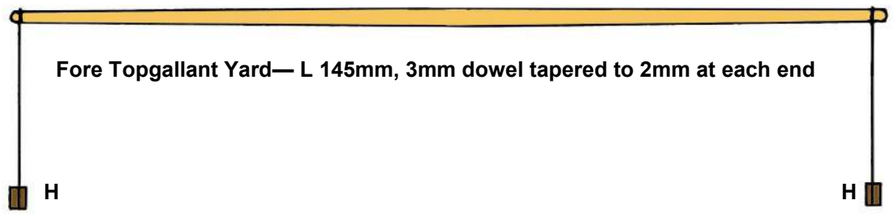
8.5 Boom— Sheet 37

Identify the dowel for the boom. Cut to length and shape according to dimensions shown. Fit the boom yoke P120 as shown. Fit any blocks as shown.

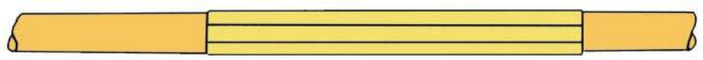
8.1 Fore Mast Yards

NOT TO SCALE

Use Cord D for pendants & footropes

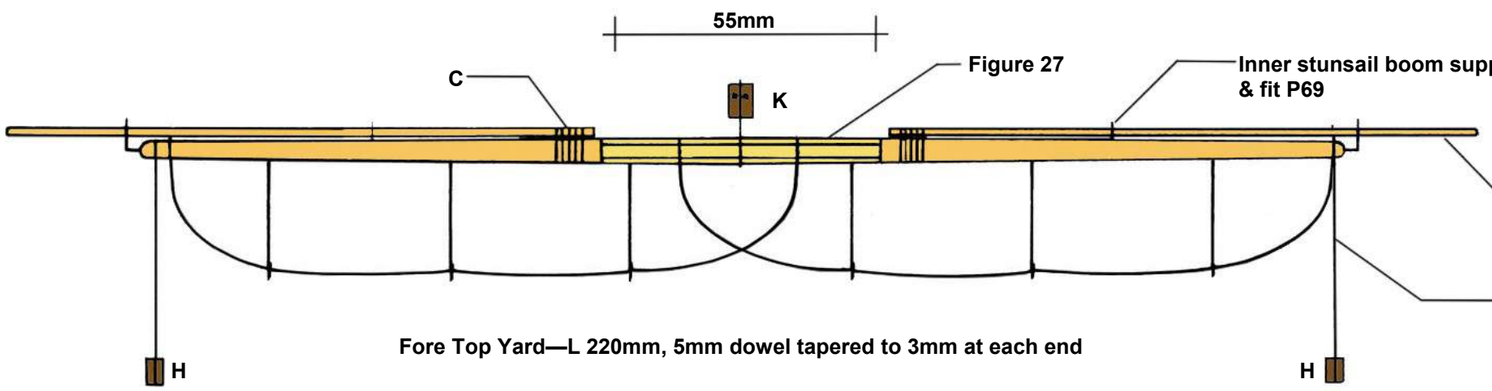


Fore Topgallant Yard— L 145mm, 3mm dowel tapered to 2mm at each end



Use P17 to make octagonal section around yard

Figure 27



Fore Top Yard—L 220mm, 5mm dowel tapered to 3mm at each end

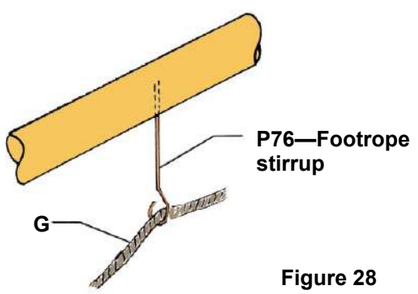
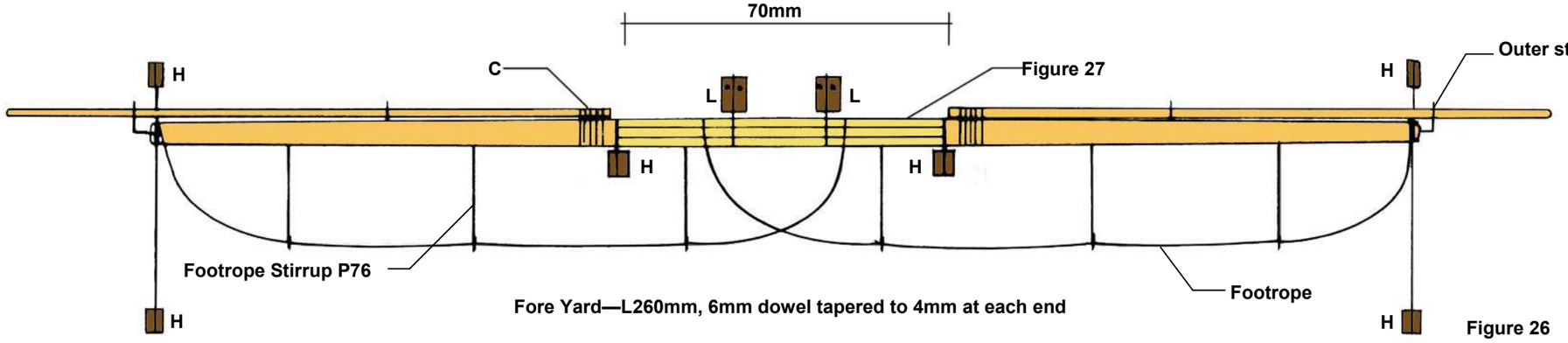
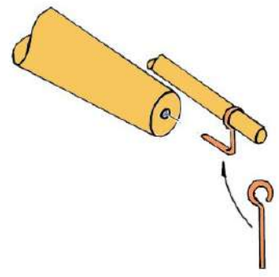


Figure 28



Fore Yard—L260mm, 6mm dowel tapered to 4mm at each end

Figure 26



Outer stunsail boom support— Drill hole in end of yard and shape and fit P69.

Figure 29

8.2 Stunsail Booms

Main Yard & Fore Yard stunsail booms—L 130mm, 3mm dowel tapered to 2mm

Main Top Yard & Fore Top Yard stunsail booms—L 105mm, 3mm dowel tapered to 2mm

Figure 30

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

Colonial Brig
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1807
SHEET 36

8.3 Main Mast Yards

NOT TO SCALE

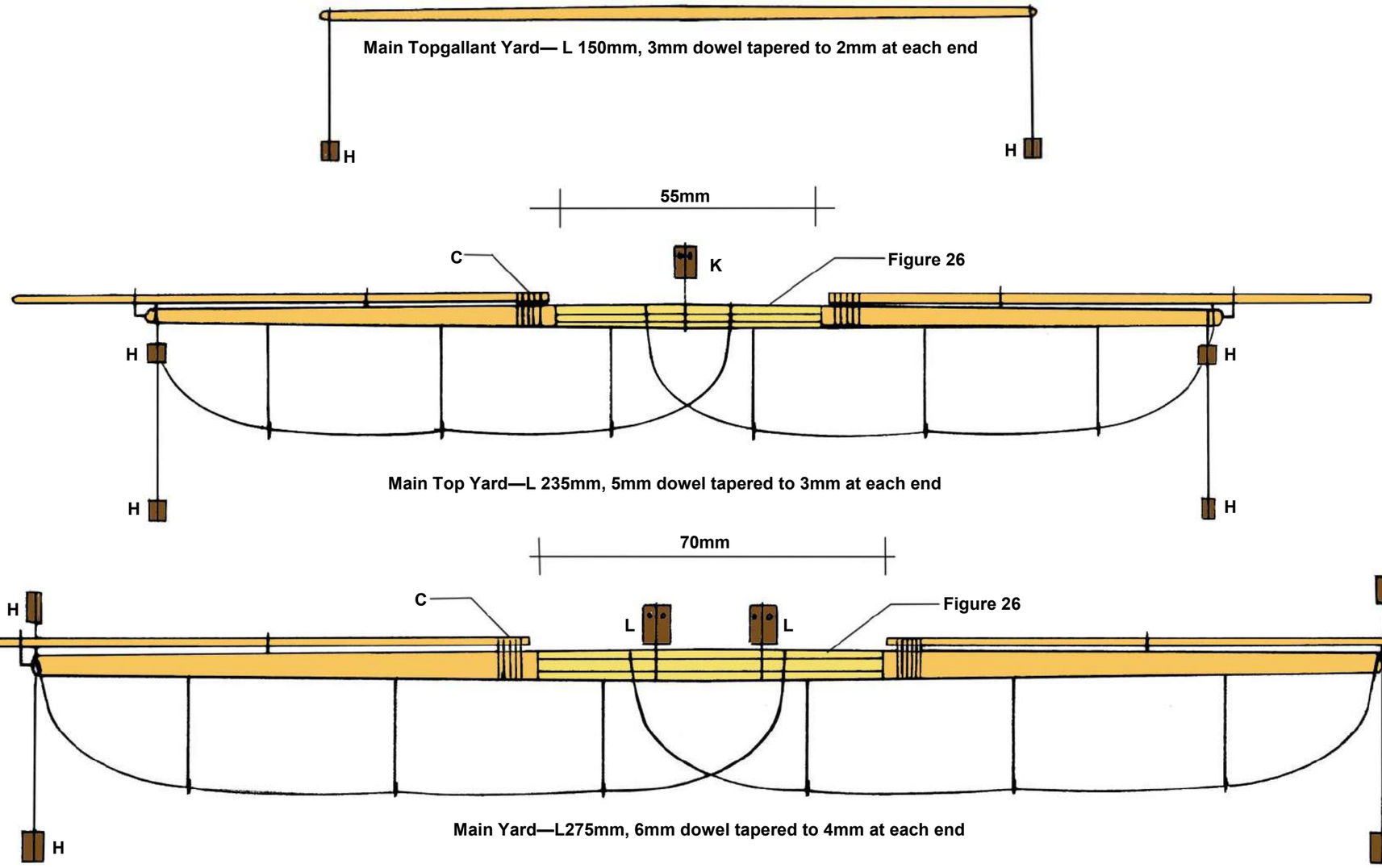
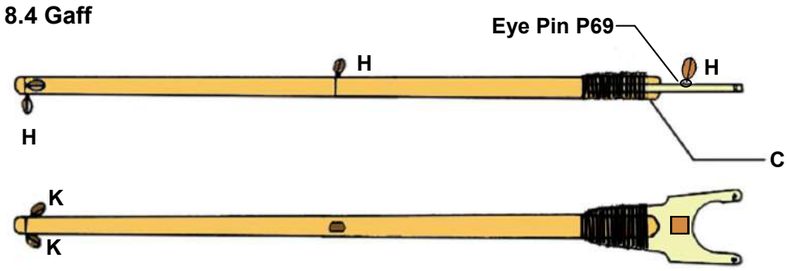


Figure 31

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

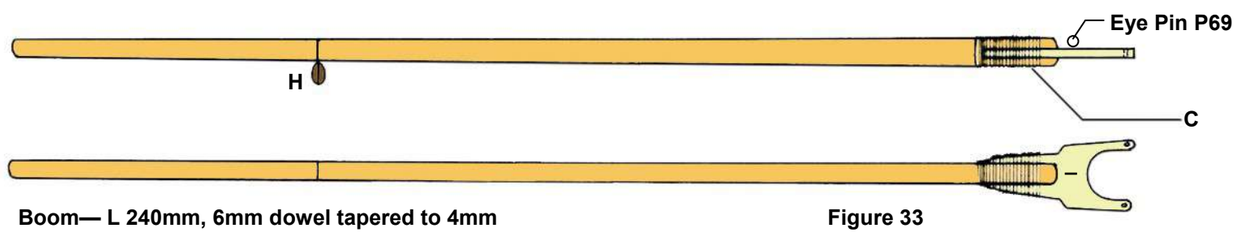
8.4 Gaff



Gaff — L 140mm, 5mm dowel tapered to 3mm

Figure 32

8.5 Boom



Boom— L 240mm, 6mm dowel tapered to 4mm

Figure 33

Colonial Brig
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1807
SHEET 37

9.0 Rigging

9.1 Types of Rigging

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

On an “actual” ship any rigging that did not pass through a pulley block was coated with tar to help prevent it rotting. To simulate this the cord supplied in the kit for the standing rigging is black of two sizes 1mm & 1.5mm. The running rigging is fawn and of two sizes, 0.25mm and 0.5mm.

9.2 Preparation for Rigging

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

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

9.3 Typical Rigging Applications

The following figures represent a range of rigging applications you may encounter as you rig the model.

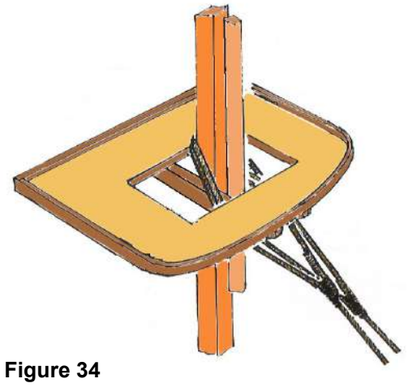

Figure 34

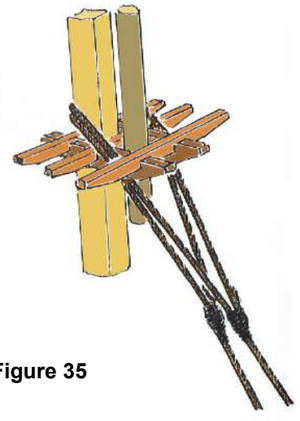

Figure 35

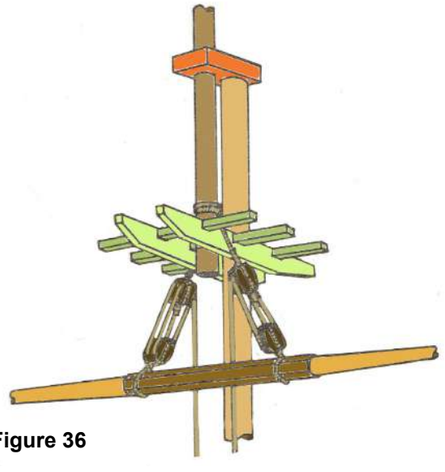

Figure 36

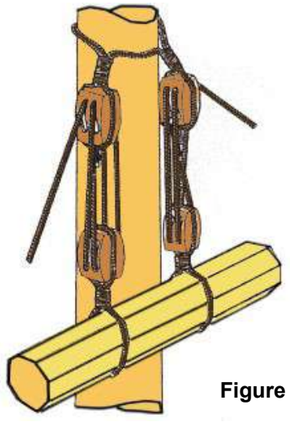

Figure 37

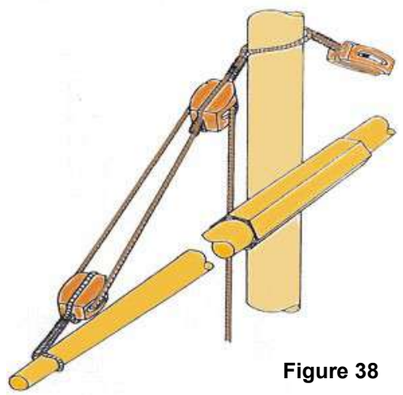

Figure 38

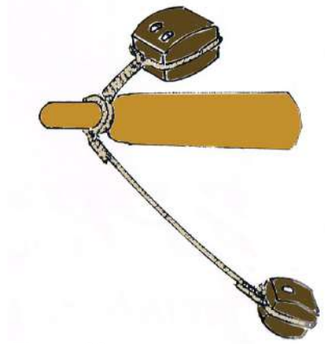

Figure 39

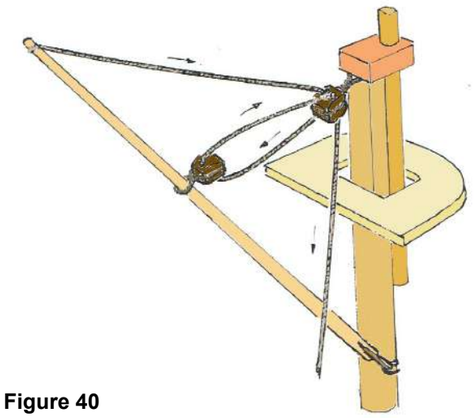

Figure 40

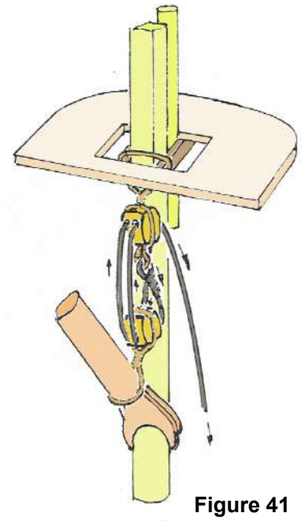

Figure 41

Reeving Blocks

Figure 42

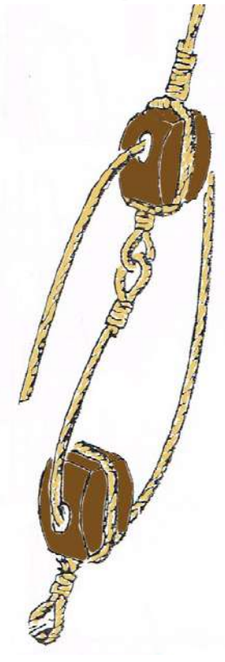

Figure 43

Figure 44

Figure 45

Figure 46

Colonial Brig
PERSEVERANCE
1807
SHEET 38

9.4 Belaying Plan

Fit cleats P139 at points 55, 56, 58 & 60

Fit eye pins P69 to points 1,2,3,4, 5, 6, 7,8, 11, 12, 27, 28, 39, 40, 41, 42, 43, 44, 51,52, 53, 54, 57, 59, 64 & 65 —tie off blocks to these eye pins.

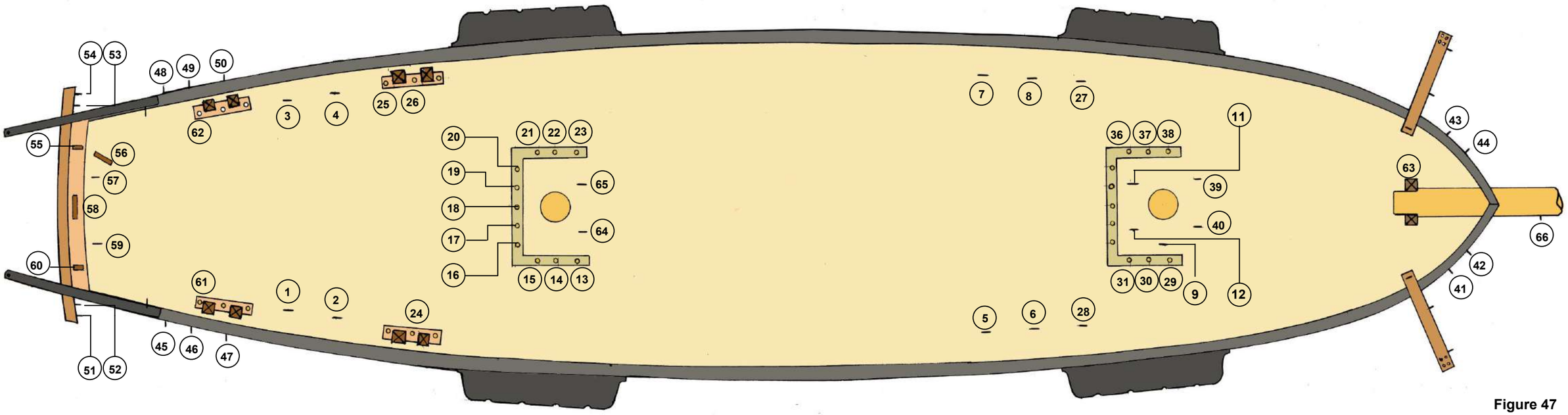

Figure 47

Colonial Brig
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1807
SHEET 39

10.0 Standing Rigging

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

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

1. Forestays
2. Backstays
3. Bowsprit stays
4. Shrouds.

The instructions follow this sequence.

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

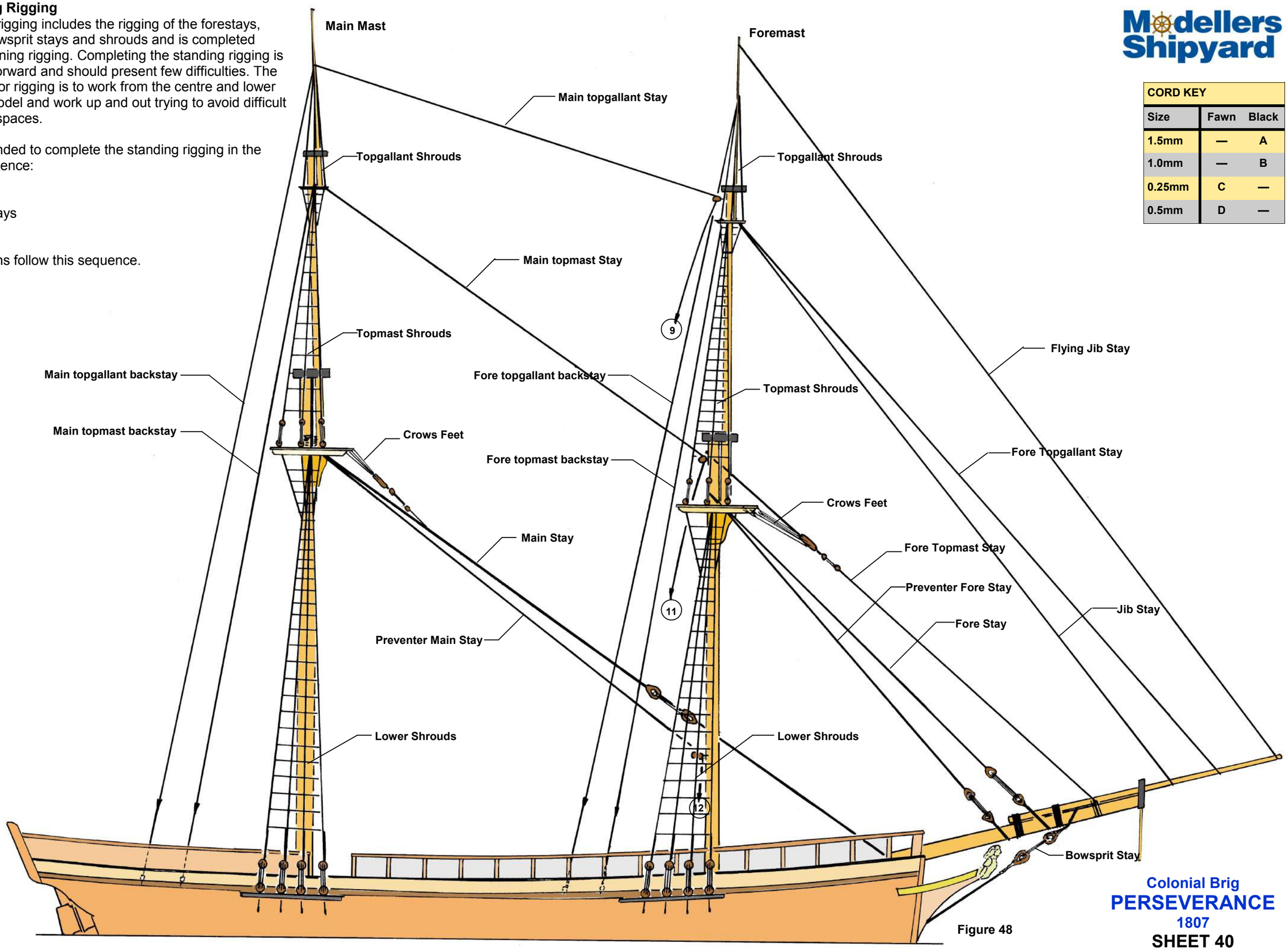

Figure 48

Colonial Brig
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1807
SHEET 40

10.1 Forestays

All the forestays are shown on Sheet 40. Fit the forestays in the order presented below Refer also to the Belaying Plan Sheet 39 for belaying points.

10.1.1 Main Stay

Use cord A to rig the main stay as shown Photos 89, 90 & 91. Terminate the upper and lower sections of the main stay with a deadeye heart Q. Reeve together with cord B. For the slip blocks P152 on the bowsprit — cut two 6mm lengths of 2x3mm limewood and fit & fix as shown.

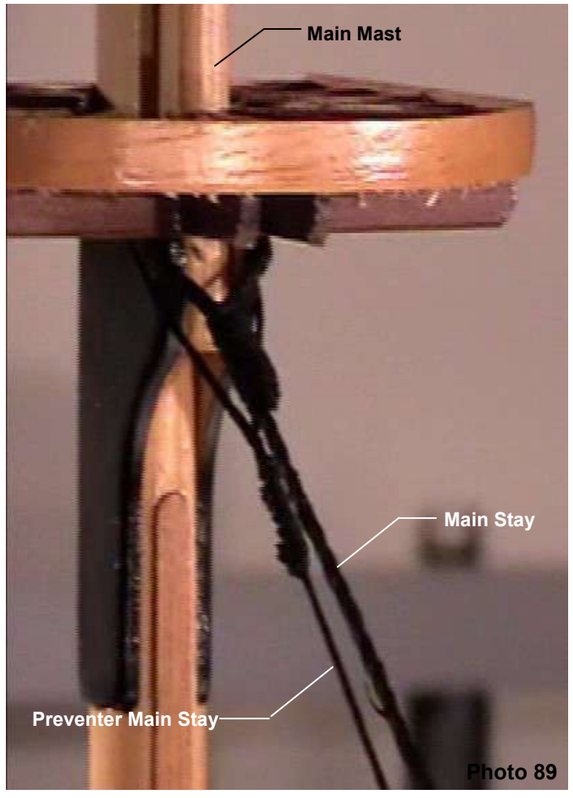

Photo 89

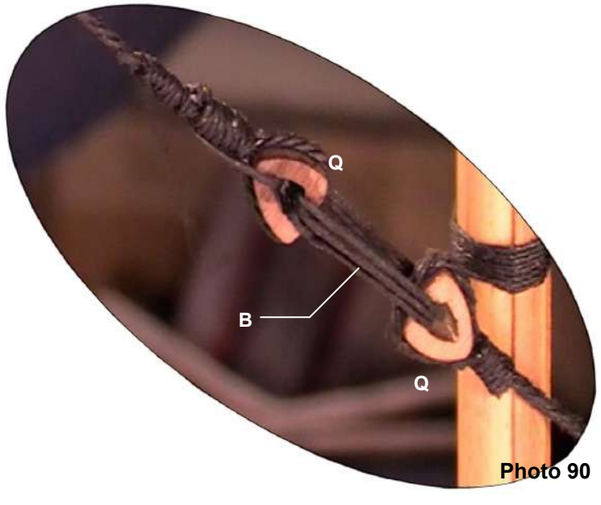

Photo 90

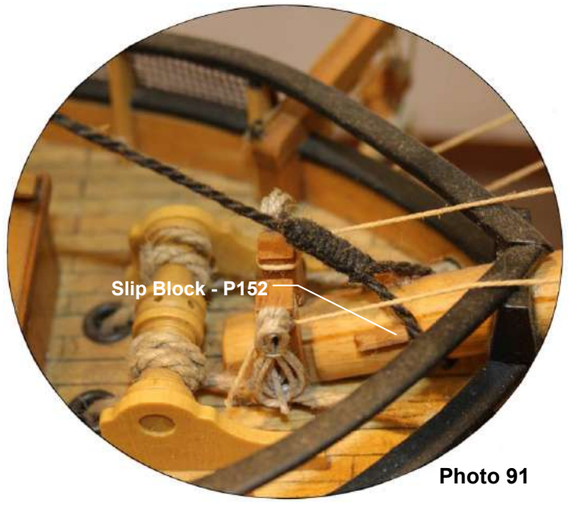

Photo 91

10.1.2 Preventer Main Stay

Use cord B to rig the preventer main stay - Photo 92. Follow the steps below to rig the stay.

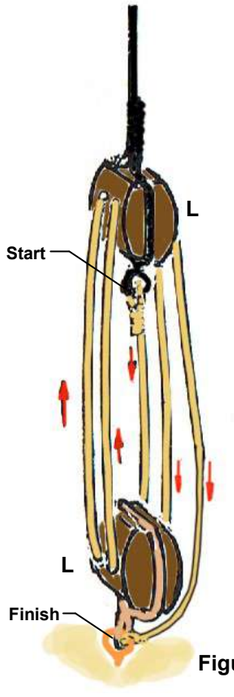

Figure 49

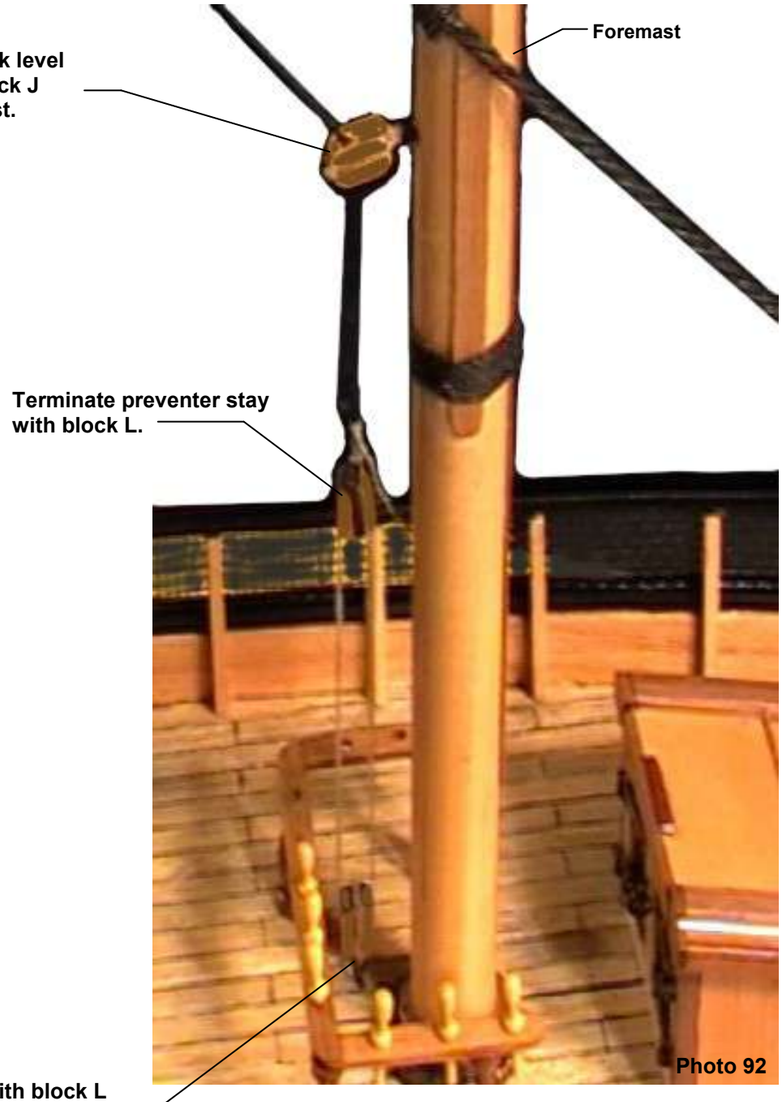

Photo 92

DEADEYE KEY	
Size	
5mm	N
7mm	P
10mm heart	Q
7mm heart	R

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

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1807
SHEET 41

10.1.3 Main Topmast Stay

Use cord B to rig the main topmast stay as shown.

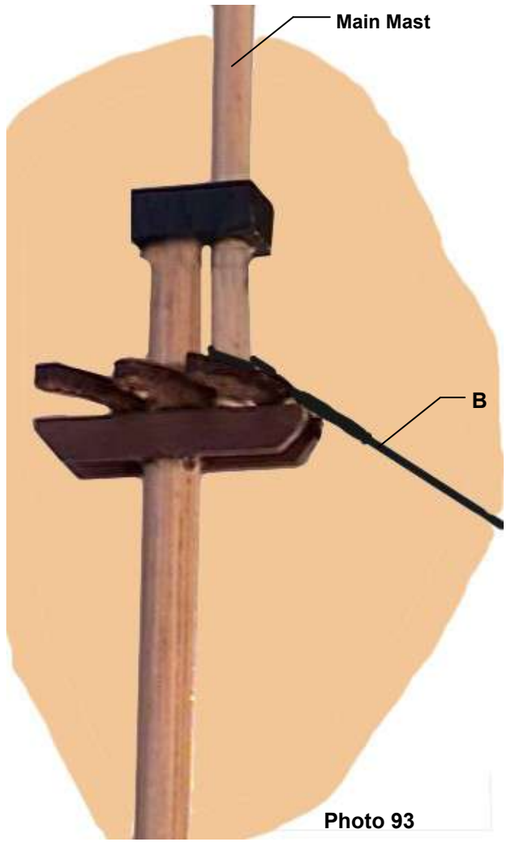

Photo 93

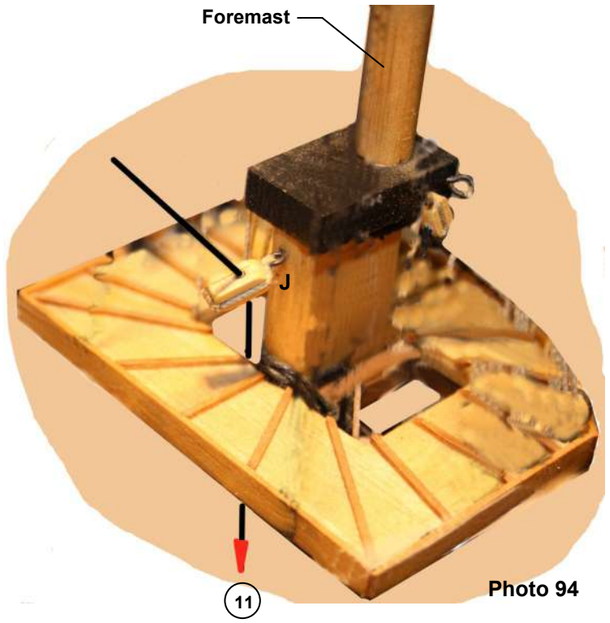

Photo 94

Terminate stay at belaying point 11

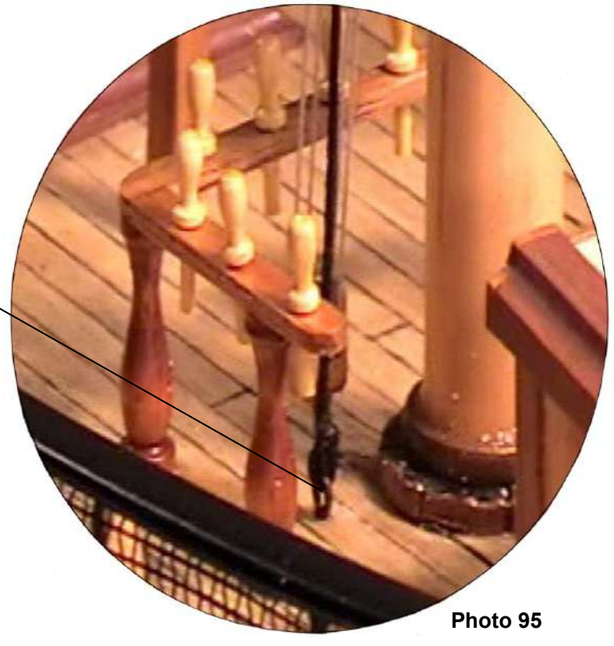

Photo 95

10.1.4. Main Topgallant Stay

Use cord B to rig the main topgallant stay as shown.

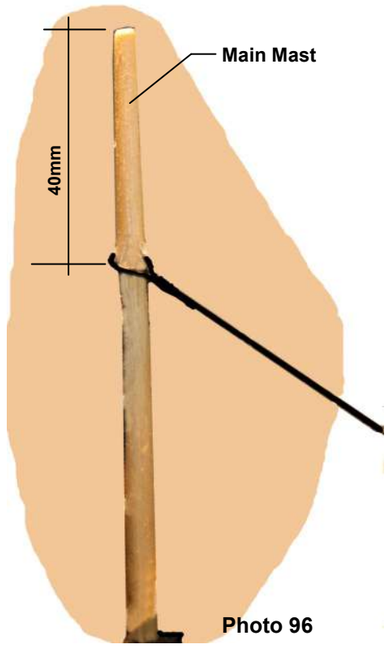

Photo 96

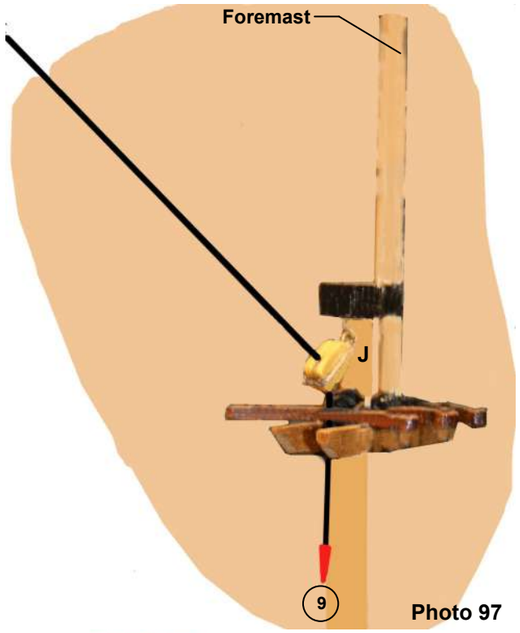

Photo 97

Terminate stay at belaying point 9

Photo 98

DEADEYE KEY	
Size	
5mm	N
7mm	P
10mm heart	Q
7mm heart	R

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

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10.1.5 Fore Stay
Use cord B to rig the fore stay. Use cord D to reeve the deadeye hearts R.

10.1.6 Preventer Fore Stay
Use cord B to rig the preventer fore stay. Use cord D to reeve the deadeye hearts R.

10.1.7 Fore Topmast Stay
Use cord B to rig the fore topmast stay as shown.

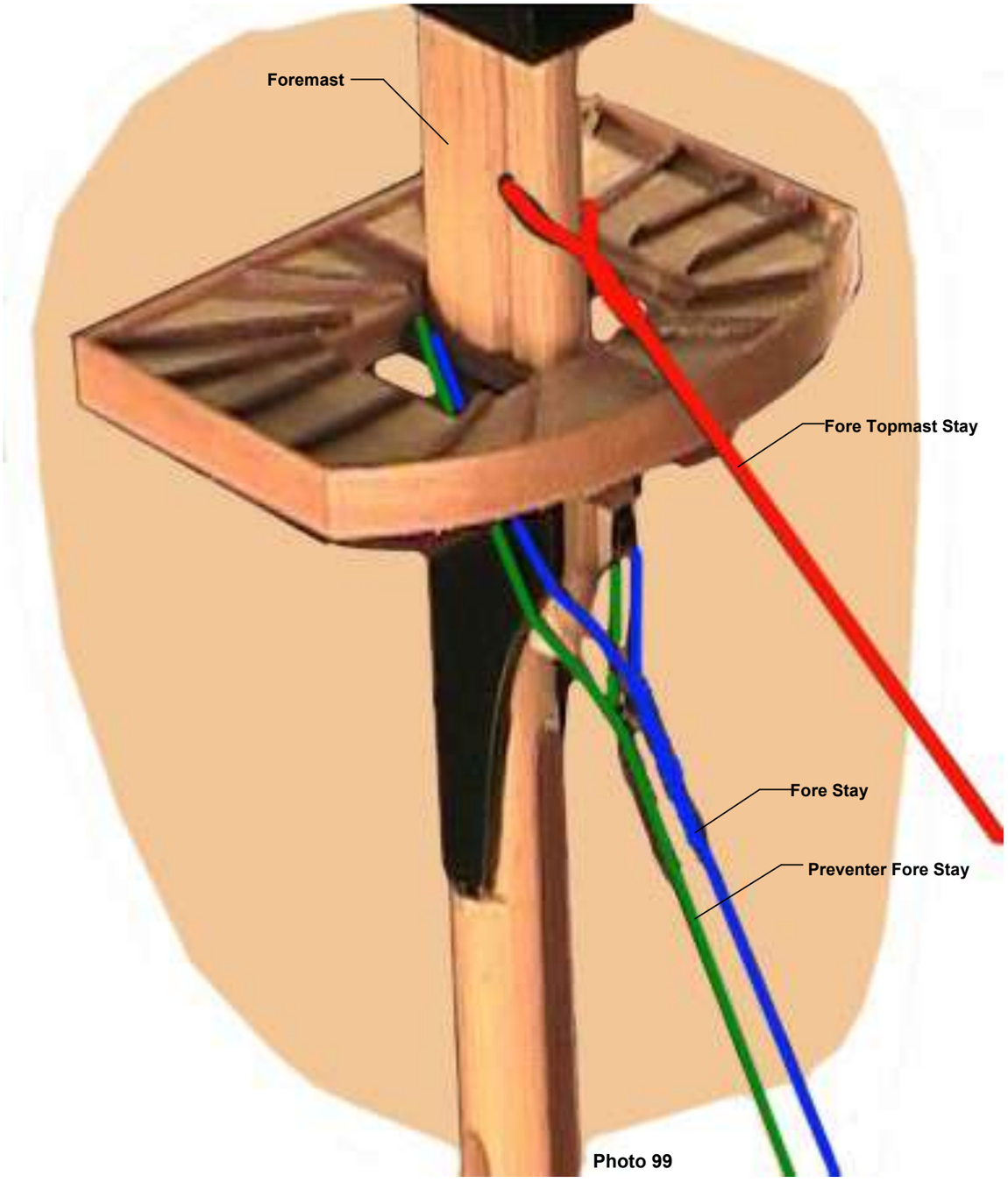

Photo 99

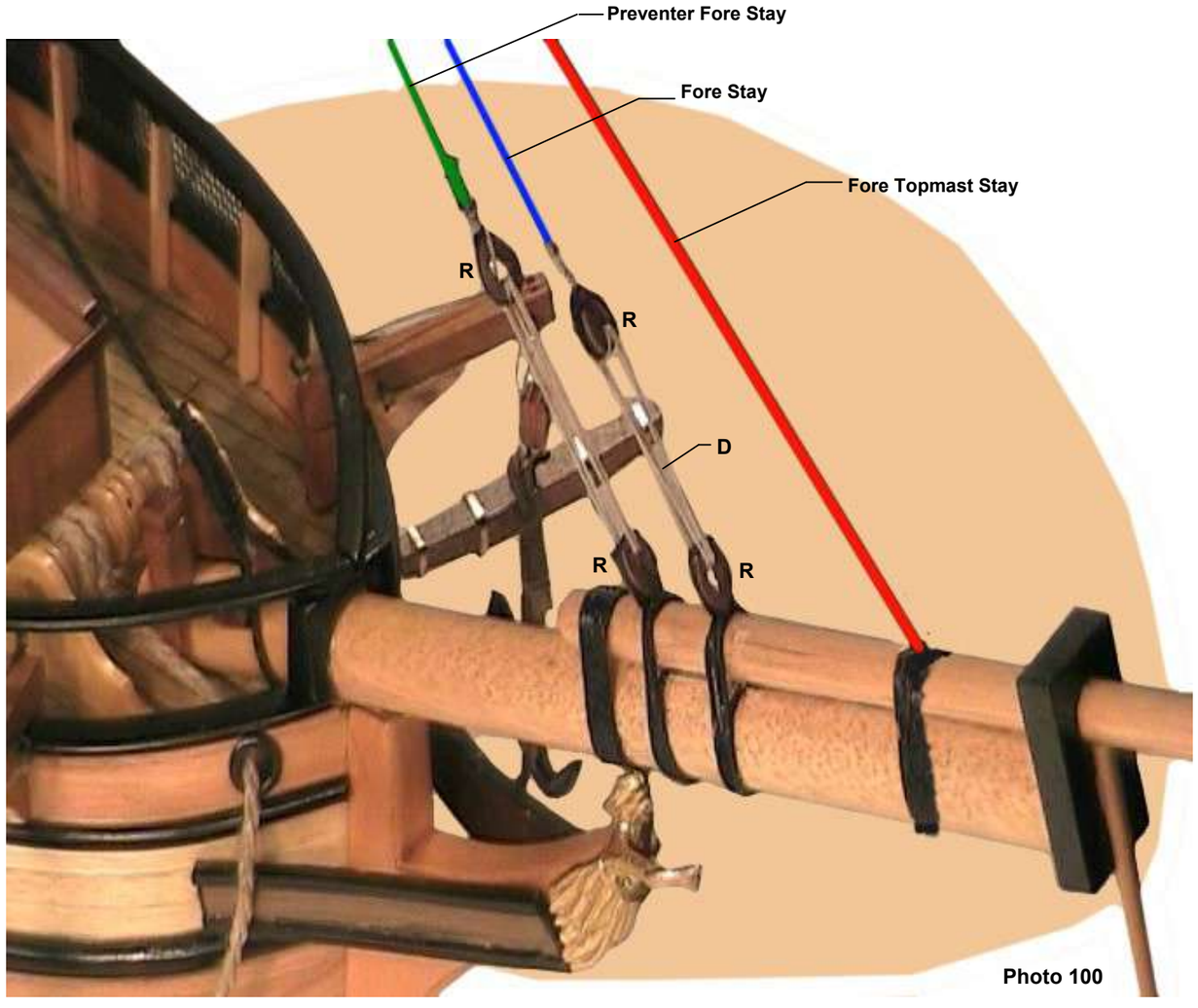

Photo 100

DEADEYE KEY	
Size	
5mm	N
7mm	P
10mm heart	Q
7mm heart	R

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

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10.1.8 Jib Stay

Use cord B to rig the jib stay.

10.1.9 Fore Topgallant Stay

Use cord B to rig the fore topgallant stay

10.1.10 Flying Jib Stay

Use cord B to rig the flying jib stay.

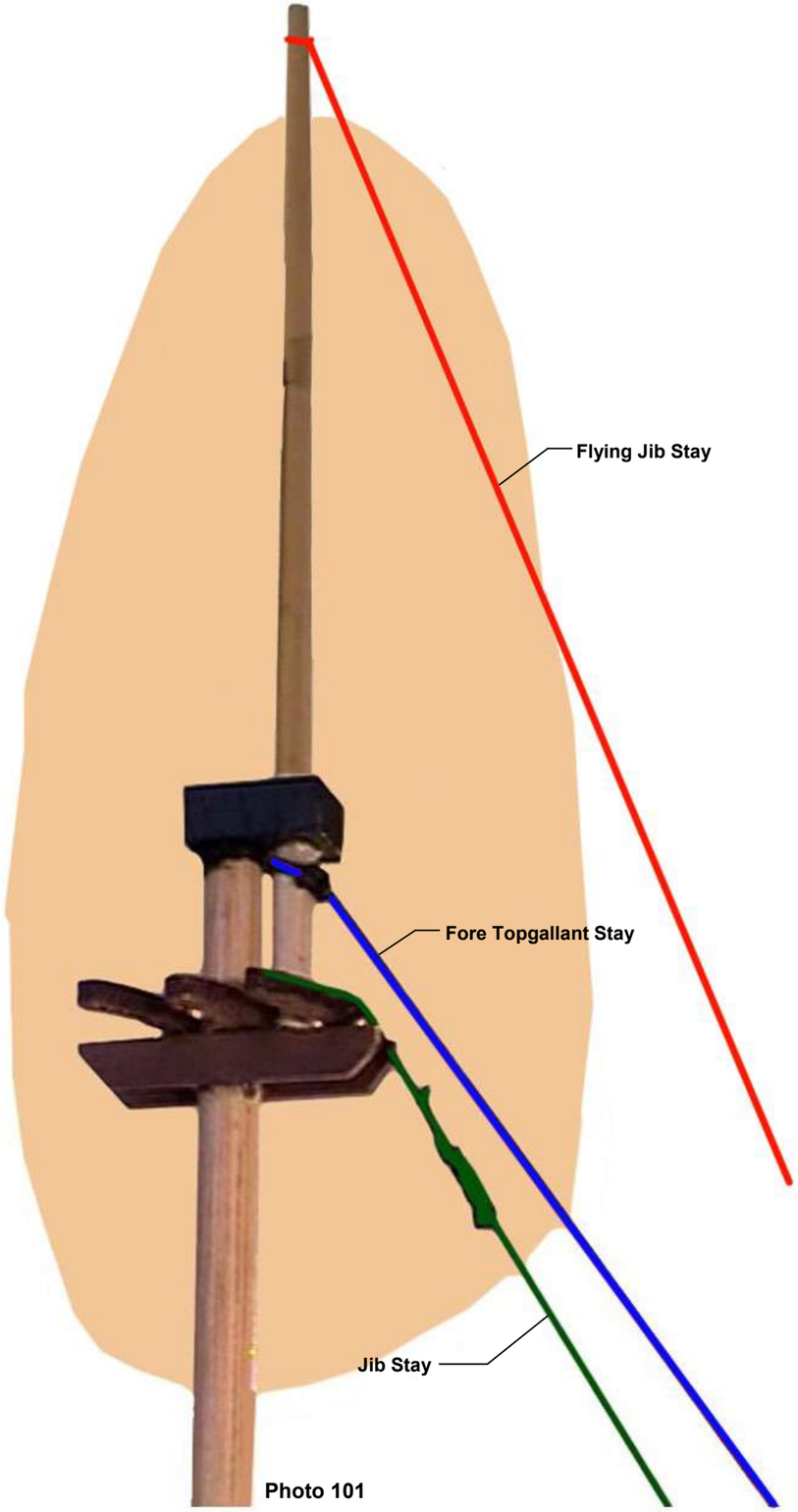

Photo 101

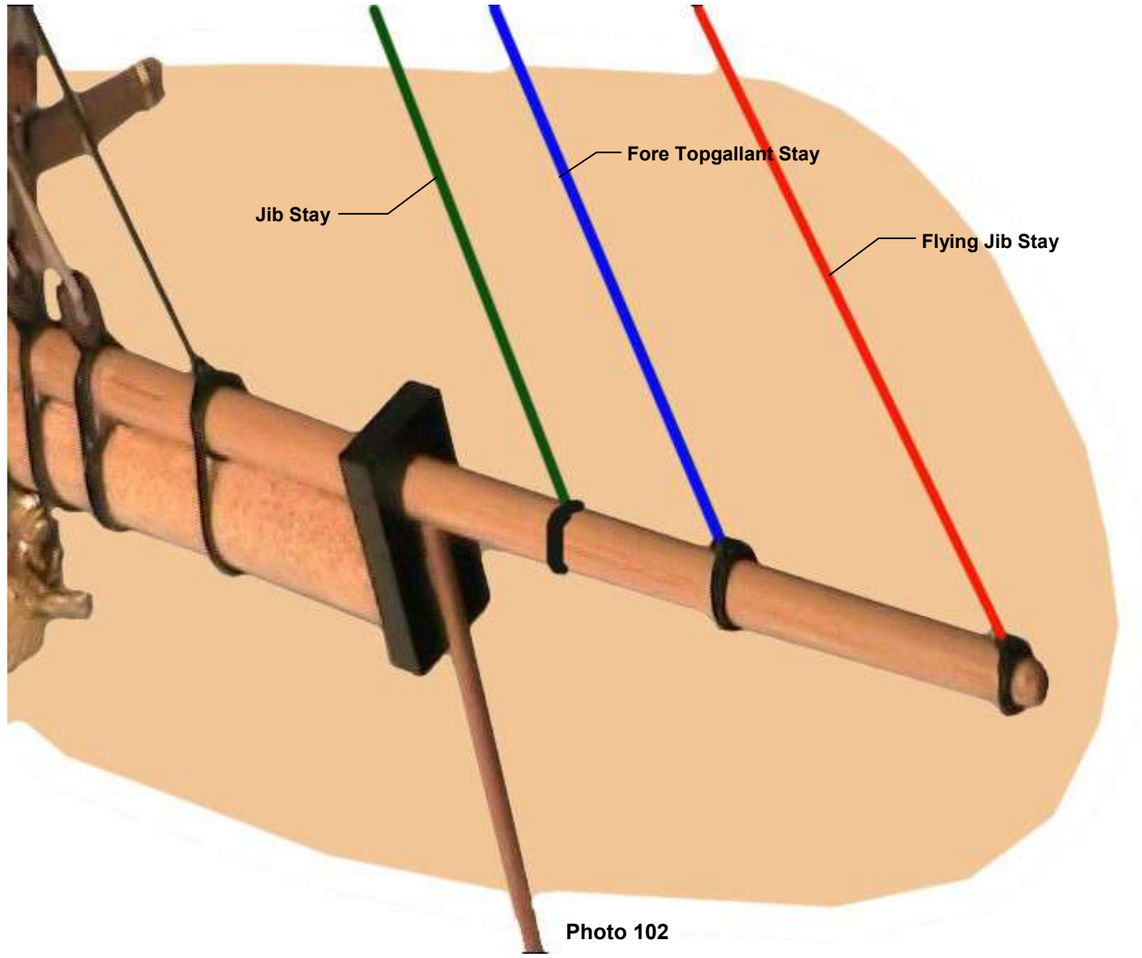

Photo 102

DEADEYE KEY	
Size	
5mm	N
7mm	P
10mm heart	Q
7mm heart	R

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

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10.2 Backstays

The mainmast and foremast backstays are the same. The back stays are terminated at deck level to eye pins P69 on the port and starboard sides - see Belaying Plan—Sheet 39.

Follow the steps below to fit the backstays.

10.2.1 Main topmast backstay

Use cord B to rig the main topmast backstay. Terminate at belaying point 2 & 4.

10.2.2 Main topgallant backstay

Use cord B to rig the main topgallant backstay. Terminate at belaying point 1 & 3.

10.2.3 Fore topmast backstay

Use cord B to rig the fore topmast backstay. Terminate at belaying point 6 & 8.

10.2.4 Fore topgallant backstay

Use cord B to rig the fore topgallant backstay. Terminate at belaying point 5 & 7.

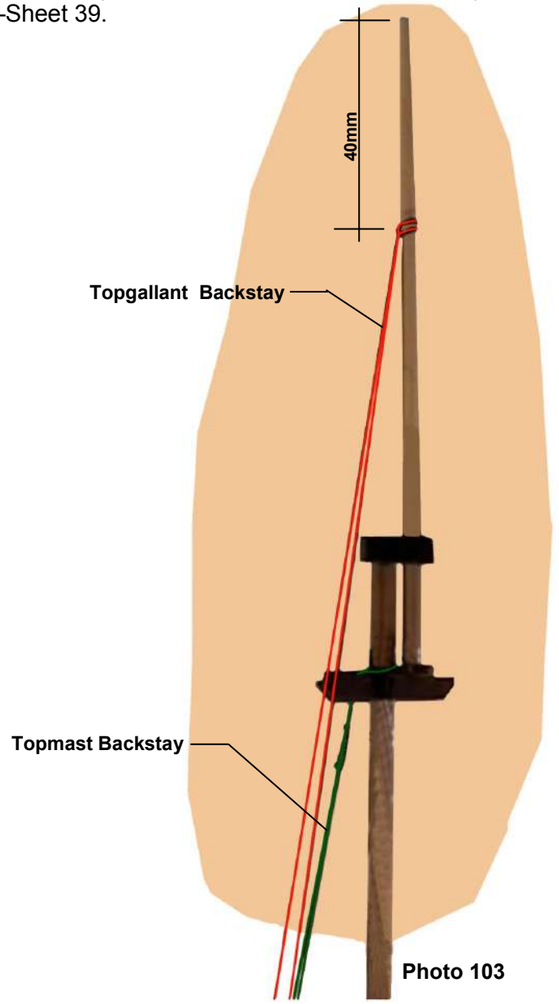

Photo 103

Main mast backstays

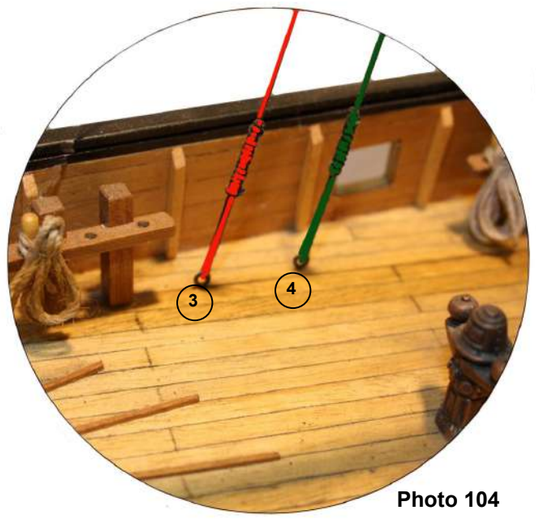

Photo 104

Foremast Backstays

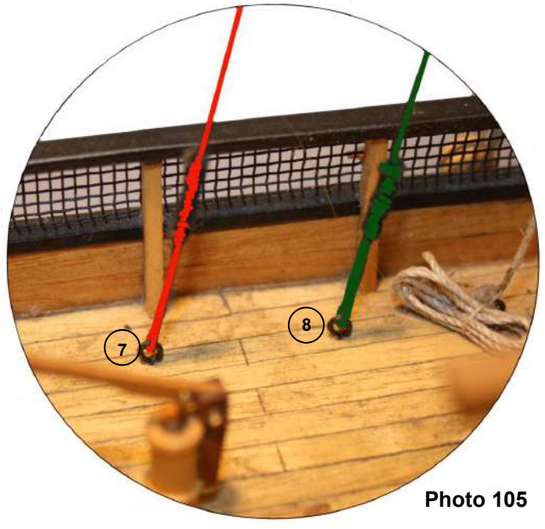

Photo 105

10.3 Bowsprit Stay

Use cord B to rig the bowsprit stay. Reeve the deadeyes P together as shown.

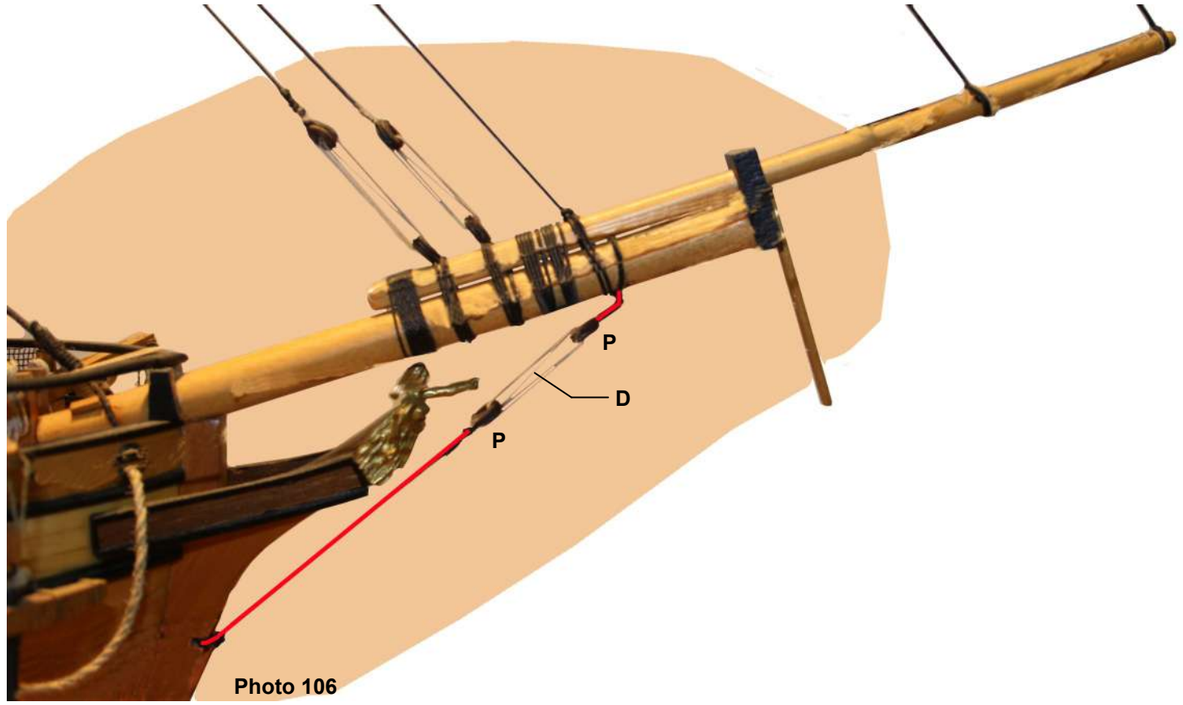

Photo 106

DEADEYE KEY	
Size	
5mm	N
7mm	P
10mm heart	Q
7mm heart	R

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

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10.4 Shrouds

The next step is to fit the shrouds. On each mast the shrouds consist of the lower mast, top mast and topgallant shrouds. Before progressing some preparation for fitting the lower mast shrouds is required.

10.4.1 Preparation for Lower Mast Shrouds

10.4.2 Channels

The channel is a wooden platform projecting from the hull over which the deadeye straps sit. The channels allow the lower deadeyes to secure the shrouds to the hull. The channels are P125A-D. Identify these parts from the 2mm laser cut plywood sheet. Paint the channels black if desired. Fit the channels to the hull according to the deck plan presented on Sheet 31.

10.4.3 Deadeyes (Lower) and Deadeye Straps

Identify the deadeye straps P127 and the lower deadeyes P128. Fit the lower deadeyes into the straps. Make sure the three holes of each deadeye are positioned with the lowest one being the centre of the three. Apply a small amount to glue to hold each deadeye in position. Insert the deadeye straps into the slots on the outer edge of the channel. Shape the deadeye strap to reach from the channel edge to be fitted above the lower bulwark trim. Once the complete row of deadeye straps are installed fit the channel capping P126—Photo 108. **Do not fix the straps to the side of the hull yet**. The next step is to determine the **shroud extension angle.**

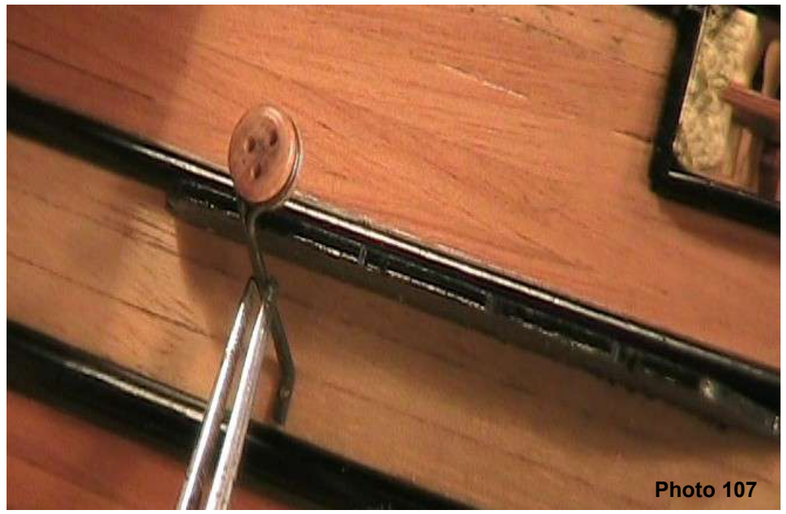

Photo 107

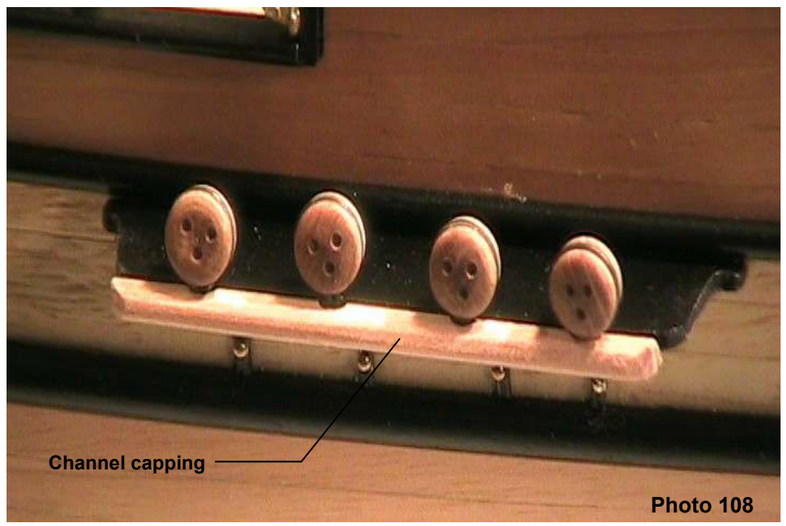

Photo 108

10.4.4 Shroud Extension Angle

The lower deadeye straps need to be fitted to the side of the hull as an extension of the angle of the shrouds

Before fixing the deadeye straps to the side of the hull we need to determine the extension angle. To achieve this follow the steps below:

1. Temporarily attach a length of rigging cord from the mast head down to below the channel.
2. For each deadeye strap mark the fixing hole at relevant angle.
3. Fix the deadeye straps to the side of the hull with brass nails P30.

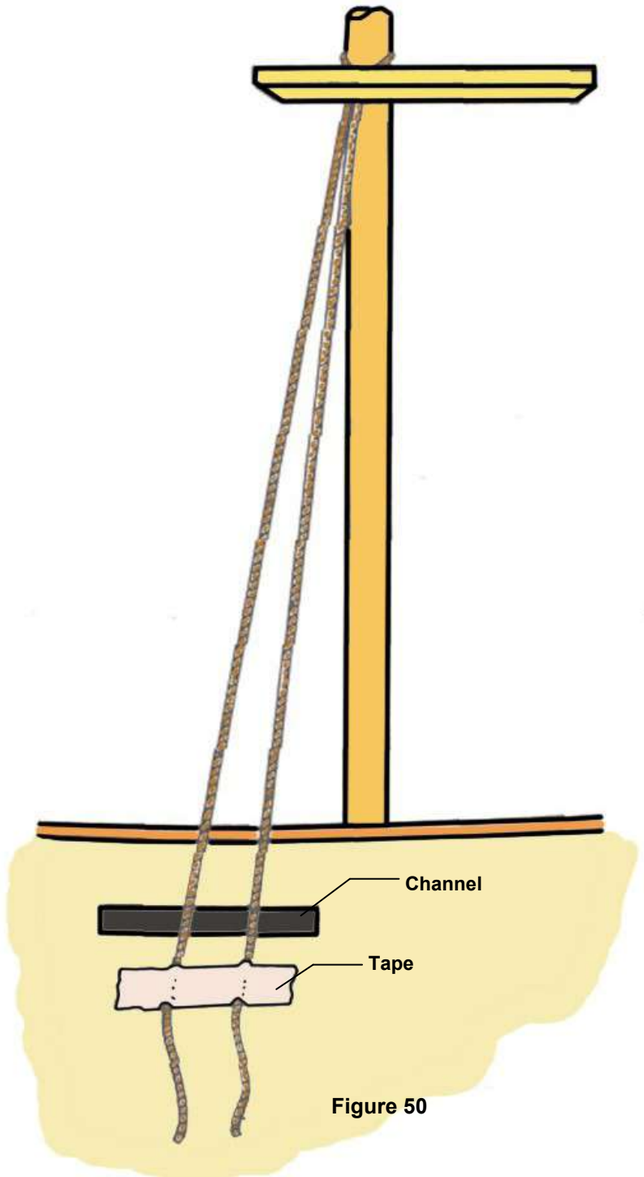

Figure 50

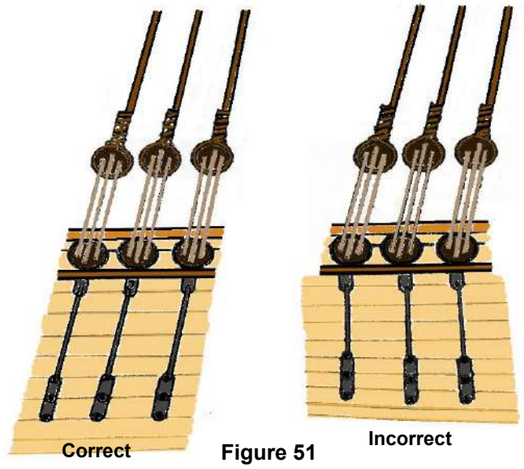

Figure 51

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10.4.5 Lower Shrouds

The shrouds are made up in pairs with a deadeye attached to the end of a single cord. On the port side fit the first pair of shrouds by cutting a piece of cord B to a length long enough to go from the channel to the mast top twice with approximately 50mm overhang.

Using an alligator clip glue one end of the rigging cord around a deadeye. Make sure the centre hole of the upper deadeye is the highest of the three. This deadeye should then be temporarily connected to the front portside lower deadeye using the deadeye wire jig—Figure 54. This wire jig will provide the correct spacing between the upper and the lower deadeye and ensure the deadeyes are in straight rows parallel with the channels and with each other.

The loose end of the rope then goes up and around the mast and down to the position of the lower deadeye immediately behind the first. Using super glue, alligator clip and another wire jig, the upper deadeye is attached to the shroud. Using a short length of cord C, seize the two shrouds together around the mast at the mast top - Figure 52. Once the first pair of shrouds has been completed, the exercise is repeated on the starboard side, then back to the portside and so on. At the upper deadeye bind the double thickness of cord immediately above the upper deadeye with cord C. Seize the end of this cord with a dab of glue.

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

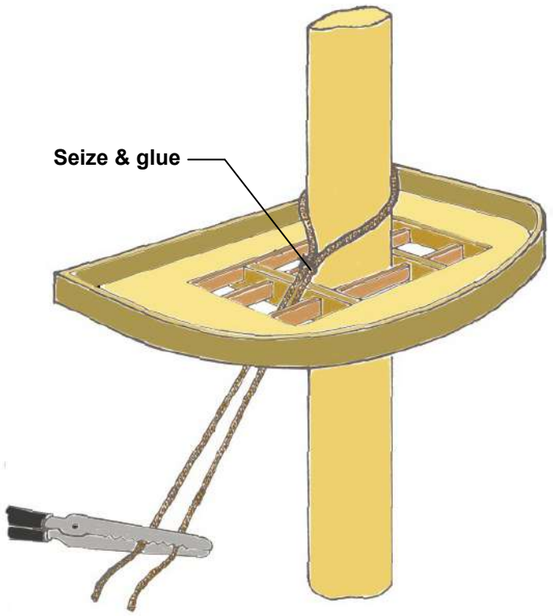


Figure 52

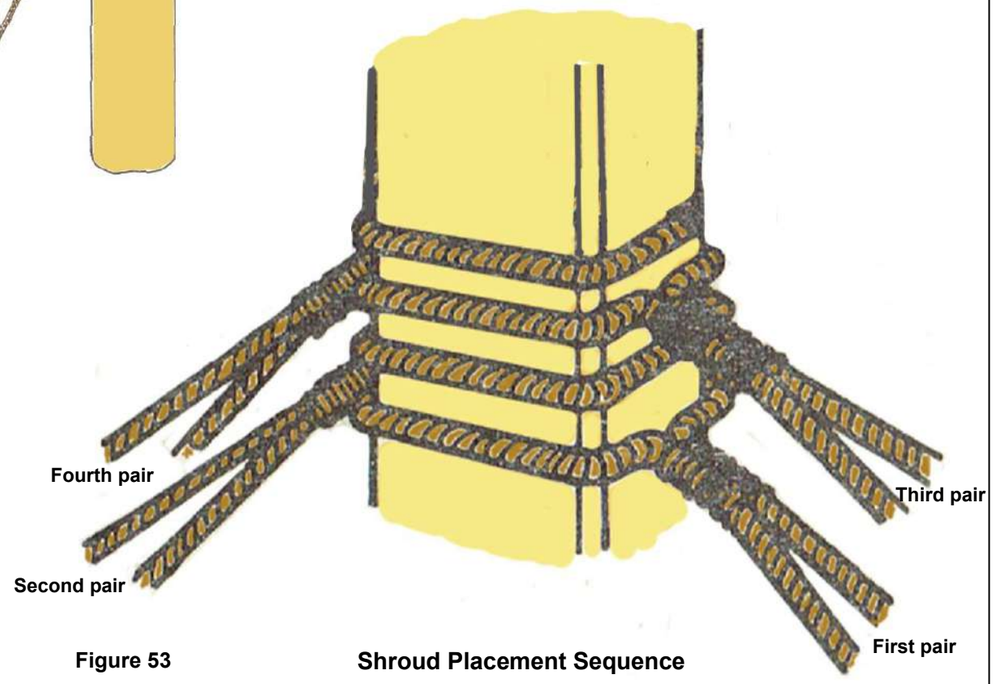


Figure 53 Shroud Placement Sequence

Deadeye Wire Jig is a piece of pliable steel wire bent at right angles at each end — long enough to fit into and hold the upper and lower deadeyes.

The distance between the two bends should be about three times the diameter of the deadeyes.

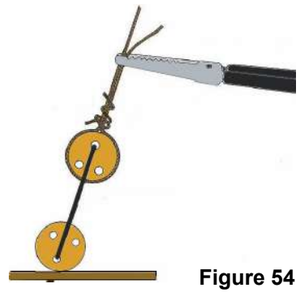
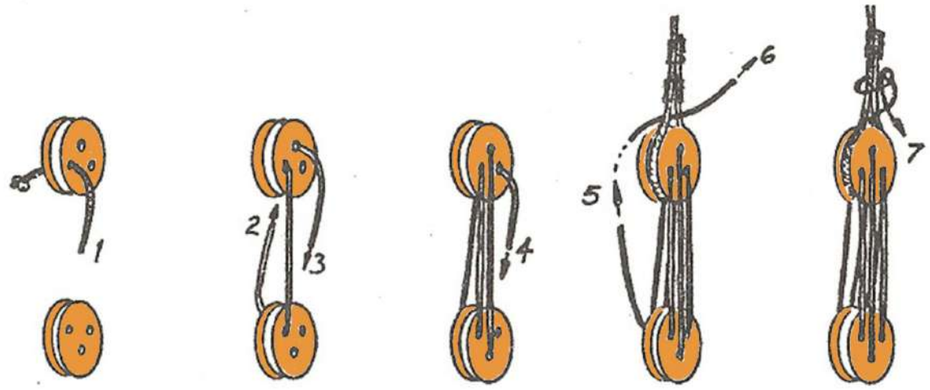


Figure 54

10.4.6 Lanyards

The lanyards are the cords that tie (reeve) the upper and lower deadeyes together and are used to tension the shrouds. For the lanyards use cord C and reeve as shown Figure 55.



Reeving Deadeyes

Figure 55

10.4.7 Ratlines

The ratlines are the rope ladders used by the crew to climb up the mast. Using cord C tie off the ratlines to the shrouds. Space the ratlines approximately 5mm apart making sure they are horizontal and parallel with each other. Seize each knot with a dab of glue and trim excess cord—Figure 56.

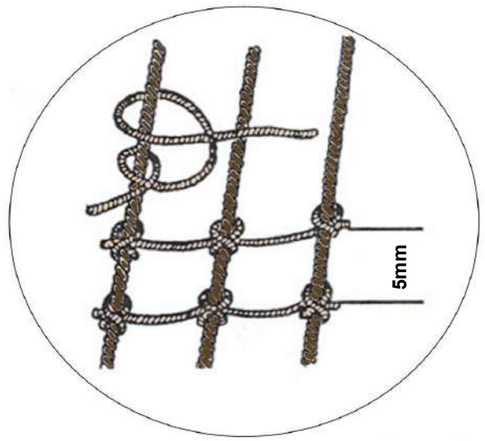


Figure 56

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

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10.4.8 Lower Shrouds— Fore and Main Masts

Following the approach previously presented to complete the shrouds for the lower fore and main masts. Note the shroud placement sequence. Fit the lanyard strip P129. Lastly, fit the ratlines.

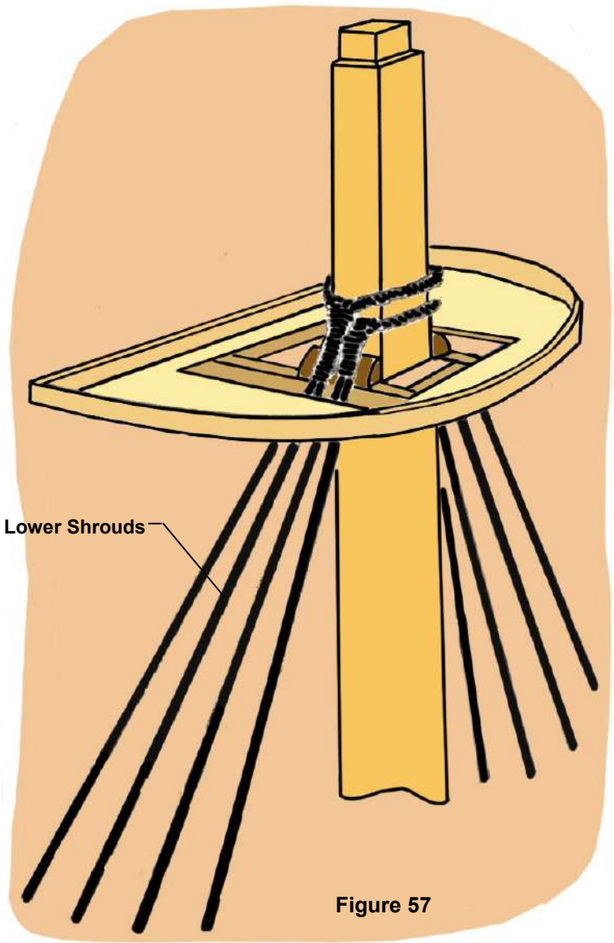


Figure 57

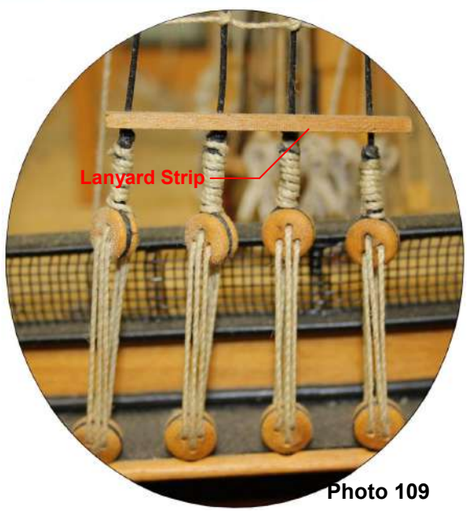


Photo 109

10.4.9 Top Mast Shrouds— Fore and Main Masts

For top mast shrouds the first step is to make the futtock shrouds. These take the lower deadeyes for the topmast shrouds. To make the futtock shroud cut a 60mm length of cord B. Fit a 5mm deadeye P133 to one end of this cord—Photo 111. Make 12 futtock shrouds. Fit each futtock shroud into place in the slots pre-cut in the mast tops - Photo 111. Tie off the futtock shrouds to the lower mast shrouds and fit a sheerpole P130 across the joints— Photo 111. The next step is to fit the top mast shrouds using cord B. Follow the shroud placement sequence—for the odd shroud tie off to its self - Photo 113. Lastly, fit the ratlines.

Photo 110

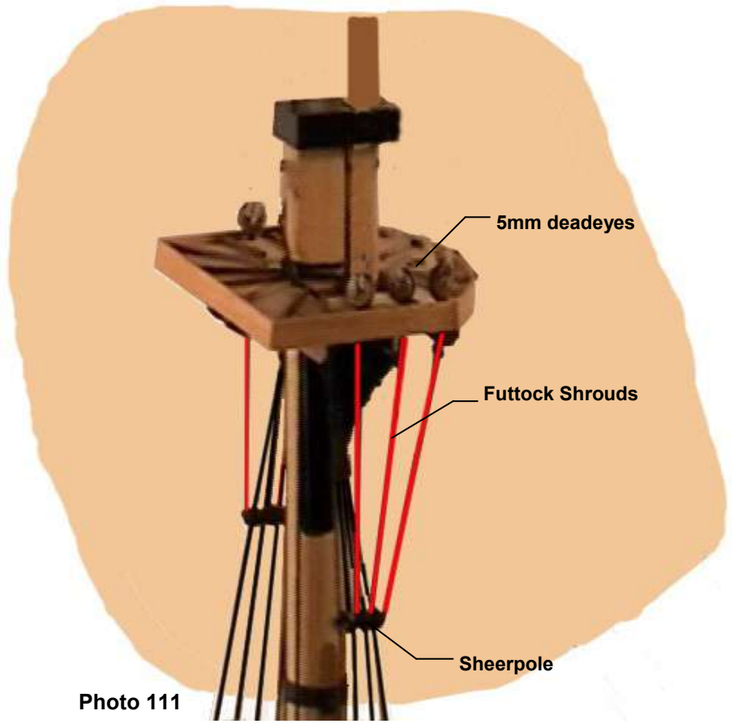


Photo 111

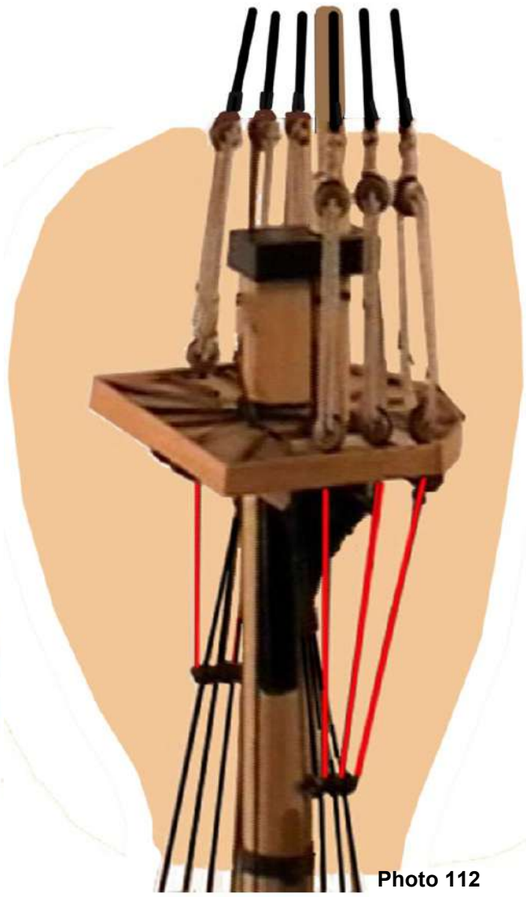


Photo 112

Photo 113

DEADEYE KEY	
Size	
5mm	N
7mm	P
10mm heart	Q
7mm heart	R

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

10.4.10 Top Gallant Shrouds—Fore and Main Masts

For the fore and main mast top gallant shrouds cut 12 lengths of cord B. Attach the top gallant futtock shrouds to the topmast shrouds—Photo 114. Fix a sheerpole P130 across the joints. Lastly, fit the ratlines.

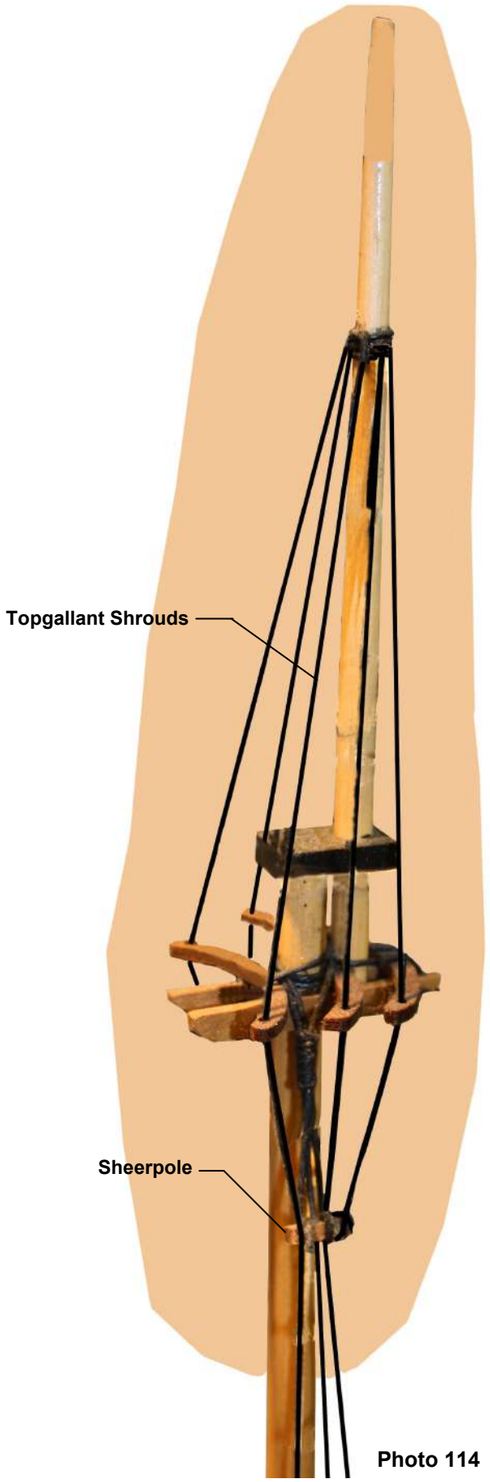


Photo 114

11.0 Running Rigging

The next step is to complete the running rigging. The running rigging includes rigging for the yard lifts, braces, pendants, halliards, and guys. If the model is fitted with sails there will be other running rigging associated with the sails not cover in these instructions. Completing the running rigging can be complicated and time consuming. However, following the "golden rule" for rigging of working from the centre and lower parts of the model and working up and out trying to avoid difficult and confined spaces, will assist in the process. Also taking your time with this building step will produce a superior looking model. **Cord D is used for the running rigging.**

11.1 Typical Rigging Applications

The following figures represent a range of rigging applications you may encounter as you rig the model.

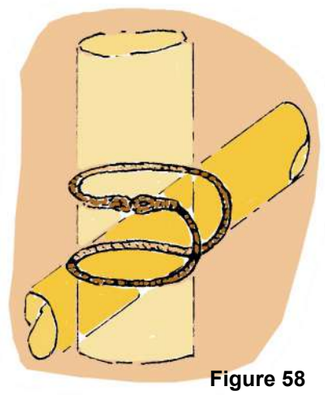


Figure 58

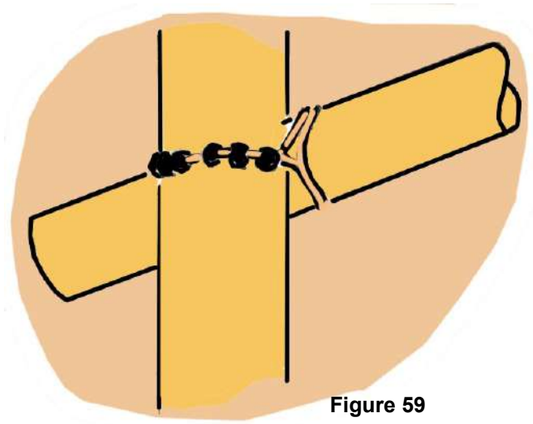
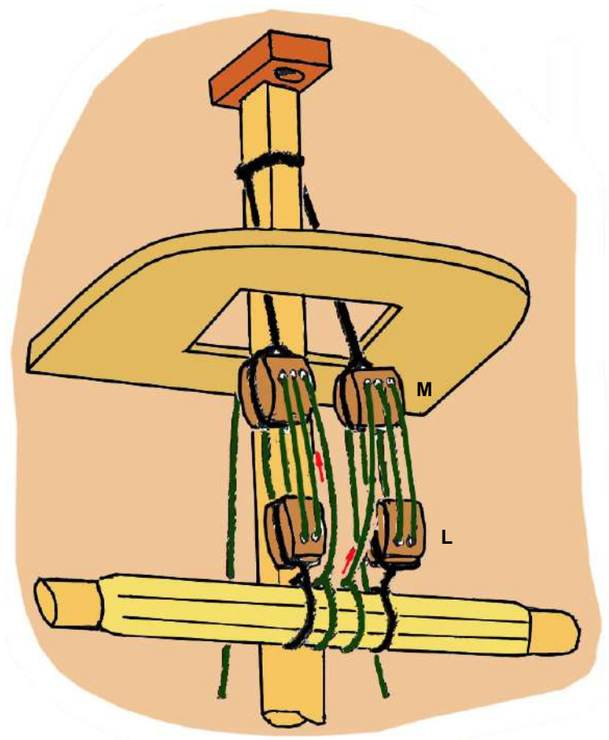


Figure 59



Fore & main yard jeer blocks Figure 60

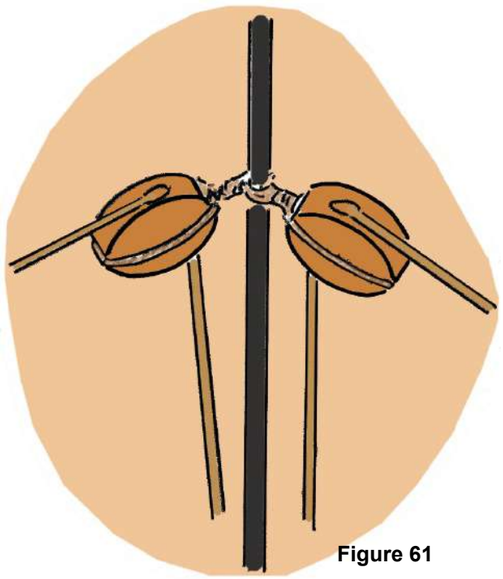


Figure 61

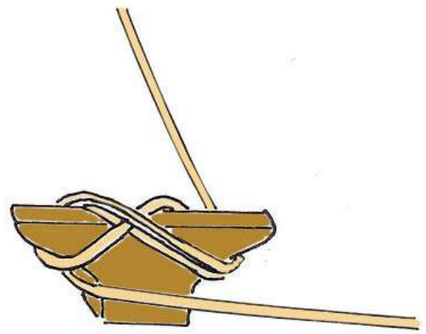


Figure 62

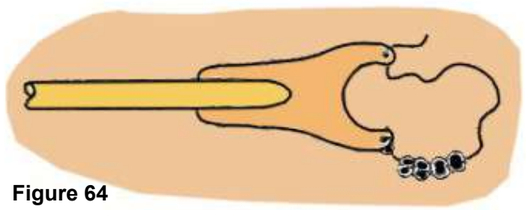


Figure 64

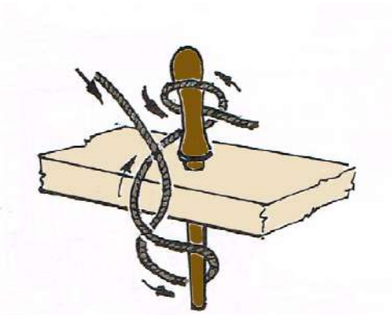


Figure 63

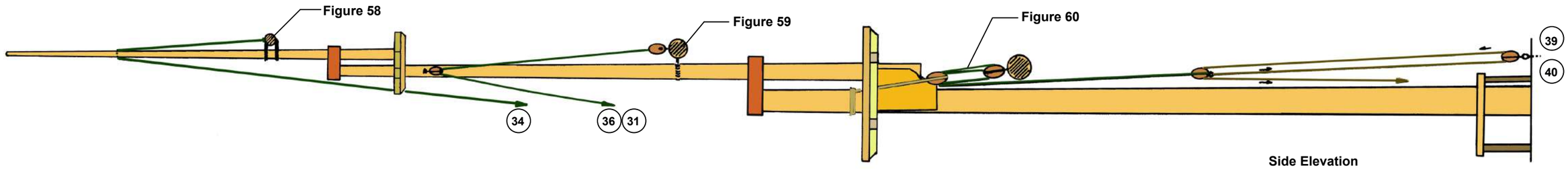
11.2 Yards, Gaff & Boom

To fit the yards, gaff and boom refer to Sheets 50, 51 & 52 and the Belaying Plan Sheet 39.The following sequence is recommended.

1. Attach the foremast yards to the mast—fore yard, fore topyard and fore topgallant yard.
2. Attach the main mast yards to the masts - main yard, main top yard and main topgallant yard
3. Attach the boom and gaff

Once each yard is attached to its respective mast, rig the lifts for each yard.

11.2.1 Foremast



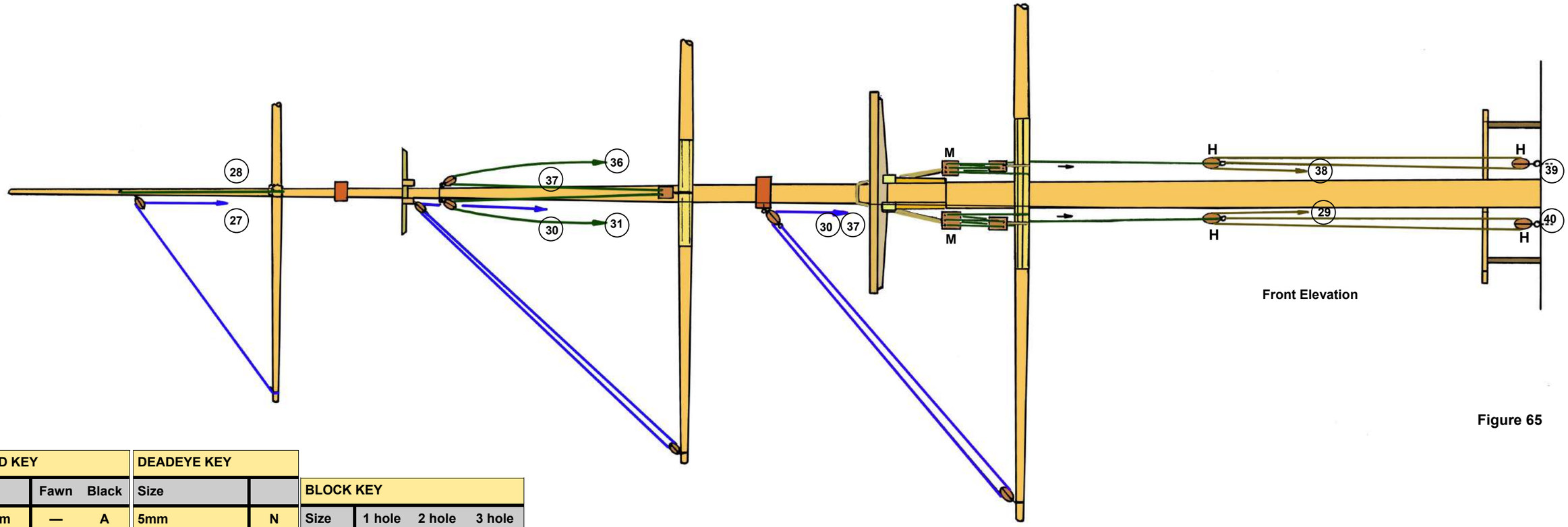


Figure 65

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

DEADEYE KEY	
Size	
5mm	N
7mm	P
10mm heart	Q
7mm heart	R

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

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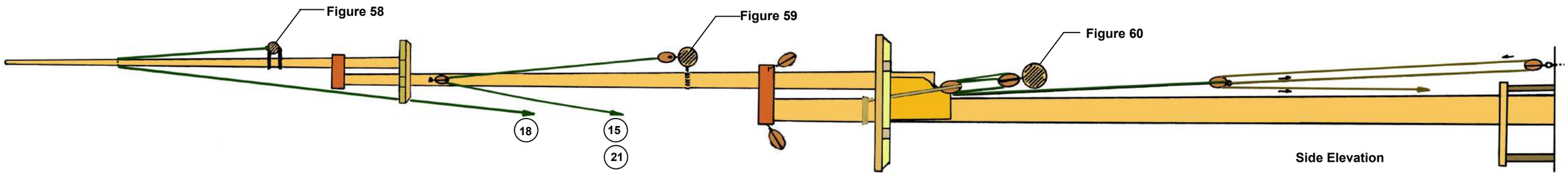
Modellers Shipyard



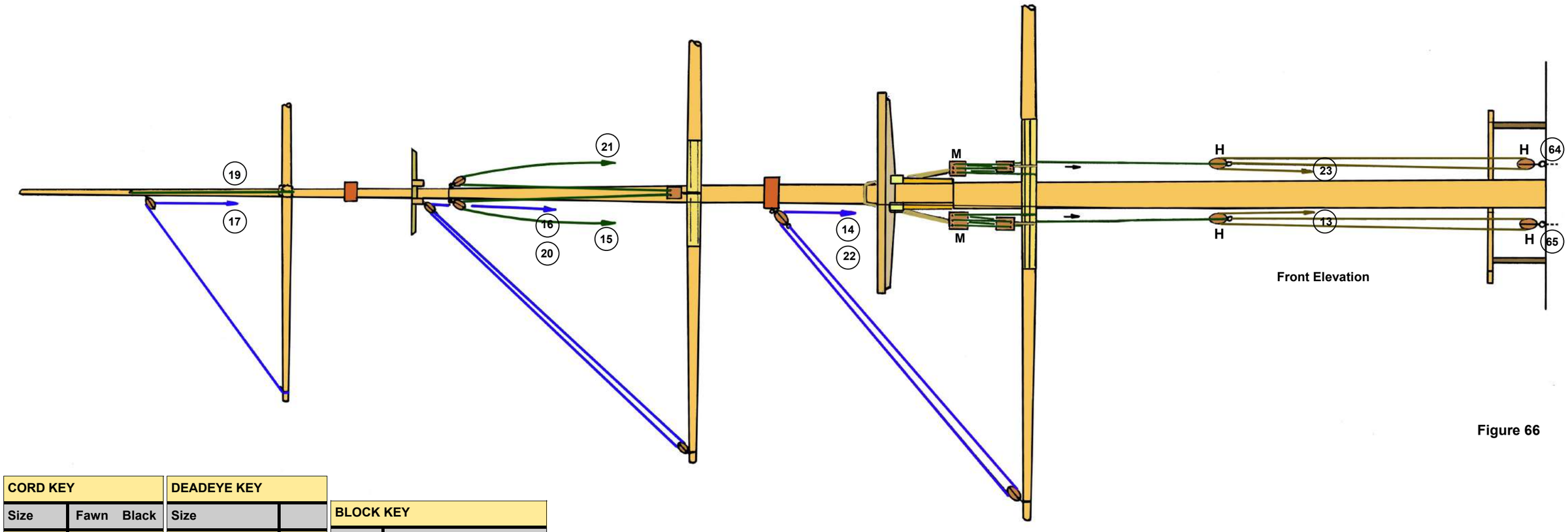


Figure 66

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

DEADEYE KEY	
Size	
5mm	N
7mm	P
10mm heart	Q
7mm heart	R

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

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11.2.3 Boom Lift & Topping Lift

Fit the boom — attach to the main mast with the yoke P120. To rig the boom, first fit two eye pins P69—Photo 115, then attach block K—Photo 116. Rig the boom lift and terminate as shown. Rig the boom topping lift and terminate as shown.

Photo 115

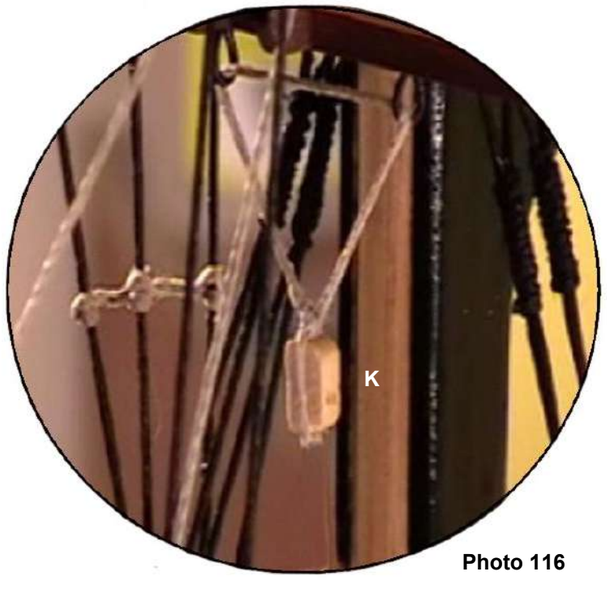

Photo 116

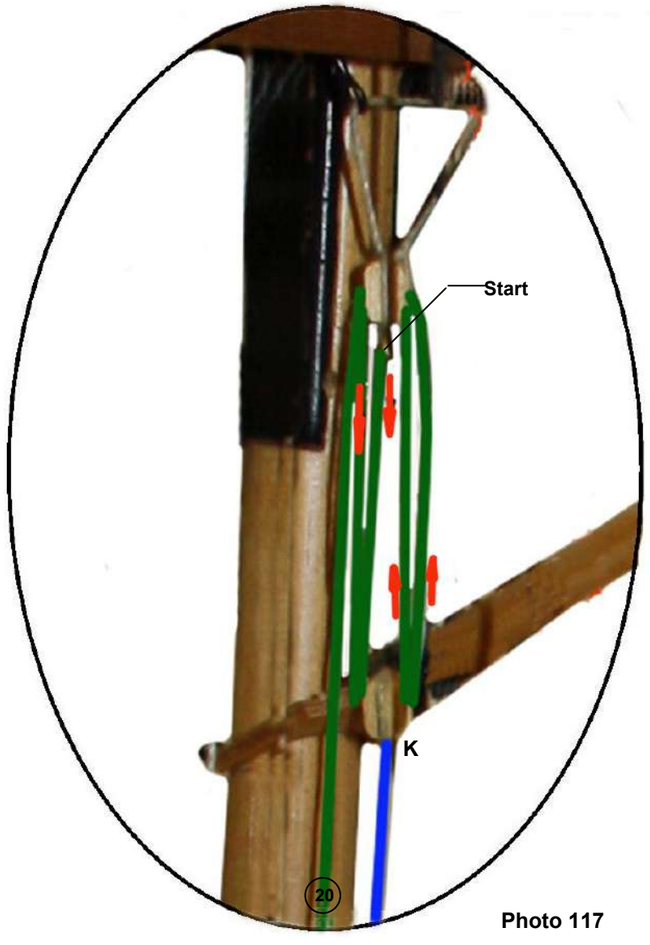

Photo 117

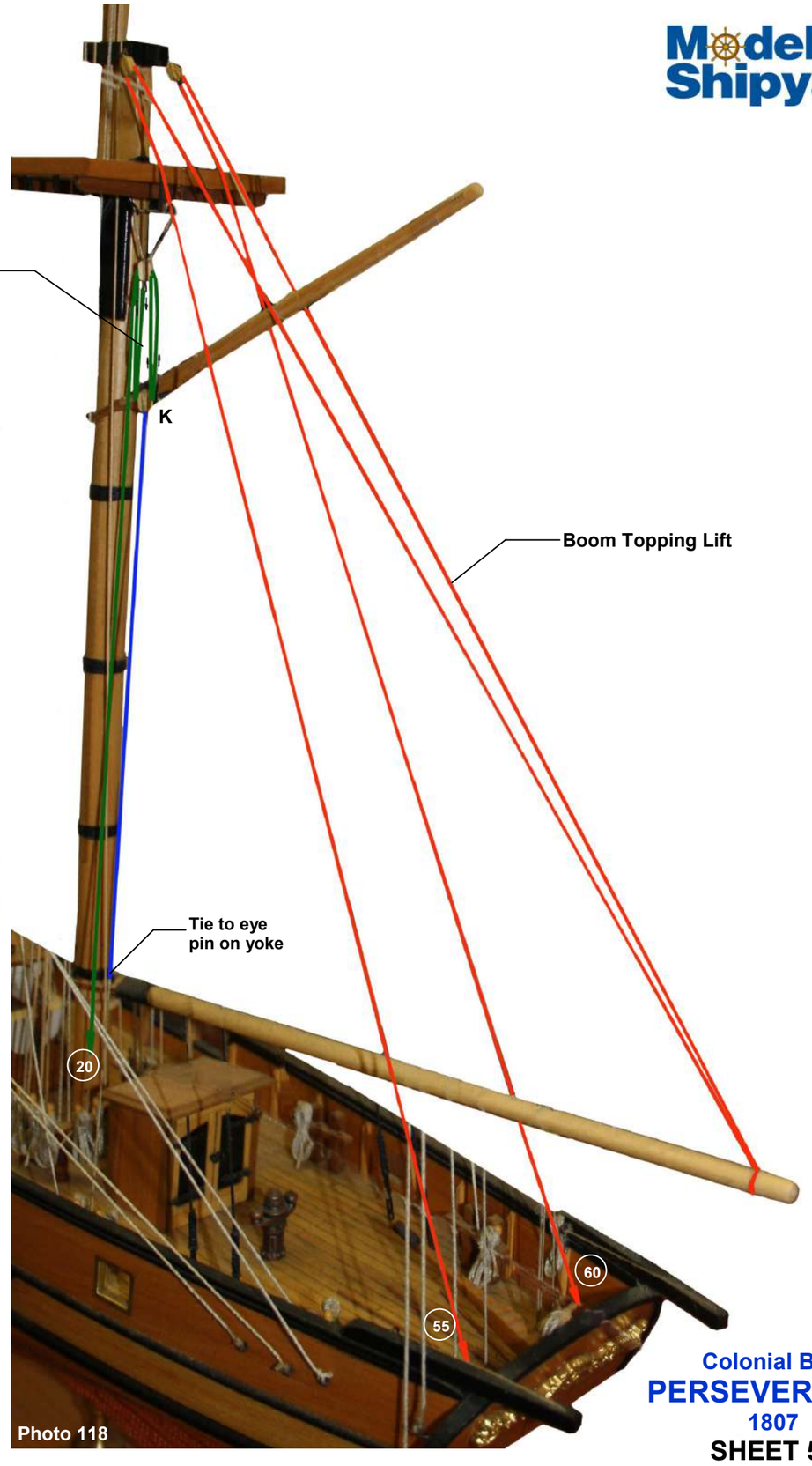

Photo 118

DEADEYE KEY	
Size	
5mm	N
7mm	P
10mm heart	Q
7mm heart	R

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

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11.2.4 Mainsheet

Rig the mainsheet and terminate as shown.

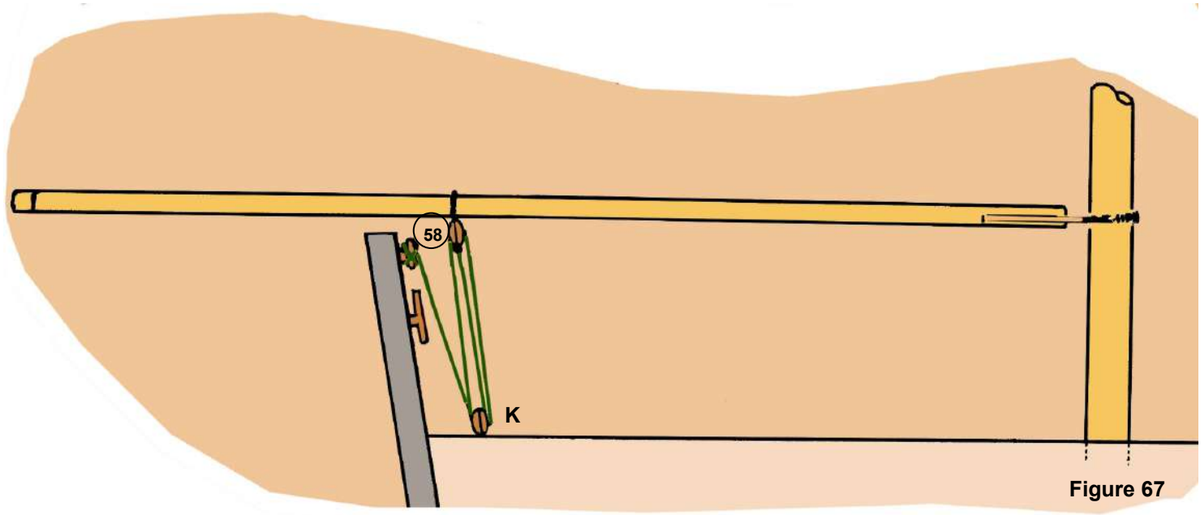

Figure 67

11.2.5 Throat Halliard & Peak Halliard

Fit the gaff — attach to the main mast with the yoke.
To rig the throat halliard reeve the two blocks together at the yoke and mast and terminate as shown - Photo 119.

Rig the peak halliard and terminate as shown—Photo 120.

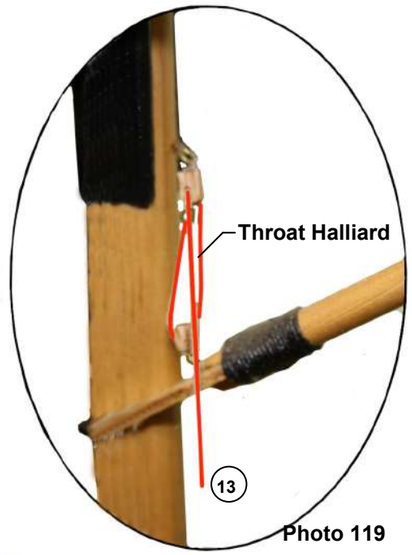

Photo 119

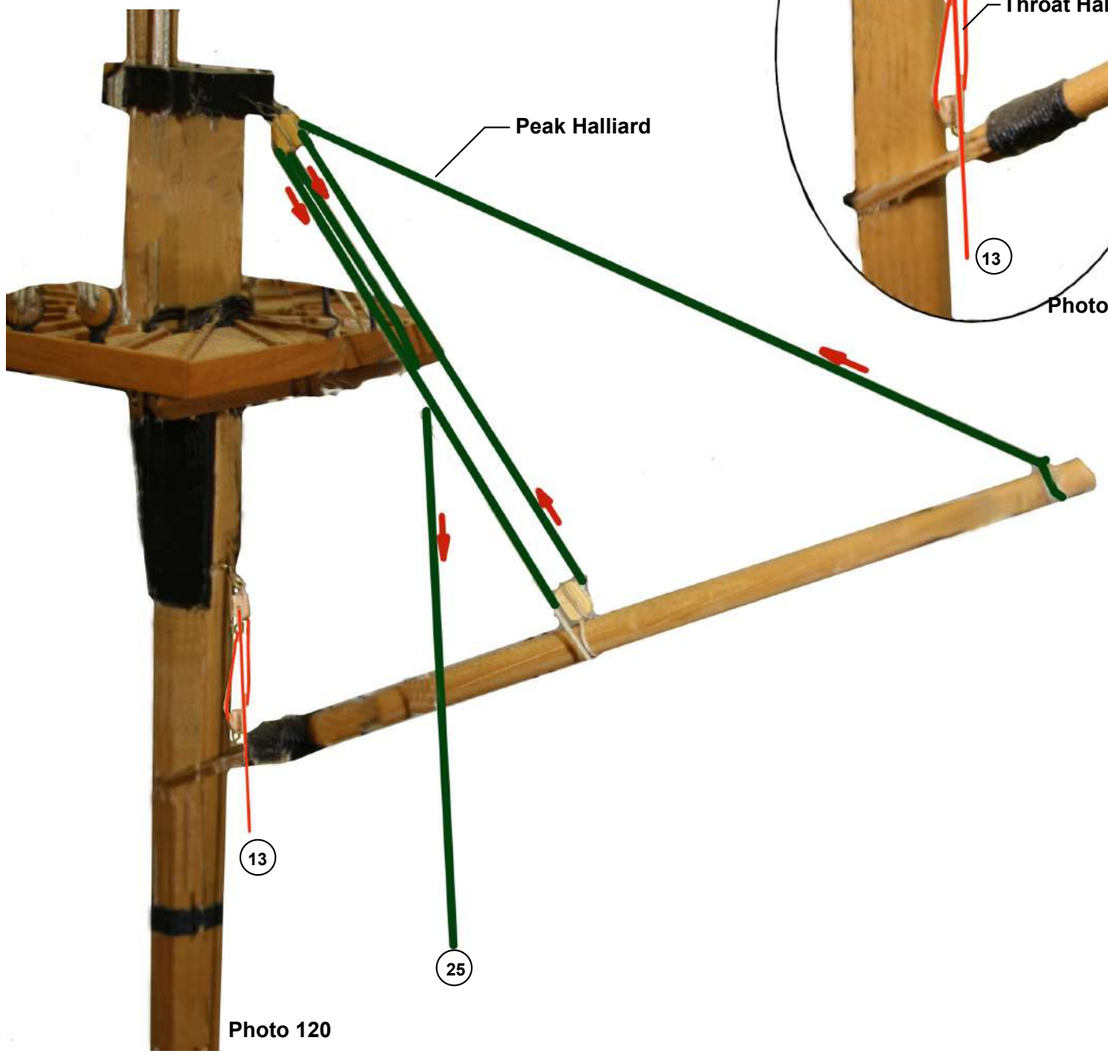

Photo 120

DEADEYE KEY	
Size	
5mm	N
7mm	P
10mm heart	Q
7mm heart	R

CORD KEY		
Size	Fawn	Black
1.5mm	—	A
1.0mm	—	B
0.25mm	C	—
0.5mm	D	—

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

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SHEET 53

11.2.6 Bowsprit Guys

Rig the bowsprit guys as shown.

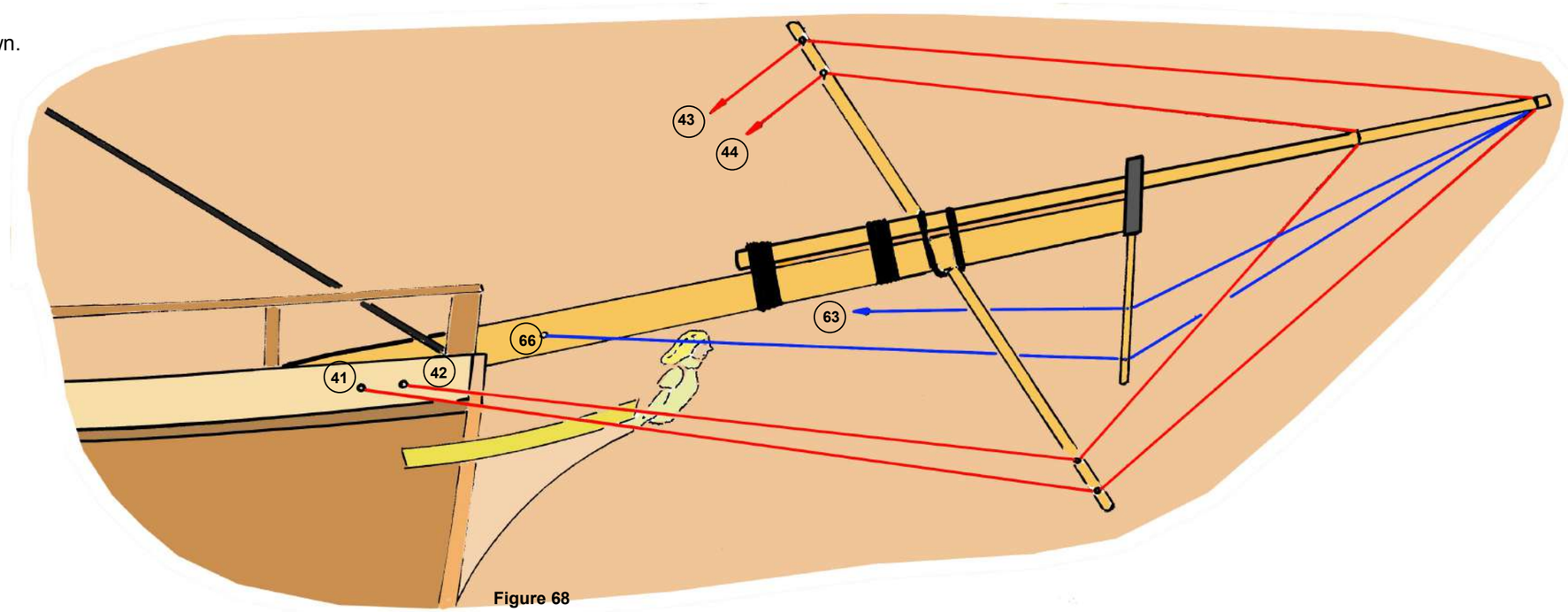

Figure 68

11.2.7 Crows Feet

First drill 12 x 0.7mm holes equidistant along the front of the mast top. Next make the euphore blocks—cut 2 x 20mm length of 2x5mm limewood P16—drill 8 x 0.7mm holes equidistant along its length. Fit block S to one end. Attach a second block S to the stay. Start to reeve these two blocks—do not tighten yet. Rig the crows feet for the main and fore masts as shown. Start at point A and progress as shown Photo 121. At the mast top feed the cord down from the top and then up from the underside to again come down to the euphore block. Finish at the mast top centre hole. Tighten the reeve between the blocks and tie off at lower block. Repeat for next mast.

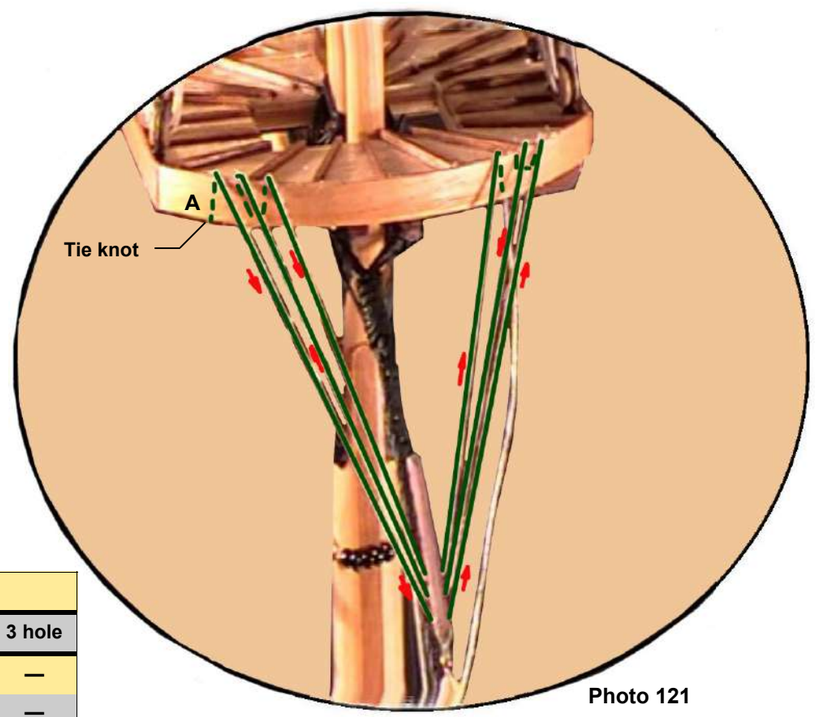

Photo 121

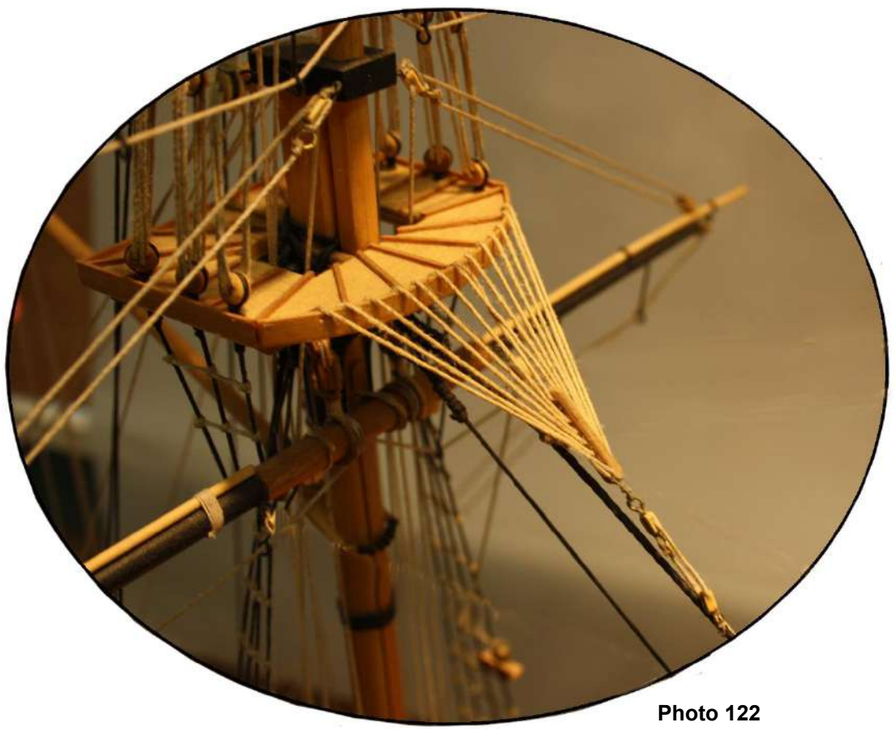

Photo 122

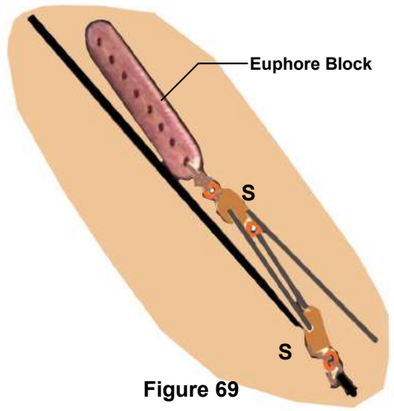

Figure 69

BLOCK KEY			
Size	1 hole	2 hole	3 hole
4mm	S	T	—
5mm	H	K	—
7mm	J	L	M

Figure 69

Colonial Brig
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SHEET 54

11.2.8 Braces
Rig the braces as shown.
Refer also to the Belaying Plan Sheet 39

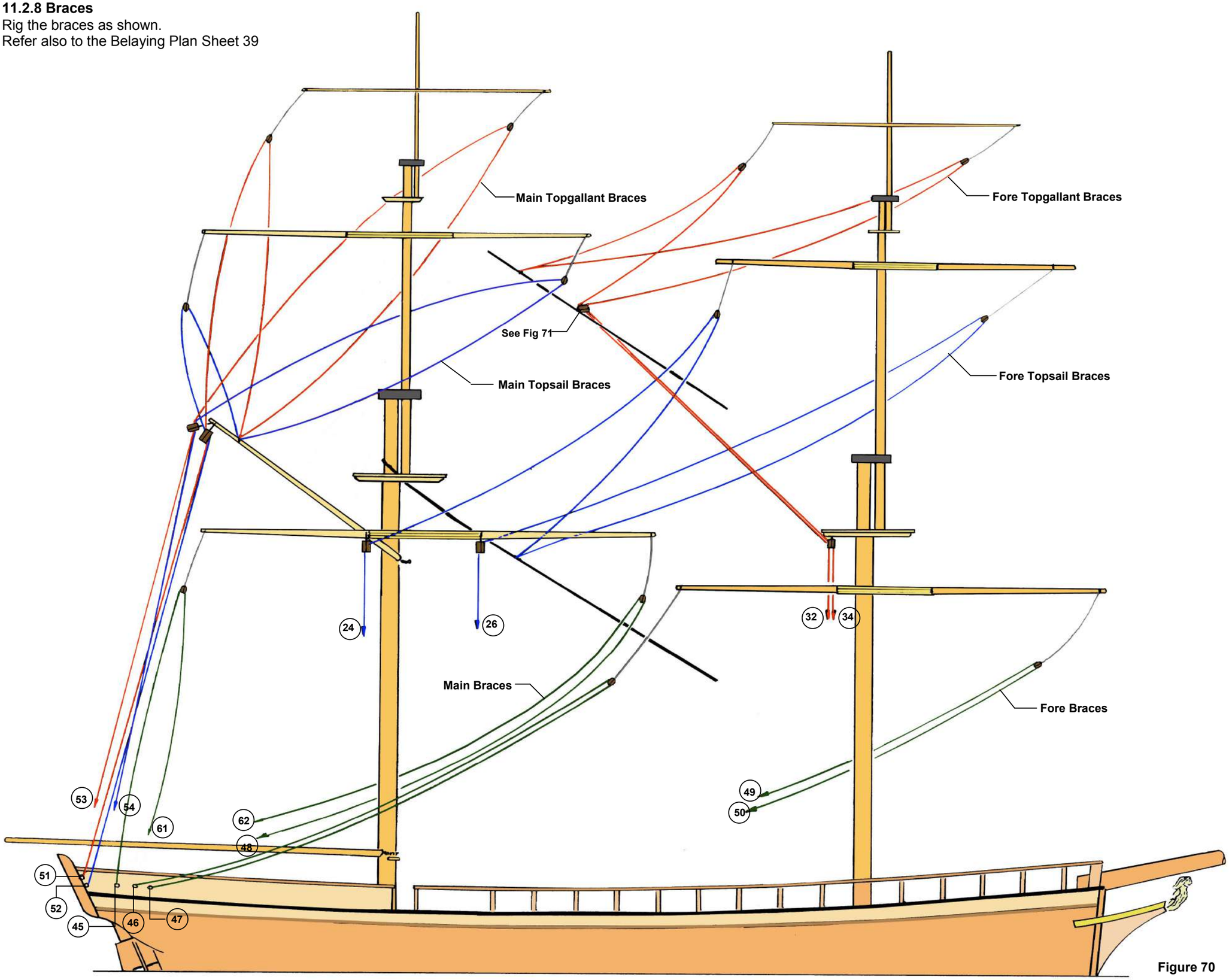

Figure 70

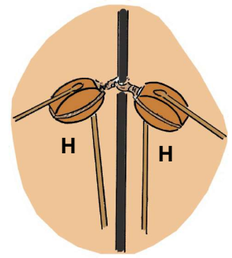

Figure 71

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SHEET 55

11.2.9 Flags

Run a flag hoist as show. Fit the Red Ensign flag to the hoist.
Fit the Campbell House flag to one of the foremast back stays.

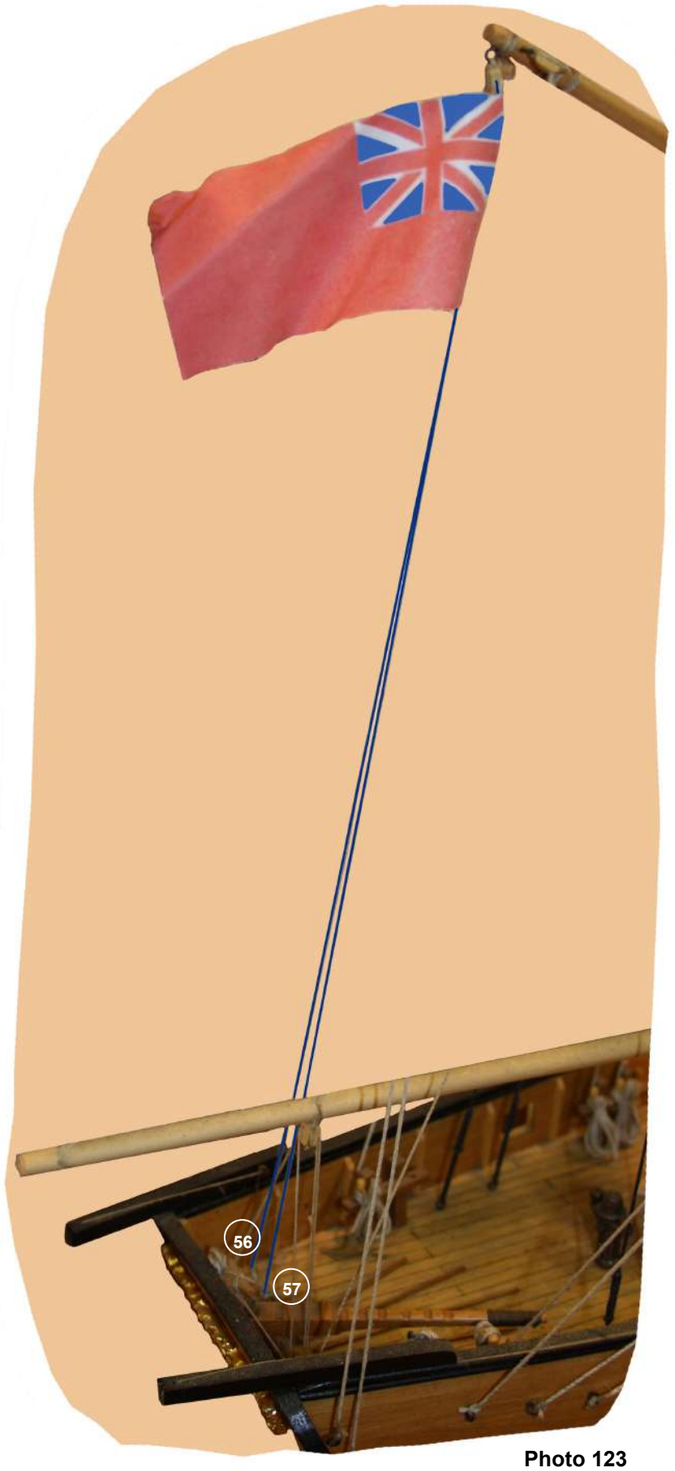

Photo 123

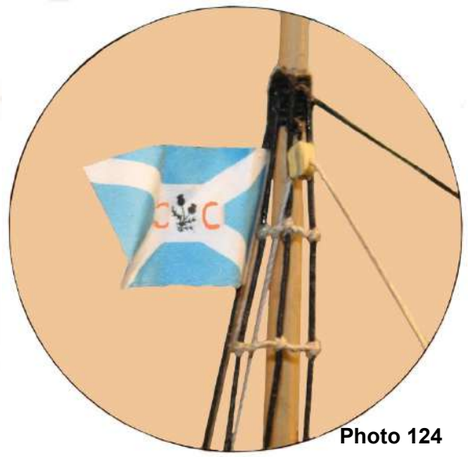

Photo 124

11.2.10 Finishing Touches

Make rope coils to be placed at the various belaying points on the deck.

Photo 125

Photo 126

Photo 127

Photo 128

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SHEET 56

11.2.11 Completed Model

Look carefully over the instructions, photos & drawings and check to ensure that you have not forgotten anything.

You might consider a display case which will protect your model from dust and accidental damage.

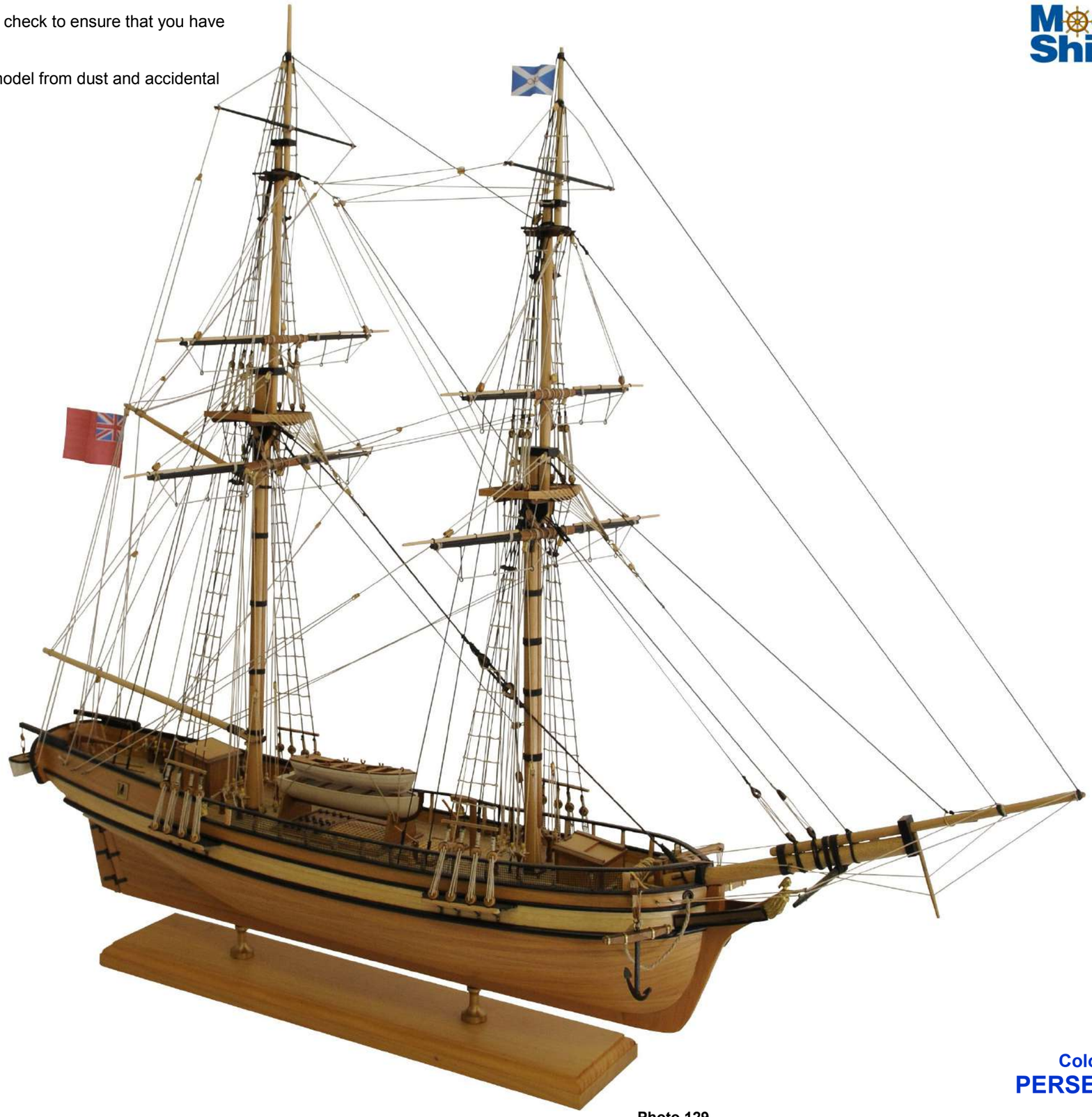

Photo 129