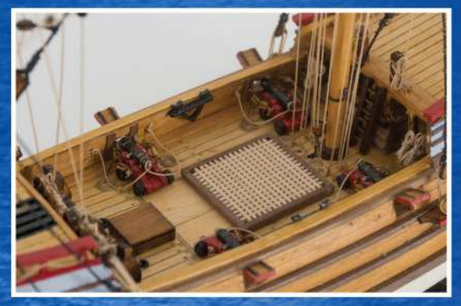
WOODEN MODEL SHIP KIT

DUYFKEN 1606

Modellers Shipyard

www.modelshipyard.com.au

SCALE 1:48



LENGTH: 480mm HEIGHT: 420mm WIDTH: 195mm

ITEM CODE: KTMS1019

BUILDING INSTRUCTIONS

Version 1.2

1.0 Introduction

Modeller's Shipyard is proud to present another wooden model ship kit that has historic significance to Australian maritime history.

Duyfken (Little Dove), was a small ship built in the Dutch Republic. She was a fast, lightly armed ship probably intended for shallow water, small valuable cargoes, bringing messages, sending provisions, or privateering. The tonnage of *Duyfken* has been given as 25-30 *lasten* (50-60 tons).

In 1606, during a voyage of discovery from Bantam (Banten), Java, captained by Willem Janszoon, she encountered the Australian mainland. Janszoon is credited with the first authenticated European discovery of Australia.

2.0 History

In 1596, a ship named *Duyfken* sailed in the first expedition to Bantam, the crew was captured by the islanders on Pulau Enggano. On 23 April 1601, *Duyfken* sailed from Texel as the *jacht*, or scout, under skipper Willem Cornelisz Schouten to the Spice Islands. After reaching Bantam, the "Moluccan Fleet", consisting of five ships including the *Duyfken* under admiral Wolphert Harmensz, encountered a blockading fleet of Portuguese ships totalling eight galleons and twenty-two galleys. They engaged this fleet in intermittent battle, driving them away on New Year's Day 1602. Thus, the undisputed dominance of the Iberians (Portuguese and Spanish) in the spice trade to Europe was ended.
The fleet received a warm welcome in Bantam, repairs were carried out to damage caused in the battle, and a survey of Jakarta Bay was undertaken, where the Dutch would later build Batavia, their capital in the Indies. Then, sailing by way of Tuban, East Java to the Spice Island of Ternate, cloves were loaded on board and the ship returned to Banda for a cargo of nutmeg.

The *Duyfken* was then sent on a voyage of exploration to the east when the newly formed United Dutch East India Company (VOC) was granted a monopoly on trade to the Spice Islands by the Dutch government. On the voyage home from the Indies the *Duyfken* was separated from the larger ships in a storm off Cape Agulhas, southern Africa and reached Flushing in April 1603,[2] two months ahead of the larger ships.

On 18 December 1603, the *Duyfken*, with Willem Janszoon as skipper, set out on a second voyage to the Indies in the VOC fleet of Steven van der Haghen. The VOC fleet captured a Portuguese ship in Mozambique Channel and sailed to the Spice Islands via Goa, Calicut, Pegu and finally reaching Bantam, Java on New Year's Eve 1604.

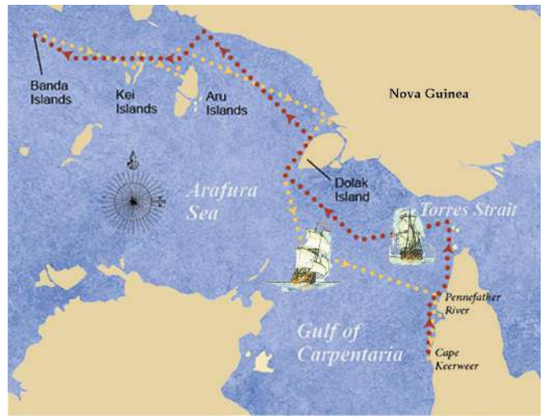
In 1605, the *Duyfken* was in the fleet that recaptured the fort of Van Verre at Ambon in the Spice Islands, from the Portuguese. She was then sent to Bantam, Java for urgently needed provisions.
In late 1605, the Dutch East India Company (VOC) sent the *Duyfken*, captained by Willem Janszoon, to search for trade opportunities in the "south and east lands" beyond the furthest reaches of their known world. Willem Janszoon took the ship southeast from Banda to the Kei Islands, then along the south coast of New Guinea, skirting south of the shallow waters around False Cape (Irian Jaya) and then continuing east-southeast.

When Janszoon and his crew next saw land in February/March 1606, they entered history as the first known Europeans to sight Australia. They anchored at Pennefather River, about 150km south of Cape York, before becoming the first Europeans to walk on Australian soil. Janszoon went on to map over 340km of the Cape York Peninsula's western coast – the very first section of Australian coastline to be charted. But he never realised that the strange coast he'd stumbled upon was part of a continent unknown to Europeans. This was due to the fact that he had no evidence of the existence of the channel of water that separates New Guinea and Australia (we now call Torres Strait). Looking at the two unfinished coastlines on his map of New Guinea and the western side of Cape York Peninsula, he suggested the two land masses might be connected.

Ironically, in the same year as the Duyfken's expedition, a Spanish ship negotiated the strait from the east. Records made by the ship's captain, Luis Vaz de Torres, were largely unknown until they were translated by Scottish geographer Alexander Dalrymple in 1769. Despite the best efforts of the Dutch, it would take another century and a half before the unknown south land would be identified as a separate continent by Captain James Cook.

Future explorers were to refer to Janzoon's map and log. But the significance of the Duyfken's first landing would eventually fade from human memory over the centuries. Fortunately, copies of the original chart were made in the 1670s. One of these became part of a collection of sea charts, sometimes referred to as the 'secret atlas' of the Dutch East India Company.

Sold to the Vienna Imperial Library in 1737, the collection remained in obscurity for nearly two centuries. It wasn't until the chart was brought to light and published in 1930 that Australia was provided with significant evidence of its earliest European history. Through their travels, the crew of the Duyfken also became the first Europeans to encounter Australian Aborigines. It was not to be an auspicious start to relations between the two peoples – a bloody conflict ensued with lives lost on both sides. After these encounters the ship sailed back to Bantam.



In 1607, the *Duyfken* may have made a second voyage east to Australia. Later in the year, she was sent to Java to get supplies for the beleaguered Dutch fortress on Ternate. In February or March 1608, the *Duyfken* was involved in hunting Chinese junks north of Ternate.

In May 1608, the ship was engaged in a five-hour battle with three Spanish galleys. In June, she was sent with larger ships to capture the fortress of Taffaso on Makian Island. A month later, she was brought inside the reef at Ternate for repairs. It seems that she was hauled on her side to repair the bottom but this caused further damage, and the ship was condemned as beyond repair.

References:

1. Henderson, James, 1999 "Sent Forth a Dove: Discovery of the Duyfken". University of WA Press
2. Pearson, Michael 2005 "Great Southern Land: The Maritime Exploration of Terra Australia" Australian Government
3. Garvey, Robert 2001 "To Build a Ship: The VOC replica ship Duyfken" University of WA Press
4. Mundle, Rob, 2015 "The Great South Land" Harper Collins Publishers
5. Campbell, Bob, 1998 "The story of a brave ship and a brilliant replica". Duyfken Replica Foundation.

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 thoroughly before commencing construction. While reading these instructions, familiarise yourself with the contents of the kit.
2. 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.
6. The construction of a wooden model ship can be divided into the following steps.
   - Hull Construction
   - Hull Planking
   - Deck & Deck Furniture
   - Masts & Yards
   - Rigging

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

DUYFKEN
1606
SHEET 1

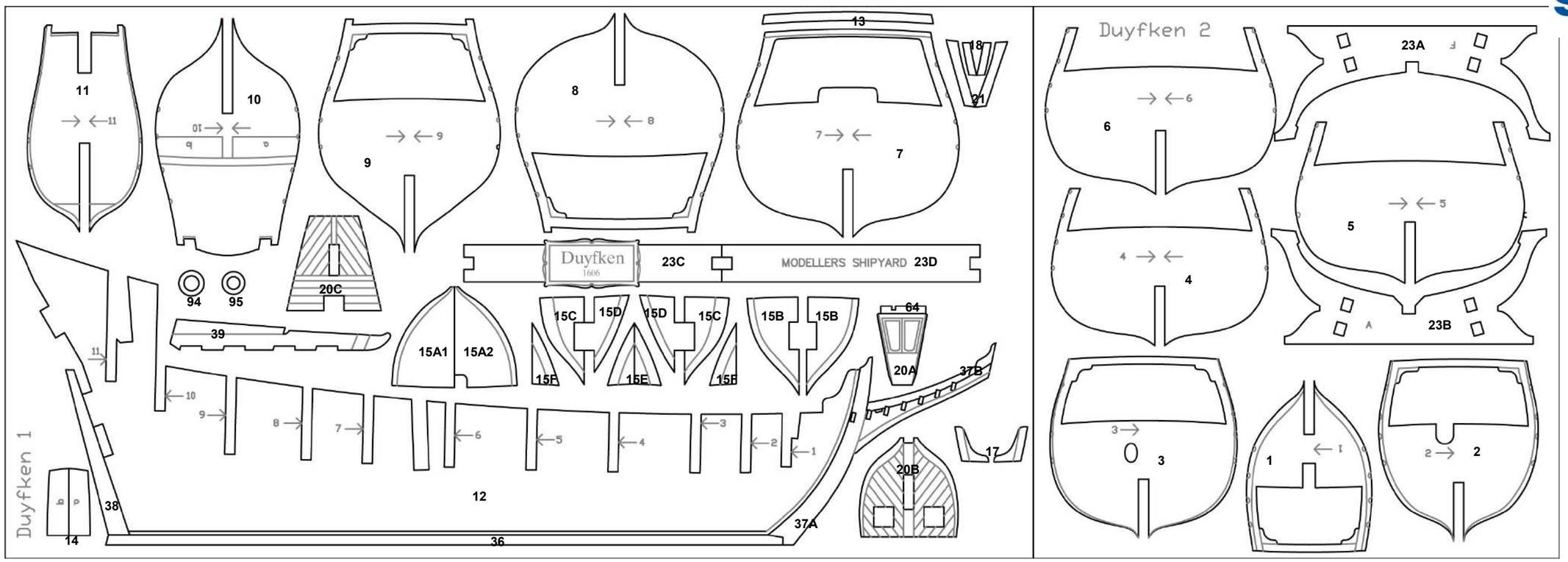
4.0 **Parts List** (Modeller's Shipyard reserves the right to make changes to the instructions, components &/or kit contents at any time without notice)

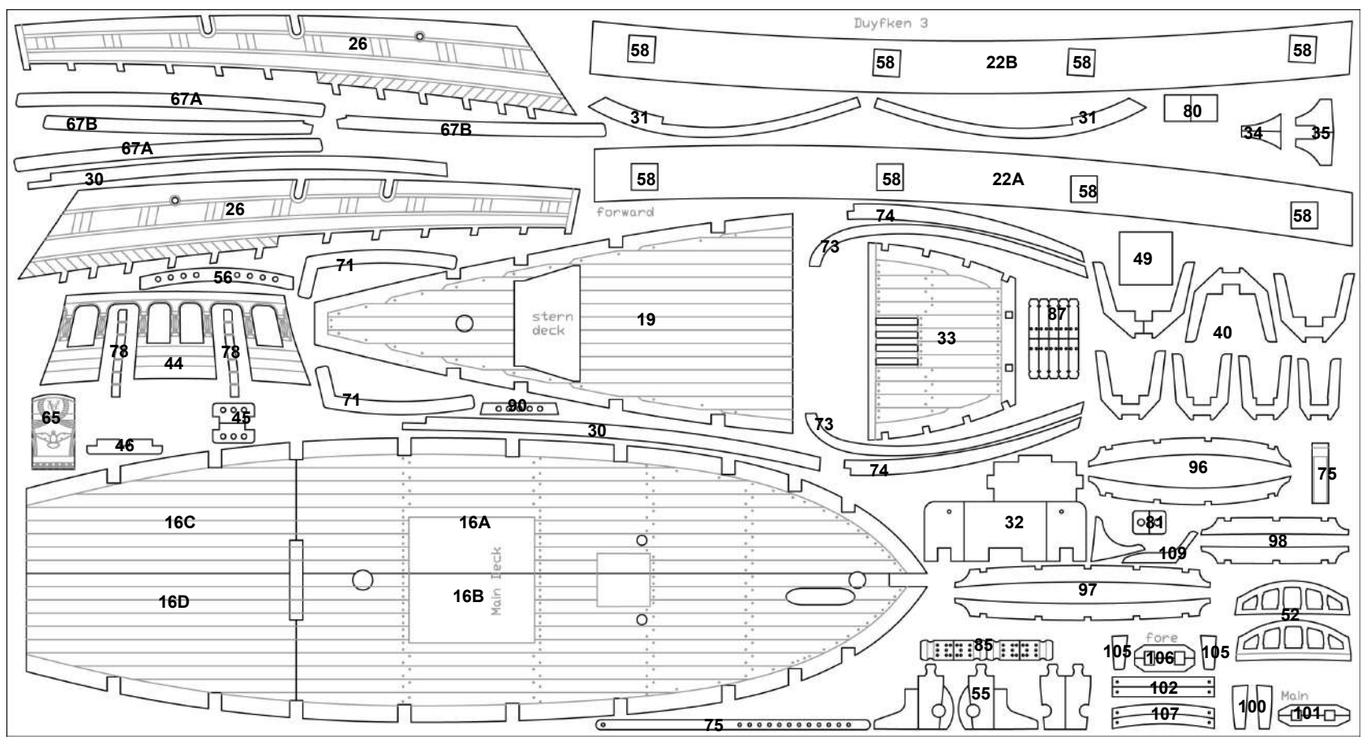
Part No	Description	Quantity	Location
1—11	Bulkhead Frames	11	4mm Plywood
12	Keel	1	4mm Plywood
13	Poop Deck Support	1	4mm Plywood
14	Rear Main Deck Supports	2	4mm Plywood
15A-E	Bow Filler Blocks	12	4mm Plywood
16A-D	Main Deck	4	1.5mm Plywood
17	Bow Post Filler Blocks	2	4mm Plywood
18	BH1 Planking Blocks	2	4mm Plywood
19	Poop Deck	1	1.5mm Plywood
20A-C	Transom pieces	3	4mm Plywood
21	BH9 Planking Blocks	2	4mm Plywood
22A/B	Bulwarks	2	1.5mm Plywood
23A-D	Display Cradle	4	4mm Plywood
24	1x4x400mm Limewood	50	Timber Stock
25	1x4x200mm Limewood	25	Timber Stock
26	Side Panels	2	1.5mm Plywood
27	0.6x4x400mm Silver Ash	8	Timber Stock
28	0.6x4x400mm Tanganika	60	Timber Stock
29	0.6x4x200mm Tanganika	30	Timber Stock
30	Cap Rail - Main Deck	2	1.5mm Plywood
31	Cap Rail - Bow	2	1.5mm Plywood
32A-D	Stove	4	1.5mm Plywood
33	Forecastle Deck	1	1.5mm plywood
34	Forecastle Fillet - Rear	2	1.5mm Plywood
35	Forecastle Fillet - Fore	2	1.5mm Plywood
36	Keel - False	1	4mm Plywood
37A/B	Stem Post	2	4mm Plywood
38	Stern Post	1	4mm Plywood
39	Rudder	1	4mm Plywood
40A-G	Head Timbers	7	1.5mm plywood
41	2x2x400mm Walnut	6	Timber Stock
42	2x4x330mm Walnut	2	Timber Stock
43	1x3x330mm Walnut	1	Timber Stock
44	Doorway Panel	1	1.5mm Plywood
45	1x4x200mm Walnut	1	Timber Stock
45	Pin Rails - Main Deck	2	1.5mm Plywood
46	Shelf	1	1.5mm Plywood
47	Grating	1	Parts Card 3
48	2x3x200mm Walnut	1	Timber Stock
49	Hatch Cover	1	1.5mm Plywood
50	Rudder Hinges	4	Parts Card 3

Part No	Description	Quantity	Location
51	Nails - Brass	Pkt	Parts Card 2
52	Helmsman's Window	2	1.5mm Plywood
53	1x1x200mm Walnut	6	Timber Stock
54	Stem Post Fillet	1	1.5mm Plywood
55A-D	Windlass	8	1.5mm Plywood
56	Windlass Pin Rail	1	1.5mm Plywood
57	Dowel - 8mm dia x 60mm	1	Timber Stock
58	Gun Port Lids	8	1.5mm Plywood
59	0.5x3x150mm walnut	1	Timber Stock
60	Deck Cannon	4	Parts Card 2
61	Eye Pins	Pkt	Parts Card 2
62	Block A - 3mm 1 hole	16	Parts Card 2
63	VOC Duyfken Decoration	1	Decoration Sheet
64	Pawl Bitt	1	4mm Plywood
65	Transom Decoration	1	1.5mm Plywood
66	3x3x20mm limewood	1	Timber Stock
67	Poop Deck Cap Rails	4	1.5mm Plywood
68	Brass Wire - 1mm x 100mm	1	Parts Card 2
69	Rings - 3mm	2	Parts Card 2
70	1x2x250mm Limewood	2	Timber Stock
71	Forecastle Cap Rails	2	1.5mm Plywood
72	Bitt Heads	2	Parts Card 3
73	Upper Head Rails	2	1.5mm Plywood
74	Lower Head Rails	2	1.5mm Plywood
75	Bowsprit Plate	1	1.5mm Plywood
76	Bumpkin	1	1.5mm Plywood
77	Lower Head Rail Decoration	1	Decoration Sheet
78	Ladder Stringers	2	1.5mm plywood
79	Chaser Cannons`	2	Parts Card 2
80	Chaser Gunport Lids	2	1.5mm Plywood
81	Hawse Plate	2	1.5mm Plywood
82	Culverins	2	Parts Card 2
83	Figurehead - Lion	1	Parts Card 2
84	Hawse Pipes	2	Parts Card 3
85	Knightheads	4	1.5mm Plywood
86	Knighthead Cleats	2	Parts Card 3
87	Bittheads	10	1.5mm Plywood
88	Head Decorations	2	Parts Card 2
89	Stern Columns	2	Parts Card 2
90	Bowsprit Pin Rail	1	1.5mm plywood
91	Kevel Cleats	2	Parts Card 3

Part No	Description	Quantity	Location
92	Anchors	2	Parts Card 3
93	Anchor Rope - 1.75 x 500mm	1	Parts Card 1
94	Mast Heel - Main	1	4mm Plywood
95	Mast Heel - Mizzen	1	4mm Plywood
96	Channel - Foremast	2	1.5mm Plywood
97	Channel - Main Mast	2	1.5mm Plywood
98	Channel - Mizzen Mast	2	1.5mm Plywood
99	Dowel - 6mm dia x 250mm	1	Timber Stock
100	Mast Cheek - Main Mast	2	1.5mm Plywood
101	Main Mast Trestle Tree	2	1.5mm Plywood
102	Main Mast Cross Tree	2	1.5mm Plywood
103A	Dowel - 4mm dia x 200mm	2	Timber Stock
103B	Dowel - 4mm dia x 330mm	1	Timber Stock
103C	Dowel - 4mm dia x 130mm	1	Timber Stock
104A	Dowel - 5mm dia x 250mm	1	Timber Stock
104B	Dowel - 5mm dia x 200mm	2	Timber Stock
105	Mast Cheek - Foremast	2	1.5mm Plywood
106	Foremast Trestle Tree	2	1.5mm Plywood
107	Foremast Cross Tree	2	1.5mm Plywood
108	Dowel - 3mm dia x 400mm	1	Timber Stock
109	Knee - Jack Staff	1	1.5mm Plywood
110	Stern Lantern	1	Parts Card 3
111	Block B - 4mm 1 hole	24	Parts Card 2
112	Block C - 5mm 1 hole	22	Parts Card 2
113	Block D - 5mm 2 hole	16	Parts Card 2
114	Block E - 5mm 3 hole	4	Parts Card 2
115	Block F - 7mm 3 hole	2	Parts Card 2
116	Block G - Violin 2hole	4	Parts Card 2
117	Block H - Ramhead 3 hole	2	Parts Card 2
118	Cord J - 0.25mm Fawn	1	Parts Card 1
119	Cord K - 0.5mm Fawn	1	Parts Card 1
120	Cord L - 0.75mm Black	1	Parts Card 1
121	Cord M - 1.0mm Black	1	Parts Card 1
122	Brass Wire 0.5mm x 1500 mm	1	Parts Card 2
123	Deadeye - Triangular	64	Parts Card 2
124	Parrels	Pkt	Parts Card 3
125	Belaying Pins	19	Parts Card 3
126A-E	Flags	5	Decoration Sheet
127	Name Plate	1	Decoration Sheet

DUYFKEN
1606
SHEET 2





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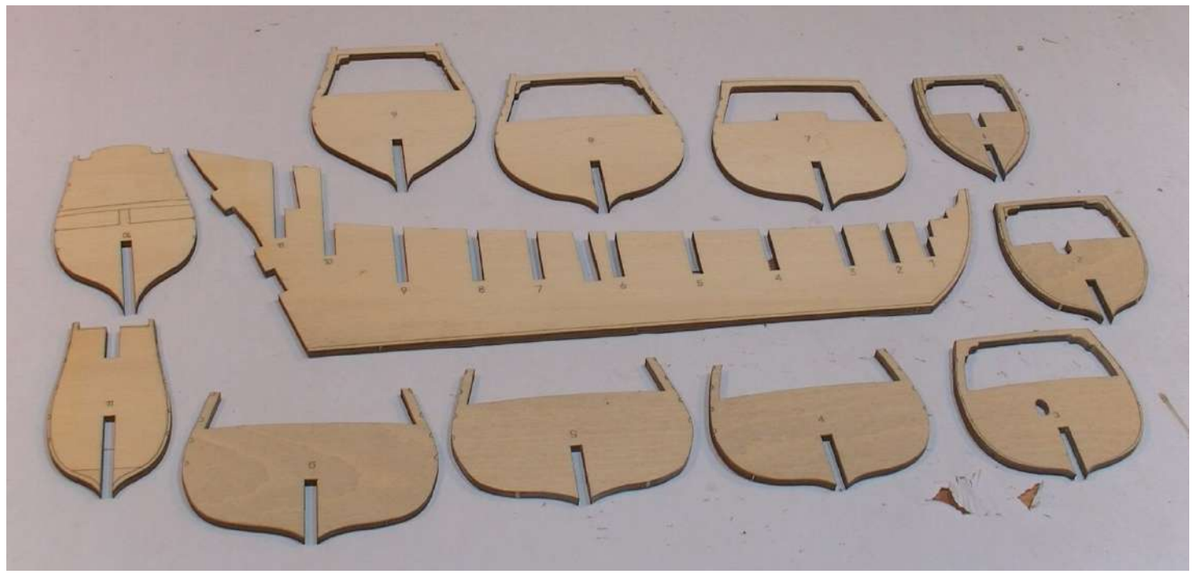
SHEET 3

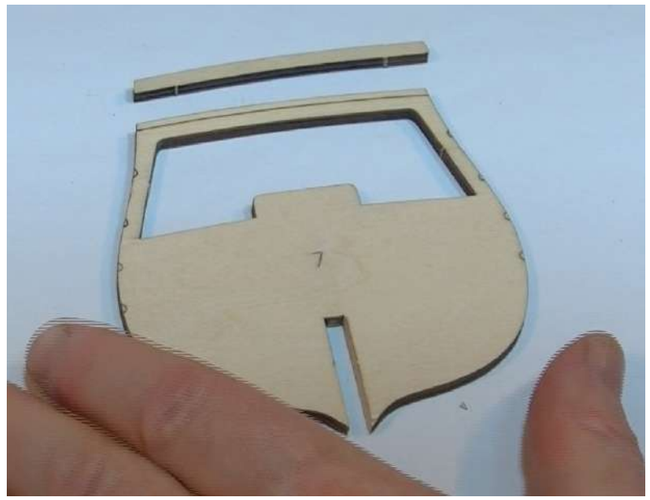
5.0 Hull Construction
5.1 Assemble the Keel & Bulkhead Frames

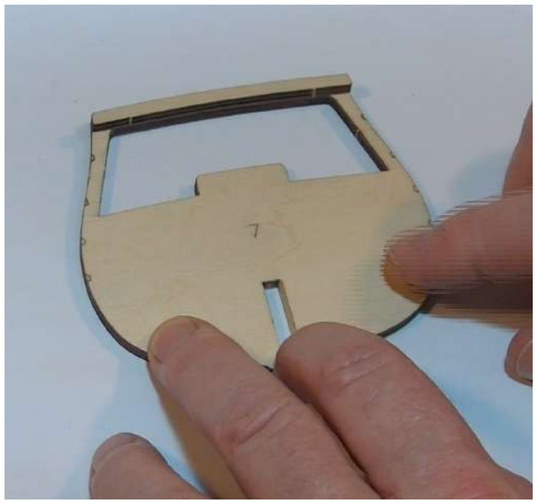
Step 1 On the laser cut sheets in your kit use a pencil to mark the relevant numbers on each piece before removing them from the sheet. Remove the keel and bulkhead frames from the 4mm plywood board. Use a snap blade knife to carefully cut through the tabs holding the parts to the main sheet.



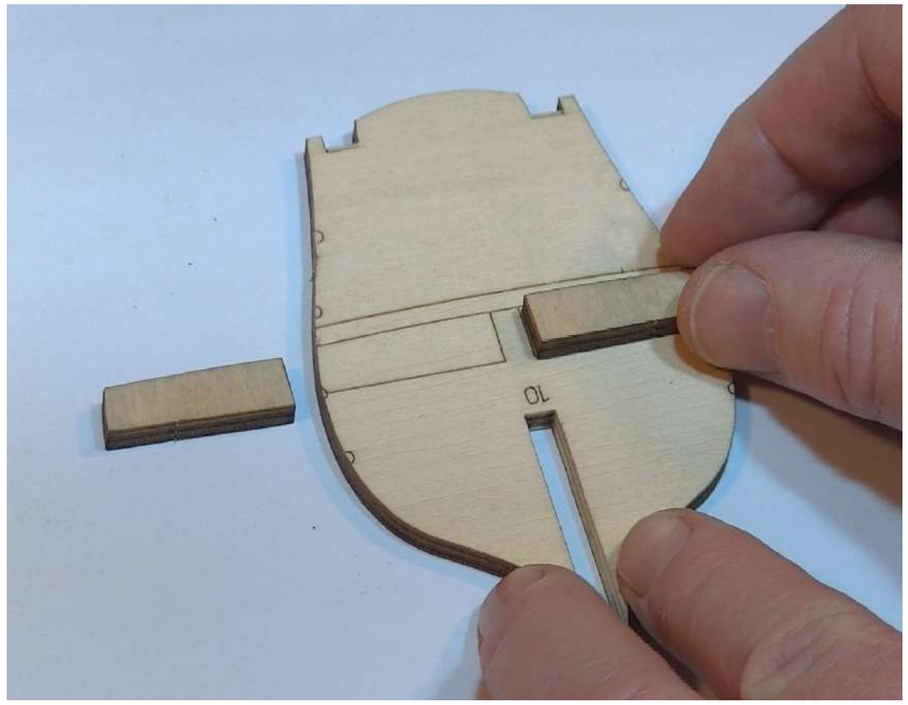
Step 2 Dry fit the bulkhead frames into the keel slots. **Note: Bulkhead frame 11 is fitted with the number and score lines facing the rear.** Do not glue anything at this stage. Do not force the bulkhead frame into the keel slot. You may need to use a small flat file to fractionally open the slot in both the keel and bulkhead frame. The fit should be firm but no loose. Do not glue anything at this stage.

Step 3 Identify the poop deck support P13 - fit and glue the part in place below the score line on bulkhead 7 as shown.





Step 4 Identify the rear main deck supports 14 - fit and glue the part in place between the score lines on bulkhead 10 as shown.



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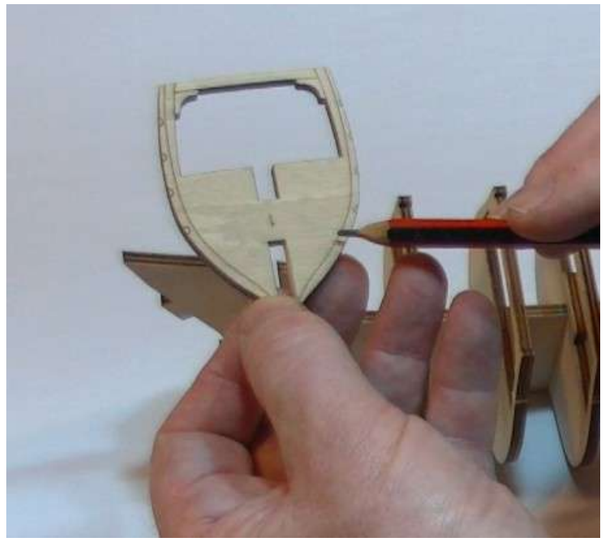
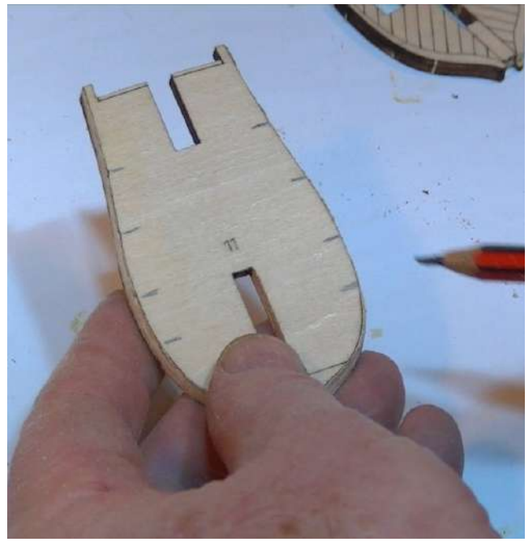
1606
SHEET 4

5.2 Fairing & Preparing the Frames

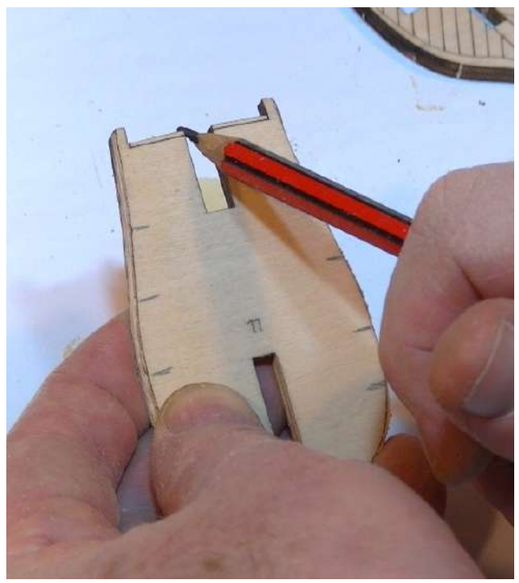
"Fairing" the frames is a very important part of the preparation for planking the hull. The principle of "fairing" the frames is to ensure the planks lay flat on the edge of each frame to ensure a good glue bond is established between each plank and the frame of the model and to ensure that when planked, 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. Follow the steps presented below - **do not glue any parts in place until instructed to do so.**

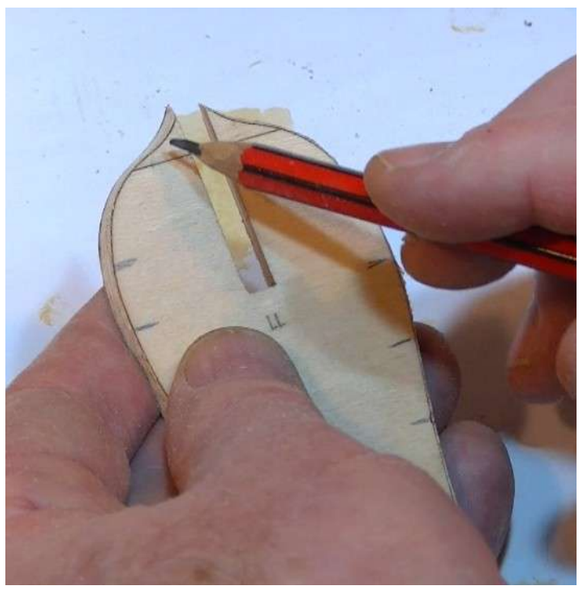
Step 1 This model is designed for the initial fairing process to be performed **off** the model before gluing any bulkheads in place. Inspect the bulkheads - you will find bulkheads 1, 2, 3 & 11 have a laser score mark along their edges—these are the **fairing lines**. With these bulkheads **off** the model use a flat file to file from the score lines to the back edge of the relevant bulkhead. This design ensures greater accuracy as the fairing is symmetrical and speeds-up the fairing process.





Step 2 On bulkhead 11 file the top edge from the score line to the other face edge as shown. Also on this bulkhead at its lower edge file from the score lines to the other face edge as shown.





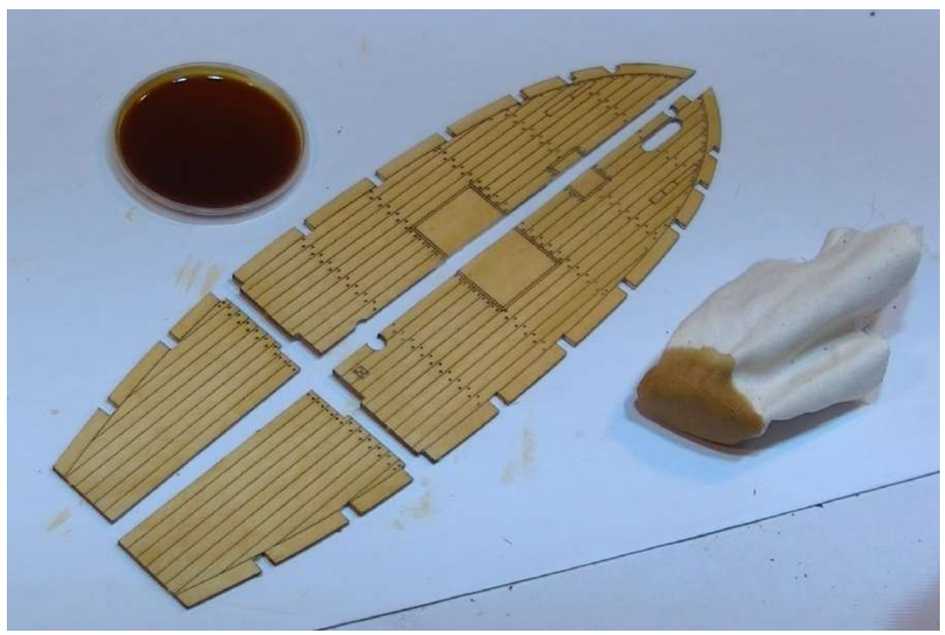
Step 3 Identify the bow filler blocks P15A-F. Fair each of these parts from the score line to the other edge as shown.

Step 4 Glue bow blocks 15A1 &15A2 to the rear side of bulkhead 1 as shown. Note the block with the bowsprit slot fits on the starboard side of bulkhead 1. Once glue has set use a round file to extend the bowsprit slot through bulkhead 1 as shown.

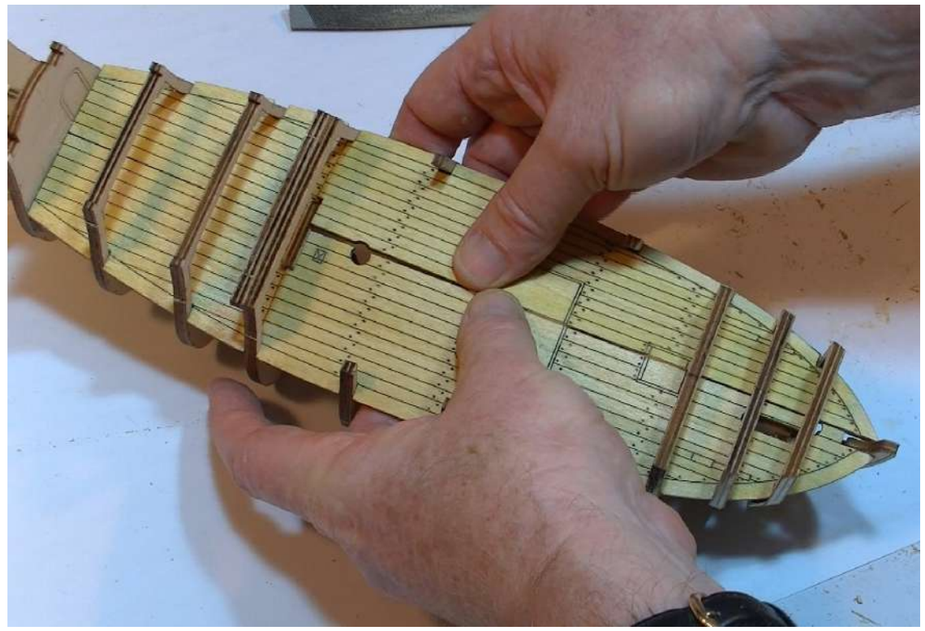
DUYFKEN
1606
SHEET 5

Step 5 Trial assemble and then glue together the bow blocks 15C-F as shown. Set the glued bow blocks aside to be fixed in place later.

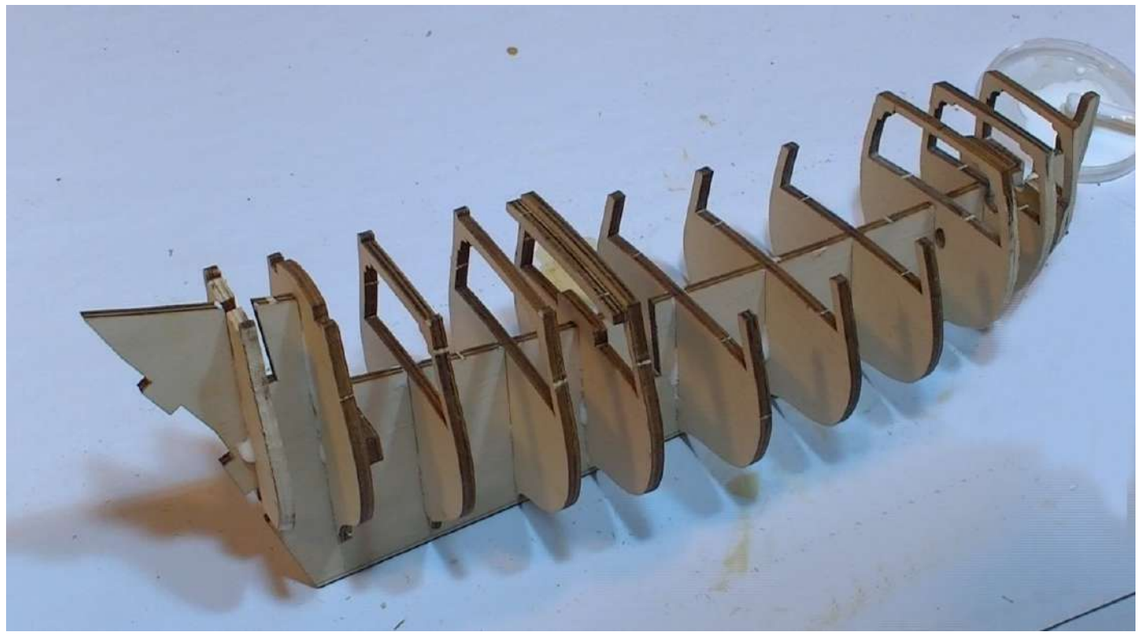
Step 6 Identify the main deck pieces 16A-D - apply a few coats of shellac to the decks - allow to dry between coats.



Step 7 Once the decks are fully dry trial fit each deck piece in place - fractionally adjust the slots as required. Once satisfied with the fit remove the deck pieces.

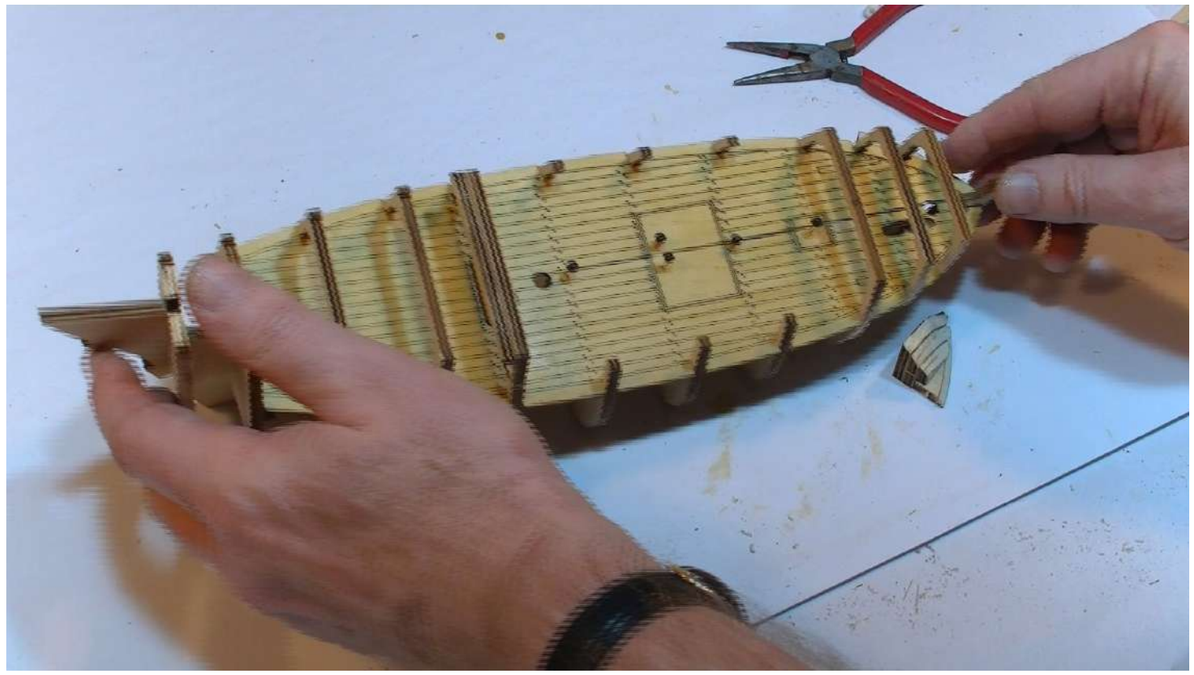


Step 8 Glue the bulkheads in place as shown - remove any excess glue with a cotton bud.

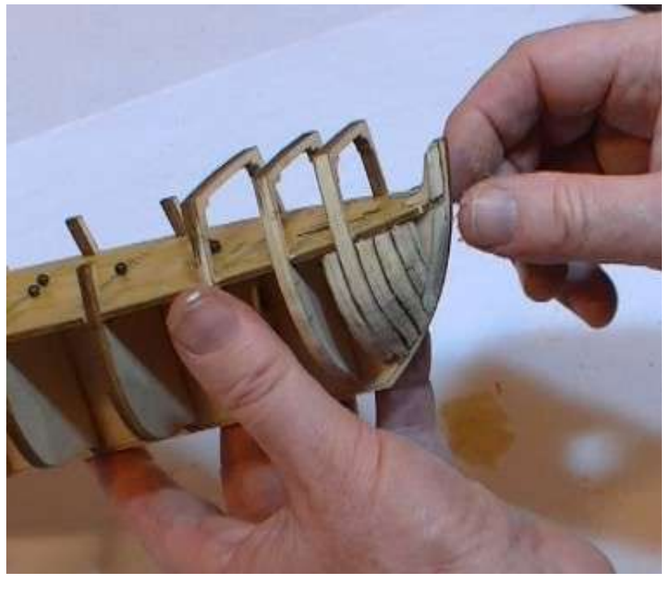


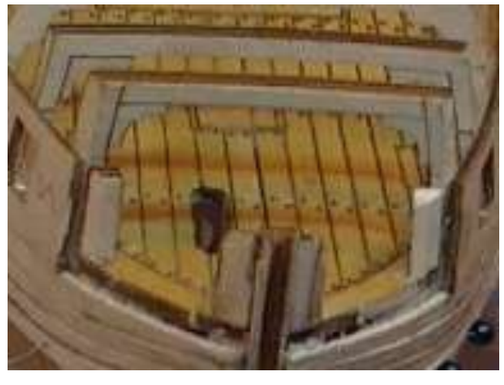
DUYFKEN
1606
SHEET 6

Step 8 Before the bulkhead glue as set apply glue to the top of the bulkheads and keel and fix in place the decks - use map pins to hold the main deck in place until the glue has set - this approach will hold the bulkheads square while the glue sets for the whole assembly. Set aside for 24 hours to allow the glue to fully set.



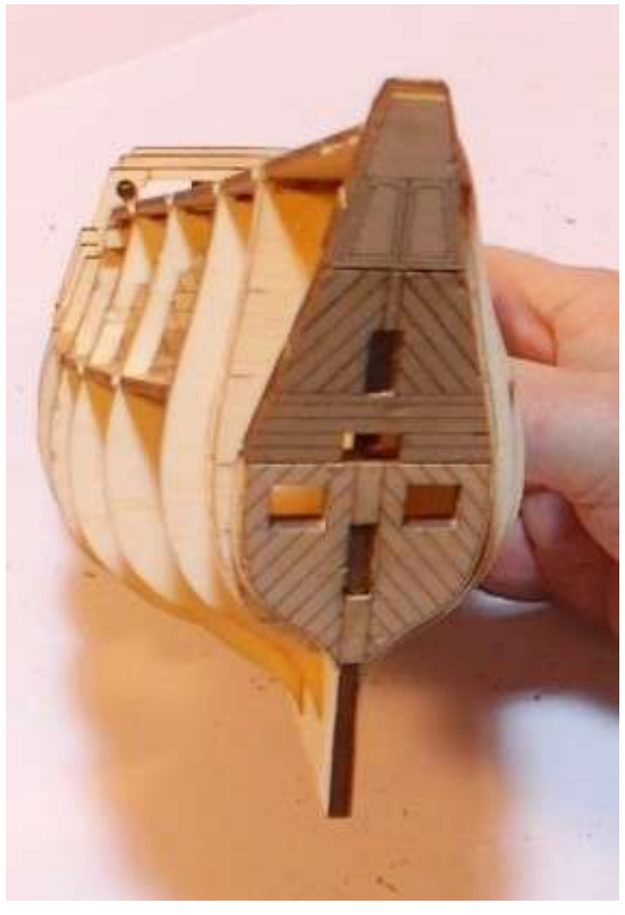
Step 9 Glue the assembled bow blocks in place as shown. Identify the bow post filler blocks P17A/B - fair from the score lines to the other edge then glue in place at the stem post as shown. Identify the BH1 planking blocks P18 - glue in place at the front face of bulkhead 1 as shown.





Step 10 Identify the aft or poop deck P19 - stain with shellac. Once dry glue deck in place as shown.

Step 11 Identify the lower, middle and upper transom pieces P20A-C. Fair the lower transom piece as shown. Once satisfied glue the three transom pieces in place starting from the lower transom.



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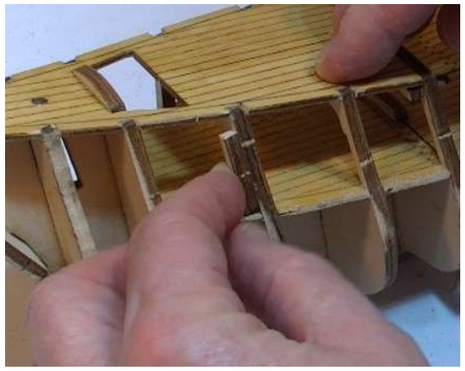
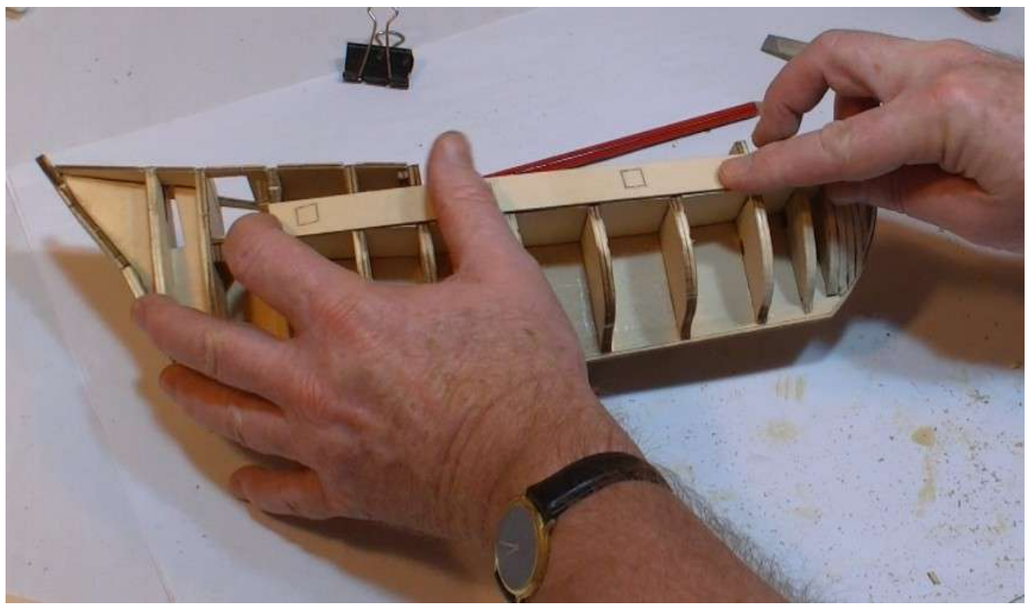
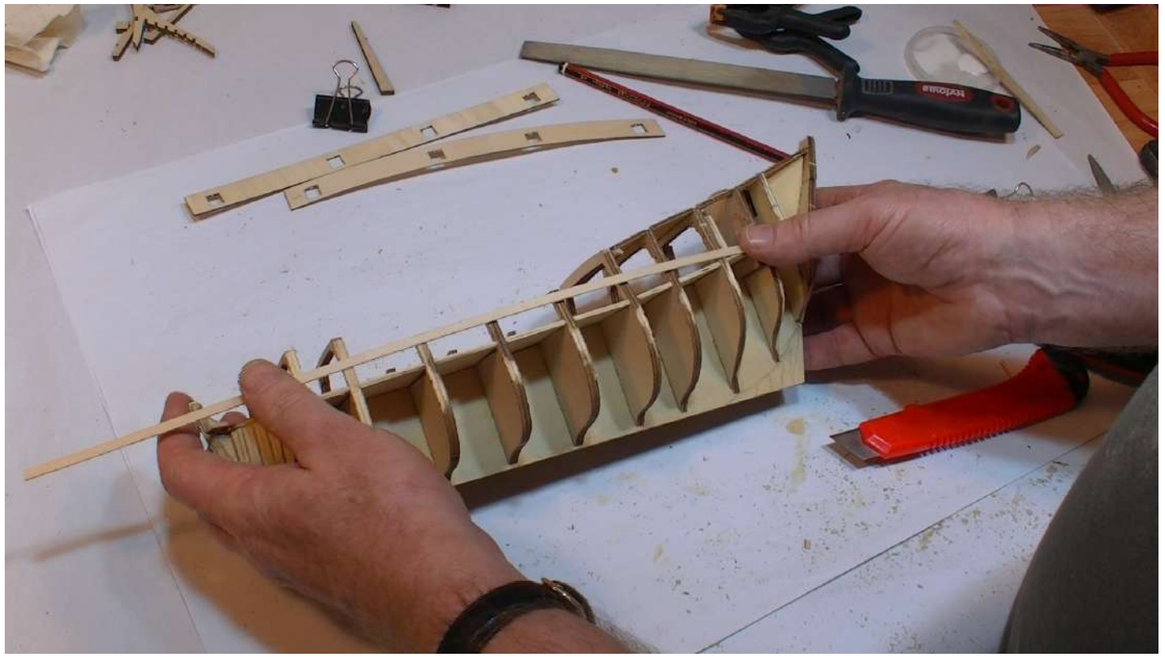
Step 12 Identify BH9 planking blocks P21. Fit behind bulkhead 9 and between the rear main deck and the underside of the poop deck. Glue in place as shown.



Step 13 Identify the bulwarks P22A-B - note the port & starboard sides and the forward location - remove the gunport lids P23 and safely place away for use later. Trial fit the bulwarks in place. Fair the bulkhead frames and deck edge to accommodate the bulwarks. Fractionally adjust as necessary.



Step 14 Fairing - complete the fairing process by using a plank to check across the bulkheads to ensure where the plank rests on the bulkhead it will be full face on to the bulkhead. Fractionally adjust using a flat file where there are edges. Continually check and adjust as necessary.



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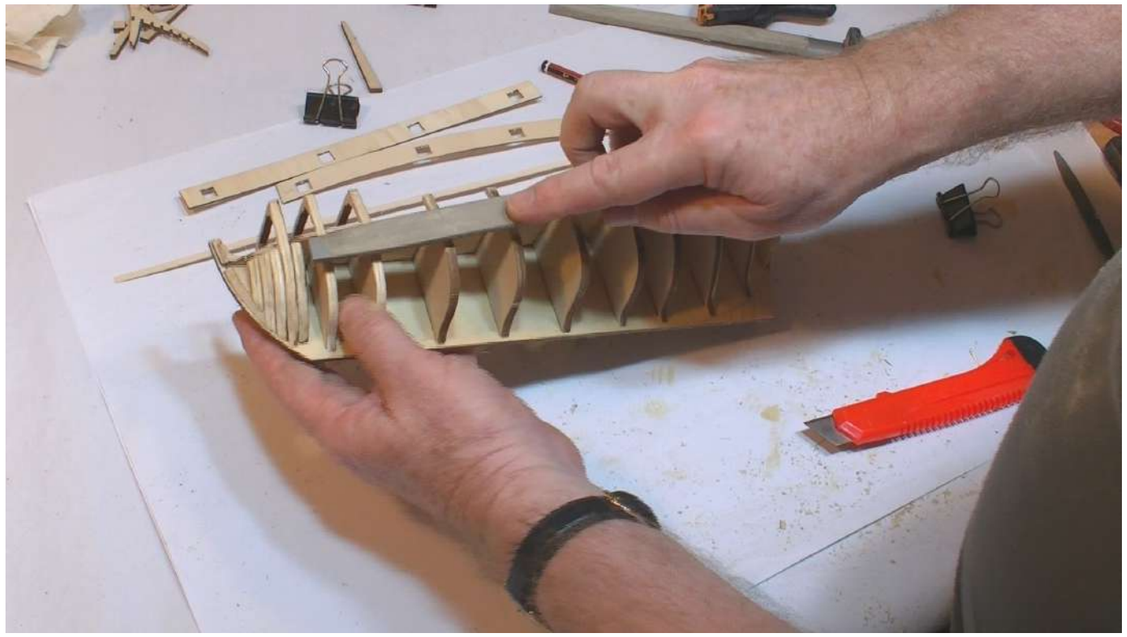
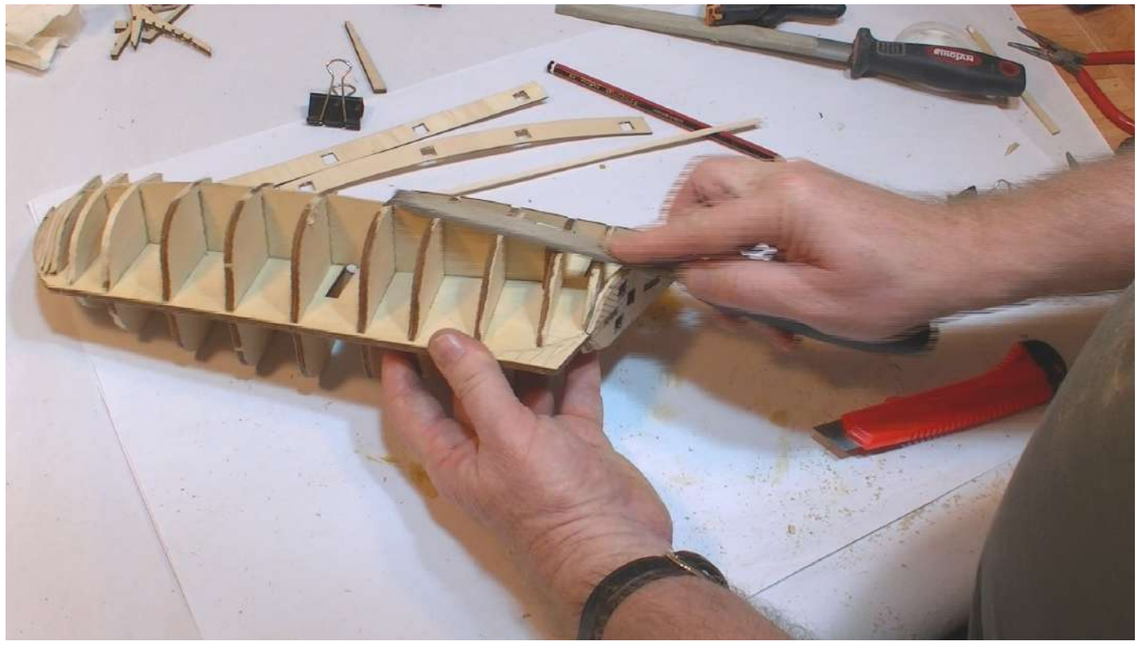
1606
SHEET 8

Step 14 continued





Step 15 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.

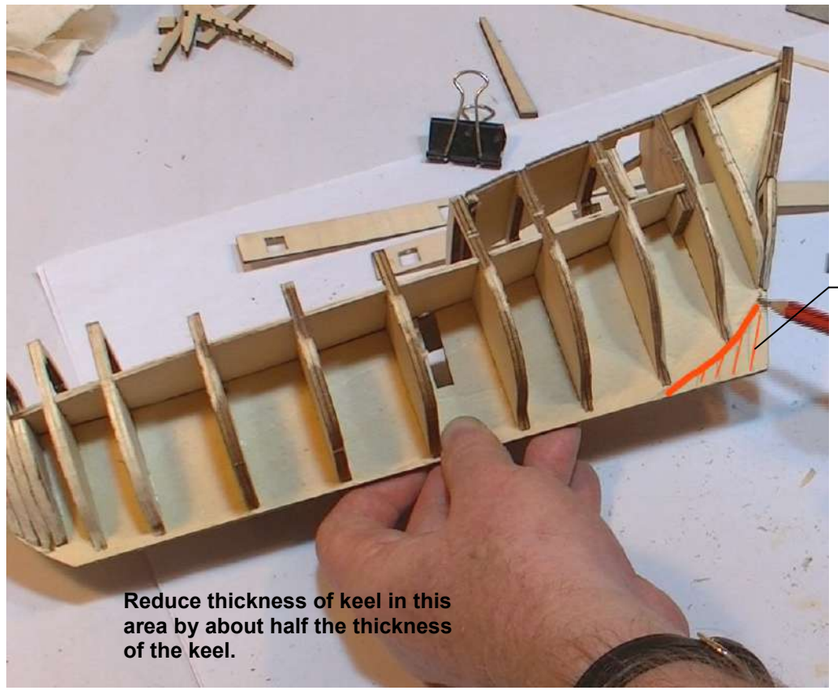
The stern post and rudder however will only be planked with the second layer of planking. So when the stern post and rudder are eventually fitted you need to ensure there is a consistent thickness between stern post, rudder and the stern area of the keel.

The keel, stern post & rudder are all 4mm plywood. The keel, stern post and rudder will be planked with 0.6x4mm tanganika. However the keel in the deadwood area will be planked with the first layer of planking - 1mm thick (on each side) and then planked with the second layer of planking - 0.6mm thick on each side. 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.

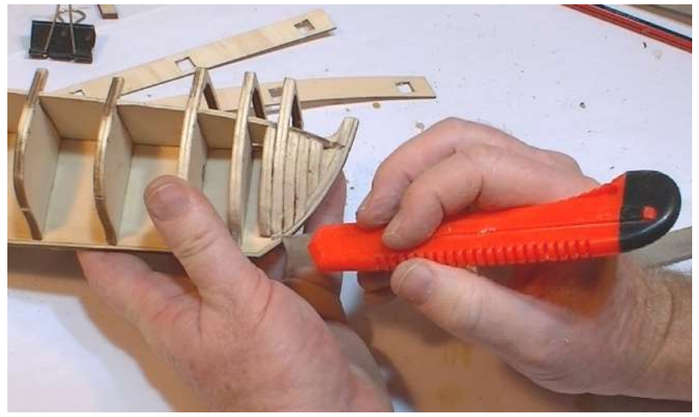
To achieve this you will need to take two steps.
Step 1. Before fitting the first layer of planking reduce the thickness of the keel in the deadwood area by approximately 1mm on each side— i.e. reduce the keel thickness by about half in the deadwood area.
Step 2. Once the **first layer of planking** has been fitted then reduce the thickness of this planking by approximately 0.5mm 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.

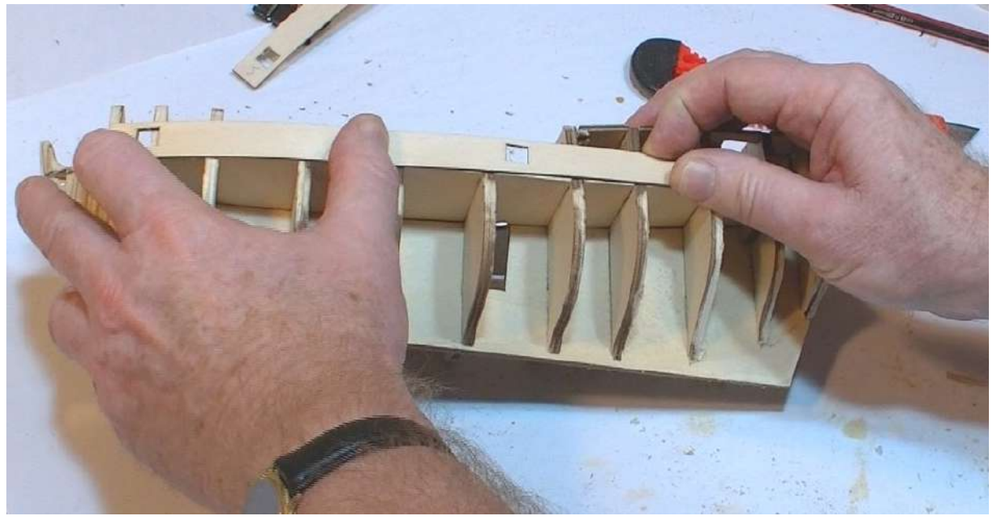


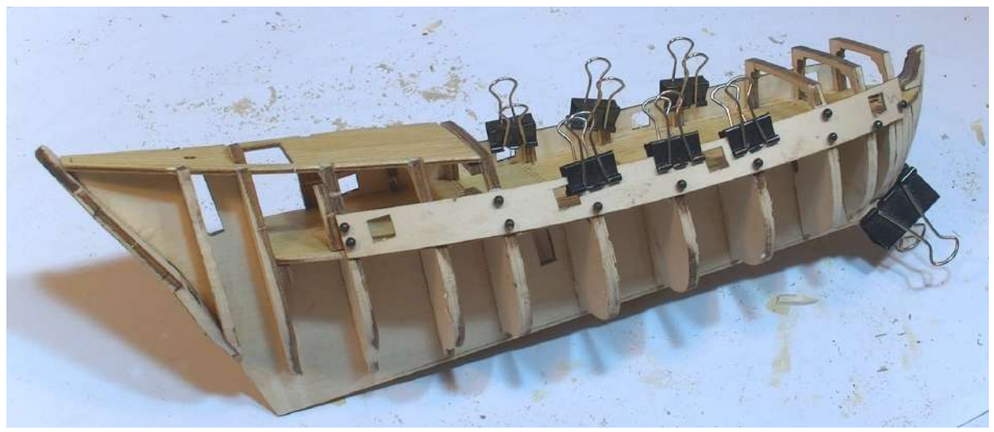
DUYFKEN
1606
SHEET 9

Step 16 At the stem post ensure the bow blocks finish approximately 1mm inside the front edge of the stem post as shown. This will ensure that the first layer of planking will finish flush with the front edge of the stem post.

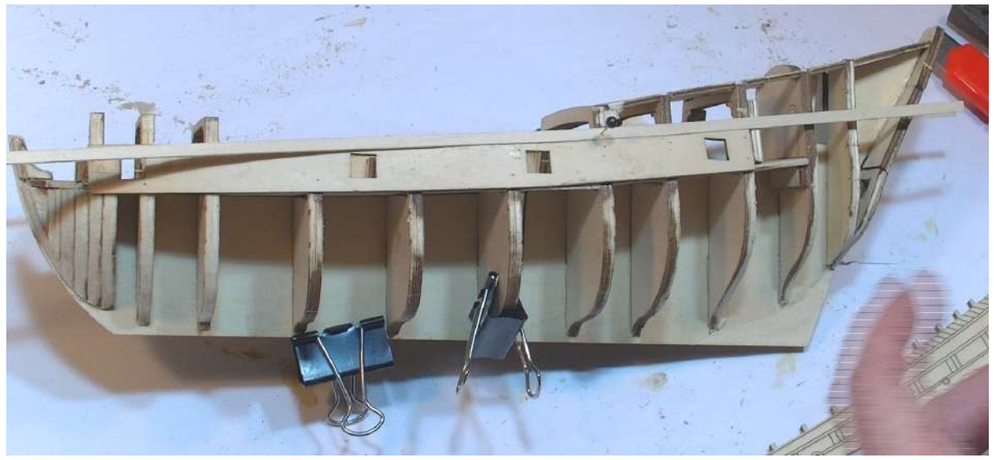


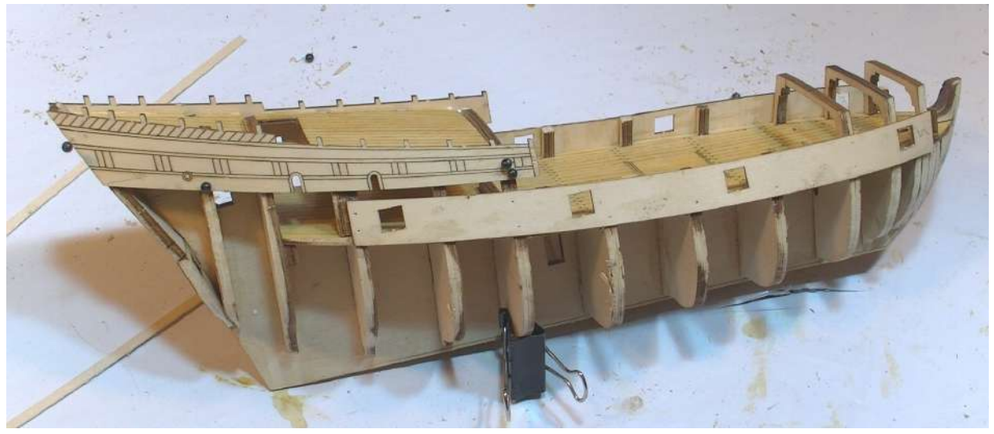
Step 17 Place short lengths of sticky tape over the outside face of the horns on bulkheads 4, 5 & 6 - this will ensure the bulwark is not glued to the horns and will allow for the easy removal of the horns later. Take the bulwarks and trial fit between bulkhead 1 and bulkhead 9. Once satisfied glue, pin and clamp in place a shown.





Step 18 Identify the 1x4mm limewood timber strips P24. Take one length and pin in place at bulkhead 7 immediately above the bulwark. Identify the side panels P26 - trial fit one in place aligning the rear edge with the top of, and at same angle as the transom. The front lower edge of the panel is to lay on the plank as shown - once you are satisfied with the alignment glue and pin the panel in place as shown.

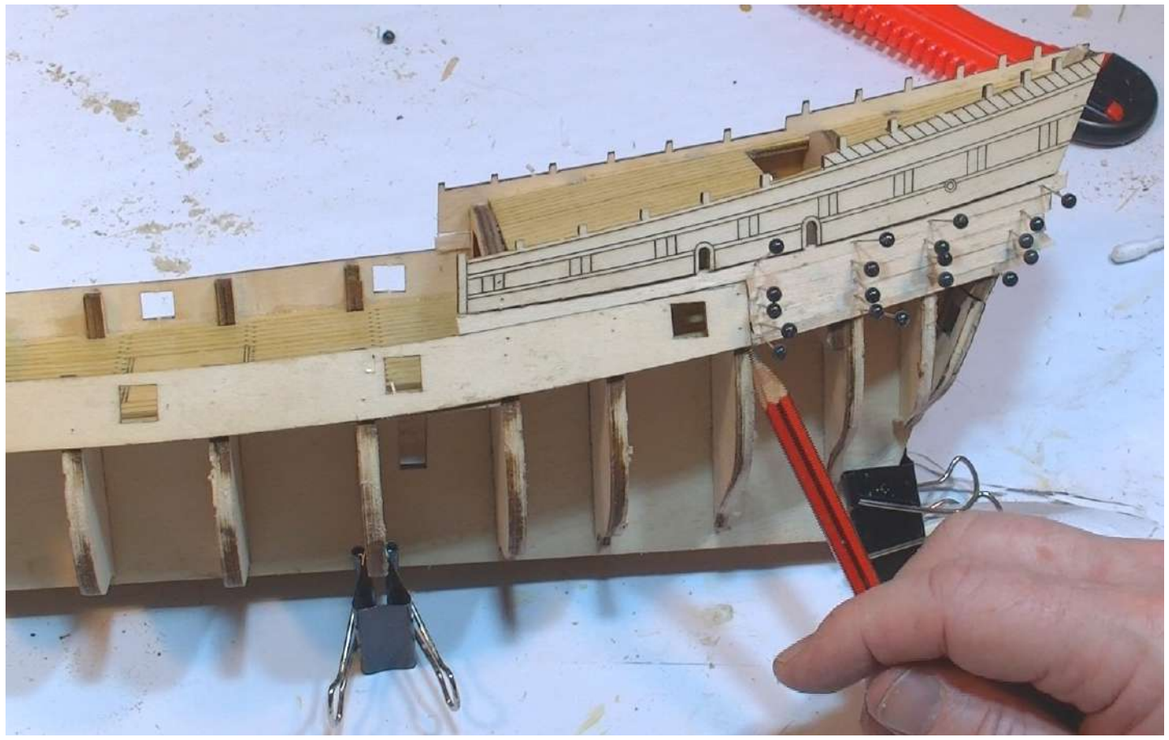




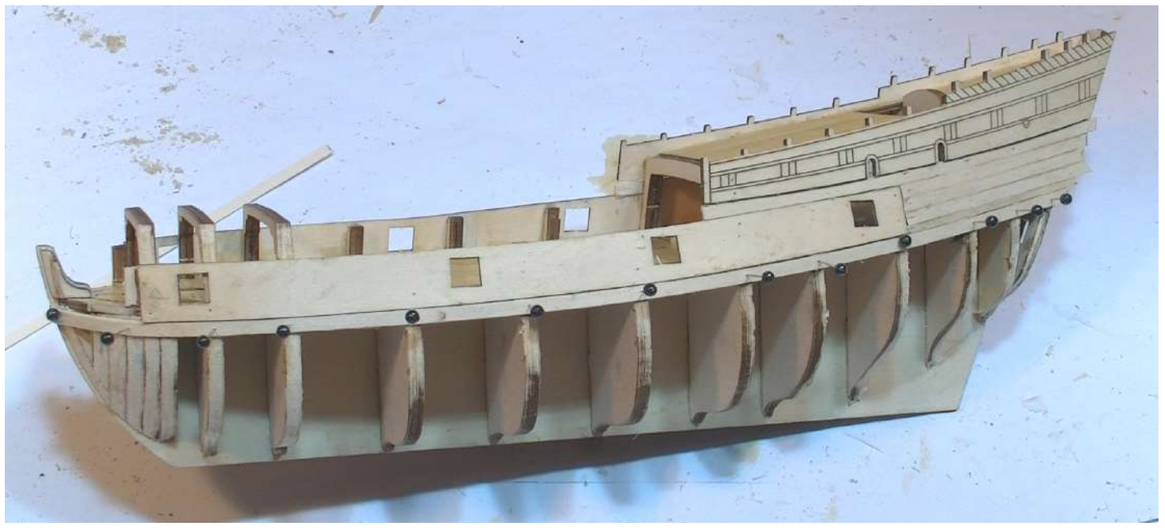
DUYFKEN
1606
SHEET 10

6.0 Hull Planking - First Layer

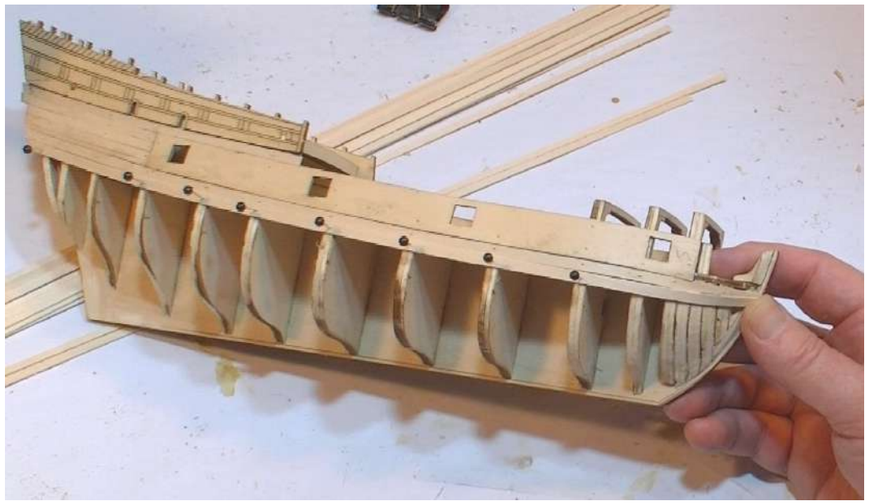
Step 1 Fit and glue in place lengths of 1x4mm limewood P25 to fill-in the gap at the aft section as shown.

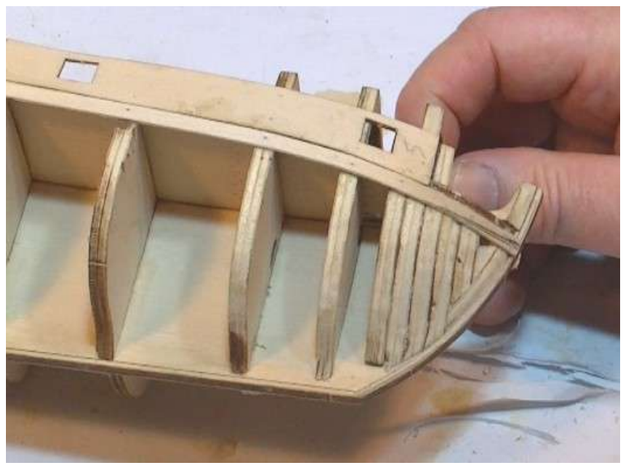


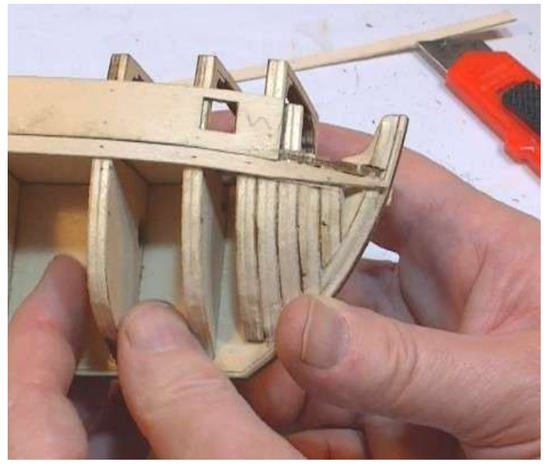
Step 2 Trial fit a length 1x4mm limewood P24 along the full length of the hull immediately below the bulwark and aft planks as shown - this will be the first plank. Do not taper this plank. Use a plank bender to bend the plank to fit around the bow - start bending from about bulkhead 1. Once satisfied with the fit glue and pin the plank in place. Repeat for the other side of the hull. Make sure the two planks fitted are symmetrical at the bow.

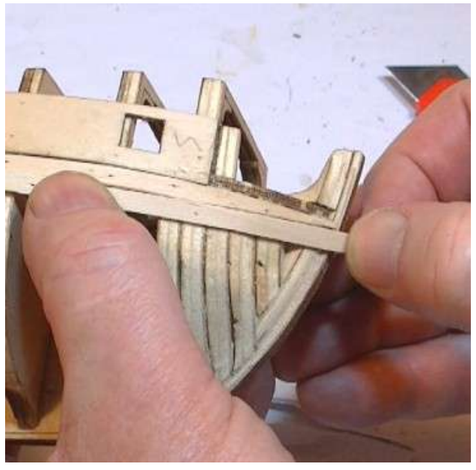


Step 3 Pin a second plank along the hull immediately below the first plank. At the bow you will notice that as the plank starts to curve around the bow it will want to lay over the first plank - use a pencil to mark the area of overlap on the first plank. Remove this second plank and use a sharp blade knife to removed the area of overlap on the first plank. Refit the second plank in place - once satisfied glue and pin in place as shown. Check to make sure the plank end are symmetrical at the bow and stern





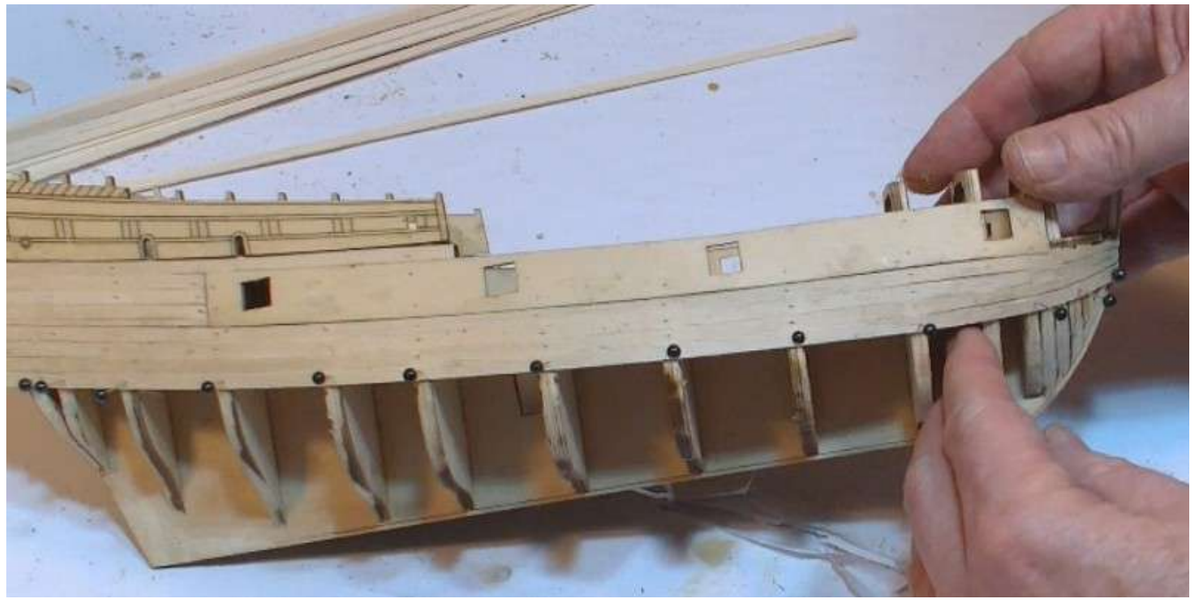


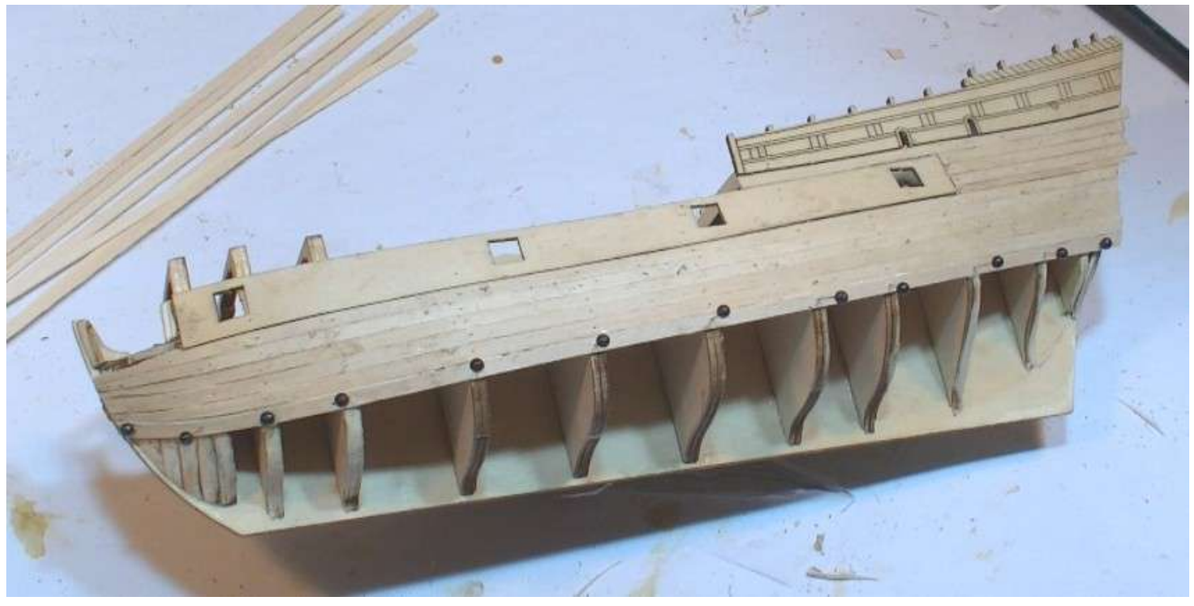


Modellers Shipyard

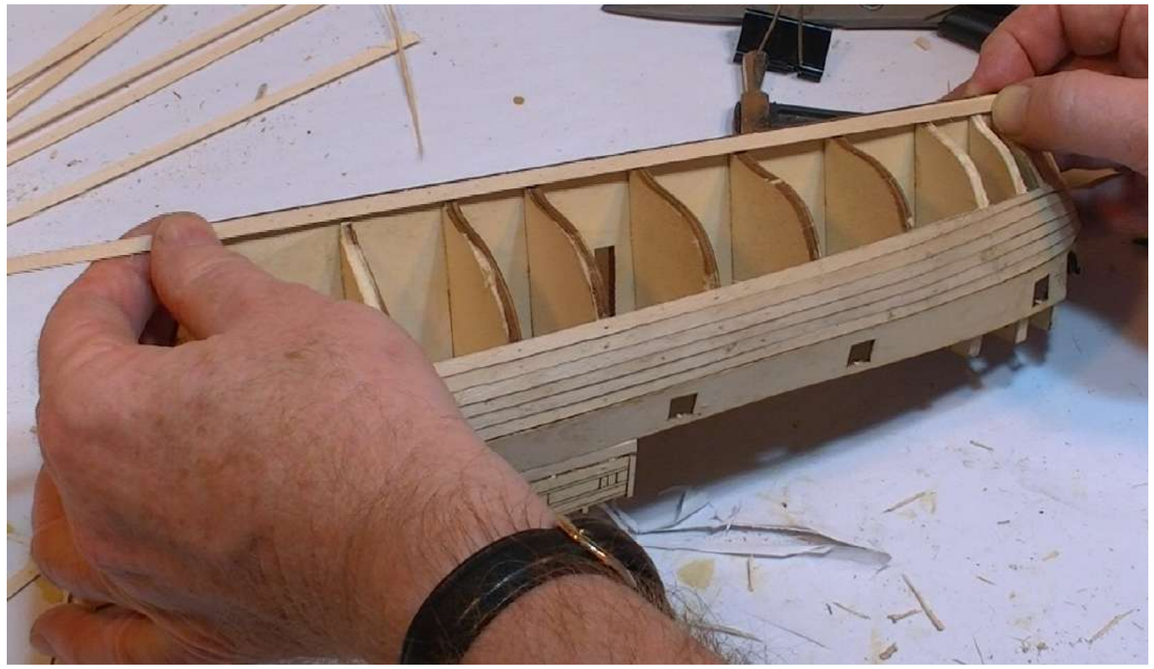
DUYFKEN
1606
SHEET 11

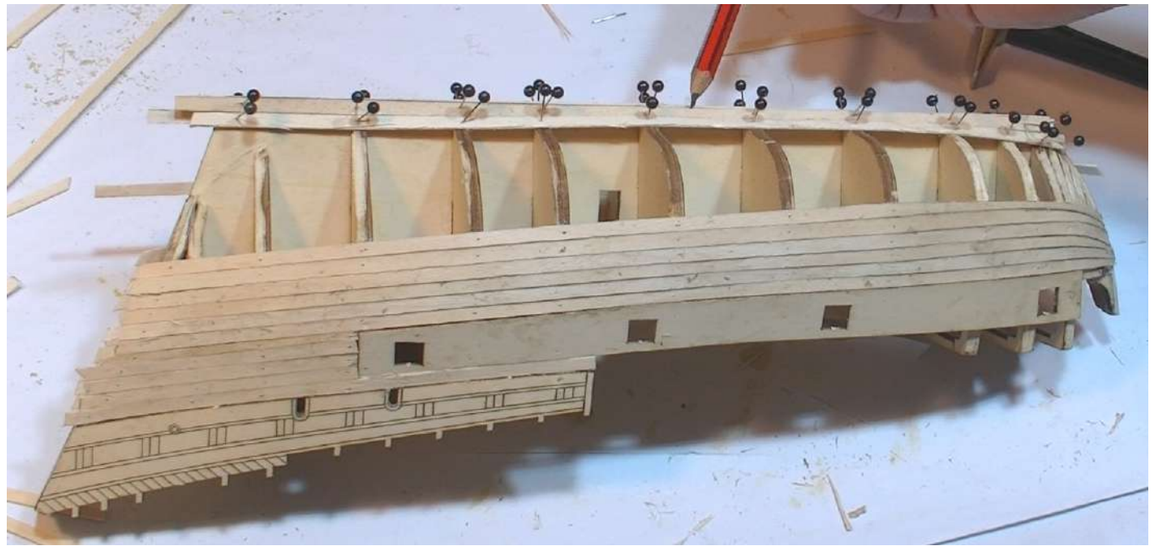
Step 4 Repeat this process and progress until you have placed 6 planks on each side of the hull as show. Continually check to make sure the planks are symmetrical at the bow and stern.





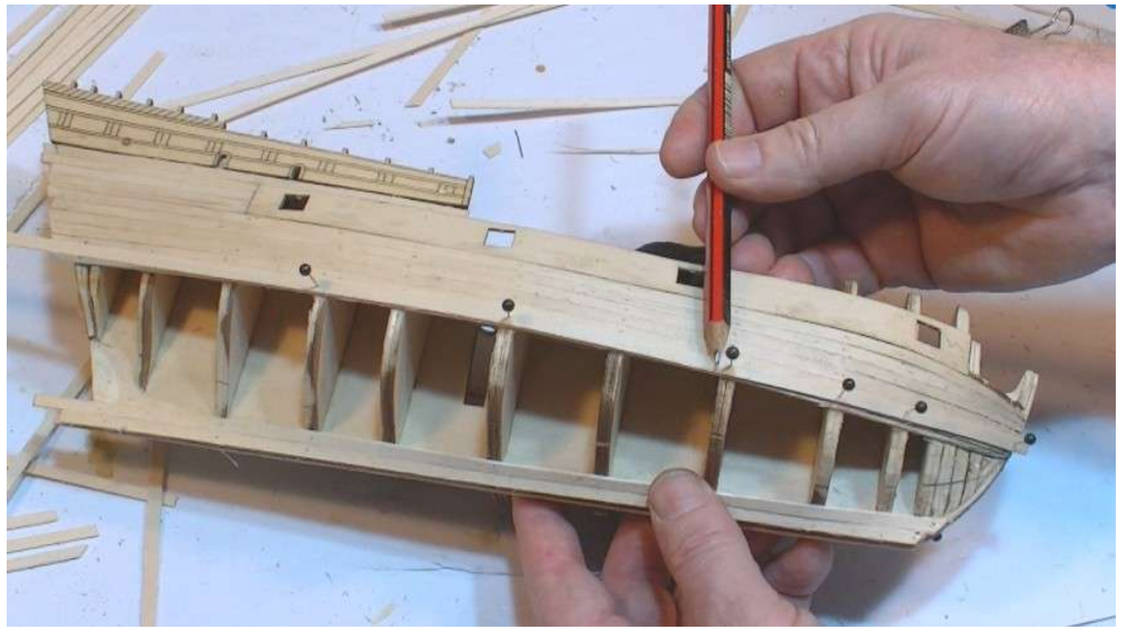
Step 5 Next fit and fix in place the garboard plank - this plank is not tapered. The garboard plank is fitted along the length of the keel as shown - trial fit and once satisfied glue and pin in place. Glue and pin a second plank immediately adjacent to garboard plank as shown.





DUYFKEN
1606
SHEET 12

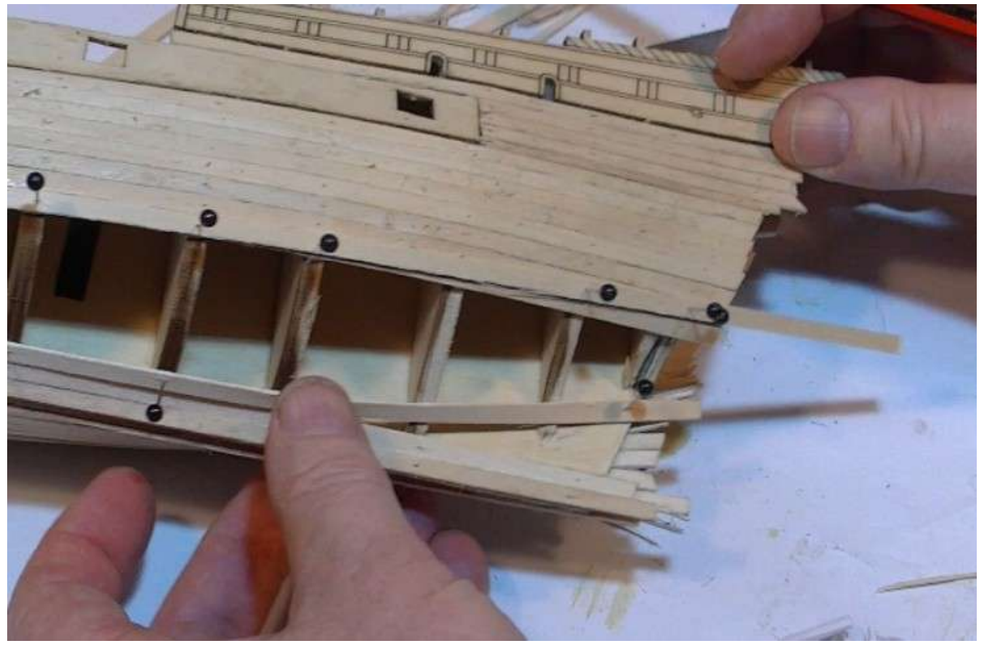
Step 6 Next we need to straighten the run of the planks. Lay a plank over the 6th plank fitted - temporarily pin this plank in place at the mid-ship frames - allow the plank to follow its natural run over the 6th plank at the bow. You will notice a bulge a section of the run of the 6th plank at the bow - this may also occur at the stern run of the plank. Use a pencil to mark the area of the 6th plank that needs to be removed to allow the next plank to run along straight. Remove the temporary plank and use a sharp knife to remove the unwanted area of the 6th plank. Once the unwanted area is removed glue and pin in place a plank along the new straight line as shown - this will become the 7th plank.



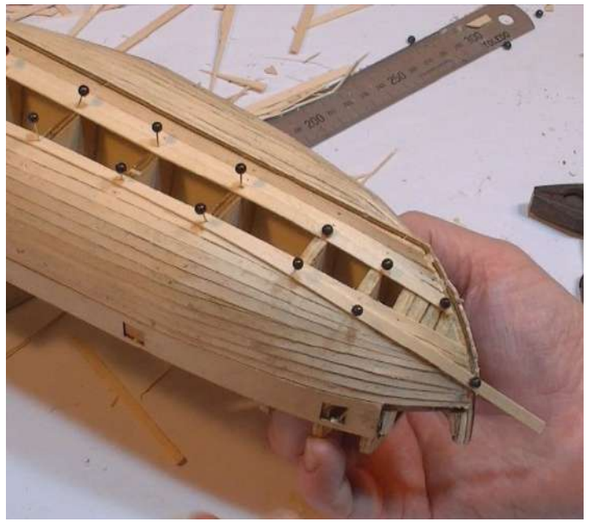
Step 7 Temporarily pin a plank in place across the mid-ship bulkheads 5 to 7 immediately adjacent to the planks at the keel as shown. Pin the plank in place at the junction of bulkhead 11 and the transom base as shown. At the bow pin the plank in place adjacent to the 2nd plank from the keel.

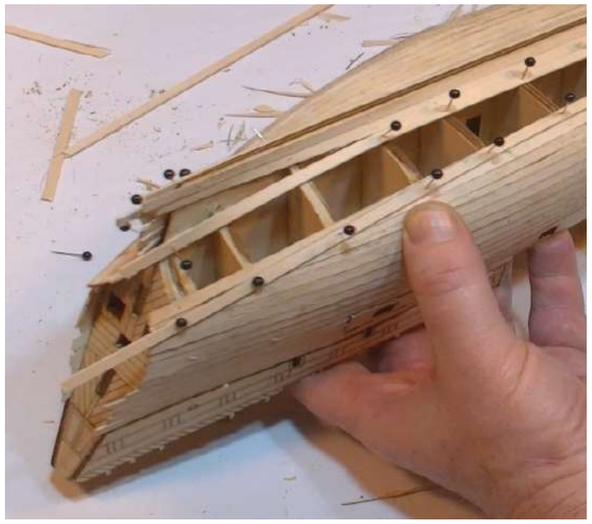
Step 8 Continue the process of straightening the run of the planks presented in Step 6 - lay a temporary plank over the 7th plank and allow the plank to run its natural course along the hull - pin the plank in place at the bow so it overlaps the 7th plank by 2mm as shown. Mark the area of overlap, remove the temporary plank and cut away the unwanted area. Then glue and pin in place the 8th plank.

Step 9 Continue the process of straightening the run of the planks presented in Step 6 - lay a temporary plank over the 8th plank and allow the plank to run its natural course along the hull - pin the plank in place at the bow so it overlaps the 8th plank by 2mm as shown. Mark the area of overlap. At the stern note the plank may also overlap the 8th plank in this area - mark the area of overlap. Remove the temporary plank and cut away the unwanted areas at the bow and stern. Then glue and pin in place the 9th plank.



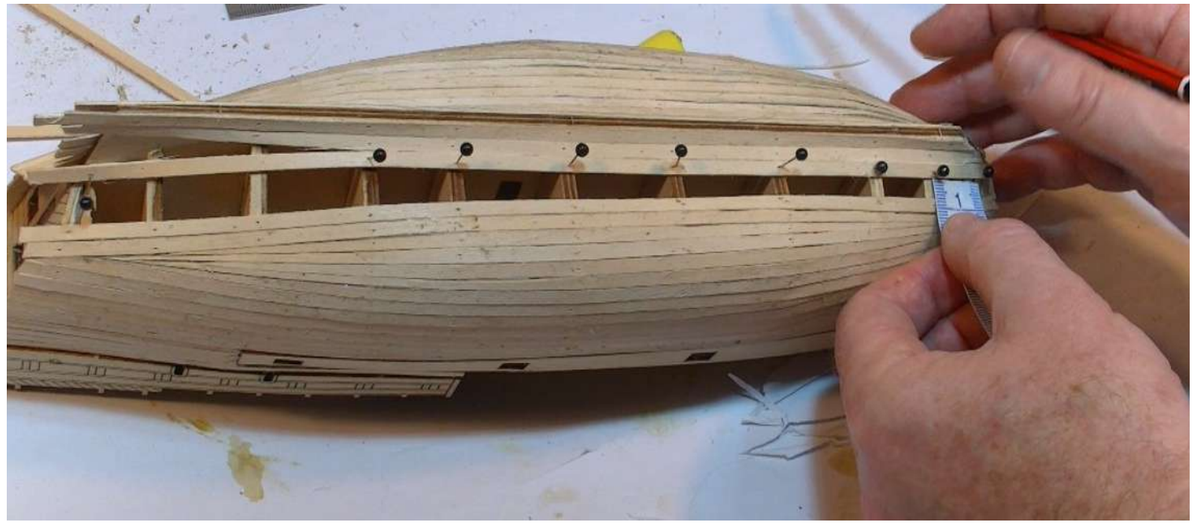
Step 10 Continue the process of straightening the run of the planks previously presented to progressively close the remaining gap.





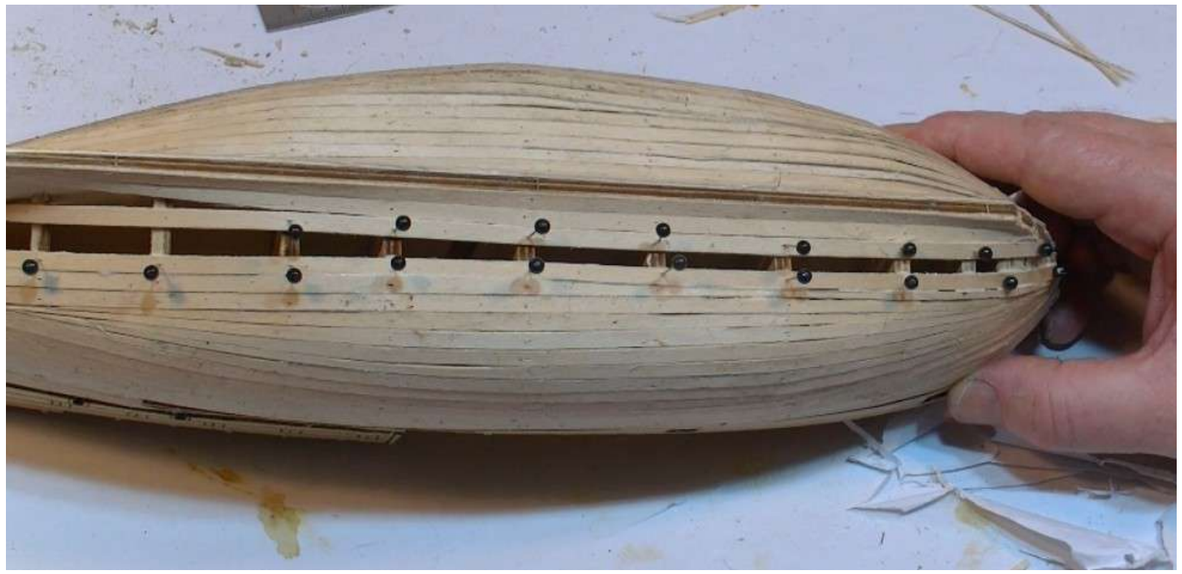
DUYFKEN
1606
SHEET 14

Step 11 You will reach a point where the remaining gap at the mid-ship area is approximately 8mm - 2 plank width. The gap across the fore planks will be less than 8mm while at the stern the gap will be greater that 8mm. Across the fore gap measure 8mm for the temporary 3rd plank from the keel and mark this width at each fore bulkhead on the last plank fitted.

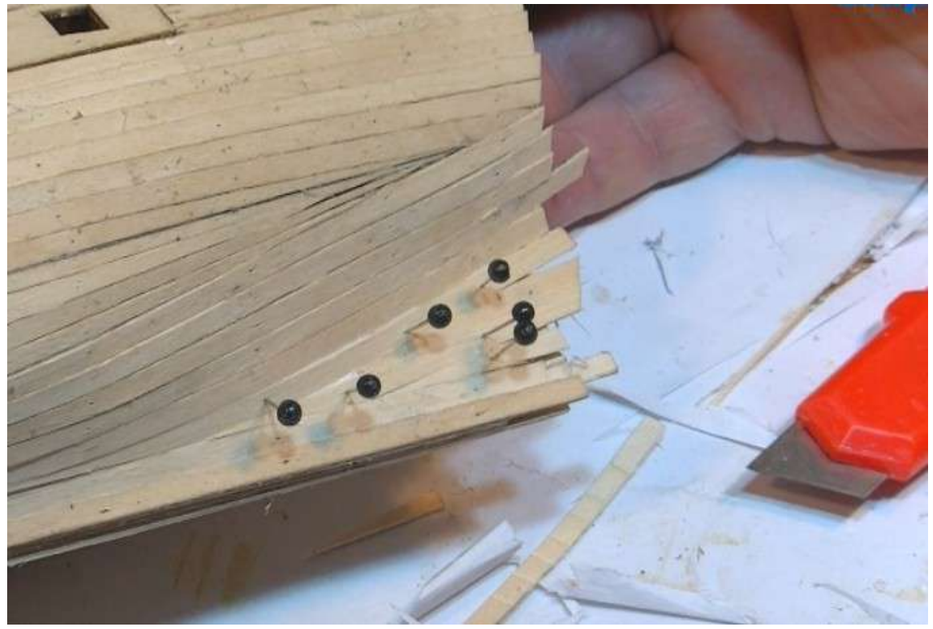


DUYFKEN
1606
SHEET 15

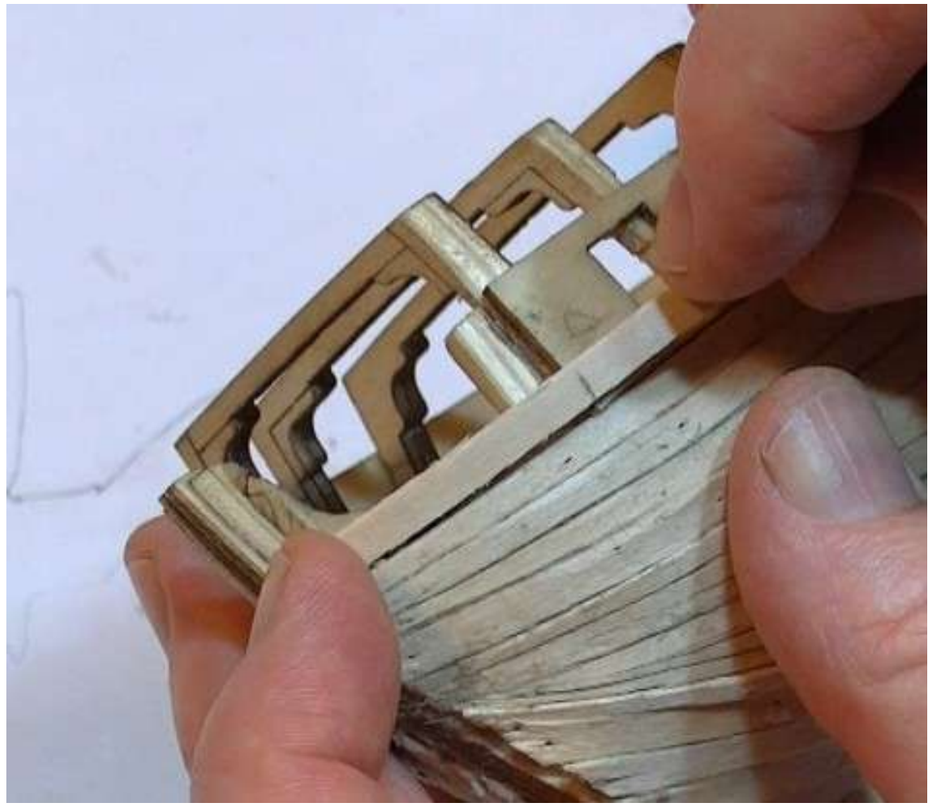
Step 12 Lay a temporary guide plank over the last plank fitted and along these marked 8mm points - pin the plank in position and mark the area of overlap. Cut the area of overlap away. Remove the temporary guide plank. Remove the temporary plank fitted at Step 7 and now glue and pin this plank back in place. Glue and pin two planks in place to fill the remaining gap.



Step 13 Cut triangular wedges to progressively close-up the gap in the deadwood area as shown. Glue and pin wedges in place.

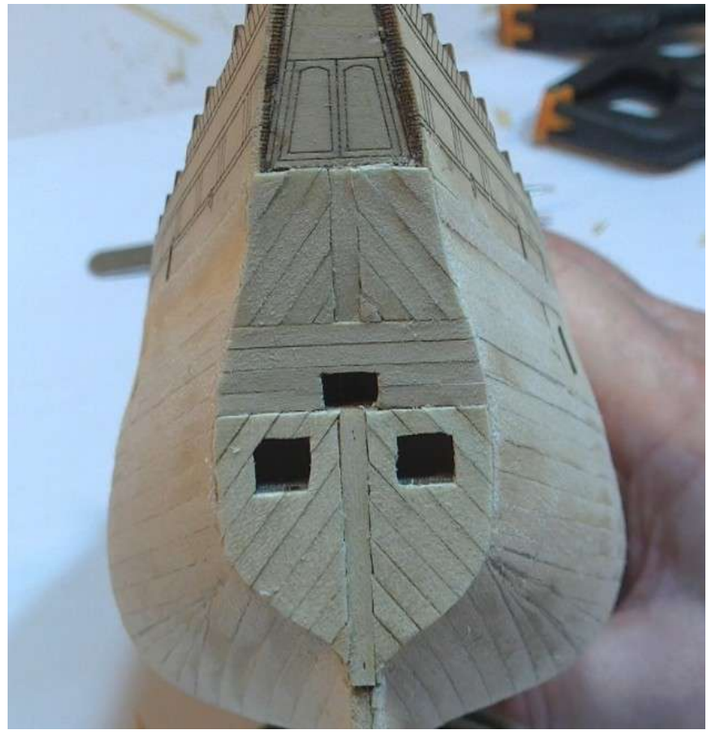


Step 14 To complete the first layer of planking fit, shape and glue in place lengths of limewood planking between bulkhead 1 and the stem post as shown.



Step 15 The first layer of planking is now complete. Next trim-off any excess planking at the stern area. Then use wood filler to fill-in any gaps between planks and give the hull a thorough sanding until the hull is perfectly smooth.

Step 16 Identify the 0.6x4mm silver ash strips P27. Cut these planks and glue in position to cover the transom as shown.



DUYFKEN
1606
SHEET 17

7.0 Hull Planking - Second Layer

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 0.6x4mm tanganika strips P28. Identify these planks before proceeding. 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 veneer planking to buckle and at the same time generally speeds up the planking process.

Step 1 Take a length of tanganika and lay it along the length of the hull immediately below the bulwark as shown - pin the plank in place and use a pencil to make the upper and lower edge of the plank. Remove the plank. Use a brush to apply the contact glue to the area and then to one side of the plank - when both surfaces are touch dry accurately lay the plank in position starting at the bow and rolling it along the hull. Once in position use the handle of your knife to rub along the length of the plank to ensure air bubbles are removed and a strong bond is formed.

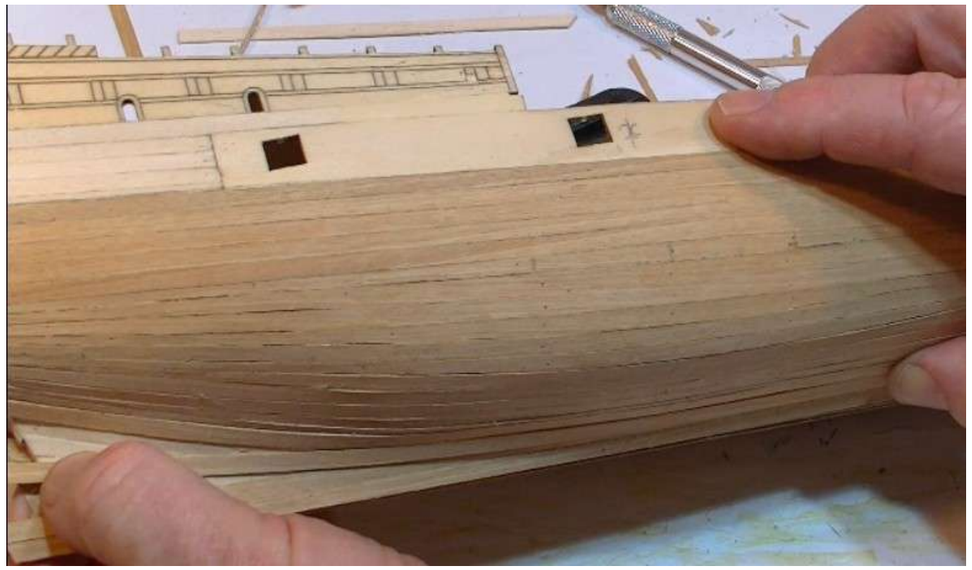
DUYFKEN
1606
SHEET 18

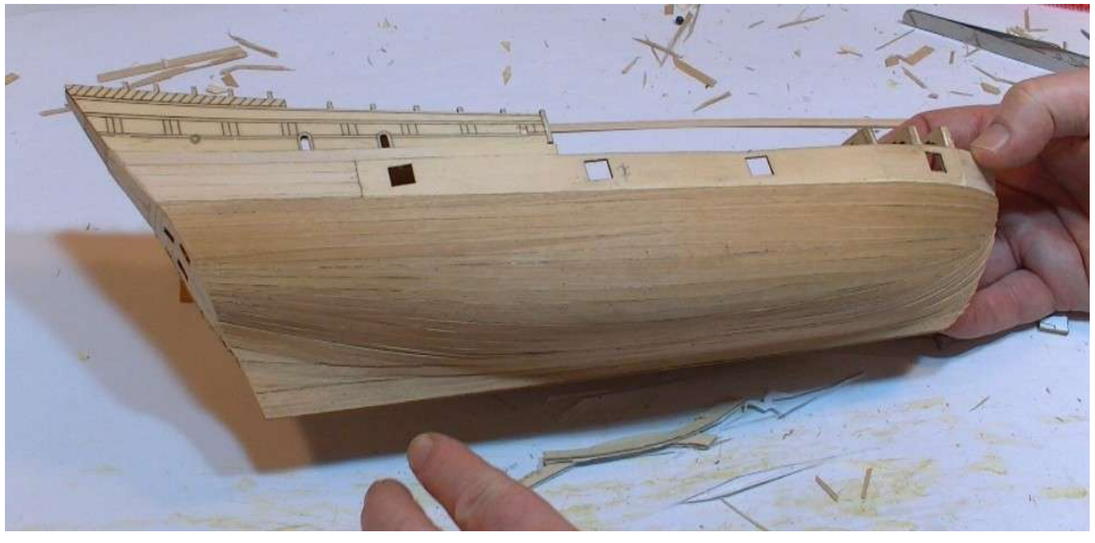
Step 2 For the next plank lay it along the hull - at the bow lay the plank over the first plank by 2mm - mark the area of overlap. Use a knife to remove the unwanted area of the first plank. Continue this process until you have placed 6 planks in position - at this point pin a length of 1x4mm limewood P24 in place as shown at the mid-ship - allow this plank to run fore and aft following its natural curve over the hull - pin in place at the bow and stern. You will notice some overlap - mark these areas - remove the limewood plank and cut away the unwanted tanganika planking.

DUYFKEN
1606
SHEET 19

Step 3 Continue the process of planking and making corrections using a limewood plank as a guide to mark the area of overlap and remove the unwanted planking. Continue until you start to close around the lower section of the hull as shown - fit the garboard plank and one plank adjacent to the garboard as shown.

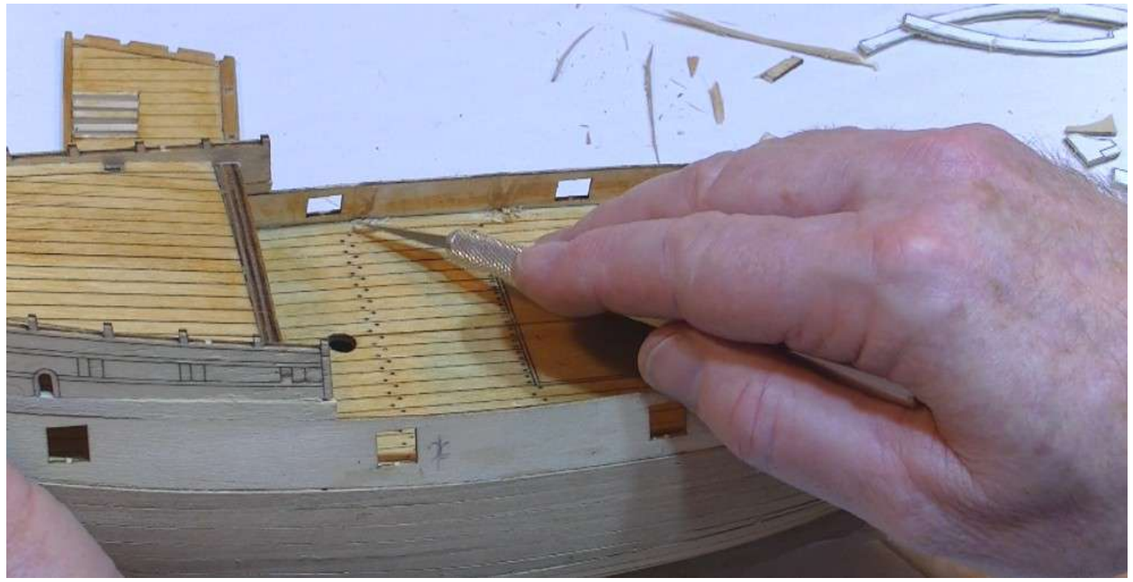
Step 4 The remaining gap may be slightly less than 4mm from the mid-ship area to the bow. Lay a plank over this area as shown - mark the area of overlap with the upper plank then use a knife to remove the unwanted plank length - this will leave a 4mm wide gap in which to fit the last plank. Glue this plank in position. Close the deadwood area up with wedges.

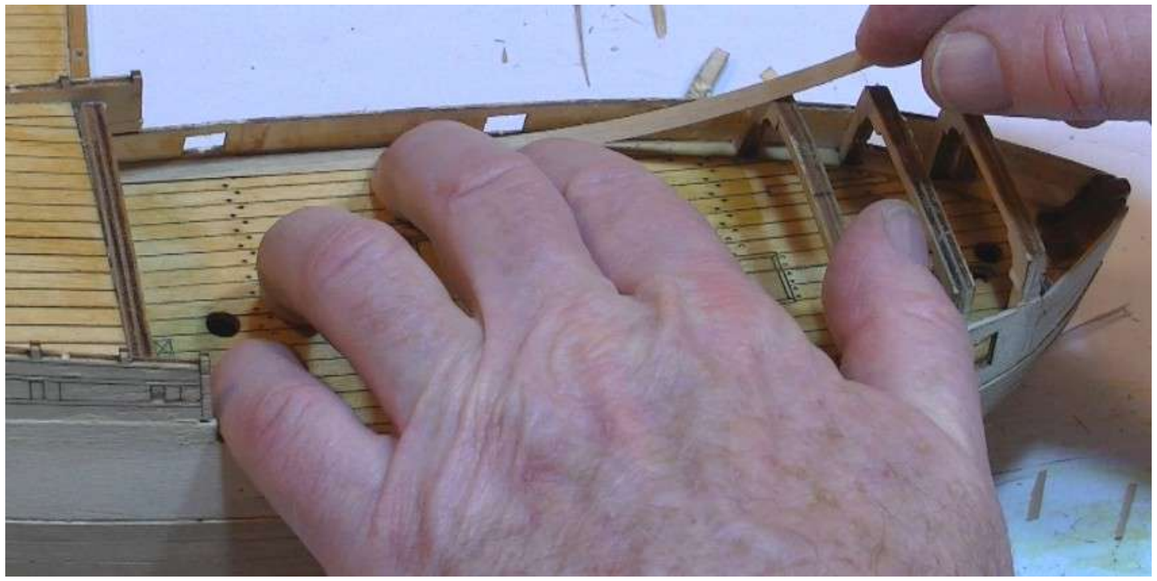


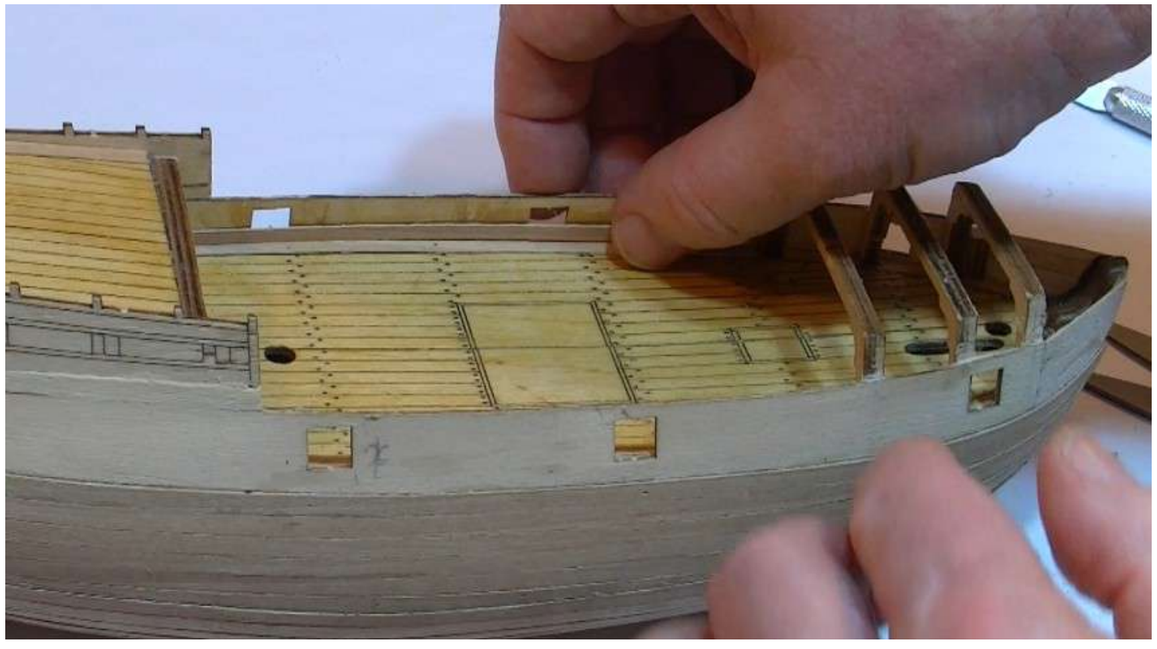


DUYFKEN
1606
SHEET 21

Step 5 Use a knife to cut through and remove the bulkhead horns exposed on the main deck. Glue tanganika strip in place along the edge to cover the exposed bases. Also lay tanganika strip along the outer edge of the poop deck as shown. Glue in place tanganika strip on the inside face of the bulwark on the main deck - mark and cut-out the gunports.

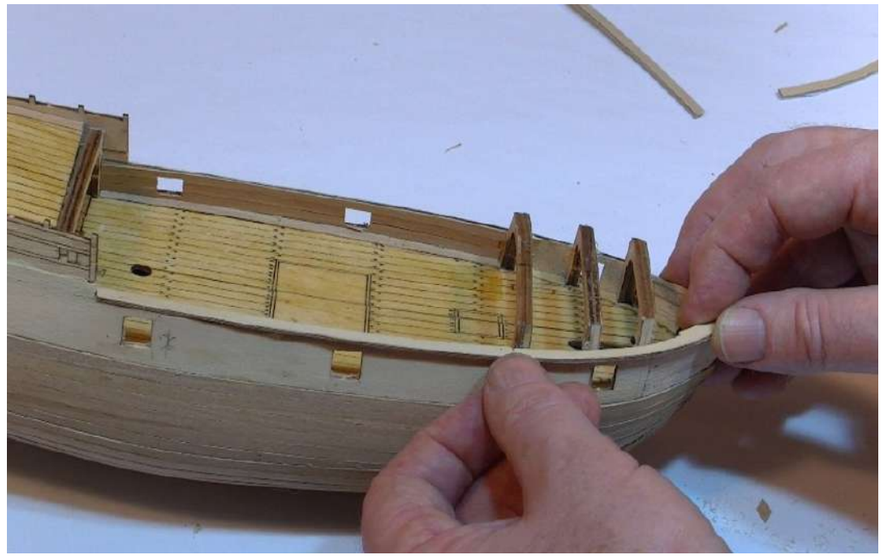




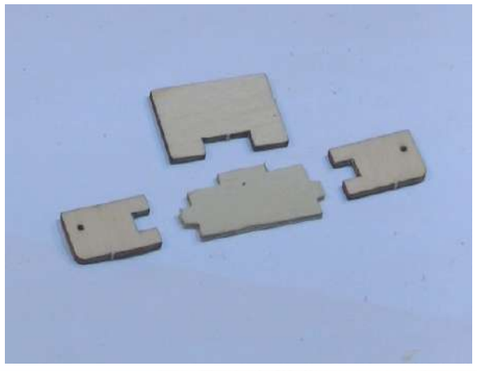


DUYFKEN
1606
SHEET 22

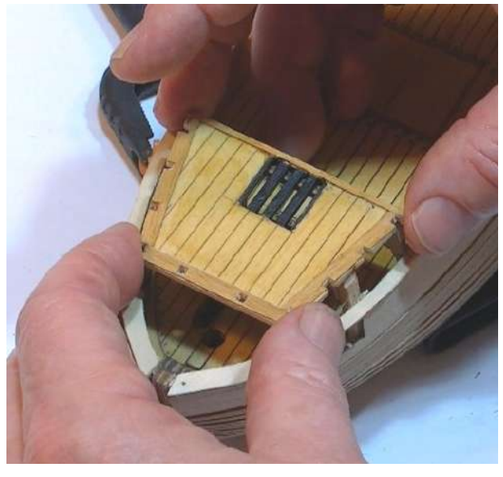
Step 6 Identify the Main Deck Cap Rails P30 and the Bow Cap Rails P31.Trial fit and fractionally adjust to fit across the top of the bulwark as shown. Once satisfied glue each in position.



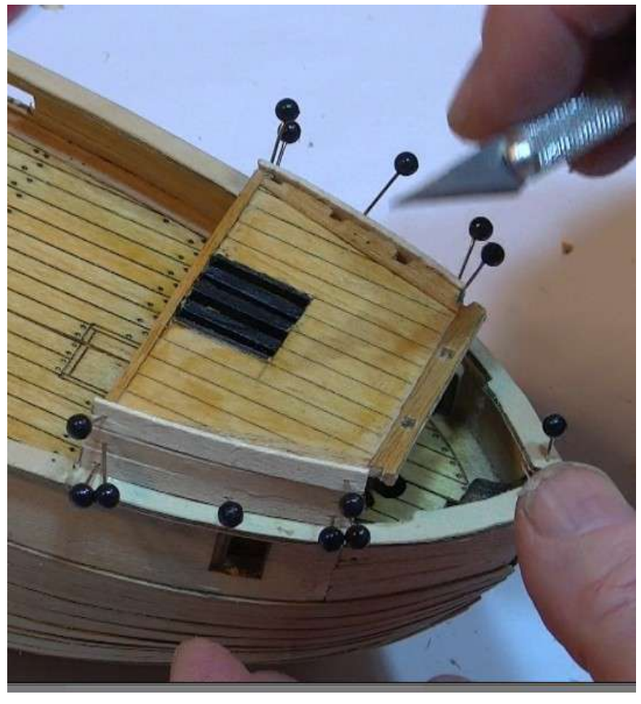
Step 7 Identify the Stove P32A-D. Trial assemble - once satisfied glue parts together. Once dry paint black. Then glue assembled stove in position on the deck aligned centrally and below bulkhead 3.



Step 8 Identify the forecastle deck P33. Fit 4mm tanganika strip P29 on the side and fore edges. Cut a length of tanganika strip to 2mm width and fit to the rear edge. Use a square needle file to open and shape the slots. Apply shellac to the deck and tanganika strips. Paint the stove grating black as shown.



Step 9 Cut lengths of 1x4mm limewood P25 to cover the side faces of the forecastle. Glue and pin in place as shown.

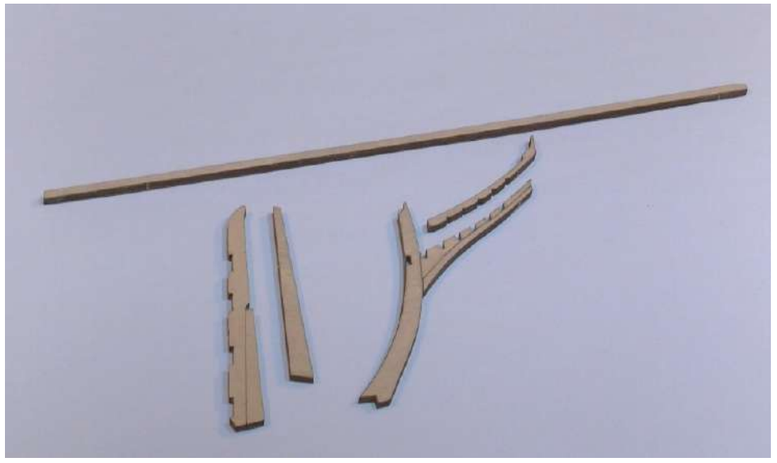


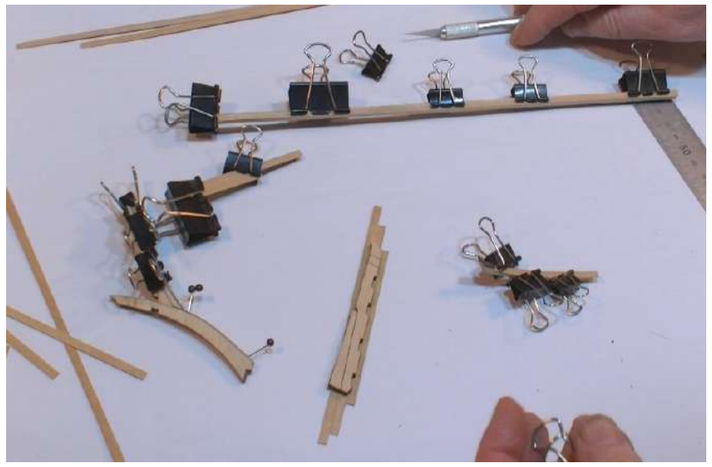
DUYFKEN
1606
SHEET 23

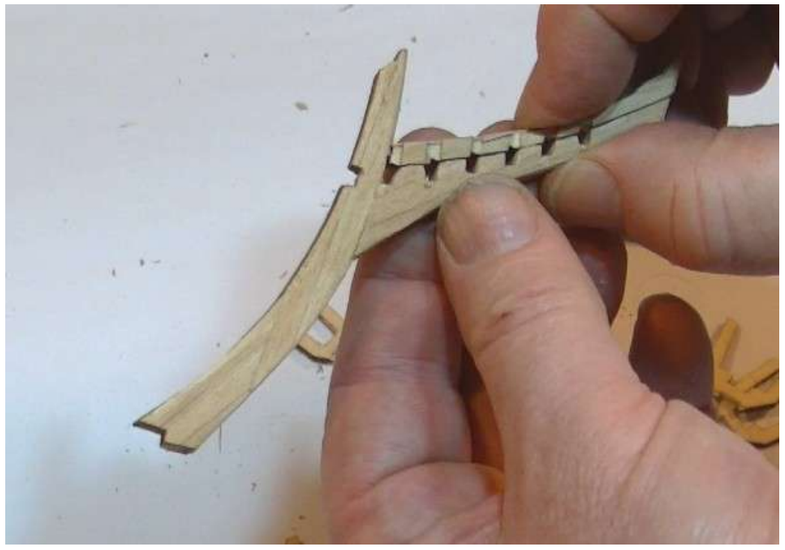
Step 10 Identify the forecastle fillets - rear P34 and fore P35. Trial fit in place as shown and fractionally adjust as necessary - once satisfied glue each part in position. Use 4mm tanganika strip P29 to cover the forecastle sides and fillets as shown.

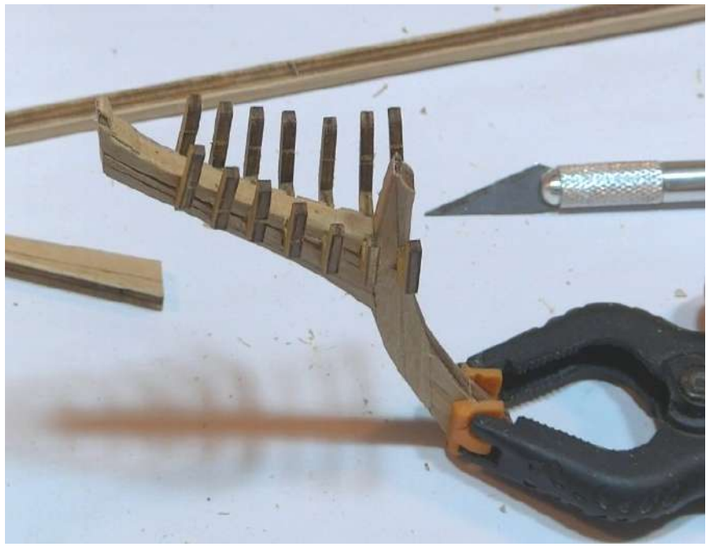
Step 11 Use 4mm tanganika strips to complete the hull planking as shown. Cut out the gunports.

Step 12 Identify the false keel P36, stem post P37A/B, stern post P38 and rudder P39. Glue 4mm tanganika strips P29 to cover sides and face edges. Trim excess planking with sharp knife. Cut out any slots. Identify the head timbers P40A-G. Note P40A is in two parts and fits between the stem post the keel. Fractionally adjust each head timber to fit into the relevant stem post slot. Fractionally adjust the planking on the upper stem post P37B to allow this part to fit over and hold the head timbers in place. Once satisfied glue all parts in place as shown - adjust head timbers to be vertical before glue sets.



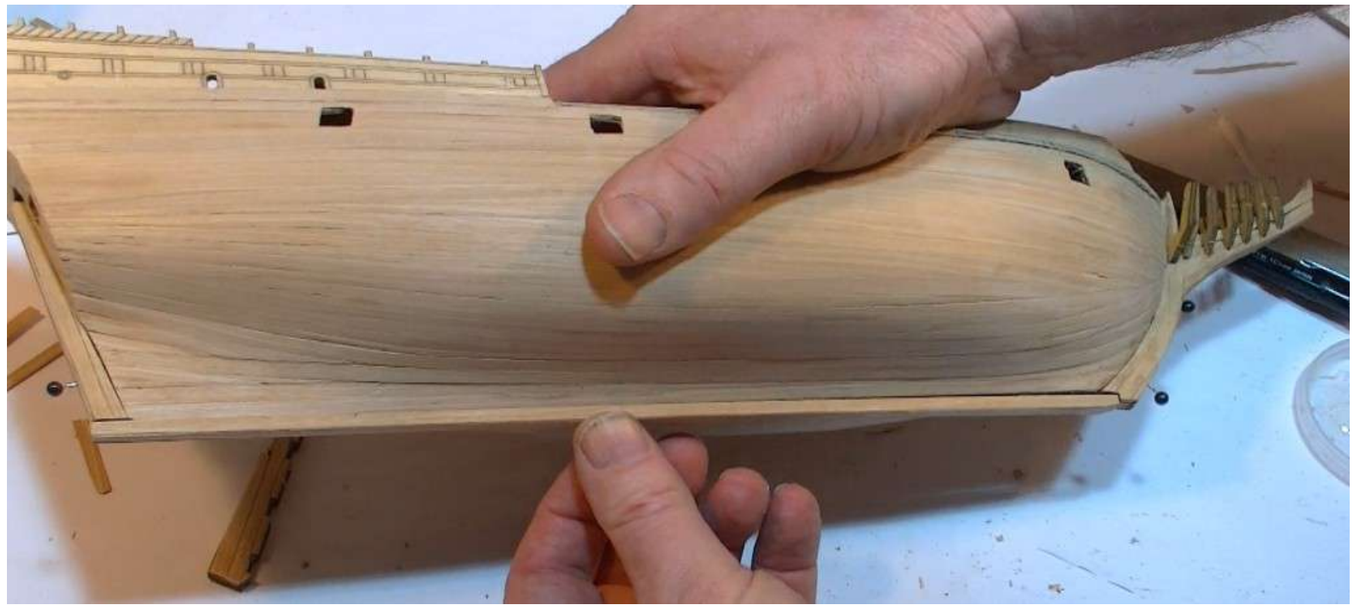






DUYFKEN
1606
SHEET 25

Step 13 Trial fit the assembled stem post - once satisfied use a two part 5mm epoxy glue to fix the stem post in place - pin in place until glue has set as shown. Glue and pin the stern post in place as shown. Glue and pin in place the false keel as shown. Finally give the completed hull a sand with a fine grade sandpaper.



DUYFKEN
1606
SHEET 26

Step 14 Use a fine grade sand paper to lightly sand the deck - this will give the deck a weathered appearance. Apply shellac to the finished hull - apply extra coats to darken if desired. This will give the hull a golden antique appearance.

DUYFKEN
1606
SHEET 27

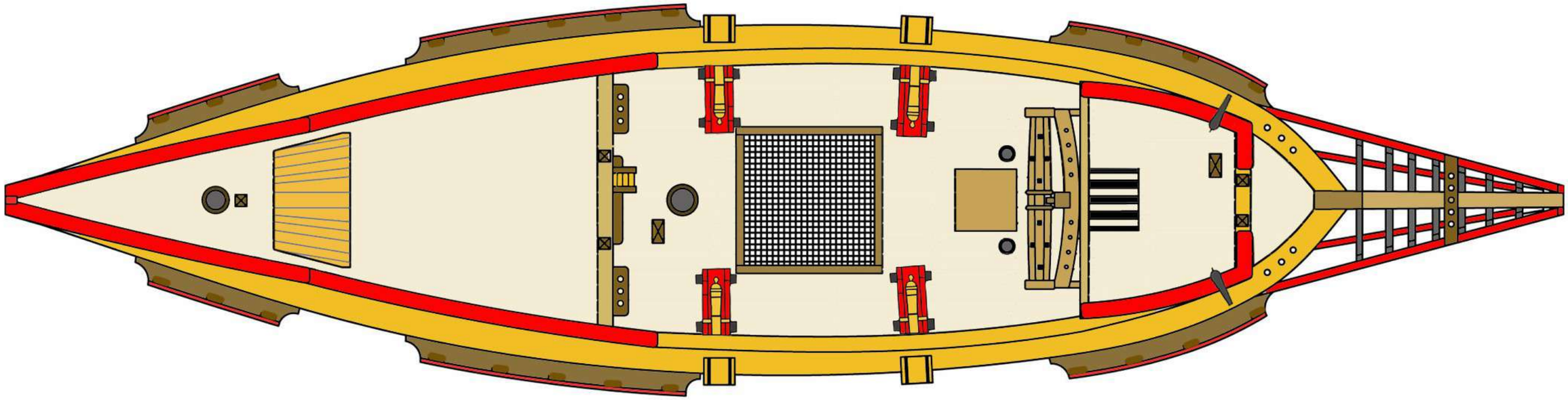
Step 15 Next fit & fix the strakes to the sides of the hull. Identify the 2x2x400mm walnut P41 strips. The first strake will run along the hull from the stem post immediately below the cap rail. Trial fit a length of 2x2mm walnut in place using a plank bender to fit the strake around the bow. Fractionally adjust curve as necessary. Once satisfied with the bend and run of the strake drill 0.6mm holes at various points along the strake then glue and pin the strake in place. Repeat for a second strake to run from the stem post and immediately below the gunports as shown. Make sure the strakes on the other side of the hull are a mirror image of each other at the stern. Trim off excess length of strake

Step 16 To mark the location of the run for the 3rd strake use a 7mm length of 4mm limewood to mark this distance at the stem post and several points along the hull. Then fit and fix the 3rd strake is position as shown. Trim off any excess length of strake.

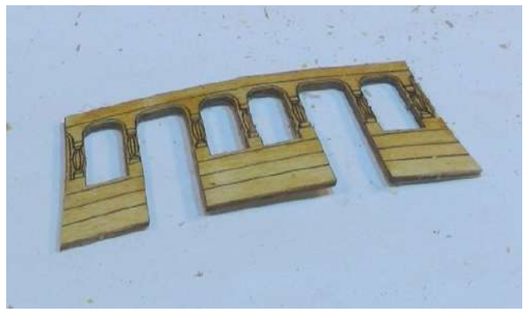
Step 17 Next fit and fix in place the wale - 2x4mm walnut P42. Use a 9mm length of 4mm limewood and mark this distance from the stem post and along the hull to about the 3rd gunport. After the 3rd gunport allow the wale to follow its natural course along the aft section of the hull. Then trail fit the wale in place - shape the fore end to fit snugly into the hull - stem post junction. Drill 0.5mm holes along the wale. Glue and pin the wale in place as shown. Repeat for the other side of the hull - make sure the wales are a mirror image of each other at the stern. Trim off any excess wale.

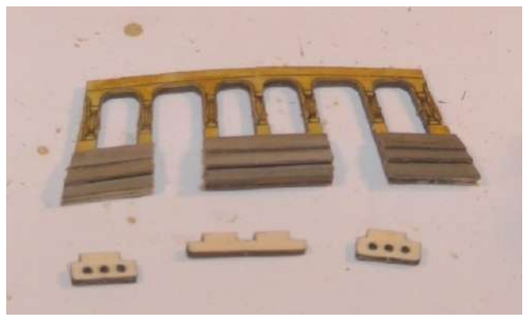
8.0 Deck Fittings & Furniture

The deck plan is shown below - use the plan to locate the various components.



Step 1 Identify the doorway panel P44. Apply a coat of shellac. Cut lengths of 1x4mm walnut P45 to be glued in place as shown. Fractionally adjust the top and bottom edges of each length to ensure an overlapping effect. Trim off any excess lengths. Identify the main deck pin rails P45 and the shelf P46. Stain with teak and glue each in place as shown. Glue two lengths of 0.6x4mm tanganika P29 to fit across the front of the poop deck above the doorway panel as shown - stain with shellac.





DUYFKEN
1606
SHEET 31

Step 2 Retrieve the assembled rudder and clamp in position as shown. Mark with a pencil where the simulated tiller will enter the helmport - drill a 0.6mm hole at the centre of this mark through the top of the rudder post.

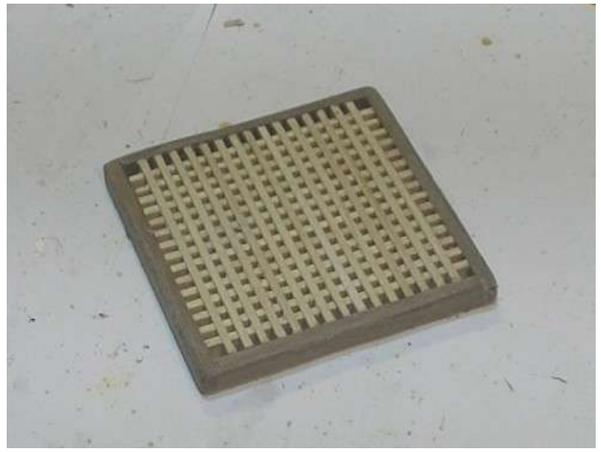
Step 3 To make the rudder tiller cut and glue together two 15mm lengths of 1x4mm limewood. Cut a 5mm length of this timber as the outer tiller and drill a 0.6mm hole into one end - glue a pin in place as shown. With the remaining length of timber as the inner tiller - taper the length down to 3mm. At the 4mm end drill a 0.6mm hole - glue a pin in place as shown. Glue the inner and outer tiller parts into the pre-drilled holes in the rudder post . Trial fit the rudder in place - fractionally adjust the length of the inner tiller so the rudder post fits adjacent to the stem post.

Step 4 Identify the rudder hinges P50 and the brass nails P51. The rudder hinge has two parts - the pintal and gudgeon. The pintal fits into the gudgeon. The pintal is attached to the rudder post while the gudgeon is attached to the stem post. Assemble each rudder hinge as shown drilling holes in the straps as required. The nails used are cosmetic - drill a hole to accommodate the nail - cut the nail shaft to be only about 2mm and use super glue to glue the strap to the rudder and stem posts and fix the shortened nail in place with super glue. Make sure to align the rudder post with the bottom of the false keel as shown.

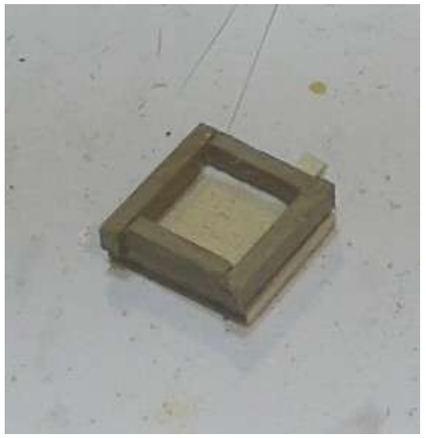
Modellers Shipyard

DUYFKEN
1606
SHEET 32

Step 5 Identify the grating P47. Cut lengths of 2x3mm walnut P48 to make a frame as shown. File and sand the frame edges. Set aside to be fitted to the deck later.



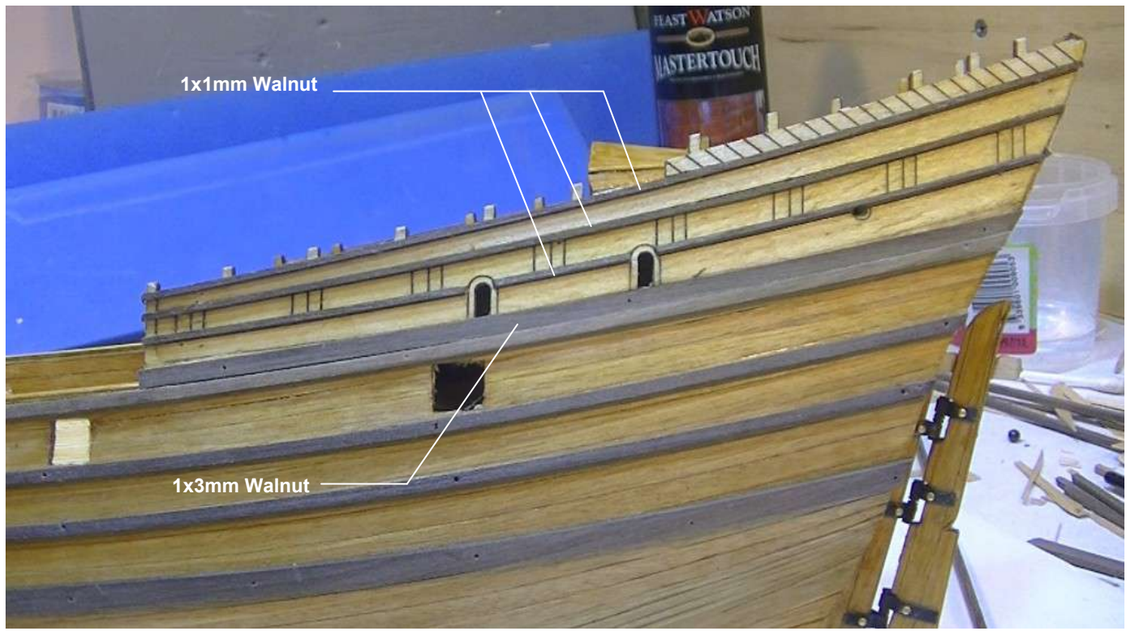
Step 6 identify the hatch cover P49. Cut lengths of 2x3mm walnut P48 to make a frame as shown. File the frame to be flush with the cover. Stain the cover teak. Set aside to be fitted to the deck later



Step 7 To assemble the helmsman's shelter first cut and glue in place a length of 0.6x4mm tanganika strip P29 to fit across the rear face of bulkhead 10 protruding above the poop deck. Next identify the helmsman's viewing window parts 52A/B - glue part A onto B along the score line as shown. Glue to assembled window in place as shown. Use lengths of 0.6x4mm tanganika strip to cover the shelter tapering the planks as required. Use wood filler to fill any gaps - sand and then apply shellac - once dry lightly sand to give a weathered appearance.

DUYFKEN
1606
SHEET 33

Step 8 Identify the 1x1mm walnut strips P53 - cut, fit and fix lengths in positions as shown. Identify the 1x3mm walnut P43 - cut, fit and fix lengths in position a shown.

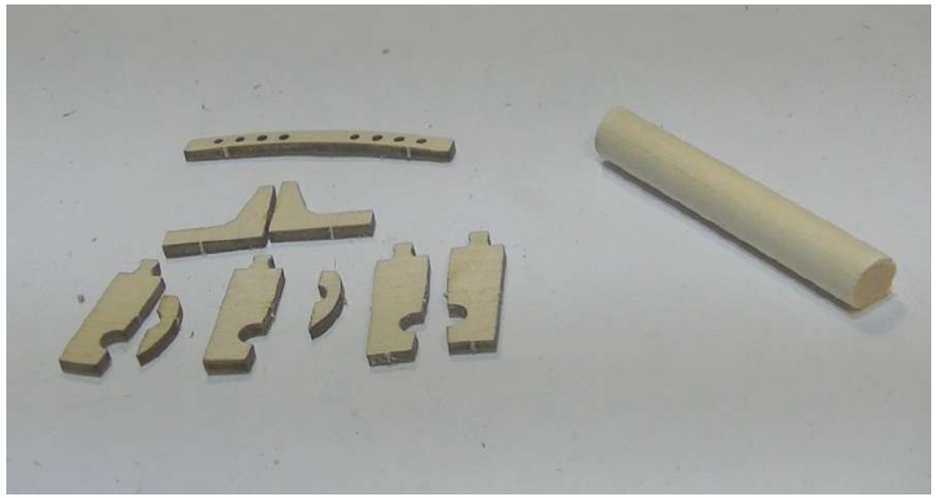


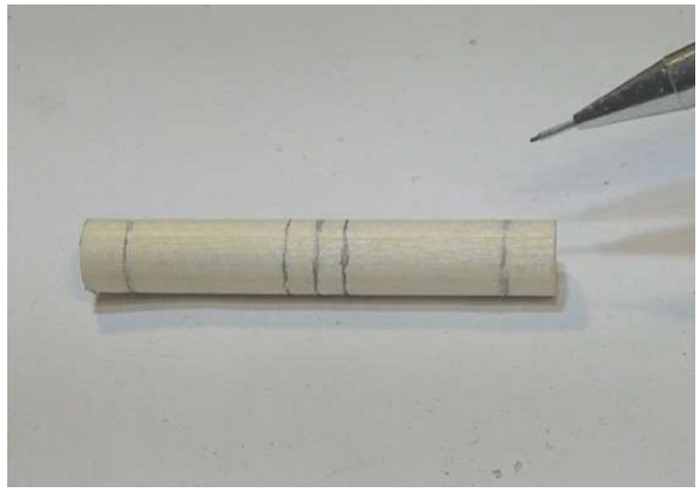
Step 9 Cut, fit and glue 4mm silver ash strips P27 for the window frames at the top of the transom as shown.

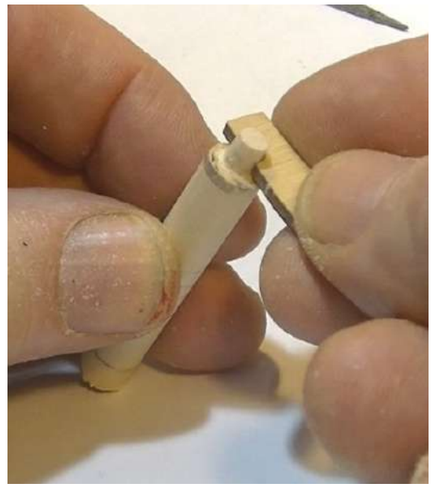
Step 10 Identify the stem post fillet P54 - fit and fix in position as shown - stain teak. Identify the hawse plates P81 - the front edge of the hawse plate is 10mm from the inside edge of the stem post - glue the plate in position. Using the pre-cut hole in the plate drill a hole through the bulwark. Paint the hawse plates black.

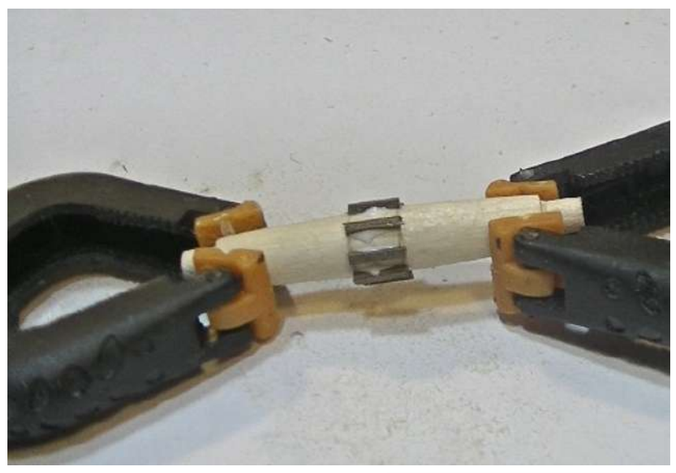
DUYFKEN
1606
SHEET 34

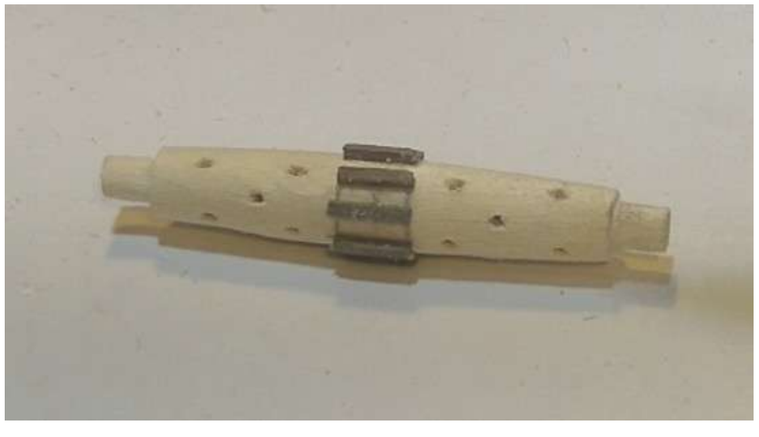
Step 11 Identify the windlass P55A-D, Pin Rail P56 and 8mm dowel P57. To make the windlass barrel cut the 8mm dowel to a length of 50mm. Mark a line around the barrel 5mm in from each end as shown. Mark a centre line around the barrel and then mark two lines around the barrel 3mm either side of the centre line as shown. Shape the barrel ends to fit into the windlass ends as shown - fractionally adjust as required. Next taper the barrel on end side from 8mm at the 3mm line down to 6mm at the end as shown. To represent the cogs cut 8 x 6mm lengths of the 1x1mm walnut P53 - glue the walnut pieces in place equidistant around the barrel as shown. Next assemble the windlass frames as shown - fit the barrel in place and glue the pin rail in place as shown. Set aside to dry - and then stain teak.

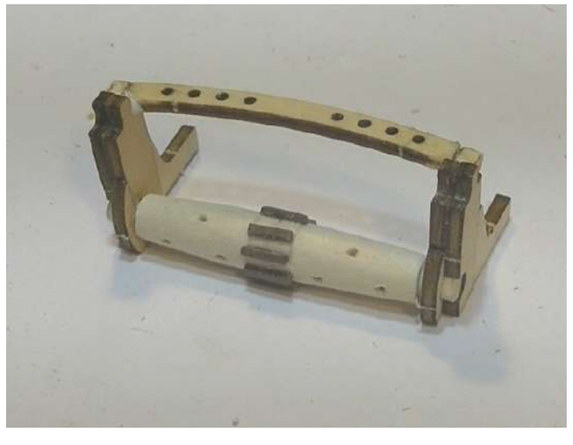








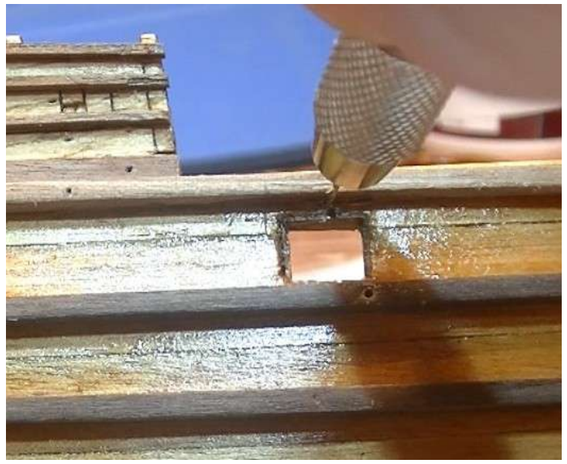


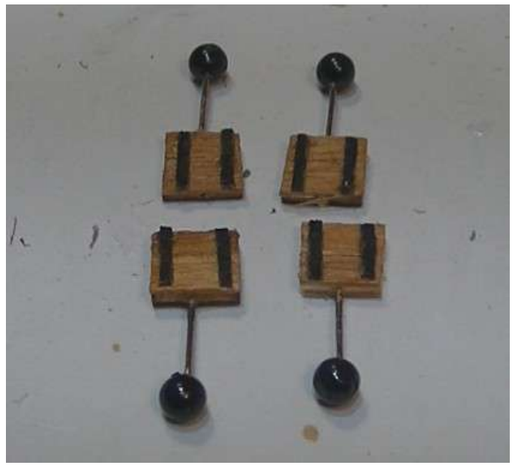


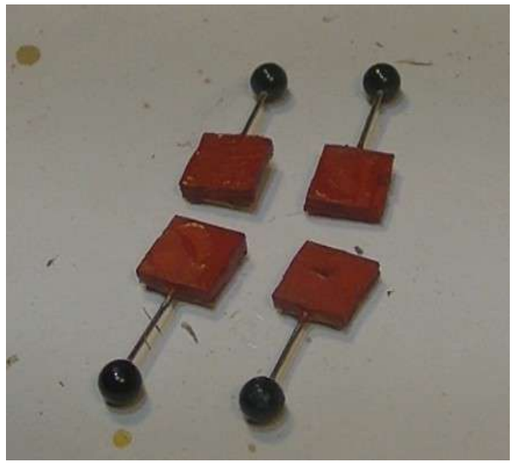
DUYFKEN
1606
SHEET 35

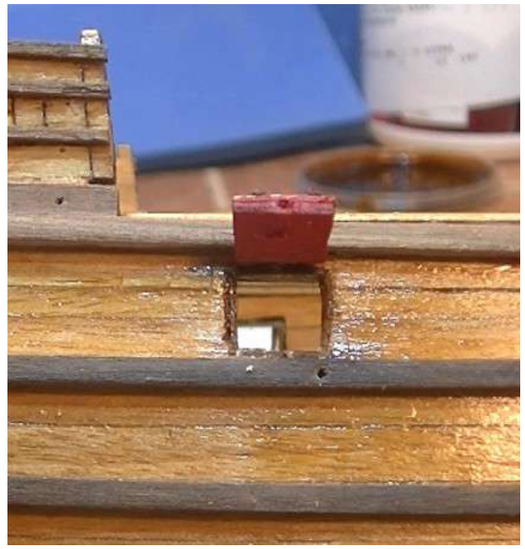
Step 12 Identify the gunport lids P58. Plank one side of each lid with 0.6x4mm tanganika P29. The fore and stern gunports will be closed. Trial fit four lids into the relevant gunport - fractionally adjust as necessary. Apply glue to the inside of the gunport - place a strip of clear sticky tape over the lid and fit a pin as shown. Holding the pin head position the lid in place pushing the tape onto the hull to hold in place while the glue sets. Once the glue has set carefully remove the pin and sticky tape. Cut lengths of 0.5x3mm walnut P59 - cut lengths 1.5mm wide and glue to the gunport lids to simulate hinges - paint the hinges black.

Step 13 Identify the 0.5x3mm walnut P59. Cut lengths to form the gunport frames for the four open gunports - glue in place. Drill a 0.6mm hole centrally above these gunports as shown. Drill a 0.6mm hole centrally in the top edge of these four gunport lids. Glue in place pins as show. Paint the inside face and sides of the lids red. Snip-off the head of the pins - slightly bend it upwards and glue in place a shown.





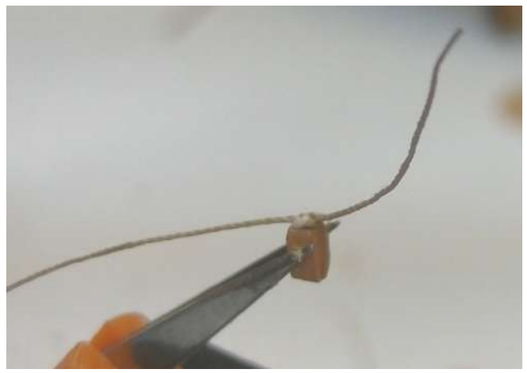


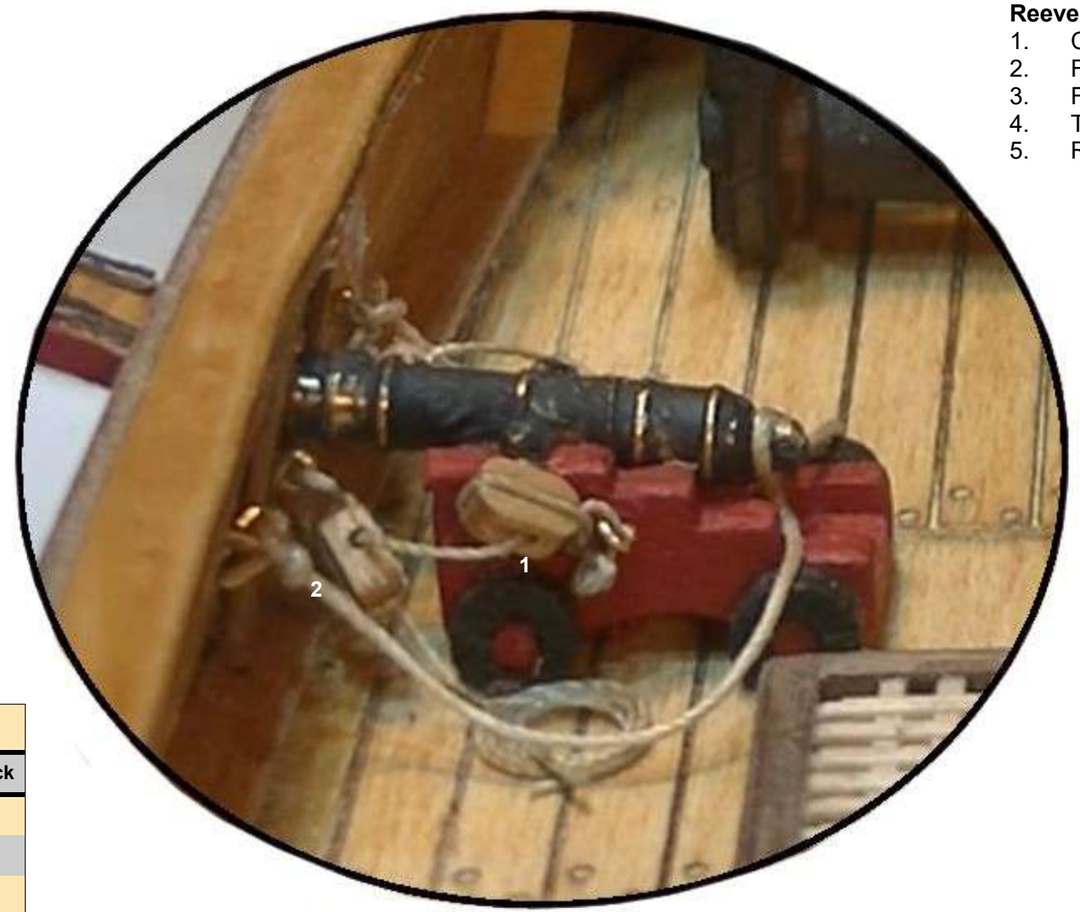


DUYFKEN
1606
SHEET 36

Step 14 Identify the deck cannon kits P60. Paint the carriage red, wheels and barrel black. Glue a length of 3mm walnut P59 either side of the open gunports as shown. Identify the eye pins P61 - fit the eye pins to the inside of the bulwark as shown.

Step 15 Identify blocks A and cord K. Tie-off cord to 4 blocks as shown - leave tails of about 2cm. Tie-off a block to the inner eye pins fixed to the bulwark. Tie-off a block to the eye pins on the cannon carriage. Trial fit the cannons in place at each gunport - you may need to file the bottom of the carriage wheels flat to allow the cannon barrel to enter the gunport. Once you are satisfied glue the carriage in place.
Follow the steps below to reeve the blocks together. Stain the blocks with teak stain if desired.





Reeve Blocks

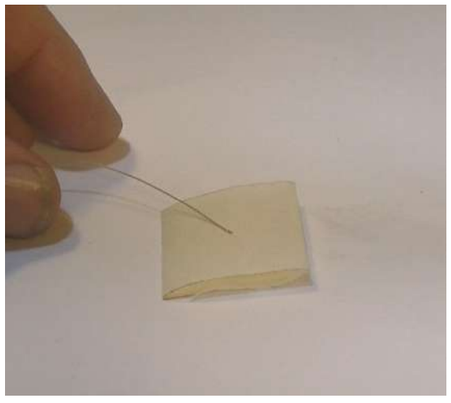
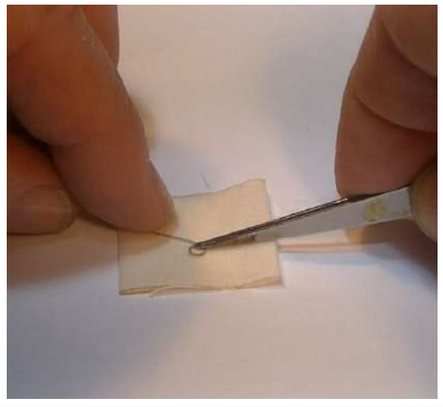
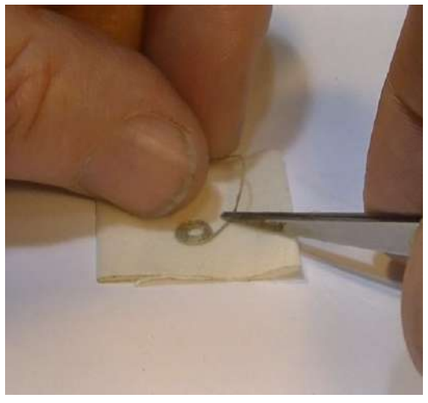
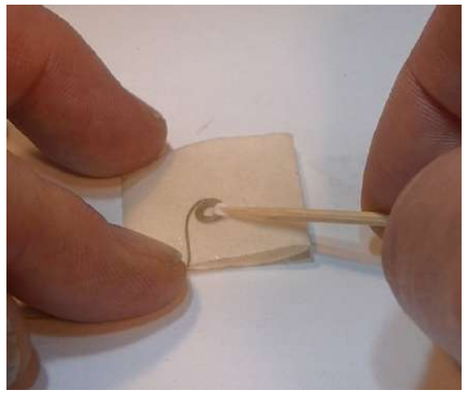
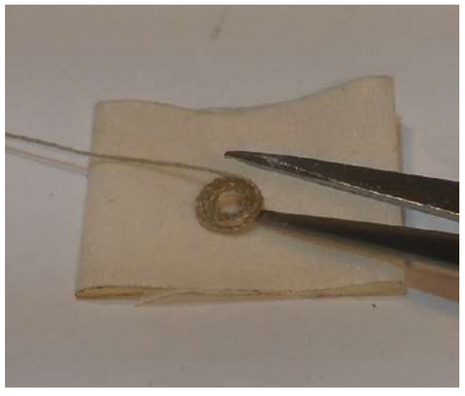
1. Cut a length of cord K - tie a knot in one end.
2. Feed the other end of this cord through Block 1
3. Feed this cord through Block 2 - leave tail to be trimmed later.
4. Trim-off excess tail from original knot.
5. Repeat for the other two blocks

BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

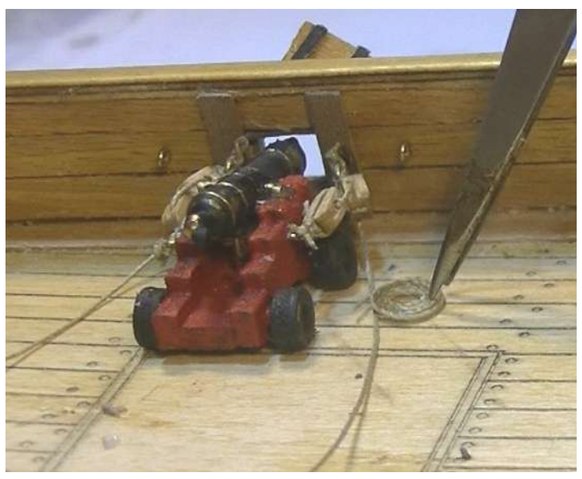
CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

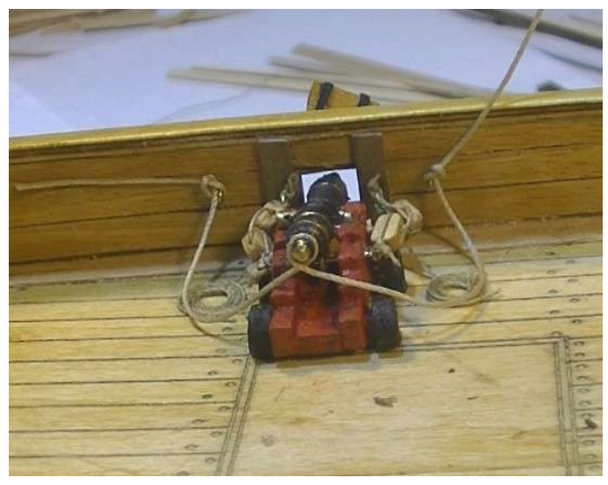
DUYFKEN
1606
SHEET 37

Step 16 To make the rope coils cut a length of cord K. Use a length of masking tape - fold over the ends and place on the bench. Using tweezers and the length of cord start to coil the cord as shown. Once satisfied apply a smear of PVA glue over the coil and set aside to dry. Once dry lift the coil off the tape - the coil is now ready for gluing in place on the deck. Make 8 coils.

Step 17 Take the tail from the reeved blocks - lay it in place on the deck just to the side of the carriage as shown. Temporarily place a rope coil in place beside the carriage - trim the block cord tail to end adjacent to the rope coil - place a dab of glue on the deck and place the rope coil over the end of the remaining block cord tail. Repeat for the other side of the carriage. For the breeching rope take a length of 0.5mm cord and loop it around the barrel end as shown - a dab of glue will hold it in position - tie-off the ends of the cord to the outer eye pins previously fitted to the bulwark as shown - trim-off excess cord. Repeat from all deck cannons.



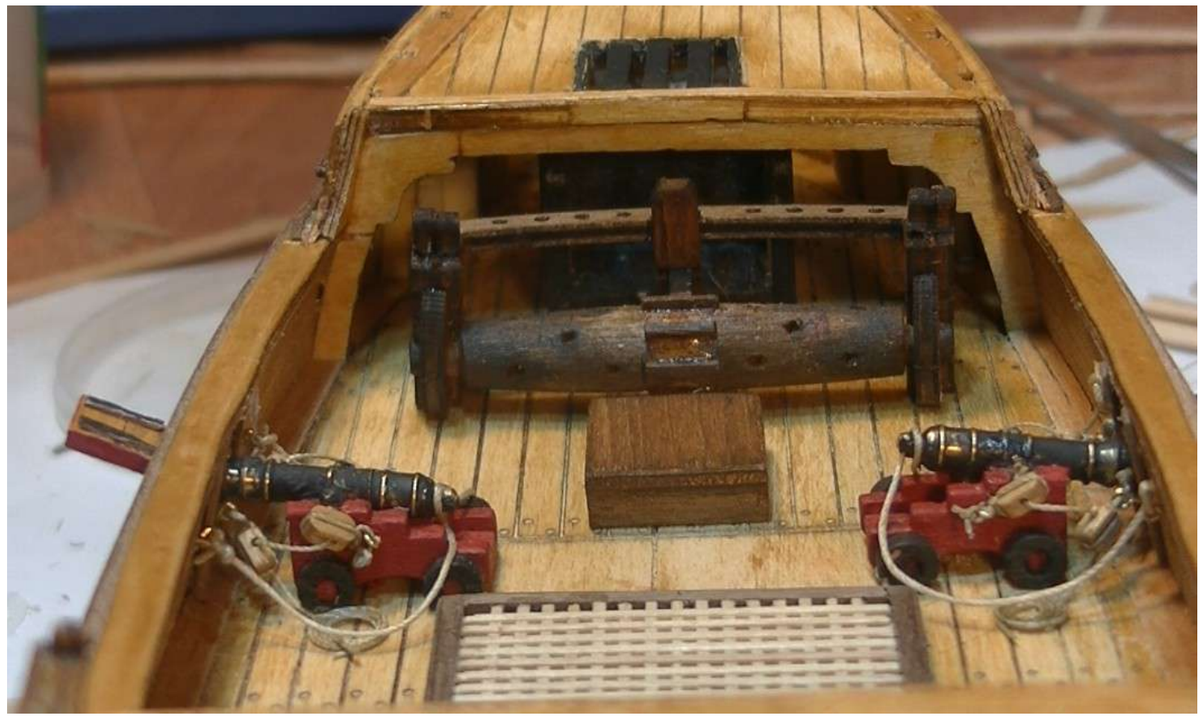



CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

DUYFKEN
1606
SHEET 38

Step 18 Identify the pawl bitt P64. Retrieve the assembled windlass - trail fit the pawl bitt in place centrally between the pin rail and barrel as shown. For the pawl use a length of 0.6x4mm tanganika P29 - cut a length to fit from the bitt to the barrel as shown - mark on the pawl bitt its location and cut a small slot in the bitt so as the pawl will rest onto the barrel as shown. Once satisfied glue the pawl bitt and pawl in

Step 19 Locate the windlass, grating and hatch on the main deck as shown. Once satisfied with the locations glue each in position.



DUYFKEN
1606
SHEET 39

Step 20 Cut lengths of 4mm tanganika to cover the inside of the transom as shown - trim to the top of the upper transom piece. Identify the transom decoration P65 - glue in position as shown.

Step 21 For the flag support identify the 3x3mm limewood P66 - cut a length to 15mm. Cut a 7mm length of 2x3mm walnut P48. Shape the top end of the limewood so that the walnut piece sits horizontal as shown. Once satisfied glue each part in place as shown.

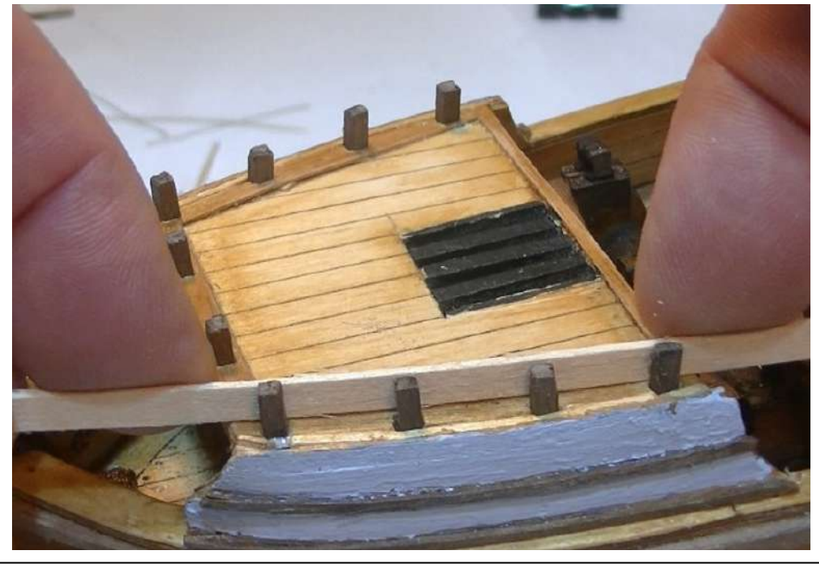
Step 22 Identify the poop deck cap rails P67A-D. Trial fit each cap rail in place - once satisfied glue each in place as shown. Paint the flag support, cap rails and posts red as shown.

Step 23 Identify the 1mm brass wire P68. Cut and shape pieces to fit around the musket port holes - paint red and glue in place as shown. Identify the 3mm brass rings P69 - paint red and glue in place as the vents as shown. Paint the side board as shown.

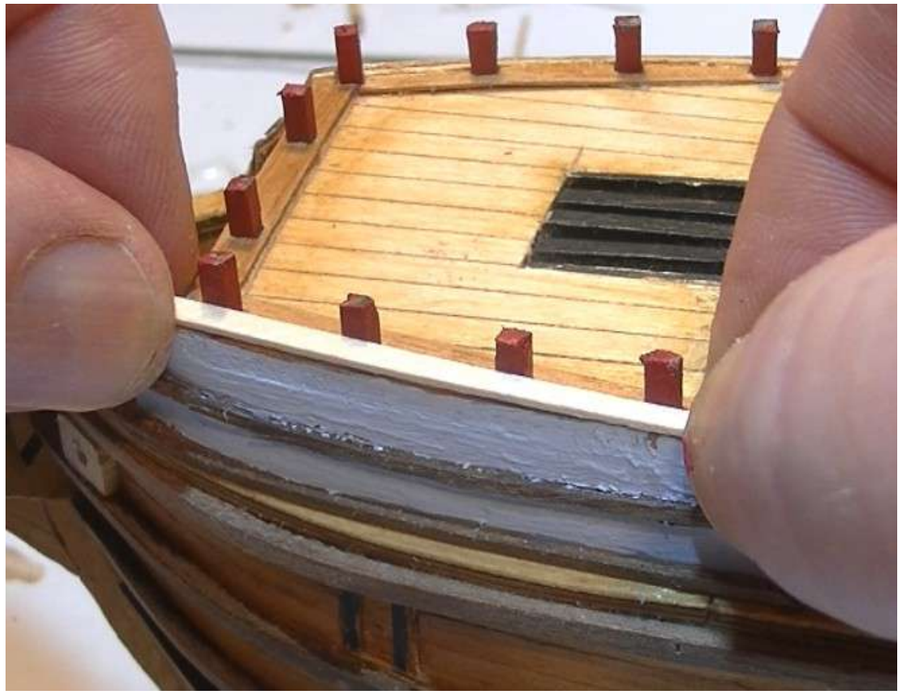
Modellers Shipyard

DUYFKEN
1606
SHEET 41

Step 24 Paint the forecastle sides blue as shown. For the forecastle posts identify the 2x2mm walnut P41 - cut 8 x 10mm lengths for the side posts and cut 2 x 6mm lengths for the front posts. Use a length of 4mm limewood to adjust the post heights to be 4mm above the deck.



Step 25 Identify the 1x2mm limewood P70 - fit and cut a length as shown - glue and pin and place - paint red as shown. Paint the forecastle posts red as shown.

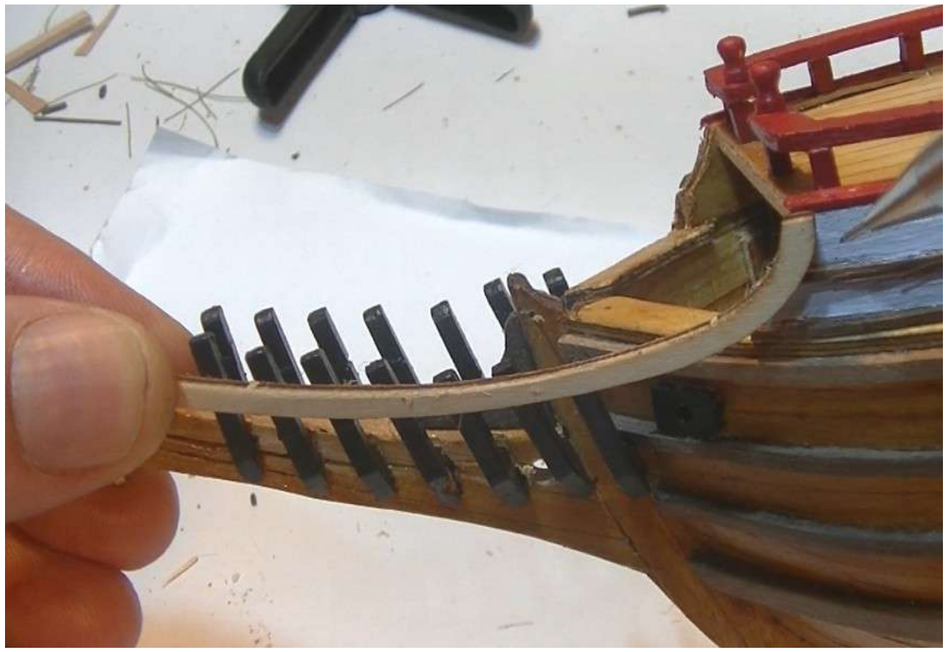


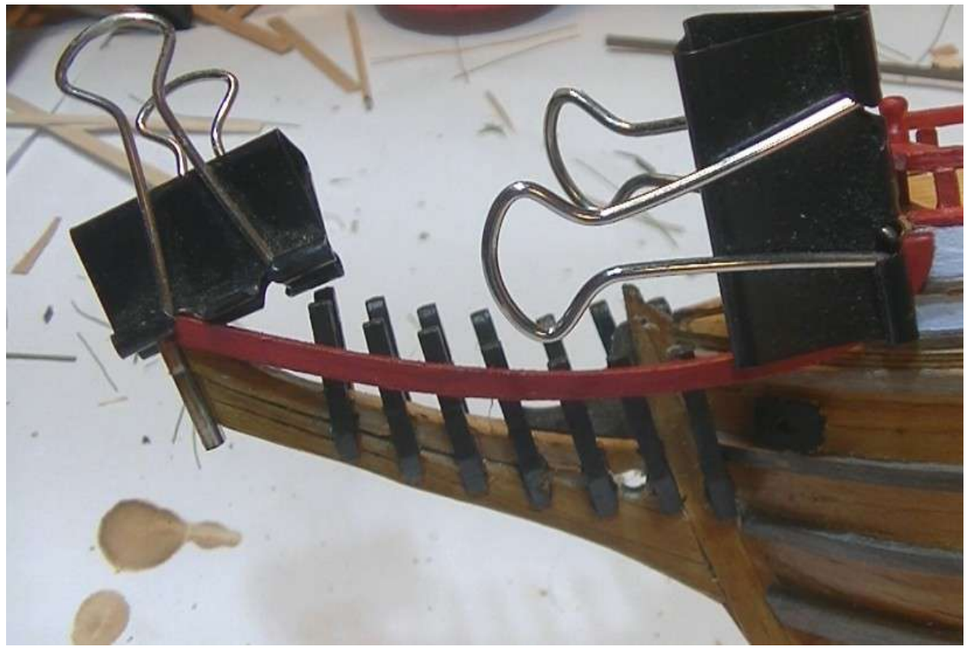
Step 26 Identify the forecastle cap rails P71 - trial fit in place - fractionally adjust as necessary - once satisfied glue in place as shown. Identify the bitt heads P72 - glue in place as shown. Paint the cap rails and bitt heads red.

Step 27 Identify the upper head rails P73 and the lower head rails P74, bowsprit plate P75 and the bumpkin P76. Shape, stain with shellac and glue in place the stem post end as shown.

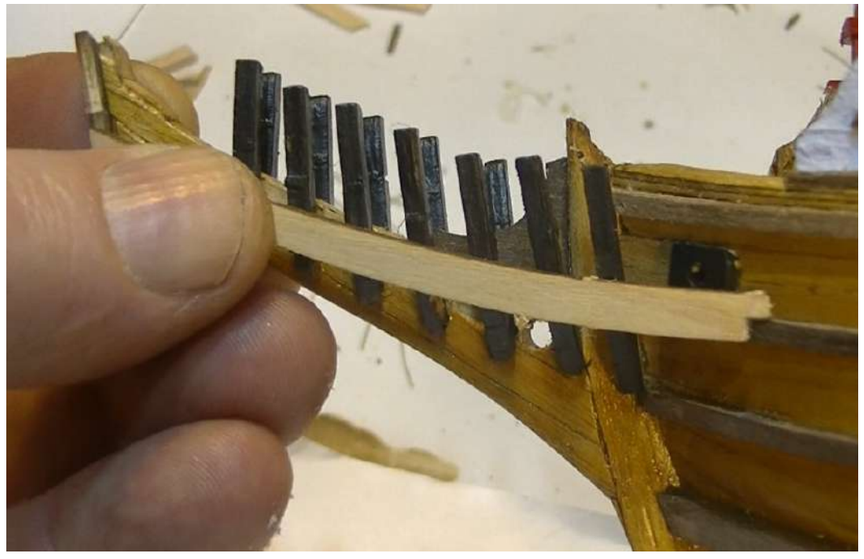
DUYFKEN
1606
SHEET 43

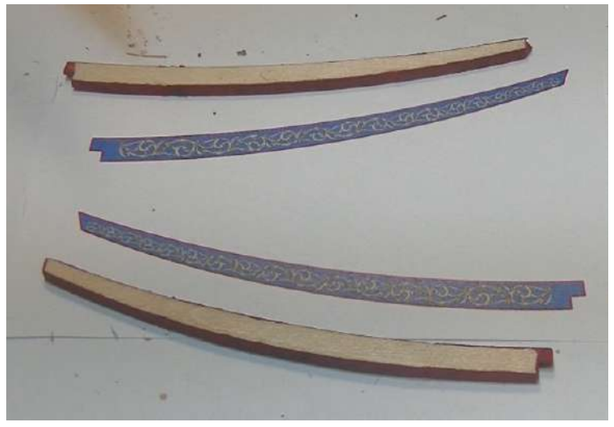
Step 28 Trial fit the upper head rails in place to fit from the side of the forecastle and the top of the bowsprit end. Once satisfied paint the rails red and then glue and clamp in place. Once glue has set use a grinding tool to remove the excess lengths of the head timbers.



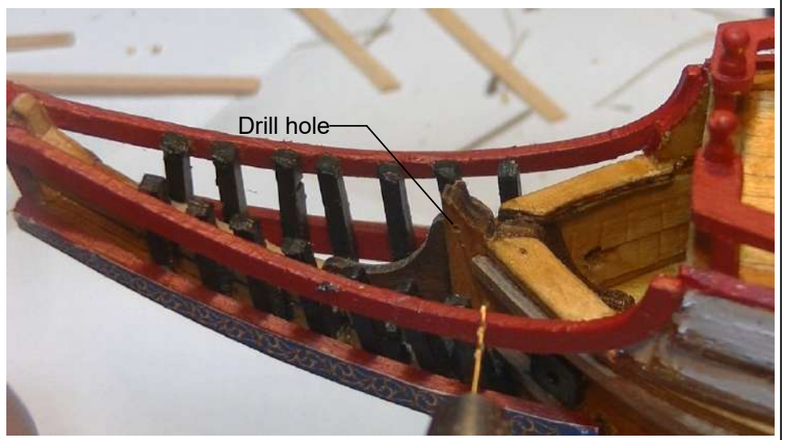


Step 29 Trial fit the lower head rails in place to fit as shown - once satisfied paint the inside and upper and lower edges red. Identify the lower head rail decoration from the Decorations Sheet P77. Cut-out the head rail decoration. Apply a paper based glue to the outside face of the head rail and fix the decoration in place. Fix the lower head rail in place.

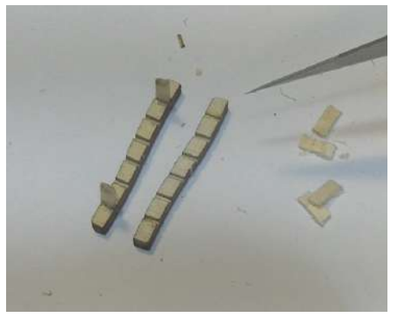




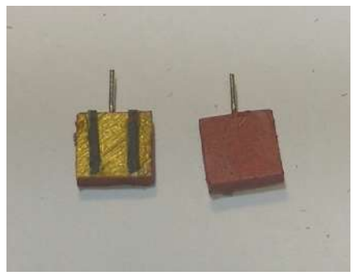
Step 30 To fit the bumpkin cut a 8mm length of 2x2mm walnut P41 - drill a 0.7mm hole through this piece approximately 2mm from one end. Place a nail P51 through the 7th or 8th hole from the top end and the walnut block Drill a 0.7mm hole through the top of the stem post as shown. Pass the bumpkin down through head timbers 3 & 4 - counting from the stem post - and push the nail into the drilled hole in the stem post - glue nail in place as shown.



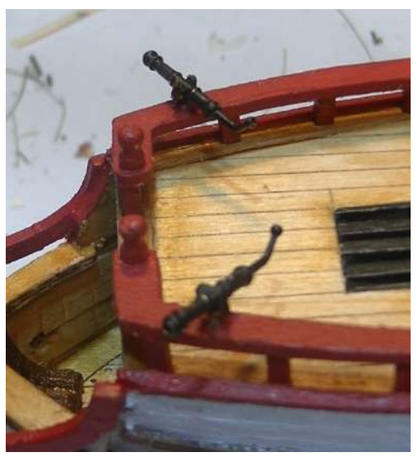
Step 31 Identify the ladder stringers P78. For the treads cut 6 x 5mm lengths of 1x2mm limewood P70. Use a pointed blade knife to remove the waste wood between the laser score mark for the treads. So to allow the treads to fit into the stringer slots easily simply file a slight taper on each end of the treads. Next glue a tread into the top slot and the bottom slot of one stringer as shown. Then glue the other stringer in place as shown. Lastly apply glue to the remaining treads and slide them into position as shown. Set aside to dry - once dry stain the assembled ladder teak. Set aside to be fitted to the deck later.



Step 32 Identify the chaser cannons P79 - drill a 2mm hole centrally into the bulkhead visible through the gunports. Identify the chaser gunport lids P80 - plank each with 4mm silver ash P27 making sure the run of the planking aligns with the existing planking - stain with shellac. Fit mounting pins and false gunport hinges as previously presented. Paint the underside and edges red as shown. Paint the chaser cannons black and glue in position. Fit & fix the gunport lids in position as shown.



Step 33 Identify the culverins P82 - fix in position on the forecastle cap rails as shown.



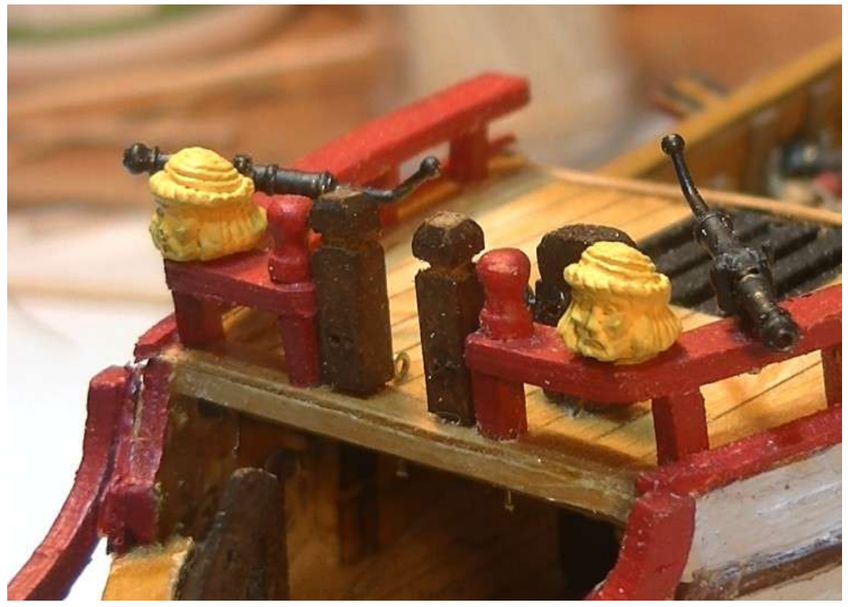
Step 34 Identify the lion figurehead P83 - paint red and then glue in position onto the bowsprit plate as shown.

DUYFKEN
1606
SHEET 45

Step 35 To draw a waterline measure 5mm down from the wale at the bow - Point A. At the stern measure down 10mm from the wale - Point B. Mark a point on the hull below the second gunport - Point C. Temporarily pin a plank in place over the hull touching these three points - use a pencil to draw a line along the plank. Repeat for the other side of the hull. Join the lines across the stern and the stem post. Lightly sand the hull to remove the shellac. Apply three coats of a flat white paint below the waterline.

Step 36 Identify the hawse pipes P84 - paint black and glue into the pre-cut holes in the deck as shown.

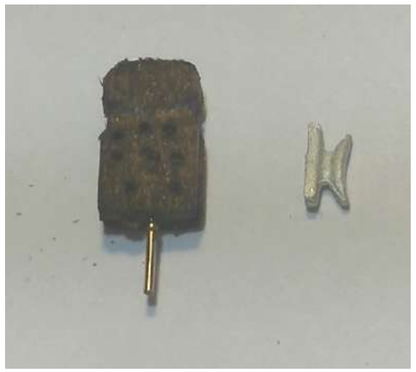
Step 37 Identify the head decorations P88 - paint yellow and glue in place on the forecastle cap rails as shown.

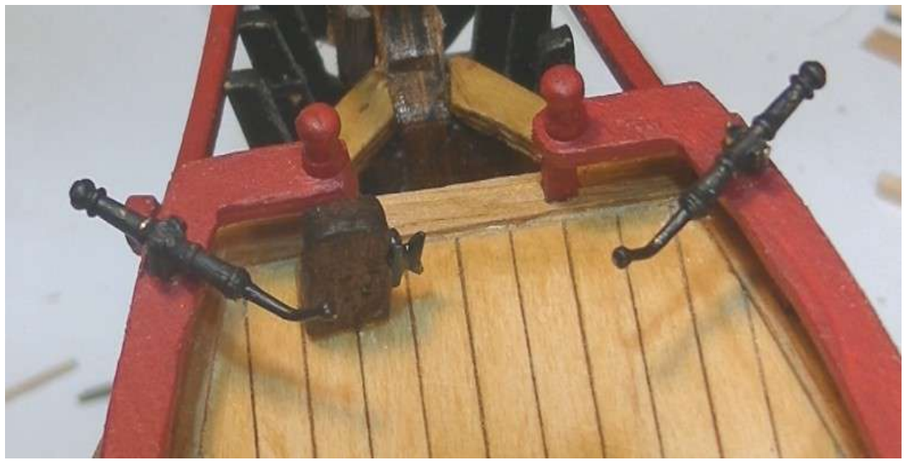


Step 38 Identify the Bittheads P87 - there are 10 pieces - glue pairs together to make 5 bittheads - shape the heads as shown. Fix a pin into the base as shown. Stain teak. Fix the bittheads in place on the poop deck and forecastle deck as shown.

DUYFKEN
1606
SHEET 47

Step 39 Identify the knightheads P85 - there are 4 pieces - glue pairs together to make 2 knightheads - fix a pin into the base as shown. Stain teak. Identify the cleat - paint black and glue to the side of the knighthead. Fix one knighthead in place on the main deck as shown. Fix the second knighthead in place on the forecastle deck as shown. Also retrieve the assembled ladder - fix in place from the main deck to the poop deck as shown.



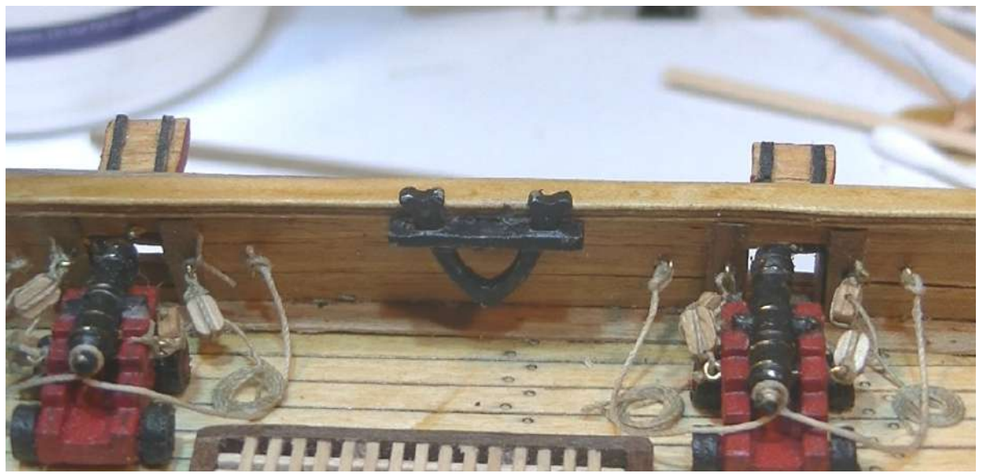


Step 40 Identify the stern decoration columns P89 - paint yellow. Cut 2 x 18mm lengths of 2x2mm walnut P41 and file a diagonal flat face on each - glue the walnut lengths to the rear face of the columns - trial fit the columns in place. Identify the VOC - Duyfken Decoration P63 from the Decoration Sheet - use a paper based glue to fix the decoration in place. Glue the columns in place as shown. Paint the rear window shutters red as shown.

Step 41 Identify the bowsprit pin rail P90 - stain teak and glue in place as shown.

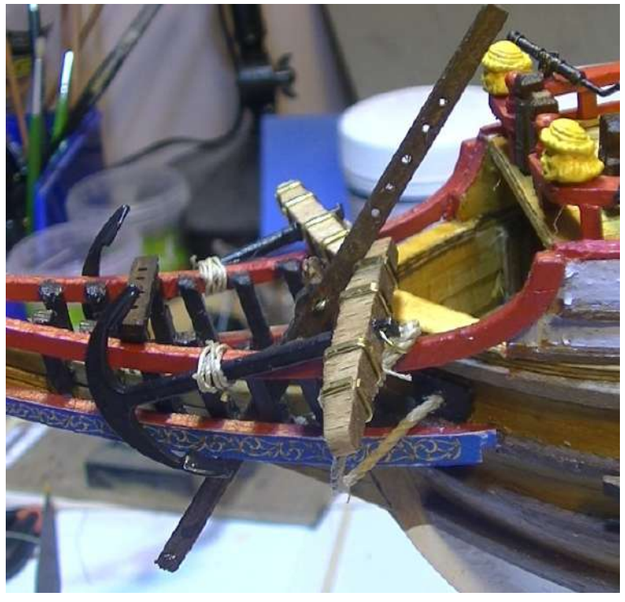
DUYFKEN
1606
SHEET 48

Step 42 Identify the kevel cleats P91 - paint black and glue in place as shown.



Step 43 Identify the mast heels for the main mast P94 and mizzen mast P95 - file the upper rim round on each heel, stain teak and glue in position as shown.

Step 44 Identify the anchors P92 - assemble as shown. Cut 2 x 250mm lengths of 2mm cord P93 - seize the cord around the anchor ring as shown. Lash the anchors to the top head rails as shown. Feed the anchor rope through the hawse holes, wind around the windless as shown and feed ends into hawse pipes on the deck.



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1606
SHEET 49

9.0 Masts, Bowsprit & Yards

The next step is to shape and assemble the masts, bowsprit, yards and lanteen. Identify the various size dowels and cut, shape and taper these parts to the profiles shown in the drawings below. Tapering the dowels can be achieved using a mini plane, a file and sandpaper and using the technique presented in Figure 1. Once they have all been shaped and tapered apply shellac and when dry lightly sand to give a weathered appearance. Locate and identify the various blocks and fittings to be used for this stage of building the model. Fit any eye pins and blocks - stain blocks with teak.. Once all are assembled put each safely aside. **Do not fit the masts, bowsprit or yards to the model yet.**

Step 1 Main Mast - the main mast is in two parts - lower main mast and main mast top. Shape the relevant dowels as presented below to make the main mast.
Main Mast - Lower - Identify the 6mm dowel P99 - taper the dowel as shown. Shape the top end as shown. Identify the mast cheek P100 - mark out its location and file a flat surface as shown to accommodate the mast cheeks - note the mast cheek top is at an angle as shown - glue the mast cheeks in position. Next identify the main mast trestle tree P101 - glue in place across the mast cheek top as shown. Identify the main mast cross tree P102A & P107A - glue each in place centrally across the trestle tree as shown. Stain the assembled mast cheeks, cross trees and trestle trees teak.

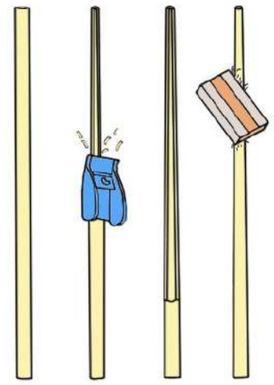


Figure 1

Not to Scale

Main Mast - Lower - L230mm, 6mm dowel tapered to 4mm P99

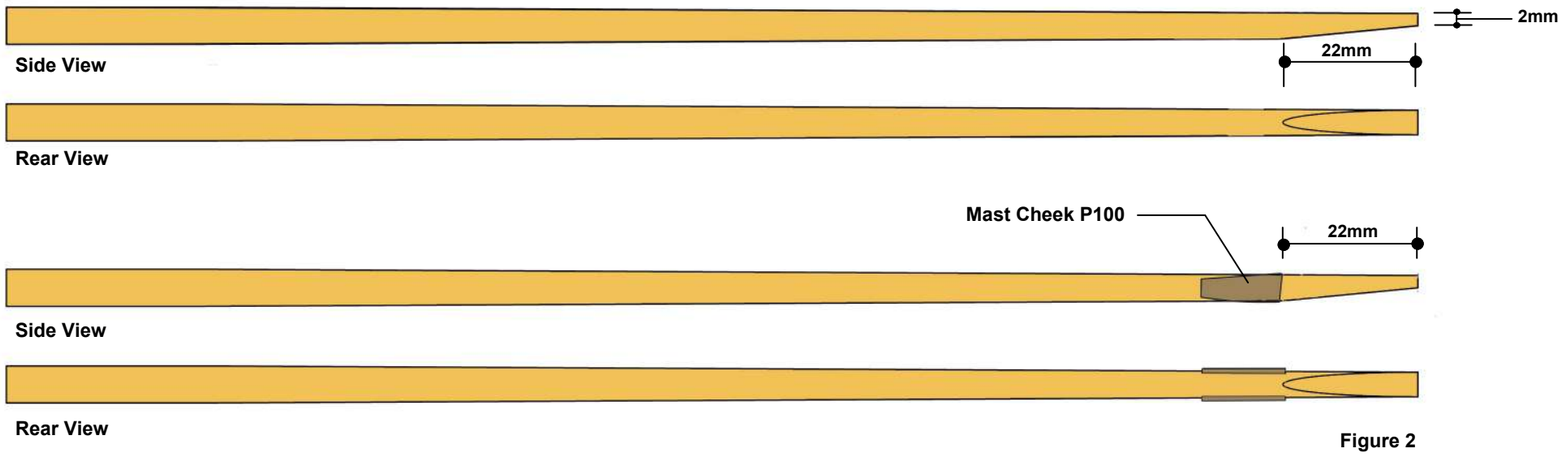
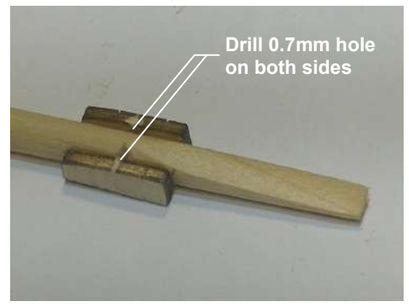


Figure 2



Main Mast - Upper - Identify the 4mm dowel P103B - cut and shape as shown

Main Mast - Upper - L168mm, 4mm dowel P103B

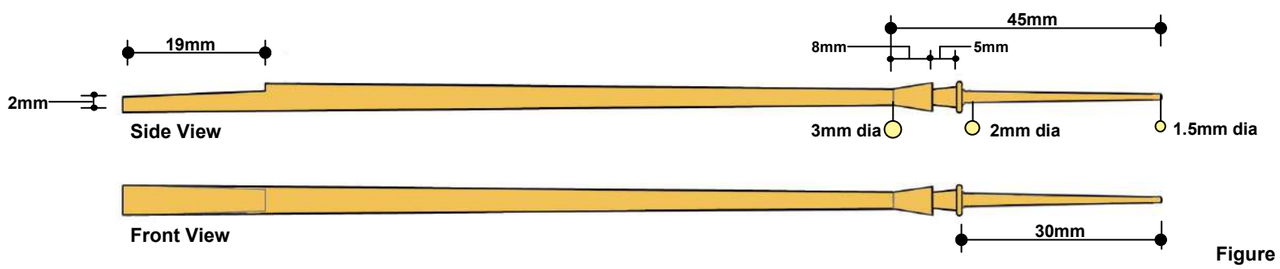


Figure 3

CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

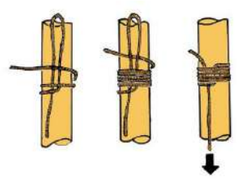


Figure 5

Main Mast Cross & Trestle Trees

Main Mast - assemble the lower and upper masts - glue the joint between the lower and upper masts as shown. Stain the assembled mast with shellac and then lightly sand to give a weathered appearance. Lash the lower & upper masts together as shown.

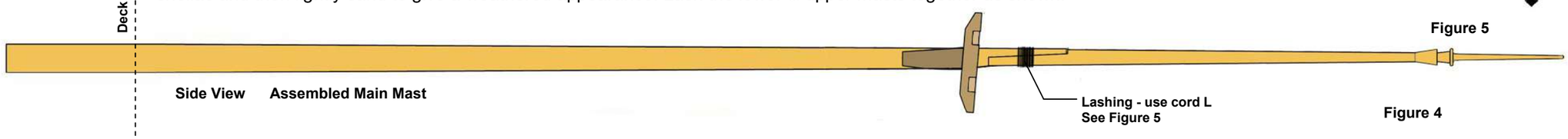


Figure 4

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1606
SHEET 50

Step 2 Foremast - the foremast is in two parts - lower foremast and fore topmast. Shape the relevant dowels as presented below to make the main mast.
Foremast - Lower - Identify the 5mm dowel P104 - taper the dowel as shown. Shape the top end as shown. Identify the mast cheek P105 - mark out its location and file a flat surface as shown to accommodate the mast cheeks - note the mast cheek top is at an angle as shown - glue the mast cheeks in position. Next identify the foremast trestle tree P106 - glue in place across the mast cheek top as shown. Identify the foremast cross tree P102B & P107B - glue each in place centrally across the trestle tree as shown. Stain the assembled mast cheeks, cross trees and trestle trees teak.

Not to Scale

Foremast - Lower - L179mm, 5mm dowel tapered to 4mm P104B

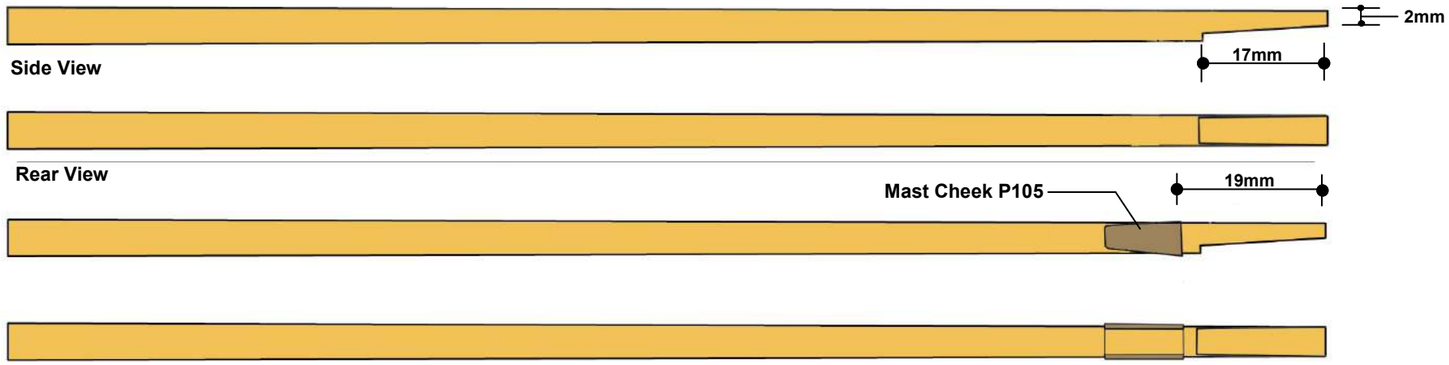
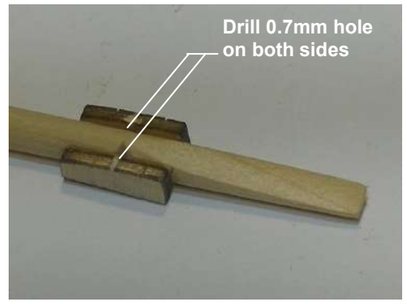


Figure 6

CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M



Foremast - Upper - Identify the 4mm dowel P103C - cut and shape as shown

Foremast - Upper - L120mm, 4mm dowel P103C

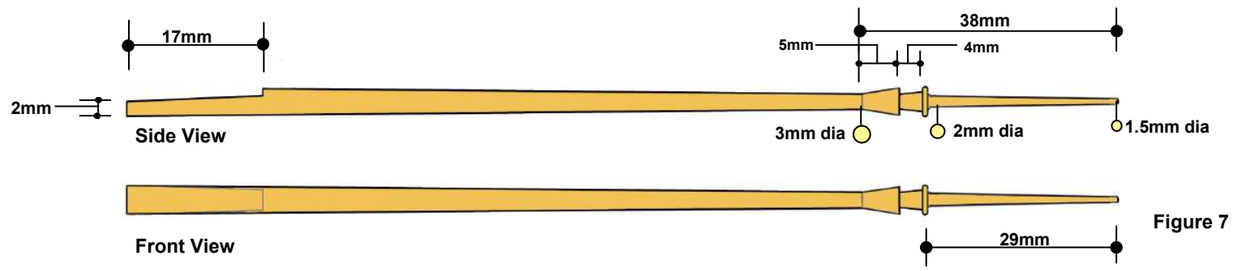


Figure 7

Foremast Cross & Trestle Trees

Foremast - assemble the lower and upper masts - glue the joint between the lower and upper masts as shown. Stain the assembled mast with shellac and then lightly sand to give a weathered appearance. Lash the lower and upper masts together as shown.

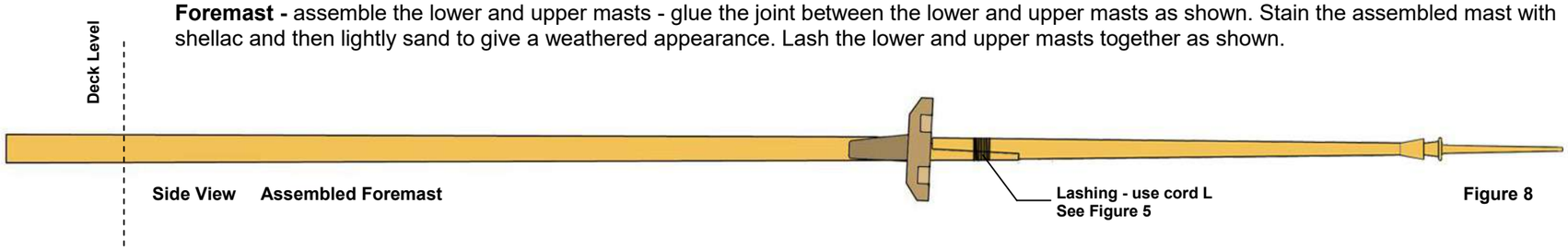


Figure 8

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1606
SHEET 51

Step 3 Mizzen Mast Identify the 5mm dowel P104 - taper and shape the dowel as shown. Stain the mast with shellac and then lightly sand to give a weathered appearance.

Not to Scale

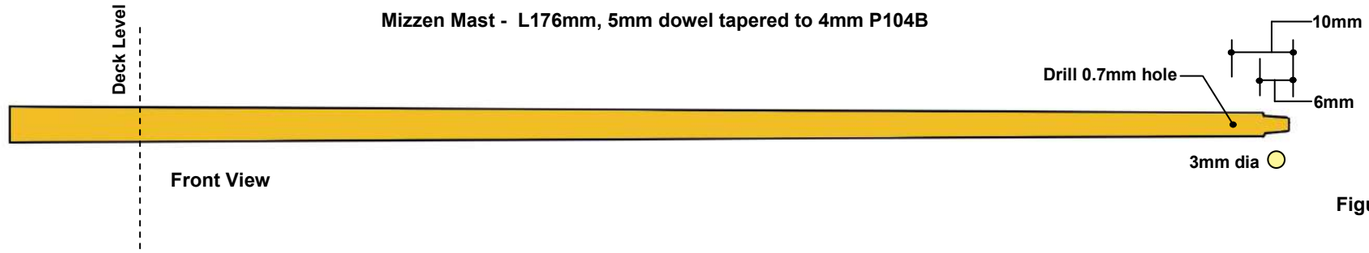

Figure 9

Step 4 Bowsprit & Flagstaffs Identify the relevant dowels - taper and shape each as shown. Stain each yard with shellac and then lightly sand to give a weathered appearance. Assemble the bowsprit as shown.

Bowsprit Identify the 5mm dowel P104 - cut to length and shape as shown

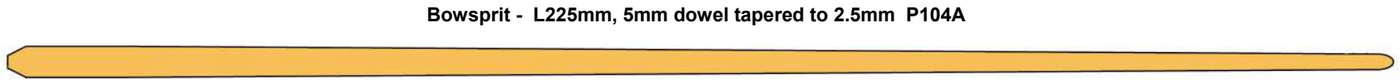

Figure 10

Flagstaff - Bowsprit Identify the 3mm dowel P108 - cut to length and shape as shown.

Figure 11

Flagstaff - Stern Identify the 3mm dowel P108 - cut to length and shape as shown.

Figure 13

Assembled Bowsprit Identify the knee P109 - stain teak - fit & fix in place as shown - fit and fix the flagstaff in place as shown.

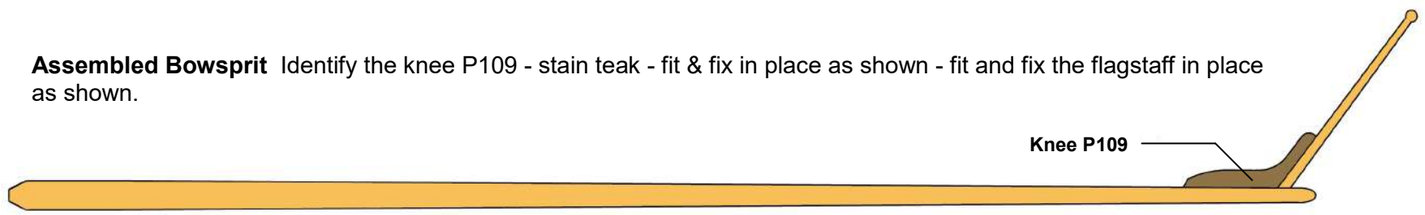

Figure 12

Side View Assembled Bowsprit

Step 5 Yards Identify the relevant dowels - taper and shape each as shown. Stain each yard with shellac and then lightly sand to give a weathered appearance.

Main Yard

Figure 14

Main Top Yard

Figure 15

Fore Yard

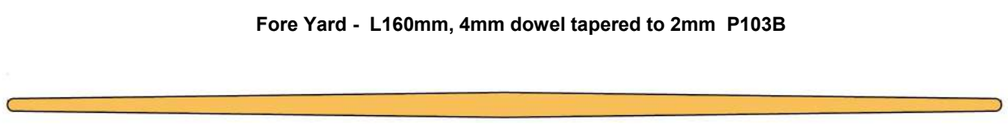

Figure 16

Fore Top Yard

Figure 17

DUYFKEN
1606
SHEET 52

Mizzen Lateen Yard **Not to Scale**

Mizzen Lateen Yard - L195mm, 4mm dowel tapered to 1.5mm P103A

Figure 18

Spritsail Yard

Spritsail Yard - L84mm, 3mm dowel tapered to 2mm P108

Figure 19

Step 6 Yard Fittings Identify and tie the blocks to the yards and bowsprit as shown. Use cord J to tie blocks in place. Use Cord K for lanyards.

Main Yard

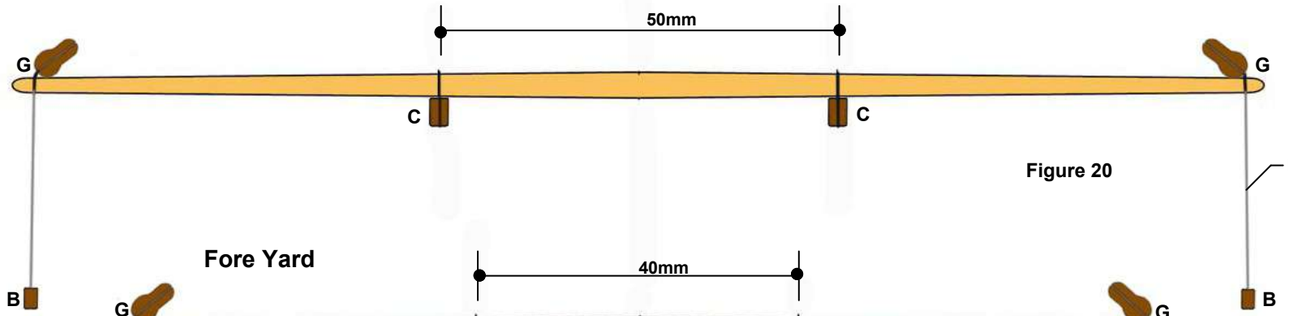

Figure 20

Fore Yard

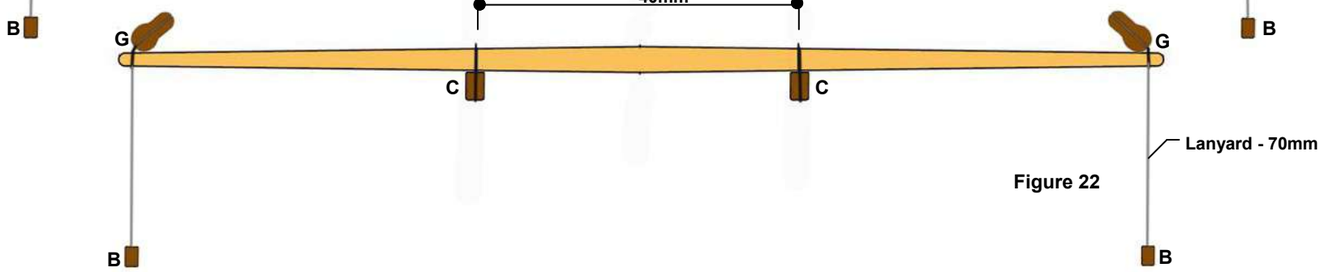

Figure 22

Main Top Yard

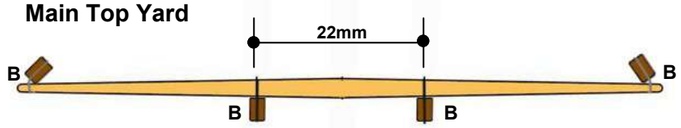

Figure 21

Fore Top Yard

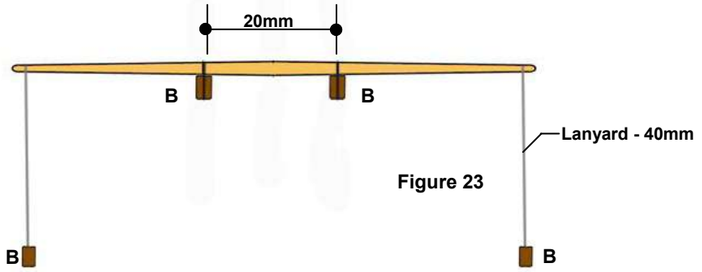

Figure 23

Bowsprit

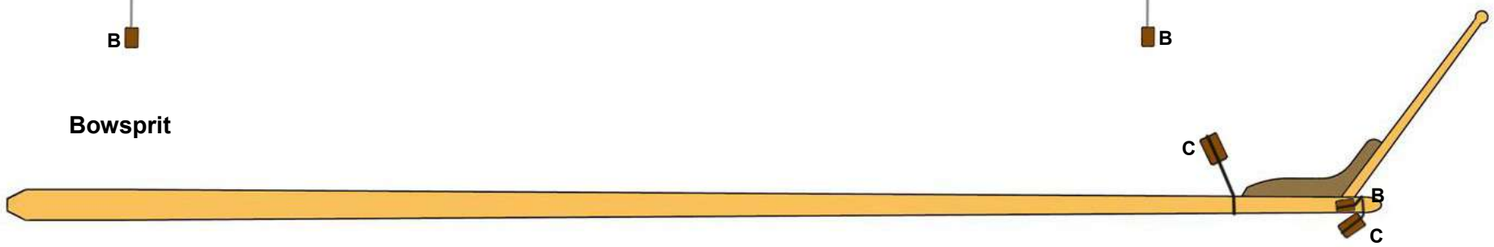

Figure 24

Spritsail Yard

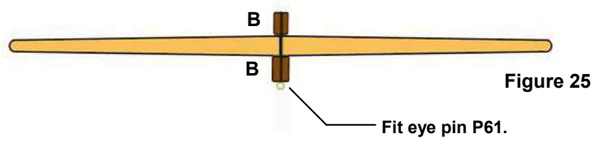

Figure 25

Mizzen Lateen

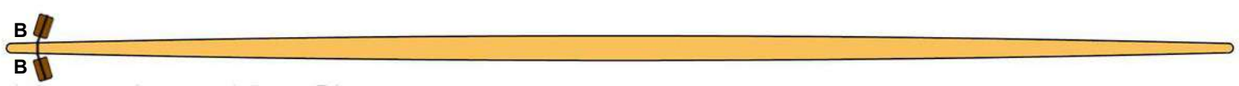

Figure 26

CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

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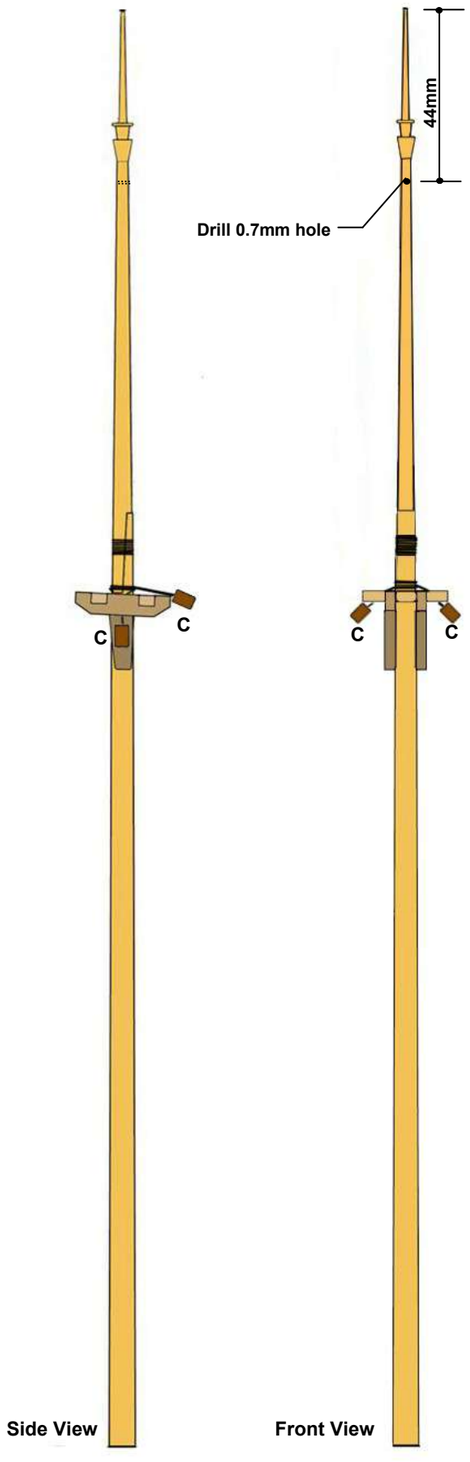
1606
SHEET 53

Step 7 Mast Fittings Identify and tie the blocks to the masts as shown. Use cord J to tie blocks in place. Drill holes as shown.

Foremast

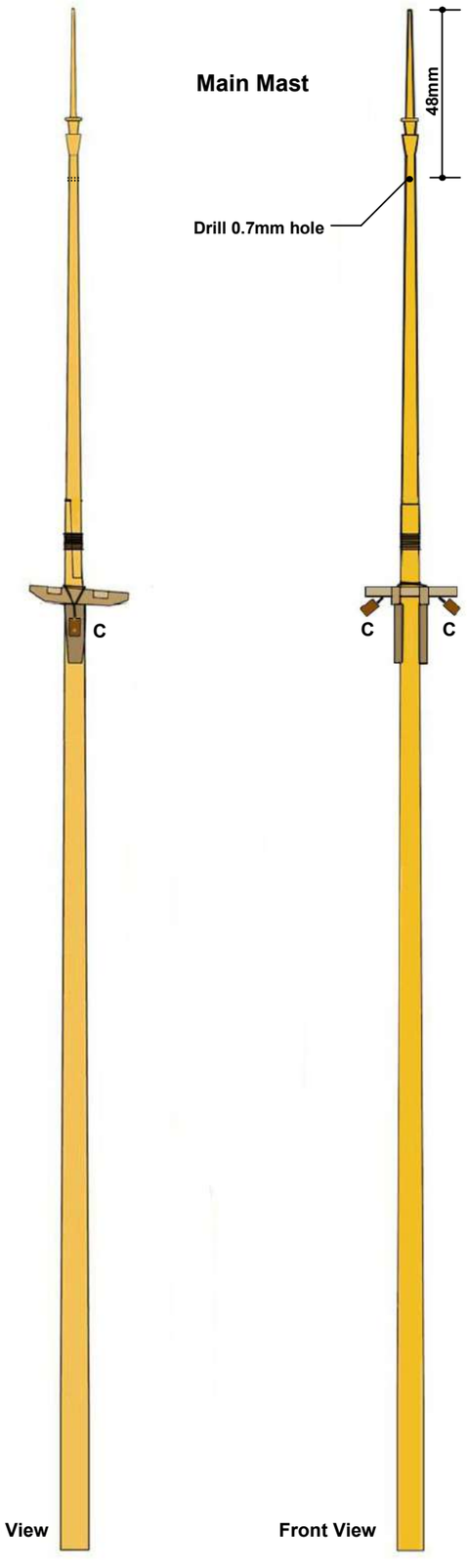


Side View Front View

Figure 27

Not to Scale

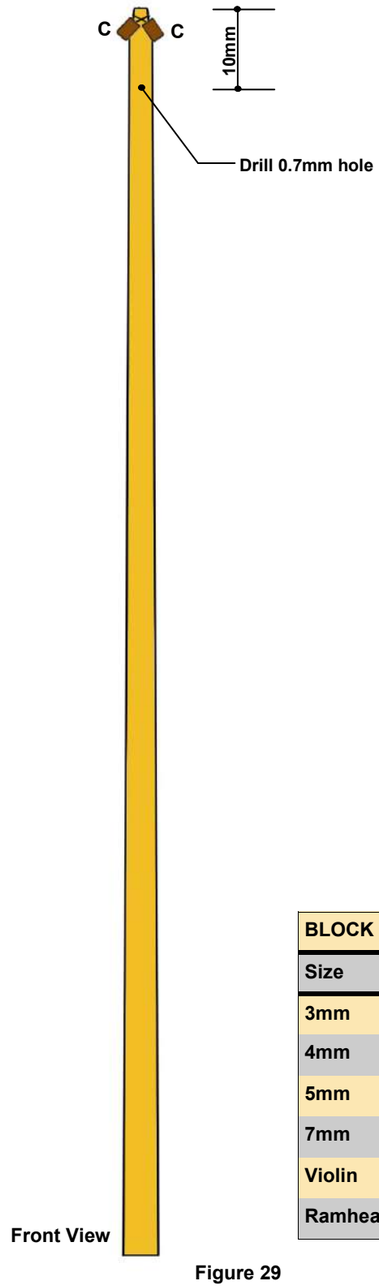
Main Mast



Side View Front View

Figure 28

Mizzen Mast



Front View

Figure 29

CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

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1606
SHEET 54

10.0 Rigging - Introduction

Step 1 Types of Rigging

The rigging of a ship can be divided into two main parts:
1. “Standing” rigging, is used to support the masts and bowsprit.
2. “Running” rigging, 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 1mm black.
The running rigging is fawn of two sizes, 0.25mm and 0.5mm.

Step 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.

Step 3 Typical Rigging Applications

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

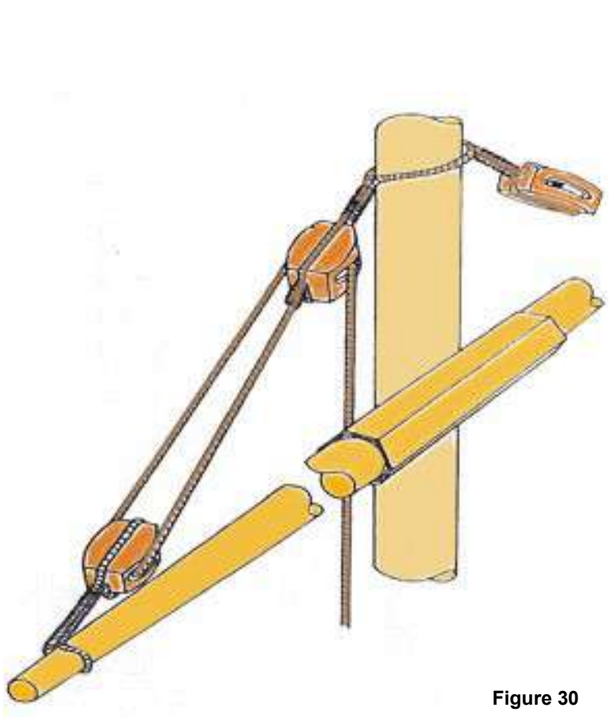


Figure 30

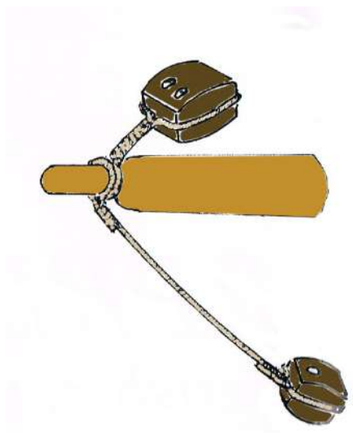


Figure 31

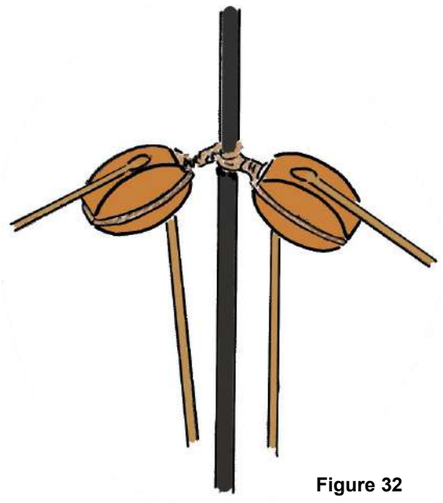


Figure 32

Figure 33

Figure 34

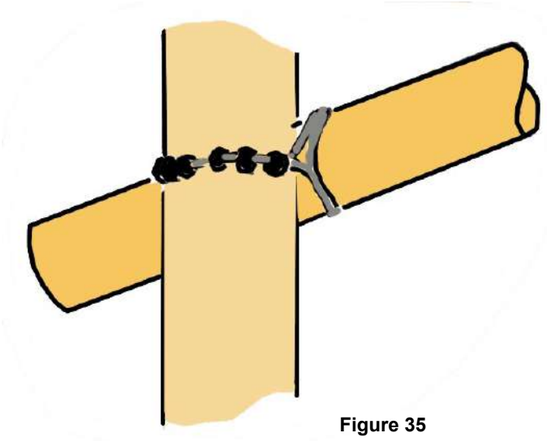


Figure 35

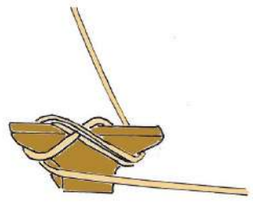


Figure 36

Figure 37

DUYFKEN
1606
SHEET 55

Step 4 Belaying Plan

The belaying plan shows where the rigging starts and finishes. This plan will be used in each of the following sheets. The numbers presented on the following drawings & photos correspond to the belaying points indicated Figure 38. Fit eye pins P61 to all belaying points except those on pin rails.

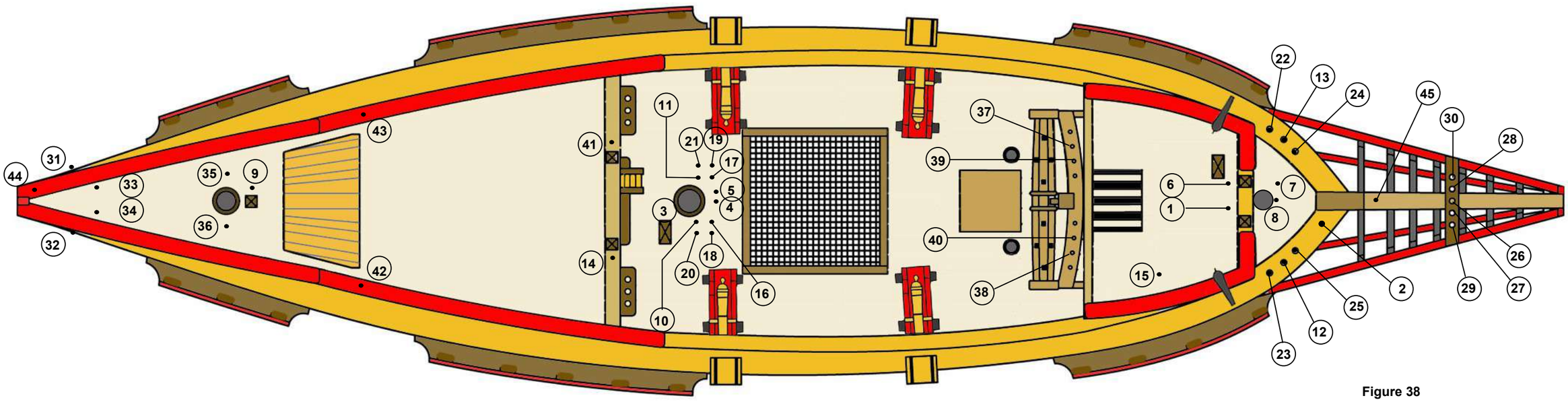
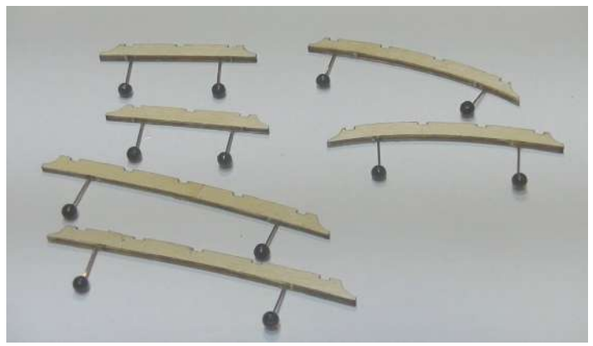


Figure 38

Step 5 Identify the foremast channels P96, main mast channels P97 & mizzen mast channels P98 - fit pins to each as shown - remove the pin heads. Stain the channels teak. Use the pins to mark the location of the channels. The mizzen channels are fitted to the to the strake that runs along the length of the hull at the main deck cap rail level. The center channel slot aligns with the centre of the mizzen mast. The main mast and foremast channels are fitted to the strake that runs along the length of the hull immediately below the gun ports. For the main mast channels the first slot aligns with the main mast. For the foremast the first slot aligns with the foremast deck hole. Mark the locations of the relevant channel pins, drill a 0.7mm hole at each of these points and apply super glue to the pins and inside edge of the channels and fix in place.



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1606
SHEET 56

Step 6 Standing Rigging

The standing rigging includes the rigging of the forestays, backstays 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. Shrouds
3. Backstays

The instructions follow this sequence.

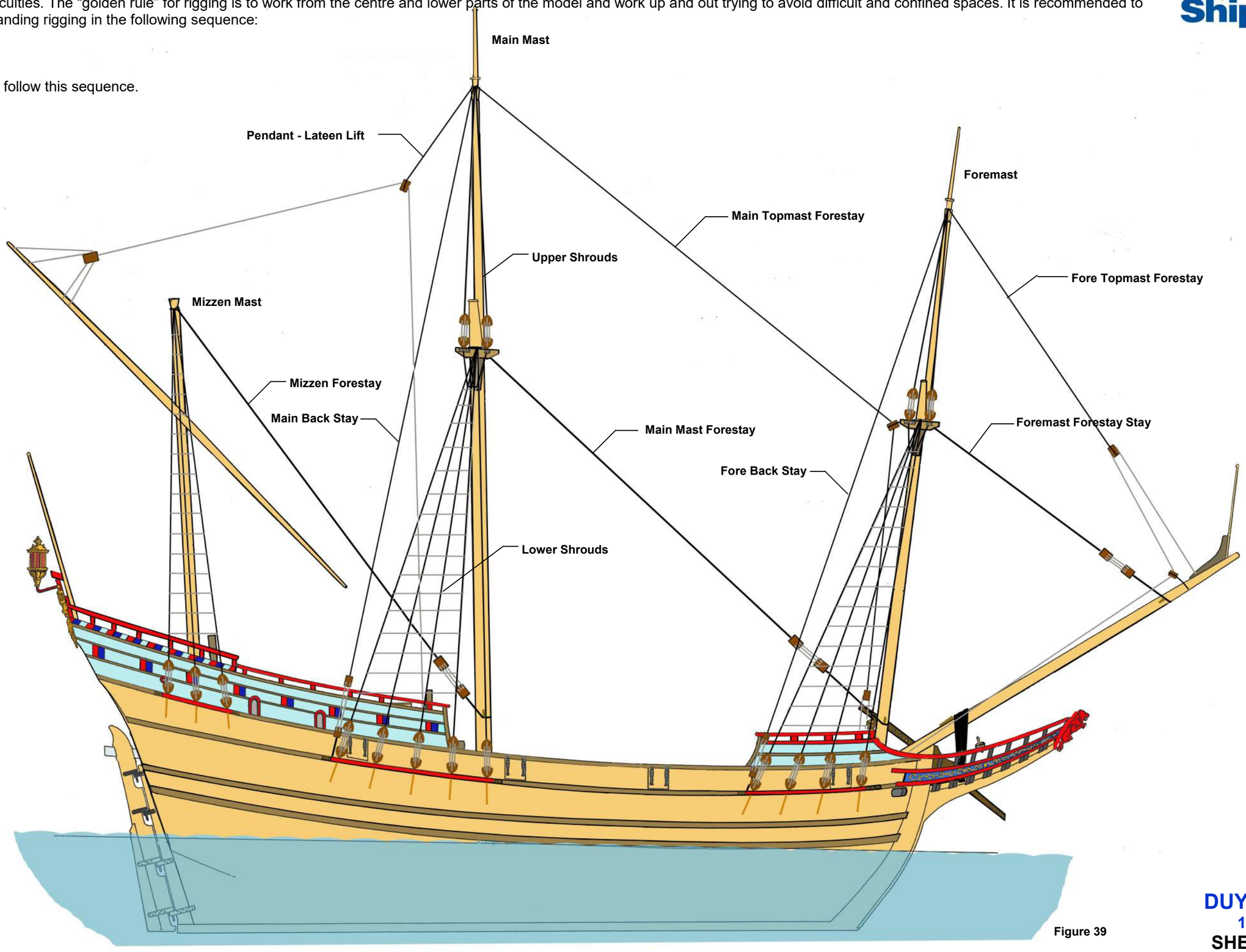
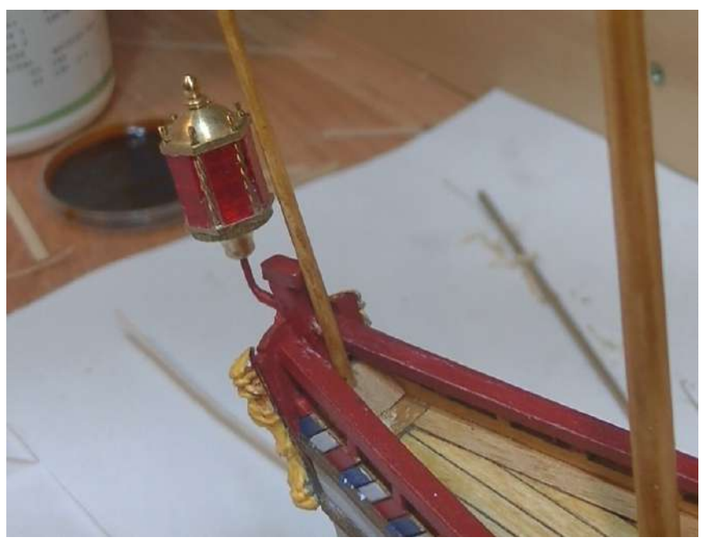


Figure 39

DUYFKEN
1606
SHEET 57

Step 7 Step Masts & Bowsprit
Trial fit the bowsprit and each mast in position - you may need to sand the portion that fits into the slot - ensure each is fully inserted into the slot - once satisfied glue each in place - check to make sure each mast is aligned vertically in the line of the hull length before the glue sets.

Step 8 Stern Lantern and Flag Staff
Identify the stern lantern P110 - fix in place as shown. Fix the flag staff in place as shown.



Step 9 Forestays - Fit the forestays. Use cord M. For the main mast and foremast forestays tie the cord around the relevant mast top and seize with cord L as shown. For the mizzen mast tie and seize the cord around the top of the mast.

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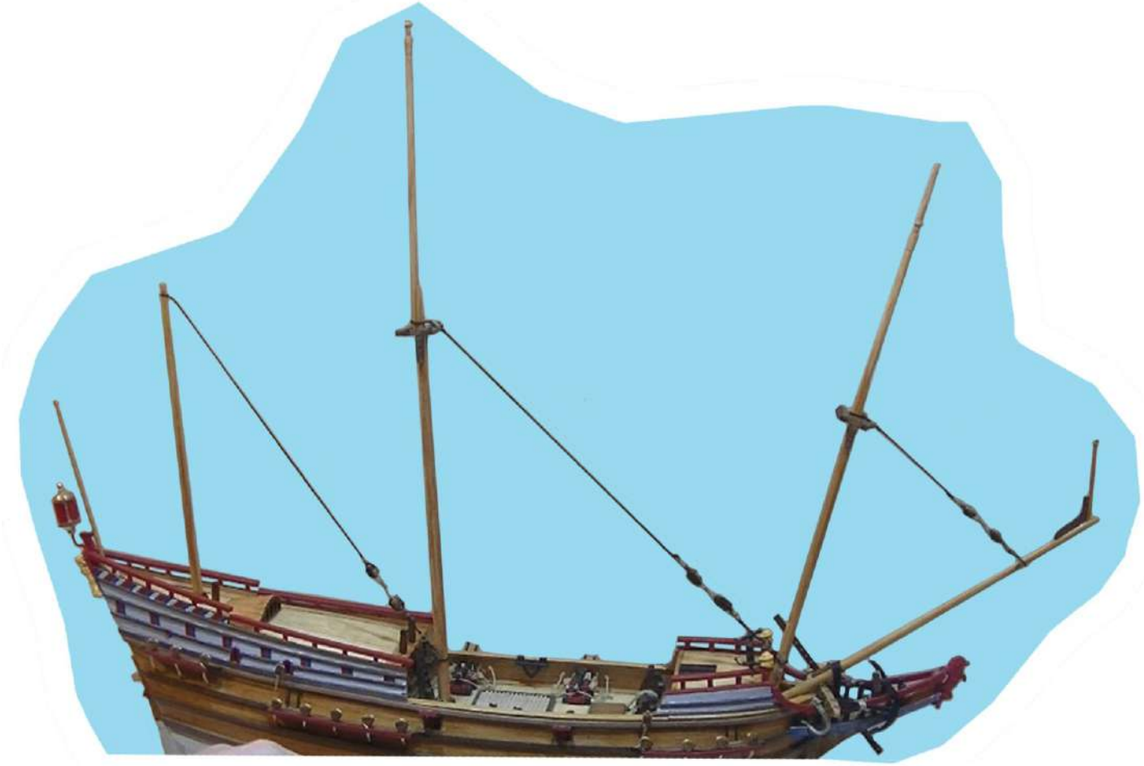


CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

DUYFKEN
1606
SHEET 58

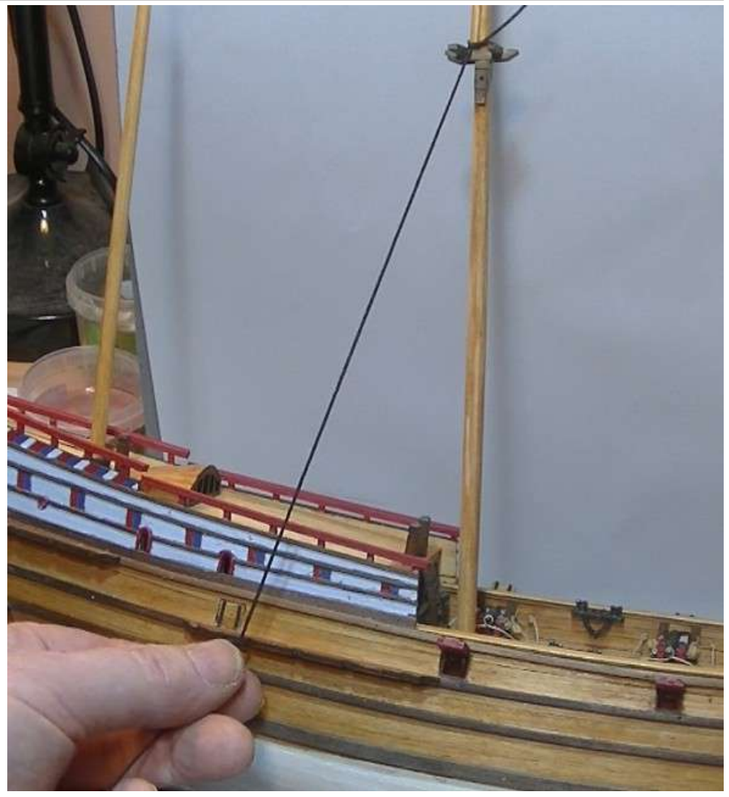
Step 10 Use 2x3mm walnut P48 to cut and shape 8 x 6mm lengths as blocks to hold the forestays in place on the masts and bowsprit - glue in place a shown. For the mizzen forestay fit and seize block E to the cords as shown. Tie and seize a length of cord M around the main mast as shown. Reeve the two blocks as shown. For the mainmast forestay fit and seize block F to the cords as shown. Tie and seize a length of cord M around the foremast as shown. Reeve the two blocks as shown. For the foremast forestay fit and seize block E to the cords as shown. Tie and seize a length of cord M around the main mast as shown. Reeve the two blocks as shown.

Step 11 Lower Deadeye Straps The next step is to make the lower deadeye straps. The deadeye straps are fixed to the hull over the channel and hold the lower deadeyes of the shrouds. Identify the 0.5mm brass wire P122. Identify the deadeye - triangular P123. To make the deadeye straps cut a 60mm length of 0.5mm brass wire and bend it around the deadeye as shown - with long nose pliers twist the wire twice and straighten the remaining length of wire as shown. Make sure the centre hole of the three is the lowest as shown. Make 24 deadeye straps. Do not fit the straps to the channels yet.

Step 12 Shroud Extension Angle

The deadeye straps need to be fitted to the side of the hull as an extension of the shroud angle. To determine the extension angle for each shroud follow the steps below:

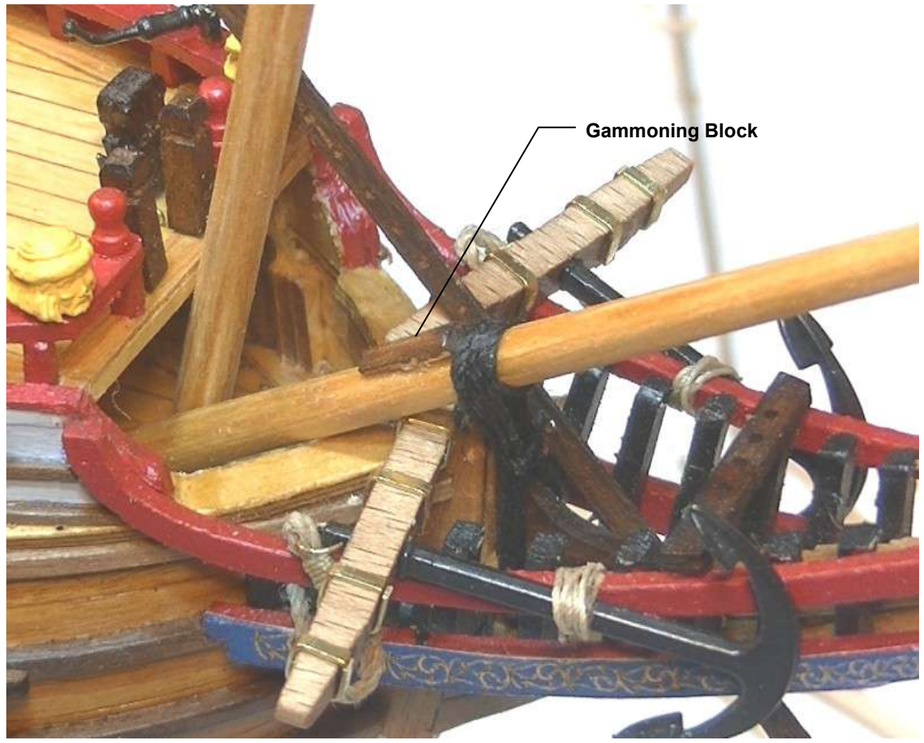
1. Temporarily run a length of cord from the mast head long enough to extend below the channel.
2. Pull the cord over a channel slot and mark on the hull immediately above the relevant strake below the channel - this will be where a hole will be drilled to fit the strap tail. Do this for each shroud.
3. Drill a 0.8mm hole at each point to accept the strap. Place the deadeye strap into the channel slot. Align the strap tail to the hole and bend at a right angle. Fix the deadeye strap into the hole with super glue. Use this approach to fit & fix all deadeye straps in place to both sides of the hull.



DUYFKEN
1606
SHEET 59

Step 13 Channel Cap - for the channel cap use 1x2mm limewood P70 - cut lengths to cover the outside edge of each channel - glue in place and paint red as shown.

Step 14 Gammoning block - cut a 8mm length of 2x3mm walnut P48 as a block for the gammoning. Fix it in place on the bowsprit as shown. Use cord M for the gammoning - fit over the bowsprit and through the pre-cut slot in the stem post. Tie the gammoning together in the centre.



Step 15 Backstay Blocks are fitted to the main mast and foremast channels. Take 4 x Block D and fix eye pin P61 to one end of each block as shown. Use cord K to tie off to each block. Fix an eye pin P61 to the rear end of the main mast channel and the foremast channel as shown. Tie the cord of the block to this eye pin as shown.

CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

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1606
SHEET 60

Step 16 Shrouds - Preparation

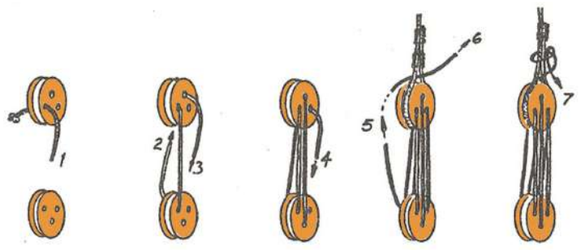
Shrouds are made-up in pairs with a deadeye attached to the end of a single cord - the sequence for fitting the shrouds around the mast head is shown Figure 40. The first pair from one side of the hull are fitted followed by the second pair from the over side of the hull that are placed over the first pair - this sequence is repeated until all pairs are fitted. Where there is an odd number of shrouds the single shroud is tied-off to itself as shown Figure 40.

Deadeye Wire Jig

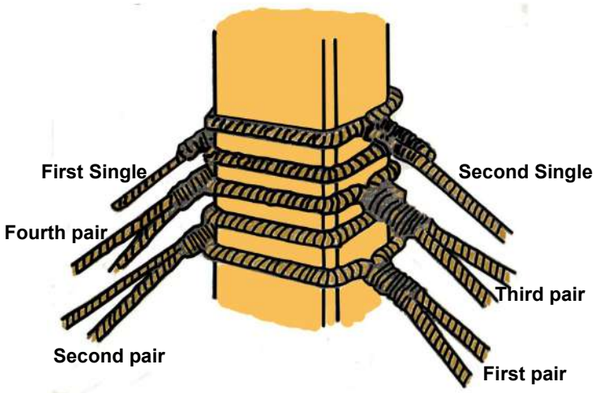
A deadeye wire jig is used to provide the correct spacing between the upper and the lower deadeye and ensure the deadeyes are in straight rows parallel with the channels and with each other - use two jigs for added deadeye stability while fitting the upper deadeye. Make the jigs from paper clips - straighten the clip and bend 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 3 to 4 times the diameter of the deadeyes.

Lanyards

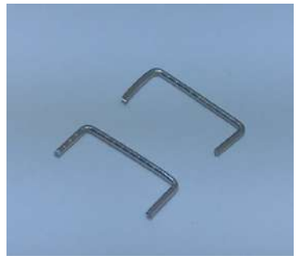
The lanyards are the cords that reeve (tie) the upper and lower deadeyes together and are used to tension the shrouds. For the lanyards use cord K and reeve as shown Figure 41.



Upper & Lower Deadeye Reeving Sequence **Figure 41**



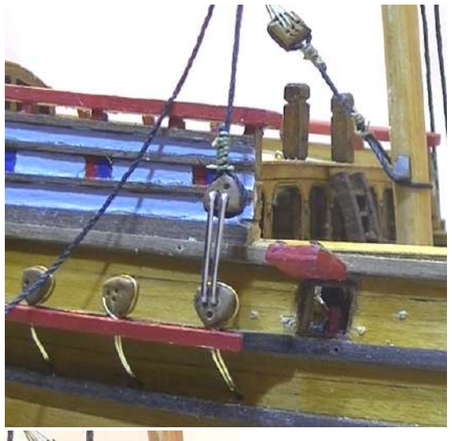
Shroud Placement Sequence **Figure 40**

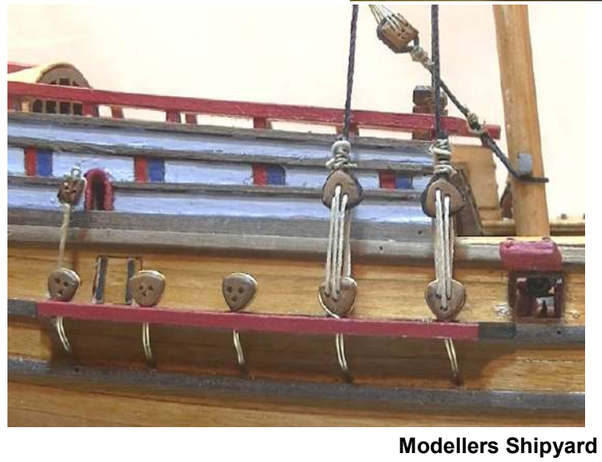


Deadeye Wire Jigs

Step 17 Lower Shrouds

The next step is to fit the shrouds. We will start with the main mast lower shrouds. On the starboard side fit the first pair of shrouds by cutting cord M to a length long enough to go from the channel to the mast top twice with approximately 40mm overhang. At the mast head use cord J to seize the two shrouds together - this will be the first pair of shrouds. Fit the two jigs into the lower deadeye holes - note the orientation of these holes - take another deadeye P123 and fit the two jigs into the corresponding holes - then wrap the shroud around the outer edge of the deadeye and clamp the shroud and cord tail as shown. Make sure the centre hole of the upper deadeye is the highest of the three. Next use cord J to seize the shroud cord back onto itself as shown. Repeat for the second shroud on the starboard side. Lastly reeve the lower and upper deadeyes together using cord K as shown. Repeat for the same two shrouds on the port side. Repeat this process for the rest of the shrouds on the three masts.





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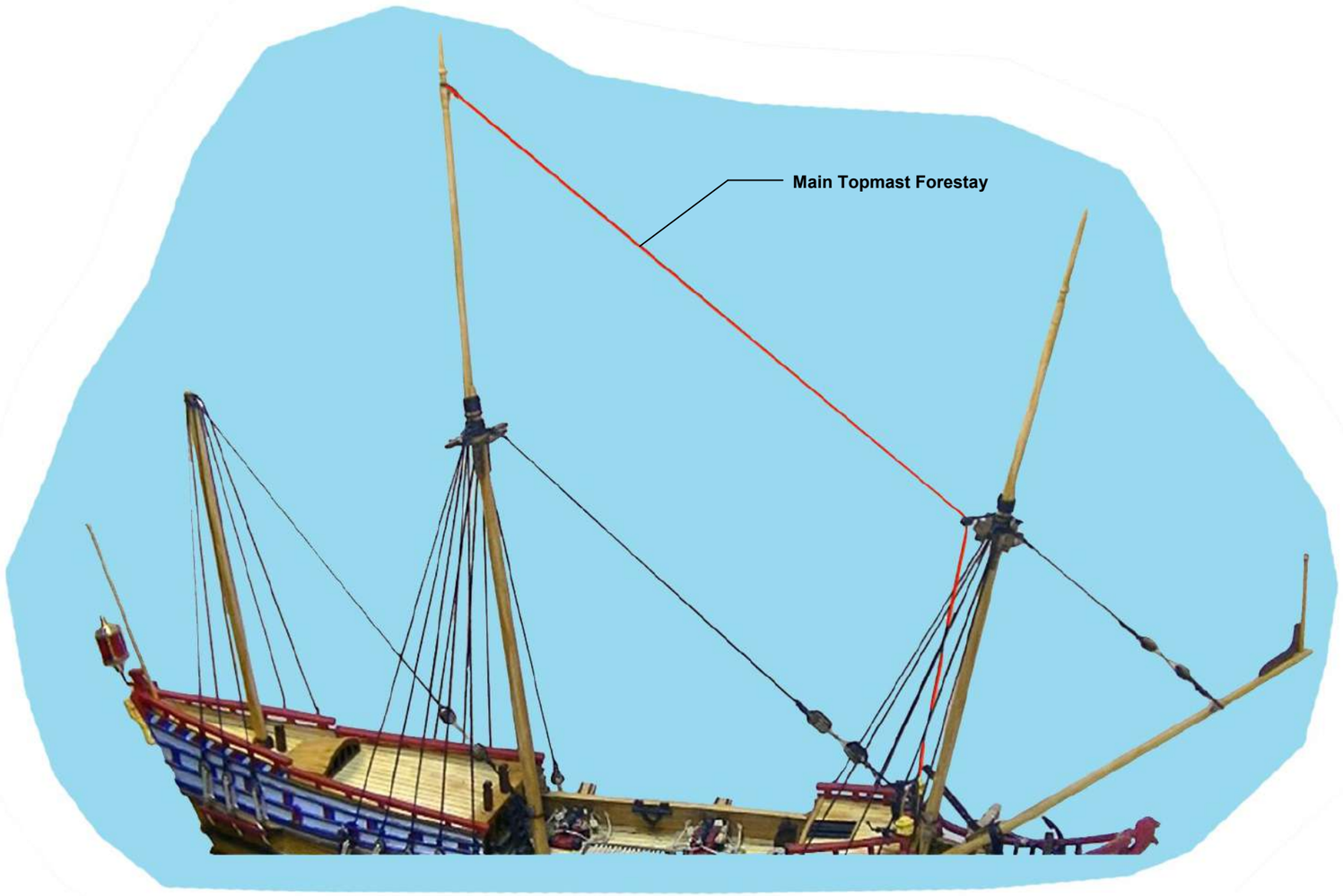
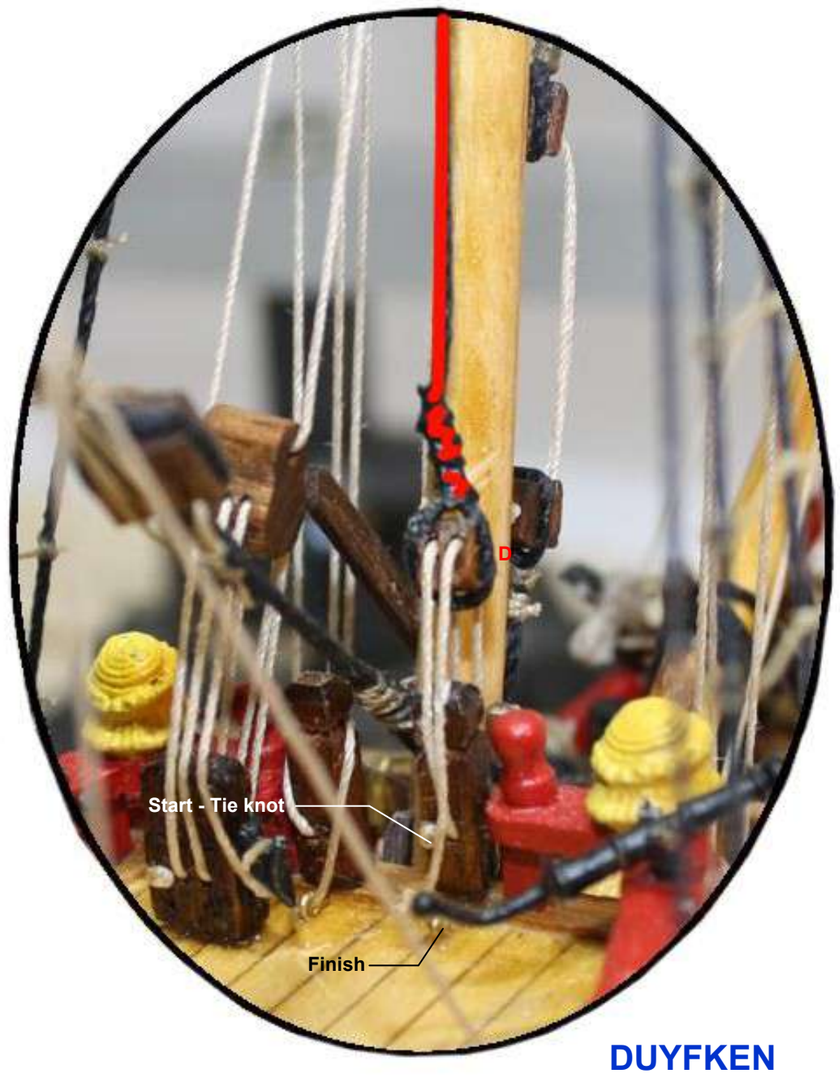
SHEET 61

Step 18 Main Topmast Forestay

Tie and seize a block C at the rear side of the foremast masthead as shown. Run a length of cord M from the main mast topmast as shown to the block on the foremast and down towards the deck. Fit a block D to the end of the cord as shown. Use cord K to reeve the block to the starboard side bitt head as shown - terminate at point 1 - see Belaying Plan.





BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

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1606
SHEET 62

Step 19 Fore Topmast Forestay

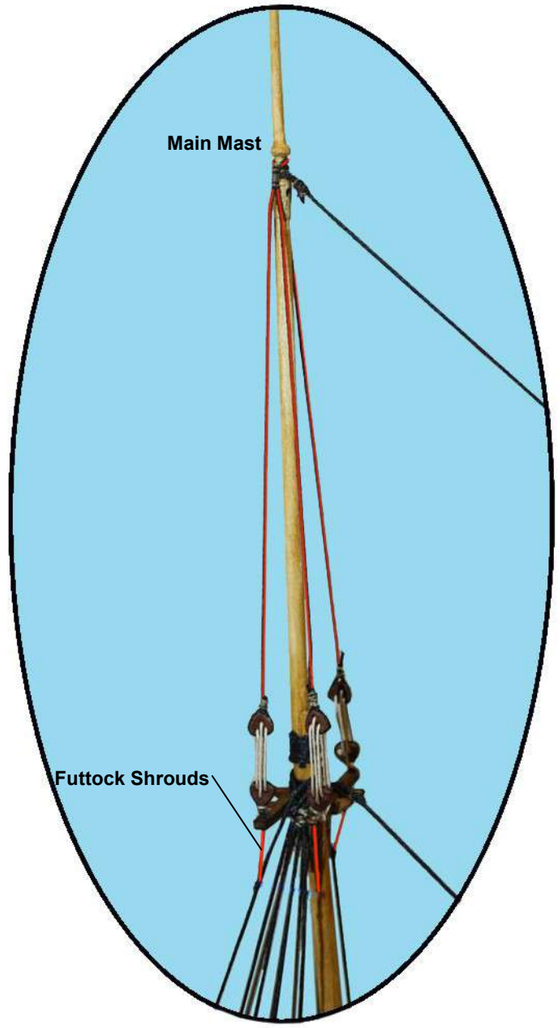
Run a length of cord M from the fore topmast and fit a block C at the end as shown. Fit a block D to the end of the cord as shown. Use cord K to reeve the blocks as shown and terminating at Point 2 - see belaying Plan Sheet 56

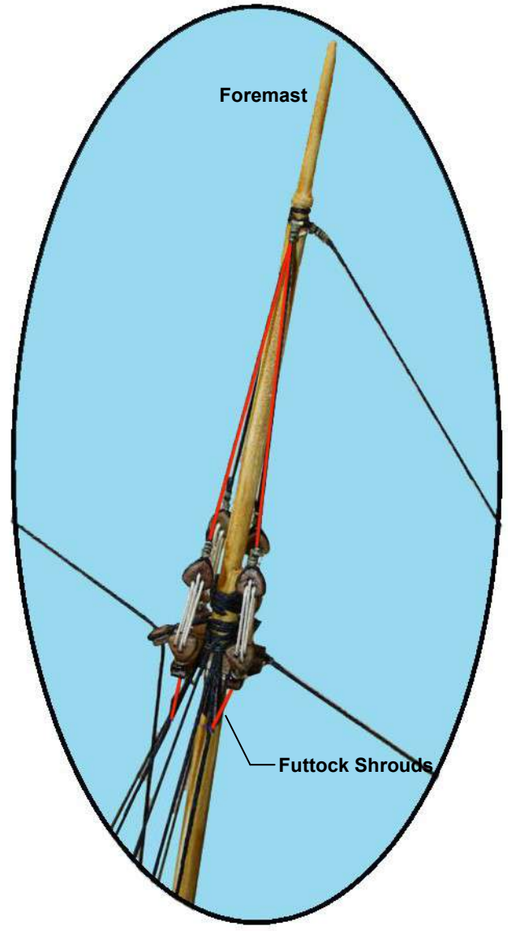
BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

Step 20 Main & Fore Masts Top Shrouds

To fit the topmast shrouds first tie the lower deadeyes P123 to the cross trees using cord L as the futtock shrouds as shown. Apply the process previously presented to fit the shrouds and attach the upper deadeyes. Reeve the lower and upper deadeyes together using cord K as shown. Repeat for the same two shrouds on the port side. Repeat this process for the fore topmast shrouds.





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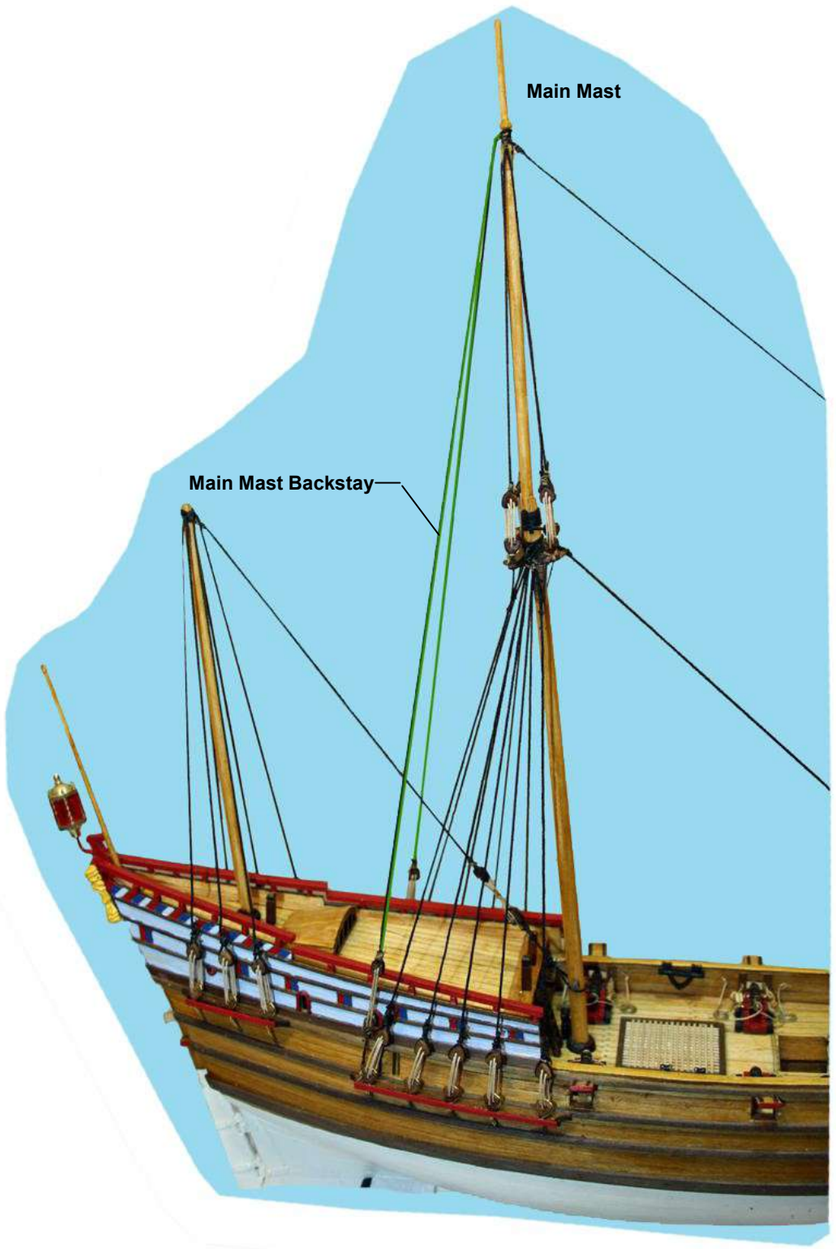
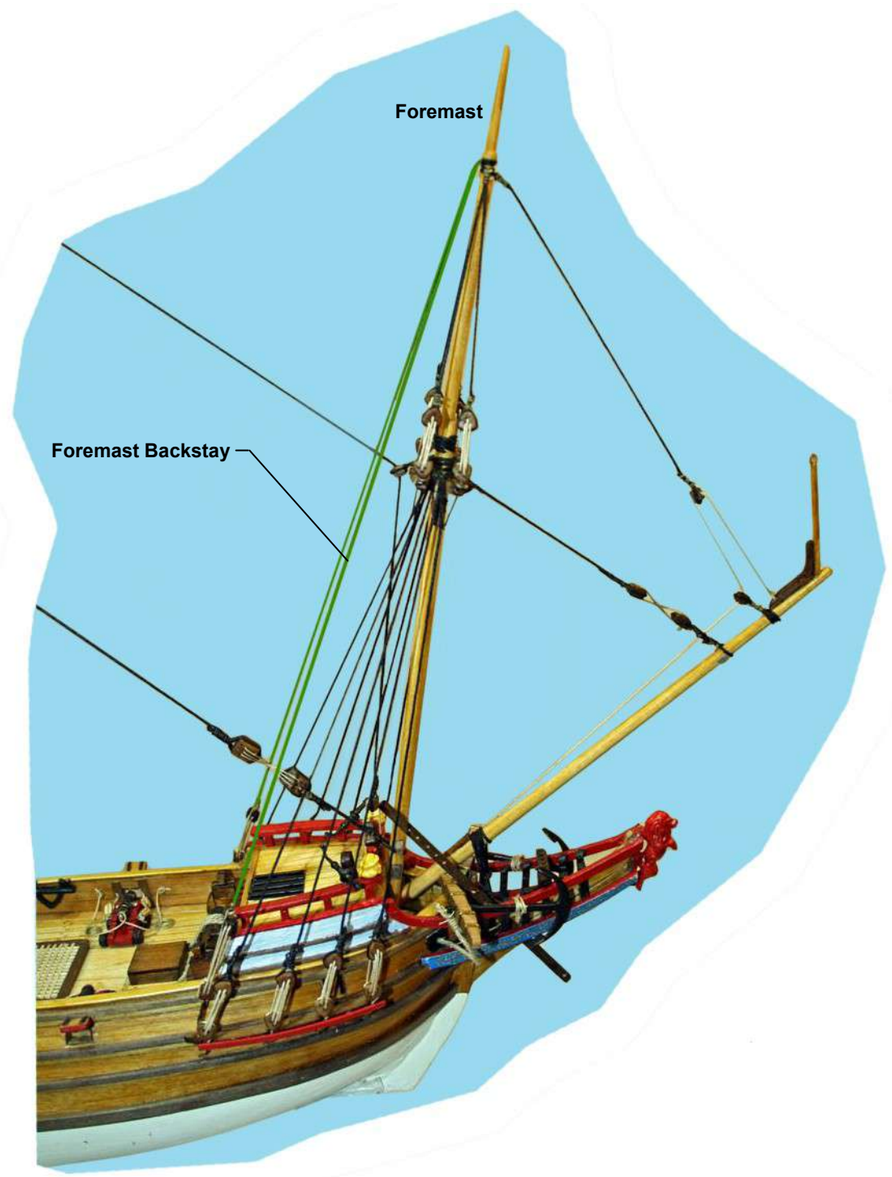
1606
SHEET 63

Step 21 Backstays - Main Mast and Foremast - for each pair of backstays cut a length of cord M long enough to go from the topmast down to the cap rails as shown. Seize the cords together at the topmast as shown. Fit block D to each end of the cord. Reeve the blocks together using cord K starting at the eye pin previously fitted to the lower block and terminating on the stay immediately above the upper block as shown.





CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

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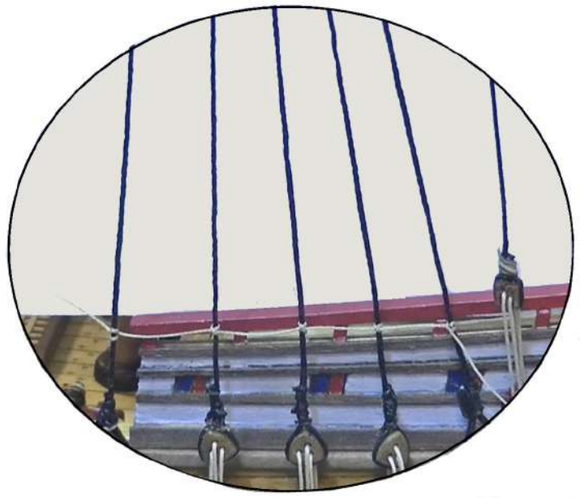
1606
SHEET 64

Step 22 Ratlines - the ratlines are the rope ladders used by the crew to climb up the mast. Using cord J tie off the ratlines to the shrouds on the mizzen mast, main mast - lower & upper and the foremast - lower and upper as shown. Space the ratlines approximately 10mm apart making sure they are horizontal and parallel with each other. Seize the end knots with a dab of glue and trim excess cord. Figure 42 shows the knot to be used.



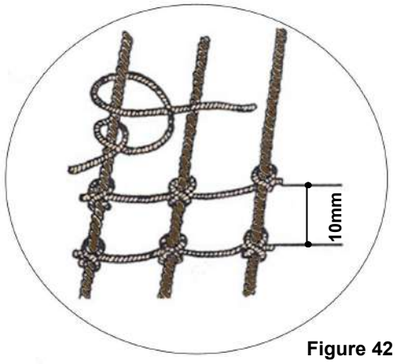
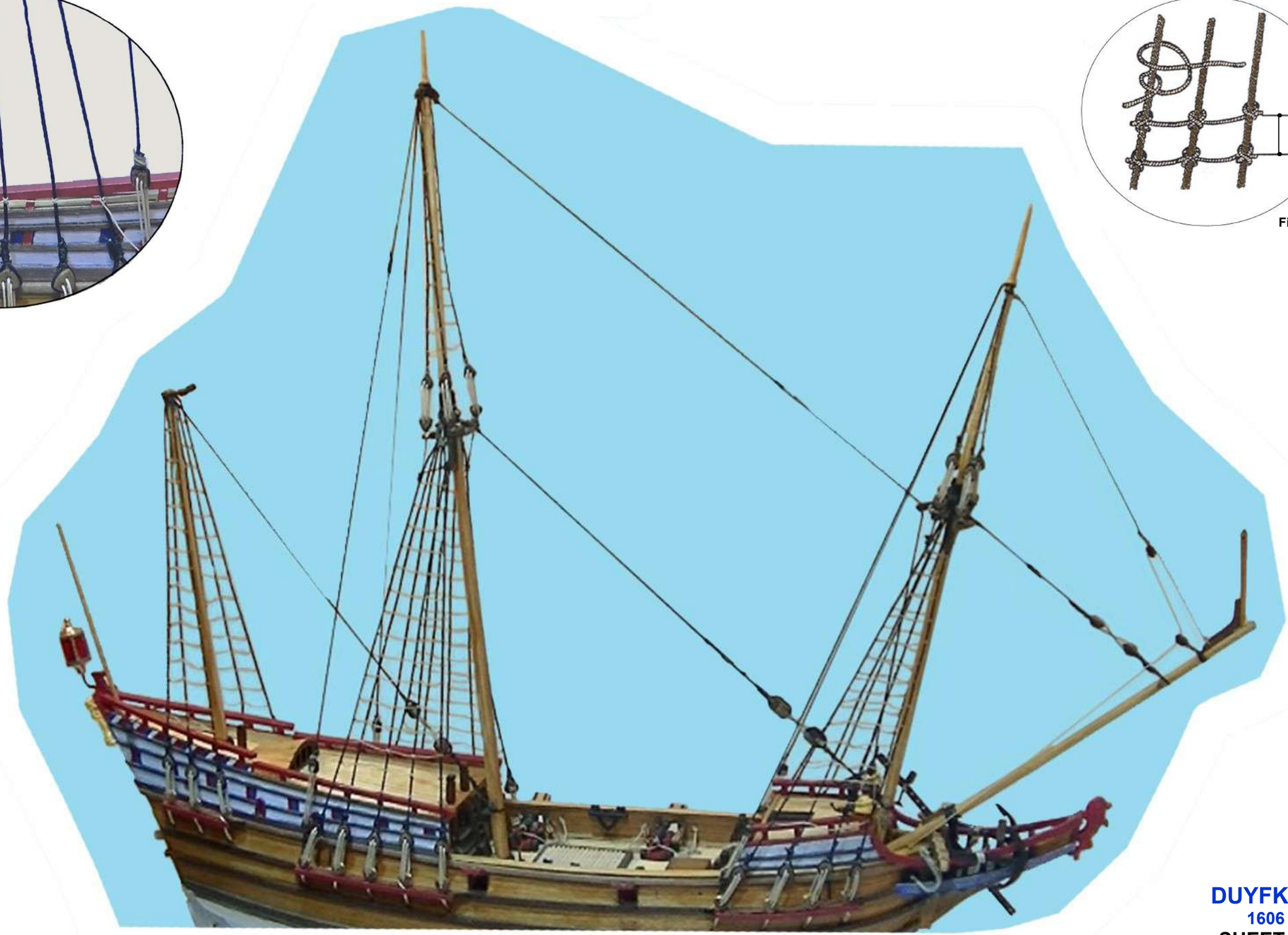


Figure 42



CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

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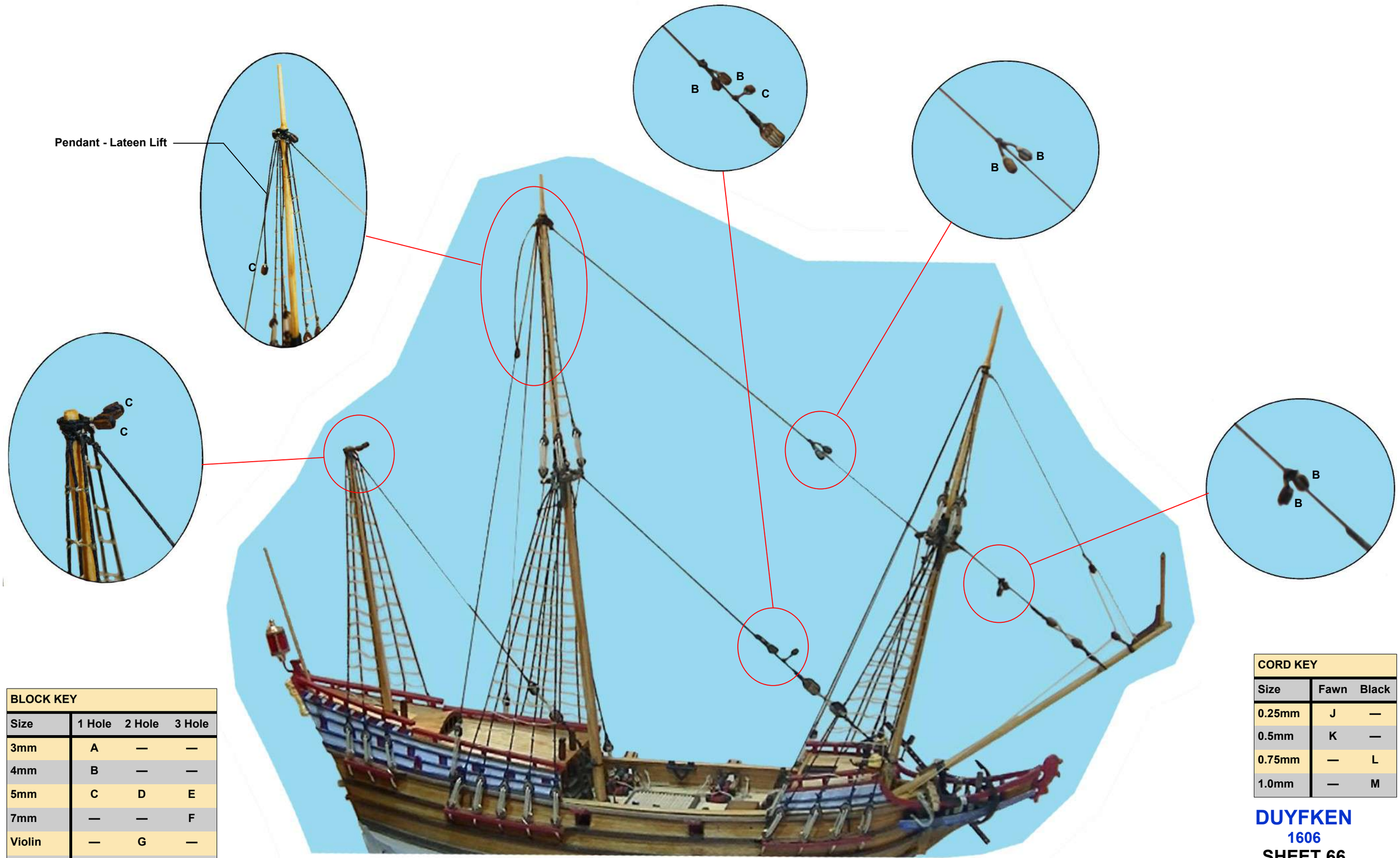
SHEET 65

Step 23 Running Rigging Preparation - fix the blocks identified as shown. Tie each block using cord L. Use cord M for lateen lift pendant.



BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

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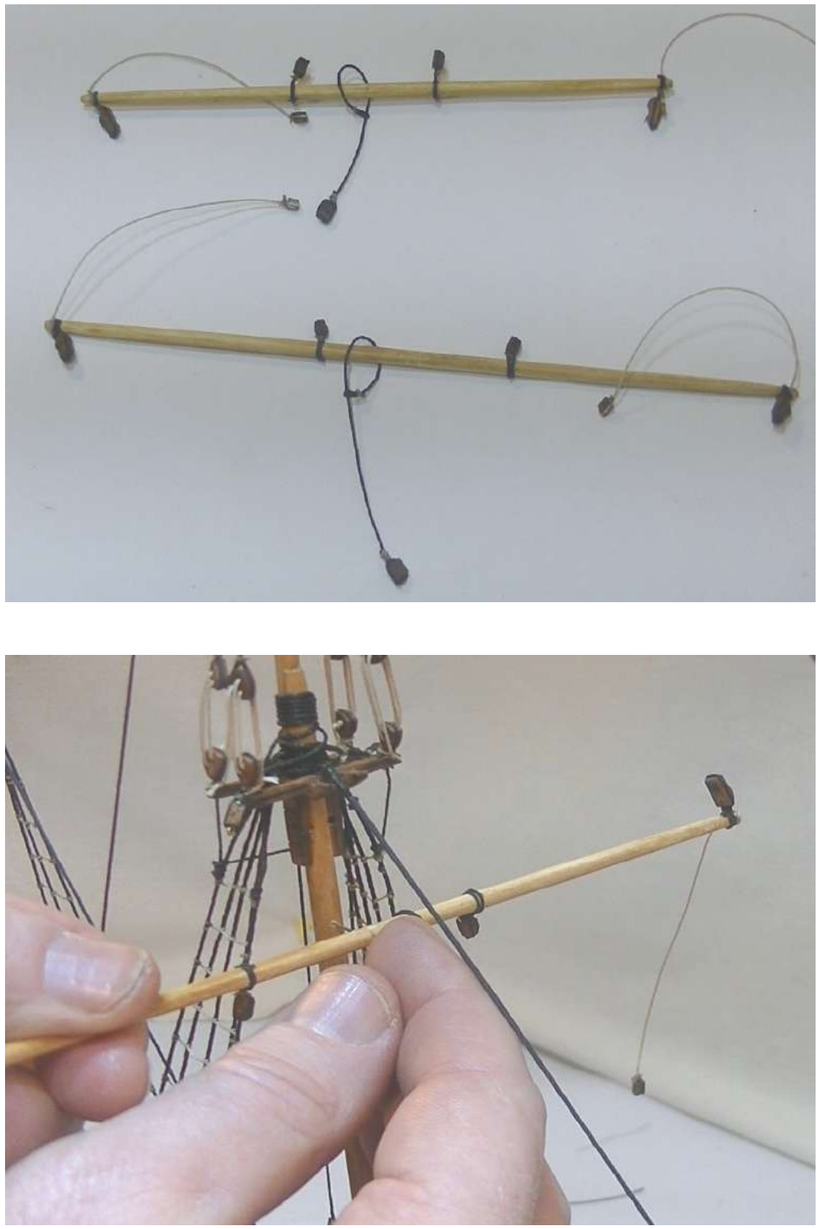
SHEET 66

Step 24 Yard Slings - the next step is to make slings for the lower yards of the main and fore masts. For the main lower yard - cut a 85mm length of cord L - make and tie-off a loop at one end - feed the end of the cord through this loop and fit a block D to the end as shown. Repeat for the lower foremast yard - cord L to be cut at 65mm.

Step 25 Yards - **Main Yard** - next we will fit the main yard to the main mast. As the model is static we will be fixing the yards in place. Drill a 0.7mm hole through the centre of the yard from its forward facing side - fit a pin through this hole and glue in place - cut-off any excess pin length.

On the main mast measure down from the underside of the cross trees a distance of 30mm - mark the centre of the mast at this point and drill a 0.7mm hole. Trial fit the yard in place - once satisfied glue the yard in place making sure it is horizontal and square to the body of the model. Move the sling to the centre of the yard.



CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

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1606
SHEET 67

Step 26 Yard Halyard & Tye - Main Yard Identify block H - run a length of cord K through the block and clamp as shown - the two ends then go up to the mast cheeks and pass through the previously drilled holes to then be tied off on the yard as shown. For the halyard reeve block H to the main mast knighthead as shown and terminating at the cleat on the side - belaying point 3. Next fix an eye pin P61 to the deck immediately in front of the mast heel - belaying point 4 - use cord L to attach block D to the eye pin as shown. Fix another eye pin to the side of the other eye pin - belaying point 5. For the tye use cord K to reeve this block and the sling block together as shown terminating at belaying point 5. Identify the parrels P124 - fit a number to a length of cord K and tie-off to the yard around the mast as shown.

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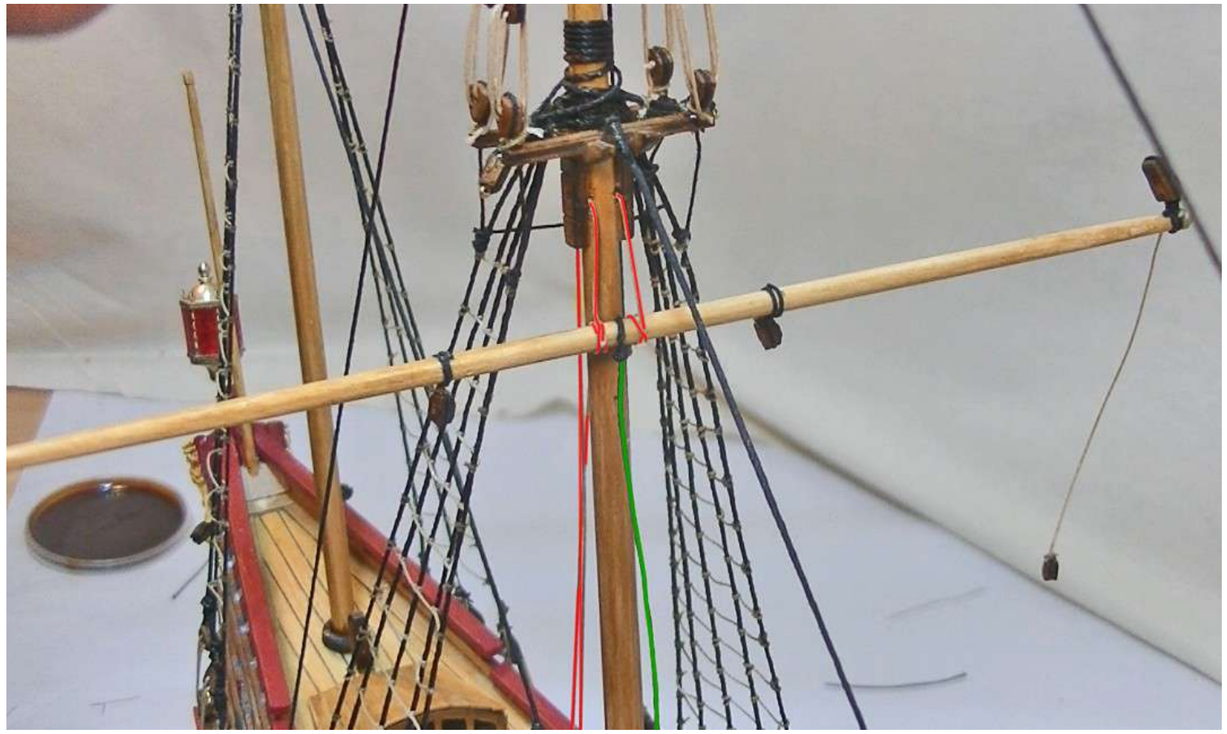

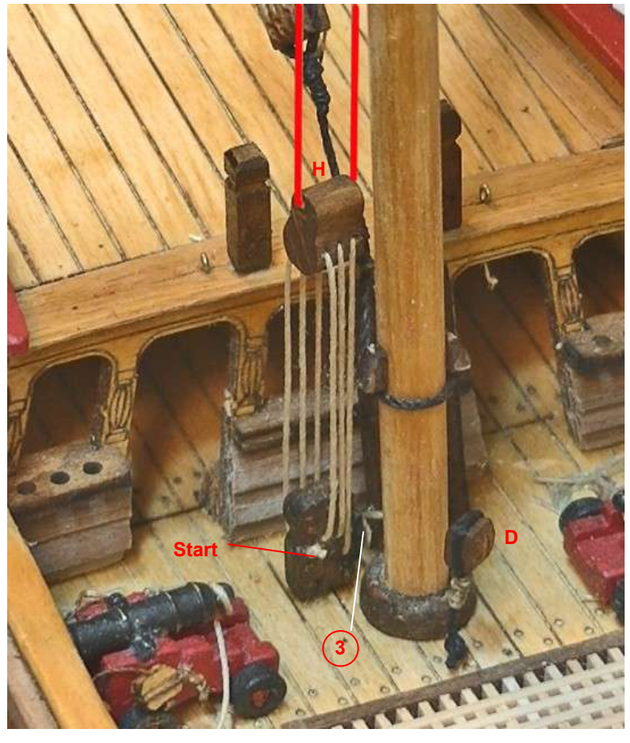

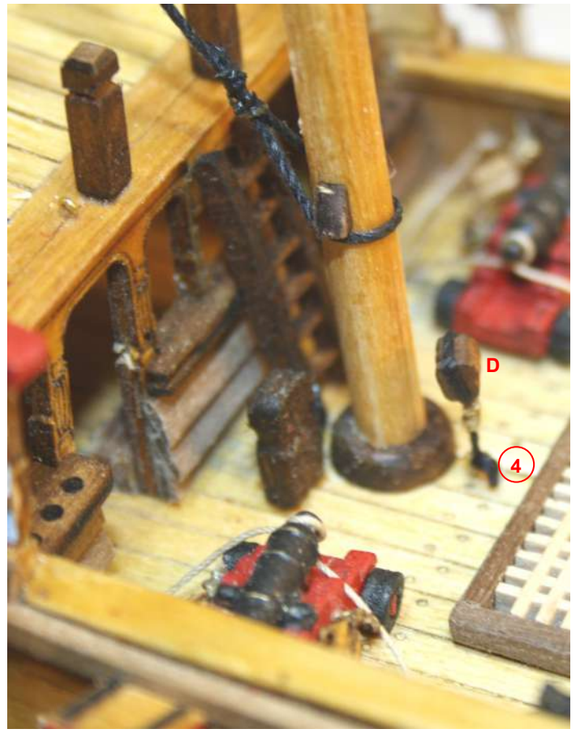

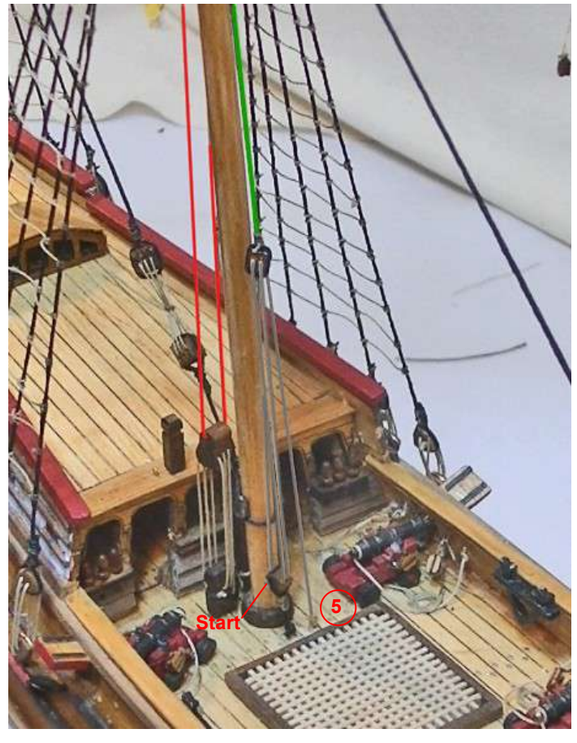

CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

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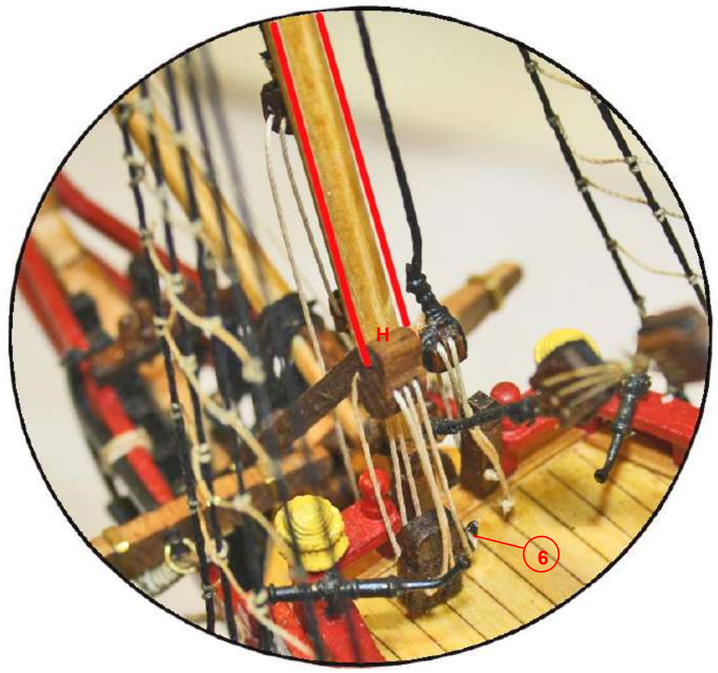
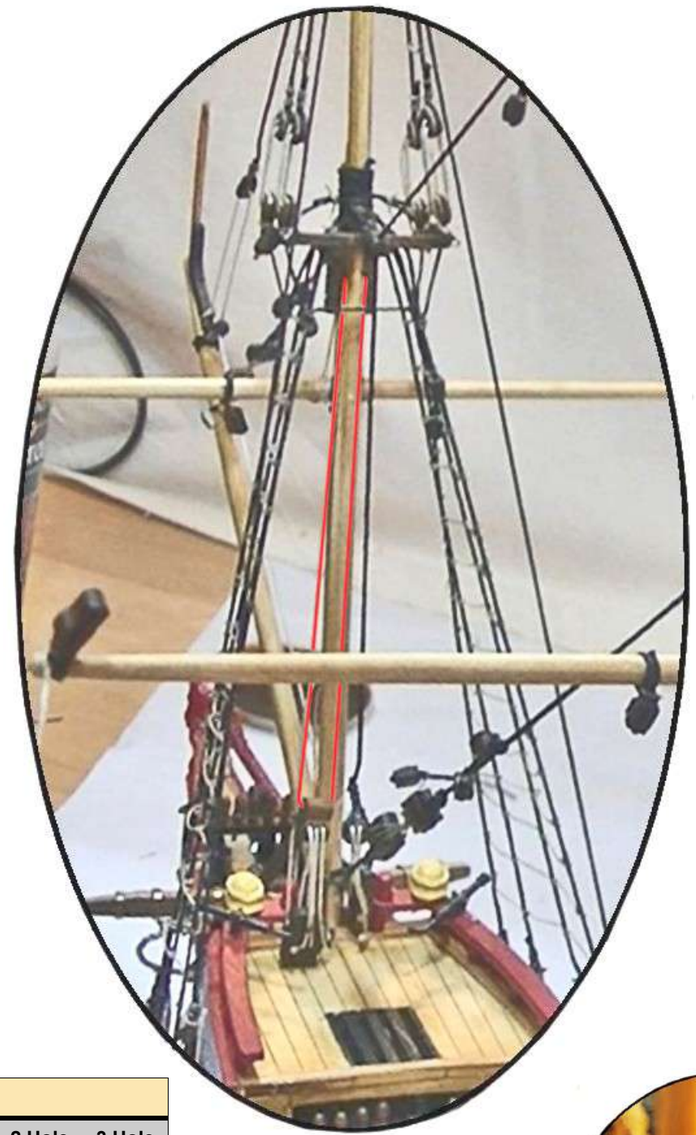
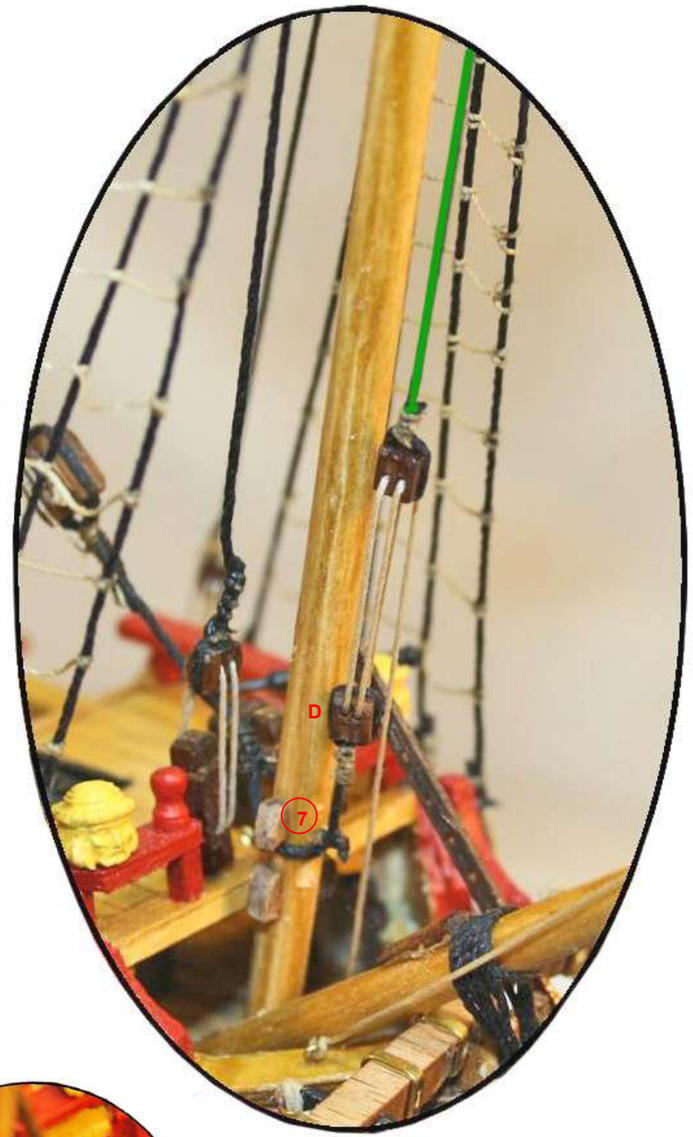
1606
SHEET 68

Step 27 Yard Halyard & Tye - Fore Yard Drill a 0.7mm hole through the centre of the yard from its forward facing side - fit a pin through this hole and glue in place - cut-off any excess pin length. On the mast measure down from the underside of the cross trees a distance of 25mm - mark the centre of the mast at this point and drill a 0.7mm hole. Trial fit the yard in place - once satisfied glue the yard in place making sure it is horizontal and square to the body of the model. Move the sling to the centre of the yard. Identify block H - run a length of cord K through the block - the two ends then go up to the mast cheeks and pass through the previously drilled holes to then be tied off on the yard as shown. For the halyard reeve block H to the foremast knighthead as shown terminating at the cleat on the side - belaying point 6. Next fix an eye pin P61 to the front of the foremast as shown - belaying point 7- use cord L to attach block D to the eye pin as shown. Fix another eye pin to the main deck to the side of the foremast as shown - belaying point 8. For the tye use cord K to reeve this block and the sling block together as shown terminating at belaying point 8.Identify the parrels P124 - fit a number to a length of cord K and tie-off to the yard around the mast as previously shown.

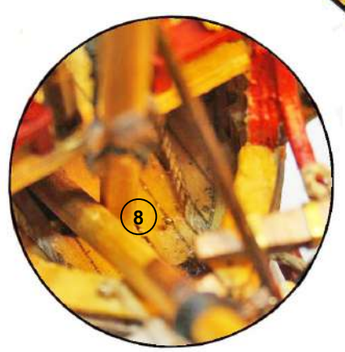






BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M



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1606
SHEET 69

Step 28 Lateen Yard & Lift At the mid-point of the lateen yard drill a 0.7mm hole through the yard and glue in place a pin. Measure down 45mm from the top of the mizzen mast and drill a 0.7mm hole into the starboard side of the mast. Trial fit the yard into this pin hole - once satisfied glue the lateen yard in place as shown. For the lateen lift cut a length of cord K and fit a block D to one end - run the other end up passing through the rear side of the previously drilled hole 10mm from the top of the mast - run this cord down to the lateen yard and tie-off at the mizzen-yard joint. Reeve the block to the bitthead and terminate at belaying point 9 as shown. Identify the parrels P124 - fit a number to a length of cord K and tie-off to the yard around the mast as shown.

BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

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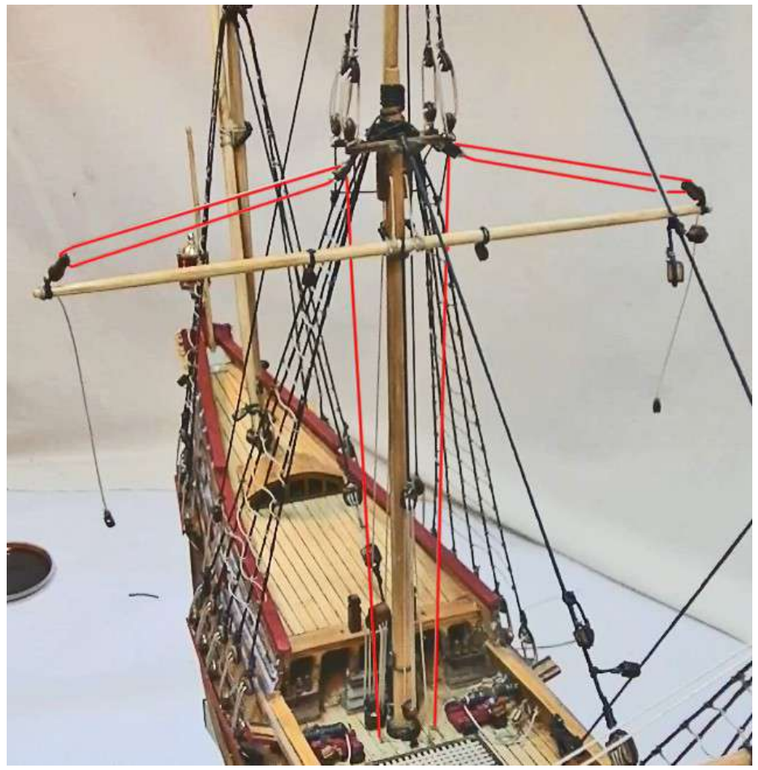
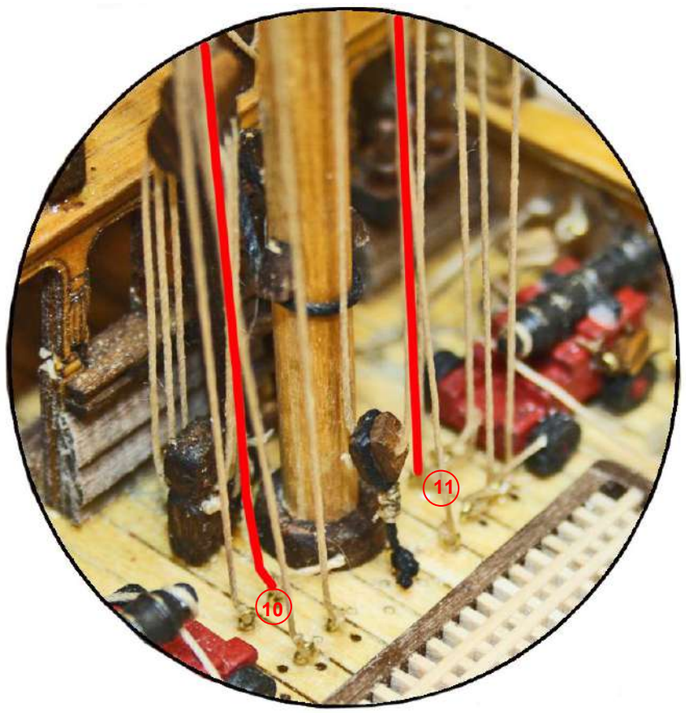
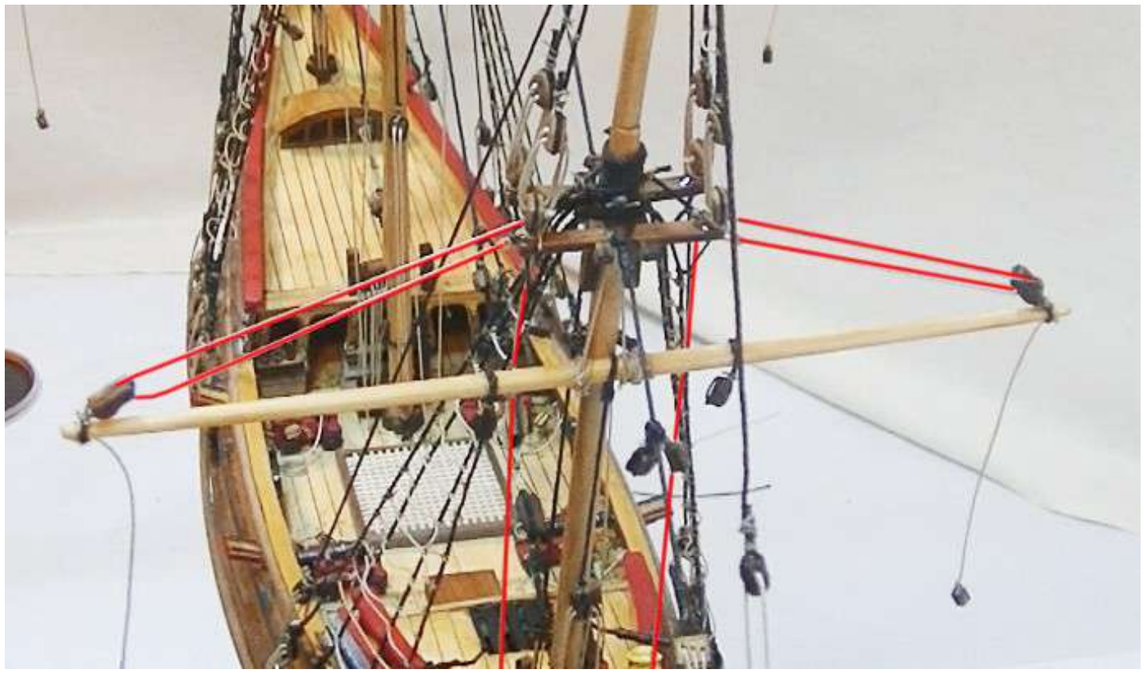
SHEET 70

Step 29 Lifts - Main Mast - Main Yard Use cord K to rig the main yard lifts as shown. Terminate at the belaying points 10 & 11 as shown. See also Belaying Plan Sheet 56





Step 30 Lifts - Foremast - Fore Yard Use cord K to rig the fore yard lifts as shown. Terminate at the belaying points 12 & 13 as shown. See also Sheet 56.



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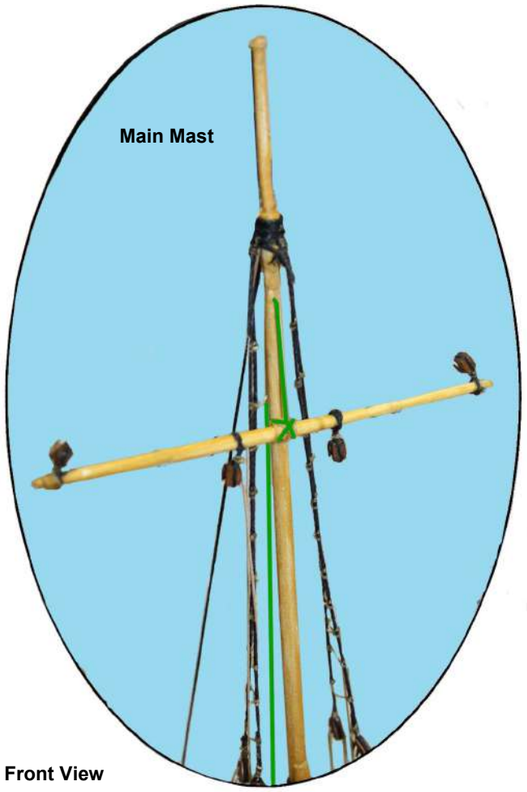
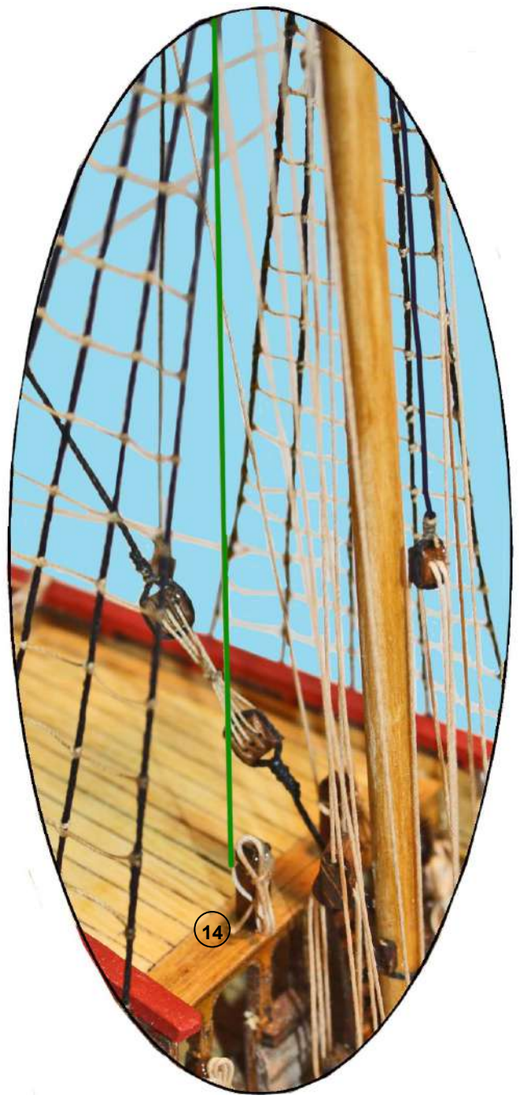
SHEET 71

Step 31 Lift - Main Mast - Main Top Yard

Pin the main top yard to the mast as previously presented. Use cord K to lash the yard to the mast. Use cord K to rig the lift as shown. Terminate at belaying point 14.



Front View



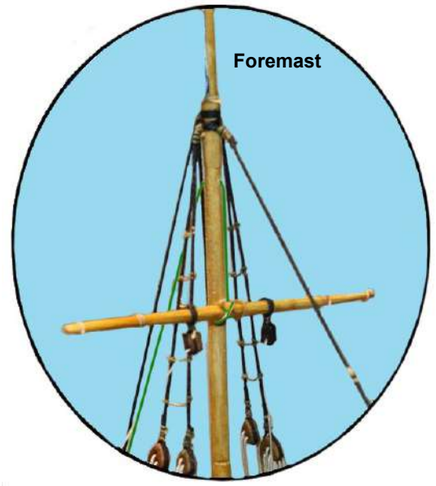
CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

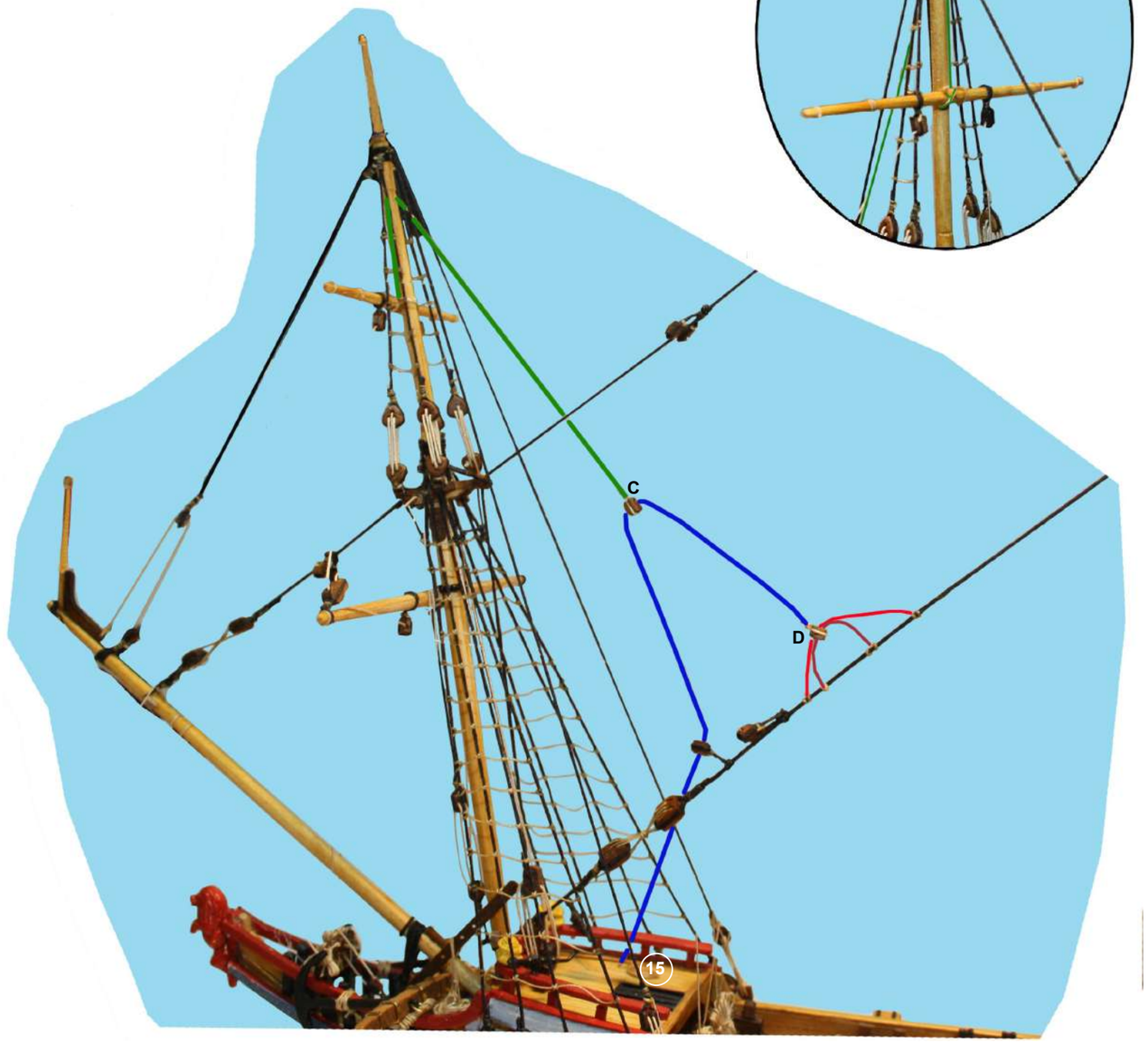
BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

Step 32 Lift - Foremast - Fore Top Yard

Pin the fore top yard to the mast as previously presented. Use cord K to lash the yard to the mast. Fit blocks C & D as shown. Use cord K to rig the lift as shown. Terminate at belaying point 15.

Modellers Shipyard





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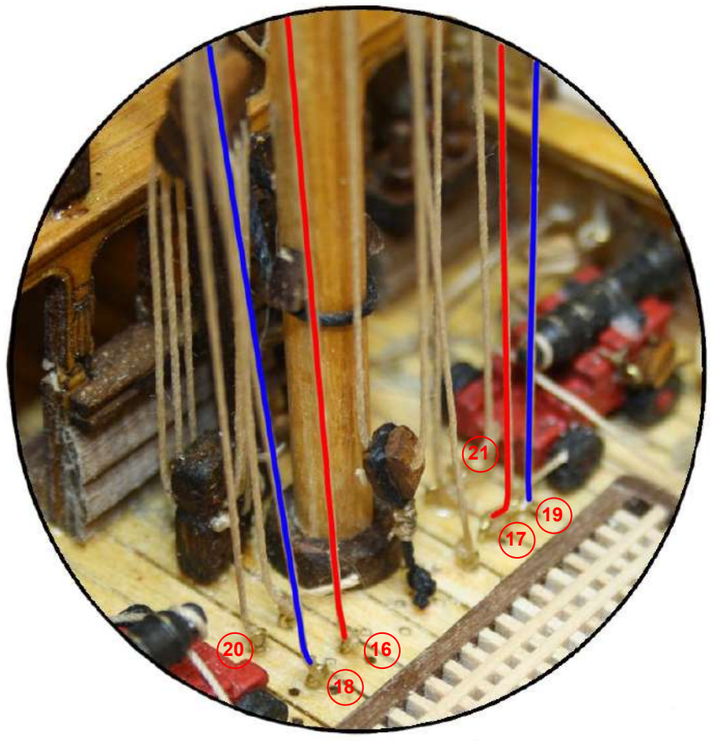
SHEET 72

Step 33 Cluelines & Sheets - Main Mast Fit Block C as shown. Use cord K to rig the main mast clue lines and sheets as shown. Terminate at the belaying points 16, 17, 18 & 19 as shown.

Step 34 Main Top Yard Lifts - use cord K to rig the main top yard lifts as shown. Terminate at belaying points 20 & 21.



CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

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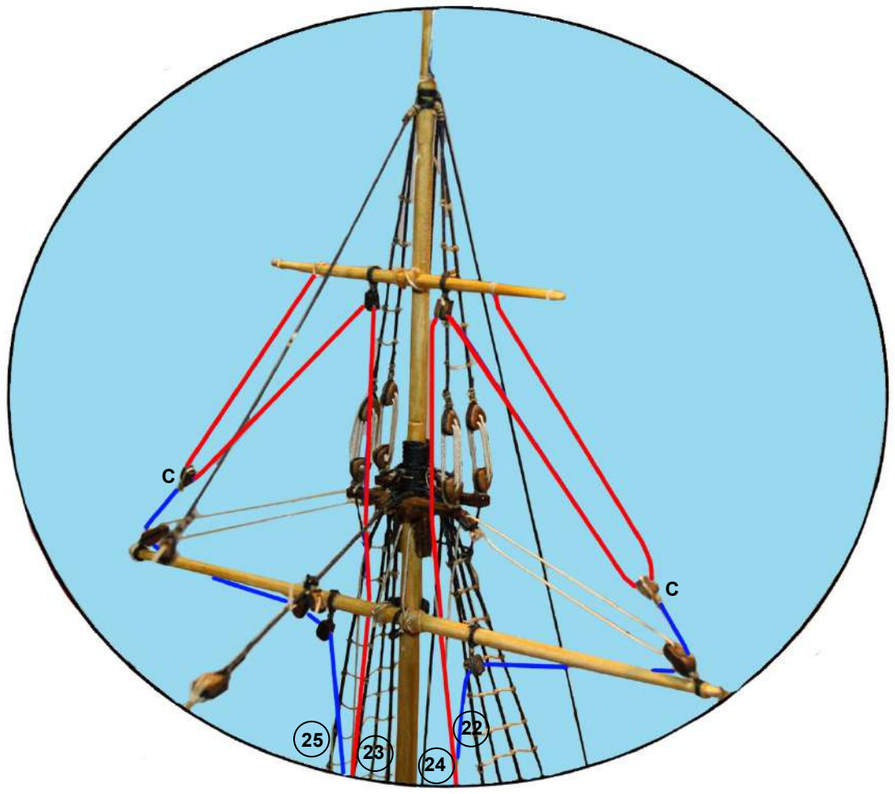
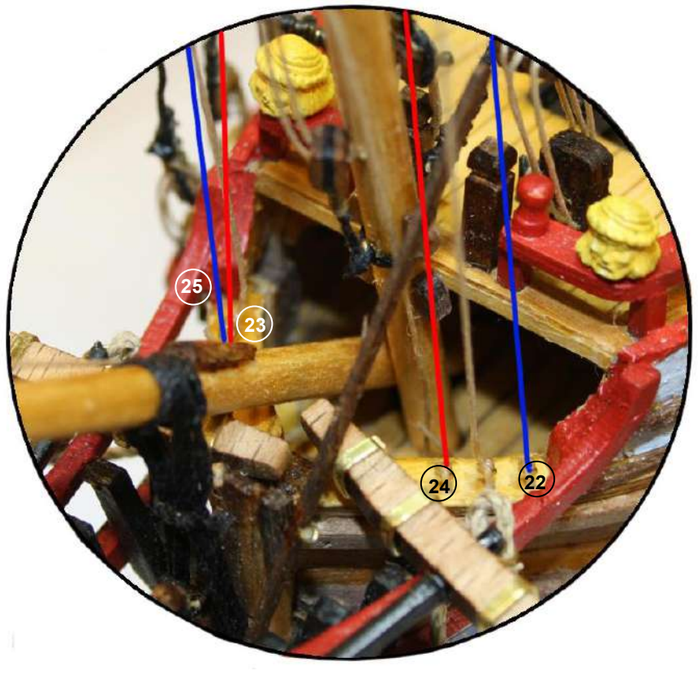
SHEET 73

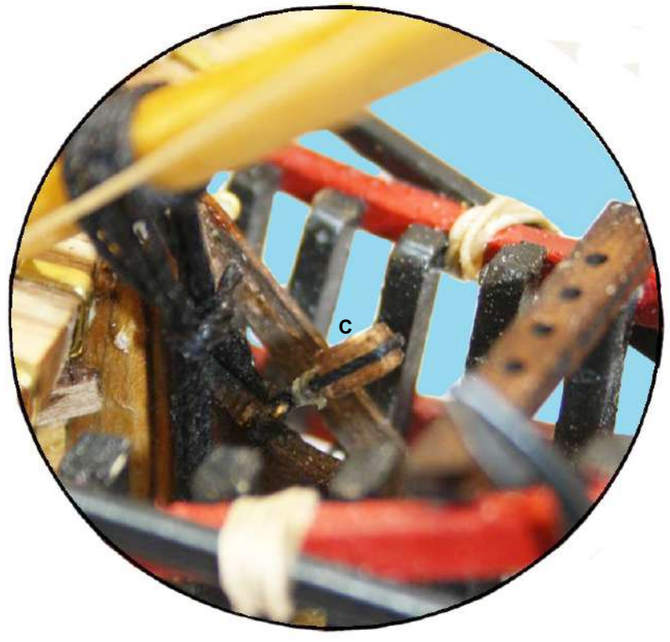
Step 35 Cluelines & Sheets - Foremast Fit block C as shown. Use cord K to rig the fore yard cluelines and sheets as shown. Terminate at the belaying points as shown.





Step 36 Belaying Pins - Indentify the belaying pins P125 - fix to the belaying locations on the main deck, winch and bowsprit as shown.

Step 37 Bowsprit Fillet - Fix eye pin P61 to the centre of the bowsprit fillet - belaying point 45. Tie block C to the eye pin as shown.



BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

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SHEET 74

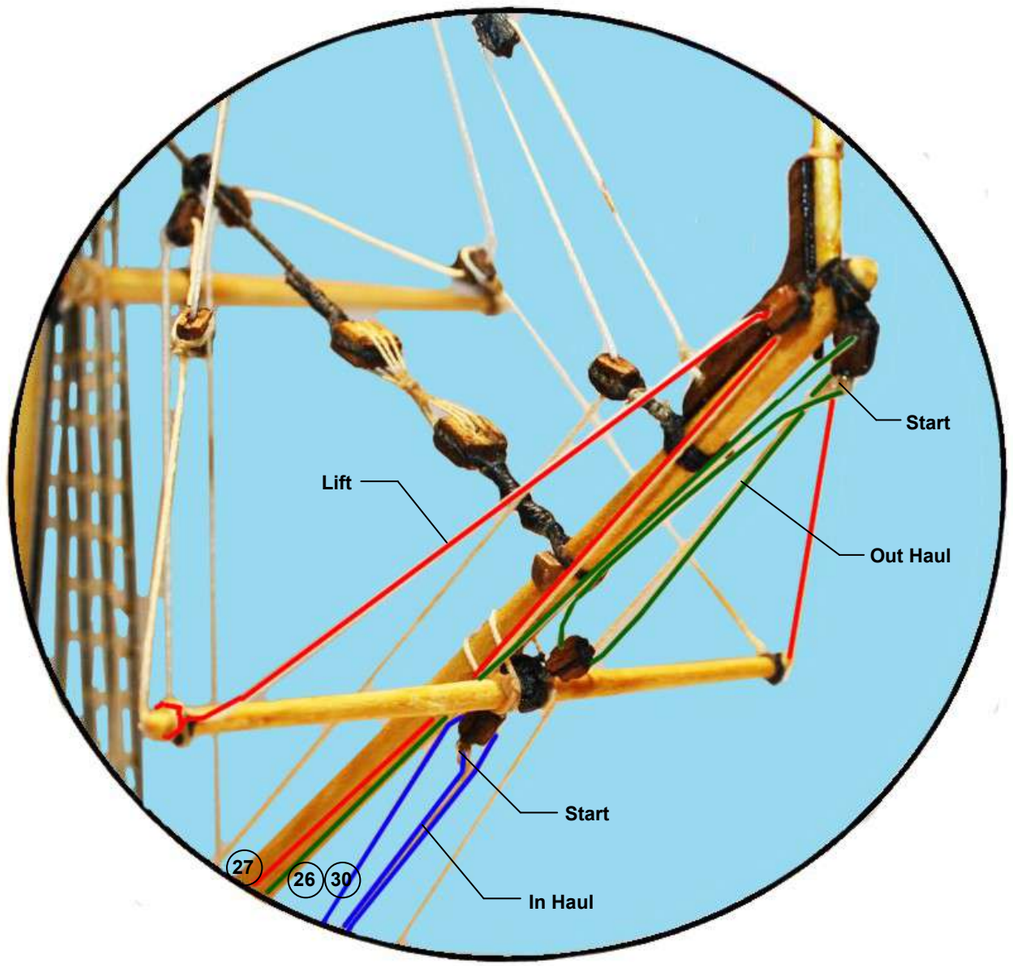
Step 38 Spritsail Yard - pin the spritsail yard to the bowsprit 50mm from the end of the bowsprit - lash the yard as shown.

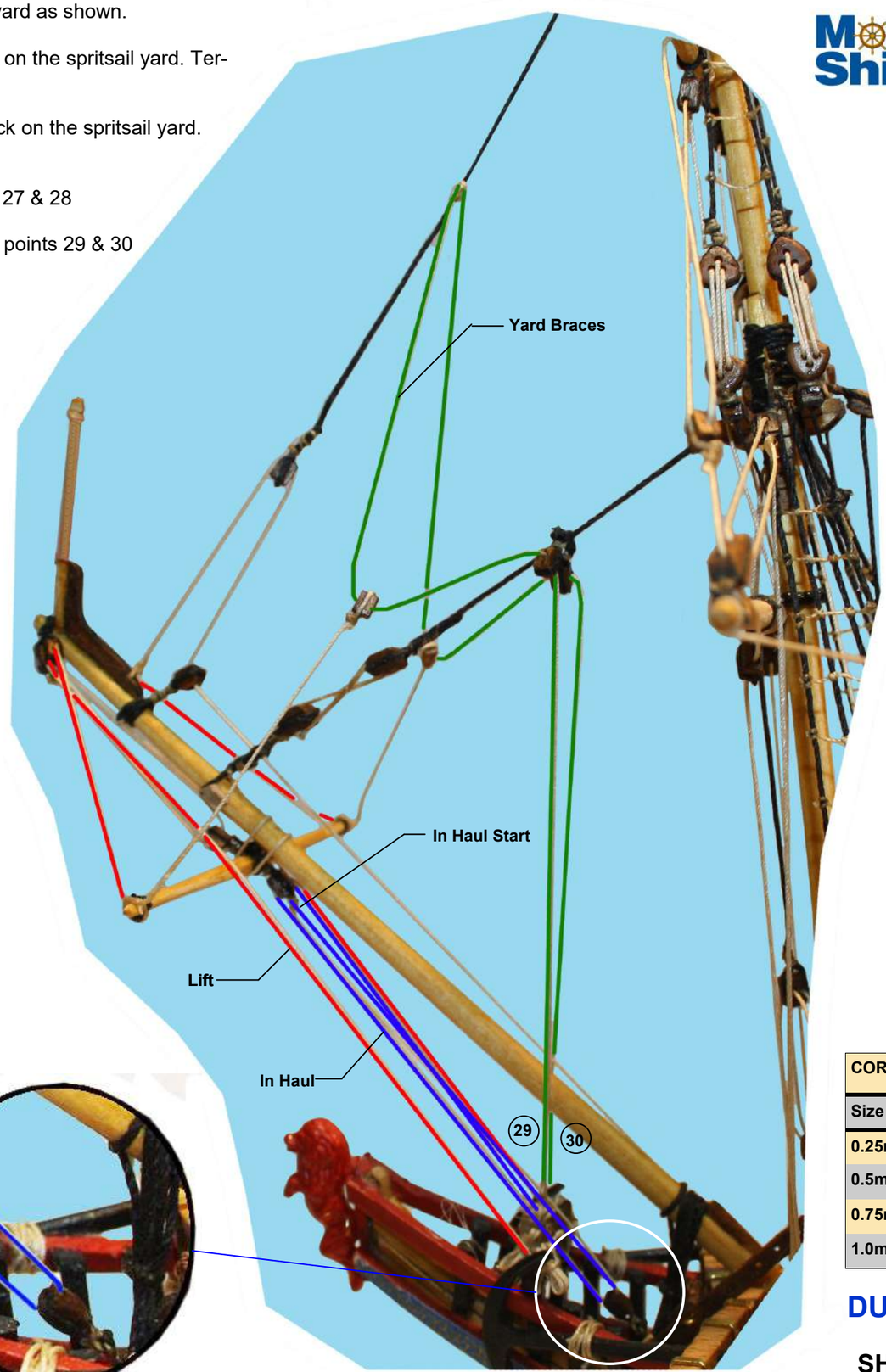
Step 39 Spritsail Yard In Haul - use cord K to rig the in haul as shown starting at the previously fitted block on the spritsail yard. Terminate at belaying point 29.

Step 40 Spritsail Yard Out Haul - use cord K to rig the in haul as shown starting at the previously fitted block on the spritsail yard. Terminate at belaying point 26

Step 41 Spritsail Yard Lifts - use cord K to rig the spritsail yard lifts as shown - terminate at belaying points 27 & 28

Step 42 Spritsail Yard Braces - use cord K to rig the spritsail yard braces as shown - terminate at belaying points 29 & 30





CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

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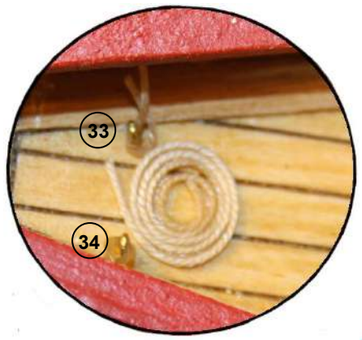
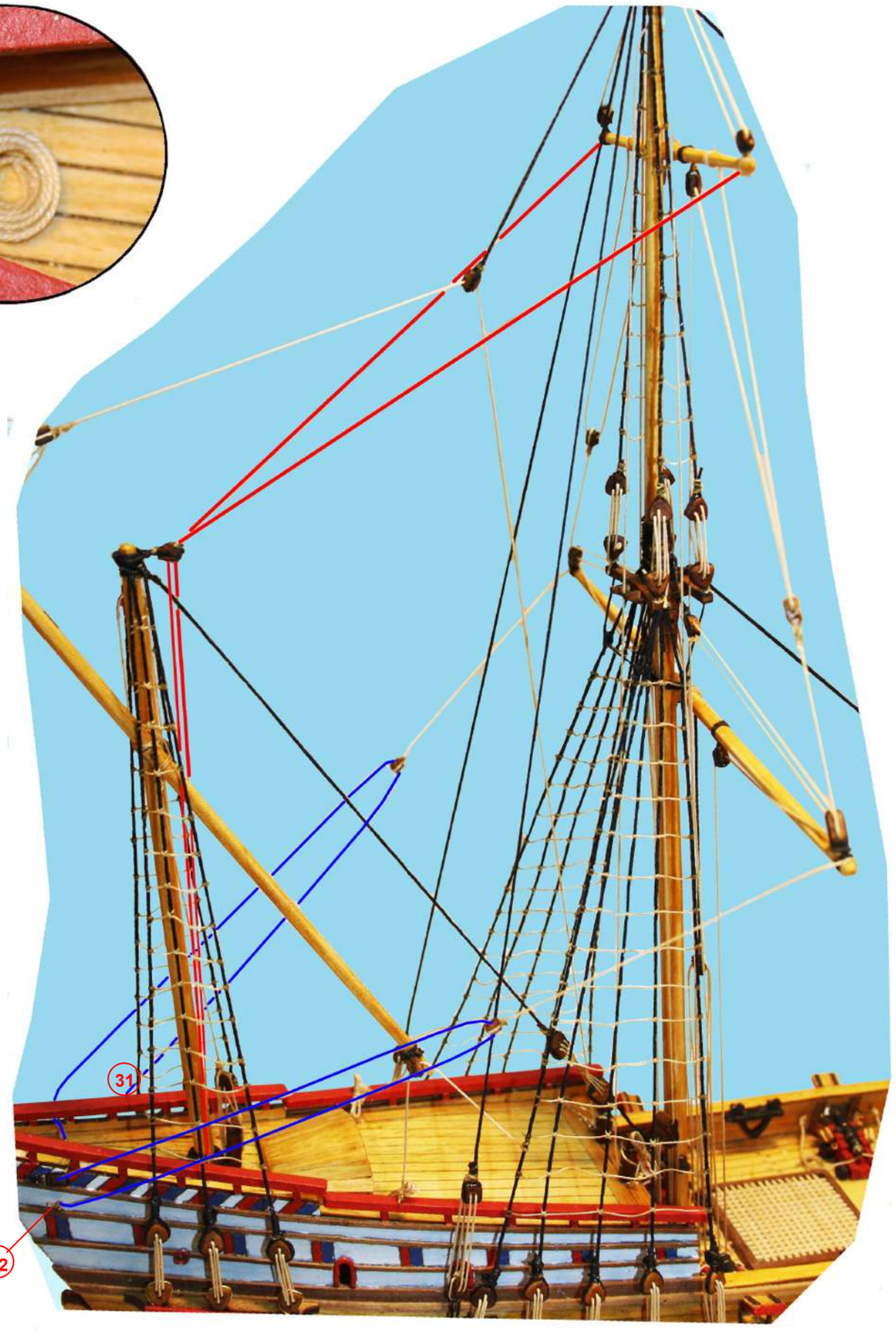
1606
SHEET 75

Step 43 Main Mast Yard Braces - use cord K to rig the braces as shown. For the main yard start at points 31 & 32 - terminate at belaying points 33 & 34. For the top yard terminate at belaying points 35 & 36. See Belaying Plan Sheet 56.

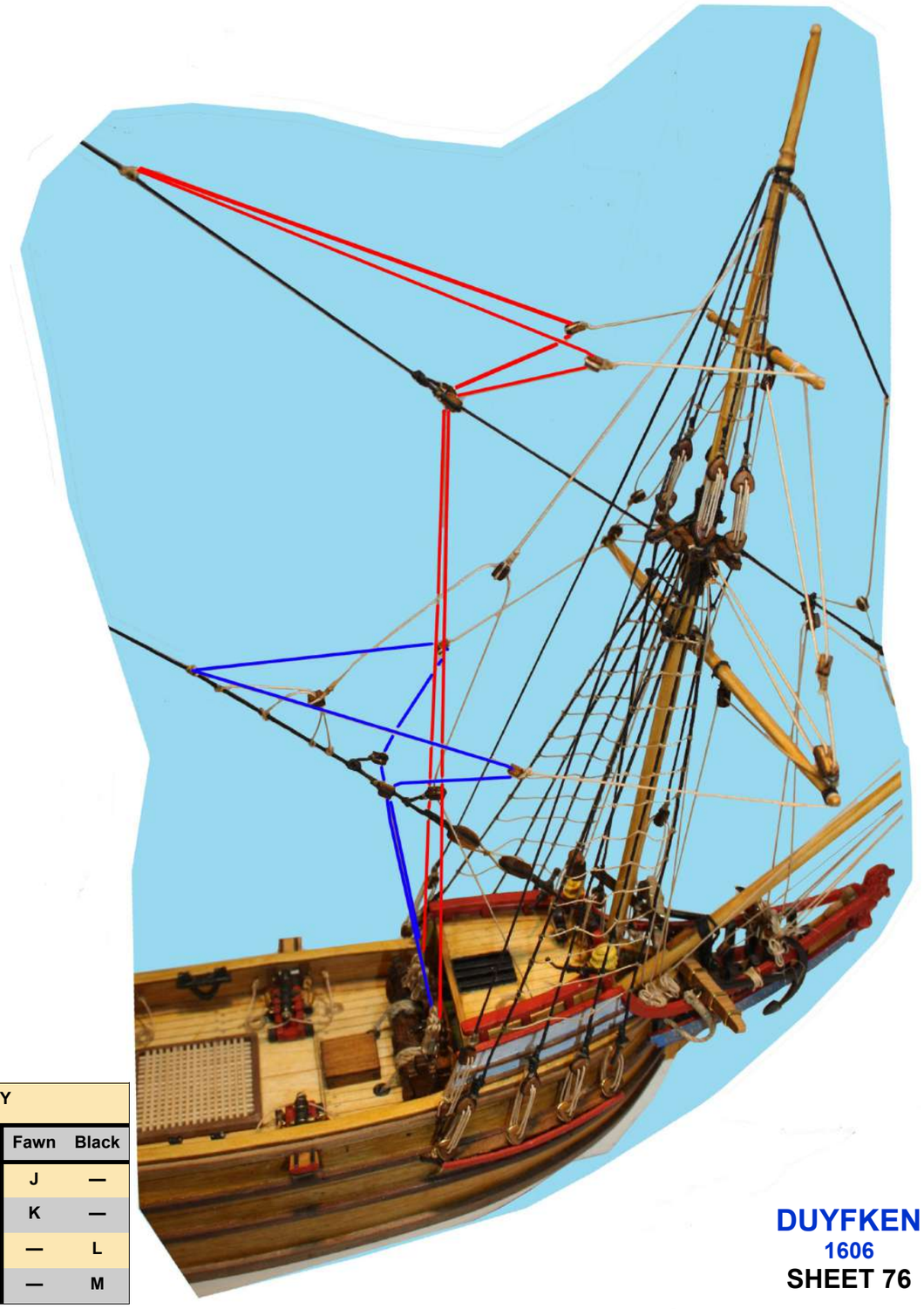
Step 44 Foremast Yard Braces - use cord K to rig the braces as shown. For the fore yard terminate at belaying points 37 & 38. For the fore top yard terminate at belaying points 39 & 40. See Belaying Plan Sheet 56.

Modellers Shipyard





CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M



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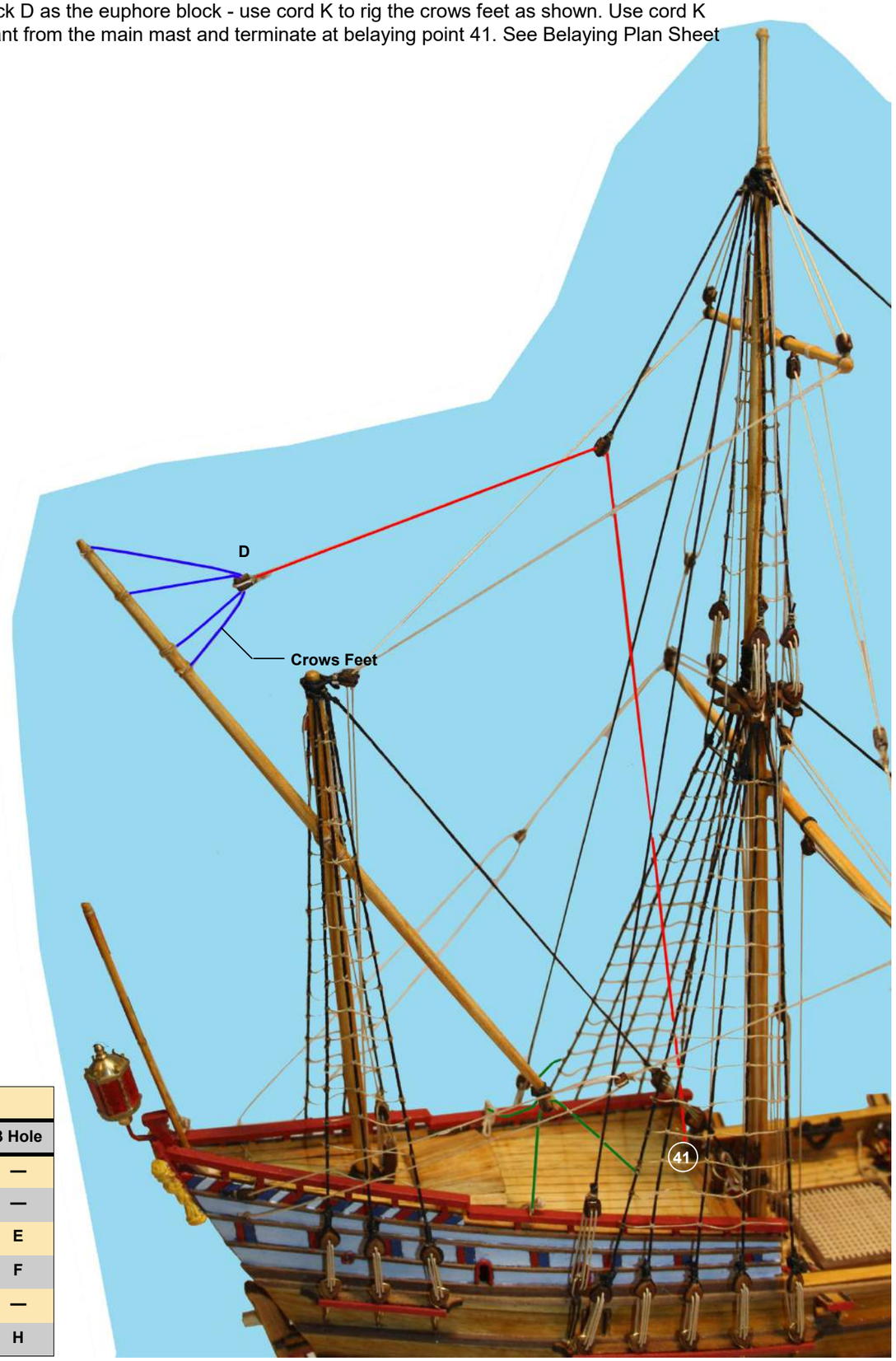
1606
SHEET 76

Step 45 Lateen - use block D as the euphore block - use cord K to rig the crows feet as shown. Use cord K to rig the block to the pendant from the main mast and terminate at belaying point 41. See Belaying Plan Sheet 56.



CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

BLOCK KEY			
Size	1 Hole	2 Hole	3 Hole
3mm	A	—	—
4mm	B	—	—
5mm	C	D	E
7mm	—	—	F
Violin	—	G	—
Ramhead	—	—	H

Step 46 Lateen Braces- use cord K to rig the braces as shown. Terminate at belaying point 42 & 43. See Belaying Plan Sheet 56.

DUYFKEN
1606
SHEET 77

Step 47 Flags - Identify the flags P126A-E on the Decoration Sheet. To give the flags the appearance of fluttering in the wind follow the steps below. Repeat these steps for each flag. Once complete fit each flag in place - tie-off lanyard as presented. Once in place shape the flag as desired.

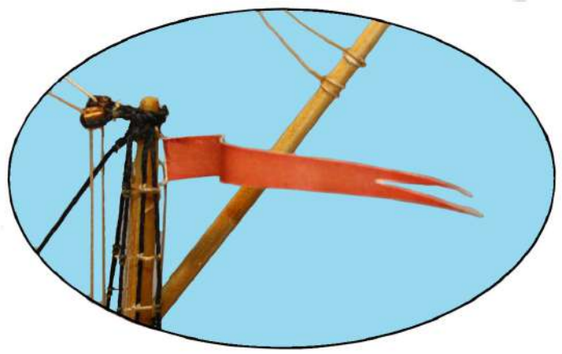
Step 1 Carefully cut the outline of the flag from the sheet. Cut a sheet of aluminium foil slightly larger than the flag.

Step 2 Turn the flag over and apply a paper based glue to the surface.

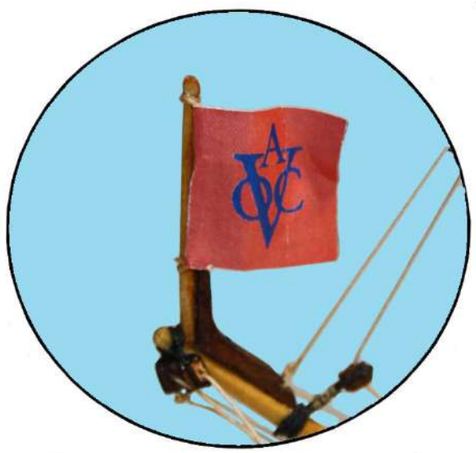
Step 3 Turn the flag over and place it on the foil surface and lightly press to remove any air bubbles.

Step 4 Cut a suitable length of cork K and place along the flag fold.

Step 5 Apply the paper based glue to the foil surface and fold the flag onto its self.



Orange Streamer P126A - tie lanyard off at the top of the mizzen mast and to the mizzen at the base of the streamer.



Amsterdam Jack P126C - tie lanyard off at the top and base of jack staff.

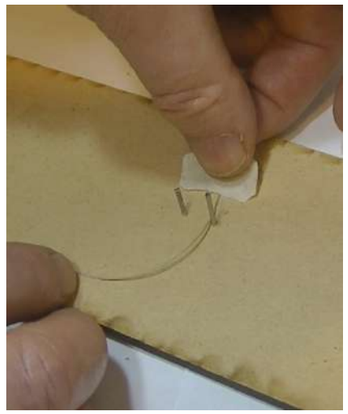
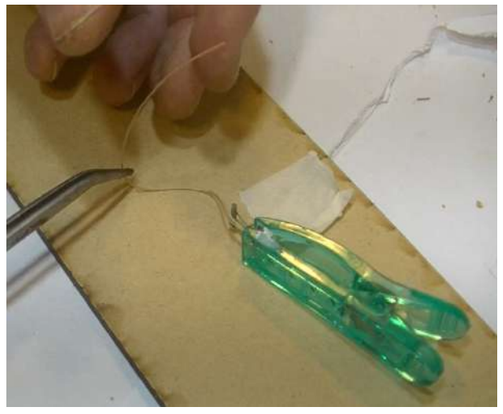
VOC Flag - Amsterdam P126B - tie lanyard off at the top and base of foremast staff.

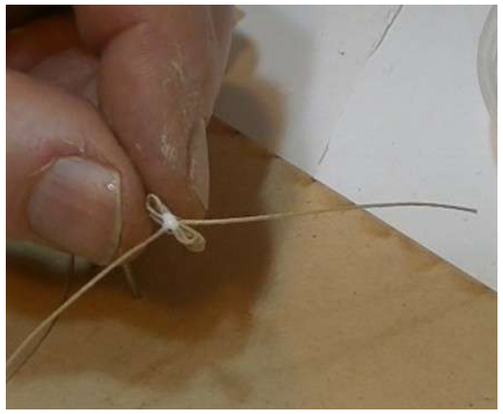
Dutch State Flag P126D - tie lanyard off at the top and base of mainmast staff.

Prince's Flag P126E - tie lanyard to the top of the flag staff and to belaying point 44 as shown.

DUYFKEN
1606
SHEET 78

Step 48 Rope Coils - Use cord K to make rope coils to be placed at belaying points. Place two nails 10mm apart - use masking tape to hold one end of the cord to the board as shown. Wind cord around nails 4 times and tie off. Apply a dab of glue to hold the knot - set a side for glue to dry then trim excess cord. For coils to be placed on the deck use cord K and the method presented for the deck cannon rope coils. Place the rope coils at belaying pints and the deck rope coils at eye pin locations on the deck.




CORD KEY		
Size	Fawn	Black
0.25mm	J	—
0.5mm	K	—
0.75mm	—	L
1.0mm	—	M

DUYFKEN
1606
SHEET 79

15.0 Finished Model

Assemble the cradle P23A-D - paint black - identify the name plate P127 and use paper glue to fix in place as shown. 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. Proudly display your completed model of the *Duyfken* 1606.

DUYFKEN
1606
SHEET 80