WOODEN MODEL SHIP KIT

M.V. KRAIT

Modellers Shipyard

www.modelerscentral.com

SCALE 1:35

LENGTH: 610mm HEIGHT: 290mm Width: 115mm

ITEM CODE: KTMS1021

BUILDING INSTRUCTIONS

Version 1.1

1.0 Introduction

Modeller's Shipyard is proud to add another wooden model ship kit to our range. We are the only manufacturer of wooden model ship kits in Australia.

2.0 History

The MV *Krait* is a wooden hulled vessel famous for its role during World War II during a raid against Japanese ships anchored in Singapore Harbour on the 27 September 1943.

As Japanese Imperial forces threatened Singapore and after the British surrender to the Japanese in February 1942, civilians fled on boats and ships of all sizes. Amid the chaos, Australian master mariner Bill Reynolds had salvaged a little Japanese fishing trawler named *Kofuku Maru*.

Reynolds made his escape from Singapore and started to rescue civilians from outlying islands and survivors of ships sunk by Japanese air attacks. During these rescue operations Reynolds realized the *Kofuku Maru* was not being targeted by Japanese aircraft or nearby surface vessels.

During this rescue work Reynolds came across a British Special Operative, Ivan Lyon, who became very interested in the Japanese fishing trawler. Reynolds and Lyon soon realised that if they could get people out of Singapore in the boat without attracting the attention of Japanese forces they could get back into Singapore waters. That was the genesis of what became known as Operation Jaywick.

The *Krait* eventually reached Australia via Ceylon and India in 1942 and was handed over to the Australian Military. In Australian service she was renamed *Krait* after a small but deadly South East Asian snake and, possibly also, the fact that it sounds like "crate" which describes its appearance to some.

After many months of trying to convince the military authorities in Australia of the worth of a raid on Singapore, approval was finally given - code named Operation Jaywick. The crew of 14 chosen included the British office Major Ivan Lyon with the reminder being mostly Royal Australian Navy (RAN) volunteers.

Further delays occurred when major engine repairs were required. Eventually, on the late afternoon of 2 September 1943, *Krait* left Exmouth, NW Western Australia bound for Java's Lombok Strait. Basically the entire operation depended on their ability to masquerade as a native fishermen operating a Japanese fishing vessel. To achieve this subterfuge, all the crew wore native-style sarongs and their white skin covered with brown body-stain. On the 6 September, well clear of Australian waters, Lyon ordered the Japanese flag to be hoisted out on the *Krait*'s stern.

Once close to Singapore (still more than 30 kilometres from the harbour) they unloaded supplies, three collapsible kayaks known as foldboats, and six men. From there it was up to those six, armed with magnetic limpet mines, to paddle the rest of the way into the harbour and blow up enemy shipping. The approach to Singapore Harbour took three nights of paddling and hiding by day in the jungle of near-by islands.

On the night of the 26/27 September 1943 the three teams, with blackened faces and their black clothing rendering them almost invisible, allowed them to slip through the harbour defences undetected and place their deadly hardware in position.

The raiders then paddled to shelter on a nearby island before the timed mines exploded in the early hours of the 27 September. The men then paddled another 80 kilometres to rendezvous with the *Krait*, which had spent two weeks circling in the South China Sea, waiting to return for the prearranged pickup.

The commando raid was successful, sinking or badly damaging seven Japanese ships in Singapore Harbour.

The *Krait* was later used as transport for intelligence gathering missions to islands in the area including Buru, Aru, Ceram, Banda and Saparua. During this period *Krait* carried several Japanese prisoners as well as army survey teams and a naval intelligence office.

***Krait* General Characteristics**

Length: 21.33m (70ft)
Beam: 3.35m (11ft)
Draught: 1.5m (5ft)
Propulsion: Gradner 6LW diesel
Range: 12,800 kilometres (8000 miles)

Route taken by Krait September 1943

Today, the *Krait*, after extensive repairs, is to be on permanent display as a memorial to the courage and dare of those commandoes who carried-out the successful raid on Singapore Harbour.

Reference: Silver, Lynette Ramsey "Krait: The Fishing Boat that went to War' 2001. Published by Cultured Lotus

3.0 General Instructions

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

1. It is **essential** that the modeller study these instructions and associated drawings thoroughly before commencing construction. While reading these instructions, familiarise yourself with the contents of the kit.
2. Parts are numbered in the approximate order of assembly—note there are some minor variations in this numerical order. Parts are identified as, for example P25 - means Part No 25.
3. Few, if any, parts can be simply glued in place without some preparation. Always dry fit parts and if necessary reshape the parts before final gluing.
4. Don't hurry. Take your time. If you are uncertain of anything take the time to study the instructions, the diagrams and photos and your kit parts. Most problems will be overcome with a little time spent pondering the issue at hand.
5. Check the contents of the kit against the Parts List. Note that some parts need to be made by the modeller from the stock of timber supplied in the kit.

For the modeller who would like additional detail on particular techniques on building this model, a 3 DVD set on *"How to Build the Krait "* is available from Modeller's Shipyard. In this DVD there are 5:30 hours of narration and demonstration by a master modeller as the model is built. There are many techniques and tips presented on every detail of building the *Krait* from opening the box to putting the finishing touches of the rigging. For further details on this DVD see our website **www.modelerscentral.com** - see DVD Practicum on our home page.

MV KRAIT
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	Sheet 1
12	Keel	1	Sheet 1
13	Transom	1	Sheet 1
14	Deck	1	Sheet 2
15	Bow Blocks A	2	Sheet 1
16	Bow Blocks B	2	Sheet 1
17	Stern Blocks A	2	Sheet 1
18	Stern Blocks B	2	Sheet 1
19	Wheelhouse frame	1	Sheet 1
20	Engine compartment frame	1	Sheet 1
21	Wheelhouse floor frames	2	Sheet 2
22A	Propeller housings	6	Sheet 1
22B	Propeller housings	2	Sheet 2
22C	Propeller housing	1	Sheet 1
22D	Propeller housing	1	Sheet 1
22E	Propeller housing	1	Sheet 2
23	Stanchion supports	9 pairs	Sheet 2
24	Basswood 2x5x700mm	50	Timber Stock
25A-W	Stanchions	52	Sheet 1
26A-D	Cradle	4	Sheet 1
27A1-4	Transom stanchions	7	Sheet 2
27B	Rail - lower	1	Sheet 2
27C	Rail - upper	1	Sheet 2
28	Bulwarks	2	Sheet 2
29	Stem post	3	Sheet 2
30	Stem post knee	3	Sheet 2
31	Stern post	3	Sheet 2
32	Stem post knee	3	Sheet 2
33A-C	Keel - false	9	Sheet 2
34	Tanganika 0.8x5.5x700mm	50	Timber Stock
35	Keel plate	1	Sheet 2
36	Beech - Flexible 2x4x200mm	1	Timber Stock
37	Limewood 2x4x600mm	2	Timber Stock
38	Limewood 2x3x250mm	1	Timber Stock
39	Limewood 1x5x330mm	20	Timber Stock
40	Bow nose cover	1	Sheet 2
41	Beech - flexible 2x5x400mm	1	Timber Stock
42A	Belaying rails A	4	Sheet 2
42B	Belaying rails B	2	Sheet 2
43	Cap rails - bow	2	Sheet 2
44	Cap rails - mid-ship	2	Sheet 2

Part No	Description	Quantity	Location
45	Cap rail - transom	1	Sheet 2
46	Bow extensions	2	Sheet 2
47	Net traveller	1	Sheet 1
48	Wheelhouse floor	1	Sheet 2
49	Wheelhouse rear wall	1	Sheet 2
50	Wheelhouse side walls	2	Sheet 2
51	Wheelhouse steps	2	Sheet 2
52	Wheelhouse front wall	1	Sheet 2
53A	Wheelhouse edge walls	2	Sheet 2
53B	Wheelhouse inner roof support	1	Sheet 2
54	Canopy roof supports	2	Sheet 2
55	Window Glazing 150x100mm	1	Parts Card 2
56	Nails - brass	P10	Parts Card 2
57	Wheelhouse wall supports	2	Sheet 1
58	Wheelhouse inner roof support	2	Sheet 2
59	Wheelhouse roof	1	Sheet 2
60A-C	Wheelhouse roof racks	5	Sheet 2
61	Engine compartment roof	1	Sheet 2
62A-C	Roof racks	3	Sheet 2
63	Companionway runners	2	Sheet 2
64	Companionway frames	2	Sheet 2
65	Companionway roof	1	Sheet 2
66	Exhaust flanges	4	Sheet 2
67	Ventilator flanges	2	Sheet 2
68	Engine compartment port wall	1	Sheet 2
69	Engine compartment strb wall	1	Sheet 2
70	Engine compartment rear wall	1	Sheet 2
71	Samson post - fore	2	Sheet 1
72	Samson post - aft	2	Sheet 1
73	Samson post bars	2	Sheet 1
74B-H	Canopy frames	7	Sheet 2
75	Canopy stringer	1	Sheet 2
76	Canopy sides A	2	Sheet 2
77	Canopy rear edge A	1	Sheet 2
78A-B	Canopy radial frames	4	Sheet 2
79	Canopy radial fillers	6	Sheet 2
80	Canopy rear edge B	1	Sheet 1
81	Canopy sides B	2	Sheet 1
82	Brass Rod 1.5x200mm	2	Timber Bundle
83	Calico 300x300mm	1	Parts Card 2
84	Dowel - 4mm x 50mm	1	Timber Stock

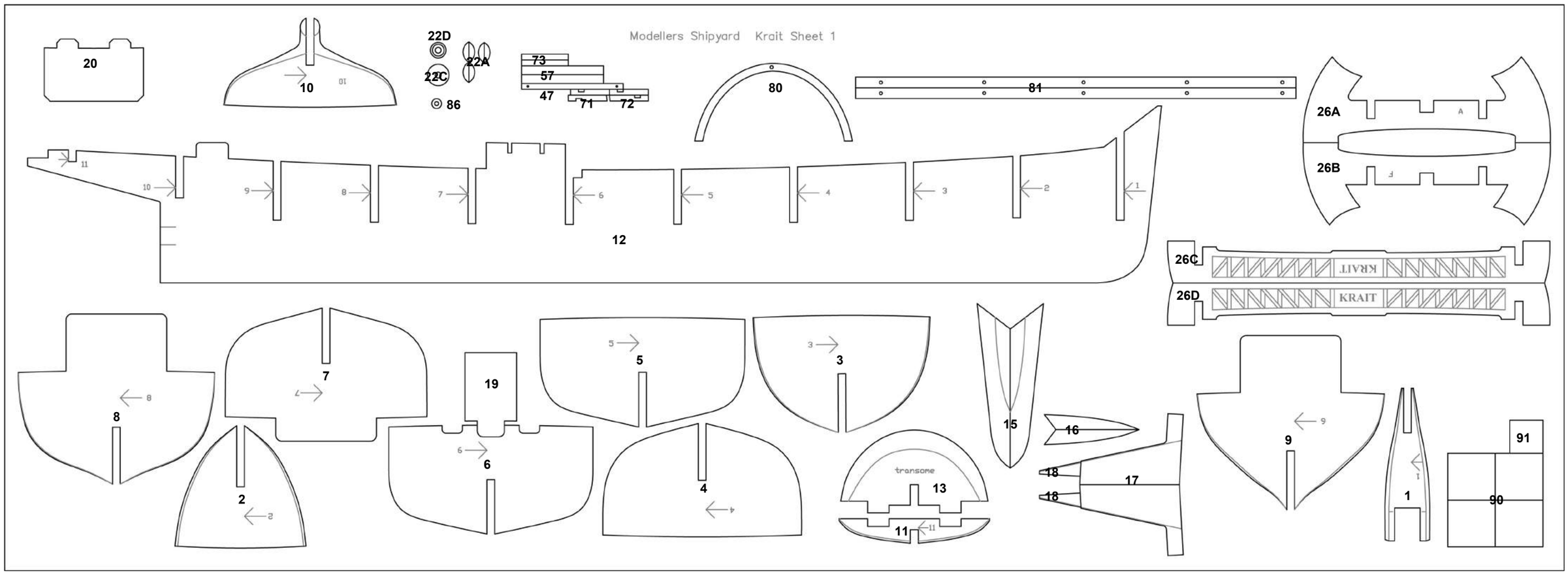
Part No	Description	Quantity	Location
85	Dowel - 3mm x 400mm	1	Timber Stock
86	Exhaust pipe cap	1	Sheet 1
87A-C	Navigation light housing	6	Sheet 2
88	Krait name plates	2	Sheet 2
89	Cord G - 0.5mm Brown	1	Parts Card 1
90	Deck hatch bases A	4	Sheet 1
91	Deck hatch base B	1	Sheet 1
92	Deck hatch covers A	4	Sheet 2
93	Deck hatch covers B	1	Sheet 2
94	Ventilators	3	Parts Card 2
95	Ventilator deck flanges	2	Sheet 2
96	Eye pins	P40	Parts Card 2
97	Propeller	1	Parts Card 2
98	Rudder	1	Sheet 2
99	Dowel -1/2 round 3mmx100mm	1	Timber Stock
100	Rudder upper flange	1	Sheet 2
101	Rudder lower flange	1	Sheet 2
102	Dowel - 8mm x 250mm	1	Timber Stock
103	Trestle trees	2	Sheet 2
104	Cross tree	1	Sheet 2
105	Block A - 4mm 1 hole	2	Parts Card 2
106	Block B - 5mm 1 hole	6	Parts Card 2
107	Block C - 5mm 2 hole	1	Parts Card 2
108	Cord D - 0.25mm Grey	1	Parts Card 1
109	Cord E - 0.25mm Silver	1	Parts Card 1
110	Cord F - 0.5mm Grey	1	Parts Card 1
111	Cord H - 0.75mm Silver	1	Parts Card 1
112	Boom yoke	1	Sheet 2
113	Gaff yoke	1	Sheet 2
114	Mast stands	2	Sheet 2
115	Copper tube - 1.5mm x 25mm	1	Parts Card 2
116	Mast cleats	2	Parts Card 2
117	Copper Strap 4x30mm	1	Parts Card 2
118	Nails - copper	P3	Parts Card 2
119	Ring - 4mm	2	Parts Card 2
120	Parrel beads	P20	Parts Card 2
121	Boom Supports	2	Sheet 2
122	Limewood 2x2x100mm	1	Timber Stock
123	Walnut 1x2x330mm	1	Timber Stock
124	Anchors - kedge - 40mm	2	Parts Card 2
125	Chain - black - 100mm	1	Parts Card 2

4.0 Parts List - continued (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
126	Drain ports	8	Parts Card 2
127	Rings– 3mm	2	Parts Card 2
128	Dowel 2mm x 60mm	1	Timber Stock
129	Flag staff base	1	Sheet 2
130	Flag - Decoration Set	1	Parts Card 2
131	Name Plate - Decoration Set	2	Parts Card 2

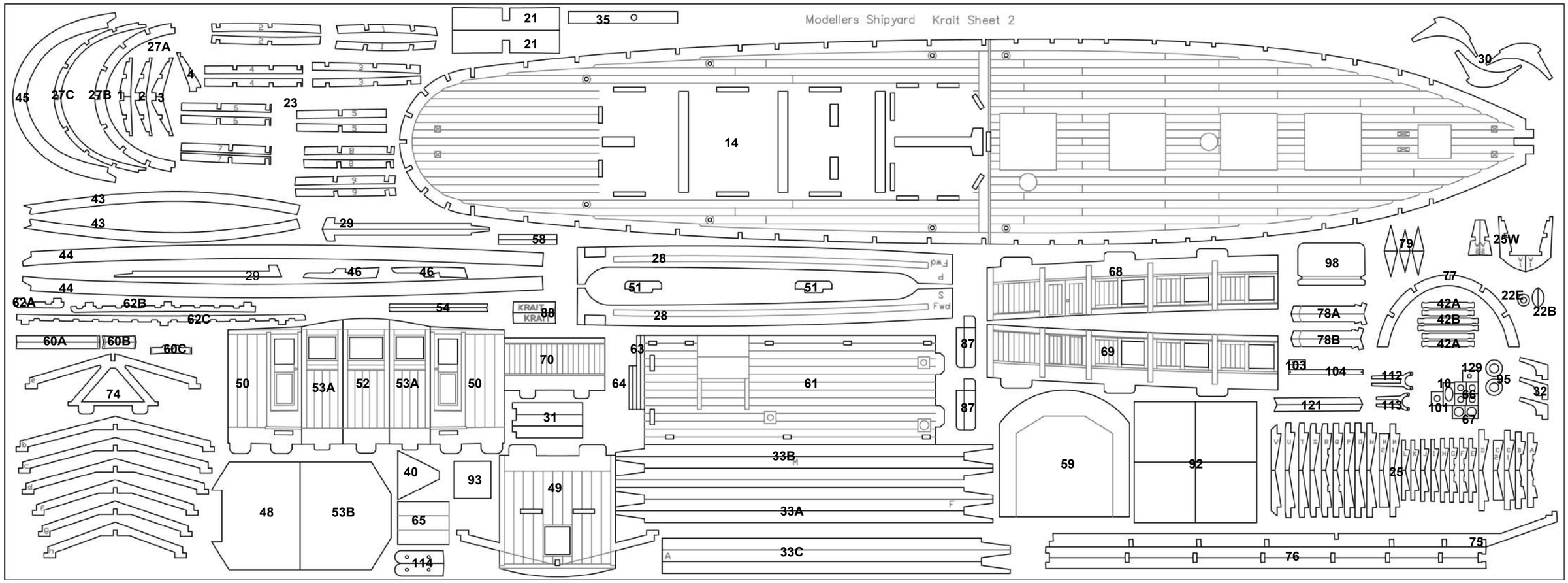
4.1 Plywood Sheets

Sheet 1



MV KRAIT
SHEET 3

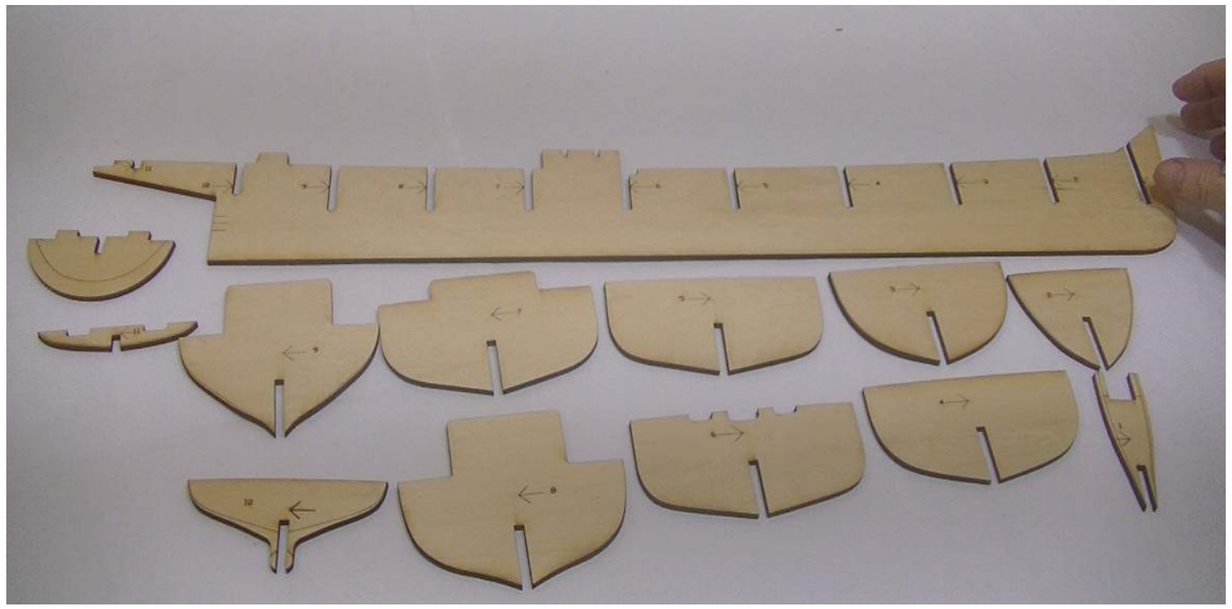
Sheet 2

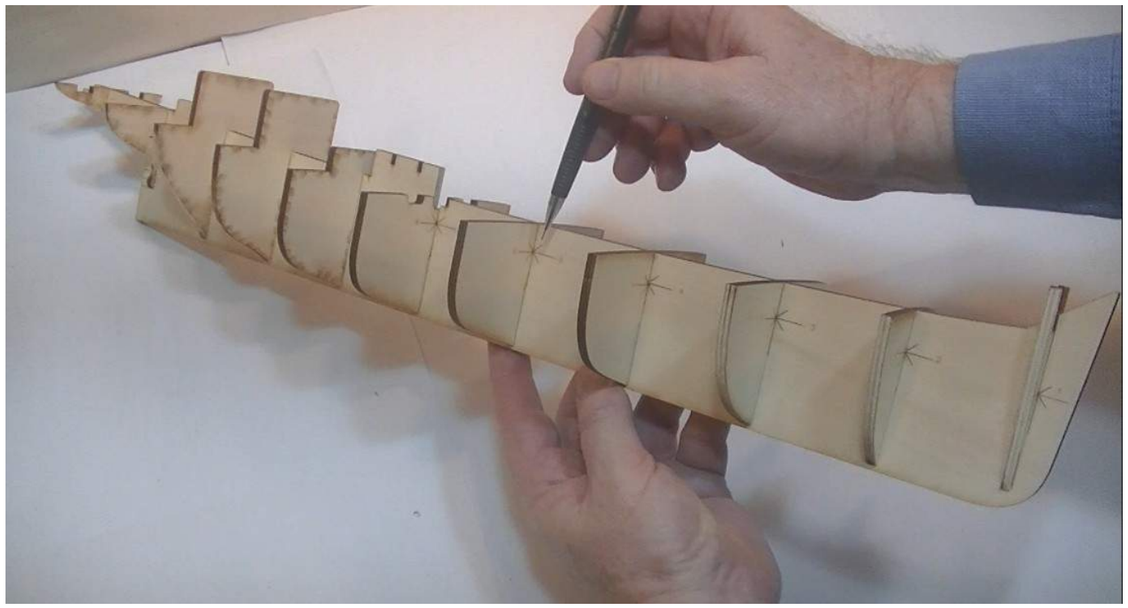


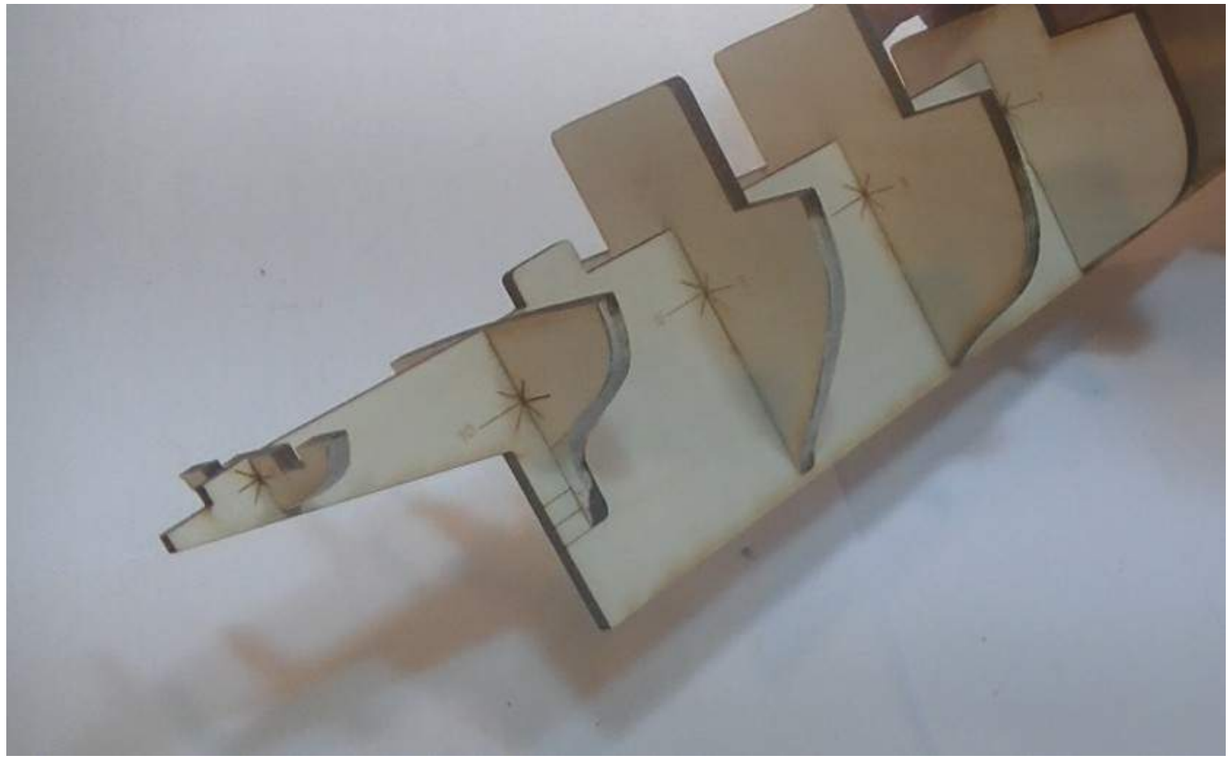
MV KRAIT
SHEET 4

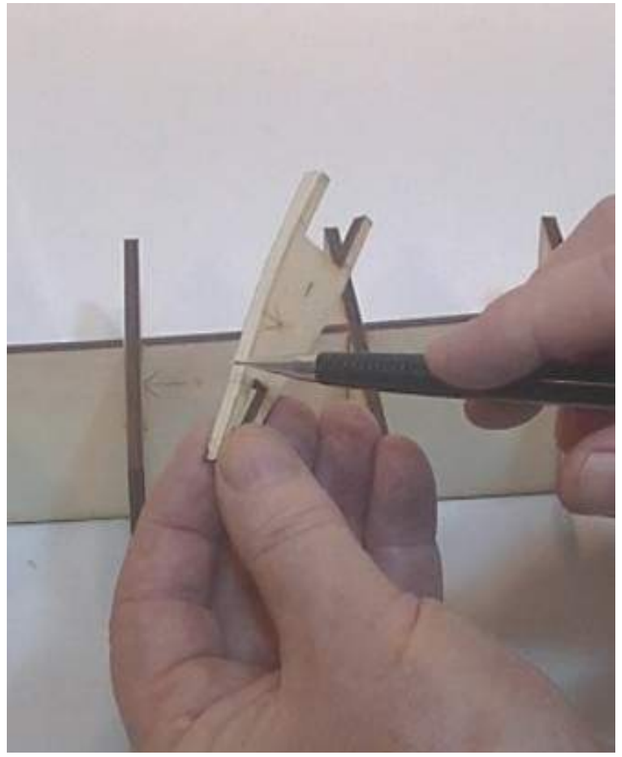
5.0 Hull Construction
5.1 Assemble the Keel & Bulkhead Frames

Step 1 On the laser cut sheets in your kit use a pencil to mark the relevant numbers on each piece before removing them. Identify the bulkhead frames P1-11 and keel P12. Notice on bulkheads 1 - 3 and 9 - 11 there is a laser score mark on the edges. These score marks are for fairing the bulkheads **off the model** before fixing the bulkheads in place. Use a grinding tool, file and/or sanding block to shape the bulkhead from the score line back to the opposite edge of the bulkhead. Also notice the registration arrows on the bulkheads and the keel - when the registrations arrows align the bulkhead is correctly fitted in place. Trial fit the bulkheads in place - do not force the parts in place - the bulkheads should fit firmly into the keel slots but not tightly - use a flat file to remove the laser burn on the bulkheads and keel slots - fit each bulkhead in place - **do not glue any part in place yet.**



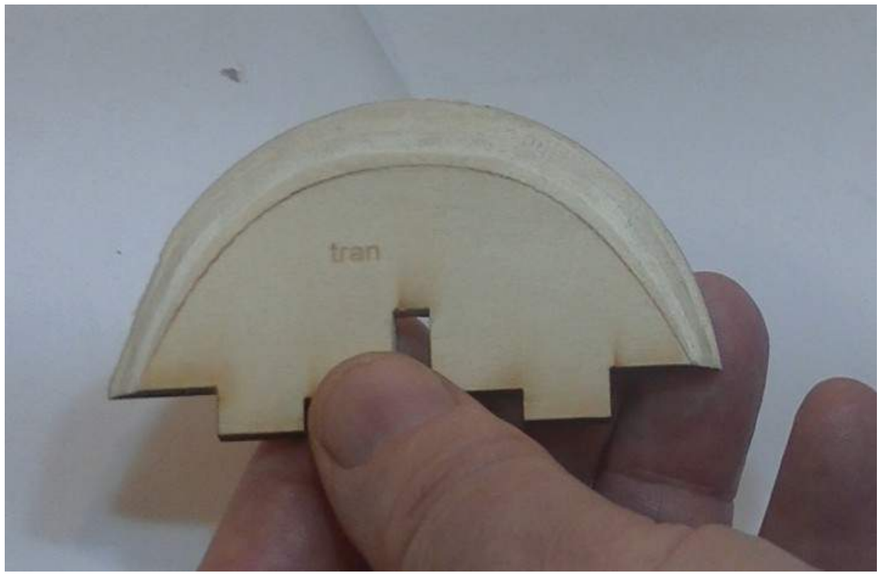


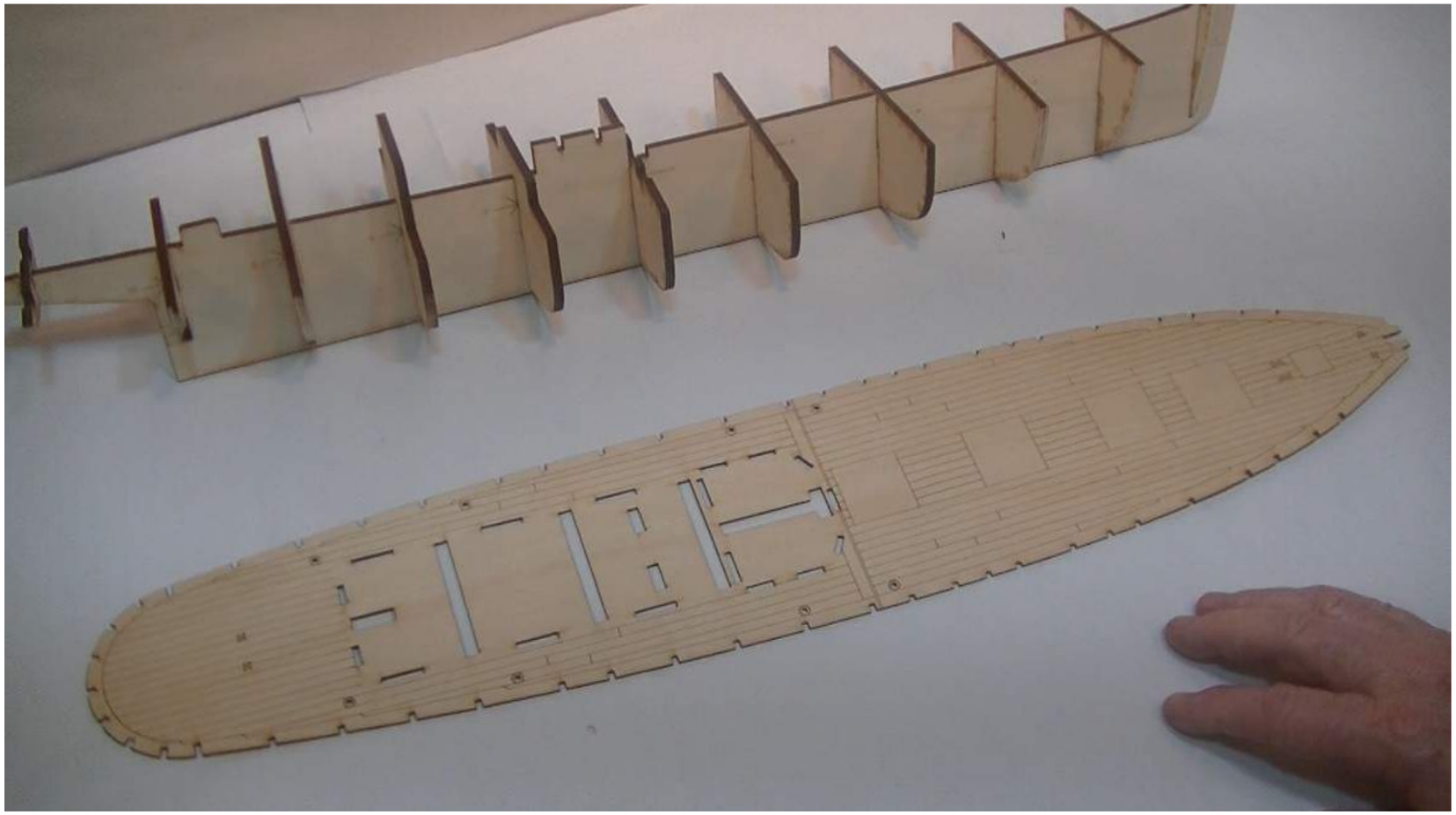




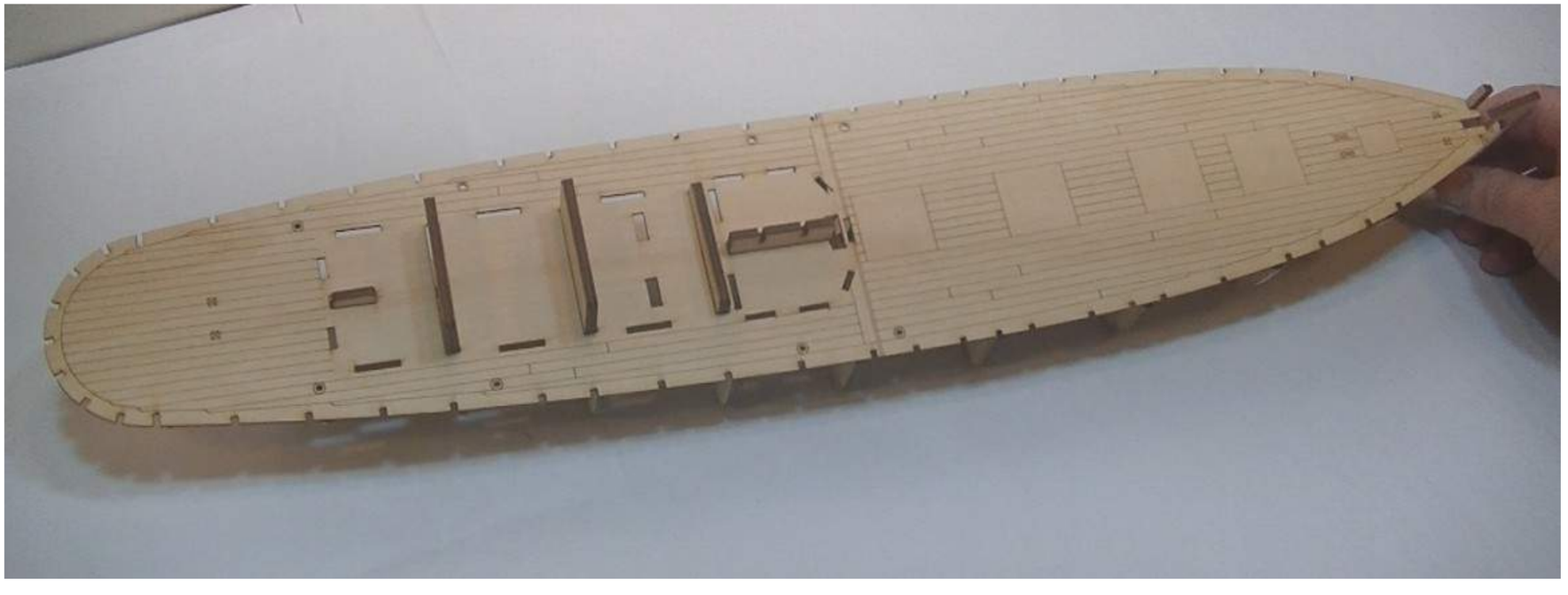
MV KRAIT
SHEET 5

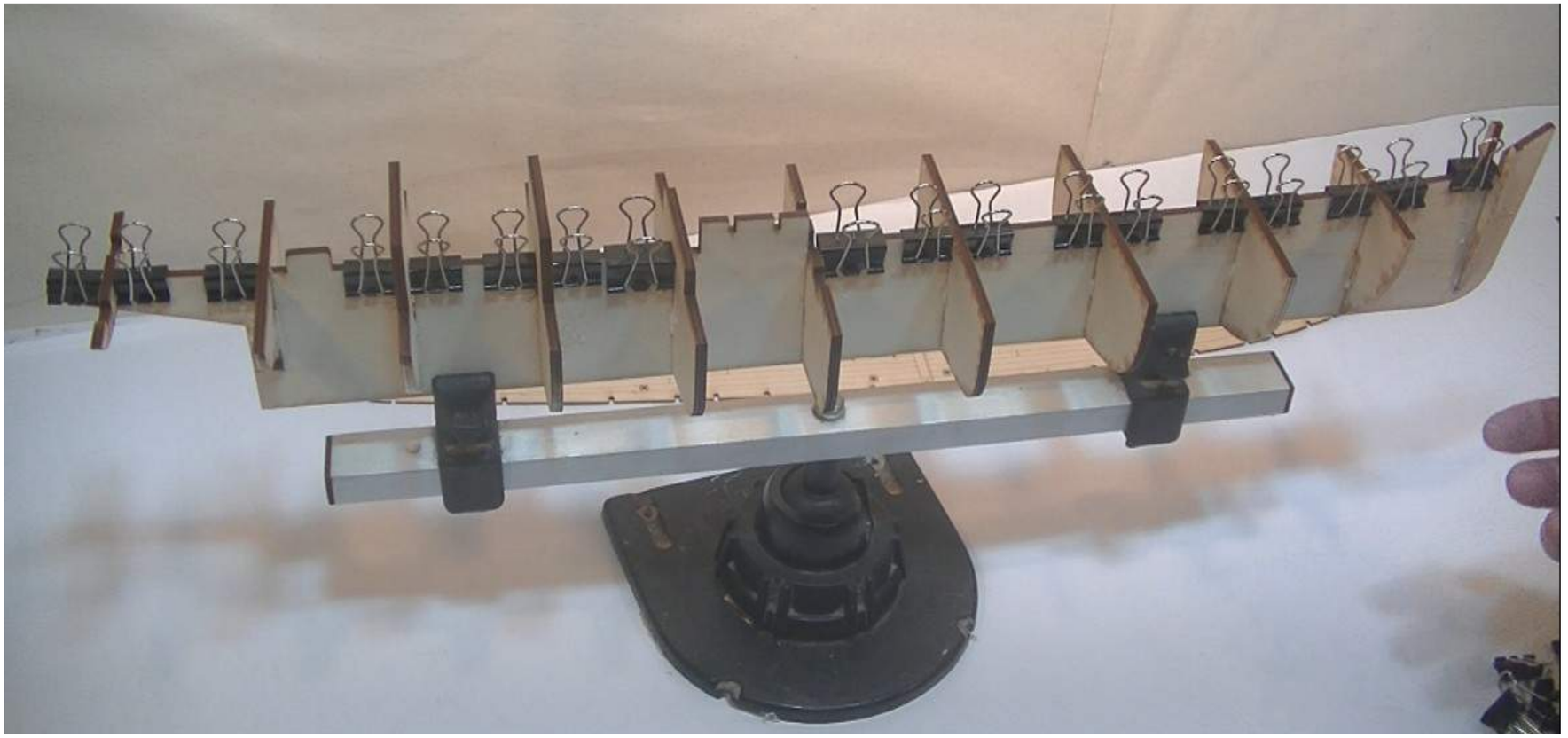
Step 2 Identify the transom P13 - notice the score line - shape the transom from the score line back to the opposite edge as shown - trial fit in place as shown. Identify the deck P14 - apply 2 or 3 coats of a clear polyurethane matt or satin finish to protect the deck - **do not glue any part in place yet.**



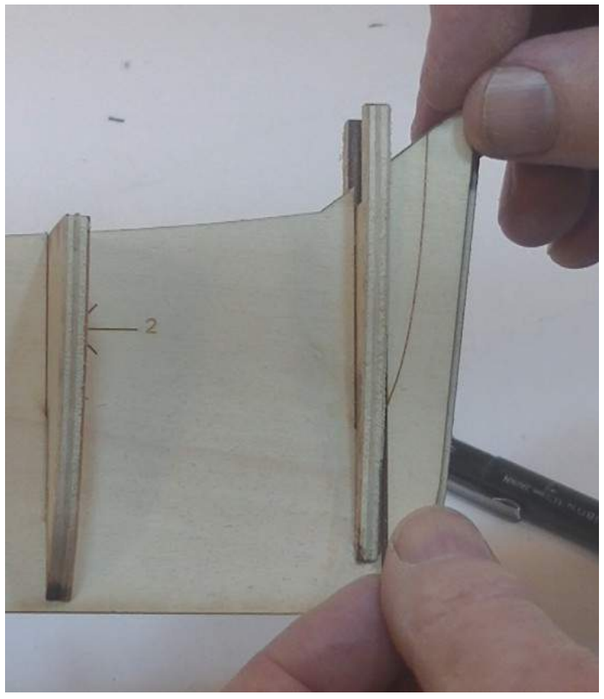


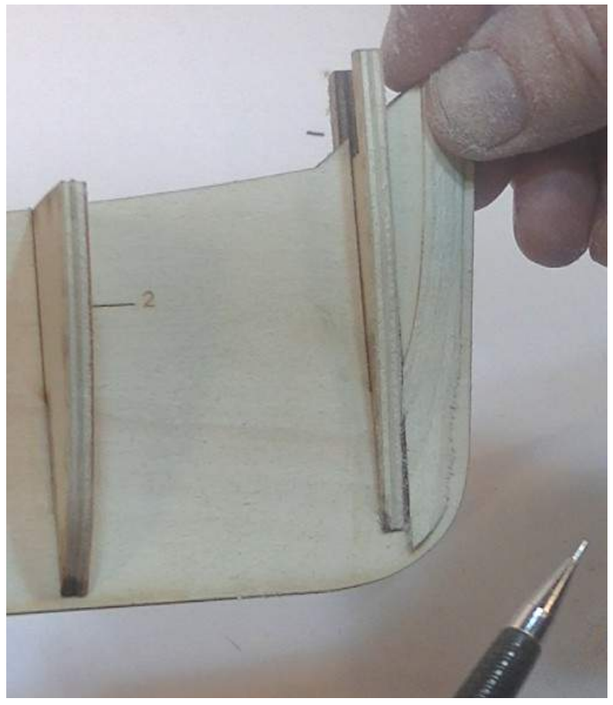
Step 3 Trial fit the deck in place as shown. Once you are satisfied remove the deck and place aside. Remove all the bulkhead frames from the keel. Starting at bulkhead 1 apply white wood glue to the contact points and fit and push home each bulkhead frame. To ensure each bulkhead is held square to the keel while the glue sets place fold-back clips on each side of the bulkhead as shown. Once the glue has set remove the clips. Next glue the transom in place.

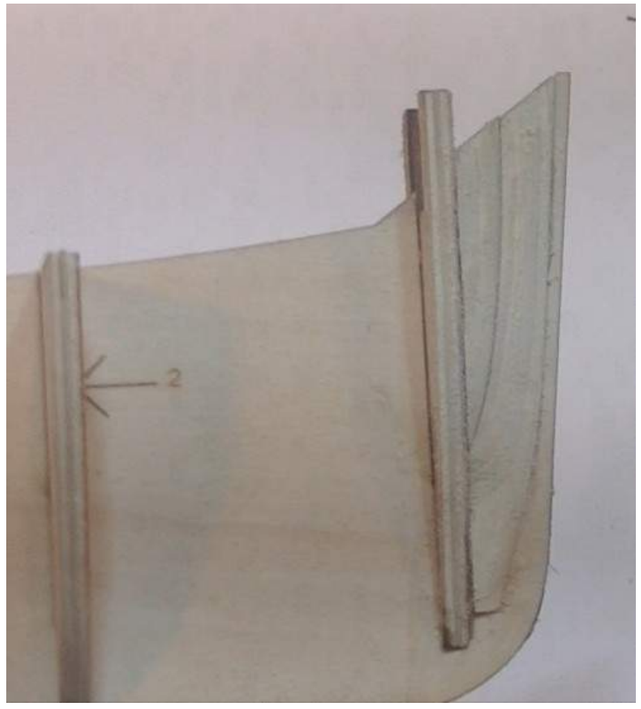




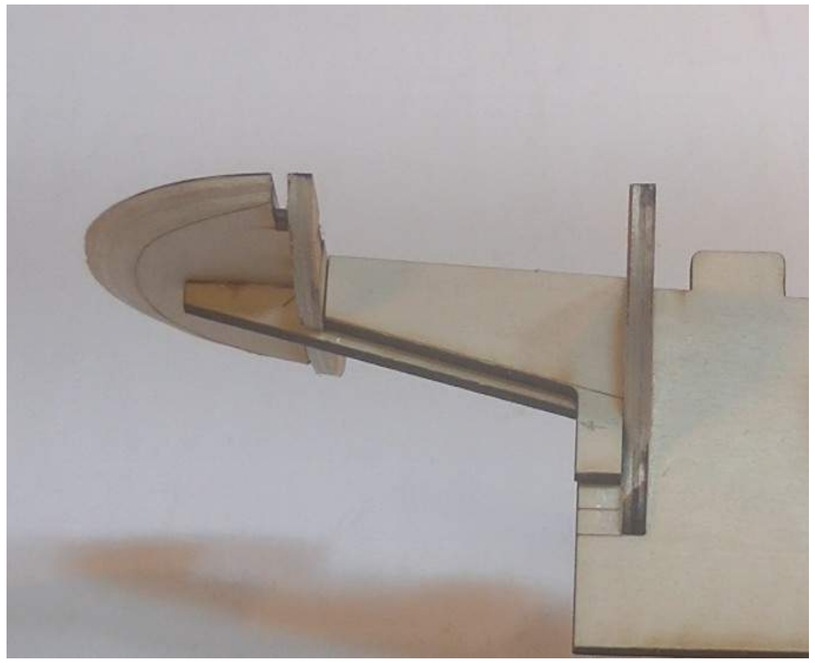
Step 4 Identify bow blocks A P15 - trial fit in place as shown. Shape each bow block from the score line to the outer edge of the bow block as shown. At the lower edge of the bow block make sure it aligns with the bulkhead. Fractionally adjust as required. Once satisfied glue and clamp the bow blocks in place. Identify bow blocks B P16 - trial fit in place as shown. Shape the bow block from the edge that fits against the bulkhead to the outer curved edge. Fractionally adjust as required. Once satisfied glue and clamp the bow blocks in place as shown.

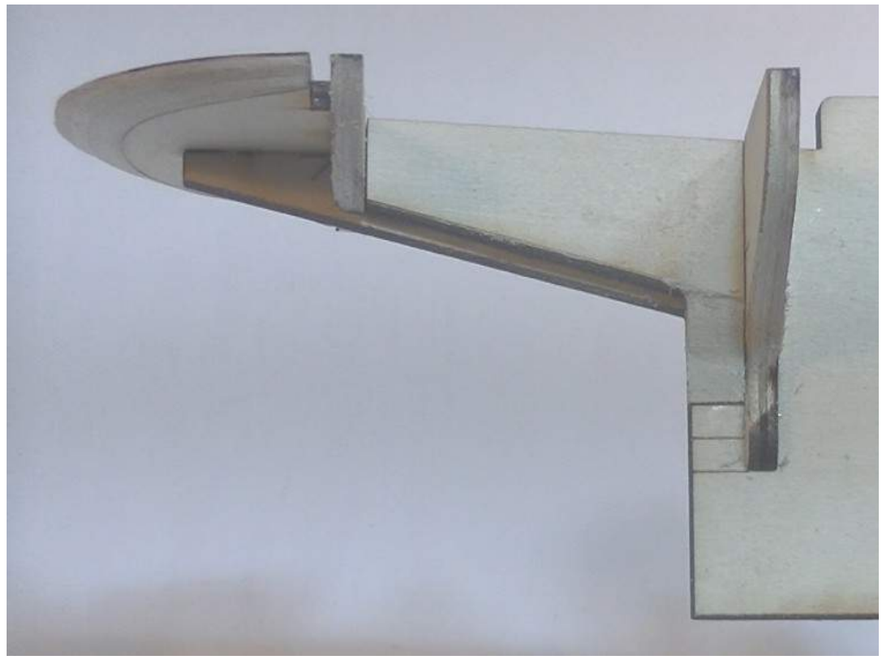


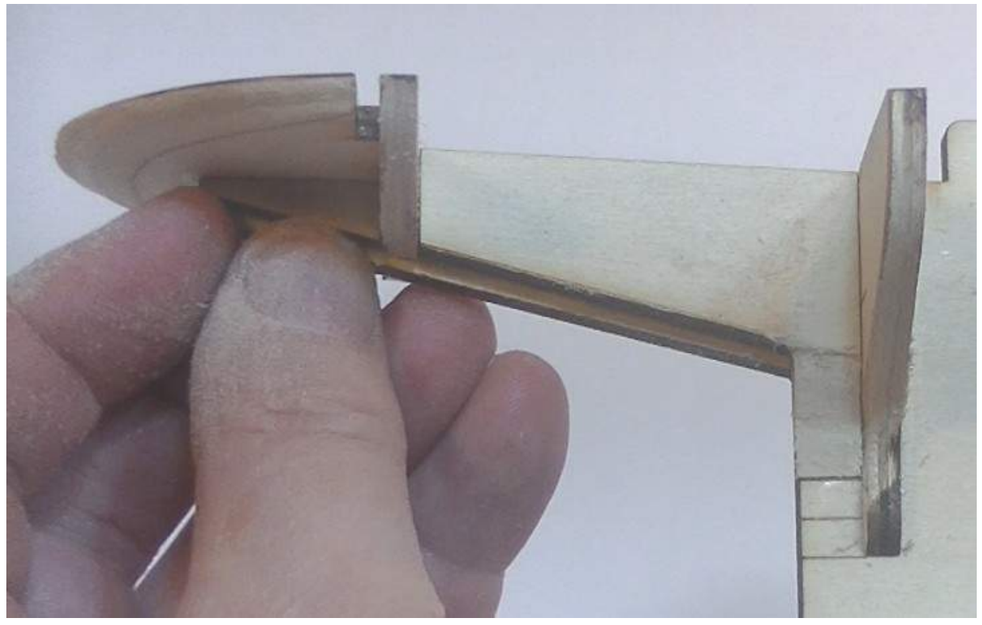


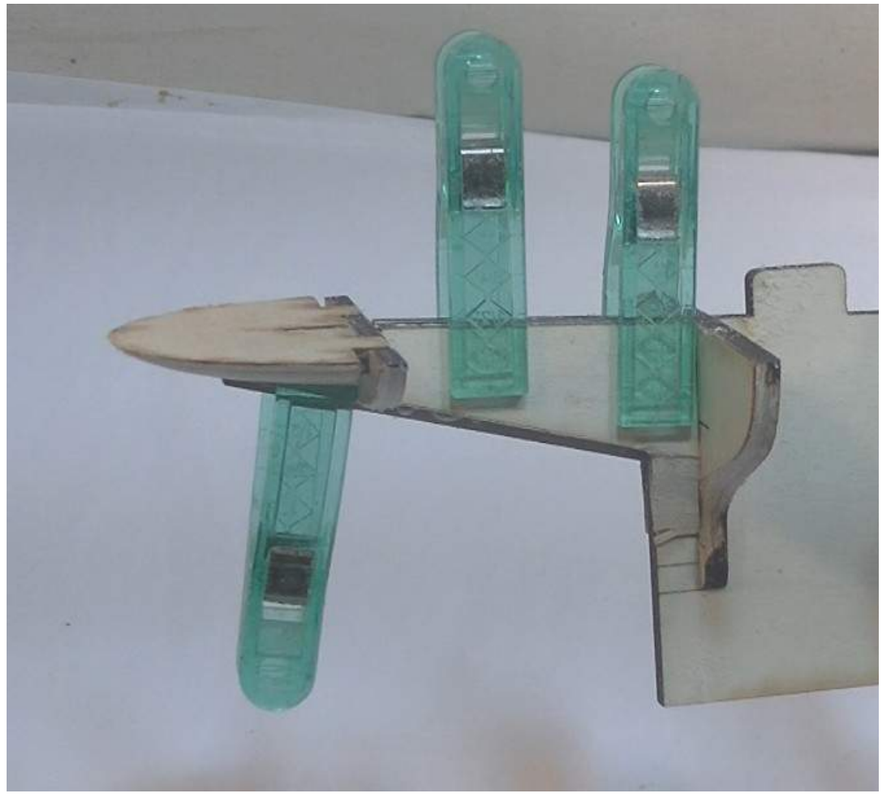


Step 5 Identify the stern blocks A P17 - trial fit in place. Shape the block from the score line to the bottom edge as shown. Fractionally adjust as required. Once satisfied glue and clamp the blocks in place as shown. Identify the stern blocks B P18 - trial fit in place against the keel and behind bulkhead 11 as shown. Glue and clamp in place as shown.

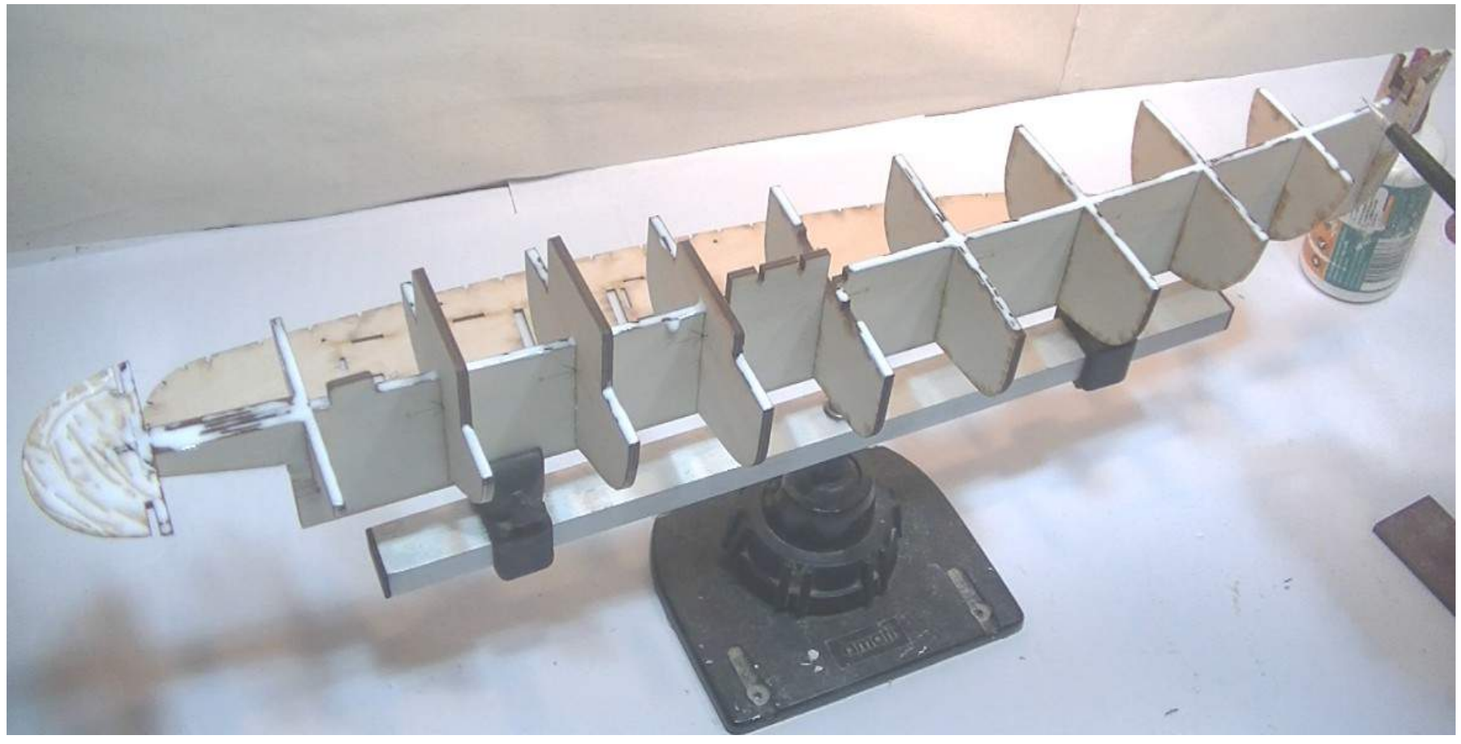


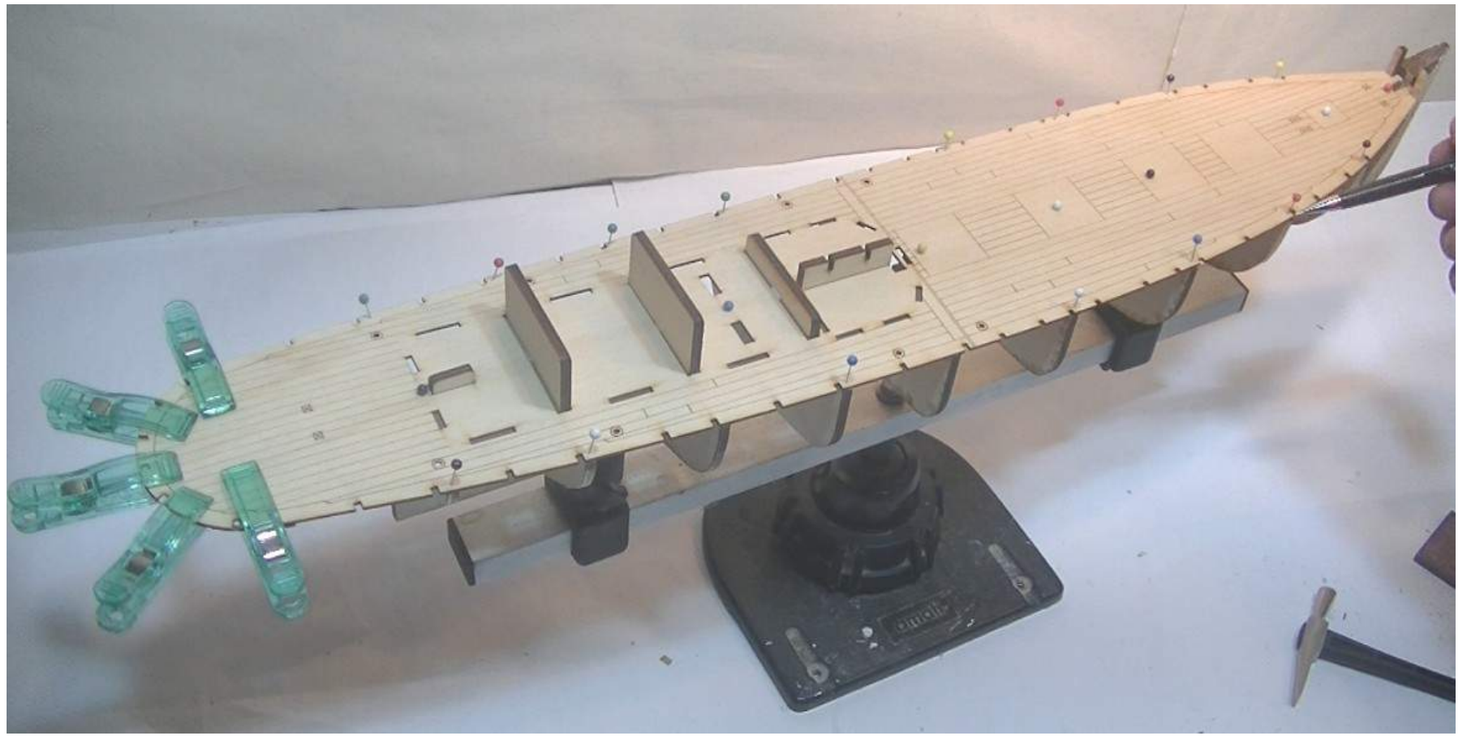




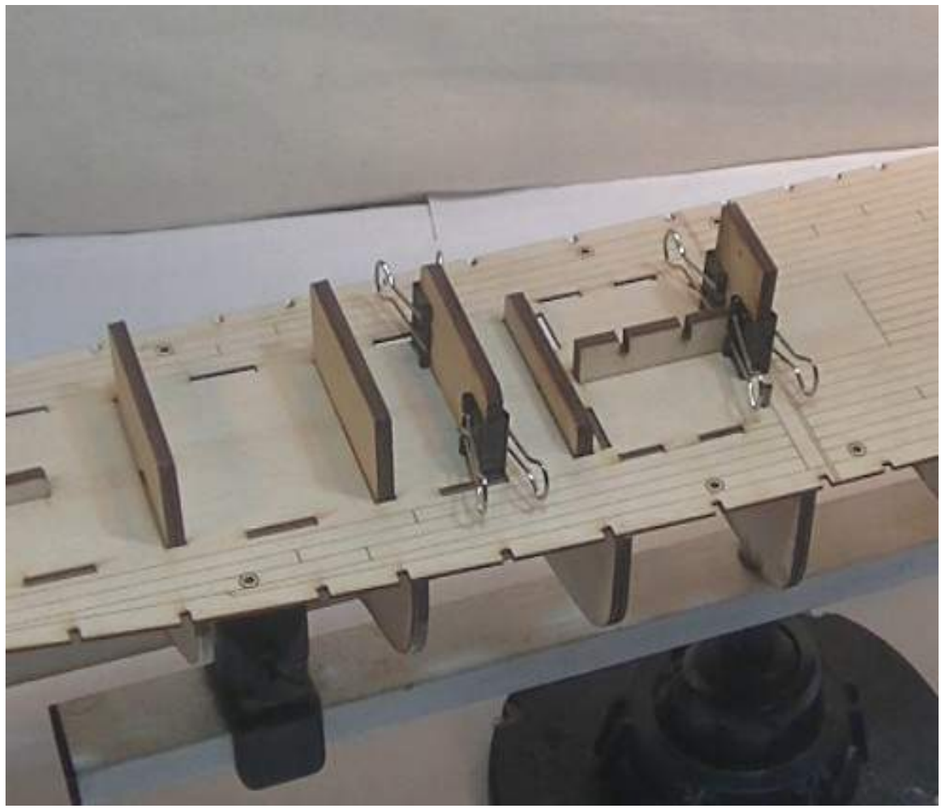


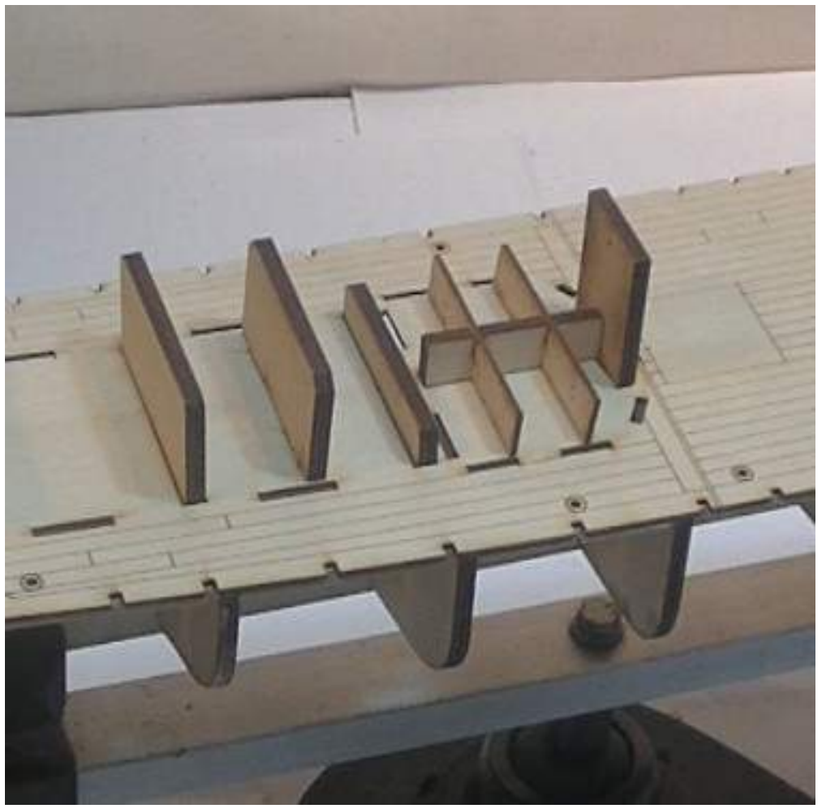
Step 6 Apply glue to all the keel-deck contact points and fit the deck in place - use map pins and clamps to hold the deck in place while the glue sets. Set aside for the glue to fully set. Once the glue has set remove the map pins and clamps.



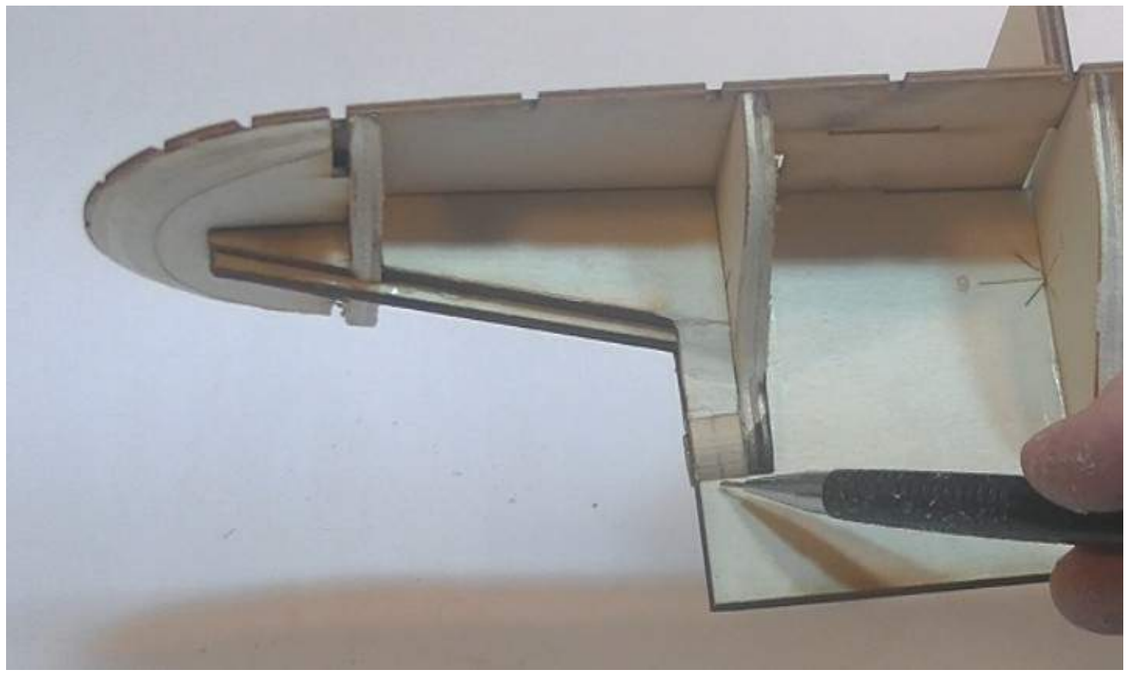


Step 7 Identify the wheelhouse frame P19 - trial fit in place. Identify the engine compartment frame P20 - trial fit in place. Once satisfied glue each part in place - use clips as shown to hold parts square while glue sets. Identify the wheelhouse floor frames P21 - trial fit in place - once satisfied glue in place as shown.

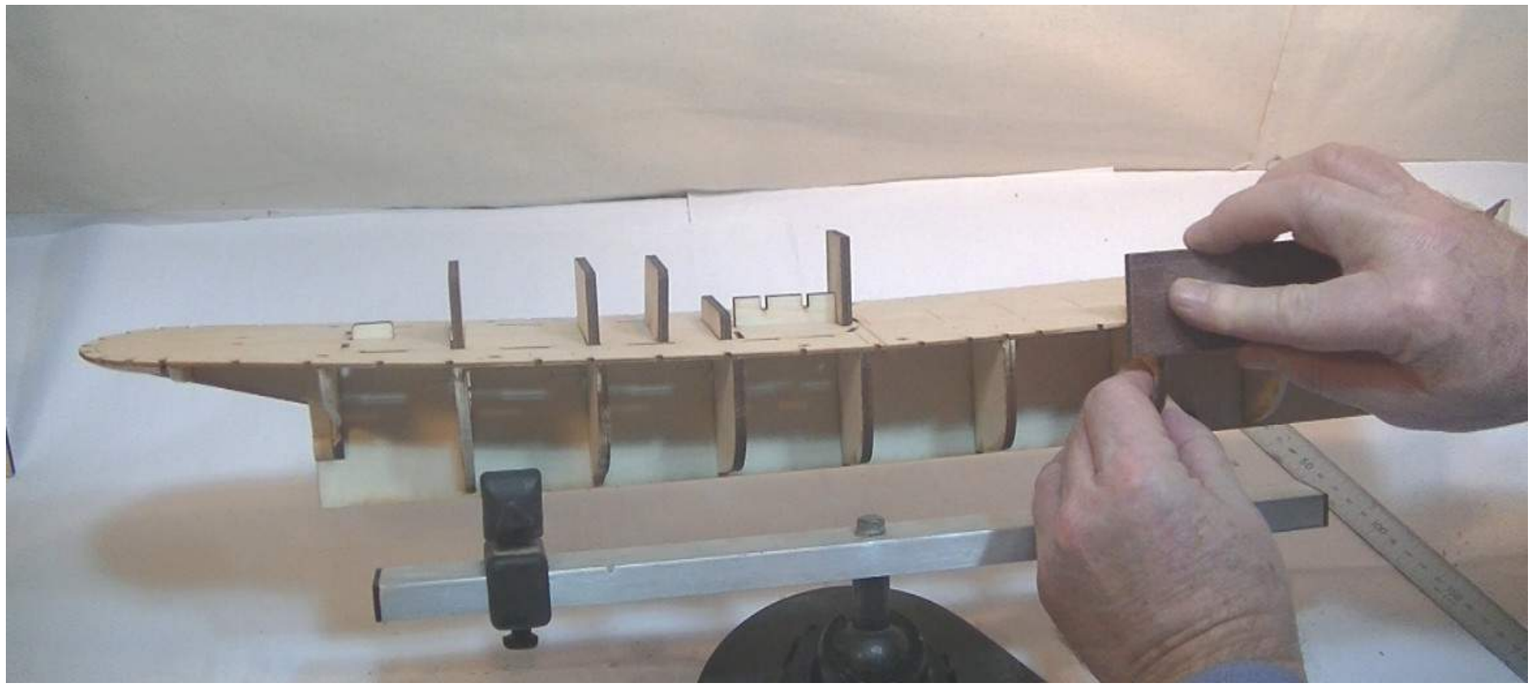




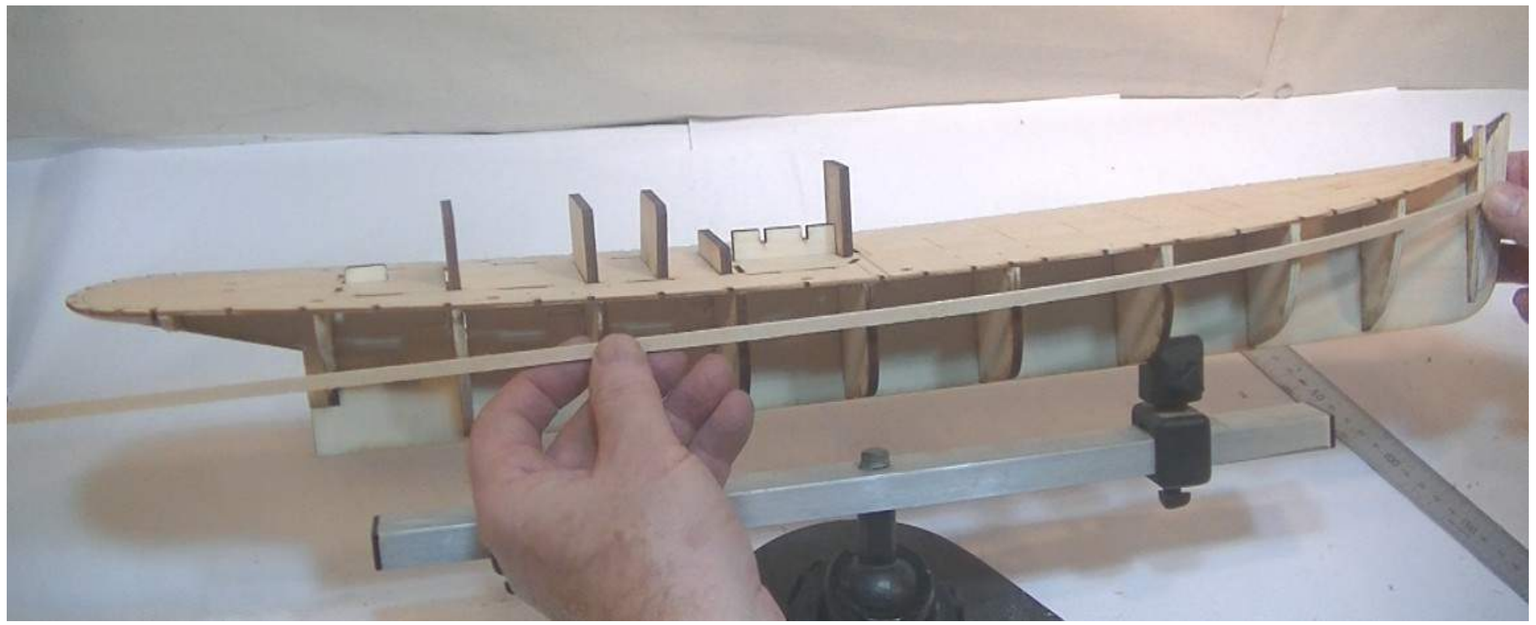
Step 8 Identify the propeller housing parts P22 - glue one pair in position at the score lines on the keel - glue a second pair in position on the other side of the keel so as to be a mirror image. The remaining pair will be fitted to the hull later in the build.



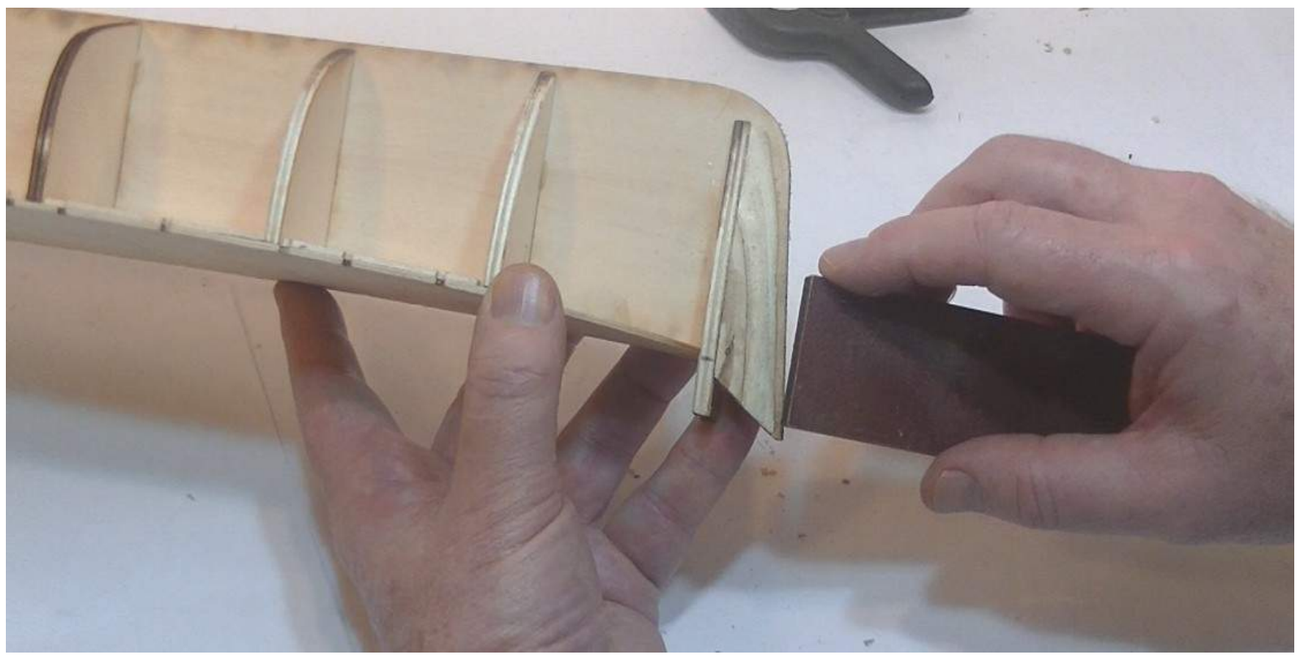
Step 9 Use a sanding block to ensure the edge of the deck aligns with the bulkheads.

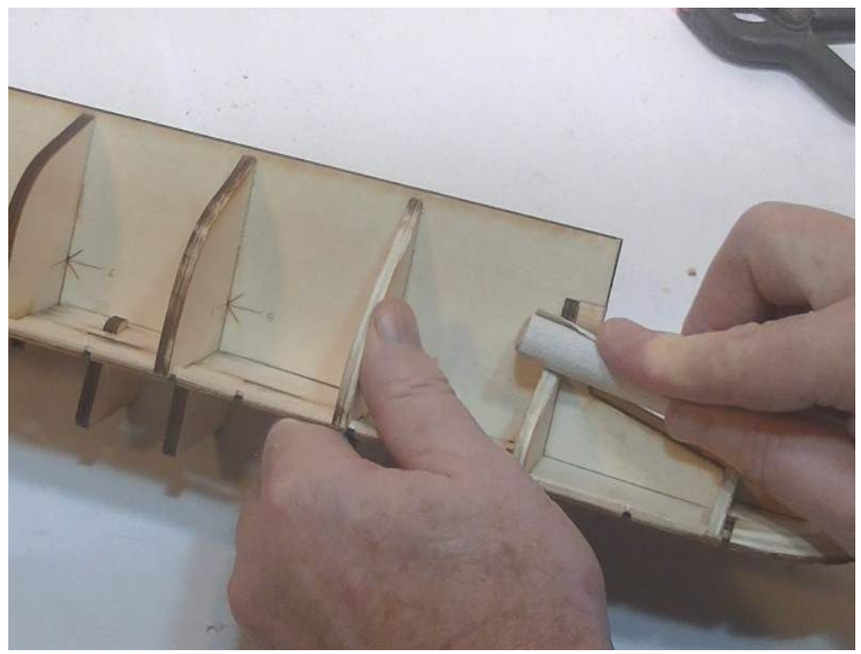


Step 10 Take a plank and lay across the bulkheads to checks the fairing - fractionally adjust if necessary.



Step 11 At the bow use a sanding block to make fractional adjustments to the blocks. At the stern use sand paper wrapped around a length of dowel to make fractional adjusts to the relevant bulk-heads.

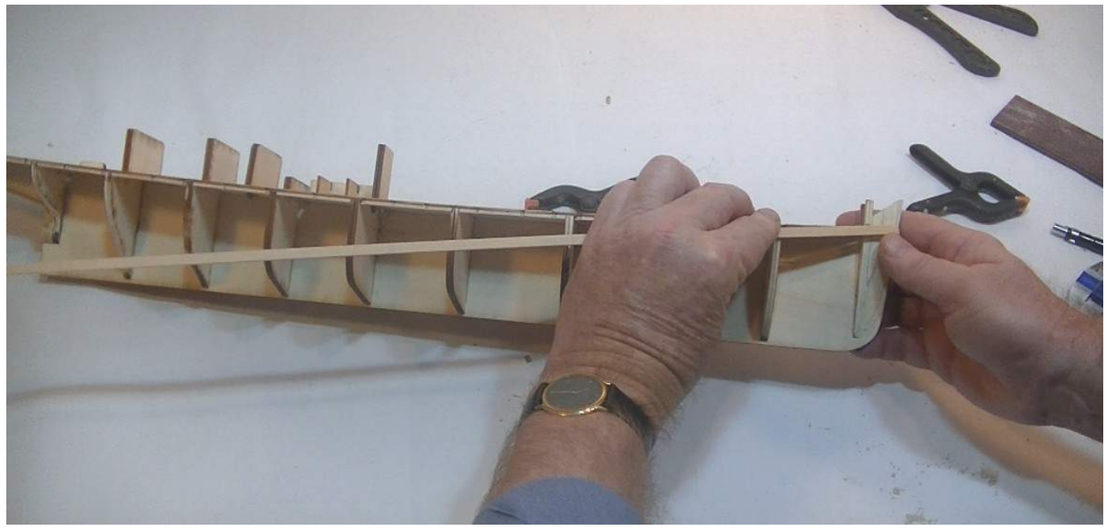


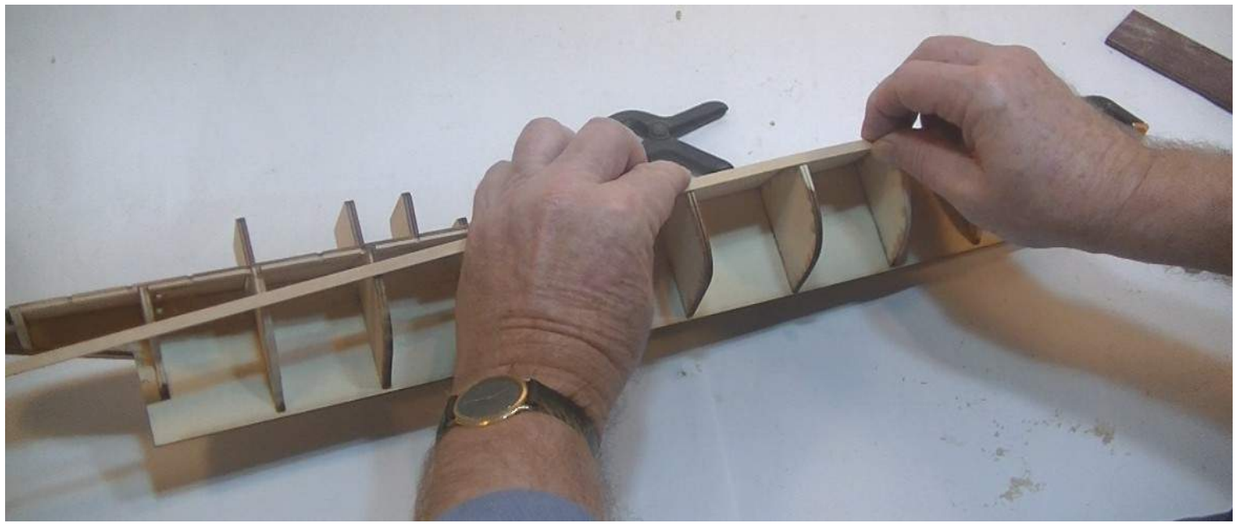


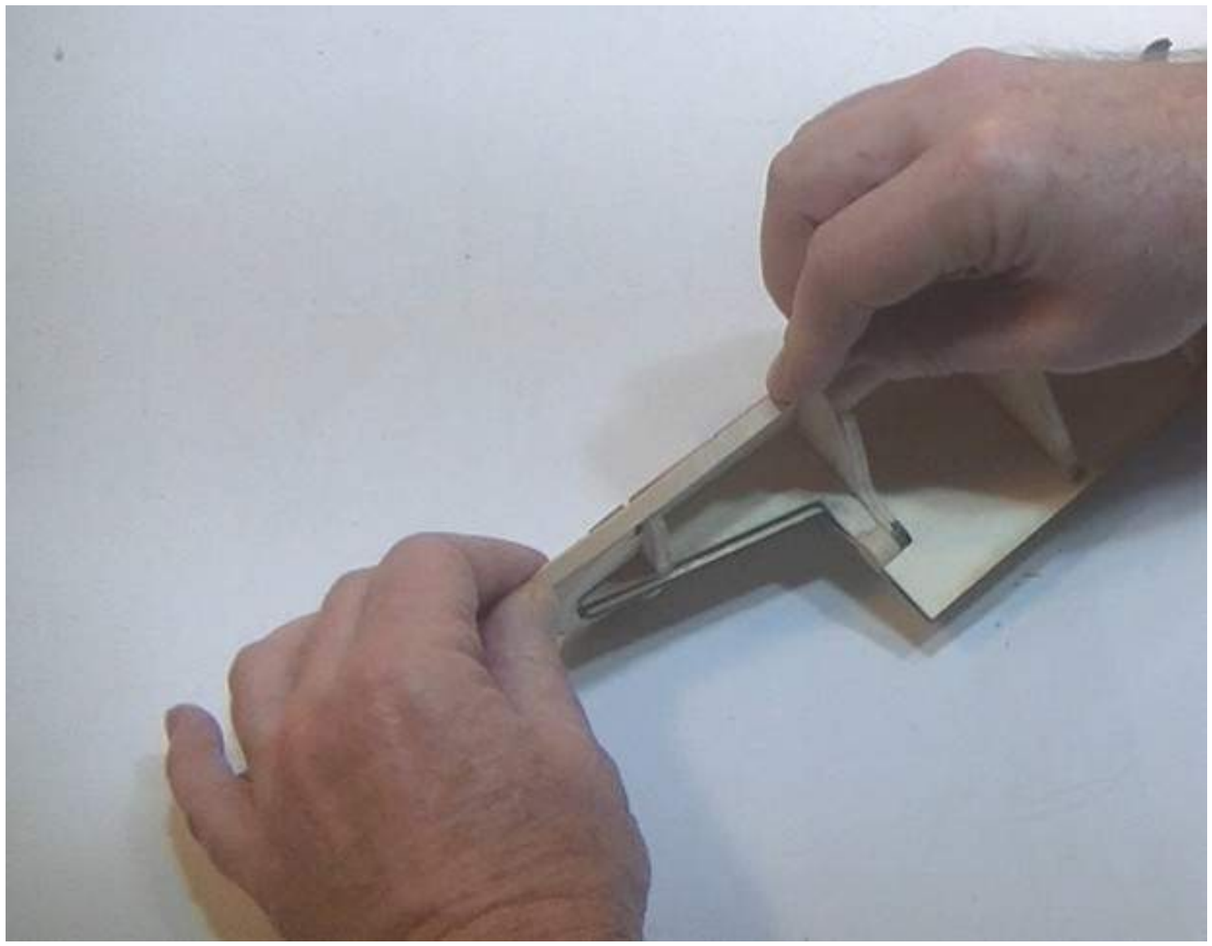
Step 12 Identify the stanchion supports P23 - there are 9 pairs numbered 1 to 9. The parts fit immediately under the deck edge between bulkheads. Pair No 1 fits between bulkhead 1 & 2. Pair 2 between bulkhead 3 & 4 etc. Trial fit all the parts. Once satisfied glue and clamp in position as shown.

6.0 Hull Planking - First Layer

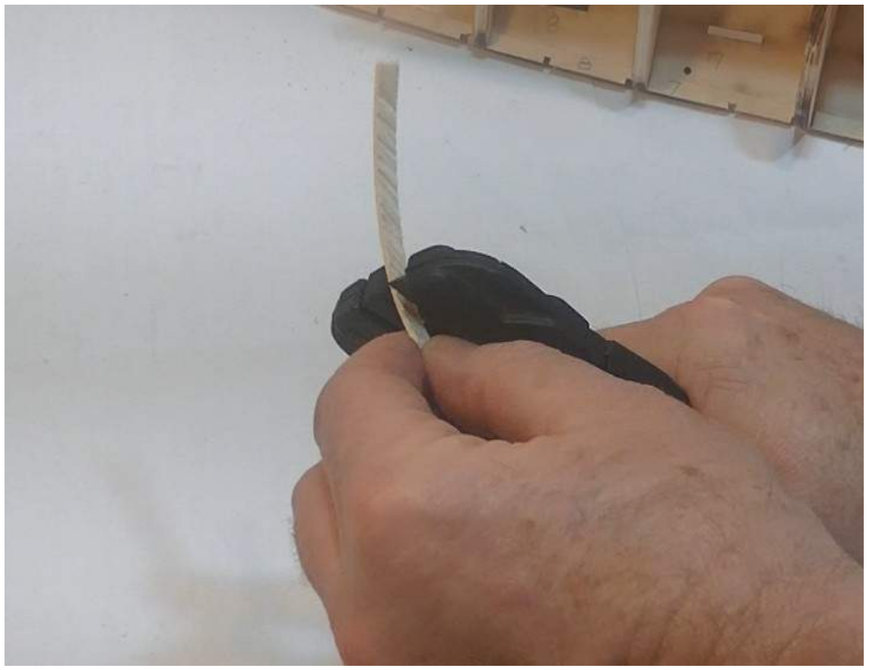
Step 1 Identify the basswood 2x5x700mm P24. Trial fit one plank by laying it along the hull level with the deck. Notice at the stern the plank will need to kick up under the transom as shown.

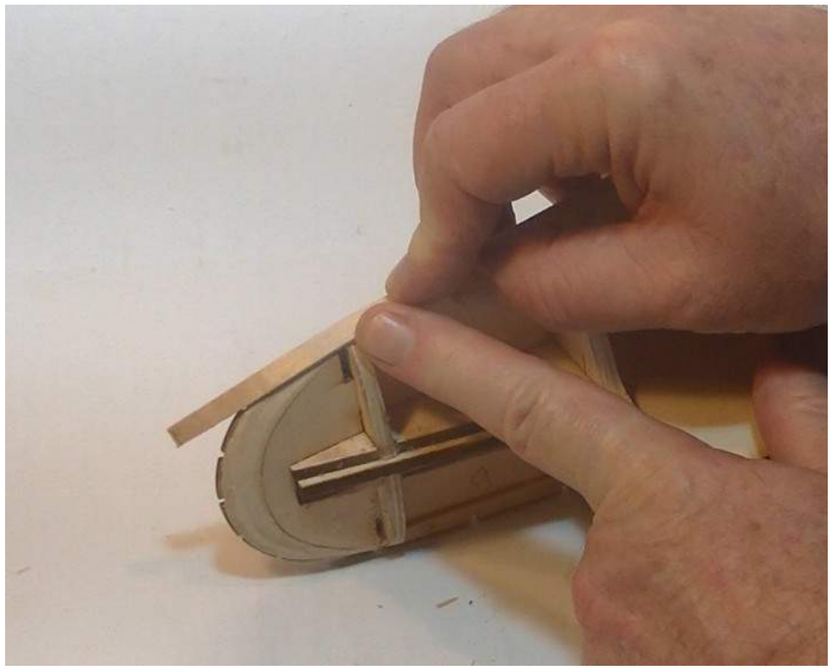


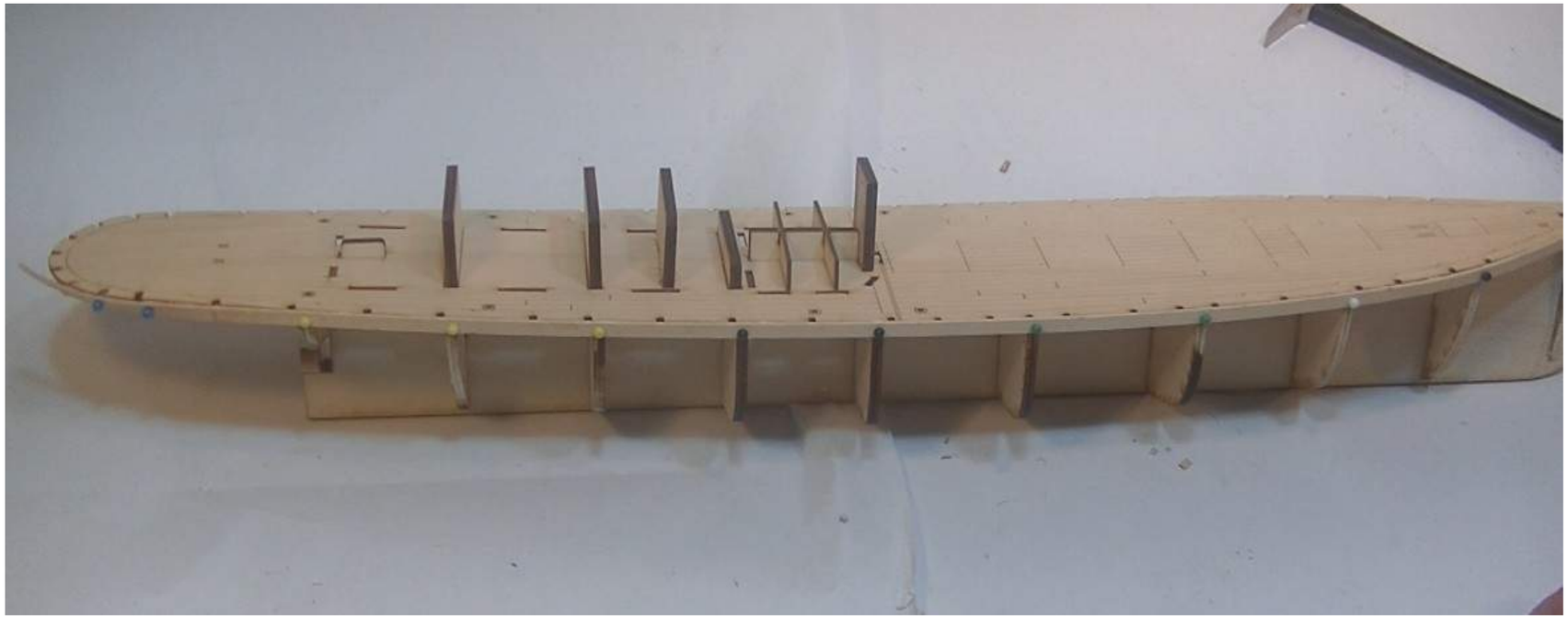




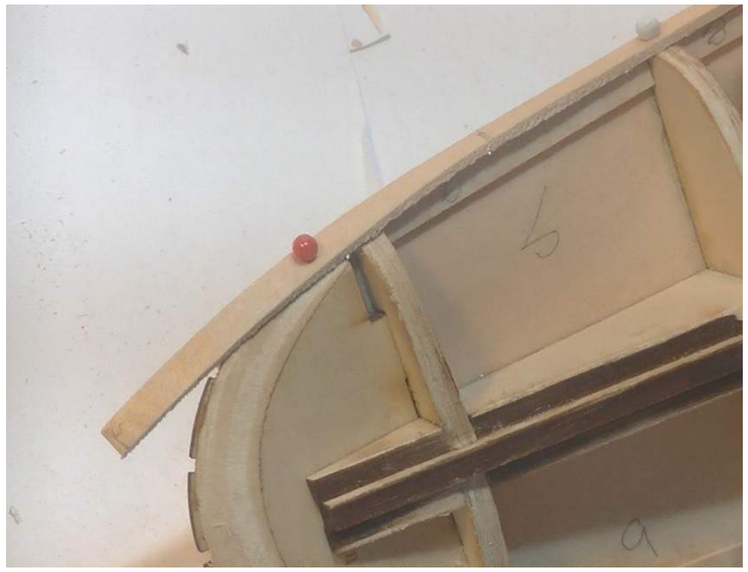
Step 2 Cut a length of this planking to fit along the hull with some overhang at the stern. On bulkhead 1 measure down 15mm from the top and mark with a pencil. Align the plank with the front edge of the keel and the 15mm mark. Lay the plank along the hull marking at the stern where the plank needs to go under the transom - use a hand held plank bender to bend the plank - make the crimps at an angle to make the plank kick around the transom as shown. Once satisfied apply glue to the bulkheads and pin the plank in place as shown. Repeat for the other side of the hull.

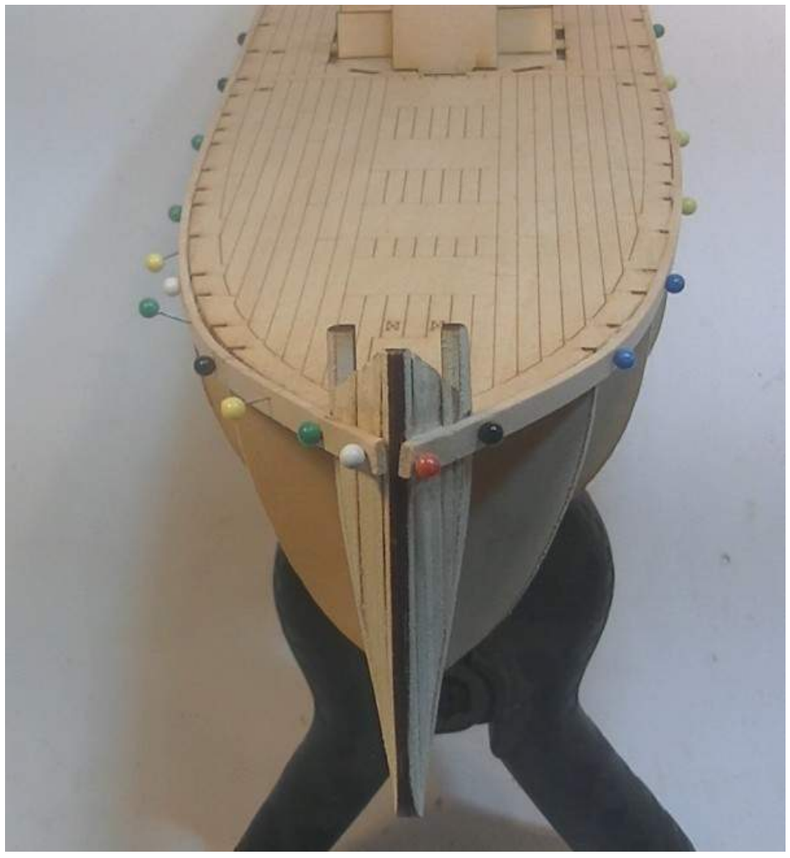


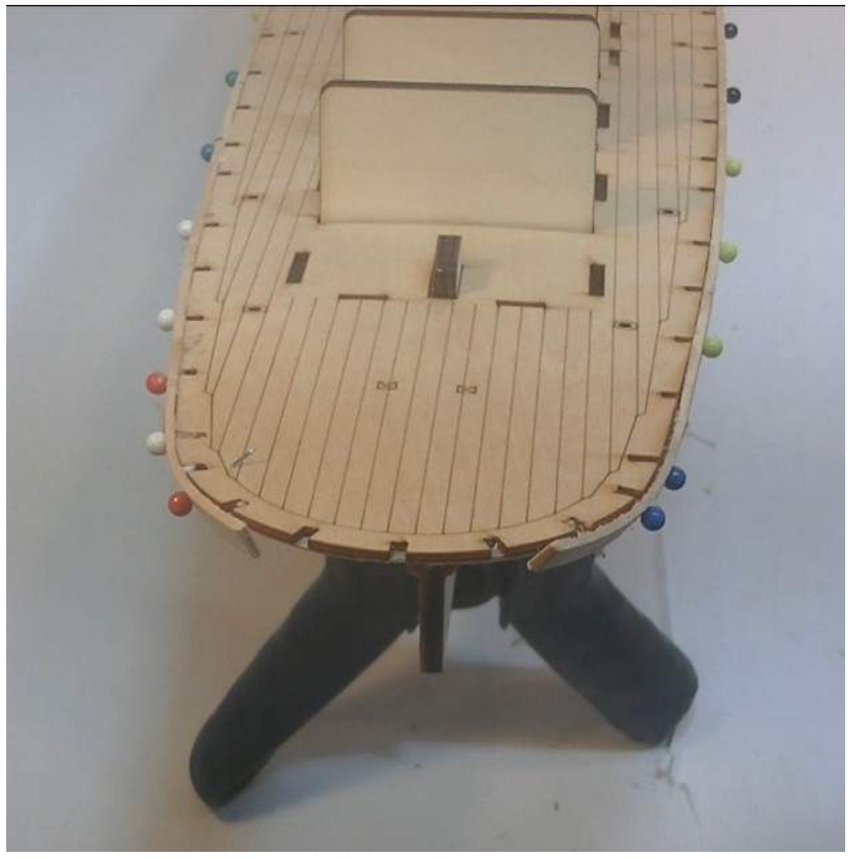




Step 2 continued Make sure that both planks are a mirror image of each other as shown.







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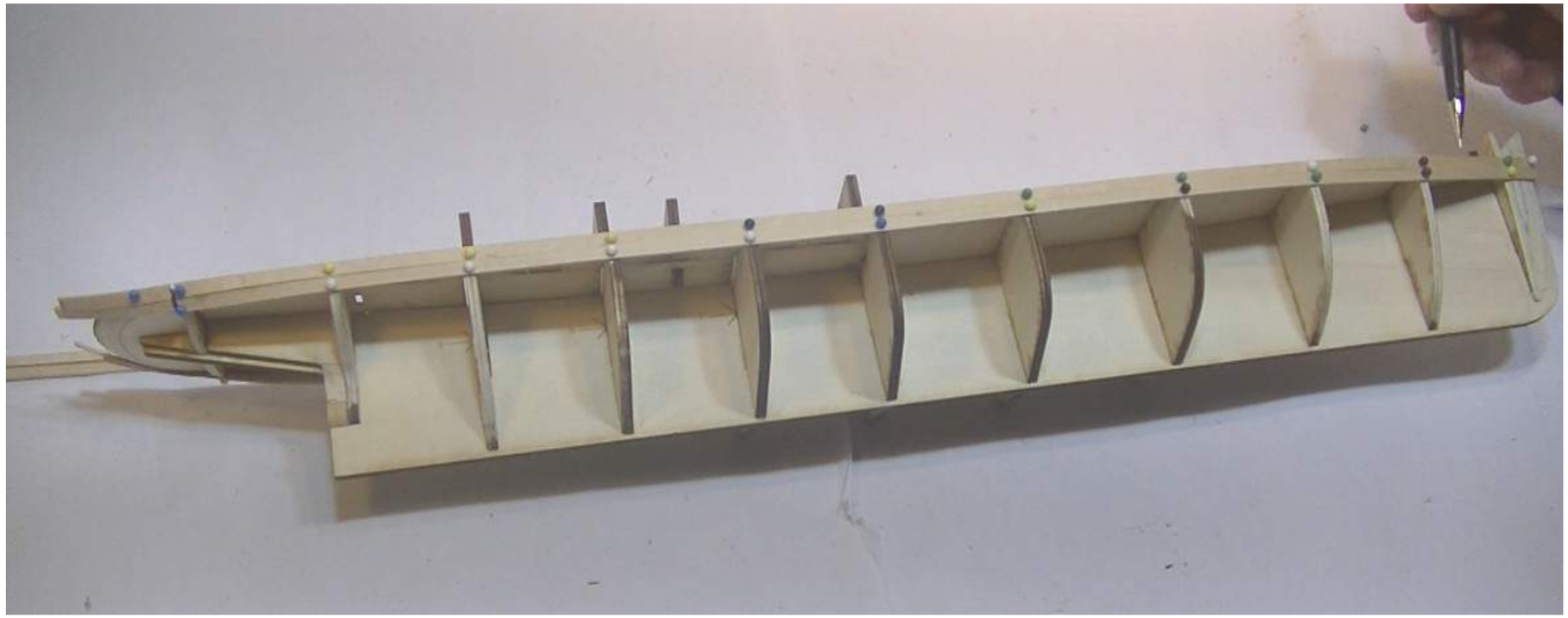
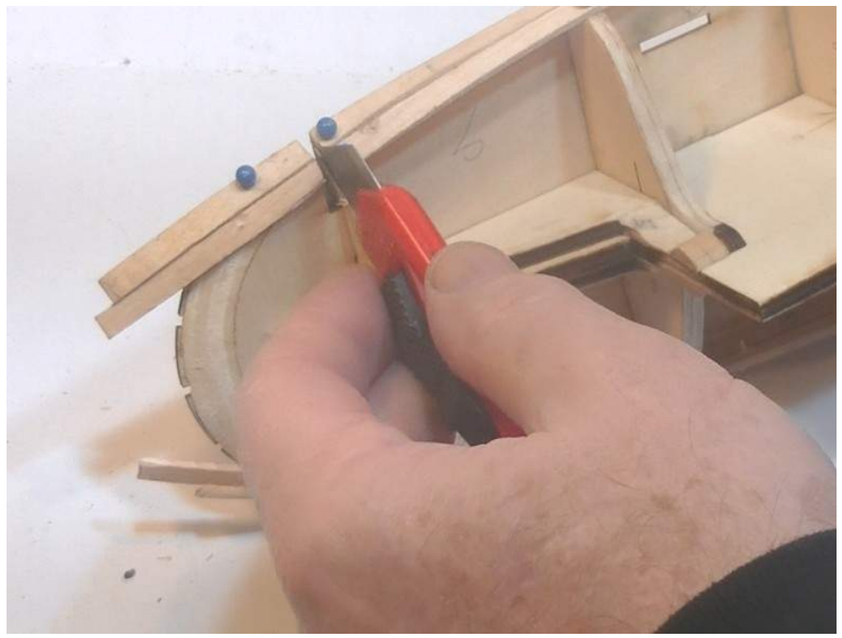
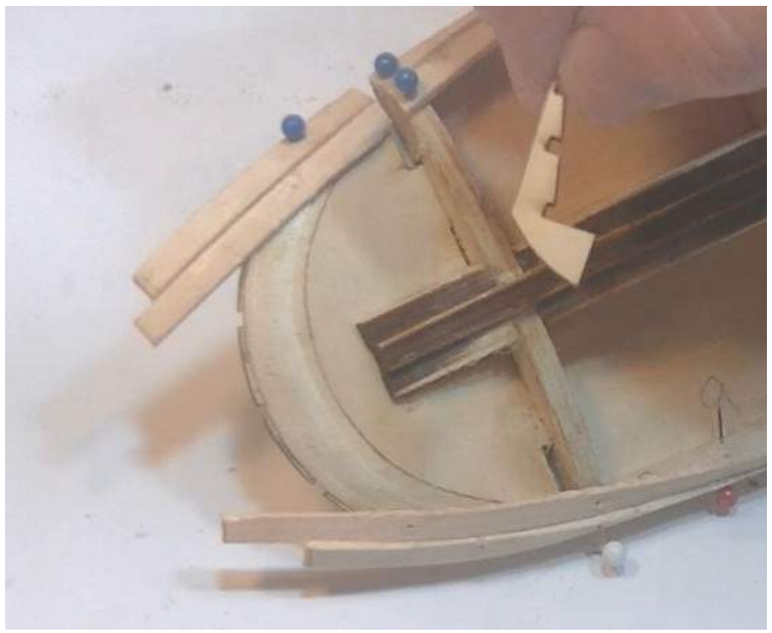
SHEET 16

Step 3 Place a second plank in place immediately below the first plank - as well as applying glue to the bulkheads apply glue to the under-edge of the first plank - this will add strength to the finished hull. Do this for the rest of the planking. Make sure to remove any excess glue before it sets.



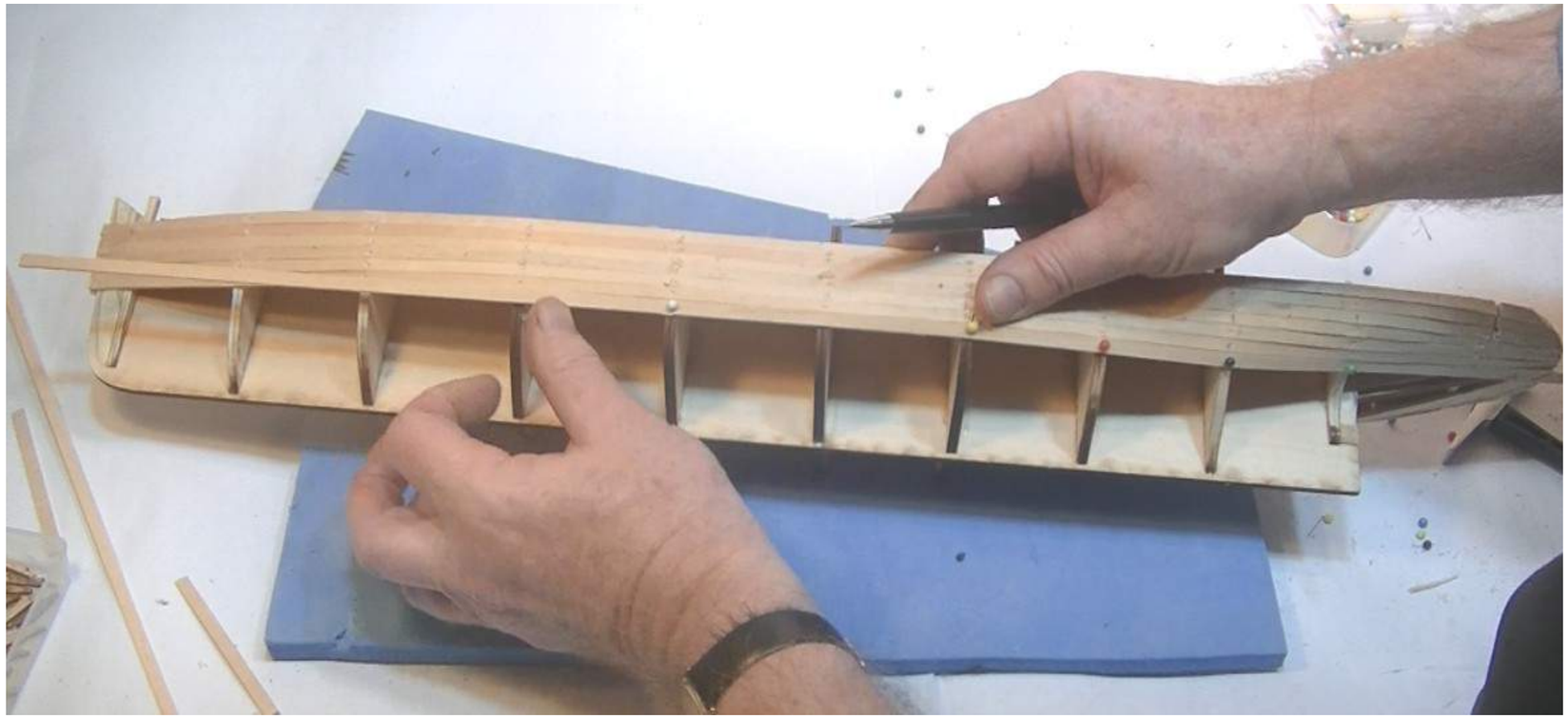
Identify stanchions P25W - this part needs to be fitted against the rear side of bulkhead 11. Consequently a gap needs to be cut through the first 3 planks fitted - use a sharp blade knife to cut the unwanted section of planking and trial fit the stanchion in place to ensure it will fit easily later.

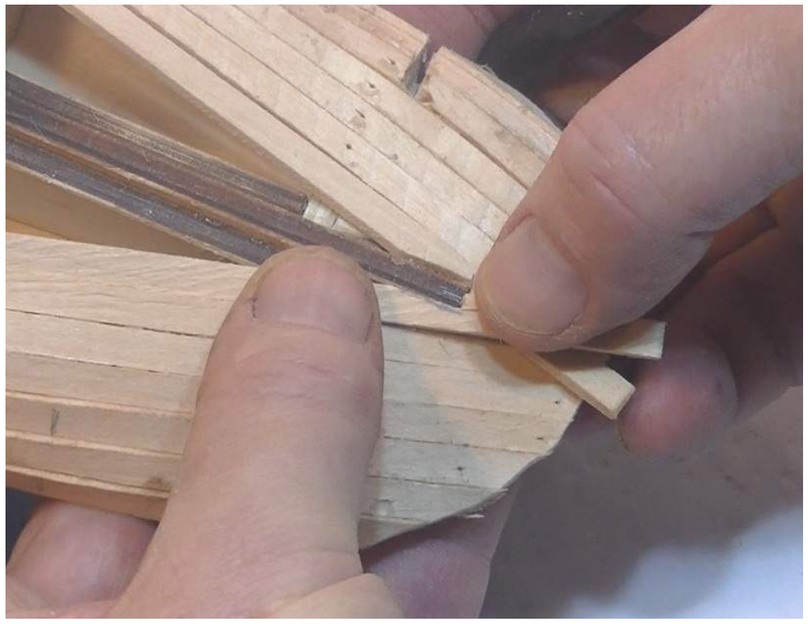


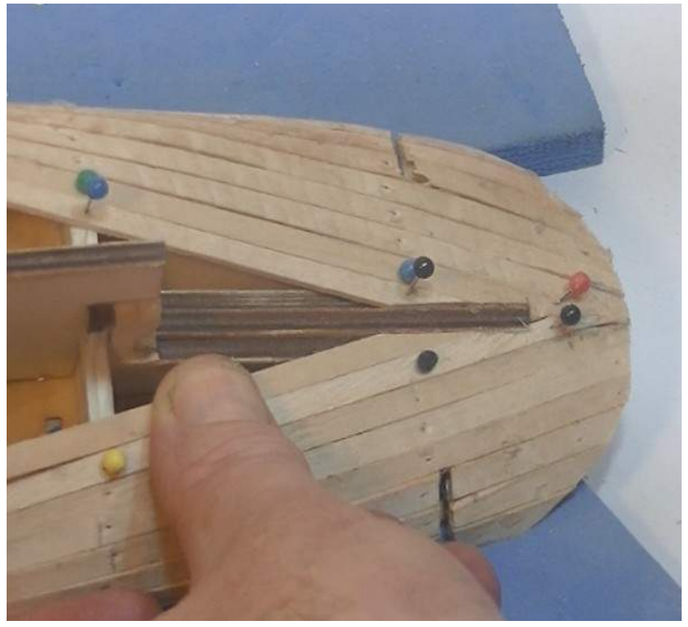


Step 4 Continue to fit, glue and pin in place another 5 planks on each side of the hull as shown.

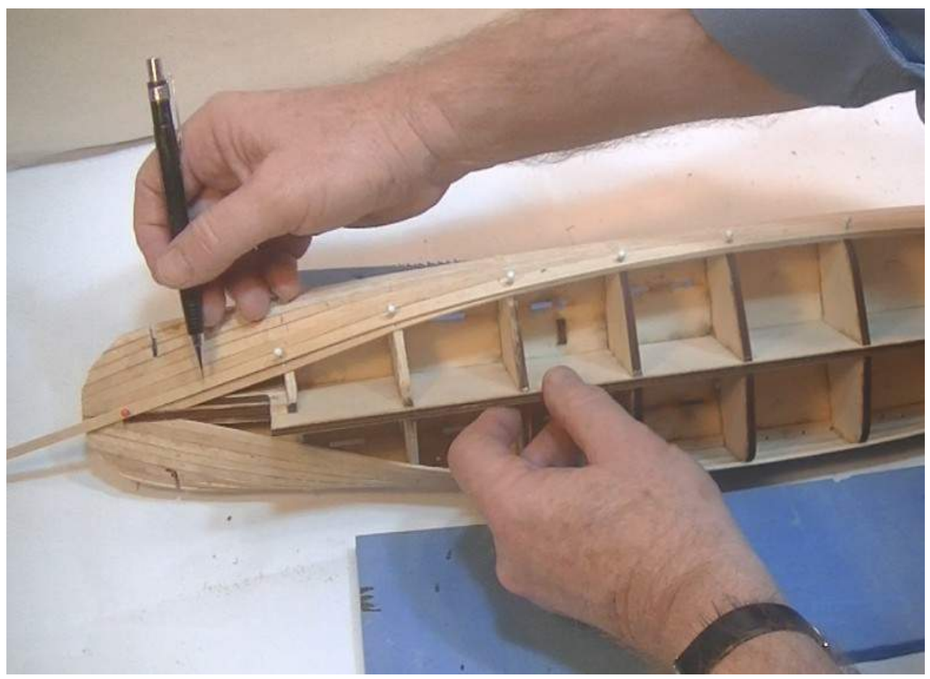
Step 5 Temporarily pin a plank in place from the mid-ship to the rear as shown. Shape the plank to fit into the stern area as shown. Repeat for the plank fitted to the other side of the hull making sure the planks are a mirror image of each other as shown. Once satisfied glue and pin the planks in place. Fit an 8th plank in place – shape the stern to fit as shown. Once satisfied glue and pin the plank in place - repeat for the other side of the hull.

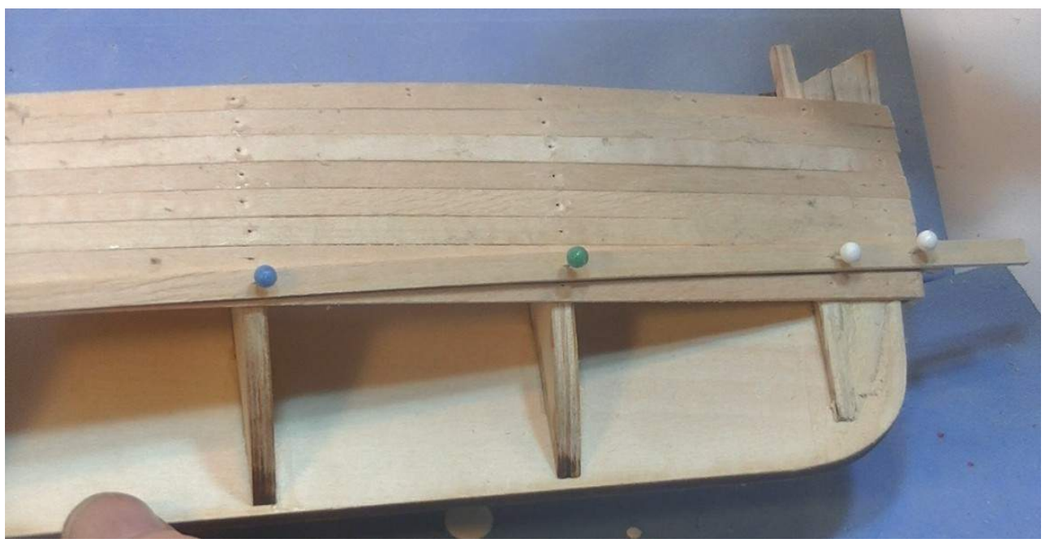




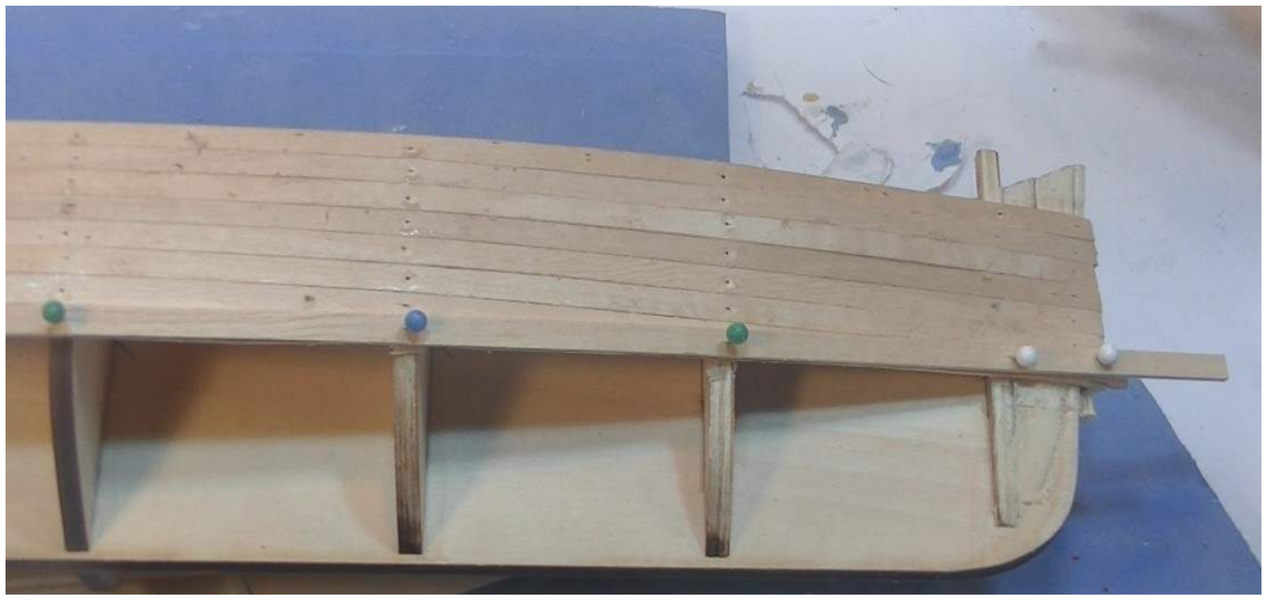


Step 6 The next step is to make a directional correction to the run of the planks. Take a plank and pin it in place over the previously laid 8th plank - pin this plank in place at the 3 mid-ship frames 5, 6 & 7 - then allow the plank to run its natural course fore and aft - pin the plank in place as shown. You will see there is an area of overlap at the bow end and the stern end - mark these areas of overlap. Next use a sharp blade knife to remove the area of overlap. Repeat for the other side of the hull.



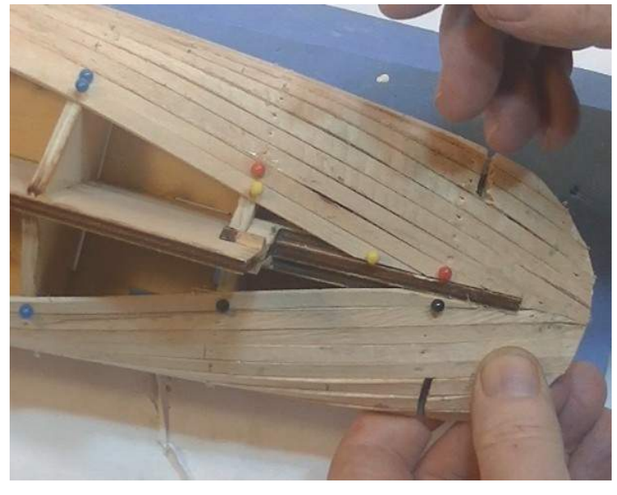


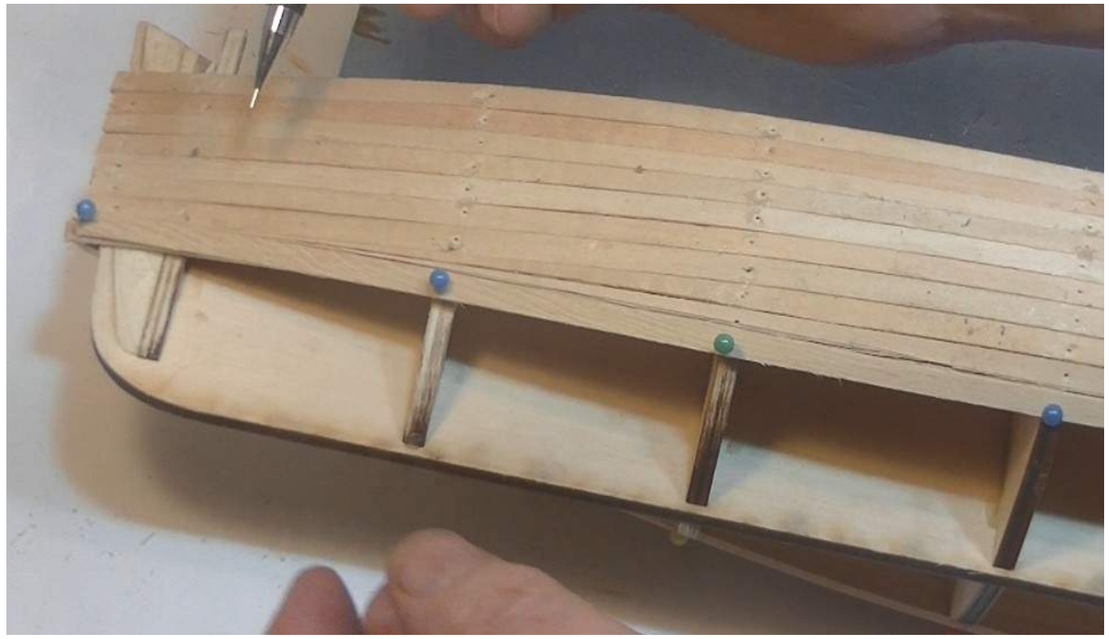
Step 6 continued Cut away the area of overlap as shown.



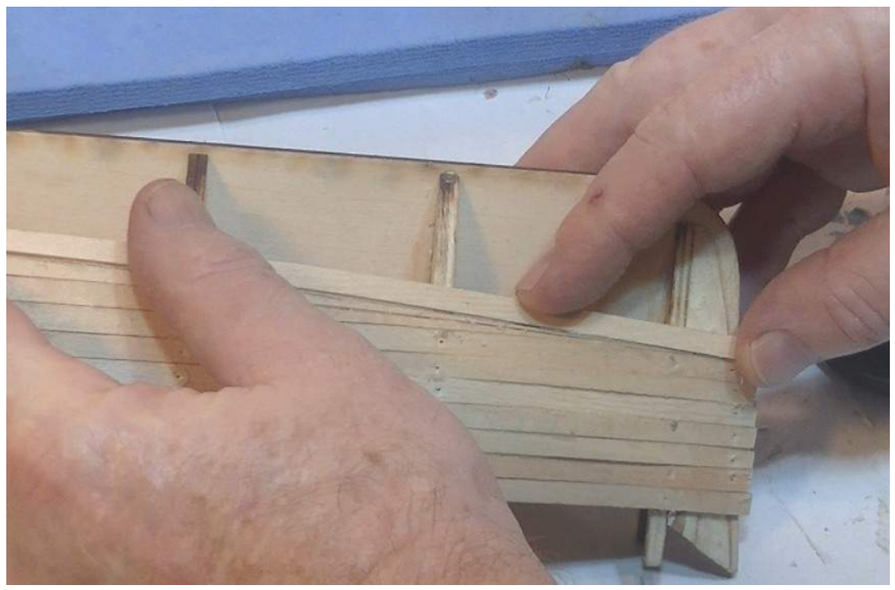
Step 7 After making the directional change glue and pin in place another plank following the new planking line established. Repeat for the other side of the hull.

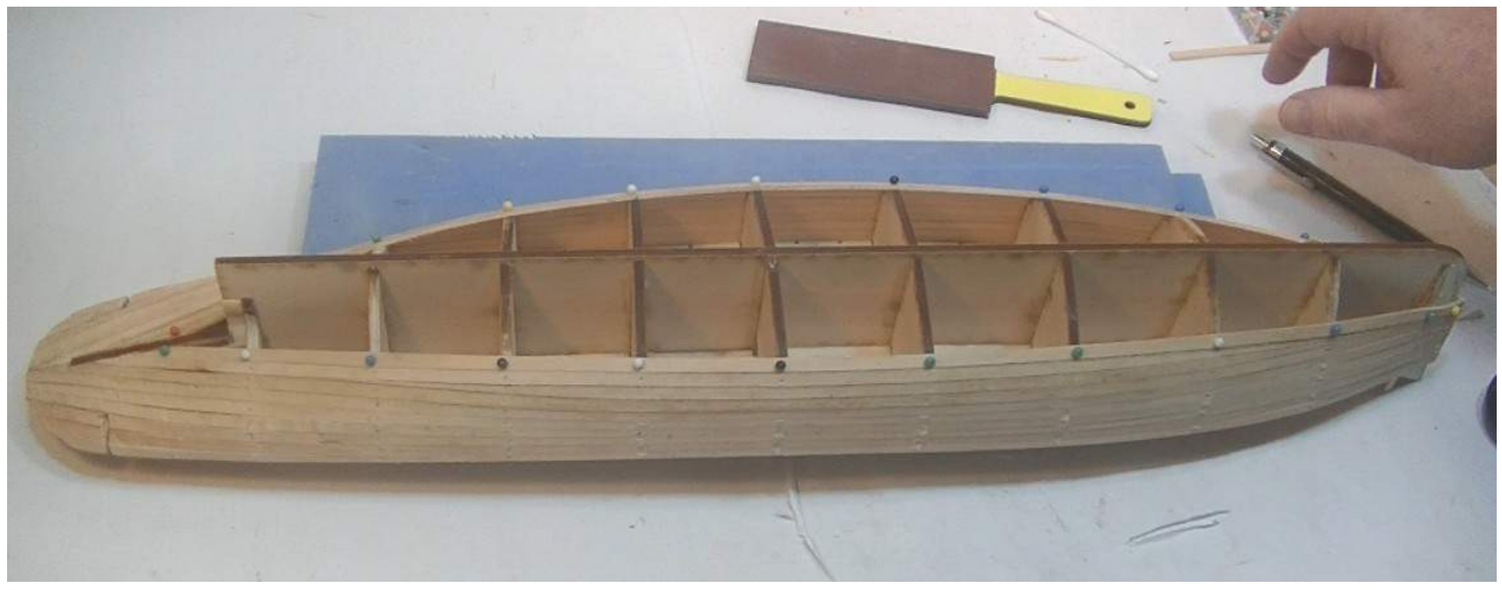
Step 8 Take a plank and shape the stern end to fit into the stern area as shown. Pin the plank in place up to the bulkhead 4. Now allow the plank to follow its natural course over the previously fitted planks - pin the plank in place. Mark the area of overlap at the bow. Use a sharp blade knife to remove the area of overlap as shown.



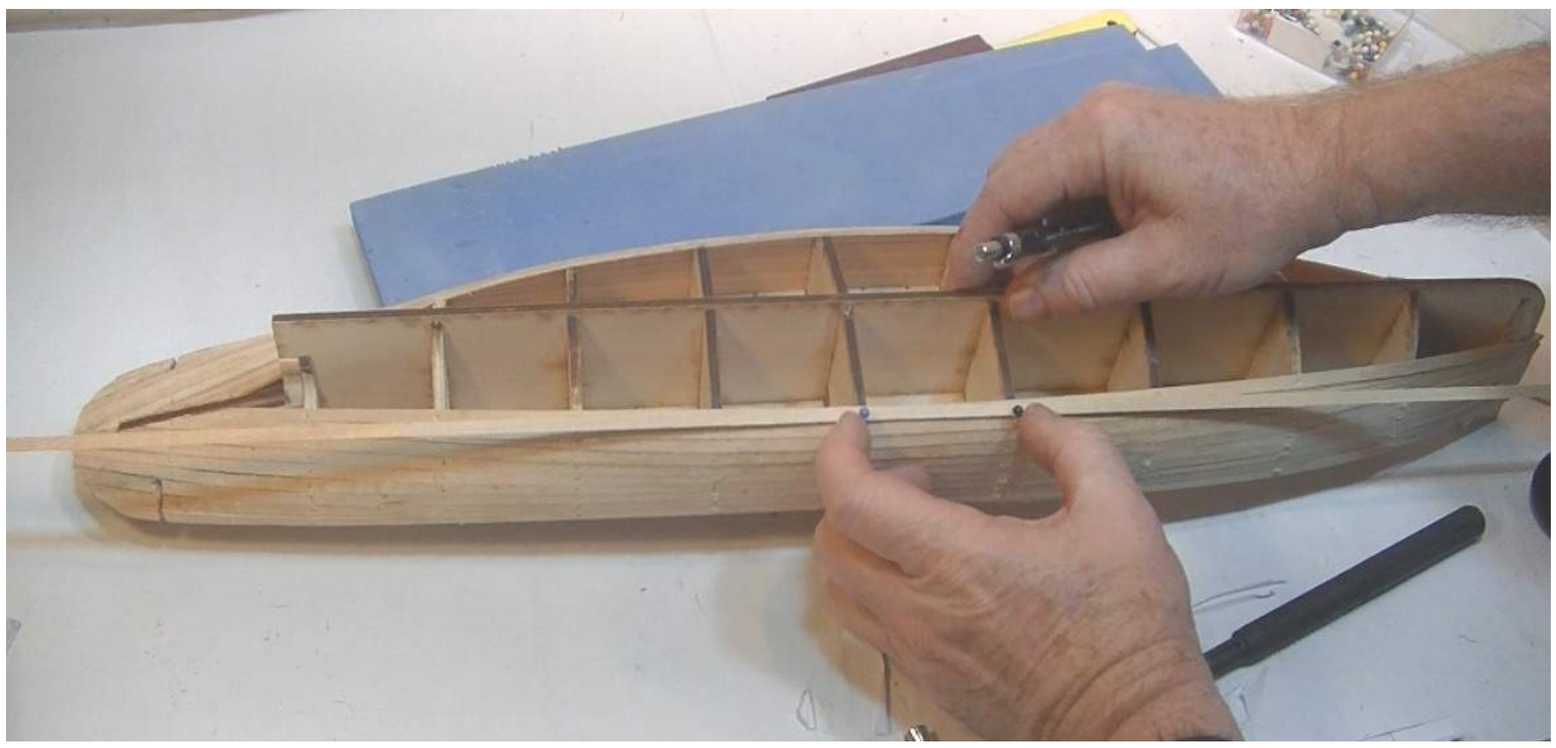


Step 9 After making the directional change, glue and pin in place another plank following the new planking line established. Repeat for the other side of the hull.

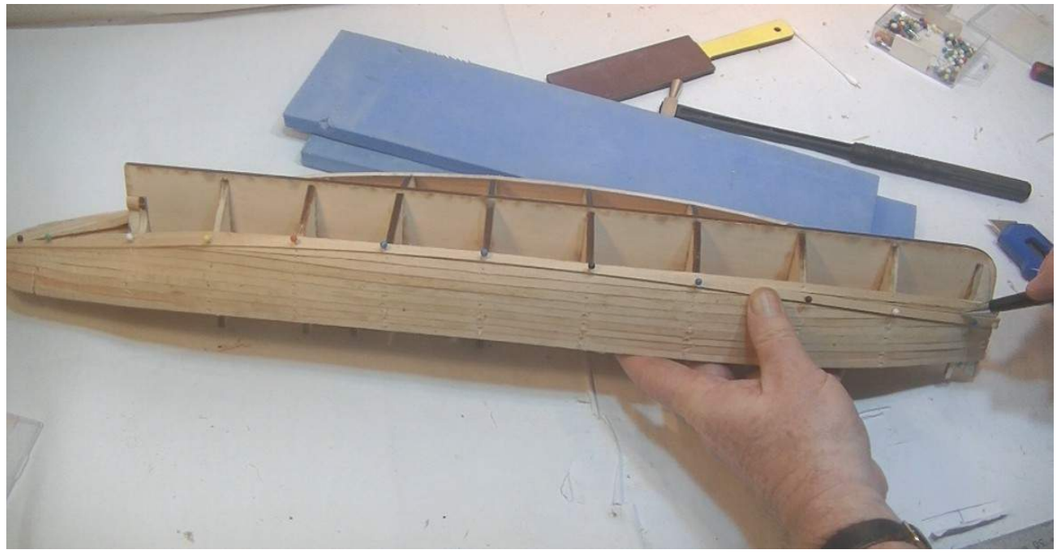


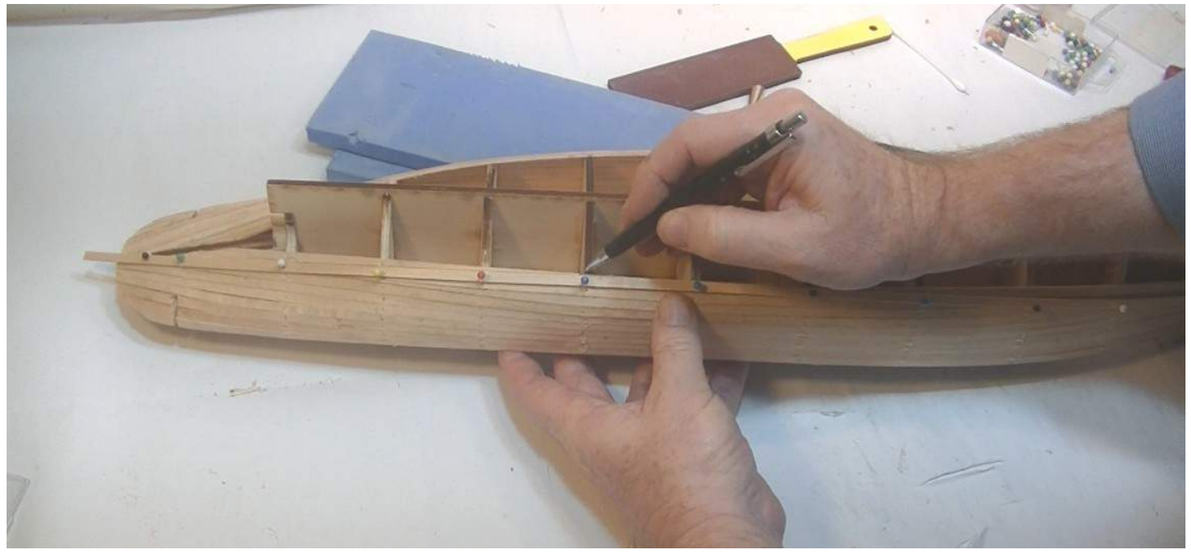


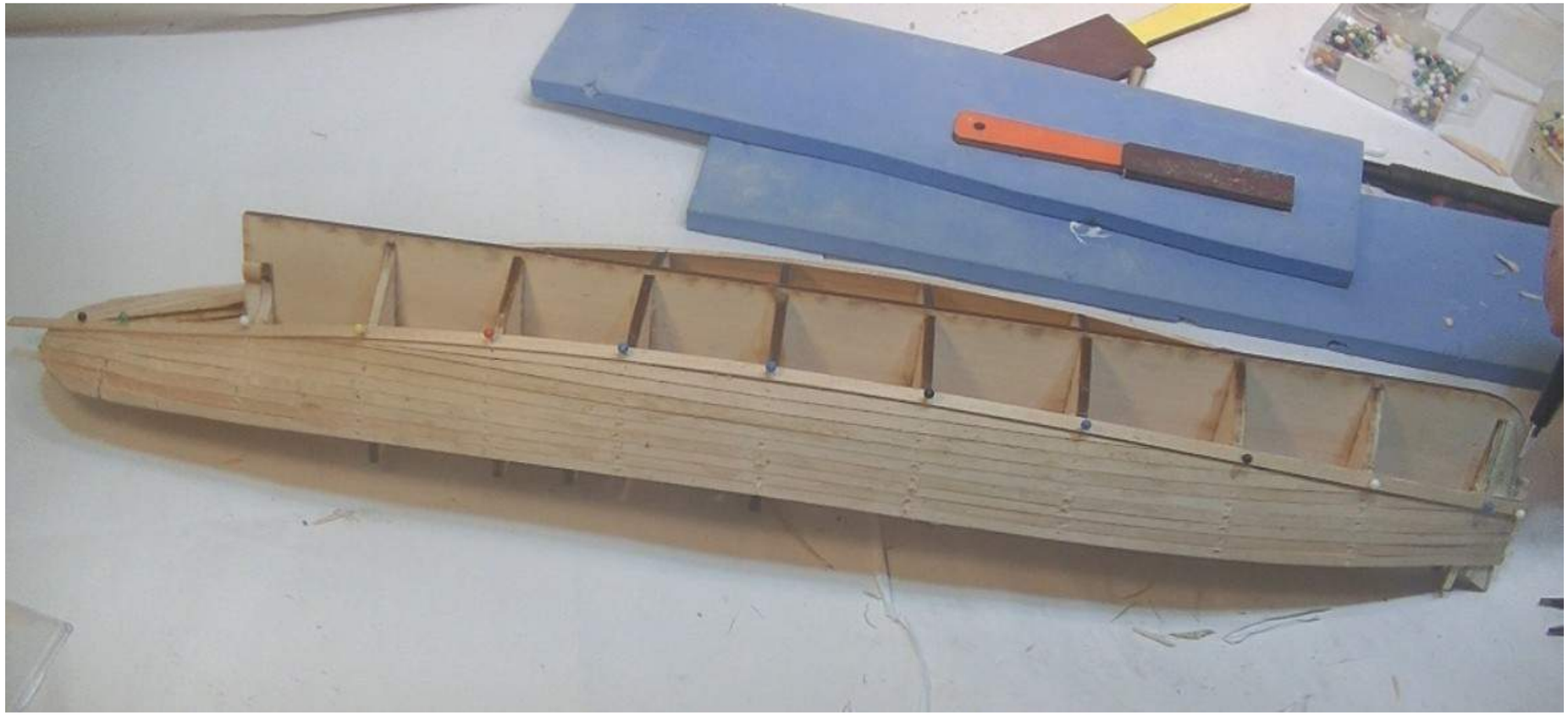
Step 10 Pin a plank at the mid-ship frames as shown.



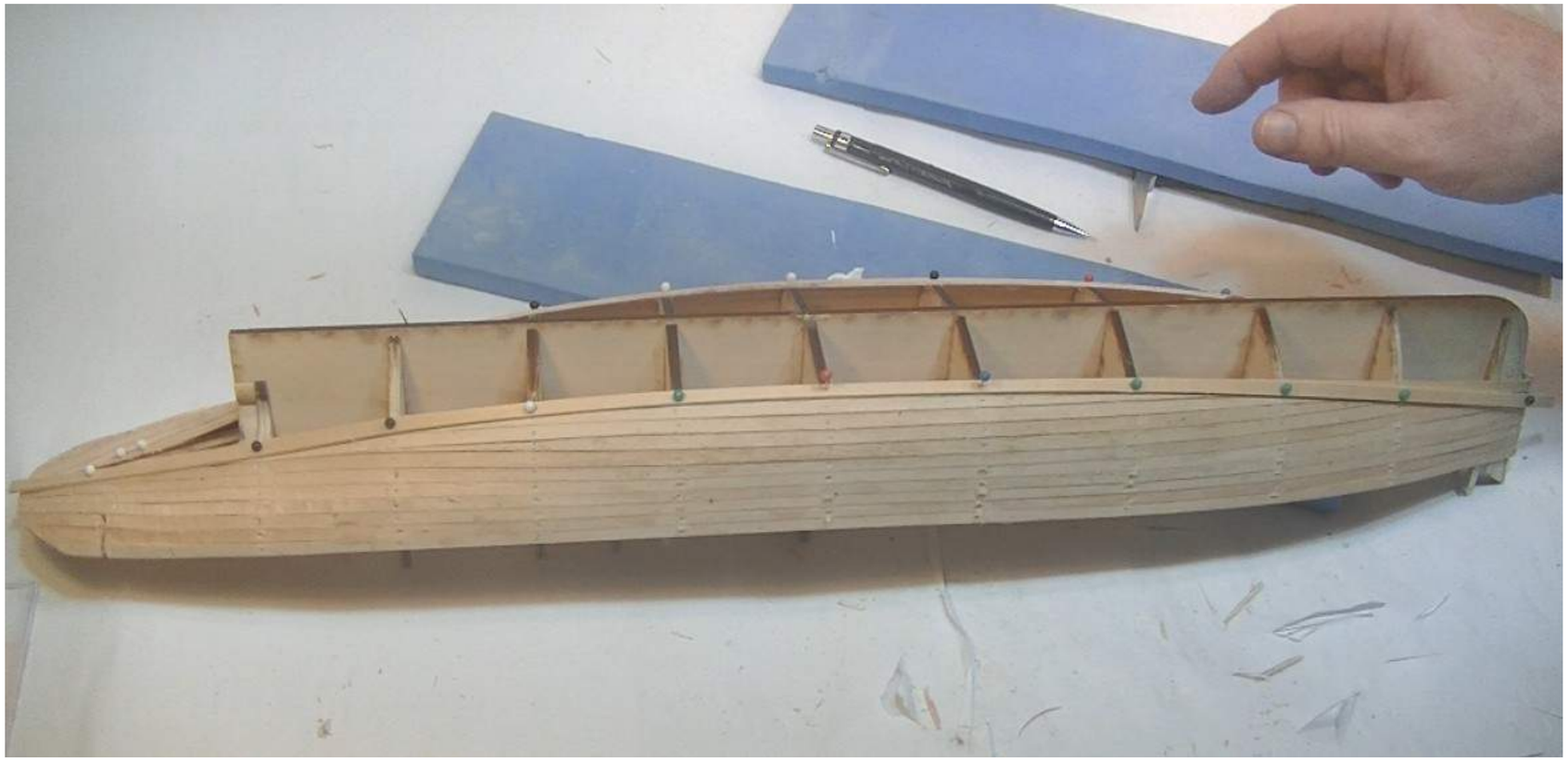
Step 10 continued Allow the plank to follow its natural course fore and aft over the existing planks - mark the areas of overlap. Cut away the areas of overlap as shown. Repeat for the other side of the hull. Glue and pin a new plank in place on both sides of the hull.





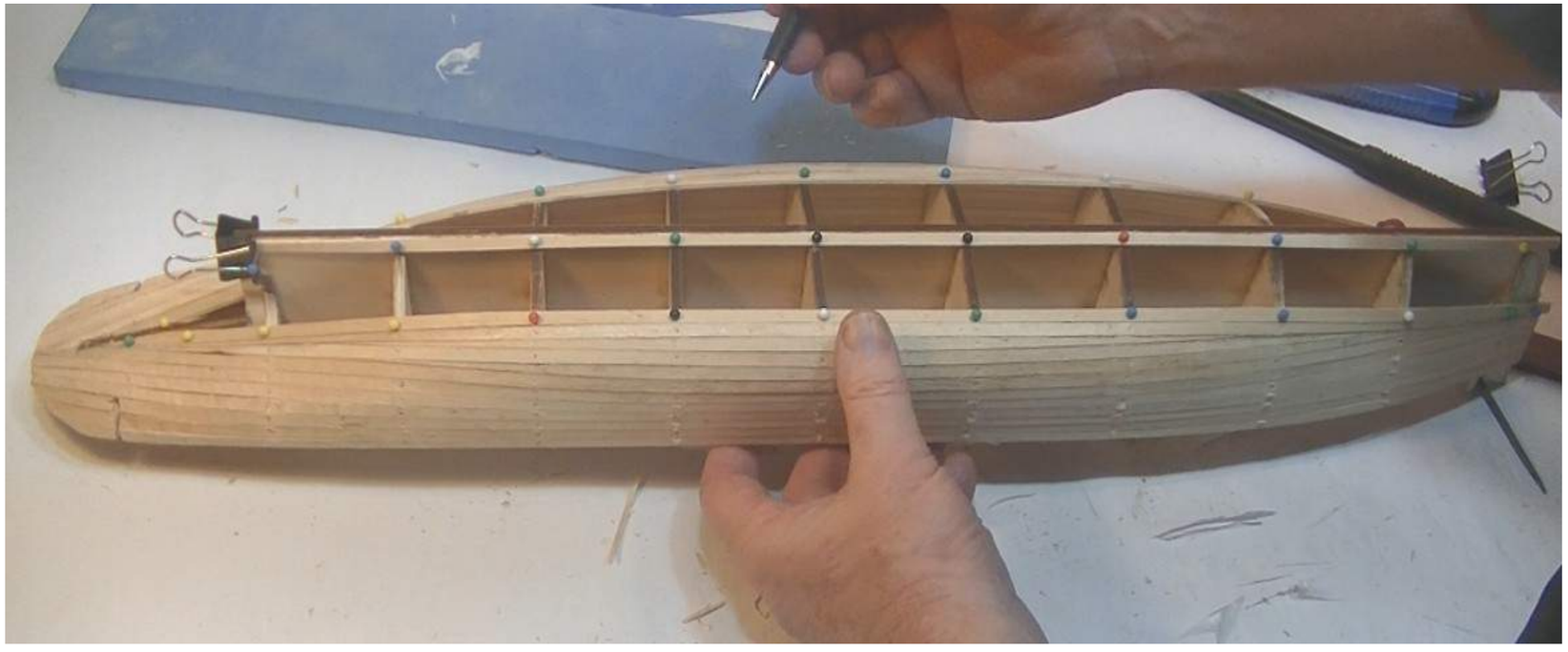


Step 11 Repeat Step 10 for another plank as shown. Repeat for the other side of the hull.



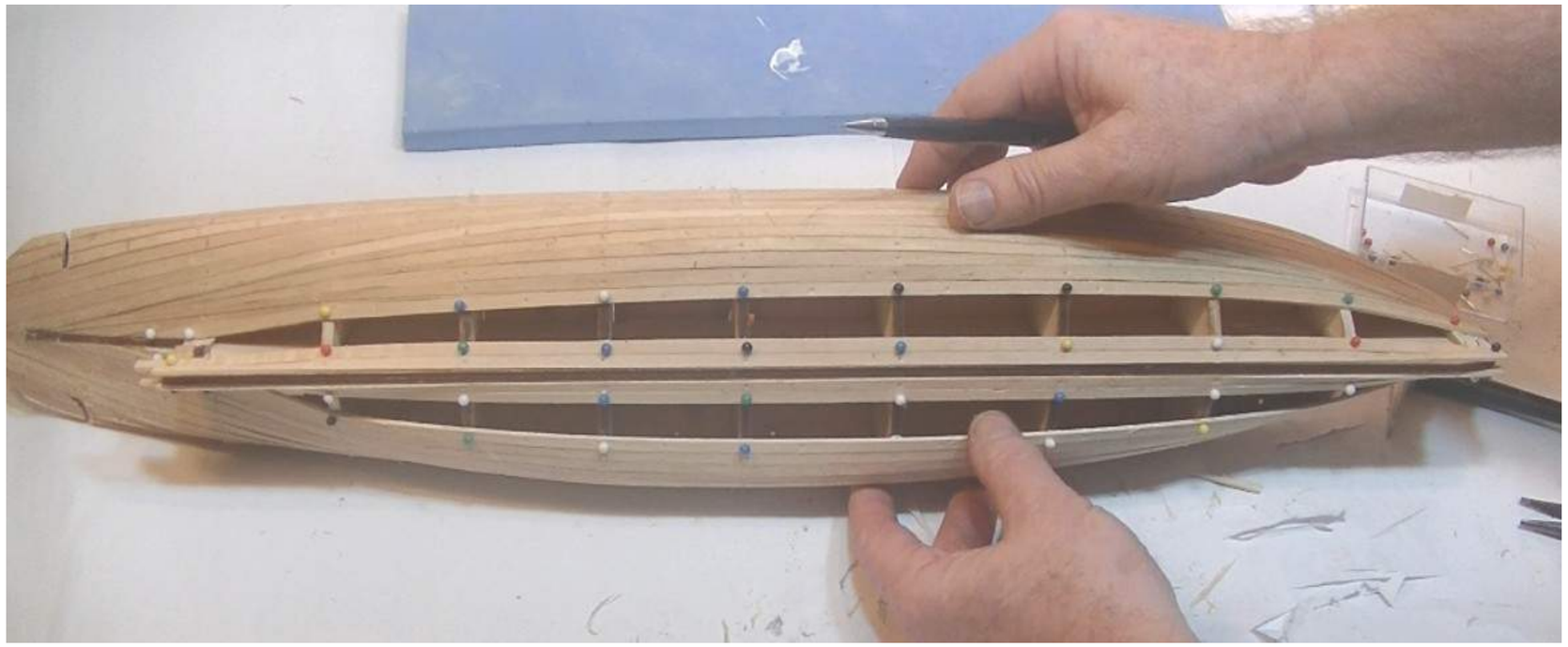
Step 12 After making the directional change in Step 11 glue and pin in place another plank following the new planking line established. Repeat for the other side of the hull.

Step 13 Glue and pin a plank immediately adjacent to and parallel with the keel as shown - this is called the garboard plank.



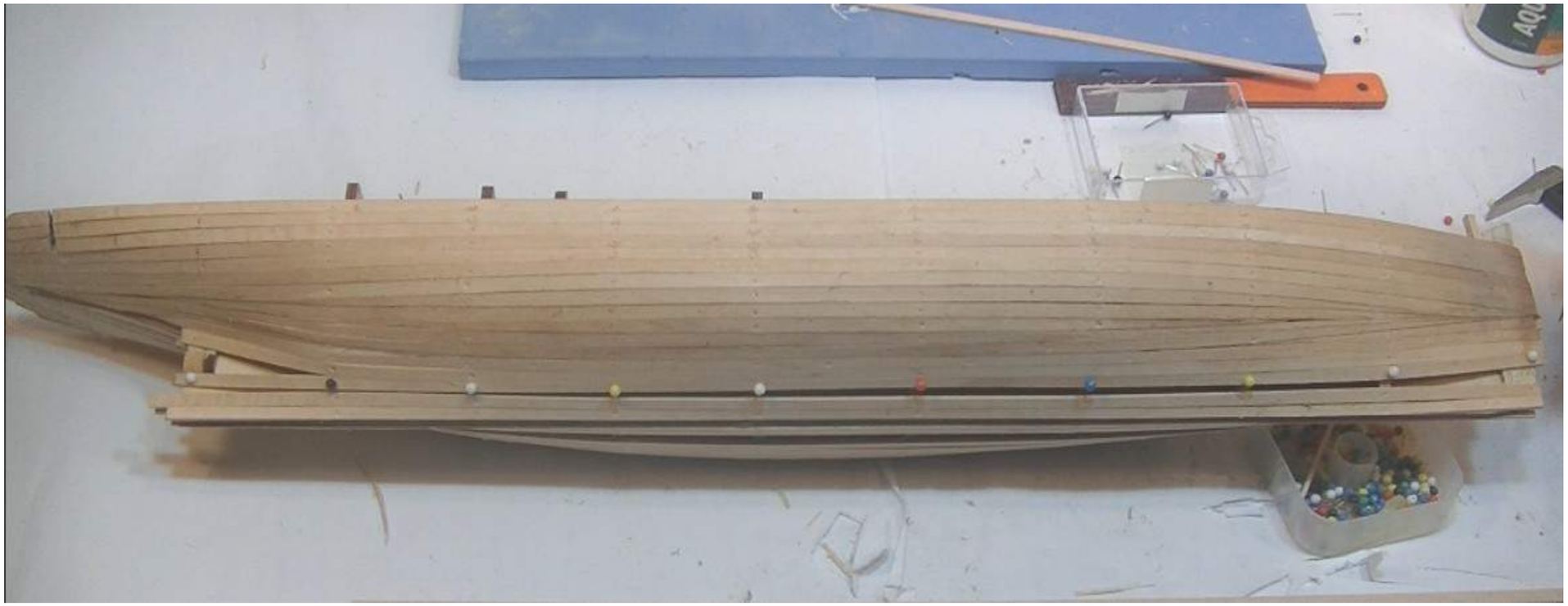
Step 14 Trial fit another plank under the main body of planking following the line of planks. You may find that bulkhead 10 needs to be shaped at its base to allow the plank to fit flat against the bulkhead - use a small piece of sandpaper wrapped around a length of planking to make the fractional adjustments - once satisfied with the lay of the plank glue and pin the plank in place as shown.

Step 15 Glue and pin a plank immediately adjacent to and parallel with the garboard plank as shown.

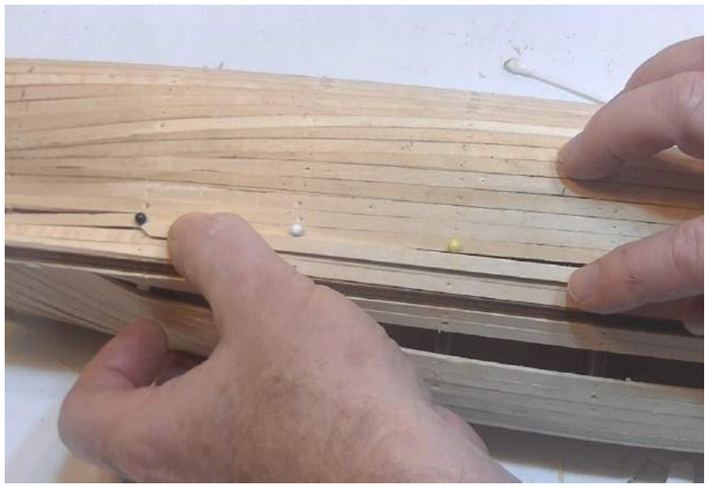


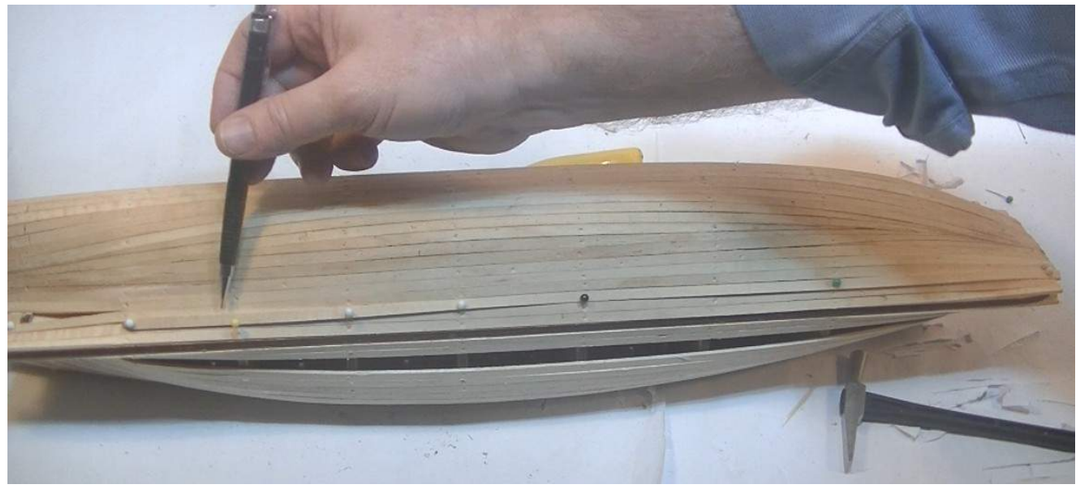
Step 16 Take lengths of planking off-cuts and place in the remaining gap. Three planks need to be fitted to close the gap.

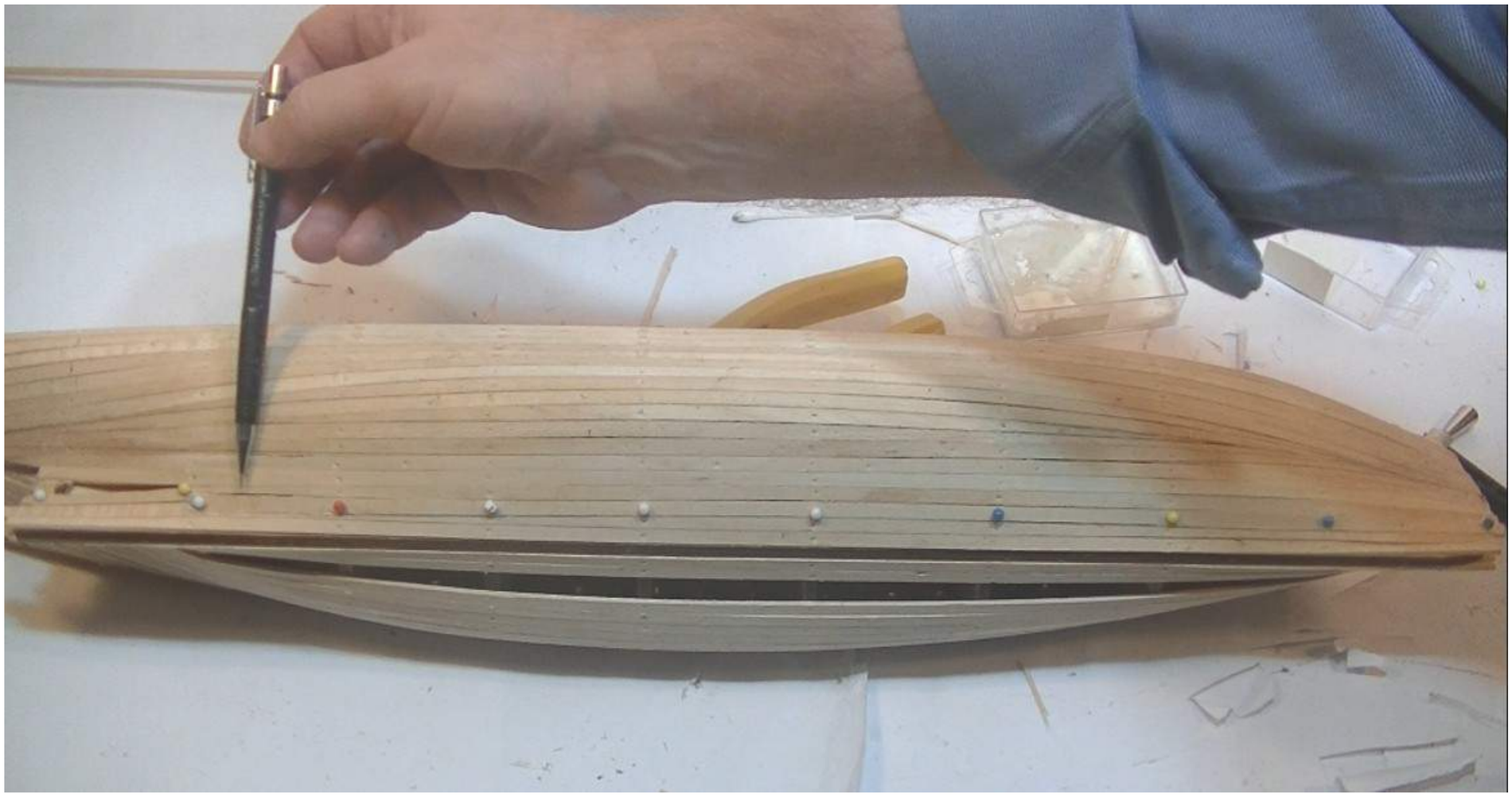
Step 17 Glue and pin two planks in place under the main body of planking following the line of planks. Note the placement of these two planks at the bow and stern as shown.



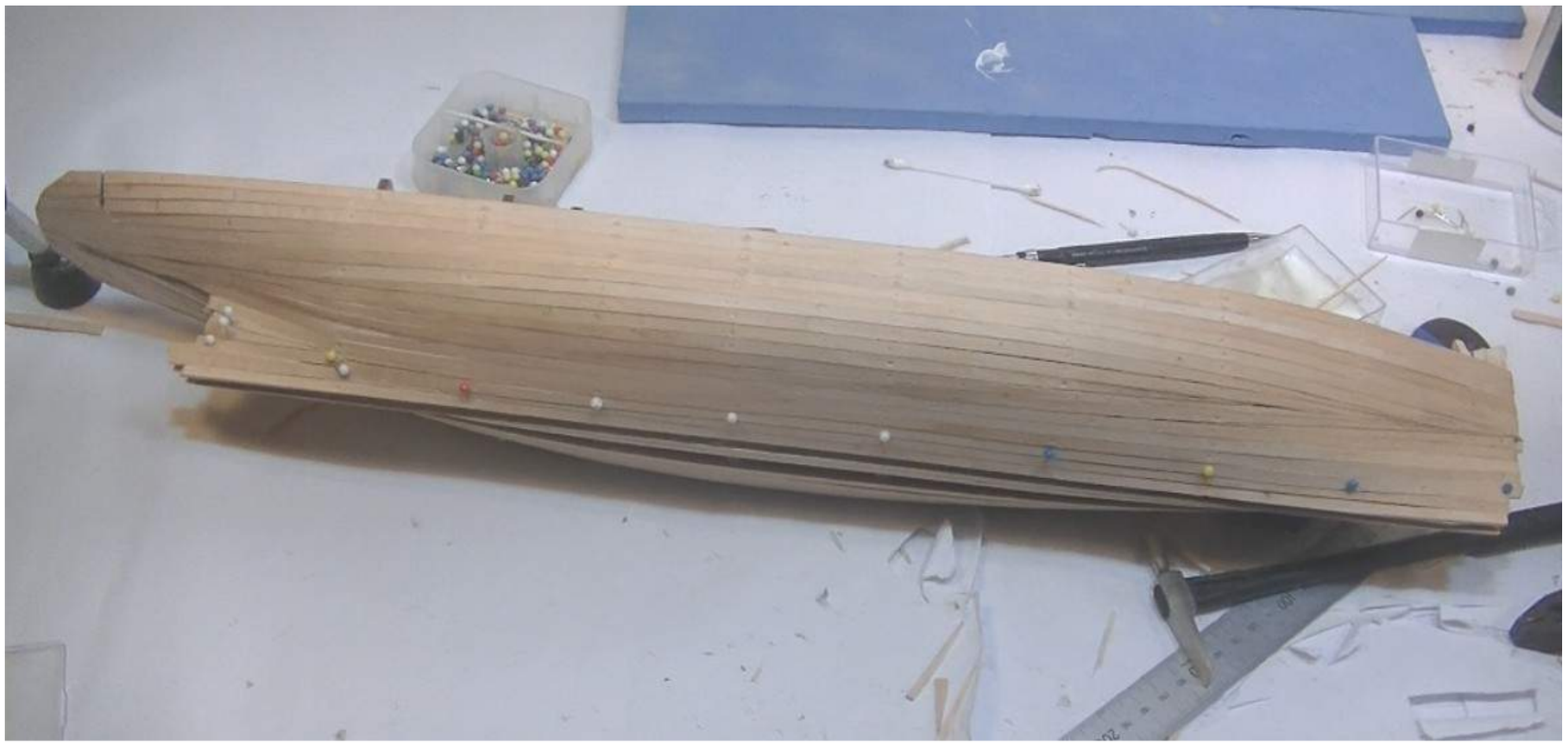
Step 18 To close the gap spile a plank into the remaining gap. Take one plank and shape one end as shown. Pin the plank in place into the gap and overlapping with planks either side - mark the areas of overlap. Cut the overlap areas away then fit the plank into the opening - fractionally adjust as required. Once satisfied with the fit glue and pin the plank in place. Repeat for the other side of the hull.







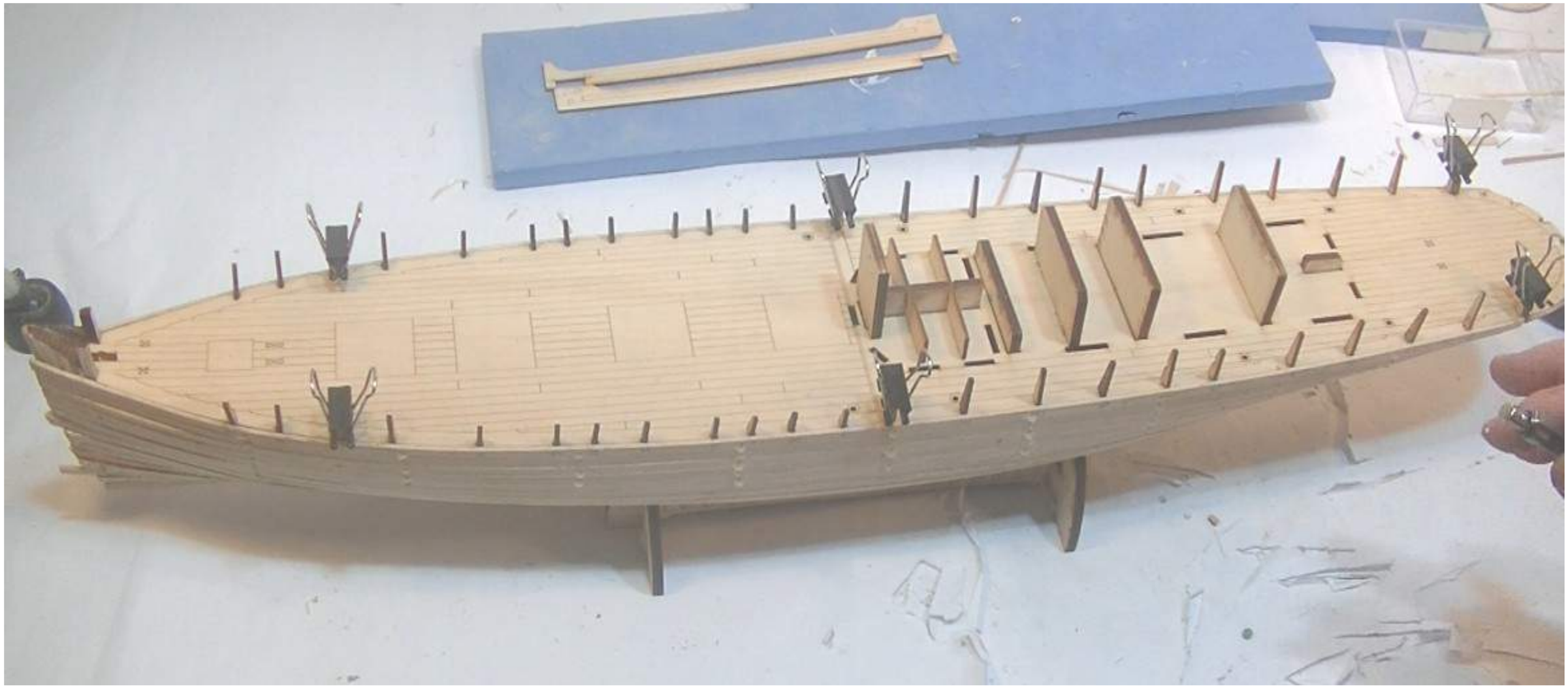
Step 19 Next shape and glue wedges in place to close the gaps at the stern area and if necessary at the bow as shown. This completes the first layer of planking from the deck to the keel.



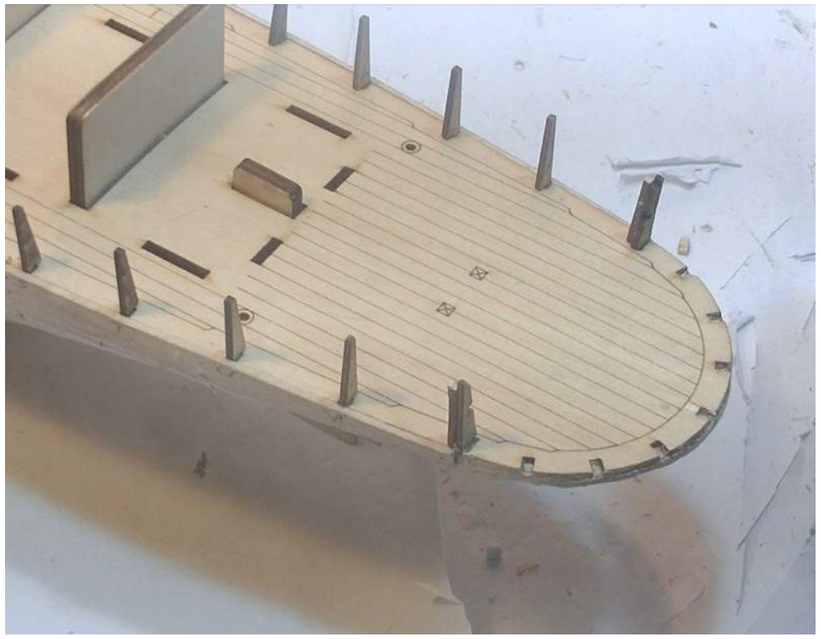
Step 20 Identify the cradle parts 26A-D - assemble the cradle as shown - note the letters A & F are marked to indicate the direction to place the model in the cradle.

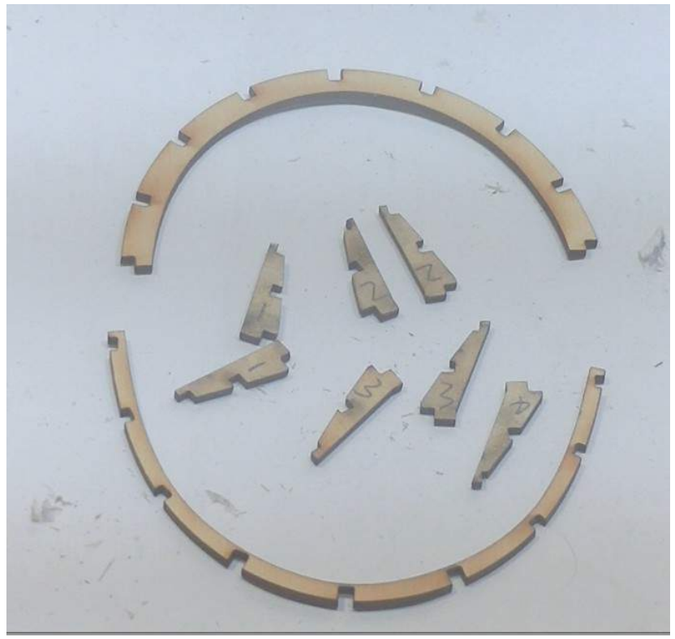
Step 21 Identify the stanchions 25A-W. Note that parts 25C, 25M and 25W have two parts. Starting at the bow and immediately below the deck mark on the hull planking the letters A to W. Use a square needle file to clean-out the deck slots if needed.

Step 22 Trial fit each stanchion - once satisfied glue the stanchions in place as shown. Glue stanchion 25C2 in front of 25C1. Glue stanchion 25M2 behind 25M1. Glue stanchion 25W2 in front of 25W1. Take care while working on the model as it will be easy to catch and break these parts.

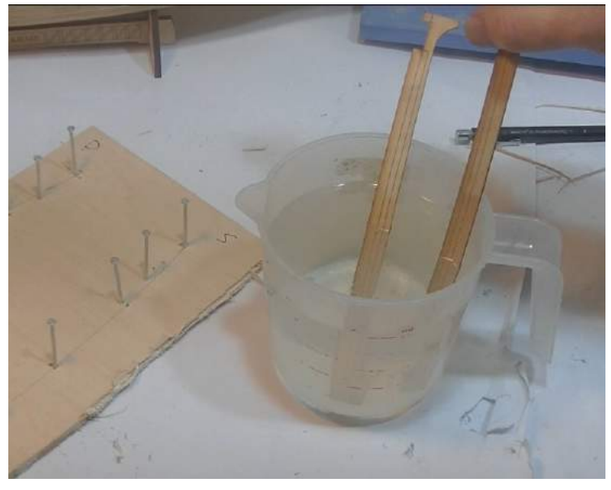


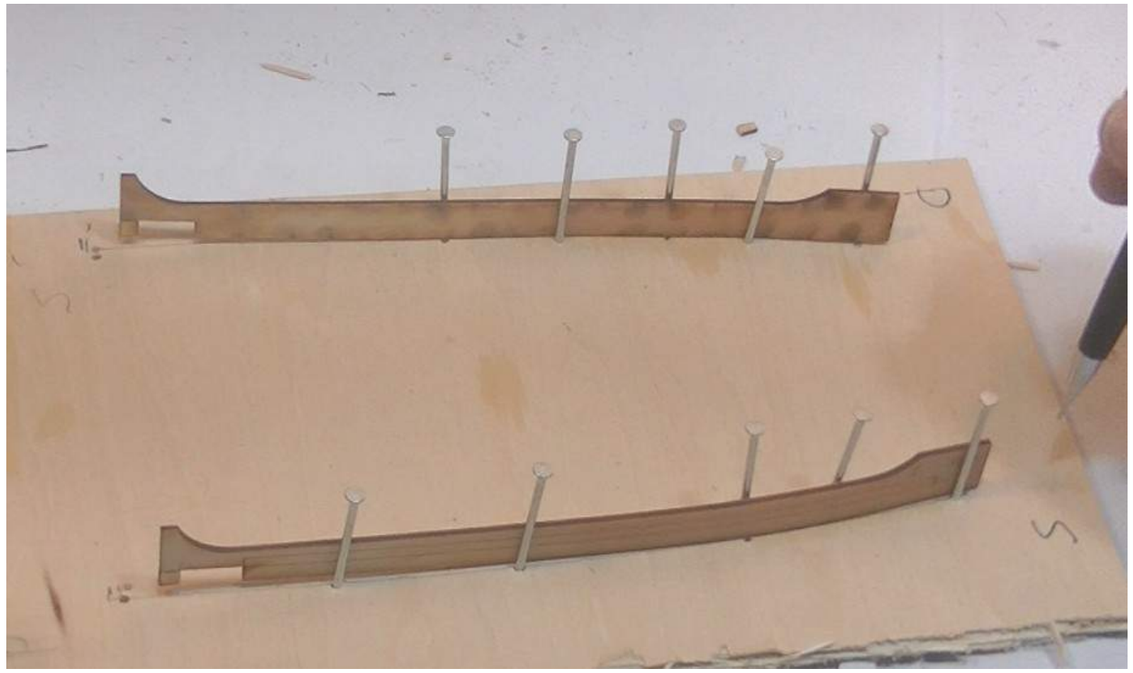
Step 23 Identify the transom stanchions P27A1-4. Make sure the stanchion deck slots are clear of glue. Trial fit the stanchions in place. Identify the lower rail P27B - trial fit in place. Trial fit stanchion 4 as shown. Make fractional adjustments as necessary. Once satisfied glue these parts in place. Fit and glue the remaining stanchions in place starting from the centre stanchion 4 and progressing either side until all stanchions are glued in place. Identify the upper rail P27C - take care with this part. Glue in place as shown.

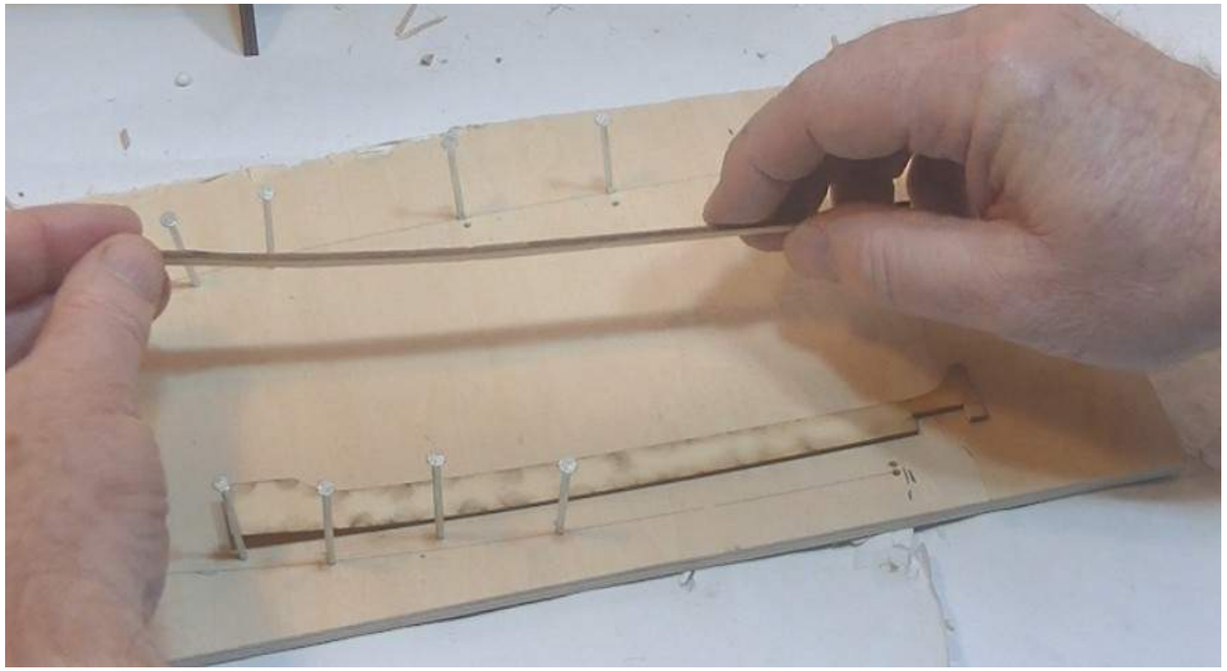




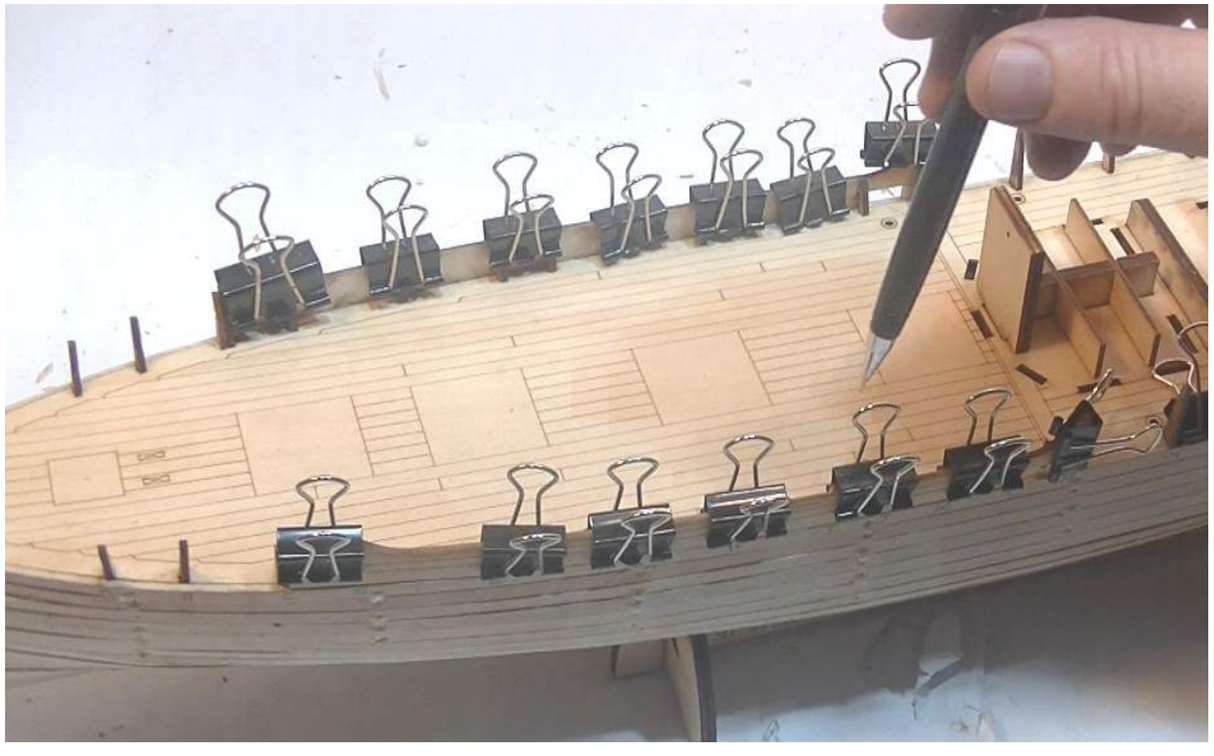
Step 24 Identify the bulwarks P28. The bulwarks need to be glued in place along stanchions 25C to 25M. To take the tension out of the bulwarks use a wet molding technique. Take the cutout of the deck on sheet 2 and on a scrap board mark the edge of the deck between slots C to M. Hammer nails in place on each side of these lines. Place the forward ends of the bulwarks into a jug of boiling water and leave for approximately 20 minutes. Remove the bulwarks and place each between the nails as shown. Leave for a full 24 hours to dry naturally - this will create a permanent bend in the bulwarks as shown.



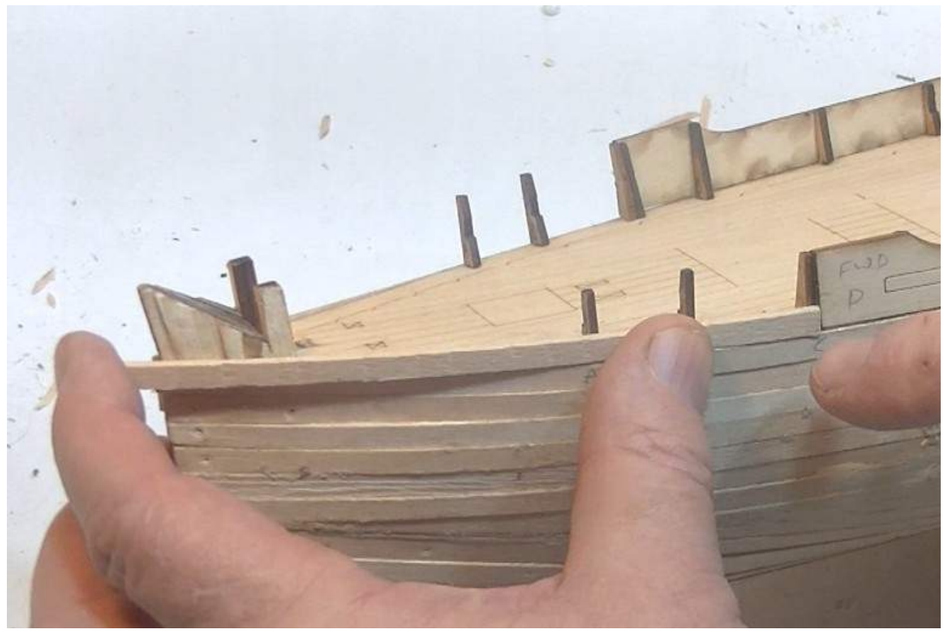


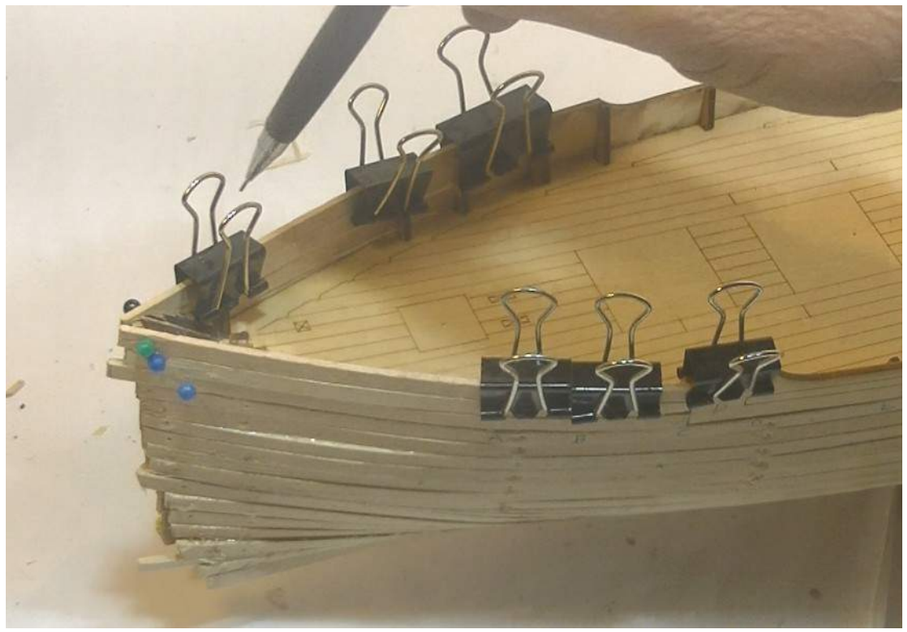


Step 25 Glue and clamp the bulwarks in position as shown.



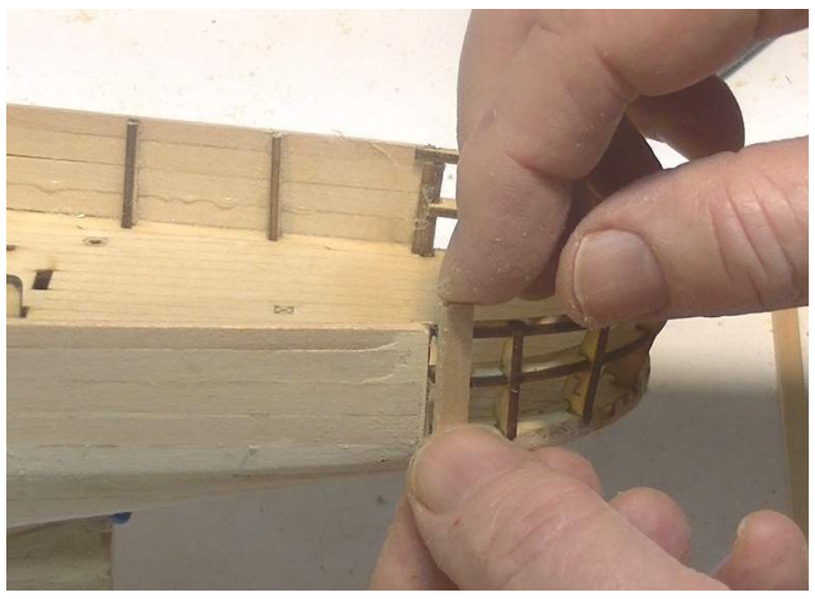
Step 26 Cut lengths of planking to fit between stanchion 25C2 and the stem post - once satisfied glue, clamp and pin in position from deck level to the top of the stem as shown.

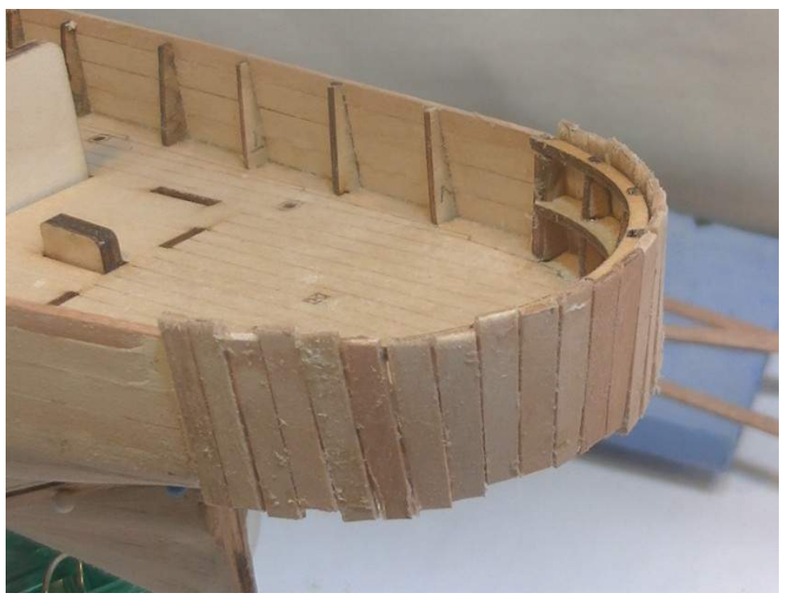


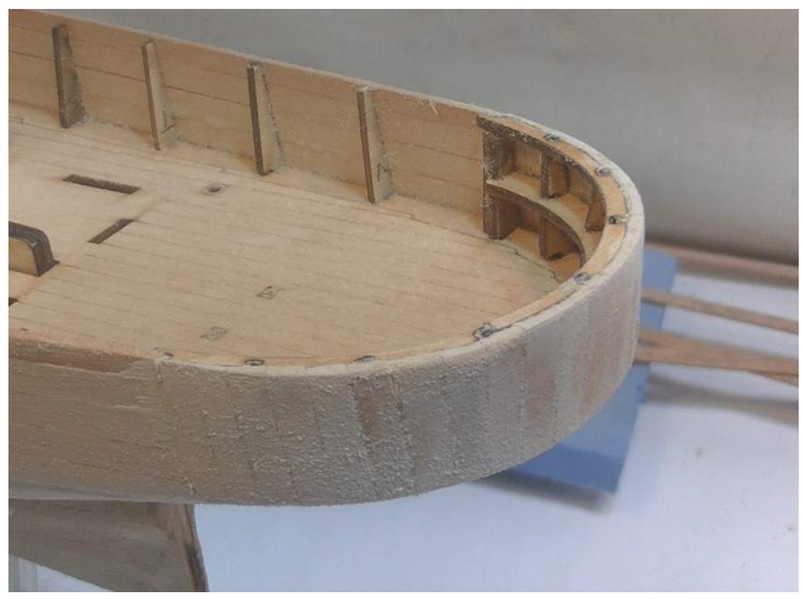


Step 27 Cut lengths of planking to fit between stanchion 25M2 and 25W2 - once satisfied glue and clamp in position from deck level to the top of the stanchions as shown.

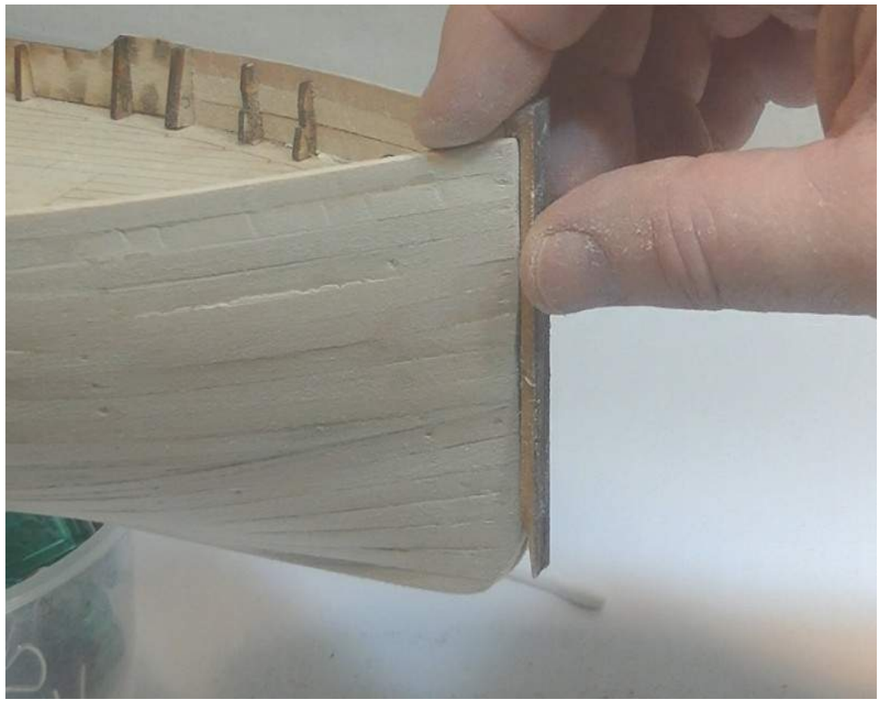
Step 28 Cut lengths of planking to cover the transom - some tapering will be required - trial fit parts and once satisfied glue in position. Sand smooth when finished.



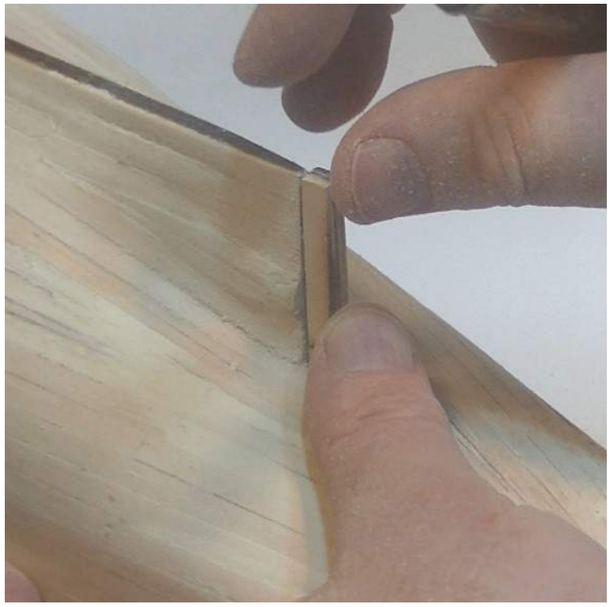




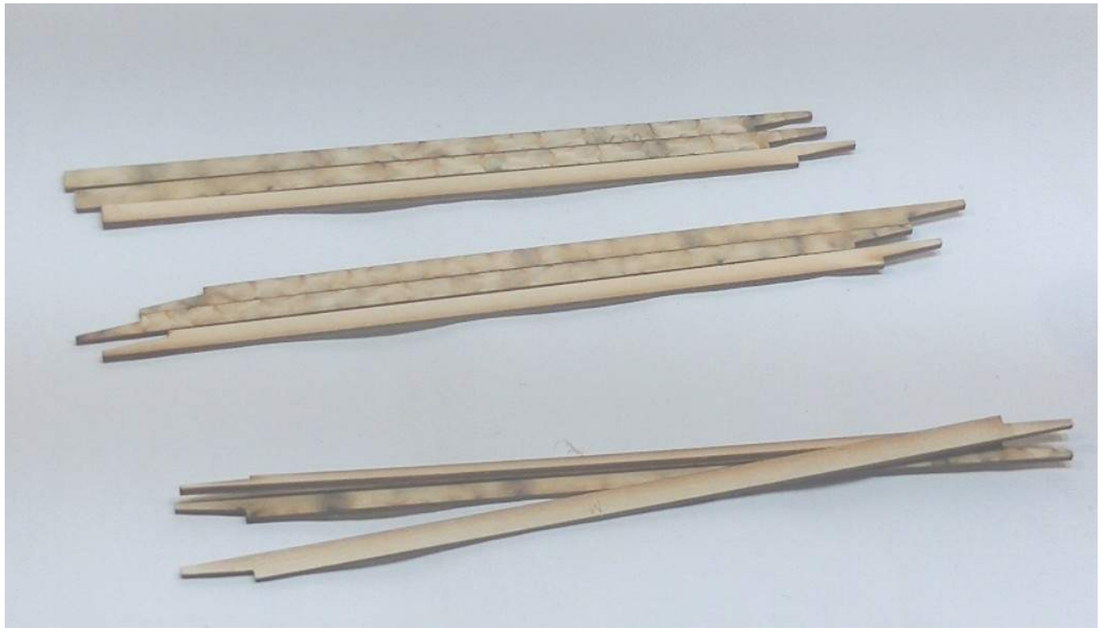
Step 29 Identify the stem post P29 - there are 3 parts - glue the parts together and set aside for glue to set. Identify the stem post knee P30 - there are 3 parts - glue the parts together and set aside for glue to set. Trial fit the stem post in position as shown. Use a sanding block to reduce the thickness of the planks coming up to the bow so that they are flush with the stem post. Continue to check as you sand. Once satisfied set the stem post and stem post knees aside to be fixed in place later.



Step 30 Identify the stern post P31 - there are 3 parts - glue the parts together and set aside for glue to set. Identify the stem post knee P32 - there are 3 parts - glue the parts together and set aside for glue to set. Trial fit the knee in place - fractionally adjust the slot as required. Use a sanding block to adjust the width of the keel so there is a smooth transition between hull and stern post - fractionally adjust as required. Once satisfied set the stern post and knee aside to be fixed in place later.



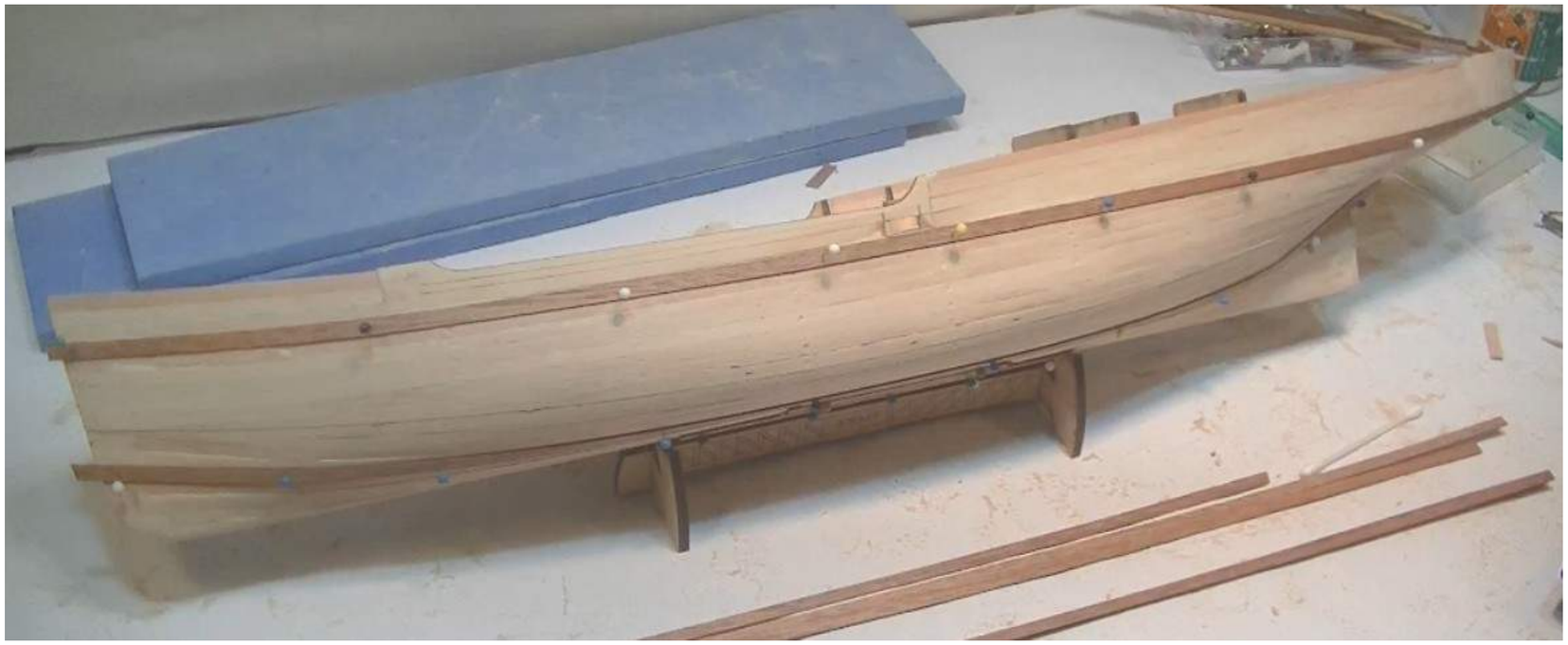
Step 31 Identify the keel pieces P33A-C. The pieces are identified as F (fore), M (middle) and A (aft). Glue the like pieces together and set aside for glue to set. Trial fit the sections along the length of the hull and mark where there is excess planking - sand these areas—continually check. Once satisfied set the assembled keel sections aside to be fixed in place later.

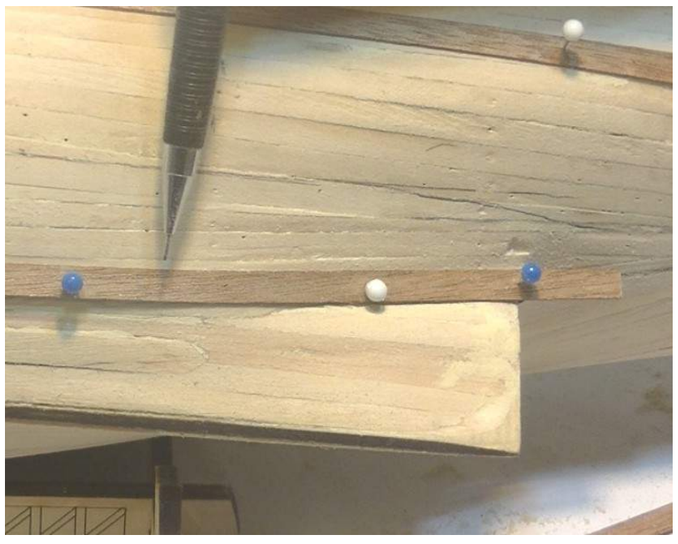


Step 32 Apply wood filler to any gaps in the hull planking. Use sanding blocks to sand the hull smooth - repeat with finer grade sand paper. Repeat until you are satisfied.

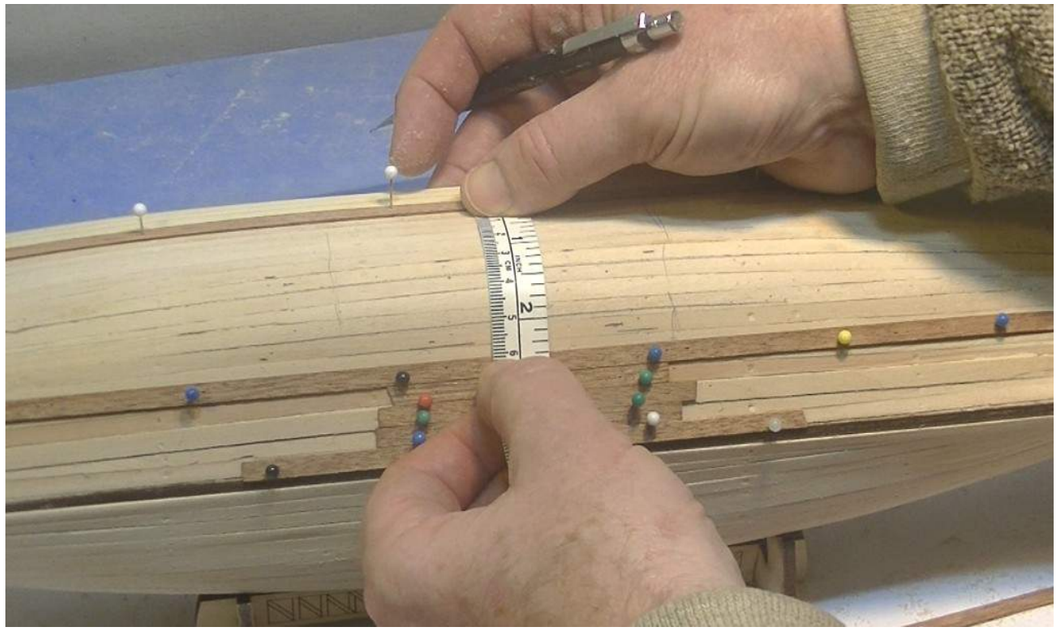
7.0 Hull Planking - Second Layer

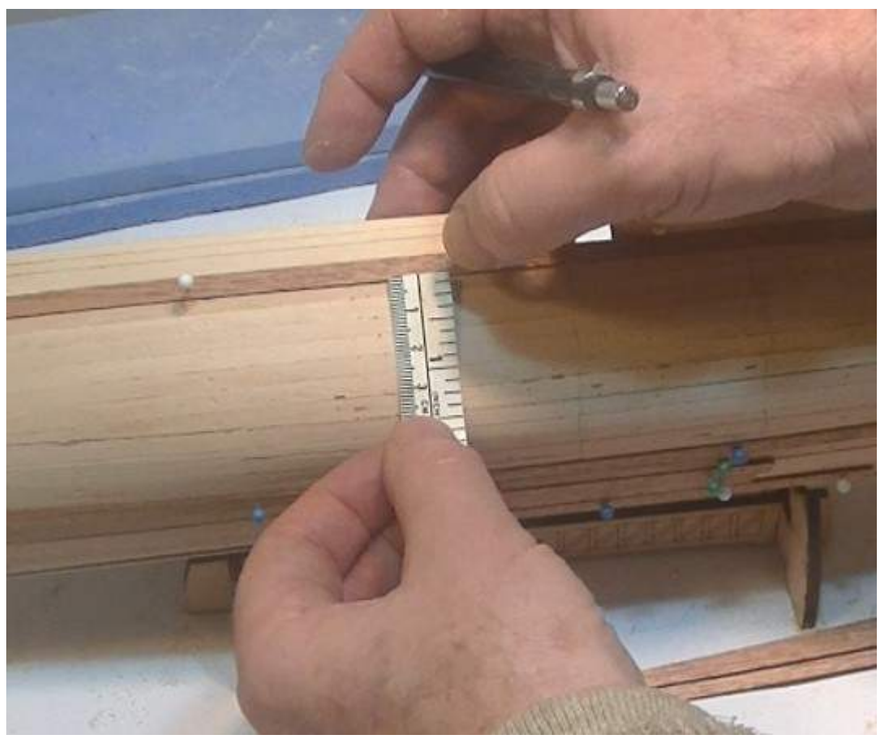
Step 1 To apply the second layer planking we will be employing the technique of tapering the planks on the hull - the following steps presents this approach. Identify the 0.8x5.5x700mm tanganika P34 - this timber is the second layer planking. For the second layer planking we are going to divide the hull into bands. First take a length of planking and temporarily pin it in place following the line of the deck as shown. Next at the mid-ship area pin in place 4 lengths of planking starting at the keel and coming up the hull as shown. Then take a length of planking and pin in place at the mid-ship area - allow the plank to run its natural course to the bow and pin it in place. Allow the plank to run to the stern area and pin it in place at the top of the stern post/keel junction as shown. Repeat these steps for the other side of the hull.

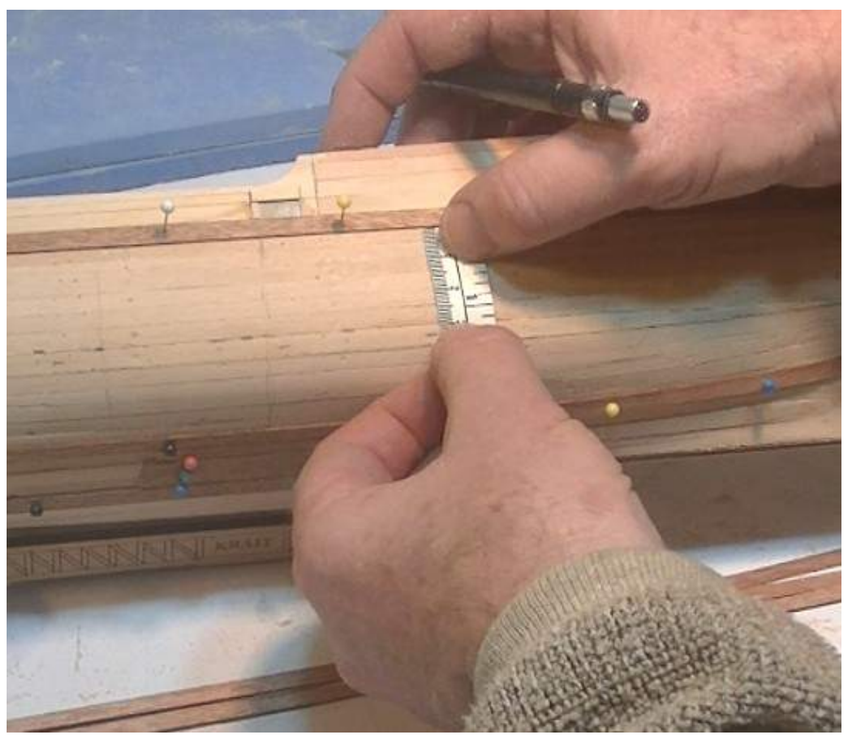




Step 2 Use a dressmakers tape measure to measure the distance from the underside of the first plank fitted to the top side of the second plank fitted - this will be approximately 60mm. This is a large band in which to plank - so we will break this band into 2 segments. At the centre of the mid-ship area measure down 30mm from the underside of the first plank and mark this point. Approximately 50mm either side of this point measure down 30mm again and mark these 2 points - this gives 3 points in the mid-ship area. Repeat these steps for the other side of the hull.

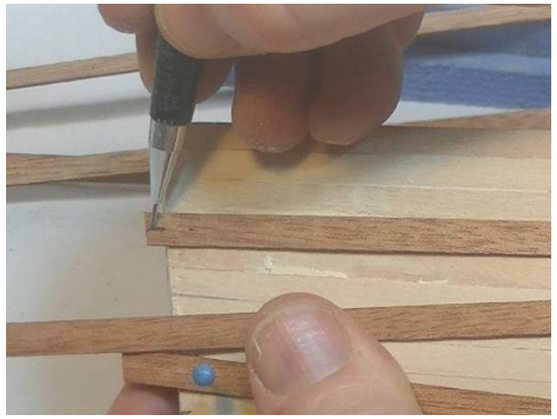


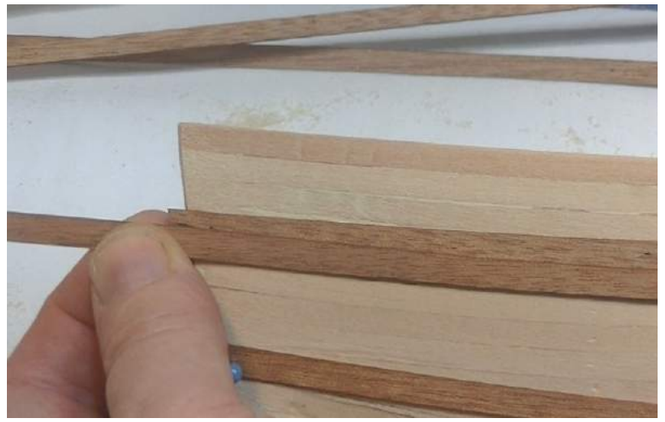


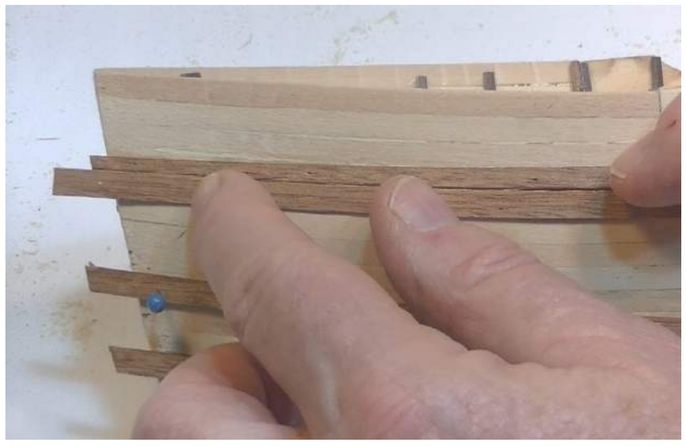


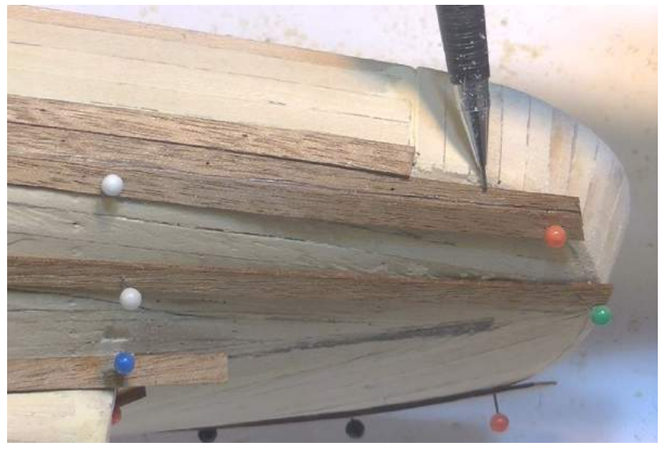
Step 3 Take a length of planking - pin it in place across the 3 mid-ship points the allow it to run its natural course both fore and aft - then pin the entire plank in place as shown. Next remove the first plank fitted and then glue and pin it back in place. Next pin another plank in place at the mid-ship area immediately below the first plank as shown. Repeat these steps for the other side of the hull.

Step 4 On the first plank fitted mark its half point at the bow as shown. Take the second plank and allow it to run along to the bow and take the end to the half point of the first plank - pin this plank in place and mark the area of overlap. Use a knife to cut away the overlap as shown. Then glue and pin this second plank in place. Repeat this process for a third plank at the bow and then also at the stern area allowing the third plank to overlap the second plank and then cutting away the overlap as shown. Then glue and pin the third plank in place. Repeat these steps for the other side of the hull.









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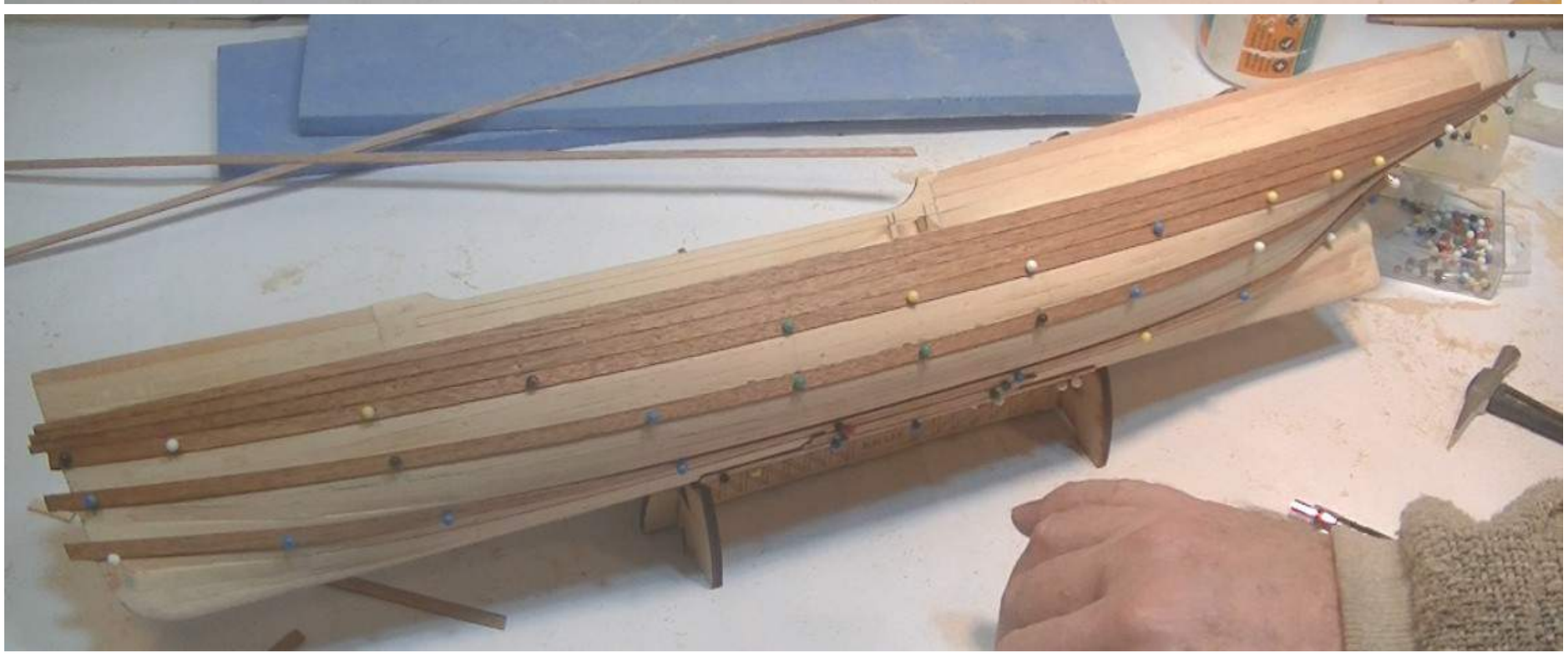
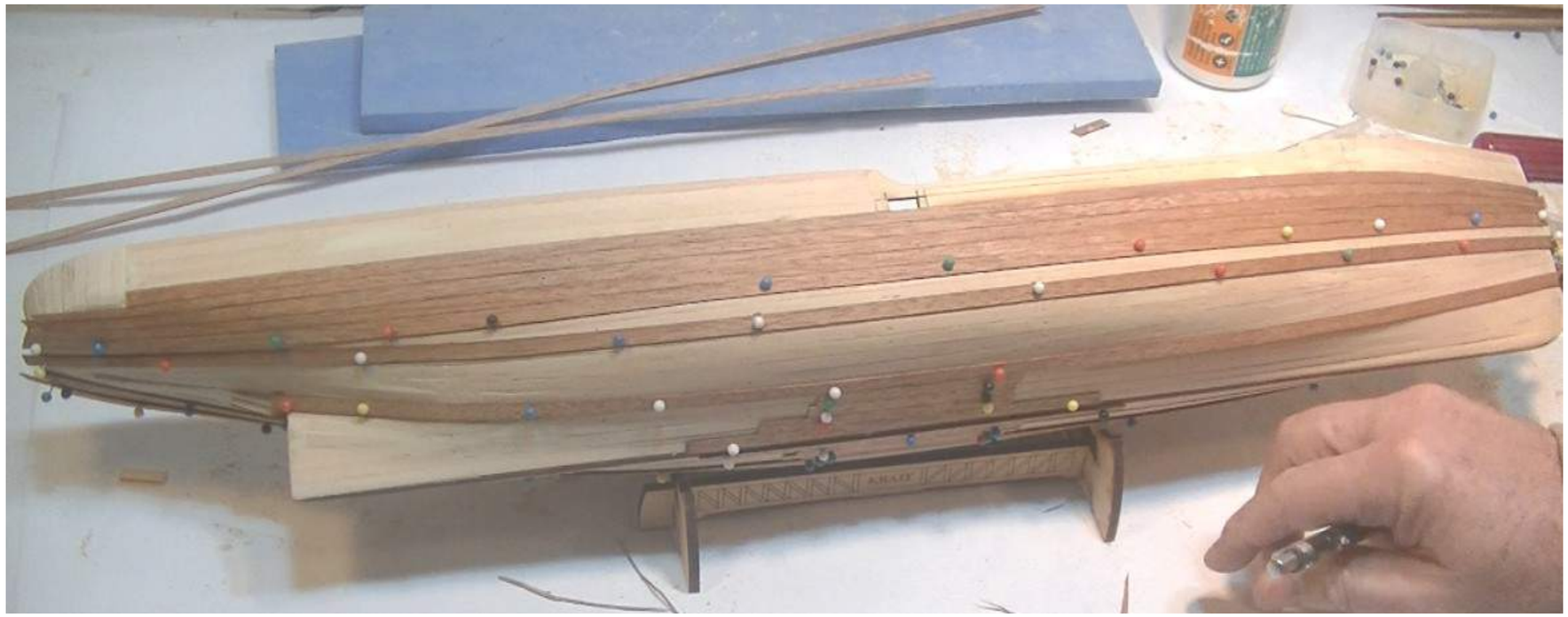
Step 5 Follow the same steps to fit a fourth plank as shown. Repeat these steps for the other side of the hull.

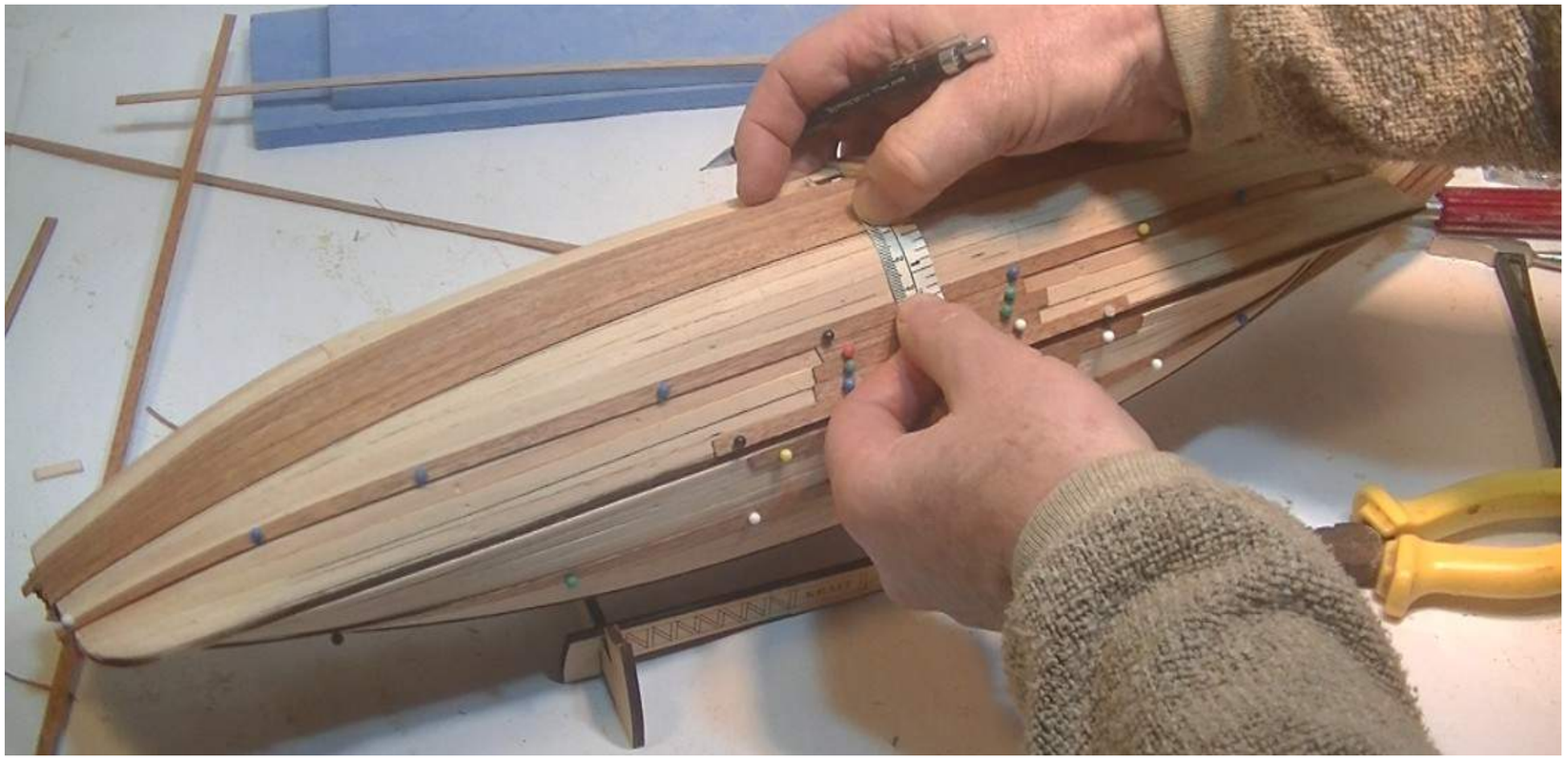


Step 6 Follow the same steps to fit a fifth plank as shown. Repeat these steps for the other side of the hull.

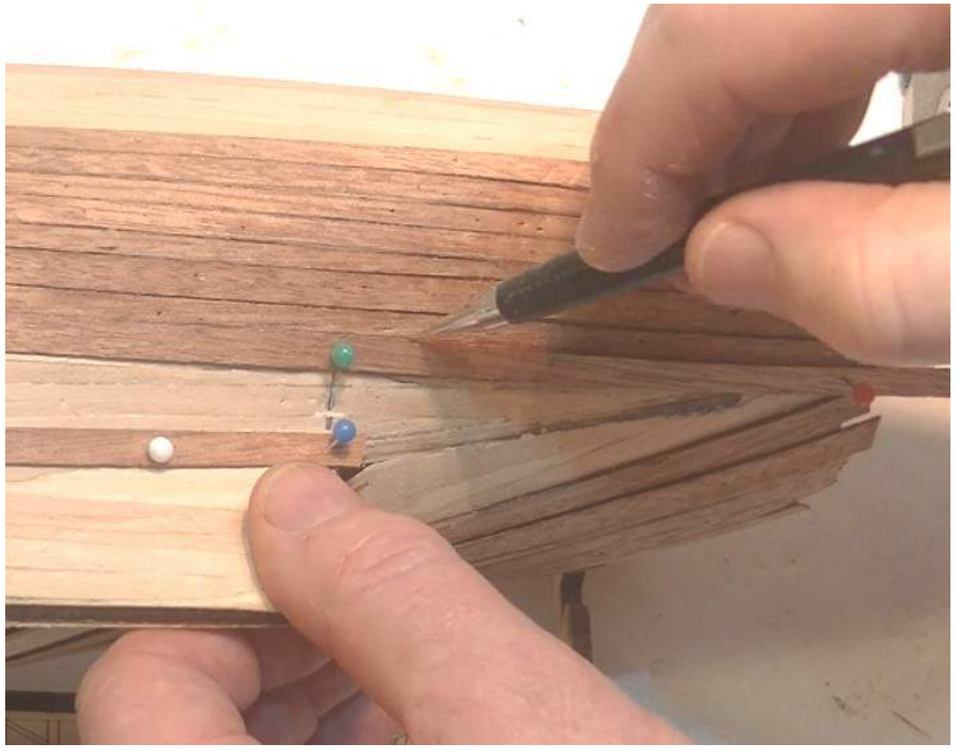


Step 7 Follow the same steps to fit a sixth plank as shown. You may have a small gap remaining - to address this remove the temporary guide plank and then glue and pin it back in place immediately below the last plank fitted - this will close the gap between the planks. Repeat for the other side of the hull. This completes the first band of planking.

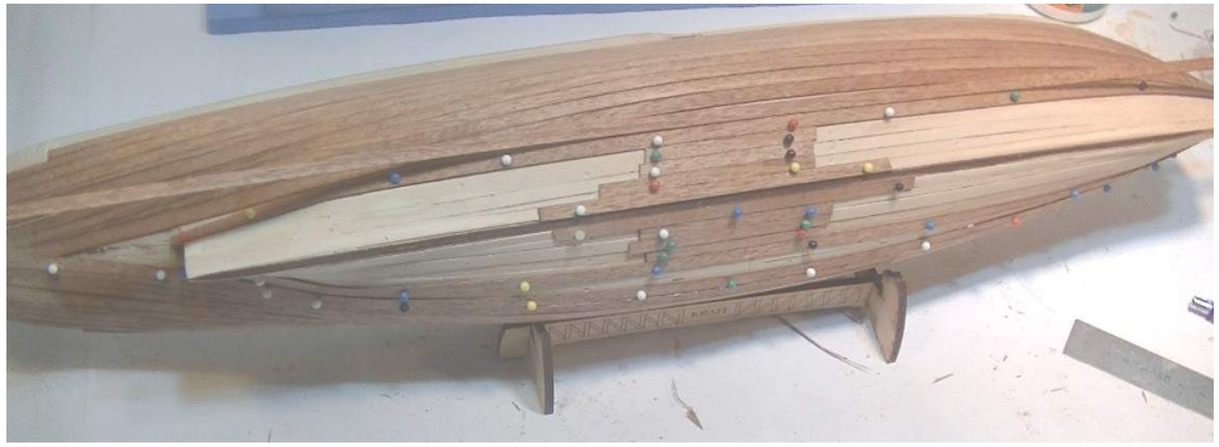
Step 8 We now move to complete the second band of planking. Note that the first guiding plank has now been glued and pinned in place - this plank now forms the first plank in this band. Measuring from the top of this first plank in this band across the gap as shown is approximately 30mm at mid-ships. At the bow this same measurement is 21mm. Then at the stern the gap width is 23mm. To do some calculations now: the gap at mid-ships is 30mm - the plank width is 5.5mm then 30/5.5 = 5.5 planks will fit into this area—we will say 5 planks. Now we want these same 5 planks to fit into the 21mm area at the bow - then 21/5 = 4.2mm - this means that to fit 5 planks into the bow gap they have to be tapered to 4.2mm. This means we have to take 5.5-4.2 = 1.3mm off each plank to be fitted into the bow gap. Now at the stern gap apply the same approach - 23/5 =4.6mm - each plank will need to be tapered to a width of 4.6mm. This means we have to take 5.5-4.6 = 0.9mm - less than 1mm off each plank. Repeat for the other side of the hull.



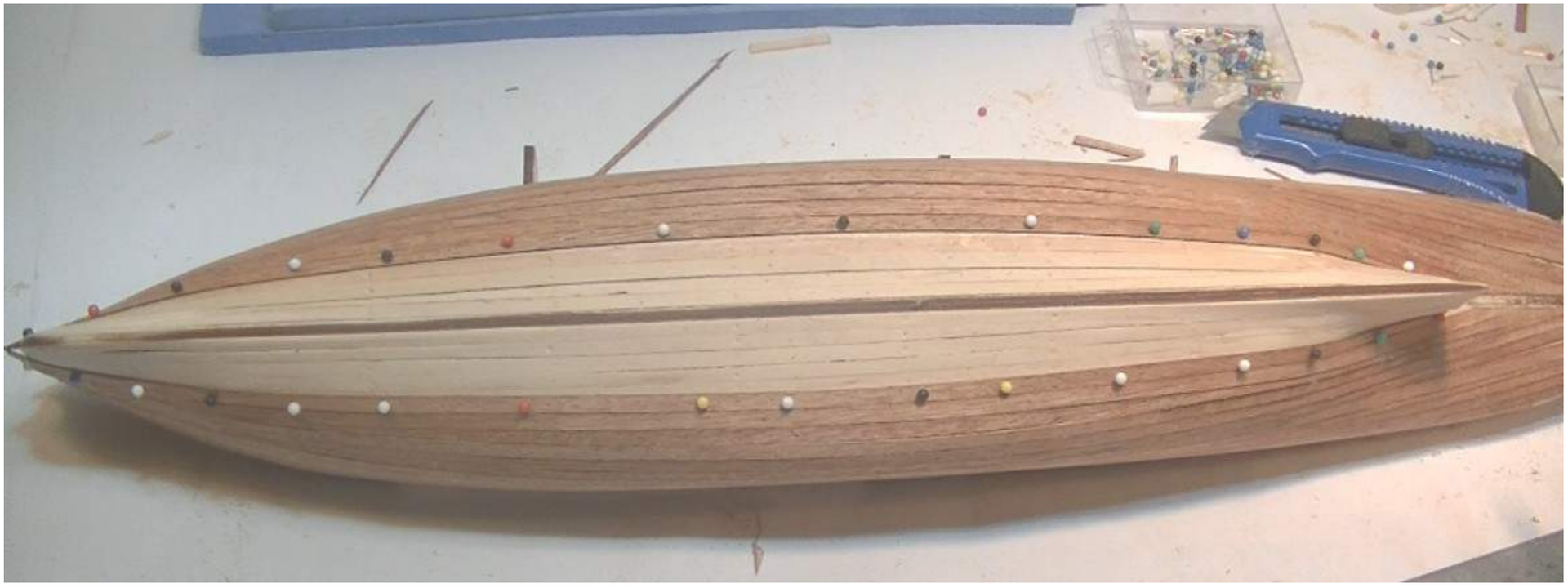
Step 9 Knowing these measurements take a plank and pin it in place at the mid-ship area and run it along to the bow - mark the area of overlap of the previous plank by 1.3mm. Pin this new plank in place as shown. At the stern mark the area of overlap by 1mm. Pin the plank in place. Cut away the unwanted overlap. Then remove the plank and then glue and pin it back in place following the new line of planking. Repeat for the other side of the hull.



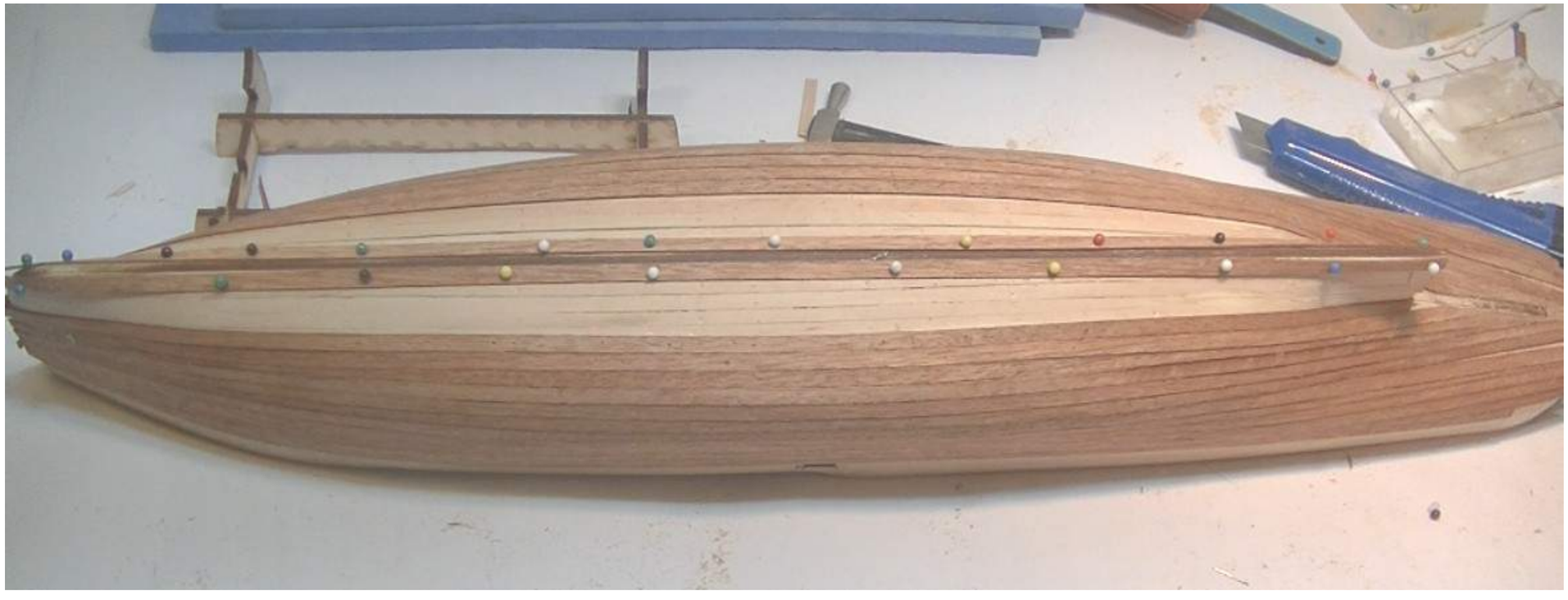
Step 10 Continue with the same process of fitting planks to close the gap. Once the gap is closed remove the guide plank as shown.

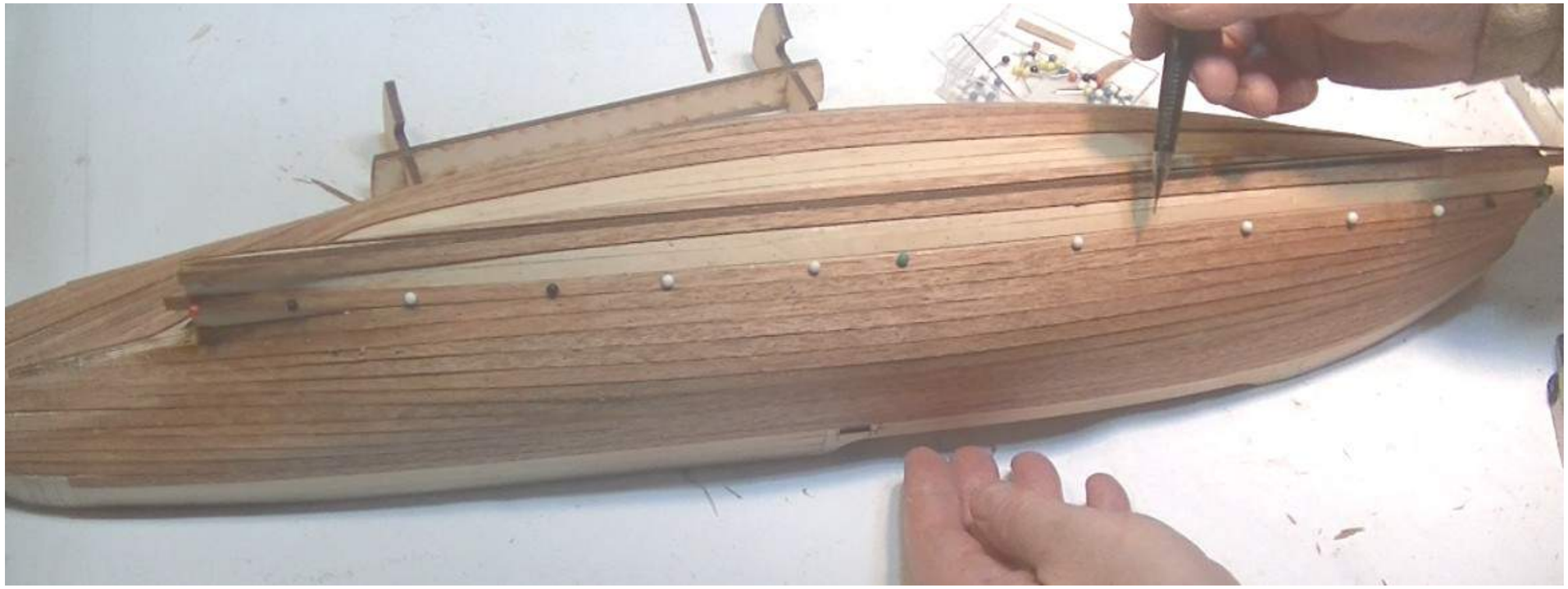


Step 11 Remove the 4 off-cut planks. Glue and pin in place the previous guide plank immediately below the last plank fitted - note it terminates at the top of the stern post-keel point as shown. Note also how the upper band planks lay in place under the transom. Any gaps between planks in this area will be filled with wedges later. Use a knife to clean away any glue or waste at the exposed keel under the transom as shown.

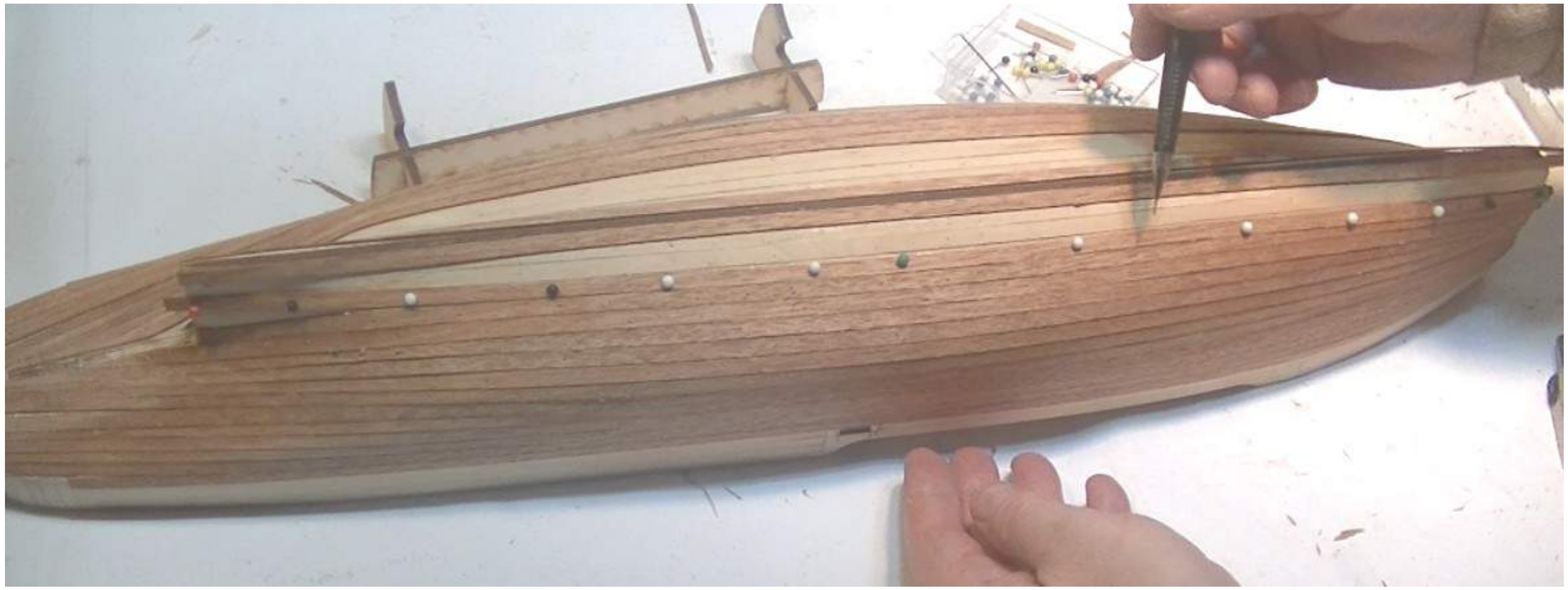


Step 12 To close the remaining gap first glue and pin in place a garboard plank on each side of the hull as shown. Glue and pin in place a plank under the main body of planking as shown. See Step 13 for how this plank is fitted at the bow and stern.





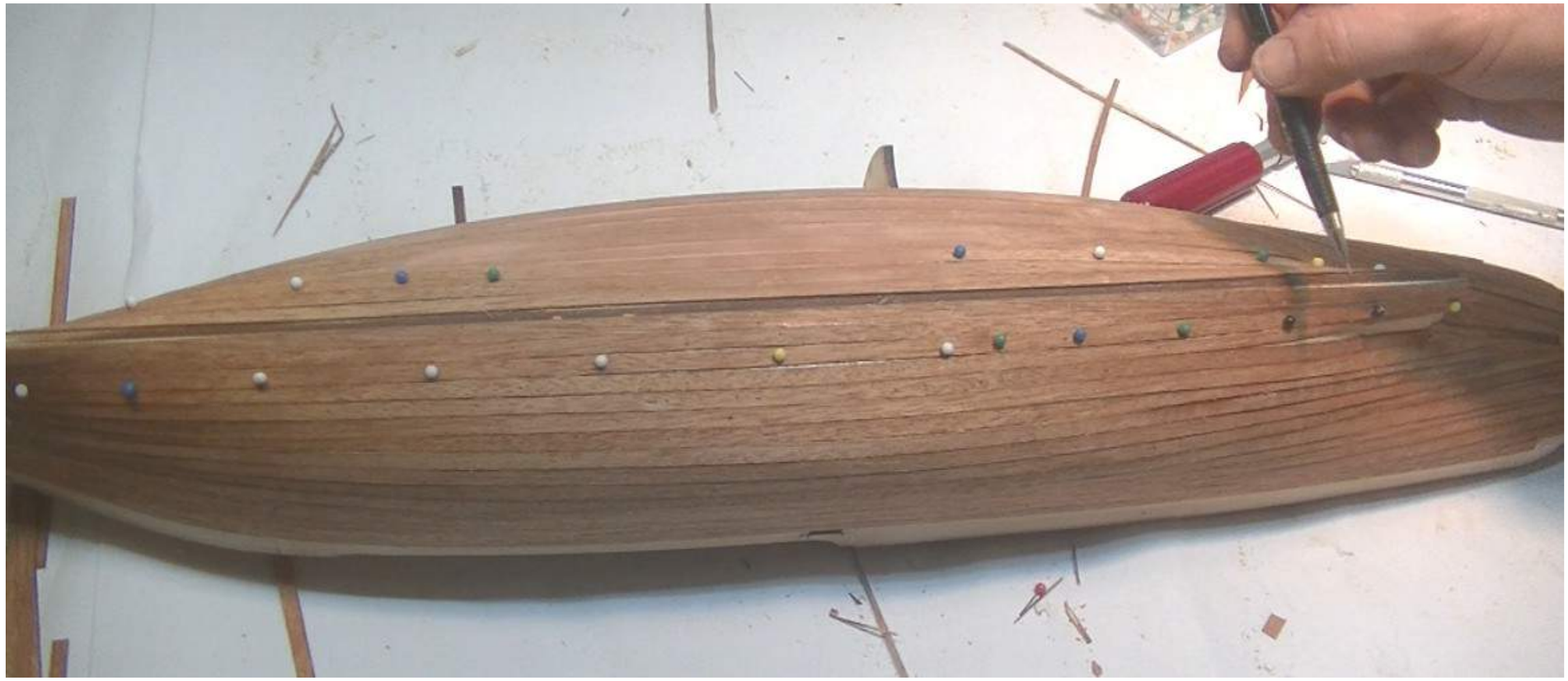
Step 13 At the stern this plank fits immediately below the propeller housing as shown. At the bow note how the plank marginally overlaps the previous plank - apply the process of marking and removing the area of overlap. Once satisfied glue and pin this plank in place. Repeat for the other side of the hull.



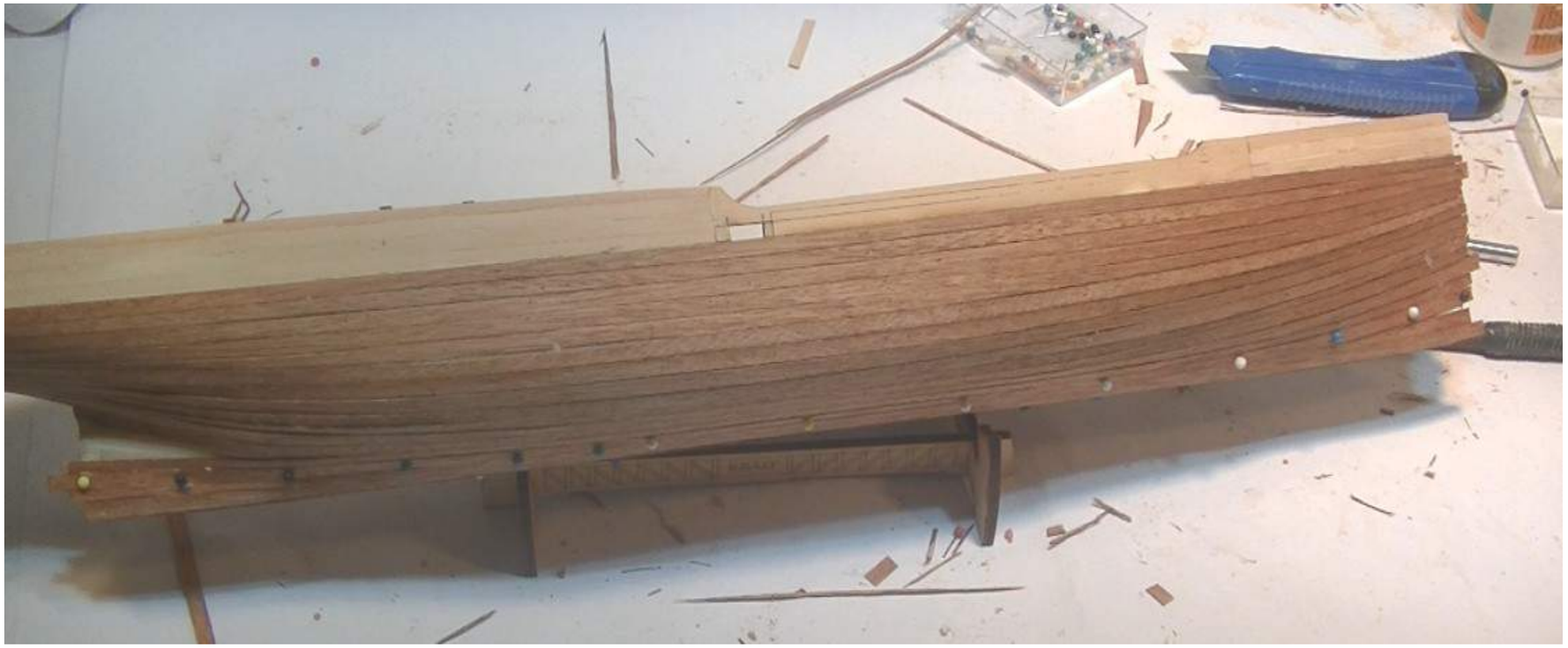
Step 14 Glue and pin a plank immediately adjacent and parallel with the garboard plank as shown,

Step 15 To close the gap we will spile a plank into the area. Take a plank and lay it over the planks immediately below and above as shown - pin this plank in place - mark the areas of overlap. Remove the plank and cut away the unwanted area.

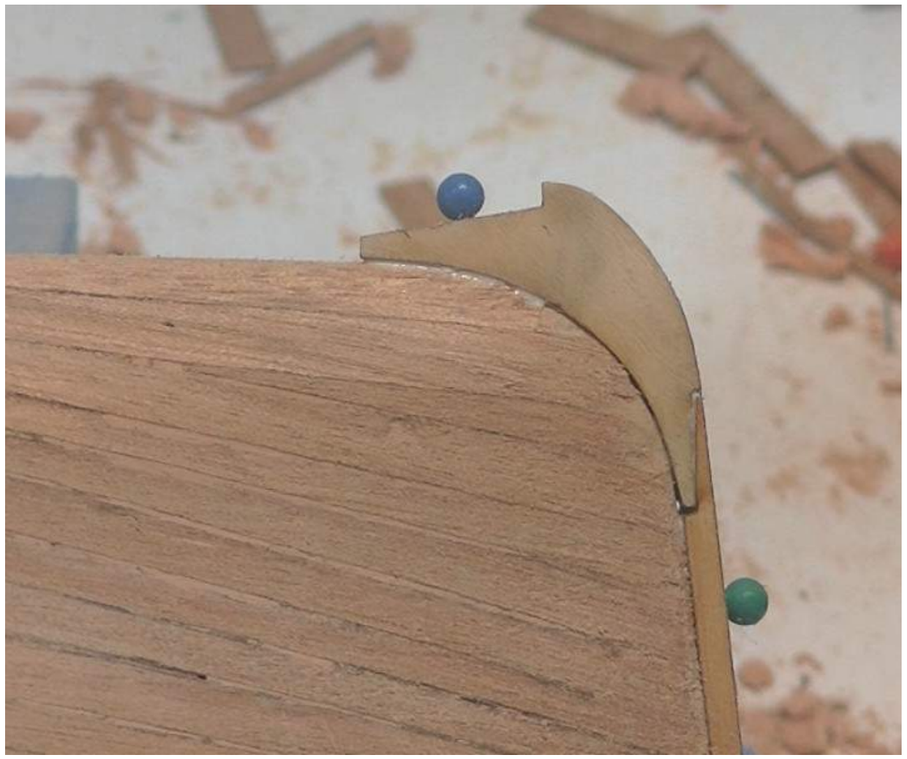
Step 16 Glue and pin this plank into the remaining gap as shown. Use wedges to carefully fill-in any gaps at the stern area and at the bow. At the stern do not cover the propeller housing.



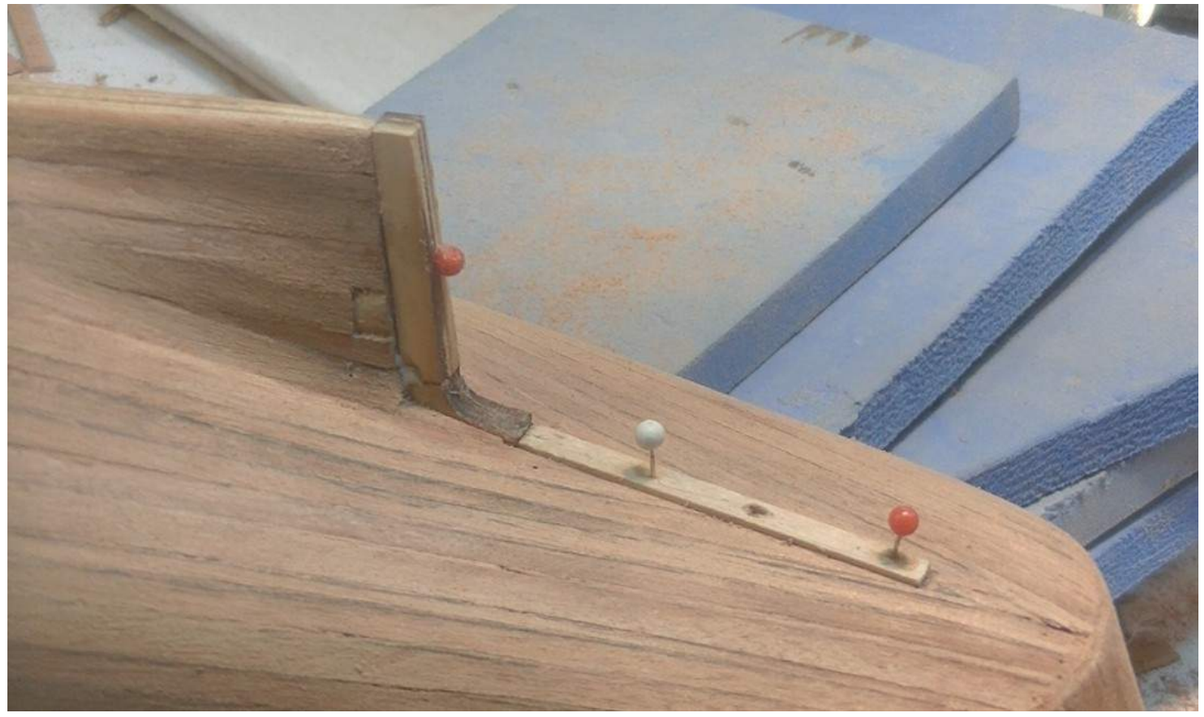
Step 17 Finish planking the hull above the deck line and around the transom. Make sure to mark the location of the scupper openings and carefully remove to reveal the opening. Once all glues have set use a file and sanding block to remove planking above the bulwark and the waist. Also trim off-cuts at the bow and stern.



Step 18 Fill-in any gaps with wood filler and then sand the hull smooth with a range of sand paper grades. Trial fit the stem post in place - sand the bow planks to ensure a smooth transition junction with the stem post - once satisfied glue and pin the stem post in place. Repeat for fitting the stem post knee as shown. Fill any gaps with wood filler.

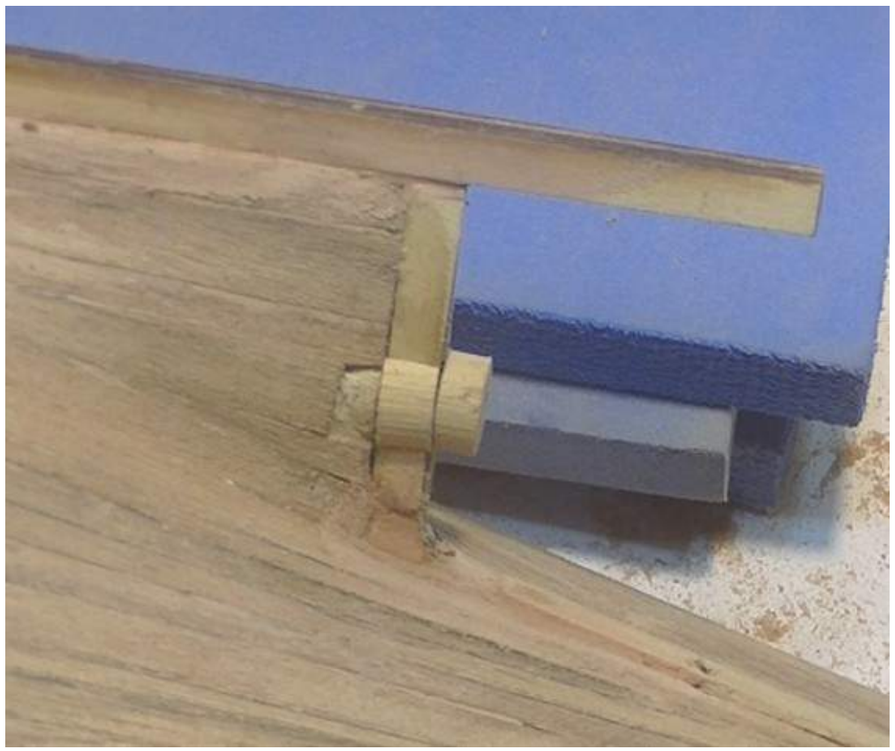


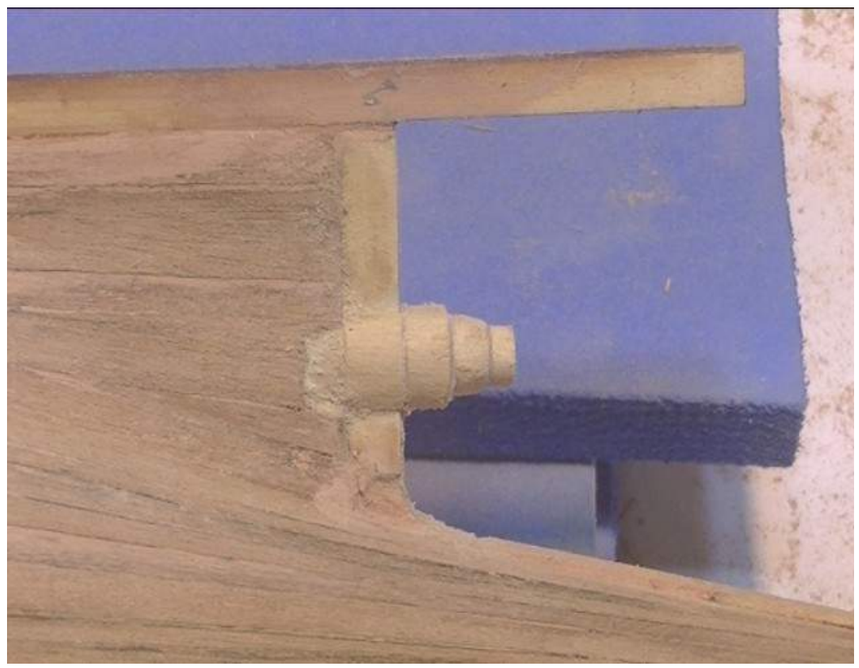
Step 19 Retrieve the stern post and knee. Identify the transom keel block P35. Trail fit the parts in place - fractionally adjust as required - once satisfied glue and pin in place. Fill and gaps with wood filler.



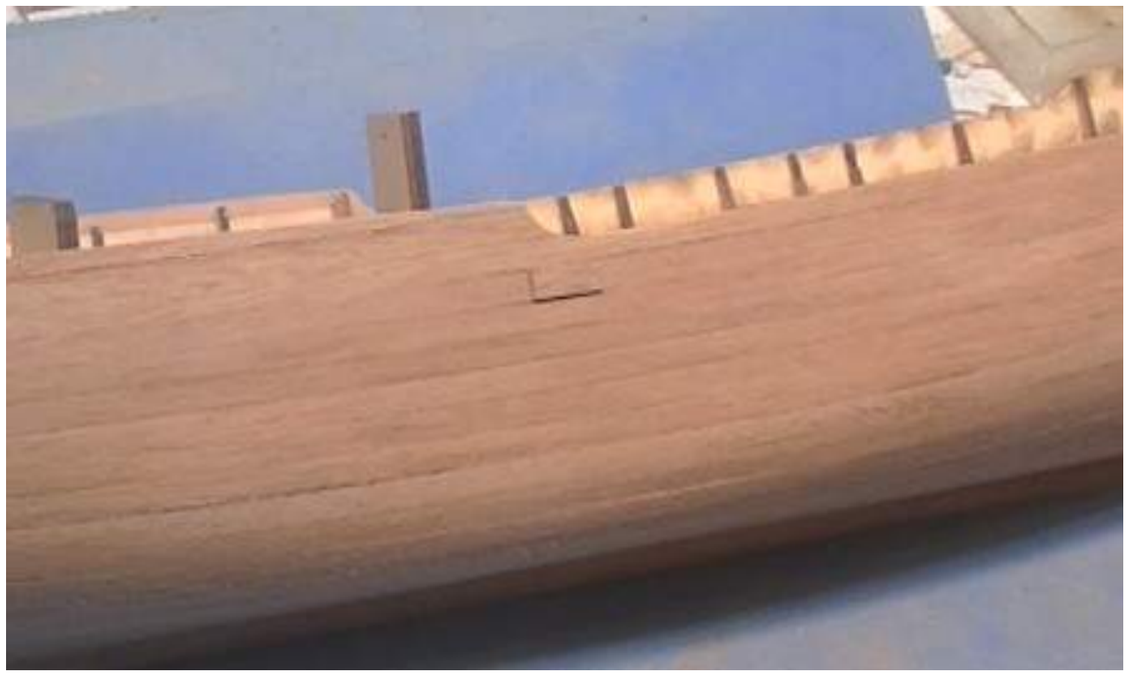
Step 20 Retrieve the keel parts - trial fit in place. Once satisfied glue and pin in place starting from the bow end. Fill any gaps with wood filler.

Step 21 Identify the propeller housing parts P22A and P22B - glue the 22A & 22B together as shown. Glue the assembled 22AB parts in place to align with the previous housing fitted to the keel. Identify propeller housing P22C and glue in place on the stern post to align with 22AB as shown. Identify propeller housing P22D - note the score mark - shape from this line back to the opposite side as shown. Identify propeller housing P22E - use a length of dowel to align these parts and glue to P22D as shown. Use wood filler to fill-in any gaps as shown - sand carefully to achieve a good finish.





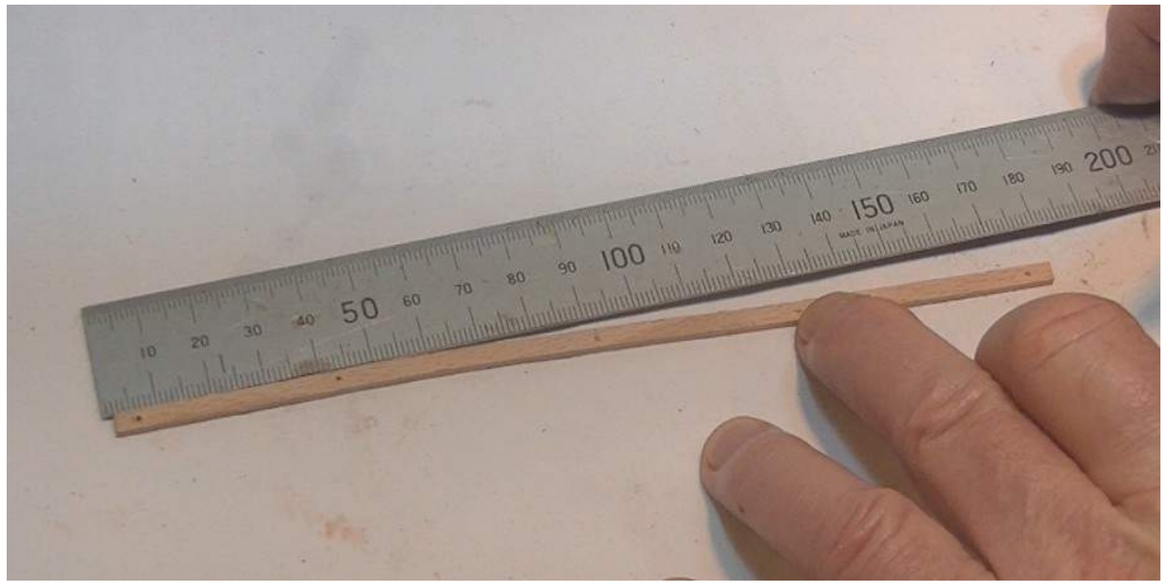
Step 22 Cut two 15mm lengths of the second layer planking and glue in place to cover the scupper openings as shown.



Step 23 Spray the assembled cradle with a matt charcoal black paint. Cut pieces of thin felt to fit onto the cradle-hull contact points and glue in position.

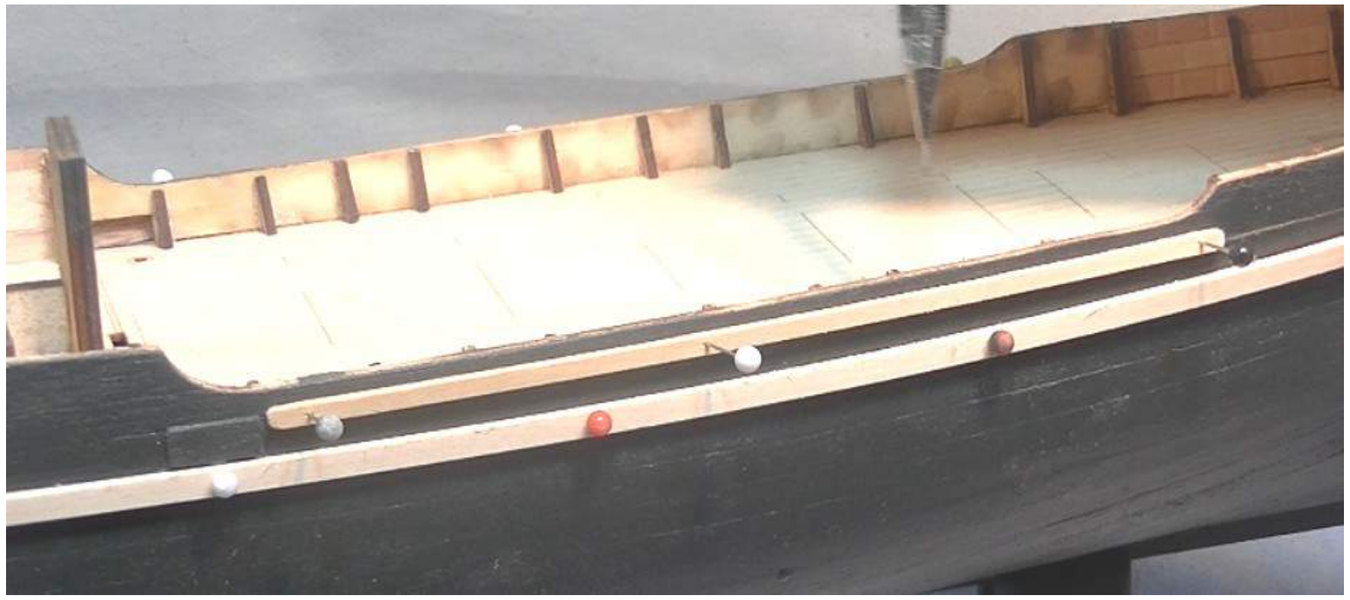
Step 24 Use masking tape to fully cover the deck and inner bulwark as shown. Take the hull to a well ventilated area and apply a number of coats of the matt charcoal black paint - allow each coat to fully dry and lightly sand before applying the next coat.

Step 25 Next we will be fitting the wales. Identify the 2x4mm flexible beech P36 - cut a length to 180mm - drill 0.7mm holes into the timber as shown. Dry fit the flexible beech in place around the transom to help shape the beech. Aligning the flexible beech with the base of the transom as shown - the two ends will be approximately 20mm below the top of the bulwark. Once you are satisfied with the fit glue and pin the flexible beech in place.

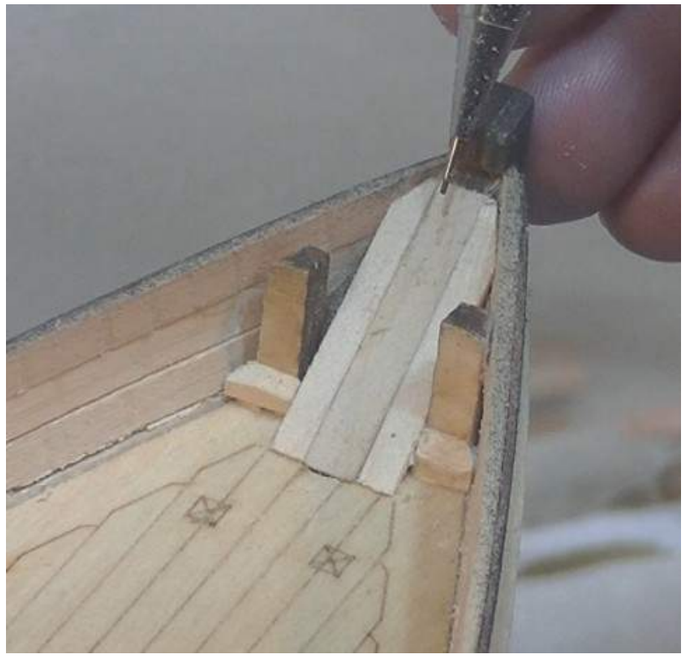


Step 26 Identify the 2x4x600mm limewood P37. Mark a point 15mm below the top of the bulwark at the bow. Trial fit a length of the limewood in place starting at the stern aligning with the end of the flexible beech then running along the hull immediately below the scupper and onto the 15mm mark at the bow. Temporarily pin in place - trim-off excess length. Shape the bow end so the wale follows the hull and fits against the stem post. You may need to use a hand held plank bender to achieve a curve in the wale so it fits close to the hull at the bow. Once you are satisfied glue and pin the wale in place. Repeat for the other side of the hull.

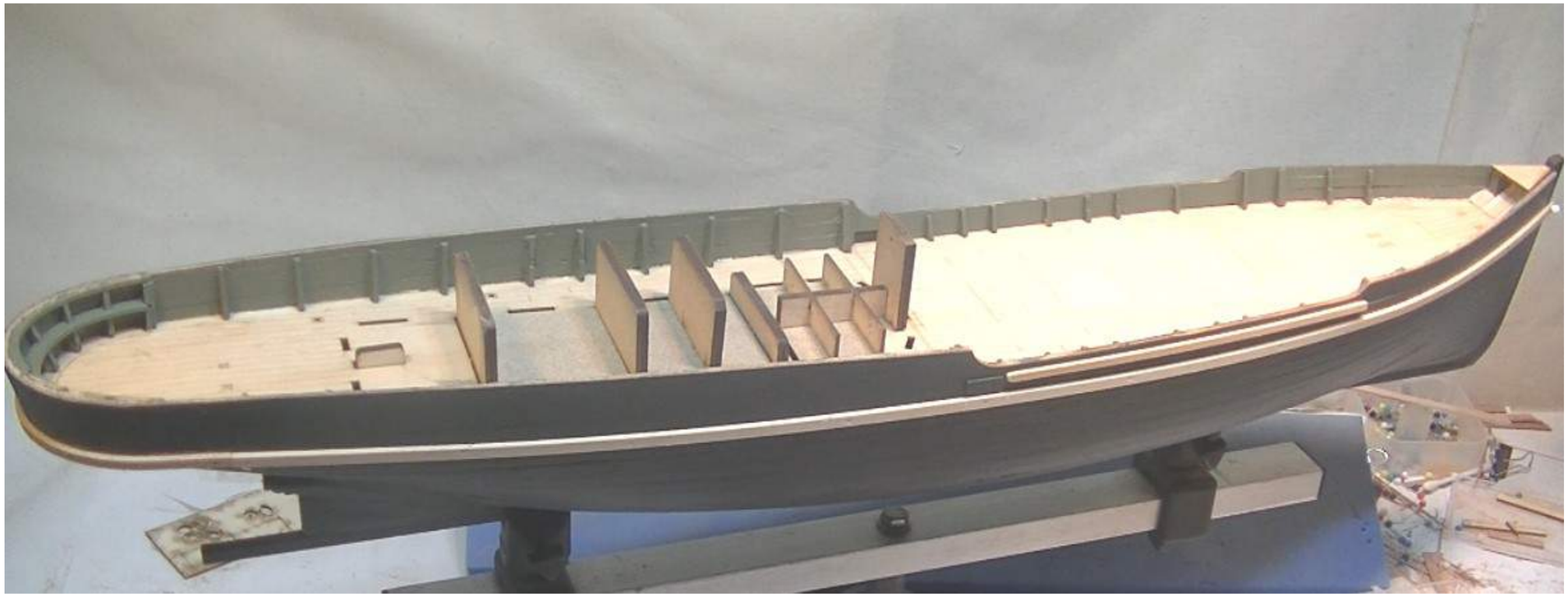
Step 27 Identify the 2x3x250mm limewood P38. Cut two lengths to 115mm - rounds the ends as shown. Glue and pin in place 2mm below the bulwark waist and immediately in front of the scupper. Repeat for the other side of the hull.



Step 28 Identify the 1x5x100mm limewood P39. Cut and shape lengths to fit between the frame horns of bulkhead 1 as shown. Shape small lengths of 2x5mm basswood to fit at the base of the two frame horns as shown. Shape and fit additional 1x5mm limewood to cover the lower front of the frame horns as shown. Identify the bow nose cover P40 - trial fit - fractionally adjust as required - once satisfied glue in place.

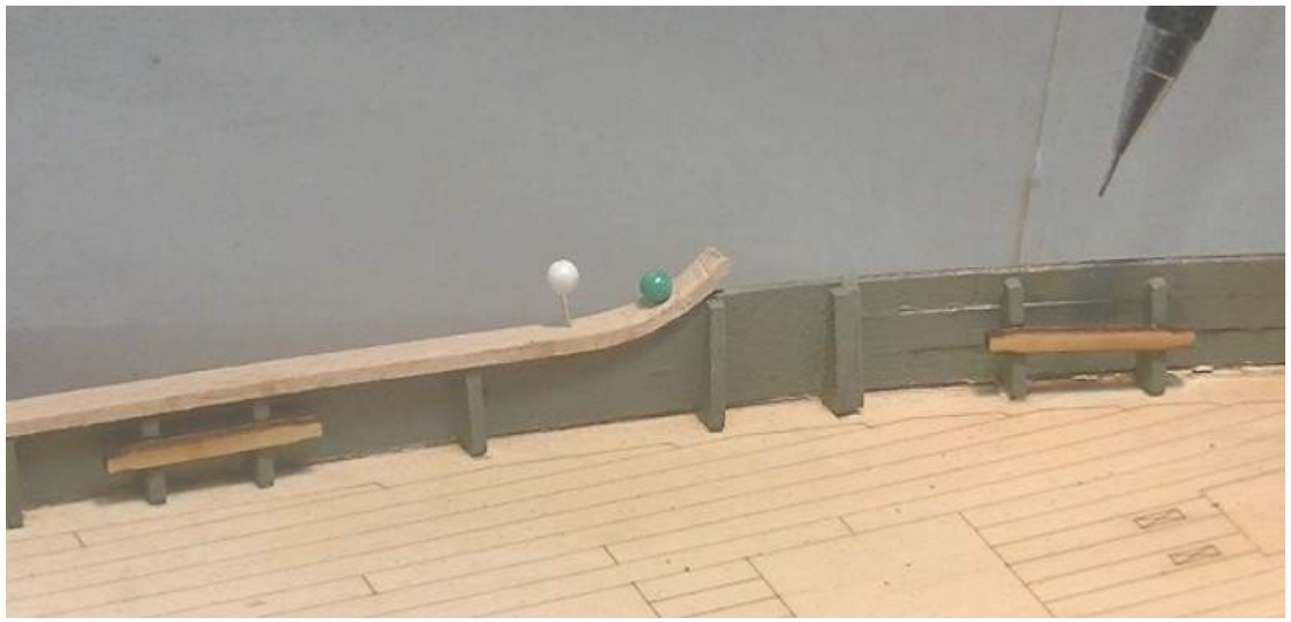


Step 29 Carefully paint the inside of the bulwark and transom framework khaki green as shown.

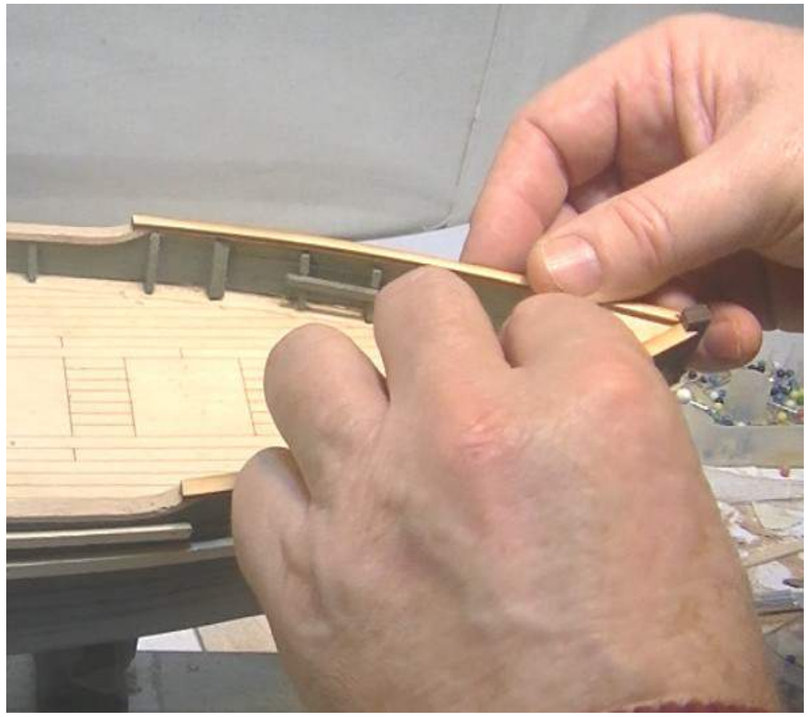


Step 30 Identify the 2x5x400mm flexible beech P41. Cut two lengths at 200mm. Use a plank bender to carefully shape the ends to fit into the waist area of the bulwark. Trial fit - fractionally adjust shape as required. Once satisfied glue and pin each length in place a shown.

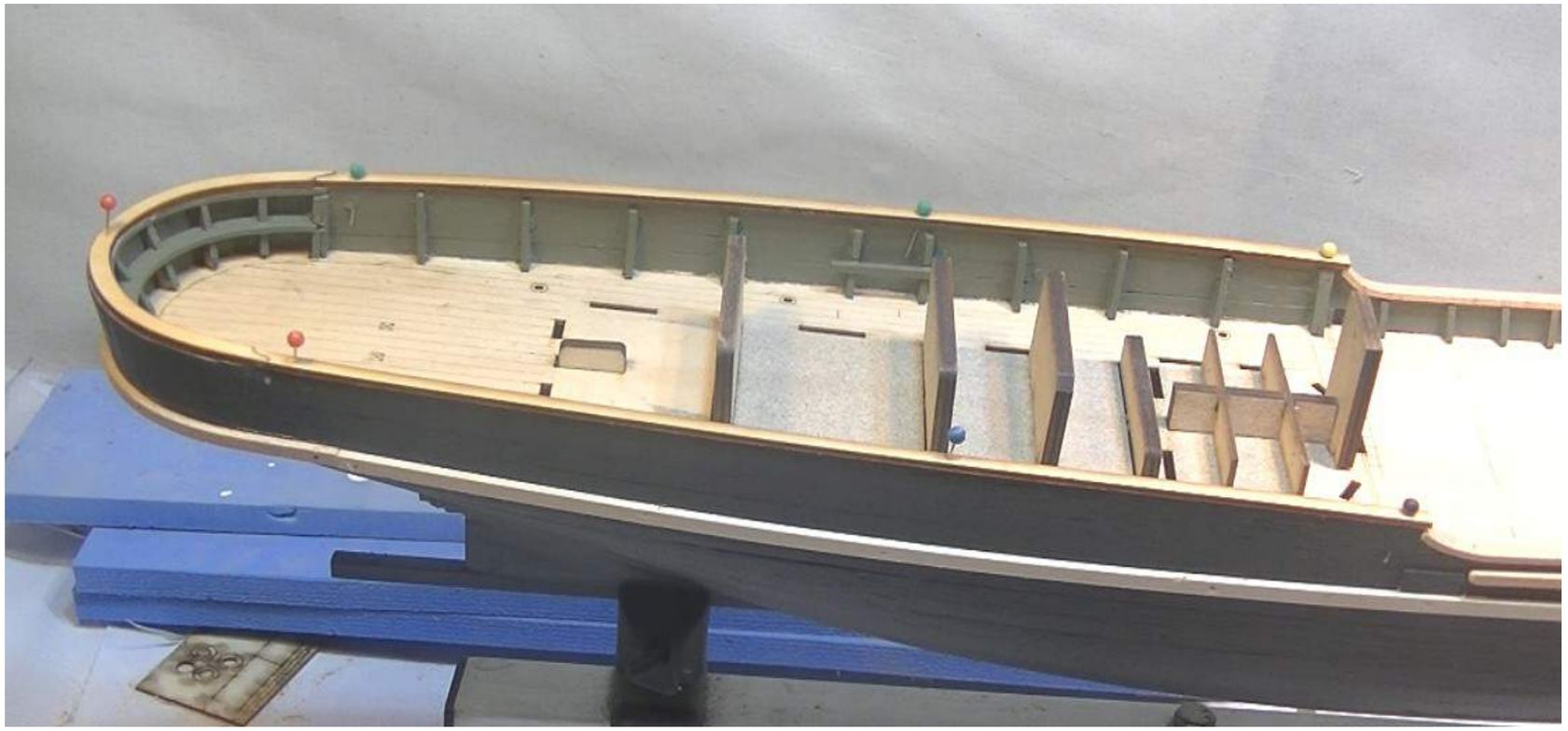
Step 31 Identify the belaying rails 42A - glue in place as shown onto the pre-shaped stanchions at the waist and bow areas. Identify the belaying rails 42B and glue in place onto the pre-shaped stanchions at the mid-ship area as shown. Paint khaki green.



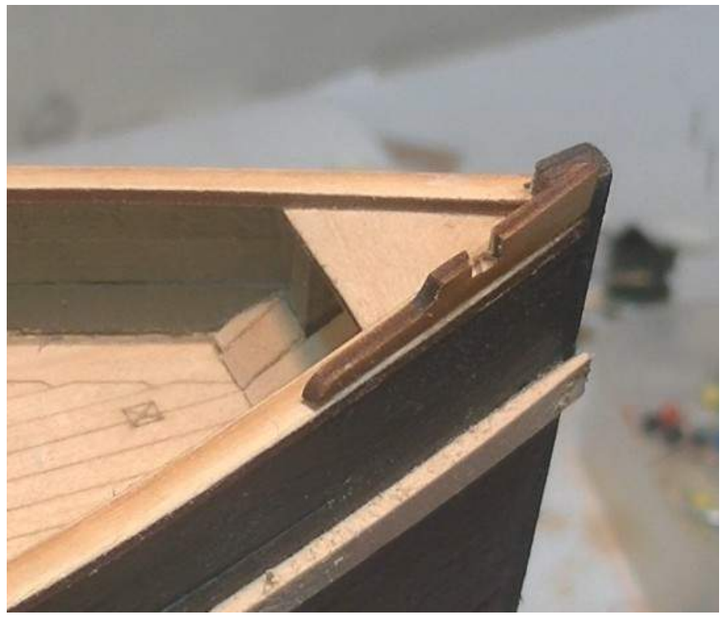
Step 32 Identify the bow cap rails P43 - trial fit in place - fractionally adjust placement as required - once satisfied glue and pin in position.



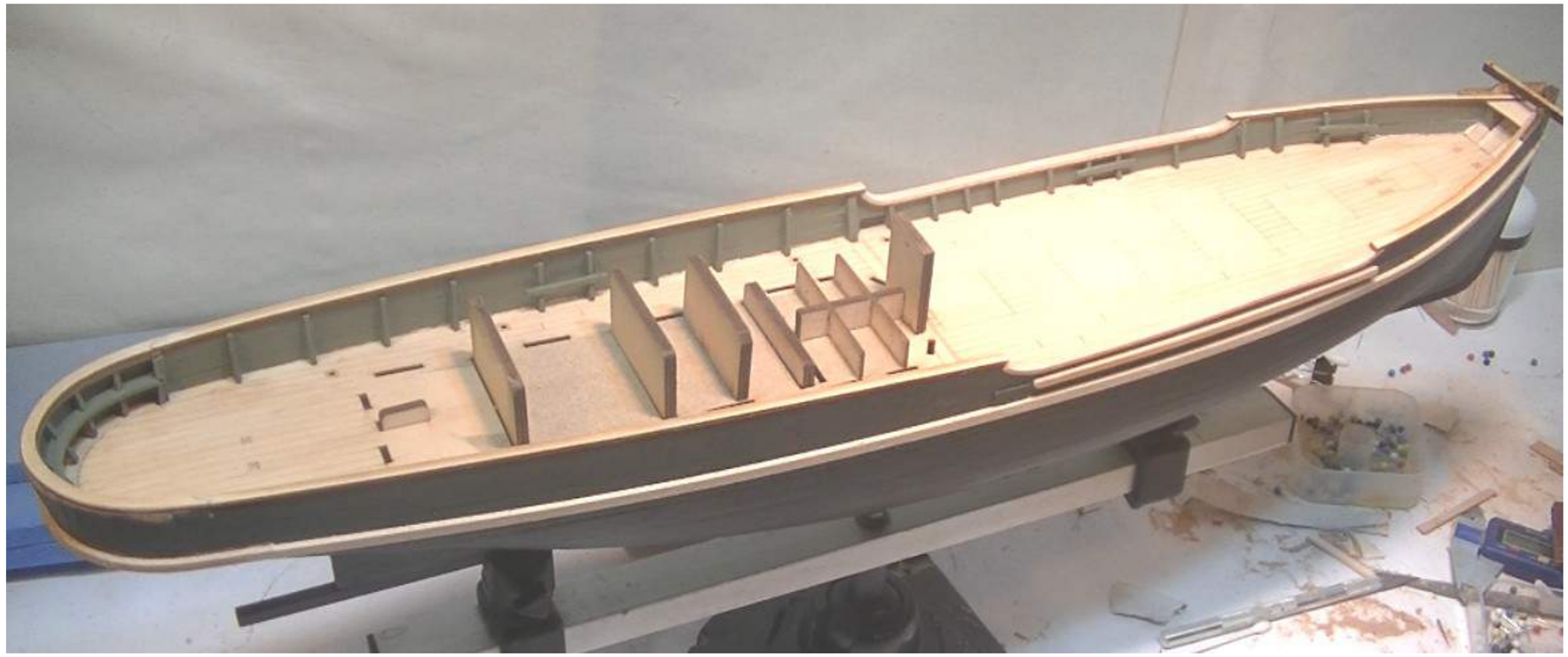
Step 33 Identify the mid-ship cap rails P44 and the transom cap rail P45. Trial fit in place - make fractional adjustments as required. Once satisfied glue and pin in place as shown.

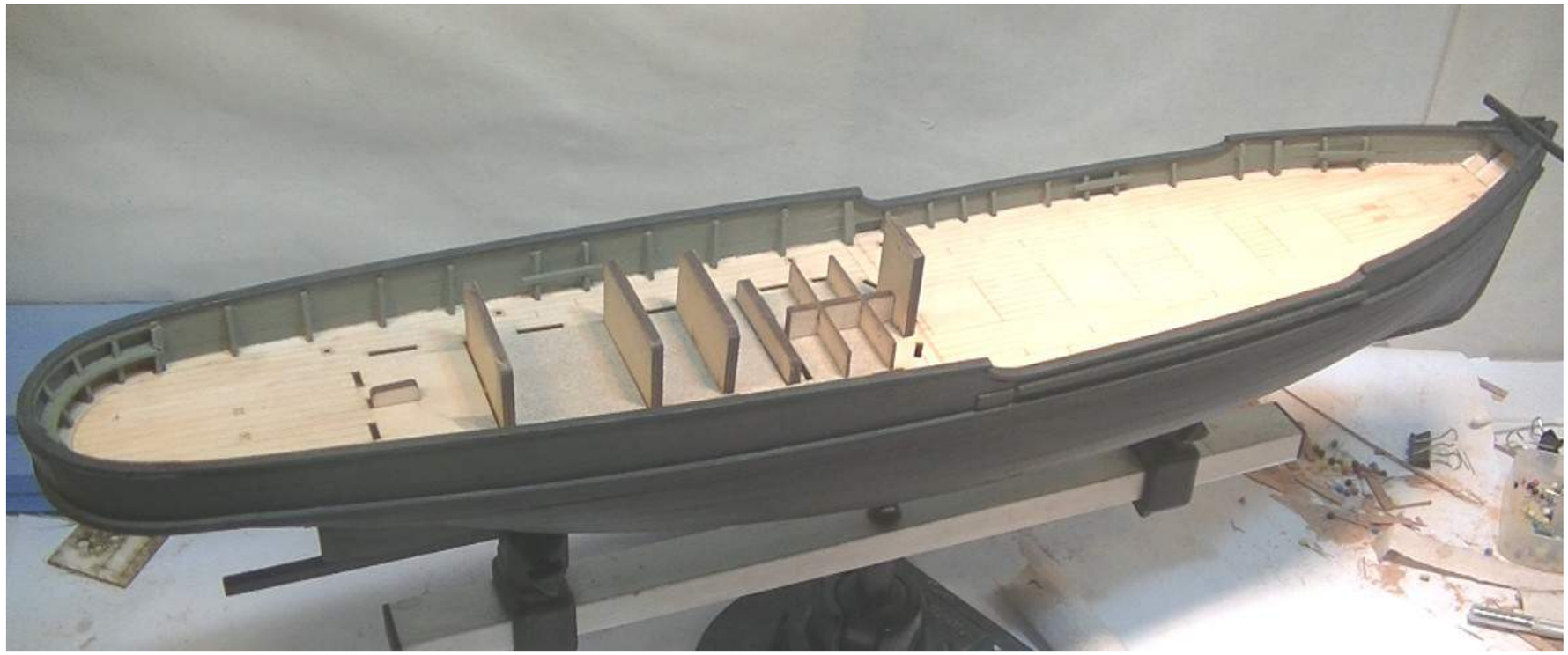


Step 34 Identify the bow extensions P46 - shape front end to fit against the stem post - once satisfied glue both parts in position. Identify the net traveller P47 - trial fit in position - some adjustment of the slots in the bow extensions may be necessary - once satisfied glue in position as shown.



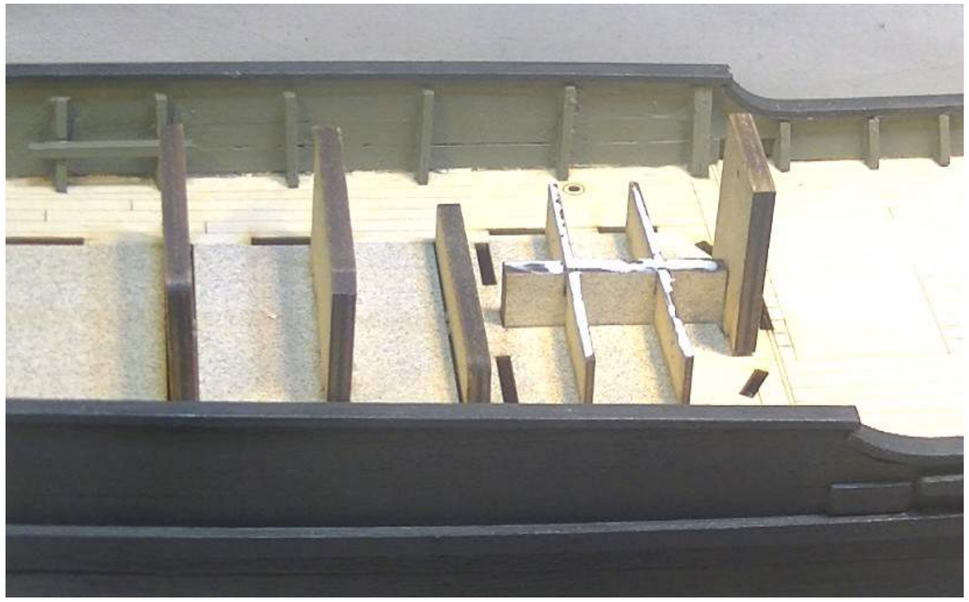
Step 35 Review the hull and deck up to this point - run sand paper over the cap rails to remove sharp edges - look carefully over the construction to this point - once satisfied paint with matt charcoal paint as shown.

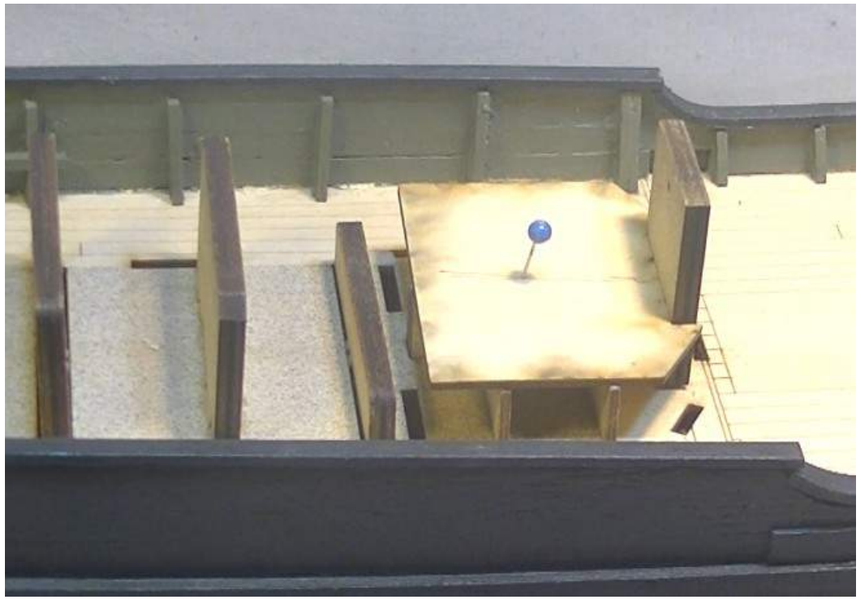




8.0 Deck Cabins & Fittings
8.1 Wheelhouse

Step 1 Identify the wheelhouse floor P48. Apply glue to the floor supports and pin the wheelhouse floor in place as shown.

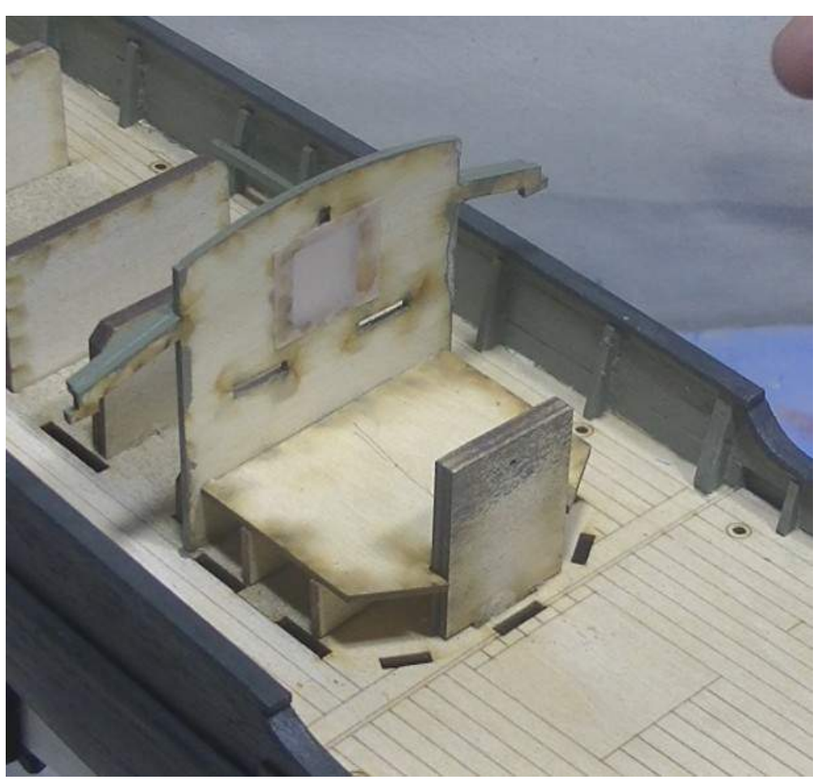


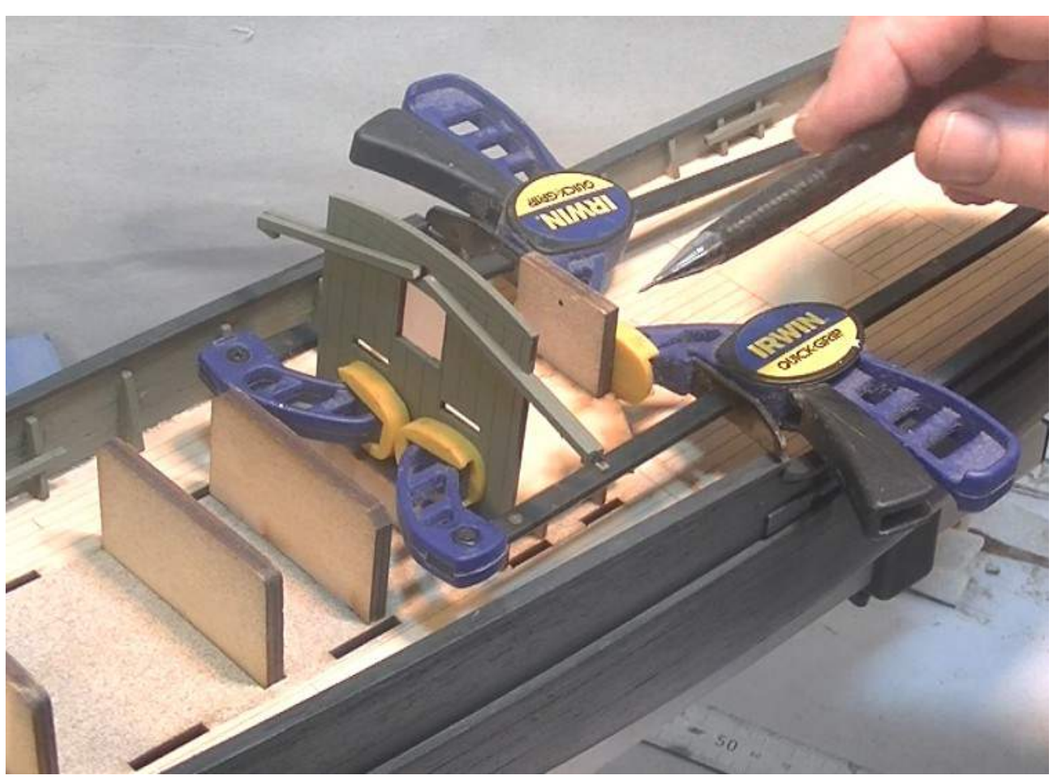


Step 2 Identify the wheelhouse rear wall P49 and the canopy roof supports P54. Glue the roof supports in place as shown. Identify the wheelhouse side walls P50 and the wheelhouse steps P51. Glue the steps in place as shown.

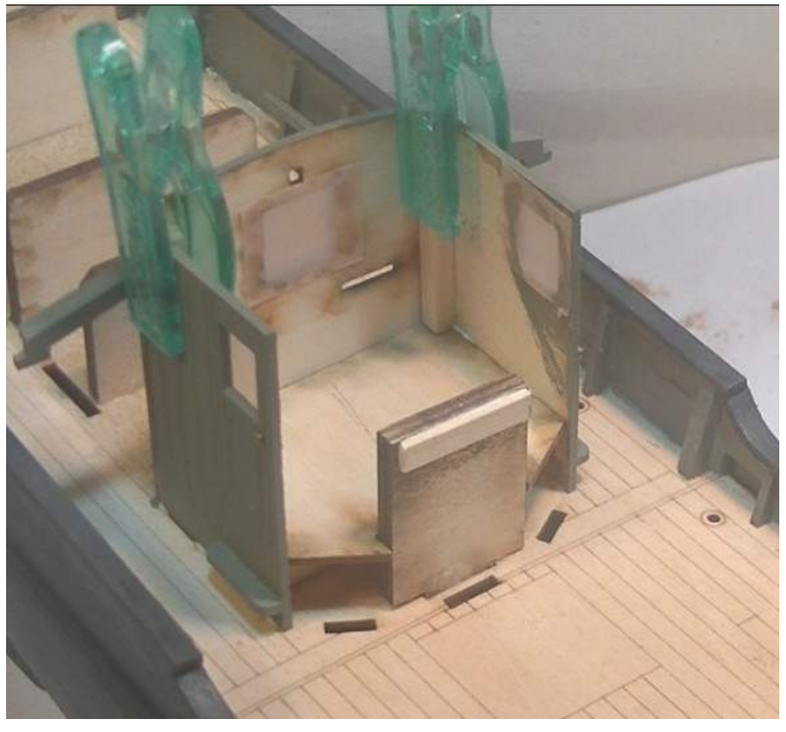
Step 3 Identify the wheelhouse front wall P52 and wheelhouse edge walls P53A. Paint all walls khaki green as shown. Identify the window glazing P55 - cut shapes to cover each window of the wheelhouse windows - glue and clamp in place on the inside face of each wall. Identify the brass nails P56 - drill 0.8mm holes into the score mark on the doors of the side walls and glue a nail in each to represent the door knob.

Step 4 Trial fit the rear wall in place as shown - once satisfied glue and clamp in place as shown.

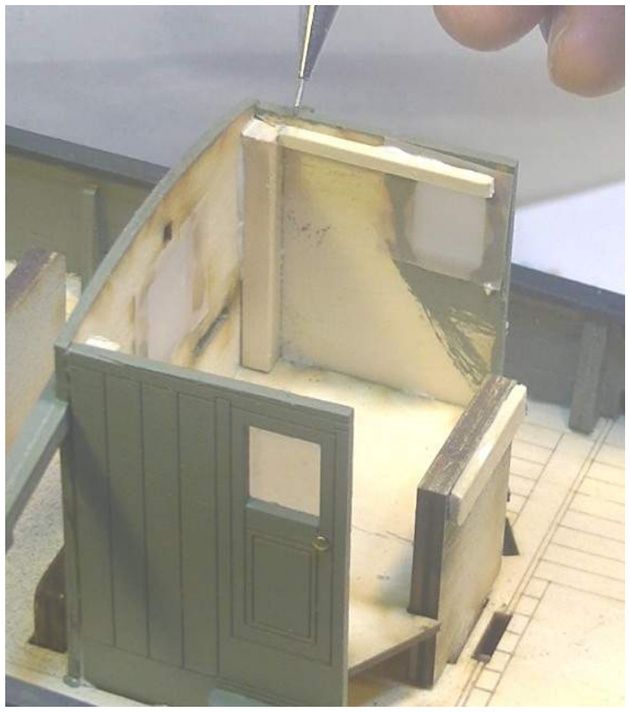


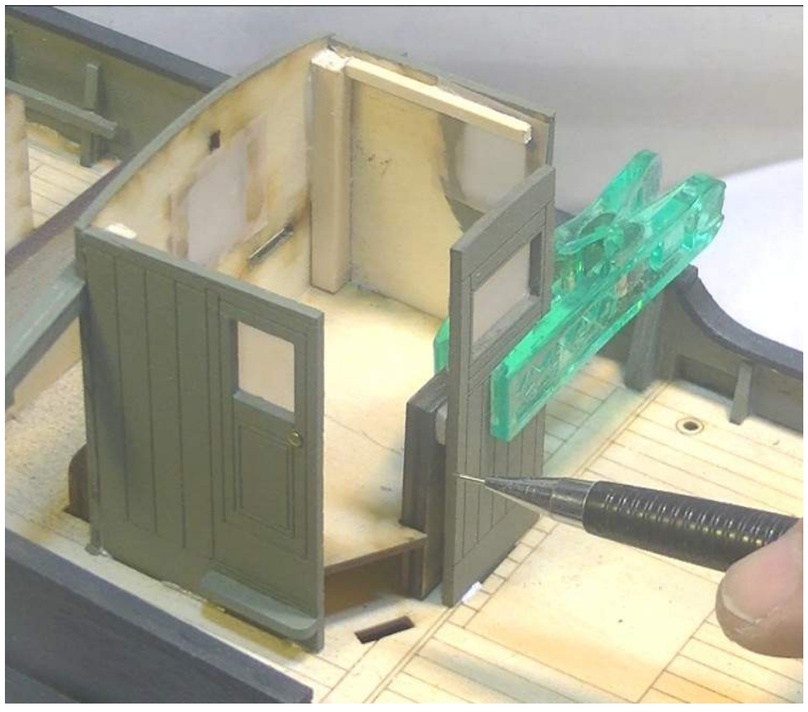


Step 5 Identify the wheelhouse wall supports P57. Trial fit the wheelhouse side walls - once satisfied apply glue to the contact points and glue the wall supports at the joint between the rear wall and the side walls as shown - clamp in place as shown. Glue in place an off-cut length of 2x5mm basswood P24 to the top of the wheelhouse frame P19 as shown.

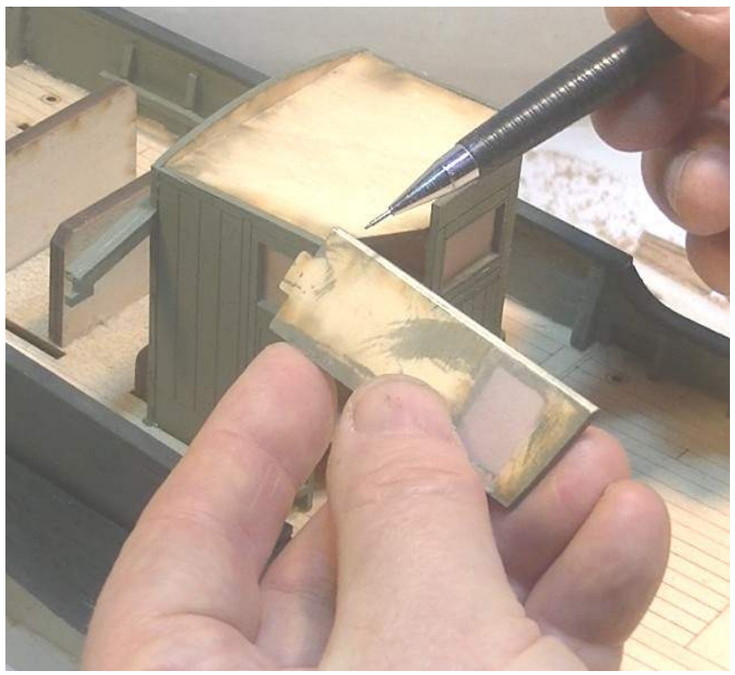


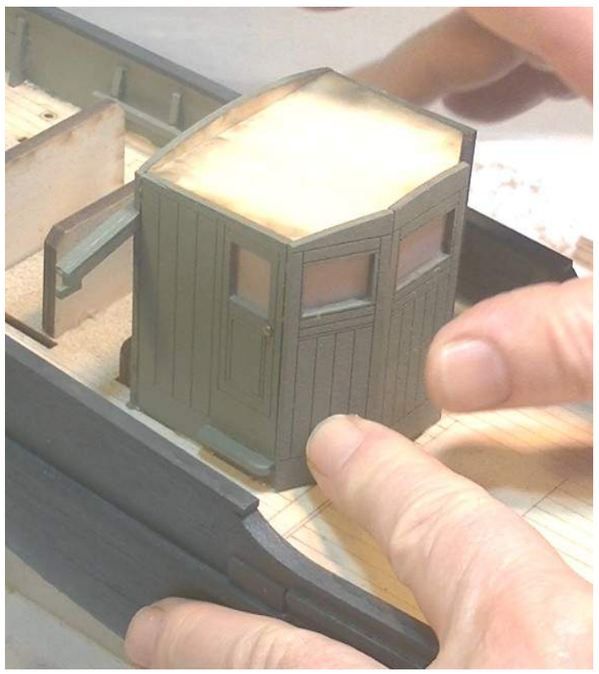
Step 6 Identify the wheelhouse inner roof supports P58 - glue each in place 2mm below the top of each side wall as shown. Trial fit the wheelhouse front wall - once satisfied glue and clamp in place as shown.



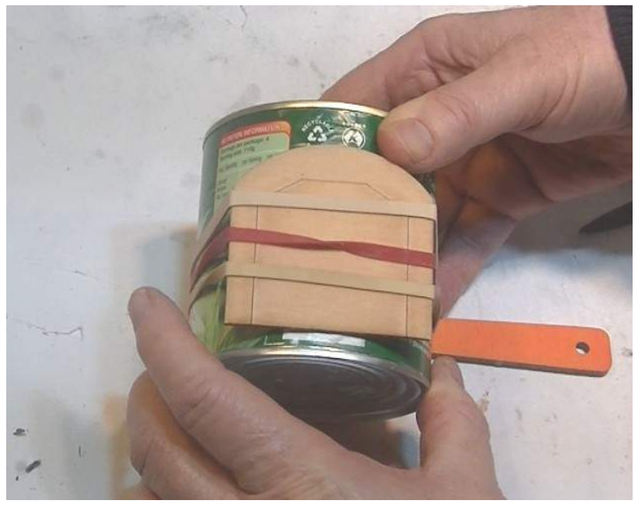


Step 7 Identify the wheelhouse inner roof P53B - trial fit - once satisfied glue and clamp in place as shown. Bevel the edges of the wheelhouse edge walls as shown - trial fit in place - once satisfied glue each in place as shown. Use elastic bands to hold the walls in place until glue has set.





Step 8 Glue in place off-cut lengths of the 2x5mm basswood P24 onto the wheelhouse inner roof as shown. Identify the wheelhouse roof P59. Apply the wet molding approach to give the roof a slight curve. Place the roof in a dish of boiling water for approximately 20 minutes - remove and tie in place around a can or other like container. Allow the roof to dry naturally for 24 hours. Once dry glue and pin in place centrally to the wheelhouse as shown.



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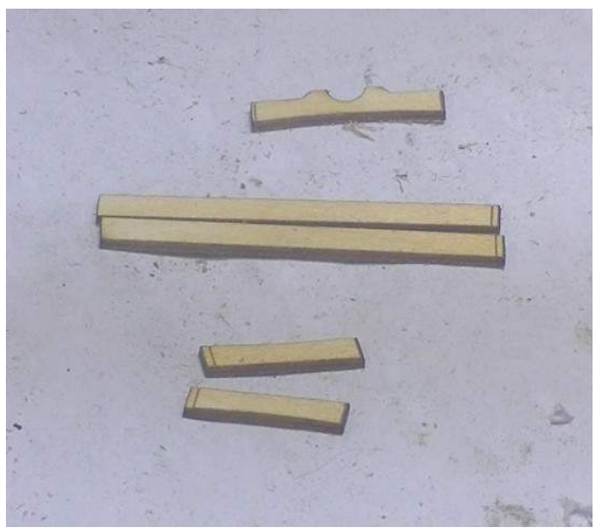
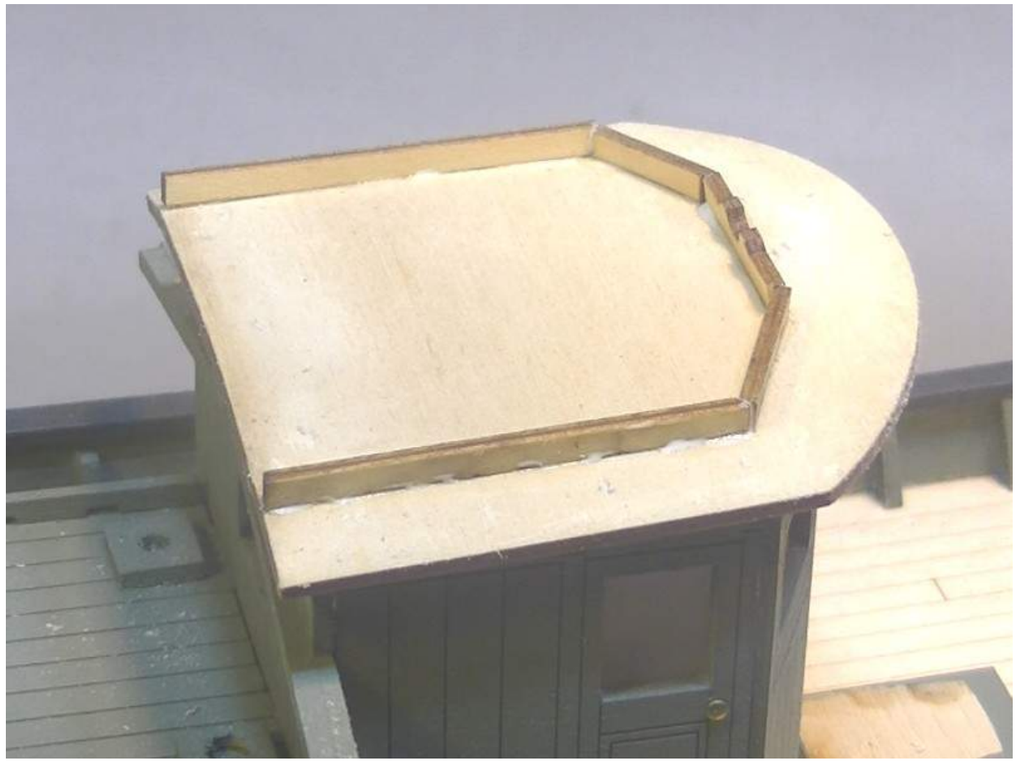
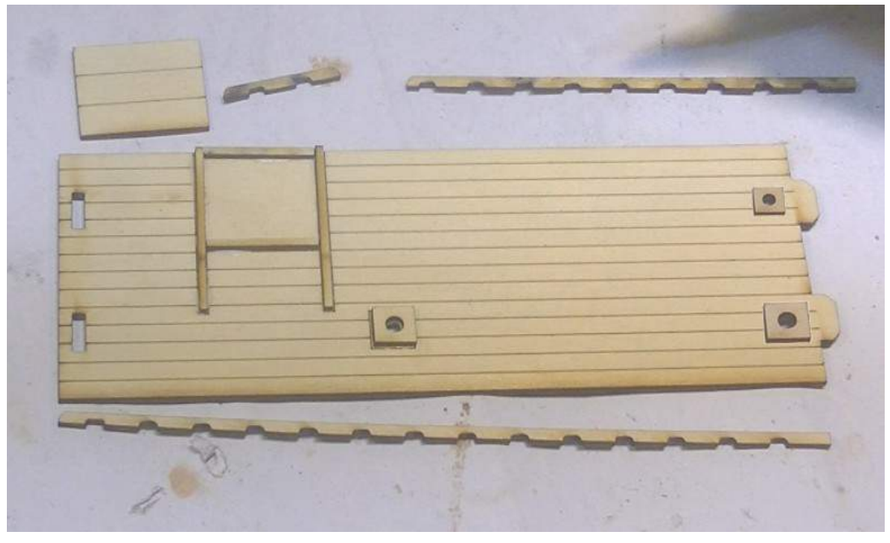
Step 9 Use wood filler to fill any pin holes in the wheelhouse roof and sand smooth. Identify the wheelhouse roof racks P62A-C - note the laser score marks on each - sand from the score mark to the reverse side. Trial fit the parts in place along the laser score marks on the roof - once satisfied glue each in place as shown. Once glue has set paint the roof white as shown.





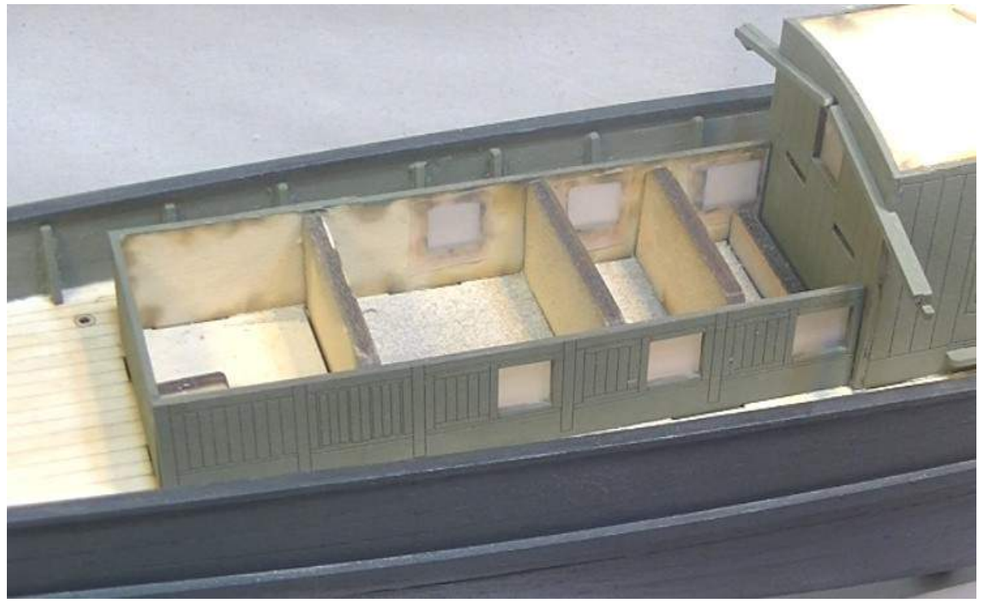
8.2 Engine Compartment

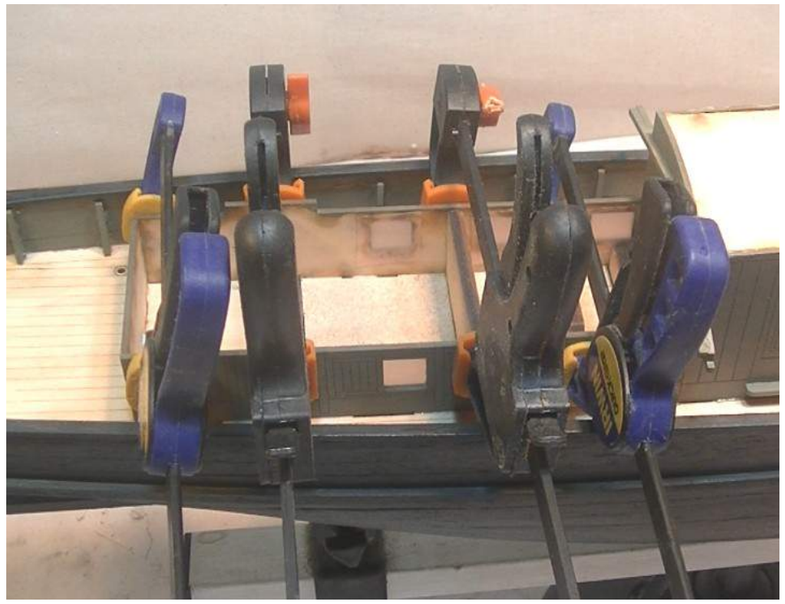
Step 1 Identify the engine compartment roof P61, roof racks P62A-C, companionway runners P63, companionway frames P64, companionway roof P65, exhaust flanges P66 and ventilator flanges P67. The roof has laser score marks for the easy placement of parts. Trail fit each and glue in position as shown.



Step 2 Identify engine compartment port wall P68, engine compartment starboard wall P69 and engine compartment rear wall P70. Paint the engine compartment roof and walls khaki green as shown. Identify the window glazing P55 - cut shapes to cover each window of the engine compartment windows - glue and clamp in place on the inside face of each wall. Identify the brass nails P56 - drill 0.8mm holes into the score mark on the companionway door and glue a nail in each to represent the door knob.

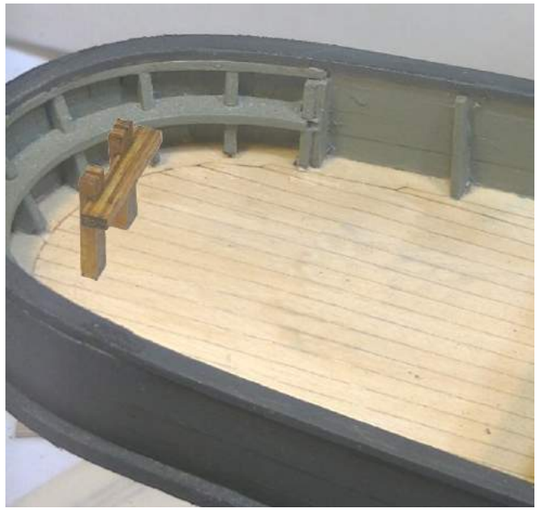
Step 3 Trial fit the engine compartment walls in place - once satisfied apply glue to all the contact points and clamp walls in place as shown. Once glue has set glue the roof in place as shown.

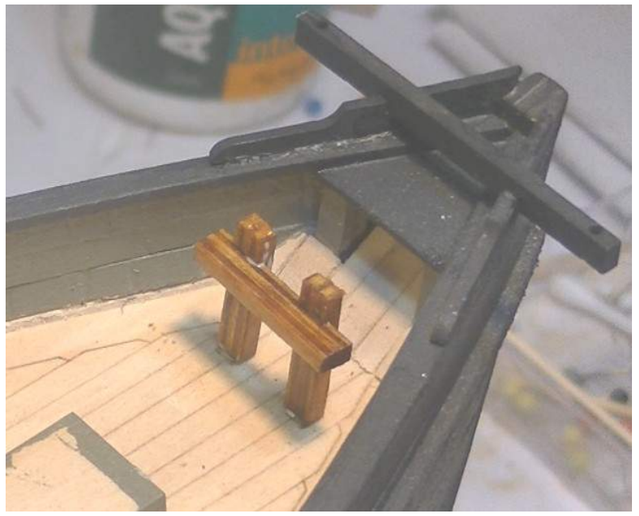




8.3 Samson Posts

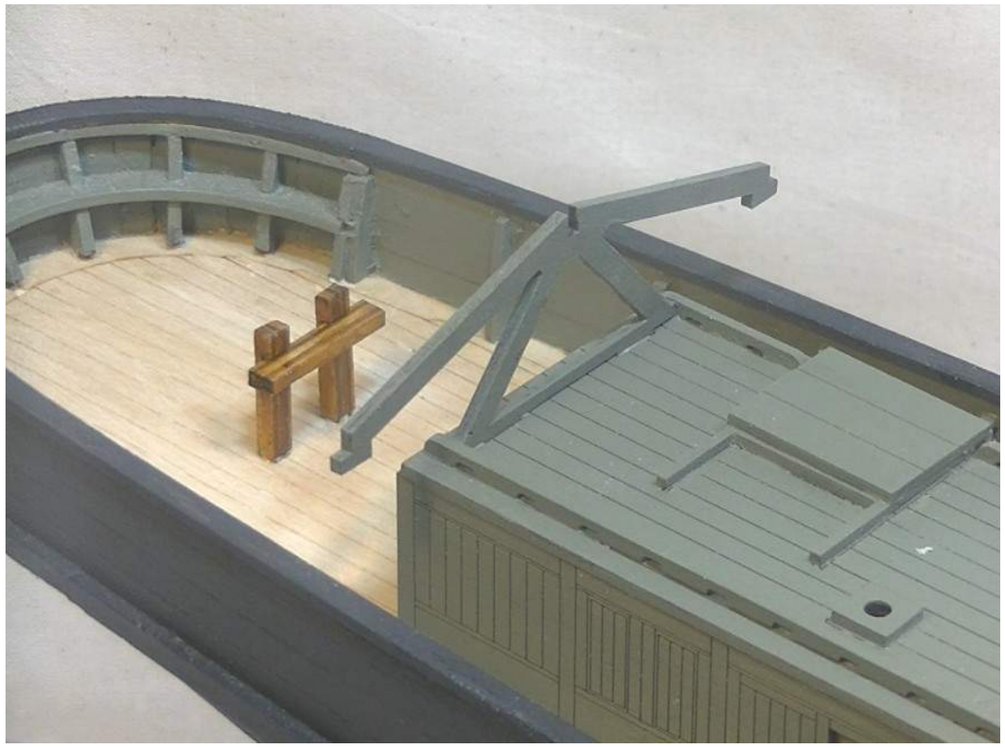
Identify the bow samson post parts P71, stern samson posts P72 and samson post bars P73. File the laser burns marks off all parts. Drill 0.7mm holes in the centre of each post and glue a pin in place. Glue the post bars in place. Apply shellac to the assembled samson posts. Drill 0.7mm holes in the laser score marks on the deck and glue the relevant samson posts in place as shown.

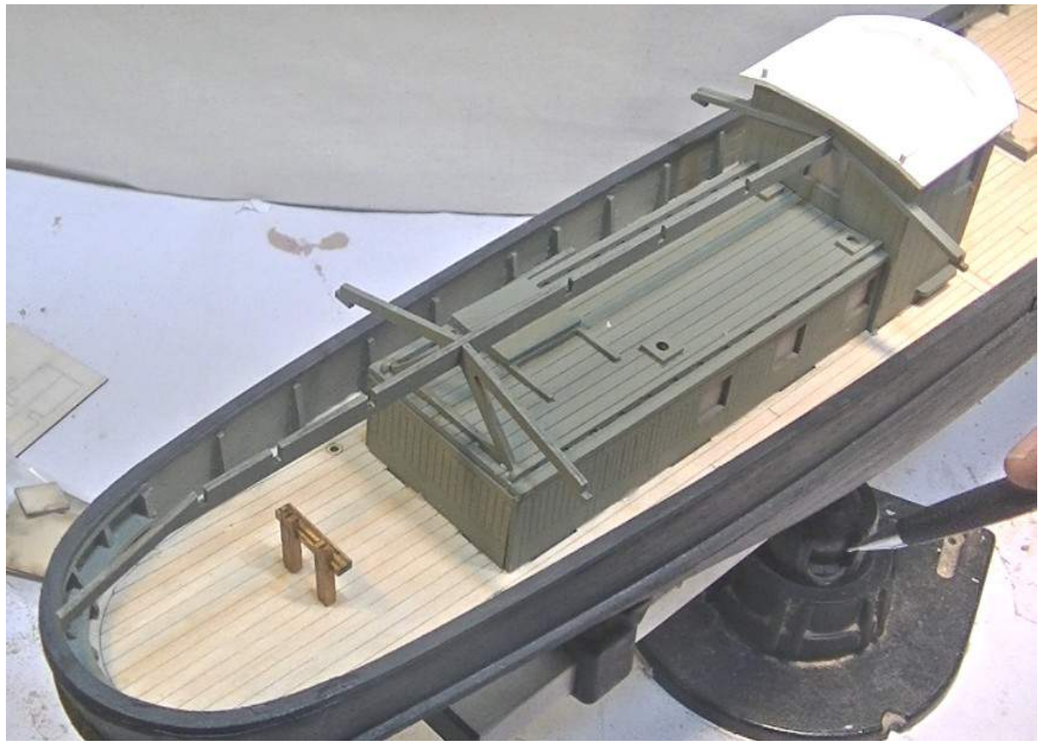




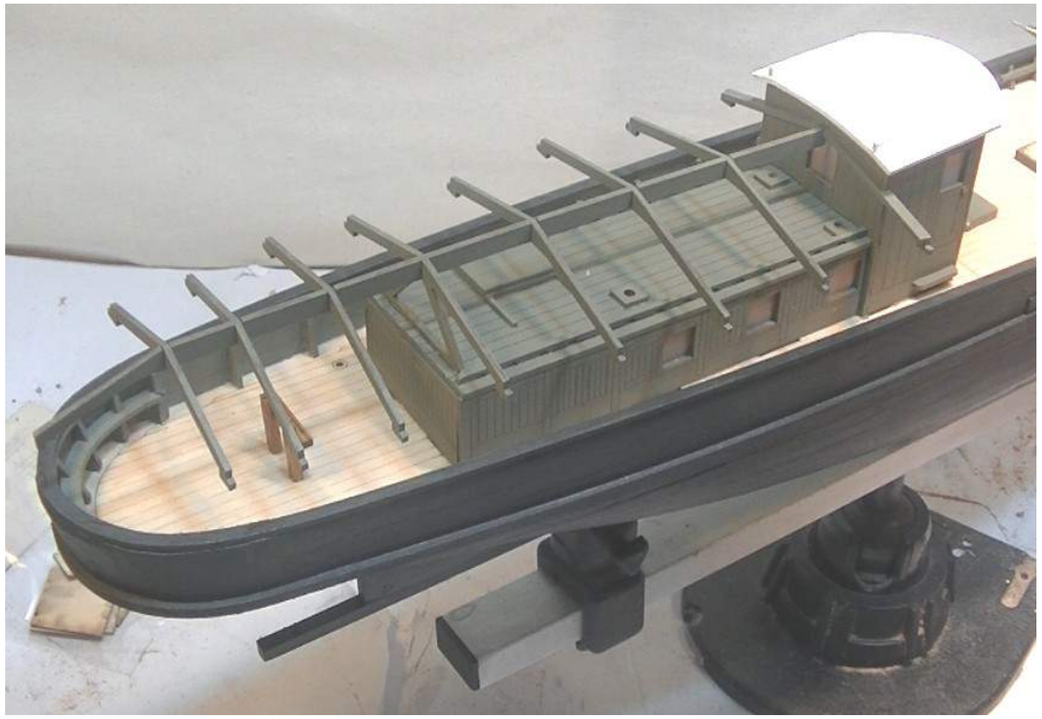
8.4 Canopy

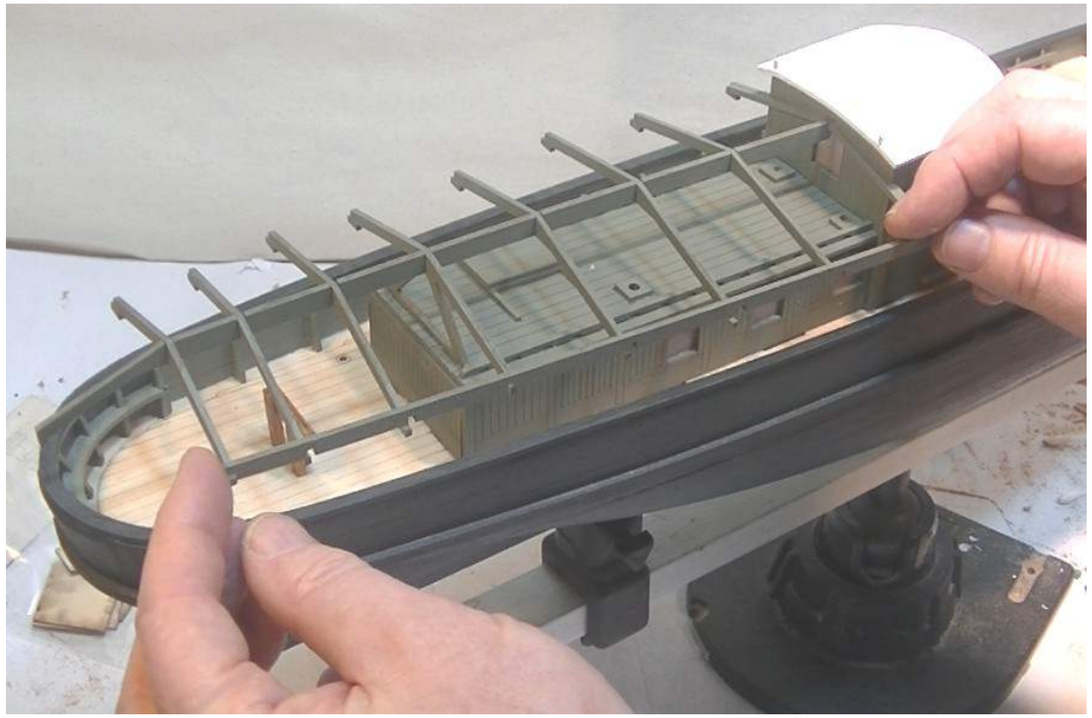
Step 1 Identify canopy frame 74E - trial fit and once satisfied glue in place as shown. Identify the canopy stringer P75 - trial fit and once satisfied glue in place as shown.

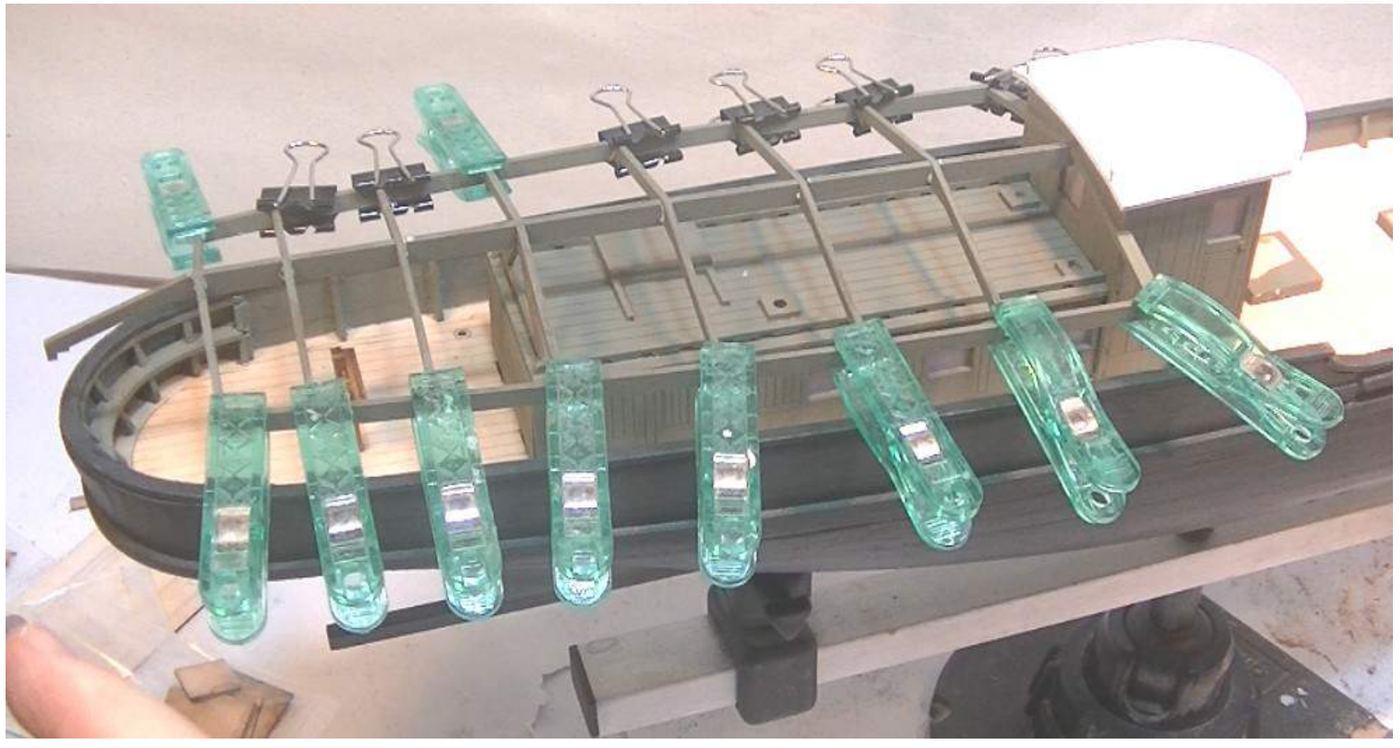




Step 2 Identify canopy frames 74B,C,D,F,G & H - trial fit each in place starting from the wheelhouse end and progressing to the stern - once satisfied glue each frame in place as shown. Identify the canopy sides A P76 - trial fit and once satisfied glue and clamp in place as shown.

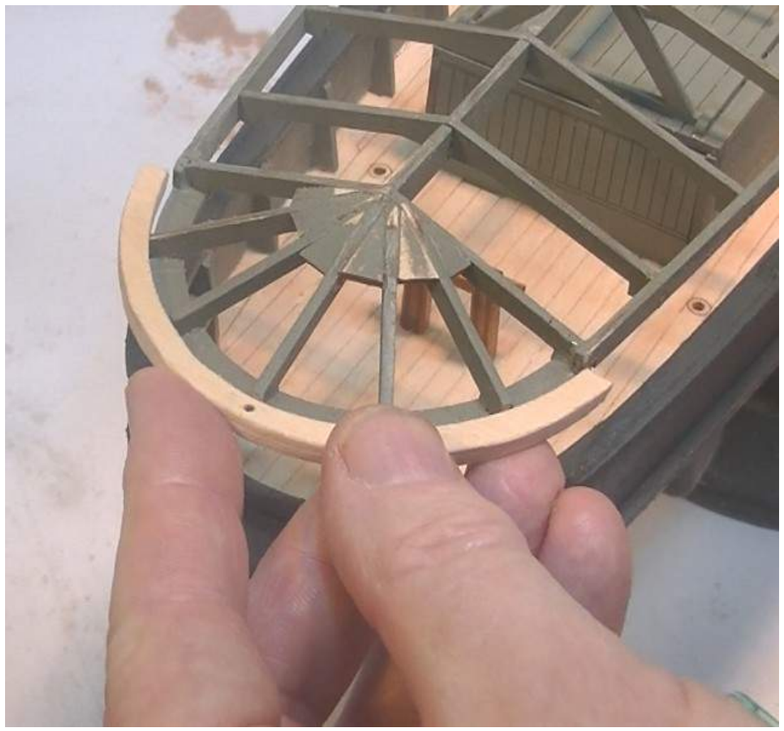




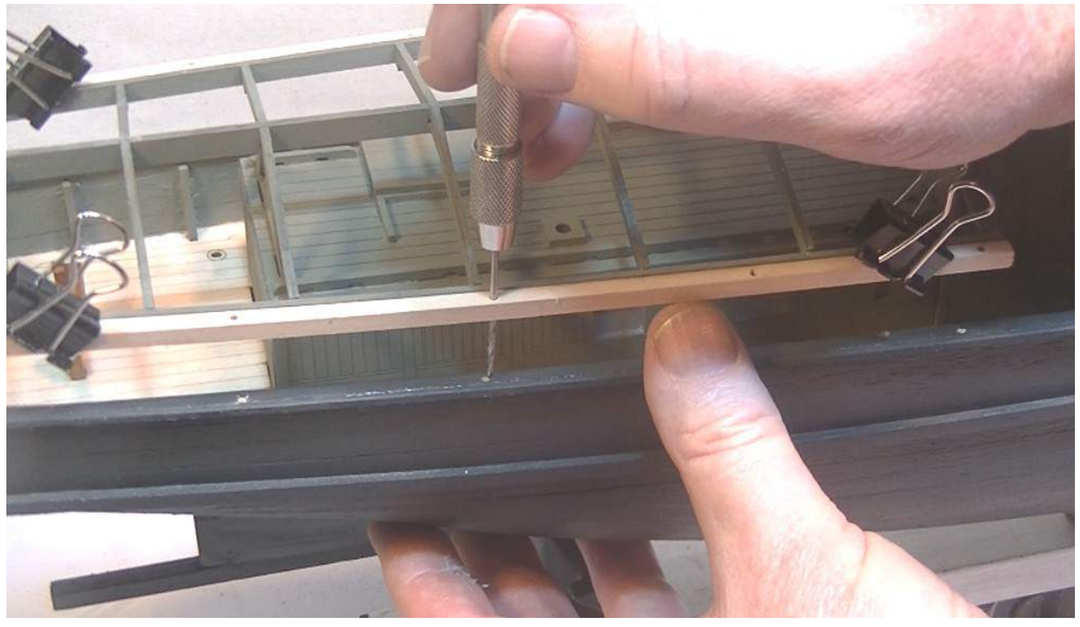


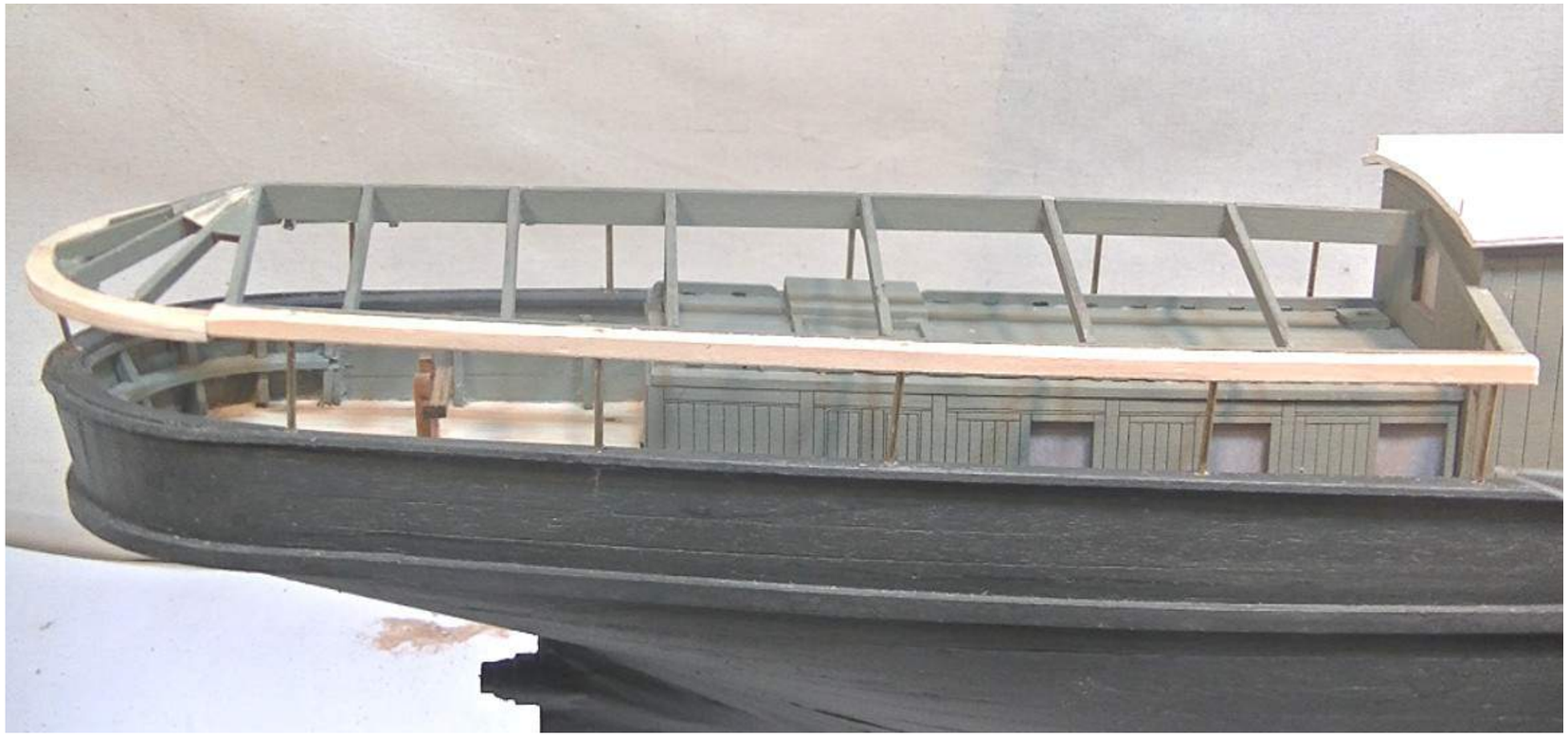
Step 3 Identify the canopy rear edge A P77 - trial fit and once satisfied glue and clamp in position. Identify the radial frames 78A and 78B - file the relevant ends from the score line to the opposite face. Trial fit in and glue in place as shown. Identify the radial fillers P79 - trial fit and then glue in place.

Step 4 Identify the canopy rear edge B - trial fit - glue and clamp in place as shown. Identify the canopy sides B P81 - trial fit - glue and clamp in place a shown.



Step 5 Use a pin vice to drill 1.5mm holes into the cap rail using the pre-laser cut holes as the guide - drill holes to a depth of 2mm - identify the 1.5mm brass rod P82 - cut lengths to fit into the cap rail and flush with the top of the canopy sides as shown.





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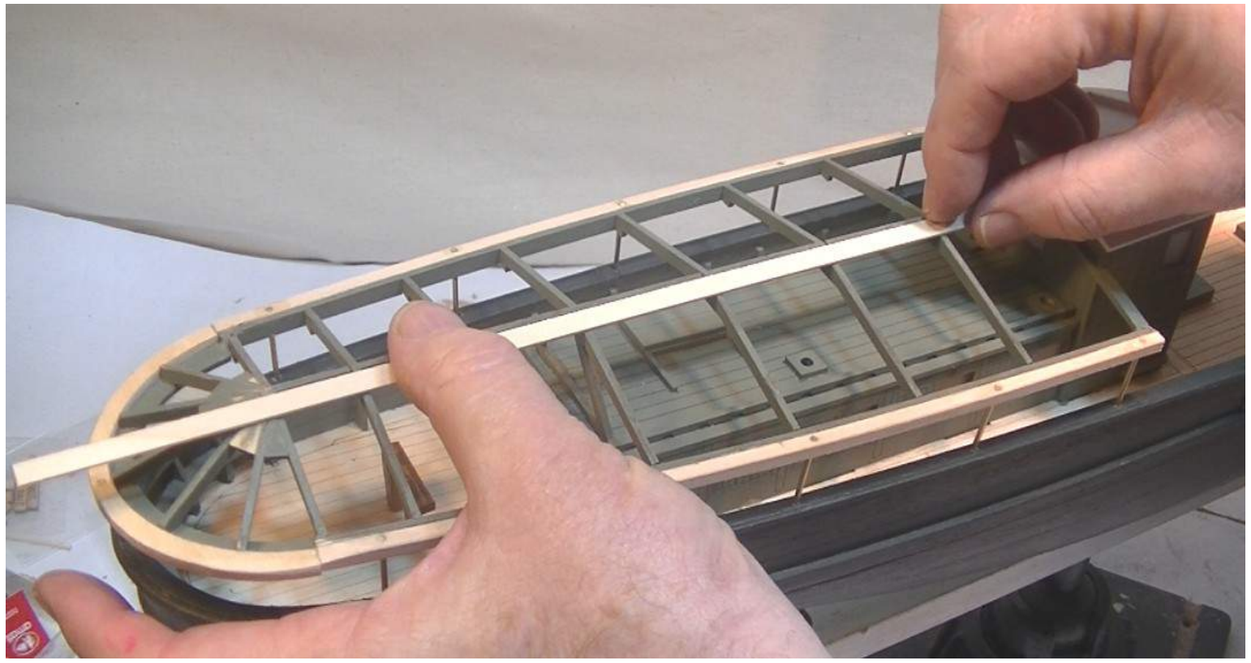
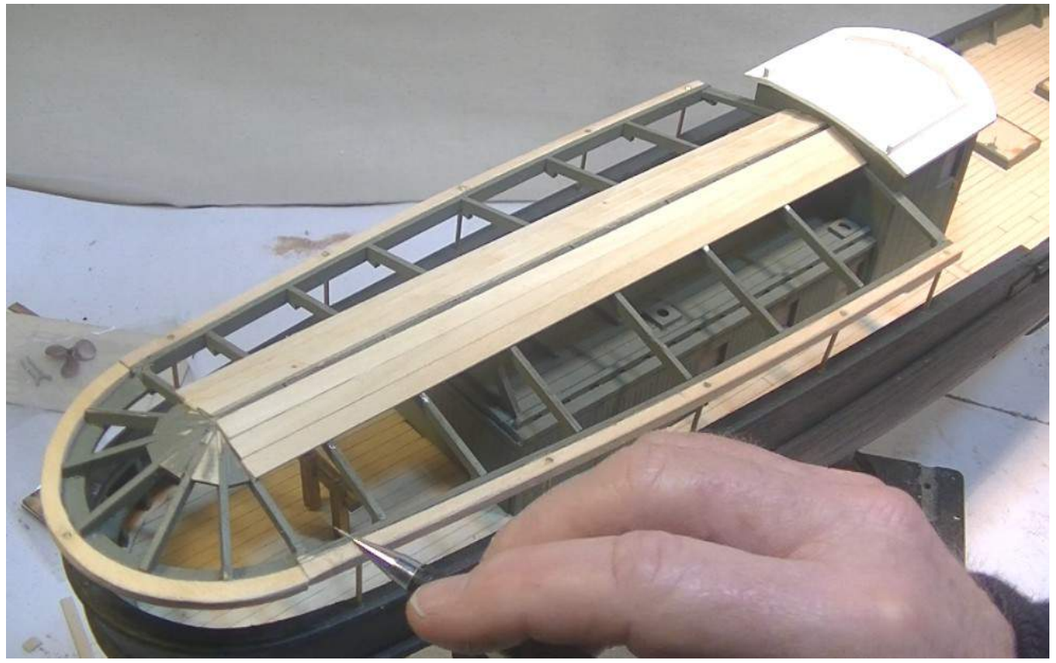
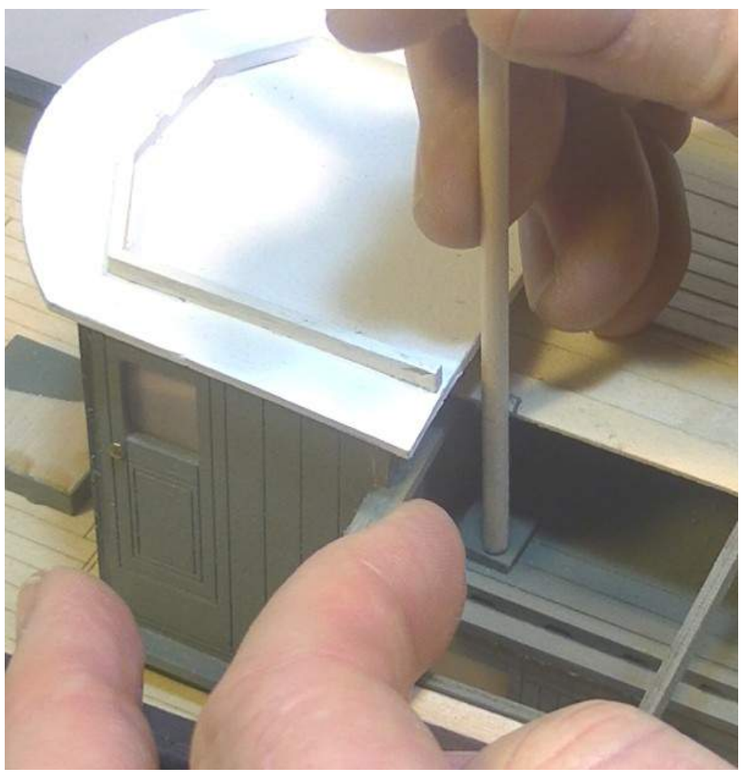
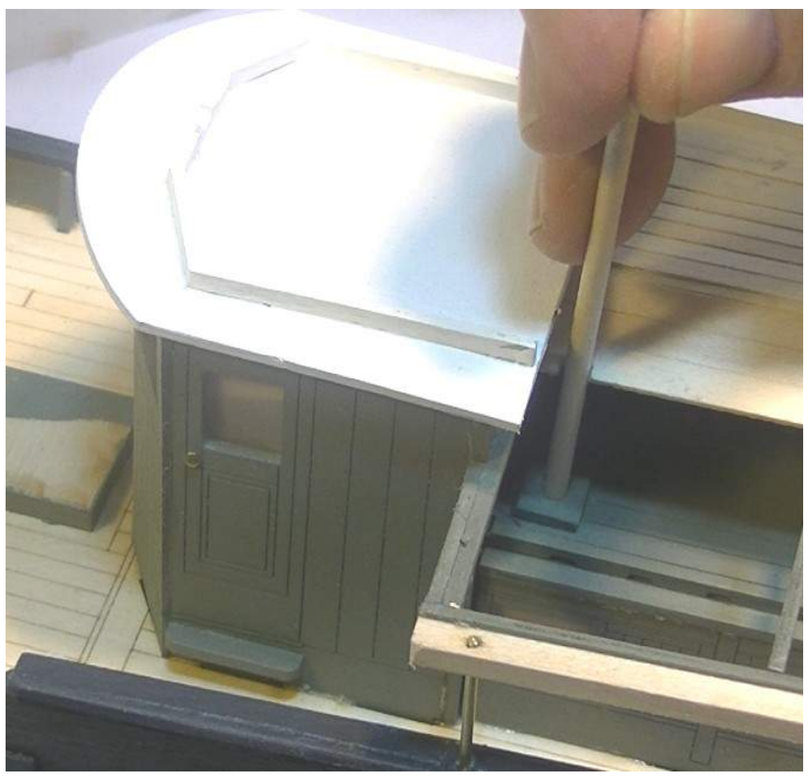
Step 6 Identify the 1x5mm limewood P39 - cut lengths to fit from the wheelhouse back wall to canopy frame H. Glue planks in place starting at the canopy peak and planking down over the frames as shown - as you progress take note of the location of the exhaust and ventilator flanges on the engine compartment roof - use vertical lengths of dowel to mark where the planks need to be shaped to accept the exhaust and ventilator pipes.



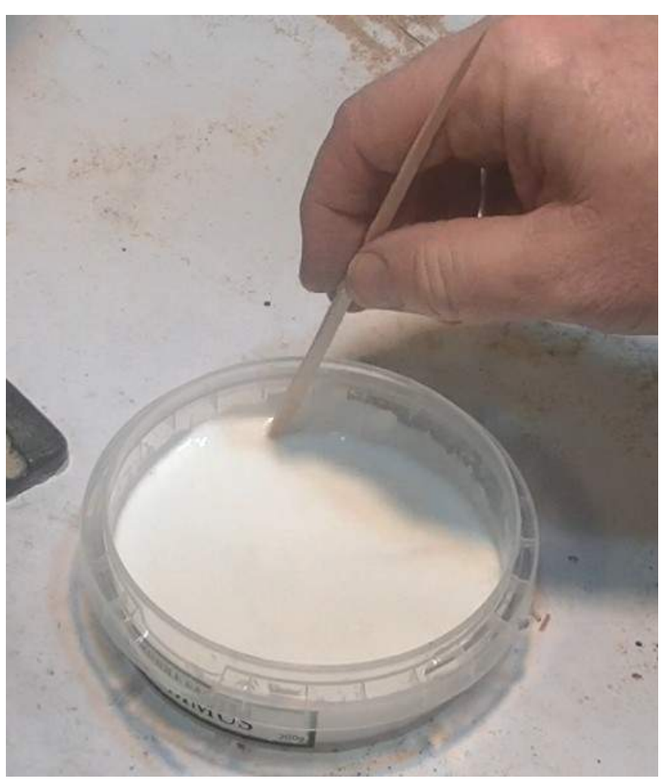






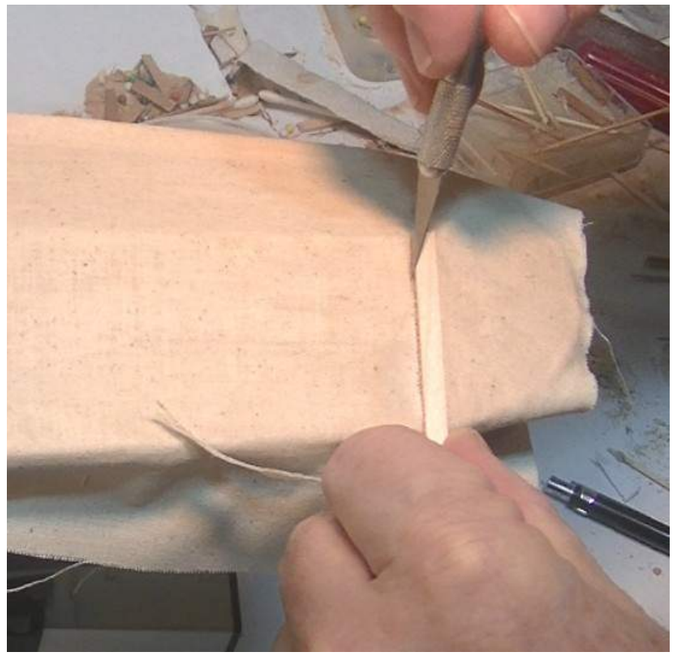
Step 7 Continue to plank down over the canopy frames - once you come past the end of the wheelhouse wall you will need to start tapering the planks. Continue until the canopy is covered as shown. Use off-cuts of 1x5mm limewood P39 to make wedges to cover the rear of the canopy roof as shown. Cut 2mm wide lengths of the 1x5mm limewood to cover the exposed canopy peak and the spine of the rear frames as shown. Fill any gaps with wood filler and sand to achieve a smooth finish. Glue and pin in place a length of tanganika P34 around the edge of the canopy and flush with the underside of the canopy as shown. Once glue has set trim-off excess to be flush with the roof planking.

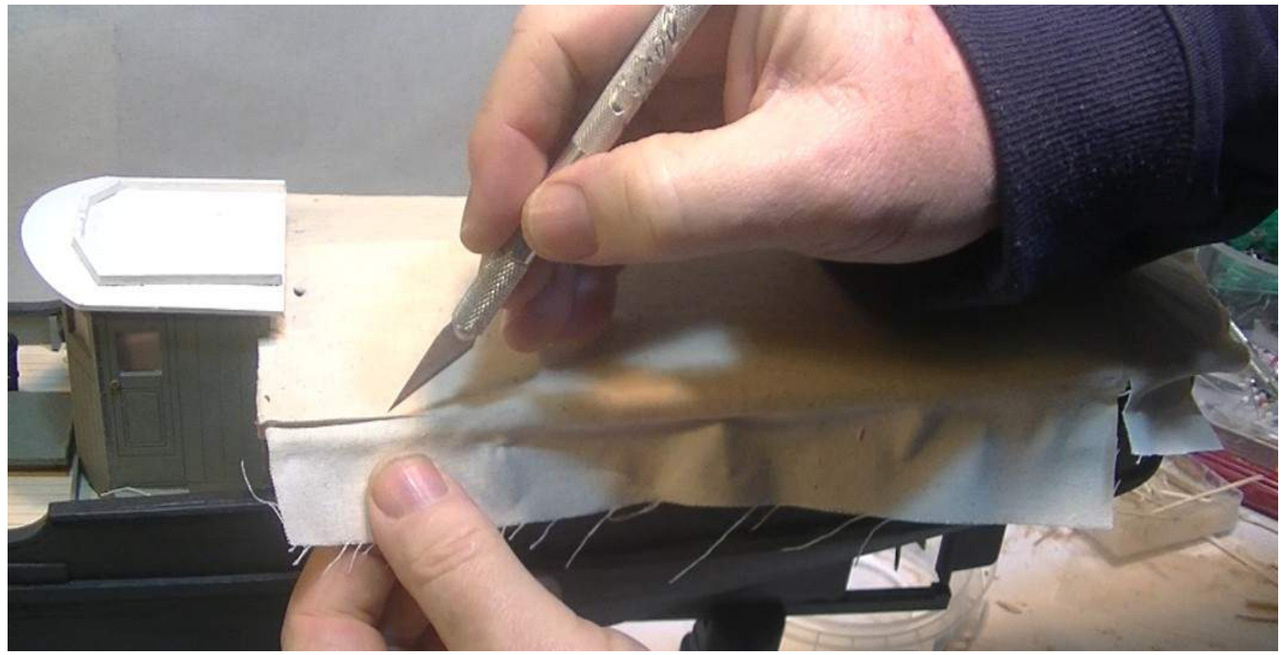
Step 8 Identify the calico fabric P83 - cut to 300x180mm . Place fabric onto canopy as shown and mark the location where the fabric meets the wheelhouse rear wall - cut-out this segment. Pull the fabric up to the rear and ensure the outer edges overhang the front of the canopy. Mix white wood glue with water and apply to the fabric on the canopy only up to the where frame H is located as shown - allow to dry and repeat.

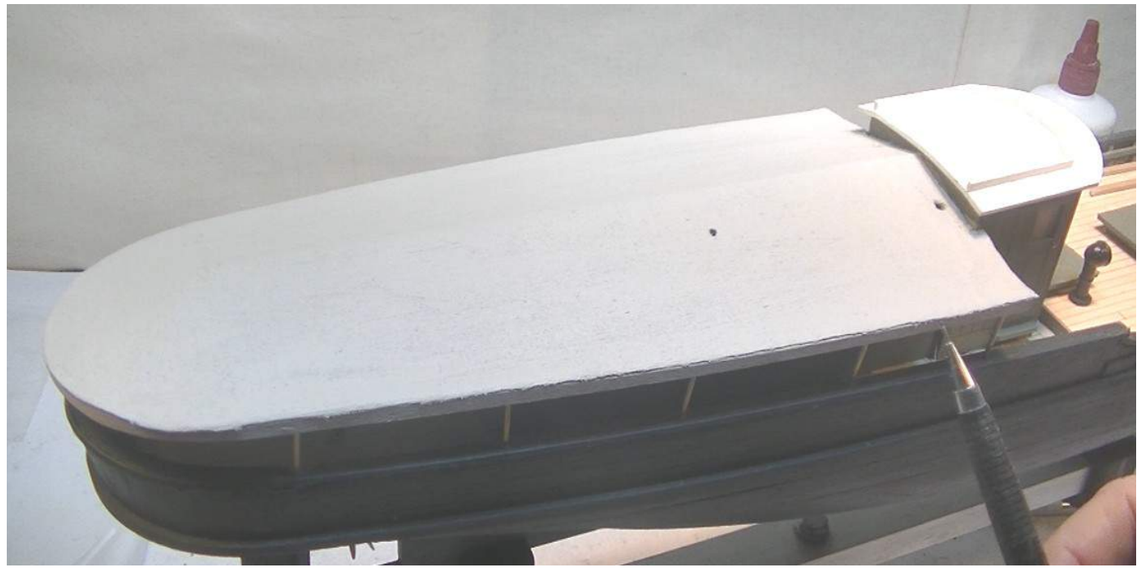


Step 9 Cut a straight line along frame H edge through the fabric to the outer edge of the canopy port side as shown - next wrap the rear un-glued fabric around the rear canopy frames as shown and pin the overlap as shown. Apply the glue solution to this rear area - allow to dry and repeat. Mark the locations of the exhaust and ventilator pipes and cut holes to suit.

Step 10 Once glue has set at the rear area use a straight edge and knife to remove the overhang - note you will be cutting through two layers of the fabric. Next trim the excess overhand from around the canopy as shown. If you wish paint the canopy a light blue/grey.







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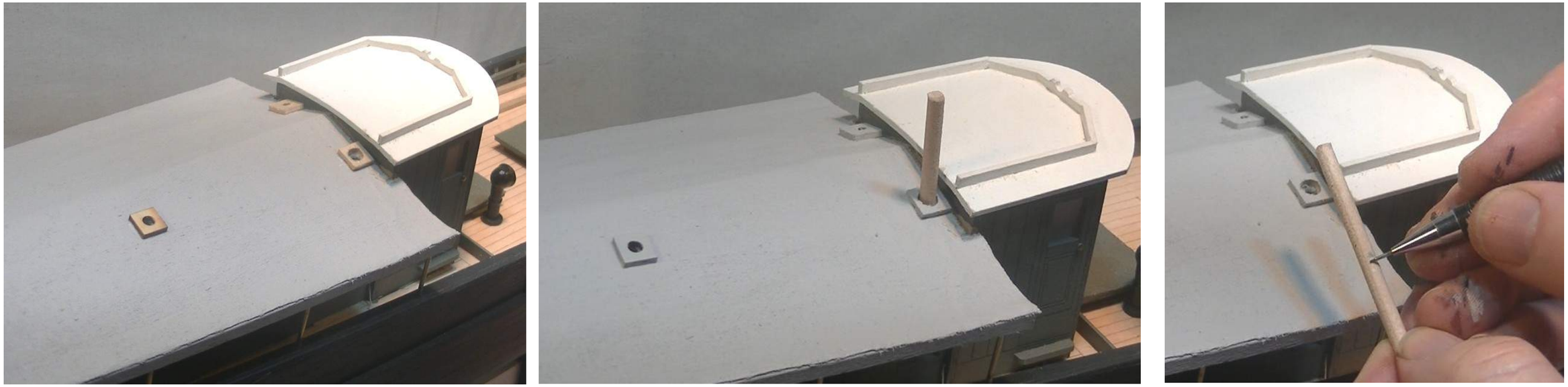
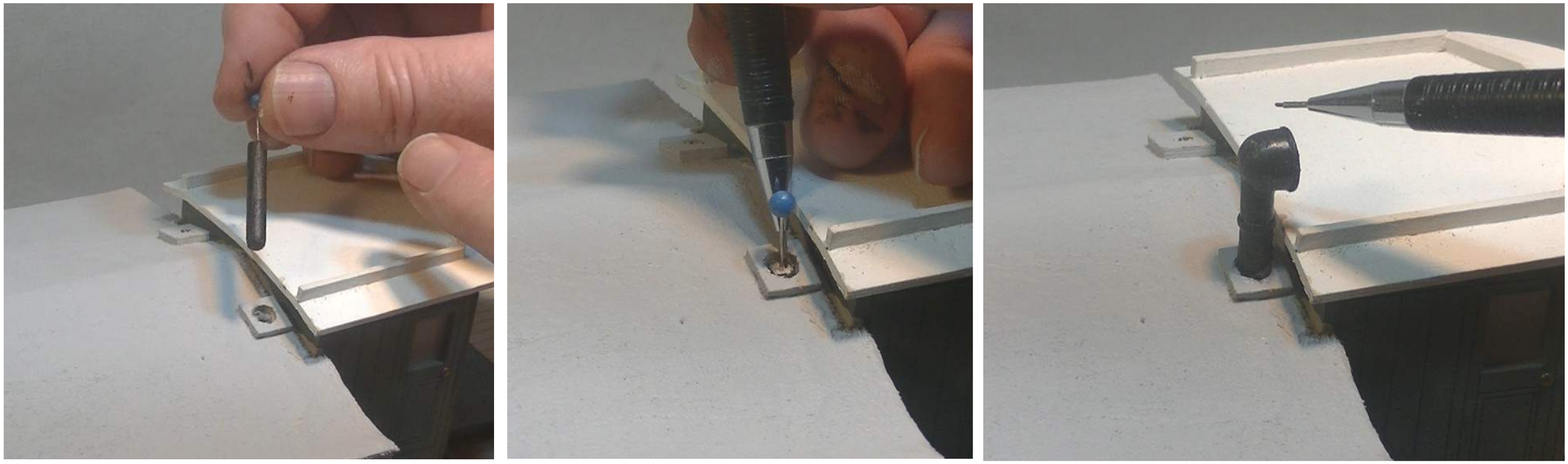
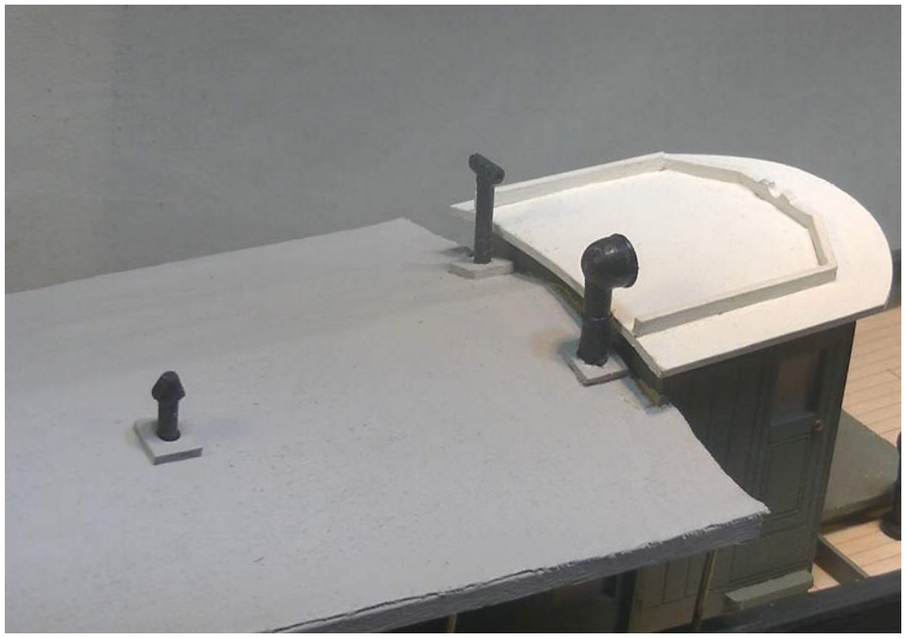
Step 11 Identify the exhaust flanges P66 and ventilator flange P67 - glue in position and paint as shown. Take a length of 4mm dowel P84 - fit through the ventilator flange making sure it is located into the flange on the engine compartment roof - mark the location on the dowel where it is flush with the flange. Come back from this line 2mm and cut the dowel at this point. Slightly taper the end of the dowel so it will easily fit into the roof flange - paint the dowel black and glue the dowel in place using a pin as shown to aid its fitting. Identify the ventilator P94 - paint black and glue in place as shown.

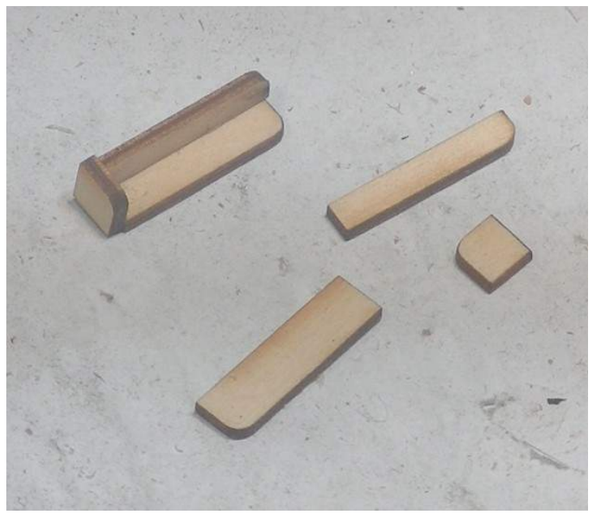


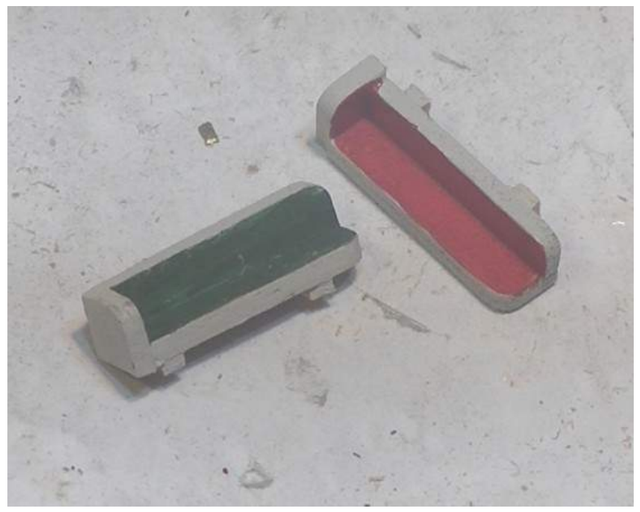


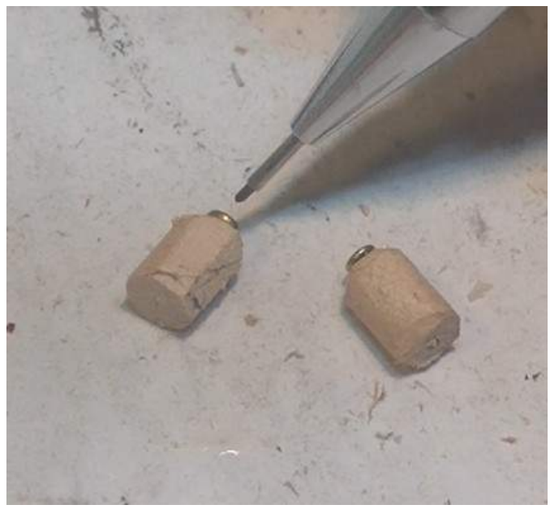
Step 12 Identify 3mm dowel P85 - cut a 44mm length and a 8mm length. Use a round needle file to shape a small groove at one end of the 44mm length of dowel. Glue the 8mm length in place centrally on the top as shown and paint black. Cut a 35mm length of dowel. Identify the exhaust pipe cap P86 - shape and glue in place as shown and paint black. Glue both exhaust pipes in place as shown - make sure each is fitted in their respective flanges on the engine compartment roof.

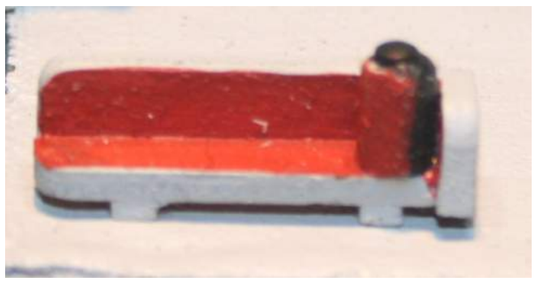


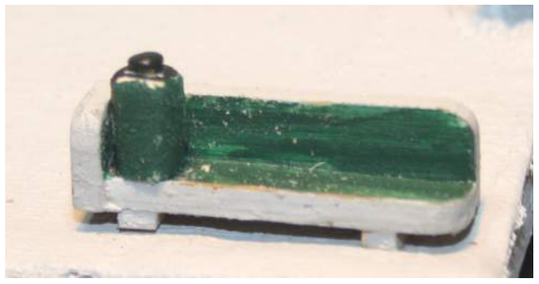
Step 13 Identify the navigation light housings P87A-C. Assemble as shown. Using 1x5mm limewood P39 cut 4 x 2mm wide lengths and glue in place on the base of each housing as shown. Paint outside frame same colour as the canopy roof. Paint inside of the port housing red and the starboard housing green as shown. To make the navigation lanterns cut 2 x 4mm lengths of 4mm dowel - file two flat faces as shown on each length. Drill a 0.8mm hole through the centre of each dowel length - glue a brass nail P56 into each hole. Paint the flat faces red and green for the respective port and starboard lanterns. Paint the remaining part of the dowel black as shown. Glue the relevant lantern in place on its housing as shown.











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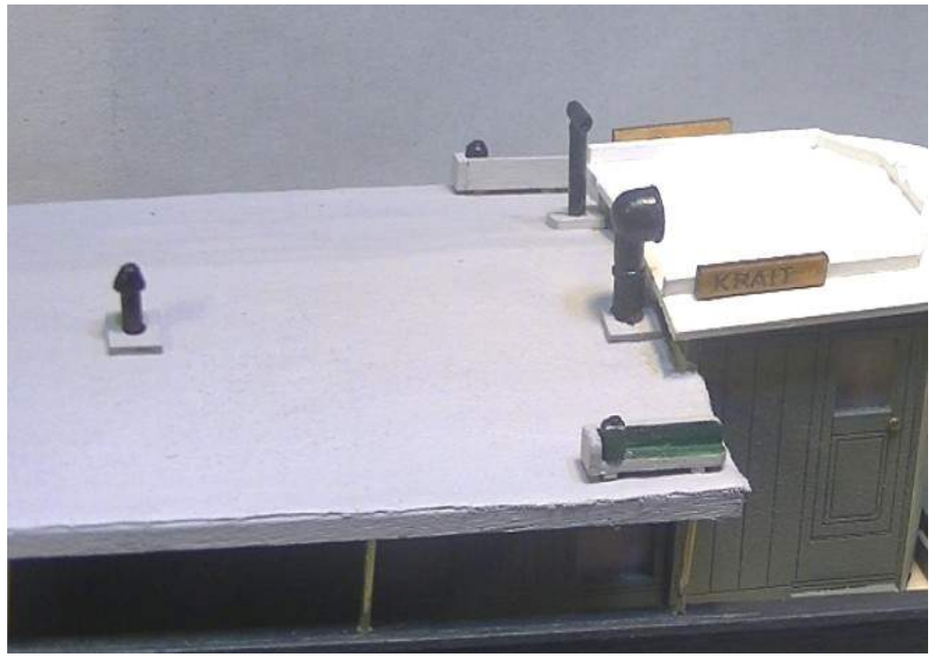
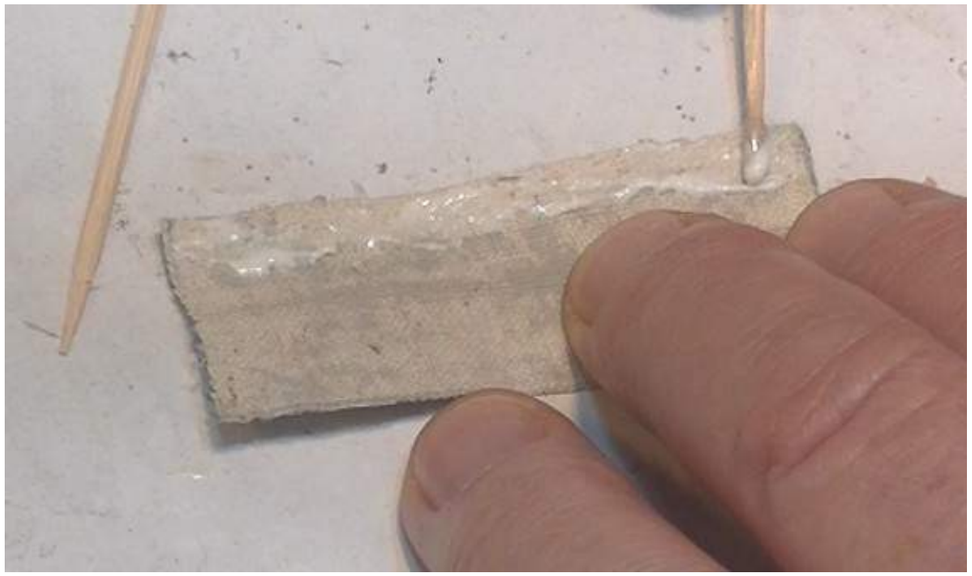
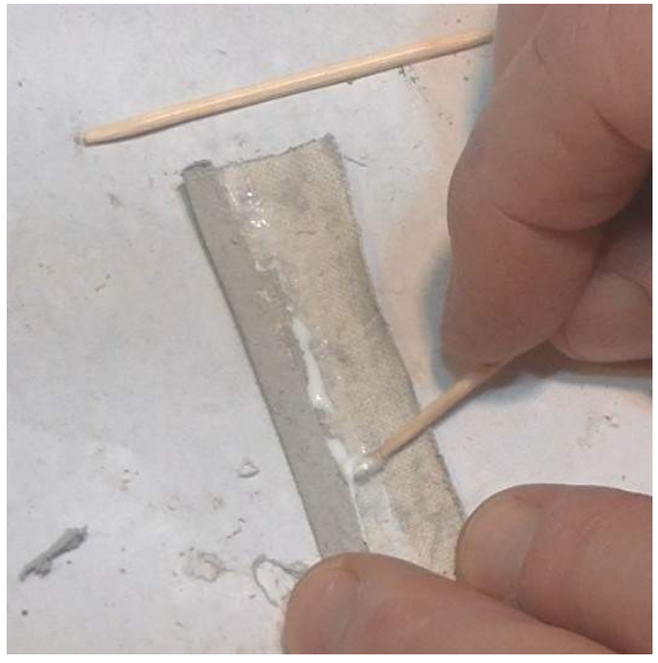
Step 13 Glue the navigation housing in place as shown. Identify the Krait name plates P88 - stain with shellac—glue in place as shown.

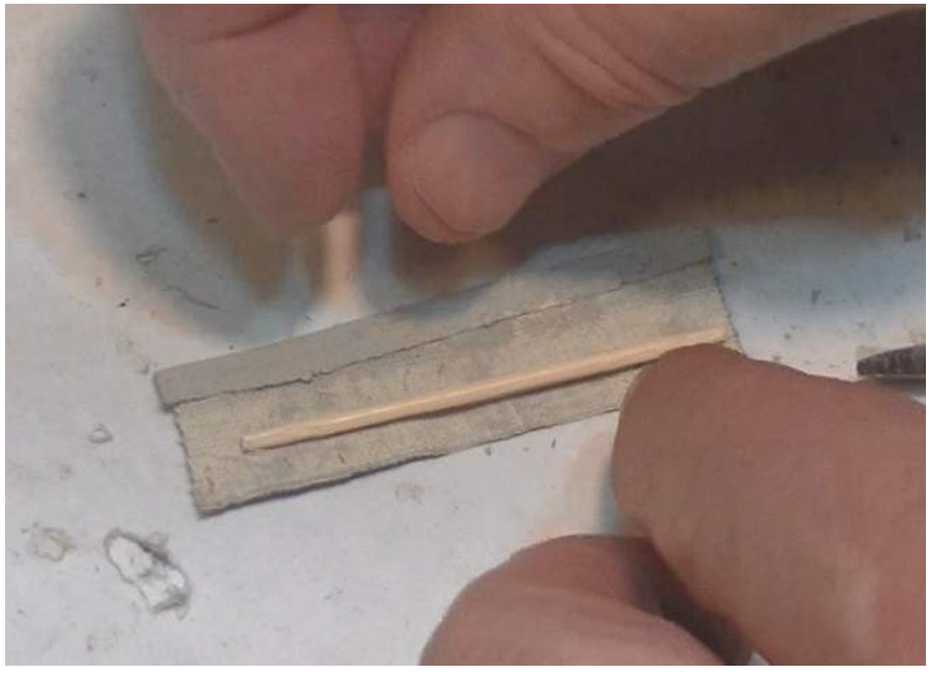


Step 14 Next we will be making the curtains for the sides of the canopy **-** From the calico P83 mark-out and cut 8 pieces 60x25mm - these will form the curtains that are rolled-up. Then mark-out and cut 2 pieces 60x35mm - these will be curtains fully extended. Paint these pieces of calico the same colour as the canopy. Once the paint is dry trim-off any loose treads.

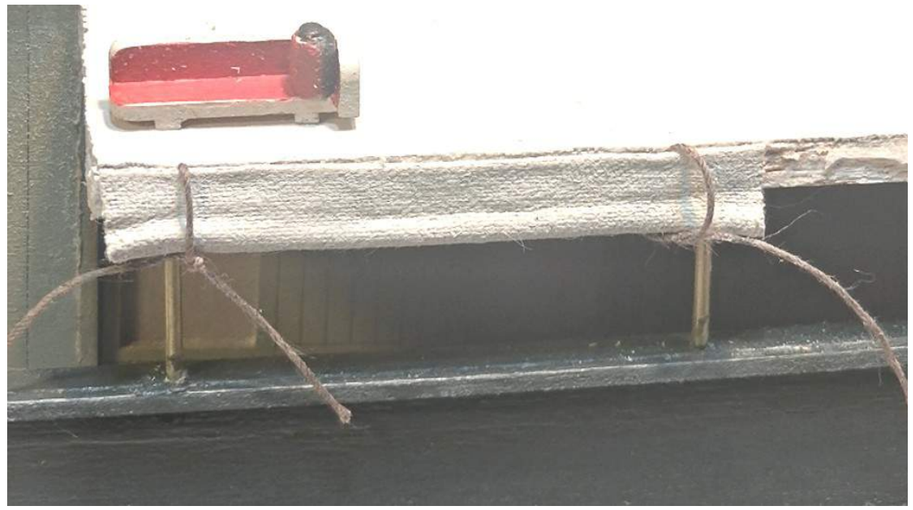
Step 15 Take one of the smaller calico pieces - smear white wood glue along one edge as shown - fold the edge over upon its self as shown. Smear more white wood glue along below this folded edge as shown - take a tooth pick - trim the sharp ends off and fold the curtain from the bottom edge over the tooth pick. Press the rolled curtain firmly down in place as shown. Repeat for the remaining side curtains. For the two rear folded curtains do not insert a tooth pick.

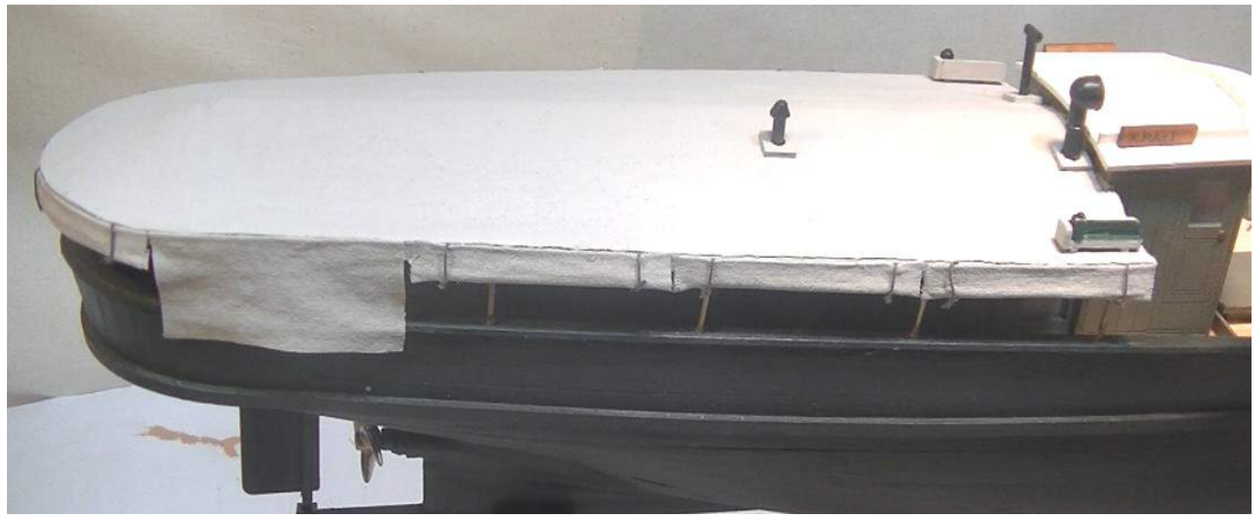






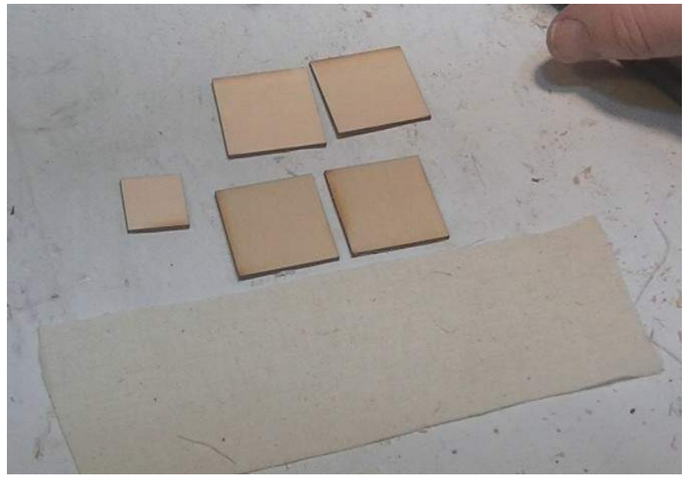
Step 16 To fit the rolled curtain in place first cut two lengths of 0.5mm brown cord P89 cord G and wrap around the curtain and tie a loose knot as shown. Apply glue to the back top edge of the curtain and press firmly in place as shown. Once glue has set complete by making a second knot in the cords - apply a dab of glue and trim-off excess. Repeat for the other rolled curtains as shown. For the extended curtains apply glue to the top edge and press in position. Fit the curtains as shown.

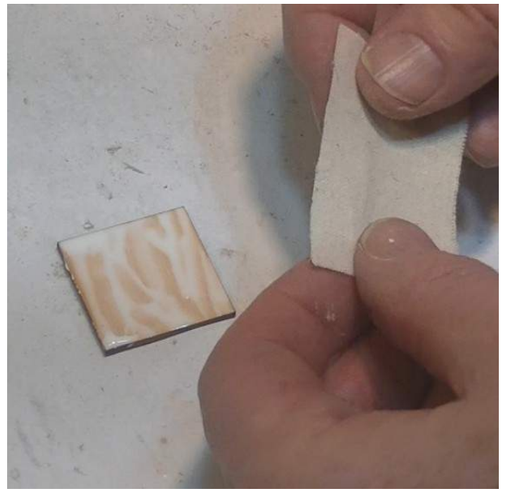


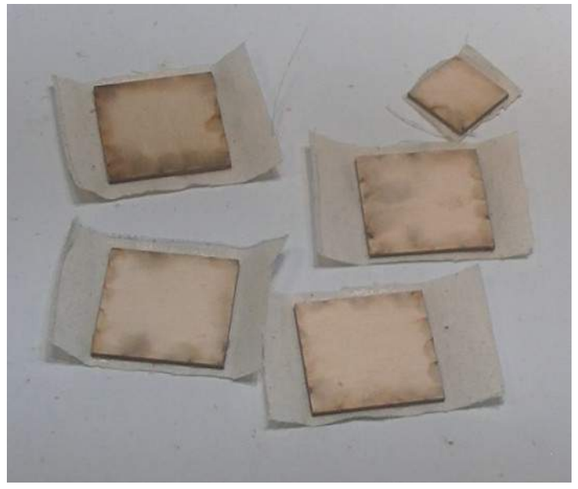


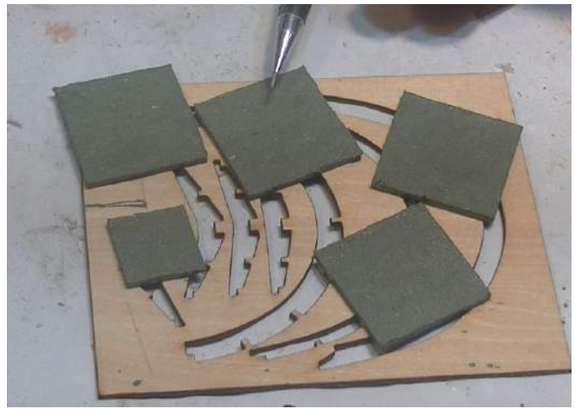
CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

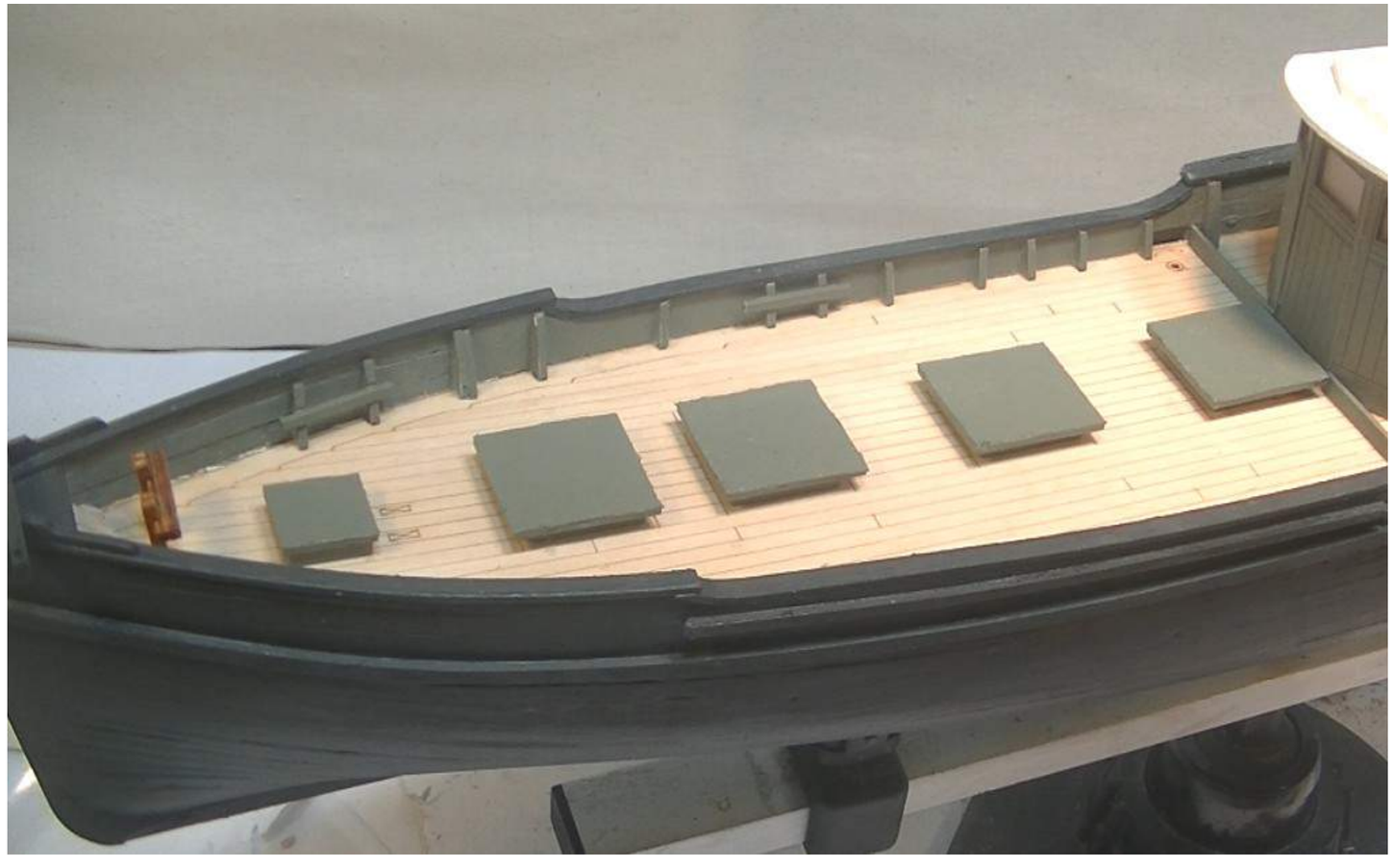
8.5 Deck Hatches Identify the deck hatch bases A P90 - paint edges khaki green as shown - glue each in position on the deck at the laser scribed locations. Identify the deck hatch base B P91 - paint edges khaki green - glue in position on the deck at the laser scribed location as shown. Identify the deck hatch covers P92 & P93 - cut pieces of calico to cover each hatch - glue calico pieces in place as shown. Trim-off excess calico. Paint the hatch covers khaki green as shown - glue each cover in place on the relevant base as shown.











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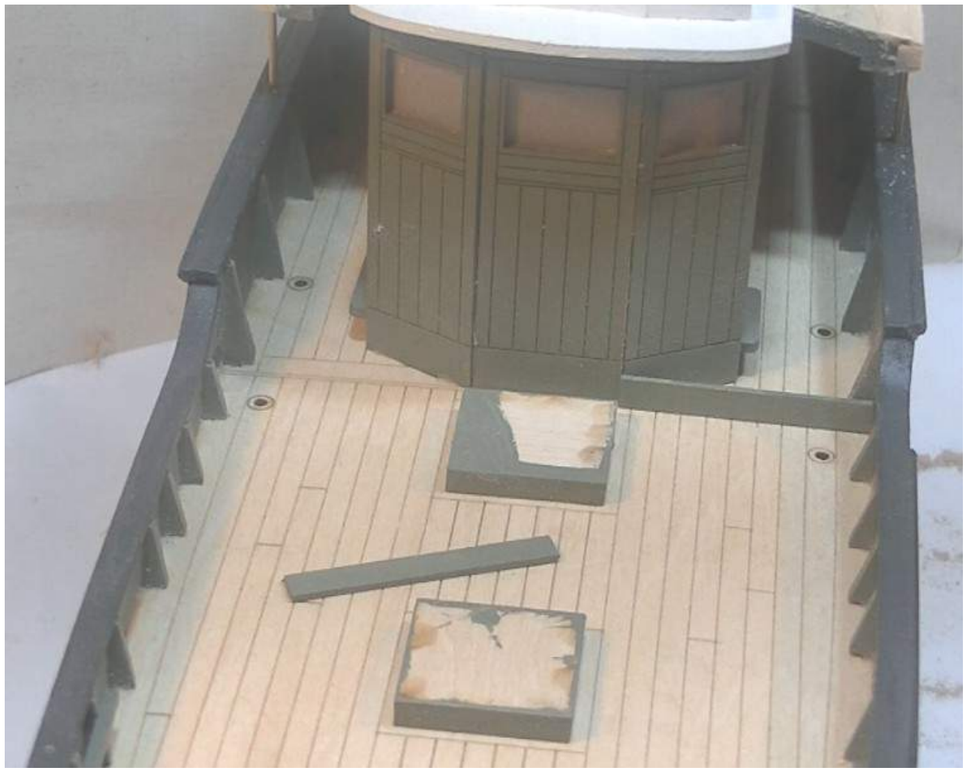
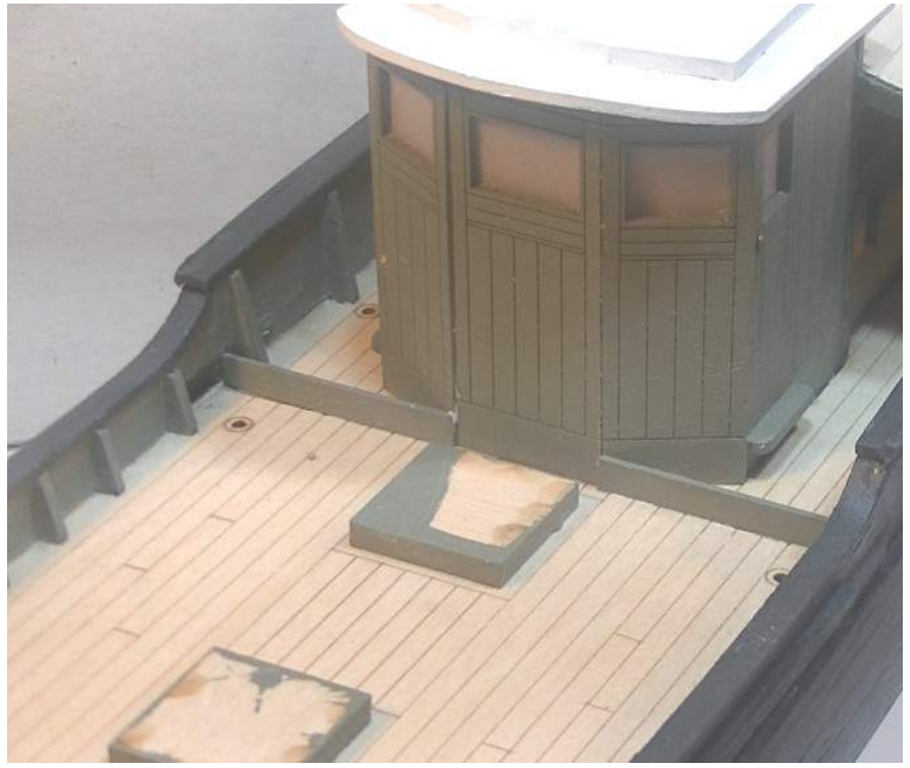
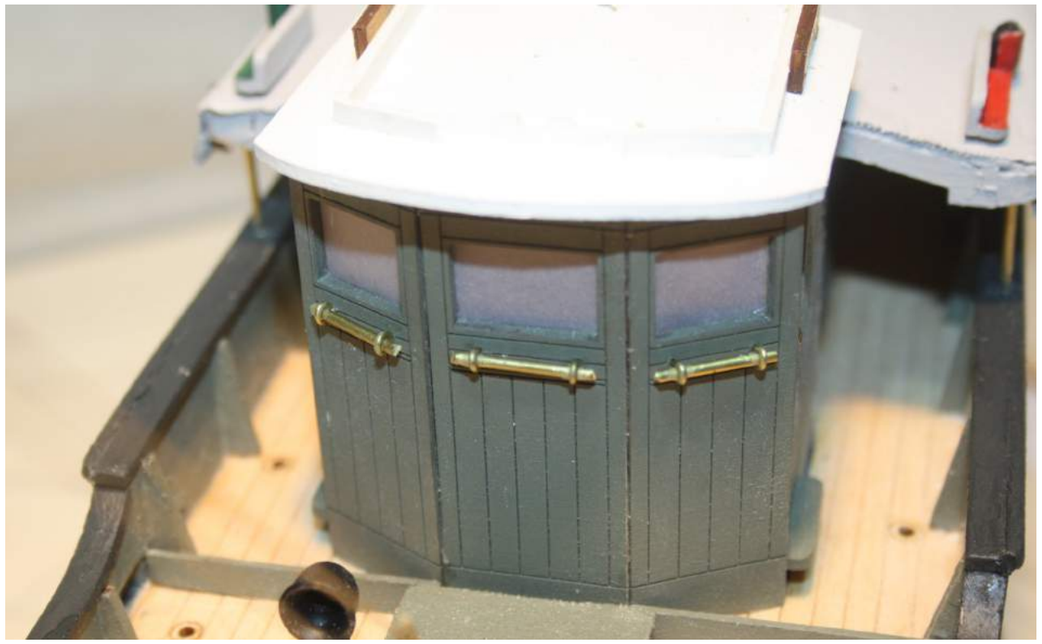
8.6 Deck Ventilators Identify the ventilators P94. Identify the ventilator deck flanges P95. Glue the ventilators to the flanges and paint black. Glue in place on the deck at the laser scribed positions.

8.7 Deck Wash Barriers Cut two 40mm lengths of 1x5mm limewood P39. Paint khaki green and glue in place as shown.



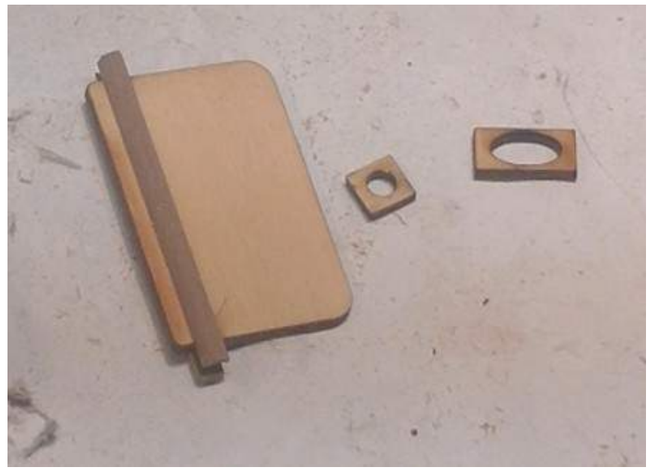


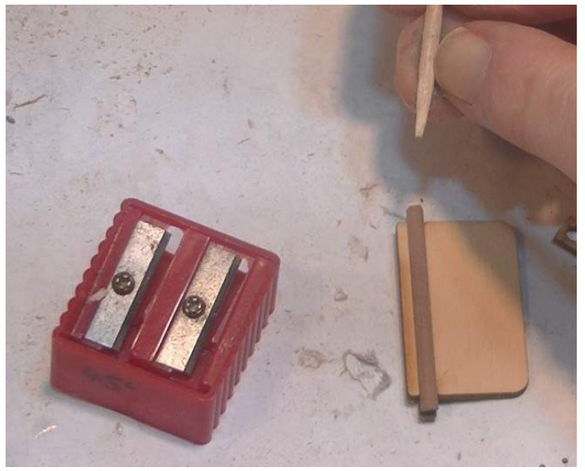
8.8 Wheelhouse Rails Identify the eye pins P96. Drill holes to fix the eye pins in place as shown - cut lengths of 1.5mm brass rod P82 to fit through the eye pins a shown - apply a dab of glue to hold brass rods in place.



8.9 Propeller Cut a 10mm length of 3mm dowel P85 - glue in place and paint black as shown. Identify the propeller P97 - paint gold to represent bronze - trial fit propeller - trim-off any excess dowel. When satisfied glue the propeller in places as shown.

8.10 Rudder Identify the rudder P98. Identify the 3mm half round walnut dowel P99 - cut two 40mm lengths. Glue in place along the laser score mark and repeat for the other side as shown. Identify the upper and lower flanges. Take a length of 3mm dowel P85 and shape the end with a pencil sharpener - cut two pieces to 10mm in length as shown - glue these two pieces into the top and bottom slots of the rudder. Glue the upper flange in place aligning with the pre-cut hole in the keel plate. Place the lower flange onto the lower dowel and trial fit in place - fractionally adjust the length of the dowel pieces until the assembled rudder fits snugly in place - once satisfied glue the assembled rudder and lower flange in place.

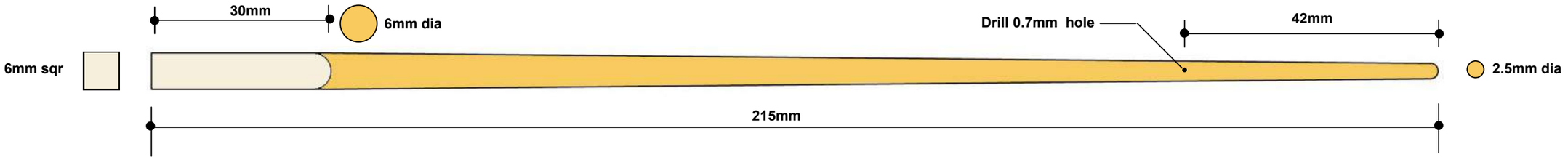


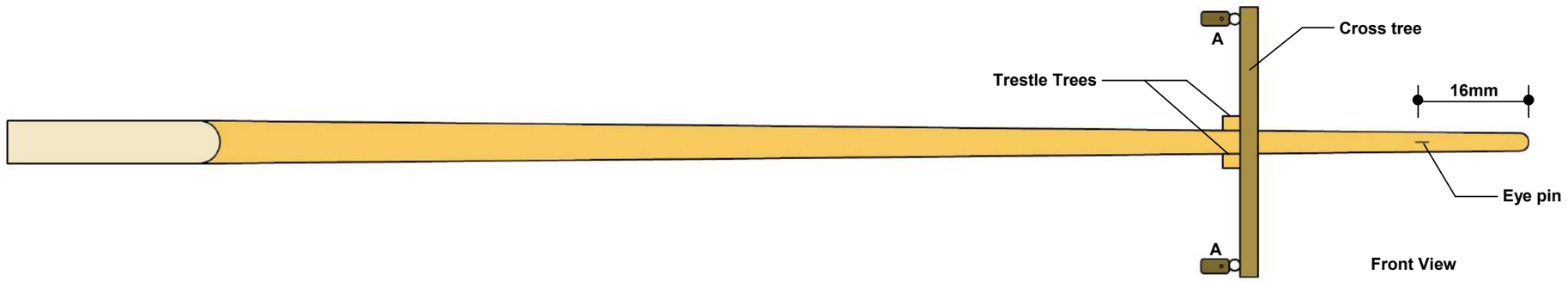


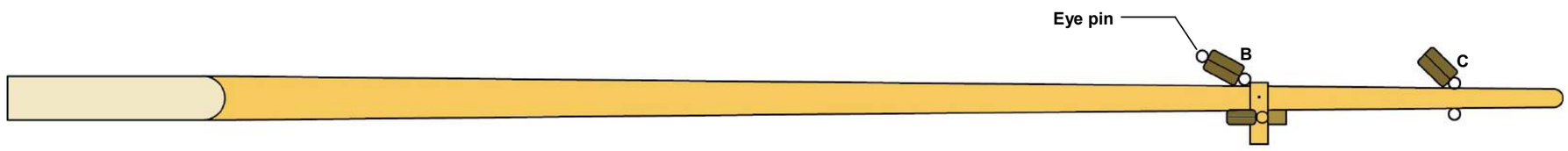
9.0 Mast, Boom, Gaff & Flag Staff

Step 1 Mast Identify the 8mm dowel P102 - cut and shape the dowel to the dimensions shown. Stain round tapered part of the mast with shellac. Paint the square section white. Drill a 0.7mm hole as shown. Identify the trestle trees P104 - stain with shellac - fit the trestle trees to a pin and fit pin through hole then glue in place either side of the mast as shown. Identify the cross tree P104 - stain with walnut - glue in place a shown across the trestle trees. Identify the eye pins P96 - fit an eye pin where shown and to all locations where blocks are fitted as shown. Identify the blocks A, B & C - P105, P106 & P107 respectively. Identify cord D P108. Use cord D to tie relevant blocks to their eye pin.

NOT TO SCALE





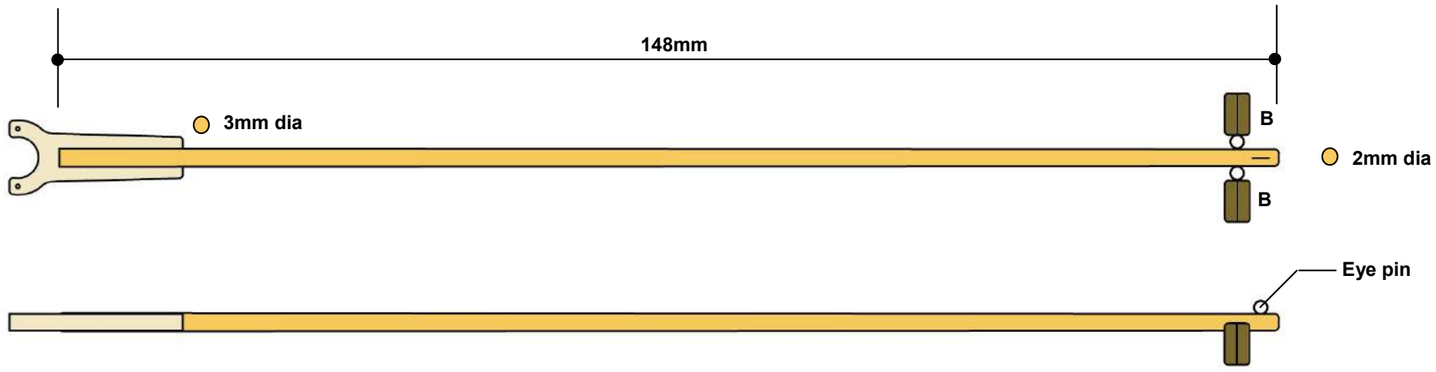


CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

BLOCK KEY		
Size	1 hole	2 hole
4mm	A	—
5mm	B	C

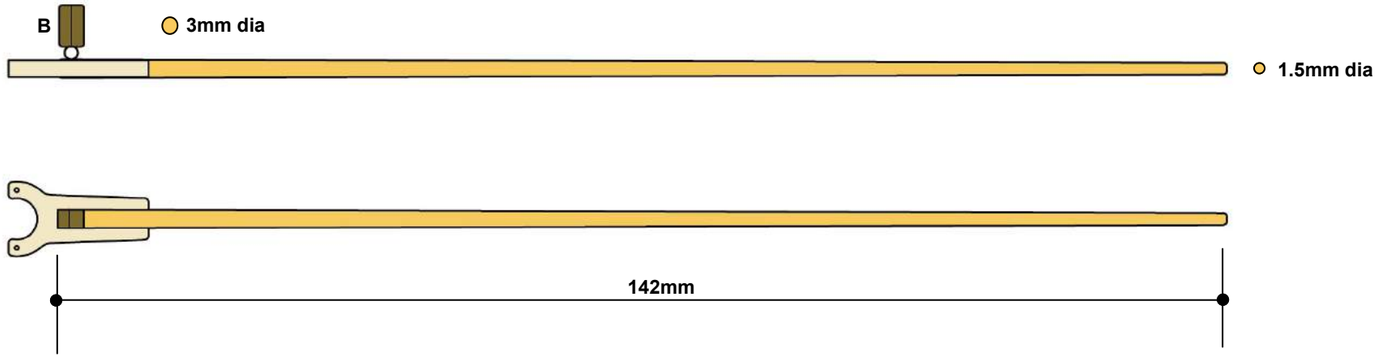
Step 2 Boom Identify the boom yoke P112 - paint white. Identify the 3mm dowel - cut and shape to the dimensions shown below - stain with shellac. Shape to fit the boom yoke in place - once satisfied glue the yoke in place. Identify the eye pins P96 - fit an eye pin where shown and to all locations where blocks are fitted as shown. Identify the block B P106. Use cord D to tie blocks to their eye pin.

NOT TO SCALE

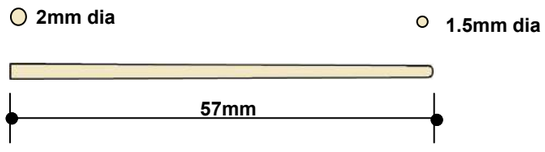


Step 3 Gaff Identify the gaff yoke P114 - paint white. Identify the 3mm dowel - cut and shape to the dimensions shown below - stain with shellac. Shape to fit the gaff yoke in place - once satisfied glue the yoke in place. Identify the eye pins P96 - fit an eye pin to the location of the block as shown. Identify the block B P105. Use cord D to tie block to the eye pin.

NOT TO SCALE



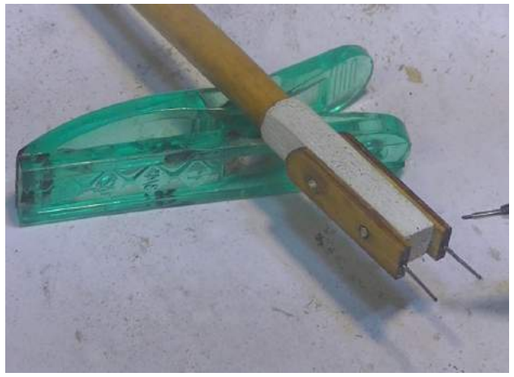
Step 4 Flag Staff Identify the 2mm dowel P128 - cut and shape as shown. Paint white.

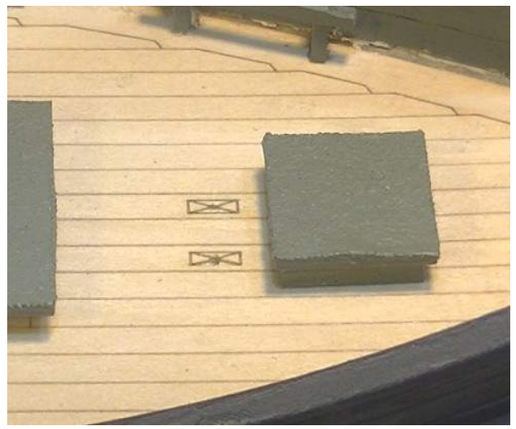


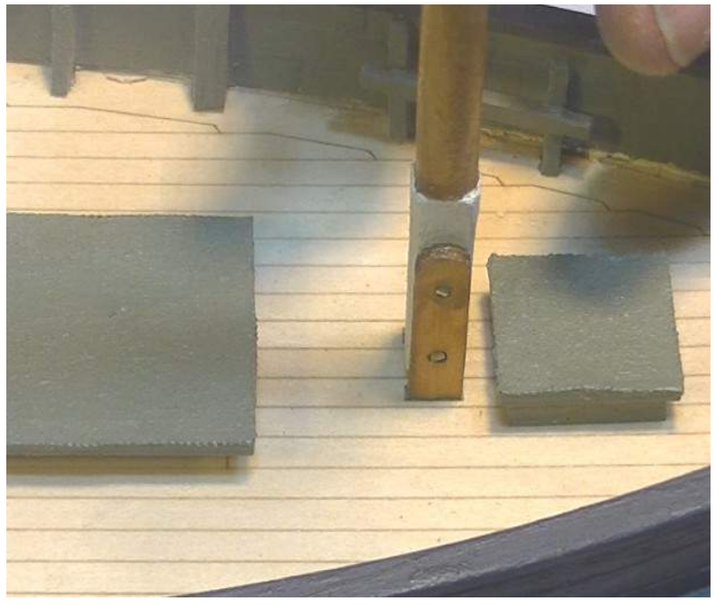
CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

BLOCK KEY		
Size	1 hole	2 hole
4mm	A	—
5mm	B	C

Step 4 Mast Stands Identify the mast stands P114 - note the angled base edges of the stands - this accommodates the sheer of the deck at the bow. Stain with shellac. Trial fit the stands to the two opposite faces of the mast making sure the mast is 2mm above the base of the stands as shown. Also note the orientation of the mast is as shown with the stands fitted to the deck to reflect the deck sheer. Once the stands are properly located drill 1.5mm holes through the square section of the mast - glue lengths of 1.5mm brass rod P82 through these holes as shown. Glue pins into the base of the stands as shown - locate the laser score marks of the deck and drill 0.7mm holes at the centre points then glue the mast in place as shown. For the boom rest cut a 3x5mm length of 2x5mm basswood P24 - stain with shellac and glue in position of the rear side of the mast as shown.







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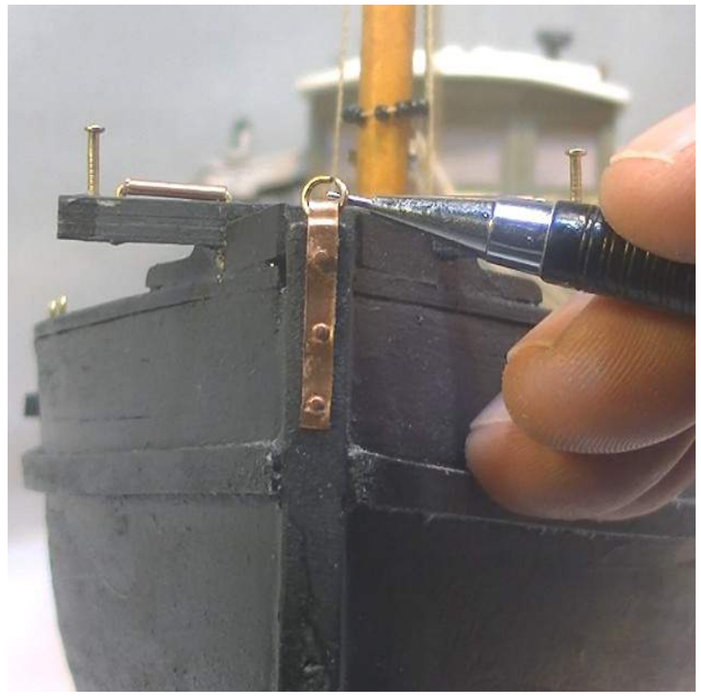
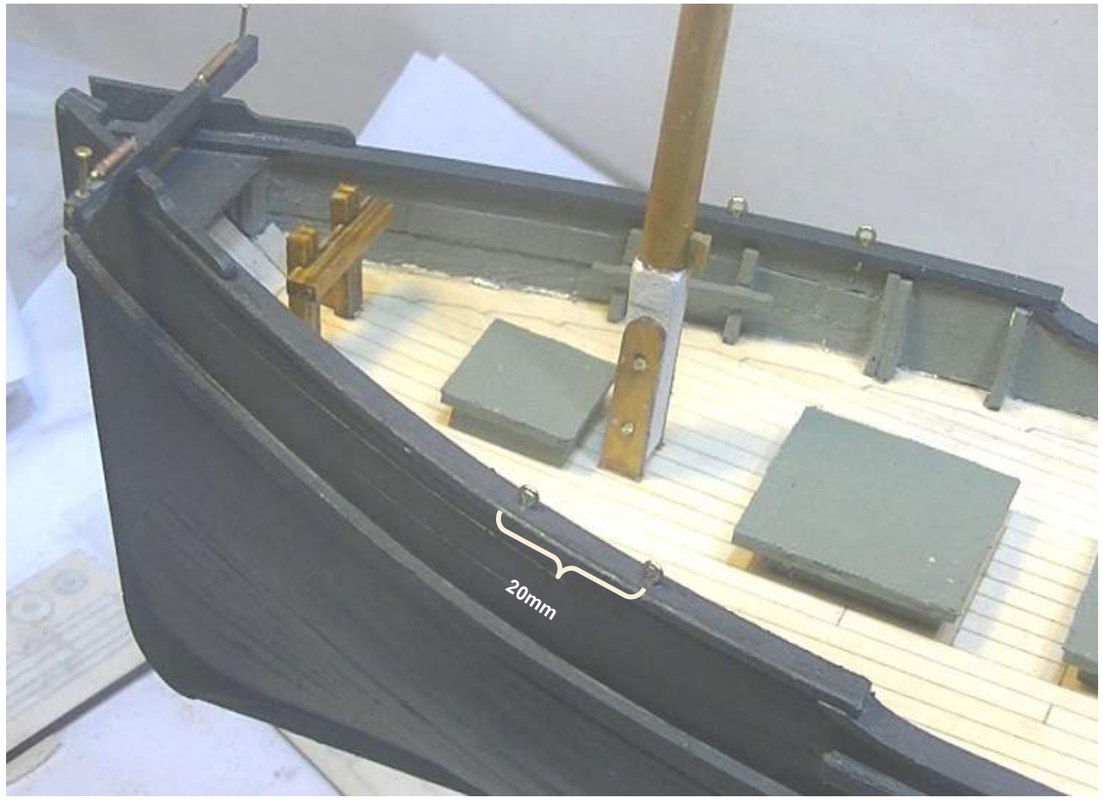
Step 5 Fairleads & Net Guides Identify the nails P56 - glue in place into the pre-laser cut holes as shown. identify the 1.5mm copper tube P115 - cut two 9mm lengths. Take two eye pins P96 - cut loop off and shape shaft as a right angle - glue into the ends of the tube as shown. Drill holes to fit and fix the assembled fairleads as shown.

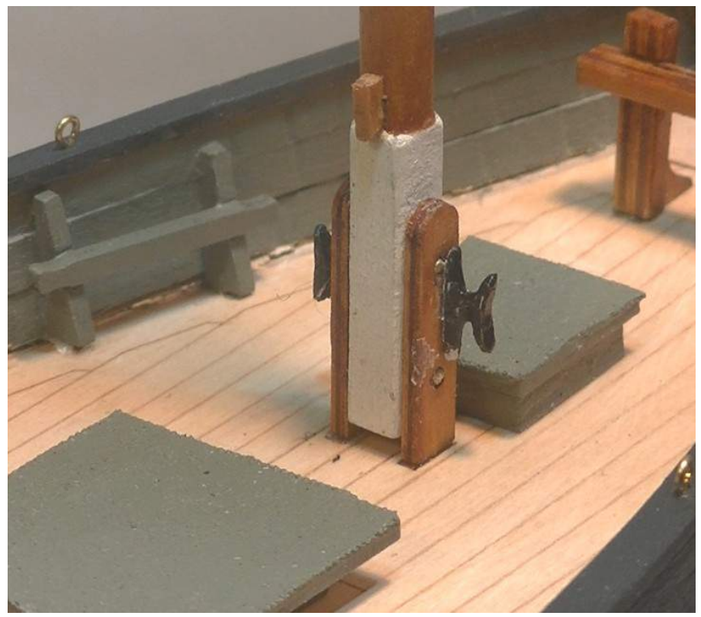
Step 6 Mast Cleats Identify the mast cleats P116 - glue to the mast stand as shown.

Step 7 Shroud Eye Pins Drill holes into the forward cap rails on the port and starboard sides for the shroud eye pins P96 - align the fore-most eye pin with the centre of the mast. The second eye pin is located 20mm back from the first eye pin as shown. Glue the eye pins in places as shown.

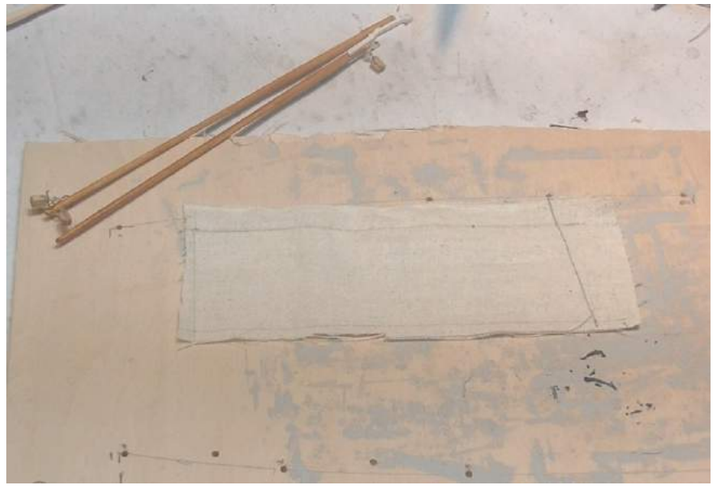
Step 8 Forestay Brace Identify the copper strap P117 - cut a length 25mm and 3mm wide. Use round nose pliers to shape one end into a loop. Drill 3 x 0.7mm holes along the strap length as shown - trial fit the brace in place and drill holes into the stem post - identify the copper nails P118 and glue in place. Identify the 4mm ring P119 - fit to loop of brace as shown.

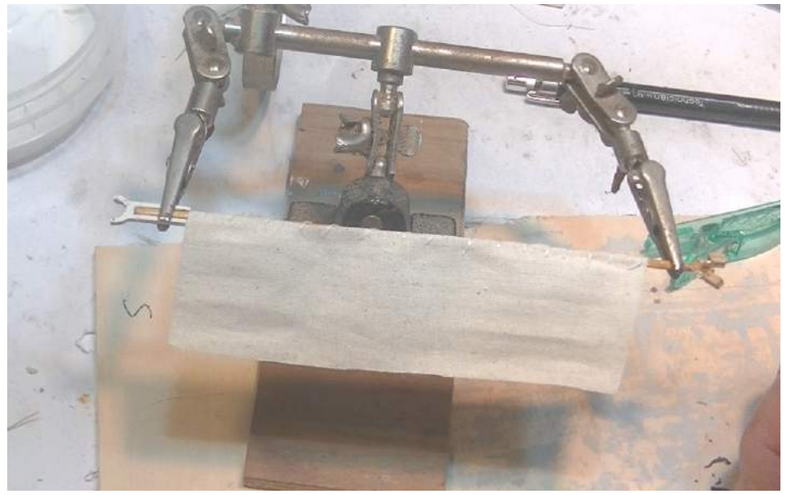


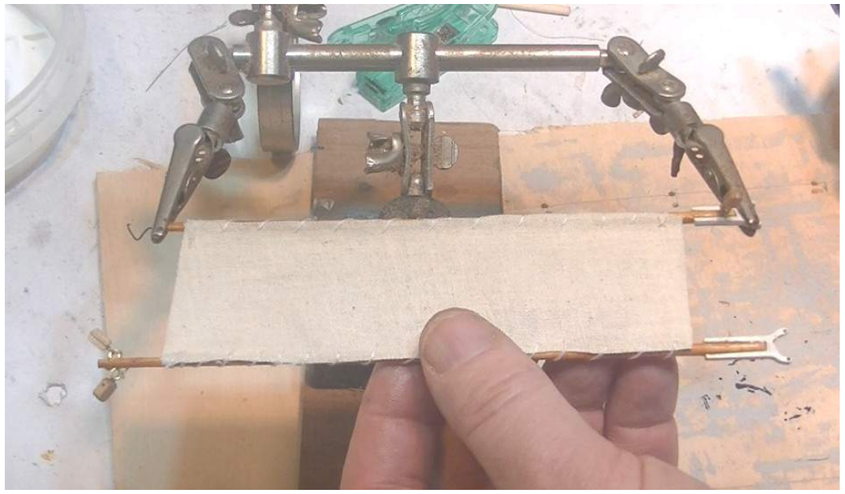


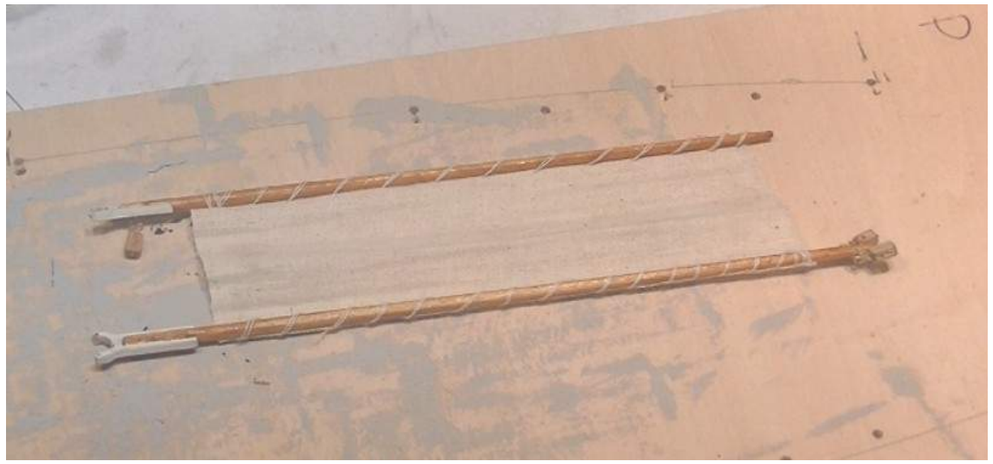


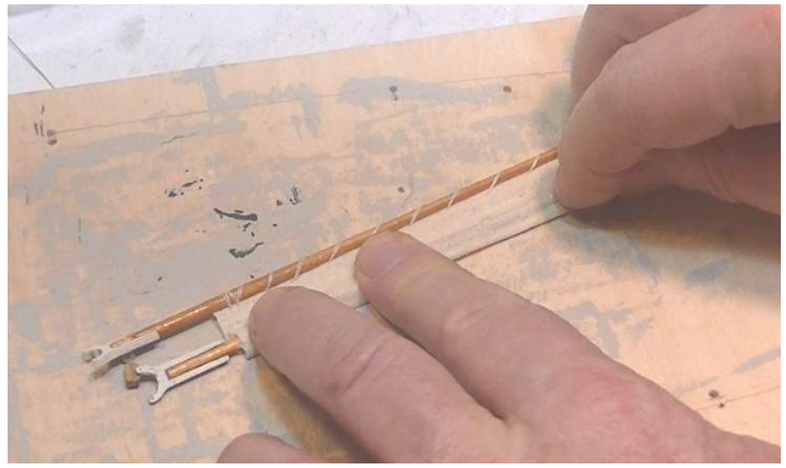
Step 9 Furled Sail Identify the calico fabric P83 - on a piece of the fabric draw a base line 130mm long. At a right angle to one end of this line draw a line 40mm long. Then at a right angle to the end of this line draw a line 120mm long. Then draw a line to close the shape. Apply dilute wood glue to the lines and allow to dry then cut-out the shape. Next use clamps to hold the boom in place and align the fabric with the 130mm edge on the boom and the angled side towards to boom end. Next use a needle and thread to stitch the fabric to the boom. Then fit the gaff into the clamps and stitch the 120mm edge to the gaff as shown. Next lay the boom & gaff out as shown and make progressive folds in the fabric - brush diluted wood glue to each fold until the boom and gaff come together. Lastly stitch the boom and gaff together as shown.



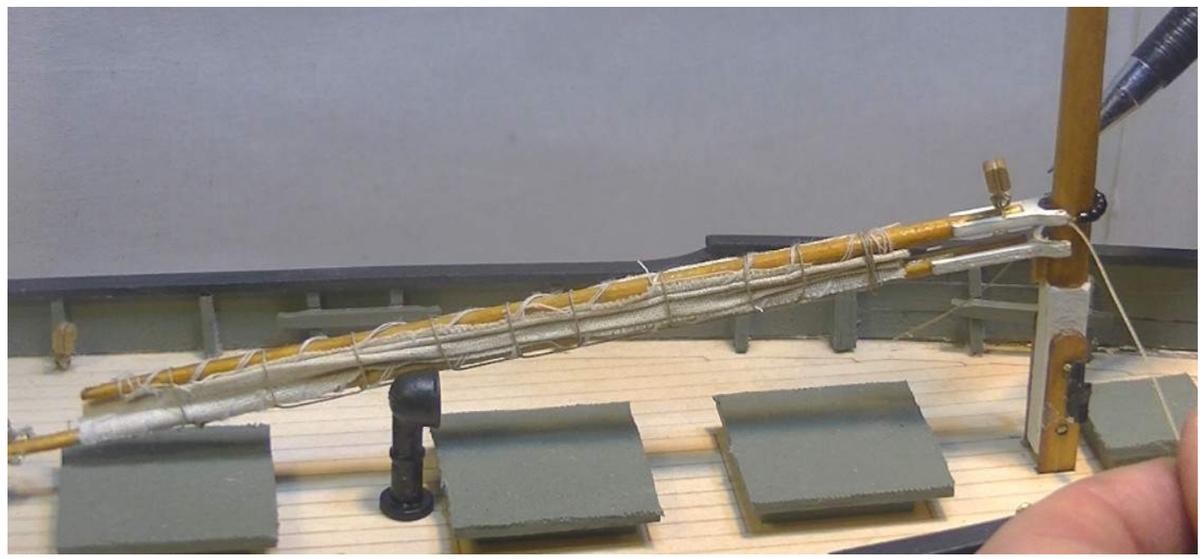


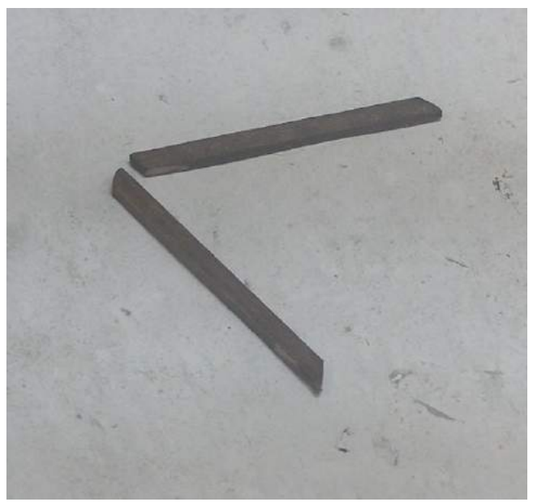


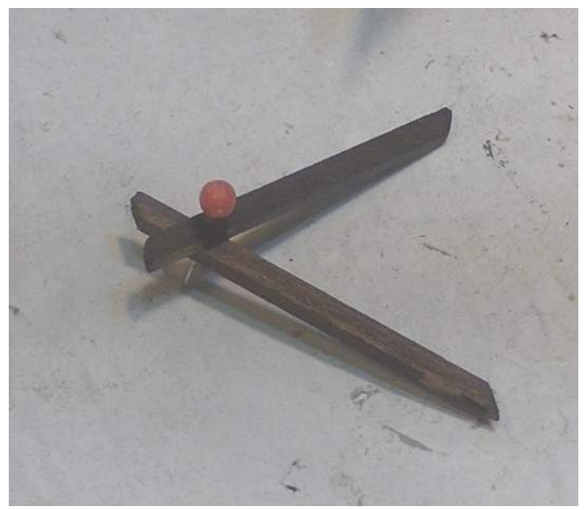


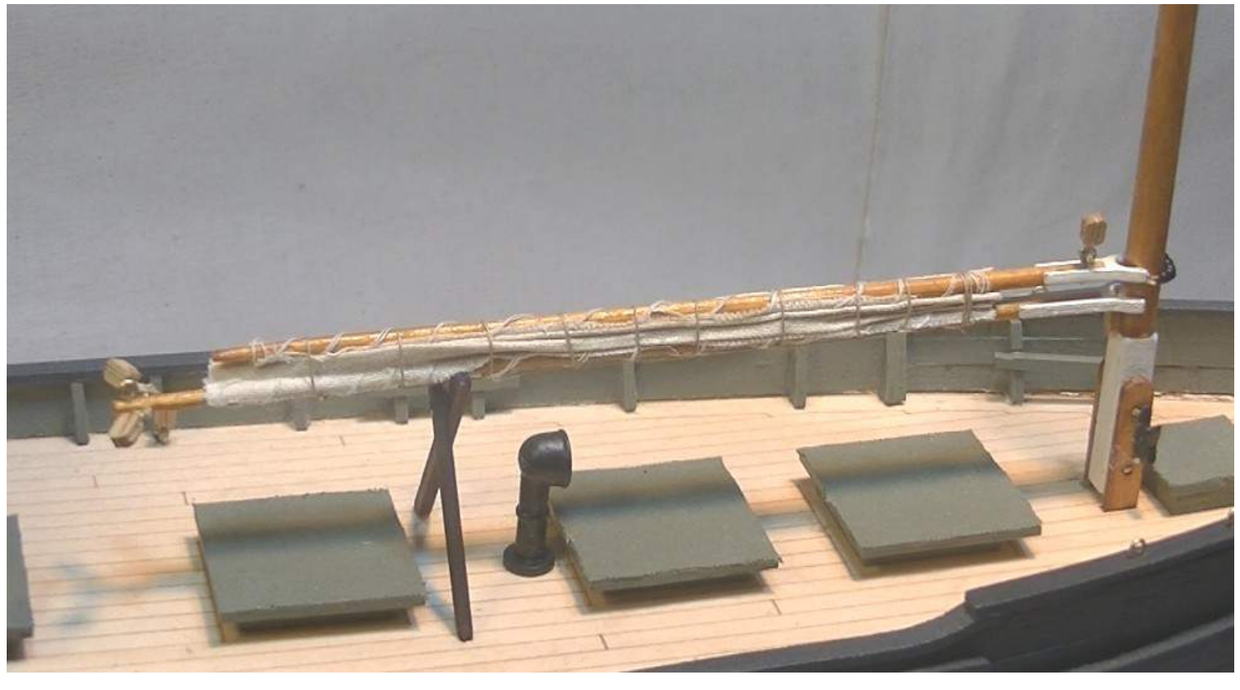


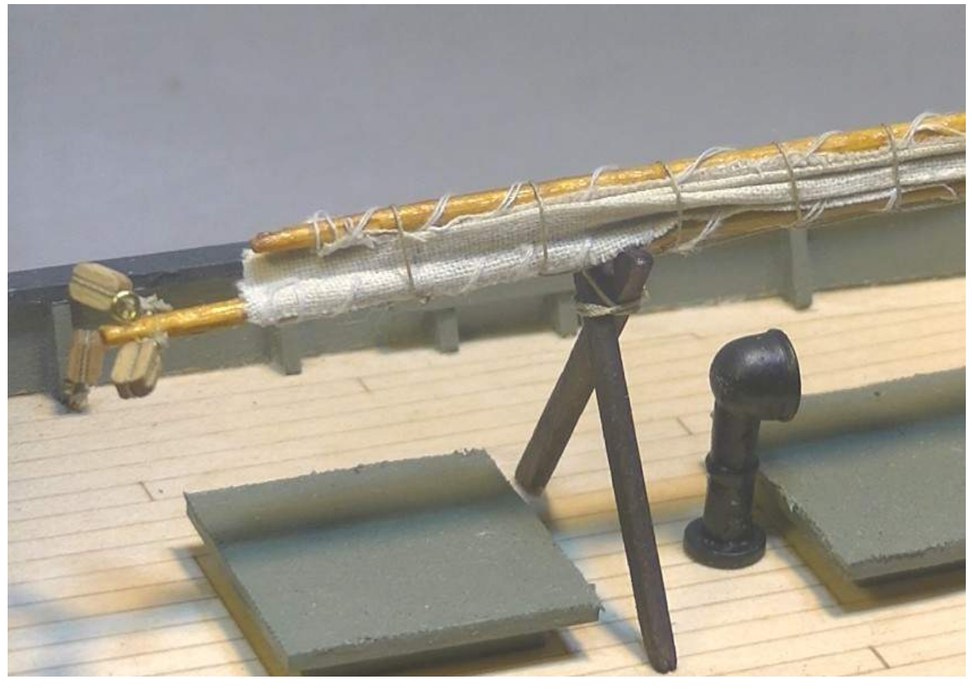
Step 10 Place the assembled boom & gaff onto the mast with the boom yoke placed on the boom rest. Identify the parrel beads P120 - cut a length of cord D - tie one end to the hole in the gaff yoke and feed a number of parrels onto the cord - take the cord with parrels around the mast and tie–off the cord through the second hole in the yoke - apply a dab of glue to both knots and trim-off excess cord. Identify the boom supports P121 - stain walnut. Drill a 0.7mm hole 9mm down from the top of each piece - fit and glue a pin in place as shown - snip-off the pin head. Place the supports in place on the deck as shown with the assembled boom & gaff in resting in place - once satisfied glue the boom rest to the deck and glue the boom in place. Use cord F to lash the supports together as shown.











CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

BLOCK KEY		
Size	1 hole	2 hole
4mm	A	—
5mm	B	C

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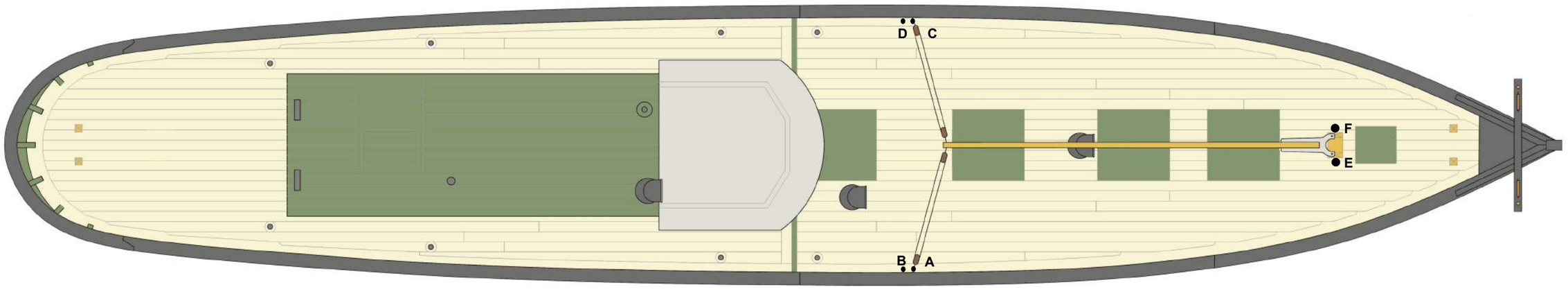
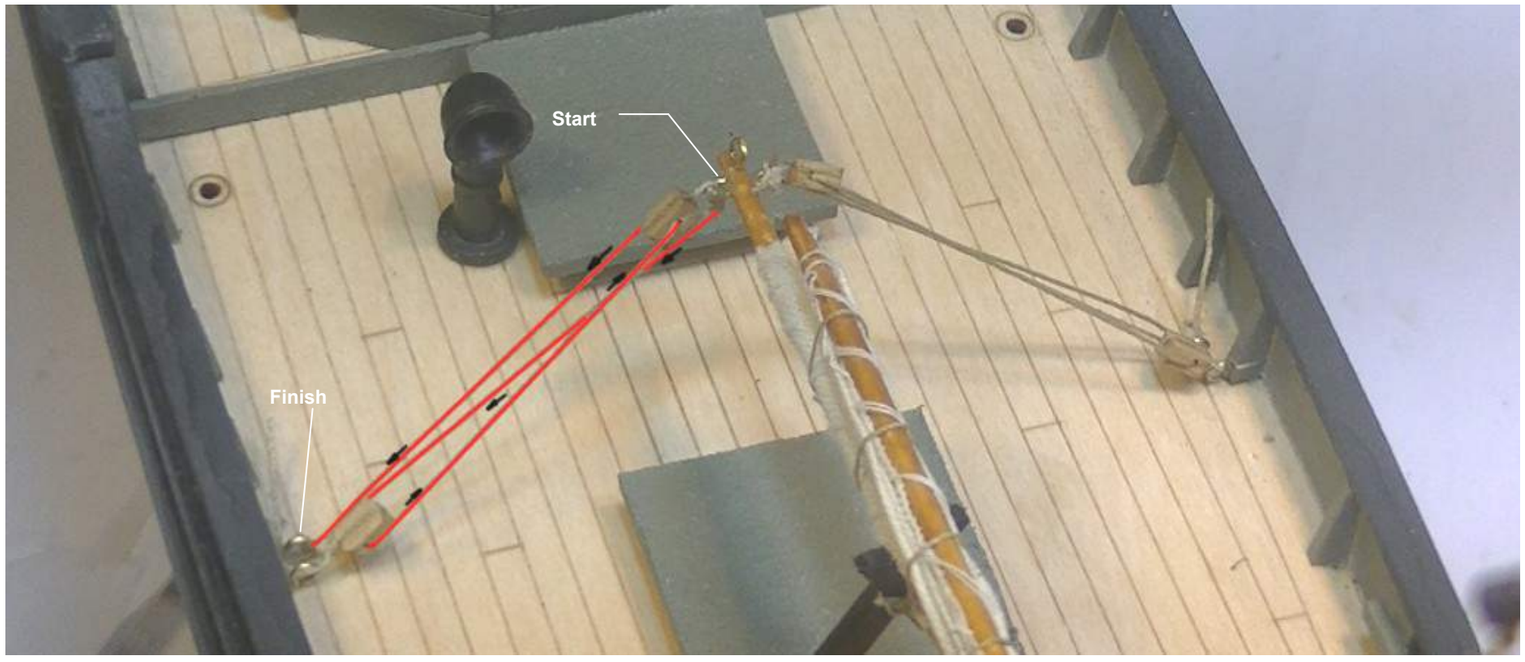
10.0 Deck & Belaying Plan

Fit eye pins P96 at points A, B, C & D on the deck. Use cord D to tie block B to eye pins A & C as shown.



11.0 Rigging

Step 1 Boom Rigging Use cord F to rig the blocks as shown - follow the arrows for the rigging sequence - start at eye pin on boom as shown and finish at eye pins B & D on deck as shown.

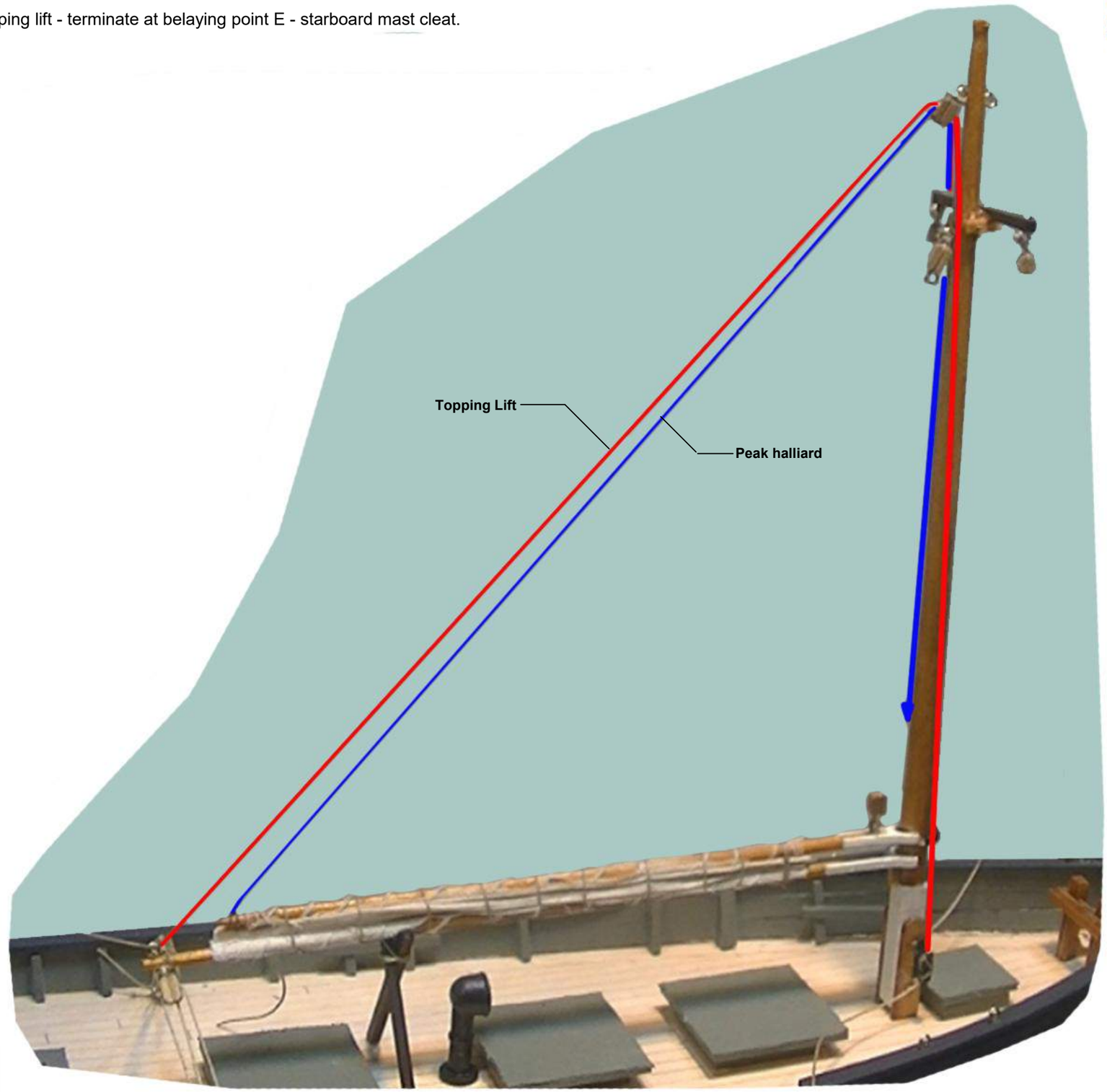


CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

BLOCK KEY		
Size	1 hole	2 hole
4mm	A	—
5mm	B	C

Step 2 **Peak Halliard** Use cord F to rig the peak halliard - terminate at belaying point F - port mast cleat.

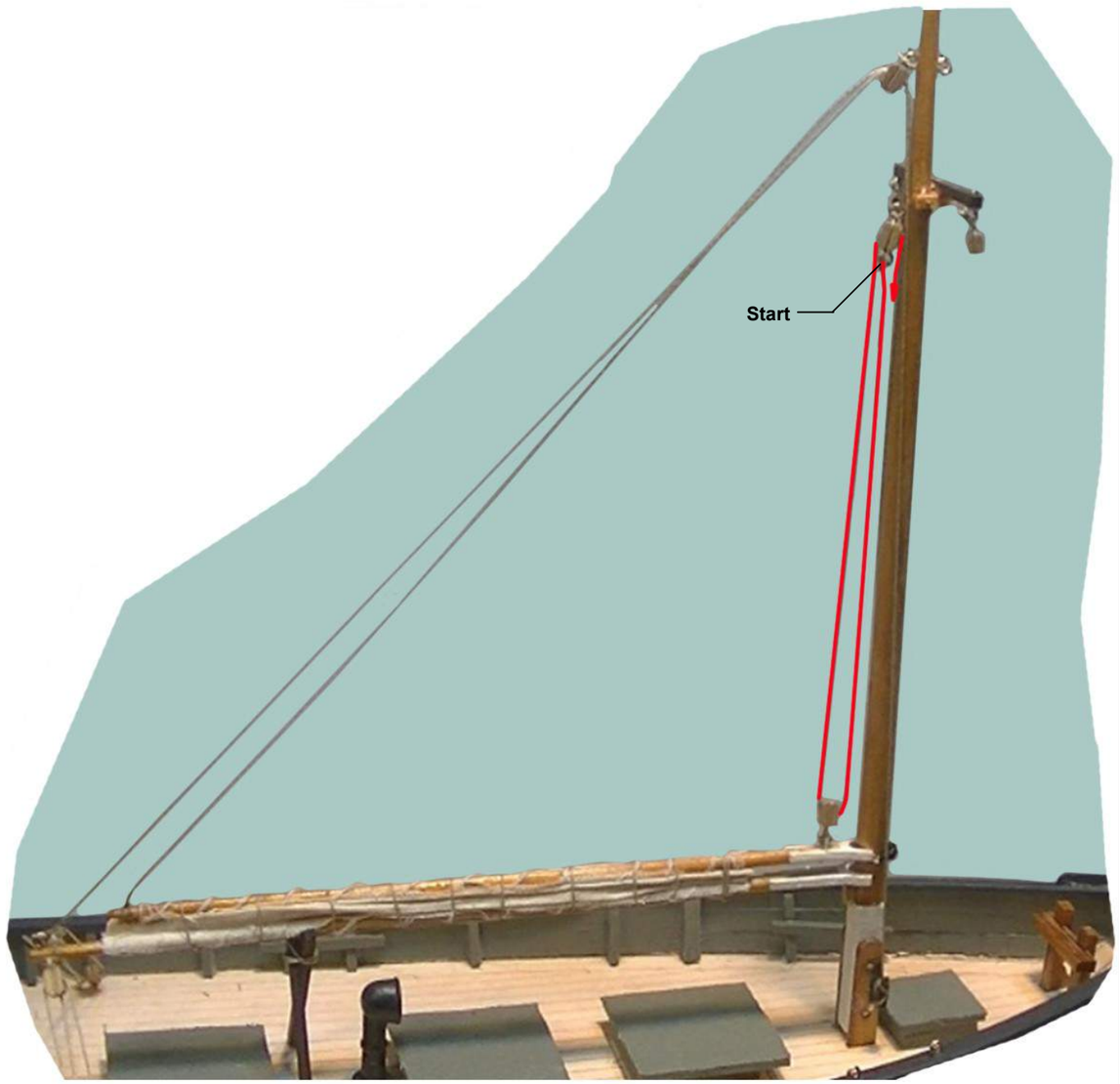
Step 3 **Topping Lift** Use cord F to rig the topping lift - terminate at belaying point E - starboard mast cleat.



CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

BLOCK KEY		
Size	1 hole	2 hole
4mm	A	—
5mm	B	C

Step 4 Throat Halliard Use cord F to rig the throat halliard - start at the eye pin on the block and terminate at belaying point F - port mast cleat.



Step 5 Turnbuckles Identify the 2x2mm limewood P122 - cut 5 x 12mm lengths. Drill 0.7mm holes into the centre of each end and glue eye pins P96 into each end as shown. Stain walnut. Attach the dummy turnbuckles to the shroud eye pins on the forward cap rails as shown and the last to the 4mm ring on the forestay brace.

CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

BLOCK KEY		
Size	1 hole	2 hole
4mm	A	—
5mm	B	C

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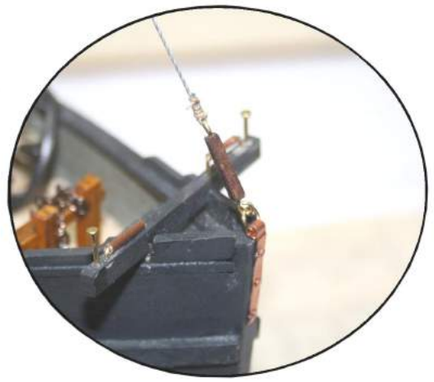
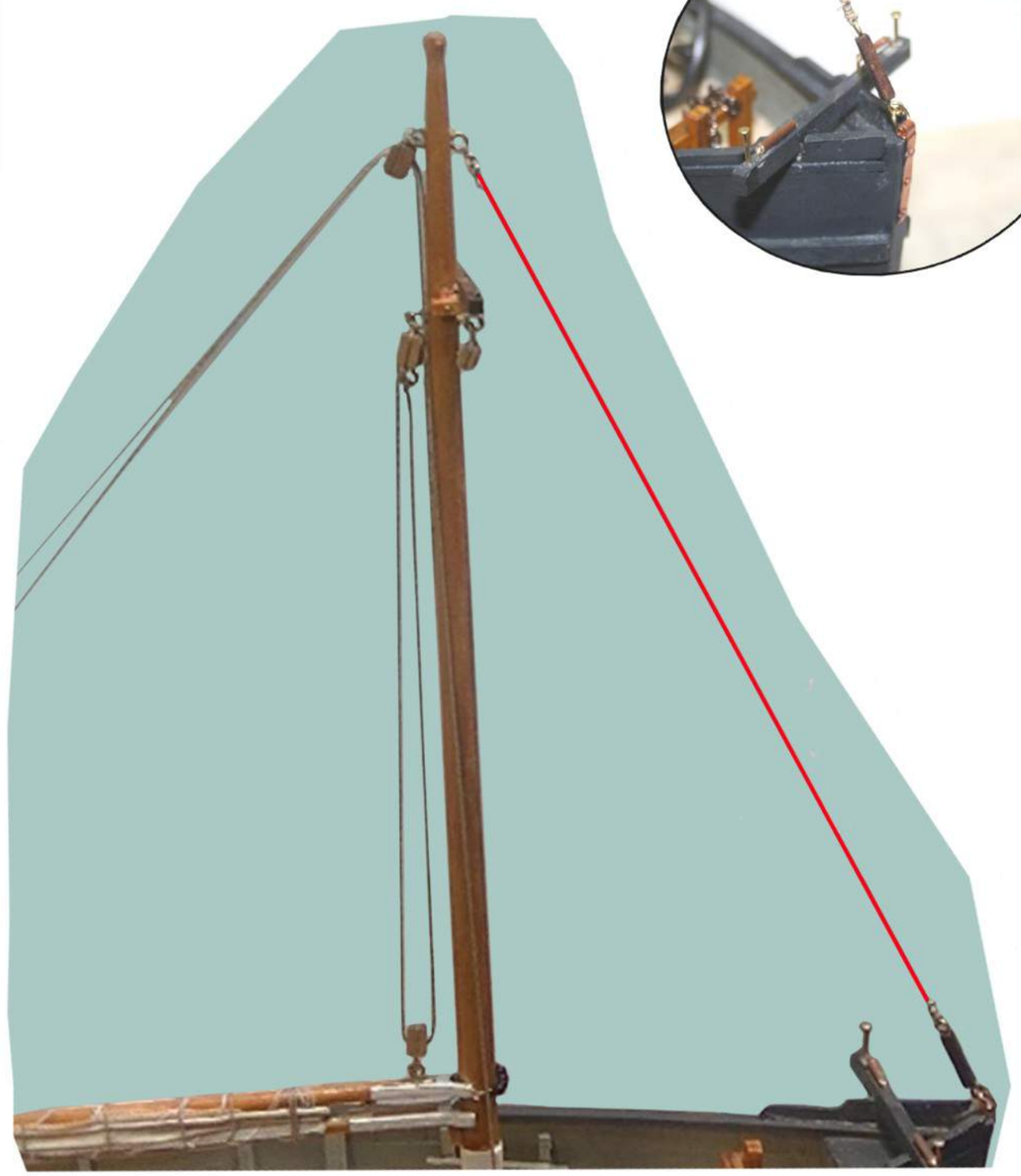
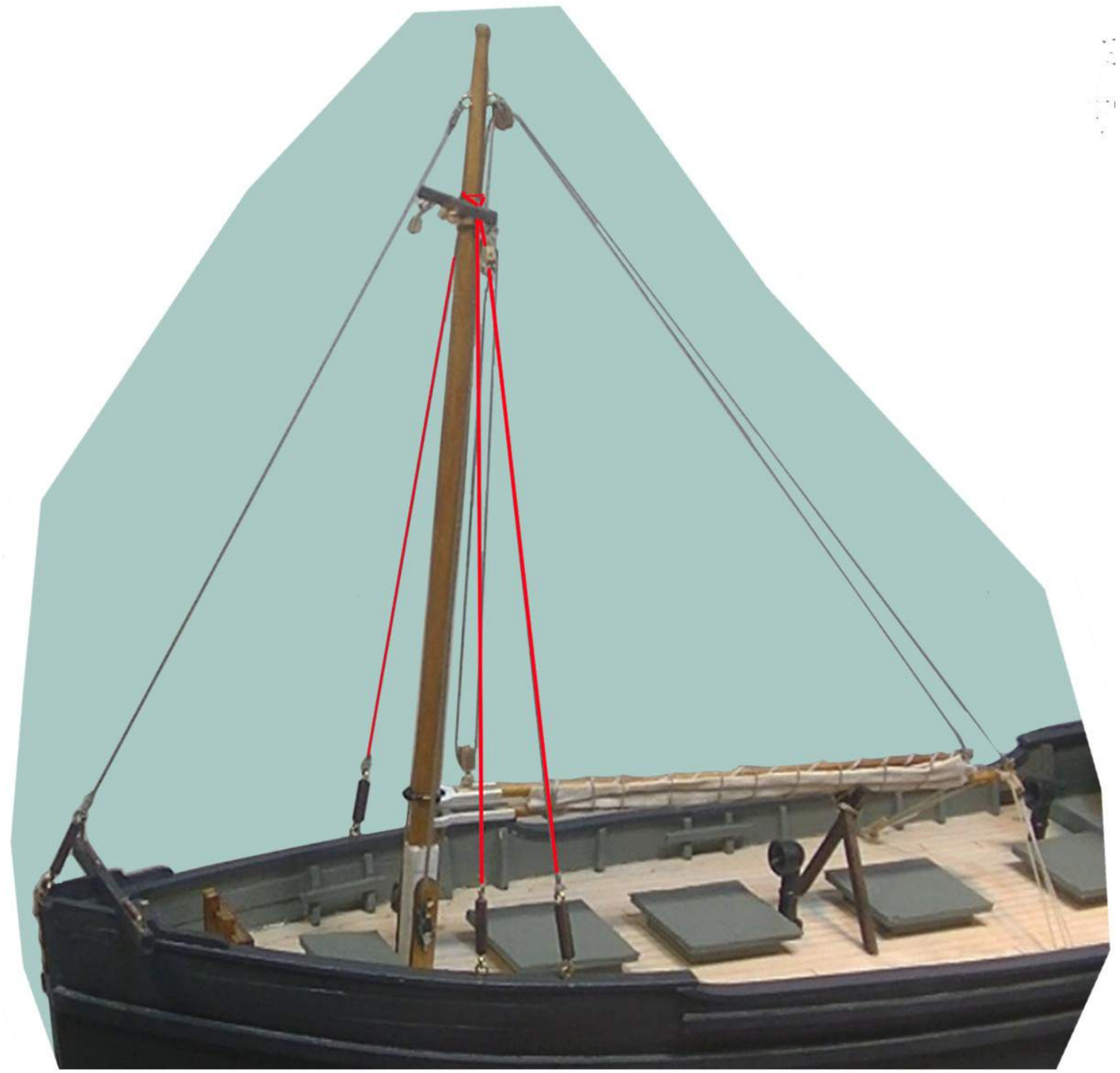
Step 6 Forestay Use cord H to rig the forestay - start at the eye pin on the mast and terminate at turnbuckle as shown.





Step 7 Shrouds Use cord H to rig the shrouds - Seize the cord around the mast head and terminate at the turnbuckles as shown.



CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

BLOCK KEY		
Size	1 hole	2 hole
4mm	A	—
5mm	B	C

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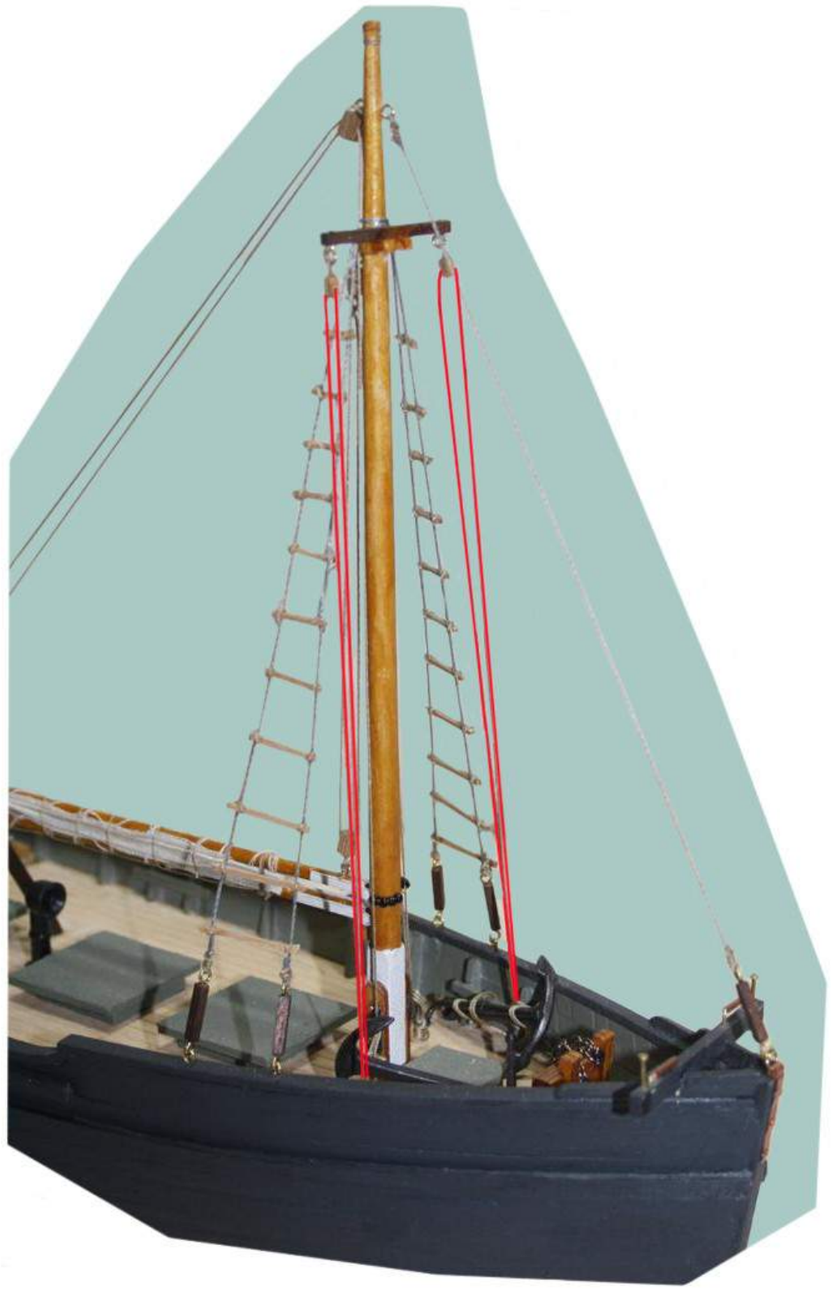
Step 8 **Treads** Identify the 1x2mm walnut P123 - cut lengths to fit across the shrouds - first glue each in position then tie-off using cord D. Make the distance between treads approximately 14mm to give a total of 11 treads.

Step 9 **Net Haul Ropes** Use cord F for the fishing net haul ropes - run from tie-off racks on inside of bulwark up to block A on the crosstree as shown.



CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

BLOCK KEY		
Size	1 hole	2 hole
4mm	A	—
5mm	B	C

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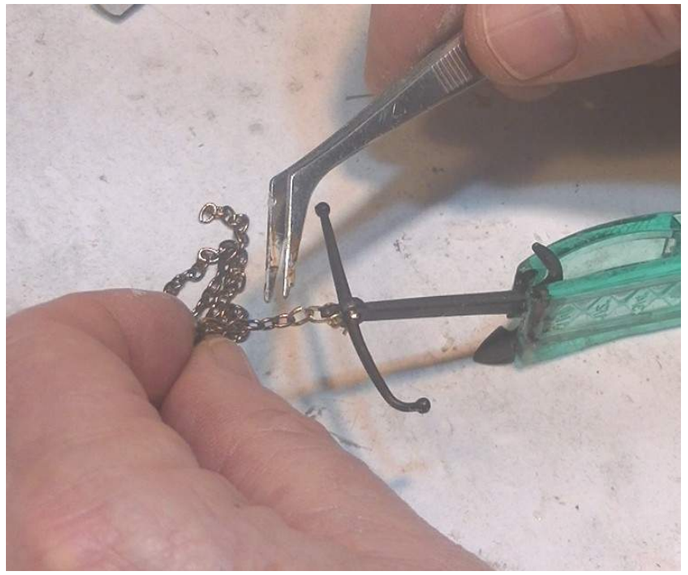
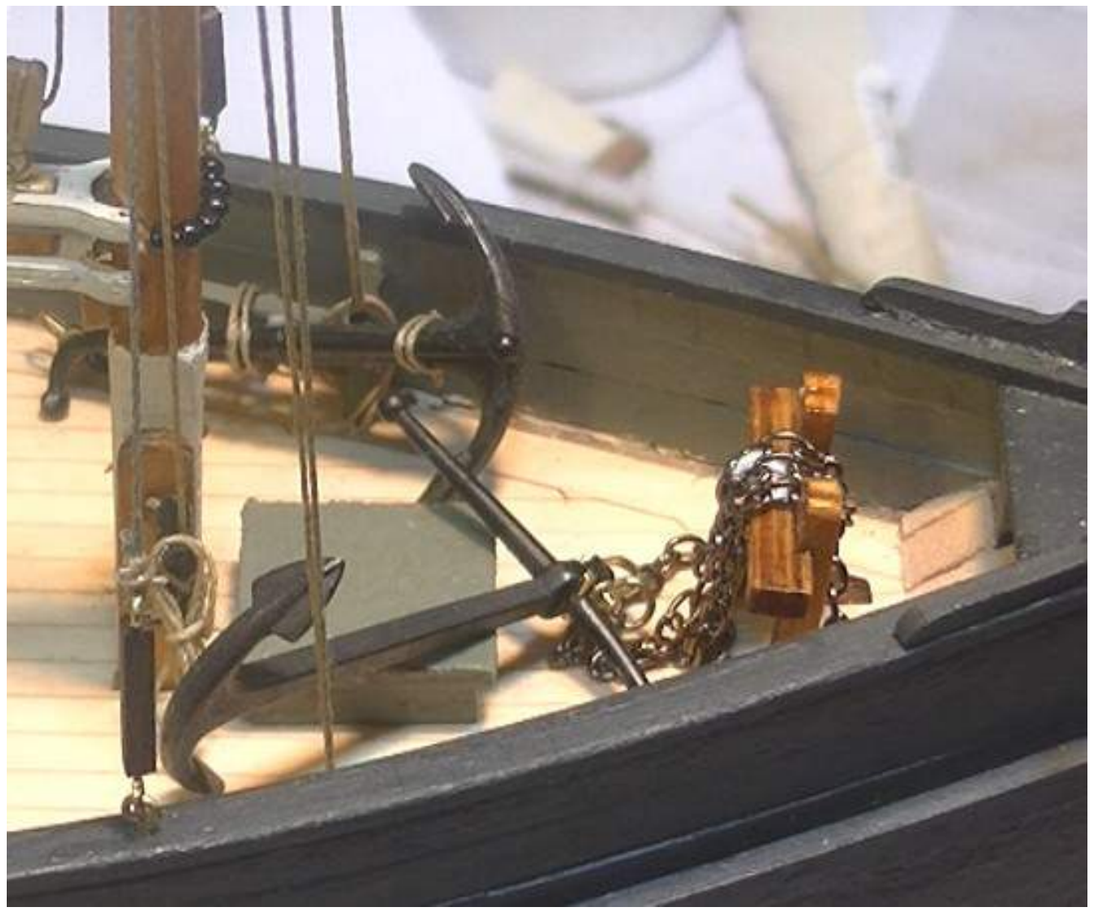
12.0 Fittings

Step 1 Anchors Identify the kedge anchors P124. Fit the hoop to the shank of one anchor using one nail to hold in place - fix with super glue. Use cord F to lash the stock and shaft together as shown - lash this anchor to the port side tie-off rail as shown. Assemble the second anchor as shown. Identify the 4mm brass ring P119 and the chain P125 - fit the ring to the hoop and attach the chain to the ring as shown. Fold chain around and over the samson post and lay anchor on deck as shown.

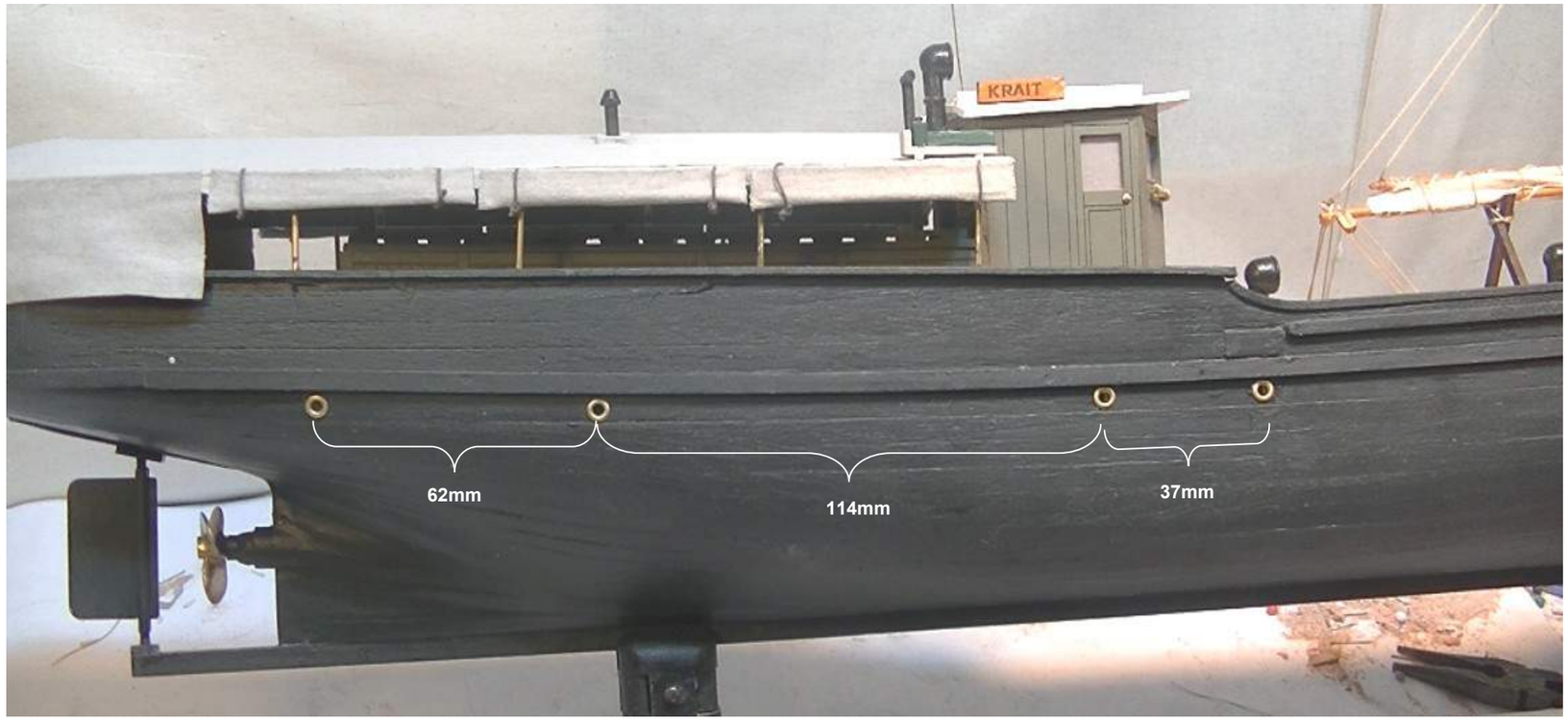




CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

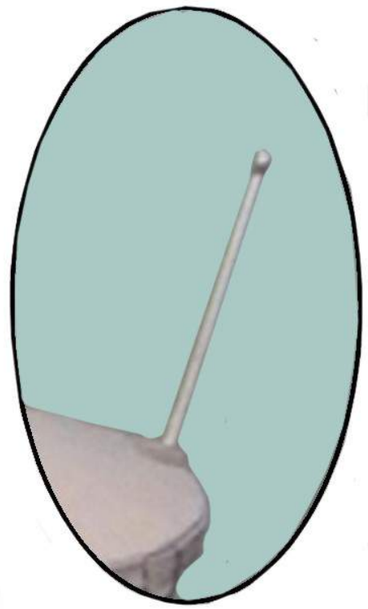
BLOCK KEY		
Size	1 hole	2 hole
4mm	A	—
5mm	B	C

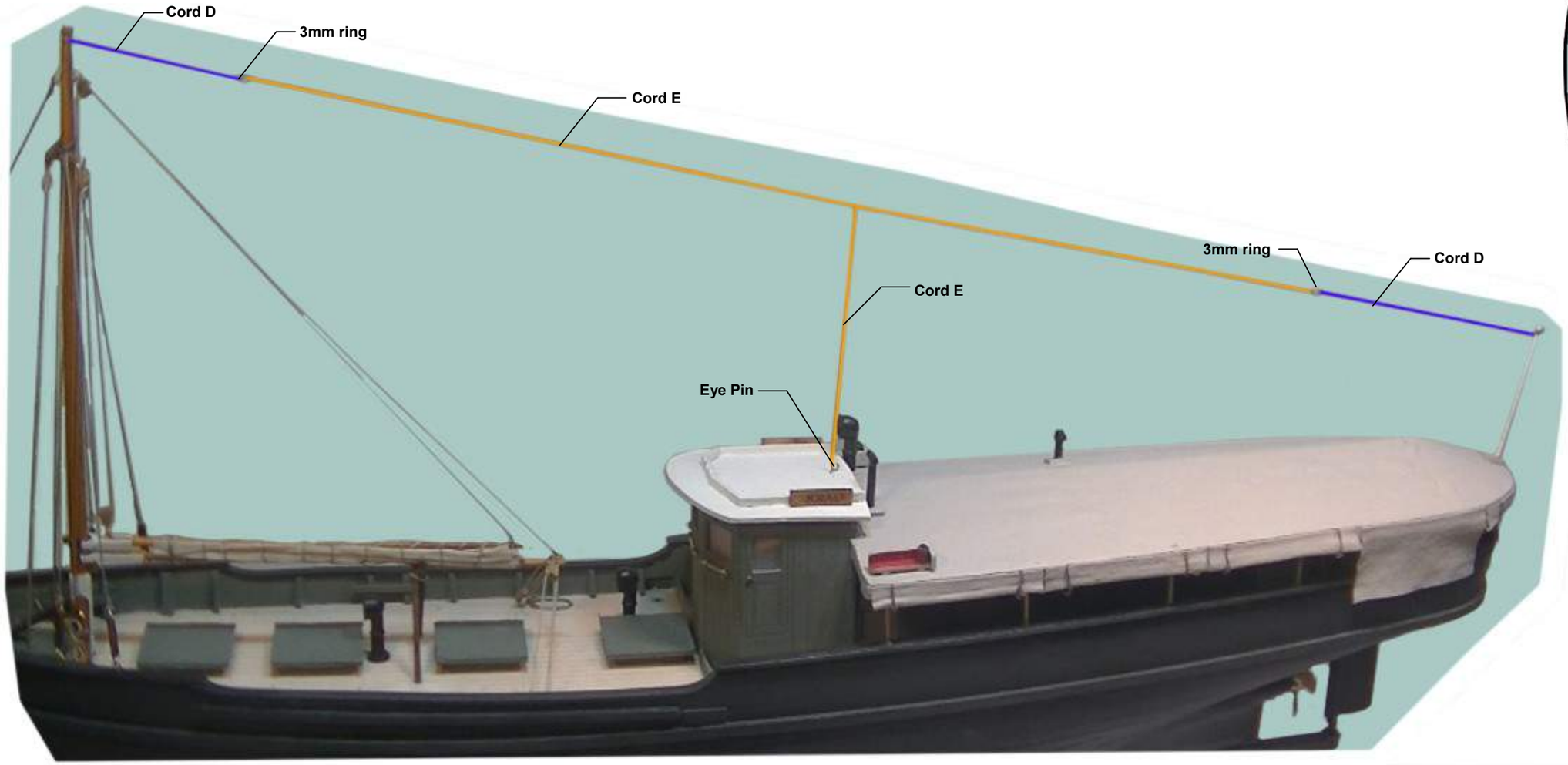
Step 2 **Drain Ports** Take a length of planking - mark on it the dimensions shown - lay the plank along the hull below the wale - align the first point with the scupper deck hole near the wheelhouse - then mark the location of the other holes - drill 3mm holes into the hull - identify the drain ports P126 - glue in place and paint black as shown - repeat for the other side of the hull.



Step 3 **Flag Staff** Retrieve the flag staff previously made. Identify the flag staff base P129 - glue in position at the centre of the rear canopy edge - paint the same colour as the canopy. Drill a 2mm hole into the canopy planking at this point. Trial fit the flag staff - once satisfied glue flag staff in place. Fix in place an eye pin P96 into the canopy surround immediately below flag staff.

Step 4 **Aerial** Fit an eye pin P96 to the rear top centre of the wheelhouse roof as shown. Identify the 3mm brass rings P127 - tie a length of cord D to the two rings. Tie the end of these cords to the top of the mast and to the top of the flag staff as shown. Cut a length of cord E and tie between the rings and from the eye pin up to the main cord as shown - stain this cord with shellac to give a weathered copper effect.

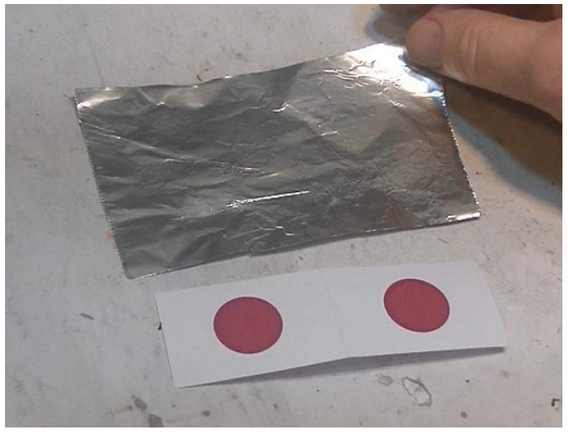




CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

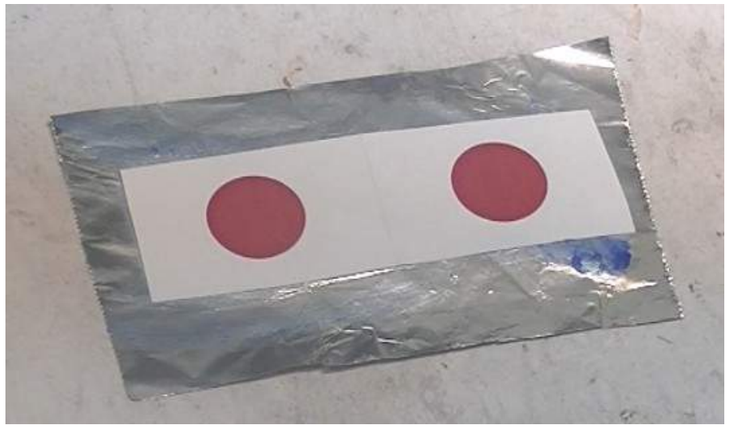
BLOCK KEY		
Size	1 hole	2 hole
4mm	A	—
5mm	B	C

Step 5 **Flag** Identify the flag P130. Follow the step below to create the effect of wind shaping the flag. Use cord F for the flag lanyard.

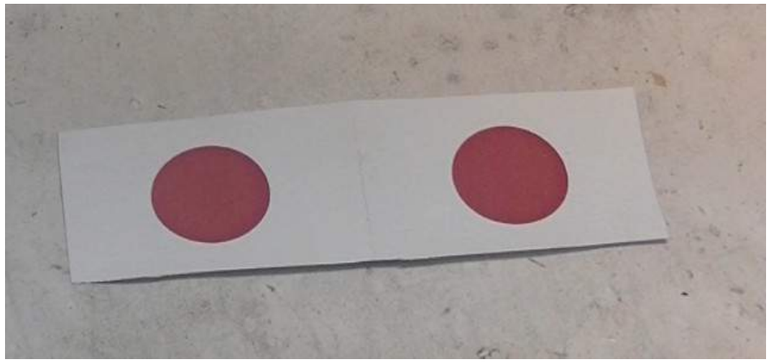


Cut aluminium foil larger than flag.

Apply glue to foil

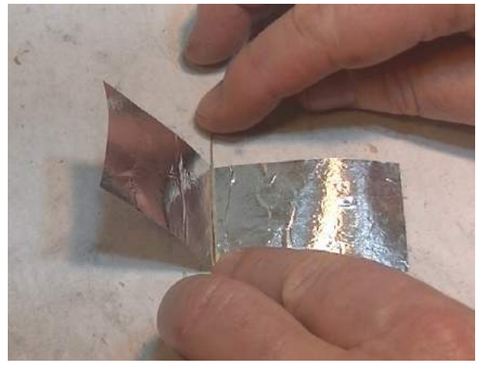


Place flag on foil

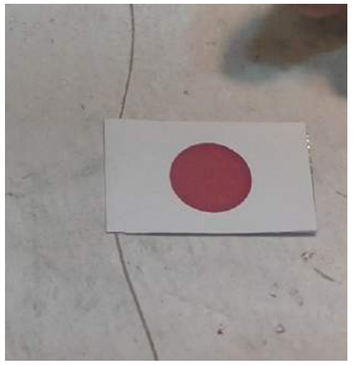


Trim excess foil

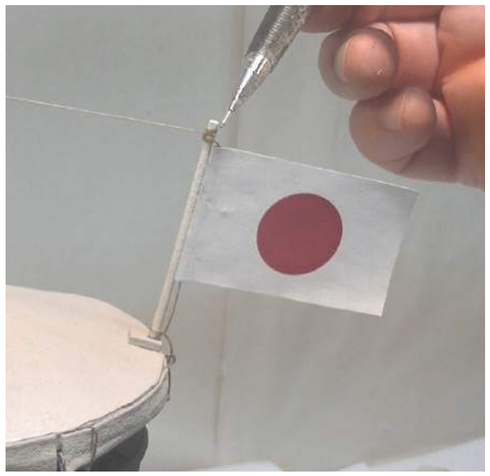
Turn over and apply glue to the reverse side



Fold in half and place length of Cord F in place as the lanyard



Fold in half and press faces together



Tie lanyard to top of flag staff and to eye pin

Shape the flag as desired

CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

BLOCK KEY		
Size	1 hole	2 hole
4mm	A	—
5mm	B	C

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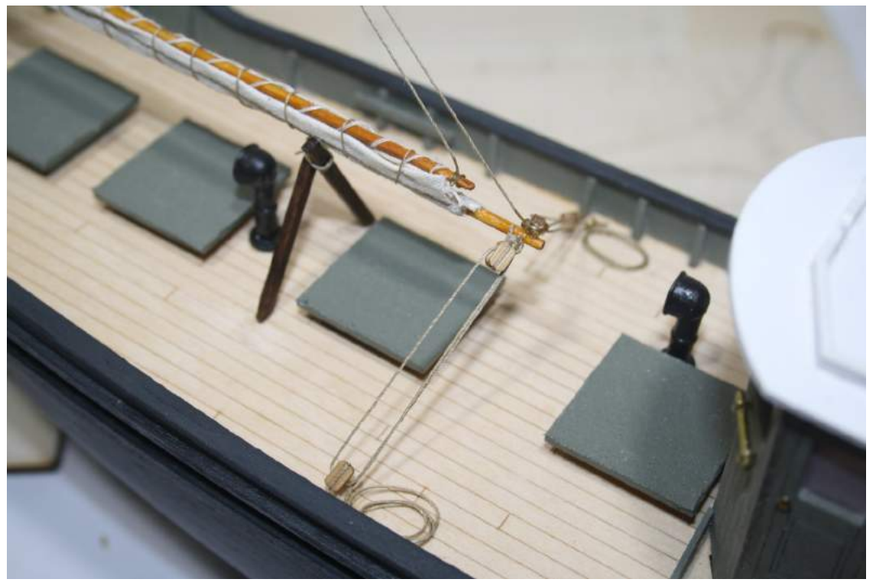
Step 6 **Rope Coils** Use cord F to make rope coils and place on deck at points B & D and on the mast cleats on port and starboard sides as shown.



Step 7 **Name Plate** Identify the name plate P131 - cut-out and glue in place on the cradle bars as shown.

CORD KEY			
Size	Grey	Brown	Silver
0.25mm	D	—	E
0.50mm	F	G	—
0.70mm	—	—	H

BLOCK KEY		
Size	1 hole	2 hole
4mm	A	—
5mm	B	C

Completed Model

Look carefully over your model, the instructions, photos & drawings and check to ensure 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 *Krait.*

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