

*Erycina*  
Plymouth Trawler  
1882  
Building Manual

VANGUARD MODELS

BY CHRIS WATTON

Designed, developed and produced in the UK



PART NUMBER - VM-09

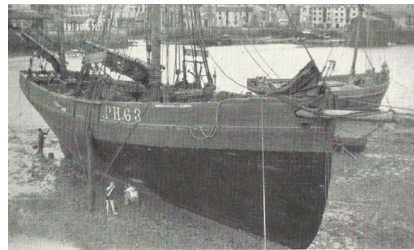
## The Plymouth Trawler *ERYCINA* 1882

Erycina was originally built as a cutter. She was designed by H.V. Prigg and built by W.H. Shilston, Coxside, Sutton Harbour in 1882. She was converted to a ketch rig in 1894.

Due to her pedigree, Erycina has unusually beautiful lines, described as a 'Crack Ketch', and handled more like a racing yacht than a fishing vessel. Erycina fished along the South West UK coast for over 50 years, an incredibly long career for such a vessel.

Her overall length was 71 feet, with a length between perpendiculars of 63 feet. The moulded breadth of 17 foot 2 inches was rather more fine than that of the average trawler, but she was built for speed, and often raced at regattas with with the crack Brixham Smack, Ibex. In 22 races at Plymouth regattas, Erycina won 15 first, 4 second and 2 third prizes.

The details for the Erycina kit were mostly taken from the book *Sailing Trawlers*, by Edgar J. March, published in the early 1950's. I have done all I can to faithfully capture the very fine lines of this very attractive vessel with very little compromise, and the period fittings for this vessel, like the tow post, main sheet chock and windlasses are faithfully reproduced.



## THE KIT

This scale model kit is designed to be as accurate as possible for a commercial kit in both scale and detail and has been developed with the beginner to intermediate modeller in mind, with some aspects simplified for ease of construction. More experienced modellers can modify the kit how they wish. This kit is an ideal introduction to the world of Plank on Bulkhead (POB) modelling, and the modeller will learn many valuable lessons through its construction.

Although the kit of Erycina is as easy to build as we can make it, very basic woodworking skills (and patience) are still required. A small workspace will have to be put aside for the assembly. Do not remove parts from the laser cut sheets until actually required for fitting, as they can be easily damaged or lost.

Take plenty of time to study this manual until you are confident enough to tackle each stage of construction. Patience is the key word when building any scale model. Treat each stage as a separate project and the overall effect of the completed subject will be much enhanced.

Care should be taken when cutting parts from the laser and brass etched sheets. The sheet from which you are going to cut the parts should be laid on a hard, flat surface. Use a heavy-duty craft knife (a Stanley Knife or Swann Morton scalpel are perfect) with a good strong blade to cut through the tabs holding the parts in place. It is easier to paint most of the photo-etched parts before removing them from their sheets. They can be touched up again once in place on the model.

When painting parts in wood, use multiple coats with fine sanding in-between each coat to help minimise the grain visibility. Never settle on just a single coat but take your time with every single sub assembly.

### Recommended Paints, stains and adhesives

- 1: White PVA wood glue or Titebond.
- 2: Cyanoacrylate (superglue) thick and medium viscosity
- 3: Natural colour wood filler
- 4: Matt polyurethane varnish (Not satin or gloss)
- 5: Green, Red, Black Red-Brown paints (recommend either Humbrol, Vallejo or Tamiya)
- 6: Red Oxide (Hull below waterline) (Recommend Plastikote Red Oxide Primer)
- 7: White Paint for 'Boot Topping' above waterline (Recommend Plastikote Super Matt Spray)



## Recommended tool list

(All items listed were used by the designer to build the Erycina prototype model)

- 1: Craft knife (or standard Stanley Knife, which is robust enough for most jobs)
- 2: A selection of needle files
- 3: Razor saw
- 4: Small wood plane (for rough tapering of masts and yards before sanding smooth)
- 5: Pin vice or small electric drill.
- 6: Selection of drill bits from 0.7mm to 1mm
- 7: Selection of abrasive paper and sanding block (typically 120 – 240 grade)
- 8: Selection of good quality paint brushes
- 9: Pliers/wire cutters (Good quality side cutters are excellent for trimming rigging ends)
- 10: Good quality set of fine tweezers (For small parts and rigging)
- 11: Steel ruler (300mm - for providing a straight edge for tapering the planking)
- 12: Clothes pegs or small clamps
- 13: Good quality pencil or drawing pen
- 14: Masking tape (Tamiya or Tesa masking tape are highly recommended)
- 15: Waterline marking out tool, such as the one from Amati.
- 16: A Pin Pusher (Or you can just use a pair of pliers to push pins into the planking and bulkhead edges)
- 17: Cutting mat



## Recommended tools from Vanguard Models



Our waterline marking tool is supplied in a sheet of laser-cut, 4mm plywood that needs assembly. Assembly time is around 15 minutes and very easy. Metal fittings are supplied to aid the change in position of the pencil carriage. Vanguard Models pencil is supplied with each tool.

The Waterline Marker will mark a level from between 25mm to 150mm, and an engraved gauge will help you achieve the correct level.



Pin Pusher With Adjustable Depth Stop

This is a slightly larger version of our other pin pusher, and has the added advantage of an adjustable depth stop to ensure that all pins are pushed 'home' to the same depth. It is ideal for model boat/ship hull planking, and setting miniature n-gauge rail track on to board, or for nailing tasks on wooden boat models, dolls houses and picture frames.

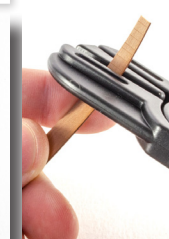


Pocket sized Pin Pusher

Can push pins in to 9 mm of plywood or MDF  
Ideal for pushing brass pins  
Nailing, pin pushing or riveting can be frustrating if the wrong type or an oversized hammer is used. Not to mention the dangers involved. Small pins and nails should be driven in using a precision tool rather than a regular DIY hammer. Pin pushers will make inserting small panel pins and nails a breeze and virtually eliminate sore thumbs!



This plank bending tool is the ideal boat modeller's tool for the bending strips to the desired curvature. Used for perfect and precise bending of all wooden strips, such as planking on model boats up to 2mm thickness. For bending at an angle, change the cutting angle and the plank will 'spiral'. The more cuts produced the tighter the bend. Includes a plastic blade stopper.





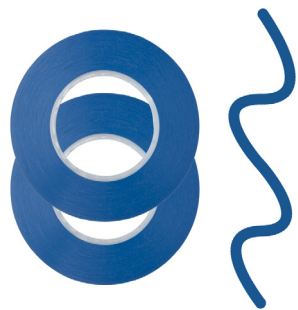
Ideal for bending planking strips to the desired curvature  
 Modelcraft Plank Bending Tool Kit 220-240v, 30w

- The Plank Bending tool is ideal for bending planking strips to the desired curvature
- The rounded head on the tool should be warmed up and the wooden strip should be placed on the wooden template form. The strip is then heated by running the tool head over it a few times until the required curve is achieved.
- It works on dry strips with a maximum thickness of 1mm
- For thickness over 1mm, the strip must be dampened
- Set includes: Tool with a rounded head, tool stand & wooden template form.
- Use with caution as parts will be hot



Spring-Loaded Finger Sanders available in 4 sizes, 10mm, 20mm, 25mm, 40mm (Medium Grade)  
 Unique shape for flat and curved surfaces  
 Easy to fit band with spring mechanism

These sanders have a unique shape for working on both flat and curved surfaces and come with pre-fitted medium sander band. The sanders also have an ergonomic shape meaning that they're comfortable when in use.



Flexible Masking Tape x2

This is available in TWO sizes, and there are two rolls in each packet.

3mm wide x 18m long  
 6mm wide x 18m long

Absolutely ideal for masking hull waterlines! These masking tapes are also ideal for general modelling, airbrushing, arts, crafts, and even those smaller DIY tasks. The tape sticks, stays and removes cleanly. This flexible acid-free tape is designed to follow curved lines and contoured surfaces without creasing, tearing or paint bleed.

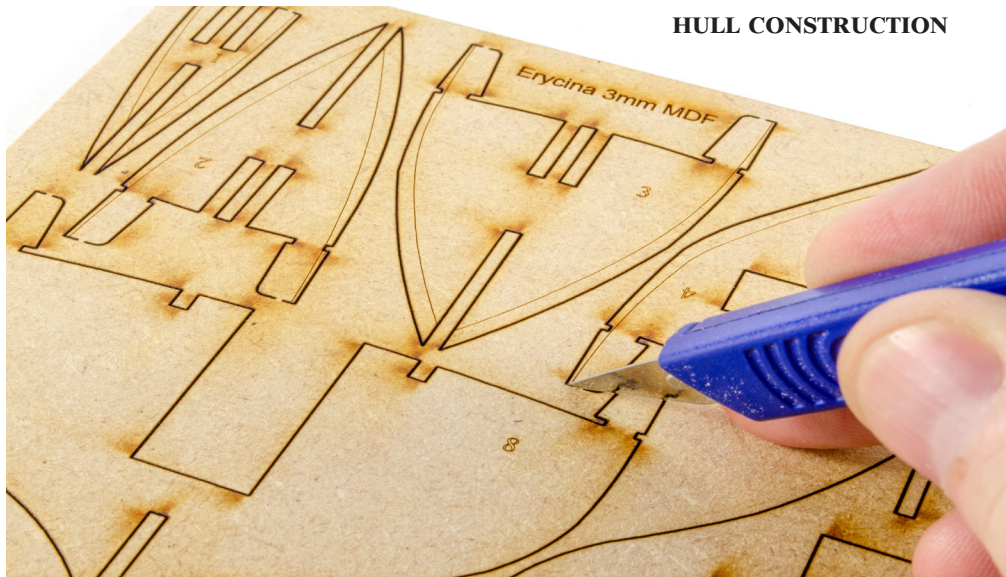




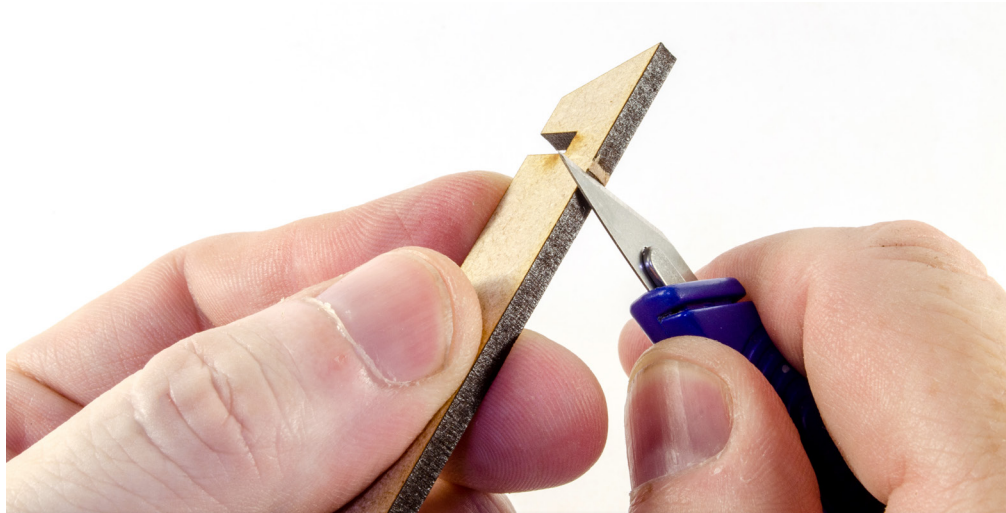




## HULL CONSTRUCTION



1. Use a fresh, sharp knife when removing parts from the sheets. We recommend either a scalpel (such as Swann Morton) or a Stanley Knife.



2. When you have removed any parts, use your knife or some sanding paper to remove any traces of the connecting tags.



3. BUILDING THE CRADLE: Your Erycina kit comes with a temporary building cradle to hold your model during/after build sessions. This comprises of four parts. From the 3mm MDF sheet, remove parts 17 (x2), 18 and 19.



4. Take one part 17 and slot it into part 18. Then take the other 17 and fit into the opposite slot.





5. Now take part 19 and slot into the other ends of both of part 17. You can brush some dilute glue into the joints if you wish, but you should find the cradle is a nice tight fit that won't need glue.



7. From the same 3mm MDF sheet, remove the remaining bulkheads 8, 9, 10, 11, 12, 13, 14, 15, and 16.



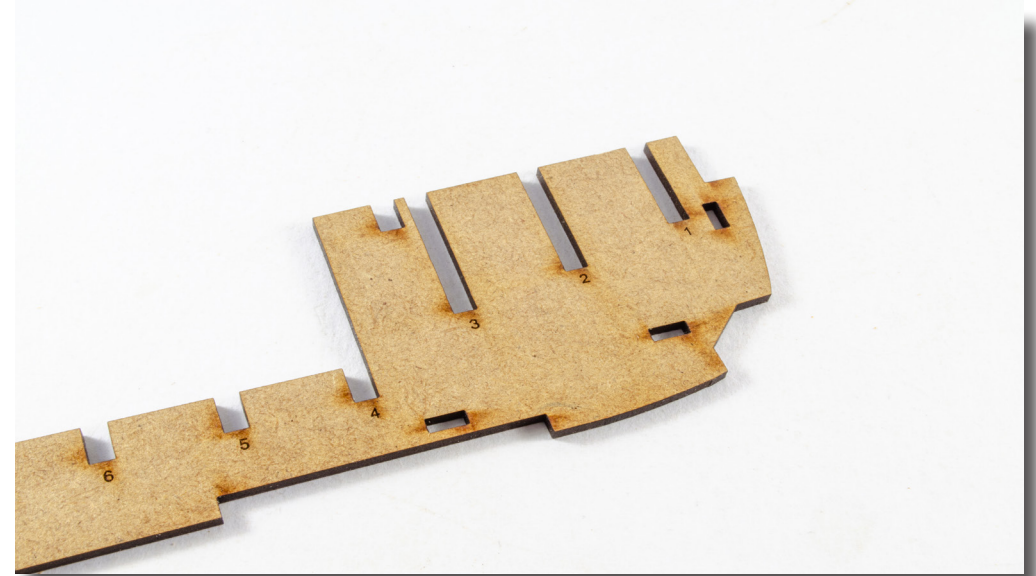
6. **BUILDING THE HULL:** The hull shape comes from a series of bulkheads. From the 3mm MDF sheet, remove bulkheads 1, 2, 3, 4, 5, 6, 7, and 8. Notice that some of these have lines engraved on them? We'll come to that very soon.



8. Take the bulkheads that have those engraved lines on them, and bevel from that line to the outside edge, as shown here. You can either sand the bevel or use a rotary tool as shown here. Set the tool to around 8000rpm for comfortable sanding.



9. When bevelled, your parts will look like this.



11. You will notice how each slot is numbered. Those numbers refer to the specific bulkheads.



10. From the 2mm MDF sheet, remove part 21. This is known as the keel, or 'False Keel'

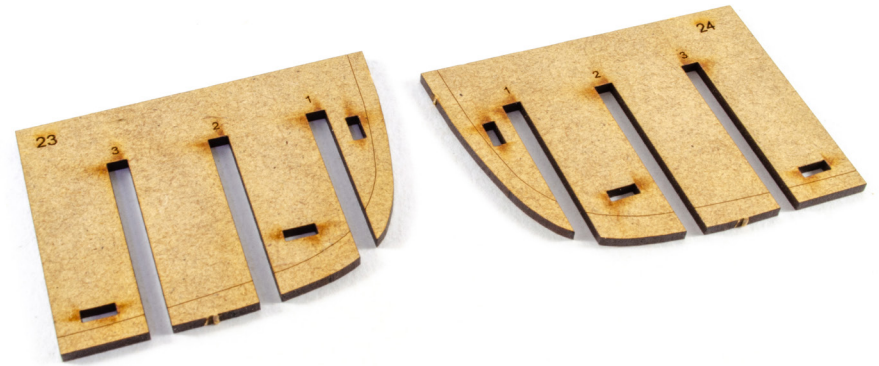


12. Dry fit (no glue) bulkheads 1 through to 8 into the correct keel slots. The first 5 bevelled bulkheads must have the bevel pointing towards the front (bow) of the boat, as clearly seen here.





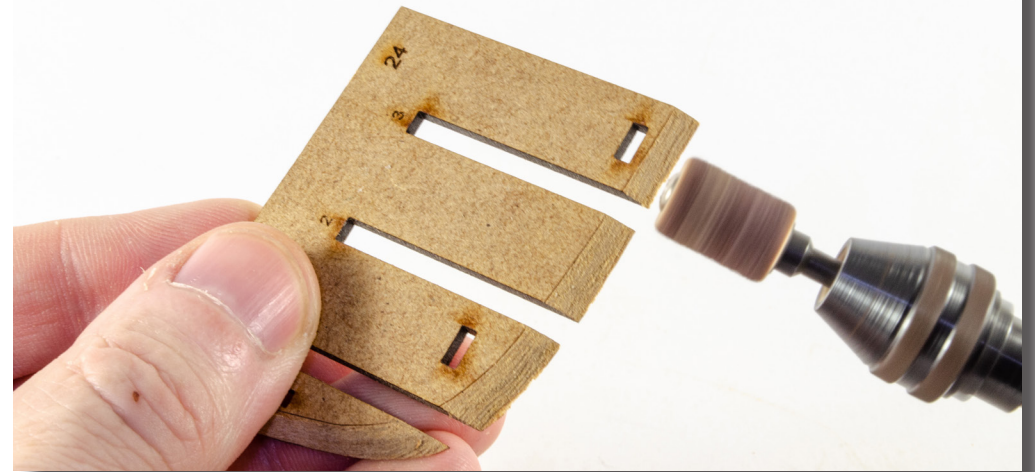
13. Now dry fit (no glue) the remainder of the bulkheads onto the keel. This time, the three bevelled bulkheads must point towards the back of the boat (stern).



15. From the 2mm MDF sheet, remove parts 23 and 24.



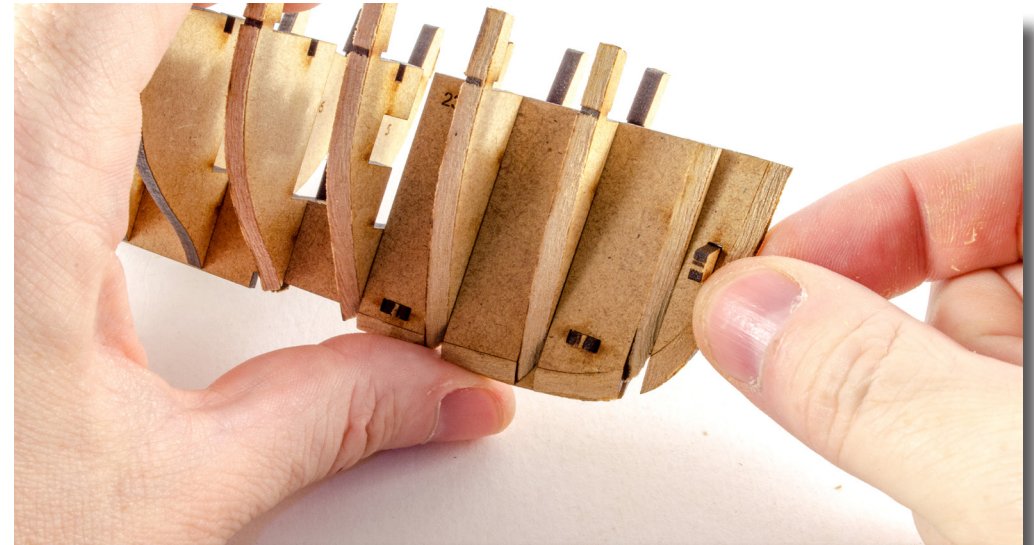
14. Your Erycina will now look like this.



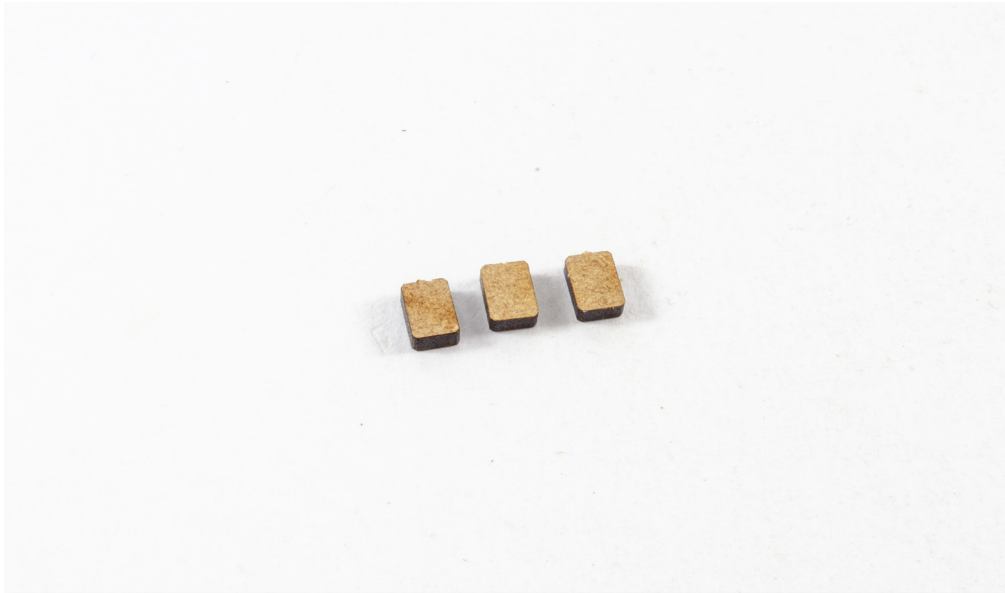
16. These also need to be bevelled as you did with the bulkheads.



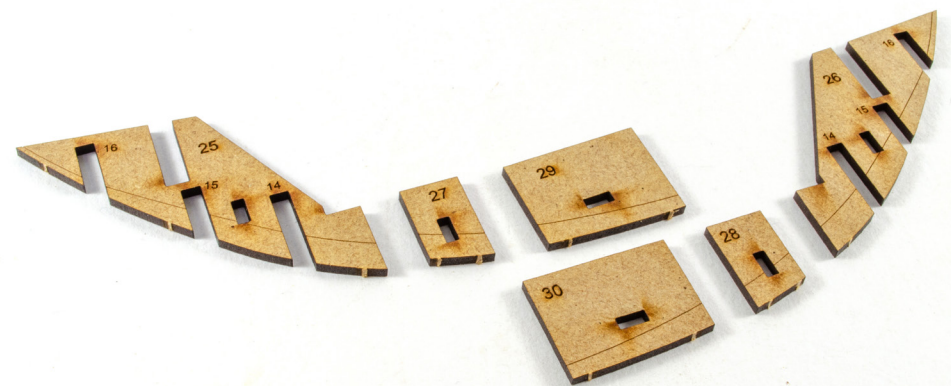
17. You can now glue those parts into position at the front (bow) of the boat, as seen here. Glue to the keel and not to the bulkheads. Of course, the bevelled edges face outwards.



19. Making sure the previous parts are properly aligned to the keel, the locating pegs can now be glued into position through the bevelled parts and keel.

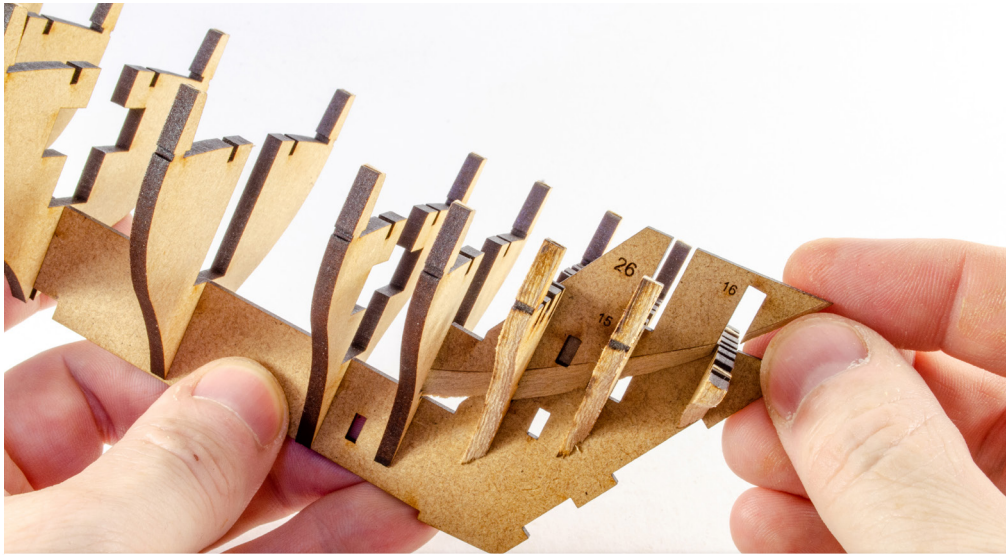


18. From the 2mm MDF sheet, remove parts 32. These are locating pegs for the parts you just fitted.



20. From the 2mm MDF sheet, remove parts 25, 27, and 29 for the left-hand side (port side) of the boat, and parts 26, 28, and 30 for the right-hand side (starboard side) of the boat. Two of these parts (25 and 26) also have numbered slots to identify the bulkheads over which it will fit.

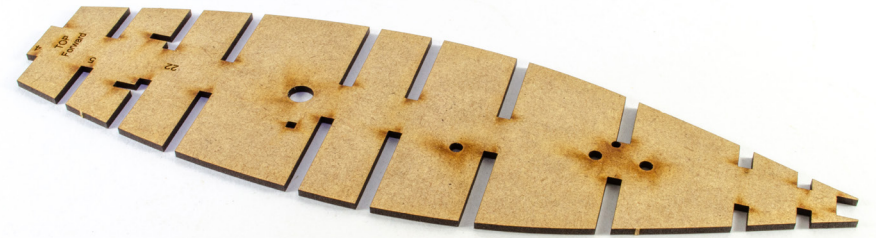




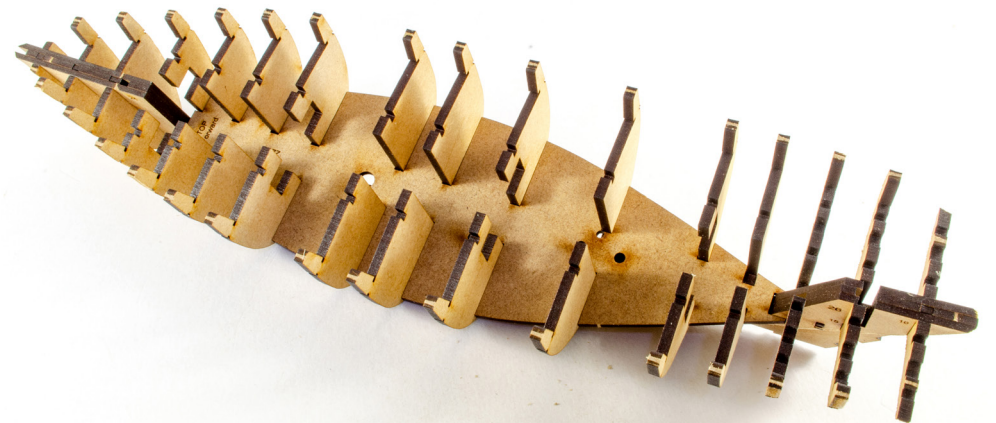
21. You now need to bevel these parts as you did with the others, and glue them into position on the keel. Here you see part 26 in position.



22. Use the same locating pegs to make sure everything is in alignment. Now fit the remaining bevelled parts into position in the same way, referring to plan sheet #4.



23. Remove part 22 from the 2mm MDF sheet. Note how this is engraved to identify both the top of the part and the front.

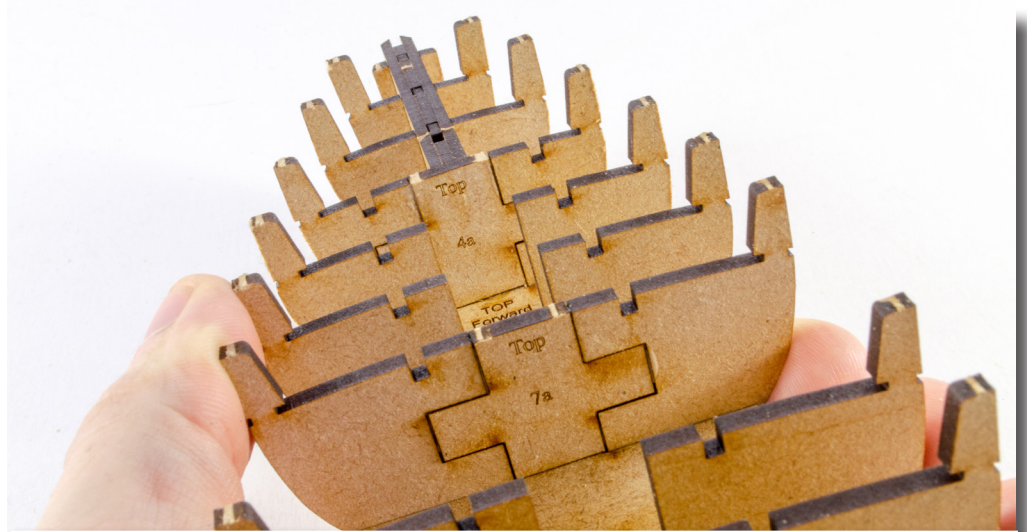


24. Dry fit (no glue) part 22 into position over the bulkheads on your boat. You can clearly see here how this is fitted and will look when added. Joggle the bulkheads around until part 22 drops neatly into place and lies on top of the keel.

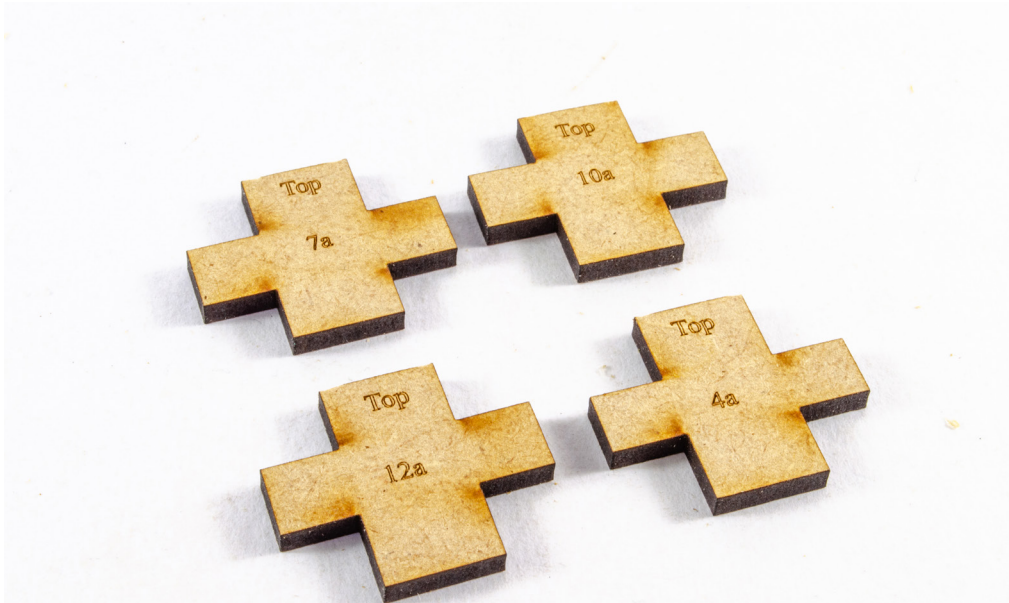




25. Here you can see the front of part 22 in place on the boat.



27. Here, parts 4a and 7a are shown glued into position. You see how the top of these parts (engraved to identify), continues the curve along the top of those bulkheads

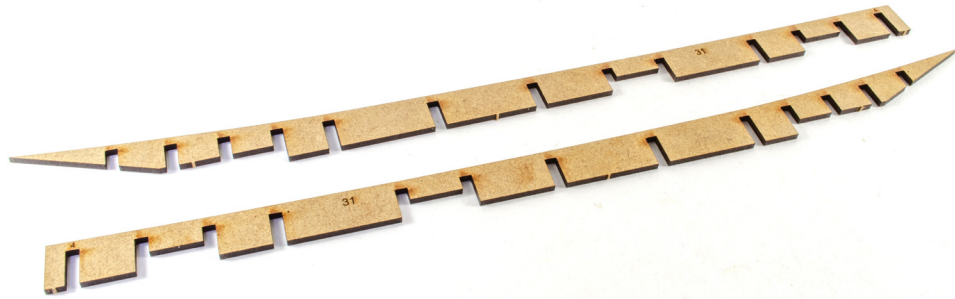


26. From the 3mm MDF sheet, remove parts 4a, 7a, 10a, and 12a. These numbers refer to the bulkhead into which these will sit.

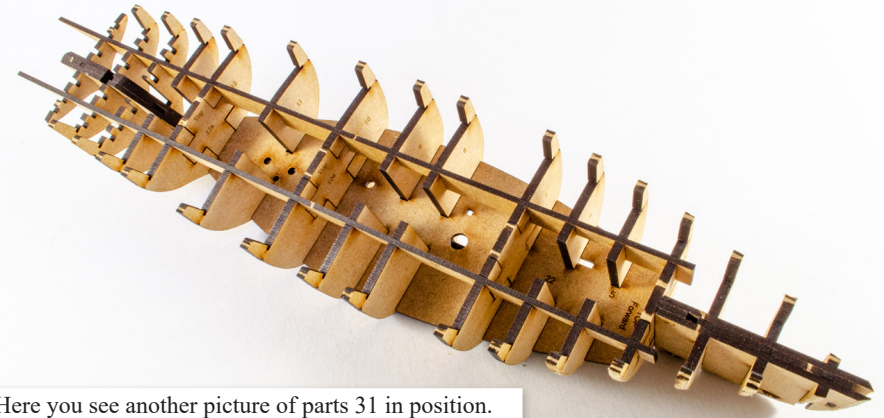


28. Now glue parts 10a and 12a into position on their respective bulkheads.

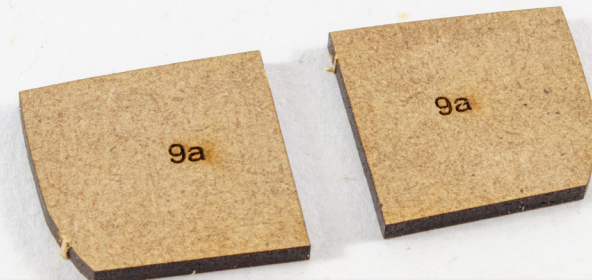




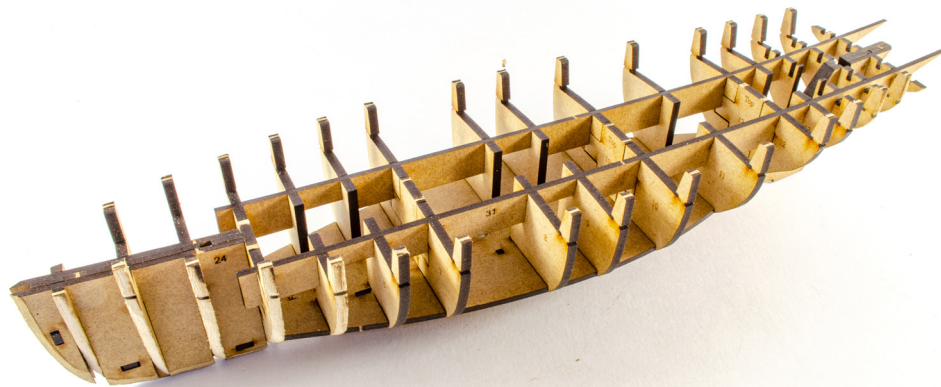
29. From the 2mm MDF, remove parts 31 (x2).



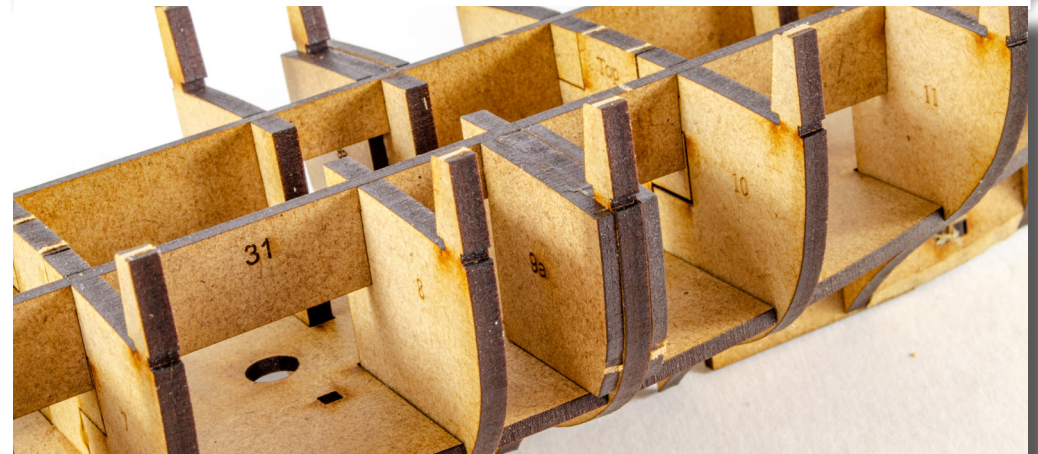
31. Here you see another picture of parts 31 in position.



32. From the 2mm MDF sheet, remove all parts 9a. Two (pair) shown here, but there are four in total.



30. Dry fit (no glue) these parts into the slots along the top of the bulkheads. Again, joggle the bulkheads to get them to sit comfortably in position. **Do not force them.** If force is required, then you simply aren't fitting things correctly!



33. Glue these into place on either side of bulkhead #9, so they sit on the lower deck and against parts 31 that you just fitted.



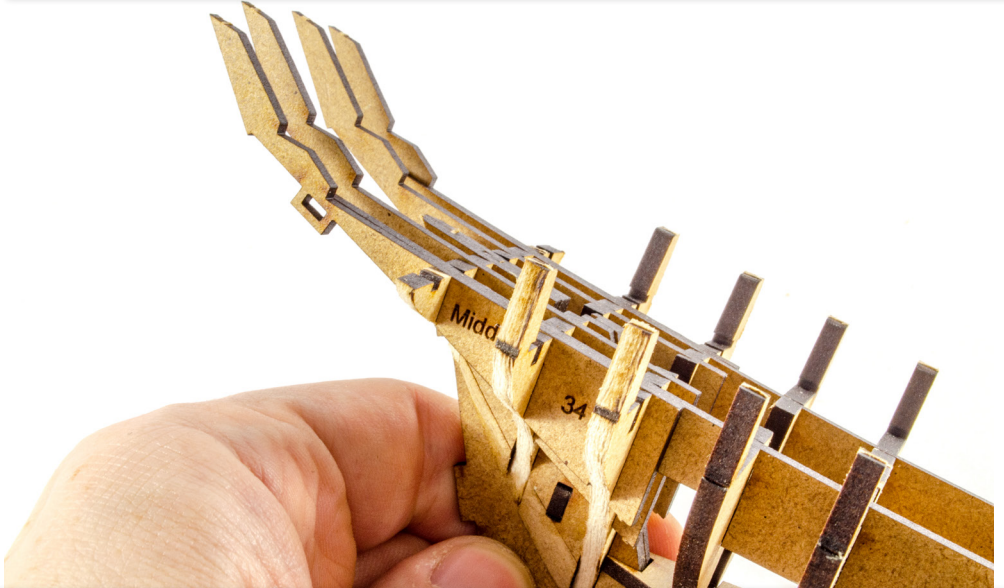
34. From the 2mm MDF sheet, remove parts 33 (x2). See how these are labelled 'INNER'.



36. Now remove parts 34 (x2) from the 2MM MDF sheet. Note how these are labelled 'MIDDLE'.

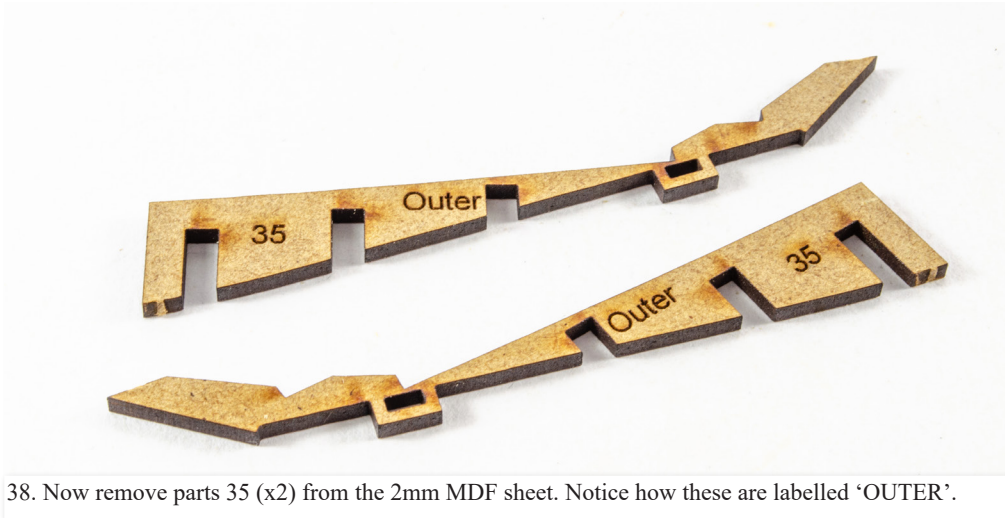


35. These now dry fit (no glue) into the innermost slots at the back (stern) of the boat, as shown here, through the slots in bulkheads 14, 15, and 16.



37. Slot these into the same bulkheads as the previous parts, in the next slots along.

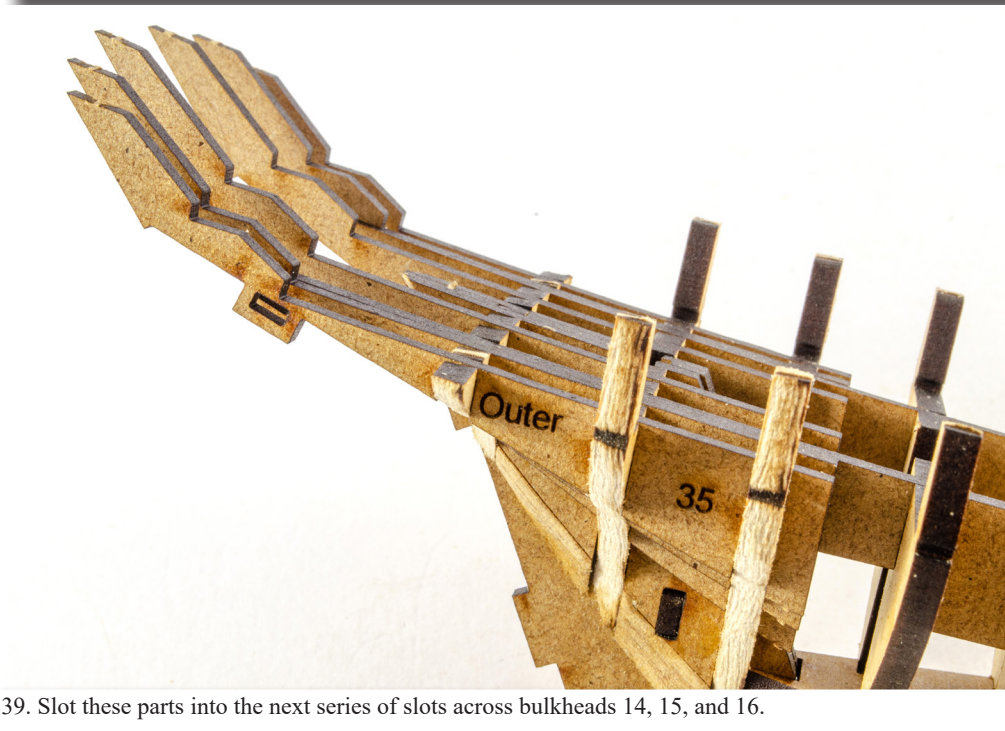




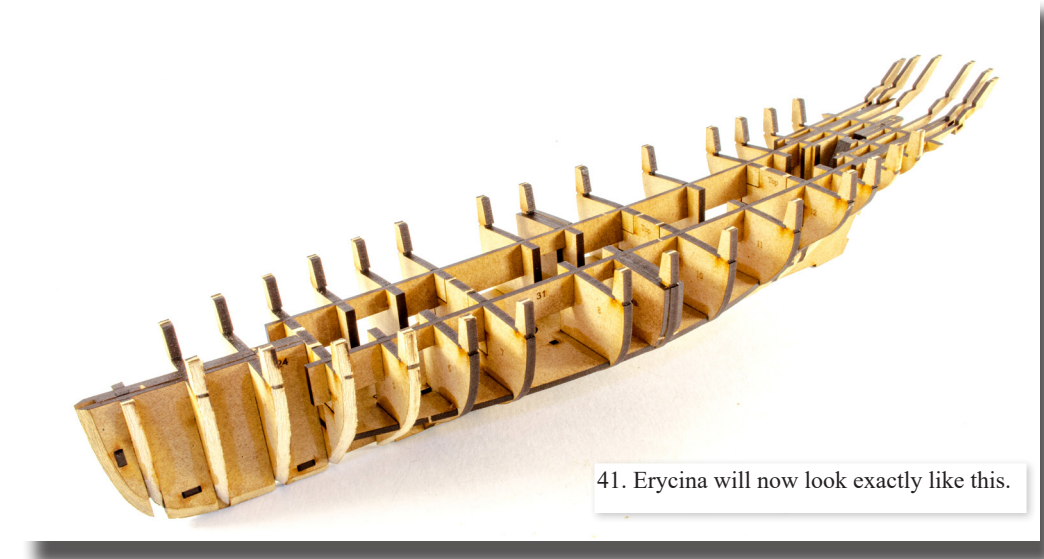
38. Now remove parts 35 (x2) from the 2mm MDF sheet. Notice how these are labelled 'OUTER'.



40. Now we can finally glue things together. As this model has many slots, this is the way we recommend applying glue for the main structure. Use white glue or Titebond, slightly diluted, and paint this into the various joints that make up the skeleton of Erycina. Make sure all parts are fully in position as you are doing this. When the glue is applied, leave to thoroughly set.

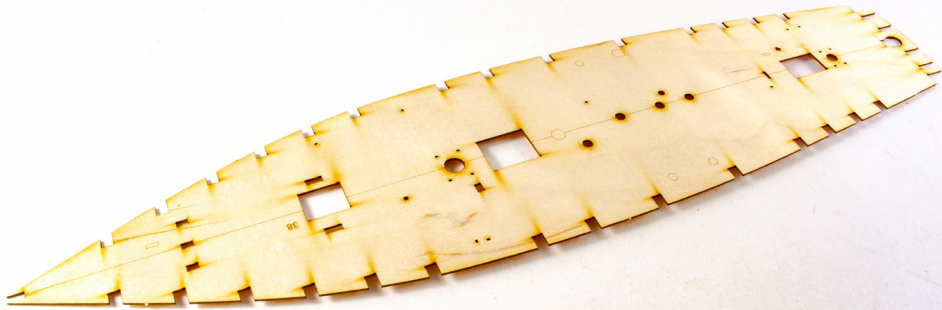


39. Slot these parts into the next series of slots across bulkheads 14, 15, and 16.

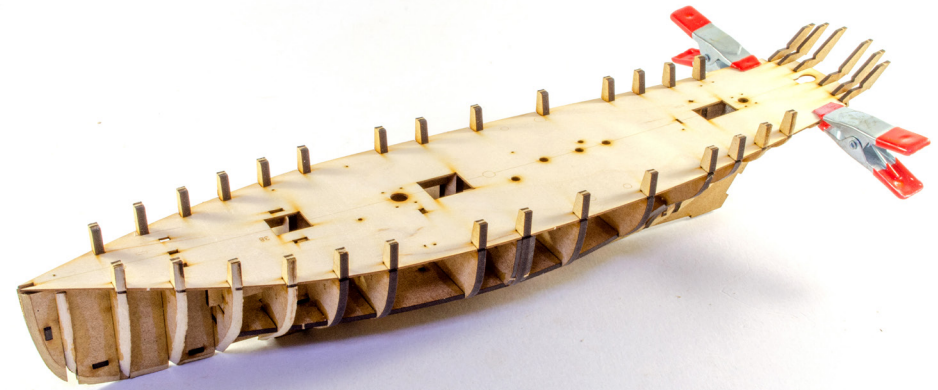


41. Erycina will now look exactly like this.

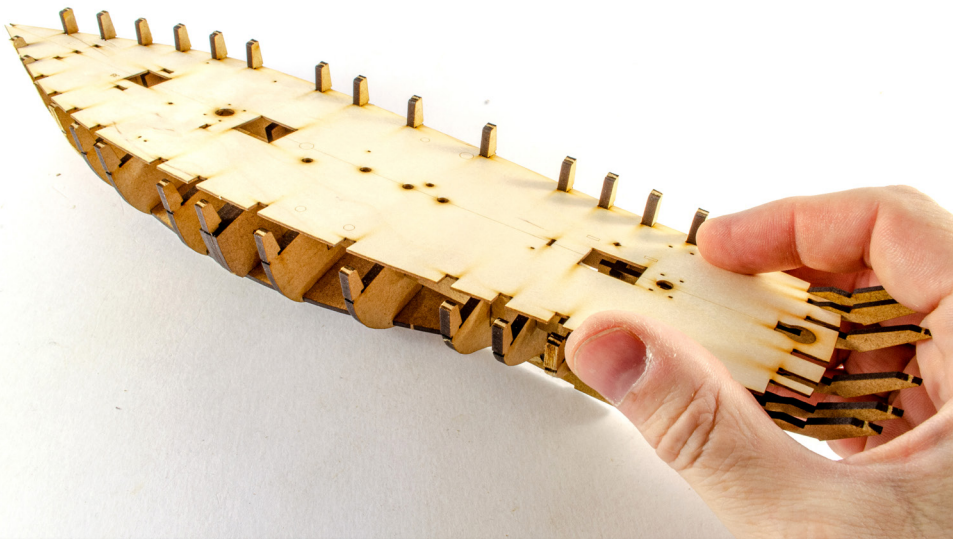




42. Remove the ply deck from the 0.8mm sheet. Note: This is not the one which is engraved with planks!



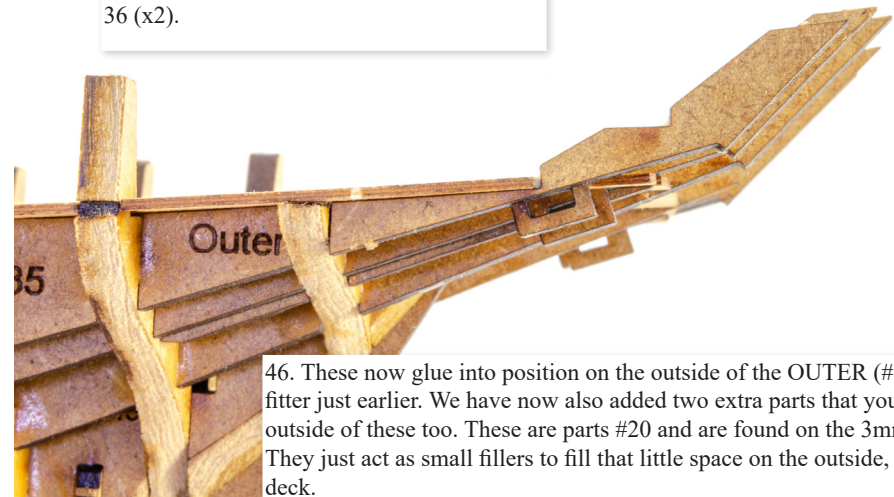
44. Once in position, you can paint glue onto the underside frames to glue the deck. We found it useful to use small clamps at the rear of the deck where no bulkheads are holding the deck in place.



43. Fit one side of the deck into the slots at the bottom of the bulkhead ears. This will make sure the deck is held down in that position. Now gently flex the deck so the other side will then slot into the opposite side. If the deck doesn't lay flat across all the framing, then you will need to check to make sure the deck is engaged into all bulkhead slots, with no exceptions! The fit is so that the deck more or less clicks into place on every bulkhead.



45. From the 2mm MDF sheet, remove parts 36 (x2).



46. These now glue into position on the outside of the OUTER (#35) parts you fitter just earlier. We have now also added two extra parts that you can glue to the outside of these too. These are parts #20 and are found on the 3mm MDF sheet. They just act as small fillers to fill that little space on the outside, underneath the deck.





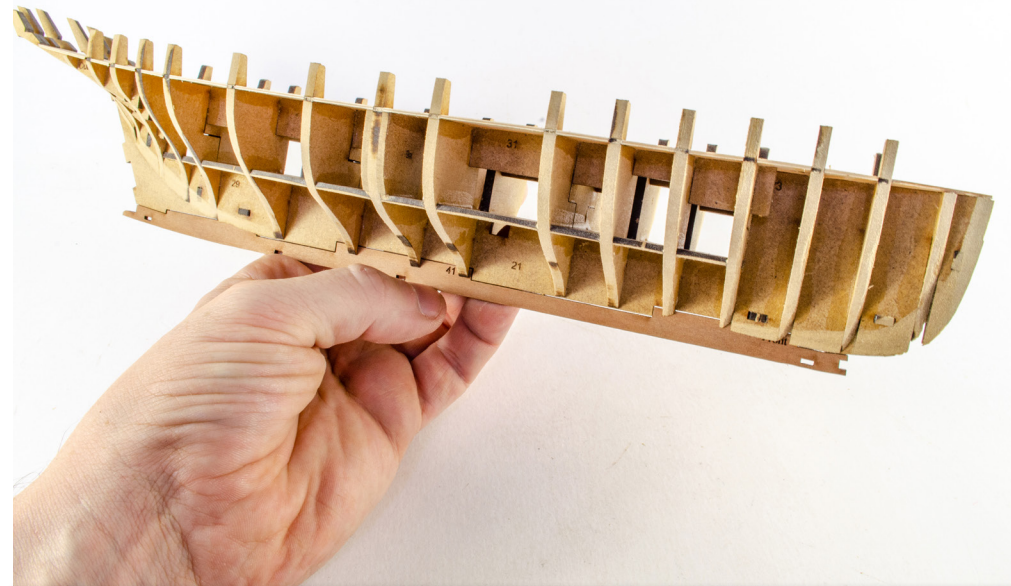
47. As everything is now securely glued, the 'safety gates' on the middle and outer stern parts, can now be snipped off flush with the part.



48. Before the hull can be planked, it needs to be sanded smooth so a plank will lie along it with maximum contact to all areas. This process is called 'fairing'. Use sandpaper or a flexible sanding stick to smooth off the hull to achieve this. **IMPORTANT:** As with any timber sanding, we recommend a face mark. MDF dust isn't very pleasant, so protect yourself!

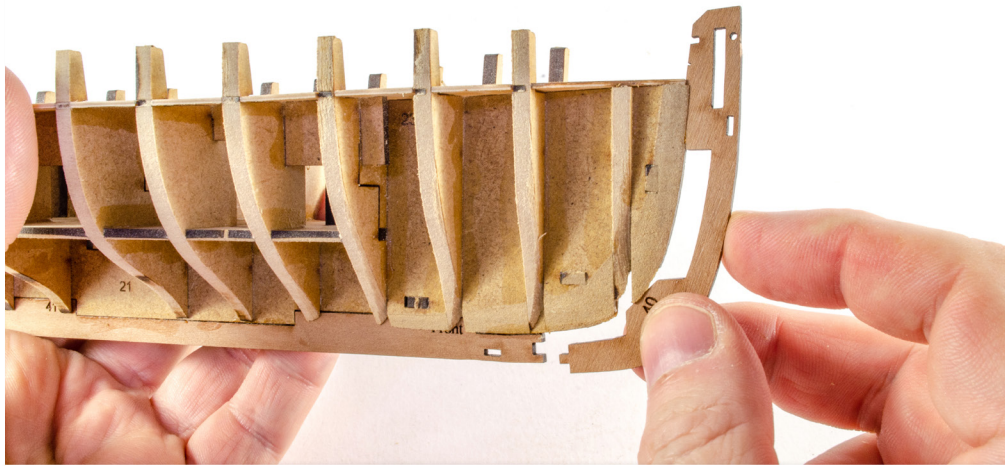


49. From the 2mm wood sheet, remove parts 40, 41, and 42.

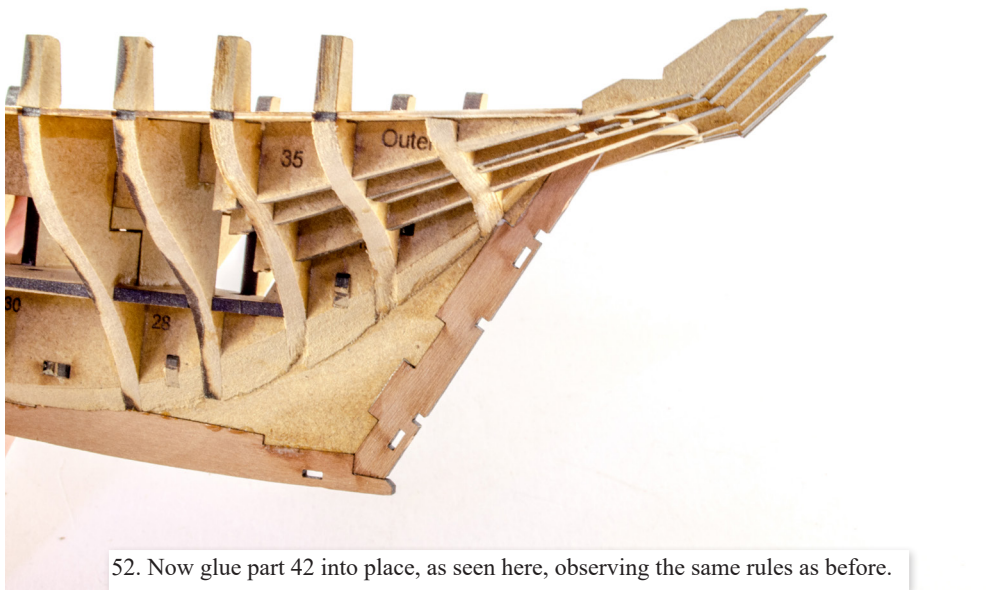


50. Firstly, glue part 41 into position as shown. Note that this has FRONT engraved to help with orientation. This part must be straight/in-line to the MDF keel. Allow to thoroughly set.

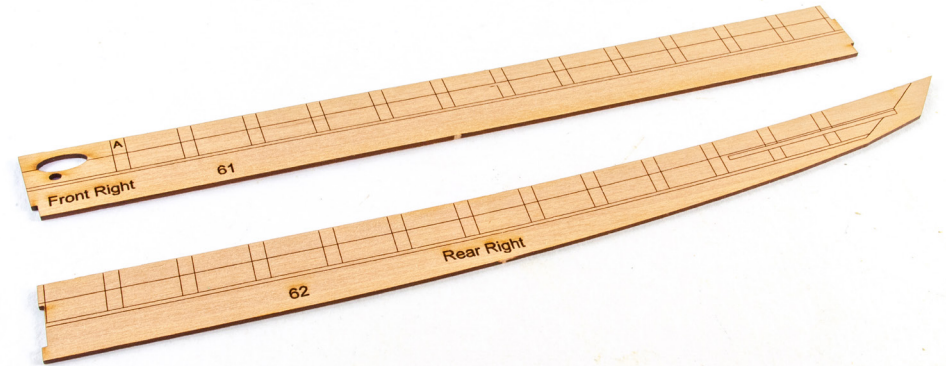




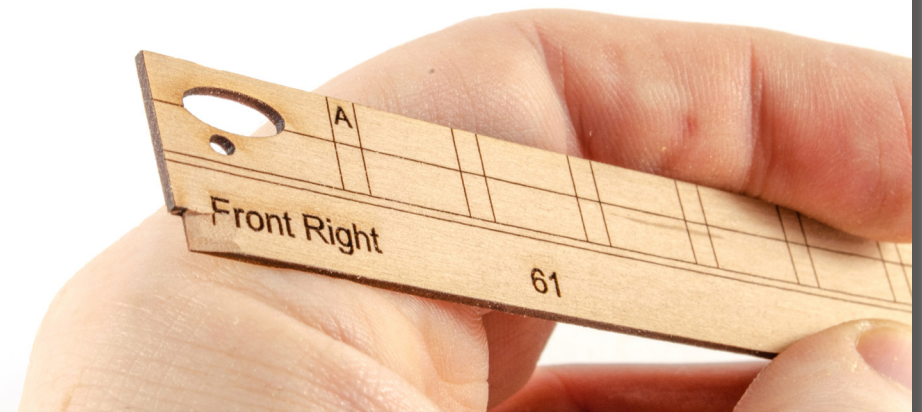
51. Now glue part 40 onto position as shown. The slots are designed so this will be perfectly in line, but please check that it's pushed fully into position and is in line with the previous part #41 you previously fitted.



52. Now glue part 42 into place, as seen here, observing the same rules as before.



53. We now need to look at skinning the boat, to create a shell. Firstly, we need to fit the bulwarks, which are the upper hull sides. On Erycina, these are provided in halves. From the 1mm wood sheet, remove parts 61 (front right), and 62 (rear right).

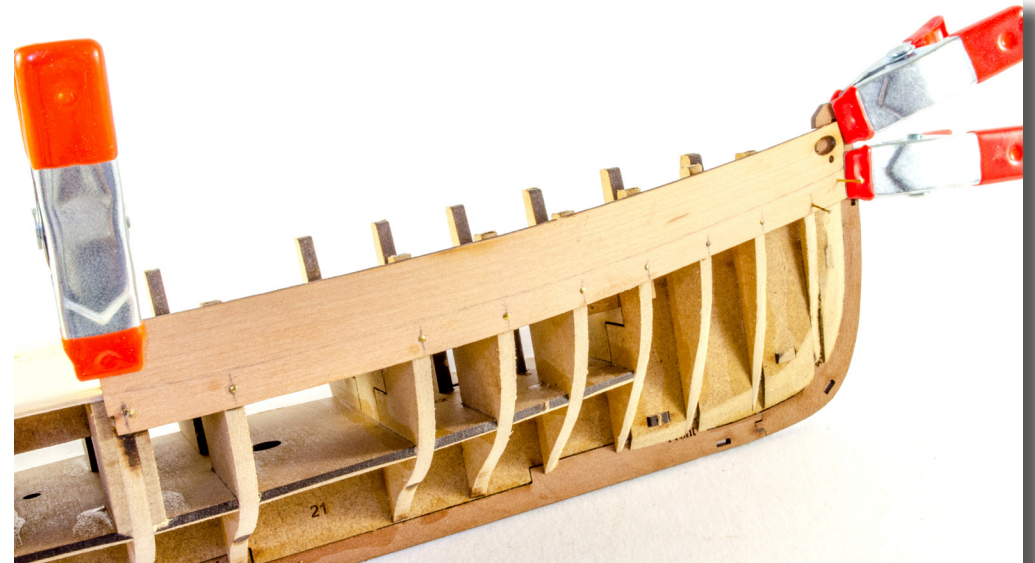
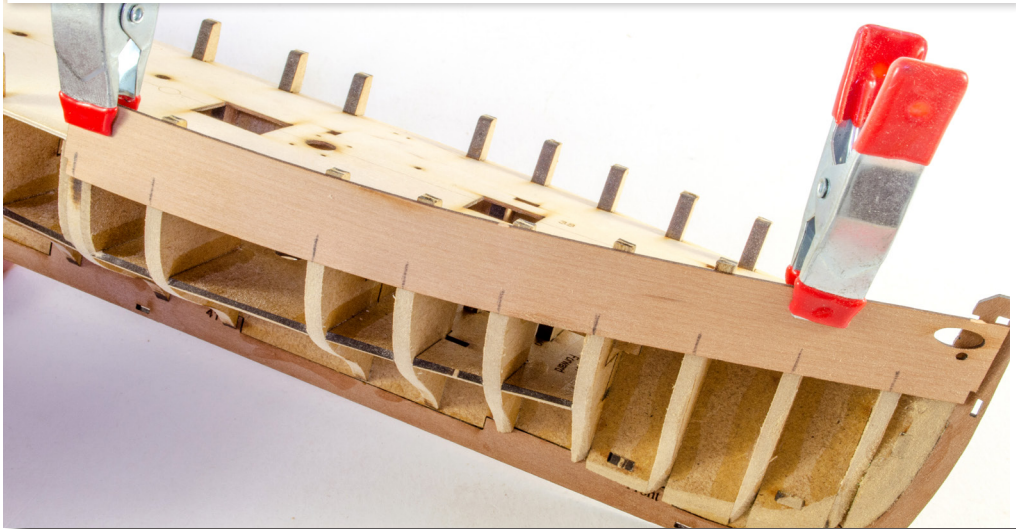


54. The upper end of the front section, fits into the slot on the 2mm wood bow. The lower area needs to be bevelled to sit against that same 2mm wood part. Here you can see how that has been bevelled.



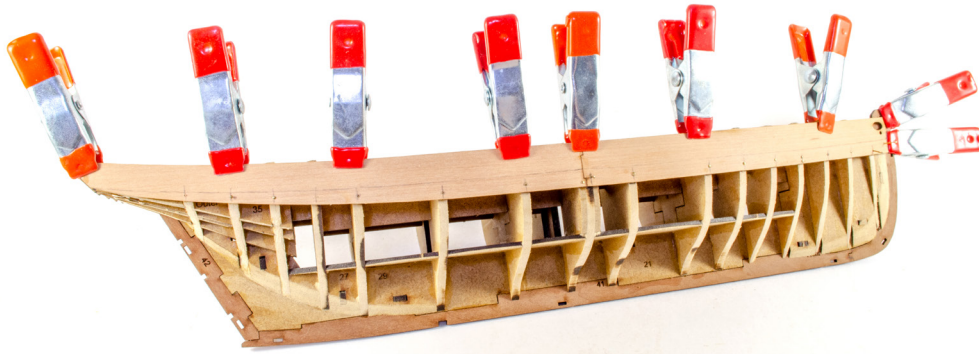


55. Glue this bulwark section into position as seen, with the front slotted into the bow, as mentioned. Also notice the height of the bulwark. The level of the deck must sit along the lower longitudinal line that's engraved in this bulwark. On the outside of the bulwark, I also made some pencil marks in line with the bulkheads, and then drilled a 0.5mm hole a few millimetres from the bottom of the bulwark, on each pencil mark. Brass pins are then used to hold the bulwark against the bulkheads whilst the glue sets. Vanguard Models sells a tool which is ideal for pushing in these pins. VERY IMPORTANT!! DO NOT GLUE the bulwark to the part of the bulkhead which sticks above the deck!!



56. Here is the rear bulwark which we will now fit. You can just about see that I have drilled this so it can be pinned to the bulwarks while the glue sets.

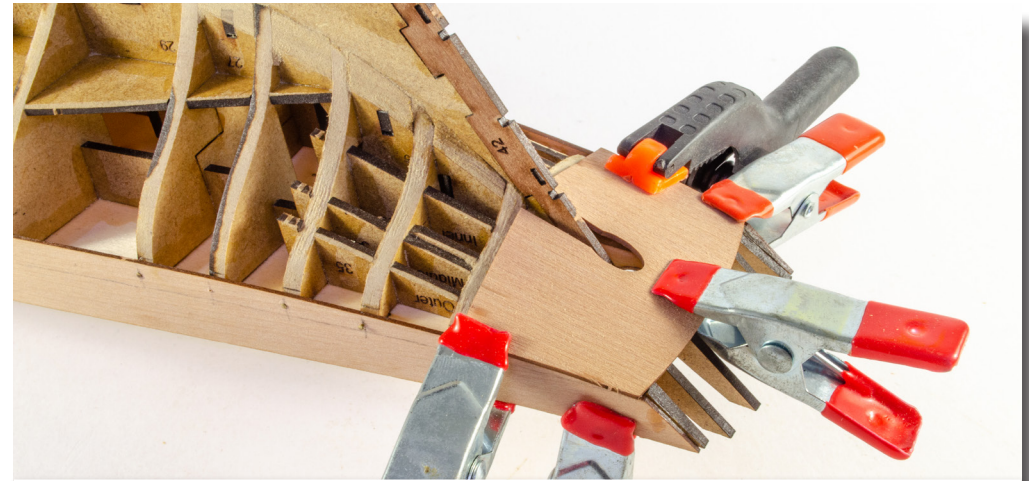




57. The rear bulwark is now glued and pinned into position. As before, do not glue the bulwark to the bulkheads above deck level. You can now fit the bulwarks to the other side of the model.



58. Remove part 70 from the 1mm wood sheet. This is called the inner stern counter.



59. On the prototype, we found that soaking the part for 30 mins in hot water, and then clamping in place until dry, really helped with fitting. If you soak this part, you must leave it to dry for at least 12hrs for it to regain its original shape. Pear wood does expand quite a lot when it gets wet. Once dry, glue and pin in place.

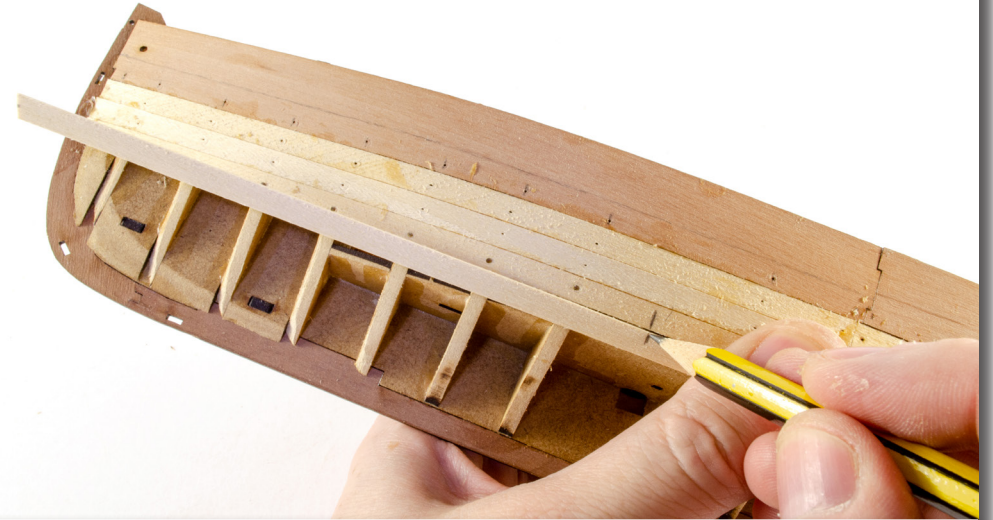


60. Erycina will currently look like this.

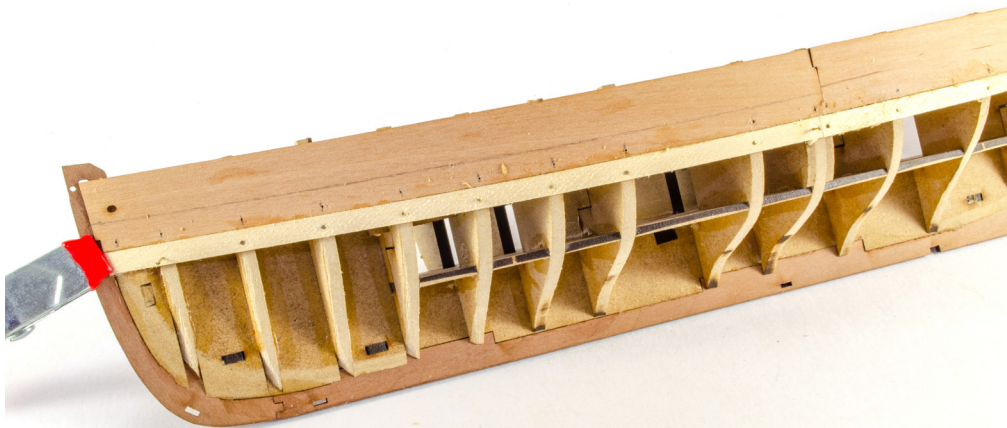




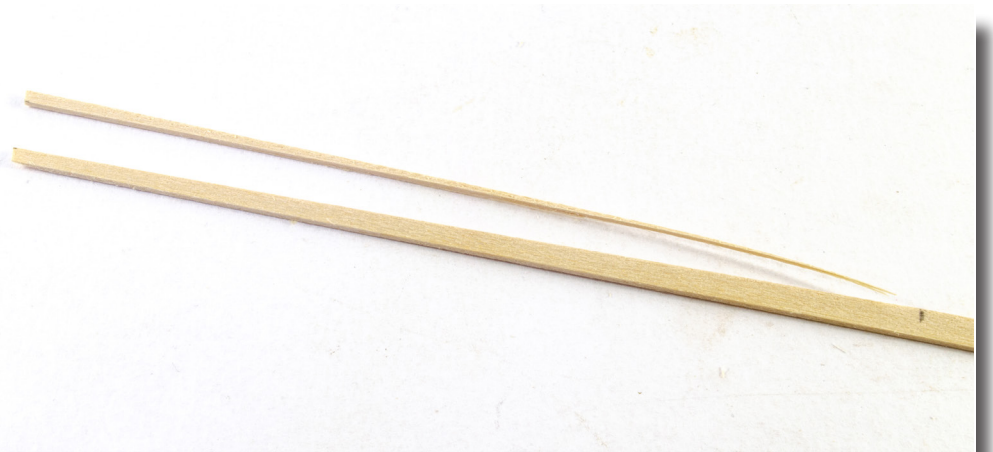
61. Erycina must now be planked. For this model, you can add each length in two sections, if you wish. To start, a length of lime planking is fitted from the stern counter to the bulkhead #9, so it lies along the wood bulwark. After gluing this, pin it into position until dry.



63. We managed to fit three planks without tapering, but you will eventually need to taper them to make them lie flat on bulkheads. To start, a plank is led underneath the previous and where it starts to cross over, a pencil mark is made.



62. You can now add the forward section of this plank. Make sure you angle and bevel the front so that it follows the curve of the bow.



64. Make a mark at the front of the plank, about halfway down the width. Now join those marks with a pencil and cut between them as shown.





65. The tapered plank can now be glued and pinned as shown.



67. Remove part 76 from the 1mm wood sheet. This is called the stern board. The engraved side will face inwards.

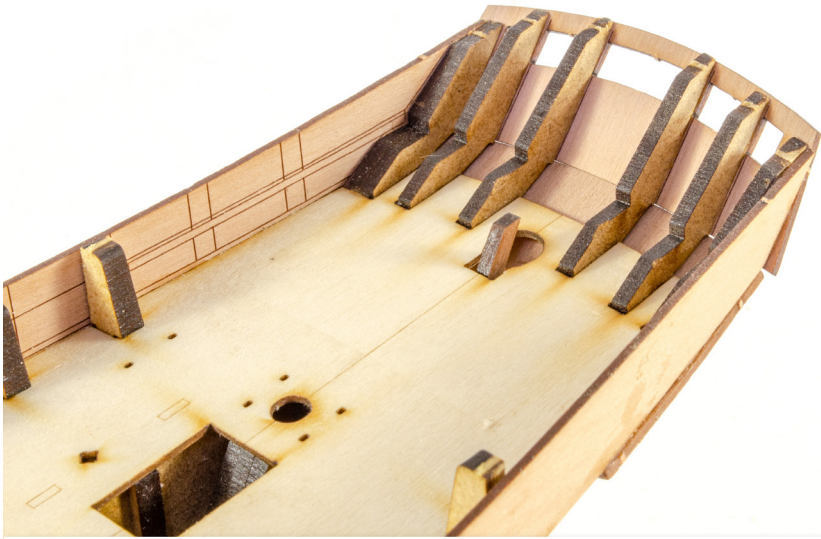


66. Work your way downwards in the same way. You may get to a point where you want to work upwards from the keel. That's perfectly ok. Plank the hull until complete. If there are gaps, add small pieces of wood to fit in them. Those are called 'stealers'. Note how the planks at the stern create a curve. That's so the outer keel face can eventually be added. If you are unsure, please look at the photos which proceed this one.



68. Using sandpaper or a flexible sanding stick, sand the stern timbers as shown so they curve from left to right. Not much sanding is required here.





69. Now glue the stern board in place as shown here, so the stern timbers sit within the engravings on the inner face. Leave to thoroughly dry.



70. Use a suitable grade sandpaper, such as 110 grit, and sand the hull smooth, removing any edges between the planks, and the plank to bulwark transition etc. Run your fingers along the hull to check for any unevenness, as this can be as good an indicator than simply just visually checking.



71. From the 0.8mm wood sheet, remove part #99. This is the outer stern counter and will fit very much like the previous inner counter.



72. We found this part didn't need to be soaked before fitted. Glue into position and make sure it's clamped around the edges and in the concave area on the hull underside.

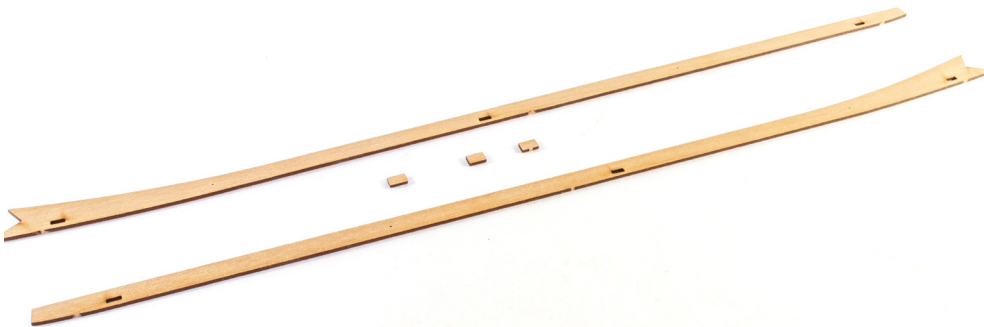




73. Once set, sand the overhang of this part so that it's flush with the bulwark.



75. Part #65 is the keel rabbet pattern. This glues into position as shown here, so the slots in this and the keel will align. When fitted, this part creates a small rebate for the second layer of planks.



74. From the 1mm wood sheet, remove parts 65 (x2) and parts 69 (x3).

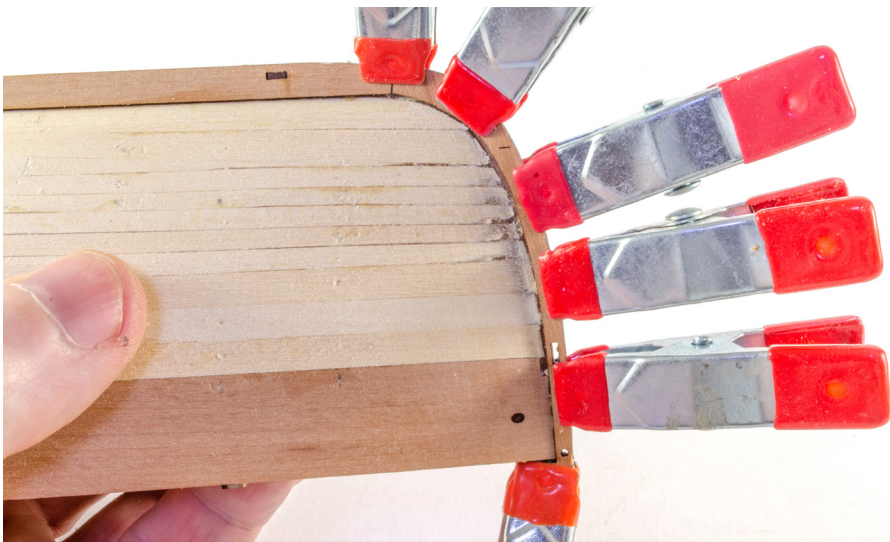


76. Now glue parts #69 into place in the slots. You can now also glue part #65 into position on the opposite side of the keel.





77. From the 1mm wood sheet, remove parts #67 and #68. These are the stem rabbet patterns and will create the same rebate as the previous parts. You will also need two more #69 parts.



78. Glue the part #67 into position as shown. Note this has a small, engraved mark which faces outwards.



79. Glue the two pegs into position as shown. You can now glue part #68 to the opposite side of the keel.



80. From the 1mm wood sheet, remove parts #66 (x2). You will also need two more pegs.



81. Glue one part #66 into place as seen here, so the slots align. You will note that this piece protrudes through the upper deck too.







82. Glue the pegs into place and fit the remaining part #66 to the opposite side of the keel.



84. From the 0.8mm wood sheet, remove part #102 and #103. These are the outer bulwarks which will form the visible second layer of Erycina.



83. Erycina will now look like this and is ready for a second layer of wood.



85. Take your part #102 and glue/clamp to the outside of the right-hand side of the hull as shown here. The forward edge of this will sit in the rebate you created, and you probably won't need to bevel anything. If you do, that's perfectly ok. TIP: We suggest you mark the position of the outer bulwark first, with a pencil, and apply the glue to the hull and not the bulwark. This will prevent the bulwark from curling as it would if you added glue to that part.





86. Now add the outer bulwark #103 to the opposite side of the hull and leave to dry.



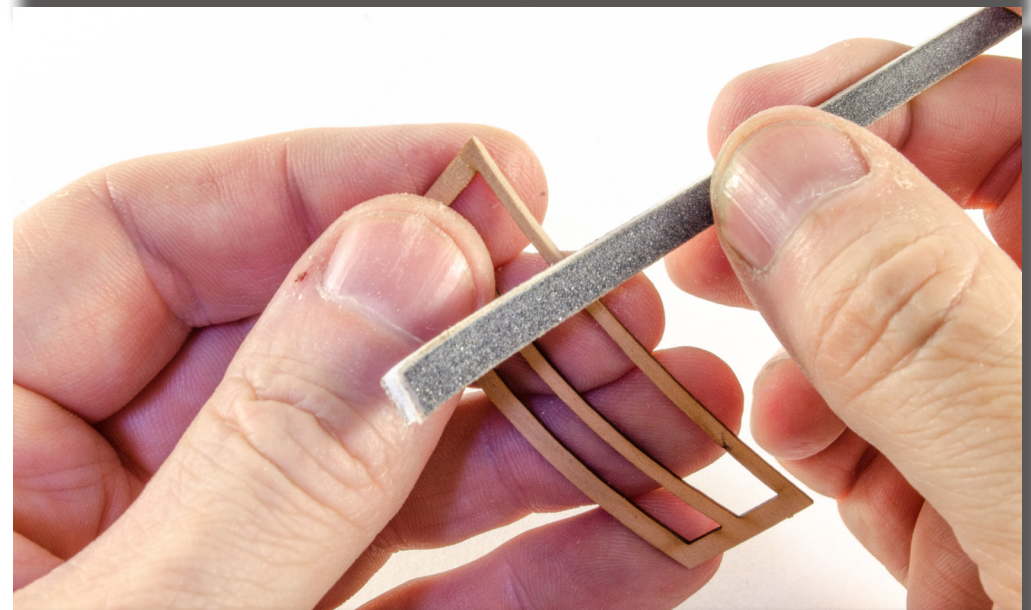
87. Add the second layer of planks using the 0.8mm pearwood strips (F27). Plank this in the same way as the first layer or use whatever method you prefer. Make sure the planking is much tighter together and edge-bevel the planks where necessary.



88. Use a sanding stick or similar to even the surface on the stern so the ends of the bulwarks are flush with the stern fascia.



89. From the 0.8mm wood sheet, remove part #100.



90. You can slightly bevel the lower edge of this so it will sit up comfortably next to the edge of the stern counter.





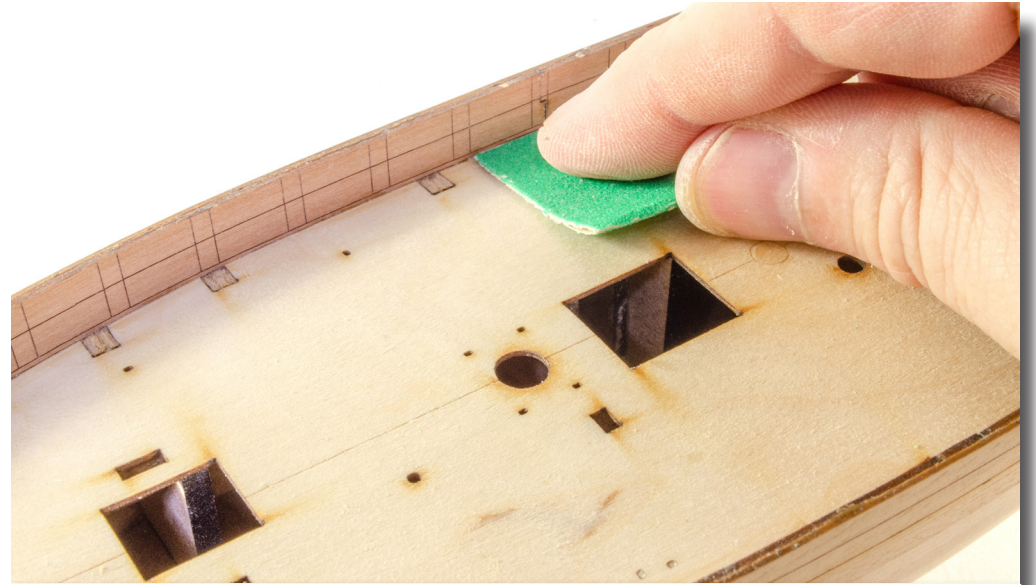
91. Glue part #100 into position as shown. This will probably overhang the bulwarks, which is what was intended. This is simply a stylistic thing, so don't worry if your part doesn't overhang too much.



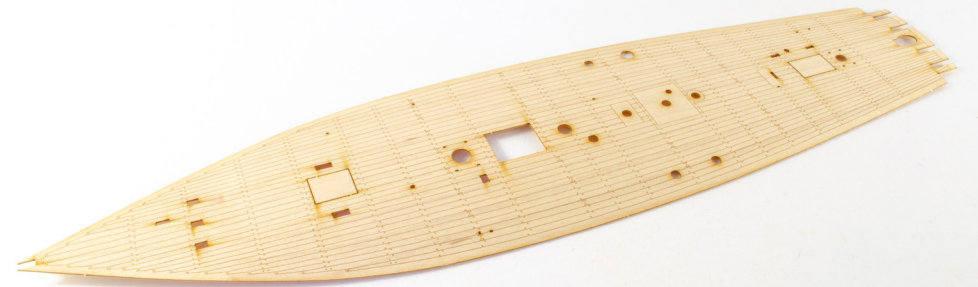
92. When complete, sand the hull smooth using 110 grade paper to start, and finishing with something much finer, such as 320 grade. NOTE: We recommend masking the upper bulwark and its engraved lines beforehand, so you don't accidentally destroy that detail.



93. Use pliers or similar to now gently snap off the MDF bulkhead ears what stick out above deck.



94. Use sandpaper do now flush these areas to the deck.



95. Remove the 0.8mm maple veneer deck from its sheet and remove the blanks that fill the various openings.





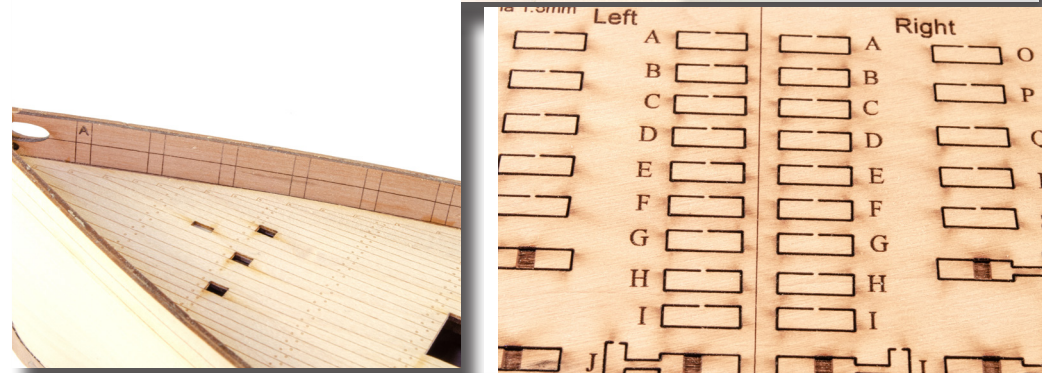
96. Repeatedly test fit the deck onto your model until you are happy that it lies perfectly flat over the contours, and up against the bulwarks. You may need to sand a little from the edges of the deck. On the prototype, I only had to remove the char at the edges for it to fit perfectly. When you are happy with it, glue into position by slotting the bow end into the stem first.



98. Erycina will now look like this.



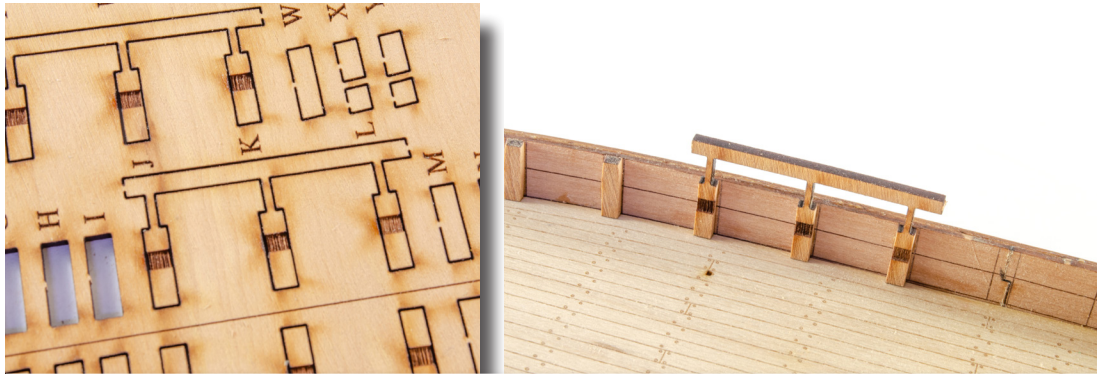
97. Use small clamps to hold the deck down around the edges until properly dry.



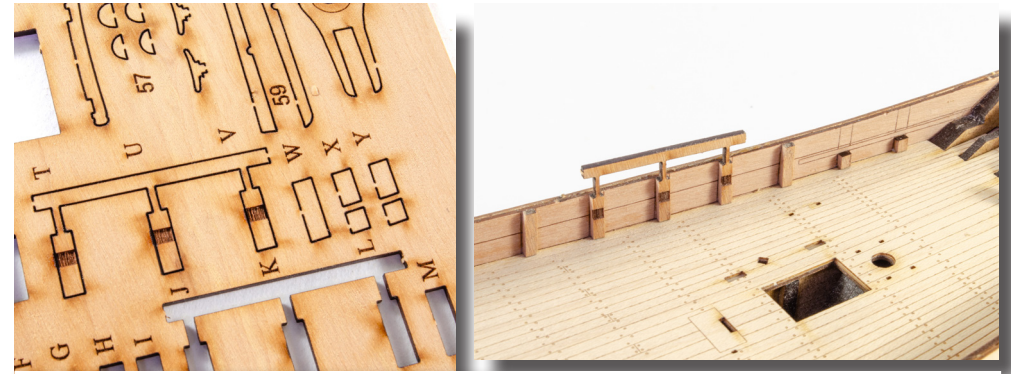
99. We will now fit the timberheads. Notice that the inner bulwarks are engraved with the timberhead positions, with the first one (at bow) marked 'A'. This view is of the starboard side. Now notice that the timberhead parts on the 1.5mm wood sheet, are marked A, B, C etc. Use the timberhead A, B, C, parts on the Right here to fit out the inner starboard bulwark. For this sequence, fit parts A thru to I.



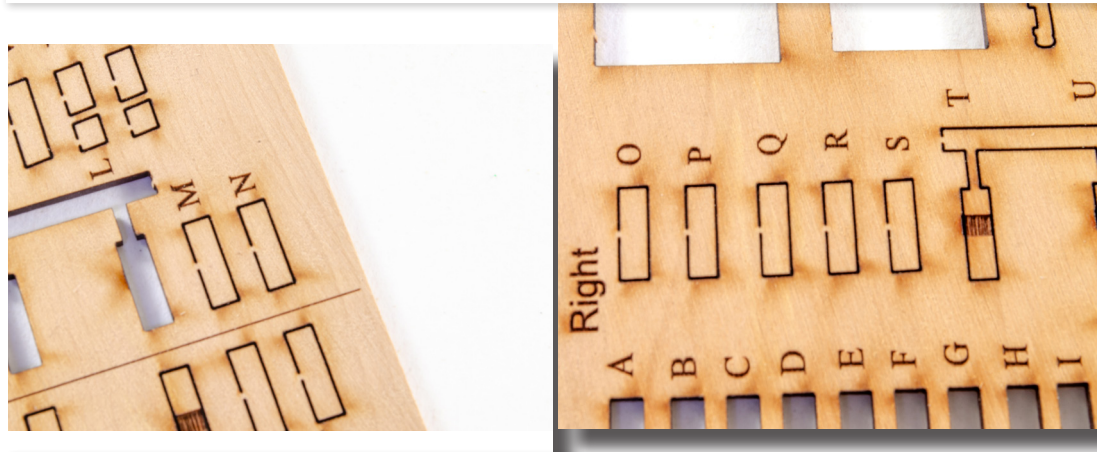




100. The next three timberheads (J, K, L) are connected. Remove the single part from the 1.5mm wood sheet. Glue the part into position after the previous timberhead, as shown. As you progress, you may need to slightly bevel the underside of the timberheads so they sit flush to the deck.



102. We now have three more timberheads (T, U, V) on a single part, and W, X, and Y as separates. Remove these from the 1.5mm wood sheet. Glue into position after the previous timberheads. Note that you will only glue into position the lower parts of X & Y at this stage.



101. Now remove timberheads M thru to S, from the same 1.5mm sheet, and glue them in sequence after the previous timberheads.



103. Remove the two parts #45 from the 2mm wood sheet. Note that these are marked 'FORE'. Glue these into position across the forward group of timberheads, as shown. You can also slightly shape these rails at the ends, using a small file.



104. Now remove the two parts #46 from the same 2mm wood sheet. Note these are labelled as 'AFT'. Glue these into place across the rear sets of timberheads, as shown.



105. From the 1mm wood sheet, remove part #124



106. Glue this into place as shown. It will sit in the notches in the stern timbers, and also on top of the short timberheads.





107. Use a pair of cutters to snip the cross bar and connector from the top of the joined timberheads.



109. Use a rigid sanding stick or some sandpaper wrapped around a steel rule and draw this along the tops of the bulwarks to flatten the tops and make them even. This shouldn't take much work to achieve.



110. Remove part #55 from the 1.5mm wood sheet. This will fit inside the stern, but you'll first need to bevel the inside slots so the part sits more or less horizontal to the slope of the deck.

111. Test fit, and when happy with it, glue it into position.



112. On our Erycina prototype, we decided to paint the upper outer bulwarks in green. You can use whatever colour you choose. First of all, the bulwark area was brushed with a thin coat of polyurethane varnish and allowed to dry. As we airbrushed Tamiya XF-5 Flat Green, we first masked the model so that only the upper bulwark was visible. Green was then airbrushed in thin coats until a nice, solid coat was achieved.





113. From the 0.8mm wood sheet, remove both parts #104 (front and rear). These are the lower rails. NOTE: We supply these in halves, unlike the prototype you see.



115. From the 0.8mm wood sheet, remove parts #105 and #106 (front and rear). Note that the upper side on each is denoted by engraving at the bow end. Again, we have supplied these as halves, unlike the full-length piece you see in the photos.



114. For Erycina, we chose black as a contrasting colour which looks good for a working vessel. The rails are then glued into place, so they sit outside the lowermost engraved line which runs along the bottom of the bulwark. NOTE: You will need to bevel the inside front part of each rail so they sit flush to the stem.

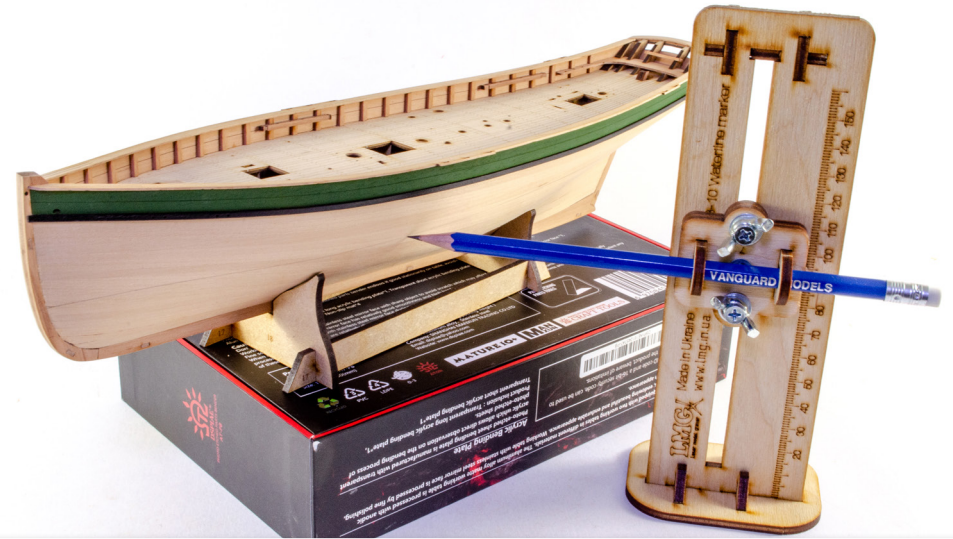


116. Glue the parts into position as shown here, and on the plan (for reference). To avoid clamping, we used small spots of CA gel.





117. From the 0.8mm wood sheet, remove part #107.



119. We must now add a waterline, and below this we will apply any filler that is needed before applying paint to this area. Place Erycina on its stand so the small plug fits into the socket on the keel underside. As the hull sits low to the desktop, you may need to elevate a little so you can use a waterline tool. Here, we have placed the model on a rigid, even box and used the plans as reference for drawing a pencil waterline. Waterline tools are available from our web store. Make sure the waterline runs along the top edge of the white boot line position.

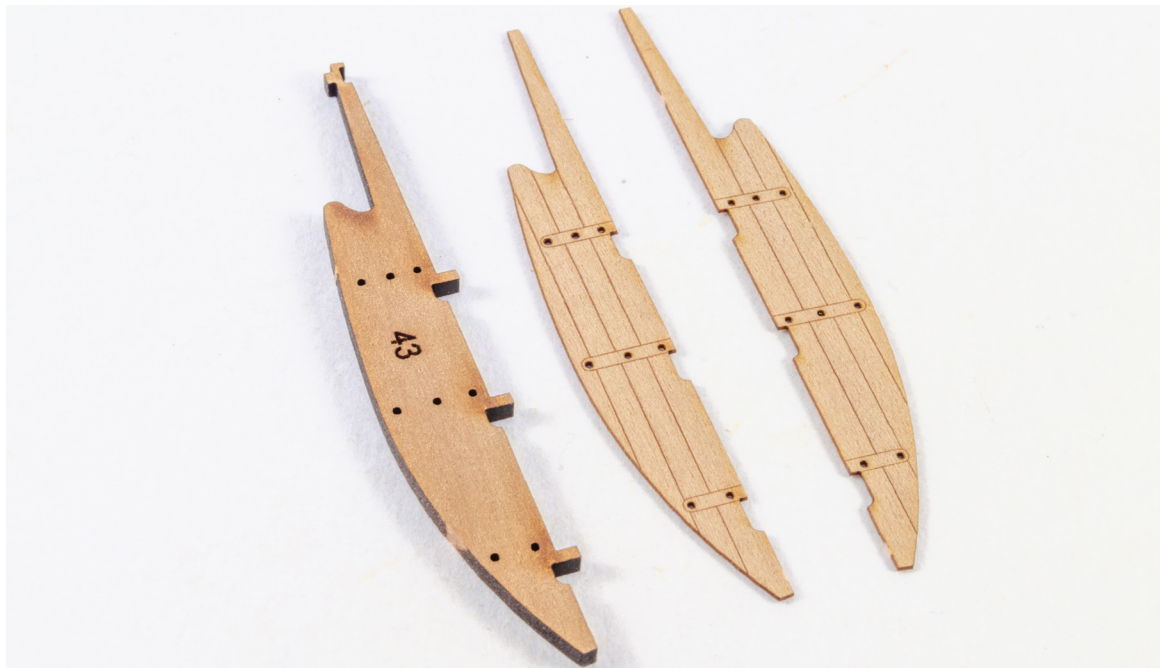


118. This is now glued into place as shown. Sand any overhang at the sides, flush with the rails you previously fitted.



120. Mask all areas above the waterline and then use dilute acrylic wood filler or similar, to fill any imperfections. Sand the area smooth again and repeat until you are happy with the finish.





121. From the 2mm wood sheet, remove part #43. From the 0.6mm wood sheet, remove parts #108 and #109.



122. Glue the thin outer parts to the inner 2mm rudder, with the engraved faces outwards. NOTE: Apply glue to the 2mm part so as not to curl the thinner timber. Make sure everything is properly aligned and then clamp until dry.

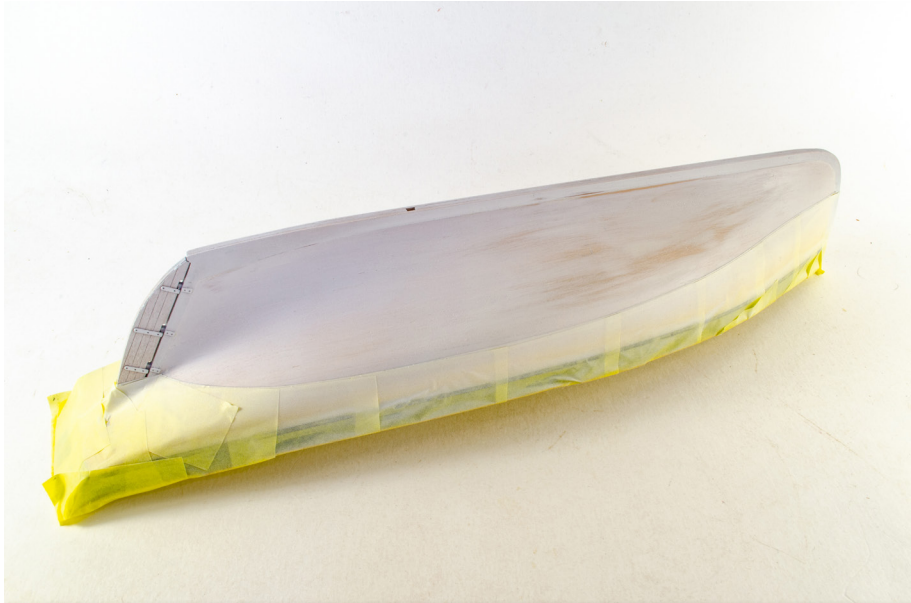


123. Remove parts #PE-24, #PE-25 and #PE-26 from the PE sheet, and glue into their respective positions on the rudder, using CA.

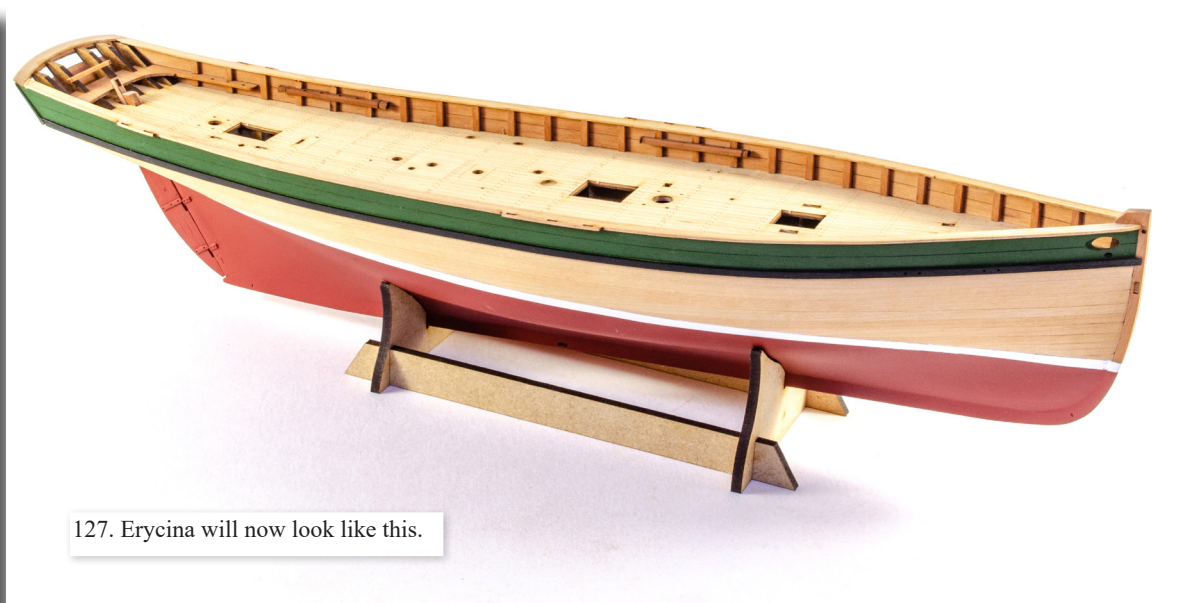


124. Glue the rudder to the hull. From the PE sheet, attach hinge parts #PE-23 to the rudder post as shown.

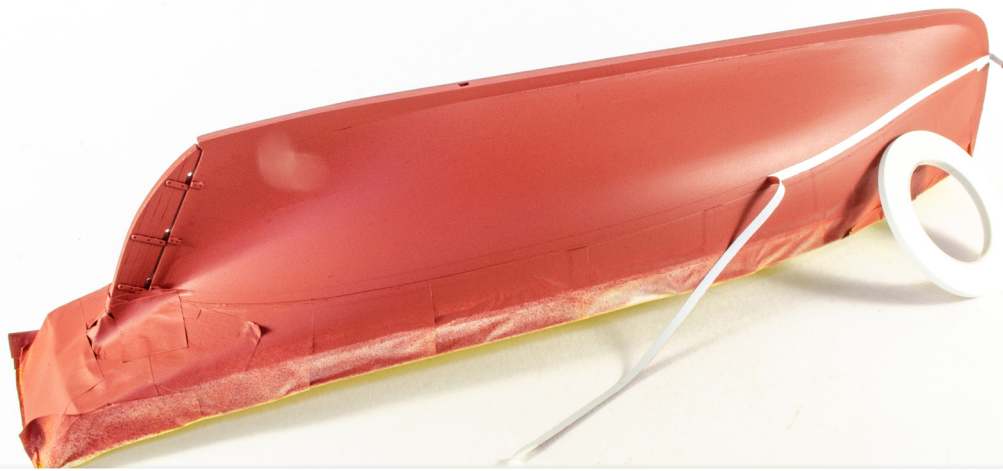




125. You can now apply primer to the lower hull. We used Tamiya Fine White from an aerosol. This will highlight imperfections. Find those areas, fill them, and then re-sand them until you are happy with how the hull looks. You can then spray the lower hull until it's more uniform in coverage, and most definitely around the waterline.



127. Erycina will now look like this.

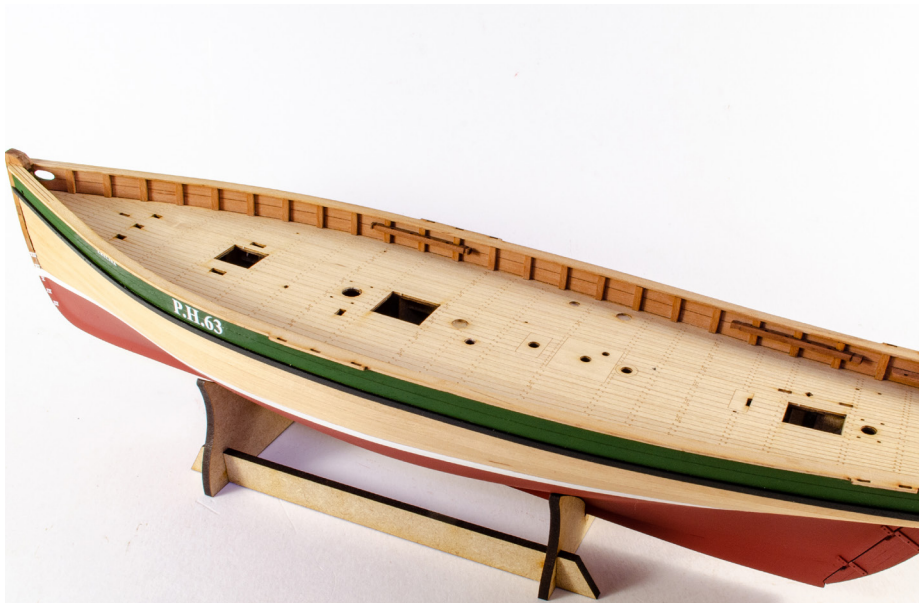


126. Apply a band of 3mm masking tape around the edge of the hull masking tape you applied. This will create the boot area. Now spray the lower hull in red oxide colour paint. When dry, peel away the tape to reveal the boot top line. Now remove the rest of the hull masking. NOTE: We recommend 3mm flexible masking tape as shown here. This is available from our web store.



128. DECALS: We supply waterslide decals for the boats name and registration number. You will need to cut quite close to the edge of the decals before use.

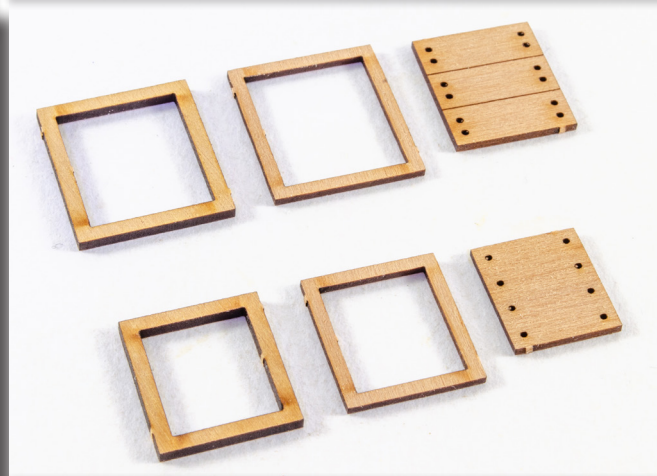




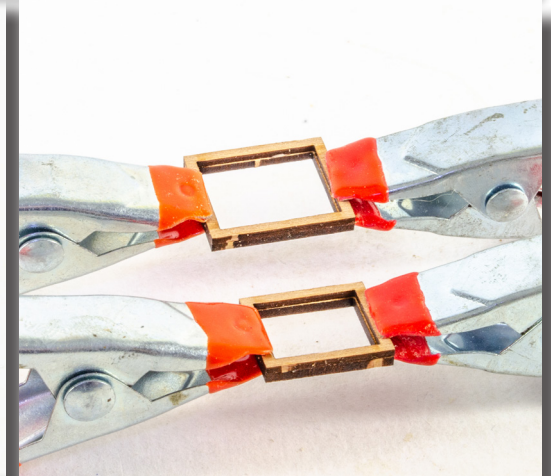
129. To apply the decals, you need to apply them to a gloss surface, so paint a little gloss varnish over the areas where they will be placed. Now, add them to tepid water for about 10 seconds. Test to make sure the decal is free from the backing paper. Slide the decal into place and remove any excess water. We also recommend a decal setting solution which will help the decal snuggle into any timber grain etc.



130. Work can now begin on the deck. First of all, remove parts #PE-30 and #PE-31 from the PE sheet. We painted these black and they represent the various port lids for topping up vessel services, such as ice, coal and water. Glue the parts into place as shown here and on plans.



131. From the 1.5mm wood sheet, remove parts #53 and #54. From the 1mm wood sheet, remove parts #78 and #79. These are the frames for the fish hatches. Also, from the 1mm sheet, remove the fish hatch lids, parts #80 and #81.



132. Glue the respective frame parts together to create a frame with an inner lip. Clamp and allow to dry.

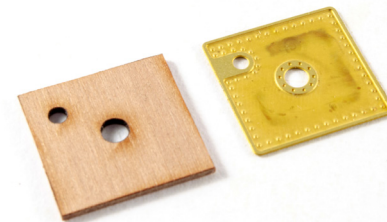




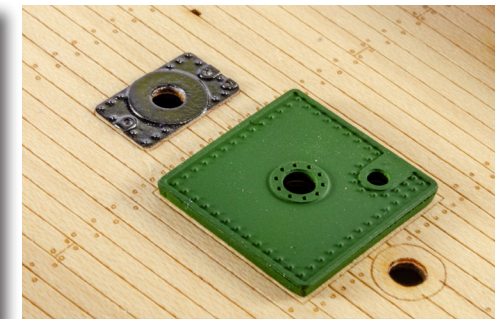
133. Now glue the fish hatch lids into place.



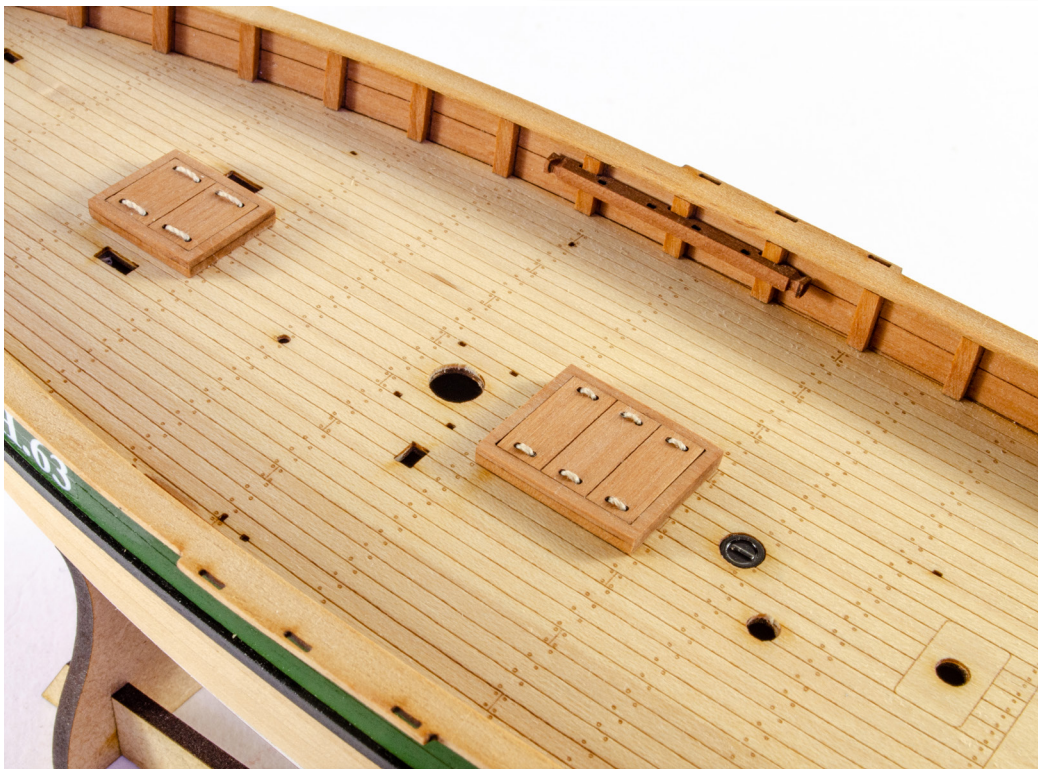
134. The handles need rope, so use a short length of 0.5mm natural cord, and first add a knot to one end. Thread up through a corner from the underside, then run the cord in and out of the holes to create the handles. The end of the cord will be on the inside of the hatch, so apply a little glue to seize it.



136. From the 1mm wood sheet, remove part #92. From the PE sheet, remove part #PE-34.



137. Glue these parts together and prime. We painted this green to match the outer bulwarks. Glue the assembly to the deck. After painting, also glue #PE-35 to the deck.



135. Glue the fish hatches into place on the deck.



138. LADDERS: From the 1mm wood sheet, remove both parts #77. From the 0.6mm wood sheet, remove all parts #111



140. Glue the other side into position and make sure nothing is twisted. Leave to dry.

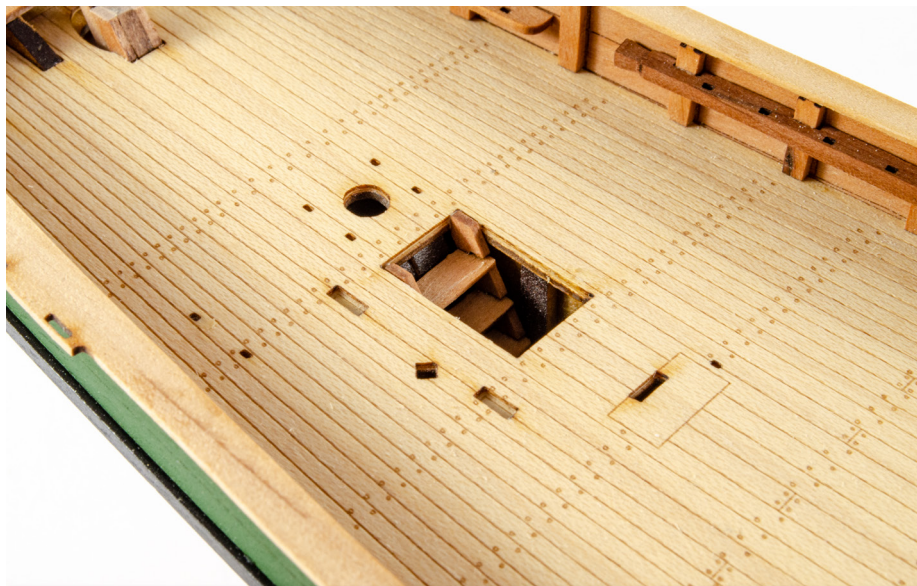


139. Glue a step into the top and bottom slots in ladder side. Leave to dry.

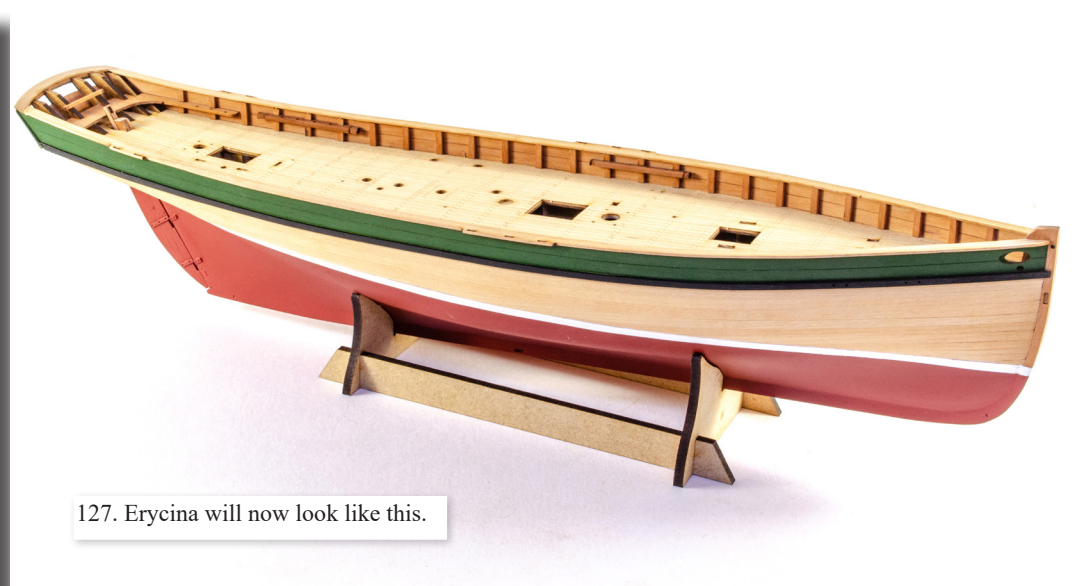


141. Glue all remaining steps into position.





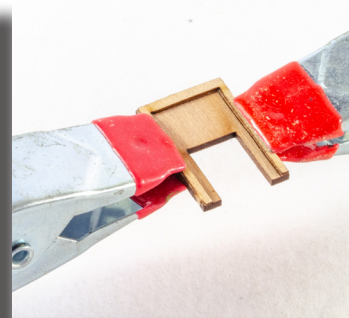
142. Fit the ladder into position as shown. Be careful not to drop it inside the hull.



127. Erycina will now look like this.



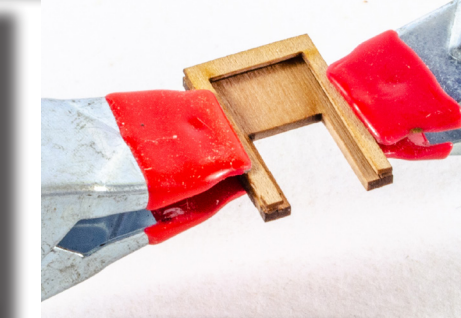
143. COMPANIONWAY: From the 1mm wood sheet, remove part #98. From the 0.6mm wood sheet, remove parts #113 and #114.



144. Glue #114 into position on the engraved area on #98. Clamp until set.



145. Part #113 will now be glued over the top of this.



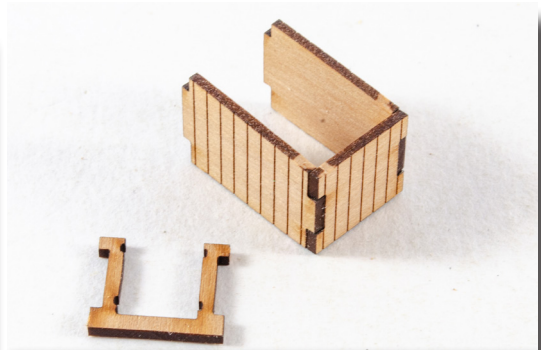
146. Clamp parts until set.



147. From the 1mm wood sheet, remove parts #94 thru #97.



148. Glue part #95 to #97 as shown, making sure they are at right angles to each other. Leave to dry.



149. Now glue part #96 on the opposite side.



150. Finally, glue #94 to complete the walls.





151. The roof can now be glued to the companionway. From the 0.6mm wood sheet, remove part #114a.



155. The doors can be glued in an open or closed position. Also glue another #115 to the sliding roof, as a handle.



156. The companionway can now be glued into place.



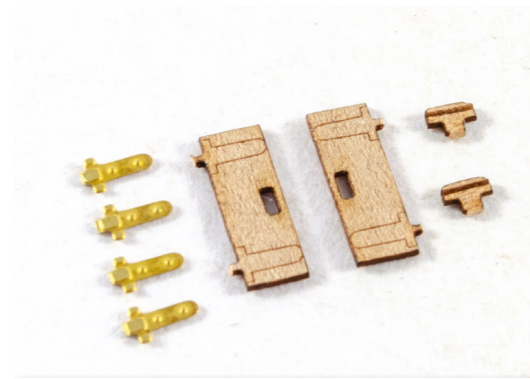
152. Slide the door into position on the roof. You can position this however you wish.



157. MAIN SHEET HOUSING: From the 1mm wood sheet, remove all parts #71 thru #75.



158. Glue #74 to #71 as shown.



153. From the 0.6mm wood sheet, remove both parts #116 and two parts #115. From the PE sheet, remove four parts #PE-27.



154. Assemble the parts as shown here.



159. Now glue part #73 to the assembly.



160. Both parts #72 need to be added as the sides of the assembly.





161. The completed box unit looks like this.



162. Part #75 can now be glued into position.



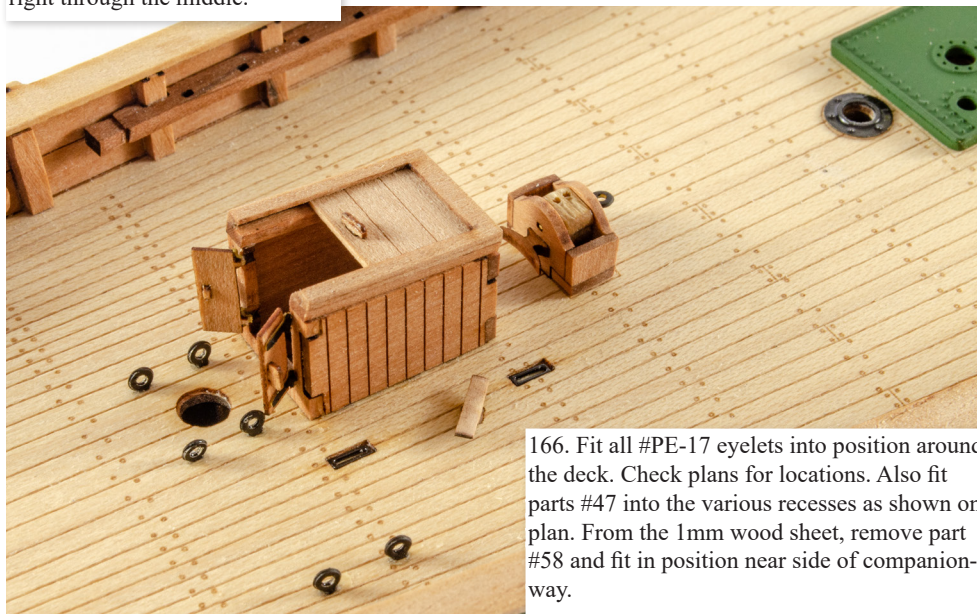
165. Glue the main sheet housing to the deck, as shown.



163. Take a 4mm double block (#F-14) and drill a 0.8mm hole right through the middle.



164. You will now need one part #PE-22 from the PE sheet. Assemble as shown.



166. Fit all #PE-17 eyelets into position around the deck. Check plans for locations. Also fit parts #47 into the various recesses as shown on plan. From the 1mm wood sheet, remove part #58 and fit in position near side of companion-way.



167. Take all your brass and 3D-printed parts. Prime them and paint in your chosen colour. For our prototype, we chose the same green as the bulwarks.







168. STEAM WINCH ASSEMBLY: From the PE sheet, remove all #PE40. From the 1mm wood sheet, remove both parts #88. Now cut a length of 3mm dowel, 22mm long.



169. Slot, don't glue, one of the discs onto the dowel.



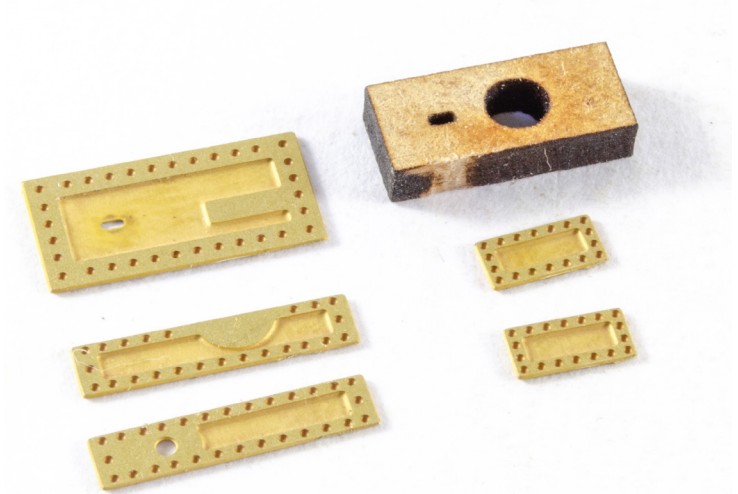
170. Now slot the other disc onto the other end and then sit the PE parts into the holes between the two, ensuring the holes are aligned on both discs. When you have all PE fitted, push the discs so the PE is properly trapped between them. Twist and adjust as necessary. Use a little CA on a cocktail stick and apply it to all joints.



171. Remove both parts #PE-39 from the PE sheet.

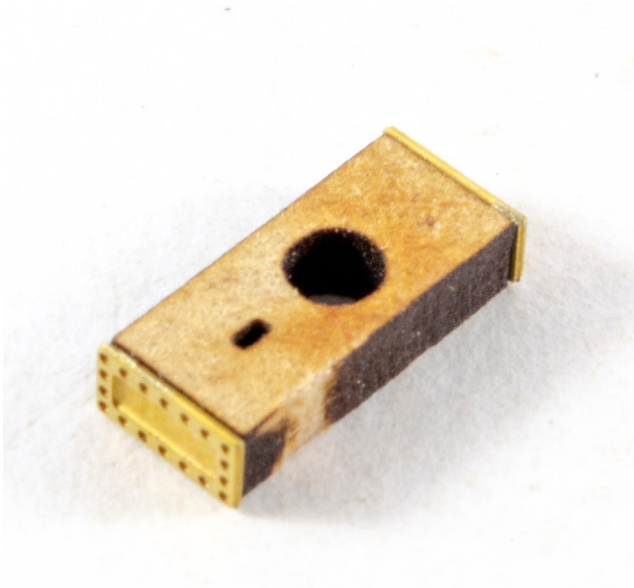


172. Glue these to either side of the assembly. You can then remove the dowel.



173. You will now need the very last MDF part, #121. This will form the core of the head assembly. From the PE sheet, also remove parts #PE41 thru #PE44.

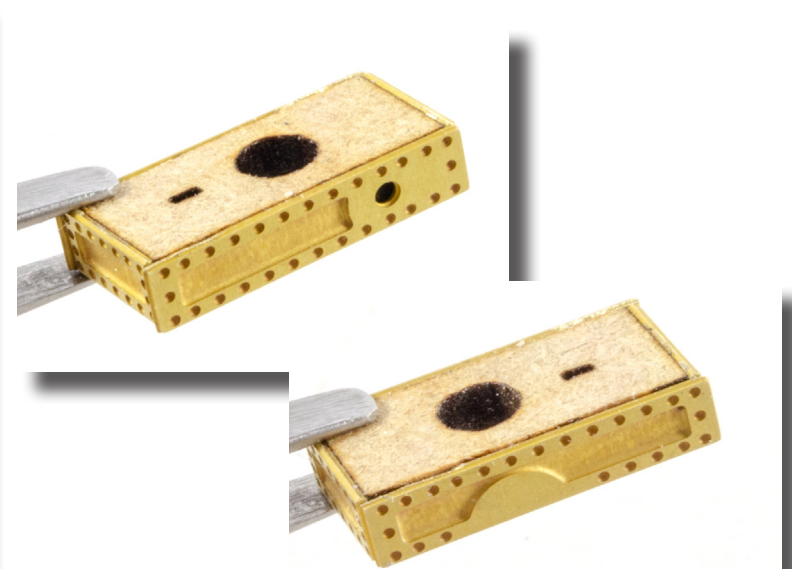




174. Glue parts #PE-42 to each end of the MDF.



175. File the ends flush with the long sides.



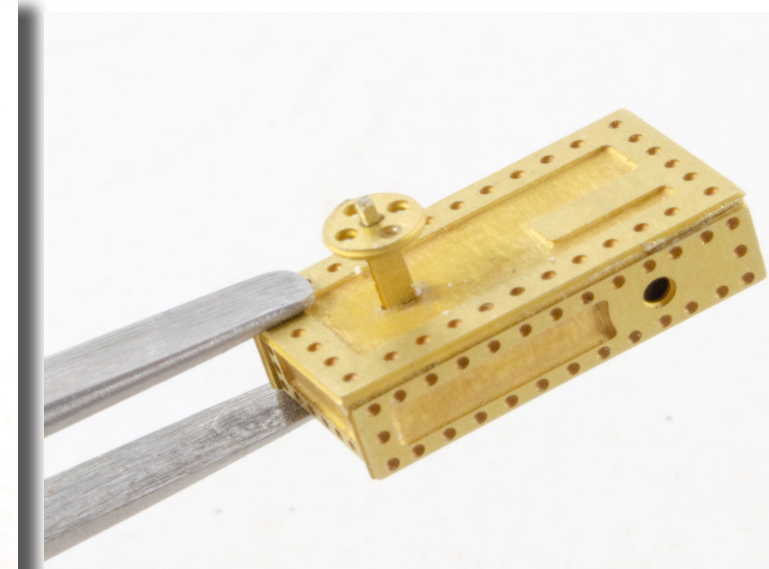
176. Now glue the side parts into position. These are parts #PE-43 and #PE-44. The orientation of these is very important. Use these photos and the plan to confirm you have this right. When complete, gently sand the top side of the assembly so it's totally level.



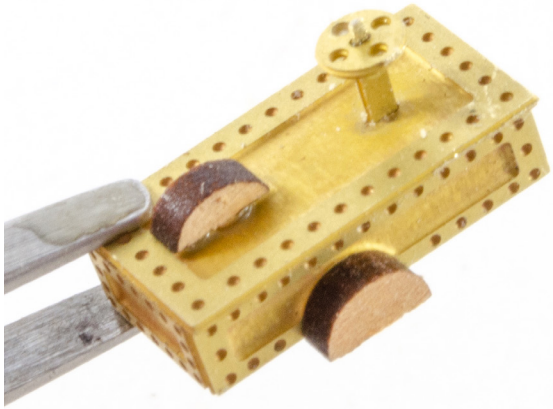
177. Glue the top into position. This is #PE-41.



178. Glue #PE-45 into the slot as shown, then fit/glue #PE-46 onto the top of it.  
PLEASE NOTE - The slot for PE-45 is missing from PE-41, so Cut off the unexposed length of PE-45 and glue directly to the small raised position on PE-41



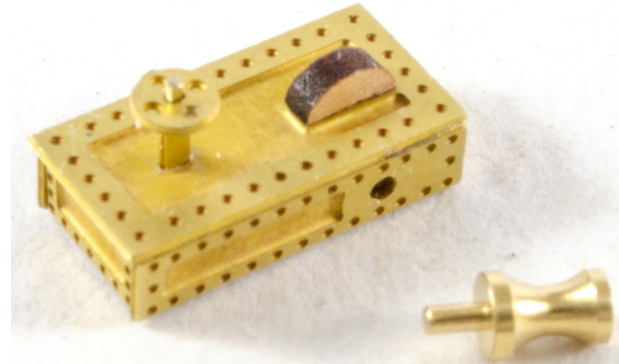




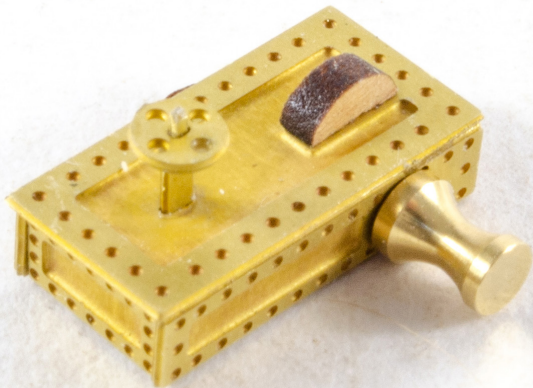
179. From the 1.5mm wood sheet, remove parts #55 and #56 and glue into their respective positions. Check plan to confirm.



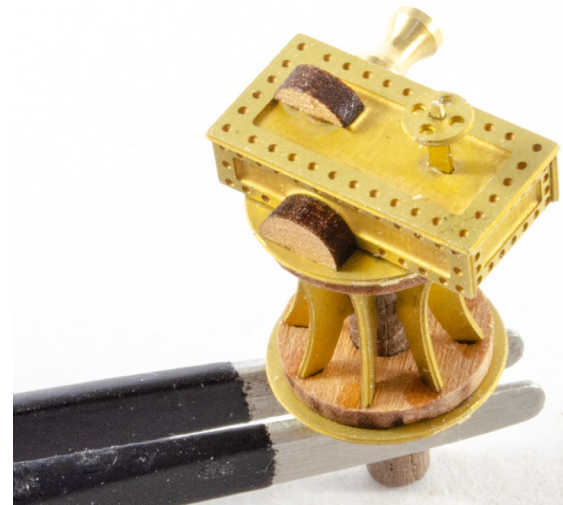
180. Use a 1mm drill bit to drill through the hole in the side of the assembly, and into the MDF.



181. This is where the winch drum will glue. You can leave this separate for the moment and glue once it has been painted.



182. Your steam winch assemblies should look like this.



183. When fitted together, it will look like this. You will be best painting these assemblies before gluing them together, using the sort of colours which were generally renowned for working vessels. For Erycina, we chose both green and red.





184. Glue the steam winch into position as shown. You can also fit your 3D-printed tow post (#F-5).



185. FAIR LEADING POST: From the 1mm wood sheet, remove parts #82, #83, #84, and #85



186. Glue together so the engraved details are on the outside.



187. Clamp while the glue sets.



188. Take parts #84 and #85.



189. Glue into position as shown.



190. The post can now be glued into position on the deck.





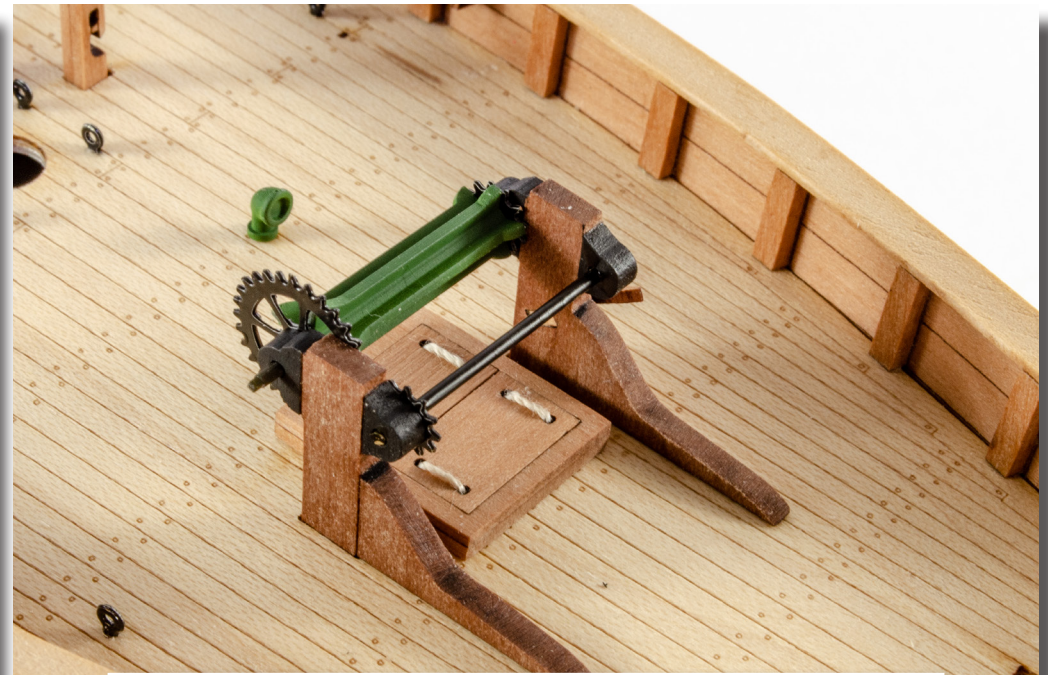
191. MAIN WINDLASS: From the 2mm wood sheet, remove parts #51 and #52.



192. From the 1mm wood sheet, remove part #87, and glue into position as shown.



193. Follow the illustrations on the plan sheet and assemble the main windlass as shown here.

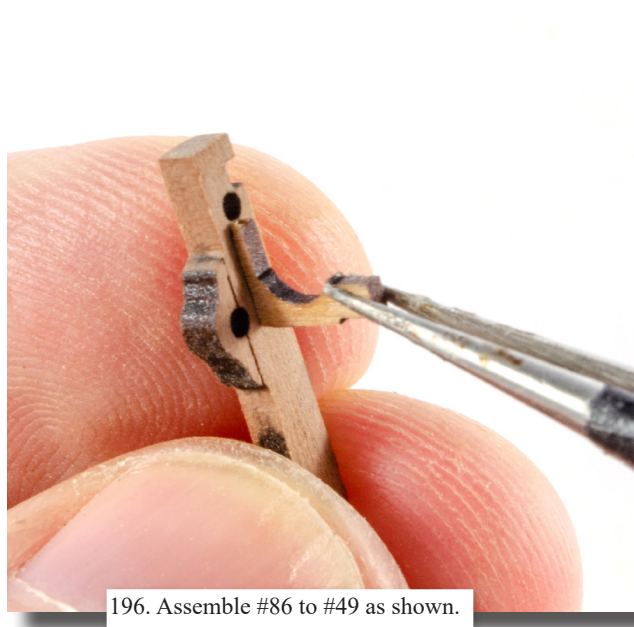


194. The windlass can now be installed in position in the slots on the deck.





195. GYPSY WINCH: From the 2mm wood sheet, remove parts #48 and #49. From the 1mm wood sheet, remove part #86.



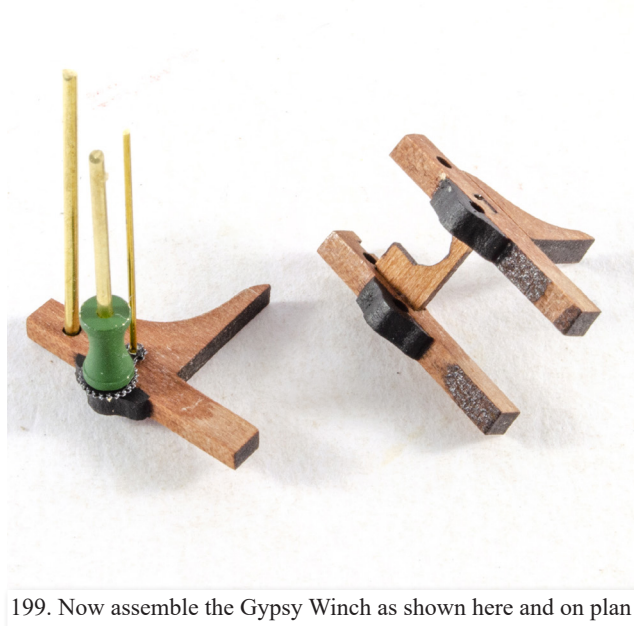
196. Assemble #86 to #49 as shown.



197. Now add part #48.



198. The assembly will now look like this.



199. Now assemble the Gypsy Winch as shown here and on plan sheet.



200. Fit the Gypsy Winch to the deck as shown.

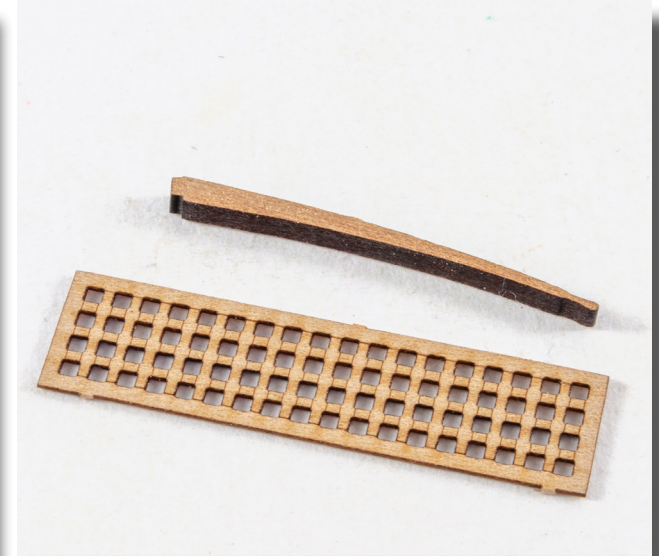




201. CHIMNEYS: Use the 2mm and 3mm alloy tubes to make up three chimneys as shown. One of these will need bevelling at the top and a short, bevelled section fitted with CA. Check plans for dimensions.



202. Fit the chimneys to the deck and paint them black.



203. TILLER AND TREADBOARD: From the 2mm wood sheet, remove part #44. From the 0.6mm wood sheet, remove part #110.



204. Clean up, shape, and fit as shown here.



205. From the 1.5mm wood sheet, remove both parts #59.



206. Shape the inner front area and fit as shown.





207. From the 1mm wood sheet, remove part #93.



208. From the 2mm sheet, remove part #47. Also take a length of 1mm brass wire and a 2.5mm thimble.



209. Glue parts #93 into place as shown, on the engraved marks on the gunwale. Also note that the Bow Roller has been fitted. Glue #47 into position using plan as reference. Now use the short length of 1mm brass wire which is long enough to fit through hole in prow and rest up against the part you just fitted. The brass wire needs to be flush with other side of prow. Fit the wire, trapping the 2.5mm thimble between the prow and the knee.



210. Fit all the belying pins, #PE-32.

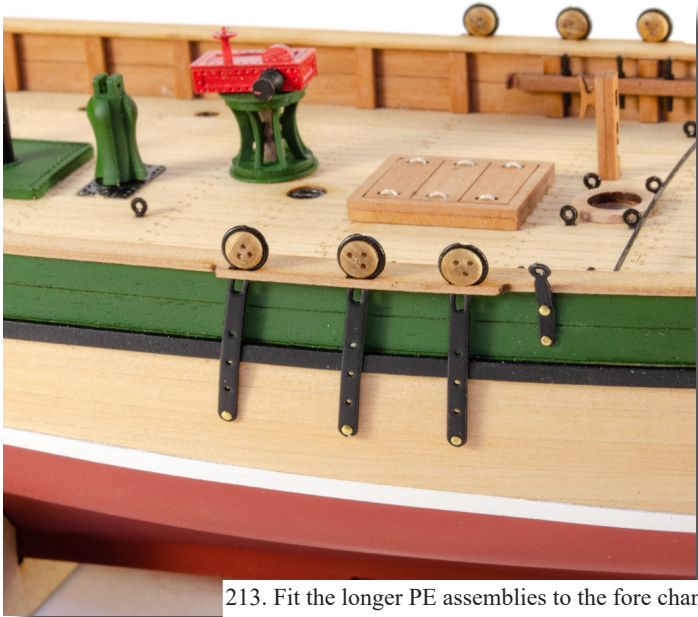


211. Using a 0.8mm drill bit, drill through the holes in the lower rail, but at about 45 degrees, so the drill will come out above the level of the deck.

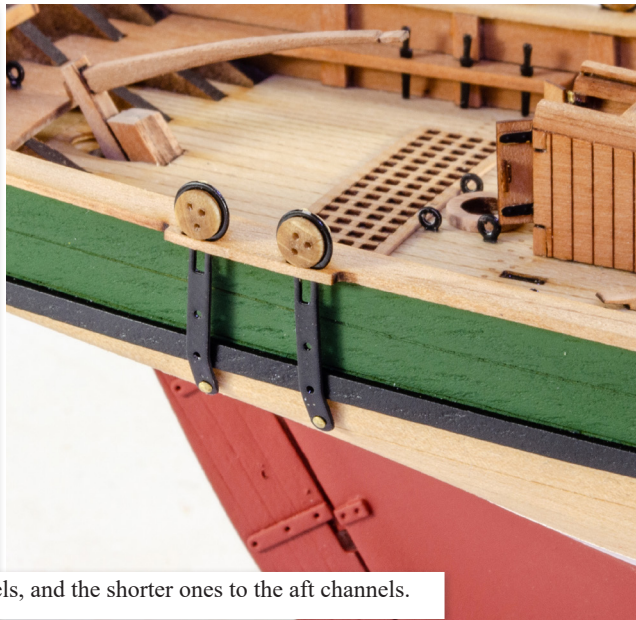


212. From the PE sheet, remove parts #PE-19 and #PE-20. You will also need your 3mm deadeyes. Assembling these is very easy as these stages show. First, splay the PE slightly so the ring opens up. Now clip the deadeye into position. Now use pliers or tweezers to close up the PE and put back to its original shape.





213. Fit the longer PE assemblies to the fore channels, and the shorter ones to the aft channels.



214. FOREMAST: Take the lower section of the foremast and reduce in diameter around the top area, as shown on the plan.



215. Again, using your plans as reference, start to fit the PE parts to the lower mast.



216. Build the upper foremast section as per plan.

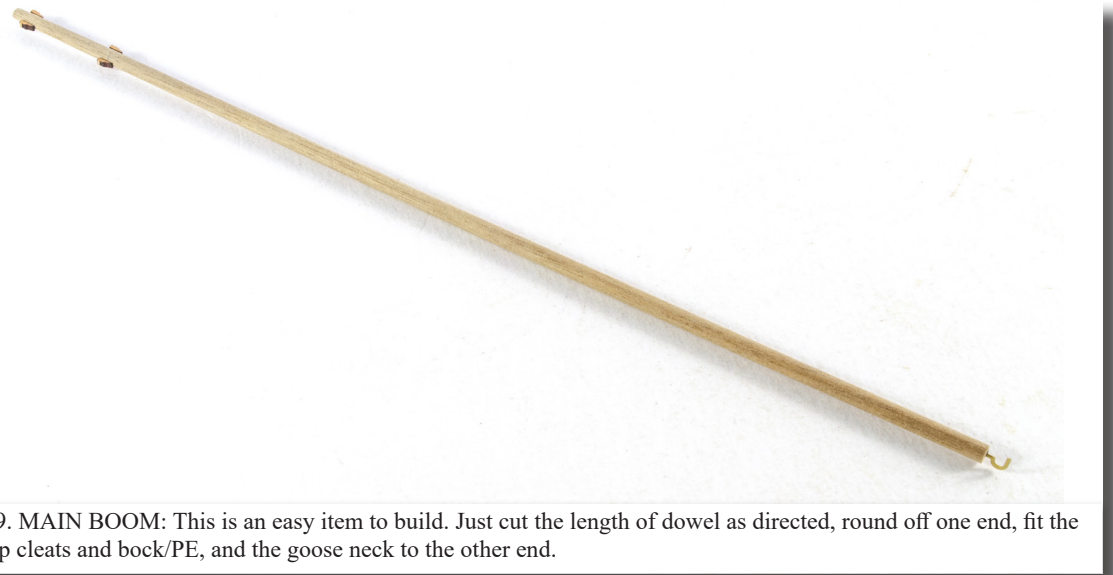


217. Fit the upper and lower sections together, first trapping the PE parts as can be seen here.

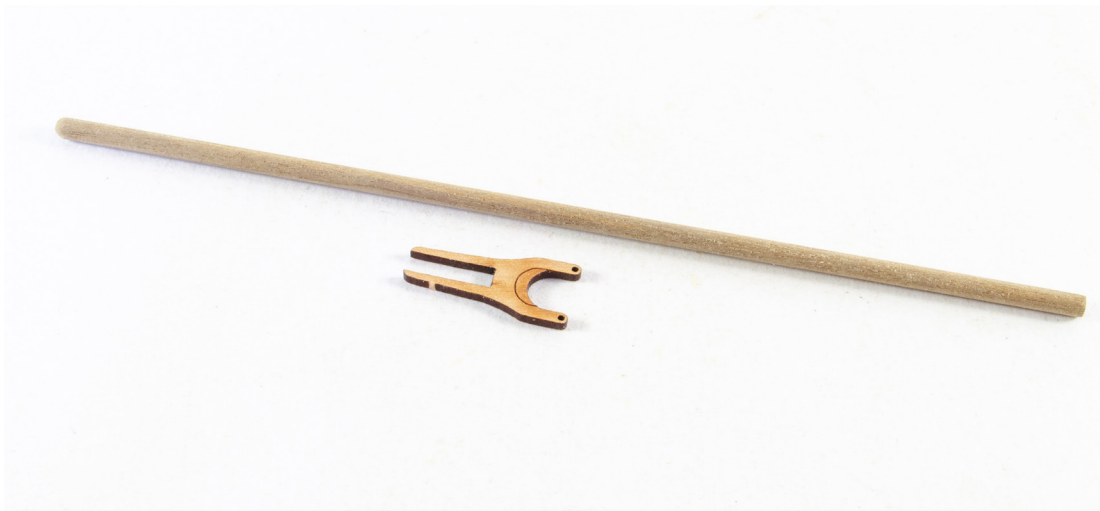




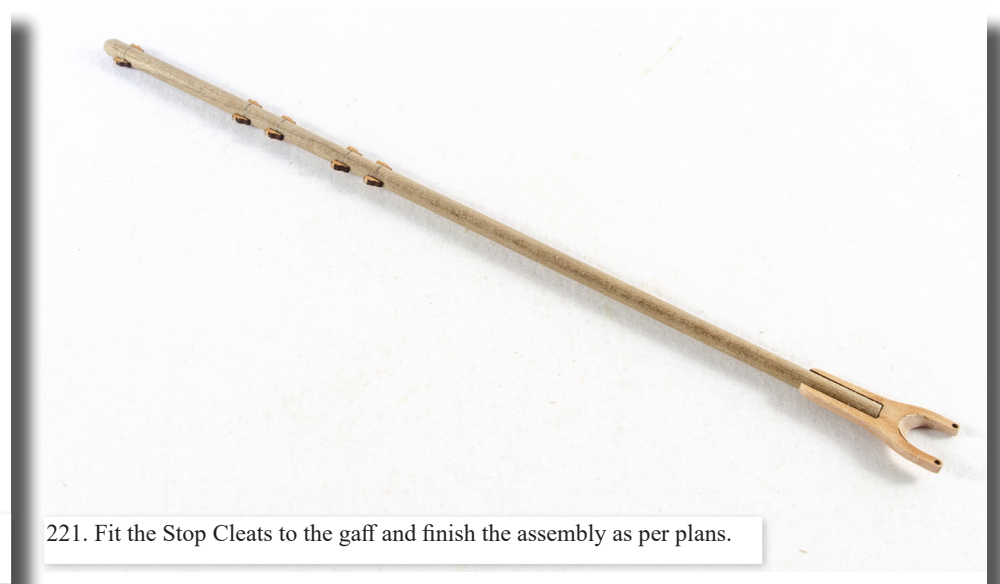
218. Add the remaining PE and also fit the various blocks to the mast.



219. MAIN BOOM: This is an easy item to build. Just cut the length of dowel as directed, round off one end, fit the stop cleats and bock/PE, and the goose neck to the other end.



220. MAIN GAFF: Cut your dowel to the prerequisite length and remove part #60 from the 1mm wood sheet. You need to bevel the inner jaw of this to the engraved line. Round one end of the dowel and glue #60 to the other end.

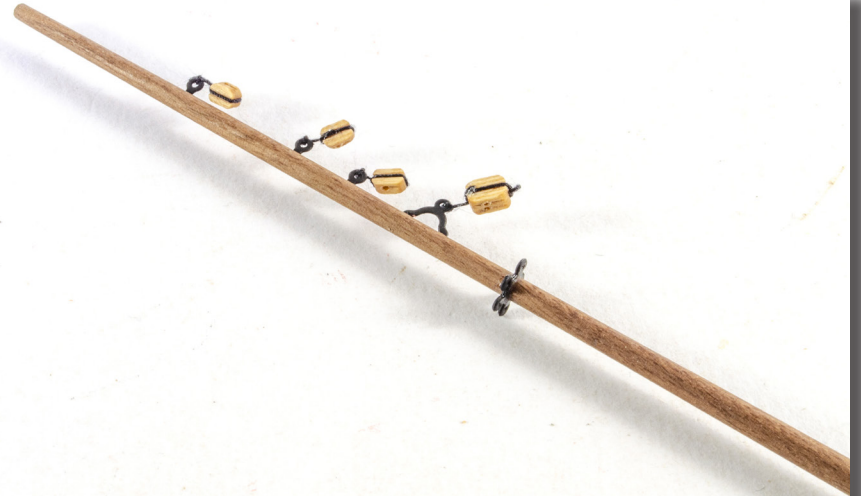


221. Fit the Stop Cleats to the gaff and finish the assembly as per plans.





222. MIZZEN MAST: This is a simple assembly, consisting of just a tapered length of dowel and some PE.



223. Assemble as per plan and fit the various rigging blocks.



224. MIZZEN GAFF: Prepare this part in the same way as the main gaff.



225. Bevel the jaws as previously. This is very important as you want to be able to angle the gaff to accommodate the correct angle. This is especially important if you are fitting sails.

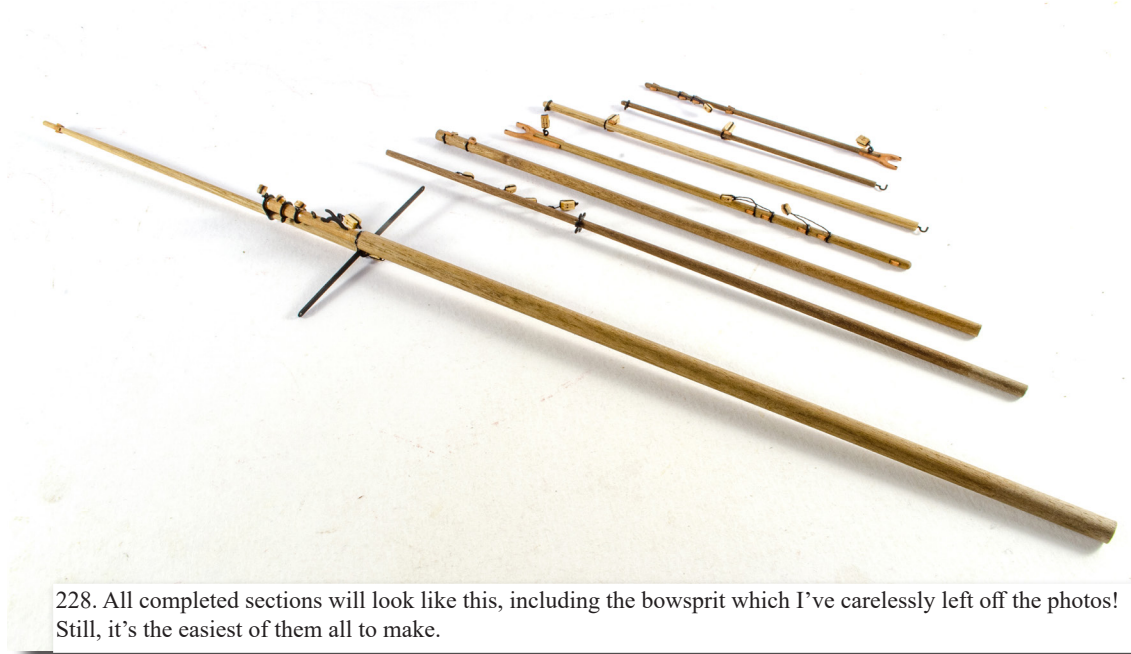




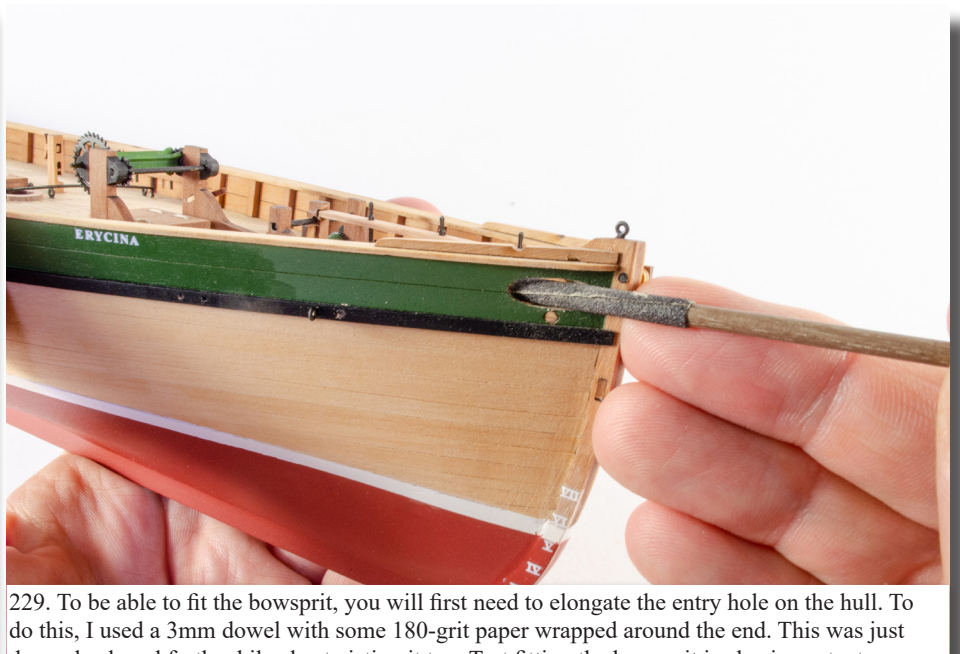
226. Add the stop cleats to the gaff.



227. MIZZEN BOOM: Prepare this as per the Main Boom.

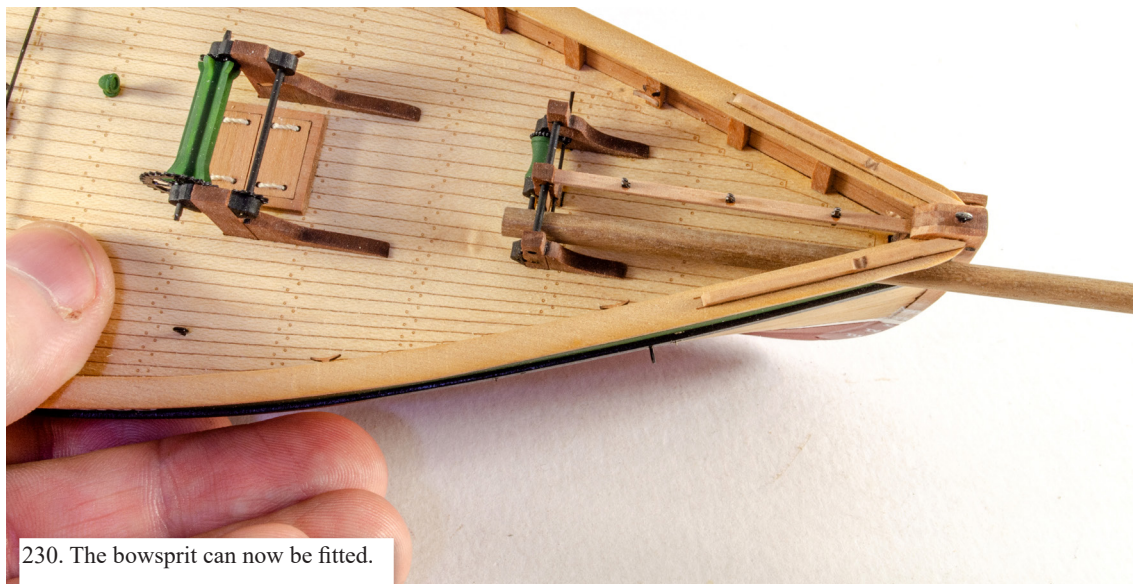


228. All completed sections will look like this, including the bowsprit which I've carelessly left off the photos! Still, it's the easiest of them all to make.



229. To be able to fit the bowsprit, you will first need to elongate the entry hole on the hull. To do this, I used a 3mm dowel with some 180-grit paper wrapped around the end. This was just drawn back and forth while also twisting it too. Test fitting the bowsprit is also important as you progress.

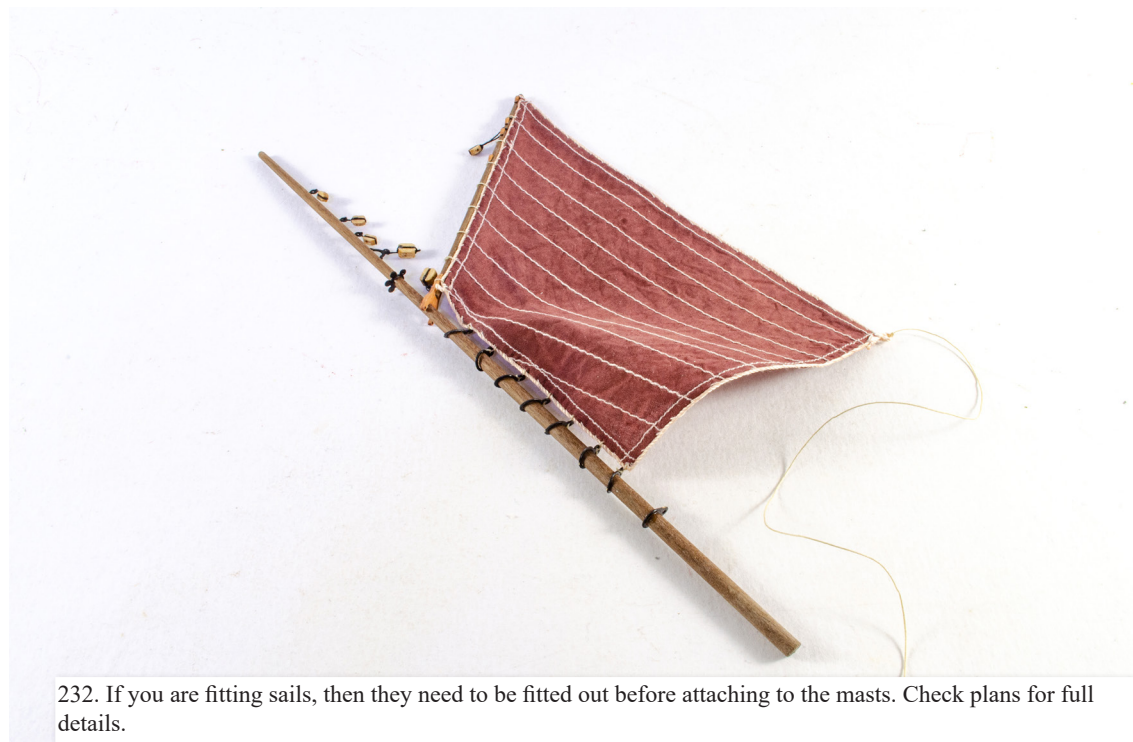




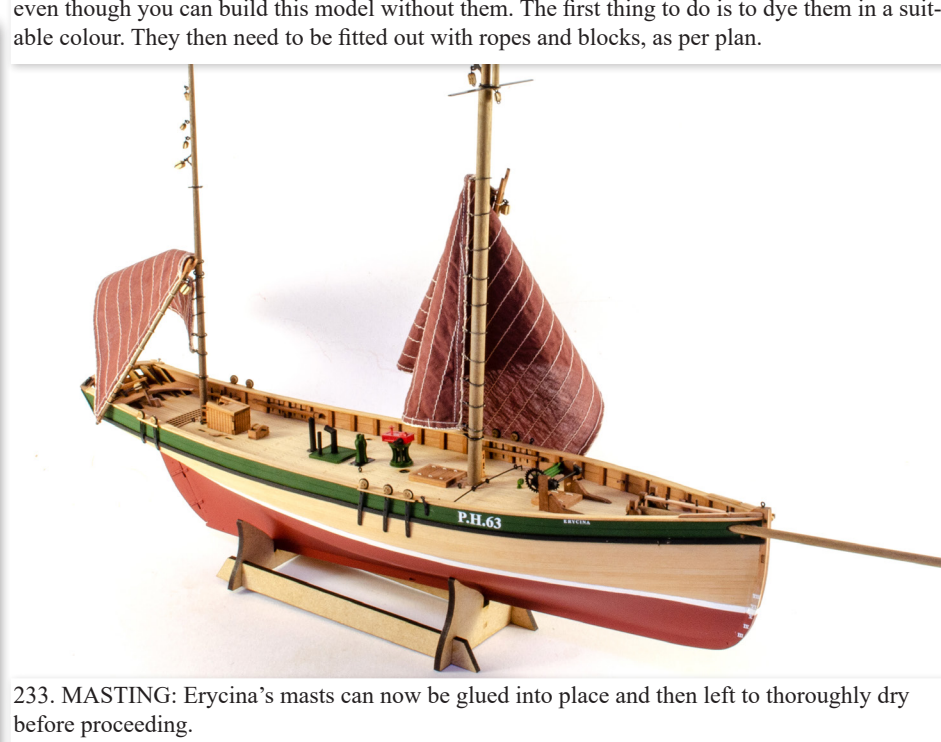
230. The bowsprit can now be fitted.



231. OPTIONAL SAILS: We also sell sails for Erycina, and we really do recommend these, even though you can build this model without them. The first thing to do is to dye them in a suitable colour. They then need to be fitted out with ropes and blocks, as per plan.



232. If you are fitting sails, then they need to be fitted out before attaching to the masts. Check plans for full details.



233. MASTING: Erycina's masts can now be glued into place and then left to thoroughly dry before proceeding.





234. STANDING RIGGING: You now need to add the standing rig. The main part of this are the shrouds and ratlines. These are a bit of a chore, but on a model this size, they don't take too long. You need to do this on the model. There is no way around this. You just need a couple of pairs of tweezers and some patience. Use dilute PVA to sieze the knots and trim then close to the lines when complete. To help with ratline spacings, we have included a template on the plans. Cut it out and paste to some card. Do the larger shrouds first, then you can trim the template to fit the mizzen shrouds.





235. The completed standing rig will look like this.



236. MAIN AND MIZZEN SAILS: Refer to Plan Sheet #14. When complete, Erycina will look like this.

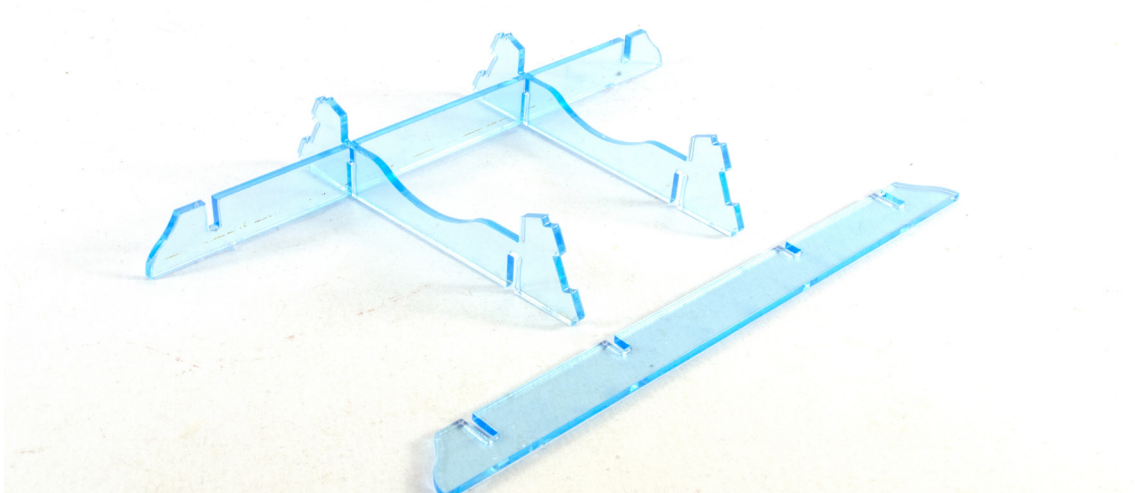




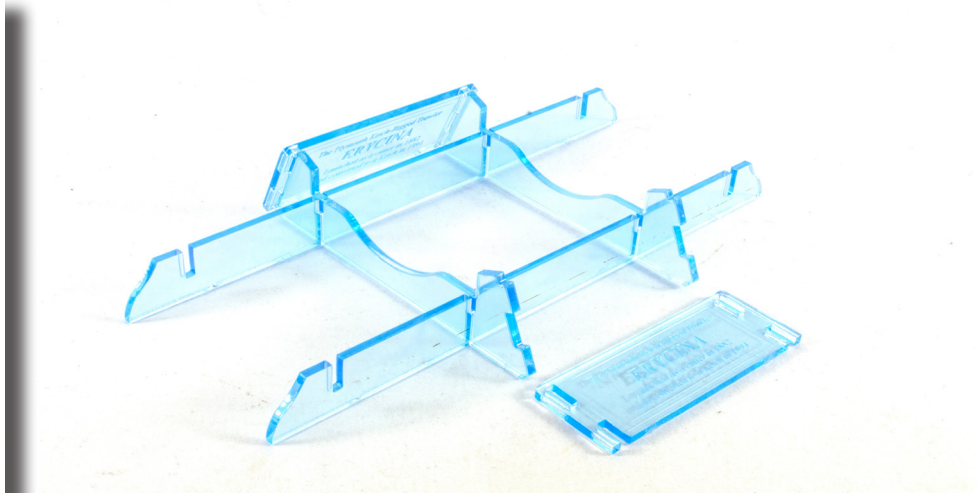
237. JIB SAILS: Refer to Plan Sheet #13. When complete, Erycina will look like this. With that, she is very much complete, but we do need something prettier to sit her on.







238. DISPLAY STAND: Take the two long beams and slot them into the cross beams. NOTE: You MUST remove the blue film first. We have left it on to make photography clearer!



239. Now attach the nameplates to each side. Full marks for noticing I added one the wrong way around.



240. Now you can finally add the cradle parts which fit into the remaining slots. These can fit any way round as the cradle is universal. Just remember that the cradle part with the small socket in the keel slot, is designed to fit into the keel hole for alignment. Congratulations, your Erycina is complete! We hope you enjoyed building her.







The Plymouth Fishing Ketch Erycina – 1:64th scale

PARTS LIST

Pt. No	Description	Material	QTY
<u>3mm MDF</u>			
1	Bulkhead	3mm MDF	1
2	Bulkhead	3mm MDF	1
3	Bulkhead	3mm MDF	1
4	Bulkhead	3mm MDF	1
4a	Bulkhead Screen	3mm MDF	1
5	Bulkhead	3mm MDF	1
6	Bulkhead	3mm MDF	1
6a	Bulkhead Thickness Extension Pattern	3mm MDF	4
7	Bulkhead	3mm MDF	1
7a	Bulkhead Screen	3mm MDF	1
8	Bulkhead	3mm MDF	1
9	Bulkhead	3mm MDF	1
10	Bulkhead	3mm MDF	1
10a	Bulkhead Screen	3mm MDF	1
11	Bulkhead	3mm MDF	1
12	Bulkhead	3mm MDF	1
12a	Bulkhead Screen	3mm MDF	1
13	Bulkhead	3mm MDF	1
14	Bulkhead	3mm MDF	1
15	Bulkhead	3mm MDF	1
16	Bulkhead	3mm MDF	1
17	Building Cradle Cross Support	3mm MDF	2
18	Building Cradle Front Pattern	3mm MDF	1
19	Building Cradle Aft Pattern	3mm MDF	1
20	Stern Frame Filler Pattern	3mm MDF	2
121	Steam Winch Top Plate	3mm MDF	1
<u>2mm MDF</u>			
9a	Thickness patterns for Bulkhead 9	2mm MDF	4
21	Keel	2mm MDF	1
22	Lower Deck Pattern	2mm MDF	1
22	Lower Deck Pattern	2mm MDF	1
23	Bow Planking Edge Pattern (Right)	2mm MDF	1
24	Bow Planking Edge Pattern (Left)	2mm MDF	1
25	Stern Planking Edge Pattern (Right)	2mm MDF	1
26	Stern Planking Edge Pattern (Left)	2mm MDF	1
27	Stern Planking Edge Pattern (Right)	2mm MDF	1
28	Stern Planking Edge Pattern (Left)	2mm MDF	1

29	Stern Planking Edge Pattern (Right)	2mm MDF	1
30	Stern Planking Edge Pattern (Left)	2mm MDF	1
31	Longitudinal Hull Brace Pattern	2mm MDF	2
32	Locating Peg for Planking Edge Patterns	2mm MDF	8
33	Stern Frame (Inner)	2mm MDF	2
34	Stern Frame (Middle)	2mm MDF	2
35	Stern Frame (Outer)	2mm MDF	2
36	Stern Frame Outer Filling Pattern	2mm MDF	2
<u>0.8mm Birch Plywood</u>			
38	Sub Deck	0.8mm Birch Plywood	1
<u>0.8mm Maple Veneer</u>			
39	Deck Pattern	0.8mm Maple Veneer	1
<u>2mm Wood</u>			
40	Stem Pattern	2mm Wood	1
41	Keel Pattern	2mm Wood	1
42	Stern Post	2mm Wood	1
43	Rudder	2mm Wood	1
44	Tiller Arm	2mm Wood	1
45	Fore Cavil Rail	2mm Wood	2
46	Aft Cavil Rail	2mm Wood	2
47	Bow Roller Knee (1 Required)	2mm Wood	2
48	Bowsprit Support Post (Right)	2mm Wood	1
49	Bowsprit/Gypsy Windlass Post (Centre)	2mm Wood	1
50	Gypsy Windlass Post (Left)	2mm Wood	1
51	Windlass Post (Left)	2mm Wood	1
52	Windlass Post (Right)	2mm Wood	1
<u>1.5mm Wood</u>			
A-Y	Bulwark Support Timbers (left & Right)	1.5mm Wood	46
53	Main Hatch Coaming (Base)	1.5mm Wood	1
54	Fore Hatch Coaming (Base)	1.5mm Wood	1
55	Stern Rail Cleat	1.5mm Wood	1
56	Steam Windlass gear Guard (1 Required)	1.5mm Wood	2
57	Steam Windlass gear Guard (1 Required)	1.5mm Wood	2
58	Deck Cleat to right of Companion (1 Required)	1.5mm Wood	2
59	Bow Rail	1.5mm Wood	2
60	Main Boom Jaws	1.5mm Wood	1



1mm Wood

61	Inner Bulwark Pattern (Front Right)	1mm Wood	1
62	Inner Bulwark Pattern (Rear Right)	1mm Wood	1
63	Inner Bulwark Pattern (Front Left)	1mm Wood	1
64	Inner Bulwark Pattern (Rear Left)	1mm Wood	1
65	Keel Rabbet Pattern	1mm Wood	2
66	Stern Post Rabbet Pattern	1mm Wood	2
67	Stem Rabbet Pattern (Left)	1mm Wood	1
68	Stem Rabbet Pattern (Right)	1mm Wood	1
69	Rabbet Location Peg	1mm Wood	8
70	Stern Counter Pattern (Inner)	1mm Wood	1
71	Main Sheet Chock Base	1mm Wood	1
72	Main Sheet Chock End Patterns	1mm Wood	2
73	Main Sheet Chock Rear Pattern	1mm Wood	2
74	Main Sheet Chock Front Pattern	1mm Wood	2
75	Main Sheet Chock Cleat	1mm Wood	1
76	Stern Board	1mm Wood	1
77	Companionway Ladder Sides	1mm Wood	2
78	Main Hatch Coaming (Upper)	1mm Wood	1
79	Fore Hatch Coaming (Upper)	1mm Wood	1
80	Main Hatch Cover Boards	1mm Wood	1
81	Fore Hatch Cover Boards	1mm Wood	1
82	Fair Leading Post (Left)	1mm Wood	1
83	Fair Leading Post (Right)	1mm Wood	1
84	Fair Leading Post Locator Peg	1mm Wood	1
85	Fair Leading Post Cleat	1mm Wood	1
86	Bowsprit Rest	1mm Wood	1
87	Windlass Post (Left Side) Cleat	1mm Wood	1
88	Steam Winch Upper and Lower Plate	1mm Wood	2
89	Main Mast Base	1mm Wood	1
90	Mizzen Mast Base	1mm Wood	1
91	Mizzen Gaff Jaws	1mm Wood	1
92	Boiler Plate Base	1mm Wood	1
93	Bow Cavil Rail	1mm Wood	1
94	Companionway Door frame	1mm Wood	1
95	Companionway Rear Pattern	1mm Wood	1
96	Companionway Side Pattern (Right)	1mm Wood	1
97	Companionway Side Pattern (Left)	1mm Wood	1
98	Companionway Canopy	1mm Wood	1
122	Boom and Mast Cleat	1mm Wood	40
123	Bulwark Cleat	1mm Wood	12
124	Transit Rail	1mm Wood	1

0.8mm Wood

99	Stern Counter Pattern (Outer)	0.8mm Wood	1
100	Stern Frame Surround	0.8mm Wood	1

101	Dandy Score Base Plate	0.8mm Wood	1
102	Bulwark Outer Pattern (Right)	0.8mm Wood	1
103	Bulwark Outer Pattern (Left)	0.8mm Wood	1
104	Bulwark Lower Rail Pattern	0.8mm Wood	2
105	Gunwale (Left)	0.8mm Wood	1
106	Gunwale (Right)	0.8mm Wood	1
107	Stern Gunwale	0.8mm Wood	1

0.6mm Wood

108	Rudder Side Pattern (Right)	0.6mm Wood	1
109	Rudder Side Pattern (Left)	0.6mm Wood	1
110	Helmsman Grating	0.6mm Wood	1
111	Companionway Ladder Steps	0.6mm Wood	8
112	Companionway Door	0.6mm Wood	2
113	Companionway Sliding Hatch Frame (Wide)	0.6mm Wood	1
114	Companionway Sliding Hatch Frame (Narrow)	0.6mm Wood	1
114a	Companionway Sliding Hatch Pattern	0.6mm Wood	1
115	Companionway Door and Hatch Handle	0.6mm Wood	4

2mm Clear Acetate

116	Cradle Spacer	2mm Clear Acetate	2
117	Fore Cradle	2mm Clear Acetate	1
118	Aft Cradle	2mm Clear Acetate	1
119	Name Plate Cross Support	2mm Clear Acetate	2
120	Nameplate	2mm Clear Acetate	2

0.4mm Photo Etched Brass

PE-1	Main Boom Iron Collar	0.4mm Photo Etch	1
PE-2	Main Mast Iron Cap (Lower)	0.4mm Photo Etch	1
PE-3	Main Masthead Iron Collar (Single Eye)	0.4mm Photo Etch	2
PE-4	Main Boom Iron Collar (Triple Eye)	0.4mm Photo Etch	1
PE-5	Main Mast Iron Cap (Upper)	0.4mm Photo Etch	1
PE-6	Main Halliard Horse	0.4mm Photo Etch	1
PE-7	Main Sail Ring	0.4mm Photo Etch	10
PE-8	Main & Mizzen Boom Gooseneck	0.4mm Photo Etch	2
PE-9	Mizzen Boom Iron Collar	0.4mm Photo Etch	1
PE-10	Mizzen iron Collar (5 Eye)	0.4mm Photo Etch	1
PE-11	Mizzen Halliard Iron	0.4mm Photo Etch	1
PE-12	Mizzen Sail Ring	0.4mm Photo Etch	8
PE-13	Fore Jib Traveller	0.4mm Photo Etch	1
PE-14	Fore Jib Traveller Double Ring	0.4mm Photo Etch	2
PE-15	Iron Cleat	0.4mm Photo Etch	10
PE-16	Main Gaff Boom End Ring	0.4mm Photo Etch	1
PE-16a	Mizzen Gaff Boom End Ring	0.4mm Photo Etch	1
PE-17	Eyebolt	0.4mm Photo Etch	35



PE-18	Rigging Hook	0.4mm Photo Etch	16
PE-19	3mm Deadeye Strop & Chainplate (Main)	0.4mm Photo Etch	7
PE-20	3mm Deadeye Strop & Chainplate (Mizzen)	0.4mm Photo Etch	5
PE-21	Bulwark Rigging Strap & Eyebolt	0.4mm Photo Etch	4
PE-22	Main Sheet Chock Pin & Eyebolt	0.4mm Photo Etch	2
PE-23	Rudder Strap (Rudder Post)	0.4mm Photo Etch	9
PE-24	Rudder Strap (Upper)	0.4mm Photo Etch	2
PE-25	Rudder Strap (Middle)	0.4mm Photo Etch	2
PE-26	Rudder Strap (Lower)	0.4mm Photo Etch	2
PE-27	Companionway Door Hinge	0.4mm Photo Etch	6
PE-28	Fairlead Base	0.4mm Photo Etch	4
PE-29	Fairlead	0.4mm Photo Etch	4
PE-30	Coal & Ice Bunker Plate	0.4mm Photo Etch	2
PE-31	Water Tank Plate	0.4mm Photo Etch	4
PE-32	Belaying Pin	0.4mm Photo Etch	27
PE-33	Flue Base Plate	0.4mm Photo Etch	1
PE-34	Boiler Top Plate	0.4mm Photo Etch	1
PE-35	Tow Post Base	0.4mm Photo Etch	1
PE-36	Main Winch Gears	0.4mm Photo Etch	1
PE-37	Winch Gear Cog	0.4mm Photo Etch	2
PE-38	Gypsy Windlass Gears	0.4mm Photo Etch	1
PE-39	Steam Winch Upper & Lower Plate	0.4mm Photo Etch	2
PE-40	Steam Winch Whelps	0.4mm Photo Etch	8
PE-41	Steam Winch Top Casing	0.4mm Photo Etch	1
PE-42	Steam Winch End Casings	0.4mm Photo Etch	2
PE-43	Steam Winch Side casing (Right)	0.4mm Photo Etch	1
PE-44	Steam Winch Side casing (Left)	0.4mm Photo Etch	1
PE-45	Steam Winch Handle Stem	0.4mm Photo Etch	1
PE-46	Steam Winch Handle	0.4mm Photo Etch	1
PE-47	Deck Lights	0.4mm Photo Etch	4

### Fittings & Materials

F-1	Steam Winch Drum	Brass	1
F-2	Gypsy Winch Drum	Brass	1
F-3	Fine Brass Pins	Brass	200
F-4	Windlass Drum	Casting	1
F-5	Tow Post	Casting	1
F-6	Chain Pipe	Casting	1
F-7	1mm Brass Wire x 60mm Long	Brass	1
F-8	0.5mm Brass Wire x 60mm Long	Brass	1
F-9	3mm Aluminium Tube x 200mm Long	Aluminium	1
F-10	2mm Aluminium Tube x 60mm Long	Aluminium	1
F-11	2.5mm Thimble/Sheave	Wood	10
F-12	3mm Deadeye	Wood	22
F-13	3mm Single Block	Wood	20
F-14	4mm Double block	Wood	10
F-15	0.1mm Diameter natural thread		20m
F-16	0.25mm Diameter natural thread		20m
F-17	0.5mm Diameter natural thread		10m
F-18	0.1mm Diameter black thread		20m
F-19	0.25mm Diameter black thread		10m
F-20	0.5mm Diameter black thread		5m
F-21	0.7mm Diameter black thread		5m
F-22	6mm Dowel x 330mm long	Wood	1
F-23	4mm Dowel x 330mm Long	Wood	2
F-24	3mm Dowel x 330mm Long	Wood	2
F-25	2mm Dowel x 200mm Long	Wood	1
F-26	1 x 5 x 340mm Long Limewood	Wood	26
F-27	1 x 4 x 340 mm Long Second planking	Wood	34
D-1	Stern Name Decal	Decal	1
D-2	Name Decal (Side)	Decal	2
D-3	Side Number Decal	Decal	2
D-4	Load marking Decal (Right)	Decal	1
D-5	Load marking Decal (Left)	Decal	1
F-28	Sail Set (Optional)	Cloth	5







# VANGUARD MODELS

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Erycina was designed and developed in the UK by Chris Watton

Finished prototype model with sails made and photographed (plus text) by James Hatch

16/11/2021