Saucy Jack Barking Well Smack 1836 Building Manual



VANGUARD MODELS

Designed, developed and produced in the UK





PART NUMBER - VM-10

The Barking Well Smack Saucy Jack 1836

Salt-water fishing from Barking was mentioned as early as 1320, when its fishermen were prosecuted for using nets with too small a mesh. The industry seems to have been at that time quite small-scale. A list of the 1660s shows Barking had 14 fishing smacks, crewed by 70 men and boys. By 1814 the number had grown to 70 smacks, by 1833 there were 120, by 1845 approximately 150 and by 1850 at least 220.

This phenomenal growth was due to one family, the Hewetts: Scrymgeour (1765–1850) and his son Samuel (1797-1871). In 1833 the Hewett fleet, called the Short Blue Fleet after its ensign, consisted of 10 vessels. The main type of fishing vessel used in Barking at that time was a well smack.

Well smacks were smacks built with an integral circulating sea-water tank in which the fish could be kept alive for some days. By 1830 there were 30-40 well smacks, or "fish pools" as they were called, working out of Barking. Most well smacks were around 50-60 feet long and carried a crew of 7 or 8.

The smack 'Saucy Jack' was a typical example of this type of vessel. She was built at Gravesend in 1836, and was 60ft overall and weighed 51 tons. The Saucy Jack served many years and was the last well smack to leave Barking, in 1880, although well smacks continued to be used for a very long time after that in other ports. Some vessels built later on in the nineteenth century were still fishing at Faroe in the 1950's.

Although using the well to keep the fish was a better method than salting and wind drying, it had several drawbacks. Well smacks were not very fast due to the effect of carrying several tons of sea-water within the hull. The extra scantlings required and the manufacture of the well itself resulted in a significant increase in the cost of the vessels themselves.

Samuel Hewett realised that the long voyage which the smacks made back to the London ports was uneconomic, and introduced a system known as fleeting. Smacks fished as before but instead of wet salting, the fish were killed and packed in boxes of ice. Fast boats, called carriers or cutters, regularly collected the fish and transported it to market in London. After selling the fish, the carriers returned to the fishing grounds stopping briefly to pick up stores, water and ice. In this way the smacks could stay at sea continuously for three to six months at a time.

The new practice was extremely successful and the Hewett fleet had increased to approximately 50 in 1844. By the early 1860s almost every Barking family was involved in the industry, either as fishermen or as makers or suppliers of goods for the industry.

But Barking was losing trade to better-resourced ports such as Grimsby, which had opened its No.1 Fish Dock in 1856. The new railway system ensured that the catches could be transported quickly from the East Coast to the London market. The Great Storm of 1863 killed 60 Barking fishermen and boys, and shortly afterwards the Short Blue Fleet itself was transferred to Gorleston.

THE KIT

The 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 Saucy Jack is as easy to build as we can make it, very basic woodworking skills (and patience) are still required, or at least the ability to learn those skills as you proceed. A small workspace will have to be put aside for the assembly. Do not remove parts from the laser cut sheets until 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. Metal parts should ideally be primed first, using an etching primer or similar product.

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: Plastikote White (Hull below waterline)
- 7: Green paint for upper, outer bulwarks.
- 8. Black paint for rails.

Recommended tools from Vanguard Models

Recommended tool list

(All items listed were used by the prototype builder to build the Saucy Jack 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: Cutting mat
- 5: Pin vice or small electric drill.
- 6: Selection of drill bits from 0.5mm 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: Flexible masking tape for waterline (available from our online store)
- 16: Waterline marking out tool, such as the one from our online store.
- 17: A Pin Pusher (Or you can just use a pair of pliers to push pins into the planking and bulkhead edges)







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!



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.

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

Stop



and picture frames.

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.



Pin Pusher With Adjustable Depth

wooden boat models, dolls houses

3



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 prefitted 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 Warning!

It is recommended that a facemask is used whilst sanding any timber and MDF, and also if spraying paint in a confined area. You get one set of lungs, so protect them! Safety glasses are also recommended when using any manual or power tools.



1. Parts must be removed from the sheets using a sharp knife. Don't apply too much pressure, and if necessary, turn the sheet over to cut the tabs from the other side too.



3. From the 2mm MDF sheet, remove parts 33 (x2), 34, and 35.





4. Glue both parts 33 to the front of the front cradle, part 34, using the slots.



5. Now slot/glue the rear of the building cradle, part 35, as shown. This cradle is only temporary and will be used to hold your Saucy Jack whilst she's being built. It can later be discarded.



7. Note that some of these bulkheads (1, 2, 3, 9, 10) have a line engraved on them. Those are for bevelling.





8. There are various methods you can use for bevelling, such as sanding etc. We have used a rotary tool (Dremel), set at about 8000 to 10,000RPM. Whatever your method, just take your time.



9. The bevelled bulkheads will now look like this. They will be bevelled more when the hull is assembled. Pre-bevelling just reduces the amount of material you will need o remove later, making the task easier for you.



11. Please note how each slot in the keel has a number. This indicates which bulkhead you will need to fit there.





12. Take bulkheads 1 thru to 6, and slot into position on the keel. Do NOT glue. Note how the first three bulkheads have their bevel facing towards the bow. This is easy to remember if you position all the bulkhead numbered faces towards the bow.



13. Now slot (Do NOT glue) bulkheads 7 thru to 10 into their corresponding slots on the keel. IM-PORTANT: Note that the last two bulkheads that you bevelled, will need to have that bevel pointing rearwards, towards the stern. Make sure all bulkheads are fully seated. This is very important.



15. Bevel the edges of parts 17 and 18, using whatever method you prefer or feel most comfortable with.



14. From the 2mm MDF sheet, remove parts 15, 16, 17, and 18. These are the bow and stern planking edge patterns.



16. Take part 17 and glue it into position. The parts slides into the upper slots on the first two bulkheads and against the keel. The two holes will then align with the ones in the keel.



17. This photo shows part 17 in position. When complete, do the same with part 18, on the opposite side of the keel, as clearly shown in our photograph.



18. Glue the two locating pegs (part #19) all the way through the parts you just fitted.





20. Slide and glue part 15 into position at the stern, as shown here. Again, the holes in the part will align with those in the keel when the part is correctly fitted.



21. With part 16 fitted in the same way, this is what they will look like from above.



22. Use the remaining locating pegs #19 and glue through the holes in the parts you just fitted.



23. From the 2mm MDF sheet, remove part 21. This is the lower deck. Note how the front edge is engraved to identify it.



24. Slot (DO NOT GLUE) the deck into position as shown here. The front edge sits just forward of bulkhead #3. The slots will ensure perfect positioning.



25. From the 2mm MDF sheet, remove parts 22 (x2), 23, and 24.



26. Glue both parts #22 into position on the deck. Getting these the right way round is easy as the part slots will only fit one way due to their length.



27. Now take part #24 (engraved as FRONT), and glue into position in the deck slots and against parts #22.



28. When fitted, it will look like this.



29. Now take part #23 and fit at the opposite side of parts #22, creating a 'well'.







32. Slot (DO NOT GLUE) into position across the innermost slots on the top of bulkheads #1 and #2.



33. When fitted, they will look like this from above.



34. From the 2mm MDF sheet, remove the six stern frame parts 27, 28, and 29. There are two of each, engraved with their position (Inner, Middle, Outer).



35. Take part #27 (inner) and slot (NO NOT GLUE) into the innermost slots on the last two bulkheads. Add one at each side of the keel.



36. Now take parts #28 (middle) and dry fit them into the slots adjacent to the previous parts you fitted.











41. Now slot onto position across the last remaining slots on top of the bulkheads. IMPORTANT: Check to make sure ALL bulkheads and parts are pushed fully home.



42. Paint slightly diluted wood glue into all the various joints and allow to fully dry. NOTE: There is nothing stopping the modeller gluing all parts as they build Saucy Jack, but due to the number of slots and type of construction, we generally advise applying the glue with a brush, after initial hull construction.



44. The time has come to fit the sub deck. Remove the centres from the holes in the ply deck. Note how one side says 'Top'. It's very important that this is fitted with than facing upwards.





45. The ply deck will flex when you bend it. Start by slotting one side of the deck into the notches in the bottom of the bulkhead ears, and then flex the deck so it will then 'pop' into the bulkhead ear notches on the opposite side of the hull. Check in turn that the deck sits in those notches at each bulkhead. When seated correctly, the deck will be in the perfect position and held down with no need to pin it. You can choose to add glue to this before fitting or afterwards, using a brush.





48. Glue into place against the stern timbers, and directly below the rear of the deck, both sides.









56. Glue into the rear bulkhead on both sides, as shown here.







61. The hull must now be sanded smooth to accept the bulwarks and planking. This process is called 'fairing'.



62. In these photos, you can see how he fairing process has further shaped bulkheads etc. If you have done the job thoroughly, there should be very little chat left on the edges of any bulkhead. Just keep running a plank along the length of the hull to make sure that you have maximum contact to every bulkhead along its length. That's when you know you'll have completed this task.





64. This part needs to be glued in place as shown here. The top edge of this will sit across the recess in the stern frames. Make sure this part has the rudder/post hole, central to the back edge of the keel. The part will overhand on both sides, equally. Use a combination of glue and clamps to hold in position until thoroughly set. The maple should wrap around the sides with no problems as it is very flexible.



65. From the 2mm wood sheet, remove parts #37 and #39. Note that #39 has 'Front' engraved upon it. This is the side that goes closest to the bow.



67. Now glue part #39 into position, using the tabs to locate. Again, note how 'front' is next to the last part you added. Leave to dry.



66. First, glue part #37 in place. Test fit first to make sure it fits properly. This will sit right up against the keel. Let the glue dry.





69. From the 0.8mm wood sheet, remove parts #92 (Left) and #93 (Right).



70. Take part #93 and slightly bevel the lower inside vertical edge. This will allow the part to sit up against the prow (part #37) with maximum contact. The front of #93 is the side which is less steep/an-gled, and the inside face is the engraved one. When done, turn it over and slightly bevel the upper outside vertical edge. This will allow the part to sit more cleanly in the prow slot.



71. Glue the part in position, inserting in within the prow at the front. Make sure the ply deck is aligned with the lowest engraved line on inner bulwark #93, being at the same height as the ply deck. You can use pins to help you hold the part onto the bulkheads. IMPORTANT NOTE: You must NOT glue the bulwark onto the section of bulkhead above the deck height!! These parts will later be removed, and you need the inner bulwark to be free of any glue or mess. Also clamp the bulwark as shown, until the glue is dry.



72. Now add bulwark #92 in the same manner. Note the pins that I've used to hold the part to the bulkheads, below deck height.





73. It's now time to plank the hull, using the thicker, broader, and paler lime strips F-18. This is your first layer of planking, so it doesn't need to be pretty. However, it does need to be create a good, solid base for the second layer. On this layer though, you can add the planks as halves, should you wish. No taper is added to this first plank.



75. In this picture, you can see that the planks lie properly against the bulkheads, with no gaps. Add another plank to the opposite side of the hull.



74. Here you can see the rear half of this plank run. You will need to glue the planks to each other, and to the bulkheads. Use the small brass pins to hold them in position while they dry.



76. You will now need to taper the planks, or they simply won't lie flat on the bulkheads. While more knowledgeable and experienced modellers will have their own system of planking, this manual generally caters to those who are only starting the hobby. To taper a plank, run it underneath the previous one, and mark the point at which it tries to cross over the previous one.



77. Make a mark at the front of the plank which is about $\frac{1}{4}$ to $\frac{1}{3}$ down from the upper edge. Draw a line between the two and then cut the taper.



78. Before fitting the plank, you will need to angle and bevel the front edge, so it sits up against the prow. You may also need to bevel it upper, inside edge so that it tucks up nicely to the previous plank. Now glue and pin into position.



79. Continue to add planks to the hull until you reach a position where you find it harder to make them fit. Remember, you can also taper your planks towards the stern of the hull too. You aren't limited to the bow tapering. At some point, it's a good idea to add what is called the 'garboard plank'. This is the lowermost plank which sits up against the keel. Here, you can see it fitted and clamped, and without those clamps in place. Now, you need to plank down towards the previous planks, or up towards the garboard. Do whatever is easiest for you. Don't worry about leaving small gaps. You can fill these soon with 'stealers', that are made from pieces of scrap planks.





80. The fully planked hull will look very much like this. When dry, remove all brass pins.



81. Use some sandpaper to sand the hull smooth. We suggest 110 grit paper to start, maybe finishing with something like 180 grit. That is up to you. Just don't sand it too thin. If necessary, you can use a little wood filler to remove any irregularities, and sand it in smooth to the shape of the hull.



83. Part #38, from the 2mm wood sheet, can now be removed for fitting.



85. From the 0.8m wood sheet, remove both parts #82. Also remove two parts #88.



84. Glue this into position as shown here.



86. Glue one part #82 onto the prow as shown here. Clamp until set. Make sure the slots in this part align with the slots in the 2mm prow.



87. Glue the other part #82 to the opposite side of the hull and use the pegs #88 for alignment. Clamp until the glue is dry.

90. From the 0.8mm wood sheet, remove part #85.



91. Glue into position as shown. Now glue part #84 to the opposite side of the keel and use pegs #88 again for alignment.



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



93. Soak this part for 30 minutes in hot water and then tape into place so the corners shape around the hull as shown. Leave this part to thoroughly dry for 24 hrs, then glue into position. It is necessary to leave the part to dry for so long because pear expands quite a lot until totally dry. NOTE: If you struggle to make the part bend around the corners, you can also use one of our plank nipping tools on our web store, and create nips in the underside corners, which will curl the part.

94. From the 0.8mm wood sheet, remove part #90. Note that we have kept the window blanks in place for the time being, as it aids strength.



89. Glue these either side of the hull as you did with the previous parts and use pegs #88 again for alignment. NOTE: Make sure you get parts #83 the right way around. Check the position of the keel slots in relation to the slots on this part.



95. Bevel the inside lower edge of this where it will meet the lower counter (#89) that you just added.



96. Carefully glue the part into position. Make sure no glue spills out from anywhere, and it if does, use a damp paintbrush to remove it.



98. From the 0.8mm wood sheet, remove parts #101 and #102.



99. Take part #101 and glue into position as seen here. You will need to bevel the front edge a little, but the front area will now sit in the rebate that was created by the prow facings you recently added. This gives a good edge to plank up against. Clamp and use pins until the part is set. NOTE: You can use pins in the lower part of this outer bulwark as this will eventually be covered by the wales. When set, glue part #102 to the other side. You are now ready to add the second layer of pear planks.



97. Now sand the rear sides of the hull so that the parts you just fitted are flush to the hull sides/planks/ bulwarks.





100. Start to add the pear planking strips F-19 as you did with the previous layer. Make sure they are up tight against each other as you progress. For our work, we use spots of CA gel (Gorilla Glue) dotted along the reverse of the plank and then slowly add it, working it up against the previous plank. There is no need to edge glue this layer. Again, taper as you see fit, but try to keep any filler pieces below the waterline level (check your plan for position) as it will be covered by paint.



101. Don't make things difficult for yourself! Again, where you are below the waterline, you can add planks as halves. Some filler will later hide any trace of this. Here you also see the outer garboard plank installed, as halves.



102. Now complete the planking, fitting any small stealers into gaps, where appropriate. Try to make sure these, plus the halved planks, are below the waterline level, for aesthetics. Refer to plan for position of waterline.





104. Sand the hull smooth and make sure the planking is sanded flush with the upper bulwarks. We used 110 grit paper, followed by a flexible Tamiya 240 grit sponge. Use what you feel is best for you.



105. You can now unmask the bulwarks, and your model should look like this. We have included a photo of stern underside for you too.





106. Using a pair of pliers, twist and remove all the MDF bulwark ears along sides.



107. Use sandpaper to sand the stumps of the bulkhead ears flush to the deck.



108. Take your engraved deck part and remove any panels that may still be in the three main openings.



109. Test fit first by slightly bending the deck and ensuring it sits down on the ply deck, all the way around. If it doesn't, you may need to slightly sand the edge of the deck, where it's catching.



110. When happy with the fit, use slightly diluted wood glue to secure it. Use small clamps all the way around too, as this will ensure that it doesn't pop up anywhere.





112. From the 0.8mm wood sheet, remove both parts #94. You will notice that one end is more tapered. That will sit inside, up against the stern timbers. The inside bulwarks of your model have the position of this part engraved for you, so you can't get this wrong.



113. Fit the first #94 to the inner bulwark as shown. Clamp securely until dry. When dry, remove the clamps and repeat for the other side.







115. From the 0.8mm wood sheet, remove part #91



117. Take a sanding stick or a ruler wrapped in sandpaper and draw this along the tops of the bulwarks to make the bulwarks. Just keep that sanding stick flat as them even and level to each other.



119. From the 2mm wood sheet, remove part #40. From the 0.8mm wood sheet, remove the engraved parts #86 and #87.



118. The stern is simply sanded flush along with you go over this area.



120. Glue the 0.8mm part to the 2mm core by applying the glue to the thicker part. This will stop the thinner part from curling. Clamp and leave until dry. When set, glue the other part to the opposite side. Make sure the engraved sides face outwards.



123. On your plan, measure the distance from the top of the wale (given here as the lowest engraved line on bulwark), down to the waterline, and then make a faint pencil mark. Check this distance from your plans. Now set your waterline tool to this mark, and draw a line from bow to stern, and over rudder, on both sides. NOTE: Before you do this, make sure that the bottom of keel is parallel to your worktop. This line will be parallel to your worktop and bottom edge of keel. Vanguard Models sell these waterline tools in the webstore.



124. Mask the hull from the waterline, upwards, covering the bulwarks. We like to use flexible masking tape for the actual line, shown here in white. We also sell flexible masking tape in our webstore. Use wood filler to fill any imperfections or plank gaps on the exposed area. We suggest you use a good acrylic filler, diluted with water, and then applied with a brush.



125. Apply a light coat or two of primer to the surface, and where you see an imperfection, simply refill and sand again. This can be tedious, but the result will be worth it.



127. Unmask the hull and then re-mask so that the upper bulwark is exposed. We chose to paint this in green, which was a common colour on many working vessels of the period.



126. When you are happy with the primed surface, apply several thin coats of white paint. We use Plastikote White aerosol for this.

128. From the 0.8mm wood sheet, remove parts #100. You will notice these have some engraved lines on them. Those will face outwards.



129. Paint those parts black and then fit to the hull. The upper edge of these parts will run along the lower engraved line on the bulwarks and hide the joint between the bulwark and planking. You may need to adjust the forward angle of the parts, and also bevel the inside front edge a little, so it sits against the prow properly. For fixing these, we use CA gel, applied in small spots. This gives the modeller some time to work their way along the part to fit it properly.



130. From the 0.8mm wood sheet, remove parts #98 and #99. Again, the engraved detail will face outwards.



131. Paint these parts black and attach to the hull, following the engraved line that runs underneath the painted bulwark area. You will note here that we masked off the long rectangular, engraved detail before painting. This is where the channels will later be glued to.





133. Paint the upper and side areas of these, and then glue them into place as shown. You'll notice that #96R has a slot cut into it near the bow. That's a good way to identify which is which.



134. From the 0.8mm wood sheet, remove part #97.





136. From the 1.5mm wood sheet, remove both parts #56.

137. Glue these into position as shown here and on the plan. The timberheads it fastens to, are slightly notched, indicating position.

135. Paint this black and glue into position as shown. You may need to adjust this slightly, and also sand the outside edges to they match the gunwales, as shown.



138. From the 1.5mm wood sheet, remove part #57.



139. Glue into place across the notches on the stern timbers.



144. From the 1.5mm sheet, remove grating #52. From the 1mm pear sheet, remove parts #74 and #76.



140. From the 1.5mm wood sheet, remove part #51. From the 1mm wood sheet, remove part #73 and #75.



142. From the 1.5mm wood sheet, remove part #50.



141. Glue parts #73 and #75 onto part #57, as shown. Clamp until set.



143. Glue this to the previous assembly and clamp until set.





146. Take some 0.5mm natural thread and tie a knot at one side. Pass the other end through a corner hole, from the inside, outwards. Now thread through the adjacent hole from the outside, inwards. Simply keep doing this with all the other holes – in and out, until complete.



147. When all holes are threaded, the cord will be on the underside of the assembly. Glue with a spot of CA and cut the end short.





148. The finished item will look like this.



149. Glue the assembly to the deck of Saucy Jack.



150. From the 1.5mm wood sheet, remove part #49. From the 2mm wood sheet, remove both parts #42.



151. Glue both parts #42 into the holes in front of the fish hatches. The slot must face towards the bow. NOTE: The bottom of these parts will locate into a hole on the sub deck. Waggle the part around until you locate it, then push fully in.



153. From the 1mm wood sheet, remove part #68 and glue into place as shown. You can use your length of 5mm dowel to make sure this part is properly centred.







156. Glue together and clamp until set.

155. From the 2mm wood sheet, remove part #43. From the 1mm wood sheet, remove part #71.



157. From the 1mm wood sheet, remove part #72.



159. Bend an eyebolt PE-1 and glue into place as a handle. From the PE sheet, remove two hinges #11, paint black, and glue into place on the engraved marks.



158. Glue into place as shown.



160. Glue the hatch assembly into place as shown.



161. From the 0.8mm wood sheet, remove part #95 and glue into place as shown.



162. From the 1.5mm wood sheet, remove parts #46 and #47, and both parts #48. You will now need your 3D-printed Windlass Drum, #F-1.





164. Paint the windlass drum in wood, with black for the metal areas. Trap this between the two wooden parts shown previously, making sure the engraved detail faces are pointing outwards. Also check this photo and your plan to make sure the windlass drum is the right way around. Try not to glue the wooden parts to the drum. You simply need to trap the part. From the 1mm wood sheet, remove both parts #70.



165. Glue parts #70 into place as shown.



166. Glue the windlass drum assembly into position as shown, making sure both sides the assembly are fully seated in their slots and on deck.



167. From the 2mm wood sheet, remove part #44. From the PE sheet, remove part #PE-10. Glue into place as sheet here, and paint black.

169. From the 2mm wood sheet, remove part #45.



168. Glue the assembly into place. This will only fit one way round. Bend down the little PE tab until it touched the windlass drum.



170. Glue into place. You need to bevel the long edge which sits against the previous assembly. You will also need to slightly angle the forward edge where it sits against the bulwark.



171. Cut a length of 3mm dowel, 15mm long. From parts #77, #79, and all parts #78.



172. Slide part #77 onto the dowel and sit parts #78 into the slots as shown. You can also slide part #79 onto the dowel. The is the one shown at the top here. When all parts #78 are in place, slide down part #79 onto them and lock them into place.



173. This is what the capstan will now look like. Do NOT use glue at this stage.



174. From the 1mm wood sheet, remove parts #80 and #81.



175. Slide the capstan parts up the dowel so the top of the capstan is flush with the top of the dowel.



176. Glue part #80 to top of dowel/capstan, followed by part #81.



177. You can run a little glue around the base of the capstan, to hold things in place, and then glue the capstan into place as shown here. You may need to open up the lower MDF frame a little to fit, or slightly flatten two opposite sides of the protruding dowel so it fits between the lower frames.





179. Glue parts #60 and #61 (sides) to part #62.

178. From the 1mm wood sheet, remove parts #60, #61, #62, and #63.



180. Now glue part #163 to the assembly. Leave to dry.



182. Glue #64 and #65 together as shown.



181. From the 1mm wood sheet, remove parts #64, #65, and #66.

assembly. From the 1mm wood

sheet, remove one part #67.



184. Glue into place as shown



185. Your two companionway assemblies are now ready to be assembled.



186. Glue both assembles together as shown. From the 1mm wood sheet, remove two parts #67.





188. Glue the completed companionway onto the deck as seen here.

191. From the PE sheet, remove parts #12, #13, #14, #15, #17, and #19. Glue into place on the engraved rudder/rudder post positions, and paint white.



192. From the 1.5mm wood sheet, remove both parts #55.



194. Glue a brass pin into the hole and cut the pin so it protrudes by about 2mm.



193. You will see these have an engraved line on them. Drill a hole in the middle of that engraved line, as shown, using a 0.5mm drill bit. The is the face which will glue up against the hull. Make the hole just a few mm deep.



189. From the 2mm wood sheet, remove part #41.



190. You can now glue the rudder into place. Slightly round/shape part #41 (as shown) and glue into place into the top of the rudder.



195. Drill through the hole in the upper rail, using a 0.5mm drill bit. You only need to go about 1mm deeper than the rail.



196. Paint the frieze part #21 and glue it into position in the blank stern panel. We chose white to give a nice but natural contrast.



197. You now need to make a recess in the right-hand gunwale, right next to the prow. This is where the bowsprit will sit. To do this, we took a piece of 3mm dowel and wrapped it with some 110 grit sandpaper. The bare dowel passes through the bowsprit post that you added earlier, just to guide the dowel. Sand away the gunwale and about 1mm depth of the bulwark below it.



198. When correctly sanded, the bowsprit will be horizontal, roughly, to the keel bottom. Look at your plans for reference.



199. You now need to drill out the anchor cable holes in the forward bulwark, so they pass through to the inner bulwark. Use the best size drill you have, to match the outside hole.





200. Paint the Iron Cleats (#PE-6) black, and fit them into the holes in the timberheads, 3 per side of bulwarks. You can also fit the remaining eyelets #PE-1 to the various points around the hull. Check your plans for details.

201. Remove the belaying pins #PE-7 from the photo-etch sheet, paint them black and glue them in position into the holes in the belaying pin racks, as shown here.



202. Take eight of the chainplates #PE-2 and paint them black. To fit the 3mm deadeyes to them, splay the part open as shown, place the deadeye into the loop, and then close up the area you splayed.



203. Slot the chainplates through the holes in the channels and then secure them to the hull using brass pins. Those pins can then be painted black. Check your plan for reference for the positions of those chainplates, relative to each other on the hull. You can also paint the rigging straps #PE-3 back and fit those to the upper rail with short brass pins as shown (the hole positions are made for you). You will need to slightly drill those holes deeper as you did when you fitted the channels with short pins.



205. Slide both #PE-9 over #PE-8 and glue #PE-9 into the holes in the deck, as shown.

206. Your Saucy Jack hull is now complete. Take an admiring look before we move onto the mast work.





207. You must now primarily refer to the masting drawings for the next stages, but these are probably some of the simplest things to make on any model. Here you see the bowsprit. Cut the dowel to the length stated on the plan and taper as shown. You can use a lathe or a drill to do this, or simply use a sanding block as I have. We will add rigging blocks to everything later.



208. For the mast, the first thing you need to do is to take the length of 5mm dowel, cut it to size, mark the 29mm down from the top and then reduce that diameter to 4mm. You can do that with sanding or cutting. Remember though that there needs to be a definite shoulder at that point where you reduce it. It's not a taper. Check your plan. Now take one part #58 from the 2mm wood sheet.



to dry.



210. Now cut a section of 3mm dowel for the upper mast and taper as indicated on plan. This now fits to the main mast section through another part #58, which is then slid onto the main mast section. The upper mast will then pass through both of those parts as shown here. You can now add the various eyelets. Again, refer to your plan for position.





213. Referring to your plan sheet #5 (Masts and Spars), add the various eyebolts and rigging blocks to the timber assemblies you've just made. You can now put all the woodwork under a coat of varnish.



212. Make the topsail yard, main boom, and main gaff, referring to your plans. These are very easy to make and require no tapering. When assembled, varnish the parts before adding the rigging blocks.



214. Glue the bowsprit to your hull, as shown. Make sure the two thimbles are facing upwards.



215. Your sails will come in natural-coloured material. You can, if you choose, dye them. Once dyed, fit out the sails with the various cord lengths as shown on plan sheet #6 (Optional Sails). Remember, you do not have to fit any sails to your model, but we think our fishing boats look rather nice with them in place. Once you have added the rigging cord to the sails, you will need to add the metal parts, and the wooden assemblies. Please refer to plan sheet #10 for this.



216. Side the main sail/gaff onto the mast, as shown. When in position, slide the main boom into position. From the 1mm wood sheet, remove part #69. You can now glue this into place on the mast, 51mm up from the bottom of the mast, as shown on your plan sheet #5.



217. The main top sail and her woodwork ca now be fitted to the upper mast section as shown here and on plan sheet #10. Make sure this section will slide up and down the mast section as you'll need to adjust it later.



218. Glue the mast to the hull, making sure the mast sits fully in position. If you slightly waggle it around, you will feel it locate into the hole in the sub deck. Make sure the mast is properly aligned too.



219. We now need to add the shrouds. These are lines which run from the mast step, down to the channels. Take a look at plan sheet #7 (standing rigging), for details on how these are applied. Leave the ends longer than is necessary.



220. Using the same plan reference, secure the shroud lines to the channels via the 3mm deadeyes and lanyards. NOTE: Follow the sequence properly for this. It isn't difficult but is important for it to look correct.



221. Cut a piece of paper/card and draw lines on it that are about 8mm apart. Clip this to the shrouds so that the lowest line sits just above the deadeyes. Now add the ratlines to the shrouds, using your plan to show you how to tie the clove hitch knots. Don't add too much tension between knots, or the shrouds will start to deform. When you have tied all ratlines, seal the knots with dilute PVA glue.



222. Use some side cutters to clip off the surplus length on each row of knots.



223. This is how your model will look with the ratlines complete. That's actually the hardest part of the rigging now complete!



224. Now add the mast stays, just aft of the shrouds, as shown on your rigging plan.



226. You can now rig the two mast sails as per your plan sheet. These aren't too difficult, and all the rigging lines are already attached. It's just like dot-to-dot.





228. Lastly, add and rig the outer jibsail.



229. Your Saucy Jack kit comes with a small boat that can be fastened to your deck in any way you choose. You could use eyelets and lash it down etc. You can also choose to add this earlier in the build before mast/rig, although it's still easy enough to add afterwards. Paint this any way you wish, although this has been painted, internally, with oil paints to simulate timber. You also have some wooden parts for seats etc. The black paper is to make some rudder hinges.







230. We can now make the acrylic display stand. The parts still have a removeable blue film on one side, and this will need to be removed. The stand should require no glue as it's a nice squeeze fit.



231. Remove parts #AS3 and #AS4 from the parts sheet.



232. These are assembled like this.







235. Add those parts so they look like this.



236. Remove parts #AS1 and #AS2 from the parts sheet.



237. Locate them over the remaining slots, like this. For the sake of assembling, it doesn't matter which fits where, although you need to know that #AS1 is the fore, which will sit towards the front of your model.



238. Add the remaining deck furniture, if you wish, in any location you choose. Extra deck furniture like crates and crew figures can be purchased separately















0.8mm Birch Plywood The Barking Well-Smack Saucy Jack-1:64th scale <u>36</u> Sub Deck 0.8mm Birch Plywood PARTS LIST 0.8mm Maple Veneer 0.8mm Maple Veneer **MD-1 Deck Pattern** Pt. No Description Material OTY **MD-2** Stern Counter Inner Pattern 0.8mm Maple Veneer 3mm MDF 2mm Wood Bulkhead 3mm MDF <u>37</u> Stem Pattern 2mm Wood Bulkhead 3mm MDF 38 **Stern Post** 2mm Wood 39 2mm Wood Bulkhead 3mm MDF 1 Keel Pattern Bulkhead 3mm MDF 40 Rudder 2mm Wood 1 41 2mm Wood Bulkhead 3mm MDF **Tiller Arm** Bulkhead 3mm MDF 42 **Belaving Bitt Post** 2mm Wood Bulkhead 3mm MDF <u>43</u> Fore Hatch Coaming (Lower) 2mm Wood 44 2mm Wood Bulkhead 3mm MDF **Bowsprit Post** Bulkhead 3mm MDF 45 **Bowsprit Post Knee** 2mm Wood Bulkhead 3mm MDF 58 Main Mast Cap 2mm Wood 10 **Stern Counter Frame** 3mm MDF 11 Stern Pattern (Upper) 3mm MDF 2 1.5mm Wood 12 Stern Pattern (Middle) Windlass Side Post (Right) 13 3mm MDF 2 46 1.5mm Wood 14 Stern Pattern (Lower) 3mm MDF 47 Windlass Side Post (Left) 1.5mm Wood 48 Windlass Front Pattern 1.5mm Wood 2 1.5mm Wood 2mm MDF 49 **Belaving Rail** 50 Fish Hatch Coaming (Lower) 15 Stern Planking Edge Pattern (Left) 2mm MDF 1.5mm Wood Stern Planking Edge Pattern (Right) 2mm MDF 51 Fish Hatch Coaming (Upper) 1.5mm Wood 16 52 **Bow Planking Edge Pattern (Left)** 2mm MDF **Fish Hatch Gratings** 1.5mm Wood 17 53 18 **Bow Planking Edge Pattern (Right)** 2mm MDF 1 Main Sail Gaff (Upper) Jaws 1.5mm Wood Locating Pegs for Bow and Stern Patterns 2mm MDF <u>54</u> Main Sail Boom Jaws 1.5mm Wood 19 6 **Bow Planking Pattern** 55 1.5mm Wood 20 2mm MDF 2 Main Channel 2 Lower Deck Pattern 2mm MDF 56 Inner Bulwark Cavil/Belaving Rail 1.5mm Wood 21 1 2 Fish Well Side 57 1.5mm Wood 22 2mm MDF 2 Stern Cavil Rail 23 Fish Well End (Rear) 2mm MDF 1 Fish Well End (Front) 2mm MDF 1 1mm Wood 24 25 2mm MDF <u>59</u> Keel 1 Mast and Boom Cleat 1mm Wood 40 2 60 26 Longitudinal Hull Brace Pattern 2mm MDF **Companionway Side (Right)** 1mm Wood 27 Stern Frame (Inner) 2mm MDF 2 61 **Companionway Side (Left)** 1mm Wood Stern Frame (Middle) 2 62 **Companionway Front** 1mm Wood 28 2mm MDF 29 Stern Frame (Outer) 2mm MDF 2 63 **Companionway Rear** 1mm Wood 30 **Stern Frame Outer Filling Pattern** 2mm MDF 2 64 **Companionway Roof (Lower)** 1mm Wood 31 Stern Frame Outer-most Filling Pattern 2mm MDF 2 65 **Companionway Roof (Upper)** 1mm Wood **Building Cradle Cross Piece** 2mm MDF 2 66 **Companionway Sliding Top Hatch** 1mm Wood 33 2mm MDF 67 **Companionway & Fore Hatch Handle** 1mm Wood 34 **Building Cradle (Front)** 35 68 **Building Cradle (Rear)** 2mm MDF Main Mast Base 1mm Wood 69 Main Boom Support 1mm Wood 1mm Wood 70 Windlass Post Cleat 71 Fore Hatch Top Coaming 1mm Wood <u>72</u> **Fore Hatch** 1mm Wood

73	Fish/Well Hatch Coaming (Front)	1mm Wood	1	2mm Clear Acetate			
74	Fish/Well Hatch (Front)	1mm Wood	1				
75	Fish/Well Hatch Coaming (Rear)	1mm Wood	1	<u>AS1</u>	Fore Cradle	2mm Clear Acetate	1
76	Fish/Well Hatch (Rear)	1mm Wood	1	<u>AS2</u>	Aft Cradle	2mm Clear Acetate	1
77	Capstan Lower Pattern	1mm Wood	1	AS3	Cradle Spacer	2mm Clear Acetate	2
78	Capstan Whelp	1mm Wood	8	AS4	Name Plate Cross Support	2mm Clear Acetate	2
<u>79</u>	Capstan Upper Pattern	1mm Wood	1	<u>AS5</u>	Nameplate	2mm Clear Acetate	2
<u>80</u>	Capstan Top Pattern	1mm Wood	1				
81	Capstan Uppermost Pattern	1mm Wood	1		<u>0.4mm Photo Etched B</u>	<u>cass</u>	
				<u>PE-1</u>	Eyebolt	0.4mm Photo Etch	25
	<u>0.8mm Wood</u>			<u>PE-2</u>	3mm Deadeye Strop & Chainplate	0.4mm Photo Etch	10
<u>82</u>	Stem outer Pattern	0.8mm Wood	2	<u>PE-3</u>	Mast Stay Rigging Strap & Eyebolt	0.4mm Photo Etch	6
<u>83</u>	Keel outer Pattern	0.8mm Wood	2	<u>PE-4</u>	Rigging Hook	0.4mm Photo Etch	15
<u>84</u>	Rudder Post Outer Pattern (Right)	0.8mm Wood	1	<u>PE-5</u>	Main Sail Ring	0.4mm Photo Etch	<u> </u>
<u>85</u>	Rudder Post Outer Pattern (Left)	0.8mm Wood	1	<u>PE-6</u>	Iron Cleat	0.4mm Photo Etch	12
<u>86</u>	Rudder Outer Pattern (Right)	0.8mm Wood	1	<u>PE-7</u>	Belaying Pin	0.4mm Photo Etch	27
<u>87</u>	Rudder Outer Pattern (Left)	0.8mm Wood	1	PE-8	Iron Horse	0.4mm Photo Etch	1
<u>88</u>	Keel Slot Location peg	0.8mm Wood	10	PE-9	Iron Horse Double Ring	0.4mm Photo Etch	2
<u>89</u>	Stern Lower Counter	0.8mm Wood	1	<u>PE-10</u>	Windlass Pawl	0.4mm Photo Etch	1
90	Stern Board	0.8mm Wood	1	PE-11	Fore Hatch Hinge	0.4mm Photo Etch	4
91	Stern Board Rails Pattern	0.8mm Wood	1	PE-12	Rudder Strap (Rudder - Lower)	0.4mm Photo Etch	2
92	Inner Bulwark Pattern (Left)	0.8mm Wood	1	PE-13	Rudder Strap (Rudder - Middle)	0.4mm Photo Etch	2
93	Inner Bulwark Pattern (Right)	0.8mm Wood	1	PE-14	Rudder Strap (Rudder - Upper)	0.4mm Photo Etch	2
94	Inner Bulwark Support Post Pattern	0.8mm Wood	2	PE-15	Rudder Strap (Rudder Post – Right Lower)	0.4mm Photo Etch	1
<u>95</u>	Bowsprit Post Knee Base	0.8mm Wood	1	<u>PE-16</u>	Rudder Strap (Rudder Post – Left Lower)	0.4mm Photo Etch	1
96R	Main Gunwale (Right)	0.8mm Wood	1	PE-17	Rudder Strap (Rudder Post – Right Middle)	0.4mm Photo Etch	1
96L	Main Gunwale (left)	0.8mm Wood	1	PE-18	Rudder Strap (Rudder Post – Left Middle)	0.4mm Photo Etch	1
97	Stern Gunwale	0.8mm Wood	1	PE-19	Rudder Strap (Rudder Post – Right Upper)	0.4mm Photo Etch	1
<u>98</u>	Upper Rail (Left)	0.8mm Wood	1	PE-20	Rudder Strap (Rudder Post – Left Upper)	0.4mm Photo Etch	1
99	Upper Rail (Right)	0.8mm Wood	1	PE-21	Stern Scrollwork	0.4mm Photo Etch	1
<u>100</u>	Main Wale	0.8mm Wood	2				
<u>101</u>	Outer Bulwark Pattern (Left)	0.8mm Wood	1				
102	Outer Bulwark Pattern (Right)	0.8mm Wood	1				
C-A	14 Foot Cutter Floor	0.8mm Wood	1				
С-В	14 Foot Cutter Bow Platform	0.8mm Wood	1				
C-C	14 Foot Cutter Rear Seat/Stern Sheet	0.8mm Wood	1				
C-D	14 Foot Cutter Middle Seat	0.8mm Wood	1				
C-E	14 Foot Cutter Front Seat	0.8mm Wood	1				
C-F	14 Foot Cutter Rudder	0.8mm Wood	1				
C-G	14 Foot Cutter Middle & Front Seat Knee	0.8mm Wood	4				
C-H	14 Foot Cutter Oar	0.8mm Wood	4				

Fittings & Materials

<u>F-1</u>	Windlass Drum	3-d Print	1
F-2	2.5mm Thimble/Sheave	Wood	8
F-3	3mm Deadeve	Wood	14
F-4	3mm Single Block	Wood	20
<u>F-5</u>	5mm Single block	Wood	4
<u>F-6</u>	4mm Double block	Wood	10
<u>F-7</u>	0.1mm Diameter natural thread		20m
F-8	0.25mm Diameter natural thread		20m
F-9	0.5mm Diameter natural thread		10m
<u>F-10</u>	0.1mm Diameter black thread		20m
<u>F-11</u>	0.25mm Diameter black thread		10m
<u>F-12</u>	0.5mm Diameter black thread		<u>5m</u>
F-13	0.7mm Diameter black thread		5m
F-14	5mm Dowel x 250mm long	Wood	1
<u>F-15</u>	4mm Dowel x 200mm Long	Wood	1
<u>F-16</u>	3mm Dowel x 300mm Long	Wood	2
<u>F-17</u>	2mm Dowel x 100mm Long	Wood	1
F-18	1 x 5 x 340mm Long Limewood	Wood	26
<u>F-19</u>	0.8 x 4 x 340 mm Long Second planking	Wood	34
F-20	Fine Brass Pins	Metal	200
<u>F-21</u>	Resin Barrel	3-d Print	3
F-22	Small Anchor	3-d Print	1
F-23	Sail Set	Cloth	4

Laser Cut Sheet Quantities

3mm MDF Laser Cut Sheet	1
2mm MDF Laser Cut Sheet	2
2mm Wood Laser Cut Sheet	1
2mm Clear Acetate Laser Cut Sheet	11
1.5mm Wood Laser Cut Sheet	1
1mm Wood Laser Cut Sheet	1
0.8mm Wood Laser Cut Sheet	4
0.6mm Wood Laser Cut Sheet	1
0.8mm Maple Veneer Laser Etched Deck	1
0.8mm Maple Veneer Stern Inner Counter Pattern	1
0.8mm Birch Plywood Sub Deck	1
0.4mm Photo Etched Brass Sheet	1







VANGUARD MODELS

BY CHRIS WATTON

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Saucy Jack was designed and developed in the UK by Chris Watton Finished prototype model with sails made and photographed (plus text) by James Hatch 28/03/2022