Medway Longboat 1742

A Build Log of the Syren Ship Model Company Model Kit in 1:24 Scale

Build Commenced – 27 April 2019
Build Completed – 30 June 2021

Introduction

This kit was a Birthday present from my wife in November 2018. The kit is produced by The Syren Ship Model Company, with a comprehensive 'practicum' by the kit's designer and manufacturer, Chuck Passaro being made available as a downloadable file for kit purchasers.

What's in the box?

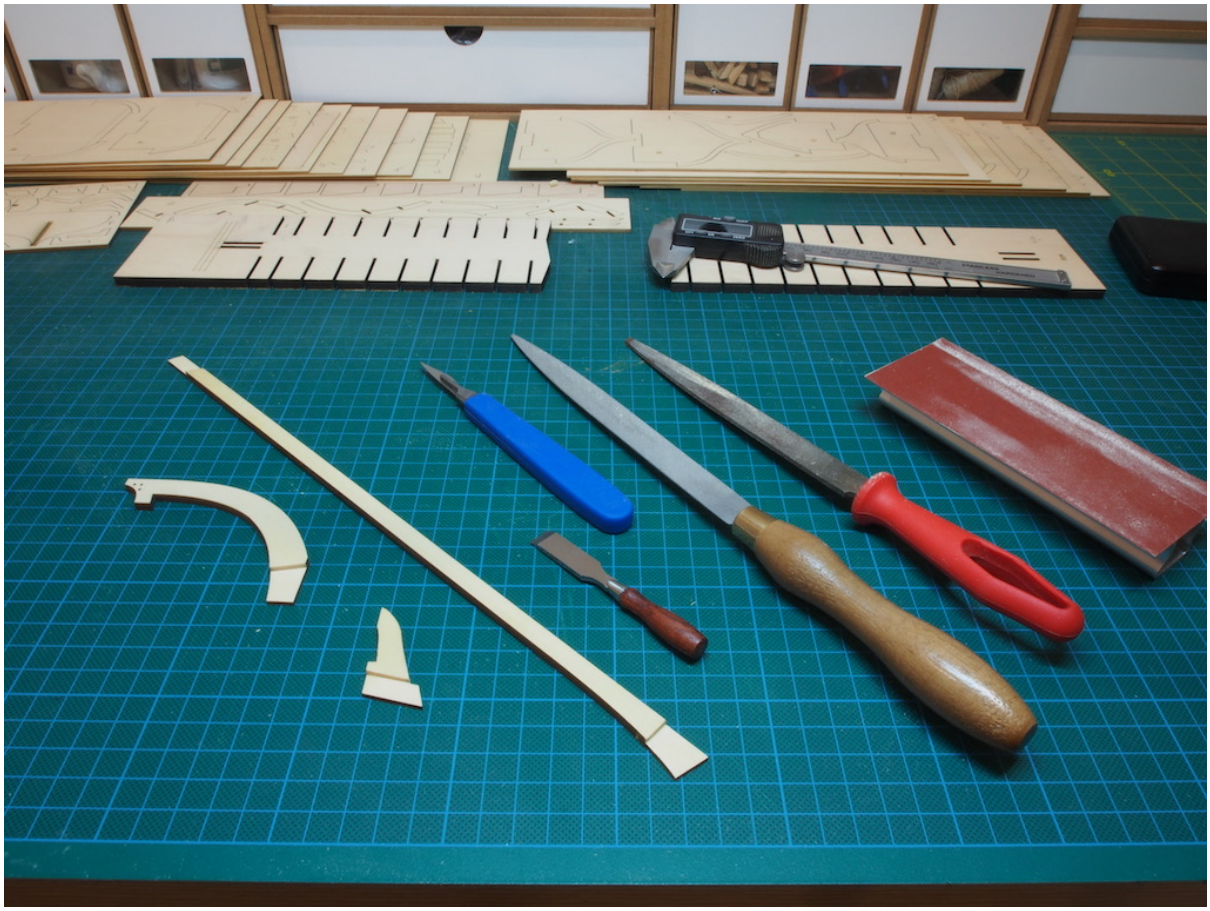
The basic kit is for completion of the hull only, with optional packages for both a masting and rigging set and a base/stand for the model. At the time of commencement of the build, I have acquired the basic kit plus the base/stand package. I will obtain a masting and rigging set once these become more readily available (they are made in small batches and so far, have sold out as quickly as they have been made!).

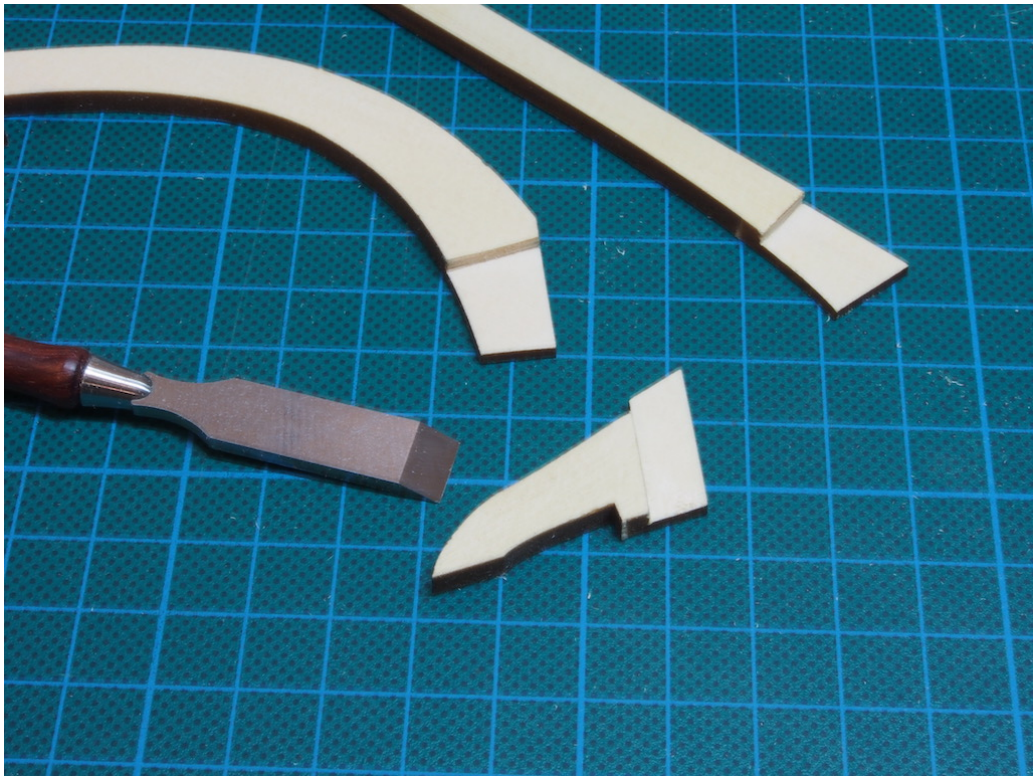
The kit is packaged in a plain but sturdy cardboard box. It contains some 22 sheets of laser cut parts in varying thicknesses of Alaskan Yellow Cedar (AYC). The laser cutting is nothing short of superb – a very thin kerf with very little char. There are also numerous strips of dimensioned timber in both Box and AYC, several thicknesses of black monofilament, some of Chuck's excellent rigging thread, pre-printed friezes, and a single sheet of plans. Two spare sheets of AYC are thrown in 'just in case' and friezes are available for free download should they be needed. All in all, a very comprehensive package.

Assembling the Keel and Stem

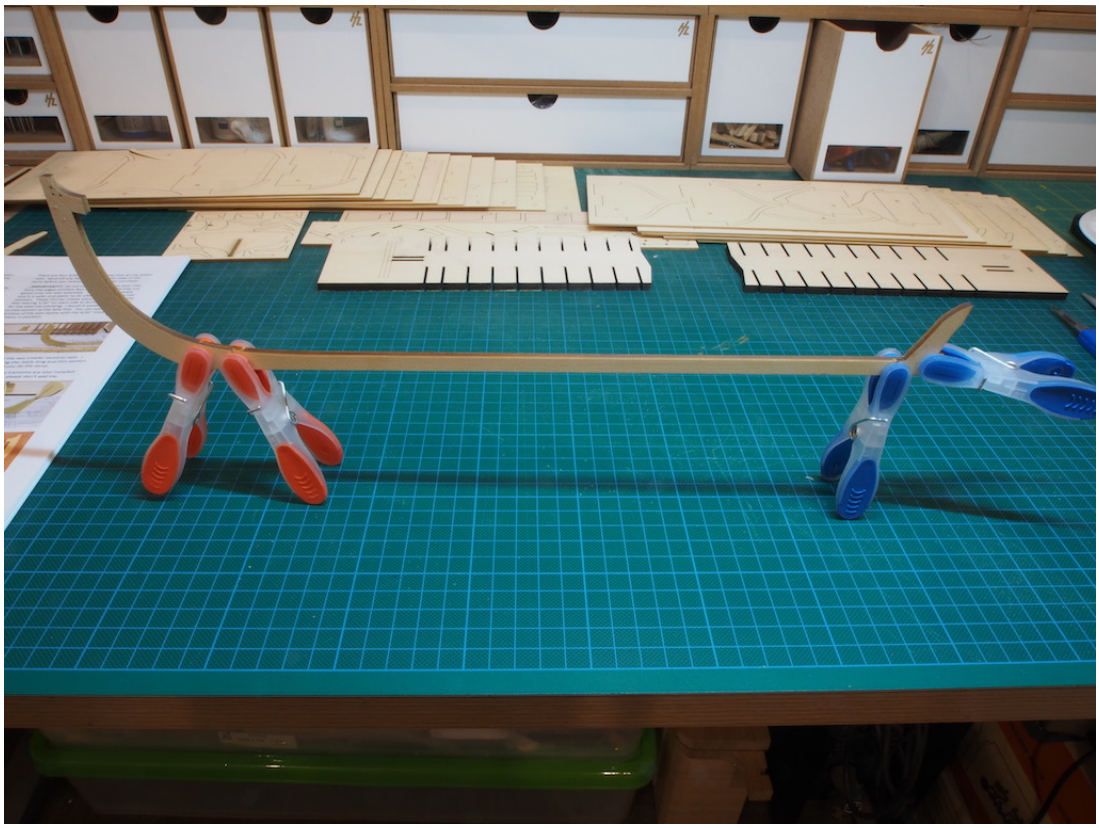
The kit comes with laser cut parts to make two versions of the keel assembly. One version is a simplified keel, designed with scarf and butt joints. The second option is more complex and requires some chisel work, filing and shaping. Although the joints in this version are more complex, they are very accurate in their historical depiction for a keel assembly, using lap joints to connect each of the three parts. Naturally, I decided to go with the more complex version, knowing that if I botched the job, I could always fall back on the simpler version.

The instructions advise that prior to removing any parts from the laser cut sheets, you should sand both sides with 220 grit sandpaper to remove any laser char on both sides first. Although I followed these instructions, there was virtually no laser char to remove. The lap joints have been clearly defined by the laser cutting, although the laser cannot cut deep enough to complete the lap joints. This is where the chisel work etc come in to take the lap joints down to one half the thickness of the timber. As these parts are 5/32” thick, that meant taking each half of each joint down to 5/64”. I found that a combination of a miniature chisel, a scalpel, a modellers rasp, a file, and a sanding block made short work of completing each of the lap joints. The initial marking out by laser cutting made this particularly easy.

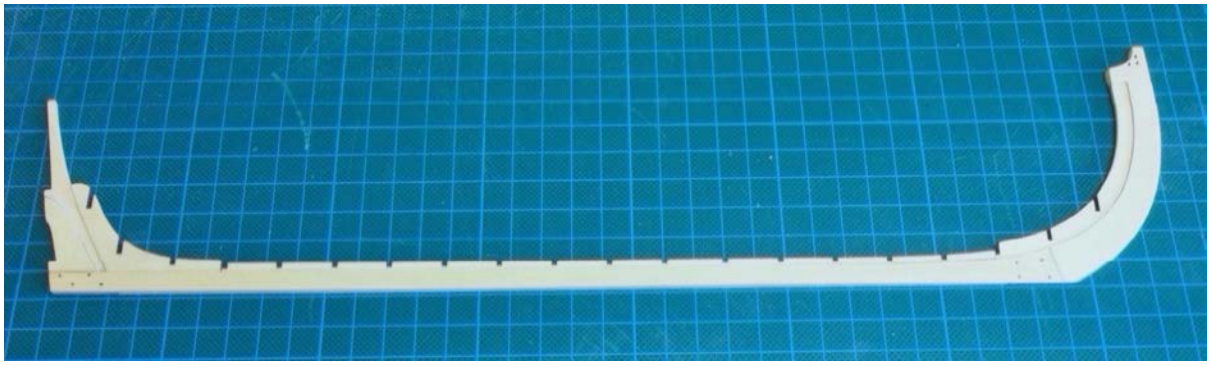




Once a good fit was achieved, the three keel pieces were glued up and clamped. I darkened the edge of one side of each joint with a pencil prior to gluing up in order to enhance the joint line.

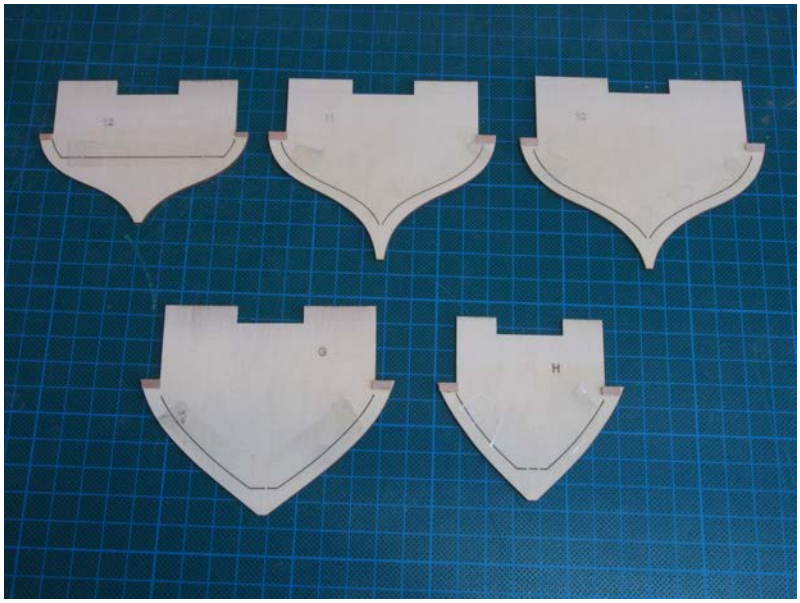


The four additional 3/32” keel pieces were then fit, following the advice in Chuck’s instructions. I used some scraps of 1/32” material to ensure that these pieces were centred on the 5/32” thick keel. I then traced the keel bolt locations from the plan sheet and used this to mark the bolt locations on the keel. Holes were drilled using a #70 drill bit to provide a tight fit for the kit-supplied 25lb monofilament fishing line that simulates the bolts. These were dipped in glue prior to fixing in place. Once the glue dried they were trimmed with a single edge razor and sanded flush. The whole assembly was then given a coat of satin Wipe-on Poly.

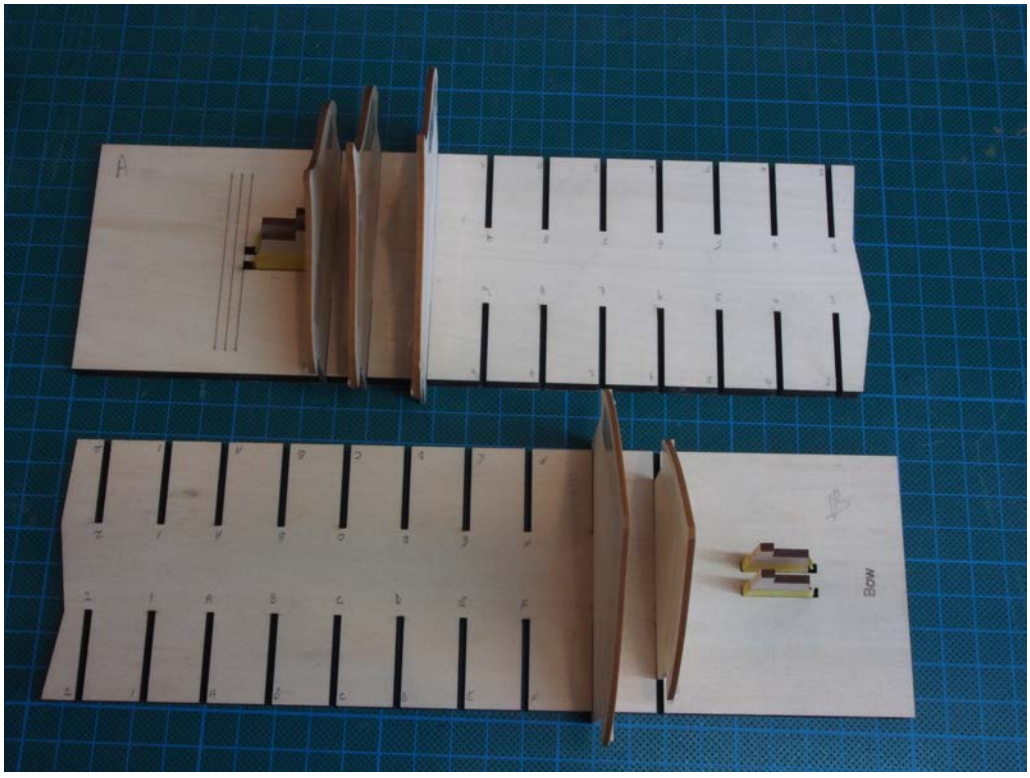


I then made my first real boo-boo…. When fitting the transom piece, I glued it to the wrong side of the stern post! I didn’t realise this until I went to test fit the single frames with the keel. Fortunately, a little isopropyl alcohol and some patience enabled me to de-bond the joint without any significant damage. I cleaned up the locating slot using some of my Russian micro chisels (thanks Mikhail) and re-glued the piece on the correct side. Phew!

The single frames were then prepared just as Chuck advises. I used packing tape to cover the laser cut on both sides of each frame, and then added some reinforcing pieces using some 1/32” x 1/8” cherry strips that I had in my stash.



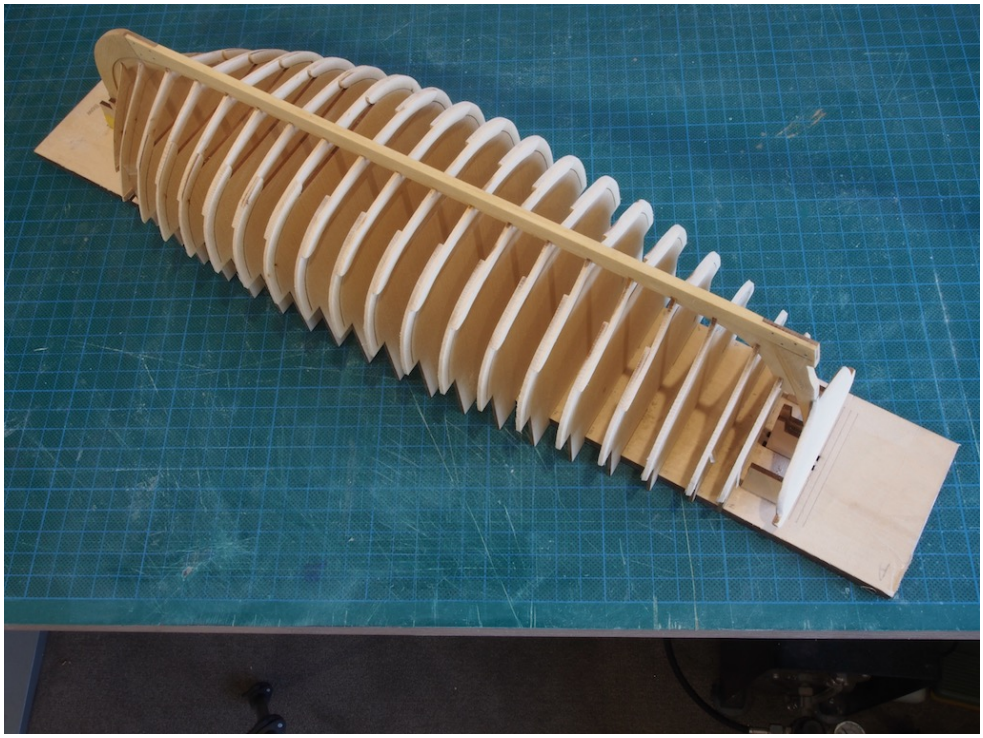
I then tested and adjusted these for a snug but not too tight fit in the build board and the keel notches.



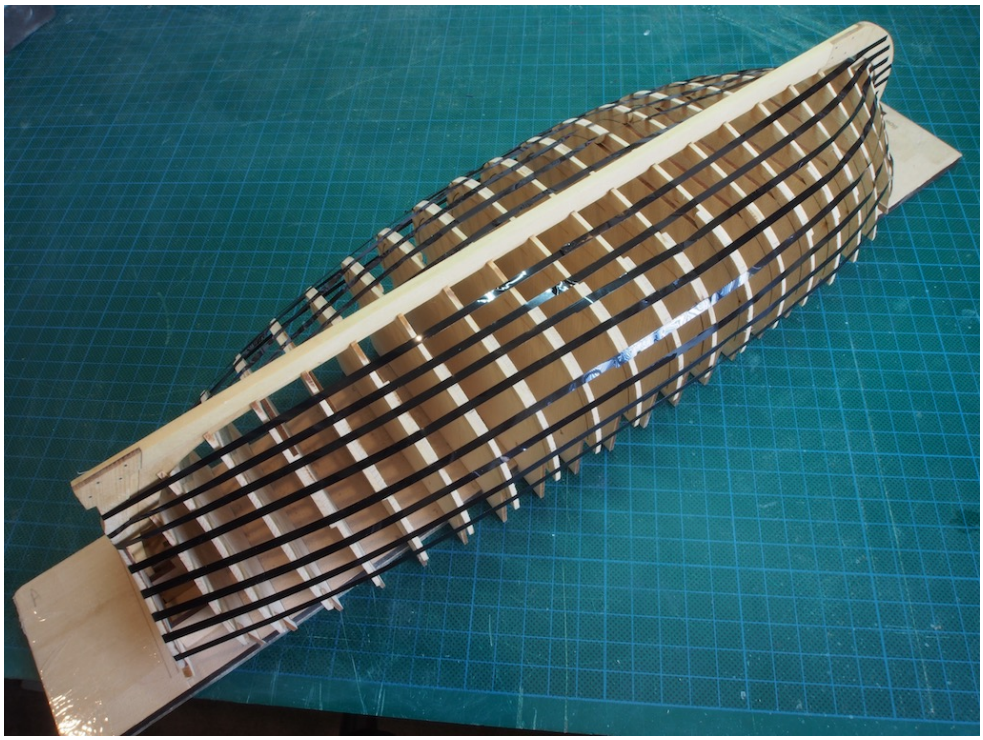
I next made up all of the two-piece frames, again following Chuck's instructions to the letter. The laser-cut reference line makes this a very simple process. All of these frames were then tested and adjusted in the build board and the keel slots.

The frames are now ready for permanent attachment to the keel.

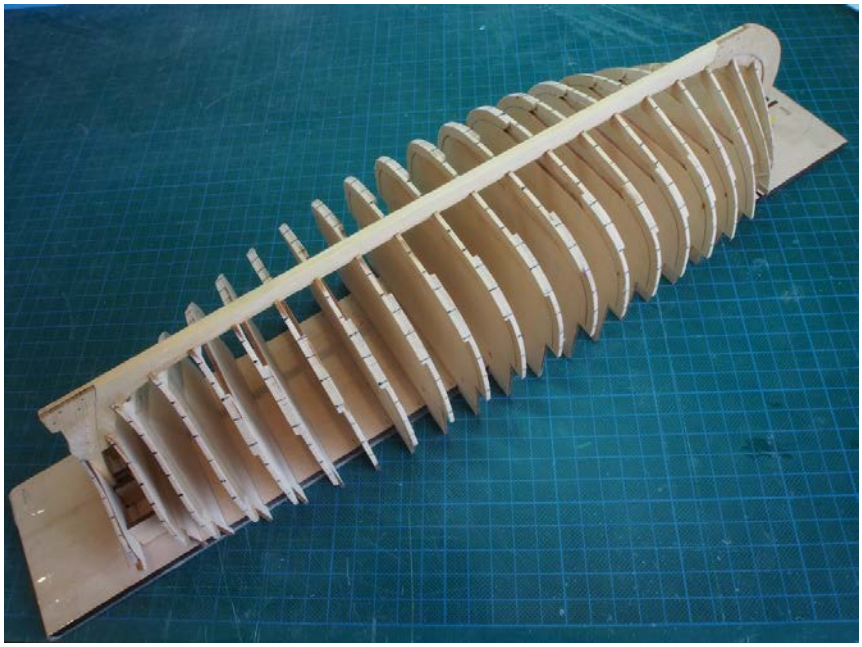
The frames were glued in place per the instructions and left to cure for a few days. The frames were then gently faired using 240 grit sandpaper on a variety of foam backing blocks.



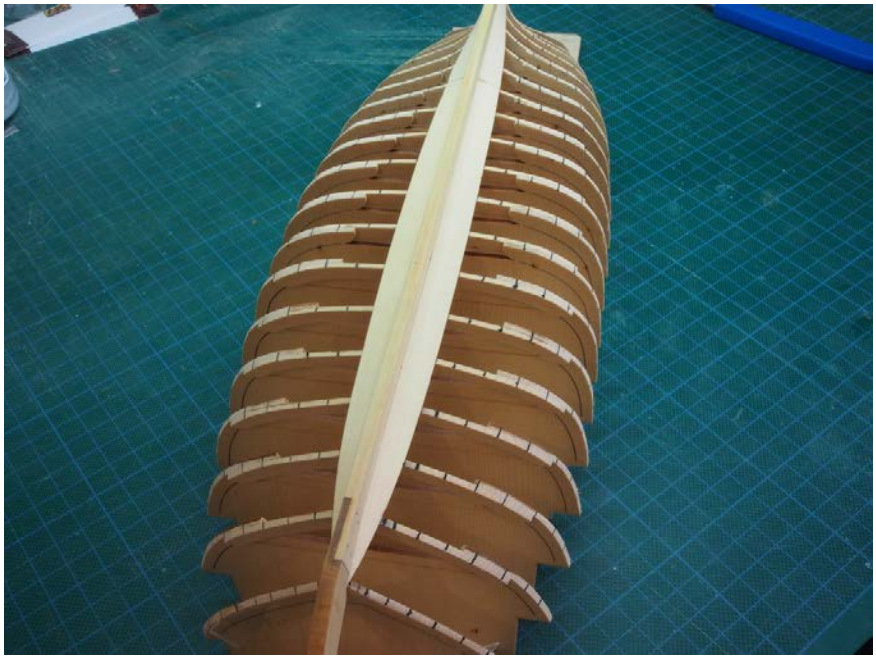
The hull was then lined off using tick strips and the bow/stern templates provided by Chuck to place a pencil mark on each frame with the exception of the first and last three frames. Thin strips of tape were then used to adjust the line.



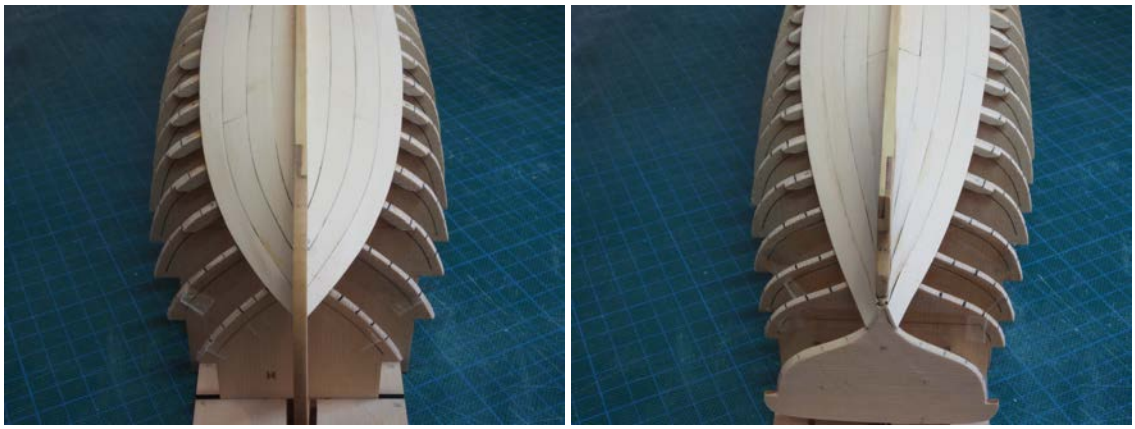
The frames were then marked again along the edges of the tape, this time using a thin black pen. Once the tape was removed, the original pencil lines were erased to avoid confusion.



Then it was time to gird the loins and commence the planking. I used my Proxxon heat gun (on the low setting) to bend the planks. I was pleasantly surprised at how easy this was to do compared to my previous method of using a small steam iron. I also used CA glue for attaching the planks instead of my usual choice of PVA, just placing a small amount on each frame. I used a gel CA for this. I was again pleasantly surprised at how easy the process was compared to using PVA and trying to clamp things in place. I think I'm now a convert on using CA for planking!



Planking progresses cautiously with the first four strakes now complete. Nevertheless, I have not been afraid to de-bond planks that I have not been satisfied with. One plank came off three times before I was happy. The last plank on the starboard side (Plank 8) went on late one evening. I didn't trim it because I wasn't sure about it. Having slept on it overnight, it came off again the next day. I took some extra care with bending it to make it fit properly at the last frame and transom, then reglued. Was much happier with the result. So far, the strakes are all aligning nicely port/starboard at both bow and stern. It's not perfect – there are some very minor gaps along some seams, but overall I'm happy with progress so far:



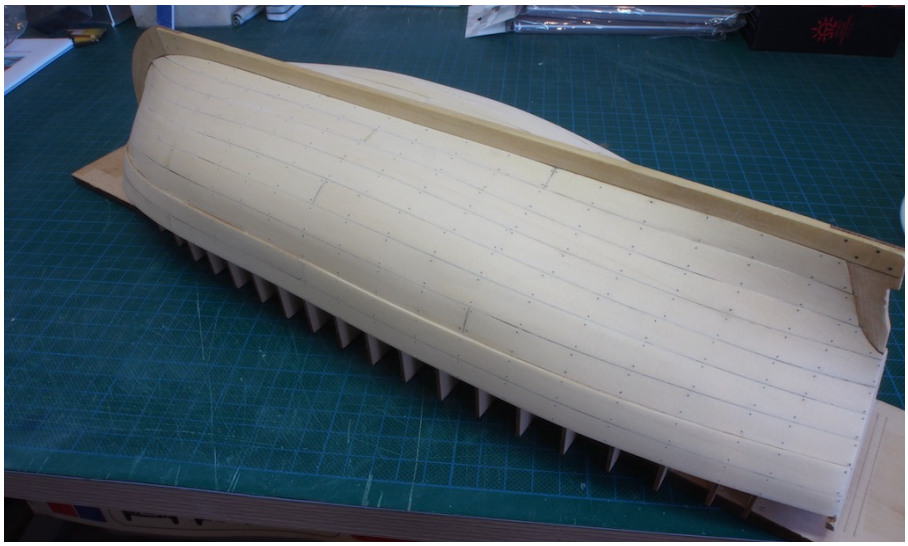
Planking has been completed. I had some very minor "staircasing" at the bow, which could be addressed with light sanding. Here is the first layer completed after an initial light sanding:

The whales were then added. I did these in reverse order, working down from the gunwhale in order to correct any minor misalignment at the bow. I used a sharp chisel to pare down the forward end as it approached the rabbet. The aft end was simply sanded thinner for the last half inch or so. All of the holes have been drilled in preparation for the monofilament "nails".

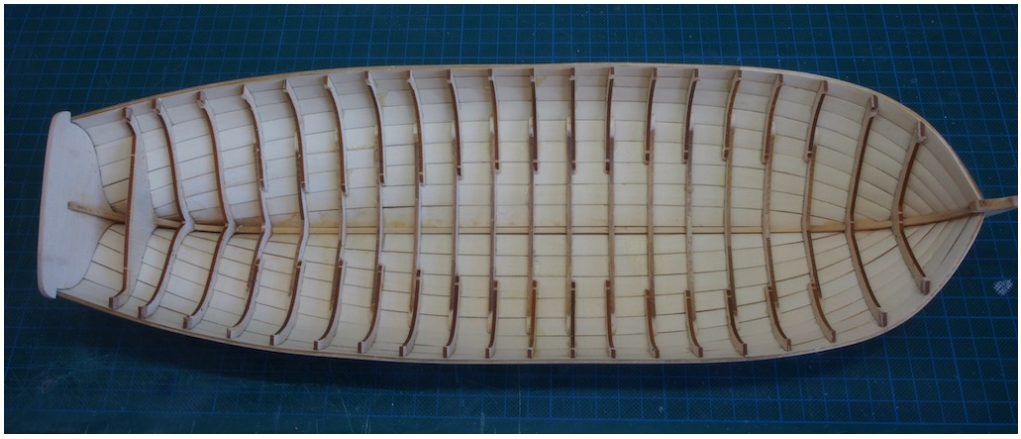
The best laid plans....

Having intended to complete the monofilament nails prior to removing the hull from the build board, I found I only had enough monofilament to complete one side. Perhaps I drilled the holes waaaay to deep….. For some reason, black fishing line does not appear to be a popular choice in Australia as I could not find a single supplier of it within Australia. I did, however, manage to find a shop in New Zealand with an online presence, who happened to stock exactly the right stuff. I've ordered that, so hopefully I won't be faced with the two-month delay I've been experiencing with other international orders lately.

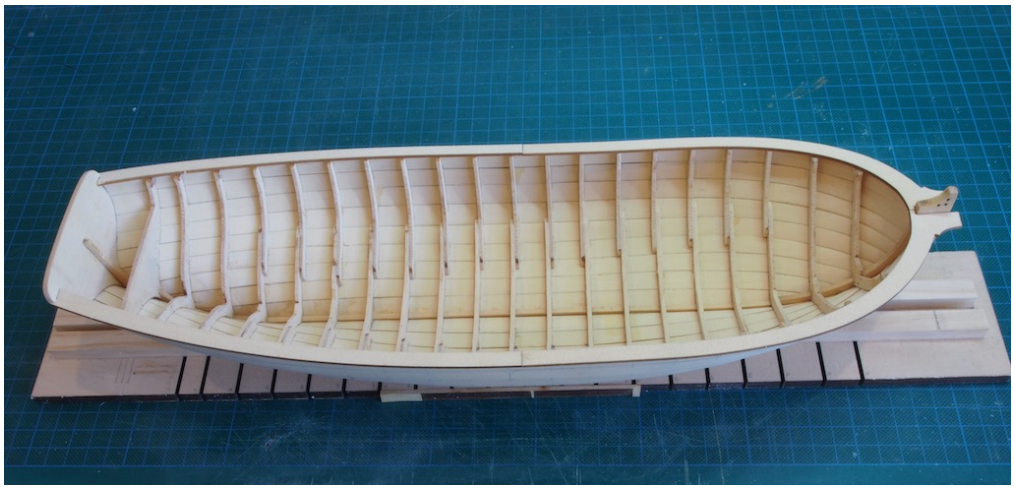
So here's where I got to before exhausting my kit supply:



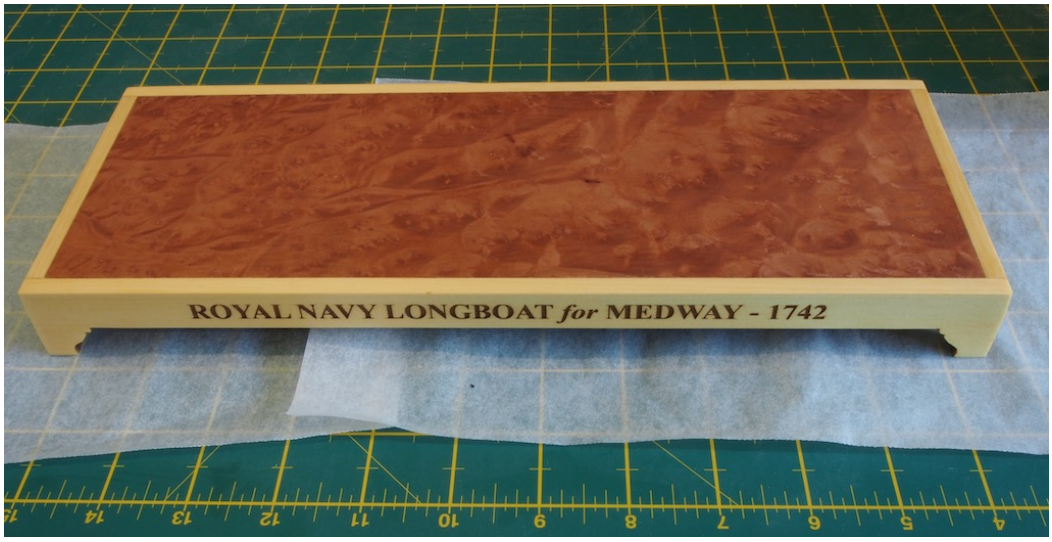
A quick re-think of the strategy and I decided to go ahead and remove the hull form the build board. This I did following the kit instructions and encountered no problems. Similarly, I removed the frame centres following the instructions and again encountered no problems.



Next up was to install the cap rail. The only issue I ran into here was that according to the instructions, I should have been left with a 1/16” gap between the upper strake of planking and the “ears” on the transom. For some reason my planking went all the way up to the ears on both sides. After fairing the sheer, I simply cut a notch out of the lower part of the ear to make room for the cap rail. The cap rail then went on easily. While I was fairing the sheer, I also did an initial clean-up of the frames – really just removing the laser char.

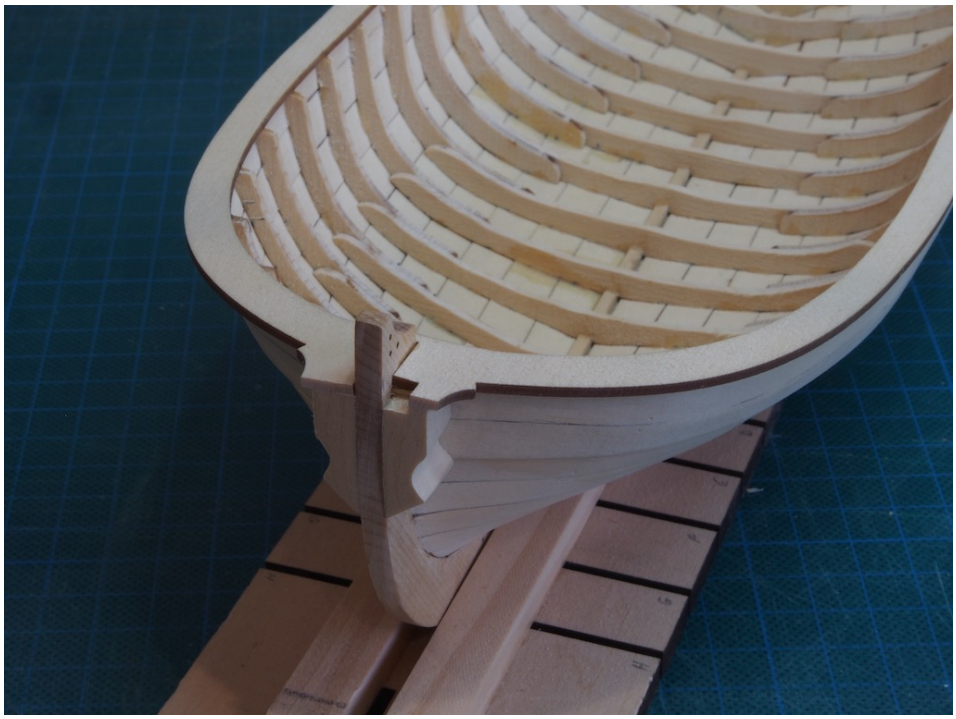


I was given a tip to fit the pedestals to the hull at around this point as well, noting that this would be much easier at an early stage of the build – a point well made. So, I decided to make up the display base this weekend. Here's the display base completed with just one coat of satin WOP at the moment. Will apply further coats in due course. The pedestals have also been assembled and coated. I'll fit them properly to the hull once the finish is dry.



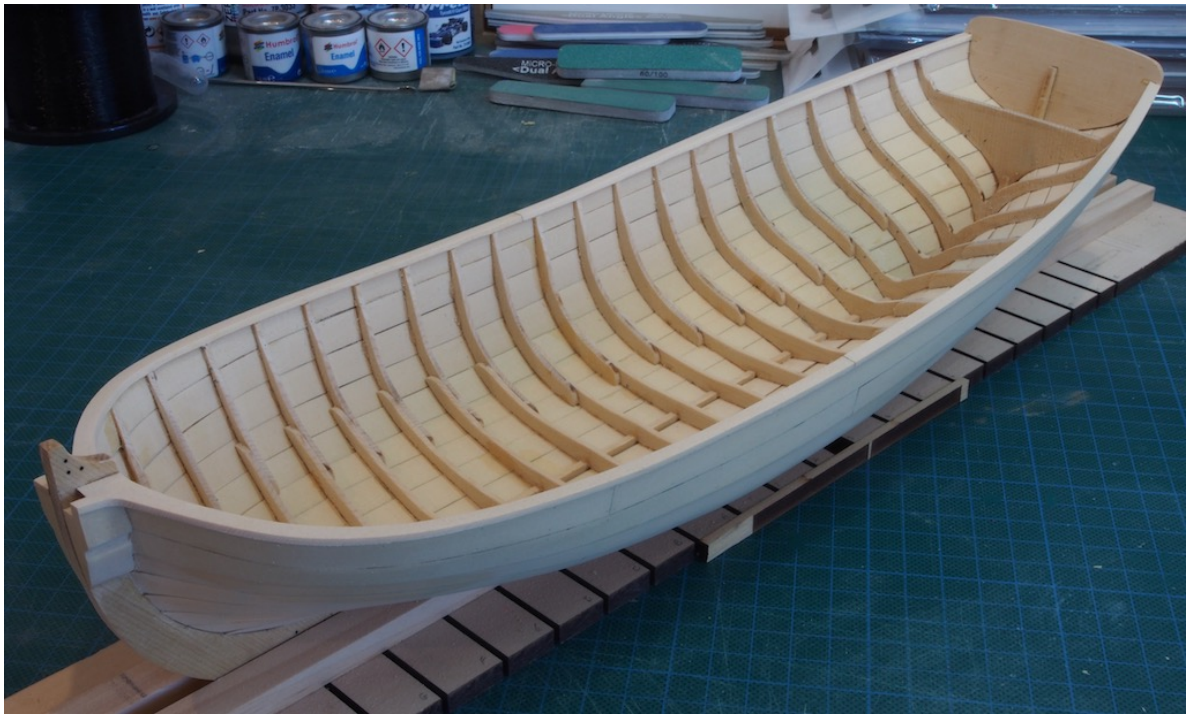
The new stock of monofilament fishing line has finally arrived, so I'll now be able to complete the "nailing" of the hull. While I was waiting for the post to arrive, I went ahead and completed the bolsters and the thinning of the cap rail and frames. The bolsters were quite tricky. Chuck even went so far as to provide six blanks in the kit to make the two bolsters required – and it's just as well that he did. I started on the starboard side and blew two attempts before getting the third to a point that I was satisfied with. The port side only took two attempts, so learning clearly took place! I even had one blank to spare!!!

Here’s what they looked like after I glued them in place initially.



I then realised that the lower edge should have been tapered/bevelled considerably, so was face with the challenge of achieving this with the bolsters in situ. Fortunately, with the assistance of Mikhail’s wonderful micro chisels and some sandpaper, this actually turned out to be easier to achieve than I’d first expected. Here’s the subsequently modified bolsters.

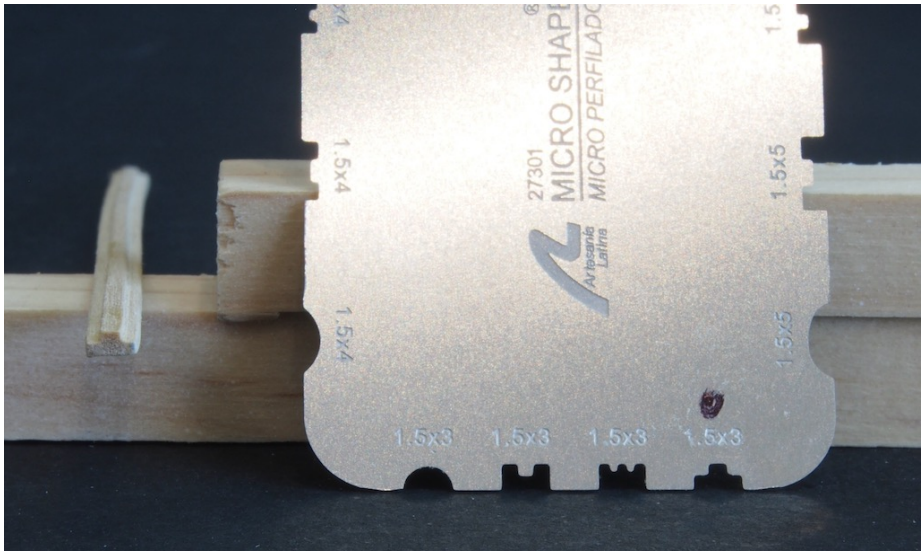
With the bolsters in place, I was then able to go ahead and thin the cap rails. I used a scrap of 1/32” material to guide the formation of the outboard edge to a uniform overhang, then using a pair of compasses marked a line 5/32” from the outboard edge to guide the thinning of the inboard side.



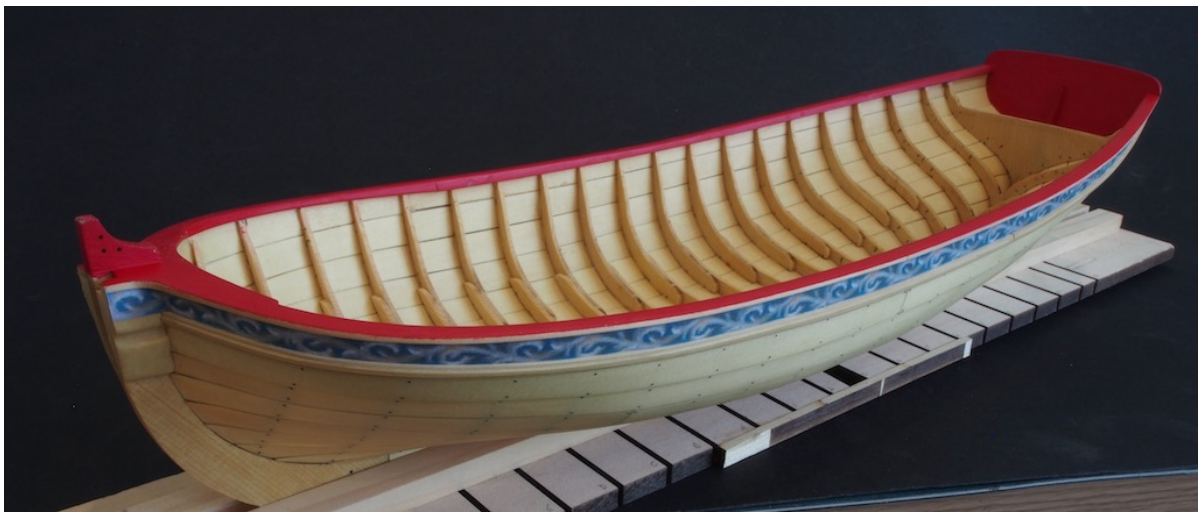
At this point, I had to wait for the fishing line to turn up before going further, so my final task here was to decide on the paint colour for the cap rail etc.

After some painting trials, I decided to go ahead with Windsor and Newton Naphthol Red. Many very thin layers were applied to the top of the cap rail and the inboard sheer strake. Having not used this painting method before, I was somewhat apprehensive to begin with but quickly overcame that as I saw the colour building up with a very smooth finish, free of brush strokes.

While waiting for the paint to dry, I prepared the molding strips. To create the profile, I used a set of profile scrapers that I purchased some time ago from Artesania Latina. They come in a set and cover a range of sizes of stock material and profile shapes. I found the 1.5 x 3mm fitted the supplied boxwood strip quite nicely and in no time at all produced the desired molding profile. Picture below shows the scraper and the end result.



Once the paint had dried, I applied the friezes along the sides and bow. I cheated a little here by printing them on sticky label paper on my laser printer so that I could just peel and stick. This worked well. The molding strips were then applied, the hull given another coat of WOP and the transom frieze applied. The only tricky bit here was choosing and then tailoring one of the five options to fit my transom. To assist in this, I used some tracing paper to trace the outline of my transom and then transfer this shape to the closest fitting of the supplied options. A little further trimming and good fit with a relatively even border was achieved. That completes Chapter 3. Here are a few photos of the current state of play as I start work on the floorboards and platforms.

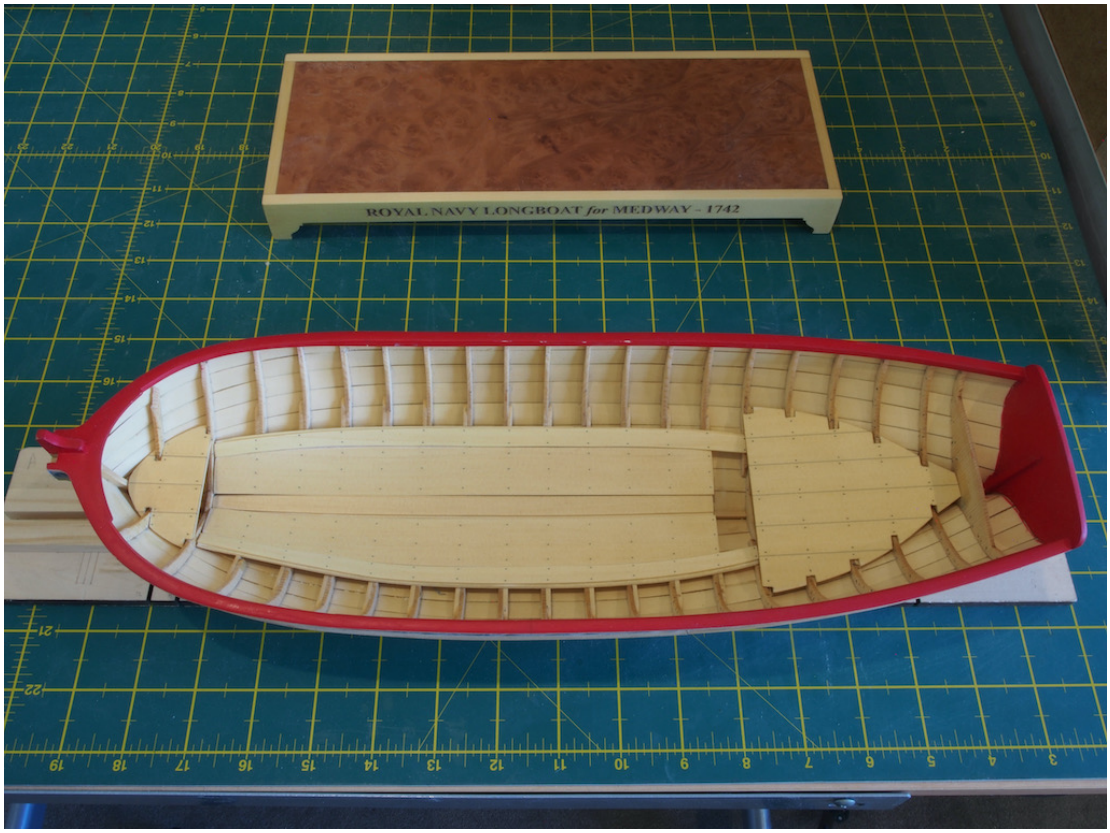


Progress seems to have been slow of late, but I have completed the floorboards and platforms. The only problem I ran into with the floorboards was when I went to fit the outer floorboards, I somehow got them mixed up and fitted them to the wrong sides, requiring quite a lot of additional shaping. Fortunately, I realised my mistake before gluing them. I then re-cut the parts for these from some spare kit material, using the original laser cut sheet as a template.

The platforms were a little tricky to fit, and the bow platform required significant shaping to fit. All “nailing” was done off the model prior to fitting of both floorboards and platforms.

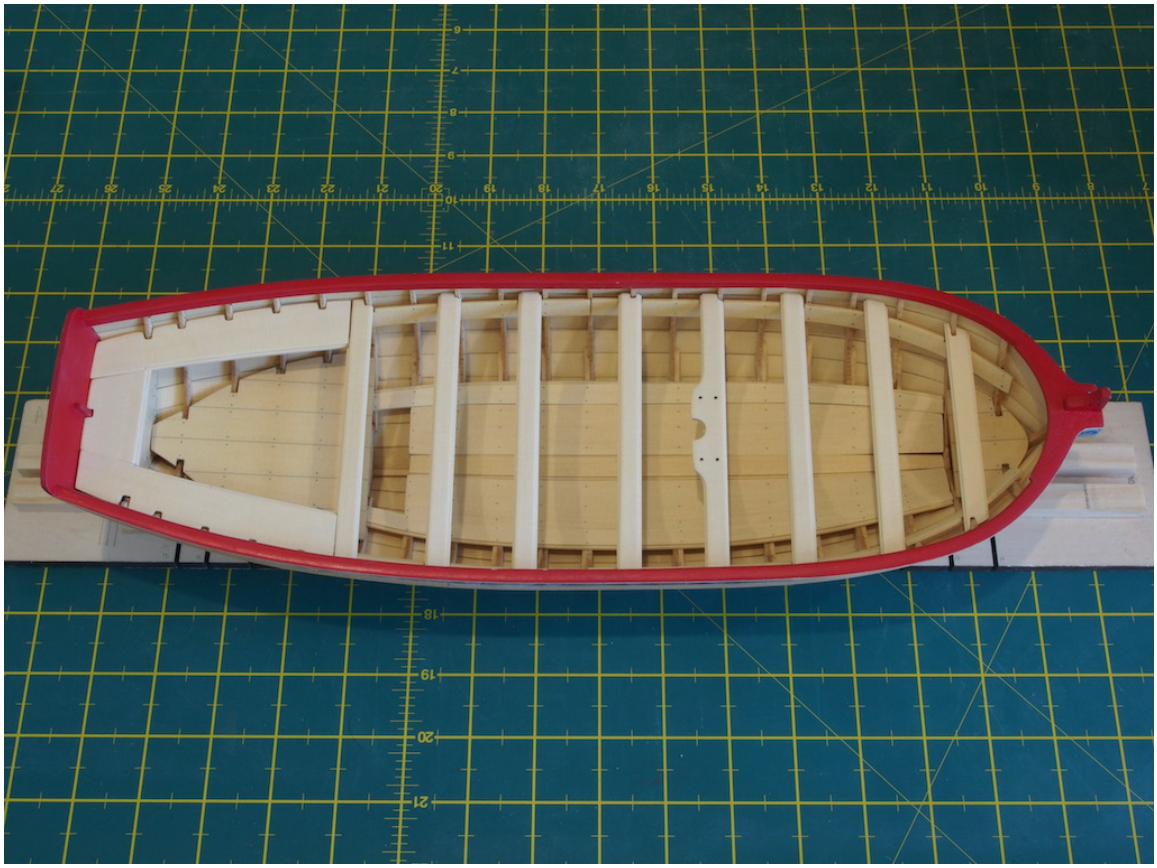
Unfortunately, the cap rail took a little bit of scuffing during all of this and will require some touch up. I’ll wait until I’ve installed the risers before doing that.

Progress shot of the internals.



I have completed preparing and installing the risers. Using the heat/hair-dryer method to pre-bend the risers makes attaching them much easier. I picked up a tip from a couple of other logs about using a small T-square jig to position the risers at the correct height at each frame.

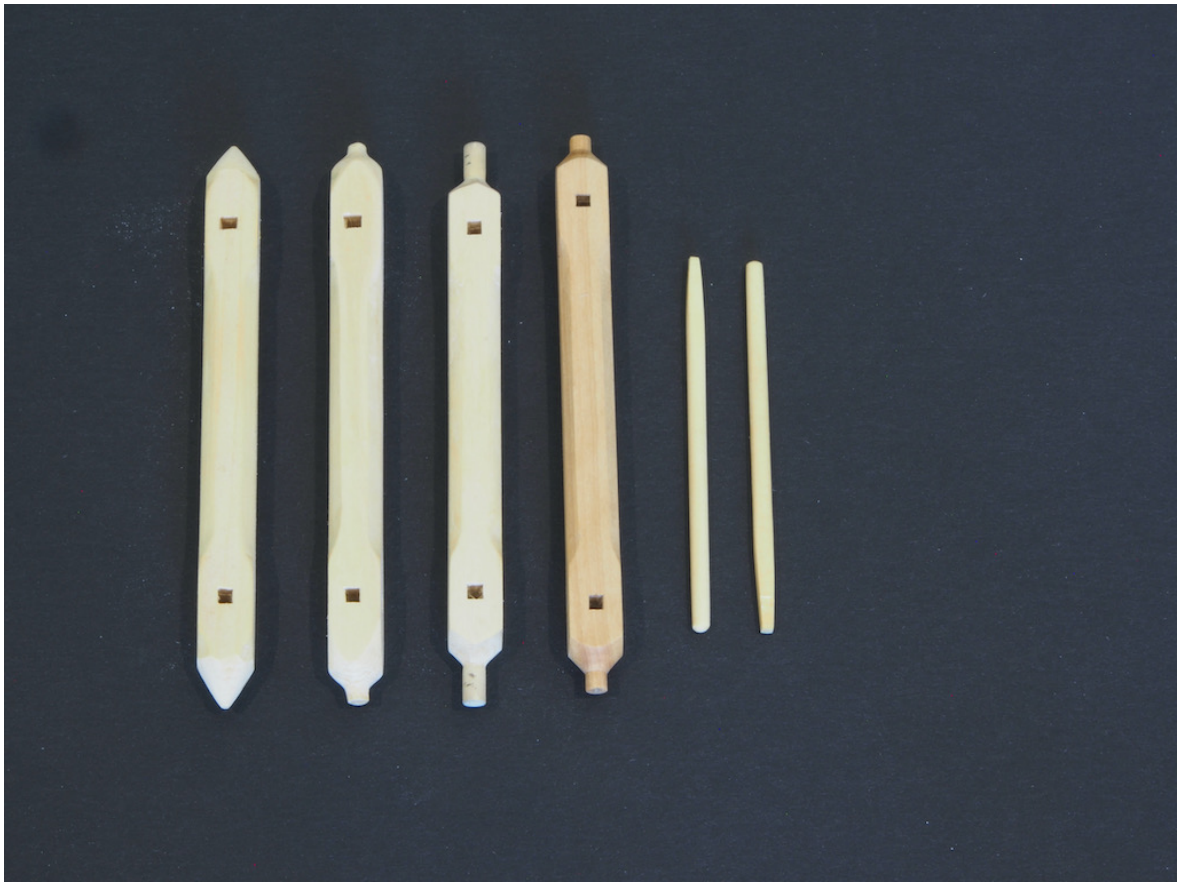
The thwarts have been built and fitted to the model, though not glued in yet. The cockpit seats have also been built, fitted and glued in place. I added small tabs to the underside of the aft thwart and the aft end of the cockpit seats to provide additional landing places to help keep everything aligned. More work to do on the thwarts, and lots of painting in the cockpit…



While waiting for paint to dry on the cockpit seats, I tackled the windlass. I ended up having several goes at this. I wasn't happy with the shape of the ends after my first attempt. On my second attempt, I wasn't happy with the shape of the square holes (I'd managed to elongate them). On my third attempt, I decided to machine the tenons on the ends. When I placed this inside the boat, it seemed to me that there was too much of a gap between the square section of the windlass and the riser bracket. I compared the windlass template to the plan drawing and noticed that the position of the square holes differed markedly – by about 10mm between centres. In other words, the whole of the square sections on the plan drawings were 5mm further towards the riser bracket than those on the template. I checked in with Chuck on this and his advice was to stick with the template dimensions. Just for the heck of it, I decided to have one more go, this time moving the square sections further out (by about half the actual difference in the drawings). I also decided to do as much of the shaping as possible using a combination of mill and lathe. Since I was going to the trouble of setting up the machines, I took the precaution of preparing two blanks (these were made from some spare 1/2" square boxwood that I had in my stash). I first thinned these down to the 3/8" square using the Byrnes thickness sander. It turned out to be just as well that I prepared two blanks. I was just completing the final machining process on the first blank (turning the final diameter for the tenon) when I took too big a cut and broke the part.

Fortunately, I had completed all of the machining processes on both blanks as I went, so it was no big deal to simply complete that last process on the second blank, taking lighter cuts.

The picture below shows the final result. Going from left to right, my first attempt through to the final version, along with the two windlass bars also finally shaped. The fourth (and final) version shows the effect of moving the square sections further outboard. I decided I preferred this position. The square holes were achieved by first drilling with a 3/32” drill bit, and then cleaning up with a 3/32” micro chisel.

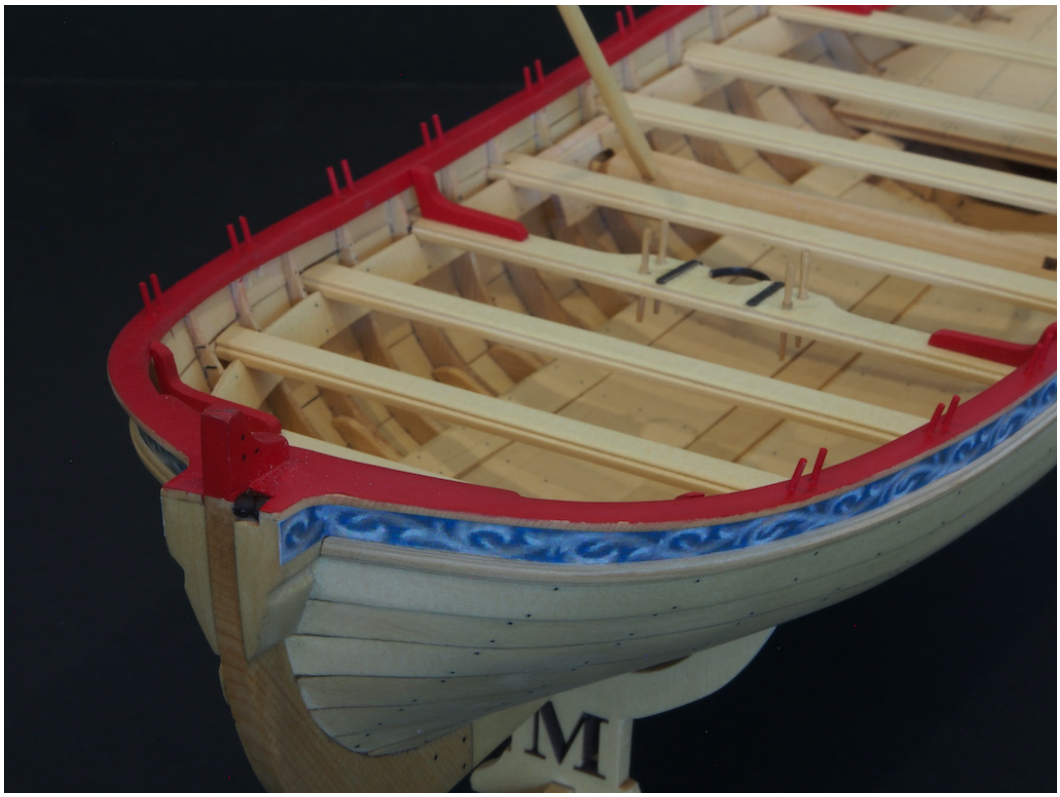


Next up was the mast ironwork. No issues here – just followed Chuck's excellent instructions and used JAX Pewter Black for blackening. I did find the belaying pins a bit of a challenge, but again following Chuck's advice I managed to achieve four reasonably similar results.

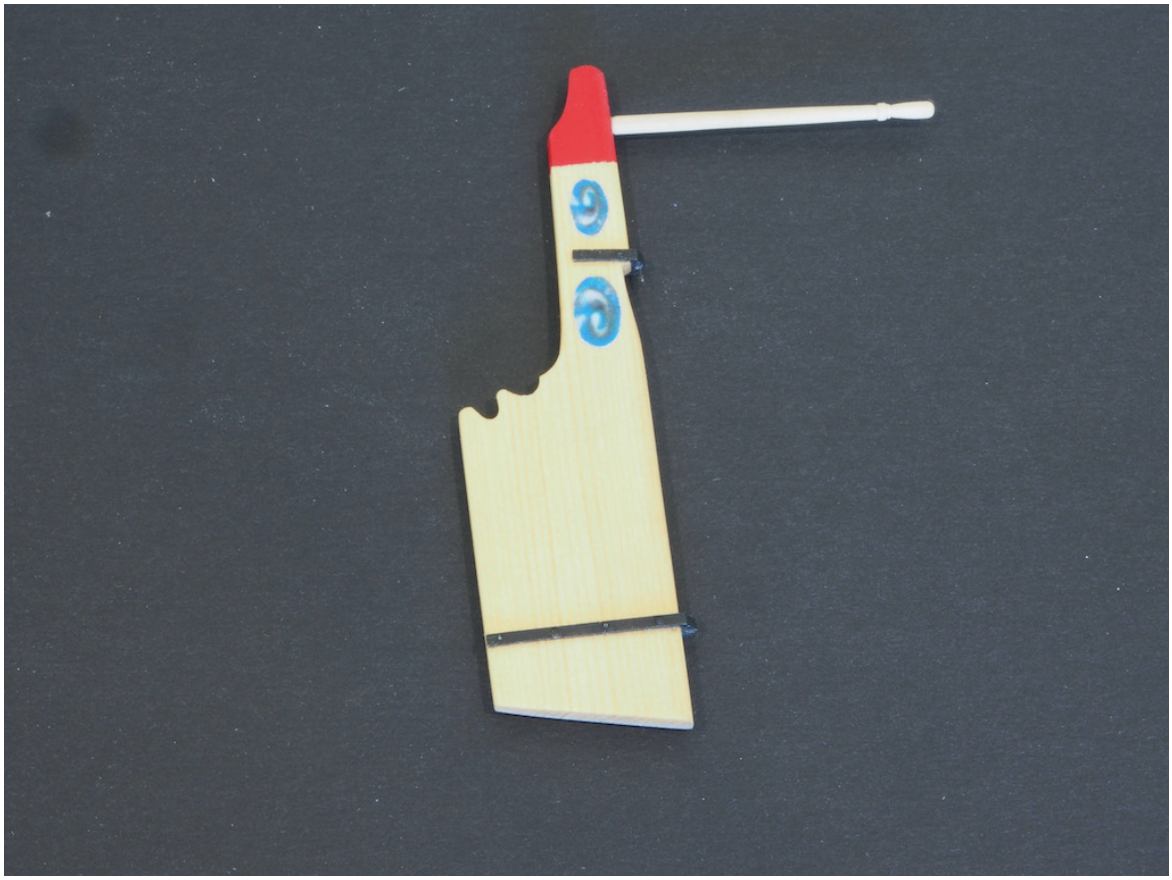
The Thole pins were next. Here I departed from Chuck's suggestion of turning these in the Dremel/rotary tool. Instead, I used my Byrnes draw plate to bring the 3/64" square stock down to a diameter of about 1mm. I made a small jig to position the thole pins a consistent distance from each other within each pair, and also from the edge of the cap rail. The picture below also shows the completed cockpit seats, as well as the three sets of knees on the relevant thwarts.

The Fixed Block for the Stem was made up according to the instructions and fitted to the starboard side of the Stem.

And the Roller for the bow was made up and fitted on the port side.

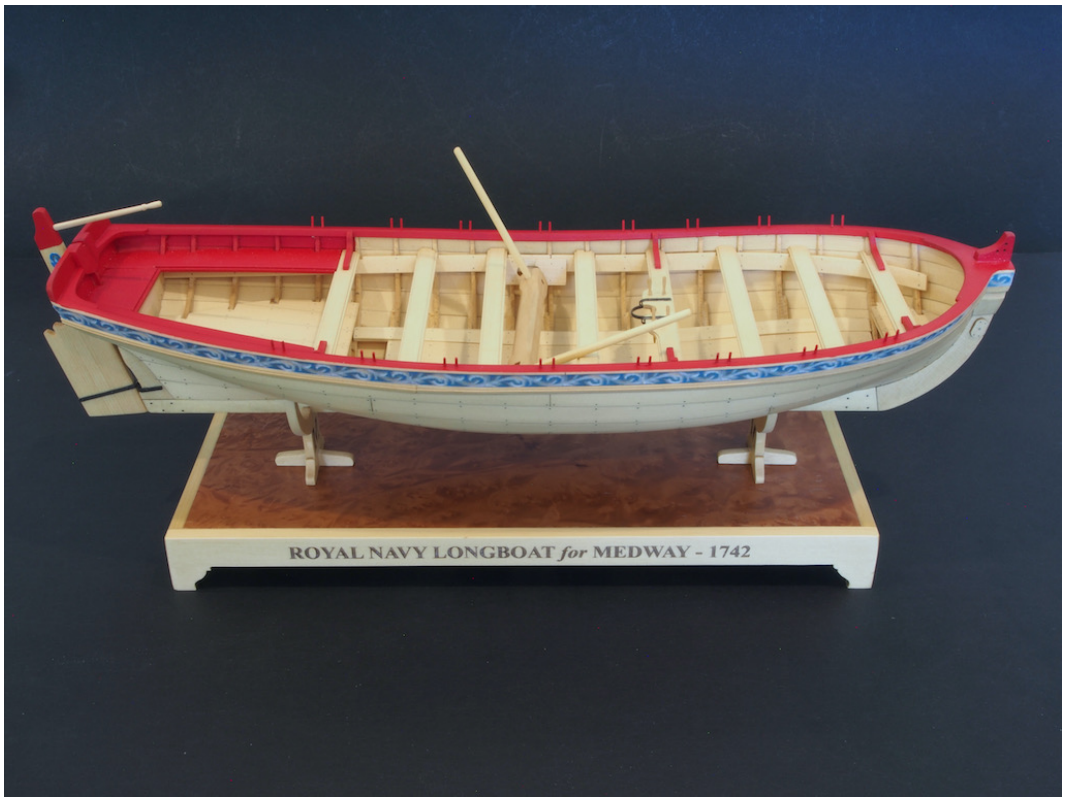


The rudder was next. I first tapered the rudder from forward to aft, per the instructions, and also rounded over the forward edge. The rudder hinges presented no particular problem and were installed per the instructions. Of note here is Chuck's advice to thin these down once fitted, before adding the wire bolts. Once these were completed, the hinges were painted black, the red section painted at the head of the rudder, and the friezes applied. The tiller was made up from a section of the supplied 3/32" square stock, chucked in the Proxxon rotary handset and shaped with sandpaper and files. A small round tenon was made on the rear of the tiller and a hole drilled in the rudder to accept the tenon.



I also decided to fit the stands to the hull at this stage (actually prior to fitting the thole pins). Here are a few overview shots showing the completed hull. The rudder has been installed in the photo but has since been removed for safe keeping to avoid damage during the next phase of building.

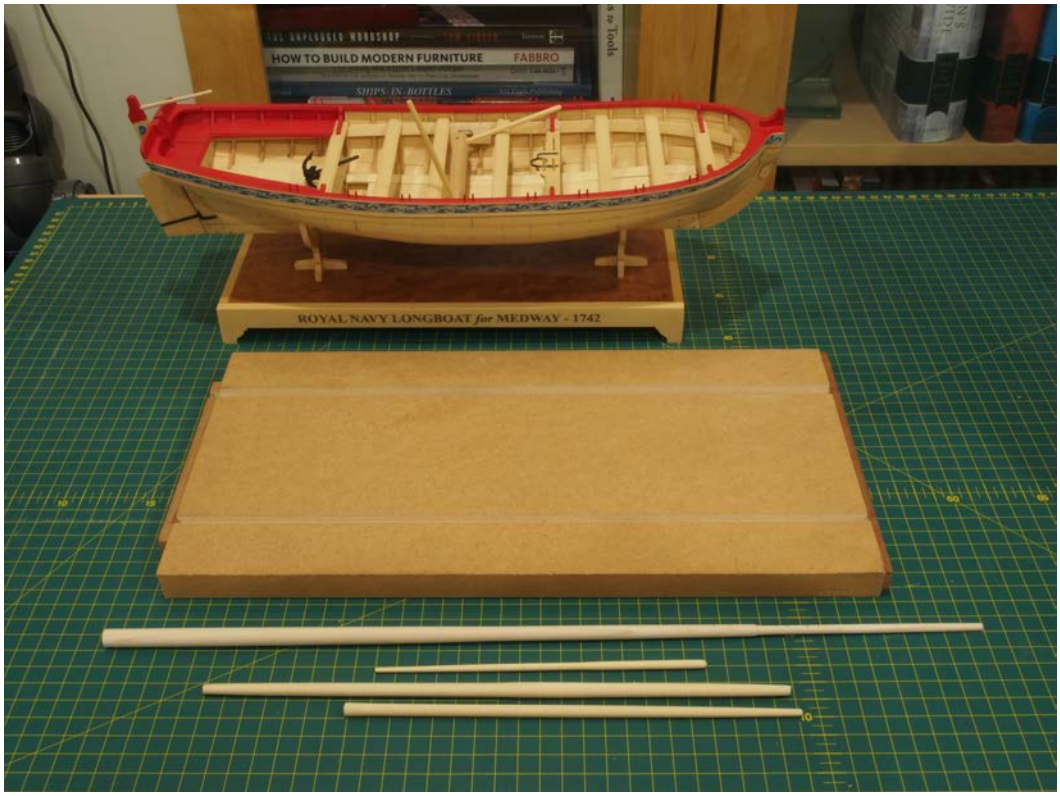
And finally, one with completed hull posed on the display stand.



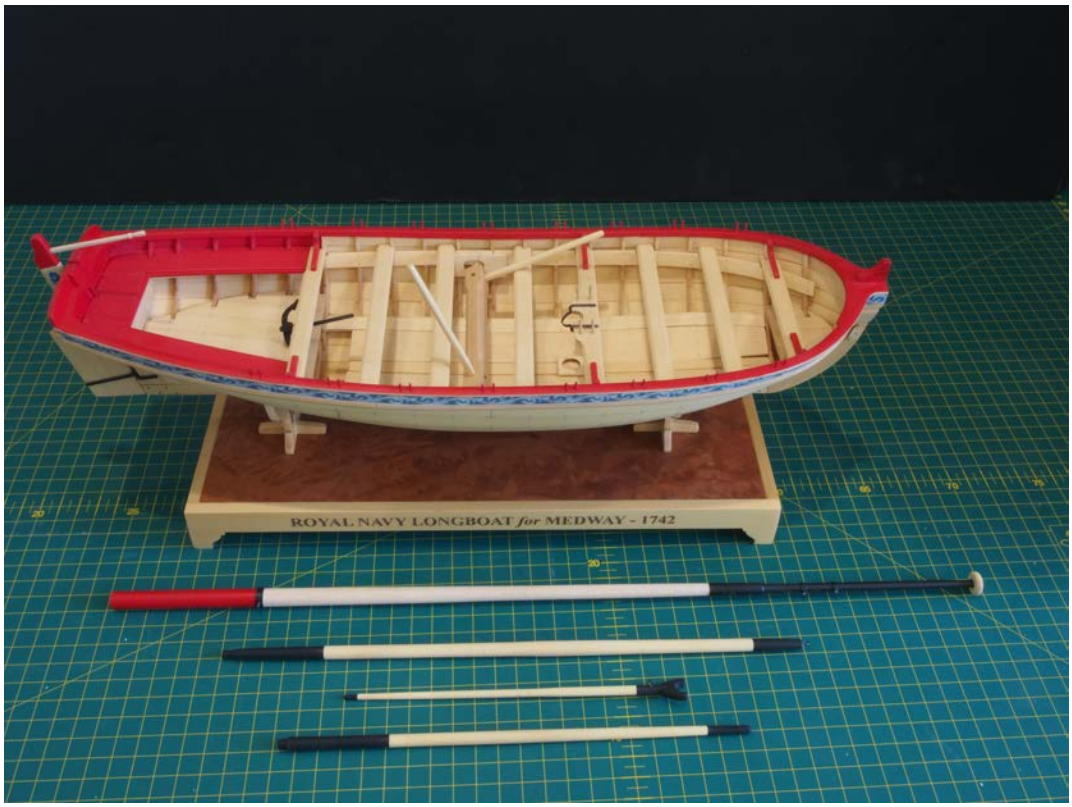
Finally, I made a start on the mast and yards. There is not much to say about this. I followed Chuck's advice and used his templates to take the square stock to octagonal shape first. Rather than trying to use a ruler to draw the lines, I set a drawing compass to the width on the templates and just ran that along both edges on all four sides. Before doing any shaping, I drilled all of the sheave holes while the stock was still in square section. Then I set the piece in the jig shown in the middle ground of the photo below and used a block plane to bring the pieces down to size. The jig is just a piece of MDF with a 90-degree "V" groove cut into it and a stop at one end. Two different sized grooves cater for differing stock thickness. The planning goes quite quickly and easily.

The octagonal shapes were then mounted in the lathe and rounded off with sandpaper, applying the various tapers by reference to the plans and checking regularly with the digital callipers. The only oops I had was when I tried to get too smart with the main mast and used a cutting tool on it. Bad idea! I managed to break the mast in two. Not having a stock of Alaskan cedar ready to hand as a replacement, I decided to use a piece of Rock Maple cut from a 12mm thick board I had. This worked well and the colour is a reasonable match.

After a relaxing afternoon at the lathe, I had a complete set of mast/spars ready for the next step.

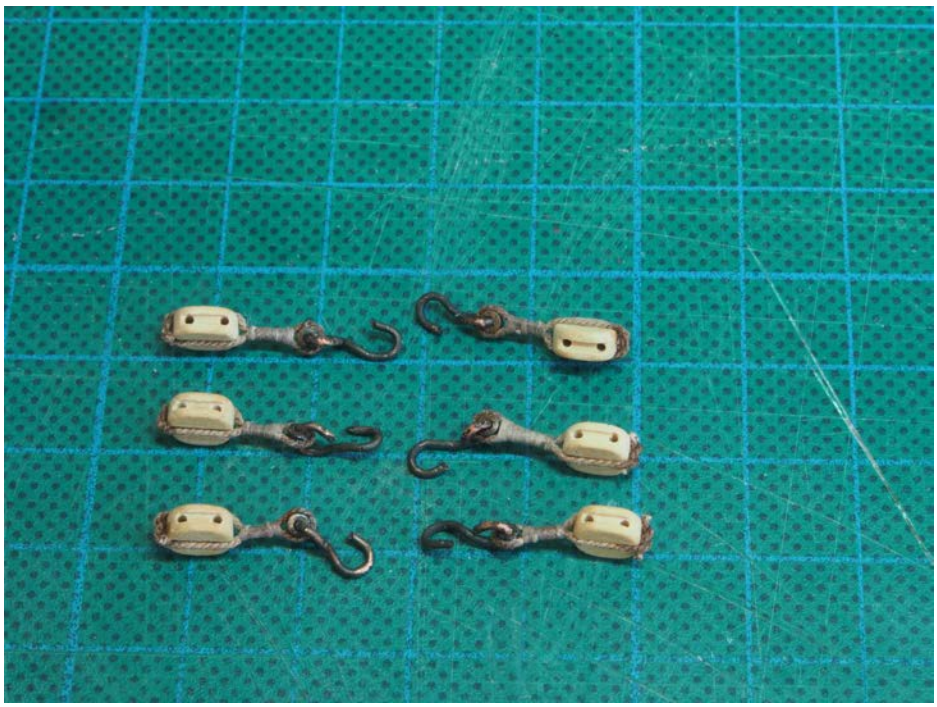


I completed shaping and painting the Mast and Spars. Rather than using tape for the mast bands, I used some heat shrink tubing, which seems to have worked quite well. Eyebolts and hooks were made up as appropriate and inserted.



Here they are sort of in place:

I then made up a bunch of hooks and thimbles for the hooked blocks. I tried several ways of doing the thimbles, but in the end just cut some 2mm copper tubing in thin slices. I wasn't happy with my first attempt at making the hooks from the kit-supplied wire, so in the end remade them from brass rod and blackened them. The blocks were stopped with the provided 0.025" line and seized with 3/0 fly tying thread. Here are the final versions of the hooked blocks:



I've also made up the hooked deadeyes and their straps for the shrouds. I'm not altogether happy with the blackening of these parts and may end up painting them instead. I'll do the same with the horse before starting to rig the various lines.

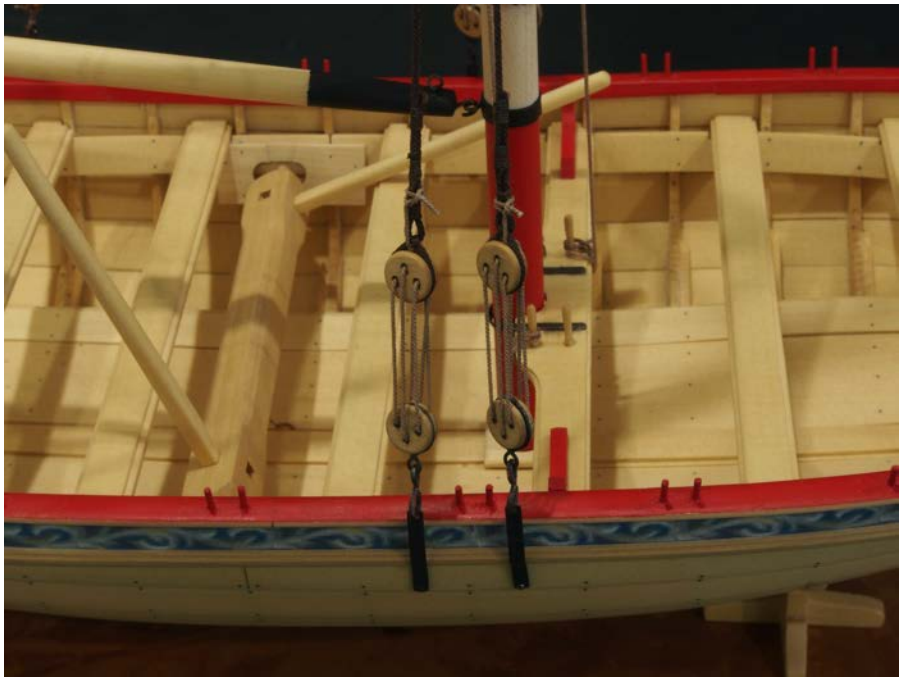
After spending considerable time preparing stropped blocks and deadeyes, and then serving sections of shrouds and stays, the rigging seemed to come together quite quickly. The Boom and Gaff were the first items added:

And a close-up showing the mess of extra lines awaiting clean-up

I got quite engrossed with what I was doing and forgot to take any progress shots until suddenly the rigging was all but finished. Here is an overall shot of where I'm at today:

This close-up shows the section of shrouds and stays that were served. I used my Domanoff serving machine to do this. The only hard part was remembering where I had put it as the last time I had used it was about 5 years ago! It was useful not only for serving the lines, but also for stropping the blocks and seizing the deadeyes.

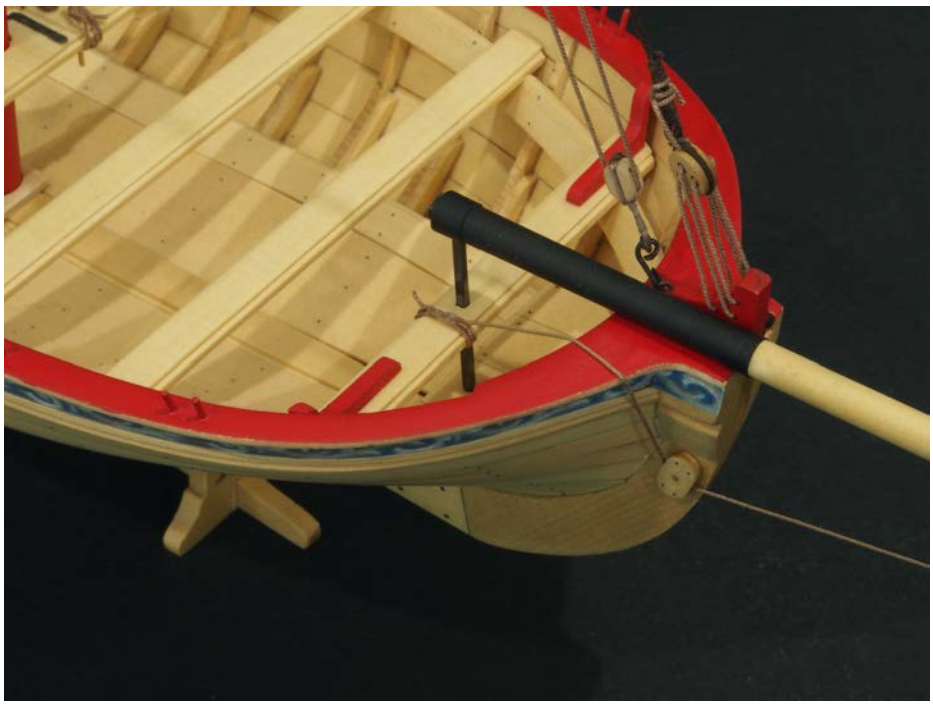
I seized the deadeyes into the ends of shrouds prior to installing the shrouds and seizing them to the mast. I decided to add a throat lashing to the deadeyes and it turned out quite well. To complete the lanyards, I threaded the ends between the throat lashing and the upper deadeye and then tied a couple of half hitches. As these were working lines, I thought it would be unrealistic to seize these to the shrouds, even if it would have looked neater!

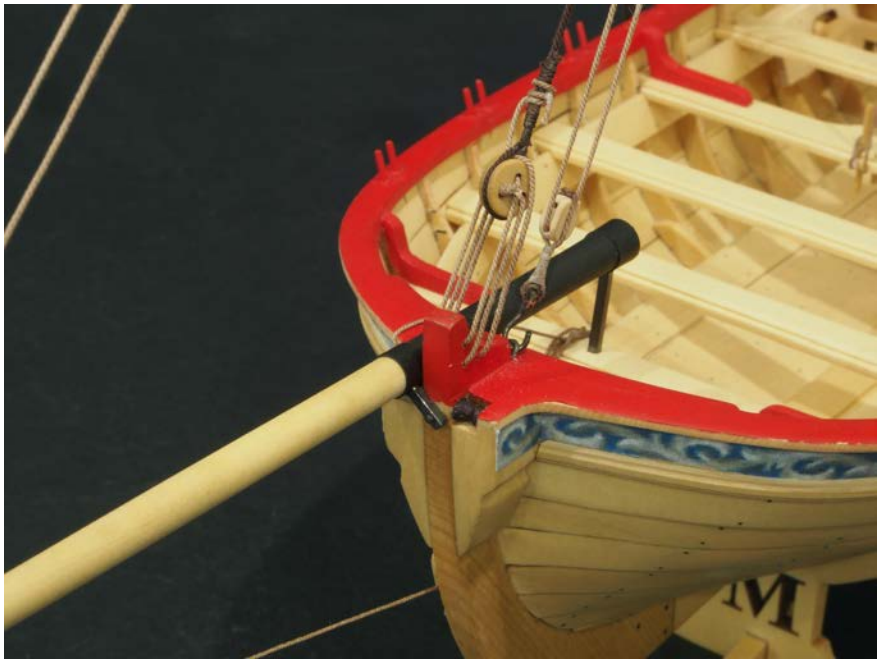


Backstays were next. Nothing much to add here, except that Chuck says to tie these off above the lower tackle block. I thought it might be more practical to tie them off just below the lower tackle block.

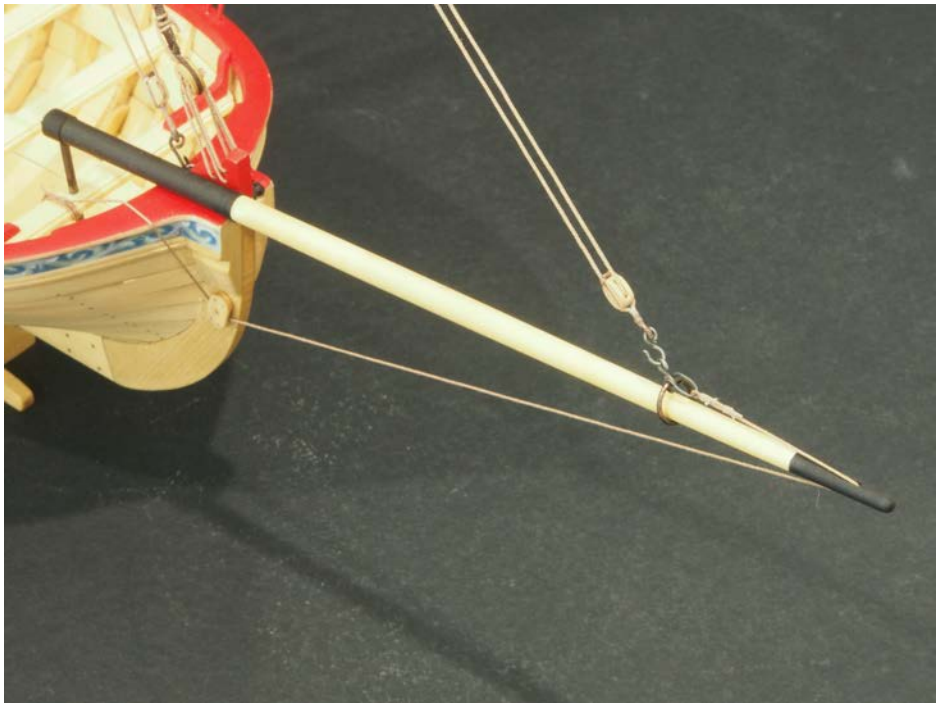
The forestay was the last line added. Again, nothing much to add here. The lanyard was finished off in the same way as the shrouds.

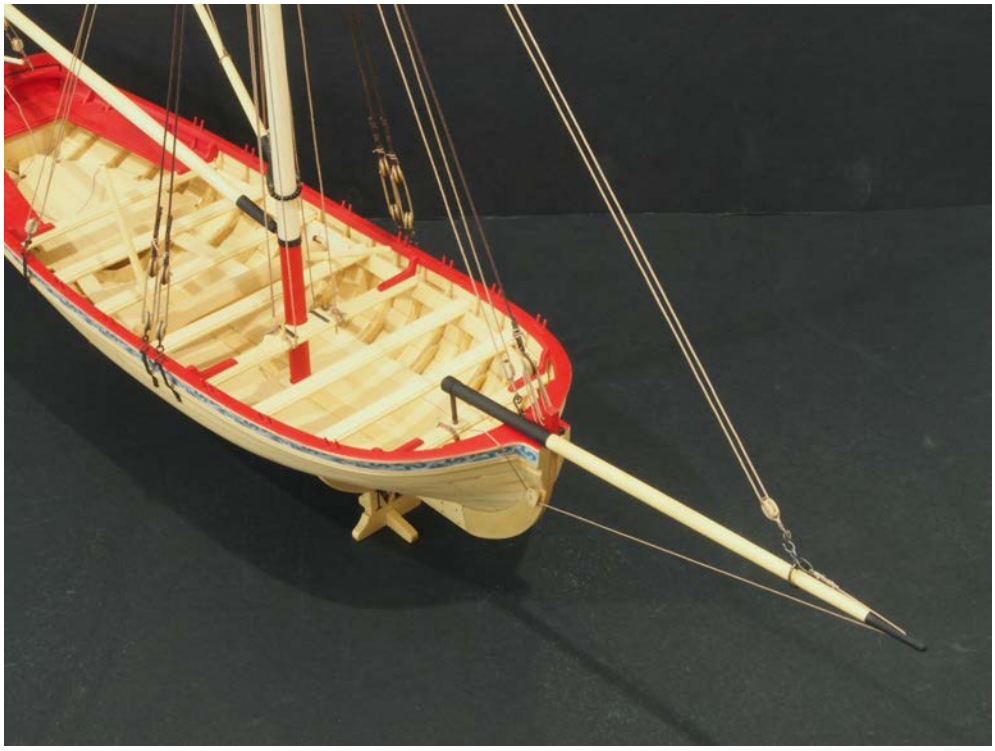
Prior to installing the bowsprit, I added the foresail halyard. Then the bowsprit was added. In making the brass parts for this, I opted to pin the aft support both top and bottom by turning a 1 mm diameter pin at either end of the brass bar. This only required one re-do due to incorrect measurement of length. I again used heat shrink tubing to simulate the iron bands and am quite pleased with the way these look. Here are a few photos.





The traveller ring with hook and shackle was next, along with the jib halyard and outhaul. I just followed the instructions here for the hook and shackle.



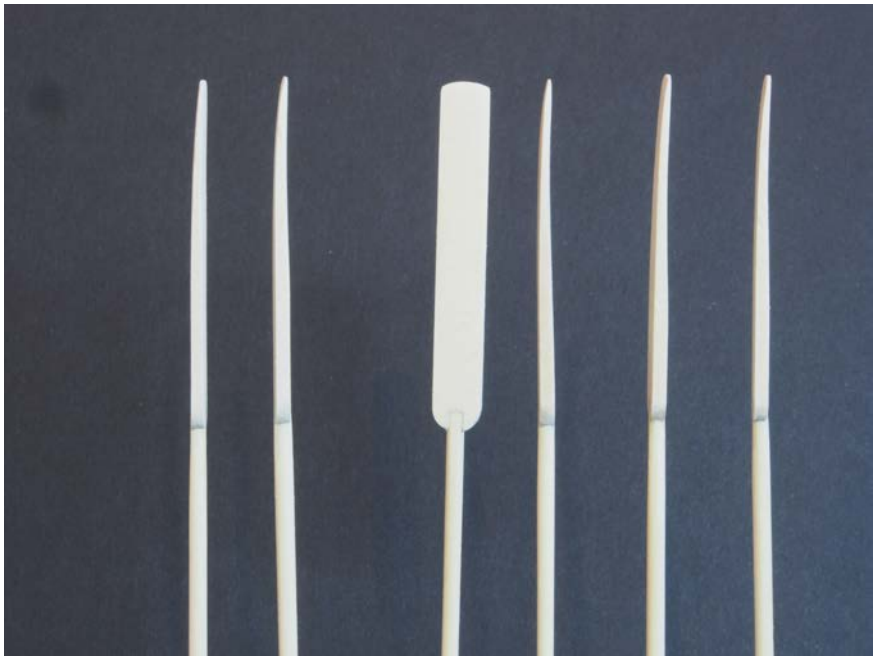


And here’s an overall shot at this point:

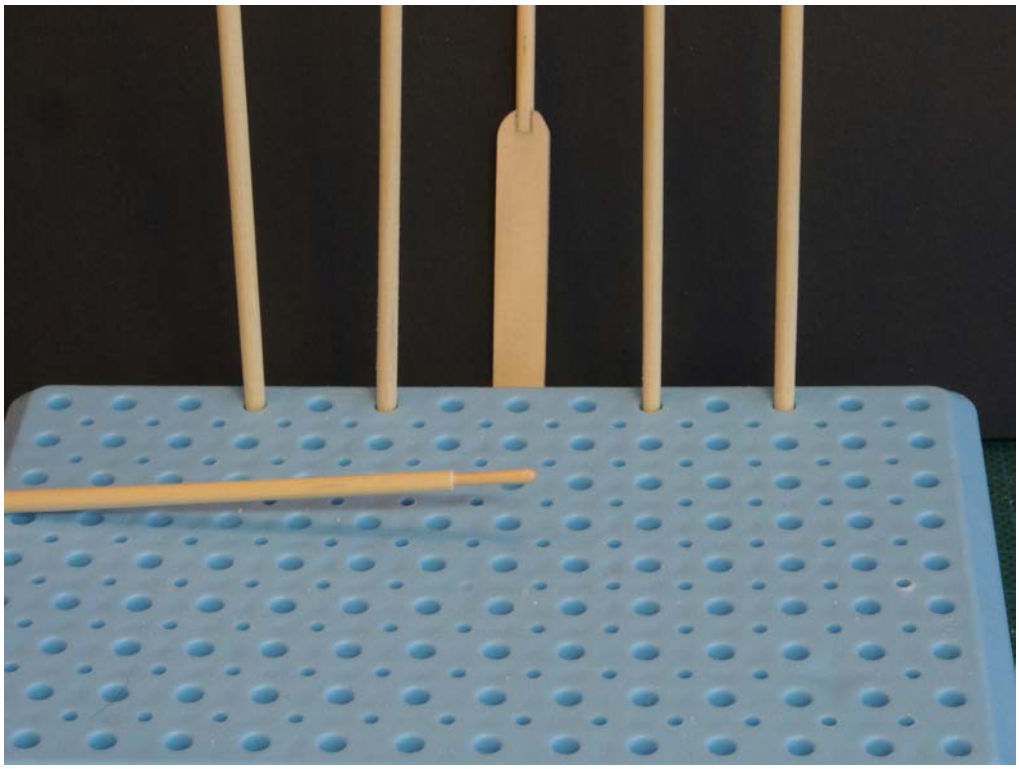
I have since added the Flag and some rope coils but won’t have photos of them until the final shoot.

In the meantime, I've been working on the oars. I began by putting the square stock in my lathe and rounding it off using sandpaper. Then I turned a small section thinner for the hand grip, using very light cuts with a cutting tool and finishing off the shaping with some sanding sticks. The oar blades were then attached and shaped using some soft sanding blocks to achieve both a taper and a slight curve.

Here you can see the effect of the taper and curve:



And here is a close-up of the turned handle:



The oars are currently in the paint shop receiving their livery colour. Once they are done, I have some final tidying up to do and the model will be finished.

30 June 2021

My Longboat is now complete! The finishing touches were applied today – some rope coils, the oars, grapnel and final fixing to the base. For added security, I used a 1/16” brass rod as a locator pin between the pedestal stands and the base, secured with epoxy. So here are the final photos. You will note the date on the stand says 2019….only two years late….


Grant Dale-2019