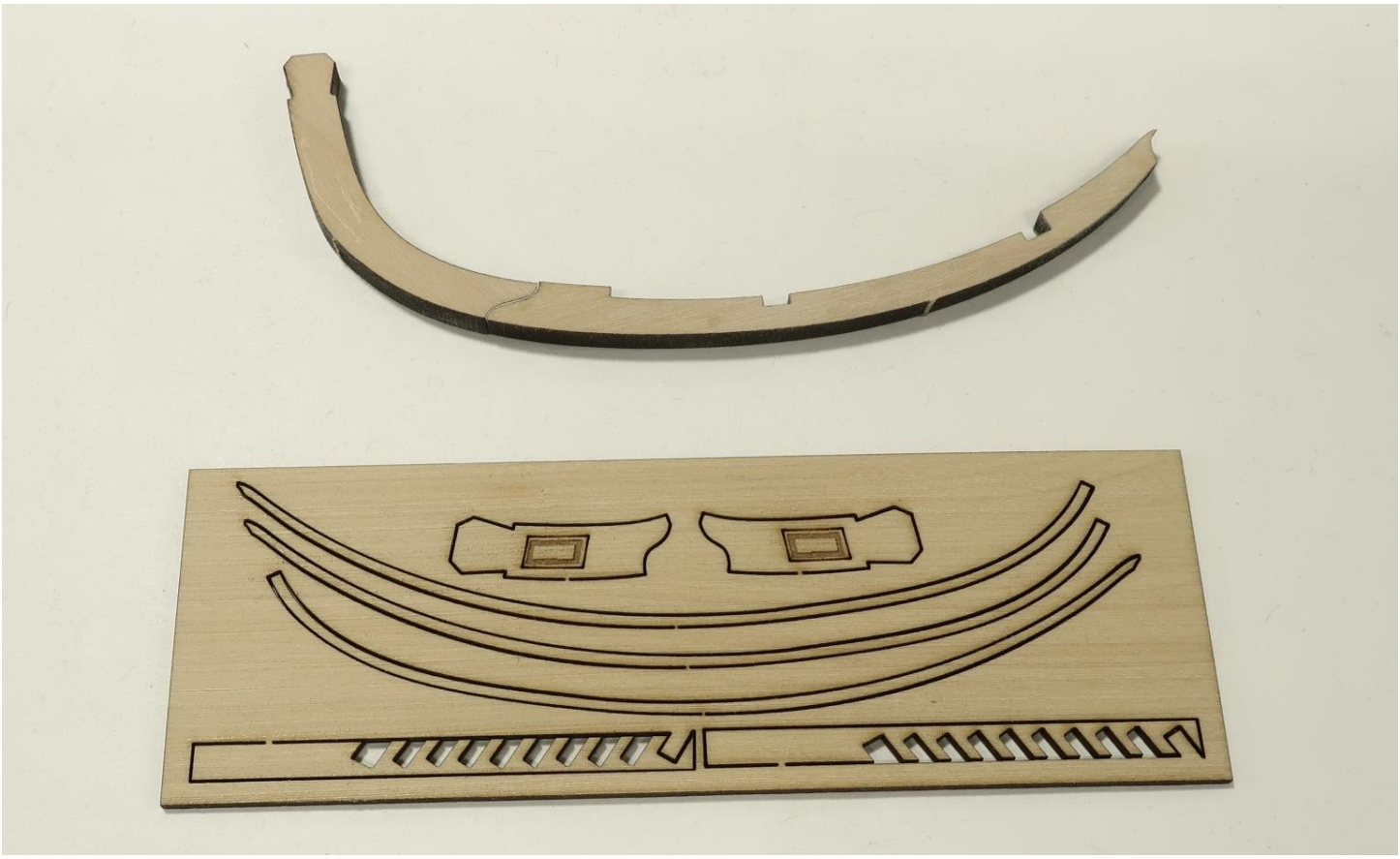


Chapter Twelve

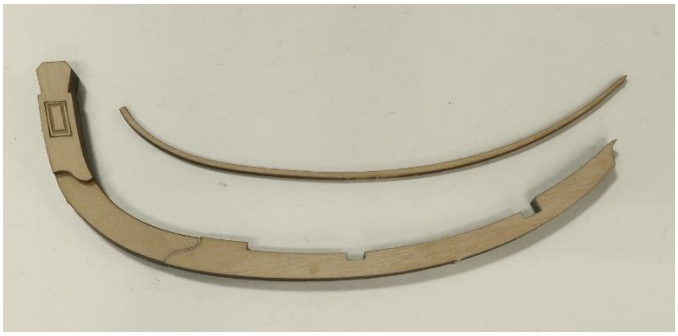
Headrails…Don't be nervous, just dive in!

I have examined a lot of headrails on kits and I haven't found any that I liked. So I am trying hard with the headrails on the Winnie to do them justice. It is however impossible to replicate what you see on contemporary models without a lot of carving and hand work. Trying to avoid as much of that as possible, I have made some simplifications but I think it will pass mustard as they say.

The main rails are boxwood. Like the hair brackets and cheeks they will be made in layers with several components. Do not sand any of the char off these parts unless mentioned in the steps for their assembly. The parts fit rather precisely.

Step one: The first two parts of each rail are glued together. See top of page. These are 1/8" thick. Get a nice clean tight joint but don't sand the surfaces of the joint. Try flipping one of the pieces...try both for a best fit before gluing. The other sheet on the bottom of that photo is for step 2.

STEP 2: These parts are 3/64" thick. Take the timberhead piece first and glue it onto the main rail. Make sure it's positioned nicely on top.



Then take the long thin strip shown above and glue it into position next. This piece will have

the top edge flush with the bottom layer. But you will notice this is true only on the ends with a space for another piece we will add later. It is delicate so be careful. That top edge is flush.

Step 3: Take the next piece which is 1/32" thick and has a laser etched center space which is hollowed out. Glue this into position as shown below.

Step 4: Remember the hair brackets??? There is a 1/64" thin delicate strip which will be inserted into that laser etched area. Just like we did for the hair brackets. Now this next step needs to be done carefully and delicately. You can and should gently round off (or bevel) the top and bottom edge of this thin veneer strip. Once inserted it will accentuate the beaded look we are shooting for. Use a lite touch and very fine sandpaper. 400 grit.

Step 5: The final piece of the assembly. A 3/64" thick piece that will be positioned on top of the rail. It is laser cut with notches to accept the grating strips for the head...much later. The angles have been predetermined for you. This piece will bend nicely to conform to the curved shape of the main rail. Just apply glue in the slot first and gently push it down into the opening so it starts to bend. It should just fit into place. Make sure you orient it correctly with the correct end facing the correct way. Examine the photo below. Now so far it doesn't look pretty because it's a laser char mess.

But now we can finally sand the heck out of the top and bottom edges of the head rail. You can do that now. And don't be shy. I left a lot of meat on those top and bottom beads of the fancy profile. Go ahead and remove that char....fill any gaps in the seams etc. Just the top and bottom edges for now....and the timberhead.

Step 6: In this photo (next page) you can see the top edge all cleaned up nice and tidy. No Char. The bottom edge is clean as well. But you will notice that one of the main rails is noticeably thinner than the other. In this step we will gradually taper the main rail. It should be 5/32" thick at the timberhead end.....and gradually taper to 5/64" thick at the forward end. Maybe even a bit thinner. Most of this will be removed from the inboard side of course. But you can and should sand the outside edge (the fancy part towards the forward end) just a bit. The beaded profile is a bit heavy at this point. So you can gently sand mostly the forward end a bit to reduce the thickness just a hair....it makes the beaded profile look more delicate and to scale.

Then sand the inboard edge to remove most of the material. You will notice that the nice notches in that strip for the grating strips will starts to get smaller and smaller as you reduce the thickness of the main rail. That is fine. You only need the smallest notch for the job when we get to it. Get a nice even taper as shown on the completed main rail.

Once you finish creating the taper....go ahead and sand/file/carve that timberhead on the inboard and outboard edges to match the other two sides. Like you would do for any other timberhead in this project. You can see that it is done on the completed main rail below.

Step 7: In the photo (bottom) the rails are only temporarily in position. But do notice the paint job. The top and bottom edges are painted black along with the inboard edge. But this painted area only goes up to the seam on the parts. In fact, the black paint should cover all the seams for the various parts we used to assemble the main rails.

Important other notes: to get the main rail to sit nicely against the hull you will need to notch out the inboard side of the rail near the back corner. You will understand what I mean when you get to this step. You can also notch away the fancy molding on the hull if needed or do a combination of both.

In addition...the forward end of the main rail needs to be sanded to fit tightly against the stem and the hair bracket. This is a very

complex joint. Basically you need to sand a "V" on the front edge. Before you do this just place it in position and study the angles. Study the photos below as well. You are really only sanding these angles into the top bead of the main rail. The part that sticks out on top. You will know what I mean. Do this with some fine grit sandpaper.

Also note that I sanded the stem down flush with the tops of the main rail now that I know where they will go. I had left it taller so it can be tweaked at this time. I left it unpainted so you can see it in the photos. This area .....with all of these crazy angles...will have a small flat piece glued on top. A thin flat protective piece I believe is called a "bolster". So it will cover these joints. But do your best to keep them clean and neat.

One last note....everyone's hull will be different. Depending on where you placed your catheads, how you shaped the bow, how you placed your hair brackets on the stem....your model will be slightly different. If you need to shorten the main rail that is easy enough. Do it from the forward end of course. But if you need to make it longer, it will be time to get creative. Or make another set of main rails from scratch slightly longer.

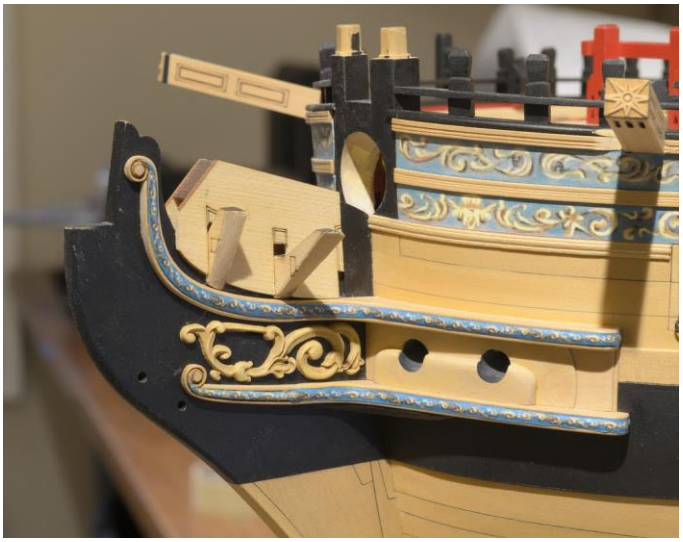
On a positive note I think the fancy beaded profile of the main rails came out very good. Not over done or too large. Sanding them down a bit really made them scale beautifully. Don't be afraid to sand the outboard face of the main rail to make those beaded profiles shallower. Basically you will be reducing the top and bottom beads of the profile.

Below is a photo of the jig you will use to find the locations for the head timbers.

It is laser cut in three pieces with the center being 5/32" thick. It's the same thickness as the knee of the head and will slip over the top and sit against stem.

Mark the locations of the head timbers and also chisel away the stem if needed so you can slip the head timbers in position down to the top of the hair bracket.

You might be able to see how I did this but the paint is also warn away from me slipping the head timbers on off while testing and retesting. Something you will have to do as you shape all of the headrail parts.



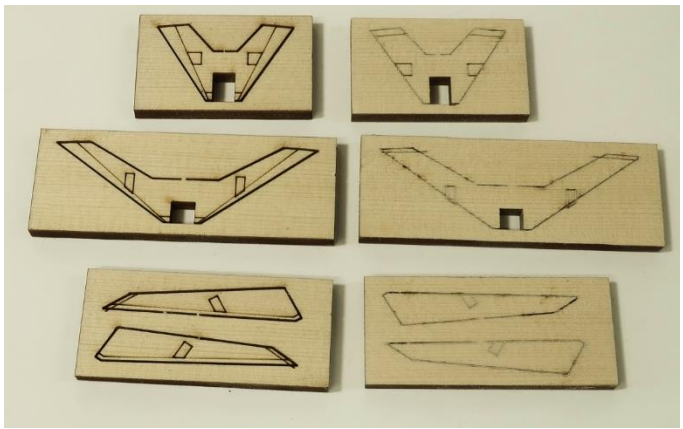
We will talk about shaping those first two head timbers, but this photo above is important. Don't be afraid to use the jig often. The jig is designed to slip over the top of the first two head timbers as shown. BUT...

In addition to this, you will notice the laser etched head timbers on the jig itself. You can see the tops of the head timbers as reference. These are actually the correct position and height for them. If you lower your head and view them from the side directly, you want the head timbers to match the etched references for them. The etched reference of the tops also shows the angle or slant you must sand into the actual head timbers. This will ensure that the Main Rail can sit on top of them.

Let's shape and test your head timbers...

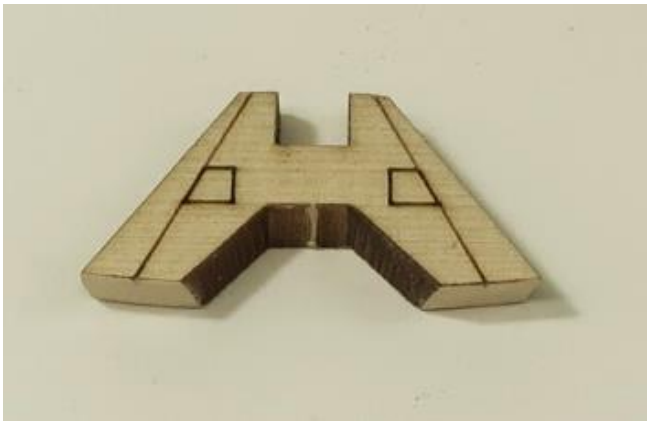
Rubber cement is your friend. You will need to temporarily position all of these elements while shaping the head timbers. Rubber cement works well for this and is easily removed by rubbing it off with your fingers.

Here is a photo of the three head timbers ready for shaping. They are laser cut and etched on both sides. There are laser etched reference marks on both sides to help you shape them...In the photo below you can see both sides of each timber with their etched reference lines.



Start by sanding both sides clean and dusting them off to reveal the etched lines more clearly. Then start shaping the first, smaller head timber. All three are shaped in the same way.

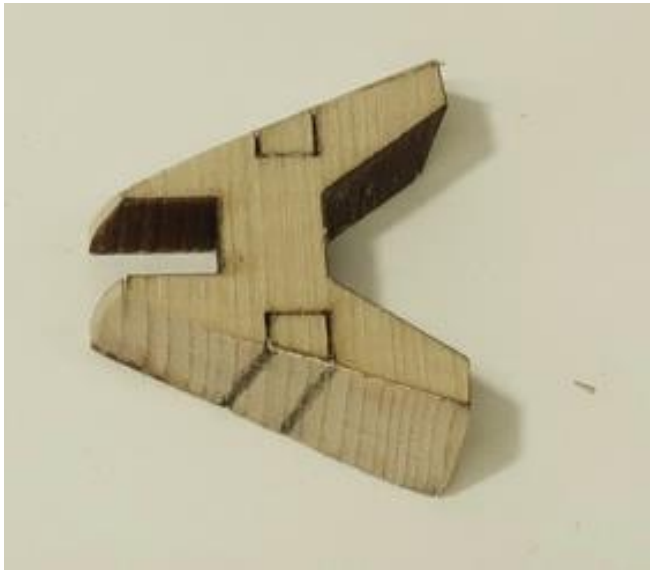
Begin by sanding the bevels indicated on the top and bottom of the head timber. This is needed to establish the correct slope (for and aft) so you can slide this first head timber over the stem knee and test it. You can go ahead and test it. Use your placement jig as well. You may well be adjusting the angles from time to time as we proceed through all three head timbers. If you have to widen or deepen the slot in the head timber so it sits directly down onto the stem and hair brackets you can do that. This photo shows the top and bottom beveled to the reference line.



Next, Sand/carve the sides of the head timber up to the reference line. Keep the surface or face of the head timber flat when doing so. This is needed so the cover boards will sit in position neatly later on. See the photo left.

Next...the dreaded notches for the lower rail...

These are etched onto both sides. But they are not in the same position. To make filing this notch easier, and so you get a sense of the crazy angle you will need...go ahead and draw the width of the notch along the side of the head timber. Basically connect them with a reference line using the laser etched notches on both sides with a pencil. See below. Does this make sense???



This notch is not only angled but it is deeper on one side than the other to accommodate the angle of the lower rail. If not for anything else, this will help you gain an understanding of the complexity of these rails. Many compound angles exist. You may want to make them slightly wider/deeper as the lower rail is 1/16" thick. Making them slightly wider gives you some wiggle room on the lower rail without having to make these notches super huge. That is usually the case on most kits. It looks horrible. See below, one side is completed.

Once finished with it, sand off any remaining laser char and paint the entire head timber black. Test it on the model and also test the main rail on top of it. Adjust the angles a bit if needed. Proceed with the same process on the two remaining head timbers. Test and retest and retest.....really.

My head timbers started out perfectly vertical when testing them on the model and using that jig....but as I started to test the second and third head timber there was a need to adjust.. There are a lot of optical illusions which you will find yourself compensating for. Just keep testing until all three head timbers fit while the main rails sits properly on top of them. What you see below is just a test fitting. Nothing is glued into position yet.

Yes I did go ahead and make the lower rail at this time also. You can do that. It's just a matter of sanding off the char and rounding off the outside edges. I also ran some sandpaper down the fancy grooves to clean them up a bit. It removed some of the char from the laser etching and enhanced the fancy molding appearance.

A few notations.....

Note: The top, bottom edges and back side of the lower rail will be painted black as well. But do a lot testing first. The lower rail is cut

slightly longer than needed so you can adjust to fit you model.

Note: The aft side of the lower rail is beveled to sit flush against the hull.

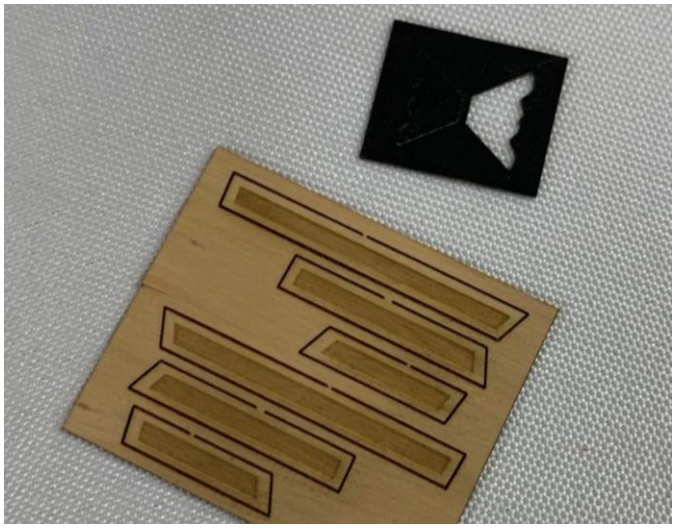
Note: The top of the stem has been sanded down flush with the hair bracket scroll and main rail. We will be gluing a bolster here soon.

Note: The lower rail sits comfortably in the notches of each head timber but the notches are NOT too big. The lower rail does indeed sit in those notches deep enough that the cover boards will sit flat on the outside face of each head timber. If they stick out and stand proud you should adjust your notches to suit.

Note: that the outside faces of each head timber as tested above are NOT flush with the bottom edge of main rail. They need to be inset a bit to accommodate the cover boards we will add shortly. Otherwise the cover boards will stick out and sand proud of the main rail which is not correct.

When you are 100% satisfied with the test fitting of all these elements, you can paint it all as described. The inside of the head work is all black. Fill any gaps and glue everything into position permanently.

Cover boards and bolster shown below.



That's it....nothing to it....

Examine the photo of the inside of the head work so far. Everything painted black and neat and tidy. Note the black laser cut bolster now glued to the front/top of the head rails. It is provided cut from black laserboard. Just trim it if you need to so it fits, and glue it on top. It will hide all of those joints if they didn't meet your standards so no worries there.

You can even sand the interior sides of the head timbers at this point to bevel them if you want and make them cleaner then touch up the black paint. Most of that won't be seen however under the head gratings.

The cover boards are laser cut for you and have a laser etched and recessed center. They are very thin and should be glued onto the outside faces of the head timbers. Make any adjustments before gluing them on. The friezes were glued onto them before they were positioned permanently. Note how they are finally flush with the outside lower edge of the main rail which is what you are shooting for.

Yes you will have plenty of paint touch up as I now have. I recommend that you remove the figurehead and swivel guns while doing this work. Examine the rails and headwork at multiple angles as you proceed and make any adjustments....no matter how small. Just take you time. I know it's a bit involved and not like any other kit on the market but then again you won't see results like this on any other kit on the market.

Yes spare parts for these elements will be available. Go slow and be methodical. Test a lot. Ask a lot of questions...and study....really study the images of the contemporary model.

Cat Head Support knees...here is the step by step for making them. These pieces are among the most difficult to make for any ship model. This method may seem a bit unorthodox....but bear with me here and I will explain as best I can.

The laser cut parts will get you only so far...about 80% of the way. You will need to shape these and tweak them to get a really

good fit. But its leaps and bounds better than anything you will find on a typical kit as long as you take your time and don't rush through it. Read the instructions several times.

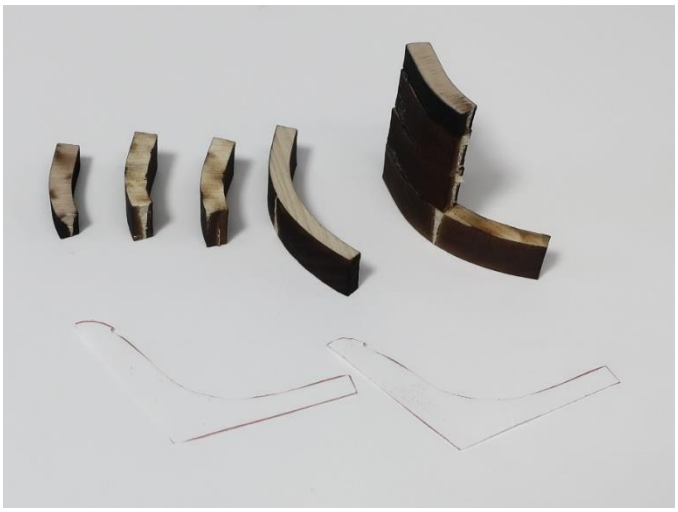
Step one...A laser cut template from 1/32" thick wood is provided. Temporarily glue this in position with just a few drops of glue or rubber cement. Mark the side where you will have to remove the molding so your support will fit between them. Cut the molding free with some sharp chisels. NOTE....cut inside your lines and make the gaps smaller...dont make them too large. You can always make them larger later as you test fit each piece.

The template is longer than you will need on both ends so you can cut it to fit your model so it fits. Look at it from many angles to see if the curve is graceful and it runs well into the middle rail where it connects. There should be a pleasing continuity from the template onto the middle rail.

Step 2...assemble the cathead support....NOTE, the entire span will be made of two lengths. This portion of the support is just half and is directly under the cathead.

There are several layers...the bottom is the longest. It is 1/4" thick cedar. On top of this glue two shorter layers of 1/4" thick cedar. Then to finish the assembly...glue on the final piece which is 5/32" thick boxwood. It is super important to make sure you use the boxwood layer as the top layer. This layer will show and it's the tip or outboard end of the cathead support. Four layers in total. I said it was gonna get weird. But just stick with me here.

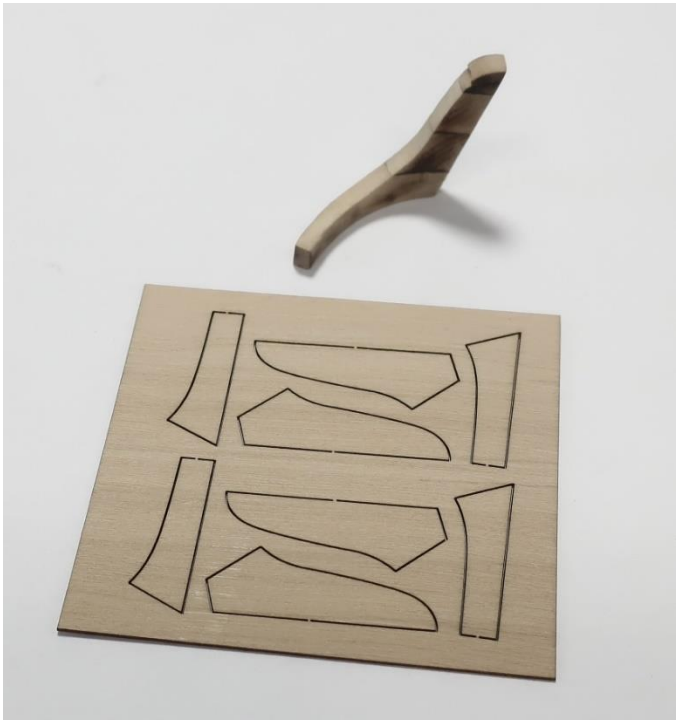
There are templates in paper for this piece. See them in the photo.



Step 3....Glue the template onto the piece so it all fits nicely. There is plenty of room. I glued it on the outside only. Use this as a guide to shape this piece. Remove the heavy stuff with a sharp blade until you get close to the template and sand the rest. This will get you 80% of the way to a good fit.

After shaping....below. Don't over sand. Just smooth out the sides and remove the paper template. Don't try and remove all the char as it doesn't matter. You just want to have a smooth surface to add the outside layers in the next step.

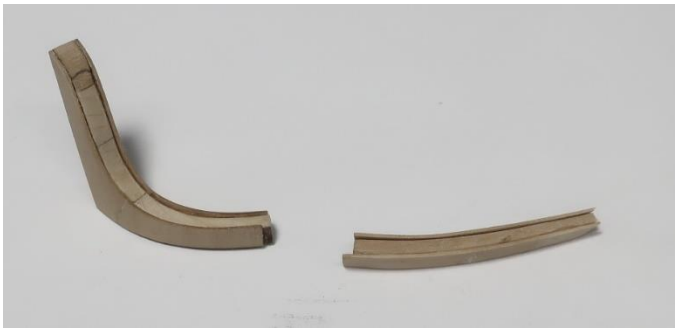
Step 4....There are laser cut outside layers that are super thin. These come in two pieces. They are glued on both sides. Do this neatly and get a nice clean joint between the two sections. You may want to lightly sand the char from where the joint will be between these two pieces so it won't show when it's all done.



It will look like this. (Below) A few things to note...

Before gluing them on each side I rounded the edges of the support or chamfered them. Then add the thin outer layers. Sand them flush on all edges although NOT on the front fancy side where the friezes will go. Similar to the cheeks we made you want to leave the edges standing proud on the front side to form a slight lip. see below. I left it a little more pronounced until after the friezes are added and it's all cleaned up.

Also note the second length which will connect to it and the middle rail. This is laser cut for you and also gets thin outside layers. This is important because these two pieces will join together like the cheeks did with the hair brackets. You will need to get a nice joint between them which won't be seen when these are glued together.

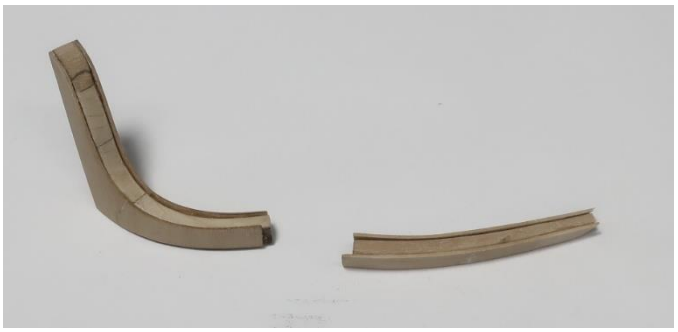


Step 5...this forward length is laser cut but needs shaping. It has one curve cut into it but you need to shape the other side. You need to sand the curve that fits against the hull. Just like the cheeks above and below the hawse holes. You have done this before. See below.

Also note the angled forward end which needs to be sanded into it. This end is what attaches to the middle rail. I rounded off or chamfered the outside edges before adding the two thin layers. All of these parts are cut extra long so

you can shape and tweak to fit you model. This is where it gets interesting....

You should have both halves at this point completed.....like this. At least roughly done so we can test and tweak them on the model. There are lots of angles here.



Step 6A....This is just a dry fit of both lengths trying to get a tight seem between both lengths. First I added the cathead support...I tweaked the top edge so it was at the proper angle to fit against the bottom of the cathead. You will no doubt have to do this. You will also have to tweak the shape that fits against the hull. Don't sand away too much. Do a little at a time and keep testing until it fits nicely and follows the path of your template. Then temporarily glue it in position with a drop or two of glue.

Step 6B....Do the same tweaking of the forward half so it sits flush against the hull. But you also need to create a nice tight joint between the two halves so it looks seamless. The angled forward end should fit snug against the middle rail.

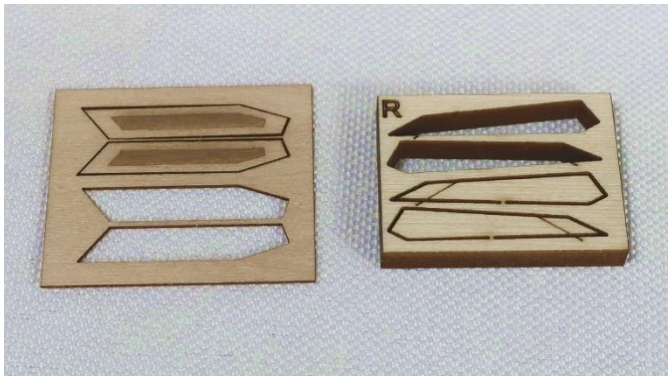
Keep working both lengths until you get a pretty good fit....below. See how it fits between the molding on the hull?

Step 7...now you can do some last minute tweaks and glue it all on the model. I added the friezes after the both lengths were glued on the model. I put the friezes on in two lengths. It was just easier this way. Then I sanded the edges of those outside layers a bit with 600 grit paper so the beaded edge wasn't standing too proud of the friezes. Overall I just did some touch up work. I think I still need

some more but this is about it as far as the method is concerned.

We finished the 3 vertical head timbers earlier. But now that the cathead support is completed, you can add the fourth "half" head timber. I rarely if ever see this on any kit which is strange. It's the aft most head timber. It sits between the main headrail and middle rail against the hull. This (like all of the head rail parts) is a part that needs careful tweaking. It is laser cut for you but left just a bit long. The top edge should be angled on a curve to sit flush with the underside if the main headrail. The bottom needs the same treatment but also must sit against the hull neatly.

Here are the laser cut pieces. I will supply two sets just for practice purposes. Shape the



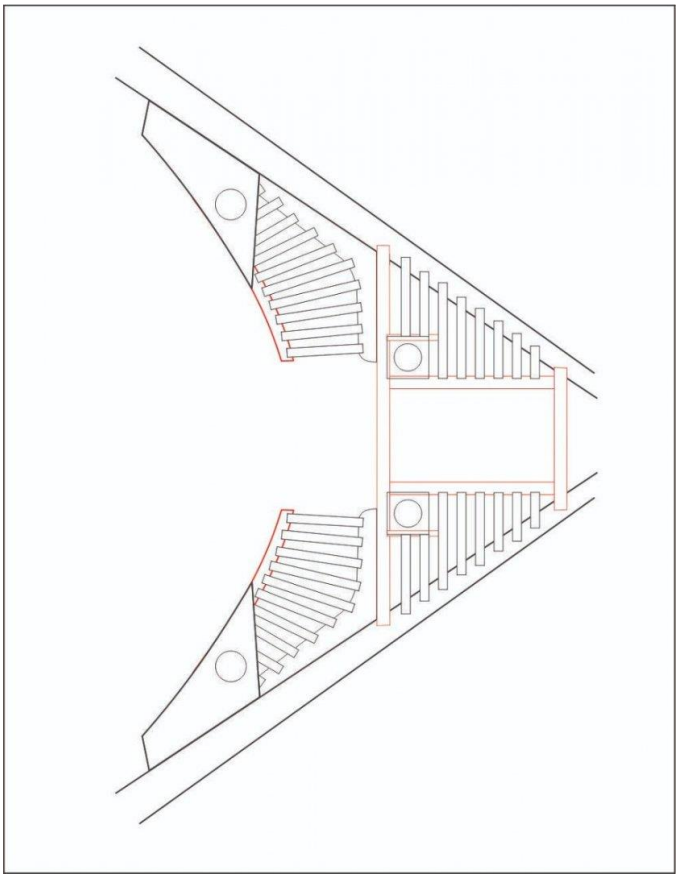
pieces on sheet "R" first to fit and make sure this half timber is spaced equally from its "full partner" just forward of it. All of the head timbers are equal distance apart so it's easy enough to measure.

Once you have a good fit, you can add the cover board (also laser cut) and the frieze. Then it can be glued into position. Keep tweaking it ever so slightly for a really neat fit. Remember to match its angle and placement on the other side. Darn it!!! Yes you have two of these to do.

Also note that I had removed the fancy molding where this half head timber will sit against the hull. Then I added it back after it

was glued into position. I don't know if this made it easier but I thought I would let you know. I worked for me.

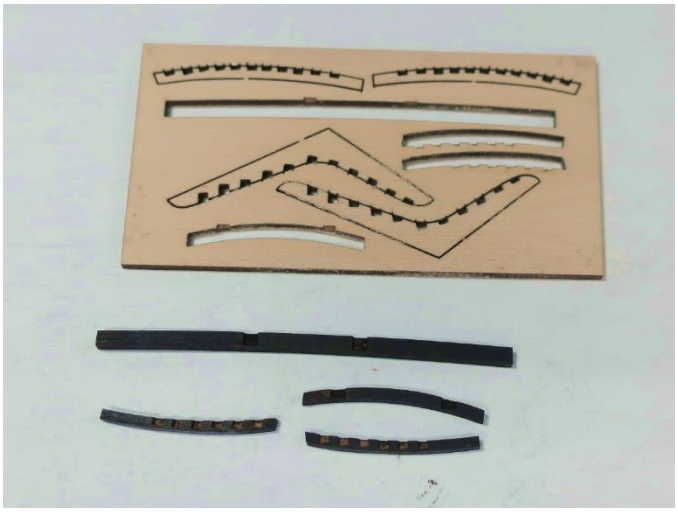
The Head Gratings…



For the head gratings, you have to be methodical. I started by lightly sanding the initial for pieces and painting them black. These are 1/16" thick. Each of these pieces is laser cut slightly longer than you will need because everyone's model will vary a bit.

The first two pieces are the two cross beams with a camber or roundup on them. These are the two that run port and starboard.

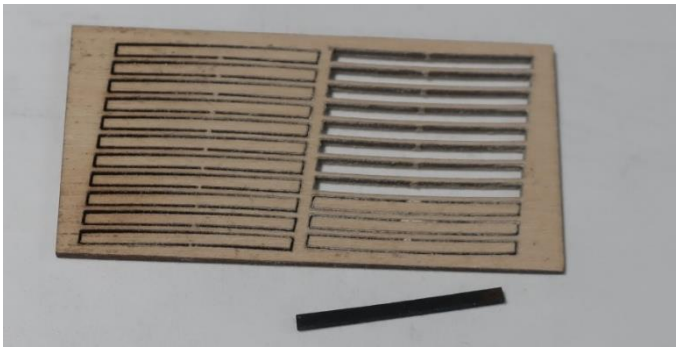
Sand them to length a little at a time taking equal amounts off both sides until they fit snug in the notches of the main headrail. Dont make it so tight that it spreads your rails apart. Make it fit just right.



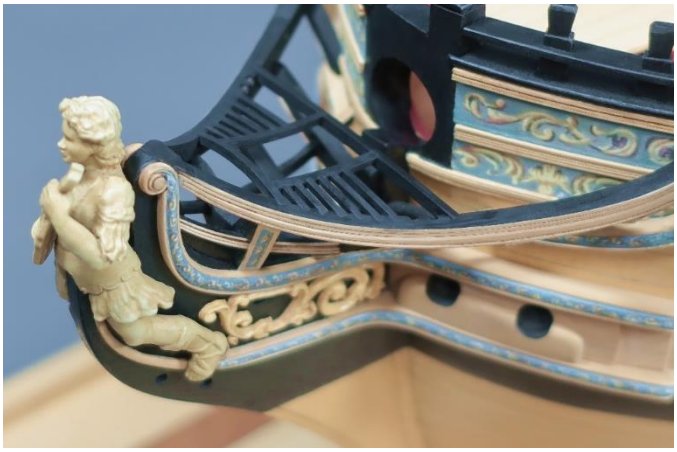
Then the two pieces that run fore and aft can be added next. I recommend a dry fit of these four pieces before you glue them in permanently. Make sure you have the notches facing the correct way. Study these photos. Because next we will be adding the smaller gratings pieces.

When you have these last two pieces in dry-fit only. Examine them to see if they are running straight with the center line of the hull and that they are both centered. Don't worry about the dust...you will be screwing up the paint job. Once you glue them in permanently you can give the top a light sanding with 600 grit sandpaper. Then touch up the paint. But don't worry about it being perfect yet because you will be sanding and painting more with each step.

Next up are the smaller 3/64" thick battens which are also laser cut for you. These are laser cut really long because you have to cut them to fit your model exactly. I painted them black first. They have a slight curve as you can see.



I inserted one end into a notch in the head gratings and then marked the length I needed as it spanned across to the other side. You will only be added the first six on each side at this point. Those last two won't be added until after we put the seats in position later. Carefully measure and cut all six grating battens and dry fit them first. Then glue them in with yellow glue or tite-bond. Brush away any excess glue to keep it neat. Once dry you can lightly sand the joints and paint. It should look like this at this current stage.



Then go back to the 1/16" sheet and remove the two knees with all the notches in them. And also remove the long curved pieces with notches. These can be painted black ahead of time as well. Yes, even the bottom side. The knees will be put in position first. The longer leg of the knee sits along the main headrail. You will no-doubt have to adjust the angle of the knee so it fits your model properly. Both legs should sit firmly against the inside of the main rail and also the cross piece of the head.

Note how it sits against the inside edge of the main rail. Do you see how it slopes down rather than sit flush with the top of the main rail. THIS is very important. You see, there is the other curved piece with notches that will sit against the hull. Those notches will have more battens running from them to its corresponding notch in the knee. You want the platform created by these battens to have a nice flow into the hull. You don't want them slopped up or down.

Remember this when you place the curved piece against the hull. As designed, I intended for this piece to fit directly under the fancy molding as shown in the photos. Does this make sense? Its real important but may vary on your model. You may have to place it lower...every model will vary slightly.

In that same photo (next page) you can see that I started added the battens between it and the knee. I did the first two. The inner two lengths. I added these first because I wanted to show you guys that these two battens will/should run parallel to the center line. This is yet another important piece of the puzzle and when you add the notched curved section along the hull be conscious of this. You want that first notch to line up directly across from the one on the knee so those first two battens are straight with the center line. Makes sense??? Plan the placement of those curved and notched pieces against the hull carefully.

One end of this curved and notched piece is longer than the other. I did this purposely so you would know which side should be the aft

end closest to the catheads. The longer end is towards the cathead.

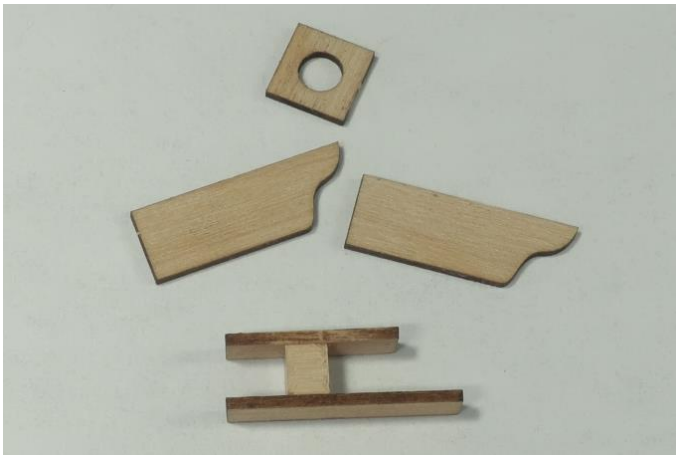
The head grating battens are complete for now. I added them all between the knees and the hull. These were just 3/64" x 3/64"

boxwood strips. They were painted black ahead of time and cut to length as I progressed. Then they were glued into position within the slots. I sanded them gently with 600 grit sandpaper and touched up the paint.

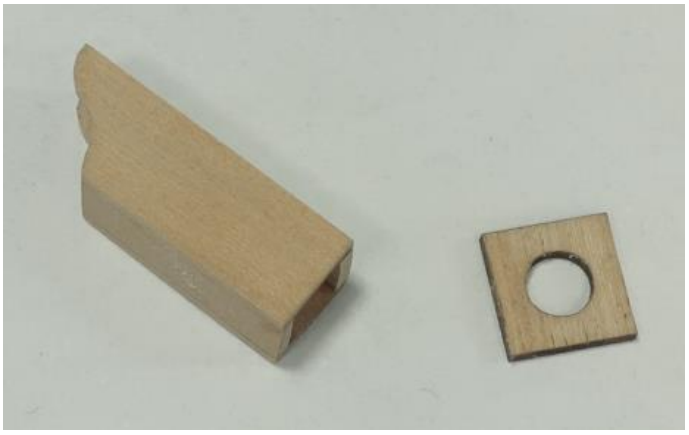
The Seats….

To make the seats it's real easy. Cut a very small length of scrap wood strip. A 1/8" x 1/8" strip. Cut it very, very short...maybe just 1/8" long. It's just to use so you can keep the seats squared up. Basically a 1/8" cube.

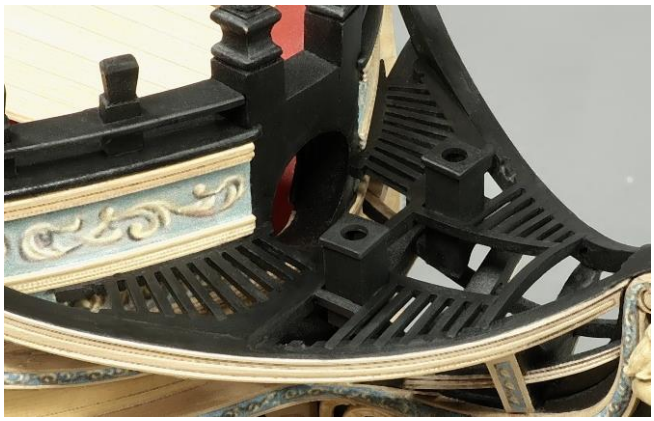
Glue the two thinner sides onto this small 1/8" square as shown. Note how on one side the tops are flush. This will be the top of the seats.



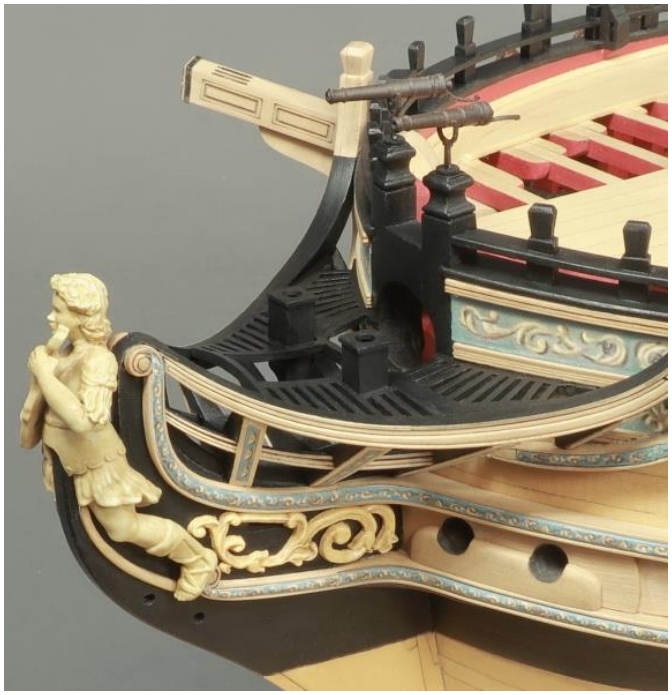
Then glue the other sides on. Easy peasy!!! At this stage paint the tube inside and out black and then glue on the top.

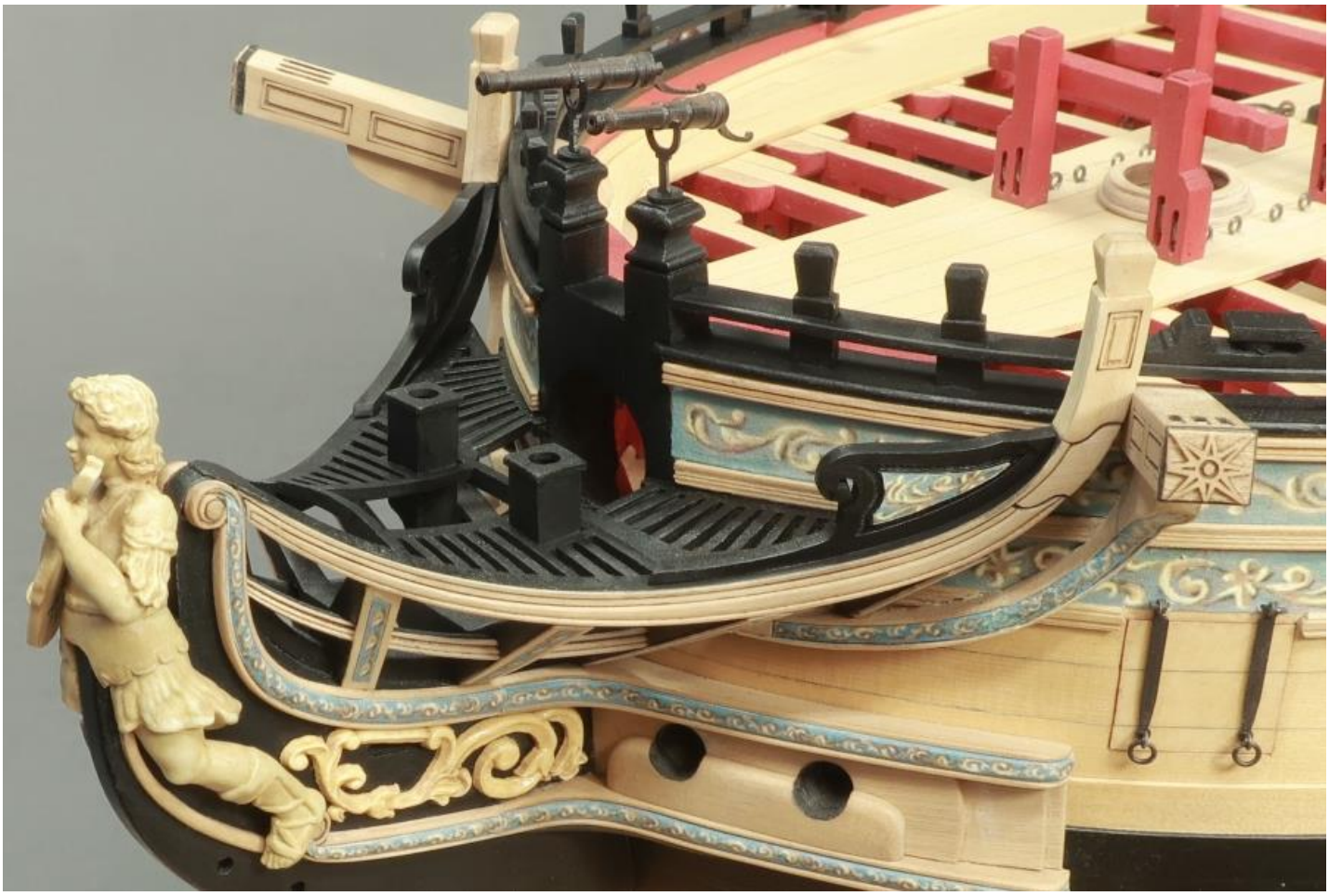


Glue it onto the model. Make sure you face it the correct way. Look at those contemporary model pictures again of the poop shoot. Remember to keep the top of the seats about 5/16" above the gratings. Get them both to match.



Also note that in that same photo I added a 3/64 x 3/64" strip against the outside face of the seat. This helps hold it into position. Don't worry about the dust at this stage. Sand any rough spots and touch up the paint. Then add those final two battens on each side. Use the curved ones that we used earlier. You should have plenty left over.





The False Rails…

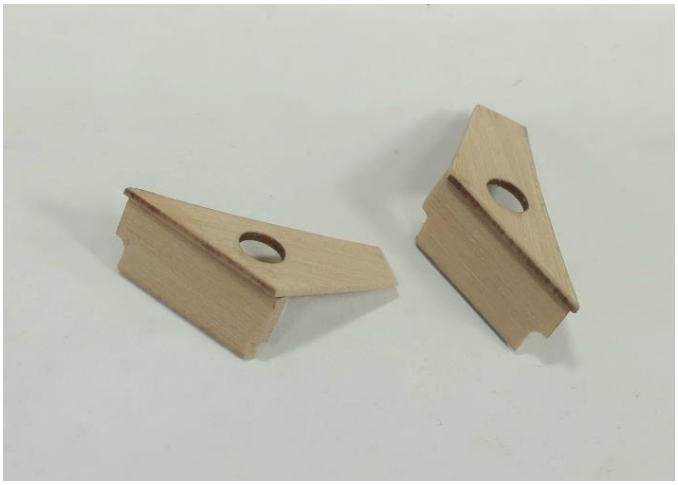
Next up I made the false rails. Photo above. These are pretty easy to make. Just sand them a bit to prep for painting. Test the fit on top of the main rail. There is a small circle or disc laser cut on the veneer sheet you will get. That is the tiny button for the scroll on the false rail. Paint it all black (or not) and add the freeze. Glue it into position.

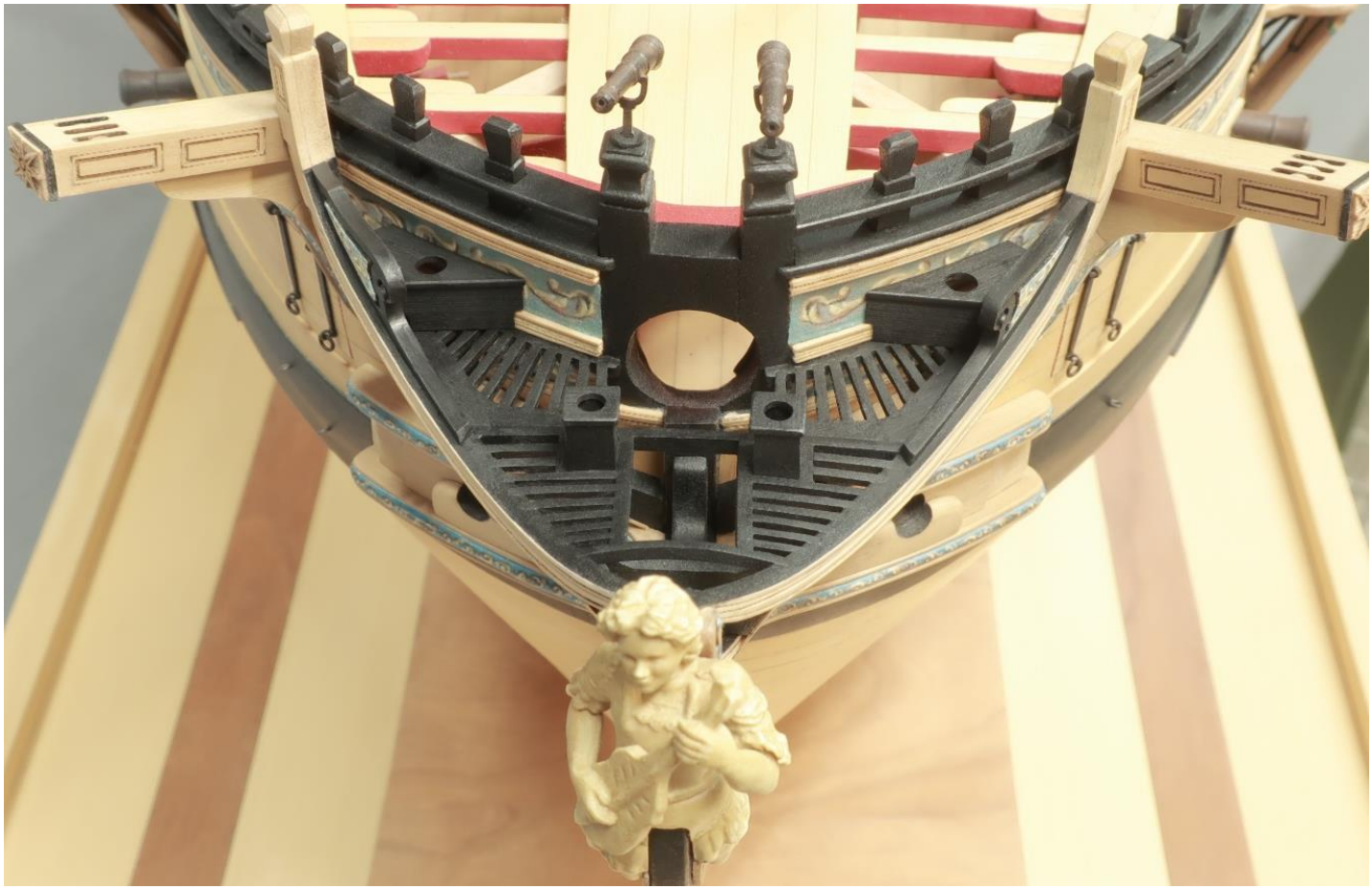
You can paint it black or keep it natural. That is up to you. There are many color combinations seen on contemporary models. You may also opt NOT to use the frieze here and just paint it all black. It's all about what you like best.

Then it was time to assemble and add the aft seats of the head. Those are the pair of seats in the corners between the false rail and hull. These can be tricky and I suspect everyone will have their own best way to make and position these. Here is what I did.

I assembled them first and then painted them black before gluing them into position....BUT

It was important to first test the fit of the top of these seats on the model so I could finalize its shape. Once I knew it would fit between the

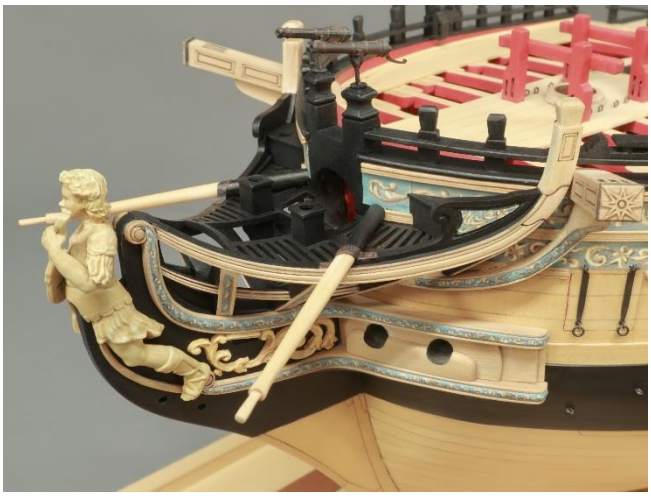


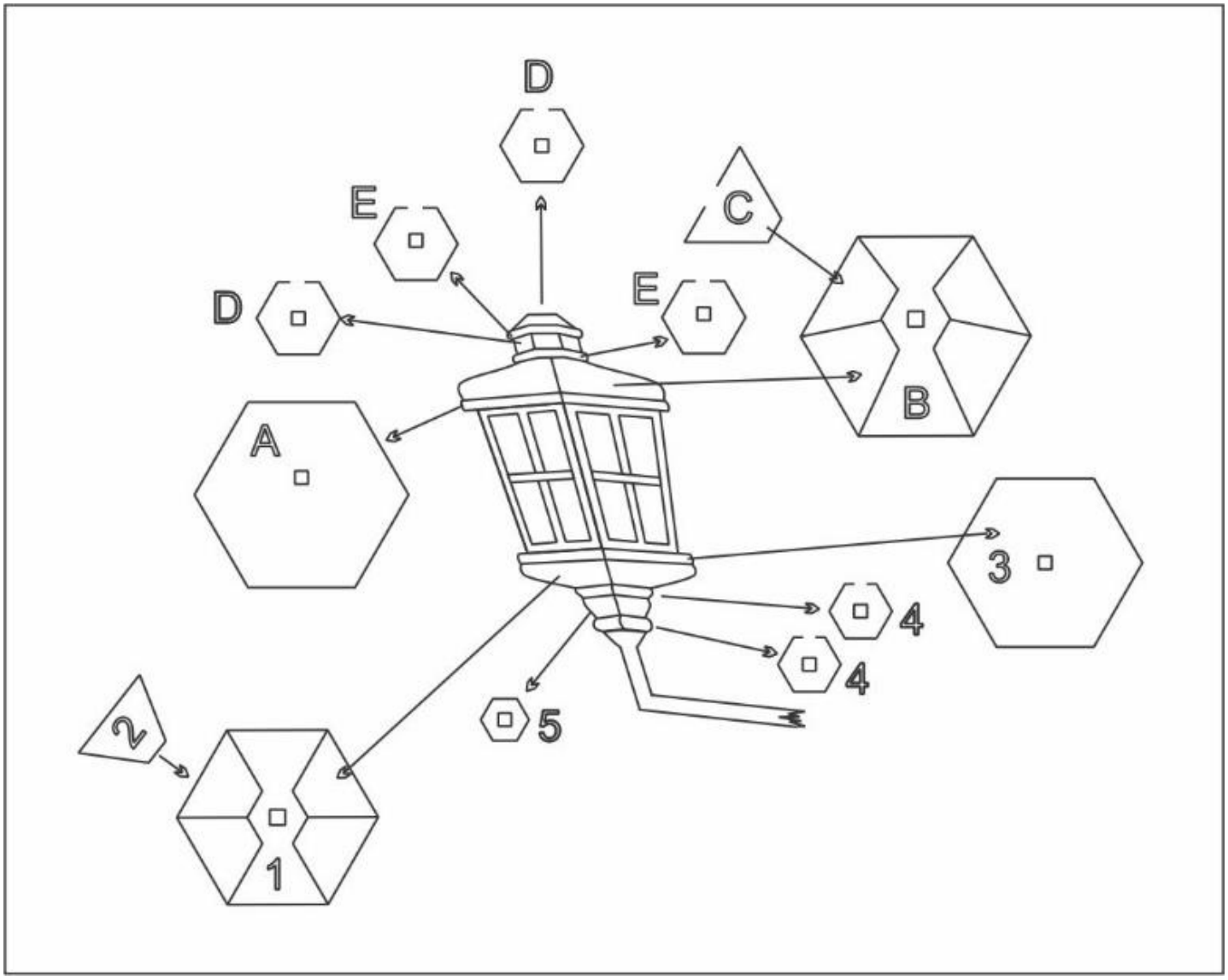


false rail and hull, I could tell how long to make the front face of the seat. These parts are laser cut but you will no doubt have to tweak them to fit your model. Then I glue the front face on the seat leaving the top with an ever so slight overhang. Note the filed out area where the molding would be and the main rail. This was all filed into the front face while off the model. I kept testing and tweaking for a good fit. Then I painted them black and glued them into position. I was careful to line them up so they looked even port and starboard. Dry fit both in position before gluing.

The bumpkins will be laser cut for you. They will be square in shape. You will first need to sand the same tapered shape into it while keeping it square. It is cut from 1/8" stock and the forward end tapers much smaller. So first just match that taper as a square shape. Then round it off. BUT...you can't place them in a drill or lathe. They also have a slight downward curve to them. They will just wobble and break.

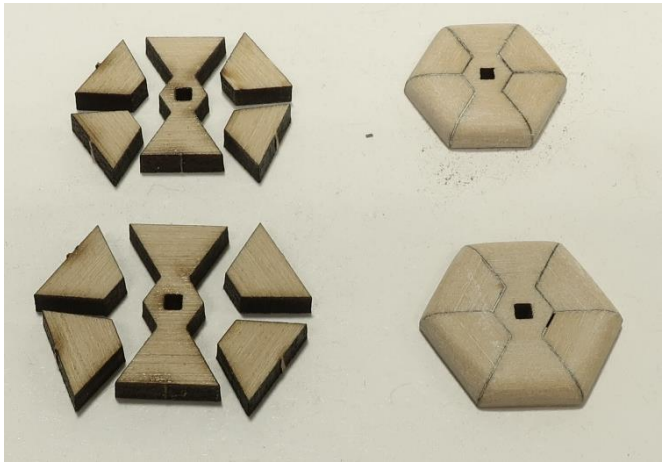
The inboard side of the bumpkins are painted black over the head gratings and left natural outboard. Although you could also just paint them all black as that is typical on many contemporary models as well. I used some black masking tape to simulate the iron bracket holding it to the top of the main rail.





The Stern Lantern…

The Stern Lantern is made entirely of boxwood. This mini-kit is sold separately. Its quite an advanced little kit. There are plenty of small parts.



Let's do a step by step.

The first two parts we are going assemble are the top and bottom of the lantern. To avoid mixing up the parts do one of them at time.

The top (parts B & C) and the bottom (parts 1 & 2)

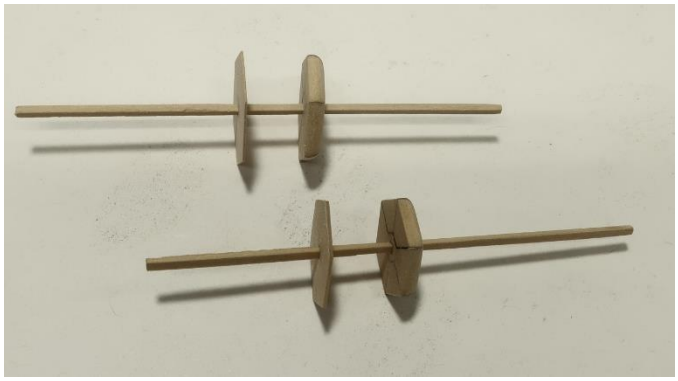
This will make an 8 sided piece. Don't sand any of the char off of these pieces. They will fit nearly perfectly as is and you want the char to highlight the seams between each segment.

Try flipping the small pieces if you have to for a better fit. Once glued together. Both the top and bottom can be sanded. Round of the

edges as shown on the photo and on the plan above previous page.

You will note that the center hole is square to accept a 1/16" x 1/16" strip. The hole on the top is actually off centered to help create that lean of the lantern which is so depicted on many contemporary examples.

Step 2…



Take the top and the bottom and slide them onto separate strips as shown above.

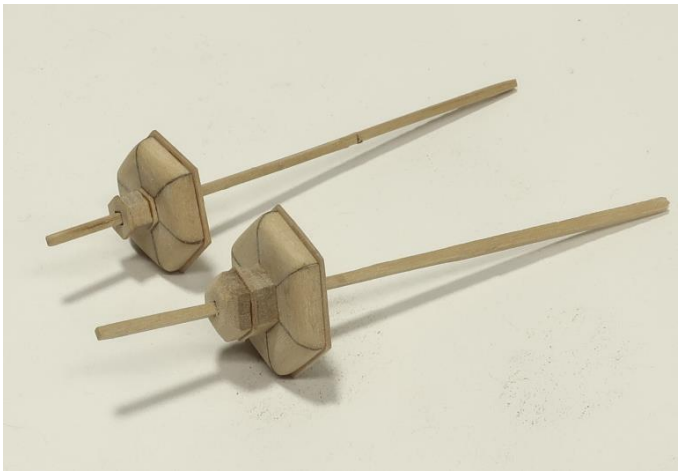
Then slide part "A" onto the strip so it slides all the way up to meet the top. Make sure you orient it correctly. There should be a slight lip all around the top because part "A" is slightly larger in diameter. Sand the char off of the edges of part A.

To accentuate the lip you might even want to bevel the bottom edges of the top so the edge of Part A will look more pronounced. It is up to you. Do a test fit first before gluing them together.

Repeat the same step with the bottom while using PART "3".

Step 3…

On the lantern top you can now add parts "E" and "D" and another "E" and finally another "D". Slide them onto the stick. Do a dry fit.



You might also want to slide them onto a completely new stick so you have a handle to hold onto while you clean off the laser char first. This will help keep these new elements from dirtying up the top assembly.

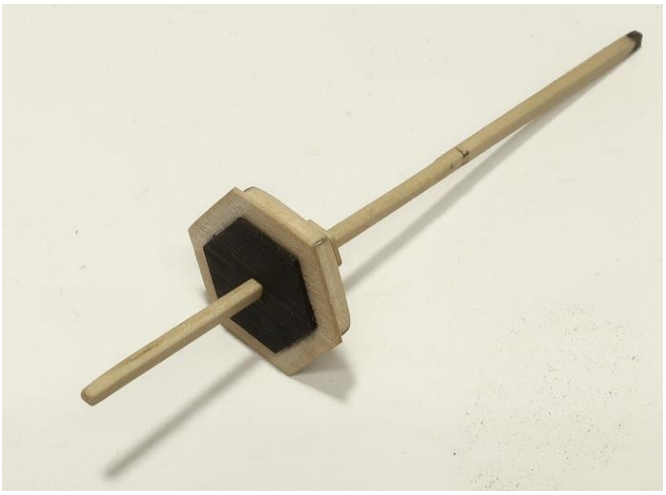
Then after you clean them up with some sanding sticks glue them together on that third stick but make sure you can slide them off when it dries. This way you can simply slide the whole finished assembly onto the lantern top nice and clean.

Note that the last part "D" piece on top of the lantern is sanded with beveled edges. This gives that little top piece a nice shape. See the plan for details. Also note the photo above. That photo shows the top f the lantern as it stands at this moment in the assembly process.

The bottom of the lantern is also shown…basically repeat the same steps using parts "4" and "5". There are two sections of part "4" as shown on the plan.

Just clean off the char with these and glue them into position by sliding them on the stick.

The bottom stays perfectly flat on the last layer part "4"



Step 4…Next we will concentrate only on the bottom of the lantern. Shown above. Take part “7” and paint it black or a very dark gray.

Then slide it down onto the bottom. Make sure its oriented correctly. Glue it into position.

Then cut the center strip as this will become the candle in the center of the lantern. Just make it a nice looking length and not too short or too tall.

Use some acrylic paint to paint it white. But put the paint on very heavy. Make it messy looking so it resembles wax. Get some on the bottom black panel as well. See the photo below left.

Step 5…Add the back panel which is solid. Paint the inboard side red. This is the side without the laser etched door on it. Glue the bottom edge only to one side of the lantern as shown above. This first section should be completely vertical. Straight up and down parallel to the stick actually. You can bevel the side edges a bit to accept the next window panels. But these are delicate. So maybe not if you are heavy handed.

Step 6…Add the next two windows of the lantern. Note that these are identical. They are

literally the next two pieces on the laser cut sheet just next to the first panel with the door you added in step 5. So be careful not to mix up the window panels. Only remove the two you need at the moment. The inboard side is again painted red. See below. They are added next to the door panel. Glue the bottom edges and the side edge on each of them. It should look like this…Once again you will get a better fit if you can bevel the side edges a bit. This will make the seams a bit tighter. But these panels are super delicate. That's why you get two lanterns in every package. Just in case you give it a try and break the window panels.

Step 7…You guessed it. Add the next two window panels. Glue the edges together.

Then finally the last panel opposite the door. This is the trickiest window panel. The others will have flexed already on the lantern bottom. You will probably have to "unflex" them to make the opening large enough to fit that last panel. I found it easiest to glue just the bottom edge and one side first. Then after that sets, glue the last side. You will have to flex the last two edges to get them to meet along the seam. But it will go in. See below. I was able

to sand a slight bevel on all side edges being very delicate with my touch and using 600 grit sandpaper. If you can't bevel the side edges your panels may not fit as well because they will be just a hair too large once you get around to that last front panel. But give it a try and if you fail the first time…build another one.

The second lantern always comes out so much better!!!

Step 8…Time to put the top on the lantern. To do this trim off the stick from the bottom of the lantern top. Do the same for the top of the stick. But this time leave it slightly longer. I sanded that into a nice little "button" on the roof of the lantern.

See the photo below.

Glue the top into position. Make sure you orient it properly. The roof is off centered and it should appear to lean back towards the opposite side of the door.

Step 9…Put the hard ware on the door. I basically used tiny lengths of 28 gauge black wire for the hinges. I also cut the head off of a tiny brass nail for the handle. I painted it black. See below left.

I also made some very tiny eyebolts from the 28 gauge black wire and added them to the lantern along the top rim.

These will be used to attach the lantern securely to the stern transom.

Lastly..I bent a piece of heavy square brass rod. This became the bottom bracket support. I drilled a small hole into the bottom of the lantern and slide it in. Round brass rod is also fine. It was 1/16" diameter.

Step 10…

Finally add the lantern to the model. I drilled a hole into the badge on the transom. I hated doing that but it was necessary. I slid the lantern in position….and glued it in position.

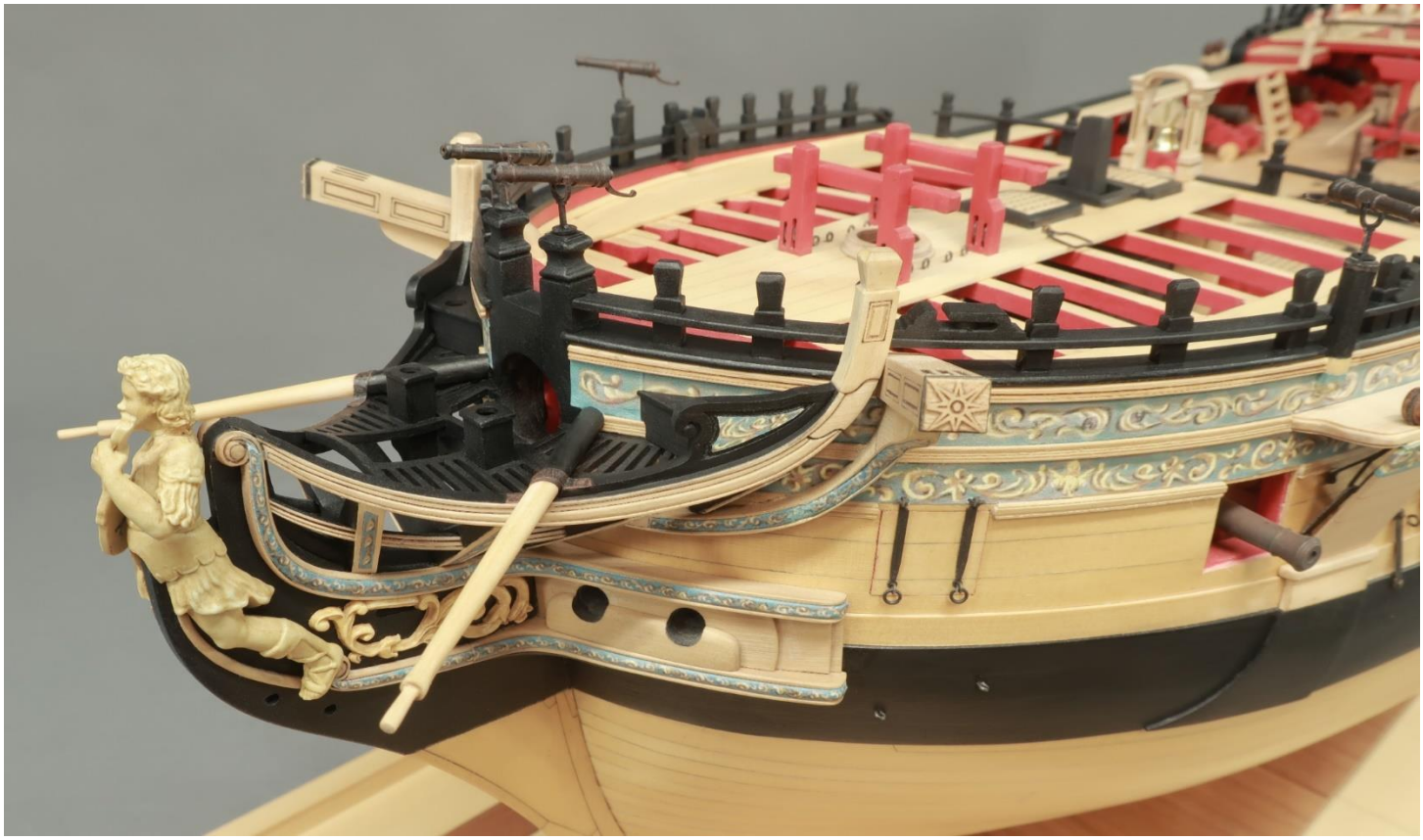
Then I added more eyebolts from 28 gauge wire along the transom rail as shown. To help secure the lantern, some 24 gauge black wire spanned from these eye bolts to the ones along the rim of the lantern. I just bent the ends of the wire at a 90 degree angle after determining their lengths. Then they were crimped tighter and made permanent. See the photos that follow.

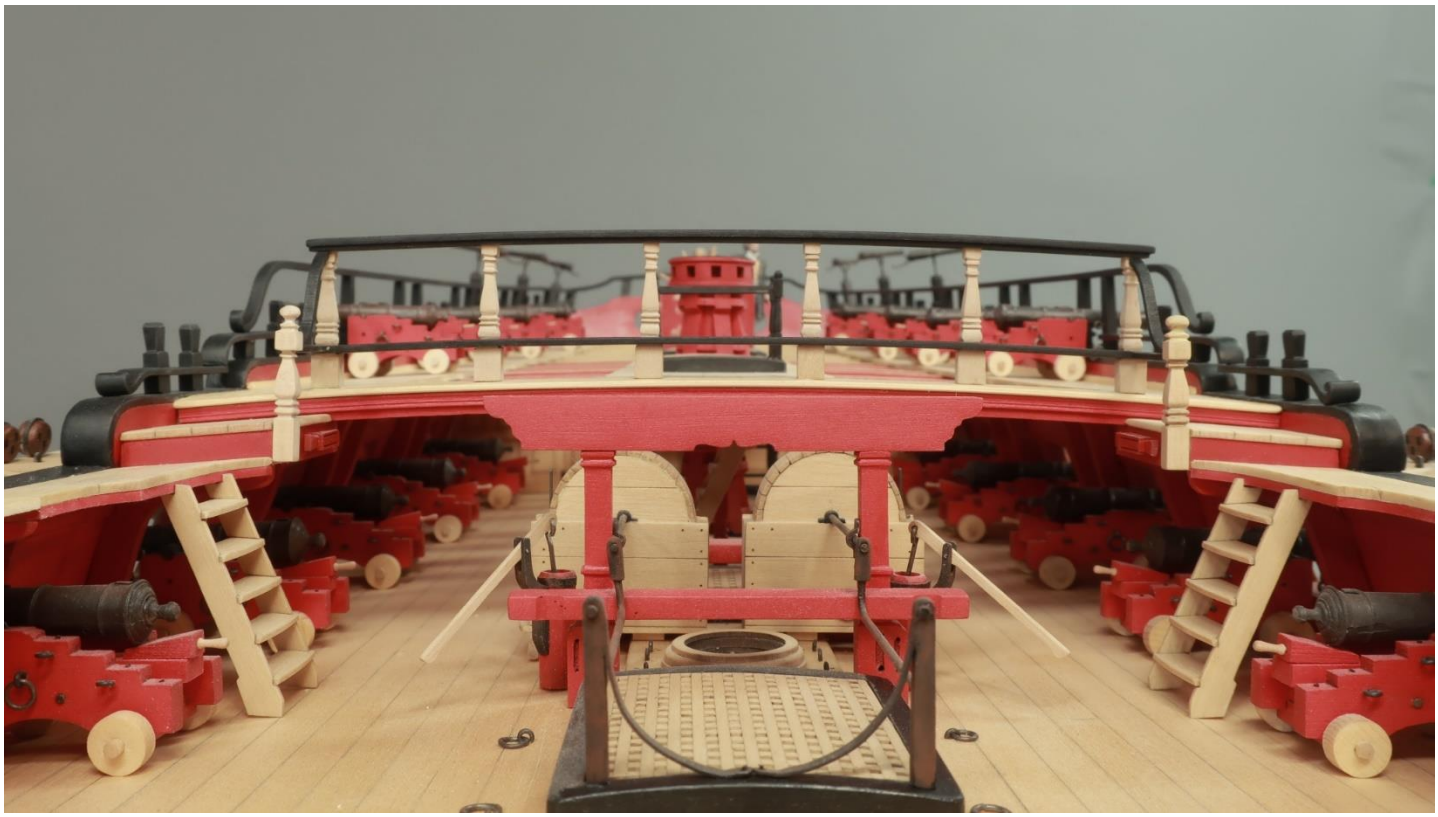
Guess what!!! It's finished!!!

FIN


WINCHELSEA.

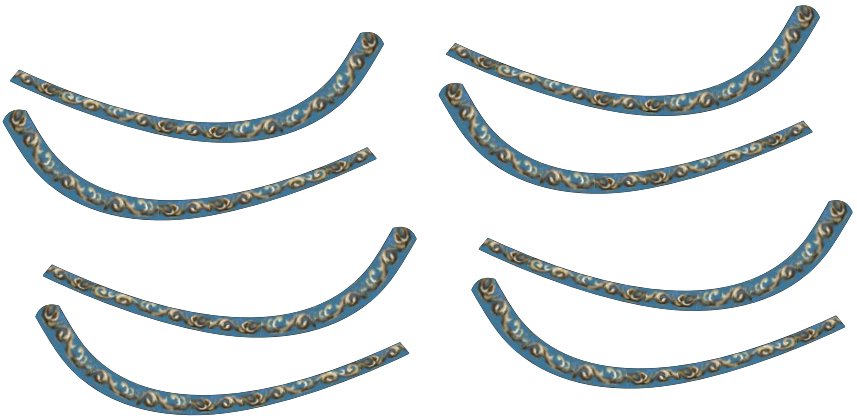

WINCHELSEA

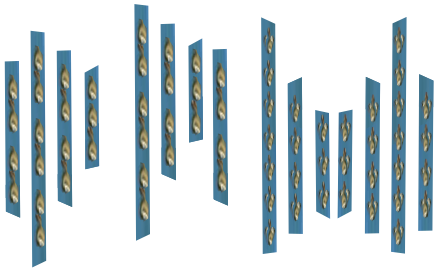


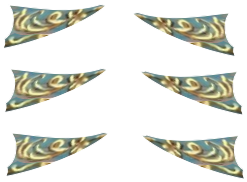


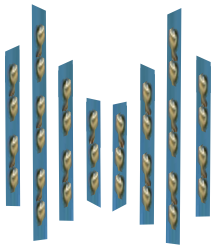

His Majesty's Ship Winchelsea
Frigate of 32 Guns launched 1764

Head timber friezes and Head rails

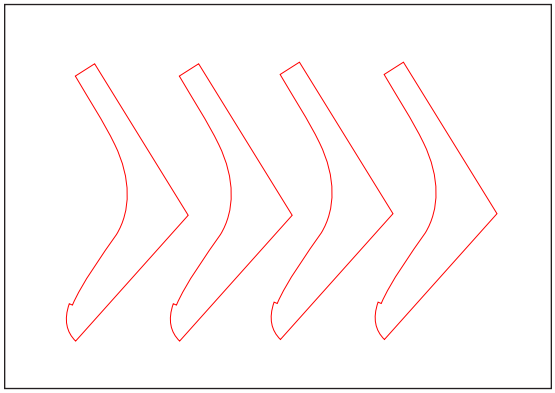








Templates for shaping the cathead supports



Head Grating plan and layout for the HMS Winchelsea