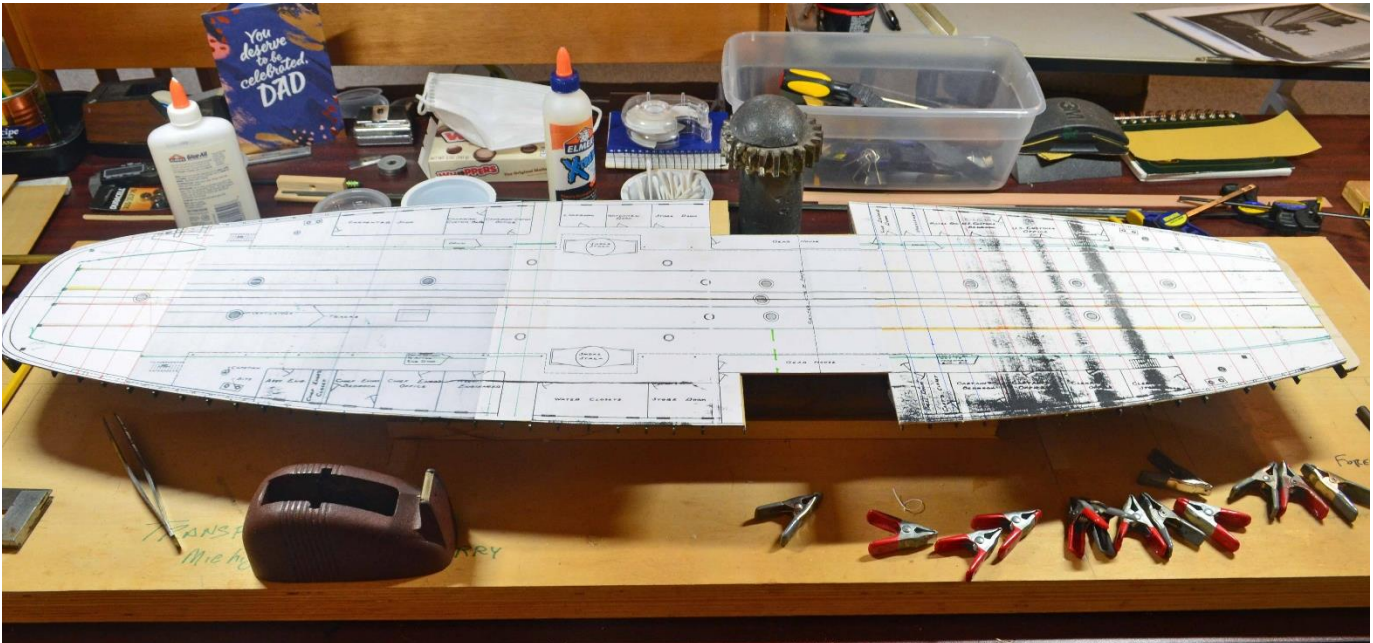


TRANSFER (II), 1888

The first steel hull among the Great Lakes car ferries

Phase 1: Building the “first steel hull”



1No.1: The Build finish of the Hull. Hear is how I got there.

The plans of [Transfer II](#) were obtained from the Great Lakes Maritime Museum. The plans were drawn by James B. Jones, a member of the Great Lakes Model Shipbuilders. Address: 5401 Woodward Avenue, Detroit, Michigan. The scale of the drawings was 1/8" (The railroad cars, the track laid and the figures in place are in the HO model scale of 1/87).

Sheet 1: 3 drawings: Main Deck Plan, Fore and Aft Body Plan, Half Breadth Plan.

Sheet 2: 2 drawings: Outboard Profile, Inboard Profile.

Sheet 3: 2 drawings: Top Deck Plan, Fore Front Profile.

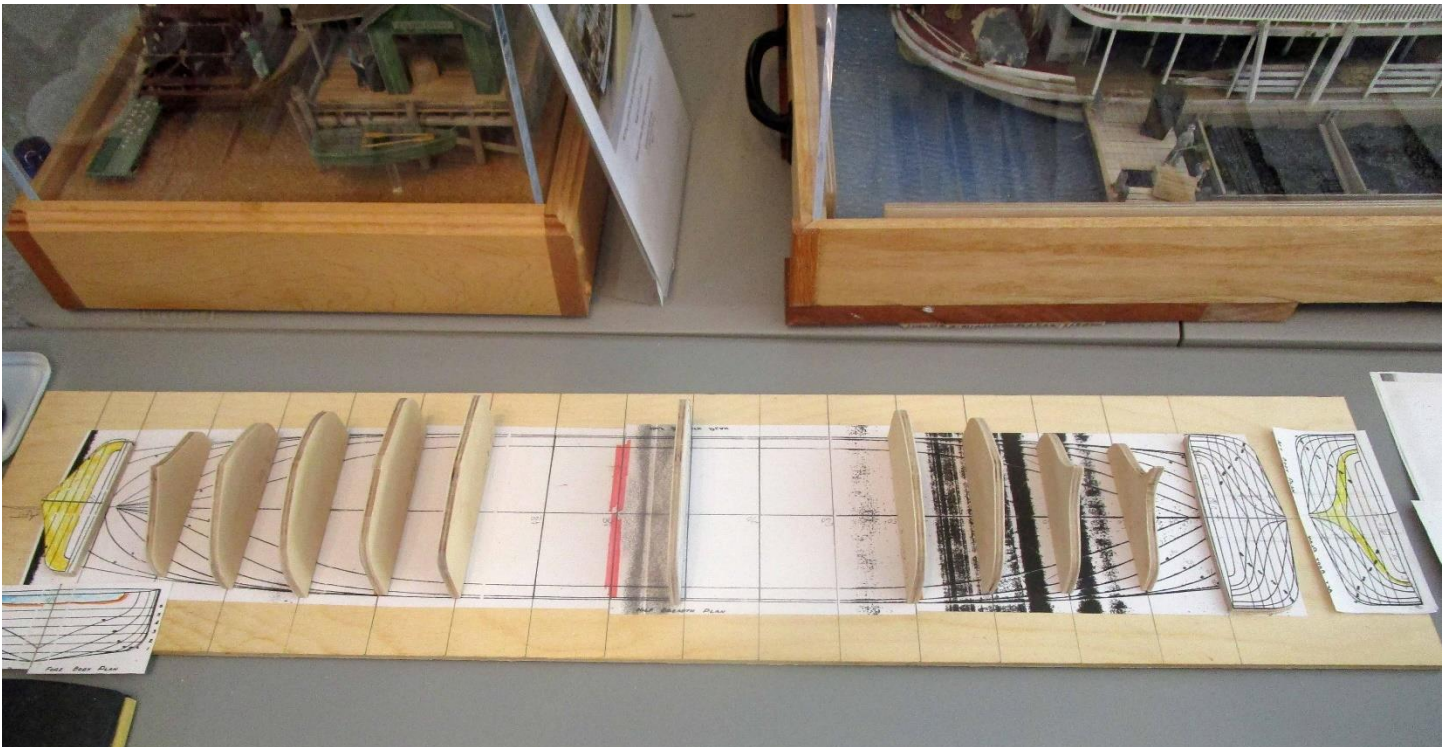
In other words, I had only line drawings of what the ferry looked like. So, I had to stop and think about how and if I had enough information to make a respectful presentation.

As first up would be the hull, I had two choices: bulkhead framing, or a solid hull. Fortunately, I had the plan for doing it in either manner.

I started going with plank on frame and got this far.(**Illustration 2.**)

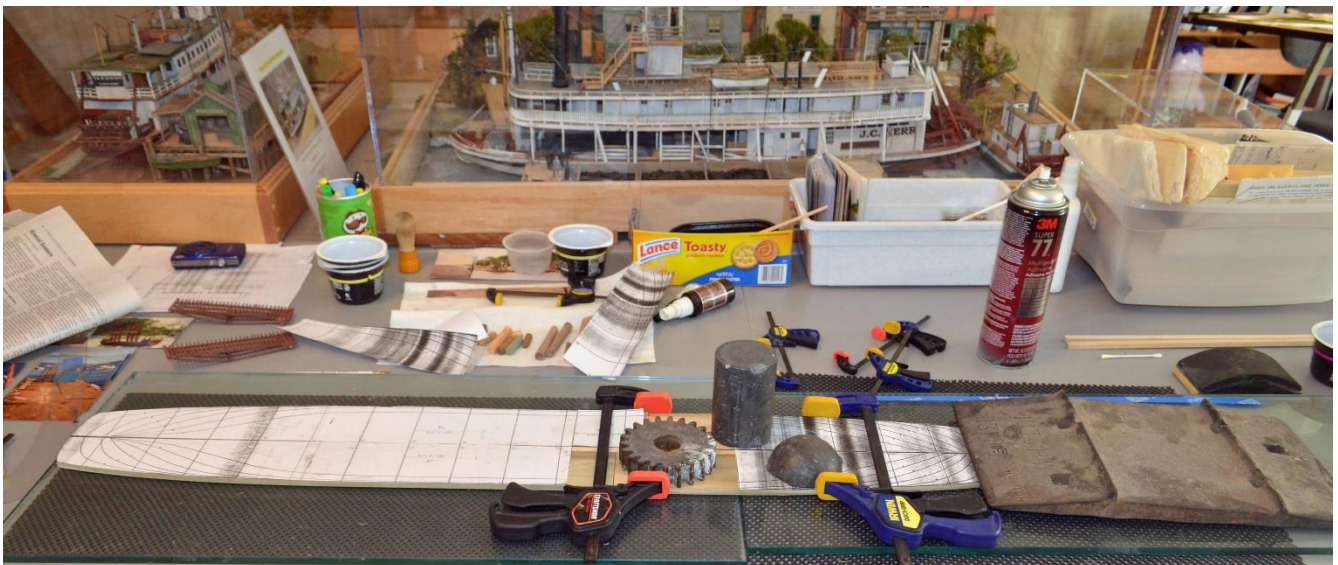
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No. 2: It took a “no brainer” to stop here, and move to Bread and Butter.

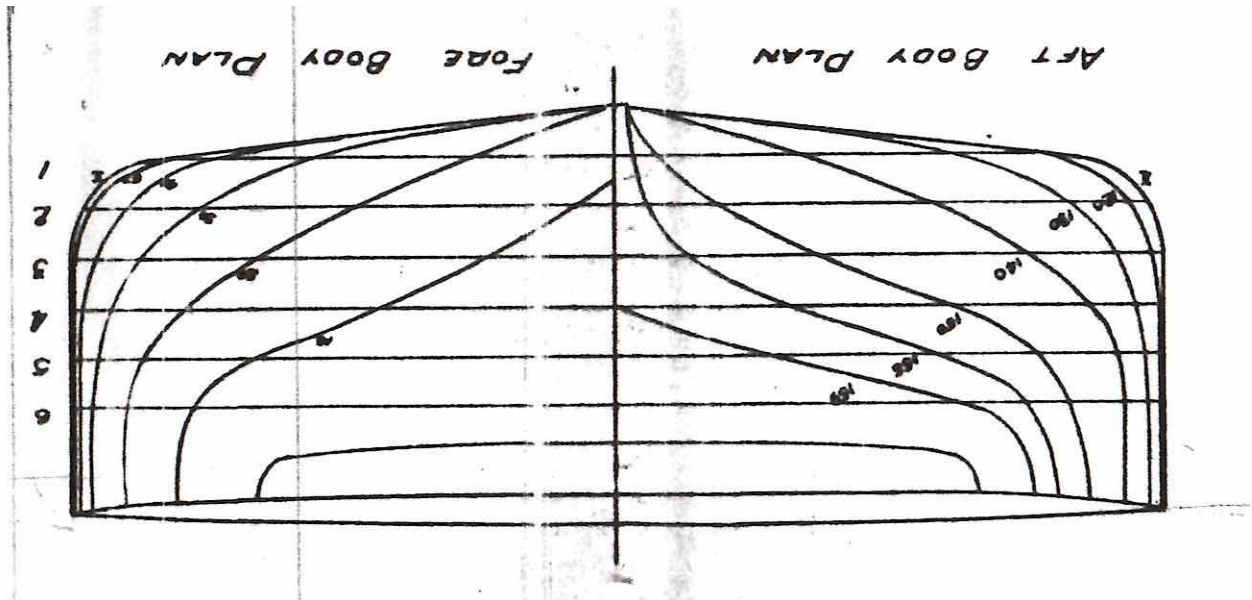
THE BREAD & BUTTER HULL BUILD:



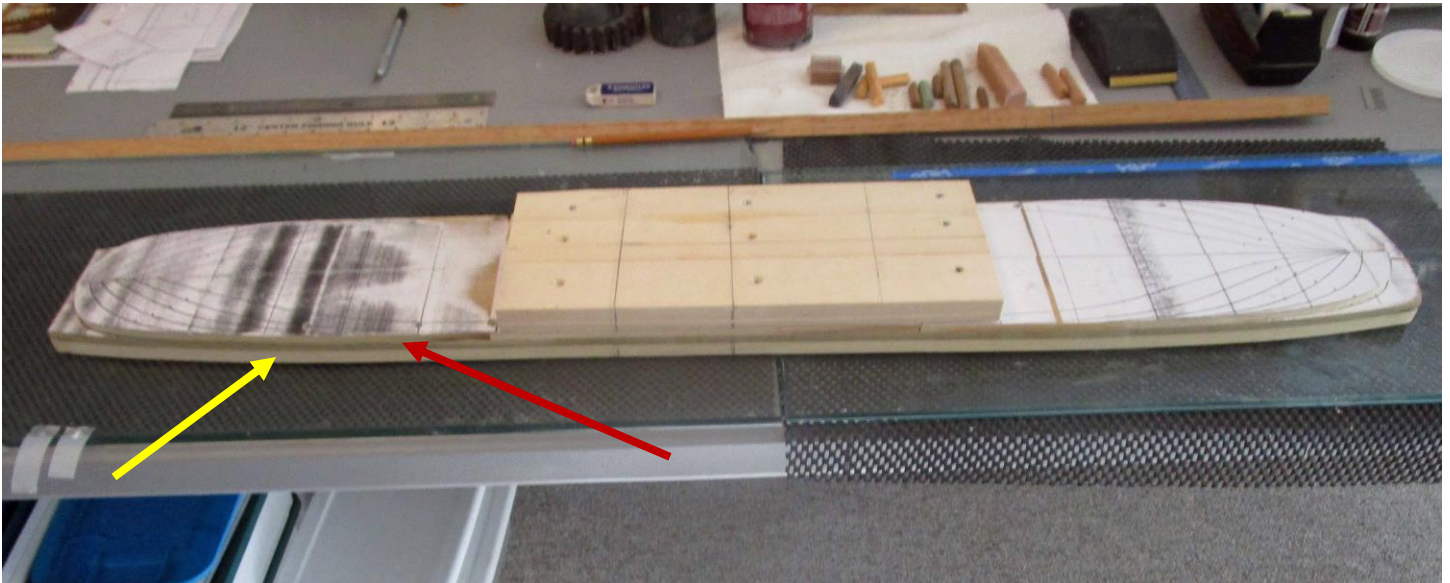
No.3: The frames were not glued to the baseboard (1/8" ply) body plan in **No. 2**. Here you see the plan outlined from a trip around my scroll saw. The 1/8" ply remains as it will be the deck surface of hull when turned over.

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You can see above 1/4" layers of wood required. Note: Here is where made my first mistake. I had some 1/4" Poplar sheets; enough to complete the hull, and I used them! I should have use pine. Don no make that mistake with bread & butter: Poplar warps. I was not going to start over, so I made the following adjustments necessary:



No. 4: The **yellow arrow** points to the 1/4" main deck surface when right side up. The **red arrow** shows the 1/8" ply from **No. 3**.

Note: The 1/4" Poplar sheet at each level has the appropriate plan location spray glued in place onto the surface. In No. 4 shows the start of a shaped and glued layer #1 receiving layer #2 and "so on and so forth to finish. You saw my weights in **No. 3**. When a layer has been pattern spayed, shaped the outside line of the pattern, and glued in placed, on go the compression.

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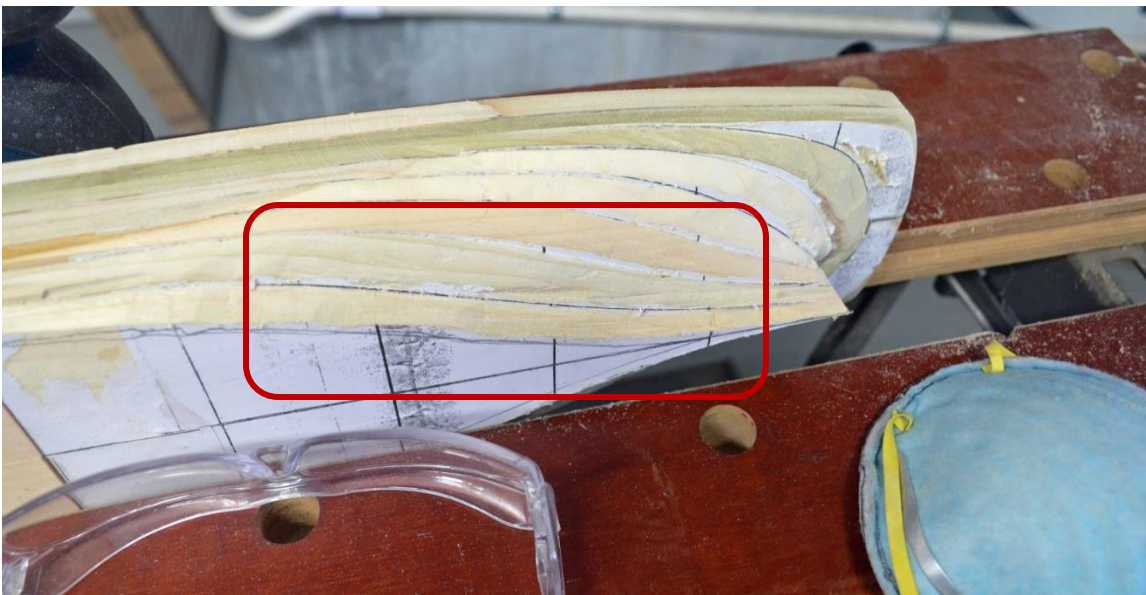
I assessed a theory to save a lot of headache in keeping the layers in place. I broke up the layers into three pieces, the fore (1) and aft (2) and center (3) boy plans' This would give more control of glue securing weights and cleaning up glue squeeze.

I started at the center where there are full hull dimensions. Layers #5 and #4 were easily glued in place. After gluing had time to catch hold, I removed the weights marked out nine screw locations on #4, counter sinking the screw holes to fit flush and anchoring in #6. Then follow the pattern to fore and aft.



No. 5: As each layer went on the top edge of wood was heavily edge with a black sharpie. It indicate a stop sign.

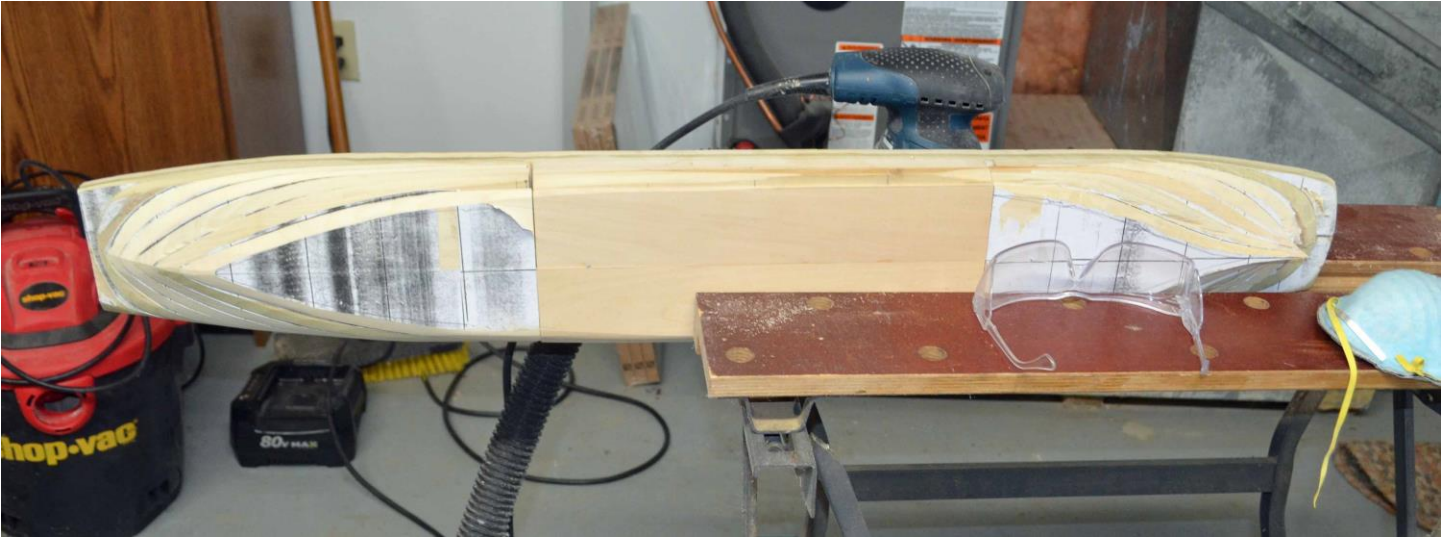
Then comes the fun. I used an electric rotary sander, sanding blocks, chisels, files. And various carving blades.



No 6: Still not there. You have to be in a good frame of mind!

TRANSFER (II), 1888

The first steel hull among the Great Lakes car ferries



No 7: Any seam gaps were filled with wood filler.

I know I am not going to get a perfect finish, and there are times I think it will never end, and that is when I go back to visual. Does it meet the “eye”? If it does, I can live with it. Remember it is going to be painted. When painting dries, you will see any things you might like to further work on.



No. 8: Note the keel (1/8" x 1/8" basswood) down the centerline..

THE WORK TO BE DONE FORE AND AFT:

The trickiest thing to keep track of is procedure. What goes where and when. As to the Transfer's upside-down Hull, everything, to completion, will have to be completed before it is turned right-side up.

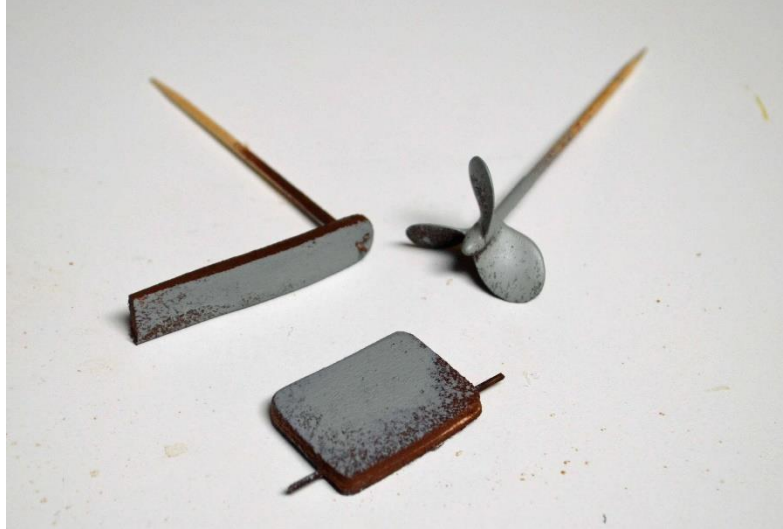
Starting aft:

The components are a rudder, a propeller, a support system, and the extension of the keel to receive it. So, decided to make the components first and the need to be painted, Next, I had to finish the shaping of the hull to receive them. With the hull ready to receive them, it needs to be painted.

TRANSFER (II), 1888

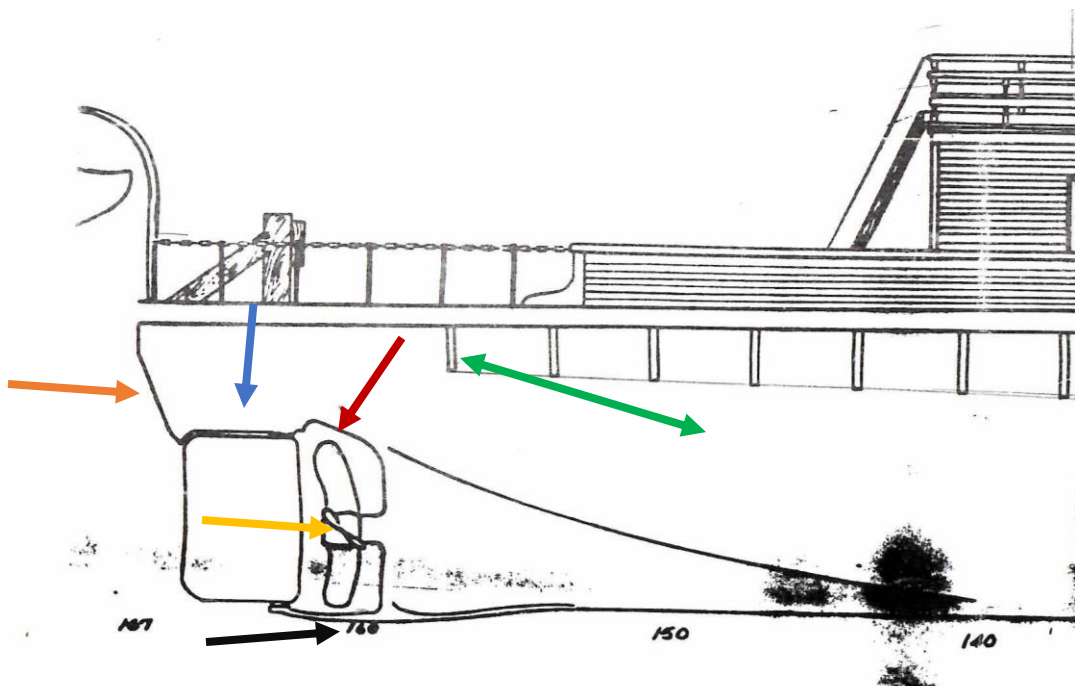
The first steel hull among the Great Lakes car ferries

I decided it would be easiest to finish making the rudder, propeller, and bar assembly off the boat. Then use the propeller to assess fit to find whatever adjustments may be needed. When I can get the propeller installed, I will finish the rudder assembly.



No. 9: The rudder will “swing” when installed, Not the toothpick inserted into the propeller and the rod into the rudder. The Rudder is made with two pieces of 1/32 pieces of basswood, with a lightly scribed groove to receive the rod. Note the slight “wave” in the rudder bar assembly and the drilled hole for attachment to the keel.

As the plan below provided me with “patterns” I used the colored arrows to point to the hull areas that might need more sanding.

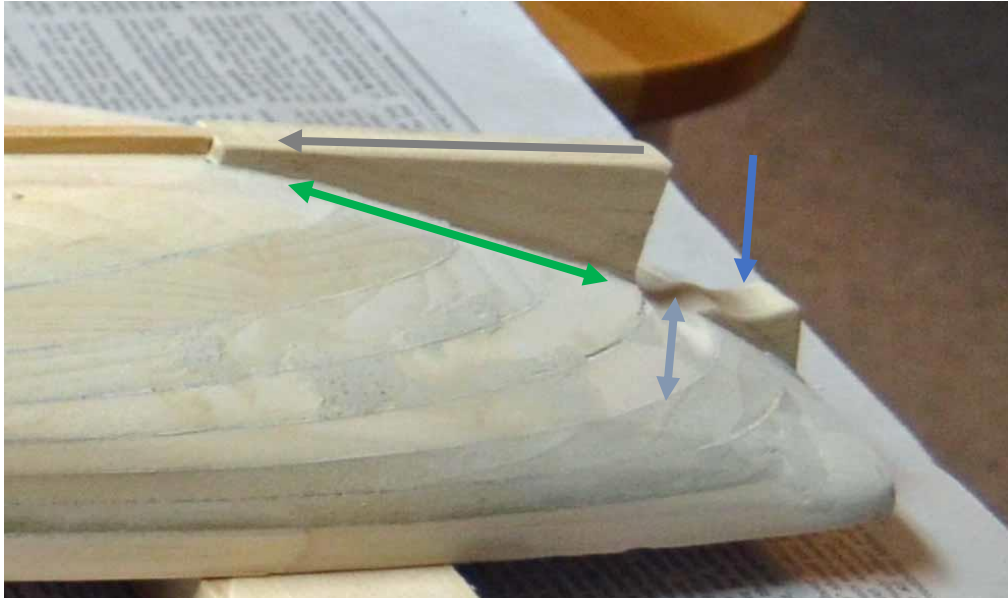


No. 10: This is all off the boat using the actual rudder and prop.

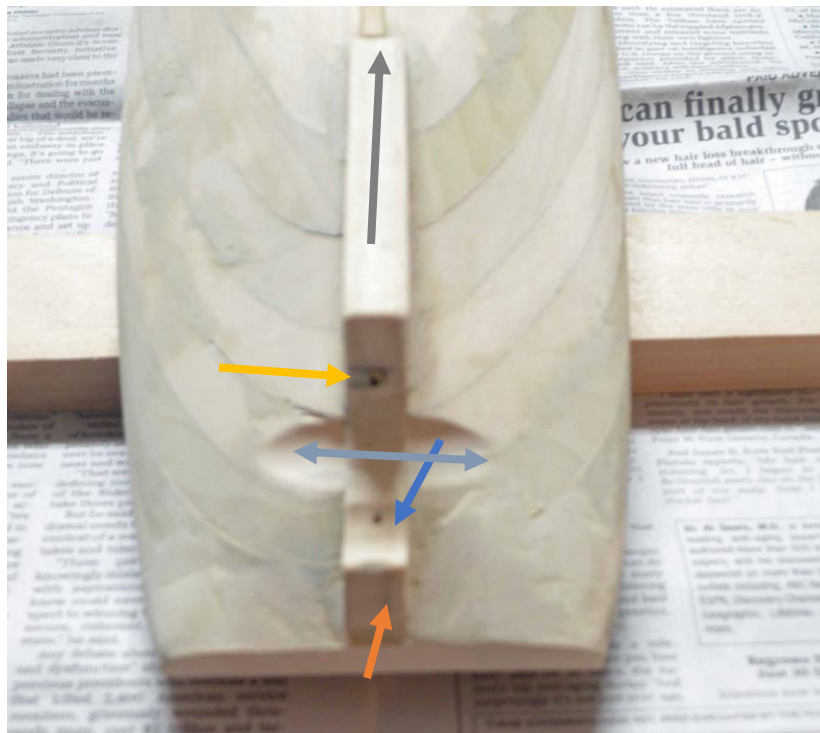
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I cut out the plan section and spray glued it a piece of 1/4" of basswood. I then cut the pattern to the outside of the line.



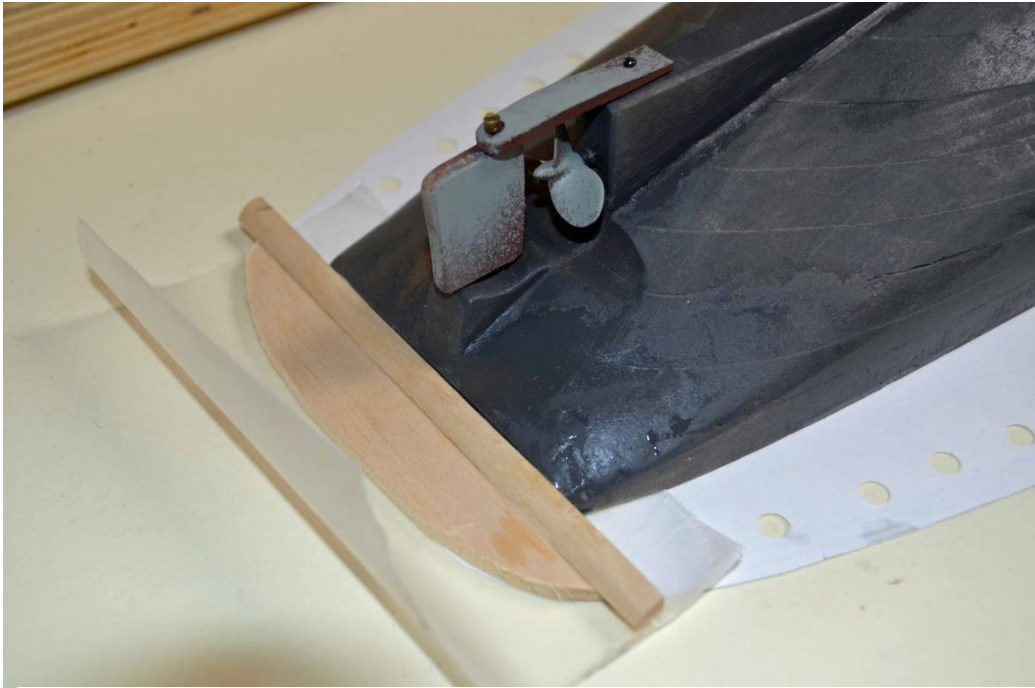
No. 11: The major hull “fix” is at the location of the spinning blades of the propeller. A groove in the hull surface was put in place by wrapping a piece of sandpaper around a dowel.



No. 12: With the keel piece in place the holes were drilled for toothpick and rudder rod. At this point, I spray painted the aft end of the hull. (Ace Hardware Premium matte enamel: IRON.

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No. 13: At this point I was test fitting the next step in the build.



No. 14: The Aft is completed.

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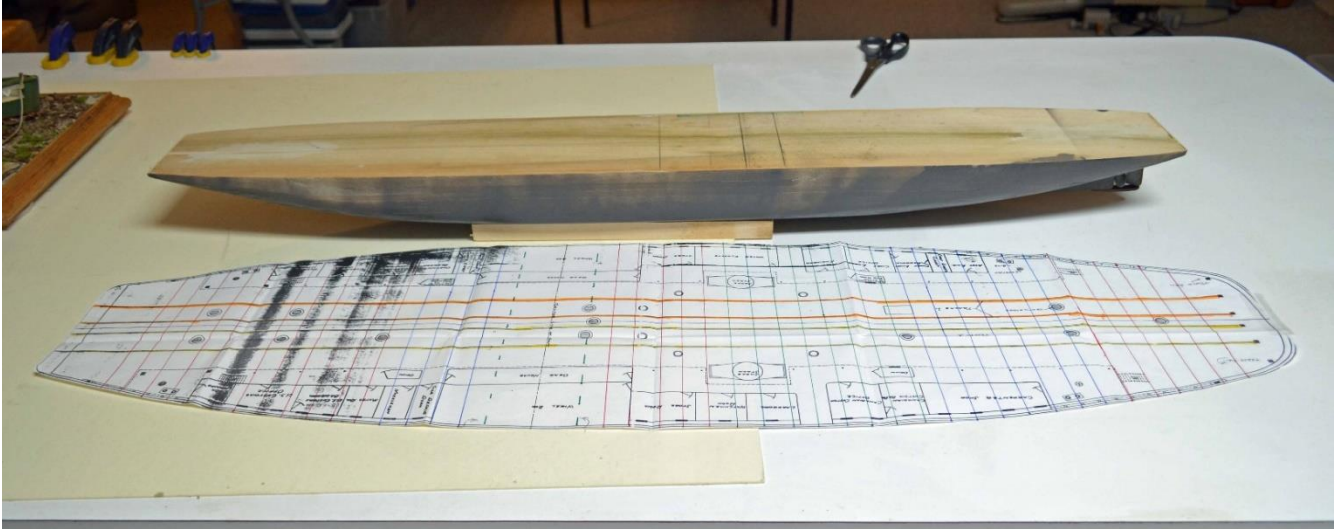
No. 15: Forward was a little easier and left unpainted at this time.



No.16: Completed and ready for Phase 2.

TRANSFER (II), 1888

The first steel hull among the Great Lakes car ferries



Phase 2 of the Build: The Main Deck.

Bill Strachan, October 19, 2022

F: Phase 1 The Build of the first steel hull