

Deck Clamps

Gary Bishop

Here is a ideal that maybe you can use, when it comes time to place your deck clamps inside of your ship.

First you must have three places marked on the inside and outside of the ship, one being at the Stem, one at the dead flat and if done as the Triton or Alfred with a deck transom , right below it which is were the clamp would sit when installed.

After you have your marks on both sides of the ship, make up some long strips of wood for your deck clamps, using wood that will finally become your clamps them self's.

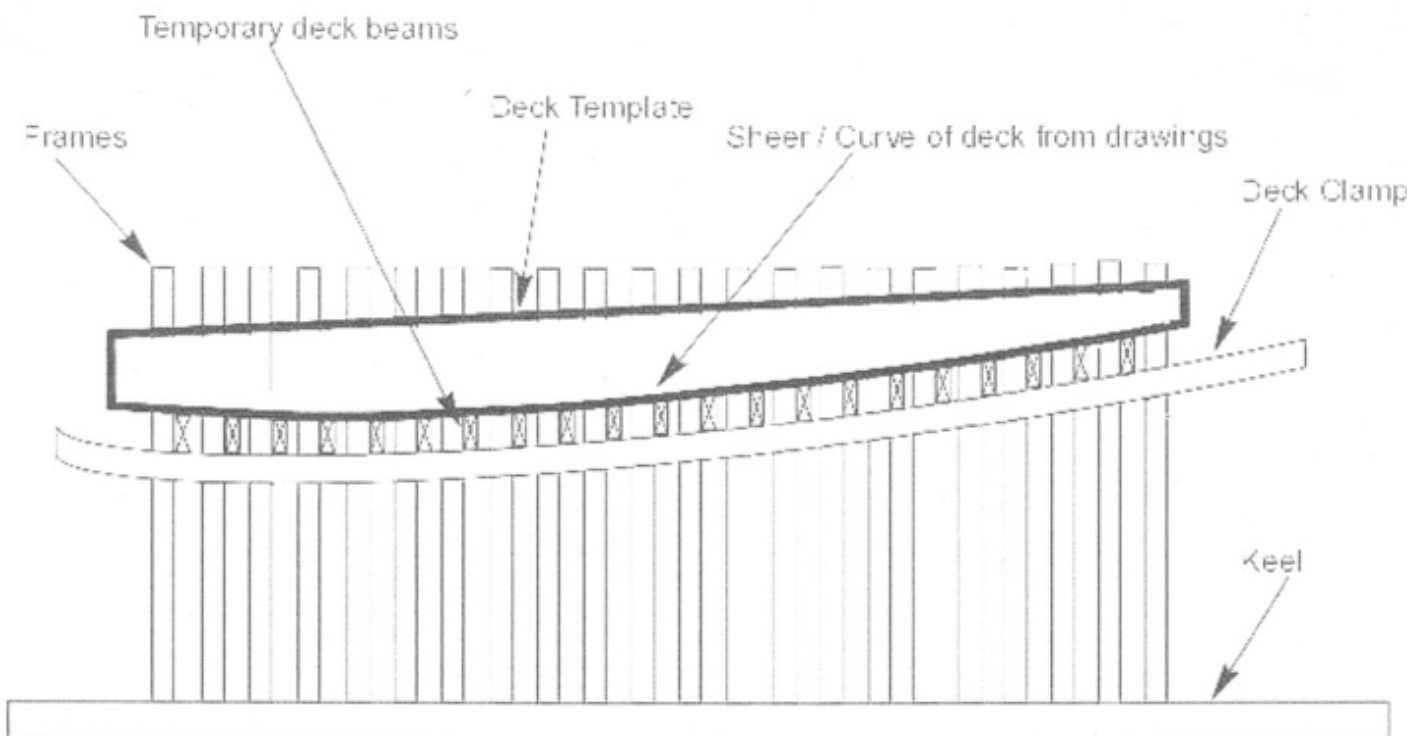
Now get your self, either a bunch of rubber bands or string or even copper wire, 18 gauge, which is what I like, and tie the clamp at those three points and loosely around the inside of your other frames to help take on the inside curve of your frames. You also could apply water and a little heat to the wood and bend it to the inside curve that it will have to take.

You may have to use the placement of were the first beam sits fwd on the clamp, to get the placement of the clamp right there, because of the way the hawse timbers are made.

Now you need to make up a bunch of thin pieces of wood that will fit between the frames, that will stick out, on both sides of the ship about a inch or so. You can make them any thickness you want, as long as they will fit between your frames and the height can be 1/4 of a inch, less if you like. Once you have all these strips made up, stick them through the hull, and for the moment leave them alone.

Now looking at your plan, look for the sheer of the deck, that long curve that one sees on the plans, that the top of the beams make from stem to stern. You have to transfer this sheer curve to a piece of thin wood or fiberboard, 1/8 thickness, and two to three inches wide. Take this piece and make it as long as the ship and add two to three inches to it.

Transfer your stations lines or joint lines of your bends to this piece and make sure you keep them as accurate as possible and square to this piece. Draw a straight horizontal line, even with the base line or the keel line, 2 to 3 inches above the sheer deck line, more if you need to and now you can measure down from this line to the top of the beams and transfer this to your two or 3 inch piece of fiber board. After you have all the measurement transferred, connect the dot's, cut the curve out, making two of them, one per side, keeping it as accurate as possible, because a bump or dip will be transferred to you clamps and this is not what we want. You can do it with one sheer template but two would be even better. Now that you have this cut out and using the station lines on the template, line it up with the station lines/frames on the outside, sit it on top of the wood sticking out the side of your frames, and now you can adjust you clamps up or down, to were they need to be. The pieces of wood sticking through the hull will either lift up the jig meaning its to high or will have daylight between the two showing that the clamp is down to far.



Once you have this adjusted just right, tighten up the rubber bands or wire clamps, which I prefer to use myself, to were the clamps can not move. Take out the pieces going across the hull, drill holes through the clamps in to the frames and

peg them in place with a touch of glue on the peg and your clamps are now installed at the right height, ready for the beams to be installed on top of them. If you do decide to use the wire you may want to insert shims between the wire and the ship pieces to keep from making little dings in the wood. Now if you still have more work to do, to your clamp, such as the placement of your scarf joints, or the leveling of the top of the clamp when it goes from a ninety degree at the mid ship to a 30 degrees at the stern, when you no longer have a flat surface for your beams to lay on, after you have drilled holes through the clamp in to the frames, untie it from the frames take it out to do what ever you have to. You can always realign it with pins, tie them back in place , tight up against your frames, insert pegs with a little glue on them and your done.

Now don't throw away those sheer templates. Once you start installing your beams, by sitting them on top of the beams, they will help you keep your beams from being to low or to high giving one a accurate sheer to ones beams, you just might have to trim the ends to get it to fit on that deck, and remark the beams on them, which isn't to hard since you already have station lines. Just measure out from the center line of ones beam's as close as you can get to the side on the most fwd beam and deck transom, making sure that the measurement is the same on both sides of those beams and this is were the sheer template will sit on both sides of your beams while you are installing and adjusting your beams. Sounds like a lot of work, but once you done it will saves one some major headaches trying to get them just right. Some will think, don't I need to put glue on the back of the clamp to hold it in place? No not really. Alfred clamps are not glued to the frames but held in place by trunnels/pegs with just a touch of glue on the tip of the pegs when they were insert in to the holes. Even then because of the number of pegs that were used, one or two per frame, the glue really didn't add any thing to it. Another benefit to this, if you messed up the clamp while installing it height wise, one only has to gently pried it loose from the pegs and readjust if needed, sanded off the pegs and start over.

© MSW and Gary Bishop 2008