Pearls FROM THE CHEST PLANKING (P35)

Some tips from members of the crew

SOME PLANKING TIPS, by HENRY BRIDENBECKER

1. Determine the size of dowels needed - the smaller the better - at 1/4" scale I use a #69 dowel, and a #68 drill. Make plenty of them!

2. Fastenings - one dowel for planks 8" wide or less. Planks 9" to 11" wide use two at every other rib and one between. Planks 11" or more wide use two at each rib. I use two dowels at each rib for 9" planks for secure fastenings. (Davis says four dowels at each rib, but at 1/4" scale it can become very crowded so make your own choice). The #69 dowel is less than 1/32" which is at 1/4" scale just slightly more than one inch in diameter, and still has strength.

3. Decide on the size and the number of planks needed between the bottom of the wale and the keel rabbet. Measure this distance at midship with a paper strip placed on the surface of the rib. Divide this distance by the number of planks you have decided to use to obtain the actual width of each plank at midship. Try for a maximum width of nine inches. The planks will become a little wider at the stern and slightly smaller at the stem, but the planks should not exceed much over 12" in width. If they should appear to be too wide increase the number of planks and divide again.

4. Lay out the run of the planking. Use 1/16" square battens. Pin the first batten to the midship frame at the turn of the bilge, and let it follow the natural sweep of the hull making contact with each frame; then pin it to every other rib. Now run another batten between the first batten and the keel, and another between the first batten and the under side of the wale. Use at least three battens on a 1/4" scale model. Now see if the battens run fair on the hull. Check from all angles, and rearrange them when necessary. Duplicate the final batten set up on the other side of the hull, and you will be about ready to start planking. Note: Drill holes in the battens for the pins to prevent splitting; one of the pins will serve as a drill bit. I also add a small touch of glue here and there to hold the pinned battens in place. (See Fig. 1)

5. Keep the planks to a maximum length of about 25 feet as in real ship construction. The advantage in doing so is great. The short lengths can be bent by hand to fit the curve of the hull in most places, and since there will be very little sheer curve the rough width of the plank stock will be much less than if the entire length for the hull were to be cut out of one piece.

6. Spacing of butt joints: 3 strakes between joints on the same frame or rib: 5 feet between joints on adjoining strakes; 4 feet between joints with one strake between. Make a simple sketch showing the location of each butt joint. Just draw horizontal lines numbered for each plank, and numbered vertical lines for each rib. This method will make cutting the planks to the proper length a simple job, and will avoid any error. (See Fig. 2)

7. Proportional dividers: Set for the number of planks needed between battens. Example: If six planks are needed set at six. For the second run set at five, etc.. Doing it this way will correct any small error of width automatically. Fit the first plank to the under side of the wale, and cut it to fit the stem rabbet. Mark a vertical line on the plank at the center of each rib. Use the dividers to measure the width of the plank at the center of each rib; holding the dividers with one point pressing slightly into the plank making a small dot. Do this at each rib, and then connect the points or dots with a straight edge using a fine pointed hard pencil. Now sand the edge to the finish line, and glue and dowel the plank into place. The garboard or bottom strake is made in the same manner. I find it helps to place a section of planking against the fitted edge of the strake which provides a firm resting place for the divider point. Work from the wale down, and the garboard strake up, and finish out the planking in the middle. This is the easiest place to fit the last strakes as the planks are nearly all the same width. It will be necessary to bevel the planks slightly at the curved section of the stem and stern to prevent a gap appearing between the strakes. This is easily done with a fine file and sandpaper. (See Fig. 3)

8. I use a piece of damp thick paper pressed over the last space for the final plank which when dry can be used for a template to cut the exact shape insuring a good fit.

9. Use small pins to hold amonia treated curved planks in place till they dry out. Be sure the pin holes correspond to the dowel holes to be drilled later on.

10. Stealers are used if the plank will reduce in width at the stem or increase in width at the stern by more than 1/2 the width of the average plank. Example: A 9 inch plank greater than 12 inches or less than 5 inches. (See Fig. 4)

11. Best tip of all. \Get a copy of Underhill's PLANK ON FRAME CONSTRUCTION Vol. 1. It will get you started the right way!

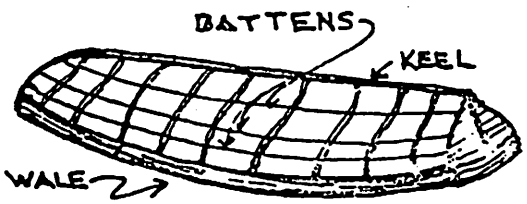

FIG. 1

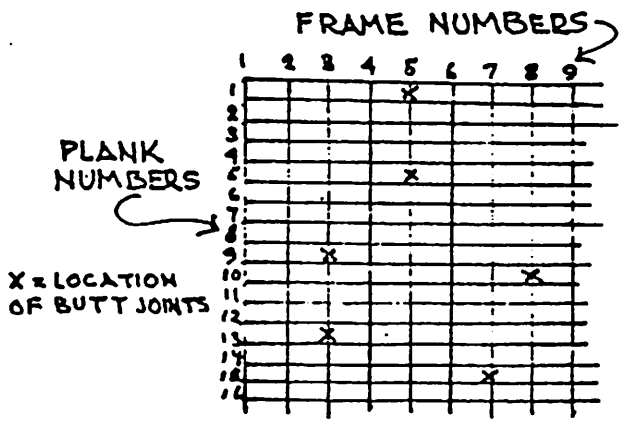

FIG. 2

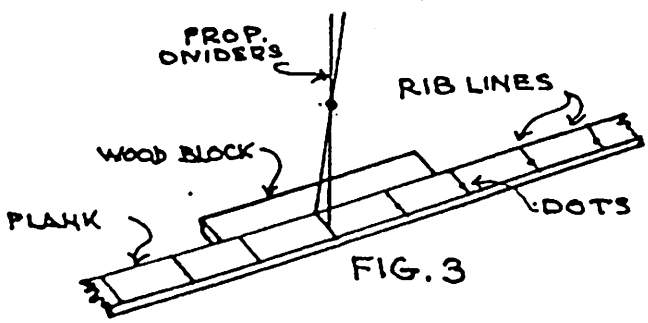

FIG. 3

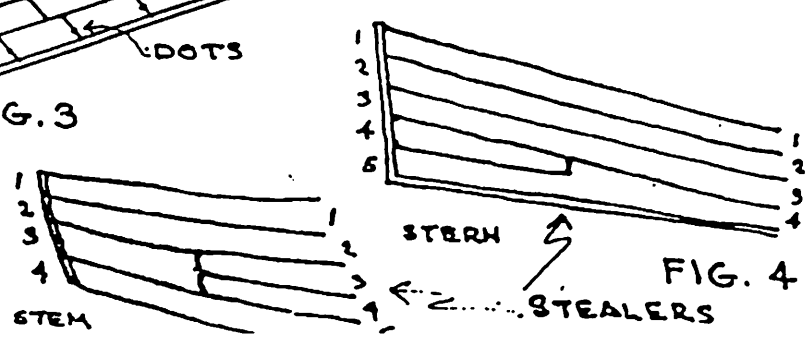

FIG. 4

H.W. BRIDENBE
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