



## TEAKDECKING SYSTEMS TEMPLATE MAKING INSTRUCTIONS

Full size templates are required for the production of TEAKDECKING SYSTEMS prefabricated decks and interior floors. The following technique will produce accurate templates with relative ease. The templates will be lightweight to benefit shipping as well handling during the manufacturing process. Please note, TEAKDECKING SYSTEMS builds according to the templates - exactly. For this reason, please carefully read and follow the instructions. We highly recommend that you **read these instructions, beginning to end before starting your project.**

The template making material should be dimensionally stable, easy to work, weather resistant, and capable of being bonded with hot glue. Through our experience, we have found 1/8" thick Lauan plywood (door skin) to be the best template material. You will need approximately 1 square foot of door skin for every 2.5 square feet of deck or floor area. As an example, a 40' sailboat with 380 sq. ft. of teak deck would require 5 sheets of 4' x 8' Lauan plywood.

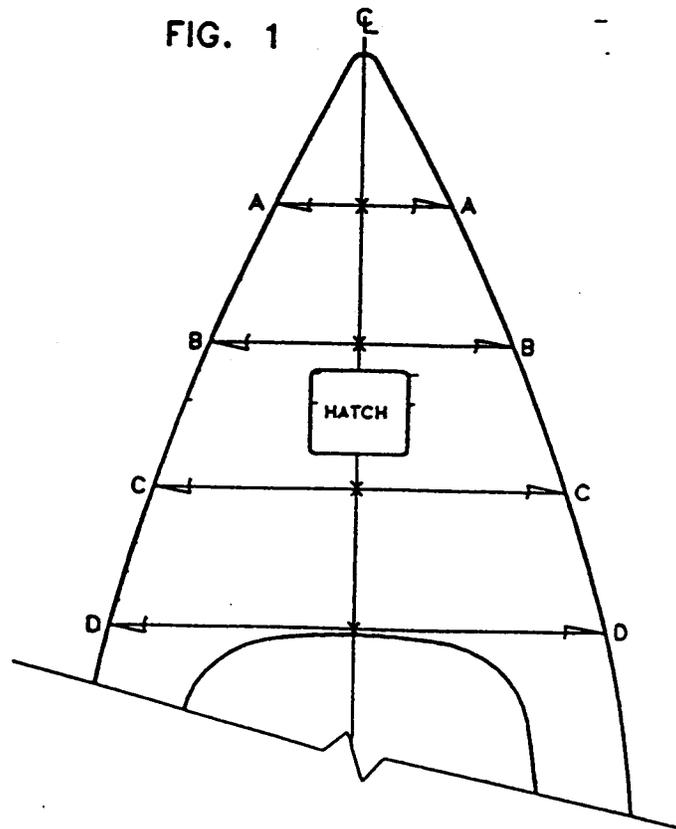
The following tools are recommended for template making:

- Hot glue gun & glue sticks
- Utility (razor) knife
- Small belt sander
- Jigsaw
- Scribe
- Tape measure
- Straight edge (minimum 4')
- Bevel gage
- Chalk line
- Sharpie felt tip markers
- Ballpoint pens
- Camera & film

**Before starting, take photographs of the deck. Accent hardware, hatches, existing trim, corners, steps, and any other special features.** In order to provide you with the quality that you desire it is extremely important that the technicians building your deck be able to completely visualize the area being covered. This will allow the technicians to make sure that your deck will be artistically, as well as technically, correct.

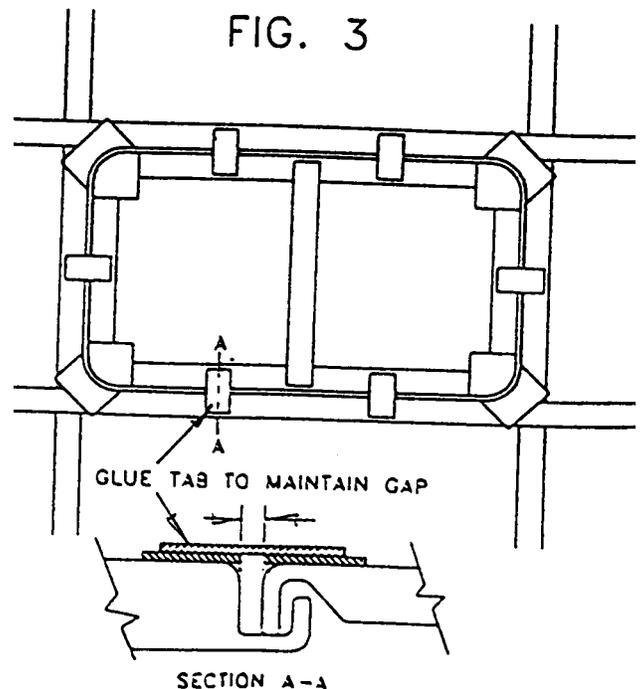
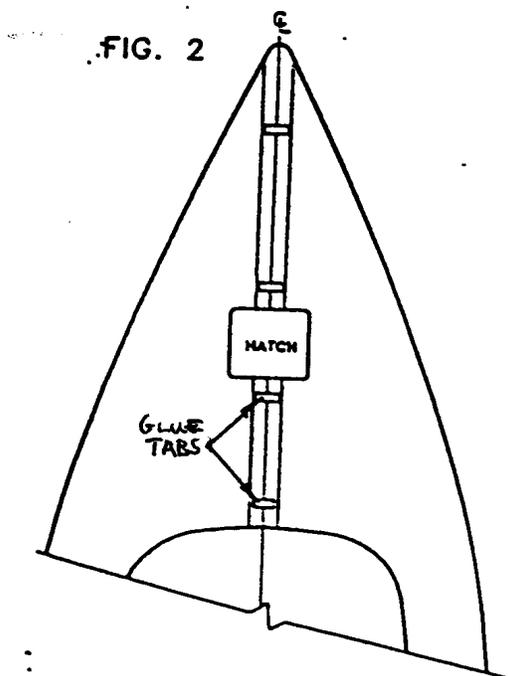
**STEP 1 - MATERIAL SIZE** – Cut most of the door skins into 2 ½" wide strips, the length of the sheets. Cut the remainder into 4" wide strips to be used for abutting sections of the templates and detailing corners and hatches. Jumping ahead for a moment to shipping the completed templates, an easy way to crate the templates for shipment is to edge glue and screw 1" x 4" or 6" wide wood around the inside perimeter of a 4' x 8' sheet of plywood, creating a tray. The sections of template are laid into the tray, and a second sheet of plywood is screwed to the top edge of the 1" lumber. With this in mind, it is important that the sections of the template are built less than 46 ½" x 94 ½", in order to fit into the crate.

**STEP 2 – ESTABLISHING CENTERLINES** – To achieve symmetry, most teak decks are laid out to the centerline of the vessel. For this reason, it is extremely important to carefully establish the centerline on the existing deck. In most cases, the templates should be split along the centerline. To establish the centerline, first measure from the stem, or front of the deck, down each side along the toe rail or bulwark, making marks at 3' intervals (*FIG. 1*). Next, measure the port to starboard distance between the marks (A-A, B-B, C-C, etc.). Divide each measurement in half, and make a mark at that half distance on the deck. Once all of the centerline tick marks have been made, connect them with a straight edge or chalk line, establishing the centerline of the deck. In some cases, this line will be different from the apparent centerline of the deck, delineated by existing hardware. Note the difference on the template, but use the centerline that you have just established for making the templates.

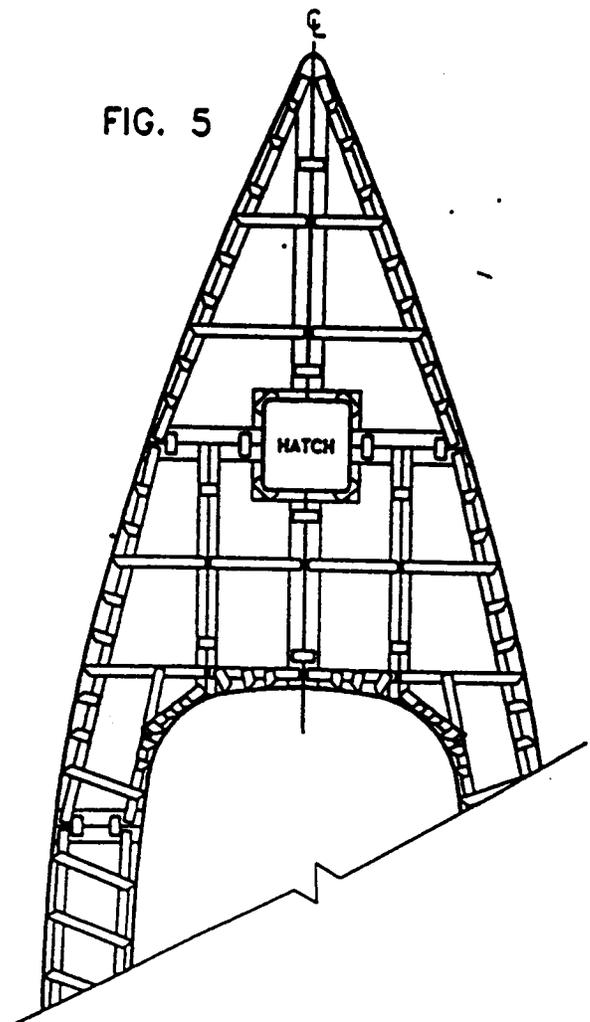
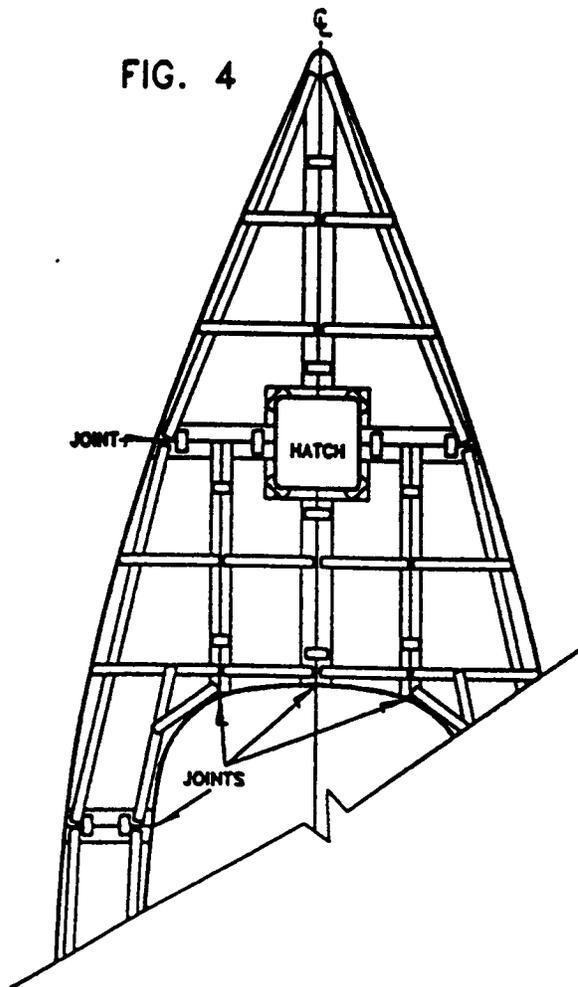


**STEP 3 – BEGINNING THE TEMPLATE** – Once the true centerline has been established, select two pieces of the 4" wide door skin that still have the factory edges. Butt the factory edges to each other along the centerline of the deck. To keep the 4" strips in place, put a drop of hot glue (about the size of a quarter) between the door skin and the deck at the front and back of each strip. Apply pressure for a few seconds while the glue cools and hardens. In addition, join the 4" strips to each other with several short sections of 2 ½" wide door skin called glue tabs (*FIG. 2*). To do this, put a quarter size drop of glue on the door skin strip on each side of the centerline; and press a glue tab into the hot glue, bridging the centerline. This will hold the centerline strips in place while the rest of the template is constructed.

**STEP 4 – HATCHES** – It is extremely important to very accurately locate hatches. Hatches should be templated as shown in *FIG. 3*. For flush hatches, the edges of the door skin strips around the hatch and the surrounding opening should be carefully aligned with the vertical edge of the hatch and opening, ignoring any edge radii. The gap between the section of template on the hatch, and the template surrounding the hatch should accurately reflect the gap between the hatch and the surrounding deck. Carefully glue tab the hatch section of the template to the surrounding deck template to precisely establish the gap on all sides. For raised hatches, the template should be made to the opening cut in the deck; and then be marked to show the outboard edge of the hatch's deck flange and corner radii. If the hatch sits on a boss, this should be noted and marked as well. If the hatch is not removed at the time that the template is made, make the template to the existing hatch and then note on the template the amount that must be added to reach under the flange. This will ensure that the proper width trim is revealed once the hatch is reinstalled. If the hatch is hinged, check to see if there will be any clearance problems opening the hatch once the teak is installed. If so, note the problem on the template along with any information and extra photos. See Step 7 for further information.



**STEP 5 – LINEAR LAYOUT** – Beginning from the centerline strips, start laying strips out and hot gluing together in a grid as shown in **FIG. 4**. If you have a square cockpit, refer to **FIG. 9** for strip layout. Strips should be spaced no more than 2' apart. In laying the template sections out, be sure to keep the size of the crate in mind. Wherever template sections join, butt strips together as on the centerline and glue tab together. In order to keep the template from moving during construction, it may be necessary to occasionally spot glue it to the deck as the centerline strips were. On decks with curved edges, strips should be located near the edges to support fairing point tabs, which will be added in the next step.



**STEP 6 – FAIRING POINTS – SEE FIG. 5.** Once the framework of the template has been assembled, it's time to add the fairing points. Fairing points are made by cutting an angle on one end of a short length of 2 ½" door skin. Leave a blunt point in one corner. The fairing point tab is glued to the framework with the point placed against the cabin side or bulwark at the height that the top surface of the new deck will intersect the cabin side or bulwark. If the cabin side or bulwark has any rake, it is important to shim the template up to the height of the finished deck surface before installing fairing points. This will insure that the deck is large enough once installed. If the cabin side or bulwark intersects the deck at anything other than 90°, mark the angle on the template. If the angle changes along the side, measure the angle at regular intervals with a bevel gage, and mark it on the template adjacent to the measured angle. Fairing points should be located no more than 12" apart – closer for tighter curves.

Another way to make the fairing points on long, narrow side decks is to cut the fairing point strips slightly longer than the deck is wide, with a diagonal point on both ends - see walkways in **FIG. 5**.

If the deck is to have a waterway between the cabin side or bulwark and the edge of the teak deck, still make the template out to the cabin side or bulwark at the height of the top of the teak. Then mark on the template the width and location of the waterway to be deducted for. In cases where there is an extreme angle between deck and bulwark, also mark the intersection of the deck and bulwark on the template. This will insure that the waterways are correctly laid out.

**STEP 7 – CORNERS** – Although fairing points work well for large sweeping curves; it is better to use solid door skin for corners and tight radii. Scribe the corner onto a piece of 4" wide door skin. Cut and sand to the scribe line with a utility knife or jigsaw and small belt sander - glue it to the template framework. Large radii may require several pieces of 4" door skin to include the entire curve.

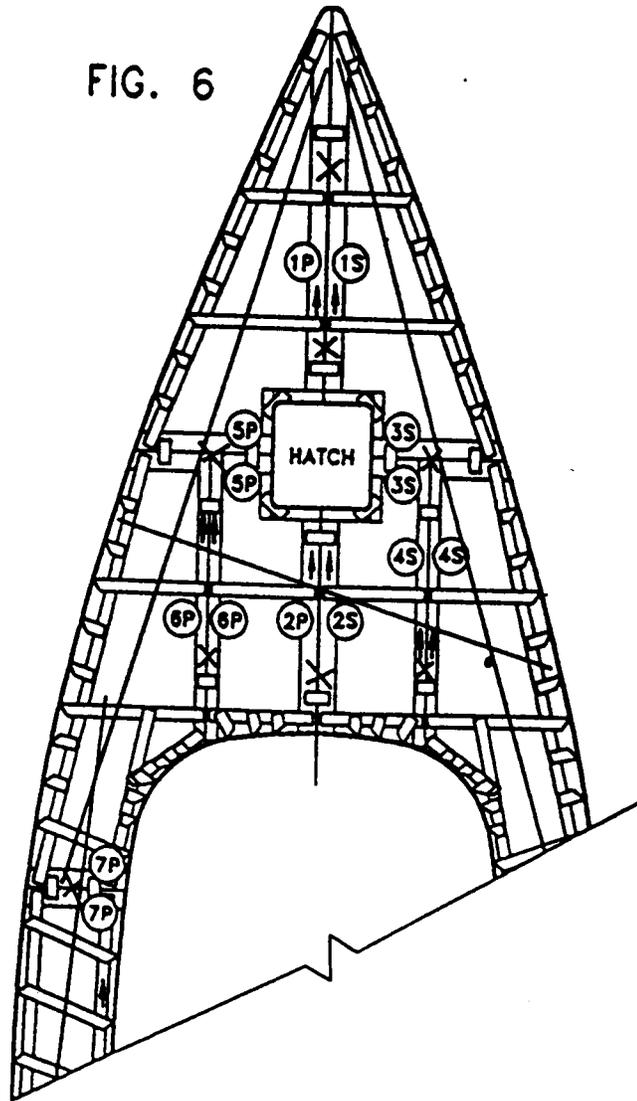
**STEP 8 – LABELING & ALIGNMENT LINES – SEE FIG. 6-** In order to accurately reassemble the template once it has been removed from the vessel, the sections must be labeled and alignment lines drawn. Wherever sections of template meet, using a ballpoint pen, draw several long XX's across the joint with the intersection in the center of the X to one side of the join line.

In addition to the X's used to align the edges, use a chalk line to establish long straight reference lines on the template. This is particularly important down long, narrow side decks or walkways. The full-length, straight reference lines will insure that the deck is built to the exact curve of the boat. If the camber of the deck prevents the chalk line from contacting the deck over its full length; carefully push the chalk line straight down to the deck and mark its position on the template. Because the chalk will rub off, remark the chalk impressions on the template with a long straight edge and ballpoint pen. If the deck changes level (steps up or down), mark a reference line in the same vertical plane on both the upper and lower sections. (See the STEP section for additional information required at

steps.) Also, give long line-up lines where adjoining decks meet through a companion way or threshold.

In order to know which section goes where, using a sharpie felt tip pen, mark the sections on each side of the join lines with 1S-1S, 2S-2S, 2P-2P, etc. The S and P indicate whether the template is from the starboard or port side of the boat. On multi-level yachts, please indicate which deck, i.e., cockpit, bridge, etc., the template pertains to. On each section of the template clearly write the name of the boat. It is also helpful for reassembly to draw an arrow on each section of the template pointing forward. Clearly label hatches, posts, seats, and any other significant objects. Finally, write your name on the template so we know whom to ask for if we have any questions.

FIG. 6



**STEP 9 – FINAL** – Once you think that you are done, step back and look the template over. Make sure that you have detailed every aspect of the deck. In addition to the labeling mentioned above, add any notes that will help guide the technicians in building your deck. The more thorough you are, the better the job we can do for you. When you are absolutely sure that your template and notes are good enough to build a perfectly fitting deck a thousand miles away; **take another set of photographs with the templates in place.** Again, capture all of the corners, hatches and details.

Once the photographs have been taken, remove the templates and crate them for shipment. Cut the glue tabs apart where the sections are joined. Work a putty knife under the template at spots that are glued to the deck and work loose. In crating, make sure that the templates cannot slide around. Screw them to the crate, or add padding as necessary. If you are shipping the rolls of film with the templates, place them in an over-sized envelope and clearly mark on the envelope that film is enclosed and what boat it is for. If you have any questions before or during these procedures, please feel free to contact us. We are here to service our clients.

## STEP TEMPLATE MAKING INSTRUCTIONS

See the beginning of the deck template instructions for tools and materials. Like the deck, take photographs of the steps before beginning. Take at least one shot from the top of the stairs looking down, and another from the bottom, looking up. In addition, capture any other details that may be useful in building the step treads.

**STEP 1 – GENERAL** – The step templates must be made at the height of the top surface of the finished teak step treads. Shim the templates up to the desired height by stacking small pieces of door skin under the templates. Using the 2 ½" wide Lauan strips, make a frame template as shown in *FIG. 8*. If the riser or adjacent bulkheads are curved or irregular, be sure to scribe and fit the edges of the template to fit the surrounding vertical surfaces exactly. Make the template to the full size of the tread, ignoring any deductions for waterways or edge radii. Note these deductions on the template later.

**STEP 2 - OPEN EDGES** – Typically, the open edges of the existing steps are covered with bullnose trim that laps down onto the vertical face of the riser or exposed side of the step. In making the template, ignore any edge radius the step may have and make the template to the vertical projection of the riser, and of any exposed side(s). If the riser or exposed side joins the tread at an angle other than 90° to the step tread, make a template of the angle (*FIG. 7*). If the steps are of an open ladder design, note on the templates the thickness of the exposed step edges that must be covered with teak bullnose. This will allow us to make the vertical face of the bullnose trim tall enough to cover the edge.

**STEP 3 – LABELING** – Starting with the bottom step, number the step templates along with the number of steps in the set, i.e. 1 of 7, 2 of 7, etc. In addition, draw an arrow on each template pointing up the stairs. It is also helpful to note on the templates which template is the top step, and which is the bottom. Write the name of the vessel on each template, as well as where in the vessel the set of steps is located (e.g.: aft deck to boat deck). Mark which edges of the step are to have bullnose trim. If the steps are to have a waterway, denote which edge(s), and how wide the waterway is to be. Finally, initial the templates so we know whom to contact if we have any questions.

**STEP 4 – FINAL** – Once you think that you are finished, step back and look the templates over to make sure that you have not forgotten anything. Before removing the templates, take another set of photographs with the templates in place.



FIG. 9

