



T34C Tech Articles & photos

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Reconstruction of Interior Cabinetry

See Appendix C for enlarged Boom Conversion images

Reconstructing the Interior Cabinetry



Photo 1

Wide Open Spaces



Photo 2

Fitting the Bottom Shelf



Photo 3

Framing the Shelving

The level of fit and finish of yacht joinery has always been of paramount importance, in my view, when assessing the aesthetic appeal of a sailing vessel. The caliber of joinery, as well, plays a significant role in the structural integrity of the whole boat. Naturally, I have set out a fairly comprehensive plan to update and rework some of "Temujin's" joinery. Additionally, I needed a kind of "toy box" for some new entertainment equipment. After sketching out some ideas, the first step was to, one day, take the façade off the port side cabinet and see what there was to see. It was very easy to remove.

Well, I discovered that the port side cabinet was actually a closed box made of plywood and fiberboard nailed together and screwed in place with 4 screws both to the forward bulkhead and to the aft bulkhead in front of the chart table. That was all. And, what's more, there was a significant amount of unused space behind, over and around this box. Moreover, I found that without this box, it was possible to get to the underside of the deck, the hull to deck joint and the tabbing around the bulkheads. So, the box, which was surprisingly heavy, went into the trash, as did the box from behind the cabinet façade on the starboard side. The box behind the galley went too!

Furthermore, what was revealed was a fairly large expanse of unsupported hull on both sides. So, I set out to restructure the interiors of the cabinets to permit the shelves and bulkheads to both support the hull sides and expand the available space.

Photo1 shows the exposed hull on the starboard side. On each side, I fashioned a bottom shelf to replace the bottom shelf in the original box. In doing this it is important to replicate the curvature of the hull. * So, I constructed a "seat-of-the-pants" table of offsets using a 1"x1" piece of stock to serve as the front edge of the shelf and then, with marks every foot, measured the distance from the edge to the hull. These measurements were then transferred to the shelf plywood and, using a flexible batten (a long mainsail batten worked fine), a curve was marked and cut. Minor adjustments were made to account for the 3/8ths plywood strips used to



Photo 4

The Toy Box



Photo 5

Fiberglass Tabbing



Photo 6

Ready to Sand and Varnish

attach the teak ceilings underneath the shelf. Then using cedar, teak or mahogany 1"x1" cleat stock, screws and glue, I attached the bottom shelf to the fore and aft bulkheads.

Photo 2 shows the shelf in place. (It is best practice to drive screws from plywood into hard wood rather than the other way around. If you find this is difficult when using white oak or teak cleats, you can slide the screws through a bar of soap. This will make the screws go easier. Of course, if you sink, your cabin will fill with bubbles.)

Then the bottom shelf is fiberglassed** to the hull sides to double as a hull stiffener. Photo 3 shows the framing out of the rest of the shelving. Then the shelves were glassed in place. Additional glass was applied to the main bulkheads and secondary bulkheads*** as well. Photo 4 shows the additional cabinet, the "toy box", fashioned from a door bought at Bacon's, in Annapolis, and a 2x2 piece of teak faced plywood. This makes a nice dry cabinet. (The door was made in England for a custom Carter 46. The hard part was matching the door's delicate molding with the frame in the bulkhead.)

Photo 5 shows the framing and glassing of the starboard side. And Photo 6 shows the finished cabinet with the original façade back in place. (Before putting the façade back in place, the entire interior of the cabinet was painted with Interlux Brightside Hatteras White # 4218, the same creamy white as the headliner.)

It was not my intention to significantly modify the configuration of the cabinetry except for the "toy box". I actually like the arrangement of half sliders and half-open cabinets, using bungee chords for retainers. This kind of cabinet makes it easy to grab things that you might need in a hurry like potato chips or moon pies.

Then, when everything was put back in place, the façade of each cabinet was glued, screwed and bunged. So that the old style screw heads are no longer visible. This little bit of extra finishing gives the interior joinery more of a quality look without all those exposed screws. Besides, now that the underside of the deck is readily accessible, it is no longer necessary to remove the cabinetry fronts. The cabinets are now integral to the overall structure of the boat, and contribute to the stiffness of the hull and deck.

And, the bonus from all this work is that the cabinets hold about 30% more than before, are lighter by about 25%; and, look nice to boot.

Finally, a program to refinish and varnish the entire interior will ensue. I saw a very nice approach using hand-rubbed effect varnish on all large flat surfaces accented by high gloss varnish on trim cabinetry and molding.

It looks very nice, indeed!!

*Note: The original cabinet liner box was cut straight and did not conform to the curvature of the hull. Thus by eliminating the box and following the curvature of the hull with the bottom and middle shelf the gain in usable space is significant.

** The fiberglass schedule consists of chopped strand mat and 24 oz woven roving wetted out in layers up to 6" out from the center. Laminating resin is used and then the final layer of finishing cloth is wetted out with finishing resin. By way of chainplates etc., where extra strength is needed, mat and roving is laminated to 12" from the center. At least 3 layers are generally acceptable with each subsequent layer being wider than the previous one starting with 2"-3" on each side. Schedules and standards are set forth in "Skene's Elements of Yacht Design" by Francis Kinney.

***Note: A significant amount of extra fiberglass roving and mat are applied, as described in the note above, to the bulkheads comprising the galley/salon starboard bulkhead and the new bulkhead forming the forward side of the "toy box". These reinforced parts will be the anchors for chainplates used for running backstays.

Appendix C – Cabinetry images





