

# LIFE'S TRAVails Gets a New Flybridge Enclosure

When we bought Life's TraVails (a 1985 DeFever 44 sundeck) about 2 years ago, we knew the flybridge cover needed to be replaced. The canvas was in fair shape (pictured right), but the frame was poorly designed, requiring holes in the canvas to go around the supports (which created leaks) and it was not as sturdy as we would have liked. But we didn't understand in what poor shape the Eisenglass was until we encountered our first rainstorm and found we could not see through it when it was wet. That moved a new enclosure up on the priority list and we started the process of figuring out what we *really* wanted.



We went into the process thinking we knew what we wanted – a full enclosure over the existing, or similar, frame. As we looked at how it could be more “user-friendly” and weatherproof, we figured out a few things. One was that the windshield was serving no purpose, other than creating a dead space from the top of the windshield down to the brow (which was nearly impossible to clean). We also started questioning if we really needed/wanted a full enclosure. So we walked the docks, searched the Internet, and asked advice from the DeFever forum members to help narrow down the design.

After considering the options, we decided to start with a new frame. We also decided to make one change that might seem a bit unorthodox to some - to remove the windshield and bring the enclosure to the very top of the brow, just below the teak cap (which we had not seen before, but turns out was not an original idea). We had also seen several enclosures we liked with a “visor” on front to create a bit more shade while cruising. The plan was coming together.

We already knew who we wanted to do the canvas work. We had met Steve and Nancy Schrimsher when we looked at Salty Turtle, their DeFever 44, a few years prior. Steve and Nancy run Schrimsher Yacht Canvas in Stuart, FL. We really liked their canvas work (and their boat, but they sold it before we could get our act together). So we got on their calendar and headed for Stuart. Since we knew we were likely talking a new frame as well, we asked Steve to recommend a frame builder. A couple of days later Steve and Jeremy, from Harper Fabrications, came aboard for a design session.

The biggest question was the frame. We really liked the canvas being wrapped around a top frame and tied to the lower bar, with the sides hung inside the frame. But we were not thrilled with the typical 2 horizontal rail arrangement with the canvas coming over the top rail and tied to the lower one. To us, the look was too boxy. So we modified the design a bit and moved the lower bar in and up to be welded to the top cross-members, with the canvas wrapped around under the frame (pictured right). An engineer friend reviewed the design and determined it is actually stronger than the typical upper-lower bar arrangement because it has 2 horizontal pieces welded to the cross-members instead of just 1. The design did create a bit more work on Steve's end because now the corners were compound curves requiring more planning, cutting, and sewing.



Once the basic design was set, Jeremy started bending and welding. The outside horizontal frame and the cross-members are made of 1¼" aluminum tubing with an additional 1¼" piece about 5" in to support the canvas rail. An additional 1" tube (to attach the side curtains to) is welded about an inch in. Uprights (1½" tubing), are mounted to the side of the brow along with a 1¼" tube across the top (for future solar panels).

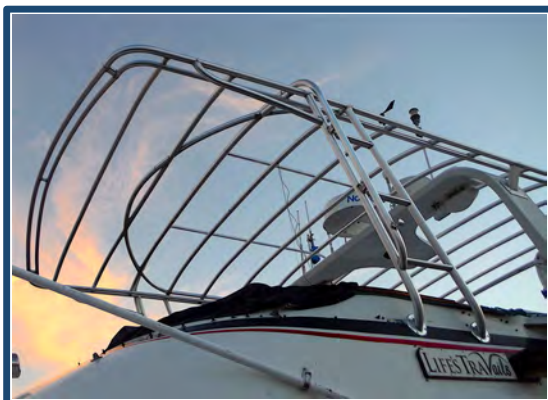
With Jeremy hard at work in his shop, I went to work on the radar arch. I removed the old canvas track and an obsolete TV antenna. I then removed and reseated everything on the arch before filling over 200 holes (yes, I counted them) from old tracks and whatever was once mounted there. When the old canvas was removed, it revealed a large crack on the corner of the arch (pictured right). The arch was originally made in 2 pieces, the top as one and the bottom and sides as another. There was a separation about 18" long between the 2 pieces, both fore and aft along the curvature of the arch. A little grinding, some fiberglass (and some filler), and the arch was ready to be painted before the frame was brought onboard.



The forward section was made in the shop and then set on a 2X4 frame to be mounted (above right). With the forward uprights in place, the next and most difficult attachment was to the arch (pictured left). It had to be spot-on so the rest of the frame would be square to the boat...that isn't square. The advantage of the frame being wider than the arch is that the entire frame is outside the enclosure and the canvas hangs on the inside. The rest of the welding was done in place on the boat, and

Jeremy didn't burn one thing! I worked with Jeremy as his helper (he said I was helpful *most* of the time, but he never let me weld anything). Being the helper turned out to be beneficial when design decisions had to be made, like exactly where to mount the uprights.

One of the really nice things Jeremy did, without even asking, was to create a wire-way throughout the entire frame. Every tube intersection has a hole inside so wires can be run most anywhere within the frame. I used these holes when I mounted 3 LED lights in the cross-member over the driving station. I was able to run wires through a 3/8" hole I drilled in the cross-member, across the flybridge, down the upright, into the brow, and over to a switch mounted on the dash.



Now that the frame was done, including the tube to attach the canvas rail (curved rail in picture left), it was Steve's turn to play. At Steve's suggestion, the tube for the forward canvas was set back 6" to give the front of the enclosure some slope. His first project was the top, both fore and aft of the arch. The canvas is attached to the arch with a rope rail to reduce leaking, then stretched around the outer rail and tied. Both sections have a sleeve wrapped around the center cross-member to reduce flapping in the wind. Once the top was installed, the rope rails were installed all the way around the area forward of the arch. Into that rail was

installed a piece of canvas about 2" high with the rope strip on one side and a zipper on the other. Then came the task of measuring the side curtains, and for that, Steve had a new toy.

Steve arrived with a tripod, an iPad, and his new laser-fit measuring instrument. He mounted the instrument in the middle of the flybridge and started taking measurements along the lines where each section of the enclosure would go. The instrument shoots the laser at a target (insert), recording a series of data points to build a “map” of each section of the enclosure. The data is then taken back to his shop where it is loaded into a device that sits on a table about 20’ long and 6’ wide which draws the pattern on the canvas. It was interesting to watch the process, especially since ours was the first boat he used it on. And it came out great!



The overall design has a 4’ wide center window which can be zipped open from the bottom and folded (not rolled) up and attached to the frame above. The 2 adjacent windows are what Steve calls “frowns,” which zips down from the top and rolls along the brow cap. The window can be opened at just the top, and with the 24” overhang/visor, will allow ventilation even in a considerable rain. Both sides have very large windows which open and also attach to the frame above. The system he used to zip the sides of the enclosure in allows for very quick removal if needed, plus it allows us access to the side deck next to the arch where our scooter is mounted (insert below).

The enclosure is made with Stamoid, a vinyl with a smoother feel than canvas. The top is white on top to reflect the sun and blue on the bottom to reduce glare on the flybridge. The side trim is also Stamoid, but blue on both sides. The windows are made of O’Sea (a replacement for Eisenglass). It is so clear you can hardly tell if the window is open or closed.

Overall we are extremely happy with the end result, even though it took, through no fault of either Steve or Jeremy, about twice as long as planned. Now...we can’t wait to get moving again and enjoy it.

