

Better Than Original

A Cobra Restoration Project by Steve Spinharney

There is nothing more enjoyable than finding a new wood boat restoration project. We envision our project boat as it will be when it is totally restored. A pristine, glistening boat, screaming across glass like waters. Alas cold hearted reality sets in when you get home and ask yourself, "Have I bitten off more than I can chew?"

All across the nation there are a multitude of classic boat associations and clubs. Within these groups, we have a limitless pool of talented people that possess a technical expertise in boat restoration. Our club, Classic Boat Club of Oklahoma (Now Heartland Classics Chapter of ACBS), is made up of those individuals, who are willing to donate their time and knowledge to other members in any way they can. I look forward to our meetings when we can all convene and discuss our current projects.

Some members have been lucky enough to have acquired "turn around" projects, while others like myself are just now seeing the light at the end of a very long tunnel. Yet, I wouldn't be where I am if not for our Oklahoma boat club.

The dilemma created by my project boat is not a wood related problem. That's not to say that I didn't have wood related problems! Please! But that's another story. As most Chris Craft devotees know, the Cobra has a mahogany wood hull and a fiberglass fin and hatches. When I brought mine home, it took five trips with a pickup truck to bring all the pieces home. This would be no turn around project.

The previous owners had taken little care in what they did with all the parts and pieces. The boat's fin and hatches were in terrible condition. A half hearted amateur attempt at restoration left the fin partially sanded with an electric drill sander. The hatches were chipped and cracked, and had areas of delamination. I had a plethora of hard to fix, overwhelming problems.

I first met Dan Diehl, one of our Oklahoma club members, several years ago. Through years of attending club events and shows, we became friends. Dan had shown an interest in my restoration project and offered to help me with my fiberglass problems when I was ready.

It just so happens that Dan owns a company that produces just about anything that can be made from fiberglass. Diehl Aero Nautical is a fascinating place and is

located just outside of Tulsa, in Jenks, Oklahoma. Dan and his father, Tom, manufacture airplanes, two man air boats, mock up parts for the space shuttle, mock up full scale cockpits for passenger planes used in the flight simulator industry, oil drilling equipment, you name it! They can make it! I feel like a kid in a candy store when I'm in their production facilities. I have to make a conscious effort to stay out of the way and not ask too many questions.

John Wayne, (not the actor, but Dan's right hand man and just as talented I might add) took over the restoration of the fin and hatches, with Dan's guidance. I knew this part of my Cobra restoration was in good hands, with the quality of work produced by Dan and his crew. In a humorous way, I couldn't help but compare the vision of John wearing a white protective suit, goggles and a respirator mask to a doctor performing life saving surgery. Dr. John did a fantastic job of bring the three sections back to life.

Before starting, Dan and John tried to assemble the three sections in order to get a visual reference. They didn't fit, due to forty plus years of wear and tear, and the warping of the hatches due to the fin, truing up the shape of the hatch. With the hatches in line, they were strengthened, then removed from the fin.

Our feeling of elation due to our accomplishment was soon diminished as other problems with the fin became apparent. Originally, the fins was made in two pieces. Now, the seam of the two pieces was so thin you could see a gap line. Our solution was to fill the gap with epoxy, then lay a fiberglass cloth over the seam for stabilization and to blend away any imperfections. The fin's outer layer had also separated from the inner foam core, revealing hollow areas behind the Chris Craft emblem. John was able to resolve this by drilling holes, injecting epoxy and clamping. The hole for the fin's light pole had large chunks missing. Using an old syringe to simulate the light bezel, a fiberglass pipe was put into place to reinforce the hole. The underside of the hatches where the safety cable was to be attached was stripped out. A fiberglass matting was applied to build and strengthen the area in order to reattach the cable. One side of the hatch had been shortened, in what was assumed to be the solution to the improper fit of the raised hatches. This was solved by adding and feathering ½" of fiberglass matting to the shortened side of the hatch.

Finally, all the stress fractures had been stabilized and the ends had been straightened. No longer able to use fiberglass resin, John did a splendid job of smoothing and straightening the surface using Bondo. Yes, I did say Bondo! When used in the right applications by someone knowledgeable in it's attributes, Bondo can be a very good thing. White gel coat was then sprayed over the entire surface of the hatch and fin.

We could have applied the gold paint at this point and been finished with this part of the project, but instead decided to take advantage of their expertise and make quality molds of the fin and hatches. As far as I know, this is something that had never been done by any other Cobra owner, and as something Dan and I had wanted to do from the beginning of the project. We just hadn't planned on it taking us so long to get to this point.

I had always been intrigued by the process of making molds, so actually having the opportunity to observe the process was exhilarating. Fiberglass has undergone a lot of technical changes since the change over in boating from wood. In the beginning, the U.S. government controlled the fiberglass process. Today's fiberglass production, techniques, resins and tools are far superior to those of the early 1950's, when Chris Craft was just starting to experiment with this interesting new idea. Concurrently, Chevrolet came out with their innovative new car, the Corvette. I was told an interesting story about Chris Craft, the Corvette and fiberglass. (The validity of which I can not attest.) It is said that a new Corvette was in an accident a few miles from the Chris Craft plant. Hearing about it, the engineers left the factory and rushed over to see how Chevrolet made the car's body. Taking pieces back, they were able to analyze them and determine how they were made.

In its infancy, the process of fiber glassing was full of imperfections that needed to be corrected, which required intensive physical labor to insure the parts produced were identical. As technology has advanced, so has the process of fiber glassing.

My fin and hatches were now being prepared for the molding stage at the Diehl plant. By first applying a layer of Quick Reliance wax, the removal of the mold from the original part would be made possible. Next, a special dark blue mold epoxy gel coat resin was sprayed over the parts, that was to become the new slick surface of the mold. At this point it is important to remember that when a mold is made, everything is in reverse. It was explained that the purpose of the dark blue coloring was to enable the craftsman to see air bubbles, that would need to be rolled out before it setup. The color also was used as a point of reference in gauging the thickness of the piece to be remanufactured.

Two additional technicians at the Diehl plant, Randy Sandridge and Dave Jones, worked on this part of the mold. This is where their precision like team work came into play. Speed is a necessity as the resins are starting to create a chemical reaction and heat is generated as it cures. The more resin that you spray, the faster it will set up. Air temperature, as well as humidity can also become factors in the curing process. The molds must also be thick, as the thickness provides the strength needed in order for it to keep it's shape. However, if applied too thickly, fiberglass has a tendency to shrink, become deformed, and get too hot, ruining the part. The technique of applying the fiberglass in layers has provided the strength and uniform thickness needed for a quality mold.

Used in the industry for years, Dan Diehl's shop has what I consider to be a remarkable fiberglass spray gun. The gun sprays out the resin and simultaneously shoots a continuous string of fiberglass onto curved or straight areas. This process combined two steps into one, and has proved to be an incredible time saver. The head of the spray gun feeds fiberglass rope from a spool that is located on the floor, pulling it through and then cutting it to the desired length. After the fiberglass is cut it is spit through the air and mixes with the sprayed resin at such a speed that it becomes a blur. As it falls through the air it becomes twisted and falls in different directions onto the part; thus the random pattern of the fiberglass stands.

Having an opportunity to personally observe this process was invaluable. Once a layer has been applied, the team goes into action with their rollers, pushing the fibers together and saturating them with resin, in addition to pushing out all detectable air bubbles. This process was repeated until two layers had been applied. The mold was then left to cure for a week before the parts were removed from the newly created mold. Just as originally produces by Chris Craft, it took two molds for each part. The new molds were slick and beautiful.

The process of finishing the parts began with John ruffing up the surface as it was too slick to hold paint. Applying the gold paint provided an obstacle of it's own. The metallic gold paint was heavy and had a tendency to slide on vertical surfaces. John said that this paint had a ton of metallic flakes, and was one of the hardest paints he has ever applied. Sanding between applications, John applied coat after coat of the "Paint from Hell." I'm not sure which one of us was happiest to see this project come to a close.

Dan Diehl has numerous plans for the new molds. The first option is of course, for the use in restorations. The fin is the same for both the 18' and the 21' Cobra, but the hatches will only fit the 18' model. So if you need a new fin, a hatch or two, or all of the above, Dan can make one for you. Another possibility he is considering is to make a "Fin and Hatch" entertainment bar for lake cabins or homes. The fin would be positioned above the hatches against the wall. The hatches would swing out to reveal the inside where the glasses and alcohol are stored. The uses would be endless whether they were used horizontally or vertically, a TV cabinet, a recreation room closet door, your imagination could be the limit.

The quality workmanship and knowledge that Dan and his craftsmen brought to this project will always be deeply appreciated. I know that no matter how hard I worked, I could have never obtained the results of perfection that I wanted, that they were able to skillfully provide. Having the opportunity to observe and be involved in the process was like the icing on the cake!!

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