The Restoration of Ensign #114 Windcaller

Background

Back in 2010, Dave Miller and Bruce Blackie (that's us) had completed some restoration projects on our beloved Ensigns, and mused how it might be challenging and enjoyable to do a joint extensive restoration project on a bargain basement priced Ensign should one become available. In November, we learned that #114 was available in Canandaigua, NY at a "how can we possibly pass up this opportunity" price. Thus was the start of an Ensign restoration that extended over four summer seasons. As we lacked any inside facilities, all of our work was outside and weather dependent. Simply stated, our goal was to see what was required to restore Ensign #114 to a like-new condition, and then do it, which is probably the definition of "mission creep". When finished, we were very pleased with and proud of our final product.

In May of 2015, with our work completed, #114 was purchased by a club member who named their Ensign Windcaller, and actively sailed the boat at SLSC. In 2021, the boat was generously donated to the Saratoga Lake Sailing Foundation for the use of the SLSC Sailing School.

With #114 now owned by the foundation, we thought it might be interesting and useful to have a documentation of the refurbishment work that took place on Windcaller, and make it a somewhat unique Ensign. This is a picture recap of our project work.

The Project

Our first project activity was to pick up #114 at a Canandaigua, NY marina, and take a look at our new pride and joy. Like most Ensigns, the hull below the flange was solid. The cosmetics, as expected, could kindly be described as needing considerable attention. The major project challenge was clearly the soft and spongy condition of the foredeck, cabin top, and stern deck. We used Dave's trailer for the move to the Saratoga Lake Sailing Club. A lifting stand was constructed to assist in transferring the boat from the trailer to stands in the SLSC boat storage area where the boat was put to sleep for the winter.

With the coming of spring, our project work got underway. In keeping with our goal to restore Ensign #114 to a like-new condition, we made a decision to remove all balsa from the fore deck, rear deck, side deck, and cabin top. The construction of the decks and cabin top of the Ensign can best be described as a sandwich consisting of a balsa core between two layers of fiberglass. The balsa would be removed and replaced with Core-cell closed cell foam which is the material used by the premier custom boat builders such as Hinckley Yachts.

The only practical way for us to undertake such a complete restoration was to separate the deck from the hull so that the underside of the deck and cabin top surfaces were completely exposed. These sections were placed on a contoured work frame to preserve the original deck contours during the recore process. The underside of the fiberglass sandwich was cut away and the entire balsa core was removed. Closed cell foam was installed to replace the balsa, and a new layer of fiberglass was laid up to complete the new sandwich. This process enabled us to maintain the integrity of all the original deck and cabin top outer fiberglass surfaces. In addition, with the hull wide open, we were able to examine areas of the Ensign not normally accessible with a localized repair. Corrective action, such as the replacement of the king plank and the cabin top ribs, was taken where needed. With the re-coring

completed the decks and cabin top sections were reattached to the hull. 3M 5200 Adhesive was liberally applied to the flanges prior to rivet placement.

We elected to begin our recore process with the stern deck section. This smaller section would give us the experience and confidence needed to tackle the much larger foredeck/side deck/cabin top unit. We also had the benefit of viewing the VCR that Zeke Durica documented on this method of stern deck repair.


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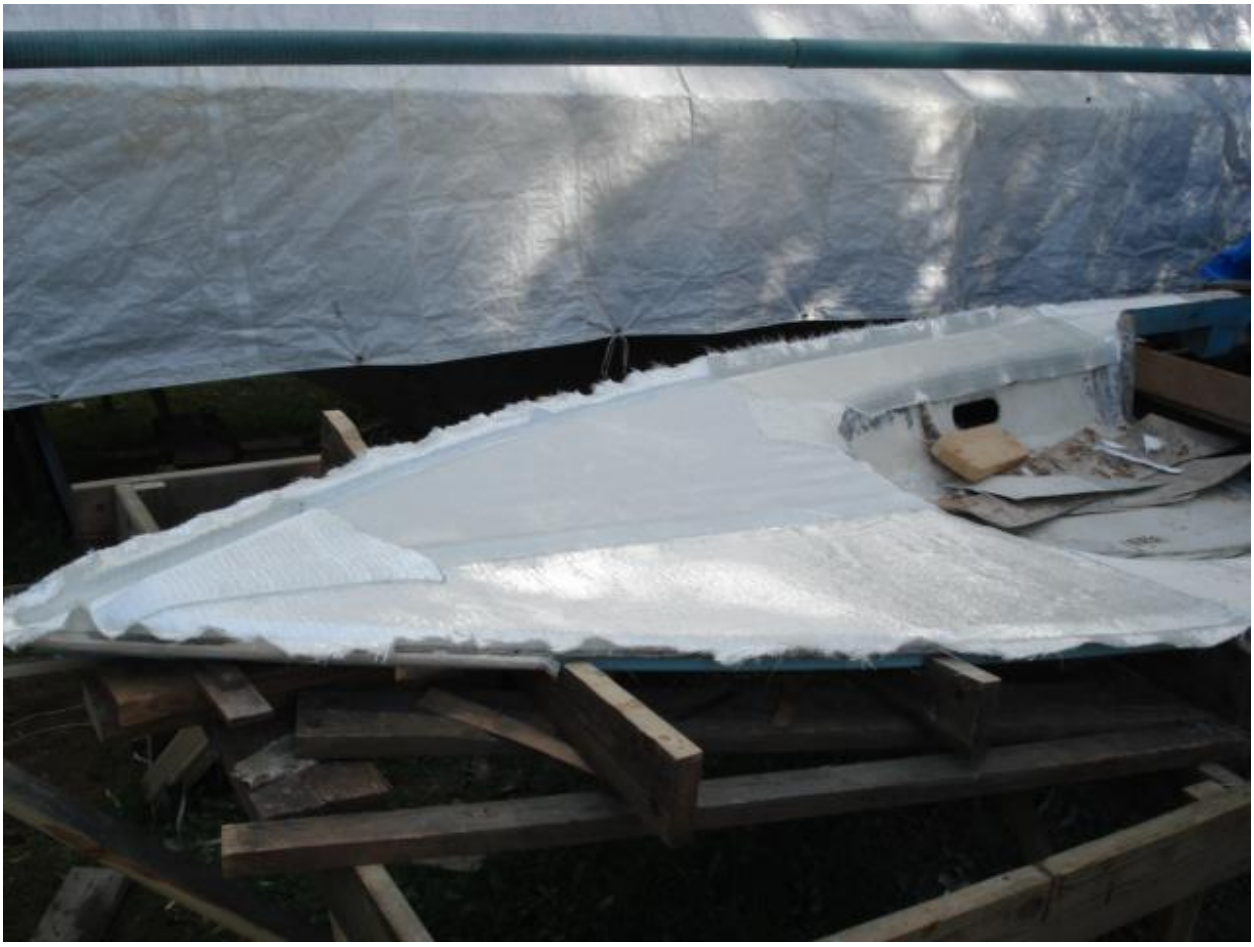
With the stern deck experience under our belt, we turned our attention to the larger foredeck/cabin top unit.

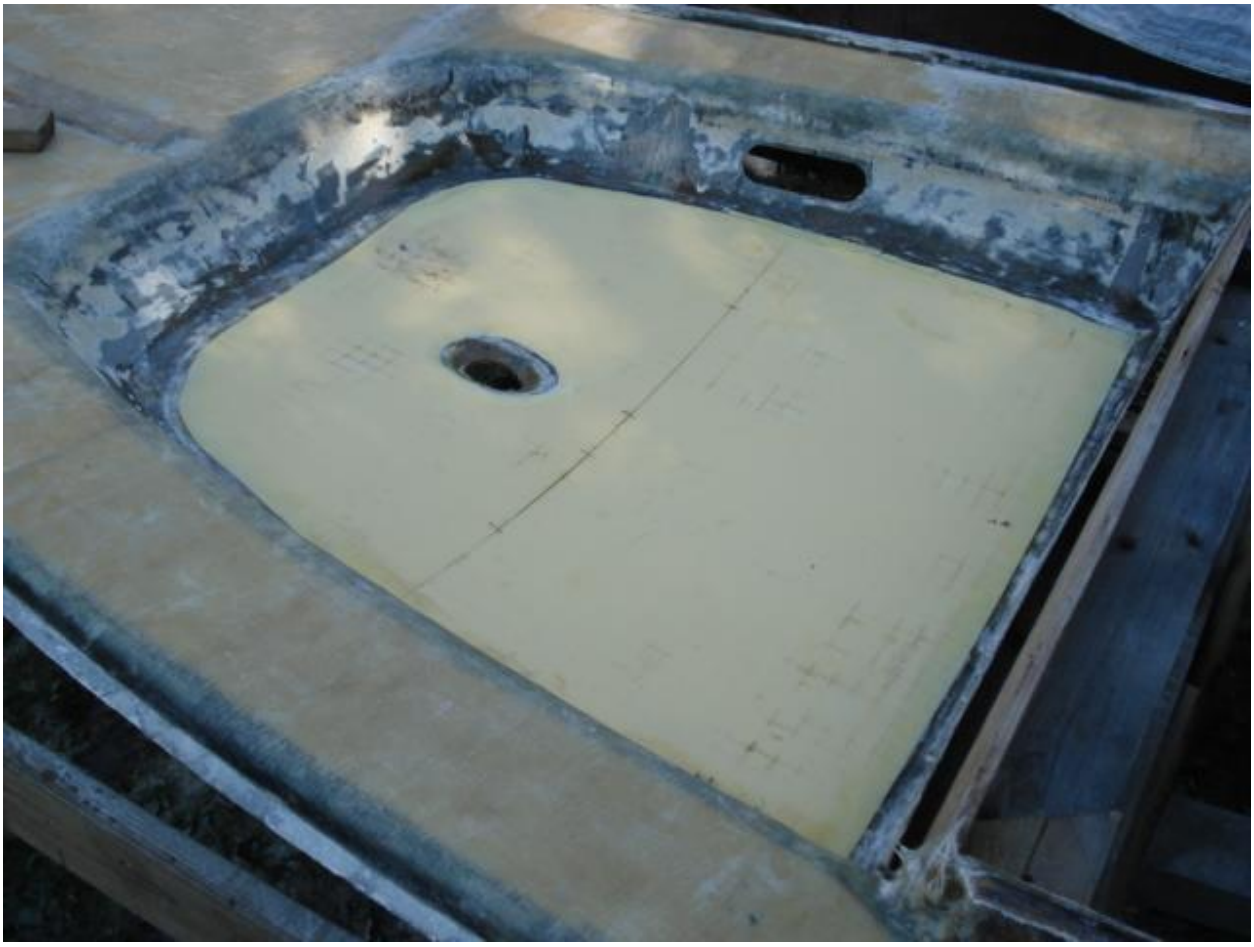
The recore lamination schedule over the original outer fiberglass skin after the balsa cleanout is:

2 Layers 1.5 oz. fiberglass mat

Core-cell foam

2 Layers 1808 biaxial fiberglass cloth



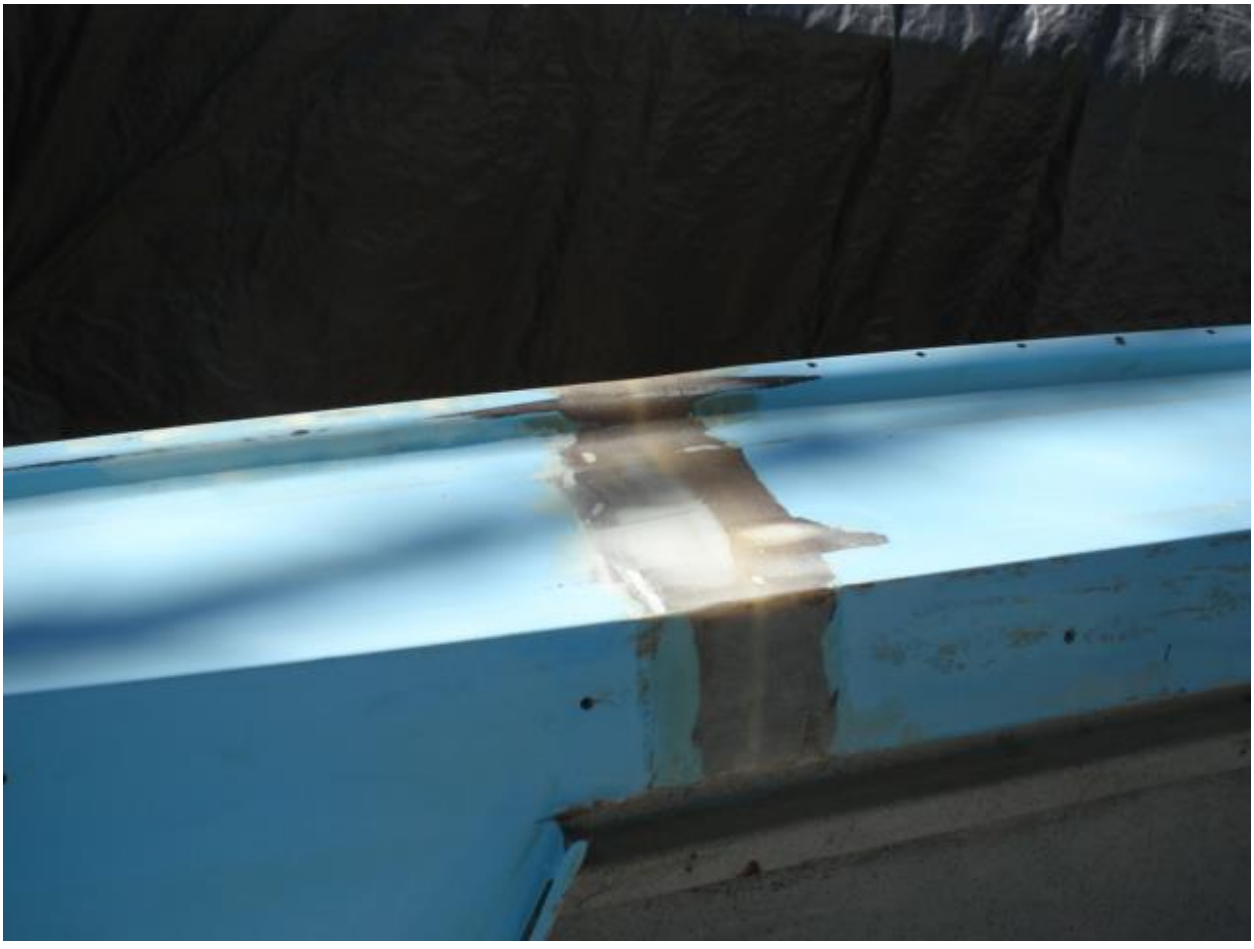


Ensign #114 will never be subject to soft or spongy decks resulting from balsa rot. In this regard it is now on a par with the Classic Ensigns produced by Ensign Spars which also eliminated the use of balsa core in favor of closed cell foam.

In the fore section of the hull, a new white oak bow block was installed and flotation was added to the bow section.

Refinishing the seats and cabin doors was a great over-the-winter basement project.

The recore process required that all hardware be removed from the deck surfaces, and this created a fresh canvas for new hardware and rigging decisions. However, it also created lots and lots of hardware holes and blemishes to be prepped, filled, faired, primed, and painted. We chose to use 2 part polyurethane Perfection and epoxy primer for the deck surfaces, and Intergrip non-skid additive for the non-skid areas. Project rule of thumb: 85% of a painting project is preparation.



Similar prep activities were undertaken for the upper hull areas, and again 2 part Perfection and poly primer was used.

Not surprising for a 40+ year old Ensign, the 4 mast step supports under the cabin floor were rotted and needed to be replaced. We devised a hinged jig to assure that, when installed, the individual supports would be fully aligned with the new cabin floor.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The cabin flotation was greatly enhanced with the addition of poured foam. Also, the water intake and outlet mechanism for the toilet fixture was removed, and the holes in the hull were patched and faired.

The refinished seats and reinforced teak floor were reinstalled. Also, new mahogany coamings were cut and finished, as well as new mahogany cabin entrance bulkheads. Not pictured was the installation of a new rub-rail and mounting track from Ensign Spars. On the bottom hull, years of bottom paint were removed, and the hull received a barrier coat/primer and a top coat of VC17. In addition, the rudder received a fiberglass coating.

Due to the long life of these original Ensigns, many bilge floors eventually leaked water into the keel area due to corrosion around the lifting ring and/or cracking at the seam between the bilge floor and the hull sides. To reduce the risk of such future problems, 114's lifting ring was ground out and the bilge floor area was reinforced with two layers of 1808 biaxial fiberglass cloth lapped several inches up the hull sides. As added insurance, we also installed two drain plugs in the keel bilge compartment to assure that any water penetration of the compartment could not lead to a frozen and cracked hull situation

We've tried to capture the highlights of our restoration of Ensign #114, but every restoration also includes numerous items that are individually small, but collectively make all the difference in the world. As an example, when we acquired #114 the tillerhead assembly allowed the tiller to flop down when released. The two tabs that kept the tiller level were missing. We had a local shop weld on the proper bronze tabs. With some grinding, filing, sanding and buffing of the original fittings, the tiller assembly looked and functioned like new.


Read instructions before you cut or mount track
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The running rigging on #114 was completely upgraded with new sheets, halyards, control lines and blocks. Major improvements (not pictured) included installation of:

*Andersen #10 winches

*Improved Harken traveler arrangement

*Thru-the-stern-deck spinnaker sheeting system

*Internal boom outhaul

*Mid-boom sheeting

*Race-lite style motor mount on reinforced stern

*New 316 Stainless Steel chain plates.

Finally, it's spring of 2015, our project work is close to wrap-up, and this is us at the 9P bridge launch ramp. The boat looks great and it floats! We just need to motor it down to the sailing club, step the mast, put on the final touches, and turn Ensign #114 over to its new owners.