Technical Pull-Out

Q&A FOR YOUR CATALINA THAT'S BEEN FACTORY APPROVED

Catalina 470

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Beckoning, #76

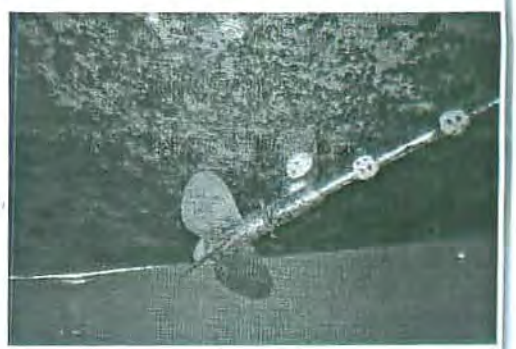
A Soda-Blasted Bottom Job

Those Owners who use their C470 in salt or brackish water know the drill: haul and repaint the bottom with anti-fouling paint at intervals dictated by usage and local conditions. If your boat sits in the slip it is more likely to grow "things" on the hull than it is if you are out sailing/living aboard and constantly on the move. Given that our C470s can take on ocean as well as island sailing and do it all in the same year the choice of bottom paint can be difficult. A Chesapeake Bay sailor traveling to the BVI is confronted with two entirely separate bodies of water with markedly different levels of salt and "critters" in the water. Some paints which work well in the Chesapeake may not give the same protection for as long a period of time in the British Virgin Islands. This is the story of just such a situation.

In June of 2007 *Beckoning* was hauled, refitted and her bottom sanded and repainted with ACT. This was the same kind of paint which had been on the boat when I took possession of her in March of 2001 as a new boat. During every haulout the boat had been power-washed and sanded (but not to the gelcoat) 5 times over the years of my ownership prior to the application of one or two coats of paint. The bottom itself had no flaws, blisters, dings or dents and, thankfully, had not been aground in the Chesapeake mud for years! The ACT paint had worked well on the Chesapeake, in Florida and in Maine since its first application. *Practical Sailor* magazine, several years ago, did a long article on bottom paints and their research showed that ACT rated a Very Good in the Caribbean. With a winter in the USVI/BVI looming and years of previous success with ACT I chose to stay with it during the June 2007 haulout.

I hired a diver clean the hull in Hampton, VA in early November of 2007 a day before the start of the Caribbean 1500 race to Tortola, BVI. He reported that the hull was clean, smooth and ready to go. Indeed, the boat performed magnificently during the race and gave us normal if not better (especially during the watches of Captain Larry Cohen [C470 *Comfortably Numb*, Hull #73], when, according to Capt Cohen, he exceeded hull speed regularly!) speeds than usual. After arrival in the BVI, I dove the hull in early December and it was still clean and smooth.

After Christmas in the BVI I had to dive the boat continually to keep the growth from both overwhelming the hull and my ability to clean it. The



Beckoning hull after 3 weeks of not cleaning the hull in the BVI

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photos show what the hull looked like at the end of a season of serious sailing in the waters of the USVI/BVI. This photo was taken by me in late April while on the anchor at Jost Van Dyke, BVI. The second photo is of the bottom of the keel looking up. The ACT paint had *failed completely*! In places, the ACT paint had fallen off the hull or showed cracks in the paint where it was ready to fall off if touched.

Beckoning keel after 3 weeks of not cleaning the hull in the

The following photo shows the hull only a week prior to loading on the Dockwise ship for transport to Newport, RI. I had spent almost 4 hours cleaning the hull prior to this photo. My scuba compressor was getting a workout!

Beckoning arrived in Newport, RI via Dockwise transport in May and we left immediately for Annapolis. Rough weather caused what would have been a three day trip to take a week. The boat

Beckoning hull after cleaning in very late April at Jost Van Dyke

Beckoning hull half power_washed upon haul out

Beckoning hull half power washed upon haul out

arrived in Annapolis at the end of the first week of June. Of the five weeks from arrival in Annapolis to haulout for the bottom work, 4 weeks were spent off the dock sailing vigorously. The photos show the hull upon haul out.

Obviously, the bottom paint had failed in the Chesapeake also! The cause of this, given that this paint had always performed as advertised in the previous 6 years is unknown. One theory holds that the paint leached out in the Caribbean due to the much harsher environment. One can see in the photos that the standard power washing had removed some of the ACT paint. The remainder was to be removed by soda-blasting.

Soda blasting, according to the yard, uses compressed air and baking soda as a blasting medium to remove old paint from the hull. It is gentler on the fiberglass than using sand as the blasting medium or simply grinding off the old paint with a grinder and sandpaper disks. The cost, $2000 for a C470, was deemed to be acceptable given that much of the paint which survived the pressure-washing was not removable by

Beckoning rudder after vinylester patching (darker spots)

Beckoning bow after soda-blastng damage and vinylester patching

any similar means. There is a disadvantage to the soda-blasting.

The photos show the numerous repairs, with a vinylester compound, which were required when the soda-blasting perforated the hull down to the fiberglass matting. There is no pattern to the perforations nor is there a reason for this much damage to the hull. The soda-blasting even removed a significant portion of the epoxy casing of the solid lead keel. All these perforations were eventually covered with the vinylester compound and smoothed out via sanding and buffing. The result was a hull of incredible smoothness which was ready for the new paint.

Beckoning splashed into the water about 2 weeks after haul out with a smooth bottom, two coats of Trinidad SR hard anti-fouling paint, a squeaky clean bow thruster cavity and prop, a standing rigging inspection (no problems on this 7 yr-old boat after a full season in the Caribbean) and the result has been the fastest speeds under power or sail that she has ever shown. The long-term effects on the hull of the vinylester repairs have yet to be determined. The boat has now been sitting in the slip for over a month with no slime visible on the waterline and no discernible growth on the hull where the new paint was applied. The mystery of the failed ACT paint will never be completely solved.

Beckoning keel after soda-blasting damage and initial vinylester repair