

"Bull Session"

News and Comments for the El Toro Class

December #314

www.eltoroyra.org

This Sunday RYC #2

Fred Paxton will again try to run the day's races in the fashion that he wished he could sail!

Yes, our very own Fred. The weather forecast is favorable!

This is an article by Art Lange. His idea of adding a little (Cab-o-Sil) fumed silica to the resin (epoxy or polyester) is a good one. It will fill the weave of the cloth.

From Art,

If you have a Moore El Toro of the same vintage as mine, I suggest you carefully inspect your boat to make sure they don't have a lot of small holes on the front wall of the flotation tanks like I repaired. I discovered I had leaking tanks after I capsized while waiting around between races at Richmond on a windy day and it took a few minutes to right the boat. While the boat was on its side, the starboard tank filled with 5 or 6 gallons of water (at 8 lbs per gallon, this is a lot of water!) and the boat did not right properly and I could not bail it out, and had to swim it to shore, remove the tank port and lift the boat up by the stern to empty the tank, while balancing on the big rocks at the sea wall and keeping the boat from getting scratched on the rocks. It would have been very hard to recover if I had capsized from shore.

After I got home, it took a bit of effort to find the leaks. At first, I thought the leaks must be along the edges of the vertical flat front wall of the tank. I set the boat on the ground with the bow down, removed the port covers and started to fill the starboard tank with a garden hose. after putting in enough water to start overflowing through the port hole, I then looked inside the bow cutout at the front surface of the tank. I could seem immediately that there were no cracks along the edges of the tank wall. Much to my surprise, I saw 10 or 20 (or more!) small leaks distributed over the whole surface of the tank wall. It seems that this wall was constructed with a very coarse fiberglass cloth weave that was then painted with resin. The resin between the fiberglass strands was very thin and many of these resin webs broke, leading to the many small leaks.

I emptied the water I put into the tank and carefully rinsed the front surface of the starboard tank and did the same to the port tank. I then let the boat dry thoroughly for a few days. (In late September, early October it is hot and dry in the Santa Clara valley) After discovering the location of the leaks, I decided to fill all of the small holes by painting epoxy on the surface. I propped the boat against a tree with the tanks horizontal so I could paint a uniform thickness of the epoxy on each surface. Because the TAP 314 marine grade epoxy has a fairly low viscosity, it would drip through the holes which I wish to fill if I used the epoxy with no filler. I increased the viscosity of the mixed resin by adding about 10-20% (maybe I used more) by volume of finely divided silica until the viscosity was significantly increased. (don't breath this finely divided silica material!) With the increased viscosity epoxy I painted each tank surface. Because the surfaces were level when the epoxy was curing, each tank had a smooth surface with all of the holes filled after the epoxy cured. A careful inspection showed that all of the holes were filled and there is a nice firm web around all of the seams. I expect that the tanks will be non-leaking if I happen to capsize again. I see you on the water.

**Art Lange
El Toro 11783**

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**still to schedule,,, Pinecrest Worlds,,,Pinto Lake,,,Fremont
Series,,,Hawaii,,,East Coast,,,**

2009-'10 schedule

- RYC Midwinter's December 6 Richmond
- LMSC Midwinter's December 12 Lake Merritt
- RYC Midwinter's January 3 Richmond #2
- LMSC Midwinter's January 10 Lake Merritt #2
- LMSC Midwinter's February 13 Lake Merritt #3
- LMSC Midwinter's March 14 Lake Merritt #4

- BullShip will be April 10**
- Big Dinghy RYC April 17-18**
- Flight of the Bulls May 8**
- Fremont Relay May 16**
- Clear Lake National Championship Series will be June 18-19-20**
- Totally Dinghy RYC September 25-26**
- El Toro Stampede October 3**
- Cork Screw Redwood City October 9**