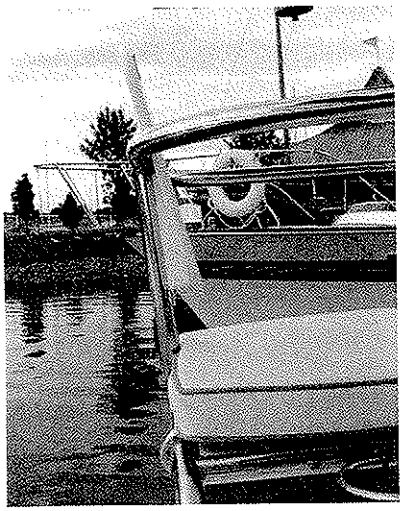
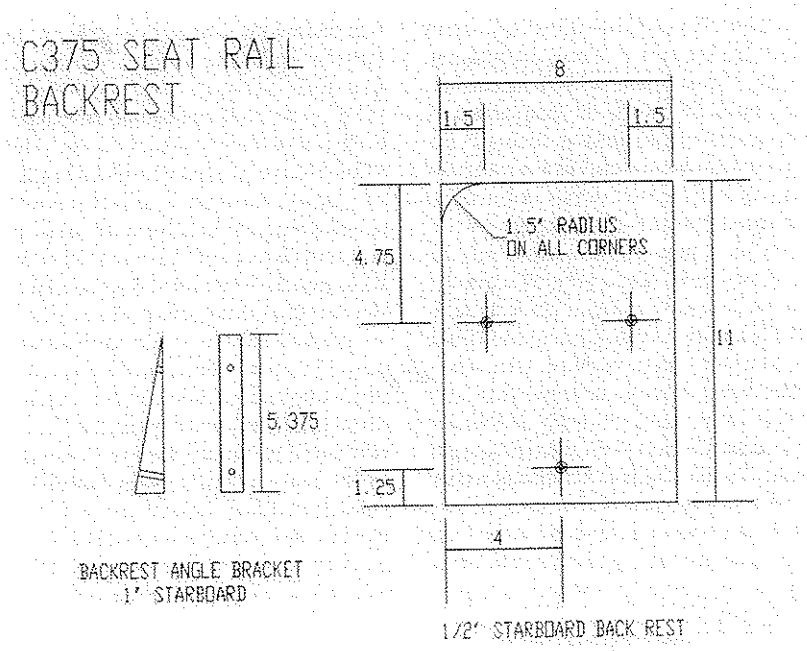


screws are used, then just countersink deep enough for the head to be flush.

Mount the wedge using a screw at the thin end; the tip ends up just below the horizontal rail tube. This screw does not go through the back panel and will not be visible once work is completed. Wedge mounted screws are angled; a bit trickier to drill. Try drilling with a very small bit first, then use the proper size for tap at approximate angle. Once in place, center the panel and mark the two upper panel holes on the horizontal tubing. Drill and tap tubing. Enlarge upper holes to clear mounting screw and screw in place. Now that it is all in position, mark the location of the lower hole on the wedge and drill through.



Keep going until a mark is made on vertical tubing. Take everything apart, drill lower hole and tap. Enlarge lower hole in panel and wedge to clear screw. Reassemble everything, adjusting holes in plastic if required. Once you are happy with the fit, tighten everything in place.

Don't try this with the boat in the water: starboard does not float!

An extra set of hands and double sided tape helps to set things up and prevent movement.

When drilling stainless steel, use sharp bits. Use slow drill speed and lots of pressure. The drill bit must not spin on the metal. If it does, it overheats quickly and loses its cutting edge. Quite often, one good spin and the bit does not cut anymore. Do not use just any oil lubricant; use the proper cutting fluid. It's definitely not the same thing.

Enjoy. *–Francois DesRochers*

Catalina 350



C350 Association Technical Editor
Tim Ryan
Tjr3c@verizon.net

Time marches on and another boating season is upon us. As I write, there are still some remnants of snow on the ground with the promise of a typical March snowstorm yet to come. Still, the unmistakable seasons are changing. A few robins showed up in February and some daffodils are already popping up. By the time you read this, it will be May and your boat is in the water. I hope you get time to spruce her up for the season and maybe undertake one of those long thought about projects that you have been putting off. If you do, take you camera along. You can even snap a picture with your cell phone nowadays. Share your project with your fellow C350 owners.

This month we are lucky to have a super article by Peter Denoncourt on the installation of a Wind Generator.

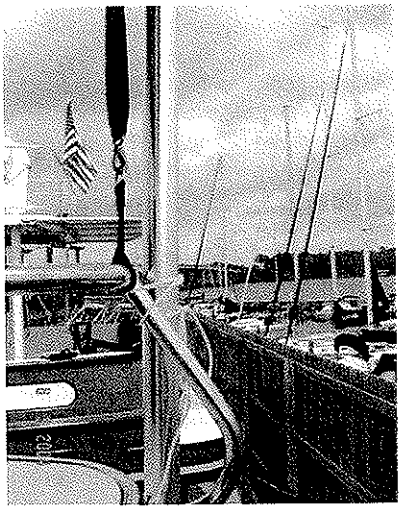
Be sure to see the article on "re-setting" the microwave oven to reclaim wasted storage space and creating a useful an attractive liquor storage area in the C350 Association section of this issue.

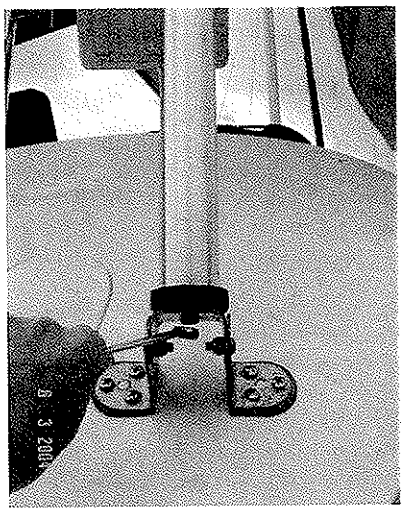
I hope you find the articles and pictures useful. If you do, just imagine how other owners would benefit from seeing some of your favorite projects. Just drop me an email at tjr3c@verizon.net and I will make every effort to get your article published. The C350 IA is sending personalized gifts to those who submit and get published so don't be late for the August issue.

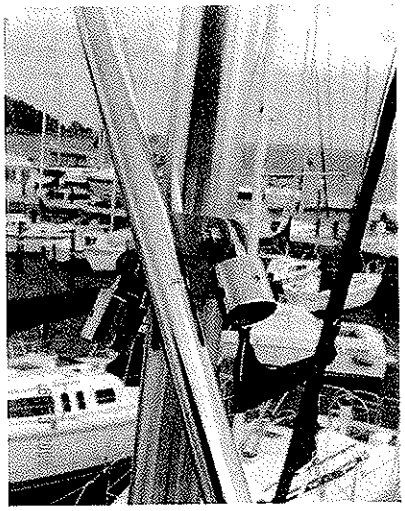
Installation of Air-X Marine Wind Generator

I purchased an Air-X Marine Wind Generator with a mounting kit (mounting pole, hardware and support struts) from e-Marine in Miami and decided to do the installation myself. This was not a very difficult project because the kit came with instructions, but it did require quite a large inventory of tools. The wind generator with mounting kit provides you with everything you need to pole mount the wind generator, but it does not provide anything to help with the wiring. For that you must consider (1) connecting the three #6 AWG leads out of the Air-X unit to longer #6 AGW wires that will run through the pole, into your boat, and inside to the battery bank – about 50 feet. You must also consider a watertight way to pass the wires through the hull into the boat.

I mounted the Air-X on the transom on the starboard side so that the the eight-foot pole passes just aft of the stern rail and just outboard of the middle







support of the starboard stern seat. The mounting kit provides a mounting bracket with rubber vibration isolation for the base of the pole. Locate the mounting bracket on the transom so that the pole will clear the stern seat as shown in figure 1 when the pole is vertical. I found it convenient to lash the pole into position on the stern rail, then position the bottom of the pole, with bracket temporarily attached, and mark the hole locations for drilling. After drilling the holes, I mounted the bracket, using an owner-provided rubber pad between the bracket and the hull for further sound insulation. I also used caulking material between the rubber pad and the hull, and the rubber pad and the bracket to be sure I had a watertight seal after the bolts were tightened.

The next step was to install the pole support struts. The kit comes with 2 eight-foot support struts including brackets to fasten to the pole and vibration isolating brackets to secure the other end to the deck. Eight feet is too long for mounting the pole as I did, so I found it necessary to cut the support struts to length. First I selected a location on the edge of the deck where the support strut has a clear path to the pole, about 3 feet below the top of the pole to provide clearance for the rotating blades of the Air-X. Then I taped the support strut in position on the pole so that I could mark the holes on the deck to secure the vibration isolating bracket to the deck. I secured these brackets using rubber pads between the deck and the bracket, just as before. To cut the support struts to the correct length, I installed the pole mounting bracket to the pole, then positioned the support strut and marked it where the end of the strut should be positioned in the bracket. I then cut the support strut with a hack saw and installed it, and repeated the process for the second strut.

To install the Air-X on top of the pole, I found it necessary to remove the pole from the boat and run the three #6 AWG wires into the hole near the bottom of the pole until they exited at the top of the pole. In preparation for splicing the wires to the leads from the Air-X, I placed a large diameter heat shrink tube with built-in adhesive over the leads on the Air-X, and wound some caution tape about two feet below the top of the pole – the limit of the spinning blades of the Air-X. Then I attached the wires to the leads using a 4-way connector that I purchased, and finished by heat-shrinking the tubing over the assembled connector. The wires were then carefully pulled down into the pole until the Air-X unit could be assembled onto the top of the pole.

Had I been smarter, I would have drilled the three holes in the rubber plug of the Cable Clam waterproof through-deck fitting and pushed it and its compression housing onto the wires before sliding the wires into the pole and making the connections to the Air-X leads. But I didn't think of that in time, and had to go to the other end of the 50-foot wires and put on the compression housing then slide the wires through the plug all the way back to within one foot of the pole. I found that wetting the wire insulation with soapy water helped with this task by lubricating the surfaces.

The final steps in this installation were to re-install the pole (with Air-X on top) onto the boat. This was easily done by pushing the bottom of the pole onto the lower pole bracket, then re-tightening the bolt that compresses and expands the rubber inside the pole base. The pole can then be rotated up into position near the stern rail and the pre-assembled support struts re-attached and positioned on the pole to make it vertical. Finally, I cut a hole in the transom about 1-inch diameter to pass the wires through to the inside. This hole was located above the hole in the pole where the wires exit the pole and the wires were adjusted in length to provide a drip loop to help keep water out of the pole and out of the boat. I caulked the wires exiting the pole with RTV, and then attached the Cable Clam body to the hull following the instructions that came with it. The electrical hookup inside to the boat's electrical system can be the subject of another article. *–Peter Denoncourt,* Kite, *hull #72*

