Catalina 310

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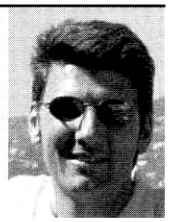

Air Conditioning Installation

Bill,

I bought the AC unit from Flagship Marine in Florida. Tom was great to work with; he cheerfully answered all my questions and is a neat guy. I would recommend buying from him. The Catalina dealer in St. Louis has installed lots of different brands including Marine Air, Mermaid etc. He said this was the best unit by far that he has seen. It is very well built. In fact Flagship supplies the US Coast Guard with all their AC units. Flagship charges slightly more for their units, I think, but they are very well put together, and worth it. Flagship's number is 800-316-6426, ask for Tom, and tell him that Dr. Quade from St. Louis sent you. I think you'll like them.

The unit I used, the 16,000 Btu, even though the 12,000 Btu would have worked fine, fits nicely in the port lazarette locker, in the forward aspect (Photo 1). I ordered mine with resistance heat since the lake water in the Midwest is very cold in the winter. You can also get reverse cycle heat from Flagship for use in warmer waters. I mounted it on a piece of plywood that I covered with epoxy for water resistance. I used 5200 to glue and seal it onto the floor of the locker. The return air grate/filter was cut into the floor of the locker as far outboard as possible. It sucks return air through the aft birth to keep it cool (Photo 7). I insulated the inside of the lazarette locker so that the outside of it, the part in the cockpit, would not condense water on the surface. I sealed the locker from the hull liner with spray foam. I also made a bulkhead from poly-isocyranate board to section off the part of the locker that contains the AC unit from the rest of the locker.

I ran, and I did a lot of the work on the installation, the water supply hose through the outboard aspect of the locker floor, down into the storage cabinet in the aft birth, and into the bilge area aft of the engine. I bought the deluxe installation kit because it had better components, including a very nice strainer. I installed the water supply pump and the strainer in the area that Catalina installed the strainer for the engine (Photo 2). I put it right next to it, that way everything is together for winterizing. I put the water intake through-hull next to the other through-hulls that are accessed from the head access panel. That way they are all together. Another good place for the intake through hull would have been next to the engine through-hull. The water waste hose was run to the port aft area to a through-hull in the far stern. I placed a Tee in the head sink drain for the condensate line to drain into. That way I would not have to drill another hole into the side of the boat.

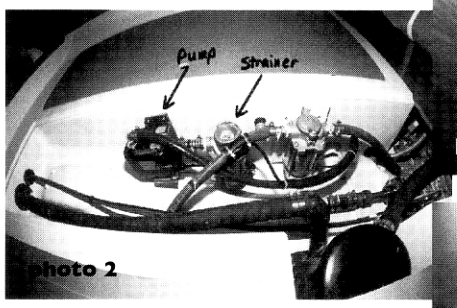

photo 2

I used a 2" duct into the head (special order), I just ran it through the forward locker wall and ended it under the medicine cabinet so that shower water would not enter it, and it really is not visible (Photo 3). The other reason I put it there is so that AC air would not blow the shower curtain open while showering. The air just goes under the cabinet and into the head area rather nicely.

I ran the duct forward to the vee birth down through the outboard aspect of the floor of the locker, into the storage cabinet underneath and behind the head (that board comes out for access). It continued through the vanity cabinet (Photo 4), through the bulkhead and into the battery area (Photo 5). Heading forward I ran the duct through the port settee (Photo 6), and then into the locker in the eve birth. There I cut a hole in the front of the locker and used a directional vent to aim the air up into the birth (Photo 7).

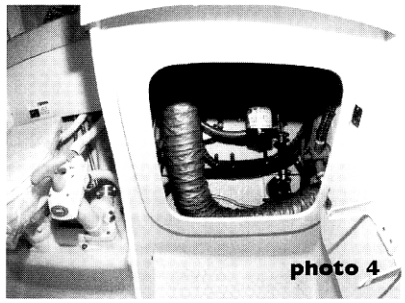
photo 4

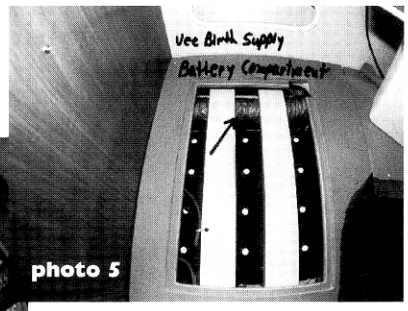

photo 5

photo 6

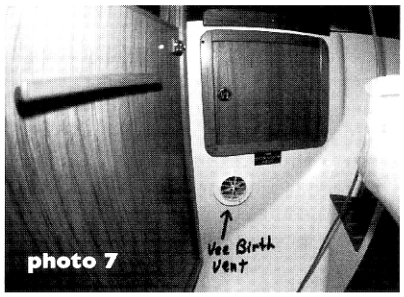

photo 7

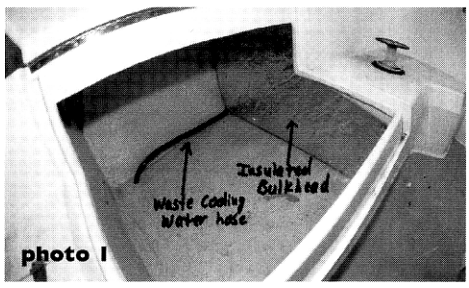

photo 1

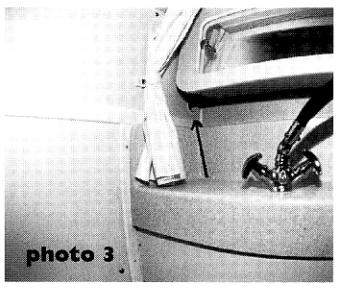
photo 3

For the salon supply I bought a 4" PVC fence post (do not laugh until you see it, it was neat) from Home Depot to be used as a nice looking air duct since it will be visible (Photo 8). I ran two 4" duct hoses just through the floor of the lazarette and left a couple inches sticking through the ceiling of the aft birth. I

glued them in place. I cut two 4" holes in the top of the fence post and mounted it on the ceiling of the aft birth to connect with the two protruding 4" hoses. The fence post ran toward the starboard side, and stopped at the bulkhead cutout, where the curtain is cut to close the cutout, behind the engine. I cut two 4" holes in the front of the duct and mounted two directional vents (Photo 9). The air blows from the vents, under the top step of the engine cover, and into the salon. It has enough velocity that you can slightly feel it at the vee birth bulkhead. I used some Starboard to close the ends of the fence post/duct. You could use just about anything to close the ends though. Home Depot even had fence post caps. I decided the duct would look too much like it belonged on a farm if I used the caps.

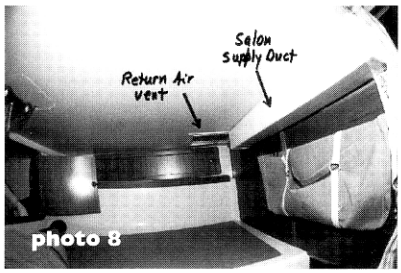

photo 8

photo 9

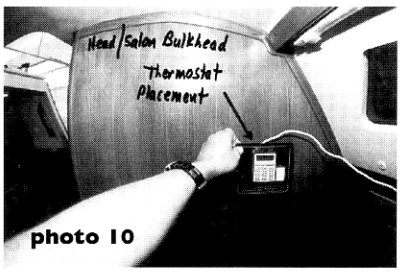

photo 10

I put the thermostat on the head wall by the port settee, next to the louvered cabinet door, slightly inboard (Photo 10). The whole system is silent. The only way a person would know if it were running, is that cold air is moving around the cabin. *–Dr. Kevin Quade, Hydrophilic, #191.*

Kevin,

This looks like a great solution, I have seen several and was beginning to pull together the good parts of each, but yours is by far the best. The only item I might suggest for an improvement is running the condensate line to a tee in the drain line coming from the port propane locker instead of the sink drain in the head. Some people run the AC all the time and this would leave fewer through-hulls open. *-Bill*

Refrigerator Condensation

Bill,

I have hull number 77 the refrigerator needs was much more work. The first problem was that the top loading door did not fit very well and allowed a lot of air to enter the refrigerator, which condensed on the inside of the top loading door. The fix was to use some weather stripping to seal the door. This was latter replaced using polysulfide caulking and some waxed paper to made a perfectly fitting seal.

The second problem was the seal between the metal frame on the front loading door and the fiberglass counter that the refrigerator sits in was missing. With a little coaching, this was replaced by the dealer. The last and most annoying problem is that the metal frame on the front loading door gets quite cold and condensation forms on it. This condensation drips on the cabin sole and is a source for mildew. I have come up with a solution. I hung a clear plastic curtain on the inside of the main refrigerator. This keeps the cold air away from the metal frame and it seems to sweat much less. – *Maitin Rhode and Jessica Otto, Hannalee, #77*

Maitin,

I have not experienced the condensation nearly as much as you have and I sail on Lake Lanier in the humid climate of Georgia and have no AC. There is an isolating neoprene gasket on my doorframe. I was considering a spray on foam to better insulate the area between the refrigerator and the wall next to the range. Others have reported improvement by using Maitin's method. The newer hulls have a fiberglass door and a latch that sounds like the one on the meat locker. I have not seen this unit myself so I do not know if it will be a retro fit option or not. *-Bill*

Fuel Filter Bracket

Bill,

I would just like to make everyone aware of a potential problem, and ask all to check it out. While cruising this past month with another C310, it's skipper found the fuel filter hanging by it's hoses. The L bracket that held the filter to the engine had broken. I then checked mine and found a hairline crack along the score mark, they use to bend the bracket. Both brackets have been replaced by Universal under warrantee. The fuel filter is located on the Starboard side of the engine, just forward of the Oil Dipstick. *Bob & Kathy Mino, KateSea, # 110*

Making Space

Having a cutting board and more counter space was essential for my wife, the gourmet chef. I am probably the only 31-foot sailboat with a galley outfitted with All-Clad pans and Stubai Knives. The solution was the purchase of a Boos 18"x24"x11/4" cutting board, which I purchased at Williams-Sonoma. Any cutting board of similar dimensions will due, but it should be at least 1" thick.

The board will need to be cut to fit over the gimbaled stove. Carefully measure the opening in the counter over the stove using the front edge of the stove square to the front edge of the cutting board. Allow 1/8" of clearance on the 3 sides abutting the counter and cabinetwork. The board can be easily cut on a table saw, the edges chamfered with a file and sanded.

Once the fit over the stove is checked and satisfactory, measure from the outside edge of the stovetop to the edge of the cutting board on all four sides. Mark the board on the underside with the dimensions measured and draw the square that would be the outside edge of the stovetop. Using a 1⁄2" router bit in your router follow inside the line drawn on the board and route a 1⁄2" deep slot all the way around. Now when the board is placed routed side down on the stove it will be nearly flush with the counter and well seated on the stovetop. With this seating I have not had any problems with the board falling out of position on a 35° heel.

For storage of the cutting board, when the stove is in use, affix 2 L-brackets to the hull liner behind the stove. The horizontal of the L should be located a distance below the top of the stove equal to the width of the cutting board. A brass 2"x2" L bracket will work fine. Before installing the L bracket bend half of the horizontal leg up 90°. Once installed the cutting board can be slid lengthwise behind the stove and rest on the brackets. *-Bill*