Catalina 350



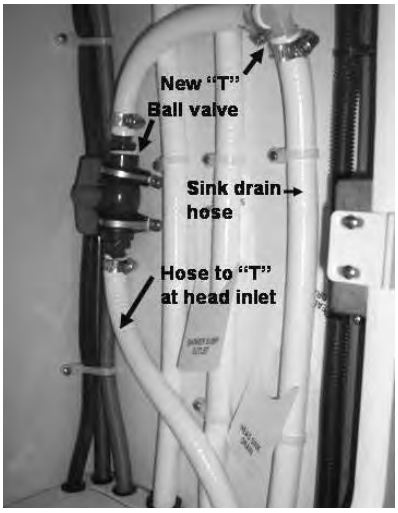
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Fresh Water Flush To Resolve Smelly Head Problems

This has been a common topic of conversation among C350 owners on our association website. I believe that the primary cause of bad odors is the use of salt water (and possibly microorganism laden fresh water) for flushing, particularly if the head is not used for prolonged periods of time (between weekends for example). This allows the water to stagnate in the hoses and head passages causing the death and decomposition of microorganisms in the water. This process also results in a reduction of dissolved oxygen ultimately resulting in a big stink! Using fresh (potable) water for flushing the head pretty much eliminates this problem. Essentially, I have connected a hose from the head sink drain to the head inlet line, so that water in the sink can be used for flushing. This in essence allows you to recycle water previously used for hand washing etc. and left in the sink, or you can fill the sink with fresh water prior to flushing.

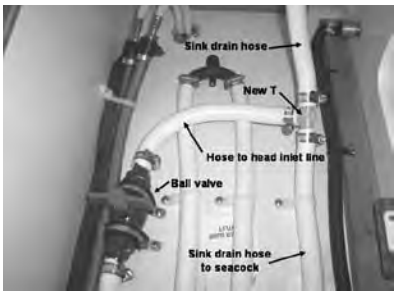
A major benefit of this arrangement is that the sink faucet forms an airgap between the toilet plumbing and the fresh water system, so it is impossible for inadvertent contamination of the fresh water supply. There are solenoid valves available that allow direct connection into the fresh water system which open when the flush button is pressed. However, valves can leak so there is a small possibility that contaminated water from the toilet plumbing could siphon back into the fresh water system, particularly when the fresh water pump is turned off. In fact, health regulations would not allow such a connection in a public water system.

This modification was accomplished by inserting a tee fitting in the sink drain hose and another tee in the head inlet hose near the filter in the holding tank compartment. I ran a hose between



the tees with a ball valve installed near the sink drain tee. The sink drain tee is mounted up high to be above the waterline as my personal preference is to minimize below waterline fittings. I also modified the cover plate in the bottom of the vanity cabinet to allow easier access to the sink drain and shower drain seacocks. One hint in doing this project is to use a lubricant when putting the hoses on the tee and ball valve fittings (I soaked the hose ends in hot water and then used dishwashing soap).

Once completed, this configuration of hoses, tees, ball valve, and seacocks allows for the following possible operating scenarios:

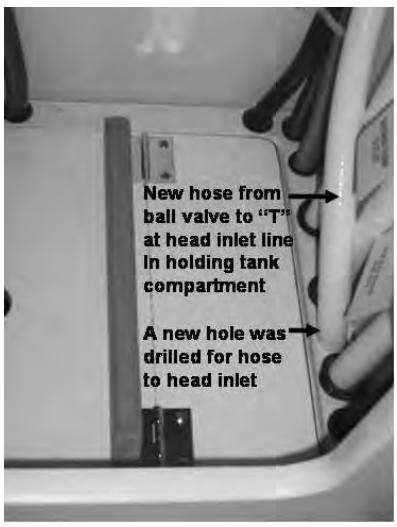


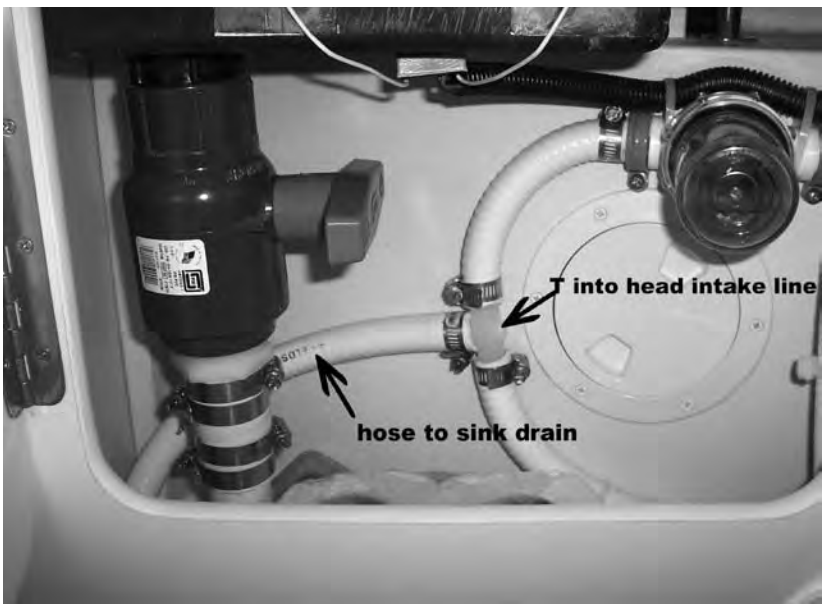
- Fresh water flush: close the head seawater seacock, the sink drain seacock, and open the ball valve. Use water built up in the sink or put water in the sink simply by turning on the faucet. The sink will be drained by flushing the toilet.
- Salt water flush: You can go back to a salt water flush if needed by closing the ball valve near the sink drain tee and opening the head seawater seacock.

–William Van Wagoner, C350 Destiny *#229*

Back Flushing The Coils On The Factory Installed Rotary Aire 17K BTU Air Conditioner

Our factory air conditioner has been functioning poorly this summer. After a few minutes of running, the "pump" light comes on and the system shuts down for 5-10 minutes. The water flowing out of the boat seemed normal.





The manual did not provide many ideas for how to troubleshoot this problem, so we resorted to calling in a repairman. He recommended an "acid wash backflush." He could do it (for a fee), or he said we could do it ourselves and gave some advice on how to do it.

Based on his advice, this is the procedure my husband Gary used to backflush our system.

1. Disconnect shore power.
2. Empty the lazarette.
3. Remove the top shelf of the lazarette to allow access to the side panel of the air conditioner cover. To do this, first remove the board that is mounted to the front of the shelf (the one that prevents stuff from falling off the shelf). Then, remove the shelf itself (there are four screws).
4. On the large AC compartment, remove all the screws on the side panel plus the screws on the top panel which are holding the side panel in place. Once the side panel is removed, you will have good access to the coils.
5. Remove the water outlet hose from the coil and put a bucket under the coil. This allows you to see what buildup is being removed.
6. Remove the water inlet hose and connect a water hose with a high pressure nozzle. For about $6, you can find a small garden hose nozzle which simply outputs a high pressure water steam. With luck the nozzle will fit snuggly into the coil.
7. Turn the water on and open the nozzle.
8. Watch the gunk pour out until it runs clear. In the bilge, remove the hose from the AC water pump. Make sure the bilge pump is on.
9. Put the garden hose nozzle on the coil water outlet, re-attach the AC hose to the coil water inlet, and turn the garden hose on. This back flushes more gunk into the bilge.
10. Repeat the forward and backflushing process as many times as needed to achieve a clear water output.
11. Reconnect all hoses and test the AC system for a while before reassembling the boat.

Gary tested the AC for about 1.5 hours after finishing and it seems to be working normally now.

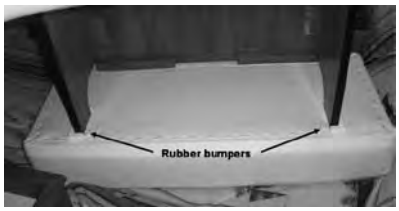
(NOTE: The repairman said if water did not remove enough buildup, a 10% Muriatic Acid and water solution could be used.)

Anyone that lives in hot climates like Florida and Texas might want to do this every few years, especially if you start to notice performance problems. We are glad we tried this before replacing expensive parts.

If the backflush doesn't solve the problem, other C350 owners provided advice on other possible sources of the problem. These include: faulty controller and/or water flow temperature sensor, heat exchanger buildup, through-hull and/or strainer (if installed) blockage, poor water flow through pump, or air in the system. *–Barbara Tomchuk,* Freedom *#76*

The Collapsing Folding Bench Seat

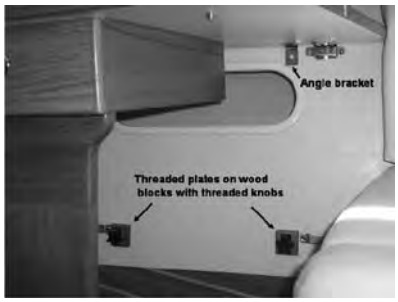
I discovered early on that during use, the fold out legs on the bench seat slowly begin to work their way inward until the seat collapses. A very inexpensive and simple improvement consists of attaching small rubber bumpers to trap the fold out legs in place when the bench is sitting on the floor. There is just enough slack in the hinges when folding the seat up to allow the fold out legs to clear the top of the rubber bumpers. As long as the seat is set up on the floor, the legs cannot fold up as the rubber bumpers get in the way. These rubber bumpers (and mounting hardware) can be purchased in any hardware store. *–William Van Wagoner, C350* Destiny *#229*



Anchoring The Game Table Seat

I often sail with a large crew (lots of kids) and usually have the game table on the lower brackets in the seat position. However, if someone sits on the edge of the seat, or even on a starboard tack in rough seas, the seat can tilt allowing the brackets to come out of the slots dumping the seat (and occupant) onto the floor. While looking at hardware options at West Marine, I discovered that Perko manufactures a "Table Leg Fastener" which provided for an expensive (about $30 each) but rather elegant solution to this problem. These leg fasteners include an "L" shaped bracket (a small version of the bracket that holds the table/seat to the hull liner), a flat threaded receiving plate that is mounted on the hull liner (I used small blocks of scrap mahogany beveled to about 10-degrees to compensate for slope of the liner), and a threaded knob for holding them together when it is all in place. During installation, very careful measurements and test fitting is needed to assure proper fit as the tolerance for error is fairly small. In addition, the angle brackets need to be bent slightly forward to allow clearance with the wood block and plate assemblies when installing or removing the table/seat. I installed two of these anchoring assemblies, but you might be able to get by doing it only on one side as it is a fairly sturdy setup. *–William Van Wagoner, C350* Destiny *#229*





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