Few of us ever pay much attention to things that are inherently safe, right? We have a tendency to use infamous phrases like "What could possibly go wrong". Lulled by endless years of faithful service we have a tendency to ignore, or take for granted, parts of our boats that never seem to cause problems. Yes, we give them cursory inspections from time to time, but do we really know what we are looking at, and do we understand the application in which it's used?

How about something as reliable as a hose? Lately I've been exposed to several situations where something as simple as a hose, was used in such a way that it was a set-up for disaster. One of the first things we have to understand is that hoses have a life span. They don't last forever. Most manufacturers recommend that marine hoses be replaced every ten years, whether they look worn out or not. Environmental factors; heat, cold, exposure to oils, gasses, and other chemicals will gradually break down the rubber and other materials used to construct the hose and it will eventually fail. Even following a good routine of inspections you may not be able to detect the imminent failure of a hose. The outside may look fine, no cracks, chafe, drips or other damage. But what does the inside look like? Has an over-tightened clamp crushed the inner lining of the hose so that it's really only the outer covering that's holding back the ocean? Has corrosion of the reinforcing wire on your raw water intake hose advanced to the point where it could collapse under the suction of the raw water pump and starve the water flow that cools the engine and its exhaust? I have to admit that a few of the hoses on my 30+ year old boat have exceeded that 10 year replacement recommendation from time to time but since rebuilding the engine the oldest hose is now the garden hose I use to fill the potable water tank.

Another important thing about hoses is how we connect them to the systems on our boats. I'm a firm believer in using proper hose barb fittings and double hose clamps for all under water applications. Slipping a hose over a smooth surfaced pipe doesn't give the hose anything to "grab" no matter how much you tighten the clamps. Although threaded pipe gives you something to grab, tightening the clamps against sharp threads results in cutting the interior surface and setting the stage for further deterioration. A properly sized barbed fitting and a hose clamped with moderate torque will last for the life of the hose and is able to withstand considerably more pressure than any other form of attachment, with the possible exception of a swaged fitting which would be totally impractical for this application.

Bill Lundquist recently identified several of these "what not to do" situations while upgrading many of the systems on his **Petrel**. When inspecting one of his deck scupper drain through hulls below the waterline, Bill could see rubber, and could stick his finger in and feel rubber hose. What was holding it on the through hull? Where was the through hull? A quick look at the inside of the hull showed a scupper hose going through the ceiling and disappearing into the unknown. Upon removal of the woodwork he could see that there were some significant problems with this installation. There was no through hull! The hose was just fiberglassed to the hull. This was a 30+ year old

boat. When do you think the 30+ year old hose was last replaced?

Although these problems were identified on a fiberglass boat similar issues can be found on many wooden boats. The hose has never leaked, why fix it? I like to ask the question differently: 'how confident are you when the weather kicks up and it's a long way to shore?'