

From the Fall 2002 issue of CS West

Fuel Tank Cleaning and Fuel Polishing

Ron Cook CS 36T *Slipstream II*

With most boat owners, the thought eventually comes to mind, "I wonder how much crud has accumulated in my fuel tank?"

I pictured being in the perfect storm—like something from the 1940s Hollywood set (the name of the film has long since escaped my memory) where a picnic lunch sail to Catalina is turned into the evening tragedy. Boat awash and pitching, sails torn and sand from frolicking on the beach only a few short hours ago getting washed out of the clothes like a 25 cent ride in a laundromat washer. Here it comes! The ol' Westerbeke falls deathly silent. *She* looks at you, terrified and confused, in a way that says "How could something like this happen considering the time and money you put into this tub?".

Having a 1981 36T with a fuel tank that doesn't have an inspection port and which, to my knowledge, had never been cleaned, I had to get peace of mind. So, I decided to have my tank cleaned and the fuel polished. (Fuel polishing involves circulating your fuel through a filter system that removes water and contaminants.)

I followed the CSOA Listserve archives, but still didn't get a clear picture of what I would face inside my tank. Besides, where would I find a fuel-polishing system? So, I got the name of Gary McNeil, Island Petroleum Scrub Ltd., who is now located in Victoria—cell phone number (250) 715-8196.

Gary has a mobile cart that he wheels onto the dock, right up to the boat. First, he extracted and filtered the fuel from the tank - drawing it through the fuel filler inlet - and put the bulk of it into a 45 gallon drum. Then, after removing the aft quarterberth side panel, he cut a 6" hole in the forward starboard corner of the tank with a hole saw. I gulped as I watched him drill a hole in the *side* of my tank! (He couldn't put the hole in the top of the tank due to a conflict with the heater pickup fitting, the fuel level sender and the otherwise limited space available to view the inside and vacuum the tank.)

We had a good view of the inside of the tank. Well, what did we see?

The tank has a baffle running fore and aft. The baffle is dropped from the top of the tank by about 4 inches at the walls and it curves downward towards the center. It is raised off the bottom of the tank. Unfortunately, from the hole on the starboard side of the tank, the pickup tube (which is on the port side) was not fully visible. However, the shape of the baffle provides enough room at the top for the vacuum to be inserted for cleaning the port side of the tank.

Gary then proceeded to vacuum the walls and bottom of the tank. The tank was not as dirty as I imagined. There was no noticeable crud on the walls and only a thin layer on the bottom. Not surprisingly, the pickup tube area, being in lowest part of the tank, had the most accumulation. There was only a bit of pitting on the inside top of the tank, but, otherwise, it looked OK.

After cleaning, Gary covered the hole with a steel port cover using a hylomar (a polyurethane-based gasket/jointing compound that doesn't harden and transforms into a flexible putty when the solvent evaporates) gasket. He then epoxied six bolts into two semi-circular fittings that, together, form a ring around the hole inside the tank, with the bolts protruding outward. The cover and gasket (with nuts on the bolt and tightened) seal the hole. Gary then refilled the tank with my polished fuel. Total cost was \$400.00.

I still feel a little nervous about the hole being on the side and not the top of the tank. But, should any diesel seep past the gasket, it will be clearly visible and easily cleaned up from the bottom of the lazette. However, since having the job done in the May 2002, there has been no seepage from around the hole.

I now have peace of mind that the tank is clean. I also have an access port to deal with future cleaning, inspection or work in the tank. Of course, I'll have to remember to lower the fuel level before opening the port.

Should you have any questions, feel free to call me at (250) 715-0568 or email me at "rondebcook@shaw.ca"