

Cleaning a holding tank with bad scale build-up.

We recently had cause to check our Horizon brand holding tank. It had been 7 or 8 years since originally installed. We had experienced flakes of hard calcified waste breaking free from the tank walls and the waste pipes, and these flakes were jamming in the “joker” valves of the Jabsco diaphragm waste pump. Very annoying when it happens!

We emptied the tank and looked inside. There was a significant deposit of hard scale in the tank, not easy to remove. We could hardly even scratch it with a scraper. We sought advice online and found that Hydrochloric acid at 12-20% would dissolve the hard scale, and could be safely released into the sea.

We filled the tank with 50% sea-water and 50% acid (35% Hydrochloric Acid from Bunnings Kerikeri) giving a real concentration of 17.5% HCL in the tank. We let it sit overnight. Next day, we pumped out the tank and rinsed it with seawater via the toilet pump. There was still a little patchy film of brown deposit on the sides of the tank, but it was soft and came away easily and quickly with a dishwasher brush and cloth.

The inside of our Horizon holding tank now looks like it did when we bought it. The tank is a blue polypropylene tank, and perfectly safe to have Hydrochloric acid in it.

We also replaced the waste pipe from toilet to tank at the same time, as that too had calcified flakes on the walls of the pipe, so we are good as new now. Hopefully no more joker-valve issues!

If anybody wants more detail on this process, feel free to ask.

How we intend to keep it clean.

In future, to reduce the incidence of scale build up, we will action the following tips which are suited to our Jabsco manual pump toilet and Horizon holding tank.

1. When flushing the head, pump the bowl dry, then keep pumping air through the system to push the last of the water through the waste pipe and all the way into the holding tank. This will avoid leaving smelly water in the pipe between head and tank, so no bad odours can permeate the waste hose.
2. On leaving the boat, pump a little fresh water through the system with some of the green stuff that keeps holding tanks healthy. Again, we will leave the pipes completely dry by dry-pumping the head after flushing the pipe with the fresh water.
3. Once a year, we will check the tank, and if it is developing any build-up of slime or whatever, we will try to clean it with environmentally friendly detergent.
4. If any scale develops, we shall again acid flush the tank, but we expect a far lesser concentration of acid would be needed for a small build-up, cleaned out annually.

Cheers,

Justin Graham