

Cleaning A Rusty Gas Tank



From Mr. Nessism:

If you have a Tractor Supply store near they sell some phosphoric acid solution called Milkstone Remover or something like this. Pretty cheap.

Milkstone Remover and Acid Rinse

Fashion some plugs for the tank openings and dump in the acid solution along with some aquarium rocks. Turn the tank every few hours and shake the crap out of it. Takes a few days but the tank will come out rust free. After removing the rust all you will need is one small can of Por-15 tank sealer, no need for the whole motorcycle kit.

Collected from the interweb, an edited forum post by Mr. kwright:

I've been experimenting with using electrolysis for rust removal. The photos below show the third fuel tank I've used this technique on. In this case, an S2A.

The sacrificial anode shows the amount of rust attracted after about 30 hours. I'll clean the anode off after about 48 hours and continue the process until it comes out clean. My guess is, somewhere between 48 and 72 hours and the process will be finished.

Note the plastic spray can cap used as an insulator to keep the anode from touching the sides of the filler opening and as the mount for the anode. These plastic caps are just about the perfect size to slip over the filler opening.



Here are a few links to help us understand the electrolysis process:

[Electrolytic Rust Removal](#)

[Electrolysis - A Superior Cleaning Process](#)

[Ken French's Electrolysis Setup](#)

[How To Deal With Rust In Your Motorcycle Gas Tank](#)

Also, below are several more photos from the current project. The first shows the process after about 54 hours. I expect the process is about complete, but I cleaned the anode and am continuing the process for another 24 hours to ensure it's done.



The second photo shows the basic equipment; a battery charger, the (freshly cleaned) anode and the mix for the electrolyte. The Arm & Hammer product wasn't particularly easy to find, but I eventually tracked it down at a very large mega-superstore (Meijers). It's cheap so I bought two boxes – just to be sure I have a future supply.



The anode is simply a piece of ¼ inch threaded rod (zinc plated) that I bent into shape to fit into the tank WITHOUT touching the sides (most important!). Note that the anode doesn't have to be plated, any cheap steel – or even stainless, will do. I simply had this rod around so I used it. Note the threading was an advantage as I could use nuts to mount the rod to the plastic cap.



The positive clamp from the charger goes to the anode, the negative to the item to be cleaned, in this case, the tank itself. To connect to the tank, I first measure the inside diameter of the petcock opening – about .600 if memory serves. I picked up a rubber “cork” at Lowes that was about this .600 size in the middle of the cork taper. I pushed the rubber cork/plug into the petcock opening, good and tight. Of course the tank has to be sealed before the electrolyte is added.



Using the nut that connects the petcock to the tank, I spun this nut onto the petcock threads, which was a perfect fit over the top of the rubber plug. Over the outside of this nut I placed a worm-clamp, inserting a piece of wire with the last inch or so stripped, under the clamp. When the clamp is tightened, the wire would be trapped between the worm-clamp and the large petcock nut. The other end of this wire is where the GROUND from the battery charger is connected to. If you look carefully in the photo above, you can see the ground wire/clamp on the left side. Note that the reason I used a worm-clamp over the top of the nut versus putting the clamp directly on the petcock mounting threads is I didn't want to damage the petcock mounting threads in any way. The nut is designed to mount to these threads and protects them this way.

When turning on the charger I use the 12v, 10 amp setting. The charger started out at the high end of the scale, but quickly dropped to a low current flow.

I took a plastic paint can cap, and cut a hole in the middle using a hobby knife. The anode is mounted with washers and nuts on the top and bottom, to make sure it doesn't shift at all. Look carefully at the cleaned anode, you can see where it's been worn away... that's why it's called “sacrificial”...



Note that when you're done, the steel inside the tank is raw and unprotected, and once the tank is rinsed out, it will tend to start rusting again. My coating of choice is POR-15, but that's a personal matter.



Other tank cleaning/coating systems:

Rusteco Corrosion Treatment:

<http://www.rusteco.com/auto.htm>

Caswell Epoxy Gas Tank Sealer:

<http://www.caswellplating.com/aids/epoxygas.htm>

Kreem Products:

<http://www.kreemproducts.net/p-22-kreem-mega-combo.aspx>

POR-15:

<http://www.por15.com/CYCLE-TANK-REPAIR-KIT/productinfo/CTRK/>

Evaporust:

<http://www.evaporust.com/>

My thanks to Mr. Nessism and Mr. kwright. These are just a few of the ways to clean and protect your tank from rust. A local radiator shop may also perform this procedure for a reasonable fee. Check your local listings.

Thank you for your indulgence,

BassCliff (a.k.a. BikeCliff)

[Visit the BikeCliff website](#)