Battery replacement

Batteries seem to fail once a year. Get good at replacing them.

I was pretty sure I put new 12N7-4A batteries in all my Iron Sportsters before moving to California, but maybe not.

No matter, the battery in my 1962 Sportster died, and would not hold a charge. I suspected that it might be reverse leakage in the Franks Electric voltage regulator. I pulled the ground on the battery, charged it, and it was dead a week later.

I have gotten so tired of trying to keep marginal batteries alive. What I do now is just slap in a new battery at the first sign of trouble. This includes leaving the ignition on and killing the battery dead flat. Bad move, time for a new battery.

I used to insist on Yuasa batteries. They seemed to last way longer. I bought a Interstate battery in Eureka and it was dead after one hard day's ride. Now I wonder if that was not a bad voltage regulator and no fault of the battery.

Now that I am not working, every dollar counts. So 40 or 50 bucks for a Yuasa really hurts. The other factor is the Yuasa battery is no longer better-built. The screw-in filler plugs have long since abandon for press-in ones like the cheapo batteries use.

I am delighted that some third-rate middle manager at Yuasa figured out how to save $10 or $100 grand a year. I just see no need to buy batteries from people that hold me in contempt. If I wanted something that would get cheaper and crappier every year I would not ride Iron Sportsters.

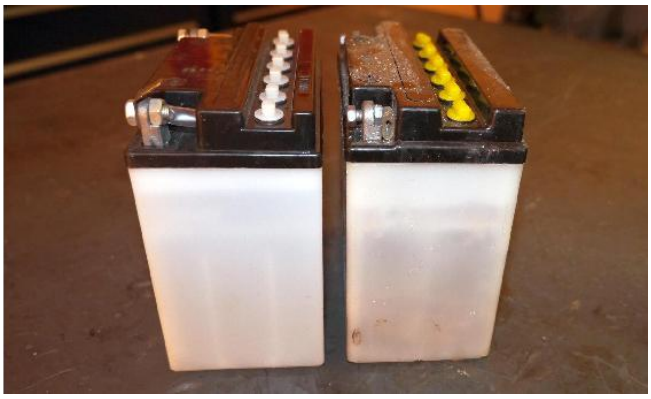
Sure, maybe they cheapened the filler plugs so they could use better plates. Maybe. Instead, I paid $22.49 + $4.49 shipping from Amazon for this cheapo battery. We'll see.

Here is the application on my 1962 Iron Sportster. I mount all the batteries in the front. It keeps battery acid off my jeans. In this case, it also allows me to run the stylish XLCH horseshoe wrap-around oil tank.

I did have this bike set up with a magneto, but when California "oxygenated" the gas, it took 30 kicks to start. It would hot start fine, one kick. So maybe I should try a mag again here in Florida. No matter, I still would run a battery to keep the lights bright at idle.

Here is the old battery. It is mounted in the XLCH box, using the normal rubber mounts. I made some brackets that tie into the front engine mount bolts to mount the box. This bike also has an experiment with 22ga Teflon wiring. It can carry the current but Teflon is too gummy for automotive wiring and can get cut.

The $27.44 battery came with acid. It was double-packed like this. I got it from an outfit called 1000Bulbs off Amazon. One thing to check is to make sure the plus and minus terminals are on the same side for the two batteries. They make this size with the terminals reversed, as I have found out the hard way. 12N7-4A is not the same as 12N7-4B.



The Yuasa battery on the right has much less space behind the terminals. This means I have to keep the nut in with the vent tube placed long-ways, instead of tucked behind. It took a few tries to cut the perfect length, but it works OK. You can see the plates and acid levels seem the same. I forgot to weight them-- sorry.

The size of both batteries is nearly identical. All I cared about is the new battery was a god fit for the XLCH battery box.

Always wear safety glasses. Always.

No sink setup yet in Florida, so I just was careful to not spill a drop. Be careful to not squeeze too hard or you blow the tube off the bottle and acid sprays everywhere.

This is how much acid was left, a nice margin. You do not fill up low batteries with acid. Used distilled water. Water is what boiled off and water is what you add.

I slip the acid bottle back into its box, it just seems safer to have some cardboard to absorb any acid. The vent tube at the bottom I did not use, other than to make back-wedges for the nuts. I reused the vent tube already on the bike.

Here is the plus terminal with a section of vent tube serving to keep the nut in place.

The perfect tube length to wedge in behind the nut to keep it in place.

I set up the ground terminal with a spade lug. This is the nice thing about bikes without electric start. There are no high-current connections. A spade lug takes 25 amps so it is plenty.

The clamp removed, I had some bailing wire on the clamp in case the rubber donuts failed, but they have held up for 15 years.

I still like a wrench instead of a socket.

All that will be left after this job is the old lockwasher you see bottom right. Lock washers wear out. I have seen mil-spec reliability charts that show they are useless after five tightenings. So use a brand-new lockwasher every time.

I prefer lockwashers since the nut will run free. I take those ny-lok prevailing torque nylon nuts off, since they don't free-run. A regular nut you can spin nearly tight with your fingers and just finish off with a turn or two of a wrench or socket. With a new lockwasher they never come loose. For critical stuff I use DISC-LOCK washer pairs. Don't use the stainless ones, they crack. The regular ones are hard enough to not rust.

The new battery installed. I did not bench charge it, but I can top it off here before I take the bike out. I unhooked the ground just in case I have a leak somewhere.