

“Next Generation” Hydrogen Generator

Andy Herold says he doubled mileage on his van with a hydrogen generator. But he didn't like all the problems with the unit, such as meltdowns and leaks. After making numerous prototypes of his own design, and spending \$40,000 to line up the right components, he says his HydroStar hydrogen generator resolves the problems with other commercial units.

“I made my first system using plexiglas, and it fell apart after a month. My second one was pvc, and it melted when the temperature hit 185 degrees,” recalls Herold. “I then switched to fiberglass reinforced ABS plastic rated to 257 degrees F.”

Given the limited space available under most hoods, Herold designed his unit to be compact, measuring only 5 in. wide by 7 1/2 in. long and 2 1/2 in. thick. All tubing and wiring needed is included in each kit.

Herold says the best results with his kits have been on large diesel engines, such as motor homes, reporting as much as a doubling of miles per gallon. Most drivers report about a 20 to 25 percent increase in fuel efficiency.

Herold's daughter Missy has had a unit in

her 6-cyl., Saturn Vue for a year. Forgetting to add water a couple of times has provided the perfect repeat test for mileage results.

“When it's working, I get from 30 to 31 miles per gallon in city driving,” says Missy. “When it's not working, I drop back to about 25 miles per gallon.”

She adds that with the hydrogen, the car has more power. “I especially notice it on hills,” she says. “Without it, it handles just like it did from the factory.”

Missy emphasizes that the system is easy to maintain. “All you have to do is refill it with distilled water every day or two, depending on how much you drive,” she says. “If the tank runs dry it won't hurt anything.”

Herold's website offers pros and cons of four different electrolytes that were added to the distilled water - sodium citrate, baking soda, sodium hydroxide and salt. He prefers sodium citrate for its safety, though more is required. He also recommends against salt due to its corrosive nature.

A recommended mix to achieve maximum output at a safe temperature is two tablespoons of sodium citrate and 1/2 teaspoon of sodium hydroxide. For an even safer solu-

tion, use 15 teaspoons of straight sodium citrate.

“Mix the electrolyte in 1.4 liters of water and fill the tank,” he says. “You can start out at five amps if the unit is installed inside the engine compartment and seven amps if it's in front of the radiator. You can be at 13.5 amps in two hours with the temperature in the tank at 185 degrees and maximum hydrogen production.”

Herold suggests placement ahead of the radiator for air stream cooling.

“The limiting factor in hydrogen generation is temperature of the electrolyte fluid,” he says. “Water boils at 212 degrees so I try to keep my units operating at 185 degrees.”

Herold suggests adjusting the mix according to daily driving habits. “Just drive your vehicle your normal operating distance and check the temperature with a cooking thermometer,” he says. “If it's lower than 185 degrees, add a pinch of electrolyte until it reaches the desired temperature.”

Herold has sold more than 100 of his systems, which he has priced at \$125. He offers an EFIE switch for adjusting the mixture of fuel and air for \$15. He also has a website



Compact unit measures only 5 in. wide by 7 1/2 in. long and 2 1/2 in. thick.

that sells individual components for do it yourselfers, as well as the entire system as a turnkey installation. The site also offers information on making your own, installing and using a hydrogen generator.

FARM SHOW has been provided with two units, and they're being field tested on a diesel pickup for a report in the next issue.

Contact: FARM SHOW Followup, Andrew Herold, 11402 Westview Ct., Beltsville, Md. 20705 (ph 240 417-9575; aheroldsr@yahoo.com; www.makehydrogenerators.com).



Mower attaches to loader-mounted forks. It consists of four disc mower blades attached to a metal skid plate. Blades cut a 2-ft. wide strip under fences.

Side Mower Cuts Under Electric Fence

Jack Parker mows grass and weeds under his electric fences with a home-built mower that attaches to the forks on his tractor.

“I'm 81. It's hard to look back so I decided to make a front-mount mower. Normally it's 4 ft. past the tractor on the right hand side, but you can run it on either side,” Parker says.

The former pipefitter, welder and sawmill operator made the hydraulic-powered mower out of four disc mower blades attached to a 5/16-in. skid plate that slides on the ground. The top guard is made of 1/8-in. steel plate on rebar bent in a 20-in. circle.

The unit attaches to two 4-in. angle iron pieces that bolt to the tractor's forks. It's powered by the tractor's hydraulic system.

“The mower is about 8 to 10 in. high and cuts a 2-ft. wide strip under the fence,” Parker says. “It mows backwards or forwards. It'll even cut brush up to the size of a broom handle.”

The Hayesville, N.C., man has about 60 head of beef cattle on his farm and runs a lot of temporary electric fence. Before he moves his cattle onto the hay field in the fall, he cuts grass under the fence so it won't short it out.

“It's right simple,” Parker says. “There's nothing much to break. It's easy because you can see to mow.”

Contact: FARM SHOW Followup, Jack Parker, 143 Carter Cove Rd, Hayesville, N.C. 28904 (ph 828 389-8195).



Mower is powered by tractor's hydraulic system.



Moustache-shaped hoe weeds both sides of row. It will clear seedlings 6 to 7 in. tall.

“Moustache” Hoe Weeds Both Sides Of Row

“I got the idea last year while weeding my garden. I was spending too much time going up and down each side of new plant seedlings when the idea hit me for a hoe that would go over the row,” says Joe Maringer, inventor and manufacturer of the Moustache Garden Hoe.

It gets its name from the obvious reason that it's shaped like a moustache. The curled ends go on either side of the row. The arch in the hoe will clear seedlings 6 to 7 in. tall.

Once the crop is up and going, you can install a bar across the middle of the hoe

and used it for conventional weeding between the row.

“It slices through weeds without clogging up. We had the first units cast at a local Amish blacksmith shop and workers in the shop started using the hoes right away. They really caught on fast,” says Maringer, who started selling the hoes this spring.

Sells for \$42.50 plus S&H.

Contact: FARM SHOW Followup, Moustache Garden Hoe, Jim Maringer, 337 North Buffalo Street, Springville, N.Y. 14141 (ph 716 697-1125).

Some of the best new ideas we hear about are “made it myself” inventions born in farmers' workshops. If you've got a new idea or favorite gadget you're proud of, we'd like to hear about it. Send along a photo or two, and a description of what it is and how it works. Is it being manufactured commercially? If so where can interested farmers buy it? Are you looking for manufacturers, dealers or distributors? Send to FARM SHOW, P.O. Box 1029, Lakeville, Minn. 55044 or call toll-free 800 834-9665. Or you can submit an idea at our website at www.farmshow.com.

Mark Newhall, Editor

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