

Steam Generator Makes Electricity With Wood

AFARM SHOW reader called the other day to tell us about a small ad he saw in the back of a magazine about “converting wood into electricity”. He said the ad was placed by an inventor with a steam-powered generator and that it might make a good story for us.

We looked into it and discovered an amazing inventor named Wes Gordon in Tulsa, Oklahoma. He has built a steam-powered generator that runs on anything that burns. “It can act as a standby generator or be used to charge a battery bank, run welders, submersible pumps, or other shop equipment,” says Gordon, owner of SteamGen, which is selling a 10 kw machine.

Even though the current model is relatively small – and pretty pricey at \$25,000 – the concept of generating electricity from burning wood, bales and other crop residue is what gets people excited.

Gordon’s system consists of a Simple compound steam engine, a Windpower pto-powered generator, a Beckmann Boatshop 150 psi boiler, and an engine-driven PumpTec high-pressure pump. Everything mounts on a single axle trailer. Gordon can add on-site plumbing at a cost of \$50/hr. or it can be completed by the owner.

Waste steam at 212° can be piped to a steam radiator or heat exchanger connected to a hot water or forced air heating system. If not using the steam engine to produce electricity, hot water from the boiler can also be used to provide heat.



All components of steam-powered system mount on a single trailer.

A downside of this simple wood-fired boiler is the constant attention it requires feeding the fire and operating the boiler controls. Gordon notes that adding automatic controls to a steam generator can triple the price. However, the savings in fuel – for people who have low-cost wood or other combustible material – will pay for a SteamGen unit in five years, he says.



Steam-powered generator runs welder (above). Wood-fired boiler (right) creates steam to power engine.

“SteamGen generators require 100 percent supervision, but operating a boiler is not rocket science,” says Gordon. “Your teenage son can operate the boiler while you operate the shop equipment on the power it provides.”

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ATV towable hand cart has a hitch on top that hooks up to the ATV drawbar, and a pair of adjustable prongs to load rocks.

Towable Hand Cart Moves Big Rocks

“Our new ATV towable hand cart lets you load and haul large rocks out of the field without lifting. You can tow it by hand or pull it behind an ATV,” says Roger Gutschmidt, Gackle, N. Dak.

The “Rock-It” cart comes with a pair of 15-in. dia., highway-rated tires and an expanded metal “basket”. It has a hitch on top that hooks up to the ATV drawbar, and a pair of adjustable prongs to load rocks.

To load a large rock, the cart has to be unhitched from the ATV. You then place the prongs under the rock and just tip the cart backward. With a large rock in the basket, the cart is perfectly balanced for ease of maneuverability and re-attachment to your ATV.

“It’s really versatile. It’s not designed to replace a rock picker, but it comes in handy for removing the occasional large rock,” says Gutschmidt. “It works great after you’re done seeding and there are a few loose rocks in the field that you want to remove, but you don’t want to use a rock picker because it would leave tracks.”

By pulling a pair of pins, the tines can be set at two different positions – at a 45 degree



To load a large rock, you place prongs under rock and then tip cart backward.

angle for digging out rocks; or at a 90 degree angle for use as a conventional hand cart.

Sells for less than \$350.
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Joe Wood of Weimar, Texas, built this six-shooter handgun replica the size of a pickup. It’s actually a giant barbecue grill and smoker.

6-Shooter Barbeque Turns Heads

Being a Texan definitely had something to do with Joe Wood’s decision to build a six-shooter the size of a pickup truck. The big handgun replica is actually a giant barbecue grill and smoker and it gets a lot of attention wherever it goes.

“It’s built to scale, and stands 6 ft., 11 in. tall from the base of the handle to the top of the hammer and 15 ft., 4 in. from the handle to the end of the barrel,” says Wood.

He operates Wood’s Welding Service at Weimar, Texas, and got the idea to build the “smoking gun” after seeing a much smaller, much less detailed “pistol barbecue” at a duck-hunting gathering.

He decided to build his barbecue in perfect proportion to a six-shooter owned by a buddy of his and says it took two years to finish.

“I spent about 1,100 hours working on it – 900 thinking about it, and 200 in the shop,” Wood says. “I scratched myself bald-headed, almost.”

As a professional welder, his hobby has been creating furniture and household items out of scrap metal, iron pipe and horseshoes. However, the smoking gun project required mainly new materials – about \$5,000 worth.

The handle is actually the firebox and you load wood through a door on the back side. The cylinder is where the grill is located and the smoke escapes out the barrel, giving the appearance that the gun has just been fired.

Since the handle has 2 1/2-in. thick Red Oak panels on each side, there’s a double-walled, insulated firebox on the inside, to



Barbeque is built to scale and stands 6 ft. 11 in. tall and 15 ft. 4 in. long.

prevent the wood from becoming too hot.

The cylinder is made from a 3-ft. long section of 6-in. thick by 30-in. dia. pipe. There’s a door on one side with a removable handle. The door hinges are on the inside, so as not to distract from the overall appearance.

The six 5-in. dia. bullets are made from stainless steel. The barrel is 10 ft. long and 8-in. in dia.

For ease of transport, Wood bolted the big pistol, which weighs 2,000 lbs., to a flat deck trailer.

“When it’s going down the road, it’s over 8 ft. off the pavement, so people can see it coming towards them as we meet. There are many who can’t believe what they’ve just seen so they turn around to catch up to us for a better look,” Wood says. “I always say, oh, here come the paparazzi. It’s a lot of fun.”

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