



"It's the only one-man firewood operation I know of," says Gary Olsen about his firewood processor that quick-taches to a skid loader.



System lets operator pick up whole logs, saw them to firewood lengths and split the blocks, all without leaving the skid steer seat.

One-Man Firewood Processor Mounts On Skidsteer

You can start a one-man firewood operation with a new processor that quick-attaches to a skid steer loader. With the new Hahn HFP160 Firewood Pro, you can pick up whole logs, saw them to firewood lengths and split the blocks, all without leaving your seat.

"This is the only one-man firewood operation I know of," says Gary Olsen, President of Hahn Machinery in Two Harbors, Minn. "It usually requires someone on a loader and someone to run the processor. Our system takes the processor right to the woodpile, and there's nobody on the ground."

The 2,020-lb. processor needs a big enough loader to handle its weight. In ad-

dition, the processor needs a standard auxiliary hydraulic flow of 20 gpm for optimum performance and three hydraulic connections.

"All functions on the processor are operated by 8 push buttons," Olsen says. They are on control modules tied to the skid loader's joysticks and connected by a detachable cable to the processor.

Logs are picked up with the processor's forks, rolled onto the in-feed trough, and moved up to a butt plate by a chain conveyor and roller. Once in position, a high-speed chainsaw activates. When the block is cut, it falls into the splitting trough and is split with a 4 by 24-in. cylinder. The processor can cut

wood into lengths up to 20 in. and can split the wood into 4, 6, or 8 pieces, depending on the choice of splitting heads. While it's designed for a skid steer loader, some customers are making modifications to put the processor on excavators and tractors.

The HFP160 was in development for two years. In January 2009, it completed an extensive 6-month field trial on a commercial woodlot. Improvements were made, and Hahn began selling the processor last spring.

Currently, the processor carries a base price of \$27,500, which, according to Olsen, is on the low end for a commercial grade firewood processor.

"We've been building heavy-duty logging equipment since 1972," Olsen says, "but this is our first venture into firewood processing machinery."

The processor can be purchased directly from the company. Hahn ships anywhere in the U.S., Canada and overseas.

Videos of the processor in action can be seen on Hahn's website.

Contact: FARM SHOW Followup, Hahn Machinery Inc., P.O. Box 220, Two Harbors, Minn. 55616. (ph 800 483-8825; www.hahnmachinery.com).

State-Of-The-Art Stun Gun

A stun gun for livestock that has been used in Germany for years is now available in the U.S. and Canada. The Blitz captive bolt stun gun is the most powerful on-farm stunner available, according to Bertrand Dumont, owner of Cotran Corporation, which sells veterinarian supplies. Last fall his company became the North American distributor.

The stun gun uses 9mm centerfire blank cartridges that come in different loads to

humanely euthanize everything from small pigs to cattle. When fired the cartridge's high velocity pushes a rod into the animal's cranium for a quick and humane death.

At \$350 to \$395, Blitz kits are affordable for livestock owners, veterinarians, packing plants and truckers who handle livestock. Cotran sells the Blitz through distributors who can set up custom kits for various livestock.



Captive bolt stun gun uses 9 mm centerfire blank cartridges to humanely euthanize everything from small pigs to cattle.

Contact: FARM SHOW Followup, Cotran, 574 Park Ave, Portsmouth, Rhode Island 02871 (ph 800 345-4449; www.cotran-corp.com).

Kits Turn Wood Into "Syngas"

Want to fuel up your truck from the woodpile? Get a wood gas generator from All Power Labs (APL), which turns wood and other biomass into gas to fuel cars, trucks, gensets, stoves and furnaces. Prices for a wide variety of sizes range from free for a full set of plans to \$5,000 for a complete system, all painted and ready to assemble. Individual components are available as well.

APL uses an open source process to improve, refine and test its products; thus the free plans. All you have to do to get the free plans sent to you is to agree not to sell a product based on those plans, or pay a 10 percent fee to APL if you do sell units. You also agree to share any improvements you make on the plans. In a very real way, anyone who receives the free set of plans becomes a collaborating researcher with Mason and APL. The agreement is called a General Public License.

"The more minds you have working on something, the better it will be," says Price. "The world is littered with good ideas that never went anywhere because people held on to them so tightly. We believe we have solved a lot of challenges in developing downdraft gasifiers because people have supported our work and shared their knowledge."

The company's latest design vaporizes water out of incoming fuel and turns fuel into

charcoal. It heats the charcoal and incoming air. It also removes a majority of particulates to prevent soot clogging. The result is more complete combustion for increased total efficiency and elimination of any need for a radiator or cooling system. It's also fitted with a gasification control unit (GCU) that monitors and evaluates gas production.

"We don't tell people our units are turnkey," says Price. "You'll have to play around with it a little. Every kind of fuel you put in will react differently. Balsa and oak won't make the same kind of gas. You have to tweak it a little."

The GCU will make it easier to tweak the system's maximum efficiency. Price explains that different fuels require different flow rates and pressures. The GCU monitors production and provides feedback. It can measure flow rate and pressure and monitor outputs from motors running on the gas produced or on DC motors running off a generator that is running on syngas.

With 107 kits out the door (12 to university research facilities) in the past year, APL is a leader in turning wood and other biomass into fuel. They are also a leader in putting syngas to work. In addition to fueling generators, they have also used it to fuel a Honda Accord and other vehicles.

This winter, the company plans to start offering plans or kits for a gasifier with a 12.5-hp, single cylinder, China diesel. It will



Wood gas generator turns wood and other biomass into gas to fuel cars, trucks, stoves and furnaces. Car shown above is running on syngas. A completely assembled unit is shown at right.

contain a separate electronic speed control kit and a butterfly (valve) kit. The speed control kit and butterfly kit can also be used with Lister diesels.

APL's website offers a tremendous amount of information on downdraft gasifiers and how they work.

Contact: FARM SHOW Followup, All Power Labs, 1010 Murray Ave., Berkeley, Calif. 94710 (ph 510 592-4435; gek@allpowerlabs.org; www.allpowerlabs.org).

