

Self-Contained Wood Powered Genset

The "Power Pallet" consists of a gasifier, motor, generator, controls and fuel hopper that sit on a pallet, but you can also power it with pallets, or nearly any other type of waste, woody material.

"We just introduced the Power Pallet in March, but it has been years in development," says Rachael Norman at All Power Labs (APL). "The gasifier control unit automatically adjusts the fuel-air mix for the biomass materials being burned. We even have it set up now with automatic feed for fuel and ash uptake."

Norman cautions that like any wood-burning stove, it needs some attention, mostly to make sure the hopper stays full of fuel. Aside from that, the automated system basically runs itself once the desired power production has been set.

"It is easy to learn and understand," she says. "In 20 min., we taught a 12-year old to understand each part and what it does and

how to start and operate the system."

All Power Labs is a leading source of wood gasification research and development, as well as components and whole units. Their collaborative approach to research provides anyone free (online only) plans for gasification units, their components and applications. Research is encouraged with the only stipulation being that results are shared with the APL community.

The new genset consists of a 1,000-cc Kohler V-twin, water-cooled engine. It's round tooth belt drives a 4-pole ST genhead. This allows for variable rpm's to match desired power output. According to APL, the round tooth belt is much more efficient than V-belt or chain drives, claiming up to 98 percent efficiency.

The unit claims 10 kW power at 2400 engine rpm's and 1800 rpm's at the genhead. If less power is needed, engine speed can be dropped as low as 1,500 rpm's and still

handle surge loads.

The design includes a pto to run chippers, pumps or other equipment. Positioned to the side of the skid, there is room for mounting a pulley or gear drive on the shaft as well.

The Power Pallet is available as a completely assembled, automated 10 kW system for \$17,995. Buyers can also choose a manual system they assemble on site for \$9,995. For 15 kW output models, add \$5,000 to the manual and fully automatic system prices. For 20 kW output, add \$10,000.

"Our automated, fully assembled unit is far and away the most popular," says Norman. "All you do is add oil to the engine and pack the drum filter with sawdust or charcoal. It generally takes about five minutes to start the system."

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



All kinds of waste can be used to power the new "Power Pallet". A gasifier control unit automatically adjusts the fuel-air mix for the material being burned.



Log-gripping pusher plate on this splitter keeps log from slipping out when splitting firewood.

"Studded" Pusher Plate Holds Logs In Place

Anyone who's ever had a log slip out when splitting firewood will be interested in the design of this new log-gripping pusher plate.

The Grip Right™ pusher plate, which is standard equipment on Split Right® log splitters, is equipped with two rows of replaceable, pointed steel knobs that bite into logs.

"The knobs extend about 1 in. from the plate's surface. They are held on with nuts on the back side of the plate," says Jason Shipman, Split Right, Morenci, Mich.

The company offers the Grip Right pusher plate on all 3 of its splitter models. The plate measures 12 high on the SR125 and SR225 models and 14 in. high on the SR325 model.

Replaceable Grip Right log points sell for \$20 apiece.



Pusher plate is equipped with 2 rows of replaceable, pointed steel knobs that bite into log.

Contact: FARM SHOW Followup, Split Right, 9650 Packard Rd., Morenci, Mich. 49256 (ph 888 775-4874; Jason@greenteeth.com; www.splitright.com).

"Motorcycle Sidecar" Tractor

"It does a great job of cultivating and also works great for harvesting sweet corn," says Chris Juel, Scobey, Mont., about his home-built, "motorcycle sidecar" tractor.

The 2-wheeled tractor rides on a pair of big lugged tires. It's powered by a 7 hp electric start Briggs & Stratton engine, which chain-drives the rear wheel. A solar panel, mounted horizontally above the rear wheel, recharges a car battery located just behind the driver.

A metal outrigger arm that mounts on a big caster wheel supports a cultivator, while a metal weight box on the outrigger arm keeps the motorcycle from tipping over. An electric actuator is used to raise and lower the cultivator.

"Most of the time I use the cultivator in

2-ft. tall corn, but if I want I can cultivate corn up to 6 ft. tall," says Juel. "The outrigger arm is about 5 ft. off ground so it just touches the tassels of bigger corn. I can use the rig to hill corn, too, by mounting coulters on it."

A 30-gal. plastic barrel that mounts on back of the machine is used to harvest sweet corn. Juel drives slowly down the row while someone on the ground hand picks the corn and fills the barrel.

"It's really handy because I can sell the corn right out of the barrel at a local farmer's market," says Juel.

Contact: FARM SHOW Followup, Chris Juel, Box 162, Scobey, Mont. 59263 (ph 406 487-5014).



Chris Juel built this 2-wheeled tractor that rides on a pair of big lugged tires. "It does a great job of cultivating and also works great for harvesting sweet corn," he says.

ATV Dump Trailer Handles Up To 1-Ton Loads

"Our new heavy-duty ATV dump trailer is designed to haul up to 1 ton of rocks behind an ATV. It mounts on big 15-in. wheels that follow in the ATV's wheel tracks, making it easy to pull it even on soft ground," says Bennett Zierke, Lamplight Mfg., Hancock, Minn.

The trailer's box measures 30 in. wide by 40 in. long by 16 in. high and is made from 11-ga. steel. The box mounts on a frame made from 3/16-in. tubing and comes with a spring-loaded latch. When released, the box manually tilts overcenter. An air dump model, which uses a 12-volt air compressor to operate an air bag, is also available.

"It's built heavier than any other rock trailer on the market. With the big wheels following in the ATV's wheel tracks, even most 300 or 400 cc ATV's can easily pull it," says Zierke. "It works a lot better than trying to put rocks on a 4-wheeler's racks and then having them fall off. In fact, it almost makes rock picking fun for kids."

The trailer can be used in growing crops, says Zierke. "The wheelbase on most ATV's is 47 in., which means the ATV and trailer's wheels will straddle 20 and 22-in. rows. In 30-in. rows the wheels straddle one row."

The trailer can also be pulled behind any utility vehicle. "By flipping the trailer's wheels in the opposite direction, the wheels will track behind the utility vehicle's wheels," notes Zierke.

The manual dump model sells for \$975 plus S&H; the air dump model for \$1,500 plus S&H.

Contact: FARM SHOW Followup, Lamplight Mfg., 27263 State Highway 9,



Heavy duty ATV dump trailer is designed to haul up to 1 ton of rocks behind an ATV.



Trailer's box comes with a spring-loaded latch. When released, box manually tilts overcenter.

Hancock, Minn. 56244 (ph 320 392-2684; www.lamplightmfg.com).