

Home-Built Stump Grinder

"After looking on the internet at commercial stump grinder designs, I was inspired to build my own walk-behind model. My total cost was less than \$300," says Ron Mickle, Thorp, Wis.

The stump grinder rides on 10-in. pneumatic tires and has handles made from 3/4-in. dia. pipe. It's powered by a 13 hp. Briggs & Stratton engine that Mickle already had. The engine mounts on an angle iron frame and is used to double belt-drive the grinder's teeth.

"I tried to build it as simple as possible and used mostly parts I already had," says Mickle. "The entire unit weighs about 150 lbs. and is only 21 in. wide, so it'll easily fit into tight spots."

He bought the grinder teeth from WesSpur Tree Equipment, Inc., (Bellingham, Wash., ph 360 734-5242), and bolted them onto a round 3/8-in. thick, 14-in. dia. steel plate. He bought a sprocket hub and welded it to the plate, and he bolted the grinder teeth

to the plate. The plate was then installed on a shaft with a couple of pillow block bearings.

He used the stump grinder for the first time last summer.

"It works better than I expected and grinds the stumps to dust," says Mickle. "I used it on 80 acres of mostly wooded land to help establish walking and ATV trails for both hunting and wildlife watching. I also used it to clear 200 trees to make room for my driveway and barn. If I did it again I'd use bigger wheels to make it easier to push, and I'd add a deflector to the muffler area so I can avoid overheating the lower area of my body."

He paid about \$100 for the teeth, \$150 for the clutch, \$10 for the belts, and \$10 for a pulley. "I used 1/8-in. plate to form a hood for the grinding wheel, and bolted part of the mud guard off an old truck behind it to keep wood chips from flying back at me," notes Mickle.



Ron Mickle built this stump grinder that rides on 10-in. pneumatic tires and is powered by a 13 hp. Briggs & Stratton engine.

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Plow Converted To 3-Pt. "Root Ripper"

"I needed a root ripper to tear out many tree stumps, so I converted an old horse-drawn plow into a 3-pt. unit that does a great job," says Dex Brouillette, Durham, N.C.

He uses a 38 hp. Massey Ferguson tractor to pull the ripper, which goes into the ground about 3 ft. behind the tractor's 3-pt. hitch. To build it he threw away everything but the main shaft that supported the moldboard.

"I found the plow in a neighbor's hedge row. The moldboard was broken and the handles were gone, but the main beam was still in good shape. It was made of cast iron, so I had to beef it up," says Brouillette.

He beefed up the beam by bolting lengths of angle iron onto both sides of it, and also welding on braces for support. Then he bolted on 2 box blade rippers, one on each side of the bottom hock.

He built a 3-pt. hitch equipped with multiple hookup settings and a steel frame that hooks up to the hitch and supports the ripper. To add weight, he bolted an aluminum box on top of the frame and filled it with 20 10-lb. window weights, which he covered with cement.

"It works even better than I expected. The ripper is located far enough back that it can dig into the ground and tear the root out as I drive forward," says Brouillette. "If the tractor's wheels slip and I can't break the root, I raise the 3-pt. and rip them out of the ground until I can go forward and the root breaks."

"If I want I can remove entire tree stumps by making repeated passes and chipping away a little of the stump at a time. I also made a couple of leg stands for it so I can



"It works even better than I expected," says Dex Brouillette, who converted an old horse-drawn plow into this 3-pt. root ripper.

hook up to it without having to do any lifting." Contact: FARM SHOW Followup, Dex Brouillette, 4703 Bragg Rd., Durham, N.C. 27704 (ph 919 604-0615; cowbootman@yahoo.com).

Where To Buy An Automatic Chicken Door

Got chickens? An automatic door eliminates trips out to the coop every morning and night. Here's a list of doors on the market.

- **Poultry Butler** has a digital controller/timer (with internal battery backup) and light sensor option. It operates on 110 volts or a 12-volt battery (optional 5-watt solar panel). The polywood and galvanized steel door opens and closes (slides up and down or horizontally) with a worm drive with an automatic reversal if the door encounters an obstruction. Prices start at \$179 for the standard 9 by 13-in. door to \$199 for the 11 by 15-in. door, (ph 724 397-8908; www.poultrybutler.com).
- **Pullet-Shut Automatic Door** runs off a 12-volt battery with an optional solar panel or trickle charger. It is programmed by holding a magnet over the timer at the times you want it to open and close the aluminum door on a left or right-side hinge. Price is \$180 for the 11 by 15-in. door, (ph 512 995-0058; www.chickendoors.com).
- **Heavy-Duty Automatic Chicken Coop Door** comes in a 110-volt plug-in or (4 AA) battery version and has an all-weather aluminum door that slides up and down on a hard composite frame. The door opening is 10 1/2 by 12-in., but the unit is 33 in. tall to conceal the motor and other parts. It can be set by timer or light sensor. Cost is \$225 for the electric version and \$275 for the battery model, (ph 800 624-4493; www.flemingoutdoors.com).

- **ADORI Automatic Chicken Door** runs on a 6-volt lantern battery to open and close the 13 by 10 1/2-in. sprocket-driven door, based on a light sensor. It's built like an industrial-grade appliance out of galvanized steel and costs \$199, (ph 832 444-0192; www.adorstore.com).
- **Automatic Chick'n Coop Door** comes in quality exterior laminated wood and aluminum. The 10 by 13-in. slide door is built in a 39-in. tall frame and comes in electric (\$193/wood, \$230/aluminum) and solar (\$340/wood, \$352/aluminum) models. The family business also sells motor/timer kits (\$118) and solar panel, timer and battery kits (\$141.45) to build your own door, (ph 801 735-7862; www.chickencoopdoor.com).
- **Incredible Poultry Door** touts a screw-drive design as being impossible for raccoons to open. Light sensors open and close the electric-driven metal door. The units sell for \$300 at www.eggcartons.com, (ph 508 476-0038).
- **VSB-Doorkeeper** originates from a German company with 30 years experience. In the U.S. it's available through Foy's Pet Supplies. The company sells parts so you can make your own door (\$190 for the outdoor motor setup and \$212 for inside installation). Sensors and timers are additional, (ph 877 355-7727; www.foyspigeonsupplies.com).

Build Your Own Steel-Frame Home

Three people can frame a house in about 5 hrs. using basic tools, says Dave Rades, developer of Kokoon steel-frame homes designed for do-it-yourselfers.

Rades says steel is a third lighter than wood, yet has 10 times the strength. Kokoon panels weigh about 175 lbs., so 2 to 3 people can place, level, and screw the panels together. The panels are insulated with soy-based closed cell foam.

Rades and his wife started Kokoon Homes in 2007. The company is expanding with dealers throughout the country and has 10 openings for new associates in 2014, with no dealer fee.

The materials and concept of the panel kits sets the company apart from others, says Amy Griggs, director of marketing.

"The kits are eco-friendly, and customers can build on their own time," she says. Customers like the insulation foam, which contains no formaldehyde or VOCs, is ultra lightweight with excellent thermal properties, and seals with one application. Termites and insects don't like it.

Kokoon sprays the foam in various thicknesses to accommodate different climates: up to R-30 for walls and R-40 for roofs.

Customers can choose a Kokoon floor plan or send in a floor plan for a cost estimate. Most customers build their own deck, buy roof trusses locally, and purchase the wall and roof panels from Kokoon. Some provide their own windows, but Kokoon offers pre-installed, Low-E (energy saving) glass, double hung windows with wood jams. She adds that all the factory-foamed panel



Kokoon steel-frame homes are designed for do-it-yourselfers.



Kokoon panels weigh about 175 lbs., so 2 to 3 people can place, level, and screw the panels together.



Panels are insulated with soy-based, closed cell foam.

walls for a 2,000-sq. ft. home fit on a 25-ft. long trailer.

Costs range according to size, insulation R-value and the design. Prices start at \$15/sq. ft.

Check out the website for more details or to inquire about becoming a dealer.

Contact: FARM SHOW Followup, Kokoon Homes, 266 Elberton St., Toccoa, Ga. 30577 (ph 706 244-0162; www.kokoonhomes.com).