## **Vertical Saw Clears Trails Fast**

Curtis Cullen clears his walking trails fast with a loader-mounted, vertical saw. The miniature buzz saw clips canes, vines and stems as he drives.

"We have some land in Arkansas. My wife is a birdwatcher and likes to travel the trails, which were all overgrown with blackberry canes and vines," says Cullen. "I near worked myself to death trimming with a circle saw blade on a heavy-duty trimmer. I came back all covered with chiggers and ticks."

A trip to Harbor Freight got Cullen on the right path with a \$99, 212 cc engine. The brush forks on his compact tractor loader became the base. He bought some pieces of square tubing to fit the 2-in. forks and welded them underneath a 12 by 30-in. frame made from 1 by 1-in., 1/8-in. wall tubing. Set screws lock the brackets and frame to the forks.

"I bought a 36-in.long, 1-in. diameter, cold rolled steel bar for the driveshaft and mounted it in pillow block bearings," says Cullen. "At the engine end I mounted a pulley in-line with the drive pulley on the engine. At the

other end, I mounted a 12-in. Beaver Blade attachment for a DR trimmer."

DR Power Equipment promotes the Beaver Blade as a chainsaw on wheels. Cullen turned it into a chainsaw on a loader.

"I drilled a hole in the end of the shaft and used a right-hand tap for the hex bolt to attach the blade," says Cullen. "I welded a heavy-duty flange on the shaft for the blade to back up against. As the blade turns, the bolt tightens it up against the flange."

The engine is mounted to the frame on 1/8in. steel plates with slots. This allows Cullen to tighten the twist link belt by sliding the engine and securing it.

"I run the belt a little loose. If I do hit something, the belt slips until I can back off," he says.

Cullen starts the engine with its pull rope and runs it on idle. He admits it is probably oversized for the blade, but the price was right.

"I may add an automatic clutch and a remote throttle control," says Cullen. "Then when I idle down, the blade will stop."





Loader-mounted brush cutter uses a Harbor Freight engine, which shaft-drives a 12-in. dia. Beaver Blade attachment off a DR walk-behind trimmer.

Initially Cullen fabricated a guard over the blade, which turns clockwise (toward the ground). "The guard material wasn't heavy enough to handle the material I was cutting," he says.

Cullen has run the vertical saw for 4 years

without a problem. "It cuts through stuff like a knife through hot butter, even branches up to 2-in. dia." he says.

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## 15-Year-Old Built His Own "Chore Tricycle"

"We own two livestock farms about 1/4 mile apart and have to do chores on both of them twice a day. My home-built 'chore tricycle' is a lot easier than riding a bicycle back and forth between the farms," says 15-year-old Ontario teenager Aaron Martin.

He built the 3-wheeled rig out of an old tricycle and various equipment parts. It rides on a single wheelbarrow wheel on front and a pair of lugged wheels, borrowed from a walk-behind rototiller, on back.

Martin removed the tricycle's original steering column and handlebars and replaced them with ones off an old bicycle. A Honda 5 1/2 hp. engine drives a pair of pulleys that propel the rear wheels. Martin welded the lever off an old pull-type silage chopper to the belt tightener off a self-unloading forage wagon. To make the machine go forward, he just pulls up on the lever's handle, which is located under the seat.

The tricycle still has its original foot

pedals, which Martin disconnected from the axle so they now serve only as foot rests.

"It's fun to drive and cost very little to build. My dad helped me build it," says Martin. "It can go up to 30 mph, but to be safe I usually go only about 15 mph. When I want to speed up or slow down, I hold onto the handlebars with one hand and reach down to grab the belt tightener with my other hand. I use a pair of plywood 'knee pads' located below the handlebars to help steer. I made the pads by bolting two small pieces of plywood onto a vertical metal bar that's welded onto the handlebars."

The tricycle came equipped with a narrow metal fender on the front wheel. To keep mud from flying up at him, Martin made a wider fender by cutting out part of a plastic oil jug and bolting it on over the tricycle's original guard.

He made an axle to connect the rear wheels by inserting a length of solid round tubing



"It's fun to drive and cost very little to build," says 15-year-old Aaron Martin about the 3-wheeled chore rig he built out of an old tricycle and various other parts.

inside a length of square tubing. "The axle has no bearings to wear out. I installed a grease zerk on top of the square tubing and filled it with grease," explains Martin.

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## They Specialize In Decorative Windmills

If you have an old windmill tower but the fan blades no longer work, Scott Windmills will supply a working head complete with fan blades and rudder that look real. If you don't already have a tower, the company makes wooden ones, with or without a matching water tank

"I built one for our own farm, and a lady saw it and wanted one," recalls Travis Scott. "She ordered several more, and it took off from there. She is still a dealer, but we now have between 200 and 300 dealers, mostly in the U.S."

A demand for rustic-style windmill fans was initially filled from a graveyard of beaten up windmills. "Eventually we started making fans in a rustic style," says Shannon. "Now we offer them galvanized, oxidized or rusted."

As featured on the HGTV hit show "Fixer Upper", fans are often used as decorations on house and barn walls. They've also been modified as ceiling fans. The company even makes smaller fans with space for a clock facing in the center.

The full windmill heads with fans and rudders are popular with people who have an empty tower. "We have a lot of customers who buy a windmill head just to see the

blades spin," says Shannon. "Others will build a tower themselves using the plans we provide with our windmill head kits."

She points out that the windmill heads are not designed for pumping. That doesn't mean they aren't well built.

"Our windmills are built of heavy-duty components and built to last in an outdoor environment," says Shannon. "We have a customer in Florida who emails a picture of his windmill to us after every hurricane to show it's hurricane proof."

The company sells 20, 28, 47 and 60-in. windmill heads, as well as fans from 30 to 120 in. in diameter. They also sell half fans for wall decorations. Prices for heads range from \$160 for a 30-in. to \$620 for a 60-in. Fan prices range from \$65 for a 30-in. industrial style half to \$460 for a 120-in. rustic style half. Full fans range from \$100 for a 30-in. industrial style to \$650 for a 120-in. rustic style. Texas flag rudders are available at no

The 3 smaller heads have sealed bearings in the hub so they don't have to be greased or maintained. The 60-in. windmill head uses a heavy-duty hub/bearing assembly and is greased through the spindle. Annual repacking of the bearings is recommended.



Decorative, non-pumping windmill can be ordered with a wooden tower, and matching wooden water

Wooden windmills come in 8, 11, 15 and 20-ft. heights with footprints ranging from 32 by 32 in. to 62 by 62 in. Plans for build-it-yourself towers include tool and lumber requirements.

"Many of our dealers build wooden windmill and water towers for mounting our heads," says Shannon. "We've seen them built with rustic pine with the bark coming off and others that are smooth and polished. One dealer used railroad ties to make a tower."

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