

"Owner's Report" On Do-It-Yourself Sawmills

tires that I found at a local junk yard. The tires are mounted on new boat trailer wheel hubs. I made my own fuel tank from an old Freon bottle."

Salsman says he spent a total of about \$800.

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Richard Ijames, Mocksville, N.C.:

"It's the most stress relieving piece of equipment I've ever operated," says Ijames about his home-built bandsaw mill. It's powered by a Tecumseh 10 hp gas engine.

"I used it to cut waste lumber given to me by neighbors to build a 20 by 24-ft. shed. I



also added onto one of my other sheds. It's a very fuel efficient unit - I cut 1,300 board feet of lumber from a single pine tree and used only three gallons of gas.

"I bought most of the material new and spent a total of about \$1,500. Commercial bandsaw mills of comparable capacity sell for \$5,000 and up so I saved a lot of money.

"I followed Reeks's plans with a few modifications. I built the head first and made sure that everything was built perfectly level. The bandsaw blade rides on a pair of boat trailer wheels that I bought from Northern Hydraulics. The wheels and spindles bolt to a platform that moves up and down on a 4-legged vertical steel frame equipped with a hand crank. To make the crank I used a horizontal wheel that I ordered from Master Car. The top of the frame is built at a 45 degree angle for added strength. I use skid poles and a fold-down ramp to roll logs onto the mill. It took me three days just to get the two bottom beams lined up so I could roll the logs on.

"The 10 hp engine handles logs up to 10 inches in diameter with no problem, but if the logs are any bigger than that I have to slow down. I plan to replace the engine with a couple of air compressors which will be powered by 18 hp gas engines so I can cut faster. I also plan to mount a chain-driven wheel on one side of the mill that will automatically move the head up and down the track as I walk alongside the unit."

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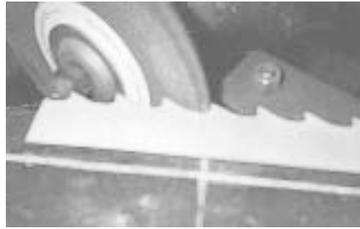
Elmer Swanson, Humboldt, Iowa: "My bandsaw mill does a good job. I'm glad I built it," says Swanson.

Swanson set up his mill inside a shed. He used 3 by 5-in., 20-ft. lengths of angle iron to make the tracks and set them on the shed's concrete floor. Eight 6-in. dia. rubber-treaded wheels - four on each side - serve as guides. The machine has 6-in. sq. wooden log rests and is equipped with a bumper jack that's used to clamp the log. The 155-in. long blade rides on the tires, wheels, and rear axles off a Mustang car. The blade is powered by a 10 hp gas engine connected to the 3-speed transmission off an old riding mower. The engine

Patrick Draehn, Brenham, Texas:

Patrick says he's happy with his home-built bandsaw mill. It's powered by a Briggs & Stratton twin cylinder gas engine that came off a Sears garden tractor.

"I built it last March and haven't been back



to the lumber yard since then," says Draehn. "I've used it to convert cedar, oak, pecan, and willow trees into board dimension lumber. People give me trees just so they can get rid of them. Word of mouth about my sawmill has been getting around.

"I went mostly by Reeks' plans but built my mill a little heavier. I used 10-in. wide trailer house I-beams for the rails. If I want to move the unit I just jack it up and roll a homemade axle under and bolt it in place.

"When Reeks says that you need plenty of



and transmission mount on a platform inside four legs and are raised up and down by four steel cables that run through four pulleys and around the pipe. A boat winch is used to raise or lower the blade.

"I used it to cut a bunch of spruce trees. These trees had a lot of knots in them, but the blade went right through them," says Swanson. "I used the lumber to build three or four storage sheds which I later sold. I've also used it to cut big wooden electric poles. The people who brought me the logs and power poles were amazed at the accuracy of my saw cuts and at the quality of the lumber I made from the poles. Some of the poles were 14 to 18 in. in diameter so I was able to get good size boards out of them. The nice part is that the poles are already cured and don't have to be stacked for drying after they're cut. One thing I really like about my bandsaw mill is that it produces far less sawdust - and therefore far less waste - than you get with a big-bladed saw.

"I followed Reeks's plans closely and was very satisfied with them. I got tired of paying a lot of money to have someone else sharpen the blade, so I started using a file. However, I wasn't able to sharpen all the teeth exactly the same so last winter I made my own sharpener using a motor and fan out of an old microwave. I mounted a small emery wheel on the end of the shaft coming out of the motor. A lever hooks onto the tooth. I move the lever one way and it hooks onto the tooth and pulls it up to the next setting. It's absolutely foolproof."

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sharp blades, he means it because if the blade is dull it will wander up and down which results in uneven board thickness. I've found that if you don't have the teeth set correctly you can get a real rough cut. However, commercial grinders sell for about \$1,500 and commercial tooth setters sell for about \$1,000. To save money I made my own sharpener and also my own tooth setter. These tools allow me to set the teeth more accurately, and also sharpen them more accurately, than I could ever do by hand.

"Reeks uses a horizontal engine but I

couldn't find one at a price I could justify so I had to make the vertical engine work. The shaft coming out of the engine isn't on the same plane as the wheel that turns the blade, so I had to find a way to manipulate the belt and get it to go around the rim on the drive wheel. I mounted two belt pulleys cocked in opposite directions to make the belt right.

"My total out-of-pocket cost was about \$275."

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Do-It-Yourself Bandsaw Sawmill Kit

If you like the idea of building your own bandsaw sawmill but you'd rather not start from scratch, you might want to look at the do-it-yourself kits from Linn Lumber Co., Sweet Home, Oregon.

Gary Boyd, owner of Linn Lumber, offers three different mills, either in kit form or completely-built units. "You can save some money if you choose to provide your own engine or build the track from our free plans," he says. "You can save even more by using our components to build a mill of your own design or similar to one of ours."

The company's smallest mill is called the Little Beaver. It cuts slabs from logs up to 20 in. across and 10 ft. long. You can add extra track to go longer. It comes with a 9 hp Vanguard gas engine, or a 5 hp industrial electric motor (230 volt, single phase).

Linn's middle-sized mill features hydraulic blade tensioning, which allows the operator to constantly monitor the blade tension and adjust as needed. "This is our most popular mill and we have over 400 units in the field," he says.

Maximum log size is 26 in. and the standard package includes enough track to saw 16-ft. logs. It comes with a Kohler 13 hp electric start engine, but a 7 1/2 hp, 230 volt, single phase 40 amp electric motor can be substituted. "The electric motor is excellent for indoor use or when your application doesn't require taking the mill into the woods," he says.

The company's largest mill can handle a maximum log size of 30-in. logs. It features hydraulic blade tensioning. In addition, it has 21-in. wheels for longer blade life and uses a 158-in. blade. It's equipped with a 16 hp Vanguard twin cylinder engine, with 18 and 20 hp Vanguards as options.

If you want to build most of the mill yourself, the company also sells band and saw frame assemblies for the three models it produces. The assembly consists of band wheels, shafts and bearings mounted to a sub-frame made of 2-in. square steel tubing. The frame assembly also includes two hardened saw guides with mounting brackets. The two



larger assemblies come with hydraulic tensioning.

You can also buy the individual parts, including 16, 19, 21 and 26-in. dia. band wheels and machined and hardened saw guides that fit blades from 1 in. to 2 in.

Linn also sells a new-style sharpener that works for both bands and chainsaw chains. "You can sharpen a 12-ft. band blade in less than 5 minutes," he says. "You can sharpen either the top of the tooth or the face. It's so quick and easy that you'll sharpen bands at the first sign of dullness rather than trying to get 10 more boards out of a dull blade."

Another option you might want on your mill is a transport package, which allows you to tow it to the sawing site. The package includes: axle, tires, and wheels; detachable fenders; hitch with 2-in. ball coupler; rear light bar with stop, tail, and turn lights; license plate holder; and wire. It can hold two 10-ft. track sections.

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