

Silage Chopper Wood Chipper

"It handles branches up to 4 in. in dia. and works fast," says Steve Litchy who, along with his father Randy, designed and built a portable wood chipper. It's made out of an old Gehl silage chopper they bought for \$200 from a local farmer. A Kohler 14 hp engine belt-drives the chopper's rotor.

Steve's grandpa, Lloyd Litchy, previously had built a wood chipper out of a silage chopper that was featured in FARM SHOW (Vol. 33, No. 6). It was a stationary model, belt-driven off a Simplicity 18 hp garden tractor. Steve and Randy's model is mounted on a pair of trailer wheels, allowing them to pull it around with a garden tractor.

"Grandpa had a great idea. Hopefully we've improved on it," says Steve. "This model has more power and a much bigger cutting apparatus so it can handle bigger brush and branches. And there's no need to hook up any belts to a garden tractor."

The two men stripped away everything on the Gehl chopper except the chopper unit itself and replaced the sprockets with pulleys.

"The chopper was originally equipped

with 9 knives, but we didn't like the chipping performance with that many knives so we took off 6 of them," says Steve.

The unit mounts on a pair of 15-in. trailer wheels. The engine mounts in back of the chopper where it helps balance out the weight and doesn't interfere with the placement of the hopper.

"The engine has a 3-in. dia. pulley on it and the rotor shaft has an 8 1/2-in. dia. pulley," explains Steve. "This combination spins the rotor shaft at about 630 rpm's with the engine running at 1,800 rpm's."

They used 5/8-in. thick treated plywood and heavy-duty angle iron to make the hopper. "We tilted the hopper at a slight angle relative to the blades so brush will fall in by gravity. The hopper is positioned high enough to prevent injury," says Steve.

To control the size of the chips, they fabricated a screen out of rebar. The screen reduces chip size to about 1 in. An idler is used to engage the chopper shaft and is held up by a sliding pin; once the engine is running, the pin is released and the idler is



Portable wood chipper is built out of an old Gehl silage chopper. A Kohler 14 hp engine belt-drives the chopper's rotor.

dropped down onto the belt by spring tension. Ground up material exits at the bottom of the machine.

"It took about 5 months to build the chipper. A lot of that time was spent on planning and gathering all the materials," says Steve. "We

paid \$150 for the engine and about \$50 for the axle and pulleys."

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Big Tire Mineral Feeder

"The biggest thing about the floatation tire mineral feeder is that it's something that's durable, doesn't cost a fortune, and there is essentially no maintenance," says Lawson Burgfeld about the two feeders he built for his Angus herd near Jackson, Mo.

"Tires don't rust, and the ones I used are 1 in. thick and wide enough to shield minerals from rain, so very little moisture gets inside," Burgfeld says, noting he faces the holes east/west so they get plenty of sun to evaporate any moisture.

Municipalities, waste treatment facilities and tire facilities are generally eager to get rid of used floatation tires. Burgfeld recommends tires with a 20 to 22-in. opening so bulls can get their heads inside, yet the opening isn't so big that it fills with rain.

Burgfeld built a cradle to hold each tire out of 3-in. oil field pipe for the uprights and 4 and 6-in. well casing for the runners. The larger diameters get the feeder up out of the ground and provide strength. Using round material ensures they are safe for the cattle to rub on. Smaller iron scraps such as 2-in. angle iron are big enough for the crosspieces.

"Basically you build two miniature goal posts on runners and set the tire in there," Burgfeld says. Take the spec width of the tire and make each goal post about 1-in. narrower so that the tire will fit snugly between the posts. Set the distance between the two sets of goal posts so that the posts touch the sidewalls. Support the bottom of the tire with whatever size boards necessary to hold the bottom opening of the tire 20 to 24 in. off



Big floatation tire sets in a cradle built out of oilfield pipe. It rides on runners made from 4 and 6-in. well casing.

the ground.

"They'll hold 200 to 300 lbs. of mineral. You can use loose mineral or mineral blocks and even salt blocks," Burgfeld says.

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"Easy step" bumper attachment bolts to pickup's receiver hitch and also to bumper.

"Easy Step" Bolts Under Bumper

Climbing into the bed of a 4-WD truck gets harder as you get older. That's why Gunnar Nordal came up with his "easy step" bumper attachment.

"I'm in my 70's, and one slip can cause a lot of trouble," says Nordal, a retired farmer. "When I picked up some pieces of 1 by 1-in. stainless steel tubing at a salvage yard, I decided to use them on my bumper."

He cut two pieces to run under the length of the bumper. There's a bend at the end of

each piece. He welded tabs that bolt to the receiver hitch and short uprights that bolt to the bumper.

"The whole thing probably cost less than \$10, and I can remove them in minutes if I need to."

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"High Tech" Reel Mower

The new Fiskars Momentum mower takes non-motorized reel mower design to a new level. Reel mowers have always had trouble jamming on twigs and heavy grass clumps, and needed frequent blade sharpening. With its patent pending InertiaDrive, the Fiskars mower resolves those issues.

Similar to a flywheel, the InertiaDrive technology uses the large diameter cutting reel and heavy blades to store energy until it's needed, such as when cutting through twigs and heavy grass without jamming. When the mower hits a tough spot, the design delivers twice the energy to power through.

Because the 18-in. wide cutting mechanism is out in front of the drive wheels, instead of between them, the VersaCut design allows the mower to be set at cutting heights of 1 to 4 in. The design, with its inset drive wheels and full-length blades, eliminates traditional no-cut zones under reel mower ends. It also throws clippings forward instead of to the rear of the mower. Its full cut means the Momentum mower gets closer to edges than other reel mowers.

The combination of InertiaDrive and VersaCut features also reduces pushing force by 30 percent in long grass.

Friction and blade wear are reduced with the StaySharp cutting system. The Fiskars cutting reel and stationary blade are separated by less than 3/1,000 of an inch, less than the thickness of a blade of grass. Traditional reel mowers use contact between the two for



Fiskars new reel mower is designed to reduce pushing force by 30 percent in long grass thanks to its "flywheel drive."

cutting, which dulls the blades and requires frequent sharpening. The Fiskars system stays sharp.

Users report the mower is easy to assemble and works well. The mowers are available through Lowe's as well as online at the company website. Suggested retail price is \$249.99.

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