

Chevy 350 Powers This Garden Tractor

The North Dakota State College of Science has a 300 hp Deere 316 garden tractor. The little tractor has a Chevy 350 "small box" engine. The repower that left the garden tractor with a whole new look was a multi-department effort, says Larry Ascheman, associate professor, Diesel Technology.

"A number of different departments collaborated, including students from automotive mechanics, machine tooling and body work," he says. "Automotive mechanics students took an old engine, overhauled it and refurbished it with electronic ignition. They also installed the camshaft, aluminum intake, four-barrel carburetor and headers. They engineered a cooling package with a radiator and fan mounted underneath the engine to leave more room for the engine under the hood."

Once the engine was ready, machine

tooling students machined hubs and adapters to connect the flywheel flange of the engine to the existing hydrostatic pump on the 316. Using the 350's flywheel allowed the students to keep the starter as well.

"Our Deere technology students cut away some of the existing frame of the 316 and fabricated alterations, including motor mounts, to match the 350," says Ascheman. "They had to remove some of the frame to make room for the mounts and then strengthen the frame section they had modified. Finally, they installed the engine. It fit perfectly, and the hood just dropped in place. They did have to do quite a bit of work on the drivelines."

The students also added headers and pipes from an older V8 speed boat and a governor to limit how high the rpm's can go. The project was then turned over to the body shop.



Students at the North Dakota State College of Science repowered this Deere 316 garden tractor with a 300 hp Chevy engine.

They did need repairs on the original tin and did a full repaint.

"The groundspeed is limited to a little faster than the original 316," says Ascheman. "It's great for recruiting and parades to showcase the skills and abilities of the

different departments at the school."

Contact: FARM SHOW Followup, Lawrence Ascheman, North Dakota State College of Science, 800 6th St. N., Wahpeton, N. Dak. 58076 (ph 701 671-2213; larry.ascheman@ndscs.edu; www.ndscs.edu).

120 Hp Deere Garden Tractor

Pat Prom replaced the original engine in his Deere 317 garden tractor with a Buick 6-cyl., carbureted engine. "It has about 120 hp so it'll really go," says Prom.

He installed a straight shaft behind the engine to drive the tractor's rear end.

"I built it mainly for parades and for showing off," says Prom. "The big engine was a very tight fit. I stretched the tractor's frame only 2 in. I moved the steering column and reworked the shifting mechanism. The tractor's gas tank is located under the seat so I didn't have to move it back. I did have to raise the hood 3 in."

The tractor is fitted with Harley Davidson

Screaming Eagle mufflers on front, which really look nice. "They're real loud because they're straight-through mufflers," says Prom.

He installed 8-in. wide wheels on front and 12-in. wide wheels on back – twice the width of the original tires – for added traction. "The rear wheels are off a Jacobson utility vehicle. I had to make an adapter for them to go from a 5 to 6-bolt wheel pattern. I kept the original front wheel rims but I cut and widened them 3 in. to make the new tires fit," notes Prom.

Contact: FARM SHOW Followup, Pat Prom, 12661 Pioneer Trail, Eden Prairie, Minn. 55347 (ph 952 944-9266).



Pat Prom replaced the original engine in his Deere 317 garden tractor with a Buick 6-cyl. carbureted engine. "It has about 120 hp so it'll really go," he says.



Larry Fulton's rock crusher was built for use in a minerals assay office in 1903. Fulton motorized the crusher and made it self-propelled as well.

Mobile Mini Rock Crusher

Larry Fulton's rock crusher wouldn't do much good in a quarry, but it sure gets attention at parades and shows. The crusher was built for use in a minerals assay office in 1903. Fulton motorized the crusher and made it self-propelled as well.

"I put it on a cart with a 1939 International 1 1/2 hp motor on it," recalls Fulton. "The 300-rpm motor powers the crusher and the cart. I can drive it up and down onto a trailer to take it to shows."

Originally, Fulton installed a seat to go with the tiller-style turning lever. However, he found it impossible to get insurance for a drivable rock crusher. Once he removed the seat, insurance was not a problem.

The cart itself is an old golf cart with its original back wheels, differential and brakes. The front axle is off an old garden tractor, as is the 6-speed transmission that connects to the differential. The engine has a crank handle and a magnet.

"With the engine in place, the cart weighs about 1,020 lbs.," says Fulton. "I ran a V-belt to the transmission and a 4-in. wide flat belt to run the crusher flywheels."

The crusher itself has a 5-in. wide jaw with



a 3-in. spread for a full 3 by 5-in. opening. The back plate in the jaw can be lowered to make smaller size pieces. The crushing takes place when a camshaft oscillates, pushing the back plate up against the rock in the opening. As the rock breaks up, it falls further and further into the V-shaped jaw, finally exiting when small enough.

The crusher was made by Denver Fire Clay Co. The camshaft rides between two 4-in. wide and 14-in. dia. flywheels. Fulton spliced the flat belt together out of an old round baler belt. He made a tightener for it and put a clutch on the back to control the power to the big flywheels.

While the crusher could handle harder rock, for the purpose of demonstrations Fulton uses soft rock such as sandstone. "My last show, the crowd of adults and kids crushed 15 gal. of fines from 25 gal. of stone," he says. "Kids love dropping a piece of rock in and seeing it get crushed."

Contact: FARM SHOW Followup, Larry Fulton, 4504 E. 17th St., Cheyenne, Wyo. 82001 (ph 307 634-7042; lhfulton@msn.com).



Last March a Finnshoop ewe belonging to Murray and Colleen Peck delivered 7 healthy lambs. Finnshoop are known for multiple births.

Septuplets Born To Finnshoop Ewe

Murray and Colleen Peck knew by her size that their Finnshoop ewe, Trina, would be prolific this spring. Still, the Snoqualmie, Wash., couple didn't expect Trina to deliver seven healthy lambs when she gave birth on March 25.

It's the third time in Trina's maternal line that an ewe has had that many lambs. Though not a record (eight in the U.S. and nine in Finland) it's rare, even for Finnshoop.

The Pecks chose the breed, in part, because they're known for multiple births, and their smaller size makes them easier to handle. They also have unique markings.

"I like the colors. I'm a sucker for piebald animals," Colleen says. Since she sells fleeces to local spinners, she also appreciates the luster and color in the breed's fine wool.

She was rewarded with plenty of piebald this spring, when Trina's babies doubled her flock of six ewes and one ram. When born the lambs ranged in size from 3 to 5.6 lbs. After making sure all received colostrum from the mother, the Pecks bottlefed lamb milk replacer to the smallest four lambs (one male and three females) – who also managed to drink from the ewe occasionally. The three biggest males received all their milk from the ewe. By July 14, the lambs ranged in weight from 46 to 75 lbs. and were doing well.

Because of their small property size, less than 2 acres of pasture, the Pecks keep their flock small, and they only bred the one ewe – not expecting her to have septuplets.

"I do want to share the genetics for prolificacy, the trait that makes Finnshoop so special," Peck says, noting she sold a few lambs and has listed the others on Craigslist (\$350 each).

When she started with her first ewes in 2008, she worried that their fleeces might not hold up well in the rainy Northwest, where their farm receives about 80 in. precipitation a year. But it turns out that Finnshoop have a natural dislike of rain and are smart enough to seek cover in the barn.

"Finnshoop are perfect for small holdings because they are friendly and smaller and you get to know them as individuals," Peck says. "They have wonderful feet so we only have to trim hooves once a year, even though our ground is often soggy."

For more information on the breed, check out the Finnshoop Breeders' Association website (www.finnshoop.org).

Contact: FARM SHOW Followup, Murray and Colleen Peck, 36116 S.E. 89th Place, Snoqualmie, Wash. 98065 (ph 425 888-3290; ovina@aol.com).