"Self-Steering" Sweet Corn Picker

Kevin Zehner wanted an easier way to pick his 4 acres of sweet corn, so he converted a high-clearance detassling machine into this "self-steering" picker.

Kevin Zehner, Somerset, Penn., grows about 4 acres of sweet corn each year, and had been picking it by hand into big plastic bags. His self-propelled and self-steering sweet corn picker – built out of a high-clearance detassling machine - makes the job easier. The 4-row, 2-man picker can store up to 12 bags of corn, each holding 5 dozen ears apiece. All operations are controlled from one of the 3-wheeled machine's 2 seats on back.

The machine automatically steers itself down the field. Once it reaches the end of the field, the operator uses a foot-operated treadle to activate a 12-volt ATV winch, which uses a double pulley system to automatically turn the machine around.

"It works fast and easy, and almost makes picking sweet corn by hand a fun job," says Zehner. "Two workers can pick up to 60 dozen ears of corn per hour into bags without ever getting off the machine. There's no need to lift bags or drag them along the ground, which saves on my back."

He found the detassling machine advertised for sale in Lancaster Farming magazine and paid $500 for it. "The ad said it's a Bolinger personnel carrier, but I couldn't even find a photo of it on the internet," says Zehner. "It's definitely an older machine because the wheels have steel spokes.

"I didn't want to use a commercial self-propelled sweet corn picker because it harvests all the ears at the same time, whether they're ripe or not. By hand picking, I can harvest ears selectively and then come back a few days later once the remaining ears are ripe. I added lights to the machine so I can even work at night."

The picker is powered by a Wisconsin engine and hydrostatic transmission and came equipped with the seat, steering wheel, and controls mounted on top. Workers stood inside "baskets" mounted on wings, which the owner had already removed. "I left the steering wheel on so people who see my corn picker for the first time think it's driving by itself," says Zehner.

He reset the machine's wheels to run on 30-in. rows, then built a steel frame on back that supports 2 chairs, one off a backhoe and the other an office chair. A home-built, 2-ft. wide enclosed running board runs the length of the machine in front of each chair. Each worker picks corn from both sides of the chair, and drops the ears into a big plastic bag attached to a latched metal bracket. When the bag is full, he flips the bracket out of the way and pushes the bag forward on the running board, then attaches another empty bag to the bracket. Once the running board is full, he drops the bags onto the ground so they can be loaded onto a 4-wheeler pulling a trailer.

The self-steering system is designed to run between 2 rows of corn and is suspended a few inches off the ground. It uses a "feeler" made from a bowl-shaped metal rod that's bolted to a shield over the front wheel, which acts on a pair of limit switches set inside a metal frame. When either side of the feeler bumps against the row it activates the limit switches, which causes the front wheel to turn. A long spring then pulls the feeler back to keep it centered between the 2 rows.

The 12-volt ATV winch and double pulley system is activated by a foot treadle from the back of the machine. Zehner removed the machine's original steering belt, then drilled a series of holes into a steel bar and installed it horizontally across the front top part of the machine. The winch's cable is attached to a pair of big eye bolts that go through the bar, and the position of the bolts determines how fast the machine turns around.

"Stepping on either side of the treadle causes the cable to loop around the winch spool and go over to the other side," says Zehner. "As the cable is winding up on one side, it's unwinding on the other side. Once I complete the turn, I let go of the treadle, and the self-steering system takes over," says Zehner, adding that he can use a remote control to activate the winch while sitting on top of the machine.

To engage the transmission, Zehner pulls on a long lever attached to detassler's original hydro lever (above). U-shaped metal rod "feeler" keeps picker's front wheel centered between rows.

To engage the transmission, he reaches up and pulls on a long lever that's attached to a hose connected to the machine's original hydro lever. "I plan to set things up so both workers can operate the controls," says Zehner.

Contact: FARM SHOW Followup, Kevin Zehner, 138 Zehner Rd., Somerset, Penn. 15501 (ph 814 445-4485; kj_zehner@yahoo.com).

Hahn converted this fire truck into a mobile "food truck" that he takes to events all over Nebraska. Two Honda generators provide plenty of backup power.

Food truck is equipped with a home-built, 10-ft. long wood-fired barbecue. "I can cook 200 steaks at a time," says Hahn.

Fire Truck "Food Mobile" Built To Feed Nebraskans

By Dee Goerge, Contributing Editor

After 9-11, Josh Hahn's fire engine food truck was parked within a few blocks of Ground Zero to pump water from a fire hydrant to other fire trucks. He bought it a few years ago after it was retired from service and converted it into a mobile unit equipped with a wood-fired barbecue, large screen TV's, and a red-and-white striped awning to shade tables filled with diners. He takes it to events all over Nebraska.

The journey started a few years ago when Hahn was working with a friend and noticed an unused 500-gal. propane tank next to a barn. Hahn was toying with the idea of making a smoker to cook whole hogs for parties. So when the owner said he could have it for free, he took it. After acquiring another tank at a junkyard and picking up scrap and new parts, Hahn built a woodfired smoker for less than $600. He decided he needed an efficient way to haul it and started shopping online for trucks.

None of the food trucks caught his attention until he found a fire truck used for wood-fired pizzas out East.

"I didn't think there were any of them in Nebraska. And I have to do things ridiculously big and stupid," Hahn says.

After much searching, he found the New York fire truck online and arranged to have it delivered to Aurora, Neb., costing less than a tenth of what it was when new in 1990.

He wanted to keep it intact as much as possible, but needed to remove parts like ladder racks, side compartments and nozzle holders.

"It was welded together so well that it took 2 days to cut the ladder racks out. The whole cab is aluminum and it has so much stainless steel," Hahn says, adding that he reused many of the parts for other purposes on the fire truck.

He added a water heater, tanks for fresh and grey water, a 50-amp breaker and 220-volt box and two Honda generators to produce a total of 11,000 watts. They provide plenty of power when 220 power isn't available to run his freezers and refrigeration, roasters, and 3 big screen TVs.

The fire truck only has 30,000 miles on its Detroit 2-stroke engine, and all the lights, horns and sirens work. Hahn can activate them at some events - something kids of all ages seem to appreciate. It attracts folks to come out and check the food cooked on the 30-in. by 10-ft. hickory and fruit wood-fired barbecue.

"I can do 200 steaks at a time, or 60 to 75 racks of ribs or 15 to 18 briskets," Hahn says. "We've served 190 plates in 37 minutes."

He finished the truck by September and worked a few events last year in preparation for a full season this year. Hahn says he can do everything from kids' parties to family and adult tailgate parties to community events and fundraisers.

Contact: FARM SHOW Followup, Josh Hahn, Big Buddy Engine Company, 1733 U.S. Hwy. 20, Gordon, Neb. 69343 (ph 402 631-3505; bigbuddyenginecompany@yahoo.com; Facebook: Big Buddy Engine Company).