

Self-Propelled Mini Planter Built From Snowblower



Bunniss fitted an EarthWay seeder to an old Deere snowblower to create an accurate self-propelled garden seeder.

Tony Bunniss found a way to give new life to an old Deere snowblower by coupling it with an EarthWay seeder to plant his garden sweet corn. The result is a self-propelled planter that speeds up planting time without compromising accuracy.

"The snowblower was junk when I got it because the gearbox for the augers was stripped out," Bunniss shares. "Nobody had ever greased the auger shaft."

Bunniss used the same ratio as the EarthWay system to ensure the seed spacing wasn't left to chance based on whether the ground wheel had traction or not. "Now, instead of pushing it and concentrating on keeping the drive wheel on the ground, I can, in theory, plant with one hand on the handle of the machine."

Bunniss can change the planting depth by moving the long rod found in front of the hopper out of the notch it is in and inserting the pointed end into one of three holes for a range of 1/2-in. to 1 1/2-in. depth.

When using the planter, Bunniss keeps it in low gear, even though it's capable of going much faster. Since the plate is driven by the drive mechanism of the snowblower, the speed over the ground won't change the distance between seeds.

"I plant going slow because I want the rows as straight as possible and equal distance apart."

He also installed a disconnect to make it



The custom seeder uses a positive drive system to mimic the EarthWay seeder ratio for seed spacing.

possible to drive the planter to and from the field without dispersing seed. This makes it possible to load in advance and only toggle the hopper to release seeds when he's ready to plant.

Bunniss added weight to the front wheels to keep the seed chute at the proper depth and installed dual wheels to support it. He also put a tee in the fuel line to make winterization easy.

"I put chains on the wheels so they wouldn't spin," he says. "If the wheels spin, it'll dump numerous seeds without any spacing, which would just waste seed."

And while Bunniss used precise calculations to develop a positive drive system that mimicked EarthWay's ratio for proper seed spacing, he believes it's possible to take a simpler route if precision is less critical.

"Actually, just mounting the EarthWay Planter on the snowblower would work fine if only planting a feedlot for deer."

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This 1881 wood and metal barn has 12 sides and a basement for free-roaming livestock with hay lofts along the outer walls.

12-Sided Barn Has A Turntable Floor

You've never seen anything like the Walbridge barn just outside the small village of Mystic, Quebec.

Built in 1881 of wood and metal by Alexander Solomon Walbridge and renovated in 2009, it features a sawtooth appearance with 12 sides and 12 matching gabled roofs. The barn contains a basement holding free-roaming livestock and two higher levels to access the multiple hay lofts around the outer walls. Hay and straw were stored in these lofts and forked down to feed livestock.

A unique feature was a center-rotating turntable floor with a rail around the edge. A horse-drawn hay wagon could drive onto the turntable which could then be turned to one of the 12 mow sections to offload the wagon. Once empty, the horse and wagon would be turned to face the door, making it simple to exit.

"Walbridge was an inventor at heart," says Mona Beaulac, Executive Director of the Museum Missisquoi. "Next to the barn, he had a foundry on a small stream with a water pumping station to move the turntable. If the stream was too low, it could be turned manually with handles. Unfortunately, we don't have the plans of the barn, and parts of the turntable are missing but different kinds of gears and straps are still there to make it turn. It was left abandoned for several years



The unique 12-sided barn features a center-rotating turntable floor that could be turned to one of the 12 sections for unloading.

in disrepair until it was renovated, so we don't know exactly how everything originally worked."

Walbridge had worked in the railroad industry before immigrating to Canada and it's believed the idea for the design came from 12-sided railway roundhouses in West Virginia.

The Museum Missisquoi rents the barn from the Walbridge Foundation and features it in their local tours.

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A winch cable is used to drop the trailer to the ground.

Easy-On Trailer Drops To The Ground

Kenny Vandeventer built a "drive on at ground level" trailer that lifts and lowers with just a hand crank winch. The trailer was designed to carry his 11-ft. wide pull-type mower and his Cub Cadet tractor. The design is simple with no hydraulics involved.

"I found all the steel, wheels and wheel mounts at a salvage yard," says Vandeventer. "The wheels were from a piece of farm equipment and were mounted to 1 by 5-in. steel tubing."

Vandeventer built the frame for the 16-ft. long, 5-ft. wide bed using 1/8-in., 2 by 2-in. steel tubing for ends and sides. He used a 1/4-in., 4 by 4-in. steel tubing for a center frame member, extending it forward for the hitch as well. Another piece of 3 by 3-in.

tubing was mounted across the frame for an axle mount.

Vandeventer mounted four aluminum wheel plates with ramps across the frame. They allow him to move the mower on and off the trailer. Plates were also mounted on the rear of the bed for parking the Cub.

The axle and the hitch designs make it possible for the trailer to collapse flat to the ground. Vandeventer welded the wheel legs to a steel pipe that he mounted inside three gaskets. He made the gaskets from short lengths of slightly larger steel tubing welded to the 4 by 4-in. cross member and lined with pvc pipe.

"The pvc liners ensure the axle pipe rotates freely in the gaskets," explains Vandeventer.

A pintle hitch pivots on the 4 by 4-in.

tubing that extends out from the frame. When the trailer is in the raised position, the pintle hitch is pinned in place. In the lowered position, it is unpinned.

Cable from a winch on the hitch runs through a series of three pulleys on the hitch and then to pulleys at the rear of the trailer to lift and lower the bed into place. The winch is bolted to a steel plate on a 4 by 4-in. upright.

The winch cable runs through a cut-out on the pintle hitch to a pulley mounted to the 4 by 4-in. tubing. The cable returns to a second pulley mounted to the top of the pintle hitch before passing down and around a pulley mounted between two short lengths of steel butt welded to the end of the 4 by 4 tubing. From there it travels back through the 4 by 4 to the rear of the trailer bed and a fourth pulley mounted parallel to the frame.

This changes the direction of the cable, which travels to the right rear corner of the bed and a fifth pulley mounted perpendicular to the frame. From there, the cable travels to a lift arm welded to the axle pipe. Safety latches on the pipe let Vandeventer lock the wheels in place.

"The series of pulleys multiplies the mechanical advantage to the hand crank winch," he says. "When I turn the winch, it draws the pintle hitch and the 4 by 4 tube together to be pinned. It also pulls the lift arm on the pipe axle back to pull the wheels under the trailer."

To lower the bed, he removes the hitch



The cable runs through pulleys on the pintle hitch and trailer frame.

locking pin and winds the cable back on the winch.

Vandeventer installed a set-screw-type bolt behind the winch upright. The bolt threads through a nut welded over a hole in the pintle hitch.

"Before unhooking the Cub with the trailer bed lowered to the ground, I screw the bolt down to the 4 by 4," says Vandeventer. "This keeps the pintle hitch at the Cub hitch's height, making it easier to hook up the trailer in the future."

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