

## “Steerable” Tow-Behind Mower Cuts Between Trees

The cost of commercial tow-behind tractor mowers prompted Jon Wickham, Cutchogue, N.Y., to build his own pto-powered rig. He came up with a design that’s unlike anything on the market.

The mower has a rear-mounted steering axle. It allows him to swing the mower 5 ft. to either side of the tractor and to cut weeds between trees in his orchard.

“I spent only about \$1,300 to build it. Commercial mowers sell for at least \$6,000 and won’t do what this one does,” says Wickham.

He started with a neighbor’s 3-pt., pto-driven International 311 rotary cutter that had burned up in a fire. He mounted the front steering axle off a Buick Regal car on back of the mower.

He cut off the front half of the car frame keeping the front axle tie rods and other steering components in place. He then mounted a hydraulic cylinder on the car frame so he could “steer” the axle from the tractor seat. He attached a center drag link from a 1986 Chevy S10 pickup to the center link on the car. The pickup drag link attaches to the hydraulic cylinder.

He used 4-in. dia., 13 ga. irrigation pipe to build a 12-ft. long pto shaft. He beefed up the mower frame with a pair of steel rails on top of the mower that run from front to back. He built a long hitch on front of the machine so that when the mower is working off to either side, the U-joints don’t run at too sharp an angle.

“I got to use it last summer for the first time and it worked great,” says Wickham. “I use our 1947 IH M diesel tractor equipped with a wide front end to pull it. A single hydraulic lever lets me steer the mower from one side of the tractor to the other. The trickiest part was building the 12-ft. long drive shaft so it wouldn’t vibrate too much. To make the driveshaft I cut off a length of 4-in. dia. galvanized irrigation pipe and laid it in a length of channel iron to make sure it was exactly true. Then I welded a round steel plug into each end of the pipe and welded a universal yoke onto each plug. To make sure the plugs were exactly centered inside the pipe, I first centered each plug inside a lathe and then welded the universal yoke onto it.

“I used the Buick car because its small 14-



Rear-mounted steering axle allows Wickham to swing mower 5 ft. to either side of tractor to cut weeds between trees in his orchard.

in. wheels keep the mower low to the ground so it doesn’t knock fruit off the trees. I mounted a spare tire and tire changing jack on front of the mower so that if I get a flat tire I can change it right in the field.”

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Hydraulic cylinder on back is used to “steer” the axle from the tractor seat. Wickham used 4-in. dia. irrigation pipe to build the 12-ft. long pto shaft.



## Shop-Built Bale Unroller Sturdier Than Commercial

“I’ve used it for several years to feed 1,600 to 1,800 5 by 6-ft. round bales a year and it’s held up much better than the commercial 3-pt. model I patterned it after,” says Roger Swanson who built a heavy-duty bale unroller to fit his front end loader.

The Salmon, Idaho, farmer started by building a mounting bracket out of 3/8-in. thick, 6-in. angle iron that quick-taches to the Model 200 Ezee-On front end loader he uses on his Deere 2940.

He made a 4 1/2-ft. long main spear out of 2 3/8-in. dia. cold rolled steel and three smaller, 1 1/2-ft. long spears out of 1 1/2-in. dia. cold rolled steel. The main spear mounts at the center of a 1/2-ft. dia. rotating plate made out of 3/8-in. thick plate, while the three smaller spears weld at equidistant spacings near the edge of the plate.

The main spear does not rotate when unrolling a bale.

A sprocket welded to the back of the plate is chain driven off a small hydraulic orbit motor. It turns the three small spears to unroll the bale. A cushion valve installed in the hydraulic line between the orbit motor and tractor prevents the possibility of damaging the motor as bales are unrolled.



Hydraulic-driven, heavy-duty bale unroller quick-taches to front-end loader on Swanson’s Deere 2940 tractor.

The apparatus turns very slowly, Swanson notes.

“You can spin part of a bale off along fence mangers or you can spin a whole bale off into big bale feeders,” he says.

For more information, contact: FARM SHOW Followup, Roger Swanson, Rt. 1, Box 45, Salmon, Idaho 83467 (ph 208 756-2406).



Poured cement silo stands 132 ft. tall not counting the 15-ft. dome on top. Note drive-through alley.

## World’s Tallest Silo?

You couldn’t miss Dovan Farms’ silo in southwestern Pennsylvania if you tried.

The poured cement silo stands 132 ft. tall not counting the 15 ft. dome on top. It measures 30 ft. across and holds approximately 3,000 tons of corn silage. It was built last summer by Sollenberger Silos Corp. which believes it’s the tallest on-farm silo ever built.

“We decided to go with another tower silo instead of a bunker silo because we believe they’re more efficient and faster to load,” says Justin VanGilder, 17, who, along with his twin brother Jason, father David and mother Connie, and uncle Donald, comprise Dovan Farms. “To get the same capacity we would have had to build a bunker silo 150 ft. long by 50 ft. wide and we would have needed a 20,000-lb. tractor to pack it. You can only pack about 25 tons per hour, compared with blowing 60 tons per hour into an upright silo.”

The new silo is equipped with a 12 ft. high drive-thru alley for loading the feed truck. A Big Jim Quantum unloader fills trucks at the rate of 1,000 to 1,500 lbs. per minute.

The foundation required 125 cu. yds. of concrete and the silo and drive-thru required about 350 cu. yds. It has over nine miles of rebar in it. The silo is loaded by a 150 hp Allis Chalmers 7040 powering a Gehl 1580 blower.

The silo took Sollenberger Silos three weeks to build. Prior to that, the tallest farm silo the company ever built was 128 ft. high.

Cost of the project, including Big Jim unloader, was \$129,000.

Contact: FARM SHOW Followup, Dovan Farms, 582 Rocky Lane, Verlin, Pa. 15530 (ph 814 267-3184) or Sollenberger Silos Corp., 2294 Molly Pitcher Hwy., Chambersburg, Pa. 17201 (ph 717 262-2907).

## “Self-Propelled” Sprayer Cab Makes Great Attention-Getter

“Is it a golf cart?” No, but that’s what some people asked when they stopped by the Hagie Mfg. exhibit at farm shows this fall. What they were looking at was a Hagie “self-propelled” sprayer cab mounted on wheels. It looked like it could be driven but was not fitted with a motor. However, showgoers could step inside and turn on the radio, windshield wipers, and lights and pretend they were driving the weird-looking rig around the exhibit.



Hagie “self-propelled” sprayer cab attracted showgoers into the company’s exhibit.