Toews combined a 50-ft. long, 10 3/4-in. dia. auger with an old Versatile 400 swather to make his self-propelled auger. "We can load 75 to 100 bu. a minute with it," he says.

Self-Propelled Auger Is Maneuverable And Fast

Bernie Toews grows a lot of grain - corn, sunflowers, wheat and oats - on his Macgregor, Manitoba farm, so he has a lot to handle.

"What we needed was an auger that we could move around easily, but one that had the capacity to move grain quickly," he says. "We found that 8-in. augers didn't have the capacity we wanted, and 10-in. augers were just too big to move easily."

With a little ingenuity, Toews combined a big Bergen auger with an old Versatile 400 swather to make a self-propelled auger that's highly maneuverable and moves grain quickly. "We can load 75 to 100 bushels a minute with this auger," he says.

The Bergen auger is 50 ft. long and 10 3/4 in. in diameter.

He bought the Versatile swather specifically for this purpose. "It's a small machine with a single rear caster wheel and hydrostatic drive which makes it very maneuverable," he says. "And its 6-cylinder engine gives it plenty of power."

Toews paid about $1,000 Canadian for the swather which was in good working order. The only thing he found wrong with it was a cracked manifold, which was easily replaced.

His first step in the conversion was removing the old header from the swather. Then he moved the rear dolly wheel from the left side to the right side. "We made use of all the existing parts and it wasn't difficult to change it. We did add a length of 2 by 5-in. steel tubing to help support the caster wheel," he notes.

The lower end has a short lift that allows it to be raised for transport. For this, he intended to use the hydraulic cylinder from the cutting platform. "It was too small and the action was too fast on that cylinder, though, so we opted for a 2 1/2 by 24-in. cylinder instead."

He built a scissors hoist to support the top of the auger. This hoist, made of two lengths of 2by 4 steel tubing, is hinged at the top of the auger where it attaches together, and where it's mounted on the swather frame. A 3-in. hydraulic cylinder with a 36-in. stroke opens and closes the scissors hoist. "I wanted to be able to raise the top of the auger at least 25 ft. in the air. It took a little bit of trial and error to get the hoist arm lengths correct, but we ended up being able to raise the auger to a height of more than 30 ft.," he says.

The swather had two sets of hydraulics - one for the header and one for the reel. Both are controlled by foot pedals. He now uses one pedal for the upper cylinder and another for the lower one.

To power the auger, he extended the power-take-off that powered the cutter head using shafts and universal joints, so it runs parallel to the auger. He used the same pulleys and idler for the clutch that had run the cutterbar.

The auger was originally set up to be powered by a tractor pto. He removed the gearbox and, since the shaft runs parallel to the auger, added a sprocket which drives the auger via a double no. 60 roller chain.

"We had to do some experimenting with sprocket size in order to get the auger to run at the right speed," he says.

The auger also has a sweep attachment at the bottom. This he powered hydraulically with an additional hydraulic pump. "We used pulleys that were already on the engine."

Toews mounted two headlights - one on the rear, and one at the top of the auger. "It helps when we're loading trucks at night," Toews says. He reports that some members of his family now call the rebuilt swather a "swauger."

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Self-propelled auger is highly maneuverable and moves grain quickly, says Toews.

Stationary buzz saw was converted to a portable one that fits on front end of Hermanson's 10 hp Case garden tractor. He uses it to cut up three to four cords of wood each winter.

Garden Tractor Buzz Saw

Don Hermanson would rather take the saw to the woods than carry the wood to the saw. That's why he converted his stationary buzz saw to a portable one that fits on the front end of his 10-hp Case garden tractor.

The Yorkton, Saskatchewan man used the mounting bracket from a snowblower as a base for his saw. He welded two 1 1/2 by 6-in. channel irons to the bracket as upright supports to hold the saw at a comfortable working height. A third piece of 6-in. channel iron was welded to the top of the uprights to support the saw mandrel/drive shaft. The only change he made to the mandrel was to replace a flat pulley with a V pulley.

At the base of the unit, he mounted a jack shaft made by cutting down a drive shaft from a self propelled swather header. A belt with a spring loaded tightener brings power from the engine to the jack shaft and then to the saw mandrel.

"The jack shaft reduces the speed from 3,500 rpm's at the tractor to about 1,800 at the saw," says Hermanson.

An angle iron brace runs from the outside pulley on the jack shaft to one of the upright channel irons. It serves to support the shaft and allows for quick adjustment in tension or for belt replacement.

The saw table itself consists of two 2 by 3-in. angle irons welded together with spacers to form a slot for the circle saw blade and support for wood being sawn. The table is welded to the mandrel support. An angle iron welded to the snow blower framework extends forward and up to support the front end of the saw table.

Hermanson normally cuts up 3-4 cords of wood each winter with his portable saw. "Last year, I was able to take this saw out into the bush to cut the wood up," he says. "It is so maneuverable. Just back it on the truck and away you go."

When he isn't sawing wood, Hermanson uses the garden tractor to grade his driveway. His mini-grader attaches to a mower frame that mounts on the belly of the tractor.

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He Built His Own 36-Row Rotary Hoe

"It works as well as any factory-built rotary hoe and saved me a lot of money," says David Sylvester of Crookston, Minn., who built his own 36-row rotary hoe.

Sylvester bought two identical used 12-row rotary hoes at an auction for $1,700 each. Both models were equipped with 5 by 7 toolbars that were 22 ft. long. He added new material to lengthen each toolbar to 33 ft. and spaced the rotary hoe wheels out so they till a strip 12 in. wide over the row, with a 10-in. wide untilled strip in between. Then he bought a used Melroe folding harrow cart, minus the harrows, and mounted the toolbars on it.

"The rotary hoes were in like-new condition. We paid $240 for the harrow cart and spent another $460 for steel, bolts, paint, welding rods, etc. Our total cost was about $4,100. Commercial 36-row rotary hoes sell for about $18,000," says Sylvester. "We use it primarily for weed control and tillage in our sugar beets, which we plant in 22-in. rows. However, I think the same idea would work with any row spacing because the rotary hoe wheels can be moved wherever you want.

Sylvester combined two identical used 12-row rotary hoes and added new material to make his 36-ft. model.

"The harrow cart is equipped with a center-mounted axle that can be narrowed or widened by adjusting a pair of telescoping tubes. By sliding one tube in 11 in., and the other one out 11 in., we can till a 10-in. wide strip between the rows without going over them. We do that when the beets are small and we want to break up the crust between rows."

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