

# Made It Myself

(Continued from previous page)



## "Worm Cat" Skid Steer Loader

"My 4-WD articulated 'worm cat loader' works great for cleaning out my hog barn and for spot spraying soybeans," says Roger Fisher, Spirit Lake, Iowa.

The loader is equipped with two transmissions, two rear ends, and two gear-shifts.

"It turns shorter and is more stable than a skid steer loader," says Fisher. "Conventional skid steer loaders are front heavy and tend to tip over when loaded. My rig turns on a dime and, with 4-WD, it pulls itself around corners instead of sliding around them so we can maneuver in tight corners without catching posts. To spot spray beans we bolt a plank on the loader for riders to sit on."

Fisher used the rear ends and transmissions from two 1956 Chevrolets to drive the loader. He narrowed them up and reversed them to provide high and low speed in 4-WD. He removed the coupler knuckles from a car and Deere lawn mower and installed them between the front and rear frame to provide articulated steering. A two-way valve on a hydraulic cylinder is used to steer the

loader. A 2-cylinder, 15-hp Wisconsin engine removed from a New Holland baler powers the rig, which is equipped with 6.70 by 15-in. wheels.

The machine can work at full power at slow speeds. "We can put one transmission in high gear and the other in low gear so that when we're pushing manure, or doing other heavy work, we can go real slow," notes Fisher. "It's important that the two rear ends have identical gear ratios. If I could do it over I'd mount both rear ends in the same direction so both transmissions would drive the same way. I'd also install an automatic transmission so I wouldn't have to clutch it," he adds.

Fisher installed the engine at the back of the machine and mounted a seat borrowed from an old Ford tractor above it. He used pipe and sheet metal to build a front-end loader and bucket. Two cylinders, one on each side, raise the loader. Another cylinder dumps the bucket.

Contact: FARM SHOW Followup, Roger Fisher, Box 9048, Spirit Lake, Iowa 51360.

## "World's Largest" Discer-Seeder

Steve Pavlik, Eatonia, Sask., pulls a 75-ft. wide Massey-Ferguson discer-seeder behind his 4-WD tractor, using Massey-Ferguson "piggyback" hitches he modified to connect five 15-ft. discer-seeder units together.

"It's common to see 60-ft. discer seeders but as far as we know, our 75-ft. wide discer-seeder is the world's largest," says Pavlik, who has seeded about 35,000 acres with the unit. "This rig offers the convenience, seed capacity, and quick conversion to transport of an air seeder, but it requires less horsepower. A 75-ft. wide air seeder needs a tractor with more than 500 hp. We pull our rig with a 350 hp Versatile 950 tractor. One man can convert the rig to or out of the 14-ft. wide transport position in less than 10 minutes.

"With 112 bu. of seed capacity, we can seed 80 acres in one filling and haul enough fertilizer and chemicals to go a

long way. The only advantage an air seeder has is quick, easy clean-out of the seed hoppers. We clean out the hoppers in the field as much as possible, then vacuum out the rest."

Pavlik, the original designer of the hitches, built four of them in 1978 to put together a 60-ft. wide discer-seeder. Massey-Ferguson engineers improved his design and the company now manufactures the hitch. He put together the 75-ft. wide discer-seeder in 1981, making major changes to the front hitch and structurally strengthening the other hitches.

Pavlik says he may make further modifications to the hitches, allowing him to put together a 90-ft. wide discer-seeder in the future.

Contact: FARM SHOW Followup, Pavlik Farms Ltd., Box 176, Eatonia, Sask., Canada S0L 0Y0 (ph 306 967-2288).



## Home-Built 25-Ft. Air Reel

"We built our own 25-ft. air reel for less than half the cost of a new one and it works great, especially in short crops," says custom combiner Bernard Martin, Willow Bunch, Sask., who along with brother Raymond used a Valmar blower to power the air reel. They mounted it in place of the conventional reel on their IH 1460 pull-type combine.

"We needed an air reel last summer because we could see that the crop was going to be short," says Bernard, who notes that the brothers farm about 3,200 acres. "Commercial air reels cost about \$3,500, but we built ours for \$1,700 and we built it the way we wanted it. It works great in short crops and equally well in tall, heavy crops. We saved 3 to 5 bu. per acre. Any grain that falls onto the cutterbar is blown into the header. Bat reels work alright in tall crops but in short crops some grain lodges behind the cutterbar and because the straw is so short the batt reels can't reach it. An air reel doesn't need straw to work. We can clip even short crops just below the grain heads. Also, the visibility is great. We can see just as well at night as during the day."

The Martins bought the 18-in. dia. blower and mounted it on the right side of their Case-IH 1010 header. The blower is powered off the sickle drive shaft. They used a series of belts and pulleys to speed up the blower to run at 4,200 rpm and

enlarged the blower's throat dia. from 4 to 6 in. to increase air volume. Air goes through a flex-tube into a 25-ft. long, 6-in. dia. steel manifold mounted on the reel arms and out nozzles spaced 10-in. apart (five nozzles in front of the feederhouse are spaced 8 in. apart). The curtain of air pushes the crop into the header. A shroud covers the fan inlet to keep straw and chaff from entering the fan.

The Martins used an oversized sprocket to slow down the feeder auger to make sure it doesn't throw grain heads out in front of the combine. "An air reel has no bats to hold the crop in," notes Bernard.

To make the downspouts, which are curved toward the cutterbar, the Martins cut a 1 1/4-in. dia. hole every 10 in. in the manifold and welded the downspouts in. They welded a 1 by 1/4-in. strip of metal inside the middle portion of the end of each downspout. Then they flattened the end of each downspout and cut it in a V-shape to shorten the sides of the downspout tip, ensuring complete air coverage between downspouts. "We use a manually-operated pivot to move the manifold back and forth and a hydraulic cylinder operated from the cab to move the manifold up or down," notes Bernard.

Contact: FARM SHOW Followup, Bernard Martin, Box 332, Willow Bunch, Sask., Canada S0H 4K0 (ph 306 473-2616).

