

## GREAT VISIBILITY, PLENTY OF POWER

# Swather Mounts On Self-Propelled Sprayer

Big hi-boy self-propelled sprayers have been hot sellers the last few years and new machines are being released all the time. There's just one problem: The only thing you can use them for is to spray crops.

That didn't sit well with Sanders Seed Farm of Manitou, Manitoba. They decided to make their big machine do double duty by mounting a swather header on front.

Michael Sanders, who farms with his dad, Andre, and brother, Daniel, says they bought the Walker 44 sprayer new last spring (R.J. Manufacturing Inc., 1001 Washington St., Lisbon, Iowa 52253; ph 800 900-7424 or 319 455-0036).

"We took on an additional 800 acres in the last three years and decided a big, self-propelled sprayer was a must," Sanders explains. "We looked at a number of them, including Spra-Coupe, Rogator, Patriot and Willmar, but settled on the Walker because it was the only one with a front-mounted boom and because it was exceptionally well-balanced. It's one of only 12 Walkers in Canada and it didn't come cheaply, at around \$150,000 (Canadian). To justify the expense, we knew we'd have to get double duty out of it."

The lift system for the 90-ft. front-mounted boom made the Walker a natural for mount-

ing the farm's 25-ft. MacDon self-propelled swather header on, he says. Because Sanders is in the process of patenting some elements of his invention he won't discuss certain details of the project.

However, he says the rig he calls a "swayer" performed flawlessly last season.

"The 5.9-liter Cummins diesel engine and the 4-WD make it capable of going through wetter conditions than anything else we've ever used - 4-WD or otherwise," he says.

The header off the Sanders' MacDon swather mounts on the sprayer using a quick-tach system Sanders designed. The lift brackets on the header were modified so the top lift arm goes over the top of the header.

"We had to figure out stress points on the header and beef them up so everything would be strong enough," he says. "We mounted the header as close to the sprayer as possible so there wouldn't be too much weight out in front. Using our design, the header runs about 1 ft. in front of the front tires."

A 15-in. dia. spring-loaded gauge wheel, normally used on MacDon 30-ft. headers, mounts at each end of the header for better carriage and flotation.

The header, reel and canvas are hydraulically driven off the sprayer's 25 gpm hydrau-



**A 25-ft. MacDon swather header mounts on front of the Walker 44, providing another use for the expensive self-propelled rig.**

lic pump, but Sanders isn't saying exactly how. Speed of the reel and canvas is mechanically adjustable on-the-go, for swathing from 0 up to 8 mph, using two knobs in the cab.

To judge cutting height, Sanders used a spring-loaded height gauge out of a Case-IH combine. Marked off in increments from 0 to 50, it mounts in the cab and is connected to the header with a small cable. "It makes swathing at night a snap," notes Sanders.

For swathing canola or flax, Sanders mounted an 8-ft. long Farm King swath roller in the center underneath the sprayer, which has 6 ft. of ground clearance. Mounted on arms and suspended by chains, the roller is manually adjustable for rolling 1 in. off the

ground in flax and 1 1/2 ft. off the ground in canola.

"We used it as a sprayer on 2,400 acres of small grains to apply postemerge herbicides at 12 to 13 mph last season," Sanders says. "We swathed 800 acres, mostly canola, with it last fall at 3 to 5 mph. Dad was pretty skeptical when we started the project, but once it was up and running in the field, we all agreed it out-performed even our highest expectations."

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## "YOU NEVER HAVE TO BACK UP"

# He Built His Own Bi-Directional Forklift

FARM SHOW reader Allan Bernardi recently sent us photos of a powerful bi-directional forklift his friend, Ray Roesner, built to use for heavy chores around his farm.

"It's an excellent machine for skidding logs and hauling heavy loads because you never have to back up," says Roesner, Sparta, Ontario, noting that the rig is equipped with two steering wheels and sets of controls for driving in either direction. "You sit up high and there's lots of glass in the cab to provide exceptional visibility in all directions."

He built the forklift around the chassis of a 1961 Ford F-700 truck. The wheelbase was shortened by half and the frame was heavily reinforced with I-beam. The truck's original axles, hubs, wheels, tires and suspension were retained for the machine. It's powered by a 305 cu. in. V-8 Chevy car engine with a 3-speed automatic transmission. Top speed is 50 mph.

He mounted an 8-ft. Clark 5,000-lb. forklift mast on the end opposite the engine and fitted it with two 4-ft. forks.

"The forklift raises up to 14 ft. high and tilts up to 45 degrees, which is ideal for lifting out trees when clearing land," Roesner says. "It'll lift a 15 ft. tree out of the ground in one minute flat."

Controlled by a joystick in the cab, the forklift runs off a Vickers hydraulic pump from a junked Minneapolis-Moline tractor.

The cab was fashioned out of a Massey combine cab and a New Holland swather cab welded together back to back. The forklift is fitted with two steering wheels, with gas and brake pedals on each end. A bucket seat out of a minivan mounts in the center of the cab on a pipe within a pipe so the seat can be quickly rotated 180 degrees by pulling a spring-loaded lock pin.

Bi-directional steering is controlled by 24



**Roesner built his bi-directional forklift around the chassis of a 1961 Ford F-700 truck.**

ft. of roller chain wrapped around 3-in. dia. sprockets on the steering columns and on the power steering box.

The body of the forklift was made with 1/4-in. thick steel "checker" plate. Numerous inspection doors were installed to make maintenance easy.

"It's got plenty of power," Roesner says.

"I lifted a 10-ft. long by 4 1/2-ft. dia. log with it last winter that, I was told, weighed 8,000 lbs. It just groaned a little."

Roesner spent approximately 600 hours and \$2,000 building the forklift.

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## Hog Barn Heats His Farm Shop

An Ontario farmer who wanted to keep his shop warm without spending a lot of money uses a fan to blow air from his hog barn through clay field tile installed in the shop floor.

Laverne Brubacher, of Ariss, installed rows of 3 1/2 to 4-in. dia. clay field tile in the concrete floor of his 24 by 40-ft. shop as it was being built. He constructed 1 1/2 ft. sq. manifolds at either end of the shop to direct air into and out of the tile in the floor.

To "transport" the heated-up hog barn air from the barn to the shop - a distance of 75 ft. - Brubacher buried 18-in. dia. concrete sewer pipe 6 ft. deep. It runs from an 18-in. exhaust fan at the hog barn to the "intake manifold" on one end of his shop. The air runs through the floor and is exhausted out the other end of the shop.

"It works great and was relatively inexpensive to build," says Brubacher. "It keeps air inside the shop at an average of about 40 de-

grees in winter although in the coldest weather it'll drop down to just above freezing. But it still melts snow off equipment I bring in to work on and keeps the floor dry. I can fire up a wood stove if I need more heat.

"The exhaust fan in the barn mounts in the wall about 4 to 5 ft. off the floor. I keep it running night and day. A concrete and plywood tunnel delivers air from the fan down to the 18-in. underground pipe.

"I bought the clay tile as 'seconds'. The

cost of the tile is a big factor. Concrete blocks lined up in rows could be used as an inexpensive substitute for the tile. I used sand to 'bed' the tile and poured 4 in. of concrete over it. There's no hog barn smell inside the shop because the barn air stays underground and is exhausted outside."

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