

Deere 55 combines work great for converting into self-propelled sprayers, says Len Knipstein. With the help of a friend he built this sprayer equipped with a 60-ft. boom.



Sprayer rides on tall 12.2 by 38 tires. Combine still has the original air filtering system for the radiator (next to engine on back).

## Deere 55 Combine Makes Great Self-Propelled Sprayer

If you want to convert a combine into a self-propelled sprayer, you could do far worse than to choose an old Deere 55, says Len Knipstein, Fort Wayne, Ind., who recently sent FARM SHOW photos of a self-propelled sprayer that he and a friend built out of a late 1960's Deere 55.

"Everything on this combine bolts together, which makes it easy to mount components wherever you want them," says Knipstein.

The two men stripped the combine down and unbolted the front and rear axles. They used 3 by 8-in. sq. tubing to build a new frame and bolted the axles back on. The original hydrostatic drive powers the wheels. They moved the engine to the back and bolted a 750-gal. Raven poly tank onto the frame ahead of the engine, then bolted the cab on ahead of the tank. The sprayer rides on tall 12.2 by 38 tires. They used 2-in. sq. tubing to build a 5-section, 60-ft. self-leveling boom equipped with break-away wings.

The rig is equipped with a Raven 440 controller with a radar ground speed monitor and an RHS foam marker.

"It took only six weeks to build but I'm happy with the result - I think it looks professionally built," says Knipstein. "It rides nice and smooth and the driver has a beauti-

ful view. I think it looks just as nice as anything on the market. The only difference is that it cost a lot less money. We use it to apply Roundup on soybeans and liquid nitrogen and 28% fertilizer on corn. We spray at 7 mph in the field and can go up to 18 mph on the road. I got the combine free from a neighbor. My total cost was about \$10,500. Comparable commercial rigs sell for \$75,000 to \$80,000.

"We replaced the original 3 1/2-gal. hydraulic pump that drove the combine's front wheels with a larger 15-gal. model that's also used to drive the sprayer water pump. We also added a hydraulic pump that's used to

operate the power steering and to raise and lower the boom and also fold it for transport. The controls that used to operate the combine reel are now used to fold the boom in and out, and the controls that formerly raised the header now raise and lower the boom."

Knipstein says he has a complete list of all the parts he used, including "every nut, bolt and can of paint. If anyone is interested I can draw blueprints," he notes.

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"It works great for mowing roadside ditches," says Myron Stadnick, who removed a cutterbar and orbit motor from his swather and mounted it on his front-end loader.

## **Loader-Mounted Cutterbar Great For Mowing**

When you're 60 miles from anywhere, like Myron Stadnick, you get used to making do with what you've got. That's why, when he wanted a cutting bar to clean up steep road edges and trim hedges, he rigged up a cutterbar on his loader bucket.

"Most Canola growers have a vertical cutterbar on their swather," says Stadnick, who mounted that cutterbar on his loader. The double bladed vertical cutter bar, made by Global Industries, Winnipeg, Manitoba, normally mounts on the edge of Stadnick's swather to slice off each pass of the heavy canola crop. A hydraulic powered orbit motor allows the unit to operate at any angle.

Stadnick simply removed the cutter bar with motor from the swather and bolted it to 2-in. steel tubing which was in turn bolted to

the loader bucket. Varying cutting height is as simple as raising or lowering the loader. Changing the angle of the cut requires repositioning the unit on the tubing.

Since he didn't have flow control on his loader tractor, Stadnick borrowed a flow control unit off a bin sweep and connected it to the orbit motor. With sickle bar speed controlled, the unit is working out well for Stadnick.

"It works super on the road ditches," he says. "It cuts even the big weeds, and mounted on the loader, it's easy to adjust cutting angle and height."

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Davies modified his IH Farmall 450 tractor to get "creeper" speeds. He replaced the tractor's belt pulley with a large sprocket, which is chain-driven by a hydraulic motor.

## Pull-Type Chain Trencher Converted To 3-Pt.

Donald Davies, Dawn, Mo., converted a used pull-type Vermeer chain trencher into a 3-pt. mounted trencher that he can use behind his International Farmall 450 tractor.

"The big chain trencher was originally equipped with a backhoe, but that part of it had gone bad. The chain digger rides on two wheels and hitches to the back of the tractor.

What makes the tractor-powered trencher work so well is the way Davies modified the tractor to get "creeper" speeds. He bolted a hydraulic motor fitted with a small sprocket to the side of the tractor. Then he replaced the belt pulley on the side of the tractor with a large sprocket, which is chain-driven by the hydraulic motor.

To move forward at a "creep", he puts the tractor transmission in gear, locks the clutch down against the operator platform, and then activates the hydraulic motor which "reverse drives" the transmission through the belt pulley.

"It lets me go forward very slowly, up to 500 ft. per hour if I want," says Davies. "I use the rig to put in a 12,000-ft. water line



He converted a pull-type Vermeer chain trencher into a 3-pt. mounted trencher that he uses behind the IH 450 tractor. on our farm. My total cost for the trencher was only about \$500. It would have cost thousands to bring in a contractor."

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