

48-Ft. Tractor-Mounted Swather

"You don't spend all day looking over your shoulder because it lays the swaths right alongside the tractor. Cost just \$10,000 to build," says Carl Gillis, Gray, Sask., about his home-built 48-ft. swather mounted on a Deere 4430 tractor.

Gillis says his main goal when building the swather was to keep it simple. Reel, cutterhead and canvas on each swather are driven by a single hydraulic motor that replaces the pto-drive. He hooks the hydraulic motors to the gearbox and drives the knives with a spring-loaded tightener and belt.

Gillis used two 24-ft. Versatile swathers modified from center delivery to side delivery. One swather pushes ahead of the tractor and dumps to the right. The other, which mounts on the right side of the tractor, dumps to the left, about 1 ft. away from the first windrow to facilitate drying. Gillis says it's easy to convert the swathers to right or left hand delivery by simply changing direction of one side of the canvas with a short chain on the

canvas rollers. Because of the extra weight of moving grain the length of the canvas, he increased canvas speed about 10%.

The front swather mounts entirely on the tractor frame. The second swather has a single caster wheel. The cross carrier between the two swathers is made from 8-in. sq. pipe with 3/8-in. wall. The carrier, and its hinge, is the heart of the entire assembly, according to Gillis. The carrier is angled back along the right side of the tractor. It hinges where it attaches to the second swather. In field position, a simple hitch tube made from two pieces of heavy wall black pipe holds the rear swather in position. By simply pulling a 3/4-in. pin, the swather folds back to transport position. Takes just 5 min. to go from field to transport. In transport position, the swather caster wheel runs directly behind the inside tractor dual which means the entire swather can go down any road or through any gate that would accommodate a 24-ft. swather.

A single hydraulic pump mounted

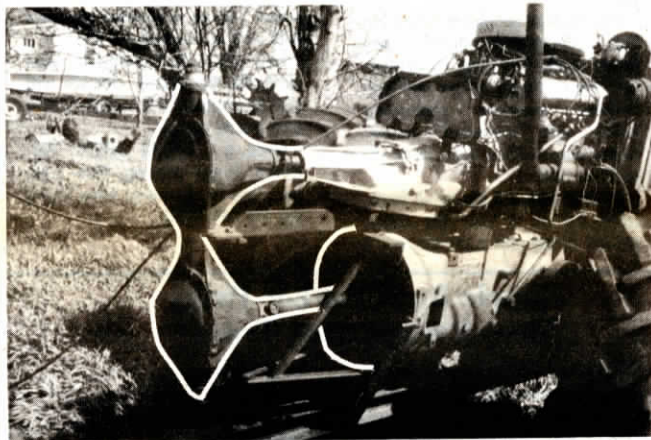


on the tractor pto with a flow divider runs both swather assemblies. Gillis runs the swather tables with dual hydraulic levers on the tractor. A special Deere adaptor block lets him operate the reel lift. It installs between the main casting and the hydraulic outlet block. He runs that high-pressure oil source to a pair of electric solenoid-controlled hydraulic valves so he can run the reels with electric switches.

"I worked out most of the prob-

lems ahead of time so that by the time I got to the shop, most of the problems had already been anticipated. If you start with two used swathers you should be able to build it for \$10,000 or less. That's just a fraction of what you could spend for a comparable commercial big swather," notes Gillis.

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Two welded-together car transmissions channel power from the engine to the tractor transmission on "pull behind" rig.

Pull-Behind 4-WD Power

If you need the power of a 4-WD tractor but can't justify the cost, you might want to take a look at this tow-behind power unit built by Iowa farmer Donald Tank who says the added boost gives his 95 hp. Massey tractor the pulling power of a 160 hp. 4-WD.

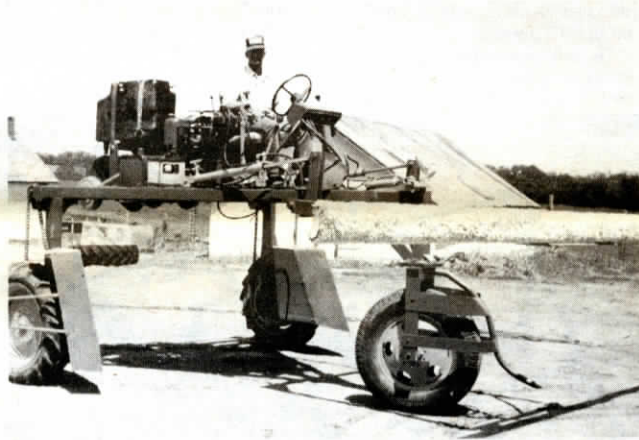
Tank, who farms near Blencoe, built the power unit several years ago. He started with the frame of an old Minneapolis Moline "U" tractor, removing the engine and entire front end. High on the remaining rear part of the frame he mounted an Oldsmobile V-8 engine, facing backwards with radiator at the rear. He channeled power from the engine to the tractor transmission through two welded-together car transmissions, one of which is an automatic. The engine throttle and transmissions are controlled by outboard motor controls that run to the "towing" tractor. A tongue runs from the drawbar of the towing tractor under the entire power unit chassis to

the rear of the machine where it connects directly to trailing equipment. Power unit is fitted with dual 38-in. tires. There's no 3-pt. or pto. He equipped it with a 30 gal. fuel tank.

"It turns short - I can swing it completely around on a 14-ft. lane, which you can't do with most 4-WD's - and it's easy to control," says Tank. He's used the power unit to pull big disks and cultivators. The entire project cost only \$10 to \$15 in parts, since he was able to salvage nearly all the parts. His primary motivation in building it was for operation under wet conditions.

The only drawback with the power unit, Tank says, is that the gas engine is somewhat expensive to operate.

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"Grasshopper" Weed Wiper Built From Street Cleaner, Combine

When Eugene Bouma, Adams, Neb., needed to find a way to control scatter cane in milo and bean fields, he turned to odds and ends around his farm and at local salvage yards.

"First I located an old street sweeper with an air-cooled Wisconsin engine, 3-speed transmission and V-belt variable speed. The engine also had its own hydraulic system and power steering.

"To build the frame, I went to a salvage yard and found an old Massey combine with 24-in. dual wheels that were chain-driven at the right ratio that I needed. Wheel bearings were taken from spindles off an old truck and welded to combine rims. An old Chevrolet 20-in. truck wheel with a bearing on each side was used to make the single wheel 'yoke' on the front end. I used triple strength square tubing for the frame, which is 5 ft. high with a 10 ft. wheelbase. A second hydraulic pump off another combine was

added to run wiper hydraulics.

"To make the wiper I covered a 2 by 6-in. board with long shag carpet and ran a small piece of PVC pipe across the top with small holes in it spaced every 2 1/2 in. for liquid to flow through. It covers 8 rows at a time and has folding wings for road travel. The machine will travel at speeds varying from a slow creep to 12 mph. It's fitted with a hitch for over-the-road travel behind my pickup. The chemical supply spray tank mounts high on the back of the machine for gravity flow to the wiper. It's regulated by 6 valves for equal distribution of solution.

"It's smoother riding, heavier built, and more rugged than most commercial machines. Total cost was less than \$1,000 for materials. It's worked great for the past two years."

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