

Caterpillar D-5 half tracks replace rear wheels on International 1586.



Danish tines on cultivator roll up and ahead hydraulically for transport, and at field ends.

#### **ELIMINATES SOIL COMPACTION**

# "Hybridized" Tractor Rides On Half-Tracks

Removing the rear tires and wheels from an International 1586 and installing a set of half-tracks has solved soil compaction problems and improved traction for the Pieper brothers, Mike, Matt and Bill, of Wever, Iowa.

According to Mike Pieper, the hybridized tractor exerts only about 2½ lbs. of weight per sq. in. of track while conventional tires exert about 50 lbs. per sq. in. Also, large flotation tires have been installed on the front of the tractor, reducing compaction there.

"When crossing a field with the cultivator raised, and riding on its wheels, the wheels press in about 2 in.," explains Mike. "The tractor half-tracks, on the other hand, ride right on top of the ground and hardly sink in at all."

Weight of the half-tracks is about 4,000 lbs., says Mike, so deducting weight of the original wheels and tires gives a net tractor weight gain of 2,000 to 3,000 lbs.

"The set-up also increases traction quite a bit," Mike told FARM SHOW. "We can pull more. We're pulling a 35-ft. field cultivator with a 165-hp. tractor. The tracks also help in fall plowing, when it's slick or muddy."

Another benefit, according to Mike, is that stress on the tractor's drive train is decreased considerably because a 12-MPH gear moves the hybridized tractor along at only 6 MPH. The drive sprocket on the tracks is about half the diameter of the original tractor tires. Top road speed of the tractor is now about 12 MPH.

The half-track tractor has been driven on blacktop roads without damaging them, says Mike. "Handling the tractor is no problem. This same idea would work on most makes of tractors and also on combines", he points out.

The tracks used are a size D-5, measuring 34 in. wide by 110 in. long. Hubs, gears and rollers were built from scratch, or modified to fit. A subframe mounted under the tractor and involving a solid 5-in. steel shaft carries the track assembly. The tractor axles carry none of the track assembly weight and serve only to turn the crawlers.

The Pieper Brothers and their father, William, farm 3,000 acres, raising corn, soybeans and hogs. While the farming comes first, says Mike, they are making the half-track assemblies available to other interested farmers. "We have the capability to manufacture some units, and may make do-it-yourself plans available as well," he points out.

Price of the half-tracks assembly will be about \$10,000. For more information, contact: FARM SHOW Followup, Mike Pieper, Box 195-A, Wever, Iowa 52658 (ph 319 372-3033).

#### LETS YOU TILL, PLANT IN ONE PASS

## New Push-Type Field Cultivator

One of the first companies on the market with a push-type, belly-mounted cultivator for minimum tillage operations is Hart Manufacturing, of Lee, Ill.

Their new PTC (push-type cultivator) attaches to the tractor belly on an A-frame hitch which extends out in front of the tractor. This leaves the regular tractor hitch free for hooking up a planter or any other implement you need for one-pass field operation.

The PTC's A-frame mounting hitch doesn't add extra weight and stress to the tractor front end, according to Tom Hart, inventor, and it doesn't interfere with normal steering performance. The cultivator is steered with a separate control arm mounted on the tractor. The arm steers two trailer wheels to keep the cultivator in line with the tractor at all times.

The Hart PTC is available in 13, 15,

19, 20, 25 and 30 ft. widths. The largest two models are equipped with fold-up wings to keep transport width to 17 ft. All models feature Danish S-tines. Instead of raising the entire cultivator, the tines are hydraulically rolled up and ahead for road transport and at the field ends. Cultivator depth is controlled manually by T-handles over the trailer wheels.

Inventor Hart estimates the PTC will require about 2 hp. per foot of width by itself. "With a 12-row, 30-in. planter behind the tractor, you'll need about 140 hp. for the 30 ft. PTC," he adds. Price for the 30-ft. model will be about \$4,500.

For more information, contact: FARM SHOW Followup, Hart Manufacturing Co., Box 124, Lee, Ill. 60530 (ph 815 824-2101).

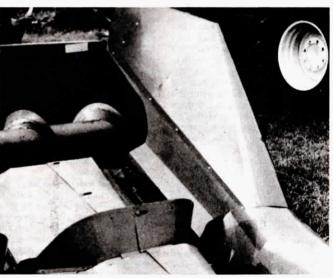
### Ear Saver For Deere Combines

New from Grabill-Dixon is an ear saver shield for Deere combines with 40 series heads.

A shield on each end prevents ears from being thrown over the side and on the ground where they not only are wasted but can trigger volunteer corn problems the following year.

Made of 18 ga. steel, the shields fit all Deere low profile 40 series head snouts. Each shield fastens to the side with 6 bolts.

Sells for \$139.50 for a set of two. For more information, contact: FARM SHOW Followup, Grabill-Dixon Corp., 1702 Exchange St., Harlan, Iowa 51537 (ph 712 755-2911).



Shields on each end of header prevent ears from being thrown off the side and to the ground.

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