

Fertilizer openers added to front of drill band fertilizer 3-in. to the side and 2-in. below the seed.

SECOND SET OF DISC OPENERS PROVIDES PRECISE PLACEMENT

Farmer Converts Grain Drill To Band Fertilizer

"We wanted better placement of fertilizer than simply dropping it into the furrow with the seed," says Edward and Albert Hacault, Bruxelles, Manitoba, who added a second row of double disc openers to their Morris seed drill.

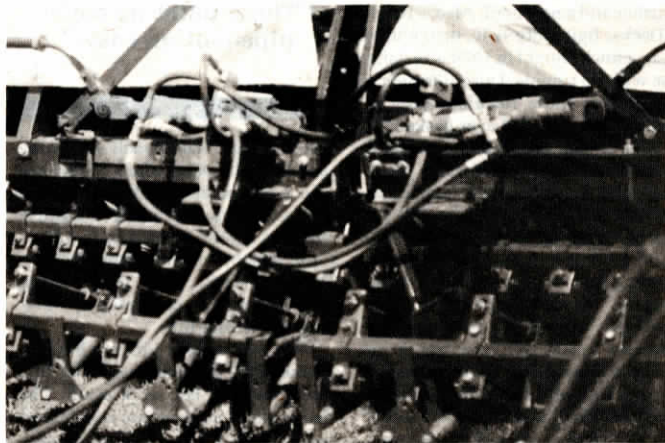
As set up originally, fertilizer on the 40-run, 6-in. spaced drill dropped down a separate tube just in front of the seed in the same furrow. Now, with the 1-ft. spaced disc openers in place, fertilizer is banded 3 in. to the side and 2 in. below the seed.

To make the conversion, the farmers bought the same openers and mounting brackets that the Morris drill was fitted with and built a frame just ahead of the seed openers. The add-on frame is attached in such a way that it raises out of the ground with the openers. The fertilizer tubes were simply rerouted to the new fertilizer units. Depth of fertilizer placement is adjusted by adding or removing washers on the hydraulic cylinder. Each banding disc has 110 lbs. of down pressure. The only problem experienced was plug-ups when seeding wet low spots. The men plan to rework the mountings on the front fertilizer openers to make

more clearance between the ground and the springs.

The Hacaults also equipped the drill with unique hydraulic markers. "We built the markers with two cylinders and four one-way relief valves. Each cylinder has one low pressure one-way relief valve and one high-pressure one-way relief valve. Both cylinders are connected together in such a way that the marker that is on the ground raises to the end before the other marker moves. Both markers stay in transport position by releasing the hydraulic lever when both markers are up. When the tractor hydraulic lever is engaged, oil flows to the cylinder that is extended, retracting it. When the cylinder is retracting, the oil on the other side of the plunger is forced through a low pressure one-way valve back to the tractor. When the cylinder is retracted to the end, the oil is diverted to the other cylinder through a high-pressure one-way valve, extending it and dropping the other marker," explains Albert.

For more information, contact: FARM SHOW Followup, Edward & Albert Hacault, Bruxelles, Manitoba ROG OGO Canada (ph 204 526-2495).



Two cylinders and 4 one-way valves are the core of the unique hydraulic marker system.



Reverser bolts to combine. Cleans out plug-ups by reversing feeder and header with a chain drive.

"SPITS" PLUG-UPS OUT IN SECONDS

New Add-On Electric Feederhouse Reverser

"We built this when we realized how much time we were spending climbing out of the cab to manually clear out the feederhouse and header when it choked up," says Ray Gremillion, Zachary, La., who's begun manufacturing a new add-on electric feederhouse reverser.

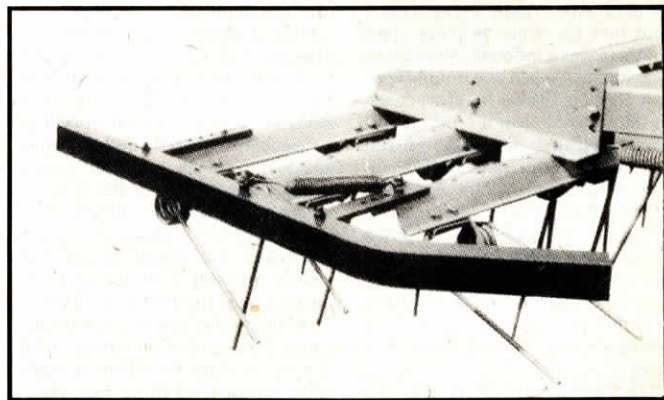
Without having to leave the cab of the combine and with just the press of one button, the reverser totally clears the plug-up in seconds by reversing the motion of the feeder and header with a chain drive.

Designed to fit virtually any combine with a quick-tach head, the re-

verser simply bolts to the combine with no drilling or welding needed. Powered by the combine's 12-volt system, it consists of an electric motor with 1,800-lb. of torque and a pair of drive sprockets. The operator can activate it with a cab-mounted switch.

The header reverser sells for \$1,049. Gremillion is looking for dealers.

For more information, contact: FARM SHOW Followup, Gremillion Manufacturing Inc., 127 East Irene Road, Zachary, La. 70791 (ph 504 654-9585).



PROTECTS AGAINST OBSTRUCTIONS

New "Bumper" For Harrow Attachments

New from Van-Wall Equipment, Perry, Iowa, is the Protector, a special spring reset protective bumper for all makes of harrow attachments.

It allows extended harrow attachment frame tubes to collide with a fence post or other obstruction with-

out being damaged. Fits all flat and round tube harrow attachments.

For more information, contact: FARM SHOW Followup, Van-Wall Equipment, Rt. 1, Box 167, Perry, Iowa (ph 515 465-5681).