Shop-Vac Supplies Vacuum Power To Row Crop Planter

Jonas Shirk makes 2-row Deere planters and is experimenting with Shop-Vacs as an alternative to drive vacuum meters. The original hydraulic fan drive is an option on the 7200 and newer planters available from JM Shirk Mfg. (Vol. 41, No. 6). However, if hydraulics are not available, the Shop-Vac equipped with an inverter provides an electric power option.

"Most planters have hydraulic drives, but the Shop-Vac drive is quieter, and the components are lower cost," says Shirk.

Shirk says the option can work as well with eSet or vSet meters from Precision Planting as it does with OEM Deere meters. While most of the planters he sells are equipped with finger meters for corn, the vacuum meter works with any size plates for other crops.

"A Shop-Vac system will only work with a 2-row planter," says Shirk. "There can be an issue with the Shop Vac drawing down the battery faster than it gets recharged, especially with a weak battery. I am playing around with a variable speed fan control to reduce the speed of the Shop-Vac blower. That should reduce the amp draw for a longer run time."

Shirk is also planning to experiment running a vac system using a battery-powered blower. He points out that adapting a vac system to a non-conventional system requires a flow control.

"You need something to regulate the vacuum flow," he says. "I use a simple ball valve, opening it up to let in more air in."

Contact: FARM SHOW Followup, JM Shirk Mfg., 459 Peach Rd., Ephrata, Penn. 17522 (ph 717 721-3383).

Shop-Vacs can be used to supply vacuum power to 2-row Deere planters, says Jonas Shirk. "The Shop-Vac drive is quieter, and the components are lower cost than hydraulic drives," he says.

Small Planters Equipped With Lever Lift System

Raising a Millwood Machinery horse-drawn corn planter is easy with the lever lift. Millwood makes 1, 2, 3 and 4-row horse-drawn planters with Deere planting units. The 4-row planter comes with 2 levers for easier lifting, no hydraulics needed.

"We sell direct as well as through some dealers," says Amos Stoltzfus, Millwood Machinery. "We have shipped planters from Pennsylvania to Wisconsin and Iowa."

The steel wheel machines can be equipped with a variety of options, including seed firmers, dry and liquid fertilizer attachments, and point markers. Millwood also offers a wide yoke and 2-horse hitch for 2-row planters.

Meters are available for field corn, sweet corn, pumpkins, sunflowers, soybeans and sorghum. Planters come with the buyer's choice of one set of meters.

Base cost for the planters ranges from $2,950 for the 1-row unit to $5,500 for the 4-row planter. A 2-row, 3-pt. hitch planter with rubber wheels is available for $2,950.

Horse-drawn planter comes with a lever lift that eliminates the need for hydraulics.

Contact: FARM SHOW Followup, Millwood Machinery, 36845 Millwood Lane, Mechanicsville, Md. 20659.

Frame Kit Evens Out Planter Weight Distribution

Uneven weight distribution is a problem on many of today's large frame planters, so LDM Ag Services, Grand Junction, Iowa, developed a special kit that spreads weight across more of the frame.

LDM's David Maach says the idea evolved because a lot of his customers have big center-fill planters where a large percentage of the implement's weight is concentrated on the transport wheels in the middle rows, causing excess compaction in that area. The problem is magnified even more if the planter has liquid fertilizer tanks at the center of the frame.

LDM's solution was to build a hydraulic -actuated weight transfer system that applies down pressure to the outer wings of the planter to relieve the weight concentration in the center.

"Our field testing showed that we can relieve significant down pressure on the transport wheels, so pinch row compaction between those transport wheels is reduced," Maach says. The system also helps outer row units on large planters maintain uniform planting depth.

Hydraulic-operated kit spreads weight more evenly across planter frame.

LDM built its prototype system for a 12-row 30-in. planter and was pleased with the results. Now they build models for 16, 24, 36, 48 and even 54-row 20-in. machines.

Contact: FARM SHOW Followup, LDM Ag Services, 503 14th St. South, Grand Junction, Iowa 50107 (ph 515 370-1068; www.ldmagservices.com).

How To Improve Deere Grain Drill Performance

Indiana farmer David Hoar says that installing the UniForce™ hydraulic down pressure system on his 43-ft. Deere 1690 CCS drill resulted in positive and consistent down pressure across the full width of the drill and uniform planting depth. "Before installing the UniForce, the drill openers with the OEM springs looked like a piano board being played, with a lot of up and down movement."

UniForce is a hydraulic system made by Exapta Solutions of Kansas that fixes a design flaw on Deere drill models 50, 60, 90 and 2510H. It uses single-action hydraulic cylinders on each opener to keep pressure constant even while the implement is traveling over steep terraces or through swales. Exapta says their system fixes the problems associated with the big coil spring on the drill openers. Those springs relax when the opener goes into the slightest depression, so there's less down pressure. Disk openers then fail to cut straw or stalks which leads to hair pinning, uneven seed placement, uneven germination, and lower per acre production.

The UniForce system plumbs in to existing drill hydraulics so raising, lowering and down pressure can all operate on one remote. Two remotes can be used to keep the down force separate. Flow requirements are 4 to 8 gpm. Options include an in-cab adjustment to lighten or increase pressure when field conditions change and an on-board accumulator to store pressure in terraced fields.

South Dakota grain farmer Mike Arnoldy says the UniForce system on his drills put wheat seeds into hard and dry bean stubble, giving him more uniform emergence and slightly more uniform stands. He now has the UniForce on a 43-ft. 1690 and a 60-ft. 1890.

Oklahoma farmer Scott Arthaud says the UniForce system was a big advantage for him in marginally dry conditions. He adds that the row units held the depth better and it was impressive to see them uniform and not bouncing like they would with the OEM springs. Karl Davis of Iowa says the UniForce on his drill eliminated all the bounce and kept the openers in the ground in all conditions.

The cost of UniForce openers is $300 per row on Deere 60 and 90 models and $325 per row on the 50 series. Pricing for box drills ranges from $1,925 to $5,880 depending on size. The in-cab adjustment is $650 for hydraulic systems and $690 for air drills. Accumlators are $1,720 for a pair of one-gallon tanks or $2,490 for a 2.5-gallon size.

UniForce hydraulic down pressure system is designed for Deere drills. Single-action cylinders on each opener keep down pressure constant on uneven ground.

Contact: FARM SHOW Followup, Exapta Solutions, P.O. Box 952, Salina, Kan. 67402 (ph 785 820-8000; www.exapta.com).

System plumbs into drill's existing hydraulics.