



Unlike mechanically-powered big balers, the plunger on Lundahl's all-hydraulic big baler only runs when the accumulation chamber fills up. That reduces wear and tear while lowering horsepower requirements.

New Big Baler Uses Air

(Continued from cover page)

created by two big 15,000 cfm blowers that suck the hay in and carry it up and over an arched "bridge". Hay accumulates in a chamber above the packing plunger. When enough hay fills the chamber, it automatically drops down into the packing chamber and a ram packs it. The packing ram only runs when the preset amount of hay drops into the chamber, unlike other balers that

run continuously.

"That means that when you're turning or sitting still you don't have to continue powering the plunger. All that's running are the blowers. And because there are no conveyors or other parts to move the hay back to the bale chamber, it's much less complicated and causes less damage and leaf loss. Suction by the blowers is so strong they actually pick leaves up off the ground," says Lundahl.

As the bale forms in the bale chamber, density of the bale is measured by pressure against the rear door of the baler. Density can be adjusted, depending on the crop and whether or not you're baling hay or straw. Once formed, the bale is forced out the rear door by the next bale as it's being formed, eliminating the need for a kick-out mechanism.

The bale-packing plunger is powered hydraulically. In operation it runs every 4 to 6 sec. or whenever enough hay accumulates in the holding chamber. Thanks to a new 120 gpm hydraulic system that Lundahl designed, the baler uses hydraulics to pack the bale. "That means this baler has fewer parts and requires far less maintenance than a mechanically-powered square baler," he notes.

The baler makes a 3 by 4 by 8-ft. bale, which Lundahl says stacks better on trucks than a 4 by 4-ft. bale. The plunger is fitted with four 4-in. dia. metal spikes 4 ft. long that create air holes in the ends of the bale to aid drying of higher moisture hay.

Lundahl hopes to team up with a manufacturer to produce the new baler.

For more information, contact: FARM SHOW Followup, Ezra Lundahl, Inc., P.O. Box 268, 710 North Sixth West, Logan, Utah 84321 (ph 801 753-4700).



Photo shows the four aeration holes in a completed bale.



The 28-ft. wide packer-roller has two 8-ft. wing sections that fold vertically for travel. Kropf pulls it with an 8650 Deere tractor.

**PROVIDES 10 TONS OF WEIGHT TO
PACK SEEDBED, SMASH CLODS**

Packer-Roller Made From Concrete-Filled Culverts

To get crops off to a faster, healthier start, Oregon farmer Grant Kropf, of Harrisburg, packs the seedbed with a giant 10 ton roller-packer he made by filling 24 in. dia. steel culverts with concrete.

"This area grows 90% of the world's grass seed, which requires a firm seedbed to germinate. I built this 28 ft. roller-packer to fill in loose dirt and to pack and break clods," says Kropf.

The 28 ft. wide rig is made in two 8 ft. wing sections which fold vertically for travel, and a 12 ft. wide middle section. Wheels (9:00 by 17.5) support all three sections for road travel, and take most of the weight off the tongue in the working position.

Two lift cylinders lift the center section and there's one each to raise and lower each wing for road travel. Travel width is 12.5 ft.

A 2-7/16 in. dia. shaft runs through the center of each roller, extending out about 4 in. on each end — just enough to fit a big

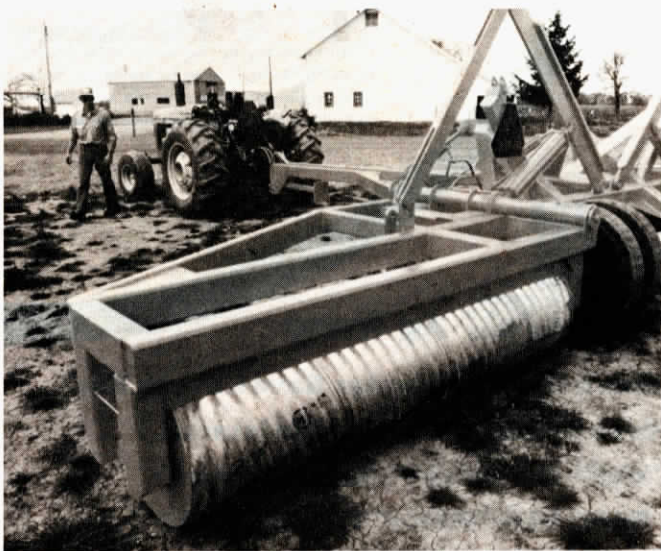
roller bearing, bolted to the frame, to it.

To fill each culvert with concrete, Kropf used a forklift to tip it on end. Fresh concrete from a ready-mix truck was loaded onto the forklift, then lifted and poured into the upright culvert. After the concrete set, Kropf hooked a chain onto the top end and gently let it down. Plates were welded onto each of the culverts to keep the concrete edges from crumbling.

Each wing weighs 3,000 lbs. and the center roller 4,500 lbs. The frame itself weighs 10,000 lbs.

Kropf uses a Deere 8650 tractor to pull the roller in tandem with a harrow. "Used by itself, the roller could be pulled with a Deere 4020 or similar horsepower tractor," he says.

For more information, contact: FARM SHOW Followup, Grant Kropf, 30093 Substation Drive, Harrisburg, Oregon 97446 (ph 503 995-6383).



Kropf tips each culvert on end to fill it with concrete. After it hardens, he welds steel plates to the ends to keep the edges from crumbling.

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