



Inventor figures his new baler can be made to sell for only half as much as Hesston or New Holland big square balers.

WEIGHS 40% LESS AND REQUIRES 40% LESS HORSEPOWER THAN SIMILAR SIZE BALERS

“New & Improved” 4 X 8 Square Baler

It's not on the market yet but a Montana engineer hopes to make it big with a first-of-its-kind continuous compression 4 by 8-ft. square baler that he says outperforms plunger-type big square balers already on the market.

Built by Charles Siebenga, Belgrade, the baler uses a set of hydraulically controlled compression rollers to compress and extrude hay as it comes off transfer belts from a conventional hay pickup. The compressed hay feeds into a bale chamber that continually applies back pressure, provided by hydraulic cylinders, to the hay as it feeds in. When enough hay has entered the chamber to make a 4 by 8 bale, it's tied and ejected.

“The big advantage is that unlike conventional plunger-type big square balers that compress the entire bale at once, you're only compressing a small amount of hay at once. As a result the machine requires 30 to 40% less horsepower, weighs 30 to 40% less, and there are less complicated mechanisms to go wrong,” says Siebenga, who figures the machine will cost only half as much as other big square balers while producing bales of the same density at the same or an increased rate.

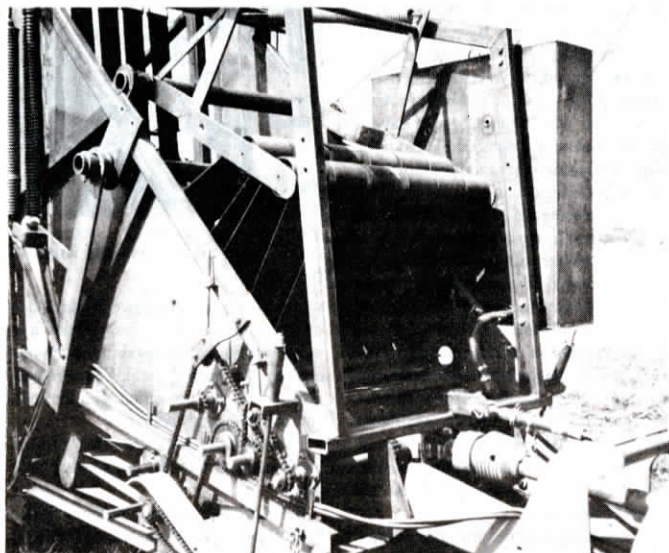
The baler's continuous compression

principle has been used in a baler built by Joseph Molitorisz as well as on an experimental baler built by Massey Ferguson. Siebenga says he's taken the idea, which has yet to be a commercial success, and perfected it.

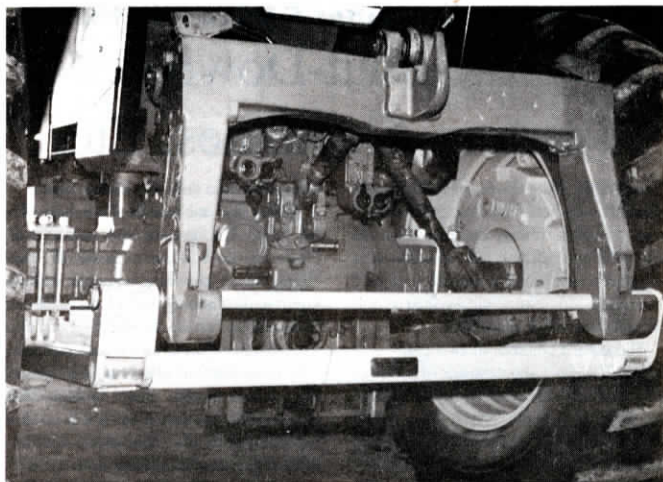
Key to success of the baler are the compression rollers mounted on hydraulic scissor hoists at the center of the baler. Controlled by micro-switches, they continually move up and down, feeding compressed hay in wafer-like layers to the bale chamber. The bale chamber applies back pressure to all four sides of the bale, controlled by a pressure reducing valve. The valve can be adjusted by hand to change the density of the bale for various baling conditions. Two hydraulic cylinders on opposite sides of the baler provide the pressure. Once the bale is formed, 6 standard Massey-Ferguson Suretie Knotters tie it off.

Siebenga, who originally began work on the new baler design for Vermeer Manufacturing, has produced one working prototype and would like to find a manufacturer. He's already had interest from several major manufacturers.

For more information, contact: FARM SHOW Followup, Charles Siebenga, 211 8th Street, #2, Belgrade, Mont. 59714 (ph 406 388-7681).



Hydraulic scissor hoists in center move compression rollers up and down to feed hay in layers to bale chamber.



New stabilizer anchors 3-pt. to axle and frame of tractor.

ALSO BOOSTS PULLING POWER, AND IMPROVES FUEL EFFICIENCY

New 3-Pt. Stabilizer Stops Toolbar Sway

“We can't believe how well it works and neither can the farmers who've tried it,” says Jim Chambers, a Deere dealer in O'Donnell, Texas, who's marketing a new 3-pt. hitch stabilizer that he says also boosts pulling power and increases fuel efficiency by nearly 20%.

The new stabilizer - which anchors the 3-pt. to the axle and frame of the tractor - was built by farmer Ronnie Barnes and machine shop operator David Gary as a way to stop toolbar sway with 3-pt. mounted equipment on ridge-till acres. After months of experimentation, they came up with a design that mounts on the tractor in less than an hour without modification. When Barnes first tested it, he realized he'd come up with more than he'd planned. In addition to keeping cultivators following the row, the stabilizer changed the way the tractor operated.

“We noticed that traction was increased, slippage reduced and we picked up a full gear while at the same time using less fuel,” says Chambers, who joined Barnes and Gary to help market the stabilizer. He's selling the unit through Deere dealers but hopes to soon expand to other outlets and build models to fit all tractors. “We've been surprised at the response. We've sold a bunch of units the last three months and everybody's happy with them.”

The stabilizer works in conjunction with a quick-tach 3-pt. A 1 7/16-in. dia. steel rod runs through the quick hitch and fastens to a steel frame that runs back under the tractor. The frame fastens with four bolts to each side of the rear axle and then to the tractor frame at mid-tractor.

“It's similar to old belly-mount equipment that was popular years ago in that it transfers pull to the entire tractor, not just the rear. Because it pulls so evenly we've been able to reduce or eliminate front weights. Farmers are finding they can get the same pull with a smaller tractor or eliminate the need for duals. Once installed, you can leave it in place,” says Chambers.

Although the stabilizer is now being evaluated by Texas A & M engineers, Chambers has already conducted tests at



Stabilizer installs without drilling any holes or modifying the tractor in any way.



Frame fastens with 4 bolts to each side of rear axle, and to tractor frame at mid-center.

his dealership. Using a 130-hp. Deere 4430 pulling a 39-ft. spring tooth chisel without front-end weights, slippage was 33% without the stabilizer and 15% with the stabilizer. Fuel savings of up to 19% have been recorded.

“You can tell immediately you're pulling more evenly because you can throttle back to idle and the tractor still lugs, rather than conking out. We also think it helps reduce compaction by pulling more evenly. Nearly any tractor can use this stabilizer because no 3-pt. is 100% stable,” says Chambers, noting that the stabilizer is designed to install without drilling any holes or modifying the tractor in any way. It sells for \$1,595.

For more information, contact: FARM SHOW Followup, Jim Chambers, Wayland Taylor, Inc., Box 308, O'Donnell, Texas 79351 (ph 806 428-3245).