Telescoping cab moves off to the side when loading bales and then shifts back in front for road transport.

"OUTSTANDING OPERATOR VISIBILITY"

Big New Bale Hauler Features Telescoping Cab

A first-of-its-kind self-propelled bale hauler features a telescoping cab that moves off to the side when loading bales and then shifts back in front for road transport.

Our patent search showed it's the only bale hauler of its kind in the world," says Thayne Wiser, of Ag Engineering & Development. "It's a lot more efficient and easy to operate than bale trucks that lift bales up and over the cab."

The "Stack Master" was unveiled at the recent Spokane Ag Expo in Spokane, Wash.

The cab rides just 28 in. off the ground. To pick up bales, it telescopes out and to the left up to 54 in. on two cylindrical tubes.

Designing steering and other controls that would telescope with the cab was a big challenge, Wiser notes. "We solved the problem by encasing them in a 4-in. dia. flexible plastic conduit reinforced with steel," he says. "It works like a charm."

The hauler is powered by a 185 hp Detroit Perkins diesel mounted halfway back under the 19-ft. loading deck. It's coupled to a 5-speed Allison transmission that drives all 4 main drive wheels. An air-operated tag axle lowers for operation on rough ground and retracts for operation on smoother terrain. Drive wheels are fitted with 12 by 47-in. tires, while tag axle wheels are fitted with smaller 11 by 22.5 low profile tires.

The rig handles eight 4 by 4 by 8-ft., twelve 3 by 4 by 8-ft. or 18 mid-size bales and features a front bale squeeze that snares bales slightly to the right of center, then lifts them onto a 9 1/2-ft. formed steel loading table. The loading table raises vertically to stack two bales on top of each other on the loading deck, which is equipped with a rolling rack to keep bales in place as it fills.

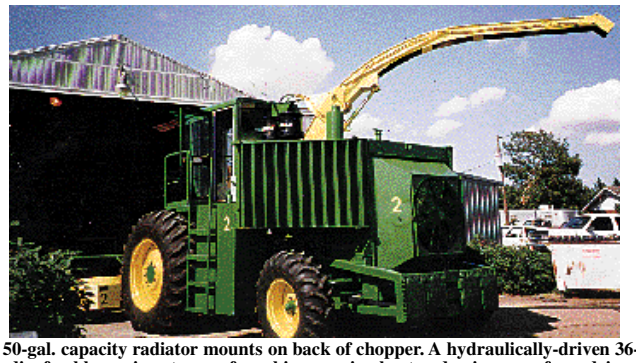
A 45 gpm hydraulic pump powers all hydraulics.

Top speed loaded is 45 mph. The machine can load and stack 800 1-ton bales per day under ideal conditions.

Sells for $135,000.

Contact: FARM SHOW Followup, Ag Engineering & Development Co., 1515 E. 7th Kennewick, P.O. Box 2814. Tri-Cities, Wash. 99302 (ph 509 582-8900; fax 5282).

Loading table raises vertically to stack two bales on top of each other on the loading deck. Machine can load and stack 800 1-ton bales per day under ideal conditions.



A 50-gal. capacity radiator mounts on back of chopper. A hydraulically-driven 36-in. dia. fan blows air out rear of machine, moving heat and noise away from driver.

"WE CAN REPLACE PARTS IN HALF THE TIME AT HALF THE COST"

Home-Built Forage Chopper Better Than Factory Built

By Jim Houtsma, Associate Editor

"Each one cuts 60,000 tons of silage a season and they've been virtually trouble-free from day one," says Ray Froese about three low-maintenance, high-performance forage harvesters he and his brother, Larry, built.

The Inman, Kan., custom cutters built their own forage harvesters to get away from some of the shortcomings they observed in new sophisticated factory machines.

"One reason we build our own is the astronomical cost of new machines. Some go for as much as $250,000," Ray says. "Another is that there seemed to be excessive downtime with new equipment. Downtime can cost you plenty when you've got only a three-month window to do your entire season's cutting. Plus, parts are very expensive on new, factory-built machines. Our machine is designed so we can replace parts in half the time at half the cost."

The men used essentially the same design for all three machines. The main frame is made out of 4 by 10-in. tubing. It's fitted with the front axle off an N7 Gleaner combine and the rear axle off a 1680 IH combine. Front drive wheels are off a Deere tractor and are fitted with 20.8 by 38-in tires to adapt to 30, 36 and 40-in. rows. Rear tires are 16.9 by 24-in.

Power is supplied by a 6-cyl. 450 hp 3406B Caterpillar engine out of a Peterbilt semi. It mounts sideways between the cab and radiator."By mounting it crossways, we didn't have to change direction of the power drive with a gearbox which is what adds a lot of expense and complexity to some machines," Froese notes.

The cutterknives and blower are belt-driven by an industrial 300-in. long belt and special pulley drive. "If there's ever any downtime, it'll only be to replace the one belt," Ray says. "It doesn't take much power to belt-drive the cutterbars and blower."

Each machine is fitted with a 6-row Kemper head powered by a 20 gpm Sundstrand hydraulic pump. The system is designed with a series of bypasses to avoid damage to the head in case of trouble.

A huge, 50-gal. capacity radiator mounts on back of the machine. The 6-ft. tall, 5 1/2-ft. wide, 6-in. thick radiator came out of an 800 hp Kenworth coal truck and is equipped with a hydraulically driven 36-in. dia. fan for blowing air out of the rear of the machine, moving heat and noise away from the driver.

"On cool mornings we run the fan real slow and turn up the speed as the day heats up," says Ray. "When leaves or other crop material plugs up screens or the radiator, we flip a switch in the cab to reverse direction of the fan and blow them clean."

The machine is equipped with a 34-in. wide, 24-in. dia. cutter drum fitted with 60 Deere knives from a 6810 forage harvester.

It has a home-built 12-ft. long, 12-in. spout fitted with easy-replace, bolt-on plastic liners. "It's perfectly arched so silage comes out smoothly and doesn't wear on the liners as much," Ray says. It also rotates 280 degrees to increase ease of truck filling, he adds. The cab is off a Gleaner L combine. It rests on rubber mounts.

The Froese brothers say they've got about $130,000 invested in each machine.

Contact: FARM SHOW Followup, Froese Brothers, Box 139, Inman, Kan. 67546 (ph 316 585-6478 or 2590).

Machine is fitted with a 6-row Kemper head powered by a 20 gpm hydraulic pump.