



Wood is stacked in baler frame, pressed together hydraulically, then wrapped with steel tape.

## EASY TO TRANSPORT AND WOOD DRIES FASTER

# Baler Puts Chopped Wood Into Bales

A baler for chopped wood? Sounds unusual but Jim Fincham, Leon, Iowa, builder of wood balers, says they work great for compressing firewood into a tight bundle that's easy to load, transport and store.

Fincham says wood bales can be made up to 5 ft. wide and 4 ft. high. After stacking wood in the baler, you engage two 14 in. stroke hydraulic cylinders that force a beam against the wood, compressing the logs into a tight bale which is wrapped with nylon strapping.

Wood bales are easy to load on a truck or trailer with a loader, easy to store and, when selling wood, provide a uniform sized bundle for the buyer.

To use, you first put a pallet down on the bottom beam of baler which allows you to pick up wood bales with a tractor or skid steer loader. Next, place pallets along each side

beam. These side pallets form a firm edge for the wood to be pressed against and a place for the nylon strapping to go around. The top beam swings out of the way for picking up the finished bale.

Fincham generally stacks 18 in. long wood but says longer logs easily stack in the baler. A plywood back panel, adjustable for different log lengths, provides a firm back for uniformly aligning the logs for stacking.

Mounted on an axle, you can pull the baler behind a truck, tractor or trailer. The two cylinders are powered off the hydraulics from your tractor, or an auxiliary pump.

Sells for \$2,950.

For more information, contact: FARM SHOW Followup, Jim Fincham, Rt. 3, Box 75B, Leon, Iowa 50144 (ph 515 446-6550).



Machine makes bales of wood up to 5 ft. wide, 4 ft. high.

## AUTOMATICALLY EMPTIES BIN OF "EVERYTHING BUT A FEW KERNELS"

# New Grain Bin "Scoop" Cleans Up Fast, Easy

You'll never have to shovel grain out of bins again with this new in-bin scoop that automatically cleans up and unloads loose grain with a permanently mounted impeller that dumps grain into a below-floor auger.

Invented by two Western Canadian farmers, John Shokoples and Joe Galichowski, the new invention is designed to do away with the back breaking and time consuming task of cleaning out bins by hand, at the same time avoiding many of the problems that the duo says they had been having with sweep augers.

The system consists of a permanently-mounted impeller arm with special fins that rake grain into the center of the bin and drop it to an auger that's mounted below the main floor. There's also a gear box, a hydraulic motor, and the necessary hoses.



Photo courtesy Grainews

**Special vanes on rotating impeller direct grain into unloading auger.**

When a bin equipped with the system is filled, the impeller arm is raised hydraulically and left at an angle that will not interfere with grain filling. When unloading, the arm is triggered automatically once enough grain is out of the bin so that it no longer flows into the under floor auger.

When the system is through, there's only enough grain left in the bin to keep a broom busy for a minute or so, says the inventors.

The most expensive parts of the system, the hydraulic motor, hoses and gear drive, can be moved from bin to bin by removing 2 bolts and a pin. The system is being used on new construction or on existing bins by digging out beneath the bin to install the below-floor auger.

The inventors wanted an alternative to sweep augers, which they say are "dirty and get jammed up. They wear out the floor and they're very dangerous. They're also considerably slower than this automatic unit."

The company has come out with small-sized units for smaller bins which are more common on Canadian farms and is working on a unit for larger U.S. bins.

For more information, contact: FARM SHOW Followup, John Shokoples, Shock & Gali, Box 659, Two Hills, Alta. Canada TOB 4K0 (ph 403 657-2492).

## SUPER LIGHTWEIGHT, THEY'RE MORE DURABLE THAN METAL

# Plastic Engines Now On The Market

"They'll outlast metal engines," says the developer of a new Pinto-sized 4-cyl. engine that's 80% plastic.

Matty Holtzberg, president of Polymotor Research Ltd., Fairlawn, N.J., says plastic makes for better engines in part because it results in lighter moving parts, less corrosion and lower operating temperatures.

"We're using very sophisticated fiber-reinforced plastic material, the same material that is used on the doors of the space shuttle. It doesn't rust, has less corrosion, and it's much lighter than metal," Holtzberg told FARM SHOW.

The company's first engine is a 4-cyl., 100 hp. model that weighs just 170 lbs., compared with a weight of 350 lbs. for a comparable size all-metal engine. The engines are avail-

able but sell in the \$3,000 to \$4,000 range, and are used primarily for research purposes. However, the Ford Motor Company has expressed an interest in the engine. Holtzberg says it can be used anywhere a conventional engine would be used.

The engine block, cylinder head, valves, rocker arms, piston lifters, and many more of the parts on the engine are plastic. The crankshaft and single overhead cam are metal and it has conventional metal bearings and aluminum cylinder liners. All surfaces exposed to fuel combustion are metal or metal covered.

"A big benefit of using plastic is that many of the parts which would ordinarily have to be cast can be machined out of plastic, which is much cheaper. It's also easier to handle, which will help cut production

costs tremendously," says Holtzberg.

The company says that lightened weight is the biggest advantage of the plastic engine design. Besides the fact that the moving parts are lighter and therefore wear less, Holtzberg says that every 100 lb. reduction of overall weight increases gas mileage by one mile per gal. He says plastic engines are also extremely quiet.

The company currently has both a conventional 4-cyl. engine and a heavy-duty racing model. They are working on a diesel prototype with 75 hp. that weighs one-third that of a cast engine.

For more information, contact: FARM SHOW Followup, Polymotor Research Ltd., 17-50 River Road, Fairlawn, N.J. 07410 (ph 201 796-0767).