



Hydraulic Drive For Hay Cubers

If you're in the market for hay cubing equipment, you'll want to check with Warren and Baerg Mfg., of Dinuba, Ca. They specialize in hydraulic drive conversions for used hay cubers.

Compared to new hay cubers, which cost about \$70,000, the firm buys used hay cubers, rebuilds and converts them to total hydraulic drive, then sells them for about \$40,000. "They have about 50% more capacity than a new conventional hay cuber, cost about half as much and last about twice as long," Cecil Warren told FARM SHOW. If you already own a hay cuber, Warren and his partner, Bob Baerg, will rebuild it with completely hydraulic drives for right at \$14,000.

Advantages they claim for their hydraulic drive conversion include: "Eliminates costly downtime, changing belts and cylinder repair; eliminates vibration from variable

speed pulleys; gives you an infinitely variable field working range from 0 to 7 mph; gives you quick and easy reverse in picking scattered windrows; and the Hydrostat transmission also serves as a brake which has been a weak point." The conversion takes 10 to 20 hp. load off the main drive belt, meaning less horsepower loss to the cuber drum.

The \$14,000 conversion "package", which boosts capacity of Deere cubers an estimated 10 tons per day, includes \$4,400 for the Hydrostat (which includes a completely rebuilt transmission and pto unit); \$500 for the hydraulic pump conversion; \$4,500 for the conveyor and elevator conversion, and \$5,000 for the pickup and feeding system.

For more details, contact: FARM SHOW Followup, Warren and Baerg Mfg., 39950 Road 108, Dinuba, Cal. 93618 (ph 209 591-6790).



"Mud-Proof" Your Combine With A Set Of Skis

Last fall Tom Hoepfner, Fargo, N. Dak., got caught by the wet weather with \$100,000 worth of sunflowers left to combine. The only way out was to equip his combine for working in mud and snow.

With typical American farmer ingenuity, Hoepfner came up with a combine equipped with skis and tracks that looks a little like a cross between a snowmobile and an army tank.

Starting with a John Deere 4400 combine, he extended the main wheel axles 14 in. and mounted dual wheels. Behind them he added another axle for dual idler wheels. A set of steel tracks (25 in. wide) was mounted over the driver and idler wheels. Final touch was a set of skis attached to the rear wheels.

Hoepfner says his ski-

equipped combine was able to go through snow nearly three feet deep. "It also works in mud if it isn't too soupy," he told FARM SHOW.

In the early part of the season, he used tracks made of 4 x 4 in. oak. After the ground froze, he switched to tracks made of steel.

Hoepfner got help in making the steel tracks from Loegering Manufacturing, of Casselton, N. Dak. Fargo Tank Company and Offutt Farms helped design and extend the axles, and Fosston Welding built and mounted the rear skis, which are made of 1/2 inch steel.

"The whole project cost \$10,000," says Hoepfner, "but it was worth it to save a \$100,000 crop. I hope I never have to use it again, but if I do, I know it will work."

He notes that his ski-equipped combine travels just as fast as in summer, and frozen heads and stalks thresh easier. Hoepfner never once got stuck in the field with skis on his combine.

The half-track equipment can be attached in 30 min. and removed in the same amount of time. For more details, contact: FARM SHOW Followup, Tom Hoepfner, Box 1252; Fargo, ND 58102 (ph 218 236-1370).

Solar Powered Irrigation Pump

New ways to harness "free" energy from the sun are busting out all over. In Nebraska, inventor Howard Legg, of Grand Island, is experimenting with a "best ideas" collector that would automatically tilt to just the right angle, and would follow the sun all day long for peak efficiency.

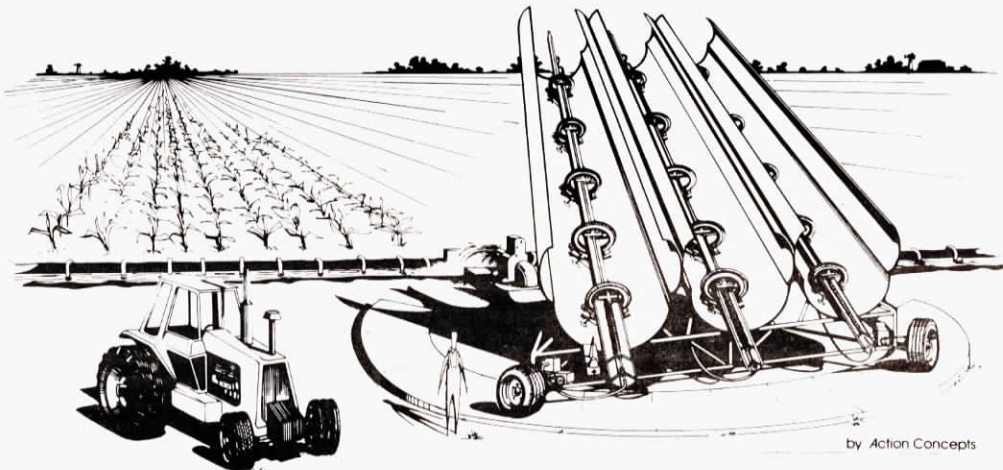
He has applied for a patent on his invention and has begun assembling a prototype. When complete, it will be made up of three or more trough-like collectors, each measuring about 30 ft. long and 8 ft. across. A core in the center of each collector will contain a special liquid. Sun rays will heat the liquid to 450°F, causing it to turn into vapor. Vapor will be carried to a turbine and converted to usable energy for pumping water. On a cloudy day, a movable cover for each collector would close to help trap heat already inside the unit. Burners, either electric or gas fired, would kick in to keep the liquid hot and to keep the unit running.

Legg notes that the collectors

will automatically tilt to adjust to height of the sun in the sky. They track the sun as it moves by turning around a pivot attached to the high end. Legg speculates that once into production, his invention would sell for about \$300 per hp. for smaller models, and about \$250

for larger ones. The tracking mechanism for following the sun would operate on photo electric cells and be hydraulically powered, he points out.

For more details, contact: FARM SHOW Followup, Howard Legg, 229 North Park, Grand Island, Neb. (ph 308 384-8670).



by Action Concepts