

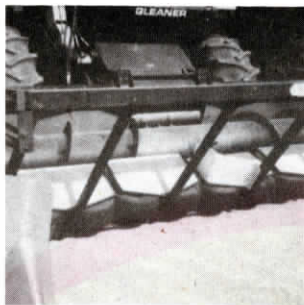
"Tire Header" Reduces Crop Shatter Loss

A Kansas farmer who didn't like the crop loss caused by sickle and reel shatter on his combine header built his own header from scratch using old rubber tires to gather the crop in.

David Sauder, of LeRoy, built the "tire header" for his 1983 Gleaner F2 6-row combine. A series of 12 horizontally-mounted lawn mower wheels are used in place of the reel to gather plants in. The 16-in. tires are mounted horizontally just above the sicklebar. They're supported by a steel frame that mounts on the reel arms. The orbit motor and hydraulic system that normally drives the reel is used to rotate the center tire which in turn drives all of the other tires, with each pair of tires turning inward.

"It's a simple, economical way to reduce crop shatter loss and requires very little maintenance," says Sauder, who has tested the system on soybeans and milo for two years. "I built it because my reel tended to batter the crop, especially when it was dry. My rotating tires gently hold plant stems without shaking them while the sicklebar cuts them. I haven't checked for an increase in yield, but I know there is one. I can vary the tires' speed of rotation according to crop conditions simply by adjusting the speed of the orbit motor. It eliminates all of the shafts, sprockets, belts, gears, and chains found on most headers. The only moving parts are bearings inside each wheel hub. As far as I know there's nothing else like it on the market."

Sauder removed the reel and bolted a



length of 4 by 4-in. sq. tubing onto the reel arms. The tubing runs horizontally above the full width of the header and supports a series of 2 by 2 in. sq. tubes spaced 30 in. apart that extend downward at an angle, with each tube supporting a pair of wheels, each of which is bolted to a hub. Plastic shields above each pair of tires prevent plant stems wedged between the treads from being thrown off by the tires.

"Since the photo was taken I've switched from tread tires to smooth tires to prevent plant stems from wedging," notes Sauder. "I also plan to design a tire header that'll pick up down soybeans. I'll mount the tires on a flex bar so they can float with the cutterbar."

Sauder spent \$1,200 to build the tire header.

Contact: FARM SHOW Followup, David Sauder, Rt. 1, LeRoy, Kan. 66857 (ph 316 964-2330).



The deck is supported by a pair of cultivator gauge wheels and is raised and lowered by the same cylinder that formerly raised and lowered the header.

CUTS 7 FT. WIDE AT 8 MPH

Big Mower Built From Junked Deere Combine

"It cuts fast and does a beautiful job. It was so simple to build that I don't know why everyone doesn't do it," says Bob Wilder, Mankato, Minn.. He mounted a 7 ft. 2 in. wide lawn mower on front of an old junked-out 1958 Deere 40 self-propelled combine.

Wilder stripped the combine of everything but the platform, front and rear wheels, engine, transmission, and running gear. He used 2 by 4-in. steel tubing to build a 1 ft. high, 4 ft. long frame that supports the platform, engine, and gas tank. He used 1/8-in. steel plate to build the mower deck and fitted it with three spindles from a worn-out 1950's Deere 3-pt. flail chopper. He mounted two 30-in. and one 28-in. long blade on the spindles. The offset blades are driven by an 8 1/2-ft. long belt that runs from the spindles to the combine's gearbox. The deck is supported by a pair of cultivator wheels 2 ft. apart in front of the mower and three wheels at the rear. Wilder mows in third gear at 8 mph.

"I cut my mowing time in half and uses only half as much fuel as my previous mower," says Wilder. "I had been using a 2-cylinder, 20 hp, 48-in. wide White riding mower. It took three hours and 4 1/2 gal. of gas to mow my 3-acre lawn. My combine mower takes only one hour and less than two gallons of gas to do the same job. I have a great view of the mower deck because I sit almost right above it. There's hardly any maintenance because I can go 100 hours between oil changes, and I won't have to change the spark plugs more than once every 10 years. The combine is so light and the 4-cylinder, 40 hp engine is so powerful that when I let the clutch out the front tires spin instantly. I had to cut the lugs off them so they can spin without tearing up the

grass. A semi-truck tire retread company trimmed the tread off all four tires for only \$20. The short 4-ft. wheel base lets me turn in a 5-ft. radius. I use an old push mower to finish mowing around shrubs and trees. Grass is discharged at the rear of the deck which keeps it from bunching up and eliminates the danger from rocks flying out the side. I bought the combine for \$300 and the mower for \$250. Altogether it cost only \$700 to build. A comparable-size commercial lawn mower used on golf courses costs \$9,000 to \$10,000."

Wilder uses the hydraulic cylinder that formerly operated the feederhouse to raise the mower. The cylinder lifts a 3 1/2-ft. length of 1 1/2-in. sq. tubing that extends forward from the front axle and supports a pair of chains mounted 2 ft. apart at the center of the deck. The rear of the deck "floats" on a pair of chains that hang from lengths of 1 1/2-in. sq. tubing mounted on the axle. Wilder can shorten or lengthen each of the rear chains to adjust deck height. A pivot rod allows the deck to tilt forward, backward, or sideways 7 to 10 degrees.

Two lengths of 1-in. sq. tubing that bolt onto the rear of the deck hold it in the forward position. They can be telescoped outward to move the deck ahead in order to tighten the drive belt. Wilder removes the mower from the combine by loosening four bolts, unhooking the drive belt and chains, and backing away.

The mower is equipped with the combine's 4-step ladder and a rear hitch for pulling a trailer.

Contact: FARM SHOW Followup, Bob Wilder, Rt. 5, Box 92B, Mankato, Minn. 56001 (ph 507 625-7544).

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Publisher and

Editorial Director - Harold M. Johnson

Editor - Mark Newhall

Associate Editor - Bill Gergen

Office Manager - Joan C. Johnson

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"Siamese Deere" Tractor

Tractor collectors all over the country would like to get their hands on this "one-of-a-kind" Siamese Deere tractor sitting in Tom Ashcroft's farmyard near Tualatin, Ore.

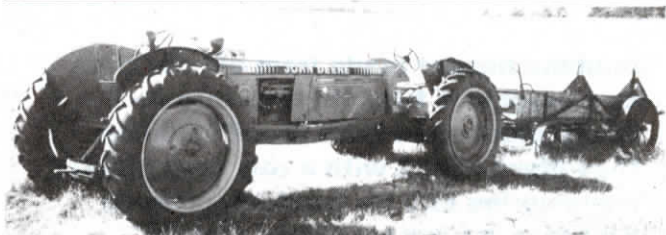
"I tell people it's the first four-wheel drive tractor Deere ever made," says Ashcroft, about the unusual machine that's actually a home-built rig he created out of two old Oliver's as a joke on a neighbor who collects Deere tractors.

Ashcroft took the tricycle front ends off a pair of Oliver 70's and then bolted the fronts of the frames together using existing bolt-holes. To make it look like one continuous tractor he ran an Oliver hood across the junction point, and then painted everything John Deere green, except for the wheels which are yellow. The finishing touch was a Deere decal.

"I ordered the biggest combine decal available and stuck it to the side of the tractor. I wanted it big enough so my neighbor could read it from a distance," says Ashcroft.

Neither tractor used for the Siamese rig runs since both had already been cannibalized for parts. Ashcroft parked the home-built rig so it's facing the neighbor's, and hooked up an old manure spreader behind.

Contact: FARM SHOW Followup, Tom Ashcroft, 6920 S.W. Elligsen Road, Tualatin, Ore. 97062 (ph 503 638-7258).



Ashcroft bolted the front ends of two old tractors together, slapped on a John Deere decal, and then started telling everyone it's the first 4-wheel drive Deere ever made.