

7720 Combine Axle Beefs Up Front End Of Deere 4430

Dennis Flanery couldn't justify the cost of a front wheel assist tractor but the Holden, Missouri, farmer felt that his Deere 4430 would be easier on hayfields if the front end had a little more float on soft ground.

"Just putting bigger tires on the front end wasn't an option," he says. "The cast iron axle and spindles weren't heavy enough to handle the pressure of bigger wheels and tires. I could have tried reinforcing the axle but that didn't seem like a good solution, either."

Instead, he removed the 4430's spindles and outer part of the axles and replaced them with spindles off the heavier steering axle of a Deere 7720 combine.

The 4430 axles were designed to adjust in width by telescoping in or out as needed. There was no adjustment on the 7720 axle, so Flanery made new outer axle bars for the 4430 from 2 by 3-in. steel bar stock. He had to have a V-shaped groove cut into the bar to match the V on the center part of the 4430 axle. He made the new axle pieces so front and rear wheel spacings match.

On the outside ends of his new 2 by 3 axle bars, Flanery welded plates made from 1-in. flat steel that he'd sized to match the plates on the combine spindles. He drilled holes to match those on the spindle plates, so mounting them was merely a matter of putting in the bolts.

"I discovered there were two different weights of spindles made for the 7720," he

says. "I chose the heavier ones just to be sure."

Flanery bought a pair of 10 by 16-in. wheels off an old Allis Chalmers combine and fitted them with a new set of 16.9 by 26 lugged tires.

He used 3/4-in. tubing to make new connector rods to connect the 4430's power steering cylinder to the tie rods on the spindles. Once he had it together, the 7720 tie-rod ends no longer worked properly with what he'd built. With help from a parts dealer, he found ends made for a Case combine that worked with the Deere spindles. "With the big tires on it, the tractor won't turn as short as it did originally, but so far, that hasn't been a problem," Flanery says.

He says the new front-end cost about \$1,100, not including the new tires. He bought most of the parts he needed at a local salvage yard. When he was through, he sold the old 4430 front axle, wheels and tires for \$350.

"It gives the tractor much better flotation on soft and rough ground than it had with the old front end," he says. "It makes the tractor look like it has front wheel assist." He figures it added \$2,000 or more to the value of his tractor.

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By replacing the spindles and outer part of the front axle on his Deere 4430 tractor with spindles off a Deere 7720 combine, Dennis Flanery was able to mount bigger tires. It gives the tractor better flotation on soft and rough ground.



Big Cart Catches Chaff For Cheap Cattle Feed

Ken and Jason Sawby, father and son, operate a small fabrication shop on their farm near Maple Creek, Saskatchewan. They make or remodel a lot of equipment for neighbors and also do a lot of fabrication for area gas drilling companies.

When a nearby cattleman asked for two big dump carts to catch chaff behind combines, they were happy to oblige.

The wagons catch chaff and other fines while harvesting small grain, peas, canola and other crops. The fines are hauled off the field, and stored for use as cattle feed.

They're similar to dump wagons used with silage cutters. But none of the dump wagons the customer had found would lift as high as he needed. He wanted them to lift and dump into a truck that's about 15 ft. tall.

The Sawbys started by making a frame from 3 by 6-in. steel tubing. They added dual wheels on a walking beam axle. The dump bin itself is made of 12 and 14 gauge sheet metal set in a frame made of various sizes of steel tubing.

The men designed a hydraulic dump mechanism that lifts and dumps the bin in one action with one hydraulic control valve. The Sawbys had two special combination cylinders made for each end of the wagon. "They're actually made up of two cylinders of different sizes welded together butt to butt," Ken explains.

The two cylinders are plumbed together with a T in the hydraulic line.

The larger bottom cylinder, which measures 3 1/2 in. dia. by 5 ft., lifts the bin. When it hits its extended length, the top cylinder, which is 3 in. by 3 ft., kicks in and does the dumping.

"To provide hydraulics to the chaff wagon, they put a flow divider into the hydraulic line on the combine that raises the unload auger. So the same valve that controls the auger is used to dump the chaff wagon," Sawby says.

The design of the chaff wagon allows it to



Wagon catches chaff and other fines while harvesting small grain, peas, canola and other crops. It's designed to lift and dump into a truck that's 15 ft. tall. Cantilever system automatically raises roof of wagon as bin tips to dump.

be dumped into a truck without unhooking from the combine.

The Sawbys designed a cantilever system that automatically raises the roof of the chaff wagon as the bin tips to dump.

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Caravan toppers get their strength and durability from a rigid steel frame.

All-Steel "Topper" Still Going Strong

Dale Devine has heard it all when it comes to pickup accidents with his topper installed. In 46 years of sales and manufacture of the steel-framed Caravan Camper, customers have told him about end-to-end and side-to-side rollovers. The story is always the same. "We've never had one camper completely collapse," says Rusk proudly. "The Highway Patrol even told one customer he might not be alive if it hadn't been for our camper top."

People come from as far away as Florida to pick up Caravan toppers from the factory in Reno, Nevada. The company doesn't ship, and it doesn't use distributors or local dealers. If you want one, you have to make the trip and it's been that way ever since the factory opened in the early 1950's. Local sales aren't the only thing that hasn't changed.

"We haven't changed the basic design," says Devine, who is co-owner of Caravan with Wally Rusk, whose father started the

business. "The windows change, the paint changes, but the design has stayed the same."

Caravan tops get their strength and durability from the rigid steel frame and steel skin. Devine says many 1955 units are still in use.

"We've had guys put 4,000-lb. loads up there," he says, noting that common sense should be used. "People carry everything from boats to lumber and pipe."

One thing that has changed about the toppers is the price. In 1955 they sold for about \$200. Today, the base price is \$1,925. Optional equipment can drive the price up to between \$2,500 and \$3,400. Options include racks for roof top loads, a variety of windows, truck-bed types, hydraulic door lifts, single and double doors and other items. The camper tops are available for any size truck.

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