Crick uses his "combine tractor" mainly to pull a windrower. The tractor has a wide wheelbase, allowing it to straddle any size windrow.

Hydrostatic Drive Tractor Made From 815 Combine

Dan Crick knew wider windrows would cut hay-drying time. Since none of his existing tractors would allow him to straddle a windrow as wide as he wanted to go, he built a "new" wide wheel base tractor that would. It works so well he can now bale a day or two early.

His made-it-myself tractor started life as an 815 International combine. Crick says his original intent was to cut the combine apart with a torch, but he ended up tearing it down with wrenches in order to save more parts. "I bought it for $1,500. We were able to sell parts that we didn't need for about $500," he says.

"The engine, hydrostat, hydraulic pumps, radiator, air filter and other important components on the 815 are all mounted together, so we could remove them easily," Crick adds. "We just picked it all up and set it on a pallet while we worked on the frame."

Crick says converting the old combine to a tractor wasn't as much work as he'd anticipated. "We reinforced the old combine frame by adding a second channel iron frame over it," he says. "Then all we had to do was put it back together. It didn't require any cutting or rebuilding, other than beefing up the frame.

"This combine already had spacers in the drive axles, so the wheels were 8 ft. apart. Initially, I wanted to set the wheels on the steering axle out to 8 ft., too, but the factory settings on the axle only go out to 7 ft. I figured if we needed a wider spacing, we could always make extensions later, so we just spaced them out and left them."

He turned the cab around to face what had been the rear of the combine and, with the combine components all removed, was able to mount it a little lower than it had been before. "It's still higher up than a regular tractor cab, giving us good visibility both front and back, " he says.

As for the engine, he turned it 90 degrees before remounting it on the reinforced frame. "Everything fit just like it was made for it," he says. "We still have the rotary cleaner on the radiator, but the radiator points forward now," he says.

The combine's hydrostatic drive needed no modification, but the steel lines from the hydrostat to the motors that drive the wheels were replaced with heavy 1-in. hydraulic hose and fittings. "They're less expensive and easier to install than steel lines," he says. "And nobody I knew wanted to try to make

He turned the cab around to face what had been the rear of the combine.

steel lines to fit it, either. Measurements don't have to be as exact with hose as with steel. And the hoses flex with the tractor."

Since they left the old frame intact, neither the front or rear axles had to be moved. "They're in the same place they were," he says, "but they run in the opposite direction now."

They used the existing hydraulic controls and valves to control their hydro swing mower conditioner.

"We use the header lift for raising and lowering the header," he says. "And the reel height control valve swings the tongue. It's only a 1/4 in. valve so it doesn't swing quite as fast as we might like but, on the other hand, you don't want the tongue to swing too fast, either."

With the engine turned, the crankshaft runs parallel to the frame. "We put a shaft on the back of the combine clutch and ran it to a final drive we took from a model 91 International self propelled combine to make a pto for the tractor," he says.

"I thought about putting a hydrostatic pto on it, but it was going to be a lot more complicated than a shaft-drive one," he adds. "The advantage of a hydrostatic pto would be the ability to vary the speed. The pto we built runs just a little slower than I'd like. In order to get 540 rpm's at the pto, we have to run the engine wide open — about 2,700 rpm's. This hasn't been a problem, though."

He used the combine's original wheels and tires that came on the combine and covered the engine with sheet metal from the back of the combine with some minor modifications. "I cut the sides off of it because I wanted everything in there to be easily accessible," he says.

Mounting the fuel tank turned out to be one of the biggest challenges, since it couldn't go back where it had been. "We were able to put it back in almost the same place, though. It's a little lower than it was on the combine. But I was able to use all the original mounting brackets by just fastening them back in different places."

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"It works great for hauling round bales," says Gene Snellings, who converted a pair of Deere 55 combines into a loader tractor.

Handy "Loader Tractor" Built From Two Deere Combines

"We use it for everything from hauling round bales to doing blading work and hauling creep feeders between pastures," says Gene Snellings, Montreal, Mo., who converted a pair of old Deere 55 combines into a loader tractor.

Snellings got the combines free - one from a neighbor and the other from his cousin. He stripped one of the machines down to the frame, removing everything but the running gear. He used 6-in. channel iron to build a frame and then remounted all the components. The cab is now back 2 ft. and 18 in. lower than its original location, and the 6-cyl. gas engine is about 3 ft. lower than before. The rig still has the original variable speed transmission. Snellings had someone else build a new radiator and guard. To offset the weight of the loader up front, he added a big steel box on back that's full of concrete and strap iron.

He modified a tractor loader to fit the combine's framework. The loader has a universal mounting bracket that's welded to the combine frame and is raised or lowered by two 3 by 34-in. hydraulic cylinders. A pair of 3 by 28-in. cylinders are used to tilt the bucket.

The machine uses both hydraulic pumps from the combines. One pump powers the loader and the other powers the steering and variable speed transmission.

"It frees up a tractor and I spent only about $3,000," says Snelling. "I got some help from my children and grand children, and my daughter is the primary operator. I had been using a loader with my International 886 tractor, but it kept me from using the tractor for other jobs and I couldn't justify the cost of a new tractor. The $3,000 I spent was mostly for hydraulic hoses and engine parts including the distributor, carburetor, starter, alternator, and belts.

"I use several attachments with the loader, including pallet forks, hay forks, an 8-ft. wide blade, and a 7-ft. wide bucket. I use the pallet forks to move creep feeders between pastures. Instead of folding up the wings on the feeders and pulling them behind a tractor, I just use the loader to pick up an entire feeder and take off with it. The loader can reach 10 ft. high so it works great for stacking round bales. Last year was very dry here and a lot of local livestock producers had hay shipped in. I used my loader to unload several trailer loads of hay for neighbors.

"I'm disabled so I modified the combine accordingly. I mounted ladders on both sides and on back, and I moved the shifting lever forward to make a straight line shift pattern. All the linkages had to be remade."

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To offset the weight of loader up front, Snellings added a big steel box on back that's full of concrete and strap iron.