

Self-Propelled Bale Wagon Unloads Itself

Finding help to retrieve small square bales in the field was getting to be nearly impossible for David Arledge, Chillicothe, Ohio. So he came up with a totally new machine that picks up the bales, hauls them home, and then unloads quickly. It lets him get bales into the barn by himself.

"I got the idea one day while looking at an IH 303 combine. It suddenly hit me that it would make an excellent self-propelled bale handling wagon," says Arledge.

To convert the combine, he removed the engine, grain tank and all threshing components, but left the cab in place. Next, he cut the frame apart and lengthened it about 18 in.

Behind the cab he built a 10-ft. wide by 12-ft. long bed that slopes toward the back of the machine. The bed consists of a piece of Cortex, plywood sheathing covered with a thin layer of sheet metal. He added 8-ft. high sides to the bed using 4 by 4 treated posts that support 2 by 6 rails. A tailgate hinged at the top swings open like the tailgate on a dump truck.

To power the bale wagon, he remounted the engine in front of and slightly underneath the cab. "I made engine mounts from a couple of lengths of I-beam that I mounted over the top of the axle," he says. With no need for a header on the old combine frame, there was plenty of room there and he was able to use the same belts that originally drove the combine.

In an effort to keep engine heat out of the cab and prevent hay chaff and dirt from clogging the radiator, Arledge replaced the original fan with a reverse fan, which blows air away from the engine rather than into it.

To load bales into the sloping bale box, Arledge started with an old grain elevator. "It was a 40-ft. chain-type elevator with paddles. I cut off about 20 ft. and fitted it with a single chain designed for use with bale elevators. Rather than paddles, it has short forks that grab onto bales."

He ran the chain through a 3-ft. flexible extension he built and attached to the top of the elevator. The extension can be raised or



A grain elevator was converted to fit front of machine to pick up bales.

lowered according to the height of the load. "When the box is empty, I lower the extension so the bales don't drop as far, reducing breakage," he says. "As it fills, I raise it up so it drops bales on top of the load."

The elevator mounts at the center of the machine, to the right of the cab.

The lower end of the elevator mounts on four rubber wheels. He used two 10-in. wheels right under the elevator, with two smaller wheels attached further forward mounted about 4 in. off the ground. That way, they catch and raise the front of the elevator if the rear wheels drop into a depression or rut.

Bales are guided into the elevator by a couple of leaf springs.

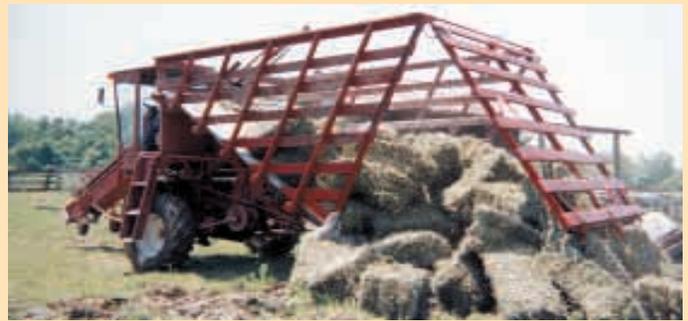
He raises and lowers the elevator with the header cylinder. He found an old hydraulic motor and geared it down with pulleys so it turns the elevator at the right speed.

He says the box holds 65 to 70 bales. When it's full, he drives to the hay barn and opens the tailgate. "They slide out because the floor is slanted and slick," he says. "My barn holds more hay than I can use, so I usually don't bother stacking the bales. I just run them up the elevator and let them drop. With this system, I only have to handle the hay once — when I put the bales on the elevator."

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Arledge built bale hauler on the frame of an IH combine. Bale cage slopes to the back for easy unloading. When rear gate is opened, bales fall out all at once.



Deere 2-Cylinder Fitted With Rollbar, 3-Pt.

"After surviving a roll-over accident with my tractor and also coming close to killing myself while loading a wet trailer during a rain shower, I knew that I needed a rollbar for my Deere 2-cyl. tractor," says Bryan Steanson, Claremore, Okla., who also fitted the tractor with a home-built 3-pt. hitch.

Steanson used 2-in. sq. tubing and 1/2-in. steel plate to build both the rollbar, which is only about 1 1/2 ft. wide, and the 3-pt. hitch. The rollbar slants backward, allowing tree branches to ride up and over it while also allowing full forward and backward seat movement. "Older 2-cyl. Deere tractors are easiest to mount from the back, so it was necessary to make a narrow rollbar that didn't interfere with getting on and off the tractor," says Steanson. "The narrow width also makes it easy to look over my left or right shoulder without the rollbar obstructing the view. Also, the rollbar provides a place to strap on a water jug and folding chairs when we go to tractor shows."

He used the tractor's original bottom arms and a couple of different universal top links to make the 3-pt. hitch, welding on a pair of metal ears at the base of the rollbar. The ears are offset to the left about 1/2 inch, provid-



Steanson used square tubing and steel plate to build a rollbar on his Deere 2-cyl. tractor. "The narrow rollbar doesn't interfere with getting on and off the tractor," he says.

ing room to plug in hydraulic hoses.

"It really works well and it also looks good. And, even though I used new tubing, it cost less than \$50 to build," says Steanson. "I've used the 3-pt. to pull a 6-ft. box blade, Bush Hog mower, and disk. The location of the 3-pt. top link works out well."

"This same design should fit most all Deere A, B, G, 50, 60, 70, 520, 620, 720, 540, 630, and 730 tractors," he notes.

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Skid Steer-Mounted Trencher

This new skid steer-mounted trencher can dig tight curves or even circles thanks to a pair of augers that remove dirt from both sides of the trench.

The Bainter Boom quick-taches to the skid loader arms. The hydraulic-operated trencher is equipped with a pair of 12-in. dia. augers that can be adjusted up or down to accommodate the depth of the trench being dug, allowing the augers to always stay positioned right at ground level. The augers are driven off the trencher chain. As soon as dirt comes up out of the trench, the augers grab it and move it off to the sides. That allows the trencher chain to be set at a much more vertical angle than is possible on conventional trenchers. The more vertical angle is what allows it to turn sharply while digging.

"The big advantage is that you can trench going forward and have the entire operation right in front, making it easy to operate," says Wes Bainter. "It lets you use a skid loader to do all your trenching work, instead of having to pay for a self-propelled unit that costs \$20,000 or more. Works great for doing foundation work around buildings and for digging electric and water lines. You can use it to make a trench that's anywhere from 5 to 12 in. wide.

"It can be used to make a circle as small as 9 ft. in diameter. Other trenchers are limited to making long, gradual curves of less than 10 degrees."

Three different models are available that can make trenches 3 1/2, 4 1/2, or 5 1/2 ft. deep. Prices start at \$6,800.

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Trencher can be set at a steep vertical angle that allows it to turn sharply while digging. Augers pull dirt away from trench.

