

Made It Myself

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Big Square Bale Processor Built Out Of Old Manure Spreader

Robb Peck, Carey, Idaho, wasn't satisfied with the commercially-built hay processor he was using to chop big square bales for his dairy cows, so he built his own processor out of an old manure spreader.

A big drive sprocket off an old Massey Ferguson combine, driven by a truck differential, chain-drives three 6-ft. long rows of beater bars fitted with angled steel knives. An orbit motor drives the spreader's apron chain which feeds bales back into the knives. Chopped hay is thrown backward about 10 ft. and then loaded into a mixer truck.

"It chops hay into 4 to 5-in. lengths which is just right for cows and will process a 1-ton bale in slightly over one minute," says Peck. "I tried using a Haybuster tub grinder, but it chopped the hay too fine which caused it to be low in fiber. I also tried using a Hesston bale processor, but it chopped so coarse that the hay wouldn't feed out evenly from the mixer truck. I bought the manure spreader from a neighbor for \$100 and spent a total of less than \$2,000 to modify it. A comparable size bale processor would have cost at least \$20,000. I built my own knives which saved a lot of money.

"I use tractor hydraulics to operate the apron chain's orbit motor which I salvaged from the reel drive of an old IH combine."

Peck used 4-in. sq., 1/2-in. wall steel tubing to build the three 6-ft. long beater bars. He made each knife out of two pieces of steel. First, he cut 1/2-in. thick steel plate into 4-in. squares and welded them onto the beater bars, spacing them about 3 in. apart in a spiral fashion around the tubing. He then cut 4-in. wide, 3/16-in. steel plate into 5-in. long sections and sheared them diagonally to make knife points and then welded the points onto the 4-in. pieces already on the beater bars.

He used 8-in. channel iron to build a 74-in. sq. steel frame to support the beater bars, which mount on pillow block bearings on each end. He then extended the rear frame of the spreader about 2 ft. and mounted the beater bar assembly on the extension. "All knives turn counter-clockwise so hay is lifted up as it comes into contact with the knives. It never plugs up because the knives overlap slightly."

A 2-ton rear axle (with the wheels removed) salvaged from an old military truck is mounted under the back of the spreader. Peck welded one end of the axle in place and mounted the combine drive sprocket on the other end. The truck's driveline is pto-driven by the tractor pulling the spreader.

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Shade For Outside Hogs

British farmer Jimmy Butler, who farms near Blythburgh, Suffolk, came up with a nifty way to provide cool shade for sows in hot weather.

Butler simply raises his sow huts about 4 ft. above ground by setting them on top of big square bales. He says the sows can't knock the huts down and it provides the same amount of shade as the huts normally would provide yet with a cooling through-breeze. (Farmer's Weekly)



Self-Propelled Sprayer Features Stand-Up Cab

It's not the best-looking piece of equipment ever to come out of a farm shop but Richard Hinds, Springfield, Ill., says his home-built spray rig has features on it that you can't find on any commercial self-propelled spray rig.

One of the features he likes best on the sprayer is the "stand-up", high-profile cab which allows him to work sitting down or standing up behind the wheel. That reduces operator fatigue and provides better visibility when needed. The cab itself, which he built from scratch using 3-in. sq. tubing for the frame, protects from spray drift and is air conditioned.

The cab and sprayer mount on the chassis of a salvaged Ford 4-WD pickup with a 4-speed transmission. He fitted the

engine with a larger than normal air cleaner to provide protection in dusty conditions and fitted the rig with a small air compressor to operate a foam marker and an air horn.

The truck is fitted with a 45-ft. boom that can be raised and lowered hydraulically and a 500 gal. tank. Hinds mounted an Ace pump and hydraulic pump on a pto shaft from the transmission, using belt pulleys to increase speed of the Ace pump to have plenty of spray pressure.

The rig has a fold-up tongue on front so it can be towed down the road, if needed.

Hinds bought the truck for \$1,600 and spent \$3,000 to make the conversion.

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Replacement Tractor Axle Salvaged From A Semi Truck

"It's a lot stronger than the original axle and will turn shorter," says Alvin Olson, Clearwater, Neb., who replaced the cast iron front axle on his Deere 4020 with a rebuilt 15,000-lb. front axle off an old International semi tractor.

"I built the complete front end for \$250 which is about what Deere charges for one factory spindle," says Olson. "I built my first axle eight years ago and have built four of them so far. The semi-tractor front axles will fit the 1961 3010 up to the 1972 4020 or 4320."

Olson turned the axle upside down and cut 8 in. out of the middle to narrow it up, then rewelded it with both sides of the axle swept slightly backward. He welded

a 1 by 4-in. steel "wishbone" on back of the axle to keep it from twisting. He rebuilt the wheels by welding a band inside the rim next to the hub, which set the wheels out an inch or two so they won't interfere with the steering arms. He also shortened the steering arms and welded a steel rod diagonally from the end of each arm to the axle to allow the wheels to turn shorter. He mounted the original bushings inside a pair of steel tubes that allow the steering arms to pivot.

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