Bus Converted To 3-Ton "Pickup"

For about $900, Fred Callens, Minneota, Minn., built what he calls a "3-ton pickup".

Callens modified a 1990 IH 77-passenger bus so it now looks like a giant yellow pickup. "The main advantage of the bus," explains Callens, "is the cost. It does the work of 1-ton dualls that costs $40,000 or more."

His converted "bus pickup" has a big cab with two rows of seats behind the driver. It has a 10-ft. bed with 1 1/2-ft. sides and a tailgate on back, as well as a fifth wheel hitch and a drawbar hitch for hauling gravity wagons.

To convert the bus, he cut 13 ft. out of the middle of the body, moving the back section of the body up to create an 8-ft. cab area behind the driver's seat. He also cut off about 4 1/2 ft. of the frame between the rear axle and cab, and 9 ft. behind the axle. To make the bed's sides he cut off a 10-ft. long, 1 1/2-ft. high section of the body that had originally been over the rear axle and bolted it back onto the frame.

"I use it all year long to haul round bales or lumber on a gooseneck trailer," says Callens. "I can haul up to 17 round bales on the trailer. I use the drawbar hitch to pull gravity wagons. We also use it as a recreational vehicle to transport our family band when we travel to different concerts.

"The bus frame is built strong and has no trouble handling heavy loads. The bus is equipped with mini I-beams every 6 in. across the frame, and the bumpers are made of 1/4-in. thick steel. The pickup bed is reinforced on its upper edge with steel pipe between the outer and inner walls to form the outside edge of the box. Loops welded to it can be used with straps to secure large loads."

Callens paid $400 for the bus, which he bought at a school bus transportation center. "The bus's in-line 6 diesel engine and Allison automatic transmission were in good shape, and the bus had good tires and brakes. Fuel efficiency isn't too bad, either. It gets 10 mpg pulling a load and 11 mpg empty, which is as good as you can expect with any 1-ton pickup."

Fred Callens converted a 1990 IH 77-passenger bus into a giant yellow pickup. "It does the work of 1-ton dualls that costs $40,000 or more," he says.

Callens says he spent about $500 on cutting tools and welding rods.

He also bought two other buses and converted one into a camper and the other into a chicken house.

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First-Of-Its-Kind Feed Mill Turns Corn Into Powder

"My new rotary mill is designed to turn corn into a powdery product that's highly digestible for dairy and beef animals. It works faster than conventional roller mills and hammer mills. I think it could make them obsolete," says 25-year-old Nathan Braunschweig, Lomira, Wis.

The rotary mill is belt-driven off a 10 hp electric motor and has no rollers, hammers or screens. Instead, it uses a high rpm open cylinder set inside a drum. The cylinder is equipped with 6 welded-on, staggered shear bars that chop up the corn. A control plate is used to control the rate at which corn enters the machine. The ground-up material comes out a bottom port where you hook up an auger.

"It represents an entirely new way of grinding corn. The key feature is there are no pinch points like there are on conventional roller or hammer mills, which causes them to wear out faster," says Braunschweig. "It turns dry shelled corn into a powder, and high moisture corn into a cake mix that's highly digestible and will help you get the most from your feed. Hammer mills are designed to granulate the corn and turn it into a smaller grain, whereas my rotary mill turns corn into powder. When you look at the ground-up feed you won't find any kernels, just the germ of the seed. The more you fill the machine, the finer the feed gets."

The machine works fast, says Braunschweig. "It'll grind 1,300 lbs. of corn in just 5 min. It takes only 8 min. to process enough corn for an average-sized TMR mixer. And with no screens it'll never clog up, no matter how wet the corn is."

Braunschweig says he got the idea from a friend who needed a better way to grind corn. "I started working on the idea a couple years ago and have gone through four prototypes, making improvements along the way. All the farmers who bought them are experiencing higher milk production.

"It's built tough because I wanted it to handle anything that can be put into a silo, including foreign objects. The cylinder is built from 1/2-in. thick steel and the drum from 3/16-in. thick steel."

Models with 2, 3 and 4-ft. long drums are available. The 2-ft. model sells for $3,500.

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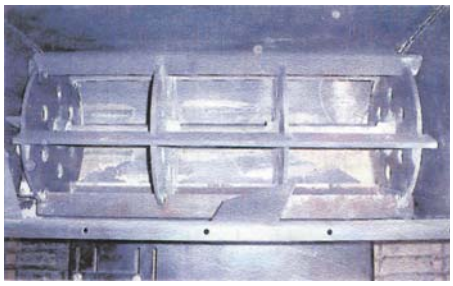

Rotary mill is belt-driven off a 10 hp electric motor and has no rollers, hammers or screens (above). Instead, it uses a high rpm open cylinder set inside a drum. Cylinder is equipped with 6 welded-on, staggered shear bars that pulverize the corn.

"No Clog" Easy-Clean Drop Nozzle Filters

The only thing better than an easy-to-clean drop nozzle filter is one that is almost impossible to clog. That's what Gerald Beer, American Agriculture Products, came up with on his farm near Guymon, Okla.

"When I switched from flood irrigation to center pivots, I got an education in cleaning sprinkler nozzles," says Beer. "It takes time to walk the length of a sprinkler to clean filters. If you don't keep them clean, a drop nozzle can clog up, and before you know it, the crop is stressed or dying. It's not a job I enjoy doing, so I started working on an alternative."

What Beer came up with was a filter to fit between the hose and the regulator on drop nozzles. The hard plastic screen has 540 5/64-in. holes in it.

"The popular #9 Nelson nozzle orifice for drop tube nozzles is also 5/64-in.," notes Beer. "You could plug up all but one hole in the filter and still have enough water flowing through to maintain your water pattern in the field."

Beer estimates his filters will only need to be flushed clean once a year on most irrigation systems. Even in cases where water carries heavy loads of sand and sediment and more frequent flushing is needed, it's easy to do.

"Just push up the small release valve on the side of the filter," says Beer. "The water pressure will quickly flush out the sediment."

Beer is confident his filter will last a lifetime. The UV protected plastic filters have been tested at pressures as high as 150 psi. Made in Dallas, Texas, the filter uses the same hard black plastic as is used for drop nozzle regulators.

"I have regulators that have been in place for 20 to 25 years," says Beer. "I expect the filters to last at least as long."

While regulators and hoses can suffer winter damage if left undrained, that's not a problem when Beer's filters are installed. An unexpected benefit of the release valve is its auto-drain feature.

"We didn't know it when we designed it, but when the water pressure shuts off, the valve releases on its own," relates Beer. "The hose and filter drain out completely, and water is sucked back up out of the regulator."

Beer's American Agriculture Products is selling filters for $20 each in boxes of 50. Currently he is selling them direct with a flat shipping rate of $25 per box. Filters can be ordered by phone or via the company website.

Filter fits between the hose and the regulator on center pivot drop nozzles (left). To flush out sediment you just push up a small release valve on side of filter.

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