

Electric Drill Powers Pickup Dump Box

When Craig Spierling wants to raise his truck's dump box, he pushes a button in the cab that turns on an electric drill, which direct-drives the hydraulic pump. Retrofitting a hydraulic pump from driveshaft to drill-driven was easy. It also cost less than alternative drives, just as the dump beds did.

"I had picked up a couple of old dump trucks left in fence rows," says Spierling. "Their hydraulics are self-contained. The pump attaches directly to the cylinder, which is actually inside the reservoir."

Spierling mounted a 1 1/2-yard box on a 1980 Chevy pickup. Originally the pump was driven off a jackshaft from the transmission. The multi-piece, 3/4-in. jackshaft angled up to the pump. Modifying it to run off a drill powered by a 3,500-watt power inverter was a lot easier than rigging up a new driveshaft. He also beefed up the power system on the truck with a heavier duty battery under the hood.

"The inverter is also handy for powering tools and even a grain elevator. That takes a lot of amps, especially if the elevator is full. I figured if it could handle the elevator, it could handle an electric drill driving the pump."

He took a piece of jackshaft and turned down one end to fit a 1/2-in. drill. He kept the keyway on the other end to match the pump.

"I welded a bracket to the pump mount and built a steel box for it that would hold the drill," says Spierling.

He removed the handle from the drill and used the handle mount to secure the drill in the box. He put a Lovejoy coupler on the end of the pump and attached the modified jackshaft to it and the drill, which he locked in the on-position. He ran a rod from the lift lever on the pump to a T-bar switch mounted through the floorboards and next to the master switch for the inverter.

With the inverter on, power for the drill travels from the inverter via extension cord to a push-button switch on the dash. To start the drill, he hits the button. To activate the lift, Spierling turns the T-bar.

It's a simple system and one that he recommends to others. He did all the work in his garage with common tools, including replacing the dump box with a stake bed.

"You see those old trucks around, and they often haven't been used in decades," he says. "I paid \$50 for one truck and \$100 for another. The pumps worked fine, and I only had to add some packing to stop a leak in one cylinder."

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Craig Spierling mounted a 1 1/2-yard dump box on his 1980 Chevy pickup. Originally the pump was driveshaft-driven, but he modified it to run off a 1/2-in. electric drill.



He welded a bracket to the pump mount and a steel box to hold the drill.



Power for the drill travels from a 3,500-watt inverter via extension cord to a push-button switch on the pickup's dash.



A rod runs from pump's lift lever to a T-bar switch mounted through the floorboards and next to the master switch for the inverter.



Richard Connell converts old home heating fuel oil tanks into low-cost creep feeders and portable burn tanks that mount on skids.



New Uses For Old Fuel Oil Tanks

FARM SHOW subscriber Richard Connell of Holland Center, Ont., reports there's a surplus of expired home heating oil tanks in his area. "I decided to make a couple into feeders and a portable burn tank."

Connell made 2 feeders from 5 by 4-ft. tanks. One of the feeders he uses to feed creep rations to young calves, and the other one he uses as a salt and mineral feeder. He cut another tank apart and made a portable burn tank that rests above ground on legs and skids so it doesn't kill the grass underneath it.

To make the feeders, Connell first emptied the tanks, flushed them out and made sure that the filling cap and drain plug were open. "I wanted to make sure there wasn't any danger of starting a fire, even though the tanks had been used for fuel oil," Connell says. Then he cut a square hole measuring 3 1/2 by 2 ft. in one side of the tanks.

"I used a reciprocating saw rather than a circle grinder or a torch," Connell says. "That way there wasn't going to be a lot of sparks and heat to start a fire if there was some fuel left in the tank." After cutting the opening he used a pressure washer to thoroughly clean the inside of the tanks with a soap solution, then rinsed them with clean water. He drilled drain holes in the side opposite of the cutout



Converted tank shown above serves as a salt and mineral feeder.

so moisture can drain out and not spoil the feed or mineral. To protect cattle from the sharp metal edges on the cutout he lined the hole with 1-in. plastic tubing.

Connell built a U-shaped barrier about 6 ft. sq. around the creep feeder tank so calves can reach the feed but older cattle are kept out. "It takes some labor to fill the feeder with bags of feed," Connell says, "but I didn't have to spend hundreds of dollars for a factory-built feeder."

Connell made the creep feeder and burn containers portable by adding ski-type skids on the bottom.

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Rolling nut gatherer is filled with 10 wire baskets mounted on a steel frame to pick nuts up off the ground.

High Volume Rolling Nut Gatherer

If you've got a lot of nut trees, you'll like this new rolling nut gatherer that uses 10 wire baskets mounted on a steel frame to pick nuts up off the ground into a specially designed pallet, says Cecil Holt, Douglas, Ga.

Holt is the inventor of the original Nut Wizard, which consists of a single wire basket that you roll along the ground to pick up nuts.

The new multi-headed Nut Wizard's 10 wire baskets attach to metal rods mounted across a square metal frame. The baskets match up with corresponding holes cut into 5-in. wide aluminum strips that slide into grooves cut into a wooden "unloading rack". The unloading rack slants down at one end to a separate wooden ramp and has bulges under each side that allow the rack to work like a seesaw.

The operator pushes the metal frame along the ground to pick up nuts until all the baskets are full, and then rolls the frame up the ramp and onto the unloading rack. As he reaches the front end of the rack, it tilts downward to become level with the ground. The operator stops pushing the frame once all the baskets are positioned over the holes. Arched metal ribs across the holes cause the baskets to open up, and as the operator jostles the frame back and forth the nuts fall down through the holes and onto a tarp under the unloading rack. Once all the baskets are empty he backs up, and the rack then tilts back to its original position.



Baskets match up with corresponding holes cut into unloading rack.

"It works fast. I've used it to pick up 42 lbs. of pecans in just 5 min.," says Holt. "It works great on everything from pecans to acorns and walnuts and even does a good job in light to medium leaves. A big advantage is that you can use it on ground that's too wet for a tractor or pickup to go through."

"We offer different size baskets and holes in the aluminum strips depending on what you're picking up. The operator pushes a button to slide the axle rods out, then pulls the original baskets off and slides the new ones on. The handles fold up for storage."

The Multi-Headed Nut Wizard sells for less than \$500.

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