



Jared Witmer, Monterey, Va.: “We replaced the original handle on our push broom with a long, adjustable paint roller handle. It consists of two telescoping tubes and can be easily shortened or lengthened by turning a ‘twist lock’ knob. The handle adjusts from 4 to 8 ft. long, making it easy to use whether you’re short or tall. It threads into the top of the broom just like the original broom handle.



“We use this broom in our garage and also to push snow off our driveway, so it gets a lot of use.”



slightly. The jaws will now tighten around the shaft behind the bearing. You can move the jaws around the shaft until they’re equally spaced.

“Next, tighten the vise grip chain as much as possible and then re-center the puller bolt, if it’s not already centered. Now you can pull off the bearing with a lot less frustration, because the puller won’t fall off and it’ll have a lot more gripping power.”

Don Mattes, Milton, Wis.: “When working away from home I often need to use a cordless drill, but it can be a frustrating experience if the battery goes dead. In the past I would have to go back home and get a drill, often to discover that it had a dead battery, too. To solve the problem I decided to operate a 12-volt drill off my tractor’s battery using 50 ft. of 16-2 lamp cord and 2 clips that attach to the tractor’s battery. I just took the drill case apart and soldered wires to the battery leads.

“Another way I’ve done this is to gut a dead battery and solder wires inside on leads. That way I can still remove the cord and install a good battery when I need to.

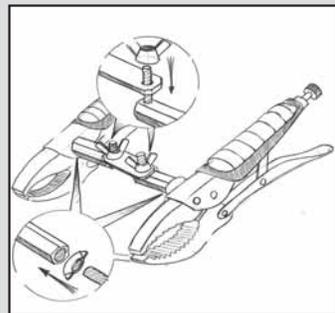
“Because many people are switching to higher voltage cordless drills these days, 12-volt drills are cheap and easy to find at flea markets and garage sales.”

Steve Nichols, Galesburg, Ill.: “A long time ago my dad taught me a quick and easy way to pull steel posts using a chain and an old steel wagon wheel. I needed to pull some posts recently but didn’t have any kind of wheel. So I tried using a trick that works in a similar way, and just as well.

“I wrap the chain around the post at ground level, then lean a 3-ft. long treated 4 by 4 board against the post at about a 45-degree angle. Then I drape the chain up and over the top of the board and use a truck to pull the chain. As the board is pulled, it straightens up and pulls upward on the post. No more straining my back trying to pull posts out.

“Joe Campoli submitted a nice idea in your last issue. He labeled his tire pressure gauge so he knows the recommended pressures for all his tires. However, I wonder how long it will take before the labels fade or wear off from handling the gauge.

“Instead, I use a white paint marker to mark the pressure directly on the wheel next to the valve stem on all my machines. Since I can never remember what length windshield wiper is on my cars and truck - particularly when some wipers require a different length for driver and passenger sides - I use the same idea to mark the length directly on the wiper blade.”



Paul Miller, Gardiner, Mont.: Paul recently sent FARM SHOW drawings of a new-style clamping device he came up with that makes use of 2 vice grips. “It lets you hold 2 materials together in any position so you can then weld or glue them in place. Works great for everything from gluing wood pieces together to welding pipes and other projects.”

The device consists of a pair of vice grips connected together with 2 directional swivels. The angle between the vices is adjustable by means of a metal center plate with a vertical threaded bolt running through each end. To change the angle of the materials, Miller loosens a pair of wing nuts and adjusts the position of the center plate, then retightens the wing nuts.

David Prause, China Spring, Texas: “My 1982 Vermeer Super F 205 round baler has a lot of chains on it including a big 10-ft. long, #80 chain that drives the main roller and belts. The baler came with an automatic oiler, but dirt often got into the oil.

“To solve the problem, I replaced the baler’s oiler with a 1-quart plastic oil bottle mounted on a metal bracket, filled it with used oil, and punched a small hole in the lid. While baling I turned the bottle upside down and a drop of oil comes out every second or two.

“The baler’s sealed bearings used to heat up so I replaced them with greaseable bearings and give them a shot of grease every hour or two. I use a laser light monitor to check the bearings’ temperature. Now I have to replace the bearings only about once every 5 years.

“I had trouble finding bearings and driveshaft U-joints for my 1985 General Motors K-30 1-ton, front wheel drive pickup because GM doesn’t make the parts any more. Then I discovered Inland Truck Parts and Service of Ft. Worth, Texas (ph 800 700-2557). They supply a wide variety of drive system parts for GM pickups that are no longer available from the company.

“My shop has a 10-ft. high ceiling, and whenever there’s a lot of equipment inside there’s no room for a big floor fan to blow smoke away as I’m welding. To solve the problem I buy small 20-in. box fans and hang them from the rafters.”



Y-shaped wrench turns pto shaft with enough leverage to easily line it up to implement.

Patented Wrench Makes PTO Hookups Easier

When a pto is hard to turn it can make hooking up implements a frustrating and time consuming task. Roy Noel solved the problem by designing and patenting a tool.

The Piketon, Ohio, farmer started working on a prototype at age 75 after purchasing a Deere 6230 tractor in 2009 that had a pto shaft, which was much harder to turn than his older tractor. It took a good 20 min. to turn the shaft and line up his baler before he was hooked up and ready to go to work.

“Now I can hook up in just 10 seconds with this wrench,” Noel says. “It turns the pto shaft with enough leverage to line it up to the implement. I’ve sold quite a few in the area.”

The Y-shaped wrench is about 5 in. long and has a thumbscrew to tighten it on the shaft. He turns the wrench handle to line

the pto shaft up with the splines on the driveshaft of a baler, bushhog or other piece of equipment. Once the implement is on, the thumbscrew is loosened and the wrench removed.

Noel said he tested the prototype in 2010 to make sure it worked well before he applied for a patent. He began the patent process in 2011 and was issued a full patent (#9,009,943) 3 years later.

Noel had some wrenches manufactured and has them for sale at \$25 each (plus shipping), but is more interested in selling his patent to a manufacturer. Contact him for more information.

Contact: FARM SHOW Followup, Roy Noel, 14 Dutch Run Rd., Piketon, Ohio 45661 (ph 740 289-2851; lolly37@outlook.com).

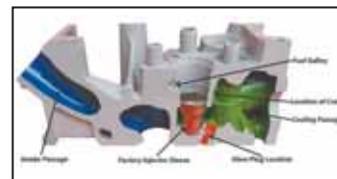
Simple Diesel Head Repair

Accurate Diesel is a Michigan company marketing a relatively simple fix for a leaking head on a Powerstroke 6.0 Diesel. Owner Tim Wagner gives credit to his friend Mike, who owns a diesel repair shop, for coming up with the idea and making it a reality.

“As 6.0L Powerstroke engines age, cylinder heads can crack and leak diesel fuel into the cooling system,” Wagner says. “That happens because fuel pressure is greater than the cooling system pressure, so diesel fuel migrates into the coolant when there’s a small crack. The owner first notices it with a strong smell of diesel fuel in the cab and then, after popping the hood, he sees the coolant tank overflowing with diesel fuel.” Replacing a leaking cylinder head can cost \$3,000 to \$4,000 or more in a repair shop but Wagner’s company, Accurate Diesel, has a simpler and far less costly solution.

“My friend’s idea was to install a steel sleeve the entire length of the injector bore to completely seal off the cracked area and completely separate the diesel fuel and coolant,” says Wagner. “Our kit includes the sleeve and a slightly smaller injector body that goes inside the sleeve.” The kit also includes instructions for identifying which cylinder is leaking. Wagner says a large percentage of the time the people have to fix the 3rd cylinder from the front on the passenger side.

Wagner began marketing the product in 2012 and says it’s been very well accepted. The basic questions he gets when people inquire about the kit include “Is this a permanent fix, can I do the work myself, does it require special tools, and how long does it take to install?” Wagner says “When I tell them the repair kit does fix the problem permanently and can be installed in 3 to 4 hrs. without any special tools, that pretty much seals the deal, especially when they learn the cost is about \$400.”



Accurate Diesel sells a kit that includes a longer injector sleeve (bottom) that seals the cracked area on a cylinder head. Factory sleeve is shown at top.



The sleeve is sealed into the head with a retaining compound and never needs replacing. Wagner says anyone comfortable with changing a 6.0 injector should be able to effectively complete the repair. He’s also proud to say the kit was selected as one of the 20 most innovative new products in the automotive industry for 2015 by Motor Magazine.

“The idea behind the kit is to completely repair the leaking cylinder and make the engine whole again,” says Wagner. “There are thousands of Powerstrokes on farms and in commercial operations across the country, so having an inexpensive repair to make them whole again is very satisfying.”

Accurate Diesel sells many other parts and components for diesel engines on its website.

Contact: FARM SHOW Followup, Accurate Diesel, 10973 N. Cedar Crest Trail, Bitely, Mich. 49309 (ph 231 660-1689; www.accuratediesel.com; sales@accuratediesel.com).