

Kenneth Lebold, Earlton, Ont.: “I find that an air chisel is the handiest tool in my toolbox. It can be used in so many ways, especially for freeing up rusted parts. Wouldn’t want to be without it.”

Eugene Yoder, Goshen, Ind.: “My diesel fuel tank is outside, so I wrapped the filter and fuel lines with batt insulation and now my filter doesn’t gel anymore in the winter. I also found it works well to use a portable pallet jack to lift a large walk-behind mower.”

T. G. Skaggs, Campbellsville, Ky.: “If you have weak shocks that hold up trunk lids or car hoods you can take a piece of pvc slightly larger than the shock. I cut to fit the small end and install over the shock. When you open the shock, the pvc will fall into place and keep it from closing.”

Kyle Sand, Clearwater, Minn.: “Some of my best, or most user-friendly, funnels for adding engine oil have been the quart or gallon plastic oil containers themselves with the bottoms cut out.”

Jake Buit, Marshall, Va.: “If you have a nut and a bolt that you never want to loosen, dip the bolt threads in battery acid and tighten the nut. It will not loosen.”

James Nelson, Woodville, Wis.: James built his own “indestructible” work bench with a 30 in. x 7 ft. x 3/4 in. steel plate and, 36-in. long 4-in. square tube legs welded with bracing. He put an adjustable screw in the bottom of one leg so the table could be adjusted for uneven floors.

Marvin Anderson, Glyndon, Minn.: “My Harbor Freight sawzall wasn’t running right so I took it apart to find out why. The problem was the gearbox contained light-duty grease that looked like vasoline, allowing too much metal-to-metal contact between gears.

“I replaced the original gearbox grease with high quality wheel bearing grease, which solved the problem. Wheel bearing grease is very tacky so it clings to the gears in a gearbox, even when it’s operated at high speeds.

“I also replaced the grease in my angle grinder and cordless drill. It’s relatively easy to take these tools apart, as I just had to remove 4 screws on the angle grinder and 7 on the drill. With the new grease, these tools should last a long time.

“The valve lifters in my Ford Ranger’s engine were getting noisy so I added Schaeffer Moly E.P. engine oil treatment. It solved the problem (www.schaefferoil.com). This additive provides extreme pressure protection for an engine’s bearings, valve train, pistons and piston rings.”



David Simpler, Elkton, Md.: “There are times when a conventional C-clamp can’t be used to hold an object in place, such as when



you’re welding something on a flat surface. So I welded a large nut onto the clamp, then torqued the clamp to hold the piece of metal. I can screw a bolt through the nut to apply pressure from another point. If I want to use the clamp at an angle, I use a second nut to adjust the clamp to the desired angle.



“I bought a tire changer specially designed for riding mower and ATV tires, but it didn’t work very well so I came up with a way to use a masonry block hammer along with a 3-lb. hammer. It works great. I start with a 6-in. long, 5/8-in. dia. bolt, weld a piece of 3 by 3 by 1/4-in. thick plate onto the head, and then clamp the plate in my bench vise. I mount the tire on the bolt and tighten the nut (not shown), then use the 3-lb. hammer to hit the head end of the masonry hammer in order to break the bead.”



David Pichler, Eau Claire, Wis.: “I made an adapter for my bottle jack that lets me use a chain with the jack to straighten out bent tools or equipment. The adapter holds the chain securely on top of the jack’s spindle, and consists of a small notched metal rod welded to a 1 1/2-in. long pipe that goes on over the spindle.

“I jack the spindle up about 1 1/2 in. and slip the pipe over it, then attach both ends of the chain to whatever I want to straighten. It keeps the chain from slipping off the spindle, which saves a lot of frustration. The same idea would work with any size bottle jack if you sized the adapter to fit the jack’s spindle.”

John Matthews, Welland, Ontario: “My son David enjoys finding ways to organize tools in his shop. He made a holder for oversized (1/2-in. shank) drill bits by drilling through 2 sheets of 14-ga. plate that were welded together. He drilled 28 holes for the shanks that are 33/64-in. wide, ground off the welds, and used 1/4-in. all-thread to separate the plates and to serve as legs. There’s a layer of foam at the bottom for bits that don’t have a shoulder.”



Hunter began repairing the Bendix steering assist units last year and has manufactured the parts that are no longer available. He’s had good luck making them like new again.

He Repairs Old Steering Cylinders

“People restoring or repairing tractors often run up against power steering cylinders that aren’t working and parts are difficult to find, so I’m able to help them out,” says Oklahoma shop owner Bob Hunter.

Hunter repairs steering cylinders and builds his own new replacement parts. He specializes in parts for Case 200, 300, 400, and 500 series tractors, Ford 700, 800 and 900 series tractors, and Long 360 tractors. Hunter has extensive experience producing new rods, pistons, seals and cylinders with his shop equipment.

Hunter says parts for older tractors may be available from dealers or salvage yards,

but new replacement parts are expensive and those from a salvage yard may already have problems from inactivity and sitting outside in the weather.

“When I rebuild cylinders I repair or replace whatever is needed so the finished cylinder is as good as a new one,” Hunter says. Anyone interested in cylinder repairs should contact Hunter to discuss the cylinder problems they’re having and he’ll provide a rough cost estimate.

Contact: FARM SHOW Followup, Bob Hunter, Pioneer Hydraulics, 5807 E. Hayward Rd., Waukomis, Okla. 73773 (ph 580 603-0063; bhunter772@gmail.com).

1940 Deere Fitted With Power Steering

When it turned 80, John Bipes gave his beloved 1940 John B tractor the gift of power steering. Bipes is just 4 years younger than his tractor and the two of them have been working buddies for decades.

But after moving a lot of snow this past winter for a neighbor, which required a lot of hard cranking on the steering wheel, Bipes was left with aches and pains in his shoulders and arthritic joints.

So he decided to find a way to add power steering to his old friend.

The tractor’s hydraulics - 2 gal./min. @ 3000 psi - are enough to power an Eaton torque generator Bipes ordered off eBay (John added hydraulics to the tractor previously, as featured in Vol. 34, No. 1).

“It broke my heart to take a hacksaw to her on her birthday,” Bipes says of his tractor. But he cut out about 8 in. of the steering shaft to make room for the torque generator and shaft couplings. Fortunately the shaft and generator fittings were both 7/8-in. Bipes decided to use parts he had on hand - and make parts - rather than go to a hardware store during the coronavirus pandemic this spring. He had one coupling on hand and machined the other one from a piece of water pipe. He also machined a port plate and a couple other small parts.

There was one problem when finished. “When I put it together the torque generator would stick, making it jerky. I contacted the seller and he sent me a replacement right away. It’s velvet smooth,” Bipes says. He paid \$275 for the torque generator (Eaton Part # 227-1051-002).

The new power steering unit is placed in the existing Gresen 2515 dual control’s hydraulic return line. So, when operating the other hydraulic cylinders there’s no fluid for power steering but it works fine for the way the tractor is used. Because the Gresen’s relief is set at 3,000 psi for 3-pt. muscle power, Bipes phoned an Eaton engineer who recommended a limit of 1,000 psi. Bipes purchased a second relief valve (\$40 from



Bipes cut out part of tractor’s steering shaft to make room for an Eaton torque generator. New power steering unit was installed in existing hydraulic return line.



eBay) that is plumbed in parallel with the new torque generator and set to bypass at 1,000 psi. That diminishes potential damage to the new torque generator and the tractor’s steering sector gears.

With help from his friend Mark, farm boy-turned-auto-mechanic, he finished the job and the steering system is now in top shape.

With power steering, backing up equipment, lifting, loading and splitting logs for firewood (using other tools he made) is easier and there’s no pain afterward.

Contact: FARM SHOW Follow-up, John Bipes, 906 Adams St., Mankato, Minn. 56001 (ph 507 387-3840; mobeng@hickorytech.net).