

one to the other). The third prong is a safety ground. There's no 'common', which is sometimes called 'neutral', 'return', or 'power ground'. So to obtain 110 volts, one would connect between this prong and one of the 'hot' prongs. That way you'd be using the safety ground as a power return, a highly unsafe (and illegal) condition."



Richard Peterson, North Bloomfield, Ohio: Peterson is totally sold on Total Seal (800 874-2753; www.totalseal.com) gapless piston rings. He first used a set 14 years ago when overhauling a 950 Minneapolis Moline with a friend. "When we backed it out of the shed, it was the first time we'd ever seen it without a blue haze coming out of the pipe at idle. It has nearly 6,000 hours on it, and it still runs fine."

Peterson has since used Total Seal gapless rings on other tractors and a Chevy pickup engine. He really likes the customer service he gets when he calls the company direct. "The tech reps are very helpful."

Gary Combs, Concord, Ohio: "My 1989 Belarus 25 hp tractor used to steer like an old steel-wheeled Fordson. Now it steers so easy I feel like the King of Siam when I'm driving it. I added power steering to my 1989 Belarus 25 hp tractor, using parts I bought at a forklift truck company."

"My total cost was less than \$400. The tilt steering wheel, column and servo valve came off a forklift truck, while the hydraulic pump and hoses are off a 1988 Toyota

pickup. I mounted the pump on an angle iron bracket bolted on top of the engine. I bought a new hydraulic cylinder and bolted it to one of the tractor's front spindles. There was limited space for a hydraulic reservoir, so I had my friend Alvin Zinz build a small 2-quart reservoir out of two 1-lb. propane tanks. Zinz cut the bottoms out of the tanks and soldered them together in the middle.

"I replaced the tractor's two 6-volt batteries with one 12-volt battery, which left more room for the hydraulic reservoir."

"When I added power steering I also completely restored the tractor. Now it's like I have a whole new tractor. I paid \$100 for the servo valve, and my friend Tom Latchaw gave me the pump. A new servo valve would have cost about \$500 and Belarus sells an add-on power steering kit for \$3,000, so I saved a lot of money. The only part I bought new was the hydraulic cylinder. I paid \$89 for it at Tractor Supply Company. The steering wheel that I bought was cracked so I replaced it with one off an old MG car."

"I think the same idea would work on any tractor that doesn't have power steering but is equipped with a steering arm. My thanks to Tom and Alvin for their help and ideas. It made this project much easier to do."

John Schumacher, Mitchell, S. Dak.: "I had trouble losing shanks off my DMI Tiger Turbo II ripper. The problem was solved by bolting a 1/4-in. log chain to a brace on back of the shank, and then attaching the chain to a heavy bar that the shank bolts onto. If the shank breaks off it isn't lost but instead just drags along on the chain."

Jack B. Elliott, Florence, Ontario: "I buy surplus furniture dollies that ride on four castor wheels and place a 2 by 3-ft. wooden box on them for use as a small work bench when working on small motors, etc.. They can be moved around the shop as needed. The boxes can hold up to 600 lbs."

They Match Paint As Old As The 1930's

Need a little touch up paint on an old vehicle, motorcycle or recreational vehicle? Whether it's a 1937 Rolls Royce or a 1940 Ford pickup, Tower Paint can match it.

"We have a database of colors that we can formulate to duplicate classic colors starting from 1930," says Tony Logemann, general manager for the Oshkosh, Wis., paint business. "We sell to a lot of hobbyists that have classic cars, airplanes and boats."

The store's main business is selling paint, wall coverings and window treatments, but they found a niche mixing classic colors to sell primarily in aerosol cans. While most of their customers own classic cars, Tower Paint can match paint from other vehicles, includ-

ing unusual farm equipment.

"We fill any size order, from one to 1,000 cans and ship them all over the country," he notes. Tower Paint uses quality Dupont and PPG paints and also offers touchup bottles, pints, quarts and gallons of custom colors. The business's website makes it convenient for customers to find the color they need.

Prices start at \$18.95 for a 16 oz. can of enamel spray paint. Price breaks are available for multiple can orders.

Contact: FARM SHOW Followup, Tower Paint & Design Center, 922 Oregon, Oshkosh, Wis. 54903 (ph 800 779-6520; www.towerpaint.com)

Modified Drill Bits Fit Worn Chucks

If your drill bits are slipping in the chuck, your chuck may be worn. To solve the problem, Joe Gibbs came up with a way to modify bit heads to give the worn chuck something to grip.

"As a chuck ages, it's hard for it to hold a bit when it hits resistance," says Gibbs. "I found out that it helps to grind flat faces on the drill bit ends."

To get three even faces, Gibbs has come up with a simple jig. He cuts a triangle with 4-in. sides from a piece of 2-in. thick scrap wood. An old chuck is then mounted in the triangle's center and an emery wheel mounted on Gibbs' drill press.

"I mount the drill bit with the cutting end in the chuck and slide it against an emery wheel on my drill press," explains Gibbs.



Jig is used to grind flat faces on drill bit ends.

"When I have a slight face on one side, I just turn the wood block to the next side and slide it back to the emery wheel."

Contact: FARM SHOW Followup, Joe Gibbs, 1115 Club Meadows Drive, Columbia, Mo. 65203 (ph 573 818-0347).

Hydro Kit Beefs Up Specs On Older 4-WD Tractors

Thirteen years ago (Vol. 20, No. 2), FARM SHOW featured an add-on dedicated hydraulic system for older model Versatile tractors, which allowed them to handle modern high-capacity implements. Since then, Atom-Jet Industries Ltd., has added Massey Ferguson, Case IH and Steiger tractors to the list of makes for which their kit is available.

The 4000-series Massey Ferguson, 9000-series Case IH, most Versatiles (including Ford-Versatile designation 6 models and 1150's), and several Steigers (with Cummins or Cat engines), can all be upgraded with Atom-Jet's standard open-center system. The bolt-on upgrade kit provides one dedicated high-flow circuit over and above the tractor's existing system. With variable flow rate control of 13 to 26 gpm at 2,000 psi, (controlled by a toggle switch in the cab), you can optimize engine rpm and fan speed, boosting hydraulic power for running high-flow implements such as air seeders.

"Installation on Versatiles involves drilling some mounting holes for the pump bracket and making sure the pulley alignment between the crankshaft and the pump is accurate. We have various different ways of mounting on other makes of tractors," says Curtis Gouldie, Hydraulic Specialist with Atom-Jet. "In the typical installation for most other models, the kit's auxiliary pump is driven off the front of the engine and mounts below the crankshaft pulley. A front-mounted 30-gal. oil reservoir offers a dedicated fluid supply."

In both configurations, if the producer is handy at all, he can usually do the installation himself.

Older tractor owners also have a second option open to them, which is a closed-center alternative with a few more features.

"If you require active down pressure, want



Add-on dedicated hydraulic kit is available for several different tractor brands, including Case IH (above) and Ford.



to pull an air seeder with dual fans, or have variable rate technology, our closed-center kit will fit the bill," Gouldie says. "It's a load-sensing system that boosts maximum flow to 40 gpm with a 3,000 psi rating. It has an in-cab, electric, proportional joystick, so you don't have to plumb hydraulic lines into the cab. It's also much quieter."

The open-center kit costs about \$6,000 (Can.) and the beefier closed-center kit is priced between \$11,000 and \$15,000 (Can.), depending on options.

Both kits include every part needed for the project, right down to quick-connect couplers. They also come with a 2-yr. parts and labor warranty.

Contact: FARM SHOW Followup, Atom-Jet Industries Ltd., 2110 Park Ave., Brandon, Manitoba, Canada R7B 0R9 (ph 800 573-5048 or 204 728-8590; fax 204 726-5734; mail@atomjet.com; www.atomjet.com).

Add-On Laser Guide For Chop Saws

"Our add-on laser turns on automatically only when the blade starts to rotate and shuts off when it stops," says Bob Bonsi, Laser US, Inc. "Other units have to be turned on, and if you don't notice, they stay on, wearing out the battery. I've had one on my circular saw for several years, and the battery hasn't run out yet."

Bonsi's son Paul invented the laser guide after the laser site company he worked for moved overseas. He focused on developing a laser guide for chop saws.

"He started manufacturing this unit only to discover a major tool company had stolen the idea and was selling saws with it in place," says Bonsi. "They even had his patent number on it."

His son sued but due to lack of funds settled largely for the rights to make and sell the unit himself. Disabled by a brain aneurysm, his father is helping him with manufacturing and marketing.

"It has been great to hear from people who have bought one," says Bonsi. "One fellow said it was better than toilet paper."

They now make and sell laser guides for a variety of circular saws, miter saws, chop saws and others. Model #15500 is designed for radial arm saws and others that use a nut to hold the washer and blade in place. Model #12200 fits 95 percent of all saws that use a bolt or screw to hold the washer on. Both guides are priced at \$24.95. An earlier model introduced for circular saws is now being phased out. Bonsi says those \$29.95 laser



Designed for chop saws, add-on laser guide turns on automatically only when the blade starts to rotate and shuts off when it stops.



Laser guides are available for a variety of saw types.

guides have been marked down to \$19.95. Laser US guarantees the laser for a year. The entire unit is 2 in. in diameter and about 1/3 in. thick.

"Installing it is easy. Just replace the existing washer with our unit," says Bonsi.

Contact: FARM SHOW Followup, Laser US, Inc., P.O. Box 2575, White City, Oregon 97503 (ph 541 450-1204; 888 767-1262; bob@laserusinc.com; www.laserusinc.com).