Merton Russell, Endeavor, Wis.: "I read with interest your article on high performance paddles for New Holland forage harvesters (Vol. 30, No. 1). The high performance paddles simply bolt on in place of the original ones. New Holland has had problems with the blower plugging up long before they came out with the 230 and 240 models referred to in the article. I own an 892 model and the rim sheets wore out on the back side.

"The problem isn't with the paddles; it's with the air design flow in the blower housing. I solved the problem by taking a rim sheet that had a hole in the back side and making a cut-off point that forces material to keep moving without plugging up. The tip clearance is just 1/8 to 1/4 inch."

Isaac Hopwood, Centre, Ala.: "Several years ago I did welding and mechanic work for a liquid fertilizer company. The company bought an extra truck and there was no room to install an air compressor on the motor. The truck needed a pto in order to operate the liquid fertilizer pump. To solve the problem, I built a bracket that mounts between the cab and the tank above the pto shaft, allowing the pto shaft to belt-drive the pump, since the liquid pump has to work at the same time as the air pump.

"I tapped into a pressure oil line on the truck's engine and ran it back to the air compressor. Then I ran a return line back to the engine and tapped into the oil pan above the oil level. I also tapped into the water line to the compressor and engine with a pressure and return flow of water back to the engine.

"Because of dusty conditions, I ran a rubber hose from the compressor to up behind the seat of the truck cab to the compressor's air filter. The truck needed an air compressor for two reasons: one, to open the air valve for the liquid fertilizer to flow from the tank and two, so that I could install a lock in and out for the pto on the transmission.

"I spring loaded the pto gearbox in the out position and used a small air cylinder from the shutters that close in front of a semi radiator to put the pto in gear, because I only needed it when putting out fertilizer.

"The truck was wrecked several years later and scrapped out. But it all worked fine for the years that I used it."

Precise Engine Repair, 151 Roberts Rd., Yakima, Wash. 98908; www.perr.com: This

company offers the Vibratach, a tool designed to read the rpm's on all engines and other rotating equipment.

You hold the unit against the engine housing while the engine is running and then turn the center dial until a vibrating wire reaches its maximum side-to-side movement. Then you read the dial to get your rpm's. If the engine low idle or high idle is not in line with the engine manufacturer's specifications, you can use the tool to make precise adjustments. Works with lawn mowers, go karts, electric motors, motorcycle engines - anything that creates rpm's.

3M's Safety-Walk Tape; www.3M.com: This self-adhesive roll of gray rubber comes in 60-ft. length rolls, in either 1 or 3-in. widths. It's intended to add skid protection to a wide variety of surfaces. Works great on any slippery surface including stair steps, trailer fenders, pickup running boards, ramps, ladders, etc. Available in different make-ups. It can even be used on the back of cell phones to keep them from sliding around.

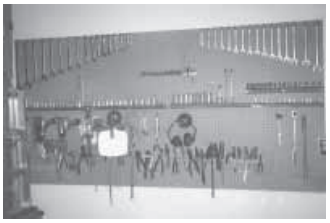
Bernard Krieger, Creelman, Sask.: "The air cleaner filter on my 1992 Case IH 1680 combine kept getting dirty. I had to change it as often as once every two days. New filters cost about $50 apiece so replacing them got quite expensive. To solve the problem I used a piece of 4 1/2-in. dia. pipe to extend the inlet pipe 2 ft. I unbolted the original air cleaner inlet pipe, then bolted the new pipe on in its place and clamped the original pipe on top of it. It made a big difference, because now the inlet pipe is up out of the dirt. Now I don't have to change the filters nearly as often.

"The hydraulic-operated table lift mechanism is a weak point on MacDon swathers, especially with the trend to more direct seeding on rougher fields. I have a 1992 30-ft. model and I didn't want it to break, so I took preventative action. I made my own gussets and welded in some extra metal. It's a good idea to do this before the table lift mechanism breaks, because if it ever does break it will be difficult to get everything all lined up again."

Terry Whitney, Delavan, Minn.: "I have a **Case IH** 863 corn head with leaky gearbox seals. A local repair shop told me to try using some Deere corn head gearbox grease. I added it to the regular gearbox oil, and it worked. The seals quit leaking."

Robert L. Ruppert, Tiffin, Iowa: "I ran a hot wire from my tractor battery to the outside so I wouldn't have to remove the hood in order to change it."

Bob Moty, Crystal Lake, Ill.: "I used 1/4-in. pegboard to make a tool board for use at home. To make box/open end wrench holders I cut off the heads on some 1/4 by 2-in. bolts, then bent 1/4 in. of the end of each bolt at a 90 degree angle and used 'whiz nuts' at the front and rear. Nuts and flat washers would also work. To make socket holders, I cut off 1/4 - 3/8-in. and 1/2-in. bolts and rounded the ends, then drilled holes in lengths of 1 1/4 by 1 1/4 by 1/8-in. thick angle iron and welded in the bolts. I like this system because all my tools are arranged by size and are always in full view.



"One side of the pegboard is for standard wrenches, and the other side is for metric."

James Burden, Crystal River, Fla. (ph 352 794-0497): "I bought some acreage next door last year that apparently had a lot of hidden metal debris on it. As a result it wasn't long before I had three flat tires on my Deere L100 riding mower. To solve the problem, I bought a $10 magnet at Harbor Freight (www.harborfreightusa.com) and attached it to the back of the riding mower, about 1 in. off the ground. So far the magnet has picked up two full coffee cans of nails, screws, brads, staples, wires, paper clips, bottle caps, and

brackets. At the same time, I put a stop leak product in the mower's tires and haven't lost any air since then.

"The magnet measures 4 by 8 in. and has a couple of mounting holes. To position the magnet as close to the ground as possible, I screwed a 2 by 4 to the top of the magnet and then wired the 2 by 4 to the back of the tractor.

"The magnet is rated at 250 lbs. The mower is equipped with a 42-in. deck and the magnet is only 8 in. long. However, its pull reaches out a few inches to either side so it won't take too many passes before the magnet will have covered the entire yard."

Ray Whatley, Bastrop, Texas: "I had problems with flat tires on my **Goodyear** 20.8 by 38 DT 710 10-ply rear tractor tires. The problem was due mostly to driving over heavy corn and sorghum stalks. Sometimes I was getting three or four flat tires a day. I solved the problem by replacing them with 14-ply Firestone tires. They were expensive at about $1,600 apiece but in my opinion, they also 'bite' better than Goodyear tires. I don't use anything but Firestones on my tractors."

John R. Johnson, Paradise, Mont.: "When a pulley on my pto-driven sicklebar mower froze onto the shaft, I used a liberal

FARM SHOW®

Money-Saving Repairs & Maintenance Shortcuts

Have you come up with any unusual money-saving repair methods for fixing farm equipment? What maintenance shortcuts have you found? Have you had any equipment recalled by the factory? Name a particularly tough mechanical problem you've had with a piece of equipment and how you solved it.

These are a few of the questions we asked randomly selected FARM SHOW readers. If you have a repair tip, maintenance shortcut, or other mechanical experience you'd like to share, send details to: FARM SHOW, P.O. Box 1029, Lakeville, Minn. 55044 or email us at: editor@farmshow.com.

Mark Newhall, Editor

Service rack mounts on four 26-in. high legs. A pair of wooden ramps is attached to one side, and an 8-in. high metal bar acts as a "stop" on top.

Service Rack For Garden Tractors

"It puts everything up high enough that I can service it easily," says John Conway, Wilmore, Ky., about the service rack he built to service and repair riding mowers and garden tractors.

The service rack is made from 2-in. steel tubing and channel iron. It consists of a 3-ft. wide, 6-ft. long rectangular frame mounted on four 26-in. high legs made out of 1 1/2 by 1/4-in. thick material. An expanded metal rack serves as the floor. A pair of 8-ft. long wooden ramps attach to one end and an 8-in. high metal bar acts as a "stop".

Two small wheels at the rear allow Conway to roll the service rack into his shop or outside to work on things.

The unit is painted black to keep it from rusting.

"I collect and restore Cub Cadet lawn and garden tractors, and I also repair lawn mowers for other people in my spare time. My

Rack puts garden tractors and other equipment up high enough where it can be easily serviced.

service rack eliminates the need to bend over and crawl on the ground to work on lawn tractors. Makes it easier to service lawn mowers and other equipment, and also to overhaul engines," notes Conway.

Contact: FARM SHOW Followup, John T. Conway, 706 East Main St., Wilmore, Ky. 40390 (ph 859 858-3256).