Money-Saving Repairs & Maintenance Shortcuts

Cecil J. Nix, North Bend, Ore.: "My friend's New Holland 630 round baler wasn't tieing bales properly, and I spent 3 days searching for the problem with no luck. I was about to give up when I finally discovered a bolt holding the brake spring was loose and causing the spring to slip, which kept the twine guide from working correctly. I gave the bolt a couple of turns. and all of a sudden the twine guide started working like new.'

Bob Moty, Crystal Lake, Ill.: "Filling up my air transfer tank with air was always a hassle. I have Milton air couplers on all my pneumatic equipment so I took two Milton air coupler 'plugs' - one with a female 1/4-in. N.P.T. and one with a male 1/4-in. N.P.T. - and screwed them together. Now to fill up the tank with air all I have to do is couple the hose on the tank to the hose on my air compressor."



Barker didn't like carrying a spare on flatbed.

Mike Barker, Kent, Ohio: "I bought a new Ford F-350 pickup equipped with a flatbed, and when I picked it up the spare tire was stored on the bed. The installer said he didn't want to drill a hole in the bed for the cable reel handle to go through in order to use the spare tire holder under the bed.

"I didn't want the tire taking up space on the flatbed so I removed the reel assembly and looked at it for a while. I figured out that if I turned the assembly 90 degrees, the tube for the handle would stick out the right side. So I built a new mounting bracket out of flat steel and shimmed one side so the tube would extend above the flatbed's frame rail. I welded a nut to a metal rod so I can use my impact wrench to raise and lower the cable.

Henry Priebe, Sodus, Mich.: "The Bosch fuel injection system on my late 1950's IH B-275 diesel tractor started acting up so I took it to a local shop, but they said I should scrap the tractor because they couldn't find parts to fix it. Instead, I took the injection pump off an Oldsmobile diesel engine and reworked it to fire on 4 cylinders. I made new mounting brackets and also altered the tractor's diesel fuel lines to fit. I made this conversion about 15 years ago, and the tractor has ran great ever since.'

Darrell Smith, Port Washington, Ohio: "Tall grass wrapped around the driveshaft on my zero turn riding mower, causing a seal on the deck's gearbox to leak oil. After cleaning away the grass, I built a skid shield to fit across the deck's stabilizer arms below the driveshaft. Problem solved.

Years of wear on the bottom of my Stihl 010 AV chainsaw caused the oil reservoir to wear through. To solve the problem, I thoroughly cleaned the case, using brake cleaner fluid to get rid of all the grease on the metal. Then I applied a layer of J-B Weld epoxy. It has held up for five years with no problems."

Robert Biancuzzo, Southampton, Mass.: "To save space in my shop, I installed my 5 hp 60-gal. vertical air compressor in the basement of our home and piped it outside to the shop. The only surprise is when the compressor turns on in the middle of the night and wakes us up.'

Duane Hansen, Sheridan, Mich.: "I have a small acreage with several different buildings including our home, a rental house, a lake place, and different areas where we mow grass. As a result, I own about 10 different machines with small engines including riding mowers, ATV's and rototillers. Air filters for the engines on these machines sell for \$8 to \$10 apiece, which gets expensive.

To save money, I got the idea to cut up new car air filters to fit all my small engines. I just measure the small engine filter, then use a metal shears to cut out a piece to fit and flatten it out. One car air filter is usually big enough to make 3 or 4 small engine filters. Sometimes the filter might be little short on each side, but as long as the air hole is covered that's okay.

"I've used this idea for 2 years."



Michael Thomas, Salmon, Idaho: "Because turbochargers rely on exhaust pressure, leaks between the turbo unit and the exhaust manifold can reduce the performance of a turbocharged engine. It's not uncommon for the heat generated by the high demands of a farm truck or machine to crack the cast iron exhaust manifold. In the past, welding cast iron was a job for experts but today, with the advent of rods such as Muggy Weld 72, electrode average-skill welders can tackle the job. Here's how I recently repaired a manifold

"Remove the manifold and clean off all oil and dirt. Prep the weld by grinding out the crack 1/2 to 3/4 of the way through the material and drill the ends of the crack in order to prevent the crack from continuing to run after welding. Preheat the cast iron with a torch or forge to a dull red. Weld 1 in. at a time using short arcs with low heat to avoid overheating the cast iron.

"If your bead is blobbing, you need more heat. If the weld is undercutting the cast, you're using too much heat. Maintain preheat between beads. This is easier with a helper holding the torch. If cracking occurs during cooldown, weld over the first bead with Muggy Weld 77 or similar rod. After the weld is complete it's important to allow the cast iron to cool slowly. One method is to bury the manifold in sand or cat litter overnight.'



Robert McMahon, Knoxville, Tenn.: "I needed a large hold-down clamp on my welding bench for fabrication work, so I made one by modifying a 'Stronghand' F-style clamp.

"Start with a 1 by 2-in. piece of channel iron or flat bar and drill a hole for your holddown bolt. Then weld the channel iron or flat bar to the bottom of the clamp. It'll result in a super strong hold-down clamp that you can still use as a C-clamp or spreader. Other brands of clamps could be modified as well, but I find that Stronghand F-style clamps work the best.

Shop Vac Sucks Dust Out Of "Glass Blaster"

"I do a lot of blasting with glass beads for my business of making solid brass models of farm equipment. It's like sand blasting but with glass," says Andrew Sewell, North Yorkshire, England.

"The beads shatter and make a lot of dust, which ends up airborne and goes everywhere. When the cabinet is pressurized, they blow out from every possible hole and you end up working in a cloud.

"So I hooked up a shop vac to the side of the cabinet to turn it from positive to negative pressure and stop the leaks. I made a bleed valve so I can easily regulate the amount of vacuum in the chamber. If there's too much. I can't open the lid and it will pull the gloves off their mountings. I adjust the valve as I work because the filter in the vac gradually

"I made the valve from pieces of tubing with large holes cut in them. By turning the outer pipe I can open or close the holes to control the amount of vacuum.

"This setup works well in my shop - but you do want to have the most quiet shop vac possible because you're standing right next to it."

Contact: FARM SHOW Followup, Andrew Sewell, North Yorkshire, England (www.classic-combines.com)



Andrew Sewell hooked up a shop vac to his 'gasblasting cabinet" to turn it from positive to negative pressure and stop it from leaking (above). A homemade bleed valve is used to regulate vacuum in the chamber.





Lincoln auto-lube system installed on a Gleaner combine.

They Specialize In Auto-Lube Systems

B&B Engineered Lube Systems is a Kansas company that sells and installs automated lubrication systems from Lincoln Industrial for any kind of farm equipment. One system can lube up to 300 points on a piece of equipment.

We deal with customers who spend a lot of time greasing machines...and many who don't spend enough time greasing them," says Braden Hawk, B&B Engineered Lube Systems.

Hawk says most systems are installed on site in about a day. The compact design is easy to install, even when space is limited. Cost of installation depends on difficulty and the number of lubrication points to be connected

"A combine is usually harder than a sprayer, but has fewer points," notes Hawk. 'A Gleaner combine usually runs about \$4,000, but that includes parts, labor, travel to the site, and customer training."

He adds that the system is easy to work with, and if any problems occur, it is easy

to adjust. Hawk argues that automated

lubrication actually improves machine operation over manual greasing, no matter how thorough.

"The automated system lubricates while the machine is working," he says. "Because the bearings are moving, grease gets distributed more evenly. You don't over lubricate."

B&B has shops in Hutchinson and Overland Park, Kan., and services all of Kansas, Nebraska, the western half of Missouri, and the southwestern corner of Iowa Hawk says they would be glad to refer customers outside that area to other dealers, or potential customers can contact Lincoln Industrial (www.lincolnindustrial.com; ph 314 679-4200)

"We offer a 1-year parts and labor warranty, and our field technicians can be in an area in a day or two at the most," he says, "Most of our competitors' systems are made overseas and can take weeks for parts to arrive."

Contact: FARM SHOW Followup, B&B Engineered Lube Systems, 2400 Line Rd., Hutchinson, Kan. 67501 (bbhydraulics.com; ph 620 662-2552 or 620 728-8454).