

Money-Saving Repairs & Maintenance Shortcuts

Larry Johnson, Ontario, N.Y.: "I have three 25-year-old pieces of equipment that are all powered by single cylinder Kohler engines that won't start after they sit idle for a day or two. To solve the problem I put the primer bulbs off outboard motor gas tanks on the gas lines. Now all it takes is a few squeezes and they start the first time over."

Michael S. Metcalf, Albion, N.Y.: "The coupler hubs on my IH 710 and 720 plows kept wearing out on the bottom where soil rubbed on them. To solve the problem, I built a guard out of pipe and a flat iron bracket to fit under each hub. They work great."

Gerald A. Borders, Sullivan, Ind.: "To extend the life of sealed bearings I use a grease needle like the kind used on chainsaw tips. I simply poke a hole in the seal and shoot some grease in. Saves a lot of down time."

"A radiator hose clamp can temporarily replace a locking collar on a bearing."

"I use a non-contact electronic thermometer to check the temperature of bearings, radiators, engines, electrical connections, etc. Saves a lot of problems and time."

Stan McMurachy, Hamiota, Manitoba: "After retiring from farming we moved into town. The house we bought had 9 1/2-ft. high ceilings which were too high to reach when changing light bulbs. To make it easier, I attached a small funnel to the end of a 6-ft. long mop handle and then glued a 2-in. wide strip of inner tubing inside the funnel. The strip of inner tubing holds the bulb upright so I can both remove a burned-out bulb and install a new one in the socket."

Jason Godfrey, ph 828 453-8527; email: 28dmg@bellsouth.net: "On the farm working out of my truck, I sometimes find myself needing a vise for tough jobs. So I came up with this simple vise stand that fits into the



receiver hitch on my pickup. The vise mounts on top of a bent metal arm. I can either rotate the vise sideways for transport or straight back, which allows me to let down the pickup tailgate and use it as a work bench."

Jake Penner, Winnipeg, Manitoba: "I found a cheap way to obtain carbide-tipped cutting tools for my metal lathe. I remove carbide tips from junked 10-in. table saw blades and silver solder them onto my lathe tool, then grind them down to fit my needs."

Larry Hershberger, Kalona, Iowa: "I needed a cart for my welding torch so I converted an old gas grill into a torch cart. I removed the lid from grill and cut holes the size of my welder's tanks into the bottom. Then I mounted awn mower wheels on it."

Russ Kowtun, St. Paul, Alberta: "The chain tightener rub blocks on my New Idea 486 baler caused the chain to wear prematurely. To solve the problem I replaced the blocks with chain idler pulleys. It worked and didn't cost much."

"The floor sump pit in my farm shop requires cleaning every two to three years, but it's worth it because it keeps grit out of the

sewage system."

Gary Anderson, Bowden, Alberta: "After the 'turtles' on the cutterbar on our Deere 935 discbine started showing wear, we simply swapped the clockwise turning units with the counter clockwise turning units. This doubled their life expectancy."

"We use several older house dressers with large drawers to store spare parts for our major machines. Each dresser and drawer is labeled clearly as to what's inside."

Robert Larsen, Potlatch, Idaho: "The overdrive transmission on my 1993 Dodge Intrepid wouldn't shift into gear after it sat overnight. I had to let the car run for some time in park before the transmission would go into gear. Transmission shops told me it needed a \$3,000 overhaul. Instead, I used four ounces of limited slip additive which solved the problem. That was a year and 8,000 miles ago, and the transmission still works perfect. The car has about 150,000 miles on it."

Lee W. Pedersen, 78 Taft Ave., Lynbrook, N.Y. 11563: Pedersen sells a new alcohol-resistant gas tank sealer for gas engines, tractors, cars, trucks, boats and planes. It's formulated to resist most gasoline additives such as alcohol and methanol.

According to Pedersen, the product seals pin holes and leaking seams and keeps rust and scale out of fuel lines and filters in steel, cast iron, and aluminum fuel tanks. It prevents deterioration of both old and new tanks and is not affected by gasoline, kerosene, or diesel fuel. To use it, you simply shake loose rust and scale out of the tank, pour in the sealer, and rotate the tank to evenly cover all surfaces. You can pour excess sealer back into the can for reuse. The product can be used to seal carburetor and gas tank floats, too.

Available in pint, quart, and 1-gal. sizes. A pint sells for \$23.75 including S&H; a quart for \$29.75.

Dave Nicholas, Martinsville, Ohio: "Whenever I find a big discount store like Walmart with rubbing alcohol on sale for 25 cents a pint or so, I buy a case. Twice a year, around Easter and Thanksgiving, I dump a pint of rubbing alcohol into the fuel tank of every wheeled vehicle that I own. It prevents condensation from building up in the tank. Isopropyl, the compound found in rubbing alcohol, can absorb up to three times its own volume in water, yet the fuel remains combustible. The alcohol mixes with the water and the resultant compound loses its surface tension and dissipates throughout the gas and gets burned. Eliminating condensation in the tank keeps rust scale from forming in the fuel lines and fouling up the fuel jet and carburetor orifices. It also keeps water from forming in low spots in the fuel line which eliminates freeze-up."

"Once every year I put two teaspoons of brake fluid into the auto transmissions on my vehicles. The brake fluid keeps the front seal and other seals inside the transmission soft so they don't crack and dry up. I started using this idea 50 years ago and have never had a front seal in an automatic transmission go bad. The same idea will work in power steering systems to keep them from leaking. The small amount of brake fluid isn't enough to cause any damage."

Pat Prom modified his Makita handheld grinder so he can use it like a lathe to 'turn' down a hardened steel shaft.



Pat Prom, Eden Prairie, Minn. 55347: "I modified my Makita handheld grinder so I could use it like a lathe to 'turn' down a hardened 1 1/2-in. dia. steel shaft to mount a bearing and a sprocket hub on it. I removed the side-mounted handle from the grinder and bolted on a small angle iron bracket. The angle iron fits into the cross feed slot on my

turning lathe, where the tool bit would normally mount. The grinder's body is laid on its side, and its 4-in. dia. stone wheel is actually below the center of the shaft. However, that isn't a problem because the wheel turns in the same direction as the shaft. It works great."

"Fusion Powder" Stretches Life Of Steel Parts

Why do Larry Schmedding's feed mixer knives last five to seven times longer than factory-installed knives? It's all in the powder, he says.

"We apply a 3/4-in. wide band of tungsten carbide/borium mix to the flat side edge," says Schmedding of Agri-Tool & Supply, Inc. "It's applied with a fusion powder torch. We don't put anything on the back side because it cuts on an angle and self sharpens."

Tungsten carbide is next to industrial diamonds in hardness. Adding it to the borium creates a fine particle size for smoother application and less wear or breakage of the tungsten.

Customers tell him one of the big savings is reduced machine down time. They don't have to take time to replace worn knives, and the mill operates at its peak efficiency, says Schmedding.

Another advantage of his replacement knives is their fit. Blades as narrow as 3/8 in. and 1/2 in. often require a backing plate. The hard edge acts as a large shim and keeps them stiff and in place.

"Our knives don't need a backing plate because they fit exactly," says Schmedding.

The special fusion powder process is not limited to feed mixer knives. It can be put on any surface subject to wear including auger flighting, wear plates, sweeps, drill bits and many other surfaces.

"We sell the powder with application specifications to people who have a fusion torch. If they don't have a torch, we'll sell them one and the powder," says Schmedding. "Some folks have the torches, but don't know how to use them. I can teach them over the phone whether they bought them from me or not. It is part of my service to answer the phone 24/7."

Blade prices range from \$20 to \$96 depending on make, model and steel prices. An entire do-it-yourself package of torch, five pounds of powder and instructions sells for \$850.

Schmedding specializes in farmer friendly welding materials, such as an all-purpose welding rod with 85,000-lb. tensile strength. The electrode can be used in any position, even overhead. He also does a lot of chrome coating of high-wear parts.

"We have approximately 250 different wear resistant castings for use in various agricultural applications," says Schmedding.

Contact: FARM SHOW Followup, Larry



To make his feed mixer knives last longer, Schmedding uses a fusion powder torch to apply a 3/4-in. wide band of tungsten carbide/borium mix to the flat side edge.



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Schmedding, Agri-Tool & Supply, P.O. Box 612, Greenacres, Wash. 99016 (ph 800 321-5460 or 509 928-1872; website: www.perfectpass.biz).

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