



**Glenn Negri, Ada, Okla.:** "I got tired of losing those little red straws that come with spray lubricants and cleaners. I came up with a way to wire the straw to the can."

"I first tried baling wire but it was too stiff. So I got some of the thin wire used to hold repair tags at shops. It works perfect. I wrap the wire around the lip at the top of the can, leaving 2 to 3 in. of wire. I slip a small piece of fuel line onto the straw before tying the wire to the straw to help hold it in place."

**Harold Tesch, Tomahawk, Wis.:** "I snowplow with my truck. At times, the plow would pull up patches of grass as well as gravel and stones. I fixed the problem by attaching a pipe to the bottom of the plow – no more damage."

**Ronnye Tattershall, Independence, Kan.:** "My Ford tractor clutch locked up. I poured Coca Cola on it and it freed right up."

**Phil Tilley, Aragon, Ga.:** "This is a simple idea but handy. I hook up an electric timer to my power tool battery chargers. It's set for 1 hr. each day so it keeps them charged at all times without burning them out."

**James Roxstrom, Maple Valley, Wash.:** "I mounted a 2-ft. long piece of stove pipe on top of a propane tank in my shop and inserted the burn nozzle off a hand-held weed burner. I can move the stove pipe back and forth as needed to direct heat where needed. It takes off the chill quickly and I didn't have to buy another piece of equipment."

**Butch Mercer, Thaxton, Miss.:** "In one of your recent issues, a 95-year-old fellow was having difficulty steering his Cub Cadet so he installed thrust bearings on the front axle where the steering mechanism rests. He ground down the axle the thickness of the bearings. He said it works like it has power steering now. I'm 74 and have a brand new Deere 300 that isn't too bad to steer but I figured it was such an excellent idea that I'd give it a try. I fixed mine at a cost of \$58, which included a \$40 shop charge for drilling out the axle to press in the sealed bearing. I knew it would work and am very pleased with the results. I recommend this idea for all steering systems. Thanks to the fellow who came up with this idea."



**Andrew Sewell, Richmond, England:** "I spotted this idea on a farm recently. The owner of this combine writes the belt size and parts number right next to each belt on the machine with a permanent marker. Simple, but he says it saves a lot of time when one breaks."



**Leslie Green, Conrad, Iowa:** "I was having trouble hitting the hole for the dipstick on my Jeep Cherokee. The hole is hard to see, especially when working in the garage. So, I came up with a simple solution. I just place a Styrofoam cup over the hole, and I have an instant target."



"Mechanics say it can often take 30 min. or more to get a hub off normally. With my Hub Master Hub Puller it takes me only 30 seconds," says inventor Jerry Titera.

## Hub Puller Fixes Skid Steers Fast

Replacing seals and bearings on skid steer hubs without damaging the hub is a real challenge. That's why Jerry Titera developed the Hub Master Hub Puller.

"Mechanics tell me it can often take 30 min. or more to get a hub off normally," says Titera. "It takes me 30 sec. to remove a hub. Watch my video and time me. It takes me 2 min. to pop the wheel off and have the hub in my hand."

Titera's brainstorm came out of frustration. He had a leaky seal on his Bobcat skid steer and tried to get the hub off and failed. The removable hub is a great innovation over other skid steers that still have the hub as a part of the axle. However, it fits so tight that it can be nearly impossible to get free.

"After two nights in the shop I had the rough design for my hub puller, tried it, and it worked," recalls Titera. "All I needed to do was to move the hub 1/16 in., and it's off."

What Titera came up with was a puller plate drilled to match the bolt pattern on the hub. It has a big pin at the center. Once the wheel is

removed, he slips the plate with the pin in it onto the bolts and tightens the lug nuts. The pressure of the pin against the axle pops the hub loose.

Titera has a patent pending on his invention, which is being produced by Sheyenne Tool & Mfg. of Cooperstown, N. Dak. The puller is powder coated, and the center pin is coated against rust. He has it priced at \$395, including S&H and tax.

"I always check back with customers on their satisfaction levels and ask if it was worth the price," says Titera. "They tell me it's worth it for time saved alone."

Currently Titera makes his Hub Puller for 8-in. wheel patterns. He plans to come out with a 10-in. pattern for the new M Series Bobcat.

At this time the Hub Puller is only available direct from Titera.

Contact: FARM SHOW Followup, Hub Master Inc., 33472 141st Ave., Bagley, Minn. 56621 (ph 218 766-7357; hubmasterinc@mail.com ; www.hubmasterinc.com).

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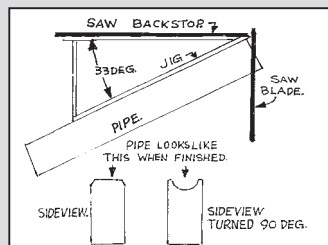
## Money-Saving Repairs & Maintenance Shortcuts

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

**Joe Germuga, Rochester, N.Y.:** "I came up with a simple way to make a saddle cut on pipes using a chop saw. I made a 33 degree



angled jig that sits against the backstop of my saw. You place the pipe on the table against the jig and cut off the corner of the pipe. Then rotate the pipe 180 degrees and cut the other side the same way. You get a clean cut that fits nicely against another piece of pipe. It helps to practice a bit on some scrap pipe and to cut slowly because you're cutting on the end of the pipe."



**Vern Goodwin, Lincoln, Neb.:** "I'm a motorcycle mechanic and storage space in my shop is always at a premium. I found myself running out of space so I mounted my shop lights on a shelf that lowers down when I need it to. The shelf is 4 by 8 ft. and is raised and lowered by an electric winch. I put two shop lights on the bottom of the shelf. I used four cables, one on each corner to keep the shelf level. I can lower it down to put small parts and tools on it, and then raise it back up."

**David Pidgeon, New Haven, Vt.:** "Many times when I'm away from my shop I've wished I had a vise to use on some job. So, I came up with this vise-mounting bracket that works with any standard 2-in. receiver hitch.

"I welded a 1/4-in. thick steel plate onto the receiver hitch and then bolted a vise base onto the plate. The vise came equipped with an adapter that lets me offset the vise and also



change its angle. As a result, I can rotate the vise anywhere I want or lay it down flat on the base."

**David McRae, Whitehall, Wis.:** "I wanted a way to extend the use of hard-to-find tractor tires once they developed breaks in the sidewall. So I made boot inserts out of 10-in. smooth triple-ply belting. I bevel the edge of the cut. Then I bolt the insert over the break using 1 1/2-in. long, 1/4-in. carriage bolts on the inside of the tire, putting the beveled edge against the tire wall.

"If the bevel isn't smooth enough and seems like it might wear through the tube, I cut a piece of discarded inner tube that's 2 in. bigger than the boot and bolt it over the top of it. I use a grinder to cut excess bolt threads off to within 1/8 in. of the nut on the outside of the tire. Then I use a ball peen hammer to pound the end of the threads to keep the nut from coming off.

If I have a tire with a damaged bead, I line the wheel rim with rubber from another inner tube. It protects the good tube inside the tire from breaks in the bead that could easily wear a hole in the tube. Also, I put an oversize tube in the tire so if it ever gets punctured and has to be patched, the patch doesn't have to expand too far."

**Ernest See, Baker, W. Va.:** "We needed to move the wheels out on our Deere 4020 tractor. We tried using heat and an impact wrench, but nothing worked. Then our dealer suggested slipping a piece of pipe over the axle and hammering on it. That worked."

**Clark Dysle, Scio, Ore.:** "I found a leak in the fuel line on my Ford 10-yard dump truck. I used a grinder and a jigsaw to cut a square hole in the truck's floorboard so I could access the fuel line without having to get under the truck."