

that screen on my skid loader and found that it was completely stopped up. After I cleaned the screen, everything worked fine.”

**Louie Waelti, Monroe, Wis.:** “I wanted to place an aluminum ladder up against my tractor’s hood without scratching it. So I placed a 5-ft. strip of 3/4-in. self-adhesive, auto body rubber trim on back of the ladder’s rails. Such body trim is available at most auto parts stores.”

**David B. Dittmer, Calhoun, Mo.:** “The tracks on compact track loaders can freeze up in winter. We’ve found that cleaning the tracks, and then soaking the track system with recreational vehicle antifreeze, helps.”

**David Martin, Hamlin, N.Y.:** “I’m happy with the American Lubrication automatic oil dispenser that I installed in my shop (ph 888 252-9300; www.americanlube.com). It operates using air pressure and is equipped with a digital control meter that keeps track of how much oil is going out. It’s a lot easier to use than handling containers of oil when servicing tractors and trucks.

“The unit consists of an air-operated pump, a wall-mounted reel that hooks up to the pump, and a handheld dispenser equipped with an electronic digital meter. The pump mounts on my oil tank. To add oil to a vehicle I just grab the hose off the reel, bring it over to the vehicle, and pull a trigger on the dispenser. The electronic readout measures in quarts as I fill the vehicle with oil, and it’s right on the money. It’s a well-built unit.”

**Don Jaster, Bruce, Wis.:** “The company I work for has a Cat 257 skid steer loader, and the glow plugs on it didn’t cycle properly.

“While testing it I found the glow plug relay was an open circuit, so I replaced it with a new Cat relay which I bought for \$28. It cycled about twice, but then the glow plug quit working. The problem was the contact had burned off the armature of the relay.

“I tested the glow plugs and found they each draw about 22 amps. The relay had about a 5-amp contact. I replaced it with a Ford starter relay that we already had. The new relay easily switches more than 300 amps. I made a Z bracket out of 1/2-in. strap metal to offset the larger size of the Ford relay. Note: A 1980’s GM diesel glow plug relay would work, too.

“I added wires to the Ford relay with that plug into the Cat’s original relay socket.

“Later on I learned about an owner of a 26X Cat skid loader that won’t start during winter because the glow plugs don’t work. Seems Cat has a design problem.”

**Dennis Jannusch, Zimmerman, Minn.:** “My IH sickle mower kept plugging up at the end of the field when cutting short, thick grass. I solved the problem by welding 1-in. long pieces of welding rod at a 45 degree angle between the two rivet heads on the end section. The high end of the discarded rod faces toward the pitman, which makes the end self-cleaning.

“A few years ago a main drive sprocket broke in half on my forage box. I solved the problem by clamping the sprocket’s two broken halves back onto the shaft with a hose clamp and welding it – even welding it onto the end of the shaft, figuring I can grind the sprocket off if I ever need to replace it. It’s still going strong.

“I try to do most of my welding outside my shop on old metal barrels. The barrels are the right working height and are portable, and they keep the shop from filling with smoke.”

**Josh Hennings, Wickes, Ark.:** “To fix broken splices on round baler belts I carry a bench-vice in my pickup. That way I can clamp the vise directly to the bale kicker and make splices right in the field.”

**Ernie Oshust, Star, Alta.:** “I’ve tried all kinds of chain lubricants on our round baler without much success. Finally I tried Motul motorcycle chain oil, which seems to be a superior chain lube (www.motorcycle-superstore.com).

“To quickly and cheaply equip your workshop with work benches, buy some older-style steel office desks and place a 3/8-in. thick steel plate on top. You’ll have a sturdy work bench complete with roller drawers and storage cabinets.”

**Mark Newhall, FARM SHOW:** “We’ve been impressed with Black & Decker’s ReadyWrench, a multisocket tool that



fits 16 of the most popular standard and metric socket sizes (ph 410 716-3900; blackanddecker.com). Each 6-point socket fits a standard and a metric size, which means the ReadyWrench offers the same socket sizes as 16 different wrenches. Finding the right size is as quick as flipping one of the tool’s two rotating heads. Socket sizes are color-coded for easy visibility. The tool comes with a rubber grip handle.”



**Maun pliers (left) compared to regular pliers.**

**Andrew Sewell, North Yorkshire, England:** Andrew likes these flat nose pliers made in England by Maun Industries Ltd. (ph 011 44 1623 554599; www.maun-industries.co.uk). The 6 1/2-in. long pliers are equipped with spring-return knurled jaws that always stay parallel, making it easy to hold objects for welding, etc.

**Alan Szykowski, Cabazon, Calif.:** “I have one of those home shop-type tire changing kits – an \$80 manual set equipped



with bead breaker, mount/dismount bars, etc. I take it with me on road trips where I almost always blow a tire or two. I welded a 2-in. sq. tube on the tire changer assembly that fits into my pickup’s receiver hitch. I also welded an extra receiver tube on the tongue of my trailer, which allows me to change tires on the road without having to drop the trailer. It works great and has saved me a lot of money over the years.”



**Bill Hinckley’s home-built rolling stands make it easy to move tractor parts and frames whenever he needs to paint or sandblast. Photo shows a stand fitted with a Case tractor frame for doing restoration work.**

## Rolling Stands Handy For Tractor Restoration

“I’ve seen many pictures in magazines where the tractors are sitting on blocks while being restored. That can be very dangerous and you can’t move them to clean the shop. With my carts, I can move tractor parts and frames wherever I need to paint or sandblast or just to get them out of the way,” says Bill Hinckley, West Bend, Wis.

“The first photo shows a rack I made to hold small parts while painting. It turns 360 degrees so you can paint and dry parts without touching them.

“The second photo shows a frame I use to work on garden tractors. After tearing a tractor down, I mount the frame in the stand to sandblast and paint. I just have to adjust the mounting brackets at either end to adapt to whatever tractor I’m working on. I actually assemble the entire tractor on the stand up until I put oil in the engine. Really works well because it’s at a comfortable working height.

“Photo three is a rack I use to paint wheel rims. It’s adjustable to any size wheels. It holds the wheel inside the rim and you can spin the rim around as needed to paint.

“Photo number four is a cart I made for tractor restoration. I’ve used it on 9 different models including Deere, Allis Chalmers, and Minneapolis Moline. The picture shows a Case tractor frame I’m working on. The back part of cart is from an old trailer running gear, flipped upside down with angles welded on



**Hinckley made this rack to hold small parts while painting. It turns 360 degrees so he can paint and dry parts without touching them.**



**This rack was made to paint wheel rims. “It holds the wheel inside the rim so I can spin the rim around as needed to paint,” says Hinckley.**

for brackets to bolt to the rear axle. The front is tricycle wheels. I just revamp the brackets to fit different tractors.”

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**He uses this stand to work on garden tractors. It has adjustable mounting brackets at either end.**

## Best Penetrating Oil Is The Cheapest

Machinist’s Workshop magazine recently tested penetrating oils for break-out torque on rusted nuts. They “scientifically rusted” a bunch of nuts, treated them with various penetrants, and then measured the torque it took to remove them. Here are the results:

|                   |            |
|-------------------|------------|
| • Nothing         | 516 pounds |
| • WD-40           | 238 pounds |
| • PB Blaster      | 214 pounds |
| • Liquid Wrench   | 127 pounds |
| • Kano Kroil      | 106 pounds |
| • ATF-Acetone Mix | 53 pounds  |

The ATF-Acetone mix was a “home brew” mix of 50-50 automatic transmission fluid and acetone.

Note that the “home brew” was better than any commercial product. Note also that Liquid Wrench was as good as Kroil for about 20 percent of the price.

Thanks to reader Larry Heineman at L&G Products Co. (manufacturer of “Add-A-Stick” excavator extensions - www.add-a-stick.net) - for passing along this story.