Repairs & Maintenance Shortcuts

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Charlie Reich, Grants Pass, Ore.: "If you have an old "N" Ford tractor that's having hydraulic lift problems, here's how to check it out. Take off the left inspection cover. It's the one that contains the pto lever. Start the tractor and make sure the pto is turning, indicating the pump is operating. Now lay on your back and look upwards through the opening to observe the lift cylinder and piston. While the pump is running and the lift arms are raised, there should be no oil leakage from around the piston nor should there be any oil coming from around the cylinder itself.

"If there is oil leakage, unbolt and lift off the hydraulic lift cover. That's the piece the seat bolts to. Upon turning this unit over, you will see the cast iron hydraulic cylinder and piston assembly. There are two minor problems that can occur with the cylinder and assembly: 1. blown gaskets or 2. a leaking piston and worse, a cracked cylinder or a deeply pitted cylinder bore. If the oil was leaking from around the retaining bolt holes, you probably have some blown gaskets. A complete transmission gasket kit is available for about $12 from Ford.

"Next, you may have to replace the relief valve. Grab a big pan or bucket that'll hold the 5 gal. of transmission oil. After draining the oil, go around to the rear of the tractor and remove the four bolts holding the pto cover and pull out the pto shaft. Now reach down inside the inspection cover opening and unscrew the relief valve. It's located on the rear of the hydraulic pump just under the (recently removed) pto shaft. If you want to make sure it's bad, your Ford tractor dealer has a special gauge to test these relief valves. A new relief valve currently costs about $20.

"After installing the new valve, replace the pto shaft and refill with oil. This is a good time to replace the pto shaft seal and install a fresh batch of 90W gear lube.

"This repair will let your old "N" lift and hold like she used to. It'll be good for another 50 years." ***(Reprinted courtesy 9N-2N-8N-NAA Newsletter, P.O. Box 235, Chelsea, Vt. 05038)***

Edwin Ruff, Moses Lake, Wash.: "To push another vehicle, tie an old tire to the front of your vehicle with a bungy cord. Then you can easily push another vehicle with no hard bumps. On corners or rough spots, you can give extra push and then catch up on the level again."

Eugene Sellers, Trout Run, Penn.: "A lot of farmers have trouble with nuts on studs that refuse to unscrew. I apply 'Never-Seize' to any nut that I think I might have to remove someday. If I think there's a chance the nut will work loose I use threadlock. It also prevents nuts and bolts from rusting together."

Gary Duspiva, Parma, Idaho: "I use WD-40 as a starting fluid on hard-starting 1-cyl. gas engines used on lawn mowers and other small power equipment. It provides some lubrication to the cylinder and doesn't fire as hard as conventional starting fluid so it's easier on the engine."

Harvey Mueller, Neosho, Wis.: "The remote control I built for my Lincoln 275 amp hand-cranked stick welder back in 1950 has saved me a tremendous amount of time because I don't have to run back and forth to my welder to turn heat up and down. It would probably work just as well on some newer welders.

"It consists of a gear reduction box and a small electric motor that mounts on back of the welder.

"The add-on gear reduction box chain drives the welder's drive shaft with a # 50 roller chain.

"A 30-ft. length of 3/8 in. dia. cable connects the electric motor with a 1 by 3-in. hand-held control box. To increase heat, I simply toggle the switch on top of the control box forward and toggle it backwards to decrease heat.

"I'll make plans available if there's enough interest. I'm at P.O. Box 156, Neosho, Wis. 53059-0156 (ph 414 625-3451)."

James Nedrow, Ashton, Idaho: "Our 1977 White 2-70 diesel tractor has never started easy - we've always had to use the electric engine heater every morning year around. In the winter we have to spray ether into the air cleaner in order to get it started. To solve the problem we disconnected the manifold air heater and installed an ether injector from an IH 1466 which didn't even need it. It works like a charm. However, we have to be sure we don't push the ether button until the starter is turning the engine and we have to use the ether very lightly."

Paul Donley, Jr., Capron, Ill.: "Old farm bulk milk tanks make great cattle water tanks. They are made from stainless steel so they never rust, have a double wall to help keep water from freezing, and are strong. I have three milk tank waterers on my farm.

"I mounted a 3-speed car transmission on my feeder wagon so that I can deliver feed slowly into my bunk feeder or fast into fenceline bunks."

Richard Roth, Scott City, Mo.: "When a bearing went out on the cylinder shaft on my combine all that was left was the inner race. The shaft was too long to use a bearing puller so I used a small air grinder equipped with a 1/32-in. cut-off wheel to cut across the race, allowing it to pop and slide right off."

Dennis E. Heck, Pendleton, Ind.: "To remove a broken-off bolt I weld a nut onto the top of the bolt so that I can use a wrench to remove it. Heat from the arc-welder will help loosen the bolt if it's really stuck tight."

Everett Lemke, Dahlgren, Ill.:"I added big doors, an overhead hoist, an oil changing pit, and wash bay to my shop to make it easier to take care of my equipment."

Galen Winger, St. Joseph, Mo.: "When I built my shop I had to grade one side down 3 ft. in order to make it level. I used the extra space to make a pair of steel ramps for servicing my car. First I poured a 4-ft. high concrete wall. Then I welded several short pieces of 10 by 12-in. 'H' beam end to end about 20 ft. long and cut them in half to make two 'T' beams. I used 4 1/2-in. pipe for posts and set them 4 ft. apart. Then I placed the 'T' beams on top of the wall and posts to make the ramps. I later doubled the width of one ramp to accommodate small and mid-sized cars. Works great. I find myself servicing cars more often now because the ramps make cars so much easier to service."

Revolutionary New Hydraulic Hand Tools

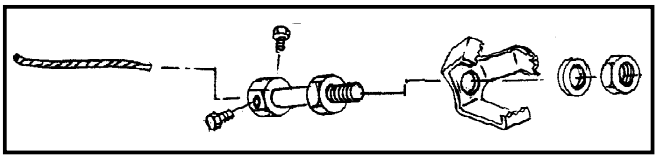
"My hydraulic hand tools are different than any other tools ever developed," says Bill Gallentine about his revolutionary new hand-operated tools that he says have already drawn a lot of attention from one of the world's biggest companies.

So far, Gallentine has incorporated his new design into three tools - a large (38-in. long) vise grip-type tool, a small (8-in. long) vise grip, and a 12-in. long cable cutter. The basic design behind the tools could be used in many other tools as well, he notes.

"They work like a hand-cranked bottle jack only a lot faster because they feature a two-stage hydraulic pump instead of a single stage pump," Gallentine explains. "There's a pressurized reservoir inside each tool so they can be used in any position without affecting operation of the ram. A trigger activates jaw return or blade adjustment. They're entirely modular so repairs, if needed, are easy."

The tools are capable of exerting tremendous pressure with little hand strain, he notes. Up to 4,000 psi's for the large vise and up to 2,500 psi's for the small vise and cable cutter.

Contact: FARM SHOW Followup, Bill Gallentine, 615 Country Club Road, Hood River, Ore. 97031 (ph 503 386-5907).



Make Your Own "Roto Rooter"

You can make your own low-cost "roto rooter" out of odds and ends you probably already have on hand, says J.D. Higdon.

Higdon came up with the idea to help a friend clear a 4-in. drainage line.

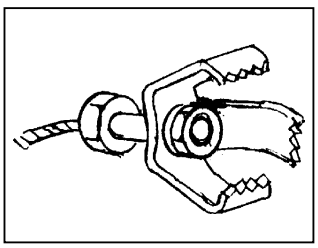
He first made a cutter head out of a 7 1/4-in. circular saw blade. Three pie-shaped pieces were cut out with a torch. Both sides of each of the three prongs were then sharpened on each side.

The three propeller-like blades were next bent forward with a vise-grip as they were heated with an acetylene torch. The hole in the middle of the blade remains centered.

The blade mounts on a 5/8-in., 11 by 3-in. hex-headed bolt. A 1/4-in. dia. hole was drilled about 2 in. deep in the end opposite the threads. Two smaller holes, for set screws, were drilled at 90° through the sides of the bolt.

On the threaded end of the bolt, a 5/8 nut was threaded on and welded in place. The blade then slips on the shaft with teeth facing outwards. A lock washer and another 5/8-in. nut hold the blade in place.

A 1/4-in stiff guidewire cable inserts into the head of the bolt and runs to a spool slipped over a 3-in. water pipe. A vise-grip locks the cable to the pipe so he can rotate the spool and pipe together to turn the cutter head.



"We found the obstruction about 60 ft. into the drain pipe," says Allison. "Altogether, it took 80 ft. of cable, including passing through a 90° elbow." **(Backwoods Home Magazine, 1257 Siskiyou Blvd. No. 213, Ashland, Ore. 97520.).**