excellent contact with the leather on the piston - so much so that we don't even have to prime the pump. Other advantages of using pvc is that it's readily available and lightweight enough to make installation and removal easier. The only disadvantage is that the unit is glued together and, once assembled, must be cut apart to service. However, the low cost of plastic pipe and its lengthy life expentancy more than outweigh that problem."

Terry Vandenboom, Burlington, Wis.: "I found a great way to use the space behind the wheel well in my pickup. I installed a pivoting platform to hold my 8 by 20-in. toolbox so that I can swing the toolbox out over the tailgate when needed and then swing it back into the truck when it's no

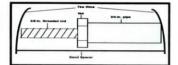




longer needed. It locks in place with a padlock when the tailgate is up.

"I bolted a bearing and a large plate to the floor of the truck and welded a short stub shaft to the bottom of the pivot plate. Because the toolbox and platform are no wider than the wheel well, I can still put 4 by 8-ft. sheets of plywood between the wheels. I can also lift the toolbox right off the platform to take it wherever I need it."

Alex Schotz, Wilson, N.Y.: Alex made a simple tool to pop off tractor duals. It consists of a 3/4-in. pipe and a 5/8-in. threaded rod with a nut on it. He fits it between the dual rims just above the band



spacer. He screws out the nut against the pipe so it fits tightly in place, then puts a locking pliers on the pipe and turns the nut with a wrench to lengthen the rod. "It works great to force off muddy or rusty snap-on duals. I have two different length pieces of pipe for two different sizes of duals."

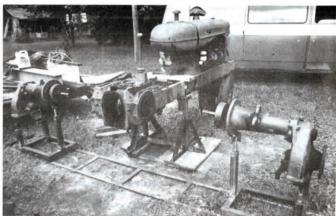
Elvin Kulenkamp, Spring Valley, Wis.: "To cold weather start my diesel tractor, I first roll the engine over - without turning the fuel on - to start lubrication. Then, with the fuel turned on, I direct air flow from a hot air gun into the air intake and start it up. There's much less hammering and knocking than just starting cold with ether."

Richard Gribbins, Bradfordsville, Kent.: "I keep a mailbox in the shop with a notebook in it for keeping records of oil changes, plug changes, and other repairs. It's probably not that unusual of an idea but is very handy."

Bruce & Roger Elliott, Montrose, Ill.: Bruce and Roger came up with a nifty way to collect used engine oil and move it into



storage. The oil "collector" is inside the shop and the storage tank outside. Oil is poured into a large trough mounted above an old pressurized water tank. A screen across the top of the trough filters out trash



Joel Carpenter, So. Haven, Mich.: "While rebuilding an Allis Chalmers WD into a forklift, I discovered it was going to be extremely difficult to remove the final drives by myself in order to turn the ring gear over (so the tractor could be operated in reverse).

"Since I work by myself 99 percent of the time, I needed an easy way to get the job done. After much thought, I found that attempting to pull the final drives without some kind of fixture would be difficult due to the odd shape and uneven weight of the final drives. Another problem was that I didn't have room on a concrete pad on which to do the job. I had to work on the ground.

"I finally came up with a self-aligning trolley track that would hold the drives steady while I worked on the ring gear and carrier.

"First I had to make a heavy stand to support the tractor while the final drives were off. I made the trolley track from a length of 1-in. light angle iron cut in half, 2-in. flat stock 'ties' were welded to the 1in. angle iron so the track is spaced 14 in. apart. "The 'trolley cars' that hold the final

making a 12-ft. trolley track. A number of

"The 'trolley cars' that hold the final drives are made out of 2 by 3-in. angle iron with 2-in. sq. tube uprights into which 3/4-in. threaded rod was used to raise the final drives by means of a threaded rod coupling. Each trolley is fitted with steel casters which can be bought through any steel supplier. They have a 90° cut through the center that allows them to center on the angle iron tracks.

"When I tried it I was surprised at how easy it works. The system lets me hold the right height for the splines to match the carrier, and lateral adjustment is simple when lining up the final drives. It took less than an hour to flip the rear end and reinstall the final drives.

"With slight modification, the trolley could also be used to split a tractor to replace a clutch or do other repairs."

and large metal particles, and holds oil filters as oil drains out of them. Oil drains out of the trough down into the tank below. When the tank fills up, a gate valve in the pipe between the trough and tank is closed, and an air hose is hooked up to the water tank filled with oil. Pressurized air forces oil from the tank out through the wall to a large oil storage tank outside the shop.

Elton Bruns, Hortonville, Wis.: "I've had a problem with replacing the starter on my Massey Ferguson 285 tractor. My question - how do you replace the starter and get all the bolts back in and tightened down? I couldn't find a solution so now I've got a starter held on by just two bolts.

"I would like to see a grease gun that you could carry around in a service truck that wouldn't ooze out or leak. On hot days, they create a mess, attract dirt, and are hard to clean up. I've had the problem for 25 years. Every grease gun I've had does it."

Douglas J. Johnson, Fresno, Calif.: "I invented a Hose Thread Tool in 1981 that's been on the market for a number of years.



In fact, one year it was a best seller in Brookstone's "Hard To Find" Tool catalog. It's designed to cut threads in a clockwise rotation and burnish in a counter clockwise direction. On a metal faucet you would use it to cut while on a brass hose end, you

would use it to burnish. The tool is casehardened and electro-plated with zinc. Plastic grips cover the handle. Sells for \$14.95 postpaid and works on 3/4-in. hose ends with 11 1/2 threads per inch. (Chaser Tool Co., 4455 N. Dickenson Ave., Fresno, Calif. 93711)."

Edwin Bredemeier, Steinauer, Neb.: "For more uniform feeding of material through the combine and better threshing, I grind a small 'hook' or 'lip' into the leading



edge of cylinder bars. Normally, the leading edge gets worn and sloped down. By grinding in a hook with a cutting wheel, it makes the bars much more aggressive. Keeps material flowing more uniformly because it stops it from bridging up in front of the cylinder. I've used the idea for 10 years or more and have found it triples the life of cylinder bars."

George Martin, Merrimac, Wis.: "I made a drip oiler for continuous oiling of hard, hot-running roller chains using a 2-qt. detergent bottle and 2-ft. of small diameter air tube from an air shock. I got the idea after I bought a used big round baler. I got it all set to run but after one half hour of use, the roller chain, sprockets and bearings were smoking. I replaced the roller chain and installed this oiler and that solved the problem. About 1 1/2 qts. of lube will work all afternoon.

Continued on next page



## Unique Way To Work On Pickup

When Clair and Warren Wilson, Winchester, Ill., have to do underbody work on one of their pickups, they just lift it up onto a pair of giant "sawhorses" with their home-built loader tractor (see story on loader in Vol. 14, No. 6).

The two brothers say their method of working on the pickup is safe and makes removing transmissions, repairing exhaust, or doing other jobs much easier. It's also a lot cheaper than installing a hydraulic hoist.

To get the pickup up off the ground, the men use the loader to lift the front end of the pickup first and then the back end. They also use the tractor loader to drop transmissions and to help reinstall them.

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