

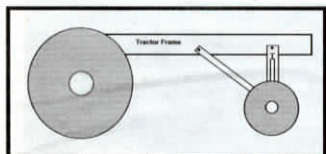
Larry Timm, Union City, Mich.: "Instead of using easy-out bolt extractors to remove broken bolts, I've had more success with Torx bits. And I've saved money by switching from acetylene to propane in my cutting torches."

Dean I. Sill, Monroe, Iowa: "I replaced the tube-type tire on my wheelbarrow (4 by 8-in.) with a tubeless 18 by 6.5-in. turf tire, mounting it on the original wheel. I used Gempler's 'flat stop' to seal

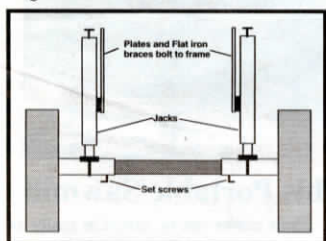


the wheel. To make room for the wider wheel to turn, I had to shave off some wood on the braces at the front of the frame. The wheelbarrow now has increased stability and flotation on hard surfaces."

Eugene Alt, Audubon, Iowa: "I built this splitter to make it easier to repair tractors. It consists of 14-in. wheels mounted on an adjustable axle made of square tub-



ing. A Red Dog screw jack mounts on each side of the axle. I removed the cranks on the jacks and installed a nut so I can adjust height with a wrench. Wheel width can be



changed with set screws on the axle. Steel plates on the jacks, and a pair of diagonal braces, bolt direct to the tractor frame.

"The key is to make both sides of the splitter exactly identical so it will roll evenly back and forth. Mine lets me roll a large tractor front end back and forth with one hand."

Robert Lindsay, Viola, Idaho: "I mounted a hot water electric heating element in the bottom of a steel barrel, allowing me to quickly warm up a 5-gal. bucket of grease placed in water inside the barrel. It lets me operate my grease pump at temperatures as low as 30° below zero.

"I used a torch to cut a 30-gal. barrel in half. I cut a small hole in the side of the tank and welded a pipe fitting into it, then screwed the heater element into the fitting. Then I bolted a 3-prong, 220-volt electric outlet onto the top of the barrel and wired it to the element.

"It takes only about 30 minutes to get the grease warm enough so I can pump it. I bought the heating element at a hardware store. The bottom of the bucket rests on top of the element, which is protected by a U-shaped piece of steel that's welded to the pipe fitting. I mounted a temperature control unit between the outlet and element,



but I don't depend on it. I just run the heating element long enough to get the grease warm."

Jo Lynn Watson, Happy, Texas: "Colored PVC tape takes all the guesswork and wasted time out of selecting hydraulic receptacles when we're hooking up implements such as plows. We have a Case/Steiger tractor with several hydraulic outlets. I simply wrap different colored tape around them, then use the same scheme on corresponding hoses. It saves a great deal of time and costs little or nothing."

Matt & Don Krenz, Fall Creek, Wis.: "When the Chrysler slant 6 engine in our early 1980's Deere 800 swather began using a lot of oil, we figured we were headed for a big repair bill. But rather than have the engine rebuilt, we decided to replace it with a used engine out of a 1980 Plymouth Volare that had about 95,000 miles on it. The transmission was shot, so we got the engine for just \$150. Because the motor mounts sideways in the swather instead of lengthwise as in the car, we had to completely strip the engine. We removed the motor mounts and replaced them with the mounts from the swather's engine. We swapped the car engine's main driveshaft pulley with the swather engine's, as well as the swather's distributor, intake manifold, and oil pan. It took us a couple of long days this August to do the work. But when we were finished, we had a swather that worked as well as the day we bought it - and for a price that couldn't be beat."

Gilbert Goodwater, Sprague, Wash.: "I made a ventilator system for my chop saw and grinder that ducts smoke and metal dust outside when I use them.



"I used a 120-watt squirrel cage fan off an old main frame computer system. I made a two-way T adapter for the outlet of the fan out of 4-in. dia. exhaust tubing and attached it to the outlet of the fan. I connected up about 3 ft. of aluminum dryer tube I got from an appliance wholesale house to the bottom of the T and ran it over to my nearby grinder. I connected 7 ft. of plastic dryer vent to the top of the T and ran it out a nearby window. That way I can blow smoke and metal dust right out the window whether I'm sawing or grinding. Cost me about \$20."

Vernon J. Kelly, River Falls, Wis.: "We installed rings in the floor of our shop which come in handy for straightening out pieces of equipment, such as cutterbars on hay mowers, combines, etc. You just chain the piece down to the rings, and use a hydraulic jack."

Ron Dibert, Bedford, Penn.: A few years ago the quill shaft (main transmis-



Gary Harrell, Harrell Farms, Wayne City, Ill.: "Last winter, I found myself facing a big problem with my 1978 International 4586 4-WD tractor. I had put new tires on and overhauled the transmission and rear end several years earlier, so that much of the tractor was in good operating condition. However, its 300 hp V-8 engine was going downhill fast. I've been a big fan of Caterpillar engines since my trucking days, and happened across a 400 hp Cat 3406A 6-cyl. semi engine for the right price. The engine needed some work so a couple of my employees, Kevin Schroeder and Dennis Smith, helped me overhaul it. Then we repowered the tractor with it.

"The biggest part of the job was extending the frame 16 in. to accommodate the bigger Cat engine. Because of the lengthened frame, we had to fashion a new hood out of sheet metal. Rather than the original three-piece bolt-on design, which took about an hour to take off and put on, we designed a one-piece hood that flips forward in a minute for fast, easy engine servicing. The hood hinges on front of the trac-

tion drive for the pto) on our Deutz 100-06 tractor slipped forward and the tractor suddenly made a growling noise and stopped. The Deutz mechanic asked me how many hours were on the tractor. When I told him 5,500, he immediately knew what the problem was - the splines were worn and had sheared the keeper stud off. He told me to put a few dots of weld on the 3-in. extra cut splines to help hold the shaft in place. It worked.

"Whenever we drain hydraulic oil from tractors, combines, etc., we use an old stainless steel milk funnel to strain dirt and other contaminants out so we can reuse the oil. The funnel is 2 ft. in diameter on top and narrows down to a 6-in. diameter at the bottom where you place a paper filter. We set the funnel on top of a 5-gal. bucket. There's nothing fancy about it but it works.

tor frame at the base of the grille. We also installed a different throw-out bearing in the clutch to match tractor transmission's input shaft. Finally, we blocked off one of the radiator's coolant inlets and outlets because the tractor's original engine had two lines; the semi has only one.

"The project required only a few other minor modifications. For example, we moved the exhaust pipe to the right fender from the middle of the hood because of our flip-top design. Likewise, we moved the air intake from above the radiator to the left side of the tractor. We made a new hydraulic system by copying that of a Steiger. To our surprise, the rear of the Cat engine matched up perfectly with the tractor transmission's bell housing so we didn't even have to fabricate an adapter plate.

"We used the tractor for planting last season, and the Cat engine really gives it new life. It's got 100 more hp than before. All solid, dependable power instead of the hit-or-miss proposition with the worn out engine. Altogether, the project cost about \$5,000."

I can pour 5 gal. of oil into the funnel at once and come back a few minutes later to pick up the clean oil. We use the oil with our hand-held fly and chemical sprayers and also to lubricate chains on equipment.

"The ball joints on our Deere 4010 tractor were worn out and we couldn't get the tie rods apart to put in new ball joints. The tie rods cost \$100 each so we didn't want to spend the money for new ones. So we removed them and bolted on Cat. I 3-pt. top link cylinders in their place. The cylinders cost only about \$15 each. We saved money and ended the agony of trying to get those old tie rods apart. We used 4-in. long, 3/4-in. dia. bolts to secure the cylinders and installed neoprene lock nuts so they won't come loose."

Chain Breaker Tool Pops Pins In A Jiffy

You don't need a punch and hammer to change roller chains anymore, thanks to this new tool that quickly pops out pins on virtually any size roller chain, says inventor Lloyd "Smokie" Sorenson.

The chain breaker tool (CBT) consists of a handle and head attached to a drive screw. You position the roller chain in the head of the tool, with rivet and pin centered in the drive guide. This lines up the chain to pop the pin out of the rivet as the screw turns forward.

Comes in three sizes: CBT 100 for use on #35 through #435 and #2040 chains; CBT 200 for #50 through #60H and #2060; CBT 300 for #50HD through #100H. Sells for \$34.50, \$36.50, and



\$65.90, respectively.

Contact: FARM SHOW Followup, Lloyd "Smokie" Sorenson, 1015 4th St. N.W., P.O. Box 435, Hampton, Iowa 50441 (ph 515 456-5234; fax 2117).