## Money-Saving Repairs & Maintenance Shortcuts

## Continued from previous page

"To use it you put two 1/2-in. thick discs and two nuts on the bottom of the rod, then run the rod up through the top and slide a bridge on. After installing a heavy-duty ball thrust bearing on the top of the bridge you use a wrench to screw the nut down on the bearing. Then hold it up and set two 5-in. long blocks (supplied) under the bridge to make room for the sleeve to come up. The bearing keeps the nut from binding for easy turning and fast removal."

Merle Black, Valencia, Pa.: "Anyone who owns a Gravely walk-behind, rope-start



mower knows how hard it is to start them. The problem is that you're pulling against compression inside the engine which makes it hard to turn over. I solved the problem by installing a compression release valve made by Stihl Co. The company equips its bigger chain saw models with these valves to make them easier to start.

"To install the valve I drill a 3/8-in. dia. hole above the exhaust valve and all the way through the head, then use a metric tap to make threads in the hole and screw the valve in. Pushing a button on the valve releases pressure in the cylinder and makes the engine easier to turn over when you pull on the rope. Once the engine starts, the valve automatically closes.

"The hole above the exhaust valve prevents any change in the mixture of fuel as it comes in from the intake side of the carburetor. Stihl doesn't keep these valves in stock, but you can order them from the company. Before installing the valve I first used a grinder to remove the fins that cool the engine, providing me with room to drill the hole."

Norman Smith, Walsh, Ill.: "I used part of an old hydraulic cylinder shaft to make



an inexpensive, heavy hammer. The shaft had been accidentally bent. I cut off a length of the shaft and burned a hole through it. I used a length of sq. steel tubing to make the handle and butted the two pieces together, then ran a bolt through the shaft and tubing and fastened a nut to the bottom of the bolt."

Terry Therkilsen, Comfrey, Minn.: "This home-built bulk oil dispenser is as handy to use as any commercial system I've seen. I made it for a local mechanic who had recently built a new shop. It consists of six 102-gal. tanks made out of 12 ga. sheet metal.

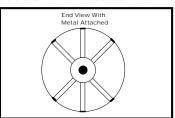


The entire tank is 11 ft. wide, 3 ft. high, and 2 ft. deep. I divided it into six interior compartments, then made a frame out of angle iron to mount the tank about 5 ft. high. Each compartment is fitted with a tap at the bottom. A clear plastic sight gauge on each compartment lets you see at a glance how much oil is left. Oil gravity flows out of each tank through steel lines equipped with ball valves.

"Vertical fill lines mount on the right side of the tank, allowing a pump to suck oil out of a 50-gal. barrel in order to fill the tanks. Works great for oil changes."

Bruce Lowery, Spotsylvania, Va.: "If you're fed up with tripping over extension cords in your shop, get several surface-mounted electrical boxes, install receptacles, and hang them from the ceiling in your shop at various locations high enough to clear your head. Then when you need to plug in a tool a receptacle will always be close by."

Larry Kluckner, Longdale, Okla.: "I harvest rye and vetch for seed with a 1960's C Gleaner combine with 16-ft. header. I've always had trouble with the crop wrapping on the end of the reel shaft at each end. This



would lock up the reel and cause the belt to slip so the crop wouldn't feed properly.

"A neighbor came up with a solution based on some older combines, like Masseys, that didn't have open-ended reels. We simply attached a round piece of light gauge sheet metal, approximately the thickness of the reel bats, to the ends of the reel. We screwed a piece of angle iron, which acts as a mounting bracket, to the end of each bat with self-tapping metal screws. We then took off the bushing that the reel shaft rotates in and screwed the sheet metal, which overlaps the end of the reel bat by about 1/2 in., to the brackets.

"We did this two seasons ago and it totally solved the wrapping problem. It didn't cost anything since all the materials were scrap. This would work on any combine that doesn't have an open end on the reel."

Virgil W. Russell, Bloomingdale, Ohio: "The rubber rollers on my Deere 1207 mower conditioner went bad and the price of a new one was more than the machine was worth. We made our own repair by cleaning the rollers down to he bare metal and welded 1-in. square bars to them, making a crimper that works just fine. A cheap repair that actually paid off for us."

## Make Repairs Under Vehicle Without Laying On Your Back

By Mick Lane

If you're tired of dirt and sparks in your face while working underneath pickups and cars, Accessible Systems, Inc, Jonesborough, Tenn., has a possible solution.

The Easy Tilter fastens to the wheel hubs and allows you to quickly and effortlessly roll any vehicle onto its side. It'll handle up to 6,000 lbs.

Rolling a vehicle onto its side with the Easy Tilter usually takes an hour or less, according to Joel Johnson, owner of Accessible Systems and designer of the Easy Tilter.

"I developed it because many auto shops and especially hobbyists are limited in space. Competitive tilters — and I used to sell one brand — required two car bays to work. The Easy Tilter works in just one," Johnson says.

Johnson began developing his tilter in 1996. After a year of so of experimentation he landed on the current design. His tilter has two-wheeled carriage assemblies that allow the vehicle to roll toward the jack as one side is lifted up. This keeps the vehicle within one car bay as it rotates up on its side. He expects to receive a patent shortly on the concept.

"Because the jack doesn't need to move, you can use an overhead chain fall or engine hoist instead and save the price of the jack if you wish," Johnson says. "This isn't possible with other designs."

Johnson says his Easy Tilter is much heavier in construction than competing units.

To use the Easy Tilter, remove the wheels from one side of the vehicle and attach the tilting frame to the hubs using the mounting plates that come with the tilter. (You'll need to order 4-, 5- or 6-hole mounting plates, according to the style of your vehicle. If you need more than one set, it will cost extra.)

The next step is to remove the wheels from the other side and attach the lift wheel plate to the hub at the heaviest end of the vehicle (usually the front). The jack (or whatever lift you're using) attaches to the lift plate. Then all you do is raise the jack or lift.

As the side of the vehicle raises, the other side rolls toward the jack. As it nears the center of gravity, it rolls onto the second set of carriage wheels and comes to rest safely on its side. The jack or lift attachment can be removed once the vehicle is on its side.

To lower the vehicle, reattach the jack or lift. Then, using a special bracket on the carriage, a floor jack can be used to raise the carriage and vehicle back past its center of







gravity and onto the jack so it can be lowered to the floor.

The Easy Tilter is priced at \$499. Optional jack for the Easy Tilter is around \$450. Both Easy Tilter and its optional jack weigh around 225 lbs. each.

If you're interested in an automotive lift but feel the one shown might not be quite what you need, Johnson wi'll be happy to talk to you about special adaptations for farm equipment or oversized vehicles. He makes a variety of other systems, including one that rotates a vehicle 360°.

Contact FARMSHOW Followup, Accessible Systems, 440 Matson Road, Jonesborough, Tenn. 37659 (ph 423 975-8907; fax: 423 975-8908; Website: www.accessiblesystems.com.

## **Elevated Air Compressor Saves Shop Space**

"We needed more floor and wall space in our shop so we mounted our air compressor up out of the way, 10 ft. off the floor," says Ken Brecht, Moorcroft, Wyo., who built a heavy steel platform to hold the compressor.

Brecht installed a new electric junction box 10 ft. up the wall.

"Mounting the compressor up high keeps the air intake out of the dust and also reduces some of the compressor noise when it's running," says Brecht. "We keep a parts washing tank under the compressor. It's a better use of the space."

Contact: FARM SHOW Followup, Ken Brecht, 353 A McKean Rd., Moorcroft, Wyo. 82721 (ph 307 756-9309).

