

from 6 volts to 12 volts, causing too much voltage to go through the distributor. A simple fix is a +/- 5 resistor wired in-line between the key switch and the coil. These can be bought at some auto parts stores or from online suppliers. Saves a lot of aggravation and time. This is not a new idea but a lot of people don't know about it."

Roy Smith, Gouverneur, N.Y.: "FARM SHOW inspires me to try new ideas. For instance, I had an old snowblower that used a lot of fuel and was starting to smoke. I read the article on Somander Singh's grooved heads and tried it (Vol. 32, No. 1). Amazing! Fuel consumption went down, it stopped smoking, and I had to lean down the carb. I used it for a whole winter and then took the head off. Clean as a whistle! This is only one reason why I can't wait for your next issue."

Frosty Nix, Ponca City, Okla.: "People waste a lot of caulk when they get to the end of a tube. I put a golf ball into the caulking gun, ahead of the plunger once I've used up about half the tube. Try it and you'll be surprised how much more caulk you get out of a tube."

"I make different sizes of rubber bands by cutting up rubber inner tubes of all sizes. You can cut crosswise or lengthwise. This idea has been useful to me for 40 years."

"I also sew up old pant legs at one end to store different stuff in my shop or in the house. You can tie string to the other end to hang them up. Works great."

Milton Webster, Taylor, Texas: "I put inner tubes in all my lawn and garden tractor tires as well as wheelbarrows. The tires on smaller wheels don't have the quality of highway tires and won't stay inflated for long without tubes."

Cameron Messinger, Hummelstown, Penn.: "I keep screws and washers and other small parts in Altoids mint tins which are easy to carry around in my pocket. I use a Sharpie to label the tins."

"I had trouble with hammer heads working loose due to handle shrinkage. I tried using a punch to drive in wedges, but soon the wedges would come out again and the heads would almost fly off."

"To fix the problem, I took the head off, removed the wedge, and put the head back on. I then tapped a small piece of pine shim (you can buy 10 or so at Lowes for a dollar or two) about the same size as the wedge into the hole where the wedge had been. Then I tapped the wedge back in beside the shim. No more loose hammer handles."

"Here's a handy tip for installing the head on a small engine. If it's an overhead valve engine, make sure both valves are shut when you put the head on, because it's not easy to put the head on and fight against a valve spring at the same time. Also, take 2 or 3 bolts the same size as the head bolts and cut the heads off."

"Thread the bolts a couple of turns into the block and then slide the head on over the headless bolts. The bolts will align the holes precisely, allowing you to then put in the original head bolts. Bolt the head on with a couple of head bolts, remove the headless bolts, and then tighten the head bolts."

Nathan Fleischer, Berkeley, Calif.: "I use a hanging closet shoe organizer to store spray cans in my shop."

Ray Brubacher, Wallenstein, Ontario: "We're always fighting high pressure in the hydraulic hoses on our Quicke front-end loader when we try to connect the hoses in hot weather. The heat causes the oil in the hoses to expand which causes the pressure

to build up. To solve the problem, I came up with this homemade tool that attaches to the loader's female quick couplers.



"I pulled the inside components out of a regular Pioneer coupling, welded a nut into the threaded end of the coupling, and then screwed a 5/16 by 2-in. fully-threaded bolt with a T-handle into the nut. A few turns of the T-handle forces the internal pin into the female coupling and releases the pressure slowly and safely without blowing out the O-ring seals."

"An easy way to make an internal thread cleaner is to cut a slot into the side of a bolt."



As you turn the bolt in, the sharp edge of the slot will scrape the rust and collect it inside the slot. It's a good option when you don't have a threading tap that's the right size, or when there isn't enough room for a threading tap. Works great for cleaning out any old bolt or nut holes."



Lyle Qualley, Tekamah, Neb.: "I use old pants hangers to hold parts and owner manuals. I simply hook a manual onto the hanger's spring clamps and hang them up. Then whenever I need the manual I can take it with me to the job. All the information I need is right there, and when I'm done I just hang the manual back up. No more hunting through drawers."



Dennis Strahle, Eagle, Mich.: "I use 5-gal. gas/diesel cans to fill my antique tractors, but the fuel flows out really slow and I got tired of holding onto them. The fuel flow is restricted because the air vent is too restrictive. To speed up the flow I drilled a 27/64-in. dia. hole into the air vent and tapped it for a short 1/2-in. dia. bolt. It lets me empty the gas can a lot faster and with much less arm fatigue."



"It cuts anything I put under it without any strain at all," says John Betka, who built this chop saw using a motor with a thermal switch to prevent overheating.

Home-Built Chop Saw "Made To Last"

"I couldn't find a metal cutting abrasive chop saw with an electric motor that wouldn't burn up within 12 months, so I built my own using a motor with a thermal switch to prevent overheating. It's built to last," says John Betka, Walkerville, Mont.

He used salvaged parts from a pair of Milwaukee chop saws, including the handle, blade guard, switch, and tilt pivot pin and spring. The rest of the chop saw was made from scrap steel remnants that he already had. The unit is chain-driven using two 2-in. dia. sprockets and a no. 40 chain.

"I built it last fall and so far it has cut anything I put under it without any strain on the motor at all," says Betka.

The chop saw is operated by a 1 1/2 hp Marathon electric motor equipped with a thermal protection switch to prevent overheating. He bought the motor from Surplus Center in Lincoln, Neb. (www.surpluscenter.com; ph 800 488-3407). It was designed to run on 240-volt AC and run at 3,450 rpm's, which would have made the blade go too fast. So he installed a large sprocket on the motor and a smaller sprocket on the blade's driveshaft, which slowed the motor down to 1,800 rpm's.

The 1 1/2 hp motor was designed to operate on either 110 or 240-volt AC but didn't have enough torque to turn the blade adequately, so he replaced the capacitor with a larger one made for a 240-volt motor. He also replaced the capacitor's cover. "I couldn't find a cover that was the right size so I made one out of a 1 3/4-in. piece of schedule 40 pvc pipe and screwed it onto the motor," says Betka. "One side of the cover comes off so if I need to I can easily replace the capacitor."

He wasn't happy with the performance of the original abrasive blade on the Milwaukee chop saw, or with any other abrasive blades that he had tried before because they wore out too fast. Then he discovered Flexovit abrasive

blades (Eagle Safety Products, Union, Mo. www.eaglesafetyproducts.com; ph 636 583-4428).

"I first tested out a used 24-in. dia. Flexovit blade that I got from a local steel supplier. The blade was worn down too much for them to use anymore, but it worked great for me and lasted a long time. So I ordered 14-in. dia. replacement blades from the company. The blades are 1/4 in. thick and are made with some kind of compressed grit with a bonding agent. I've found they last much longer than anything else on the market."

He made one more improvement to his home-built saw. The Milwaukee chop saw's deck originally measured only 10 by 14 in., which he found too small, so he installed a 24-in. sq., 1/4-in. thick steel plate on top of it to provide more room when cutting material.

"It's ugly, but it works great," says Betka. "I spent about \$135 for the motor and blade, whereas comparable new chop saws sell for \$200 and up. Also, all the parts on my chop saw are standard parts that I can buy at any farm and ranch store. With Milwaukee chop saws you can't buy a replacement motor, armature or field separately, and a lot of their other replacement parts are discontinued after 2 years."

Betka says he's had a lot of problems with all the current brands of chop saws, including the Milwaukee. "I don't know if the manufacturers have lowered their specifications, or if it's just a matter of poor quality materials. But I've had the motors burn out within 12 months on 2 handheld grinders, 2 chop saws, and 3 drills. It doesn't seem to matter if I upgrade to a company's heavy duty models or not."

Contact: FARM SHOW Followup, John Betka, 5889 Moulton Reservoir Road, Walkerville, Mont. 59701 (ph 406 490-2980; job@crbart.com).



Salvaged parts from a pair of Milwaukee chop saws were used, including the handle, blade guard, switch, and tilt pivot pin and spring. The rest was made from scrap steel remnants.