Reader Letters

Your readers might be interested in this simple engine modification that cuts fuel use 20 to 40 percent.

I'm a recently retired combat engineer and I've worked with small and large gasoline and diesel piston-driven engines most of my life. Back in 1988, a friend of mine grooved the cylinder heads on his Dodge 360 cu. in. racecar. The mid-range torque significantly increased. I didn't think much about it until this past year when fuel prices increased again. I did an internet search and found that a fellow named Somender Singh holds a U.S. patent for grooved cylinder heads.

I used Mr. Singh's technique to groove the head on a 3 1/2 hp Briggs & Stratton lawn mower engine (see photo). My work was crude but it still did the trick. The engine now burns 40 percent less gas and torque was improved. It starts well and runs clean. After running it all summer, there were no carbon deposits on the muffler. Basically, the grooved head channels the explosion to the edge of the cylinder. This channeling scours the ring area by creating more effective turbulence. The burn is more complete and more energy gets transferred to the crankshaft. After modification, leaning of the fuel-to-air mix helps maximize efficiency.

The modification is simple and can be done with a drill, a file and other ordinary tools. Mr. Singh's website (www.somender-singh.com) contains many examples and general rules of thumb for cylinder head modification. He also answers technical questions via email and would like to know the results of your work if you give it a try. ***(Frank Akins, 214 Arch St., Leavenworth, Kan. 66048 frnkakins@yahoo.com)***

A Misco garden caddy designed to hold a flower pot is a great way to hold a computer monitor. Lets you pivot the monitor to show a visitor, or turn it sideways to make more room at the desk. You can buy them at www.miscohomeand garden. com. ***(C.F. Marley, Nokomis, Ill.)***

One of your writers in the last issue wrote about trying out those fluxless brazing rods that are often on exhibit at fairs and shows. I wanted to caution your readers to be very careful when welding galvanized metal, like your writer tried in the issue. Galvanization gives off poisonous fumes that are toxic if you breathe them in – like heavy metal poisoning. If you absolutely have to weld galvanized metal, do it outside, away from buildings, wear a mask, and hopefully do it when there's a breeze to carry away the fumes. ***(Dan Coshatt, Panama City, Fla.)***

After your article in the last issue on my home-built pto-powered stump grinder, I've had calls from people wondering where I got the cutting teeth. I buy them out of the Bailey's Catalog (www.baileysonline.com; 800 322-4539). I've helped several people looking to build their own. It works great for me. ***(Steve Ferrante, 4342 Whitehouse Trail, Gaylord, Mich. 49735 ph 989 732-7924)***

In regard to your article in the last issue about curing arthritis with bee stings – don't do it! Some people don't know they're allergic to bee stings and they might have a fatal reaction. I personally know someone who narrowly averted such a tragedy. Better to follow your doctor's orders. ***(Louise Watts, Burns, Oregon)***

My neighbor had a calf born with no hair a couple months ago and it's doing well. They put a homemade coat on the calf to keep it warm. It's very unusual looking. Has anyone heard of this before? My neighbor doesn't want his name used. ***(Gerald Howell, Waynesville, N.C. gerald1936@cbvnol.com; ph 828 926-1789)***

We hang a key from a chain next to our front door. It's hidden behind a vine so we thought it was a pretty good idea. After a time, we noticed that the vine had grown its way into the chain. We left it attached and now you'd never see the chain if you didn't know it was there. ***(Name withheld by request)***

My pickup step slips into a 2-in. receiver hitch and can be used with a ball hitch. By pulling a pair of spring-loaded pins, you can swing both steps back to provide an extended step whenever the tailgate is open. No assembly or drilling is required.

I came up with this invention because

pickups have gotten so high off the ground, that you almost need a step stool just to get into the pickup bed.

Sells for $189 plus S&H. It's manufactured by Tebben Enterprises, Inc., 10009 Hwy. 7 S.E., Clara City, Minn. 56222 ph 320 847-2200; www.tebben.us. ***(Harold Fratzke, 234 Shoreview Drive, Cottonwood, Minn. 56229 ph 507 423-6341)***

I made my own "trucktor" using the back end off a 1947 International Harvester M tractor and the front end and cab off a 1963 Ford pickup. Power is supplied by a 428 cu. in. engine out of a 1963 Ford Thunderbird car. The Thunderbird's 4-

speed transmission is hooked up to the tractor's 5-speed transmission for a total of 20 gears. It'll go 35 mph on the highway and as slow as 1 1/10 mph.

The rig has power steering and the Ford's disc brakes. I had a new driveshaft made for the pickup which connects directly to the tractor driveshaft. The pickup's front axle was upside down. I installed a 4 1/2-in. dia. steel tube on top of the axle and bolted a leaf spring onto it. That raised the pickup body about 3 ft. off the ground, so that the engine, driveshaft and transmission were all in line.

This rig has a lot of traction and will go through snow and mud like you wouldn't believe. I plan to mount an 8-ft. dozer blade on front and use the hydraulics of f a Versatile swather to operate it. A beer keg serves as the gas tank. ***(Dwight Keller, 12401 198th St. N.W., Berthold, N. Dak. 58718 ph 701 468-5525)***

A friend of mine operates a commercial ice fishing business. During winter some of his ice fishing holes are located sev-

eral miles apart. To warm up our hands I built this snowmobile-pulled sled that serves as a "portable fireplace" as we journey from one hole to the next.

The 6-ft. long, 1 1/2-ft. wide sled is built from 1-in. steel tubing and rides on plastic runners made from white puckboard. The sled has a metal firewood storage box on front and a washing machine tub on back that serves as a fireplace. By placing a grille over the tub we can even roast hot dogs while fishing. The sled's spring-loaded hitch pin helps absorb shocks as it's pulled over rough ice. ***(Jake Wolfe, P. O. Box 365, La Crete, Alberta, Canada T0H 2H0 ph 780 926-6191; wolfeman@telus.net)***

My husband likes to make stuff out of old horseshoes. To make bookends, he welds two horseshoes together at a right angle and then spray paints them. To make a bridle hook or coat hanger, he cuts a horseshoe in half and welds it on front of a complete horseshoe. You can hang whatever you want from it. To make a door knocker, he welds the open end of two horseshoes to a door hinge and then welds a nail onto the bottom end. Other ideas can be found on our blog site. ***(Dora Renee Wilkerson, bricore@roadrunner.com; blog: bricoreandfamily.blogspot.com)***

I built this 1/48-scale battery-powered, working model of a Marion 5561, 45 cu. yard electric-powered shovel. Big Doug, as I call it, measures 36 in. high and weighs 28 lbs.

The machine moves by means of its tracks, which are turned by friction from small wheels. The motors and primary gears are out of battery-powered toys. The bucket swivels just like the real thing.

The track pads are made out of oak and are held together with pieces of copper wire. The main gear reductions for moving the machine are made from guitar string tighteners. The universal joints are made out of 1/4-in. copper tubing.

The machine's center pin is made from a 1/2-in. bolt, with a hole drilled through the length of it to allow for electric wires to enter the revolving frame. Mounted on this center pin is a stack of pieces of 3/4 by 1/4-in. dia. copper rings with plastic washers in between. The rings are wired to a wire that goes down through the center pin. Beside the stack of rings is a post that turns with the house. The post is equipped with a bobby pin for each of the rings. The bobby pins brush on the rings, transferring power from the wires to the different motors and allowing the house to revolve without tangling the wires.

The hoisting motor is out of a battery-powered drill. The hoisting gears are out of an erector set and a big gear out of a clock. ***(Glenn Dawson, 398 E. Fred Mummey Rd. N.E., McConnelsville, Ohio 43756 ph 740 962-5463)***

I like the heated cast aluminum seat on my Allis Chalmers WD 45 tractor, which doesn't have a cab. My dad bought the seat about 40 years ago. A hose runs back from the tractor's radiator to heat the seat. A valve is used to adjust coolant flow, which controls the temperature.

At one time we had a similar heated seat on our Massey Harris 101 Senior tractor and also on our Allis Chalmers WC tractor. I don't know the brand name. Does anyone still make heated tractor seats like these? ***(Jerry Lee, 20597 Hwy. D41, Iowa Falls, Iowa 50126 (ph 515 855-4282)***