

Rockmount Research & Alloys, Inc., Box 2909, Vancouver, Wash. 98668 ph 206 254-2020): "We've come up with a way to remove broken bolts and studs quickly and easily without using special equipment. The stud extraction procedure requires our Brutus electrode, a nut, and a washer. The Brutus electrode has a non-conductive coating that eliminates side arcing. It can be used on tool steel, stainless steel and hardend steel.

"You center the electrode rod in the hole and strike the arc on the broken stud. Maintain a very close arc with the rod contacting the center of the weld puddle. For horizontal situations strike and hold the arc slightly above center, without using a circular or weave technique. Allow the weld deposit to build up slowly to form a 'nub' just below the housing surface. The slag will flow to the sides, protecting the side walls.

"Allow the buildup deposit to cool, then chip the slag off the top 'nub' of the weldment. Select a flat washer that's smaller than the stud hole and place it over the hole. Place a nut on the washer and continue buildup into the nut. After weldment is built up above the hole surface, angle the electrode slightly to weld the nut and washer to the weldment.

"Allow the assembly to air cool. Using a hand wrench, you can now back out the nut and broken stud."

Larry Johnson, Colo, Iowa: "When I harvest my crops I sometimes have to travel

up to 30 miles from home. Instead of driving the combine home every night, I keep it in the field overnight and use a 120-gal. diesel fuel barrel, mounted on a trailer, to refuel it. Using a trailer keeps the mess of diesel fuel


out of the pickup, and leaves the pickup free for other jobs. A chain and binder secures the barrel to the floor. I mounted a 12-volt electric fuel pump on the barrel and use alligator clips to hook it up to the battery in my pickup or combine."

Robert Crampton, Staples, Minn.: "I have three public roads going by my farm and often have trouble with hunters who trespass on posted land and scare my cattle. Some have even turned their dogs loose on my farm which drives the cattle away. One time I was



driving around my farm and saw some guys with a dog kennel on back of their pickup. They said they were hunting for coyotes and that they would shoot them without walking on my land. However, I have trouble with gophers so I don't want the coyotes killed. There have been confrontations, and one time I even had someone pull a gun on me. Most of the time I'm alone so if I do complain to the sheriff it's my word against the word of two or three hunters.

"That's when I came up with the idea of using a telescoping video camera as a witness. I mounted the camera on a tripod on an old refrigerator tray on the passenger side of my pickup seat. I plug the camera into the pickup's cigarette lighter. The camera zooms in and can also be swiveled up or down. Now I can videotape any problem situations to show the sheriff as proof."



Money-Saving Repairs & Maintenance Shortcuts

Have you come up with any unusual money saving repair methods for fixing farm equipment? What maintenance shortcuts have you found? Have you had any equipment recalled by the factory? Name a particularly tough mechanical problem you've had with a piece of farm equipment and how you solved it.

These are a few of the questions we asked randomly selected FARM SHOW readers. If you have a repair tip, maintenance shortcut, or other mechanical experience you'd like to share, send details to: FARM SHOW, P.O. Box 1029, Lakeville, Minn. 55044.

Mark Newhall, Editor

"Here's another idea; To keep mice from entering my buildings in the fall, I buy chunks



of mouse bait in 1-gal. pails from a local store. I cut a 1-in. dia. hole in the side of the pail where mice can enter and eat the bait. The pails are sold with four or five chunks of bait in them. I usually keep three chunks in each pail and put the rest of the chunks in 1-gal. ice cream pails which I also cut holes into. I have a half dozen of the pails around my house and also inside my barn and shed. Buying bait in volume this way is much less expensive than using cardboard bait boxes and the pails keep bait safe from pets and kids. A brick placed on top of each pail keeps the wind from blowing them around."

Ben Larison, Mondamin, Iowa: "The engine on my 20-year-old International small square baler was originally designed to be started by hand cranking it. I made a self-starter for the engine by drilling a flywheel ring off a Chevrolet automatic transmission and bolting it to the engine's belt drive pulley, then making a bracket to mount a 12-volt AC starter off an old Chevy car. The starter turns the flywheel ring which cranks the engine."

Ryan Feige, Astoria, S. Dak.: "Two years ago I bought a Deere 4010 tractor equipped with a bad diesel engine for \$2,500. The 6-cyl. engine had about 10,000 hours, used oil, and also needed head and injector work. I replaced it with a 6-cyl. turbocharged diesel out of a Deere 7700 combine. It was equipped with a big Bosch fuel injection pump and a water pump that's bigger than the one on the original 4010 engine (older 7700s were equipped with a smaller Rosamaster injection pump and a smaller water pump just like

on 4010s).

"To overhaul the original engine would've cost \$3,000 to \$3,500. It had 380 cu. in. and wasn't turbocharged. The new engine has 404 cu. in. and is turbocharged, giving it 140 hp compared to 80 before. There's no visual difference but the tractor has a lot more power. Also, the new engine has only about 3,500 hours so it's almost like starting out with a new engine. I paid \$2,100 for the engine. I'd do the same thing again without hesitating.

"I borrowed the frame rails from a Deere 4320 tractor to make room for the fan on the new engine's water pump. I had to lengthen the hood 4 in. so that the turbocharger would fit and also put in a new clutch and bell housing. The bell housing bolted right up."

Patrick Mahoney, Singerman Laboratories, Murrysville, Penn.: "We're a distributor for an amazing new corn oil-based hand cleaner that can be used with or without water. SavvySoap really cleans great. It



can remove ink, grease, and paint and works better than toxic chemicals. You simply rub it into your skin and wipe it off with a cloth if water isn't available. The product contains lanolin so it doesn't crack the hands or smell bad. It's totally biodegradable and, because it's corn oil-based, it doesn't create hazardous waste or water pollution.

"SavvySoap comes in a 1-gal. flat top container equipped with a pump. Sells for \$17.95 per gal. A steel wall rack for the 1-gal. size sells for \$7. Other sizes are also available."

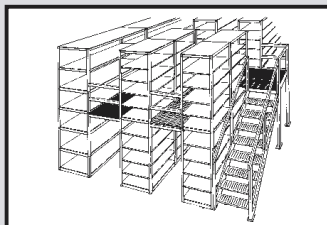
Contact: FARM SHOW Followup, Patrick Mahoney, Singerman Laboratories, 4091 Saltsburg Road, Murrysville, Penn. 15668 ph 800 798-7986; fax 412 798-0450.

Heavy Duty, Adjustable, Two-Story Shelving

You can take advantage of all the available space in your shop with this 2 or 3-story storage system that eliminates the need to build structural floors. It uses heavy rivet-style shelving that you assemble with a hammer.

"These shelves are very versatile as you simply buy beams and posts. Beams come in lengths starting at 12 in. and go up to 48 in. in 6-in. increments, and 48 to 96 in. in 12-in. increments. Makes it possible to build a variety of shelf sizes from 12 by 12 in. up to 48 by 96 in. and build them 2 to 28 ft. tall with shelf levels adjustable on 1 1/2-in. centers. There are bolt-on walkways available for these 2 and 3-story systems, which makes it much safer to access the high shelves because you don't have to work from a ladder.

"The shelves provide a lot of storage space while taking up little area because they take up dead air space that would normally be lost above 7 or 8 ft. high shelves," says John Ward, St. Anthony, Iowa.



Standard units hold 350 lbs. per shelf; heavy units can hold up to 2,000 lbs. per shelf on 4-ft. wide spans.

The shelving system comes with a baked-on enamel finish. Galvanized or zinc plated finish is also available.

A standard shelving system that's that's 4 ft. long, 2 ft. deep, and 7 ft. high with 5 shelves sells for about \$87 (plywood or wire decking not supplied).

Contact: FARM SHOW Followup, Ward Enterprises, 1223 170th St., St. Anthony, Iowa 50239 (ph 800 947-7929 or 515 477-8334; fax 8326).