## Money-Saving Repairs & Maintenance Shortcuts

## **Kit Tightens Seed Boots On Deere Drills**

If poor stands are affecting yields in fields planted with Deere no-till drills, www. jddrillfix.com may have the answer. The company makes and markets repair kits that let you tighten up loose seed boot mounts.

Over time, bolt holes in the cast iron mounts can wear from round to egg-shaped. Resulting excess play affects seed placement.

Jddrillfix.com was started by a group of North Carolina farmers who noticed their Deere 750 drills were no longer producing desired stands. The cause was worn mounts and loose boots, so they bored out the worn holes and installed bushings that fit the new holes. The bushing's inside diameter matches the boot mounting bolts.

When neighbors heard about the repair, demand built, and the company was born. Repair kits and bushings have now been sold worldwide for all models of Deere single opener seed drills.

According to jddrillfix.com, "We've not found a Deere drill that could not be repaired

using our technique."

Available direct from jddrillfix.com, the kit includes drill bits and a drill fixture that gets installed between the ears of the cast mount. The kit also includes a driver for placing bushings as well as a hole hog, a fluted device for use with extra-worn holes. It is used to reduce burrs at the start and end of the drilling.

The company emphasizes the care needed when drilling cast iron. Mistakes can result in the need to replace the entire arm. Instructions advise the use of a lower power drill with a clutch as bits have a tendency to catch and snag.

Repair kits are priced at \$295 with individual bushings priced at \$12.50 each. They fit Deere 50 and 60/90 series drills.

Contact: FARM SHOW Followup, jddrillfix.com, 865 Swamp Rd., Hertford, N.C. 27944 (ph 252 426-9676; sales@jddrillfix.com; www.jddrillfix.com).





Kit lets you tighten loose seed boot mounts on Deere no-till drills. It includes drill bits and a drill fixture that installs between cast mount ears (above). Worn bolt holes are bored out and new bushings installed.

## Vintage Small Engine Parts Specialist

Small engine owners ordering parts from iSaveTractors know they are getting well-tested products. Company owner Norman Ng has used every product he sells in his own vintage small engines. He has more than 50 engines that he has rebuilt. Some power the collection of garden tractors he uses on his 8 acres.

"We use our machines daily in every weather condition, 365 days a year," says Ng. "Tested products have been worked hard."

He has restored about 15 garden tractors for his own collection and about 10 for customers. As the parts business has grown, the restoration sideline has been set aside.

iSaveTractors was started when Ng couldn't find parts for his first garden tractor restoration about 4 years ago. His then 2-year old son Lucas was born deaf and had just received cochlear implants.

"The restoration was a way to work with him to help him understand language," says Ng. "Some of his first words were engine part names."

He reports the project worked, and no one would know his son was born deaf from the way he talks. The project also opened Ng up to the frustrations of not finding parts for small Kohler engines. He began using his computer skills to reverse engineer and design hard-to-find parts and then find parts

makers. Soon he was selling to other Kohler collectors and users.

"We are now shipping around 500 parts a month and expanding with a new office and parts warehouse," says Ng. "We ship throughout the U.S. and Canada, as well as to South Africa, Australia, the United Kingdom and more."

In addition to individual parts, he also assembles kits, such as a bundle pack to restore carburetor systems and an ignition pack.

"A new enthusiast may not know what all to replace, so we give them all the parts needed," explains Ng.

While he started with Kohler engines, he is now offering parts for older Wisconsin, Tecumseh, and Briggs & Strattons, some dating back to the 1950's. Eventually he hopes to have parts for engines going back to the 1920's and 30's.

"We are committed to bringing rare parts back to the market," says Ng. "Every month we are reverse engineering and prototyping new parts. We've carried about 150 parts and just added another 100 this past month."

Several things make iSaveTractors unique. One is the on-farm testing of every product added to the list. Another is Ng's projects that show up on You Tube. Many are very basic for less experienced mechanics.



Photo shows iSaveTractors, rebuild kit designed for a Kohler K engine.

"We did a multi-part series of videos on the transformation of an ordinary Cub Cadet 149 into a tractor loader/backhoe dually," says Ng. "We covered everything from where we got the plans to how we did it, the entire build process."

Ng's website is loaded with how-to information from links to videos to articles explaining the anatomy of an ignition coil.

"In addition to developing parts, our mission is to also spread quality and easyto-understand information relating to engine and tractor technology," says Ng.

As he expands the list of products he carries, Ng has need for more engines, not only for reverse engineering parts, but also for testing parts. "We are always looking for old engines," he says. "The more rare, the better."

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## Valve Maintenance Made Easier

Ken Burtard of Therasa, Wis., recently sent FARM SHOW photos of a method he uses to put valves back into engine blocks.

"I buy a lot of used equipment at auctions and rummage sales, including machines equipped with air-cooled motors," says Burtard. "Quite often the valves lack compression so I have to fix them, but putting valves back into an air-cooled motor is quite a job. You have to hold the valve down with one hand and use your other hand with a screwdriver to try to put the springs and retainers back on, without much room to maneuver."

He says that before he rebuilds valves he first takes the motor apart to see if the pistons can move up or down. "Often when I do this I'll see there's no clearance between the tappet and valve, so I remove the valve and grind a little off the end to increase the valve clearance anywhere from .015 to .025.

"As long as I've got the valves out I clean them on a wire wheel. I use a dremel cut-off wheel to grind a notch part way down into the center of the valve head. Then I use my 1/4-in. variable speed drill with a straight blade screwdriver to turn the valves to mate the valve end seats. I put a little coarse valve grinding compound on the valve faces. I then repeat the process but use a grinding compound with a finer grit.

"A few years ago I came up with a way to make the job easier. I drill a hole into one end of a short metal bar and insert a short 5/16-in. head bolt into the block. I notch out the other end of the bar to allow some play for various head bolt patterns on different motors. The bar goes across the valves to keep them from popping up as I put the springs and retainers back on

"An even easier method is to place a large fender washer or 2 under a short bolt so that



Short metal bar goes across valves to keep them from popping up as Burtard puts the springs and retainers back on.

the washer extends across the valves.

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