Money-Saving Repairs & Maintenance Shortcuts

How To Clean Greasy Air Filters

"My Bobcat has a couple air filters on it that cost \$26 to \$27 apiece and when I'm on a job, I can go through a set or more in a week. I don't like throwing them away but when they get greasy, you can't clean them with compressed air. So I came up with a different way," says Lee Tolliver, Tok, Alaska.

"My method works on all kinds of air filters, whether they're paper or foam, or a combination of both. What I do is to spray a can of starter fluid all over the filter, inside and out. Then I soak the filter in a small tub of water with Purple Power Degreaser cleaner added. The filter should be submerged in water and left there overnight.

"The next day I shake it out, rinse it, and put it back into clean degreaser water. The next day, when I take it out, I rinse it off and then use compressed air on it, blowing from the inside out.

"Once it dries, it'll be as good as new. The savings add up. I buy starter fluid by the case when it's on sale. And Purple Power Degreaser sells at Walmart for \$4 a gallon.

"Another use I have for starter fluid is to clean my chainsaws. A friend showed me this trick. Just sprav about half a can of starter



Tolliver's method for cleaning greasy air filters on his Bobcat involves using Purple Power Degreaser.

fluid onto the sprocket and chain and up under the housing, soaking it heavily. Then just start up the saw right away and watch the grease and dirt go flying. I use this idea to clean all my chainsaws and it works great." Contact: FARM SHOW Followup, Lee Tolliver, P.O. Box 244, Tok, Alaska 99780.

Bearing Repair Solved Factory Defect On Toyota Pickup

A lot of people would never think to look for a solution like the one Roger Jones came up with for his Toyota pickup. "It probably saved me several hundred dollars in repair work," says Jones.

Back in the mid 1980's Jones had a problem with the 3-speed transmission on his 1982 Toyota 1/2-ton diesel pickup that turned out to be a factory defect.

"At about 16,000 miles the top sealed bearing on the transmission's main driveshaft failed and the company promptly replaced it," says Jones. "Then at 32,000 miles the same bearing failed again. However, the 30,000-mile warranty had expired so the company refused to fix it. I told them the new bearing had only 16,000 miles on it, but they wouldn't help."

Jones didn't want to pay the dealer to make the repair, so he and his hired man took the transmission apart and removed the bearing themselves. "At first we were going to drill a small hole in the transmission case so that oil could get to the bearing," says Jones. "But after studying the problem we discovered that it was a sealed bearing that had been installed backward, with the sealed side next to the oil instead of on the outside where it was supposed to be.

"Apparently the bearing was installed backward at the factory, and the mechanic who replaced the first bearing installed it the same way."

He turned the bearing around, which solved the problem. In fact, he was able to drive the pickup another 100,000 miles without another problem.

"It wasn't a big job to tear the transmission apart because this was a simple, small 3-speed transmission. But on today's new cars and pickups such a repair would be a major operation," notes Jones.

Contact: FARM SHOW Followup, Roger Jones, 3468 Rt. 8, Johnsburg, N.Y. 12843 (ph 518 251-3713).



Schmidt's standard flatbed includes a steel floor, custom headache rack, 4 under-thebed toolboxes, LED lights in the window, and a rear bumper.

He Custom Builds Pickup Flatbeds

Jim Schmidt, Western Welding, Cordell, Okla., has a full-time business custom building flatbeds for pickups from scratch – and he can't keep up with the demand.

"Anything that can be put on back of a pickup, I can put on a flatbed," says Schmidt. "I've been in business for 15 years and have been up to six months behind on orders. People know they're getting quality work when they do business with me.

"About 95 percent of my customers run cow-calf operations and want me to install bale spike beds for hauling bales. The bale spike is operated by an electric/hydraulic pump."

His standard flatbed includes a steel floor (a Vortex bedliner is optional), a custom-built headache rack, 4 "under-the-bed" toolboxes (2 on each side), LED lights located on the cab window and the rear bumper, and a bale spear with hydraulic pump. A factory backup camera and backup alarm can be re-installed in the bed.

He builds 2 different styles of headache racks, one of which is equipped with a builtin fuel tank. The headache rack's top corners can be dressed up with decorative 1 1/4-in. schedule 40 pipe.

To go with the flatbed, Schmidt also builds a low profile toolbox. It measures 48 in. long by 15 in. wide and stands only 9 in. high, thanks to a fold-out tray at the top. The toolbox has notched holders for standard and metric end wrenches; socket holders for standard and metric shallow and deep 1/2 and 3/8-in. drive sockets; and a magnetic strip for ratchets. There's also a place for 24 and 36-in. prybars underneath the tray.



Schmidt can also fit flatbeds with low-profile toolboxes that open on the bed of the truck but don't interfere with goosenecks.



Bale spears are powered by electric-driven hydraulic pumps.

"The low profile keeps the toolboxes from interfering with your gooseneck trailer when turning," says Schmidt.

Single rear wheel flatbeds sell for \$5,999 and dual rear wheel flatbeds for \$6,199. The headache rack fuel tank sells for \$800, and "The Toolbox" for \$700.

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Giant Press Has Rolling Cylinders

Clair Wilson makes pressing big steel pieces look easy with his double carriage, dual cylinder with independent action, chest-high press. Overbuilt doesn't begin to describe the "ship-channel" construction of the press at his Wilson Seedtime and Harvest shop.

"A friend of mine had a machine shipped in from England on pieces of 15-in. channel iron with a 5/8-in. web called ship channel," says Wilson. "I used it for the top of the press and the table frame. The web isn't tapered like other channel iron, making it ideal for mounting carriages for the cylinders."

The legs of the press are also substantial. Wilson salvaged the 6-in. channel iron with its 5/8-in. web from rafters in a state hospital that a friend was tearing down.

The 40-in. wide by 56-in. long table was salvaged from a commercial milling machine. The top level of the table is 3 in. of steel with 8 slots running its length. A second 3-in. steel layer is bolted beneath.

"The slots are ideal for (hold-down) dogs," says Wilson. "With their bolt-on heads, I can slide them into position and tighten down on the work piece."

He didn't salvage the hydraulic cylinders. Those he bought new before cutting off their brackets. The base of each 4-in. cylinder with its 2-in. ram and 18-in. reach is welded to a flat steel plate. The plate sits on the bottom flanges of a carriage with wheels. The wheels allow it to roll back and forth within a second larger carriage, also with wheels. The larger carriage rides on the lower flange of the ship channel at the top of the press.

"I can move a ram anywhere on the table with one carriage moving one way and the other carriage moving the other way," says Wilson. "With independent hydraulic pressure on each cylinder, I can put more or less pressure on either one."

When the ram is extended, the cylinder plate lifts off the bottom flange of the carriage to press against the top flange of the inner carriage. It in turn pushes against the top flange of the larger carriage, eventually pushing it against the top flange of the ship channel.

"It is great for taking bends out of a piece of steel," says Wilson. "I took a snout from an older corn picker that was all doubled over. You couldn't beat the bends out, but I could push down on one corner and pry with the other cylinder and push bends out."

As heavy-duty and versatile as the press is, it is also handy for Wilson to operate. Rollers allow him to move it as needed, and visibility is excellent.

"I built it chest high so I don't have to lean in to see," says Wilson.

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The big cylinders on Wilson's giant press move back and forth freely to adjust to the job.