

# Made It Myself

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## Furnace Blowers Make Low-Cost Bin Dryers

"I'm tickled pink with them," says Canadian farmer Otto Kneller, of Castor, Alb., who "saved a bundle" by equipping each of two 2,500 bu. steel bins with drying fans made from old forced air furnace blowers.

Both bins are hopper-bottomed. Otto ran a tube (16 in. dia. perforated) horizontally at ground level into each bin, then mounted a used furnace blower at the input end.

"The clearance between the fan blade and the cutoff plate was about 1.5 in. However, the static pressure I required couldn't be generated so I moved the cutoff plate on each unit until there was only 1/8-in. of clearance," explains Otto.

Inventor notes that the

centrifugal-type furnace fans build up much more static pressure than axial fans, which is a big advantage, especially in wet grain. He equipped the fans with 1 1/2 hp electric motors (3,450 rpms), then used pulleys to reduce gear speed of the belt-driven blowers to 1,500 rpms. "Don't try to run them any faster or they'll blow up," he warns.

Last September, in one of the blower-equipped bins, Otto dried 1,800 bu. of 17.2% moisture oats to 14.5% in five days.

For more information, contact: FARM SHOW Followup, Otto Kneller, P.O. Box 263, Castor, Alb., Can. TOC OXO (ph 403 882-2382).

## Remanufactured Cams Boost Mileage 50%

Installing a remanufactured camshaft and a set of 16:1 compression pistons can boost mileage up to 50% on many vehicles, according to a Utah inventor who's already converted 11 vehicles.

The idea is to rework your cam so that it leaves the intake valve open halfway through the compression stroke and begins opening the exhaust valve at 30° before bottom dead center on the power stroke. This lets the gasoline engine expand the burning air-fuel mixture 16 times instead of the usual eight, greatly boosting gas mileage. You wind up with 8:1 compression but 16:1 expansion, explains Mike Brown, Draper, Utah. He's used the method on a 1972 Chevrolet pickup with a 400 cu. in. engine to increase

mileage from 10 mpg around town and 14 on the highway, to 20 around town and 24 on the highway. He has also converted 10 Volkswagen engines and has seen them go from 24 to 42 mpg.

"It reduces wear because of the increased expansion and the engine runs cooler. On the downside, you lose a little low-end torque," Brown explains.

He's selling remanufactured cams and he gets the required pistons from an auto parts firm in California. He's in the process of setting up seminars to teach farmers and mechanics to do the rework process themselves. Conversion cost is about \$700.

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## Pipe Bender, Crimper

Winner of a top "Farm Invention of the Year" award was this pipe cutter and crimper, invented by Greg Vonthien. Resembling a log splitter, it's equipped with a hydraulic cylinder and special die which allows it to cut and crimp (for making strong welds) pipe up to 1 1/2 in. in dia. at most any desired angle.

"It's a must for every livestock producer who builds yard

fences and handling-sorting corrals out of used pipe," says Greg, shown holding a sample of the various cuts and crimps the invention makes. Greg plans to manufacture and market it commercially. The go-anywhere machine can handle pipe of any length and is expected to retail for about \$200.

Contact: FARM SHOW Followup, Greg Vonthien, Walbundrie, NSW, Australia.



## "Truckbine" Big Bale Handler

"I wanted something that would get through snow and over rough terrain. I don't own a tractor with a cab," says J.C. Long, Warrensburg, Mo., who fitted an old 1 1/2-ton Chevrolet truck with big 14 by 26 combine tires and a bale spear. "It'll go anywhere my 450 IH tractor will go. It's great to ride in a heated cab when feeding cattle on a winter day."

Long took the original duals off the truck, removed the tires and then welded the truck rims into the center of combine wheel rims. He then mounted the oversize wheels and put 8-in. metal blocks between the front axle and spring to level the truck. The final step was to

make a bale stabber and mount it at the back of the truck along with a heavy-duty electric winch on the frame behind the cab.

"I've used this truck for two years and have never been stuck, although I've decided to mount a second transmission behind the original to give me greater variation of ground speed," says Long, who says he might also add a bale unroller.

Total cost of the "truckbine" was \$500, including the cost of the winch.

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