

COMPRESSED AIR USED TO CLEAN IT OUT

Reusable Oil Filter

"Our new reusable spin-on oil filter is cleaned with compressed air while it's still on the engine and can be reused up to 10 times before you have to replace it. What's more, it cleans oil better than conventional filters, extending oil life up to 200 percent," says Bob Ring, Nelson Industries, Stoughton, Wis.

The first-of-its-kind filter is designed to hook up to any shop air compressor. There's a quick-tach air fitting on bottom and a drain port.

To clean the filter you hook up an air hose and attach a plastic hose to the drain port. Then you apply air pressure until the flow of oil stops. The air reverses the flow of oil through the filter, purging it of all contaminants.

"It virtually eliminates the mess of changing oil and the problem of disposing of spin-on filters," says Ring. "The filter contains a high efficiency, synthetic pleated media that cleans oil very efficiently. It saves you money because you don't have to replace the filter every time you change oil. And, you don't have to change oil as often. There are other cleanable filters on the market, but with most of them you have to take a cartridge out of the housing and pressure wash it, then blow it out and put it back into the filter.

"It takes only three minutes or less to clean the filter. Anywhere from 50 to 150 psi



Filter can be reused 10 times before replacing and extends oil life up to 200 percent.

is required to blow all the oil out of the filter. The kit comes with an electronic change indicator that mounts in the cab and automatically signals the operator when the filter needs to be changed."

"It costs more than a conventional oil filter but saves money in the long run. Our goal is a 1-year payback."

Contact: FARM SHOW Followup, Nelson Industries, Box 428, Stoughton, Wis. 53589 (ph 800 356-6606 or 608 873-4200).

"Touchless" Sensor For Grain Dryers, Livestock Feeding Systems

As a farmer and part-time electrical contractor, Mike Perry, Henderson, Neb., found over the years that mechanical sensing switches used in grain drying and conveying systems often weren't reliable. Dust and variations in grain moisture content often caused them to fail.

To solve the problem he came up with his own "touchless sensor" that can sense both metallic and non-metallic objects without actually touching the object it senses.

"The Eye", as Perry calls it, uses a plastic capacitive proximity switch, mounted inside a PVC enclosure, to sense objects up to 1/2 in. away. The switch senses the capacitance of air around it and is activated whenever an object gets in its "zone". The switch is used to control relays that in turn control other loads such as auger motors or burners on grain dryers.

The sensor is designed to be hooked up to a small relay so that two circuits may be controlled if desired. A bypass switch is used to switch between manual and automatic modes of operation.

"The key is that it doesn't have to be physically touched in order to work. It'll take the abuse of dust and dirt," says Perry. "Because it's a 'touchless' switch it doesn't have any moving parts outside the control box that could cause the switch to 'hang up' and leave equipment running when it should have been shut down. Both the sensor and control box are made from plastic so corrosion won't ever be a problem. Best of all it'll save time and money because you won't have to babysit your grain dryer in the middle of the night. When the bin gets empty it'll automatically shut off augers, burners, grain conveyors, etc., until you can get there. By mounting it in the top ring of a storage bin you can use it to



"The Eye" can sense both metallic and non-metallic objects up to 1/2 in. away without actually touching them.

automatically shut off or turn on roof augers when the bin gets full. Prevents spills from over-filling.

"The sensor can also be used on a grain pit to automatically shut down the auger and/or elevator leg when the pit is empty. You can use it with a time delay to let the elevator leg and/or auger continue to run until they have time to empty out. You just dump the load and go.

"The sensor can also be used to shut off and/or turn on livestock feed conveying systems when feeders are full or when bulk bins are empty."

Six different time delay models are available, ranging up to 30 minutes.

A standard sensor including PVC enclosure, switch, bypass switch, and double pole relay sells for \$230.

Contact: FARM SHOW Followup, Mike Perry, T & M Electric, RR 1, Box 74A, Henderson, Neb. 68371 (ph 402 724-2351; E-mail: mp04709@navix.net).

Big Stationary 3-Phase Welder Converted To Mount On Tractor 3-pt.

Melvin Carlson, Buffalo, Kan., converted a big stationary 3-phase, 475-amp Lincoln industrial welder into a portable unit by mounting it on his tractor 3-pt. and using the tractor pto to power it.

He mounted the welder, as well as a 5-speed truck transmission, on an old truck frame and built a 3-pt. mounting bracket on front of it. The tractor's 1,000 rpm pto drives the transmission, which faces backward in order to speed up the rpm's to 1,850. The transmission, in turn, shaft drives the welder

"I carry it on my Case-IH 160 hp tractor and use it to weld corrals, fences, field implements, etc.," says Carlson. "I run the truck transmission in first gear so I can run the tractor at idle and still have enough power to operate the welder. The welder has a lot of capacity. In fact, I can use a 1/4-in. dia. welding rod at 300 amps.

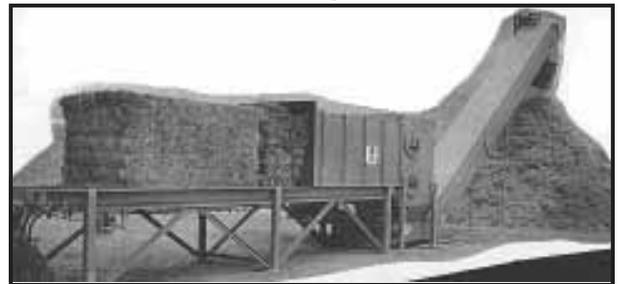
"I bought the welder, which was probably made in the 1940's, cheap at an auction. The truck transmission has a 5 to 1 ratio which brings the tractor pto up to the right speed to operate the welder without damag-



Carlson's big welder comes in handy for fixing corrals, fences, field implements, etc. A combine's final drive could also be used to speed up the pto's."

To connect the transmission to the welder, Carlson removed a nut that was already on a shaft that secured the fan to the welder, then welded the nut to a U-joint on the transmission. He then screwed the nut and U-joint combination to the shaft and spot welded it in place so that it can't come loose.

Contact: FARM SHOW Followup, Melvin Carlson, Box 66, Buffalo, Kan. 66717 (ph 316 537-6590).



Bale grinder is designed to grind 4 by 4 by 8-ft. bales at capacities of up to 60 tons per hour with a minimum of dust.

High Capacity, "No-Dust" Big Bale Grinder

"It offers the efficiency of a hammermill but is much easier to use with a lot less dust," says Scott Denney, Warren & Baerg Mfg., Dinuba, Calif., about his company's new high capacity big bale stationary grinder that's designed to grind 4 by 4 by 8-ft. bales at capacities of up to 60 tons per hour.

The standard unit consists of a 24-ft. long conveyor, a grinder equipped with a pair of 50-in. wide cylinders fitted with 88 flail-type hammers, and a 30-ft. long enclosed "takeaway" conveyor. Each hay-grinding cylinder is powered by an electric motor that ranges from 50 to 200 hp, depending on desired capacity. Standard screen sizes are 1 to 6 in. Sizes as small as 1/8 in. are available

for feeding hay to pellet mills.

The bale feed conveyor is powered by a 1 or 2 hp electric motor depending on length, and the takeaway conveyor by a 5 hp electric motor.

The complete unit sells for \$75,000 to \$90,000, depending on specifications.

Models are available for smaller big square bales. The company also offers a grinder for round bales and plans to offer a grinder for lower tonnages.

Contact: FARM SHOW Followup, Warren & Baerg Mfg., Inc., 39950 Road 108, Dinuba, Calif. 93618 (ph 800 344-2131 or 209 591-6790; fax 5728).

Some of the best new ideas we hear about are "made it myself" inventions born in farmers' workshops. If you've got a new idea or favorite gadget you're proud of, we'd like to hear about it. Send along a photo or two, and a description of what it is and how it works. Is it being manufactured commercially? If so where can interested farmers buy it? Are you looking for manufacturers, dealers or distributors? Send to FARM SHOW, P.O. Box 1029, Lakeville, Minn. 55044 or call toll-free 800 834-9665.

Mark Newhall, Editor

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