

Combine grain cleaner mounts on top of building, upper right in photo, cleaning 2,000 bu. per hour straight from the field. It feeds grain to two dryers in building below.

SPEEDS UP HARVEST

Combine Converted Into Stationary Grain Cleaner

"Junked combines make great stationary grain cleaners," says Wilbur Lutz, Sinking Spring, Penn., who turned a burned-out 7700 Deere combine into a high capacity grain



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Printed in U.S.A. All rights reserved, including the right of reproduction, in whole or in part, without written permission. cleaner that lets him operate combines "wide open" in the field even on hillsides — and then run the somewhat "contaminated" harvested grain through the combine cleaner back at the farm.

Lutz found the burned-out combine at a salvage yard and took the whole back end of the machine home with him, leaving the cab, engine and header behind. He then removed one sieve in the machine and extended the grain pan under the remaining sieve. He installed an input auger just above the shoe area of the machine which distributes the grain evenly onto the sieve. He then enclosed the entire machine, especially the rear end where dust and dirt come out of the combine. All dirt and contaminents are jettisoned into an old hopper that keeps dust contained.

The big combine grain cleaner mounts on top of Lutz's grain cleaning — drying building. Grain is unloaded into a dump pit from the field and an elevator carries it up to the combine cleaner. It cleans the grain at a rate of over 2,000 bu. per hour and feeds it to one of two dryers



Adjustable distributor over the cleaning sieves ensures even flow of grain through the home-built high-capacity cleaner. Plexiglass viewing port helps keep an eye on operation.

in the building below.

"The biggest advantage of this combine grain cleaner is that it lets us operate more efficiently in the field. We're able to operate our two 8-row Deere combines wide open without worrying about doing a perfect cleaning job. This has reduced grain loss out the back of our combines to practically zero," says Lutz.

The combine grain cleaner primarily removes small rocks, dirt, cobs, and other bits of trash but it does not remove fines, which is exactly the way Lutz wanted it. After the cleaned grain has been dried, he runs it through a rotary cleaner to remove the now-dry fines, which he then feeds to livestock. "The system is efficient because we're not drying lots of dirt and trash, yet we get our fines dry for storage," he notes.

The "made it myself" combine grain cleaner is powered by a 5 hp. electric motor. Lutz looked for a Deere combine to build the cleaner because both of the family combines are made by Deere.

Lutz uses the grain cleaner primarily on corn and barley and says he installed a plexiglass viewing port so he can observe the inside operation. He's been using it for three years. "Some of my neighbors thought it was strange when I began working on it but they're really impressed when they see how well it works," says Lutz.

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Combine Grain Dryer (Continued from cover page)

tion off the engine, and about 50% of the heat lost in the exhaust gas. Hot air from the engine is first mixed with recirculated air from the grain tank before entering a heating coil where coolant heat is drained off. Heated air is pulled out of the heating coil chamber into a crossflow tube which conveys it to the bottom of the grain tank. Thermostatically controlled air valves control the flow of air and keep the engine from overheating.

According to Roger Chagnon, one of the engineers who worked on the project, the drying unit was designed to minimize interference with normal operations. It's positioned directly

over the storage tank. On the average, the on-the-go unit lowered grain moisture content about 1% during the time it was in the combine grain tank, and also raised the temperature of the grain which helped cut drying costs. It was used on both small grains and corn.

"We have received no commercial inquiries so far. Estimated cost of a commercial unit would be about \$4,000," says Chagnon.

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Harvest Ear Corn With Your Combine

(Continued from cover page)

"Norman died of cancer in July, 1985, but lived to see a prototype of his invention working in the field," says Ron Smith, co-owner of Kracl Implement, a large Deere dealership headquartered in O'Neil, which Norman headed prior to his death. Ron and his associates picked up where Norman left off in getting the new auger attachment for harvesting unhusked ear corn for high energy silage, perfected and readied for manufacturing and marketing.

"We mounted the prototype on a Deere 8820 equipped with a 6 row model 643 header. But it can easily be adapted to fit most self-propelled combines," Ron told FARM SHOW.

With the attachment in place, the header is moved two feet forward from its original factory-designed position. "You still retain complete control of the header in being able to raise and lower it. Neither it, nor the feeder house, has to be altered in any way to accept the auger attachment. It simply bolts in place and takes less than an hour to install or remove." Ron points out.

He adds that the attachment, equipped with 14 in. dia. augers, has "worked great" in handling the volume of ears snapped by a 6 row header in 185 bu. corn. "We think it will handle the output of even larger headers in high yielding, high moisture corn," notes Ron. "We have experienced some mechanical kernel damage to corn at the junction of the horizontal and vertical augers. However, all loose kernels, including damaged ones, move up the auger and into the wagon so they're not lost."

Retail cost is "in the \$5,000 to \$6,000 range," says Ron.

For more information, contact: FARM SHOW Followup, Ron Smith, Kracl Implement, West Hwy. 20, O'Neil, Neb. 68763 (ph 402 336-1800).



Operator still retains complete control over header even with bolt-on attachment in place between the header and combine.