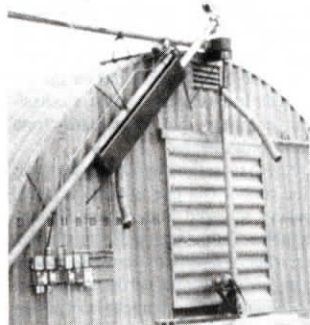


Auger-Mounted Grain Cleaner Has No Moving Parts

"My home-built grain cleaner has no moving parts and cost only \$200 to build not counting augers," says Gerald Ochsner, Sutton, Neb., who mounted a 9-ft. long, 12-in. wide grain cleaning screen on a 20-ft. long 6-in. dia. auger that feeds grain from his 580 bu. dump pit into a 50,000-bu. quonset building and three 15,000 bu. drying bins.

The cleaning screen, made of high carbon steel with 1/4-in. dia. openings, was designed to wash gravel in gravel mining pits. Ochsner bought it from a foundry that rebuilds gravel pit pumps. The 9-ft. long screen is enclosed within an open-top 10-ft. long steel frame that's attached to the bottom side of the upper end of the auger. The auger, which runs diagonally toward the top of the quonset, dumps grain onto the top end of the screen. Grain flows by gravity down over the length of the screen and the fines drop out through a flexible pipe and into a wagon. Clean grain is picked up at the bottom end of the screen by a second auger that delivers it to the top of the 19-ft. high quonset.

"I use in-bin natural air to dry my corn in layers," says Ochsner, who built the grain cleaner 14 years ago. "The cleaner the grain, the more efficiently it dries. My auger-mounted screen always delivers no. 1 or 2 grade corn with no dockage. Rotary cleaners cost up to \$3,000 and require cumbersome electric motors and augers. I wanted something permanent and simple without any moving parts. The 12-ga.



steel frame that encloses the screen keeps the wind from blowing fines across the yard so there's no mess to clean up afterward. I've already run 300,000 bu. of corn through the cleaner and I think it'll handle another 300,000 bu."

Ochsner paid \$10 per foot for the screen which he bought in a 36 in. wide roll and cut to a 12-in. width. He used metal staples to attach the screen to a 1-in. wood frame. The screen lays on top of 3 1/4-in. bolts set into the steel frame. "Several neighbors have copied my grain cleaner idea and use 18-in. wide screens that handle up to 3,000 bu. per hour. They mount the screens on the sides of grain storage buildings or inside the bin under the roof."

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"Quick-Mount" Ball Hitch

Mark Boswell, Carbon, Iowa, got tired of switching the ball hitch between his pickup and his tractor so he made a "quick-mount" ball hitch for his tractor.



The hitch can be installed on the tractor drawbar in less than 10 seconds. Boswell uses it mainly to pull his hog trailer.

"It saves time and extra wear and tear on my pickup," says Boswell. "I don't want to use the pickup to pull the trailer when the yard next to my hog building is muddy, or when I have to load hogs or cattle in a muddy pasture. But removing the ball hitch from the pickup and mounting it on the tractor is a chore, and if you don't do it frequently the hitch 'freezes' on the pickup. My homebuilt hitch eliminates the need to remove the ball hitch from the pickup, and it can be installed in seconds without tying up the tractor drawbar."

Boswell cut a 10-in. length of 3-in. sq. steel tubing, leaving the ends open. He drilled one 5/8-in. dia. hole all the way through the tubing and a 1 1/4-in. hole

Nifty Way To Build Gran Dump Pit

Gerald Ochsner, Sutton, Neb., couldn't find a local contractor to build a dump pit for his 80,000 bu. grain drying system, so he used a 580 bu. bulk feed tank as a form and poured concrete around it.

Ochsner dug a hole in the ground with a backhoe and then dug a trench for a load-out auger running diagonally from the bottom of the hole to the soil surface. He used a crane mounted on a truck to lower the tank into the hole. Then he filled the tank with grain so it would stay in place while he poured cement around it. After the concrete had set, he used a grain vacuum to suck the grain out of the tank. Then he removed the tank and laid a 22-ft. long, 6-in. dia. auger (inside an 8 5/8-in. steel tube) from the bottom of the pit to the above-ground auger.

Ochsner dismantled the tank before removing it from the hole. "Before we lowered the tank into the hole we hand tightened the bolts so we knew we'd be able to take the tank apart in sections," says Ochsner, who built the dump pit 14



years ago. "The auger is powered by a 5 hp electric motor and delivers grain into another auger that's used to move grain into storage."

The 580-bu. dump pit cost \$4,000 to build. "A conventional dump pit would've cost at least \$10,000," notes Ochsner.

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Swather Dries Grain Swaths Fast

George Kulyk, Wadena, Sask., removed the reel from an abandoned 1972 CCIL self-propelled swather and mounted a junked-out 1966 Melroe steel-belted pickup on the header, allowing him to lift barley swaths and move them onto dry ground for faster drying.

The 10-ft. wide pickup, originally designed for mounting on a combine header, is bolted to the swather's original 18-ft. wide header and is powered by the same drive system that powered the swather reel.

"After I swathed my barley last fall it rained every few days, making it virtually impossible to combine," says Kulyk. "The wet swaths settled down into the stubble and started to sprout. Even after some good drying weather, the swaths never got below 20% moisture so I decided to try to turn them over. Side delivery rakes can be used to turn swaths but they tear the swath apart and leave grain heads lying on the ground where they can sprout. My swather-mounted pickup fluffs up the swath before dropping it on the header canvas which moves the swath over 2 ft. and turns it 180°. Four or five days after I turned the swaths they had a moisture

content of 14.6% compared to 18.9% for the unturned swaths. It's also easier for the combine to pick up turned swaths. It works so well I wouldn't be afraid to mount my pickup on a new swather. Removing the pickup is only a 2-hour job."

Kulyk mounted the pickup at the center of the swather header opening, but says if he could do it over he'd mount it off center. "I have to pick the swath up along the left edge of the pickup in order to drop the entire swath onto the table canvas," says Kulyk. "If I'd have mounted the pickup off center, I could pick up the swath at the center of the pickup."

Kulyk converted the reel drive 16-tooth sprocket to a 36-tooth sprocket which speeds up the pickup, allowing him to drive faster (up to 6 mph). "By traveling slightly faster than the pickup can lift the swath, I can fluff up the swath before it drops onto the header," notes Kulyk, who added about 500 lbs. of weights to the back of the swather to counter balance the weight of the pickup.

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through just one side. A 2-in. ball fits in the bigger hole and is welded in place. A pin goes through the smaller holes, and the drawbar, to hold the hitch in place. The threaded bolt below the ball (and inside the tubing) slips into the back hole on the drawbar.

To install the ball hitch Boswell slides

the tubing onto the drawbar until the threaded bolt under the ball drops into the rear hole of the drawbar. He then drops in a 4 1/2-in. hold-down pin and secures it with a cotter pin.

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