

Made It Myself

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A crane lifted rail car off tracks at a crossing 1/2 mile from Raether's farm.

"Railroad Hopper" Dump Pit

About 10 years ago Rod Raether got fed up with waiting for his grain drying system to catch up with his combine. So he bought an old railroad hopper car and turned it into a giant dump pit and wet corn holding bin.

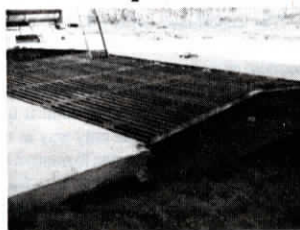
"It wasn't simple to do, but it didn't cost much and speeds up my harvest," says Raether, of Howell, Mich.

Raether bought a double hopper car for \$1,000 and made arrangements to remove the car from the railroad track at a road crossing 1/2 mile from his farm. He hired a crane to lift the car off the tracks, then cut it in half and dragged one half of it home with a 4-WD tractor. He buried the hopper in the ground between his dryer and bins.

"I was able to buy the car for the price of scrap iron and spent only about \$2,000 in all to build the pit. A comparable size commercial dump pit would have cost about \$25,000," says Raether. "The hopper bottom is 15 ft. long, 10 ft. wide, and 12 ft. deep. It has a capacity of 800 to 1,000 bu. and works perfectly with my 600-bu. continuous flow dryer.

"The best part is that I can unload grain fast and get back to the field without wasting time. I had been unloading grain into an 8-in. dia. auger that delivered grain into a wet holding bin. However, the auger was a bottleneck and slowed harvest down. I farm 600 acres with no help. My dump pit lets me harvest and dry 50 acres of corn per day. I fill the pit with two 400-bu. dump trucks, and it takes only 30 seconds to unload each truck."

Raether bought the hopper car at a railroad salvage yard in Maryland. It had been used to haul sand. When the car was delivered on the track near his farm, he had to guarantee he wouldn't tie up the



Once hopper was in the ground with its top cut off, Raether fitted it with a drive-over grate.

track for more than a half hour. "I had a crane waiting to lift the car off the track. Then I used a cutting torch to cut it apart," says Raether. "The 4-WD tractor didn't have enough power so another operator had to push it from behind with a dozer. We dragged the car on its side alongside a gravel road."

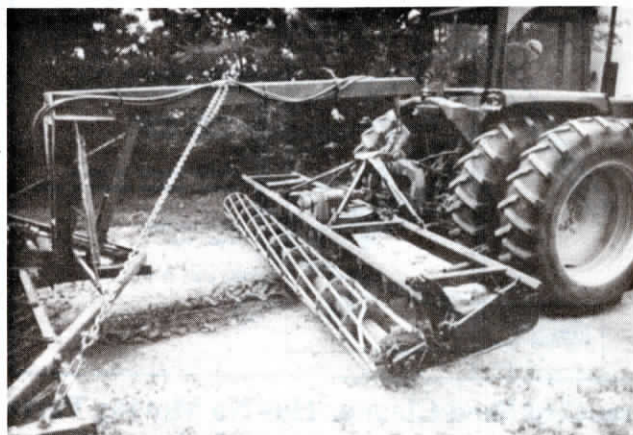
The car was made from 1/2-in. steel plate and was well painted. Raether used sheet metal to close the open end of the hopper - where he cut it apart - and used the crane to bury it in the ground. He mounted I-beams across the top and added a ladder on the inside. He cut off the top of the hopper and used 2-in. dia. steel pipe to make a grate over the top, then put a cement pad around the drive-over grate. A manhole above the ladder provides access to bottom of hopper, and a sump pump underneath it drains water away.

Raether sold the other half of the car to a neighbor who also made it into a dump pit. "He quit farming so the pit is no longer used. If anyone is interested they could dig out the pit and reinstall it on their farm," notes Raether.

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Raether used a 4-WD tractor to drag rail car on its side while a dozer pushed it.



Modified Bridge Hitch Stays Rigid

Tom Renner, Belleville, Ill., modified a 13-ft. long Lely gooseneck drill hitch by removing the original high clearance hitch that mounts on the tractor and replacing it with a more rigid hitch of his own design. He uses the bridge hitch to pull his 13-ft. wide Deere 8300 grain drill behind a 13-ft. wide Roterra tillage implement.

Renner pulls both rigs with a 100 hp Deere tractor. "Before I built this rig I needed one man to plant and one man to operate the Roterra."

The original Lely bridge hitch consisted of an A-frame that mounted on the tractor drawbar and was supported by chains that fastened to the tractor axle. However, according to Renner, it wasn't built strong enough to stay rigid, and it also interfered with opening of the cab's rear window on some tractor models.

Renner's hitch consists of a steel bar across the rear of the tractor that's supported on each end by arms that clamp onto the tractor axle. "It's much more rigid and allows the cab's rear window to be opened on all tractor models," says Renner. "The hitch is long enough to allow short turns. It would also work to pull the drill behind a field cultivator or roller."

The bridge hitch bolts to the drill in several places and can be disconnected from the tractor by pulling a single hitch pin. Chains connect both ends of the drill to the bridge hitch to keep it rigid while turning.

Renner sells the hitch for \$700.

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"You Can't Buy A Flashlight This Good"

"Being in the cattle business for over 30 years has meant countless nighttime trips outside during calving. We've tried every type of flashlight, including the new rechargeables, but finally decided we could make a better one ourselves," says Arthur Habke, Plumas, Manitoba.

Components of the home-built light include a 1-gal. plastic cooking oil jug with a molded handle, a small 12-volt motorcycle battery, a 12-volt tractor headlight, a long-stemmed on-off toggle switch, a 2-connection trailer plug-in, a short piece of automotive electric wire, and various electric connectors.

"First I cut a 'door' in the back of the jug that's big enough to fit the battery inside. The headlight bolts to the front of the jug and the toggle switch mounts next to the handle so it can be turned on or off easily with your thumb.

"The wire from the light runs to one terminal on the switch and another wire runs from the second switch terminal to

the positive post on battery. The negative post is grounded to the headlight by another wire. I wired the female wire on trailer plug to positive post on the battery and the other wire to the negative post.

"Then I placed the battery in the jug, leaving the trailer plug hanging out over the top of the door, which is securely taped shut with black electrician's tape. The other half of the trailer plug is wired to a small battery charger in the house.

"To recharge the battery, you just plug the trailer plugs together, plug the charger in and set the timer.

"The result is a flashlight that produces three times as bright a light as any commercially available rechargeable. All components are readily available over the counter. The light isn't heavy and can be carried for a long time with no problem. You can't buy a flashlight this good."

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