



When combine grain tank fills, it's unloaded "on the go" into the trailing grain cart.

**YOU'VE NEVER SEEN ANYTHING LIKE IT**

By Harold Johnson, Editorial Director

## Combine Pto Powers Tag-Along Grain Cart

There's been an exciting new development in those combine "tag along" grain carts we've been telling you about in previous issues of FARM SHOW.

Until now, all combine tag-along carts we've seen — both farmer-built and commercial — have been powered hydraulically. Latest new development is a farmer-developed kit that allows you to equip your combine with a power take-off (pto) for powering a tag-along cart.

"It's cheaper to install and maintain than hydraulic drives I've seen, and provides faster unloading," says Minnesota farmer Floyd Olson, of Sherburn, who teamed up with his son Steve, and neighboring farmers Harvey Jass and son Brad, to develop an add-on combine pto kit which passed its initial test last fall on about 2,000 corn acres "with flying colors". Olson is finalizing plans to manufacture and market the pto kit which initially will be available to fit Deere combines in the 6600 to 8800 series. Cost of the kit will be right at \$2,000.

The idea behind tag-along carts is to get enough grain-carrying capacity so you can make full rounds in wheat, corn, soybeans and other crops without having to stop somewhere in the field to unload. When the grain tank fills, you unload it "on the go" into the trailing grain cart.

In addition to saving valuable time, the tag-along cart eliminates the need for trucks at each end of the field. There's also less wear and tear on trucks and hauling wagons since they don't have to be driven into the field over bumpy ridges and furrows.

Olson's new pto kit includes a special-made pulley which attaches to the combine's hydrostatic drive, V-belts, an idler pulley which works in conjunction with a battery-operated linear actuator (electric screw-type cylinder) to turn the pto on and off, a right angle gearbox, and a pto shaft.

The only major change the Minnesota farmers made on their grain

carts was to move the pto shaft from the top of the drawbar to the bottom so it aligned with the combine pto shaft. Here, from the inventors, are other key features and observations:

- The combine pto will work with most makes of grain carts equipped with a side-unloading auger. It's important, however, that the cart's wheels follow in the same tracks as the combine's wheels.

- The pto drive will unload 200 bu. of grain from the cart in right at two minutes, the same amount of time it takes to unload 200 bu. from the combine grain tank. The grain cart and combine tank can be unloaded simultaneously, or independently. The pto is turned on and off in the cab at the flip of a single switch.

- Neither the tag-along cart nor the pto appear to add extra wear and tear to the combine, or to strain engine capacity — at least on reasonably level ground. In most cases, the pto is operated while the combine is standing still so its power requirement (about 40 hp) isn't of any real concern.

- Leaves, chaff and other loose debris drifting into the trailing wagon to contaminate grain wasn't a problem, even with the straw-chaff spreader in operation.

- Installation of the pto assembly doesn't significantly alter clearance under the combine.

- On Deere combines, the standard unloading auger is just long enough to reach a front corner of the trailing grain cart. Since the cart is seldom more than half filled, it isn't necessary to install a cross auger on top of the cart to move and level grain.

- It may be feasible to move the grain cart box forward on its frame so that, when loaded with grain, it serves as a load-transfer device, putting added weight on the combine's steerable rear wheels and thus provide a traction boost for moving through mud or snow.

Olson notes that the kit can be installed on Deere combines not

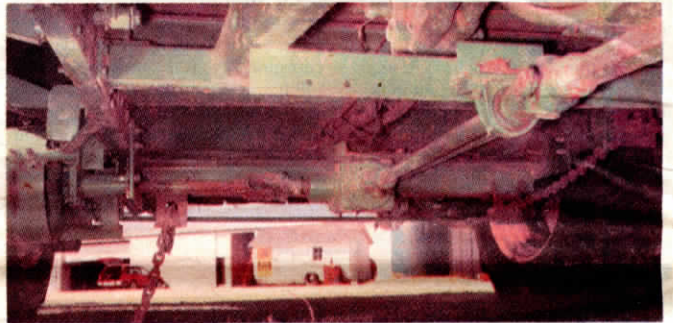
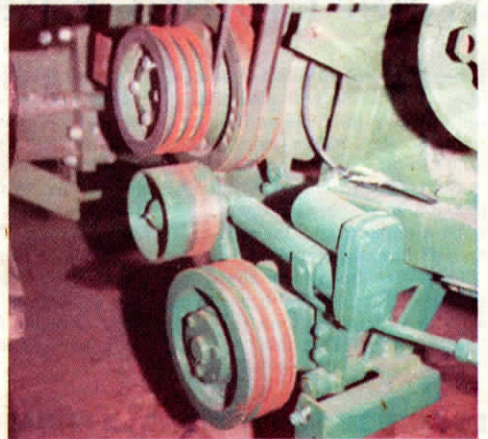


Photo on right shows special-made top pulley which attaches to combine's hydrostatic drive. Bottom pulley attaches to drive shaft going to right angle gear box, shown above. Middle idler pulley is linked to a battery-operated actuator which turns pto on and off via a switch in the cab.



factory-equipped with mechanical gear drive on the steerable rear wheels but he questions whether such combines would be ideal candidates for a tag-along cart

hookup in the first place.

For more information, contact: FARM SHOW Followup, Floyd Olson, Route 2, Box 47, Sherburn, Minn. 56171 (ph 507 639-6890).

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