

To make this self-propelled grain hauler Harlan Schlaak combined a Deere 8820 combine with a 674 Brent grain cart.



"I picked the 8820 for its heavy final drives," says Schlaak. "If I had a hitch on back, I could pull a semi with it.' By Jim Ruen, Contributing Editor

## Self-Propelled Grain Cart Looks Factory-Built

If Deere ever comes out with a self-propelled grain cart, it'll probably look a lot like Harlan Schlaak's. Schlaak combined an 8820 Deere combine with a 674 Brent grain cart. The result is a self-propelled grain hauler that won't stop for anything and is easy to operate.

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"I picked the 8820 for its heavy final drives," says Schlaak. "If I had a hitch on back, I could pull a semi with it. With the rear wheel assist, all four wheels are pulling. It carries the weight of 674 bushels instead of pulling it."

Schlaak started by tearing the combine apart. He made the job easier by welding steel tubing under the engine and cab. This allowed him to use a forklift to pick up the two as a single unit and set them aside for storage. Later the temporary frame would make it easy to reposition the two.

"I used 4 by 7-in., 1/4-in. wall tubing to build a new 14 1/2-ft. undercarriage," says Schlaak. "That was long enough to hold the grain box with the cab and engine on front." He attached the axles, setting the steering axle as far to the rear as possible so the heavier front drive wheels would carry more weight. The drive wheels were positioned as

close to the front of the auger box as possible for the same reason.

"I set the auger box on top of the new frame, bolting it in place with a little welding," says Schlaak. "I did it so it can be returned to its original axles if we ever want. I even left the hitch on the front."

To reattach the engine and cab, Schlaak used the original mounts. With everything matching the original frame, he was able to simply set them back in place with the forklift, bolt them in and cut away the temporary frame.

"It worked slick," says Schlaak. "With the frame holding them, I could use the forklift to shift them around and tilt them as needed."

With the aid of a two-way hydraulic valve he found at a parts store, Schlaak was able to use the controls that had lifted the head and reel (one-way valves originally) to fold the auger and open and close the grain door.

"I used the gearbox and handle that had started and stopped the separator to activate the auger," says Schlaak. "The new setup included the old pulley, belt, and shaft to connect the gearbox to the pto. It wasn't perfect engineering, but it works nice.'

Positioning of the cab worked out great as well. Because the auger extends out ahead of the cab, the operator doesn't have to turn around to watch when unloading. The hydrostatic drive makes it easy to match speed with a combine when it's unloading on the go.

"You don't have to sit there, riding the clutch and looking out your back window," says Schlaak. "We even mounted a side spot mirror on the right side so it looks right into the grain box."

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## **Garbage Can Thresher For Wildflower Seeds**

intensive. Threshing them out by hand is even more work. That's why Billy Robb adapted a weed whip, trashcan and other parts to automate the job. His mini-threshing machine shreds leaves, stalks and seed heads in minutes, leaving behind a pile of seed and chaff that can be easily separated.

"The plastic trimmer line doesn't damage the seed," says Robb. "It just breaks it apart. This setup also works well as a leaf shredder."

Robb works at a prairie preserve, and part of his job is to harvest seed for prairie restoration. While the preserve has a small specialty combine for use with grass seed, wildflower seed has to be collected and processed by hand.

"We don't have enough to justify sending it out to a professional seed cleaner," he says. "However, we do have about 70 to 80 species that we collect, such as blazing star, annual sunflowers and wild indigo."

To make his mini thresher, Robb made legs for a trashcan from discarded lawn mower handles. Sections cut from the bottom of the trashcan were replaced with hardware cloth. sized to allow seeds and finer shredded pieces through.

After removing the shaft and drive cable from the gas-powered trimmer, he shortened both. He also bent the shaft 90°, allowing it to be directed up and into the trashcan. He mounted the line-head face up in the center of the bottom of the trashcan, and he mounted the motor to a board fixed to the support legs.

"I mounted the loop handle grip back onto the shaft to help prop the trimmer head inside the can," he says. "The string spins from

1/2 to 1 in. above the bottom of the can.' Robb controls the clutch with one hand



Billy Robb's mini threshing machine consists of a trashcan and a weed trimmer. It shreds leaves, stalks and seed heads in minutes. Seeds fall out the bottom of the can.

while dumping seed heads into the top of the trashcan. The throttle is set low enough so material doesn't bounce back out of the can. The chopped-up seed heads, seeds and other chaff fall onto a tarp for storage and later broadcast seeding.

Although he used a metal trashcan for his thresher, he advises using plastic, as the trimmer line tends to break when pushed into the metal edges.

The mini thresher works well on most seeds but for the smallest seeds, like



echinacea, penstemon and rose hips, he built a smaller version using a 5-gal. bucket and a blender motor.

For detailed step-by-step instructions, see Robb's posting at the do-it-yourself website www.instructables.com.

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Collecting wildflower seeds by hand is labor