Build Your Own Pickup Hoist

"My neighbor, who runs a mobile butchering business, asked me if I could build a hoist for his pickup. It worked out great and can be used for any farm lifting chore," says Pete Johnson, Ballantine, Mont.

"The hoist had to take up as little room as possible, to leave the bed of the custom-built box free, and it had to be low enough to still fit under a 7-ft. garage door.

"First I welded a car spindle and hub into a 4-in. dia. pipe, 4 in. long. The pipe was welded directly to the rear corner of the bumper. Two 1/4-in. thick steel plates were welded to the upper corner of the box for reinforcement and a short piece of 5-in. dia. pipe coupling - with a bearing welded inside either end - was fastened to that. Two 2-in. dia. pipe braces - one at the rear and the other on the side - run from the upper corner down to the bumper.

"The main lift mast, made from 4-in. dia. drill stem, slips down through the bearings in the 5-in. pipe and over the car hub on the bumper. The top of the mast is 6 ft., 4 1/2 in. off the ground. The lift boom itself is made out of two pieces of 3-in. I-beam. I stiffened it by boxing the I-beams in with 1/4-in. steel plate. Then I welded a 1-in. pipe into one end of the beam for a pivot. I rounded the other end

off smooth and attached two lifting loops. A 4-in. dia., 24-in. stroke hydraulic cylinder provides the lift raising the boom from its low point of 43 in. off the ground to it's high point at 11 ft., 8 in. Hydraulic power is provided by a 12-volt power pack that mounts in the corner of the box and is only activated when needed.

"You can use the hoist over a full 180° from straight out the back of the pickup to straight ahead - and lift as much as 3 tons."

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Lawn Mower Windrow Attachment

"Grass baggers are a time consuming nuisance," says Harold Hlavka, of Lester Prairie, Minn., who rigged his tractor riding mower with a windrowing attachment that replaces the bagger.

"I've got a big lawn and, usually, only about a third of it produces heavy enough growth to warrant removing the clippings. To collect them, I use the attachment (made of wood) to bring several swaths together into a single, thick windrow that's easy to rake up and remove. In light grass, I simply raise the windrowing attachment so it's inoperative and out of the way," says Hlavka, who would like to compare notes with manufacturers interested in his invention.

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Planter "Supply Wagon" Speeds Spring Planting

A converted semi-trailer speeds spring planting for two Minnesota farmers who use the modified rig to haul large quantities of seed, herbicides, fertilizer and water to the field.

Larry and Ray Rauenhorst, Olivia, Minn., combined a junked 40-ft. semi-trailer, purchased for $800 at a local trucking firm, with a home-built 18-ft. "tow dolly" built with the drive axle off a tandem axle cement truck. The 18 ft. long "tow dolly" is equipped with a fifth-wheel that hitches to the trailer. The pto-driven "tow dolly" lets the Rauenhorsts pull the big trailer with an ordinary farm tractor.

To modify the trailer, the Rauenhorsts first cut a 4 1/2 by 7 ft. door in one side.

The front and middle sections of the trailer are equipped with a 200-gal. herbicide tank, a 3,000 gal. water tank, a 1,700 gal. 28% liquid nitrogen tank, and a 1,100 gal. starter fertilizer tank with a 500 gal. water tank on top of it to conserve space. Seed bags store at the back of the trailer.

"It'll carry enough chemicals, seed and fertilizer to supply our 8-row planter all day. We don't have to worry about seed getting rained on and the chemical tanks won't deteriorate as fast because they're away from the sun's ultra-violet rays. Also the tanks don't take up storage space in the shed and we can store leftover seed rodent-free over the winter," says Larry, noting that he and his brother use a 140 hp Ford TW20 to pull the trailer to the field.

The trailer also provides a safe environment for handling chemicals. "We can mix them inside out of the wind. With standard quick couplers on the hoses and a direct inject tank for Lasso, there's little spray drift and less spillage."

In the fall, the Rauenhorsts remove the planter supply trailer and use the same tow hitch and fifth wheel mount to pull a homemade 1,000 bu. semi-truck grain trailer (see FARM SHOW Vol. 12, No. 3).

The entire planter trailer system cost $2,500 to build, including trailer, hoses, and pumps, says Larry.

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750 Bu. Center Dump Wagons

Wells, Minn., neighbors Ken Eckhardt and Arland Gregar built four 750 bu. center dump grain wagons, using axles, fifth wheel mounts, and dual wheels salvaged from 8 junked semi trucks. They say they saved about $20,000.

"Each wagon cost less than $3,000 to build, compared to about $8,000 for a comparably-sized new gravity wagon," says Eckhardt. "What's more, the leaf spring suspension and dual wheels from the semi trucks make our wagons ride as smooth as velvet. There's no bouncing or jumping."

Eckhardt and Gregar built the king-size wagons because insurance and license fees for their grain-hauling trucks were becoming prohibitive. "The dual semi tires easily can support the 54,000 lb. weight of a fully loaded wagon," says Eckhardt. "The duals let us pull one 750 bu. wagon more easily than we formerly could pull two 300 bu. commercial gravity boxes hooked together and equipped with standard flotation tires. What's more, we bought the tires at salvage prices, and we'll probably get as many years of service from them as from new $300 tires."

Eckhardt and Gregar used 2 semi truck axles to build each wagon, leaving the 5th wheel mount in place on the front axle of each wagon. "A semi truck could be hooked up to these wagons in about 30 seconds by simply pulling the front axle right out from under the wagon," says Eckhardt.

To build the heavy-duty wagon frame, they ran two 4 by 8 box steel beams lengthwise between the axles, and ran 9 cross members across the top of them. The entire wagon box assembly is tied into that framework. A 6-ft. drawbar hitch connects to the front axle.

To build the wagon box itself, which measures 18 by 8 1/2 ft., Eckhardt and Gregar used heavy 9 ga. steel sheeting. For added strength, they welded 2 by 3/8 in. flat iron bars through the side walls. They also welded a 1/4 in. thick "push plate" across the back of the box, for use in case the wagon ever gets stuck, and made steps inside and outside the box.

The two farmers plan to install 1 ft. panels of perforated "see through" expanded metal near the top of the wagon box. "It'll let us see how full the wagons are without having to climp up and down them all the time," says Eckhardt.

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