



Gay's Deere 3765 forage harvester has 170 hp, thanks to the Leyland 72 hp motor and clutch he mounted behind the machine as a power assist unit.

Booster Engine Gives Forage Harvester More Zip

A British farmer recently souped up his pull-type Deere forage harvester with an add-on engine that gives it the power and capacity of a newer self-propelled model.

"I knew the harvester could handle a lot more power, thus improving output," Colin Gay told *Practical Farm Ideas*, a British farm magazine. He could have bought a tractor larger than his Deere 3350 but couldn't justify the expense.

So he mounted the engine and clutch from another tractor on the back of the forage harvester to work in tandem with the tractor pulling it.

He used the 72 hp engine out of a Leyland 272 tractor with a burned-out front end. It mounts on the rear of the harvester on a frame built out of 4 by 2-in. angle iron and channel iron. The axle was moved back 12 in. to ensure proper weight distribution.

The engine drives a right angle gearbox from a junked Deere 3405 forage harvester. It matches the gear ratios of the Deere 3765 harvester.

Gay controls the Leyland engine with an old pto lever from the tractor. A diesel tank mounts above the engine to provide fuel for about 7 hours.

To keep the add-on engine's radiator free from debris, Gay enclosed it in a box covered with perforated metal screening that's



Mesh screening and a car windshield wiper keep the radiator and air filter clean.

kept clean with a car windshield wiper. The air cleaner intake is routed into the box as well to keep the air filter clean. In dry grass, the windshield wiper is used to clean off the screen.

With 100 hp from the shaft on the Deere tractor in front and 70 hp from the Leyland booster engine, the harvester has at least 170 hp, enough to increase harvesting capacity by 50 percent.

Contact: FARM SHOW Followup, Colin Gay, Eastwood Manor Farm, East Harptree, Bristol, Somerset, U.K. (ph 1761 221237). (*Practical Farm Ideas*)

Semi Trailer Works Great For Hauling SP Sprayer, Tanks

With fields scattered up to 40 miles apart, Robert Weisz and son Robin, of Hurdsfield, N. Dak., needed a convenient way to transport their 4-WD self-propelled sprayer and spray tanks. Their answer - a used, drop-down flatbed semi trailer.

The 50-ft. long trailer is pulled by a Mack semi tractor that they already had. The trailer carries three 1,550-gal. tanks, three 100-gal. mini tanks, a measuring tank, and various chemical and rinse tanks. They drive their Willmar hydrostatic drive sprayer onto the back of the trailer using a pair of 6-ft. long, 14-in. wide ramps that they built out of angle iron. Once the sprayer is in place, the hinged ramps can be chained up for transport.

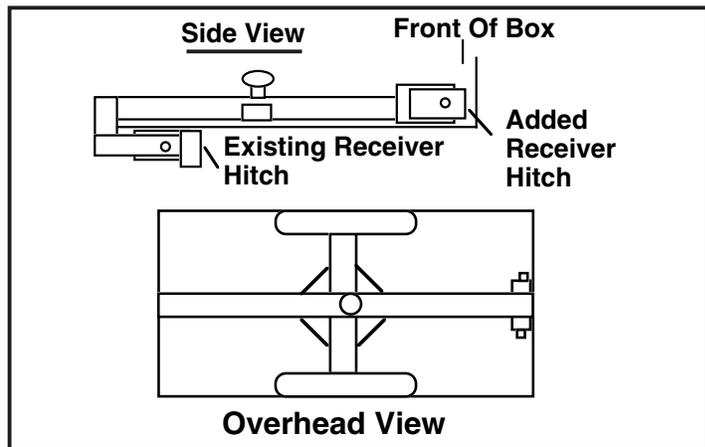
"It saves wear and tear on the sprayer," says Robert. "We do custom spraying and used it on about 6,000 acres last year. In the past we mounted the sprayer's front wheels on a homebuilt windrower transport and threw the rear wheels out of gear. However, it wasn't very convenient. It takes only a few

seconds for one man to load the sprayer on the semi trailer and chain it down for highway transport. My son bought the trailer from an implement dealer who had used it to haul machinery. When we're done spraying we use the semi to haul grain.

"We use a forklift to get the tanks on and off the trailer. The drop-down portion of the trailer has a screened bottom which works great for holding chains - any dirt on them falls right through.

"The trailer's tanks can hold enough water to last all day and there's still plenty of room for empty containers. We use an electric pump to transfer chemicals from the chemical containers to the measuring tanks and from there to the sprayer. A pressure nozzle is used to rinse the containers."

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Hitch uses the original receiver hitch and an additional one mounted in front of the box.

Slip-In 5th Wheel Hitch

Ken Brecht, Moorcroft, Wyo., spotted this slip-in 5th wheel hitch recently and thought other FARM SHOW readers would like to hear about it.

"It makes use of an existing receiver type hitch below the back bumper and a second receiver hitch installed in front of the pickup box. A cross-shaped frame was made out of 3-in. sq. tubing, with 2-in. sq. ends fitted to the front and back end. The ends fit into the

receiver hitches.

"A ball hitch mounts right at the center. When not needed, you simply un-pin the entire unit from the receiver hitches and lift it out of the pickup, leaving the entire bed free for hauling cargo."

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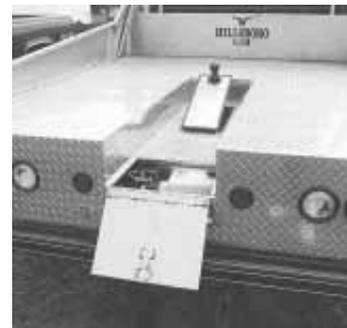
Hydraulically-Operated Pickup Ball Hitch

"As a gooseneck trailer dealer I have to hitch trailers to pickups all the time. My hydraulically-operated, pickup-mounted ball guide takes all the work out of the job," says Larry Persinger, Jamestown, Ohio.

Persinger first mounted an aluminum flatbed on back of his Dodge Ram 3500 1-ton pickup and then proceeded to modify the deck. He cut a 16-in. wide, 7-in. deep trough in it from front to back and then cut a rectangular hole in the trough where he installed an aluminum plate that rides up or down with the ball. The ball mounts on a pivoting steel arm assembly that's attached to a hydraulic cylinder. An enclosed 12-volt electric motor at the back of the trough is used to operate a hydraulic pump that controls the cylinder.

To hook up the trailer, Persinger backs the pickup up so that the bed is under the trailer hitch, then flips a switch to raise or lower the ball hitch to the proper hook-up position. After the trailer is hooked up he returns the ball hitch flush with the bottom of the trough.

"I cut the trough into the flat deck because the deck is quite high off the ground," says Persinger. "The trough puts the ball at a height that's closer to the normal height of the hitch on most trailers. The ball has about 13 in. of



Persinger mounted an aluminum flatbed on his pickup, then cut a trough into the deck and added a ball guide that's raised or lowered by a hydraulic cylinder. An enclosed 12-volt electric motor at back of trough is used to operate a hydraulic pump that controls the cylinder.

up and down movement. I incorporated a Schuck shock hitch into the pivot arm assembly to reduce towing shocks."

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In addition to the Weisz' sprayer, the trailer hauls three 1,550-gal. tanks, three 100-gal. mini tanks, a measuring tank, and various chemical and rinse tanks.