The wiring harness from the control box plugs into a factory wiring inlet just below the dash. The complete pedestal stand and control box can be removed from the vehicle in less than 2 min. when not needed.

The floor mount receiver is made out of 1-in. sq. tubing welded to a small flatiron and screwed to the floor with two self-tapping screws. The pedestal is made from smaller tubing and shaped into an S curve. Our truck has captain seats so the stand is anchored between the seats but the idea could be modified to fit any seat style. It works so well I'm now selling the stand and receiver for \$22. (W. Fergie Watt, Box 146, Alexander, Manitoba, Canada ROK 0A0 ph 204 752-2184)



When the electric motor on my cement mixer quit working after 25 years of use, I had to find another way to power the mixer. I didn't want to buy a new electric motor.

My solution was to power the mixer with a 55-year-old walk-behind garden tractor. The mixer now works better than ever and is inexpensive to use - I recently burned just 1/4-gal. of gas on a 5-hour project - and I can use it anywhere since there's no need for electricity anymore. An 84-in. belt direct-drives the 13-in. dia. pulley on the mixer off a 3-in. pulley on the motor. I criss-crossed the belt to make the mixer run in the right direction. At first I had trouble keeping the belt on the motor pulley so I looped it over a 6-in. pulley mounted below the engine. (Milan Djurdjevich, Rt. 1, Box 22, Mount Vision, N.Y. 13810 ph 607 432-3238)



Photo shows how I mounted saddle tanks on my Case 2390 tractor. Each one holds 165 imp. gallons. They're mounted flush with outside duals and are carried by 2 by 5in, steel tubing suspended from the tractor frame (using existing bolt holes) by 2 1/2-in. wide, 1/2-in, thick steel straps and angle iron braced with 7/8-in, steel rod. There's about 2 ft. of access space between the tanks and the tractor sides so we can do service and repair without taking off the tanks, and they're close to the ground for easier filling. They also solved my slippage problem since they add nearly 4,000 gal. just ahead of the rear (Bill McLaren, Box 403, wheels. Maidstone, Sask. SOM 1M0 Canada ph 306 893-4751)

I rewired my IH W4 tractor, changing it from 6-volt positive ground to 12-volt negative ground by installing an alternator and ignition system from an old pickup. The starter is the same and I didn't make any mechanical or other adjustments to the tractor. I can't explain why, but the tractor has had a lot more power since I made the conversion and it runs much better.

One job I use the tractor for is to wind up barbed wire with a front-mounted homebuilt wire winder, driven by the tractor's belt pulley. I bolted a piece of 3 by 3-in. angle iron to the front of the tractor and then



welded two pieces of 2-in. pipe to it as uprights to hold with winder, which I made using the shaft off an old woodsaw and a cutdown 18-in. tire rim for a large pulley. To drive the winder with a V-belt, I removed the tractor's side pulley and stuck four bolts into the pulley base and then welded a 12-in. piece of 3-in. dia. pipe to the bolt heads to support a V-belt pulley. Works great for rolling or unrolling barbed wire.

Here's a hint for when you take down old barbed wire. I cut a wire spool in half through the middle and weld nuts to the spool pipe as spacers to hold the two halves of the spool in place. When I start rolling up the wire, I slip wood pieces under the wire. Once the spool is full, I slip pieces of smooth wire under the rolled up barbed wire to tie it up. then I throw the spools in a fire to burn out the wood spacers so I can remove the spools and use them again. The tightly rolled wire rolls can then easily be stored or sold for scrap. I figure I can get one new roll of barbed wire for 6 or 7 old ones sold as scrap. (Helmut Luethi, Box 628, Breton, Alberta TOC 0P0 Canada ph 403 696-2151)



We recently introduced these easy access steps for IH 86 Series tractors in response to farmers requests after we came out with our New Generations Step for Deere tractors. They make entering and exiting the cab safer and easier. They're painted red to match tractor. The third step can be moved up 3 in. or removed completely when more clearance is needed. We include brackets and a gas-spring kit that allows the cab door to open wider. Sells for \$195 and can be shipped UPS. (Connie Mulder, K&M Manufacturing Co., Renville, Minn. 56284 ph 612 329-3301)

I would like to express come concerns about a story in the last issue of FARM SHOW about E.H. Heidenreich's by-pass modification to his septic tank. This is commonly called a "graywater system" and is not legal in South Dakota for new or existing systems, and probably violates regulations in other states as well. While it is true that graywater - water from washing machines, sinks, etc. does not have to go through the septic system, it must pass through a settling basin or tank to separate out solids and suspended material. This sedimentation tank must provide a 3-day retention time and have an appropriately sized absorption field. Water from dishwashers and garbage disposals must go through the septic system because it contains food particles.

Mr. Heidenreich is incorrect when he says "there is no way a septic tank can work unless you put two lines coming out from the house, bypassing the septic tank with the one that carries the wash and sink water. The bacteria just doesn't have a chance to work when you run all that water through the septic tank." If septic systems are properly sized (tank and absorption field) and properly maintained, there will be adequate retention time for bacteria to decompose organic matter in the wastewater.

One of the keys to proper septic system maintenance is pumping the septic tank on a regular basis (every 3 to 5 years). If tanks are not pumped, sludge will eventually fill the tank and reduce retention time of incoming wastewater. (Russell Derickson, Extension Associate, Water and Natural Resources, South Dakota Cooperative Extension Service, Brookings, S. Dak. 57007)



My backhoe was originally designed to mount on a Deere bulldozer but I adapted it to mount on our 970 Case tractor. I spent just \$2,100 to buy the heavy-duty backhoe and mount it on the tractor. I had to weld together a special hitch to mount the backhoe on the tractor. The hitch fastens to the loader frame's main rails with four 1-in. bolts. It's also hitched to the top link of the 3-pt. and some of the weight rests on the tractor drawbar. The lower 3-pt. lift arms are folded out of the way. It takes about 1/2 hour to attach the hitch to

I bought a pto-driven hydraulic pump to power the backhoe but so far haven't used it. I just plugged into my tractor hydraulics to see how it would work and have been using it that way ever since. One disadvantage of the tractor-mounted backhoe is that I can't use the backhoe to push the tractor forward so I have to drive the tractor each time I want to move ahead. Another disadvantage is that the backhoe unit is very heavy, making it more difficult to handle than lighter units specifically designed for farm tractors. (George Hayes, Rt. 1, Box 2503, Hayes Road, Schuylerville, N.Y. 12871 ph 518 695-3449)



You can protect your crops from damage caused by birds with our new "hawk" bird scarer made in Australia. The full-size imitation hawk is made of weatherproof plastic. It mounts on top of an upright pipe in a hovering position horizontal to the ground. Or, it can be suspended by fishing line between tall trees, buildings, or poles so that it moves up and down in the breeze like it's really hunting.

Birds instinctively fear hawks so they're scared to come within sight of our replica. Before a hawk attacks birds, it hovers over its prey, then dives head first. It attacks birds both on the ground and in the air so this scarer will work in any location. The higher you can position it, the larger the area you'll protect. Birds attack the outside perimeter of a field first, so if you can protect the edges you'll protect the entire crop. The only bird that may not be completely scared off is the house sparrow. It also won't deter bats.

Irecommend placing pole-mounted hawks 100 yards apart around the edges of fields. The hawk's head should face away from the crop. Sells for \$25 (Australian) plus freight. (Trevor Richards, Tisara Pty Ltd., P.O. Box 36, Morpeth, N.S.W. 2321 ph 049 33 1407)



After years of looking around for a commercial 3-pt. header transport, my son and I finally designed one ourselves and had a neighbor build it for us. I use it to handle a 16-ft. grain head and a 6-row narrow corn head. I've always had a problem moving my various combine heads around and storing them. I never had a good way to get a head into a corner for better storage until we built this transport 5 years ago.

We use a 120 hp tractor to transport our heads. The unit is built out of heavy tube steel with a U-shaped piece running across the top - with the outside lip welded on at an angle so that it slants outward. You just back up to the header and slip the lift frame into the feederhouse opening on the back side of the header. The U-shaped piece slips over the feederhouse crossbar and then you just lift with the tractor 3-pt. to pick up the head.

The uprights on the header mover are adjustable in length - we adjust it manually but it's built so we could install cylinders and make adjustments hydraulically - so we can



raise headers higher, when needed, to place them on our mobile header transport. It also comes in handy when we are doing custom work and our header transport is loaded already. We can get a different head with the tractor and bring it to the field faster than we could travel down the road with a combine. We're looking for a manufacturer. (Art Petke, Jr., N13083 River Ave., Withee, Wis. 54498 ph 715 229-2035)