

4-WD Liquid Manure Spreader Mounted On Mack Truck

Mike Laframboise, New Haven, Vt., needed a high capacity self-propelled liquid manure spreader that wouldn't compact the heavy clay soils in his area. He built his own articulated steering, 4-WD rig using parts from an industrial Trojan 2000 payloader and a 1972 Mack cab-over truck, mounting an 18-ft. long, 3,800-gal. tank on big low-pressure tires designed for log skidders.

"The 66 by 43 tires exert only 20 psi which is far less than the 100 psi tires found on conventional truck spreaders," says Laframboise, who built the rig last fall. "I had been running a dairy farm, but my home-built spreader allowed me to custom spread manure on a full-time basis. I can't go faster than 25 mph on the highway or the tires will start bouncing. However, that's no problem because this area has so many dairy farms that I don't have to go far. I paid \$3,000 each for the four tires. Total cost to build the spreader was about \$60,000 whereas a new one of comparable size would cost at least \$150,000. I had the tank custom-built extremely long and low in order to keep

the top loading spout as close to the ground as possible. It's 12 ft. high and spreads in a 60-ft. wide pattern. The 318 hp Detroit diesel engine has plenty of power. I've never been stuck.

"The spreader uses the truck's original 13-speed Fuller transmission. I use an air cylinder to shift the transfer case (removed from a 4-WD snowplow truck) into 4-WD. I can shift from 2 to 4-WD in the field. However, I have to shift out of 4-WD on the highway. The articulated steering assembly is mounted ahead of the frame's midpoint so the rear wheels don't follow the front ones exactly on sharp turns."

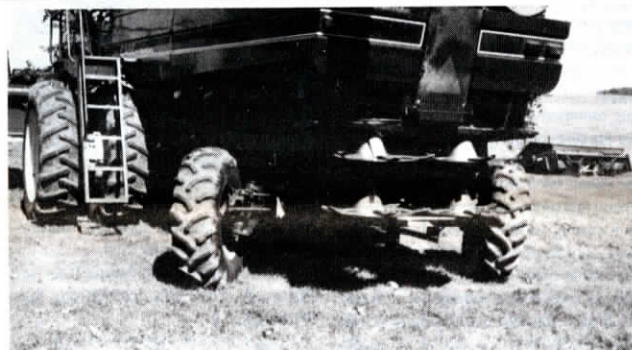
Laframboise stripped the truck down to the engine, transmission, and frame, cutting off the fifth wheel trailer hitch but leaving the cab. He removed the truck's front and rear axles and replaced them with the payloader's rear planetary axle and front axle. He cut 2 ft. from each side of the payloader's articulated steering assembly and welded it into the frame. He then welded on an 18-ft. length of frame behind the steering assembly to match the



length of the tank. He mounted two 75-gal. tanks behind the cab, one for hydraulic oil and the other for diesel fuel. He mounted a hydraulic steering motor on the end of the steering shaft. A recirculation valve mounted inside the tank keeps sediment moving so that it can't settle in front of the tank. The tank has a flared opening in back similar to a conventional

liquid manure spreader. The gate is opened and closed by an air cylinder and a 45 gpm hydraulic pump runs the impellor. Manure is pumped out by a pto-operated hydraulic pump.

For more information, contact: FARM SHOW Followup, Mike Laframboise, RR 1, Box 1, New Haven, Vt. 05472 (ph 802 453-5005).



They Added Second Set Of Straw Spreaders To Combine

The Allspach brothers, John, Ed and Don, Mt. Pulaski, Ill., wanted to do a better job of spreading crop residues than they were able to do with the factory-built spreaders on their Case/IH Axial Flow combine so they added a second set.

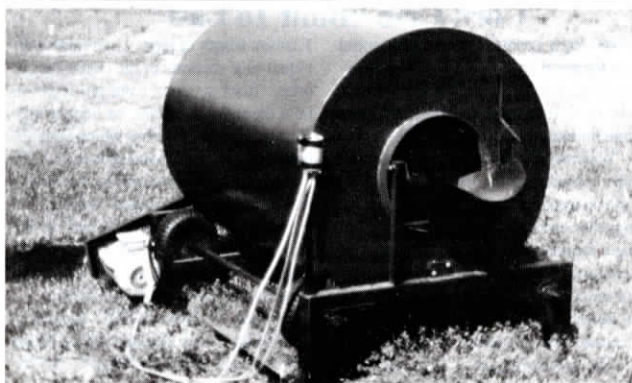
They built an extended frame out of scrap metal below the existing spreaders. Then they bought a new set of spreaders and long hexagon shafts from stock material carried by their Case/IH dealer.

The hexagon shafts attach to the top set of spreaders and, at the bottom, fit into

bearings in the extended frame. The bottom spreaders are positioned above the support frame, held above the frame by spacers. No changes in gearing were needed to drive the extra set of spreaders.

The brothers say they now get a lot better spread of residues over about 20 ft. Makes it easier to knife in NH3 and also improves performance of their no-till planters and drills.

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Front-Steer Tractor Bean Bar

"People really gawk when you drive it down the road," says Carl Bjorklund, Lakefield, Minn., who built a front-steered bean bar to mount on his Minneapolis Moline tractor. All tractor controls, including steering wheel, brake and clutch, mount on one of the up-front seats.

"I first put it on a 302 MM tractor. Now we have it on a Jet Star 3 MM," says Bjorklund, noting that the basic idea would work well on any tractor.

In order to steer the tractor from up-front, he mounted a hydrostatic steering unit from a Case combine on the bar, complete with steering wheel. It's plumbed into the tractor's hydraulics. Then he disconnected the tractor's original tie rods and ran a new tie rod from one front wheel to the other. The new tie rod connects up to a steering cylinder, also taken from the Case combine, which mounts on the front side of the axle. It's connected to the hydrostatic steering unit on the bean bar.

"All we have to do to switch back to regular steering is to disconnect the steering cylinder and put the original tie rods back in place," says Bjorklund.

To control the tractor's brakes, cables run from a pedal on the bean bar driver's seat to the original tractor brake pedal. Up-front throttle controls are also linked to the original controls by cable. A direct mechanical linkage runs from a front pedal



back to the clutch.

For safety, a kill switch mounts up next to the driver. Consists of a wire running from the distributor to a grounding switch.

"We've used it for five years with no problems. People don't know what to think when they see it in the field with no driver in the seat," says Bjorklund.

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"Mix-All" Mixes Feed, Treats Seed

"It's a simple design that works," says Ken Leys, Elrose, Sask., about his "Mix-All" drum-type mixer that he built for mixing feed ingredients, treating seed, or mixing seed of different varieties.

Consists of a 38-in. dia. drum riding on four 8-in. dia. rubber-tired wheels. The wheels mount on two shafts, one on either side of the drum. Both shafts are belt-driven by a single 1-hp. reversible electric motor.

Baffles inside the 4-ft. long drum push

material toward the back when mixing and bring material to the front when turned in the opposite direction for unloading. To unload, the tilting chute at the front of the drum is simply turned down.

"It's extremely quiet and efficient. Holds 18 bu.," says Leys, who custom-builds the Mix-All for \$995 (without a motor).

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