

## 4-WD, 4-Wheel Steer Tractor Has "Mudder" Pickup Tires

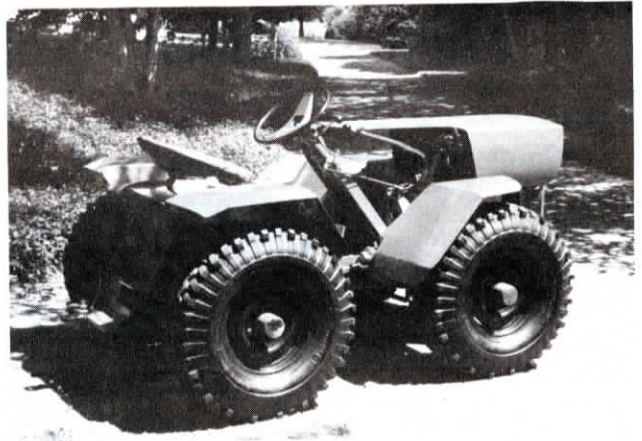
"My 4-wheel drive, 4-wheel steer tractor has lots of power and cost only about \$500 to build," says Bruce Lawson, Falconer, N.Y., who used the front axles from two Chevrolet 1/2-ton 4-WD pickups and a 2-cylinder, 20 hp Wisconsin engine salvaged from an old New Holland baler to build the tractor.

"It comes in handy for a variety of jobs," says Lawson, who built the tractor one year ago. "I've used it to haul loads up to 5,000 lbs. on a utility trailer. I plan to build a 5 1/2-ft. mower for it, as well as a 7-ft. blade for plowing snow on my 300-ft. long driveway. The tractor's geared down for use at low speeds, and it's equipped with four 10.00 by 15 'mudder' pickup tires that are 31 in. in dia. The combination of these tires and 4-WD lets me go almost anywhere."

Lawson used 3 by 3-in. angle iron to build a 20-in. wide, 7-ft. long frame for the tractor. He narrowed the pickup axles down to 5 ft. and positioned the front axle facing backward. An A-frame suspension system removed from a Toyota car allows the rear axle to oscillate on uneven

ground. He shortened one of the pickups' driveshafts down to 2 ft. and used it to connect the two axles. He installed a 4-speed transmission (removed from a Chevrolet 1-ton truck) on the right side of the frame and the engine on the left side to keep the tractor as short as possible. The engine belt-drives a jackshaft which in turn chain-drives the transmission. A no. 60 chain connects the output shaft of the transmission to the driveline. There's a 2:1 gear reduction between the engine and jackshaft, a 3:1 reduction from the jackshaft to transmission, and an additional 2:1 reduction from the transmission to driveline.

Lawson has an artificial left leg so he rigged up a hand-operated clutch lever that's connected to the belt-drive off the engine. When Lawson pulls on the clutch lever the jackshaft swings away from the engine to tighten the belt. When he pushes on the lever the jackshaft moves toward the engine and a rubber wheel mounted on the jackshaft engages a second pulley to provide reverse in all forward gears. "It will come in handy for mowing because I

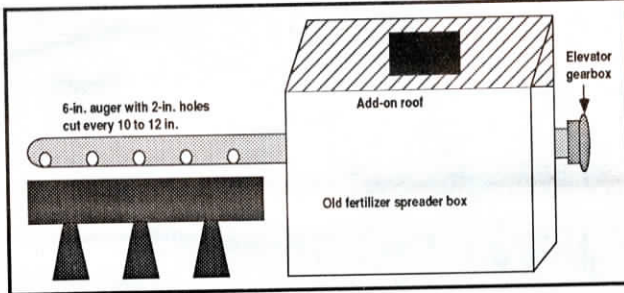


have to back up a lot," says Lawson. "I used a gearshift lever off a Chevrolet pickup for the hand clutch lever. I'll use a belt-driven hydraulic pump to raise and lower the mower and blade. I'll belt-drive the mower off the engine."

The tractor has four wheel hydraulic disc foot brakes and a hand-operated band brake on the output shaft of the transmission for parking. Lawson cut the fenders

and hood from 275-gal. oil storage tanks made from 14 ga. metal. The steering wheel and column were salvaged from one of the pickups, as was the power steering pump and steering box. Lawson uses a hand crank to start the engine. The steel seat is from an old tractor.

Contact: FARM SHOW Followup, Bruce Lawson, Sprague Hill Road, Falconer, N.Y. 14733 (ph 716 665-3199).



## "Fertilizer Spreader" Bunk Feeder

Scott Marbach, Decatur, Ind., turned an old fertilizer spreader box with a worn-out running gear into a 6-ton bunk feeder for grain.

"We added sides and a roof to the spreader box, boosting capacity. That lets us grind up to 6 tons of feed when we have time so we aren't bothered with grinding during busy seasons when we have other work to do.

"I installed a 6-in. dia. auger through the bottom of the spreader box, driven by

a 1/3-hp. electric motor and an elevator gearbox. The auger extends out over a feed bunk. I drilled 2-in. dia. holes every 10 to 12 in. along the length of the auger over the feed bunk to let feed out onto the bunk.

"Now all we have to do is flip a switch to load feed into the bunk. In the past we carried grain by hand."

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Photo courtesy Iowa Farmer Today

## ATV-Mounted Calf Weigh Scale

"There wasn't anything on the market that would do the job," says Iowa farmer Bob Lucas, of Worthington who came up with his own ATV-mounted calf weigh scale that lets him weigh the calf right in the pasture and also do other calving chores at the same time.

Lucas mounted the scale, which handles up to 100 lbs., behind his Honda 250 4-wheeler. The scale mounts on the end of a steel boom made from 2-in. sq. tubing that attaches to the ATV with three bolts. The boom is about 4 ft. high and extends 2 1/2 ft. behind the ATV. The calf is held by a pair of chains on each end of a 2 ft. length of 2-in. sq. tubing that hooks to the bottom of the scale.

"It eliminates the need to haul newborn calves back home to weigh them," says Lucas. "I can also do ear tagging, implanting, and give scours pills and vaccination shots to calves at the same time. If the cow has a problem and I want her home I can drive the ATV with the calf hanging behind and the cow will follow

me home. The only thing I'd change would be to cover each chain with a rubber hose so the calf is more comfortable," says Lucas.

Lucas welded a 3 in. long, 2 in. wide, 1/2-in. thick steel plate flat against the bottom of the boom's mast, then drilled a hole through it to bolt it to the ATV drawbar. A clamp and two bolts secure the booms to the ATV rack. The weigh scale hooks to an I-bolt. To weigh a calf, Lucas unhooks the calf holder from the scale, wraps the chains around the calf's belly, and rehooks it.

"When he's done weighing, Lucas leaves the scale on and wraps the chains around the ATV rack to keep them from flopping. To dismount the boom he simply removes the three bolts that secure it to the ATV. A short drawbar welded to the back side of boom's mast lets Lucas pull a two-wheel trailer with the scale in place.

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## Mirrors Make Farm Driving Safer

Two blind corners on the lane running through his farm prompted Illinois farmer Harry Schirding, Petersburg, Ill., to mount convex mirrors on posts that let him see around corners.

Schirding says he worried about cars or pickups running into slow-moving tractors and combines. "The convex mirrors have solved the problem. Lets us see clearly if anything is coming," he says.

The 30-in. dia. mirrors are made of plexiglass and cost \$124.50 each from a company in Peoria, Ill. They're available in various sizes.

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