Made It Myself

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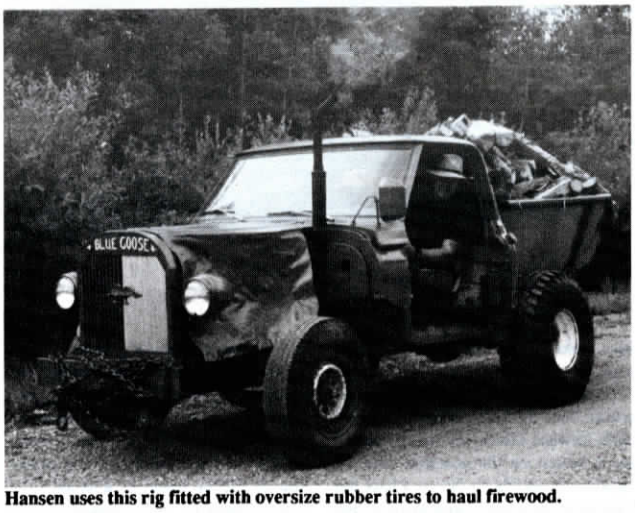

Hansen uses this rig fitted with oversize rubber tires to haul firewood.

He Uses "Puddlejumpers" To Do The Work Of Utility Tractors

By Alan Hansen

Back in the 1920's and 30's, farmers who couldn't afford a farm tractor made "puddlejumpers" (sometimes also called "doodlebugs") by shortening up junk cars or trucks. I've made several modern puddlejumpers from junked trucks for odd jobs around the farm to avoid tying up a tractor.

Making these heavy-duty utility rigs is a relatively simple task that any farmer with reasonable mechanical skills can accomplish.

I made my first puddlejumper using the chassis from a 3/4-ton Chevy and a 250 cu. in. in-line 6-cyl. engine. Because I wanted to use the unit to haul firewood out of the woods and didn't want to worry about flat tires, I decided to fit the truck with steel wheels taken from a junked antique manure spreader. The added diameter of the wheels required me to gear the unit down by attaching two truck transmissions in-line, one behind the other. The rear transmission is left in first gear. The front transmission is an old 4-speed of 1950's vintage. I only use the first and second gear. It has so much power nothing can stop it in the woods or on logging trails.

The first step in making the conversion is to strip down the truck to the chassis and cab. I take off the front fenders to make it easier to get into the engine for repairs and maintenance and I take the doors off. Then I shorten up the wheelbase by removing the rear axle and remounting it closer to the cab. The shorter the wheelbase, the better your maneuverability in tight spots. I mount the axle rigid to the frame to eliminate all spring suspension so I don't have to worry about replacing broken springs in the future. After welding the axle to the frame, I bbrace the axle front and rear with 1/4-in. flat stock 2 to 4 in. wide. Then I cut off the rear part of the frame and shorten up the driveshaft.

To mount the large steel wheels, I fitted an 8-hole 3/4-ton truck rim center to the spokes. This is a somewhat tricky procedure but it worked out fine. I then attached tread from an old tractor tire to the outside of the steel wheels so I can travel down the road.

On my first puddlejumper, I used a basic GM truck box mounted solid to the frame. On my second unit, which is outfitted with oversize rubber tires, I used an old grain bin which I cut down and welded into a water tight dump box which I dump manually using a hand-cranked bumper jack so there was no need for hydraulics. I used an old 1 1/4-in. dia. axle shaft as a pivot shaft, mounted just to the rear of the center of the box.

After the success of my two puddlejumpers, which I use for all kinds of chores including hauling grain and field stones as well as wood, I built several more units for neighbors who heard about them. Almost any farm truck can be used and I recommend a 6-cyl. engine since a V-8 will be overpowered and have little or no traction when not loaded. One tip is to fill pneumatic tires with fluid for extra traction when empty.

One of the trickiest jobs is moving the axle since if you don't have perfect alignment, you'll have trouble with the drive axle. Proper alignment is an easy chore, though, if you know how to do it correctly. You can use a tape measure to measure back from the center of the front hub spindle to the center of the rear axle. You should also be certain that the input shaft on the drive axle is properly aligned with the output shaft of the transmission so there's no undue stress on the driveshaft yoke bearings. You can align them with a flat board. One option you can easily install is a pto. Every 4-speed truck transmission I've ever seen has a pto sideplate on the left side of the housing (usually). Lets you bolt a pto in place.

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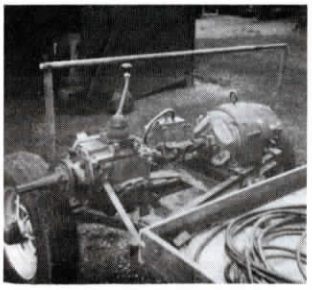
Portable Electric PTO Replaces Tractor



"It gives us four speeds plus reverse on our bin augers so we can adjust speed as needed and back up if anything goes wrong," says Donald L. Bradley, Princeton, Ill., about the portable electric pto cart he made using a 5 hp. 220-volt motor and a 4-speed truck transmission.

"The motor direct-drives the transmission through two universal joints that mount in line on the motor side of the transmission. The driveshaft side of the transmission is fitted with an old 540 pto stub. The stub spleen is welded to 1/4-in. steel plate and bolted to the transmission drive plate.

"We mounted the unit crossways on an old rear wagon axle which we made into a 2-wheel trailer. Because the auger sticks out to the side, it's easy to pull up alongside an auger to hook up the pto shaft. A heavy-duty 100-ft. electric cord carries power to the motor.

"When loading wet corn, we run in low gear. For dry corn, we run in a higher gear. We find second gear is just right for running our bin spreader. When needed, we can quickly shift into reverse.

"I's easy to use since it starts with the push of a button."

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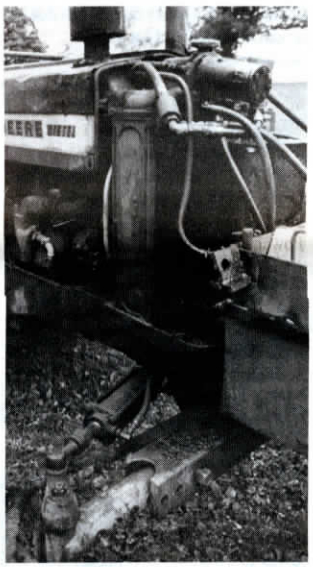
IH Power Steering Mounted On Deere Tractor



Dave Peterson, Lake Mills, Iowa, wasn't satisfied with the power steering on his Deere 720 tractor so he replaced it with the power steering system off an International 1066 tractor.

Peterson removed the tractor's original steering valve, mounting an oil reservoir in its place that he built from steel pipe. He made a bracket to mount the hydrostatic steering motor from the IH tractor on top of the radiator. He then attached one end of a hydraulic cylinder to the steering arm and the other end to a bracket that he bolted under the tractor. The hydraulic motor is powered by the tractor's power steering pump.

"The original steering system was worn out and getting hard to steer. It also didn't filter the oil which was hard on the power steering pump," says Peterson. "My system has a screen on the suction side of the oil reservoir and a filter on the return side so the oil stays clean. The tractor now steers so easily I can use one finger to turn the steering wheel even when the tractor is standing still and is fitted with a front-end loader. The only drawback is that if I blow a hydraulic hose while driving over the road, I won't be able to steer because there's no direct link any more between the steering wheel tie rods."

Contact: FARM SHOW Followup, Dave Peterson, Box 84A, Lake Mills, Iowa 50450 (ph 515 592-9262).

This "Timberdoodle" has steel wheels covered by rubber tread which lets it be used on highway. Hansen fitted an 8-hole 3/4-ton truck rim center to the spokes.