

Shop-Built Farmyard Tractors



Two levers steer maneuverable home-built skid steer loader.

Home-Built 4-WD Skid Steer Loader

"It's a fantastic machine that saves countless hours of work," says Ronald Mandrell, Erhard, Minn., who built his own skid steer loader using an ingenious combination of two identical '57 Oldsmobile car rear ends.

Mandrell says it's important to use two identical rear ends so the gear ratios match. He turned the front one around so it faces the rear unit and connected the two with a driveshaft. Because the wheels and frame are fixed into a straight-ahead position, the loader is steered by power brakes — 2 separate systems hooked up separately to either side of the machine. The operator simply manipulates two steering levers, which control the brakes, to steer.

The loader is powered by a 250 cu. in. Chevrolet engine and transmission salvaged from a wrecked pickup. Power is channeled through a gearbox — salvaged from a forage harvester — that connects to the driveshaft between the two powering rear ends.

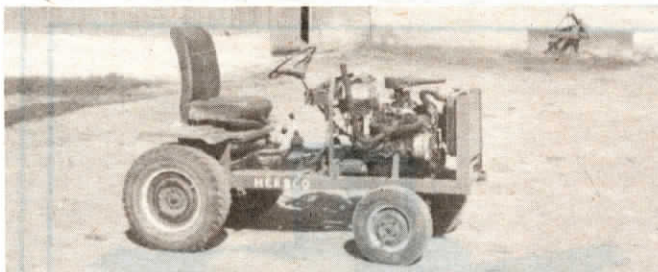
The completed loader — on which

the most expensive part cost \$150 (the gear reduction gearbox) — has 4 speeds forward and a top speed of 15. Mandrell built the frame of the machine from scratch and mounted a Ford loader on it. The rear pivot point of the loader arms is at the back of the skid steer loader so that, even when handling a big load, the back wheels stay on the ground.

The machine also has a walking rear axle so that each side raises up and down 4 in., enabling the machine to walk over an 8-in. obstacle without lifting either wheel off the ground.

"On a regular tractor loader it's hard to handle a big load. This machine always keeps all four wheels on the ground and driving," says Mandrell, who can easily move 1,500 lb. bales with the machine. He says it's particularly useful for digging rocks out of fields. He uses the highly maneuverable loader to dig them out of the ground, then to carry them to a truck or wagon.

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Tractor speeds range from 40 mph to a crawl.

All-Purpose Farmyard Tractor

"I use it to pull wagons and move machinery around the farm," says Patrick Herbert, Thamesville, Ont., about the shop-built utility farmyard tractor he built with used car parts.

The tractor is equipped with a 1965 Vauxhaul car 4-cyl. engine with a 4-speed transmission. To get a better gear reduction, he bolted a Dodge 3-speed transmission behind the 4-speed. A roller chain mounted in an oil bath runs from the 3-speed to a Chrysler "Post Track" rear end,

which was cut and narrowed up to 48 in.

"I used 3-in. channel iron for the frame and put 15-in. mud grip tires on the rear and 10-in. tires on the front. The front tires, spindle, seat and gas tank came from an Austin Mini car. Speeds range from 40 mph to a crawl," says Herbert.

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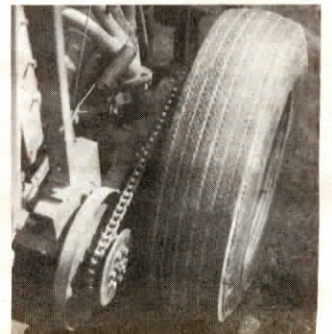
A similar size commercial mower would have cost \$5,000, notes Grenier.

"Renault" Lawn Mower

"We have 2 acres to mow so we needed something fast and reliable," says Don Grenier, Stillwater, Minn., who built a self-propelled mower using a 4-cyl. water-cooled Renault engine and transmission, and a Model T solid front axle.

Key to success of the mower are the rear wheels which were taken from an old Rambler. Grenier says they're ideal for the application because they come in a single unit that contains spindle, drum and hub. Each unit can simply be bolted to the frame with 4 bolts.

To drive the mower, Grenier mounted a sprocket on either of the rear wheels and chain drives them with a shaft that's belt-driven off the engine. The chain drive arrangement makes it easy to gear the tractor down at a 4:1 ratio to the correct mowing speed (top speed in 3rd gear is 15 mph). The tractor is fitted with a 4-ft.



Rear wheels are chain driven off a shaft, belt-driven by the engine.

wide Cub Cadet mower deck and a VW seat.

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An IH Scout frame provides the chassis for this loader which is powered by a Dodge slant-six engine.

Shop-Built Tractor Loader

Brian Augustin, Red Wing, Minn., built a tractor loader using the frame of an old IH Scout.

He used the Scout frame because it had 4-WD. It's powered by a Dodge slant-six engine that's channeled through two transmissions mounted in line to gear down the machine to working speed for close quarters. Steering was reversed on the

machine so the rear wheels steer. That's because the weight of the loader, which bolts to the tractor frame, is over the front wheels. Augustin left the Scout brakes intact. He plans to install a cab on the machine.

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