



## Case 4-WD Repowered With Cummins Diesel

"When the engine in my 1970 Case 1470 4-WD tractor failed, I replaced it with a 290 hp 6-cyl. Cummins diesel salvaged from an old 1969 semi truck that I bought for \$2,500. By buying the entire semi I got all the auxiliary parts I needed," says Tom Pyfferoen, Rochester, Minn.

Pyfferoen lengthened the tractor frame 1 ft., widened the front grille 4 in., and made a new hood to accommodate the big 855 in-line diesel. He side-mounted the semi engine's exhaust and air cleaner.

"It's my primary tillage tractor," says Pyfferoen, who uses the tractor to pull a 14-ft. chisel plow and 30-ft. field cultivator. "It has a lot more power than the original 145 hp Case engine and has tremendous torque. I spent an extra \$550 for a new bell housing and to rework the flywheel but I sold the original Case engine for \$800. The Case engine needed work, and I had already spent quite a bit of money repairing it. I didn't want to spend the money for a new high horsepower 4-WD tractor because I was putting fewer and fewer hours on it every year.

"I bought the semi tractor from a local implement dealer. The engine had over 700,000 miles but had been rebuilt a couple of times. It had been about 25,000 miles since the last rebuild. By buying the entire semi tractor I got access to all the

components that go with the engine, including gauges, radiator, engine mounts, fuel line fittings, air cleaner, alternator, and exhaust pipe. Such parts would cost a lot of money if purchased new. If my engine ever fails, I can buy another used Cummins for about \$2,000.

"The engine was easy to install. I had to make only a few modifications on the tractor. The radiator was bigger so I had to widen the grille 4 in. and raise it 6 in. and I used sheet metal to build a new hood. It's held down with rubber straps and is hinged in front which makes the engine easy to service. I used square steel tubing to build a framework that supports the side-mounted muffler. Side-mounting reduced noise and vibration in the cab. I used 12-in. channel iron to lengthen the tractor frame.

"The Case tractor has the same transmission and bell housing found on GM and Ford trucks so I was able to buy the bell housing I needed from a local truck dealer. I reworked the flywheel by drilling bigger holes in it to fit the bolt pattern on the new engine. I used the tractor's original clutch and pressure plate."

Contact: FARM SHOW Followup, Tom Pyfferoen, 6225 19th St. N.W., Rochester, Minn. 55901 (ph 507 288-4806).

## Low-Cost Sealed Bearing Greaser

If you've ever wished there was a way to grease sealed bearings without removing them from pulley, sprocket, hub or other component, you'll want to take a close look at this nifty sealed bearing greaser made by Ed Williams, Fletcher, Okla.

"Any farmer can make it for little cost," says Williams.

The greaser consists of three parts - an 8 mm threaded grease zerk, metric nut, and a "Luer Lock" needle holder off a livestock syringe (needles fit into the Luer Lock). The zerk is screwed into one side of the nut and the Luer Lock into the other. A 16 or 18-ga. needle is then inserted into the Luer Lock.

"To use the greaser I just stick the needle under the steel seal or through the



rubber seal on the bearing," says Williams. "I've used it on combines, disks, tractors, etc. If I hear a bearing going out, I can grease it enough to keep going and get home before it's ruined. Whenever I replace a sealed bearing I always give the new one an extra shot of grease before I install it."

Contact: FARM SHOW Followup, Ed Williams, Rt. 1, Box 300, Fletcher, Okla. 73541 (ph 405 549-6380).

## Lift Seat Mounts On Garden Tractor

If you or anyone you know is disabled but still farms, you'll be interested in this new lift seat that mounts on any existing garden tractor, turning it into a powered "wheel chair" that can motor over the roughest ground and then hoist the rider up onto tractor or combine seats.

Minnesota farmer Robert Medd, who came up with the idea, previously developed a lift platform that mounts on the side of tractors and combines. It's designed for people who can stand up but have difficulty climbing. The new lift can be used by paraplegics who do not have use of their legs.

Medd mounted his prototype machine on an IH Cub Cadet garden tractor, removing the original tractor seat. A lift mast mounts on the back of the tractor and is fitted with a large padded seat with leg supports. The mast is fitted with a custom-built hydraulic cylinder (Medd wanted a long cylinder with a small diameter that would use a minimum amount of hydraulic fluid) that lifts the seat up about 6 ft. A second cylinder rotates the seat off to the side. Movement is controlled by two toggle switches located alongside the rider.

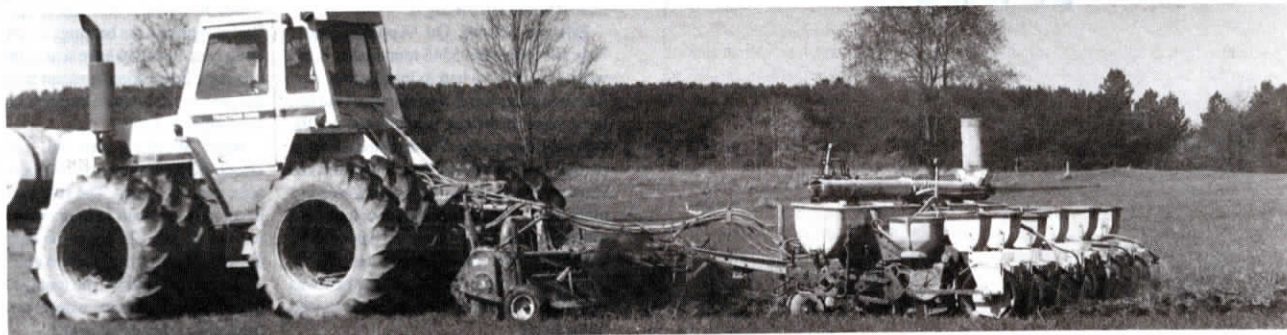
A 12-volt hydraulic power pack mounts on the back of the tractor at the base of the



lift mast along with a heavy duty battery, which can be charged off the garden tractor. Because the lift is battery-powered, it can be used when the tractor is shut off.

Medd built the first unit to sell to a disabled farmer. He's interested in building more. No price has yet been determined.

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## One-Pass "Strip-Till" Planter

"It tills a 10-in. wide seedbed in front of each planter unit and leaves the rest of the ground undisturbed," says Rodney Raether, Howell, Mich., who built a one-pass "strip-till" planter out of two Howard Rotovator tillers mounted ahead of a 6-row planter, a one-pass setup that allows him to till, spray herbicides, and plant in one trip through the field.

"It works under even the most adverse

conditions," says Raether, who's used the till-planter to seed crops directly into heavy clay sod. "I like it better than other no-till planters because it makes a well-tilled seed bed in front of each planter row unit which results in better germination. The undisturbed soil between rows reduces erosion and makes it harder for weeds to sprout."

Raether already owned one Rotovator

tiller. He found another at a salvage yard and combined the two into a single 180-in. wide unit. He bolted the two hood assemblies together and then made a new rotor out of 7-in. dia. gas pipeline. He remounted the 5-in. tiller blades on the new rotor, spacing pairs of blades 30 in. apart, with a 10-in. gap between each two blades. Each pair of blades tills a 10-in. wide strip.

He pulls the strip-till planter with a 100 hp Case tractor. "One disadvantage is that I can go only 2 to 3 mph," he notes. "Also, the planter is so heavy that when I lifted it at the end of the field at first I could barely turn around. I had to put about 1,000 lbs. of weights on front of the tractor."

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