"HANDLES LIKE A COMMERCIAL-BUILT 4-WD"

"King Size" 830 Deere

"It handles like a commercial-built 4-WD tractor. It even has articulated steering," says Don Dufner, of Buxton, N. Dak., who hooked two Deere 830 2-cyl. diesel tractors together to make a 180 hp articulated tractor complete with a Sound Gard cab.

FARM SHOW asked him to send photos of the tractor after it was featured recently in Green Magazine.

"I already had both tractors, but they were worn out. By reworking them and then hooking them together I was able to put together a 180 hp tractor that can pull as much as most new 200 hp tractors and is more fuel efficient," says Dufner. "Two-cylinder tractors are noted for their fuel economy and lugging abilty, and the 830 is probably my favorite 2-cyl. tractor. The double tractor burns no more than 7 gallons of fuel per hour and has two 75-gal. fuel tanks, so I can drive it almost around the clock without having to stop for fuel. I can pull all day at maximum load without damaging the engines. Both tractors have 6-speed transmissions. I use third or fourth gear to do fieldwork."

It took Dufner, along with his sons and a neighbor, three winters to put the two tractors together. The first year was spent reworking the two tractors to like-new condition. Every bolt was taken out and the engines, transmissions, and clutches were overhauled. The second year was spent building the articulated frame and mounting the cab. The third year was spent finishing the cab and hooking up controls.

The front wheels and axles of both tractors were removed, and the rear axles replaced with heavy duty axles from a pair of Deere 830 industrial scraper tractors. Both axles have dual rear wheels. Dufner used 1 by 6-in. steel to build a frame to support the tractors. The cab - off a Deere 8630 tractor - is welded to vertical steel legs welded to the frame.

A pair of 22-in. hydraulic cylinders, one on each side of the front tractor, provides articulated steering. The cylinders are tied together so they push or pull simultaneously. "Getting the throttle, gear shift, and clutch levers to all work across the articulation was the hardest part of the project," says Dufner. "I operate the clutches on both tractors manually using a hand clutch lever mounted next to the seat that's connected by cable to both clutches."

The transmissions on both tractors are operated independently by a pair of shift levers mounted on the floor of the cab. The rear tractor can be shifted into neutral on the highway so it's towed by the front tractor. However, Dufner keeps the rear tractor running to make sure the transmission remains properly lubricated.

Contact: FARM SHOW Followup, Don Dufner, Rt. 1, Box 124, Buxton, N. Dak. 58218 (ph 701 942-3102).

Wheel Barrow Leafrack

You can move a lot of leaves with this "leafrack" Larry Brown made a few years ago to put on a garden size wheel barrow.

"You fill the leafrack by tipping it forward and scooping up the leaves," Brown says. "We can really haul a lot of leaves in it."

Brown made a frame for the leafrack out of short pieces of tubing, which bolts to the side of the wheel barrow so it sticks out approximately 1/2-in. past the lip. Stakes made out of lightweight tubing fit into the wheel barrow corners.

To make a cage, Brown wove chicken wire around the stakes and extended the wire about 3 in. down inside the wheel barrow. He made a door, which can be opened from the right or left, out of tubing for the front of the rack. It fastens with 4-in. spikes.

For improved flotation and stability,

Brown mounted Brown a wide flat wheel from an old combine header on the front of the wheel barrow.

Contact: FARM SHOW Followup, Larry Brown, R.R. 1 Box 20, Site 7, Grande Prairie, Alberta, T8V 2Z8 Canada (ph 403 532-0178).

Doubled-up Deere 5020's provide low-cost power for pulling air seeder, seed hopper.

12-WHEEL DRIVE, 280 HP

"Double Tractor" Built From Two Deere 5020's

When Rudy DeBruycker, Dutton, Mont., decided he needed a more powerful tractor, he bought two used 140 hp Deere 5020's and coupled them into a single 280 hp unit. Both tractors are equipped with triple rear wheels, giving him 12-wheel drive.

DeBruycker removed the front wheels from the rear tractor and used a heavy steel frame to couple it to the drawbar on the front tractor so it pulls like a trailer. A cable runs from the clutch on the rear tractor up to a hand-operated clutch on the front tractor. The hydraulic system of the front tractor is used to raise or lower towed implements.

Operating the double tractor takes some getting used to, admits DeBruycker. But he says he's had no real trouble with the double tractor arrangement. "It really works good in the field. I use it to pull a 40-ft. air seeder equipped with flotation tires and a 185-bu. seed hopper. I also use it to pull a 40-ft. anhydrous applicator equipped with two tanks. If I want to shift, I have to stop and go back to the rear tractor, but once I'm in the field I rarely need to shift anyway.

"I moved all the gauges from the rear tractor to the front tractor. I synchronize engine operation by watching the tachometers for both tractors. I keep both tachometers at about 2,400 rpm's.

"I go only about 8 mph on the highway between fields using seventh gear at 1,500 rpms. It's slow when I first start out, but once it's running it really works nice. If I want to use the rear tractor by itself I simply pull the drawbar pin and put the front wheels back on, leaving the coupler frame on the tractor.

"I paid $3,000 for one of the tractors (a 1968 model) and $5,500 for the other (1970). I also painted both tractors. My total investment was about $10,000. A comparable 180 hp used tractor would sell for about $30,000. A new 4-WD tractor would sell for $120,000. Another advantage is that I don't have to grease the driveline all the time like I would on a 4-WD tractor."

DeBruycker left the front axle on and clamped two lengths of 4 by 6-in., 3/16-in. thick sq. steel tubing together to make a box beam and welded a bracket on one end which he runs from the front tractor's drawbar back to the rear tractor's drawbar. A 1-in. thick, 14-in. long steel frame that welds to the box beam and bolts onto the front of the rear tractor in place of the tractor weights is used to brace the front of the rear tractor.

Straw and dust coming off the rear tires of the front tractor was plugging up the radiator screen on the rear tractor. DeBruycker solved the problem by making a pair of radiator "guards" that extend 2-ft. above the tractor on each side to draw in clean air.

Contact: FARM SHOW Followup, Rudy DeBruycker, Rt. 2, Box 6265, Dutton, Mont. 59433 (ph 406 476-3406).

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