Made It Myself

(Continued on next page)



Self-Propelled Grader

"It's been seen by thousands of people at shows and parades," says Earl L. McEvers, Patterson, Ill., about the self-propelled articulated grader he built several years ago to do light grading on his farm.

He spent 2 to 3 years building it in his spare time. "It's powered by an old International 1-cyl. hopper water-cooled engine rated at 1 1/2 to 2 1/2 hp. Maximum pulley speed is 500 rpm's. The gearbox is a 6-speed Wheel Horse tran-Wheel Horse. The hydraulic pump is at 927-4258).

the rear of the machine, powered by a Vbelt off the engine.

"The grader has 6 hyd. cylinders. One turns the front wheels, one articulates the tractor, one turns the blade, one sideshifts the blade, and two raise and lower the blade.

"The machine is 9 ft. long and has a 5ft. blade. It was built from almost all used

Contact: FARM SHOW Followup, Earl saxle, and the wheels also came off a L. McEvers, Patterson, Ill. 62078 (ph 217



Washington farmer Edwin Ruff of Moses Lake built a small front-wheel drive "bucket-and-blade" tractor that lets him use the blade without removing the bucket.

The 5-ft. wide, 1-ft. high blade is connected to the loader arms by a pair of rods bolted to a 3-in, angle iron frame under the arms. A "push frame" is mounted between the center of the blade and the front axle. The blade pivots on a 5/8-in. dia. kingpin mounted just behind the front wheels. A 2 1/2 by 12-in. hydraulic cylinder is used to raise the bucket and a 2 by 8-in: cylinder is used to tilt it forward or backward. The blade can be tilted forward or backward and angled by manually adjusting the position of a pin inside the push frame. The tractor, which is equipped with 15-in. car tires in front and ATV balloon tires at the rear, is only 5 1/ 2 ft. long and 4 ft. wide not including the bucket

"I built it because I needed a small tractor for working around my yard," says Ruff. "Connecting the blade to the bucket eliminates the need for a separate set of arms to operate the blade. I use the blade mainly for moving snow and leveling my yard so I can leave the bucket on whenever I use the blade. The bucket extends only about 2 ft. in front of the blade. I do have to remove the blade whenever I use the bucket, but it's a matter of simply removing three bolts. The bucket raises about 3 1/2 ft. which is high enough to load heavy objects into my pickup."

Ruff used 3-in. angle iron to build the frame. He salvaged the steering column and 1,600 cc engine, equipped with an automatic transmission, from a 1971 Toyota station wagon. A second trans-



mission (3-speed manual) was taken from a 1941 Dodge pickup. To gear down the engine, he mounted a 2-in. dia. V-pulley on the output shaft of the automatic transmission and ran a belt to a 12-in, pulley mounted on the Dodge transmission which is mounted on a sliding bracket. Ruff uses a turnbuckle connected to the bracket to tighten the belt. He used the rear axle and rear end from a 1949 Ford car for the tractor's front axle. He "narrowed up" the 5 1/2-ft. wide axle to 4 ft. by cutting out sections of the rear end housing and axle and then welding what was left back together. The rear axle pivots over rough terrain by means of a 6-in. long, 1-in. dia. pipe welded to a length of 3-in, channel iron. A 3/4-in. dia. rod extends through the pipe and serves as a kingpin.

Ruff made the loader arms from 4-in. angle iron and the bucket from a 15-gal. oil barrel cut lengthwise in half. He built the blade by cutting three sections from a hot water tank and welding them together. He straightened out a truck leaf spring and welded it to the bottom of the blade to provide a cutting edge. The hinged operator platform can be raised out of the way for access to the two transmissions.

Contact: FARM SHOW Followup, Edwin Ruff, 940 Ironwood Dr., Moses Lake, Wash. 98837 (ph 509 765-6722).



He Puts "Bras" On His Dairy Cows

Dairy farmers can reduce mastitis by fitting their cows with "bras", according to Michael Battisti, a Syracuse, New York, dairy farmer, who outfits half of his 69cow herd with brassiere-like harnesses to keep them from damaging low-hanging udders with their hooves.

"Cow bras", supported by an elastic harness around the cow's body, are marketed as "udder supports" by the DeLaval Company (11100 N. Congress Ave., Kansas City, Missouri 64153 ph 816891-

"They keep the udders clean and the teats tucked up out of the way so they won't get stepped on," says Battisti, who has used bras on his cows for several years. "I put them on my older cows because the older a cow gets, the lower her udder hangs. They've more than paid for themselves in reduced mastitis. It takes only two to three minutes to install the harness and only a few seconds to unsnap the bra. I wash them in hot, soapy water every two months. I remove the bras



Photos by Dave Wilkins, Syracuse Newspapers

whenever cows dry up." Cow bras sell for \$38.95 each. Contact: FARM SHOW Followup, Michael Battisti, Rt. 1, Box 173, Eaton, N.Y. 13334 (ph 315 684-9178).



Tractor-Mounted 5th Wheel

Moving stock trailers around muddy barn yards is no longer a problem for Markerville, Alberta, farmer Les Johnston who made a 3-pt, mounted 5th wheel attachment.

"Our pickup is useless when it's really muddy. We use the tractor to get to the road where we can switch to the truck.' says Johnston.

He patterned his 5th wheel after a 3-pt. mounted bale mover, except instead of a spear he mounted a ball hitch. He used scrap flat steel he had on the farm.

"It's a simple idea that really saves us a lot of trouble. I don't know why everyone doesn't do it," says Johnston.



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