

RUNS LIKE A SKID STEER LOADER

Deere Hydrostatic Makes Ideal Loader Tractor

Leroy Staffanson, Sidney, Mont., built what he says is the ideal farm loader last year when he converted his 730D Deere tractor to hydrostatic drive and fitted it with a high-lift loader.

The all-hydraulic design of the tractor is not the only unique feature on the loader. Its high-lift bucket is stabilized with a set of patented folding parallel bars that smooth out the sway and jiggle caused by working 20 ft. above the small tractor.

"It works so much faster than a conventional tractor loader you can't believe it. It slips into reverse by switching a lever with your finger and zips in and out like a Bobcat skid-steer loader. It goes as fast in reverse as in forward," says Staffanson.

Staffanson converted the tractor to hydrostatic drive by disconnecting the clutch discs from the crankshaft. The engine flywheel runs a reversible pump and this drives a hydraulic motor which, in turn, drives the transmission. The regular transmission is left in 5th or 6th gear most of the time to give the tractor a

full range of speeds. Variable speed hydraulic controls were installed in the cab.

To connect the flywheel to the hydraulic pump, Staffanson used his shop lathe to machine down the flywheel, mount a plate on it and attach a sprocket to that plate to drive the chain. The hydraulic pump is connected to the clutch pulley on the engine by a set of double roller chains. He had to machine down the clutch pulley, too, to mount a bearing on it.

"It works great and, after 300 hrs. of everyday use, we've had no problems with it," Staffanson told FARM SHOW. "However, I wouldn't advise anyone to do it exactly the way I did it. If I did it again, I would either mount the engine sideways or replace it with a smaller diesel engine to eliminate the clutch pulley, and make enough room to hook the hydraulic pump and motor up directly to the driveshaft. That's because the drive chains on this tractor will require maintenance in the future."

The 730, which is rated at about 55 hp., lost about 20% of its power due to the conversion. But Staffanson says there's still enough power to spin the tires from a standing start and he uses it to dig dirt, handle manure and do any other chores for which he would normally use a farm loader. "You don't notice any loss in power because it's so handy to use," he says, noting that any gas or diesel tractor could be converted to hydrostatic drive.

After converting the tractor, Staffanson built a high-lift front-end loader and mounted it on the tractor for handling the huge piles of loose hay he puts up on his beef ranch. Equipped with either a hay stacker or grapple fork, it'll reach out about 5 ft. in "front" of the turned-around tractor and about 20 ft. up.

Staffanson found that, when working that high, his tractor jerked and bounced around. As a solution, he came up with his unique stabilizing bars. The bars pile up in a neat square pile under the loader in the down position but, when the loader's raised, they fold out like an accordion, stopping any side-to-side movement and transferring movement to the tractor tires and axle where the bars are fastened. The bars are not powered in any way. "They make the tractor much more stable and are completely trouble-free," says Staffanson. The only other attachment to the tractor are three heavy counterweights mounted at the rear.

For more information, contact: FARM SHOW Followup, Leroy Staffanson, Rt. 1, Box 3076, Sidney, Mont. 59270 (ph 406 798-3354).



Support arms keep the small tractor from bouncing and jerking when the loader is fully extended.



Hydrostatic tractor's unique loader support arms fold up neatly when bucket is lowered to the ground.



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LEVELS AND LETS YOU CULTIVATE 7 TO 10 MPH THE FIRST TIME OVER

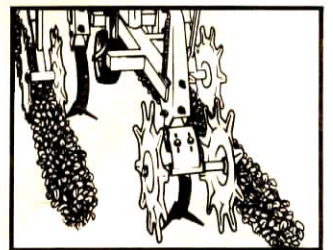
New-Style Cultivator "Speed Leveler" Shield

"It lets you cultivate 7 to 10 mph the first time over," says Minnesota farmer Harvey Ukken, inventor of a new-style Speed Leveler Shield being marketed by Dakon, Sioux Falls, S. Dak.

"Conventional over-the-row shields up front let you increase travel speed to a point, but you're still limited by dirt thrown up from the rear tine or shovel," explains Ukken. "This rolling shield solves the problem. It shields the rear tine or shovel, allowing you to travel up to 10 mph with your C-shank or Danish tine cultivator. What's more, it levels the field in the process."

Rather than running over the row, the new shield mounts directly to the rear tine or shovel. At high speed, thrown soil bounces off the shield's rolling wheels and back towards the row center, creating a leveling action.

The shield's mounting shank has a pivot point which allows it to ride over rocks or trash. It can be pinned in



Axle spacers allow wheels to be spaced from 7 to 13 in. apart to accommodate varying tine or shovel sizes.

the "up" position to immobilize the shield without having to remove it — when you want to till more mature crops, for example.

A two-wheel shield for one row sells for \$37.50.

For more information, contact: FARM SHOW Followup, Dakon, P.O. Box 909, Sioux Falls, S. Dak. 57101 (ph 605 336-0520).