ATV Built From Old Jeep

"It'll go anywhere," says Ted Pyle, Miles City, Mont., about the heavy-duty 4-wheel ATV he built out of an old jeep.

"As land improvement contractors, we do a lot of surveying for surface irrigation. Four-wheelers are the logical vehicle to use, but we always had trouble crossing irrigation ditches with conventional ATV's. When we got stuck, it took two people to get out. So we decided to build a 4-wheeler from an old Jeep that we already owned. We built it to fit in the back of our crewcab pickup which has a short box."

Pyle made a frame out of sq. steel tubing, shortened the axles and housings, shortened the driveshafts down to the slip joints, and used the jeep's transfer case so the ATV has high and low range. The rig is powered by an old 30 hp Wisconsin air-cooled, 4-cycle engine that's coupled to a Series 18 Sundstrand hydraulic pump that runs a hydraulic motor mounted on the transfer case. "Hydrostatic transmission makes it easy to operate," says Pyle. "We simply push or pull on a lever to go forward or backward. The more you move the lever the faster it goes.

"It turned out rather heavy and with big flotation tires it was hard to steer, so we added power steering. The tires stick out farther than any other part of the machine so it'll grab onto and climb just about anything. We sure have a lot of fun with it."

Contact: FARM SHOW Followup, Pyle Inc., Rt. 2, Box 3180, Miles City, Mont. 59301 (ph 406 232-3349).

Pasture Aerator Built Out Of Rotary Hoe

Old rotary hoes can be easily converted into pasture aerators, according to Nebraska farmer Fred Kroger who modified a 12-ft. wide International rotary hoe into an aerator by removing every other tine from each hoe wheel, then mounting four 2-ft. long sections of concrete culvert on top of the hoe so the remaining tines would penetrate.

Originally, there were 12 tines on each wheel. Once converted, there are just 6.

He pulls a 12-ft. wide, 400-lb. capacity gravity flow fertilizer spreader behind the aerator.

"It improves the quality of pasture and alfalfa ground by allowing more water to soak in," says Kroger. "The ground is so hard and dry on some of my rolling pasture that water would otherwise run right off. The spokes penetrate 4 to 6 in. deep leaving holes in the surface to catch water and fertilizer. I tried it on 35 acres of pasture last year and could really see a difference. Grass was taller and greener and it also increased my alfalfa yield.

"I got the idea after reading in FARM SHOW about a similar implement made in New Zealand that sold for about $8,000. I spent less than $100 to make my aerator.

"I tried using the hoe without cutting any tines off, but I couldn't get them to penetrate more than 2 in. deep. I used a hand grinder to cut half way through each tine, then put a pipe on the end to break it off."

Kroger says old rotary hoes can be bought cheap and work better than newer models because they don't have as many tines to cut off. Also, new hoes have sealed bearings which he feels tend to fail in dusty conditions. "My hoe has grease zerks on the ends of each shaft," notes Kroger.

Each 2-ft. long section of culvert weighs 315 lbs. so there's 1,260 lbs. of total added weight on top of the hoe.

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FARM SHOW

"Made it Myself"

Some of the best new products we hear about are "made it myself" innovations born in farmers' workshops. If you've got a new invention or favorite gadget you're proud of, we'd like to hear about it. Send along a photo or two, and a description of what it is and how it works. Is it being manufactured commercially? If so, where can interested farmers buy it? Are you looking for manufacturers, dealers or distributors? (Send to: FARM SHOW, Box 1029, Lakeville, MN 55044).

Engine-Powered IH Cyclo

Steven Fieser, Campbell, Mo., mounted a 10 hp Tecumseh gas engine on his International Cyclo 400 air planter to belt-drive the blower after the pto-driven hydraulic pump that originally powered the planter failed.

"It saved the cost of an expensive part and lets us use a small tractor to pull the 6-row planter. Reduces soil compaction and also frees up our big tractors for tillage work," says Fieser, who farms with his father Bob.

He removed the hydraulic motor and bolted the electric start engine onto a frame that he made out of 5-in. channel iron, then bolted the frame onto the blower housing. He mounted a pair of pulleys on the engine's crankshaft and another pair of pulleys on the blower shaft. He mounted a panel next to the engine with an on-off switch, throttle, and amp gauge. He pulls the planter with his Farmall 400 tractor.

"The blower had been operated by a pto-driven hydraulic pump that powered the hydraulic motor, but the pump failed and I didn't want to spend the money for a new one," says Fieser. "I also wanted to pull the planter with a smaller tractor. Previously, we had to pull the planter with a big IH 1466 because the hydraulic pump required a tractor with 1,000 rpm pto. However, we need the big tractor for tillage work, and switching the tractor back and forth between the planter and tillage implements really slowed us down. We tried using the Farmall's hydraulic system to operate the blower, but it didn't have enough capacity.

"The 10 hp engine has enough power to run the planter while running at idle. It keeps constant air pressure on the blower drum so we can slow down in ditches or at the end of the field without any seed skips. In the past, the hydraulic system lost pressure when we throttled. I used double belts because I didn't think one belt would be strong enough for the 10 hp engine (salvaged from an old riding lawn mower). I converted the engine from rope pull to electric start so that my dad could start it. IH does offer a pto-operated, belt-driven blower system for its air planters, but I didn't want to have complicated belts and shafts under the planter frame."

Fieser had to install a shaft that's 6 in. longer on the blower so that he could mount the pulleys. He used 6-in. dia. pulleys on the engine's crankshaft and 5-in. dia. pulleys on the blower shaft. "A friend happened to know a retired IH engineer who told us the fan should run at 3,000 rpm's. We had to experiment with pulley sizes to get the right rpm's," says Fieser.

He mounted a truck battery on an angle iron frame next to the engine. The engine's 1/2-gal. gas tank will run the planter for 20 acres.

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