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REAR WHEELS TURN TRANSMISSION TO PTO-POWER BALER, OTHER IMPLEMENTS

He Bales Hay With Horse-Drawn Tractor

"You have to see it to believe it," says Ed Phillips, New Albany, Ind., who modified an old junked-out Allis-Chalmers tractor to make it light enough for a team of horses to pull to pto-power almost any kind of implement, including balers, mowers, rakes, and fertilizer-seeders.

Phillips stripped away the tractor's engine, radiator, hood, gas tank, steering gears, and steering wheel. He shortened the frame by 2 ft., removed the rear fenders, and welded a platform onto the tractor axles that supports a "high-rise" school bus seat. He "flip flopped" the front wheels and welded one end of an 11-ft. long tongue to the tractor's front spindle and attached the other end to the neck yokes. He installed tires salvaged from a 1945 Deere self-propelled combine on the rear wheels. The rear wheels turn the 4-speed transmission which powers the pto.

"I've baled as many as 450 bales in 3 hours," says Phillips, who has built 5 of the horse-drawn tractors and demonstrated them at numerous hay machinery field demonstrations. "I built it because I already use horses on my farm to haul wood and cultivate tobacco, and I wanted to use them with more of my modern equipment. Some Amish farmers bale hay with horses by attaching a truck frame and rear end to the front of their balers to provide pto power via the truck driveshaft, but they're much heavier than my unit and obstruct the baler so that it can't be pulled by a tractor. I can buy old tractors for \$300 to \$600. The biggest problem is finding the right tractor. The 1945 Allis-Chalmers WC, WD, and WD 45 tractors work best because they're easy to cut down and their rear ends and wheels are equipped with reduction gears that make them easier for horses to pull. WD and WD 45 tractors are equipped with hand clutches that let you engage the pto on-the-go, which is much easier on the horses than engaging the pto from a dead stop. The hand clutch also keeps you from accidentally running over the horses when you stop. The WC tractor doesn't have a hand clutch but I can install a pto override clutch for about \$60. I disengage the pto at the end of field so the horses can turn around easier. The tractor is steered by the tongue which turns the front wheels like a tricycle. Four horses can handle a square baler on level ground. You need six horses to pull a wagon behind the baler. It takes two horses to ted and to sow grass seed."

Phillips has used the tractor to pull a 1976 Deere 336 baler, a 1988 Deere 327 baler, a 16-ft. tedder, a 7-ft. Bush Hog mower, and



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a fertilizer-seeder. He teds in third gear at 350 to 400 rpms and bales and mows in second gear at 450 to 500 rpms. He never uses first or fourth gear. He welded a bolt to the gear shift so he can't accidentally shift into reverse. Phillips turned the wide 16.9 by 28 combine tires backward for better traction. "Traction is very important because while I'm baling I have to keep the horses moving or the baler will plug up. If it looks like I won't have enough horsepower, I simply pull away from the windrow."

The WD tractor is equipped with a hydraulic pump that runs off the transmission, allowing Phillips to raise and lower a 3-pt. mounted Bush Hog mower and fertilizer-seeder. "Hydraulic power is available only while the tractor's rear wheels are turning so I have to start the horses moving before I can lift the mower and seeder," says Phillips. "After I stop, I can push a lever to let the seeder down. I may install a 12-V battery and a small hydraulic pump on the tractor so I can use hydraulics whether I'm moving or not."

Phillips used 2 by 2-in. tubing salvaged from an old Deere planter to build the tongue. A 4-horse eveners is bolted to the tongue about 1 ft. in front of the tractor's front wheels. A pair of traces extends from each horse to the eveners. When Phillips uses 6 horses he installs a 6-horse eveners and a pair of single-trees.

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Editor's Note: Most of what goes into Ag World stems from story ideas sent to us by readers. This special section of FARM SHOW touches on the lighter side of farming and ranching - everything from human interest stories, to unusual hobbies, to unique things farm families are doing for fun or profit.

If you've read or heard a good Ag World type story you'd like to share with others, send it to: FARM SHOW, Box 1029, Lakeville, Minn. 55044.



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"THE BREED OF THE FUTURE"

Illinois Couple Breeds "White Park" Cattle

"It's the oldest documented cattle breed in the world, but we think it's also the breed of the future," says Ruby Hiel, Avon, Ill., who along with husband Schneider raises a purebred herd of White Park cattle.

White Park cattle date back more than 2,000 years. They're white with black ears, nose, and feet, and black pigment around the eyes, and are of medium size. Most are polled. The Hiels bought their first cow and calf in 1973 and added them to their mixed herd of Simmentals, Herefords, Shorthorns, and black whitefaces. They were so impressed with the breed that two years later they sold all their other cattle. They now sell registered White Park breeding stock to cattle producers throughout the U.S.

"White Park cattle grow like weeds and calve easily," says Hiel, who is secretary-treasurer of the Illinois White Park Cattle Association. "They possess all the traits that contribute to beef profitability - high fertility, calving ease, sound structure, fast, efficient growth, a quiet disposition, disease resistance, and high crossing value. They're extremely efficient producers and gain weight on poor roughage which would cause other cattle to lose weight. In fact, we've found that the grain feeding period before

slaughter is much shorter than it is for other breeds. They hardly ever have eye problems because of the black pigment around the eyes. The calves are small at birth, but gain rapidly due to a good supply of milk. We've raised cattle that weighed up to 802 lbs. at 205 days, without any creep feeding. We've lost only five calves in 17 years. In the West, where Herefords are prevalent, ranchers use White Park bulls on first-calf Hereford heifers because Herefords have considerable calving problems."

According to Hiel, White Parks were brought to England by Roman legions in 55 B.C. and grew up in the wilds of England completely unattended by man for more than 700 years. In 1919 the first White Park cattle association was formed in England. In 1940 a bull and five cows were sent to the U.S. to preserve the breed in case Germany invaded England. In 1975 a group of U.S. breeders formed The White Park Cattle Association of America. Since then, registration has steadily increased and there are now more than 7,000 registered White Park cattle in the U.S.

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