



Klepper equipped this 1956 model Wagner tractor with a hydrostatic drive conversion kit. He retained only the original frame, axles and wheels.

HYDROSTATIC DRIVE CONVERSION KITS FOR WAGNER, STEIGER, OR VERSATILE TRACTORS

High Horsepower for Half Cost

Business is booming for a Colorado firm that specializes in hydrostatic drive conversion kits for putting new life into older model Wagner, Steiger or Versatile tractors.

For about half the cost of comparable horsepower tractors purchased new, Acme Precision Industries, headquartered at Denver, turns the older tractors into fully hydrostatic drive units with no clutch, transmission, transfer case, or drive lines.

"Best candidates for conversion to

all-hydrostatic drive are used Wagner, Versatile, or Steiger tractors in which the clutch or transmission is either wearing out, or already shot," Robert "Bud" Klepper, manager of Acme's Hydrostatic Drive Division, told FARM SHOW. "In converting them to all hydrostatic drive, we strip everything except the frame, axles and wheels. All component parts we put in are new, except for the replacement engine which can be either new or rebuilt. Or, if the origi-

nal engine is in good shape, it can stay. If you can find an older Wagner tractor that's priced cheap because the engine, transmission or clutch is shot, buy it. It can be turned into a top-notch hydrostatic tractor — for about half of what you'd pay for a new, comparable 200-plus horsepower tractor purchased new," advises Klepper.

He paid \$5,000 for a 21-year old Wagner tractor which he converted. He tore out the engine, clutch, transmission and gear box, retaining only the frame, axles and wheels. He then installed a new 195 hp Caterpillar 3208 diesel engine and an Eaton variable displacement hydrostatic drive transmission for each axle. He also custom designed a new cab and added a fully hydrostatic pto drive. Total cost, including labor and the \$5,000 he paid for the used tractor, was right at \$23,000. It's key features include:

- 160 drawbar hp.
- A virtually maintenance free power train since it no longer contains a clutch, gear transmission, transference, etc.
- On-the-go shifting and absolutely infinitely variable speed in a range of 0 to 12 mph.
- Increased traction. If one wheel spins, it rotates no faster than the wheels still driving and additional horsepower is immediately transferred to the remaining drive wheels.
- Increased fuel economy.

Klepper says all models of used Wagner, Steiger or Versatile tractors are candidates for conversion to all hydrostatic drive. Cost for the conversion is about \$8,000 to replace

only the clutch and transmission, and up to \$20,000 to \$35,000 if the conversion includes a new engine, cab, extension of the wheel base, hydrostatic drive and other modifications.

Another advantage with these rebuilt tractors is that they're easy to service," says Klepper. "The engine slips right out and can be removed, set on a skid and hauled to town. As for the hydrostatic drive transmissions, they're as rough and rugged as they come. They seldom require service but, if they do, they're easy to work on."

Here's another possible advantage in going the "retrofit" route to get more horsepower for less cost: "You can write it off as a repair cost, as opposed to depreciating a newly purchased tractor. All components, including the Eaton hydrostatic transmissions we use, are readily available items, commonly carried in stock by local suppliers," Klepper points out.

For skilled mechanics, Acme offers do-it-yourself hydrostatic conversion kits for Wagner, Versatile or Steiger tractors. Or, you can have Acme make the custom conversion. If they do the work, the job is on a "100% money back guarantee," according to Klepper. New or rebuilt engines and cabs can also be included in the custom conversion. Lease purchase options also are available.

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GREASE INJECTOR FOR GUMBO SOILS

Look What They're Putting on Plows

It begins to look like somebody has finally figured out a way to make moldboard plows scour in sticky clay and other problem soils.

Plows equipped with special attachments for injecting an experimental liquid polymer lubricant are being field tested this spring in Alabama and Georgia. The idea: To "slippery up" the plow bottoms with a friction-reducing lubricant so gumbo and other problem soils can be plowed easier, and earlier — without having to wait until they dry to the point they'll plow without scouring problems.

"Our experience to date shows it to be effective in sticky, adhesive soils," reports Dr. Robert Schafer, agricultural engineer at the National Tillage Machinery Laboratory (MTML) at Auburn, Ala. "With the use of a lubricant, we've seen as much as a 35% reduction in draft of a moldboard plow, and an improved plowing action. On the other hand, we've seen some fields where we observed very little benefit."

The experimental project is a

cooperative effort involving NTML, Nalco Chemical Co., and International Harvester. Several agricultural research stations in Alabama and Georgia will be testing the new "grease injector" concept this spring, along with individual farmers.

"Commercial availability of the concept hinges pretty much on results of these trials," Paul DuBrow, manager of commercial development for Nalco, headquartered in Chicago, told FARM SHOW.

DuBrow emphasizes that the polymer lubricant being tested is water soluble and biodegradable, which means it breaks down and leaves no residue in the soil. The general rate of application has been 6 to 10 gal./acre of lubricant. It's estimated that the material, if it continues to show promise, could be injected via special equipment mounted on moldboard plows for about \$1 an acre.

We'll keep you posted in FARM SHOW on further developments involving this promising new way to plow problem soils.



Grease "injector" designed for research tests at National Tillage Laboratory is more complicated than one a farmer might use. Lubricant being tested is completely water soluble and breaks down in the soil, leaving no residue.