Electrified "A" Starts, Stops, Runs Easy

When he was 74, Maynard Hansen's shoulders were tired of turning the flywheel on his 1941 John Deere A. He installed a starter with a matching flywheel and a Delco 10SI alternator, but that left him with a stopping problem.

"If you have a gas engine tractor with a magneto, there is no ignition switch. I would just pull back the throttle to shut the engine off," says Hansen. "John Deere had a problem with fuel leaking into the cylinder, and when you'd next try to start it, it would be flooded. There is a manual shutoff, but it's easy to forget. I wanted to shut off the fuel line when I shut down the tractor."

Hansen knew a fellow who worked on Ford tractors with the same problem. He came up with a solenoid to go in the fuel line to shut it down. Hansen installed one in the A's fuel line and tied it into his new electronics.

"A resistance bypass switch on the starter feeds current to a terminal on the alternator to start it charging," explains Hansen. "I tapped into the bypass switch to also power the solenoid and open the fuel line."

Once the tractor starts, current from the alternator back-feeds through the line to keep the solenoid open and fuel flowing. When Hansen shuts off the starter switch, the solenoid shuts down too.

"I also installed a voltmeter and ran the power through it before it went to the solenoid," says Hansen. "It lets me monitor alternator voltage output."

The same V-pulley on the original fan shaft (designed to power an optional generator) that let Hansen add an alternator also let him install a power steering pump. With a power steering unit installed just ahead of the steering wheel, Hansen added smooth steering to his smooth start and stop.

Electrifying the tractor also made shifting between hi-lo ranges easier. He salvaged an electric motor for a 2-speed shift for a truck rear axle from an old gravel truck. Hansen installed it on the A's hi-lo shift linkage. The motor was not quite powerful enough to shift the fork until Hansen locked out the poppets on the hi-lo shifter rail inside the transmission. He attached the 2-speed motor switch, also salvaged from the truck, to the clutch shaft for easy access.

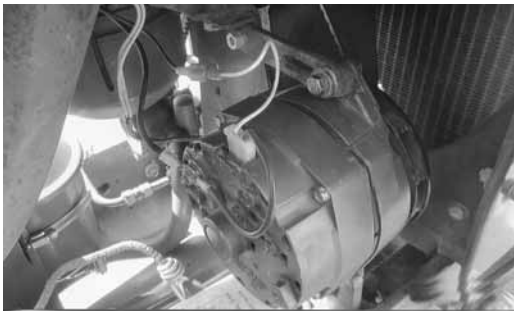
"Now I just pull the switch to change ranges instead of reaching through the steering wheel to shift," says Hansen. "The hardest part was working out the geometry of the linkage."

Hansen also rigged up a speedometer/odometer for the A using a CatEye wireless bike kit. He mounted 2 sensors on the rear axle and the monitor, where he could easily see it from the seat.

"The 38-in. tires on the A are about twice the size of 26-in. bike tires, so with the 2 sensors, the odometer reads close to a mile as measured by GPS," says Hansen. "The whole unit cost about $25."

Hansen further modified his A with a 5-bow canopy and an adjustable visor to keep the rain off his glasses. In 2014 he added "New Generation" fenders.

With starter, power steering, power range shift, speedometer/odometer and other modifications, Hansen sees no reason to keep the A "down on the farm." Since totally restoring the tractor in 2005, he has taken it on tractor rides every year. In 2014 alone, he drove it 1,500 miles. Now 77 years old, Hansen's 74-year-old tractor, first owned by his father, remains his pride and joy.



Maynard Hansen installed a starter with a matching flywheel and a Delco alternator on his 1941 Deere A, but that left him with a stopping problem. So he came up with a solenoid to go in the A's fuel line and tied it into his new electronics to shut it down.

"It has been in 5 states and across both the Missouri and the Mississippi," he says. "The highlight was the 2014 Black Hills tractor ride."

Once he completes his current project of replacing the original driveshaft with its worn splines, he will again be ready to hit the road.

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A fruit jar mouse trap is made by soldering small nails about 2 1/2 in. long angled in a funnel pattern on a standard size jar lid. Then put lid on jar and toss in some bait.

Fruit Jars Make Effective Mouse Traps

A fruit jar mouse trap was likely something pioneers figured out. The design is super simple – attach nail-like wires to create a funnel. The rodent can get in, but not out.

But, how many variations can be made on that concept?

It's difficult to know, says Tom Parr, owner of the Trap History Museum in Galloway, Ohio, which is also home to the North American Trap Collectors Association (NATCA).

The quarter-size opening narrows to about 1/2-in., too small for a mouse to get back out. It's painfully effective, Parr says. He knows after poking his finger in an Old Tom trap.

Parr notes they were probably effective and are easy enough to make. Just solder small nails about 2 1/2 in. long angled in a funnel pattern on a standard size jar lid. Put on a jar, chock it so it won't roll and toss in some bait.

The disadvantages are that you have to deal with a live, trapped rodent. And youngsters - or oldsters, like Parr - may be tempted to test the trap with their own fingers.

Parr welcomes questions about fruit jar and other traps and invites people to make reservations to see his museum, which contains more than 4,000 traps of all kinds, including the world's largest bear trap, built by Ed Sauvola, a fabricator from Chassell, Mich.

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A number of Ford Model A parts, including the rear wheels and axle, were built into this homemade Allis-Chalmers tractor that's made to look like a model G.

Model G Made From Model A

When Dave Zook picked up a home-built Allis-Chalmers tractor he recognized a number of Model A Ford parts. Wheels, axle, and 3-speed forward plus reverse all appeared to be Model A parts. The frame was mostly 2 by 2-in. tube steel.

"I wasn't sure about the front wheels, but I could see the rear end was Model A," recalls Zook.

The Model G look-alike tractor had been sitting for an extended period of time. He cleaned the carburetor, changed oil and tuned up the engine to get it running.

"It has a 15 hp Wisconsin engine. Like most of them, it was sometimes an easy start and sometimes required a lot of cranking," says Zook.

The transmission had a sprocket and chain drive to a sprocket on the differential. The brakes worked fine. The clutch was a lever mounted to the right side of the operator seat, and the shift on the transmission was to the rear of the operator, as was the throttle on the rear left side.

"The tractor came with a working cultivator frame," says Zook. "I cleaned up everything, painted it and installed cultivator sweeps. It looks a lot like the real thing."

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