Cub + Kubota = Cubota Tractor

A story about a tractor in Red Power magazine grabbed our attention recently. For one thing, the tractor was the wrong color. It wasn't red. It was silver. But the most notable difference was its engine - a 4-cylinder, diesel V-800 Kubota, which inspired the tractor owner to decal it a "Farmall Cubota".

Retired mechanic Gary Dotson of West Mansfield, Ohio, did the work.

"I've always been a fan of little diesel tractors, and I own Kubotas, so I made up my mind to convert my 1948 Cub," Dotson says.

He found an inexpensive 4-cylinder Kubota at a swap meet and rebuilt it. Then he gathered other parts he had on hand for his conversion: a hydraulic pump from a BMW, parts from a Chevrolet Cavalier, and components off a Briggs and Stratton engine.

Removing the Cub's engine created the first challenge, since the engine is part of the tractor's frame. Dotson built a frame out of new steel for the Kubota engine to bolt to.

The biggest challenge was coupling the Cub flywheel to the Kubota engine's crankshaft.

"I machined down the Kubota flywheel to turn it into a coupling plate," Dotson says. "It went better than I expected."

He used a 1/2-in. adapter plate at the back of the engine to bolt it to the tractor's transmission housing and everything else fell into place. The driveline is all Cub parts, but Dotson added a micro switch into the starter linkage to activate the diesel's glow plugs. The diesel engine increased the tractor's torque and doubled its speed to 15 mph.

Dotson spent about three weeks on the conversion, tested it grading dirt on his property, then tore it all apart to spend another three weeks prepping and painting it.

"My wife had said, it's not going to be red," Dotson recalls. "We threw out several options, and she chose this one."

It was a good choice, he admits. The tractor has drawn attention at the shows he attends. He notes that if people see it when it's on display they ask about the color, but think that it's a stock tractor. If they see it when he's driving it, all eyes are on the engine, which obviously doesn't sound like a typical Cub.

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Photo by Todd Markle, courtesy of Red Power Magazine

Gary Dotson repowered his 1948 Farmall Cub with a Kubota 4-cyl., diesel V-800 engine (above). Dotson built a new frame out of heavy steel plate for the engine to bolt to.

Homer Weber repowered this Farmall H with a Honda motorcycle engine. "I use it to pull equipment in and out of my shop, but mostly it's just used for fun," he says.

Honda-Powered Farmall H

Homer Weber has a Farmall H with a 500cc, twin shaft drive, Honda motorcycle engine. While he doesn't know what the drawbar horsepower is, he knows he can do 35 mph down the road when he drives it to area parades.

"I repair farm machinery, and a customer had an H with a bad block," recalls Weber. "He didn't want to fix it, so he sold it to me as is. I had this old motorcycle engine, so I decided to stick it in the H."

Weber fabricated mountings for the engine and modified the H drive shaft and the shaft coupler to the five-speed Farmall transmission. He cut off the original H clutch shaft and welded it to the Honda drive shaft. He used the universal joint from the Honda and substituted a true universal at the H's rear end.

"The coupler in the back of the H wasn't a true universal, so I had to put a universal in to match the one on the Honda drive shaft," explains Weber.

The Honda engine block contained the original five-speed motorcycle transmission and clutch. When Weber was finished with his modifications, he had a tractor with 25 forward gears and 5 reverse. He attached the Honda clutch to the H clutch pedal so he could shift both transmissions at once. He connected a rod from the Honda gear-shifting pedal to the former hydraulic lever by the steering wheel. To finish it off, Weber mounted a tractor exhaust on each side of the Honda two-cylinder.

"When I put it in first, it just creeps along, but when I put it in the top gear, it will do 30 to 35," says Weber. "I use it to pull equipment in and out of the shop, but mostly it's just used for fun."

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Weber installed the Honda engine block with the original 5-speed motorcycle transmission and clutch. When Weber was finished with his modifications, he had a tractor with 25 forward gears and 5 in reverse.

"It turns a lot of heads at parades," says Dave Loxterkamp, who repowered his 1952 Massey 44 with the 302 cu. in., V-8 engine out of a 1974 Ford pickup.

Massey Tractor Repowered With Ford Pickup's V-8

"A few years ago, my dad dragged home an old 1952 Massey 44 tractor from the neighbors. The engine had seized and was in rough shape. I had an old 1974 Ford pickup parked in the back woods with a good engine. I took some measurements and found the tractor had just enough room for the pickup's 302 cu. in., V-8 small block engine. So I removed the Massey engine and installed the Ford. The project took the entire winter to complete," says Dave Loxterkamp, Hines Creek, Alta.

He used the pickup's engine, clutch, and electronic ignition. After installing the engine he connected it to the tractor's transmission.

"I dismantled the pickup's 4-speed transmission but soon discovered that its input shaft was too short and wouldn't work," says Loxterkamp. "So I went out to our parts shed and found the output shaft off a wrecked Massey 30 tractor. After making some quick measurements I found the shaft had the same number of splines as the pickup's clutch, but was a little bigger around and a little too long. A local fabricator, Wild Rose Fab, machined the shaft to the correct dimensions."

Next, he had to connect the Ford V-8 engine to the tractor's transmission. The Ford engine sat higher than the tractor's original engine and didn't line up with the transmission so he had to come up with a way to connect them. "I decided that a set of double no. 60 sprockets and a chain going down to the transmission's output shaft would do the job. This drive system works great."

He then custom-built new engine mounts. "It took a while since each piece had to be drilled, machined and welded to fit precisely," says Loxterkamp.

The V-8 engine was wider than the tractor's original engine so the tractor's steering rod had to be rerouted around the engine. "I cut 1 in. out of the steering rod and also had to make new brackets and add some new U-joints," he says.

The next job involved installing the pickup's electronic ignition. "I had to tag and cut all the wiring out from underneath the pickup's hood. Once I had all the wiring needed I laid it out on the shop floor, cleaned it, and tested it. Then I routed the wiring and got it hooked up. I also custom-built the throttle linkage and added some new gauges that I bought at an auto parts store.

"The only thing left was to turn the key and hear that sweet V-8 sound," says Loxterkamp. "The next day I took the tractor apart piece by piece. Once I had the tractor stripped, I washed it down and then my wife and daughter helped me prime and paint it. It took a couple days to put together, but it looks great and sounds even better."

He added custom pickup exhaust headers that really set the tractor apart. The headers were originally designed to go down and under the pickup, but Loxterkamp turned them upright to get the exhaust up in the air.

"I recently drove the tractor in a local parade, where it turned a lot of heads. The loud noise made by the headers even scared some kids. But overall, I get a lot of compliments on it. I've helped my dad restore 8 or 9 other tractors, but this one is my pride and joy," notes Loxterkamp.

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