

International 4386 Repowered With 6-71 Detroit Diesel

"When the engine went out on my 4386 International tractor for the third time and the tach showed only 4,100 hrs., I figured it was time to do something different than a straight overhaul," says retired Alberta farmer Ed Sokalski. "I had this nice 6-71 Detroit diesel engine in my shop, so I decided to put it in the tractor."

Sokalski had done engine overhauling before, but he had never tackled a complex engine replacement. "When I started the project I was almost 75 years old with two bad knees. People thought I was nuts, but I set out to prove them wrong."

A veteran farmer who had "fixed just about anything that could be fixed" in 55 years on the farm, Sokalski dove into the project full speed ahead. He removed the original 466 engine and had hopes of easing the 6-71 in place using the same mounting brackets and same housings. It turned out the 6-71 was 1 1/2 in. longer and about 1 in. wider, so

it wouldn't fit. Sokalski had to make new mounting brackets for the rear of the engine and had to cut out and hone a cross member on the tractor frame to compensate for the size difference in the front.

"Even with those modifications, mounting the 6-71 wasn't too bad," says Sokalski. "Because of the extra length, I had to move the radiator, the grill and the hood forward 1 1/2 in. I also modified the fenders and created additional space for the air cleaner."

Sokalski mated the hydraulic pump to the new engine by machining a short shaft connected through two U-joints. The flywheel and engine housing for the 6-71 was a scant 3/4 in. different from the 466, but it might as well have been a foot apart, Sokalski says. "I looked for an adaptor from different sources and the cheapest one was \$2,500, which I thought was way too much." Instead, he went to Dunbar Engine Sales in Edmonton and paid \$250 for a used



Ed Sokalski spent less than \$2,000 to install a 6-71 "Screaming Jimmy" two-stroke diesel engine in his International 4386 4-WD tractor. "It has more torque and runs better than the original engine," Sokalski says.

flywheel. The clutch assembly bolted to the flywheel, and after another \$100 to have the setup balanced at Reliable Engine, the 6-71 slid into place. Electrical and fuel line connections were easy to hook up, as was the flexible exhaust pipe. Sokalski removed and cleaned all the injectors, so the engine "fired up after turning over just a couple times," he says.

More important, Sokalski adds, the inline 6 two-stroke "Screaming Jimmy" 6-71 has better torque than the 466. It has worked

flawlessly for several hundred hrs. in the field, easily pulling a 32-ft. field cultivator, a 24-ft. disk or an 11-yd. scraper."

Sokalski says the total project took him about 50 to 60 hrs. to figure out and another 50 to 60 hrs. to measure, level, produce parts and install the engine.

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Leo Gallant built this strange-looking tractor by combining parts from an old 1950's Cockshutt tractor with a garden tractor.

2-Wheeled Tractor Works Great In The Woods

"It works well in the woods because there are no front wheels to worry about," says Leo Gallant about the strange-looking tractor, he made by combining parts from an old 50's Cockshutt 20 tractor with a garden tractor.

"Basically I mounted the lawn mower on the tractor frame," he explains, noting he cut

the front wheels off the Cockshutt.

The 16 hp twin cylinder mower had a vertical shaft, which made it trickier to hook up, but Gallant made it work. He also added an extra transmission from a Ford 1/2-ton truck to add more gears to gear it down for working in the woods. The tractor



Tractor's "articulated" steering system uses a hydraulic cylinder and hinge on the drawbar that mounts to a permanently attached trailer.

is "articulated" with a hydraulic cylinder and hinge on the drawbar that mounts to a permanently attached trailer.

"It's mounted so it only twists side to side and not up or down," Gallant says.

The tractor is hydraulically-steered and small enough to maneuver in the woods, yet

tough enough to haul big loads such as a 1 1/4 cords of wood.

"It's working slick," Gallant says. "It was quite simple in the end."

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Electrified Bird Feeder Scares Squirrels Away

Looking for a way to feed birds without having to watch squirrels steal the feed? Here's a simple feeder that handles the job by giving squirrels a bit of a shock.

If a squirrel climbs onto the Squirrel Boss bird feeder, you just press a button on a special remote control and the squirrel gets a shock. The squirrel dislikes the sensation enough that after a correction or two, it will stay away. The remote works from up to 200 ft. away from the feeder.

The system comes with a clear plastic feed tube wired for electricity, a solar-powered roof, a false roof, an AC adapter to charge the solar roof if needed, and a remote control with holder.

The solar-powered roof contains all the shocking mechanism components, including the solar panel and 2 metal posts that fit into slots on the feeder tube and double as contacts. The false roof mounts under the live roof and connects to the feed tube.

"The remote control is fun to use and is safe because it doesn't produce a charge until you want it to. And the charge is equivalent to a static shock so it won't hurt anyone," says inventor Glenn Johnson.

According to Johnson, the AC adapter is necessary to use only if you don't have direct



Bird feeder's solar-powered roof contains all the shocking mechanism components. Squirrel gets a shock when you press a button on a special remote control, which comes with a holder (below).



sunlight where you hang the feeder.

Sells for \$98 plus \$9.95 S&H.

Contact: FARM SHOW Followup, Squirrel Boss LLC, P.O. Box 483, Hawley, Penn. 18428 (ph 877 590-2677 or 570 226-2677; glennjohnson@squirrelboss.com; www.squirrelboss.com).

\$150 Teat Foamer

Andrew and Ron Jamison are saving the family dairy \$3,500 to \$4,000 per year with their \$150 teat foamer.

"We looked at a commercial foamer, but it would have cost \$1,500 to \$1,800 plus a compressor," says Andrew Jamison. "Ours cost us less than a tenth of that. Even with the compressor our total price was around \$350."

The Jamisons milk 100 head and previously used teat dip on their cows. They went through a 55-gal. barrel each month. Now the same teat dip barrel lasts a year with the addition of air pressure.

"We bought a hand pump foamer designed for smaller herds and modified it," says Andrew. "It had all the components we needed, but had to be pumped up after every second or third cow."

The Jamisons installed a pressure gauge and pumped it up by hand to establish the maximum pressure they could use. It topped out at 10 psi. They then installed an air chuck to hook the compressor to the tank and a pressure release valve to keep air pressure under the 10 psi maximum.

"We made a needle valve out of stainless steel with one tube to the bottom of the tank to pull fluid and the second one flush with the top of the tank for air flow," says Andrew. "We ran two hoses from the needle valve to the wand gun so the air and fluid mix at the



Andrew and Ron Jamison made this low-cost teat foamer by modifying a commercial hand pump foamer designed for smaller herds.

gun."

The needle valve allows the Jamisons to adjust the air-to-fluid mix with more air for a drier foam. While they could have mixed the fluid and air at the tank, the needle valve gives them more control over the foam.

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