

## He Turned A Mazda Pickup Into A Giant Snowmobile

"It's a blast to drive," says Josh Eddy of Alexandria, Minn., who converted a 1986 Mazda 2-WD pickup into a big "snowmobile" that has 4-ft. long, 1-ft. wide curved metal skis on front and 4-ft. long cleated rubber tracks on back.

He shortened the pickup's frame by about 2 ft. to improve maneuverability. He replaced the bed with a wooden flatbed that's tilted up or down by a 12-volt wireless winch. He replaced the pickup's rear tires with 4 ATV tires and mounted tracks on them.

"I use it to cruise all over the area. It's a lot of fun to drive, and I stay comfortable in the heated cab," says Eddy. "Sometimes I use it to pull my daughter on a sled.

"It's really light on back. In fact, two people can pick up the back of the pickup and move it over. My total cost was only about \$1,300."

He bought the used pickup equipped with a 5-speed transmission for \$50. He started by cutting 2 ft. out of the pickup's frame and then welding it back together.

Then he went on Craigslist and bought a pair of rubber cleated tracks and a tag axle designed for ATV's. He lengthened the axle by 2 1/2 ft. to match the pickup and made spacers to adapt the ATV's 4-bolt wheel pattern to the pickup's 6-bolt wheels.

He cut as much weight off the front end of the pickup as he could, cutting away the bumper grill support, sway bars, front brakes and part of the fenders. To reshape the pickup's front fenders, he first made a cardboard mold for support and then put fiberglass over it. "The cardboard causes the fiberglass to hold its shape until it dries. Eventually it will rot off," says Eddy.

To make the skis he bought a couple of trailer fenders and cut the 1/8-in. thick material down to look like skis, adding 1/4-in. steel rod bracing to keep the skis from bending. He added metal bracing between the skis and the pickup and then welded on mounting brackets that bolt onto the pickup's front wheel hubs.

The snowmobile was now ready to test, but there was one problem, says Eddy. "The skis wouldn't slide on the cement floor in my garage, which caused the tracks to just spin. The skis needed wheels so they would roll across hard surfaces, so I mounted a pair of bogie wheels off a snowmobile underneath each ski. The bogie wheels mount on 2 bolts that I welded on the inside edge of each ski."

He's pleased with how it turned out. "I can go down our driveway in fourth gear at about 45 mph, although in the field I usually go much slower in second or third gear," says



**Josh Eddy converted a 1986 Mazda 2-WD pickup into this big "snowmobile" that has 4-ft. long curved metal skis on front and 4-ft. long cleated rubber tracks on back. He started by cutting 2 ft. out of the pickup's frame and then welding it back together.**

Eddy. "It steers great, although it does ride a little rough and sometimes I feel like I'm driving a tank. If I want, I can replace the skis with the pickup's front tires by just removing 4 bolts."

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## How To Keep Moisture Out Of Storage Tanks

"Our new disposable Drierite® dryer completely dries displacement air entering poly liquid storage tanks. It's an economical way to protect any contents that are water sensitive," says Chris Costello, W.A. Hammond Drierite Co., Ltd., Xenia, Ohio.

Costello says that whenever a tank is drained from the bottom, "displacement" air gets sucked in from the top, and the moisture in the air can contaminate the tank's contents with mold and corrosion. Drierite contains a desiccant in a sealed cartridge that absorbs any moisture from the displacement air before it enters the tank.

"Only dry air enters the tank," says Costello. "The device can be used to protect everything from diesel fuel to liquid fertilizer

and bulk chemicals, even grain."

The Drierite kit includes a 10-lb. cartridge and a rubber drum adapter that attaches to the tank's fill hole. The cartridge mounts on a metal bracket that attaches to the metal cage surrounding the tank, or it can be placed on top of the tank's fill hole. "Mounting the cartridge on the side allows you to stack tanks and still use the system," says Costello.

To activate the cartridge the operator just removes tape from holes at the top and bottom of the cartridge.

According to Costello, Drierite works great on diesel tanks and is especially useful with biodiesel fuel, which is especially prone to mold.

Drierite systems are available for tanks

ranging from 55 gal. on up to 1,000,000 gal.

The Drierite kit sells for \$67.20 plus S&H. "Once you buy the kit, the only part you'll ever have to replace is the cartridge, which sells for \$29.20," says Costello.

Costello says one horse owner has even used the system to keep the grain stored in their silo from getting moldy. "We use the Drierite on big commercial feed bins all the time. This horse owner is just using a variation of that idea," says Costello.

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**A 10-lb. Drierite cartridge mounted on a 375-gal. tank. The cartridge can be either side or top-mounted.**

## Tractor Canopy Made From Golf Cart Top

"I used the top of a junked-out EZ-GO golf cart to make a shade canopy for my 18 hp Kubota loader tractor. It was easy to do and cost almost nothing," says Steve Browning, Buckingham, Va.

Browning says the conversion took only an afternoon to complete. "My only cost was for the LED lights I added on front and back, which I bought at Northern Tool for \$50," says Browning.

He unbolted the golf cart top, which came with mounting supports on front and back. He reversed the supports to make the top fit the tractor. He used metal conduit brackets and 6-in. long Grade 5 bolts to attach the front supports to the loader support arms. The rear supports are bolted to angle iron brackets bolted across the tractor's rear fenders.

He mounted a pair of 27-watt LED light bulbs both on front and back of the canopy. "The lights produce a beautiful white light that extends about 100 ft. in front of and behind the tractor," says Browning. "When I'm operating a snow blade at night after a heavy snow, it's almost like I'm working in daylight."



**Steve Browning made a shade canopy for his 18 hp Kubota loader tractor from the top of a junked golf cart.**

He also mounted a small flasher light off an old service truck on top of the canopy. The wiring for the lights and flasher came from underwater lights designed for swimming pools. "I operate a commercial swimming pool business, so I install these kind of lights frequently," says Browning. "The wiring is impervious to moisture and so tough it's almost bullet-proof. It works great on vehicles and farm machinery."

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## Self-Fueling Forage Harvester

Jason Force says his Iron Goat forage harvester is ready to head to the field. The self-propelled, self-fueling machine has been upgraded and refined since Force first introduced it to FARM SHOW readers (Vol. 38, No. 5). The first-of-its-kind machine dries and pelletizes forage on-the-go and then burns a percentage of the pellets to power itself.

Force's Iron Goat harvests plant materials and uses engine heat to dry them. They're then pelletized and gasified to fuel the engine, with the excess off-loaded periodically for future use as feed or fuel.

The autonomous system can be programmed for labor-free harvest as well as for selective harvest. In addition to computer-guided travel around the field, Force has equipped the machine with stereo hyperspectral machine vision. It can recognize and target certain species or avoid areas such as nesting birds.

The new, more powerful Iron Goat is designed to cover about 500 acres, slowly munching its way across fields. "We believe it would fit the bulk of farms

in the eastern U.S.," says Force. "While farms traditionally have gone with larger equipment to cover more acres with less labor, the Iron Goat has no labor requirement, low service needs and can operate in any weather."

Force is currently developing financial support needed to enter production. "We've had enough interest that we plan to demonstrate units in the field in the latter half of 2016," he says.

Initial plans for the Iron Goat are to do customer harvesting with machines. This will allow the company to further refine the technology, while avoiding the need to train salespeople in a new and novel process.

"For the first 3 years or so, we will simply show up and pelletize or cube for \$80 per ton," says Force. "In some areas of the country, the climate gives us a distinct edge over other custom harvesting systems."

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