Raymond Maguire combined an Arctic Cat snowmobile, a Bombardier jet-ski, and a Suzuki ATV to make this machine that runs equally well on land, snow or water.

"Made It Myself" Land, Snow And Water Machine

By Ben Schleuss, Associate Editor

Raymond Maguire combined an Arctic Cat snowmobile, a Bombardier jet-ski, and a Suzuki ATV to make a first-of-its-kind machine that runs equally well on land, snow or water.

"It goes 60 mph on snow and 30 mph on water," he says, noting that he spent about $5,000 total to build the versatile machine.

The 40-hp, two-cycle engine from the Arctic Cat powers the vehicle. "The same design would work with more powerful engines," says Maguire. Both the front two wheels and the rear treads can be driven at the same time, giving the vehicle tremendous traction year-round.

Modifying the vehicle to work in the water wasn't that much of a chore. "I'd seen snowmobiles do just fine in the water. It's only when they slow down that they sink. So I just had to figure out a way to make it float," says Maguire. The Ski-Doo hull was sealed up and the front wheels made retractable. "It'll hydrofoil real easy and when you ease off the throttle you won't sink much at all," says Maguire. The front wheels retract hydraulically 8 in. and the rear tracks move up 14 in.

The key to his design is the adapter that transfers power from the snowmobile engine to the front wheels of the ATV. This is a part for which Maguire received a patent for earlier this year. "I'm looking for a buyer of this idea or someone who would like to manufacture it," says Maguire. But for right now he is having fun on his four prototypes.

Bombardier Ski-Doo hull was sealed up and the front wheels made retractable.

"It goes 60 mph on snow and 30 mph on water," says Maguire.

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Chopper processes 165 lbs. of potatoes in about a minute, cutting them into 1/2-in. or smaller pieces.

"Chews All" Chipper Chops Cull Potatoes For Cows

By Janice Schole, Contributing Editor

Although culled potatoes make good cattle feed, there's a risk: sometimes a cow chokes on one and dies. Jason Martin of St. Francis, Maine no longer needs to worry about this possibility, thanks to a potato chopper built by a nephew using old wood chipper knives.

His brother, Richard, and nephew, Nathaniel, experimented in the garage until they had designed what they call a "Chews All" chopper that processes 165 lbs. of potatoes in about a minute, cutting them into 1/2-in. or smaller pieces.

The Martins obtained some old wood chipper knives from a mill that was discarding them because they had become too dull for their purposes. They mounted them on a round piece of tubing, which is turned by a 2 hp electric motor.

"There's a funnel-shaped hopper at the top of the cylinder which feeds the potatoes to the knives. A barrel underneath the knives and hopper collects the cut up potatoes," Jason explains. "It works really well and took only about two days to build. The materials, which included rough lumber, plywood, chipper knives and the motor, totaled about $400."

If there's interest, the Martins could contact a manufacturer to build more units.

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Barrel underneath knives and hopper collects the cut-up potatoes.

Funnel-shaped hopper at top of cylinder feeds potatoes to knives.

Home-Built Front-Mount Mower

By merging a pair of old riding mowers, Conrad Russell, Plympton, Mass., was able to come up with a front-mount mower equipped with a 36-in. deck that he says works "almost as good as anything on the market."

The one-of-a-kind rig is made out of a 1967 Mustang riding mower and a 1970's Ford riding mower, both of which were originally equipped with belly-mount decks. The "hybrid" rig that Russell created is painted Deere green and yellow and has a Simplicity garden tractor deck on front.

He cut the frames of both mowers in half and bolted them together, with the Mustang on front and the Ford on back. The Ford originally had a 12 hp Briggs & Stratton gas engine and 5-speed transmission mounted on back. Russell relocated the engine and transmission up front in place of the original Mustang engine, which was worn out. Then he installed a new 6 hp Briggs & Stratton electric start gas engine on back in place of the Ford engine. The 12 hp engine is used to belt-drive the deck while the 6 hp engine drives the rear wheels. The deck is activated by a lever that engages an idler pulley.

The deck is fitted with a pair of angled metal brackets, which attach to vertical square tubes on front of the tractor. A horizontal rod runs through slots in the brackets and into holes in both of the vertical tubes, making it easy to adjust deck height. A horizontal rod that runs through the bottom end of the brackets allows the deck to be pivoted up vertically out of the way, making it easy to maintain.

"It took a lot of head scratching but was a fun challenge to build," says Russell, who finished putting the rig together last spring. "My total cost to build it was about $300. The big advantage is that the deck is up front where it's easier to see what I'm doing. It only takes about a minute to take the deck on or off.

"However, I still have to work out a few problems on this machine. For one thing, it runs a little too fast. I plan to put a larger pulley on the transmission in order to slow down the ground speed and increase the power. Another disadvantage is that the turning radius is too wide. I plan to put separate brakes on back and mount swivel wheels on the deck to shorten the turning radius. When the front end of the deck goes up too far, it loosens the belt which disengages the blades. To solve the problem I plan to replace the belt-drive system with a pto drive system. To remove the deck all I do is unbolt it from the vertical tubes."

Contact: FARM SHOW Followup, Conrad Russell, Box 222, Plympton, Mass. 02367.

Front-mount mower was made out of a 1967 Mustang riding mower and a 1970's Ford riding mower, both of which were originally equipped with belly-mount decks.