## "Bucket-A-Day" Stove Pre-Preheats Hot Water

"I use it to pre-heat the water that goes into my 30-gal. electric hot water heater," says Tom Hicswa, Hammonton, N.J., about the "bucket-a-day" wood stove he uses in his basement.

He calls it "bucket-a-day" because every day he uses two 5-gal. buckets of wood in the stove. Water is pumped from his well to a 30-gal. tank next to the stove. Water circulates from the tank to the stove and back into the tank. The water is pulled from the tank to the hot water heater as needed. Because the water is preheated by the stove, very little electricity is used.

"I ve been using my bucket-a-day stove since 1969. It saves me 30 to 50 cents a day," says Hicswa. "The stove pre-heats the water to between 100 and 200 degrees. If the water in the tank gets any hotter it blows the safety valve. Even if the water sits in the tank for a while before it's piped out, it's still at 70 degrees. It takes less electricity to heat up 70 degree water than it does to heat 52 degree well water so I still save money.

"The stove was originally built in 1922 and was designed to burn either coal or wood to provide hot water. The stove has an ash pit at the bottom, which I clean out about five times a month."



Water circulates from 30-gal. reservoir to "bucket-a-day" wood stove and then back into reservoir. Water is pulled from the reservoir by hot water heater as needed.

Contact: FARM SHOW Followup, Tom Hicswa, 2169 Elwood Road, Hammonton, N.J. 08037 (ph 609 561-7623; hicksy@att.net).



Guenther's hunting cart will go just about anywhere, thanks to its homemade tracks. Home-Built Track Utility Vehicle

Martin Guenther's homemade hunting cart has gotten hung up, but not for long. Using a built-in winch, he has quickly pulled free. The 8 1/2-ft. long, 5-ft. wide, all steel body handle just about anything and go anywhere, thanks to its home-made tracks.

"I can take it more places than I can an ATV," says Guenther. "It gets up to 12 mph and will climb a 45 degree angle."

After years of thinking about making an all terrain hunting buggy, Guenther went to work on the project.

His first step was to have steel plate bent to form a one-ft. high, one-piece lower body, negating the need for a frame. Everything else was simply mounted to it.

Guenther pulled a 1.8-liter Subaru engine from an old car to power the machine. He installed a governor on the motor and mounted it behind the driver's seat. A new tandem hydraulic pump capable of producing up to 20 gpm was attached to the engine to power new hydraulic motors that were installed to run the tracks.

Guenther used conveyer belt and four 8 by 4-in. wheels to make the tracks. The conveyer belt has a 5-in. section in the middle with a 5-in. section to either side. He cut 14-in. long, 1-in. wide pieces of 12 ga. cold rolled steel for outside cleats and the same size 14-ga. steel for inside cleats. The cleats were formed into channels and bolted together to either side of the conveyer belt.

Guenther even made his own drive and tightener sprockets. He cut 12 steel, cog shaped plates and enough similarly shaped pieces of conveyer belt to make four 4-in. thick sprockets. Each sprocket has a steel plate on each side and in the center to keep the canvas cog rigid.

Drive sprockets mount directly to shafts from the hydraulic motors at the front of the tracks, while the tightener cogs are mounted at the rear on a cam attached to a hydraulic ram. To tighten the track, Guenther merely increases the hydraulic pressure as needed.

For the upper foot of the body, headlight panel and engine hood, he made molds and covered them with fiberglass. "I bought tractor seats to mount ahead of the engine," says Guenther. "That left a cargo area behind the engine. Two levers, one for each side, control the drive motors, forward and reverse."

He has made very few changes to the cart since building it and sees little need to change it. "I had a couple of flat tires when out hunting the first couple of years," he recalls. "I added foam to the tires, and that took care of the problem."

Contact: FARM SHOW Followup, Martin Guenther, Box 120, R.R. 4, Saskatoon, Sask. S7K 3J7 (ph 306 931-2514).



Wagon rolls on large diameter pneumatic tires that allow it to smoothly walk over large objects. Front-mounted manual crank lowers rear tailgate, which children climb up.

## Awesome Wagon Built To Last Generations

Chances are good you've never seen a children's wagon like this one. Its creators wanted to make something that would be fun for kids and useful for parents. In fact, its many special features may make it the kind of possession that might become a family heirloom.

Kai Grundt of Muskoka, Ont., enjoys building unusual mechanical devices in his spare time. He has young children so the wagon was a natural. The idea to custombuild and sell them resulted from the sheer demand Grundt experienced every time he took it out in public.

"For example, we went to watch our local Santa Claus parade with it the other day, and we were mobbed by people wanting to know where we got it," he explains.

Together with business partner Kerry Phibbs, Grundt has turned the project into a commercial venture.

"The wagon has a front-mounted manual crank that lowers the rear tailgate in a slow, controlled manner. Once fully lowered, it locks the rear wheels to prevent any unwanted fore and aft movement," Phibbs explains. "Children can climb up the back of the tailgate using the panels as ladder rungs. Once aboard, the parent rotates the hand crank in the opposite direction, raising the tailgate back up. Once the tailgate is closed, it can't be forced open from the inside.'

The wagon rolls effortlessly and rattle-free on large diameter pneumatic tires that allow it to smoothly walk over curbs.

The floor of the wagon is transparent so kids can watch the wheels and suspension components as the wagon moves.

High quality components ensure that it will be around for reliable service and enjoyment for generations to come, the partners point out. Corrosion isn't a concern since the rig is made with stainless steel hardware, cadmium and powder coating, and high quality polymer panels.

The front and rear suspension feature 6 in. of travel. All suspension arms and components have rod ends and sealed bearings with no bushings. There are eight nitrogen gasfilled springs, complete with 16 rod ends that can be lubricated.

It includes an aluminum extension handle with dual retention springs that keep the handle in an upright position when not in use. Grundt requires a three to four week lead time to fill order requests.

Contact: FARM SHOW Followup, Kai Grundt, 32 Sellens Ave., Bracebridge, Ontario, Canada P1L 1R3 (info@v8snowblowers.com or sales@ v8snowblowers.com; www.v8snow blowers.com).



Fred Windsor puts an old bearing or nut under trailer tongue.

## Simple Idea Smoothes Out Hitch

When pulling a 2-axle manure or fertilizer spreader, Fred Windsor, Cambridge, Md., puts a bushing under the trailer tongue on the hitch pin to minimize the up and down movement of the tongue.

when there's not much weight on the tongue. The bushing can be an old bearing or an oversize nut - anything that will fill up the space. Contact: Fred or George Windsor, 5855 Mt. Holly Rd., East New Market, Md. 21631

He says the idea works especially well (ph 410 943-8389).

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