Hot Water Furnace Burns Hay Pellets

Hay pellets burn far more efficiently than wood pellets and aren't difficult to make. So why isn't everyone burning hay pellets in their wood burning stoves?

Because when hay burns at high temps the ashes fuse into clinkers. The clinkers quickly build up in the firepot and can smother the fire in only a few hours. You have to clean the firepot too often to be practical.

Gus Swanson says his new hay pellet burning stove and hot water boiler will solve the problem. The multi-purpose furnace burns hay and wood pellets as well as corn.

The stove's key feature is a patent in United States and in Canada ash remover, which reduces naturally forming clinkers into a fine powder ash. The ash removal system works automatically and continuously during the burning process. It consists of a rotating bar with built-in flutes that stirs the clinkers and pushes them to the outside of the firepot, where they break down into fine ashes. An auger then automatically dumps them into a 5-gal. pail.

Swanson's company, LST Energy, has been working with Cornell University. His test model burns 4 lbs. of hay pellets per hour and has an output of 40,000 btu's. Wood pellet making companies in Canada made the hay pellets that they used in their tests.

"It's a clean burning system that's virtually maintenance-free," says Swanson. "The fire isn't disturbed and there is complete combustion of all pellets. The operator never has to touch the ash."

According to Swanson, heating a building with hay pellets costs about half as much as oil.

"Last winter I used the furnace to heat a 3-unit apartment building and used 4 lbs. of hay pellets per day, at a cost of about $300 per month. I had been heating with oil at a cost of about $700 per month.

"We use another hay pellet hot water furnace to heat our shop every day and will test two more stoves in farm greenhouses this fall. And this winter the Department of Agriculture in Truro, Nova Scotia, will test one of our furnaces. "

He says hay pellets have an ash content about 10 times as high as wood pellets.

More than trying to build a business, Swanson says he's trying to build an industry across North America and boost the market for hay. "Our ultimate goal is to make hay pellets and deliver them by truck to the homeowner. At the time of delivery, the truck will pick up the ashes which the homeowner has stored in a bin and haul them away. The homeowner won't have to handle ashes if they don't want to.

LST pellet stove and hot water boiler burns hay and wood pellets, as well as corn. It eliminates naturally forming clinkers that might smother fire.

Typical clinker formed while burning hay pellets (left). Stove's ash remover reduces such clinkers into a fine powder ash (right).

"We think the same idea might work with straw pellets made from wheat, oats or barley or even weeds, although we haven't done any tests on those materials yet. The key is to get the moisture content down to 13 percent."

We are currently looking for a manufacturer for this furnace.

Contact: FARM SHOW Followup, LST Energy Inc., 357 Haliburton Rd., P.O. Box 760, Pictou, Nova Scotia, Canada B0K 1H0 (ph 902 485-9348 or 902 485-8509 or cell 902 759-9409; gswanson@lst-energy.com).

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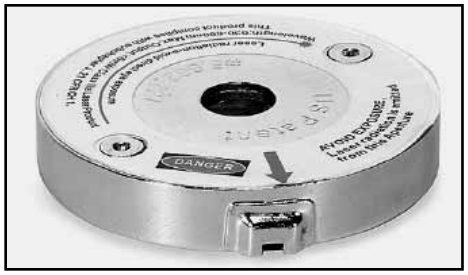

Designed for chop, miter, abrasive, radial and hand power saws, the add-on laser guide turns on automatically only when the blade starts to rotate and shuts off when it stops.

Disabled Vet Markets Laser Guide

Robert Kelly served in the US Army during the Vietnam War. After discharge he worked for a laser company that pioneered laser gunsights. His name is on 3 of the company's most popular patents. In 1996 the company was sold and moved offshore.

While working as a for-hire engineer, he came upon the idea of a Laser-Guide for power saws. Years earlier, his brother Jack had cut off the tip of his index finger while making cabinets. His thought was if there had been a laser line showing that the finger was in harm's way before the blade made the cut, Jack would still have his finger. Plus the red laser line would show where the cut was being made. It could save a lot of material.

In 2005, Robert and a fellow engineer formed a company to make and market the Laser-Guide. But in 2006 Robert suffered a brain aneurysm, followed by loss of his short-term memory. His dad, Bob, moved in with him and assumed his duties. In 2007, after 3 operations, he was sent to a VA hospital in Oregon for rehabilitation. In 2009 Robert was able to start performing some duties in the company

In 2010 the company is finally making a profit, thanks to earlier mentions in FARM SHOW, and Robert is self supporting. He has gradually taken over more duties and really thanks all his customers for their patronage. He promises 100% satisfaction and the beam and case have a lifetime guarantee.

The most popular model is the 12200, ($24.95). It fits saws that use a bolt or screw to hold the outer washer in place, which includes most miter, chop and circular hand saws. Model 15500 ($28.95), is used on saws that use a bolt to hold the washer on. Both models fit over a 5/8-in. arbor/shaft. There's also have a model for 1-in. or 117 mm arbors.

Contact Bob toll-free @ 800 767 1262, or by email: bob@laserusinc.com. Be ready with the brand and model number of your saw.

Websites: www.laserusinc.com or www.laserguide4saw.com.

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