Add-Ons Boost Tractor/Loader Use

Robert McMahon's loader tractor is a lot more useful now that he added a chainsaw and log chain holder to his loader frame and mounted hooks to the bucket.

"I don't like carrying a chainsaw on my tractor platform," says McMahon. "Adding a holder gave me a way to store log chains and other tools as well."

The chainsaw holder consists of a length of 5-in. square tubing that he picked up at a scrap yard. He attached a bottom plate to it with side plates to act as a scabbard for the chainsaw blade.

"I looked at commercial holders, but often they didn't leave room for the plastic guard sheath," he says. "It's handy to be able to use it."

A T-bar clamp lets McMahon secure the chainsaw in place, while a rubber foot mounted to the other side of the tubing provides a rest for the chainsaw body.

"I put a stainless steel spring on the bolt between the T-bar handle and the nut welded on the scabbard," explains McMahon. "It provides enough tension that the bolt doesn't vibrate loose."

McMahon added another strip of flat steel to the backside of the tube. Ends cut at an angle create ideal storage for a splitting wedge. He also cut several notches in the top of the square tube. They secure log chain hooks with the chains hanging on the inside of the tube.

"I've seen other suggestions in FARM SHOW for pvc pipes or steel tubing, but I didn't want the log chain to come off when operating my Bushhog," he says. "With the chains inside the tube and the hooks in the notch, they stay put."

McMahon notes that placement of the holder on the loader frame upright was the tricky part. "It is a little off center to the outside," he says. "I needed clearance to pull the chainsaw out."

McMahon adds that the holder tube is equally handy for carrying long handled tools.

McMahon also added a 50-caliber army surplus ammo bucket to the ROPS for a toolbox. Two pairs of chain hooks welded on the loader bucket were even quicker fixes. The hooks were low cost, but make securing loads easy and transport safer.

"I also welded a 2-in. receiver hitch to the top of the loader bucket," says McMahon. "I have a trailer with a pintle hitch. I slip the pintle hook into the receiver, and I can hitch up the trailer and push it forward instead of backing it up."

Another low-cost add-on was eBay purchased stabilizers for his 3-pt. hitch arms. McMahon passed on the $400 OEM stabilizers when he bought the tractor. Instead, he paid $100 for a set he could modify. He made slight changes to the ends, such as replacing a bolt with a flange and pin.

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Clockwise from upper left: a length of 5-in. square tubing serves as a chainsaw and splitting wedge holder; chainsaw and splitting wedge in place; chain hooks and receiver hitch welded to loader bucket; modified stabilizers for 3-pt. lower lift arms.

He Started His Own On-Farm Malting Business

"I started malting my own grain about 10 years ago to brew beer for myself," says Eric Stiegman. "I hand malted it in my basement and put it in my oven to roast it."

He decided to expand into a commercial-scale operation, with the idea of producing and marketing his own beer. Like a small winery, he would use his own barley and wheat, produce his own malt, and brew the beer.

"I discovered that malting was more difficult than making beer," he says.

Eventually Stiegman decided to focus on malting barley for craft brewers. When not farming, he is kept busy by one brewery alone. He grows the barley they prefer and malts it to their specifications. He admits that getting there wasn't easy.

"I had a lot of failures," says Stiegman. "I went through all the malting books I could find. Then I designed my equipment around corn handling equipment and tanks for liquid fertilizer."

Except for the kiln, all his equipment is housed in an old semi reefer trailer. The enclosure lets him better control temperatures and humidity at the different stages.

"Malting grain requires fooling the grain into converting carbohydrates into sugars that the yeast can make alcohol from," says Stiegman.

Making malt requires sizing the grain to a uniform size that will soak up moisture evenly. He steeps about 1,500 to 2,000 lbs. of grain at a time, periodically draining it and air-drying it.

"I use bulk (non-treated) 50-bushel soybean seed bags for moving grain around and a pto-powered Wallinga grain vac to move the grain into the steeping tank and into and out of the roaster," says Stiegman.

The steeping tank is a plastic tank with a funnel shaped bottom. It has a 4-in. valve on the bottom to drain the steeped grain into a short customized elevator.

"I cut the top off the tank so I can clean out anything that doesn't drain out with air pressure or a garden hose," says Stiegman.

When the grain gets to about 44 percent internal moisture, he moves it to a Saladin tank for germination. The Saladin tank was originally a 1,000-gal. liquid storage tank that he modified, cutting off the domed top and adding a false floor and stirator.

"I used steel sheeting to fabricate a sleeve around the tank and a railing for the stirator to attach to," says Stiegman.

For 3 to 5 days he blows air at 100 percent humidity and about 53 degrees through the perforated floor. This keeps the internal moisture level at 44 percent while it germinates. At the same time, the shortened stirrator prevents emerging roots from forming an interlocked mass.

When the grains have germinated the desired amount, he dries the internal moisture to below 10 percent. At that point, he uses the grain vac to move the germinated grain to the kiln.

For the kiln, Stiegman installed a false, flat perforated floor in a bulk feed tank and connected it to a propane-fired house furnace.

"I had to modify the furnace so it wouldn't shut down at high temperatures," says Stiegman. "I also added a small grain bin fan and devised controls for the burners and the fan. Insulated ducts recirculate the exhaust air through the furnace plenum."

The kiln roasts the grain at 140 to 220 degrees, depending on the type of beer to be brewed. Once roasted, the grain is vacuumed out and run through a fanning mill to remove any roots. After aging it in 50-bu. bags for 3 weeks to a month to release gasses, the malted barely is ready to be crushed for the brewing process.

Stiegman has recently added a rotating-drum, peanut roaster from China as a second kiln. It will let him produce darker, more flavorful malt.

Based on current demand, Stiegman is considering expanding his operation. This would require adding more modules or replacing what he has with larger equipment.

Peanut Roaster repurposed as a second kiln.

Kiln made from a bulk feed bin.

This 1,000-gal. tank is used to germinate the barley.

"I attended a master maltster conference in February, and of the 170 people there, every one wished they had designed larger systems," says Stiegman.

"Craft malting has really taken off. People interested in malting should contact the North American Craft Maltsters Guild. They are a great source for information, craft malt sources, training courses, and other events," he says.

Contact: FARM SHOW Followup, North American Craft Maltsters Guild, 12 Gerber Rd., Suite C, Asheville, N.C. 28803 (www.craftmalting.com).