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“Made It Myself” Mini Baler Really Works

“My 1/3-scale mini baler is modeled after old-time small square bale presses made in the 1930's and 40's. It makes compact 5 by 7 by 12-in. bales,” says Patrick Burrington, Stevensville, Mont.

The baler is driven by a 5 hp. Briggs & Stratton gas engine and has a pickup width of 24 in. It makes bales that average 6 to 7 lbs. Burrington built the baler last February and used it this summer to make about 60 bales out of grass, hay and straw. “I think the bales might make good decorations for Halloween, Thanksgiving or Christmas nativity scenes,” he says. “My baler doesn't have an automatic tying device so I have to tie the bales by hand like they did on real bale presses.

“A lot of old timers tell me they remember operating these balers. I've demonstrated it at a local antique tractor show and driven it in a parade.

“I got the idea because I planted some alfalfa this spring in a field and was trying to figure out what I was going to do with it once it was cut, and thought about building

a mini baler after seeing some on YouTube. My uncle was a custom baler back in the 1950's and 60's when I was growing up, and I thought it would be neat to build a mini baler like the one he used, but with a few modifications.

“To build it I watched numerous YouTube videos of people who had made other mini balers and took notes. I used my water jet table and plasma table to fabricate all the parts. It took about one month to build. I painted it Deere green and yellow because I use my Deere 170 garden tractor to pull it.”

The baler's engine runs through a 20:1 gearbox that belt-drives the baler's crankshaft, auger and bale pickup. “The 8-in. dia. auger is off a post hole digger that I bought from Northern Tool. Because of the direction the auger turns, I had to mount the pickup on the opposite side of the baler from where it would normally be,” says Burrington.

A 5 by 7-in. metal box on top of the bale chamber holds 8 spring-loaded “separator plates”, which get pushed down by a vertical

feeder into the bale chamber. “The separator plates automatically get loaded into the bale chamber in much the same way that a magazine clip automatically loads bullets into a rifle chamber,” says Burrington. “When I'm ready to make a bale, I put a separator plate in, then raise a handle which causes the magazine to slide forward about 1 1/2 in. The feeder then pushes the plate down into the bale chamber and locks it into place. Having several plates ready to go works a lot faster than putting them in one at a time like the other bale presses I've seen.”

He says the bale plunger has a 12-in. stroke, and the gearbox has a ratio of 20 to 1 so the plunger moves very slow. “When the plunger makes its stroke, the feeder that presses straw into the bale chamber is in the up position. When the plunger withdraws, the feeder presses down.”

In the field, Burrington says it works best to have someone driving the tractor while he walks alongside the baler and ties the bales. “Otherwise if I'm by myself, I have to drive

the tractor and then stop and walk back to tie each bale,” he explains.

“Generally I just pile a bunch of grass or straw in the yard, park the baler, and feed it in from the top like they did on the old stationary bale presses.”

The baler rides on a pair of 12-in. high wheelbarrow wheels that Burrington bought from Surplus Center in Lincoln, Neb. (ph 800 488-3407; www.surpluscenter.com). He also bought all the pulleys, belts and bearings there. He added the muffler off an Allis Chalmers WD45 tractor just for looks.

“I bought the pickup tines and twine at Tractor Supply Co. and mounted six sets of tines across the width of the pickup in four different places that are 90 degrees apart. In the future, I might build an auto tying mechanism for it,” notes Burrington.

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Mel Hursey shows off his Allis Chalmers WD45 and Oliver Super 66 1/2-scale tractors, built by Ray and Ron Richardson of Marengo, Ill.

1/2-Scale Tractors Look Factory-Built

We spotted these 1/2-scale tractors while attending the recent Triumph of Ag Show in Omaha, Neb. Mel Hursey of Shelby, Iowa had 3 models on display - a Deere 4020, Allis Chalmers WD45, and Oliver Super 66. All 3 tractors date back to the early 1950's and 1960's and were built by brothers Ray and Ron Richardson of Marengo, Ill. (gmapoppopri@att.net; ph 815-568-6494). Both men are retired and build 1/2-scale tractors as a hobby.

“I take my tractors to shows and drive them in parades. My dad had Oliver tractors so I grew up with them,” says Hursey, who belongs to a local Oliver tractor club.

Over the years FARM SHOW has covered quite a few 1/2-scale tractors, but these tractors have exceptional detail and look factory-built.

“We try to build our mini tractors as authentic as possible,” says Ray. “We build them only during the winter so it's mostly just a hobby for us. Most of our tractors are powered by Kohler 10 or 12 hp. engines with 3-speed transmissions from Cub Cadet garden tractors. We've used parts from garden tractors and farm tractors, in which case we cut down the parts and reweld them back together. The hoods are entirely handmade.

“We often take our tractors to local county fairs. Kids love to play on them. When people ask us where these tractors are built, I tell them, ‘in my back yard, one at a time.’”

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Sidney Stubbs is all set for fall hunting season thanks to his tote cage deer stand. With 5 of the 46-in. high, 40 by 48-in. cages stacked, Stubbs is up high, out of the deer and elk's line of sight.

“They don't even seem to see the cages,” says Stubbs. “I have a platform on the floor of the top cage where I can sit. Once I hang camo around it, I can't be seen.”

Stubbs says the deer stand was easy to make. After knocking out the bottoms of each tote, he brazed them together.

“I probably used \$3 worth of brass to do the whole thing,” says Stubbs. “It only took about 2 1/2 hrs. I loaded it on a trailer and took it to the spot where I wanted to set it up.”

With the help of a friend, Stubbs laid down poles for a level base next to a tall tree. A ladder allowed them to attach a snatch block up high. Then they hooked one end of the cable to the top of the tree stand and the other to my quad,” he says. “We just pulled it into place and used tie-down ratchet straps to connect it to the tree.”

He says climbing it is almost as easy as climbing stairs. Stubbs encourages others to make their own. “You can get these totes and cages for practically nothing,” he says.

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Deer stand is made from 46-in. high, tote cages stacked 5 high.