Homemade Beam Scale Is Extremely Accurate

"My beam scale is accurate enough to weigh something as small as a soda can and anything up to 50 lbs. I built it myself for about $40 from parts I bought at Home Depot," says Dick Carrier of Wimauma, Fla.

Carrier's parts list includes a 1 by 3-in. oak board 30 in. long, 3 shackles that fit over the board, 3 ft. of #4 chain that the shackles will fit through and a small 2-in. level that can be glued to the board. A pointer wire is also needed, which can be made from a perfectly straight piece of electrical wire or a coat hanger.

Carrier built his scale because he needed an extremely accurate and repeatable device for measuring chemicals that he uses in his home-built biodiesel processor. "Every electronic scale I tried was off by 2 to 10 pounds and that didn't cut it for what I needed," he said.

Homemade beam scale is accurate enough to weigh anything from a 50-lb. sack of flour to a soda can.

To build the scale, Carrier first measured the size of the cleave bolt and drilled a hole that size exactly in the center of the oak board, left to right and top to bottom. He stresses that the bolt has to slide easily through the hole, but can't be loose from side to side. He drilled the same size holes for each of the side cleave pins 2 in. in from the ends of the boards, again exactly in the center.

Next he attached the level to the board beneath the center hole so the centerline of the level was exactly in the middle of the hole.

Carrier cut the chain into three equal lengths and made two hooks for the bottom of the side chains to hold the material pails. After attaching the side chains to the board with two shackles, he attached the third chain with one shackle to the hole in the center of the board. Carrier said the center chain could be attached to a ceiling beam or anything that will hold 100 lbs. without sagging.

Carrier bought two new buckets to hold material that he weighs. He replaced the wire handles with sturdier handles that he made from threaded 1/4-in. rod that won't bend, making sure that both handles were the exact size.

After assembling all the parts Carrier balanced the scale by drilling a small amount of wood from one side of the beam. He made 5 and 10-lb. weight ballast by putting sand in old pant leg material and sewing the ends shut. Asked how he was sure the weight on the 'sand legs' was accurate, he took a pail of fine sand into a post office after hours and weighed it on their postal scale. He also uses 1/2 and l-lb. wheel weights for counterbalance.

A pair of chains are suspended from an oak board, with each chain supporting a 5-gal. bucket.

Carrier's scale is an important part of his homemade biodiesel processing system. He uses it to weigh dry chemicals that have to be added in very exact amounts. He says his scale is a lot easier to use than a bathroom scale or other electronic scales, which are hard to read and inaccurate.

Contact: FARM SHOW Followup, Richard Carrier, 15840 Wimauma Rd., Wimauma, Fla. 33598 (ph 813 545-9361; harveyking@hotmail.com).

Richard and Joyce Thompson created a winter garden in this 16 by 80-ft. house trailer, installing large salvaged windows across trailer's south-facing side.

Winter Garden Planted In House Trailer

A fire-damaged house trailer is keeping Richard Thompson and his wife Joyce well fed this winter. Next spring it should put them ahead of the pack producing peppers for the local farmers market. Creating a winter garden in the 16 by 80-ft. trailer was easy, according to Thompson.

"We parked it east/west and installed salvaged windows across the south face," he says. "We took out the top 4 ft. of each interior north/south partitions to open the rooms up to the light and stripped out anything we couldn't use." Leaving most of the partitions in place maintains the trailer's structural strength.

Thompson doesn't use any of the plumbing or electric lines in the trailer. He placed two, 265-gal. fuel tanks in the trailer and filled them with water.

"They provide enough room temperature water for the plants throughout the winter," says Thompson. "If I run short, I'll just run a hose out and refill them."

To heat the trailer, he made an outdoor wood furnace boiler. The water jacket is another salvaged 265-gal. fuel tank. It is heated by a firebox made from a 5-ft. long, 24-in. dia. air compressor tank. A chimney runs out the rear of the compressor tank and back forward to the front of the tank where it exits, allowing the water to capture more of the heat. The water from the furnace is circulated to one of the big water tanks in the trailer. So far, the system has been more than enough to keep the insulated trailer warm.

"I put a few sticks of wood in each morning and each evening," says Thompson. "That is plenty to keep the trailer interior at 55 to 60 degrees at night. During the day it heats to 75 to 80 degrees from the sun."

In winter, trailer is filled with 5-gal. pails of rotted cow manure planted to a wide variety of plants.

Richard and Joyce have filled the trailer with 5-gal. pails of rotted cow manure planted to a wide variety of herbs, leeks, garlic, celery, Swiss chard and cherry tomatoes. They also have 150 pails planted to multiple varieties of peppers, from sweet to hot.

"Pepper plants are perennials," notes Thompson. "Spring-planted peppers just get started producing by fall. Even if these don't produce any peppers this winter, they will be ready to go in the spring. One mature pepper in the spring should produce as much next year as ten spring-planted peppers."

Thompson expects to be the first grower with peppers at the farmers market, giving him a price advantage. In the meantime, he and his wife are enjoying produce from their winter garden.

Contact: FARM SHOW Followup, Thompson Farms, RR 2, Box 80, Isle, Minn. 56342 (ph 320 676-3752).

"Gate-Getter" Loosens Tight Gate Wires

A simple ratchet strap with a pouch makes it easer for Carolyn McLarty to saddle up her horse and trail ride around her Mutual, Okla., neighborhood. She uses the strap to help open and close gates secured by tight wire loops.

"One day when I was trying to close a gate, I just couldn't do it," she says, noting that she was lucky a neighbor came by to help. "It proved the need I had for something to take with me."

She asked her husband for help, and he came up with Gate-Getter, a 6-ft. long, 1-in. ratchet strap. Place it under the wire, and tighten the ratchet until the wire is loose enough to remove (or put back on).

"I have a nice little pouch to hold it in and a padded handle on the ratchet, which is easier for women to hold on to," McLarty says.

Most of her customers are female ranchers, but it's also perfect for trail riders and hunters, she notes. The case has a loop, which can be secured to a saddle or belt. McLarty keeps hers handy in a saddlebag.

"It gives me more confidence that I'll be able to get through and back home," she says.

The Gate-Getter comes in six colors: Kelly green, orange, pink, red, royal blue and woodland camouflage and sells for $24.95 (plus tax and shipping) through her website.

Ratchet strap helps open and close gates secured by tight wire loops. You place strap under wire, then tighten ratchet until wire is loose enough to remove.

Contact: FARM SHOW Followup, Gate-Getter, 48668 S. County Rd. 214, Mutual, Okla. 73853 (ph 580 334-7473; www.gate-getter.com).

Pivoting handles fit onto wheelbarrow's existing handles, allowing you to lift and dump a load without having to reposition your hands.

Wheelbarrow Handles Pivot To Dump

These new pivoting handles fit onto your wheelbarrow's existing handles so you can lift and dump a load without having to reposition your hands. They make it a lot easier to dump heavy loads with less strain on your arms and back.

They simply slip over the wheelbarrow handles, held in place by shims and bolts.

Sells for $22 plus S&H.

Contact: FARM SHOW Followup, Simply Dump It, P.O. Box 2837, Salem, Ore. 97308 (ph 503 585-8299; www.simplydumpit.com).