Mini "Hit & Miss" Engines Really Work

Richard Dickey sells casting kits and completed 1/3-scale, 2 1/2 hp Red Wing air-cooled engines and 1/4-scale 5 hp Red Wing water-cooled engines. The engines are miniature replicas of hit and miss engines built by a Red Wing, Minnesota, company in the early 1900's.

Customers from all over the world appreciate the miniature engines as much as Dickey did when he first saw them at a steam engine and gas tractor show several years ago.

"I was just fascinated," he recalls. "You can see the open crank and connecting rods, the backside of the pistons, everything moving. It's just wonderful to watch."

Though the retired military man had no machining skills, he ordered a casting kit. Finishing the engine was a frustrating experience but he figured it out and then contacted the editor of Gas Engine Magazine and offered to write a series of articles about his experience. The five articles became the basis of a book called, "How To Build A Red Wing."

In addition, he bought the blueprints and molds for the engines.

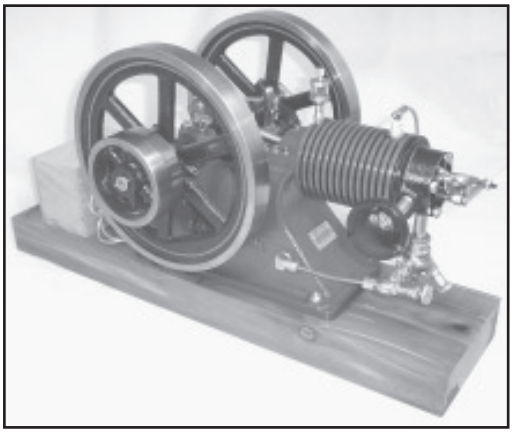
Most customers purchase the $450 (plus $30/shipping) kits, and complete them in about 150 hours. Other customers want completed engines, which Dickey sells for $2,400. The engines burn gasoline and are about 12 by 12-in. and weigh 40 lbs. Both the 1/3- and 1/4-scale engines have 8-in. diameter flywheels.

Some customers use the engines to power things such as ice cream makers, tiny balers or rock crushers. Dickey says his customers are often older men who once owned full-sized hit and miss engines, which are now too heavy for them to move around. Other buyers are retired machinists looking for a project.

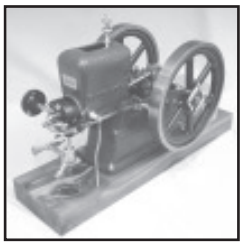
"We're going to keep hit and miss engines alive," Dickey says.

Dickey has shipped casting kits and engines all over the world, including Europe, Japan and New Zealand. He also sells parts and related items on his website.

Contact: FARM SHOW Followup, Richard Dickey, Red Wing Motor Co., P.O. Box 581, Lead Hill, Arkansas 72644 (ph 870 436-3921; rad@redwingmotor.com; www.redwingmotor.com).



Customers all over the world appreciate the miniature engines made by Richard Dickey.



Dickey sells complete Red Wing water-cooled engines (left) as well as kits and parts.

He Builds Old-Fashioned Calliopes

Whether pulled by a team of draft horses or an antique tractor, an antique-style calliope wagon is sure to draw a lot of attention whether in parades or at a show. The music from calliopes can be heard up to 1/4 mile away and people love it, says Miner Manufacturing Company.

"We're the only company that still makes brass whistle calliopes," says owner Dave Miner. After their heyday in the 1920's, calliopes died out in the 1950's. Miner's father built one in the late 1970's as a hobby, and people were fascinated by it. Dave Miner recognized the interest and built 11 of them by himself in 1984 to launch his business. The company is small, with an emphasis on quality materials and craftsmanship.

Miner designs his calliopes based on old photos and historical information. Some customers, such as a Cincinnati sausage maker and a Wisconsin graphics company, use them to promote their businesses at events and parades. Other customers order calliopes for their collections. He'll custom build whatever people want.

"The calliope is one of the few genuinely American instruments," says Miner, adding that people like them because they play happy, classic songs, such as "Stars and Stripes Forever."

He adds that he is a perfectionist. "Not only does it have to look pretty, it has to sound perfect. If it's not 100 percent right, it doesn't go out of here."

His company sells calliopes without wagons or trailers for under $10,000. With custom designed wagons, prices start at $36,000. Wagons with a calliope weigh about 5,000 lbs.

Miner sells directly from his business, and on the internet and has sold calliopes throughout the U.S. and overseas. He also makes riverboat calliopes and Model T Ford circus trucks with calliopes.

Antique musical calliopes draw a lot of attention whether in parades or at shows, says Dave Miner, owner of a company that still makes brass whistle calliopes.

Contact: FARM SHOW Followup, Dave Miner, Miner Manufacturing Co., 2208 220th St., Donnellson, Iowa 52625 (ph 319 837-6486; info@minermfgco.com; www.MinerMfgCo.com).

Home-Built Tandem Rail Bike

After reading the stories in our last issue about home-built bikes for riding abandoned railways, Jim Johnson sent photos of a tandem bike he and his brother Cliff take for a ride when they're in the mood to kick back and relax.

"I chopped up a couple of old bikes and inverted the wheels so the rear section with the chain drive is now in front," says Johnson. "The recumbent style seats were sliced from the sides of a herbicide drum."

The main frame for the two-person bike is made with 1-in. square steel tubing with cross braces welded onto the corners. Side to side, the frame is 56 1/2 in., the width of a railroad track. The sections below the riders overlap for extra strength, with upright sections of tubing supporting the drum seats at their relaxed angles.

Steel rod welded to the axle stubs ties the two rear wheels together. The wheels are mounted to the main frame using their original bike frame yokes. A second set of yokes extends from the wheel hubs up to the base of the seat, adding support and stability there. Two more steel rods extend between the seat base and midway up the back of the seats.

The front wheels also mount on their original yokes, but are reversed. The yoke that previously extended up towards the seat is now attached to the main frame. The yoke that once extended parallel to the ground toward the pedals now extends up and back towards the riders. This positions the pedals and chain drive directly in front of the rider's seat for easy pedaling.

Track guides consist of two sets of polypropylene disks mounted to the corners of frame extensions front and back. The frame extensions are also made with 1-in. steel tubing. They extend out about 6 in. and down about 8 in. and down from the mainframe front and back about 10 in. They are mounted to the main frame with spring mounts allowing the bikes to ride up and over crossings.

A large mirror recycled from a Hiniker tractor cab mounts at the center front of the main frame to provide Johnson with a view of any train approaching from the rear, although he and his brother rarely ride actively used trucks.

"Rail lines seldom exceed 4 degrees of slope, so pedaling is effortless compared to a road surface," says Johnson. "Additionally, it is amazing how one can be close to roads and trucks and yet see all forms of wildlife. The sense of being in remote wilderness is both amazing and rewarding."

Whenever they're in the mood to kick back and relax, Jim Johnson and his brother Cliff take a ride on their tandem bike. It's designed to be used on abandoned railways.

Contact: FARM SHOW Followup, Jim Johnson, 9515 166 St., Cologne, Minn. 55322 (ph 952 466-5979; jj.etal@att.net).