1867 Roper REPLICA

A museum-quality replica of the 19th century's hottest bike

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Today's chopper-riding, made-for-TV outlaws talk tough, but would they have had the guts to throw a leg over Sylvester H. Roper's bike?

When Roper rode into town in the late 1860s, he wasn't straddling a benign four-stroke twin, but a potentially explosive charcoal-fired steam boiler. The steam from that vertical fire-tube boiler puffed pressure into a pair of cylinders—like those used to drive the wheels of a steam locomotive—which turned the back wheel.

The seat on Roper's quaint-enough looking steam velocipede doubled as the water tank for the boiler, and the bike's speed was controlled by twisting the hand grips—a twist forward pulled a cable that opened a valve on the front of the boiler, releasing more steam into the cylinders, while a twist rearward applied a friction brake on the front wheel.

There was no suspension for the rider, but the boiler was cushioned from bumps in the road by a pair of springs atop the rods that secured it to the frame. The boiler's firebox was at the base where charcoal could be fed in through a round door, and its chimney puffed exhaust aft of the seat.

The wheels provided no cushion for Roper either—they were built like wagon wheels: wooden hubs, wooden spokes and a wooden rim shod with a steel band.

Roper, who died reportedly of heart failure in 1896 while testing a later version of his steam-powered bike, is said to have demonstrated his early "steam velocipede" around New England. Today one of his creations is part of the Smithsonian collection, another is at the Owls Head Transportation Museum in Owls Head, Maine.

The bike featured here is the creation of motorcycle restorer and customizer Bill Eggers, 72, of Goshen, Connecticut. It's a replica and doesn't run, but the detail the former cabinetmaker has built into his tribute bike caught the attention of the Barber Vintage Motorsports Museum in Birmingham, Alabama, and the Motorcyclepedia Museum in Newburgh, New York, where two similar replicas built by Eggers are on display.

Eggers worked from photographs of the Roper steam velocipede at the Owls Head museum to create his bikes and estimates that it takes him about eight months to scratch-build one, working eight hours a day seven days a week.

The boiler is fabricated out of a sheet of

brass rolled into shape then held together with solder and dozens of neatly aligned rivets. The cylinders that drive the wheels are made of wood wrapped in sheet brass, but they have pistons inside and they turn when the rear wheel is spun. The wheels were steam-bent out of ash, with a process that Amish craftsmen still use, and Eggers turns the spokes, hubs, handgrips and footpegs on his lathe. The spokes are ash, while everything else, including the backbone of the bike, is made out of red oak.

"I use red oak because it's strong, it will take a beautiful finish and I can stain it to make it look 100–200 years old," Eggers said. "The backbone is a steel frame with wood veneer that makes it look correct."

Eggers, who works out of a basement workshop, has built other early wheeled replicas, including an 1885 Daimler Reitwagen, an 1896 Daimler truck, a full-size stagecoach and a Roman chariot. Check out the full range of his work at www.williameggersmotorcycles.com.

SPECIFICATIONS*

Engine	Vertical fire-tube boiler with two 2.25-inch bore drive cylinders
Horsepower	N/A
Transmission	Direct drive
Wheelbase	49 inches
Wheels	34-inch wooden with iron band "tires"
Brakes	Front wheel only, spoon type

** For the original 1867 Roper. Bike featured is a replica.*