

FAIRBANKS-MORSE #34 A MOST UNUSUAL MOTORCAR

BY ROB BAUR

The Fairbanks-Morse model #34 is a truly unique motorcar! Just how unique? Try a V-4 with dual carbs, 100 cubic inch displacement and you are getting pretty unique. In the quest for more power and safer operation, the model #34 had 4 cylinders in a 90-degree V configuration. Each bank has its own Schebler-Marvel model D, 3/4-inch NPT carburetor and separate throttle. The friction drive consists of an air-cooled flywheel, and a sliding friction wheel at 90 degrees. This slides on a square shaft with a sprocket and chain that drives the rear axle. You slide the friction wheel over and press it into the flywheel to engage it. Near the center of the flywheel is low speed, as you move it towards the edge the tangential velocity increases as radius increases and it is now a higher "gear". The other side of the flywheel is reverse "gear".

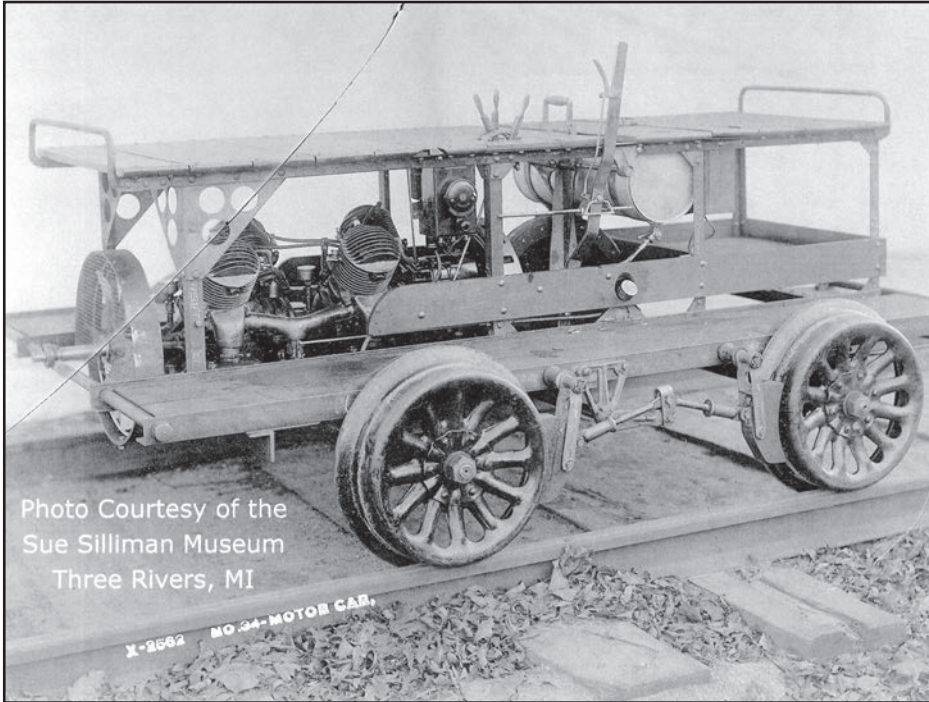


Photo Courtesy of the
Sue Silliman Museum
Three Rivers, MI

air-cooled, 2-cycle, friction drive, *and make it narrow gauge*, and we have only one motorcar! From 1914 to 1919 they sold 642 of the #34 cars. This special car is over 105 years old as it was made in 1917.

Fairbanks-Morse purchased the Sheffield Company and maintained production at the original factory in Three Rivers, MI. Previous Fairbanks-Morse motorcars from the early teens included the model #32 which had two air-cooled 2-cycle cylinders directly geared to the rear axle. If you needed a bit more power, the model #33 had 3 cylinders on the rear axle. You pushed them and jumped on, then switched on the ignition to operate, and killed the engine to stop. No clutch, just direct drive!

When I purchased it from the estate of a dentist, Dr. Brockmeyer, in Pulaski, VA who saved it from the scrappers many years ago, the engine was completely worn out. I had the cast iron pistons turned and had the cylinders re-sleeved. Piston rings with overlapping ends



As-bought condition. Note the wheels are under the running boards on my narrow gauge #34.

were found and filed to fit. The rods were sent out for re-babbiting.



There are 5 grease cups for the main bearings, in addition to supporting the crank; they provide a seal between each crankcase. The rear thrust bearing has 5 alternating steel and bronze disks that divide the rotating shear between the multiple disks.

The chassis has 1/2 bronze axle bearings in a sprung housing. Ignition is a post WWI American

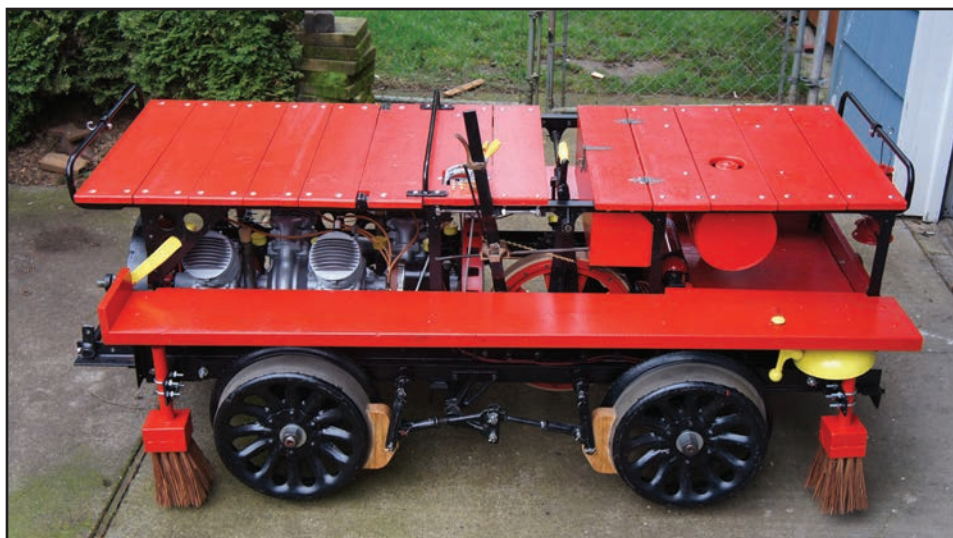
Bosch magneto. The clutch and brake are the same lever; to apply the brakes the engine is disconnected. The original friction wheel disk was made of compressed paper, but at 100 years old it had decomposed. A truck clutch shop made a new friction disk out of brake shoe material.

To meet NARCOA requirements I added a tail/brake light using period correct cotton



wrapped wire and a small kerosene lantern, fitted with a red LED running off a 6V dry cell. I cut a heavy push broom to make 4 sweeps. I replaced the 4 exhaust diffusers with USFS approved spark arresters.

Period-correct square head nuts and bolts were used. The only non-original modification is a pair of lawnmower throttles connected to the carburetor mixture control to adjust the mixture while operating.



When I saw it on eBay, I told my wife that I'd pay \$100 just to hear the thing run under power. She said "Well, then buy the thing!" So I did, and with 4 cylinders firing at 600 rpm, it sure doesn't sound like any Fairmont!

Videos of the first starting, running it on the rails and dyno tests are viewable by searching for pearbaron on YouTube and clicking on videos.