

INSTALL AN ALTERNATOR ON YOUR SPEEDER BY KELLEY RICK

In June of '98 I bought an M9-G from Bobby Logan of Branchville, SC. The car came with a Motorola 12V alternator driven by a 3/8" V belt in the usual manner. During the course of the re-build I didn't have to re-invent the electrical system as it had already been done right by no less than Fairmont Railway Motors.

By 2002 I found an M19-F from the East coast that did not include an electric system other than its 6V wooden coil. As the restoration was wrapping up I would have to consider some sort of electric system. Russell Thoede, a fellow motor car enthusiast and owner of a family run auto parts store, said try a GM 12V alternator, or more specifically, a 7127-1W, 12V, 63A, N.

A unit was ordered from the store and I installed it on the M19-F. Results were only fair as it required a medium to high motor speed before it would put out 14.6V. This pulley diameter was something over 33" so I called Russell to ask if there was a smaller pulley, and yes there was. Pulleys were swapped, alternator re-installed, and it worked! The new pulley is 2 5/8" (2.600") that allows the RO-C motor to go down to a reasonable idle yet still have 14.6V.

In a phone call to Dick Ray of Randolph, NJ, I asked him about a spec stated on the print-out included with the Delco that states a "Turn on speed" of 2314 RPM. Dick said that you must meet or beat that RPM for the alternator to turn on & function; but once you've broken past that 2314 spec the RO-C can then idle down to a slow pace without the alternator dropping out with resulting loss of battery charg-

ing. So, how many RPM does the RO-C have to make to activate this particular alternator? Well, full throttle on a RO-C is 1800 RPM, half throttle is 900 RPM, quarter throttle is 450, eighth throttle is 225. I have a copy of "HOW To Run A Lathe" 56th edition published by South Bend Lathe, and on page 111 there is a formula titled: Speed of Driving Pulley – Multiply the diameter of the driven pulley by its number of revolutions, and divide by the diameter of the driving pulley. Sounds good to me! So, 2.600" times 2314 = 6016.4 divided by RO-C alternator pulley of 6 13/16" (6.8125") = 883 RPM, or in other words, just under half throttle to activate THIS Delco alternator. On my Seaboard M19-F the Delco hangs from its official 102120 bracket driven by a Goodyear 17291 (13AV0735) 1/2" belt, 10 ga RED wire from 6mm stud on alternator back to + side of lawn & garden battery. When that V belt rots & breaks I'll go back with a Fenner A/4L-1/2 "POWER TWIST PLUS Twistlock, on the M9 Fenner 3L-3/8 ". To go back with a Goodyear V belt would require removing the motor from the car, and right side flywheel just to change a belt. For that sort of trouble I would just as soon drop the head light/alternator in the trash, and run the car on a 6V lantern battery from Walgreens. Fenner can be reached at 800-243-3374. After Russell put me on to the 2,600" (66mm) pulley, the M19-F has all the power it needs to drive the lights/two way radio, charge the battery, and idle down well. Strictly speaking, when this car was built in 1952, it was using 4 telephone dry

cells in series to barely get 6V.

Have fun!

Kelley Rick

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