Comparison of Different Load Road Implementation Strategies on Fuel Economy of USPS Step Vans

Daniel K. Carder, Seiar A. Zia, Benjamin C. Shade
Center for Alternative Fuels, Engines, and Emissions
West Virginia University
Department of Mechanical and Aerospace Engineering
Morgantown, WV
WVU implements road loads on the chassis dynamometer using a method described in 40 CFR §86.1229-85.

The proposed method assumes a range of constants for the coefficient of rolling resistance and the coefficient of aerodynamic drag.

The issue with this method arises due to the fact that it does not cover a wide variety of heavy duty vehicle physical characteristics.

An alternative form of implementing road loads is to conduct on-road coastdowns and use regression analysis to determine the vehicles’ characteristics.

Tests were conducted using the FTP-75 test schedule and two USPS step vans with one being a hybridized version.

**MPG Comparisons of Hybrid vs Baseline**

**Improper demonstration of hybrid vehicle potential**