Modelling of diverse mechanical and electric losses in vehicles.

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Abstract—Vehicles of today get a better efficiency of their drive-train. This means that the aerodynamic drag, the tire losses and auxiliary equipment have an increasing influence on the resulting consumption of the vehicle. For example, the rolling resistance and the drag force are not constants but temperature dependent. Effects of wind, rain and altitude change are also evaluated. Such factors are not included in typical driving cycle tests, but are important for the real consumption of the vehicles. At the actual slow speeds in and around the cities, one of the main influence factors is the weight of the vehicle and the electricity consumption of auxiliaries. This plenary talk is useful as well for electric, conventional and hybrid vehicles.

Keywords—rolling resistance; tire; drag; temperature coefficient; fuel consumption, mileage, range

OTHER PUBLICATIONS OF THE SAME AUTHOR

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THE SPEAKER

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