

Some Thoughts About the Aerodynamic Pressure Center of Automobile[⊖]

Liu Kaihe, Chang Haitao, Li Yang
VOYAH Automobile Technology Company

Abstract: This paper introduces some thoughts about the aerodynamic pressure center of automobile. Firstly, the simplification to a center point of the force system in space is introduced, and then the force on the vehicle surface is analyzed. The aerodynamic pressure center is verified by the results of the wind tunnel tests of real vehicles and CFD simulation results. At last, the equations of the central axis of the force screw and the central line of the wind pressure are derived, and the CFD simulation results are used to verify the correctness of the theory.

Key words: automotive aerodynamics, pressure center, CFD simulation, wind tunnel test

⊖ 本书仅收录摘要, 全文刊载在《2023 中国汽车工程学会年会论文集精选 (Proceedings of China SAE Congress 2023: Selected Papers)》(电子出版物, 由德国施普林格出版社出版)。