4 December 2024

Agreement

Concerning the Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these United Nations Regulations*

(Revision 3, including the amendments which entered into force on 14 September 2017)

Addendum 12 – UN Regulation No. 13

Revision 8 - Amendment 12

Supplement 21 to the 11 series of amendments – Date of entry into force: 22 September 2024

Uniform provisions concerning the approval of vehicles of categories M, N and O with regard to braking

This document is meant purely as documentation tool. The authentic and legal binding text is: ECE/TRANS/WP.29/2024/4.

UNITED NATIONS

* Former titles of the Agreement:
Agreement concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958 (original version);
Agreement concerning the Adoption of Uniform Technical Prescriptions for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these Prescriptions, done at Geneva on 5 October 1995 (Revision 2).

Paragraph 5.1.2.4.3.1., amend to read:

"5.1.2.4.3.1. It shall be deemed to comply with the requirements in paragraphs 5.1.2.4.1. and 5.1.2.4.2., if the vehicle equipped with the endurance braking system is able to store and/or dissipate (e.g. with an extra-endurance brake) the energy of the maximum negative vertical height difference (requiring energy storage capacity in the traction battery), limited to the energy level as required to fulfil the requirements in paragraphs 5.1.2.4.1. and 5.1.2.4.2., that can be reached by the vehicle (consuming stored energy in the traction battery on the journey towards the relevant negative vertical height difference), considering the current electric state of charge, using methods such as a global navigation satellite systems combined with a topography model and an intelligent battery management system.

This shall be demonstrated to the satisfaction of the Technical Service, including through the test specified in Annex 4, paragraph 1.8.2.5. (a) and submission of detailed documentation explaining the strategies implemented in the system and how this ensures endurance braking requirements can always be met."