

24 June 2018

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 100 – UN Regulation No. 101

Revision 3 – Amendment 7

Supplement 8 to the 01 series of amendments – Date of entry into force: 28 May 2019

Uniform provisions concerning the approval of passenger cars powered by an internal combustion engine only, or powered by a hybrid electric power train with regard to the measurement of the emission of carbon dioxide and fuel consumption and/or the measurement of electric energy consumption and electric range, and of categories M₁ and N₁ vehicles powered by an electric power train only with regard to the measurement of electric energy consumption and electric range

This document is meant purely as documentation tool. The authentic and legal binding texts is: - ECE/TRANS/WP.29/2018/150.



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).

Annex 8

Paragraph 3.1., amend to read:

- "3.1. Two tests shall be performed under the following conditions:
- Condition A: Test shall be started with a fully charged electrical energy/power storage device.
- Condition B: Test shall be started with an electrical energy/power storage device in minimum state of charge (maximum discharge of capacity).
- The profile of the State of Charge (SOC) of the electrical energy/power storage device during different stages of the Type I test is given in Appendix 1 to this annex."

Paragraph 4.1., amend to read:

- "4.1. Two tests shall be performed under the following conditions:
- 4.1.1. Condition A: Test shall be started with a fully charged electrical energy/power storage device.
- 4.1.2. Condition B: Test shall be started with an electrical energy/power storage device in minimum state of charge (maximum discharge of capacity) and carried out with an operating mode keeping the vehicle in charge-sustaining operating condition, that being an operating condition in which the energy/power stored in the energy/power storage device may fluctuate but, on average, is maintained at a neutral charging balance level while the vehicle is driven.
- 4.1.3. In agreement with the type approval authority and justified by the manufacturer, the following operation modes shall not be considered for the purpose of testing:
- (a) Operating modes, such as 'charge mode', which are not limited to vehicle propulsion but which, in addition to vehicle propulsion, are charging the energy power/storage device in order to facilitate locally emission-free driving (e.g. under urban conditions);
 - (b) Operating modes for vehicle maintenance, such as 'maintenance mode';
 - (c) Operating modes for special limited purposes and not intended for daily operation, such as 'mountain mode'.
- 4.1.4. The operating mode shall be selected as described in paragraphs 4.1.4.1. to 4.1.4.2.2. inclusive.
- 4.1.4.1. Operating mode selection for Condition A
- 4.1.4.1.1. If there is a single operating mode under condition A that is always selected when the vehicle is switched on regardless of the operating mode selected when the vehicle was previously shut down, and which cannot be switched to another mode without an intentional action of the driver or be redefined, this single operating mode shall be selected.
- 4.1.4.1.2. If there is no single operating mode under condition A that is always selected when the vehicle is switched on, the most electric energy consuming mode shall be selected.
- 4.1.4.2. Operating mode selection for Condition B
- 4.1.4.2.1. If there is a single operating mode under condition B that is always selected when the vehicle is switched on regardless of the operating mode selected

when the vehicle was previously shut down, and which cannot be switched to another mode without an intentional action of the driver or be redefined, this single operating mode shall be selected.

- 4.1.4.2.2. If there is no single operating mode under condition B that is always selected when the vehicle is switched on, the most fuel consuming mode shall be selected. "

Annex 10

Add a new paragraph 1.2.:

"1.2. Alternative procedure

As an alternative to the procedure set out in this Annex, the manufacturer may use the results determined by the WLTP procedure, described in Appendix 1 to Annex 6 of the UN GTR No. 15, Amendment 4.

In this case, the following additional provisions apply:

- (a) At the request of the manufacturer and with the agreement of the responsible authority, the Extra High phase may be excluded for determining the regenerative factor K_i for Class 2 and Class 3 vehicles.
- (b) Instead of the criterion described in paragraph 2.2. of this Annex the criterion shall be based on the WLTP test mass: The test mass of each vehicle in the family must be less than or equal to the test mass of the vehicle used for the K_i demonstration test plus 250 kg.
- (c) Additive or multiplicative K_i is valid and is to be applied accordingly."
