

1 July 2020

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## 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)

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#### **Addendum 82 – UN Regulation No. 83**

#### **Revision 5 - Amendment 10**

Supplement 10 to the 07 series of amendments – Date of entry into force: 29 May 2020

#### **Uniform provisions concerning the approval of vehicles with regard to the emission of pollutants according to engine fuel requirements**

This document is meant purely as documentation tool. The authentic and legal binding text is: ECE/TRANS/WP.29/2019/127.



**UNITED NATIONS**

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\* 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 7*

*Paragraph 7.4.4.3.*, amend to read:

"7.4.4.3. At the request of the manufacturer an alternative purge test procedure can be used, if the procedure has been presented to and has been accepted by the Technical Service during the type approval procedure."

*Annex 8*

*Paragraph 3.2.1.*, amend to read:

"3.2.1. Start of engine, start of the sampling and the operation of the first cycle shall be in accordance with Table A4a/1 and Figure A4a/1 in Annex 4a to this Regulation."

*Appendix 1 to Annex 11*

*Paragraph 6.5.3.5.*, amend to read:

"6.5.3.5. When a fault is registered, the manufacturer shall identify the fault using an appropriate ISO/SAE controlled fault code specified in one of the standards listed in paragraph 6.5.3.2.(d) of this appendix relating to "emission related system diagnostic trouble codes". If such identification is not possible, the manufacturer may use manufacturer controlled diagnostic trouble codes according to the same standard. The fault codes shall be fully accessible by standardised diagnostic equipment complying with the provisions of paragraph 6.5.3.3. of this appendix.

The vehicle manufacturer shall provide to a national standardization body the details of any emission-related diagnostic data, e.g. PID's, OBD monitor Id's, Test Id's not specified in the standard listed in paragraph 6.5.3.2.(a) of this appendix but related to this Regulation."

*Annex 14*

*Paragraph 3.1.1.*, amend to read:

"3.1.1. 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."

*Paragraph 3.2.1.*, amend to read:

"3.2.1. Two tests shall be performed under the following conditions:

3.2.1.1. Condition A: Test shall be started with a fully charged electrical energy/power storage device.

3.2.1.2. 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.

3.2.1.3. 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’.

On the basis of information provided by the manufacturer, the Technical Service shall make sure that the emission limits specified in Table 1 in paragraph 5.3.1.4. of this Regulation are not exceeded in all hybrid modes, with the exception of the ‘maintenance mode’.

3.2.1.4. The operating mode shall be selected as described in paragraphs 3.2.1.4.1. to 3.2.1.4.2.2. inclusive.

3.2.1.4.1. Operating mode selection for Condition A

3.2.1.4.1.1. 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.

3.2.1.4.1.2. 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.

3.2.1.4.2. Operating mode selection for Condition B

3.2.1.4.2.1. 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.

3.2.1.4.2.2. 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."

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