

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 84 – UN Regulation No. 85**

#### **Revision 1 - Amendment 4**

Supplement 10 to the original version of the Regulation – Date of entry into force: 29 May 2020

### **Uniform provisions concerning the approval of internal combustion engines or electric drive trains intended for the propulsion of motor vehicles of categories M and N with regard to the measurement of the net power and the maximum 30 minutes power of electric drive trains**

This document is meant purely as documentation tool. The authentic and legal binding text is: ECE/TRANS/WP.29/2019/112.



**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 5, Table 1, Footnote 9, amend to read:*

"<sup>9</sup> Charge air cooled engines shall be tested with charge air cooling, whether liquid or air cooled, but if the engine manufacturer prefers, a test bench system may replace the air cooled cooler. In either case, the measurement of power at each speed shall be made with the same pressure drop and temperature drop of the engine air across the charge air cooler on the test bench system as those specified by the manufacturer for the system on the complete vehicle.

Alternatively, at the request of the manufacturer with the agreement of the type approval authority, the measurement of power (at each speed) may be made with the charge air cooler outlet temperature set as follows:

$$T_{\text{outlet, bench, N}} = T_{\text{outlet, vehicle, N}} - (T_{\text{amb}} - 298)$$

Where,

$T_{\text{outlet, bench, N}}$  is set temperature at engine speed N during the bench test (K)

$T_{\text{outlet, vehicle, N}}$  is measured temperature at engine speed N during a test of the complete vehicle test (K)

$T_{\text{amb}}$  is ambient temperature during the complete vehicle test (K)"

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