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Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations

Working Party on Pollution and Energy

Eighty-second session

Geneva, 12-15 January 2021
Item 5 of the provisional agenda
UN Regulations Nos. 24 (Visible pollutants, measurement
of power of C.I. engines (Diesel smoke)), 85 (Measurement
of the net power), 115 (LPG and CNG retrofit systems),
133 (Recyclability of motor vehicles) and 143 (Heavy Duty
Dual-Fuel Engine Retrofit Systems (HDDF-ERS))

Proposal for amendments to the 03 series of amendments to UN Regulation No. 24

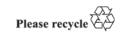
Submitted by the expert from the International Organization of Motor Vehicle Manufacturers*

The text reproduced below was prepared by the expert from the International Organization of Motor Vehicle Manufacturers (OICA). This document proposes to add in the Scopes of the Regulation a new paragraph, aimed to better clarify its applicability. The modifications to the current text of the Regulation are marked in bold for new or strikethrough for deleted characters.

In accordance with the programme of work of the Inland Transport Committee for 2021 as outlined in proposed programme budget for 2021 (A/75/6 (Sect.20), para 20.51), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.









I. Proposal

add a new paragraph 1.1.4., to read:

"1.1.4. Equivalent approvals

An approval to the 06 series of amendments to UN Regulation No. 49 is considered to demonstrate compliance to this Regulation. In this case no additional approval to this Regulation is necessary."

II. Justification

- 1. UN Regulation No. 24, to limit the visible smoke in order to avoid poor visibility situations on the road, has been successfully applied in type approval for years.
- 2. However, engines certified with UN Regulation 49-06 series (corresponding to Euro VI) have no smoke. They are either CI-engines with DPF or SI-engines which, by principle, have no smoke.
- 3. CI-engines with DPF, even with a broken filter and/or with a type A or B OBD fault code, have smoke emissions less than 0,5 m-1 during free acceleration test and almost zero at steady state test. Note that the permitted production variability together with measurement inaccuracy is 0,5 m-1.
- 4. Thus, it is useful clarify that UN Regulation 49-06 series engine certification does not include the certification according to UN Regulation 24, therefore the scopes should be adjusted accordingly.
- 5. This amendment does not exclude applying UN Regulation No. 24 for road side inspection for vehicles type approved under UN Regulation 49-06 series.

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