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Working Party on Pollution and Energy

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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 a new Supplement to UN Regulation No. 85 (Measurement of the net power)

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 aims at permitting the use of hydrogen (H₂) as fuel for type approval of heavy-duty vehicles. 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 2022 as outlined in proposed programme budget for 2022 (A/76/6 (Sect.20), para 20.76), 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

Insert new paragraph 5.2.3.7., to read:

"5.2.3.7. For positive ignition engines, compression ignition engines and dual-fuel engines fuelled with hydrogen

The fuel used shall be the one available on the market. In any case of dispute, the fuel shall be the fuel specified in ISO14687:2019 as grade D."

II. Justification

1. Hydrogen fuelled vehicles are covered in UN Regulation No. 83, but hydrogen is not yet covered in UN Regulation No. 49 and UN Regulation No. 85.
 2. Hydrogen fuelled engines could be one complementary option to reduce CO₂ emission of future heavy-duty vehicles
 3. Thus hydrogen fuel should be integrated in UN Regulation No. 49 and UN Regulation No. 85 for better alignment with UN Regulation No. 83
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