UNITED NATIONS



Economic and Social Council

Distr. GENERAL

TRANS/WP.29/GRPE/2005/3 * 4 November 2004

Original: ENGLISH

ENGLISH and FRENCH ONLY

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Pollution and Energy (GRPE) (Forty-ninth session, 11-14 January 2005, agenda item 5.2.)

PROPOSAL FOR A DRAFT AMENDMENT TO THE 05 SERIES OF AMENDMENTS TO THE REGULATION No. 83

(Emissions of M1 and N1 categories of vehicles)

Transmitted by the expert from Germany

<u>Note</u>: The document reproduced below has been prepared by the expert from Germany in order to insert new prescriptions into the Regulation to allow special gear shifting strategies with the help of a technical gear shift instrument. The text is based on a document distributed without a symbol (informal document No. GRPE-48-13) during the forty-eighth session of GRPE (TRANS/WP.29/GRPE/48, para. 30). The modifications to the current requirements are marked in **bold** characters.

Note: This document is distributed to the Experts on Pollution and Energy only.

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^{*} Re-issued for technical reasons.

<u>Insert a new paragraph 2.24.</u>, to read:

"Technical gear shift instrument" means an information device or display, clearly perceptible (i.e. visible or acoustic) to the driver, which indicates proposed gear shifts in the case of a special gear shifting strategy according to the manufacturer's instructions."

<u>Annex 1</u> (ENGINE AND VEHICLE CHARACTERISTICS)

<u>Insert new items 5.5. to 5.5.2.</u>, to read:

- "5.5. Technical gear shift instrument: yes / no / optional $\underline{1}$ /
- 5.5.1. Type (Description and/or drawing):
- 5.5.2. Special gear shifting strategy (Gear shift points):

TYPE I TEST:

 1st Gear: 0

 km/h
 4th Gear:

 km/h

 2nd Gear:

 km/h
 5th Gear:

 km/h

 3rd Gear:

 km/h
 6th Gear:
 120 km/h

Annex 4 (TYPE I TEST)

Paragraph 2.3.1., add at the end, a new subparagraph to read:

"Vehicles which are able to follow the operating cycle using the gear shift points specified in Annex 4, Appendix 1, should also be able to follow the cycle when using a special gear shift strategy."

Paragraph 2.3.5., amend to read:

"2.3.5. At the request of the manufacturer, for a vehicle type where the idle speed of the engine is higher than the engine speed that would occur during operations 5, 12 and 24 of **the urban cycle** (Part One) **and operation 20 of the extra-urban cycle** (Part Two), the clutch may be disengaged during the previous operation."

<u>Insert new paragraphs 2.3.6. and 2.3.7.</u>, to read:

"2.3.6. For vehicles with a special gear shifting strategy, the gear shifting points prescribed in Appendix 1 of Annex 4 to this Regulation are not applied, except for TYPE VI TEST.

Furthermore, for these vehicles, the driving cycle specified in paragraph 2.3.3. of this annex in force at the time of approval of the vehicle shall be used.

Concerning gear shifting points, these vehicles shall be driven according to the manufacturer's instructions, as given in Annex 1, item 5.5.2. and, as well, as incorporated in the drivers' handbook of production vehicles and indicated by a technical gear shift instrument (for drivers' information).

The tolerances as mentioned in paragraph 2.4. shall be applied.

2.3.7. A gear shift strategy that differs from that described in Appendix 1 of this annex, and in normal use causes an increase of the emissions under the terms of this Regulation respectively of Regulation No. 101, Annex 5, and would not be covered by standard emissions testing, may be considered a defeat device."