



**Economic and Social  
Council**

Distr.  
GENERAL

ECE/TRANS/WP.29/GRSG/2009/5  
23 February 2009

Original: ENGLISH  
ENGLISH AND FRENCH ONLY

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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

World Forum for Harmonization of Vehicle Regulations

Working Party on General Safety Provisions

Ninety-sixth session  
Geneva, 4 - 8 May 2009  
Item 2 of the provisional agenda

**REGULATION No. 66  
(Strength of superstructure)**

**Proposal for 02 series of amendments to Regulation No. 66**

**Submitted by the expert from Germany\*/**

The text reproduced below was prepared by the expert from Germany in order to extend the scope of the Regulation to vehicles of category M<sub>2</sub> on a mandatory basis and to double deck vehicles on an optional basis. The modifications to the current text of the Regulation are marked in bold or strikethrough characters.

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\*/ In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance performance of vehicles. The present document is submitted in conformity with that mandate.

A. PROPOSAL

Paragraph 1., amend to read:

"1. SCOPE

- 1.1. This Regulation applies to single-deck rigid or articulated vehicles belonging to **categories M<sub>2</sub> or M<sub>3</sub>, Classes II or III or B 1**.
- 1.2. At the request of the manufacturer, this Regulation may also apply ~~to single-deck~~ to **double deck** rigid or articulated vehicles belonging to ~~categories other than M<sub>2</sub> or M<sub>3</sub>, Classes II or III or B.~~ **M<sub>2</sub> or M<sub>3</sub>, Classes II or III or B.**"

Insert a new paragraph 2.5., to read:

"**2.5. "Double deck vehicle" means a vehicle where the provided spaces for passengers are arranged, at least in one part, in two superimposed levels and spaces for standing passengers are not provided in the upper deck.**"

Paragraphs 2.5.(former) to 2.8., renumber as paragraphs 2.6. to 2.9.

Paragraph 2.9.(former), renumber as paragraph 2.10. and amend to read:

"2.10. "Passenger compartment(s)" means the space(s) intended for passengers' use excluding any space occupied by fixed appliances such as bars, kitchenettes or toilets."

Paragraphs 2.10. (former) to 2.21., renumber as paragraphs 2.11. to 2.22.

Paragraph 2.22.(former), renumber as paragraph 2.23. and amend to read:

"2.23. "Body work" means the complete structure of the vehicle in running order, including all the structural elements which form the passenger compartment(s), driver's compartment, baggage compartment and spaces for the mechanical units and components."

Paragraphs 2.23. (former) to 2.30., renumber as paragraphs 2.24. to 2.31.

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1/ As defined in Annex 7 to the Consolidated Resolution on the Construction of vehicles (R.E.3), (document TRANS/WP.29/78/Rev.1/Amend.2 as last amended by Amend.4).

Paragraph 2.31.(former), renumber as paragraph 2.32. and amend to read:

"2.32. "Cantrail" means the longitudinal structural part of the bodywork above the side windows including the curved transition to the roof structures. In the rollover test the cantrail **(in the case of a double deck coach, the cantrail of the upper deck)** hits the ground first."

Paragraph 2.32.(former), renumber as paragraph 2.33. and amend to read:

"2.33. "Waistrail" means the longitudinal structural part of the bodywork below the side windows. In the rollover test the waistrail **(in the case of a double deck coach, the waistrail of the upper deck)** may be the second area to contact the ground after initial deformation of the vehicle cross-section."

Paragraph 5.5., amend to read:

"5.5. Testing of articulated buses vehicles"

Insert new paragraphs 10.7. to 10.12., to read:

**"10.7. As from the official date of entry into force of the 02 series of amendments, no Contracting Party applying this Regulation shall refuse to grant ECE approval under this Regulation as amended by the 02 series of amendments.**

**10.8. As from [XX] months after the date of entry into force, Contracting Parties applying this Regulation shall grant ECE approvals for new vehicle types as defined in this Regulation only if the vehicle type to be approved meets the requirements of this Regulation as amended by the 02 series of amendments.**

**10.9. Contracting Parties applying this Regulation shall not refuse to grant extensions of approval to the preceding series of amendments to this Regulation.**

**10.10. ECE approvals granted under this Regulation, in its original form, earlier than [XX] months after the date of entry into force and all extensions of such approvals, shall remain valid indefinitely, subject to paragraph 10.12. below. When the vehicle type approved to the preceding series of amendments meets the requirements of this Regulation as amended by the 02 series of amendments, the Contracting Party which granted the approval shall notify the other Contracting Parties applying this Regulation thereof.**

**10.11. No Contracting Party applying this Regulation shall refuse national type approval of a vehicle type approved to the 02 series of amendments to this Regulation.**

**10.12. Starting [XX] months after the entry into force of the 02 series of amendments to this Regulation, Contracting Parties applying this Regulation may refuse first**

**national registration (first entry into service) of a vehicle which does not meet the requirements of the 02 series of amendments to this Regulation."**

Annex 3,

Insert a new paragraph 1.6.3., to read:

**"1.6.3. in the case of a double deck vehicle, the passengers both on the lower and upper level seats shall be considered."**

Annex 5,

Paragraph 3.3., amend to read:

"3.3. For inside observation high-speed photography, video, deformable templates, electrical contact sensors or other suitable means shall be used to determine that the requirements of paragraph 5.1. of this Regulation has been met. This shall be verified at any places of the passenger, driver's and crew compartment where the residual space seems to be endangered, the exact positions being at the discretion of the technical service. At least two positions, nominally at the front and rear of the passenger compartment(s) shall be used."

Annex 6,

Paragraph 3.5.1., amend to read:

"3.5.1. the whole body section (bays, connecting structures, additional structural elements, supports) shall be considered when checking the validity of **the two equations given 5 and 6**, in Annex 4, paragraph 4.2.1 and 4.2.2.;"

Paragraph 5.1., amend to read:

"5.1. The vehicle type shall be approved if all the body sections pass the rollover test and **the two equations 2 and 3** in paragraph 4.1.1. and 4.1.2. of Annex 4 are fulfilled."

Appendix 1,

Figure A7.A1.1, amend the title to read:

**"Figure A7.A1.1 – Initial height of the vehicle centre of gravity"**

Paragraph 4., amend to read:

"4. If more than one body sections ~~are~~ tested and each body section has a different **vertical movement ( $\Delta h$ ) final deformed shape**, the vertical movement of centre of gravity ..."

**B. JUSTIFICATION**

During its ninety-fifth session, GRSG agreed to extend the scope of Regulation No. 66 to a compulsory application on vehicles of category M<sub>2</sub> and to an optional application on double deck vehicles (see ECE/TRANS/WP.29/GRSG/74). The text above incorporates the necessary changes, as the German expert was requested to do.