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Item 3.1 of the provisional agenda

Regulation No. 107 (M₂ and M₃ vehicles) – Proposals for further amendments

Proposal for amendments to Regulation No. 107

Submitted by the expert from the Russian Federation*

The text reproduced below was prepared by the expert from the Russian Federation in order to include into Regulation No. 107 the provisions for strength of superstructure of single-deck Class B vehicles having a capacity not exceeding 16 passengers. It is based on informal document GRSG-97-06, modified to include transitional provisions (ECE/TRANS/WP.29/GRSG/76, para. 11). The modifications to the current text of the Regulation are marked in bold or strikethrough characters.

* 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 the performance of vehicles. The present document is submitted in conformity with that mandate.

A. Proposal

Paragraph 4.2., amend to read:

“4.2. An approval number shall be assigned to each vehicle type approved. Its first two digits (at present ~~03~~ **04**, corresponding to the ~~03~~ **04** series of amendments) shall indicate ... paragraph 2.2.”

Insert new paragraphs 10.13. to 10.16., to read:

- “10.13. As from the official date of entry into force of the **04** series of amendments, no Contracting Party applying this Regulation shall refuse to grant ECE approval under this Regulation as amended by the **04** series of amendments.
- 10.14. No Contracting Party applying this Regulation shall refuse national or regional Type approval of a vehicle type approved to the **04** series of amendments to this Regulation.
- 10.15. As from [24] months after the date of entry into force, Contracting Parties applying this Regulation shall grant ECE approvals only if the vehicle type to be approved meets the requirements of this Regulation as amended by the **04** series of amendments.
- 10.16. Starting [36] months after the entry into force of the **04** series of amendments to this Regulation, Contracting Parties applying this Regulation may refuse to grant national or regional approvals and may refuse first national or regional registration (first entry into service) of a vehicle which does not meet the requirements of the **04** series of amendments to this Regulation. “

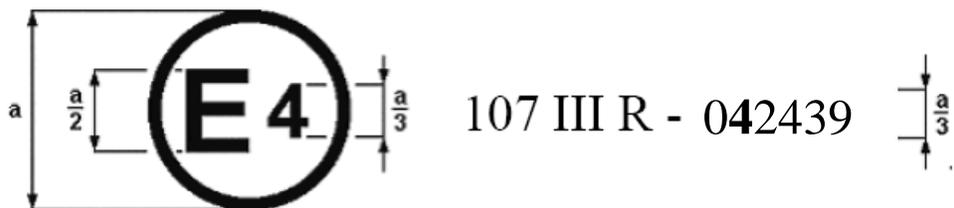
Annex 2, amend to read:

“Annex 2

ARRANGEMENTS OF APPROVAL MARKS

Model A

(See paragraph 4.4. of this Regulation)

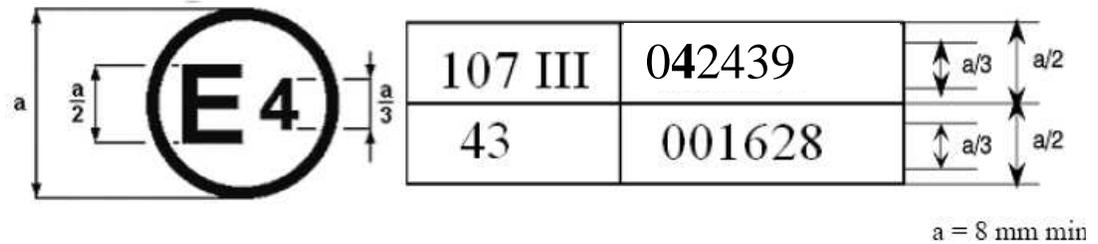


a = 8 mm min

The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to its constructional features, been approved in the Netherlands (E 4) for Class III, pursuant to Regulation No. 107 under approval number 042439. The approval number indicates that the approval was granted according to the requirements of Regulation No. 107 as amended by the **04** series of amendments.

Model B

(See paragraph 4.5. of this Regulation)



The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E 4) pursuant to Regulations Nos. 107 and 43.*/ The first two digits of the approval numbers indicate that, on the dates on which these approvals were granted Regulation No. 107 included the 04 series of amendments and Regulation No. 43 was in its original form.

*/ This number is given merely as an example.

Model C

(See paragraph 4.4.3. of this Regulation)



The above approval mark affixed to a vehicle bodywork shows that the bodywork type concerned has, with regard to its constructional features, been approved separately in the Netherlands (E 4) for Class III as a separate bodywork (letter S), pursuant to Regulation No. 107 under approval number 042439. The approval number indicates that the approval was granted according to the requirements of Regulation No. 107 as amended by the 04 series of amendments.”

Annex 3

Paragraph 7.3.1, amend to read:

“7.3.1. All single-deck Classes II and III vehicles **and Class B vehicles having a capacity more than 16 passengers** shall have superstructures which comply with the requirements of Regulation No. 66.”

Add a new paragraph 7.3.2, including new footnote with the footnote 1/, to read:

“7.3.2 Only in the case of single-deck Class B vehicles having a capacity not exceeding 16 passengers it shall be shown by calculation or by any other suitable method that the structure of the vehicle is strong enough to withstand an evenly-distributed static load on the roof applied down in the vertical direction and equal to the technically permissible maximum laden mass (M) of the vehicle. 1/

1/ This paragraph will be revised when Regulation No. 66 will be amended.”

B. Justification

1. The mandatory requirements for the strength of the superstructure of small capacity vehicles of Class B (irrespective of their capacity) are set in the Regulation No. 52 (paragraph 5.4.), however the approvals on the basis of the Regulation No. 52 are no longer granted (starting from 1 April 2008).
2. In the present text of the Regulation No. 107 there are no prescriptions for the strength of the superstructure of small capacity vehicles of categories M₂ and M₃.
3. In Regulation No. 66 (including the draft 02 series of amendments approved by the majority of GRSG and WP.29 experts, see document GRSG-96-32, and the reports on ninety-fifth and ninety-sixth sessions of GRSG and the 149th session of WP.29 (ECE/TRANS/WP.29/GRSG/74, paras. 6-8, ECE/TRANS/WP.29/GRSG/75, para. 4, ECE/TRANS/WP.29/1079, para. 89), there will be no mandatory requirements for the strength of the superstructure of Class B vehicles having a capacity from 9 to 16 passengers.
4. Thus, in the UNECE Regulations a gap arose with regard to regulating the strength of the superstructure of Class B vehicles having a capacity from 9 to 16 passengers. Therefore, potentially dangerous vehicles might be put on the market (which bodies might be made, for example, of wood or any other fragile materials, due to the absence requirements to the strength).
5. At the ninety-fifth and ninety-sixth sessions of GRSG and at the 149th session of WP.29, the Russian Federation expressed the concern about that matter.
6. At the ninety-seventh session of GRSG, the Russian Federation submitted document GRSG-97-06 in order to improve the current situation.
7. The Russian Federation proposes a gradual approach: at a first stage to apply the already validated requirements of the Regulation No.52, which would allow to eliminate promptly the vacuum arisen in the regulating; and in a second stage to work on the further development of the provisions concerning the strength of the superstructure of the said vehicles, e.g. selecting the test types (dynamic or static loading), location, direction and energy of impact, etc.
8. The provisions proposed in this document, namely the verification of the strength of the superstructure by the application to the roof of the evenly-distributed vertical static load equal to the technically permissible maximum laden mass of the vehicle, are not new since they practically fully repeat the requirements of the paragraph 5.4. of the Regulation No. 52.
9. The efficiency of the proposed provisions has been verified over many years through the application of the Regulation No. 52, and the requirements themselves and the methods

of proving compliance are well-known by both vehicle manufactures and the Technical Services.

10. The introduction of those provisions into the Regulation No. 107 actually means their automatic transfer from one Regulation to the other, which will not require from the manufacturers to introduce any change into bus design or production technology. Thus, no transitional period for the preparation for their implementation is required.

11. The introduction of those provisions on a mandatory basis is very important to maintain the already attained post-accident (passive) safety level of Class B vehicles having a capacity from 9 to 16 passengers.
