Proposal for a Supplement [7] to the 06 series of amendments, a Supplement [2] to the 07 series of amendments and a Supplement to the 08 series of amendments to UN Regulation No. 107 (M₂ and M₃ vehicles)

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 to amend in UN Regulation No. 107 the provisions on the number and position of emergency exits of vehicles of Classes A and B. The modifications to the current text of UN Regulation No. 107 are marked in bold characters for new and strikethrough for deleted characters.

I. Proposal

Annex 3

Paragraph 7.6.2.8., amend to read:

“7.6.2.8. For vehicles of classes I, II and III, required escape hatches shall be positioned as follows:

(a) If there is only one hatch, it shall be situated in the middle third of the passenger compartment; or

* In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21/Add.1, Cluster 3.1), 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.
(b) If there are two hatches, they shall be separated by a distance of at least 2 m measured between the nearest edges of the apertures in a line parallel to the longitudinal axis of the vehicle.”

Insert a new Paragraph 7.6.2.9. to read:

“7.6.2.9. For vehicles of classes A and B, required escape hatches shall be positioned as follows:

(a) If there is only one hatch, it shall be situated in the middle third of the passenger compartment. As an alternative, on vehicles with a very short passenger compartment length, the hatch may be located in the mid-section of this compartment, and this mid-section shall be equally spaced longitudinally each side of the transverse centre line of the passenger compartment, with a length of no greater than [1.6m].

(b) If there are two hatches, they shall be separated by a distance of at least 2 m measured between the nearest edges of the apertures in a line parallel to the longitudinal axis of the vehicle.”

II. Justification

A. Situation

1. Transition from 05-series to 06-series of amendments of Regulation 107 is based on the final proposal of Informal Group for Service Doors, Windows, and Emergency Exits (IWG on SDWEE), document ECE/TRANS/WP.29/GRSG/2012/15. The proposed amendments were adopted by GRSG at its 103th session in October 2012 and has become mandated for registrations as of 10 June 2019.

2. Paragraph 7.6.2. of this Regulation defines the positioning of emergency exits. While the 05 series allowed buses of Classes A and B to alternatively comply with provisions of Annex 7, paragraph 1.2. regarding positioning of emergency exits, the 06 and subsequent series integrated the specific positioning provisions for Classes A and B into the main text of Annex 3, as a new paragraph 7.6.2.2.

B. Consequences

3. One of the consequences of the new wording is that, if one escape hatch is fitted, it must be positioned in the middle third of the passenger compartment. This proposal assumes that the current interpretation is for the entire hatch aperture to be located within the given section. For Class A and B vehicles with sometimes short passenger compartments (<3m) the length of the middle third can be below 1m, while for the roof hatch alone a length of about 70cm is required, including sealers and hinge constructions. In such cases, there is very little flexibility in positioning the hatch. Further, on such short compartments the middle third position can overlap with the position of the service door, close to which lateral roof reinforcements are necessary to provide structural stability and meet provisions of Regulation No. 66. It is assumed that this effect in the new series was unintended.

C. Proposal

4. In order to maintain the position of this hatch centred on the longitudinal mid-section, we propose a maximum length of 1600mm equally spaced to cover the shortest vehicles, so the allowed space should be the maximum of either the third of the length or 1600 mm. This proposal will not affect the positioning requirements for any mid-sized and larger buses.