Proposal for amendments to the 06 series of amendments to Regulation No. 107 (M₂ and M₃ vehicles)

Submitted by the expert from the United Kingdom*

The text reproduced below was prepared by the expert from the United Kingdom to ensure all occupants of exposed seats are provided with a means of protection, and not just those at risk of being thrown forward into a step well. It is based on document without a symbol (GRSG-108-31) distributed during the 108th session of the Working Party on General Safety Provisions (GRSG) (see report ECE/TRANS/WP.29/GRSG/87, para. 9). Modifications to the current text of the Regulation are marked in bold for new characters.

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* In accordance with the programme of work of the Inland Transport Committee for 2012–2016 (ECE/TRANS/224, para. 94 and ECE/TRANS/2012/12, 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.
I. Proposal

Annex 3

Paragraph 7.12.1., amend to read:

“7.12.1. Where any seated passenger is likely to be thrown forward into a step well, designated wheelchair space, buggy space or open area for standing passengers as a result of heavy braking, either a guard or, in the case of a vehicle of Class A or B, a safety-belt shall be fitted. Where fitted, the guard shall have a minimum height from the floor on which the passenger’s feet rest of 800 mm and shall extend inwards from the wall of the vehicle at least as far as 100 mm beyond the longitudinal centre line of any seating position where the passenger is at risk or, in the case of a step well, to the riser of the innermost step; whichever is the lesser dimension.”

Insert a new paragraph 7.12.2., to read:

“7.12.2. Paragraph 7.12.1. shall not apply to any sideways facing seat, a seat which has its centreline within the longitudinal projection of a gangway, a seat in front of which is existing vehicle structure (e.g. fixed table or luggage pen) offering comparable levels of protection as a guard meeting the requirements of paragraph 7.12.1. or transverse facing seats where the maximum distance between the front faces of the seat squabs of facing seats does not exceed 1,800 mm when measured in accordance with paragraph 7.7.8.4.3.”

Paragraphs 7.12.2. to 7.12.4. (former), renumber as paragraphs 7.12.3. to 7.12.5.

II. Justification

1. While bus and coach travel across Europe is statistically one of the safest forms of road transport, the European Union (EU) CARE database recorded 148 fatalities and 1709 seriously injured occupants across 23 European countries in 2013. During the same year, 7 passengers died in Great Britain from injuries received whilst travelling on a bus or coach and a further 250 receive serious injuries – over half of all casualties are seated passengers1.

2. Incident reports confirm that some of these relate to occupants of exposed seats who are thrown forward during heavy braking or vehicle impact conditions, often sustaining head injuries from contact with the vehicle floor or other hard structure. Seats particularly affected are those located immediately to the rear of an open wheelchair or buggy space – these seats are often preferred by passengers of reduced mobility, irrespective of whether they are designated priority seats.

3. This proposal aims to reduce this risk by extending existing requirements for exposed seats adjacent to step wells, to apply to other exposed seats where there is a risk of the occupant being thrown forwards. New paragraph 7.12.2. exempts certain seats from these additional requirements (see also Figure 1 below).

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1 Great Britain road casualty data - average of bus and coach casualties (excluding minibuses) 2009-2013 inclusive.
Seats to which paragraph 7.12.2. refers to:

A  Sideways facing seat  
B  Seat which has its centreline within the longitudinal projection of a gangway  
C  Seat in front of which is existing vehicle structure (e.g. fixed table or luggage pen)  
D  Transverse facing seats where the maximum distance between the front faces of the seat squabs does not exceed 1,800 mm