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Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on Passive Safety****Fifty-fourth session**

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Item 2 of the provisional agenda

Global technical regulation No. 7 (Head restraints)**Proposal for Amendment 1****Submitted by the experts from Germany, United Kingdom
and the Netherlands***

The text reproduced below was prepared by the experts from Germany, United Kingdom of Great Britain and Northern Ireland and the Netherlands proposing a head restraint height that will cover a larger proportion of the population. It is based on a document without a symbol (GRSP-53-15) distributed during the fifty-third session of the Working Party on Passive Safety (GRSP) (see ECE/TRANS/WP.29/GRSP/53, para. 6). The modifications to the draft text of the UN Global Technical Regulation (UN GTR) No.7 Phase 2 (Head restraints) (GRSP-53-06) are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106 and ECE/TRANS/2010/8, 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

Paragraph 5.1.1.2., amend to read:

"5.1.1.2. Front outboard designated seating positions

The height of a head restraint located in a front outboard designated seating position shall, except as provided in paragraph 5.1.1.4. of this regulation, have a height of:

- (a) not less than ~~{800}~~ 830 mm in at least one position of head restraint adjustment, and
- (b) not less than ~~{720}~~ mm in any position of head restraint adjustment."

II. Justification

A. On the need for higher head restraints

1. The new measurement method of head restraint height introduced by the draft UN GTR certainly is seen as an improvement, but it does not change what humans actually need as a good head restraint height to catch their head at the height of its centre of gravity.

2. The height requirement of 800 mm for head restraints is based on an assumption on what a mid-sized occupant would need in earlier times. In our view, by applying not more than 800 mm in Contracting Parties to the 1998 Agreement such as Germany, United Kingdom and the Netherlands, a part of the population (namely the tallest ones) would be unnecessarily discriminated against.

3. Already in 2007 the European Enhanced Vehicle Committee study "UK Cost-benefit Analysis: Enhanced Geometric Requirements for Vehicles Head Restraints" was published making a strong case for higher head restraints. We believe that basically nowadays a larger part of our population should be protected. This should be done by means of the developed good static measurement method that takes into account of the centre of gravity of the head of a taller part of the population too.

B. On the need for visibility

4. Some Contracting Parties emphasized the importance of good visibility for the driver. This proposal decreases the required height of head restraints in the rear from 750 to 720 mm.

5. Only for head restraints in the front will required height be increased with 30 mm. However this head restraint next to the driver's may still be adjustable and one should also realize that when taking passengers, the distance from centre of gravity of their head up to the top of their head is 93 mm; so the 30 mm increase could be considered as marginal with respect to this point.
