

PROPOSAL FOR DRAFT AMENDMENTS TO DRAFT GLOBAL TECHNICAL REGULATION  
(GTR) ON HEAD RESTRAINTS

**A. PROPOSAL**

1. In Part A., amend section 5.3 to delete the bracketed final paragraph.
2. In Part A., amend section 5.14 to delete the bracketed paragraphs and add the following:

With the incorporation of a static backset requirement, delegates and representatives felt it was important to provide an alternative way to evaluate active/re-active head restraint systems. These systems, by the function of their design, reduce the backset only when needed for the protection of whiplash injuries in a rear impact crash. When these systems are in their normal driving position, they may have a larger static backset.

A proposal was made to recommend incorporation of the optional dynamic test defined in the U.S.A.'s FMVSS No. 202 into the gtr as an option to the static requirements. Data was presented positively correlating the dynamic test to real-world data. There was a great deal of concern expressed by some delegates and representatives particularly with respect to using the Hybrid III dummy. As an alternative, the BioRID dummy was considered, but it was acknowledged that it was not ready for regulation at the time of gtr development. Eventually, the working group reached an impasse concerning this proposal.

As a result, GRSP agrees to recommend a gtr which includes only static requirements for head restraints. Contracting parties or regional economic integration organizations would be free to add the option of a dynamic or other method of evaluating active/re-active head restraint systems in their national regulations. The U.S.A. has indicated that it would retain the dynamic option in their regulation.

A fully regulated dummy and a dynamic whiplash evaluation test are considered to be a longer term solution to the whiplash problem. For the long term solution to reducing whiplash injuries, the working group recommends that research continue towards the development of a whiplash evaluation test and a whiplash dummy. The ongoing work in EEVC was acknowledged, but cooperation of countries outside of Europe was strongly encouraged.

3. In Part B., amend paragraph 4.2. to read as follows, and delete paragraphs 4.2.1. and 4.2.2.
- 4.2. In each vehicle subject to the requirements of this regulation, a head restraint shall be provided at each front outboard designated seating position that shall conform to ~~either 4.2.1. or 4.2.2.~~ **to paragraphs 5.1.1 through 5.2., 5.4., and 5.5. of this regulation.**
4. In Part B., amend paragraph 4.3. to read as follows, and delete paragraphs 4.3.1. and 4.3.2.
- 4.3. For vehicles equipped with rear outboard and/or front centre head restraints, the head restraint shall conform to ~~either 4.3.1. or 4.3.2~~ **paragraphs 5.1.1. through 5.1.4., [5.1.6., ]5.2., 5.4., and 5.5. of this regulation.**

- 4.4. For vehicles equipped with rear centre head restraints, the head restraint shall conform to ~~either paragraph 4.4.1. or 4.4.2.~~ **paragraphs 5.1.2. through 5.1.4., [5.1.6., ]5.2., 5.4., and 5.5. of this regulation.**
5. In Part B., amend paragraph 4.4. to read as follows, and delete paragraphs 4.4.1. and 4.4.2.
6. In Part B., delete paragraphs 5.3. through 5.3.1.2., and reserve paragraph 5.3.
7. In Part B., delete and reserve paragraph 7.3.
8. In Part B., delete and reserve Annex 8.

## **B. JUSTIFICATION**

It appears that an impasse has been reached on the issue of active head restraint systems – many delegates and representatives cannot accept the U.S.A. dynamic test, even with an understanding that it would be an interim step until a fully regulated dummy and a dynamic whiplash evaluation test can be developed. Rather than risk the abandonment of the progress that has been made in developing a harmonized set of static requirements for head restraints, all references to the dynamic test should be deleted. If the gtr is silent on the issue of a dynamic test, there is no restriction on the ability of a Contracting Party or regional economic integration organization to include the option of a dynamic test, or any other requirements, for active head restraint systems. While there is a concern that not including a dynamic test option in the gtr will hinder the development of these promising head restraint designs, the United States would retain the dynamic test option in the FMVSS. It is likely that other Contracting Parties or regional economic integration organizations would include some type of option in their national regulations also.

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