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

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Item 17 of the provisional agenda

Regulation No. 95 (Lateral collision)**Proposal for Supplement 3 to the 02 series of amendments****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 (OICA) to include requirements for automatic door locking systems. It is based on a document without a symbol (GRSP-51-12) distributed during the fifty-first session of the Working Party on Passive Safety (GRSP) (see ECE/TRANS/WP.29/GRSP/51, para. 32). The modifications to the text of the UN Regulation 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

Insert a new paragraph 2.35., to read:

"2.35. "Automatically activated door locking system" means a system that locks the doors automatically at a pre-set speed or under any other condition as defined by the manufacturer."

Insert new paragraphs 5.3.1.1. to 5.3.1.1.2., to read:

"5.3.1.1. In the case of automatically activated door locking systems which are installed optionally and/or which can be de-activated by the driver, this requirement shall be verified by using one of the following two test procedures, at the choice of the manufacturer:

5.3.1.1.1. If testing in accordance with Annex 4, paragraph 5.2.2.1., the manufacturer shall in addition demonstrate to the satisfaction of the Technical Service (e.g. manufacturer's in-house data) that, in the absence of the system or when the system is de-activated, no door will open in case of the impact.

5.3.1.1.2. If testing in accordance with Annex 4, paragraph 5.2.2.2., the manufacturer shall in addition demonstrate that the inertial load requirements of paragraph 6.1.4. of the 03 series of amendments to Regulation 11 are met for the unlocked side doors on the non-struck side."

Insert new paragraphs 5.3.2. to 5.3.2.2.2., to read:

"5.3.2. After the impact, the side doors on the non-struck side shall be unlocked.

[5.3.2.1. In the case of vehicles equipped with an automatically activated door locking system, the doors must [be locked before the moment of impact and] be unlocked after the impact at least on the non-struck side.]

5.3.2.2. In the case of automatically activated door locking systems which are installed optionally and/or which can be de-activated by the driver, this requirement shall be verified by using one of the following two test procedures, at the choice of the manufacturer:

5.3.2.2.1. If testing in accordance with Annex 4, paragraph 5.2.2.1, the manufacturer shall in addition demonstrate to the satisfaction of the Technical Service (e.g. manufacturer's in-house data) that, in the absence of the system or when the system is de-activated, the side doors on the non-struck side are unlocked after the impact.

5.3.2.2.2. If testing in accordance with paragraph Annex 4, paragraph 5.2.2.2. the manufacturer shall in addition demonstrate that when applying the inertial load of paragraph 6.1.4. of the 03 series of amendments to Regulation 11, the unlocked side doors on the non-struck side remain unlocked."

Paragraphs 5.3.2. to 5.3.6.3.(former), renumber as paragraphs 5.3.3. to 5.3.7.3.

Insert a new paragraph 10.12. to read

"10.12. Until 18 months after the date of entry into force of the Supplement [3] to the 03 series of amendments to this Regulation, Contracting Parties applying this Regulation can continue to grant UN type approvals to the 03 series of amendments to this Regulation without taking into account the provisions of Supplement [3]"

Annex 4, insert new paragraphs 5.2.1. to 5.2.2.2., to read:

"5.2.1 However, in the case of vehicles equipped with an automatically activated door locking system, it shall be ensured that all the side doors are locked before the test.

5.2.2 In the case of vehicles equipped with an automatically activated door locking system, which is installed optionally and/or which can be de-activated by the driver, one of the following two procedures shall be used at the choice of the manufacturer:

5.2.2.1 All the side doors shall be locked manually before the start of the test.

5.2.2.2. It shall be ensured that the side doors on the struck side are unlocked and the side doors on the non-struck side locked before the impact; the automatically activated door-locking system may be overridden for this test."

II. Justification

1. It has become common practice to equip vehicles with automatic door locking systems (also called 'rolling door locks', 'speed locks', 'auto locks', etc.). UN Regulation No. 95 however does not allow the doors to be locked during the test. This contradicts with the fact that in real life, for vehicles equipped with automatic door locking systems, the doors are locked at the moment of impact.

2. Including these requirements for automatic door locking systems gives the possibility for these systems to automatically unlock the doors upon an impact for evacuation of the occupants. Simultaneously, the correct functioning of these systems can be checked.

3. This proposal tabled by the expert from OICA is largely based on the proposal made by the expert from the Netherlands (ECE/TRANS/WP.29/GRSP/2012/9), but adds a further possibility of testing the vehicle in a "mixed configuration" of locked and unlocked doors, thereby ensuring that all the requirements for all systems can readily be verified by a single test, as explained below.

4. Paragraph 2.35 is taken from ECE/TRANS/WP.29/GRSP/2012/9 without any change.

5. Paragraph 5.3.1: The general requirement is that no door opens during the test, and this must be met by all systems. However, in the case of vehicles with locking systems that are automatic or that can be de-activated, two testing possibilities are proposed. The first possibility is the one proposed in ECE/TRANS/WP.29/GRSP/2012/9. The second possibility is to test such vehicles, with the automatic locking system installed, whereby the doors on the impacted side are unlocked and the doors on the non-impacted side are locked at the moment of impact. In addition, the doors on the non-impacted side are required to meet the inertial load requirements of UN Regulation No. 11. This allows verification, in a

single test, that all doors remain closed, whether they are locked or whether they are unlocked.

6. Paragraph 5.3.2: A new requirement is added that "After the impact, the side doors on the non-struck side shall be unlocked".

7. Paragraph 5.3.2.1 could, in practice, be deleted because it is redundant. The general requirement is that the side doors shall be unlocked after impact and this should be met by all systems, whether automatic or not.

8. Paragraph 5.3.2.2: in the case of vehicles with locking systems that are automatic or that can be de-activated, two testing possibilities are proposed. The first possibility is the one proposed in ECE/TRANS/WP.29/GRSP/2012/9. The second possibility is to test such vehicles, with the automatic locking system installed, whereby the doors on the impacted side are unlocked and the doors on the non-impacted side are locked at the moment of impact. In this case, however, it shall also be ensured that during the inertial load test of UN Regulation No. 11, the doors on the non-impacted side do not lock. This allows verification, in a single test, that all doors are unlocked after the test, whether they were locked or whether they were unlocked before the impact.

9. Transitional Provisions: after further careful consideration, OICA suggests adding a transitional period of 18 months, taking into account the need to fine-tune the testing arrangements and the necessary verifications on planned future models. The GRSP secretariat is kindly requested to verify the number of this proposed supplement.
