

Proposal for collective amendments to Regulations Nos. 14 and 16

Note: The text reproduced below was prepared by the expert from the Netherlands to make more clear that the recently enlarged height requirements for the effective upper belt anchorage (Sup.4 to the 07-series of Reg.14), can be reached by means of a "Belt adjustment device for height" that is part of the belt-anchorage as well as a device that is part of the belt itself, each with distinctive approach. The proposed modifications to the existing text of both Regulation Nos. 14 and 16 are marked in **bold** for new and strikethrough for deleted characters.

A1. Proposal for Supplement 7 to the 07 series of amendments to Regulation No. 14 (Safety belt anchorages)

Paragraph 5.4.3.6.1., amend to read:

"5.4.3.6.1. Notwithstanding the requirements of paragraph 5.4.3.6. the effective upper belt anchorage for passenger seats of category M2 and M3 vehicles may be adjustable below that specification providing the following requirements are met:

- (a) The safety belt or seat shall be permanently marked to identify the position of the effective upper belt anchorage that is required to satisfy the minimum upper anchorage height position required by paragraph 5.4.3.6. This marking shall clearly indicate to the user when the anchorage is in a position suitable for use by an adult of average stature.
- (b) The effective upper anchorage shall be so designed to permit adjustment of its height by a manual adjusting device that is readily accessible to the wearer when seated and is convenient and easy to use.
- (c) The effective upper anchorage shall be so designed to prevent any unintended upward movement of the anchorage that would reduce the effectiveness of the device during normal use.
- (d) The manufacturer shall include within the vehicle handbook clear guidance on the adjustment of such systems, together with advice on the suitability and limitations for use by occupants of short stature.

However, where the adjustment device for the height of the effective upper anchorage is not part of the anchorage but is part of the safety-belt then:

- (e) **the requirements mentioned in the subparagraph (a) and (d) above shall be fulfilled as part of the Regulation No. 14 type approval making use of the restraint system that is to be installed.**
- (f) **evidence is needed that the safety-belt together with its adjustment device for the height of the effective upper anchorage, complies with the requirements for restraint systems of Regulation No. 16. Based hereon the requirements in the subparagraph (b) and (c) shall be fulfilled under paragraph 8.3. of the Regulation No. 16 type approval."**

A2. Proposal for Supplement 6 to the 06 series of amendments to Regulation No. 16 (Safety belts and restraint systems)

Paragraph 2.14.6., amend to read:

"2.14.6. Belt adjustment device for height

A device enabling the position in height of the upper ~~pillar~~ loop of a belt to be adjusted according to the requirements of the individual wearer and the position of the seat. Such a device ~~may~~ **shall** be considered as a part of the belt **in case the upper loop is connected to a further belt assembly needed to enable height adjustment; this system shall be treated as restraint system.**

In case the upper loop is directly connected to the vehicle construction the belt adjustment device may be considered as ~~ø~~ a part of the anchorage of the belt."

Insert a new paragraph 2.14.6.1., to read:

"2.14.6.1. **"upper loop of a belt" means the D-ring or other device offering a lead-through for the belt coming directly from the shoulder and guiding the belt further on."**

Paragraph 6.4.1.2.3., amend to read:

"6.4.1.2.3. In the case of a belt intended for use with a belt adjustment device for height, as defined in paragraph 2.14.6. above, the test shall be carried out with the device adjusted in the most unfavourable position(s) chosen by the Technical Service responsible for testing. However:

6.4.1.2.3.1. If the belt adjustment device for height is constituted by the belt anchorage, as approved in accordance with the provisions of Regulation No. 14, the Technical Service responsible for testing may, at its discretion, apply the provisions of paragraph 7.7.1. below;

6.4.1.2.3.2. **If the belt adjustment device for height is part of the belt, it shall be tested as a restraint system and the Technical Service responsible for testing shall apply the provisions of paragraph 7.7.1."**

Paragraph 8.3.3., amend to read:

"8.3.3. When the belt is being worn, it shall either adjust automatically to fit the wearer or be so designed that the manual adjusting device is readily accessible to the wearer when seated and is convenient and easy to use. It shall also be possible for it to be tightened with one hand to suit the build of the wearer and the position of the vehicle seat.

A manual adjusting device shall be so designed to prevent any unintended movement that would reduce the effectiveness of the device during normal use."

Annex 1B (Communication of a type of safety-belt or restraint system ...), *item 1*, amend to read:

"1. Restraint system (with)/three-point belt/lap belt/special type belt/fitted (with) energy absorber/retractor/device for height adjustment of the upper ~~pillar~~ loop of the belt ³"

B. Justification

Initially in Regulation No. 16 in the definition for a belt adjustment device for height is made a distinction between the two possible systems, however finally in the approval certificate only one system is mentioned. Applying the required strikethrough action in case of the pillar-loop option will confuse matters. Namely a belt/restraint system (later to be used for a Regulation No. 14 approval) could still be a system with height adjustment of an upper loop, but one is not triggered by means of the Regulation No. 16 approval certificate!

Herewith are proposals to provide more clarity.

Furthermore the complexity and sensibility of the here discussed belt systems (where the upper loop is connected to a further belt assembly in order to enable height adjustment) is such that it is not to justify to have a simple test on the (rigid) Reg.16 test seat. These system shall be treated as restraint systems and tested in combination with their own seats.

Finally some changes to Regulation No. 14 have been proposed to separate matters in a more clear way.
