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PROPOSAL FOR DRAFT SUPPLEMENT 13 TO THE 04 SERIES
OF AMENDMENTS TO REGULATION No. 16

(Safety-belts)

Transmitted by the Working Party on Passive Safety (GRSP)

Note: The text reproduced below was adopted by GRSP at its thirtieth session and is transmitted for consideration to WP.29 and to AC.1. It is based on the text reproduced in the session report (TRANS/WP.29/GRSP/30, paras. 17, 18 and annex 2).

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Paragraph 2.1., amend to read:

"... absorbing energy or for retracting the belt.

The arrangement can be tested and approved as a safety belt arrangement or as a restraint system."

Paragraph 2.1.1., amend to read:

"2.1.1. Lap belt

A two-point belt which passes across the front of the wearer's pelvis region."

Paragraph 2.1.3., amend to read:

"2.1.3. Three-point belt

A belt which is essentially a combination of a lap strap and a diagonal strap."

Insert a new paragraph 2.1.4., to read:

"2.1.4. S-type belt

A belt arrangement other than a three-point belt or a lap belt."

Paragraph 2.1.4.(former), renumber as paragraph 2.1.5. and amend to read:

"2.1.5. Harness belt

A S-type belt arrangement comprising a lap belt and shoulder straps; a harness belt may be provided with an additional crotch strap assembly;"

Paragraph 2.17., amend to read:

"2.17. Restraint System

A system for a specific vehicle type or a type defined by the vehicle manufacturer and agreed by the Technical Service consisting of a seat and a belt fixed to the vehicle by appropriate means and consisting additionally of all elements which are provided to diminish the risk of injury to the wearer, in the event of an abrupt vehicle deceleration, by limiting the mobility of the wearer's body;"

Insert a new paragraph 2.28., to read:

"2.28. Tension-reducing device:

A device which is incorporated in the retractor and reduces the tension of the strap automatically when the safety-belt is fastened. When it is released, such a device switches off automatically."

Insert a new paragraph 5.3.4.2.2.4., to read:

"5.3.4.2.2.4. the letter "t" in the case of a safety belt with a retractor incorporating a tension-reducing device"

Paragraphs 5.3.4.2.2.4. and 5.3.4.2.2.5. (former), renumber as paragraphs 5.3.4.2.2.5. and 5.3.4.2.2.6.

Paragraph 6.2.5.2.2., amend to read:

"6.2.5.2.2. If the retractor is part of a lap belt, ...

If the retractor is part of an upper torso restraint, the retracting force of the strap shall be not less than 0.1 daN and not more than 0.7 daN when similarly measured."

Paragraph 6.2.5.3.4., amend to read:

"6.2.5.3.4. If the retractor is part of a lap belt,

If the retractor is part of an upper torso restraint, the retracting force of the strap shall be not less than 0.1 daN and not more than 0.7 daN when similarly measured, except for a belt equipped with a tension-reducing device, in which case the minimum retracting force may be reduced to 0.05 daN only when such a device is in operation mode. If the strap passes through a guide or pulley, the retracting force shall be measured in the free length between the dummy and the guide or pulley.

If the assembly incorporates a device that upon manual or automatic operation prevents the strap from being completely retracted, such a device shall not be operated when these requirements are assessed.

If the assembly incorporates a tension-reducing device, the retracting force of the strap described in the above shall be measured with the device in operation mode and non-operation mode when these requirements are assessed before and after durability tests according to paragraph 6.2.5.3.5."

Paragraph 6.2.5.3.5., amend to read:

"6.2.5.3.5. The strap shall be (making 45,000 in all).

If the assembly incorporates a tension-reducing device, the above tests shall be conducted on condition that the tension-reducing device is in operation mode and in non-operation mode.

After the above tests, the retractor shall operate correctly and still meet the requirements of paragraphs 6.2.5.3.1., 6.2.5.3.3. and 6.2.5.3.4. above."

Insert new paragraphs 6.2.5.4. to 6.2.5.4.2., to read:

"6.2.5.4. Retractors must fulfill, after durability test according to paragraph, 6.2.5.3.5., and immediately after the retracting force measurement according to paragraph 6.2.5.3.4., all next two specifications:

6.2.5.4.1. When retractors except automatically locking retractors are tested according to paragraph 7.6.4.2., the retractors must be able to avoid any slack between torso and belt, and,

6.2.5.4.2. When the buckle is unlatched to release the tongue, the retractor alone must be able to retract strap fully."

Insert a new paragraph 6.4.1.2.5., to read:

"6.4.1.2.5. In the case of a safety-belt with tension-reducing device, it shall be subjected to a durability test with such a device in operation mode according to paragraph 6.2.5.3.5 before a dynamic test. The dynamic test shall then be conducted with the tension-reducing device in operation mode."

Paragraph 7.6.4.1., amend to read:

"7.6.4.1. The retracting force shall be measured with the safety-belt assembly fitted to a dummy as for the dynamic test prescribed in paragraph 7.7. The strap tension shall be measured at the point of contact with (but just clear of) the dummy while the strap is being retracted at the approximate rate of 0.6 m/min. In the case of a safety-belt with tension-reducing device, the retracting force and strap tension shall be measured with the tension-reducing device in both operation mode and non-operation mode."

Insert a new paragraph 7.6.4.2., to read.

"7.6.4.2. Before the dynamic test described in paragraph 7.7. the seated dummy, which is clothed with a cotton shirt, shall be tilted frontward until 350 mm of the strap is withdrawn from retractor, and then released to the initial position."

Insert a new paragraph 7.7.1.7., to read:

"7.7.1.7. The dynamic tests of the harness belt system shall be carried out without the crotch strap (assembly), if there is any."

Annex 7,

The text after figure 6, amend to read:

"...

P = pelvis reference ... manikin)

The displacement measurement at point P shall not contain rotational components around the hip axis and around a vertical axis."

Annex 9,

Insert a new paragraph 4., to read:

"4. An installation requirement for the consumer shall be provided by the manufacturer/applicant for all vehicles where the crotch strap assembly can be used. The manufacturer of the harness belt shall prescribe the mounting of the additional reinforcement elements for the anchorages of crotch straps and their installation in all vehicles where an installation is provided for."

Annex 16,

The note below the table, amend to read:

Note: In all cases all S-type belts may be fitted in place of all possible A or B type belts, provided their anchorages comply with Regulation No. 14. Where a harness belt has been approved as a S-type belt according to this Regulation, using the lap belt strap, the shoulder belt straps and possibly one or more retractors, one or two additional crotch straps including their attachments for their anchorages may be provided by the manufacturer/applicant. These additional anchorages need not meet the requirements of Regulation No. 14."
