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agenda item 2.3)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION NO.16

Transmitted by the Expert from Germany

Note:

The text reproduced below has been prepared by the expert from Germany to clarify and extend the requirements for “special type belts” of ECE- Regulation 16 .

If GRSP follows this draft proposal, ECE- Regulation 14 needs a short modification respectively, see page 4.

Note: This document is distributed to the Experts on Passive Safety only.

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PROPOSAL

A. Justification:

The ECE- Regulation 16 contents requirements for adult safety belts, the definitions taken not stringently for e.g. the three point safety belt which is in principle a combination of a lap belt and of a diagonal belt; the term restraint system has for example been introduced and scheduled only to the need of a car manufacturer asking for a certificate of a system consisting of a diagonal belt and a knee bar. The definition of the S-type belt (Annex 16) is missing. For the clarification, accomplishment and stringency of the existing definitions of ECE- Regulation 16 the following proposals seem to be helpful:

- New (stringent) numbering of existing belt definitions including new definitions for “S-type belts” and “restraint system”.
- Clarification and extension of the note which belongs to ECE- Regulation 16, Annex 16 “Safety belt installation showing the belt types and retractor types”; its still actual text follows:
Note: In all cases S- type belts maybe fitted in place of an A or B type belt, provided anchorages complying with Regulation No. 14 are used. This wording alone might outrule certain harness belts which was not its intention.
- In case of a modification of ECE- Regulation 16 - following the below mentioned proposal - the ECE- Regulation 14 should have a short modification respectively.

B. Draft modification of ECE- Regulation 16

in its version: Draft supplement 11 to the 04 series of amendments
(TRANS/ WP. 29/ 746 - 8 December 2000)

2. Definitions

Existing text:

2.1 'Safety belt (seat belt, belt)'

An arrangement of straps with a securing buckle, adjusting devices and attachments which is capable of being anchored to the interior of a power-driven vehicle and is designed to diminish the risk of injury to its wearer, in the event of collision or of abrupt deceleration of the vehicle, by limiting the mobility of the wearer' s body. Such an arrangement is generally referred to as a 'belt assembly', which term also embraces any device for absorbing energy or for retracting the belt.

To be added:

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

Overview on the following renumberings and if existing, modifications:

Former para. 2. 1. 1., lap belt, renumbered as 2. 1. 1. 1.,

former para. 2. 1. 2., diagonal belt, renumbered as 2. 1. 1.2.,

former para. 2.1.3., three point belt, renumbered as 2.1.1.,

former para. 2.1.4., harness belt, renumbered as 2.1.2.1. and modified,

former para. 2.1.2. and two new subparagraphs 2.1.2.1. and 2.1.2.2. with definitions of S-type belts.

Existing text, but renumbered:

2. 1. 1. 'Three-point belt'

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

Existing text, but renumbered:

2. 1. 1. 1. 'Lap belt',
A belt which passes across the front of the wearer's pelvic region;

Existing text, but renumbered:

2. 1. 1. 2. 'Diagonal belt'
A belt which passes diagonally across the front of the chest, from the hip to the opposite shoulder.

To be added:

2. 1. 2. 'S-type belt'
A belt arrangement other than a three point belt or a lap belt;

Existing text modified as:

2. 1. 2. 1. 'harness belt' means a S-type belt arrangement comprising a lap belt and shoulder straps;
a harness belt may be provided with an additional crotch strap assembly;

To be added:

2. 1. 2. 2. A diagonal belt can be tested and approved as a S-type belt in form of a restraint system within the vehicle together with, for example, a knee bar arrangement;

Existing text:

2. 2. 'Belt type'
Belts of different "types" are belts differing substantially from one another; the differences ...

Existing text:

2. 17. 'Restraint system'
A system combining a seat affixed to the structure of the vehicle by appropriate means and a safety-belt for which at least one anchorage is located on the seat structure.

Modified as:

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 wearers body;

Existing text:

Annex 16, table "Safety-belt installation showing the belt types and retractor types"
(All tables: No changes proposed)

Existing text of the note below the above table:

Note : In all cases S-type belts may be fitted in place of an A or B type belt, provided anchorages complying with Regulation No. 14 are used.

Note modified and extended as:

Note:

In all cases 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 must not meet the requirements of Regulation No.14.

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

Proposal for a consequent modification of ECE- Regulation No. 14

New paragraph to be added:

- 5.3.1.1. The anchorages of a harness belt system approved as a S-type belt (with or without retractor(s)) according to ECE- Regulation No.16 shall comply with the requirements of Regulation No.14, but the additional anchorage or anchorages provided for the fitting of a crotch strap (assembly) are exempted from the strength and location requirements of this Regulation.