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World Forum for Harmonization of Vehicle Regulations

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Geneva, 26-29 June 2007  
Item 4.2.3. of the provisional agenda

1958 AGREEMENT

Consideration of draft amendments to existing Regulations

Proposal for 05 series of amendments to Regulation No. 16  
(Safety-belt anchorages)

Submitted by the Working Party on Passive Safety (GRSP)

The text reproduced below was adopted by GRSP at its fortieth session. It is based on document TRANS/WP.29/GRSP/2004/26/Rev.1 as reproduced in Annex II to the report. It is transmitted for consideration to WP.29 and AC.1 (ECE/TRANS/WP.29/GRSP/40, para. 27).

The title, amend to read:

"UNIFORM PROVISIONS CONCERNING THE APPROVAL OF:

- I. SAFETY-BELTS, RESTRAINT SYSTEMS, CHILD RESTRAINT SYSTEMS AND ISOFIX CHILD RESTRAINT SYSTEMS FOR OCCUPANTS OF POWER-DRIVEN VEHICLES
- II. VEHICLES EQUIPPED WITH SAFETY-BELTS, SAFETY-BELT REMINDER, RESTRAINT SYSTEMS, CHILD RESTRAINT SYSTEMS AND ISOFIX CHILD RESTRAINT SYSTEMS"

Insert a new paragraph 1.4., to read:

"1.4. Vehicles of categories M<sub>1</sub> with regard to safety belt reminder."

Insert new paragraphs 2.39. to 2.45., to read:

"2.39. "Safety-belt reminder", means a system dedicated to alert the driver when he/she does not use the safety-belt. The system is constituted by a detection of an unfastened safety-belt and by two levels of driver's alert: a first level warning and a second level warning."

2.40. "Visual warning" means a warning by visual signal (lighting, blinking or visual display of symbol or message).

2.41. "Audible warning" means a warning by sound signal.

2.42. "First level warning" means a visual warning activated when the ignition switch is engaged (engine running or not) and the driver's safety-belt is not fastened. An audible warning can be added as an option.

2.43. "Second level warning" means a visual and audible warning activated when a driver operates a vehicle without fastening the safety-belt.

2.44. "Safety-belt is not fastened" means, at the option of the manufacturer, either the driver safety-belt buckle is not engaged or the webbing length pulled out of the retractor is 100 mm or less.

2.45. "Vehicle is in normal operation" means that vehicle is in forward motion at the speed greater than 10 km/h."

Paragraph 5.2.2., amend to read:

"An approval number ..... Its first two digits (at present 05 corresponding to the 05 series of amendments) shall indicate the ..... above."

Paragraph 8.1., including a new footnote \*/, amend to read:

"8.1. Safety-belt and restraint systems equipment"

Insert new paragraphs 8.4. to 8.4.1.1., to read:

"8.4. Safety-belt reminder equipment.

8.4.1. The driver seating position of the M<sub>1</sub> category of vehicles \*/, shall be equipped with a safety-belt reminder satisfying the requirements of this Regulation. Where the vehicle manufacturer provides a safety-belt reminder system on the driver seat in another category of vehicle, the safety-belt reminder system may be approved according to this Regulation \*\*/.

8.4.1.1. Contracting Parties may allow deactivation of the safety-belt reminder provided that such deactivation satisfies to the requirements of paragraph 8.4.2.6."

Insert new paragraphs 8.4.2. to 8.4.2.6.2., to read :

"8.4.2. Safety-belt Reminder.

8.4.2.1. General requirements.

8.4.2.1.1. Visual warning shall be so located as to be readily visible and recognisable in the daylight by the driver and distinguishable from other alerts. Where the visual signal warning employs the colour red, it shall use a symbol in accordance with item 21 in table 1 of ECE Regulation No. 121.



(item K.01 - ISO 2575:2000) or,



8.4.2.1.2. Visual warning shall be by continuous or intermittent signal.

8.4.2.1.3. Audible warning shall be by continuous or intermittent sound signal or by vocal information. Where vocal information is employed, the manufacturer shall ensure that the alert uses the language(s) of the market into which the vehicle is sold. This audible warning may be constituted by more than one step.

8.4.2.1.4. Audible warning shall be easily recognized by the driver.

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\*/ As defined in the Consolidated Resolution of Construction of Vehicles (R.E.3), Annex 7 (document TRANS/WP.29/78/Rev.1/Amend.2).

\*\*/ While the current requirements for a safety-belt reminder is limited to the driver's seat of vehicles category M<sub>1</sub>, it is understood that the scope of this Regulation will be extended to vehicles of other categories and to other seating positions. In recognition of the importance of human factors, the delivery of driver stimuli, future safety-belt reminder requirements demanded by this Regulation will seek a harmonized convergence of the alert systems.

- 8.4.2.2. First level warning shall be at least a visual warning activated for 4 seconds or longer when the driver safety-belt is not fastened and the ignition switch is engaged.
- 8.4.2.3. The activation of the first level warning shall be tested according to the test procedure defined in Annex 18, paragraph 1.
- 8.4.2.4. Second level warning shall be a visual and audible signal activated for 30 seconds or longer except for cases in which the warning stops for over 3 seconds when the safety-belt is not fastened, when the vehicle is in normal operation and when at least one of the following conditions (or any combination of these conditions), is fulfilled:
  - 8.4.2.4.1. Distance driven greater than the distance threshold. The threshold shall not exceed 500 m. The distance the vehicle is not in normal operation shall be excluded.
  - 8.4.2.4.2. Speed greater than the speed threshold. The threshold shall not exceed 25 km/h.
  - 8.4.2.4.3. Duration time (engine running) greater than the duration time threshold. The threshold shall not exceed 60 seconds. The first level warning duration time and the duration time the vehicle is not in normal operation shall be excluded.
- 8.4.2.5. The activation of the second level warning shall be tested according to the test procedure defined in Annex 18, paragraph 2.
- 8.4.2.6. The safety-belt reminder may be designed to allow deactivation.
  - 8.4.2.6.1. In the case a short term deactivation is provided, it shall be more difficult to deactivate the safety-belt reminder than buckling the safety-belt on and off. When the ignition is switched off for more than 30 minutes and switched on again, a short-term deactivated safety-belt reminder must reactivate.
  - 8.4.2.6.2. In the case that a facility for a long term deactivation is provided, it shall require a sequence of operations to deactivate, that are detailed only in the manufacturer's technical manual and/or which requires the use of tools (mechanical, electrical, digital, etc.) that are not provided with the vehicle."

Paragraph 15.2., amend to read:

"15.2. Installation of safety-belts and safety-belt reminder

These transitional provisions only apply to the installation of safety-belts and safety-belt reminders on vehicles and do not change the mark of the safety-belt."

Insert new paragraphs 15.2.10. to 15.2.16., to read :

"15.2.10. As from the official date of entry into force of the 05 series of amendments, no Contracting Party applying this Regulation shall refuse to grant ECE approvals under this Regulation as amended by the 05 series of amendments.

- 15.2.11. As from 18 months after the date of entry into force, Contracting Party applying this Regulation shall grant approvals only if the vehicle type to be approved meets the requirements of this Regulation as amended by the 05 series of amendments.
- 15.2.12. As from 72 months after the date of entry into force of the 05 series of amendments to this Regulation, approvals to this Regulation shall cease to be valid, except in the case of vehicle types which comply with the requirements of this Regulation as amended by the 05 series of amendments.
- 15.2.13. Notwithstanding paragraph 15.2.12., approvals of the vehicle categories other than M<sub>1</sub> to the preceding series of amendments to the Regulation which are not affected by the 05 series of amendments related to the requirements concerning the fitting of safety-belt reminders shall remain valid and Contracting Parties applying the Regulation shall continue to accept them.
- 15.2.14. Notwithstanding paragraph 15.2.12., approvals of the vehicle categories other than N<sub>2</sub> and N<sub>3</sub> to the preceding series of amendments to the Regulation which are not affected by the 05 series of amendments related to minimum requirements for safety-belts and retractors in Annex 16 shall remain valid and Contracting Parties applying the Regulation shall continue to accept them.
- 15.2.15. Even after the date of entry into force of the 05 series of amendments, approvals of the components and separate technical units to the preceding series of amendments to the regulation shall remain valid and Contracting Parties applying the regulation shall continue to accept them and shall not refuse to grant extensions of approval to the 04 series of amendments to this Regulation.
- 15.2.16. Notwithstanding the transitional provisions above, Contracting Parties whose application of this Regulation comes into force after the date of entry into force of the 05 series of amendments are not obliged to accept approvals which were granted in accordance with any of the preceding series of amendments to this Regulation."

Annex 1, insert a new item 3.3., to read:

"3.3. Driver's safety-belt reminder (indicate yes / no 2/)"

Annex 2, paragraphs 1. and 2., amend the figure "04" to read "05" (22 times, including all figures).

Annex 16, the table, amend to read:

"

Vehicle Category	Forward facing seating positions				Rear facing Seating positions
	Outboard seating positions		Centre seating positions		
	Front	Other than front	Front	Other than front	
.....	....	....	.....	.....	....
N2 N3	Br3, Br4m, Br4Nm or Ar4m, Ar4Nm*	....	....	....	....
	....	....	....	....	....

"

Insert a new Annex 18, to read:

"Annex 18

**SAFETY-BELT REMINDER TESTS**

1. The first level warning shall be tested according to the following conditions:
  - (a) Safety-belt is not fastened;
  - (b) Engine is stopped or idling and the vehicle is not in forward or reverse motion;
  - (c) Transmission is in neutral position;
  - (d) Ignition switch is engaged.
  
2. The second level warning shall be tested according to the following conditions:
  - (a) Safety-belt is not fastened;
  - (b) Test vehicle driven with one or any combination of the conditions of paragraphs 2.1. to 2.3. of this annex at the manufacturer's choice.
  - 2.1. Accelerate the test vehicle to 25 -0/+10 km/h from a halt and continue on the same speed.
  - 2.2. The test vehicle is driven forward at least 500 m from a halt position.
  - 2.3. The vehicle is tested when the vehicle is in normal operation for at least 60 seconds.
  
3. A system that the first level warning stops after a certain period of time, the second level warning shall be tested according to paragraph 2. of this annex after the first level warning has been deactivated. A system that the first level warning does not stop after a certain period of time, the second level warning shall be tested according to paragraph 2. of this annex while the first level warning is activated."

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