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INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Passive Safety (GRSP)
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PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 14
(Safety-belt anchorage)

Transmitted by the Expert from Spain

Note: The text reproduced below was prepared by the expert from Spain in order to clarify the proposed definition of an effective anchorage. It is based on a document distributed without symbol (informal document No. 9) during the twenty-seventh session (TRANS/WP.29/GRSP/27, para. 25).

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

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A. PROPOSAL

Paragraph 2.4., amend to read:

"2.4. "Effective anchorage" is the latest rigid part of the vehicle, seat or anchorage, contacted by the flexible or adjustable part of the safety-belt, when adapted to the user's morphology. It does not necessarily correspond to the real anchorage"

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B. JUSTIFICATION

Comments to the existing definition:

1. When verifying the effective anchorage positions it was found that in some cases the current definition doesn't permit to verify (in particular for lower anchorages) if the belt band is correctly placed around the occupant's body.

2. Angular positions specified in Regulation No. 14 (R-point effective anchorages), give an idea about the belt position around hip. The minimum angle specified tries to prevent submarining. In consequence, when the angle is measured, the value found is very similar to the angle formed by the belt, and in some cases this is not true.

3. In the annexed drawing, there is an example: a seat bench for two people, where lower anchorages are fixed to the floor. Their buckle is supported by a belt or a flexible cable.

- In this case, the effective anchorage (EA) is located on the guide where the belt passes through the metallic element fixing the belt to the floor.

- The angle (b) from the horizontal is measured according to Regulation No. 14, but the belt itself does not follow that line, because it passes over the seat transversal structure, and the real belt angle from the horizontal is (a).

- In consequence, the current definition of the effective anchorage may not be used to verify the belt angle ("b" is much bigger than "a"). A change in the definition is needed.

Adoption of the proposal, would provide a new effective anchorage (PEA). It could be seen that using the proposed definition, the angle formed by the belt is approximately the same as the angle formed by line “R-PEA".
RA: Real anchorage
EA: Effective anchorage according to the current definition
R: R point
PEA: Proposed effective anchorage