Informal document

ECONOMIC COMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

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

Working Party on Passive Safety (GRSP)
(Thirty-fourth session, 08-12 December 2003)

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

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1.- We accept the present definition of effective anchorage written in paragraph 2.4 but we consider necessary to modify 2.4.1.1.

Paragraph 2.4.1.1. amend to read:

where a safety-belt incorporates a rigid part which is attached to a lower belt anchorage and which is fixed or ~~free to swivel~~ *which is a rigid system with only one degree of freedom*, the effective belt anchorage for all positions of seat adjustment is the point where the strap is attached to that rigid part;

New paragraph 2.4.1.1.1:

If that rigid part supporting the band may rotate around one point, the effective anchorage may be the pivoting point, considering that if we substitute the rigid part by a strap attached to the theoretically effective anchorage, the contact areas between belt and occupant does not change. If contact areas between belt and occupant changes, then we consider paragraph 2.4.1.1.

JUSTIFICATION:
The effective anchorage may not be the same when the buckle is supported by a completely rigid system or a rigid system with one degree of freedom (rotation around one axis) and when the buckle is supported by a semi-rigid cable or by a pivoting rigid free-part.
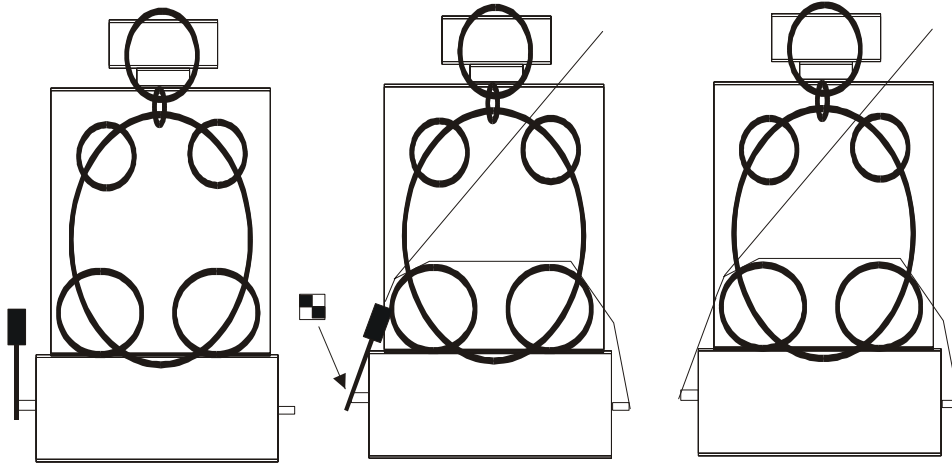
Fig 1: rigid buckle, articulated

Fig 1.1: when we change the rigid buckle by a strap, contact areas between dummy and belt remain unchanged

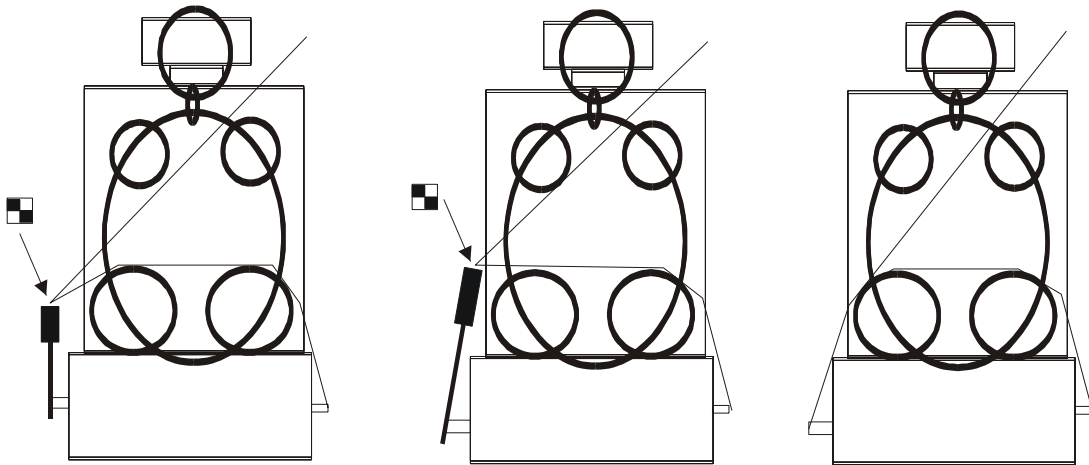Proposal: pivoting point should be the effective anchorage

Fig 2; rigid buckle fixed

Fig 3; articulated buckle; but when we change it by a strap, contact areas are changed too; effective anchorage is not the pivoting point.