Draft amendments to Regulation No. 44-04, Supplement 1
(Draft amendment to Regulation No. 44)

Transmitted by the expert from Japan

Note: The text reproduced below was prepared by Japan in order to clarify the acceleration sled pulse requirement shall be met under calibration to the condition for acceleration test device which was proposed in Regulation No. 44-04, Supplement1. The amendments to the text are marked in ***bold and italic characters***, and existing texts to be deleted are ~~double crossed through~~.

A.   PROPOSAL

Paragraph 8.1.3.1.1.3.2, amend to read:

" 8.1.3.1.1.3.2. Acceleration test device

~~Dynamic testing conditions~~ :

For frontal impact, the trolley shall be so propelled that~~, during the test,~~ its total velocity change ΔV is 52 $^{+0}_{-2}$ km/h ~~and its acceleration curve is within the hatched area of the graph in Annex 7, Appendix 1 and stay above the segment defined by the coordinates (5g, 10ms) and (9g, 20ms). The start of the impact (T0) is defined, according to ISO 17 373 for a level of acceleration of 0.5 g~~. ***The acceleration of the trolley shall be achieved by using the apparatus complying with the performance hereafter specified:***

The acceleration curve of the trolley, weighted with inert mass, must remain within the hatched area of the graph in Annex 7, Appendix 1, and stay above the segment defined by the coordinates 5g, 10ms and 9g, 20ms. The trolley shall remain horizontal during the acceleration. The start of the impact (T0) is defined, according to ISO 17 373 for a level of acceleration of 0.5 g.. In no case shall the total mass of the trolley and vehicle structure and inert masses differ from the nominal value for calibration tests by more than ± 40 kg. During calibration of the acceleration test device, trolley's total velocity change ΔV shall be 52 $^{+0}_{-2}$ ***km/h .***

For rear impact, the trolley shall be so propelled that~~, during the test,~~ its total velocity change ΔV is 32 $^{+2}_{-0}$ km/h ~~and its acceleration curve is within the hatched area of the graph in Annex 7, Appendix 2 and stay above the segment defined by the coordinates (5g, 5ms) and (10g, 10ms). The start of the impact (T0) is defined, according to ISO DIS 17 373 for a level of acceleration of 0.5 g~~. ***The acceleration of the trolley shall be achieved by using the apparatus complying with the performance hereafter specified:***

The acceleration curve of the trolley, weighted with inert mass, must remain within the hatched area of the graph in Annex 7, Appendix 2, and stay above the segment defined by the coordinates 5g, 5ms and 10g, 10ms. The trolley shall remain horizontal during the acceleration. The start of the impact (T0) is defined, according to ISO 17 373 for a level of acceleration of 0.5 g.. In no case shall the total mass of the trolley and vehicle structure and inert masses differ from the nominal value for calibration tests by more than ± 40 kg. During calibration of the acceleration test device, trolley's total velocity change ΔV shall be 32 $^{+2}_{-0}$ km/h .

Despite the fulfilment of the above requirements, the technical service shall use a mass of trolley (equipped with its seat), as specified in paragraph 1. of Annex 6, superior to 380 kg.

However, if the tests above were performed at a higher speed and/or the acceleration curve has exceeded the upper level of the hatched area and the child restraint meets the requirements, the test shall be considered satisfactory."

B.   JUSTIFICATION

General:

This proposal is to clarify that at the calibration, the acceleration sled pulse shall be achieved to the specified corridor using acceleration test device as well as deceleration test device.

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