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Working Party on Passive Safety

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REGULATION No. 95 (Lateral collision)

Proposal for draft corrigendum to Regulation No. 95

Submitted by the expert from Japan

The text reproduced below was prepared by the expert from Japan in order to correct the text of paragraphs 5.6.5. and 5.10.5. of Regulation No. 95. It is based on a document without a symbol (informal document No. GRSP-40-12), distributed during the fortieth session of GRSP (see report ECE/TRANS/WP.29/GRSP/40, para. 50).

The modifications to the existing text of the Regulation are marked in **bold** characters or marked as strikethrough.

Note: This document is distributed to the Experts of the Working Party on Passive Safety (GRSP) only.

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A. PROPOSAL

Annex 6

TECHNICAL DESCRIPTION OF THE SIDE IMPACT DUMMY

Paragraph 5.6.5., amend to read:

"5.6.5. The neck-pendulum is decelerated from impact velocity to zero by an appropriate device 3/, as described in the neck pendulum specification (see Figure 5), resulting in a velocity change - time history inside the corridor specified in Figure 7 and Table 4 of this Annex. All channels have to be recorded according to the ISO 6487:2000 or SAE J211 (March 1995) data channel recording specification and filtered digitally using ISO 6487:2000 CFC 180 or SAE J211:1995 CFC 180. The pendulum deceleration has to be filtered using ISO 6487:2000 CFC 60 or SAE J211:1995 CFC 60."

Paragraph 5.10.5., amend to read:

"5.10.5. The neck-pendulum is decelerated from impact velocity to zero by an appropriate device 6/, as described in the neck pendulum specification (see Figure 5), resulting in a velocity change - time history inside the corridor specified in Figure 8 and Table 6 of this Annex. All channels have to be recorded according to the ISO 6487:2000 or SAE J211 (March 1995) data channel recording specification and filtered digitally using ISO 6487:2000 CFC 180 or SAE J211:1995 CFC 180. The pendulum deceleration has to be filtered using ISO 6487:2000 CFC 60 or SAE J211:1995 CFC 60."

B. JUSTIFICATION

In ECE Regulation No. 95 series 01 and 02 (EuroSID-1dummy), the text referred to the above filters.

The filters that are fitting the specifications of ISO 6487:2000 CFC 180 cannot satisfy the respective velocity change – time corridors (for the neck in Figure 7 and for the lumbar spine in Figure 8 of the Regulation).

Figures 1 and 2 show the results of the same neck certification test using different filters (Figure 1 using CFC 180 and Figure 2 fitting CFC 60). As shown inside, the lower circle of Figure 1, the filter fitting CFC 180 does not completely satisfy the specified corridor.

Similarly, Figures 3 and 4, which show the results of the lumbar spine certification test, demonstrate that the filter fitting CFC 180 does not completely satisfy the specified corridor (inside the lower circle of Figure 3).

Neck Flexion Test (EUROSID-2)

TEST No.: P0710017 FILTER: Impacter G CFC180 DATE: 10. Jan., 2007

TIME: 3:36 pm; TEMP: 21.5 °C; HUMIDITY: 34.5 per cent VELOCITY: 3.33 m/s (3.3-3.5[m/s])

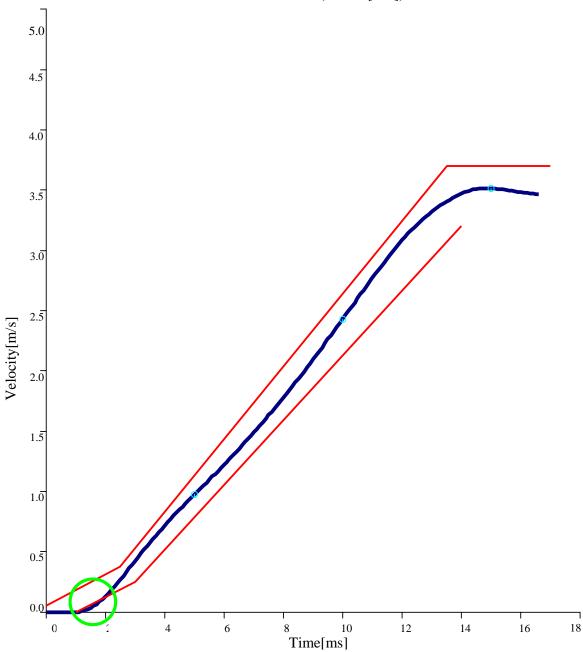


Fig. 1 Neck Flexion Test Velocity – Time curve (Filter: CFC180)

Neck Flexion Test (EUROSID-2)

Test No.: P0710017 Filter: Impacter G CFC60 Date: 10. Jan., 2007

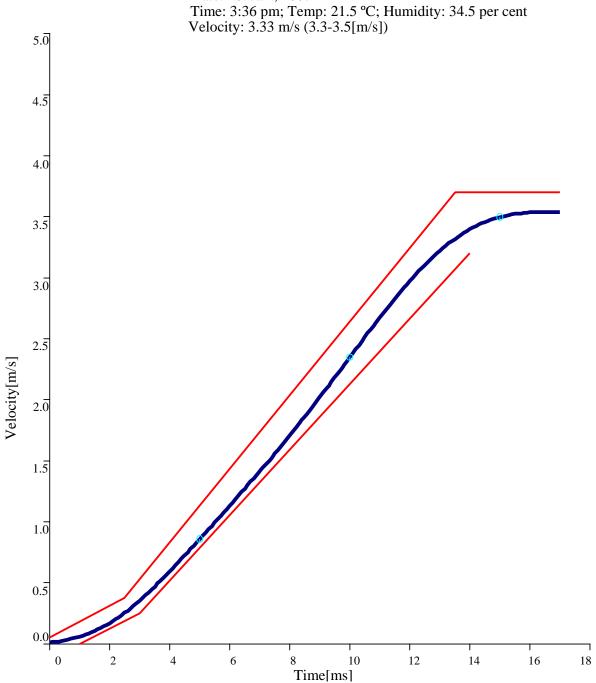


Fig. 2 Neck Flexion Test Velocity – Time curve (Filter: CFC60)

Lumbar Flexion Test (EUROSID-2)

Test No.: P0710015 Filter: Impacter G CFC180 Date: 10. Jan., 2007

Time: 2:09 pm; Temp.: 21.6 °C Humidity: 34.5 per cent Velocity: 6.15 m/s (5.95-6.15[m/s])

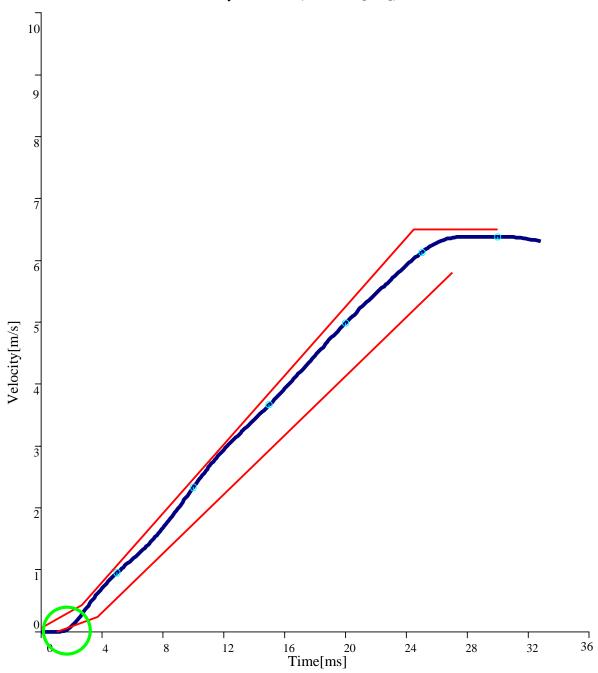


Fig. 3 Lumbar Flexion Test Velocity – Time curve (Filter: CFC180)

<u>Lumbar Flexion Test (EUROSID-2)</u>

Test No.: P0710015 Filter: Impacter G CFC60

Date: 10. Jan., 2007 Time:2:09 pm; TEMP: 21.6 °C HUMIDITY: 34.5 per cent Velocity: 6.15 m/s (5.95-6.15[m/s])

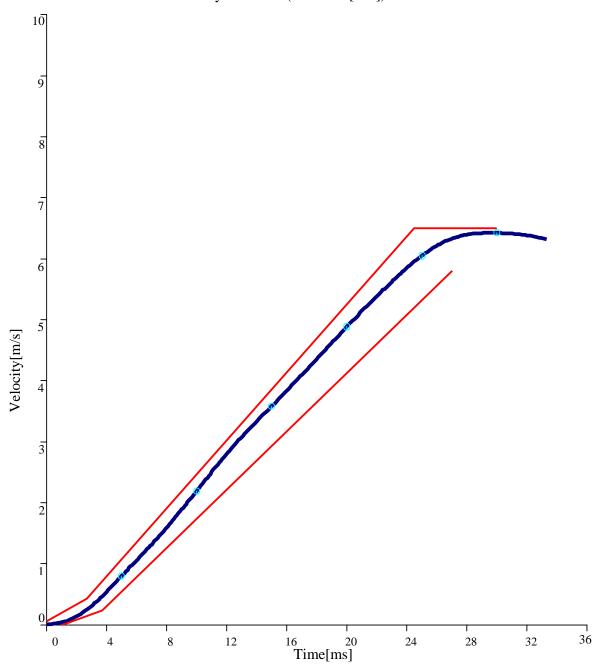


Fig. 4 Lumbar Flexion Test Velocity – Time curve (Filter: CFC60)