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PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 13  
(Braking)

Transmitted by the expert from Germany

Representing the Informal Working Group for Modular Approval of Trailers

Note: The text reproduced below was prepared by the expert from Germany in order to update the proposal for a modular type approval of trailers contained in document TRANS/WP.29/GRRF/2000/20 and Informal Document 4 of the 50<sup>th</sup> Session.

**Proposed amendments to Document GRRF/2000/20 (ECE-R13):**

**Annex 19 - paragraph 2.3.1**

2.3.1. With reference to appendix 1 of this annex, paragraphs 3.1., 3.2. and 3.3., a minimum of 6 samples are to be tested, with a verification report being issued providing no one result deviates by more than 4 per cent of the declared characteristics. **However, the tolerance band of 4 per cent in respect to the  $s_p$  characteristics (compare paragraph 3.3 of appendix 1 to this annex) is only applied for the pressure range of 3 bar to <sup>3</sup> 8 bar (in deviation from the requirement of paragraph 2.2.2 above).**

**Justification:**

If we require from the manufacturer to declare the performance characteristics of the  $s_p$ -function  $f(p)$  also for the full pressure range of 1 bar to 8 bar (cp. paragraph 2.2.2 and Appendix 1 of Annex 19) then the manufacturer is forced to specify the performance characteristics of this  $s_p$  function for the brake chamber by a **non linear** formula. Otherwise, for many current brake chamber the test result according to the Annex 19 procedure will be negative.

**Annex 19 - appendix 1**

3.1 Maximum stroke ( $s_{max}$ ) **at 6,5 bar**

**Justification:** The result of this measurement depends on the applied pressure. It does not matter, to which pressure this measurement is referred to. However, for clarity we need an objective testing criterion. The pressure of 6.5 bar is proposed, as this is the normal calculation pressure for the service brake performance.