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Working Party on Brakes and Running Gear (GRRF)

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agenda item 1.2.)

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

Transmitted by the expert from Germany

Note: The text reproduced below was prepared by the expert from Germany on behalf of the informal group "modular type approval of trailers" in order to update the proposal for a modular type approval of trailers contained in documents TRANS/WP.29/GRRF/2000/20 and Addendum 1.

Note: This document is distributed to the experts on Brakes and Running Gear only

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A. PROPOSAL

Annex 11 - Appendix 2,

Paragraph 2 amend to read:

"
s_p see annex 19, Appendix 7,
Th_A see annex 19, Appendix 7,
.....
.....
p = brake actuation pressure"

Paragraph 4.3.1.1., amend to read:

"

This value shall not exceed s_p. Where s_p has been verified and reported in accordance with the procedure defined in item 2 of annex 19 to this Regulation and may only be applied within the pressure range recorded in paragraph 3.3.1. of the test report defined in appendix 1 of annex 19.

Annex 19,

Paragraph 2.1.2., amend to read:

"2.1.2. The verified performance characteristics declared by the manufacturer shall be used in all calculations relating to the brake compatibility requirements of annex 10, the type 0 cold service braking performance requirements of annex 21 and the determination of the available actuator stroke with respect to the verification of the hot performance of annex 11."

Paragraph 2.2.3., amend to read:

" will be determined as per appendix 7 of this annex."

Paragraph 2.3.1., amend to read:

" of the declared characteristics. However, with respect to the verification of the s_p characteristics the pressure range over which the 4 per cent tolerance is fulfilled shall be recorded and specified in paragraph 3.3.1. of appendix 1 of this annex. Outside of this pressure range the tolerance may exceed 4 per cent.

Annex 19 - appendix 1

Item 3.1., amend to read:

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

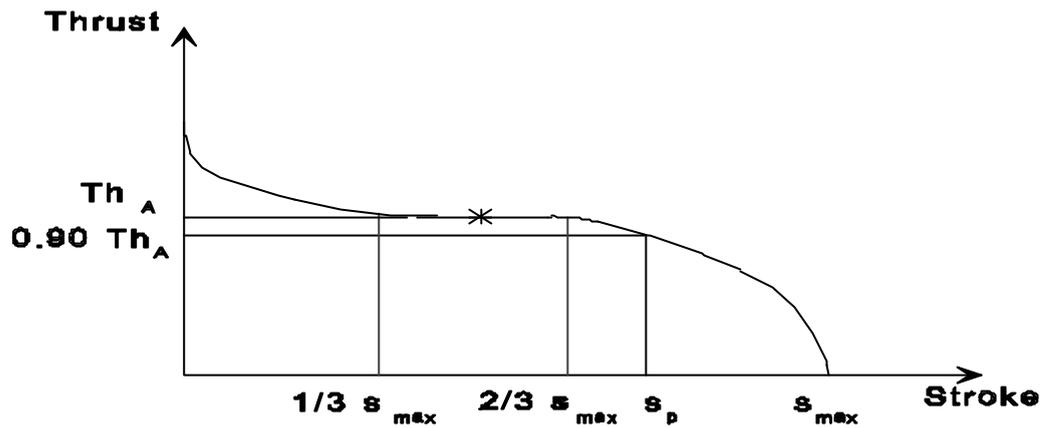
Insert a new item 3.3.1., to read:

"3.3.1. Pressure range over which the above affected stroke is valid: (compare paragraph 2.3.1. of annex 19)"

Annex 19 - appendix 7,

Insert, after the table, the following diagram:

"



"

* * *

B JUSTIFICATION

The performance characteristics of service actuators available today are very varied. However, it is important in all cases that the prescribed performance characteristics for the vehicle are fulfilled. With respect to verification of the hot brake performance, a requirement exists where the available actuator stroke may not exceed s_p . To ensure uniformity of application the repeatability and tolerance should be valid over a pressure range necessary to fulfil the prescribed performance requirements. The requirement that the s_p characteristics be declared over a verified working range should ensure uniformity of application. Initially it was proposed that only brake chambers that have been tested in accordance with the relevant provisions of annex 19 should have restrictions of use applied. This is considered unrealistic in that there is no check of the performance of actuator characteristics used to verify the available stroke/ s_p relationship today. By introducing the above proposal all service brake actuators would be required to have their performance verified and a report defining the verified characteristics subsequently issued.
