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agenda item 4.2.1.)

PROPOSAL FOR DRAFT SUPPLEMENT 12 TO THE 09 SERIES OF AMENDMENTS TO
REGULATION No. 13

(Braking)

Transmitted by the Working Party on Brakes and Running Gear (GRRF)

Note: The text reproduced below was adopted by GRRF at its fifty-seventh session (TRANS/WP.29/GRRF/57, para. 9) and is transmitted for consideration to WP.29 and AC.1. It is based on document TRANS/WP.29/GRRF/2005/8, not amended.

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Annex 19

Title, amend to read: "PERFORMANCE TESTING OF TRAILER BRAKING COMPONENTS"

Paragraph 2.1.1., amend to read:

"2.1.1. ... brakes with mechanical actuation.
For the purpose of this verification procedure the service brake section of a combined spring brake actuator is considered to be a diaphragm brake chamber."

Paragraphs 2.3.1. and 2.3.2., amend to read:

"2.3.1. With reference to appendix 1 of this Annex, paragraphs 3.1., 3.2., 3.3. and 3.4., a minimum of 6 samples are to be tested, with a verification report being issued providing that the requirements of paragraphs 2.3.2., 2.3.3. and 2.3.4. below are satisfied.

2.3.2. With respect to the verification of average thrust (Th_A) - $f(p)$, a graph defining the acceptable performance variation shall be constructed following the model shown in Diagram 1, which is based on the manufacturers declared thrust to pressure relationship. The manufacturer shall also define the category of trailer for which the brake chamber may be used and the corresponding tolerance band applied."

Insert new paragraphs 2.3.3. to 2.3.5., to read:

"2.3.3 It shall be verified that the pressure (p_{15}) required to produce a pushrod stroke of 15 mm from the zero datum position with a tolerance of ± 0.1 bar by following one of the following test procedures:

2.3.3.1 Utilizing the declared function of thrust (Th_A) - $f(p)$ the brake chamber threshold pressure (p_{15}) shall be calculated when $Th_A = 0$. It shall then be verified that when this threshold pressure is applied a pushrod stroke as defined in 2.3.3. above is produced.

2.3.3.2 The manufacturer shall declare the brake chamber threshold pressure (p_{15}) and it shall be verified that when this pressure is applied the pushrod stroke defined in 2.3.3. above is produced.

2.3.4 With respect to the verification of effective stroke (s_p) - $f(p)$, the measured value must not be less than -4% of the s_p characteristics at the manufacturer's declared pressure range. This value shall be recorded and specified in paragraph 3.3.1. of Appendix 1 to this Annex. Outside of this pressure range the tolerance may exceed -4 per cent.

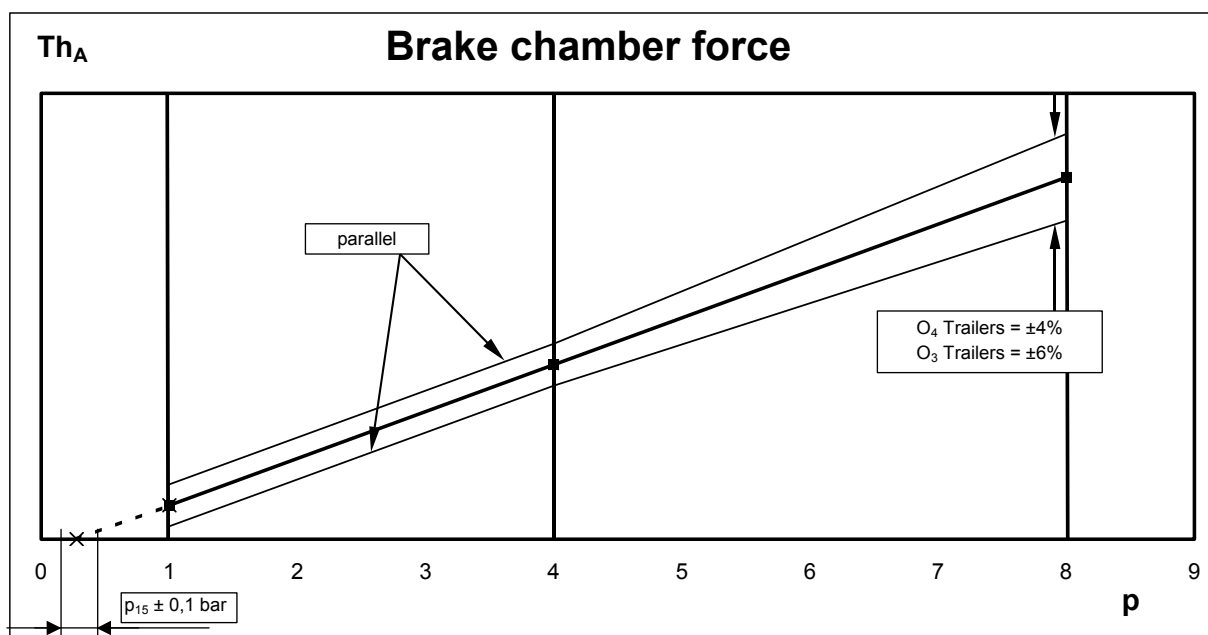


Diagram 1

2.3.5. The test results recorded shall be reported on a form, a model of which is shown in Appendix 2 to this annex and shall be included with the verification report, detailed in paragraph 2.4."

Paragraph 3.1.1., amend to read:

"3.1.1. ... brakes with mechanical actuation.

For the purpose of this verification procedure the spring brake section of a combined spring brake actuator is considered to be a spring brake."

Paragraph 4.4.1.1., amend to read:

"4.4.1.1. ... following the model shown in Diagram 2, using the ..."

Renumber existing Diagram 1 as Diagram 2

Appendix 1,

Paragraph 3.3.1., amend to read:

" 3.3.1. Pressure range over which the above effective stroke is valid: (see paragraph 2.3.4. of Annex 19)."

Insert new paragraphs 3.4. and 4., to read:

" 3.4. Pressure required to produce a push rod stroke of 15 mm (p_{15}) based on $Th_A - f(p)$ or declared value. 2/, 3/, 4/

4. Scope of application

The brake chamber may be used on trailers of category O₃ and O₄ yes/no

The brake chamber may be used on trailers of category O₃ only yes/no"

Existing paragraphs 4. to 8., renumber as paragraphs 5. to 9.

Footnote 4/, amend to read.

"4/ For the purposes of the application of the characteristics defined in this report with respect to Annex 10 it shall be assumed that the relationship from p_{15} to the declared $Th_A - f(p)$ at a pressure of 1.0 bar is linear."

Appendix 7, add a new symbol and definition to read:

" p_{15}	The pressure in the brake chamber required to produce a pushrod stroke of 15mm from the zero datum position."
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