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REGULATIONS Nos. 13 AND 13-H
(Braking)

Clarifications

Proposal for amendments to Revision 6 to Regulation No. 13

Submitted by the experts from the European Association of Automotive Suppliers ∗/

The text reproduced below was prepared by the experts from the European Association of Automotive Suppliers (CLEPA) in order to correct errors associated with Revision 6 of Regulation No. 13. The modifications to the existing text of the Regulation are marked in bold and strikethrough characters .

GE.09-

A.   PROPOSAL

Annex 19, paragraph 5.4.1.2.4.2., amend to read:

"5.4.1.2.4.2.   With the load sensing valve set to the laden condition and the initial energy level set according to paragraph 6.1.2. of Annex 13 to this Regulation, the energy storage device(s) shall be isolated from further supply of air. The brakes shall be applied with a control pressure of 650 kPa at the coupling head and then released. Further applications shall be made until the pressure in the brake chambers is the same as that obtained after ~~following the test procedure defined in paragraphs 5.4.1.2.1. and 5.4.1.2.2. above~~ **completing the tests defined in paragraphs 6.1.3. and 6.1.4. of Annex 13 to Regulation No. 13**. The number of equivalent brake applications (n_{er}) shall be noted.

The equivalent number of static brake applications (n_e) is to be recorded in the test report.

Where $n_e = 1.2 \cdot n_{er}$ and is to be rounded up to the nearest whole integer"

Annex 20,

Paragraph 3.2.1., amend to read:

"3.2.1.   The requirements of Annex 4, paragraphs 1.2.7., ~~and~~ 3.1.2. **and 3.1.3**. (cold performance requirement and achievement without wheel lock, deviation or abnormal vibration) are considered to be satisfied by the subject trailer if it meets the verification criteria described in the following paragraphs, in both the laden and unladen conditions:"

Appendix 2, amend the formula of z_c, to read:

$$z_c = \left(0.45 - 0.01\right)\left(\frac{F_R}{(P + 7000)g}\right) + 0.01$$

Appendix 3, amend the formula of z_c, to read:

$$z_c = \left(0.5 - 0.01\right)\left(\frac{F_R}{(P + 7000)g}\right) + 0.01$$

Appendix 4, amend the formula of z_c, to read:

$$z_c = \left(0.45 - 0.01\right)\left(\frac{F_R}{(P + 7000)\,g}\right) + 0.01$$

B.　　　　　　　　JUSTIFICATION

Amendments to Annex 19, paragraph 5.4.1.2.4.2.:
The current reference of paragraphs 5.4.1.2.1. and 5.4.1.2.2. is incorrect as these refer to the test conditions and not to the test procedure. Paragraph 5.4.1.2.3. refers to the overall test procedure in paragraph 6.1. of Annex 13. However, the specific test procedure which is applicable to paragraph 5.4.1.2.4.2. is the one defined in paragraphs 6.1.3. and 6.1.4. of Annex 13. The equivalent number of static brake applications relates to the completion of both the dynamic test (paragraph 6.1.3.) and static applications (paragraph 6.1.4.)

Amendments to Annex 20, paragraph 3.2.1.:
Paragraph 3.1.2. of Annex 4 is specifically for trailers of category O_2 and O_3, whereas the procedure is also applicable to trailers of category O_4. Therefore a reference to paragraph 3.1.3. of Annex 4 has been added.

Annex 20, Appendices 2, 3 and 4:
In all three equations defined for the determination of z_c the brackets are missing from the first part of the formula where 0.01 represents the rolling resistance which is initially subtracted and then added at the end.

Annex 20, Appendix 3:
The current formula in Annex 20 is

$$z_c = 0.45 - 0.01 \left(\frac{F_R}{(P + 7000)g} \right) + 0.01$$

Where the value of 0.45 is incorrect and should be 0.5 which is the minimum Type O performance for centre axle trailers.

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