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Working Party on Brakes and Running Gear (GRRF)

(Fifty-eighth session, 20-23 September 2005,  
agenda item 1.1.)

**PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 13**

(Braking)

Transmitted by the expert from the European Association of Automotive Suppliers (CLEPA)

Note: The text reproduced below was prepared by the expert from CLEPA in order to revise the test procedure for the determination of the energy consumption requirements with respect to the procedure defined within Annex 19 to Regulation No. 13 in the light of experience in utilizing the current procedure. The modifications to the existing text of the Regulation are marked in **bold** characters.

## A. PROPOSAL

Annex 19,

Add a new paragraph 5.1.2., to read:

**"5.1.2. Tests carried out on trailers of category O<sub>4</sub> will be deemed to cover the requirements for trailers of O<sub>3</sub> category."**

Paragraph 5.4.1.2.1., amend to read:

**"5.4.1.2.1. Axle loading – the trailer(s) to be tested shall be loaded so that the axle load is 2500 kg +/- 200 kg or 35 per cent +/- 200 kg of the permissible static axle load whichever is the lower."**

Paragraph 5.4.1.2.2., amend to read:

**"5.4.1.2.2. It shall be ensured that 'full cycling' of the anti-lock braking system can be achieved throughout the dynamic tests defined in paragraph 6.1.3. of Annex 13 to this Regulation."**

Annex 19 – Appendix 5,

Paragraph 2.5., amend to read:

**"2.5. Scope of application with respect to suspension type:  
Air suspension: Any type of balanced air suspension  
Other suspensions: to be defined by manufacturer, model and type  
(balanced/unbalanced)."**

## B. JUSTIFICATION

Annex 19, paragraph 5.1.2. is required to make it clear that tests carried out on an O<sub>4</sub> trailer are applicable to O<sub>3</sub> trailers provided that the trailer is equipped with the same suspension configuration as defined by the manufacturer – see paragraph 5.3.1.1. of Annex 19.

Annex 19, paragraph 5.14.1.2.1. currently requires that the axle load should be 2500 kg or 25 per cent of the permissible axle load. In the case of O<sub>4</sub> trailers, the typical axle load is 9000 kg. Therefore, the axle load at which the test should be carried out should be 2250 kg which, in many cases, is below a load that cannot be realized in practice. Equally in the case of O<sub>3</sub> trailers where the laden to unladen ratio is lower, the 25 per cent value again results in axle loads that cannot be practically realized. Therefore, the proposal to increase the 25 per cent value to 35 per cent would overcome both of these problems. Additionally, it is not possible to load an axle to a precise load. Therefore, a tolerance must be defined.

Annex 19, paragraph 5.4.1.2.2. currently makes a reference that "it shall be ensured that anti-lock cycling can be achieved". The proposed change makes use of the definition within Annex 13 for "full cycling", so that it is clear what anti-lock cycling means.

Annex 19, Appendix 5, paragraph 2.5. requires that all suspension types are defined by the manufacturer, model and type which in the case of air suspension is irrelevant as the design and reactivity during braking of all air suspension systems are comparable. Therefore, in the case of air suspension, it is only necessary to make reference to the type of suspension. However, the design and reactivity during braking of mechanical and other suspensions are very diverse. Therefore, it is necessary that the current requirement continues to be applied to suspension types other than air.

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