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**ECONOMIC COMMISSION FOR EUROPE**

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World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Brakes and Running Gear (GRRF)  
(Fifty-fourth session, 6-8 October 2003,  
agenda item 1.2.)

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

Transmitted by the experts from the United Kingdom and  
The European Association of Automobile Suppliers (CLEPA)

Note: The text reproduced below has been prepared by the experts from the United Kingdom and CLEPA in order to consolidate all the proposals regarding the spring brakes control systems (TRANS/WP.29/GRRF/53, para. 6).

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

**A. PROPOSAL**

Annex 8,

Paragraph 2.3., amend to read:

"2.3. The following requirements shall apply to power-driven vehicles equipped with spring brakes:

2.3.1. The feed circuit to the spring compression chamber must either include an own energy reserve or must be fed from at least two independent energy reserves. The trailer supply line may be branched from this feed line under the condition that a pressure drop in the trailer supply line must not be able to apply the spring brake actuators.

2.3.2. Auxiliary equipment may only draw its energy from the feed line for the spring brake actuators under the condition that its operation, even in the event of damage to the energy source, cannot cause the energy reserve for the spring brake actuators to fall below a level from which one release of the spring brake actuators is possible.

2.3.3. In any case, during re-charging of the braking system from zero pressure, the spring brakes **shall remain fully applied irrespective of the position of the control device\*** until the pressure in the service braking system is sufficient to ensure at least the prescribed secondary braking performance of the laden vehicle, using the service braking system control.

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\* The highlighted text reflects a change that was agreed at the fiftieth GRRF session and included in the report of the meeting. In addition the title to paragraph 3. was changed to "3. Auxiliary Release System".]

2.3.4. Once applied, the spring brakes must not release unless there is sufficient pressure in the service braking system to at least provide the prescribed residual braking performance of the laden vehicle by application of the service braking control."

Insert a new paragraph 3.3., to read:

"3.3. Where an auxiliary release system utilizes stored energy to release the spring brakes the following additional requirements shall apply:

(a) Where the control of the auxiliary spring brake release system is the same as that used for the secondary/parking brake, the requirements defined in paragraph 2.3. above shall apply in all cases.

(b) Where the control for the auxiliary spring brake release system is separate to the secondary/parking brake control, the requirements defined in paragraph 2.3. above shall apply to both control systems. However, the requirements of paragraph 2.3.4. above shall not apply to the auxiliary spring brake release system. In addition the

auxiliary release control shall be located so that it is protected against inadvertent application by the driver from the normal driving position."

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## **B. JUSTIFICATION**

Originally the Russian Federation highlighted to GRRF that a problem existed where certain vehicles (buses) that utilized an auxiliary spring brake release did not comply with all of the requirements of paragraph 2.3. to Annex 8 to Regulation No. 13. Circuit diagrams were made available which, based on the pneumatic logic employed, confirmed this to be correct.

Subsequently, the Russian Federation submitted official document TRANS/WP.29/GRRF/2003/11 for discussion at the fifty-third session of GRRF. This document contained circuit diagrams that were intended to resolve the problems associated with auxiliary release systems for spring brakes.

Industry had discussed the problems and proposed a number of changes to the Regulation. These were outlined in Informal Document No. 25 at the fifty-third GRRF session. During discussion, the representative from the United Kingdom suggested that when two controls were used (one for the secondary/park brake and the other for the auxiliary release), the auxiliary release control should not be readily accessible to the driver. As a result of this comment, Informal Document No. 25 has been amended to take account of this request.

It is considered that a combination of the separation of the individual requirements previously defined in paragraph 2.3. of annex 8 along with the already accepted revisions from the fiftieth GRRF session to paragraphs 2.3. and 3. of that annex should overcome interpretation problems that resulted in the original problems.

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