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Working Party on Brakes and Running Gear (GRRF)
(Fifty-ninth session, 30 January - 3 February 2006,
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, which is part of TRANS/WP.29/GRRF/2005/12, originally discussed at the fifty-eighth GRRF session, 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, Appendix 5 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.

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

A. PROPOSAL

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 "trailing arm" air suspension

Other suspensions: to be defined by manufacturer, model and type (balanced/unbalanced)."

B. JUSTIFICATION

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 requirements continue to be applied to suspension types other than air.

At the fifty-eighth GRRF session, the French delegate requested to be advised what the differences were in the way an air suspended trailer reacted under braking. The type of air suspension used on trailers is of a common specific design defined as "trailing arm". Under braking, the brake torque generated reacts to compress the air springs with the result that the platform of the trailer over the axles reduces in height, which has the influence of producing a rearward load transfer within the bogie. All such suspensions react in the same way and the anti-lock braking system manufacturers do not make any changes to recommendation of the location of wheel speed sensors or pressure modulators when considering this design of suspension irrespective of the source of manufacturer. This has been practice for more that twenty years during which no problems have been experienced. Therefore, it is considered that any difference in air suspension geometry has a negligible impact of the efficiency of the anti-lock braking system throughout the life of the trailer.
