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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

**World Forum for Harmonization of Vehicle Regulations**

One-hundred-and-forty-eighth session  
Geneva, 23-26 June 2009  
Item 3.6.1 of the provisional agenda

**CONSIDERATION OF THE REPORTS OF THE WORKING PARTIES  
SUBSIDIARY TO THE WORLD FORUM**

Guidance requested by the Working Parties on matters related to Regulations  
annexed to the 1958 Agreement

Guidance requested by the Working Party on Brakes and Running Gear (GRRF) on  
Tyre Pressure Monitoring Systems (TPMS)

Proposal for amendments to Regulation No. 64 (Temporary use spare wheels)  
concerning requirements for Tyre Pressure Monitoring Systems (TPMS)

Submitted by the Chairman of the Working Party on Brakes and Running Gear \*/

The text reproduced below has been submitted by the Chairman of the Working Party on Brakes and Running Gear (GRRF) requesting guidance for GRRF on Tyre Pressure Monitoring Systems (TPMS). The document is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) for its consideration (ECE/TRANS/WP.29/1072, para. 44).

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\*/ In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance performance of vehicles. The present document is submitted in conformity with that mandate.

## I. BACKGROUND

1. WP.29 representatives will recall that GRRF is nearing completion of technical requirements for Tyre Pressure Monitoring Systems (TPMS) but needs guidance on two aspects before submitting final proposals.
2. During the 147<sup>th</sup> session of the World Forum, it was explained, as part of the highlights report of the sixty-fifth GRRF session in February 2009 (ECE/TRANS/WP.29/1072, para. 44), that the GRRF experts were unable to agree on the specifications for the diffusion test with regard to the:
  - (a) time from the tyre pressure trigger point ( $P_{\text{test}}$ ) being reached and the driver being alerted, and
  - (b) tolerance or, as GRRF concluded, a value to compensate for measurement inaccuracies during the test procedure.
3. Given the differing opinions in GRRF, the document now being considered is the Chairman's compromise proposal on which WP.29 is asked to give its advice.

## II. TIME NEEDED TO ALERT THE DRIVER

4. GRRF has proposed two alternative values for the minimum time required to alert the driver once the tyre pressure trigger point ( $P_{\text{test}}$ ) is reached. These are either 30 minutes or 60 minutes and WP.29 is invited to provide GRRF with guidance on the preferred value. The detailed requirements are included in paragraph 5.3.1. of the proposed text as follows.
  - 5.3.1. When tested according to paragraph 6.2.6.2., the TPMS shall illuminate the warning signal described in paragraph 5.5. within not more than [30] [60] minutes of cumulative driving time after the in-service operating pressure in one of the vehicle's tyres, up to a total of four tyres, has been reduced by 20 per cent.

## III. TOLERANCE OR ALLOWANCE FOR MEASUREMENT INACCURACIES.

5. Following a lengthy discussion, GRRF agreed that the initial 5 per cent tolerance proposed to be allowed in the assessment of the pressure drop value (20 per cent) from the value  $P_{\text{warm}}$  would be better described as an "Allowance for Measurement Inaccuracies". There was, however, no agreement on the specific value to be included. The Chairman's compromise text indicates an absolute allowance of [5] kPa but other higher values are proposed by some delegations. The detailed requirements are included in paragraph 6.2.5.3 of the proposed text as follows.
  - 6.2.5.3. In both cases above, in order to compensate for inaccuracies of the measuring equipment, the value  $P_{\text{test}}$  shall be reduced by a further [5] kPa.

6. WP.29 is invited to consider these points and to guide GRRF on its preferred solutions. Thereafter, GRRF will conclude discussion on these subjects at its sixty-sixth session in September 2009 and submit proposals for adoption in November 2009 at the 149th session of WP.29.

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