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Item 4.2.6. of the provisional agenda

1958 AGREEMENT

Consideration of draft amendments to existing Regulations

Proposal for the 01 series of amendments to Regulation No. 64
(Temporary use spare wheels/tyres)

Amendments to the proposal for draft amendments to Regulation No. 64

Submitted by the European Tyre and Rim Technical Organisation

The text of this document expresses the European Tyre and Rim Technical Organisation's (ETRTO) position concerning document ECE/TRANS/WP.29/2007/31. This document is based on document ECE/TRANS/WP.29/GRRF/2002/17/Rev.7 as amended by Annex 2 of the ECE/TRANS/WP.29/GRRF/61 report adopted by GRRF at its sixty-first session.

A. BACKGROUND

1. ETRTO transmitted document ECE/TRANS/WP.29/GRRF/2006/23 requesting to integrate amendments to ECE/TRANS/WP.29/GRRF/2002/17/Rev.7 in order to limit the alert delay of Run-flat Warning Systems to 5 minutes and also to test the run-flat warning system (RFWS) in an extended speed range of the vehicle. The rationale for this request was supplemented in 10 July 2006 and it is recalled hereunder.

2. As already indicated at the last GRRF session, ETRTO is not endorsing the technical prescription for the type approval of RFWS indicated in ECE/TRANS/WP.29/2007/31.

3. ETRTO would like to draw the attention of WP29 to the following:

(a) In the present state of knowledge by Tyre Manufacturers, the type approval test procedure which was adopted for RFWS might not be adequate to assure a safe operation of run-flat tyres together with their run-flat warning systems under some reasonably foreseeable normal driving conditions of use; for example in Europe, ECE/TRANS/WP.29/2007/31, allowing a too long RFWS alert delay, does not appear consistent with Directive 2001/95 EC on general product safety.

(b) Should the RFWS test procedure allow a 20 min alert delay, as well as a possible 20 min malfunction alert delay, at the constant pressure of 70 kPa and maximum speed of 100 km/h, ETRTO would insist on having a new paragraph added to paragraph 6. of Regulation No. 64, requesting to supply relevant information to the vehicle owners describing the RFWS performances and limitation to prevent the misuse of this safety system, as indicated in the proposal below:

B. PROPOSAL

Insert a new paragraph 6.1.6., to read:

"6.1.6. A statement of the potential risk that the RFWS may not alert of a run-flat tyre running in run-flat running mode when driving at speeds higher than 100 km/h."

C. JUSTIFICATION:

Run-flat tyres are designed to be able to operate in the run-flat running mode, i.e. with inflation pressures lower than 70 kPa, and achieve in that mode specified performances in terms of maximum allowable speed and distance (or time). Reference is Regulation No. 30, Supplement 14 that states: 80 km (or 1 hour) at 80 km/h, at 0 kPa pressure. With those performances, run-flat tyres are inherently safer than normal tyres.

Some other differences between normal tyres and run-flat tyres should also be underlined:

(a) Firstly, at rest, deflation of a run-flat tyre cannot be detected by users with the naked eye, even in case the run-flat tyre is completely deflated.

(b) Secondly, because a run-flat tyre will maintain a high level of performance following a pressure loss during high speed driving, there might be no clear forerunner indication to the driver before the abrupt failure of a run-flat tyre that has been used in driving condition outside the maximum allowed speed and distance (or time) specified above. It has been experimentally confirmed that if speed exceeds 80 km/h and inflation pressure is lower than 70 kPa, the distance (or time) that the user can drive safely in run-flat mode decreases very rapidly with increasing speed and/or decreasing pressure (e.g. below 5 minutes at 130km/h if completely deflated)

Therefore the driver must be properly and timely warned by the run-flat warning system (RFWS) to reduce the vehicle speed to the maximum allowed vehicle speed (80km/h), as well as made aware of any limit of the RFWS performances to prevent the misuse of this safety system.

The performance of the RFWS, like sensitivity to pressure loss and reactivity, and the type approval test conditions of RFWS must be consistent with the safety needs of any users in actual possible driving conditions, for example in Europe at the average maximum high-way speed of 130 km/h and as also requested by Directive 2001/95/EC on general product safety.

ETRTO had consistently provided to GRRF this information and requested to amend the technical prescription for type approving RFWS to rule that the type approval test of RFWS should guarantee the following condition:

The RFWS is capable, at a vehicle speed equal to or higher than 130 km/h, of alerting the driver in not more than 5 minutes that the run-flat tyre has lost not more than 100 kPa from its recommended pressure.
