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**Economic Commission for Europe****Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****169<sup>th</sup> session**

Geneva, 21-24 June 2016

Item 4.9.3 of the provisional agenda

**1958 Agreement – Consideration of draft amendments  
to existing Regulations submitted by GRRF****Proposal for Supplement 18 to the 02 series of amendments  
to Regulation No. 30 (Tyres for passenger cars and their  
trailers)****Submitted by the Working Party on Brakes and Running Gear\***

The text reproduced below was adopted by the Working Party on Brakes and Running Gear (GRRF) at its eightieth session (ECE/TRANS/WP.29/GRRF/80, para. 33) and its eighty-first session (ECE/TRANS/WP.29/GRRF/81, para. 31). It is based on ECE/TRANS/WP.29/GRRF/2015/23 as amended by para. 31 of the session report, ECE/TRANS/WP.29/GRRF/2015/24 and ECE/TRANS/WP.29/GRRF/2016/11. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee AC.1 for consideration at their June 2016 sessions.

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\* In accordance with the programme of work of the Inland Transport Committee for 2016–2017 (ECE/TRANS/254, para. 159 and ECE/TRANS/2016/28/Add.1, cluster 3.1), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

## Supplement 18 to the 02 series of amendments to Regulation No. 30 (Tyres for passenger cars and their trailers)

Paragraph 1., amend to read:

### "1. Scope

This Regulation covers new pneumatic tyres\* designed primarily for vehicles of categories M<sub>1</sub>, N<sub>1</sub>, O<sub>1</sub> and O<sub>2</sub>.<sup>1</sup>

It does not apply to tyres designed primarily for:

- 1.1. The equipment of vintage cars;
- 1.2. Competitions.

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\* For the purpose of this regulation "tyres" means "pneumatic tyres".

Paragraph 2.1., amend to read:

"2.1. "Type of tyre" means tyres which do not differ in such essential characteristics as:

- (a) The manufacturer's name;
- (b) Tyre-size designation;
- (c) Category of use (normal tyre, snow tyre, special use tyre or temporary use tyre);
- (d) Structure (diagonal (bias-ply), bias-belted, radial-ply, run flat tyre);
- (e) Speed category symbol;
- (f) Load-capacity index;
- (g) Tyre cross-section."

Insert a new paragraph 2.2., to read:

"2.2. "Manufacturer" means the person or body who is responsible to the Type Approval Authority (TAA) for all aspects of the type-approval and for ensuring the conformity of production."

Insert a new paragraph 2.3., to read:

"2.3. "Brand name/trademark" means the identification of the brand or trademark as defined by the tyre manufacturer and marked on the sidewall(s) of the tyre. The brand name/trademark may be the same as that of the manufacturer."

Insert a new paragraph 2.4., to read:

"2.4. "Trade description/commercial name" means an identification of a range of tyres as given by the tyre manufacturer. It may coincide with the brand name/trademark."

Insert the new Paragraph 2.20.1., to read:

"2.20.1. The values of the nominal rim diameters for code-designated rims expressed in millimetres are shown below:

Nominal rim diameter code ("d" symbol)	Value of the "d" symbol expressed in mm
10	254
11	279
12	305
13	330
14	356
15	381
16	406
17	432
18	457
19	483
20	508
21	533
22	559
23	584
24	610
25	635
26	660
27	686
28	711
29	737
30	762

Renumber paragraphs 2.2. to 2.38. as 2.5. to 2.41. and in these renumbered paragraphs, replace "pneumatic tyre" by "tyre".

Paragraph 3.1., amend to read:

- "3.1. Tyres submitted for approval shall bear on both side walls in the case of symmetrical tyres and at least on the outer side wall in the case of asymmetrical tyres:
- 3.1.1. The manufacturer's name or the Brand name/trademark;
- 3.1.2. The trade description/commercial name (see paragraph 2.4. of this Regulation). However, the trade description is not required when it coincides with the Brand name/trademark."

Renumber paragraphs 3.1.2. to 3.1.13. as paragraphs 3.1.3. to 3.1.14.

Paragraphs 4.1. to 4.1.2.2., amend to read:

- "4.1. The application for approval of a type of tyre with regard to this regulation shall be submitted by the tyre manufacturer or by his duly accredited representative. It shall specify:
- 4.1.1. The tyre-size designation;

- 4.1.2. The manufacturer's name;  
4.1.2.1. The Brand name(s)/trademark(s);  
4.1.2.2. The trade description(s)/commercial name(s)"

*Replace in paragraph 5.1., 5.3, 5.4., 6.1.3., 6.2.1., 6.3.3.1., title of paragraphs 7., 7.1., 7.1.1., 9. and 10. "pneumatic tyre" by "tyre".*

*Paragraph 6.1.1.1., amend to read:*

- 6.1.1.1. The section width shall be calculated by the following formula:

$$S = S_1 + K (A - A_1),$$

where:

- S is the "section width" rounded to the nearest millimetre and measured on the measuring rim;  
S<sub>1</sub> is the "nominal section width" (in mm) as shown on the side wall of the tyre in the designation of the tyre as prescribed;  
A is the width (expressed in mm) of the measuring rim, as shown by the manufacturer in the descriptive note,<sup>5</sup>  
A<sub>1</sub> is the width (expressed in mm) of the theoretical rim.

A<sub>1</sub> shall be taken to equal S<sub>1</sub> multiplied by the factor x, as specified by the manufacturer, and K shall be taken to equal 0.4."

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<sup>5</sup> When the conventional number is given by codes, the value in mm is obtained by multiplying such number by 25.4.

*Paragraph 6.1.2.1., amend to read:*

- "6.1.2.1. The outer diameter of a tyre shall be obtained by means of the following formula:

$$D = d + 2H$$

where:

- D is the outer diameter expressed in millimetres;  
d is the nominal rim diameter defined in paragraph 2.20. above, expressed in millimetres;  
H is the nominal section height rounded to the nearest millimetre and is equal to:

$$H = S_1 \cdot 0.01 Ra, \text{ where}$$

- S<sub>1</sub> is the nominal section width in millimetres (mm);  
Ra is the nominal aspect ratio;

all as shown on the sidewall of the tyre in the tyre-size designation in conformity with the requirements of paragraph 3.4. above."

*Paragraph 6.1.4., amend to read:*

- "6.1.4. Tyre section width specifications"

*Paragraph 6.1.4.2.*, amend to read:

"6.1.4.2. It may exceed that value by the following percentages, whereby the limits shall be rounded to the nearest mm:"

*Paragraph 6.1.5.*, amend to read:

"6.1.5. Tyre outer diameter specifications

The outer diameter of a tyre must not be outside the values  $D_{\min}$  and  $D_{\max}$  obtained from the following formulae:

$$D_{\min} = d + 2 \cdot H_{\min}$$

$$D_{\max} = d + 2 \cdot H_{\max}$$

where:

$$H_{\min} = H \cdot a \quad \text{rounded to the nearest mm}$$

$$H_{\max} = H \cdot b \quad \text{rounded to the nearest mm}$$

and"

*Paragraph 6.1.5.1.*, amend to read:

"6.1.5.1. For sizes listed in Annex 5 and for tyres identified by the "tyre to rim fitment configuration" (see paragraph 3.1.11.) symbol "A" or "U", the nominal section height H is equal to:

$H = 0.5 (D-d)$ , rounded to the nearest mm – for references see paragraph 6.1.2.1."

*Paragraph 6.1.5.3.*, amend to read:

"6.1.5.3. Coefficients "a" and "b" are respectively:

6.1.5.3.1. Coefficient "a" = 0.97

6.1.5.3.2. Coefficient "b"	<u>Radial, Run flat tyre</u>	<u>Diagonal and Bias Belted</u>
for normal tyres	1.04	1.08
for special-use tyres	1.06	1.09"

*Paragraph 6.1.5.4.*, amend to read:

"6.1.5.4. For snow tyres the outer diameter shall not exceed the following value

$$D_{\max, \text{snow}} = 1.01 \cdot D_{\max} \quad \text{rounded to the nearest mm}$$

where  $D_{\max}$  is the maximum outer diameter established in conformity with the above."

*Paragraph 6.2.1.1.*, amend to read:

"6.2.1.1. Where application is made for tyres identified by means of letter code "ZR" within the size designation and suitable for speeds over 300 km/h (see paragraph 4.1.15.), the above load/speed test is carried out on one tyre at conditions appropriate for the load index marked on the tyre and the speed symbol "Y". Another load/speed test must be carried out on a second sample of the same tyre type according to paragraph 2.6. of Annex 7 corresponding to the load and speed conditions specified as maximum by the tyre manufacturer (see paragraph 4.1.15. of this Regulation).

The second test may be carried out on the same tyre sample if the tyre manufacturer agrees."

Paragraph 12., amend to read:

**"12. Names and addresses of Technical Services responsible for conducting approval tests and of Type Approval Authorities.**

- 12.1. The Parties to the 1958 Agreement which apply this Regulation shall communicate to the United Nations Secretariat the names and addresses of the technical services responsible for conducting approval tests and, where applicable, of the approved test laboratories and of the Type Approval Authorities which grant approval and to which forms certifying approval, or extension of approval, or refusal of approval or withdrawal of approval or production definitively discontinued, issued in other countries, are to be sent.
- 12.2. The Contracting Parties to the 1958 Agreement which apply this regulation may designate laboratories of tyre manufacturers as approved, test laboratories.
- 12.3. Where a Contracting Party to the 1958 Agreement applies paragraph 12.2. above, it may, if it so desires, be represented at the tests by one or more persons of its choice."

Annex 1

**"Communication**

.....

of a type of tyre for motor vehicles pursuant to Regulation No. 30"

Item 1. amend to read:

"1. Manufacturer's name and address : ....."

Item 2. amend to read:

"2. Tyre type designation<sup>3</sup>. ....."

2.1. Brand-name(s)/trademark(s): ....."

2.2. Trade description(s)/ Commercial name(s):....."

Delete item 3.

Delete item 11.

Renumber items 4. to 15. as items 3. to 13.

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<sup>3</sup> A list of Brand name(s)/trademark(s) or Trade description(s)/ Commercial name(s) may be annexed to this communication

Annex 2, amend to read:

"...

The above approval mark affixed to a tyre shows that the type of tyre concerned has been approved in the Netherlands (E 4) under approval number 022439.

..."

*Annex 3*, amend to read:

".....

These markings define a tyre:

....."

*Annex 6, Title*, amend to read:

## **"Method of measuring tyres..."**

*Paragraph 1.2.4*, amend to read:

"1.2.4. In reinforced tyres: to 2.2 bar;"

*Annex 7*,

*Paragraph 2.2.*, amend to read:

"2.2. Apply to the test axle a load equal to eighty per cent of:

2.2.1. The maximum load rating equated to the Load Capacity Index for tyres with Speed Symbols L to H inclusive,

2.2.2. The maximum load rating associated with a maximum speed of 240 km/h for tyres Speed Symbol "V" (see para. 2.34.2. of this Regulation).

2.2.3. The maximum load rating associated with a maximum speed of 270 km/h for tyres with speed symbol "W" (see paragraph 2.34.3. of this Regulation).

2.2.4. The maximum load rating associated with a maximum speed of 300 km/h for tyres with speed symbol "Y" (see paragraph 2.34.4. of this Regulation)."

*Paragraph 2.5.2.*, amend to read:

"2.5.2. Initial test speed: prescribed maximum speed for the type of tyre (see paragraph 2.31.1. of this Regulation), less 40 km/h in the case of the smooth wheel having  $1.70\text{ m} \pm 1$  per cent in diameter or less 30 km/h in the case of the smooth wheel having  $2\text{ m} \pm 1$  per cent in diameter;"

*Paragraph 2.6.2.*, amend to read:

"2.6.2. The test shall be run without interruptions in accordance with the following:

2.6.2.1. Ten minutes to build up from zero to the maximum test speed for the second test.

2.6.2.2. Five minutes at the maximum test speed for the second test.

2.6.2.3. maximum test speed for the second test: maximum speed specified by the tyre manufacturer (see paragraph 4.1.15. of this Regulation), less 10 km/h in the case of the smooth wheel having  $1.7\text{ m} \pm 1$  per cent in diameter or equal to the maximum speed specified by the tyre manufacturer in the case of the smooth wheel having  $2\text{ m} \pm 1$  per cent in diameter."

*Paragraph 3.*, amend to read:

"3. Procedure to assess the "flat tyre running mode" of "run flat system"."