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## Economic Commission for Europe

### Inland Transport Committee

### World Forum for Harmonization of Vehicle Regulations

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Item 4.6.4 of the provisional agenda

#### 1958 Agreement:

Consideration of draft amendments to existing

UN Regulations submitted by GRBP

## **Proposal for Supplement 19 to the original series of amendments to UN Regulation No. 75 (Tyres for L-category vehicles)**

### **Submitted by the Working Party on Noise and Tyres\***

The text reproduced below was adopted by the Working Party on Noise and Tyres (GRBP) at its seventy-second session (ECE/TRANS/WP.29/GRBP/70, para. 14). It is based on ECE/TRANS/WP.29/GRBP/2020/14 and Annex VI to the report. 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 March 2021 sessions.

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\* In accordance with the programme of work of the Inland Transport Committee for 2020 as outlined in proposed programme budget for 2020 (A/74/6 (part V sect. 20) para 20.37), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.



*Paragraph 2.5.1.*, delete the reference to footnote 1.

*Paragraph 2.5.2.*, amend to read:

"2.5.2.        *"Bias belted"* describes a tyre structure in which the ply cords that extend to the beads are laid at alternate angles of substantially less than 90° to the centre line of the tread, the structure being restricted by a belt comprising one or more layers of substantially inextensible cord material."

*Paragraph 2.5.3.*, delete the reference to footnote 1 and amend to read:

"2.5.3.        *"Radial"* or *"radial-ply"* describes a tyre structure in which the ply cords extend to the beads and are laid substantially at 90° to the centreline of the tread, the carcass being stabilized by an essentially inextensible circumferential belt."

*Footnote 1*, delete.

*Paragraph 2.5.4.*, renumber as 2.6.

*Paragraphs 2.6. to 2.18.*, renumber as 2.7. to 2.19., respectively.

*Paragraph 2.19.*, renumber as 2.20. and amend to read:

"2.20.        *"Tyre-size designation"* is for the tyre sizes listed in Annex 5 of this Regulation the designation shown in the first column of the tables in Annex 5 and for other tyre sizes a designation showing:"

*Paragraph 2.19.1.*, renumber as 2.20.1. and amend to read:

"2.20.1.       The nominal section width (S1), which must be expressed in mm;"

*Paragraph 2.19.2.*, renumber as 2.20.2. and amend to read:

"2.20.2.       The nominal aspect ratio;"

*Insert new paragraphs 2.20.3. to 2.20.3.3.* to read:

"2.20.3.       An indication of the structure as follows:

2.20.3.1.       "-" or the letter "D" for diagonal (bias-ply) tyres,

2.20.3.2.       The letter "B" for bias-belted tyres;

2.20.3.3.       The letter "R" for radial-ply tyres;"

*Paragraphs 2.19.3. and 2.19.3.1.*, renumber as 2.20.5. and 2.20.5.1.

*Paragraph 2.19.4.*, delete.

*Add a new paragraph 2.20.6.* to read:

"2.20.6.       The suffix "M/C" for tyres intended to be fitted on rims designed for motorcycles; this suffix is mandatory for tyres having a nominal rim diameter equivalent to code 13 (330 mm) or above and optional for tyre sizes listed in Annex 5."

*Paragraphs 2.20. to 2.31.*, renumber as 2.21. to 2.32., respectively.

*Paragraph 2.31.1.*, renumber as 2.32.1. and amend to read:

"2.32.1.       The speeds expressed by the speed category symbol as shown in the table in paragraph 2.32.2. below."

*Paragraph 2.31.2.*, renumber as 2.32.2.

*Paragraph 2.31.3.*, renumber as 2.20.4. and amend to read:

"2.20.4.       In front of the indication of the structure the letter code "V" for tyres suitable for maximum speeds in excess of 240 km/h but below 270 km/h and the letter code "Z" for tyres suitable for maximum speeds of 270 km/h or above; the indication of the structure as "-" for diagonal (bias-ply) tyres may be omitted in this case;"

*Paragraph 2.32.*, renumber as 2.33. and amend to read:

"2.33. "Snow tyre" means a tyre whose tread pattern and whose structure are primarily designed to ensure in mud and fresh or melting snow a performance better than that of a normal tyre with regard to its ability to initiate or maintain vehicle motion."

*Paragraphs 2.33. to 2.34.*, renumber as 2.34. to 2.35.

*Paragraph 2.35.*, renumber as 2.36. and amend to read:

"2.36. "Motorcycle tyre" means a tyre designed primarily for the equipment of motorcycles (categories L<sub>3</sub>, L<sub>4</sub> and L<sub>5</sub>). However, they may also equip mopeds (categories L<sub>1</sub> and L<sub>2</sub>) and light trailers (category O<sub>1</sub>)."

*Paragraph 2.36.*, renumber as 2.37.

*Paragraph 2.36.1.*, renumber as 2.37.1. and amend to read:

"2.37.1. For speeds lower or equal to 130 km/h, the maximum load rating must not exceed the percentage of the value associated with the relevant load capacity index of the tyre as indicated in the table "Tyre load capacities at various speeds" (see Annex 8) with reference to the speed category symbol of the tyre and the speed capability of the vehicle to which the tyre is fitted."

*Paragraphs 2.36.2. to 2.37.*, renumber as 2.37.2. to 2.38., respectively.

*Insert a new paragraph 2.39.* to read:

"2.39. "Service description" means the association of the load index with a speed category symbol (for example, 72H);"

*Paragraph 3.1.4. and its subparagraphs*, amend to read:

"3.1.4. Optionally, an indication of the structure as follows:

3.1.4.1. On bias-belted tyres, the words "BIAS-BELTED";

3.1.4.2. On radial-ply tyres, the word "RADIAL";"

*Paragraph 3.1.5.*, amend to read:

"3.1.5. A service description;"

*Paragraph 3.1.6.*, delete.

*Paragraphs 3.1.7. to 3.1.12.*, renumber as 3.1.6. to 3.1.11., respectively.

*Paragraphs 3.1.13. and 3.1.14.*, delete.

*Paragraph 3.1.15.*, renumber as 3.1.5.1. and amend to read:

"3.1.5.1. For tyres suitable for speeds above 240 km/h but below 270 km/h and identified with the letter code "V" within the size designation, the service description shall be marked within parenthesis and shall consist of the load-capacity index applicable at a speed of 210 km/h and the speed category symbol."

*Paragraph 3.1.16.*, renumber as 3.1.5.2. and amend to read:

"3.1.5.2. For tyres suitable for speeds above 270 km/h and identified with the letter code "Z" within the size designation, the service description shall be marked within parenthesis and shall consist of the load-capacity index applicable at a speed of 240 km/h and the speed category symbol."

*Paragraph 3.1.17.*, renumber as 3.1.12.

*Paragraph 3.4.*, amend to read:

"3.4. The markings referred to in paragraph 3.1. and the approval mark prescribed in paragraph 5.4. of this Regulation shall be clearly legible, indelible and raised above or sunk below the tyre surface."

*Insert a new paragraph 3.4.1. to read:*

"3.4.1. In the case that the date of manufacture is not moulded, it shall be applied not later than 24 hours after the tyre is removed from the mould."

*Paragraph 4.1.14., amend to read:*

"4.1.14. The factor X referred to in paragraph 2.23.;"

*Paragraph 4.1.16., amend to read:*

"4.1.16. For all terrain (AT) tyres, the symbol identifying the reference inflation pressure (see paragraph 3.1.12.)."

*Paragraph 4.2., amend to read:*

"4.2. The application for approval shall be accompanied (all in triplicate) by a sketch, or a representative photograph, which identify the tyre tread pattern and a sketch of the envelope of the inflated tyre mounted on the measuring rim showing the relevant dimensions (see paragraphs 6.1.1. and 6.1.2.) of the type submitted for approval. It shall also be accompanied either by the test report issued by the approved test laboratory or by one or two samples of the type of tyre, at the discretion of the competent authority. Drawings or photographs of the side wall and tread of the tyre shall be submitted once production has been established, no later than one year after the date of issue of the type approval."

*Paragraph 5.2., amend to read:*

"5.2. An approval number shall be assigned to each type approved. Its first two digits (at present 00) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party shall not assign the same number to another type of tyre covered by this Regulation."

*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 2.20.5. expressed in millimetres;

H is the nominal section height rounded to the nearest millimetre and is equal to

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

$S_1$  is the nominal section width in millimetres;

$Ra$  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 6.2.1.1., amend to read:*

"6.2.1.1. Where application is made for tyres identified by means of letter code "V" within the size designation and suitable for speeds over 240 km/h or for tyres identified by means of letter code "Z" within the size designation and suitable for speeds over 270 km/h (see paragraph 4.1.15.), the above load/speed test is carried out on one tyre at the load and speed conditions marked within parenthesis on the tyre (see paragraphs 3.1.5.1. and 3.1.5.2.). Another load/speed test must be carried out on a second tyre of the same type at the load and speed conditions, if any, specified as maximum by the tyre

manufacturer (see paragraph 4.1.15.). For tyres identified by means of letter code "V" within the size designation and suitable for speeds over 240 km/h, the maximum load specified by the manufacturer shall not exceed the maximum load rating indicated in paragraph 2.37.4. with reference to the maximum speed specified by the manufacturer."

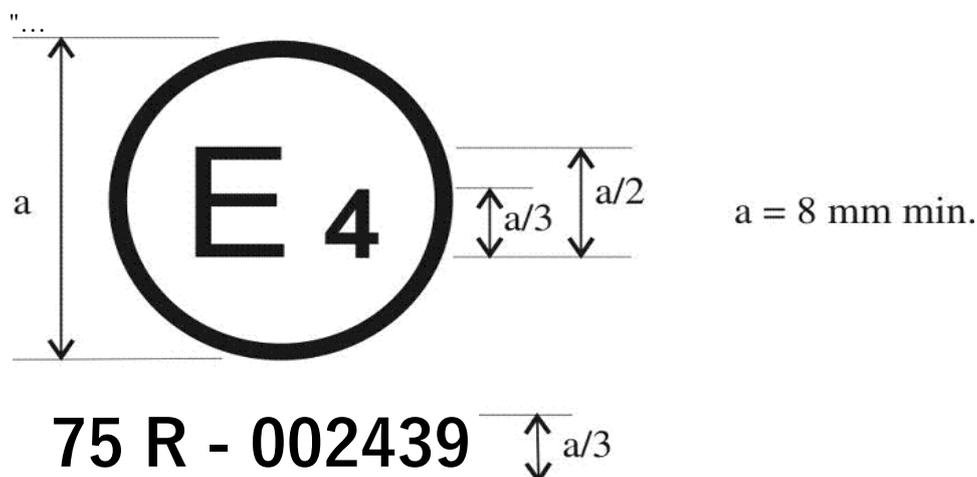
*Paragraph 6.2.3.*, amend to read:

"6.2.3. Except for tyres with radial structure, the outer diameter of the tyre, measured at least six hours after the load/speed performance test, must not differ by more than  $\pm 3.5$  per cent from the outer diameter as measured before the test."

*Insert a new paragraph 12.4.* to read:

"12.4. Until 3 months after the date of entry into force of Supplement 19 to the original version of this Regulation, Contracting Parties applying this Regulation may continue to grant and/or extend type approvals according to the original version of this Regulation, without taking into account the provisions of Supplement 19."

*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) pursuant to UN Regulation No. 75 under approval number 002439. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of UN Regulation No. 75 in its original form.

..."

*Annex 3*

*Paragraph (d)*, amend to read:

"

...

- (d) In case of tyres suitable for speeds above 240 km/h the letter code "V" or "Z" as applicable, must be marked in front of the marking of structure (e.g. 140/60ZR18). The reference load capacity index and speed category symbol must be marked within parenthesis as applicable (see paragraphs 3.1.5.1. and 3.1.5.2.)."

*Annex 7*

*Paragraph 2.2.2.*, amend to read:

"2.2.2. The maximum load rating associated with a maximum speed of 240 km/h for tyres with speed symbol "V" (see paragraph 2.37.3. of this Regulation);"

*Paragraph 2.2.3.*, amend to read:

"2.2.3. The maximum load rating associated with a maximum speed of 270 km/h for tyres with speed symbol "W" (see paragraph 2.37.5. of this Regulation);"

*Paragraph 2.2.5.*, renumber as 2.2.4.

*Paragraph 2.4.*, amend to read:

"2.4. During the test the temperature in the test room must be maintained between 20 °C and 30 °C or at a higher temperature if the manufacturer so agrees."

*Paragraph 2.5.2.*, amend to read:

"2.5.2. Initial test speed: 30 km/h less than the speed corresponding to the speed category symbol marked on the tyre if a 2.0 m diameter test drum is used, or 40 km/h less if a 1.7 m diameter test drum is used;"

*Paragraph 2.5.2.1.*, delete.

*Paragraph 2.5.6.1.*, delete.

*Paragraph 2.6.*, amend to read:

"2.6. However, in case a second test is performed to assess the top performances of tyres suitable for speeds above 240 km/h and whose service description is marked in parentheses (see paragraphs 3.1.5.1. and 3.1.5.2. of this Regulation) the procedure shall be the following:"

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