Economic Commission for Europe
Inland Transport Committee
World Forum for Harmonization of Vehicle Regulations
Working Party on Noise and Tyres
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Item 4 (c) of the provisional agenda
Tyres: UN Regulation No. 106 (Tyres for agricultural vehicles and their trailers)

Proposal for amendments to UN Regulation No. 106

Submitted by the experts from the European Tyre and Rim Technical Organization*

The text reproduced below was prepared by the experts from the European Tyre and Rim Technical Organization (ETRTO). The modifications to the existing text of the UN Regulation are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2022 as outlined in proposed programme budget for 2022 (A/76/6 (Sect.20), para 20.76), 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.
I. Proposal

Paragraph 2.6.1., amend to read:

"2.6.1. "Diagonal” or "bias-ply" describes a tyre structure in which the ply cords extend to the bead and are laid at alternate angles of substantially less than 90° to the centreline of the tread;"

Paragraph 2.6.2., amend to read:

"2.6.2. "Bias belted” describes a tyre structure of diagonal (bias-ply) type in which the carcass is 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 laid at alternate angles close to those of the carcass."

Paragraph 2.18., amend to read:

"2.18. "Tyre-size designation” means a designation showing 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 2.18.7., delete:

"2.18.7. However for tyres listed in Annex 5 the “tyre size designation” is that shown in the first column of those tables."

Paragraph 2.18.13., renumber as paragraph 2.18.7.:

"2.18.7. The letters ‘LS’ after the nominal rim diameter marking in case of log-skidder tyres for forestry machines?"

Paragraph 2.23.1., renumber as paragraph 2.48.:

"2.23.1-2.48. "Improved Flexion Tyre" or "Very High Flexion Tyre” describes a tyre structure in which the carcass is more resistant than that of the corresponding standard tyre.”

II. Justification

1. In order to have consistency among the definitions given in the UN Regulations on tyres, it is proposed to amend paragraphs 2.6.1. and 2.6.2. by aligning the definitions of “Diagonal” or “bias-ply” and “Bias belted” tyre structures to the definitions given in UN Regulations Nos. 30 and 75.

2. Sub-paragraphs of paragraph 2.18., with the exception of 2.18.7., describe the composition of the size designation for metric tyres. The possibility of code designations, mentioned in subparagraph 2.18.7., is submerged amongst all other specifications not pertaining to them.

3. Therefore, it is proposed to amend paragraph 2.18. in the same way as already agreed for UN Regulation No. 75 (paragraph 2.20. modified by Supplement 19) and to delete the current paragraph 2.18.7., with its text included in the amended paragraph 2.18. Additionally, in order not to be required to modify the number of the other sub-paragraphs, it is proposed to renumber paragraph 2.18.13. as 2.18.7.

4. There is an apparent contradiction on prefixes IF and VF which in paragraphs 2.18.8. and 2.18.9. are defined as prefixes in the tyre size designation, without any limitation as far as tyre “categories of use” are concerned, while paragraph 2.23.1. identifies them as a sub-category of the category of use “Tractor drive wheel”. In addition, the definition of “type of agricultural tyre” (paragraph 2.1.) makes it possible to assign a given “tyre size designation” (sub-paragraph b), hence also with prefixes IF or VF, independently to any of the nine different “categories of use” (sub-paragraph c). To remove those contradictions, it is proposed to renumber paragraph 2.23.1. as 2.48.