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Item 6 (c) of the provisional agenda

Tyres: UN Regulation No. 75 (Tyres for Motorcycles/Mopeds)

Proposal for Supplement 21 to UN Regulation No. 75

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 2025 as outlined in proposed programme budget for 2025 (A/79/6 (Sect. 20), table 20.6), 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 2.1. (c), amend to read:

- "(c) Category of use (normal tyre: ~~for normal highway service~~; snow tyre, **special-use tyre**, moped tyre, all terrain tyre (AT) **tyre**, ~~special tyre: for special application such as on- and off road~~);"

Second occurrence of footnote 2, renumber as footnote 3:

"²⁻³ See the explanatory figure in the appendix."

Paragraphs 2.7., 2.8., 2.9., 2.10., 2.11., 2.12., 2.13., 2.15., 2.16., 2.17., 2.19. and 2.22., replace the reference to footnote 2 by a reference to footnote 3.

Paragraph 2.14., amend to read:

- "2.14. *"Principal ~~groove~~grooves"* means the wide **tread** grooves ~~situated in the central zone of the tread of the tyre.~~"

Paragraph 2.20.5., amend to read:

- "2.20.5. **the nominal rim diameter;** ~~A conventional number "d" denoting the nominal diameter of the rim and corresponding to its diameter expressed either by code (numbers below 100) or in millimetres' (numbers above 100).~~"

Paragraph 2.20.5.1., renumber as 2.21.1. and amend to read:

- "~~2.20.5.~~**21.1. When the nominal rim diameter ("d" symbol) is expressed by code, the values of the "d" symbol expressed in millimetres** ~~The values in millimetres of the symbol "d" when indicated by a code are as follows:~~

<i>Symbol "d" indicated by one or two figures according to the nominal rim diameter</i>	
<i>Nominal rim diameter code ("d" symbol)</i>	<i>Value of the "d" symbol expressed in mm</i>
4	102
5	127
6	152
7	178
8	203
9	229
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

"

Paragraph 2.20.6., amend to read:

- "2.20.6. The suffix "M/C" **after the nominal rim diameter** for tyres intended to be fitted on rims designed for ~~motorcycles~~ **motor cycles as shown in the example in Annex 3**; this suffix is mandatory for tyres having a nominal rim diameter equivalent to code 13 (330 mm) or above, and optional for tyres with nominal rim diameter equivalent to code 12 (305 mm) or below. Tyres not intended to be fitted on rims designed for ~~motorcycles~~ **motor cycles** shall not be marked with M/C."

Paragraph 2.21., amend to read:

- "2.21. "Nominal rim diameter-(d)" means **a conventional number denoting** the diameter of the rim on which a tyre is designed to be ~~mounted~~² **mounted³; the diameter of the rim is expressed either by code (numbers below 100) or in millimetres (numbers above 100) but not both;**"

Paragraph 2.24., amend to read:

- "2.24. "Measuring rim" means the rim on which a tyre is required to be fitted for ~~size measurements~~ **the measurement of the tyre dimensions.**"

Paragraph 2.30., amend to read:

- "2.30. "Load-capacity index" means a figure associated with the maximum load a tyre can carry at the speed corresponding to its speed-**category** symbol according to the operating conditions specified by the tyre manufacturer. A list of those indices and of the corresponding loads is given in ~~annex 4~~ **Annex 4** to this Regulation."

Add new paragraphs 2.33. and 2.33.1., to read:

- "2.33. **Category of use:**

- 2.33.1. "Normal tyre" means a tyre intended for normal, on-road use;"

Paragraph 2.33. (former), renumber as 2.33.2.:

- "2.33.2. "Snow tyre" means a tyre whose tread pattern, tread compound or construction is primarily designed to achieve in mud and/or snow conditions a performance better than that of a normal tyre with regard to its ability to initiate and control vehicle motion."

Paragraph 2.34. (former), delete:

- "2.34. ~~"MST" means "multiservice tyre", suitable both on and off road."~~

Paragraph 2.35. (former), renumber as 2.33.4. and amend to read:

- "2.35.33.4. "Moped tyre" means a tyre designed for the equipment of mopeds (**vehicles of** categories L₁ and L₂)."

Paragraph 2.36. (former), renumber as 2.34. and amend to read

- "2.36.34. "~~Motor cycle~~ **Motor-cycle** tyre" means a tyre designed primarily for the equipment of motor cycles (**vehicles of** categories L₃, L₄ and L₅). However, they may also equip mopeds (**vehicles of** categories L₁ and L₂) and light trailers (**vehicles of** category O₁)."

Paragraphs 2.37. to 2.37.6. (former), renumber as 2.35. to 2.35.6.

Paragraph 2.38. (former), renumber as 2.33.5. and amend to read:

- "2.38.33.5. ~~AT (all terrain) tyre:~~ **"All terrain (AT) tyre"** means a low-pressure tyre designed primarily for the equipment **of vehicles** of categories ~~L₆ L₆~~ and ~~L₇~~ **L₇**."

Paragraph 2.39. (former), renumber as 2.36. and amend to read:

- "2.39.36. "Service description" means the association of the load-**capacity** index with a ~~speed-category~~ **speed-category** symbol (for example, 72H); ~~72H~~ **72H**)."

Paragraph 2.40. (former), renumber as 2.33.3. and amend to read:

"~~2.40.33.3.~~ **"Special-use tyre"** means a tyre intended for mixed use both on- and off-road or for other special duty. These tyres are primarily designed to initiate and control the vehicle motion in off-road conditions."

Paragraph 3.1.5.1., 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 **tyre**-size designation, the service description shall be marked within ~~parenthesis~~ **parentheses** and shall consist of the ~~load-capacity~~ **load-capacity** index applicable at a speed of 210 km/h and the ~~speed-category~~ **speed-category** symbol."

Paragraph 3.1.5.2., 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 **tyre**-size designation, the service description shall be marked within ~~parenthesis~~ **parentheses** and shall consist of the ~~load-capacity~~ **load-capacity** index applicable at a speed of 240 km/h and the ~~speed-category~~ **speed-category** symbol."

Paragraph 3.1.9., amend to read:

"3.1.9. The inscription of "M+S" or "M.S" or "M&S" if the tyre is classified in the category of use "snow tyre" or if the tyre is classified in the category of use ~~"special tyre"~~ **"special-use tyre"** when declared by the tyre manufacturer at paragraph 4.1.3. as complying also with the definition given in paragraph ~~2.33.2.; the 2.33.~~ The inscription "DP" (i.e. Dual Purpose) is accepted as a permitted alternative;

"M+S" or "M.S" or "M&S" means "Mud and Snow";"

Paragraph 3.1.10., amend to read:

"3.1.10. The inscription MST in the case of ~~multiservice~~ **special-use** tyres; **"MST" means "multiservice tyre".**"

Paragraphs 4.1.3. and 4.1.3.1., amend to read:

"4.1.3. The category of use (normal, snow, **special-use**, moped, ~~all-terrain~~ **all terrain** (AT), ~~special~~);

4.1.3.1. For the tyres belonging to the category of use "special-use tyre", those which may bear the inscription "M+S" or "M.S" or "M&S".

Paragraph 4.1.9., amend to read:

"4.1.9. The ply-rating number of tyres for ~~motor-cycle~~ **motor-cycle** derivatives (see table 5 of ~~annex 5~~ **Annex 5** to this Regulation);²⁴"

Footnote 2, renumber as footnote 4:

²⁴ From the date of entry into force of Supplement 8 to this Regulation no new approvals for these tyres should be issued pursuant to UN Regulation No. 75. These tyre sizes are now included in UN Regulation No. 54."

Paragraph 5.4.1., amend to read:

"5.4.1. A circle surrounding the letter "E" followed by the distinguishing number of the country which has granted approval;³⁵"

Footnote 3, renumber as footnote 5 and amend to read:

³⁵ **The distinguishing numbers of the Contracting Parties to the 1958 Agreement are reproduced in Annex 3 to the Consolidated Resolution on the Construction of Vehicles (R.E.3).** ~~1 for Germany, 2 for France, 3 for Italy, 4 for the Netherlands, 5 for Sweden, 6 for Belgium, 7 for Hungary, 8 for the Czech Republic, 9 for Spain, 10 for Serbia, 11 for the United Kingdom, 12 for Austria, 13 for Luxembourg, 14 for Switzerland, 15 (vacant), 16 for Norway, 17 for Finland, 18 for Denmark, 19 for Romania, 20 for Poland, 21 for Portugal, 22 for the~~

Russian Federation, 23 for Greece, 24 for Ireland, 25 for Croatia, 26 for Slovenia, 27 for Slovakia, 28 for Belarus, 29 for Estonia, 30 (vacant), 31 for Bosnia and Herzegovina, 32 for Latvia, 33 (vacant), 34 for Bulgaria, 35 (vacant), 36 for Lithuania, 37 for Turkey, 38 (vacant), 39 for Azerbaijan, 40 for The former Yugoslav Republic of Macedonia, 41 (vacant), 42 for the European Union (Approvals are granted by its Member States using their respective ECE symbol), 43 for Japan, 44 (vacant), 45 for Australia, 46 for Ukraine, 47 for South Africa, 48 for New Zealand, 49 for Cyprus, 50 for Malta, 51 for the Republic of Korea, 52 for Malaysia, 53 for Thailand, 54 and 55 (vacant), 56 for Montenegro, 57 (vacant) and 58 for Tunisia. Subsequent numbers shall be assigned to other countries in the chronological order in which they ratify or accede to the Agreement Concerning the Adoption of Uniform Technical Prescriptions for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these Prescriptions, and the numbers thus assigned shall be communicated by the Secretary General of the United Nations to the Contracting Parties to the Agreement."

Paragraph 6.1.1.2., amend to read:

- "6.1.1.2. However, for types of tyres for which the **tyre-size** designation is shown in the first column of the tables in ~~annex 5~~ **Annex 5** to this Regulation, the section width shall be ~~allowed to be~~ that given opposite the **tyre-size** designation in the tables."

Paragraph 6.1.2.2., amend to read:

- "6.1.2.2. However, for types of tyres for which the **tyre-size** designation is shown in the first column of the tables in ~~annex 5~~ **Annex 5** to this Regulation, the outer diameter shall be ~~allowed to be~~ that given opposite the **tyre-size** designation in the tables."

Paragraph 6.1.4.2., amend to read:

- "6.1.4.2. It may exceed that value,
- (a) for sizes shown in Annex 5, up to the value shown in Annex 5 or specified for the respective **tyre-size** designation in the tables in Annex 5 and,
- (b) for sizes not included in Annex 5, by the following percentages, whereby the limits shall be rounded to the nearest millimetre (mm):

Category of use	
Normal tyres, snow tyres and moped tyres	
Rim diameter code 12 and below	8 %
Rim diameter code 13 and above	10 %
Special-use tyres	25 %

"

Paragraphs 6.1.4.2.1. and 6.1.4.2.2., delete.

Paragraph 6.1.5.1., amend to read:

- "6.1.5.1. ~~The~~ For sizes listed in Annex 5, the outer diameter of a tyre must not be outside the values D_{\min} and D_{\max} specified for the respective **tyre-size** designation in the tables in Annex 5."

Paragraph 6.1.5.2.1., amend to read:

- "6.1.5.2.1. For normal highway service tyres and snow tyres — a
- Rim diameter code 13 and above — 0.97
- Rim diameter codes up to 12 inclusive — 0.93
- For special service tyres — 1.00

Category of use		<i>a</i>
Normal tyres, snow tyres and moped tyres		
Rim diameter code 12 and below		0.93
Rim diameter code 13 and above		0.97
Special-use tyres		1.00

"

Paragraph 6.1.5.2.2., amend to read:

"6.1.5.2.2	For normal highway service tyres	b
	Rim diameter code 13 and above	1.07
	Rim diameter codes up to 12 inclusive	1.10
	For snow tyres and special service tyres	1.12

Category of use		b
Normal tyres and moped tyres		
	Rim diameter code 12 and below	1.10
	Rim diameter code 13 and above	1.07
Snow tyres and special-use tyres		1.12

"

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 **tyre**-size designation and suitable for speeds over 240 km/h or for tyres identified by means of letter code "Z" within the **tyre**-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 **tyre**-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. ~~2.35.4.~~ with reference to the maximum speed specified by the manufacturer."

Annex 1, item 4.2, amend to read:

"4.2. Category of use: normal/snow/~~special-use~~/moped/all terrain (AT)/~~special~~²"

Annex 3, Example of the markings, amend to read:

"

$\frac{100/80 \text{ B } 18 \text{ M/C}}{\uparrow} \downarrow b$	$\frac{53 \text{ S}}{\uparrow} \downarrow b$	$\frac{\text{TUBELESS}}{\uparrow} \downarrow b$	$\frac{\text{M + S}}{\uparrow} \downarrow b$
	$\frac{2503}{\uparrow} \downarrow b$		

b = 4 mm min."

Annex 3, amend to read:

" ...

- Having a load capacity of 206 kg, corresponding to load-**capacity** index 53 in Annex 4 to this Regulation;
- ~~Of Having a speed category S (maximum speed of 180 km/h (expressed by the speed category symbol S);~~

...

- (a) The **tyre**-size designation, ~~comprising the nominal section width, the nominal aspect ratio, the type of structure symbol (where applicable) and the nominal rim diameter~~ shall be grouped as shown in the above example: 100/80 B 18 **M/C**;

- (b) The load-**capacity** index and the ~~speed-category~~ **speed-category** symbol shall be placed together near the ~~tyre-size designation~~. **They designation; they** may either follow it or be placed above or below it;
- (c) The markings "TUBELESS" and "REINFORCED" or "REINF" and "M + S" and "MST" and/or "MOPED" (or "CYCLOMOTEUR" or "CICLOMOTORE") may be at a distance from the ~~size designation symbol~~. **tyre-size designation;**

..."

Annex 5,

Table 1(a), footnote 1, amend to read:

"¹ Normal ~~road (highway) service~~ **tyres.**"

Table 2, footnotes 1 and 2, amend to read:

"¹ Normal ~~highway service~~ **tyres.**

² Special-~~use service~~ **tyres** and snow tyres."

Table 3, footnotes 1 to 5, amend to read:

"¹ ~~Tyres for normal highway service~~ **Normal tyres.**

² ~~Tyres for special service~~ **Special-use tyres** and snow tyres.

³ ~~Tyres for normal highway service up to~~ **Normal tyres with a speed category less than or equal to 150 km/h (speed-category symbol "P") inclusive.**

⁴ ~~Tyres for normal highway service above~~ **Normal tyres with a speed category greater than or equal to 160 km/h (speed-category symbol "Q") and snow tyres.**

⁵ ~~Tyres for special service~~ **Special-use tyres.**"

Table 7, amend to read:

"Table 7

Motor-cycle tyres

Sizes and dimensions of American tyres

Tyre-size designation*	Measuring rim width Code	Overall diameter (mm)			Section width (mm)	Maximum overall width (mm)
		D_{min}	D	D_{max}		
MH90 - 21	1.85	682	686	700	80	89
MJ90 - 18	2.15	620	625	640	89	99
MJ90 - 19	2.15	645	650	665		
ML90 - 18	2.15	629	634	650	93	103
ML90 - 19	2.15	654	659	675		
MM90 - 19	2.15	663	669	685	95	106
MN90 - 18	2.15	656	662	681	104	116
MP90 - 18	2.15	667	673	692	108	120
MR90 - 18	2.15	680	687	708	114	127
MS90 - 17	2.50	660	667	688	121	134
MT90 - 16	3.00	642	650	672	130	144
MT90 - 17	3.00	668	675	697		
MU90 - 15M/C	3.50	634	642	665	142	158
MU90 - 16	3.50	659	667	690		
MV90 - 15M/C	3.50	643	651	675	150	172
MP85 - 18	2.15	654	660	679	108	120
MR85 - 16	2.15	617	623	643	114	127

MS85	-	18	2.50	675	682	702	121	134
MT85	-	18	3.00	681	688	709	130	144
MU85	-	16M/C	3.50	650	658	681	142	158
MV85	-	15M/C	3.50	627	635	658	150	172

- * If the The suffix "M/C" is not already part of the tyre size designation, it may be added optionally as part of the ~~tyre size~~ **tyre size** designation (e.g. ~~4.00-5 M/C~~ **MH90 - 21 M/C**); this is recommended for tyres having a nominal rim diameter equivalent to code 13 (330 mm) or above. **Tyres in bias-belted construction shall be identified by the letter "B" in place of "-" (e.g. MM90 B 19 M/C).**"

Table 8, headings, replace "Tyres for all terrain vehicles (AT)" and "Tyres for all terrain vehicles (AT tyres)" by "All terrain (AT) tyres"

Annex 7, paragraphs 2.2.1. to 2.2.3., amend to read:

- 2.2.1. The maximum load rating ~~equated corresponding~~ **equated corresponding** to the ~~Load Capacity Index~~ **load-capacity index** for tyres with a speed **category less than or equal to 210 km/h (speed-category symbol "H")** ~~symbols up to H inclusive~~;
- 2.2.2. The maximum load rating associated with a maximum **operating** speed of 240 km/h for tyres with speed-**category** symbol "V" (see paragraph ~~2.37.3.~~ **2.35.3.** of this Regulation);
- 2.2.3. The maximum load rating associated with a maximum **operating** speed of 270 km/h for tyres with speed-**category** symbol "W" (see paragraph ~~2.37.5.~~ **2.35.5.** of this Regulation);"

Annex 8,

Table "Table load capacities at various speeds", replace "Speed Symbol" by "Speed-Category Symbol".

"Table for all terrain tyres (AT) with speed symbol "F"", rename to "Table for all terrain **(AT)** tyres ~~(AT)~~ with speed-**category** symbol "F"". "

Annex 9, paragraph 4.1, table, amend to read:

"

Speed-Category Symbol	H_{dyn} (mm)	
	Category of Use: Normal	Category of Use: Snow and special-use
P/Q/R/S	$H \times 1.10$	$H \times 1.15$
T/U/H	$H \times 1.13$	$H \times 1.18$
Over 210 km/h V/W	$H \times 1.16$	$H \times 1.21$

"

II. Justification

1. A generic reference to the Consolidated Resolution on the Construction of Vehicles (R.E.3) is given in footnote 5.
2. It is proposed to align the categories of use to "normal tyre", "snow tyre" and "special-use tyre" in line with UN Regulations Nos. 30 and 54, to introduce a definition of "normal tyre" and consequently make use of the terms "snow tyre" and "special-use tyre" that are already defined.

3. Annex 5, Table 7 does not present the tyre-size designations in a consistent way and does not consider that there may be tyres with bias-belted structure and an alphanumeric tyre-size designation (which is allowed in the applicable industry standard). It is proposed to reformat the table and present the tyre-size designations in a consistent way and to provide explicitly that tyre-size designations from this table may also be used for tyres in bias-belted structure.
 4. It is proposed to include the suffix "M/C" that is defined as mandatory for motor-cycle tyres with rim diameter code 13 and above in the figure illustrating the sidewall markings in Annex 3 and to present the markings in a clearer way.
 5. It is proposed to add provisions for the dimensional requirements of moped tyres.
 6. It is proposed to add a factor for the centrifugal radius of snow tyres and special-use tyres with a speed category above 210 km/h.
 7. It is proposed to give the footnotes in the main body of the regulation an unequivocal number to avoid confusion when referencing to a particular footnote.
 8. It is proposed to include several editorial corrections to increase the consistency of the text (e.g. consistent use of the terms defined in section 2, such as "tyre-size designation", "load-capacity index", "speed-category symbol")
-