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### Economic Commission for Europe

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World Forum for Harmonization of Vehicle Regulations

Working Party on Brakes and Running Gear

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Item 6(c) of the provisional agenda

**Tyres – Regulation No. 106 (Tyres for agricultural vehicles)**

### **Proposal for amendments to Regulation No. 106 (Tyres for agricultural vehicles)**

**Submitted by the experts from the European Tyre and Rim Technical Organisation \***

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

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\* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208/, para. 106 and ECE/TRANS/2010/8, programme activity 02.4), 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.

## I. Proposal

*Insert new paragraphs 2.15.9. and 2.15.10., to read:*

- "2.15.9.      **The letters "CFO" after the nominal rim diameter marking in case of "Improved Flexion" or "Very High Flexion" tractor-drive wheel tyres specifically designed for the equipments of machines to be used in Cyclic Field Operations.**
- 2.15.10.      **The letters "CHO" after the nominal rim diameter marking in case of standard tractor-drive wheel tyres specifically designed for the equipments of machines to be used in Cyclic Harvesting Operations."**

*Insert new paragraph 3.1.13., to read:*

- "3.1.13.      **The inscriptions "CFO" or "CHO", if applicable, shall be marked after the nominal rim diameter."**

*Annex 3, Part A, second note (a), amend to read:*

- "(a)           the size designation, comprising the prefix (if any), the nominal section width, the nominal aspect ratio, the type-of-structure symbol (where applicable) and the nominal rim diameter, must be grouped as shown in the examples :

360/70 R 24, IF 360/70 R 24, VF 360/70 R 24, **IF 800/65 R 32 CFO, 800/70 R 24 CHO."**

*Annex 7, Part A, column (1), amend to read:*

"	Speed (km/h)	.....	(1)	"
	10	.....	+ 58	
	15	.....	+35 + 32	
	20	.....	+27 + 26	
	25	.....	+20 + 19	
	30	.....	+14 + 12	
	35	.....	+ 10	
	40	.....	+ 6	
	45	.....	+ 2	
	50	.....	[0]	
	55	.....	-	
	60	.....	-	
	65	.....		
	70	.....	-	

*Annex 7, Part A, note (1), amend to read:*

- "(1)           These percentages apply only in case of tyres listed in Annex 5, Table 7, **with nominal rim diameter (d) 381 mm and above**, marked with speed symbol "B"."

Annex 7, Part C, column (1), amend to read:

"	Speed (km/h)	.....	(1)	
	10	.....	+ 58	
	15	.....	<del>+ 35</del> + 32	
	20	.....	<del>+ 27</del> + 26	
	25	.....	<del>+ 20</del> + 19	
	30	.....	<del>+ 14</del> + 12	
	35	.....	+ 10	
	40	.....	+ 6	
	45	.....	+ 2	
	50	.....	[0]	
	55	.....	-	
	60	.....	-	
	65	.....		
	70	.....	-	"

Annex 7, Part C, note (1), amend to read:

"(1) These percentages apply only in case of tyres listed in Annex 5, Table 7, **with nominal rim diameter (d) 381 mm and above**, marked with speed symbol "B"."

Annex 7, Part C, insert the reference to new footnote (\*) to headings of columns A6, A8, to read:

"A6 (\*), A8 (\*)"

Annex 7, Part C, insert new footnote (\*):

"(\*) **For tyres with nominal rim diameter code 24 and above, excluding codes 24.5, 26.5 and 30.5, Annex 7, Part A applies.**"

## II. Justification

1. This proposal adds new markings for identification of tyres for specialized application in the field.
2. The aim to align the values of the "Variation of load carrying capacity" for some tyres to those published by other International Standards.
3. In the past, implement tyres were developed only for agricultural machines and had rim diameters lower than 24, which were typical of tyres for tractor drive wheels.
4. With new developments, in many occasions, implement tyres fitted to rim diameters 24 and above are used on tractors and are characterized by less aggressive treads for use on green areas or for surface treatments.
5. Tyre marked with CFO or CHO have, for road applications and vehicle type approvals, the same performances as those of tyres without that marking; in fact they have the same load index and speed symbol. For that reason, the proposed amendment assigns to those implement tyres (now in part C of Annex 7) the same load/speed bonuses, as already assigned to tractor drive wheel tyres referred to in part A of Annex 7.

6. It is however necessary to differentiate them from tyres without the symbol marking because in cyclic field applications, they have different performances. Thus the marking is mandatory to avoid misapplications in the field where they develop the best performances in specific applications such as harvesting or spraying.

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