

## **Proposal for amending the informal document GRBP-80-03 (Proposal for a new supplement to the 01 series of amendments to UN Regulation No. 142 transmitted by Germany)**

The changes compared to document GRBP-80-03 are marked in **bold** for added text and **strike through** for deleted text, all in red font.

### **I. Proposal**

Insert new paragraphs 2.22 **and 2.22.1.** to read:

**"2.22. "Free Rolling Tyre" means a tyre, designed for the equipment of trailer axles and axles of motor vehicles other than front ~~steering axles~~ and drive axles and bearing the inscription "FRT", ~~as defined in mentioned in paragraph 3.1.15.~~ of UN Regulation No. 54.**

**2.22.1. "Front axle" means any axle, forward of the mid-point of the chassis on which the wheels are controlled by the steering system."**

Insert new paragraph 5.2.1.5 to read:

**"5.2.1.5. Free Rolling Tyres marked with the inscription "FRT" shall not be fitted to front ~~steering-axles~~ and drive axles of motor vehicles of categories M or N."**

### **II. Justification**

1. Revision of paragraph 2.22. and new paragraph 2.22.1.

- a) The proposal made by Germany is leaving the door open for interpretation of front steering axle and ETRTO would like to provide a more clear indication by introducing the definition of "Front axle" (note: the same definition is already implemented in the Statutory Instrument 2020 no. 1178 amending the Road Vehicles (Construction and Use) Regulations 1986 of the United Kingdom).
- b) Tyres marked "FRT" are not defined in the UN regulation No. 54. This regulation just reports at paragraph 3.1.15. (new number as amended by supplement 24) the "FRT" marking as an option that the tyre manufacturer may use to give guideline for their optimal use.

2. Revised paragraph 5.2.1.5.

The reference to the vehicle categories M and N has been added to allow the possibility to fit the tyres marked "FRT" on the free steering axle of the trailers and on trailers or semi-trailers eventually equipped with technology which could provide mild torque in one or more axle (e-trailer).

# Tire fitment matrix: tire TYPE vs. axle type

PROPOSAL: authorized fitment of FRT marked tires

Allowed fitment of FRT tires	Axle types											
	Steer 1	Steer 2	Steer 1 Driven	Steer 2 Driven	Pusher	Drive 1	Drive 2	Tag	Trailer 1	Trailer 2	Trailer 3	Trailer Steerable
Normal	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Traction	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
FRT	N	N	N	N	Y	N	N	Y	Y	Y	Y	Y
			4x4									
			6x6									
			8x8									

mid-point of the chassis

Vehicle configuration	Check against the new definition proposal.
Pusher axle (tractor) 	The pusher axle is not considered as a "front axle" even in case it is steerable.
Tag axle (tractor) 	The tag axle is not considered as a "front axle" even in case it is steerable.
Trailer steerable	Free-Rolling tires can be mounted on category O vehicles.
E-trailer	Free-Rolling tires can be mounted on category O vehicles.

### III. Comments to the justification given in the document GRBP-08-03

- In the justification of the informal document GRBP-80-03 it is written:

<Quote>

“On the other hand, some tyre manufacturers point out that the warranty or liability will be lost if the tyre is not installed as intended. For example, explicit reference is made to the weaker design of “FRT”-marked tyres (e.g. reducing the bead volume to save weight)”.

<Unquote>

ETRTO underlines that the wording “weaker design” used in the justification of document GRBP-80-03 is inappropriate.

The design of the tyres with “FRT” marking is not weaker than the one of tyres not so marked. In fact, they are type-approved with the same requirements that apply to other tires covered by UN regulation 54.

Their design is just not targeted for steer axles and drive axles.

Therefore, the tyres with “FRT” marking can be safely fitted in any axle of trucks or trailer, and their fitment on steer axles or drive axles may just cause irregular or uneven wear like it is shown in the pictures 1 to 3 attached to the informal document GRBP-80-03.

The pictures 1 and 3 attached to Germany informal document are depicting a phenomenon that could be caused by a misalignment of the suspension system of the vehicle.

- ETRTO underlines that UN regulation 142 is intended for the approval of vehicles with regard to the installation of their tyres, therefore the amendment proposed by Germany will not prohibit the fitment as replacement of tyre with “FRT” marking on front axles and drive axles in all the countries the national legislation of which laid down for tyre replacement different requirements than the ones given in the UN regulation 142.