

Submitted by the expert from Hungary

Informal document **GRRF-79-27**  
(79<sup>th</sup> GRRF, 16 – 20 February 2015,  
agenda item 7(e))

The remarks below in **blue** were prepared by the expert from Hungary as proposal for modification of document ECE-TRANS-WP29-GRRF-2015-03e prepared by France to introduce a new requirements and a new Annex 10 on snow tyre for use in severe snow conditions into

## **UN Regulation No. 109**

## I. Proposal

Contents,

Insert a new Annex 10, to read:

**"Annex 10 - Procedures for snow performance testing relative to snow tyre for use in severe snow conditions**

**Appendix 1 - Pictogram definition of Alpine symbol**

**Appendix 2 - Test reports and test data for C2 tyres**

**Appendix 3 - Test reports and test data for C3 tyres"**

Paragraph 2.3.3., amend to read:

"2.3.3. ~~"Snow tyre" is~~ means a tyre whose tread pattern, ~~or tread pattern and compound or structure, is~~ are primarily designed to ~~ensure, achieve in mud and fresh or melting snow;~~ conditions a performance better than that of a Normal Tyre. ~~The Normal tyre with regard to its ability to initiate or maintain vehicle motion. The tread pattern of a snow tyre generally consists of groove (rib) and solid block elements more widely spaced than on a Normal Tyre."~~ **The Normal tyre with regard to its ability to initiate or maintain vehicle motion. The tread pattern of a snow tyre generally consists of groove (rib) and solid block elements more widely spaced than on a Normal Tyre."**

Insert a new paragraph 2.3.3.1., to read:

**"2.3.3.1. "Snow tyre for use in severe snow conditions" means a snow tyre whose tread pattern, tread compound or structure is specifically designed to be used in severe snow conditions and that fulfils the requirements of paragraph 7.2. of this Regulation"**

Paragraph 2.36., footnote 3, amend to read:

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<sup>3</sup> ETRTO, ~~32 Av. Brugmann - Bte 2~~ **78, Rue Defacqz**, B-1060 Brussels, Belgium"

Insert new paragraphs 2.46. to 2.52., to read:

**"2.46. "Representative tyre size" means the tyre size which is submitted to the test described in Annex 10 to this Regulation to assess the performance of a range of tyres produced by the retreading production facility with regard to their performance for use in severe snow conditions. It can be either a retreaded tyre produced with a pre-cured tread or a retreaded tyre with direct extrusion process.**

**2.47. "Standard reference test tyre (SRTT)" means a tyre that is produced, controlled and stored in accordance with the American Society for Testing and Materials (ASTM) standards:**

- (a) E1136-93 (2003) for the size P195/75R14;**
- (b) F2872 (2011) for the size 225/75 R 16 C;**
- (c) F2871 (2011) for the size 245/70R19.5;**
- (d) F2870 (2011) for the size 315/70R22.5.**

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- 2.48. "Control tyre" means a new production tyre that is used to establish the snow grip performance of tyre sizes unable to be fitted to the same vehicle as the standard reference test tyre – see paragraph 3.4.3. of Annex 10 to this Regulation.
- 2.49. "Snow grip index (SG)" means the ratio between the performance of the candidate tyre and the performance of the standard reference test tyre.
- 2.50. "Candidate tyre" means a tyre, that is submitted to one of the procedures for snow performance testing relative to snow tyre for use in severe snow conditions – see Annex 10 to this Regulation."
- 2.51. Class C2 tyres: Tyres conforming to Regulation No. 54 and identified by a load capacity index in single formation lower or equal to 121 and a speed category symbol higher or equal to "N";
- 2.52. Class C3 tyres: Tyres conforming to Regulation No. 54 and identified by:
- (a) A load capacity index in single formation higher or equal to 122 or;
  - (b) A load capacity index in single formation lower or equal to 121 and a speed category symbol lower or equal to "M".

*Insert a new paragraph 3.2.7.1., to read:*

- "3.2.7.1. The "Alpine" symbol (3-peak-mountain with snowflake) shall be added if the snow tyre is classified as "snow tyre for use in severe snow conditions.
- In addition, in case a pre-cured tread band is used for the retreading process, the inscription M+S or MS or M.S. or M & S and the "Alpine" symbol shall be marked, at least once, on both sides of the tread shoulder.
- In both cases, the "Alpine" symbol ("3-peak-mountain with snowflake") shall conform to the symbol described in Annex 10, Appendix 1."

*Paragraph 3.2.12., amend to read:*

- "3.2.12. The inscription "ET" or "~~AMLML~~" or "~~MPT2MPT~~" for ..."

*Paragraph 3.2.14., amend to read:*

- "3.2.14. The **prefix "LT" or the suffix "C" or "LT"** following the rim diameter marking referred to in paragraph 2.21.3. and, if applicable, after the tyre to rim fitment configuration symbol referred to in paragraph 2.21.4. **or the suffix "LT" after the service description.**"

*Paragraph 4.1.4.3., amend to read:*

- "4.1.4.3. the category of use of tyres (normal, ~~or snow tyres or special tyres~~);"

*Insert a new paragraph 4.1.4.3.1., to read:*

**"4.1.4.3.1. For snow tyres the list of tyres having to fulfil the requirements of paragraph 7.2."**

*Insert new paragraphs 4.2., 4.2.1. and 4.3., to read:*

**"4.2. The application for approval shall be accompanied by:**

**4.2.1. Details of the major features, including the tread pattern, with respect to the effects on the snow grip performance of the range of tyre sizes listed as required by paragraph 4.1.4.3.1. This may be by means of descriptions supplemented by drawings and/or photographs which must be sufficient to allow the type approval authority or technical service to determine whether any subsequent changes to the major features will adversely affect the tyre performance. The effects of changes to minor details of tyre construction on tyre performances will be evident and determined during checks on conformity of production;**

**4.3. At the request of the Type Approval Authority, the applicant shall submit samples of tyres for test or copies of test reports from the technical services, communicated as given in paragraph 12 of this Regulation."**

*Paragraph 5.4., amend to read:*

**"5.4. Before granting approval the authority must be satisfied that retreaded tyres conform to this Regulation and that the tests ~~prescribed in paragraphs 6.5. and 6.6.~~ have been successfully carried out: ~~on at least 5 and not necessarily more than 20 samples of retreaded tyres representative of the range of tyres produced by the retreading production unit.~~**

**(a) on at least five and not necessarily more than 20 samples of retreaded tyres representative of the range of tyres produced by the retreading production unit when prescribed according to paragraphs 6.5. and 6.6.1. and;**

**(b) on at least one sample of retreaded tyres, of each pattern not covered by paragraphs 6.4.4.1. ~~and 6.4.4.2.~~, representative of the range of tyres produced by the retreading production unit when prescribed according to paragraph 6.6.2.\* ~~In case of paragraph 6.4.4.2., the Type Approval Authority might request a test of compliance for the retreaded tyre. Testing of sampled sizes may be confined to a worst case selection\*, at the discretion of the Type Approval Authority or designated Technical Service."~~**

*Insert new paragraphs 6.4.4.1. and 6.4.4.2. and a footnote \*, to read:*

**"6.4.4.1. For tyres retreaded by using pre-cured tread material with a tread pattern ~~not covered by paragraph 6.4.4.2.~~ having to fulfil the requirements of paragraph 7.2. \* the retreader shall ensure that either the manufacturer or the supplier of the pre-cured tread material provides:**

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**\* ~~If a tread pattern can be applied to both moulds for direct extrusion process and pre-cured tread band, the snow test may be performed with a representative tyre size retreaded with only one of the two possible processes and the snow test report can be used for both cases.~~**

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- (a) a copy of the test report(s) as in Annex 10, Appendix 3 of the representative tyre size(s) (2.46) demonstrating compliance of the pre-cured tread to the requirements of paragraph 7.2.;
  - (b) the list of tyre sizes to which it can be applied for the retreading process and validated by the same designated Technical Service and/or TAA which issued the test report in paragraph 6.4.4.1. a)
  - (c) at least every [two] years, a copy of the test report(s) of a representative tyre issued by a designated Technical Service\*\* demonstrating conformity of production of the snow performance.

~~6.4.4.2. For tyres retreaded by using either direct extrusion or pre-cured tread material with the same tread pattern(s) as a new tyre type approved according to UN Regulation No. 117 having fulfilled the requirements about minimum snow performance in severe snow conditions, the retreader shall ensure that the manufacturer of the new tyre type provides either directly to the Type Approval Authority (or Technical Service) or to the retreader: a copy of the UN Regulation No. 117 certificate(s) and a copy of the appropriate test report(s) issued by a designated Technical Service\*\* demonstrating compliance of the new tyre to the minimum snow performance in severe snow conditions.~~

- ~~(a) the list of tyre sizes to which it can be applied for the retreading process and validated by the same designated Technical Service\*\* and/or TAA that issued the UN Regulation No. 117 certificate(s);~~
- ~~(b) the drawing(s) of the tread pattern(s) covered by the certificate(s);~~
- ~~(c) a copy of the last report of the Conformity of Production as required in UN Regulation No. 117."~~

## **II. Justification**

1. The definition of “snow tyre for use in severe snow conditions” refers both to tread compound and tread pattern.
2. Therefore the material characteristics of the tread should be considered in the technical requirements.
3. Hungary supports the aim to make new requirements as simple as possible to avoid further problems to the manufacturers of retreaded tyres and to allow the use of retreaded tyres during the winter season even in severe snow conditions.