

TYRES

Regulation No. 117

**(UNIFORM PROVISIONS CONCERNING THE APPROVAL OF TYRES WITH REGARD TO
ROLLING SOUND EMISSIONS AND TO ADHESION ON WET SURFACES
AND TO ROLLING RESISTANCE)**

Proposal for draft amendments to Regulation No. 117- Rev. 1

Submitted by the expert from ETRTO

The text reproduced below was prepared by the expert from ETRTO. Amendments to the header, paragraph 5, paragraph 12, annex 2 and annex 7 are proposed. The modifications to the version of these chapters proposed as per document ECE/TRANS/WP.29/GRB 51 inf.26e are **in bold** or as ~~striketrough~~.

A.- Proposal

The header of the Regulation has to be amended to read:

Regulation No. 117

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF TYRES WITH REGARD TO ROLLING SOUND EMISSIONS AND/OR TO ADHESION ON WET SURFACES AND/OR TO ROLLING RESISTANCE

Justification:

To bring the header in line with the content of paragraph 1.2.

B.- Proposal

To amend paragraphs 5.3.1.2, 5.3.2, 5.4.3 and Annex 2 as follow:

5.3.1.2. The prefix shall identify the series of amendments of the prescription on tyre performances for the relevant Regulation (e.g. 02S2 to identify the second series of amendments on tyre road rolling sound emissions at stage 2 or 02S1WR1 to identify the second series of amendments on tyre road rolling sound emissions at stage 1, tyre adhesion on wet surfaces and rolling resistance at stage 1; (see paragraph 6.1. **and 6.3** for stage 1 and stage 2 definitions). No identification to the series of amendments shall be required if the relevant Regulation is in its original form.

5.3.2. The following suffixes have been already reserved to identify specific regulations on tyre performance parameters:

S to identify additional conformity to the requirements on tyre rolling sound emissions;

W to identify additional conformity to the requirements on tyre adhesion on wet surfaces;

R to identify additional conformity to the requirements on tyre rolling resistance.

Taking into account that two stages are defined for rolling sound and rolling resistance specifications in paragraphs 6.1. and 6.3., S and R will ~~be followed either by the suffix "1" for identify~~ compliance to stage 1 **and will be followed** ~~or~~ by the suffix "2" for compliance to stage 2.

5.4.3. The suffix(es), and the identification to the relevant series of amendments, if any, as specified in the communication form.

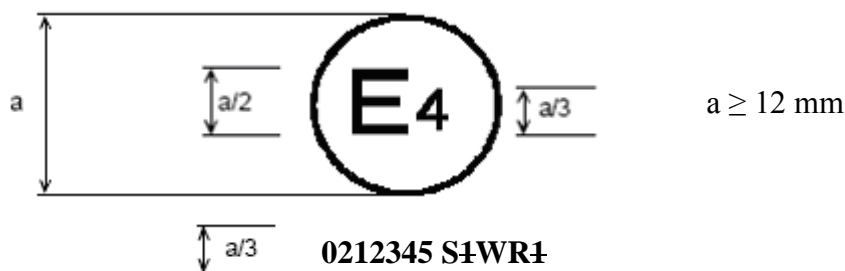
One of the suffixes listed below or any combination of them can be used.

S1	Sound level at stage 1
S2	Sound level at stage 2
W	Wet adhesion level
R1	Rolling resistance level at stage 1
R2	Rolling resistance level at stage 2

These suffixes shall be placed to the right or below the approval number, if part of the original approval.

ANNEX 2 Appendix 1

Example 2

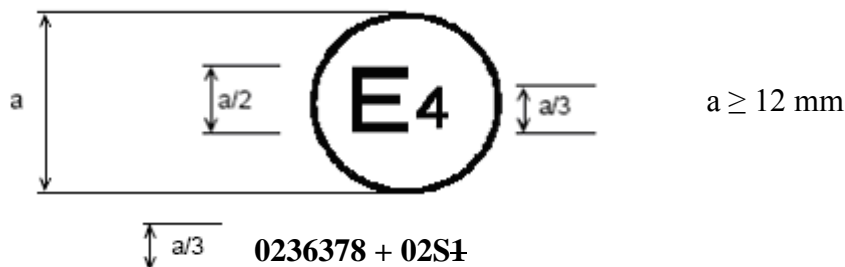


The above approval mark shows that the tyre concerned has been approved in the Netherlands (E4) pursuant to Regulation No. 117 (marked by ~~S1~~ (rolling sound at stage 1) W (wet adhesion), and ~~R1~~ (Rolling resistance at stage 1) under approval number 0212345. This indicates that the approval is for ~~S1WR1~~. The first two digits of the approval number (02) indicate that the approval was granted according to the requirements of the 02 series of amendments of this Regulation.

Annex 2 –Appendix 3

EXTENSIONS TO COMBINE APPROVALS ISSUED IN ACCORDANCE WITH REGULATION No. 117, 30 or 54 ^{1/}

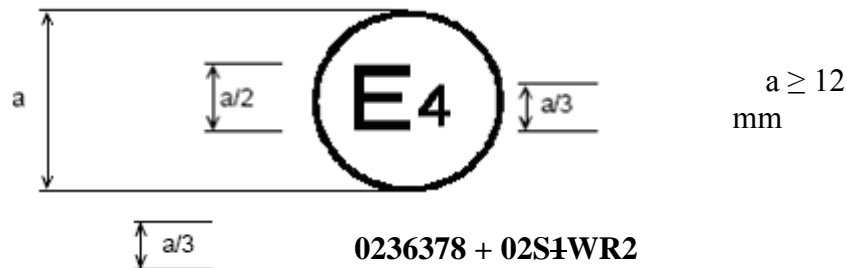
Example 1



The above approval mark shows that the tyre concerned has been initially approved in the Netherlands (E4) pursuant to Regulation No. 30 and the 02 series of amendments under approval number 0236378. It is also marked by + 02~~S1~~ (rolling sound at stage 1) which indicates that its approval is extended under Regulation No. 117 (02 series of amendments). The first two digits of the approval number (02) indicate that the approval was granted according to Regulation No. 30 (02 series of amendments). The addition (+) sign indicates that the first approval was granted in accordance with Regulation No. 30 and has been extended to include the approval(s) granted according to Regulation No. 117 (02 series of amendments) for rolling sound at stage 1.

^{1/} Approvals in accordance with Regulation No. 117 for tyres within the scope of Regulation No. 54 currently do not include wet adhesion requirements.

Example 2

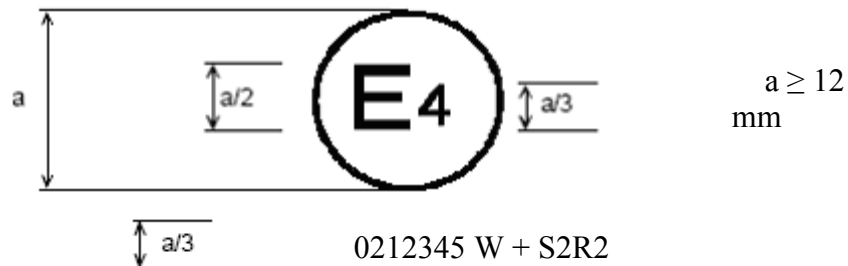


The above approval mark shows that the tyre concerned has been initially approved in the Netherlands (E4) pursuant to Regulation No. 30 and the 02 series of amendments under approval number 0236378. This indicates that the approval is for S1 (rolling sound at stage 1) W (wet adhesion) and R2 (rolling resistance at stage 2). The S1WR2 preceded by (02) indicates that it has had its approval extended under Regulation No. 117 which included the 02 series of amendments. The first two digits of the approval number (02) indicate that the approval was granted according to Regulation No. 30 (02 series of amendments). The addition (+) sign indicates that the first approval was granted in accordance with Regulation No. 30 and has been extended to include Regulation No. 117 approval(s) (02 series of amendments).

Annex 2 – Appendix 4

EXTENSIONS TO COMBINE APPROVALS ISSUED IN ACCORDANCE WITH REGULATION No. 117^{2/}

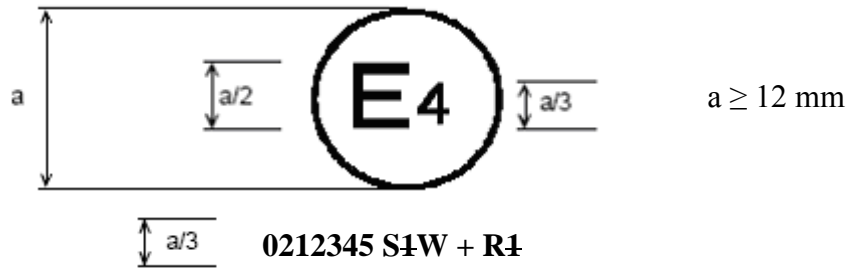
Example 1



The above approval mark shows that the tyre concerned has been initially approved in the Netherlands (E4) pursuant to Regulation No. 117 and the 02 series of amendments under approval number 0212345. This indicates that the approval is for W (wet grip). The S2R2 preceded by + indicates that it has had its approval extended under Regulation No. 117 to rolling sound at stage 2 and rolling resistance at stage 2 based on separate certificate(s).

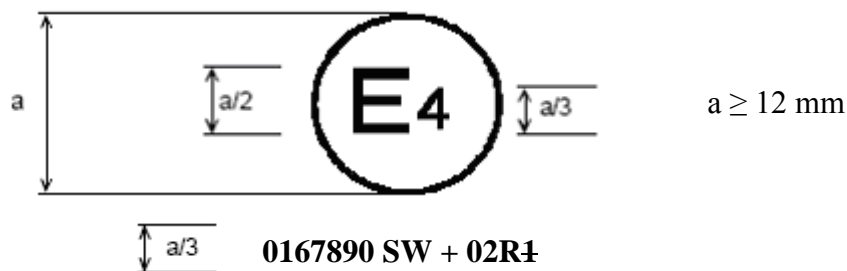
^{2/} Approvals in accordance with Regulation No. 117 for tyres within the scope of Regulation No. 54 currently do not include wet adhesion requirements.

Example 2



The above approval mark shows that the tyre concerned has been initially approved in the Netherlands (E4) pursuant to Regulation No. 117 and the 02 series of amendments under approval number 0212345. This indicates that the approval is for S1 (rolling sound at stage 1) and W (wet grip). The R1 preceded by + indicates that it has had its approval extended under Regulation No. 117 to rolling resistance at stage 1 based on separate certificate(s).

Example 3



The above approval mark shows that the tyre concerned has been initially approved in the Netherlands (E4) pursuant to Regulation No. 117 and the 01 series of amendments under approval number 0167890. This indicates that the approval is for S (rolling sound at stage 1) and W (wet grip). The 02R1 preceded by + indicates that it has had its approval extended under Regulation No. 117 and the 02 series of amendments to rolling resistance at stage 1 based on separate certificate(s).

Justification:

Some tyre manufacturers have already type approve tyres base on the 01 series of amendments of R117 and therefore showing on tyre sidewall a type approval marking followed by the suffix “S”, indicating compliance to rolling sound at stage 1. In the 02 series of amendments of R117 the specification of rolling sound at stage 1 is not changed with respect to the 01 series of amendments and therefore is considered appropriate to maintain the suffix “S” unchanged, while the suffix “S2” will indicate compliance to rolling sound at stage 2. To be coherent the same is proposed for the rolling resistance, with “R” indicating compliance to stage 1 and “R2” indicating compliance to stage 2.

C.- Proposal

To add the following paragraph in section 12 - TRANSITIONAL PROVISIONS:

12.8 C1, C2 and C3 tyres that were manufactured prior to the dates set out in paragraphs 12.3, 12.5, 12.6, and 12.7 and which do not comply with the specifications of chapter 6 (except tyre rolling sound emission limits stage 1) may be sold for a period not exceeding 30 months from those dates.

Justification:

A grace period need to be included in Reg. 117 as per Reg. 661/2009

D.- Proposal

Amend paragraphs 2 and 3 of Annex 7 as follow:

2. Spin traction method for Class C1 and C2 tyres

The test procedure of ASTM standard F1805-06 shall be used to assess snow performance through spin traction values.

The snow surface shall be composed of a medium packed snow. The snow compaction index measured with a CTI penetrometer ^{3/} shall be between 70 and 80.

3.1.1. Test course

.... The snow compaction index measured with a CTI penetrometer shall be between 75 and 85.

Justification:

For the ASTM method, the test surface conditions "Medium pack snow" shall be included in R117-02.

For the "snow braking" test method, the CTI value must be between 75-85 due to the necessary high test quality and reproducibility.

The range of 10 points CTI penetrometer is the same for both methods

An overlap with the spin-traction test is ensured (70-80) ASTM vs. (75-85) Snow Braking. The correlation between both methods was established on this basis.
