

Regulation No. 124 (Replacement wheels)

Proposal for draft amendments to Regulation No. 124

The text reproduced below was prepared by the expert from Germany. It replaces informal document No. GRRF-66-13 and is based on document ECE/TRANS/WP.29/GRRF/2009/30 and informal document No. GRRF-66-13. It includes the comments made by UK and NL, as well as editorial modifications.

The modifications to the current text are marked in **bold** characters. The modifications to GRRF-67-09 are shown in red characters.

In the entire regulation, amend to read:

Modification "inset" to "inset/**outset**" according to Comments during 66. GRRF from Japan. (General changing of the wording by Secretary of GRRF).

A. PROPOSAL

Paragraph 1., amend to read (footnote including ^{1/}):

"1. This Regulation covers new replacement wheels designed for vehicles of categories M₁, M₁G, N₁, **N₁G**, O₁ and O₂ ^{1/}.

It does not apply...

^{1/} Categories M, N, and O as defined in Annex 7 to the Consolidated Resolution on the Construction of Vehicles (R.E.3) (document TRANS/WP.29/78/Rev.1/Amend.2)."

Insert a new paragraph 2.2.8., to read:

"**2.2.8. "Styling", the wheel's geometric shape, including basic contour and ratio between voids and material.**"

Paragraph 4.5., amend to read:

"**4.5. The approval mark shall be permanent, visible, and clearly legible on the outward facing side of the wheel, when the wheel is fitted on the vehicle.**"

Paragraph 5.1.5., amend to read:

"5.1.5. part number of the wheel / rim (**optional wheel type**)."

Insert a new paragraph 6.8., to read:

"6.8. When the replacement wheel is mounted on the vehicle, the requirements of 5.2.1.11.2.1. or 5.2.2.8.2.1. of Regulation N° 13 or paragraph 5.2.11.2.1. of Regulation N° 13H shall be fulfilled."

Annex 2, delete the new sentence of document ECE/TRANS/WP.29/GRRF/2009/30:

"The marking shall be at a position selected by the manufacturer. It shall be easily visible and clearly legible after the tyre has been mounted to the wheel and the wheel is fitted on the vehicle ."

Annex 5, paragraph 1.1., amend to read:

"1.1. Sample preparation

A surface treated sample, taken from the production, shall be damaged by cross engraving (ISO 2409:2007) and stone impact (ISO 20567-1:2007-04) to represent ..."

Annex 6,

Paragraph 3., the table, replace "M₁ and M₁ G" by "M₁, M₁ G, N₁, and N₁ G "

Paragraph 4., amend to read:

"4. Test schedule for **wheel families**

Wheels of a wheel type with the same number of wheel attachment holes, same styling, different PCD and/or different inset values can be grouped at the same or at a lower value of test bending moment taking into account the test schedule to follow. Wheels with the largest centre hole diameter shall be included in the test.

In the case of a negative test, due to material failures, it can be compensated by two positive tests of the same wheel version. If either or both of the final two samples fail, then the application for approval of the replacement wheel shall be rejected."

Necessary tests: ..."

Annex 7:

Paragraph 1., amend to read:

"In the rolling test the stress on the wheel when driving straight ahead is simulated by testing a wheel rolling against a drum which has a minimum outside diameter of 1,7 m, in the case of an external rolling test, or a minimum internal diameter equal to the dynamic radius of the tyre divided by 0,4 in the case of an internal rolling test. Two wheels shall be tested.

In the case of a negative test, due to material failures, it can be compensated by two positive tests of the same wheel version. If either or both of the final two samples fail, then the application for approval of the replacement wheel shall be rejected."

Paragraph 3., the table, replace "M₁ and M₁ G" by "M₁, M₁ G, N₁ and N₁ G."

Paragraph 3. footnote 1, amend to read:

Footnote 1: **Only for** steel disc wheels.

Annex 8.

Paragraph 1., amend to read:

"1. Test description

The fracture behaviour of the wheel striking an object at the outer rim flange shall be checked at critical positions. For proof of adequate fracture behaviour, an impact test according to ISO 7141:2005 shall be carried out.

In the case of a negative test, due to material failures, it can be compensated by two positive tests of the same wheel version. If either or both of the final two samples fail, then the application for approval of the replacement wheel shall be rejected."

Paragraph 3., amend line 1 and line 2 of the table, to read:

".....

	M₁ , N₁ ,M₁ G and N₁G
Procedure and requirements	ISO 7141: 2005

....."

Annex 10.

Paragraph 1.2., amend to read:

"1.2. Vehicle characteristics

Those vehicle characteristics should be listed that distinctly describe the vehicle type and version for which the wheel will be used. Thereby, depending on the restriction of the range of application of various markets with respect to certain vehicle versions and variants, various specification characteristics are possible.

Absolutely required are the data of:

- (a) Vehicle manufacturer;
- (b) Vehicle type:

Additional optional data, e.g.:

- (c) Vehicle approval number; (if applicable variant/ version)
- (d) Engine performance (also possible range of performance).

Other specification characteristics / restrictions may also be used."

B. JUSTIFICATION

- Ad paragraph 1.: The range of application of the regulation will be extended to vehicles of category N₁G, that as a rule are identical in construction with regard to (the technical equipment of) vehicles of category N₁.
- Ad paragraph 2.2.8.: Editorial modification.
- Ad paragraph 4.5.: Editorial modification.
- Ad paragraph 5.1.5.: Editorial modification.
- Ad paragraph 6.8.: Editorial modification of the proposal from OICA.
- Annex 2 Editorial modification.
- Annex 3 Editorial modification.
- Annex 5 Editorial modification.
- Annex 6 Editorial modification for clarification of the technical background.
- Annex 7 Editorial modification for clarification of the technical background. Passenger cars are not defined in Annex 7 to the Consolidated Resolution on the Construction of Vehicles (R.E.3) (document TRANS/WP.29/78/Rev.1/Amend.2).
- Annex 8 Editorial modification for clarification of the technical background.
- Annex 10 Split of paragraph 1.2. Editorial modification, useful additional data given by the approval authorities. (To the comparison see the same type approval procedure with the ECE - R 90)
