

Proposal for amendments to UN Regulation No. 124

The text reproduced below has been prepared by the expert from Germany in order to adapt UN Regulation No. 124 to the current requirement connected with granting of type-approvals. The modifications to the current text of the Regulation are marked in bold for new characters.

I. Proposal

1.) Amend Paragraph 1 to read:

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

It does not apply to original equipment wheels or vehicle manufacturer's replacement wheels as defined in paragraphs 2.3. and 2.4.1. It does not apply to "Special wheels", as defined in paragraph 2.5., which shall remain subjected to national approval.

It does not apply to wheels with less than three wheel fixing components (studs or nuts) which are not identical replacement wheels.

This Regulation comprises requirements for wheel manufacture and installation."

2.) Amend Annex 6, Paragraph 4 to read:

"Necessary tests:

Number of wheels to be tested	Rotating bending test	
	Short test	Long test
Minimum PCD	1	1
Maximum PCD	1	1
If only one PCD	2	2
If a type comprises more than two versions with different PCD, additional tests on each versions with PCD different to tested version:		
PCD difference to a tested version $\leq 6,5$ mm	-	-
PCD difference to a tested version $> 6,5$ mm	1	1
Insert variation up to 2 mm	--	--
From 2 mm to 5 mm	1	--
> 5 mm	1	1

3.) Amend Annex 6, Paragraph 6.5 to read:

6.5. The replica replacement wheels and pattern part replacement wheels shall satisfy the following tests:

As an alternative to the test specifications in paragraph 6.5.1.1, the endurance life of replica replacement wheels can be proven in comparison to the endurance life of the vehicle manufacturer's replacement wheels.

The rotation bending tests on two load levels have to be performed according annex 6 as well as rolling test according to annex 7. These tests have always to be performed in comparison of the replica replacement wheels to the vehicle manufacturer's replacement wheels until the required limits or failure of the wheels.

Replica replacement wheels must achieve in every level at least the results or better of the vehicle manufacturer's replacement wheels.

The tests requirements of the vehicle manufacturer regarding vehicle manufacturer's replacement wheels can be applied instead of test requirement 6.5.1.1. . These testing requirements have to be disclosed in order to enable the verifiability. The assignment to the wheel load released by the vehicle manufacturer must be given.

II. Justification

1.) Pertaining to amendment of *Paragraph 1: SCOPE*

The current Regulation doesn't describe any suitable procedures to assess the relevant characteristics of special wheel attachments (such as central lock wheel nuts). Special test procedures may be necessary but are not described in the Regulation. For lack of test procedures special wheel attachment systems have to be excluded from the scope of the Regulation. To do this it is suggested to allow only wheel attachment with three or more fixing components (nuts or studs) in the scope of the Regulation.

2.) Pertaining to amendment of *Annex 6, Paragraph 4, second table*

If a wheel type comprises more than two versions with different pitch circle diameter (PCD) under special conditions it may be enough to carry out the rotating bending test with the versions having the minimum and maximum PCD. Following the Regulation as it is currently valid this always will be the case if there is no other reason to require additional tests. One reason for an additional test may for instance be that the insert of the versions differ more than 2 mm.

A wide difference of the PCD of the tested versions may result in a wide difference of PCD of tested and untested versions. For safety reasons it is necessary to restrict that difference. To do so it is suggested to carry out additional rotating bending tests on each version with a PCD difference to a

tested version of more than 6.5 mm. The value of 6.5 mm is taken from the German national regulation regarding type approvals for special wheels.

3.) Pertaining to amendment of *paragraph 6.5*

Replica wheels need to achieve at minimum the level of the vehicle manufacturer's replacement wheels. With this comparative test the minimum performance level is verified as described in 2.4.3.

4.) Transitional Provisions

The modifications above are suggested to underline the current stipulations in order to avoid misinterpretations. For this reason transitional provisions are not deemed to be necessary.
