

Proposal for Amendment 3 to gtr No.9 (Pedestrian safety)

A) Proposal

Insert new paragraph 3.23., to read:

"3.23 "Primary reference marks" means holes, surfaces, marks and identification signs on the vehicle body. The type of reference mark used and the vertical (Z) position of each mark relative to the ground shall be specified by the vehicle manufacturer according to the running conditions specified in paragraph 3.22. These marks shall be selected such as to be able to easily check the vehicle front and rear ride heights and vehicle attitude.

If the primary reference marks are found to be within ± 25 mm of the design position in the vertical (Z) axis, then the design position shall be considered to be the normal ride height. If this condition is met, either the vehicle shall be adjusted to the design position, or all further measurements shall be adjusted, and tests performed, to simulate the vehicle being at the design position."

Paragraphs 3.23 to 3.31., renumber as paragraphs 3.24. to 3.32.

B) Justification

[To cover tolerances in built-up, adjustment and alignment of a test vehicle in actual testing it recommended to include the concept of the primary reference marks, which is already defined in Part A of gtr9 also into in Part B of gtr9.

The definitions shall give clear guidelines and definitions needed to be able to perform the approval test during the type approval of vehicles and verification testing for self certification. The proposed definitions for test vehicles are already incorporated in applicable regulative language for pedestrian protection.]

The text of the gtr no. 9 relevant for this proposal is given below:

Part A, Chapt. 5., (e) Vehicle design position

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“61. As vehicles come in many variants and modifications, the ride height may vary greatly. Taking into account the differences between type approval and self certification, it is recommended that Contracting Parties take this into account upon national implementation of the gtr. As guidance to Contracting Parties, the EU addresses this issue by defining the concept of "primary reference marks". This definition (paragraph 2.2 of EU Commission Decision of 23 December 2003) reads:

"Primary reference marks" means holes, surfaces, marks and identification signs on the vehicle body. The type of reference mark used and the vertical (Z) position of each mark relative to the ground shall be specified by the vehicle manufacturer according to the running conditions specified in paragraph 2.3. These marks shall be selected such as to be able to easily check the vehicle front and rear ride heights and vehicle attitude.

62. If the primary reference marks are found to be within ± 25 mm of the design position in the vertical (Z) axis, then the design position shall be considered to be the normal ride height. If this condition is met, either the vehicle shall be adjusted to the design position, or all further measurements shall be adjusted, and tests performed, to simulate the vehicle being at the design position.”

Remarks:

Current Level of GTR9 (UN Website):

GTR-9	ECE/TRANS/180/Add.9
Appendix to gtr No. 9	ECE/TRANS/180/Add.9/Appendix.1
Corrigendum 1 to gtr No. 9	ECE/TRANS/180/Add.9/Corr.1
Amendment 1 to gtr No. 9	ECE/TRANS/180/Add.9/Amend.1
Appendix to Amendment 1 to gtr No. 9	ECE/TRANS/180/Add.9/Amend.1/Appendix 1
Corrigendum 2 to gtr No. 9	ECE/TRANS/180/Add.9/Corr.2

Amendment 2 of GTR9 – pending, refer to GRSP-52-27

ECE/TRANS/WP.29/AC.3/31 contains Amendment 2 of gtr9, submitted by expert of Netherlands;

GRSP-51-33 Rev 1 contains amendments/modifications;
submitted by expert of European Commission;

Both proposals are summarized by ECE/TRANS/WP.29/GRSP/2012/14

Differences in seat adjustment / load distribution:

Due to the definition of the normal ride attitude the empty vehicle (mass in running order) is loaded with 68 kg at the front seats (driver and passenger seat) and 7 kg in the luggage compartment, which differs from the hitherto definition in EC 78/2009.

ECE/TRANS/180/Add.9

3.22. "Normal ride attitude" means the vehicle positioned on a flat horizontal surface with its mass in running order (as defined in Annex 3, paragraph 3 of Special Resolution No. 1), with the tyres inflated to manufacturer recommended pressures, the front wheels in the straight-ahead position and with a passenger mass (as defined in Annex 3, paragraph 6.2. of Special Resolution No. 1) placed on the front passenger seat. The front seats are placed at the nominal mid-track position. The suspension shall be set in normal running condition as specified by the manufacturer for a speed of 40 km/h.

Special Resolution No.1

3. "Mass in running order" means the nominal mass of a vehicle as determined by the following criteria:

Sum of unladen vehicle mass and driver's mass. The driver's mass is applied in accordance with paragraph 6.1. below.

In the case of category 1-2 vehicles, additional crewmembers for which seating positions are provided shall be included, their mass being equal to, and incorporated in the same way as, that of the driver.

6. Occupant mass

6.1. "Driver Mass" means the nominal mass of a driver that shall be 75 kg (subdivided into 68 kg occupant mass at the seat and 7 kg luggage mass in accordance with ISO standard 2416–1992).

6.2. "Passenger mass" means the nominal mass of a passenger that shall be 68 kg except:

in the case of Category 1-1 vehicle, where each passenger must additionally have 7 kg provision for luggage which shall be located in the luggage compartment(s) in accordance with ISO standard 2416–1992.

in the case of category 1-2 vehicles not designed to carry standing passengers, where each passenger must have 3 kg additional provision for hand baggage.