

**Economic and Social Council**Distr.: General
10 July 2015

Original: English

Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on General Safety Provisions****109th session**

Geneva, 29 September – 2 October 2015

Item 18 of the provisional agenda

**Consolidation Resolution on the
Construction of Vehicles (R.E.3)****Proposal for amendments to the Consolidated Resolution on the
Construction of Vehicles****Submitted by the expert from the International Motorcycle
Manufacturers Association***

The text reproduced below was prepared by the expert from the International Motorcycle Manufacturers Association (IMMA) to update the Consolidated Resolution on the Construction of Vehicles (R.E.3). The proposal introduces the definition of "*twinned wheels*" and is based on the discussion of informal document GRSG-108-18 distributed during the 108th session of the Working Party on General Safety Provisions (GRSG) (see report ECE/TRANS/WP.29/GRSG/87, para. 57). The modifications to the current text of R.E.3 (ECE/TRANS/WP.29/78/Rev.3) are marked in bold characters.

* In accordance with the programme of work of the Inland Transport Committee for 2012–2016 (ECE/TRANS/224, para. 94 and ECE/TRANS/2012/12, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

I. Proposal

Insert a new paragraph 1.11., to read:

"1.11. "Twinned wheels" means two wheels mounted on axles on the same line and arranged symmetrically from the vehicle centre which are considered to be one wheel, whereby the distance between the centres of their areas of contact with the ground is equal to or less than 460 mm.

If a motor cycle has "twinned wheels", it shall be constructed to turn with part or all of the wheels and vehicle body inclined."

II. Justification

1. The proposal aims at aligning the definitions in R.E.3 with those used in Europe (2002/24/EC (Whole Vehicle Type Approval), Regulation (EU) No.168/2013), Australia (ADR - PART B) and Japan (Road Transport Vehicle Act 2009.10.24).

2. Supporting information:

a. *2008-32-0061 (SAE) / 20084761 (JSAE) Comparison Between Experimental and Numerical Handling Tests for a Three-Wheeled Motorcycle.* In this paper the handling behavior of the three-wheeled motor scooter (Piaggio MP3) was investigated on the basis of experimental tests and simulation. The analyses of the results and previous experience confirmed that the analyzed vehicle is driven very much like an ordinary two-wheeler.

b. *Public comments regarding the Amendment of the Road Transport Regulation in Japan:* A total of 19 proficiency test officers and motorcycle police riders had tested a vehicle equipped with "twinned wheels". They concluded that it is the same or close to two-wheeled motor vehicles.

c. Piaggio introduced the MP3 in 2006 in the United States of America. This motor vehicle has two independently suspended front wheels with the centre of the tire contact patches of 420 mm (16.5 inches) apart and one rear wheel. In the United States, the Piaggio MP3 meets the definition of "motorcycle" under U.S. DoT regulation [motorcycle means a motor vehicle with motive power having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground (49 CFR Part 571) and under nearly every state law]. The Motorcycle Safety Foundation (MSF) concluded from its testing of the vehicle that the MP3 should be treated as a two-wheeled motorcycle for purposes of training and testing.

http://members.modernvespa.net/funkymonkey/uploads/msfpositiononpiaggiomp3_jan2008_512.pdf

