

## **Proposal for an amendment to the Consolidated Resolution on the Construction of Vehicles (R.E.3)**

The text reproduced below was prepared by the expert from International Motorcycle Manufacturers Association (IMMA) for updating the UN Consolidated Resolution on the Construction of Vehicles (UN R.E.3) (document ECE/TRANS/WP.29/78/Rev.3). The proposal introduces the definition of "*twinned wheels*". The modifications to the current text are marked in bold for new and strikethrough for deleted characters.

### **I. Proposal**

*Introduce under Definitions of vehicles a new paragraph 1.11., to read:*

"1. Definitions of vehicles

.....

**1.11. "*Twinned wheels*" means two wheels mounted on the same axle, the distance between centres of their areas of contact with the ground being equal to or less than 460 mm. Twinned wheels shall be considered as one wheel."**

### **II. Justification**

1. The proposal updates and harmonizes UN R.E.3 with the specifications as in use in Europe (2002/24/EC (WVTA), 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 it is the same or close to two-wheeled motor vehicles.
  - c. Piaggio introduced the MP 3 in 2006 in the United States. 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 MP 3 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/msfpositiononpiaggio.mp3\\_jan2008\\_512.pdf](http://members.modernvespa.net/funkymonkey/uploads/msfpositiononpiaggio.mp3_jan2008_512.pdf)

