

29 January 2008

GLOBAL REGISTRY

Created on 18 November 2004, pursuant to Article 6 of the
AGREEMENT CONCERNING THE ESTABLISHING OF GLOBAL TECHNICAL
REGULATIONS FOR WHEELED VEHICLES, EQUIPMENT AND PARTS WHICH CAN
BE FITTED AND/OR BE USED ON WHEELED VEHICLES
(ECE/TRANS/132 and Corr.1)
Done at Geneva on 25 June 1998

Addendum

Global technical regulation No. 2

MEASUREMENT PROCEDURE FOR TWO-WHEELED MOTORCYCLES EQUIPPED
WITH A POSITIVE OR COMPRESSION IGNITION ENGINE WITH REGARD TO THE
EMISSION OF GASEOUS POLLUTANTS, CO₂ EMISSIONS AND FUEL
CONSUMPTION

(Established in the Global Registry on 22 June 2005)

Amendment 1 – Appendix 1

Proposal to amend global technical regulation No. 2 pursuant to Article 6, paragraph 6.4. of the Agreement

Proposal to amend global technical regulation No. 2 (Worldwide harmonized
motorcycle emission test cycle) (ECE/TRANS/WP.29/AC.3/19)



UNITED NATIONS

I. OBJECTIVE OF THE PROPOSAL

1. After the establishment into the Global Registry of gtr No. 2 in June 2005, the work on Stage 2 of the World-wide harmonized motorcycle emission test cycle (WMTC) started. AC.3 was informed about the continuation of the activities of the WMTC informal group (ECE/TRANS/WP.29/1039, para. 97; ECE/TRANS/WP.29/1041, para. 100). The following five issues will be considered in Stage 2 of WMTC:

A. Amendments of test cycle modules and classification in relation to additional in use data (e.g. India)

2. India is one of the biggest markets for motorized two wheelers in the world. The special situation in India (traffic, vehicles) leads to problems with the application of the existing WMTC cycle in gtr No. 2. WMTC doesn't reflect the Indian driving behaviour, and the current classification leads to problems with cycle-traceability for some of the Indian vehicle types.

3. Three reports are available from ARAI, TÜV Nord and JARI/IMMA. On this basis, the WMTC informal group considered the technical aspects and various possibilities. The outcome of the very intensive discussion was that a solution that meets the needs of all parties seems possible, taking the following principles into account:

1. Avoid options in the gtr, if possible.
2. Avoid fundamental differences to the existing cycles in gtr No. 2, if possible.
3. Focus on reduced speed parts of the existing cycle in gtr No. 2 for changes.
4. Identification of best possible distinguishing technical parameters for vehicle classification.

4. The Working Party on Pollution and Energy (GRPE) agreed at its fifty-third session to the proposal of the WMTC informal group, to introduce small modifications to some of the test cycle modules and classification (informal document Nos. GRPE-53-11 and GRPE-53-12). The adoption of these amendments of gtr No. 2 are an important condition to conduct further measurements for the collection of test data as basis for the discussion on performance requirements. The proposal was submitted with document ECE/TRANS/WP.29/GRPE/2007/9 to GRPE for adoption at the fifty-fourth GRPE session in June 2007.

B. Improvement of the gearshift procedure

5. Experience with the gearshift procedure of gtr No. 2 shows that some modifications and additional rules are required to avoid unrealistic gearshift sequences. They will improve driveability of the test significantly. The proposed amendments are included in document ECE/TRANS/WP.29/GRPE/2007/9.

C. Performance requirements

6. WMTC was adopted as gtr No. 2 without performance requirements in Stage 1. For Stage 2, the WMTC group was mandated to collect data and prepare information as a basis for the discussion about the introduction of performance requirements in gtr No. 2.

7. The WMTC informal group recommends focusing on only limit values in Stage 2. The discussion about the worldwide harmonization of other performance requirements like durability, off cycle emissions or evaporative emissions should be postponed to a subsequent Stage 3.

8. In line with the 1998 Agreement, Contracting Parties are preparing proposals for the introduction of gtr No. 2 as an alternative to the existing national/regional legislation. This set of limit values will be the basic information about the current legal situation regarding WMTC application. In parallel, IMMA has already collected comparative data and test results for a correlation study, based on technology and regulations that will be in use/force in 2006-08. This can be the basis for further discussion by Contracting Parties of a possible harmonization of limit values, aiming on a timeframe of 2010 – 2012.

9. For further progress in this field it is important to get additional correlation data from Contracting Parties and political guidance on exactly how individual Contracting Parties intend to act.

D. Introduction of a family concept

10. Some legislation of Contracting Parties already includes a family concept (e.g. United States of America) or the extension of type approval (e.g. the European Union (EU)). The introduction of a family concept in gtr No. 2 is proposed by IMMA. An engine or vehicle family is characterized by design parameters. These shall be common to all vehicles within the family. The engine manufacturer may decide, which vehicles belong to a family, as long as the membership criteria are respected. The engine family shall be approved by the type approval or certification authority.

E. Further improvement of gtr No. 2

11. Continued inventory of corrections/amendments to gtr No. 2 and to Appendix 1 (Technical Report).

II. TIMELINE OF STAGE 2

12. The work started in 2005, three meetings of the WMTC informal group took place in April 2006, November 2006 and January 2007.

13. The proposal to amend some of the test cycle modules and classification regarding in use data of countries with special traffic situation (e.g. India) is ready for adoption by AC.3 in November 2007, if GRPE adopts the proposal of document ECE/TRANS/WP.29/GRPE/2007/9 at its June 2007 session.

14. A proposal introducing the family concept will be prepared during 2007.

15. A first report on the introduction of performance requirements into gtr No. 2 will be presented to GRPE and AC.3 in 2008.
