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Item 2 of the provisional agenda

**REGULATION No. 28
(Audible warning devices)**

Proposal for amendments to Regulation No. 28

Submitted by the expert from the People's Republic of China ^{*/}

The text reproduced below was prepared by the expert from the People's Republic of China in order to review the provisions of Regulation No. 28 with regard to the sound pressure requirements for audible warning devices (AWD). It is based on a document without a symbol (informal document No. GRB-49-05) distributed at the forty-ninth session of the Working Party on Noise (GRB). The changes to the existing text of the Regulation are marked in bold characters.

^{*/} In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance performance of vehicles. The present document is submitted in conformity with that mandate.

A. PROPOSAL

Paragraphs 6.2.7. and 6.2.7.1., amend to read:

"6.2.7. Under the conditions set forth above:

- (a) **the sound pressure level weighted in accordance with curve A shall be at least 95 dB(A) and not greater than 118 dB (A) for AWDs intended principally for motor cycles with a power less than or equal to 7 kW;**
- (b) **the sound pressure level weighted in accordance with curve A shall be at least 105 dB(A) and not greater than 118 dB(A) for AWDs intended principally for vehicles of categories M and N, and motor cycles with a power greater than 7 kW.**

6.2.7.1. In addition, the total sound pressure in the frequency band 1,800 to 3,550 Hz shall be greater than that of any component of a frequency above 3,550 Hz."

B. JUSTIFICATION

This document raises some questions relating to Regulation No. 28. As China has a National Standard which is technically equivalent to Regulation No. 28, the expert from China seeks the advice of GRB with regard to the provisions on sound pressure levels in paragraphs:

"6.2.7. under the conditions set forth above, the sound pressure level weighted in accordance with curve A shall not exceed the following value:

- (a) 115 dB(A) for AWDs intended principally for motor cycles with a power less than or equal to 7 kW;
- (b) 118 dB(A) for AWDs intended principally for vehicles of categories M and N, and motor cycles with a power greater than 7 kW.

6.2.7.1. In addition, the sound pressure in the frequency band 1,800 to 3,550 Hz shall be greater than that of any component of a frequency above 3,550 Hz and in any event equal to or greater than:

- (a) 95 dB(A) for AWDs intended principally for motor cycles with a power less than or equal to 7 kW;
- (b) 118 dB(A) for AWDs intended principally for vehicles of categories M and N, and motor cycles with a power greater than 7 kW."

As specified in paragraph 6.2.7.1. above of Regulation No. 28, "the sound-pressure level in the frequency band 1,800 to 3,550 Hz shall be greater than 105 dB(A)". However, this requirement proved to be too high for AWDs to comply with.

In recent years, a larger number of tests have been conducted in China on AWDs produced by manufacturers all over the world. These tests results show that none of the AWDs, including those imported from Europe, passed the sound-pressure level requirements in the frequency band 1,800-3,550 Hz as specified in Regulation No. 28.

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