International Standard 6969

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Road vehicles — Sound signalling devices — Tests after mounting on vehicle

Véhicules routiers — Avertisseurs sonores — Essais après montage sur le véhicule

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 6969 was developed by Technical Committee ISO/TC 22, *Road vehicles*, and was circulated to the member bodies in December 1979.

It has been approved by the member bodies of the following countries :

Austria	India	Romania
Belgium	Italy	South Africa, Rep. of
Brazil	Korea, Dem. P. Rep. of	Spain
Bulgaria	Korea, Rep. of	Sweden
Egypt, Arab Rep. of	Mexico	United Kingdom
France	New Zealand	USSR
Germany, F.R.	Poland	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Netherlands
USA

Printed in Switzerland

Road vehicles — Sound signalling devices — Tests after mounting on vehicle

1 Scope and field of application

This International Standard specifies the testing of sound signalling devices conforming to ISO 512 to be carried out after mounting on the vehicle.

The following specifications apply exclusively to the testing of acoustical properties of sound signalling devices mounted on new types of road vehicle.

2 References

ISO 512, *Road vehicles — Sound signalling devices — Technical specifications.*[1)]

ISO 3833, *Road vehicles — Types — Terms and definitions.*

IEC Publication 51, *Recommendations for direct acting indicating electrical measuring instruments and their accessories.*

IEC Publication 179, *Precision sound level meters.*

IEC Publication 225, *Octave, half-octave and third-octave band filters intended for the analysis of sounds and vibrations.*

3 Measuring apparatus

The measurement of sound pressure levels shall be made using a sound level meter conforming to IEC Publication 179.

When a device for protection against wind is used, its effect on the measuring accuracy is to be taken into account according to the indications of the manufacturer.

The electrical measurements shall be made using instruments of the class 0.5 conforming to IEC Publication 51.

The measurements of length shall be made with a maximum error of 0,1 m.

4 Expression of results

The results of the measurements of the sound pressure levels shall be in relation to 2×10^{-5} Pa (N/m^2), weighted in accordance with curve A, and the results expressed in decibels (A).

5 Test conditions

5.1 Test site of vehicle and ambient conditions

The vehicle being placed on an open site as, for example, an open space of 50 m radius, the central part of which, being intended for the execution of the measurements, shall be practically horizontal over at least 20 m radius, covered with concrete, asphalt or any similar material, and be free from long grass, loose soil or ashes.

Measurements shall be taken in clear weather. No other person than the observer taking the readings on the meter shall stay in the vicinity of the sound signalling device or of the microphone, since the presence of bystanders may have an appreciable influence on the meter readings.

The ambient noise level within the entire range covered by frequencies of components of the sound emitted by the sound signalling device shall be at least 10 dB lower than the sound level of each of the components. However, this requirement is not applicable to components with a measured sound pressure level lower than 70 dB (A).

No measurements shall be carried out when the wind speed is greater than 5 m/s.

The ambient temperature during the measurements shall be between + 10 and + 30 °C.

Measurements shall be carried out with the fast time constant.

1) At present at the stage of draft. (Revision of ISO 512-1974.)