Akustika. Mehhanismide ja seadmete müra. Juhised müra katse-eeskirja väljatöötamiseks ja esitamiseks

Acoustics - Noise emitted by machinery and equipment - Rules for the drafting and presentation of a noise test code

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 12001:2009 sisaldab Euroopa standardi EN ISO 12001:2009 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 12001:2009 consists of the English text of the European standard EN ISO 12001:2009.
Standard on kinnitatud Eesti Standardikeskuse 30.10.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 30.10.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 19.08.2009.	Date of Availability of the European standard text 19.08.2009.
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English Version

Acoustics - Noise emitted by machinery and equipment - Rules for the drafting and presentation of a noise test code (ISO 12001:1996)

Acoustique - Bruit émis par les machines et équipements - Règles pour la préparation et la présentation d'un code d'essai acoustique (ISO 12001:1996)

Akustik - Geräuschabstrahlung von Maschinen und Geräten - Regeln für die Erstellung und Gestaltung einer Geräuschmeßnorm (ISO 12001:1996)

This European Standard was approved by CEN on 3 August 2009.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

The text of ISO 12001:1996 has been prepared by Technical Committee ISO/TC 43 “Acoustics” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 12001:2009 by Technical Committee CEN/TC 211 “Acoustics” the secretariat of which is held by DS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2010, and conflicting national standards shall be withdrawn at the latest by January 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 12001:1996.

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Endorsement notice

The text of ISO 12001:1996 has been approved by CEN as a EN ISO 12001:2009 without any modification.

Introduction

In the determination, declaration and verification of noise emission values for specific types of machinery and equipment, standardized noise test codes are required for many purposes.

Several basic International Standards dealing with the noise emitted by machinery and equipment exist. In order to prepare a noise test code for a specific family of machinery or equipment, it is necessary to select the most appropriate basic documents and to establish additional requirements for that family (e.g. installation and mounting conditions, operating conditions, measurement positions, noise declarations, information to be recorded and reported, etc.).

A noise test code is a standard for a specific family, sub-family or type of machinery or equipment. Such a code gives all the information necessary to carry out as efficiently as possible the determination, declaration and verification of the noise emission characteristics of the machine under test. This International Standard specifies what information is necessary for the preparation of noise test codes.

Acoustics — Noise emitted by machinery and equipment — Rules for the drafting and presentation of a noise test code

1 Scope

This International Standard specifies the technical requirements of a noise test code for a specific family of machinery or equipment. It is primarily applicable to stationary machinery and equipment, including hand-held tools, as well as those that present hazards due to mobility or load lifting.

The purpose of a noise test code is to permit comparable test results to be obtained on the noise emissions of machines from the same family, thus enabling users to make comparisons and to check the declared noise emission data. The quantities described in a noise test code are also useful for noise specifications in private contracts, for planning and for noise reduction purposes.

Specific test codes for various types of machinery and equipment are established and used in accordance with the requirements of basic International Standards. Standardized noise test codes give detailed requirements on mounting, loading and operating conditions for the particular family to which the machinery under test belongs, as well as the location of a work station(s) and other specified positions (if any).

The purpose of this International Standard is to assist technical standardization committees responsible for specific families of machinery or equipment in preparing noise test codes to ensure that such noise test codes

— are as homogeneous as possible, with each individual test code having the same basic structure;

— are in full accordance with basic standards on measurement, declaration and verification of noise emissions; and

— reflect the latest technical knowledge of methods of determining the noise emissions from the specific family of machinery or equipment under consideration.

NOTE 1 Annex A lists the basic International Standards to be used in the drafting of a noise test code. An outline of a typical noise test code summarizing the information that is required is given in annex B. Noise emission quantities are described in annex C.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3740:1980, *Acoustics — Determination of sound power levels of noise sources — Guidelines for the use of basic standards and for the preparation of noise test codes.*

ISO 3741:—[1)], *Acoustics — Determination of sound power levels of noise sources using sound pressure — Precision methods for reverberation rooms.*

1) To be published. (Revision of ISO 3741:1988 and ISO 3742:1988)

ISO 3743-1:1994, *Acoustics — Determination of sound power levels of noise sources — Engineering methods for small, movable sources in reverberant fields — Part 1: Comparison method for hard-walled test rooms.*

ISO 3743-2:1994, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering methods for small, movable sources in reverberant fields — Part 2: Methods for special reverberation test rooms.*

ISO 3744:1994, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering method in an essentially free field over a reflecting plane.*

ISO 3745:1977, *Acoustics — Determination of sound power levels of noise sources — Precision methods for anechoic and semi-anechoic rooms.*

ISO 3746:1995, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Survey method using an enveloping measurement surface over a reflecting plane.*

ISO 3747:1987, *Acoustics — Determination of sound power levels of noise sources — Survey method using a reference sound source.*

ISO 4871:1996, *Acoustics — Declaration and verification of noise emission values of machinery and equipment.*

ISO 9614-1:1993, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 1: Measurement at discrete points.*

ISO 9614-2:1996, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 2: Measurement by scanning.*

ISO 11200:1995, *Acoustics — Noise emitted by machinery and equipment — Guidelines for the use of basic standards for the determination of emission sound pressure levels at a work station and at other specified positions.*

ISO 11201:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Engineering method in an essentially free field over a reflecting plane.*

ISO 11202:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Survey method in situ.*

ISO 11203:1995, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions from the sound power level.*

ISO 11204:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Method requiring environmental corrections.*

IEC 651:1979, *Sound level meters,* and Amendment 1:1993.

IEC 804:1985, *Integrating-averaging sound level meters,* and Amendment 1:1989 and Amendment 2:1993.

IEC 1043:1993, *Electroacoustics — Instruments for the measurement of sound intensity — Measurement with pairs of pressure sensing microphones.*

IEC 1260:1995, *Electroacoustics — Octave-band and fractional-octave-band filters.*

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 basic noise emission standard (B-type standard): Standard which specifies the procedure for determining the noise emission of machinery and equipment in such a way as to obtain reliable, reproducible results with a specified degree of accuracy.

3.2 noise test code (C-type standard): A standard that is applicable to a particular class, family or type of machinery or equipment, which specifies all the information necessary to carry out efficiently the determination, declaration and verification of the noise emission characteristics under standardized conditions.

3.3 emission: Airborne sound radiated by a well-defined noise source (e.g. the machine under test) under specified operating and mounting conditions.

NOTE 2 Emission values may be incorporated in a product label and/or product specification. The basic noise emission quantities are the sound power level of the source itself and the emission sound pressure levels at a work station and/or at other specified positions (if any) in the vicinity of the source.