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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 17248.5-2018

Replacing GB/T 17248.5-1999

**Acoustics -- Noise emitted by machinery and equipment -- Determination of
emission sound pressure levels at a workstation and at other specified positions
applying accurate environmental corrections**

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Foreword

GB/T 17248 "Noise emitted by acoustic machines and equipment" includes the following six parts.

---Guidelines for the use of basic standards for measuring sound pressure levels at work locations and other designated locations (GB/T 17248.1);

--- Approximate free-field measurement of the operating position and other specified positions of the sound pressure level can be ignored above a reflective surface (GB/T 17248.2);

---Approximate environmental correction to determine the sound pressure level of the working position and other specified locations (GB/T 17248.3);

--- Determine the sound pressure level of the working position and other specified positions by the sound power level (GB/T 17248.4);

---Accurate environmental correction to determine the sound pressure level of the working position and other specified locations (GB/T 17248.5);

--- Sound intensity method on-site measurement of working position and other specified locations to launch sound pressure level engineering method (GB/T 17248.6).

This part is the fifth part of GB/T 17248.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces GB/T 17248.5-1999 "Noise working position and other specified position emission emitted by acoustic machines and equipment

Sound environment measurement environment correction method. Compared with GB/T 17248.5-1999, the main technical changes are as follows.

--- Added some background noise criteria (see 5.4);

--- Increased the assessment of measurement uncertainty (see Chapter 11).

This section uses the translation method equivalent to ISO 11204.2010 "acoustic machines and equipment emitted noise using accurate environmental corrections

Determine the sound pressure level of the launch at the working position and other specified locations.

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

---GB/T 3241-2010 Electroacoustic octave and fractional octave filter (IEC 61260.1995, MOD)

---GB/T 3767-2016 Acoustic sound pressure method for the determination of noise source sound power level and sound energy level reflection surface above the approximate free field

Engineering method (ISO 3744.2010, IDT)

---GB/T 3768-2017 Acoustic sound pressure method for the determination of noise source sound power level and sound energy level using the envelope above the reflection surface

Simple method of measuring surface (ISO 3746.2010, IDT)

---GB/T 6379 (all parts) Accuracy of measurement methods and results (correctness and precision) [ISO 5725 (all parts)]

---GB/T 19052-2003 Guidelines for the drafting and presentation of noise and noise test specifications for acoustic machines and equipment

(ISO 12001.1996, IDT)

This section has made the following editorial changes.

--- Added note in Table B.1. It is recommended to use caution for individual parameters in the table (see Table B.1 in Appendix B).

This part was proposed by the Chinese Academy of Sciences.

This part is under the jurisdiction of the National Acoustic Standardization Technical Committee (SAC/TC17).

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Introduction

GB/T 17248 (corresponding to ISO 11200 [15] ~ ISO 11205 [19]) is a series of standards, this standard specifies measuring machines and equipment

Various methods of transmitting sound pressure levels in nearby working locations and other designated locations. How to select the test machine equipment to emit sound pressure level

The specific method, the first part of GB/T 17248 gives the guiding principle. This part is the fifth part of GB/T 17248, which specifies the test.

Various methods of measuring sound pressure levels at working locations and other specified locations near machines and equipment.

The method specified in this section differs from ISO 11201 [16] in the application of local environmental corrections, and is used in accordance with ISO 11202 [17].

Accurately measure the emitted sound pressure level on the reference measurement surface to determine the difference in the directivity of the sound radiation of the machine under test. To meet the test environment

It is necessary to measure the acoustic characteristics of the test chamber and to determine the local environmental correction suitable for the measured sound pressure level. Use the methods specified in this section,

The measurement results obtained are level 2 accuracy (engineering level) or level 3 accuracy (simple level).

The methods specified in this section are generally applicable to on-site measurements. There is no need to assume acoustic radiation or sound source direction because the sound pressure on the envelope is measured.

The direction is determined at the level, and the accuracy level obtained under the existing conditions is engineering grade or simple grade.

Usually the sound pressure level generated by a machine or equipment operating in a normal environment is less than or equal to the sound pressure level generated by the sound pressure level.

The effects of background noise and the effects of other reflected noise in addition to the ground reflections placed on the machine under test are excluded. For machines in the workshop

Determination or calculation of sound pressure level at the operator's position during operation, sound power level and sound pressure level (and information related to shop characteristics or reflections and

All noise from other sources or machines needs to be obtained. For the calculation method of the sound pressure level near a machine running separately in the workshop, see

ISO /T R11690-3 [20], generally the difference between the two is 1dB~5dB, and the difference will be even greater in extreme cases.

Noise emitted by acoustic machines and equipment

Accurate environmental correction to determine working position and other designations

Positional sound pressure level

1.1 Overview

This part of GB/T 17248 specifies the measuring machine in the working position and other specified locations nearby in an environment that meets certain requirements.

A method for transmitting sound pressure levels by devices and equipment (see Appendix D for method principles). The working position is where the operator is located, it can be located

Open space, in the workshop where the tested sound source is running, in the operating room fixedly connected to the measured sound source or in the enclosed space away from the sound source. Other finger

The location can be located near the work location, or near the person/unattended machine, and sometimes these locations are referred to as bystanders.

The transmitted sound pressure level can be measured by A weighting, and if necessary, the band sound pressure level and the C weighted peak sound pressure level can be used according to this part.

measuring.

Note 1. ISO 11200 [15] gives a general overview of the contents of ISO 11200 [15] ~ ISO 11205 [19].

This section gives a method for determining the local environmental correction value (specifying its allowable maximum value), which is used to determine the emission sound pressure level.

The effect of the reflective surface outside the plane on which the sound source is placed is excluded. The correction value and the average sound pressure level of the measurement surface, the specified position measurement