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

GB/T 25612-2010

Replacing GB/T 16710.2-1996

**Earth-moving machinery -- Determination of sound power level
-- Stationary test conditions**

土方机械 声功率级的测定 定置试验条件

(English Translation)

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Foreword

This standard is identical with ISO 6393:2008 "Determination of sound power levels of earthmoving machinery set-Test Conditions" (in English).

This standard is equivalent translation ISO 6393:2008.

For ease of use, the standard ISO 6393:2008 made the following editorial changes.

- The "this International Standard" be replaced by "this standard";
- Instead of using the decimal point as a decimal point " , " . " , " ;
- Delete foreword international standards;
- To ISO 6393:2008 international standard referenced with international standards have been adopted in place of the corresponding standard;
- GB/T 14574-2000 moved to Chapter 2 Normative references from the reference.

This standard is GB/T 16710.2-1996 "machinery set-determination under the test conditions of exterior noise," the amendment.

This standard compared with GB/T 16710.2-1996, the main changes are as follows.

- Standard name from "Under Construction Machinery stationary test conditions of exterior noise measurement" to "sound power levels of earthmoving machinery Determination of set test conditions";
- Increased introduction, Appendix A, Appendix B and references;
- Expanding the applicable standards earthmoving machinery type.

Original standard applies to four types of machines. excavators, bulldozers, loaders, backhoe loaders.

Now the machine is applicable for the 11 categories. bulldozers, loaders, backhoe loaders, excavators, dump trucks, scrapers, motor grader, pipelayer Machine, trencher, landfill compactors, rollers.

- Increased in relation to machine the engine or hydraulic system fan speed;
- Test environment, climatic conditions increase the requirements;
- Increased when the test machine's basic length l is greater than 8m, hemispherical radius of provisions;
- On the A-weighted sound power level calculation, when hemispherical radius of 16m, is amended as $10\lg SS = 32.1\text{dB}$;
- Marking an increase of acoustic emission values and uncertainty.

This standard replaces GB/T 16710.2-1996.

The Standard Annexes A and B are normative appendix.

The standard proposed by China Machinery Industry Federation.

This standard by the national earthmoving machinery Standardization Technical Committee (SAC/TC334) centralized.

Introduction

This standard is specific testing procedures for earth-moving machinery GB/T 8498 definition.

Special testing procedures of this standard provides specific test procedures can be set in a given test conditions in a repeatable conditions Determination of sound power Emission rate. Manufacturer's product should be fitted with attachments (buckets, blades, etc.), these attachments are in actual use the machine most likely Energy configuration.

The standard machine can be used to determine compliance with noise limits, noise reduction can also be used to evaluate the study.

GB/T 25613 "moving machinery - Determination of emission sound pressure level position of set test conditions" as another supplementary testing procedures, this A special test procedures used to determine the weighted sound pressure level at the location of the driver in the stationary test conditions emitted by earth-moving machinery noise.

GB/T 25614 "Earth-moving machinery - Determination of sound power level - Dynamic test conditions" and GB/T 25615 "moving machinery position Determination of emission sound pressure levels Dynamic test conditions "were provided for under dynamic test conditions, environmental noise emission and noise at the location of the driver the respective measurement methods.

Determination of sound power levels of earthmoving machinery Stationary test conditions

1 Scope

This standard specifies the machine set-up does not move, the rated engine speed empty load operation conditions, earthmoving machinery noise emission to the environment Determination of A-weighted sound power level.

This standard applies to GB/T 8498 and earth-moving machinery as defined in Appendix A requirements.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/Determination of sound power levels of noise sources reflecting plane free field engineering law (eqv T 3767-1996 Acoustics sound pressure ISO 3744:1994) GB/T 8498 Earth - moving machinery - Basic types - Identification and terms and definitions (GB/T 8498-2008, ISO 6165:2006, IDT) GB/T 14574-2000 Acoustics Declaration and verification of noise emission values \u200b\u200b of machinery and equipment of (eqv ISO 4871:1996) GB/T 16936 earthmoving machinery net engine power test specification (GB/T 16936-2007, ISO 9249:1997, MOD) IEC 61672-1:2002 electric acoustic sound level meters - Part 1. Specification

3 Terms and Definitions

GB/T 3767 and GB/T 8498 and established the following terms and definitions apply to this standard.

Time average A-weighted sound pressure level

time-averaged A-weighted sound pressure level $L_{pA, T}$ Over the entire measurement time T , A-weighted sound pressure level by averaging the energy.

A-weighted sound power level A-weighted sound power level L_{WA} on the measuring surface, according to the average energy of the time-averaged A-weighted sound pressure level obtained amount.

Basic length Measure used to define the length of the radius of the hemispherical surface.

Note: Appendix A determines the size of the basic length l .

3.4 Machine center

3.4.1

Machine center machine centre point longitudinal center line of the machine, the basic length l of the midpoint.