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

GB/T 21155-2015

Replacing GB/T 21155-2007

**Earth-moving machinery -- Machine-mounted audible travel
alarms and forward horns -- Test methods and performance
criteria**

土方机械 行车声响报警装置和前方喇叭 试验方法和性能准则

(English Translation)

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Table of Contents

Foreword

1 Scope

2 Normative reference documents

3 Terms and definitions

Foreword

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

This standard replaces GB/T 21155-2007 "earthwork machinery forward and backward sound alarm sound test method", this standard and GB/T 21155-2007 compared to the editorial changes in the main technical changes are as follows.

- the addition and deletion of the relevant normative reference documents (see Chapter 2, Chapter 2 of the 2007 edition);
- a number of terms and definitions have been added (see Chapter 3, Chapter 3 of the 2007 edition);
- modified the accuracy requirements of the instrument (see Chapter 4, Chapter 4 of the 2007 edition);
- modify or increase the test site, ambient temperature, wind speed and other test environmental conditions (see Chapter 5, 2007 edition of Chapter 5);
- machine preparation, increased voltage, cooling system fan speed, working device and accessories, driver position (heating, ventilation and air Tuning system, driver size and location, etc.) (see Chapter 6, Chapter 6 of the 2007 edition);
- test test points increased from 9 to 11; measurement items from the machine and the driver's position backwards alarm and forward alarm changed to Back alarm, traffic alarm and front speakers, and the alarm test is divided into fixed sound level alarm and self-adjusting sound level alarm two Class; an optional one-third octave method is added (see Chapter 7, Chapter 7 of the 2007 edition);
- Adjusted the assessment criteria and increased the criteria for the evaluation of self-adjusting sound level alarms (see 7.4, 7.4 of 2007);
- Added backwards alarm, front speakers and driving alarm opening requirements (see Chapter 8);
- Added 1/3 octave test method and reference for external alarm test devices, driving

alarms and backwards alarms (see Appendix B, Appendix C and references).

This standard uses the translation method equivalent to ISO 9533.:2010 "earthmoving machine sound alarm device and front speaker test side Law and performance guidelines ".

And the normative reference in this standard international documents are consistent with the relationship between China's documents are as follows.

--- GB/T 8420-2011 Earthmoving machinery The size of the driver and the minimum space for the driver (ISO 3411.:2007, IDT);

Earth - based machinery - Basic types - Identification, terminology and definitions (ISO 6165.:2006, IDT); GB/T 8498-2008;

Earth - moving machinery - Dimensions and symbols - Part 1. Hosts (ISO 6746-1.:2003, IDT);

Electromagnetic sound level gauges - Part 1. Specifications (IEC 61672-1.:2002, IDT) GB/T 3785.1-2010.

This standard makes the following editorial changes to ISO 9533.:2010.

--- Note that the notes in Chapter 1 and 7.5.4 are deleted.

This standard is proposed by the China Machinery Industry Federation.

This standard is under the jurisdiction of the National Technical Committee for Standardization of Earthmoving Machinery (SAC/TC334).

This standard is responsible for drafting units. Xiamen Xiamen Engineering Machinery Co., Ltd., Tianjin Engineering Machinery Research Institute.

This standard participates in the drafting unit. Shandong Lingong Engineering Machinery Co., Ltd.

1 Scope

This standard specifies the ISO 6165 installed on the earthmoving machinery installed on the traffic alarm device and the front speakers, in the workplace operations and the road when the machine sound output performance of the static measurement methods and alarm opening requirements. This standard presents the practical test method theory and Performance criteria. This standard does not specify the installation of one or more traffic alarm devices or front speakers on a particular machine.

Nor does it specify laboratory tests for the functional and durability of the alarm device.

This standard applies to alarm devices and speakers mounted on earthmoving machinery.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article. For undated references, the latest edition (including all modifications) applies to this document.

ISO 3411 Earthmoving machinery The size of the driver and the driver's minimum space (Earth-moving machinery-Physical dimensions of operators and minimum operators space envelope)
ISO 6165 Earth-moving machinery-Basic types-Identification and terms and definitions)
ISO 6746-1 Earth machinery - Dimensions and symbols - Part 1. Earth - moving machinery - Definition of dimensions and codes-Part 1. Base machine)
IEC 61672-1 electroacoustics sound level meter - Part 1. Electroacoustics - Sound level meter - Part 1.

Specifications

3 Terms and definitions

The following terms and definitions apply to this document.

Machine reference body machine reference box MRB the minimum rectangular space of the set containment host (according to ISO 6746-1) does not include working devices and ancillary devices such as buckets, push Soil slabs, anti-bucket, ripper and legs.

Traffic alarm device audible travel alarm A sound alarm device mounted on the machine for the purpose of warning or reminding the person of the potential danger of preventing the machine from driving at its own power.

3.2.1

Traffic alarm device travel warning alarm Used to warn or remind the officer of the sound signal alarm device, in particular a warning or reminder that the machine has been driven by its own power when the nearby staff.

Note: These alarm devices are usually associated with machines with rotary upper structures.