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

GB/T 7670-2009

Replacing GB/T 7670-1987

**Electrodynamic vibration generating systems (equipment) --
Performance characteristics**

电动振动发生系统（设备）性能特性

(English Translation)

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Foreword

This standard is equivalent to using ISO 5344:2004 "electric vibration system performance characteristics" (English second edition).

This standard is equivalent translation ISO 5344:2004, its exactly the same standard on the structure and technical content. For ease of use, this standard ISO 5344:2004 made the following editorial changes.

- Use parentheses after the name of the first paragraph of the standard name, adding "(equipment)," the word;
- Remove the ISO 5344:2004 foreword, preface rewritten this standard;
- The "this International Standard" be replaced by "this standard";
- Use the decimal symbol. "" Instead of English as a decimal comma "." this standard replaces GB/T 7670-1987 "describes methods electrodynamic vibration test equipment characteristics." the main changes compared to 7670-1987 standard and GB/T as follows.
- Modify the standard name.
- Adjust the standard structure and contents of Standards and Technology made major changes. Excerpts of the technical content of the original standard basically no comparable Sex (see the 1987 edition of the full text; the full text of this edition).
- Revised Introduction and separated from the text of the original standard, the independent compiled after the preface (see the introduction to the 1987 edition; Introduction).
- Chapter 2 adds "Normative References of Lead" (see the 1987 version of Chapter 2; Chapter 2 of this edition).
- Remove the "symbol" and "unit and value" chapters (see the 1987 edition of Chapters 3 and 4).
- In addition to retaining the term "force" other than to replace the 11 terms and definitions, and adds five new terms and definitions (see 1987 edition Excerpts of chapter 3); Chapter 5.
- Replace the contents of Appendix A (see Appendix A, 1987 edition; of Appendix A).
- Remove Appendix B (see the 1987 edition of Appendix B).

Appendix A of this standard is an informative annex.

This standard by the national mechanical vibration, shock and condition monitoring Standardization Technical Committee (SAC/TC53) and focal points.

Introduction

Users want their equipment long-term trouble-free work. The main purpose of this standard is to develop and provide the electrical equipment and systems vibration Methods for measuring performance, to ensure the reliability of these devices and systems. Some reliability is achieved by the vibrator, amplifier, and the Department of After the system as a whole and provide the endurance test, but not decisive.

If all sources of electric vibration equipment and systems are? The same way, these methods described in detail the terms of performance and reliability Meaning of the terms. Terms compare the performance and reliability of different sources is useful.

The standard method is applicable to many written purchase specifications to illustrate the acceptance test conducted upon delivery.

Particularly those related to the endurance test method is time-consuming and expensive, usually at the end of the product development process as well as in volume are their sources such tests prior to production. These methods are usually used to determine and verify the technical documentation supply publicity rated performance. After consultation with the bidding suppliers, procurement specifications makers can propose a simplified method of acceptance test equipment, another alternative party is this. You can make all the tests recognized by the source according to the procedure done and achieved a mutually satisfactory results written guarantee.

GB/T 7670-2009/ISO 5344:2004 System (equipment) performance characteristics of an electric vibration generator

1 Scope

This standard specifies performance characteristics and performance test conditions in electrical vibration system (equipment), and can be given by the equipment manufacturer Provide a list of additional device characteristics (see Appendix A). Makers such information available to the user or device specifications, taking into account the actual device at the same time the application to select the system.

The present standards for different sources amplifier and oscillator component calculation method developed system performance. Systemic thus calculated not as good as the system can be accurately measured by the actual performance of the vibrator and an amplifier, and recommended that the vibration force to save the calculation. This International Standard can Ideally enough to get the desired vibrator separate provision and (or) the relationship between the data amplifier, in particular, to be able to acquire the existing equipment the intention to add an amplifier or a vibrator data. This standard can be optimally determined confidence level performance calculation.

This standard applies to generate sine, random and pulse linear vibration equipment. This

standard contains all vibration system (equipment) at least in at a low level are applied to the meaning of the sinusoidal test, because the sample response assessment, random transfer function measurement and impact tests are required sine performance. When a predetermined random performance means also includes some sine performance. Similarly, when a predetermined impact performance also meant to include some positive Chord performance, but it does not contain random performance.

Note: The use of this standard is expected to have three categories. suppliers, equipment buyers and device detection mechanism of the device. Supplier of equipment to be described can be achieved "amount Set "performance in supply and a general description of the technical documentation. Buyer device to explain the device will receive the" Regulations "performance, generally less than or equal Rated performance. Detecting means to "provide" the results of testing and inspection equipment, generally issued contains measurement conditions and the measurement accuracy of every order and with such a waveform, performance graphs and numerical tables and other written reports will be specifically described.

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, according to research encourages the parties to the agreement Study whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

ISO 2041:1990 Vibration and shock - Vocabulary ISO 15261 vibration and shock generating systems vocabulary

3 Terms and Definitions

ISO 2041, ISO 15261 and established the following terms and definitions apply to this standard.

Vibrator

Exciting force by the interaction of the magnetic field and fixed mounted in the magnetic field using a suitable alternating current generated by the excitation coil to drive the vibrator Move the generator.

[ISO 2041:1990, definitions 2.92]

Note 1: Unless moving parts, vibration table body and the base station particularly limited except that the electric vibration generator further comprising. a common winding, control and drive Cables, cooling fluid hose, excitation power and cooling, degaussing, protection and security systems.

Note 2: This standard, the subscript "v" used to mean "electric vibration generator" terminology brief word "vibrator", the word vibrator and this term has the same meaning, Commonly used in the