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

GB/T 14123-2012

Replacing GB/T 14123-1993

**Mechanical shock -- Testing machines -- Characteristics and
performance**

机械冲击 试验机 性能特性

(English Translation)

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Foreword

This standard was drafted in accordance with the rules of GB/T 1.1-2009 and GB/T 20000.2-2009 given.

This standard replaces GB/T 14123-1993 "shock machine characterization", compared with the GB/T 14123-1993, the main content as follows.

--- Modify the standard name from "shock machine characterization" to "mechanical impact test machine performance characteristics";

--- Modify the standard structure, the original 6 into seven chapters. Each chapter adds the content;

--- Increasing the introductory phrase normative references and some reference standards, and the effectiveness of the standard was confirmed;

--- To increase the content of "impact testing machines" (see Chapter 7);

--- Added Appendix C, Appendix D, Annex E and Annex NA.

This standard uses the translation method identical with ISO 8568:2007 "Mechanical impact test characteristics and performance." Consistency correspondence between this standard international standard documents and normative references of our document Appendix NA.

This standard makes the following editorial changes.

--- Supplementary Fig C.4 image omission.

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

This standard was drafted. Changchun Research Institute of Machinery Co., Ltd., Suzhou Su test Test Instrument Co., Suzhou Dongling Vibration Test Instrument Co., Ltd., China Institute of Metrology, Beijing Institute of Machinery Industry Automation.

1 Scope

This standard specifies the mechanical impact testing machine (hereinafter referred to as impact machine) performance parameters and test methods, and gives a description of the impactor Guidelines characteristics. This standard is intended to provide a detailed account of the impact of machine characteristics for potential customers, but also gives the impact machine selection guide.

This standard applies to verify and assess the relevant part of IEC 60068 specified operating environment impact conditions typical effects which impact Machine, also for the diagnosis of the impact test machine. Impact test purpose is to find the weak links in the mechanical and (or) to find the prescriptive You can decline. This standard can also be used to determine the structure of a solid test sample or as a method of quality control.

This standard does not apply to simulate earthquakes, sonic booms, explosion and implosion, rupture tests, as well as metal processing, forming and other types of punch Hit device.

The standard for a variety of techniques to produce the desired impact exercise were discussed. Whether single or composite impulse transients Application of these technologies are able to achieve. By using a predetermined shock response spectrum test control enables the transient impact processes simulation.

Note 1: Appendix A describes the shock pulse forming apparatus. Appendix B provides shock response spectrum method is applied. Appendix C discusses the possible vibration generator Evaluation method generates the impulse. Appendix D and Appendix E dealt with the detection of certain characteristics in shock machine test method (or program).

Note 2: Characteristics of vibration test equipment in ISO 5344, ISO 6070 and ISO 8626 are to be specified.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 2298-2010 Mechanical vibration, shock and condition monitoring of vocabulary (ISO 2041:2009, IDT) GB/T 2421.1-2008 Environmental testing for electric and electronic products overview and guidance (IEC 60068-1. 1988, IDT) GB/T 2423.5-1995 Environmental testing for electric and electronic products Part 2. Test methods Test Ea and guidance. Shock (IEC 60068-2-27. 1987, IDT) ISO 5347 (all parts) calibration methods (Methodsforthecalibrationofvibration vibration and shock sensor andshockpick-ups) ISO 5348 Mechanical vibration and shock - Mechanical mounting of accelerometers (Mechanicalvibrationangshock-Mechanical mountingofaccelerometers) ISO 15261 vibration and shock generator system vocabulary (Vibrationangshockgeneratingsystems-Vocabulary) ISO 16063 (all parts) calibration methods (Methodsforthecalibrationofvibration vibration and shock sensor andshocktransducers) IEC 60068-2-81 Environmental testing for electric and electronic products Part 2. Test methods Test Ei. Shock Shock response spectrum synthesis (Environmentaltesting-Part 2-81. Tests-TestEi. Shock-Shockresponsespectrumsynthesis)

3 Terms and Definitions

GB/T 2298 and ISO 15261 define the following terms and definitions apply to this document.