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

GB/T 26797-2011

Weights of classes E1, E2, F1, F2, M1, M1-2, M2, M2-3 and M3

E1、E2、F1、F2、M1、M1-2、M2、M2-3、M3等级砝码

(English Translation)

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Foreword

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

The standard reference method using redrafted OIMLR111-1.2004 "E1, E2, F1, F2, M1, M1-2, M2, M2-3, M3 level weights" (In English) prepared with OIMLR111-1.2004 level of consistency is not equivalent.

This standard OIMLR111-1. The main difference between 2004 is as follows.

- Removed OIMLR111-1.2004 Foreword;
- Rewritten Chapter 1, "scope";
- Rewritten Chapter 2, "the term";
- Removed OIMLR111-1.2004 Chapter 3, "Symbol Table";
- Rewritten OIMLR111-1.2004 Chapter 4 "Weight units and nominal value";
- Rewritten OIMLR111-1. Chapter 5, 2004 "conversion quality" describes the way, and test procedures JJG99-2006 weight Consistency;
- Rewritten OIMLR111-1.2004 Chapter 13, "tag", 6.9 "mark";

- Rewritten OIMLR111-1.2004 Chapter 14, "storage";
- Removed OIMLR111-1.2004 of Chapters 15 and Chapter 16, "Measurement Control";
- The OIMLR111-1.2004 Appendix B "Weight Test Procedure" adaptation cost standard Chapter 7, "test", Appendix B "Measuring performance test method", C "magnetic test methods" and Appendix D "density (volume) test method" Appendix;
- Appendix A and M grade rating of F2 weights adjustment cylinder chamber position was supplemented;
- Increasing the normative references a chapter;
- Increasing the classification and naming a chapter;
- Increased "stability" requires 6.10;
- 7.4.9 adds "stability test";
- Increased Chapter 8, "Inspection Rules";
- Increased Chapter 9 "logo, packaging, transportation and storage.

The standard calculation method of the test results in Appendix B. This appendix by the OIMLR111-1.2004 Appendix B, Appendix C and Appendix D content summary adapted from.

Please note that some of the content of this standard may involve patents. The standard release mechanism does not assume the responsibility to identify these patents.

This standard is proposed and managed by China Machinery Industry Federation.

Drafting of this standard. Shenyang Institute of Measurement, Shanghai Precision & Scientific Instrument Co., Ltd., Liaoning Provincial Institute of Metrology, mechanical Instrumentation Technology and Economy Institute, China Instrument Industry Association Branch of laboratory equipment, Changzhou City, May weights Limited Secretary, Shandong Penglai City, measuring instruments plant components, water-ling weight Penglai City Factory, Shanghai Institute of Measurement and Testing.

Participated in the drafting of this standard. Shaxiang long-Technology Development Co., Ltd., Shenyang Dragon Electronics Co., Shaxiang long-scale instrument settings Preparation Ltd., Hunan Institute of Metrology detection, Ryohei Shanghai Instrument Co., Ltd., Shanghai Hai Jing Instrument Co., ????? Scientific Instruments (Beijing) Co., Ltd., Shanghai People Bridge Precision Scientific Instrument Co., Ltd. Shanghai Shun Yuheng Scientific Instruments.

1 Scope

This standard specifies the weight classification, requirements, test methods, inspection rules, marking, packaging, transportation and storage.

This standard applies to the quality of a nominal value of 1mg ~ 5000kg, Accuracy class E1 grade, E2 level, F1 rating, F2 level, Level M1, M1-2 level, M2 grade, M2-3 level, M3 level weights.

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 191-2008 Packaging - Pictorial signs (ISO 780:1997, MOD) JJG99-2006 weight

3 Terms and Definitions

The following terms and definitions apply to this document.

Weight

Has a shape, size, material, surface conditions, the nominal value, the quality of the physical properties of density, magnetic properties and maximum permissible error, etc. and metrological characteristics Material measure.

Note: For a weight, which can be individually reproduced a fixed weight value. For the weight set, it can not only be used individually alone, it can also be different single A weight used in combination to reproduce a number of different sizes of a set of quality values.

Translation quality conventionalmass Translation quality value theconventionalvalueofmass an object at the agreed temperature and density of the air agreement, and agreed to a standard density reaches equilibrium quality standard device.

NOTE: Convention temperature is 20 °C, the agreed air density is 1.2kg/m³, the standard convention density of 8000kg/m³. Translation quality and value mc vacuum the mass value m relationship see equation (1).

$m_c = m (V_c - V) \rho_0 = (1 - \rho_0 / 0.99985) m$ (1) where.

ρ_0 --- weight density;

ρ_0 --- air density;

m --- weight quality value vacuum;

m_c --- weight conversion quality value;

V --- weight vacuum volume;

Vc --- weights agreed volume.