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

GB/T 10923-2009

Replacing GB/T 10923-1989

Test code of accuracy for metal forming machine

锻压机械 精度检验通则

(English Translation)

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Foreword

This standard ISO 230-1:1996 "General machine testing - Part 1. under no-load or finishing conditions Geometric accuracy of machines." the non-equivalent.

This standard replaces GB/T 10923-1989 "Metalforming Machinery accuracy test General." this standard compared with GB/T 10923-1989, the major technical changes as follows.

- Modify the reference standard;
- Increase the uncertainty of the requirements;
- Increased tolerance criteria;
- Increased repeat positioning tolerances;
- Modifications and additions straightness test methods;
- Modify the definition of linear motion, linear motion to increase the test method;
- Modifications and additions flatness testing methods;
- Modification and increased parallelism, equidistant degrees, coincidence degree test methods;
- Modification and increased verticality test methods;
- Revised Appendix A, an increase of flat feet, angle and laser interferometer requirements.

Appendix A of this standard is a normative appendix.

The standard proposed by China Machinery Industry Federation.

This standard by the National Forging Machinery Standardization Technical Committee (SAC/TC220) centralized.

This standard was drafted. The Zimmer Jinan Forging Machinery Co., Ltd., Jinan Foundry and Metalforming Machinery Research Institute, Shandong Province, mechanical design Institute.

1 Scope

This standard specifies the use of the geometric accuracy and precision forging machinery testing methods, tolerances, and the seizure, inspection before preparation.

This standard applies to the geometric accuracy and precision tests of various types of forging machinery. Does not apply to the operation of forging machinery and reference Number of test.

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/T 1219-2008 Indicators GB/T 1800.2 limits and fits - Bases - Part 2. Tolerances, deviations and basic provisions mating (GB/T 1800.2-1998, eqvISO 286-1. 1988) GB/T 1800.3 limits and fits - Bases - Part 3. standard tolerances and fundamental deviations table of values \u200b\u200b(GB/T 1800.3-1998, eqvISO 286-1. 1988) GB/T 1800.4 Limits and fits standard tolerance grades and limit deviations for holes and shafts of (GB/T 1800.4-1999, eqvISO 286-2. 1988) GB/T 6092 Squares (GB/T 6092-2004, JISB7526:1995, NEQ) GB/T 6093 Geometrical product specifications (GPS) the length of the standard gauge block (GB/T 6093-2001, eqvISO 3650.1998) GB 6315-2008 cursor with the number of tables and universal angle ruler GB/T 8177 two micrometer diameter (GB/T 8177-2004, ISO/DIS9121.1996, NEQ) GB/T 16455 batten and square levels GB/T 20428 Flat Rock (GB/T 20428-2006, ISO 8512-2:1990, MOD)

3.1 Test methods and Gages

3.1.1

Test forging machinery precision test methods may be used if it ultra poor (such as inspection using limit gauges) or by the method of measurement errors.

Must take into account the measurement uncertainty and test methods gage caused 3.1.2 test. Gage and the total error tolerance should be the subject project phase Adapt to different places with different test its accuracy will vary with the subject, the subject must be accompanied by a single calibration accuracy. Forging machines with accuracy test Tools and devices in Appendix A.

Airflow, light and thermal radiation (such as sunlight or too close to the lights, etc.) should be to prevent interference testing 3.1.3. Gage before use and environmental temperature Degree of balance, isothermal.

3.1.4

The test should be repeated several times, the average of the measured values of the test results. Each measured data should not differ too much, otherwise it should be from the test methods, the gage or forging machinery itself to find the reasons.

3.2.1 Forging mechanical precision test of tolerance

Tolerance limit is the amount of variation in size, shape, position and displacement can not be exceeded.

3.2.1.1 Unit and measuring range

Tolerances should be specified.