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

GB/T 4393-2008

Replacing GB/T 4393-1995

**Open end wrenches, box wrenches and combination wrenches
-- Technical specifications**

呆扳手、梅花扳手、两用扳手 技术规范

(English Translation)

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Foreword

The standards with international standards ISO 1711-1:2007 "Assembly tools for screws and nuts - Technical specifications - Part 1. Hand and wrench Sleeve, "the non-equivalent.

This standard replaces GB/T 4393-1995 "wrenches, box wrenches and combination wrenches - Technical specifications." this standard and GB/T 4393-1995 compared to the main changes are as follows.

- Increasing the type and size of provisions (Chapter 3 of this edition);
- Modify and adjust the minimum hardness test values \u200b\u200bwrench (1995 version 3.2, this version of 4.2);
- Increasing the minimum test torque is calculated (Table 2 edition);
- Cancel the B and D series torque (1995 edition Table 2);
- Original series A torque wrench adjusted to the minimum test torque (Table 2 1995 version, this version of Table 3);
- The original C-Series torque wrench adjusted to the minimum test torque (Table 2 1995 version, this version of Table 3);
- Canceled specification $S > 70\text{mm}$ product requirements (Table 2 1995 version, this version of Table 3);
- Canceled Symmetry (1995 version 3.4) and the opening width of the head;
- Reducing the coating thickness requirements in the surface treatment (1995 version 3.5.1, this version 4.4.2);
- Canceled blackened surface treatment corrosion resistance test (1995 version 4.6.2);

--- Cancellation Appendix A "test amount spanner wrench openings and holes of regulation" (1995 edition Appendix A).

The standard proposed by China National Light Industry Council.

This standard by the National Standardization Technical Committee, hardware tools, hardware sub-technical committee.

This standard tool Jiangdu Jiangsu Sainty International Group Co., Ltd. Shanghai Industrial Tool Research Institute is responsible for drafting, Maxpower toolset Group Co., Ltd., Ningbo Great Wall Precision Industrial Co., Ltd., Shanghai Star labor Tools Co., Ltd., Hangzhou Qianjiang Hardware Tools Co., Ltd. Company Division Shanghai field Tool (Group) Co., Ltd. Zhejiang billion foreign Tool Manufacturing Co., Ltd., Shanghai Shen Yu Hardware Tools Co., Ltd., Taizhou Far Thailand Forging Tools Co., Ltd. participated in the drafting.

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This standard replaces the standards previously issued as follows.

--- GB 4393-1984, GB 4394-1984;

--- GB/T 4393-1995.

Wrenches, box wrenches and combination wrenches specifications

1 Scope

This standard specifies the wrenches, box wrenches and combination wrenches technical requirements, test methods, inspection rules, packaging, labeling, transportation and Storage.

This standard applies to wrenching bolts and nuts, or other fasteners wrenches, box wrenches and combination wrenches.

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 230.1 Metallic Rockwell hardness test - Part 1. Test methods (A, B, C, D, E, F, G, H, K, N, T scale) (GB/T 230.1-2004, ISO 6508-1:1999, IDT) GB/T 1957 smooth limit gauge the technical conditions GB/T 2828.1 Sampling procedures for inspection - Part 1. by

acceptance quality limit (AQL) retrieval batch inspection sampling plan (GB/T 2828.1-2003, ISO 2859-1:1999, IDT) GB/T 4388 wrenches, box wrenches and combination wrenches GB/T 4389 Assembly tools for screws and nuts - Double wrenches, double-headed box wrenches and combination wrenches - Maximum outside dimensions of the head - Tolerances GB/T 4390 metric spanner wrench openings and holes GB/T 4391 spanner size group with opposite sides GB/T 4955 Metallic coatings - Measurement of coating thickness anodic dissolution coulometry GB/T 5305 Hand tools, packaging, labeling, transportation and storage GB/T 6060.2 Roughness comparison specimens - Ground, turned, bored, milled, shaped and planed (GB/T 6060.2-2006, ISO 2632-1. 1985, MOD) GB/T 6462 and the metal oxide coating layer thickness measurement microscope method (GB/T 6462-2005, ISO 1463:2003, IDT)

3 Type and size

3.1

wrenches, box wrenches and combination wrenches type and size in accordance with the provisions of GB/T 4388, GB/T 4389, and spent two-headed wrench, double - Size accordance with GB/T 4391 provisions head Torx wrench.

3.2

spanner wrench hole opening and dimensional accuracy in accordance with the provisions of GB/T 4390's.

4.1 Material

Adopted to achieve this standard of quality carbon structural steel or alloy structural steel.

4.2 Hardness

Wrench hardness in accordance with Table 1.