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

GB/T 18269-2024

Replacing GB/T 18269-2008

Hand tools for live working with 1 kV AC, 1.5 kV DC and below

交流1 kV、直流1.5 kV及以下电压等级带电作业用手工工具

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 18269-2008 "Insulating hand tools for live working at voltage levels of 1 kV AC, 1.5 kV DC and below" Compared with GB 18269-2008, in addition to structural adjustments and editorial changes, the main technical requirements have changed as follows.

- a) The scope of application has been changed (see Chapter 1, Chapter 1 of the 2008 edition);
- b) The definitions of the terms "sheathed insulated hand tools" and "insulated hand tools" have been changed (see 3.2, 3.3, 3.1, 3.2 of the 2008 edition).

- c) Added definitions of the terms "hand tool", "combined hand tool", "end", "assembled tool" and "hand guard" (see 3.1, 3.4, 3.5, 3.6 and 3.7);
- d) Added the classification, schematic diagram and list of commonly used tools for hand tools (see Chapter 4);
- e) The requirements for hand tool safety in the general requirements have been changed (see 5.1.1, 4.1.1 of the 2008 edition);
- f) The requirements for mechanical properties of hand tools in the general requirements have been changed (see 5.1.2, 4.1.2 and 4.1.3 of the 2008 edition);
- g) Deleted the relevant requirements for the use of insulating materials in hand tools in the general requirements (see 4.1.5 and 4.1.6 of the 2008 edition);
- h) The scope of low temperature environment in the general requirements has been changed (see 5.1.5, 4.1.7 of the 2008 edition);
- i) The requirements for the locking force of assembled tools in the general requirements have been deleted (see 4.1.8 of the 2008 edition);
- j) The requirements for double-ended tools in the general requirements have been changed (see 5.1.4, 4.1.9 of the 2008 edition);
- k) The requirements for exposed metal parts in the general requirements have been deleted (see 4.1.10 of the 2008 edition);
- l) Added relevant requirements for assembly tools (see 5.2.1);
- m) Changed the requirements for screwdrivers and wrenches in the specific requirements, and changed the dimensions of the conductor part of the end in the flat-blade screwdriver diagram Requirements. The type of wrench has been changed (see 5.2.2, 5.2.3, 4.2.1 of the 2008 edition);
- n) Added the types of screwdrivers and technical requirements for screwdrivers with replaceable tips, added the illustration of adjustable wrench and the requirements for protective Hand requirements (see 5.2.2, 5.2.3);
- o) Changed the terms "hand pliers", "stripping pliers", "cable cutters" and "cable cutting tools" to "hand pliers" and changed the description of the requirements for the insulation layer of the hand guard of the pliers.
(see 5.2.4, 4.2.2 of the 2008 edition);
- p) Added insulation diagrams of adjustable clamps and multi-function clamps (see 5.2.4);
- q) Changed the description of the requirements for the insulation layer of the tool guard (see 5.2.5, 4.2.3 of the 2008 edition);
- r) Added technical requirements for scissors (see 5.2.6);

- s) Changed the requirements for the insulation layer of the tweezers hand guard and the description of the terminal (see 5.2.7, 4.2.4 of the 2008 edition);
 - t) The requirement for fully insulated tweezers has been deleted (see 4.2.4 of the 2008 edition);
 - u) The requirement that the test results should have a 5% error in the test environment conditions has been deleted (see 5.1 of the 2008 edition);
 - v) The methods of appearance and dimensional inspection during the test have been changed (see 6.2, 5.2 of the 2008 edition);
 - w) The impact test was changed and the test method b) in the mechanical impact test was deleted (see 6.3, 5.3 of the 2008 edition);
 - x) The expression of test conditions in electrical tests has been changed (see 6.4.1, 5.4.1 of the 2008 edition);
 - y) Changed the term "coated insulated tools" in the electrical test to "coated insulated tools" and "mixed insulated tools" (see 6.4.2, 2008 edition).
- 5.4.2);
- z) Added requirements for the conductivity of test water in electrical tests (see 6.4.1, 6.4.2.1);
 - aa) Added the test method for assembled tools in electrical tests (see 6.4.2.2);
 - bb) Changed the adhesion test to adhesion test, and changed the working end to end (see 6.6, 5.6 of the 2008 edition);
 - cc) Changed the criteria for judging the results of the insulation layer test of the whole tool in the adhesion test (see 6.6.1.4, 2008 edition) 5.6.4);
 - dd) Added adhesion test for mixed insulating tools and moving parts (see 6.6.2, 6.6.3);
 - ee) Changed the fuel types and specific requirements in the flame retardancy test (see 6.7, 5.7 of the 2008 edition);
 - ff) The handle and handgrip in the mechanical test were changed to clamp handles. At the same time, the requirements for the rotation angle in the torsion test were increased.
- Requirements for tweezers test specimens in the test (see 6.8.1, 6.8.2, 5.8.1, 5.8.2 of the 2008 edition);
- gg) Added general requirements for locking test (see 6.9.1);
 - hh) Changed the tools with spring steel balls and screw-fastening tools to non-mechanical locking tools and mechanical locking tools, and changed the non-Parameters of the test piece in the mechanical locking tool (see 6.9.2, 6.9.3, 5.9.1, 5.9.2 of the 2008 edition);

- i) The type test procedure has been changed (see 7.1, 6.1 of the 2008 edition);
- j) Modified the number of products in the sampling test (see 7.2, 6.2 of the 2008 edition);
- kk) Added relevant requirements for preventive testing (see 7.5);
- l) The description of the voltage in the double triangle diagram in the marking has been changed (see 8.1.4, 7.1.3 of the 2008 edition);
- mm) The instructions on other identification in the marking have been deleted (see 7.1.5 of the 2008 edition);
- nn) Deleted the requirements for box materials during transportation (7.3 of the 2008 edition);
- oo) Deleted the quality assurance system (see Chapter 8 of the 2008 edition);
- pp) Added normative annexes on design requirements for assembly tools, design requirements for locking test dies, and defect classification and testing (see Appendix Appendix D, Appendix F and Appendix G).

This document is modified to adopt IEC 60900:2018 "Live working - Manual work for voltage levels of 1 kV AC and 1.5 kV DC and below" Tool".

Compared with IEC 60900:2018, there are more adjustments in structure. Appendix A gives the structural number changes between the two documents.

According to the list.

This document has many technical differences compared with IEC 60900:2018.

Appendix B provides a list of technical differences and their causes.

Compared with IEC 60900:2018, this document has made the following editorial changes.

--- To be consistent with my country's standard system, the name of this document is changed to "Live Work of AC 1kV, DC 1.5kV and below voltage levels Industrial Hand Tools";

--- Deleted the informative Appendix B and Appendix H.

1 Scope

This document specifies the hand tools for live working at voltage levels of 1 kV AC and 1.5 kV DC and below (referred to as "live working" in the document).

The technical requirements and inspection rules for hand tools for live working are described, and the test methods for hand tools for live working are given.

Assortment of hand tools.