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

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Replacing GB 18209.2-2000

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**Electrical safety of machinery -- Indication, marking and  
actuation -- Part 2: Requirements for marking  
(English Translation)**

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### 1 Scope

This part specifies the requirements for mechanical marking.

This part of ISO 10000 provides information on mechanical identification signs, safety signs related to mechanical and electrical hazards, signs used to avoid hazards caused by incorrect connections Will make general provisions.

### 2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB 4208-1993 Enclosure Protection Class (IP Code) (eqvIEC 60529.1989) GB 5226.1-2008 Mechanical and Electrical Safety Mechanical and Electrical Equipment Part 1: General Specifications (IEC 60204-1:2005, IDT) GB/T 15706.1-2007 General Principles of Basic Concepts and Design of Machinery Safety Part 1: Basic Terms (ISO 12100-1.

2003, IDT)

GB/T 15706.2-2007 General Principles of Basic Concepts and Design of Machinery Safety  
Part 2: Technical Principles (ISO 12100-2.

2003, IDT)

ISO 31-0:1992 Quantities and units - Part 0: General principles  
(Quantities and units - Part 0: General principles) ISO 1000:1992 International System of Units  
and its Application (SI units and recommendations for the use of their  
multiples and of certain other units) ISO 7000:2004 Graphical symbols for equipment - Index  
and list (Graphical symbols for use on equipment - Index and synopsis) ISO 7010:2003  
Graphical symbols Safety colours and safety signs Safety signs used in workplaces and  
public areas  
(Graphical symbols - Safety colours and safety signs - Safety signs used in workplaces and public areas)  
IEC 60027-1:1992 Electrotechnical text symbols - Part 1: General  
(Letter symbols to be used in electrical technology - Part 1: General) IEC 60027-2:2005 Letter  
symbols for electrotechnical use - Part 2: Telecommunications and electronics  
(Letter symbols to be used in electrical technology - Part 2: Telecommunications and electronics)  
IEC 60027-3:2002 Letter symbols for electrotechnical use - Part 3: Logarithms and related  
quantities and their units (Letter symbols to be used in electrical technology - Part 3:  
Logarithmic and related quantities, and their units) IEC 60027-4:1985 Letter symbols for  
electrotechnical use - Part 4: Symbols for quantities used in rotating electrical machines  
(Letter symbols to be used in electrical technology - Part 4:  
Symbols for quantities to be used for rotating electrical machines) IEC 60079-0:2004 Electrical  
apparatus for explosive gas atmospheres - Part 0: General requirements (Electrical  
apparatus for explosive gas atmospheres - Part 0: General requirements) IEC 60417 Graphical  
symbols for equipment (Graphical symbols for use on equipment) IEC 61310-1 Electrical  
safety indications, signs and operations of machinery - Part 1: Requirements for visual,  
audible and tactile signals (Safety of machinery - Indication, marking and actuation - Part 1:  
Requirements for visual, acoustic and tactile signals)

### 3 Terms and Definitions

Terms and definitions defined in IEC 61310-1 and the following apply to this document.

rated value

A value used for specification purposes to specify the operating conditions of a component,  
device, equipment or machine.

[IEV151-16-08]

fixed rating

Setting ratings and operating conditions for components, devices, equipment, or machinery.

**Note:** Rewrite IEV151-16-11.

mark

For safe use, marking is added to the product or packaging, mainly to identify the product and certain features of the product.

#### **4.1 Overview**

In accordance with the provisions of GB/T 15706.2, machinery must have the following required signs.

--- for clear identification of machinery;

---For the safe use of machinery.

and give supplementary information as appropriate.

--- permanently on the machine;

--- In accompanying documents such as instructions, manuals;

--- on the packaging.

#### **4.2 Machine logo**

The following information should be provided.

--- The product mark includes the supplier's name, address, series name or model, series number and year of manufacture;

--- specify the rated value;

--- If required, indicate compliance with mandatory requirements.

##### **4.3.1 Overview**

For basic safe use, 4.3.2, 4.3.3 and 4.3.4 list the relevant ratings and characteristics.

##### **4.3.2 Signs relating to mechanical hazards**

Marks include but are not limited to those listed below.

a) input/output power;

b) the maximum speed of the rotating part;

c) mass (of moving parts, etc.);

d) the maximum diameter of the tool to be installed;

e) direction of movement;

- f) maximum load;
- g) cooling/heating conditions;
- h) allowable environmental conditions, such as pressure, shock, vibration, temperature;
- i) mechanical stability;
- j) way of working;
- k) guard adjustment data;
- l) The necessity of wearing special protective equipment;
- m) frequency of inspection and maintenance;
- n) Lifting equipment quota;
- o) If applicable, indicate the location where the lifting gear is attached.

#### **4.3.3 Signs related to the danger of hydraulic transmission**

In addition to the signs listed in 4.3.2, it also includes but is not limited to the following.

- a) Design working pressure;
- b) maximum safe working pressure;
- c) test pressure;
- d) flow rate;
- e) Safe operating temperature.

Valve actuators and their functions shall be clearly and permanently identified using the same symbols as on the circuit diagram.

#### **4.3.4 Signs concerning electrical hazards**

In addition to the signs listed in 4.3.2, it also includes but is not limited to the following.

- a) rated voltage, current, frequency;
- b) number of phases;
- c) The symbols for classification of protection against electric shock shall be consistent with IEC 60417;
- d) Warning signs of danger due to dangerous voltage shall be consistent with IEC 60417;
- e) IP code mark should be consistent with GB 4208;
- f) The warning of residual voltage shall be consistent with GB 5226.1;