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

GB/T 5226.32-2017

**Electrical safety of machinery -- Electrical equipment of
machines -- Part 32: Requirements for hoisting machines**

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Foreword

GB/T 5226 "Mechanical Electrical Safety Electrical Equipment" is divided into the following sections.

--- Part 1. General technical conditions;

--- Part 6. Technical conditions for construction machinery;

--- Part 11. General Techniques for AC Voltage Above 1000V or DC Voltage Above 1500V but Not Greater Than 36kV

condition;

--- Part 31. Particular safety and EMC requirements for sewing machines, sewing units and sewing systems;

--- Part 32. Technical conditions for lifting appliances;

--- Part 33. Technical conditions for semiconductor equipment.

This part is Part 32 of GB/T 5226.

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

This Part replaces GB 5226.2-2002 "Safety Machinery Electrical Equipment Part 32. Lifting Machinery Technical Conditions", with

The main technical changes compared to GB 5226.2-2002 are as follows.

--- Modified standard name (see cover, cover of.2002 edition);

--- Increased (continuous) ampacity (3.17), isolation device (3.20), emergency stop device (3.24), emergency disconnect device (3.25), functional connectivity

Junction (3.34), Inductive Power System (3.39), Manually Controlled Lifting Machinery (3.46), Protection Connection (3.54), Safety Related Control Functions

Energy (safety related control circuit) (3.62) 9 terms;

- Increased electromagnetic compatibility (see 4.4.2);
- Increased protection of the connection circuit (see 8.2);
- Added emergency disconnect device (see 10.8) and enable control device (see 10.9);
- Increased the use of automatic cut off the power supply for the protection of the inspection (see 18.2);
- Increased the indirect contact protection in the TN system (see Appendix A) and the selection of intermittent work conductors (see Appendix D);
- Increased the cross-sectional area of common conductors (see Appendix F);
- Modify the motor overload protection (see 7.3,.2002 version 7.3);
- Modified emergency stop (see 9.2.5.4.2, version 9.2.5.4.2 of the.2002 edition);
- Modified wireless control (see 9.2.7, version 9.2.7 of.2002);
- Removed 3 terms (see 3.17, 3.53, 3.59 in.2002 edition);
- Removed the power system design (see 6.3.2.4 of the.2002 edition);
- Removed the disconnection of the protective earth circuit (see 8.2.6 of the.2002 edition);
- Removed access to the common reference potential (see 8.3.3 of the.2002 edition);
- Removed control device connections (see version 9.1.4 of the.2002 edition);
- Delete serial data communication (see 9.2.7.4 of the.2002 edition);
- Deleted relevant safety control circuit (see 9.5 of.2002 edition);
- Deleted Chapter 11 Electronic Equipment (Chapter 11 of the.2002 Edition).

This section uses the translation method identical to the use of IEC 60204-32.2008 "Safety machinery electrical equipment - Part 32. Lifting machinery

Technical conditions".

For the Chinese documents that have a consistent correspondence with the normatively cited international documents in this section, see Appendix NA.

This section made the following editorial changes.

- To be consistent with the existing standard series, modify the standard name;
- Increased data Appendix NA;
- In the 10.9 "Note" to increase the data elements, namely "three-position form can be found in GB/T 14048.20-2013."

This part is proposed by China Machinery Industry Federation.

This part is under the jurisdiction of the National Industrial Machinery Electrical System Standardization Technical Committee (SAC/TC231).

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Introduction

This section proposes technical requirements and recommendations for lifting equipment electrical equipment in order to promote improvement.

---Safety of personnel and property;

--- Control response consistency;

---Maintenance convenience.

High performance should not be achieved by reducing the above basic requirements.

Figure 1 and Figure 2 help to understand the relationship between each link of a crane and its associated equipment. Figure 1 shows a typical material moving

The overall block diagram of the transport system (a group of cooperating cranes), Figure 2 is a block diagram of a typical crane and associated equipment, which represents the

It involves all aspects of electrical equipment.

Figure 1 Crane block diagram of joint operations in a typical port material handling system

Figure 2 Block diagram of a typical crane and its associated electrical equipment

Mechanical Electrical Safety Mechanical Electrical Equipment

Part 32. Lifting machinery technical conditions

1 Scope

This part of GB/T 5226 applies to electrical and electronic equipment and systems related to lifting appliances.

Note 1. In this part, the term "electrical" includes both electrical and electronic (ie, electrical equipment refers to both electrical equipment and electronic equipment).

Note 2. In this section, the term "personnel" refers to any individual and any person who is assigned to use or manage lifting appliances by the user or his agent.

The equipment contained in this section starts from the power supply access point (crane power switch) of the crane electrical equipment, including the crane

External power supply and control feeder systems, such as flexible cables or collector wires or trolley wires (see Figure 3).

Note 3. See IEC 60364 for building power installation requirements.

This section applies to electrical equipment and its components, the line voltage does not exceed 1000V (ac) or 1500V (dc), rated frequency is not exceeded

Over.200Hz.

Note 4. For high voltage requirements see IEC 60204-11.

Additional and special requirements may be specified for electrical equipment used in lifting appliances in the following environments.

- For outdoor use (ie outside the building or other protective structure);
- Used to handle or transport potentially explosive substances (eg paint or sawdust);
- For potentially explosive materials or flammable gases;
- For mines.

For this part, lifting machinery includes various types of cranes, various types of winches, and railroad roadway stacker cranes, including

The following types of products.

- Bridge crane;
- Mobile cranes;
- Tower cranes;
- Portable cranes;
- Gantry crane;
- Shore cranes;
- Floating cranes;
- various winches;
- Hoist and accessories;