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

GB 5092-2008

Replacing GB 5092-1985

Specification of induction protective devices for presses

压力机用感应式安全装置技术条件

(English Translation)

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Foreword

Chapter 4 of this standard is mandatory, the rest are recommended.

This standard is GB 5092-1985 "press induction type safety device technical conditions" amendments.

This standard is the technical content compared with GB 5092-1985 The main changes are as follows.

- Increasing the normative references;
- Information about terms and definitions, such as induction type safety device, sensing, capability, the ability to detect, specimens, failure, abnormal Etc. (see Chapter 3);
- Technical requirements increased functional requirements, the basic design requirements, anti-jamming capability, anti-power voltage capability, fault detection (see Chapter 4);
- Increased testing methods;
- Modify the inspection rules (see Chapter 6);
- Modify the response time, the length of protection, a high degree of protection and relay

output requirements;

--- Revised Appendix A.

Since the implementation of this standard replaces GB 5092-1985.

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. Jinan Foundry and Metalforming Machinery Research Institute, Shandong Machinery Design and Research Institute.

1 Scope

This standard specifies the terms and definitions induction type safety device used for the presses, technical requirements, test methods, inspection rules, packaging and random Technical documents.

This standard applies to press for induction type safety device (hereinafter referred to as a safety device).

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 191 Packaging - Pictorial signs (GB/T 191-2008, ISO 780:1997, MOD) GB 4208-2008 housing protection (IP Code) (IEC 60529:2001, IDT) GB 5226.1-2002 Safety of machinery electrical equipment Part 1. General requirements (IEC 60204-1:2000, IDT) GB/T 9969 General Instructions industrial products GB/T 13384 mechanical and electrical products packaging General technical conditions GB 14048.5 low-voltage switchgear and control equipment Part 5-1. Control circuit devices and switching elements - Electromechanical control circuit Road Electric (GB 14048.5-2008, IEC 60947-5-1:2003, MOD) GB/T 16935.1-2008 within low-voltage systems Insulation coordination for equipment - Part 1. Principles, requirements and tests (IEC 60664-1.

2007, IDT)

GB/T 17626.2-2006 Electromagnetic compatibility - Testing and measurement techniques - Electrostatic discharge immunity test (IEC 61000-4-2.

2001, IDT)

GB/T 17626.3-2006 Electromagnetic compatibility - Testing and measurement techniques RFEMS test (IEC 61000-4-3:2002, IDT) GB/T 17626.4-2008 Electromagnetic compatibility - Testing and measurement techniques - Electrical fast transient burst immunity test (IEC 61000-4-4:2004, IDT) GB/T 17626.5-2008 Electromagnetic compatibility - Testing and measurement techniques - Surge (impact) immunity test (IEC 61000-4-5).

2005, IDT)

GB/T 17626.6-2008 Electromagnetic compatibility - Testing and measurement techniques - conducted disturbances induced by RF field immunity (IEC 60664-4-6:2006, IDT)

3 Terms and Definitions

The following terms and definitions apply to this standard.

Or when the body is blocked from entering the induction screen, the output control mechanism of the press ram does not start or stop command means; mechanic pressure for hazardous area use the device should be used redundancy technology, with dual outputs.

When a part of the body or obstruction enters this zone, the security device can be issued so the press can not start or stop running letters no, this area is called induction screen.

Induction effective height of the screen.

Induction curtain effective protection distance in the longitudinal direction.

Before and after the induction of an effective induction screen size.

Sensor screen is blocked to respond and send a stop signal functions controlled press.

Sensing curtain sensing capabilities include the ability to detect and response time.

Cause sensing function parameter values and sense of specimen size screen resolution.

Detection capability for detecting safety device opaque cylinder.

3.10

Occlusion induced damage from screen to stop the time between the signal output to the press.

3.11

When the device or circuit safety device error or interference, resulting in the safety device is not working properly or the output signal is "broken on "state.

3.12

When a predetermined diameter specimen block induction curtain, the safety device does not cover the sensor output signal, but the output state of the output state through induction the response time of the output signal exceeds a predetermined value or status.

3.13

Safety devices for their own failures occur inspection and control, and to prevent system failure function.

3.14

Refers to the safety devices at power startup, or induction curtain is blocked once and then resumed, sensing should be maintained in the normal work.

Also referred to as self-locking function, otherwise known as start - restart interlock function. You must press the "reset button" to make the safety device reset (that is, into normal Working condition).

3.15

During the press ram mechanism and return within some range in the working stroke of the closed (or block) the normal function of the safety device, so that which afford protection.

3.16

Safety devices during normal operation, when the sensor is blocked or the screen itself has a fault is detected when presented cover state sensor, the output signal no. "off."

4.1.1 Operating functions

In normal operation, when the curtain sensor unobstructed to press output enable function run signal.

4.1.2 Sensing

When the sensor screen is blocked, the response time of the press within the output stop function run signal. Sensing the supplier shall be specified Effective within the scope of regional or limited.

4.1.3 Protection function does not return

This feature can also be provided in the control circuit in the press.

Note: When working within a stroke of the press section is provided the use of safety devices backhaul function will not protect the possible danger, used to honor Caution should be properly calculated and set in order to avoid danger.