

ICS 13.100
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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 13887-2008

Replacing GB 13887-1992

Safety codes for cold pressing

冷冲压安全规程

Issued on: December 11, 2008

Implemented on: October 1, 2009

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

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Foreword

All the technical contents of this standard is mandatory. This standard replaces GB 13887-1992 "cold stamping safety regulations." This standard is GB 13887-1992 amendments. This standard compared with GB 13887-1992, the main changes are as follows:

- Add, update national standard reference;
- Increasing the term of the corresponding English words (Chapter 3 standard), modify the form definition (Chapter 3 of this standard);
- Clutches and brakes increased safety requirements (this standard 5.2.3.14, 5.2.3.15 and 5.2.3.16);
- Screw press increased safety requirements (this standard 5.2.5.4);
- Increased the cushion pad or spring safety requirements (this standard 8.7.6);

--- Delete the original standard obsolete content (eg. 7 safety limit controls and an example of FIG. 8 with a safety pin mounted limit Set an example of);

--- For other chapters also made additions and improvement. Appendix A of this standard and Appendix B is an informative annex. This standard was proposed by the State Administration of Work Safety. This standard by the National Safe Production Standardization Technical Committee (SAC/TC288) centralized. This standard is drafted by: Ninth Design and Research Institute of Machinery Industry. Participated in the drafting of this standard. First Automobile Group Corporation. The main drafters of this standard. Wang Ye Qing, Deng Xuesong, Li Chunlan, Antai Yu, Lu Zhendong. This standard was first published in 1992 and 2008, the first revision. Cold stamping safety regulations

1 Scope

GB 13887 is the mandatory safety code for cold stamping, the press work that accounts for a large share of hand injuries in metalworking. It covers the whole chain that determines whether an operator's hands can reach the die while it closes: the design of the stamped part and of the process, the press itself, the safety devices - two-hand controls, light curtains, guards, feeding and ejection aids - and the die. It sets the terminology, the definitions and the safety technical requirements for each, and it is the document an inspector applies to a stamping shop. Issued on 11 December 2008, in force since 1 October 2009, replacing GB 13887-1992. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the edition it replaces are taken from there. The clause text, the tables and the numeric limits are not reproduced on this page - they are in the document itself, which is delivered in full in English translation.

This standard specifies the safety of cold stamping of terms, definitions and technical safety requirements, including stamping structure, process, presses, safety devices And die and other aspects of security rules. This standard applies to cold stamping production.

2 Normative references

The following documents contain provisions which, through reference and become the standard terms. For dated reference documents, all subsequent amendments (Not including errata content) or revisions do not apply to this section, however, encourage the parties to study whether to use according to the agreement The latest version of the file. For undated reference documents, the latest versions apply to this standard.

GB 150 steel pressure vessels GB 2893 Safety colors

GB 2894 Safety Signs and use guidelines

GB/T 3766 Hydraulic System General technical conditions

GB 4053.1 fixed steel ladders Safety Conditions

GB 4053.2 fixed steel inclined ladder safety and technical conditions

GB 4053.3 fixed industrial protective railings Safety Conditions

GB 4053.4 stationary industrial steel platform

GB/T 4205 man-machine interface (MMI)

--- operating rules

GB 4584 presses photoelectric protection device technology

GB 5083 production equipment with safety and health General Technical Safety Requirements GB 5091 presses

GB 5092 press induction type safety device technology

GB 5093 press held electromagnetic sucker technical conditions

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1

a) press and apparatus, equipment (machinery and equipment safety protection devices and die, etc.);

b) press operator's personal safety;

c) press-related staff (for example, maintenance personnel and die installation and adjustment work, etc.) personal safety;

d) due to accidental mechanical failure or an accident produced by equipment and endanger the personal safety;

e) convenience or unduly taxing operational.

3.2 Meet the following two conditions is security presses.

a) equipped with a hydraulic friction clutch or the press;

b) equipped with safety devices with both hands;

c) with sensitive type safety devices and alarm interlock failure or transportable stall;

d) equipped with interlocking safety cover.

3.3 Safety devices and general security control device.

3.4 Since the stamping operation possible for the operator to cause area damage.

4 security requirements for the structure and process of stamping

4.1 General Requirements

4.1.1 must follow JB/T 4378.1, JB/T 4378.2, GB/T 15055, GB/T 13915, GB/T 13916, GB/T 13914 and JB/T 9175.1 and other standards, the right structure and process design stamping. Its structure should function

4.1.2 stampings (including appearance function) and use adapted to the conditions.

4.1.3 Stamping structure must have good technology, economy and stamping production safety. Security as a priority.

4.1.4 must stampings structural design and process design stage, to take measures against all danger and insecurity may be generated Prevention.

4.2 Design

4.2.1 absolutely avoid sharp edges, corners and projections and the structure and function independent of the conditions of use.

4.2.2 The individual should be substituted with scattered small pieces of the whole structure.

4.2.3 In addition to the choice of materials to adapt to the strength and stiffness requirements of the workpiece, the forming process should meet the requirements of the plastic deformation. Forming, Bending and drawing large plastic workpiece materials should be used.

4.2.4 There should avoid contour slit or notch (cutout groove width is less than or equal to 2 times the sheet thickness) of complex shape structures.

4.2.5 Avoid punching width less than or equal to the sheet thickness and constant width of the structure in the longitudinal direction.

4.2.6 fitting structure shall conform to the following points.

- a) in different material thickness and strength conditions, the minimum allowable punching diameter;
- b) the minimum distance to the edge of the hole bending member bend side;
- c) the minimum distance to the edge of the hole of the outer profile;
- d) the minimum distance between the hole and the hole.

4.2.7 bending member crimping minimum height must be greater than

2.5 times the sheet thickness. The minimum height of the hemming bending member must be greater than 4 times The sheet thickness;