

ICS 25.120.30

CCS J61



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

GB 20905-2025

Replacing GB 20905-2007

Foundry machinery - Safety requirements

铸造机械 安全要求

Issued on: August 1, 2025

Implemented on: August 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

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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 20905-2007 "Safety requirements for casting machinery". Compared with GB 20905-2007, except for the structural adjustment and editing In addition to the functional changes, the main technical changes are as follows:

- a) The "scope" has been redefined (see Chapter 1, Chapter 1 of the.2007 edition).
- b) Added a chapter on "Terms and Definitions" (see Chapter 3).
- c) Added a chapter on "General Requirements" (see Chapter 4).
- d) Added a chapter on "General Requirements", which incorporates the technical content of the replaced standard on general safety requirements for casting machinery, and Some technical clauses have been added, modified and deleted (see Chapter 5, Chapters 3 to 17 of the.2007 edition). 1) Added requirements for casting robot systems (see 5.8); 2) Changed the requirements for instruction manuals (see 5.11.2, Chapter 17 of the.2007 edition); 3) Deleted the requirements for safety protection devices (see Chapter 4 of the.2007 edition); 4) Deleted the requirements for operating mechanisms (see Chapter 5 of the.2007 edition); 5) Deleted the requirements for pressure vessels (see 9.4 of the.2007 edition); 6) Deleted the requirements for lubrication systems (see 10.1, 10.3, and 10.5 of the.2007 edition); 7) Deleted the requirements for structural maintenance (see Chapter 12 of the.2007 edition); 8) Deleted the requirements for environment, labor hygiene and local lighting (see Chapter 13 of the.2007 edition); 9) Deleted the requirements for machines with corrosive substances (see 14.3 of the.2007 edition); 10) The requirements for machine structural aesthetics and sampling safety have been deleted (see 15.4 of the.2007 edition).
- e) A new chapter "Specific requirements for special equipment" has been added, which includes specific safety requirements for various types of foundry machinery (see Chapter 6). Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed and coordinated by the Ministry of Industry and Information Technology of the People's Republic of China. The previous versions of this document and the documents it replaces are as follows:

---First issued in.2007 as GB 20905-2007;

---This is the first revision.

Casting machinery is an important basic process equipment in the machinery industry and occupies an important position in the equipment manufacturing industry. This document specifies the safety requirements for foundry machinery. Since its initial publication, its mandatory provisions have played a significant role in ensuring that foundry production personnel Personal safety and health play an important role. However, with the rapid development and technological progress of my country's foundry industry for many years, the safety of casting machinery has been Higher requirements have been put forward. Some of the original technical terms of this document have lagged behind and can no longer meet the needs of the casting machinery market. Improve the overall safety level of China's foundry machinery, promote safe production in foundry, protect personal safety, and promote the optimization, upgrading and technological progress of the foundry machinery industry. It is necessary to revise this document. According to the classification of GB/T 15706, this document belongs to Class C standard. This document is particularly relevant to the following stakeholders with regard to the safety of the foundry machinery covered by this document.

1 Scope

GB 20905-2025 is the Chinese national standard on foundry machinery - safety requirements, in the field of manufacturing engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 1 August 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 August 2026. Classification: ICS 25.120.30, CCS J61. 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 issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the safety requirements for casting machinery, including general requirements, general requirements and equipment-specific requirements. This document applies to the manufacture of casting machinery (hereinafter referred to as "machine").

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the latest version (including all amendments) applies to this document. This document.

GB 2894 Safety colors and safety signs

GB/T 3766 General rules and safety requirements for hydraulic transmission systems and their components

GB 3836.15 Explosive atmospheres Part

15.Specifications for the design, selection and installation of electrical equipment

GB/T 4208-2017 Degrees of protection provided by enclosures (IP code)

GB 4674-2009 Safety regulations for grinding machinery

GB/T 5226.1 Electrical safety of machinery - Electrical equipment of machinery - Part

3 Terms and Definitions

The terms and definitions defined in GB/T 15706-2012 and GB/T 25370 and the following apply to this document.

4 Fixed ladders

GB/T 18209.1 Electrical safety of machinery - Instructions, signs and operations - Part

15 Non-destructive testing of steel forgings

GB/T 39407-2020 General technical requirements for grinding and polishing robot systems

GB/T 42598 General rules for drafting safety instructions for machinery NB/T 47013.3-2023
Nondestructive testing of pressure equipment Part