

ICS 91.220
CCS P97



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

GB 45943-2025

**Building construction machinery and equipment - Common
safety requirements**

建筑施工机械与设备 通用安全要求

Issued on: June 30, 2025

Implemented on: July 1, 2026

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

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Basic safety requirements	3
4.1 General Principles	3
4.2 Control System	6
4.3 Prevention of mechanical hazards	10
4.4 Safety protection and supplementary protection measures	12
4.5 Prevention of other dangers	15
4.6 Supplementary requirements for installation, adjustment, maintenance, repair, cleaning and service	18
4.7 Usage Information	19
5 Supplementary requirements for portable hand-held and/or hand-guided machines	22
5.1 General Principles	22
5.2 Stability and control devices	22
5.3 User Manual	22
6.1 General Principles	23
6.2 Working position	23
6.3 Control System	23
6.4 Prevention of mechanical hazards	25
6.5 Prevention of other dangers	26
6.6 Usage Information	26
7 Supplementary requirements for machines intended for underground work	27
7.1 General Principles	27
7.2 Shutdown	27
7.3 Fire Prevention	27
7.4 Waste gas emissions	27
7.5 Gas Detection	27
31 Table A.1 Safety standards for specific machines or types of machines	29

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. 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. General safety requirements for construction machinery and equipment

1 Scope

GB 45943-2025 is the Chinese national standard on building construction machinery and equipment - common safety requirements, in the field of construction materials and building. 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 30 June 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2026. Classification: ICS 91.220, CCS P97. 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 general safety requirements for construction machinery and equipment. This document applies to concrete and mortar machinery, drilling and foundation construction equipment, tunnel construction machinery, road construction and maintenance equipment, construction Construction machinery and equipment such as machinery for demolition or processing of building materials, machinery for producing engineering building materials, steel bars and prestressed machinery. This document does not apply to earth-moving machinery, lifting machinery, construction hoists, high-altitude work baskets, window cleaning machines, forklifts, and open-pit mining machinery. underground mining machinery and equipment for the extraction of solid minerals, even if such machinery and equipment may be used for construction or maintenance. This document does not apply to transport vehicles (e.g. cars, tractors, etc.), even though transport vehicles may be used as construction machinery and equipment. The host machine of the equipment has been specially modified for the application of construction machinery and equipment. Note

1. This document does not include all the specific requirements for each specific machine or each specific type of construction machinery and equipment. When applying this document, the safety requirements of the standards listed in Appendix A must be considered. Note

2. Chapter 4 of this document is the basic requirements, and Chapters 5 to 8 are the

supplementary requirements for specific machinery and equipment.

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 version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

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

GB/T 7932 General rules and safety requirements for pneumatic systems and their components

GB/T 15706-2012 General principles for safety design of machinery - Risk assessment and risk reduction

GB/T 16855.1 Safety of machinery - Safety-related components of control systems - Part

3 Terms and Definitions

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

3.1 Machinery and equipment used in construction or the production of engineering building materials.

Note. Including concrete and mortar machinery, drilling and foundation construction equipment, tunnel construction machinery, road construction and maintenance equipment, building demolition or processing machinery, Construction and building materials machinery, steel bars and prestressed machinery, etc. Excluding earthmoving machinery, lifting machinery, construction elevators, high-altitude work baskets, window cleaning machines, forklifts, etc. vehicles, machinery and equipment for open-pit mining, underground mining machinery and equipment for extracting solid minerals, etc., even if these machinery and equipment may be used for construction Construction or maintenance.

3.1.1 Machinery and equipment for preparing, conveying, spraying, pouring, compacting and cleaning residual cement concrete or mortar.

Note. This includes concrete or mortar mixers, mixing stations (buildings), mixing and transport equipment, conveying equipment, spraying equipment, pouring equipment, vibrators, and residual concrete. Or mortar cleaning and screening equipment, etc.