

ICS 13.340.99

CCS C73



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

GB 24544-2023

Replacing GB 24544-2009

Fall protection - Retractable type fall arrester

坠落防护 速差自控器

Issued on: December 28, 2023

Implemented on: January 1, 2025

**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
2 Mark	2
9 Special technical performance	4
13 Horizontal installation performance test	13
7 Inspection Rules	15
4 Horizontal installation dynamic performance test illustration	14

Foreword

This document complies with the provisions of GB/T 1:1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting: This document replaces GB 24544-2009 "Fall Protection Speed Difference Automatic Controller": Compared with GB 24544-2009, except for structural adjustment and compilation In addition to editorial changes, the main technical changes are as follows:

- a) Changed the scope (see Chapter 1, Chapter 1 of the:2009 edition);
- b) Added terms and definitions for buffer device, safety rope length, hanging point device, maximum rated load, and minimum rated load (see 3:4, 3:7, 3:9, 3:10, 3:11);
- c) Changed the definitions of speed difference automatic controller, overall rescue device, connector, fall indicator, and fall distance (see 3:1, 3:2, 3:5, 3:6, 3:8,:2009 version 3:1, 3:2, 3:5, 3:6, 3:9);
- d) The terms and definitions of buffer and minimum locking test mass are deleted (see 3:4 and 3:8 of the:2009 edition);
- e) Changed the classification and marking method of speed difference automatic controller (see Chapter 4, Chapter 4 of the:2009 edition);
- f) The general requirements for speed difference automatic controllers have been changed (see 5:1, 5:2 of the:2009 edition);
- g) The technical requirements for the safety rope of the speed difference automatic controller have been changed (see 5:2, 5:2:2 of the:2009 edition);
- h) Added test requirements for the strength of the safety rope of the speed difference automatic controller (see 5:2:2);

- i) Added static performance technical requirements for external buffer devices (see 5:3:2);
- j) The technical requirements for the overall rescue device have been changed (see 5:9:1, 5:3:4 of the:2009 version);
- k) Added technical requirements for horizontal installation performance (see 5:9:4);
- l) Added the test method for the strength of the safety rope of the speed difference automatic controller (see 6:2);
- m) Added test methods for static performance of buffer devices (see 6:3:2);

1 Scope

GB 24544-2023 is the Chinese national standard on fall protection - retractable type fall arrester, in the field of environment and health protection, safety. 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 28 December 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 January 2025. Classification: ICS 13.340.99, CCS C73. 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 gives the classification of differential speed automatic controllers and stipulates the marking, technical requirements, permanent identification and information provided by the manufacturer of differential speed automatic controllers: Information, describing the test methods and inspection rules for speed differential automatic controllers: This document is applicable to speed differential automatic controllers used in high-altitude operations:

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document:

GB/T 706-2016 Hot rolled steel sections

GB/T 10125 Artificial atmosphere corrosion test salt spray test

GB 30862-2014 Fall protection hanging point device

3 Terms and definitions

The following terms and definitions apply to this document: 3:1 A device capable of triggering a locking braking action due to changes in speed in the event of a fall:

Note: Includes ropes or straps that can expand and contract as people move: 3:2 integral-rescuefacility A rescue component that is completely integrated with the speed differential automatic controller:

Note 1: It is used for rescuers to lift or lower people suspended by the speed difference automatic controller:

Note 2: The overall rescue device is divided into two types: one-way and two-way: 3:3 A retractable rope or strap in a differential speed controller: 3:4 energyabsorber A component that absorbs part of the impact energy and reduces the impact force when a fall occurs: 3:5 connectorconnector A component with a normally closed valve that connects and separates the various components of the falling system: