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

GB 28621-2012

Replacing GB/T 28621-2012

**Safety rules for the construction and installation of new lifts in
existing building**

安装于现有建筑物中的新电梯制造与安装安全规范

(English Translation)

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Table of Contents

Introduction

1 Scope

2 Normative reference documents

3 Terms and Definitions

4 Major Hazard List

5 Safety requirements and/or protective measures

5.1 General

5.2 Elevator shaft wall with holes

5.3 The distance between the car and the counterweight (or counterweight)

5.4 Counterweight (or balancing weight) in the separation shaft

5.5 Reduced top-level spacing

5.6 Car top guardrail

5.7 Reduced pit spacing

5.8 Foot guards

5.9 Height of computer room

5.10 Height of machine room door

5.11 Dimensions of trap doors in machine rooms or pulley rooms

5.12 Floor door height

5.13 Electrical safety devices

6 Verification of safety requirements and/or protective measures

6.1 Verification Table

6.2 Inspection before delivery of elevator

7 Usage information

7.1 Instructions for use

7.2 Notes and warnings

Appendix A (normative) Type inspection of pre-trigger stop system

Appendix B (normative) Electrical safety device table

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/T 28621-2012 "Safety Code for the Manufacturing and Installation of New Elevators Installed in Existing Buildings" and is consistent with Compared with GB/T 28621-2012, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) The limitations of existing buildings are clarified (see 1.1, Chapter 1 of the 2012 edition);
- b) Some terms have been changed (see 3.2~3.5, 3.2~3.5 of the 2012 version);
- c) The list of major hazards has been changed (see Table 1, Table 1 of the 2012 version);
- d) Changed the requirements for power sockets with counterweights (or counterweights) in separate shafts [see 5.4.2f), 2012 version of 5.3.1f)];
- e) Changed the requirements for the action position of the movable stopping device (see 5.5.2.2.2, 5.5.2.1.1 of the 2012 version);
- f) Added guidance requirements for the stopper spring [see 5.5.2.3.3d), 5.7.2.3.3d)];
- g) Changed the requirements for clear space (see 5.5.2.4, 2012 version 5.5.2.3);
- h) Changed the safe space into a safe space, and increased the requirements for the safe space (see 5.5.2.4, 5.7.2.4, 2012 version 5.5.2.3, 5.7.2.3);
- i) Changed the manual landing door to a non-mechanically linked landing door, expanding the scope of application (see 5.5.3.1, 5.7.3.1, 2012 edition 5.5.3.1, 5.7.3.1);
- j) Changed the switch to an electrical safety device [see 5.5.3.4, 5.6.3e), 5.7.3.4, 5.8.2, 2012 version of 5.5.3.4, 5.6.2e), 5.7.3.4, 5.8.2], improving the safety requirements;
- k) Changed the functional requirements for auditory signals (see 5.5.4, 5.7.4, 2012 version of 5.5.4, 5.7.4);
- l) The strength requirements of guardrails have been changed [see 5.6.3a), 2012 version of 5.6.2a)], and safety requirements have been improved;
- m) The requirements for the safety area for people standing on the car top have been changed [see 5.6.3c), 2012 version of 5.6.2c)], and the safety requirements have been improved;
- n) Changed the requirements for pit entrance (see 5.7.6, 2012 version of 5.7.6);
- o) Changed the requirements for toe guards (see 5.8.1, 2012 version of 5.8.1) and improved safety requirements;
- p) Added requirements applicable to the retracted position of toe guards [see 5.8.2a)6), 5.8.2b)6)], and improved safety requirements;
- q) The net height requirements for the working area of the computer room have been changed (see 5.9, 2012 version of 5.9), and safety requirements have been improved;

- r) Changed the height requirements for the computer room door (see 5.10, 2012 version of 5.10);
- s) Deleted technical documents (see 6.3 of the 2012 version);
- t) Added the minimum safety integrity level (SIL) (see Appendix B) and improved safety requirements;
- u) The content of periodic inspections and inspections after major modifications or accidents has been deleted (see Appendix B of the 2012 version).

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

Introduction

0.1 According to the classification of GB/T 15706, this document belongs to Class C standard.

This document is particularly relevant to the following stakeholders related to machinery safety.

---equipment manufactory;

---Health and Safety Agencies.

Other stakeholders affected by the safety level of machinery are.

---Equipment users;

---Device owner;

---Service providers;

---Consumer (when the machine is scheduled to be used by the consumer).

All the above-mentioned stakeholders may participate in the drafting of this document.

The machinery involved and the range of hazards, hazardous states and hazardous events covered are given within the scope of this document.

When the requirements of this Class C standard are different from the requirements of Class A or Class B standards, for those products that have been designed and manufactured in accordance with this Class C standard for machines, the requirements in this Class C standard take precedence over the requirements in other standards.

0.2 This document addresses the reduction of top to bottom pit spacing due to site conditions. The security principles adopted are based on a two-level implementation. first through the electrical control interrupts the operation of the elevator car; secondly, the elevator car is mechanically braked.

0.3 In order to have a unified understanding of the requirements of this document, the existing building in this document should be understood as the building that was used before the installation of the elevator.

buildings. Buildings with completely updated internal structures are considered new buildings for the purpose of this document.

New elevators installed in existing buildings Manufacturing and installation safety regulations

1 Scope

1.1

This document specifies permanent installation in existing buildings that cannot meet certain requirements of GB/T 7588.1-2020 due to building restrictions.

Required, new safety guidelines for passenger elevators and freight elevators.

This document lists these limitations and gives the requirements for a solution.

- a) Elevator shaft wall with holes;
- b) The small size of the shaft leads to a reduction in the distance between the car and the counterweight (or counterweight);
- c) Counterweight (or balancing weight) in the separation shaft;
- d) Reduced building size and spacing, resulting in.
 - The space on the top floor and bottom pit is reduced;
 - The size of the car roof guardrail is reduced;
 - The height of the car toe guard is reduced;
 - The height between the machine room and/or pulleys is reduced;
 - The area of access doors or trap doors is reduced;
 - The height of the landing door is reduced.

1.2

This document is applicable to.

- a) Manufacture and installation of new elevators to be installed in existing buildings (including new shafts and machine spaces in existing buildings);
- b) Replace in-service elevators in existing shafts and machine spaces with new elevators.

Note: This includes the replacement of elevator components that are directly connected to the building, such as guide rails and their mounting brackets, landing door pockets, sills, etc., of the