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

GB 17907-2010

Replacing GB 17907-1999

Mechanical parking systems - General safety requirements

机械式停车设备 通用安全要求

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Foreword

Chapter 5 of this standard (except 5.2.1,

5.2.2 outside and 5.8) as mandatory provisions, the rest are recommended provisions. This standard replaces GB 17907-1999 "mechanical parking systems - General safety requirements." This standard compared with GB 17907-1999, the main changes are as follows:

- References to normative contents of the file has been modified;
- Increased terms and definitions (Chapter 3);
- Delete the contents of the original standard No. 7 in Table 1;

- Remove the original standard in Appendix A of the contents;
- Original standard Chapter 5 content is adjusted to informative Appendix B;
- Standard Appendix C of the original content of this standard adjustment Chapter 6 and Chapter 7;
- Increased design requirements (see 5.2.2);
- Increased case the degree of protection of electrical equipment (5.6.6.2);
- Increased resistance to electromagnetic interference requirements (5.6.8);
- Adjust and complement the security guard (5.7);
- Increasing the safety requirements of the transition area (5.8). Appendix A of this standard is a normative appendix, Appendix B is an informative annex. The standard proposed by China Machinery Industry Federation. This standard by the National Standardization Technical Committee crane (SAC/TC227) centralized. This standard is drafted by: Beijing Materials Handling Design and Research Institute. Participated in the drafting of this standard. Jiangsu Shuangliang Parking System Co., Ltd., Shandong Laiwu Steel garage Teda Company Limited, Hangzhou West IHI Parking Equipment Co., Ltd., Hangzhou Good Friend Precision Machinery Co., Ltd. Zhejiang Ai Knight Machinery Co., Ltd., Shenzhen CIMC Tianda Airport equipment Limited, Beijing Department of Aerospace Technology Co., Ltd., Lanzhou Yuanda engineering equipment limited liability company, Shenzhen Yee Fung Automation Technology Co., Ltd. The main drafters of this standard. Yang Chunping, Cheng Qi, Xu Ming Jin, Wang Zhiwu, Qiu Rongxian, Cui Yuan, Yu built, the Jing. This standard replaces the standards previously issued as follows:
- GB 17907-1999. Mechanical parking systems - General safety requirements

1 Scope

China's mandatory safety standard for mechanical parking systems - the stackers, puzzle systems, tower and carousel parks and fully automated garages that store cars on more than one level, and which occupy an unusual position: they are lifting machinery, they are operated by members of the public rather than by trained drivers, and the load they carry frequently contains a person who should not be there. The standard specifies the basic safety requirements for the design, the manufacture, the testing and the use of mechanical parking equipment, and it applies to mechanical parking equipment of all types. The requirements follow from those three facts. As lifting machinery it needs the things any lifting machine needs: the load bearing structure and its calculation, the mechanisms and their brakes, the ropes and chains and their factors of safety, the anti-fall devices that must hold a platform when a drive or a rope fails, and the limits and end stops. As public equipment it needs what a machine used by untrained people needs: the enclosure and the interlocks that make it impossible to move the system while anyone can reach into it, the

vehicle position detection that stops the machine if a car is not correctly placed or is oversized, the controls and their labelling, the emergency stop reachable from where a person actually stands, and the lighting and marking. And because a person may be inside a vehicle or inside the structure when the system is told to move, the standard sets the detection and the procedures that must prevent it, together with the means of releasing someone who is trapped and the rules for recovering a vehicle during a power failure. Issued on 10 January 2011 and in force since 1 December 2011, it replaces GB 17907-1999.

This standard specifies the basic safety requirements for mechanical parking equipment (hereinafter referred to as parking facilities) design, manufacture, testing, use and other aspects. This standard applies to various types of mechanical parking equipment. Safety requirements specified in this standard are dangerous for standard

1 Danger List as described in this table. This standard does not apply to the following.

- a) Car Lift (for maintenance);
- b) the requirements of the building, even if the parking facilities directly supported by the building, not in the scope of this standard;
- c) peripheral equipment parking equipment.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 1243 Short pitch transmission precision roller chains, bush chains, attachments and sprockets (GB/T 1243-2006, ISO 606.2004, IDT) GB 2894 Safety Signs (GB 2894-1996, neq ISO 3864. 1984)

GB/T 3323 metal fusion welded joints radiography (

GB/T 3323-2005, EN1435.1997, MOD)

GB/T 3766 Hydraulic System General technical conditions (GB/T 3766-2001, eqv ISO 4413.1998)

GB/T 3805 extra low voltage (ELV) limits

GB/T 3811 crane design specifications

GB 4208 housing protection (IP Code) (GB 4208-2008, IEC 60529.2001, IDT)

GB/T 5972 crane wire rope maintenance, maintenance, installation, examination and

discard (GB/T 5972-2009, ISO 4309.2004, IDT)

GB 6067.1-2010 crane safety regulations - Part 1. General

GB/T 6074 plate chain, connecting ring and groove wheel size, measuring forces and tensile strength (GB/T 6074-2006, ISO 4347.2004, IDT)

GB/T 6417.1 metal fusion welding head defect classification and description (GB/T 6417.1-2005, ISO 6520-1.1998, IDT)

GB 7588 elevator manufacturing and installation of safety norms (

GB 7588-2003, EN81-1.1998, MOD)

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 Auxiliary equipment auxiliaryequipment Parking assist device access devices together to complete the car, for example. the transition area and door interlocks, work area door, side door, access door, tight Emergency exits, access doors, etc. (see Figure 1).

3.2 Peripherals peripheralequipment Independent of the parking facility, with its own function devices, such as. fire-fighting facilities, drainage, ventilation ventilation, lighting and Parking management systems.

3.3 Transition Area transferarea When the car access by persons driving state to state or by the parking device control device control state to stop driving like staff Area state (see Fig. 1). 1

--- conversion area door; 2

--- work area door; 3

--- side door; 4

--- access door; 5

--- emergency exits; 6

--- access door; 7

--- Transition Area; . 9

--- workspace. figure 1

3.4 Workspace workingarea Parking equipment operation, storage area of the vehicle. No way of parking facilities in the region does not allow the occupants to enter (see picture 1).

3.5 Entrance access Outermost entrance and exit of parking equipment conversion area or workspace (see Figure 2). figure 2