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

GB 22361-2008

Piling equipment safety requirements

打桩设备安全规范

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Foreword

4.28 of this standard is recommended. The rest is mandatory. This standard is not equivalent to the European standard EN996.1995 "piling equipment safety specifications" (includes Amendment A1.1999), the main difference as follows:

--- Deleted EN996 foreword;

--- Taking into account European standards consistent with the technical content of the case, citing the adoption of international standards equivalent to the latest version of our national standard;

--- Deleted EN996 informative Appendix E, Appendix F;

--- Adjusted standard text structure. The Standard Appendix A, Appendix B, Appendix C, Appendix D are normative appendix. The standard proposed by China Machinery Industry Federation. This standard by the national construction machinery and construction equipment Standardization Technical Committee (SAC/TC328) centralized. This standard is drafted by: Beijing CIB Technology Co., Ltd. Participated in the drafting of this standard. Beijing Institute of Architectural mechanization, Shanghai Construction Machinery Co., Ltd., Beijing Sany Heavy Machinery Co. Secretary, Zhejiang Construction Machinery Co., Ltd., Hebei New River New Drilling Ltd., Jiangsu East Construction Machinery Co., Ltd., co-Wendeng Machinery Co., Ltd., Guangdong Liyuan Hydraulic Machinery Co., Ltd. The main drafters of this standard. new GUO Chuan, Li Jing, Qi Jianming IN TRADITIONAL Cao summer, Songxiu Ting, Tang Chang, Wang Fengliang, Chen Shujie, Feng Shihui. Piling

equipment safety regulations

1 Scope

GB 22361-2008 is the Chinese national standard on piling equipment 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 28 August 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 April 2009. 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.

1.1 standard specifies the following purposes piling equipment safety regulations.

- Using piles or other longitudinal member basis, construction of continuous walls or base support structure;
- Pile removal;
- Construction of drainage or pile foundation construction using a spray method. Pile material can be timber, concrete (precast or infusion site) or steel (steel or rolled steel, etc.). In addition, the pile may have Interlocking characteristics, so that the adjacent pile into one.

1.2 This standard relates to all significant hazards associated with piling equipment (see Appendix A), in the following cases.

- Transport equipment;
- Installation and removal of equipment;
- Construction equipment and shut-down;
- Device between the construction site pile position to move;
- Storage device. This standard specifies the appropriate technical measures to be taken to eliminate or reduce the risk of significant harm caused.

1.3 Piling apparatus comprising.

a) pile frame By the chassis (crawler, wheel, rail, floating, walker, take the tube), the column connecting means, column (straight-mounted, suspended, Swing) or other guide means (guide frame etc.).

b) Shen pile pulling work equipment That hammer, pile pulling, vibration pile hammer or

static pile pile pulling devices.

c) Accessories Pile caps, pile helmet, pads, send the pile, a pile clamping device (or chuck), hanging pile means, guide means pile enclosures and damping/red dress Position, power station/generator and manned lifts or platforms.

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 2893.1 Graphical symbols - Safety colors and safety signs - Part 1. workplaces and public areas for safety signs set Accounting principles (GB/T 2893.1-2004, ISO 3864-1.2002, MOD)

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

GB 4351.1 portable fire extinguisher first part. performance and structural requirements (GB 4351.1-2005,

ISO 7165.1999, Fire fighting-Portablefireextinguishers-Performanceandconstruction, NEQ)

GB 5226.1-2002 Safety of machinery electrical equipment Part 1. General requirements (IEC 60204-1.2000, IDT)

GB/T 5972 crane wire rope inspection and scrap of practice (GB/T 5972-2006, ISO 4309.1990, IDT)

GB 7588 elevator manufacturing and installation of safety norms (

GB 7588-2003, eqvEN81-1.1998)

GB/T 7920.6 construction machinery and equipment Piling equipment Terminology and commercial specifications (GB/T 7920.6-2005, ISO 11886.2002, MOD)

GB/T 8420 moving machinery physical dimensions of operators and minimum operator space (GB/T 8420-2000, eqv ISO 3411.1995)

GB/T 8593.1 moving machinery - Symbols for operator controls and other displays - Part 1. Common symbols (GB/T 8593.1- 1998, eqv ISO 6405-1.1991)

GB/T 8595 moving machinery handling (GB/T 8595-2001, eqv ISO 10968.1995)

GB 10055 Construction Hoist Safety Regulations

3 Terms and Definitions

GB/T 7920.6 and the following terms and definitions apply to this standard.

- 3.1 Immersion, machines and devices or removal of the pile longitudinal member.
- 3.2 It contains the column, the column connecting means and the chassis, but does not include heavy lifting Pile work equipment and other devices.
- 3.3 Pile consists of wood, concrete (precast or infusion site) or steel (steel or rolled steel, etc.). Piles may have an interlocking feature, the phase Adjacent pile into one.
- 3.4 And piling machines supported mobile device piling work, columns and the like. NOTE. The chassis is required for installation of power systems and piling equipment control system that can be modified cranes, earth-moving machinery and other piling in for the purpose of design Or modification of the machine, such as crawler, wheel, rail, floating, walker, walking tubular chassis.
- 3.5 Structure for mounting heavy lifting Pile working device.
- 3.6 For incoming and/or impact, vibration and static pressure pile removal apparatus.

3.0 Installation 2.73

3.0 rope pressure

4.6.6 ends with wire rope wire rope clips are permitted only in the free fall of the hammer. Rope fixture selection and installation shall comply with Appendix D requirements.

4.7.1 Overview Piling equipment directly involved in the process and not for piling and maintenance hoist lifting platform should meet the requirements of 4.7.2.

4.7.2 Safety Requirements The first layer of wire rope winch maximum allowed tension of, should be represented on the winch plate. Hoist shall be equipped with.

--- Working braking system;

--- Parking brake system. When the winch operating device is not operating or power is interrupted, the parking brake system should be able to automatically load and prevent accidental act of reverse mobile.

Note. The braking system may use common components, such as hydraulically driven winch load or drop-down control valve control device may use as a working brake. Each braking system should at least be able to stop the brake rope pull

1.3 times the permissible work load; steady work available drivers brake system To which the load is decelerated to stop. It should be fitted with a winch to pull the pile measurement system that should be able to display the actual strain of the pile pulling the rope, and the display device installed in the driver Easy to see the place. The aforementioned measuring