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

GB/T 13750-2023

Replacing GB/T 13750-2004

**Vibratory pile driving and extracting equipment - Safety
operation rules**

振动沉拔桩机 安全操作规程

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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 13750-2004 "Safe Operating Procedures for Vibratory Pile Sinking and Extraction Machines". Compared with GB/T 13750-2004, except In addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope of application of this document has been changed (see Chapter 1, Chapter 1 of the.2004 edition);
- b) Added a "Terms and Definitions" chapter (see Chapter 3);
- c) General safety requirements are added (see 4.1.2, 4.1.3, 4.1.5, 4.1.9~4.1.12);

- d) The loading, unloading and maintenance requirements for pile drivers and components have been changed (see 4.1.7, 3.4 of the.2004 edition);
- e) Changed the requirements for the safe distance of the vibrating hammer from the top of the pile frame (see 4.1.8, 6.6 of the.2004 edition);
- f) The regulations for inspection and maintenance of wire ropes have been changed (see 4.1.13, 5.1 of the.2004 edition);
- g) Added specifications for the transportation, loading, unloading and maintenance of pile frames, cranes and winches (see 4.2.1~4.2.3);
- h) Added safety factor requirements for pile driver wire ropes (see 4.2.4);
- i) Added requirements for hand flag signals for water construction (see 4.2.5);

1 Scope

GB/T 13750-2023 is the Chinese national standard on vibratory pile driving and extracting equipment - safety operation rules, in the field of construction materials and building. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 7 September 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 April 2024. 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 the safe operation requirements for vibratory pile sinking and pulling machines and operators before, during and after operation. This document applies to vibratory sinking and pulling out equipment consisting of a vibrating pile hammer (hereinafter referred to as "vibrating hammer") and a pile frame, crane (including crane ship), excavator, etc. The safe use and operation of pile drivers (hereinafter referred to as "pile drivers").

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 5972 Crane wire rope care, maintenance, inspection and scrapping

GB/T 5976 Wire rope clamp

GB/T 6067.1 Safety regulations for lifting machinery Part

3 Terms and definitions

The terms and definitions defined in GB/T 7920.6 and JB/T 10599 apply to this document.

4.1 General requirements

4.1.1 Operators should receive special training and be familiar with the performance, structure, use and maintenance methods of the pile driver they operate. can be operated later.

4.1.2 Operators should not operate the pile driver after consuming alcoholic beverages.

4.1.3 Operators should wear personal safety protective equipment as required, have clear division of labor and unified command.

4.1.4 When working at height (fall height 2m or more), the operator should wear a safety belt.

4.1.5 The work site should be kept clean and tidy, and tools should be placed according to categories; potential safety hazards at the work site should be eliminated in a timely manner.

4.1.6 Electrical equipment should be installed, maintained and inspected by certified electricians.

4.1.7 The pile driver and each configured component should be transported, assembled, tested, disassembled and maintained in accordance with the instruction manual.

4.1.8 The pile driver should be equipped with a limit switch to ensure a safe distance between the top of the vibrating hammer and the bottom of the pulley block at the top of the pile driver. The safe distance is vibration The distance between the movable hammer rising to the top of the pile driver and before collision should not be less than 1m.

4.1.9 The pile pulling force should not be greater than the pile driver's calibrated maximum pile pulling force.