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

GB/T 17909.1-2023

Replacing GB/T 17909.1-1999

Cranes - Operating manual - Part 1: General

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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 is Part 1 of GB/T 17909 "Crane Operation Manual". GB/T 17909 has published the following parts.

---Part 1. General principles;

---Part 2. Mobile cranes;

---Part 4. Jib crane.

This document replaces GB/T 17909.1-1999 "Crane Crane Operation Manual Part 1. General Provisions" and is consistent with

Compared with GB/T 17909.1-1999, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) Changed the scope (see Chapter 1, Chapter 1 of the.1999 edition);
- b) Changed the terms and definitions of driver to operator (see 3.1, 3.1 of the.1999 edition);
- c) Added terms and definitions for the operation manual and controller (see 3.2~3.3);
- d) Added the suggestion to provide an electronic version of the operation manual (see 4.1);
- e) Relevant content of technical data has been changed (see 5.1, 5.1 of the.1999 version);
- f) It is added that safety signs should comply with the requirements of corresponding standards (see 5.2.1, 5.2 of the.1999 edition).

This document has been modified to adopt ISO 9928-1:2015 "Crane and Crane Operation Manual Part 1. General Principles".

Compared with ISO 9928-1.2015, this document has made the following structural adjustments.

a) increased by 3.2~3.3;

b) 5.2.1 corresponds to the content of 5.2 in ISO 9928-1.2015, and 5.2.2~5.2.6 corresponds to 5.2.1~ of ISO 9928-1.2015

5.2.5.

The technical differences between this document and ISO 9928-1.2015 and their reasons are as follows.

a) Added the scope of application (see Chapter 1) and clarified the scope of application of this document;

b) Replaced with normatively cited GB/T 3101, GB/T 3102.3, GB/T 6974.1~GB/T 6974.5 respectively

ISO 80000-1, ISO 80000-4 and ISO 4301 (all parts) (see Chapter 2), in order to adapt to my country's national conditions and increase the standard

Operability;

c) The terminology of the operation manual and controller (see 3.2~3.3) has been added and clearly defined to improve the practicality of this document and eliminate ambiguity;

d) Added the suggestion to provide an electronic version of the operation manual [see 4.1c)] to comply with technological development trends;

e) Added disclaimer information [see 4.2h)] to avoid disagreements caused by improper operation and other reasons;

f) Relevant requirements for technical data have been changed, including changing "the manual should include" to "the manual should include but not limited to" and adding the provision of

Requirements such as crane electrical schematic diagram, hydraulic system schematic diagram, controller panel layout diagram and main technical parameters of the crane (see 5.1), these data are an important part of the random delivery data, and are also an important basis for the installation, disassembly and operation of the crane;

g) Added that safety signs should comply with the requirements of GB/T 15052 (see 5.2.1) to clarify the requirements;

h) The relevant content of typical examples of safety warnings has been changed (see 5.2.2~5.2.6) to help the safe operation of the crane;

i) Added specific requirements for load diagrams and load tables (see 5.5) to improve the

operability of this document.

This document has made the following editorial changes. For simplicity and coordination with the existing standard system, the repeated "lifting" has been deleted from the name of this document.

The word "machine".

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

The crane operation manual is an important basis for guiding users to use the crane in a standardized and correct manner. In order to ensure that the operation manual is comprehensive

Reasonable, it is necessary to formulate this document. GB/T 17909 aims to unify and standardize the preparation of crane operating manuals and is planned to be composed of five parts.

constitute.

---Part 1.General principles. The purpose is to standardize the general requirements for crane operating manuals.

---Part 2.Mobile cranes. The purpose is to standardize the content of mobile crane operating manuals.

---Part 3.Tower cranes. The purpose is to standardize the content of tower crane operating manuals.

---Part 4.Jib crane. The purpose is to standardize the content of jib crane operating manuals.

---Part 5.Bridge and gantry cranes. The purpose is to standardize the content of operating manuals for bridge and gantry cranes.

Crane Operation Manual

Part 1.General principles

1 Scope

This document gives general requirements for the preparation of crane operating manuals.

This document applies to cranes defined in GB/T 6974.1.

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 3101 General principles for quantities, units and symbols (GB/T 3101-1993, ISO 31-0.1992, EQV)

GB/T 3102.3 Mechanical quantities and units (GB/T 3102.3-1993, ISO 31-3.1992, EQV)

GB/T 6974.1 Crane terminology Part 1.General terminology (GB/T 6974.1-2008, ISO 4306-1.2007, IDT)

GB/T 6974.2 Crane terminology Part 2.Mobile cranes (GB/T 6974.2-2017, ISO 4306-2. 2012,IDT)

GB/T 6974.3 Crane terminology Part 3.Tower crane (GB/T 6974.3-2008, ISO 4306-3.2003, IDT)

GB/T 6974.4 Crane terminology Part 4.Jib crane

GB/T 6974.5 Crane terminology Part 5.Bridge and gantry cranes (GB/T 6974.5-2008, ISO 4306-5.

2005,IDT)

GB/T 15052 General principles for crane safety signs and hazard graphic symbols (GB/T 15052-2010, ISO 13200.

1995,IDT)

3 Terms and definitions

The terms and definitions defined in GB/T 6974.1 and the following apply to this document.

3.1

operatorcraneoperator

A person who operates a crane for load positioning.

Note. Drivers are conventionally referred to only as operators who move a crane from one location to another.