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

**GB/T 24817.2-2021**

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**Cranes - Control layout and characteristics - Part 2: Mobile  
cranes**

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### Foreword

This document is in accordance with GB/T 1.1-2020 "Guidelines for Standardization Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting of rules.

This document is the second part of GB/T 24817 "Arrangement and Characteristics of Crane Control Devices". GB/T 24817 has been released

The following parts.

- Part 1. General Provisions;
- Part 2. Mobile crane;
- Part 3. Tower crane;
- Part 4. Boom crane;
- Part 5. Bridge and gantry cranes.

This document replaces GB/T 24817.2-2010 "Lifting machinery control device layout and characteristics-Part 2. Mobile lifting

Compared with GB/T 24817.2-2010, except for structural adjustments and editorial changes, the main technical changes are as follows.

- a) Changed the scope (see Chapter 1, Chapter 1 of the 2010 edition);
- b) The normative references have been changed (see Chapter 2, Chapter 2 of the 2010 edition);
- c) The term "driver" has been deleted (see 3.2 in the 2010 edition);
- d) The term "control device" has been added (see 3.2);

- e) The term "control station" has been added (see 3.3);
- f) The requirement for the two-way handle boom of a telescopic crane to push the handle forward is changed (see 5.3, 5.2.3 of the.2010 edition);
- g) The simplified diagram of the fixed-length boom crane control device has been changed (see Figure 4, Figure 4 of the.2010 edition);
- h) The requirements for the luffing/jib luffing selection switch and handle of fixed-length boom cranes have been added (see 6.2.4);
- i) The simplified diagram of the telescopic crane control device has been changed (see Figure 5, Figure 5 of the.2010 edition);
- j) The requirements for the vertical direction of the telescopic crane lifting 2 and the slewing control device handle 1 are changed (see 7.2.1.1, 6.2.1 of the.2010 edition);
- k) The requirements for the main boom luffing/telescopic/jib luffing selection switch and handle of the telescopic boom crane have been added (see 7.2.3.3);
- l) The requirements for the jib luffing control device have been added (see 7.2.4).

The translation method used in this document is equivalent to ISO 7752-2.2011 "The layout and characteristics of crane control devices Part 2.Flow

The basic layout and requirements of mobile cranes.

The Chinese documents that have consistent correspondence with the normatively cited international documents in this document are as follows.

---GB/T 6974.2-2017 Crane Terminology Part 2.Mobile Cranes (ISO 4306-2.2012, IDT)

---GB/T 24817.1-2016 The layout and characteristics of crane control devices Part 1.General (ISO 7752-1.2010, IDT)

This document has made the following editorial changes.

---In order to be consistent with the existing standard series, the standard name is changed to "Crane Control Device Arrangement and Characteristics Part 2.Flow

Mobile Crane.

This document was proposed by China Machinery Industry Federation.

This document is under the jurisdiction of the National Hoisting Machinery Standardization Technical Committee (SAC/TC227).

Drafting organization of this document. Xuzhou Heavy Machinery Co., Ltd.

## Introduction

GB/T 24817 "The layout and characteristics of crane control devices" is to standardize the layout and requirements of crane control devices in my country

And the standard of movement direction aims to unify the layout and movement direction of crane control devices in our country, and keep it consistent with the international. By five Partial composition.

---Part 1.General Provisions. The purpose is to specify the general layout and general requirements of crane control devices.

---Part 2.Mobile cranes. The purpose is to specify the layout and main characteristics of the mobile crane control device.

---Part 3.Tower crane. The purpose is to specify the layout and main characteristics of the tower crane control device.

---Part 4.Boom crane. The purpose is to specify the layout and main characteristics of the jib crane control device.

---Part 5.Bridge and gantry cranes. The purpose is to specify the layout and main characteristic.

Operators of mobile cranes often need to operate cranes of different models or different manufacturers. This document specifies the basic crane control

The arrangement and action direction of the control device to reduce the operator's confusion and misoperation in emergency situations.

The layout and characteristics of crane control device

Part 2.mobile crane

## 1 Scope

This document specifies the layout, requirements and requirements of control devices used for mobile crane slewing, load lifting, boom luffing and telescoping.

The direction of action. Involving the basic layout and requirements of the two-way handle (two-way control device) and the cross shaft handle (multi-directional control device), and

ISO 7752-1 is used together.

This document applies to all mobile cranes defined in ISO 4306-2.

## 2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated quotations

Only the version corresponding to that date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

This document.

ISO 4306-2 Crane Terminology Part 2.Mobile Cranes (Cranes-Vocabulary-Part 2.Mobile cranes)

ISO 7752-1 Crane control device layout and characteristics Part 1.General (Cranes-Control layout and

characteristics-Part 1.Generalprinciples)

### **3 Terms and definitions**

The terms and definitions defined in ISO 4306-2 and the following apply to this document.

#### **3.1**

Operator

The person who manipulates the crane to locate the load.

[Source. ISO 7752-1]

#### **3.2**

Control

Connect the control device between the crane operator and the crane control system.

[Source. ISO 7752-1]

#### **3.3**

Controlstation

A fixed place that controls the operation or stopping of the crane.

[Source. ISO 7752-1]

### **4 Two-way handle, fixed-length boom crane**

The basic control device should be arranged according to Figure 1.