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

GB/T 24810.1-2026

Replacing GB/T 24810.1-2009

Cranes - Limiting and indicating devices - Part 1: General

起重机 限制器和指示器 第1部分：通则

(English Translation)

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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 24810 "Crane limiters and indicators". GB/T 24810 has published the following...

part.

---Part 1: General Rules;

---Part 2: Mobile Cranes;

---Part 3: Tower Cranes;

---Part 4: Boom Cranes;

---Part 5: Bridge and Gantry Cranes.

This document supersedes GB/T 24810.1-2009 "Crane limiters and indicators - Part 1: General rules", and is consistent with GB/T 24810.1-Compared to 2009, aside from structural adjustments and editorial changes, the main technical changes are as follows.

---The scope has been changed (see Chapter 1, Chapter 1 of the 2009 edition);

---The definition of the term "collision avoidance device" has been changed (see 3.1, 2009

edition of 3.1);

---The terms "continuous warning," "anti-derailment device," and "overturning line extension" and their definitions have been removed (see 3.3, 3.9, and 3.4 in the 2009 edition).

3.15);

---Change the term "console limiter" to "control station position limiter" (see 3.3, 3.4 in the 2009 edition);

---The term "amplitude limiter" and its definition have been changed (see 3.4, 3.5 in the 2009 edition);

---Change the term "lift limiter" to "lift restrictor" (see 3.5, 3.6 in the 2009 edition);

---The term "down limiter" and its definition have been changed, and examples have been added (see 3.7, 3.8 in the 2009 edition);

---The definition of the term "motion limiter" has been changed (see 3.8, 3.10 in the 2009 edition);

---The definitions of the terms "rated lifting capacity," "rated lifting capacity indicator," and "rated lifting capacity limiter" have been changed (see 3.10~).

3.12 (3.12~3.14 in the 2009 edition)

---Change the terms "slewing limiter," "telescopic limiter," and "trolley and crane travel limiter" to "slewing limiter," "telescopic limiter," and "trolley and crane travel limiter," respectively.

"Travel limiter" and "running stroke limiter" (see 3.14~3.16, 3.17~3.19 in the 2009 edition);

---The terms "event logger" and "data logger" and their definitions have been added (see 3.18 and 3.19);

---Changed the general requirements for rated lifting capacity limiters, load limiters, or indicators, and added requirements for design and installation, stating that they "should be able to..." the relevant requirements for "performing functional checks on its own circuitry and responses" are detailed in section 4.2 (see section 4.2 of the 2009 edition).

---The operating requirements for the rated lifting capacity indicator have been changed (see 4.4.1.2, 2009 version 4.4.1.2);

---The requirement for routine inspection of the rated lifting capacity indicator has been removed (see 4.4.3 in the 2009 edition);

---The requirements for inspection have been changed (see Chapter 5, Chapter 5 of the 2009 edition);

---The warning about paint scheme in the usage information has been removed (see 8.3, 2009 version 8.3).

This document is equivalent to ISO 10245-1:2021 "Crane limiters and indicators - Part 1: General".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Machinery Industry Federation.

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

Introduction

Crane limiters and indicators are core systems for the safe operation of cranes. GB/T 24810 "Crane Limiters and Indicators" is...

Important standards that specify the general requirements for crane limiters and indicators.

GB/T 24810 consists of five parts.

---Part 1: General Rules. The purpose is to regulate the general requirements for crane limiters and indicators.

---Part 2: Mobile Cranes. The purpose is to standardize the load, movement, performance, and environmental limits and specifications for mobile cranes.

Special requirements for the display.

---Part 3: Tower Cranes. The purpose is to specify the special requirements for limiters and indicators on tower cranes.

---Part 4: Boom Cranes. The purpose is to regulate the load, movement, performance, and environmental limits and indications for boom cranes.

Special requirements for the instrument.

---Part 5: Bridge and Gantry Cranes. The purpose is to standardize the load, motion, performance, and environmental aspects of bridge and gantry cranes.

Special requirements for limiters and indicators.

Crane limiters and indicators Part 1: General Rules

1 Scope

This document specifies the general requirements for crane limiters and indicators applied to load and motion, performance and environment. These devices limit...

Control operations and/or provide operational information to operators or other personnel.

Specific requirements for each type of crane can be found in other parts of ISO 10245.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

ISO 4306-1 Cranes - Vocabulary - Part 1: General Note. GB/T 6974.1-2008 Crane Terminology Part 1: General Terms (ISO 4306-1:2007, IDT) ISO 9927-1 Cranes - Inspections - Part 1: General Note. GB/T 23724.1-2016 Crane inspection - Part 1: General (ISO 9927-1:2013, IDT) ISO 10245-2 Crane Limiters and Indicators Part 2: Mobile Cranes Note. GB/T 24810.2-2021 Crane limiters and indicators - Part 2: Mobile cranes (ISO 10245-2:2014, IDT) ISO 10245-3 Crane Limiters and Indicators Part 3: Tower Cranes Note. GB/T 24810.3-2025 Cranes - Limiters and Indicators - Part 3: Tower Cranes (ISO 10245-3:2019, MOD) ISO 10245-4 Crane Limiters and Indicators Part 4: Cranes with Booms Note. GB/T 24810.4-2009 Cranes - Limiters and Indicators - Part 4: Boom Cranes (ISO 10245-4:2004, IDT) ISO 10245-5 Crane Limiters and Indicators - Part 5: Cranes and Gantry Cranes Note. GB/T 24810.5-2009 Cranes - Limiters and Indicators - Part 5: Bridge and Gantry Cranes (ISO 10245-5:1995, IDT)

3 Terms and Definitions

The terms and definitions defined in ISO 4306-1, as well as the following terms and definitions, apply to this document.

Anti-collision device A device to prevent a crane or its components from colliding with a fixed lifting device or other crane when they are moving simultaneously in the same space.

Note: In some applications, the workspace limiter can function as a collision avoidance device.

Configuration

The combination and arrangement of structural components, counterweights, support components or outrigger positions, hook pulley block winding systems and similar components, and the basis for