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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 26470-2025

Replacing GB/T 26470-2011

General specification for launching gantries

架桥机通用技术条件

Issued on: May 30, 2025 **Implemented on: December 1, 2025**

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Standardization Administration of China

Table of Contents

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1.Structure and drafting rules for standardization documents" Drafting. This document replaces GB/T 26470-2011 "General Technical Requirements for Bridge Erection Machines". Compared with GB/T 26470-2011, in addition to the structural adjustment In addition to editorial changes, the main technical changes are as follows:

--- Changed the scope (see Chapter 1, Chapter 1 of the.2011 edition);

--- Changed the terms "bridge erection machine" and "segmental assembly erection" and their definitions (see

3.2 of the.2011 edition), and added Added the terms "walking through-hole bridge-erector-machine", "track-type through-hole bridge-erector-machine" and "beam trolley" and their definitions (see 3.2,

--- The type has been changed (see 4.1,

4.1 of the.2011 edition);

--- Changed the values that should be used first for the rated lifting weight and rated load of the bridge crane (see 4.2.2,

4.2.2 of the.2011 edition);

--- Added motor operating conditions (see 5.1.4);

--- Increased the bearing capacity requirements for the foundation of the supporting bridge erection machine (see 5.1.6);

--- Changed the minimum curve radius of the bridge erecting machine (see 5.1.7, 5.1.7 of the.2011 edition);

--- Changed the maximum slope that the bridge erector can adapt to (see 5.1.8,

1 Scope

China's national general specification for launching gantries, the machines that place the precast girders of a bridge deck. It specifies the classification, the requirements, the test methods, the inspection rules and the marking, packaging, transport and storage. A launching gantry is how a viaduct gets built when there is nothing underneath to build from. It sits on the piers and on the deck it has already completed, picks up a girder delivered along that deck behind it, carries it forward over the gap, sets it on the next pair of bearings, and then launches itself forward onto the span it has just made - and repeats. China's high speed railway network was built this way, span by span, by machines that spent years walking along a viaduct without ever touching the ground, and the method is what makes a thousand kilometres of elevated line buildable in the time it was. The machine is unusual among lifting equipment in that its own stability changes continuously through the cycle. It is a long structure supported at two or three points on structures it is in the process of building, its supports move while it is loaded, and at the moment of launching it cantilevers out over an unsupported span with a girder that may weigh several hundred tonnes. So the standard treats the structure, the support and launching arrangement, the lifting and traversing mechanisms, the drives and controls, the load and stability calculations and the safety devices as one system. And it treats the loads that would be secondary elsewhere as primary here: wind on a long high structure, the out-of-level and the differential settlement of the piers it stands on, and the dynamic effects of moving a suspended load along its length. Issued on 30 May 2025 and in force since 1 December 2025, it replaces GB/T 26470-2011.

This document specifies the types and basic parameters, technical requirements, test methods, inspection rules and markings, packaging, transportation and storage of bridge-building machines. This document is applicable to bridge erection machines used in railway, highway and municipal engineering bridge erection construction. Other bridge erection equipment can be used for reference.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document. GB/T

27 Hexagonal head reinforcement bolts GB/T

97.1 Flat washers Grade A

GB/T 700 Carbon structural steel

GB/T 755-2019 Ratings and performance of rotating electrical machines

GB/T 985.1 Recommended grooves for gas welding, arc welding, gas shielded welding and high energy beam welding

GB/T 985.2 Recommended groove for submerged arc welding

GB/T 1231 High-strength large hexagonal bolt connections for steel structures

GB/T 3766 General rules and safety requirements for hydraulic transmission systems and their components

GB/T 3811-2008 Crane design specification

GB/T 4162-2022 Ultrasonic testing method for forged steel bars

GB/T 4208 Enclosure protection grade (IP code)

GB/T 5226.32 Electrical safety of machinery Electrical equipment of machinery Part

32.Technical conditions for lifting machinery