

ICS 53.020.20

CCS J80



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

GB/T 13752-2017

Replacing GB/T 13752-1992

Design rules for tower cranes

塔式起重机设计规范

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Foreword

This document was issued on 28 February 2017 by the State Administration for Market Regulation and the Standardization Administration of the People's Republic of China, and has been in force since 1 September 2017.

It replaces GB/T 13752-1992.

Classification: ICS 53.020.20, CCS J80.

1 Scope

China's national design rules for tower cranes. The tower crane is the machine that builds every Chinese city, and its design problem is unlike that of other cranes: it is a slender vertical structure that grows as the building grows, tied into a structure that is itself incomplete, and it spends its life exposed to wind at heights where wind is the governing load rather than a nuisance. The rules therefore centre on the load cases and how they combine - the lifted load with its dynamic factors, the wind in service and out of service, the slewing and travelling forces, and the out-of-service condition in which the jib must weathervane freely. On top of that sits fatigue, which is what actually limits a tower crane's life: the structure is loaded and unloaded thousands of times a week, and the welded joints of the mast and jib are designed against cycles rather than against a single maximum.

About this edition

GB/T 13752-2017 is the current edition. It was issued on 28 February 2017 and has been in force since 1 September 2017, replacing GB/T 13752-1992.

GB/T 13752-1992 has been superseded: a specification that still cites it is citing a withdrawn edition.

The interval between issue and effect is the transition period. It exists so that producers, laboratories and buyers can requalify products, revise procedures and use up

documentation before the new text becomes the one that applies. The date on this page is the official one from the record of the Standardization Administration.

Classification and status

GB/T 13752-2017 is classified under ICS 53.020.20, in the field of materials handling equipment. ICS is the International Classification for Standards, the same scheme used by ISO and by the national bodies of most countries, which is what allows a Chinese standard to be placed beside its foreign counterparts on subject rather than on number.

Its Chinese Standard Classification code is CCS J80. CCS is the domestic scheme, a letter for the sector and two digits for the subject within it, and it is the code by which the standard is filed and searched in China.

The GB/T prefix marks a recommended national standard. It is not, in itself, law: it becomes binding when a contract names it, when a regulation or a mandatory standard refers to it, or when a producer declares conformity with it. In practice that covers most of the cases in which it will be read - a purchase specification, an inspection agreement or a certification scheme.

How a Chinese national standard is set out

Chinese national standards are drafted to the rules of GB/T 1.1, which fixes the order in which a standard is set out. The document opens with a foreword recording the issuing bodies, the relationship to any previous edition and the technical committee responsible for it. Clause 1 is the scope. Clause 2 lists the normative references - the other standards that have to be applied together with this one, and without which its requirements cannot be met. Clause 3 gives the terms and definitions. The technical clauses follow: the requirements themselves, the test or measurement methods by which conformity is established, the inspection rules that say how a lot is sampled and judged, and, for a product standard, the provisions on marking, packaging, transport and storage. Annexes, normative or informative, come last.

GB/T 13752-2017 runs to 160 pages in the English translation. What is delivered is the complete document in that order: every clause, every table, every figure and every annex of the Chinese original, with the same numbering, so that a reference to a clause number in a contract or a test report points to the same place in both languages.