

NATIONAL STANDARD  
OF THE PEOPLE'S REPUBLIC OF CHINA  
中华人民共和国国家标准

**Code for Design of Timber Structures**

**木结构设计规范**

**GB 50005 — 2003**  
(英文版)

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## NOTICE

The code is written in Chinese and English. The Chinese text shall be taken as the ruling one in the event of any inconsistency between the Chinese text and the English text.

**Ministry of Construction, the People's Republic of China**  
**ANNOUNCEMENT**

No. 189

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It is hereby to notify that the Code for Design of Timber Structures is approved as a national standard as GB50005—2003. This code has been in force since January 1, 2004. In this code, Clauses 3.1.2, 3.1.8, 3.1.11, 3.1.13, 3.3.1, 4.2.1, 4.2.9, 7.1.5, 7.2.4, 7.5.1, 7.5.10, 7.6.3, 8.1.2, 8.2.2, 10.2.1, 10.3.1, 10.4.1, 10.4.2, 10.4.3, 11.0.1 and 11.0.3 are mandatory clauses, which must be strictly implemented. The former Code for Design of Timber Structures of GBJ5—88 is superseded at that time.

The Research Institute of Standard and Norms has entrusted the China Architecture & Building Press to publish this code.

**Ministry of Construction, the People's Republic of China**  
**October 26, 2003**

## Preface

The China Southwest Architectural Design & Research Institute and the Sichuan Architectural Scientific Research Institute in conjunction with appropriate organizations revised this code based upon GBJ5—88 *Code for Design of Timber Structures* in accordance with the Construction of Ministry's Decreed [1999]No.37 of architectural regulations.

During the revision, the code committee investigated and studied extensively, had monographic discussions, summarized and absorbed experience and advanced technology of designs and applications in the national and international timber structure, consulted relevant international standards and recognized codes and standards used in other countries. This code was finalized after extensive consultation with related organizations and discussions and amendments.

There are totally 11 chapters and 16 appendices in this revised version. Major revisions are as follows:

1. To adjust the reliability index for timber structures based on the revised edition of *Unified Standard for Reliability Design of Building Structures* and *Load Code for the Design of Building Structures*;
2. To add design requirements on imported timbers, derivation of strength design value for imported dimension lumber and major points of field – grading and main characteristics of timbers;
3. To revise and complement part of calculation on members of timber structures;
4. To add truss plate joints in connection of timber structures;
5. To make some revisions and complements on the glued laminated timber structures, which constitutes this code as an independent chapter;
6. To add a section of light wood frame construction, with each chapter to be set up for common timber structures and light wood timber structures;
7. To establish a chapter for fire protection of timber structures in light of the characteristics of timber structures;
8. To get such preservations from decay and insect attack made up this code as one chapter.

If partial revisions are made in the future, notifications of the revised clauses will be published in the magazine *Standardization of Engineering Construction*.

The mandatory clauses in this code are printed in bold, and must be strictly implemented.

The Ministry of Construction is responsible for administration and explanation of mandatory clauses of this code, while the China Southwest Architectural Design & Research Institute is responsible for explanation of specific technical contents of this code. In execution of the code, any organizations could send the comments or recommendations to the national committee on *Code for Design of Timber Structures* at the China Southwest Architectural Design & Research Institute (8 West Xinghui Road, Chengdu 610081; e – mail: xnymj@mail.sc.cninfo.net).

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## 1 General

**1.0.1** This code is enacted, in the design of timber structures, to carry out the national policies on technology and economy, to ensure security and safety and health for people, to protect environment and to secure the public wealth.

**1.0.2** The code is adopted for design of loadbearing timber structures.

**1.0.3** The design principle of this code is on the basis of national standard: *Unified Standard for Reliability Design of Building Construction* (GB50068).

**1.0.4** Loadbearing timber structure should be used for a building with normal temperature and moisture. Timber structures without fire-retardant treatment shall not be used in a building that is susceptible to fire. Timber structures without treatment of damp proof and decay preservation shall not be employed for a place where is subject to frequent moisture and with poor ventilation.

**1.0.5** On one condition of ensuring construction quality, tree species, fast-growing trees, for example, may gradually be utilized to a larger extent.

**1.0.6** In addition to this code, the design of timber structures shall also be performed in conformity with relevant current national compulsory standards.



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