

ICS 13.110
CCS J09



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

GB/T 17889.4-2024

Replacing GB/T 17889.4-2012

Ladders - Part 4: Hinged ladders

梯子 第4部分：铰链梯

Issued on: August 23, 2024

Implemented on: August 23, 2024

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

1 Scope ...	1
2 Normative references ...	1
3 Terms and Definitions ...	1
4 Functional dimensions ...	4
4.1 General requirements...	4
4.2 Hinged ladders used as leaning ladders or free-standing ladders	5
4.3 Multi-hinged ladder used as a platform	5
4.4 Multi-hinged ladder used as support	6
5 Requirements ...	7
5.1 General requirements	7
5.2 Tabletop parts ...	7
6 Test methods ...	7
6.1 General requirements	7
6.2 Hinged ladder strength test	7
6.3 Additional strength test for multi-hinged ladders	8
6.4 Hinge cycle test	9
6.5 Tests on hinged ladders used as platforms	9
7 Usage Information ...	11
7.1 General requirements	11
7.2 Logo ...	11
13 References ...	15

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 is Part 4 of GB/T 17889 "Ladder". GB/T 17889 has published the following parts. Part

1 Scope

GB/T 17889.4-2024 is the Chinese national standard on ladders - part 4: hinged ladders, in the field of environment and health protection, safety. The /T suffix marks it as a

recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 23 August 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 23 August 2024. Classification: ICS 13.110, CCS J09. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the functional dimensions, requirements, test methods and information for use of hinged ladders. This document applies to hinged ladders that can achieve multiple functions such as leaning on and self-supporting. This document does not apply to combination ladders and free-standing ladders with articulated joints as specified in GB/T 17889.1.

Note. This document is used in conjunction with GB/T 17889.1, GB/T 17889.2 and GB/T 17889.3.

2 Normative references

The contents of the following documents constitute the 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. in this document.

GB/T 17889.1-2021 Ladders Part

3 Terms and definitions

The terms and definitions defined in GB/T 17889.1-2021 and the following apply to this document.

3.1 hinged ladder joint ladder A ladder that can achieve multiple functions by automatically or manually folding the hinges on the ladder frame. [Source: GB/T 17889.1-2021, 3.1.3, modified]

3.1.1 Hinged ladder with two hinge-joints A hinged ladder is a ladder that has only a pair of hinges in the middle of the ladder frames on both sides, and the hinges have at least one predetermined lockable position. Note

1.This also includes double-hinged ladders with extendable ladder frames at both ends.
Note

2.Examples of double-hinged ladders and their functions are shown in Figures 1 and 2.

5 Telescopic ladders;- Part

6.Portable platform ladders. - This document replaces GB/T 17889.4-2012 "Ladders Part

4.Ladders with single or multiple hinges" and is in accordance with Compared with GB/T 17889.4-2012, in addition to structural adjustments and editorial changes, the main technical changes are as follows: The term "longitudinally hinged ladder" was changed to "hinged ladder" and the definition was changed (see

3.1 of the.2012 edition); - The term "ladder with a lockable hinge joint" was changed to "double-hinged ladder" and examples were added (see 3.1.1,

3.1.1 of the.2012 edition); The term "ladder with multiple lockable hinged joints" was changed to "multi-hinge ladder" and examples were added (see 3.1.2,

3.1.2 of the.2012 edition); The term "laterally hinged ladder" and its definition (see

3.2 of the.2012 edition) have been deleted; - The general requirements for functional dimensions have been changed (see 4.1,

4.1 of the.2012 edition); - The requirements for longitudinally hinged ladders (see

5.3 of the.2012 edition) have been deleted; - The general test method has been changed (see 6.1,

6.1 of the.2012 edition); - The strength test method for hinged ladders has been changed, and ladders are divided into professional ladders and household ladders (see 6.2,

6.2 of the.2012 edition); - An additional strength test for multi-hinged ladders has been added (see 6.3); - The strength test of the deck plate has been changed (see 6.5.2,

6.2.4.2 of the.2012 edition); - Added strength test for hinged ladders and their platform components when used as platforms (see 6.5.3); - The ladder safety test (see

6.2.4.3 of the.2012 edition) has been deleted; - The test for transverse hinged ladders has been deleted (see

6.3 of the.2012 edition); - Changed the requirements for instructions for use (see Chapter 7, Chapter 8 of the.2012 edition); - The test sequence for transversely hinged ladders has

been deleted (see Table A.2 of the.2012 edition). Please note that some of the contents of

this document may involve patents. The issuing organization of this document does not

assume the responsibility for identifying patents. This document was proposed and

coordinated by the National Technical Committee for Machinery Safety Standardization

(SAC/TC 208). This document was drafted by: Tianjin Jinmao Group Co., Ltd., Zhejiang

Aopeng Industry and Trade Co., Ltd., Suzhou Feihua Aluminum Industry Co., Ltd. Company,

Suzhou Zhongchuang Aluminum Co., Ltd., Foshan Shunde Wanyi Home Furnishing Co.,

Ltd., Shanghai Ruiju Metal Products Co., Ltd., Ningbo Xingfu Tools Co., Ltd., Guangdong

Qunwang Technology Co., Ltd., Shenyang Yongpan Metal Products Co., Ltd., Zhejiang Maier Tools Co., Ltd. Company, Lantu Automobile Technology Co., Ltd., China State Shipbuilding Corporation No. 703 Research Institute, Sichuan Shuxing Youchuang Safety Technology Co., Ltd. Co., Ltd., China Machinery Research Institute of Standards and Technology (Beijing) Co., Ltd., Yiwu Kayi Mould Co., Ltd., China Machinery Productivity Promotion Center Co., Ltd. company. The main drafters of this document are. Li Jie, Dong Kaibo, Zhang Xiuzhuo, Zhou Xiaoying, Cai Qiang, Cai Baorong, Tao Junfu, Zhang Zhao, Chen Mingzhen, Chen Guoliang, Qin Peijun, Chen Miaoren, Wu Qu, Pang Xuejia, Lv Rongjun, Cai Xuyong, Bao Minghua, Zhang Qun, Tian Shaozhuang, He Jianping, Jiang Jinghua, Xiong Yuping, Lan Xupo, Fu Huiqing, Yang Yi, Chen Jiaxing, Yan Lujun, Li Fengming, Liu Zhiyong, Li Qin, Xu Haozhi, Zhang Yan, Jia Shuxu, Cheng Hongbing, Wang Shengjiang, Wang Jing, Zhang Xiaofei. This document was first published in.2012 and this is the first revision.

Ladders are a commonly used safety facility for climbing heights. GB/T 17889 aims to improve the quality and safety level of ladder-related products and ensure that they are used safely and securely. User safety is planned to consist of 6 parts. Part