

ICS 49.100  
CCS V 57

**MH**

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

**MH/T 6028-2016**

---

**Passenger boarding bridge  
(English Translation)**

**Issued on: September 5, 2016**

**Implemented on: January 8, 2016**

---

**Issued by: Civil Aviation Administration of China**

## Table of Contents

|                                                              |  |
|--------------------------------------------------------------|--|
| Foreword                                                     |  |
| 1 Scope                                                      |  |
| 2 Normative references                                       |  |
| 3 Terms and definitions                                      |  |
| 4 Classification                                             |  |
| 5 Model naming                                               |  |
| 6 Typical structure                                          |  |
| 7 Technical requirements                                     |  |
| 7.1 General requirements                                     |  |
| 7.2 Safety requirements                                      |  |
| 7.3 Strength of anti-falling device                          |  |
| 7.4 Structural performance parameters                        |  |
| 7.5 Operating speed                                          |  |
| 7.6 Hydraulic system                                         |  |
| 7.7 Structural safety                                        |  |
| 7.8 Wind resistance                                          |  |
| 7.9 Environmental conditions                                 |  |
| 7.10 Reliability                                             |  |
| 8 Test method                                                |  |
| 8.1 General inspection                                       |  |
| 8.2 Safety inspection                                        |  |
| 8.3 Strength test of anti-falling device                     |  |
| 8.4 Structural performance parameter measurement             |  |
| 8.5 Operation speed measurement                              |  |
| 8.6 Hydraulic system inspection and test                     |  |
| 8.7 Structural safety test                                   |  |
| 8.8 Wind resistance stability check                          |  |
| 8.9 Environmental test                                       |  |
| 8.10 Reliability test of rotating telescopic boarding bridge |  |
| 9 Inspection Rules                                           |  |
| 10 Nameplate, logo, accompanying documents and accessories   |  |
| 11 Packaging and Transportation                              |  |

## Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces MH/T 6028-2003 "Passenger Boarding Bridge". Compared with MH/T 6028-2003, the main technical changes are as follows.

- Added definitions of terms for awnings, transition boards, safety boots, emergency descent, and holding operation control devices (see Chapter 3);
- Added the name of the boarding bridge model (see Chapter 5);
- Added the technical requirements for real-time monitoring of the boarding bridge control system, operation data recording and video monitoring system (see 7.2.1);
- Increase the technical requirements for the carrying capacity of the lifting system (see 7.2.3);
- Increase the protection of the squeezing or shearing point of the walking system, the interlocking protection with the external ground equipment and the prevention of the intermediate communication of the three-channel telescopic structure Technical requirements for slip protection of road runaway (see 7.2.4);
- Increase the technical requirements for the safety protection device of the walking mechanism (see 7.2.5);
- Modified the technical requirements for the contact load of the interface buffer (see 7.2.6.4, 2003 edition 7.4.10);
- Added the protection requirements to prevent the free rotation of the interface after the transmission component of the rotating mechanism of the interface fails (see 7.2.6.11);
- Added the technical requirements for the automatic leveling mechanism (see 7.2.7);
- Increase the technical requirements for the size of the operating area, the line of sight, and the safety requirements for fall protection (see 7.2.9);
- Increased the technical requirements for the interlocking of the protective door and movable protection device with the boarding bridge walking, lifting and landing rotation system (See 7.2.9.11);
- Increase the technical requirements for internal lighting and external lighting (see 7.2.11);
- Added technical requirements for fire protection facilities (see 7.2.12);
- Increase the technical requirements for the strength of the anti-falling device (see 7.3);
- Modified the maximum value of boarding bridge lifting speed and the minimum value of emergency descent speed in manual mode (see 7.5, 2003 version 7.3.3);

- Modified the design load of the boarding bridge (see 7.7.1, 2003 version 7.3.1);
- Added the requirements for the structural safety factor of the boarding bridge (see 7.7.2);
- Modified the maximum deflection value of the boarding bridge under rated load and snow load (see 7.7.3, 2003 edition 7.5.10);
- Modified the technical requirements for wind resistance stability (see 7.8, 2003 version 7.2);
- Increased reliability requirements (see 7.10);
- Added relevant requirements for nameplates, markings and accompanying documents (see Chapter 10).

This standard was proposed and interpreted by the Airport Department of the Civil Aviation Administration of China.

This standard was approved by the Aircraft Airworthiness Certification Department of the Civil Aviation Administration of China.

This standard is under the jurisdiction of the China Academy of Civil Aviation Science and Technology.

Drafting organizations of this standard. Beijing Bowei Aviation Facilities Management Co., Ltd., National Construction Machinery Quality Supervision and Inspection Center.

## 1 Scope

This standard specifies the terms and definitions, classification, model designation, typical structure and technical requirements of passenger boarding bridges (hereinafter referred to as boarding bridges).

Requirements, test methods, inspection rules, nameplates, logos, accompanying documents and accessories, packaging and transportation, etc.

This standard applies to wheeled boarding bridges, pole-mounted boarding bridges and special types of boarding bridges. It can also be used for fixed bridges connecting the boarding bridge and the terminal.

Use as per.

## 2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 191 Packaging, storage and transportation pictorial signs GB 2894-2008 Safety signs

and guidelines for their use GB/T 3766 General technical conditions for hydraulic systems  
 GB 4053.2 Safety requirements for fixed steel ladders and platforms Part 2: Steel inclined  
 ladders GB 4053.3 Safety requirements for fixed steel ladders and platforms Part 3:  
 Industrial protective railings and steel platforms GB 5226.1 Electrical safety of machinery  
 Electrical equipment of machinery Part 1: General technical conditions GB/T 6388  
 Transport packaging receiving and dispatching signs GB/T 8923.1 Visual assessment of  
 surface cleanliness of steel surface treatment before coating. Part 1: Uncoated steel surface  
 and the rust grade and treatment grade of the steel surface after the original coating is  
 completely removed GB/T 9174 General technical requirements for general cargo  
 transportation packaging GB/T 9286 Cross-cut test of paint and varnish film GB/T 9969  
 General Rules for the Use of Industrial Products GB/T 13306 signs GB/T 13384 General  
 technical conditions for packaging of mechanical and electrical products GB 13495.1-2015  
 Fire Safety Signs Part 1: Signs GB 14050 System grounding type and safety technical  
 requirements GB/T 15706 General Principles of Mechanical Safety Design Risk  
 Assessment and Risk Reduction GB/T 16855.1-2008 Safety related components of  
 machinery safety control system Part 1: General design rules GJB 150.3A Military  
 equipment laboratory environmental test method Part 3: High temperature test GJB 150.4A  
 Military equipment laboratory environmental test method Part 4: Low temperature test JB/T  
 5000.3 General Technical Requirements for Heavy Machinery Part 3: Welding Parts ISO  
 7718-1 Passenger door interface requirements for aircraft boarding bridge connection Part  
 1: Aircraft-Passenger doors ISO 7718-2 Passenger door interface requirements for aircraft  
 boarding bridge connection Part 2: Aircraft-Passenger doors ISO 16004 Aviation ground  
 handling equipment, passenger boarding bridges and passenger elevators, requirements  
 for aircraft door interfaces (Aircraft ground

### 3 Terms and definitions

The following terms and definitions apply to this document.

Realize the active connection between the aircraft and the airport terminal (or fixed bridge),  
 and a closed passage for passengers and staff to get on and off the aircraft.

A boarding bridge that realizes horizontal movement on the apron through the walking  
 mechanism.

Through the walking mechanism, a wheeled boarding bridge that can achieve both  
 horizontal rotation and telescopic motion on the apron.

Through the walking mechanism, the wheeled boarding bridge can only achieve horizontal  
 rotation on the apron.

The boarding bridge realizes the horizontal expansion and contraction (or translation)  
 movement of the boarding bridge through a telescopic (or translation) mechanism.

A boarding bridge with only part of the main sports functions of a wheeled boarding bridge.