

ICS 91.060.99

CCS P 29



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

GB/T 32836-2016

Spherical bearings for steel building structures

建筑钢结构球型支座

Issued on: August 29, 2016

Implemented on: July 1, 2017

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009. This standard is proposed by the Ministry of Housing and Urban and Rural Development of the People's Republic of China. This standard is under the jurisdiction of the National Technical Committee on Building Structure Standardization (SAC/TC454). This standard is responsible for drafting units. Fortress Engineering Rubber Technology Development Co., Ltd. This standard participates in the drafting unit. China Architecture Standards Design and Research Institute, Beijing University of Technology, Tongji University, petroleum and chemical industry Rubber and Chemical Quality Supervision and Inspection Center (Beijing), China Architectural Design Institute Co., Ltd., China Architecture Southwest Design and Research Institute Co., Ltd., China Architectural Northwest Design & Research Institute Co., Ltd., Beijing Architectural Design & Research Institute Co., Ltd., Beijing Jianshe John Martin International Architectural Design Limited Company, Beijing Machinery Construction Co., Ltd., Hengshui Iron Construction Engineering Rubber Co., Ltd., Zhuzhou Times New Material Technology Co., Ltd. Division, Yunnan Zhenan Damping Technology Co., Ltd. The main drafters of this standard. Zhang Peiji, Xu Ruixiang, Wang Zhe, Xue Suduo, Peng Tianbo, Zhao Chunbo, Fan Chong, Chen Zhiqiang, Zhang Shunjiang, Zhang Sheng, Qiao Jufu, Gong Xiaoneng, Ning Xiangliang, Liao Yunkun, Li Jiong, Zheng Donghai. Construction steel ball bearings

1 Scope

China's national standard for spherical bearings used in steel building structures. It specifies the terms and definitions, the grades, the classification and marking, the general requirements, the requirements, the test methods, the inspection rules and the marking, packaging, transport and storage, and it carries nine annexes, eight of them normative test methods covering the initial static friction coefficient and linear wear rate, the friction coefficient, the vertical compressive bearing capacity, the rotational performance under vertical compressive load, the vertical tensile bearing capacity, the rotational performance under vertical tensile load, the horizontal bearing capacity and the horizontal stiffness. A bearing is the joint between a structure and its foundation, and it exists because a large steel structure moves. It expands and contracts with temperature, it deflects under load, it

settles differentially, and it sways in wind and in an earthquake, and every one of those movements has to be accommodated somewhere. A spherical bearing accommodates rotation about any axis through a curved sliding surface, usually steel against a low-friction polymer, and depending on its type it either restrains horizontal movement, permits it in one direction, or permits it in all. That makes the bearing one of the few structural components whose function is to allow movement rather than to prevent it, and it is why so much of this standard is test methods: the properties that matter - friction, wear, rotational capacity, horizontal stiffness - are behaviours under load rather than dimensions or compositions, and they can only be established by testing the assembled bearing. Issued on 29 August 2016 and in force since 1 July 2017.

This standard specifies the terms and definitions, classification, classification and marking of construction steel ball bearings (hereinafter referred to as "bearings"), general requirements, Requirements, test methods, inspection rules and marking, packaging, transportation and storage. This standard applies to steel structure with spherical bearings, other civil construction ball bearings can also refer to this standard.

2 Normative reference documents

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

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

GB/T 1033.1 Plastics - Determination of non-foam density - Part 1. Impregnation, liquid pycnometer and titration

GB/T 1040.1 Determination of tensile properties of plastics - Part 1. General

GB/T 1040.3 Determination of tensile properties of plastics - Part 3. Test conditions for films and flakes Shapes and position tolerances Not included Tolerance values

GB/T 1184-1996 High - strength large hexagon head bolts for steel structures GB/T

GB/T 1591 low alloy high strength structural steel

GB/T 1804-2000 General tolerances Tolerances of linear and angular dimensions without tolerances

GB/T 3280 stainless steel cold rolled steel sheet and strip Plastics - Determination of hardness - Part 1. Ball indentation method GB/T

GB/T 4956 Magnetic properties of non - magnetic coatings on magnetic substrates Ultrasonic testing of steel castings - Part 1. General purpose steel castings GB/T

GB/T 7659 cast steel for welded structures

GB/T 11379 Metallic coatings for chromium plating General rules for industrial product assurance documents GB/T Steel leaf springs GB/T Code for welding of steel structures GB 50661-2011

HG/T 2502 5201 silicone grease General technical requirements for welding of

JB/T 5943 engineering machinery

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Construction steel ball bearings spherical bearing for construction steel structure In the vertical bearing capacity and (or) the level of bearing capacity under the rotation or displacement and has a certain degree of elastic stiffness of the construction of steel works
Ball bearing.