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

中华人民共和国国家标准

GB/T 16939-1997

钢网架螺栓球节点用高强度螺栓

High strength bolts for joints of space grid structures

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Contents

Foreword	2
1. Scope	3
2. Normative References	3
3. Dimensions	3
4. Technical Requirements	7
5. Designation	7
6. Mechanical Properties	7
7. Test Method	9
7.1 Test piece tensile test.....	9
7.2 Tensile load test.....	9
7.3 Hardness test	9
7.4 Decarburization test	9
8. Acceptance Rules	9
9. Labeling and Packaging	10
Annex A (Informative) Hexagonal sockets and blind plate or taper bottom thickness	11
Annex B (Normative) Specification of 35VB Steel	13

Foreword

This Standard is a part of National Standard series of bolts for steel structures. These series standards are as follows:

GB/T 1228-91 *High strength bolts with large hexagon head for steel structures*

GB/T 1229-91 *High strength large hexagon nuts for steel structures*

GB/T 1230-91 *High strength plain washers for steel structures*

GB/T 1231-91 *Specifications of high strength bolts with large hexagon head, large hexagon nuts, plain washers for steel structures*

GB/T 3632-1995 *Type and dimension for sets of torshear type high strength bolt hexagon nut and plain washer for steel structures*

GB/T 3633-1995 *Technical requirement for sets of torshear type high strength bolt hexagon nut and plain washer for steel structures*

The annex A of this Standard is informative annex.

The annex B of this Standard is normative annex.

This Standard was proposed by Ministry of Machine Building Industry of P. R. China.

This Standard was under the jurisdiction of National Technical Committee 85 on Fasteners of Standardization Administration of China.

Draft units of this Standard are Mechanical Engineering Research Institute of Ministry of Machine Building Industry, China Academy of Building Research, Central Research Institute of Building & Construction, Shanghai Great Wall High Strength Bolt Research Institute, Railway Construction Research Center of Ministry of Railways, Shanghai Technology Research Center of Material of Fastener and Weld Material, Shanghai High-strength Bolts Factory, Shanghai Jinma High Strength Fastener Co., Ltd, Xuzhou Feihong grids (Group) Co., Ltd and Xuzhou Tongyukongjian Structural Co., Ltd.

High strength bolts for joints of space grid structures

1. Scope

This standard specifies the high strength bolts for joints of space grid structures of M12 to M64×4 (hereinafter as bolts).

This Standard is applicable to connection of bolts for joints of space grid structures.

2. Normative References

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to this Standard.

- GB 2-85 Fasteners--Ends of parts with external thread
- GB 90-85 Acceptance inspection, marking and packaging of fasteners
- GB 196-81 General purpose screw threads-Basic dimensions for diameter from 1 to 600mm
- GB 197-81 General purpose screw threads--Tolerances and fits for diameter from 1 to 355mm
- GB 228-87 Metallic materials--Tensile testing at ambient temperature
- GB/T 230-91 Metallic materials—Rockwell hardness test
- GB 699-88 Quality carbon structure steel -Technical requirements
- GB 700-88 Carbon structure steel
- GB 1237-88 Marking method for fastener
- GB 1591-79 High strength low alloy structural steels
- GB 3077-88 Alloy structure steels
- GB 3098.1-82 Mechanical properties of fasteners—Bolts, screws and studs
- GB 3103.1-82 Tolerances for fasteners-Bolts, screws and nuts
- GB 5779.1-86 Fasteners-Surface discontinuities-Bolts, screws and studs for general requirements

3. Dimensions

3.1 Type and dimension of bolts shall be in accordance with Figure 1 and Table 1.

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