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

GB/T 5786-2016

**Hexagon head bolts with fine pitch thread -- Full thread
(English Translation)**

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Foreword

This Standard is one of the serial national standards of "Hexagon Head Bolts", which include.

- GB/T 27 Hexagon Head Stiffener Bolts;
- GB/T 28 Hexagon Fit Shank Bolts with Split Pin Hole on Shank;
- GB/T 29.1 Fillister Hexagon Head Bolt;
- GB/T 29.2 Hexagon Bolts with Cross Recess on Head;
- GB/T 31.1 Hexagon Bolts with Split Pin Hole on Shank;
- GB/T 31.2 Hexagon Bolts with Split Pin Hole on Shank - Reduced Shank - Product Grade B;
- GB/T 31.3 Hexagon Bolts with Split Pin Hole on Shank - Fine Pitch Thread - Product Grade A and B;
- GB/T 32.1 Hexagon Bolts with Wire Holes on Head;
- GB/T 32.2 Hexagon Bolts with Wire Holes on Head - Reduced Shank - product Grade B;
- GB/T 32.3 Hexagon Bolts with Wire Holes on Head - Fine Pitch Thread - Product Grade A and B;
- GB/T 5780 Hexagon Head Bolts - Product Grade C;
- GB/T 5781 Hexagon Head Bolts - Full Thread - Product Grade C;
- GB/T 5782 Hexagon Head Bolts;

- GB/T 5783 Hexagon Head Bolts - Full Thread;
- GB/T 5784 Hexagon Head Bolts - Reduced Shank - Product Grade B;
- GB/T 5785 Hexagon Head Bolts - Fine Pitch Thread;
- GB/T 5786 Hexagon Head Bolts with Fine Pitch Thread - Full Thread.

This Standard was drafted as per the rules specified in GB/T 1.1-2009.

This Standard replaced GB/T 5786-2000 Hexagon head Bolts with Fine Pitch Thread - Full Thread; compared with GB/T 5786-2000, this Standard has the major technical changes as follows.

- Modify the standard name.
- Delete the bibliography of ISO 8676.

This Standard was proposed by China Machinery Industry Federation.

This Standard shall be under the jurisdiction of National Technical Committee for Standardization of Fastener (SAC/TC 85).

Drafting organizations of this Standard. China Productivity Center for Machinery.

Participating drafting organizations of this Standard. Ningbo JiuLong Fasteners Manufacture Co., Ltd., and Ningbo Ningli High-Strength Fastener Co., Ltd..

This Standard shall be interpreted by the Secretariat of National Technical Committee for Standardization of Fastener.

The historical editions replaced by this Standard are as follows.

- GB 21-1958, GB 21-1966, GB 21-1976;
- GB 22-1958, GB 22-1966, GB 22-1976;
- GB 30-1958, GB 30-1966, GB 30-1976;
- GB/T 5786-1986, GB/T 5786-2000.

Hexagon Head Bolts with Fine Pitch Thread -
Full Thread

1 Scope

This Standard specifies the type and dimension, technical conditions and markings of hexagon head bolts with fine pitch thread - full thread.

This Standard is applicable to the hexagon head bolts with thread nominal diameter $d=8\text{mm}\sim 64\text{mm}$, fine pitch thread, full-thread, Property Class 5.6, 8.8, 10.9, A2-70, A4-70, A2-50, A4-50, CU2, CU3 and AL4, Product Grades A and B. Grade A is applied to the nuts with $d=8\text{mm}\sim 24\text{mm}$ and $l\leq 10d$ or $l\leq 150\text{mm}$ (as per the less value); while Grade B is applied to the nuts with $d > 24\text{mm}$ or $l > 10d$ or $l > 150\text{mm}$ (as per the less value).

Preferred to select the coarse bolts specified in GB/T 5783.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this document.

GB/T 2 Fasteners - Ends of Parts with External Thread (GB/T 2-2016, ISO 4753:2011, MOD)

GB/T 90.1 Fasteners - Acceptance Inspection (GB/T 90.1-2002, idt ISO 3269:2000)

GB/T 90.2 Fasteners - Marking and Packaging

GB/T 193 General Purpose Screw Threads - Diameters and Pitches (GB/T 193-2003, ISO 261:1998, MOD)

GB/T 1237 Designation System for Fasteners (GB/T 1237-2000, eqv ISO 8991:1986)

GB/T 3098.1 Mechanical Properties of Fasteners - Bolts, Screws and Studs (GB/T 3098.1-2010, ISO 898-1:2009, MOD)

GB/T 3098.6 Mechanical Properties of Fasteners - Stainless Steel Bolts, Screws and Studs (GB/T 3098.6-2014, ISO 3506-1:2009, MOD)

GB/T 3098.10 Mechanical Properties of Fasteners - Bolts, Screws, Studs and Nuts Made of Non-Ferrous Metals (GB/T 3098.10-1993, eqv ISO 8839:1986)

GB/T 3103.1 Tolerances for Fasteners - Bolts, Screws and Nuts (GB/T 3103.1-

2002, idt ISO 4759-1.2000)

GB/T 5267.1 Fasteners - Electroplated Coatings (GB/T 5267.1-2002, ISO 4042.1999, IDT)

GB/T 5267.2 Fasteners - Non-Electrolytically Applied Zinc Flake Coatings (GB/T 5267.2-2002, ISO 10683.2000, IDT)

GB/T 5267.4 Passivation of Corrosion-Resistant Stainless-Steel Fasteners (GB/T 5267.4-2009, ISO 16048.2003, IDT)

GB/T 5276 Fasteners - Bolts, Screws, Studs and Nuts - Symbols and Descriptions of Dimensions (GB/T 5276-2015, ISO 225.2010, MOD)

GB/T 5779.1 Fasteners - Surface Discontinuities - Bolts, Screws and Studs for General Requirements

GB/T 5783 Hexagon Head Bolts - Full Thread (GB/T 5783-2016, ISO 4017.2014, MOD)

GB/T 9145 General Purpose Metric Screw Threads - Limits of Sizes for the Screw Threads of Medium Quality and Preferable Plan (GB/T 9145-2003, ISO 965-2.1998, MOD)

GB/T 16938 Fasteners - General Requirements for Bolts, Screws, Studs and Nuts (GB/T 16938-2008, ISO 8992.2005, IDT)

3 Dimension

The types and dimensions of bolts can refer to Figure 1, Table 1 and Table 2.

The dimension codes and markings shall conform to GB/T 5276.

The marking of hexagon head bolts with thread specification M12x1.5, nominal length l=80mm, fine pitch thread, full-thread, Property Class 8.8, untreated surface, Product Grade A is shown as follows.

Bolt GB/T 5786 M12x1.5x80

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