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

GB/T 5783-2025

**Fasteners - Hexagon head bolts - Full thread
(English Translation)**

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1 Scope

This document specifies the type and dimensions, technical requirements, signs, labels, and marks for Class A and B fully threaded hexagonal head bolts.

This document applies to fully threaded hexagonal head bolts (hereinafter referred to as "bolts") made of steel and stainless steel with thread specifications from M1.6 ~ M64, coarse threads, performance grades of 4.8, 5.6, 8.8, 10.9, 12.9/12.9, A2-50, A2-70, A4-50, A4-70, A4-80, D4-70, D4-80, D6-70, and D6-80, and product grades of A and B.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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 90.1-2023, ISO 3269:2019, MOD)

GB/T 90.2, Fasteners -- Marking and packaging

GB/T 197, General purpose metric screw threads -- Tolerances (GB/T 197-2018, ISO 965-1:2013, 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 3098.6-2023, ISO 3506-1.2020, MOD)

GB/T 3098.23, Mechanical properties of fasteners -- M42~M72 bolts, screws and studs

GB/T 3099.4, Terminology of fasteners -- Control, inspection, delivery, acceptance and quality (GB/T 3099.4-2021, ISO 1891-4.2018, MOD)

GB/T 3103.1, Tolerances for fasteners -- Bolts, screws, studs and nuts (GB/T

3103.1-2002, idt ISO 4759-1.2000)

GB/T 3106, Fasteners -- Bolts, screws and studs -- Nominal lengths and thread lengths (GB/T 3106-2016, ISO 888.2012, MOD)

GB/T 5267.1, Fasteners -- Electroplate coating (GB/T 5267.1-2023, ISO 4042.2022, MOD)

GB/T 5267.2, Fasteners -- Non-electrolytically applied zinc flake coatings (GB/T

5267.2-2021, ISO 10683.2018, MOD)

GB/T 5267.3, Fasteners -- Hot dip galvanized coatings (GB/T 5267.3-2008, ISO 10684.2004, 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 5779.1-2000, idt ISO 6157-1.1988)

GB/T 5779.3, Fasteners -- Surface discontinuities -- Bolts, screws and studs for special requirements (GB/T 5779.3-2000, idt ISO 6157-3.1988)

GB/T 16938, Fasteners -- General requirements for bolts, screws, studs and nuts (GB/T 16938-2008, ISO 8992.2005, IDT)

3 Terms and definitions

This document does not contain any terms or definitions that need to be defined.

4 Type and dimensions

The type of bolt shall be as shown in Figures 1 and 2, and the dimensions shall be as shown in Tables 1~4.

Dimension codes and marks shall conform to GB/T 5276.

6.1 Product signs

Product signs shall comply with the following provisions.

- Steel fasteners shall comply with GB/T 3098.1;
- Stainless steel fasteners shall comply with GB/T 3098.6.

6.2 Packaging labels

The packaging labels shall comply with GB/T 90.2 and shall include at least the following.

- Reference to this document, i.e., GB/T 5783;
- Thread specification d and nominal length l ;
- Steel fastener performance grade designation;
- Stainless steel fastener group and performance grade designation;
- Surface treatment type;
- Manufacturer and/or distributor identification mark and/or name;
- Manufacturing batch number specified in GB/T 3099.4;
- Number of packages.

7 Marks

The marking requirements specified in GB/T 1237 apply to all specifications.

- The performance grade marking code for steel fasteners shall be in accordance with GB/T3098.1;
- The group and performance grade marking code for stainless steel fasteners shall be in accordance with GB/T 3098.6.

When no surface treatment is specified, steel fasteners are delivered in an untreated state, and stainless-steel fasteners are delivered in a simply treated state (cleaned and polished).

Example 1. Mark of a hexagonal head bolt with M12 thread, nominal length $l = 80$ mm, performance class of 8.8, untreated surface, and product grade A.

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