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

GB/T 16674.1-2016

**Hexagon bolts with flange -- Small series
(English Translation)**

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Foreword

This Part of GB/T 16674 belongs to a complete group of national standards "Hexagon Bolts with Flange". It comprises the following.

- GB/T 5789 Hexagon Flange Bolts - Heavy Series - Product Grade B
- GB/T 5790 Hexagon Flange Bolts - Heavy Series - Reduced Shank - Product Grade B
- GB/T 16674.1 Hexagon Bolts with Flange - Small Series
- GB/T 16674.2 Hexagon Bolts with Flange - Fine Pitch Thread - Small Series

This Part is the 1st Part of GB/T 16674.

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

This Part replaces GB/T 16674.1-2004, Hexagon Bolts with Flange - Small Series.

Compared with GB/T 16674.1-2004, the main technical differences are as follows.

- it deletes "If, in special cases, specifications other than those listed in this Standard are required, they can be selected from existing Standards,... GB/T

3098.6 and GB/T 3103.1." (Chapter 1, Edition 2004);

- it modifies the surface defects of steel products to be in accordance with the specifications of GB/T 5779.1 (Table 2);
- it adds that the surface of steel bolts is as processed and deletes surface oxidation treatment (Table 2);

- it adds the technical requirements of non-electrolytically applied zinc flake coatings of steel bolts in accordance with GB/T 5276.2 (Table 2);
- it adds the technical requirements of passivating treatment of stainless steel bolts in accordance with GB/T 5267.4 (Table 2); and
- it is only allowed to omit in Designation that the surface is as processed, instead of oxidation treatment (5.2).

This Part was redrafted by reference to ISO 15071.2011, Hexagon Bolts with Flange - Small Series - Product Grade A.

The technical differences between this Part and ISO 15071.2011 and their reasons are as follows.

- it deletes the specification of ISO 15071.2011, "If, in special cases, specifications other than those listed in this International Standard are required, they can be selected from existing International Standards,... ISO 965-2 and ISO 3506-1" (Chapter 1), which does not belong to the content of this Standard;
- in the Normative References, it uses Chinese standards to replace the international standards (Chapter 2), adds the references of GB/T 90.2 (Table 2), GB/T 5267.4 (Table 2), GB/T 5779.1 (Table 2) and GB/T 1237 (5.1), and deletes the references of ISO 6157-3, in order to meet Chinese basic standards of fasteners;
- it modifies the surface defects of steel products to be in accordance with the specifications of GB/T 5779.1 (Table 2);
- it adds the technical requirements of passivating treatment of stainless steel bolts and extend the scope of product use (Table 2);
- it adds the technical requirements of packaging (Table 3), in order to meet Chinese basic standards of fasteners; and
- it modifies the Designation Example into the simplified Designation Example (5.2), in order to meet the specifications of GB/T 1237.

The following editorial modifications are made in this Standard.

-- it changes the name of the standard; and

-- it deletes the Bibliography of ISO 15071.

This Part was proposed by China Machinery Industry Federation.

This Part shall be under the jurisdiction of the National Standardization Technical Committee on Fasteners (SAC/TC 85).

The responsible drafting organizations of this Part. China Productivity Center for Machinery.

The drafting organizations of this Part. Ningbo Ningli High-Strength Fastener Industrial Co., Ltd. and Gem-Year Industrial Co., Ltd.

This Part shall be interpreted by the Secretariat of the National Standardization Technical Committee on Fasteners.

The previous edition replaced by this Part is as follows.

-- GB/T 16674.1-2004

Hexagon Bolts with Flange - Small Series

1 Scope

This Part of GB/T 16674.1 specifies the dimensions, requirements and designation of hexagon bolts with flange, small series.

This Part applies to hexagon bolts with flange, small series, of product grade A, with threads from M5 up to and including M16, and property classes 8.8, 9.8, 10.9 and A2-70.

2 Normative References

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

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, ISO 3269:2000,

IDT)

GB/T 90.2 Fasteners - Marking and Packaging (GB/T 90.2-2002)

GB/T 193 General Purpose Metric Screw Threads - Diameters and Pitches (GB/T 193-2003, ISO 261.1998, ISO General Purpose Metric Screw Threads - General Plan, 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 3103.1 Essential Oils and Aromatic Extracts - Determination of Residual Benzene Content (GB/T 3103.1-2002, ISO 4759-1.2000, IDT)

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

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