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GB/T 6170-2015

Replacing GB/T 6170-2000

Hexagon Nuts, Style 1

[ISO 4032:2012, Hexagon Regular Nuts (Style 1) – Product

Grades A and B, MOD]

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Foreword

GB/T 6170 is one of the serial national standards for “Hexagon Nuts (Part)”, which include:

- GB/T 41 Hexagon Nuts, Style 1 – Product Grade C;
- GB/T 6170 Hexagon Nuts, Style 1;
- GB/T 6171 Hexagon Nuts, Style 1 – Fine Pitch Thread;
- GB/T 6172.1 Hexagon Thin Nuts;
- GB/T 6173 Hexagon Thin Nuts – Fine Pitch Thread;
- GB/T 6174 Hexagon Thin Nuts – Unchamfered;
- GB/T 6175 Hexagon Nuts, Style 2;
- GB/T 6176 Hexagon Nuts, Style 2 – Fine Pitch Thread.

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

This Standard replaced GB/T 6170-2000 *Hexagon Nuts, Style 1*; compared with GB/T 6170-2000, this Standard mainly has the following changes:

- Delete “if other technical requirements are needed, ... the selection in GB/T 3098.2 and GB/T 3103.1.” (Chapter 1 of Edition 2000);
- Add “NOTE: Hexagon Nuts, Style 2 refers to GB/T 6175” (Chapter 1);
- Unify the reference thread standards to be GB/T 193, GB/T 9145 (Chapter 2);
- Increase the mechanical properties of steel nuts: QT – Quenching and Tempering (Table 3);
- Add the hot-dipped galvanized technical requirements of steel nuts as per GB/T 5267.3 (Table 3);
- Add the passivation technology requirements of stainless steel nuts as per GB/T 5267.4.

This Standard adopts re-drafting method of modify and use ISO 4032:2012 *Hexagon Regular Nuts (Style 1) Product Grades A and B*.

Compared with ISO 4032:2012, this Standard has the following technical differences:

- Delete ISO 4032 provision: “if other technical requirements are needed, ...

selection in ISO 4759-1” (Chapter 1), which don't belong to the contents specified by this Standard;

- In the normative references, use national standards to replace the international standards (Chapter 2); add the reference of GB/T 6175 (Chapter 1), GB/T 90.2 (Table 3), GB/T 193 (Table 3), GB/T 5267.4 (Table 3), GB/T 9145 (Table 3) and GB/T 1237 (5.1); delete the reference of ISO 724 or ISO 965-1, so that conform to China's fastener basic standard;
- Increase the provisions of performance grades of nonferrous nuts, expand the applicable range of standard;
- To carry out the basic standard, increase the mechanical properties of steel nuts: QT – Quenching and Tempering (Table 3);
- Increase the packaging technical requirements (Table 2), so that conform to China's fastener basic standard;
- Modify the marking examples into simplified marking examples (5.2); so that conform to the provisions of GB/T 1237.

This Standard also has the following editorial changes:

- Modify the standard name;
- Delete the bibliography of ISO 4032.

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: HaiYan YuXing Nuts Co., Ltd., Dongfeng Motor Fastener Co., Ltd., Wuxi Standard Fastener Factory Co., Ltd., Ningbo Mingli Fasteners Co., Ltd., Zhoushan Zhengyuan Standard Parts Co., Ltd., Zhejiang Haili Co., Ltd., and Aozhan Industrial 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 51-1958, GB 51-1976;
- GB 52-1958, GB 52-1976;

Hexagon Nuts, Style 1

1 Scope

This Standard specifies the type and dimension, technical conditions and markings of hexagon nuts, style 1.

This Standard is applicable to the hexagon nuts, style 1 with thread specification M1.6~M64; performance grade of Grade 6, 8, 10, A2-50, A2-70, A4-50, A4-70, CU2, CU3 and AL4; Product Grade A and B. Grade A is applied to the nuts with $D \leq 16\text{mm}$; while Grade B is applied to the nuts with $D > 16\text{mm}$.

NOTE: see GB/T 6175 for the hexagon nuts, style 2.

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

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 3098.2 Mechanical Properties of Fasteners – Nuts (GB/T 3098.2-2015, ISO 898-2:2012, 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 3098.15 Mechanical Properties of Fasteners – Nuts Made of Stainless Steel (GB/T 3098.15-2014, ISO 3506-2:2009, MOD)

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

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