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

GB/T 3098.16-2014

Replacing GB/T 3098.16-2000

Mechanical properties of fasteners -- Stainless steel set screws

紧固件机械性能 不锈钢紧定螺钉

(English Translation)

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Foreword

GB/T 3098 "Mechanical properties of fasteners" includes the following sections.

- GB/T 3098.1 Mechanical properties of fasteners Bolts, screws and studs;
- GB/T 3098.2 Mechanical properties of fasteners coarse thread;
- GB/T 3098.3 Mechanical properties of fasteners set screws;
- GB/T 3098.4 Mechanical properties of fasteners fine thread;
- GB/T 3098.5 Mechanical properties of fasteners self-tapping screws;
- GB/T 3098.6 Mechanical properties of fasteners stainless steel bolts, screws and studs;
- GB/T 3098.7 Mechanical properties of fasteners rolling screws;
- GB/T 3098.8 Mechanical properties of fasteners -200 °C ~ 700 °C bolted parts used;
- GB/T 3098.9 Mechanical properties of fasteners torque type steel locking nut;
- GB/T 3098.10 Mechanical properties of fasteners non-ferrous metal manufacturing bolts, screws, studs and nuts;
- GB/T 3098.11 Mechanical properties of fasteners drilling tapping screws;
- GB/T 3098.12 Mechanical properties of fasteners - Cone proof load test;
- GB/T 3098.13 Mechanical properties of fasteners Bolts and screws with torque test and minimum torques nominal diameter 1 ~ 10mm;
- GB/T 3098.14 Mechanical properties of fasteners reaming test;
- GB/T 3098.15 mechanical properties of stainless steel fasteners nuts;
- GB/T 3098.16 mechanical properties of stainless steel fasteners Set screws;
- GB/T 3098.17 Mechanical properties of fasteners - Preloading test for detection of hydrogen embrittlement - Parallel bearing surface method;
- GB/T 3098.18 Mechanical properties of fasteners Blind rivets testing;

- GB/T 3098.19 Mechanical properties of fasteners blind rivet;
- GB/T 3098.20 Mechanical properties of fasteners wing nut torque assurance;
- GB/T 3098.21 mechanical properties of stainless steel fasteners self-tapping screws;
- GB/T 3098.22 fasteners mechanical properties of ultrafine grained non-quenched and tempered steel bolts, screws and studs.

This section is GB/T Part of 163,098.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 3098.16-2000 "Mechanical properties of fasteners stainless steel set screws." Section compared with the GB/T 3098.16-2000 The main changes are as follows.

- "At an ambient temperature of 15 ~ 25 °C", the words "at an ambient temperature of 10 °C ~ 35 °C" (see Chapter 1, 2000 edition Chapter 1);
- The "hardness level" instead of "Performance Level" (see Chapter 1, Chapter 1 of the 2000 edition);
- Added "set screws and similar fasteners according to GB/T 5267.4 passivation treatment, can increase marked 'P'" (see Figure 1);
- Adjust the packaging and labeling requirements, the new "mark or label shall include producers and/or distributors trademark (or identification)" and "press GB/T 90.3 predetermined production lot "(see 3.2.4);
- Adjust the surface finishing requirements, the new "special orders by set screws and similar fasteners manufactured, should additional signs and both for fasteners, also apply to the label. However, set screws and similar fasteners warehouse sent the additional flag is only applicable for the label "(see 3.3);
- New "NOTE. Table 2 gives the chemical composition of the GB/T 3098.6-2014 chemical composition of Table 1 is consistent with the relevant group" (See Chapter 4).

The partial modification of the use of ISO 3506-3:2009 "Mechanical properties of corrosion-resistant stainless steel fasteners - Part 3. Set screws and similar Fasteners not under tensile stress "(English version), the main changes are as follows.

- Name to "Mechanical properties of fasteners stainless steel set screws";
- Normative reference document, instead of using our standards with international standards (see Chapter 2).

This part is proposed by China Machinery Industry Federation.

This part of the National Standardization Technical Committee fasteners (SAC/TC85)

centralized.

This section is responsible for drafting unit. Productivity Promotion Center in the machine.

Participated in the drafting of this section. Zhoushan Zhengyuan Standard Parts Co., Ltd.
Zhejiang high-strength fasteners.

This part of the standard replaces the previous editions are.

--- GB 3098.6-1986 relevant part, GB/T 3098.16-2000.

Mechanical properties of fasteners stainless steel set screws

1 Scope

GB/T 3098 provisions of this section by the corrosion-resistant austenitic stainless steel, at an ambient temperature of 10 °C ~ 35 °C under the conditions of feed when the line test, the mechanical properties of tight set screws and similar fasteners not under tensile stress. At higher or lower temperatures, their performance may be different.

This section applies to set screws and similar fasteners.

--- Nominal thread diameter $1.6\text{mm} \leq d \leq 24\text{mm}$;

--- Diameter and pitch, etc. in line with the common thread GB/T 192, GB/T 193 and GB/T 9144 provisions;

--- Any shape.

This section does not apply to screws with special performance requirements, such as weldability.

NOTE: As long as the hardness level can meet all the technical requirements of the physical and mechanical, the system marks the provisions of this section may be used beyond the provisions of this chapter Specifications (Such as $d > 24\text{mm}$).

This section does not provide corrosion and oxidation under special circumstances.

Corrosion resistance, oxidation resistance and mechanical properties of high temperature or below zero use, either by the user according to the manufacturer with every special occasion Protocol. Appendix D shows the temperature under the relevant conditions, the carbon content of the risk of intergranular corrosion depends on the carbon content of the case.

This section is a corrosion-resistant stainless steel fasteners according to the hardness grade classification.

All austenitic stainless steel fasteners in a solid solution state, usually non-magnetic; after cold deformation, will show some obvious magnetism (See Appendix E).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 90.3 Fastener Quality Assurance System (GB/T 90.3-2010, ISO 16426:2002, IDT)
GB/T 192 ordinary screw threads - Basic model (GB/T 192-2003, ISO 68-1:1998, MOD)
GB/T 193 series ordinary thread diameter and pitch (GB/T 193-2003, ISO 261:1998, MOD)
GB/T 230.1 metallic materials - Rockwell hardness test - Part 1. Test methods (A, B, C, D, E, F, G, H, K, N, T standard Feet) (GB/T 230.1-2009, ISO 6508-1:2005, MOD) GB/T 231.1 metallic materials Brinell hardness test - Part 1. Test method (GB/T 231.1-2009, ISO 6506-1.

2005, MOD)

GB/T 3098.3 Mechanical properties of fasteners set screws (GB/T 3098.3-2000, ISO 898-5:1998, IDT) GB/T 3098.6 Mechanical properties of fasteners stainless steel bolts, screws and studs (GB/T 3098.6-2014, ISO 3506-1.

2009, IDT)

GB/T 4334 between metal and alloy corrosion of stainless steel corrosion test method (GB/T 4334-2008, ISO 3651-1.

1998 & ISO 3651-2:1998, MOD) GB/T 4340.1 metallic materials - Vickers hardness test - Part 1. Test method (GB/T 4340.1-2009, ISO 6507-1.

2005, MOD)

GB/T 5267.4 fastener corrosion resistant stainless steel passivation (GB/T 5267.4-2009, ISO 16048:2003, IDT)