



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

GB/T 9074.1-2018

Bolt or screw and washer assemblies with plain washers

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Foreword

This part is one of the national standards for the "fastener assembly" series. The series includes.

---GB/T 9074.1 bolt or screw and flat washer assembly;

---GB/T 9074.2 cross recessed pan head screw and outer serrated lock washer assembly;

---GB/T 9074.3 cross recessed pan head screw and spring washer assembly;

---GB/T 9074.4 cross recessed pan head screw, spring washer and flat washer assembly;

---GB/T 9074.5 cross recessed small pan head screw and flat washer assembly;

---GB/T 9074.7 cross recessed small pan head screw and spring washer assembly;

---GB/T 9074.8 cross recessed small pan head screw, spring washer and flat washer assembly;

---GB/T 9074.9 cross recessed countersunk head screw and tapered lock washer assembly;

---GB/T 9074.10 cross recessed countersunk head screw and tapered lock washer assembly;

- GB/T 9074.11 Cross recessed hex head bolt and flat washer assembly;
- GB/T 9074.12 cross recessed hex head bolt and spring washer assembly;
- GB/T 9074.13 Cross recessed hex head bolts, spring washers and flat washer assemblies;
- GB/T 9074.15 Hex head bolt and spring washer assembly;
- GB/T 9074.16 Hex head bolt and outer serrated lock washer assembly;
- GB/T 9074.17 Hex head bolts, spring washers and flat washer assemblies;
- GB/T 9074.18 self-tapping screws and flat washer assemblies;
- GB/T 9074.20 cross recessed hex head self-tapping screws and flat washer assembly;
- GB/T 9074.26 assembly spring washer;
- GB/T 9074.27 External sawtooth lock washer for assembly;
- GB/T 9074.28 Conical locking washer for assembly;
- GB/T 9074.31 Conical elastic washers for assemblies;
- GB/T 9074.32 Bolt or screw and tapered elastic washer assembly.

This part is the first part of GB/T 9074.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces GB/T 9074.1-2002 "Bolt or Screw and Flat Washer Assembly". This part is related to GB/T 9074.1-2002

The main technical changes are as follows.

- When the bolt or screw is ≤ 8.8 , the hardness level of the washer is changed to 200HV or 300HV (see Table 3, Chapter 4 of the 2002 edition);
- Increase the technical requirements for non-electrolytic zinc sheet coating and phosphating (see Table 3);
- Add "If other technical requirements or surface treatment are required, the supply and demand agreement should be provided" (see Table 3);
- Increase the standardized combination of bolts or screws and washers (see Table 4);
- Mark the content to increase the hardness level of the gasket (see Chapter 6);
- Added informative Appendix A "Methods for producing bolts or screws and flat washer assemblies" (see Appendix A).

This section uses the redrafting method to modify the ISO 10644.2009 "screw and washer assembly washer hardness class 200HV

And 300HV.

The technical differences between this part and ISO 10644.2009 and their reasons are as follows.

--- In the normative reference documents, replace the international standards with Chinese standards (see Chapter 2), increase the reference to GB/T 90.1 (see Table 2),

GB/T 90.2 (see Table 2) and GB/T 1237 (see 5.1) to comply with China's fastener basic standards;

--- Increase packaging technical requirements (Table 2) to meet the basic standards of fasteners in China.

This section also made the following editorial changes.

--- Modified the standard name.

This part was proposed by the China Machinery Industry Federation.

This part is under the jurisdiction of the National Fastener Standardization Technical Committee (SAC/TC85).

This section is responsible for drafting the unit. China Machine Productivity Promotion Center.

Participated in the drafting of this section. 7412 Factory in Zhoushan City, Zhejiang Haili Co., Ltd., Shanghai Shengguang High Strength Bolt Co., Ltd.

Jinyi Industrial Co., Ltd., Qifeng Precision Technology Co., Ltd., Hunan Feiwo New Energy Technology Co., Ltd., Zhejiang Jingyi Standard

Zhunquan Co., Ltd., Yuhuan Wanquan Machinery Manufacturing Co., Ltd., Zhejiang Gree Machinery Co., Ltd.

Product Quality Supervision and Inspection Center.

This part is explained by the National Fastener Standardization Technical Committee.

The previous versions of the standards replaced by this section are.

---GB/T 9074.1-1988, GB/T 9074.1-2002;

---GB/T 9074.14-1988.

Bolt or screw and flat washer assembly

1 Scope

This part of GB/T 9074 specifies the type dimensions, technical conditions and markings for bolts or screws and flat washer assemblies.

This section applies to thread sizes M2~M12, flat bearing surfaces, bolts or screws with performance grades of 8.8, 9.8 and 10.9, flat washers

Bolts or screws and flat washer assemblies with a ring hardness rating of 200 HV or 300 HV.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 65 slotted cylindrical head screw (GB/T 65-2016, ISO 1207.2011, MOD)

GB/T 67 slotted pan head screw (GB/T 67-2016, ISO 1580.2011, MOD)

GB/T 70.1 hexagon socket head cap screws (GB/T 70.1-2008, ISO 4762.2004, MOD)

GB/T 90.1 fastener acceptance inspection (GB/T 90.1-2002, idt ISO 3269.2000)

GB/T 90.2 Fastener Marking and Packaging

GB/T 97.4 flat washers for screw and washer assemblies (GB/T 97.4-2002, eqv ISO 10673.1998)

GB/T 818 cross recessed pan head screw (GB/T 818-2016, ISO 7045.2011, MOD)

GB/T 1237 fastener marking method

GB/T 2671.2 hexagonal flower-shaped cylinder head screw (GB/T 2671.2-2017, ISO 14579.2011, MOD)

GB/T 2672 hexagonal flower-shaped pan head screw (GB/T 2672-2017, ISO 14583.2011, MOD)

GB/T 3098.1 Mechanical properties of fasteners, bolts, screws and studs (GB/T 3098.1-2010, ISO 898-1.2009, MOD)

GB/T 5267.1 Fastener Plating (GB/T 5267.1-2002, ISO 4042.1999, IDT)

GB/T 5267.2 fastener non-electrolytic zinc sheet coating (GB/T 5267.2-2017, ISO 10683.2014, MOD)

GB/T 5782 Hex Head Bolts (GB/T 5782-2016, ISO 4014.2011, MOD)

GB/T 5783 hex head bolt full thread (GB/T 5783-2016, ISO 4017.2014, MOD)

GB/T 5784 Hexagon Head Bolts, Grade B (GB/T 5784-1986, eqv ISO 4015.1979)