

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 898 / III

MECHANICAL PROPERTIES OF FASTENERS

iTeh STANDARD PREVIEW
MARKING OF BOLTS, SCREWS, STUDS AND NUTS
(standards.iteh.ai)

ISO/R 898-3:1969

<https://standards.iteh.ai/catalog/standards/sist/9ee62d2d-beb8-4abb-9349-3e663fdc9f60/iso-r-898-3-1969>

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BRIEF HISTORY

The ISO Recommendation R 898/III, *Mechanical properties of fasteners – Marking of bolts, screws, studs and nuts*, was drawn up by Technical Committee ISO/TC 2, *Bolts, nuts and accessories*, the Secretariat of which is held by the Deutscher Normenausschuss (DNA).

Work on this question by the Technical Committee led, in 1966, to the adoption of a Draft ISO Recommendation.

In September 1967, this Draft ISO Recommendation (No. 1298) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Austria	Iran	South Africa, Rep. of
Belgium	Ireland	Spain
Canada	Israel	Sweden
Chile	Italy	Switzerland
Czechoslovakia	Japan	Turkey
Denmark	Korea, Rep. of	U.A.R.
Finland	Netherlands	United Kingdom
France	New Zealand	U.S.A.
Germany	Norway	U.S.S.R.
Greece	Poland	Yugoslavia
Hungary	Portugal	
India	Romania	

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in April 1969, to accept it as an ISO RECOMMENDATION.

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MECHANICAL PROPERTIES OF FASTENERS

MARKING OF BOLTS, SCREWS, STUDS AND NUTS

1. SCOPE

This ISO Recommendation relates to the marking of hexagon bolts and screws, hexagon socket head cap screws, studs and hexagon nuts which are described in ISO Recommendations R 898/I, *Mechanical properties of fasteners – Bolts, screws and studs*, and R 898/II, *Mechanical properties of fasteners – Nuts*.

The same marking system may be used for other types of bolts, screws and nuts with property classes according to ISO Recommendations R 898/I and R 898/II, e.g. slotted head screws, by agreement between customer and supplier:

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2. MARKING OF BOLTS, SCREWS AND STUDS

2.1 Symbols

TABLE 1

Property class		3.6	4.6	4.8	5.6	5.8	6.6	6.8	6.9	8.8	10.9	12.9	14.9
Marking symbol	preferable	3.6	4.6	4.8	5.6	5.8	6.6	6.8	6.9	8.8	10.9	12.9	14.9
	permissible	3 6	4 6	4 8	5 6	5 8	6 6	6 8	6 9	8 8	10 9	12 9	14 9

2.2 Identification

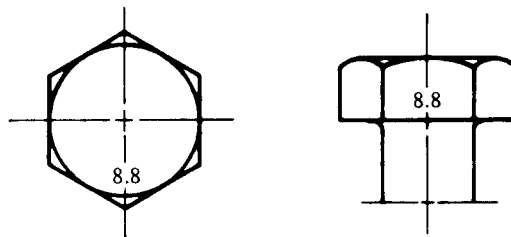
2.2.1 Hexagon bolts and screws

Hexagon bolts and screws should be marked with the designation symbols of the property classes described in ISO Recommendation R 898/I (see Table 1).

The marking should be obligatory for property classes equal to or higher than 8.8, preferably on the top of the head by indenting or embossing or on the side of the head by indenting.

Marking is required for hexagon bolts and screws with nominal diameters greater than 5 mm or No. 10.

Examples



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2.2.2 Hexagon socket head cap screws (standards.iteh.ai)

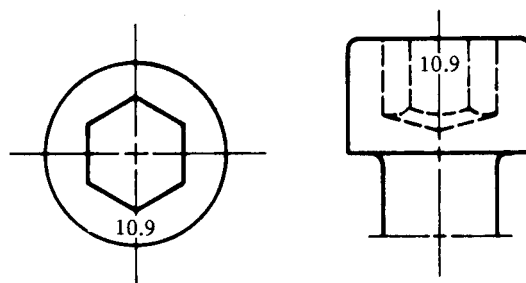
Hexagon socket head cap screws should be marked with the designation symbols of the property classes described in ISO Recommendation R 898/I (see Table 1).

The marking should be obligatory for property classes equal to or higher than 8.8, preferably on the top of the head by indenting or embossing or on the side of the head by indenting.

Marking is required for hexagon socket head cap screws with nominal diameters greater than 5 mm.

Inch series hexagon socket head cap screws are excluded from these marking requirements, since they are manufactured in one property class only.

Examples



2.2.3 Studs

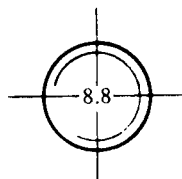
Studs should be marked with the designation symbols of the property classes described in ISO Recommendation R 898/I (see Table 1).

The marking should be obligatory for property classes equal to or higher than 8.8, preferably on the extreme end of the threaded portion by embossing or indenting.

For studs with an interference fit, the marking must be at the nut end.

Marking is required for studs with nominal diameters equal to or greater than 12 mm or 1/2 in.

Example



2.2.4 Grub screws

Grub screws may be marked upon agreement between customer and supplier. If marked, the marking system for studs should be used.

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3. MARKING OF HEXAGON NUTS

3.1 Symbols

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TABLE 2

Property class	4	5	6	8	10	12	14
either designation symbol	4	5	6	8	10	12	14
Alternative marking or code symbol (clock face system)							

3.2 Identification

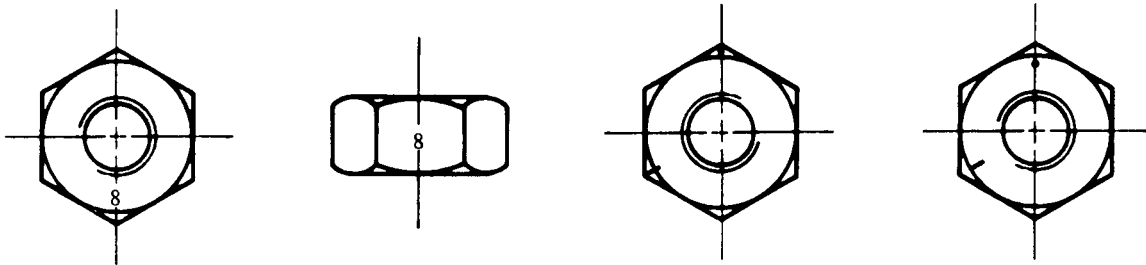
Hexagon nuts should be marked with the designation symbol of the property classes described in ISO Recommendation R 898/II (see Table 2).

The marking should be obligatory for property classes equal to or higher than 8, preferably on one side or on one bearing surface of the nut by indenting.

The alternative marking system for hexagon nuts may be on one of the external chamfers of the nut by embossing or indenting or, if possible, on one bearing surface of the nut by indenting.

Marking should be mandatory for nuts with nominal diameters over 5 mm or No. 10.

Examples



The embossed marks must in no case protrude beyond the bearing surface of the nut.

4. ALTERNATIVE MARKING

Alternative or optional permitted marking as stated before should be left to the choice of the manufacturer.

5. TRADE (IDENTIFICATION) MARKING

The trade (identification) marking of the manufacturer should be mandatory for all products covered by the obligatory marking requirements for property classes.

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