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JIS B 1042 : 1998

(ISO 6157-2 : 1995)

Fasteners—
Surface discontinuities—
Part 2 : Nuts

ICS 21.060.20

Descriptors : fasteners, surface properties, nuts, thread forms

Reference number : **JIS B 1042 : 1998 (E)**

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS B 1042** : 1994 is replaced with **JIS B 1042** : 1998.

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JIS B 1042 : 1998
(ISO 6157-2 : 1995)

Fasteners—Surface discontinuities—Part 2 : Nuts

Introduction This Japanese Industrial Standard has been prepared based on **ISO 6157-2**, *Fasteners—Surface discontinuities—Part 2 : Nuts* issued in 1995 as the first edition without changing the technical contents.

The "Remarks" underlined with dots in this Standard show the matters not specified in the original International Standard.

1 Scope This Standard establishes limits for various types of surface discontinuities on nuts.

It applies to nuts with

— nominal thread diameters from 5 mm up to and including 39 mm;

— product grades A and B;

— all property classes according to Annex 1 and Annex 2 of **JIS B 1052**, unless otherwise specified in product standards or agreed between supplier and purchaser.

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. Normative references described on the most recent edition shall apply.

JIS B 0601 *Surface roughness—Definitions and designation*

Remarks : Any referred provisions from **ISO 468** : 1982, *Surface roughness—Parameters, their values and general rules for specifying requirements* are equivalent to corresponding provisions in the said standard.

JIS B 1052 *Mechanical properties of steel nuts*

Remarks : Any referred provisions from **ISO 898-2** : 1992, *Mechanical properties of fasteners—Part 2 : Nuts with specified proof load values—Coarse threads* and **ISO 898-6** : 1994, *Mechanical properties of fasteners—Part 6 : Nuts with specified proof load values—Fine pitch threads* are equivalent to corresponding provisions in the said standard.

JIS B 1056 *Mechanical and performance properties for prevailing torque type steel nuts*

Remarks : Any referred provisions from **ISO 2320** : 1983, *Prevailing torque type steel hexagon nuts—Mechanical and performance properties* are equivalent to corresponding provisions in the said standard.

JIS B 1091 *Fasteners—Acceptance inspection*

Remarks : **ISO 3269** : 1988, *Fasteners—Acceptance inspection* is identical with the said standard.

JIS B 1086 *Widening test on nuts*

Remarks : **ISO 10484** : 1997, *Widening test on nuts* is identical with the said standard.

JIS B 1085 *Cone proof load test on nuts*

Remarks : **ISO 10485** : 1991, *Cone proof load test on nuts* is identical with the said standard.

3 Types, causes, appearance and limits of surface discontinuities Even if the permissible limits for surface discontinuities indicated in this clause occur, the minimum values for the mechanical and functional properties specified in Annex 1 and Annex 2 of **JIS B 1052** and **JIS B 1056**, as appropriate, shall still be met. In addition, the dimensional requirements of the appropriate product standard shall be satisfied.

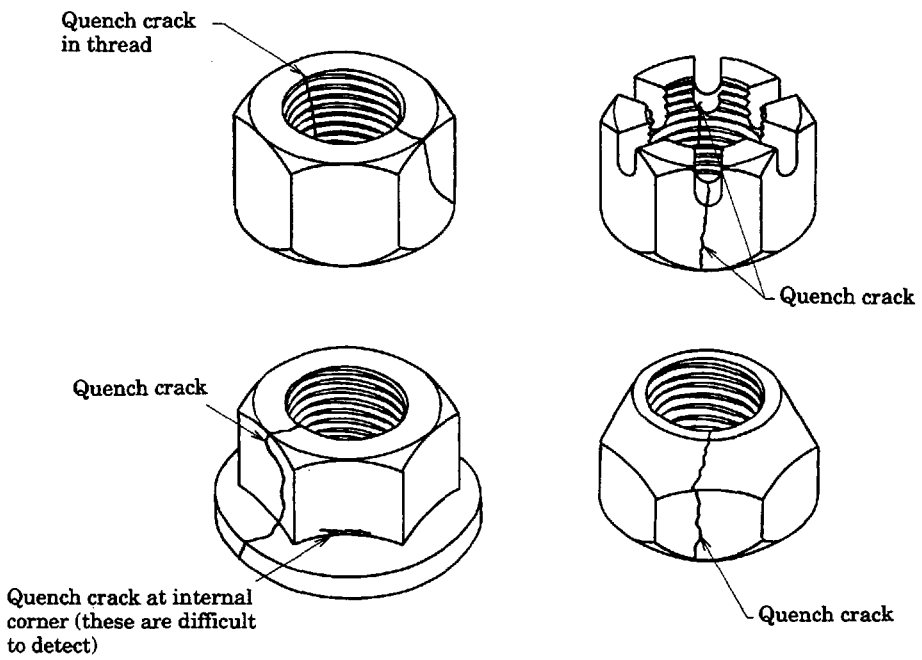
Notes 1 The figures in this clause are examples only; they also apply correspondingly to other types of nuts.

2 The individual figures show the surface discontinuities exaggerated in some cases for clarity.

3.1 Cracks A crack is a clean (crystalline) fracture passing through or across the grain boundaries and may possibly follow inclusions of foreign elements. Cracks are normally caused by overstressing the metal during forging or other forming operations, or during heat treatment, or may have been present in the raw material.

Where parts are subjected to significant reheating, cracks are usually discoloured by scale.

3.1.1 Quench cracks

Cause	Quench cracks may occur during hardening due to excessively high thermal and transformation stresses. Quench cracks usually follow an irregular and erratic course on the surface of the nut.
Appearance	
Limits	Quench cracks of any depth, any length, or in any location shall not be permitted.