INTERNATIONAL STANDARD

ISO 2982-2

Third edition
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Rolling bearings — Accessories —

Part 2: Dimensions for locknuts and locking devices

Roulements — Accessoires —

Partie 2: Dimensions des écrous à encoches et dispositifs de blocage

Reference number
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 2982-2 was prepared by Technical Committee ISO/TC 4, *Rolling bearings*.

This third edition cancels and replaces the second edition (ISO 2982-2:2001), which has been technically revised.

ISO 2982 consists of the following parts, under the general title *Rolling bearings — Accessories*:

— *Part 1: Dimensions for adapter sleeve assemblies and withdrawal sleeves*

— *Part 2: Dimensions for locknuts and locking devices*

Rolling bearings — Accessories —

Part 2: Dimensions for locknuts and locking devices

1 Scope

This part of ISO 2982 specifies:

— dimensions of locknuts;

— runout tolerance of locknut clamp face with respect to pitch diameter of screw thread;

— dimensions of lockwashers with straight inner tab for use with 4-slot locknuts;

— dimensions of locking clip assemblies for use with 8-slot locknuts.

The locknuts are also suitable for axial location of bearing inner rings on shafts and for dismounting of withdrawal sleeves.

For adapter sleeve assemblies and withdrawal sleeves, see ISO 2982-1.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5593, *Rolling bearings — Vocabulary*

ISO 15241, *Rolling bearings — Symbols for physical quantities*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5593 and the following apply.

3.1
locking clip
part in C-shape for securing a locknut

3.2
locking clip assembly
assembly comprising a locking clip and a bolt

4 Symbols

4.1 General

For the purposes of this document, the symbols given in ISO 15241 and the following listed in 4.2, 4.3, 4.4 and 4.5 apply.

The symbols shown in Figure 1, Figure 2, Figure 3 and Figure 4 and the values given in Table 1, Table 2, Table 3 and Table 4 denote nominal dimensions, unless specified otherwise.

4.2 Locknuts with 4 slots

See Figure 1.

B locknut width

b width of slot in locknut

d_1 outside diameter of clamp face of locknut

d_2 outside diameter of locknut

G designation of screw thread

h depth of slot in locknut

t_S runout tolerance of locknut clamp face with respect to pitch diameter of screw thread

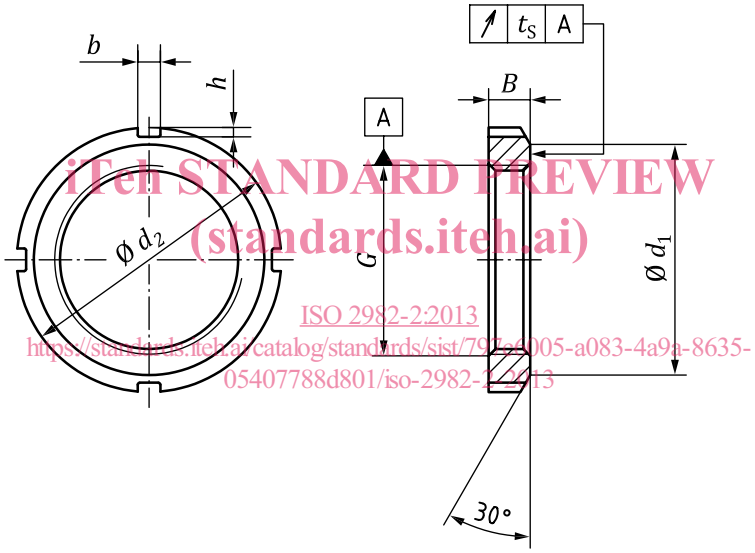


Figure 1 — Locknut with 4 slots

4.3 Lockwashers with straight inner tab

See Figure 2.

B_7 material thickness of lockwasher

d_3 bore diameter of lockwasher

d_4 root diameter of outer tab of lockwasher

d_5 outside diameter of lockwasher

f width of outer tab of lockwasher

f_1 width of inner tab of lockwasher

M distance between inner tab and bore (d_3 – height of inner tab)

N minimum number of outer tabs of lockwasher

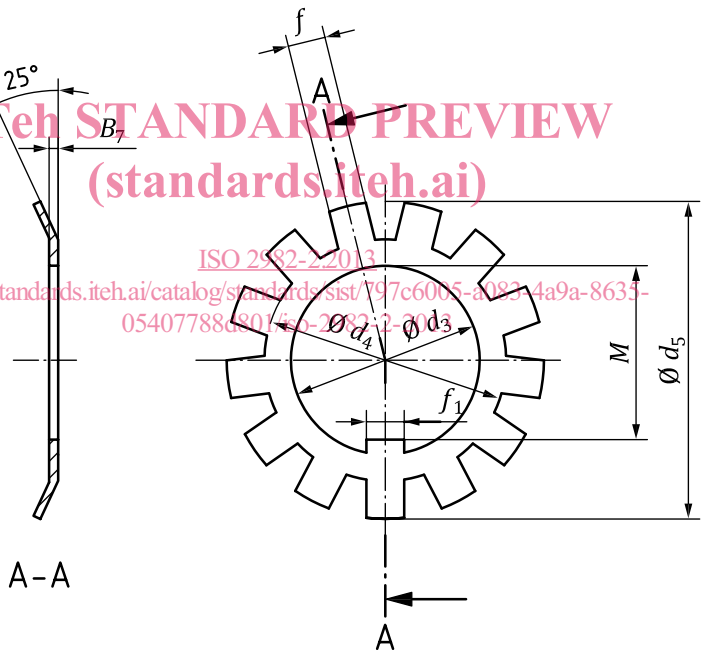


Figure 2 — Lockwasher with straight inner tab

4.4 Locknuts with 8 slots

See Figure 3.

B locknut width

b width of slot in locknut

d_1 outside diameter of clamp face of locknut

d_2 outside diameter of locknut

G_1 designation of screw thread of the locknut bore

h depth of slot in locknut

t_S runout tolerance of locknut clamp face with respect to pitch diameter of screw thread

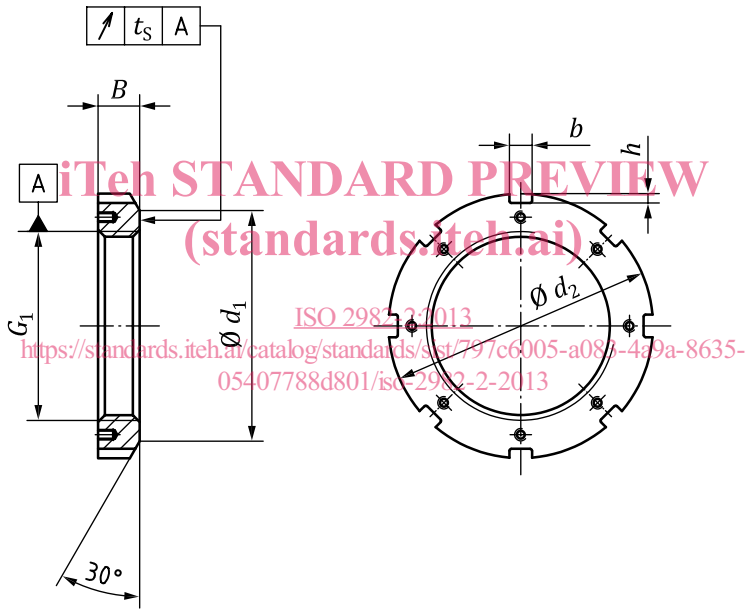


Figure 3 — Locknut with 8 slots

4.5 Locking clip assemblies

See Figure 4 for bolt and locking clip.

b_1 width of locking clip

d_6 diameter of hole in locking clip

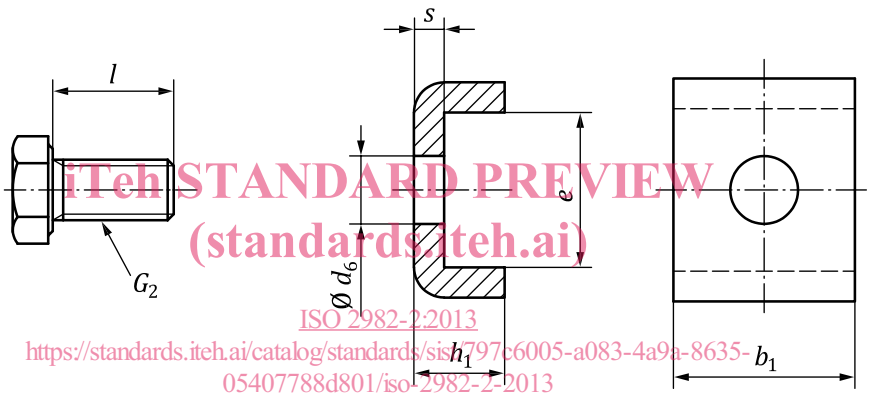
e inner width of locking clip

G_2 designation of screw thread

h_1 height of locking clip

l length of bolt

s material thickness of locking clip



NOTE The bolt may or may not be secured to prevent loosening.

Figure 4 — Locking clip assembly

5 Dimensions

5.1 Locknuts with 4 slots

Dimensions and runout tolerance, t_S, of locknuts with 4 slots are given in Table 1.