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

GB/T 14791-2013

Replacing GB/T 14791-1993

Screw threads -- Vocabulary

螺纹 术语

(English Translation)

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Foreword

This standard GB/T 1.1-2009 given rule drafting.

This standard replaces GB/T 14791-1993 "threaded term." This standard compared with GB/T 14791-1993, the main technical change Into.

--- The standard adds 25 new terms. helix lead (3.1.2), spiral lead angle (3.1.3), symmetrical thread (3.2.4), asymmetrically Thread (3.2.5), the guide thread (3.2.13), the adjacent flank (4.9.1), the same name as the flank (4.9.2), the tooth (4.10), alveolar (4.11), Alveolar pitch (6.2), the cumulative pitch (6.3), the number of teeth (6.4), alveolar lead (6.6), thread contact height (7.2), fitted long thread Degree (7.4), alveolar pitch deviation (8.1.2), alveolar lead deviation (8.1.5), the maximum material difference (8.2.1), tolerance code (8.2.2), reference plane (10.9), to accommodate the length of (10.10), the diameter of the conical taper (10.11), in close distance (10.12), thread tension Intensity area (11.1), the shear strength of the threaded area (11.2).

--- "Original triangle" "Basic tooth type" relationship with. the 1993 edition of the "original

triangle" Export "Basic tooth type" (1993 edition 3.1.2 and 3.1.4); this standard from "Basic tooth type" Export "original triangle" (see 4.1 and 4.5).

--- "Flank" is defined. the 1993 version does not define the shape of the tooth side (the 1993 edition of 3.1.11); this standard is defined in parallel to the axis flank Rectilinear inner surface (see 4.9).

--- "Functional diameter" is defined 1993 Edition no clear position of the imaginary thread inclusive actual thread (1993 version 3.2.8); this standard Quasi clearly defined inclusive actual position of the imaginary thread in the thread "flank" Department (see 5.11).

--- "Pitch" is defined. the 1993 measure did not define a position on the pitch (1993 Version 3.3.1) flank; This standard defines spiro Pitch is the distance between the flank (see 6.1).

--- On the "flank contact height" and "thread contact height" Terminology.1993 Edition no clear distinction between the two terms, only a "connection Touch height "Terminology (1993 Version 4.1); This standard makes a distinction between the two terms, and gives a clear definition (see 7.1 and 7.2).

--- About "screwed length" and "thread assembly length" terms. the 1993 edition is no clear distinction between the two terms, only a "Length" terms (1993 edition 4.4); This standard makes a distinction between the two terms, and gives a clear definition (see 7.3 and 7.4).

--- The 1993 edition of "cumulative pitch error" and "lead the accumulated error" terms were changed to "the cumulative pitch deviation" and "cumulative Lead bias "term; and to redefine the definition (see 8.1.3 and 8.1.7).

--- Revised 1993 edition of "reference diameter" is defined (see 10.4).

--- Use the "pull tight balance" term instead of the 1993 edition of "tightening margin" terms; and delete the definitions of the terms in the 1993 edition of the "minimum Two entities within the limits thread "and" taper thread "(see 10.8).

This standard uses the translation method identical with ISO 5408:2009 "Thread the term" (in English).

Consistency correspondence with international standards in this standard references of our standards are as follows.

Part 1 (GPS) Limits and fits GB/T 1800.1-2009 Geometrical product specifications. tolerances, deviations and fits the base Base (ISO 286-1. 1988, MOD) this standard makes the following editorial changes.

--- Increased the Chinese Pinyin index terms.

--- Modify the title of Appendix B and Table B.1 in the order of content; deleted chapter numbers are listed in the table.

--- Deleted the Chapter 1 (range) on the ISO standard official languages.

--- "Single diameter" is defined. ISO 5408:2009 thread limit measure the axial length within the term defined as an alveolar width, the most commonly recommended amount behind its definition of the needle (ball volume) measurements contradict; this standard deleted the measure defined within ISO Limit the amount of content length (see 5.10).

Thread term

1 Scope

This standard specifies the basic terms and their definitions thread.

This standard applies to symmetric and asymmetric screw threaded, or threaded cylindrical and tapered threads.

When there is more than one corresponds to a defined term, preference should be given black bold terms.

Appendix A lists some of the standard text does not give the definition of the term.

With Chinese and English terminology thread equivalent French, German, Japanese and Swedish terminology, see Appendix B.

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.

ISO 286-1. Section 11988 of the ISO system of limits and fits. tolerances, deviations and infrastructure (ISO system of fit limits and fits-Part 1. Bases of tolerances, deviations and fits)

3.1 Helix

3.1.1

Helix helix

Cylindrical or conical surface along the trajectory of the moving point, axial displacement of the point corresponding to a predetermined angular displacement ratio.

see picture 1.

3.1.2

Helix lead lead of helix P_h (metric thread) L (inch screw threads) in the same spiral (3.1.1), the same position, corresponding to the axial distance between two adjacent points. That is a point of rotation along the helix Corresponding week axial distance.

see picture 1.

3.1.3

Helix lead angle ϕ (metric thread) λ (inch screw threads) Helix (3.1.1) the tangent perpendicular to the axis of the helix angle between the planes.

see picture 1.

Note 1: For metric thread, which is calculated as $\tan \phi = \frac{P}{\pi d}$; For inch system thread, which is calculated as $\tan \lambda = \frac{P}{\pi d}$

Note 2: The conical spiral (3.1.1), spiral lead angle (3.1.3) its axis at different positions are different.

4.12

Crest crest

(4.10) at the top surface of the connection of two adjacent flank (4.9.1) of the tooth.

Figure 12.

4.13

Bottom tooth root

Connecting two adjacent flank (4.9.1) alveolar (4.11) at the bottom surface.

Figure 12.

4.14

Tooth type height thread height High tooth Radial distance from one thread (3.2.1) tooth (4.10) crest (4.12) to its bottom teeth (4.13) between.

Figure 12.

4.15

Crest high addendum

From a thread (3.2.1) tooth (4.10) crest (4.12) in which the radial distance diameters (5.8) between the to.

Figure 10.

4.16

High dedendum bottom teeth from a thread (3.2.1) tooth (4.10) tooth bottom (4.13) in which the radial distance diameters (5.8) between the to.

Figure 10.

4.17

Flank angle β (metric thread) in the thread type (4.4) on a flank (4.9) and the angle