

ICS 21.100.20
CCS J 11



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

GB/T 16643-2015

**Rolling bearings -- Combined needle roller thrust roller
bearings -- Boundary dimensions
(English Translation)**

Issued on: February 4, 2015

Implemented on: October 1, 2015

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China**

Table of Contents

Foreword...	3
1 Scope...	4
2 Normative references...	4
3 Terms and definitions...	4
4 Symbols...	4
5 Structural type...	5
6 Code...	6
7 Marking example...	7
8 Boundary dimensions...	7
Appendix A (Normative) Inner ring boundary dimensions...	9

Foreword

This standard was drafted in accordance with the rules given in GB/T

1.1-2009.

This standard replaces GB/T 16643-1996 "Rolling bearings - Combined needle roller thrust roller bearings - Boundary dimensions". As compared with GB/T 16643-1996, the main technical changes of this standard are as follows.

- ADD the "Terms and definitions" (SEE Chapter 3);
- MODIFY the definition of some symbols (SEE Chapter 4; Chapter 2 of

1996 version);

- ADD the "Code" (SEE Chapter 6);
- In the boundary dimensions table, ADD the corresponding inner ring model (SEE Table 2; Table 2 of 1996 version).

This standard was proposed by the China Machinery Industry Federation.

The standard shall be under the jurisdiction of the National Rolling Bearing Standardization Technical Committee (SAC/TC 98).

The drafting organizations of this standard. Luoyang Bearing Research

Institute Co., Ltd., Suzhou Bearing Factory Co., Ltd.

1 Scope

This standard specifies the boundary dimensions of the combined needle roller thrust roller bearings (hereinafter referred to as combined bearings).

This standard applies to the design and selection of combined bearings.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this Standard.

GB/T 272-1993 Rolling bearing - Identification code

GB/T 274-2000 Rolling bearing - Chamfer dimension - Maximum values

GB/T 6930-2002 Rolling bearing - Vocabulary

JB/T 2974-2004 Rolling bearings - Combined needle roller bearings - Specification

JB/T 8877-2011 rolling bearing needle roller combination of technical conditions

3 Terms and definitions

The terms and definitions as defined in GB/T 6930-2002 apply to this document.

4 Symbols

The following symbols apply to this document.

Unless otherwise stated, the symbols as shown in Figures 1 ~ 4, and A.1 AND the values as shown in Table 1, Table 2 and Table A.1 represent nominal dimensions.

B. Inner ring width.

C. Combined bearing width.

C1. Distance between the center of the oil hole and the reference plane of the race.

D. Needle roller bearing outer diameter.

D1. Thrust roller bearing shaft ring outer diameter.

D1smax. The maximum single outer diameter of D1.

D2. Thrust roller bearing race outer diameter.

D3. Thrust roller bearing enclosure outer diameter.

d. Inner ring inner diameter.

d1. Thrust roller bearing shaft ring inner diameter.

F. Inner ring raceway diameter.

Fw. Overall inner diameter of the needle roller.

Fwsmin. Overall minimum single inner diameter of the needle roller.

r. Inner ring chamfer size.

r1. Chamfer size of thrust roller bearing shaft ring AND needle roller bearing outer ring.

rsmin. Minimum single chamfer size of r.

R1smin. Minimum single chamfer size or r1.

T. Thrust roller bearing height.

5 Structural type

The structure of the combined bearing is as shown in Figure 1 ~ Figure 4.

.....