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

GB/T 272-2017

Replacing GB/T 272-1993

Rolling bearings - Identification code

滚动轴承 代号方法

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1 Scope

China's national standard for the designation of rolling bearings. It specifies the method of compiling the codes for rolling bearings and their components, and it applies to bearings for general use. The bearing code is the most compressed piece of engineering notation in ordinary use. A string such as 6208-2RS1/C3 states the type of bearing, its dimension series, its bore, the sealing arrangement and the internal clearance - and a person who knows the system can read a bearing's entire specification from the number stamped on its face, without a catalogue and without the box it came in. That is not a convenience: a bearing is a replacement part, and the code on the old one is usually the only information available when the new one is ordered. The system has three parts. The basic code carries the type, the dimension series and the bore, and it is the core of the designation. The pre-positioned code identifies components supplied separately - a ring, a cage-and-roller assembly - rather than a complete bearing. The post-positioned code carries everything else in a defined order: the internal construction, the seals and shields, the cage type and material, the special material or heat treatment, the tolerance class, the internal clearance, the noise class, the preload and matching arrangement for paired bearings, and the lubricant. Needle roller bearings have their own basic code, and tapered roller bearings

conforming to GB/T 273.1 have their own annex. The 2017 edition is a full revision of a standard that had stood since 1993, and it runs to some fifty pages because the notation has to cover every variant the industry actually supplies. Issued on 12 July 2017 and in force since 1 February 2018, it replaces GB/T 272-1993.

This standard specifies the method for compiling codes for rolling bearings (hereinafter referred to as bearings) and their components. This standard applies to bearings for general use.

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) is applicable to this standard.

GB/T 273.1 Rolling bearings Overall dimension plan Part

3 Terms and definitions

The terms and definitions as defined in GB/T 4199 and GB/T 6930 apply to this document.

4 Symbols

The symbols as given in GB/T 7811 as well as the following symbols apply to this document.

5 Composition of bearing code

The bearing code is composed of the basic code, the pre-positioned code, the post-positioned code; the arrangement sequence is as specified in Table 1.

6 Basic code (except needle roller bearings)

6.1 Overview The basic code represents the basic type, structure and size of the bearing and is the basis of the bearing code. The outer dimensions of the bearing conform to the requirements of any standard of GB/T 273.1, GB/T 273.2, GB/T 273.3, GB/T 3882; its basic code is composed of bearing type code, size series code, inner diameter code; its arrangement sequence is according to Table 1.

6.3 Size series code The size series code is indicated by numbers. The size series code is a combination of the width (height) series code and the diameter series code of the bearing. The size series codes of radial bearings and thrust bearings are in accordance with Table 3.

6.4 Bearing series code The bearing series code is composed of bearing type code and size series code. Commonly used bearing types, size series codes and composition bearing series codes are as shown in Table

7 Basic code of needle roller bearing

7.1 The external dimensions of needle roller bearings comply with the requirements of GB/T 290, GB/T 4605, GB/T 20056. The basic code is composed of the bearing type code and the size indicating the fitting installation characteristics of the bearing.

7.2 The type code of needle roller bearing is indicated by letters. The size of the bearing fitting installation feature is expressed by the size series, inner diameter code or directly in millimeters. The type code and the basic code of the needle roller bearing indicating the characteristic size of the fitting installation shall be in accordance with the provisions of Table 6.

8 Compilation rules of basic code

In the basic code, when the bearing type code is indicated by letters, it shall be arranged with a half Chinese character space between the bearing size series code, inner diameter code or the number of the installation fitting characteristic size, for example. NJ 230, AXK 0821.

9 Pre-positioned and post-positioned code

9.1 Overview The pre-positioned and post-positioned codes are supplementary codes added to the left and right of the basic code when the structural shape, size, tolerance, technical requirements of the bearing are changed.

9.2 Pre-positioned code The pre-positioned code is indicated by letters, which is often used to indicate bearing's sub-components (bearing assemblies). Codes and their meanings are in accordance with Table 7.

9.3 Post-positioned code

9.3.1 Overview The post-positioned code is indicated by letters (or plus numbers); the bearing characteristics and arrangement sequence indicated by the post-positioned code are in accordance with Table 8.