



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

GB/T 35087-2018

**Plain bearings -- Lubrication holes, grooves and pockets --
Dimensions, types, designation and their application to bearing
bushes**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method equivalent to ISO 12128.2001 "sliding bearing bushing oil hole, oil groove and oil hole size, type, standard

Remember and its application.

The documents of our country that have a consistent correspondence with the international documents referenced in this standard are as follows.

---GB/T 1804-2000 Tolerance of linear and angular dimensions for general tolerances without tolerances (eqvISO 2768-1.1989)

This standard has made the following editorial changes.

--- Added in the scope of Chapter 1 "Note. Since the bushing made of sintered metal itself contains lubricant, this standard does not specify its lubricant

Supply and distribution methods. Bushings made of carbon do not require lubrication with lubricating oil or grease. ".

This standard was proposed by the China Machinery Industry Federation.

This standard is under the jurisdiction of the National Sliding Bearing Standardization Technical Committee (SAC/TC236).

This standard is drafted by. China Machine Productivity Promotion Center.

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This standard is interpreted by the National Standardization Technical Committee for Plain Bearings.

Sliding bearing bushings for oil holes, oil grooves and oil pockets

Size, pattern, marking and its application

1 Scope

This standard specifies the size of the lubricating oil hole, oil groove and oil pocket of the bushing. These dimensions can be labeled with the marking method specified in the example

On the drawing. The use of lubrication holes, oil grooves, and oil pockets depends on the specific operating conditions.

In addition, this standard allows bushings made of copper alloys, thermosets, thermoplastics or carbon materials to be supplied with different lubricants and

Allocation.

Note. Since the bushing made of sintered metal itself contains lubricant, this standard does not specify the way the lubricant is supplied and distributed. Bushing made of carbon material is not required

Lubricate the oil or grease.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 18324-2001 Plain bearing copper alloy bushings (ISO 4379.1993, IDT)

ISO 2768-1.1989 General tolerances Part 1. Tolerances to linear and angular dimensions without tolerances (General tolerances-

Part 1. Tolerances for linear and angular dimensions without individual tolerance indications)

3.1 Overview

The size of the lubrication holes, oil grooves and oil pockets is related to the wall thickness s of the bearing. The given size d_1 should only be used as a reference size.

All dimensions are in mm.

3.2.1 Dimensions and types

The size and type of the lubrication hole are shown in Figure 1 and Table 1.

Lubricating oil holes provide lubrication with oil grooves and oil pockets. When the lubrication of a certain lubrication point can meet the requirements, the lubricating oil hole and oil can be omitted.

Slot or oil pocket.

Figure 1 Lubricating oil hole

Table 1 Lubricating oil hole size

D2 2.5 3 4 5 6 8 10 12

T1 1 1.5 2 2.5 3 4 5 6

D3

Type A 4.5 6 8 10 12 16 20 24

Type B 6 8.2 10.8 13.6 16.2 21.8 27.2 32.6

> - 2- 2.5 3 4 5 7.5 10

$\leq$ 2 2.5 3 4 5 7.5 10 -

D1 nominal $d_1 \leq 30$ $30 < d_1 \leq 100$ $d_1 > 100$

3.2.2 Marking

Example. Type A lubricant hole, oil hole diameter $d_2 = 3\text{mm}$, marked as follows.

Lubricating oil hole GB/T 35087-A3

3.3.1 Size and type

The size and type of lubricating oil tank are shown in Figure 2, Figure 3 and Table 2 and Table 3.

Lubricating oil tanks are mainly used for plain bearings. C, D, E type oil tanks are usually used together with H type (circumferential oil grooves), mainly for non-ferrous metals,

In plain bearings made of steel, cast iron or plastic. F and G oil grooves are mainly used for

sliding bearings made of carbon materials.

Type J oil sump is a narrow mixing oil tank, usually used for grease lubrication. For easy processing and avoiding burrs, all sharp corners can be made small

Chamfer or rounded corners.

Note. For ease of manufacture, the dimensions of the remaining wall thickness of the bearing in the oil groove can be marked on the drawing as the control size.

Figure 2 Lubricating oil tank

Table 2 Lubricating oil tank size

T2 e1 e2 r1 r2 y alpha s d1

Type type type type type

C~JD, EJGHCDFJCJJ > <= C~HJ

0.4 3 3 1.2 3 1.5 1.5 1 1 1.5 1 1.5 28° - 1

0.6 4 4 1.6 3 1.5 1.5 1 1.5 2 1.5 2.1 25° 1 1.5

0.8 5 5 1.8 3 1.5 2.5 1 1.5 3 1.5 2.2 25° 1.5 2

1 8 6 2 4 2 4 1.5 2 4.5 2 2.8 22° 2 2.5

D1<=

1.2 10.5 6 2.5 5 2.5 6 2 2 6 2 2.6 22° 2.5 3

1.6 14 7 3.5 6 3 8 3 2.5 9 2.5 2.6 20° 3 4

2 19 8 4.5 8 4 12 4 2.5 12 2.5 2.8 20° 4 5

D1<=

2.5 28 8 7.5 10 5 20 5 3 15 3 3 20° 5 7.5

3.2 38 - 11 12 7 28 7 - 21 - - - 7.5 10

4 49 - 14 15 9 35 9 - 27 - - - 10 -

D1 >

a Rounded.

Figure 3 Lubrication tank with closed end

Table 3 margin a size

b Nominal 15<=b<=30 30 \u003cb<=60 60\u003cb<=100 b\u003e 100

a 3 4 6 10