

ICS 21.100.10

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

GB/T 23891.2-2009

**Plain bearings -- Hydrodynamic plain thrust pad bearings under
steady-state conditions -- Part 2: Functions for the calculation
of thrust pad bearings**

滑动轴承 稳态条件下流体动压瓦块止推轴承 第2部分：瓦块止推轴承的计算函数
(English Translation)

Issued on: May 26, 2009

Implemented on: December 1, 2009

Issued by: Standardization Administration of China

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Foreword

GB/T 23891 "under steady-state conditions bearing hydrodynamic pad thrust bearing" consists of the following three parts.

- Part 1. Calculation of thrust pad bearings;
- Part 2. Calculation function pad thrust bearing;
- Part 3. Calculation of thrust pad bearing the allowable value.

This part of GB/T 23891 Part 2.

This section identical with ISO 12131-2:2001 "Under steady-state conditions bearing hydrodynamic thrust pad bearings - Part 2. W Calculation function "thrust bearing block stop.

This section is equivalent translation ISO 12131-2:2001.

For ease of use, this section made the following editorial changes.

- "This International Standard" be replaced by "this section";
- With a decimal point instead of a comma as the decimal point, "";
- Delete international standards foreword.

This part is proposed by China Machinery Industry Federation.

Bearing this in part by the National Standardization Technical Committee (SAC/TC236) centralized.

This section is responsible for drafting unit. Productivity Promotion Center in the machine.

Participated in the drafting of this section. Xi'an Jiaotong University, Zhejiang Bearing Co., Ltd. Shanghai Branch, Shanghai, Zhejiang send Bearing Co., Ltd., Zhejiang Oriental Bearing Co., Ltd., Zhejiang SF Oilless Bearing Co., Ltd., Zhejiang Changsheng Bearing Co., Ltd..

This part of the National Standardization Technical Committee Secretariat slide bearing responsible for the interpretation.

GB/T 23891.2-2009/ISO 12131-2:2001

Introduction

This section GB/T 23891 of the calculating GB/T 23891.1 specified in lubricating pad thrust bearing necessary formulas, false Let pad thrust bearing operating in hydrodynamic condition, and in a completely lubrication conditions. These formulas are based on GB/T 23891.1 Identified assumptions and boundary conditions. Necessary for the calculation of the value given by graphs, tables and equations to determine the formula with the literature [2] Approximate numerical solution of the equation of the curve consistent. Explanation and example calculations related terms are given in GB/T 23891.1.

GB/T 23891.2-2009/ISO 12131-2:2001 Bearing Under steady-state conditions of hydrodynamic thrust bearing pad Part 2. Calculation of thrust pad bearings function

1 Scope

This part of the GB/T 23891 specifies the calculation of pad thrust bearing anchoring function, and dynamic viscosity and temperature of the lubricating oil film between the relationship.

2 Normative references

The following documents contain provisions which, through reference GB/T 23891 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 23891.1 sliding bearings under steady-state conditions of hydrodynamic thrust pad bearings - Part 1. pad thrust bearing count Operators (GB/T 23891.1-2009, ISO 12131-1:2001, IDT)

3 Pad thrust bearing calculation function

/ Cw_{ed}

$1 + \alpha \times B () L$

$\alpha = 10$

Cw_{ed} +

C () wed []

C () wed []

12 x 1 + 2 x

$A = 1.2057 - 0.24344 \times B () L + 0.12625 \times B () L - 0.021554 \times B () L$
 $B = -0.25634 + 0.36114 \times B () L - 0.19958 \times B () L + 0.038633 \times B () L$
 $C = -0.010765 + 0.0093501 \times B () L - 0.0027527 \times B () L + 0.00018446 \times B () L$
GB/T 23891.2-2009/ISO 12131-2:2001