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

GB/T 40118-2021

**Plain bearings - Testing under conditions of hydrodynamic and
mixed lubrication in test rigs**

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Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

4 symbols

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules of Standard Documents"

Drafting.

The translation method used in this document is equivalent to ISO 6281.2020 "Dynamic Pressure and Mixed Lubrication Condition Bench Test for Sliding Bearings."

The Chinese documents that have consistent correspondence with the normatively cited international documents in this document are as follows.

---GB/T 2889 (all parts) Plain bearing terms, definitions, classifications and symbols [ISO 4378 (all parts)]

This document was proposed by China Machinery Industry Federation.

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

Drafting organizations of this document. China National Machinery Productivity Promotion Center, Zhejiang Zhongda Precision Components Co., Ltd., Taiyuan University of Science and Technology, Zhejiang Shuangfei

Oilless Bearing Co., Ltd., Zhejiang Changsheng Sliding Bearing Co., Ltd., Jiaxing Meiteer Baoxin Machinery Industry Co., Ltd., Jiashan San

Fu Sliding Bearing Co., Ltd.

This document is interpreted by the National Technical Committee for Standardization of Sliding Bearings.

Sliding bearing hydrodynamic pressure and mixed lubrication conditions

Bench test

1 Scope

This document specifies the radial sliding bearing bench test under hydrodynamic pressure or mixed lubrication conditions during the development of bearings and/or materials

Claim.

This document is applicable to the performance test of single-layer and multi-layer radial sliding bearings under static and dynamic loading.

This document is not applicable to the dynamic performance test of the radial bearing lubricating film required for the calculation of the vibration and stability of the turbine rotor.

Note. To conduct tests on the basis of this document, more detailed test procedures need to be established.

2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated quotations

Only the version corresponding to that date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

This document.

ISO 4378 (all parts) Plain bearing terms, definitions, classifications and symbols
(Plainbearings-Terms, definitions,
classificationandsymbols)

3 Terms and definitions

ISO 4378 (all parts) defined and the following terms and definitions apply to this document.

3.1

Wearrate

The amount of wear per unit time.

3.2

Wear intensity

The ratio of the amount of wear to the length or volume of wear.

4 symbols

The following symbols apply to this document, see Table 1.

Table 1 Symbols

Symbol description unit

a Cycle time s

B Bearing width mm

F bearing load N

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