ISO/TS 31657-1:2020 (E)

Plain bearings — Hydrodynamic plain journal bearings under steady-state conditions — Part 1: Calculation of multi-lobed and tilting pad journal bearings

Contents

Foreword

Introduction

1 Scope

2 Normative references

3 Terms and definitions

4 Symbols and units

5 General principles, assumptions and preconditions

6 Calculation method

- 6.1 General
- 6.2 Load-carrying capacity
- 6.3 Frictional power
- 6.4 Lubricant flow rate
- 6.5 Heat balance
- 6.6 Maximum lubricant film temperature
- 6.7 Maximum lubricant film pressure
- 6.8 Operating states
- 6.9 Further influencing parameters
- 6.10 Stiffness and damping coefficients

7 Figures

Annex A (informative) Calculation examples

- A.1 Calculation of a four-lobe bearing
- A.2 Calculation of a tilting-pad journal bearing with five tilting pads

Page count: 37