ISO 13939:2019 (E)

Foil bearings — Performance testing of foil journal bearings — Testing of static load capacity, friction coefficient and lifetime

Contents

Foreword

- 1 Scope
- 2 Normative references
- 3 Terms and definitions
- 4 Symbols
 - 4.1 Basic characters Roman alphabet
 - 4.2 Basic characters Greek alphabet
 - 4.3 Additional signs Subscripts
 - 4.4 Additional signs Overline (shown on X)
- 5 Purpose of the test
- 6 Test conditions
 - 6.1 General
 - 6.2 Design of test facility
 - 6.3 Installation of sensors
 - 6.4 Calculation of bearing torque and loads
 - 6.5 Test specimens
- 7 Test methods
 - 7.1 Principle
 - 7.2 Start-stop test cycle and evaluation of the take-off speed
 - 7.3 Evaluation of static load capacity
 - 7.4 Calculation of non-dimensional static load capacity
 - 7.5 Coefficient of bearing load capacity
- 8 Clearance and eccentricity ratio
- 9 Friction coefficient
- 10 Durability test and lifetime
 - 10.1 Test procedure
 - 10.2 Determination of lifetime
- 11 Test report
- Annex A (informative) Configuration of a typical foil journal bearing
- Annex B (informative) Test report

Page count: 17