

ISO 7905-1:2021 (E)

Plain bearings — Bearing fatigue — Part 1: Plain bearings in test rigs and in applications under conditions of hydrodynamic lubrication

Contents

	Foreword
1	Scope
2	Normative references
3	Terms and definitions
4	Objective of testing
5	Requirements
5.1	Test rigs
5.2	Test methods
6	Test procedures
6.1	General
6.2	Characteristic conditions
6.2.1	Effective running-in procedure
6.2.2	Avoidance of deviation in the geometry of the structural elements of the plain bearing assembly
6.2.3	Effective temperature of the bearing and hydrodynamic film
6.2.4	Dynamic load amplitude and direction as a function of time
6.2.5	Number of load cycles required to effect the first fatigue damage
6.3	Characteristic information
6.3.1	General
6.3.2	Test rig description
6.3.3	Test bearing description
6.3.4	Test journal description
6.3.5	Specific details of test load
6.3.6	Designation of lubricant and supply
6.3.7	Test temperatures description
6.3.8	Test film thickness description
6.3.9	Test film pressure description
6.3.10	Description of the dynamic stresses of the test
6.3.11	Other test results
7	Evaluation of stress in bearing materials
Annex A	(informative) Evaluation of stress
A.1	Evaluation of fatigue stresses
A.2	Symbols
A.3	Stresses in bearing layers under rotating load
A.4	Worked example

Page count: 15