

This is a preview of "ISO 12301:2007". [Click here to purchase the full version from the ANSI store.](#)

Second edition
2007-10-15

Plain bearings — Quality control techniques and inspection of geometrical and material quality characteristics

Paliers lisses — Techniques de contrôle de la qualité et vérifications des caractéristiques de qualité géométriques et des matériaux



Reference number
ISO 12301:2007(E)

© ISO 2007

This is a preview of "ISO 12301:2007". [Click here to purchase the full version from the ANSI store.](#)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

This is a preview of "ISO 12301:2007". Click here to purchase the full version from the ANSI store.

Contents

Page

| | |
|---|-----------|
| Foreword..... | iv |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms and definitions | 2 |
| 4 Symbols and units | 4 |
| 5 Summary of defined quality characteristics | 5 |
| 6 Geometrical quality characteristics | 7 |
| 6.1 Wall thickness, s_3 | 7 |
| 6.2 Outside diameter, D_o | 13 |
| 6.3 Inside diameter, D_i | 14 |
| 6.4 Width, B | 17 |
| 6.5 Locating features | 18 |
| 6.6 Lubricant feed and distribution features | 19 |
| 6.7 Surface conditions | 20 |
| 6.8 Crush height, a (peripheral length) | 21 |
| 6.9 Free spread | 22 |
| 6.10 Straightness of sliding surface | 23 |
| 6.11 Joint face taper, h_{Δ} | 24 |
| 6.12 Back contact | 24 |
| 6.13 Joint displacement, B_{Δ} | 25 |
| 6.14 Height of thrust half-washer, H | 25 |
| 6.15 Flatness | 26 |
| 6.16 Flange diameter, D_{fl} | 27 |
| 6.17 Distance between flanges, a_{fl} | 28 |
| 6.18 Flange thickness, s_{fl} | 29 |
| 6.19 Perpendicularity (squareness) of flange | 30 |
| 6.20 Geometric deviations | 31 |
| 7 Material quality characteristics | 35 |
| 7.1 Metallic solid materials | 35 |
| 7.2 Metallic multilayer material | 36 |
| 7.3 Polymer layer material | 38 |
| 7.4 Solid polymer material | 39 |
| 7.5 Sintered material | 39 |
| Annex A (informative) Calculation of tangential load | 40 |
| Bibliography | 47 |

This is a preview of "ISO 12301:2007". [Click here to purchase the full version from the ANSI store.](#)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 12301 was prepared by Technical Committee ISO/TC 123, *Plain bearings*, Subcommittee SC 5, *Quality analysis and assurance*.

This second edition cancels and replaces the first edition (ISO 12301:1992), which has been technically revised. (It also incorporates the Technical corrigendum ISO 12301:1992/Cor. 1:1995.)