BS EN 2585:2019

BSI Standards Publication

Aerospace series - Bearing, spherical plain in corrosion resisting steel with self-lubricating liner - Wide series - Elevated load at ambient temperature - Dimensions and loads

bsi.

National foreword

This British Standard is the UK implementation of EN 2585:2019. It supersedes BS EN 2585:2001, which is withdrawn. Together with BS EN 2584:2019, it supersedes BS EN 2023:1989, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ACE/12, Aerospace fasteners and fastening systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2019
Published by BSI Standards Limited 2019

ISBN 978 0 539 00631 5

ICS 49.035

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 March 2019.

Amendments/corrigenda issued since publication

Date	Text affected

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 2585

February 2019

ICS 49.035

Supersedes EN 2023:1988, EN 2585:2001

English Version

Aerospace series - Bearing, spherical plain in corrosion resisting steel with self-lubricating liner - Wide series - Elevated load at ambient temperature - Dimensions and loads

Série aérospatiale - Rotule en acier résistant à la corrosion à garniture autolubrifiante - Série large - Charge élevée à température ambiante - Dimensions et charges

Luft- und Raumfahrt - Gelenklager aus korrosionsbeständigem Stahl mit selbstschmierender Beschichtung - Breite Reihe - Hohe Belastung bei Raumtemperatur - Maße und Belastungen

This European Standard was approved by CEN on 13 August 2018.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

© 2019 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN 2585:2019 E

Contents

European foreword

This document (EN 2585:2019) has been prepared by the Aerospace and Defence Industries Association of Europe — Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2019, and conflicting national standards shall be withdrawn at the latest by August 2019.

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

This document supersedes EN 2585:2001 and EN 2023:1988.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This standard specifies the characteristics of spherical plain bearings in corrosion resisting steel, with self-lubricating liner, wide series, for elevated load at ambient temperature, with or without swaging groove, intended for use in the fixed or moving parts of the aircraft structure and control mechanisms.

They shall be used in the temperature range −55° C to 163° C.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1132-1, *Rolling bearings — Tolerances — Part 1: Terms and definitions*

lSO 8075, *Aerospace — Surface treatment of hardenable stainless steel parts*

EN 2030, *Aerospace series — Steel X105CrMo17 (1.3544) — Hardened and tempered — Bars* $D_e \leq 150$ *mm*

EN 2132, *Aerospace series — Electrodeposition of Chromium for Engineering Purposes*[1)]

EN 2424, *Aerospace series — Marking of aerospace products*

EN 2755, *Aerospace series — Bearings, spherical plain in corrosion resisting steel with self-lubricating liner — Elevated load at ambient temperature — Technical specification*

EN 3161, *Aerospace series — Steel FE-PM3801 (X5CrNiCu17-4) — Air melted, solution treated and precipitation treated — Bar a or D* ≤ 200 *mm —* $R_m \geq 930$ *MPa*

3 Symbols and definitions

The tolerance definitions are given in lSO 1132-1.

Δ_{dmp} = single plane mean bore diameter deviation

Δ_{ds} = deviation of a single bore diameter

Δ_{Dmp} = single plane mean outside diameter deviation

Δ_{Ds} = deviation of a single outside diameter

α = angle of tilt of the outer ring with respect to the inner ring, the spherical surface of the outer ring being completely in contact with the inner ring

1) Published as ASD-STAN Prestandard at the date of publication of this standard.