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



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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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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.

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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.

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

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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of an identical text or by endorsement, at the latest by August 2019, and conflicting national standards shall be withdrawn at the latest by August 2019.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.

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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

ISO 8075, Aerospace — Surface treatment of hardenable stainless steel parts

EN 2030, Aerospace series — Steel X105CrMo17 (1.3544) — Hardened and tempered — Bars $D_e \le 150~\mathrm{mm}$

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 $D \le 200$ mm — $R_m \ge 930$ MPa

3 Symbols and definitions

The tolerance definitions are given in ISO 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.