

Lennunduse ja kosmonautika seeria. Isemääriva kattega korrosioonikindlast terasest siledad liigendliugelaagrid. Tavaline seeria. Mõõtmed ja koormused

Aerospace series - Bearings, spherical plain in corrosion resisting steel with self-lubricating liner -
Normal series - Dimensions and loads

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 2023:2000 sisaldab Euroopa standardi EN 2023:1988+AC1:1988 ingliskeelset teksti.

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This standard is ratified with the order of Estonian Centre for Standardisation dated 11.01.2000 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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Key words : Aircraft industry, spherical bearing, corrosion resisting steel, linings, self-lubricating parts, dimensions, loads.

English version

Aerospace series
Bearings, spherical plain in corrosion resisting steel
with self-lubricating liner
Normal series
Dimensions and loads

Série aéronautique
Rotules en acier résistant à la corrosion
à garniture autolubrifiante
Série normale
Dimensions et charges

Luft- und Raumfahrt
Gelenklager aus korrosionsbeständigem Stahl
mit selbstschmierender Beschichtung
Normale Reihe
Maße und Belastungen

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat : Rue Bréderode 2, B-1000 Bruxelles

Brief history

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After enquiries and votes carried out in accordance with the rules of this Association, this draft has successively received the approval of the National Associations and the Official Services of the member countries of AECMA, prior to its presentation to C.E.N.

According to the Common CEN/CENELEC Rules, following countries are bound to implement this European Standard:

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1 Scope and field of application

This standard specifies the characteristics of spherical plain bearings in corrosion resisting steel with self lubricating liner, normal series.

They are intended for use in fixed or moving parts of the aircraft structure and control mechanisms.

They shall be used in the temperature range -55 to $+150$ °C.

2 References

EN 2030, Steel FE-PM43 - Hardened and tempered - Bars $D \leq 150$ mm - Aerospace series

EN 2064, Bearings, spherical plain in corrosion resisting steel with self lubricating liner - Technical specification - Aerospace series

EN 2136, Steel FE-PM42 - $900 \text{ MPa} \leq R_m \leq 1100 \text{ MPa}$ - Bars $D_e \leq 100$ mm - Aerospace series

EN 2539, Aerospace series - Steel FE-PM61- $R_m \geq 960 \text{ MPa}$ - Bars $D_e \leq 150$ mm 1)

3 Symbols

- Δd_s = the deviation of a single bore diameter
- ΔD_s = the deviation of a single outside diameter
- Δd_{mp} = single plane mean bore diameter deviation
- ΔD_{mp} = single plane mean outside diameter deviation
- α = maximum displacement angle which can be formed by the outer ring with the inner ring the spherical track of the outer ring being fully in contact with the inner ring.

4 Required characteristics

4.1 Dimensions - Tolerances - Masses

Configuration shall correspond with figures 1 or 2.

Dimensions, tolerances and masses shall correspond with table 1.

4.2 Loads - Starting torques

Loads and starting torques shall correspond with table 2.

4.3 Materials

Inner ring : steel EN 2030

Outer ring : steel EN 2136 or EN 2539

Liner : Self-lubricating low friction wear resisting material consistent with requirements of EN 2064.

1) In preparation.