

**Lennunduse ja kosmonautika seeria.
Ilma koostepesata korrosioonikindlast
terasest siledad liigendliugelaagrid.
Mõõtmed ja koormused**

Aerospace series - Bearings, spherical plain in
corrosion resisting steel without assembly slot -
Dimensions and loads

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 2335:2006 sisaldab Euroopa standardi EN 2335:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 27.02.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 2335:2006 consists of the English text of the European standard EN 2335:2005.</p> <p>This document is endorsed on 27.02.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This standard specifies the characteristics of spherical plain bearings in corrosion resisting steel, without assembly slot, with or without swaging groove, with or without lubrication holes and grooves, intended for use in fixed or moving parts of aircraft structure and control mechanisms.</p>	<p>Scope:</p> <p>This standard specifies the characteristics of spherical plain bearings in corrosion resisting steel, without assembly slot, with or without swaging groove, with or without lubrication holes and grooves, intended for use in fixed or moving parts of aircraft structure and control mechanisms.</p>
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ICS 49.035

Võtmesõnad: aeronautikatööstus, korrosioonikindel teras, liigendlaager, mõõtmed, silelaager, staatiline koormus

English Version

**Aerospace series - Bearings, spherical plain in corrosion
resisting steel without assembly slot - Dimensions and loads**

Série aérospatiale - Rotules lisses en acier résistant à la
corrosion sans encoche d'assemblage - Dimensions et
charges

Luft- und Raumfahrt - Gelenklager aus
korrosionsbeständigem Stahl ohne Einführnut - Maße und
Belastungen

This European Standard was approved by CEN on 26 October 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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



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Foreword

This European Standard (EN 2335:2005) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-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 AECMA, 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 June 2006, and conflicting national standards shall be withdrawn at the latest by June 2006.

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

This European Standard supersedes EN 2335:1988.

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

1 Scope

This standard specifies the characteristics of spherical plain bearings in corrosion resisting steel, without assembly slot, with or without swaging groove, with or without lubrication holes and grooves, intended for use in fixed or moving parts of aircraft structure and control mechanisms.

They may be used in the temperature range from $-54\text{ }^{\circ}\text{C}$ to $150\text{ }^{\circ}\text{C}$.

However, as they are lubricated with the following greases (see EN 2337):

- ester type very high pressure grease (code letter A), operating range from $-73\text{ }^{\circ}\text{C}$ to $121\text{ }^{\circ}\text{C}$ or,
- synthetic hydrocarbon type very high pressure grease general purpose (code letter B), operating range from $-54\text{ }^{\circ}\text{C}$ to $177\text{ }^{\circ}\text{C}$.

Their field of application when lubricated with grease code letter A is limited to $121\text{ }^{\circ}\text{C}$.

2 Normative references

The following referenced documents are indispensable for the application 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, *Steel FE-PM43 – Hardened and tempered – Bars $D \leq 150\text{ mm}$ – Aerospace series*.¹⁾

EN 2337, *Aerospace series – Spherical plain bearings – Technical specification*.

EN 2424, *Aerospace series – Marking of aerospace products*.

EN 2491, *Aerospace series – Molybdenum disulphide dry lubricants – Coating methods*.

EN 3161, *Aerospace series – Steel FE-PM3801 (X5CrNiCu17-4) – Air melted – Solution treated and precipitation treated – Bar – a or $D \geq 200\text{ mm}$ – $R_m \geq 930\text{ MPa}$* .²⁾

EN 3490, *Aerospace series – Steel FE-PM3901 (X15CrNi17-3) – Air melted – Hardened and tempered – Bar for machining – $D_e \leq 200\text{ mm}$ – $900\text{ MPa} \leq R_m \leq 1\,100\text{ MPa}$* .²⁾

3 Terms and definitions

For the purposes of this standard, the terms and definitions given in ISO 1132-1 apply.

1) Published as AECMA Standard at the date of publication of this standard

2) Published as AECMA Prestandard at the date of publication of this standard