

Bearings-airframe rolling, double row, self aligning ball bearings, in corrosion resisting steel, diameter series 2, dimensions and loads; Aerospace series; inactive for new design, see EN 3289

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English version

Bearings-airframe rolling double row
self aligning ball bearings
in corrosion resisting steel
diameter series 2
Dimensions and loads
Aerospace series

Roulements pour structures d'aéronefs
roulements en acier résistant à la corrosion
à rotule sur deux rangées de billes
série de diamètres 2
Dimensions et charges
Série aéronautique

Luft- und Raumfahrt
Flugwerklager zweireihige Pendelkugellager
aus korrosionsbeständigem Stahl
Durchmesserreihe 2
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 Brussels

BRIEF HISTORY

This European Standard has been prepared by the European Association of Aerospace Constructors (AECMA).
This Standard has been accepted by the European Committee for Standardization (CEN) after inquiries and votes carried out in accordance with the rules of this Committee.

CONTENTS

- 1 SCOPE
- 2 FIELDS OF APPLICATION
- 3 REFERENCES
- 4 DEFINITIONS
- 5 SYMBOLS
- 6 MATERIALS
- 7 REQUIRED CHARACTERISTICS
- 8 DESIGNATION
- 9 MARKING
- 10 TECHNICAL SPECIFICATION

1 SCOPE

This standard specifies the characteristics, of double row self aligning ball bearings of diameter series 2 ¹⁾ designed to withstand only slow rotations and oscillations under load. They are intended for use between fixed and moving parts of the aircraft structure and their control mechanisms.

2 FIELDS OF APPLICATION

The airframe roller bearings defined in the present standard shall be used from -54 to $+150$ °C.

However, being lubricated with the following greases :

- very high pressure grease, ester type (code A), operational range -73 to $+121$ °C or
- very high pressure grease, synthetic hydrocarbons, general purpose (code B), operational range -54 to $+177$ °C (refer to EN2063),

their field of application when lubricated with code A grease shall be limited to $+121$ °C.

3 REFERENCES

ISO 15-1981, Rolling bearings - Radial bearings - Boundary dimensions - General plan

ISO/R 201-1961, Rolling bearings - Radial internal clearance in unloaded radial groove type ball bearings with cylindrical bore - Values.

EN2030, Steel FE-PM43, Hardened and tempered, Bars $D \leq 150$ mm

EN2063, Bearings, airframe rolling - Technical Specification.

4 DEFINITIONS

Self aligning ball bearings, full complement (without cage), double row.

5 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
C_s	= permissible static radial load
F_a	= bearing axial load = axial component of actual bearing load
$F_{a \max}$	= permissible static axial load
F_r	= static radial load
P_{or}	= static equivalent radial load
Y_s	= coefficient of axial load.

6 MATERIALS

Inner ring : Corrosion resisting steel EN2030, ≥ 58 HRC.

Outer ring : Corrosion resisting steel EN2030, ≥ 58 HRC.

Balls : Corrosion resisting steel EN2030, ≥ 58 HRC.

Shields : Corrosion resisting material

Seals : Polytetrafluoroethylene (PTFE);

or polytetrafluoroethylene (PTFE) - glass fibre reinforced plastic material.

1) See ISO 15.