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 **NBN**



Aerospace series — Bearing, spherical plain, in corrosion resisting steel with self-lubricating liner, low starting torque and low friction coefficient, elevated duty cycles under low oscillations at different operating conditions — Part 3: Technical specification

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Bureau for Standardisation
Rue Joseph II 40 PO box 6
1000 Brussels

T. +32 2 738 01 11
F. +32 2 733 42 64
info@nbn.be

BTW BE0880.857.592
IBAN BE41 0003 2556 2110
BIC Code BPOTBEB1

www.nbn.be

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**Aerospace series - Bearing, spherical plain, in corrosion
resisting steel with self-lubricating liner, low starting
torque and low friction coefficient, elevated duty cycles
under low oscillations at different operating conditions -
Part 3: Technical specification**

Série aérospatiale - Rotules en acier résistant à la
corrosion à garniture autolubrifiante, faible couple de
démarrage et faible coefficient de frottement, cycles
d'endurances élevés sous faibles oscillations à
différentes conditions de fonctionnement, série large -
Partie 3 : Spécification Technique

Luft- und Raumfahrt - Gelenklager aus
korrosionsbeständigem Stahl mit selbstschmierender
Beschichtung, geringem Losbrechmoment und
niedrigem Reibungskoeffizienten, hohe Anzahl an
gering oszillierenden Belastungszyklen bei
unterschiedlichen Einsatzbedingungen - Teil 3:
Technische Lieferbedingungen

This European Standard was approved by CEN on 12 November 2018.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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EN 4854-3:2019 (E)**European foreword**

This document (EN 4854-3:2019) 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of an identical text or by endorsement, at the latest by April 2020, and conflicting national standards shall be withdrawn at the latest by April 2020.

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1 Scope

This European Standard specifies the required characteristics, inspection and test methods, qualification and acceptance conditions for spherical plain bearings in corrosion resisting steel with self-lubricating liner, low starting torque and low friction coefficient, elevated duty cycles under low oscillations at different operating conditions.

This standard applies whenever referenced.

These self-lubricating spherical plain bearings are intended for use in fixed or moving parts of the aircraft structure especially for control mechanism and operating systems. The bearings are designed subjected under low dynamic radial loads and slow rotations in the temperature range of -55 °C to 120 °C (-67 °F to 248 °F).

The liner may be of a fabric or composite material bonded to the inside diameter of the outer ring or in a composite material moulded into a pre-formed cavity between the inner and outer rings.

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.

EN 4854-1, *Aerospace series — Bearing, spherical plain, in corrosion resisting steel with self-lubricating liner, low starting torque and low friction coefficient, elevated duty cycles under low oscillations at different operating conditions, narrow series — Part 1: Dimensions and loads*

EN 4854-2, *Aerospace series — Bearing, spherical plain, in corrosion resisting steel with self-lubricating liner, low starting torque and low friction coefficient, elevated duty cycles under low oscillations at different operating conditions, wide series — Part 2: Dimensions and loads*

EN 10204, *Metallic products — Types of inspection documents*

MIL-PRF-87257B, *Hydraulic Fluid, Fire Resistant; Low Temperature, Synthetic Hydrocarbon Base, Aircraft and Missile*

NSA307110, *Fluid — Hydraulic Phosphate Ester — Base Fire Resistant*

TR 4475, *Bearings and mechanical transmissions for airframe applications — Vocabulary*¹

ASTM D 1655, *Specification for Aviation Turbine Fuels*

1 Published as ASD-STAN Technical Report at the date of publication of this standard by AeroSpace and Defence Industries Association of Europe – Standardization (ASD-STAN) (www.asd-stan.org).