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Aerospace series - Tie rod with integrated bolts - Part 1: Technical specification

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/18

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Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

EUROPEAN STANDARD

EN 4691-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2017

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English Version

Aerospace series - Tie rod with integrated bolts - Part 1: Technical specification

Série aérospatiale - Bielle avec axes intégrés - Partie 1 :
Spécification technique

Luft- und Raumfahrt - Zug-Druck-Stange mit
integrierten Bolzen - Teil 1: Technische
Lieferbedingungen

This European Standard was approved by CEN on 25 June 2016.

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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 4691-1:2017) 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of an identical text or by endorsement, at the latest by April 2018, and conflicting national standards shall be withdrawn at the latest by April 2018.

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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Introduction

Aerospace and Defence Standardization (ASD-STAN) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent.

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1 Scope

This standard specifies the required characteristics, inspection and test methods, qualification and acceptance conditions for rod assemblies with two adjustable ends with integrated bolts, designed to withstand static and dynamic loads possible for interior and substructure in the temperature range from – 55 °C to 85 °C. It is applicable whenever referenced.

For a complete overview see EN 4691-2.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

DIN 53504, *Testing of rubber — Determination of tensile strength at break, tensile stress at yield, elongation at break and stress values in a tensile test*

DIN 65271, *Aerospace series — Elastomeric semi-finished products and parts — Technical specification*

EN 571-1, *Non-destructive testing — Penetrant testing — Part 1: General principles*

EN 2004-1, *Aerospace series — Test methods for aluminium and aluminium alloy products — Part 1: Determination of electrical conductivity of wrought aluminium alloys*

EN 2424, *Aerospace series — Marking of aerospace products*

EN 2825, *Aerospace series — Burning behaviour of non metallic materials under the influence of radiating heat and flames — Determination of smoke density*

EN 2826, *Aerospace series — Burning behaviour of non metallic materials under the influence of radiating heat and flames — Determination of gas components in the smoke*

EN 3844 (all parts), *Aerospace series — Flammability of non metallic materials*

EN 4691-2, *Aerospace series — Tie rod with integrated bolts — Part 2: Overview construction kit*

EN 4692, *Aerospace series — Tie rod with integrated bolts — Locking clip*

EN 4693, *Aerospace series — Tie rod with integrated bolts — Assembly Code A, B and C*

EN 4694, *Aerospace series — Tie rod with integrated bolts — Assembly Code D, E and F*

EN 4695, *Aerospace series — Tie rod with integrated bolts — Assembly Code G, H and K*

EN 9100, *Quality Management Systems — Requirements for Aviation, Space and Defense Organizations*

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

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

EN ISO 75-2, *Plastics — Determination of temperature of deflection under load — Part 2: Plastics and ebonite (ISO 75-2)*

EN ISO 175, *Plastics — Methods of test for the determination of the effects of immersion in liquid chemicals (ISO 175)*

- EN ISO 178, *Plastics — Determination of flexural properties (ISO 178)*
- EN ISO 179-1, *Plastics — Determination of Charpy impact properties — Part 1: Non-instrumented impact test (ISO 179-1)*
- EN ISO 291, *Plastics — Standard atmospheres for conditioning and testing (ISO 291)*
- EN ISO 527-2, *Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics (ISO 527-2)*
- EN ISO 1172, *Textile-glass-reinforced plastics — Prepregs, moulding compounds and laminates — Determination of the textile-glass and mineral-filler content — Calcination methods (ISO 1172)*
- EN ISO 1183-1, *Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pycnometer method and titration method (ISO 1183-1)*
- EN ISO 9001, *Quality management systems — Requirements (ISO 9001)*
- EN ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests (ISO 9227)*
- ISO 34-1, *Rubber, vulcanized or thermoplastic — Determination of tear strength — Part 1: Trouser, angle and crescent test pieces*
- ISO 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*
- ISO 1817, *Rubber, vulcanized or thermoplastic — Determination of the effect of liquids*
- ISO 2781, *Rubber, vulcanized or thermoplastic — Determination of density*
- ISO 5855-1, *Aerospace — MJ threads — Part 1: General requirements*
- ISO 5855-2, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts*
- ISO 10123, *Adhesives — Determination of shear strength of anaerobic adhesives using pin-and-collar specimens*
- ISO 10964, *Adhesives — Determination of torque strength of anaerobic adhesives on threaded fasteners*
- ASTM E112, *Standard Test Methods for Determining Average Grain Size¹⁾*
- ASTM C177, *Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus²⁾*
- ASTM D696, *Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30 °C and 30 °C with a Vitreous Silica Dilatometer²⁾*
- FAR/JAR/CS 25.853, *Compartment Interiors²⁾*

¹⁾ Published by: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, USA. <http://www.astm.org/>

²⁾ Published by: European Aviation Safety Agency, Postfach 101253, D-50452 Koeln, Germany.

RTCA-DO 160E, *Environmental Conditions and Test Procedures for Airborne Equipment*³⁾

UL 746B version 1.3 date 29.11.2000, *Plastics — Polymeric Materials — Long Term Property Evaluations*⁴⁾

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

³⁾ Published by: Radio Technical Commission for Aeronautics (RTCA), 1140 Connecticut Ave., N.W. Suite 1020, Washington, D.C. 20036, USA.

⁴⁾ Published as UL Standard, <http://ulstandardsinfonet.ul.com>.