Aerospace series - Tie Rod with integrated bolts -Locking clip



EESTI STANDARDI EESSÕNA

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EUROPEAN STANDARD NORME EUROPÉENNE

EN 4692

EUROPÄISCHE NORM

October 2017

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English Version

Aerospace series - Tie Rod with integrated bolts -Locking clip

Série aérospatiale - Bielle avec axes intégrés - Clip de verrouillage

Luft- und Raumfahrt - Zug-Druck Stange mit integriertem Bolzen - Verriegelungsklipp

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

				Page
ropean	foreword			3
_				
Re	quirements			5
Loc	cking clips			6
Ma	nrking			11
De	signation			12
Te	chnical specification	0,		12
ex A (i	informative) Standard ev	olution form		13
			40000000	
				Ó
				. 70

European foreword

This document (EN 4692:2017) 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of an identical text or by endorsement, at the latest by April 2018, and conflicting national standards shall be withdrawn at the latest by April 2018.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:

— USA: US 8371767,

China: CN 10104431

Japan: JP 4885140,

Russia: RU 2389914,

South Africa: ZA 2007/03913,

— Canada: 2584387,

South Korea: 7011559.

ASD-STAN takes no position concerning the evidence, validity and scope of this patent right.

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GMT Gummi-Metall-Technik GmbH Liechtersmatten 5 D-77815 Bühl

TRIGUM Engineering GmbH Brunskamp 4 D-21220 Seevetal/Maschen

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1 Scope

This standard shows the locking clips for the construction kit of rod assemblies for aerospace applications with two adjustable ends with integrated bolts for interior and sub structure in the temperature range -55 °C to 85 °C (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 65038-2, Aerospace — Bars of steel, nickel alloys and cobalt alloys for aircraft — Technical specification, sampling

EN 2424, Aerospace series — Marking of aerospace products

EN 4528, Aerospace series — Steel FE-PA3903 (X10CrNi18-8) — Cold rolled — Strip for springs — $a \le 3$ mm — $1\ 250\ MPa \le R_m \le 1\ 640\ MPa$

EN 4691-1, Aerospace series — Tie rod with integrated bolts — Part 1: Technical specification

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

ISO 2768-1, General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications

ISO 2768-2, General tolerances — Part 2: Geometrical tolerances for features without individual tolerance indications

ISO 8075, Aerospace — Surface treatment of hardenable stainless steel parts

WL 1.4548 (all parts), Aerospace — Precipitation-hardening stainless chromium-nickel-copper steel with approx. 0,05C-16Cr-4Cu-4Ni

3 Requirements

3.1 Configuration, dimensions, tolerances and masses

3.1.1 Configuration

The configuration shall be in accordance with Figure 1, Figure 2, Figure 3, Figure 4 and Figure 5.

3.1.2 Dimensions, tolerances and masses

Dimensions are in millimetres, tolerances and masses in accordance to Table 2. General tolerances shall be in accordance to ISO 2768-mK.

4 Materials

See Table 1.