EHITUSLIKUD EELPINGESTAMATA POLTLIITED. OSA 2: VASTAVUS OTSTARBELE

Non-preloaded structural bolting assemblies - Part 2: Fitness for purpose

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15048-2:2016 sisaldab Euroopa standardi EN 15048-2:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 15048-2:2016 consists of the English text of the European standard EN 15048-2:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 20.07.2016.	Date of Availability of the European standard is 20.07.2016.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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EUROPEAN STANDARD

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EN 15048-2

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English Version

Non-preloaded structural bolting assemblies - Part 2: Fitness for purpose

Boulonnerie de construction métallique non précontrainte - Partie 2: Aptitude à l'emploi

Garnituren für nicht vorgespannte Schraubverbindungen im Metallbau - Teil 2: Gebrauchstauglichkeit

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

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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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 15048-2:2016) has been prepared by Technical Committee CEN/TC 185 "Fasteners", the secretariat of which is held by BSI.

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 January 2017, and conflicting national standards shall be withdrawn at the latest by January 2017.

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 document supersedes EN 15048-2:2007.

Compared to the previous version, the modifications are the following:

— technical requirements and delivery conditions for bolting assemblies have been transferred from EN 15048-1;

— relevant product standards are specified by reference to a priority list, see 5.2;

— the use of complementary washers has been added;

— requirements for the test report have been revised.

EN 15048 consists of the following parts, under the general title *Non-preloaded structural bolting assemblies:*

— *Part 1: General requirements*;

— *Part 2: Fitness for purpose*.

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

Introduction

This European Standard specifies the requirements to ensure that non preloaded structural bolting assemblies (bolts + nuts) are fit for purpose in structural metallic works. Structural bolting assemblies which meet the requirements of this European Standard have been designed to allow tensile loading of at least $f_{ub} \times A_s$.

Since the tensile resistance of bolting assemblies is very sensitive to differences in manufacture, it is important that the bolting assemblies are supplied by one manufacturer who is always responsible for the function of the bolting assembly. For the same reason it is important that the coating of the bolting assemblies is under the control of the manufacturer.

1 Scope

This European Standard specifies the technical requirements for structural bolting assemblies in order to ensure the suitability for non-preloaded bolted connections in steel structures or aluminium structures.

A suitability test is specified to check the behaviour of the structural bolting assemblies.

It applies to bolting assemblies specified in EN 15048-1.

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.

EN 1993-1-8:2005, *Eurocode 3: Design of steel structures — Part 1-8: Design of joints*

EN 15048-1:2016, *Non-preloaded structural bolting assemblies — Part 1: General requirements*

EN 28839, *Mechanical properties of fasteners — Bolts, screws, studs and nuts made of non-ferrous metals (ISO 8839:1986)*

EN ISO 898-1, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs with specified property classes — Coarse thread and fine pitch thread (ISO 898-1)*

EN ISO 898-2, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 2: Nuts with specified property classes — Coarse thread and fine pitch thread (ISO 898-2)*

EN ISO 3506-1, *Mechanical properties of corrosion-resistant stainless steel fasteners — Part 1: Bolts, screws and studs (ISO 3506-1)*

EN ISO 3506-2, *Mechanical properties of corrosion-resistant stainless steel fasteners — Part 2: Nuts (ISO 3506-2)*

EN ISO 4014, *Hexagon head bolts — Product grades A and B (ISO 4014)*

EN ISO 4016, *Hexagon head bolts — Product grade C (ISO 4016)*

EN ISO 4017, *Fasteners — Hexagon head screws — Product grades A and B (ISO 4017)*

EN ISO 4018, *Hexagon head screws — Product grade C (ISO 4018)*

EN ISO 4032, *Hexagon regular nuts (style 1) — Product grades A and B (ISO 4032)*

EN ISO 4033, *Hexagon high nuts (style 2) — Product grades A and B (ISO 4033)*

EN ISO 4034, *Hexagon regular nuts (style 1) — Product grade C (ISO 4034)*

EN ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature (ISO 6892-1)*

EN ISO 7500-1, *Metallic materials — Calibration and verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Calibration and verification of the force-measuring system (ISO 7500-1)*