Non-preloaded structural bolting assemblies - Part 2: Suitability test

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 15048-2:2007 sisaldab Euroopa standardi EN 15048-2:2007 ingliskeelset teksti. Käesolev dokument on jõustatud 31.05.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 15048-2:2007 consists of the English text of the European standard EN 15048-2:2007. This document is endorsed on 31.05.2007 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This part of this European Standard specifies a tensile test for bolt/nut assemblies to guarantee their suitability for non-preloaded bolted connections in civil engineering structures. It applies to assemblies of bolts, nuts (and washers if required) with dimensional and mechanical characteristics as specified in prEN 15048-1.	**Scope:** This part of this European Standard specifies a tensile test for bolt/nut assemblies to guarantee their suitability for non-preloaded bolted connections in civil engineering structures. It applies to assemblies of bolts, nuts (and washers if required) with dimensional and mechanical characteristics as specified in prEN 15048-1.

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Boulonnerie de construction métallique non précontrainte - Partie 2 : Essai d'aptitude à l'emploi

Garnituren für nicht planmäßig vorgespannte Schraubenverbindungen für den Metallbau - Teil 2: Eignungsprüfung

This European Standard was approved by CEN on 6 August 2006.

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Foreword

This document (EN 15048-2:2007) has been prepared by Technical Committee CEN/TC 185 “Fasteners”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by October 2007, and conflicting national standards shall be withdrawn at the latest by October 2009.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This part of this European Standard is intended to test the tensile resistance of bolt/nut/washer assemblies to ensure that the assemblies are suitable for use in non-preloaded structural bolting. The assemblies may be used in shear connections or in tension connections if no preload is required. Structural fasteners which meet the requirements of this part of this European Standard have been designed to allow tensile loading of at least $f_{ub} \times A_s$ according to EN 1993-1-8 (Eurocode 3).

NOTE A_s according to EN 1993-1-8 means $A_{s,nom}$ according to the definition in Clause 4.

1 Scope

This part of this European Standard specifies a tensile test for bolt/nut assemblies to guarantee their suitability for non-preloaded bolted connections in civil engineering structures. It applies to assemblies of bolts, nuts (and washers if required) with dimensional and mechanical characteristics as specified in EN 15048-1.

2 Normative references

The following referenced documents are indispensable for the application 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 15048-1:2007, *Non-preloaded structural bolting assemblies — Part 1: General requirements*

EN ISO 898-1, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs (ISO 898-1:1999)*

EN ISO 3506-1, *Mechanical properties of corrosion-resistant stainless-steel fasteners — Part 1: Bolts, screws and studs (ISO 3506-1:1997)*

EN ISO 7500-1, *Metallic materials - Verification of static uniaxial testing machines - Part 1: Tension/compression testing machines - Verification and calibration of the force-measuring system (ISO 7500-1:2004)*

ISO 273, *Fasteners — Clearance holes for bolts and screws*

ISO 6892, *Metallic materials — Tensile testing at ambient temperature*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 15048-1:2007 apply.

4 Symbols

$A_{s,\,nom}$ nominal stress area of the bolt, in mm^2 (see also EN ISO 898-1 and EN ISO 3506-1)

d nominal thread diameter, in mm

F_b force in the bolted assembly during the test, in kN

$F_{bi,max}$ individual value of the maximum force reached by the assembly during the test, in kN

F_{ub} minimum tensile resistance, in kN, (see also EN 15048-1)