Blind rivets - Mechanical testing

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 14589:2001 sisaldab Euroopa standardi EN ISO 14589:2000 ingliskeelset teksti. Käesolev dokument on jõustatud 18.05.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 14589:2001 consists of the English text of the European standard EN ISO 14589:2000. This document is endorsed on 18.05.2001 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 International Standard specifies the methods of mechanical testing of blind rivets including: - shear test (see clause 3) - tensile test (see clause 3). - mandrel head retention capability test (see clause 4), - mandel push out resistance test (prior to setting) (see clause 5), and - mandrel break load test (see clause 6), at an ambient temperature of 10 °C 35°C It applies to blind rivets with nominal diameters up to and including 6,4 mm.	**Scope:** This International Standard specifies the methods of mechanical testing of blind rivets including: - shear test (see clause 3) - tensile test (see clause 3). - mandrel head retention capability test (see clause 4), - mandel push out resistance test (prior to setting) (see clause 5), and - mandrel break load test (see clause 6), at an ambient temperature of 10 °C 35°C It applies to blind rivets with nominal diameters up to and including 6,4 mm.

ICS 21.060.40

Võtmesõnad: blind rivets, breaking load, fasteners, mechanical testing, rivets, shear testing, tensile testing, testing

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 14589

December 2000

ICS 21.060.40

English version

Blind rivets

Mechanical testing
(ISO 14589 : 2000)

Rivets aveugles – Essais mécaniques
(ISO 14589 : 2000)

Blindniete – Mechanische Prüfung
(ISO 14589 : 2000)

This European Standard was approved by CEN on 2000-12-15.

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 Management Centre or to any CEN member.

The European Standards exist 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 Management Centre has the same status as the official versions.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Ref. No. EN ISO 14589 : 2000 E

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Foreword

International Standard
ISO 14589 : 2000 Blind rivets – Mechanical testing,
which was prepared by ISO/TC 2 'Fasteners' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 185 'Threaded and non-threaded mechanical fasteners and accessories', the Secretariat of which is held by DIN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by June 2001 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 14589 : 2000 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

1 Scope

This International Standard specifies the methods of mechanical testing of blind rivets including:

— shear test (see clause 3),

— tensile test (see clause 3),

— mandrel head retention capability test (see clause 4),

— mandrel push out resistance test (prior to setting) (see clause 5), and

— mandrel break load test (see clause 6),

at an ambient temperature of 10 °C to 35 °C.

It applies to blind rivets with nominal diameters up to and including 6,4 mm.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 7500-1:1999, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system.*

3 Shear and tensile tests

3.1 Principle of shear and tensile tests

The tests consist of straining a blind rivet which is set in a test fixture by a shear load or tensile load to failure.

3.2 Test fixtures for shear and tensile tests

Two test fixtures are specified for each of both test methods. The test fixtures specified in 3.2.1.1 and 3.2.2.1 may be used for routine testing. The test fixtures specified in 3.2.1.2 and 3.2.2.2 may also be used for routine testing but are decisive in the case of dispute and are the referee test fixtures in such cases.

3.2.1 Test fixtures for shear testing

3.2.1.1 Routine shear testing

See Figure 1 for basic dimensions.