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Standards

Irish Standard
I.S. EN ISO 16047:2005

Fasteners - Torque/clamp force testing (ISO 16047:2005)

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I.S. EN ISO 16047:2005

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Fasteners - Torque/clamp force testing (ISO 16047:2005/Amd 1:2012)

Éléments de fixation - Essais couple/tension (ISO 16047:2005/Amd 1:2012)

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Contents

Page

Foreword.....3

Foreword

This document (EN ISO 16047:2005/A1:2012) has been prepared by Technical Committee ISO/TC 2 “Fasteners” in collaboration with Technical Committee CEN/TC 185 “Fasteners” the secretariat of which is held by DIN.

This Amendment to the European Standard EN ISO 16047:2005 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2013, and conflicting national standards shall be withdrawn at the latest by March 2013.

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Endorsement notice

The text of ISO 16047:2005/Amd 1:2012 has been approved by CEN as a EN ISO 16047:2005/A1:2012 without any modification.

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ICS 21.060.01

English version

Fasteners - Torque/clamp force testing (ISO 16047:2005)

Eléments de fixation - Essais couple/tension (ISO
16047:2005)

Verbindungselemente - Drehmoment/Vorspannkraft-
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I.S. EN ISO 16047:2005

EN ISO 16047:2005 (E)

Foreword

This document (EN ISO 16047:2005) has been prepared by Technical Committee ISO/TC 2 "Fasteners" in collaboration with Technical Committee CEN/TC 185 "Threaded and non-threaded mechanical fasteners and accessories", 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of an identical text or by endorsement, at the latest by August 2005, and conflicting national standards shall be withdrawn at the latest by August 2005.

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Endorsement notice

The text of ISO 16047:2005 has been approved by CEN as EN ISO 16047:2005 without any modifications.

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First edition
2005-02-01

Fasteners — Torque/clamp force testing

Éléments de fixation — Essais couple/tension



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Contents

Page

Foreword.....	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Symbols and their designations	3
5 Principle of test	4
5.1 General	4
5.2 Determination of coefficients of friction	4
5.3 Determination of torque coefficient K (K-factor)	5
5.4 Determination of ratio T/F	5
6 Apparatus	5
6.1 Testing machine	5
6.2 Test fixture	5
7 Test parts	6
7.1 General	6
7.2 Test-bearing plates or test washers	7
7.3 Test nuts for testing bolts, screws and studs	8
7.4 Test bolts or test screws for testing nuts	8
8 Testing under standard conditions	9
9 Testing under specific conditions	9
10 Evaluation of results	9
10.1 Determination of torque coefficient K	9
10.2 Determination of coefficient of total friction μ_{tot}	10
10.3 Determination of coefficient of friction between threads μ_{th}	10
10.4 Determination of coefficient of friction between bearing surfaces μ_{b}	11
10.5 Determination of yield clamp force F_{y}	11
10.6 Determination of yield tightening torque T_{y}	11
10.7 Determination of ultimate clamp force F_{u}	11
10.8 Determination of ultimate tightening torque T_{u}	11
11 Test report	11
11.1 General	11
11.2 Description of fasteners to be tested	12
11.3 Description of test parts	13
11.4 Testing machine	13
11.5 Test fixture	14
11.6 Environmental conditions	14
11.7 Specific conditions	14
11.8 Test results	14
Bibliography	15

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 16047 was prepared by Technical Committee ISO/TC 2, *Fasteners*, Subcommittee SC 1, *Mechanical properties of fasteners*.

Fasteners — Torque/clamp force testing

1 Scope

This International Standard specifies the conditions for carrying out torque/clamp force tests on threaded fasteners and related parts.

It is applicable, basically, to bolts, screws, studs and nuts made of carbon steel and alloy steel, whose mechanical properties are specified in ISO 898-1, ISO 898-2 or ISO 898-6, having ISO metric threads with thread sizes M3 to M39. It is also applicable to the combination of other externally and internally threaded fasteners with a triangular ISO thread according to ISO 68-1.

It is not applicable to set screws and similar threaded fasteners that are not under tensile stresses, nor to screws which form their own mating thread or threaded fasteners having additional self-locking features.

Unless otherwise agreed, the tests are carried out at room temperature. However, tests carried out under standard conditions are made at a temperature of 10 °C to 35 °C.

This method allows determination of the tightening characteristics of threaded fasteners and related parts.

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.

ISO 68-1, *ISO general purpose screw threads — Basic profile — Part 1: Metric screw threads*

ISO 273:1979, *Fasteners — Clearance holes for bolts and screws*

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

ISO 898-2, *Mechanical properties of fasteners — Part 2: Nuts with specified proof load values — Coarse thread*

ISO 898-6, *Mechanical properties of fasteners — Part 6: Nuts with specified proof load values — Fine pitch thread*

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

ISO 4017, *Hexagon head screws — Product grades A and B*

ISO 4032, *Hexagon nuts, style 1 — Product grades A and B*

ISO 4033, *Hexagon nuts, style 2 — Product grades A and B*

ISO 4042:1999, *Fasteners — Electroplated coatings*

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