SLOVENSKI STANDARD
SIST EN ISO 10427-2:2004

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Petroleum and natural gas industries - Equipment for well cementing - Part 2: Centralizer placement and stop-collar testing (ISO 10427-2:2004)

Petroleum and natural gas industries - Equipment for well cementing - Part 2: Centralizer placement and stop-collar testing (ISO 10427-2:2004)

Erdöl- und Erdgasindustrie - Zentrierungseinrichtungen für Futterrohre - Teil 2: Anordnung des Zentrierers und Prüfung des Anschlagbundes (ISO 10427-2:2004)

Industries du pétrole et du gaz naturel - Equipement de cimentation de puits - Partie 2: Mise en place des centreurs et essai des colliers d'arret (ISO 10427-2:2004)

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ICS:

75.180.10	Oprema za raziskovanje in odkopavanje	Exploratory and extraction equipment

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This European Standard was approved by CEN on 16 April 2004.

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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 Central Secretariat 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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Foreword

This document (EN ISO 10427-2:2004) has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum and natural gas industries" in collaboration with Technical Committee CEN/TC 12 "Materials, equipment and offshore structures for petroleum and natural gas industries", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by November 2004, and conflicting national standards shall be withdrawn at the latest by November 2004.

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

Endorsement notice

The text of ISO 10427-2:2004 has been approved by CEN as EN ISO 10427-2:2004 without any modifications.

INTERNATIONAL STANDARD

ISO 10427-2

First edition
2004-05-01

Petroleum and natural gas industries — Equipment for well cementing —

Part 2: Centralizer placement and stop-collar testing

Industries du pétrole et du gaz naturel — Équipement de cimentation de puits —

Partie 2: Mise en place des centreurs et essai des colliers d'arrêt

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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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 10427-2 was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 3, *Drilling and completion fluids, and well cements*.

This first edition of ISO 10427-2, together with ISO 10427-1 and ISO 10427-3, cancels and replaces ISO 10427:1993, which has been technically revised.

ISO 10427 consists of the following parts, under the general title *Petroleum and natural gas industries — Equipment for well cementing*:

— *Part 1: Casing bow-spring centralizers*

— *Part 2: Centralizer placement and stop-collar testing*

— *Part 3: Performance testing of cementing float equipment*

Introduction

This part of ISO 10427 is based on API Specification 10D, 5th edition, January 1995 [1].

In this part of ISO 10427, where practical, U.S. Customary units are included in brackets for information.

Petroleum and natural gas industries — Equipment for well cementing —

Part 2: Centralizer placement and stop-collar testing

1 Scope

This part of ISO 10427 provides calculations for determining centralizer spacing, based on centralizer performance and desired standoff, in deviated and dogleg holes in wells for the petroleum and natural gas industries. It also provides a procedure for testing stop collars and reporting test results.

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 11960, *Petroleum and natural gas industries — Steel pipes for use as casing or tubing for wells*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply:

3.1
annular clearance for perfectly centred casing
wellbore diameter minus casing outside diameter divided by two

3.2
centralizer permanent set
change in centralizer bow height after repeated flexing

NOTE A bow-spring centralizer is considered to have reached permanent set after being flexed 12 times.

3.3
flexed
condition of a bow-spring when a force three times the specified minimum restoring force (± 5 %) has been applied to it

[ISO 10427-1:2001, 3.1]

NOTE Specified minimum restoring force values are found in Table 1 of ISO 10427-1:2001.