SLOVENSKI STANDARD
SIST EN ISO 15546:2007

01-junij-2007

Nadomešča:
SIST EN ISO 15546:2004

Industrija za predelavo nafte in zemeljskega plina - Vrtalne cevi iz aluminijevih zlitin (ISO 15546:2007)

Petroleum and natural gas industries - Aluminium alloy drill pipe (ISO 15546:2007)

Erdöl- und Erdgasindustrie - Bohrrohre aus Aluminiumlegierungen (ISO 15546:2007)

Industries du pétrole et du gaz naturel - Tige de forage en alliage d'aluminium (ISO 15546:2007)

Ta slovenski standard je istoveten z: **EN ISO 15546:2007**

ICS:

75.180.10	Oprema za raziskovanje in odkopavanje	Exploratory and extraction equipment
77.150.10	Aluminijski izdelki	Aluminium products

SIST EN ISO 15546:2007 **en,fr**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 15546

May 2007

ICS 75.180.10; 77.150.10

Supersedes EN ISO 15546:2002

English Version

Petroleum and natural gas industries - Aluminium alloy drill pipe (ISO 15546:2007)

Industries du pétrole et du gaz naturel - Tige de forage en alliage d'aluminium (ISO 15546:2007)

Erdöl- und Erdgasindustrie - Bohrrohre aus Aluminiumlegierungen (ISO 15546:2007)

This European Standard was approved by CEN on 14 May 2007.

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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 CEN 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

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This document (EN ISO 15546:2007) 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, petrochemical 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of an identical text or by endorsement, at the latest by November 2007, and conflicting national standards shall be withdrawn at the latest by November 2007.

This document supersedes EN ISO 15546:2002.

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.

Endorsement notice

The text of ISO 15546:2007 has been approved by CEN as EN ISO 15546:2007 without any modifications.

INTERNATIONAL STANDARD

ISO 15546

Second edition
2007-05-15

Petroleum and natural gas industries — Aluminium alloy drill pipe

Industries du pétrole et du gaz naturel — Tige de forage en alliage d'aluminium

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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 15546 was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*.

This second edition cancels and replaces the first edition (ISO 15546:2002), of which it constitutes a minor revision.

Introduction

Users of this International Standard need to be aware that further or differing requirements could be needed for individual applications. This International Standard is not intended to inhibit a manufacturer from offering, or the purchaser from accepting, alternative equipment or engineering solutions for the individual application — particularly applicable where there is innovative or developing technology. Where an alternative is offered, the manufacturer will need to identify any variations from this International Standard and provide details.

This International Standard includes requirements of various nature. These are identified by the use of certain verbal forms:

— “shall” is used to indicate that a provision is mandatory;

— “should” is used to indicate that a provision is not mandatory, but recommended as good practice;

— “may” is used to indicate that a provision is optional.

Petroleum and natural gas industries — Aluminium alloy drill pipe

1 Scope

This International Standard specifies the technical delivery condition, manufacturing process, material requirements, configuration and dimensions, and verification and inspection procedures for aluminium alloy drill pipes with or without attached steel tool joints for use in drilling and production operations in the petroleum and natural gas industries.

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 2566-1, *Steel — Conversion of elongation values — Part 1: Carbon and low alloy steels*

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

ISO 9303, *Seamless and welded (except submerged arc-welded) steel tubes for pressure purposes — Full peripheral ultrasonic testing for the detection of longitudinal imperfections*

ISO 10424-2, *Petroleum and natural gas industries — Rotary drilling equipment — Part 2: Threading and gauging of rotary shouldered thread connections*

ISO 11484, *Steel tubes for pressure purposes — Qualification and certification of non-destructive testing (NDT) personnel*

ISO 11960:2004, *Petroleum and natural gas industries — Steel pipes for use as casing or tubing for wells*

ASTM[1)] A370, *Standard Test Methods and Definitions for Mechanical Testing of Steel Products*

ASTM G1, *Standard Practice for Preparing, Cleaning, and Evaluating Corrosion Test Specimens*

ASTM G44, *Standard Practice for Exposure of Metals and Alloys by Alternate Immersion in Neutral 3,5 % Sodium Chloride Solution*

Manual on Statistical Planning and Analysis for Fatigue Experiments — STP-588, ASTM

1) ASTM International, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959, USA.

3 Terms, definitions and symbols

3.1 Terms and definitions

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

3.1.1
defect
imperfection of sufficient magnitude to warrant rejection of the product based on the criteria defined in this International Standard

3.1.2
drill pipe
seamless pipe used to rotate the drill bit and circulate the drilling mud, pipes being coupled together by means of tool joints

3.1.3
heat
metal produced by a single cycle of a batch melting process

3.1.4
imperfection
discontinuity in the product wall or on the product surface that can be detected by a NDE method as given in ISO 11960:2004, Table C.62 or Table E.62

3.1.5
lot
lengths of pipe with the same specified dimensions and grade, heat treated as part of a continuous operation (or batch), and which are of a single heat or from different heats grouped according to documented procedure

NOTE The documented procedure will ensure that the appropriate requirements of this International Standard are met.

3.1.6
manufacturer
firm, company or corporation responsible for marking the product

NOTE Marking by the manufacturer warrants that the product conforms to this International Standard, and it is the manufacturer who is responsible for compliance with all of its applicable provisions.

3.1.7
pipe mill
firm, company or corporation that operates pipe-making facilities

3.1.8
processor
firm, company or corporation that operates facilities capable of cutting the threads and assembly of the pipe with the tool joints

3.1.9
seamless pipe
wrought tubular product made without a welded seam, manufactured by hot working and, if necessary, by subsequent cold finishing of the tubular product to produce the desired shape, dimensions and properties