SLOVENSKI STANDARD

oSIST prEN ISO 13535:2008

01-maj-2008

Industrija nafte in zemeljskega plina - Vrtalna in proizvodna oprema - Dvigovalna oprema (ISO/DIS 13535:2008)

Petroleum and natural gas industries - Drilling and production equipment - Hoisting equipment (ISO/DIS 13535:2008)

Industries du pétrole et du gaz naturel - Équipements de forage et de production - Équipement de levage (ISO/DIS 13535:2008)

Ta slovenski standard je istoveten z: **prEN ISO 13535**

ICS:

75.180.10

oSIST prEN ISO 13535:2008 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN ISO 13535

February 2008

ICS

Will supersede EN ISO 13535:2000

English Version

Petroleum and natural gas industries - Drilling and production equipment - Hoisting equipment (ISO/DIS 13535:2008)

Industries du pétrole et du gaz naturel - Équipements de forage et de production - Équipement de levage (ISO/DIS 13535:2008)

This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/TC 12.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

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 (prEN ISO 13535:2008) 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 document is currently submitted to the parallel Enquiry.

This document will supersede EN ISO 13535:2000.

Endorsement notice

The text of ISO/DIS 13535:2008 has been approved by CEN as a prEN ISO 13535:2008 without any modification.

DRAFT INTERNATIONAL STANDARD ISO/DIS 13535

ISO/TC **67**/SC **4** Secretariat: **ANSI**

Voting begins on: **2008-02-21**

Voting terminates on: **2008-07-21**

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Petroleum and natural gas industries — Drilling and production equipment — Hoisting equipment

Industries du pétrole et du gaz naturel — Équipements de forage et de production — Équipement de levage

[Revision of first edition (ISO 13535:2000)]

ICS 75.180.10

ISO/CEN PARALLEL ENQUIRY

The CEN Secretary-General has advised the ISO Secretary-General that this ISO/DIS covers a subject of interest to European standardization. **In accordance with the ISO-lead mode of collaboration as defined in the Vienna Agreement, consultation on this ISO/DIS has the same effect for CEN members as would a CEN enquiry on a draft European Standard.** Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month FDIS vote in ISO and formal vote in CEN.

In accordance with the provisions of Council Resolution 15/1993 this document is circulated in the English language only.

Conformément aux dispositions de la Résolution du Conseil 15/1993, ce document est distribué en version anglaise seulement.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

Pour accélérer la distribution, le présent document est distribué tel qu'il est parvenu du secrétariat du comité. Le travail de rédaction et de composition de texte sera effectué au Secrétariat central de l'ISO au stade de publication.

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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 13535 was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum and natural gas industries*, Subcommittee SC 4, *Drilling and production equipment*.

This second edition cancels and replaces the first edition (ISO 13535:2000), which has been technically revised.

Annex A forms a normative part of this International Standard. Annex B is for information only.

Introduction

This International Standard is based upon API Spec 8C, Fourth Edition, February 2003.

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

Petroleum and natural gas industries — Drilling and production equipment — Hoisting equipment

1 Scope

This International Standard provides requirements for the design, manufacture and testing of hoisting equipment suitable for use in drilling and production operations.

This International Standard is applicable to the following drilling and production hoisting equipment:

a) hoisting sheaves;

b) travelling blocks and hook blocks;

c) block-to-hook adapters;

d) connectors and link adapters;

e) drilling hooks;

f) tubing hooks and sucker-rod hooks;

g) elevator links;

h) casing elevators, tubing elevators, drill-pipe elevators and drill-collar elevators;

i) sucker-rod elevators;

j) rotary swivel-bail adapters;

k) rotary swivels;

l) power swivels;

m) power subs;

n) spiders, if capable of being used as elevators;

o) wire-line anchors;

p) drill-string motion compensators;

q) kelly spinners, if capable of being used as hoisting equipment;

r) pressure vessels and piping mounted onto hoisting equipment;

s) safety clamps, if capable of being used as hoisting equipment;

t) guide dollies.

This International Standard establishes requirements for two product specification levels (PSLs). These two PSL designations define different levels of technical requirements. All the requirements of Clause 4 through Clause 11 are applicable to PSL 1 unless specifically identified as PSL 2. PSL 2 includes all the requirements of PSL 1 plus the additional practices as stated herein.

Supplementary requirements apply only when specified. Annex A gives a number of standardized supplementary requirements.

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*

API RP 9B, *Application, Care, and Use of Wire Rope for Oil Field Service*[1)]

API Spec 5B, *Threading, Gauging, and Thread Inspection of Casing, Tubing, and Line Pipe Threads*

API Spec 7, *Rotary Drill Stem Elements*

ASME B31.3, *Process Piping*[2)]

ASME V, *Non-destructive Examination*

ASME VIII, DIV 1, *Rules for Construction of Pressure Vessels*

ASME IX, *Welding and Brazing specification*

ASTM A 370, *Standard Test Methods and Definitions for Mechanical Testing of Steel Products*[3)]

ASTM A 388, *Standard Practice for Ultrasonic Examination of Heavy Steel Forgings*

ASTM A 488, *Standard Practice for Steel Castings, Welding, Qualifications of Procedures and Personnel*

ASTM A 770, *Standard Specification for Through-Thickness Tension Testing of Steel Plates for Special Applications*

ASTM E 4, *Standard Practices for Force Verification of Testing Machines*

ASTM E 125, *Standard Reference Photographs for Magnetic Particle Indications on Ferrous Castings*

ASTM E 165, *Standard Test Method for Liquid Penetrant Examination*

ASTM E 186, *Standard Reference Radiographs for Heavy-Walled (2 to 4 1/2-in. (51 to 114-mm)) Steel Castings*

ASTM E 280, *Standard Reference Radiographs for Heavy-Walled (4 1/2 to 12-in. (114 to 305-mm)) Steel Castings*

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1) American Petroleum Institute; 1220 L St. N.W.; Washington, DC 20005; USA.

2) American Society of Merchanical Engineers; 345 East 47st St; New York, NY 10017; USA.

3) American Society for Testing and Materials; 100 Barr Harbor Dr.; West Conshohocken, PA 19428; USA.

ASTM E 428, *Standard Practice for Fabrication and Control of Steel Reference Blocks Used in Ultrasonic Inspection*

ASTM E 446, *Standard Reference Radiographs for Steel Castings Up to 2 in. (51 mm) in Thickness*

ASTM E 709, *Standard Guide for Magnetic Particle Examination*

ASNT SNT-TC-1A, *Recommended practice for personnel qualification and certification in non-destructive testing* [4)]

AWS D1.1, *Structural welding code* [5)]

AWS QC1, *Standard for AWS Certification of Welding Inspectors*

EN 287 (all parts), *Approval testing of welders – Fusion welding*

EN 288 (all parts), *Specification and qualification of welding procedures for metallic materials*

MSS SP-55, *Quality standard for steel castings for valves, flanges and fittings and other piping components – Visual method for evaluation of surface irregularities* [6)]

3 Terms and definitions

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

3.1 Terms and definitions

3.1.1
bearing-load rating
calculated maximum load for bearings subjected to the primary load

3.1.2
design load
sum of static and dynamic loads that would induce the maximum allowable stress in an item

3.1.3
design safety factor
factor to account for a certain safety margin between the maximum allowable stress and the specified minimum yield strength of a material

3.1.4
design verification test
test performed to validate the integrity of the design calculations used

3.1.5
dynamic load
load applied to the equipment due to acceleration effects

4) American Society for Nondestructive Testing; 4153 Arlingate Plaza; Box 28518, Columbus, OH 43228; USA.

5) American Welding Society; 550 N.W. LeJeune Road, Miami, Florida 33126; USA.

6) Manufacturers' Standardization Society of the Valve and Fittings Industry; 127 Park St. N.E.; Vienna, VA 22180; USA.