SLOVENSKI STANDARD
SIST EN ISO 13628-9:2007

01-maj-2007

Industrija za predelavo nafte in zemeljskega plina - Naļ rtovanje in delovanje podvodnih proizvodnih sistemov - 9. del: Sistemi za intervencijo z uporabo daljinsko vodenih orodij (ROT) (ISO 13628-9:2000)

Petroleum and natural gas industries - Design and operation of subsea production systems - Part 9: Remotely Operated Tool (ROT) intervention systems (ISO 13628-9:2000)

Erdöl- und Erdgasindustrie - Auslegung und Betrieb von Unterwasser-Produktionssystemen - Teil 9: ROT-Systeme (ISO 13628-9:2000)

Industries du pétrole et du gaz naturel - Conception et exploitation des systemes de production immergés - Partie 9: Systemes d'intervention utilisant des dispositifs a commande a distance (ROT) (ISO 13628-9:2000)

Ta slovenski standard je istoveten z: **EN ISO 13628-9:2006**

ICS:

75.180.10	Oprema za raziskovanje in odkopavanje	Exploratory and extraction equipment

SIST EN ISO 13628-9:2007 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 13628-9

December 2006

ICS 75.180.10

English Version

Petroleum and natural gas industries - Design and operation of subsea production systems - Part 9: Remotely Operated Tool (ROT) intervention systems (ISO 13628-9:2000)

Industries du pétrole et du gaz naturel - Conception et exploitation des systèmes de production immergés - Partie 9: Systèmes d'intervention utilisant des dispositifs à commande à distance (ROT) (ISO 13628-9:2000)

Erdöl- und Erdgasindustrie - Auslegung und Betrieb von Unterwasser-Produktionssystemen - Teil 9: ROT-Systeme (ISO 13628-9:2000)

This European Standard was approved by CEN on 13 November 2006.

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 Central Secretariat or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, 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.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

Ref. No. EN ISO 13628-9:2006: E

Foreword

The text of ISO 13628-9:2000 has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum and natural gas industries" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 13628-9:2006 by 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 June 2007, and conflicting national standards shall be withdrawn at the latest by June 2007.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of ISO 13628-9:2000 has been approved by CEN as EN ISO 13628-9:2006 without any modifications.

INTERNATIONAL STANDARD

ISO 13628-9

First edition
2000-06-15

Petroleum and natural gas industries — Design and operation of subsea production systems —

Part 9: Remotely Operated Tool (ROT) intervention systems

Industries du pétrole et du gaz naturel — Conception et exploitation des systèmes de production immergés —

Partie 9: Systèmes d'intervention utilisant des dispositifs à commande à distance (ROT)

Reference number
ISO 13628-9:2000(E)

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 734 10 79
E-mail copyright@iso.ch
Web www.iso.ch

Printed in Switzerland

Contents

Page

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 3.

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 part of ISO 13628 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 13628-9 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*.

ISO 13628 consists of the following parts, under the general title *Petroleum and natural gas industries — Design and operation of subsea production systems*:

— *Part 1: General requirements and recommendations*

— *Part 2: Flexible pipe systems for subsea and marine applications*

— *Part 3: Through flowline (TFL) systems*

— *Part 4: Subsea wellhead and tree equipment*

— *Part 5: Subsea control umbilicals*

— *Part 6: Subsea production control systems*

— *Part 7: Workover/completion riser systems*

— *Part 8: Remotely Operated Vehicle (ROV) interfaces on subsea production systems*

— *Part 9: Remotely Operated Tool (ROT) intervention systems*

Introduction

This part of ISO 13628 is considered to be closely related to ISO 13628-1 and ISO 13628-8. ISO 13628-1 provides general requirements and overall recommendations for development of complete subsea production systems for the petroleum and natural gas industries, from design to decommissioning, and gives a description of how the ROT intervention systems relate to the total subsea production system.

The objective of subsea intervention systems, including vessel and deck handling equipment, is to facilitate safe and efficient intervention on subsea installations.

Petroleum and natural gas industries — Design and operation of subsea production systems —

Part 9:
Remotely Operated Tool (ROT) intervention systems

1 Scope

This part of ISO 13628 provides functional requirements and recommendations for ROT intervention systems and interfacing equipment on subsea production systems for the petroleum and natural gas industries.

This part of ISO 13628 does not cover manned intervention and ROV-based intervention systems (e.g. for tie-in of sealines and module replacement). Vertical wellbore intervention, internal flowline inspection, tree running and tree running equipment are also excluded from this part of ISO 13628.

2 Terms, definitions and abbreviated terms

For the purposes of this part of ISO 13628, the following terms, definitions and abbreviated terms apply.

2.1 Terms and definitions

2.1.1
subsea intervention
all work carried out subsea

2.1.2
primary intervention
all work carried out during the scheduled intervention task

2.1.3
ROT system
dedicated, unmanned, subsea tools used for remote installation or module replacement tasks that require lift capacity beyond that of free-swimming ROV systems

NOTE The ROT system comprises wire-suspended tools with control system and support-handling system for performing dedicated subsea intervention tasks. They are usually deployed on liftwires or a combined liftwire/umbilical. Lateral guidance may be via guidewires, dedicated thrusters or ROV assistance.

2.1.4
deployment system
all equipment involved in the launch and recovery of the ROT system

2.1.5
heave-compensated system
system that limits the effect of vertical vessel motion on the deployed ROT system

2.1.6
skid system
storage, transportation, lifting and testing frames to facilitate movement of the ROT systems and the modules and components to be replaced or installed

NOTE Skids are used in combination with a skidding system.

2.1.7
sealines
all pipelines, flowlines, umbilicals and cables installed on the seabed

2.1.8
termination head
part of the PICS interfacing with the end of the sealine

2.1.9
pull-in head
part of the pull-in system acting as attachment point for the end of the pull-in wire

2.2 Abbreviated terms

CB	centre of buoyancy
CF	connection function
CG	centre of gravity
CT	connection tool
FAT	factory acceptance test
HPU	hydraulic power unit
ICS	intervention control system
ID	internal diameter
IP	ingress protection
LCC	life cycle cost
MQC	multi quick connector
NAS	National Aerospace Standard Institute
PGB	permanent guide base
PICS	pull-in and connection system
PIF	pull-in function
PIT	pull-in tool
ROT	remotely operated tool
ROV	remotely operated vehicle
SPS	subsea production system