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Offshorecontainere og tilhørende løftebeslag – Del 1: Konstruktion, fremstilling og mærkning af offshorecontainere

Offshore containers and associated lifting sets –
Part 1: Design, manufacture and marking of
offshore containers (ISO 10855-1:2018)

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EUROPÄISCHE NORM

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English Version

Offshore containers and associated lifting sets - Part 1: Design, manufacture and marking of offshore containers (ISO 10855-1:2018)

Containers offshore et dispositifs de levage associés
- Partie 1: Conception, fabrication et marquage
des containers offshore (ISO 10855-1:2018)

Offshore-Container und dazugehörige
Anschlaggarnituren - Teil 1: Auslegung, Herstellung
und Kennzeichnung (ISO 10855-1:2018)

This European Standard was approved by CEN on 30 April 2018.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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European foreword

This document ([EN ISO 10855-1:2018](#)) has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum, petrochemical 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 NEN.

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 January 2019, and conflicting national standards shall be withdrawn at the latest by January 2019.

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

This document supersedes [EN 12079-1:2006](#).

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of [ISO 10855-1:2018](#) has been approved by CEN as [EN ISO 10855-1:2018](#) without any modification.

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Offshore containers and associated lifting sets —

Part 1: Design, manufacture and marking of offshore containers

Containers offshore et dispositifs de levage associés —

Partie : Conception, fabrication et marquage des containers offshore



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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#).

A list of all the parts of ISO 10855 can be found on the ISO website.

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Introduction

[ISO 10855 \(all parts\)](#) meets the requirements of IMO MSC/Circ.860 (1998) for the design, construction, inspection, testing and in-service examination of offshore containers and associated lifting sets which are handled in open seas.

This document does not specify certification requirements for offshore containers which are covered by the IMO Circular 860 and SOLAS. IMO MSC/Circ.860 requires certification of offshore containers “by national administrations or organizations duly authorized by the Administration”, which should take account of both the calculations and the testing, “taking into account the dynamic lifting and impact forces that can occur when handling such equipment in open seas”. The certificate of conformity described in [Clause 11](#) complies with IMO MSC/Circ.860. Further information about certification can be found in informative [Annex A](#) of this document.

[ISO 10855 \(all parts\)](#) does not cover operational use or maintenance, for which there are a number of industry guidelines which can be referred to. Some are listed in the Bibliography.

Under conditions in which offshore containers are often transported and handled, the 'normal' rate of wear and tear is high, and damage necessitating repair will occur. However, containers designed, manufactured and periodically inspected according to [ISO 10855 \(all parts\)](#) should have sufficient strength to withstand the normal forces encountered in offshore operations, and not suffer complete failure even if subject to more extreme loads.

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Offshore containers and associated lifting sets —

Part 1:

Design, manufacture and marking of offshore containers

1 Scope

This document specifies requirements for the design, manufacture and marking of offshore containers with a maximum gross mass not exceeding 25 000 kg, intended for repeated use to, from and between offshore installations and ships.

This document specifies only transport-related requirements.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 148-1](#), *Metallic materials — Charpy pendulum impact test — Part 1: Test method*

[ISO 209](#), *Aluminium and aluminium alloys — Chemical composition*

[ISO 668](#), *Series 1 freight containers — Classification, dimensions and ratings*

[ISO 1161](#), *Series 1 freight containers — Corner and intermediate fittings — Specifications*

[ISO 1496-1](#), *Series 1 freight containers — Specification and testing — Part 1: General cargo containers for general purposes*

[ISO 1496-3](#), *Series 1 freight containers — Specification and testing — Part 3: Tank containers for liquids, gases and pressurized dry bulk*

[ISO 1496-4](#), *Series 1 freight containers — Specification and testing — Part 4: Non-pressurized containers for dry bulk*

[ISO 3452-1](#), *Non-destructive testing — Penetrant testing — Part 1: General principles*

[ISO 5817](#), *Welding — Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) — Quality levels for imperfections*

[ISO 6892-1](#), *Metallic materials — Tensile testing — Part 1: Method of test at room temperature*

[ISO 7500-1](#), *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines - Verification and calibration of the force-measuring system*

[ISO 9606-2](#), *Qualification test of welders — Fusion welding — Part 2: Aluminium and aluminium alloys*

[ISO 9712](#), *Non-destructive testing — Qualification and certification of NDT personnel*

[ISO 10042](#), *Welding — Arc-welded joints in aluminium and its alloys — Quality levels for imperfections*

[ISO 10474](#), *Steel and steel products — Inspection documents*

[ISO 10675-1](#), *Non-destructive testing of welds — Acceptance levels for radiographic testing — Part 1: Steel, nickel, titanium and their alloys*

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[ISO 10675-2](#), *Non-destructive testing of welds — Acceptance levels for radiographic testing — Part 2: Aluminium and its alloys*

[ISO 11666](#), *Non-destructive testing of welds — Ultrasonic testing — Acceptance levels*

[ISO 15607](#), *Specification and qualification of welding procedures for metallic materials — General rules*

[ISO 15609-1](#), *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 1: Arc welding*

[ISO 15614-1](#), *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys*

[ISO 15614-2](#), *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 2: Arc welding of aluminium and its alloys*

[ISO 17637](#), *Non-destructive testing of welds — Visual testing of fusion-welded joints*

[ISO 17638](#), *Non-destructive testing of welds — Magnetic particle testing*

[ISO 23277](#), *Non-destructive testing of welds — Penetrant testing — Acceptance levels*

[ISO 23278](#), *Non-destructive testing of welds — Magnetic particle testing — Acceptance levels*

[ISO 17636-1](#), *Non-destructive testing of welds — Radiographic testing — Part 1: X- and gamma-ray techniques with film*

[ISO 17636-2](#), *Non-destructive testing of welds — Radiographic testing — Part 2: X- and gamma-ray techniques with digital detectors*

[ISO 17640](#), *Non-destructive testing of welds — Ultrasonic testing — Techniques, testing levels, and assessment*

[EN 287-1](#), *Qualification test of welders — Fusion welding — Part 1: Steels*

[EN 10025-1](#), *Hot rolled products of structural steels — Part 1: General technical delivery conditions*

[EN 10025-2](#), *Hot rolled products of structural steels — Part 2: Technical delivery conditions for non-alloy structural steels*

[EN 10025-3](#), *Hot rolled products of structural steels — Part 3: Technical delivery conditions for normalized/normalized rolled weldable fine grain structural steels*

[EN 10025-4](#), *Hot rolled products of structural steels — Part 4: Technical delivery conditions for thermomechanical rolled weldable fine grain structural steels*

[EN 10088-2](#), *Stainless steels — Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes*

[EN 10164](#), *Steel products with improved deformation properties perpendicular to the surface of the product — Technical delivery conditions*

[EN 10210-1](#), *Hot finished structural hollow sections of non-alloy and fine grain structural steels — Part 1: Technical delivery requirements*

[EN 10219-1](#), *Cold formed welded structural hollow sections of non-alloy and fine grain steels — Part 1: Technical delivery requirements*

[EN 10250-2](#), *Open die steel forgings for general engineering purposes — Part 2: Non-alloy quality and special steels*

[EN 10250-3](#), *Open die steel forgings for general engineering purposes — Part 3: Alloy special steels*

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ASME Boiler and Pressure Vessel Code, Section IX, Welding and Brazing Qualifications, 2015

[AWS D1.1](#) *Structural Welding Code - Steel*

International Maritime Dangerous Goods Code (IMDG Code)