

**SLOVENSKI STANDARD**  
**oSIST prEN ISO 10855-2:2024**  
**01-april-2024**

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**Plavajoče kontejnerske enote in z njimi povezan dvižni pribor - 2. del: Načrtovanje, izdelava in označevanje dvižnih priborov (ISO/DIS 10855-2:2024)**

Offshore containers and associated lifting sets - Part 2: Design, manufacture and marking of lifting sets (ISO/DIS 10855-2:2024)

Offshore-Container und dazugehörige Anschlaggarnituren - Teil 2: Auslegung, Herstellung und Kennzeichnung von Anschlaggarnituren (ISO/DIS 10855-2:2024)

Conteneurs offshore et dispositifs de levage associés - Partie 2: Conception, fabrication et marquage des dispositifs de levage associés (ISO/DIS 10855-2:2024)

**Ta slovenski standard je istoveten z: prEN ISO 10855-2**

[oSIST prEN ISO 10855-2:2024](http://standards.sist.net/slovenian-standards/sist/01/10855-2/01/10855-2:2024)

**ICS:**

53.020.99	Druga dvigalna oprema	Other lifting equipment
55.180.10	Večnamenski kontejnerji	General purpose containers
75.180.10	Oprema za raziskovanje, vrtanje in odkopavanje	Exploratory, drilling and extraction equipment

**oSIST prEN ISO 10855-2:2024**

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# DRAFT INTERNATIONAL STANDARD

## ISO/DIS 10855-2

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## Offshore containers and associated lifting sets —

### Part 2: Design, manufacture and marking of lifting sets

*Conteneurs offshore et dispositifs de levage associés —**Partie 2: Conception, fabrication et marquage des dispositifs de levage associés*

ICS: 75.180.10

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## ISO/DIS 10855-2:2023(E)

### 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](http://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](http://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<sup>[10]</sup> for the design, construction, inspection, testing and in-service examination of offshore containers and the 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”. Further information about certification can be found in informative [Annex C](#) of this document.

ISO 10855 (all parts) does not cover operational use or maintenance, for which there are several 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 and manufactured according to ISO 10855 (all parts) will 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 2: Design, manufacture and marking of lifting sets

### 1 Scope

This document specifies requirements for lifting sets for use with containers in offshore service, including technical requirements, marking and statements of conformity for single and multi-leg slings, including chain slings and wire rope slings.

### 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 2415, *Forged shackles for general lifting purposes — Dee shackles and bow shackles*

ISO 4778, *Round steel short link chains for lifting purposes — Chain slings of welded construction — Grade 8*

ISO 10474, *Steel and steel products — Inspection documents*

ISO 15613, *Specification and qualification of welding procedures for metallic materials — Qualification based on pre-production welding test*

ISO 18265, *Metallic materials — Conversion of hardness values*

ISO 4778:2019, *Round steel short link chains for lifting purposes — Chain slings of welded construction — Grade 8*

EN 1677-1, *Components for slings — Safety — Part 1: Forged steel components, Grade 8*

EN 12385-4, *Steel wire ropes. Safety - Stranded ropes for general lifting applications*

EN 13414-1, *Steel wire rope slings — Safety — Part 1: Slings for general lifting service*

ISO 2415:2022, *Forged shackles for general lifting purposes — Dee shackles and bow shackles*

### 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

## ISO/DIS 10855-2:2023(E)

### 3.1

#### lifting set

items of integrated lifting equipment used to connect the offshore container to the lifting appliance

Note 1 to entry: This can comprise one or multi-leg wire rope or chain slings (with or without a top leg) and shackles, whether assembly secured or not.

### 3.2

#### assembly secured shackle

shackle fitted to a sling leg and secured by a seal or similar device so as to signal unambiguously whether or not the shackle has been exchanged

Note 1 to entry: Shackles that are assembly secured, i.e. cannot be separated from the lifting sling, are considered to be part of the lifting sling.

## 4 Symbols

WLL working load limit

$WLL_s$  minimum working load limit of each shackle

$WLL_{min}$  minimum calculated working load limit from [Annex A](#)

$WLL_{off}$  maximum lifting capacity of a lifting set to be used on an offshore container

NOTE 1  $WLL_{off}$  is the symbol that is marked on the lifting sets.

$\vartheta$  is the angle between a sling leg and the vertical, in degrees

$R$  rating [i.e. the maximum gross mass (MGM), of the container including permanent equipment and its cargo] in kg, but excluding the lifting set

$T$  tare mass (i.e. the mass of an empty container including any permanent equipment but excluding cargo and lifting set) in kg

$P$  payload (i.e. the maximum permissible mass of cargo which can be safely transported by the container) in kg

$T_D$  design air temperature (i.e. a minimum reference temperature used for the selection of steel grades used in offshore containers and equipment) expressed in degrees centigrade

$S$  mass of the lifting set in kg

NOTE 2  $P = R - T$

NOTE 3  $R$ ,  $T$  and  $P$  are in units of mass, kilograms (kg). Where design requirements are based on the gravitational forces derived from these values, those forces are indicated thus:  $R_g$ ,  $T_g$  and  $P_g$  the units of which are in Newtons or multiples thereof.

## 5 Technical requirements

### 5.1 General requirements

**5.1.1** Slings shall be rated for their intended angle of use. In all cases 4-leg slings shall be rated as for 3-leg slings. In no case shall a sling be rated for an angle of the sling leg to the vertical in excess of 45°.

NOTE Top legs are calculated as single legs.