



FINAL DRAFT International Standard

ISO/FDIS 10855-2

Offshore containers and associated lifting sets —

Part 2: Design, manufacture and marking of lifting sets

*Conteneurs pour une utilisation en mer et dispositifs de levage
associés —*

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

ISO/CEN PARALLEL PROCESSING

ISO/TC 67/SC 7

Secretariat: **BSI**

Voting begins on:
2024-08-22

Voting terminates on:
2024-10-17

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.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

Reference number
ISO/FDIS 10855-2:2024(en)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2024

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword.....iv

Introduction.....v

1 Scope.....1

2 Normative references.....1

3 Terms and definitions.....1

4 Symbols and abbreviated terms.....2

5 Technical requirements.....2

5.1 General requirements.....2

5.2 Dimensions and strength of lifting sets.....3

5.3 Chain slings.....3

5.4 Wire rope slings.....3

5.5 Shackles.....3

5.6 Materials.....4

5.6.1 Impact testing.....4

5.6.2 Hardness testing.....4

5.6.3 Welding.....4

5.6.4 Corrosion protection.....4

5.6.5 Material certificates.....4

6 Certificates.....4

6.1 Preparation of certificates.....4

6.2 Single component certificates.....4

6.3 Sling certificates.....5

7 Marking.....5

Annex A (normative) Determination of minimum required working load limit ($m_{WLL,min}$) of the lifting set.....7

Annex B (informative) Example of identification tag for chain slings.....9

Annex C (informative) Regulations for offshore containers.....11

Bibliography.....13

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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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

For an explanation of 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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 67, *Oil and gas industries including lower carbon energy*, Subcommittee SC 7, *Offshore structures*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 12, *Oil and gas industries including lower carbon energy*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 10855-2:2018), which has been technically revised.

The main changes are as follows:

- hardness requirements have been defined for chain and link components.

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

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

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

The ISO 10855 series does not cover operational use or maintenance.

Under conditions in which offshore containers are often transported and handled, the 'normal' rate of wear and tear is high, and damage necessitating repair can occur. However, containers designed and manufactured according to the ISO 10855 series have sufficient strength to withstand the normal forces encountered in offshore operations and to not suffer from complete failure even if subject to extreme loads.

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 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*

EN 818-4, *Short link chain for lifting purposes. Safety Chain slings - Grade 8*

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

3 Terms and definitions

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

ISO and IEC maintain terminology 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/>

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 sling

one leg of a lifting set