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Offshore containers and associated lifting sets —

Part 3: Periodic inspection, examination and testing

Containeurs offshore et dispositifs de levage associés —

Partie 3: Inspection périodique, examen et test

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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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.

Introduction

ISO 10855 (all parts) meets the requirements of IMO MSC/Circular 860[11] 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". 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 and manufactured according to ISO 10855 (all parts) will have sufficient strength to withstand the normal forces encountered in offshore operations, and will not suffer complete failure even if subject to more extreme loads.

Offshore containers and associated lifting sets —

Part 3:
Periodic inspection, examination and testing

1 Scope

This document specifies requirements for the periodic inspection, examination and testing of offshore freight and service containers, built in accordance with ISO 10855-1, with maximum a gross mass not exceeding 25 000 kg and their associated lifting sets, intended for repeated use to, from and between offshore installations and ships. Inspection requirements following damage and repair of offshore containers are also included.

Recommended knowledge and experience of staff responsible for inspection of offshore containers is given in Annex B.

Recommended knowledge and experience of staff responsible for inspection of lifting sets intended for use with offshore containers is given in Annex C.

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 3834-2, *Quality requirements for fusion welding of metallic materials — Part 2: Comprehensive quality requirements*

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

ISO 9712, *Non-destructive testing — Qualification and certification of NDT personnel*

ISO 17637, *Non-destructive testing of welds — Visual testing of fusion-welded joints*

ISO 3452-1, *Non-destructive testing — Penetrant testing — Part 1: General principles*

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

ISO 10855-2:2018, *Offshore containers and associated lifting sets — Part 2: Design, manufacture and marking of lifting sets*

ISO 23277, *Non-destructive testing of welds — Penetrant testing — Acceptance levels*

ISO 17638, *Non-destructive testing of welds — Magnetic particle testing*

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 11666, *Non-destructive testing of welds – Ultrasonic testing – Acceptance levels*

ISO 17640, *Non-destructive testing of welds — Ultrasonic testing — Techniques, testing levels, and assessment*

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

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

ISO/IEC 17020, *Conformity assessment — Requirements for the operation of various types of bodies performing inspection*

EN 818-4, *Short link chain for lifting purposes — Safety — Part 4: Chain slings – Grade 8*

EN 818-6, *Short link chain for lifting purposes — Safety — Part 6: Chain slings — Specification for information for use and maintenance to be provided by the manufacturer*

EN 13414-2, *Steel wire rope slings — Safety — Part 2: Specification for information for use and maintenance to be provided by the manufacturer*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10855-1 and the following 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 http://www.electropedia.org/

3.1
owner
legal owner of the offshore container or the delegated nominee of that body

3.2
visual examination
examination in accordance with ISO 17637

4 Symbols

WLL_S	minimum working load limit of each shackle
WLL_{off}	maximum rating of an offshore container to which any given sling set may be attached
R	rating, i.e. the maximum gross mass, MGM, of the container including permanent equipment and its cargo, but excluding the lifting set, in kg
T	tare mass, i.e. the mass of an empty container including any permanent equipment excluding cargo and lifting set, in kg
P	payload, i.e. the maximum permissible mass of cargo which may be safely transported by the container, in kg

NOTE 1 $P = R - T$

NOTE 2 *R, T* and *P* are by definition, in units of mass, kilograms (kg). Where design requirements are based on the gravitational forces derived from these values, those forces are indicated thus: *Rg, Tg* and *Pg* the units of which are in Newtons or multiples thereof. Container inspection plate.

5 Container inspection plate

5.1 General

Containers shall be fitted with a plate carrying the information specified in 5.2.

The plate shall be made of corrosion-resistant material securely attached externally in a manner designed to avoid unauthorized or accidental removal. The plates shall be fitted to a door, or on containers with no doors, in a prominent position.

Aluminium rivets have been found to be unsuitable as a fixing method in the offshore environment and shall not be used. The information on the plate shall be in the English language.

NOTE Provision for an additional language can be made.

The text shall be permanently and legibly marked on the plates in characters not less than 4 mm high.

5.2 Contents of inspection plate

The plate shall be headed 'OFFSHORE CONTAINER INSPECTION PLATE – ISO 10855-3'.

The plate shall contain the following information:

a) owner's container number;

b) owner's name;

c) date of last inspection.

The date of last inspection shall be the date on which the most recent inspection was carried out to the satisfaction of the competent person.

To avoid confusion, the plate shall not carry the date of the next inspection. Provision shall be made on the plate to facilitate permanent marking to record a minimum of nine inspections.

NOTE 1 For marking of the inspection plate, see Clause 10.

NOTE 2 In some markets it is common practice to mark an initial inspection date on the inspection plate before the container is taken into use.

A recommended format for the plate is shown in Figure 1.

OFFSHORE CONTAINER INSPECTION DATA		
Container no.: Owner: Inspections:		
1		
2		
3		
4		
10		

Figure 1 — Example of inspection plate

The inspection plate may be combined with the data plate by including the additional information specified in ISO 10855-1:2018, 10.2.

6 Schedule of periodic inspection/examination and test — Containers

Containers shall be periodically inspected, examined and, if necessary, tested in accordance with the schedule listed in Table 1.

Inspection bodies performing such inspections should ensure the quality of the inspection work through meeting the requirements for type B inspection bodies in ISO/IEC 17020.

NOTE 1 Guidance as to the recommended knowledge and experience of staff responsible for inspections for the purposes of ISO/IEC 17020 is given in Annexes B and C.

When the schedule includes a lifting test, the non-destructive examination and visual inspection shall both be carried out after the lifting test.

NOTE 2 The inspection body can require other or additional inspections, examinations and or tests.

Table 1 — Schedule of periodic inspection, examination and testing of containers

Time or interval	Inspection/examination/test			
	Lifting test	Non-destructive examination (NDE)	Visual inspection	Suffix to be marked on plate See Clause 10
Initial certification	As required by ISO 10855-1			
At intervals not exceeding 12 months	Not applicable[b]	Not applicable[b]	Yes	V
At intervals not exceeding 48 months	Not applicable[b]	Yes	Yes	VN
After substantial repair or alteration[a]	Yes	Yes	Yes	T

[a] A substantial repair or alteration means any repair and/or alteration carried out, which may, in the opinion of an inspection body, affect the primary elements of the offshore container, or elements which contribute directly to its structural integrity.

[b] The inspection body may require other or additional inspections, examinations and or tests.

7 Container lifting test

7.1 General

The container shall be loaded to give a total mass of 2,5 *R* and lifted using all the pad eyes.

NOTE This total mass can be obtained by putting in an internal test mass of 2,5 *R*–*T*.

The test masses/test load shall normally be evenly distributed inside the container. If it is not possible to place the entire test mass inside the container, some of it may be placed outside or under the container, provided that this gives a loading on the structure similar to the distribution of the container loading in operating condition.

If the container has an additional cargo deck, the test mass/test load shall be evenly divided between the floor and the additional deck. If the additional deck is removable, it will be necessary to carry out the test with the test mass/test load divided between the additional deck and the floor, as well as with the whole test mass/test load on the floor.

The container shall be lifted by a lifting set with an angle to the vertical equal to the design angle and shall be held, clear of the ground, throughout the test.

Where the lifting set, intended for use with the container, is used for the lifting test, care should be taken to ensure that no overloading, deformation or distortion is induced in the lifting set. Should the lifting set normally fitted to the container be used for the lifting test it shall be visually inspected after the load test by an inspection body as per the requirements of this document.

The container shall be carefully lifted in such a way that no significant acceleration forces occur. It shall be held for 5 min before measurements are taken.

No deflections during testing shall be greater than $\frac{1}{300}$ of the span of the member. The offshore container shall show no permanent deformation or other damage after testing.

7.2 Test equipment and calibration

The force shall be applied using calibrated weights and lifting the container by a lifting appliance or by means of a suitable test rig (see ISO 10855-1:2018, 7.3.2).

8 Non-destructive examination (NDE) of welds

8.1 General

The NDE of welds on pad eyes and adjoining structures shall be carried out in accordance with the schedule of examination and tests specified in Table 1.

NOTE Alternative or additional examination can be required by the inspection body.

8.2 NDE methods

NDE methods (see Table 2) shall be chosen with due regard to the conditions influencing the sensitivity of the methods. Structural welds shall be examined as stipulated in columns I to IV of Table 7 in ISO 10855-1: 2018 with the method in columns III or IV being employed in the event that such is relevant.

Table 2 — Standards relevant to NDE methods

Visual	Magnetic particle	Dye penetrant	Ultrasonic	Radiography
ISO 17637	ISO 17638	ISO 3452-1	ISO 17640	ISO 17636-1 and ISO 17636-2a
[a] Class B Improved radiographic techniques shall be used.				

Table 3 — NDE acceptance criteria

Visual	Magnetic particle	Dye penetrant	Ultrasonic	Radiography
ISO 5817[a]	ISO 23278	ISO 23277	ISO 11666	ISO 10675-1[b]
Level B	Level 1	Level 1	Level 2	Level 1
[a] For aluminium ISO 10042. [b] For aluminium ISO 10675-2.				

8.3 Use of Eddy Current Testing at periodic inspections

For periodic inspections Eddy Current Testing (ET) can be accepted. ET can only be used on painted surfaces provided the surface to be investigated is free from damage. Structures with very rough and/or damaged surfaces shall not be inspected by ET.

ET is a recognized NDE method that has the advantage that it can be performed without stripping off the paint on a welded connection. Since no acceptance criteria are specified for ET (EN 1711 refers to ISO 5817,), only experienced and competent operators should perform such inspections.

If indications are found in the ET inspection the paint is to be stripped off and the weld shall be inspected by means of the relevant NDE techniques and acceptance criteria referred in 8.2.

Personnel performing ET testing shall be qualified and certified to ET level 2 or 3 in accordance with ISO 9712 or other equivalent recognized standard or certification schemes.

8.4 NDE operators

NDE operators shall be qualified, in accordance with ISO 9712, to a minimum of level 2.

NDE operators shall undertake non-destructive examination in accordance with Table 2 and issue reports describing quality, containing the following information as a minimum:

— number of repairs carried out to meet the specified acceptance standard;

— NDE methods and procedures used;

— NDE-parameters necessary for a proper assessment;

— confirmation of acceptance or rejection.

9 Visual inspection

9.1 General

The visual inspection shall be of the exterior and the interior of the container without cargo to ensure that the container is fit for its intended use. All load bearing parts, especially the base structure, shall be inspected. For containers with fixed equipment, the inspection body shall determine whether access to load bearing parts is adequate.

The inspection shall be carried out in a situation providing sufficient lighting and other facilities necessary to allow it to be carried out safely and effectively. The facility shall include suitable means of lifting and supporting the container for the purposes of inspecting the underside.

9.2 Markings

The markings and plates shall be checked to ensure that they meet the requirements of ISO 10855-1 and Clause 5 of this document.

9.3 Welds

Welds in the primary structure shall be visually inspected to ensure freedom from visible defects.

9.4 Pad eyes and lashing points

All pad eyes and lashing points shall be visually inspected for distortion, mechanical damage or any other sign of distress or overload.

9.5 Structure

The structure shall be visually inspected for corrosion, mechanical damage or injurious deformation.

9.6 Door closures

Doors, frames, seals, hinges, locks, etc. shall be visually inspected and functionality checked to ensure that they operate in a satisfactory manner without undue force being required.

9.7 Floor

The floor shall be visually inspected to check that it is not deformed and that it shows no signs of distress or overload. Drainage facilities, where fitted, shall be inspected, e.g. drain holes shall be clear of debris.

10 Marking of the inspection plate

On satisfactory completion of the inspection, examination and when applicable, test(s), the plate shall be permanently marked, in accordance with Table 1, as follows:

— the date (YYYY-MM-DD) of the inspection, examination and when applicable, test(s) together with the unique identification mark of the inspection body together with either:

  — suffix T, indicating proof load test, non-destructive examination, and visual inspection, or

  — suffix VN, indicating non-destructive examination and visual inspection, or

  — suffix V, indicating visual inspection only.

11 Inspection report

When, in the opinion of the inspector, a container is suitable for service a report shall be issued to the owner. This report shall contain the following information (as a minimum):

— container identification (including owner's container number);

— name of owner or delegated nominee;

— report number;

— statement that the container is suitable for service;

— total gross mass in kg, applicable to the all points lifting test and the method of test (where relevant);

— details of NDE carried out (where relevant);

— statement that the container described was inspected/examined and or tested and that the particulars are correct;

— reference, where appropriate, to any report issued to the owner arising from the process;

— confirmation that the inspection plate was marked; date of examination (date of signature or report also to be shown if different from date of examination);

— name of organization, name of the person and authentication by the person carrying out the inspection/examination or test either by signature or other secure means;

— comments on any limits to the scope of inspection.

NOTE 1 Details of the examination of the lifting set can also be given on the inspection report for the container.

NOTE 2 This report can be combined with the initial statement of conformity.

12 Record keeping

The owner shall retain the current certificate for each container, record substantial repairs, modifications or changes in identification etc., and maintain adequate records to ensure traceability.

13 Damage and repair procedures

The owner shall ensure that:

— containers are maintained in accordance with this document;

— if a container is damaged such that it does not conform to this document, it is not used until it is repaired and inspected by an inspection body;

— repairs are carried out in accordance with the requirements for design and manufacture of containers set out in ISO 10855-1;

— repair facilities used are able to ensure the quality of the procedures and facilities, for example by a quality management system such as ISO 9001 or ISO 3834-2;

— following repair, the container is inspected and, where relevant, tested by the inspection body in accordance with Table 1; to this end, the owner shall provide the inspection body with full details of the repairs that have been carried out;

— following modification, the container is submitted for re-certification.

If the user or any of his agents detects any structural damage or corrosion which may affect the load bearing integrity of the container, it is strongly recommended that they advise the owner as soon as practicable.

NOTE Where a need for repair is identified, it will be necessary to make adequate arrangements for the safe transportation of the damaged container, to the location specified by the owner.

14 Schedule of inspection/examination and test — Lifting sets

14.1 Lifting sets shall be periodically inspected, examined and tested in accordance with the schedule detailed in Table 4 by an inspection body at least meeting the requirements for type B inspection bodies in ISO/IEC 17020.

14.2 When the schedule requires a load test, any non-destructive examination and visual inspection shall both be carried out after the load test.

NOTE 1 The inspection body can require other or additional inspections, examinations and or tests.

NOTE 2 Guidance as to the recommended knowledge and experience of staff responsible for inspections is given in Annex C.

Table 4 — Schedule of periodic inspection, examination and testing of lifting sets

Time or interval	Applicable to	Inspection/examination/test			
		Load test	Non-destructive examination	Visual inspection	Suffix marked on sling tag
Initial certification	Complete lifting set	As required by ISO 10855–2			
Interval not exceeding 12 months	Complete lifting set	-	N/A	Yes	V
Interval not exceeding 48 months	Sling components and joining links excluding legs	Either load test or NDEb		Yes	T or VN[e]
	Chain sling legs	Either load test or NDEb c		Yes	T or VN[e]
	Shackles	N/A	N/A	Yes	N/A
	Wire rope legs	N/A	N/A	Yes	N/A
After substantial repair or alteration[a]	Complete lifting set	Yes In accordance with applicable standard d	Yes In accordance with applicable standard d	Yes	T

a A substantial repair or alteration means any repair and/or alteration carried out, which may, in the opinion of an inspection body, affect integrity of the lifting set.

b The inspection body may require other or additional inspections, examinations and or tests.

c NDE to be performed on the end links of each leg + 10 % of the leg length. The location of the 10 % to be based on the visual inspection.

d Applicable standards include EN 818-6.

e Dependent upon whether tested or examined.

14.3 Load testing of chain sling legs

A test force equal to 2,5 × WLL of a single leg rated in accordance with EN 818-4:1996, Table 3, ±2 %, shall be applied to each leg without shock. The load shall be applied for a minimum of 5 min before measurements are taken.

14.4 Non-destructive examination of sling components except wire rope legs

Magnetic particle examination shall be undertaken as specified in 8.2.

14.5 Visual inspection of the lifting set

14.5.1 General

The inspection shall be carried out with normally corrected vision, in a situation providing sufficient lighting and other facilities necessary to allow it to be carried out safely and effectively.

14.5.2 Chain and wire rope slings and components

Inspection of chain and wire rope slings and components shall be carried out in accordance with EN 818-6 and EN 13414-2, as applicable.

14.5.3 Shackles

Shackles shall be visually inspected.

14.6 Marking of the lifting set

On satisfactory completion of inspection/examination/test, as applicable, the lifting set inspection shall be marked on the sling in accordance with ISO 10855-2. Lifting sets may be marked either with an identification tag, or alternatively by one of the marking methods described in ISO 10855-2:2018, 7.3.

Marking shall be in accordance with Table 4 as follows:

— the date YYYY-MM-DD of the inspection/examination/test as applicable, together with the unique identification mark of the inspection body together with either:

  — suffix T, indicating load test; non-destructive examination, and visual inspection, or

  — suffix V, indicating visual inspection only, or

  — suffix VN, indicating NDE and visual inspection.

This marking shall be placed on the identification tag or on the ferrule as applicable. For slings marked according to Method 2, as described in ISO 10855-2:2018, 7.3; with only a small numbered tag, the inspection information shall be record electronically or by other means.

14.7 Inspection report

A report shall be issued to the owner, when the lifting set is deemed suitable for service, and it shall contain the following information (as a minimum):

— sling and shackle identification numbers;

— owner's name;

— report number;

— statement that the lifting equipment described was thoroughly inspected, examined and tested, is safe to operate and that the particulars are correct;

— details of any NDE carried out;

— confirmation that the sling identification tag was marked; date of inspection (date of signature or report also to be shown if different from date of inspection);

— name of organization, name of the person and authentication by the person carrying out the inspection/examination or test either by signature or other secure means.

NOTE Details of the inspection of the container can also be given on the inspection report for the lifting set.

14.8 Record keeping

The owner shall retain the current certification for each lifting set and maintain adequate records to ensure traceability.

14.9 Damage and repair procedures

The owner shall ensure that:

— the lifting set is maintained in accordance with this document;

— if the lifting set is damaged, it shall not be used until it is repaired or replaced, and inspected by an inspection body;

— lifting set repairs shall be carried out in accordance with the requirements of ISO 10855-2;

— repair facilities used are able to ensure the quality of the procedures and facilities (e.g. by a quality management system such as ISO 9001);

— following repair, the lifting set is inspected and, where relevant, tested by an inspection body in accordance with Table 4. The repairer shall provide the inspection body with full details of the repairs that have been carried out. Any modifications will require re-certification of the lifting set by an inspection body.

If the user or any of his agents detects any damage or corrosion which may affect the integrity of the lifting set, it is recommended that they advise the owner as soon as practicable.

15 Inspection of attachment of lifting set to an offshore container

15.1 Attachment

A suitably trained person shall ensure that the lifting set has been correctly attached to the container. This shall include:

— check that the WLL_{off} of the lifting set attached to an offshore container is as specified in ISO 10855-2:2018, Table 4;

— legs of multi-leg slings are attached to the container pad eyes without twisting of the legs at the master link.

15.2 Inspection report

When, in the opinion of the inspector, the correct lifting set has been properly attached to the container, a report shall be issued containing the following information (as a minimum):

— container identification (including owner's container number);

— sling and shackle identification numbers;

— name of owner;

— report number;

— rating (R) of the container;

— WLL_{off} of the lifting set;

— WLL_s of the shackles;

— statement that the lifting set has been selected in accordance with this document, and is installed correctly;

— name of organization, name of the person and authentication by the person carrying out the inspection/examination or test either by signature or other secure means;

— date of report.

NOTE This report can be combined with the container inspection report and/or the lifting set examination report.

15.3 Record keeping

The report shall be retained until such time as the lifting set is removed or replaced.

16 Pre-trip inspections

Immediately before transporting a container offshore, and before its return trip, the container shall be inspected by a person appointed by the user. The user shall ensure that the person appointed is competent for this purpose.

The appointed person shall check the validity of the certification by reference to the inspection plate, and verify that the container, including its lifting set, is free from obvious defects rendering it unfit for use.

The appointed person shall confirm, by signature and date, that the inspection has been carried out in accordance with the minimum requirements given in Table 5 and that the container and lifting set conform to all elements before being released for shipment. This confirmation of inspection shall be retained at least until the end of the trip, or, in the event that the container has been involved in an incident, until the completion of any related investigation.

Table 5 — Pre-trip inspection — Required checks

a)	inspection plate(s) to ensure that inspection dates are current;
b)	container for obvious signs of excessive corrosion or damage;
c)	lifting set for obvious signs of damage;
d)	lifting set to establish that all parts are present, correct, properly connected and secure;
e)	container roof, forklift pockets (and frames on open frame containers) for potential dopped objects;
f)	container door(s) are closed and the locking mechanism secured.

Annex A
(informative)

Regulations for offshore containers

A.1 General

This annex contains important information about various regulatory requirements which apply for offshore containers. Designers, manufacturers and users of offshore containers need to be aware of these requirements.

Several international and national certification schemes are applicable for various categories of portable containers. Several of these certification schemes are applicable for offshore containers as defined in this document.

A.2 General certification requirements for offshore containers

The International Maritime Organization (IMO) has issued guidelines for certification of offshore containers, in circular MSC/Circ.860.

The circular is intended to guide national authorities ("the Administration") in developing approval and certification requirements for offshore containers. The circular states that offshore containers should be approved, prototype tested, certified and periodically inspected by duly authorized bodies ("the Approving Competent Authority").

A.3 International requirements for freight containers

IMO's International Convention for Safe Containers (CSC) requires freight containers, as defined in that Convention, to be certified to CSC. Offshore containers, as defined in MSC/Circ.860, are not covered by the CSC. However, some offshore containers which are used internationally for transport of cargo, will also fall within the definition of a container in the CSC. For such offshore containers the requirements of both MSC/Circ.860 and the CSC are applicable.

A.4 Tank containers for dangerous goods

All tank containers intended for marine transport of dangerous goods need to be certified to the International Maritime Dangerous Goods Code (the IMDG Code). The IMDG Code is a mandatory code under IMO's SOLAS Convention.

A.5 Gas Cylinder Bundles

Gas Cylinder Bundles, as defined in Chapter 6.2 in the IMDG Code, may be designed as offshore containers. The IMDG Code requires such offshore gas cylinder bundles to be approved, tested and certified to Chapter. 6.2 in the IMDG Code, and to ISO 10961 and to the requirements in this document.

NOTE The attention of the user of ISO 10855 (all parts) is drawn to the possible existence of local regulations that apply to Gas Cylinder Bundles, e.g. European ADR/RID regulations.