NOGEPA
NETHERLANDS OIL AND GAS EXPLORATION AND PRODUCTION ASSOCIATION

INDUSTRY STANDARD NO. 101

Marine Transport Operations

1 October 2020

NETHERLANDS OIL AND GAS EXPLORATION AND PRODUCTION ASSOCIATION

Index

NETHERLANDS OIL AND GAS EXPLORATION AND PRODUCTION ASSOCIATION

Document Control Sheet

Control Sheet	
Responsible Committee	OPCOM
Title Document (UK)	Marine Transport Operations
Type Document (UK)	Industry Standard
Control Number:	101
Control Status:	Controlled / Uncontrolled when printed
Issue Status	[draft]

Document update timeframe	C3	
C1 - 12 Months	C2 - 24 Months	C3 - 36 Months

Endorsed by		
Health, Safety & Environment Committee	Name	E. Dorenbos
	Date:	17-09-2020
Legal Committee	Name	S. Tates
	Date:	17-09-2020
Operations Committee	Name	B. Smits
	Date:	17-09-2020
Approved by		
Executive Committee	Name	R. Frimpong
	Date:	1-10-2020

Revision History					
Rev	Date	Description	Author	Reviewed	Approved
0	01-10-2020	Merge & update of NOGEPA Guideline 2 'Offshore Containers' and 'General Transport Terms' into one Standard	D. Bakkum/ M. Leupen/ M.Oppentocht / B. Harms	SNS Stuurgroep/ HSECOM/ OPCOM	R. Frimpong

This document will be controlled in accordance with the NOGEPA Industry Standard No. 80 on Standards and Document Control.

Terms and Definitions

AEO	Authorised Economic Operator, trusted partner of the European Customs.
ASNT SNT-TC-1A	American Society for Nondestructive Testing. Recommended Practice No. SNT-TC-1A, Personnel Qualification and Certification in Nondestructive Testing.
BOP	Blow Out Preventor.
BS	British Standard.
CCU	Cargo Carrying Unit (offshore container).
CE	The CE marking is the manufacturer's declaration that the product meets EU standards for health, safety, and environmental protection.
CoC	Certificate of Conformity is granted to a product that meets a minimum set of regulatory, technical and safety requirements.
CSC Container	Container in compliance with Convention for Safe Containers (IMO).
DNV-GL	Det Norske Veritas group (DNV and GL merged in 2013).
DROPS	Dropped Objects Prevention Scheme. https://www.dropsonline.org/resources-and-guidance/
EN	European Standard (French: Norme, German: Norm). European EN standard is valid for all European Member States. For the Dutch market this means that the European Standards carry the codes: NEN-EN. For Germany, the code is: DIN-EN. For UK, the code is: BS-EN. Etc.
EN-ISO	When an ISO is adopted by the European Union, it becomes an EN-ISO. These are identified by the code: NEN-EN-ISO or DIN-EN-ISO or BS-EN-ISO, etc.
EKH	Erkende Keurbedrijven Hijs- en Hefmiddelen (recognised organisations for examination of hoisting and lifting equipment).
ET	Eddy current Testing is an NDE method.
HAZ	Heat Affected Zone. The HAZ is the area between the weld (or fusion zone) and the base (or parent) material.
IBC	Intermediate Bulk Container.
ILT	The Human Environment and Transport Inspectorate (Inspectie Leefomgeving en Transport, ILT) is the supervising authority of the Ministry of Infrastructure and Water Management.
ISO	An international standard has been developed internationally by ISO. These implementation requirements for global standards do not apply to other countries. Documents that are accepted by The Netherlands gain the coding NEN-ISO.
JSA	Job Safety Analysis.
LMA	Landelijk Meldpunt Afval (National Reporting Point for Waste).
MGW	Maximum Gross Weight.
MSDS	Material Safety Data Sheet.

MT	Magnetic particle Testing is an NDE method.
NDE or NDT	Non-Destructive Examination or Non-Destructive Testing.
NEN	NEderlandse Norm (Dutch Standard).
Offshore Container	Portable units for repeated use in the transport of goods or equipment, handled in open seas, to, from and between fixed and/or floating installations and ships.
PFSO	Port Facility Security Officer.
PT	Penetrant Testing is an NDE method.
ROV	Remote Operated Vehicle.
SNS Pool	Southern North Sea Pool, integrated fourth party logistics concept where 10 operators outsourced their combined marine requirements to Peterson as a logistics facilitator.
SWL	Safe Working Load.
VLG	Vervoer over Land van Gevaarlijke stoffen (Transport of Dangerous Goods on Land).
WLL	Working Load Limit.
WLL_{min}	Minimum calculated working load limit as per applicable manufacturing standard.
WLL_{off}	Maximum lifting capacity of a lifting set to be used on an offshore container.

Legal Requirements

ADR	Accord Dangereux Routiers (European Standard on Dangerous Goods Transportation).
ARBO legislation	Arbeidsomstandighedenwet, Arbeidsomstandighedenbesluit en bijbehorende regels (NL).
IMDG Code	International Maritime Dangerous Goods Code (IMO).
IMO MSC/Circ. 860	Supplement to the IMDG Code on offshore container design, construction, and testing (IMO MSC Guideline).
ISPS Code	International Ship and Port Security Code (IMO).
LOLER	Lifting Operations and Lifting Equipment Regulations (UK HSE).
Maritime zones	https://www.noordzeeloket.nl/en/management/maritieme-zones/
MARPOL	International Maritime Organisation, Convention for the Prevention of Pollution from Ships.
VLG	Regeling vervoer over land van gevaarlijke stoffen.
---	Warenwetbesluit Containers (NL).

Related Standards

BS 7072	British Standard 7072: Code of Practice for Inspection and Repair of Offshore Containers (OGUK) (withdrawn and replaced by EN 12079).
DNVGL-ST-E271 **(DNV GL 2.7-1)**	Formerly known as the DNV 2.7-1. This standard applies for transport related requirements for offshore containers with respect to design, manufacture, testing, certification, marking and periodic inspection. (Det Norske Veritas group).
DNVGL-ST-E272 **(DNV GL 2.7-2)**	Formerly known as the DNV 2.7-2. Lays down the requirements for certification of the safety systems and electrical installations and requirements for offshore service containers which are built and certified under DNVGL-ST-E271.
DNVGL-ST-E273 **(DNV GL 2.7-3)**	Formerly known as the DNV 2.7-3. Developed for the certification of units transported offshore that cannot be defined and designed as offshore container under IMO MSC/Circ.860.
NEN-EN 13414-1	Steel wire rope slings - Safety
NEN-EN 818-4	Short link chain for lifting purposes - Safety
NEN-EN-ISO/IEC 17020	Conformity assessment - Requirements for the operation of various types of bodies performing inspection
NEN-EN 12079-1:2006	Offshore containers and associated lifting sets - Part 1: Offshore containers - Design, and manufacture and marking (withdrawn and replaced by EN-ISO 10855)
NEN-EN 12079-2:2006	Offshore containers and associated lifting sets - Part 2: Lifting sets - Design, manufacture and marking (withdrawn and replaced by EN-ISO 10855)
NEN-EN 12079-3:2006	Offshore containers and associated lifting sets - Part 3: Periodic inspection, examination, and testing (withdrawn and replaced by EN-ISO 10855)
NEN-EN-ISO 10855-1:2018	Offshore containers and associated lifting sets - Part 1: Design, manufacture and marking of offshore containers
NEN-EN-ISO 10855-2:2018	Offshore containers and associated lifting sets - Part 2: Design, manufacture and marking of lifting sets
NEN-EN-ISO 10855-3:2018	Offshore containers and associated lifting sets - Part 3: Periodic inspection, examination, and testing
NEN-EN 12642 Code XL	Securing of cargo on road vehicles - Body structure of commercial vehicles - Minimum requirements

Important Nomenclature used in this Standard

In the context of this Standard and when so used to describe a method or practice:	
'shall'	means that such method or practice reflects a mandatory provision of law (in Dutch: *dwingend recht*). Such method or practice is mandatory for those who are the addressees of such provision (mostly the operators). A Standard can describe or quote, but not amend, mandatory provisions. When an operator in exceptional cases for technical, operational or HSE reasons cannot comply, exceptions shall be documented and reported, and risks mitigated. Please note that this does not release the operator from the obligation to comply with the law. *
'should'	means that such method or practice reflects a Good Operating Practice. An operator is generally expected to apply such method or practice, but a specific situation may require a specific alternative. In other words: the operator complies or explains and documents the explanation. *
'could'	means that such method or practice is of an advisory nature or mentioned by way of example. An operator is not obliged to comply and is not obliged to explain if he does not comply.
* Please refer to paragraph 2.3 of Standard 80 (Standards and Document Control), for further explanation on an exception of a 'shall' provision, or on a comply-or-explain of a 'should' provision.	

1 Introduction

This Standard has been developed to properly secure all existing NOGEPA documentation related to marine transport operations into one Standard, issued in conformity with the NOGEPA document control and approval structure as agreed with State Supervision on Mines. As this is the first NOGEPA Standard in which all existing documentation on marine transport operations is collected, the structure may very well change in future reviews and additions to this Standard.

This standard covers the different aspects of the transportation of goods and equipment to and from offshore locations on the Dutch Continental Shelf.

- Certification requirements for new offshore containers and associated lifting equipment
- Inspection requirements for existing offshore containers and associated lifting equipment
- Marine Transport Operations Guidelines and Instructions
    - Packing / documentation
    - Dangerous goods
    - Transport terms
    - Non -standard cargo
    - Access information for yards and quayside

Annex I of this Standard was formerly issued as a booklet, titled ‘Marine Transport Terms and Conditions’. Annex I replaced the 2015 version of the Marine Transport Terms and Conditions booklet. Annex I can, just as the booklet, be used as a separate document to inform and instruct logistics service providers and suppliers. Therefore, the Annex is still issued as a stand-alone document.

Annex III of this Standard was formerly issued as ‘NOGEPA Industry Guideline No.2 - Offshore Containers’. This Guideline has been withdrawn on the issue date of this Standard. More detailed design requirements for containers built before 2000 can be found in this guideline.

2 Executive Summary

This Industry Standard provides guidance and instructions for the safe and efficient transport of goods in the Dutch offshore mining industry, considering Dutch and international regulations and standards.

The Standard addresses the following topics:

- **Offshore Containers and associated lifting sets (Chapters 4-12)**
  These chapters address the specific implementation of relevant Dutch and international regulations and European standards on containers in use in the oil and gas industry on the Dutch Continental Shelf for design and certification as in use inspections and repairs.

- **General Transport Safety Guidelines & Good Practices (Annex I, Part A)**
  The objective of these guidelines and good practices is to address areas where additional guidance helps to secure improvements in safety of marine transport in the Dutch offshore industry.

  The content should be understood and implemented by all operators, logistics service providers and suppliers.

- **Logistic Terms and Instructions (Annex I, Part B)**
  This part provides the practical terms and instructions to ensure a joint and standardized logistic process from delivery of goods to onshore sites, to customs formalities and shipment to the offshore locations.

  Logistic service providers and suppliers should take note of and follow these instructions as applicable to their goods and operations.

3 Scope and Application

3.1 Scope

This Industry Standard provides guidance and instructions for the safe and efficient transport of goods in the Dutch offshore mining industry, considering Dutch and international regulations and Standards.

The safe transport of goods relies upon the correct packaging, stowage, labelling and handling procedures. There is a wide range of European and Dutch regulations and standards available on the transport of goods. This Standard does not intend to repeat these regulations and standards. The aim is to only:

- Provide guidance on issues that are distinctive to the application of the regulations and standards in the offshore oil and gas industry on the Dutch Continental Shelf of the North Sea,
- Secure improvements in safety of marine transport in the Dutch offshore industry by providing guidance in certain areas where this is felt necessary, and
- Provide practical terms and instructions to ensure a joint and standardized logistic process from delivery of goods to the commonly used onshore sites for transport to the offshore locations.

3.2 Application

This Standard applies to all parties involved in the shipment of materials to and from the offshore locations situated on the Dutch Continental Shelf of the North Sea.

This Standard specifies requirements for the **periodic inspection, examination and testing** of offshore freight and service containers, built in accordance with **EN 12079**, **EN-ISO 10855**, and **DNVGL-ST-E271**, with a maximum gross mass not exceeding 25.000 kg and their associated lifting sets, intended for repeated use to, from and between offshore installations and ships in the Dutch sector of the Continental Shelf, as well as, on the Dutch territorial sea and inland waters. This includes the periodic inspection, examination, and testing of offshore containers previously been accepted as 'fulfilling to' the former **NOGEPA Industry Guideline No.2**.

This Standard **does not specify certification requirements** (before, during and after manufacture or repair) for offshore containers which are covered by the IMO Circular 860 (**MSC/Circ.860, Annex II to this standard**) 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 circular states that offshore containers should be approved, prototype tested, and certified by duly authorized bodies ("the Approving Competent Authority"), which for example, could be one of the following bodies: ABS, DNV-GL, LR, etc. etc.

All offshore containers built to **EN 12079**, **EN-ISO 10855**, and **DNVGL-ST-E271** shall have a Certificate of Conformity referring to the applicable standard(s).

3.2.1 Periodic Inspection, Examination and Testing

Offshore containers shall be periodically inspected, examined or tested (as mentioned in **Table 1** and **Table 2**) by:

- An **inspection body** at least meeting the requirements for type B inspection bodies as per **NEN-EN-ISO/IEC 17020**, or
- An **inspection company** which is recognized by **EKH** and/or **TCVT** and proofed to be competent to carry out inspections on offshore containers in accordance with **EN 12079**, **EN-ISO 10855**, and **DNVGL-ST-E271**.

3.2.2 Offshore Containers used in the Dutch Continental Shelf

As from April 2000 the **EN 12079:1999** standard was adopted by NOGEPA, superseded in August 2006 by **EN 12079:2006**. Meaning that from this date all offshore containers that are used in the Dutch Continental Shelf shall comply with this standard or, since January 2019, to the latest **EN-ISO 10855:2018**.

In the case of offshore containers built before the 1st of April, 2000 (and not built & certified to **EN 12079**, **EN-ISO 10855** or **DNVGL-ST-E271**), which have previously been accepted as 'fulfilling to' the **NOGEPA Industry Guideline No.2**, may still be used on the Dutch Continental Shelf.

3.2.3 Dutch legislation

For the transportation of goods by ship to and from an offshore mining installation often containers are being used. For loading and offloading of these containers, including the used lifting equipment, the Dutch ARBO legislation is applicable. On the container itself no specific Dutch legislation is applicable.

The definition of containers in the "Warenwetbesluit containers" is only applicable to the so-called CSC containers used for the international transportation of goods.

4 Offshore Containers

4.1 What is an Offshore Container?

As defined by the International Maritime Organization, an offshore container is a portable unit with a maximum gross mass not exceeding 25.000 kg, specially designed for repeated use in the transport of goods or equipment to, from or between fixed and/or floating offshore installations and ships.

4.2 Types of Offshore Containers

Offshore containers are subdivided into two categories:

- **Offshore freight container**
  Offshore container built for the transport of goods. Examples are:
  - General cargo container
  - Cargo basket
  - Tank container
  - Bulk container
  - Special container
  - Boxes, gas cylinder racks
  - Open or closed offshore container used for the storage and removal of waste

- **Offshore service container**
  Offshore container built and equipped for a special service task, mainly as temporary installation. Examples are:
  - Laboratories
  - Workshops
  - Stores
  - Power plants
  - Control stations

4.3 Relationship with Standards, Codes and Regulations

4.3.1 IMO MSC/Circ.860

The International Maritime Organization (IMO), has issued guidelines for the approval of offshore containers, in circular **MSC/Circ.860**. This circular is intended to guide national authorities in developing approval and certification requirements for offshore containers. It recommends that new offshore containers be approved, prototype tested, and certified by duly authorized bodies.

4.3.2 EN 12079:2006 (withdrawn and replaced by EN-ISO 10855:2018)

EN 12079:2006 (first published in March 1999) is a standard used in the offshore industry for the certification of offshore containers and associated lifting sets.

This standard consists of three parts as described below:

- EN 12079 - Part 1: Offshore Containers - Design, Manufacturing and Marking
- EN 12079 - Part 2: Lifting sets - Design, Manufacturing and Marking
- EN 12079 - Part 3: Periodic Inspection, Examination and Testing

Containers certified to this standard will comply with the requirements of **MSC/Circ.860**.

4.3.3 EN-ISO 10855:2018 (supersedes EN 12079:2006)

EN-ISO 10855:2018 is a standard used in the offshore industry for the certification of offshore containers and associated lifting sets.

This standard consists of three parts as described below:

- EN-ISO 10855 - Part 1: Design, Manufacturing and Marking of Offshore Containers
- EN-ISO 10855 - Part 2: Manufacturing and Marking of Lifting Set
- EN-ISO 10855 - Part 3: Periodic Inspection, Examination and Testing

Containers certified to this standard will comply with the requirements of **MSC/Circ.860**.

4.3.4 DNV GL 2.7-1, 2.7-2 and 2.7-3

- **DNVGL-ST-E271** (first published in May 1989) Offshore containers
  Containers certified to this standard will comply with the requirements of **MSC/Circ.860**.

- **DNVGL-ST-E272** (first published in Dec 1995) Offshore service container
  Lays down the requirements for certification of the safety systems and electrical installations and requirements for offshore service containers which are built and certified under **DNVGL-ST-E271**.

- **DNVGL-ST-E273** (first published in June 2006) Portable offshore units
  Developed for the certification of units transported offshore that cannot be defined and designed as offshore container under IMO **MSC/Circ.860**, which are units:
  - With a rating more than 25.000 kg up to 100.000 kg
  - Without a continuous external structural framework, and where the addition of such would jeopardise safety during transport or operations.
  - Used for the purposes of a single event / operation

4.3.5 IMDG, RID/ADR, etc.

Offshore containers that are intended for the carriage of dangerous cargo are required to follow the International Maritime Dangerous Goods (**IMDG**) **Code**. The **IMDG Code** is a mandatory code under IMO's **SOLAS** Convention.

Some of the offshore containers may also be required to meet the requirements of other national and international standards and regulations such as Regulations concerning the International Carriage of Dangerous Goods by Rail (**RID**) and European Agreement concerning the International Carriage of Dangerous Goods by Road (**ADR**), etc.

4.3.6 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.

4.3.7 CSC

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**. Containers that are certified to **CSC** are in general designed as **ISO 1496** freight containers.

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.

4.3.8 NOGEPA Industry Guideline No.2 (withdrawn)

Offshore containers which are in-line with the former **NOGEPA Industry Guideline No.2** (see Annex III) are accepted on the Dutch Continental Shelf, these offshore containers shall have been built before 1st of April 2000 and must be modified with having the comparable level of safety as offshore containers designed and built according to **EN 12079:1999**. These offshore containers shall have previously been accepted as 'fulfilling to' the former **NOGEPA Industry Guideline No.2**.

5 Schedule of Periodic Inspection - Offshore Containers

All offshore containers intended to be used on the Dutch continental shelf shall be periodically inspected, examined and, if necessary, tested in accordance with the schedule listed in **Table 1**.

Time or interval	Inspection/examination/test			
	Lifting test	Non-destructive examination	Visual inspection	Suffix marked on plate
Initial certification	As required by **EN 12079-1**, **EN-ISO 10855-1**, or **DNVGL-ST-E271**			
Interval not exceeding 12 months	N/A [2]	N/A [2]	Yes	**V**
Interval not exceeding 48 months	N/A [2]	Yes	Yes	**VN**
After substantial repair or alteration [1]	Yes	Yes	Yes	**T**

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

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

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

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

6 Schedule of Periodic Inspection - Lifting Sets

All lifting sets attached to offshore containers that are intended to be used on the Dutch continental shelf shall be periodically inspected, examined, and tested in accordance with the schedule detailed in **Table 2**.

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 **EN 13414** or **EN 818**			
Interval not exceeding 12 months	**Complete lifting set**	N/A	N/A	Yes	**V**
Interval not exceeding 24 months	**Sling components and joining links excluding legs**	Either load test or NDE [2]		Yes	**T** or **VN** [5]
	Chain sling legs	Either load test or NDE [3]		Yes	**T** or **VN** [5]
	Shackles	N/A	N/A	Yes	N/A
	Wire rope legs	N/A	N/A	Yes	N/A
After substantial repair or alteration [1]	**Complete lifting set**	Yes In accordance with applicable standard [4]	N/A	Yes	**T**

[1] A substantial repair or alteration means any repair and/or alteration carried out, which may, in the opinion of an inspection body or company, affect integrity of the lifting set.
[2] The inspection body or company may require other or additional inspections, examinations and or tests.
[3] 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.
[4] Applicable standards include **EN 818-6**.
[5] Dependent upon whether tested or examined.

Table 2 - Schedule of periodic inspection, examination, and testing of lifting sets

6.1 Load testing of chain sling legs

A test force equal to 2,5 × WLL of a single leg rated in accordance with latest **EN 818-4 (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.

When the schedule requires a load test a visual inspection shall be carried out after the load test.

7 Visual Inspection - Offshore Container

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 company 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.

7.1 Markings

The markings and plates shall be checked to ensure that they meet the requirements of the applicable standard(s).

7.1.1 Safety marking

The tops of closed containers and the top rails of open and framed containers shall be marked as follows:

- **Closed containers** shall be marked with a band of solid contrasting colour not less than 100 mm wide round the roof perimeter; if the roof of the container is recessed below the top perimeter rail, at least the top surface of the top rail shall be marked;
- **Open and framed containers** shall be marked on the top surface of the top rails with either hatching in a contrasting colour or a solid light colour.

Where a container is fitted with fork pockets designed for handling the container only when empty (e.g. on some tanks and long baskets) then the words "**EMPTY LIFT ONLY**" shall be clearly displayed near each set of fork pockets in characters not less than 50 mm high.

Aluminium containers need to be specially marked to warn of the danger of sparking. The recommended marking is "**ALUMINIUM CONTAINER**" on all four sides in letters at least 75 mm high.

7.1.2 Identification markings

The container number shall be prominently and indelibly displayed on all sides of the container (as viewed from ground level) in characters of a contrasting colour, not less than 75 mm high.

If a container has a roof, the container number shall be displayed on the roof, in characters 300 mm high or more. Where character size is restricted by the available space they should be as large as practicable. The marking shall be carried out in such a way as to avoid incorrect interpretation, e.g. by underlining. Where applicable, the lower edge of the marking shall be positioned near the side of the container in which the door is located.

7.1.3 Information markings

Each container shall be clearly marked in characters of a contrasting colour not less than 50 mm high with:

- Tare mass (in kg)
- Payload (in kg)
- Maximum gross mass (in kg)

7.1.4 Other markings

If the container is fitted with an intermediate deck the payload of the deck shall be displayed on the inside of the container in a position where it is clearly visible at all times, in characters of a contrasting colour not less than 50 mm high.

7.2 Welds

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

7.3 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.

7.4 Structure

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

7.5 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.

7.6 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.

7.7 Forklift pockets

Forklift pockets shall be visually inspected inside. Forklift pockets are usually not coated inside and may be heavily corroded. Forklift pockets with openings in the bottom plate may be damaged by forklift trucks. This should be considered when inspecting the forklift pockets.

7.8 Protruding Parts

Protruding parts on the outside of the offshore container that can snag on other containers or structures shall be avoided. Protruding parts (e.g. door handles, hatch cleats) shall be so placed or so protected that they do not catch the lifting set.

7.9 Coating and Corrosion Protection

Offshore containers shall be suitable for the offshore environment by means of suitable corrosion and paint protection.

7.10 Potential Dropped Objects (DROPS)

Check container roof, forklift pockets (and frames on open frame containers) for potential dropped objects, this includes all other openings where a potential dropped object could be stored.

8 Visual Inspection - Lifting Set

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.

A competent person shall ensure that the lifting set has been correctly attached to the container. This shall include, but not limited to:

- Check that the WLL_{off} of the lifting set attached to an offshore container is as specified in the applicable manufacturing standard (or in the case of former **EN 12079:1999** and **NOGEPA Guideline No.2**, meets the minimum requirements of either **EN 13414** or **EN 818**.
- Legs of multi-leg slings are attached to the container pad eyes without twisting of the legs at the master link.

8.1 Chain Slings and Wire Rope Slings

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.

8.2 Working Load Limit (Enhancement Factor)

8.2.1 Lifting Sets under EN 12079-2, EN-ISO 10855-2, or DNVGL-ST-E271

The lifting set minimum required Working Load Limit (WLL_{min}) shall be applicable as per **EN 12079-2**, **EN-ISO 10855-2**, or **DNVGL-ST-E271**.

8.2.2 Lifting Sets under NOGEPA Industry Guideline No.2 and EN 12079:1999

Lifting sets fixed to offshore containers complying to the former **EN 12079:1999** or **NOGEPA Industry Guideline No.2**, the criteria as per former **NOGEPA Industry Guideline No.2** shall be applicable (see Annex III).

8.2.2.1 *General requirements*

Slings shall be rated for their intended angle of use. In all cases four leg slings shall be rated as for three leg slings. In no case shall a sling be rated for an angle of the sling to the vertical more than 45 degrees. Where two 2-legged slings are selected to function as a 4-legged sling, they shall be calculated as for a 4-legged sling.

NOTE: The master link which is to be attached to the crane hook shall have minimum dimensions of 270 mm × 140 mm internally.

8.2.2.2 *Length*

The lifting set shall be of sufficient length to allow easy handling by operators. The top link or master link shall be able to reach to a height of no more than 1.3m above the container bottom when the sling hangs over the long side of the container.

8.2.2.3 *Chain slings*

Chain slings shall meet all requirements of **EN 818-4**. Chain having a diameter of less than 10 mm shall not be used under any circumstances.

8.2.2.4 *Wire rope slings*

Wire rope slings shall meet all requirements of **EN 13414-1**. Wire rope having a diameter of less than 14 mm shall not be used under any circumstances. Wire rope slings shall be 6-stranded and of one of type 6 x 19 or 6 x 36 The termination of wire rope shall be a ferrule secured thimble.

8.2.2.5 *Shackles*

Shackles shall meet all requirements of **EN 13889** or **EN 1677-1** with the additional requirement that the tolerance on the nominal diameter of the shackle pin shall be –0 +3% Shackles shall be restricted to the following type; bolt type with hexagon head, hexagon nut and split pin.

9 Non-Destructive Examination (NDE)

9.1 NDE methods at periodic inspections

NDE methods (see **Table 3**) shall be chosen with due regard to the conditions influencing the sensitivity of the methods.

Method	MT	PT	ET
Standards relevant to NDE method	EN-ISO 17638	EN-ISO 3452-1	EN-ISO 17643
NDE acceptance criteria	EN-ISO 23278	EN-ISO 23277	N/A [1)]
Acceptance Level	1	1	N/A [1)]

[1)] There are no acceptance criteria for ET.

Table 3 - Standards and acceptance criteria relevant to NDE methods

9.2 NDE of offshore containers

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**.

9.3 NDE of lifting sets

The NDE of lifting set components shall be carried out in accordance with the schedule of examination and tests specified in **Table 2**.

9.4 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.

If indications are detected during the ET, the paint is to be stripped off and the weld (incl. HAZ) shall be inspected by means of the relevant NDE method and acceptance criteria as per **Table 3**:

- Magnetic Particle Testing (MT), or
- Penetrant Testing (PT)

9.5 NDE operators

NDE operators shall be qualified and certified, in accordance with **EN-ISO 9712** or other equivalent recognized standard or certification scheme (e.g. **ASNT SNT-TC-1A**), to a minimum of level 2.

10 Marking of Inspection

10.1 Marking of Offshore Container Plates

On satisfactory completion of inspection, examination or test (as applicable), the plate shall be permanently marked, in accordance with **Table 1**, as follows: **DD-MM-YY** of the inspection together with either Suffix **T** or **VN** or **V** (as applicable) together with the unique identification mark of the inspection body or company. Note that the date notation may also be marked as follows: **YYYY-MM-DD**

Containers shall be fitted with a plate carrying the information specified in **10.1.1** and **10.1.2**. These may be two separate plates, or one combined plate.

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. Provision for an additional language can be made.

10.1.1 Offshore container data plate

The plate shall be headed '**OFFSHORE CONTAINER DATA PLATE**' and shall contain the following information as a minimum (the specific manufacturing standard may require additional information):

- Maximum gross mass in kilograms excluding lifting set at the design sling angle
- Tare mass in kilograms
- Payload in kilograms and intermediate deck payload (if applicable)
- Applicable standard[1)]

10.1.2 Offshore container inspection plate

The plate shall be headed '**OFFSHORE CONTAINER INSPECTION PLATE**' and shall contain the following information:

- Owner's container number
- Owner's name
- Date of last inspection including suffix T, VN or V
- Applicable standard[1)]

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.

[1)] Applicable standard is **NOGEPA** or **EN 12079-1** or **EN-ISO 10855-1** and/or **DNVGL-ST-E271**

10.2 Marking of Lifting Sets

On satisfactory completion of inspection, examination or test (as applicable), the lifting set shall be marked on the sling tag in accordance with **10.2.1**.

Marking shall be in accordance with **Table 2**, as follows: **MM-YY** of the inspection together with either Suffix **T** or **VN** or **V** (as applicable) together with the unique identification mark of the inspection body or company. Note that the date notation may also be marked as follows: **YYYY-MM-DD**

Where two 2-leg slings are selected to function as a 4-leg sling, both shall be marked as a 4-leg sling.

10.2.1 Lifting set tag

Slings shall normally be marked with an identification tag permanently attached to the top assembly of the sling. The tag shall be permanently embossed or stamped. The tag shall be 8-sided for chain slings and round for wire rope slings.

The marking on tags for chain and wire rope slings shall include:

- Unique identification number of the sling
- Number of legs
- Diameter of chain or wire rope used, including the top leg where fitted
- WLL_{off} in tonnes (commonly marked as WLL)
- Shackle size in tonnes
- Maximum angle of the sling legs to the vertical
- Mass of the lifting set *(S)* in kg
- Applicable standard[1)]

10.2.2 Marking of shackles

Shackles fitted to a sling, without being assembly secured, shall be indelibly marked with a unique identification. In practice, this marking should be applied using 'low stress' stamps, the height of which will be a minimum of 5 mm and positioned away from areas of highest tensile stress.

[1)] Applicable standard is **EN 13414** or **EN 818** or **EN 12079-2** or **EN-ISO 10855-2** and/or **DNVGL-ST-E271**

11 Certificates and Reports

All offshore containers and attached lifting sets manufactured to **EN 12079-1/-2:2006**, **EN-ISO 10855-1/-2:2019** or **DNVGL-ST-E271** shall be issued with a certificate of conformity.

For offshore containers that are manufactured to **EN 12079:1999**, then only the container will have a certificate of conformity to this standard. The lifting set will have a certificate of conformity to the European Machinery Directive (**2006/42/EC**) and bear a CE-marking.

For offshore containers built before April 2000 and meeting the requirements of the former **NOGEPA Industry Guidelines No.2**, the latest proof load test certificate with a reference to this guideline will fulfil the requirement of a certificate of conformity. The lifting set will have a certificate of conformity to the European Machinery Directive (**2006/42/EC**) and bear a CE-marking.

11.1 Record keeping

The certificate of conformity for container and lifting set shall be retained by the owner for the duration of its service life of the container.

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

The owner shall retain the current periodic inspection report for lifting sets, until such time as the lifting set is removed or replaced.

Note: a **certificate** will be issued by an inspection body (initial or at repairs or with modifications), and a **report** will be issued after periodic inspection, examination or test by an inspection body or company (see **3.2.1**).

12 Damage and Repair Procedures

12.1 Damage and repair procedures - Offshore Container

The owner shall ensure that:

- Containers are maintained in accordance with the applicable manufacturing standard
- If a container is damaged such that it does not conform to the applicable manufacturing standard, it is not used until it is repaired and inspected by an inspection body[1)]
- Repairs are carried out in accordance with the requirements for design and manufacture of containers set out in **EN 12079-1** or **EN-ISO 10855-1** or **DNVGL-ST-E271** (whichever applies)
- Repair facilities used can ensure the quality of the procedures and facilities, for example by a quality management system such as **EN-ISO 9001** or **EN-ISO 3834-2**
- Following repair, the container is inspected and, where relevant, witnessed 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[1)]
- Following modification, the container is submitted for re-certification[1)]

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.

12.2 Damage and repair procedures - Lifting Set

The owner shall ensure that:

- The lifting set is maintained in accordance with the applicable manufacturing standard
- If the lifting set is damaged, it shall not be used until it is repaired or replaced, and inspected by an inspection body or company
- Lifting set repairs shall be carried out in accordance with the requirements of the standard it was manufactured to.
- Repair facilities used can ensure the quality of the procedures and facilities (e.g. by a quality management system such as **EN-ISO 9001**)
- Following repair, the lifting set is inspected and, where relevant, tested by an inspection body or company in accordance with **Table 2**. The repairer shall provide the inspection body or company with full details of the repairs that have been carried out. Any modifications will require re-certification of the lifting set.

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.

---

1) In the case of former **NOGEPA Guideline No.2** offshore containers, this may be an inspection company (see **3.2.1**)

Annex I NOGEPA Marine Transport Operations Guidelines and Instructions 2020

This annex is published as a separate document, see https://www.nogepa.nl/downloads/standards-guidelines/. The document may be issued to logistics service providers and suppliers, possibly as an addendum to a contract.

Non-conformance with this document WILL result in cargo NOT being forwarded until the necessary remedial actions have been carried out in conjunction with the relevant company.

Annex II IMO MSC/Circ.860 (May 1998)

As part of an effort to harmonize the implementation of the IMDG and CSC, the IMO developed MSC/Circ. 860 - *Guidelines for The Approval of Offshore Containers Handled in Open Seas*. It is not known when or if the text of IMO MSC/Circ.860 will be updated to reflect ISO 10855.

This annex is published as a separate document, see https://www.nogepa.nl/downloads/standards-guidelines/.

Annex III NOGEPA Industry Guideline No.2

The Guideline has been withdrawn on the issue date of this Standard. More detailed design requirements for containers built before 2000 can be found in this guideline.

This annex is published as a separate document, see https://www.nogepa.nl/downloads/standards-guidelines/.