



Certificate no.:
TAS00004T8

TYPE APPROVAL DESIGN CERTIFICATE

This is to certify:
that the offshore container

with type designation(s)
Mini container J104
Mini container (short) J107

issued to
HARGEN OFFSHORE CONTAINERS LTDA
Carapebus, RJ, Brazil

is found to comply with
DNV standard DNV-ST-E271 – 2.7-1 Offshore containers, March 2023 (Amended December 2024)
ISO 10855-1:2024 Offshore containers and associated liftings sets – Part 1: Design, manufacture and marking of offshore containers
IMO/MSC Circular 860

Application:

Type	Max. gross mass (kg)	Max. payload (kg)	Max. sling leg angle	Enhancement factor
Mini container J104	6850	5250	45	1.710
Mini container (short) J107	6750	5250	45	1.716

Issued at **Aberdeen** on **2025-04-29**

This Certificate is valid until **2030-04-28**.

for **DNV**

DNV local unit: **Macaé**

Approval Engineer: **Elisabeth Legg**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

Mini container J104

Tare (maximum)	:	1600 kg
Intermediate deck	:	2625 kg
Length (maximum)	:	1856 mm
Width (maximum)	:	1587 mm
Height (maximum)	:	2977 mm
Design temperature	:	-20 °C
Number of sling legs	:	4
Shackle size	:	6.5 t

Mini container (short) J107

Tare (maximum)	:	1500 kg
Intermediate deck	:	2625 kg
Length (maximum)	:	1856 mm
Width (maximum)	:	1587 mm
Height (maximum)	:	2772 mm
Design temperature	:	-20 °C
Number of sling legs	:	4
Shackle size	:	6.5 t

Primary structure material specification (DNV-ST-E271 section 3)

<u>Material grade</u>	<u>Minimum Yield Strength</u>	<u>Charpy</u>
A500 Gr. C (or equivalent)	345MPa	35J @ -10°C for $6 \leq t \leq 12\text{mm}$ 35J @ -20°C for $12 < t \leq 25\text{mm}$ 35J @ -40°C for $t > 25\text{mm}$
A572 Gr. 50 (or equivalent)	345MPa	35J @ -10°C for $6 \leq t \leq 12\text{mm}$ 35J @ -20°C for $12 < t \leq 25\text{mm}$ 35J @ -40°C for $t > 25\text{mm}$
A36 (or equivalent)	250MPa	27J @ -10°C for $6 \leq t \leq 12\text{mm}$ 27J @ -20°C for $12 < t \leq 25\text{mm}$ 27J @ -40°C for $t > 25\text{mm}$

Application/Limitation

Minimum lifting set requirements (DNV-ST-E271 section 8)

Mini container J104

[Symmetrical]	<u>WLL (t)</u>	<u>Fibre core (mm)</u>	<u>Steel core (mm)</u>	<u>Chain (mm)</u>
Master link (quad assembly), Forerunner (if applicable)	11.71	32	32	20
Shackles and sling leg components	5.52	22	22	16
Minimum required breaking load (forerunner)		638 kN		
Minimum required breaking load (sling legs)		301 kN		
Minimum shackle pin diameter		24.5 mm		
Enhancement Factor		1.710		

Mini container (short) J107

[Symmetrical]	<u>WLL (t)</u>	<u>Fibre core (mm)</u>	<u>Steel core (mm)</u>	<u>Chain (mm)</u>
Master link (quad assembly), Forerunner (if applicable)	11.59	32	32	20
Shackles and sling leg components	5.46	22	22	16
Minimum required breaking load (forerunner)		631 kN		
Minimum required breaking load (sling legs)		298 kN		
Minimum shackle pin diameter		24.5 mm		
Enhancement Factor		1.716		

The above lifting set requirements have been provided for information purposes only. This type approval is not valid for the design, manufacture and certification of lifting sets.

Conditions

1. This type approval certificate is not valid for designs, components, equipment, systems or products which are subject to classification by DNV.
2. This type approval covers design(s) only. i.e. the type approval is not valid for the final product, but may be used as basis for obtaining a product certificate.
3. DNV surveyor shall witness production and testing event and issue a certificate for each container. The certificate is only valid when the container is fitted with a DNV certified lifting set.



Job ID: **262.1-043653-1**
Certificate no.: **TAS00004T8**

Type Approval documentation



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Tests carried out

To be carried out in accordance with DNV-ST-E271 section 4.6 and Table 5-4.

The container shall be tested with two test load configurations for the lifting, impact and tilt tests:

1. 100% of the test load on the floor, and
2. 50% of the test load on the intermediate deck and 50% on the floor.

Marking of product

- Data and inspection plates
- DNV emblem for offshore containers
- NV mark to be hard stamped on the data plate
- Manufacturer's Serial Number to be welded on frame.
- Intermediate cargo deck.

Periodical assessment

In order to maintain the validity of the type approval certificate, periodical assessments should be carried out according to DNV-SE-0284 at 2 and 3.5 year intervals. Periodical assessments will, when possible, be harmonised with other surveys and audits carried out.

This certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>