

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Offshore Container

with type designation(s)
20 ft High Cube Storage Container

Issued to

Zaklad Budowy Maszyn ZREMB CHOJNICE S.A.
Chojnice, Poland

is found to comply with

DNV standard DNV-ST-E271 – 2.7-1 Offshore containers, January 2021 (Amended October 2021)
DNV standard DNV-ST-E273 – 2.7-3 Portable offshore units, April 2016 (Amended October 2021)
ISO 10855:2018 Offshore containers and associated liftings sets – Design, manufacture, testing, inspection and marking
IMO/MSC Circular 860
International Convention for Safe Containers, 1972 (CSC)

Application :

Type	Max. gross mass (kg)	Max. payload (kg)	Max. sling leg angle	Enhancement factor
20 ft HC Storage Container (DNV-ST-E271)	25000	19700	45	1.104
20 ft HC Storage Container (DNV-ST-E273)	30480	25180	45	N/A

Issued at **Aberdeen** on **2022-05-27**

This Certificate is valid until **2027-05-26** .

for **DNV**

DNV local unit: **Gdynia**

Approval Engineer: **Elisabeth Legg**

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Brendan Ward
Senior Engineer

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

All codes/standards:

Maximum external dimensions (LxWxH)	: 6058 x 2438 x 2896 mm
Tare mass**	: 5300 kg
Design temperature	: -20 °C

DNV-ST-E271/E273 specific:

Shackle size (offshore lifting from 4 pad eyes)	: 13.5 t
Minimum shackle pin diameter (offshore lifting from 4 pad eyes)	: 37.7 mm

DNV-ST-E273 specific:

Type	: A
Operational Class	: R45
Type of lift	: In air
Resultant Sling Force	: 324 kN

CSC specific:

Size code	: 26
Type code*	: S3
ISO designation	: 1CCC
Maximum gross mass	: 30480 kg
Payload	: 25180 kg
Stacking test load per corner	: 96012 kg
Allowable stacking weight for 1.8g	: 213360 kg
Transverse Racking Test Force	: 150 kN
Side wall strength	: 0.6 Pg
End wall strength	: 0.4 Pg

*) Type Code in accordance with ISO 6346:1995/Amd.3:2012.

**) Tare mass is to be confirmed by weighing. The sum of payload and tare shall never exceed the maximum gross mass stated on the front page of this certificate.

Application/Limitation

CSC Approval reference number: GB-DNV/1039/3/22

The DNV surveyor shall witness all important production and testing events and issue a certificate for each container. The certificate is only valid when the container is fitted with a DNV certified lifting set.

This design has been approved for three different transport conditions and weights.

Type Approval documentation

Tests carried out

Prototype No. ECHOVA 2201 tested in accordance with DNV-ST-E271, DNV-ST-E273 and CSC.

Marking of product

Important Note: Only the markings, data and inspection plates and decals relevant to each transport condition shall be visible at the time of transport e.g.

- for MGW above 25 tonnes, only the DNV-ST-E273 data plate, decal and markings shall be visible, the DNV-ST-E271 data plate and markings shall be hidden (or removed).

Each container shall be marked in accordance with DNV-ST-E271 / DNV-ST-E273 / ISO 10855 / CSC requirements, including:

- Data and inspection plates
- DNV emblem for offshore containers and portable offshore units
- NV mark to be hard stamped on the data plates
- Manufacturer's Serial Number to be welded on frame
- Size and Type Code, and relevant parts of ISO 6346
- Operational procedure reference shall be marked on DNV-ST-E273 data plate
- Markings, plates and decals shall be placed on the same side of each unit and only relevant information shall be visible during each transportation phase (see Important Note above).

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.

END OF CERTIFICATE