Certificate No:
TAS00003UE

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Offshore Tank Container

with type designation(s)
10ft horizontal 8000L offshore freight tank container

Issued to
Suretank Ltd
Dunleer, Co. Louth, Ireland

is found to comply with
DNV standard DNV-ST-E271 – 2.7-1 Offshore containers, January 2021 (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)
ISO 1496, Part 3: Tank Containers for Liquids, Gases and Pressurized Dry Bulk
International Maritime Dangerous Goods Code (IMDG)
European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR)
Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID)

Application :

Max. gross mass (kg)	**25000**
Max. payload (kg)	**21210**
Tank cap. (L)	**8000**
MAWP/test pr. (bar)	**4/6**
Eq. shell thk (mm)	**5.0**

Issued at **Høvik** on **2023-03-27**
This Certificate is valid until **2028-03-26** .
DNV local unit: **UK & Ireland CMC & VMC**

for **DNV**

Approval Engineer: **Nina Thorvaldsen Moberg**

Zeinab Sharifi
Head of Section

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

10ft horizontal 8000L offshore freight tank container

Max. gross mass	: 25000 kg
Payload	: 21210 kg
Tare mass[1)]	: 3790 kg
Minimum design temperature (frame)	: -20°C
Maximum external dimensions (LxWxH)	: 2991 x 2438 x 2591 mm
Size code	: 12
Type code	: K2
ISO designation	: 1DD
Stacking test load per corner	: 13715 kg
Transverse / longitudinal racking test force	: 150 / 75 kN
Tank diameter (Internal)	: 2100 mm
Volume, tank	: 8000 litres
Metallurgical design temperature for tank	: -40 to +70°C
Tank instruction	: T11
Pressure vessel code, tank	: ASME VIII Div.1
Tank material	: EN 10028-7 1.4401/1.4404 (316/316L)
Setting of relief valve	: pressure 4.4 bar, vacuum 0.21 bar
MAWP/test pr.	: 4/6 bar
Vacuum settings	: 0.21 bar
Equivalent thickness, shell/ends	: 5.0/6.0 nominal (minimum after forming 5.1)
Calc. equivalent reference steel thickness, shell	: 6.4 mm
Bottom discharge outlet	: Three serially fitted and mutually independent shot-off devices

[1)] Tare mass, including fixed installations, is to be confirmed by weighing. The sum of the tare mass and the payload shall never exceed the Max. Gross Mass as it is stated on the front page of this certificate.

Application/Limitation

CSC/IMDG/ADR/RID design approval number	: N-NV/648/03/23
US DOT number [3)]	: SI-0100-23-USA
Allowable stacking load for 1.8g	: 50800 kg
Max angle of legs from vertical	: 45°
Enhancement factor	: 1.104
Min shackle bolt diameter	: 37.6

[3)] issued by Silver/Cims

Products accepted for carriage:
Liquids with the following Tank Instructions in the IMDG and ADR/RID code: T1, T2, T3, T4, T6, T7 and T11

DNV surveyor has to witness important production and test events and issue Form no. 71.08a " Certificate for Offshore Container" and Form no. CTT101 “Tank Container Certificate” for each container.

Production strength tests (All point lifting) to be carried out according to DNV 2.7-1 and after agreement with the DNV surveyor.

The certificates are only valid when the containers are fitted with a lifting set certified according to DNV 2.7-1.

Each tank should be subjected to a hydraulic pressure test to the specified test pressure.

The unit has increased weight compared with standard 10ft CSC frame and must be clearly marked accordingly.

Corrosion allowance for the tank has been considered to be zero (0) for this approval.

Items of equipment shall be arranged, protected and marked per the requirements of IMDG code section 6.7.2.5. Verification shall be carried out by the surveyor.

Type Approval documentation

Tests carried out

Prototypes tested according to the requirements.

Marking of product

Each container to be marked with:

- Data plates for UN tanks according to IMDG Code Ch. 6.7.2.20. Design approval number according to Application/Limitation above
- Data plates according to DNV / CSC requirements
- External marking according to IMDG / ADR / RID / DNV CSC / ISO requirements
- DNV decal for offshore containers
- NV mark to be hard stamped on frame
- Manufacturer's Serial Number to be welded on frame

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 harmonized 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

END OF CERTIFICATE