

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Offshore Tank Container**with type designation(s)
1200L - 4000L Vertical Helifuel Tanks

Issued to

Suretank Limited
Drogheda Co. Louth, Ireland

is found to comply with

DNV 2.7-1 Offshore Containers (2013)**EN 12079 Offshore containers-Design, construction, testing, inspection and marking****IMO/MSC Circular 860****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)****CAP 437 Offshore Helicopter Landing areas: Guidance on Standards****Application :****UN Portable Offshore Tank, Tank Instruction T4**

Type	Max. gross mass (kg)	Max. payload (kg)	Tank cap. (L)	MAWP/test pr. (bar)	Eq. shell thk (mm)
4000L - ST-3080	6000	4030	4000	1.77/2.65	5.0
2900L - ST-3500	4500	2710	2900	1.77/2.65	5.0
2300L - ST-3680	4500	3000	2300	1.77/2.65	5.0
1200L - ST-5170	2400	1100	1200	1.77/2.65	5.0
2900L - ST-5900	5000	2710	2900	1.77/2.65	5.0
4000L - ST-6570	8000	6030	4000	1.77/2.65	5.17
2900L - ST-7310	4500	2710	2900	1.77/2.65	5.0
2900L - ST-6990	4500	2710	2900	1.77/2.65	5.0
2900L - ST-7270	4500	2710	2900	1.77/2.65	5.0

This Certificate is valid until **2020-12-31**.Issued at **Høvik** on **2017-01-31**DNV GL local station: **Manchester**for **DNV GL**Approval Engineer: **Igor Antonijevic**

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Inger-Helene Hals
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.

Job Id: **262.1-001118-20**
Certificate No: **TAS00000W1**

Manufactured by

DNV GL id number 1214516

DNV GL id number 10117481¹⁾

¹⁾The type approval will not become valid for this place of manufacture before they have built and tested a prototype.

Suretank Limited takes responsibility that both design and production are in compliance with the Rules, Standards and/or Regulations listed on page 1 of this Type Approval Certificate.

Product description

Designs approved according to IMDG Code, Edition 2016 Amdt. 38-16.

Pressure vessel code, tank: ASME VIII Div. 1

Tank material: ASTM 240 316 - DIN 17441 1.4401²⁾ or SANS 50028-7, 1.4402

Type	Maximum external dimensions (LxWxH)	Tare mass	Tank diameter
1200L - ST-5170	1600x1600x1500 mm	1300 kg	1380 mm
2300L - ST-3680	1795x1795x2266 mm	1500 kg	1550 mm
2900L - ST-3500	1995x1995x2235 mm	1790 kg	1775 mm
2900L - ST-5900	2150x2150x2721 mm	2290 kg	1775 mm
4000L - ST-3080	1995x1995x2571 mm	1970 kg	1775 mm
4000L - ST-6570	1995x1995x2571 mm	1970 kg	1775 mm
2900L - ST-7310	1995x1995x2235 mm	1790 kg	1775 mm
2900L - ST-6990	1995x1995x2235 mm	1790 kg	1775 mm
2900L - ST-7270	1995x1995x2165 mm	1790 kg	1775 mm

²⁾ with guaranteed UTS = 550 N/mm² and elongation 40 % at Room Temperature.

Application/Limitation

IMDG/ADR/RID design approval number³⁾ N-NV/345/07/03
IRL-NV/345/07/03
GB-DNV/345/07/03

³⁾ only one number shall be used. Suretank Limited is responsible for proper using of the numbers.

Type	Metallurgical design temp. for tank	Design temp. for frame work	Min shackle bolt diameter	Max angle of legs from vertical	Enhancement factor	Setting of relief valve
ST-5170	-40 °C to +70 °C	-20 °C	21.6 mm	45°	3.004	2.2 bar
ST-3680	-40 °C to +70 °C	-20 °C	21.6 mm	45°	2.067	2.2 bar
ST-3500	-40 °C to +70 °C	-20 °C	21.6 mm	45°	2.067	2.2 bar
ST-5900	-40 °C to +70 °C	-20 °C	21.6 mm	45°	1.960	2.2 bar
ST-3080	-40 °C to +70 °C	-20 °C	21.6 mm	45°	1.766	2.2 bar
ST-6570	-40 °C to +70 °C	-20 °C	24.4 mm	45°	1.633	2.2 bar
ST-7310	-40 °C to +70 °C	-20 °C	21.6 mm	45°	2.067	2.2 bar
ST-6990	-40 °C to +70 °C	-20 °C	21.6 mm	45°	2.067	2.2 bar
ST-7270	-40 °C to +70 °C	-20 °C	21.6 mm	45°	2.067	2.2 bar

Products accepted for carriage:

- Liquids with the following Tank Instructions in the IMDG code: T1, T2, T3 and T4.

The goods accepted for carriage should have no adverse effect on any part of the tank and meet applicable tank special provision.

DNV GL surveyor has to witness important production and test events and issue Form no. 49.07a "Certificate for Offshore Container" and Form no. 49.04x/a "Certificate for Tank Container or Portable Tank" for each container. In addition, for tank containers with GB design approval number certificate MDG10 has to be issued as well.



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

Type Approval documentation

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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 / EN requirements
- External marking according to IMDG / DNV / EN requirements
- DNV GL decal for offshore containers
-  mark to be hard stamped on frame
- Manufacturer's Serial Number to be welded on frame

Periodical assessment

For retention of the Type Approval, a DNV GL surveyor shall perform an assessment every 2nd year and before the expiry date of this certificate to verify that the type approval is complied with.

END OF CERTIFICATE