DNV·GL

Certificate No:
TAS00000KH

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Offshore Tank Container

with type designation(s)
2300L - 6000L Vertical Offshore Tank Containers

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)

Application :

UN Portable Offshore Tank, Tank Instruction: T11
see Table 1 on page 2

This Certificate is valid until **2020-06-30**.

Issued at **Høvik** on **2016-07-27**

for **DNV GL**

DNV GL local station: **Manchester**

Approval Engineer: **Igor Antonijevic**

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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Job Id: **262.1-004875-22**
Certificate No: **TAS00000KH**

Manufactured by

DNV GL id number 1214516

DNV GL id number 10117481[1)]

[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

Table 1 – Designs covered by this Type Approval with design specification

Type	Max. gross mass [kg]	Max. payload [kg]	Tank cap. [L]	MAWP/test pr. [bar]	Eq. shell thk [mm]
4000L - ST-3100	8000	6030	4000	4.0/6.0	5.0
4200L - ST-4410	8500	6350	4200	4.0/6.0	5.0
5000L - ST-4430	10000	7600	5000	4.0/6.0	6.02
4200L - ST-4470	11793	9643	4200	4.0/6.0	5.0
2900L - ST-5470	8500	6630	2900	4.0/6.0	5.0
4200L - ST-5450	12000	9700	4200	4.0/6.0	5.0
4950L - ST-5540	12000	9500	4950	4.0/6.0	5.0
4200L - ST-4500	11793	9893	4200	4.0/6.0	5.0
4000L - ST-4700	8000	6030	4000	4.0/6.0	5.0
4000L - ST-6340	11500	9350	4000	4.0/6.0	5.0
4200L - ST-6370	11500	9350	4200	4.0/6.0	5.0
2300L - ST-6410	6500	5000	2300	4.0/6.0	5.8
4000L - ST-6750	8000	6030	4000	4.0/6.0	5.0
4200L - ST-7210	11793	9643	4200	4.0/6.0	5.8
4000L - ST-7610	11500	9350	4000	4.0/6.0	5.0
6000L - ST-7890	12000	9300	6000	4.0/6.0	6.38
4800L - ST-7960	10000	7500	4800	4.0/6.0	6.38
4000L – ST-8710	8000	6030	4000	4.0/6.0	5.0
4200L – ST-8770	12000	9700	4200	4.0/6.0	5.0
2900L – ST-8850	6500	4710	2900	4.0/6.0	5.0
4200L – ST-9010	12000	9700	4200	4.0/6.0	5.0

This Type Approval Certificate replaces S-6957.

Design approved according to IMDG Code, Edition 2014 Amdt. 37-14.

Type	Max.external dimensions (LxWxH)	Tare mass	Pressure vessel code, tank	Tank diameter (Internal)	Tank material[2)]
ST-3100	1995 x 1995 x 2571 mm	1970 kg	ASME VIII Div.1	1775	A240 316-DIN 17441 1.4401
ST-4410	1995 x 1995 x 2571 mm	2150 kg	ASME VIII Div.1	1775	A240 316L/316
ST-4430	2236 x 2236 x 2571 mm	2400 kg	ASME VIII Div.1	2050	1.4401 EN 10028-7
ST-4470	1995 x 1995 x 2571 mm	2150 kg	ASME VIII Div.1	1775	A240 316L/316
ST-5470	1995 x 1995 x 2235 mm	1870 kg	ASME VIII Div.1	1775	A240 316L/316
ST-5450	1995 x 1995 x 2571 mm	2300 kg	ASME VIII Div.1	1775	A240 316L/316
ST-5540	1995 x 1995 x 2900 mm	2500 kg	ASME VIII Div.1	1775	A240 316L/316
ST-4500	1995 x 1995 x 2571 mm	1900 kg	ASME VIII Div.1	1775	A240 316L/316
ST-4700	2200 x 2200 x 2571 mm	1970 kg	ASME VIII Div.1	1775	A240 316L/316

ST-6340	1995 x 1995 x 2571 mm	2150 kg	ASME VIII Div.1	1775	EN 10028-7, 1.4401; SANS 50028-7, 1.4402
ST-6370	1995 x 1995 x 2571 mm	2150 kg	ASME VIII Div.1	1775	
ST-6410	1795 x 1795 x 2235 mm	1500 kg	ASME VIII Div.1	1550	SANS 50028-7, 1.4402
ST-6750	1995 x 1995 x 2571 mm	1970 kg	ASME VIII Div.1	1775	A240 316L/316; EN 10028-7, 1.4401/1.4404; SANS 50028-7, 1.4402
ST-7210	1995 x 1995 x 2571 mm	2150 kg	ASME VIII Div.1	1775	(316L/316); SANS 50028-7, 1.4402
ST-7610	1995 x 1995 x 2571 mm	2150 kg	ASME VIII Div.1	1775	EN 10028-7, 1.4401/1.4404; (316/316L) SANS 50028-7, 1.4402
ST-7890	2300 x 2300 x 2830 mm	2700 kg	ASME VIII Div.1	2050	EN-10028-7, 1.4401; SA-240, 316/316L; SANS 50028-7, 1.4402
ST-7960	2300 x 2300 x 2571 mm	2500 kg	ASME VIII Div.1	1990	
ST-8710	1995 x 1995 x 2571 mm	1970 kg	ASME VIII Div.1	1775	SA-240, 316/316L; EN 10028-7, 1.4401/1.4404; SANS 50028-7, 1.4402
ST-8850	1995 x 1995 x 2235 mm	1790 kg	ASME VIII Div.1	1775	
ST-8770	1995 x 1995 x 2571 mm	2300 kg	ASME VIII Div.1	1775	EN 10028-7, 1.4401/1.4404; (316/316L) SANS 50028-7, 1.4402
ST-9010	1995 x 1995 x 2571 mm	2300 kg	ASME VIII Div.1	1775	

[2)]with specified minimum tensile strength R_m = 530 N/mm2 and elongation 40 % at Room Temperature. The actual tensile strength R_m and the yield strength R_e, attested by material certificates, must be at least 15% higher than the minimum values specified in the material standards. Vertification shall be carried out by the surveyor.

Application/Limitation

IMDG/ADR/RID design approval number[3)] IRL-NV/483/03/12
GB-DNV/483/03/12

US DOT number[4)] SI-0300/09/USA

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-3100	-40°C to +70°C	-20 °C	24.9 mm	45°	1.633	4.4 bar
ST-4410	-40°C to +70°C	-20 °C	24.9 mm	45°	1.600	4.4 bar
ST-4430	-40°C to +70°C	-20 °C	27.7 mm	45°	1.501	4.4 bar
ST-4470	-40°C to +70°C	-20 °C	27.7 mm	45°	1.422	4.4 bar
ST-5470	-40°C to +70°C	-20 °C	24.9 mm	45°	1.600	4.4 bar
ST-5450	-40°C to +70°C	-20 °C	27.7 mm	45°	1.413	4.4 bar
ST-5540	-40°C to +70°C	-20 °C	27.7 mm	45°	1.413	4.4 bar
ST-4500	-40°C to +70°C	-20 °C	27.7 mm	45°	1.422	4.4 bar
ST-4700	-40°C to +70°C	-20 °C	24.9 mm	45°	1.633	4.4 bar
ST-6340	-40°C to +70°C	-20 °C	24.9 mm	30°	1.435	4.4 bar
ST-6370	-40°C to +70°C	-20 °C	24.9 mm	30°	1.435	4.4 bar
ST-6410	-40°C to +70°C	-20 °C	24.9 mm	45°	1.733	4.4 bar
ST-6750	-40°C to +70°C	-20 °C	24.4 mm	45°	1.633	4.4 bar
ST-7210	-40°C to +70°C	-20 °C	27.7 mm	45°	1.422	4.4 bar
ST-7610	-40°C to +70°C	-20 °C	24.4 mm	30°	1.435	4.4 bar
ST-7890	-40°C to +70°C	-20 °C	27.3 mm	30°	1.413	4.4 bar
ST-7960	-40°C to +70°C	-20 °C	27.3 mm	30°	1.501	4.4 bar
ST-8710	-40°C to +70°C	-20 °C	24.4 mm	45°	1.633	4.4 bar
ST-8770	-40°C to +70°C	-20 °C	27.3 mm	30°	1.413	4.4 bar
ST-8850	-40°C to +70°C	-20 °C	24.4 mm	45°	1.733	4.4 bar
ST-9010	-40°C to +75°C	-20 °C	27.3 mm	30°	1.413	4.4 bar

[3)] only one of these numbers shall be used. Suretank Limited is responsible for proper using of numbers.

[4)] issued by SilverCims

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 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. For tank container with GB approval ref. number, certificate MDG10 also has to be issued.

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

Tests carried out

Prototypes tested according to Rules.

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
- NV 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