

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Offshore Tank Container**

with type designation(s)

1900L - 4200L 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: T7**

Type	Max. gross mass (kg)	Max. payload (kg)	Tank cap. (L)	MAWP/test pr. (bar)	Eq. shell thk (mm)
500G - ST-3240	6500	4700	2361	2.67/4.0	5.0
4000L - ST-3560	8000	6030	4000	2.67/4.0	5.0
2900L - ST-1440	6500	4710	2900	2.67/4.0	5.0
2900L - ST-3160	4500	2710	2900	2.67/4.0	5.0
2900L - ST-3290/B	6500	4710	2900	2.67/4.0	5.0
4200L - ST-5460	8500	6255	4200	2.67/4.0	5.0
3000L - ST-S800	4500	2650	3000	2.67/4.0	5.19
4200L - ST-7530	8500	6255	4200	2.67/4.0	5.0
2300L - ST-8230	6500	4530	2300	2.67/4.0	5.0
1900L - ST-8380	6000	4400	1900	2.67/4.0	5.0
3785L - ST-8390	8000	6030	3785	2.67/4.0	5.0
4200L - ST-8500	8500	6255	4200	2.67/4.0	5.0
3000L - ST-8780	6500	4550	3000	2.67/4.0	5.0
2000L - STA000777	4070	2400	2000	2.67/4.0	5.0

This Certificate is valid until **2020-06-30**.Issued at **Høvik** on **2016-07-01**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.



Job Id: **262.1-004874-11**
Certificate No: **TAS00000J7**

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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

This Type Approval Certificate replaces S-6965.

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
ST-3240	1795 x 1795 x 2235 mm	1800 kg	ASME VIII Div.1	1550 mm	Austenitic steel according to ASTM 240 316 - DIN 17441 1.4401 ²⁾
ST-3560	1995 x 1995 x 2571 mm	1970 kg	ASME VIII Div.1	1775 mm	
ST-1440	1995 x 1995 x 2235 mm	1790 kg	ASME VIII Div.1	1775 mm	
ST-3160	1995 x 1995 x 2235 mm	1790 kg	ASME VIII Div.1	1775 mm	
ST-3290/B	1995 x 1995 x 2235 mm	1790 kg	ASME VIII Div.1	1775 mm	
ST-5460	1995 x 1995 x 2571 mm	2245 kg	ASME VIII Div.1	1775 mm	Austenitic steel according to ASTM 240 316L/316 ²⁾
ST-S800	1995 x 1995 x 2480 mm	1850 kg	EN-13445	1675 mm	EN-10028-7, 1.4401-1.4404
ST-7530	1995 x 1995 x 2571 mm	2245 kg	ASME VIII Div.1	1775 mm	EN 10028-7 1.4401/1.4404 (316/316L) or SANS 50028-7 1.4002
ST-8230	1995 x 1995 x 2235 mm	1970 kg	ASME VIII Div.1	1550 mm	ASME SA 240 316/316L; EN10028-7 1.4401/1.4404; SANS 50028-7 1.4002
ST-8380	1795 x 1795 x 2025 mm	1600 kg	ASME VIII Div.1	1550 mm	
ST-8390	1995 x 1995 x 2571 mm	1970 kg	ASME VIII Div.1	1775 mm	
ST-8500	1995 x 1995 x 2571 mm	2245 kg	ASME VIII Div.1	1775 mm	EN 10028-7 1.4401/1.4404 (316/316L) or SANS 50028-7 1.4402
ST-8780	2095 x 2095 x 2235 mm	1950 kg	ASME VIII Div.1	1775 mm	ASME SA 240 316/316L; EN10028-7 1.4401/1.4404; SANS 50028-7 1.4402
STA000777	1600 x 1600 x 2300 mm	1670 kg	ASME VIII Div.1	1384 mm	

²⁾with specified minimum tensile strength $R_m = 530 \text{ N/mm}^2$ 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. Verification shall be carried out by the surveyor.

Application/Limitation

IMDG/ADR/RID design approval number³⁾

N-NV/485/03/12
IRL-NV/485/03/12
GB-DNV/485/03/12

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-3240	-40°C to +70°C	-20°C	24.9 mm	45°	1.733	3.33 bar
ST-3560	-40°C to +70°C	-20°C	24.4 mm	45°	1.633	3.33 bar
ST-1440	-40°C to +70°C	-20°C	27.4 mm	45°	1.733	3.33 bar
ST-3160	-40°C to +70°C	-20°C	18.3 mm	45°	1.962	3.33 bar
ST-3290/B	-40°C to +70°C	-20°C	24.4 mm	45°	1.733	3.33 bar
ST-5460	-40°C to +70°C	-20°C	24.9 mm	45°	1.600	3.33 bar
ST-S800	-40°C to +60°C	-20°C	21.6 mm	45°	1.962	3.33 bar
ST-7530	-40°C to +70°C	-20°C	24.4 mm	45°	1.600	3.33 bar
ST-8230	-40°C to +70°C	-20°C	24.4 mm	45°	1.733	3.33 bar
ST-8380	-40°C to +70°C	-20°C	24.4 mm	45°	1.766	3.33 bar
ST-8390	-40°C to +70°C	-20°C	24.4 mm	45°	1.633	3.33 bar
ST-8500	-40°C to +70°C	-20°C	24.4 mm	45°	1.600	3.33 bar
ST-8780	-40°C to +70°C	-20°C	24.4 mm	45°	1.733	3.33 bar
STA000777	-40°C to +70°C	-20°C	24.4 mm	45°	2.187	3.33 bar

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

Products accepted for carriage:

- Liquids with the following Tank Instructions in the IMDG and ADR/RID code: T1, T2, T3, T4, T6 and T7

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

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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
- 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