



# DET NORSKE VERITAS

## TYPE EXAMINATION CERTIFICATE

CERTIFICATE NO. **LB-460**

This is to certify that the  
**Inflatable liferafts**

with type designation(s)  
**4UKL, 6UKL, 8UKL, 4UKSL, 6UKSL, 8UKSL, 6 UCKL, 10 DK+ and 12 DK+**

Manufactured by  
**Viking Life-Saving Equipment A/S**  
**Esbjerg V., Denmark**

is found to comply with  
**International standard ISO 9650-1:2005, ISO 9650-2:2005 and ISO 9650-3:2009**

Application  
**inflatable liferafts**

This Certificate is valid until **2017-12-31**.

Issued at **Høvik** on **2013-10-14**

DNV local station: **Fredericia**

Approval Engineer: **Tessa Bieber**

for **Det Norske Veritas AS**  
Digitally Signed By: Langnes, Petter  
Location: DNV Høvik, Norway  
Signing Date: 2013-10-17



**Petter Langnes**  
**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 Examination Certificate and not to the approval of equipment/systems installed.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

## Product description

The liferaft types 4 UKL, 6 UKL, 8 UKL, 4 UKSL, 6 UKSL, 8 UKSL and 6 UKCL are Non SOLAS inflatable liferafts packed in container or valise alluminium packing bag.

<b>Container material:</b>	<b>GRP</b>
Buoyancy tube fabric:	ContiTech Elastomer-Beschichtungen, NK 165 Formosa Rubber group RBN28
Exterior canopy fabric:	Rivertex acryl, yellow

The liferaft types 10 DK+ and 12 DK+ are Non SOLAS inflatable liferafts packed in container or valise alluminium packing bag.

<b>Container material:</b>	<b>GRP</b>
Buoyancy tube fabric:	Formosa Rubber group RBND6
Exterior canopy fabric:	Formosa Rubber group Flo RJN20

## Applications/Limitations

- For 4 UKL, 6 UKL, 8 UKL, 4 UKSL, 6 UKSL, 8 UKSL, 10 DK+ and 12 +  
Stowage height, max: 6 m  
Number of person, max:  
4 persons for 4 UKL, 4 UKSL  
6 persons for 6 UKL, 6 UKSL  
8 persons for 8 UKL, 8 UKSL  
10 persons for 10 DK+  
12 persons for 12 DK+
  - For 6 UKCL:  
Stowage height, max: 4 m  
Number of person, max: 6 persons
- The liferafts shall be equipped with ISO emergency packs according to ISO 9650-1.
  - Gas cylinders and components in the pressure gas systems shall be of an approved type.

## Type Approval documentation

This certificate replaces LB-454.

The following documentation is basis for the DNV approval:

1. Viking Conformity Assessment Report 4 UKL, 6 UKL, 8 UKL, 4 UKSL, 6 UKSL, 8 UKSL, 6 UKCL, 10 DK+ and 12 DK+ material test report for RBN28 (Smithers, dd 2013-01-15) and strength testreport (SGS, dd. 2012-10-19)
2. Prototype tests as listed in Viking Conformity Assessment Report 4 UKL 6 UKL, 8 UKL, 4 UKSL, 6 UKSL, 8 UKSL, 6 UKCL, 10 DK+ and 12 DK+ witnessed by DNV + mooring out prototype test dd. 2012-10-06 until 2012-11-04
3. Design change 10320 dd.2013-09-16, signed by DNV, and mentioned prototype test reports dd 2013-08-15 and 2013-08-21

4. Drawings:

Drawing title	Drawing/parts list No.:	Parts list dated
General arrangement 6 UKCL	4300322.000 4300322.001.00 4300322.002.00	2011-06-08
Assembly 6 UKCL	42002542	
General arrangement 4 UKL	43001755.000 43001755.001.03 43001755.002.04	2011-08-15
General arrangement 6UKL	43001756.000 43001756.001.02 43001756.001.04	2011-06-08
General arrangement 8 UKL	43001757.000 43001757.001.04 43001757.002.02	2013-04-25
Assembly 4-6-8 persons UKL	42002540	
General arrangement 4 UKSL	43001758.000 43001758.001.02 43001758.002.04 43001758.003.02	2011-06-08
General arrangement 6 UKSL	43001759.000 43001759.001.02 43001759.002.04 43001759.003.02	2011-06-08
General arrangement 8 UKSL	43001760.000 43001760.001.05 43001760.002.05 43001760.003.03	2013-04-25
Assembly 4-6-8 UKSL	42002541	
General arrangement 10 DK+	43001911.000 43001911.001 43001911.002	2013-09-02
Assembly 4-35 persons DK+	42000163.000	
General arrangement 12 DK+	43001912.000 43001912.001 43001912.002 43001912.003	2013-09-02

**Tests carried out**

For 4 UKL, 6 UKL, 8 UKL, 4 UKSL, 6 UKSL, 8 UKSL, 10 DK+ and 12 DK+ the prototype tests are in accordance with the ISO 9650-1:2005, Ch. 6 and ISO 9650-3:2009 as specified in above-mentioned documentation.

For 6 UKCL the prototype tests are in accordance with the ISO 9650-2:2005, Ch. 6 and ISO 9650-3:2009 as specified in above-mentioned documentation.

**Marking of product**

The product is to be indelibly marked with name of manufacturer, type designation and date of manufacture. The marking shall comply with the ISO 9650-1:2005, Ch. 5.2.9.5 for 4 UKL, 6 UKL, 8 UKL, 4 UKSL, 6 UKSL, 8 UKSL, 10 DK+ and 12 DK+ and ISO 9650-2:2005, Ch. 5.2.9.5 for 6 UKCL.

**Periodical Assessments for Retention of the Type Approval Certificate**

DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Standard for certification No. 1.2 Type Approval Item 4.