



TYPE APPROVAL CERTIFICATE

Certificate No:
TALB0000020
Revision No:
5

This is to certify:

That the Inflatable liferafts

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

Issued to

Viking Life-Saving Equipment A/S
Esbjerg V, Denmark

is found to comply with

ISO 9650-1:2022 Small craft – Inflatable liferafts – Part 1: Type 1 & type 2
ISO 9650-3:2009 Small craft – Inflatable liferafts – Part 3: Materials

Application :

NON-SOLAS liferafts for use on non-convention (non-SOLAS) vessels at the discretion of the Authorities.

Issued at **Høvik** on **2023-05-04**

for **DNV**

This Certificate is valid until **2025-02-12** .

DNV local unit: **Denmark CMC**

Approval Engineer: **Helge Bjørnarå**

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Jowita Permoda
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

4UKL, 6UKL, 8UKL, 4UKSL, 6UKSL, 8UKSL, 6UKCL, 10DK+ and 12DK+,
 The liferaft types 4UKL, 6UKL, 8UKL, 4UKSL, 6UKSL, 8UKSL and 6UKCL are NON-SOLAS inflatable liferafts packed in container or valise in aluminium packing bag.

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

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

Container material:	GRP
Buoyancy tube fabric:	Formosa Rubber group RBND6, RBT86, or Contitech Rubber NK300C, NK205/2
Exterior canopy fabric:	Rivertex 400D PES PU coated

Applications/Limitations

Liferaft type	Container type for max. stowage height @6 m	Max. capacity [persons]	Weight of Liferaft [kg]
4UKL	ISO Pack 1 – Cont. 3900 & Valise 20 ISO Pack 2 – Cont. 3800 & Valise 10 ISO Pack 2 – Cont. 3301 SOLAS B – Cont. 3800 & Valise 10 USA-E – Cont. 3800 & Valise 10	4	31 ± 2%
6UKL	ISO Pack 1 – Cont. 3201 & Valise 30 ISO Pack 2 – Cont. 3900 & Valise 20 ISO Pack 2 – Cont. 3301 SOLAS B – Cont. 3900 & Valise 20 USA-E – Cont. 3900 & Valise 20	6	38.5 ± 2%
8UKL	ISO Pack 1 – Cont. 0043 & NA ISO Pack 2 – Cont. 3901 & Valise 20 SOLAS B – Cont. 3901 & Valise 30 USA-E – Cont. 3901 & Valise 30	8	45.5 ± 2%
4UKSL	ISO Pack 1 – Cont. 3901 & Valise 30 ISO Pack 2 – Cont. 3900 & Valise 20 SOLAS B – Cont. 3900 & Valise 20 USA-E – Cont. 3900 & Valise 10	4	36.5 ± 2%
6UKSL	ISO Pack 1 – Cont. 3201 & Valise 30 ISO Pack 2 – Cont. 3901 & Valise 20 SOLAS B – Cont. 3901 & Valise 20 USA-E – Cont. 3901 & Valise 20	6	44 ± 2%
8UKSL	ISO Pack 1 – Cont. 0043 & NA ISO Pack 2 – Cont. 3901 & Valise 30 SOLAS B – Cont. 3901 & Valise 30 USA-E – Cont. 3901 & Valise 30	8	51 ± 2%
6UKCL	Coastal – Container 3801 Coastal – Valise 10	6	29.5 ± 2%
10DK+	USA-E – Cont. 0043 & NA USA-E – Cont. 0044 & NA ISO Pack 1 – Cont. 0043 & NA ISO Pack 1 – Cont. 0044 & NA ISO Pack 2 – Cont. 0043 & NA ISO Pack 2 – Cont. 0044 & NA	10	57 ± 2%
12DK+	USA-E – Cont. 0043 & NA USA-E – Cont. 0044 & NA ISO Pack 1 – Cont. 0043 & NA ISO Pack 1 – Cont. 0044 & NA ISO Pack 2 – Cont. 0043 & NA ISO Pack 2 – Cont. 0044 & NA	12	64 ± 2%

May be used on non-convention (NON-SOLAS) vessels at the discretion of the Authorities.

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.

The inflation system to comply with ISO 15738:2019.

Type Approval documentation

Certification in accordance with Class Program DNV-CP-0338, September 2021.

This certificate replaces TALB0000020 Rev.4.

Assessment Reports	Date
Viking Conformity Assessment Report 4UKL, 6UKL, 8UKL, 4UKSL, 6UKSL, 8UKSL, 6UKCL, 10DK+ and 12DK+ Material test report for RBN28 (Smithers) Strength test report (SGS)	2013-01-15 2012-10-19
Prototype tests	Date
Test report Nos. for buoyancy tube fabric Contitech Rubber NK300C, RBT86, NK205/2 (only for 10DK+ and 12DK+), witnessed by DNV: - 395 (NK205/2) - 2037 and 2038 (NK300C) - 2230 (RBT86)	2002-07-04 2013-12-20 2015-07-17
Test report No. 1454 witnessed by DNV - liferaft painter test	2010-04-23
Prototype tests as listed in Viking Conformity Assessment Report 4UKL, 6UKL, 8UKL, 4UKSL, 6UKSL, 8UKSL, 6UKCL, 10DK+ and 12DK+ and mooring out prototype test, all witnessed by DNV.	2012-10-06 until 2012-11-04
Test report No. 1803 witnessed by DNV - Mooring out test due to new canopy material Rivertex 400D PES PU coated (only for 10DK+ and 12DK+)	2012-11-02
Test report No. 1870 witnessed by DNV - Seam strength test due to new canopy material Rivertex 400D PES PU coated (only for 10DK+ and 12DK+)	2013-02-07
Test report No. 1901 and 1902 witnessed by DNV - cold temperature inflation test with Leaffield GIST	2013-03-29
Test report No. 1912 witnessed by DNV - Jump test due to new canopy material Rivertex 400D PES PU coated (only for 10DK+ and 12DK+)	2013-04-15
Prototype test reports supporting DC 10320	2013-08-15 and 2013-08-21
Test report No. 2033 and 2034 witnessed by DNVGL - canopy closure test – new designed entrance both sides of liferaft with one Zip fastener of each	2013-11-22
Test report No. 2511 witnessed by DNVGL - high temperature inflation test with Leaffield M-07-UM-GIST with Leaffield B10-brown code pressure relief valve	2016-11-30
Test report No. 2508 witnessed by DNVGL - drop test with Leaffield GIS inflation system	2016-11-30
Test report No. 2800 witnessed by DNVGL - boarding ramp test	2018-08-17
Test report No. 2801 witnessed by DNVGL - stabilizing pocket	2018-08-17
Design change (DC)	Date
DC 10320 - Drawing conversion list	2016-05-11
DC 10326 - New canopy material Rivertex 400D PES PU coated (orange and yellow/green)	2014-03-24
DC 10333 - Liferaft painter system arrangement	2013-12-10
DC 10334 - New design of zipped entrance	2013-12-11
DC 10387 - 4UKL, 6UKL, 8UKL, 6UKCL Leaffield GIST inflation system	2016-12-07
DC 10429 - ISO emergency pack 1 and 2 for 10DK+ and 12DK+	2018-09-04
DC 10431 - Additional boarding ramp and stabilizing pocket on UKL and UKSL + supporting drawing Nos.: - 42005110.000.00 Rev.0 (boarding ramp) - 42004523.000.01 Rev.01	2018-09-13 2018-07-31 2017-04-18
DC 10441 - Alternative hardeners Desmodur RFE / Beyond / Safic-Chem TM93 for yachting liferafts (4-8UKL, 4-8UKSL and 6UKCL) + supporting test report Nos. witnessed by DNVGL: - 3042, 3044, 3047 (3 x overpressure test) - 3072, 3073, 2864, 2874, 2875, 2879, 2886, 2887, 2891 (seam strength tests)	2019-03-15
Leaffield GIST test report Nos. witnessed by DNVGL: - 3406, 3407, 3408, 3409 (Low temperature inflation test) - 3410, 3411 (ambient inflation test) - 3412, 3413 (high temperature inflation test)	2020-05-22 2020-05-28 2020-05-28
DC 10510 - Alternative inflation system (DK-99 manufactured by Thanner) for 4UKL, 6UKL, 8UKL, 4UKSL, 6UKSL, 8UKSL and 6UKCL and supporting test report Nos. witnessed by DNV: - 3700, 3703, 3701, 3704, 3699, 3702, 3705 (3 x working pressure) - 3722, 3723, 3728, 3729, 3724, 3725, 3730, 3731, 3720, 3721, 3726, 3727, 3732, 3733 (Cold inflation test - container) - 3708, 3709, 3714, 3715, 3710, 3711, 3716, 3717, 3706, 3707, 3712, 3713, 3718, 3719 (Cold inflation test - valise) - 3665, 3668, 3666, 3669, 3664, 3667, 3670 (hot inflation test - container) - 3651, 3654, 3652, 3655, 3650, 3653, 3656 (hot inflation test - valise) - 3658, 3661, 3659, 3662, 3657, 3660, 3663 (ambient inflation test - container)	2021-30-11

- 3644, 3647, 3645, 3648, 3643, 3646, 3649 (ambient inflation test - valise) - 3687, 3688, 3693, 3694, 3689, 3690, 3695, 3696, 3685, 3686, 3691, 3692, 3697, 3698 (18 m drop test - container) - 3673, 3674, 3679, 3680, 3675, 3676, 3681, 3682, 3671, 3672, 3677, 3678, 3683, 3684 (18 m drop test - valise)	
DC 10511 - Painter system (from 2 patches to one for 8UKL, 4UKSL, 6UKSL and 8UKSL) + supporting Test report Nos. witnessed by DNV: - 4033, 4034, 4041, 4042	2022-03-17
Float free buoyancy (4UKL, 6UKL, 8UKL, 4UKSL, 6UKSL, 10DK+) test report Nos. witnessed by DNV: - 004271, 004272, 004273, 004274, 004275, 004276	2023-01-19
Loading and seating (6UKCL, 4UKL, 6UKL, 8UKL, 4UKSL, 6UKSL, 8UKSL, 10DK, 12DK+) test report Nos. witnessed by DNV: - 004280 - 004281, 004282, 004283, 004284, 004285, 004286 - 2339 - 1598	2023-01-20 2023-01-20 2016-02-25 2011-05-23
Deployment, towing and strength (Ø550 and Ø650) test report Nos. witnessed by DNV: - 004270 - 004291	2023-01-19 2023-01-23
DC 10530 - 6UKCL in container 3801. Test reports Nos. witnessed by DNV: - 004265, 004266, 004294 Drawing No. 16001731 Rev.00 Drawing No. ENG-20075354 Rev.1	2023-02-23 2023-02-10 2023-02-24 2023-02-24
Drawings	Date
General arrangement 4UKL ISO 9650-1 (GIST), Yellow: ENG-20102511 Rev.0	2021-08-11
General arrangement 6UKL ISO 9650-1 (GIST), Yellow: ENG-20094438 Rev.0	2021-05-25
General arrangement 8UKL ISO 9650-1 (GIST), Yellow: ENG-20094481 Rev.1	2021-12-02
General arrangement 4UKSL ISO 9650-1 (GIST), Yellow: ENG-20093702 Rev.1	2021-12-02
General arrangement 6UKSL ISO 9650-1 (GIST), Yellow: ENG-20103100 Rev.1	2021-12-02
General arrangement 8UKSL ISO 9650-1 (GIST), Yellow: ENG-20100792 Rev.1	2021-12-02
General arrangement 6UKCL ISO 9650-2 (GIST), Yellow: ENG-20093650 Rev.0	2021-05-13
General arrangement 10DK+: ENG-20100617 Rev.0	2021-08-09
General arrangement 12DK+: ENG-20100378 Rev.0	2021-08-06

Tests carried out

For 4UKL, 6UKL, 8UKL, 4UKSL, 6UKSL, 8UKSL, 6UKCL, 10DK+ and 12DK+ the prototype tests are in accordance with ISO 9650-1:2022 Type 1, Ch.6 and ISO 9650-3:2009.

For 6UKCL the prototype tests are in accordance with ISO 9650-1:2022 Type 2, Ch.6 and ISO 9650-3:2009.

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 9650-1:2022 Type 1, Ch.5.2.9.5 for 4UKL, 6UKL, 8UKL, 4UKSL, 6UKSL, 8UKSL, 6UKCL, 10DK+ and 12DK+ and ISO 9650-1:2022 Type 2, Ch.5.2.9.5 for 6UKCL.

Periodical assessment

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 Class Program DNV-CP-0338, Section 4.

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>