

# TYPE APPROVAL CERTIFICATE

Certificate no.:  
**TALB0000036**  
Revision No:  
**1**

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

with type designation(s)  
**12 DKF+, 16 DKF+, 20 DKF+, 20 DKF+GN, 25 DKF+, 35 DKF+, 12 DKF+S30, 16 DKF+S30, 20 DKF+GN S30, 20 DKF+S30, 25 DKF+S30, 35 DKF+S30, 12 DKF+ E, 16 DKF+E, 20 DKF+E, 25 DKF+E, 35 DKF+E**

issued to  
**VIKING LIFE-SAVING EQUIPMENT A/S**  
**Esbjerg V, Denmark**

is found to comply with  
**SOLAS 74 as amended, Regulation III/4, III/21, III/31, III/34. IMO Res. MSC 48(66) - Lifesaving Appliance Code.**  
**Tested to IMO Res. MSC 81(70)**

**Application:**  
**This certificate is recognized by Transport Canada.**

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Høvik** on **2024-05-22**

This Certificate is valid until **2029-05-21**.  
DNV local unit: **Fredericia Fleet In Service**

Approval Engineer: **Tessa Bieber**

for **DNV**



Digitally Signed By:  
**Jowita Permoda**  
Location: **DNV Gdynia, Poland**

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

Davit launched inflatable liferaft with the following type designations:

- 12 DKF+, 16 DKF+, 20 DKF+, 20 DKF+GN, 25 DKF+, 35 DKF+
- 12 DKF+S30, 16 DKF+S30, 20 DKF+S30, 20 DKF+S30, 25 DKF+S30, 35 DKF+S30
- 12 DKF+ E, 16 DKF+E, 20 DKF+E, 20 DKF+E, 25 DKF+E, 35 DKF+E

### Application/Limitation

The liferafts are available with features added on to the existing type approved base raft.

**S30:** added to type designation e.g. 12DKF+ S30. Liferaft tested according to MSC.1/Circ. 1328 and packed in a sealed packing bag to allow for extended service intervals up to 30 months. The raft is subject to an annual onboard inspection.

**E:** added to type designation e.g. 12 DKF+ E. Environmental packed liferaft prepared for extended service intervals.

**GN:** added to type designation e.g. 12 DKF+ GN. SOLAS A emergency pack with desalinator partly replacing the water rations according to LSA Code § 4.1.5.1.19.

	Capacity, towing strains and installation heights: Container no. given as 016 – xxxx Emergency packs SOLAS A or B given as A or B in the form below						Capacity
	Towing strain		25 metres	36 metres	45 metres	60 metres	
	2 knots	3 knots					
12 DKF+ 12 DKF+S30 12 DKF+E	0.5 kN	1.1 kN		A 0114 B 0114 A 690X B 690X			12 persons
16 DKF+ 16 DKF+S30 16 DKF+E	0.5 kN	1.2 kN		B 8000		A 5100	16 persons
20 DKF+ 20 DKF+S30 20 DKF+E	0.5 kN	1.2 kN		B 8000		A 8000	20 persons
20 DKF+GN 20 DKF+ GN S30	0.5 kN	1.2 kN	A 5500K*		A8100*		20 persons
25 DKF+ 25 DKF+S30 25 DKF+E	0.5 kN	1.2 kN		B 8100		A 8100	25 persons
35 DKF+ 35 DKF+S30 35 DKF+E	1.05 kN	1.8 kN		B 8200		A 8400	35 persons

\*Equipment based on SOLAS A

The design assessment is based on International Life-Saving Appliances (LSA) Code, IMO Res. MSC 48(66) as amended by IMO Res. MSC.218(82) and IMO Res. MSC.293(87), Canadian Lifesaving Appliance Standard TP 14475E, Ch. IV §4.1 and §4.2 and Lifesaving Equipment Regulations C.R.C 1436 Schedule VIII.

Liferaft designs with type designation including S30 comply also with MSC.1/Circ. 1328 (extended service intervals).

The liferaft shall be packed with a SOLAS A PACK or SOLAS B PACK.

Gas cylinders shall be of an approved type.

Components in the gas inflation system should be approved according to ISO 15738:2019.

Retro reflective material used for liferafts installed on or after 10 October 2026 to comply with IMO Res. MSC. 481 (102) – Type I.

The liferaft is intended to be installed with external weak link and a hydrostatic release unit. Float free arrangement to be checked upon installation on board.

Production testing shall be carried out according to IMO Res. MSC.81(70) part 2.

The liferafts may be approved for extended service intervals up to 30 months in accordance with SOLAS Ch. III, Regulation 20.8.3 on the condition that.

1. Such extended service intervals has been approved by the ships flag administration.

2. The liferafts are checked onboard in accordance with SOLAS Ch. III Regulation 20.8.3.2 at intervals in accordance with SOLAS Ch. III Regulation 20.8.1.1, according to procedures issued by the manufacturer.
3. The liferafts shall be serviced at approved servicing stations in accordance with the recommendations in IMO Res. A.761(18) at intervals not exceeding 30 months.

### Type approval documentation

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

The certificate replaces TALB0000036.

Liferaft type	Parts list No.	Drawing No.
12 DKF+, 12 DKF+S30, 12 DKF+E	43002493.000	43002493.001/002/003
16 DKF+, 16 DKF+S30, 16 DKF+E	43002495.000	43002495.001/002/003
20 DKF+, 20 DKF+S30, 20 DKF+E	43002497.000	43002497.001/002/003
20 DKF+GN, 20 DKF+GN S30	43001921.000	43001921.001/002/003
25 DKF+, 25 DKF+S30, 25 DKF+E	43002499.000	43002499.001/002/003
35 DKF+, 35 DKF+S30, 35 DKF+E	43002502.000	43002502.001/002/003

### Tests carried out

Prototype tests and test reports in accordance with the Recommendation on Testing of Life-Saving Appliances, IMO Res.MSC.81(70) part 1, including IMO Res. MSC. 226(82), MSC.295(87) and MSC.323(89), have been witnessed and evaluated and found to be in compliance.

Tested to the requirements given in the Canadian Lifesaving Appliance Standard TP 14475E, Part II, Ch.5 §5.1.2.

Tests and reports in accordance with new test requirements listed in MSC.1/Circ.1328 item 5.4.2 -5.4.10 for 25 DKFS+S30 have been witnessed by DNV surveyor and evaluated and found to be in compliance (test report item 5.4.4 dd. 2009-09-01, item 5.4.6 dd. 2009-10-29, item 5.4.7 dd. 2009-10-28, item 5.4.8- 5.4.10 dd. 2009-11-02/2009-11-04).

Tested according to the MarED recommendation for liferaft occupancy weight increase from 75 kg to 82.5 kg: 1027-1029, 1228, 1395, 1451, 1497, 1509, 1534, 1544, 1554, 1581-1587, 1589, 1591-1593, 1595-1603, 1605-1617, 1620, 1622, 1627-1642, 1655-1657 and 1682-1685.

### Design changes:

Design change No.	Date	Subject	Supporting documentation
10346	2015-02-09	Introduction of triple approved pressure cylinders. TPED/DOT/T	-
10352	2015-06-02	6-35 DK+ and 12-35 DKF+ protection for operating head	2170 ~ 2173
10363	2015-10-27	Updates for Viking Thermal Control Box.	2246, 1658, 1660, 1661, 1663, 1692, 1693
10364	2015-11-04	Environmental packed	Extended service interval - S30 tests
10385	2016-05-17	Max. installation height for 25DKS/25 DKFS	2413, 2414
10411	2017-09-27	New material numbers for non-return valves displayed on GA drawings	-
10420	2018-05-18	Fabric NK300C from ContiTech	2595, 2596, 2667, 2733, 2734, 2673, 2674, 2688, 2682, 2683, 2767, 2768, 2675, 2676, 2677, 2678, 2668, 2669, 2686, 2687, 2692, 2685, 2693, 2684, 2752, 2689, 2690, 2691  Additional buoyancy material (NK300C) supported by the following test reports:  Prototype test in accordance with IMO Res. MSC.81(70), Part 1: <ul style="list-style-type: none"> <li>- weft distortion dated 2017-12-18,</li> <li>- Test report no. 2747:Coating Adhesion dated 2018-04-13</li> <li>- Test report no. 2749: Oil resistance dated 2018-04-13</li> <li>- Test report no. 2750: Blocking resistance 2018-04-13</li> </ul>

			<ul style="list-style-type: none"> <li>- Laboratory test report no 1530100000 rev. 13 dated 2018-03-05 for NK300C by Contitech Laboratory Northeim, Germany witnessed by DNVGL surveyor</li> <li>- DNV GL verification statement N141GV0D dated 2018-03-15</li> </ul>
10422	2018-05-25	Signal Lamp - in box with spare bulb and battery	2456, 2458, 2464, 2466
10430	2018-09-27	Change of container type for 12DKF (016-690X)	2787, 2788
10434	2018-10-08	Alternative hardener Desmodur RFE	Drawing 16012707 2834 (3 x over pressure test) 2828, 2829, 2830, 2831, 2833 (seam strength tests)
10437	2018-12-10	Alternative hardener 'Beyond'	2905, 2914, 2915 (3x over pressure test), 2880, 2881, 2882, 2883, 2884, 2885 (seam strength tests)
10438	2019-04-23	Alternative hardener 'TM-93'	2868, 2869, 2870, 2871, 2872, 2873, 2876, 2877, 2878, 2988, 2989, 2990, 3017, 3019
10443	2019-04-23	Improved painter system for liferafts with capacity of 26 and more	3088, 3087, 2952, 2953
10451	2019-04-23	Paintersystem with alternative hardener 'TM-93' and 'Beyond'	3085, 3086
10496	2021-09-01	Capacity update to maximum number of persons	-
10512	2022-11-11	Black rubber fabric RBND6 BCR	4035, 4036, 4058, 4059, 4060, 4061, 4062, 4063, 4065, 4066, 4075, 4076, 4079, 4080, 4081, 4082, 4085, 4086, 4087, 4096, 4097, 4098, 4101, 4102, 4103, 4104  Test report TX772622/2022/PL dated 29 September 2022 from SGS, Taoyuan City, Taiwan
10516a	2023-06-12	Extended inner tube, long – 6-65 persons	4059, 4087, 4066, 4101, 4081, 4419, 4420, 4421, 4422  Drawing No. ENG-20118151 Rev.2

### 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 LSA Code (IMO Res.MSC.48(66)) item 4.2.6 and 4.2.7.

All instructions and markings accompanying the liferafts, or printed directly on the liferafts, shall be in both English and French, as per "Procedures For Approval of Life-Saving Appliances and Fire Safety Systems, Equipment and Products" (TP14612E) Ch.2.2.1.3.

### Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)", DNV confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

### 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 Programme DNV-CP-0338, Section 4.