DNV·GL

Certificate No:
MEDB00001JE

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Inflatable liferafts

with type designation(s)
6 DK+, 6 DKN, 8 DK+, 10 DK+, 10 DKN, 12 DK+, 16 DK+, 20 DK+, 25 DK+, 35 DK+, 6 DK+S30, 6 DKN S30, 8 DK+S30, 10 DK+S30, 10 DKN S30, 12 DK+S30, 16 DK+S30, 20 DK+S30, 25 DK+S30, 35 DK+S30, 6 DK+E, 8 DK+E, 10 DK+E, 12 DK+E, 16 DK+E, 20 DK+E, 25 DK+E, 35 DK+E

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

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2015/559,**
Annex A.1, item No. A.1/1.12 and Annex B, Module B in the Directive; SOLAS 74 as amended, Regulation III/4, III/13, III/21, III/26, III/31, III/34 & X/3, LSA Code, IMO MSC/Circ.811 and 2000 HSC Code 8

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2021-10-24**.

Issued at **Høvik** on **2016-10-25**

DNV GL local station:
Fredericia

Approval Engineer:
Tessa Biever

Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
Head of Notified Body

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Job Id:
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Product description

Throw overboard inflatable liferaft with the following type designations:

- 6 DK+, 6 DKN, 8 DK+, 10 DK+, 10 DKN, 12 DK+, 16 DK+, 20 DK+, 25 DK+, 35 DK+
- 6 DK+S30, 6 DKN S30, 8 DK+S30, 10 DK+S30, 10 DKN S30, 12 DK+S30, 16 DK+S30, 20 DK+S30, 25 DK+S30, 35 DK+S30
- 6 DK+E, 8 DK+E, 10 DK+E, 12 DK+E, 16 DK+E, 20 DK+E, 25 DK+E, 35 DK+E

All these liferafts designs are complying with the LSA Code as amended, including MSC. 293(87). Liferaft designs with type designation including S30 comply also with MSC.1/Circ. 1328 (extended service intervals).

Application/Limitation

The liferafts are available with features added on to the existing type approved base raft.
S30: added to type designation e.g. 6 DK+ S30 Liferaft environmentally packed to allow for extended service intervals up to 30 months. The raft is subject to an annual onboard inspection.
N added to type denomination e.g. 6 DKN. The raft is equipped with an improved "stairway" like boarding arrangement.
E: added to type designation e.g. 6 DK+ E. Environmental packed liferaft prepared for extended service intervals

Notes to below form Capacity and installation heights: Container type designation is given as 16-xxxx, and emergency packs SOLAS A or B is given as "A" and "B". Listed liferaft types covers types S30 and E variants. Each size listed covers variations with the same capacity.

Liferaft type	18m	25m	36m	37m	50m	60m	73m	Cap. (pers)
6 DK+ 6 DK+S30 6 DK+E	A 0011 A 0039 A 9041 B 0009 B 0040 B 9040 B 9041		B 5000			A 5000		6
6 DKN 6 DKN S30	B 0022							6
8 DK+ 8 DK+S30 8 DK+E	A 0039 A 9042 B 0040 B 9042	B 5000	A 5000					8
10 DK+ 10 DK+S30 10 DK+E	A 9042 B 9042 B 0040		A 6100 B 6100					10
10 DKN 10 DKN S30	B 0026							10
12 DK+ 12 DK+S30 12 DK+E	A 9042 B 9042					A 6100	B 0021	12

Liferaft type	18m	25m	36m	37m	50m	60m	73m	Cap. (pers)
16 DK+ 16 DK+S30 16 DK+E	A 9044 B 9042		B 5100			A 5100		16
20 DK+ 20 DK+S30 20 DK+E			B 6000			A 6000		20
25 DK+ 25 DK+S30 25 DK+E	A 9045 B 9045		B 6000			A 5200		25
35 DK+ 35 DK+S30 35 DK+E				A 5700	B 5400			35

Towing strain:

Liferaft type	Towing strain 2 knots	Towing strain 3 knots
6 DK+, 6 DK+S30 6 DK+E	0.45 kN	0.9 kN
6 DKN 6 DKN S30	0.45 kN	0.9 kN
8 DK+ 8DK+S30 8 DK+E	0.45 kN	0.9 kN
10 DK+ 10 DK+S30 10 DK+E	0.5 kN	1.1 kN
10 DKN 10 DKN S30	0.5 kN	1.1 kN
12 DK+ 12 DK+S30 12 DK+E	0.5 kN	1.1 kN
16 DK+ 16 DK+S30 16 DK+E	0.5 kN	1.2 kN
20 DK+ 20 DK+S30 20 DK+E	0.5 kN	1.2 kN
25 DK+ 25DK+S30 25 DK+E	0.5 kN	1.2 kN
35 DK+ 35 DK+S30 35 DK+E	1.05 kN	1.8 kN

Applications / limitations continued:
- 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 15738:2002
- 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
This certificate replaces MED-B-9990.

- Drawings and parts lists as lised below:

Liferaft type	Parts list no.:	Drawing no.
6 DK+, DK+S30,6DK+E	43002362.000	43002362.001/002
6 DKN, 6 DKN S30,	43002336.000	43002336.001/002
8 DK+,8DK+S30, 8 DK+E	43002360.000	43002360.001/002
10 DK+, 10 DK+S30, 10 DK+E	43002364.000	43002364.001/002
10 DKN, 10 DKN S30	43000335.000	43000335.001/002
12 DK+, 12 DK+S30, 12 DK+E	43002365.000	43002365.001/002/003
16 DK+,16 DK+S30, 16 DK+E	43002367.000	43002367.001/002/003
20 DK+,20 DK+S30, 20 DK+E	43002369.000	43002369.001/002/003
25 DK+, 25DK+S30, 25 DK+E	43002371.000	43002371.001/002/003
35 DK+, 35 DK+S30, 35 DK+E	43002413.000	43002413.001/002/003

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.

- Tests and reports in accordance with test requirements listed in MSC.1/Circ 1328 item 5.4.2 -5.4.10 have been witnessed by DNV surveyor and evaluated and found to be in compliance (testreport 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 1683-1685.

- Test reports supporting the following design changes:

Design change no.	date	Subject	Test reports
10301	2012-03-09	25 DK+ packed in container 016-5100, SOLAS B	1745-1746
10304	2012-10-05		1780, 1781, 1792,1793, 1794
10315	2013-03-21	Change to Daniamant RL6 combi light	1881~1889
10316	2013-04-08	Plastic strapping around container, replacing bursting bands	1887, 1888, 1901, 1902, 1903, 1904
10317	2013-04-05	S30 aluminum pouch variants	1905~1910
10318	2013-04-15	Eyelink with rubber socket	1916, 1917
10326	2014-03-24	New canopy material (Rivertex 4000 PES PU coated)	- 1899, 1912, 1803, 1993, 1870, 2015 - Material Technical Report 1809 A dated 2012-10-25 from SATRA Technology Centre, UK
10333	2013-12-10	Liferaft painter system arrangement	1454
10334	2013-11-28	Entrance design for 4-25 DK+ and 12-25 DKF+	2033, 2034, 2016
10335	2014-12-11	35 DK+ and 35 DKF+ from 3 to 2 entrances	2120, 2078
10336	2014-02-27	6 DK+ with SOLAS A emergency pck to be packed in container type 016-0040	963, 964, 468
10337	2014-03-02	20DK+ and 20 DK+S30 packed in container type 016-9044	2088, 2089
10342	2014-09-19	Change to new inflation system :Leafield GIST For 35 DK+ and 35 DKF+	1428, 1429, 1432, 1433, 2145~2149
10345	2014-12-01	Replacing painterline for lifrafts > 25 persons	2168
10364	2015-11-04	Environmental packed	Extended service interval - S30 tests

Marking of product

The product is to be indelibly marked with name and address 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.