

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00001JD
Revision No:
8

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 AS under the authority of the Government of Norway.

This is to certify:

That the Automatically self-righting liferafts: inflatable

with type designation(s)

**12 DKFS, 12 DKFS S30, 12 DKFS E
16 DKFS, 16 DKFS S30, 16 DKFS E
20 DKFS, 20 DKFS S30, 20 DKFS E
25 DKFS, 25 DKFS S30, 25 DKFS E
39 DKFS, 39 DKFS S30, 39 DKFS E**

Issued to

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

is found to comply with the requirements in the following Regulations/Standards:

Regulation (EU) 2021/1158,

item No. MED/1.14a SOLAS 74 as amended Reg. III/4, III/26, III/ 34 and X/3, LSA Code I, IV and 1994 HSC Code 8. 2020 HSC Code 8

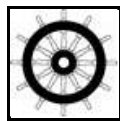
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2026-09-12**.

Issued at **Høvik** on **2021-09-13**

DNV local station:
Denmark CMC

Approval Engineer:
Tessa Biever



Notified Body
No.: **0575**

for **DNV AS**

Sverre Olav Bergli
Head of Notified Body



The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

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

Automatic self-righting davit launched inflatable liferaft with the following type designations:

- 12 DKFS, 12 DKFS S30, 12 DKFS E
- 16 DKFS, 16 DKFS S30, 16 DKFS E
- 20 DKFS, 20 DKFS S30, 20 DKFS E
- 25 DKFS, 25 DKFS S30, 25 DKFS E
- 39 DKFS, 39 DKFS S30, 39 DKFS E

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. 25DKFS 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. 25DKFS E. Environmental packed liferaft prepared for extended service intervals.

Notes to below from 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".

Liferaft type	Towing strain 2 knots	Towing strain 3 knots	25 m	36 m	60 m	Max. capacity
12 DKFS 12 DKFS S30 12 DKFS E	0.58 kN	1.17 kN			A 69XX	12 persons
16 DKFS 16 DKFS S30 16 DKFS E	0.68 kN	1.27 kN			A 80XX	16 persons
20 DKFS 20 DKFS S30 20 DKFS E	0.55 kN	1.21 kN			A 80XX	20 persons
25 DKFS 25 DKFS S30 25 DKFS E	0.7 kN	1.4 kN		A 8200 B 8500 B 0113 B 0140	A 8200	25 persons
39 DKFS 39 DKFS S30 39 DKFS E	1.05 kN	2.45 kN	B 8200	A 8400		39 persons

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.

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.

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).

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

With ref. to 'Test carried out' the liferafts including the type designation S30 are 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 MEDB00001JD Rev. 5 (rev. 6 and 7 do not exist).

Drawings and partslist as listed below:

Liferaft type	Parts list No.	Drawing no.
12 DKFS 12 DKFS S30 12 DKFS E	ENG-20069961 Rev.1, (Page 4/4)	ENG-20069961 Rev.1, (Page 1-3/4) 16012707 Rev. 0 ENG-20070293 Rev.0
16 DKFS 16 DKFS S30 16 DKFS E	ENG-20068215 Rev.1, (Page 4/4)	ENG-20068215 Rev.1, (Page 1-3/4) ENG-20070265 Rev.0 ENG-20070285 Rev.0
20 DKFS 20 DKFS S30 20 DKFS E	ENG-20068461 Rev.1, (Page 4/4)	ENG-20068461 Rev.1, (Page 1-3/4) ENG-20070265 Rev.0 ENG-20070294 Rev.0
25 DKFS 25 DKFS S30 25 DKFS E	43002434.000, 43002446.000	43002434.001/002/003, 43002446.001/002
39 DKFS 39 DKFS S30 39 DKFS E	43002411.000	43002411.001/002/003

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 (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 1683-1685
- Prototype tests and reports in accordance with test requirements listed in IMO Res. MSC 81(70) part 1 as amended as listed in Conformity Assessment report (CAR) for 12 DKFS, 12 DKFS S30 and 12 DKFS E dated 2021-06-25
- Prototype tests and reports in accordance with test requirements listed in IMO Res. MSC 81(70) part 1 as amended as listed in Conformity Assessment report (CAR) for 16 DKFS, 16 DKFS S30 and 16 DKFS E dated 2021-06-25
- Prototype tests and reports in accordance with test requirements listed in IMO Res. MSC 81(70) part 1 as amended as listed in Conformity Assessment report (CAR) for 20 DKFS, 20 DKFS S30 and 20 DKFS E dated 2021-06-25
- Test reports supporting the following design changes:

Design change no.	date	Subject	Test reports
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, 1901~1904
10322	2013-09-12	Alternative shackle for lifting arrangement	Strength report no. LX90433 dated 2009-11-02 from Shanghai Jinyi Materials test technology Co., Ltd, China Salt spray test dated 2012-04-30 from Danish technological Institute (DTI), Denmark
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

10345	2014-12-01	Replacing painterline for lifrafts > 25 persons	2168
10358	2016-01-22	Boarding ramp change/Inflatable floor change / inner and outer lifelines	1532, 2226, 2227
10385	2016-05-17	Change of installation height (max. 60 m for 25 DKS and 25 DKFS)	2413, 2414, 2415
10364	2015-11-04	Environmental packed	Extended Service Intervals - S30 tests
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: <ul style="list-style-type: none"> - Prototype test in accordance with IMO Res. MSC.81(70), Part 1: weft distortion dated 2017-12-18, - Test report no. 2747: Coating Adhesion dated 2018-04-13 - Test report no. 2749: Oil resistance dated 2018-04-13 - Test report no. 2750: Blocking resistance 2018-04-13 - Laboratory test report no 1530100000 rev. 13 dated 2018-03-05 for NK300C by Contitech Laboratory Northeim, Germany witnessed by DNVGL surveyor - DNV GL verification statement N141GV0D dated 2018-03-15
10422	2018-05-25	Signal Lamp - in box with spare bulb and battery	2456, 2458, 2464, 2466
10434	2018-10-08	Alternative hardener Desmodur RFE	2834 (3x 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) 2920 (strength test – davit launched liferaft)
10443	2019-04-23	Improved painter system for liferafts with capacity of 26 and more	3088, 3087, 2952, 2953
10438	2019-04-23	Alternative hardener 'TM-93'	2868, 2869, 2870, 2871, 2872, 2873, 2876, 2877, 2878, 2988, 2989, 2990, 3017, 3019
10451	2019-04-23	Painter system with alternative hardener 'TM-93' and 'Beyond'	3085, 3086
10496	2021-09-01	Capacity update to maximum number of persons	-

Marking of product

The product is to be indelibly marked with name and address of manufacturer, type designation, date of manufacture and the MED Mark of Conformity (see page 1). The marking shall comply with the LSA Code Ch. 4.2.6 and 4.2.7.