



TYPE APPROVAL CERTIFICATE

Certificate no.:
TALB000003W
Revision No:
1

This is to certify:
that the Inflatable liferafts

with type designation(s)
SMLR-D-12/ -16/ -20/ -25

issued to
Shanghai Star Rubber Products Co., Ltd.
Shanghai, China

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)
TP14475E Ed.2 (2023-12) Canadian life saving appliance standard

Application:

Issued at **Høvik** on **2026-04-22**

This Certificate is valid until **2031-04-21**.

DNV local unit: **Shanghai**

Approval Engineer: **Timo Linn**

for **DNV**



Digitally Signed By:
Jowita Permoda

Location: **DNV Høvik, Norway**

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

SMLR-D-12/ -16/ -20/ -25, Inflatable Liferafts, davit-launched type, SOLAS-A or B Pack

| | |
|-------------------------|---------|
| Container material: | GRP |
| Buoyancy tube fabric: | XB-21 |
| Seam fabric | XB-03 |
| Exterior canopy fabric: | 2x3-3PU |
| Interior canopy fabric: | 170T |

Application/Limitation

| Type | Persons (each 82.5 kg) | SOLAS A Weight [kg] | SOLAS B Weight [kg] | Required bollard pull [kN] | | Maximum stowage height [m] |
|-----------|------------------------|---------------------|---------------------|----------------------------|------|----------------------------|
| | | | | 2 kn | 3 kn | |
| SMLR-D-12 | 12 | 142 | 125 | 1.0 | 1.8 | 40 |
| SMLR-D-16 | 16 | 170 | 140 | 1.0 | 1.9 | 40 |
| SMLR-D-20 | 20 | 226 | 190 | 1.5 | 2.2 | 40 |
| SMLR-D-25 | 25 | 270 | 210 | 1.5 | 3.1 | 40 |

The liferafts 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), IMO Res. MSC.293(87), IMO Res. MSC.481(102) and Canadian Lifesaving Appliance Standard TP 14475E, Ch. 4.1 and 4.2. With reference to TP 14475E, Ch. 4.1.2 one first-aid outfit as required by LSA Code Ch. 4.1.5.1.8 to be provided for every people of the capacity of a liferaft.

The liferafts are to be serviced annually, provided where in any case this is impracticable, the administration may extend this to a period to 17 months. They shall be serviced at approved service stations which are authorized by the manufacturer.

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

Type Approval documentation

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

Basis for approval:

| Description | Reference No. | Date |
|---|---------------|-----------------|
| SMLR-D-12 General drawing, Ed. 1.0/Ed.3.0 | 274MQ-199-00 | 2014-04/2020-09 |
| SMLR-D-12 Inflatable Liferaft Structure, Ed. 1.0/Ed.3.0 | 274MQ-199-01 | 2014-04/2020-09 |
| SMLR-D-12 Inflation Liferaft Floor, Ed. 1.0/Ed.3.0 | 274MQ-199-02 | 2014-04/2020-09 |
| SMLR-D-12 Inflatable Liferaft Canopy, Ed. 1.0/Ed.3.0 | 274MQ-199-03 | 2014-04/2020-09 |
| GRP-RF-690x1200 (D) GRP Cont., Ed. 1.0 (A+B-Pack) | GRP/MQ-7-WG | 2014-06 |
| SMLR-D-16 General drawing, Ed. 1.0/Ed.3.0 | 274MQ-200-00 | 2014-04/2020-09 |

| | | |
|---|--------------------|-----------------|
| SMLR-D-16 Inflatable Liferaft Structure, Ed. 1.0/Ed.3.0 | 274MQ-200-01 | 2014-04/2020-09 |
| SMLR-D-16 Inflation Liferaft Floor, Ed. 1.0/Ed. 3.0 | 274MQ-200-02 | 2014-04/2020-09 |
| SMLR-D-16 Inflatable Liferaft Canopy, Ed. 1.0/Ed.3.0 | 274MQ-200-03 | 2014-04/2020-09 |
| GRP-RF-690x1450 (D) GRP Container, Ed. 1.0 (A-Pack) | GRP/MQ-8-WG | 2014-06 |
| GRP-RF-690x1200 (D) GRP Container, Ed. 1.0 (B-Pack) | GRP/MQ-7-WG | 2014-06 |
| SMLR-D-20 General drawing, Ed. 1.0/ Ed.3.0 | 274MQ-201-00 | 2014-04/2020-09 |
| SMLR-D-20 Inflatable Liferaft Structure, Ed. 1.0/Ed. 3.0 | 274MQ-201-01 | 2014-04/2020-09 |
| SMLR-D-20 Inflation Liferaft Floor, Ed. 1.0/Ed.3.0 | 274MQ-201-02 | 2014-04/2020-09 |
| SMLR-D-20 Inflatable Liferaft Canopy, Ed. 1.0/Ed. 3.0 | 274MQ-201-03 | 2014-04/2020-09 |
| GRP-RF-760x1560 (D) GRP Container, Ed. 1.0 (A-Pack) | GRP/MQ-55-00 | 2014-06 |
| GRP-RF-690x1450 (D) GRP Container, Ed. 1.0 (B-Pack) | GRP/MQ-8-WG | 2014-06 |
| SMLR-D-25 General drawing, Ed. 1.0/Ed.3.0 | 274MQ-202-00 | 2014-04/2020-09 |
| SMLR-D-25 Inflatable Liferaft Structure, Ed. 1.0/Ed. 3.0 | 274MQ-202-01 | 2014-04/2020-09 |
| SMLR-D-25 Inflation Liferaft Floor, Ed. 1.0/Ed. 3.0 | 274MQ-202-02 | 2014-04/2020-09 |
| SMLR-D-25 Inflatable Liferaft Canopy, Ed. 1.0/Ed. 3.0 | 274MQ-202-03 | 2014-04/2020-09 |
| GRP-RF-760x1660 (D) GRP Container, Ed. 1.0 (A-Pack) | GRP/MQ-56-00 | 2014-06 |
| GRP-RF-760x1560 (D) GRP Container, Ed. 1.0 (B-Pack) | GRP/MQ-55-00 | 2014-06 |
| SMLR-D Technical Specification | SMLR-D/JT-2011 | 2011-09 |
| SMLR-D Technical Parameters, Ed. 3.2 | SMLR-D/JCB-2019 | 2019-09 |
| SMLR-D Design Calculation Book, Ed. 2.1 | SMLR-D/JS-2019 | 2019-09 |
| SMLR-D Inflation System, Ed. 2.0 | 278MQ-65-02 | 2014-06/2020-09 |
| SMLR-A/D-Logo Sketch Manual (Canada), Ed. 1.0 | SMLR-A/D BS-2014 | 2014-10 |
| Inflatable Liferaft Operational Instructions, Ed. 1.0 | --- | 2016-02 |
| SMLR-D Evaluation & test reports witnessed by DNVGL | MCS/Circ.980/Add.1 | 2009-07+08 |
| SMLR-D Evaluation & test reports witnessed by DNVGL | MCS/Circ.980/Add.1 | 2014-07 |
| SMLR-A/D Material & Equip. list for Inflatable Liferrafts | SMLR-A/D/CB-2014 | 2014-11 |
| Outer canopy material test report | 2016YW071 | 2016-12-02 |
| Test report f. hose assembly (TP 14475E Part II [5.1.2]) | --- | 2020-07-31 |

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), MSC.323(89) and IMO Res. MSC. 481(102)-Type I, and Canadian Lifesaving Appliance Standard TP 14475E Ch. 4, have been witnessed and evaluated and found to be in compliance.

Marking of product

The product is to be indelibly marked with name and address of the manufacturer, type designation and date of manufacture. The marking shall comply with the LSA Code (IMO Res.MSC48(66) item 4.2.6.3 and 4.2.7, and the Canadian Lifesaving Appliance Standard TP 14475E Part II [15.1].

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", TP 14612E [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

Manufactured by:

Shanghai Star Rubber Products Co., Ltd., Shanghai, China.