



Certificate no.:
TAE00004WW

TYPE APPROVAL CERTIFICATE

This is to certify:
that the Cable Ladders

with type designation(s)
OFA150 LS-xxx Series

issued to
Suzhou Ontop Mechanical & Electrical Equipment Co., Ltd.
Suzhou, China

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application:

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

Material FRP/GRP (Fibre-reinforced plastic)
Suitable for open deck Yes

Issued at **Høvik** on **2024-08-20**

This Certificate is valid until **2029-08-19**.

for **DNV**

DNV local unit: **Shanghai**

Approval Engineer: **Carsten Hunsalz**

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.



Form code: TA 251

Revision: 2023-09

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Product description

Cable ladder made of FRP/GRP (Fibre-reinforced plastic)

Type: OFA150 LS-150-3000

Widths [mm]: 150
Standard length [mm]: 3000
Height [mm]: 150

Material:	Fibre-reinforced plastic
Temperature:	-20° C to 90° C
Safe working load (SWL):	105 kg/m
Support spacing:	3000 mm

Type: OFA150 LS-150-6000

Widths [mm]: 150
Standard length [mm]: 6000
Height [mm]: 150

Material:	Fibre-reinforced plastic
Temperature:	-20° C to 90° C
Safe working load (SWL):	96 kg/m
Support spacing:	6000 mm

Type: OFA150 LS-300-3000

Widths [mm]: 300
Standard length [mm]: 3000
Height [mm]: 150

Material:	Fibre-reinforced plastic
Temperature:	-20° C to 90° C
Safe working load (SWL):	107 kg/m
Support spacing:	3000 mm

Type: OFA150 LS-300-6000

Widths [mm]: 300
Standard length [mm]: 6000
Height [mm]: 150

Material:	Fibre-reinforced plastic
Temperature:	-20° C to 90° C
Safe working load (SWL):	97 kg/m
Support spacing:	6000 mm

Type: OFA150 LS-450-3000

Widths [mm]: 450
Standard length [mm]: 3000
Height [mm]: 150

Material:	Fibre-reinforced plastic
Temperature:	-20° C to 90° C
Safe working load (SWL):	113 kg/m
Support spacing:	3000 mm

Type: OFA150 LS-450-6000

Widths [mm]: 450
 Standard length [mm]: 6000
 Height [mm]: 150

Material:	Fibre-reinforced plastic
Temperature:	-20° C to 90° C
Safe working load (SWL):	101 kg/m
Support spacing:	6000 mm

Type: OFA150 LS-600-3000

Widths [mm]: 600
 Standard length [mm]: 3000
 Height [mm]: 150

Material:	Fibre-reinforced plastic
Temperature:	-20° C to 90° C
Safe working load (SWL):	111 kg/m
Support spacing:	3000 mm

Type: OFA150 LS-600-6000

Widths [mm]: 600
 Standard length [mm]: 6000
 Height [mm]: 150

Material:	Fibre-reinforced plastic
Temperature:	-20° C to 90° C
Safe working load (SWL):	100 kg/m
Support spacing:	6000 mm

Type: OFA150 LS-750-3000

Widths [mm]: 750
 Standard length [mm]: 3000
 Height [mm]: 150

Material:	Fibre-reinforced plastic
Temperature:	-20° C to 90° C
Safe working load (SWL):	110 kg/m
Support spacing:	3000 mm

Type: OFA150 LS-750-6000

Widths [mm]: 750
 Standard length [mm]: 6000
 Height [mm]: 150

Material:	Fibre-reinforced plastic
Temperature:	-20° C to 90° C
Safe working load (SWL):	99 kg/m
Support spacing:	6000 mm

Type: OFA150 LS-900-3000

Widths [mm]: 900
Standard length [mm]: 3000
Height [mm]: 150

Material:	Fibre-reinforced plastic
Temperature:	-20° C to 90° C
Safe working load (SWL):	109 kg/m
Support spacing:	3000 mm

Type: OFA150 LS-900-6000

Widths [mm]: 900
Standard length [mm]: 6000
Height [mm]: 150

Material:	Fibre-reinforced plastic
Temperature:	-20° C to 90° C
Safe working load (SWL):	98 kg/m
Support spacing:	6000 mm

Application/Limitation

To be installed in accordance with the manufacturer's instructions and DNV rules.

Suitable for open deck

Suitable for installation in hazardous areas.

Type Approval documentation

Specification: Suzhou Ontop Mechanical & Electrical Equipment Co., Ltd. 2024

Test Report: WPHE241271, WPHE241272, WPHE241273, WPHE241274,
24SAS01P18D34-43128-1/-2/-3/-4/-5, A2240358299101E, AJFS2404003802FF,
AJFS2404003803FF, SUZMR240400205901, HLT20240705AR039

Tests carried out

IACS Rec. No. 73: (Rev.3 Dec 2023); IEC 60068-2-75:2014; IEC 61537:2023; IEC 60695-11-5:2016;
ASTM E84-2023C; EN IEC 60754-3:2018; IEC 62631-3-1:2016 and IEC 62631-3-2:2015; ISO 4892-2:2013;

Marking of product

Manufacturer – Type designation – Type - Width – Height – Length

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.



Job ID: **262.1-041748-1**
Certificate no.: **TAE00004WW**

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE