Certificate No:
TAK000023V

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Synthetic Fibre Ropes

with type designation(s)
CRUISER PLUS Mooring Tails

Issued to
LANEX a.s.
Bolatice, Czech Republic

is found to comply with
DNV class programme DNV-CP-0100 – Type approval – Synthetic fibre ropes for towing, mooring and anchoring
OCIMF Mooring Equipment Guidelines (MEG4), Fourth Edition 2018 [test requirements]
DNV rules for classification – Ships
DNV rules for classification – High speed and light craft

Application :

Mooring and Towing of Ships and HSLCs.

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

Issued at **Høvik** on **2022-04-05**
This Certificate is valid until **2027-04-04**.
DNV local station: **Ostrava**

Approval Engineer: **Gisle Hersvik**

for **DNV**

Gustav Heiberg
Head of Section

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

CRUISER PLUS Mooring Tails, 8 (4x2) strand braided synthetic fibre ropes

- Fibre material: Polys/PES (polys = polypropylene (PP)/polyethylene (PE) and polyester (PES)) (polyolefin dual fibres/mixed fibres)
- Specific gravity: 0,98 (floats in seawater)
- Elongation at break: 13.8 %

CRUISER PLUS - Compliance with OCIMF Mooring Equipment Guidelines (MEG4)

Mooring Tail Base Design Certificate CRUISER PLUS – 48 mm to 104 mm.
- Certificate Nr.: LNX-CRPL-2022-01-T

Mooring Tail Certificates will be issued with basis in Lanex's certificate template for mooring tails.

Rope Characteristics

The Rope Characteristics are tabulated on the next pages observing the following:

Fibre ropes are to be delivered with a linear mass within ±5% of the nominal linear mass given in the tables.

The *nominal diameter* is the approximate diameter, in millimetres.

The *linear density*, corresponds to the net mass per length of rope, expressed in grams per metre.

The *breaking loads* quoted in the below table relate to spliced ropes (LDBF) and are as provided in Lanex's Technical Conditions, TP 086.5/80/05.

CRUISER PLUS

ROPE CHARACTERISTICS		
Nominal diameter	**Mass per unit length of rope under pretension (linear density)**	**LDBF (breaking load with termination/ eyes)**
mm	**g/m**	**kN**
48	1280	491.4
52	1490	551.7
56	1690	641.7
60	1900	716.4
62	2005	747.0
64	2110	797.4
68	2460	922.5
72	2670	1021.5
76	3150	1183.5
80	3480	1303.2
84	3815	1386.0
88	4150	1611.0
92	4520	1711,8
96	4890	1812.6
100	5260	1912.1
104	5630	2011.5

Application/Limitation

The Type Approval covers ropes with diameter from 48 mm to and including 104 mm.

OCIMF MEG4 approval range is from 48 mm to and including 104 mm.

Type Approval documentation

Tests carried out

Type Testing carried out in accordance with **Type Approval documentation**, and according to:
- OCIMF's Mooring Equipment Guidelines (MEG4) [requirements to testing].
- DNV-CP-0100.

The fibre rope is manufactured in accordance with;
- ISO 10556:2009, Fibre ropes of polyester/polyolefin dual fibres
- Technical Conditions, TP 086.5/80/05.

Marking of product

Product shall be marked with *manufacturer's name*; **LANEX a.s.**, *place of production, type designation* and *diameter*.

The marking is to be carried out in such a way that it is visible, legible and indelible. The marking of product is to enable traceability to the DNV Type Approval Certificate.

Periodical assessment

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

Periodical assessments (for Certificate Retention / Certificate Renewal) shall be performed according to DNV-CP-0338.

This certificate is only valid if required Periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com

END OF CERTIFICATE