

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Lifting Gear**

with type designation(s)

Masterlinks, "B-løkker standard" and Quad Assemblies, "Løftehoder standard"

Issued to

Nøsted & AS
Sannidal, Norway

is found to comply with

DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances
EN 1677-4 Components for slings – Safety – Part 4: Links, Grade 8**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Aberdeen** on **2020-10-26**This Certificate is valid until **2025-10-25**.for **DNV GL**DNV GL local station: **Sandefjord**Approval Engineer: **Alex Doig**

Elisabeth Legg
Principal Engineer

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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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

This type approval certificate replaces TAS0000048.

Grade 8 Links for use in lifting sets with corresponding rating of lifting chains/wire ropes.

The following Masterlinks "B-løkker, Standard", and Quad Assemblies "Løftehoder, Standard" are covered by this type approval:

Masterlinks

Type	Nominal size [mm]	WLL [t]	MPF [kN]	BF* [kN]
11.B.4	11	2.1	51.5	103.0
13.B.5	13	2.7	66.2	132.4
13.B.6	13	2.7	66.2	132.4
16.B.6	16	4.1	100.5	201.0
16.B.7	16	3.2	78.5	156.9
20.B.6	20	6.7	164.3	328.5
20.B.7	20	6.5	159.4	318.7
22.B.6	22	8.2	201.0	402.1
22.B.7	22	7.2	176.5	353.0
22.B.8	22	5.8	142.2	284.4
25.B.6	25	10.7	262.3	524.7
28.B.6	28	12.9	316.3	632.5
28.B.7	28	11.8	289.3	578.6
32.B.6	32	17.1	419.2	838.5
38.B.6	38	28.1	688.9	1377.8
38.B.7	38	19.1	468.3	936.5
45.B.6	45	38.3	939.0	1878.0
45.B.7	45	27.6	676.7	1353.3
50.B.6	50	45.0	1103.6	2206.5
60.B.6	60	65.3	1600.9	3201.9
70.B.6	70	84.4	2069.2	4138.4

*) Breaking force is based on safety factor 5.

Quad Assemblies

Type	WLL [t]	MPF [kN]	BF* [kN]	Master Link Type	Intermediate Link Type
Q.16.B	4.1	100.5	201.0	16.B.6	13.B.5
Q.20.B	6.5	159.4	318.7	20.B.7	16.B.6
Q.22.B.8	5.8	142.2	284.4	22.B.8	16.B.6
Q.22.B	8.2	201.0	402.1	22.B.6	20.B.6
Q.25.B	10.7	262.3	524.7	25.B.6	20.B.6
Q.28.B	12.9	316.3	632.5	28.B.6	22.B.6
Q.32.B	17.1	419.2	838.5	32.B.6	25.B.6
Q.38.B	28.1	688.9	1377.8	38.B.6	32.B.6
Q.45.B	38.3	939.0	1878.0	45.B.6	38.B.6
Q.50.B	45.0	1103.2	2206.5	50.B.6	38.B.6
Q.60.B	65.3	1600.9	3201.9	60.B.6	50.B.6
Q.70.B	84.4	2069.2	4138.4	70.B.6	60.B.6

*) Breaking force is based on safety factor 5.

Job Id: **262.1-018369-3**
Certificate No: **TAS00002SX**

Application/Limitation

All materials are to be delivered with 3.1 certificates (EN 10204:2004), documenting mechanical properties and chemical composition in accordance with the type approval documentation., and shall comply with DNVGL-ST-0378 section 3. Materials used in the fabrication of these master links and quad assemblies shall also comply with EN 1677-4.

Type Approval documentation

Tests carried out

If a CG3 certificate is required, each link shall be tested in accordance with DNVGL-ST-0378 section 14 and EN 1677-4.

Marking of product

Each link shall be marked in accordance with DNVGL-ST-0378 section 14 and EN 1677-4.

Periodical assessment

For retention of type approval, a DNV GL surveyor shall perform periodical assessment after two years and after 3.5 years, to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.

END OF CERTIFICATE