



Certificate No:
TAD00001G7

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Miscellaneous

with type designation(s)
Sling set 500001105

Issued to

Varco BJ. B.V.
Etten-Leur, Noord-Brabant, Netherlands

is found to comply with

DNV standard DNV-ST-0378 – Offshore and platform lifting appliances

Application :

Sling set for offshore cranes

Issued at **Høvik** on **2022-06-03**

This Certificate is valid until **2027-06-02**.

DNV local station: **Netherlands CMC**

for **DNV**

Approval Engineer: **Antonio Sendin Alvarez**

Per Esvall
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.



Form code: TA 251

Revision: 2021-03

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Page 1 of 2

Product description

Lifting sling set as shown in GA drawing 50001105-GAD Rev.03

SWL = 10.9 metric tonnes
Maximum angle between slings = 50°
Design temperature = -20 °C

Minimum safety factor for the sling set = 5.

Application/Limitation

1. Master link with minimum WLL = 23 tonnes in accordance to EN1677-4
2. Steel wire rope $\phi 22\text{mm}$ 6x36WS-IWRC grade 1770 with minimum breaking force = 305 kN in accordance with EN 12385-4:2002+A1:2008
3. Ferrules type S-506 number 1039478 has per specification provided.
4. Thimble in accordance with EN 13411-1:2002+A1:2008
5. Shackles with minimum WLL = 7 metric tonnes in accordance with EN 13889:2003+A1:2008
6. Unwelded rings are not covered by this approval
7. All materials are to be delivered with 3.1 certificates, documenting mechanical properties and chemical composition in accordance with the DNV-ST-0378 Sec. 3
8. Welds and NDT to be carried out by certified personnel and in accordance to DNV-ST-0378 Sec.3
9. It is the responsibility of the holder of the certificate to ensure that both design and production of every sling set part are in compliance with the above-mentioned standards.

Type Approval documentation

Tests to be carried out

Prototype test carried out on 2022-04-20 and witnessed by DNV Rotterdam.

In order to obtain a CG3 certificate, each sling set shall be tested at 2 x SWL, NDT to be carried out according to DNV-ST-0378 Sec.3

Marking of product

Each sling set is to be marked according to DNV-ST-0378 Sec.14.5.

Certificate Retention Survey

For retention of the Type Approval, a DNV surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNV-CP-0338.

END OF CERTIFICATE