

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Cranes, gen.

with type designation(s)
Scissor Lift and Lifting Beam

Issued to

Stavanger Engineering AS
Stavanger, Norway

is found to comply with
DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances

Application :

Scissor Lift as platform lifting appliance and Lifting Beam as loose gear

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL

Issued at **Høvik** on **2021-06-23**

This Certificate is valid until **2026-06-22**.

DNV GL local station: **Norway CMC, West**

for **DNV GL**

Approval Engineer: **Lap Van Duong**

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Aldo Matteucci
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 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

Minimum design temperature: - 20° C
Dynamic factor: 1.15
Maximum wind speed (3 s gust): 15 m/s
Maximum vessel acceleration:

- Longitudinal Ax: 0.9 m/s²
- Transversal Ay: 1.38 m/s²
- Vertical Az: 2.07 m/s²

Heel/trim, including geometrical deck deflection: 3.2° / 3.2°

Scissor Lift as platform lifting appliance:
Safe working load: 700 kg (2 persons and equipment)
Total number of lifting operations: 14610 cycles
Classification of lifting appliance according to F.E.M 1.001: U0/Q1/A1

Lifting Beam as loose gear for installation lift:
Safe working load: 10 tonnes

Scissor Lift is verified for stability according to EN 280 – Mobile Elevating Work Platforms – Sec. 5.1-Sec.5.2.4

Application/Limitation

- The various components transferring load (loose gear) such as hook, wire rope, socket, shackle etc. shall be manufactured according to recognized standards or codes and delivered with relevant ILO form certificates.
- All load-bearing materials are to be delivered with 3.1 certificate, documenting mechanical properties and chemical composition in accordance with the type approval documentation.
- All welding is to be carried out by qualified welders and according to welding procedures acceptable to the attending surveyor.
- Welds and NDT shall be carried out by qualified personnel and in accordance with DNVGL-ST-0378 Sec. 3.
- The manufacturer is required to have a DNV GL surveyor witness all important production and tests as required. Based on this witnessing, the surveyor should stamp the units, sign the reports, and issue product certificates.
- Hydraulic cylinders are not covered in this approval, and to be delivered with DNVGL product certificate
- Hydraulic and electrical system are not covered in this approval

Type Approval documentation

Tests carried out

Prototype tests were carried out, Report No 03/2021 on 2021-02-25, and Report No R-20024-014 on 2021-05-10 witnessed by DNVGL Poland.

Marking of product

Lifting appliance shall be marked according to DNVGL-ST-0378 Sec. 14

Periodical assessment

For retention of the Type Approval, a DNV GL 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 DNVGL-CP-0338.



Job Id: **262.1-034216-1**
Certificate No: **TAS00002W8**

END OF CERTIFICATE