



Certificate no.:
TAS00004WF

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Cranes, gen.

with type designation(s)
Platform crane MC1093

issued to

Protea S.A.
Gdansk, Poland

is found to comply with

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

Application:

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

Issued at **Høvik** on **2025-06-27**

This Certificate is valid until **2030-06-26**.

for **DNV**

DNV local unit: **Katowice CMC**

Approval Engineer: **Thomas Henrik Tranesen**

.....

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 USD 300 000.

Reference standards

DNV-ST-0378 Standard for offshore and platform lifting appliances
EN 13852-1 Offshore Cranes - Part 1: General - purpose · offshore cranes

DNV-RP-C201-Buckling Strength of Plated Structures
DNV Classification notes no. 30.1 Buckling strength analysis of bars and frames, and spherical shells
DNV-CG-0194 Hydraulic cylinders
FEM 1.001 Rules for the Design of Hoisting Appliances
Eurocode 3 Part 1-8 Design of steel structures. Design of joints
Eurocode 3 Part 1-1 Design of steel structures. General rules and rules for buildings

Product description

Pedestal mounted crane, offshore type, with box type boom, installed on cylindrical pedestal adapter, electro-hydraulic operated, with the operator cabin mounted on the slewing platform.
Main functions: cargo handling between external units and supply boat, handling within the platform and personnel transfer using a dedicated basket.

Application/Limitation

Min design temperature -20°C
Area classification Safe area

Safe working load SWL 25mT
25mT @ 30m onboard lift
20mT @ 25m offshore lift, Hs=1.0m
12mT @ 45m offshore lift, Hs=2.5m
3mT - personnel handling, Hs=2.0m

Dynamic factor DAF 1.651 @ normal operation with shock absorber
1.975 @ accidental, shock absorber malfunction
1.220 @ on-board lift

Ref. doc.MC1093-M12-002 rev.003, techdoc.7 for Load Capacity Charts.

FEM classification A3, Q2, U3 (< 125.000 cycles)
EN 13852-1 classification U₃ Q₃ P₂

Max operation radius 45m
Min operation radius 6m
Hoisting velocity 24m/min // 50m/min @ empty hook
Max slewing speed 0.6rpm
No of slew drives 4

Max operation wind speed 25m/s
Survival wind speed 63m/s
Max heel/trim angle 1deg
Max offlead angle 5.0deg
Max sidelead angle 2.5deg

Wire rope diameter ø30mm
Wire min breaking load MBL 883kN
Number of falls 2

Main winch SWL 25mT
Number of layers 3

Type Approval documentation

Comments

- Loose gear e.g. sheaves, hook, load cells, are not part of this certificate shall be delivered with separate certificates.
- Slewing bearing is not a scope of this type approval and shall be delivered with separate DNV Product Certificate.
- Gears and brakes are not a scope of this type approval and shall be delivered with DNV Product Certificates.
- Cylinders are not a scope of this type approval and shall be delivered with separated DNV Product Certificate.
- Boom rest is not a part of this certificate.
- Service davits and trolleys are not a part of this certificate.

Tests to be carried out

- Functional testing of the crane shall be carried out in accordance with DNV-ST-0378 Sec.14.1 with consideration to EN 13852-1 §6.2.
- Load testing shall be carried out in accordance with DNV-ST-0378 Sec.14.2 with consideration to EN 13852-1 §6.2.
- Examination of the crane shall be carried out after the load test in accordance with DNV-ST-0378 Sec.14.2.4.

Marking of product

Marking of the crane shall be in accordance with DNV-ST-0378 Sec.14.5 and EN 13852-1 §7.4.

Periodical assessment

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.

Manufactured by:

PROTEA S.A., Ligota Górna, ul. Gorzowska 18, 46-200 Kluczbork, Poland