



Certificate no.:
TAS00004BA

TYPE APPROVAL CERTIFICATE

This is to certify:

that the **Winch - General Application**

with type designation(s)

Electric hoisting winch EPH-33000-GPY

issued to

Dromec B.V.

Rhenen, Utrecht, Netherlands

is found to comply with

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

DNV standard DNV-ST-0358 – Offshore gangways

Application:

See next page

Issued at **Høvik** on **2024-09-18**

This Certificate is valid until **2029-09-17**.

for **DNV**

DNV local unit: **Netherlands CMC**

Approval Engineer: **Fredrik Per Olof Höglund**

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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: 2023-09

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Product description

Electric hoisting winch, EPH-33000-GPY, for hoisting of cursor and gangway in tower. No personnel are present on cursor/gangway during normal hoisting operation. Personnel can be present on cursor/gangway during emergency hoisting operation.

Application/Limitation

The electric hoisting winch is approved for the following conditions:

Maximum static wire pull, both layers	162 kN
Maximum dynamic wire pull, both layers	324 kN*
Static holding load	292 kN
Number of wire layers	2
Wire rope diameter	42 mm
FEM class	M4-L1-T5**
Minimum design temperature	-20 deg. C.

*dynamic wire load includes effect from vessel acceleration, dynamic amplification factor, friction and sheave efficiency.

**FEM class based on 324 kN load on one gearbox.

Note:

1. Gear boxes and brakes are not part of the Type Approval.
Gears and brakes shall be delivered with DNV product certificate.
2. All load-bearing materials are to be delivered with 3.1 certificates, documenting mechanical properties and chemical composition in accordance with the DNV-ST-0378 Sec.3.
3. Bearings lifetime have not been evaluated. It is assumed the bearings are delivered with sufficient capacity documented.
4. Bolts/screws shall be preloaded according to the manufacturer's recommendations.
5. There shall always be minimum 3 turns of the wire left on the drum at all conditions.

Type Approval documentation

Tests to be carried out

In order to obtain a DNV Product Certificate, the winch shall be tested according to the DNV-ST-0378 Table 14-1.

Test load in wire rope: 292kN.

NDT to be carried out according to DNV-ST-0378 Sec.3.

Testing shall be witnessed by DNV representative.

Marking of product

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

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.

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