



Certificate No:
TAM00001BH

TYPE APPROVAL DESIGN CERTIFICATE

This is to certify:

That the Tunnel Thruster

with type designation(s)
PMH STR100-500, PMH STR130-750

Issued to
PMH Norway AS
Bosberg, Norway

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.5 Rotating machinery – driven units

Application :

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

Issued at **Høvik** on **2023-08-22**

This Certificate is valid until **2028-08-21** .

for **DNV**

DNV local unit: **East & South Norway CMC**

Approval Engineer: **Terje Ingvar Arvidsen**

Oddvar Deinboll
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 291

Revision: 2022-12

www.dnv.com

Page 1 of 2

Product description

Tunnel thruster with fixed pitch propeller.

Application/Limitation

This Type Approval covers designs only. i.e. the Type Approval is not valid for the final product, but may be used as basis for obtaining a product certificate when required.

The thrusters are approved for manoeuvring duty, dynpos system / auxiliary duty, driven by hydraulic or electric motor with the following ratings:

Type	Maximum input torque [Nm]	Gear ratio [-]	Maximum motor speed [rpm]	Application factor, continous	Application factor, peak
STR-100-500 (dia. 1000 mm)	2343	2.706	1500	1.15	1.40
STR-130-750 (dia. 1300 mm)	3565	3.385	1500	1.15	1.40

Marking of product

Manufacturers name or trade mark and type number designation

END OF CERTIFICATE