Certificate No:
TAM000019A

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Stern Tube Seal

with type designation(s)
OCEAN SEAL STLS-K in configurations:, -O2-FWD, -O3-AFT, -O4-AFT

Issued to
RM Propulsion B.V.
Hoorn Nh, Noord-Holland, Netherlands

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.4 Rotating machinery – power transmission

Application :

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

Issued at **Høvik** on **2024-07-01**
This Certificate is valid until .
DNV local station: **Netherlands VMC**

Approval Engineer: **Geir Olav Moen**

for **DNV**

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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.

Product description

Sterntube seals of Lip-seal type for oil-lubricated propeller shafts with mineral oil.

Type : OCEAN SEAL STLS-K
In configurations : O2-FWD, O3-AFT, O4-AFT

Seal diameter : from 180 - 1000 mm

Application/Limitation

The seals satisfy the requirements for stern tube seals for ships with class notation TMON (Tailshaft Monitoring).

Type Approval documentation

Tests carried out

General test report dated 2024-05-30
Test Protocol dated 2024-05-30

Other conditions

Material declaration for sealing rings shall be presented to DNV for each installation, ref. Pt.4 Ch.4 Sec.1 [1.5] Table 3.
Materials for FWD liner: S355, SS316 & SS304.
Materials for AFT liner: SS316L, A182 & duplex 2205

Marking of product

The product to be marked with manufacturer’s name or trademark and type number identification.

Periodical assessment

For retention of the Type Approval, a DNV surveyor shall perform an assessment after 2 years and after 3.5 years to verify that the conditions of the type approval are complied with. A renewal assessment will be performed at renewal of the certificate.

The objective of the Periodical Assessment is to verify that the conditions for the Type Approval are not altered since the Type Approval Certificate was issued. The main scope of the Periodical Assessment will normally include:

- Verification of the Type Approval applicant’s production and quality system w.r.t. ensuring continued consistent production of the Type Approved products at the Type Approval applicant’s own premises and at other companies that are given the responsibility for manufacturing of the products.
- Review of the Type Approval documentation and that this is still used as basis for the production
- Review of possible changes to the design, the material and the performance of the product
- Verification of the product marking.

END OF CERTIFICATE