DNV·GL

Certificate No:
TAS00000FW

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Rudder Bearing Bushing Material, Synthetic

with type designation(s)
Feroform T14

Issued to
Tenmat Ltd.
MANCHESTER, United Kingdom

is found to comply with
DNV GL class programme DNVGL-CP-0081 – Type approval – Synthetic bearing bushing materials

Application :

Maximum surface pressure 10 MPa for the synthetic bearing against steel, lubricated.
The approval is valid only when the installation of the product is according to the specified DNV GL Rules and the Manufacturer's specification.
Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2021-05-26**.

Issued at **Hamburg** on **2016-05-27**

for **DNV GL**

DNV GL local station: **Manchester**

Approval Engineer: **Joachim Rehbein**

Thorsten Lohmann
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.

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Product description

Feroform T14: Cured phenolic resin matrix reinforced with synthetic fiber cloth

Production site: Tenmat Ltd., Ashburton Road West, Manchester M17 IRU, United Kingdom

Application/Limitation

Fields of Application	- Rudder Neck Bearings - Rudder Pintle Bearings
Lubricants	- Water - Oil - Grease
Operational Limits	Maximum permissible surface pressure: - 10.0 MPa
Installation	- Freeze fit - Press fit - Adhesive bonding
Dimensions	According to the drawings approved by DNV GL

Installation shall be carried out only in accordance with the Rules and instructions of bearing manufacturer.
The maximum surface pressure of 10 N/mm² will be subject to evaluation with respect to service experience in connection with renewal of the certificate.
Any significant changes in design and/or quality of the material will render the approval invalid.

Assessed documentation

Tests carried out

Tests carried out at production site and witnessed by surveyor.

Marking of product

Product shall be marked with manufacturer's name and type designation.

The marking is to be carried out in such a way that it is visible, legible and indelible. The marking of product is to enable traceability to the DNV GL Type Approval Certificate.

Periodical assessment

The scope of the Periodical Assessment is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

Periodical Assessment shall be performed after 2.5 years (Certificate Retention) and at renewal after 5 years (Certificate Renewal).

END OF CERTIFICATE