

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Universal Shaft**

with type designation(s)

**Power Transmission Shaft for Schottel Rudder Propeller Systems Typ 2399-68/72/77/85/86/95/97**

Issued to

**Gelenkwellenwerk Stadtilm GmbH  
Stadtilm, Thüringen, Germany**

is found to comply with

**DNV GL rules for classification – Ships Pt.4 Ch.4 Rotating machinery – power transmission****Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Max nom. torque (Nm)****Max speed (RPM)                      see page 2**Issued at **Hamburg** on **2020-12-21**This Certificate is valid until **2025-12-20**.for **DNV GL**DNV GL local station: **Hamburg – CMC North/East**Approval Engineer: **Christof Kotzmann-Bendrien****Olaf Drews  
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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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

Power Transmission Shaft for Schottel Rudder Propeller Systems

## Application/Limitation

| Schottel Id.    | Torque [Nm] | Gewes-Typ/Size       |
|-----------------|-------------|----------------------|
| SRP 100         | 1855        | 2399-68-T1/03x11     |
| SRP/STP 150     | 3085        | 2399-72-T1/03x11     |
| SRP/STP 150     | 3085        | 2399-72-T2/03x11     |
| SRP/STP 150     | 3085        | 2399-72-T3/03x11     |
| SCD 150         | 3305        | 2399-72-03/02x11     |
| SRP 210         | 5659        | 2399-77-07/03x11     |
| SRE 210L        | 5660        | 2399-77-09/03x11     |
| SRP /STP 190    | 5047        | 2399-77-T1/03x11     |
| SRP /STP 230    | 6991        | 2399-85-T2/02x11     |
| SRP /STP 260    | 8913        | 2399-86-T1/02x11     |
| SRP 260 RT      | 7321        | 2399-86-04/02x11     |
| SCD 260         | 7958        | 2399-86-05/02x11     |
| SRP 270         | 7854        | 2399-86-08/03x11     |
| SRE 270         | 8725        | 2399-86-09/03x11     |
| SRP 340         | 19105       | 2399-95-S0/03x11     |
| SRP 340         | 19105       | 2399-95-T9/03x11     |
| SRP 340         | 19105       | 2399-95-R2+R3/03x11  |
| SRP 360/STP 340 | 21174       | 2399-95-R2+R3/03x11  |
| SRP 360         | 25071       | 2399-95-T1/03x11     |
| 1215            | 27285       | 2399-95-T1/03x11     |
| SRP 430         | 25432       | 2399-95-R0+R1/03x11  |
| SRP 430         | 25432       | 2399-95-R4+R5/03x11  |
| SRP 430         | 25432       | 2399-95-55/03x11     |
| 3000            | 28783       | 2399-95-36/03x11     |
| SRP 460         | 31450       | 2399-95-49/03x11     |
| SRP 460 L       | 34877       | 2399-95-56/02x11     |
| SRP 460         | 35822       | 2399-95-T1/03x11     |
| SRP 460         | 35820       | 2399-95-T7 +T8/02x11 |
| SRP 460         | 35820       | 2399-95-S3/03x11     |
| SRP 460         | 35820       | 2399-95-S4+S5/03x11  |
| SRP/SCD 510     | 38600       | 2399-97-09/03x11     |
| SRP 490         | 39303       | 2399-97-15/03x11     |
| 1520/2020       | 41007       | 2399-95-T5 +T2/02x11 |
| SRP 510/STP 560 | 44740       | 2399-95-32/03x11     |
| SRP 510         | 59770       | 2399-95-S6+S7/02x11  |
| SRP 610         | 53844       | 2399-97-16/03x11     |
| SRP 610 R       | 54935       | 2399-97-17/03x11     |
| SRP 630         | 64215       | 2399-95-T4 +T6/02x11 |
| SRP 630         | 64215       | 2399-95-S8 +S9/03x11 |
| SCD 710/STP 730 | 71021       | 2399-97-T4+T5/02x11  |
| SRE 340         | 15915       | 2399-95-51/02x11     |
| SRE 460 Z       | 27710       | 2399-95-53/03x11     |
| SRE 560         | 40049       | 2399-97-13+14/02x11  |

Gewes Edition 2020-12-07

The max. allowable speed for the actual application to be calculated according makers procedure described in the respective project calculation sheet.

## Type Approval documentation

Job Id: **262.1-034584-1**  
Certificate No: **TAM000016S**

## Marking of product

Manufacturer's name or trademark. Serial number designation.

## Periodical assessment

For retention of the Type Approval, a DNV GL surveyor shall perform a survey after 2 and 3,5 years and also before the expiry date of this certificate to verify that the conditions of the type approval are complied with.

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