

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Bending Compliant Couplings**

with type designation(s)

BOWEX type M/I, AS, Spec.-I, SG, SSR, SD, M...C, FLE-PA, FLE-PAC.

Issued to

KTR Systems GmbH**Rheine Nordrhein-Westfalen, Germany**

is found to comply with

DNV GL rules for classification – Ships**DNV GL rules for classification – High speed and light craft****DNVGL-OS-D101 – Marine and machinery systems and equipment, Edition July 2015****Application :****Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.**Issued at **Hamburg** on **2017-06-12**This Certificate is valid until **2022-06-11**.for **DNV GL**DNV GL local station: **Essen**Approval Engineer: **Erich Rüde**

Burkhard Lilienthal
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.



Product description

Curved-tooth gear coupling.

Application/Limitation

The approval is valid for auxiliary duty with ratings and applications according to general company catalogue 04/2017 chapter Bowex - Curved-tooth gear couplings (pages 81 to 103).

Nominal torque see KTR Catalogue 04/2017, page 84.

The approval is valid for auxiliary duty with ratings and applications according to KTR General Company Catalogue 04/2017.

Type Approval documentation

Tests carried out

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 GL 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.

In cases where the Type Approved product is manufactured at other companies, the Periodical Assessment shall verify that the Type Approval applicant has a quality control system for consistent production at their licensees/subcontractors. Furthermore Periodical Assessment shall be carried out randomly at these companies.

Other conditions

DNV GL product certificate is not required for auxiliary machinery installation with power ratings up to 500 kW and rated torque less than 5 kNm.

The type approval does not cover connection to external shaft.

This Type Approval Certificate TAM00000J1 is replacing following DNV Certificate:

- DNV Type Approval Certificate No. M-12343

END OF CERTIFICATE