

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Elastic Couplings

with type designation(s)
DCB-GS

Issued to

Renold Clutches and Couplings
Cardiff, United Kingdom

is found to comply with

DNV GL rules for classification – Ships

DNV GL rules for classification – High speed and light craft

Application :

The approval is valid for propulsion and auxiliary duty with limitations as given in the certificate.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Høvik** on **2017-05-24**

This Certificate is valid until **2021-06-30**.

DNV GL local station: **Southampton**

for **DNV GL**

Approval Engineer: **Dag Harald Williksen**

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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.



Product description

Flexible rubber couplings.

Application/Limitation

Valid for propulsion and auxiliary purposes, however not to be used for applications where reversed vibratory torques are expected such as for PTO driven machinery and propulsion with ice class.

This type approval covers the coupling sizes DCB-GS 614.5 ... 6311.0.

Ratings and technical data are according to DCB-GS Coupling Catalogue "E4-05-158 rev.101", with the following exceptions, substitutions and reservations:

- Tables of Rated Torque and Stiffness (pages 17 to 21) are not approved, but substituted by equivalent data of torque ratings, stiffness ratings and allowable dissipated heat in data sheet "DCB-GS Technical Data Revised 060111printversion.xls".
- Stiffness and damping parameters may have a variation in the range -20% ... +20% of the given parameters due to natural variations of rubber- / silicone element properties.
- Maximum ambient temperature for natural rubber elements is 70 °C.

Marking of product

The product shall be marked with manufacturer's name or trademark and type/serial 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.

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.

END OF CERTIFICATE