

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Clutch and Friction Brake Coupling for Shaft

with type designation(s)
KMS and KMS....AV

Issued to

GKN Stromag AG
Unna Nordrhein-Westfalen, Germany

is found to comply with

DNV GL rules for classification – Ships

DNV GL rules for classification – High speed and light craft

DNV GL rules for classification – Naval vessels

Application :

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

This Certificate is valid until **2021-06-29**.

Issued at **Hamburg** on **2016-10-14**

DNV GL local station: **Essen**

Approval Engineer: **Wolfgang Schütz**

for **DNV GL**

Frank Lutz
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

Hydraulically operated multi disc clutch

Application/Limitation

The dynamic torque T_{dyn} for the coupling as given in the coupling catalogue has to be between $1.3T_0$ - $1.8T_0$. (Ref. Rules for Classification - Ships Pt.4, Ch.4, Sec.3).

T_0 = maximum continuous torque for the application.

For ice class additional requirements to be observed (Ref. Rules for Classification – Ships Pt.6, Ch. 6).

Approved sizes:

3200 AV; 4500.1 AV; 4500 AV; 6300.1 AV; 6300 AV; 9000.1 AV; 9000.2 AV; 9000 AV; 12500 AV; 18000.1 AV; 25000.1 AV; 25000 AV; 600; 800; 1120; 1600.1; 1600; 2250.1; 3200; 4500; 6300; 9000; 12500; 18000; 25000.1; 25000; 36000, 50000; 200000

Size “200000” is not listed in catalogue no. D 228.

Type Approval documentation

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 a survey every second year and a half and before the expiry date of this certificate to verify that the conditions of the type approval are complied with.

Other conditions

The connection to driving and driven shaft is not included in the approval and has to be approved in each separate case.

This certificate replaces certificate no. M-12009, issued by DNV, and certificate 15 593 – 00 HH, issued by GL.

END OF CERTIFICATE