DNV·GL

Certificate No:
TAM0000149

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Reduction Gear for Propulsion

with type designation(s)
G60F

Issued to
Finnøy Gear & Propeller AS
HARØY, Norway

is found to comply with
DNV GL rules for classification – Ships

Application :

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

Input torque	**31.8 kNm**
Input speed	**750 rpm**
Reduction ratio	**4.08:1**

Issued at **Høvik** on **2019-10-09**

This Certificate is valid until **2024-10-08**.

DNV GL local station: **Norway CMC, Mid-North**

Approval Engineer: **Terje Ingvar Arvidsen**

for **DNV GL**

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.

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Product description
Single stage reduction gear with controllable pitch servo mechanism.

Application/Limitation
The reduction gear is approved for an application factor K_A = 1.30.

The following type approved Ortlinghaus clutches are included in the type approval:

Reduction ratio	Clutch	Maximum input torque [kNm]
4.08	0-002-833-78-000	28.5
	0-002-833-81-000	31.8

Type Approval documentation

Marking of product
The product is to be marked with manufacturer's name or trademark and type number identification.

Other conditions
The type approval is not valid for installations with higher ice-class notation than ICE-C.

The type approval does not include the following items:
- Connections to external shafts
- Fastening and mounting of gearbox
- Electric wiring, instrumentation and alarm settings

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.

END OF CERTIFICATE