

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Reduction Gear for Propulsion**

with type designation(s)
G27F

Issued to

Finnøy Gear & Propeller AS
HARØY, Norway

is found to comply with

DNV GL rules for classification – Ships

DNV GL rules for classification – High speed and light craft

Application :

Approval is valid for ratings as listed on page two

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

Input torque See page 2

Input speed 1800

Reduction ratio See page 2

Issued at **Høvik** on **2020-07-03**

This Certificate is valid until **2024-06-30**.

for **DNV GL**

DNV GL local station: **Kristiansund N**

Approval Engineer: **Nadine Grace Mosteiro**
Halvorsen

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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.

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

Single stage reduction gear with built in hydraulic operated clutch and servo cylinder for CP mechanism.

Application/Limitation

The type approval is valid for the following main data:

Reduction ratio [-]	Engine speed [rpm]	Input Torque [Nm]	Output Torque [Nm]
4,18:1	1800	2573	10756
4,48:1	1800	2175	9745
5,05:1	1800	1862	9404
5,50	1800	1539	8462
5,98:1	1800	1252	7450

Application factor: 1,25
Clutch type: Ortlinghaus 0-002-331-55-000
Max servo pressure: $5 T_0 + 2,25 \leq p \leq 6,4 T_0 + 2,25$
Max temperature for lub.oil. 50 °C

The approval does not include the flexible coupling.

Type Approval documentation

Marking of product

Marking of the product shall at least give the following information.

- Manufacturers name or trademark
- Type designation of the product under which it is type approved

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.

Other conditions

The type approval does not cover:

- The flexible coupling
- Ice class notations
- Electric wiring, instrumentation and automation
- Connection to external shaft components.
- Fastening and foundation of the gearbox including chocking calculations

END OF CERTIFICATE