

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Reduction Gear for Propulsion**with type designation(s)
G50

Issued to

Finnøy Gear & Propeller AS
HARØY, Norwayis found to comply with
Det Norske Veritas' Rules for Classification of Ships**Application :****Main Propulsion****Products approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Input torque** 6,71 to 23,3 kNm**Input speed** 750 to 1600 rpm**Reduction ratio** 3,24:1 to 6,96:1Issued at **Høvik** on **2018-07-06**This Certificate is valid until **2023-07-05**.for **DNV GL**DNV GL local station: **Kristiansund N**Approval Engineer: **Svein-Olav Hannevik**

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

Single stage reduction gear with built-in hydraulic clutch and controllable pitch servo mechanism.

Application/Limitation

The reduction gear is approved for an application factor $K_A=1.25$ and the ratings listed in the table below:

Reduction Ratio	Nom. Input Speed [rpm]	Nom. Input Power [kW]	Max. Input Torque [kNm]
3,24	750	1838	23,40
4,05	1000	1850	17,68
4,26	1000	1700	16,23
4,50	1000	1530	14,61
5,04	1200	1680	13,37
5,52	1500	1725	10,98
6,04	1500	1250	7,96
6,52	1600	1280	7,64
6,96	1600	1125	6,71

Type Approval documentation

Marking of product

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

Other Conditions

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

The approval does not cover 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, both referring to the issue date of the type approval certificate 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