

TYPE APPROVAL CERTIFICATE

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

with type designation(s)
HGH4TS430WS

Issued to

NOGVA HEIMDAL PROPULSION AS
Molde, Norway

is found to comply with

Det Norske Veritas' Rules for Classification of Ships/High Speed and Light Craft
DNV GL rules for classification – Ships

Application :

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

Input torque 2 x 2381 Nm

Input speed 1500

Reduction ratio 5.67

Issued at **Høvik** on **2020-06-18**

This Certificate is valid until **2025-06-17**.

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

for **DNV GL**

Approval Engineer: **Geir Olav Moen**

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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.



Job Id: **262.1-033866-1**
Certificate No: **TAM0000164**

Product description

Single stage reduction gear

Application/Limitation

Type	Ratio	Input torque [Nm]	Input power [kW]	Max.application Factor, Ka [-]	Input speed [RPM]	Face width [mm]
HGH4TS430WS	5.67	2 x 2381	2 x 374	1,3	1500	160

Type Approval documentation

Marking of product

The product is to be marked with the manufacturer's name or trademark and type 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.

Other conditions:

Alarm and monitoring systems are not part of the type approval.

END OF CERTIFICATE