

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Toothed Coupling

with type designation(s)
NSSH

Issued to

Kyushu Hasec Co., Ltd.
Nogata Fukuoka Pref., Japan

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

Application :

The approval is valid for propulsion and auxilliary duty.

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

Nominal torque See page 2 of this certificate

This Certificate is valid until **2021-12-31**.

Issued at **Høvik** on **2016-12-22**

DNV GL local station: **Hiroshima**

for **DNV GL**

Approval Engineer: **Dag Harald Williksen**

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.

Job Id:
Certificate No: **TAM00000DR**

Product description

Crowned and hardened tooth gear couplings

Application/Limitation

Approved torques:

Type	Max. Continuous Torque, [Nm]
NSSH-280	30390
NSSH-315	45903
NSSH-355	62720
NSSH-400	87279
NSSH-447	120501

The approval is valid for unidirectional load with a maximum application factor, K_A of 1,15.

Type Approval documentation

Marking of product

The product is to be marked with manufacturer's name and 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.

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.

Other conditions

The following are to be approved case-by-case for each delivery:

- Connections to adjacent shafts

END OF CERTIFICATE