

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Chain Stopper**

with type designation(s)

NP-1, NP-2, NP-3, NP-4, NP-5, NP-6, NP-7, NP-8, NP-9, NP-10, NP-11, NP-12, NP-13

Issued to

Varde AS**Kristiansund, Norway**

is found to comply with

DNV GL rules for classification – Ships**Application :**

Approved for use as chain stoppers between windlass and hawse pipe according to DNV GL Rules with chain cable size, grade VL K1,K2,K3 and maximum breaking load as listed for the different types.

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

Type	Cable diam. (mm)	Max break. load (kN)
NP-1	20-26	556
NP-2	28-34	937
NP-3	36-44	1540
NP-4	46-52	2110
NP-5	54-58	2600
NP-6	60-64	3130
NP-7	66-73	3990
NP-8	76-84	5160
NP-9	85-95	6440
NP-10	96-105	7700
NP-11	107-114	8890
NP-12	117-124	10280
NP-13	127-132	11420

Issued at **Høvik** on **2019-02-12**This Certificate is valid until **2024-02-11**.DNV GL local station: **Kristiansund N**for **DNV GL**Approval Engineer: **Chi Wan Bang**

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Aldo Matteucci
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

Type	Chain Cable Dia (mm)	Chain Quality	Max. Breaking Load (kN)
NP-1	20-26	K1, K2, K3	556
NP-2	28-34	K1, K2, K3	937
NP-3	36-44	K1, K2, K3	1540
NP-4	46-52	K1, K2, K3	2110
NP-5	54-58	K1, K2, K3	2600
NP-6	60-64	K1, K2, K3	3130
NP-7	66-73	K1, K2, K3	3990
NP-8	76-84	K1, K2, K3	5160
NP-9	85-95	K1, K2, K3	6440
NP-10	96-105	K1, K2, K3	7700
NP-11	107-114	K1, K2, K3	8890
NP-12	117-124	K1, K2, K3	10280
NP-13	127-132	K1, K2, K3	11420

All types are available with both standard height and with a 300 mm heighten frame.
All types are available with basic locking and adjustable locking.

Application/Limitation

- The connection and support of the chain stoppers to the ship's structure are not included in this approval and to be covered by separate approvals.
- All materials are to be delivered with required material certificates in accordance with DNVGL-RU-SHIP Pt.3 Ch.1 Sec.3 [3.1] and Ch.11 Sec.1 [6.2] with the specification from the approved drawings below.
- When the customer requires a DNV GL product certificate, a DNV GL Surveyor shall follow the applicable Rules requirements and relevant DNV GL's Work Process Instructions/Instruction to Surveyors.
- It is noted that your calculations assume "Locking device is only used for locking chain during transit". We understand that the locking device also will be used in order to stop the chain during anchorage. We have received calculation for NP-1 (J-3) documenting sufficient strength also when the locking device is enabled (at chain load 80 % of minimum breaking strength of the chain cable).

Type Approval documentation

Tests carried out

Type testing is not required for this kind of equipment.

Marking of product

Each chain stopper shall be marked with the manufacturer's name or trademark, chain diameter and type number identification.

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.

END OF CERTIFICATE