DNV·GL

Certificate No:
TAS0000284

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Cargo Securing Devices

with type designation(s)
Bottom Twistlock T3-1

Issued to
Yixing Boen Enterprises Co., Ltd.
YIXIN, China

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

Application :

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

SWL, tension (kN)	**250**
SWL, shear (kN)	**210**
SWL, compr. (kN)	**1000**

Issued at **Hamburg** on **2019-09-19**
This Certificate is valid until **2024-09-18**.
DNV GL local station: **Jiangyin**

for **DNV GL**

Approval Engineer: **Mark-Oliver Wobig**

Andree Orth
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.

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Job Id: **262.1-031495-1**
Certificate No: **TAS0000284**

Product description

Bottom Twistlock

Application/Limitation

Load	Tension [kN]	Shear [kN]	Compression [kN]
Test Load	313	263	1250
Breaking Load	500	420	2000

Tests to be carried out:

- Production testing: At least 2% of the items delivered are to be selected and subjected to the test load.
- Material tests are to be included energy testing at -20°C, with the impact energy requirements acc. to DNVGL-CP-0068. The material shall be according to the approved drawings. Material certificates shall be 3.1 acc. to ISO 10474:2013.

Type Approval documentation

Drawing No.	Rev.	Title
0004		Bottom Twistlock Type T3-1
0004-1		Housing
0004-2		Cone
		Handle & Spring

Tests carried out

The prototype test was carried out in Yixing, P.R. China, dated 2019-06-28 in accordance with the DNVGL-CP-0068.

Marking of product

Each item shall be marked by manufacturer for traceability.

Periodical Assessment

For retention of the Type Approval, a DNVGL surveyor shall perform a survey after 2 and 3.5 years, to verify that the Type Approval is complied with.