

TYPE APPROVAL CERTIFICATE

Certificate No:
TAS00001KX
Revision No:
1

This is to certify:**That the Cargo Securing Devices**

with type designation(s)
Twistlock BD-A2

Issued to

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) 600

Issued at **Hamburg** on **2018-08-01**This Certificate is valid until **2023-07-31**.DNV GL local station: **Ningbo**Approval Engineer: **Mark-Oliver Wobig****for DNV GL**Digitally Signed By: Orth,
Andree

Signing Date: Dienstag, 14. August 2018

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.



Job Id: **262.1-028785-1**
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Product description

Twistlock

Application/Limitation

Load	Tension [kN]	Shear [KN]	Compression [KN]
Test Load	313	263	750
Breaking Load	500	420	1200

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
BD-A2		Twistlock
BD-A1/L		Shaft
BD-A2/(L)		Body(L)
BD-A1/R		Shaft
BD-A2/(R)		Body (R)

Drawing Approval: Ref. No. 08-025876 dated 2008-02-26

Tests carried out

The prototype test was carried out in Ningbo, P.R. China, dated 2018-07-13 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.