



Certificate No:
TAS00003W4

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Cargo Securing Devices

with type designation(s)

Fully Automatic Twistlock TL-FA/GL28, TL-FA/GL30

Issued to

SEC Ship's Equipment Centre Bremen GmbH & Co. KG
Bremen, Germany

is found to comply with

DNV rules for classification – Ships

Application :

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

SWL, tension (kN) 250

SWL, shear (kN) 210

SWL, compr. (kN) 1200

Issued at **Hamburg** on **2024-01-24**

This Certificate is valid until **2029-01-23**.

for **DNV**

DNV local unit: **Hamburg – CMC North/East**

Approval Engineer: **Aadil Wafdi**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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.



Product description

Fully Automatic Twistlock

Application/Limitation

Load	Tension [kN]	Shear [kN]	Compression [kN]
Test Load	313	263	1500
Breaking Load	500	420	-

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 DNV-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
P-TL 9257 A	A	Fully Automatic Twistlock TL-FA/GL28
P-TL 9266		Fully Automatic Twistlock TL-FA/GL30
P-TL 9258 B	B	Body for TL-FA/GL28
P-TL 9267		Body for TL-FA/GL30
P-TL 9111 B	B	Spring
P-TL 9247 B	B	Locking Device

Drawing approval: Ref.No. 262.1-039631-1, dated 2023-04-30

Test report No.: CP-0068 dated 2023-07-24

Tests carried out

The prototype test was carried out in Shanghai, P.R. China, dated 2023-07-24 in accordance with the DNV-CP-0068.

The operational test was carried out in Zarrenthin, Germany, dated 2023-06-07 in accordance with the DNV-CP-0068.

Additional to requirements of the DNV-CP-0068 the operational test was extended by a pull test with a pull-out force of 500 kN. Under this pull-out force the tested twistlocks remained in their positions. After the test no recipient cracks nor permanent deformations could be found at the tested specimen.

The topplate of the container corner, which was subjected to pull-out force by the twistlock's latch was largely deformed due to the pull-out force. In the operational test a twistlock opening of 13 mm under a pull-out force of 275 kN was measured.

Marking of product

Each item shall be marked by manufacturer for traceability.

Periodical Assessment

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