Certificate no.:
TAS000043F

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Cargo Securing Device

with type designation(s)
Semi-Automatic Intermediate Twistlock SATL1W

issued to
Mercantile Shipping Agencies
Mumbai, Maharshtra, India

is found to comply with
DNV class programme DNV-CP-0068 – General – Certification of container securing devices

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)	

Issued at **Hamburg** on **2023-11-14**
This Certificate is valid until **2028-11-13**.
DNV local unit: **India CMC & NB**

for **DNV**

Approval Engineer: **Daniel Abt**

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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

Semi-Automatic Intermediate Twistlock SATL1W

Application/Limitation

Load	Tension [kN]	Shear [kN]
Test load	313	263
Breaking load	500	420

Tests to be carried out:

- Production testing: At least 2% of the iterms 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. Maternal certificates shall be 3.1 acc. To ISO 10474:2013.

Type Approval documentation

Drawing No.	Rev.	Title
SATL1W	1	Semi-automatic intermediate twist lock
SATL1W-1		Cone with spring
SATL1W-2-a		The Left Housing
SATL1W-2-b		The Right Housing
SATL1W-3		M10 Bolt
SATL1W-4		Handle
SATL1W-5		Spring
SATL1W-6		Guide Block

Tests carried out

The prototype test was carried out in Yixing, China, dated 2022-12-30 in accordance with the DNV CP-0068.

Marking of product

Each item shall be marked by manufacturer for traceability.

Periodical assessment

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