Certificate no.:
**TAS00004G1**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**that the Cargo Securing Devices**

with type designation(s)
**Flush Cloverleaf A13-3A/25**

issued to
## CSSC LUCKY SEA(KUNSHAN) HIGH-TECH CO.,LTD.
**Kunshan**, **China**

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) 125**

Issued at **Hamburg** on **2024-10-28**
This Certificate is valid until **2029-10-27**.
DNV local unit: **Shanghai**

for **DNV**

Approval Engineer: **Mark-Oliver Wobig**

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 USD 300 000.

**Product description**

Flush Cloverleaf

**Application/Limitation**

| Load | Tension [kN] |
|---|---|
| Test Load | 157 |
| Breaking Load | 250 |

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 0°C, with the impact energy requirements acc. to DNV-CP-0068. The material shall be according to the approved drawings. Material certificates shall be issued by the society.
- All welding-in pockets of support fittings shall be checked for tightness and delivered with proof issued by the manufacturer. The Society reserves the right to be present at tightness test.
- The Flush Socket shall be used in Cargo Hold only.

**Type Approval documentation**

| Drawing No. | Rev. | Title |
|---|---|---|
| K-A13-3A/25 | | Flush Cloverleaf |

Drawing approval: Ref.No. 262.1-042547-1, dated 2024-10-21
Test report No.: CSSC Lucky Sea (Kunshan) High-tech Co.Ltd. dated 2024-09-25

**Tests carried out**

The prototype test was carried out in Kunshan, P.R. China, dated 2024-09-25 in accordance with the DNV-CP-0068.

**Marking of product**

Each item shall be marked by manufacturer for traceability.