DNV·GL

Certificate No:
**TAS00001ZS**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Cargo Securing Devices**

with type designation(s)
**Breech base bottom twistlock B-22**

Issued to
**Container Technics NV**
**Wijnegem, Antwerpen, Belgium**

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)** | **250** |

Issued at **Hamburg** on **2019-04-02**
This Certificate is valid until **2024-04-01**.
DNV GL local station: **Antwerp**

Approval Engineer: **Mark-Oliver Wobig**

for **DNV GL**

**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: **262.1-013849-2**
Certificate No: **TAS00001ZS**

## Product description

Breech base bottom twistlock

## Application/Limitation

| Load | Tension [kN] | Shear [kN] | Compression [kN] |
|---|---|---|---|
| Test Load | 275 | 231 | 275 |
| Breaking Load | 500 | 420 | 500 |

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 shall include impact testing at 0°C, with the impact energy requirements acc. to DNVGL-CP-0068. The fitting is intended for cargo hold use only. 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 |
|---|---|---|
| B-22 | k | Breech base bottom twistlock (pages 1-4) |

### Tests carried out

The prototype test was carried out in Kunshan, P.R. China, dated 2018-11-28 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.