

TYPE APPROVAL CERTIFICATE

This is to certify:

That the D Shackle for Roll Thimble

with type designation(s)
ASAC1506-07Z01-R

Issued to

Jiangsu Asian Star Anchor Chain Co., Ltd.
JINGJIANG JIANGSU, China

is found to comply with
DNVGL-OS-E302 – Offshore mooring chain, Edition July 2015

Application :

to be used for Temporary, Mobile and Long Term Mooring
as defined in DNVGL-OS-E301, Position Mooring, July 2015

This Certificate is valid until **2021-01-31**.

Issued at **Høvik** on **2016-02-01**

DNV GL local station: **Jiangyin**

for **DNV GL**

Approval Engineer: **Pierre-Eric Moulia**

Inger-Helene Hals
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: **262.1-019897-2**
Certificate No: **TAS00000B1**

This type approval certificate TAS00000B1 replaces S-8765 which is extended to long term mooring.

Product description

R4 grade D Shackle for Roll Thimble (for connecting fibre ropes in mooring lines), in 4 sizes:

- Bow diameter 144 mm with MBL 10741 kN (corresponding to Ø104 mm R4 chain)
- Bow diameter 160 mm with MBL 12250 kN (corresponding to Ø113 mm R4 chain)
- Bow diameter 167 mm with MBL 13720 kN (corresponding to Ø120.7 mm R4 chain)
- Bow diameter 190 mm with MBL 15680 kN (corresponding to Ø130.6 mm R4 chain)

Application/Limitation

The D shackle is to be used in Temporary, Mobile and Long Term Mooring lines as defined in Offshore Standard DNVGL-OS-E301 Position Mooring July 2015.

The D shackle shall be manufactured and tested in accordance with Offshore Standard DNVGL-OS-E302 Offshore Mooring Chain July 2015.

The approval is conditional that manufacturer is holding an Approval of Manufacturer DNVGL Certificate.

Individual Product Certificate is to be issued for each delivery.

Type Approval documentation

Tests carried out

For every order testing shall be carried out according to DNVGL-OS-E302 July 2015.

Marking of product

Each shackle shall be marked according to Offshore Standard DNVGL-OS-E302 July Ch2 Sec2 §1.4 & §3.9.

Periodical assessment

For retention of the Type Approval, DNVGL surveyor shall perform a survey every 2 ½ year and before the expiry date of this Certificate to verify that the conditions of the type approval are complied with.