

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Chain, shackles, swivels, sockets**with type designation(s)
H2140 Bow Shackles

Issued to

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

is found to comply with

DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2018-04-26**This Certificate is valid until **2023-04-25**.DNV GL local station: **Jiangyin**for **DNV GL**Approval Engineer: **Antonio Sendin Alvarez**

Aldo Matteucci
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.



Product description

H2140 bow shackles with the following characteristics:

SWL's = 55, 85 and 150 tonnes

Maximum allowable dynamic amplification factor (DAF) = 1.3

Design temperature: -20 °C

Application/Limitation

1. All materials are to be delivered with 3.1 certificates, documenting mechanical properties and chemical composition in accordance with the Type Approval documentation.
2. It is the responsibility of the Holder of the Certificate to ensure that both design and production are in compliance with Rules, Standards and/or Regulations listed on page 1 of this Type Approval Certificate.

Type Approval documentation

Tests to be carried out

Prototype tests carried out and witnessed by DNV GL Jiangyin between 16-04-2018 and 19-04-2018. In order to obtain a CG3 certificate, each shackle shall be tested according to DNVGL-ST-0378 Table 14-2.

Marking of product

Each shackle shall be marked according to DNVGL-ST-0378 Sec.14.5

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.

END OF CERTIFICATE