

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Slim Kenter Shackle**with type designation(s)
QACC201909-SLIM-KS-00

Issued to

Qingdao Anchor Chain Co., Ltd.
Qingdao, Shandong, P.R., Chinais found to comply with
DNVGL-OS-E302 – Offshore mooring chain, Edition July 2018**Application :****To be used for Temporary Mooring,**
as defined in DNVGL-OS-E301 Position Mooring July 2018.Issued at **Høvik** on **2020-01-22**This Certificate is valid until **2025-01-21**.DNV GL local station: **Qingdao**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.



Product description

Non-standard slim kenter shackles, with 2-teeth locking mechanism, taper pin and 2-noses locking stone.

This approval covers sizes 62, 64, 66, 68, 70, 73, 76, 78, 81, 84, 87, 90, 92, 95, 97, 100 and 102 mm in R3, R3S and R4 grades.

Application/Limitation

The approval is conditional that the manufacturer is approved by DNVGL to make R3, R3S and R4 grade material.

The slim kenter shackles are to be used in connection with mooring lines for Temporary (not Mobile) Mooring as defined in Offshore Standard DNVGL-OS-E301 "Position Mooring" July 2018.

The slim kenter shackles shall be manufactured and tested in accordance with Offshore Standard DNVGL-OS-E302 "Offshore Mooring Chain" July 2018.

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 2018.

Marking of product

Each slim kenter shackle shall be marked according to Offshore Standard DNVGL-OS-E302 "Mooring Chain" July 2018 Ch2 Sec2 §1.4 & §3.9

Periodical assessment

For retention of this Type Approval, a DNVGL surveyor shall perform a periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days). The objective of the periodical assessment is to verify that the conditions for the Type Approval have not been altered. (Ref DNVGL-CP-0338 Type approval scheme).