

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Pear Kenter Shackle**with type designation(s)
QACC201712-LKS-00

Issued to

Qingdao Anchor Chain Co., Ltd.
Qingdao Shandong Province, Chinais found to comply with
DNVGL-OS-E302 – Offshore mooring chain, Edition July 2015**Application :****to be used for Temporary Mooring**
as defined in DNVGL-OS-E301, Position Mooring, July 2015**Product(s) approved by this certificate is/are accepted for installation on all vessels classed**
by DNV GL.Issued at **Høvik** on **2017-12-22**This Certificate is valid until **2022-12-21.**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.



Job Id: **262.1-027772-1**
Certificate No: **TAS00001B9**

Product description

Pear Kenter Shackles to connect temporary mooring chains.
This approval covers 11 sizes in R3, R3S and R4 grades.

No	Max chain diameter (mm)
2	24
3	30
4	40
5	51
6	60
7	79

No	Max chain diameter (mm)
8	92
9	95
10	102
11	108
12	114

Application/Limitation

The approval is conditional that the manufacturer is approved by DNVGL for the given grade and diameter.

The shackle is to be used in connection with chains for Temporary Mooring as defined in Offshore Standard DNVGL-OS-E301 "Position Mooring" July 2015.

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

Individual Product Certificate is to be issued for each delivery.

Type Approval documentation



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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, a DNVGL surveyor shall perform a survey after 2 years and another one after 3,5 years (+/- 90 days), to verify that the type approval is complied with.