DNV·GL

Certificate No:
TAS00001H7

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Chain, shackles, swivels, sockets

with type designation(s)
Green pin standard shackles, Green pin polar shackles

Issued to
Van Beest B.V.
Sliedrecht, Zuid-Holland, Netherlands

is found to comply with
DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances

Application :

Loose gears for offshore cranes

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Høvik** on **2018-06-06**
This Certificate is valid until **2023-06-05**.
DNV GL local station: **Rotterdam, Offshore & Newbuilding**

Approval Engineer: **Antonio Sendin Alvarez**

for **DNV GL**

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.

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Job Id: **262.1-015665-2**
Certificate No: **TAS00001H7**

Product description

Green pin standard shackles and green pin polar shackles:

Minimum design temperature: -20 deg.
Dynamic factor (DAF): 1.3
Safe Working Load (SWL) as stated in the type approved drawings.

Application/Limitation

1. All materials are to be delivered with 3.1 material certificates, documenting mechanical properties and chemical composition in accordance with the Type Approval documentation.
2. Material specification for each shackle is stated in the type approved documentation.

Type Approval documentation

Tests carried out

Prototype tests carried out 2013-02-22 on parts GPGHMB45, GPGHMB35, GPGHMB22, GPGHMB16 and witnessed by the DNV GL surveyor

In order to obtain a CG3 certificate covering a batch of shackles, at least the 10% of the shackles included in the batch shall be tested according to the DNVGL-ST-0378 Table 14-2

Marking of product

Each shackle is to 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