DNV·GL

Certificate No:
TAS00000XK

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Lifting set for Offshore containers and Portable Offshore Units

with type designation(s)
Chain for Offshore Containers and Portable Offshore Units

Issued to
THIELE GmbH & Co. KG
Iserlohn, Nordrhein-Westfalen, Germany

is found to comply with
DNV GL standard DNVGL-ST-E271 – 2.7-1 Offshore containers, August 2017
DNV GL standard DNVGL-ST-E273 – 2.7-3 Portable offshore units, December 2016
EN 818-2 Short link chain for lifting purposes – Safety – Part 2: Medium tolerance chain for chain for chain slings – Grade 8
ISO 10855-2:2018 Offshore containers and associated liftings sets – Part 2: Design, manufacture and testing of lifting sets
IMO/MSC Circular 860

Application :

Grade 8 Short Link Chain for Lifting Sets for Offshore Containers and Portable Offshore Units

Issued at **Høvik** on **2018-07-17**
This Certificate is valid until **2022-12-30**.
DNV GL local station: **Essen**

Approval Engineer: **Nina Thorvaldsen Moberg**

for **DNV GL**

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.

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Product description

This Type Approval Certificate replaces Type Approval Certificate S-7304.

Chain for use in Lifting Sets for Offshore Containers certified to standard DNVGL-ST-E271 - 2.7-1 Offshore Containers (DNV GL 2.7-1) or standard DNVGL-ST-E273 - 2.7-3 Portable Offshore Units (DNV GL 2.7-3) according to EN 818-2 Short link chain for lifting purposes - Safety - Part 2: Medium tolerance chain for chain slings, Grade 8.

Detailed product information and range of certified products covered by this Type Approval are listed in Appendix 1 of this Type Approval Certificate.

Application/Limitation

All production testing to be according to Thiele's procedure TA DNV 2.7-1 Aug. 2017 App. H.3.1 S8067, 8069, 7302, 7304 v 11.07, DNV GL 2.7-1, EN 818-2 and in agreement with the DNV GL surveyor. Material to be impact tested by Charpy impact method according to DNV GL 2.7-1, Section 8.4.

For application of chains the minimum working load limit (WLL) shall be decided according to the strength requirements for lifting sets on offshore containers as given in DNV GL 2.7-1, Section 8.

The manufacturer shall issue product certificates according to Section 8.5 in DNV GL 2.7-1 or Section 7.5 in DNV GL 2.7-3, using the certificate form TVA-U1.4-FB3-004 Rev. 03. This certificate form is only to be used for chains certified according to this Type Approval.

For chains certified according to DNV GL 2.7-3
Prior to selection of chain the minimum required working load limit (WLL) shall be decided according to the strength requirements for lifting sets on portable offshore units as given in DNV GL 2.7-3, Section 7.3.2. Resulting sling force (RSF) can be found in the Design Verification Report (DVR) issued by DNV GL for the Portable Offshore Unit. The DVR shall be available for the chain manufacturer.

Type Approval documentation

Tests carried out

Prototypes tested according to standards listed on the front page of this type approval certificate.

Marking of product

Marking should be according to DNV GL 2.7-1, Section 8 and EN 818-2 Section 7.

Periodical assessment

For retention of the Type Approval, a DNV GL surveyor shall perform an assessment every 6 months and before the expiry date of this certificate to verify that the type approval is complied with.

END OF CERTIFICATE

Appendix 1

Chain Type (dwg DIN EN 818-2_Auszüge):

Type	Dia. [mm]	WLL [t]	MPF [kN]	Min. BF [kN]
8 x 24	8	2,0	50,3	80,4
10 x 30	10	3,15	78,5	126
13 x 39	13	5,3	133	212
16 x 48	16	8,0	201	322
18 x 54	18	10,0	254	407
20 x 60	20	12,5	314	503
22 x 66	22	15,0	380	608
26 x 78	26	21,2	531	849
28 x 84	28	25,0	616	985
32 x 96	32	31,5	804	1290
36 x 108	36	40,0	1020	1630
40 x 120	40	50,0	1260	2010
45 x 135	45	63,0	1590	2540