



# DET NORSKE VERITAS

## TYPE APPROVAL CERTIFICATE

**CERTIFICATE NO. S-6008**

This Certificate consists of 4 pages

*This is to certify that the*  
**Lifting Sets for Offshore Containers**  
*with type designation(s)*  
**Wire Rope Slings for Offshore Containers**

*Manufactured by*  
**Certex (UK)**  
Aberdeen, United Kingdom

*is found to comply with*  
DNV 2.7-1 Offshore Containers  
EN 12079-2 Offshore containers and associated lifting sets Part 2: Lifting sets Design,  
manufacture and marking  
EN13414-1 Wire rope slings  
IMO/MSC Circular 860

*Application*  
1-, 2-, 3- & 4- Part Lifting Sets,  
with Forerunner where fitted  
for  
Lifting of Offshore Containers  
with Maximum Gross Mass 0 - 25.000 kg

*Place and date*  
Høvik, 2009-11-24  
for DET NORSKE VERITAS AS

Astri Haukerud Gaarde  
*Head of Section*



*Local Office*  
DNV Aberdeen

*This Certificate is valid until*  
2013-12-31

Ekaterina Safonova  
*Surveyor*

**Notice: 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.**

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Cert. No.: S-6008  
File No.: 911.53  
Case No.: 262.1-008940-1

## Product description

The Type Approval Certificate covers wire rope slings assembled by Certex UK, according to DNV 2.7-1 Offshore Containers.

Wire rope slings are approved for following dimensions: 18 – 36 mm diameter

The wire rope slings assembled by Certex UK typically consist of components from the following sub suppliers:

Component	Sub supplier (DNV to be informed and review new sub suppliers)	DNV TA Cert. number
Master link & Quad assembly	- Crosby Group, Inc. - Gunnebo Industrier AB	S-5813 S-5264
Wire rope <sup>1)</sup>	- Industrial Ropes Ltd. - Gunnebo-Anja AS	NA
Shackles (captive type only)	- Crosby Group, Inc. - Gunnebo	S-5685 S-5661
Ferrules <sup>2)</sup>	- Unisplice Ltd (SAHM Group)	NA
Thimbles <sup>3)</sup>	- Unisplice Ltd. - Crosby Group, Inc. - George Taylor	NA

- 1) Wire ropes used in fore runner and bottom legs of lifting slings assembled by Certex UK to be 6 x 36, Fibre Core (FC) or Independent Wire Rope Core (IWRC) with wire rope grades 1770 N/mm<sup>2</sup> and 1960 N/mm<sup>2</sup> in accordance with ANSI/API 9A, EN12385, or equivalent.
- 2) Ferrules / sleeves: According to EN 13411-3, or equivalent.
- 3) Thimbles: EN 13411-3, or equivalent.

Components should be delivered with the following certificates:

- Master Links, Quad assemblies:  
Certificates based on DNV Type Approval.
- Wire Ropes:  
To be supplied with traceable material certificates according to EN 10204, inspection certificate, type 3.1.
- Thimbles and ferrules.  
To be supplied with a material certificate to EN 10204, test report, type 2.2.



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## Application/Limitation

Lifting sets shall be assembled according to the strength requirements for lifting sets on Offshore Containers as described in DNV 2.7-1 Offshore Containers, Chapter 8. The angle of the sling legs from vertical should be taken into account when choosing slings. This angle should normally be 45°, but smaller angles can be used.

Special slings, assembled according to the principles described in DNV 2.7-1 Offshore Containers, Chapter 8 and Appendix E, are also covered by this Type Approval. However, if unsymmetrical slings are to be assembled, local DNV office are to be contacted for reviewing in each case, unless otherwise is agreed with local DNV office.

Note: The sling leg is not necessarily the weakest part of the lifting set. Master link assemblies selected for slings with legs at 45° may not be suitable for slings with a smaller angle.

For each delivered drum of wire rope, a test leg with one eye in each end to be prepared and tested to breaking. A reference should be made to the wire drum test report in each sling set certificate where that wire is used.

All production testing to be according to Certex UK LCP.01 & LCP.02 procedures and to be agreed with local DNV office.

The manufacturer shall issue manufacturers certificates according to Sec. 8.5 in DNV 2.7-1, using the certificate form listed below. This certificate form is only to be used for slings certified according to this Type Approval Certificate.

## Type Approval documentation

<b>Title:</b>	<b>Rev.</b>
HSEQ.026 – “Manufacture and Supply of DNV Type Approved Steel wire rope slings”	Edition 01

In addition the following documents are used as information for the Type Approval:

- Test certificates for:
- Wire ropes

Approval letter EOCNO724/SAFON/262.1-00940-J-6, dated 2009-11-26  
Test report No. EP009163.01, endorsed by DNV Aberdeen, dated 2009-12-09.  
Certex UK Certificate for Offshore Container Wire Rope Lifting Slings, Form No. HSEQ.026 Appendix 3 Edition 01.

## Tests carried out

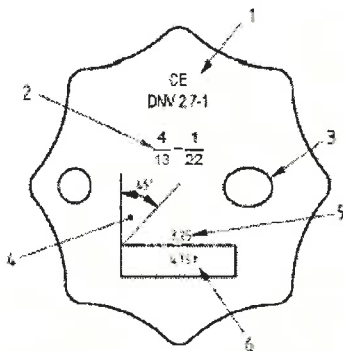
Prototype test to Breaking Load of assembled wire sling legs.



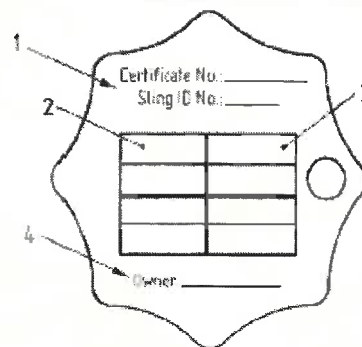
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## Marking of product

Slings are to be marked with certification tag according to DNV 2.7-1 Offshore Containers, Chapter 8, as shown below:



Example of identification tag for a chain sling – Front



Example of identification tag for a chain sling – Back

- 1) CE mark and Reference to this Standard for Certification (optional)
- 2) 4 legs of 13 mm, 1 forerunner of 22 mm (example)
- 3) Manufacturer's mark
- 4) Sling angle
- 5) Shackle size
- 6) WLL (max rating of an offshore container where this sling may be used)

- 1) Certificate number (and unique identification number if applicable)
- 2) Column 1: inspectors mark, inspection suffix and date of periodic inspections (shall be of format YY-MM-DD)
- 3) Column 2: shackle ID number
- 4) The owner's name may optionally be included

## Certificate retention survey

In order to maintain the validity of the type approval, certificate retention surveys are to be carried out according to DNV 2.7-1. Intervals are not to exceed 6 months.

END OF CERTIFICATE