

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Lifting Gear**

with type designation(s)
Lifting Sets and sling legs

Issued to

Hendrik Veder Group UK Ltd
Aberdeen, United Kingdom

is found to comply with
IS 2762:2009 Wire Rope Slings and Sling Legs

Application :

1, 2, 3 and 4 leg lifting sets, with forerunner where fitted, with maximum wire rope diameter of 60 mm, certified in accordance with Indian Standard IS 2762:2009 Wire Rope Slings and Sling Legs.

Issued at **Aberdeen** on **2019-12-23**

This Certificate is valid until **2024-12-22** .

DNV GL local unit: **Aberdeen**

for **DNV GL**

Approval Engineer: **Ronald Quiballo**

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Elisabeth Legg
Principal Engineer

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: **262.1-032687-1**
Certificate No: **TAS00002BG**

Manufactured by

DNV GL CIM No.: 10587623

DNV GL CIM No.: 155811

Responsibility

Hendrik Veder Group UK Ltd. takes responsibility that both design and production are in compliance with the Rules, Standards and/or Regulations listed on page 1 of this Type Approval Certificate.

Type Approval documentation

The Type Approval Certificate covers wire rope slings described in Appendix 1, assembled by Hendrik Veder Group UK Ltd according to Indian Standard IS 2762:2009 Wire Rope Slings and Sling legs.

For Offshore Use, the sling wire rope diameter obtained according to this standard shall be assessed in accordance with DNVGL-ST-E271: 2017 Offshore Containers Table E-3 and Table 8-1 to obtain the appropriate offshore Working Load Limit for the lifting set.

The wire rope lifting sets assembled by Hendrik Veder Group UK Ltd consist of components from the following sub suppliers:

Component	Sub supplier (DNV GL to be informed and review new sub suppliers)	DNV GL TAC number
Master link & quad assembly ¹⁾	Scaw South Africa (Pty) Limited Gunnebo Industrier AB Crosby Group LLC Kjættingfabriken AS Yoke Industrial Corp.	TAS000013Z TAS00000TE TAS000001V ⁶⁾ TAS0000047 TAS000005Z
Wire rope ²⁾	Hendrik Veder Group BV Ropenhagen Usha Martin Ltd	N/A
Shackles ³⁾	Yoke Industrial Corp. Van Beest BV Crosby Group LLC Gunnebo-Anja Industrier AS	TAS0000241 TAS000011V TAS00000HA TAS00001B8
Ferrules ⁴⁾	Talurit Sahm Splice Ltd Crosby Group LLC	N/A
Thimbles ⁵⁾	Talurit George Taylor Sahm Splice Ltd Crosby Group LLC	N/A

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- 1) Masterlink and Quad Assemblies: According to IS 2760:1980, or equivalent.
- 2) Wire ropes used in lifting sling legs shall be 6 stranded, class 6 x 19 or 6 x 36, Independent Wire Rope Core (IWRC), with wire rope grade 1770 or 1960 N/mm², in accordance with IS 2266:2002 or equivalent.
- 3) Shackles are only considered part of the lifting set if captive (i.e. they cannot be removed after assembly of lifting set).
- 4) Ferrules/sleeves shall be in accordance with IS 10942:2000, or equivalent.
- 5) Thimbles shall be in accordance with IS 2315:1978, EN 13411-1, or equivalent.
- 6) At the time of publication, the referenced type approval is in the process of being renewed.

Components shall be delivered with the following certificates:

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

Application/Limitation

All production testing shall be carried out in accordance with Hendrik Veder Group UK Ltd procedures, to be agreed with the local DNV GL office.

The manufacturers shall issue product certificates in accordance with Section 11 of IS 2762, using the certificate forms No. QFISCTE01 Rev.01 and No. QFISCTEH01 Rev.01. These certificate forms are only to be used for lifting sets certified in accordance with this Type Approval Certificate.

This Type Approval certificate is not valid for designs, components, equipment, systems or products which are subject to classification by DNV GL.

For slings manufactured in accordance with IS 2762:2009

Lifting sets shall be assembled according to the strength requirements for lifting sets described in Section 9 of the standard and using the angle coefficients given in Annex A of the standard. The coefficient of utilisation for the wire rope must be 6, and the wire rope diameters calculated on the basis of the minimum breaking forces given in Table 6 of Indian Standard IS 2266:2002 Steel Wire Ropes for General Engineering Purposes, for 1770 grade wire rope.



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Type Approval documentation

Tests carried out

Prototype breaking load test of assembled wire rope sling leg.

Marking of product

For lifting sets manufactured in accordance with IS 2762:2009 refer to Section 10.1.

Periodical assessment

In order to maintain the validity of the type approval certificate, periodical assessments should be carried out every 12 months.

END OF CERTIFICATE

Appendix 1

Wire rope slings with aluminium or steel ferrules assembled by Hendrik Veder Group UK Ltd, covered by this Type Approval Certificate

Product Name	Applicable Standards	Material Grades	Parameter range (Multi-leg)			
			SIZE(Ø) [mm]	WLL [t]	PL [kN]	BL [kN]
Steel wire rope	IS 2266 (EN12385-4)	1770 N/mm ²	60 max	97.21	757	2270
			56 max for forerunner	25.0	245	1978
Link assemblies	IS 2760 (EN1677-4)	Grade 8	57/50	67.0	1643	3285
			22/20~40/31 or equivalent	~28.1	~208 - 689	~416 - 1377
Shackles	IS/ISO 2415 (EN13889)	Grade 6	50	35	686	1716
			~35	~13.5	~265	~662

Note 1: Parameters highlighted in green, are those applicable for lifting sets complying with IS 2762. The lower values apply to lifting sets used for DNVGL-ST-E271 certified offshore containers.

Note 2: The information given above is intended as a guide only. For special (e.g. asymmetric) lifting sets, other sizes may be appropriate.