

ABERDEEN LIFTING SERVICES LTD

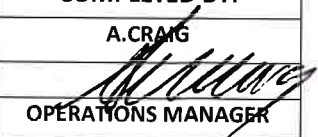


E.C. DECLARATION OF CONFORMITY

CLIENT: BLUE MANTA 6 KIRKTON AVENUE PITMEDDEN ROAD IND. ESTATE DYCE AB21 0BF	NAME AND ADDRESS OF MANUFACTURER: ABERDEEN LIFTING SERVICES LTD HOWE MOSS CRESCENT KIRKHILL IND ESTATE ABERDEEN, AB21 0GN TEL: 01224 723333 FAX: 01224 723311 EMAIL: info@aberdeenlifting.co.uk
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DECLARATION No.	CUSTOMER ORDER No.		REQUISITION No.	DATE
L4474-02	32698			07/10/2019
I.D. NUMBER	QTY	DESCRIPTION	WLL/ PAYLOAD	PROOF LOAD
BM-SP-6564/1	1	FOUR LEG WIRE ROPE SLING TO DNVGL-ST-E271 (2017) LEGS 2.4MTR x 26MM DIA IWRC FITTED TO HA32QA QUAD ASSEMBLY TENSILE GRADE: 1960N/mm2	10 TONNE 0-45 DEG	17.4 TONNE PER LEG
64/2-5	4	SAFETY PIN BOW SHACKLES	8.5 TON	17 TON

DECLARATION: Aberdeen Lifting Services declare that the items described above comply with all the requirements of The Machinery Directive 2006/42/EC.

	COMPLETED BY:
PRINT NAME	A.CRAIG
AUTHORISED SIGNATURE	
POSITION	OPERATIONS MANAGER
DATE	07/10/2019

NEXT INSPECTION DATE: 06/04/2020
DATE OF MANUFACTURE: 07/10/2019

Note: Before using this equipment the duty holder shall ensure that the relevant correct use and care instructions are issued to the user or operator. Copies are available on request.

CERT No: PP094474-4099



ABERDEEN LIFTING SERVICES LTD

CERTIFICATE FOR OFFSHORE CONTAINER LIFTING SLINGS

MANUFACTURER:	ABERDEEN LIFTING SERVICES LTD		ADDRESS:	HOWE MOSS CRESCENT KIRKHILL IND EST DYCE ABERDEEN, AB21 0GN
CLIENT	BLUE MANTA			
DET NORSKE VERITAS TYPE APPROVAL No:		TYPE DESIGNATION:		
TAS000002B		LIFTING SETS FOR OFFSHORE CONTAINERS		
DESCRIPTION OF THE SLING:		IDENTIFICATION No:		
2 x 4 LEG WIRE ROPE SLING		SLINGS: BM-SP-6563/1, BM-SP-6564/1 SHACKLES: 63/2-5, 64/2-5		
WORKING LOAD LIMIT (WLL)	ANGLE OF LEGS (TO VERTICAL)	DIAMETER OF SLING LEGS:	LENGTH OF LEGS:	
10 TONNE	0-45 DEG	26MM DIA IWRC	2.4 MTR	
WIRE ROPE SLINGS				
REFERENCE STANDARD:		GRADE OF WIRE ROPE	GRADE OF TERMINAL FITTINGS	
DNVGL-ST-E271 (2017)		1960N/mm ²	GRADE 80/60	
TESTS CARRIED OUT ON SLING:	DNVGL-ST-E271 (2017)	TEST REPORT No:	L4474-01 & L4474-02	
LIFTING SET COMPONENTS- (SHACKLES TO BE INCLUDED ONLY IF ASSEMBLY SECURED) (IF NEW COMPONENTS ARE INSTALLED BEFORE RE-CERTIFICATION, REFERENCE TO PREVIOUS CERTIFICATE NUMBER AND THE NEW COMPONENTS UNIQUE IDENTIFICATION MARK)				
DESCRIPTION	MANUFACTURER	IDENTIFICATION MARK	DNV TA No:	
26MM DIA IWRC WIRE ROPE	USHA MARTIN	UCR755	TAS000013Z S-8059	
HA32QA QUAD ASSY	MCKINNON CHAIN	19C		
8.5 TON SAFETY PIN	YOKE	AAA, AAA		
BOW SHACKLES				
THIS LIFTING SET HAS BEEN DESIGNED, APPROVED AND TESTED IN ACCORDANCE WITH DET NORSKE VERITAS STANDARD FOR CERTIFICATION No: 2.7-1 "OFFSHORE CONTAINERS (2017)"				
THIS SLING ALSO CONFORMS TO THE FOLLOWING STANDARDS(S): BSEN13414 PT1				
REMARKS: ALS CERT No: L4474-01 & L4474-02				
THIS CERTIFICATE IS BASED ON DNV TYPE APPROVAL No. TAS000002B				
DATE: 07/10/2019 PLACE: ALS WORKSHOP NAME & TITLE: M.MAKAR		 MANUFACTURER NAME & ENDORSMENT		SIGNATURE:

QF48 REV2

Form No. UM-L4-QA-61C Issue:02 Rev:02

TEST REPORT (type 3.1 EN 10204:2004) **No : E A853750005**
Customer : USHA MARTIN UK LIMITED,

Date of Issue : 27-05-2019

Customer Order Ref : 13445
Sales Order Number : 5130002729/10
Reel Number : A853750005
Date of Sample Receipt : 27-05-2019
Manufacturer : **USHA MARTIN LIMITED, INDIA**

Date: 10-04-2019

Date: 12-04-2019

Date of Test : 27-05-2019

R 31451

SPECIFICATION

Applied Standard : EN12385/4/2002+A1 2008(E)
Item : Steel Wire Rope
Nominal Diameter of rope : 26 mm
Construction : 6X36 , Preformed
Strand Construction : 14-7+7-7-1
Grade : 1960
Wire Finish : Galvanized
Type of Core/Lay Direction : IWRC / RHO
Length of Rope : 1000 m
Mass/Unit Length (Apprx.) : 2.805 Kg/Mtr
Lubrication : A2 / PETROLEUM LUBE
Minimum Breaking Force : 472.0 kN
Prestretching : N.A.

UCR 755

RESULTS OF TEST & EXAMINATION

Dia. Off-tension : 26.650 mm
Lay Off-tension : 168.000 mm
Breaking Force : 503.000 kN

This is to certify that the above tests have been carried out in accordance with the Specification and the results relate to the item tested.


Authorized Signatory

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Manufacturer : USHA MARTIN LIMITED, INDIA

Date: 10-04-2019

Date: 12-04-2019

Date of Test : 27-05-2019

INDIVIDUAL WIRE TESTS

Sl. No.	Wire Dia	Tensile Strength (Avg)	Bend (Avg)	Torsion (Avg)	Knot Test	Wt. of Zinc Coating (Avg)
1	1.460 mm	2025 N/mm ²	16	33	N.A	105 gm/m ²
2	0.920 mm	2008 N/mm ²	17	34	N.A	84 gm/m ²
3	1.190 mm	1991 N/mm ²	18	31	N.A	102 gm/m ²
4	1.240 mm	2017 N/mm ²	17	33	N.A	108 gm/m ²
5	1.670 mm	2115 N/mm ²	14	33	N.A	106 gm/m ²

CHEMICAL ANALYSIS OF WIRE ROD

Sl.	Wire Dia	Carbon%	Manganese%	Silicon%	Sulphur%	Phosphorus%
1	1.460 mm	0.77	0.75	0.180	0.005	0.013
2	0.920 mm	0.77	0.75	0.220	0.011	0.013
3	1.190 mm	0.78	0.74	0.230	0.013	0.012
4	1.240 mm	0.77	0.75	0.220	0.010	0.011
5	1.670 mm	0.76	0.70	0.220	0.015	0.011

This is to certify that the above tests have been carried out in accordance with the Specification and the results relate to the item tested.

Authorized Signatory

This test report shall not be reproduced except in full without approval of the laboratory.

Note:

Scope of NABL: The following tests are not covered under NABL Scope of Accreditation.

- Any test of wire diameter <1.0 mm and >5.0 mm
- Knot test result of wires
- Chemical analysis of wire rod

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**McKinnon
Chain**

Q63254

McKinnon Chain
161 A Ring Road Duncanville
Vereeniging South Africa
PO Box 61721 Marshalltown
Gauteng, 2107, South Africa
Tel: +27 16 428-6000
Fax: +27 16 428-1089/1212/1420
E-mail: chainsec@scaw.co.za
Website: www.mckinnonchain.co.za

Test Certificate for Oblong Master Links/Sub-assemblies according to EN 10204 3.1 & ISO 10474 3.1
Declaration of conformity according to Directive 2006/42/EC, Annex II 1. B

Certificate number **CC19 0172**

Supplied To: **William Hackett Lifting Products Limited**
Customer Order No.: **601619**
Scaw Order No.: **883666**
Order date: **13 May 2019**
Dispatch date: **14 May 2019**
Commodity No.: **OSA320DNV***
Product Description: **HA-32QA OS+ Oblong Sub-Assembly to DNV 2.7-1 - Orange Powder Coated**

Total Quantity: **364 Each**

Batch number: **19C** **19D**
Drum number: **4,5,10,10,11,14** **6-9,12,13**
Quantity per batch: **170** **194**

Date of manufacture: **Mar 2019** **Apr 2019**
Date tested: **Apr 2019** **May 2019**

Markings: **HA-32QA OS+ & Batch Number**
Intended for: **Lifting slings**

Mechanical properties:	Metric:	Imperial:
Working Load Limit:	19 tonne at 45° to the vertical	41887 lbs at 45° to the vertical
Proof Force Minimum:	466 kN Proof Force:	104760 lbf Proof Force:
Break Force Minimum:	932 kN Break Force Exceeds:	209521 lbf Proof Force Exceeds:
Safety Factor:	5 : 1	5 : 1
Charpy V-notch Impact value:	≥42 Joule at -40°C	≥31 ft-lb at -40°F
Typical Hardness:	34-36 HRC	

Chemical analysis of steel:

		C	Si	Mn	P	S	Ni	Cr	Mo	Al
Specification	Min	0.20	0.15	1.10	0	0	0.40	0.40	0.20	0.025
	Max	0.25	0.25	1.30	0.025	0.020	0.60	0.60	0.30	0.080

Notes:

100% of components are proof tested and MPI tested in accordance with EN1677-4.
100% of DNV GL components are then heat treated post proof testing and MPI to minimize the risk of hydrogen embrittlement and stress corrosion cracking.
Typical grain size ≥6 in accordance to ASTM E112 and ISO 643.

Manufacturer's certificate refers to EN 1677-4.

ISO 9001:2015 approval by SGS (Certificate ZA17/209870) - Address: Harrowdene Office Park, Building 1, Western Service Road, Woodmead, Johannesburg, 2191, South Africa
Company Representative: G. Katergarakis (General Manager - McKinnon Chain a division of Scaw South Africa (PTY) Ltd)
Technical file compiled and certificate signed off by: E. Netshiozwi (QC Manager) - Use company address above

After treatment of chain : This certificate is only applicable to goods properly used in the condition supplied by McKinnon Chain a division of Scaw South Africa (PTY) Ltd. Further processing by, or on behalf of, the user (involving: cold working, heating, electroplating, hot-dip galvanizing or other treatments) is entirely the user's responsibility and invalidates this certificate and the manufacturer's product warranty obligations. This certificate is invalidated by any alterations and/or deletion to the content of the original certificate.

The components are designed, approved, tested and certified in accordance with the following specification / standard:

DNV GL 2.7-1 and DNV GL 2.7-3

This certificate is based on DNV GL type approval no. TAS000013Z Revision 3.



Vereeniging, Gauteng, RSA

Authorized Person

E. Netshiozwi (QC Manager)

Signature

[Signature]

2019-05-24

GEN-TST-001-F-02-00



Safety is our first priority™

001064

YOKE INDUSTRIAL CORP.

#39,33rd Road, Taichung Industrial Park,
TAICHUNG 407, TAIWAN

TEL:+886-4-2350 8088

FAX:+886-4-2350 1001

Test Certificate

80053364-000730

TO : WILLIAM HACKETT LIFTING PRODUCTS LTD
Oak Drive,
Lionheart Enterprise Park,
Alnwick, Northumberland, NE66 2EU,
United Kingdom
Tel: 44-1665604200

Invoice NO: 90053069

Description: ITEM: DA-808-26
DA Bolt Pin Anchor Shackle, 1"
Batch No : AAA/AAA
Quantity : 360 PC

C	Si	Mn	P	S	Cr	Mo	Ni	Fe
0.38-0.43	0.15-0.35	0.60-1.00	<0.035	<0.040	0.90-1.00	0.15-0.30	<0.1%	other

Material :	Alloy Steel	Proof Load Test 100% :	167kN
Mini. Breaking Load :	667kN	Fatigue Rate 20000 cycle :	125kN
Magnetic Flux Crack Tested :	100% of above quantity	Impact Test (-40°C) :	42J
Working Load Limit :	8.5tonnes		

TESTING ACCORDING TO EN 13889 · RR-C-271F · DNV 2.7-3 · EN 12079-2 · IMO/MSC Circular 860
ISO 9001:2015 Certification by DNV and API
Inspection Test Certificate meet the EN 10204 3.1
These shackle have been designed, approved and tested in accordance with
DNV 2.7-1 Offshore Containers.
This certificate is based on DNV type approval no. S-8059

TEST RESULT

Pass

YOKE INDUSTRIAL CORP.

Jason Lu

Dated: September 07, 2018

Qualification: QA Manager