

Anm.: Dette sertifikat er det internasjonale standardformular som anbefales av Det internasjonale arbeidsbyrå i samsvar med ILO konvensjon nr. 152

Note: This Certificate is the standard international form as recommended by the International Labour Office in accordance with ILO Convention No. 152



SERTIFISERING · INSPEKSJON · NDT · SALG · Utleie
WWW.REDKON.NO · Tlf. 528 68 006 · Post@REDKON.NO

Kunde/Client: BLUE MANTA AS

Sertifikat nr./Certificate no. : RED-213123

For prøving og undersøkelse av kjettinger, ringer, kroker, sjakler, svivler, blokker og andre løfteredskaper.

For testing and thorough examination of chains, rings, hooks, shackles, swivels, pulley blocks and other lifting accessories.

FORM. NR. 4

ID. Kjenningnr. eller merke / Distinguishing number or mark	Beskrivelse av utstyr / Description of gear	Antall / Number	Dato for prøve / Date of test	Prøvelast (tonn) / Proof Load (tonnes)	WLL (tonn) / WLL (tonnes)
6773	Chainsling 4-Leg 16mm 4.0mtr WLL 16,9t - DNVGL-ST-E271 Serienr./Serial No/Batch: MCK6773 Produsent/Producer: McKinnon Chain Prod. år/year: 2018 Prod. iht./acc. to: DNV 2.7-1 / NS-EN 818-4 / EN 12079-2 According to drawing No. : OSWDNV43016400N Arb.vinkel/Sling leg ang. : 30° Lengde / Length : 4 mtr Material : Grade 80 Enhancement factor : 1,23 DNVGL-ST-E2.7.1 TYPE APPROVAL Ref. Certex Norge AS ded Of Conformity no. 0000478552/010/2018 McKinnon Inspection Cert no. CS18 4625 (OSWDNV43016400N) Redskapet er sammensatt av sertifiserte typegodkjente enkeltkomponenter fra produsent. / The lifting equipment consists of components approved by producer. Testet av produsent / Tested by producer.	1	*	*	16,9t

- (7) Ble redskapene undersøkt av en sakkyndig virksomhet etter prøvebelastningen og funnet å ha utholdt belastningen uten deformasjon og å være fri for brudd, brist eller andre feil? / Was the above gear examined by a competent person and found to have withstood the proof load without damage or deformation, and no fraction, cracks etc detected? Ja/Yes
- (8) Navn og adresse til fabrikanten eller forhandleren / Name and address of manufacturer or distributor McKinnon Chain
- (9) Navn og adresse på den sakkyndige virksomhet, som utførte prøven og undersøkelsen / Name and address of manufacturer, company, association or distributor that performed the test and examination Redkon AS
Kontinentalveien 10
4056 TANANGER
Norway
- (10) Den ansvarshavendes navn og stilling i ovennevnte institusjon, sakkyndig virksomhet som utførte prøven og undersøkelsen / Position of signatory that performed test and examination Frode Austdal
Daglig leder
- (11) Prøvene tilfredsstiller kravene i Best. nr. 522 Maskiner, vedlegg 1, Best. Nr. 703 Forskrift om utførelse av arbeid og Best. nr. 706 Forskrift om administrative ordninger. The test are in compliance with rules and regulations given in Best. nr. 522 Maskiner, Annex 1, Best. Nr. 703 Forskrift om utførelse av arbeid and Best. nr. 706 Forskrift om administrative ordninger
- Jeg attesterer herved på vegne av dem som er nevnt under ovenstående nr. (8*/9*) at de ovennevnte oppgaver er riktige. / I certify on behalf of those mention above under no. (8*/9*) that information given above are correct.

08.11.2018

Frode Austdal, Daglig leder

Samsvarserklæring/Declaration of Conformity

Oversatt fra originalspråket / Translated from original language



Nr/No: 0000478552/010/2018

Produkt Sertifikat / Product Certificate

Ordrenr/Order No: 0000478552 Kundens ordrenr/Customer Order No: 1163

Kjenningnsnr. eller merke/Distinguishing mark

MCK 6768, MCK 6771, MCK 6773

Antall/Number: 3

Beskrivelse av utstyr/Description of equipment

KJ SKREV 4P 16MM 4.0M DNV 2.7-1 WLL 16,9T V/30° GR8

Produsent/Producer:

William Hackett

Prod. iht./acc. to:

DNV 2.7-1 / NS-EN 818-4 / EN 12079-2

Teknisk ansvarlig/Responsible Technical

William Hackett Chain Products Limited, - Ailwick

Aktuelle produkter leveres i samsvar med helse og sikkerhetsforskriftene i Maskindirektivet 2006/42EC Best.nr.522,vedlegg 1
Actual products comply with the health and safety requirements of the Machinery Directive 2006/42EC Best.nr.522,annex 1

Sted og dato/Place and Date:

Follestad, 02.11.2018

Sign.

Harald A. Hope, Managing Director

061050



INSPECTION CERTIFICATE

acc. To EN 10204 3.1

TYPE APPROVED CHAIN SLINGS FOR OFFSHORE CONTAINERS

McKinnon Chain

161 A King Road Durbanville
Vereniging South Africa
PO Box 61721, Marshalltown
Gauteng, 2101, South Africa
Tel: +27 16 428-6000
Fax: +27 16 428-3089/4212/1420
E-mail: chainsec@scaw.co.za
Website: www.scawmetals.com

Certificate Date	2018/09/14	Manufacture Date	2018/08/01	Cert no	CS48 4825
Supplied To	William Hackett Lifting Products				
Customer Order No	601249	Order Date	2018/06/07		
McKinnon Order No	844308	Ship Date	2018/09/05		
Commodity No	OSWDNV430169400REV1	Quantity	10 Each	Serial No.	MCK6764-MCK6773
Description	16 mm Grade 80 4-Legged Off-shore Container Lifting Sling				
Working Load Limit	16.9	(t) at	30	° (to vertical max) or	
Enhancement Factor	1.23			Reach LB (mm)	4000 (+96 -0)

Sling Components	
Component	Dimensions
MLNK	38 X 140 X 270
CPLM	26 X 60 X 130
CHNB	16 X 22.4 X 48
CPLB	20 X 50 X 110

Markings: refer to tag

Notes:

Working Load Limit = Maximum Gross Container Mass

This certificate refers to EN 818-2 and 818-4 for the chain and EN 1677-1, 2, 3, 4 for the components used in the sling assembly

The lifting set has been designed, approved, tested and certified in accordance with the following specifications / standards:

DNV Standard for Certification No 2.7-1 "Offshore Containers" (June 2013) and ISO 10855.

This certificate is based on DNV type approval no TAS0000013X

Declaration of Conformity:

Declaration of incorporation of partly manufactured machinery refer to Directive 2006/42/EG, Annex II 1.A

Assembling instruction refer to the relevant European standard, Directive 2006/42/EG. We declare that the products as specified in this certificate, fulfils the applicable essential Health and Safety requirements of the Machinery Directive, 2006/42/EC

ISO 9001:2015 approval by SGS (Certificate ZA17208970) - Address: Harwoodens Office Park, Building 1, Western Service Road, Woodmead, Johannesburg, 2191, RSA
After treatment of sling: 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) it entirely the User's responsibility and invalidates. This Certificate is invalidated by any alterations and/or deletion.

CHEMICAL ANALYSIS OF STEEL

Sling Component	Cast No	C	P	S	Si	Al	Cr	Ni	Mo
MLNK	1703276	0.22	0.015	0.006	0.22	0.053	0.49	0.52	0.28
CPLM	1802886	0.22	0.018	0.003	0.21	0.033	0.52	0.98	0.30
CHNB	1801290	0.22	0.015	0.004	0.21	0.037	0.50	0.53	0.26
CPLB	1703273	0.23	0.009	0.005	0.22	0.035	0.50	0.52	0.27

IMPACT RESISTANCE (Charpy V-Notch Joule)

Sling Component	Charpy Test Ref	Charpy 1	Charpy 2	Charpy 3	Average	Location	Test Temp	-20 °C
MLNK	1703276-0409	51 /	50 /	45 /	48.0 /	Parent / Weld	42J / 27J	
CPLM	1802886-0409	66 /	59 /	65 /	64.0 /	Parent / Weld	42J / 27J	
CHNB	1801290-0409	60 /	59 /	51 /	57.0 /	Parent / Weld	42J / 27J	
CPLB	1703273-0409	54 /	60 /	61 /	65.0 /	Parent / Weld	42J / 27J	

MECHANICAL PROPERTIES

Sling Component	Cast No	PF kN	BF kN	Elongation (%)	Bend Deflection mm	Hardness
MLNK	1703276	Act	Act	Act	Act	34-38 HRC
		Req'd	Req'd	Req'd	Req'd	
		> 510	510	20	> 29	28
						37
CPLM	1802886	> 285	815	472	> 21	21
CHNB	1801290	> 201	327	322	> 13	13
CPLB	1703273	> 197	504	315	> 16	16
						38

Crack Detection (NDT):

Magnetic Particle Inspection - No Defects Found

Technical file compiled and certificate signed off by Z. Mudau (Quality Assurance Manager)

Company Representative: G. Katergarakis (General Manager - McKinnon Chain a division of Scaw South Africa (PTY) Ltd)

Authorized Person	Z. Mudau (QA Manager)	Signature	2018/09/14
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Brierley Lifting Tackle Co
 Timmis Road, Lye
 DY9 7BQ Stourbridge, West Midlands
 United Kingdom

INSPECTION CERTIFICATE TO EN 10204 - TYPE 3.1

Number 80089715 Date 18.07.2014
 Customer no. 30191 Page 4 / 13

Our order no.	Your ref. no.
131531	9400

Qty	Description
50	POGHMB26 G-5163, Green Pin® Polar Shackles, bow shackles with safety bolt, for use under extreme climatic conditions, to EN13889, hot dipped galvanized, grade 8, diameter bow 25 mm, diameter pin 28 mm, WLL 8.5 ton

Material properties

Line	Charge no.	Yieldpoint (N/mm2)	Tensile Strength (N/mm2)	Elongation (%)	Impact test type: Charpy V (Joules)				Item	Traceability	
					temp (°C)	1	2	3			Avg
1	6611050156	920	1030	16	-40	102	96	106	101	Bow	X 8 GP
2	6610080576	745	865	16	-40	91.5	66	100	86	Pin	GP 8 AJ

Chemical composition

Line	C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	V %	Cu %		
1	0.340	0.220	0.580	0.011	0.007	0.980	0.170	0.050		0.100		
2	0.330	0.190	0.470	0.009	0.005	0.870	0.160					

J.J. Vermeulen (QA-Manager)



VAN BEEST B.V., manufacturer and supplier of wire rope and chain fittings.

Registered trade marks "Green Pin" and "Excel". Member of Van Beest International.

Rebutant IBAN code: NL86RAB00359343155, SWIFT/BIC code: RABO NL 21

VAT number NL 0081.33.835.B01. Chamber of Commerce Rotterdam No. 23008317. All our offers and contracts are subject to our General Conditions of Sale as registered with the District Court of Dordrecht on March 12, 2012 under number AL 5/2012

Form : KF-10-16E

Issue date: 18.07.2014