

Anm: Dette sertifikatet inneholder opplysninger som er i samsvar med de opplysninger som er påkrevd av ILO konvensjon nr.152

Note: This certificate contains information that is consistent with the information required by ILO Convention nr.152



SERTIFISERING · INSPEKSJON · NDT · SALG · UTLIEIE
WWW.REDKON.NO · TLF. 66649006 · POST@REDKON.NO

Kunde/Client: **BLUE MANTA AS**

Sertifikat nr./Certificate no. : **RED-213231**

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

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



Ordrenr/Order No: 1277 Kundens ordrenr/Customer Order No: 0218

FORM 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) / ProofLoad (tonnes)	WLL (tonn) / WLL (tonnes)
MCK6585	Chainsling 4-Leg 13mm WLL 8,7t - DNV 2.7-1 Serienr./Serial No/Batch: MCK6585 Produsent/Producer: William Hackett Prod. år/year: 2018 Prod. iht./acc. to: DNV 2.7-1 / NS-EN 818-4 / EN 12079-2 According to drawing No. #: OSWDNV430087200N Arb.vinkel/Sling leg ang. : 30° Diameter/Diameter : 13 mm Lengde / Length : 2000 mm Material : Grade 80 Enhancement factor/Enhancement factor : 1.59 Ref. William Hackett EC Decl. of Conformity no L053299 McKinnon Chain Inspection Certificate CS18-4606 Testet av produsent / Tested by manufacturer.	1	*	*	8,7t

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**

Navn og adresse til fabrikanten eller forhandleren / Name and address of manufacturer or distributor

William Hackett

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
Kontinentalleien 10
4056 TANANGER
Norway

Den ansvarshavendes navn og stilling i ovennevnte institusjon, sakkyndig virksomhet som utførte prøven og undersøkelsen / Position of signatory that performed test and examination

Frøde Austdal
Daglig leder

Undertegnede attesterer at ovennevnte innretning med tilbehør er prøvebelastet som angitt ovenfor etter bestemmelsene i «Forskrift 1360 Forskrift om administrative ordninger», at prøven ble utført under oppsyn av en sakkyndig virksomhet, at en grundig undersøkelse av innretningen med tilbehør utført av en sakkyndig virksomhet, viste at den hadde utholdt prøven uten å ha fått skade eller permanente formforandringer, og at den tillatte arbeidsbelastningen av innretningen er som angitt over.

The signatory confirms that the above mentioned lifting appliance(s) with accessories was tested in accordance with the regulations given in "Forskrift 1360 Forskrift om administrative ordninger", and that the load test was carried out under supervision of Sakkyndig Virksomhet(authorised company) and found to have withstood the proof load without damage or deformation, and no fraction, cracks etc. detected, and that the safeworking for the lifting appliance / device is as shown above.

21.11.2018

Frøde Austdal, Daglig leder



William Hackett

Lifting Products Limited



Delivery Address

REDKON AS
KONTINENTALVEIEN 10
4056 TANANGER
NORWAY

Supplied To: RED004

Certificate Number: L053299

Customer Order No: 68

Date Received: 15/11/2018

PRODUCTS REQUIRING A DECLARATION OF CONFORMITY

ARE INDICATED BY (A)

THOSE REQUIRING JUST A MANUFACTURER'S

CERTIFICATE BY (B)

Authorised person for the configuration of the declaration documents: Tim Burgess, William Hackett Lifting Products, Alnwick, UK

DUAL PURPOSE DOCUMENT

EC DECLARATION OF CONFORMITY

DECLARATION

I DECLARE THAT THE ITEMS DESCRIBED ON THIS DOCUMENT COMPLY WITH THE REQUIREMENTS OF THE MACHINERY DIRECTIVE 2006/42/EC

MANUFACTURER'S CERTIFICATE

CERTIFIED ON BEHALF OF THE COMPANY

Tim Burgess

T.J. BURGESS

15/11/2018

A/B	Batch	Lot No / Serial No	Product	Description	Qty	Working Load Limit	Proof Load	Min Breaking Load
A	Q61025	MCK6585 MCK6586	HNW13.43008.72 00	13mm Four Leg, 2 meter Grade 8 Chain Sling to DNV2.7-1	2	8.7 T @ 30° To Vertical		
A	Q61053	MCK6587 MCK6588	HNW13.43008.73 00	13mm Four Leg, 3 meter Grade 8 Chain Sling to DNV2.7-1	2	8.7 T @ 30° To Vertical		
A	Q61053	MCK6594 MCK6595 MCK6596	HNW16.43016.83 00	16mm Four Leg, 3 meter Grade 8 Chain Sling to DNV2.7-1	3	16.8 T @ 30° To Vertical		
A	Q61053	MCK6604 MCK6605	HNW16.43016.85 50	16mm Four Leg, 5.5 meter Grade 8 Chain Sling to DNV2.7-1	2	16.8 T @ 30° To Vertical		
A	Q61053	MCK6607	HNW16.43016.94 00	16mm Four Leg, 4 meter Grade 8 Chain Sling to DNV2.7-1	1	16.9T @ 30° To Vertical		

OAK DRIVE, LIONHEART ENTERPRISE PARK, ALNWICK, NORTHUMBERLAND NE66 2EU

Tel. + 44 (0) 1665 604200 Fax. + 44 (0) 1665 604204 Email: info@williamhackett.co.uk

Website: www.williamhackett.co.uk Co. Registration No. 09679560 VAT Reg. No. 217 3508 23



INSPECTION CERTIFICATE

acc. To EN 10204 3.1

TYPE APPROVED CHAIN SLINGS FOR OFFSHORE CONTAINERS

McKinnon Chain
161 A Ring Road Durbanville
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.scawmetals.com

Certificate Date	2018/08/22	Manufacture Date	2017/05/01	Cert no	CS18 4806
Supplied To	William Hackett Lifting Products				
Customer Order No	601279	Order Date	2018/08/01		
McKinnon Order No	851122	Ship Date	2018/08/01		
Commodity No	OSWONV430087200N	Quantity	2 Each	Serial No	McK6586-McK6586
Description	13 mm Grade 80 4-Legged Off-shore Container Lifting Sling				
Working Load Limit	8.7	(t) at	30	° (to vertical max) or	(included angle)
Enhancement Factor	1.59	Reach LB (mm)	60	2000 (+78 -0)	

Sling Components	
Component	Bill Of Material
MLNK	OML320DNV
	32 X 140 X 270
CPLM	IML200DNV
	20 X 50 X 110
CHNB	C8A130SLSDNV
	13 X 18 X 39
CPLB	IML160DNV
	16 X 40 X 100

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 TAS000013X

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 2006/49/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/EG

ISO 9001:2008 approval by SGS (Certificate ZA17208670) - Address: Harrowdens Office Park, Building 1, Western Seaview 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) is 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	1608128	0.24	0.011	0.003	0.22	0.036	0.50	0.56	0.28				
CPLM	1606359	0.22	0.017	0.004	0.21	0.038	0.50	0.53	0.26				
CHNB	1402896	0.22	0.012	0.002	0.20	0.046	0.50	0.48	0.24				
CPLB	1603452	0.23	0.014	0.004	0.21	0.028	0.48	0.52	0.27				

IMPACT RESISTANCE (Charpy V-Notch Joule)							Test Temp	
Sling Component	Charpy Test Ref	Charpy 1	Charpy 2	Charpy 3	Average	Location	Required min ave	
MLNK	1608128-0206	63 J	58 J	55 J	58.7 J	Parent / Weld	42J / 27J	
CPLM	1606359-0108	42 J	42 J	62 J	58.0 J	Parent / Weld	42J / 27J	
CHNB	1402896-0206	71 J	41 J	64 J	58.7 J	Parent / Weld	42J / 27J	
CPLB	1603452-0606	62 J	68 J	72 J	67.3 J	Parent / Weld	42J / 27J	

MECHANICAL PROPERTIES													
Sling Component	Cast No	PF kN		BF kN		Elongation (%)		Bend Deflection mm		Hardness			
		Act	Req'd	Act	Req'd	Act	Req'd	Act	Req'd		Act	Req'd	34-38 HRC
MLNK	1608128	> 339	339	1 335	542	> 20	20	> 26	26				
CPLM	1606359	> 196	196	500	313	> 20	20	> 16	16				
CHNB	1402896	> 133	133	243	212	> 20	20	> 10	10				
CPLB	1603452	> 131	131	350	209	> 20	20	> 13	13				

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. Katerarakis (General Manager - McKinnon Chain a division of Scaw South Africa (PTY) Ltd)													
Authorized Person		Z. Mudau (QA Manager)		Signature		Date							



Industriell & Fiskefiske 78 Labacvåg, H-3847 GUNNEBO
T: 55 94 3050 - Faks: 55 94 31 10
Fiskeregistrert NO638 092 484

W.GIERTSEN SERVICES AS

FORM NR. 4/ 400
Form no.

Sertifisert for prøve og undersøkelse av kjetting, ringe, sjakler, øyler, blokker og andre redskaper, før de tas i bruk og etter de har vært forlengst, forstærket, forandret eller reparert ved sveising.

Certificate of Test and Examination of Chains, Rings, Hooks, Shackles, Swivels and pulley Blocks before being taken into use, and of such Gear after it has been Lengthened, Overtrained, Altered or repaired by Welding.

KUNDE
Purchaser Oceanearring Asset Integrity AS

KUNDENS REF.
Purchasers P.O. No. BUIAN-8009

PRØVESERTIFIKAT NR.
Test certificate No. 254408-2

(1) Kjennings-, eller merke. Distinguishing Number of mark.	(2) Angivelse av del som er prøvet Description of Gear	(3) Antall av del som er prøvet Number tested	(4) Dato da prøven ble utført Date of test	(5) Anvendt prøvevekt MT Test load applied	(6) Tillatt arbeids- belastning MT Safe working load
YAO-9706	SHACKLE ANJA OFFSHORE BOW TYPE 856 ARCTIC WITH NUT & BOLT WLL 4,75 T. SAFETY FACTOR: 8,0 QUALITY: SAE 8620 - GRADE 80. STANDARD: US FED. SPEC. RR-C-271 DNV 271 TYPE APPROVAL SIZE: 3/4" x 7/8" NOT TO BE HEAT TREATED PRODUCER DECLARE THAT THIS PRODUCT IS IN ACCORDANCE WITH THE MACHINERY DIRECTIVE 42/2006/EC REF.ORIG.CERT.1133172 ANJA GUNNEBO	4,00	30.10.14	9,50	4,75

(7) Ble redskapene undersøkt av en uavhengig person eller prøvebelastningen og funnet å ha
ubrukt belastning uten deformasjon og være fri for brudd, biter eller andre feil?
Were the items described herein tested and thereafter examined and found to be free from
cracks, flaws or other defects?

YES, BY PRODUCER

(8) Navn og adresse til fabrikkene eller dennes representant.
Name and address of makers or representative.

GUNNEBO - ANJA AS

(9) Navn og adresse til den institusjon, det selskap, eller firma som utførte prøven og
undersøkelsen.
Name and address of public service, association, company or firm performing the test and
examination.

GUNNEBO - ANJA AS

(10) Prøvene utføres etter kriteriene i Forskrift om Maskiner best.nr 522 og Best.nr 703
Forskrift om utførelse av arbeid, og Best.nr.708 Forskrift om administrative ordninger.
The test are in compliance with rules and regulations in Machinery Directive 2006/42/EC

INSPECTOR

for W.GIERTSEN SERVICES AS

Bergen, den: 19.12.2014
Dok.ID: 191214132932

**GUNNEBO**
LIFTING

Cert.no: YAO-9706

**Gunnebo-Anja Industrier AS****Inspection certificate Acc EN 10204 - 3.1**

GL Form. TA 1-1

Identification	Bow	Bolt	
	YAO	9706	
Safety factor	8,0	WLL	4,75 Ton

Object	SHACKLES GUNNEBO LIFTING ARCTIC NO 856 WLL 4,75T
Article no	A085619
Size	3/4" x 7/8"
EU Standard	NS-EN 13889 / DnV Type Approval Certificate No S-7601
US Standard	
Finish	All parts hot dip galvanized. Bolt and shackle eyes painted.
Material Quality	Special Alloy Steel, Quenched and Tempered
Grade	8

STEEL INFORMATION

Item	Charge	Dim	Marking	Chemical Composition										A	R _e	R _m
				C	Si	Mn	P	S	Cr	Mo	Ni	Al	B	%	N/mm ²	N/mm ²
Bow	16016	27	YAO	0,20	0,23	1,08	0,007	0,010	0,46	0,03	0,43	0,034	0,0033			
Bolt	370317	22	9706	0,43	0,19	0,75	0,009	0,023	1,15	0,17	0,04			12,5	936	1014

TEST REQUIREMENTS

Item	Charpy ISO-V Temp: -40°C	Min. Proof Load (T)	Min. Breaking Load (T)	Date	Remarks
Bow	70/108/67	9,5	38	30.10.2014	A = Elongation R _e = Yieldpoint R _m = Tensile Strength
Bolt	70/88/100	9,5	38	30.10.2014	

We hereby certify that the material described above has been manufactured and tested to comply with the specified requirements and sound industrial practice.

QA Manager

Audun Seilen

(Sign. / stamp)