

TECHNICAL DATA

CRANE TYPE: MCVC 2201-(23,5-30)T-(19,5-15,3)m(40T-11,5m) Dupl.

MACHINE NO.: 82641-0790

- : Lifting capacity: 23,5 ton SWL at 19,5 meter (3 wire fall)
- : 30 ton SWL at 11,5 meter (3 wire fall)
- : 40 ton SWL at 11,5 meter (4 wire fall)
- : Working radius 23,5 ton
- : 19,5 meter maximum jib horizontal
- : R min = 3,5 m
- : 15,3 meter
- : 30 ton
- : R min = 3,5 m
- : 11,5 meter maximum jib horizontal
- : R min = 2,3 m
- : Constant moment system
- : Lifting capacity is automatic a function of work radius between 15,3 and 19,5 meter. As radius decreases, capacity increases.
- : Hoisting speed given
- : 33 m/min at 12 ton
- : 15 m/min at 30 ton
- : Hoisting speed heavy lift
- : 7,5 m/min. at 0-40 ton
- : Load dependent speed
- : Hoisting speed is automatic a function of load between 0 and 30 ton.
- : Hoisting height
- : 39 meter
- : Hoisting height with heavy lift bracket
- : 35 meter
- : Luffing time (0-78°)
- : 80 seconds from horizontal for all loads.
- : Slewing speed
- : 0,9 r.p.m. at full load with max heel, for all loads.
- : Heel + trim (11st)
- : 7° + 2° for all loads.
- : Slew sector
- : 360 deg. unlimited.
- : Weight of crane, approx.
- : 38 ton without oil, incl. foundation h = 2000 mm.

ELECTRICAL MOTOR DATA

Type Brook 7R-315MD :
Power : 245 kW (S6 - 40% I.D.)
Voltage : 380V, 50Hz, 3ph
Isolation class : F
Protection class : IP55
Duty rating : S6, 40% ID
Stillstand heating : 80 watt, 220V, 50Hz, 1ph
Full load current : 426 Amp (S6 - 40% I.D.)
Start current DOL : 1980 amp
Start current delta-start : 660 amp

CABINE

Voltage : 220V, 50Hz, 1ph
: 5kW

OPERATING PRESSURE:

Main pressure jib/slew : 240 Bar
Jib up : 240 Bar
Jib down : 50 Bar

Slew : 240 Bar

Main pressure winches : 240 Bar
Winch up, main/aux : 240 Bar
Winch down, main : 150 Bar
Winch down, aux : 110 Bar

Pump capacity : 280 + 280 l/min. (280 l/min. to winches and 280 to jib & slew)

LOADING TO DECK STRUCTURE:

Crane weight, approx. : 38 ton
Max load in hook : 23,5 ton
Load moment static : 615 ton.meter
Load moment test : 745 ton.meter
Slew brake moment : 120 ton.meter

- EL. MOTOR : A COPY OF MANUFACTURERS TEST CERTIFICATE
- TURNBUCKLE : A COPY OF MANUFACTURERS TEST CERTIFICATE
- SHACKLE : A COPY OF MANUFACTURERS TEST CERTIFICATE
- HEAVY LIFT BLOCK : A COPY OF MANUFACTURERS TEST CERTIFICATE
- MAIN CARGO BLOCK
- WIRE MAIN LIFT, WIRE HEAVY LIFT : A COPY OF MANUFACTURERS TEST CERTIFICATE

CRANE FOUNDATION, LLOYDS REGISTER OF SHIPPING

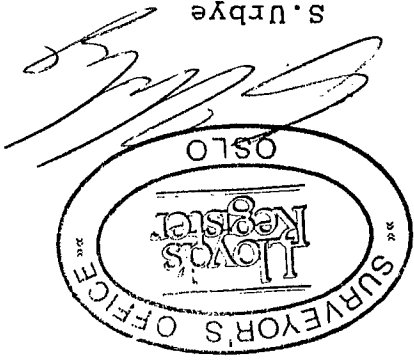
CRANE CERTIFICATE :
 HYDRALIFT TEST CERTIFICATE AS PRESCRIBED
 BY NORWEGIAN MARITIME DIRECTORATE FORM
 NO. 2 OF 1987.

THE FOLLOWING CERTIFICATES ARE DELIVERED WITH THE CRANE:

NOTICE — This certificate is subject to the terms and conditions overleaf, which form part of this certificate.



S. Urbye
Surveyor to Lloyd's
Register of Shipping



LR OSLO 000269 S.U.

follows:

For identification purposes the items have been marked as

Ultrasonic examination of foundation ring welds indicate that the welds are free from any significant defects.

The flange material has been impact tested at -60 °C with satisfactory result.

The materials used in the construction of the crane columns are tested materials in accordance with the material specification.

The crane column which is constructed in accordance with the plan No.C.2201.0745.A1-18 Rev.0, approved by the Society's Copenhagen office, on the 24th May 1990, was examined on completion of construction and the workmanship was found as far as could be seen to be of good standard.

This is to certify that at the request of Hydralift A/S, Kristiansand, the undersigned surveyor to this Society did attend at their works on the 3rd July 1990 to examine one crane column for type MCV 2201-(23.5-30)T-(19.5-15.3)M-(40T-11.5M) crane, intended to be fitted on board Ørskov Shipyard, Yard No.168.

Date: 25.07.90 Office: OSLO Certificate: OSLO 000269






DET NORSKE

VERITAS

Rapport/Report

Klient, Oppdragsgiver/Client, Sponsor A.S. Hydralift E. Askvik		Godkjent av/Approved by 18.07.90	
Klient ref./Clients ref. Rapporttype/Type of Report NDT		Avd./Dept. Prosjekt nr./Project No. 65.181	
Veritas Norway, Kristiansand Distrikt: Fra og med Lillestrand, til og med Farsund STEDSADRESSE/ADDRESS: Haanesgården, Vestre Strand gt. 42 P.O. BOX 2055, Fosøyen N-4601 Kristiansand S, Norway TELEFON/TELEPHONE: (042) 29 155/ + 47 42 29 155 TELEK: 21 173 verk n FAKS/IMLE/FACSIMILE: (042) 25 939 TELEGRAMADR./CABLE ADDR.: Veritas Kristiansand S BANKGIRO/BANKER: 7400.05.01542			

Sammendrag/Summary

This report covers:

1. Magnetic particle examination
2. Ultrasonic examination

of welds in crane bases K2836 and K2837, see attached forms.

4 Indekseringsstermer (på engelsk)/4 Indexing terms

Veritas Rapportnr./Report No. Emnegruppe/Subject Group		Rapportittel/Title of Report 65.181 1/90 00	
Uført av/Work carried out by C.W. Børresen		INTENDEDE FOR ØRSKOV YARD NO.168 CRANE BASES K2836/K2837 NON-DESTRUCTIVE TESTING OF WELDS IN	
Antall sider/ Number of pages		Date for siste revisjon/ Date of last rev. Rev.No.	

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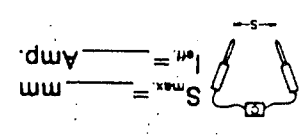
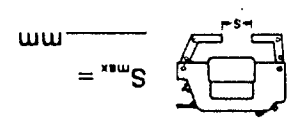
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MAGNETIC PARTICLE TESTING MAGNETPULVERPRØVING

**DET NORSKE
VERITAS**



CLIENT/KUNDE A/S Hydralift		MANUFACTURER/TILVIKNER Eiken mek. Verksted		OBJECT/KONTROLL AV 2201 SERIE SPECIAL BASE-CIRC./RECT. K2836 - ØRSKOV YARD NO. 168		PROCEDURE REFERENCE/PROSEDYRREFERERANSE Dnv Procedure No. 5.2		ACCEPTANCE STANDARD/AKSEPTSTANDARD Free from linear surface defects	
REPORT NO./RAPPORT NR. 331-65.181 1/90		PLACE OF WORK/KONTROLLSTED Eiken		DATE OF TESTING/KONTROLLDATO July 1990		EXTENT OF TESTING/KONTROLLOMFANG 50 %		OPERATOR/OPERATØR C.W. Børresen	
MATERIAL TYPE/MATERIALTYPE Carbon steel		SURFACE/OVERFLATE As welded		GROOVE/FUGEOMETRI T-joint+fillet		WELDING PROCESS/SVEISEPROSESS		MEDIUM <input checked="" type="checkbox"/> WET/VÅTT <input type="checkbox"/> DRY/TØRT <input checked="" type="checkbox"/> BLACK/SVART <input type="checkbox"/> FLUORESCENT/FLUORESCERENDE CONTRAST COLOUR/ KONTRASTFARGE White	
<input type="checkbox"/> PRODS 		<input checked="" type="checkbox"/> YOKE 		<input type="checkbox"/> OTHER/ANNEN METODE OBJECT TEMPERATURE/ OVERFLATETEMPERATUR Room °C CURRENT/STRØM <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC		FIELD STRENGTH/FELTSTRYKKE Min. 2.4 KA/m <input checked="" type="checkbox"/> FIELD INDICATOR/FELTINDIKATOR Tiede		MAGNETIZED FOR/MAGNETISERT FOR <input type="checkbox"/> LONGITUDINAL DEFECTS/ LANGSGÅENDE INDIKASJONER <input type="checkbox"/> TRANSVERSE DEFECTS/ TVERRGÅENDE INDIKASJONER <input checked="" type="checkbox"/> LONGITUDINAL + TRANSVERSE DEFECTS/ LANGSGÅENDE + TVERRGÅENDE INDIKASJONER	
REPAIRS MARKED ON/REPARASJONER AVMERKET PÅ <input type="checkbox"/> OBJECT/OBJEKT <input type="checkbox"/> SKETCH/SKISSE APPROVED/GODKJENT APPROVED/GODKJENT OPERATOR/OPERATØR Nordrest 2021-MP OPERATOR CERTIFICATE NO./OPERATØRSERTIFIKATNR.									
TEST RESULT/PRØVERESULTAT Approximately 50% of each of the following welds were examined and accepted: Pos.04/Pos.05 Pos.014/Pos.02/Pos.03 Pos.08/Pos.02/Pos.03									



**DET NORSKE
VERITAS**

**ULTRASONIC TESTING
ULTRALYDPRØVING**

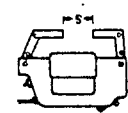
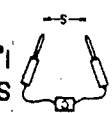
PAGE/ OF
3 AV 5

CLIENT/KUNDE A/S Hydralift	MANUFACTURER/TILVIKNER Eiken m&k, Verksted	REPORT NO./RAPPORT NR. 331.65.181 1/90	DATE OF TESTING/KONTROLLDATO July 1990	EXTENT OF TESTING/KONTROLLOMFANG 40 %	PROCEDURE REFERENCE/PROSEDYRREFERANSE Dnv procedure 3.2	ACCEPTANCE STANDARD/AKSEPTERTANDARD Dnv offshore Rules - Table 6.14	MATERIAL TYPE/MATERIALTYPE Carbon steel	WELDING PROCESS/SVEISEPROSCESS T-joint+butt	PER CENT OF REFERENCE CURVE/ % AV REFERANSEKURVE50	RANGE CALIBRATION/ MÅLEOMRÅDE 20-25	THICKNESS OF REFERENCE BLOCKS AND DIAMETER OF DRILLED HOLE/ REFERANSEBLOKKERS TYKKELSE OG HULLDIAMETER	COUPLANT/KONTAKTMIDDEL Wallpaper paste	TRANSFER CORRECTION/ OVERFLATEKOMPENSERING	SCANNING TECHNIQUE FOR PRØVEUTFØRELSE M.H.P. LONGITUDINAL DEFECTS/LANGSGÅENDE FEIL : TRANSVERSE DEFECTS/TVERRGÅENDE FEIL :	SCANNING TECHNIQUE FOR DEFECTS IN THE PARENT MATERIAL/PRØVEUTFØRELSE M.H.P. FEIL I GRUNNMATERIALET NORMAL PROBE/NORMALLYDHODE <input checked="" type="checkbox"/> ANGLE PROBE/VINKELLYDHODE <input type="checkbox"/>	PROBES - TYPE, FREQUENCY/LYDHODER - TYPE, FREKVENNS 0°, 45°, 60°, 70° - A11 4 MHz	TEST RESULTS - REMARKS/ RESULTATER - BEMERKNINGER	Approximately 40% of each of the following welds were examined and accepted: Pos.01/Pos.04 Pos.02/Pos.04 Pos.02/Pos.03 Pos.03/Pos.04	REPAIRS MARKED ON/REPARASJONER AVMERKET PÅ OBJECT/OBJEKT <input type="checkbox"/> SKETCH/SKISSE <input type="checkbox"/>	OPERATOR CERTIFICATE NO./OPERATØRSERTIFIKAT NR. Nordtest 2021 07	APPROVED/GODKJENT SIGN.	APPROVED/GODKJENT SIGN.	APPROVED/GODKJENT SIGN. C.W. Børresen
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NV 11.86

1) A. = ACCEPTED/AKSEPTERT
N.A. = NOT ACCEPTED/IKKE AKSEPTERT



Sign: _____	Sign: _____	Sign: _____
APPROVED/GODKJENT OPERATOR/OPERATØR <i>M. Børresen</i>	APPROVED/GODKJENT	APPROVED/GODKJENT
OPERATOR CERTIFICATE NO./OPERATØRSERIFIKAT NR. Nordtest 80215NT	<input type="checkbox"/> SKETCH/SKISSE	<input type="checkbox"/> OBJECT/OBJEKT
REPAIRS MARKED ON/REPARASJONER AVMERKET PÅ MAGNETIZED FOR/MAGNETISERT FOR FIELD STRENGTH/FELTSTRØK Min. 2.4 KA/m <input checked="" type="checkbox"/> FIELD INDICATOR/FELTINDIKATOR Tilde		
TEST RESULT/PRØVERESULTAT ACCEPTANCE STANDARD/AKSEPTSTANDARD DNV Procedure No. 5.2 CODE REFERENCE/KODEREFERANSE OPERATOR/OPERATØR C.W. Børresen		
LONGITUDINAL DEFECTS/LANGSGÅENDE INDIKASJONER <input type="checkbox"/> LONGITUDINAL + TRANSVERSE DEFECTS/LANGSGÅENDE + TVERRGÅENDE INDIKASJONER <input checked="" type="checkbox"/> TRANSVERSE DEFECTS/TVERRGÅENDE INDIKASJONER <input type="checkbox"/>		
MAGNETIZED FOR/MAGNETISERT FOR FIELD STRENGTH/FELTSTRØK Min. 2.4 KA/m <input checked="" type="checkbox"/> FIELD INDICATOR/FELTINDIKATOR Tilde		
MEDIUM <input checked="" type="checkbox"/> WET/VÅTT <input type="checkbox"/> DRY/TØRT <input checked="" type="checkbox"/> BLACK/SVART <input type="checkbox"/> FLUORESCENT/FLUORESCERENDE CONTRAST COLOUR/KONTRASTFARGE white	<input type="checkbox"/> PRODS <input checked="" type="checkbox"/> YOKE <input type="checkbox"/> OTHER/ANNEN METODE 	<input type="checkbox"/> PRODS <input checked="" type="checkbox"/> YOKE <input type="checkbox"/> OTHER/ANNEN METODE 
CURRENT/STRØM <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC OBJECT TEMPERATURE/OVERFLATETEMPERATUR Room °C	SURFACE/OVERFLATE As welded GROOVE/FUGEOMETRI Fillet WELDING PROCESS/SVEISEPROSESS	MATERIAL TYPE/MATERIALTYPE Carbon steel SURFACE/OVERFLATE As welded GROOVE/FUGEOMETRI Fillet WELDING PROCESS/SVEISEPROSESS
Free from linear surface defects ACCEPTANCE STANDARD/AKSEPTSTANDARD DNV Procedure No. 5.2 CODE REFERENCE/KODEREFERANSE OPERATOR/OPERATØR C.W. Børresen		
CLIENT/KUNDE A/S Hydralift MANUFACTURER/TILVIKNER Eiken mek. Verksted PLACE OF WORK/KONTROLLSTED Eiken	OBJECT/KONTROLL AV BASE SERIE 1891 - CIRCULAR/REKTANGULAR K2837 - ØRSKOV YARD NO. 168 DATE OF TESTING/KONTROLLDATO July 1990 EXTENT OF TESTING/KONTROLLOMFANG 50 % PROCEDURE REFERENCE/PROSEDYRREFERERANSE CODE REFERENCE/KODEREFERANSE OPERATOR/OPERATØR C.W. Børresen	
REPORT NO./RAPPORT NR. 31-65.181 1/90 DRAWING NO./TEGNING NR. C1891.0490.A1.1007 DATE OF TESTING/KONTROLLDATO July 1990 EXTENT OF TESTING/KONTROLLOMFANG 50 % PROCEDURE REFERENCE/PROSEDYRREFERERANSE CODE REFERENCE/KODEREFERANSE OPERATOR/OPERATØR C.W. Børresen	CLIENT/KUNDE A/S Hydralift MANUFACTURER/TILVIKNER Eiken mek. Verksted PLACE OF WORK/KONTROLLSTED Eiken REPORT NO./RAPPORT NR. 31-65.181 1/90 DRAWING NO./TEGNING NR. C1891.0490.A1.1007 DATE OF TESTING/KONTROLLDATO July 1990 EXTENT OF TESTING/KONTROLLOMFANG 50 % PROCEDURE REFERENCE/PROSEDYRREFERERANSE CODE REFERENCE/KODEREFERANSE OPERATOR/OPERATØR C.W. Børresen	

Approximately 50% of each of the following welds were examined and accepted:
 Pos.02/Pos.06 Pos.03/Pos.04/Pos.05 Pos.03/Pos.04/Pos.012

**MAGNETIC PARTICLE TESTING
MAGNETPULVERPRØVING**

**DET NORSKE
VERITAS**





ULTRASONIC TESTING ULTRALYDPRØVING

DET NORSKE VERITAS

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CLIENT/KUNDE	A/S Hydralift	
MANUFACTURER/TILVIKNER	Eiken msk. Verksted	
PLACE OF WORK/KONTROLLSTED	Eiken	
REPORT NO./RAPPORT NR.	331.65.181/90	
DATE OF TESTING/KONTROLLDATO	July 1990	
EXTENT OF TESTING/KONTROLLOMFANG	50 %	
PROCEDURE REFERENCE/PROSEDYRREFERANSE	Dnv Procedure 3.2	
CODE REFERENCE/KODEREFERANSE	C.W. Børresen	
ACCEPTANCE STANDARD/AKSEPTSTANDARD	Dnv offshore Rules - Table 6.14	
MATERIAL TYPE/MATERIALTYPE	Carbon steel	
SURFACE/OVERFLATE	As welded	
GROOVE/FUGGEOMETRI	I-joint+Butt	
WELDING PROCESS/SVEISEPROSESS		
MATERIAL THICKNESS / MATERIALTYKKELSE	mm	
REPORTING LEVEL / RAPPORTERINGSNIVÅ	%	
PER CENT OF REFERENCE CURVE /	50	
% AV REFERANSEKURVE		
RANGE CALIBRATION / MÅLEOMRÅDE	mm	
0-125		
THICKNESS OF REFERENCE BLOCKS AND DIAMETER OF DRILLED HOLE / REFERANSEBLOKKERS TYKKELSE OG HULLDIAMETER	mm	
COUPLANT/KONTAKTMIDDEL	Wallpaper paste	
TRANSFER CORRECTION / OVERFLATEKOMPENSERING	0	

SCANNING TECHNIQUE FOR/PRØVEUTFØRELSE M.H.P.	LONGITUDINAL DEFECTS/LANGSGÅENDE FEIL :	
1 SIDE, 2 SURFACES/1 SIDE, 2 OVERFLATER	<input checked="" type="checkbox"/>	AT FLUSH GROUND REINFORCEMENT/PÅ PLANSLIPT RÅK
2 SIDES, 4 SURFACES/2 SIDER, 4 OVERFLATER	<input type="checkbox"/>	AT REINFORCEMENT/PÅ RÅK
OTHER/ANNET	<input checked="" type="checkbox"/>	FROM THE PARENT METAL/FRA GRUNNMATERIALET
SEE SKETCH/SE SKISSE		
SCANNING TECHNIQUE FOR DEFECTS IN THE PARENT MATERIAL/PRØVEUTFØRELSE M.H.P. FEIL I GRUNNMATERIALET	ANGLE PROBE/NINKELLYDHODE <input type="checkbox"/>	
NORMAL PROBE/NORMALLYDHODE	<input checked="" type="checkbox"/>	
PROBES - TYPE, FREQUENCY/LYDHODER - TYPE, FREKVENNS	0°, 45°, 60°, 70° - ALL 4 MHZ	
TEST RESULTS - BEMERKNINGER		
REPAIRS MARKED ON/REPARASJONER AVMERKET PÅ	<input type="checkbox"/>	
OBJECT/OBJEKT	<input type="checkbox"/>	
APPROVED/GODKJENT		
APPROVED/GODKJENT		
Sign.		
APPROVED/GODKJENT		
Sign.		
APPROVED/GODKJENT		
Sign.		
OPERATOR/OPERATØR	C.W. Børresen	
OPERATOR CERTIFICATE NO./OPERATØRBEHØRTEKST NR.	C1891.0490.A1.1007	
OPERATOR CERTIFICATE NO./OPERATØRBEHØRTEKST NR.	1990	
OPERATOR CERTIFICATE NO./OPERATØRBEHØRTEKST NR.	1990	
OPERATOR CERTIFICATE NO./OPERATØRBEHØRTEKST NR.	1990	

Approximately 50% of each of the following welds were examined and accepted:

Pos.01/Pos.02 Pos.02/Pos.03 Pos.02/Pos.04 Pos.03/Pos.04

REPAIRS MARKED ON/REPARASJONER AVMERKET PÅ

OBJECT/OBJEKT

APPROVED/GODKJENT

APPROVED/GODKJENT

Sign.

APPROVED/GODKJENT

Sign.

OPERATOR/OPERATØR

Sign.

OPERATOR CERTIFICATE NO./OPERATØRBEHØRTEKST NR.

OPERATOR CERTIFICATE NO./OPERATØRBEHØRTEKST NR.

OPERATOR CERTIFICATE NO./OPERATØRBEHØRTEKST NR.

OPERATOR CERTIFICATE NO./OPERATØRBEHØRTEKST NR.

NV 11.86

) A. = ACCEPTED/AKSEPTERT
N.A. = NOT ACCEPTED/IKKE AKSEPTERT

K 2836

Form nr. 4 - Form no. 4

65584

Nr.:

PROVESERTIFIKAT

TESTCERTIFIKAT



Dette sertifikat er basert på det standard internasjonale formular godkjent av Det Internasjonale Arbeidsbyrå for prøve og undersøkelse av laste- og løseinnretninger og redskap ombord på skip.

This Certificate is based on the standard international form of certificate approved by the International Labour Office for the test and examination of lifting machinery and gear used in the loading and unloading of ships.

Sertifikat for prøve og undersøkelse av kjetting, ringer, kroker, sjaker, svivler, blokker og andre redskaper, før de tas i bruk og etter de har vært forlengt, forstruktet, 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, overstrained, altered or repaired by welding.

Fastsett av Sjøfartsdirektoratet
 Prescribed by the Maritime Directorate
 17. januar 1978

Kjenningssnr. eller merke	Utvendig diam. av skiven	Angivelse av det som er prøvet	Antall av det som er prøvet	Dato da prøven ble utført	Anvendt prøveekt	Tillatt arbeidsbelastning	Distinguishing number or mark	Outside Diameter of Sheave	Description of gear	Number tested	Date of test	Test load applied	Safe Working Load
1	2	3	4	5	6	7							
65584	20"	Double sheaved block with Ramshorn hook SWL 30 T. In hook.	1	01.02.91	70	40							

AS Møllerodden, 5500 Haugesund

AS Møllerodden
 5500 Haugesund

Test Superintendent

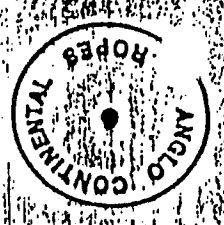
- 8 Navn og adresse til fabrikantene eller forhandlerne.
- Name and Address of makers or suppliers.
- 9 Navn og adresse til den institusjon, det selskap eller firma som utførte prøven og undersøkelsen.
- Name and Address of public service, association, company or firm performing the test and examination.
- 10 Underrettedes stilling i ovennevnte institusjon, selskap eller firma.
- Position of signatory of public service, association, company or firm.

Jeg attesterer at ovennevnte redskap ble prøvet og undersøkt av en sakkyndig person på den måten som er fastsett på baksiden av dette sertifikat, at undersøkelsen viste at redskapene utholdt belastningen uten å få skade eller formforandring, og at den tillatte arbeidsbelastning på redskaper er som angitt i overstående rubrikk 7.

I Certify that the above gear was tested and examined by a competent person in the manner set fort on the reverse side of this certificate, that examination showed that the gear withstood the test load without injury or deformation, and that the safe working load on this gear is as shown in Col. 7.

Haugesund, den 01.02.91

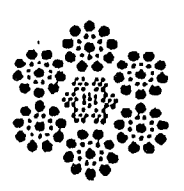
Underskrift
 Signature



ANGLO-CONTINENTAL ROPES

68, rue des Aînés
B - 6060 GILLY-BELGIUM

Téléph. : (071) 41.20.00 (5 lignes) - Télégr. ENDURANCE - Telex : 61.211



CABLES D'ACIER

CERTIFICAT DE GARANTIE

NOM DU CLIENT
COMMANDE N°

Maritime Hydraulics
B6907

DU

RV
87151

CABLES		TERMINAISONS ET ACCESSOIRES	
Nombre et longueur	175 m		
Nominal Dia.	26 mm		
Nombre de torons	35LS		
Composition du toron	6.1		
Ame centrale	MSC		
Revêtement	ORH		
Classe de résistance	1960 N/mm ²		
Nature de la surface	Bright		
Charge de rupture minimale	52.400 kg		
Charge de rupture mesurée (effective)	53.540 kg		
Charge de rupture nominale totalisée			
Calculated aggregate breaking load			
Cable No.	85792		

Nous certifions que le(s) câble(s) journal(s) répondent(en) en tous points
We hereby certify that the rope(s) supplied comply/complies in all respects with

Les essais ont été effectués sur des machines approuvées par ALB et Lloyds par/en présence de
The tests have been made on machines approved by ALB and Lloyds by/in presence of

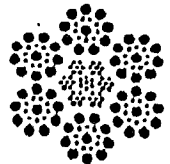
DATE : 24.03.88

TRON NORGE A.S.

Box 1
1361 Billingstadsleia

Tlf. 02 - 98 12 70

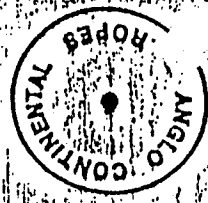
DIRECTEUR TECHNIQUE
F. WITZ



ANGLO-CONTINENTAL ROPES

66, rue des Aisnes
B - 6080 GILLY - BELGIUM

Téléph. : (071) 41.20.00 (6 lignes) - Télég. ENDURANCE - Telex : 61.211



CERTIFICAT DE GARANTIE

CABLES D'ACIER

NOM DU CLIENT

Maritime Hydraulics

RV

COMMANDE N°

B6907

DU

87151

CABLES		TERMINAISONS ET ACCESSOIRES
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Nombre et longueur	152 m
Nominal Dia.	26 mm
Nombre de torons	351S
Composition du toron	6.1
Ame centrale	MSC
Main core	ORH
Cablage	Lay
Classe de résistance	1960 N/mm ²
Tensile grade	Bright
Nature de la surface	Charge de rupture minimale
Surface condition	Minimum breaking load
Charge de rupture mesurée (effective)	52.400 kg
Actual breaking load	53.540 kg
Charge de rupture nominale totalisée	Calculated aggregate breaking load
Cable No.	85792

Nous certifions que le(s) câble(s) fourn(i)s) répond(ent) en tous points
We hereby certify that the rope(s) supplied/complies in all respects with

Les essais ont été effectués sur des machines approuvées par AIB et Lloyds par/en présence de
The tests have been made on machines approved by AIB and Lloyds by/in presence of

DATE : 24.03.88

BRIDON NORGE A.S.

Postboks 1

1361 Billingstadsletta

Tlf. 02-98 12 70

DIRECTEUR TECHNIQUE

[Handwritten signature]

Underskrift
Signature

Haugesund 01.02.91
[Handwritten Signature]

I Certify that the above gear was tested and examined by a competent person in the manner set forth on the reverse side of this certificate, that examination showed that the gear withstood the test load without injury or deformation; and that the safe working load on this gear is as shown in Col. 7.

Leg attesterer at ovennevnte redskap ble prøvet og undersøkt av en sakkyndig person på den måten som er fastsatt på baksiden av dette sertifikat, at undersøkelsen viste at redskapene utholdt belastningen uten å få skade eller formforandring, og at den tillatte arbeidsbelastning på redskaper er som angitt i overslående rubrikk 7.

8 Navn og adresse til fabrikkantene eller forhandlerne.
Name and Address of makers or suppliers.
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.
10 Underleggedes stilling i ovennevnte institusjon, selskap eller firma.
Position of signatory of public service, association, company or firm.
AS Møllerodden, 5500 Haugesund
AS Møllerodden
5500 Haugesund
Test Superintendent

Kjenningssnr. eller merke	Utvendig diam. av skiven	Angivelse av det som er prøvet	Antall av det som er prøvet	Dato da prøven ble utført	Anvendt prøvekt	Tillatt arbeidsbelastning
1	2	3	4	5	6	7
65585	20"	Single sheaved block with ramshorn hook and becket. SWL 30 T. In hook	1	01.02.91	55	10
Distinquishing number or mark	Outside Diameter of Sheave	Description of gear	Number tested	Date of test	Test load applied	Safe Working Load

Fastsett av Sjøfartsdirektoratet
Prescribed by the Maritime Directorate
17. januar 1978

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, overstrained, altered or repaired by welding.

Sertifikat for prøve og undersøkelse av kjetting, ringer, kroker, sjakler, svinger, blokker og andre redskaper, før de tas i bruk og etter de har vært forlengt, forstruktet, forandret eller reparert ved sveising.

This Certificate is based on the standard international form of certificate approved by the International Labour Office for the test and examination of lifting machinery and gear used in the loading and unloading of ships.

Dette sertifikat er basert på det standard internasjonale formular godkjent av Det Internasjonale Arbeidsbyrå for prøve og undersøkelse av laste- og løseinnretninger og redskap ombord på skip.



Health and Safety Executive

B06169

Form prescribed by the Secretary of State for Certificate of Test and Examination of Chains, chain slings, rope slings (except a fibre rope sling), or similar gear, rings, links, hooks, plate clamps, shackles, swivels and eye-bolts.

This form is based on the standard international form of certificate approved by the International Labour Organisation for the test and examination of lifting machinery and gear used in the loading and unloading of ships.

Factories Act 1961
Docks Regulations 1934, regulations 19(a) and 22(a)
Shipbuilding and Ship-repairing Regulations 1960, regulations 36(1) and 36(2)
The Construction (Lifting Operations) Regulations 1961, regulations 34(1)(b) and 35
(This form may also be used for the purposes of section 26(1)(c) of the Factories Act 1961)

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Certificate No.

K-44455

1 Particulars Distinguishing number or mark	(i) Description of item. This should include size, material and particulars of any heat treatment	(ii) Number tested and examined	(iii) Date of test and examination	(iv) Proof load applied (specify units)	(v) Safe working load (specify units)
K-44455 1-10	FAB Shackles type A 6 C but with Slotted Head Pin type B.	10	10	62,5	25
K-44455 11-20	Shackle used on 82641: K-44455-18	10	10	62,5	25

Not to be heat-treated

2 Name of maker, supplier or repairer

4 Name of person who carried out the test and examination

Trond H Spillhaug

Position Inspector

Qualification

5 I certify on behalf of the firm, company, association or person named in (3) and (4) above that the items described herein were tested and thereafter examined and were found to be free from cracks, flaws or other defects.

Signature

6.4

Date

6 Name of owner or occupier

Maritime Hydraulics A/S

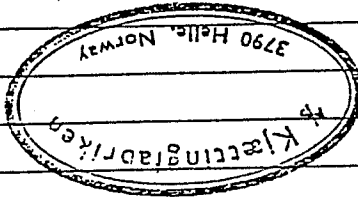
Address

Dvergnes

4604 KRISTIANSD S

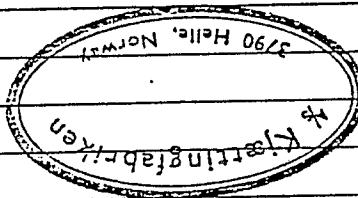
See notes overleaf

Address



3 Name of firm, company, association or person undertaking the test and examination.

Address



Sertifikat for prøve og undersøkelse av kjetting, ringer, kroker, sjaker, svivler, blokker og andre redskaper, før de tas i bruk og etter at de har vært forlengget, forstrukket, forandret eller reparert ved sveising

Faktnr. : 0773B
Invoice No. : 0773B
Deres ref. : H02582-
Your ref. : K2836

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, Overstrained, Altered or Repaired by Welding.

Mottaker: Hydraulift A/S
Receiver: Kristiansand

Merket: Lochner A/S
Marked: Lochner A/S

(1) Kjenningnr. eller merke Distinguishing number of mark	(2) Angivelse av det som er prøvet* Description of gear	(3) Antall av prøvet er prøvet Number tested	(4) Datum da prøven ble utført Date of test	(5) Anvendt prøvekt prøvet load applied	(6) Tillatt arbeidsbelastning Tonn-Tons
1886-3587	Sert. Støkkfisk G.11-1/2"10.00T	2 stk.	10/90	20,00	10,00
MÅ IKKE VARMEBEHANDLES Not to be heat-treated					

(7) Navn og adresse til fabrikkant eller forhandler
Name and address of the maker or supplier of the rope

LOCHNER A/S
Fegirs vei 10 - P.O. Box 1574, Valhalla
4602 KRISTIANSDAND S - NORWAY

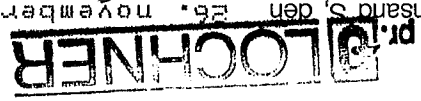
(8) Navn og adresse til den institusjon, det selskap eller firma som utførte prøven og undersøkelsen
Name and address of public service, association, company or firm performing the test and examination

Jacobsen Andr. A/S
Lonevåg

(9) Undertegnedes stilling i ovennevnte institusjon, selskap eller firma
Position of signatory in public service, association, company or firm

Disponent

Leg attesterer at ovennevnte redskap ble prøvet og undersøkt av en sakkyndig person på den måte som er fastsatt på baksiden av dette sertifikat, at undersøkelsen viste at redskapene utholdt belastningen uten å få skade eller formforandring og at den tillatte arbeidsbelastning av redskapene er som angitt i ovenstående rubrikk (6).
I certify that the above gear was tested and examined by a competent person in the manner set forth on the reverse side of this certificate, that the examination showed that the gear withstood the proof load without injury or deformation, and that the safe working load on this gear is as shown in Col. (6).



Underskrift (Signature)

* Her oppgis redskapens dimensjoner, hva slags materiale det er laget av og eventuelt den utførte varmebehandling produksjonen (forutsatt ikke Form. nr. 6 blir brukt for dette format).
The dimensions of the gear, the type of material of which it is made and, where applicable, the heat treatment received in manufacture should be stated (unless Form. No. 6 is used for the purpose).

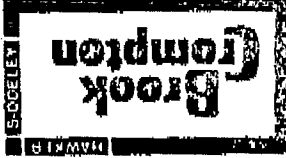
is the subject of this PERFORMANCE TEST CERTIFICATE

RE/ or will be of the same rating as that shown on THIS TYPE TEST CERTIFICATE and routine check

Signed: **Chris Design Engineer**
 To DNV 45°C Amb. max.
 50°C T. rise.

T. 728E

Motor Number		TYPE TEST		TEST CERTIFICATE															
380/660		1D515M		Hawker Siddley Electric Motors Ltd. GUISLEY, LEEDS, LS20 8NZ ENGLAND															
DELTA STAH		426/245		Supplied to		Paul Wisnacke JR AS		Agent Order No		15.370		LOCKED-ROTOR TEST							
380/660		426/245		Vols		380		Vols		950		-		793		50		223	
380/660		426/245		Amps		1.4		Amps		3.80		122.9		185.7		246.6			
380/660		426/245		Eff %		93.7		Eff %		93.8		92.7		90.7		85.5			
380/660		426/245		PF		.92		PF		.907		.733							
380/660		426/245		Sap %		1.4		Sap %		1.0		1.4		1.0		1.4			
380/660		426/245		*Continuous run on RMS load with heater 220 80 W - Thermist 1 set c/o		246.6		Output kW		380		185.7		246.6					
380/660		426/245		No Load		380		Vols		380		122.9		185.7		246.6			
380/660		426/245		Calculation of the efficiency from the summation of losses		950		Amps		3.80		235.3		331.6		434.3			
380/660		426/245		Input kW		950		Input kW		198		132.5		331.6		434.3			
380/660		426/245		Hz		793		Hz		50		50		50		50			
380/660		426/245		Rev/min		793		Rev/min		1479		1485		1485		1479			
380/660		426/245		NM		223		NM		1592		1194		788		1592			
380/660		426/245		Calculation of the efficiency from the summation of losses		223		Calculation of the efficiency from the summation of losses		1592		1194		788		1592			
380/660		426/245		Design Rm.		4		Design Rm.		4		4		4		4			
380/660		426/245		DCX/261		4		DCX/261		4		4		4		4			
380/660		426/245		Days		56		Days		56		56		56		56			
380/660		426/245		Hours at full load		56		Hours at full load		56		56		56		56			
380/660		426/245		Temp rises (°C) after 1 hr		40K		Temp rises (°C) after 1 hr		40K		40K		40K		40K			
380/660		426/245		Phase		3		Phase		3		3		3		3			
380/660		426/245		DTR		50		DTR		50		50		50		50			
380/660		426/245		Sec. Wires		55		Sec. Wires		55		55		55		55			
380/660		426/245		Cond. P		92		Cond. P		92		92		92		92			
380/660		426/245		T Rise		90°C		T Rise		90°C		90°C		90°C		90°C			
380/660		426/245		Dur. Temp		40K		Dur. Temp		40K		40K		40K		40K			
380/660		426/245		Design Load		90°C		Design Load		90°C		90°C		90°C		90°C			
380/660		426/245		Output kW		380		Output kW		380		380		380		380			
380/660		426/245		Vols		380		Vols		380		380		380		380			
380/660		426/245		Amps		950		Amps		950		950		950		950			
380/660		426/245		Input kW		950		Input kW		950		950		950		950			
380/660		426/245		Hz		793		Hz		793		793		793		793			
380/660		426/245		Rev/min		793		Rev/min		793		793		793		793			
380/660		426/245		NM		223		NM		223		223		223		223			
380/660		426/245		Calculation of the efficiency from the summation of losses		223		Calculation of the efficiency from the summation of losses		223		223		223		223			
380/660		426/245		Design Rm.		4		Design Rm.		4		4		4		4			
380/660		426/245		Days		56		Days		56		56		56		56			
380/660		426/245		Hours at full load		56		Hours at full load		56		56		56		56			
380/660		426/245		Temp rises (°C) after 1 hr		40K		Temp rises (°C) after 1 hr		40K		40K		40K		40K			
380/660		426/245		Phase		3		Phase		3		3		3		3			
380/660		426/245		DTR		50		DTR		50		50		50		50			
380/660		426/245		Sec. Wires		55		Sec. Wires		55		55		55		55			
380/660		426/245		Cond. P		92		Cond. P		92		92		92		92			
380/660		426/245		T Rise		90°C		T Rise		90°C		90°C		90°C		90°C			
380/660		426/245		Dur. Temp		40K		Dur. Temp		40K		40K		40K		40K			
380/660		426/245		Design Load		90°C		Design Load		90°C		90°C		90°C		90°C			
380/660		426/245		Output kW		380		Output kW		380		380		380		380			
380/660		426/245		Vols		380		Vols		380		380		380		380			
380/660		426/245		Amps		950		Amps		950		950		950		950			
380/660		426/245		Input kW		950		Input kW		950		950		950		950			
380/660		426/245		Hz		793		Hz		793		793		793		793			
380/660		426/245		Rev/min		793		Rev/min		793		793		793		793			
380/660		426/245		NM		223		NM		223		223		223		223			
380/660		426/245		Calculation of the efficiency from the summation of losses		223		Calculation of the efficiency from the summation of losses		223		223		223		223			



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