

# BP CHIRAG PROJECT

0	19.02.2013	As Built	ANTH	EROL		
Rev.	Issued date	Description	Made by	Chk'd by	Disc. Appr.	Proj. Appr.



Nyland as


PO Nr.: <b>4500111369</b>	Package Title: <b>Up-/Down-facing Connector Assembly</b>	Supplier Doc. Nr.: <b>MRB-4500111369-00080, rev 0</b>
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	1 - Accepted	Date	Sign
	2 - Accepted w comments incorporated		
	3 - Not accepted – revise and resubmit		
	4 - For information only		
Document type:	Area:	System:	
PDF			

Document title:

## Manufacturing Record Book for Item 00080

Document No.:	Rev.:	Page:


 <b>Nyland as</b>	<b>Doc. Nr.:MRB-4500111369-00080</b>
<h1>Manufacturing Record Book</h1> <h2>for</h2> <h1>N112100-E155A Upfacing Jig</h1>	

**GE Oil & Gas**  
**PO No.: 4500111369**  
**NLI Order No.: 46126**


Section	Description	Section Required	No of pages in each section	Remarks
1	Inspection & Test Plan	X	3	
2	QMS Certificate	X	4	
3	Quality Plan	N/A		
4	Material traceability List	X		See section 20, GRV
5	Material Certificates / PMI Reports	X	1	
6	Weld and NDE Log	X		See section 20, GRV
7	WPS / WPQ / PWHT	X		See section 20, GRV
8	Welders Certificates	X		See section 20, GRV
9	Visual Inspection Reports	X		See section 20, GRV
10	NDE Reports	X		See section 20, GRV
11	NDE Operators Certificates	X		See section 20, GRV
12	Surface Treatment Inspection Reports	X		See section 20, GRV
13	Dimensional Inspection Report	X	1	
14	Weighing Certificate	X	1	
15	Lifting Certificate	N/A		
16	Pressure Test Traceability Certificate	N/A		
17	Pressure Test Procedure / FAT Procedure	X		See section 20, GRV
18	Pressure Test Certificate / FAT Report	X		See section 20, GRV
19	Documentation from Sub-Suppliers	NA		
20	Non- Conformance / Concession Records	X	2	
21	Certificate of Conformance	X	1	
22	As-Built Drawings / Mark-Ups	X		See section 20, GRV
23	Photo's of: Equipment / Testing / Marking / Nameplate	N/A		
24	Mechanical Completion Dossier	X	6	
25	Heat Treatment Record	N/A		
26	Electrical Certification and Record	N/A		
27	Instrumentation	N/A		
28	Miscellaneous Certification Reports and Calibration Records	N/A		
29	Software Test Results	N/A		



# **1. Inspection & Test Plan**

APPROVED CODE 1, 18.02.2013 GE Tim Ardal

 <b>APPROVED</b> By Martin Hvassing at 2:59 pm, Feb 18, 2013		<b>Inspection and Test Plan</b>				Doc. No.: ITP-46126			
						Rev.	Date	Made by	Checked by
		Project Name: BP CHIRAG				0	17.04.12	VILA	
		Product Name: Up-facing / Down-facing Connector Assembly				1	07.05.12	MAPO	
		NLI Nyland Job Nr.: 46126				2	15.10.12	HAOY	MAHV
						3	31.10.12	HAOY	MAHV
4	18.02.13					HAOY	MAHV		
Customer: GE Oil & Gas		Purchase Order: PO4500111369				H = Hold, W = Witness, R = Review, M = Monitoring H = 10 working days, W = 5 working days			
Item	Activity	Responsible	Procedure	Accept. Criteria	Report/cert. type	NLI Nyland	GE	BP	Comments:
1	Contract Review	Sales- / Proj. Manager	NLI-B.300	NA	Report, Checklist, Signature	R			
2	Kick-off Meeting	Project Manager	NA	NA	MOM	H			
3	Pre Production Meeting	Project Manager	NA	NA	SDL, ITP, MOM	H	H	H	
4	Material control		NLI B-800	Bom/draw	Traceability List	R	R	R	A. Material Cert. Requirement: 3.1 + W. B. Non G8 EU countries to be approved by NLI/GE. C. Origin producer of bolts to be approved by NLI/GE.3.1 B + W
5	WQ- Welders Qualification		NA	NS-EN-287	Welders Certificate	R	R	R	
<b>Structure</b>									
6	Machining of relevant components		NA	Acc. To DRW / BOM	Dimensional Report	R	R	M-R	
7	Fabrication after Machining		NA	Acc. To DRW / BOM	NA	M	R	M-R	
8	WPS - Welding Procedure Specification / WPQR		NLI N.DF420 rev. 3	WPQR 25-10 rev. 0 / VGS 3.5.13 / draw	WPS / WPQR	H	H	H	Approval of documents
9	Start-up pre-fabrication / welding		Weld & NDE Matrix / Map.	Approved WPQR	Welding Log	R	R	M-R	
10	Welding		NLI N.DF420	WPQR 25-10	Welding Log	R	R	M-R	
11	NDE MT		QAP-MT-01.46126 / N041052-NW1 rev. B	QAP-MT-01.46126 / N041052-NW1 rev. B	Welding Log	R	R	M-R	
11	NDE VT		D-9.7.03.VT / NORSOK M-101	D-9.7.03.VT / NORSOK M-101	Welding Log	R	R	M-R	
12	Dimensional Check Before Surface Treatment		NA	Acc. To DRW/BOM	Dimensional Report	R	R	R	
13	Surface Treatment		B-1020-74 E / VGS .6.1.38.1 rev.0	B-1020-74 E / VGS .6.1.38.1 rev.0	Surface Treatment Report	R	R	M-R	
<b>Piping</b>									
17	Machining of relevant components		NA	Acc. To DRW/BOM	Dimensional Report	R	R	M-R	
18	Fabrication after Machining		NA	Acc. To DRW/BOM	NA	M	R	M-R	
19	WPS - Welding Procedure Specification / WPQR		pWPS NLI N.01 CW-12 / pWPS 13-12 / pWPS 14-12 / pWPS 13 12 repair / pWPS 14-12 repair	Acc. to N041052-E282NW1 / N041052-W282P1 / drawing.	WPS / WPQR	H	H	H	Approval of documents
20	NDE MT		QAP-MT-01.46126 / N041052-NW1 rev. B	QAP-MT-01.46126 / N041052-NW1 rev. B	Welding Log	R	R	M-R	



		<h2 style="text-align: center;">Inspection and Test Plan</h2>				Doc. No.: ITP-46126			
						Rev.	Date	Made by	Checked by
		Project Name: BP CHIRAG				0	17.04.12	VILA	
		Product Name: Up-facing / Down-facing Connector Assembly				1	07.05.12	MAPO	
		NLI Nyland Job Nr.: 46126				2	15.10.12	HAOY	MAHV
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Customer: GE Oil & Gas		Purchase Order: PO4500111369				H = Hold, W = Witness, R = Review, M = Monitoring H = 10 working days, W = 5 working days			
Item	Activity	Responsible	Procedure	Accept. Criteria	Report/cert. type	NLI Nyland	GE	BP	Comments:
21	Start-up pre-fabrication / welding		Weld & NDE Matrix / Map.	Approved WPS	Welding Log	R	R	M-R	
22	Welding (Cladding)		NLI N.01 CW-12 rev. 5	WPQR NLI N.01 CW-12 rev. 4	Weld Summary list	R	R	R	
23	NDE VT		QAP-VT-01.46126 / ISO 17637 / N041052-E282P1 rev.B / N041052-E282NW1 rev.B	QAP-VT-01.46126 / ISO 17637 / N041052-E282P1 rev.B / N041052-E282NW1 rev.B	Welding Log	R	R	M-R	
24	NDE of Weld Overlay Thickness		QAP-TOC-01	Acc. To WPS / DRW	Welding Log	R	R	M-R	
25	NDE UT		QAP-UT-03.46126 / N041052-E282NW1 REV.3	QAP-UT-03.46126 / N041052-E282NW1 REV.3	Welding Log	R	R	M-R	
26	NDE PT		QAP-PT-01.46126 / N041052-E282P1 rev.B / N041052-E282NW1 rev.B	QAP-PT-01.46126 / N041052-E282P1 rev.B / N041052-E282NW1 rev.B	Welding Log	R	R	M-R	
27	NDE PMI		QAP-PMI-01.46126 / N041052-E282P1 rev.B / N041052-E282NW1 rev.B / VGS 8.10.01	QAP-PMI-01.46126 / N041052-E282P1 rev.B / N041052-E282NW1 rev.B / VGS 8.10.01	Welding Log	R	R	M-R	
28	Welding (Pup-Hub)		WPS E-BP512 (rev. Acc. To SDL)	WPQR 13-12 rev. 1	Weld Summary list	R	R	R	
29	Welding (Pup-Hub)		WPS E-BP513 (rev. Acc. To SDL)	WPQR 14-12 rev. 0	Weld Summary list	R	R	R	
29	Welding Repair (Pup-Hub)		WPS E-BP514 (rev. Acc. To SDL)	WPQR 13-12 rev. 1 / WPQR 14-12 rev. 0	Weld Summary list	R	R	R	
30	NDE VT		QAP-VT-01.46126 / ISO 17637 / N041052-E282P1 rev.B / N041052-E282NW1 rev.B	QAP-VT-01.46126 / ISO 17637 / N041052-E282P1 rev.B / N041052-E282NW1 rev.B	Welding Log	R	R	M-R	
31	NDE UT		QAP-UT-08.46126 / N041052-E282P1 rev.B	QAP-UT-08.46126 / N041052-E282P1 rev.B	Welding Log	R	R	M-R	
32	NDE RT		QAP-RT-01.46126 / N041052-E282P1 rev.B	QAP-RT-01.46126 / N041052-E282P1 rev.B	Welding Log	R	R	M-R	
33	NDE PT		QAP-PT-01.46126 / N041052-E282P1 rev.B / N041052-E282NW1 rev.B	QAP-PT-01.46126 / N041052-E282P1 rev.B / N041052-E282NW1 rev.B	Welding Log	R	R	M-R	
34	NDE PMI		QAP-PMI-01.46126 / N041052-E282P1 rev.B / N041052-E282NW1 rev.B / VGS 8.10.01	QAP-PMI-01.46126 / N041052-E282P1 rev.B / N041052-E282NW1 rev.B / VGS 8.10.01	Welding Log	R	R	M-R	
35	Dimensional Check Before Surface Treatment		NA	Acc. To DRW/BOM	Dimensional Report	R	R	R	

  a GE Oil & Gas business		<h2 style="text-align: center;">Inspection and Test Plan</h2>				Doc. No.: ITP-46126			
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		Product Name: Up-facing / Down-facing Connector Assembly				1	07.05.12	MAPO	
		NLI Nyland Job Nr.: 46126				2	15.10.12	HAOY	MAHV
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Customer: GE Oil & Gas		Purchase Order: PO4500111369				H = Hold, W = Witness, R = Review, M = Monitoring H = 10 working days, W = 5 working days			
Item	Activity	Responsible	Procedure	Accept. Criteria	Report/cert. type	NLI Nyland	GE	BP	Comments:
36	Xylan Coating		60-P-XYL-40 / N041051-000SX1	60-P-XYL-40 / N041051-000SX1	Coating Report	R	R	R	
37	Surface treatment		B-1020-33 E / VGS 6.1.38.4 rev 0	B-1020-33 E / VGS 6.1.38.4 rev 0	Coating Report	R	R	R	
Assembly									
38	FAT		N041040-120	N041040-120	FAT Report	H	H	H	
39	FAT		N042042-0003	N042042-0003	FAT Report	H	H	H	
40	FAT		N041040-14	N041040-14	FAT Report	H	H	H	
41	Check Marking / Nameplate	QC Manager	NA	Acc. to drawing / N041051-000SM1	Nameplate photo	R	R	R	
42	Final Inspection	QC Manager	NLI-B-1500	Bom / draw	MCCR, MCD and IRC	H	H	R	
43	MC Check out and MRB approval	QC Manager	NLI-B-1500	Bom / draw	Approved MCD and MRB	H	H	H	
44	Check Packing and Preservation	QC Manager	NLI-B-830	Contract / VGN-PR-LO-02	Packing list, photos	M	R	H	
45	Delivery	Storekeeper / Proj. Manager	NLI-B-830	PO	Del. Note, COC, Dispatch Dossier	R	R	H	

## **2. QMS Certificate**

# Management System Certificate

To certify conformity with // Godkjent overensstemmelse med  
the Management System Requirements of // Styringssystemkravene i henhold til

## NS-EN ISO 9001:2008

awarded // tildelt



**NLI as**

Bjellandveien 24, 3172 Vear  
med følgende konsern og datterselskaper:

### **NLI Solutions as**

NLI Engineering as  
NLI Products as  
NLI Subsea Service as  
NLI Asker Subsea as  
NLI Subsea Engineering as

### **NLI Oil & Industry as**

NLI Larvik as  
NLI Odda as  
NLI Nyland as  
NLI Contracting as  
NLI Elektro as  
NLI Industriservice as

Manufacturing/supplying following products/services:  
for produksjon/leveranse av følgende produkter/tjenester:

Engineering, design, development, purchasing, manufacturing,  
installation and testing of products of our own or specified by our customers

Engineering, utvikling, konstruksjon, anskaffelse, fabrikasjon, montasje  
og testing av egne og kundespesifiserte produkt

Certificate No // Sertifikat nr.:

## 424

First issued // Utstedt første gang: 1998-08-27

Valid until // Gyldig til: 2014-04-25

Issued // Utstedt: 2012-04-18

Audit: Annual // Oppfølging: Årlig

Managing Director // Daglig leder

Technical Manager // Teknisk leder





# Management System Certificate

To certify conformity with // Godkjent overensstemmelse med  
the Management System Requirements of // Styringssystemkravene i henhold til

## NS-EN ISO 14001:2004

awarded // tildelt



**NLI as**

Bjellandveien 24, 3172 Vear  
med følgende konsern og datterselskaper:

**NLI Solutions as**

NLI Subsea Service as  
NLI Asker Subsea as

**NLI Oil & Industry as**

NLI Larvik as  
NLI Odda as  
NLI Nyland as  
NLI Contracting as  
NLI Industriservice as

Manufacturing/supplying following products/services:  
for produksjon/leveranse av følgende produkter/tjenester:

Engineering, design, development, purchasing, manufacturing,  
installation and testing of products of our own or specified by our customers

Engineering, utvikling, konstruksjon, anskaffelse, fabrikasjon, montasje  
og testing av egne og kundespesifiserte produkt

Certificate No // Sertifikat nr.:

### 587

First issued // Utstedt første gang: 2007-04-12

Valid until // Gyldig til: 2014-04-25

Issued // Utstedt: 2012-04-18

Audit: Annual // Oppfølging: Årlig

Managing Director // Daglig leder

Technical Manager // Teknisk leder



# Management System Certificate

To certify conformity with // Godkjent overensstemmelse med  
the Management System Requirements of // Styringssystemkravene i henhold til

## OHSAS 18001:2007

awarded // tildelt



**NLI as**

Ryes gate 28, 3263 Larvik  
med følgende datterselskaper:

NLI Alfr. Andersen as  
NLI Nyland as  
NLI Subsea Service as  
NLI Contracting as

NLI Odda as  
NLI Asker Subsea as  
NLI Elektro as

Manufacturing/supplying following products/services:  
for produksjon/leveranse av følgende produkter/tjenester:

Engineering, design, development, purchasing, manufacturing,  
installation and testing of products of our own or specified by our customers

Engineering, utvikling, konstruksjon, anskaffelse, fabrikasjon, montasje  
og testing av egne og kundespesifiserte produkt

Certificate No // Sertifikat nr.:

**437**

First issued // Utstedt første gang: 2005-07-01

Valid until // Gyldig til: 2014-04-25

Issued // Utstedt: 2011-04-05

Audit: Annual // Oppfølging: Årlig

*Arne Skjelstad*  
Managing Director // Daglig leder

*Håkon Sæbø*  
Technical Manager // Teknisk leder



# Management System Certificate

To certify conformity with // Godkjent overensstemmelse med  
the Management System Requirements of // Styringssystemkravene i henhold til

## NS-EN ISO 3834-2

awarded // tildelt



**NLI as**

Bjellandveien 24, 3172 Vear  
med følgende konsern og datterselskaper:

**NLI Oil & Industry as**

NLI Larvik as

NLI Odda as

Manufacturing/supplying following products/services:  
for produksjon/leveranse av følgende produkter/tjenester:

Development, purchasing, manufacturing, installation and testing of  
products of our own or specified by our customers

Utvikling, konstruksjon, anskaffelse, fabrikasjon, montasje og testing  
av egne og kundespesifiserte produkt

Certificate No // Sertifikat nr.:

**Gyldig i kombinasjon med TI-S Sertifikat nr.: 424**

First issued // Utstedt første gang: 1998-08-27

Valid until // Gyldig til: 2014-04-25

Issued // Utstedt: 2012-04-18

Audit: Annual // Oppfølging: Årlig

Managing Director // Daglig leder

Technical Manager // Teknisk leder



### **3. Quality Plan**

## **4. Material Traceability List**



## **5. Material Certificates/ PMI Reports**



**Shandong Luxing Steel Pipe Co., Ltd**  
 939 LUXING ROAD, QINGZHOU CITY, SHANDONG PROVINCE, P.R. CHINA  
 Tel: 86 536 3532047 Fax: 86 536 3536885



0036-CPD-13-2007

# MILL TEST CERTIFICATE

ACC. TO EN 10204/3.1(2006)

CONTRACTNO: CSJE397/10

5L-0570

THE BUYER:

ORIGINAL

CERTIFICATE NO.: CSJE397/10-2-014

DATE: Apr.25<sup>th</sup>, 2011

<b>DESCRIPTION OF GOODS:</b> Seamless steel pipes																			
<b>STANDARD AND GRADE:</b> EN 10210 part 1 and part 2 edition 2006, S355 J2H, and DIN 2448/1629, material ST52.0, and API 5L Grade X52, 44 <sup>th</sup> edition, PSL 1.										<b>DIMENSION:</b> 610MM×30MM×MIN.5M									
<b>NORMALIZING TEMPERATURE OF THE PIPE:</b> 920-970° C										<b>MELTING PROCESS OF BASE MATERIAL:</b> electric arc furnace									
<b>QUANTITY DELIVERED</b>			<b>PIECES</b>						<b>THEORETICAL WEIGHT-MT</b>										
			9						22.984										
<b>TEST RESULT</b>																			
<b>Heat No.</b>	<b>Weight (MT)</b>	<b>PCS</b>	<b>Chemical composition (14 elements)</b>															<b>CEV</b>	
				<b>C</b>	<b>Si</b>	<b>Mn</b>	<b>P</b>	<b>S</b>	<b>Cr</b>	<b>Ni</b>	<b>Cu</b>	<b>Mo</b>	<b>V</b>	<b>Ti</b>	<b>Nb</b>	<b>AL</b>	<b>N</b>		
			H	0.16	0.48	1.57	0.018	0.016	0.026	0.017	0.017	0.004	0.003	0.011	0.0001	0.017	-		0.43
			P	0.17	0.48	1.55	0.022	0.019	0.021	0.020	0.024	0.004	0.005	0.010	-	0.020	-		0.44
			<b>Mechanical property</b>																
			<b>Tensile strength (Mpa)</b>			<b>Yield strength (Mpa)</b>			<b>Elongation(%)</b>			<b>Impact value (-20°C)J</b>							
			545			350			28			100 65 66							

**VISUAL INSPECTION AND DIMENSIONAL CHECK: OK.** Water Pressure Test (Pressure: 25.0MPa/ Time:6S ): Satisfactory

WE DECLEAR THAT THIS MILL TEST CERTIFICATE AND THE MATERIAL DESCRIBED ABOVE HAS BEEN MANUFACTURED ACCORDING TO THE SPECIFICATION AND THE ORDER AND MEET THE REQUIREMENTS OF THE SPECIFICATION AND THE ORDER

PIECE ANALYSI : P

HEAT ANALYSIS: H

For and on behalf of:

*[Handwritten signature]*

Shandong Luxing Steel Pipe Co., Ltd.  
 Authorised Representative

## **6. Weld & NDE log**

## **7. WPS/ WPQR/ PWHT**

## **8. Welders Certificates**



## **9. Visual Inspection Reports**

## **10. NDE Reports**

## **11. NDE Operators Certificates**

## **12. Surface Treatment Inspection Report**

## **13. Dimensional Inspection Report**



## DIMENSIONAL CHECK

CUSTOMER:	Vetco Gray Scandinavia AS	PROJECT:	Chirag	CUST. PO.NO.:	4500111369
PRODUCT:	VCCS Jig Size 300	DRW.NO.:	N112101-02	GPL Drawing:	
NLI Nyland PROJECT NO:	46126	MATERIAL ENTRY NO:		GA Drawing:	N112101-02

SPECIFIED DIMENSION:	1500	120° Typ	10° Typ	40° Typ	30°	3x M20	4x 622	60 Typ	60°	10	Geometric Tolerance
Part: / Ref:	A	B	C	D	E	F	G	H	I	J	
001	1500	120	10	40	30	20	22	60	60	10	OK
002											
003											
004											
005											
Instrm. No.	533	1513	1513	1513	1513	600	520	520	1513	520	

SPECIFIED DIMENSION:	5	600	600	300	40 Typ	360 Typ	2x ø18	142 ±0,5	142 ±0,5	ø560 ±2	Geometric Tolerance
Part: / Ref:	K	L	M	N	O	P	Q	R	S	T	
001	5	600	600	300	40	360	18	142	142	560.5	OK
002											
003											
004											
005											
Instrm. No.	520	482	482	482	520	482	520	520	520	482	

SPECIFIED DIMENSION:	ø600	ø104,5 <sup>+0,3</sup> <sub>0</sub>	75	ø104,5 <sup>+0,3</sup> <sub>0</sub>	75	3x125					Geometric Tolerance
Part: / Ref:	U	V	W	X	Y	Z	AA	AB	AC	AD	
001	600	104,6	75	104,6	75	125					OK
002											
003											
004											
005											
Instrm. No.	482	520	520	520	520	520					

INSPECTOR:	DATE:	MACHINE NO:
HLA	29/10-12	

14.08.2012 15:59


\\nli.no\NLI Nyland\12 Projects\NLI Måleskjema\46000 - 46500\46126 GE\N112101-02.xls

8/2-2013

Reviewed 19 Feb 2013

## **14. Weighing Certificate**



	<b>Larvik as</b>	<b>VEKT SERTIFIKAT</b> <b>WEIGHT CERTIFICATE</b>		SERTIFIKAT NR.: CERTIFICATE NO.:		1	
				NLI ORDRE NR.: NLI ORDER NO.:		5011	
KUNDE / CUSTOMER:  <b>GE OIL&amp;GAS</b>		PROSJEKT / PROJECT:  <b>CHIRAG</b>		KUNDE / CUST. P.O.NO.:  <b>4500111369</b>		SIDE / PAGE  <b>1</b>	AV / OF  <b>1</b>
ØVRIGE OPPLYSNINGER / SUPPLEMENTARY DATA : <b>VCCS JIG SIZE 300</b>							
PRODUKT / KOMPONENTER: PRODUCT / COMPONENT:							
PART NR.: PART NO.:	SERIE NR. SERIAL NO.	VEID DATO WEIGHING DATE	VEKT / WEIGHT ( Kg. ) NETTO / NET      BRUTTO / GROSS		ANMERKNINGER REMARKS		
<b>N112100-02 A</b>	<b>4500111369-000-80-001</b>	<b>14.02.2013</b>	<b>130Kg</b>				
<b>TOTAL VEKT / TOTAL WEIGHT :</b>			<b>130Kg</b>				

<b>VEIEUTSTYR / WEIGHING EQUIPMENT ( MÅLEOMRÅDE, FABRIKAT / RANGE, PRODUCER )</b>	
<b>UNIT : Spanset 5Tonn Dynameter</b>	
<b>SER.NO: 15042-2659569</b>	
KALIBRERT DATO: CALIBRATION DATE:	KALIBR. INSTANS: CALIBR. AUTHORITY:
<b>06.05.2012</b>	<b>IKM Instrutek AS</b>

KONTROLLAVDELING / CONTROL DEPARTMENT (Sign. / Date)  <b>Larvik as</b> <b>Espen Håkestad 14.02.2013</b>	VEIING BEVITNET AV / WEIGHING WITNESSED BY (Sign. / Date)  <b>Larvik as</b> <i>14/2-2013</i> <b>Pål-Justin Riksfjord Svendsen</b>
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VCCS JIG SIZE  
300

4500111369-001

14/02/2013

## **15. Lifting Certificate**

## **16. Pressure Test Traceability Certificate**



## **17. Pressure Test Procedure / FAT Procedure**

**18. Pressure Test Certificate / FAT  
Report**



## **19. Documentation from Sub-Suppliers**

## **20. Non-Conformance / Concessions Records**

# Supplier Rejection Report for PO: 4500111369 Line 0080

Part Category	NEW PART		Rejection Number	GRV752029 Rev NC	
Purch Order	4500111369	Line 0080	Plant Location	NORWAY - BIL	
Sales Order		Shop/Work Order	Plant Sublocation	VEN - Vendor	
	Work Cent	Oper #	Org Code		
Cust Name			Rejection Status	CLOSED	
Part #	N112100-E155A	Rev B	Status Date	2012/10/26 08:50	
PMS Code	GM - VSS (VERTICAL STROKING SYSTEM)		Create Date	2012/10/04 03:14	
Part Description	ACG 3, VCCS UPFACING JIG (MANIFOLD), GENERAL ARRANGEMENT/INTERFACE		DLC	2012/10/26 08:50	
Vend #	0000016777	Vend Name	Last Updated By	Daniel Spasenoski	
Buyer	ANNETTE SPARBY	Planner	Site	NOR	
			Project Name	CHIRAG	
			Responsible Person	Daniel Spasenoski	

### Discrepancy

GRR Type	Lot Qty	Inspected Qty	Inspected Qty Rej	Total Qty Rej	Actual Part Affected
02 - PRODUCT DEFECT	1	1	1	1	N112100-E155A
General Defect			Specific Defect		
11 - DIMENSIONAL			11AN - MISSING FEATURE		
Material Spec #					
Detection Method					
Found By/At			Current Material Location		
08 - SUPPLIER			NLI NYLAND		
Part Serial Number			Trace Numbers		
4500111369-00080-001					
Responsible Function (Preliminary)			Preliminary Specific Responsibility		
03 - ENGINEERING			03 - ENGINEERING		
Preliminary Root Cause			Manufactured Origin / Location (Preliminary)		
02 - DRAWING ERROR					
Discrepancy					
ON THE DRAWING N112100-E155A ARE 3 HOLES IN THE CYLINDER MARKED. THE VERTICAL POSITION IS MISSING WHICH MEANS THAT WE CANNOT COMPLETE THE JIG. PLEASE ADVISE ON POSITION.					
File Name	Size	Stored By	Stored Date		
N112101-02_TQ.pdf	134,693	Nli Subsea Services AS	2012/10/04 03:14		
N112101-02.pdf	92,368	Nli Subsea Services AS	2012/10/04 03:14		

### Disposition

Disposition Code 1	Qty 1	Disposition Code 2	Qty 2	Disposition Code 3	Qty 3
02 - REPAIR	1				
Disposition					
THE DRAWING SHALL BE REWORKED.					
Justification					
BUILD TO PRINT LETS US DOWN.					
Customer Notification Required		Customer Approval Required			
NO		NO			

### Rework

Customer Approval Received On	Recorded By
Criticality	RCA/NCA Required
MODERATE	NO
Final Root Cause	RCA/NCA Number
02 - DRAWING ERROR	
Responsible Function (Final)	Final Specific Responsibility
05 - OTHER	10 - SALES
Manufactured Origin / Location (Final)	
Perform Work Without Work Order	Work Order # for Performing Work
YES	
Disposition Accomplished	Rejection Cost - COPQ (USD)
YES	0
Material Accepted	Material NOT Accepted. New Rejection #
YES	
Supplier Return Number	Recorded By

Authorized By	Nli Subsea Services AS	2012/10/04 03:14	Reviewed By	Daniel Spasenoski	2012/10/12 14:51
Dispositioned By	Christian Warhuus	2012/10/17 12:09	Released By	Ingvild Elseth	2012/10/25 10:05
Closed By	Daniel Spasenoski	2012/10/26 14:50			

# Supplier Rejection Report for PO: 4500111369 Line 0080

Part Category	NEW PART		Rejection Number	GRV755628 Rev NC	
Purch Order	4500111369	Line 0080	Plant Location	NORWAY - BIL	
Sales Order		Shop/Work Order	Plant Sublocation	VEN - Vendor	
	Work Cent	Oper #	Org Code		
Cust Name			Rejection Status	CLOSED	
Part #	N112100-E155A	Rev C	Status Date	2012/12/20 09:58	
PMS Code	GM - VSS (VERTICAL STROKING SYSTEM)		Create Date	2012/12/13 11:11	
Part Description	ACG 3, VCCS UPFACING JIG (MANIFOLD), GENERAL ARRANGEMENT/INTERFACE		DLC	2012/12/20 09:58	
Vend #	0000016777	Vend Name	Last Updated By	Daniel Spasenoski	
Buyer	ANNETTE SPARBY	Planner	Site	NOR	
			Project Name	CHIRAG	
			Responsible Person	Daniel Spasenoski	

### Discrepancy

GRR Type	Lot Qty	Inspected Qty	Inspected Qty Rej	Total Qty Rej	Actual Part Affected
01 - PROCESS DEFECT	1	1	1	1	N112100-E155A
General Defect			Specific Defect		
10 - DOCUMENTATION			10AB - INCOMPLETE		
Material Spec #					
Detection Method					
Found By/At			Current Material Location		
08 - SUPPLIER			NLI NYLAND		
Part Serial Number			Trace Numbers		
0080-001					
Responsible Function (Preliminary)			Preliminary Specific Responsibility		
03 - ENGINEERING			03 - ENGINEERING		
Preliminary Root Cause			Manufactured Origin / Location (Preliminary)		
12 - OTHER SPECIFICATION ERROR					
Discrepancy					
REQUEST TO PROVIDE DOCUMENTATION LIMITED TO DIMENSIONAL REPORT. DIMENSIONAL CONTROL WILL BE CARRIED OUT IN FULL.					
AS PER E-MAIL D.D. 12.12.2012, IT IS CONFIRMED THAT TOOL SHALL NOT BE USED SUBSEA OR BE SUBMITTED TO EXCESSIVE WEIGHT OR STRESS.					

### Disposition

Disposition Code 1	Qty 1	Disposition Code 2	Qty 2	Disposition Code 3	Qty 3
01 - CONFORMS	1				
Disposition					
IT SHALL ONLY BE PREFORMED A DIM CONTROL ON THE ASSEMBLY.					
Justification					
SEE ABOVE					
Customer Notification Required		Customer Approval Required			
NO		NO			

### Rework

Customer Approval Received On	Recorded By
Criticality	RCA/NCA Required
MINOR	NO
Final Root Cause	RCA/NCA Number
33 - COMMUNICATION BREAKDOWN/ERROR	
Responsible Function (Final)	Final Specific Responsibility
02 - SOURCING	12 - SUPPLIER (POST ORDER)
Manufactured Origin / Location (Final)	
Perform Work Without Work Order	Work Order # for Performing Work
YES	
Disposition Accomplished	Rejection Cost - COPO (USD)
YES	
Material Accepted	Material NOT Accepted. New Rejection #
YES	
Supplier Return Number	Recorded By

Authored By	Nli Subsea Services AS	2012/12/13 11:11	Reviewed By	Daniel Spasenoski	2012/12/17 09:10
Dispositioned By	Roy Hestsveen	2012/12/19 13:18	Released By	Ingvild Elseth	2012/12/19 13:18
Closed By	Daniel Spasenoski	2012/12/20 15:58			

## **21. Certificate of Conformance**



Larvik as

## CERTIFICATE OF CONFORMITY

NLI Larvik as

Order No.: 5011

SUBJECT: VCCS JIG SIZE 300

GE Oil&Gas as

P.O. No.: 450011369

Ln	Article	Description	SN	Quantity
00080	N1120101-02	VCCS JIG SIZE 300 Assembly	001	1

We hereby declare that the above mentioned order is manufactured in accordance with your purchase order.

Larvik,

18.02.2013

Company stamp and signature:

*Paul - J. Larvik as*  
**NLI Larvik as**

Postadresse  
PB. 2016, Stubberød  
3255 Larvik

Besøksadresse  
Ryesgale 28  
3263 Larvik

Sentralbord  
Tlf.: (+47) 40 00 69 39

Organisasjonsnr.  
NO 998 092 558 MVA

## **22. As-built Drwg./Mark-ups**


**23. Photos of Equipment/ Testing/  
Marking/ Nameplate**





















## **24. Mechanical Completion Dossier**






Equipment: VCCS JIG SIZE 300	<b>MECHANICAL COMPLETION CERTIFICATE</b>		 GE Oil & Gas Drilling & Production Vetco Gray Scandinavia AS			
NOI no.: <b>30</b>	Project: <b>BP Chirag</b>	MCD No: <b>E282-MCD-0020</b>				
Supplier: <b>NLI</b>	Client: <b>BP</b>	PO No: <b>4500111369</b>				
<b>APPROVAL SIGNATURES</b>						
Supplier:	Name: <b>Pål-Justin R. Svendsen</b>	Sign: <i>Pål-Justin R. Svendsen</i>	Date: <b>18.02.2013</b>			
GE Oil & Gas VetcoGray:	Name: <b>Tore Ausland</b>	Sign: <i>Tore Ausland</i>	Date: <b>18.02.2013</b>			
End Client:	Name: <b>Barbara Walker</b>	Sign: <i>B Walker</i>	Date: <b>18.02.2013</b>			
<b>SHIPMENT RELEASE CHECK RECORD</b>						
<b>MC Release Check Points</b>		<b>Yes</b>	<b>No</b>	<b>NA</b>	<b>PL</b>	<b>Sign.</b>
1. Are all the applicable items in the Check Record (MCCR) closed ?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>av. dny (B) 19/2/13</i>
2. Is the equipment fabricated according to last revision drawings and specifications ? Verify with GEOG VGS PQE. If available, compare Supplier's Document Register vs. GEOG VGS's ePIMS / SIMON Systems !		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>* (B) 19/2/13</i>
3. Are all applicable technical issues answered and closed ? Verify with GEOG VGS PQE. If available, check the Supplier NCR Log and GEOG VGS's GRR & EPIC Systems !		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>av. dny (B) 19/2/13</i>
4. Are all Inspection Activities completed as per the approved ITP ? Verify with GEOG VGS PQE. If available, check the ITP and all relevant Quality Records !		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>av. dny (B) 19/2/13</i>
5. Have the equipment been through all relevant FAT and Functional Tests and accepted ?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Equipment's Manufacturing Records Book (MRB) have been reviewed and found acceptable ? MRB Acceptance Codes: Yes = Code 1 / PL = Code 2 / No = Code 3 / NA = Code 4		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Are there any other documents – besides the Certificate of Conformity – which need to follow the shipment ? Ex.: Material Traceability List and Material Certificates for items to be welded / Lifting Certificates / FAT / Test Reports ? Check the SDRL ! Verify with GEOG VGS PQE.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Has the equipment been finally inspected and accepted / released for shipment ?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>av. dny (B) 19/2/13</i>
<b>COMMENTS</b>						
<i>* REF GRV # 755628</i>						
<i>* (B) Note Dimensional Report Reviewed</i> <i>&gt; Fastener holes Located as per Dwg Rev C</i> <i>(GRV. 752029) Reviewed 19 Feb 13</i> <i>B. Walker COPX</i>						




Equipment: VCCS JIG SIZE 300		<b>MECHANICAL COMPLETION CHECK RECORD</b>		 GE Oil & Gas Drilling & Production Vetco Gray Scandinavia AS		
NOI no.: <b>30</b>		Project: <b>BP Chirag</b>		MCD No: <b>E282-MCD-0020</b>		
Supplier: <b>NLI</b>		Client: <b>BP</b>		PO No: <b>4500111369</b>		
<b>MCD CHECK POINTS I</b>						
This is a General Check List. The MC Inspector should mark by an X all the relevant checks points.						
No.	Check Point description	X	PL no	Checked by / Sign. Date		
				Supplier	VGS	Client
<b>General Check Points</b>						
1.	Perform a Visual Inspection. Ensure that all components are free from damage (scratches, dents, etc.).	X			ordna	
2.	Check that all markings (tag plates where required) have been included / applied according to Purchase Order Requirements.	X			ordna	
3.	Ensure that Sealing Surfaces are adequately greased, where applicable.	NA				
4.	Ensure that Heat Numbers (Batch Nos. / Serial Nos.) are correctly marked both on the items and on the documentation.	NA				
5.	Perform a random Visual Inspection of the welds. Ensure that the accessible welds are visually acceptable.	X			ordna	
6.	Ensure that an acceptable Certificate of Conformity is available for this equipment.	X			ordna	
7.	Ensure that all Material Certificates are available and full Material Traceability verified.	NA				
8.	Ensure that Material Certificates for all Consumables (inlay / welding material, coating materials, etc.) are available.	NA				
9.	Ensure that Dimensional Inspection / Check has been satisfactorily carried out and documented.	X			ordna	
10.	Ensure that all the relevant WPS-s / WPQR-s were reviewed and pre-approved by GE and included in the MRB, as per SDRL.	NA				
11.	Ensure that the Welding Log and all required NDE (including PMI) is completed and recorded.	NA				
12.	Ensure that all inspection & testing activities required by the approved ITP are fully documented and recorded in the MRB.	X			ordna	
13.	Ensure that Surface Treatment / Coating is complete, recorded and according to specification (including the colour).	NA				
14.	Ensure that all Electrical Continuity Checks have been satisfactorily carried out and recorded.	NA				
15.	Ensure that Lifting Certificate is available and accepted.	NA				
16.	Ensure that Weight Report / Certificate is available at least for one unit.	X			ordna	
17.	Ensure that Assembly has been performed according to correct revision of the drawings.	X			ordna	
18.	Ensure that the MCD is fully documented by photos of the equipment / packaging.	X			ordna	
19.	Check that the applicable Manufacturing Records Book sections are complete. [Ref. Specs.: E000-SQG-0001 / E000-SQG-0002]	X			ordna	
<b>Insulation Check Points</b>						
20.	Check that correct thermal insulation material is used	NA				
21.	Check traceability to GEOG VGS tag no. and that batch & tag markings on product match.	NA				
22.	Check moulding traceability records; visual inspection, dimensional and hardness checks.	NA				



Equipment: VCCS JIG SIZE 300		<b>MECHANICAL COMPLETION CHECK RECORD</b>		 GE Oil & Gas Drilling & Production Vetco Gray Scandinavia AS		
NOI no.: <b>30</b>		Project: <b>BP Chirag</b>		MCD No: <b>E282-MCD-0020</b>		
Supplier: <b>NLI</b>		Client: <b>BP</b>		PO No: <b>4500111369</b>		
<b>MCD CHECK POINTS II</b>						
This is a Product Specific Check List. The MC Inspector should mark by an X all the relevant checks points.						
No.	Check Point description	X	PL no	Checked by / Sign. Date		
				Supplier	VGS	Client
23.	Check records for weekly testing, density, thermal conductivity, specific heat capacity and hardness checks.	NA				
24.	Inspect thermal insulation on products for visual defects.	NA				
25.	Verify that minimum thicknesses of thermal insulation are achieved.	NA				
26.	Check by measurements the length of pipes for verification of up-facing fabricator measurements.	NA				
<b>Clamp Connector Check Points</b>						
27.	Ensure that the Torque Tool (TT) interface is installed.	NA				
28.	Ensure rubber springs correctly mounted on one side (only for clamps with casing)	NA				
29.	Ensure that surface roughness on the segments is according to the drawing requirements.	NA				
30.	Ensure that entering chamfers are grinded on the segments as specified in the drawing.	NA				
31.	Ensure that cable strapping has the right length and that it is welded / brazed to cable shoe.	NA				
32.	Ensure the correct type of grease is applied on uncoated load shoulders of the segments (as specified on drawing).	NA				
33.	Ensure tool lifting mandrel correctly mounted (only for clamps with casing)	NA				
34.	Ensure holes for lifting points included and marked correctly (only for clamps with casing)	NA				
<b>Seals Check Points</b>						
35.	Inspect all sealing areas for damage, contamination and protection.	NA				
36.	Check that Silver coating (Xylan on test seals) is according to specification [N041051-000SS1 / E000-SMS-2035].	NA				
37.	Separate seal area control measurements have been done on both sides after machining, according to drawing / specification (min. 8 measuring points on diameter).	NA				
38.	Seal area surface roughness has been recorded and is within drawing / specification requirements.	NA				
39.	Retainer locking tabs are bent out to specified position within tolerances according to drawing / specification. (5 mm +1/-0).	NA				
<b>Hubs / Pressure Caps / Pressure Caps Assemblies Check</b>						
40.	Inspect all sealing areas for damage, contamination and protection.	NA				
41.	Ensure that dimensional control has been carried out and documented.	NA				
42.	Ensure that each separate seal area has been controlled, measured and recorded after machining.	NA				
43.	Ensure that the seal area surface roughness has been recorded and is within tolerances.	NA				
44.	Ensure that bolt holes are protected with Tectyl 506 WD.	NA				



Equipment: VCCS JIG SIZE 300		<b>MECHANICAL COMPLETION CHECK RECORD</b>		 GE Oil & Gas Drilling & Production Vetco Gray Scandinavia AS		
NOI no.: <b>30</b>		Project: <b>BP Chirag</b>		MCD No: <b>E282-MCD-0020</b>		
Supplier: <b>NLI</b>		Client: <b>BP</b>		PO No: <b>4500111369</b>		
<b>MCD CHECK POINTS III</b>						
This is a Product Specific Check List. The MC Inspector should mark by an X all the relevant checks points.						
No.	Check Point description	X	PL no	Checked by / Sign. Date		
				Supplier	VGS	Client
<b>Valves Check Points</b>						
45.	Ensure end-to-end Valve length is recorded and correct.	NA				
46.	Ensure top-to-bottom Valve height is recorded and correct.	NA				
47.	Ensure correct position of Compensator Tank, as per drawings.	NA				
48.	Ensure Actuator / Gearbox is filled with the adequate oil (HW540), as per drawings.	NA				
49.	Ensure Valve body plug is welded if present.	NA				
50.	Ensure fittings are mounted on Actuator.	NA				
51.	Ensure the ROV bucket was satisfactorily fit-tested against a Dummy Torque Tool.	NA				
52.	Ensure Valve tag plates are fastened on ROV bucket and / or upper part of Valve.	NA				
53.	Ensure Serial Number and VGS Tag Number are correct.	NA				
54.	Ensure Valve position markings are taped.	NA				
55.	Ensure that the Valve is in open position including Fail-Close design.	NA				
56.	Ensure weld prepared bevels are covered with protective caps.	NA				
57.	Ensure availability of Material Certificates and NDT Reports for all weld prepared bevels.	NA				
58.	Ensure Actuators have Cleanliness Certificates attached if required.	NA				
<b>Other Check Points</b>						
59.	Ensure that all machined surfaces that are not painted, are protected with Tectyl 506 WD.	NA				
60.						
61.						
62.						
63.						
64.						
65.						
66.						
67.						



## **25. Heat Treatment Record**



## **26. Electrical Certification & Record**

## **27. Instrumentation**

**28. Miscellaneous Certification Reports  
& Calibration Records**

## **29   Software Test Results**