



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

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## Supporting Documents



Certificate No: MNDE/2015/6871  
Valid From: 26 June 2015  
Date of Issue: 04 August 2015  
Issue Office: Southampton GTC  
LR File Ref: MNDE/40692

## Lloyd's Register Approved Service Supplier

This is to Certify:

***Elander Inspection Ltd  
Suite 128, 11800 River Road  
Richmond, BC V6X 1Z7  
Canada***

has been assessed and approved in accordance with the requirements of *Lloyd's Register Approval for Thickness Measurement of Hull Structure* as a service supplier for the provision of

### Thickness Measurements of Hull Structure

made in accordance with LR's relevant Rules and Regulations for Classification as amended from time to time. The thickness measurements may be used by the surveyors or shipowners' representatives when making decisions affecting classification, statutory certification or the operation of the ship.

Personnel Authorised to carry out Thickness Measurement Survey's pertinent to this approval are listed on page 2 of 2.

The approval is conditional upon the firm maintaining the audited scheme and notifying Lloyd's Register of any significant changes in personnel, equipment or procedures.

This certificate is issued to the above firm and is valid until the date given below.

Expiry Date: 26 June 2018

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Philip Leaver  
Senior Specialist to Lloyd's Register EMEA  
A member of the Lloyd's Register group



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*Certificate No:* MNDE/2015/6871  
*Valid From:* 26 June 2015  
*Date of Issue:* 04 August 2015  
*Issue Office:* Southampton GTC  
*LR File Ref:* MNDE/40692

# Lloyd's Register Approved Service Supplier

## List of Approved Personnel

### Supervisors

Allan Elander

### Operators

Peter Gabor

Jonathan Chin

Emile Dehard

---

Philip Leaver  
Senior Specialist to Lloyd's Register EMEA  
A member of the Lloyd's Register group



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# ELANDER INSPECTION LTD.

Nondestructive Testing and Marine Inspection

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Web Page: [Elanderinspection.ca](http://Elanderinspection.ca)

MAILING ADDRESS:  
PO Box 32130  
Cambie, R.P.O.  
Richmond, B.C.  
V6X 3R9, Canada

## CERTIFICATE OF CALIBRATION

Instrument:	Panametrics 38DL+	Certificate Number:	EIL17-038-03
Serial Number:	171474904	Humidity:	70%
Transducer Model:	D7906-SM	Temperature:	20 C
S.N. of Transducer:	1042265	Software Version:	1.05
Calibration Date:	April 22 <sup>nd</sup> , 2017	Recalibration Date:	April 22 <sup>nd</sup> , 2018

This certifies that the calibration of the above ultrasonic thickness gauging system has been verified to be within the tolerance and measurement range listed below, using calibration standards with measured thickness traceable to the National Institute of Standards and Technology (N.I.S.T.). The calibration standard material is Carbon Steel and/or Stainless Steel.

All units below are: Inches/mm

System Calibration Data					
Test Block S/N:	Certified Length Inches/mm	Measured Length Inches/mm	Deviation Inches/mm	Tolerance (+-) 5%	Within Tolerance
15-4600	12.5	12.50	0.00	Accept	Yes
15-4600	10.0	10.10	0.10	Accept	Yes
15-4600	7.5	7.50	0.00	Accept	Yes
15-4600	5.0	5.1	0.10	Accept	Yes
15-4600	2.5	2.50	0.01	Accept	Yes
DSC 05-7829	25.00	24.98	0.02	Accept	Yes
Gauge Velocity after calibration		N/A Inches/us	Gauge zero after calibration		N/A

A full diagnostic self-test was performed as detailed in the Instruction Manual, Ultrasonic Thickness Gauge. All instrument settings were functioning correctly within manufacture's specified tolerances.

Note: The measurement accuracy of any ultrasonic gauging system is dependent on the performance and proper usage of both the gauge and the transducer. This certificate of calibration identifies the part number and serial number of the transducer used to make the recorded measurements. System performance with other transducers may differ especially with transducers that have been subjected to excessive wear or overheating. This concern makes it imperative to periodically verify the system performance as outlined in the instrument operating manual. If the above calibration shows that the ultrasonic gauging system is out of tolerance, the instrument will be taken out of service and sent to an independent repair facility for repair and calibration as necessary.

The above gauge passes all test requirements of the original manufacture's specification.

Technician performing Calibration: Allan Elander, CGSB Level II, Certificate No. 1136

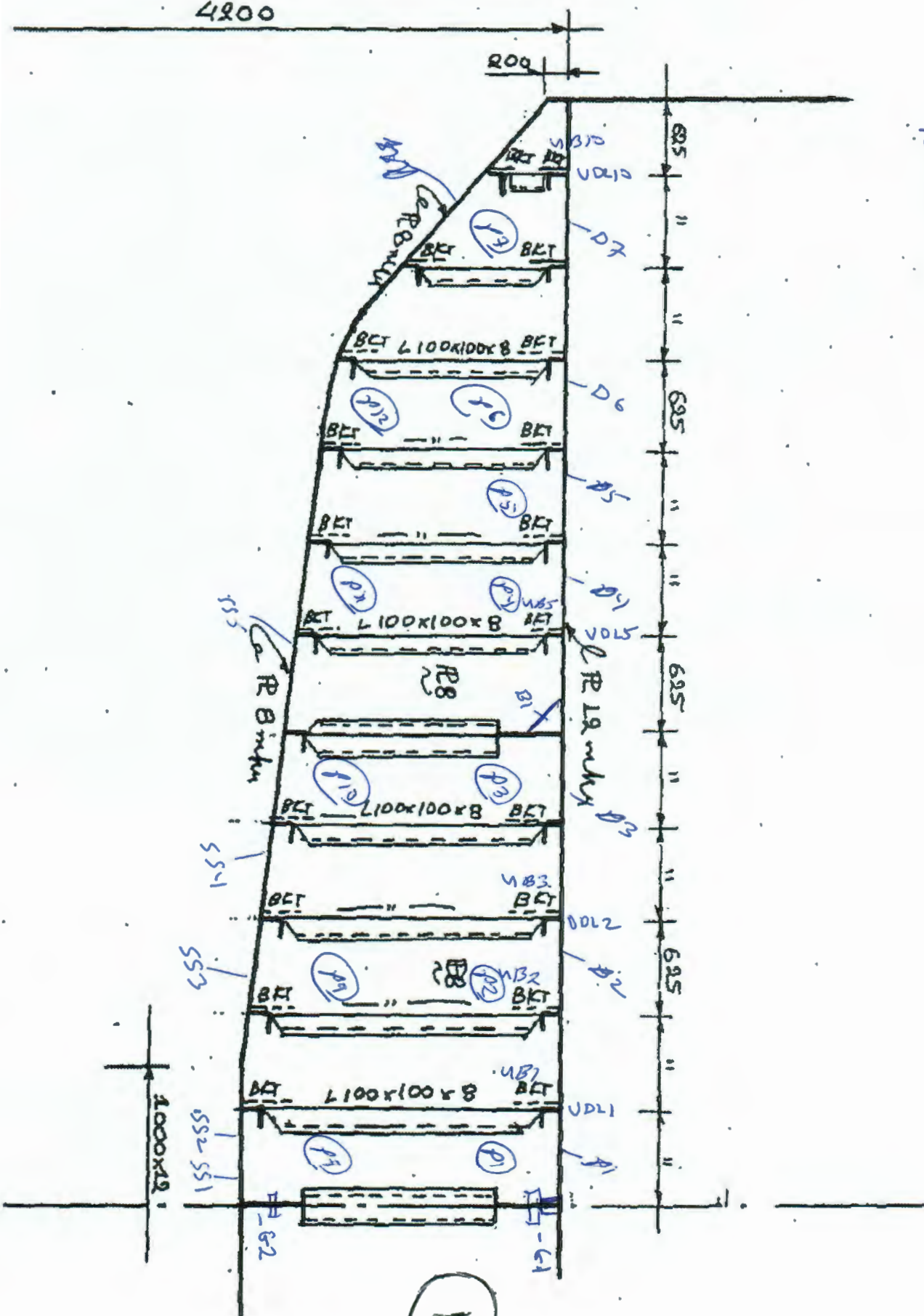
Technician: Allan Elander

Date: April 22, 2017

Time: 5:10 pm

Signature: s.22

13AD-10



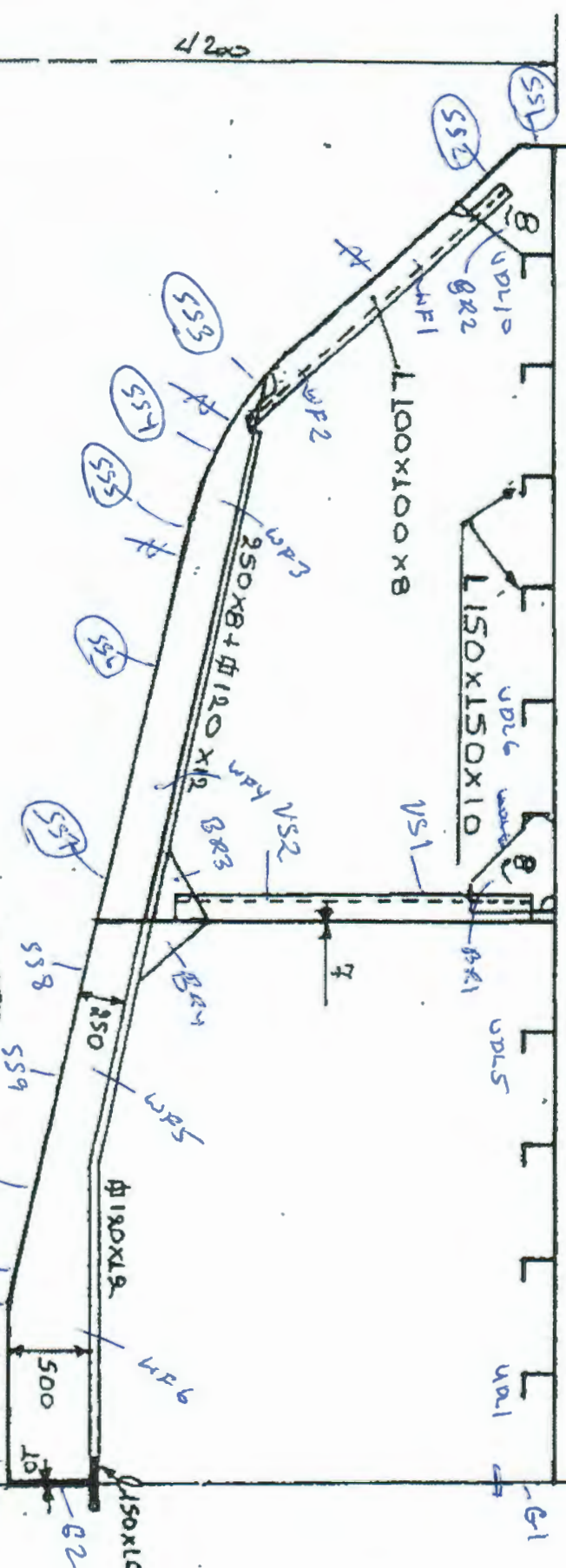








625" 625" 625" 625" 625"



INDICATE FOR

FR 11, 12, 13, 14, 15, 16, 17, 18, 19

FR: 17,  
SC: 150

○ - SIDE STEEL FRAME 12



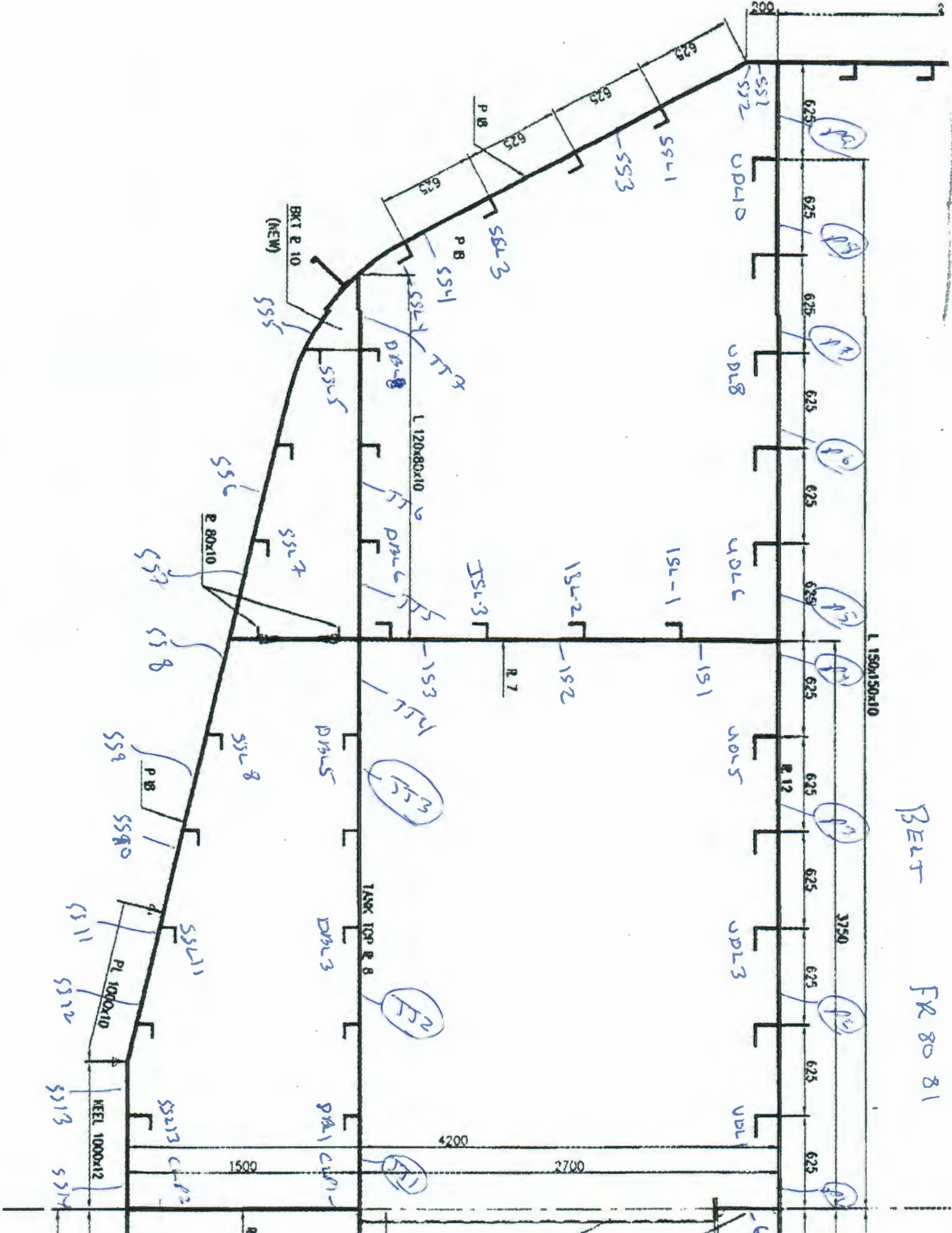
AFT BEAR





BELT

FR 80 81



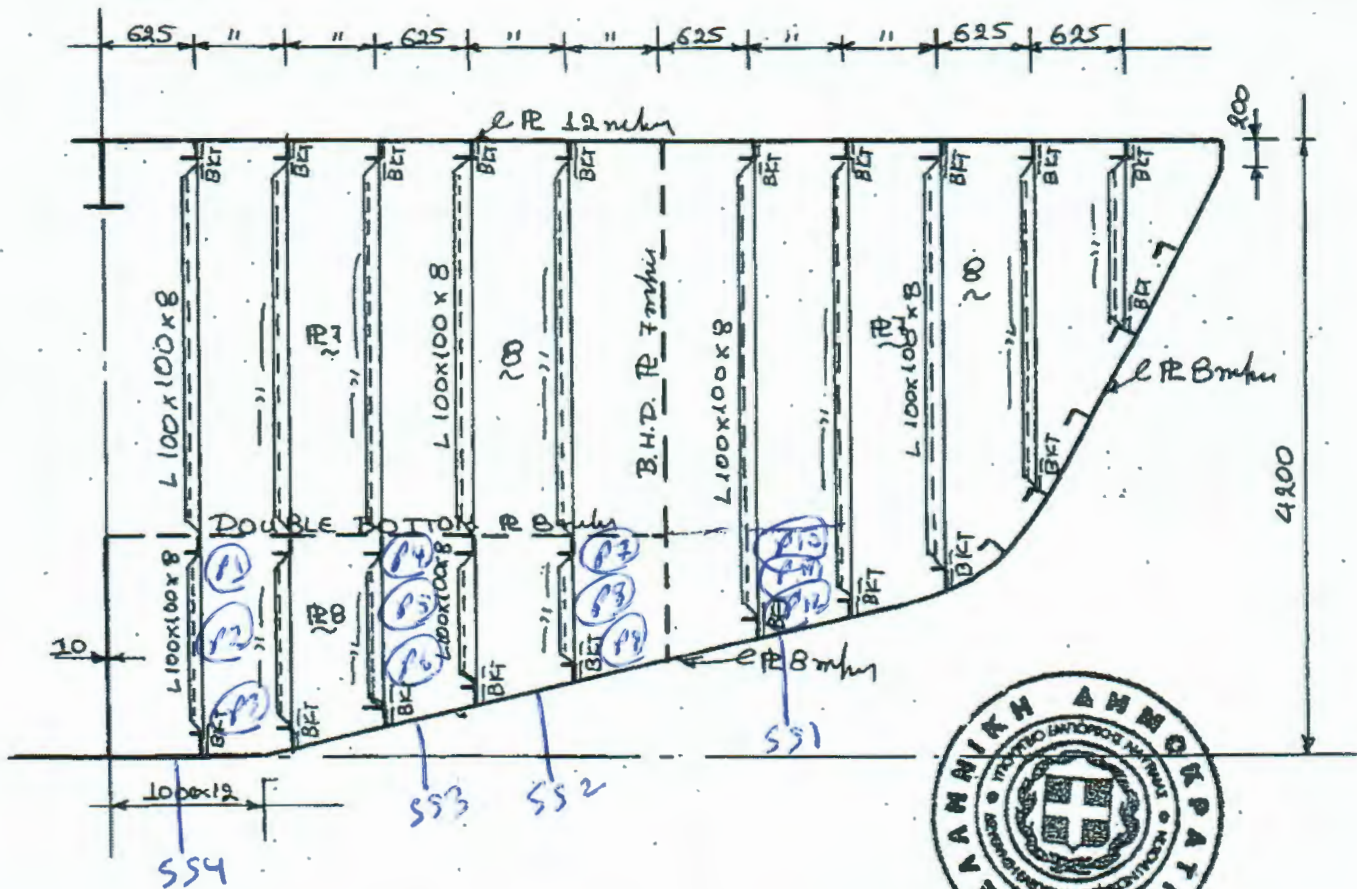




ΕΚ-ΟΓΓ ΑΓΙΟΣ ΑΝΔΡΕΑΣ II

B.H.D. 40

Scale 1:50

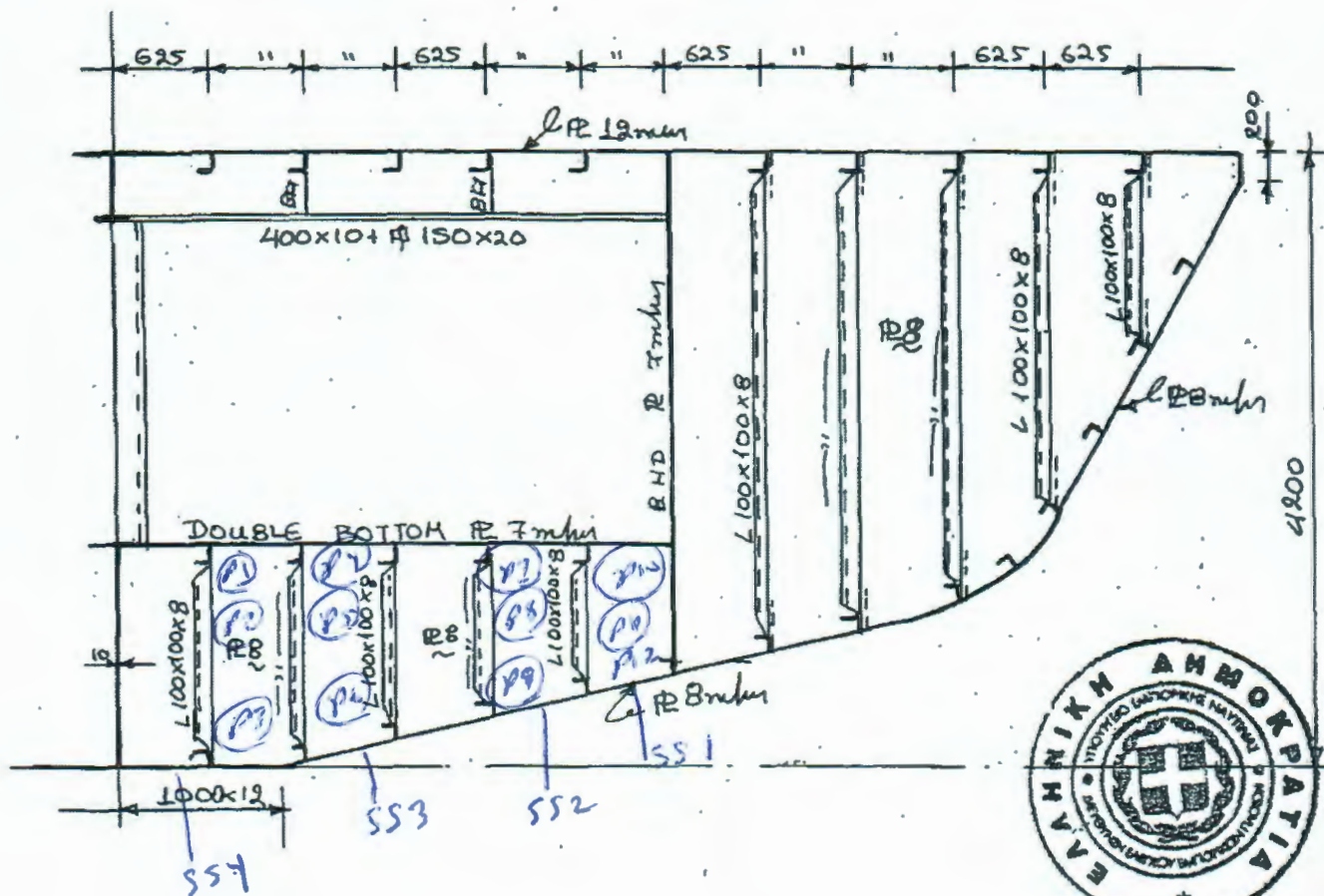




ΕΙΡ - ΟΙΡ ΑΓΙΟΣ ΑΝΔΡΕΑΣ ΙΙ

B.H.D. 50-70-85

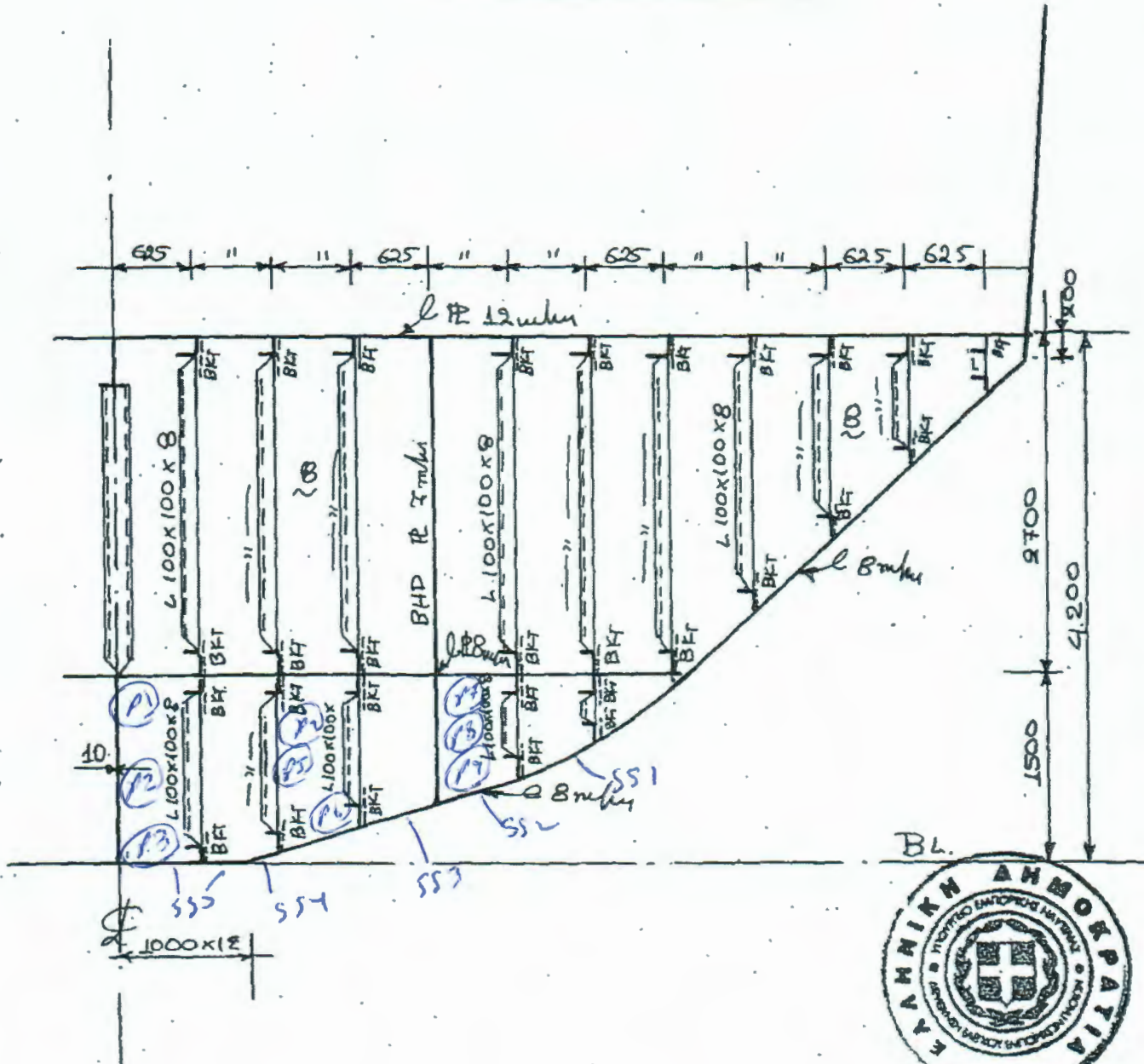
Scale 1:50



ELI-OLY AΓΙΟΣ ΑΝΔΡΕΑΣ II

B.H.D. 95

Scale: 1:50

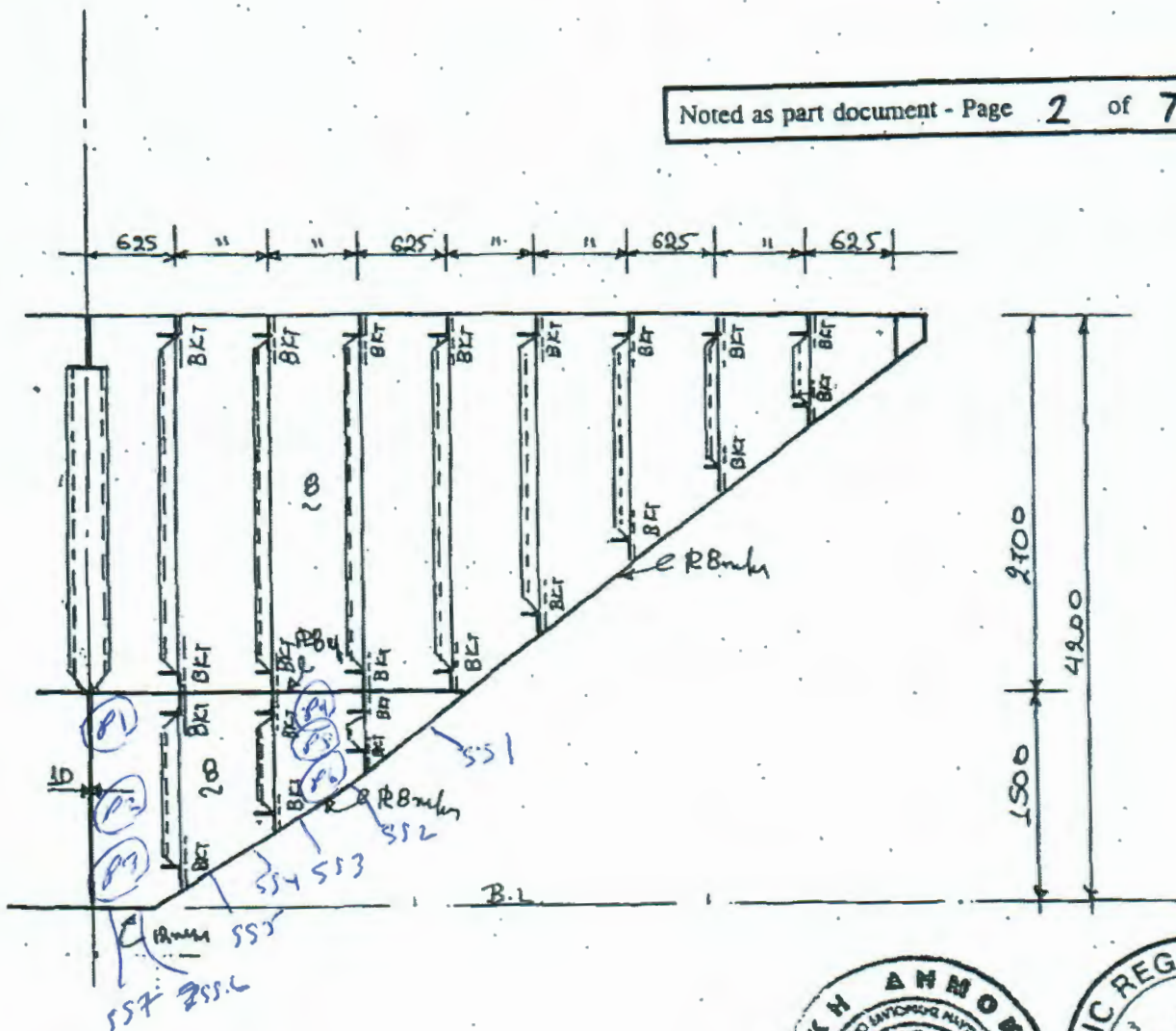


ΕΓ-ΟΓ ΑΝΟΣ ΑΝΑΡΕΑΣ ΙΙ

B.H.D. 105

Scale 1:50

Noted as part document - Page 2 of 7







# Thickness Measurement Report

Ship's Name: NORTHERN SEA WOLF

LR/IMO Number: 9212450

TM Report Number: VCR1800005

## General Particulars

Ship Particulars			
Flag	: CANADA	Port of Registry	: VICTORIA
ESP Ship	: No	Ship Type	: RO-RO/Passenger Ship
Rule Length [m]	: 75	Gross Tons	: 2,679
Deadweight (t)	: 353	Date of Build	: 01 February 2000

Survey Details			
Classification Society	: LR - Lloyd's Register	Place of Measurement	: ESQUIMALT
First Date of Measurement	: 15 January 2018	Last Date of Measurement	: 23 January 2018
Survey Type	: SSIV	Rule Type	: Non-CSR
Ship Category	: Category 2	Details of Measurement Equipment	: Panmetrics 38DL+ SN: 171472265 Recal 22-04-2018
Job Status	:		

TM Company Details			
Name of Company Performing Thickness Measurement	: ELANDER INSPECTION LTD.		
Thickness Measurement Company certified by	: LLOYD'S REGISTER	Certificate Number	: MNDE/2015/6871
Certificate Valid From	: 26 June 2015	Certificate Valid To	: 26 June 2018

Authorisation			
TM Operator's Details		Attending Surveyor's Details	Authorising Surveyor's Details
Name:	Emile Dehard	Name:	Name:
Signature:		Signature:	Signature:
Stamp:		Stamp:	Stamp:

Notes	

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## TM Forms / Sketches



# Thickness Measurement Report

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## Deck Plating - Main Deck Plating TM Forms





# Thickness Measurement Report

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LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM1 – Deck, Shell & Bottom Plating

Space / Compartment Description :					Main Deck Plating									
Strake Position :					Stringer									
Plate Position	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading								Comments	
					Forward			Aft				Mean Diminution (%)		
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution				Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)			
10th Fwd														
9th Fwd														
8th Fwd														
7th Fwd														
6th Fwd														
5th Fwd														
4th Fwd	S4F	12	30	8.4	12	0	0		12	0	0		0	
3rd Fwd	S3F	12	30	8.4	11.8	0.2	1.67		11.8	0.2	1.67		1.67	
2nd Fwd	S2F	12	30	8.4	11.7	0.3	2.5		11.8	0.2	1.67		2.08	
1st Fwd	S1F	12	30	8.4	11.8	0.2	1.67		11.9	0.1	0.83		1.25	
Amidships														no midship strake
1st Aft	S1A	12	30	8.4	11.8	0.2	1.67		11.9	0.1	0.83		1.25	
2nd Aft	S2A	12	30	8.4	11.8	0.2	1.67		11.7	0.3	2.5		2.08	
3rd Aft	S3A	12	30	8.4	11.7	0.3	2.5		11.8	0.2	1.67		2.08	
4th Aft	S4A	12	30	8.4	12.5	0	0		12.5	0	0		0	
5th Aft	S5A	12	30	8.4	12.6	0	0		12.6	0	0		0	
6th Aft														
7th Aft														
8th Aft														
9th Aft														
10th Aft														

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

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TM Report No : VCR1800005

## TM1 – Deck, Shell & Bottom Plating

Space / Compartment Description :					Main Deck Plating									
Strake Position :					Stringer									
Plate Position	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Starboard Reading								Mean Diminution (%)	Comments
					Forward				Aft					
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)		
						(mm)	(%)			(mm)	(%)			
10th Fwd														
9th Fwd														
8th Fwd														
7th Fwd														
6th Fwd														
5th Fwd														
4th Fwd	S4F	12	30	8.4	12	0	0		12	0	0		0	
3rd Fwd	S3F	12	30	8.4	11.8	0.2	1.67		11.8	0.2	1.67		1.67	
2nd Fwd	S2F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83	
1st Fwd	S1F	12	30	8.4	11.7	0.3	2.5		11.8	0.2	1.67		2.08	
Amidships														no midship strake
1st Aft	S1A	12	30	8.4	11.8	0.2	1.67		11.8	0.2	1.67		1.67	
2nd Aft	S2A	12	30	8.4	11.2	0.8	6.67		11.3	0.7	5.83		6.25	
3rd Aft	S3A	12	30	8.4	11.5	0.5	4.17		11.4	0.6	5		4.58	
4th Aft	S4A	12	30	8.4	12.5	0	0		12.4	0	0		0	
5th Aft	S5A	12	30	8.4	12.3	0	0		12.3	0	0		0	
6th Aft														
7th Aft														
8th Aft														
9th Aft														
10th Aft														

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



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TM Report No : VCR1800005

## TM1 – Deck, Shell & Bottom Plating

Space / Compartment Description :					Main Deck Plating										
Strake Position :					1st Inboard of stringer plate										
Plate Position	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading								Mean Diminution (%)	Comments	
					Forward				Aft						
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)			
						(mm)	(%)			(mm)	(%)				
10th Fwd															
9th Fwd															
8th Fwd															
7th Fwd															
6th Fwd															
5th Fwd															
4th Fwd	1-4F	12	30	8.4	11.9	0.1	0.83		12	0	0		0.42		
3rd Fwd	1-3F	12	30	8.4	12	0	0		11.9	0.1	0.83		0.42		
2nd Fwd	1-2F	12	30	8.4	12.1	0	0		12	0	0		0		
1st Fwd	1-1F	12	30	8.4	12	0	0		11.9	0.1	0.83		0.42		
Amidships															
1st Aft	1-1A	12	30	8.4	12	0	0		12	0	0		0		
2nd Aft	1-2A	12	30	8.4	11.9	0.1	0.83		12	0	0		0.42		
3rd Aft	1-3A	12	30	8.4	12	0	0		11.6	0.4	3.33		1.67		
4th Aft	1-4A	12	30	8.4	12.5	0	0		12.5	0	0		0		
5th Aft	1-5A	12	30	8.4	12.6	0	0		12.6	0	0		0		
6th Aft															
7th Aft															
8th Aft															
9th Aft															
10th Aft															

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



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## TM1 – Deck, Shell & Bottom Plating

Space / Compartment Description :					Main Deck Plating										
Strake Position :					1st Inboard of stringer plate										
Plate Position	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Starboard Reading								Comments		
					Forward				Aft					Mean Diminution (%)	
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)			
						(mm)	(%)			(mm)	(%)				
10th Fwd															
9th Fwd															
8th Fwd															
7th Fwd															
6th Fwd															
5th Fwd															
4th Fwd	1-4F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83		
3rd Fwd	1-3F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83		
2nd Fwd	1-2F	12	30	8.4	11.7	0.3	2.5		11.9	0.1	0.83		1.67		
1st Fwd	1-1F	12	30	8.4	12	0	0		11.9	0.1	0.83		0.42		
Amidships															
1st Aft	1-1A	12	30	8.4	11.9	0.1	0.83		12	0	0		0.42		
2nd Aft	1-2A	12	30	8.4	11.7	0.3	2.5		11.5	0.5	4.17		3.33		
3rd Aft	1-3A	12	30	8.4	11.7	0.3	2.5		11.9	0.1	0.83		1.67		
4th Aft	1-4A	12	30	8.4	12.4	0	0		12.3	0	0		0		
5th Aft	1-5A	12	30	8.4	12.1	0	0		12.2	0	0		0		
6th Aft															
7th Aft															
8th Aft															
9th Aft															
10th Aft															

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



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LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM1 – Deck, Shell & Bottom Plating

Space / Compartment Description :					Main Deck Plating										
Strake Position :					2nd Inboard from Stringer Plate										
Plate Position	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading									Comments	
					Forward				Aft						
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Mean Diminution (%)		
						(mm)	(%)			(mm)	(%)				
10th Fwd															
9th Fwd															
8th Fwd															
7th Fwd															
6th Fwd															
5th Fwd	2-5F	12	30	8.4	11.4	0.6	5		11.9	0.1	0.83		2.92		
4th Fwd	2-4F	12	30	8.4	11.9	0.1	0.83		11.8	0.2	1.67		1.25		
3rd Fwd	2-3F	12	30	8.4	11.8	0.2	1.67		11.8	0.2	1.67		1.67		
2nd Fwd	2-2F	12	30	8.4	12	0	0		12	0	0		0		
1st Fwd	2-1F	12	30	8.4	11.8	0.2	1.67		11.9	0.1	0.83		1.25		
Amidships															
1st Aft	2-1A	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83		
2nd Aft	2-2A	12	30	8.4	11.8	0.2	1.67		10.5	1.5	12.5		7.08		
3rd Aft	2-3A	12	30	8.4	11.9	0.1	0.83		12	0	0		0.42		
4th Aft	2-4A	12	30	8.4	12.5	0	0		12.4	0	0		0		
5th Aft	2-5A	12	30	8.4	12.6	0	0		12.6	0	0		0		
6th Aft															
7th Aft															
8th Aft															
9th Aft															
10th Aft															

Excessive Diminution   Substantial Corrosion   Renewed As Built   Renewed other than As Built   Missing Reading   Abnormally High Reading   Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM1 – Deck, Shell & Bottom Plating

Space / Compartment Description :					Main Deck Plating									
Strake Position :					2nd Inboard from Stringer Plate									
Plate Position	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Starboard Reading								Comments	
					Forward				Aft					Mean Diminution (%)
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)		
						(mm)	(%)			(mm)	(%)			
10th Fwd														
9th Fwd														
8th Fwd														
7th Fwd														
6th Fwd														
5th Fwd	2-5F	12	30	8.4	11.7	0.3	2.5		12	0	0		1.25	
4th Fwd	2-4F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83	
3rd Fwd	2-3F	12	30	8.4	11.8	0.2	1.67		11.9	0.1	0.83		1.25	
2nd Fwd	2-2F	12	30	8.4	11.9	0.1	0.83		11.7	0.3	2.5		1.67	
1st Fwd	2-1F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83	
Amidships														
1st Aft	2-1A	12	30	8.4	11.9	0.1	0.83		11.8	0.2	1.67		1.25	
2nd Aft	2-2A	12	30	8.4	12	0	0		11.7	0.3	2.5		1.25	
3rd Aft	2-3A	12	30	8.4	11.8	0.2	1.67		12	0	0		0.83	
4th Aft	2-4A	12	30	8.4	12.5	0	0		12.5	0	0		0	
5th Aft	2-5A	12	30	8.4	12.5	0	0		12.6	0	0		0	
6th Aft														
7th Aft														
8th Aft														
9th Aft														
10th Aft														

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :





# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM1 – Deck, Shell & Bottom Plating

Space / Compartment Description :					Main Deck Plating										
Strake Position :					Center Strake										
Plate Position	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading								Comments		
					Forward				Aft					Mean Diminution (%)	
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)			
						(mm)	(%)			(mm)	(%)				
10th Fwd															
9th Fwd															
8th Fwd															
7th Fwd															
6th Fwd	C-6F	12	30	8.4	11.4	0.6	5		11.6	0.4	3.33		4.17		
5th Fwd	C-5F	12	30	8.4	11.3	0.7	5.83		11.8	0.2	1.67		3.75		
4th Fwd	C-4F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83		
3rd Fwd	C-3F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83		
2nd Fwd	C-2F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83		
1st Fwd	C-1F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83		
Amidships	C-C	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83		
1st Aft	C-1A	12	30	8.4	11.8	0.2	1.67		11.7	0.3	2.5		2.08		
2nd Aft	C-2A	12	30	8.4	11.7	0.3	2.5		11.7	0.3	2.5		2.5		
3rd Aft	C-3A	12	30	8.4	11.9	0.1	0.83		11.8	0.2	1.67		1.25		
4th Aft	C-4A	12	30	8.4	11.8	0.2	1.67		11.2	0.8	6.67		4.17		
5th Aft															
6th Aft															
7th Aft															
8th Aft															
9th Aft															
10th Aft															

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM1 – Deck, Shell & Bottom Plating

Space / Compartment Description :					Main Deck Plating									
Strake Position :					Center Strake									
Plate Position	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Starboard Reading								Comments	
					Forward				Aft					Mean Diminution (%)
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)		
						(mm)	(%)			(mm)	(%)			
10th Fwd														
9th Fwd														
8th Fwd														
7th Fwd														
6th Fwd	C-6F	12	30	8.4	11.4	0.6	5		11.6	0.4	3.33		4.17	
5th Fwd	C-5F	12	30	8.4	11.3	0.7	5.83		11.8	0.2	1.67		3.75	
4th Fwd	C-4F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83	
3rd Fwd	C-3F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83	
2nd Fwd	C-2F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83	
1st Fwd	C-1F	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83	
Amidships	C-C	12	30	8.4	11.9	0.1	0.83		11.9	0.1	0.83		0.83	
1st Aft	C-1A	12	30	8.4	11.8	0.2	1.67		11.7	0.3	2.5		2.08	
2nd Aft	C-2A	12	30	8.4	11.7	0.3	2.5		11.7	0.3	2.5		2.5	
3rd Aft	C-3A	12	30	8.4	11.9	0.1	0.83		11.8	0.2	1.67		1.25	
4th Aft	C-4A	12	30	8.4	11.8	0.2	1.67		11.2	0.8	6.67		4.17	
5th Aft														
6th Aft														
7th Aft														
8th Aft														
9th Aft														
10th Aft														

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## Transverse Sections - Transverse Section No. 1

### TM Forms



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM2~3 - Transverse Sections - Deck, Shell, Bottom Plating & Longitudinal Members

Transverse Section :		No. 1													
Zone :		Deck Zone													
Frame No. :		Frame No. 45													
Tank / Compartment / Space	Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Plate / Profile / Width / Height (mm)	Port Reading			Starboard Reading			Comments		
							Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
								(mm)	(%)			(mm)			(%)
#5WingTank	Stiff. below UDL2	ST-2	10	25	7.5		9.8	0.2	2		9.9	0.1	1		CONFIRM ORG. TH.
#5WingTank	Stiff. below UDL 4	ST-2	10	25	7.5		9.8	0.2	2		9.9	0.1	1		CONFIRM ORG. TH.
#5WingTank	UDL Girder, Web	G1	10	25	7.5		8.9	1.1	11		8.9	1.1	11		
#5WingTank	UDL Girder, Flg.	G1	20	25	15		19.8	0.2	1		19.8	0.2	1		
#5WingTank	Underdeck Long., Web	UDL1	10	25	7.5		11.7	0	0		11.9	0	0		
#5WingTank	Underdeck Long., Flg.	UDL1	10	25	7.5		11.5	0	0		11.4	0	0		
#5WingTank	Underdeck Long., Web	UDL2	10	25	7.5		11.6	0	0		11.7	0	0		
#5WingTank	Underdeck Long., Flg.	UDL2	10	25	7.5		11.2	0	0		11.1	0	0		
#5WingTank	Underdeck Long., Web	UDL3	10	25	7.5		11.5	0	0		11.6	0	0		
#5WingTank	Underdeck Long., Flg.	UDL3	10	25	7.5		11.5	0	0		11.3	0	0		
#5WingTank	Underdeck Long., Web	UDL4	10	25	7.5		11.7	0	0		11.7	0	0		
#5WingTank	Underdeck Long., Flg.	UDL4	10	25	7.5		11.6	0	0		11.3	0	0		
#5WingTank	Underdeck Long., Web	UDL5	10	25	7.5		11.8	0	0		11.9	0	0		
#5WingTank	Underdeck Long., Flg.	UDL5	10	25	7.5		11.5	0	0		11.8	0	0		
#5WingTank	Underdeck Long., Web	UDL6	10	25	7.5		11.9	0	0		11.8	0	0		
#5WingTank	Underdeck Long., Flg.	UDL6	10	25	7.5		11.6	0	0		11.4	0	0		
#5WingTank	Underdeck Long., Web	UDL7	10	25	7.5		11.8	0	0		12	0	0		
#5WingTank	Underdeck Long., Flg.	UDL7	10	25	7.5		11.7	0	0		11.6	0	0		
#5WingTank	Underdeck Long., Web	UDL8	10	25	7.5		11.9	0	0		11.8	0	0		
#5WingTank	Underdeck Long., Flg.	UDL8	10	25	7.5		11.8	0	0		12.1	0	0		
#5WingTank	Underdeck Long., Web	UDL9	10	25	7.5		12	0	0		11.9	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM2~3 - Transverse Sections - Deck, Shell, Bottom Plating & Longitudinal Members

Transverse Section :		No. 1													
Zone :		Deck Zone													
Frame No. :		Frame No. 45													
Tank / Compartment / Space	Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Plate / Profile / Width / Height (mm)	Port Reading			Starboard Reading			Comments		
							Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
								(mm)	(%)			(mm)			(%)
#5WingTank	Underdeck Long., Flg.	UDL9	10	25	7.5		11.8	0	0		11.4	0	0		
#5WingTank	Underdeck Long., Web	UDL10	10	25	7.5		12	0	0		11.8	0	0		
#5WingTank	Underdeck Long., Flg.	UDL10	8	25	6		11.7	0	0		11.7	0	0		
#5WingTank	Side Shell, Sheer Strake	SS1	8	30	5.6		7.7	0.3	3.75		7.2	0.8	10		
#5WingTank	Side Shell, Sheer Strake	SS2	8	30	5.6		7.6	0.4	5		7.3	0.7	8.75		
#5WingTank	Car Deck Plates, Centre Plate	P1	12	30	8.4		11.7	0.3	2.5		11.3	0.7	5.83		
#5WingTank	Car Deck Plates, Centre Plate	P2	12	30	8.4		11.8	0.2	1.67		11.4	0.6	5		
#5WingTank	Car Deck Plates, Plate	P3	12	30	8.4		11.5	0.5	4.17		11.6	0.4	3.33		
#5WingTank	Car Deck Plates, Plate	P4	12	30	8.4		11.7	0.3	2.5		11.8	0.2	1.67		
#5WingTank	Car Deck Plates, Plate	P5	12	30	8.4		11.7	0.3	2.5		11.8	0.2	1.67		
#5WingTank	Car Deck Plates, Plate	P6	12	30	8.4		11	1	8.33		12.1	0	0		
#5WingTank	Car Deck Plates, Plate	P7	12	30	8.4		11.9	0.1	0.83		12.1	0	0		
#5WingTank	Car Deck Plates, Plate	P8	12	30	8.4		11.8	0.2	1.67		11.8	0.2	1.67		
#5WingTank	Car Deck Plates, Plate	P9	12	30	8.4		11.8	0.2	1.67		11.8	0.2	1.67		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM2~3 - Transverse Sections - Deck, Shell, Bottom Plating & Longitudinal Members

Transverse Section :		No. 1													
Zone :		Neutral Axis Zone													
Frame No. :		Frame No. 45													
Tank / Compartment / Space	Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Plate / Profile / Width / Height (mm)	Port Reading				Starboard Reading				Comments
							Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
								(mm)	(%)			(mm)	(%)		
#5WINGTANK	Inner Side, Plate	IS1	7	30	4.9		6.7	0.3	4.29		6.7	0.3	4.29		
#5WINGTANK	Inner Side, Plate	IS2	7	30	4.9		6.8	0.2	2.86		6.7	0.3	4.29		
#5WINGTANK	Inner Side, Plate	IS3	7	30	4.9		6.7	0.3	4.29		6.6	0.4	5.71		
#5WINGTANK	Inner Side, Long. Stiff., Web	ISL1	8	30	5.6		7.8	0.2	2.5		6.6	1.4	17.5		NOMINAL TO BE CONFIR
#5WINGTANK	Inner Side, Long. Stiff., Flg.	ISL1	8	25	6		7.7	0.3	3.75		7.6	0.4	5		NOMINAL TO BE CONFIR
#5WINGTANK	Inner Side, Long. Stiff., Web	ISL2	8	25	6		7.6	0.4	5		7.6	0.4	5		NOMINAL TO BE CONFIR
#5WINGTANK	Inner Side, Long. Stiff., Flg.	ISL2	8	25	6		7.4	0.6	7.5		7.7	0.3	3.75		NOMINAL TO BE CONFIR
#5WINGTANK	Inner Side, Long. Stiff., Web	ISL3	8	25	6		7.7	0.3	3.75		7.3	0.7	8.75		NOMINAL TO BE CONFIR
#5WINGTANK	Inner Side, Long. Stiff., Flg.	ISL3	8	25	6		7.6	0.4	5		7.7	0.3	3.75		NOMINAL TO BE CONFIR
#5WINGTANK	Inner Side, Long. Stiff., Web	ISL4	8	25	6		7.6	0.4	5		7.6	0.4	5		NOMINAL TO BE CONFIR
#5WINGTANK	Inner Side, Long. Stiff., Flg.	ISL4	8	25	6		7.6	0.4	5		7.6	0.4	5		NOMINAL TO BE CONFIR
#5WINGTANK	Side Shell, Plate	SS3	8	30	5.6		8.1	0	0		8	0	0		
#5WINGTANK	Side Shell, Plate	SS4	8	30	5.6		8	0	0		7.9	0.1	1.25		
#5WINGTANK	Side Shell, Long. Web	SSL1	10	25	7.5		10	0	0		10.1	0	0		
#5WINGTANK	Side Shell, Long. Flg.	SSL1	10	25	7.5		10	0	0		10.1	0	0		
#5WINGTANK	Side Shell, Long. Web	SSL2	10	25	7.5		10	0	0		10.1	0	0		
#5WINGTANK	Side Shell, Long. Flg.	SSL2	10	25	7.5		9.9	0.1	1		10.1	0	0		
#5WINGTANK	Side Shell, Long. Web	SSL3	10	25	7.5		10	0	0		10.1	0	0		
#5WINGTANK	Side Shell, Long. Flg.	SSL3	10	25	7.5		9.9	0.1	1		10.1	0	0		
#5WINGTANK	Side Shell, Long. Web	SSL4	10	25	7.5		9.9	0.1	1		9.7	0.3	3		
#5WINGTANK	Side Shell, Long. Flg.	SSL4	10	25	7.5		9.9	0.1	1		9.6	0.4	4		

● Excessive Diminution    ● Substantial Corrosion    ● Renewed As Built    ● Renewed other than As Built    ● Missing Reading    ● Abnormally High Reading    ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :





# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM2~3 - Transverse Sections - Deck, Shell, Bottom Plating & Longitudinal Members

Transverse Section :		No. 1													
Zone :		Bottom Zone													
Frame No. :		Frame No. 45													
Tank / Compartment / Space	Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Plate / Profile / Width / Height (mm)	Port Reading			Thickness As Renewed (mm)	Starboard Reading			Comments	
							Gauged Thickness (mm)	Diminution			Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
								(mm)	(%)			(mm)	(%)		
#6DB TANK	Long. Stiff., web	DBL-1	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#6DB TANK	Long. StiffI, Flg.	DBL-1	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#6DB TANK	Long. Stiff., web	DBL-2	10	25	7.5		9.9	0.1	1		9.8	0.2	2		
#6DB TANK	Long. StiffI, Flg.	DBL-2	10	25	7.5		9.9	0.1	1		9.8	0.2	2		
#6DB TANK	Long. Stiff., web	DBL-3	10	25	7.5		9.8	0.2	2		9.9	0.1	1		
#6DB TANK	Long. StiffI, Flg.	DBL-3	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#6DB TANK	Long. Stiff., web	DBL-4	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#6DB TANK	Long. StiffI, Flg.	DBL-4	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#6DB TANK	Long. Stiff., web	DBL-5	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#6DB TANK	Long. StiffI, Flg.	DBL-5	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#5WINGTANK	Long. Stiff., web	DBL-6	10	25	7.5		9.5	0.5	5		9.5	0.5	5		
#5WINGTANK	Long. StiffI, Flg.	DBL-6	10	25	7.5		9.5	0.5	5		9.4	0.6	6		
#5WINGTANK	Long. Stiff., web	DBL-7	10	25	7.5		9.6	0.4	4		9.5	0.5	5		
#5WINGTANK	Long. StiffI, Flg.	DBL-7	10	25	7.5		9.5	0.5	5		9.4	0.6	6		
#5WINGTANK	Long. Stiff., web	DBL-8	10	25	7.5		9.4	0.6	6		9.7	0.3	3		
#5WINGTANK	Long. StiffI, Flg.	DBL-8	10	25	7.5		9.4	0.6	6		9.5	0.5	5		
#5WINGTANK	Tank Top, Plate	TT-1	8	30	5.6		7.2	0.8	10		7	1	12.5		
#5WINGTANK	Tank Top, Plate	TT-2	8	30	5.6		7.3	0.7	8.75		7.9	0.1	1.25		
#5WINGTANK	Tank Top, Plate	TT-3	8	30	5.6		7.4	0.6	7.5		8	0	0		
#5WINGTANK	Tank Top, Plate	TT-4	8	30	5.6		7.6	0.4	5		7.6	0.4	5		
#5WINGTANK	Tank Top, Plate	TT-5	8	30	5.6		7.6	0.4	5		7.6	0.4	5		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM2~3 - Transverse Sections - Deck, Shell, Bottom Plating & Longitudinal Members

Transverse Section :		No. 1													
Zone :		Bottom Zone													
Frame No. :		Frame No. 45													
Tank / Compartment / Space	Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Plate / Profile / Width / Height (mm)	Port Reading			Thickness As Renewed (mm)	Starboard Reading			Comments	
							Gauged Thickness (mm)	Diminution			Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
								(mm)	(%)			(mm)	(%)		
#5WINGTANK	Tank Top, Plate	TT-6	8	30	5.6		7.6	0.4	5		7.6	0.4	5		
#5WINGTANK	Tank Top, Plate	TT-7	8	30	5.6		7.7	0.3	3.75		7.6	0.4	5		
#6DB TANK	Side Shell Long., Web	SSL-5	10	25	7.5		9.8	0.2	2		9.9	0.1	1		
#6DB TANK	Sige Shell Long., Flg.	SSL-5	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#6DB TANK	Side Shell Long., Web	SSL-6	10	25	7.5		9.8	0.2	2		9.8	0.2	2		
#6DB TANK	Sige Shell Long., Flg.	SSL-6	10	25	7.5		9.8	0.2	2		9.9	0.1	1		
#6DB TANK	Side Shell Long., Web	SSL-7	10	25	7.5		9.8	0.2	2		9.9	0.1	1		
#6DB TANK	Sige Shell Long., Flg.	SSL-7	10	25	7.5		9.8	0.2	2		9.8	0.2	2		
#6DB TANK	Side Shell Long., Web	SSL-8	10	25	7.5		9.9	0.1	1		10	0	0		
#6DB TANK	Sige Shell Long., Flg.	SSL-8	10	25	7.5		10	0	0		10	0	0		
#6DB TANK	Side Shell Long., Web	SSL-9	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#6DB TANK	Sige Shell Long., Flg.	SSL-9	10	25	7.5		9.9	0.1	1		9.8	0.2	2		
#6DB TANK	Side Shell Long., Web	SSL-10	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#6DB TANK	Sige Shell Long., Flg.	SSL-10	10	25	7.5		10	0	0		9.9	0.1	1		
#6DB TANK	Side Shell Long., Web	SSL-11	10	25	7.5		9.9	0.1	1		9.8	0.2	2		
#6DB TANK	Sige Shell Long., Flg.	SSL-11	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#6DB TANK	Side Shell Long., Web	SSL-12	10	25	7.5		9.9	0.1	1		9.7	0.3	3		
#6DB TANK	Sige Shell Long., Flg.	SSL-12	10	25	7.5		9.9	0.1	1		9.7	0.3	3		
#6DB TANK	Side Shell Long., Web	SSL-13	10	25	7.5		11.6	0	0		11.6	0	0		CHECK ORIINAL THI
#6DB TANK	Sige Shell Long., Flg.	SSL-13	10	25	7.5		11.6	0	0		11.5	0	0		CHECK ORIGINAL THI
#6DB TANK	Side Shell, Plate	SS-5	8	30	5.6		7.6	0.4	5		7.6	0.4	5		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM2~3 - Transverse Sections - Deck, Shell, Bottom Plating & Longitudinal Members

Transverse Section :		No. 1													
Zone :		Bottom Zone													
Frame No. :		Frame No. 45													
Tank / Compartment / Space	Structural Component	Sketch Reference ID	As Built Thickness  (mm)	Max Allowable Diminution  (%)	Renewal Thickness  (mm)	Plate / Profile / Width / Height (mm)	Port Reading				Starboard Reading				Comments
							Gauged Thickness  (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness  (mm)	Diminution		Thickness As Renewed (mm)	
								(mm)	(%)			(mm)	(%)		
#6DB TANK	Side Shell, Plate	SS-6	8	30	5.6		7.6	0.4	5		7.7	0.3	3.75		
#6DB TANK	Side Shell, Plate	SS-7	8	30	5.6		7.8	0.2	2.5		8	0	0		
#6DB TANK	Side Shell, Plate	SS-8	8	30	5.6		7.8	0.2	2.5		7.9	0.1	1.25		
#6DB TANK	Side Shell, Plate	SS-9	8	30	5.6		7.8	0.2	2.5		7.7	0.3	3.75		
#6DB TANK	Side Shell, Plate	SS-10	8	30	5.6		7.8	0.2	2.5		7.7	0.3	3.75		
#6DB TANK	Side Shell, Plate	SS-11	9	30	6.3		9.7	0	0		9.6	0	0		
#6DB TANK	Side Shell, Plate	SS-12	9	30	6.3		9.8	0	0		9.2	0	0		
#6DB TANK	Side Shell, Plate	SS-13	12	30	8.4		11	1	8.33		11.2	0.8	6.67		
#6DB TANK	Side Shell, Plate	SS-14	12	30	8.4		11.1	0.9	7.5		11.3	0.7	5.83		
#6DB TANK	Center Line, Plate, Upper	CLP-1	10	25	7.5		9.8	0.2	2		9.8	0.2	2		
#6DB TANK	Center Line, Plate, Lower	CLP-2	10	25	7.5		9.7	0.3	3		9.7	0.3	3		

● Excessive Diminution

● Substantial Corrosion

● Renewed As Built

● Renewed other than As Built

● Missing Reading

● Abnormally High Reading

● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## Transverse Sections - Transverse Section No. 2

### TM Forms



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM2~3 - Transverse Sections - Deck, Shell, Bottom Plating & Longitudinal Members

Transverse Section :		No. 2													
Zone :		Deck Zone													
Frame No. :		Frame No. 80													
Tank / Compartment / Space	Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Plate / Profile / Width / Height (mm)	Port Reading			Thickness As Renewed (mm)	Starboard Reading			Comments	
							Gauged Thickness (mm)	Diminution			Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
								(mm)	(%)			(mm)	(%)		
#3WingTank	Stiff. below UDL2	ST-1	10	25	7.5		9.8	0.2	2		9.9	0.1	1		
#3WingTank	Stiff. below UDL 4	ST-2	10	25	7.5		9.8	0.2	2		9.8	0.2	2		
#3WingTank	UDL Girder, Web	G1	10	25	7.5		9.6	0.4	4		9.6	0.4	4		
#3WingTank	UDL Girder, Flg.	G1	20	25	15		19.9	0.1	0.5		19.9	0.1	0.5		
#3WingTank	Underdeck Long., Web	UDL1	10	25	7.5		11.9	0	0		11.9	0	0		
#3WingTank	Underdeck Long., Flg.	UDL1	10	25	7.5		11.9	0	0		11.9	0	0		
#3WingTank	Underdeck Long., Web	UDL2	10	25	7.5		11.7	0	0		11.9	0	0		
#3WingTank	Underdeck Long., Flg.	UDL2	10	25	7.5		11.8	0	0		11.8	0	0		
#3WingTank	Underdeck Long., Web	UDL3	10	25	7.5		11.6	0	0		11.8	0	0		
#3WingTank	Underdeck Long., Flg.	UDL3	10	25	7.5		11.5	0	0		11.8	0	0		
#3WingTank	Underdeck Long., Web	UDL4	10	25	7.5		11.4	0	0		11.9	0	0		
#3WingTank	Underdeck Long., Flg.	UDL4	10	25	7.5		11.3	0	0		11.8	0	0		
#3WingTank	Underdeck Long., Web	UDL5	10	25	7.5		11.4	0	0		11.9	0	0		
#3WingTank	Underdeck Long., Flg.	UDL5	10	25	7.5		11.7	0	0		11.9	0	0		
#3WingTank	Underdeck Long., Web	UDL6	10	25	7.5		12.3	0	0		12.8	0	0		
#3WingTank	Underdeck Long., Flg.	UDL6	10	25	7.5		12.3	0	0		12.5	0	0		
#3WingTank	Underdeck Long., Web	UDL7	10	25	7.5		12.6	0	0		12.8	0	0		
#3WingTank	Underdeck Long., Flg.	UDL7	10	25	7.5		12.5	0	0		12.6	0	0		
#3WingTank	Underdeck Long., Web	UDL8	10	25	7.5		12.4	0	0		12.1	0	0		
#3WingTank	Underdeck Long., Flg.	UDL8	10	25	7.5		12.4	0	0		12.1	0	0		
#3WingTank	Underdeck Long., Web	UDL9	10	25	7.5		12.4	0	0		12.5	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM2~3 - Transverse Sections - Deck, Shell, Bottom Plating & Longitudinal Members

Transverse Section :		No. 2													
Zone :		Deck Zone													
Frame No. :		Frame No. 80													
Tank / Compartment / Space	Structural Component	Sketch Reference ID	As Built Thickness  (mm)	Max Allowable Diminution  (%)	Renewal Thickness  (mm)	Plate / Profile / Width / Height (mm)	Port Reading			Thickness As Renewed (mm)	Starboard Reading			Comments	
							Gauged Thickness  (mm)	Diminution			Gauged Thickness  (mm)	Diminution			Thickness As Renewed (mm)
								(mm)	(%)			(mm)	(%)		
#3WingTank	Underdeck Long., Flg.	UDL9	10	25	7.5		12.4	0	0		12.2	0	0		
#3WingTank	Underdeck Long., Web	UDL10	10	25	7.5		12.5	0	0		12.4	0	0		
#3WingTank	Underdeck Long., Flg.	UDL10	8	25	6		12.3	0	0		12.2	0	0		
#3WingTank	Side Shell, Sheer Strake	SS1	8	30	5.6		7.7	0.3	3.75		7.7	0.3	3.75		
#3WingTank	Side Shell, Sheer Strake	SS2	8	30	5.6		7.6	0.4	5		7.7	0.3	3.75		
#3WingTank	Car Deck Plates, Centre Plate	P1	12	30	8.4		11.6	0.4	3.33		11.6	0.4	3.33		
#3WingTank	Car Deck Plates, Centre Plate	P2	12	30	8.4		11.8	0.2	1.67		11.8	0.2	1.67		
#3WingTank	Car Deck Plates, Plate	P3	12	30	8.4		11.7	0.3	2.5		11.7	0.3	2.5		
#3WingTank	Car Deck Plates, Plate	P4	12	30	8.4		11.7	0.3	2.5		11.7	0.3	2.5		
#3WingTank	Car Deck Plates, Plate	P5	12	30	8.4		11.7	0.3	2.5		11.9	0.1	0.83		
#3WingTank	Car Deck Plates, Plate	P6	12	30	8.4		12	0	0		12	0	0		
#3WingTank	Car Deck Plates, Plate	P7	12	30	8.4		11.8	0.2	1.67		12.1	0	0		
#3WingTank	Car Deck Plates, Plate	P8	12	30	8.4		11.8	0.2	1.67		11.9	0.1	0.83		
#3WingTank	Car Deck Plates, Plate	P9	12	30	8.4		11.8	0.2	1.67		11.8	0.2	1.67		

● Excessive Diminution

● Substantial Corrosion

● Renewed As Built

● Renewed other than As Built

● Missing Reading

● Abnormally High Reading

● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM2~3 - Transverse Sections - Deck, Shell, Bottom Plating & Longitudinal Members

Transverse Section :		No. 2													
Zone :		Neutral Axis Zone													
Frame No. :		Frame No. 80													
Tank / Compartment / Space	Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Plate / Profile / Width / Height (mm)	Port Reading				Starboard Reading				Comments
							Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
								(mm)	(%)			(mm)	(%)		
#3WINGTANK	Inner Side, Plate	IS1	7	30	4.9		6.8	0.2	2.86		6.8	0.2	2.86		
#3WINGTANK	Inner Side, Plate	IS2	7	30	4.9		6.7	0.3	4.29		6.8	0.2	2.86		
#3WINGTANK	Inner Side, Plate	IS3	7	30	4.9		6.7	0.3	4.29		6.7	0.3	4.29		
#3WINGTANK	Inner Side, Long. Stiff., Web	ISL1	8	30	5.6		7.7	0.3	3.75		7.7	0.3	3.75		
#3WINGTANK	Inner Side, Long. Stiff., Flg.	ISL1	8	25	6		7.6	0.4	5		7.5	0.5	6.25		
#3WINGTANK	Inner Side, Long. Stiff., Web	ISL2	8	25	6		7.7	0.3	3.75		7.7	0.3	3.75		
#3WINGTANK	Inner Side, Long. Stiff., Flg.	ISL2	8	25	6		7.7	0.3	3.75		7.7	0.3	3.75		
#3WINGTANK	Inner Side, Long. Stiff., Web	ISL3	8	25	6		7.6	0.4	5		7.6	0.4	5		
#3WINGTANK	Inner Side, Long. Stiff., Flg.	ISL3	8	25	6		7.6	0.4	5		7.6	0.4	5		
#3WINGTANK	Inner Side, Long. Stiff., Web	ISL4	8	25	6		7.7	0.3	3.75		7.3	0.7	8.75		
#3WINGTANK	Inner Side, Long. Stiff., Flg.	ISL4	8	25	6		7.6	0.4	5		7.2	0.8	10		
#3WINGTANK	Side Shell, Plate	SS3	8	30	5.6		8	0	0		8	0	0		
#3WINGTANK	Side Shell, Plate	SS4	8	30	5.6		7.9	0.1	1.25		8	0	0		
#3WINGTANK	Side Shell, Long. Web	SSL1	10	25	7.5		9.6	0.4	4		9.7	0.3	3		
#3WINGTANK	Side Shell, Long. Flg.	SSL1	10	25	7.5		9.5	0.5	5		9.6	0.4	4		
#3WINGTANK	Side Shell, Long. Web	SSL2	10	25	7.5		9.7	0.3	3		9.8	0.2	2		
#3WINGTANK	Side Shell, Long. Flg.	SSL2	10	25	7.5		9.5	0.5	5		9.6	0.4	4		
#3WINGTANK	Side Shell, Long. Web	SSL3	10	25	7.5		9.6	0.4	4		9.5	0.5	5		
#3WINGTANK	Side Shell, Long. Flg.	SSL3	10	25	7.5		9.6	0.4	4		9.3	0.7	7		
#3WINGTANK	Side Shell, Long. Web	SSL4	10	25	7.5		9.6	0.4	4		9.6	0.4	4		
#3WINGTANK	Side Shell, Long. Flg.	SSL4	10	25	7.5		9.6	0.4	4		9.4	0.6	6		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM2~3 - Transverse Sections - Deck, Shell, Bottom Plating & Longitudinal Members

Transverse Section :		No. 2													
Zone :		Bottom Zone													
Frame No. :		Frame No. 80													
Tank / Compartment / Space	Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Plate / Profile / Width / Height (mm)	Port Reading			Thickness As Renewed (mm)	Starboard Reading			Comments	
							Gauged Thickness (mm)	Diminution			Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
								(mm)	(%)			(mm)	(%)		
#4DB TANK	Long. Stiff., web	DBL-1	10	25	7.5		9.7	0.3	3		9.5	0.5	5		
#4DB TANK	Long. StiffI, Flg.	DBL-1	10	25	7.5		9.8	0.2	2		9.6	0.4	4		
#4DB TANK	Long. Stiff., web	DBL-2	10	25	7.5		9.9	0.1	1		9.6	0.4	4		
#4DB TANK	Long. StiffI, Flg.	DBL-2	10	25	7.5		9.8	0.2	2		9.7	0.3	3		
#4DB TANK	Long. Stiff., web	DBL-3	10	25	7.5		9.9	0.1	1		9.7	0.3	3		
#4DB TANK	Long. StiffI, Flg.	DBL-3	10	25	7.5		9.9	0.1	1		9.8	0.2	2		
#4DB TANK	Long. Stiff., web	DBL-4	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#4DB TANK	Long. StiffI, Flg.	DBL-4	10	25	7.5		9.9	0.1	1		9.9	0.1	1		
#4DB TANK	Long. Stiff., web	DBL-5	10	25	7.5		9.9	0.1	1		9.8	0.2	2		
#4DB TANK	Long. StiffI, Flg.	DBL-5	10	25	7.5		9.8	0.2	2		9.9	0.1	1		
#3WINGTANK	Long. Stiff., web	DBL-6	10	25	7.5		9.7	0.3	3		9.7	0.3	3		
#3WINGTANK	Long. StiffI, Flg.	DBL-6	10	25	7.5		9.5	0.5	5		9.4	0.6	6		
#3WINGTANK	Long. Stiff., web	DBL-7	10	25	7.5		9.6	0.4	4		9.7	0.3	3		
#3WINGTANK	Long. StiffI, Flg.	DBL-7	10	25	7.5		9.4	0.6	6		9.4	0.6	6		
#3WINGTANK	Long. Stiff., web	DBL-8	10	25	7.5		9.5	0.5	5		9.6	0.4	4		
#3WINGTANK	Long. StiffI, Flg.	DBL-8	10	25	7.5		9.4	0.6	6		9.5	0.5	5		
#3WINGTANK	Tank Top, Plate	TT-1	8	30	5.6		7.7	0.3	3.75		7.2	0.8	10		
#3WINGTANK	Tank Top, Plate	TT-2	8	30	5.6		7.7	0.3	3.75		7.3	0.7	8.75		
#3WINGTANK	Tank Top, Plate	TT-3	8	30	5.6		7.6	0.4	5		7.5	0.5	6.25		
#3WINGTANK	Tank Top, Plate	TT-4	8	30	5.6		7.6	0.4	5		7.4	0.6	7.5		
#3WINGTANK	Tank Top, Plate	TT-5	8	30	5.6		7.8	0.2	2.5		7.5	0.5	6.25		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :





# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM2~3 - Transverse Sections - Deck, Shell, Bottom Plating & Longitudinal Members

Transverse Section :		No. 2													
Zone :		Bottom Zone													
Frame No. :		Frame No. 80													
Tank / Compartment / Space	Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Plate / Profile / Width / Height (mm)	Port Reading			Thickness As Renewed (mm)	Starboard Reading			Comments	
							Gauged Thickness (mm)	Diminution			Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
								(mm)	(%)			(mm)	(%)		
#3WINGTANK	Tank Top, Plate	TT-6	8	30	5.6		7.7	0.3	3.75		7.5	0.5	6.25		
#3WINGTANK	Tank Top, Plate	TT-7	8	30	5.6		7.6	0.4	5		7.4	0.6	7.5		
#4DB TANK	Side Shell Long., Bracket Stif	SSL-5	8	25	6		7.7	0.3	3.75		7.7	0.3	3.75		
#4DB TANK	Side Shell Long., Web	SSL-6	10	25	7.5		9.7	0.3	3		9.3	0.7	7		
#4DB TANK	Sige Shell Long., Flg.	SSL-6	10	25	7.5		9.8	0.2	2		9.2	0.8	8		
#4DB TANK	Side Shell Long., Web	SSL-7	10	25	7.5		9.4	0.6	6		9.2	0.8	8		
#4DB TANK	Sige Shell Long., Flg.	SSL-7	10	25	7.5		9.5	0.5	5		9.4	0.6	6		
#4DB TANK	Side Shell Long., Web	SSL-8	10	25	7.5		9.2	0.8	8		9.4	0.6	6		
#4DB TANK	Sige Shell Long., Flg.	SSL-8	10	25	7.5		9.2	0.8	8		9.4	0.6	6		
#4DB TANK	Side Shell Long., Web	SSL-9	10	25	7.5		9.8	0.2	2		9.3	0.7	7		
#4DB TANK	Sige Shell Long., Flg.	SSL-9	10	25	7.5		9.8	0.2	2		9.4	0.6	6		
#4DB TANK	Side Shell Long., Web	SSL-10	10	25	7.5		9.6	0.4	4		9.8	0.2	2		
#4DB TANK	Sige Shell Long., Flg.	SSL-10	10	25	7.5		9.7	0.3	3		9.9	0.1	1		
#4DB TANK	Side Shell Long., Web	SSL-11	10	25	7.5		9.5	0.5	5		9.6	0.4	4		
#4DB TANK	Sige Shell Long., Flg.	SSL-11	10	25	7.5		9.5	0.5	5		9.7	0.3	3		
#4DB TANK	Side Shell Long., Web	SSL-12	10	25	7.5		9.3	0.7	7		9.8	0.2	2		
#4DB TANK	Sige Shell Long., Flg.	SSL-12	10	25	7.5		9.4	0.6	6		9.8	0.2	2		
#4DB TANK	Side Shell Long., Web	SSL-13	10	25	7.5		11.4	0	0		9.5	0.5	5		CHECK ORIG. THICK.
#4DB TANK	Sige Shell Long., Flg.	SSL-13	10	25	7.5		11.5	0	0		9.8	0.2	2		CHECK ORIG. THICK.
#4DB TANK	Side Shell, Plate	SS-5	8	30	5.6		8	0	0		7.6	0.4	5		
#4DB TANK	Side Shell, Plate	SS-6	8	30	5.6		8.1	0	0		7.7	0.3	3.75		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM2~3 - Transverse Sections - Deck, Shell, Bottom Plating & Longitudinal Members

Transverse Section :			No. 2												
Zone :			Bottom Zone												
Frame No. :			Frame No. 80												
Tank / Compartment / Space	Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Plate / Profile / Width / Height (mm)	Port Reading			Starboard Reading			Comments		
							Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
								(mm)	(%)			(mm)			(%)
#4DB TANK	Side Shell, Plate	SS-7	8	30	5.6		7.5	0.5	6.25		7.8	0.2	2.5		
#4DB TANK	Side Shell, Plate	SS-8	8	30	5.6		7.6	0.4	5		7.6	0.4	5		
#4DB TANK	Side Shell, Plate	SS-9	8	30	5.6		7.7	0.3	3.75		7.8	0.2	2.5		
#4DB TANK	Side Shell, Plate	SS-10	8	30	5.6		7.5	0.5	6.25		7.7	0.3	3.75		
#4DB TANK	Side Shell, Plate	SS-11	8	30	5.6		7.6	0.4	5		7.7	0.3	3.75		
#4DB TANK	Side Shell, Plate	SS-12	8	30	5.6		7.8	0.2	2.5		7.8	0.2	2.5		
#4DB TANK	Side Shell, Plate	SS-13	12	30	8.4		11.5	0.5	4.17		11.8	0.2	1.67		
#4DB TANK	Side Shell, Plate	SS-14	12	30	8.4		11.2	0.8	6.67		11.7	0.3	2.5		
#4DB TANK	Center Line, Plate, Upper	CLP-1	10	25	7.5		9.7	0.3	3		9.7	0.3	3		
#4DB TANK	Center Line, Plate, Lower	CLP-2	10	25	7.5		9.3	0.7	7		9.3	0.7	7		



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## Transverse Sections - Transverse Section No. 1

### TM Forms



Thickness Measurement Report


Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM8 - Transverse Sections - Longitudinal Strength Assessment

Transverse Section :		No. 1		
Frame No. :		Frame No. 45		
Area Assessment of Hull Girder Strength				
Zone	Actual (cm <sup>2</sup> )	Rule (cm <sup>2</sup> )	Reduction (%)	Acceptance Criteria (%)
Deck Zone				10
Neutral Axis Zone				15
Bottom Zone				10

 Non-Acceptable

Name of TM Operator: Emile Dehard

Name of LR Attending Surveyor:



Thickness Measurement Report


Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM8 - Transverse Sections - Longitudinal Strength Assessment

Transverse Section :		No. 2		
Frame No. :		Frame No. 80		
Area Assessment of Hull Girder Strength				
Zone	Actual (cm <sup>2</sup> )	Rule (cm <sup>2</sup> )	Reduction (%)	Acceptance Criteria (%)
Deck Zone				10
Neutral Axis Zone				15
Bottom Zone				10

 Non-Acceptable

Name of TM Operator: Emile Dehard

Name of LR Attending Surveyor:



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## Bottom Plating - Bottom Shell Plating

### TM Forms



Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM6 - Miscellaneous Structural Members

Space / Compartment Description :				Bottom Shell Plating									
Location of Structure :				Btm Plates in way of Engine Room									
Structural Component	Sketch Reference ID	As Built Thickness  (mm)	Max Allowable Diminution  (%)	Renewal Thickness  (mm)	Port Reading			Starboard Reading				Comments	
					Gauged Thickness  (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness  (mm)	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)		
ER-6th plate below Sheer, Fwd	Fr. 20-24	8	30	5.6	8.1	0	0		8.8	0	0		
ER-6th plate below Sheer, Aft.	Fr. 20-24	8	30	5.6	8.3	0	0		8.7	0	0		
ER-6th plate below Sheer, Fwd.	Fr. 24-38	8	30	5.6	9	0	0		8.9	0	0		
ER-6th plate below Sheer, Aft.	Fr. 24-38	8	30	5.6	9.1	0	0		8.9	0	0		
ER-6th plate below Sheer, Fwd.	Fr. 38-40	8	30	5.6	8.1	0	0		7.9	0.1	1.25		
ER-6th plate below Sheer, Aft.	Fr. 38-40	8	30	5.6	8.9	0	0		7.9	0.1	1.25		
ER-7th plate below Sheer, Fwd.	Fr. 20-24	8	30	5.6	9.5	0	0		9.2	0	0		
ER-7th plate below Sheer, Aft.	Fr. 20-24	8	30	5.6	9.7	0	0		9.2	0	0		
ER-7th plate below Sheer, Fwd.	Fr. 24-40	8	30	5.6	8.8	0	0		9.1	0	0		
ER-7th plate below Sheer, Aft.	Fr. 24-40	8	30	5.6	8.8	0	0		9.7	0	0		



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

**WB Tanks – Transverse Bulkheads -  
Double Bottom Tank No. 6**

**TM Forms**





# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :					Double Bottom Tank No. 6								
Location of Structure :					Frame No. 40								
Type of Bulkhead :					Plain Transverse Bulkhead								
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading			Starboard Reading				Comments	
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)		
Bhd, Plate	P1	9	25	6.8	8.2	0.8	8.89		8.3	0.7	7.78		
Bhd, Plate	P2	99	25	74.3	8.2	90.8	91.72		8.1	90.9	91.82		
Bhd, Plate	P3	9	25	6.8	8.3	0.7	7.78		8.2	0.8	8.89		
Bhd, Plate	P4	9	25	6.8	8	1	11.11		8.2	0.8	8.89		
Bhd, Plate	P5	9	25	6.8	8	1	11.11		8.3	0.7	7.78		
Bhd, Plate	P6	8	25	6	7.9	0.1	1.25		8.3	0	0		
Bhd, Plate	P7	9	25	6.8	8	1	11.11		8.2	0.8	8.89		
Bhd, Plate	P8	8	25	6	8	0	0		8.2	0	0		
Bhd, Plate	P9	9	25	6.8	7.9	1.1	12.22		8.2	0.8	8.89		
Bhd, Plate	P10	9	25	6.8	8	1	11.11		8.3	0.7	7.78		
Bhd, Plate	P11	8	25	6	8	0	0		8.3	0	0		
Bhd, Plate	P12	9	25	6.8	7.9	1.1	12.22		8.2	0.8	8.89		
Side Shell, Plate	SS-1	8	30	5.6	8.2	0	0		7.8	0.2	2.5		
Side Shell, Plate	SS-2	8	30	5.6	8.8	0	0		9.1	0	0		
Side Shell, Plate	SS-3	8	30	5.6	8.7	0	0		8.7	0	0		
Side Shell, Plate	SS-4	8	30	5.6	11.4	0	0		12.1	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

**WB Tanks – Transverse Bulkheads -  
Double Bottom Tank No. 5**

**TM Forms**



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :				Double Bottom Tank No. 5									
Location of Structure :				Frame No. 50									
Type of Bulkhead :				Plain Transverse Bulkhead									
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading			Thickness As Renewed (mm)	Starboard Reading			Comments	
					Gauged Thickness (mm)	Diminution			Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)		
Bhd, Plate	P1	9	25	6.8	7.8	1.2	13.33		7.8	1.2	13.33		
Bhd, Plate	P2	9	25	6.8	7.7	1.3	14.44		7.8	1.2	13.33		
Bhd, Plate	P3	9	25	6.8	7.3	1.7	18.89		7.2	1.8	20		
Bhd, Plate	P4	9	25	6.8	7.8	1.2	13.33		7.8	1.2	13.33		
Bhd, Plate	P5	9	25	6.8	7.8	1.2	13.33		7.8	1.2	13.33		
Bhd, Plate	P6	9	25	6.8	7.7	1.3	14.44		7.8	1.2	13.33		
Bhd, Plate	P7	9	25	6.8	7.8	1.2	13.33		7.8	1.2	13.33		
Bhd, Plate	P8	9	25	6.8	7.8	1.2	13.33		7.8	1.2	13.33		
Bhd, Plate	P9	9	25	6.8	7.8	1.2	13.33		7.8	1.2	13.33		
Bhd, Plate	P10	9	25	6.8	6.7	2.3	25.56		6.8	2.2	24.44		
Bhd, Plate	P11	9	25	6.8	6.7	2.3	25.56		6.8	2.2	24.44		
Bhd, Plate	P12	9	25	6.8	6.7	2.3	25.56		6.8	2.2	24.44		
Side Shell, Plate	SS-1	8	30	5.6	7.8	0.2	2.5		7.9	0.1	1.25		
Side Shell, Plate	SS-2	8	30	5.6	7.8	0.2	2.5		7.7	0.3	3.75		
Side Shell, Plate	SS-3	8	30	5.6	9.3	0	0		9.2	0	0		
Side Shell, Plate	SS-4	12	30	8.4	11.7	0.3	2.5		11.4	0.6	5		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

**WB Tanks – Transverse Bulkheads -  
Double Bottom Tank No. 3**

**TM Forms**



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :				Double Bottom Tank No. 3									
Location of Structure :				Frame No. 85									
Type of Bulkhead :				Plain Transverse Bulkhead									
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading			Thickness As Renewed (mm)	Starboard Reading			Comments	
					Gauged Thickness (mm)	Diminution			Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)		
Bhd, Plate	P1	9	25	6.8	7.7	1.3	14.44		7.7	1.3	14.44		
Bhd, Plate	P2	9	25	6.8	7.6	1.4	15.56		7.7	1.3	14.44		
Bhd, Plate	P3	9	25	6.8	7.1	1.9	21.11		7.2	1.8	20		
Bhd, Plate	P4	9	25	6.8	7.7	1.3	14.44		7.8	1.2	13.33		
Bhd, Plate	P5	9	25	6.8	7.7	1.3	14.44		7.8	1.2	13.33		
Bhd, Plate	P6	9	25	6.8	7.7	1.3	14.44		7.7	1.3	14.44		
Bhd, Plate	P7	9	25	6.8	7.7	1.3	14.44		7.7	1.3	14.44		
Bhd, Plate	P8	9	25	6.8	7.7	1.3	14.44		7.7	1.3	14.44		
Bhd, Plate	P9	9	25	6.8	7.7	1.3	14.44		7.7	1.3	14.44		
Bhd, Plate	P10	9	25	6.8	7.9	1.1	12.22		7.9	1.1	12.22		
Bhd, Plate	P11	9	25	6.8	7.9	1.1	12.22		7.9	1.1	12.22		
Bhd, Plate	P12	9	25	6.8	7.8	1.2	13.33		7.8	1.2	13.33		
Side Shell, Plate	SS-1	8	30	5.6	8.1	0	0		7.7	0.3	3.75		
Side Shell, Plate	SS-2	8	30	5.6	8.2	0	0		8.1	0	0		
Side Shell, Plate	SS-3	8	30	5.6	8.4	0	0		8.6	0	0		
Side Shell, Plate	SS-4	12	30	8.4	11.9	0.1	0.83		12	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

**WB Tanks – Transverse Bulkheads -  
Double Bottom Tank No. 2**

**TM Forms**



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :					Double Bottom Tank No. 2								
Location of Structure :					Frame No. 95								
Type of Bulkhead :					Plain Transverse Bulkhead								
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Bhd, Plate	P1	9	25	6.8	8	1	11.11		8.1	0.9	10		
Bhd, Plate	P2	9	25	6.8	7.8	1.2	13.33		8	1	11.11		
Bhd, Plate	P3	9	25	6.8	7.5	1.5	16.67		7.6	1.4	15.56		
Bhd, Plate	P4	9	25	6.8	8.1	0.9	10		8.3	0.7	7.78		
Bhd, Plate	P5	9	25	6.8	8	1	11.11		8.1	0.9	10		
Bhd, Plate	P6	9	25	6.8	7.4	1.6	17.78		7.5	1.5	16.67		
Bhd, Plate	P7	9	25	6.8	8	1	11.11		8.3	0.7	7.78		
Bhd, Plate	P8	9	25	6.8	8	1	11.11		7.6	1.4	15.56		
Bhd, Plate	P9	9	25	6.8	7.7	1.3	14.44		7.4	1.6	17.78		
Side Shell, Plate	SS-1	8	30	5.6	7.3	0.7	8.75		7.3	0.7	8.75		
Side Shell, Plate	SS-2	8	30	5.6	7.4	0.6	7.5		7.3	0.7	8.75		
Side Shell, Plate	SS-3	8	30	5.6	7.4	0.6	7.5		7.4	0.6	7.5		
Side Shell, Plate	SS-4	8	30	5.6	7.9	0.1	1.25		8	0	0		
Side Shell, Plate	SS-5	12	30	8.4	10.9	1.1	9.17		10.7	1.3	10.83		

● Excessive Diminution    ● Substantial Corrosion    ● Renewed As Built    ● Renewed other than As Built    ● Missing Reading    ● Abnormally High Reading    ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

**WB Tanks – Transverse Bulkheads -  
Double Bottom Tank No. 1**

**TM Forms**





# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :				Double Bottom Tank No. 1									
Location of Structure :				Frame No. 105									
Type of Bulkhead :				Plain Transverse Bulkhead									
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Bhd, Plate	P1	9	25	6.8	7.8	1.2	13.33		7.8	1.2	13.33		
Bhd, Plate	P2	9	25	6.8	7.8	1.2	13.33		7.7	1.3	14.44		
Bhd, Plate	P3	9	25	6.8	7.6	1.4	15.56		7.5	1.5	16.67		
Bhd, Plate	P4	9	25	6.8	7.8	1.2	13.33		7.8	1.2	13.33		
Bhd, Plate	P5	9	25	6.8	7.7	1.3	14.44		7.7	1.3	14.44		
Bhd, Plate	P6	9	25	6.8	7.3	1.7	18.89		7.2	1.8	20		
Side Shell, Plate	SS-1	8	30	5.6	7.6	0.4	5		7.7	0.3	3.75		
Side Shell, Plate	SS-2	8	30	5.6	7.5	0.5	6.25		7.6	0.4	5		
Side Shell, Plate	SS-3	8	30	5.6	7.4	0.6	7.5		7.4	0.6	7.5		
Side Shell, Plate	SS-4	8	30	5.6	6.9	1.1	13.75		6.8	1.2	15		
Side Shell, Plate	SS-5	8	30	5.6	6.8	1.2	15		6.6	1.4	17.5		
Side Shell, Plate	SS-6	12	30	8.4	10	2	16.67		10	2	16.67		
Side Shell, Plate	SS-7	12	30	8.4	10.2	1.8	15		11.2	0.8	6.67		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

**WB Tanks – Transverse Bulkheads -  
Double Bottom Tank No. 4**

**TM Forms**



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :					Double Bottom Tank No. 4								
Location of Structure :					Frame No. 70								
Type of Bulkhead :					Plain Transverse Bulkhead								
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Bhd, Plate	P1	9	25	6.8	7.7	1.3	14.44		7.8	1.2	13.33		
Bhd, Plate	P2	9	25	6.8	7.6	1.4	15.56		7.8	1.2	13.33		
Bhd, Plate	P3	9	25	6.8	7.6	1.4	15.56		6.9	2.1	23.33		
Bhd, Plate	P4	9	25	6.8	7.8	1.2	13.33		7.8	1.2	13.33		
Bhd, Plate	P5	9	25	6.8	7.7	1.3	14.44		7.8	1.2	13.33		
Bhd, Plate	P6	9	25	6.8	7.7	1.3	14.44		7.8	1.2	13.33		
Bhd, Plate	P7	9	25	6.8	7.8	1.2	13.33		7.8	1.2	13.33		
Bhd, Plate	P8	9	25	6.8	7.8	1.2	13.33		7.8	1.2	13.33		
Bhd, Plate	P9	9	25	6.8	7.7	1.3	14.44		7.8	1.2	13.33		
Bhd, Plate	P10	9	25	6.8	7.7	1.3	14.44		6.7	2.3	25.56		
Bhd, Plate	P11	9	25	6.8	7.6	1.4	15.56		6.7	2.3	25.56		
Bhd, Plate	P12	9	25	6.8	7.4	1.6	17.78		6.7	2.3	25.56		
Side Shell, Plate	SS-1	8	30	5.6	7.8	0.2	2.5		7.7	0.3	3.75		
Side Shell, Plate	SS-2	8	30	5.6	7.7	0.3	3.75		7.6	0.4	5		
Side Shell, Plate	SS-3	8	30	5.6	9.1	0	0		9.2	0	0		
Side Shell, Plate	SS-4	12	30	8.4	11.6	0.4	3.33		11.7	0.3	2.5		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## Wind and Water Strakes - Wind and Water Strakes Plating TM Forms



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM1 – Deck, Shell & Bottom Plating

Space / Compartment Description :					Wind and Water Strakes Plating									
Strake Position :					2nd below sheer strake									
Plate Position	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading								Comments	
					Forward			Aft				Mean Diminution (%)		
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution				Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)			
10th Fwd														
9th Fwd														
8th Fwd														
7th Fwd														
6th Fwd														
5th Fwd		8	30	5.6	7.7	0.3	3.75		7.4	0.6	7.5		5.63	
4th Fwd		8	30	5.6	8	0	0		7.5	0.5	6.25		3.13	
3rd Fwd		8	30	5.6	7.8	0.2	2.5		7.8	0.2	2.5		2.5	
2nd Fwd		8	30	5.6	7.7	0.3	3.75		7.6	0.4	5		4.38	
1st Fwd		8	30	5.6	7.7	0.3	3.75		7.8	0.2	2.5		3.13	
Amidships		8	30	5.6	7.9	0.1	1.25		7.6	0.4	5		3.13	
1st Aft		8	30	5.6	7.9	0.1	1.25		7.7	0.3	3.75		2.5	
2nd Aft		8	30	5.6	8.2	0	0		8.1	0	0		0	
3rd Aft		8	30	5.6	8	0	0		7.9	0.1	1.25		0.63	
4th Aft		8	30	5.6	8	0	0		7.8	0.2	2.5		1.25	
5th Aft		8	30	5.6	7.9	0.1	1.25		7.9	0.1	1.25		1.25	
6th Aft		8	30	5.6	9.8	0	0		9.9	0	0		0	
7th Aft		8	30	5.6	9.7	0	0		9.7	0	0		0	
8th Aft														
9th Aft														
10th Aft														

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM1 – Deck, Shell & Bottom Plating

Space / Compartment Description :					Wind and Water Strakes Plating									
Strake Position :					2nd below sheer strake									
Plate Position	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Starboard Reading								Comments	
					Forward			Aft				Mean Diminution (%)		
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution				Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)			
10th Fwd														
9th Fwd														
8th Fwd														
7th Fwd														
6th Fwd														
5th Fwd		8	30	5.6	7.9	0.1	1.25		8.1	0	0		0.63	
4th Fwd		8	30	5.6	8	0	0		7.4	0.6	7.5		3.75	
3rd Fwd		8	30	5.6	7.6	0.4	5		7.5	0.5	6.25		5.63	
2nd Fwd		8	30	5.6	7.8	0.2	2.5		8.1	0	0		1.25	
1st Fwd		8	30	5.6	8.1	0	0		7.9	0.1	1.25		0.63	
Amidships		8	30	5.6	8	0	0		8.1	0	0		0	
1st Aft		8	30	5.6	7.9	0.1	1.25		7.9	0.1	1.25		1.25	
2nd Aft		8	30	5.6	8.4	0	0		8.3	0	0		0	
3rd Aft		8	30	5.6	7.9	0.1	1.25		7.8	0.2	2.5		1.88	
4th Aft		8	30	5.6	8.1	0	0		7.8	0.2	2.5		1.25	
5th Aft		8	30	5.6	7.8	0.2	2.5		7.8	0.2	2.5		2.5	
6th Aft		8	30	5.6	7.7	0.3	3.75		7.6	0.4	5		4.38	
7th Aft		8	30	5.6	9.7	0	0		9.7	0	0		0	
8th Aft					9.8				9.8					
9th Aft														
10th Aft														

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM1 – Deck, Shell & Bottom Plating

Space / Compartment Description :					Wind and Water Strakes Plating									
Strake Position :					3rd below Sheer Strake									
Plate Position	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading								Comments	
					Forward			Aft				Mean Diminution (%)		
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution				Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)			
10th Fwd														
9th Fwd														
8th Fwd														
7th Fwd														
6th Fwd														
5th Fwd		8	30	5.6	7.8	0.2	2.5		7.5	0.5	6.25		4.38	
4th Fwd		8	30	5.6	8.1	0	0		7.8	0.2	2.5		1.25	
3rd Fwd		8	30	5.6	8	0	0		8	0	0		0	
2nd Fwd		8	30	5.6	8.2	0	0		8.1	0	0		0	
1st Fwd		8	30	5.6	8.1	0	0		7.8	0.2	2.5		1.25	
Amidships		8	30	5.6	7.9	0.1	1.25		7.9	0.1	1.25		1.25	
1st Aft		8	30	5.6	7.8	0.2	2.5		8	0	0		1.25	
2nd Aft		8	30	5.6	7.6	0.4	5		7.8	0.2	2.5		3.75	
3rd Aft		8	30	5.6	7.8	0.2	2.5		8	0	0		1.25	
4th Aft		8	30	5.6	8	0	0		7.8	0.2	2.5		1.25	
5th Aft		8	30	5.6	8	0	0		7.5	0.5	6.25		3.13	
6th Aft		8	30	5.6	8.1	0	0		7.8	0.2	2.5		1.25	
7th Aft		8	30	5.6	7.7	0.3	3.75							
8th Aft														
9th Aft														
10th Aft														

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM1 – Deck, Shell & Bottom Plating

Space / Compartment Description :					Wind and Water Strakes Plating									
Strake Position :					3rd below Sheer Strake									
Plate Position	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Starboard Reading								Comments	
					Forward			Aft			Mean Diminution (%)			
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)		
						(mm)	(%)			(mm)				(%)
10th Fwd														
9th Fwd														
8th Fwd														
7th Fwd														
6th Fwd														
5th Fwd		8	30	5.6	7.9	0.1	1.25		8	0	0		0.63	
4th Fwd		8	30	5.6	8	0	0		8	0	0		0	
3rd Fwd		8	30	5.6	8.1	0	0		8.1	0	0		0	
2nd Fwd		8	30	5.6	7.6	0.4	5		7.3	0.7	8.75		6.88	
1st Fwd		8	30	5.6	7.8	0.2	2.5		7.8	0.2	2.5		2.5	
Amidships		8	30	5.6	7.8	0.2	2.5		7.9	0.1	1.25		1.88	
1st Aft		8	30	5.6	7.9	0.1	1.25		7.8	0.2	2.5		1.88	
2nd Aft		8	30	5.6	7.7	0.3	3.75		7.8	0.2	2.5		3.13	
3rd Aft		8	30	5.6	7.8	0.2	2.5		7.9	0.1	1.25		1.88	
4th Aft		8	30	5.6	7.8	0.2	2.5		8	0	0		1.25	
5th Aft		8	30	5.6	7.9	0.1	1.25		7.8	0.2	2.5		1.88	
6th Aft		8	30	5.6	8	0	0		7.7	0.3	3.75		1.88	
7th Aft		8	30	5.6										
8th Aft														
9th Aft														
10th Aft														

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :





# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

Remaining Exposed Deck/Superstructure Plating -  
Superstructure Deck Plating

TM Forms



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				Superstructure Deck Plating									
Location of Structure :				Deck 6									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Plate, Fwd	C-P1	6.4	30	4.5	6.3	0.1	1.56		6.3	0.1	1.56		
Plate, Aft.	C-P1	6.4	30	4.5	6.4	0	0		6.4	0	0		
Plate, Fwd	C-P2	6.4	30	4.5	6.3	0.1	1.56		6.3	0.1	1.56		
Plate, Aft.	C-P2	6.4	30	4.5	6.5	0	0		6.4	0	0		
Plate, Fwd	C-P3	6.4	30	4.5	6.2	0.2	3.13		6.2	0.2	3.13		
Plate, Aft.	C-P3	6.4	30	4.5	6.1	0.3	4.69		6.1	0.3	4.69		
Plate, Fwd	C-P4	6.4	30	4.5	6.5	0	0		6.5	0	0		
Plate, Aft.	C-P4	6.4	30	4.5	6.5	0	0		6.5	0	0		
Plate, Fwd	1-P1	6.4	30	4.5	6.3	0.1	1.56		6.2	0.2	3.13		
Plate, Aft.	1-P1	6.4	30	4.5	6.4	0	0		6.2	0.2	3.13		
Plate, Fwd	1-P2	6.4	30	4.5	6.4	0	0		6.2	0.2	3.13		
Plate, Aft.	1-P2	6.4	30	4.5	6.3	0.1	1.56		6.2	0.2	3.13		
Plate, Fwd	1-P3	6.4	30	4.5	6.2	0.2	3.13		6.3	0.1	1.56		
Plate, Aft.	1-P3	6.4	30	4.5	6.3	0.1	1.56		6.3	0.1	1.56		
Plate, Fwd	1-P4	6.4	30	4.5	6.2	0.2	3.13		6.4	0	0		
Plate, Aft.	1-P4	6.4	30	4.5	6.1	0.3	4.69		6.2	0.2	3.13		
Plate, Fwd	2-P1	6.4	30	4.5	6.1	0.3	4.69		6.2	0.2	3.13		
Plate, Aft.	2-P1	6.4	30	4.5	6.2	0.2	3.13		6.3	0.1	1.56		
Plate, Fwd	2-P2	6.4	30	4.5	6.3	0.1	1.56		6.2	0.2	3.13		
Plate, Aft.	2-P2	6.4	30	4.5	6.2	0.2	3.13		6.4	0	0		
Plate, Fwd	2-P3	6.4	30	4.5	6.1	0.3	4.69		6.4	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				Superstructure Deck Plating									
Location of Structure :				Deck 6									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading			Starboard Reading				Comments	
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)		
Plate, Aft.	2-P3	6.4	30	4.5	6.2	0.2	3.13		6.4	0	0		
Plate, Fwd	2-P4	6.4	30	4.5	6.2	0.2	3.13		6.1	0.3	4.69		
Plate, Aft.	2-P4	6.4	30	4.5	6.3	0.1	1.56		6.2	0.2	3.13		
Plate, Fwd	3-P1	6.4	30	4.5	6.3	0.1	1.56		6.2	0.2	3.13		
Plate, Aft.	3-P1	6.4	30	4.5	6.3	0.1	1.56		6.1	0.3	4.69		
Plate, Fwd	3-P2	6.4	30	4.5	6.2	0.2	3.13		6.4	0	0		
Plate, Aft.	3-P2	6.4	30	4.5	6.2	0.2	3.13		6.3	0.1	1.56		
Plate, Fwd	3-P3	6.4	30	4.5	6.1	0.3	4.69		5.8	0.6	9.37		
Plate, Aft.	3-P3	6.4	30	4.5	6.2	0.2	3.13		5.9	0.5	7.81		
Plate, Fwd	3-P4	6.4	30	4.5	6.4	0	0		6.1	0.3	4.69		
Plate, Aft.	3-P4	6.4	30	4.5	6.1	0.3	4.69		6.2	0.2	3.13		
Plate, Fwd	4-P1	6.4	30	4.5	6.4	0	0		6.3	0.1	1.56		
Plate, Aft.	4-P1	6.4	30	4.5	6.2	0.2	3.13		6	0.4	6.25		
Plate, Fwd	4-P2	6.4	30	4.5	6.2	0.2	3.13		6.1	0.3	4.69		
Plate, Aft.	4-P2	6.4	30	4.5	6.3	0.1	1.56		6.2	0.2	3.13		
Plate, Fwd	4-P3	6.4	30	4.5					6.2	0.2	3.13		
Plate, Aft.	4-P3	6.4	30	4.5					6.1	0.3	4.69		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				Superstructure Deck Plating									
Location of Structure :				Deck No. 4									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Plate, Aft.	C10	8	30	5.6	8.2	0	0		8.2	0	0		
Plate, Fwd	C10	8	30	5.6	8	0	0		8	0	0		
Plate, Aft.	C11	8	30	5.6	8.5	0	0		8.5	0	0		
Plate, Fwd	C11	8	30	5.6	8.7	0	0		8.7	0	0		
Plate, Aft.	C12	8	30	5.6	9.2	0	0		9.2	0	0		
Plate, Fwd	C12	8	30	5.6	9.1	0	0		9.1	0	0		
Plate, Aft.	1-1	6	30	4.2	5.8	0.2	3.33		5.9	0.1	1.67		AFT END
Plate, Fwd	1-1	6	30	4.2	5.7	0.3	5		6	0	0		AFT END
Plate, Aft.	1-10	8	30	5.6	8.4	0	0		8.7	0	0		
Plate, Fwd	1-10	8	30	5.6	8.5	0	0		8.6	0	0		
Plate, Aft.	1-11	8	30	5.6	8.6	0	0		8.5	0	0		
Plate, Fwd	1-11	8	30	5.6	8.7	0	0		8.6	0	0		
Plate, Aft.	2-1	6	30	4.2	6	0	0		6.1	0	0		AFT END
Plate, Fwd	2-1	6	30	4.2	6	0	0		6.1	0	0		AFT END
Plate, Aft.	2-2	8	30	5.6	7.6	0.4	5		8.2	0	0		
Plate, Fwd	2-2	8	30	5.6	8.1	0	0		8.3	0	0		
Plate, Aft.	2-3	6	30	4.2	6.2	0	0		5.9	0.1	1.67		AFT END
Plate, Fwd	2-3	6	30	4.2	6.1	0	0		5.8	0.2	3.33		AFT END
Plate, Aft.	2-10	8	30	5.6	8.8	0	0		8.6	0	0		
Plate, Fwd	2-10	8	30	5.6	8.9	0	0		8.7	0	0		
Plate, Aft.	2-11	8	30	5.6	9.1	0	0		9	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				Superstructure Deck Plating									
Location of Structure :				Deck No. 4									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Plate, Fwd	2-11	8	30	5.6	9.1	0	0		9.1	0	0		
Plate, Aft.	3-1	8	30	5.6	7.7	0.3	3.75		7.6	0.4	5		
Plate, Fwd	3-1	8	30	5.6	7.7	0.3	3.75		7.7	0.3	3.75		
Plate, Aft.	3-2	8	30	5.6	8.2	0	0		7.6	0.4	5		
Plate, Fwd	3-2	8	30	5.6	8.1	0	0		7.8	0.2	2.5		
Plate, Aft.	3-3	8	30	5.6	7.9	0.1	1.25		7.2	0.8	10		
Plate, Fwd	3-3	8	30	5.6	7.8	0.2	2.5		8	0	0		
Plate, Aft.	3-4	8	30	5.6	8.1	0	0		8.1	0	0		
Plate, Fwd	3-4	8	30	5.6	8.2	0	0		8.2	0	0		
Plate, Aft.	3-5	8	30	5.6	8	0	0		8.1	0	0		
Plate, Fwd	3-5	8	30	5.6	7.9	0.1	1.25		8.1	0	0		
Plate, Aft.	3-6	8	30	5.6	8.1	0	0		7.9	0.1	1.25		
Plate, Fwd	3-6	8	30	5.6	8.2	0	0		7.8	0.2	2.5		
Plate, Aft.	3-7	8	30	5.6	8.1	0	0		7.3	0.7	8.75		
Plate, Fwd	3-7	8	30	5.6	8.2	0	0		8.3	0	0		
Plate, Aft.	3-8	8	30	5.6	7.9	0.1	1.25		8	0	0		
Plate, Fwd	3-8	8	30	5.6	8	0	0		8.1	0	0		
Plate, Aft.	3-9	8	30	5.6	8.2	0	0		8.1	0	0		
Plate, Fwd	3-9	8	30	5.6	8.5	0	0		8.1	0	0		
Plate, Aft.	3-10	8	30	5.6	8.7	0	0		8.2	0	0		
Plate, Fwd	3-10	8	30	5.6	8.6	0	0		8.6	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :

# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

[illegible]

● Excessive Diminution    ● Substantial Corrosion    ● Renewed As Built    ● Renewed other than As Built    ● Missing Reading    ● Abnormally High Reading    ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				Superstructure Deck Plating									
Location of Structure :				Deck No. 5									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Plate, Aft.	C1	6	30	4.2	6.4	0	0		6.4	0	0		
Plate, Fwd	C1	6	30	4.2	6.3	0	0		6.3	0	0		
Plate, Aft.	C2	6	30	4.2	6.5	0	0		6.5	0	0		
Plate, Fwd	C2	6	30	4.2	6.5	0	0		6.5	0	0		
Plate, Aft.	C3	6	30	4.2	5.9	0.1	1.67		5.9	0.1	1.67		
Plate, Fwd	C3	6	30	4.2	5.9	0.1	1.67		5.9	0.1	1.67		
Plate, Aft.	C4	6	30	4.2	6	0	0		6	0	0		
Plate, Fwd	C4	6	30	4.2	6	0	0		6	0	0		
Plate, Aft.	C5	6	30	4.2	6.2	0	0		6.2	0	0		
Plate, Fwd	C5	6	30	4.2	6.1	0	0		6.1	0	0		
Plate, Aft.	C6	6	30	4.2	6	0	0		6	0	0		
Plate, Fwd	C6	6	30	4.2	6.1	0	0		6.1	0	0		
Plate, Aft.	C11	6	30	4.2	6.1	0	0		6.1	0	0		
Plate, Fwd	C11	6	30	4.2	6.1	0	0		6.1	0	0		
Plate, Aft.	1-1	6	30	4.2	6.3	0	0		6.5	0	0		
Plate, Fwd	1-1	6	30	4.2	6.4	0	0		6.4	0	0		
Plate, Aft.	1-2	6	30	4.2	6.1	0	0		6.3	0	0		
Plate, Fwd	1-2	6	30	4.2	6.2	0	0		6.4	0	0		
Plate, Aft.	1-3	6	30	4.2	5.8	0.2	3.33		6	0	0		
Plate, Fwd	1-3	6	30	4.2	5.9	0.1	1.67		6	0	0		
Plate, Aft.	1-4	6	30	4.2	6	0	0		5.9	0.1	1.67		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				Superstructure Deck Plating									
Location of Structure :				Deck No. 5									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Plate, Fwd	1-4	6	30	4.2	6.1	0	0		6	0	0		
Plate, Aft.	1-5	6	30	4.2	6	0	0		6	0	0		
Plate, Fwd	1-5	6	30	4.2	6.1	0	0		6	0	0		
Plate, Aft.	1-6	6	30	4.2	6	0	0		6.1	0	0		
Plate, Fwd	1-6	6	30	4.2	6	0	0		6.1	0	0		
Plate, Aft.	1-11	6	30	4.2	5.7	0.3	5		5.7	0.3	5		
Plate, Fwd	1-11	6	30	4.2	5.7	0.3	5		5.8	0.2	3.33		
Plate, Aft.	2-1	6	30	4.2	6.3	0	0		6.3	0	0		
Plate, Fwd	2-1	6	30	4.2	6.4	0	0		6.3	0	0		
Plate, Aft.	2-2	6	30	4.2	6.2	0	0		6.3	0	0		
Plate, Fwd	2-2	6	30	4.2	6.1	0	0		6.2	0	0		
Plate, Aft.	2-3	6	30	4.2	5.9	0.1	1.67		5.8	0.2	3.33		
Plate, Fwd	2-3	6	30	4.2	5.9	0.1	1.67		6.1	0	0		
Plate, Aft.	2-4	6	30	4.2	6.1	0	0		6.1	0	0		
Plate, Fwd	2-4	6	30	4.2	6.1	0	0		6.3	0	0		
Plate, Aft.	2-5	6	30	4.2	6.1	0	0		5.8	0.2	3.33		
Plate, Fwd	2-5	6	30	4.2	6	0	0		6.7	0	0		
Plate, Aft.	2-6	6	30	4.2	5.7	0.3	5		5.7	0.3	5		
Plate, Fwd	2-6	6	30	4.2	5.7	0.3	5		5.6	0.4	6.67		
Plate, Aft.	2-11	6	30	4.2	5.7	0.3	5		5.8	0.2	3.33		
Plate, Fwd	2-11	6	30	4.2	5.7	0.3	5		5.8	0.2	3.33		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :





# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				Superstructure Deck Plating									
Location of Structure :				Deck No. 5									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Plate, Aft.	3-1	6	30	4.2	6.1	0	0		6.2	0	0		
Plate, Fwd	3-1	6	30	4.2	6	0	0		6.4	0	0		
Plate, Aft.	3-2	6	30	4.2	6.2	0	0		6.4	0	0		
Plate, Fwd	3-2	6	30	4.2	6.2	0	0		6.3	0	0		
Plate, Aft.	3-3	6	30	4.2	6	0	0		6.1	0	0		
Plate, Fwd	3-3	6	30	4.2	6.1	0	0		6.1	0	0		inserts port sdie.
Plate, Aft.	3-4	6	30	4.2	5	1	16.67		5.4	0.6	10		Port Washroom
Plate, Fwd	3-4	6	30	4.2	4.9	1.1	18.33		5.3	0.7	11.67		Port Washroom
Plate, Aft.	3-5	6	30	4.2	5.7	0.3	5		5.8	0.2	3.33		
Plate, Fwd	3-5	6	30	4.2	6.1	0	0		5.8	0.2	3.33		
Plate, Aft.	3-6	6	30	4.2	6	0	0		6	0	0		
Plate, Fwd	3-6	6	30	4.2	6	0	0		6.1	0	0		
Plate, Aft.	3-7	6	30	4.2	5.8	0.2	3.33		5.8	0.2	3.33		
Plate, Fwd	3-7	6	30	4.2	5.9	0.1	1.67		5.6	0.4	6.67		
Plate, Aft.	3-8	6	30	4.2	6	0	0		5.9	0.1	1.67		
Plate, Fwd	3-8	6	30	4.2	5.9	0.1	1.67		6	0	0		
Plate, Aft.	3-9	6	30	4.2	5.9	0.1	1.67		6.1	0	0		
Plate, Fwd	3-9	6	30	4.2	5.8	0.2	3.33		6	0	0		
Plate, Aft.	3-10	6	30	4.2	5.6	0.4	6.67		5.9	0.1	1.67		
Plate, Fwd	3-10	6	30	4.2	5.6	0.4	6.67		5.8	0.2	3.33		
Plate, Aft.	4-1	6	30	4.2	7.7	0	0		7.7	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				Superstructure Deck Plating									
Location of Structure :				Deck No. 5									
Structural Component	Sketch Reference ID	As Built Thickness	Max Allowable Diminution	Renewal Thickness	Port Reading				Starboard Reading				Comments
					Gauged Thickness	Diminution		Thickness As Renewed (mm)	Gauged Thickness	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Plate, Fwd	4-1	6	30	4.2	7.6	0	0		7.7	0	0		
Plate, Aft.	4-2	6	30	4.2	7.1	0	0		7.7	0	0		
Plate, Fwd	4-2	6	30	4.2	7.7	0	0		7.7	0	0		
Plate, Aft.	4-3	6	30	4.2	6	0	0		6	0	0		
Plate, Fwd	4-3	6	30	4.2	5.8	0.2	3.33		6	0	0		
Plate, Aft.	4-4	6	30	4.2	5.9	0.1	1.67		6.1	0	0		
Plate, Fwd	4-4	6	30	4.2	5.9	0.1	1.67		6.1	0	0		
Plate, Aft.	4-5	6	30	4.2	5.9	0.1	1.67		5.8	0.2	3.33		
Plate, Fwd	4-5	6	30	4.2	5.9	0.1	1.67		5.9	0.1	1.67		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

Peak Tanks – Transverse Webs and Bulkheads -  
Fore Peak

TM Forms



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :				Fore Peak									
Location of Structure :				Frame No. 115									
Type of Bulkhead :				Transverse Bulkhead									
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Plate	B1	8			7.9	0.1	1.25		8	0	0		
Plate	B2	8			8	0	0		8.1	0	0		
Plate	B3	8			8.1	0	0		8.2	0	0		
Plate	B4	8			8.1	0	0		8.1	0	0		
Plate	B5	8			8	0	0		8.1	0	0		
Plate	B6	8			8.1	0	0		8.1	0	0		
Plate	B7	8			8.1	0	0		8.1	0	0		
Plate	B8	8			8	0	0		8.1	0	0		
Plate	B9	8			7.8	0.2	2.5		7.8	0.2	2.5		
Plate	B10	8			7.9	0.1	1.25		7.8	0.2	2.5		
Plate	B11	8			7.9	0.1	1.25		7.8	0.2	2.5		
Plate	B12	8			7.9	0.1	1.25		7.8	0.2	2.5		
Plate	B13	8			7.9	0.1	1.25		7.8	0.2	2.5		
Plate	B14	8			7.9	0.1	1.25		7.8	0.2	2.5		
Vert. Stiff, Top Plate	VS-C	8			9	0	0		9	0	0		
Vert. Stiff., Flg., Middle	VS-C	20			19.3	0.7	3.5		19.3	0.7	3.5		
Vert. Stiff., Web, Middle	VS-C	10			9.5	0.5	5		9.5	0.5	5		
Vert. Stiff., Flg, Btm	VS-C	20			19.8	0.2	1		19.8	0.2	1		
Vert. Stiff., Web, Btm.	VS-C	10			9.5	0.5	5		9.5	0.5	5		
Vert. Stiff., Flg	VS-1	10			10	0	0		9.9	0.1	1		
Vert. Stiff. Web	VS-1	10			10	0	0		10	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :				Fore Peak									
Location of Structure :				Frame No. 115									
Type of Bulkhead :				Transverse Bulkhead									
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Vert. Stiff., Flg	VS-2	10			9.9	0.1	1		10	0	0		
Vert. Stiff. Web	VS-2	10			10	0	0		10.1	0	0		
Vert. Stiff., Flg	VS-3	10			9.8	0.2	2		9.9	0.1	1		
Vert. Stiff. Web	VS-3	10			9.9	0.1	1		9.9	0.1	1		
Long Girder, Centre line, Web	G-1	10			9.5	0.5	5		9.5	0.5	5		
Side Shell Plate	S1	8			7.1	0.9	11.25		7	1	12.5		
Side Shell Plate	S2	8			7.3	0.7	8.75		7.1	0.9	11.25		
Side Shell Plate	S3	8			7.9	0.1	1.25		8	0	0		
Side Shell Plate	S4	8			7.9	0.1	1.25		7.9	0.1	1.25		
Side Shell Plate	S5	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell Plate	S6	8			7.8	0.2	2.5		7.7	0.3	3.75		
Side Shell Plate	S7	8			7.5	0.5	6.25		7.4	0.6	7.5		
Side Shell Plate	S8	8			7.4	0.6	7.5		7.1	0.9	11.25		
Side Shell Plate	S9	8			7.3	0.7	8.75		7.2	0.8	10		
Deck Plate	D1	12			11.4	0.6	5		11.3	0.7	5.83		
Deck Plate	D2	12			11.1	0.9	7.5		11.2	0.8	6.67		
Deck Plate	D3	12			11.2	0.8	6.67		11.3	0.7	5.83		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Fore Peak									
Location of Structure :				Transverse Web - Frame No. 116									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Centre, Web	G-1	8			7.4	0.6	7.5		7.4	0.6	7.5		
Underdeck Girder, Centre, Flg.	G-1	10			9.2	0.8	8		9.2	0.8	8		
Underdeck Long., Web	UDL-1	10			9.8	0.2	2		9.9	0.1	1		
Underdeck Long., Flg.	UDL-1	10			9.9	0.1	1		10	0	0		
Underdeck Long., Web	UDL-2	10			9.9	0.1	1		10	0	0		
Underdeck Long., Flg.	UDL-2	10			9.8	0.2	2		10	0	0		
Underdeck Long., Web	UDL-3	10			9.9	0.1	1		9.8	0.2	2		
Underdeck Long., Flg.	UDL-3	10			9.9	0.1	1		9.7	0.3	3		
Underdeck Long., Web	UDL-4	10			9.9	0.1	1		9.8	0.2	2		
Underdeck Long., Flg.	UDL-4	10			9.8	0.2	2		9.6	0.4	4		
Side shell	S1	8			8	0	0		7.9	0.1	1.25		
Side shell	S2	8			8	0	0		7	1	12.5		
Side shell	S3	8			7.9	0.1	1.25		7.9	0.1	1.25		
Side shell	S4	8			7.9	0.1	1.25		7.8	0.2	2.5		
Side shell	S5	8			7.9	0.1	1.25		7.8	0.2	2.5		
Side shell	S6	8			8	0	0		7.9	0.1	1.25		
Side shell	S7	8			7.9	0.1	1.25		7.8	0.2	2.5		
Side shell	S8	8			7.8	0.2	2.5		7.7	0.3	3.75		
Stringer, Flg.	ST-1				8.5				8.6				Nominal not known
Stringer, WEb	ST-1				7				7.1				Nominal not known
Centre Long. girder, Flg.	G-2	20			20.1	0	0		20.1	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :			Fore Peak										
Location of Structure :			Transverse Web - Frame No. 117										
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Web	G1	8			7.5	0.5	6.25		7.5	0.5	6.25		
Underdeck Girder, Flg.	G1	10			9.3	0.7	7		9.3	0.7	7		
Underdeck Long., Web	UDL-1	10			9.9	0.1	1		10	0	0		
Underdeck Long., Flg.	UDL-1	10			10	0	0		10	0	0		
Underdeck Long., Web	UDL-2	10			9.8	0.2	2		9.9	0.1	1		
Underdeck Long., Flg.	UDL-2	10			9.7	0.3	3		9.8	0.2	2		
Underdeck Long., Web	UDL-3	10			9.8	0.2	2		9.8	0.2	2		
Underdeck Long., Flg.	UDL-3	10			9.6	0.4	4		9.9	0.1	1		
Underdeck Long., Web	UDL-4	10			9.8	0.2	2		9.9	0.1	1		
Underdeck Long., Flg.	UDL-4	10			9.9	0.1	1		9.7	0.3	3		
Side Shell	S1	8			8	0	0		8	0	0		
Side Shell	S2	8			7.9	0.1	1.25		7.9	0.1	1.25		
Side Shell	S3	8			8	0	0		7	1	12.5		
Side Shell	S4	8			7.9	0.1	1.25		8	0	0		
Side Shell	S5	8			7.9	0.1	1.25		7.8	0.2	2.5		
Side Shell	S6	8			7.9	0.1	1.25		7.9	0.1	1.25		
Side Shell	S7	8			7.8	0.2	2.5		7.9	0.1	1.25		
Side Shell	S8	8			7.8	0.2	2.5		7.7	0.3	3.75		
Stringer, Web	ST1				7.1				7				
Stringer, Flg.	ST1				8.7				8.6				
Web Frame, Web	WF1	8			7.4	0.6	7.5		7.5	0.5	6.25		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

[illegible]

● Excessive Diminution    ● Substantial Corrosion    ● Renewed As Built    ● Renewed other than As Built    ● Missing Reading    ● Abnormally High Reading    ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Fore Peak									
Location of Structure :				Transverse Web - Frame No. 118									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Web	G1	8			7.6	0.4	5		7.6	0.4	5		
Underdeck Girder, Flg.	G1	10			9.4	0.6	6		9.4	0.6	6		
Underdeck Long., Web	UDL-1	10			9.9	0.1	1		10	0	0		
Underdeck Long., Flg.	UDL-1	10			9.8	0.2	2		9.7	0.3	3		
Underdeck Long., Web	UDL-2	10			9.9	0.1	1		9.9	0.1	1		
Underdeck Long., Flg.	UDL-2	10			9.9	0.1	1		9.9	0.1	1		
Underdeck Long., Web	UDL-3	10			9.9	0.1	1		9.8	0.2	2		
Underdeck Long., Flg.	UDL-3	10			9.7	0.3	3		9.9	0.1	1		
Side Shell	S1	8			7.8	0.2	2.5		7.9	0.1	1.25		
Side Shell	S2	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S3	8			8	0	0		8	0	0		
Side Shell	S4	8			8	0	0		7.9	0.1	1.25		
Side Shell	S5	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S6	8			0.7	7.3	91.25		7.8	0.2	2.5		
Side Shell	S7	8			7.7	0.3	3.75		7.7	0.3	3.75		
Side Shell	S8	8			7.8	0.2	2.5		7.7	0.3	3.75		
Stringer, Web	ST1				7				7.2				
Stringer, Flg.	ST1				8.6				8.7				
Web Frame, Web	WF1	8			7.2	0.8	10		7.3	0.7	8.75		
Web Frame, Flg.	WF1	8			8.9	0	0		8.8	0	0		
Web Frame, Web	WF2	8			7.1	0.9	11.25		7.2	0.8	10		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :

# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

[illegible]

● Excessive Diminution    ● Substantial Corrosion    ● Renewed As Built    ● Renewed other than As Built    ● Missing Reading    ● Abnormally High Reading    ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :			Fore Peak										
Location of Structure :			Transverse Web - Frame No. 119										
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Web	G1	8			7.8	0.2	2.5		7.8	0.2	2.5		
Underdeck Girder, Flg.	G1	10			9.9	0.1	1		9.9	0.1	1		
Underdeck Long., Web	UDL-1	10			10	0	0		9.9	0.1	1		
Underdeck Long., Flg.	UDL-1	10			9.8	0.2	2		9.9	0.1	1		
Underdeck Long., Web	UDL-2	10			9.9	0.1	1		10	0	0		
Underdeck Long., Flg.	UDL-2	10			10	0	0		10	0	0		
Side Shell	S1	8			7.8	0.2	2.5		7.9	0.1	1.25		
Side Shell	S2	8			7.9	0.1	1.25		7.7	0.3	3.75		
Side Shell	S3	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S4	8			7.8	0.2	2.5		7.9	0.1	1.25		
Side Shell	S5	8			7.9	0.1	1.25		7.7	0.3	3.75		
Side Shell	S6	8			7.8	0.2	2.5		7.7	0.3	3.75		
Side Shell	S7	8			8	0	0		7.9	0.1	1.25		
Side Shell	S8	8			8	0	0		0.9	7.1	88.75		
Web Frame, Web	WF1	8			7.3	0.7	8.75		7.2	0.8	10		
Web Frame, Flg.	WF1	8			9	0	0		8.9	0	0		
Web Frame, Web	WF2	8			7.2	0.8	10		7.3	0.7	8.75		
Web Frame, Flg.	WF2	8			8.9	0	0		8.8	0	0		
Web Frame, Web	WF3	8			7.1	0.9	11.25		7.1	0.9	11.25		
Web Frame, Flg.	WF3	8			8.8	0	0		8.7	0	0		
Girder, Centre Web	G2	10			9.8	0.2	2		9.8	0.2	2		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :			Fore Peak										
Location of Structure :			Transverse Web - Frame No. 120										
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Web	G1	8			7.9	0.1	1.25		7.9	0.1	1.25		
Underdeck Girder, Flg.	G1	10			9.8	0.2	2		9.8	0.2	2		
Underdeck Long., Web	UDL-1	10			9.9	0.1	1		9.8	0.2	2		
Underdeck Long., Flg.	UDL-1	10			9.7	0.3	3		9.9	0.1	1		
Underdeck Long., Web	UDL-2	10			9.9	0.1	1		9.9	0.1	1		
Underdeck Long., Flg.	UDL-2	10			0.8	9.2	92		9.9	0.1	1		
Side Shell	S1	8			7.9	0.1	1.25		7.9	0.1	1.25		
Side Shell	S2	8			7.9	0.1	1.25		8	0	0		
Side Shell	S3	8			7.8	0.2	2.5		7.9	0.1	1.25		
Side Shell	S4	8			7.8	0.2	2.5		7.9	0.1	1.25		
Side Shell	S5	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S6	8			7.9	0.1	1.25		7.8	0.2	2.5		
Side Shell	S7	8			7.6	0.4	5		7.6	0.4	5		
Side Shell	S8	8			7.7	0.3	3.75		7.6	0.4	5		
Stringer, Web	ST1				7.8				7.7				
Stringer, Flg.	ST1				9				9.1				
Web Frame, Web	WF1	8			7	1	12.5		7.6	0.4	5		
Web Frame, Flg.	WF1	8			9.1	0	0		9.1	0	0		
Web Frame, Web	WF2	8			7.9	0.1	1.25		7.9	0.1	1.25		
Web Frame, Flg.	WF2	8			9.3	0	0		9.4	0	0		
Web Frame, Web	WF3	8			7.9	0.1	1.25		7.9	0.1	1.25		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :

# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

[illegible]

● Excessive Diminution    ● Substantial Corrosion    ● Renewed As Built    ● Renewed other than As Built    ● Missing Reading    ● Abnormally High Reading    ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :			Fore Peak										
Location of Structure :			Transverse Web - Frame No. 121										
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Web	G1	8			7.8	0.2	2.5		7.8	0.2	2.5		
Underdeck Girder, Flg.	G1	10			9.5	0.5	5		9.8	0.2	2		
Underdeck Long., Web	UDL-1	10			10	0	0		9.9	0.1	1		
Underdeck Long., Flg.	UDL-1	10			9.9	0.1	1		9.9	0.1	1		
Side Shell	S1	8			7.8	0.2	2.5		7.9	0.1	1.25		
Side Shell	S2	8			7.9	0.1	1.25		7.9	0.1	1.25		
Side Shell	S3	8			7.9	0.1	1.25		8	0	0		
Side Shell	S4	8			7.9	0.1	1.25		8	0	0		
Side Shell	S5	8			7.9	0.1	1.25		7.8	0.2	2.5		
Side Shell	S6	8			7.9	0.1	1.25		7.8	0.2	2.5		
Side Shell	S7	8			7.8	0.2	2.5		7.7	0.3	3.75		
Side Shell	S8	8			7.8	0.2	2.5		7.7	0.3	3.75		
Stringer, Web	ST1				7.8				7.8				
Stringer, Flg.	ST1				9				9				
Web Frame, Web	WF1	8			7.8	0.2	2.5		7.9	0.1	1.25		
Web Frame, Flg.	WF1	8			9.6	0	0		9.5	0	0		
Web Frame, Web	WF2	8			7.8	0.2	2.5		7.8	0.2	2.5		
Web Frame, Flg.	WF2	8			7.8	0.2	2.5		9.2	0	0		
Web Frame, Web	WF3	8			7.8	0.2	2.5		7.9	0.1	1.25		
Web Frame, Flg.	WF3	8			9.4	0	0		7.9	0.1	1.25		
Web Frame, Web	WF4	8			7.8	0.2	2.5		7.8	0.2	2.5		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

[illegible]

● Excessive Diminution    ● Substantial Corrosion    ● Renewed As Built    ● Renewed other than As Built    ● Missing Reading    ● Abnormally High Reading    ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Fore Peak									
Location of Structure :				Transverse Web - Frame No. 122									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Bar Top, Web	B1	8			7.9	0.1	1.25		7.8	0.2	2.5		
Bar Top, Web	B2	8			7.9	0.1	1.25		7.8	0.2	2.5		
Bar Top, Web	B3	8			7.9	0.1	1.25		8	0	0		
Girder, Top, Web	G1	10			9.8	0.2	2		9.8	0.2	2		
Girder, Top, Flg	G1	10			9.7	0.3	3		9.7	0.3	3		
Side Shell	S1	8			7.8	0.2	2.5		7.7	0.3	3.75		
Side Shell	S2	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S3	8			7.9	0.1	1.25		7.8	0.2	2.5		
Side Shell	S4	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S5	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S6	8			7.9	0.1	1.25		7.9	0.1	1.25		
Web Frame, Web	WF1	8			7.8	0.2	2.5		7.9	0.1	1.25		
Web Frame, Flg.	WF1	8			9.6	0	0		9.6	0	0		
Web Frame, Web	WF2	8			7.8	0.2	2.5		7.8	0.2	2.5		
Web Frame, Flg.	WF2	8			9.5	0	0		9.5	0	0		
Web Frame, Web	WF3	8			7.8	0.2	2.5		7.7	0.3	3.75		
Web Frame, Flg.	WF3	8			9.3	0	0		9.4	0	0		
Girder, Centre Web	G2	10			9.3	0.7	7		9.4	0.6	6		
Gorder, Centre, Flg.	G2	20			19.3	0.7	3.5		19.3	0.7	3.5		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :			Fore Peak										
Location of Structure :			Transverse Web - Frame No. 123										
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading			Starboard Reading				Comments	
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)		
Girder, Top, Web	G1	10			9.7	0.3	3		9.7	0.3	3		
Girder, Top, Flg	G1	10			9.7	0.3	3		9.7	0.3	3		
Side Shell	S1	8			7.8	0.2	2.5		7.9	0.1	1.25		
Side Shell	S2	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S3	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S4	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S5	8			7.7	0.3	3.75		7.8	0.2	2.5		
Side Shell	S6	8			7.6	0.4	5		7.7	0.3	3.75		
Web Frame, Web	WF1	8			7.8	0.2	2.5		7.9	0.1	1.25		
Web Frame, Flg.	WF1	8			9.5	0	0		9.6	0	0		
Web Frame, Web	WF2	8			7.7	0.3	3.75		7.8	0.2	2.5		
Web Frame, Flg.	WF2	8			9.6	0	0		9.5	0	0		
Web Frame, Web	WF3	8			7.8	0.2	2.5		7.7	0.3	3.75		
Web Frame, Flg.	WF3	8			9.5	0	0		9.4	0	0		
Girder, Centre Web	G2	10			9.5	0.5	5		9.5	0.5	5		
Gorder, Centre, Flg.	G2	20			19.5	0.5	2.5		19.5	0.5	2.5		

Excessive Diminution

Substantial Corrosion

Renewed As Built

Renewed other than As Built

Missing Reading

Abnormally High Reading

Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Fore Peak									
Location of Structure :				Transverse Web - Frame No. 124									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Girder, Top, Web	G1	10			9.7	0.3	3		9.7	0.3	3		
Girder, Top, Flg	G1	10			9.6	0.4	4		9.6	0.4	4		
Side Shell	S1	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S2	8			7.7	0.3	3.75		7.8	0.2	2.5		
Side Shell	S3	8			7.7	0.3	3.75		7.8	0.2	2.5		
Side Shell	S4	8			7.7	0.3	3.75		7.8	0.2	2.5		
Side Shell	S5	8			7.7	0.3	3.75		7.7	0.3	3.75		
Side Shell	S6	8			7.6	0.4	5		7.7	0.3	3.75		
Web Frame, Web	WF1	8			7.8	0.2	2.5		7.9	0.1	1.25		
Web Frame, Flg.	WF1	8			9.5	0	0		9.6	0	0		
Web Frame, Web	WF2	8			7.8	0.2	2.5		7.8	0.2	2.5		
Web Frame, Flg.	WF2	8			9.7	0	0		9.6	0	0		
Web Frame, Web	WF3	8			7.7	0.3	3.75		7.8	0.2	2.5		
Web Frame, Flg.	WF3	8			9.6	0	0		9.5	0	0		
Girder, Centre Web	G2	10			9.5	0.5	5		9.5	0.5	5		
Gorder, Centre, Flg.	G2	10			9.8	0.2	2		9.8	0.2	2		
Long. Stiff., Web	LS1	10			9.7	0.3	3		9.8	0.2	2		
Long. Stiff., Web	LS2	10			9.7	0.3	3		9.7	0.3	3		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :			Fore Peak										
Location of Structure :			Transverse Web - Frame No. 125										
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading			Starboard Reading				Comments	
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)		
Girder, Top, Web	G1	10			9.6	0.4	4		9.6	0.4	4		
Girder, Top, Flg	G1	10			9.6	0.4	4		9.6	0.4	4		
Side Shell	S1	8			7.8	0.2	2.5		7.7	0.3	3.75		
Side Shell	S2	8			7.8	0.2	2.5		7.7	0.3	3.75		
Side Shell	S3	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S4	8			7.8	0.2	2.5		7.8	0.2	2.5		
Side Shell	S5	8			7.7	0.3	3.75		7.8	0.2	2.5		
Side Shell	S6	8			7.7	0.3	3.75		7.8	0.2	2.5		
Web Frame, Web	WF1	8			7.8	0.2	2.5		7.7	0.3	3.75		
Web Frame, Flg.	WF1	8			9.5	0	0		9.6	0	0		
Web Frame, Web	WF2	8			7.8	0.2	2.5		7.7	0.3	3.75		
Web Frame, Flg.	WF2	8			9.5	0	0		9.6	0	0		
Web Frame, Web	WF3	8			7.7	0.3	3.75		7.9	0.1	1.25		
Web Frame, Flg.	WF3	8			9.6	0	0		9.4	0	0		
Girder, Centre Web	G2	10			9.7	0.3	3		9.7	0.3	3		
Gorder, Centre, Flg.	G2	10			9.9	0.1	1		9.9	0.1	1		
Long. Stiff., Web	LS1	10			9.7	0.3	3		9.8	0.2	2		
Long. Stiff., Web	LS2	10			9.8	0.2	2		9.8	0.2	2		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :			Fore Peak										
Location of Structure :			Transverse Web - Frame No. 126										
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading			Starboard Reading				Comments	
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)		
Girder, Top, Web	G1	10			9.7	0.3	3		9.7	0.3	3		
Girder, Top, Flg	G1	10			9.8	0.2	2		9.8	0.2	2		
Side Shell	S1	8			7.8	0.2	2.5		0.7	7.3	91.25		
Side Shell	S2	8			7.8	0.2	2.5		7.7	0.3	3.75		
Side Shell	S3	8			7.9	0.1	1.25		7.8	0.2	2.5		
Side Shell	S4	8			7.9	0.1	1.25		7.8	0.2	2.5		
Side Shell	S5	8			7.7	0.3	3.75		7.7	0.3	3.75		
Side Shell	S6	8			7.7	0.3	3.75		7.7	0.3	3.75		
Web Frame, Web	WF1	8			7.9	0.1	1.25		7.8	0.2	2.5		
Web Frame, Flg.	WF1	8			9.8	0	0		9.8	0	0		
Web Frame, Web	WF2	8			7.7	0.3	3.75		7.7	0.3	3.75		
Web Frame, Flg.	WF2	8			9.8	0	0		9.9	0	0		
Web Frame, Web	WF3	8			7.8	0.2	2.5		7.8	0.2	2.5		
Web Frame, Flg.	WF3	8			9.8	0	0		9.7	0	0		
Girder, Centre Web	G2	10			9.7	0.3	3		9.7	0.3	3		
Gorder, Centre, Flg.	G2	10			9.9	0.1	1		9.9	0.1	1		
Long. Stiff., Web	LS1	10			9.8	0.2	2		9.8	0.2	2		
Long. Stiff., Web	LS2	10			9.8	0.2	2		9.7	0.3	3		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

Peak Tanks – Transverse Webs and Bulkheads -  
Aft Peak

TM Forms





# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 19									
Structural Component	Sketch Reference ID	As Built Thickness  (mm)	Max Allowable Diminution  (%)	Renewal Thickness  (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness  (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness  (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Centre, Web	G-1	8	25	6	8	0	0		7.9	0.1	1.25		NOMINAL NOT KNONN
Underdeck Girder, Centre, Flg.	G-1	20	25	15	19.6	0.4	2		19.6	0.4	2		NOMINAL NOT KNOWN
Underdeck Long., Web	UDL-1	10	25	7.5	11.7	0	0		11.5	0	0		
Underdeck Long., Flg.	UDL-1	10	25	7.5	11.8	0	0		11.6	0	0		
Underdeck Long., Web	UDL-2	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-2	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Web	UDL-3	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-3	10	25	7.5	11.5	0	0		11.6	0	0		
Underdeck Long., Web	UDL-4	10	25	7.5	11.8	0	0		11.9	0	0		
Underdeck Long., Flg.	UDL-4	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Web	UDL-5	10	25	7.5	11.5	0	0		11.4	0	0		
Underdeck Long., Flg.	UDL-5	10	25	7.5	11.6	0	0		11.5	0	0		
Underdeck Long., Web	UDL-6	10	25	7.5	11.7	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-6	10	25	7.5	11.7	0	0		11.5	0	0		
Underdeck Long., Web	UDL-7	10	25	7.5	11.8	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-7	10	25	7.5	11.7	0	0		11.7	0	0		
Underdeck Long., Web	UDL-8	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-8	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Web	UDL-9	10	25	7.5	11.9	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-9	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Web	UDL-10	10	25	7.5	11.5	0	0		11.7	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 19									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Long., Flg.	UDL-10	10	25	7.5	11.5	0	0		11.6	0	0		
Bracket, Web	BR-1	8	25	6	8	0	0		8.2	0	0		
Bracket, Web	BR-2	8	25	6	9.4	0	0		9.6	0	0		
Centre Long. girder, Flg.	G-2	16	25	12	19.5	0	0		19.5	0	0		
Centre Long. girder, Web	G-2	10	25	7.5	9.6	0.4	4		7.9	2.1	21		AREA IN GOOD COND.
a	WF-1	8	25	6	8.5	0	0		9.8	0	0		
Web Frame, Web	WF-1	8	25	6	9.7	0	0		9.7	0	0		
Web Frame, Flg.	WF-2	8	25	6	9.4	0	0		9.5	0	0		
Web Frame, Web	WF-2	8	25	6	8	0	0		9.6	0	0		
Web Frame, Flg.	WF-3	12	25	9	11.8	0.2	1.67		11.8	0.2	1.67		
Web Frame, Web	WF-3	8	25	6	8	0	0		7.9	0.1	1.25		
Web Frame, Flg.	WF-4	12	25	9	11.6	0.4	3.33		11.4	0.6	5		
Web Frame, Web	WF-4	8	25	6	8	0	0		7.6	0.4	5		
Web Frame, Flg.	WF-5	12	25	9	11.9	0.1	0.83		11.9	0.1	0.83		
Web Frame, Web	WF-5	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		
Web Frame, Flg.	WF-6	12	25	9	11.9	0.1	0.83		11.9	0.1	0.83		
Web Frame, Web	WF-6	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		
Bracket, Web	BR-3	10	25	7.5	9.7	0.3	3		9.9	0.1	1		NOMINAL NOT KNOWN
Bracket, Web	BR-4	10	25	7.5	9.4	0.6	6		9.3	0.7	7		NOMINAL NOT KNOWN
Vert. Column, Web	VS-1	7	25	5.3	7.9	0	0		7.9	0	0		
Vert. Column, Flg	VS-1	7	25	5.3	7.8	0	0		7.7	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :

# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

[illegible]

● Excessive Diminution    ● Substantial Corrosion    ● Renewed As Built    ● Renewed other than As Built    ● Missing Reading    ● Abnormally High Reading    ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 18									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Centre, Web	G-1	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		NOMINAL NOT KNOWN
Underdeck Girder, Centre, Flg.	G-1	20	25	15	19.4	0.6	3		19.4	0.6	3		NOMINLAL NOT KNOWN
Underdeck Long., Web	UDL-1	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-1	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Web	UDL-2	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-2	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Web	UDL-3	10	25	7.5	11.9	0	0		11.9	0	0		
Underdeck Long., Flg.	UDL-3	10	25	7.5	11.8	0	0		11.9	0	0		
Underdeck Long., Web	UDL-4	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-4	10	25	7.5	11.6	0	0		11.6	0	0		
Underdeck Long., Web	UDL-5	10	25	7.5	11.4	0	0		11.5	0	0		
Underdeck Long., Flg.	UDL-5	10	25	7.5	11.4	0	0		11.5	0	0		
Underdeck Long., Web	UDL-6	10	25	7.5	11.7	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-6	10	25	7.5	11.8	0	0		11.5	0	0		
Underdeck Long., Web	UDL-7	10	25	7.5	11.9	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-7	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Web	UDL-8	10	25	7.5	11.7	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-8	10	25	7.5	11.7	0	0		11.6	0	0		
Underdeck Long., Web	UDL-9	10	25	7.5	11.7	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-9	10	25	7.5	11.8	0	0		11.4	0	0		
Underdeck Long., Web	UDL-10	10	25	7.5	11.7	0	0		11.8	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 18									
Structural Component	Sketch Reference ID	As Built Thickness  (mm)	Max Allowable Diminution  (%)	Renewal Thickness  (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness  (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness  (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Long., Flg.	UDL-10	10	25	7.5	11.7	0	0		11.7	0	0		
Bracket, Web	BR-1	8	25	6	8	0	0		8.5	0	0		
Bracket, Web	BR-2	8	25	6	9.3	0	0		9.7	0	0		
Centre Long. girder, Flg.	G-2	16	25	12	19.6	0	0		19.6	0	0		
Centre Long. girder, Web	G-2	10	25	7.5	7.8	2.2	22		7.8	2.2	22		AREA IN GOOD COND.
Web Frame, Flg.	WF-1	8	25	6	9.7	0	0		9.8	0	0		
Web Frame, Web	WF-1	8	25	6	9.7	0	0		9.8	0	0		
Web Frame, Flg.	WF-2	8	25	6	9.4	0	0		9.7	0	0		
Web Frame, Web	WF-2	8	25	6	9.7	0	0		9.7	0	0		
Web Frame, Flg.	WF-3	12	25	9	11.8	0.2	1.67		11.4	0.6	5		
Web Frame, Web	WF-3	8	25	6	7.9	0.1	1.25		7.8	0.2	2.5		
Web Frame, Flg.	WF-4	12	25	9	11.8	0.2	1.67		11.3	0.7	5.83		
Web Frame, Web	WF-4	8	25	6	7.9	0.1	1.25		7.5	0.5	6.25		
Web Frame, Flg.	WF-5	12	25	9	11.9	0.1	0.83		11.9	0.1	0.83		
Web Frame, Web	WF-5	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		
Web Frame, Flg.	WF-6	12	25	9	11.8	0.2	1.67		11.8	0.2	1.67		
Web Frame, Web	WF-6	8	25	6	7.9	0.1	1.25		7.8	0.2	2.5		
Bracket, Web	BR-3	10	25	7.5	9.8	0.2	2		9.8	0.2	2		NOMINAL NOT KNOWN
Bracket, Web	BR-4	10	25	7.5	8.4	1.6	16		9.4	0.6	6		MONINAL NOT KNOWN
Vert. Column, Web	VS-1	7	25	5.3	7.8	0	0		7.9	0	0		
Vert. Column, Flg	VS-1	7	25	5.3	7.7	0	0		7.9	0	0		

● Excessive Diminution

● Substantial Corrosion

● Renewed As Built

● Renewed other than As Built

● Missing Reading

● Abnormally High Reading

● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :

# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

[illegible]

● Excessive Diminution    ● Substantial Corrosion    ● Renewed As Built    ● Renewed other than As Built    ● Missing Reading    ● Abnormally High Reading    ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 17									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Centre, Web	G-1	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		NOMINAL NOT KNOWN
Underdeck Girder, Centre, Flg.	G-1	20	25	15	19.5	0.5	2.5		19.5	0.5	2.5		NOMINAL NOT KNOWN
Underdeck Long., Web	UDL-1	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-1	10	25	7.5	11.5	0	0		11.7	0	0		
Underdeck Long., Web	UDL-2	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-2	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Web	UDL-3	10	25	7.5	11.8	0	0		11.9	0	0		
Underdeck Long., Flg.	UDL-3	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Web	UDL-4	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-4	10	25	7.5	11.8	0	0		11.6	0	0		
Underdeck Long., Web	UDL-5	10	25	7.5	11.4	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-5	10	25	7.5	11.5	0	0		11.6	0	0		
Underdeck Long., Web	UDL-6	10	25	7.5	11.4	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-6	10	25	7.5	11.4	0	0		11.8	0	0		
Underdeck Long., Web	UDL-7	10	25	7.5	11.5	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-7	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Web	UDL-8	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-8	10	25	7.5	11.5	0	0		11.8	0	0		
Underdeck Long., Web	UDL-9	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-9	10	25	7.5	11.7	0	0		11.7	0	0		
Underdeck Long., Web	UDL-10	10	25	7.5	11.8	0	0		11.9	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 17									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Long., Flg.	UDL-10	10	25	7.5	11.8	0	0		11.8	0	0		
Bracket, Web	BR-1	8	25	6	8	0	0		8	0	0		
Bracket, Web	BR-2	8	25	6	9.2	0	0		9.2	0	0		
Centre Long. girder, Flg.	G-2	16	25	12	19.6	0	0		19.6	0	0		
Centre Long. girder, Web	G-2	10	25	7.5	9.7	0.3	3		7.9	2.1	21		AREA IN GOOD COND.
Web Frame, Flg.	WF-1	8	25	6	9.8	0	0		9.8	0	0		
Web Frame, Web	WF-1	8	25	6	9.8	0	0		9.9	0	0		
Web Frame, Flg.	WF-2	8	25	6	9.8	0	0		9.8	0	0		
Web Frame, Web	WF-2	8	25	6	9.8	0	0		9.8	0	0		
Web Frame, Flg.	WF-3	12	25	9	11.7	0.3	2.5		11.7	0.3	2.5		
Web Frame, Web	WF-3	8	25	6	7.8	0.2	2.5		7.8	0.2	2.5		
Web Frame, Flg.	WF-4	12	25	9	11.4	0.6	5		11.4	0.6	5		
Web Frame, Web	WF-4	8	25	6	7.6	0.4	5		7.6	0.4	5		
Web Frame, Flg.	WF-5	12	25	9	11.7	0.3	2.5		11.7	0.3	2.5		
Web Frame, Web	WF-5	8	25	6	7.9	0.1	1.25		7.8	0.2	2.5		
Web Frame, Flg.	WF-6	12	25	9	11.8	0.2	1.67		11.8	0.2	1.67		
Web Frame, Web	WF-6	8	25	6	7.8	0.2	2.5		7.8	0.2	2.5		
Bracket, Web	BR-3	10	25	7.5	9.7	0.3	3		9.7	0.3	3		NOMINAL NOT KNOWN
Bracket, Web	BR-4	10	25	7.5	7.5	2.5	25		7.5	2.5	25		NOMINAL NOT KNOWN
Vert. Column, Web	VS-1	7	25	5.3	7.8	0	0		8	0	0		
Vert. Column, Flg	VS-1	7	25	5.3	7.9	0	0		8	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

[illegible]

● Excessive Diminution    ● Substantial Corrosion    ● Renewed As Built    ● Renewed other than As Built    ● Missing Reading    ● Abnormally High Reading    ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 16									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Centre, Web	G-1	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		
Underdeck Girder, Centre, Flg.	G-1	20	25	15	19.6	0.4	2		19.6	0.4	2		
Underdeck Long., Web	UDL-1	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-1	10	25	7.5	11.6	0	0		11.5	0	0		
Underdeck Long., Web	UDL-2	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-2	10	25	7.5	11.8	0	0		11.6	0	0		
Underdeck Long., Web	UDL-3	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-3	10	25	7.5	11.9	0	0		11.9	0	0		
Underdeck Long., Web	UDL-4	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-4	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Web	UDL-5	10	25	7.5	11.5	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-5	10	25	7.5	11.5	0	0		11.6	0	0		
Underdeck Long., Web	UDL-6	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-6	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Web	UDL-7	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-7	10	25	7.5	11.7	0	0		11.7	0	0		
Underdeck Long., Web	UDL-8	10	25	7.5	11.8	0	0		11.9	0	0		
Underdeck Long., Flg.	UDL-8	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Web	UDL-9	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-9	10	25	7.5	11.7	0	0		11.7	0	0		
Underdeck Long., Web	UDL-10	10	25	7.5	11.7	0	0		11.9	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 16									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Long., Flg.	UDL-10	10	25	7.5	11.8	0	0		11.9	0	0		
Bracket, Web	BR-1	8	25	6	8	0	0		8	0	0		
Bracket, Web	BR-2	8	25	6	9.1	0	0		9.1	0	0		
Centre Long. girder, Flg.	G-2	16	25	12	19.7	0	0		19.7	0	0		
Centre Long. girder, Web	G-2	10	25	7.5	7.9	2.1	21		7.9	2.1	21		GOOD CONDITON
Web Frame, Flg.	WF-1	8	25	6	9.6	0	0		9.7	0	0		
Web Frame, Web	WF-1	8	25	6	9.8	0	0		9.7	0	0		
Web Frame, Flg.	WF-2	8	25	6	9.7	0	0		9.7	0	0		
Web Frame, Web	WF-2	8	25	6	9.7	0	0		9.8	0	0		
Web Frame, Flg.	WF-3	12	25	9	11.5	0.5	4.17		11.9	0.1	0.83		
Web Frame, Web	WF-3	8	25	6	7.9	0.1	1.25		7.8	0.2	2.5		
Web Frame, Flg.	WF-4	12	25	9	11.6	0.4	3.33		11.5	0.5	4.17		
Web Frame, Web	WF-4	8	25	6	7.8	0.2	2.5		7.7	0.3	3.75		
Web Frame, Flg.	WF-5	12	25	9	11.9	0.1	0.83		11.8	0.2	1.67		
Web Frame, Web	WF-5	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		
Web Frame, Flg.	WF-6	12	25	9	11.7	0.3	2.5		11.6	0.4	3.33		
Web Frame, Web	WF-6	8	25	6	7.8	0.2	2.5		7.8	0.2	2.5		
Bracket, Web	BR-3	10	25	7.5	9.7	0.3	3		9.6	0.4	4		NOMINAL NOT KNOWN
Bracket, Web	BR-4	10	25	7.5	7.8	2.2	22		7.7	2.3	23		NOMINAL NOT KNOWN
Vert. Column, Web	VS-1	7	25	5.3	7.9	0	0		8	0	0		
Vert. Column, Flg	VS-1	7	25	5.3	7.9	0	0		7.9	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 15									
Structural Component	Sketch Reference ID	As Built Thickness  (mm)	Max Allowable Diminution  (%)	Renewal Thickness  (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness  (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness  (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Centre, Web	G-1	8	25	6	8	0	0		8	0	0		
Underdeck Girder, Centre, Flg.	G-1	20	25	15	19.6	0.4	2		19.6	0.4	2		
Underdeck Long., Web	UDL-1	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-1	10	25	7.5	11.5	0	0		11.4	0	0		
Underdeck Long., Web	UDL-2	10	25	7.5	11.8	0	0		11.9	0	0		
Underdeck Long., Flg.	UDL-2	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Web	UDL-3	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-3	10	25	7.5	11.9	0	0		11.6	0	0		
Underdeck Long., Web	UDL-4	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-4	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Web	UDL-5	10	25	7.5	11.5	0	0		11.4	0	0		
Underdeck Long., Flg.	UDL-5	10	25	7.5	11.4	0	0		11.6	0	0		
Underdeck Long., Web	UDL-6	10	25	7.5	11.9	0	0		11.5	0	0		
Underdeck Long., Flg.	UDL-6	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Web	UDL-7	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-7	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Web	UDL-8	10	25	7.5	11.7	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-8	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Web	UDL-9	10	25	7.5	11.9	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-9	10	25	7.5	11.7	0	0		11.6	0	0		
Underdeck Long., Web	UDL-10	10	25	7.5	11.8	0	0		11.5	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 15									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Long., Flg.	UDL-10	10	25	7.5	11.8	0	0		11.5	0	0		
Bracket, Web	BR-1	8	25	6									NOT THERE. ON DWG.
Bracket, Web	BR-2	8	25	6	9.7	0	0		10	0	0		
Bracket, Flg.	BR-2	12	25	9	11.7	0.3	2.5		12.8	0	0		
Centre Long. girder, Flg.	G-2	16	25	12	19.8	0	0		19.5	0	0		
Centre Long. girder, Web	G-2	10	25	7.5	7.9	2.1	21		7.9	2.1	21		GOOD CONDITON
Web Frame, Web	UWF-1	10	25	7.5	9.9	0.1	1		9.9	0.1	1		
Web Frame, Flg.	UWF-1	20	25	15	19.9	0.1	0.5		19.9	0.1	0.5		
Web Frame, Web	UWF-2	10	25	7.5	10	0	0		9.9	0.1	1		
Web Frame, Flg.	UWF-2	20	25	15	19.9	0.1	0.5		19.8	0.2	1		
Web Frame, Web	UWF-3	10	25	7.5	9	1	10		9.7	0.3	3		
Web Frame, Flg.	UWF-3	20	25	15	19.6	0.4	2		19.3	0.7	3.5		
Web Frame, Web	UWF-4	10	25	7.5	9.9	0.1	1		9.8	0.2	2		
Web Frame, Flg.	UWF-4	20	25	15	19.7	0.3	1.5		19.5	0.5	2.5		
Web Frame, Web	UWF-5	10	25	7.5	9.7	0.3	3		9.8	0.2	2		
Web Frame, Flg.	UWF-5	20	25	15	19.6	0.4	2		19.5	0.5	2.5		
Web Frame, Web	SWF-1	8	25	6	7.9	0.1	1.25		7.7	0.3	3.75		
Web Frame, Flg.	SWF-1	12	25	9	11.7	0.3	2.5		11.5	0.5	4.17		
Web Frame, Web	SWF-2	8	25	6	7.8	0.2	2.5		7.6	0.4	5		
Web Frame, Flg.	SWF-2	12	25	9	11.6	0.4	3.33		11.4	0.6	5		
Web Frame, Web	SWF-3	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak										
Location of Structure :				Transverse Web - Frame No. 15										
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments	
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)		
						(mm)	(%)			(mm)	(%)			
Web Frame, Flg.	SWF-3	12	25	9	11.8	0.2	1.67		11.7	0.3	2.5			
Web Frame, Web	SWF-4	8	25	6	7.8	0.2	2.5		7.9	0.1	1.25			
Web Frame, Flg.	SWF-4	12	25	9	11.7	0.3	2.5		11.8	0.2	1.67			
Bracket, Web	BR-3	8	25	6	9.9	0	0		10	0	0			
Bracket, Flg	BR-3	12	25	9	11.8	0.2	1.67		11.5	0.5	4.17			
Bracket, Web	BR-4	10	25	7.5	7.7	2.3	23		8.1	1.9	19		NOMINAL NOT KNOWN	
Vert. Column, Web	VS-1	8	25	6	8.4	0	0		8.5	0	0			
Vert. Column, Flg	VS-1	12	25	9	11.6	0.4	3.33		11.7	0.3	2.5			
Vert. Column, Web	VS-2	8	25	6	8.3	0	0		8.4	0	0			
Vert. Column, Flg.	Vs-2	12	25	9	11.7	0.3	2.5		11.6	0.4	3.33			
Long. BHD,	LB-1	7	25	5.3	7.9	0	0		7.9	0	0			
Long. BHD,	LB-2	7	25	5.3	7.8	0	0		7.9	0	0			
Long. BHD,	LB-3	7	25	5.3	7.7	0	0		8.1	0	0			

Excessive Diminution

Substantial Corrosion

Renewed As Built

Renewed other than As Built

Missing Reading

Abnormally High Reading

Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 14									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Centre, Web	G-1	8	25	6	7.8	0.2	2.5		7.8	0.2	2.5		NOMINAL NOT KNOWN
Underdeck Girder, Centre, Flg.	G-1	20	25	15	19.4	0.6	3		19.4	0.6	3		NOMINAL NOT KNOWN
Underdeck Long., Web	UDL-1	10	25	7.5	11.6	0	0		11.5	0	0		
Underdeck Long., Flg.	UDL-1	10	25	7.5	11.6	0	0		11.4	0	0		
Underdeck Long., Web	UDL-2	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-2	10	25	7.5	11.8	0	0		11.9	0	0		
Underdeck Long., Web	UDL-3	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-3	10	25	7.5	11.9	0	0		11.8	0	0		
Underdeck Long., Web	UDL-4	10	25	7.5	11.8	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-4	10	25	7.5	11.7	0	0		11.6	0	0		
Underdeck Long., Web	UDL-5	10	25	7.5	11.4	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-5	10	25	7.5	11.6	0	0		11.9	0	0		
Underdeck Long., Web	UDL-6	10	25	7.5	11.4	0	0		11.9	0	0		
Underdeck Long., Flg.	UDL-6	10	25	7.5	11.7	0	0		11.9	0	0		
Underdeck Long., Web	UDL-7	10	25	7.5	11.7	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-7	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Web	UDL-8	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-8	10	25	7.5	11.8	0	0		11.6	0	0		
Underdeck Long., Web	UDL-9	10	25	7.5	11.9	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-9	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Web	UDL-10	10	25	7.5	11.7	0	0		11.6	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :





# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 14									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Long., Flg.	UDL-10	10	25	7.5	11.7	0	0		11.6	0	0		
Bracket, Web	BR-1	8	25	6	8	0	0		8.4	0	0		
Bracket, Web	BR-2	8	25	6	9.1	0	0		8.9	0	0		
Centre Long. girder, Flg.	G-2	16	25	12	19.6	0	0		19.6	0	0		
Centre Long. girder, Web	G-2	10	25	7.5	7.8	2.2	22		7.8	2.2	22		GOOD CONDITION
Web Frame, Flg.	WF-1	8	25	6	9.8	0	0		10.1	0	0		
Web Frame, Web	WF-1	8	25	6	9.8	0	0		10	0	0		
Web Frame, Flg.	WF-2	8	25	6	9.7	0	0		9.9	0	0		
Web Frame, Web	WF-2	8	25	6	9.8	0	0		9	0	0		
Web Frame, Flg.	WF-3	12	25	9	11.7	0.3	2.5		11.6	0.4	3.33		
Web Frame, Web	WF-3	8	25	6	7.9	0.1	1.25		7.8	0.2	2.5		
Web Frame, Flg.	WF-4	12	25	9	11.7	0.3	2.5		11.5	0.5	4.17		
Web Frame, Web	WF-4	8	25	6	7.9	0.1	1.25		7.7	0.3	3.75		
Web Frame, Flg.	WF-5	12	25	9	11.9	0.1	0.83		11.7	0.3	2.5		
Web Frame, Web	WF-5	8	25	6	7.7	0.3	3.75		7.9	0.1	1.25		
Web Frame, Flg.	WF-6	12	25	9	11.9	0.1	0.83		11.8	0.2	1.67		
Web Frame, Web	WF-6	8	25	6	7.7	0.3	3.75		7.7	0.3	3.75		
Bracket, Web	BR-3	10	25	7.5	9.8	0.2	2		9.9	0.1	1		NOMINAL NOT KNOWN
Bracket, Web	BR-4	10	25	7.5	8.6	1.4	14		8.6	1.4	14		NOMINAL NOT KNOWN
Vert. Column, Web	VS-1	7	25	5.3	7.8	0	0		7.9	0	0		
Vert. Column, Flg	VS-1	7	25	5.3	7.8	0	0		8.1	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :

# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

[illegible]

● Excessive Diminution    ● Substantial Corrosion    ● Renewed As Built    ● Renewed other than As Built    ● Missing Reading    ● Abnormally High Reading    ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 13									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Centre, Web	G-1	8	25	6	7.8	0.2	2.5		7.8	0.2	2.5		NOMINAL NOT KNOWN
Underdeck Girder, Centre, Flg.	G-1	20	25	15	19.6	0.4	2		19.6	0.4	2		NOMINAL NOT KNOWN
Underdeck Long., Web	UDL-1	10	25	7.5	11.7	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-1	10	25	7.5	11.6	0	0		11.9	0	0		
Underdeck Long., Web	UDL-2	10	25	7.5	11.7	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-2	10	25	7.5	11.9	0	0		11.9	0	0		
Underdeck Long., Web	UDL-3	10	25	7.5	11.8	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-3	10	25	7.5	11.7	0	0		11.6	0	0		
Underdeck Long., Web	UDL-4	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-4	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Web	UDL-5	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-5	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Web	UDL-6	10	25	7.5	11.8	0	0		11.9	0	0		
Underdeck Long., Flg.	UDL-6	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Web	UDL-7	10	25	7.5	11.7	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-7	10	25	7.5	11.7	0	0		11.9	0	0		
Underdeck Long., Web	UDL-8	10	25	7.5	11.7	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-8	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Web	UDL-9	10	25	7.5	11.8	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-9	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Web	UDL-10	10	25	7.5	11.7	0	0		11.6	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 13									
Structural Component	Sketch Reference ID	As Built Thickness  (mm)	Max Allowable Diminution  (%)	Renewal Thickness  (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness  (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness  (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Long., Flg.	UDL-10	10	25	7.5	11.8	0	0		11.6	0	0		
Bracket, Web	BR-1	8	25	6	8	0	0		8.2	0	0		
Bracket, Web	BR-2	8	25	6	9.1	0	0		8.6	0	0		
Centre Long. girder, Flg.	G-2	16	25	12	19.4	0	0		19.4	0	0		
Centre Long. girder, Web	G-2	10	25	7.5	7.9	2.1	21		7.9	2.1	21		GOOD CONDITION
Web Frame, Flg.	WF-1	8	25	6	9.8	0	0		10	0	0		
Web Frame, Web	WF-1	8	25	6	9.8	0	0		9.9	0	0		
Web Frame, Flg.	WF-2	8	25	6	9.9	0	0		9.9	0	0		
Web Frame, Web	WF-2	8	25	6	9.8	0	0		9.9	0	0		
Web Frame, Flg.	WF-3	12	25	9	11.8	0.2	1.67		11.4	0.6	5		
Web Frame, Web	WF-3	8	25	6	7.9	0.1	1.25		7.6	0.4	5		
Web Frame, Flg.	WF-4	12	25	9	11.8	0.2	1.67		11.4	0.6	5		
Web Frame, Web	WF-4	8	25	6	7.8	0.2	2.5		7.5	0.5	6.25		
Web Frame, Flg.	WF-5	12	25	9	11.6	0.4	3.33		11.8	0.2	1.67		
Web Frame, Web	WF-5	8	25	6	7.8	0.2	2.5		7.8	0.2	2.5		
Web Frame, Flg.	WF-6	12	25	9	11.6	0.4	3.33		11.7	0.3	2.5		
Web Frame, Web	WF-6	8	25	6	7.8	0.2	2.5		7.9	0.1	1.25		
Bracket, Web	BR-3	10	25	7.5	9.8	0.2	2		9.7	0.3	3		NOMINAL NOT KNOWN
Bracket, Web	BR-4	10	25	7.5	7.9	2.1	21		8.1	1.9	19		NOMINAL NOT KNOWN
Vert. Column, Web	VS-1	7	25	5.3	7.5	0	0		8	0	0		
Vert. Column, Flg	VS-1	7	25	5.3	7.5	0	0		8.1	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 12									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Centre, Web	G-1	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		NOMINAL NOT KNOWN
Underdeck Girder, Centre, Flg.	G-1	20	25	15	19.8	0.2	1		19.8	0.2	1		NOMINAL NOT KNOWN
Underdeck Long., Web	UDL-1	10	25	7.5	12	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-1	10	25	7.5	11.7	0	0		11.7	0	0		
Underdeck Long., Web	UDL-2	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-2	10	25	7.5	11.8	0	0		11.9	0	0		
Underdeck Long., Web	UDL-3	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-3	10	25	7.5	11.9	0	0		11.9	0	0		
Underdeck Long., Web	UDL-4	10	25	7.5	11.6	0	0		11.9	0	0		
Underdeck Long., Flg.	UDL-4	10	25	7.5	12	0	0		11.8	0	0		
Underdeck Long., Web	UDL-5	10	25	7.5	11.5	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-5	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Web	UDL-6	10	25	7.5	11.7	0	0		11.9	0	0		
Underdeck Long., Flg.	UDL-6	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Web	UDL-7	10	25	7.5	11.9	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-7	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Web	UDL-8	10	25	7.5	11.7	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-8	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Web	UDL-9	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-9	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Web	UDL-10	10	25	7.5	11.9	0	0		11.6	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 12									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Long., Flg.	UDL-10	10	25	7.5	11.7	0	0		11.6	0	0		
Bracket, Web	BR-1	8	25	6	8	0	0		8	0	0		
Bracket, Web	BR-2	8	25	6	9.2	0	0		8.7	0	0		
Centre Long. girder, Flg.	G-2	16	25	12	19.9	0	0		19.9	0	0		
Centre Long. girder, Web	G-2	10	25	7.5	7.8	2.2	22		7.9	2.1	21		GOOD CONDITION
Web Frame, Flg.	WF-1	8	25	6	10	0	0		9.8	0	0		
Web Frame, Web	WF-1	8	25	6	10	0	0		9.9	0	0		
Web Frame, Flg.	WF-2	8	25	6	9.8	0	0		9.6	0	0		
Web Frame, Web	WF-2	8	25	6	9.9	0	0		9.7	0	0		
Web Frame, Flg.	WF-3	12	25	9	11.4	0.6	5		11.4	0.6	5		
Web Frame, Web	WF-3	8	25	6	7.5	0.5	6.25		7.5	0.5	6.25		
Web Frame, Flg.	WF-4	12	25	9	11.4	0.6	5		11.4	0.6	5		
Web Frame, Web	WF-4	8	25	6	7.5	0.5	6.25		7.3	0.7	8.75		
Web Frame, Flg.	WF-5	12	25	9	11.8	0.2	1.67		11.8	0.2	1.67		
Web Frame, Web	WF-5	8	25	6	7.8	0.2	2.5		7.8	0.2	2.5		
Web Frame, Flg.	WF-6	12	25	9	11.6	0.4	3.33		11.6	0.4	3.33		
Web Frame, Web	WF-6	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		
Bracket, Web	BR-3	10	25	7.5	9.2	0.8	8		9.2	0.8	8		NOMINAL NOT KNOWN
Bracket, Web	BR-4	10	25	7.5	8.6	1.4	14		8.6	1.4	14		NOMINAL NOT KNOWN
Vert. Column, Web	VS-1	7	25	5.3	8	0	0		8	0	0		
Vert. Column, Flg	VS-1	7	25	5.3	8.1	0	0		8.1	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Name of LR Attending Surveyor :





# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 11									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading			Starboard Reading			Comments		
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)			(%)
Underdeck Girder, Centre, Web	G-1	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		NOMINAL NOT KNOWN
Underdeck Girder, Centre, Flg.	G-1	20	25	15	19.6	0.4	2		19.6	0.4	2		NOMINAL NOT KNOWN
Underdeck Long., Web	UDL-1	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-1	10	25	7.5	11.7	0	0		11.5	0	0		
Underdeck Long., Web	UDL-2	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-2	10	25	7.5	11.7	0	0		11.7	0	0		
Underdeck Long., Web	UDL-3	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-3	10	25	7.5	11.7	0	0		11.5	0	0		
Underdeck Long., Web	UDL-4	10	25	7.5	11.4	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-4	10	25	7.5	11.7	0	0		11.6	0	0		
Underdeck Long., Web	UDL-5	10	25	7.5	11.3	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-5	10	25	7.5	11.4	0	0		11.9	0	0		
Underdeck Long., Web	UDL-6	10	25	7.5	11.7	0	0		11.9	0	0		
Underdeck Long., Flg.	UDL-6	10	25	7.5	11.8	0	0		11.9	0	0		
Underdeck Long., Web	UDL-7	10	25	7.5	11.8	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-7	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Web	UDL-8	10	25	7.5	11.9	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-8	10	25	7.5	11.9	0	0		11.8	0	0		
Underdeck Long., Web	UDL-9	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-9	10	25	7.5	11.6	0	0		11.6	0	0		
Underdeck Long., Web	UDL-10	10	25	7.5	11.8	0	0		11.6	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 11									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Long., Flg.	UDL-10	10	25	7.5	11.6	0	0		11.7	0	0		
Bracket, Web	BR-1	8	25	6	8	0	0		8.3	0	0		
Bracket, Web	BR-2	8	25	6	9.1	0	0		8.6	0	0		
Centre Long. girder, Flg.	G-2	16	25	12	19.9	0	0		19.9	0	0		
Centre Long. girder, Web	G-2	10	25	7.5	7.8	2.2	22		7.8	2.2	22		GOOD CONDITION
Web Frame, Flg.	WF-1	8	25	6	9.6	0	0		9.9	0	0		
Web Frame, Web	WF-1	8	25	6	9.7	0	0		9.9	0	0		
Web Frame, Flg.	WF-2	8	25	6	9.7	0	0		10	0	0		
Web Frame, Web	WF-2	8	25	6	9.7	0	0		9.9	0	0		
Web Frame, Flg.	WF-3	12	25	9	11.7	0.3	2.5		11.5	0.5	4.17		
Web Frame, Web	WF-3	8	25	6	7.9	0.1	1.25		7.7	0.3	3.75		
Web Frame, Flg.	WF-4	12	25	9	11.8	0.2	1.67		11.5	0.5	4.17		
Web Frame, Web	WF-4	8	25	6	7.9	0.1	1.25		7.6	0.4	5		
Web Frame, Flg.	WF-5	12	25	9	11.7	0.3	2.5		11.6	0.4	3.33		
Web Frame, Web	WF-5	8	25	6	7.8	0.2	2.5		7.9	0.1	1.25		
Web Frame, Flg.	WF-6	12	25	9	11.6	0.4	3.33		11.7	0.3	2.5		
Web Frame, Web	WF-6	8	25	6	7.8	0.2	2.5		7.9	0.1	1.25		
Bracket, Web	BR-3	10	25	7.5	9.7	0.3	3		9.8	0.2	2		NOMINAL NOT KNOWN
Bracket, Web	BR-4	10	25	7.5	7.6	2.4	24		8.7	1.3	13		NOMINAL NOT KNOWN
Vert. Column, Web	VS-1	7	25	5.3	7.9	0	0		7.8	0	0		
Vert. Column, Flg	VS-1	7	25	5.3	7.8	0	0		7.8	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

TM4 – Transverse Structural Members & Attached Longitudinal Structure

Space / Compartment Description :				Aft Peak									
Location of Structure :				Transverse Web - Frame No. 11									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Vert. Column, Web	VS-2	7	25	5.3	7.7	0	0		7.7	0	0		
Vert. Column, Flg.	Vs-2	7	25	5.3	7.7	0	0		7.7	0	0		
Side Shell, Plate	SS-1	8	30	5.6	7.8	0.2	2.5		7.9	0.1	1.25		
Side Shell, Plate	SS-2	8	30	5.6	7.9	0.1	1.25		7.8	0.2	2.5		
Side Shell, Plate	SS-3	8	30	5.6	7.9	0.1	1.25		7.9	0.1	1.25		
Side Shell, Plate	SS-4	8	30	5.6	7.8	0.2	2.5		7.9	0.1	1.25		
Side Shell, Plate	SS-5	8	30	5.6	7.8	0.2	2.5		7.9	0.1	1.25		
Side Shell, Plate	SS-6	8	30	5.6	8.2	0	0		8.3	0	0		
Side Shell, Plate	SS-7	8	30	5.6	8.5	0	0		8.4	0	0		
Side Shell, Plate	SS-8	8	30	5.6	9	0	0		8.5	0	0		
Side Shell, Plate	SS-9	8	30	5.6	9.1	0	0		8.6	0	0		
Side Shell, Plate	SS-10	8	30	5.6	8.1	0	0		7.9	0.1	1.25		
Side Shell, Plate	SS-11	8	30	5.6	9.8	0	0		9.8	0	0		
Side Shell, Plate	SS-12	8	30	5.6	9.8	0	0		9.9	0	0		
Side Shell, Plate	SS-13	12	30	8.4	11.6	0.4	3.33		11.5	0.5	4.17		
Side Shell, Plate	SS-14	12	30	8.4	11.3	0.7	5.83		11.4	0.6	5		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :					Aft Peak								
Location of Structure :					Frame No. 10								
Type of Bulkhead :					Transverse Bulkhead								
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Center, Web	G1	8	25	6	7.8	0.2	2.5		7.8	0.2	2.5		
Underdeck Girder, Centre, Flg.	G1	20	25	15	19.4	0.6	3		19.4	0.6	3		
Underdeck Long., Web	UDL-1	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-1	10	25	7.5	11.7	0	0		11.9	0	0		
Underdeck Long., Web	UDL-2	10	25	7.5	11.1	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-2	10	25	7.5	11.2	0	0		11.9	0	0		
Underdeck Long., Web	UDL-3	10	25	7.5	11.3	0	0		11.5	0	0		
Underdeck Long., Flg.	UDL-3	10	25	7.5	11.4	0	0		11.5	0	0		
Underdeck Long., Web	UDL-4	10	25	7.5	11.5	0	0		11.4	0	0		
Underdeck Long., Flg.	UDL-4	10	25	7.5	11.6	0	0		11.5	0	0		
Underdeck Long., Web	UDL-5	10	25	7.5	11	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-5	10	25	7.5	11.1	0	0		11.7	0	0		
Underdeck Long., Web	UDL-6	10	25	7.5	11.6	0	0		11.6	0	0		
Underdeck Long., Flg.	UDL-6	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Web	UDL-7	10	25	7.5	11.9	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-7	10	25	7.5	11.8	0	0		11.6	0	0		
Underdeck Long., Web	UDL-8	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Flg.	UDL-8	10	25	7.5	11.6	0	0		11.7	0	0		
Underdeck Long., Web	UDL-9	10	25	7.5	11.6	0	0		11.5	0	0		
Underdeck Long., Flg.	UDL-9	10	25	7.5	11.8	0	0		11.6	0	0		
Underdeck Long., Web	UDL-10	10	25	7.5	11.7	0	0		11.5	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :					Aft Peak								
Location of Structure :					Frame No. 10								
Type of Bulkhead :					Transverse Bulkhead								
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Long., Flg.	UDL-10	10	25	7.5	11.5	0	0		11.5	0	0		
Bracket, Web	B-1	8	25	6	7.9	0.1	1.25		8	0	0		
UDL, Bracket, Web	UB-1	8	25	6	7.7	0.3	3.75		7.9	0.1	1.25		
UDL, Bracket, Web	UB-2	8	25	6	7.8	0.2	2.5		8	0	0		
UDL, Bracket, Web	UB-3	8	25	6	7.8	0.2	2.5		8	0	0		
UDL, Bracket, Web	UB-4	8	25	6	7.8	0.2	2.5		7.9	0.1	1.25		
UDL, Bracket, Web	UB-5	8	25	6	7.8	0.2	2.5		9	0	0		
UDL, Bracket, Web	UB-6	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		
UDL, Bracket, Web	UB-7	8	25	6	7.8	0.2	2.5		7.8	0.2	2.5		
UDL, Bracket, Web	UB-8	8	25	6	7.9	0.1	1.25		7.8	0.2	2.5		
UDL, Bracket, Web	UB-9	8	25	6	8	0	0		7.7	0.3	3.75		
UDL, Bracket, Web	UB-10	8	25	6	8	0	0		7.6	0.4	5		
Side Shell, Plate	SS1	12	30	8.4	11.8	0.2	1.67		11.8	0.2	1.67		
Side Shell, Plate	SS2	12	30	8.4	11.6	0.4	3.33		11.8	0.2	1.67		
Side Shell, Plate	SS3	8	30	5.6	10	0	0		10	0	0		
Side Shell, Plate	SS4	8	30	5.6	9.9	0	0		9.9	0	0		
Side Shell, Plate	SS5	8	30	5.6	8.2	0	0		8.3	0	0		
BHD, Plate	P1	8	30	5.6	7.9	0.1	1.25		7.9	0.1	1.25		
BHD, Plate	P2	8	30	5.6	7.9	0.1	1.25		7.9	0.1	1.25		
BHD, Plate	P3	8	30	5.6	7.8	0.2	2.5		7.9	0.1	1.25		
BHD, Plate	P4	8	30	5.6	7.8	0.2	2.5		7.8	0.2	2.5		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :					Aft Peak								
Location of Structure :					Frame No. 10								
Type of Bulkhead :					Transverse Bulkhead								
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
BHD, Plate	P5	8	30	5.6	7.8	0.2	2.5		7.9	0.1	1.25		
BHD, Plate	P6	8	30	5.6	7.8	0.2	2.5		7.9	0.1	1.25		
BHD, Plate	P7	8	30	5.6	7.7	0.3	3.75		7.8	0.2	2.5		
BHD, Plate	P8	8	30	5.6	7.9	0.1	1.25		7.9	0.1	1.25		
BHD, Plate	P9	8	30	5.6	7.8	0.2	2.5		7.7	0.3	3.75		
BHD, Plate	P10	8	30	5.6	7.8	0.2	2.5		7.9	0.1	1.25		
BHD, Plate	P11	8	30	5.6	7.2	0.8	10		7.3	0.7	8.75		
BHD, Plate	P12	8	30	5.6	7.5	0.5	6.25		10	0	0		
BHD, Plate	P13	8	30	5.6	7.5	0.5	6.25		7.5	0.5	6.25		
BHD, Plate	P14	8	30	5.6	7.4	0.6	7.5		7.3	0.7	8.75		
BHD, Plate	P15	8	30	5.6	7.5	0.5	6.25		7.6	0.4	5		
BHD, Plate	P16	8	30	5.6	7.6	0.4	5		7.7	0.3	3.75		
Main Deck, Plate	D-1	12	30	8.4	11.7	0.3	2.5		11.8	0.2	1.67		
Main Deck, Plate	D-2	12	30	8.4	11.9	0.1	0.83		11.5	0.5	4.17		
Main Deck, Plate	D-3	12	30	8.4	11.7	0.3	2.5		11.4	0.6	5		
Main Deck, Plate	D-4	12	30	8.4	11.1	0.9	7.5		11.3	0.7	5.83		
Main Deck, Plate	D-5	12	30	8.4	11.2	0.8	6.67		11.2	0.8	6.67		
Main Deck, Plate	D-6	12	30	8.4	11.3	0.7	5.83		11.6	0.4	3.33		
Main Deck, Plate	D-7	12	30	8.4	11.4	0.6	5		11.8	0.2	1.67		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :				Aft Peak									
Location of Structure :				Frame No. 20									
Type of Bulkhead :				Transverse Bulkhead									
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Girder, Center, Web	G1	8	25	6	7.8	0.2	2.5		7.8	0.2	2.5		
Underdeck Girder, Centre, Flg.	G1	20	25	15	19.7	0.3	1.5		19.7	0.3	1.5		
Underdeck Long., Web	UDL-1	10	25	7.5	11.9	0	0		11.3	0	0		
Underdeck Long., Flg.	UDL-1	10	25	7.5	11.7	0	0		11.3	0	0		
Underdeck Long., Web	UDL-2	10	25	7.5	11.7	0	0		11.4	0	0		
Underdeck Long., Flg.	UDL-2	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Web	UDL-3	10	25	7.5	11.6	0	0		11.4	0	0		
Underdeck Long., Flg.	UDL-3	10	25	7.5	11.7	0	0		11.5	0	0		
Underdeck Long., Web	UDL-4	10	25	7.5	11.8	0	0		11.4	0	0		
Underdeck Long., Flg.	UDL-4	10	25	7.5	11.7	0	0		11.5	0	0		
Underdeck Long., Web	UDL-5	10	25	7.5	11.4	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-5	10	25	7.5	11.3	0	0		11.9	0	0		
Underdeck Long., Web	UDL-6	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-6	10	25	7.5	11.4	0	0		11.8	0	0		
Underdeck Long., Web	UDL-7	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-7	10	25	7.5	11.7	0	0		11.8	0	0		
Underdeck Long., Web	UDL-8	10	25	7.5	11.8	0	0		11.4	0	0		
Underdeck Long., Flg.	UDL-8	10	25	7.5	11.6	0	0		11.8	0	0		
Underdeck Long., Web	UDL-9	10	25	7.5	11.9	0	0		11.8	0	0		
Underdeck Long., Flg.	UDL-9	10	25	7.5	11.8	0	0		11.8	0	0		
Underdeck Long., Web	UDL-10	10	25	7.5	11.8	0	0		11.9	0	0		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :					Aft Peak								
Location of Structure :					Frame No. 20								
Type of Bulkhead :					Transverse Bulkhead								
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Underdeck Long,, Flg.	UDL-10	10	25	7.5	11.8	0	0		11.8	0	0		
Bracket, Web	B-1	8	25	6									NO PLATE IN AREA.
Side Shell, Plate	SS1	8	30	5.6	7.6	0.4	5		7.5	0.5	6.25		
Side Shell, Plate	SS2	8	30	5.6	7.7	0.3	3.75		7.4	0.6	7.5		
Side Shell, Plate	SS3	8	30	5.6	7.8	0.2	2.5		7.6	0.4	5		
Side Shell, Plate	SS4	8	30	5.6	7.7	0.3	3.75		7.7	0.3	3.75		
Side Shell, Plate	SS5	8	30	5.6	7.8	0.2	2.5		7.7	0.3	3.75		
Side Shell, Plate	SS6	8	30	5.6	9.3	0	0		9.9	0	0		
Side Shell, Plate	SS7	8	30	5.6	9.4	0	0		9.5	0	0		
Side Shell, Plate	SS8	8	30	5.6	9.6	0	0		9.7	0	0		
Side Shell, Plate	SS9	8	30	5.6	9.7	0	0		9.7	0	0		
Side Shell, Plate	SS10	12	30	8.4	11.4	0.6	5		11.6	0.4	3.33		
Side Shell, Plate	SS11	12	30	8.4	11.3	0.7	5.83		11.7	0.3	2.5		
BHD, Plate	P1	8	30	5.6	7.9	0.1	1.25		8	0	0		
BHD, Plate	P2	8	30	5.6	7.9	0.1	1.25		8	0	0		
BHD, Plate	P3	8	30	5.6	7.9	0.1	1.25		8	0	0		
BHD, Plate	P4	8	30	5.6	7.9	0.1	1.25		8	0	0		
BHD, Plate	P5	8	30	5.6	7.9	0.1	1.25		8	0	0		
BHD, Plate	P6	8	30	5.6	7.6	0.4	5		7.9	0.1	1.25		
BHD, Plate	P7	8	30	5.6	7.9	0.1	1.25		7.9	0.1	1.25		
BHD, Plate	P8	8	30	5.6	7.8	0.2	2.5		7.9	0.1	1.25		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :





# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :				Aft Peak									
Location of Structure :				Frame No. 20									
Type of Bulkhead :				Transverse Bulkhead									
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(mm)		
BHD, Plate	P9	8	30	5.6	7.8	0.2	2.5		8	0	0		
BHD, Plate	P10	8	30	5.6	7.8	0.2	2.5		8	0	0		
BHD, Plate	P11	8	30	5.6	7.8	0.2	2.5		7.9	0.1	1.25		
BHD, Plate	P12	8	30	5.6	7.5	0.5	6.25		7.9	0.1	1.25		
BHD, Plate	P13	8	30	5.6	7.6	0.4	5		8	0	0		
Main Deck, Plate	D-1	12	30	8.4	11.3	0.7	5.83		11.5	0.5	4.17		
Main Deck, Plate	D-2	12	30	8.4	11.3	0.7	5.83		11.1	0.9	7.5		
Main Deck, Plate	D-3	12	30	8.4	11.8	0.2	1.67		11.8	0.2	1.67		
Main Deck, Plate	D-4	12	30	8.4	11.3	0.7	5.83		11.1	0.9	7.5		
Vert. Stillf., Web	VS-1 U	8	25	6	7.9	0.1	1.25		8	0	0		
Vert. Stiff., Flg	VS-1 U	8	25	6	8	0	0		8	0	0		
Vert. Stillf., Web	VS-1 L	8	25	6	7.9	0.1	1.25		7.9	0.1	1.25		
Vert. Stiff., Flg	VS-1 L	8	25	6	7.8	0.2	2.5		7.9	0.1	1.25		
Vert. Stillf., Web	VS-2 U	8	25	6	7.7	0.3	3.75		7.9	0.1	1.25		
Vert. Stiff., Flg	VS-2 U	8	25	6	7.7	0.3	3.75		8	0	0		
Vert. Stillf., Web	VS-2 L	8	25	6	7.3	0.7	8.75		7.8	0.2	2.5		
Vert. Stiff., Flg	VS-2 L	8	25	6	7.7	0.3	3.75		7.8	0.2	2.5		
Vert. Stillf., Web	VS-3 U	8	25	6	7.9	0.1	1.25		7.8	0.2	2.5		
Vert. Stiff., Flg	VS-3 U	8	25	6	7.3	0.7	8.75		7.8	0.2	2.5		
Vert. Stillf., Web	VS-3 L	8	25	6	7.9	0.1	1.25		7.8	0.2	2.5		
Vert. Stiff., Flg	VS-3 L	8	25	6	7.8	0.2	2.5		7.8	0.2	2.5		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :					Aft Peak								
Location of Structure :					Frame No. 20								
Type of Bulkhead :					Transverse Bulkhead								
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Vert. Stillf., Web	VS-4 U	8	25	6	7.8	0.2	2.5		7.7	0.3	3.75		
Vert. Stiff., Flg	VS-4 U	8	25	6	7.8	0.2	2.5		7.5	0.5	6.25		
Vert. Stillf., Web	VS-4 L	8	25	6	7.8	0.2	2.5		7.7	0.3	3.75		
Vert. Stiff., Flg	VS-4 L	8	25	6	7.9	0.1	1.25		7.7	0.3	3.75		
Vert. Stillf., Web	VS-5 U	8	25	6	7.6	0.4	5		7.6	0.4	5		
Vert. Stiff., Flg	VS-5 U	8	25	6	7.8	0.2	2.5		7.8	0.2	2.5		
Vert. Stillf., Web	VS-5 L	8	25	6	7.9	0.1	1.25		6.9	1.1	13.75		
Vert. Stiff., Flg	VS-5 L	8	25	6	7.3	0.7	8.75		8	0	0		
Vert. Stillf., Web	VS-6 U	8	25	6	7.5	0.5	6.25		7.8	0.2	2.5		
Vert. Stiff., Flg	VS-6 U	8	25	6	7.5	0.5	6.25		7.8	0.2	2.5		
Vert. Stillf., Web	VS-6 L	8	25	6	7.1	0.9	11.25		7	1	12.5		
Vert. Stiff., Flg	VS-6 L	8	25	6	7	1	12.5		7.1	0.9	11.25		
Vert. Stillf., Web	VS-7 U	8	25	6	7.8	0.2	2.5		7.3	0.7	8.75		
Vert. Stiff., Flg	VS-7 U	8	25	6	7.7	0.3	3.75		7.5	0.5	6.25		
Vert. Stillf., Web	VS-7 L	8	25	6	7.5	0.5	6.25		7.2	0.8	10		
Vert. Stiff., Flg	VS-7 L	8	25	6	7.3	0.7	8.75		7.2	0.8	10		
Vert. Stillf., Web	VS-8 U	8	25	6	7.8	0.2	2.5		7.7	0.3	3.75		
Vert. Stiff., Flg	VS-8 U	8	25	6	7.8	0.2	2.5		7.9	0.1	1.25		
Vert. Stillf., Web	VS-8 L	8	25	6	7.5	0.5	6.25		7.3	0.7	8.75		
Vert. Stiff., Flg	VS-8 L	8	25	6	7.5	0.5	6.25		7.3	0.7	8.75		
Vert. Stillf., Web	VS-9 U	8	25	6	7.4	0.6	7.5		7.7	0.3	3.75		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :				Aft Peak									
Location of Structure :				Frame No. 20									
Type of Bulkhead :				Transverse Bulkhead									
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Vert. Stiff., Flg	VS-9 U	8	25	6	7.7	0.3	3.75		7.8	0.2	2.5		
Vert. Stillf., Web	VS-9 L	8	25	6	7.6	0.4	5		7.3	0.7	8.75		
Vert. Stiff., Flg	VS-9 L	8	25	6	7.5	0.5	6.25		7.4	0.6	7.5		
Vert. Stillf., Web	VS-10 U	8	25	6	7.5	0.5	6.25		7.6	0.4	5		
Vert. Stiff., Flg	VS-10 U	8	25	6	7.5	0.5	6.25		7.8	0.2	2.5		
Vert. Brkts, at UDL, Web	B-UDL1	8	25	6	8.5	0	0		9.1	0	0		
Vert. Brkts, at UDL, Web	B-UDL2	8	25	6	8	0	0		8.2	0	0		
Vert. Brkts, at UDL, Web	B-UDL3	8	25	6	8	0	0		8.1	0	0		
Vert. Brkts, at UDL, Web	B-UDL4	8	25	6	8	0	0		8.1	0	0		
Vert. Brkts, at UDL, Web	B-UDL5	8	25	6	7.7	0.3	3.75		7.8	0.2	2.5		
Vert. Brkts, at UDL, Web	B-UDL6	8	25	6	8.1	0	0		7.8	0.2	2.5		
Vert. Brkts, at UDL, Web	B-UDL6	8	25	6	8.2	0	0		7.8	0.2	2.5		
Vert. Brkts, at UDL, Web	B-UDL7	8	25	6	8.8	0	0		7.7	0.3	3.75		
Vert. Brkts, at UDL, Web	B-UDL8	8	25	6	8.7	0	0		7.7	0.3	3.75		
Vert. Brkts, at UDL, Web	B-UDL9	8	25	6	7.7	0.3	3.75		7.7	0.3	3.75		
Vert. Brkts, at UDL, Web	B-UDL10	8	25	6	8.9	0	0		7.7	0.3	3.75		
Vert. Brkts - Vert. Stiff, low	B-LOW1	8	25	6	7.5	0.5	6.25		7.4	0.6	7.5		
Vert. Brkts - Vert. Stiff, low	B-LOW2	8	25	6	7.5	0.5	6.25		7.5	0.5	6.25		
Vert. Brkts - Vert. Stiff, low	B-LOW-3	8	25	6	7.6	0.4	5		7.4	0.6	7.5		
Vert. Brkts - Vert. Stiff, low	B-LOW4	8	25	6	7.8	0.2	2.5		7.9	0.1	1.25		
Vert. Brkts - Vert. Stiff, low	B-LOW5	8	25	6	7.2	0.8	10		7.1	0.9	11.25		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM5 - W.T. & O.T. Transverse Bulkheads

Space / Compartment Description :					Aft Peak								
Location of Structure :					Frame No. 20								
Type of Bulkhead :					Transverse Bulkhead								
Structural Component (Plating / Stiffener)	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading			Starboard Reading				Comments	
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)		
Vert. Brkts - Vert. Stiff, low	B-LOW6	8	25	6	7.3	0.7	8.75		7.1	0.9	11.25		
Vert. Brkts - Vert. Stiff, low	B-LOW7	8	25	6	7.7	0.3	3.75		7.7	0.3	3.75		
Vert. Brkts - Vert. Stiff, low	B-LOW8	8	25	6	7.6	0.4	5		7.7	0.3	3.75		
FRAME 20 FROM INSIDE ENGINE RM	E/R BHDAFT												
BHD, Plate	P1	10	30	7	7.9	2.1	21		8.1	1.9	19		
BHD, Plate	P2	10	30	7	7.9	2.1	21		8	2	20		
BHD, Plate	P3	10	30	7	7.9	2.1	21		8	2	20		
BHD, Plate	P4	10	30	7	8	2	20		8.1	1.9	19		
BHD, Plate	P5	10	30	7	7.9	2.1	21		8	2	20		
BHD, Plate	P6	10	30	7	7.9	2.1	21		7.9	2.1	21		
BHD, Plate	P7	10	30	7	8	2	20		8	2	20		
BHD, Plate	P8	10	30	7	7.9	2.1	21		8	2	20		
BHD, Plate	P9	10	30	7	7.9	2.1	21		8	2	20		
Side Shell, Plate	ER-SS1	9	30	6.3	9.7	0	0		9.7	0	0		
Side Shell, Plate	ER-SS2	9	30	6.3	9.7	0	0		9.8	0	0		
Side Shell, Plate	ER-SS3	12	30	8.4	9.6	2.4	20		9.9	2.1	17.5		
Side Shell, Plate	ER-SS4	12	30	8.4	11.9	0.1	0.83		11.8	0.2	1.67		
Side shell, Plate	ER-SS5	12	30	8.4	11.7	0.3	2.5		11.8	0.2	1.67		

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

Keel Plates and Additional Bottom Plates -  
Keel Plates

TM Forms



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				Keel Plates									
Location of Structure :				Bottom Keel Plates									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading				Starboard Reading				Comments
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
	Frame no's												
Keel Plates, Btm, Aft Readings	-7 to 0	12	30	8.4	10.4	1.6	13.33		10.4	1.6	13.33		
Keel Plates, Btm, Fwd Readings		12	30	8.4	10.8	1.2	10		10.7	1.3	10.83		
Keel Plates, Btm, Aft Readings	0 to 10	12	30	8.4	11.6	0.4	3.33		11.5	0.5	4.17		
Keel Plates, Btm, Fwd Readings		12	30	8.4	11.4	0.6	5		11.3	0.7	5.83		
Keel Plates, Btm, Aft Readings	10 to 26	12	30	8.4	11.5	0.5	4.17		11.4	0.6	5		
Keel Plates, Btm, Fwd Readings		12	30	8.4	11.3	0.7	5.83		11.3	0.7	5.83		
Keel Plates, Btm, Aft Readings	26 to 29	12	30	8.4	11.4	0.6	5		11.3	0.7	5.83		
Keel Plates, Btm, Fwd Readings		12	30	8.4	11.5	0.5	4.17		11.4	0.6	5		
Keel Plates, Btm, Aft Readings	29 to 28	12	30	8.4	11.5	0.5	4.17		11.5	0.5	4.17		
Keel Plates, Btm, Fwd Readings		12	30	8.4	11.4	0.6	5		11.3	0.7	5.83		
Keel Plates, Btm, Aft Readings	38 to 42	12	30	8.4	11.2	0.8	6.67		11.1	0.9	7.5		
Keel Plates, Btm, Fwd Readings		12	30	8.4	10.9	1.1	9.17		10.8	1.2	10		
Keel Plates, Btm, Aft Readings	42 to 50	12	30	8.4	11.4	0.6	5		11.3	0.7	5.83		
Keel Plates, Btm, Fwd Readings		12	30	8.4	11.6	0.4	3.33		11.7	0.3	2.5		
Keel Plates, Btm, Aft Readings	50 to 61	12	30	8.4	11.7	0.3	2.5		11.8	0.2	1.67		
Keel Plates, Btm, Fwd Readings		12	30	8.4	11.4	0.6	5		11.5	0.5	4.17		
Keel Plates, Btm, Aft Readings	61 to 66	12	30	8.4	11.6	0.4	3.33		11.5	0.5	4.17		
Keel Plates, Btm, Fwd Readings		12	30	8.4	11.7	0.3	2.5		11.4	0.6	5		
Keel Plates, Btm, Aft Readings	66 to 74	12	30	8.4	11.5	0.5	4.17		11.2	0.8	6.67		
Keel Plates, Btm, Fwd Readings		12	30	8.4	11.4	0.6	5		11.1	0.9	7.5		

● Excessive Diminution ● Substantial Corrosion ● Renewed As Built ● Renewed other than As Built ● Missing Reading ● Abnormally High Reading ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				Keel Plates									
Location of Structure :				Bottom Keel Plates									
Structural Component	Sketch Reference ID	As Built Thickness	Max Allowable Diminution	Renewal Thickness	Port Reading				Starboard Reading				Comments
					Gauged Thickness	Diminution		Thickness As Renewed (mm)	Gauged Thickness	Diminution		Thickness As Renewed (mm)	
						(mm)	(%)			(mm)	(%)		
Keel Plates, Btm, Aft Readings	74 to 82	12	30	8.4	11.3	0.7	5.83		11.2	0.8	6.67		
Keel Plates, Btm, Fwd Readings		12	30	8.4	11.4	0.6	5		11.4	0.6	5		
Keel Plates, Btm, Aft Readings	82 to 90	12	30	8.4	11	1	8.33		10.8	1.2	10		
Keel Plates, Btm, Fwd Readings		12	30	8.4	11	1	8.33		11	1	8.33		
Keel Plates, Btm, Aft Readings	90 to 102	12	30	8.4	10.9	1.1	9.17		11	1	8.33		
Keel Plates, Btm, Fwd Readings		12	30	8.4	10.7	1.3	10.83		10.8	1.2	10		
Keel Plates, Btm, Aft Readings	102 to 107	12	30	8.4	11.4	0.6	5		11.3	0.7	5.83		
Keel Plates, Btm, Fwd Readings		12	30	8.4	11	1	8.33		11.4	0.6	5		
Keel Plates, Btm, Aft Readings	107 to 112	12	30	8.4	11.1	0.9	7.5		11.1	0.9	7.5		
Keel Plates, Btm, Fwd Readings		12	30	8.4	10.7	1.3	10.83		10.8	1.2	10		
Keel Plates, Btm, Aft Readings	112 to 115	12	30	8.4	11.4	0.6	5		11.5	0.5	4.17		
Keel Plates, Btm, Fwd Readings					12				12				

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## Sea Chests and Side Shell Plating IWO Overboard Discharges - Sea Chests TM Forms





TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

● Excessive Diminution   
 ● Substantial Corrosion   
 ● Renewed As Built   
 ● Renewed other than As Built   
 ● Missing Reading   
 ● Abnormally High Reading   
 ● Deck Buckling Failure

Name of TM Operator : Emile Dehard                     
 Name of LR Attending Surveyor :



TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

Sea Chests and Side Shell Plating IWO Overboard Discharges -  
Side Shell Plating IWO Overboard Discharges

TM Forms



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :			Side Shell Plating IWO Overboard Discharges										
Location of Structure :			Various by Frame No.										
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading			Starboard Reading				Comments	
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(mm)		
Frame 111													
- Top plate									8.2				
- Fwd. plate									8.2				
- Btm. plate									8.2				
- Aft. plate									8.2				
Frame 65													
- Top plate									8.1				
- Fwd. plate									8.1				
- Btm. plate									8.1				
- Aft. plate									7.8				
Frame 36													
- Top plate									8.3				
- Fwd. plate									8.4				
- Btm. plate									8.2				
- Aft. plate									8.1				
Frame 27													
- Top plate									8.4				
- Fwd. plate									8.4				
- Btm. plate									8.2				
- Aft. plate									8.3				
Frame 23													

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				Side Shell Plating IWO Overboard Discharges									
Location of Structure :				Various by Frame No.									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading			Starboard Reading				Comments	
					Gauged Thickness (mm)	Diminution		Thickness As Renewed (mm)	Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)		
- Top plate									7.6				
- Fwd. plate									7.7				
- Btm. plate									7.8				
- Aft. plate									7.6				
Frame 107													
- Top plate					7.9								
- Fwd. plate					7.9								
- Btm. plate					7.9								
- Aft. plate					7.9								
Frame 61													
- Top plate					8								
- Fwd. plate					8								
- Btm. plate					8								
- Aft. plate					7.9								
Frame 35													
- Top plate					8.1								
- Fwd. plate					8								
- Btm. plate					8.1								
- Aft. plate					8.1								
Frame 30													
- Top plate					8.2								

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :



TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

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# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## Critical and Suspect Areas - A/C Room No. 2

### TM Forms



# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				A/C Room No. 2									
Location of Structure :				Aft Bulkhead and Floor Plates									
Structural Component	Sketch Reference ID	As Built Thickness (mm)	Max Allowable Diminution (%)	Renewal Thickness (mm)	Port Reading			Thickness As Renewed (mm)	Starboard Reading			Comments	
					Gauged Thickness (mm)	Diminution			Gauged Thickness (mm)	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)		
Bhd-Fr. 60 50mm from floor	B1	6.4	30	4.5	5.6	0.8	12.5					Assumed Nominal	
Bhd-Fr. 60 50mm from floor	B2	6.4	30	4.5	5.5	0.9	14.06					(Typical)	
Bhd-Fr. 60 50mm from floor	B3	6.4	30	4.5	5.1	1.3	20.31						
Bhd-Fr. 60 50mm from floor	B4	6.4	30	4.5	5.5	0.9	14.06						
Bhd-Fr. 60 50mm from floor	B5	6.4	30	4.5	4.9	1.5	23.44						
Bhd-Fr. 60 50mm from floor	B6	6.4	30	4.5	0	6.4	100					Hole in bulkhead	
Bhd-Fr. 60 50mm from floor	B7	6.4	30	4.5	3.5	2.9	45.31						
Bhd-Fr. 60 50mm from floor	B8	6.4	30	4.5	3.8	2.6	40.63						
Bhd-Fr. 60 50mm from floor	B9	6.4	30	4.5	2.9	3.5	54.69						
Bhd-Fr. 60 50mm from floor	B10	6.4	30	4.5	5.1	1.3	20.31						
Bhd-Fr. 60 50mm from floor	B11	6.4	30	4.5	4.9	1.5	23.44						
Bhd-Fr. 60 50mm from floor	B12	6.4	30	4.5	3.4	3	46.88						
Bhd-Fr. 60 50mm from floor	B13	6.4	30	4.5	0	6.4	100					Hole in Bulkhead	
Floor Plate	P1	6.4	30	4.5	6.7	0	0						
Floor Plate	P2	6.4	30	4.5	6.8	0	0						
Floor Plate	P3	6.4	30	4.5	6.4	0	0						
Floor Plate	P4	6.4	30	4.5	6.8	0	0						
Floor Plate	P5	6.4	30	4.5	6.6	0	0						
Floor Plate	P6	6.4	30	4.5	6.6	0	0						
Floor Plate	P7	6.4	30	4.5	6.4	0	0						
Floor Plate	P8	6.4	30	4.5	6.6	0	0						

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :





# Thickness Measurement Report

Ship's Name : NORTHERN SEA WOLF

LR/IMO Number : 9212450

TM Report No : VCR1800005

## TM6 - Miscellaneous Structural Members

Space / Compartment Description :				A/C Room No. 2									
Location of Structure :				Aft Bulkhead and Floor Plates									
Structural Component	Sketch Reference ID	As Built Thickness	Max Allowable Diminution	Renewal Thickness	Port Reading			Starboard Reading				Comments	
					Gauged Thickness	Diminution		Thickness As Renewed (mm)	Gauged Thickness	Diminution			Thickness As Renewed (mm)
						(mm)	(%)			(mm)	(%)		
Floor Plate	P9	6.4	30	4.5	6.6	0	0						
Floor Plate	P10	6.4	30	4.5	6.5	0	0						
Floor Plate	P11	6.4	30	4.5	6.4	0	0						
Floor Plate	P12	6.4	30	4.5	6.4	0	0						
Floor Plate	P13	6.4	30	4.5	6.5	0	0						
Floor Plate	P14	6.4	30	4.5	6.6	0	0						
Floor Plate	P15	6.4	30	4.5	6.7	0	0						
Floor Plate	P16	6.4	30	4.5	6.4	0	0						
Floor Plate	P17	6.4	30	4.5	6.6	0	0						
Floor Plate	P18	6.4	30	4.5	6.5	0	0						
Floor Plate	P19	6.4	30	4.5	6.4	0	0						
Floor Plate	P20	6.4	30	4.5	6.4	0	0						
Floor Plate	P21	6.4	30	4.5	6.4	0	0						

● Excessive Diminution   ● Substantial Corrosion   ● Renewed As Built   ● Renewed other than As Built   ● Missing Reading   ● Abnormally High Reading   ● Deck Buckling Failure

Name of TM Operator : Emile Dehard

Name of LR Attending Surveyor :