

# CCGS Earl Grey

## Condition Assessment Report

January 2014



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## Technical Report Document Page

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## EXECUTIVE SUMMARY

CCG contracted Lloyd's Register Canada to report on the baseline condition of the CCGS EARL GREY hull structure and provide recommendations regarding hull structural items that may need renewal in order to achieve further 10-15 years of service.

The condition survey was conducted to Lloyd's Register Hull Renovation Scheme Level-2SS standard. Such hull may be considered to be in a condition approximately equivalent to that of a ship which has just undergone its second Hull Special Survey at an age of approximately 10 years.

Close-up survey was carried out in the selected fuel tanks and all accessible water ballast tanks, fresh water tanks, sewage tanks and void spaces. The underwater area of the hull was not inspected at this time as the vessel was surveyed afloat.

Surveyed tanks were found in generally good condition, with no structure defects and the coating in good repair. Soft coating was applied to the Aft Void Space and the No. 2 Port Water Ballast Tank. This type of coating is less costly to apply initially but the total cost may be higher than for the hard coating. The coating in the No.4 Water Ballast Tank was found in poor condition. It should be renewed at first opportunity.

Hull Thickness Measurements were taken in line with classification survey requirements for Special Survey. The results indicated low to moderate levels of diminution. Pitting found in the oily waste tank was repaired by welding and a doubler plate installed. The forecastle deck diminutions were found to be a bit higher than elsewhere and this area may require steel renewals sooner than the rest of the structure.

While the overall condition of the structure and the coating system were assessed as good, given the age of the vessel, steel renewals and coating re-application will be required if the vessel is to be kept in service for another 10 to 15 years. No items that would require urgent attention or steel renewals were identified at this time.

## 1. INTRODUCTION

In accordance with instructions received from Government of Canada, Canadian Coast Guard, Lloyd's Register Hull Renovation Scheme survey has been undertaken on the vessel "EARL GREY". Vessel particulars are presented in Table 1-1 below.

Table 1-1: Vessel Details

<b>VESSEL NAME:</b>		EARL GREY	
<b>IMO No.</b>		8412340	
<b>FLAG:</b>		CANADA	
<b>PORT OF REGISTRY:</b>		Ottawa, ON	
<b>TYPE:</b>		Medium Endurance Multi-Tasked Vessel	
<b>DATE OF BUILD:</b>		1985	
<b>CLASSIFICATION:</b>		NOT CLASSED	
<b>TONNAGES</b>		<b>DIMENSIONS</b>	
<b>GT</b>	1,972.0	<b>LENGTH</b>	69.7 m
<b>NT</b>	653.0	<b>BREADTH</b>	13.7 m
<b>DWT</b>	-	<b>DRAUGHT</b>	5.2 m

The EARL GREY was built at Pictou Shipyards Ltd., Pictou, Nova Scotia in 1985 and has been in operational service with the Canadian Coast Guard from commissioning to date; undertaking light icebreaking, buoy tending and search and rescue around the East Coast of Canada.

The performance and service life of a vessel is highly dependent upon the condition of the asset and the procedures and practices utilised to maintain the vessel in optimum condition to achieve operational requirements. Recognising that the EARL GREY is approximately 30 years old, the CCG contracted Lloyd's Register Canada to report on the baseline condition of the vessel's hull structure. The extensive experience of Lloyd's Register was utilised to assess the baseline data against the equivalent of a 10 year old asset and thereby provide recommendations regarding hull structural items that may need renewal in order to achieve an expected 10-15 years of service.

Since the Government of Canada, Canadian Coast Guard require an assessment based upon a Lloyd's Register Hull Renovation Scheme Level-2SS , the renovated hull may be considered to be in a condition approximately equivalent to that of a ship which has just undergone its second Hull Special Survey at an age of approximately 10 years.

The Hull Renovation is not a Classification requirement, and will not affect the vessel's Classification process.

## 1.1. Scope of Close-up Surveys

Close-up survey was carried out in the fuel tanks, water ballast tanks, fresh water tanks, sewage tanks and void spaces listed in Table 1-2 below. The underwater area of the hull was not inspected at this time as the vessel was surveyed afloat. The inspection reports for close-up surveys are included in the following section.

**Table 1-2: Scope of Close-up Surveys**

Sea Water Ballast Tanks	
	No 1 FWD Water Ballast Tank
	No 2 PS Water Ballast Tank
	No 2 STBD Water Ballast Tank
	No 3 PS Water Ballast Tank
	No 3 STBD Water Ballast Tank
	No 4 PS Water Ballast Tank
	No 4 STBD Water Ballast Tank
	No 5 PS Water Ballast Tank
	No 5 STBD Water Ballast Tank
Voids/Cofferdams/Etc.	
	Aft Void Space
	FWD Void Space
	PS Cofferdam
	STBD Cofferdam
Freshwater Tanks	
	Daily Service Fresh Water Tank
	STBD Fresh Water Tank
	Eng. Room Jacket Water Drain Tk
Fuel Oil Tanks	
	Fuel Oil Settling Tank
	No 3 Fuel Oil Tank STBD
	No 4 Fuel Oil Tank PS
	Oily Waste Tank
Sewage Tanks	
	PS FWD Sewage Tank
	STBD FWD Sewage Tank

## **1.2. Hull Thickness Measurement**

Hull Thickness Measurements were taken by technicians from Passmore Inspection and Consulting Limited, under the direction of attending surveyor. Extent of thickness measurements was as previously agreed and in line with classification survey requirements for Special Survey, except that underwater hull was not inspected because the vessel was not drydocked for this survey. Additional readings were taken at the discretion of the attending surveyor. Complete Thickness Measurement Report is included in Appendix 1 of this report.

## 2. METHODOLOGY

### 2.1. Definitions

In the assessment reports for the structural components, the following terms have been used:

GOOD	Unimpaired condition without significant wear or deviation from original strength and operation efficiency. No maintenance or repair required.
SATISFACTORY	Condition with wear and tear and other deficiencies of a minor nature not requiring correction or repair.
UNSATISFACTORY	Condition in which the adequacy of strength and/or operational efficiency is marginally below acceptable limits or is in doubt. Remedial action required.
POOR	Condition of undoubtedly inadequate strength or operational efficiency. Immediate extensive repair or renewal required to reinstate serviceability.

In reporting the condition of protective coatings, the following terms have been used:

GOOD	Condition with spot rusting on less than 3% of the area under consideration without visible failure of the coating. Rusting at edges or welds, must be on less than 20 % of edges or weld lines in the area under consideration.
FAIR	Condition with breakdown of coating or rust penetration on less than 20 % of the area under consideration. Hard rust scale rust penetration must be less than 10% of the area under consideration. Rusting at edges or welds must be on less than 50 % of edges or weld lines in the area under consideration.
POOR	Condition with breakdown of coating or rust penetration on more than 20% or hard rust scale on more than 10% of the area under consideration or local breakdown concentrated at edges or welds on more than 50 % of edges or weld lines in the area under consideration.

### 2.2. HRS Criteria

Lloyd's Register Hull Renovation Scheme (HRS) was used for assessment of structural diminutions. The scheme is based on the steel renewal criteria from Class Rules and the assumption that steel corrosion/wastage allowance built into the Rules should allow for 15 years of service before extensive renewals are required. Wastage allowance is defined as difference between as-built scantlings and renewal limits specified in Class Rules. Assuming linear corrosion rate, ships should experience one third of the allowed wastage by the first Special Survey (five years after commissioning) and two thirds by the second Special Survey (ten years of service).

Ships can be assessed against HRS level 1SS or level 2SS criteria, as chosen by the owner. The average permissible scantlings diminution for level 1SS is one third of the way between the requirements at the time of build and the appropriate renewal limit for Classification. For level 2SS

the permissible diminution is two thirds of the way. Therefore, ships compliant with 1SS or 2SS criteria could be considered to be in a condition comparable to that of a typical five or ten years old ship, respectively.

The EARL GREY was assessed primarily against the 2SS criteria as this should provide indication of urgent and other short-term (5 years) maintenance needs. As the CCG wants to keep the vessel in service for longer period (10 to 15 years), the thickness measurements results were also evaluated against the 1SS levels to provide guidance on what can be expected for future work.

Having length shorter than 90 m, the EARL GREY is considered a Category 3 ship. Therefore, maximum permissible diminution of individual plates is 30% (Thickness measurement and Close-up Survey Guidance, Ch5Sec5, Table 1.5.5). Frames, brackets and other stiffeners are allowed 25% diminution. For a Category 3 vessel and the 2SS standard, allowed diminutions are 20% for plates and 16.7% for stiffeners.

### 2.3. Structural Survey

A full assessment Close-up survey of the hull structure has been carried out by Lloyd's Register Group Surveyors on behalf of Marine Consultancy Services (MCS) against the requirements of the Hull Renovation Scheme (HRS). The survey was undertaken with the vessel afloat in Dartmouth, Nova Scotia, from 9<sup>th</sup> October 2013 to 18<sup>th</sup> December 2013 by surveyor Igor Potey.

Close-up survey consists of visual inspection of the vessel structure, including hull envelope, all water ballast tanks and a selection of other tanks or spaces. The aim of the survey is to assess general condition of the structure, including presence of deformations, corrosion as well as the condition of the coating. The survey findings are also used to guide the thickness measurement: the surveyor will request denser measurement grid for areas with pronounced corrosion.

Summary of the findings is provided in Section 3.1. Detailed close-up survey reports (including photographs) are provided in Section 4 of this report.

### 2.4. Hull Thickness Gauging

Ultrasonic Thickness Measurements of representative hull structure were taken between 9<sup>th</sup> October 2013 and 18<sup>th</sup> December 2013 by technicians from Passmore Inspection and Consulting Limited, under the direction of attending surveyor. The extent of thickness measurements was the maximum possible with the vessel afloat. Some of the measurements to full Hull Renovation Scheme requirements can only be conducted in drydock. The following areas were measured:

- Within 0,5L amidships; a minimum of 3 transverse sections;
- Bottom plating ( areas accessible through tanks open for inspection);

- All exposed main deck plating over full length of ship;
- Representative exposed superstructure deck plating (i.e. poop, bridge and forecastle decks);
- All transverse webs with associated plating and longitudinals, and the transverse bulkhead complete in the fore peak tank and aft peak tank.

Analysis of the TM results is provided in Section 3.2. Complete Thickness Measurement Report is attached as Appendix 1 to this report. In addition to the measured values, the report includes original (as-built) thicknesses as well as diminutions, expressed in absolute and relative terms.

### 3. RESULTS SUMMARY AND RECOMMENDATIONS

#### 3.1. Results of Structure Survey

Following the hull structural survey, certain areas of hull structure examined were identified as requiring further investigation and possible repairs for compliance with the Hull Renovation Scheme; these areas are summarised below and detailed within the TM reports (Appendix 1) and Close-up survey report forms (Section 4). Summary of notable observations and main issues that may require maintenance in the near future is provided in Table 3-1.

**Table 3-1: Summary of Notable Hull Defects**

Item No.	Tank / Space	Findings and Recommendations
1	Hull	Not inspected as survey was conducted afloat
2	Aft Void Space	Coating on deckhead frames found poor, fair elsewhere. New soft coating applied.
3	Fwd Void Space	Damaged structure in way of Fr. 1 restored to original condition by cropping and welding in new steel. Coating applied over repaired area.
4	2 Port WBT	Coating found fair throughout. Spot primed and soft coating applied.
5	4 Port WBT	Coating found poor throughout. Should be renewed at next opportunity.

As indicated in Table 3-1 and in the Close-up survey report forms, deteriorated coating in some spaces was repaired by soft coating application. Partial coating repairs (between 10% and 65% area) were conducted in many other water ballast, fresh water and sewage tanks where deterioration was less pronounced. No. 4 port side water ballast tank coating was not repaired at this time.

#### 3.2. Results of Thickness Measurement Analysis

The raw results of thickness measurement are tabulated and provided as Appendix 1.

The results were compared against the HRS-2SS criteria - 20% diminution for plating and 16.7% for stiffeners. With one exception, all thickness readings were better than 2SS limits. Areas that exceed the renewal limits, relative to the as-built scantlings, are highlighted in Table 3-2.



Table 3-2: Items with Notable Thickness Diminution

Item No.	Plate / Structural Member	Findings and Recommendations
1	Oily Waste tank – Fr.30 starboard	Localised but heavy pitting noticed, 6-7 pits in total. Only 3.2 mm remaining under the sounding pipe. Pits repaired, striker plate installed under sounding pipe.

Summary of all TM results is presented in Table 3-3. In addition to the 2SS criteria, the Thickness Measurement results were further reviewed against the HRS Level 1SS criteria (10% diminution on plating and 8.3% on stiffeners) in order to better estimate future maintenance needs as items exceeding these limits will likely require renewals within next 10 years of service.

Table 3-3: Summary of TM results

No.	Item / Group of Items	Meets 2SS Standard	Meets 1SS Standard	Remarks
1	Main Deck Plating and Longitudinals	Yes	No	A few plating readings exceed 1SS limit. One longitudinal stiffener reading over 1SS.
2	Boat Deck	Yes	Yes	
3	Winch House Top	Yes	Yes	
4	Forecastle Deck	Yes	No	Moderate exceedance over 1SS at 20% of plates
5	Bridge Deck	Yes	Yes	
6	Wheelhouse Top	Yes	No	One reading marginally over 1SS
7	Winch House Top	Yes	No	Port side reading over 1SS limit
8	Transverse Bands - Strength Deck, Shear Strake and Shell Plating	Yes	No	One plate at third section (Fr. 12) exceeds 1SS by small margin
9	Transverse Bands – Longitudinal Members	Yes	No	Exceedances over 1SS limits in a few locations in the third section (Fr. 12)
10	Shell Plating	Yes	Yes	
11	Topside and Bottom	Yes	Yes	

12	Bottom Shell Longitudinals	Yes	No	A few readings over or close to 1SS limit
13	Longitudinal Members and Associated Longitudinals in way of Transverse Structure in Cargo and Ballast Tanks	Yes	No	3 structural members (out of 158 tested) did not meet 1SS
14	Engine Room Double Bottom - Transverse Floors	Yes	Yes	
15	No 1 Center Water Ballast	Yes	Yes	
16	No 2 Water Ballast Tank P&S	Yes	Yes	
17	No 3 Water Ballast Tank	Yes	Yes	
18	No 4 Water Ballast Tank P&S	Yes	Yes	
19	No 5 Water Ballast Tank P&S	Yes	No	One plate exceeds 1SS by a very small margin. One stiffener over 1SS, a few close to the limit
20	No 6 Water Ballast Tank P&S	Yes	No	One stiffener reading over 1SS limit
21	Forward Void	Yes	Yes	
22	Aft Void P&S	Yes	Yes	
23	Cofferdam P&S	Yes	Yes	
24	P&S Shaft Tunnel	Yes	Yes	
25	Freshwater Tanks P&S	Yes	Yes	
26	P&S Sewage Tanks	Yes	Yes	
27	No 2 Fuel Oil Tank STBD	Yes	Yes	
28	No 3 Fuel Oil Tank STBD	Yes	Yes	
29	No 3 Fuel Oil Tank CTR	Yes	Yes	

30	No 4 Fuel Oil Tank PS	Yes	Yes	
31	Fuel Oil Settling Tank	Yes	Yes	
32	Day Service Tank	Yes	Yes	

### 3.3. Conclusion

While the overall condition of the structure and the coating system were assessed as good, given the age of the vessel, steel renewals and coating re-application will be required if the vessel is to be kept in service for another 10 to 15 years.

No items that would require urgent attention or steel renewals were identified.

Soft coating was applied to the Aft Void Space and the No. 2 Port Water Ballast Tank. This type of coating is less costly to apply initially but has many disadvantages. It will need to be stripped off before future close up surveys and re-applied afterwards; sloshing within the tank may wash off some of the coating and it provides lesser protection than hard coating applied to properly prepared surfaces. Therefore, the total cost may be higher than for the hard coating.

The coating in the No.4 Water Ballast Tank was found in poor condition. It should be renewed at first opportunity.

Thickness measurement indicated low to moderate levels of diminution. The forecastle deck diminutions were found to be a bit higher than elsewhere and this area may require steel renewals sooner than the rest of the structure.

External hull was not surveyed at this time and no comments can be made regarding its condition.

Hull maintenance should focus on keeping the coating system in good condition to prevent accelerated thickness diminution. Regular visual inspection of water ballast tanks and cofferdams is recommended.

Areas with current diminution in excess of 15S levels should be monitored through enhanced thickness measurement programme. Fine-grid measurements are recommended for all such areas and particularly for structural items with notable diminution.

## **4. CLOSE-UP SURVEY REPORT FORMS**

### **4.1. Hull**

During the CAP survey, CCGS Earl Grey was neither docked, nor was in-water examination performed. Consequently no assessment of the condition of the hull could be drawn.

## 4.2. No 1 FWD Water Ballast Tank

### 4.2.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

### 4.2.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting Max. % Depth	
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

### 4.2.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

### 4.2.4. Comments

The tank coating was found in generally good condition. Approx. 35 % of coating repaired this time.

There were no structural damages noted.



Figure 4-1: No 1 FWD Water Ballast Tank – Detail 1



Figure 4-2: No 1 FWD Water Ballast Tank - Detail 2



Figure 4-3: No 1 FWD Water Ballast Tank – Detail 3



Figure 4-4: No 1 FWD Water Ballast Tank – Detail 4





Figure 4-5: No 1 FWD Water Ballast Tank – Detail 5



Figure 4-6: No 1 FWD Water Ballast Tank – Detail 6



### 4.3. No 2 PS Water Ballast Tank

#### 4.3.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

#### 4.3.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting Max. % Depth	
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

#### 4.3.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

#### 4.3.4. Comments

The tank coating was found generally in fair condition. Upon completion of refit tank was soft coated.

There were no structural damages noted.

Soft coating will have to be removed prior to next close-up survey.



Figure 4-7: No 2 PS Water Ballast Tank – Detail 1



Figure 4-8: No 2 PS Water Ballast Tank – Detail 2



Figure 4-9: No 2 PS Water Ballast Tank – Detail 3



Figure 4-10: No 2 PS Water Ballast Tank – Detail 4



Figure 4-11: No 2 PS Water Ballast Tank – Detail 5



Figure 4-12: No 2 PS Water Ballast Tank – Detail 6





Figure 4-13: No 2 PS Water Ballast Tank – Detail 7

#### 4.4. No 2 STBD Water Ballast Tank

##### 4.4.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

##### 4.4.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting Max. % Depth	
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.4.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.4.4. Comments

The tank coating was found in good condition and approx. 45% of coating was renewed this time.

There were no structural damages noted.



Figure 4-14: No 2 STBD Water Ballast Tank – Detail 1



Figure 4-15: No 2 STBD Water Ballast Tank – Detail 2



Figure 4-16: No 2 STBD Water Ballast Tank – Detail 3



Figure 4-17: No 2 STBD Water Ballast Tank – Detail 4





Figure 4-18: No 2 STBD Water Ballast Tank – Detail 5



Figure 4-19: No 2 STBD Water Ballast Tank – Detail 6

#### 4.5. No 3 PS Water Ballast Tank

##### 4.5.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

##### 4.5.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.5.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.5.4. Comments

The tank coating was found in good condition and approx. 60% of coating was renewed this time.

There were no structural damages noted.



Figure 4-20: No 3 PS Water Ballast Tank – Detail 1



Figure 4-21: No 3 PS Water Ballast Tank – Detail 2



Figure 4-22: No 3 PS Water Ballast Tank – Detail 3

#### 4.6. No 3 STBD Water Ballast Tank

##### 4.6.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

##### 4.6.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.6.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.6.4. Comments

The tank coating was found in good condition and approx. 65% of coating was renewed this time.

There were no structural damages noted.





Figure 4-23: No 3 STBD Water Ballast Tank – Detail 1



Figure 4-24: No 3 STBD Water Ballast Tank – Detail 2



Figure 4-25: No 3 STBD Water Ballast Tank – Detail 3

#### 4.7. No 4 PS Water Ballast Tank

##### 4.7.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	POOR

##### 4.7.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting Max. % Depth	
Deck head	Plating	POOR	NONE	NONE	NONE	NONE	-	-
	Frames	POOR	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	POOR	NONE	NONE	NONE	NONE	-	-
	Frames	POOR	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	POOR	NONE	NONE	NONE	NONE	-	-
	Floors	POOR	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	POOR	NONE	NONE	NONE	NONE	-	-
	Frames	POOR	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	POOR	NONE	NONE	NONE	NONE	-	-
	Stiffeners	POOR	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		POOR	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	POOR	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.7.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.7.4. Comments

The tank coating was found in poor condition. It is recommended that the entire surface be prepared and new coating applied.

There were no structural damages noted.





Figure 4-26: No 4 PS Water Ballast Tank – Detail 1



Figure 4-27: No 4 PS Water Ballast Tank – Detail 2



Figure 4-28: No 4 PS Water Ballast Tank – Detail 3



Figure 4-29: No 4 PS Water Ballast Tank – Detail 4





Figure 4-30: No 4 PS Water Ballast Tank – Detail 5



Figure 4-31: No 4 PS Water Ballast Tank – Detail 6

#### 4.8. No 4 STBD Water Ballast Tank

##### 4.8.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

##### 4.8.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting Max. % Depth	
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.8.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.8.4. Comments

The tank coating was found in generally good condition and approx. 45 % of the coating was repaired this time.

There were no structural damages noted.



Figure 4-32: No 4 STBD Water Ballast Tank – Detail 1



Figure 4-33: No 4 STBD Water Ballast Tank – Detail 2

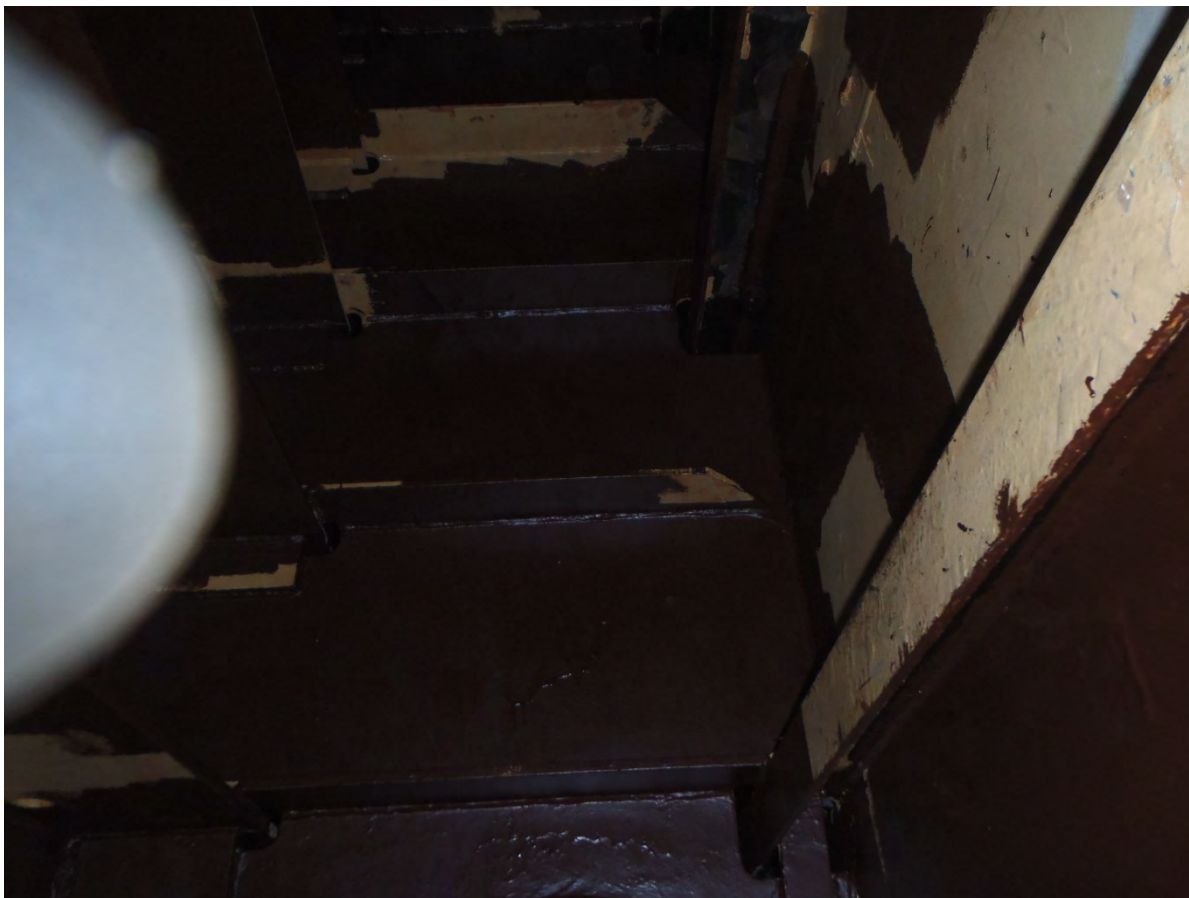


Figure 4-34: No 4 STBD Water Ballast Tank – Detail 3



#### 4.9. No 5 PS Water Ballast Tank

##### 4.9.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

##### 4.9.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.9.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.9.4. Comments

The tank coating was found in generally good condition.

There were no structural damages noted.



Figure 4-35: No 5 PS Water Ballast Tank – Detail 1



Figure 4-36: No 5 PS Water Ballast Tank – Detail 2





Figure 4-37: No 5 PS Water Ballast Tank – Detail 3



Figure 4-38: No 5 PS Water Ballast Tank – Detail 4



Figure 4-39: No 5 PS Water Ballast Tank – Detail 5

#### 4.10. No 5 STBD Water Ballast Tank

##### 4.10.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

##### 4.10.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting Max. % Depth	
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.10.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.10.4. Comments

The tank coating was found in generally good condition.

There were no structural damages noted.



Figure 4-40: No 5 STBD Water Ballast Tank – Detail 1



Figure 4-41: No 5 STBD Water Ballast Tank – Detail 2





Figure 4-42: No 5 STBD Water Ballast Tank – Detail 3



Figure 4-43: No 5 STBD Water Ballast Tank – Detail 4



Figure 4-44: No 5 STBD Water Ballast Tank – Detail 5

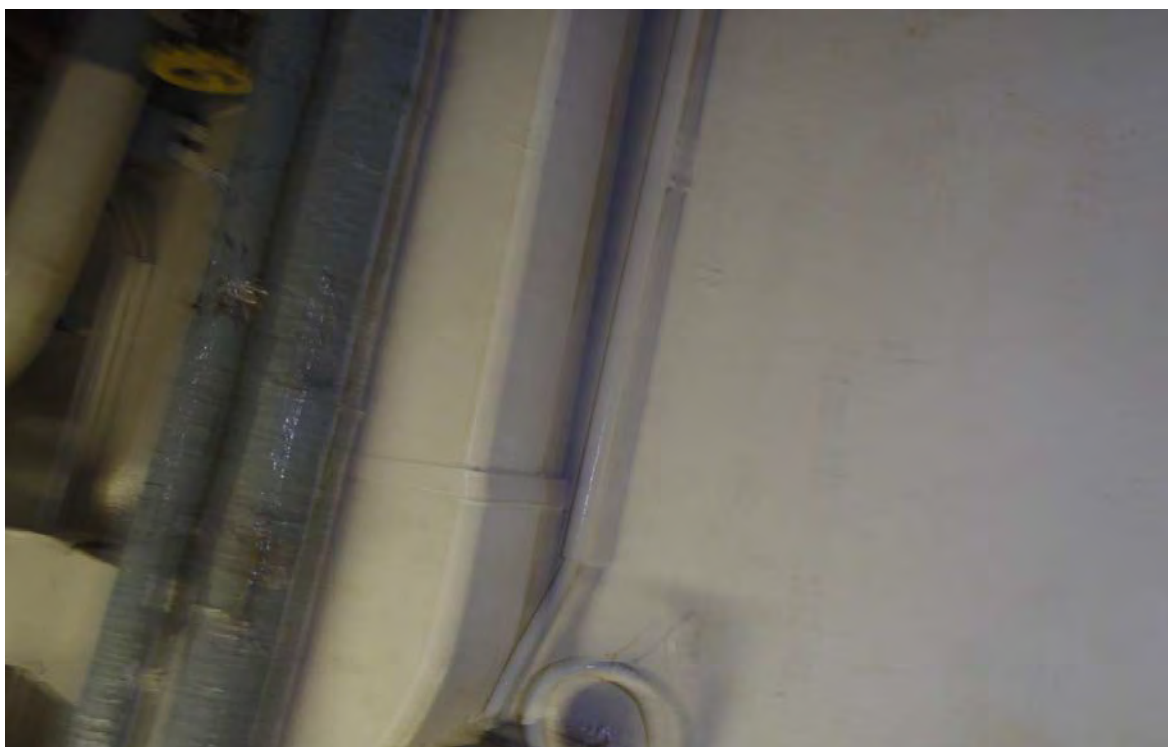


Figure 4-45: No 5 STBD Water Ballast Tank – Detail 6

#### 4.11. AFT Void Space

##### 4.11.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	FAIR

##### 4.11.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	POOR	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	FAIR	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.11.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.11.4. Comments

The tank coating was found generally in fair condition. Upon completion of refit tank was soft coated.

There were no structural damages noted.





Figure 4-46: Aft Void Space – Detail 1



Figure 4-47: Aft Void Space – Detail 2





Figure 4-48: Aft Void Space – Detail 3



Figure 4-49: Aft Void Space – Detail 4

## 4.12. FWD Void Space

### 4.12.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

### 4.12.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	POOR	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	FAIR	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

### 4.12.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

### 4.12.4. Comments

The tank coating was found generally in good condition.

Damaged area now permanently repaired using approved materials and procedures by certified welders, iwo Frames 1PS & 1STBD at 2 m approximately above the waterline.



Figure 4-50: FWD Void Space – Detail 1



Figure 4-51: FWD Void Space – Detail 2





Figure 4-52: FWD Void Space - Detail 3



Figure 4-53: FWD Void Space - Detail 4



Figure 4-54: FWD Void Space - Detail 5



Figure 4-55: FWD Void Space - Detail 6



Figure 4-56: FWD Void Space - Detail 7



#### 4.13. PS Cofferdam

##### 4.13.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

##### 4.13.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.13.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.13.4. Comments

The tank coating was found in generally good condition and approx. 10% of coating was renewed this time.

There were no structural damages noted.



Figure 4-57: PS Cofferdam – Detail 1



Figure 4-58: PS Cofferdam – Detail 2



Figure 4-59: PS Cofferdam – Detail 3



Figure 4-60: PS Cofferdam – Detail 4



Figure 4-61: PS Cofferdam – Detail 5

#### 4.14. STBD Cofferdam

##### 4.14.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

##### 4.14.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.14.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.14.4. Comments

The tank coating was found in good condition and approx. 10% of coating was renewed this time.

There were no structural damages noted.





Figure 4-62: STBD Cofferdam – Detail 1



Figure 4-63: STBD Cofferdam – Detail 2





Figure 4-64: STBD Cofferdam – Detail 3

#### 4.15. Daily Service Fresh Water Tank

##### 4.15.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

##### 4.15.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	Frames	N/A	N/A	N/A	N/A	N/A	-	-
Transverse Bulkheads	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	Stiffeners	N/A	N/A	N/A	N/A	N/A	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.15.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.15.4. Comments

The tank coating was found in good condition and approx. 30% of coating was renewed this time.

There were no structural damages noted.



Figure 4-65: Daily Service Fresh Water Tank – Detail 1



Figure 4-66: Daily Service Fresh Water Tank – Detail 2

#### 4.16. STBD Fresh Water Tank

##### 4.16.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

##### 4.16.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.16.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.16.4. Comments

The tank coating was found in good condition and approx. 40% of coating was renewed this time.

There were no structural damages noted.



Figure 4-67: STBD Fresh Water Tank – Detail 1



Figure 4-68: STBD Fresh Water Tank – Detail 2



#### 4.17. Engine Room Jacket Water Drain

##### 4.17.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	NOT COATED

##### 4.17.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	Frames	N/A	N/A	N/A	N/A	N/A	-	-
Side Shell	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	Frames	N/A	N/A	N/A	N/A	N/A	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	stiffening	GOOD	NONE	NONE	NONE	NONE	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.17.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.17.4. Comments

The tank was found not coated.

There were no structural damages noted, structure deemed efficient meantime.



Figure 4-69: Engine Room Jacket Water Drain – Detail 1



Figure 4-70: Engine Room Jacket Water Drain – Detail 2

#### 4.18. Fuel Oil Settling Tank

##### 4.18.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	NOT COATED

##### 4.18.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.18.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.18.4. Comments

The tank was found not coated.

There were no structural damages noted, structure deemed efficient meantime.



Figure 4-71: Fuel Oil Settling Tank – Detail 1



Figure 4-72: Fuel Oil Settling Tank – Detail 2

#### 4.19. No 3 Fuel Oil Tank STBD

##### 4.19.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	NOT COATED

##### 4.19.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	Frames	N/A	N/A	N/A	N/A	N/A	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.19.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.19.4. Comments

The tank was found not coated.

There were no structural damages noted.





Figure 4-73: No 3 Fuel Oil Tank STBD – Detail 1



Figure 4-74: No 3 Fuel Oil Tank STBD – Detail 2



Figure 4-75: No 3 Fuel Oil Tank STBD – Detail 3



Figure 4-76: No 3 Fuel Oil Tank STBD – Detail 4



Figure 4-77: No 3 Fuel Oil Tank STBD – Detail 5



Figure 4-78: No 3 Fuel Oil Tank STBD – Detail 6

#### 4.20. No 4 Fuel Oil Tank PS

##### 4.20.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	NOT COATED

##### 4.20.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	Frames	N/A	N/A	N/A	N/A	N/A	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.20.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.20.4. Comments

The tank was found not coated.

There were no structural damages noted, structure deemed efficient meantime.





Figure 4-79: No 4 Fuel Oil Tank PS – Detail 1



Figure 4-80: No 4 Fuel Oil Tank PS – Detail 2



## 4.21. Oily Waste Tank

### 4.21.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	NOT COATED

### 4.21.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	Frames	N/A	N/A	N/A	N/A	N/A	-	-
Side Shell	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	Frames	N/A	N/A	N/A	N/A	N/A	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	stiffening	GOOD	NONE	NONE	NONE	NONE	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

### 4.21.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

### 4.21.4. Comments

The tank was found not coated.

Pitting ( approx. 6mm deep) found under sounding pipe. Pitting repaired, striker plate installed.

There were no other structural damages noted, structure deemed efficient meantime.



Figure 4-81: Oily Waste Tank – Detail 1

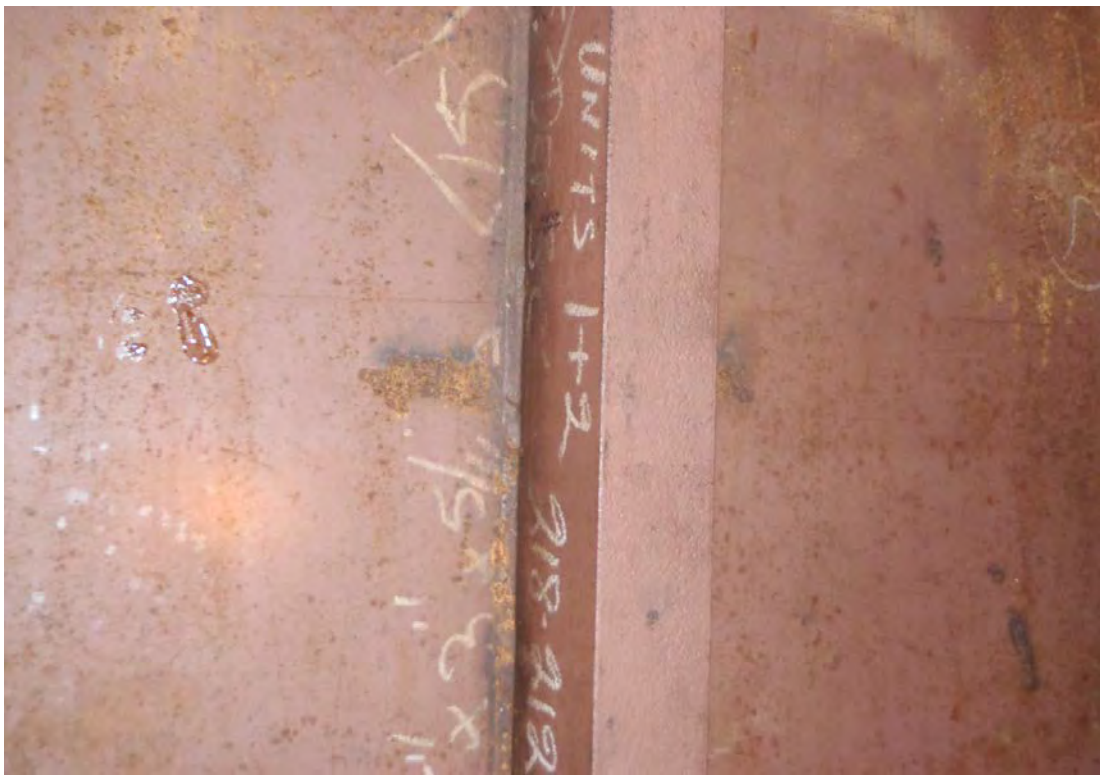


Figure 4-82: Oily Waste Tank – Detail 2

## 4.22. PS FWD Sewage Tank

### 4.22.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

### 4.22.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

### 4.22.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

### 4.22.4. Comments

The tank coating was found in good condition and approx. 50% of coating was renewed this time.

There were no structural damages noted.



Figure 4-83: PS FWD Sewage Tank – Detail 1



Figure 4-84: PS FWD Sewage Tank – Detail 2





Figure 4-85: PS FWD Sewage Tank – Detail 3



Figure 4-86: PS FWD Sewage Tank – Detail 4



#### 4.23. STBD FWD Sewage Tank

##### 4.23.1. Condition Summary

General condition of tank structure	GOOD
General condition of coatings	GOOD

##### 4.23.2. Detailed Findings

Area		Coating Condition	Visible Thickness Loss	ASC	Fractures	Buckling Indents	Pitting % Depth	Max.
Deck head	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Side Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Bottom Shell	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Floors	GOOD	NONE	NONE	NONE	NONE	-	-
Inner bottom or tank top	Plating	N/A	N/A	N/A	N/A	N/A	-	-
	stiffening	N/A	N/A	N/A	N/A	N/A	-	-
Longitudinal Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Frames	GOOD	NONE	NONE	NONE	NONE	-	-
Transverse Bulkheads	Plating	GOOD	NONE	NONE	NONE	NONE	-	-
	Stiffeners	GOOD	NONE	NONE	NONE	NONE	-	-
Stringers and horizontal girders		GOOD	NONE	NONE	NONE	NONE	-	-
Transverse webs	Web Frames	GOOD	NONE	NONE	NONE	NONE	-	-

ASC = Areas of substantial corrosion

##### 4.23.3. Limit of Inspection

A full visual examination of the tank, including close-up survey of all primary, secondary and supporting structure was carried out by means of direct access.

##### 4.23.4. Comments

The tank coating was found in good condition and approx. 50% of coating was renewed this time.

There were no structural damages noted.



Figure 4-87: STBD FWD Sewage Tank – Detail 1

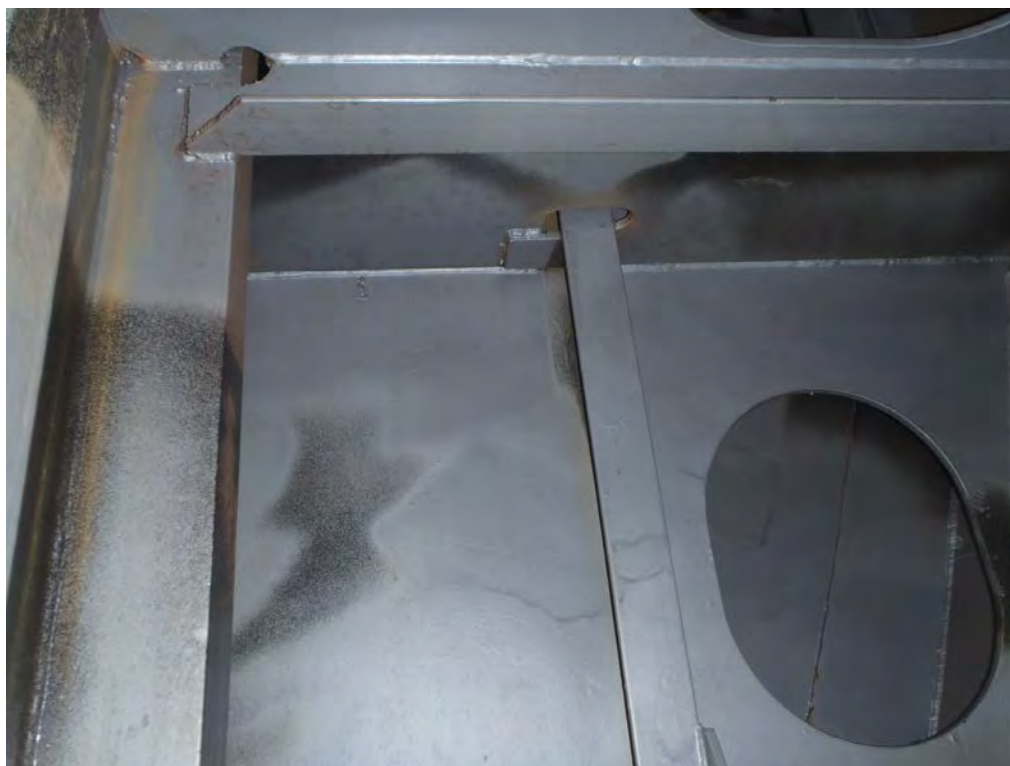


Figure 4-88: STBD FWD Sewage Tank – Detail 2



Figure 4-89: STBD FWD Sewage Tank – Detail 3



Figure 4-90: STBD FWD Sewage Tank – Detail 4

## **App 1. Thickness Measurement Report**

REPORT ON THICKNESS MEASUREMENT OF  
MISCELLANEOUS STRUCTURAL MEMBERS

Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Main Deck Plating									SKETCH
LOCATION OF STRUCTURE: Forward Void - Fr. 46-49.5									
DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %	
		P	S	mm	%	mm	%		
Main Deck Plate - Fr.48	16.0	16.0	16.1	-	-	-	-	30.0	
Main Deck Plate Stiffening CL Ring Face - Fr. 48	19.0	19.0	19.3	-	-	-	-	25.0	
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Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

Page 3 of 112

Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Main Deck Plating and Deck Longitudinals

SKETCH

LOCATION OF STRUCTURE: P & S Sewage Tanks and F.O. Settling Tank - Fr. 38

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
P & S Sewage Holding Tk.-Main Deck-Fr.38-IB	12.5	12.5	12.5	-	-	-	-	30.0
P & S Sewage Holding Tk.-Main Deck-Fr.38-OB	12.5	11.9	12.4	.6	4.8	.1	.8	30.0
P&S Sewage Holding Tk.-Dk.L-Fr38-1st IB of SS-Web	7.9	7.7	7.9	.2	2.5	-	-	25.0
P&S Sewage Holding Tk.-Dk.L-Fr38-2nd IB of SS-Web	7.9	7.9	7.9	-	-	-	-	25.0
P&S Sewage Holding Tk.-Dk.L-Fr38-3rd IB of SS-Web	7.9	7.7	7.9	.2	2.5	-	-	25.0
P&S Sewage Holding Tk.-Dk.L-Fr38-1st IB of SS-Face	7.9	7.9	7.9	-	-	-	-	25.0
P&S Sewage Holding Tk.-Dk.L-Fr38-2nd IB of SS-Face	7.9	7.8	7.9	.1	1.3	-	-	25.0
P&S Sewage Holding Tk.-Dk.L-Fr38-3rd IB of SS-Face	7.9	7.5	7.9	.4	5.1	-	-	25.0
F.O. Settling Tank-Main Dk.-Fr.38-Centre Plate-IB	8.0		7.8			.2	2.5	30.0
F.O. Settling Tank-Main Dk.-Fr.38-Centre Plate-OB	8.0		7.7			.3	3.8	30.0
F.O. Settling Tank-Main Dk.-Fr.38-1st OB of CL-IB	8.0		7.8			.2	2.5	30.0
F.O. Settling Tank-Main Dk.-Fr.38-1st OB of CL-OB	8.0		7.8			.2	2.5	30.0
								-
								-
								-
								-

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

Page 4 of 112

Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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STRUCTURAL MEMBER: Main Deck Longitudinals and Off CL Girder

SKETCH

LOCATION OF STRUCTURE: F.O. Settling Tank - Fr. 38

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
F.O. Settling Tank-Dk.L-Fr.38-1st OB of CL-Web	7.9		7.8			.1	1.3	25.0
F.O. Settling Tank-Dk.L-Fr.38-2nd OB of CL-Web	7.9		7.8			.1	1.3	25.0
F.O. Settling Tank-Dk.L-Fr.38-3rd OB of CL-Web	7.9		7.9			-	-	25.0
F.O. Settling Tank-Dk.L-Fr.38-4th OB of CL-Web	7.9		7.9			-	-	25.0
F.O. Settling Tank-Dk.L-Fr.38-5th OB of CL-Web	7.9		7.9			-	-	25.0
F.O. Settling Tank-Dk.L-Fr.38-1st OB of CL-Face	7.9		7.7			.2	2.5	25.0
F.O. Settling Tank-Dk.L-Fr.38-2nd OB of CL-Face	7.9		7.9			-	-	25.0
F.O. Settling Tank-Dk.L-Fr.38-3rd OB of CL-Face	7.9		7.9			-	-	25.0
F.O. Settling Tank-Dk.L-Fr.38-4th OB of CL-Face	7.9		7.9			-	-	25.0
F.O. Settling Tank-Dk.L-Fr.38-5th OB of CL-Face	7.9		7.9			-	-	25.0
F.O. Settling Tank-Off CL Dk.Girder-Fr.38-Web	10.0		10.2			-	-	25.0
F.O. Settling Tank-Off CL Dk.Girder-Fr.38-Face	12.7		12.7			-	-	25.0
								-
								-
								-
								-

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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## REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

Page 5 of 112

Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363							
STRAKE POSITION Main Deck Plating-Stringer Strake-Fr.0-22																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING				MEAN DIMINUTION %		MAX ALLOW. DIM. %		
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S				
			P	S	mm	%	mm	%	P	S	mm	%	mm	%		P	S
12th forward																-	
11th																-	
10th																-	
9th																-	
8th																-	
7th																-	
6th																-	
5th																-	
4th																-	
3rd																-	
2nd																-	
1st																-	
Amidships																-	
1st aft		12.5	12.4	12.3	.1	.8	.2	1.6	11.8	12.2	.7	5.6	.3	2.4	3.2	2.0	30.0
2nd		12.5	11.4	12.5	1.1	8.8	-	-	13.1	12.1	-	-	.4	3.2	4.4	1.6	30.0
3rd		12.5	12.7	12.5	-	-	-	-	13.0	12.2	-	-	.3	2.4	-	1.2	30.0
4th	Aft Void TT	16.0	15.6	14.7	.4	2.5	1.3	8.1	15.2	15.1	.8	5.0	.9	5.6	3.7	6.9	30.0
5th	Aft Void TT	16.0	15.2	15.3	.8	5.0	.7	4.4	15.2	15.2	.8	5.0	.8	5.0	5.0	4.7	30.0
6th																	-
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Operator's Signature  Ross Hunter, John Maxwell		Surveyor's Signature  Igor Potey	
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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

Page 6 of 112

Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363							
STRAKE POSITION Main Deck Pl.-1st IB Str. of Stringer Str.-Fr.0-22																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING				MEAN DIMINUTION %		MAX ALLOW. DIM. %		
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S				
			P	S	mm	%	mm	%	P	S	mm	%	mm	%		P	S
12th forward																	-
11th																	-
10th																	-
9th																	-
8th																	-
7th																	-
6th																	-
5th																	-
4th																	-
3rd																	-
2nd																	-
1st																	-
Amidships																	-
1st aft		12.5	12.4	12.4	.1	.8	.1	.8	11.0	11.0	1.5	12.0	1.5	12.0	6.4	6.4	30.0
2nd		12.5	10.5	12.3	2.0	16.0	.2	1.6	12.4	12.1	.1	.8	.4	3.2	8.4	2.4	30.0
3rd		12.5	12.3	12.4	.2	1.6	.1	.8	12.1	12.6	.4	3.2	-	-	2.4	.4	30.0
4th	Aft Void TT	16.0	14.6	16.0	1.4	8.7	-	-	15.0	15.0	1.0	6.3	1.0	6.3	7.5	3.1	30.0
5th	Aft Void TT	16.0	15.7	14.8	.3	1.9	1.2	7.5	15.4	16.0	.6	3.8	-	-	2.8	3.7	30.0
6th																	-
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Operator's Signature Ross Hunter, John Maxwell					Surveyor's Signature Igor Potey									
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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

Page 7 of 112

Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363									
STRAKE POSITION Main Deck Pl.-2nd IB Str. of Stringer Str.-Fr.0-22																			
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING						MEAN DIMINUTION %		MAX ALLOW. DIM. %		
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S						
			P	S	mm	%	mm	%	P	S	mm	%	mm	%	P	S			
12th forward																	-		
11th																	-		
10th																	-		
9th																	-		
8th																	-		
7th																	-		
6th																	-		
5th																	-		
4th																	-		
3rd																	-		
2nd																	-		
1st																	-		
Amidships																	-		
1st aft		12.5	12.3	12.2	.2	1.6	.3	2.4	11.5	10.7	1.0	8.0	1.8	14.4	4.8	8.4	30.0		
2nd		12.5	13.2	11.2	-	-	1.3	10.4	11.6	12.2	.9	7.2	.3	2.4	3.6	6.4	30.0		
3rd		12.5	12.7	12.5	-	-	-	-	12.5	11.9	-	-	.6	4.8	-	2.4	30.0		
4th	Aft Void TT	16.0	15.2	14.5	.8	5.0	1.5	9.4	15.3	15.1	.7	4.4	.9	5.6	4.7	7.5	30.0		
5th	Aft Void TT	16.0	14.2	14.2	1.8	11.3	1.8	11.3	14.2	14.2	1.8	11.3	1.8	11.3	11.3	11.3	30.0		
6th																	-		
7th																	-		
8th																	-		
9th																	-		
10th																	-		
11th																	-		
12th																	-		

Operator's Signature Ross Hunter, John Maxwell					Surveyor's Signature Igor Potey									
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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

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Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363							
STRAKE POSITION Main Deck Pl.-Centre Strake-Fr.0-22																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING				MEAN DIMINUTION %		MAX ALLOW. DIM. %		
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S				
			P	S	mm	%	mm	%	P	S	mm	%	mm	%		P	S
12th forward																-	
11th																-	
10th																-	
9th																-	
8th																-	
7th																-	
6th																-	
5th																-	
4th																-	
3rd																-	
2nd																-	
1st																-	
Amidships																-	
1st aft		12.5	12.3	12.4	.2	1.6	.1	.8	12.3	11.0	.2	1.6	1.5	12.0	1.6	6.4	30.0
2nd		12.5	11.8	11.0	.7	5.6	1.5	12.0	11.8	12.5	.7	5.6	-	-	5.6	6.0	30.0
3rd																	-
4th																	-
5th																	-
6th																	-
7th																	-
8th																	-
9th																	-
10th																	-
11th																	-
12th																	-

Operator's Signature Ross Hunter, John Maxwell					Surveyor's Signature Igor Potey									
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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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STRUCTURAL MEMBER: Main Deck Plating and Longitudinal Stiffeners									SKETCH
LOCATION OF STRUCTURE: Wing Tanks, Fr.21-22, 27-32, 36-37, 37-38									
DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %	
		P	S	mm	%	mm	%		
P&SSewage Tanks-Main Deck Plating-Fr.37-38-IB	12.5	12.5	12.5	-	-	-	-	30.0	
P&SSewage Tanks-Main Deck Plating-Fr.37-38-OB	12.5	11.9	12.4	.6	4.8	.1	.8	30.0	
								-	
P&S #2 WB Tanks-Main Deck Plating-Fr.36-37	12.5	12.5	12.6	-	-	-	-	30.0	
P&S #2 WB Tanks-Main Deck Plating-Fr.32-33	12.5	12.0	12.6	.5	4.0	-	-	30.0	
								-	
P&S Freshwater Tanks-Main Deck Plating-Fr.31.75	12.5	12.5	11.8	-	-	.7	5.6	30.0	
P&S Freshwater Tanks-Main Deck Plating-Fr.31.5	12.5	12.3	11.7	.2	1.6	.8	6.4	30.0	
P&S Freshwater Tanks-Main Deck Plating-Fr.27-28	12.5	12.2	12.5	.3	2.4	-	-	30.0	
								-	
P&S #4 WB Tanks-Main Deck Plating-Fr.21-22-IB	12.5	12.8	12.3	-	-	.2	1.6	30.0	
P&S #4 WB Tanks-Main Deck Plating-Fr.21-22-OB	12.5	12.8	12.3	-	-	.2	1.6	30.0	
P&S #4 WB Tanks-Main Dk.Longi.Stiff.-Fr.21-22-Web	9.5	9.4	9.3	.1	1.1	.2	2.1	25.0	
P&S #4 WB Tanks-Main Dk.Longi.Stiff.-Fr.21-22-Face	9.5	9.6	9.6	-	-	-	-	25.0	
								-	
								-	

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Main Deck Plating and Longitudinal Stiffeners

SKETCH

LOCATION OF STRUCTURE: Wing Tanks, Fr.0-1,12-13

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
P&S #5 WB Tanks-Main Deck Plating-Fr.12-13-IB	12.5	12.7	12.6	-	-	-	-	30.0
P&S #5 WB Tanks-Main Deck Plating-Fr.12-13-OB	12.5	13.3	12.4	-	-	.1	.8	30.0
P&S #5 WB Tanks-Main Dk.Longi.Stiff.-Fr.12-13-Web	9.5	9.3	9.5	.2	2.1	-	-	25.0
P&S #5 WB Tanks-Main Dk.Longi.Stiff.-Fr.12-13-Face	9.5	8.2	9.8	1.3	13.7	-	-	25.0
								-
P&S Aft Void-Deck Longi.-Fr.0-1-1st OB of CL-Web	16.0	16.7	16.3	-	-	-	-	25.0
P&S Aft Void-Deck Longi.-Fr.0-1-2nd OB of CL-Web	16.0	16.3	16.2	-	-	-	-	25.0
P&S Aft Void-Deck Longi.-Fr.0-1-3rd OB of CL-Web	16.0	16.3	16.5	-	-	-	-	25.0
P&S Aft Void-Deck Longi.-Fr.0-1-4th OB of CL-Web	16.0	16.2	16.2	-	-	-	-	25.0
P&S Aft Void-Deck Longi.-Fr.0-1-5th OB of CL-Web	16.0	16.4	16.4	-	-	-	-	25.0
P&S Aft Void-Deck Longi.-Fr.0-1-6th OB of CL-Web	16.0	16.5	16.7	-	-	-	-	25.0
P&S Aft Void-Deck Longi.-Fr.0-1-7th OB of CL-Web	16.0	16.5	16.3	-	-	-	-	25.0
P&S Aft Void-Deck Longi.-Fr.0-1-1st OB of CL-Face	19.0	19.4	19.3	-	-	-	-	25.0
P&S Aft Void-Deck Longi.-Fr.0-1-2nd OB of CL-Face	19.0	19.3	19.3	-	-	-	-	25.0
P&S Aft Void-Deck Longi.-Fr.0-1-3rd OB of CL-Face	19.0	19.3	19.8	-	-	-	-	25.0
P&S Aft Void-Deck Longi.-Fr.0-1-4th OB of CL-Face	19.0	19.2	19.3	-	-	-	-	25.0

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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REPORT ON THICKNESS MEASUREMENT OF  
MISCELLANEOUS STRUCTURAL MEMBERS

Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Boat Deck Plating - Forward Void Tank Top									SKETCH
LOCATION OF STRUCTURE: Forward Void - Fr. 46-49.5									
DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %	
		P	S	mm	%	mm	%		
Boat Deck Plate - PL1 - Forward	10.0	10.0	10.2	-	-	-	-	30.0	
Boat Deck Plate - PL1 - Aft	10.0	10.1	10.2	-	-	-	-	30.0	
Boat Deck Plate - PL2 - Forward	10.0	10.2	10.6	-	-	-	-	30.0	
Boat Deck Plate - PL2 - Aft	10.0	10.1	10.6	-	-	-	-	30.0	
Boat Deck Plate - PL3 - Forward	8.0	9.4	9.3	-	-	-	-	30.0	
Boat Deck Plate - PL3 - Aft	8.0	9.3	9.4	-	-	-	-	30.0	
Boat Deck Plate - PL4 - Forward	8.0	8.6	8.7	-	-	-	-	30.0	
Boat Deck Plate - PL4 - Aft	8.0	8.6	8.0	-	-	-	-	30.0	
								-	
								-	
								-	
								-	
								-	
								-	
								-	
								-	

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

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Ship's Name C.C.G.S. Earl Grey			IMO Number 8412340						Report Number: HFX 300363								
STRAKE POSITION Boat Deck Pl.-Stringer Strake-Fr.22-33- Port																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING						MEAN DIMINUTION %		MAX ALLOW. DIM. %
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S		P	S	
			P	S	mm	%	mm	%	P	S	mm	%	mm	%			
12th forward																-	
11th																-	
10th																-	
9th																-	
8th																-	
7th																-	
6th																-	
5th																-	
4th		8.0	7.9		.1	1.2			8.0		-	-		.6		30.0	
3rd	Trans. Pl.	25.5	26.2		-	-			26.9		-	-		-		30.0	
2nd		8.0	8.5		-	-			7.8		.2	2.5		1.2		30.0	
1st	Trans. Pl.	25.5	25.6		-	-			26.0		-	-		-		30.0	
Amidships		8.0	8.0		-	-			7.9		.1	1.2		.6		30.0	
1st aft																-	
2nd																-	
3rd																-	
4th																-	
5th																-	
6th																-	
7th																-	
8th																-	
9th																-	
10th																-	
11th																-	
12th																-	
Operator's Signature  Ross Hunter, John Maxwell			Surveyor's Signature  Igor Potey														

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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

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Ship's Name C.C.G.S. Earl Grey				IMO Number 8412340				Report Number: HFX 300363								
STRAKE POSITION Boat Deck Pl.-Stringer Strake-Fr.22-33- Starboard																
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING				MEAN DIMINUTION %		MAX ALLOW. DIM. %	
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S			
			P	S	mm	%	mm	%	P	S	mm	%	mm	%		P
12th forward																-
11th																-
10th																-
9th																-
8th																-
7th																-
6th																-
5th																-
4th																-
3rd																-
2nd																-
1st		8.0		7.8			.2	2.5		7.8			.2	2.5	2.5	30.0
Amidships		8.0		8.3			-	-		7.5			.5	6.3	3.1	30.0
1st aft																-
2nd																-
3rd																-
4th																-
5th																-
6th																-
7th																-
8th																-
9th																-
10th																-
11th																-
12th																-

Operator's Signature Ross Hunter, John Maxwell		Surveyor's Signature Igor Potey	
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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

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Ship's Name C.C.G.S. Earl Grey				IMO Number 8412340				Report Number: HFX 300363								
STRAKE POSITION Boat Deck Pl.-1st IB of Stringer-Fr.22-33-Port																
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING				MEAN DIMINUTION %		MAX ALLOW. DIM. %	
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S			
			P	S	mm	%	mm	%	P	S	mm	%	mm	%		P
12th forward																-
11th																-
10th																-
9th																-
8th																-
7th																-
6th																-
5th																-
4th		8.0	8.5		-	-			8.4		-	-		-		30.0
3rd	Trans. Pl.	25.5	26.2		-	-			26.9		-	-		-		30.0
2nd		8.0	7.8		.2	2.5			7.9		.1	1.2		1.9		30.0
1st	Trans. Pl.	25.5	25.6		-	-			26.0		-	-		-		30.0
Amidships		8.0	8.0		-	-			7.8		.2	2.5		1.2		30.0
1st aft																-
2nd																-
3rd																-
4th																-
5th																-
6th																-
7th																-
8th																-
9th																-
10th																-
11th																-
12th																-

Operator's Signature Ross Hunter, John Maxwell				Surveyor's Signature Igor Potey							
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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

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Ship's Name C.C.G.S. Earl Grey				IMO Number 8412340				Report Number: HFX 300363								
STRAKE POSITION Boat Deck Pl.-1st IB of Stringer -Fr.22-33-Stbd																
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING				MEAN DIMINUTION %		MAX ALLOW. DIM. %	
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S			
			P	S	mm	%	mm	%	P	S	mm	%	mm	%		P
12th forward																-
11th																-
10th																-
9th																-
8th																-
7th																-
6th																-
5th																-
4th																-
3rd																-
2nd																-
1st		8.0		8.5			-	-		8.6			-	-	-	30.0
Amidships		8.0		7.9			.1	1.2		7.9			.1	1.2	1.2	30.0
1st aft																-
2nd																-
3rd																-
4th																-
5th																-
6th																-
7th																-
8th																-
9th																-
10th																-
11th																-
12th																-

Operator's Signature Ross Hunter, John Maxwell		Surveyor's Signature Igor Potey	
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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

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Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363							
STRAKE POSITION Winch House Top-1st OB of Centre Strake -Fr.22-28																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING				MEAN DIMINUTION %		MAX ALLOW. DIM. %		
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S				
			P	S	mm	%	mm	%	P	S	mm	%	mm	%		P	S
12th forward																-	
11th																-	
10th																-	
9th																-	
8th																-	
7th																-	
6th																-	
5th																-	
4th																-	
3rd																-	
2nd																-	
1st																-	
Amidships		6.5	5.6	5.9	.9	13.8	.6	9.2	6.4	6.0	.1	1.5	.5	7.7	7.7	8.5	30.0
1st aft																-	
2nd																-	
3rd																-	
4th																-	
5th																-	
6th																-	
7th																-	
8th																-	
9th																-	
10th																-	
11th																-	
12th																-	

Operator's Signature Ross Hunter, John Maxwell					Surveyor's Signature Igor Potey									
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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

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Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363							
STRAKE POSITION Winch House Top-Centre Strake-Fr.22-28																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING				MEAN DIMINUTION %		MAX ALLOW. DIM. %		
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S				
			P	S	mm	%	mm	%	P	S	mm	%	mm	%		P	S
12th forward																-	
11th																-	
10th																-	
9th																-	
8th																-	
7th																-	
6th																-	
5th																-	
4th																-	
3rd																-	
2nd																-	
1st																-	
Amidships																-	
1st aft		6.5	5.8	5.8	.7	10.8	.7	10.8	6.5	6.6	-	-	-	-	5.4	5.4	30.0
2nd																-	
3rd																-	
4th																-	
5th																-	
6th																-	
7th																-	
8th																-	
9th																-	
10th																-	
11th																-	
12th																-	
Operator's Signature Ross Hunter, John Maxwell					Surveyor's Signature Igor Potey												

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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

Ship's Name C.C.G.S. Earl Grey				IMO Number 8412340				Report Number: HFX 300363									
STRAKE POSITION Forecastle Deck Plating-Fr.28-52																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING						MEAN DIMINUTION %		MAX ALLOW. DIM. %
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S		P	S	
			P	S	mm	%	mm	%	P	S	mm	%	mm	%			
12th forward	PL1	9.0	9.4	9.4	-	-	-	-	9.5	9.5	-	-	-	-	-	-	30.0
11th	PL2	25.0	25.7	25.7	-	-	-	-	25.8	25.6	-	-	-	-	-	-	30.0
10th	PL3	9.0	7.8	8.0	1.2	13.3	1.0	11.1	8.5	7.7	.5	5.6	1.3	14.4	9.4	12.8	30.0
9th	PL3-Insert-Port	9.0	7.7		1.3	14.4			7.9		1.1	12.2			13.3		30.0
8th	PL4	9.0	8.9	8.9	.1	1.1	.1	1.1	8.9	8.9	.1	1.1	.1	1.1	1.1	1.1	30.0
7th	PL5	9.0	9.1	8.0	-	-	1.0	11.1	9.2	8.0	-	-	1.0	11.1	-	11.1	30.0
6th	PL6	9.0	9.3	7.9	-	-	1.1	12.2	9.2	7.9	-	-	1.1	12.2	-	12.2	30.0
5th	PL7	8.0	7.9	8.0	.1	1.2	-	-	8.0	8.0	-	-	-	-	.6	-	30.0
4th	PL8	8.0	8.2	8.0	-	-	-	-	8.1	8.0	-	-	-	-	-	-	30.0
3rd	PL9	6.5	6.6	6.2	-	-	.3	4.6	6.4	6.2	.1	1.5	.3	4.6	.8	4.6	30.0
2nd	PL10	6.5	6.2	6.1	.3	4.6	.4	6.2	6.2	6.1	.3	4.6	.4	6.2	4.6	6.2	30.0
1st	PL11	6.5	6.7	6.4	-	-	.1	1.5	5.9	6.0	.6	9.2	.5	7.7	4.6	4.6	30.0
Amidships																	-
1st aft																	-
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Operator's Signature Ross Hunter, John Maxwell				Surveyor's Signature Igor Potey													
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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

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Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363							
STRAKE POSITION Bridge Deck Plating-Fr.30-43																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING						MEAN DIMINUTION %		MAX ALLOW. DIM. %
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S		P	S	
			P	S	mm	%	mm	%	P	S	mm	%	mm	%			
12th forward	PL1	6.0	6.4	6.5	-	-	-	-	6.5	6.5	-	-	-	-	-	-	30.0
11th	PL2	6.0	6.9	6.7	-	-	-	-	6.6	6.6	-	-	-	-	-	-	30.0
10th	PL3	6.0	6.5	6.5	-	-	-	-	6.4	6.5	-	-	-	-	-	-	30.0
9th	PL4	6.0	6.5	6.5	-	-	-	-	6.5	6.5	-	-	-	-	-	-	30.0
8th																	30.0
7th																	30.0
6th																	30.0
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3rd																	30.0
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Operator's Signature Ross Hunter, John Maxwell					Surveyor's Signature Igor Potey									
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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

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Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363							
STRAKE POSITION Wheelhouse Top Deck Plating-Fr.29-40																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING						MEAN DIMINUTION %		MAX ALLOW. DIM. %
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S		P	S	
			P	S	mm	%	mm	%	P	S	mm	%	mm	%			
12th forward	PL1	6.0	6.6	6.5	-	-	-	-	6.6	6.5	-	-	-	-	-	-	30.0
11th	PL2	8.0	8.0	8.0	-	-	-	-	8.4	8.3	-	-	-	-	-	-	30.0
10th	PL3	6.0	6.7	6.3	-	-	-	-	7.0	6.5	-	-	-	-	-	-	30.0
9th	PL4	6.0	6.5	6.5	-	-	-	-	6.5	6.3	-	-	-	-	-	-	30.0
8th	PL5	6.0	6.4	6.1	-	-	-	-	6.4	6.0	-	-	-	-	-	-	30.0
7th	PL6	6.0	6.3	6.4	-	-	-	-	6.2	6.3	-	-	-	-	-	-	30.0
6th	PL7	6.0	5.3	6.4	.7	11.7	-	-	5.9	6.2	.1	1.7	-	-	6.7	-	30.0
5th																	-
4th																	-
3rd																	-
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Amidships																	-
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Operator's Signature Ross Hunter, John Maxwell					Surveyor's Signature Igor Potey									
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REPORT ON THICKNESS MEASUREMENT OF  
MISCELLANEOUS STRUCTURAL MEMBERS

Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Wheelhouse Top Deck Plating - Drain Deck Plating									SKETCH
LOCATION OF STRUCTURE: Wheelhouse Top									
DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %	
		P	S	mm	%	mm	%		
Wheelhouse Top Deck Drain Plate-Fr.34	6.0	7.2	7.3	-	-	-	-	30.0	
Wheelhouse Top Deck Drain Plate-Fr.30	6.0	7.3	7.0	-	-	-	-	30.0	
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Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF ALL DECK PLATING

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Ship's Name C.C.G.S. Earl Grey			IMO Number 8412340						Report Number: HFX 300363								
STRAKE POSITION Water Monitor Platform Deck Plating-Fr.30-34																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING						MEAN DIMINUTION %		MAX ALLOW. DIM. %
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S				
			P	S	mm	%	mm	%	P	S	mm	%	mm	%	P	S	
12th forward	PL1	6.0	6.3	6.3	-	-	-	-	6.2	6.1	-	-	-	-	-	-	30.0
11th	PL2	6.0	6.5	6.5	-	-	-	-	6.5	6.6	-	-	-	-	-	-	30.0
10th	PL3	6.0		6.5				-	-		6.6			-	-	-	30.0
9th																30.0	
8th																30.0	
7th																30.0	
6th																30.0	
5th																-	
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Operator's Signature Ross Hunter, John Maxwell			Surveyor's Signature Igor Potey			
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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

Page 24 of 112

Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Stringer Plates, Longitudinal Stiffeners & IBP

SKETCH

LOCATION OF STRUCTURE: Wing Tanks, Fr.24-25, 30-31,34-35, 37-38

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
P&SSewage Tanks-Str.-Fr.37-38-1st Below Main Deck	12.5	12.7	12.7	-	-	-	-	30.0
P&SSewage Tanks-Str.-Fr.37-38-2nd Below Main Deck	12.5	12.8	12.7	-	-	-	-	30.0
P&SSewage Tanks-IBP-Fr.37-38-Outboard Strake	12.5	13.0	12.8	-	-	-	-	30.0
								-
P&S #2 WB Tanks-Str.-Fr.34-35-1st Below Main Deck	12.5	12.3	12.0	.2	1.6	.5	4.0	30.0
P&S #2 WB Tanks-Str.-Fr.34-35-2nd Below Main Deck	12.5	12.5	12.7	-	-	-	-	30.0
P&S #2 WB Tanks-IBP-Fr.34-35-Outboard Strake	12.5	12.3	12.5	.2	1.6	-	-	30.0
P&S #2 WB Tanks-IBP Longi.Stiff.-Fr.34-35-Web	8.0	8.3	8.2	-	-	-	-	25.0
P&S #2 WB Tanks-IBP Longi.Stiff.-Fr.34-35-Face	8.0	8.1	8.8	-	-	-	-	25.0
								-
P&S Freshwater Tanks-Str.-Fr.30-31-Inboard	12.5	12.3	13.0	.2	1.6	-	-	30.0
P&S Freshwater Tanks-Str.-Fr.30-31-Outboard	12.5	12.9	13.0	-	-	-	-	30.0
								-
P&S Cofferdam-Flat-Fr.24-25-Inboard	12.5	13.0	13.0	-	-	-	-	30.0
P&S Cofferdam-Flat-Fr.24-25-Outboard	12.5	12.9	12.9	-	-	-	-	30.0
								-

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

**STRUCTURAL MEMBER:** Stringer Plates

### SKETCH

LOCATION OF STRUCTURE: Wing Tanks, Fr.21-22

[illegible]

Operator's Signature	Surveyor's Signature	
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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: OT Flat/Stringers Plates									SKETCH
LOCATION OF STRUCTURE: Cargo/#5 WB Tank-Fr.10-17-4150mm Above Baseline									
DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %	
		P	S	mm	%	mm	%		
#5 WB Tank - Stringer - Fr.12 - Inboard	12.5	12.5	12.3	-	-	.2	1.6	30.0	
#5 WB Tank - Stringer - Fr.12 - Outboard	12.5	12.8	12.9	-	-	-	-	30.0	
Cargo-OT Flat - Fr12 - Centre Pl.	8.0	8.1	8.1	-	-	-	-	30.0	
Cargo-OT Flat - Fr12 -1st Pl. OB of Cl. Pl-Inboard	8.0	9.0	8.4	-	-	-	-	30.0	
Cargo-OT Flat - Fr12-1st Pl. OB of Cl. Pl-Outboard	8.0	8.0	8.3	-	-	-	-	30.0	
Cargo-OT Flat-Fr12-2nd OB Pl.-Inboard	8.0		9.2			-	-	30.0	
Cagro-OT Flat-DL-3rd Off CL-Web	7.9	7.9	7.8	-	-	.1	1.3	30.0	
Cagro-OT Flat-DL-4th Off CL-Web	7.9	7.9	7.8	-	-	.1	1.3	30.0	
Cagro-OT Flat-DL-5th Off CL-Web	7.9	7.8	7.8	.1	1.3	.1	1.3	30.0	
Cagro-OT Flat-DL-3rd Off CL-Face	7.9	7.8	8.2	.1	1.3	-	-	30.0	
Cagro-OT Flat-DL-4th Off CL-Face	7.9	7.8	7.1	.1	1.3	.8	10.1	30.0	
Cagro-OT Flat-DL-5th Off CL-Face	7.9	7.9	7.9	-	-	-	-	30.0	
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Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Inner Bottom Plating

### SKETCH

LOCATION OF STRUCTURE: F.O. Settling Tank - Fr. 37-39

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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STRUCTURAL MEMBER: Inner Bottom Plating

SKETCH

LOCATION OF STRUCTURE: Frames 19-25, 28-29, 29-30

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
IBP-CL Plate-Fr.29-30-Inboard	9.5	9.6	9.4	-	-	.1	1.1	30.0
IBP-CL Plate-Fr.29-30-Outboard	9.5	9.6	9.5	-	-	-	-	30.0
IBL-1st OB of CL-Fr.29-30-Web	7.9	7.8	7.9	.1	1.3	-	-	25.0
IBL-2nd OB of CL-Fr.29-30-Web	7.9	7.9	7.9	-	-	-	-	25.0
IBL-1st OB of CL-Fr.29-30-Face	7.9	7.8	7.9	.1	1.3	-	-	25.0
IBL-2nd OB of CL-Fr.29-30-Face	7.9	7.9	7.8	-	-	.1	1.3	25.0
IBP-CL Plate-Fr.28-29-Inboard	9.5	9.4	9.4	.1	1.1	.1	1.1	30.0
IBP-CL Plate-Fr.28-29-Outboard	9.5	9.4	9.4	.1	1.1	.1	1.1	30.0
IBL-1st OB of CL-Fr.28-29-Web	7.9	7.9	8.0	-	-	-	-	25.0
IBL-2nd OB of CL-Fr.28-29-Web	7.9	7.8	7.9	.1	1.3	-	-	25.0
IBL-1st OB of CL-Fr.28-29-Face	7.9	7.9	7.8	-	-	.1	1.3	25.0
IBL-2nd OB of CL-Fr.28-29-Face	7.9	7.7	7.7	.2	2.5	.2	2.5	25.0
#2 Fuel Oil Tank-IBP-CL Plate-Fr.24-25	9.5		9.6			-	-	30.0
#2 Fuel Oil Tank-IBP-CL Plate-Fr.19-20	9.5		9.9			-	-	30.0
								-
								-

Operator's Signature	Surveyor's Signature	
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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

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Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT OF ALL BOTTOM SHELL PLATING

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Ship's Name C.C.G.S. Earl Grey			IMO Number 8412340						Report Number: HFX 300363								
STRAKE POSITION Keel Strake Plating-Fr. 9-50																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING						MEAN DIMINUTION %		MAX ALLOW. DIM. %
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S		P	S	
			P	S	mm	%	mm	%	P	S	mm	%	mm	%			
12th forward																	-
11th																	-
10th																	-
9th																	-
8th																	-
7th	Fr. 50	20.0	19.0	20.7	1.0	5.0	-	-	20.5	20.5	-	-	-	-	2.5	-	30.0
6th	Fr. 47 & 49	50.0	49.0	49.0	1.0	2.0	1.0	2.0	49.7	49.8	.3	.6	.2	.4	1.3	1.2	30.0
5th	Fr. 44 & 45	50.0	50.0	50.2	-	-	-	-	51.0	50.6	-	-	-	-	-	-	30.0
4th																	30.0
3rd																	30.0
2nd	Fr. 33	28.0							27.7	27.7	.3	1.1	.3	1.1			30.0
1st	Fr. 28 & 31	19.0	18.9	19.1	.1	.5	-	-	18.8	18.8	.2	1.1	.2	1.1	.8	.5	30.0
Amidships																	-
1st aft	Fr. 17 & 22	19.0		19.4			-	-		19.6			-	-		-	30.0
2nd	Fr. 11 & 15	28.0	28.4	28.2	-	-	-	-	28.9	28.9	-	-	-	-	-	-	30.0
3rd	Fr. 9	32.0	32.5	32.5	-	-	-	-							-	-	30.0
4th																	30.0
5th	Fr. 1	32.0	32.8	32.8	-	-	-	-	32.8	32.8	-	-	-	-	-	-	30.0
6th																	-
7th																	-
8th																	-
9th																	-
10th																	-
11th																	-
12th																	-
Operator's Signature  Ross Hunter, John Maxwell			Surveyor's Signature  Igor Potey														

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# REPORT ON THICKNESS MEASUREMENT OF ALL BOTTOM SHELL PLATING

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Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363									
STRAKE POSITION 1st OB Strake of Keel Strake Plating-Fr. 0-43																			
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING						MEAN DIMINUTION %		MAX ALLOW. DIM. %		
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S		P	S			
			P	S	mm	%	mm	%	P	S	mm	%	mm	%					
12th forward																	-		
11th																	-		
10th																	-		
9th																	-		
8th																	-		
7th																	-		
6th																	-		
5th																	-		
4th																	-		
3rd		36.5	35.3	34.0	1.2	3.3	2.5	6.8	35.6	35.4	.9	2.5	1.1	3.0	2.9	4.9	30.0		
2nd		22.0	22.1	22.3	-	-	-	-	21.7	21.7	.3	1.4	.3	1.4	.7	.7	30.0		
1st		19.0	19.5	20.2	-	-	-	-	19.0	19.3	-	-	-	-	-	-	30.0		
Amidships	Trans. Plate	22.0	22.3	21.9	-	-	.1	.5	22.2	21.9	-	-	.1	.5	-	.5	30.0		
1st aft																	30.0		
2nd		28.0	28.2	28.2	-	-	-	-	28.2	29.4	-	-	-	-	-	-	30.0		
3rd		32.0	33.1	32.9	-	-	-	-	32.7		-	-			-	-	30.0		
4th		32.0	32.5	32.6	-	-	-	-							-	-	30.0		
5th																	-		
6th	Transom	32.0	32.4	32.4	-	-	-	-	32.4	32.4	-	-	-	-	-	-	30.0		
7th																	-		
8th																	-		
9th																	-		
10th																	-		
11th																	-		
12th																	-		

Operator's Signature Ross Hunter, John Maxwell					Surveyor's Signature Igor Potey									
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# REPORT ON THICKNESS MEASUREMENT OF ALL BOTTOM SHELL PLATING

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Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363						
STRAKE POSITION 2nd OB Strake of Keel Strake Plating-Fr. 0-46																
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING				MEAN DIMINUTION %		MAX ALLOW. DIM. %	
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S			
			P	S	mm	%	mm	%	P	S	mm	%	mm	%		P
12th forward																-
11th																-
10th																-
9th																-
8th																-
7th																-
6th																-
5th		36.5	36.5	37.1	-	-	-	-	36.5	37.1	-	-	-	-	-	30.0
4th		36.5	36.4	37.0	.1	.3	-	-	36.5	36.5	-	-	-	-	.1	30.0
3rd		36.5	36.3	37.0	.2	.5	-	-	37.1	36.4	-	-	.1	.3	.3	30.0
2nd		22.0	21.7	22.0	.3	1.4	-	-	22.3	21.5	-	-	.5	2.3	.7	30.0
1st		19.0	19.1	19.5	-	-	-	-	19.2	19.1	-	-	-	-	-	30.0
Amidships																-
1st aft																-
2nd																-
3rd		28.0	28.5	28.2	-	-	-	-	28.5	28.2	-	-	-	-	-	30.0
4th		32.0	33.0	32.7	-	-	-	-	32.9	32.8	-	-	-	-	-	30.0
5th																30.0
6th																-
7th																-
8th																-
9th																-
10th																-
11th																-
12th																-
Operator's Signature Ross Hunter, John Maxwell					Surveyor's Signature Igor Potey											

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# REPORT ON THICKNESS MEASUREMENT OF ALL BOTTOM SHELL PLATING

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Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363							
STRAKE POSITION 3rd OB Strake (Bilge) of Keel Strake Pl.-Fr.5-39																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING				MEAN DIMINUTION %		MAX ALLOW. DIM. %		
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S				
			P	S	mm	%	mm	%	P	S	mm	%	mm	%		P	S
12th forward																-	
11th																-	
10th																-	
9th																-	
8th																-	
7th																-	
6th																-	
5th																-	
4th																-	
3rd																-	
2nd		22.0	21.9	21.9	.1	.5	.1	.5	21.5	21.8	.5	2.3	.2	.9	1.4	.7	30.0
1st		19.0	19.8	19.0	-	-	-	-	19.2	19.7	-	-	-	-	-	-	30.0
Amidships																	-
1st aft		19.0	18.9	19.3	.1	.5	-	-	19.3	19.1	-	-	-	-	.3	-	30.0
2nd																	-
3rd		28.0	28.5	28.9	-	-	-	-	28.5	28.4	-	-	-	-	-	-	30.0
4th		32.0	32.1	32.0	-	-	-	-	33.0	31.5	-	-	.5	1.6	-	.8	30.0
5th		32.0	32.8	32.7	-	-	-	-							-	-	30.0
6th																	-
7th																	-
8th																	-
9th																	-
10th																	-
11th																	-
12th																	-
Operator's Signature Ross Hunter, John Maxwell					Surveyor's Signature Igor Potey												

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REPORT ON THICKNESS MEASUREMENT OF ALL BOTTOM SHELL PLATING

Ship's Name			IMO Number						Report Number:								
C.C.G.S. Earl Grey			8412340						HFX 300363								
STRAKE POSITION			4th OB Strake (Bilge) of Keel Strake Pl.-Fr.10-16														
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING						MEAN DIMINUTION %		MAX ALLOW. DIM. %
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S		P	S	
			P	S	mm	%	mm	%	P	S	mm	%	mm	%			
12th forward																-	
11th																-	
10th																-	
9th																-	
8th																-	
7th																-	
6th																-	
5th																-	
4th																-	
3rd																-	
2nd																-	
1st																-	
Amidships																-	
1st aft																-	
2nd																-	
3rd	Fr. 11 & 16	28.0	28.4	28.2	-	-	-	-	28.9	28.9	-	-	-	-	-	30.0	
4th																-	
5th																-	
6th																-	
7th																-	
8th																-	
9th																-	
10th																-	
11th																-	
12th																-	
Operator's Signature			Surveyor's Signature														
Ross Hunter, John Maxwell			Igor Potey														

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Bottom Shell Longitudinals									SKETCH
LOCATION OF STRUCTURE: Frames 10-11, 21-11, 22-23, 28-29, 29-30									
DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %	
		P	S	mm	%	mm	%		
Bottom Longitudinal-1st OB of CL-Fr.29-30-Web	7.9	7.8	7.7	.1	1.3	.2	2.5	25.0	
Bottom Longitudinal-2nd OB of CL-Fr.29-30-Web	7.9	7.6	7.7	.3	3.8	.2	2.5	25.0	
Bottom Longitudinal-1st OB of CL-Fr.29-30-Face	7.9	7.3	7.1	.6	7.6	.8	10.1	25.0	
Bottom Longitudinal-2nd OB of CL-Fr.29-30-Face	7.9	7.6	7.3	.3	3.8	.6	7.6	25.0	
Bottom Longitudinal-1st OB of CL-Fr.28-29-Web	7.9	7.8	7.5	.1	1.3	.4	5.1	25.0	
Bottom Longitudinal-2nd OB of CL-Fr.28-29-Web	7.9	7.7	7.9	.2	2.5	-	-	25.0	
Bottom Longitudinal-1st OB of CL-Fr.28-29-Face	7.9	7.3	7.7	.6	7.6	.2	2.5	25.0	
Bottom Longitudinal-2nd OB of CL-Fr.28-29-Face	7.9	7.3	7.6	.6	7.6	.3	3.8	25.0	
Cofferdam-Btm.Longi.-Fr.22-23-Web	7.9	7.8	8.0	.1	1.3	-	-	25.0	
Cofferdam-Btm.Longi.-Fr.22-23-Face	7.9	8.0	7.3	-	-	.6	7.6	25.0	
#4 WB Tank-Btm.Longi.-Fr.21-22-Web	7.9	7.5	7.7	.4	5.1	.2	2.5	25.0	
#4 WB Tank-Btm.Longi.-Fr.21-22-Face	7.9	7.3	7.4	.6	7.6	.5	6.3	25.0	
#5 WB Tank-Btm.Longi.-Fr.10-11	12.7	11.6	11.7	1.1	8.7	1.0	7.9	25.0	
								-	
								-	
								-	

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF SHELL AND DECK PLATING (ONE, TWO OR THREE TRANSVERSE SECTIONS)

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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STRENGTH DECK AND SHEERSTRAKE PLATING																										
STRAKE POSITION	FIRST TRANSVERSE SECTION AT FRAME NUMBER 44								SECOND TRANSVERSE SECTION AT FRAME NUMBER 27								THIRD TRANSVERSE SECTION AT FRAME NUMBER 12								MAX ALLOW. DIM. %	
	NO. OR LETTER	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		NO. OR LETTER	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		NO. OR LETTER	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S			
			P	S	mm	%	mm	%			P	S	mm	%	mm	%			P	S	mm	%	mm	%		
Stringer Plate		12.5	12.1	12.6	.4	3.2	-	-		12.5	12.3	11.7	.2	1.6	.8	6.4		12.5	12.6	12.8	-	-	-	-	30.0	
1st strake inboard		12.5	12.1	12.7	.4	3.2	-	-		10.0	12.7	12.7	-	-	-	-		12.5	11.0	12.5	1.5	12.0	-	-	30.0	
2nd										19.0	18.7	19.4	.3	1.6	-	-		12.5	13.1	11.4	-	-	1.1	8.8	30.0	
3rd																									-	
4th																									-	
5th																									-	
6th																									-	
7th																									-	
8th																									-	
9th																									-	
10th																									-	
11th																									-	
12th																									-	
13th																									-	
14th																									-	
centre strake										19.0	19.2	19.2	-	-	-	-		12.5	11.7	11.4	.8	6.4	1.1	8.8	30.0	
sheer strake		36.5	36.1	36.2	.4	1.1	.3	.8		28.0	27.8	27.6	.2	.7	.4	1.4		28.0	28.5	28.0	-	-	-	-	30.0	

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT OF SHELL AND DECK PLATING (ONE, TWO OR THREE TRANSVERSE SECTIONS)

Page 37 of 112

Ship's Name										IMO Number										Report Number									
C.C.G.S. Earl Grey										8412340										HFX 300363									
SHELL PLATING																													
STRAKE POSITION	FIRST TRANSVERSE SECTION AT FRAME NUMBER 44								SECOND TRANSVERSE SECTION AT FRAME NUMBER 27								THIRD TRANSVERSE SECTION AT FRAME NUMBER 12								MAX ALLOW. DIM. %				
	NO. OR LETTER	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		NO. OR LETTER	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		NO. OR LETTER	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S						
			P	S	mm	%	mm	%			P	S	mm	%	mm	%			P	S	mm	%	mm	%					
1st below sheer strake		36.5	36.7	36.6	-	-	-	-		28.0	27.5	27.9	.5	1.8	.1	.4		28.0	28.1	28.1	-	-	-	-		30.0			
2nd		36.5	36.8	37.2	-	-	-	-		22.0	21.7	21.5	.3	1.4	.5	2.3		28.0	28.3	28.2	-	-	-	-		30.0			
bilge										19.0	19.9	19.5	-	-	-	-		28.0	28.5	29.0	-	-	-	-		30.0			
4th										19.0	19.8	19.8	-	-	-	-		28.0	28.6	28.5	-	-	-	-		30.0			
5th										19.0	18.8	19.2	.2	1.1	-	-		28.0	28.5	28.9	-	-	-	-		30.0			
6th										19.0	19.4	19.3	-	-	-	-									30.0				
7th																									-				
8th																									-				
9th																									-				
10th																									-				
11th																									-				
12th																									-				
13th																									-				
14th																									-				
15th																									-				
16th																									-				
17th																									-				
18th																									-				
19th																									-				
20th																									-				
keel strake		50.0	51.1	50.7	-	-	-	-		19.0	18.8	18.8	.2	1.1	.2	1.1		28.0	28.4	28.5	-	-	-	-		30.0			
Operator's Signature										Surveyor's Signature																			
Ross Hunter, John Maxwell										Igor Potey																			

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# Report on Thickness Measurement of Longitudinal Members (One, Two or Three Transverse Sections) Also Associated Longitudinals in Way of Transverse Structure in Cargo and Ballast Tanks

Page 38 of 112

Ship's Name		IMO Number										Report Number									
C.C.G.S. Earl Grey		8412340										HFX 300363									

STRUCTURAL MEMBER	FIRST TRANSVERSE SECTION AT FRAME NUMBER 44								SECOND TRANSVERSE SECTION AT FRAME NUMBER								THIRD TRANSVERSE SECTION AT FRAME NUMBER								MAX ALLOW. DIM. %
	ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		
			P	S	mm	%	mm	%			P	S	mm	%	mm	%			P	S	mm	%	mm	%	
DL-1st Off CL-Web	8	7.9	7.8	7.8	.1	1.3	.1	1.3																25.0	
DL-2nd Off CL-Web	8	7.9	7.7	7.9	.2	2.5	-	-																25.0	
DL-3rd Off CL-Web	8	7.9	7.7	7.8	.2	2.5	.1	1.3																25.0	
DL-4th Off CL-Web	8	7.9	7.9	7.8	-	-	.1	1.3																25.0	
DL-5th Off CL-Web	8	7.9	7.7	7.7	.2	2.5	.2	2.5																25.0	
DL-6th Off CL-Web	8	7.9	7.7	7.8	.2	2.5	.1	1.3																25.0	
DL-1st Off CL-Face	8	7.9	7.8	7.9	.1	1.3	-	-																25.0	
DL-2nd Off CL-Face	8	7.9	7.9	7.8	-	-	.1	1.3																25.0	
DL-3rd Off CL-Face	8	7.9	7.8	7.9	.1	1.3	-	-																25.0	
DL-4th Off CL-Face	8	7.9	7.8	7.9	.1	1.3	-	-																25.0	
DL-5th Off CL-Face	8	7.9	7.7	7.9	.2	2.5	-	-																25.0	
DL-6th Off CL-Face	8	7.9	7.8	7.9	.1	1.3	-	-																25.0	
CL Bhd-Top Pl.-Top	11	8.0	8.0	8.0	-	-	-	-																30.0	
CL Bhd-Top Pl.-Btm	11	8.0	8.1	8.1	-	-	-	-																30.0	
CL Bhd-1st Below-Top	17	8.0	7.5	7.5	.5	6.3	.5	6.3																30.0	
CL Bhd-1st Below-Btm	17	8.0	8.0	8.0	-	-	-	-																30.0	
CL Bhd-Lower Pl.-Top	15	19.0	19.5	19.5	-	-	-	-																30.0	
CL Bhd-Lower Pl.-Btm	15	19.0	19.5	19.5	-	-	-	-																30.0	
																								-	

Operator's Signature								Surveyor's Signature															
Ross Hunter, John Maxwell								Igor Potey															

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Report on Thickness Measurement of Longitudinal Members (One, Two or Three Transverse Sections)  
Also Associated Longitudinals in Way of Transverse Structure in Cargo and Ballast Tanks

Page 39 of 112

Ship's Name

IMO Number

8412340

Report Number

HFX 300363

[illegible]

Operator's Signature

Ross Hunter, John Maxwell

Surveyor's Signature

Igor Potey

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# Report on Thickness Measurement of Longitudinal Members (One, Two or Three Transverse Sections) Also Associated Longitudinals in Way of Transverse Structure in Cargo and Ballast Tanks

Page 40 of 112

Ship's Name		IMO Number										Report Number									
C.C.G.S. Earl Grey		8412340										HFX 300363									

STRUCTURAL MEMBER	FIRST TRANSVERSE SECTION AT FRAME NUMBER								SECOND TRANSVERSE SECTION AT FRAME NUMBER 27								THIRD TRANSVERSE SECTION AT FRAME NUMBER								MAX ALLOW. DIM. %
	ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		
			P	S	mm	%	mm	%			P	S	mm	%	mm	%			P	S	mm	%	mm	%	
DL-1st Off CL-Web									8	7.9	7.8	7.9	.1	1.3	-	-									25.0
DL-4th IB of SS-Web									8	7.9	7.9	7.9	-	-	-	-									25.0
DL-3rd IB of SS-Web									8	7.9	7.8	7.8	.1	1.3	.1	1.3									25.0
DL-2nd IB of SS-Web									8	7.9	7.9	7.9	-	-	-	-									25.0
DL-1st IB of SS-Web									8	7.9	7.8	7.8	.1	1.3	.1	1.3									25.0
DL-1st Off CL-Face									8	7.9	7.9	7.9	-	-	-	-									25.0
DL-4th IB of SS-Face									8	7.9	7.8	7.9	.1	1.3	-	-									25.0
DL-3rd IB of SS-Face									8	7.9	7.9	7.8	-	-	.1	1.3									25.0
DL-2nd IB of SS-Face									8	7.9	7.8	7.8	.1	1.3	.1	1.3									25.0
DL-1st IB of SS-Face									8	7.9	7.7	7.7	.2	2.5	.2	2.5									25.0
SS Longi.-Top-Web									10	16.0	16.5	16.5	-	-	-	-									25.0
SS Longi.-1st Bel.-Web									10	16.0	16.5	16.5	-	-	-	-									25.0
SS Longi.-2nd Bel.-We									10	16.0	16.5	16.5	-	-	-	-									25.0
SS Longi.-3rd Bel.-We									10	16.0	16.5	16.5	-	-	-	-									25.0
SS Longi.-4th Bel.-We									10	16.0	15.8	16.6	.2	1.2	-	-									25.0
SS Longi.-5th Bel.-We									16	16.0	15.8	15.7	.2	1.2	.3	1.9									25.0
SS Longi.-6th Bel.-We									16	16.0	16.5	15.1	-	-	.9	5.6									25.0
SS Longi.-7th Bel.-We									16	16.0	16.1	16.0	-	-	-	-									25.0
SS Longi.-8th Bel.-We									16	16.0	16.1	16.1	-	-	-	-									25.0

Operator's Signature								Surveyor's Signature															
Ross Hunter, John Maxwell								Igor Potey															

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# Report on Thickness Measurement of Longitudinal Members (One, Two or Three Transverse Sections) Also Associated Longitudinals in Way of Transverse Structure in Cargo and Ballast Tanks

Page 41 of 112

Ship's Name		IMO Number										Report Number									
C.C.G.S. Earl Grey		8412340										HFX 300363									

STRUCTURAL MEMBER	FIRST TRANSVERSE SECTION AT FRAME NUMBER								SECOND TRANSVERSE SECTION AT FRAME NUMBER 27								THIRD TRANSVERSE SECTION AT FRAME NUMBER								MAX ALLOW. DIM. %
	ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		
			P	S	mm	%	mm	%			P	S	mm	%	mm	%			P	S	mm	%	mm	%	
SS Longi.-9th Bel.-We									16	16.0	16.1	16.1	-	-	-	-									25.0
SSLongi-10th Bel.-We									16	16.0	17.0	15.1	-	-	.9	5.6									25.0
SSLongi-11th Bel.-We									16	16.0	16.5	15.1	-	-	.9	5.6									25.0
SSLongi-12th Bel.-We									16	16.0	16.5	15.1	-	-	.9	5.6									25.0
SSLongi-13th Bel.-We									16	16.0	16.4	15.1	-	-	.9	5.6									25.0
SSLongi-14th Bel.-We									16	16.0	16.4	15.1	-	-	.9	5.6									25.0
Off CL LB-Top-Top									11	8.0	7.7	7.7	.3	3.8	.3	3.8									30.0
Off CL LB-Top-Btm.									11	8.0	7.7	7.6	.3	3.8	.4	5.0									30.0
Off CL LB-1st Bel-Top									17	8.0	7.6	7.8	.4	5.0	.2	2.5									30.0
Off CL LB-1st Bel-Btm									17	8.0	7.7	7.8	.3	3.8	.2	2.5									30.0
Off CL LB-Lower-Top									15	9.5	9.8	9.8	-	-	-	-									30.0
Off CL LB-Lower-Btm.									15	9.5	9.7	9.8	-	-	-	-									30.0
LBL-Top-Web									18	7.9	7.7	7.7	.2	2.5	.2	2.5									25.0
LBL-1st Below-Web									18	7.9	7.6	7.7	.3	3.8	.2	2.5									25.0
LBL-2nd Below-Web									18	7.9	7.7	7.7	.2	2.5	.2	2.5									25.0
LBL-3rd Below-Web									18	7.9	7.7	7.7	.2	2.5	.2	2.5									25.0
LBL-4thBelow-Web									18	7.9	7.7	7.7	.2	2.5	.2	2.5									25.0
LBL-5th Below-Web									18	7.9	7.8	7.6	.1	1.3	.3	3.8									25.0
																									-

Operator's Signature								Surveyor's Signature															
Ross Hunter, John Maxwell								Igor Potey															

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Report on Thickness Measurement of Longitudinal Members (One, Two or Three Transverse Sections)  
Also Associated Longitudinals in Way of Transverse Structure in Cargo and Ballast Tanks

Ship's Name		IMO Number										Report Number													
C.C.G.S. Earl Grey		8412340										HFX 300363													
STRUCTURAL MEMBER	FIRST TRANSVERSE SECTION AT FRAME NUMBER								SECOND TRANSVERSE SECTION AT FRAME NUMBER 27								THIRD TRANSVERSE SECTION AT FRAME NUMBER								MAX ALLOW. DIM. %
	ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		
			P	S	mm	%	mm	%			P	S	mm	%	mm	%			P	S	mm	%	mm	%	
LBL-Top-Face									18	7.9	7.8	7.3	.1	1.3	.6	7.6									25.0
LBL-1st Below-Face									18	7.9	7.8	7.8	.1	1.3	.1	1.3									25.0
LBL-2nd Below-Face									18	7.9	7.8	7.8	.1	1.3	.1	1.3									25.0
LBL-3rd Below-Face									18	7.9	7.8	7.8	.1	1.3	.1	1.3									25.0
LBL-4thBelow-Face									18	7.9	7.8	7.8	.1	1.3	.1	1.3									25.0
LBL-5th Below-Face									18	7.9	7.8	7.8	.1	1.3	.1	1.3									25.0
																									-
CL Deck Girder-Web									9	11.0	11.2	11.2	-	-	-	-									25.0
1st Off CL DG-Web									9	11.0	11.7	11.3	-	-	-	-									25.0
CL Deck Girder-Face									9	19.0	19.5	19.5	-	-	-	-									25.0
1st Off CL DG-Face									9	19.0	18.2	17.6	.8	4.2	1.4	7.4									25.0
CL Btm. Girder									13	12.5	12.4	12.4	.1	.8	.1	.8									30.0
1st Off CL Btm. Girder									13	9.5	9.3	9.6	.2	2.1	-	-									30.0
2nd Off CL Btm. Girde									13	9.5	9.4	9.4	.1	1.1	.1	1.1									30.0
3rd Off CL Btm. Girder									13	12.5	13.2	13.3	-	-	-	-									30.0
4th Off CL Btm. Girder									13	9.5	10.2	9.4	-	-	.1	1.1									30.0
5th Off CL Btm. Girder									13	9.5	9.4	9.5	.1	1.1	-	-									30.0
																									-
																									-
Operator's Signature								Surveyor's Signature																	
Ross Hunter, John Maxwell								Igor Potey																	

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Report on Thickness Measurement of Longitudinal Members (One, Two or Three Transverse Sections)  
Also Associated Longitudinals in Way of Transverse Structure in Cargo and Ballast Tanks

Ship's Name		IMO Number										Report Number													
C.C.G.S. Earl Grey		8412340										HFX 300363													
STRUCTURAL MEMBER	FIRST TRANSVERSE SECTION AT FRAME NUMBER								SECOND TRANSVERSE SECTION AT FRAME NUMBER 27								THIRD TRANSVERSE SECTION AT FRAME NUMBER								MAX ALLOW. DIM. %
	ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		
			P	S	mm	%	mm	%			P	S	mm	%	mm	%			P	S	mm	%	mm	%	
BL-1st Off CL-Web									12	7.9	7.7	7.9	.2	2.5	-	-									25.0
BL-2nd Off CL-Web									12	7.9	7.8	7.7	.1	1.3	.2	2.5									25.0
BL-3rd Off CL-Web									12	7.9	7.6	7.5	.3	3.8	.4	5.1									25.0
BL-4th Off CL-Web									12	7.9	7.6	7.8	.3	3.8	.1	1.3									25.0
BL-5th Off CL-Web									12	7.9	7.7	7.8	.2	2.5	.1	1.3									25.0
BL-6th Off CL-Web									12	7.9	7.6	7.6	.3	3.8	.3	3.8									25.0
BL-7th Off CL-Web									12	7.9	7.7	7.6	.2	2.5	.3	3.8									25.0
BL-8th Off CL-Web									12	7.9	7.6	7.8	.3	3.8	.1	1.3									25.0
BL-1st Off CL-Face									12	7.9	7.5	7.5	.4	5.1	.4	5.1									25.0
BL-2nd Off CL-Face									12	7.9	7.3	7.5	.6	7.6	.4	5.1									25.0
BL-3rd Off CL-Face									12	7.9	7.3	7.5	.6	7.6	.4	5.1									25.0
BL-4th Off CL-Face									12	7.9	7.3	7.5	.6	7.6	.4	5.1									25.0
BL-5th Off CL-Face									12	7.9	7.4	7.3	.5	6.3	.6	7.6									25.0
BL-6th Off CL-Face									12	7.9	7.3	7.7	.6	7.6	.2	2.5									25.0
BL-7th Off CL-Face									12	7.9	7.4	7.7	.5	6.3	.2	2.5									25.0
BL-8th Off CL-Face									12	7.9	7.3	7.6	.6	7.6	.3	3.8									25.0
																									-
																									-
																									-
Operator's Signature								Surveyor's Signature																	
Ross Hunter, John Maxwell								Igor Potey																	

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Report on Thickness Measurement of Longitudinal Members (One, Two or Three Transverse Sections)  
Also Associated Longitudinals in Way of Transverse Structure in Cargo and Ballast Tanks

Page 44 of 112

Ship's Name

IMO Number

8412340

Report Number

HFX 300363

[illegible]

Operator's Signature

Ross Hunter, John Maxwell

Surveyor's Signature

Igor Potey

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Report on Thickness Measurement of Longitudinal Members (One, Two or Three Transverse Sections)  
Also Associated Longitudinals in Way of Transverse Structure in Cargo and Ballast Tanks

Ship's Name		IMO Number										Report Number													
C.C.G.S. Earl Grey		8412340										HFX 300363													
STRUCTURAL MEMBER	FIRST TRANSVERSE SECTION AT FRAME NUMBER								SECOND TRANSVERSE SECTION AT FRAME NUMBER 27								THIRD TRANSVERSE SECTION AT FRAME NUMBER								MAX ALLOW. DIM. %
	ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		
			P	S	mm	%	mm	%			P	S	mm	%	mm	%			P	S	mm	%	mm	%	
IBL-1st Off CL-Web									20	7.9	7.9	8.0	-	-	-	-									25.0
IBL-2nd Off CL-Web									20	7.9	7.9	7.9	-	-	-	-									25.0
IBL-3rd Off CL-Web									20	7.9	7.9	7.8	-	-	.1	1.3									25.0
IBL-4th Off CL-Web									20	7.9	7.8	7.8	.1	1.3	.1	1.3									25.0
IBL-5th Off CL-Web									20	7.9	7.9	7.9	-	-	-	-									25.0
IBL-6th Off CL-Web									20	7.9	7.9	7.9	-	-	-	-									25.0
IBL-7th Off CL-Web									20	7.9	7.8	7.9	.1	1.3	-	-									25.0
IBL-1st Off CL-Face									20	7.9	7.7	7.8	.2	2.5	.1	1.3									25.0
IBL-2nd Off CL-Face									20	7.9	7.7	7.7	.2	2.5	.2	2.5									25.0
IBL-3rd Off CL-Face									20	7.9	7.6	7.8	.3	3.8	.1	1.3									25.0
IBL-4th Off CL-Face									20	7.9	7.7	7.8	.2	2.5	.1	1.3									25.0
IBL-5th Off CL-Face									20	7.9	7.8	7.8	.1	1.3	.1	1.3									25.0
IBL-6th Off CL-Face									20	7.9	7.7	7.9	.2	2.5	-	-									25.0
IBL-7th Off CL-Face									20	7.9	7.8	7.9	.1	1.3	-	-									25.0
																									-
																									-
																									-
																									-
																									-
																									-
Operator's Signature								Surveyor's Signature																	
Ross Hunter, John Maxwell								Igor Potey																	

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Report on Thickness Measurement of Longitudinal Members (One, Two or Three Transverse Sections)  
Also Associated Longitudinals in Way of Transverse Structure in Cargo and Ballast Tanks

Page 46 of 112

Ship's Name

IMO Number

8412340

Report Number

HFX 300363

[illegible]

Operator's Signature

Ross Hunter, John Maxwell

Surveyor's Signature

Igor Potey

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Report on Thickness Measurement of Longitudinal Members (One, Two or Three Transverse Sections)  
Also Associated Longitudinals in Way of Transverse Structure in Cargo and Ballast Tanks

Ship's Name		IMO Number										Report Number														
C.C.G.S. Earl Grey		8412340										HFX 300363														
STRUCTURAL MEMBER	FIRST TRANSVERSE SECTION AT FRAME NUMBER								SECOND TRANSVERSE SECTION AT FRAME NUMBER								THIRD TRANSVERSE SECTION AT FRAME NUMBER 12								MAX ALLOW. DIM. %	
	ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S			
			P	S	mm	%	mm	%			P	S	mm	%	mm	%			P	S	mm	%	mm	%		
1st Off CL LB-TopPl-T																11	12.5	14.0	13.0		-	-		-	-	30.0
1st Off CL LB-TopPl-B																11	12.5	13.0	13.2		-	-		-	-	30.0
1stOffCL LB-LowPl-T																15	12.5	13.4	13.0		-	-		-	-	30.0
1stOffCL LB-LowPl-B																15	12.5	13.3	13.2		-	-		-	-	30.0
2ndOffCL LB-TopPl-T																11	12.5	12.8	12.9		-	-		-	-	30.0
2ndOffCL LB-TopPl-B																11	12.5	12.7	12.7		-	-		-	-	30.0
2ndOffCL LB-LowPl-T																15	12.5	13.5	13.3		-	-		-	-	30.0
2ndOffCL LB-LowPl-B																15	12.5	13.4	13.4		-	-		-	-	30.0
3rdoffCL LB-TopPl-T																11	8.0	8.1	8.0		-	-		-	-	30.0
3rdoffCL LB-TopPl-B																11	8.0	8.2	7.9		-	-		.1	1.2	30.0
3rdoffCL LB-LowPl-T																15	8.0	8.1	7.8		-	-		.2	2.5	30.0
3rdoffCL LB-LowPl-B																15	8.0	8.1	8.1		-	-		-	-	30.0
3rdoffCL LBL-Top-W																18	7.9	7.4	7.5	.5	6.3		.4	5.1	25.0	
3rdoffCL LBL-1st-W																18	7.9	7.1	7.2	.8	10.1		.7	8.9	25.0	
3rdoffCL LBL-2nd-W																18	7.9	7.6	7.4	.3	3.8		.5	6.3	25.0	
3rdoffCL LBL-Top-F																18	7.9	7.3	7.5	.6	7.6		.4	5.1	25.0	
3rdoffCL LBL-1st-F																18	7.9	7.5	7.1	.4	5.1		.8	10.1	25.0	
3rdoffCL LBL-2nd-F																18	7.9	7.8	7.5	.1	1.3		.4	5.1	25.0	
																									-	
Operator's Signature								Surveyor's Signature																		
Ross Hunter, John Maxwell								Igor Potey																		

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Report on Thickness Measurement of Longitudinal Members (One, Two or Three Transverse Sections)  
Also Associated Longitudinals in Way of Transverse Structure in Cargo and Ballast Tanks

Ship's Name		IMO Number										Report Number													
C.C.G.S. Earl Grey		8412340										HFX 300363													
	FIRST TRANSVERSE SECTION AT FRAME NUMBER								SECOND TRANSVERSE SECTION AT FRAME NUMBER								THIRD TRANSVERSE SECTION AT FRAME NUMBER 12								MAX ALLOW. DIM. %
STRUCTURAL MEMBER	ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		ITEM NO.	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		
			P	S	mm	%	mm	%			P	S	mm	%	mm	%			P	S	mm	%	mm	%	
CL Btm. Girder-Web																	13	12.5	13.0	13.0	-	-	-	-	25.0
CL Btm. Girder-Face																	13	19.0	19.5	19.5	-	-	-	-	25.0
BL-1st Off CL																	12	16.0	16.4	16.2	-	-	-	-	25.0
BL-2nd Off CL																	12	16.0	16.4	16.2	-	-	-	-	25.0
BL-3rd Off CL																	12	16.0	16.4	16.1	-	-	-	-	25.0
BL-4th Off CL																	12	16.0	16.4	16.1	-	-	-	-	25.0
BL-5th Off CL																	12	16.0	16.4	16.1	-	-	-	-	25.0
BL-6th Off CL																	12	16.0	16.4	16.1	-	-	-	-	25.0
BL-7th Off CL																	12	16.0		16.4			-	-	25.0
BL-8th Off CL																	12	16.0		16.4			-	-	25.0
BL-9th Off CL																	12	16.0		16.2			-	-	25.0
BL-10th Off CL																	12	16.0		16.4			-	-	25.0
BL-11th Off CL																	12	16.0		16.2			-	-	25.0
BL-12th Off CL																	12	12.5	11.6	11.4	.9	7.2	1.1	8.8	25.0
																									-
																									-
																									-
																									-
																									-
																									-
Operator's Signature								Surveyor's Signature																	
Ross Hunter, John Maxwell								Igor Potey																	

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# REPORT ON THICKNESS MEASUREMENT – TOPSIDE AND BOTTOM AREA ASSESSMENTS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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FIRST TRANSVERSE SECTION AT FRAME NUMBER 44											
TOPSIDE AREAS						BOTTOM AREAS					
PLATING MEMBERS	ORIGINAL THICKNESS		MEASURED THICKNESS		ASSESSMENT	PLATING MEMBERS	ORIGINAL THICKNESS		MEASURED THICKNESS		ASSESSMENT
	P	S	P	S			P	S	P	S	
Stringer Plate Thickness	12.5	12.5	12.1	12.6	% Diminution Port: 2.0	Keel Plate Thickness	50.0	50.0	51.1	50.7	% Diminution Port: -
Total Deck Plate Thickness	12.5	12.5	12.1	12.7		Total Bottom Shell Thickness	-	-	0.0	0.0	
Sheerstrake Thickness	36.5	36.5	36.1	36.2	% Diminution Starboard: -	Total Bilge Thickness					% Diminution Starboard: -
					Mean: 1.0						Mean: -
TOTAL	61.5	61.5	60.3	61.5		TOTAL	50.0	50.0	51.1	50.7	
LONGITUDINAL MEMBERS	ORIGINAL THICKNESS		MEASURED THICKNESS		ASSESSMENT	LONGITUDINAL MEMBERS	ORIGINAL THICKNESS		MEASURED THICKNESS		ASSESSMENT
	P	S	P	S			P	S	P	S	
Total Deck Longitudinal Thickness	47.4	47.4	46.5	46.8	% Diminution Port: 1.4	Total Bottom Longitudinal Thickness					% Diminution Port: -
Total Deck Girder Thickness						Total Bottom Girder Thickness					
Longitudinal Bhd Thickness (Upper Strake)	8.0	8.0	8.1	8.1	% Diminution Starboard: .6	Longitudinal Bhd Thickness (Lower Strake)	19.0	19.0	19.5	19.5	% Diminution Starboard: -
Total Sheerstrake Longitudinal Thickness						Total Bilge Longitudinal Thickness					
Total Deck Longitudinal Thickness - Face	47.4	47.4	46.8	47.3	Mean: 1.0						Mean: -
TOTAL	102.8	102.8	101.4	102.2		TOTAL	19.0	19.0	19.5	19.5	

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT – TOPSIDE AND BOTTOM AREA ASSESSMENTS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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SECOND TRANSVERSE SECTION AT FRAME NUMBER 27											
TOPSIDE AREAS						BOTTOM AREAS					
PLATING MEMBERS	ORIGINAL THICKNESS		MEASURED THICKNESS		ASSESSMENT	PLATING MEMBERS	ORIGINAL THICKNESS		MEASURED THICKNESS		ASSESSMENT
	P	S	P	S			P	S	P	S	
Stringer Plate Thickness	12.5	12.5	12.3	11.7	% Diminution Port:	Keel Plate Thickness	19.0	19.0	18.8	18.8	% Diminution Port:
Total Deck Plate Thickness	48.0	48.0	50.6	51.3	-	Total Bottom Shell Thickness	57.0	57.0	58.0	58.3	-
Sheerstrake Thickness	28.0	28.0	27.8	27.6	% Diminution Starboard:	Total Bilge Thickness	19.0	19.0	19.9	19.5	% Diminution Starboard:
					-						-
					Mean:						Mean:
					-						-
TOTAL	88.5	88.5	90.7	90.6		TOTAL	95.0	95.0	96.7	96.6	
LONGITUDINAL MEMBERS	ORIGINAL THICKNESS		MEASURED THICKNESS		ASSESSMENT	LONGITUDINAL MEMBERS	ORIGINAL THICKNESS		MEASURED THICKNESS		ASSESSMENT
	P	S	P	S			P	S	P	S	
Total Deck Longitudinal Thickness	39.5	39.5	39.2	39.3	% Diminution Port:	Total Bottom Longitudinal Thickness	63.2	63.2	61.3	61.7	% Diminution Port:
Total Deck Girder Thickness	22.0	22.0	22.9	22.5	-	Total Bottom Girder Thickness	63.0	63.0	63.9	63.6	2.6
Longitudinal Bhd Thickness (Upper Strake)	8.0	8.0	7.7	7.7	% Diminution Starboard:	Longitudinal Bhd Thickness (Lower Strake)	9.5	9.5	9.8	9.8	% Diminution Starboard:
Total Sheerstrake Longitudinal Thickness	80.0	80.0	81.8	82.6	-	Total Bilge Longitudinal Thickness					1.8
Total Deck Longitudinal Thickness - Face	39.5	39.5	39.1	39.1	Mean:	Total Bottom Longitudinal Thickness - Face	63.2	63.2	58.8	60.3	Mean:
Total Deck Girder Thickness - Face	38.0	38.0	37.7	37.1	-						2.2
TOTAL	227.0	227.0	228.4	228.3		TOTAL	198.9	198.9	193.8	195.4	

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT – TOPSIDE AND BOTTOM AREA ASSESSMENTS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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THIRD TRANSVERSE SECTION AT FRAME NUMBER 12											
TOPSIDE AREAS						BOTTOM AREAS					
PLATING MEMBERS	ORIGINAL THICKNESS		MEASURED THICKNESS		ASSESSMENT	PLATING MEMBERS	ORIGINAL THICKNESS		MEASURED THICKNESS		ASSESSMENT
	P	S	P	S			P	S	P	S	
Stringer Plate Thickness	12.5	12.5	12.6	12.8	% Diminution Port: 1.4	Keel Plate Thickness	28.0	28.0	28.4	28.5	% Diminution Port: -
Total Deck Plate Thickness	37.5	37.5	35.8	35.3		Total Bottom Shell Thickness	56.0	56.0	57.1	57.4	
Sheerstrake Thickness	28.0	28.0	28.5	28.0	% Diminution Starboard: 2.4	Total Bilge Thickness	28.0	28.0	28.5	29.0	% Diminution Starboard: -
					Mean: 1.9						Mean: -
TOTAL	78.0	78.0	76.9	76.1		TOTAL	112.0	112.0	114.0	114.9	
LONGITUDINAL MEMBERS	ORIGINAL THICKNESS		MEASURED THICKNESS		ASSESSMENT	LONGITUDINAL MEMBERS	ORIGINAL THICKNESS		MEASURED THICKNESS		ASSESSMENT
	P	S	P	S			P	S	P	S	
Total Deck Longitudinal Thickness	9.5	9.5	9.3	9.5	% Diminution Port: .3	Total Bottom Longitudinal Thickness	108.5	188.5	110.0	189.8	% Diminution Port: -
Total Deck Girder Thickness						Total Bottom Girder Thickness	12.5	12.5	13.0	13.0	
Longitudinal Bhd Thickness (Upper Strake)	33.0	33.0	34.5	33.9	% Diminution Starboard: 1.3	Longitudinal Bhd Thickness (Lower Strake)	33.0	33.0	35.0	34.5	% Diminution Starboard: -
Total Sheerstrake Longitudinal Thickness	80.0	80.0	79.6	77.1		Total Bilge Longitudinal Thickness					
Total Deck Longitudinal Thickness - Face	9.5	9.5	8.2	9.8	Mean: .8	Total Bottom Girder Thickness - Face	19.0	19.0	19.5	19.5	Mean: -
TOTAL	132.0	132.0	131.6	130.3		TOTAL	173.0	253.0	177.5	256.8	

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: CL Dk.Girder,CL Btm.Girder,CL LB,Ice Stringers									SKETCH
LOCATION OF STRUCTURE: Forward Void - Fr. 46-49.5									
DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %	
		P	S	mm	%	mm	%		
CL Dk. Girder - Boat Dk. - Web	10.0	10.9	10.9	-	-	-	-	25.0	
CL Dk. Girder - Boat Dk. - Face	16.0	16.4	16.4	-	-	-	-	25.0	
CL Dk. Girder - Main Dk. - Web	19.0	18.7	18.7	.3	1.6	.3	1.6	25.0	
CL Dk. Girder - Main Dk. - Face	19.0	18.9	18.9	.1	.5	.1	.5	25.0	
CL Bottom Girder - Web	19.0	19.3	19.3	-	-	-	-	25.0	
CL Bottom Girder - Face	19.0	19.5	19.5	-	-	-	-	25.0	
CL Longi. Bulkhead - Top	8.0	8.0	8.0	-	-	-	-	30.0	
CL Longi. Bulkhead - Bottom	8.0	8.0	8.0	-	-	-	-	30.0	
Stringer - Top - Web	10.0	10.5	10.5	-	-	-	-	25.0	
Ice Stringer - 1st Below - Web	19.0	18.7	18.7	.3	1.6	.3	1.6	25.0	
Ice Stringer - Lower - Web	19.0	19.0	18.7	-	-	.3	1.6	25.0	
Stringer - Top - Face	9.5	12.6	12.0	-	-	-	-	25.0	
Ice Stringer - 1st Below - Face	19.0	18.8	18.9	.2	1.1	.1	.5	25.0	
Ice Stringer - Lower - Face	19.0	19.1	18.9	-	-	.1	.5	25.0	
								-	
								-	

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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REPORT ON THICKNESS MEASUREMENT OF  
MISCELLANEOUS STRUCTURAL MEMBERS

Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Breast Hooks									SKETCH
LOCATION OF STRUCTURE: Forward Void - Fr. 46-49.5									
DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %	
		P	S	mm	%	mm	%		
Breast Hook - Top - Web	10.0	10.0	10.0	-	-	-	-	25.0	
Breast Hook - Top - Face	12.5	12.7	12.7	-	-	-	-	25.0	
Breast Hook - 1st Below - Web	10.0	10.2	10.2	-	-	-	-	25.0	
Breast Hook - 1st Below - Face	12.5	12.7	12.7	-	-	-	-	25.0	
Breast Hook - Lower - Web	10.0	9.5	9.5	.5	5.0	.5	5.0	25.0	
Breast Hook - Lower - Face	12.5	12.7	12.7	-	-	-	-	25.0	
								-	
								-	
								-	
								-	
								-	
								-	
								-	
								-	
								-	

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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STRUCTURAL MEMBER: Longitudinal Bulkhead Plating

SKETCH

LOCATION OF STRUCTURE: Frame 37-38, 33-34, 31-32

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
F.O. Settling Tank-CL LB-Fr.37-38-Top	8.0		8.0			-	-	30.0
F.O. Settling Tank-CL LB-Fr.37-38-Bottom	8.0		8.0			-	-	30.0
F.O. Settling Tank-1st off CL LB-Fr.37-38-Top	8.0		8.2			-	-	30.0
F.O. Settling Tank-1st off CL LB-Fr.37-38-Bottom	8.0		8.1			-	-	30.0
								-
P&S Sewage Tank-2nd off CL LB-Fr.37-38-Top	8.0	8.0	8.0	-	-	-	-	30.0
P&S Sewage Tank-2nd off CL LB-Fr.37-38-Bottom	8.0	7.9	8.0	.1	1.2	-	-	30.0
								-
#2 Water Ballast Tank-Off CL LB-Fr.33-34-Top	8.0	7.8	7.9	.2	2.5	.1	1.2	30.0
#2 Water Ballast Tank-Off CL LB-Fr.33-34-Bottom	8.0	7.7	7.8	.3	3.8	.2	2.5	30.0
#2 Water Ballast Tank-Off CL Girder-Fr.33-34-Top	10.0	9.7	9.8	.3	3.0	.2	2.0	30.0
#2 Water Ballast Tank-Off CL Girder-Fr.33-34-Bottom	10.0	9.8	9.8	.2	2.0	.2	2.0	30.0
								-
Freshwater Tank-Off CL LB-Fr.31-32-Top Str.-Top	8.0	7.8	7.6	.2	2.5	.4	5.0	30.0
Freshwater Tank-Off CL LB-Fr.31-32-Top Str.-Bottom	8.0	7.8	7.6	.2	2.5	.4	5.0	30.0
Freshwater Tank-Off CL LB-Fr.31-32-1st below-Top	8.0	7.8	7.8	.2	2.5	.2	2.5	30.0

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Longitudinal Bulkhead Plating and Girders

SKETCH

LOCATION OF STRUCTURE: Frame 31-32, 28-30, 29-30

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
Freshwater Tank-Off CL LB-Fr.31-32-1st below-Btm	8.0	7.7	7.8	.3	3.8	.2	2.5	30.0
Freshwater Tank-Off CL LB-Fr.31-32-Lower Str.-Top	10.0	9.8	9.8	.2	2.0	.2	2.0	30.0
Freshwater Tank-Off CL LB-Fr.31-32-Lower Str.-Btm.	10.0	9.8	9.9	.2	2.0	.1	1.0	30.0
								-
Day Service Tank-Inboard LB-Fr.28-30-Forward	10.0	9.7		.3	3.0			30.0
Day Service Tank-Inboard LB-Fr.28-30-Aft	10.0	9.7		.3	3.0			30.0
Day Service Tank-Outboard LB-Fr.28-30-Forward	10.0	9.7		.3	3.0			30.0
Day Service Tank-Outboard LB-Fr.28-30-Aft	10.0	9.7		.3	3.0			30.0
								-
Engine J/W Drains/Oil Waste Tk.-Fr.29-30-CL WTGdr.	12.5	12.4	12.4	.1	.8	.1	.8	30.0
Engine J/W Drains-Fr.29-30-1st off CL NWT Girder	9.5	9.3		.2	2.1			30.0
Engine J/W Drains-Fr.29-30-2nd off CL WT Girder	9.5	9.4		.1	1.1			30.0
Oil Waste Tk.-Fr.29-30-1st off CL NWT Girder	9.5		9.4			.1	1.1	30.0
Oil Waste Tk.-Fr.29-30-2nd off CL WT Girder	9.5		9.3			.2	2.1	30.0
								-
								-

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Longitudinal Bulkhead Plating and Girders

SKETCH

LOCATION OF STRUCTURE: Frame 28-29, 23-24, 21-22, 17-18

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
LubeOil Tk./Fuel Oil Overflow-Fr.28-29-CL WTGdr.	12.5	12.5	12.5	-	-	-	-	30.0
LubeOil Tk.-Fr.28-29-1st off CL NWT Girder	9.5	9.3		.2	2.1			30.0
LubeOil Tk.-Fr.28-29-2nd off CL WT Girder	9.5	9.4		.1	1.1			30.0
Fuel Oil Overflow-Fr.28-29-1st off CL NWT Girder	9.5		9.6			-	-	30.0
Fuel Oil Overflow-Fr.28-29-2nd off CL WT Girder	9.5		9.5			-	-	30.0
								-
Cofferdam-Off CL LB-Fr.23-24-Top	10.0	9.6	9.8	.4	4.0	.2	2.0	30.0
Cofferdam-Off CL LB-Fr.23-24-Bottom	10.0	9.7	9.7	.3	3.0	.3	3.0	30.0
								-
#2 Fuel Oil Tank-Fr.23-24-CL OT Girder	12.5	12.6	12.6	-	-	-	-	30.0
#2 Fuel Oil Tank-Fr.23-24-2nd off CL NWT Girder	18.0		17.7			.3	1.7	30.0
								-
#4 Water Ballast Tank-Fr.21-22-Top	8.0	8.0	8.0	-	-	-	-	30.0
#4 Water Ballast Tank-Fr.21-22-Bottom	8.0	9.5	9.7	-	-	-	-	30.0
#4 Water Ballast Tank-Fr.17-18-Top	9.5	8.6	8.7	.9	9.5	.8	8.4	30.0
#4 Water Ballast Tank-Fr.17-18-Bottom	9.5	9.1	9.2	.4	4.2	.3	3.2	30.0

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

Page 57 of 112

Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Longitudinal Bulkhead Vertical Stiff. and Brackets

SKETCH

LOCATION OF STRUCTURE: Frame 15

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
Shaft Tunnel-1st LB OB of CL-Vert.Stiff.-Web	7.9	7.9	8.6	-	-	-	-	25.0
Shaft Tunnel-1st LB OB of CL-Vert.Stiff.-Face	7.9	7.8	7.6	.1	1.3	.3	3.8	25.0
Shaft Tunnel-1st LB OB of CL-Upper Bracket-Web	8.0	9.0	8.5	-	-	-	-	25.0
Shaft Tunnel-1st LB OB of CL-Upper Bracket-Face	8.0	8.4	8.6	-	-	-	-	25.0
Shaft Tunnel-1st LB OB of CL-Lower Bracket-Web	12.5	12.8	12.9	-	-	-	-	25.0
Shaft Tunnel-1st LB OB of CL-Lower Bracket-Face	12.5	12.8	12.9	-	-	-	-	25.0
Shaft Tunnel-2nd LB OB of CL-Upper Bracket-Web	8.0	8.8	8.8	-	-	-	-	25.0
Shaft Tunnel-2nd LB OB of CL-Upper Bracket-Face	8.0	8.8	8.8	-	-	-	-	25.0
Shaft Tunnel-2nd LB OB of CL-Lower Bracket-Web	12.5	12.8	12.9	-	-	-	-	25.0
Shaft Tunnel-2nd LB OB of CL-Lower Bracket-Face	12.5	12.8	12.9	-	-	-	-	25.0
#3 F.O.Tk.Stbd-2nd LB OB of CL-Vert.Stiff.-Web	9.5		9.5			-	-	25.0
#3 F.O.Tk.Stbd-2nd LB OB of CL-Vert.Stiff.-Face	9.5		9.5			-	-	25.0
#3 F.O.Tk.Stbd-2nd LB OB of CL-Lower Bracket-Web	10.0		10.3			-	-	25.0
#3 F.O.Tk.Stbd-3rd LB OB of CL-Lower Bracket-Web	12.5		12.7			-	-	25.0
								-
								-

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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STRUCTURAL MEMBER: Longitudinal Bulkhead Plating and Vert. Stiffeners

SKETCH

LOCATION OF STRUCTURE: Frame 7-8, 5.5-9.5

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
#4 Fuel Tank-1st off CL LB-Fr.7-8-Top Plate	8.0	8.1		-	-			30.0
#4 Fuel Tank-1st off CL LB-Fr.7-8-Lower Plate	12.5	12.9		-	-			30.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.9.5-Web	9.5	9.5		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.9-Web	9.5	9.5		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.8.5-Web	9.5	9.6		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.8-Web	9.5	9.6		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.7.5-Web	9.5	9.5		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.7-Web	9.5	9.6		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.6.5-Web	9.5	9.5		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.6-Web	9.5	9.7		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.5.5-Web	9.5	9.5		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.9.5-Face	9.5	9.3		.2	2.1			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.9-Face	9.5	9.2		.3	3.2			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.8.5-Face	9.5	9.5		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.8-Face	9.5	9.5		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.7.5-Face	9.5	9.5		-	-			25.0

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

Page 59 of 112

Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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STRUCTURAL MEMBER: Longitudinal Bulkhead Pl.& Btm.Girders

SKETCH

LOCATION OF STRUCTURE: Frame 7-8

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.7-Face	9.5	9.5		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.6.5-Face	9.5	9.6		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.6-Face	9.5	9.5		-	-			25.0
#4 Fuel Tank-1st off CL LB Vert.Stiff.-Fr.5.5-Face	9.5	9.7		-	-			25.0
#4 Fuel Tank-2nd off CL LB-Fr.7-8-Top Plate	8.0	8.9		-	-			30.0
#4 Fuel Tank-2nd off CL LB-Fr.7-8-Lower Plate	12.5	23.6		-	-			30.0
#4 Fuel Tank-2nd off CL Btm.Gdr.	16.0	15.6		.4	2.5			25.0
#4 Fuel Tank-3rd off CL Btm.Gdr.-Web	16.0	16.0		-	-			25.0
#4 Fuel Tank-4th off CL Btm.Gdr.	19.0	19.6		-	-			25.0
#4 Fuel Tank-5th off CL Btm.Gdr.-Web	16.0	16.0		-	-			25.0
#4 Fuel Tank-6th off CL Btm.Gdr.-Web	32.0	33.0		-	-			25.0
#4 Fuel Tank-7th off CL Btm.Gdr.-Web	16.0	16.9		-	-			25.0
#4 Fuel Tank-3rd off CL Btm.Gdr.-Face	19.0	19.3		-	-			25.0
#4 Fuel Tank-5th off CL Btm.Gdr.-Face	19.0	19.3		-	-			25.0
#4 Fuel Tank-6th off CL Btm.Gdr.-Face	19.0	20.9		-	-			25.0
#4 Fuel Tank-7th off CL Btm.Gdr.-Face	19.0	19.0		-	-			25.0

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

Page 60 of 112

Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Longitudinal Bulkhead Plating and Btm.Girders						SKETCH			
LOCATION OF STRUCTURE: Frame 7-8, Port									
DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %	
		P	S	mm	%	mm	%		
#6 WB Tank Port-2nd off CL LB-Fr.7-8-Top Pl.	8.0	8.9		-	-			30.0	
#6 WB Tank Port-2nd off CL LB-Fr.7-8-Lower Pl.	12.5	23.6		-	-			30.0	
#6 WB Tank Port-8th off CL Btm.Gdr.	19.0	19.8		-	-			25.0	
#6 WB Tank Port-9th off CL Btm.Gdr.	19.0	19.8		-	-			25.0	
#6 WB Tank Port-10th off CL Btm.Gdr.	19.0	19.8		-	-			25.0	
#6 WB Tank Port-11th off CL Btm.Gdr.	19.0	19.8		-	-			25.0	
#6 WB Tank Port-12th off CL Btm.Gdr.	19.0	19.8		-	-			25.0	
#6 WB Tank Port-13th off CL Btm.Gdr.	19.0	19.8		-	-			25.0	
								-	
								-	
								-	
								-	
								-	
								-	
								-	
								-	

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

Page 61 of 112

Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Longitudinal Bulkhead Plating and Btm.Girders

SKETCH

LOCATION OF STRUCTURE: Frame 9-10, 5-6, 0-1

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
#6 WB Tank Stbd-2nd off CL LB-Fr.9-10-Top Pl.	8.0		8.2			-	-	30.0
#6 WB Tank Stbd-2nd off CL LB-Fr.9-10-Lower Pl.	12.5		30.3			-	-	30.0
#6 WB Tank Stbd-2nd off CL LB-Fr.5-6-Top Pl.	8.0		8.7			-	-	30.0
#6 WB Tank Stbd-2nd off CL LB-Fr.5-6-Lower Pl.	12.5		12.8			-	-	30.0
#6 WB Tank Stbd-8th off CL Btm.Gdr.	19.0		19.6			-	-	25.0
#6 WB Tank Stbd-9th off CL Btm.Gdr.	19.0		19.7			-	-	25.0
#6 WB Tank Stbd-10th off CL Btm.Gdr.	19.0		19.7			-	-	25.0
#6 WB Tank Stbd-11th off CL Btm.Gdr.	19.0		19.7			-	-	25.0
#6 WB Tank Stbd-12th off CL Btm.Gdr.	19.0		19.7			-	-	25.0
#6 WB Tank Stbd-13th off CL Btm.Gdr.	19.0		19.7			-	-	25.0
								-
Aft Void P&S-1st off CL NWT LB-Top	32.0	32.3	32.4	-	-	-	-	30.0
Aft Void P&S-1st off CL NWT LB-Bottom	32.0	32.8	32.5	-	-	-	-	30.0
Aft Void P&S-2nd off CL NWT LB-Top	32.0	32.4	32.3	-	-	-	-	30.0
Aft Void P&S-2nd off CL NWT LB-Bottom	32.0	32.4	32.3	-	-	-	-	30.0
								-

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

Page 62 of 112

Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

STRUCTURAL MEMBER: Off Centreline Bottom Girders									SKETCH
LOCATION OF STRUCTURE: Frame 0-1									
DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %	
		P	S	mm	%	mm	%		
Aft Void P&S-Off CL Btm. Gdr.-1st OB of NWT LB-W	16.0	16.2	15.7	-	-	.3	1.9	25.0	
Aft Void P&S-Off CL Btm. Gdr.-2nd OB of NWT LB-W	16.0	16.1	16.3	-	-	-	-	25.0	
Aft Void P&S-Off CL Btm. Gdr.-3rd OB of NWT LB-W	16.0	16.4	16.5	-	-	-	-	25.0	
Aft Void P&S-Off CL Btm. Gdr.-4th OB of NWT LB-W	16.0	16.3	16.3	-	-	-	-	25.0	
Aft Void P&S-Off CL Btm. Gdr.-5th OB of NWT LB-W	16.0	16.4	16.1	-	-	-	-	25.0	
Aft Void P&S-Off CL Btm. Gdr.-6th OB of NWT LB-W	16.0	16.6	16.5	-	-	-	-	25.0	
Aft Void P&S-Off CL Btm. Gdr.-7th OB of NWT LB-W	16.0	16.4	15.8	-	-	.2	1.2	25.0	
Aft Void P&S-Off CL Btm.Gdr.-1st OB of NWT LB-Fac	19.0	19.4	19.3	-	-	-	-	25.0	
Aft Void P&S-Off CL Btm.Gdr.-2nd OB of NWT LB-Fa	19.0	19.3	19.3	-	-	-	-	25.0	
Aft Void P&S-Off CL Btm.Gdr.-3rd OB of NWT LB-Fac	19.0	19.3	19.3	-	-	-	-	25.0	
Aft Void P&S-Off CL Btm.Gdr.-4th OB of NWT LB-Fac	19.0	18.9	19.3	.1	.5	-	-	25.0	
Aft Void P&S-Off CL Btm.Gdr.-5th OB of NWT LB-Fac	19.0	19.2	19.3	-	-	-	-	25.0	
Aft Void P&S-Off CL Btm.Gdr.-6th OB of NWT LB-Fac	19.0	19.3	19.3	-	-	-	-	25.0	
Aft Void P&S-Off CL Btm.Gdr.-7th OB of NWT LB-Fac	19.0	19.3	19.3	-	-	-	-	25.0	
								-	
								-	

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF ALL SIDE SHELL PLATING

Page 63 of 112

Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363							
STRAKE POSITION Sheerstrake Plating-Fr. 0-50																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING						MEAN DIMINUTION %		MAX ALLOW. DIM. %
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S				
			P	S	mm	%	mm	%	P	S	mm	%	mm	%	P	S	
12th forward																	-
11th																	-
10th																	-
9th																	-
8th																	-
7th																	-
6th																	-
5th																	30.0
4th		36.5	36.7	36.6	-	-	-	-	34.9	36.1	1.6	4.4	.4	1.1	2.2	.5	30.0
3rd		36.5	35.2	36.8	1.3	3.6	-	-	35.4	36.7	1.1	3.0	-	-	3.3	-	30.0
2nd		36.5	35.7	36.8	.8	2.2	-	-	37.0	36.8	-	-	-	-	1.1	-	30.0
1st		29.0	29.9	29.1	-	-	-	-	29.7	29.2	-	-	-	-	-	-	30.0
Amidships		28.0	28.3	27.7	-	-	.3	1.1	28.2	28.0	-	-	-	-	-	.5	30.0
1st aft		28.0	29.2	28.7	-	-	-	-	28.8	28.0	-	-	-	-	-	-	30.0
2nd		28.0	26.8	28.1	1.2	4.3	-	-	26.7	27.4	1.3	4.6	.6	2.1	4.5	1.1	30.0
3rd		32.0	31.8	32.3	.2	.6	-	-	30.5	28.5	1.5	4.7	3.5	10.9	2.7	5.5	30.0
4th		32.0	30.5	32.0	1.5	4.7	-	-	32.6	32.2	-	-	-	-	2.3	-	30.0
5th	Transom	32.0	31.2	31.2	.8	2.5	.8	2.5	32.4	32.7	-	-	-	-	1.2	1.2	30.0
6th																	-
7th																	-
8th																	-
9th																	-
10th																	-
11th																	-
12th																	-

Operator's Signature Ross Hunter, John Maxwell					Surveyor's Signature Igor Potey									
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# REPORT ON THICKNESS MEASUREMENT OF ALL SIDE SHELL PLATING

Page 64 of 112

Ship's Name C.C.G.S. Earl Grey			IMO Number 8412340						Report Number: HFX 300363								
STRAKE POSITION 1st Below Sheerstrake Plating-Fr. 0-48																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING						MEAN DIMINUTION %		MAX ALLOW. DIM. %
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S		P	S	
			P	S	mm	%	mm	%	P	S	mm	%	mm	%			
12th forward																	-
11th																	-
10th																	-
9th																	-
8th																	-
7th																	-
6th																	-
5th																	-
4th		36.5	35.5	36.5	1.0	2.7	-	-	35.7	36.2	.8	2.2	.3	.8	2.5	.4	30.0
3rd		36.5	36.5	36.7	-	-	-	-	36.2	36.2	.3	.8	.3	.8	.4	.4	30.0
2nd		36.5	36.6	37.0	-	-	-	-	37.1	36.4	-	-	.1	.3	-	.1	30.0
1st		29.0	29.3	29.2	-	-	-	-	29.4	29.4	-	-	-	-	-	-	30.0
Amidships		28.0	27.0	27.8	1.0	3.6	.2	.7	28.4	28.1	-	-	-	-	1.8	.4	30.0
1st aft		28.0	28.8	28.7	-	-	-	-	28.0	28.4	-	-	-	-	-	-	30.0
2nd		28.0	28.4	28.4	-	-	-	-	27.7	27.9	.3	1.1	.1	.4	.5	.2	30.0
3rd		32.0	31.9	31.7	.1	.3	.3	.9	31.9	31.7	.1	.3	.3	.9	.3	.9	30.0
4th		32.0	32.6		-	-			31.6		.4	1.2			.6		30.0
5th		32.0	31.0		1.0	3.1			31.0		1.0	3.1			3.1		30.0
6th		32.0	31.4	31.4	.6	1.9	.6	1.9	31.4	31.4	.6	1.9	.6	1.9	1.9	1.9	30.0
7th		32.0	32.6	31.4	-	-	.6	1.9	32.6	31.4	-	-	.6	1.9	-	1.9	30.0
8th																	-
9th																	-
10th																	-
11th																	-
12th																	-
Operator's Signature  Ross Hunter, John Maxwell			Surveyor's Signature  Igor Potey														

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# REPORT ON THICKNESS MEASUREMENT OF ALL SIDE SHELL PLATING

Page 65 of 112

Ship's Name C.C.G.S. Earl Grey					IMO Number 8412340					Report Number: HFX 300363							
STRAKE POSITION 2nd Below Sheerstrake Plating-Fr. 0-46																	
PLATE POSITION	NO. OR LETTER	ORG. THK. mm	FORWARD READING						AFT READING				MEAN DIMINUTION %		MAX ALLOW. DIM. %		
			GAUGED		DIMINUTION P		DIMINUTION S		GAUGED		DIMINUTION P		DIMINUTION S				
			P	S	mm	%	mm	%	P	S	mm	%	mm	%		P	S
12th forward																-	
11th																-	
10th																-	
9th																-	
8th																-	
7th																-	
6th																-	
5th																-	
4th																-	
3rd																-	
2nd																-	
1st		32.0	31.4	32.1	.6	1.9	-	-	31.6	32.5	.4	1.2	-	-	1.6	-	30.0
Amidships		22.0	21.4	21.4	.6	2.7	.6	2.7	21.7	21.3	.3	1.4	.7	3.2	2.0	3.0	30.0
1st aft		22.0	22.2	22.0	-	-	-	-	22.0	21.7	-	-	.3	1.4	-	.7	30.0
2nd		28.0	28.3	28.0	-	-	-	-	28.3	28.0	-	-	-	-	-	-	30.0
3rd		32.0	32.0	33.0	-	-	-	-	32.3	33.5	-	-	-	-	-	-	30.0
4th																	-
5th																	-
6th																	-
7th																	-
8th																	-
9th																	-
10th																	-
11th																	-
12th																	-
Operator's Signature Ross Hunter, John Maxwell					Surveyor's Signature Igor Potey												

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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STRUCTURAL MEMBER: Side Shell Longitudinal									SKETCH
LOCATION OF STRUCTURE: Frame 22-23 ,17-18									
DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %	
		P	S	mm	%	mm	%		
Cofferdam-SS Longi.-Fr.22-23-Top	16.0	16.5	15.9	-	-	.1	.6	25.0	
Cofferdam-SS Longi.-Fr.22-23-1st below	16.0	16.4	16.5	-	-	-	-	25.0	
Cofferdam-SS Longi.-Fr.22-23-8th below	16.0	16.4	16.2	-	-	-	-	25.0	
Cofferdam-SS Longi.-Fr.22-23-Lower	16.0	16.1	16.1	-	-	-	-	25.0	
#4 WB Tank-SS Longi.-Fr.17-18-Top	16.0	14.6	16.5	1.4	8.7	-	-	25.0	
#4 WB Tank-SS Longi.-Fr.17-18-1st below	16.0	14.9	16.4	1.1	6.9	-	-	25.0	
#4 WB Tank-SS Longi.-Fr.17-18-13th below	16.0	15.2	15.9	.8	5.0	.1	.6	25.0	
#4 WB Tank-SS Longi.-Fr.17-18-Lower	16.0	15.9	15.9	.1	.6	.1	.6	25.0	
								-	
								-	
								-	
								-	
								-	
								-	
								-	
								-	

Operator's Signature	Surveyor's Signature
Ross Hunter, John Maxwell	Igor Potey

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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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STRUCTURAL MEMBER: Hatch Covers and Coamings

SKETCH

LOCATION OF STRUCTURE: Forecastle Deck

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
Hatch Cover-Starboard-Fr.49-49.5-Forward	6.4		6.1			.3	4.7	30.0
Hatch Cover-Starboard-Fr.49-49.5-Aft	6.4		6.1			.3	4.7	30.0
Hatch Coaming-Starboard-Fr.49-49.5-Forward	9.5		9.5			-	-	30.0
Hatch Coaming-Starboard-Fr.49-49.5-Aft	9.5		9.4			.1	1.1	30.0
Hatch Coaming-Starboard-Fr.49-49.5-Inboard	9.5		9.4			.1	1.1	30.0
Hatch Coaming-Starboard-Fr.49-49.5-Outboard	9.5		9.6			-	-	30.0
								-
Hatch Cover-Starboard-Fr.43.5-44-Aft	7.9		7.5			.4	5.1	30.0
Hatch Cover-Starboard-Fr.43.5-44-Forward	7.9		7.5			.4	5.1	30.0
Hatch Coaming-Starboard-Fr.43.5-44-Forward	11.0		11.2			-	-	30.0
Hatch Coaming-Starboard-Fr.43.5-44-Aft	11.0		10.8			.2	1.8	30.0
Hatch Coaming-Starboard-Fr.43.5-44-Inboard	11.0		11.2			-	-	30.0
Hatch Coaming-Starboard-Fr.43.5-44-Outboard	11.0		11.3			-	-	30.0
								-
								-
								-

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Ross Hunter, John Maxwell	Igor Potey

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

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Operator's Signature	Surveyor's Signature	
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# REPORT ON THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL MEMBERS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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STRUCTURAL MEMBER: Hatch Covers and Coamings

SKETCH

LOCATION OF STRUCTURE: Main Deck

DESCRIPTION	ORG. THK.	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
Hatch Cover-Port-Fr.14-15.5-Forward	12.7	12.9		-	-			30.0
Hatch Cover-Port-Fr.14-15.5-Aft	12.7	12.8		-	-			30.0
Hatch Coaming-Port-Fr.14-15.5-Forward	11.0	11.7		-	-			30.0
Hatch Coaming-Port-Fr.14-15.5-Aft	11.0	11.4		-	-			30.0
Hatch Coaming-Port-Fr.14-15.5-Inboard	11.0	11.4		-	-			30.0
Hatch Coaming-Port-Fr.14-15.5-Outboard	11.0	11.9		-	-			30.0
								-
Hatch Cover-Port-Fr.4-4.5-Forward	6.4	6.1		.3	4.7			30.0
Hatch Cover-Port-Fr.4-4.5-Aft	6.4	6.1		.3	4.7			30.0
Hatch Coaming-Port-Fr.4-4.5-Forward	9.5	9.5		-	-			30.0
Hatch Coaming-Port-Fr.4-4.5-Aft	9.5	9.5		-	-			30.0
Hatch Coaming-Port-Fr.4-4.5-Inboard	9.5	9.5		-	-			30.0
Hatch Coaming-Port-Fr.4-4.5-Outboard	9.5	9.5		-	-			30.0
								-
								-
								-

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN THE CARGO OIL AND WATER BALLAST TANKS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363				
TANK DESCRIPTION: Forward Void									
LOCATION OF STRUCTURE: Frames 46-49.5									
STRUCTURAL MEMBER	ITEM	ORIGINAL THICKNESS	GAUGED		DIMINUTION		DIMINUTION		MAX ALLOW. DIM. %
		mm	P	S	mm	P %	S %		
Forward Void - Web Frame - Fr. 48 - Web		16.0	15.7	15.9	.3	1.9	.1	.6	25.0
Forward Void - Web Frame - Fr. 48 - Face		19.0	19.3	19.2	-	-	-	-	25.0
Forward Void - Floor - Fr.47 - IB		19.0	19.4	19.6	-	-	-	-	25.0
Forward Void - Floor - Fr.47 - OB		19.0	19.0	19.7	-	-	-	-	25.0
Forward Void-Floor Vert.Stiff.-Fr.47-IB-Web		7.9	7.9	7.6	-	-	.3	3.8	25.0
Forward Void-Floor Vert.Stiff.-Fr.47-OB-Web		7.9	7.9	7.6	-	-	.3	3.8	25.0
Forward Void-Floor Vert.Stiff.-Fr.47-IB-Face		7.9	7.8	7.5	.1	1.3	.4	5.1	25.0
Forward Void-Floor Vert.Stiff.-Fr.47-OB-Face		7.9	8.1	8.2	-	-	-	-	25.0
Vertical Stiffener Deckhead Bracket - Inboard		10.0	10.1	10.8	-	-	-	-	25.0
Vertical Stiffener Deckhead Bracket - Outboard		10.0	10.6	10.8	-	-	-	-	25.0
									-
									-
									-
									-
									-
									-

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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## Page 71 of 112

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# REPORT ON THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN THE CARGO OIL AND WATER BALLAST TANKS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363				
TANK DESCRIPTION: Engine Room Double Bottom - Transverse Floors									
LOCATION OF STRUCTURE: Frame 30, 29, 28, 27, 25									
STRUCTURAL MEMBER	ITEM	ORIGINAL THICKNESS	GAUGED		DIMINUTION		DIMINUTION		MAX ALLOW. DIM. %
		mm	P	S	mm	P %	S mm	%	
Engine JW Drains Port/Oil Waste Tank Stbd-Fr.30-IB	33	12.5	12.4	13.3	.1	.8	-	-	25.0
Engine JW Drains Port/Oil Waste Tank Stbd-Fr.30-OB	33	12.5	13.2	13.2	-	-	-	-	25.0
Engine JW Drains Port/Oil Waste Tank Stbd-Fr.29-IB	33	12.5	13.2	13.2	-	-	-	-	25.0
Engine JW Drains Port/Oil Waste Tank Stbd-Fr.29-OB	33	12.5	13.1	13.4	-	-	-	-	25.0
Lube Oil Tank Port/Fuel Oil Overflow Stbd-Fr.28-IB	33	12.5	13.0	13.4	-	-	-	-	25.0
Lube Oil Tank Port/Fuel Oil Overflow Stbd-Fr.28-OB	33	12.5	12.8	13.5	-	-	-	-	25.0
#3 Water Ballast Tank-NWT-Fr.28-IB	33	9.0	9.2	9.1	-	-	-	-	25.0
#3 Water Ballast Tank-NWT-Fr.28-OB	33	9.0	9.2	9.2	-	-	-	-	25.0
Waste Oil Tank Port/Dirty Oil Tank Stbd-Fr.27-IB	33	10.0	10.2	10.0	-	-	-	-	25.0
Waste Oil Tank Port/Dirty Oil Tank Stbd-Fr.27-OB	33	10.0	10.4	9.8	-	-	.2	2.0	25.0
#3 Water Ballast Tank-Fr.27-IB	33	10.0	10.3	10.0	-	-	-	-	25.0
#3 Water Ballast Tank-Fr.27-OB	33	12.5	13.3	13.1	-	-	-	-	25.0
#2 Fuel Oil Tank-Fr.25-IB	33	10.0		9.9			.1	1.0	25.0
#2 Fuel Oil Tank-Fr.25-OB	33	10.0		9.7			.3	3.0	25.0
									-
									-
Operator's Signature		Surveyor's Signature							
Ross Hunter, John Maxwell		Igor Potey							

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# REPORT ON THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN THE CARGO OIL AND WATER BALLAST TANKS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363				
TANK DESCRIPTION: #2 Fuel Oil Tank Starboard									
LOCATION OF STRUCTURE: Frame 17-24									
STRUCTURAL MEMBER	ITEM	ORIGINAL THICKNESS	GAUGED		DIMINUTION		DIMINUTION		MAX ALLOW. DIM. %
		mm	P	S	mm	P %	S %		
D.B.Floor-Fr.22	33	12.5		13.0			-	-	25.0
D.B.Floor-Fr.20	33	12.5		12.9			-	-	25.0
D.B.Floor-Fr.17	33	12.5		13.3			-	-	25.0
D.B.Floor-Vertical Stiffener-Fr.24-Web		7.9		8.0			-	-	25.0
D.B.Floor-Vertical Stiffener-Fr.24-Face		7.9		7.9			-	-	25.0
D.B.Floor-Vertical Stiffener-Fr.23-Web		7.9		7.9			-	-	25.0
D.B.Floor-Vertical Stiffener-Fr.23-Face		7.9		7.9			-	-	25.0
Bottom Girder-1st OB-Vertical Stiff.-Fr.23.5-Web		7.9		8.0			-	-	25.0
Bottom Girder-1st OB-Vertical Stiff.-Fr.23.5-Face		7.9		7.8			.1	1.3	25.0
Bottom Girder-2nd OB-Vertical Stiff.-Fr.23.5-Web		7.9		7.8			.1	1.3	25.0
Bottom Girder-2nd OB-Vertical Stiff.-Fr.23.5-Face		7.9		7.9			-	-	25.0
D.B.Floor-Vertical Stiffener-Fr.21-Web		7.9		8.0			-	-	25.0
D.B.Floor-Vertical Stiffener-Fr.21-Face		7.9		7.9			-	-	25.0
D.B.Floor-Vertical Stiffener-Fr.20-Web		7.9		8.1			-	-	25.0
D.B.Floor-Vertical Stiffener-Fr.20-Face		7.9		7.8			.1	1.3	25.0
Bottom Girder-1st OB-Vertical Stiff.-Fr.20.5-Web		7.9		8.0			-	-	25.0
Operator's Signature		Surveyor's Signature							
Ross Hunter, John Maxwell		Igor Potey							

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**REPORT ON THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS  
IN THE CARGO OIL AND WATER BALLAST TANKS**

Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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TANK DESCRIPTION: #2 Fuel Oil Tank Starboard

LOCATION OF STRUCTURE: Frame 20.5

STRUCTURAL MEMBER	ITEM	ORIGINAL THICKNESS	GAUGED		DIMINUTION		DIMINUTION		MAX ALLOW. DIM. %
		mm	P	S	mm	%	mm	%	
Bottom Girder-1st OB-Vertical Stiff.-Fr.20.5-Face		7.9		8.0			-	-	25.0
Bottom Girder-2nd OB-Vertical Stiff.-Fr.20.5-Web		7.9		7.9			-	-	25.0
Bottom Girder-2nd OB-Vertical Stiff.-Fr.20.5-Face		7.9		8.0			-	-	25.0
									-
									-
									-
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Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN THE CARGO OIL AND WATER BALLAST TANKS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363				
TANK DESCRIPTION: #3 Fuel Oil Tank Stbd. & Centre/P&S Shaft Tunnel									
LOCATION OF STRUCTURE: Frame 15									
STRUCTURAL MEMBER	ITEM	ORIGINAL THICKNESS	GAUGED		DIMINUTION		DIMINUTION		MAX ALLOW. DIM. %
		mm	P	S	mm	P %	S %		
#3 Fuel Tank Centre-Bottom Web Frame-Fr.15-Web		12.5	13.0	13.0	-	-	-	-	25.0
#3 Fuel Tank Centre-Bottom Web Frame-Fr.15-Face		15.9	16.0	16.0	-	-	-	-	25.0
P&S Shaft Tunnel-Bottom Web Frame-Fr.15-Web		12.5	13.0	13.2	-	-	-	-	25.0
P&S Shaft Tunnel-Bottom Web Frame-Fr.15-Face		15.9	16.0	16.1	-	-	-	-	25.0
P&S Shaft Tunnel-Deck Transverse-Fr.15-Web		8.0	8.8	8.2	-	-	-	-	25.0
P&S Shaft Tunnel-Deck Transverse-Fr.15-Face		12.7	12.8	12.6	-	-	.1	.8	25.0
#3 Fuel Tank Starboard-Bottom Web Frame-Fr.15-Web		12.5		13.5			-	-	25.0
#3 Fuel Tank Starboard-Bottom Web Frame-Fr.15-Face		15.9		16.2			-	-	25.0
									-
									-
									-
									-
									-
									-
									-
									-
									-

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN THE CARGO OIL AND WATER BALLAST TANKS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363			
TANK DESCRIPTION: #4 Fuel Oil Tank Port								
LOCATION OF STRUCTURE: Frame 6-9								
STRUCTURAL MEMBER	ITEM	ORIGINAL THICKNESS		GAUGED		DIMINUTION		MAX ALLOW. DIM. %
		mm	P	S	P	%	S	
Bottom Shell Web Frame-Fr.6-Web		16.0	16.2		-	-		25.0
Bottom Shell Web Frame-Fr.6-Face		15.9	19.2		-	-		25.0
Bottom Shell Web Frame-Fr.7-Web		16.0	16.0		-	-		25.0
Bottom Shell Web Frame-Fr.7-Face		15.9	19.2		-	-		25.0
Bottom Shell Web Frame-Fr.8-Web		16.0	16.0		-	-		25.0
Bottom Shell Web Frame-Fr.8-Face		15.9	19.0		-	-		25.0
Bottom Shell Web Frame-Fr.9-Web		16.0	16.0		-	-		25.0
Bottom Shell Web Frame-Fr.9-Face		15.9	18.0		-	-		25.0
								-
								-
								-
								-
								-
								-
								-
								-
								-

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN THE CARGO OIL AND WATER BALLAST TANKS

Page 78 of 112

Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363						
TANK DESCRIPTION: #6 Water Ballast Tank Port & Starboard											
LOCATION OF STRUCTURE: Frame 5-10, 750-1250mm up from the turn of bilge											
STRUCTURAL MEMBER	ITEM	ORIGINAL THICKNESS			GAUGED		DIMINUTION		DIMINUTION		MAX ALLOW. DIM. %
		mm	P	S	mm	P	%	mm	S	%	
Intermediate Side Shell Brackets-Fr.5.25		19.0	19.8	19.9	-	-	-	-	-	25.0	
Intermediate Side Shell Brackets-Fr.5.5		19.0	19.8	19.9	-	-	-	-	-	25.0	
Intermediate Side Shell Brackets-Fr.5.75		19.0	19.9	19.8	-	-	-	-	-	25.0	
Side Shell Web Frame-Fr.6-Web		16.0	16.7	16.6	-	-	-	-	-	25.0	
Side Shell Web Frame-Fr.6-Face		15.9	19.0	19.0	-	-	-	-	-	25.0	
Intermediate Side Shell Brackets-Fr.6.25		19.0	19.9	19.8	-	-	-	-	-	25.0	
Intermediate Side Shell Brackets-Fr.6.5		19.0	19.7	19.7	-	-	-	-	-	25.0	
Intermediate Side Shell Brackets-Fr.6.75		19.0	19.7	19.9	-	-	-	-	-	25.0	
Side Shell Web Frame-Fr.7-Web		16.0	16.7	16.6	-	-	-	-	-	25.0	
Side Shell Web Frame-Fr.7-Face		15.9	19.2	19.0	-	-	-	-	-	25.0	
Intermediate Side Shell Brackets-Fr.7.25		19.0	19.6	18.8	-	-	.2	1.1	25.0		
Intermediate Side Shell Brackets-Fr.7.5		19.0	19.5	19.0	-	-	-	-	25.0		
Intermediate Side Shell Brackets-Fr.7.75		19.0	19.1	19.5	-	-	-	-	25.0		
Side Shell Web Frame-Fr.8-Web		16.0	16.2	16.9	-	-	-	-	25.0		
Side Shell Web Frame-Fr.8-Face		15.9	19.0	18.8	-	-	-	-	25.0		
Intermediate Side Shell Brackets-Fr.8.25		19.0	19.6	19.6	-	-	-	-	25.0		
Operator's Signature		Surveyor's Signature									
Ross Hunter, John Maxwell		Igor Potey									

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# REPORT ON THICKNESS MEASUREMENT OF W.T./O.T. TRANSVERSE BULKHEADS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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TANK/HOLD DESCRIPTION: Forward Void

LOCATION OF STRUCTURE: Aft Transverse NT Bulkhead, FRAME NUMBER: 47

STRUCTURAL COMPONENT (PLATING/STIFFENER)	ORIGINAL THICKNESS mm	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
Transverse NT Bulkhead - Inboard Plate - Inboard	8.0	8.0	8.0	-	-	-	-	30.0
Transverse NT Bulkhead - Inboard Plate - Outboard	8.0	8.0	8.1	-	-	-	-	30.0
Transverse NT Bulkhead - Outboard Plate - Inboard	12.5	12.7	12.6	-	-	-	-	30.0
Transverse NT Bulkhead - Outboard Plate - Outboard	12.5	12.8	12.9	-	-	-	-	30.0
Transverse Bhd Vert.Stiff.-1st OB of CL - Web	7.9	7.7	7.3	.2	2.5	.6	7.6	25.0
Transverse Bhd Vert.Stiff.-2nd OB of CL - Web	7.9	7.5	7.6	.4	5.1	.3	3.8	25.0
Transverse Bhd Vert.Stiff.-3rd OB of CL - Web	7.9	8.0	7.5	-	-	.4	5.1	25.0
Transverse Bhd Vert.Stiff.-1st OB of CL - Face	7.9	7.8	7.7	.1	1.3	.2	2.5	25.0
Transverse Bhd Vert.Stiff.-2nd OB of CL - Face	7.9	7.8	7.8	.1	1.3	.1	1.3	25.0
Transverse Bhd Vert.Stiff.-3rd OB of CL - Face	7.9	7.9	7.7	-	-	.2	2.5	25.0
								-
								-
								-
								-
								-
								-

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

TANK/HOLD DESCRIPTION: Forward Void
LOCATION OF STRUCTURE: Collision Bulkhead, FRAME NUMBER: 46

[illegible]

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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TANK/HOLD DESCRIPTION: No. 1 Centre Water Ballast Tank
LOCATION OF STRUCTURE: Aft Transverse Bulkhead, FRAME NUMBER: 44

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

TANK/HOLD DESCRIPTION: Port And Stbd. Sewage Tanks

LOCATION OF STRUCTURE: Forward Transverse Bulkhead, FRAME NUMBER: 39

[illegible]

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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TANK/HOLD DESCRIPTION: F.O. Settling Tank
LOCATION OF STRUCTURE: Forward Transverse Bulkhead, FRAME NUMBER: 39

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

TANK/HOLD DESCRIPTION: Port And Stbd. Sewage Tanks
LOCATION OF STRUCTURE: NWT Transverse Bulkhead, FRAME NUMBER: 38

[illegible]

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

TANK/HOLD DESCRIPTION: Port And Stbd. Sewage Tanks
LOCATION OF STRUCTURE: Aft Transverse Bulkhead, FRAME NUMBER: 37

[illegible]

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT OF W.T./O.T. TRANSVERSE BULKHEADS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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TANK/HOLD DESCRIPTION: F.O. Settling Tank

LOCATION OF STRUCTURE: Aft Transverse Bulkhead, FRAME NUMBER: 37

STRUCTURAL COMPONENT (PLATING/STIFFENER)	ORIGINAL THICKNESS	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
	mm	P	S	mm	%	mm	%	
Transverse Bhd-Inboard Top	8.0		8.4			-	-	30.0
Transverse Bhd-Inboard Bottom	8.0		8.4			-	-	30.0
Transverse Bhd-Outboard Top	8.0		8.2			-	-	30.0
Transverse Bhd-Outboard Bottom	8.0		8.2			-	-	30.0
Transverse Bhd Vert.Stiff.-1st OB of CL-Web	9.5		9.5			-	-	25.0
Transverse Bhd Vert.Stiff.-2nd OB of CL-Web	9.5		9.5			-	-	25.0
Transverse Bhd Vert.Stiff.-3rd OB of CL-Web	9.5		9.5			-	-	25.0
Transverse Bhd Vert.Stiff.-4th OB of CL-Web	9.5		9.5			-	-	25.0
Transverse Bhd Vert.Stiff.-5th OB of CL-Web	9.5		9.5			-	-	25.0
Transverse Bhd Vert.Stiff.-1st OB of CL-Face	9.5		9.7			-	-	25.0
Transverse Bhd Vert.Stiff.-2nd OB of CL-Face	9.5		9.7			-	-	25.0
Transverse Bhd Vert.Stiff.-3rd OB of CL-Face	9.5		9.7			-	-	25.0
Transverse Bhd Vert.Stiff.-4th OB of CL-Face	9.5		9.7			-	-	25.0
Transverse Bhd Vert.Stiff.-5th OB of CL-Face	9.5		9.7			-	-	25.0
								-
								-

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

TANK/HOLD DESCRIPTION: #2 Water Ballast Tank-Port & Stbd.Tanks

LOCATION OF STRUCTURE: Aft Transverse Bulkhead, FRAME NUMBER: 32

[illegible]

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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TANK/HOLD DESCRIPTION: #3 Water Ballast Tank-Port & Stbd.Tanks
LOCATION OF STRUCTURE: Forward Transverse Bulkhead, FRAME NUMBER: 32

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

TANK/HOLD DESCRIPTION: Day Service Tank
---

LOCATION OF STRUCTURE: Forward Transverse Bulkhead, FRAME NUMBER: 30

[illegible]

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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TANK/HOLD DESCRIPTION: Day Service Tank
LOCATION OF STRUCTURE: Aft Transverse Bulkhead, FRAME NUMBER: 28

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

TANK/HOLD DESCRIPTION: Port and Starboard Freshwater Tanks
LOCATION OF STRUCTURE: Aft Transverse Bulkhead, FRAME NUMBER: 27

[illegible]

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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TANK/HOLD DESCRIPTION: Port and Starboard Cofferdam
LOCATION OF STRUCTURE: Forward Transverse Bulkhead, FRAME NUMBER: 25

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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TANK/HOLD DESCRIPTION: Port and Starboard Cofferdam
LOCATION OF STRUCTURE: Transverse NWT Bulkhead, FRAME NUMBER: 23

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

TANK/HOLD DESCRIPTION: Port and Starboard Cofferdam
LOCATION OF STRUCTURE: Aft Transverse Bulkhead, FRAME NUMBER: 22

[illegible]

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

TANK/HOLD DESCRIPTION: #4 Water Ballast Tank-Port & Stbd.Tanks
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LOCATION OF STRUCTURE: Forward Transverse Bulkhead, FRAME NUMBER: 22

[illegible]

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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Ship's Name	IMO Number	Report Number
C.C.G.S. Earl Grey	8412340	HFX 300363

TANK/HOLD DESCRIPTION: #4 Water Ballast Tank-Port & Stbd.Tanks

LOCATION OF STRUCTURE: Aft Transverse Bulkhead, FRAME NUMBER: 17

[illegible]

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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## Page 100 of 112

TANK/HOLD DESCRIPTION: #2 Fuel Oil Tank - Stbd.Tank
LOCATION OF STRUCTURE: Aft Transverse Bulkhead, FRAME NUMBER: 16

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

Form TM5(a) (2005.04) 3.1

# REPORT ON THICKNESS MEASUREMENT OF W.T./O.T. TRANSVERSE BULKHEADS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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TANK/HOLD DESCRIPTION: #3 Fuel Oil Tank - Starboard Tank

LOCATION OF STRUCTURE: Forward Transverse Bulkhead, FRAME NUMBER: 16

STRUCTURAL COMPONENT (PLATING/STIFFENER)	ORIGINAL THICKNESS	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
	mm	P	S	mm	%	mm	%	
Transverse Bhd-Inboard	12.5		12.6			-	-	30.0
Transverse Bhd-Outboard	12.5		12.7			-	-	30.0
Transverse Bhd-Vert.Stiff.-1st Outboard of CL-Web	9.5		9.7			-	-	25.0
Transverse Bhd-Vert.Stiff.-2nd Outboard of CL-Web	9.5		9.7			-	-	25.0
Transverse Bhd-Vert.Stiff.-3rd Outboard of CL-Web	9.5		9.7			-	-	25.0
Transverse Bhd-Vert.Stiff.-4th Outboard of CL-Web	9.5		9.7			-	-	25.0
Transverse Bhd-Vert.Stiff.-1st Outboard of CL-Face	9.5		9.5			-	-	25.0
Transverse Bhd-Vert.Stiff.-2nd Outboard of CL-Face	9.5		9.5			-	-	25.0
Transverse Bhd-Vert.Stiff.-3rd Outboard of CL-Face	9.5		9.5			-	-	25.0
Transverse Bhd-Vert.Stiff.-4th Outboard of CL-Face	9.5		9.5			-	-	25.0
								-
								-
								-
								-
								-
								-

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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TANK/HOLD DESCRIPTION: #5 Water Ballast Tank-Port & Stbd.Tanks
LOCATION OF STRUCTURE: Aft Transverse Bulkhead, FRAME NUMBER: 10

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

Form TM5(a) (2005.04) 3.1

## Page 104 of 112

TANK/HOLD DESCRIPTION: #3 Fuel Oil Tank- Centre Tank
LOCATION OF STRUCTURE: Aft Transverse Bulkhead, FRAME NUMBER: 10

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

Form TM5(a) (2005.04) 3.1

## Page 105 of 112

# REPORT ON THICKNESS MEASUREMENT OF W.T./O.T. TRANSVERSE BULKHEADS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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TANK/HOLD DESCRIPTION: #4 Fuel Oil Tank - Port Tank

LOCATION OF STRUCTURE: Forward Transverse Bulkhead, FRAME NUMBER: 10

STRUCTURAL COMPONENT (PLATING/STIFFENER)	ORIGINAL THICKNESS	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
	mm	P	S	mm	%	mm	%	
Transverse Bhd-Top Plate	8.0	7.9		.1	1.2			30.0
Transverse Bhd-1st Plate below	8.0	8.2		-	-			30.0
Transverse Bhd-Lower Plate	19.0	19.2		-	-			30.0
Transverse Bhd-Vert.Stiff.-1st Outboard of CL-Web	7.9	8.0		-	-			25.0
Transverse Bhd-Vert.Stiff.-2nd Outboard of CL-Web	7.9	8.6		-	-			25.0
Transverse Bhd-Vert.Stiff.-3rd Outboard of CL-Web	7.9	8.1		-	-			25.0
Transverse Bhd-Vert.Stiff.-4th Outboard of CL-Web	7.9	7.8		.1	1.3			25.0
Transverse Bhd-Vert.Stiff.-1st Outboard of CL-Face	7.9	8.3		-	-			25.0
Transverse Bhd-Vert.Stiff.-2nd Outboard of CL-Face	7.9	7.6		.3	3.8			25.0
Transverse Bhd-Vert.Stiff.-3rd Outboard of CL-Face	7.9	8.3		-	-			25.0
Transverse Bhd-Vert.Stiff.-4th Outboard of CL-Face	7.9	8.2		-	-			25.0
								-
								-
								-
								-
								-

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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## Page 108 of 112

## Page 109 of 112

# REPORT ON THICKNESS MEASUREMENT OF W.T./O.T. TRANSVERSE BULKHEADS

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Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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TANK/HOLD DESCRIPTION: #6 Water Ballast Tanks-Port & Stbd.Tanks

LOCATION OF STRUCTURE: Aft Transverse Bulkhead, FRAME NUMBER: 5

STRUCTURAL COMPONENT (PLATING/STIFFENER)	ORIGINAL THICKNESS	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
	mm	P	S	mm	%	mm	%	
Transverse Bhd-Inboard	16.0	16.2	16.2	-	-	-	-	30.0
Transverse Bhd-Outboard	16.0	16.0	16.0	-	-	-	-	30.0
Transverse Bhd-Vert.Stiff.-1st Inboard of SS-Web	7.9	8.2	7.1	-	-	.8	10.1	25.0
Transverse Bhd-Vert.Stiff.-2nd Inboard of SS-Web	7.9	8.0	7.6	-	-	.3	3.8	25.0
Transverse Bhd-Vert.Stiff.-3rd Inboard of SS-Web	7.9	8.0	8.1	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-4th Inboard of SS-Web	7.9	7.3	8.3	.6	7.6	-	-	25.0
Transverse Bhd-Vert.Stiff.-1st Inboard of SS-Face	7.9	8.1	7.6	-	-	.3	3.8	25.0
Transverse Bhd-Vert.Stiff.-2nd Inboard of SS-Face	7.9	7.6	7.5	.3	3.8	.4	5.1	25.0
Transverse Bhd-Vert.Stiff.-3rd Inboard of SS-Face	7.9	7.6	8.2	.3	3.8	-	-	25.0
Transverse Bhd-Vert.Stiff.-4th Inboard of SS-Face	7.9	7.5	7.6	.4	5.1	.3	3.8	25.0
								-
								-
								-
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Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT OF W.T./O.T. TRANSVERSE BULKHEADS

Page 111 of 112

Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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TANK/HOLD DESCRIPTION: Aft Void Port and Starboard

LOCATION OF STRUCTURE: Forward Transverse Bulkhead, FRAME NUMBER: 1

STRUCTURAL COMPONENT (PLATING/STIFFENER)	ORIGINAL THICKNESS mm	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
Transverse Bhd-Inboard	16.0	16.8	16.0	-	-	-	-	30.0
Transverse Bhd-Outboard	16.0	16.2	16.1	-	-	-	-	30.0
Transverse Bhd-Vert.Stiff.-1st Outboard of CL-Web	10.0	11.2	10.6	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-2nd Outboard of CL-Web	10.0	10.0	10.6	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-3rd Outboard of CL-Web	10.0	10.5	10.5	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-4th Outboard of CL-Web	10.0	9.4	10.5	.6	6.0	-	-	25.0
Transverse Bhd-Vert.Stiff.-5th Outboard of CL-Web	10.0	10.2	10.4	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-6th Outboard of CL-Web	10.0	11.1	10.4	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-7th Outboard of CL-Web	16.0	16.3	16.3	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-1st Outboard of CL-Face	19.0	19.3	19.4	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-2nd Outboard of CL-Face	19.0	19.2	19.3	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-3rd Outboard of CL-Face	19.0	19.3	19.3	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-4th Outboard of CL-Face	19.0	19.3	19.3	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-5th Outboard of CL-Face	19.0	19.3	19.3	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-6th Outboard of CL-Face	19.0	19.4	19.4	-	-	-	-	25.0
Transverse Bhd-Vert.Stiff.-7th Outboard of CL-Face	19.0	19.4	19.3	-	-	-	-	25.0

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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# REPORT ON THICKNESS MEASUREMENT OF W.T./O.T. TRANSVERSE BULKHEADS

Page 112 of 112

Ship's Name	C.C.G.S. Earl Grey	IMO Number	8412340	Report Number	HFX 300363
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TANK/HOLD DESCRIPTION: Aft Void Port and Starboard

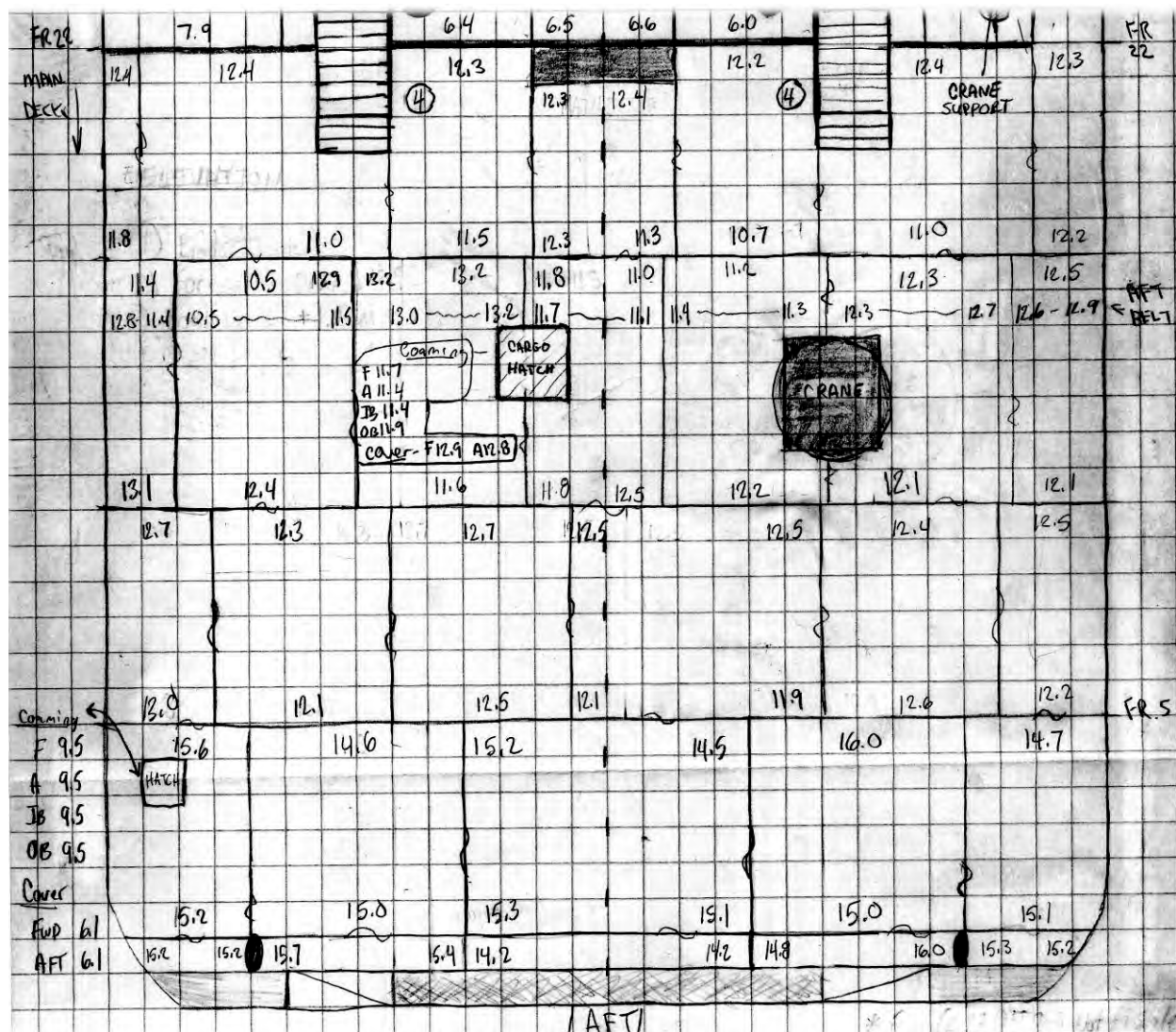
LOCATION OF STRUCTURE: Forward Transverse Bulkhead, FRAME NUMBER: 1

STRUCTURAL COMPONENT (PLATING/STIFFENER)	ORIGINAL THICKNESS mm	GAUGED		DIMINUTION P		DIMINUTION S		MAX ALLOW. DIM. %
		P	S	mm	%	mm	%	
Transverse Bhd-Top Bracket-1st Outboard of CL	10.0	11.8	11.8	-	-	-	-	25.0
Transverse Bhd-Top Bracket-2nd Outboard of CL	10.0	11.8	11.8	-	-	-	-	25.0
Transverse Bhd-Top Bracket-3rd Outboard of CL	10.0	11.2	11.8	-	-	-	-	25.0
Transverse Bhd-Top Bracket-4th Outboard of CL	10.0	11.1	11.8	-	-	-	-	25.0
Transverse Bhd-Top Bracket-5th Outboard of CL	10.0	11.8	11.8	-	-	-	-	25.0
Transverse Bhd-Top Bracket-6th Outboard of CL	10.0	11.8	11.8	-	-	-	-	25.0
Transverse Bhd-Lower Bracket-1st Outboard of CL	10.0	11.8	11.8	-	-	-	-	25.0
Transverse Bhd-Lower Bracket-2nd Outboard of CL	10.0	11.8	12.4	-	-	-	-	25.0
Transverse Bhd-Lower Bracket-3rd Outboard of CL	10.0	11.8	11.8	-	-	-	-	25.0
Transverse Bhd-Lower Bracket-4th Outboard of CL	10.0	11.8	11.8	-	-	-	-	25.0
Transverse Bhd-Lower Bracket-5th Outboard of CL	10.0	11.7	11.8	-	-	-	-	25.0
Transverse Bhd-Lower Bracket-6th Outboard of CL	10.0	11.8	11.8	-	-	-	-	25.0
								-
								-
								-
								-

Operator's Signature	Surveyor's Signature	
Ross Hunter, John Maxwell	Igor Potey	

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## Main Deck

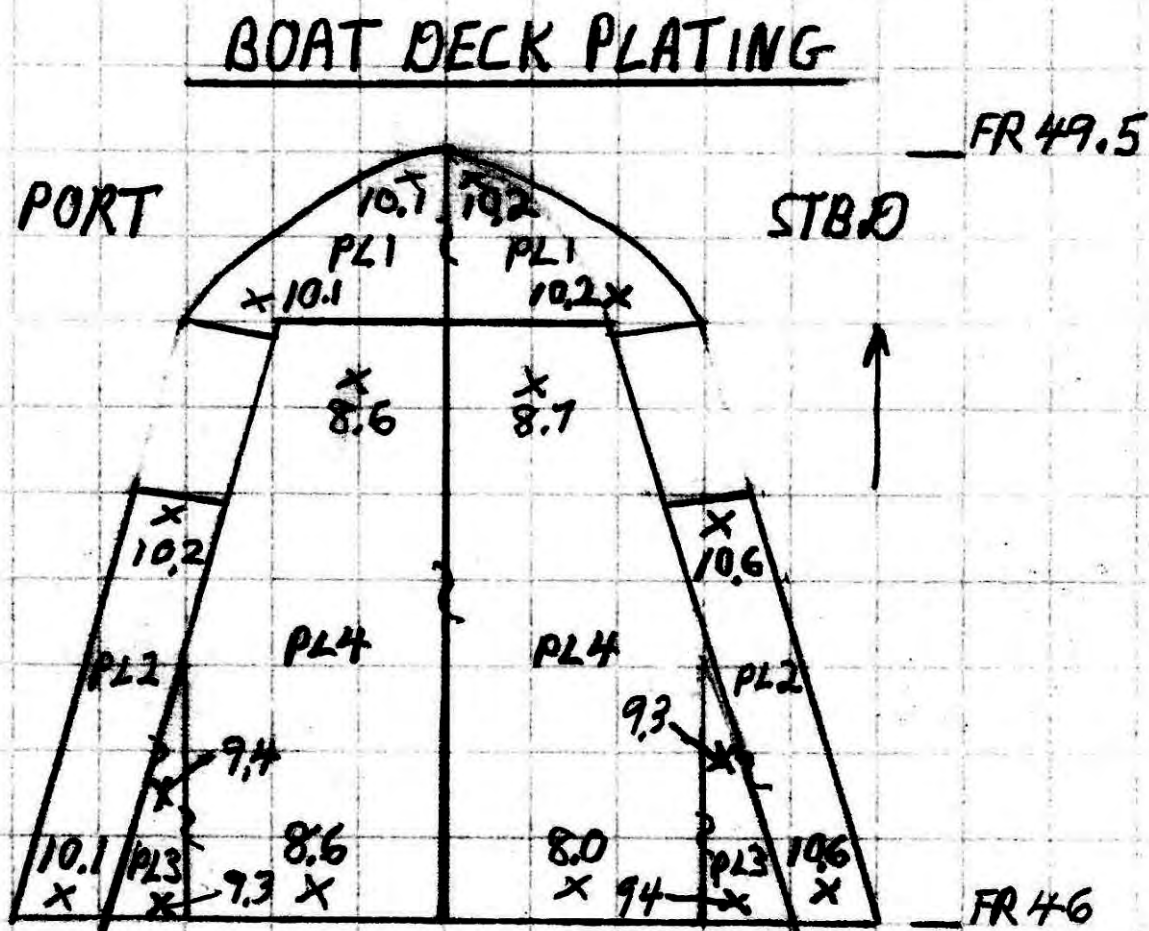


**Operator's Signature:**

RH

**Surveyor's Signature:**

<b>Passmore Inspection Report #: 13-7160</b> <b>October to December, 2013</b>
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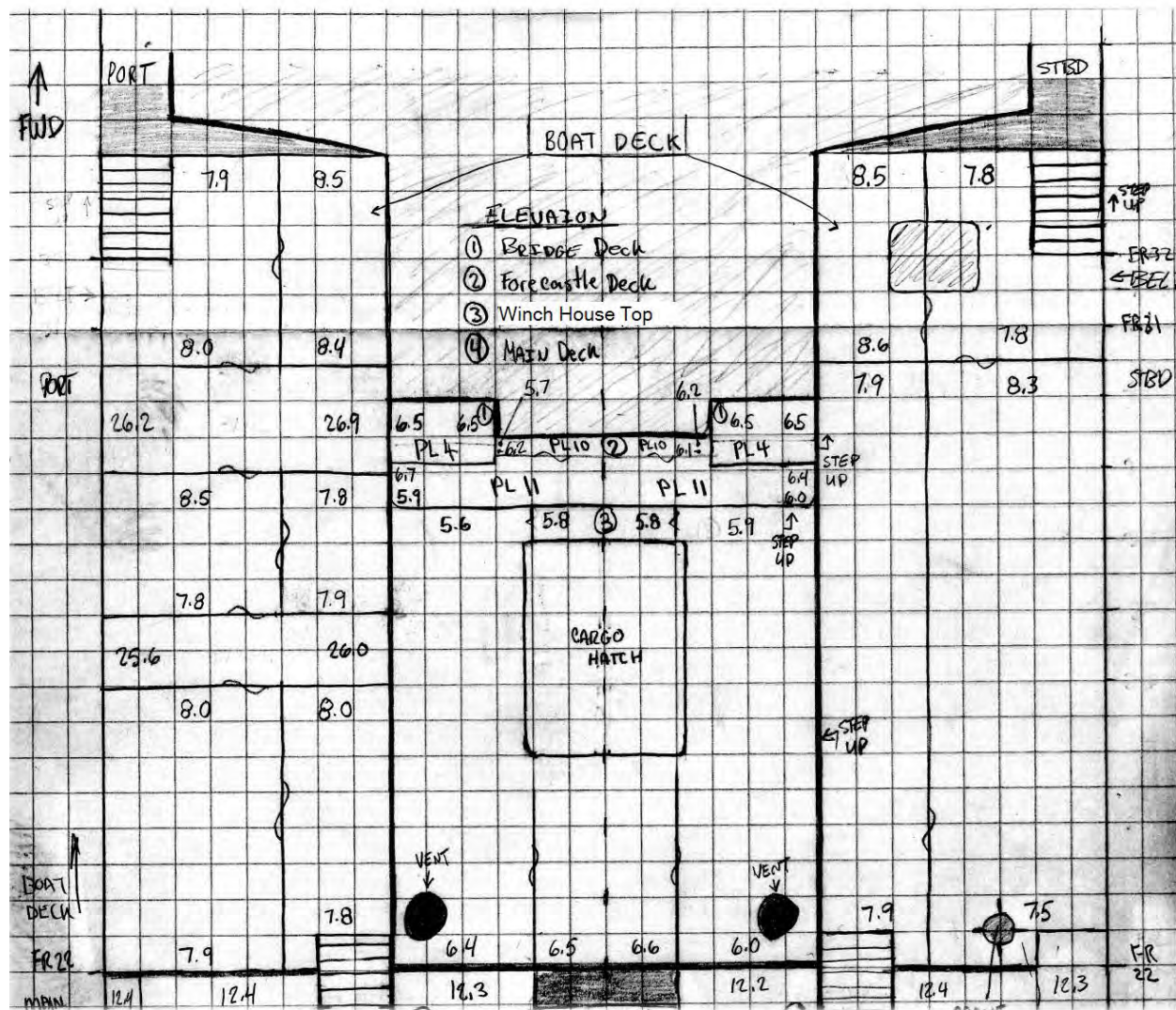


Operator's Signature:

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Surveyor's Signature:

Passmore Inspection Report #: 13-7160  
October to December, 2013

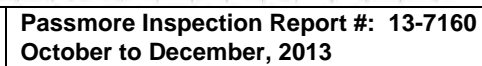


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**Surveyor's Signature:**

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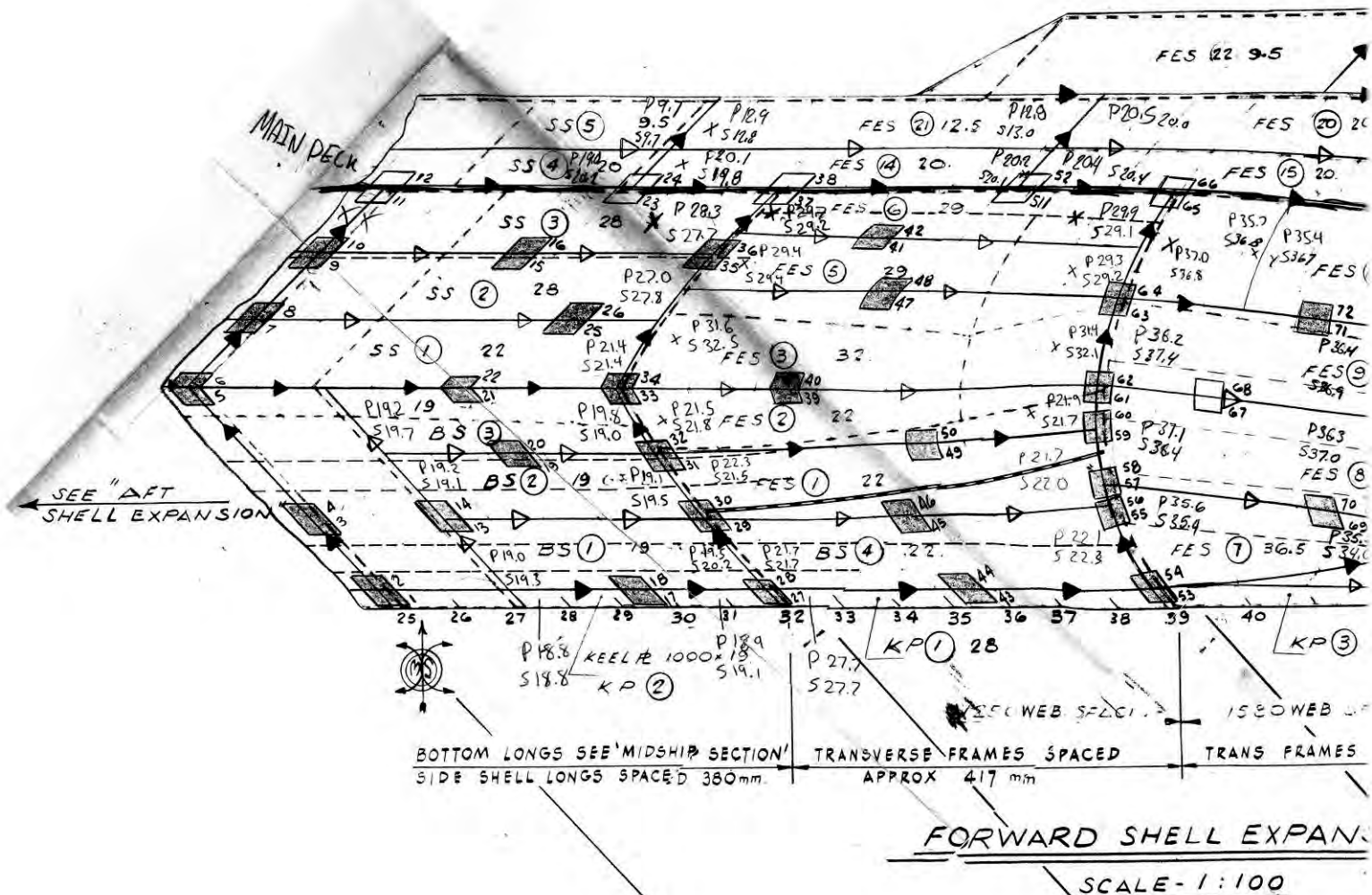










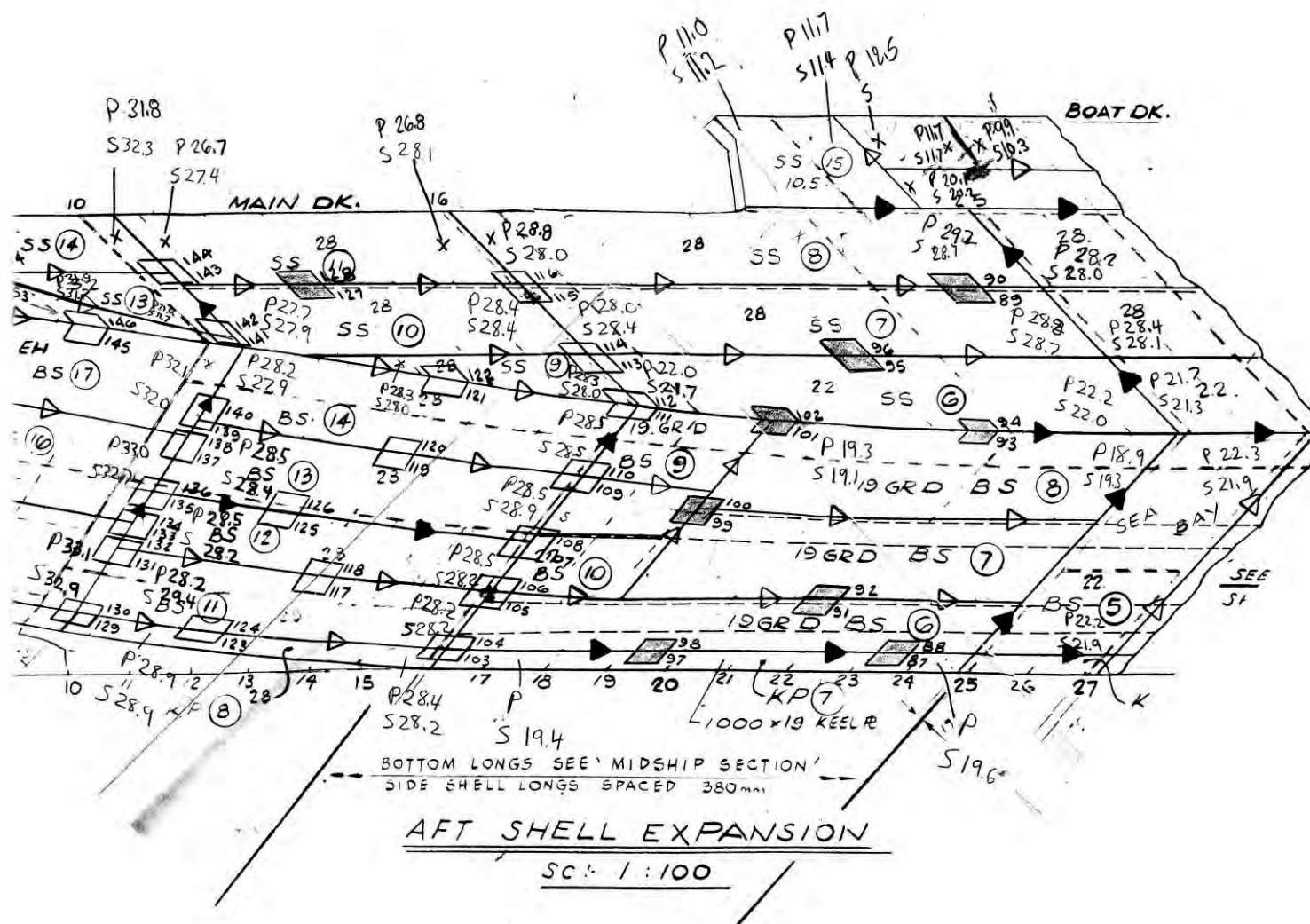


Operator's Signature:

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October to December, 2013

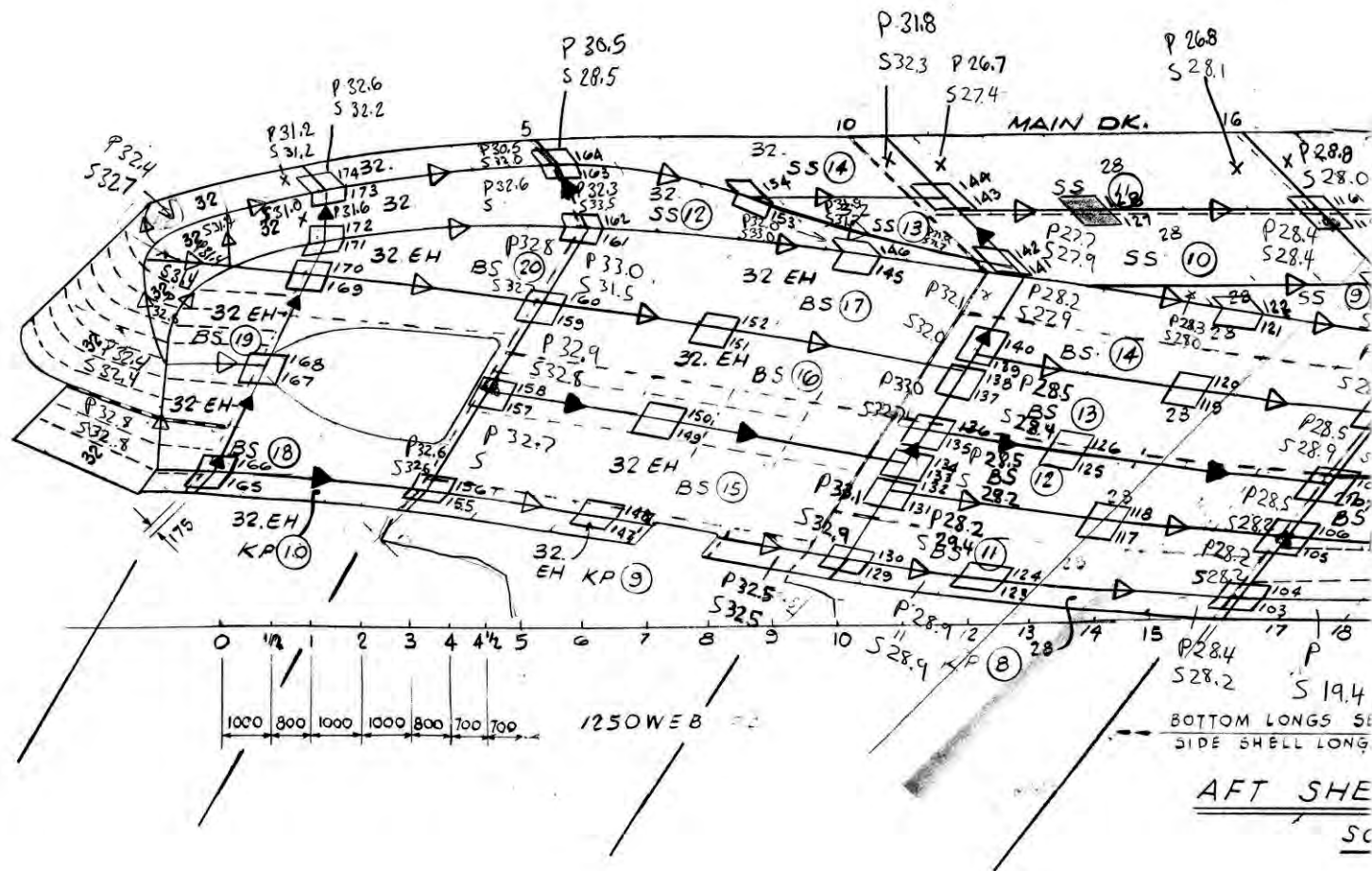


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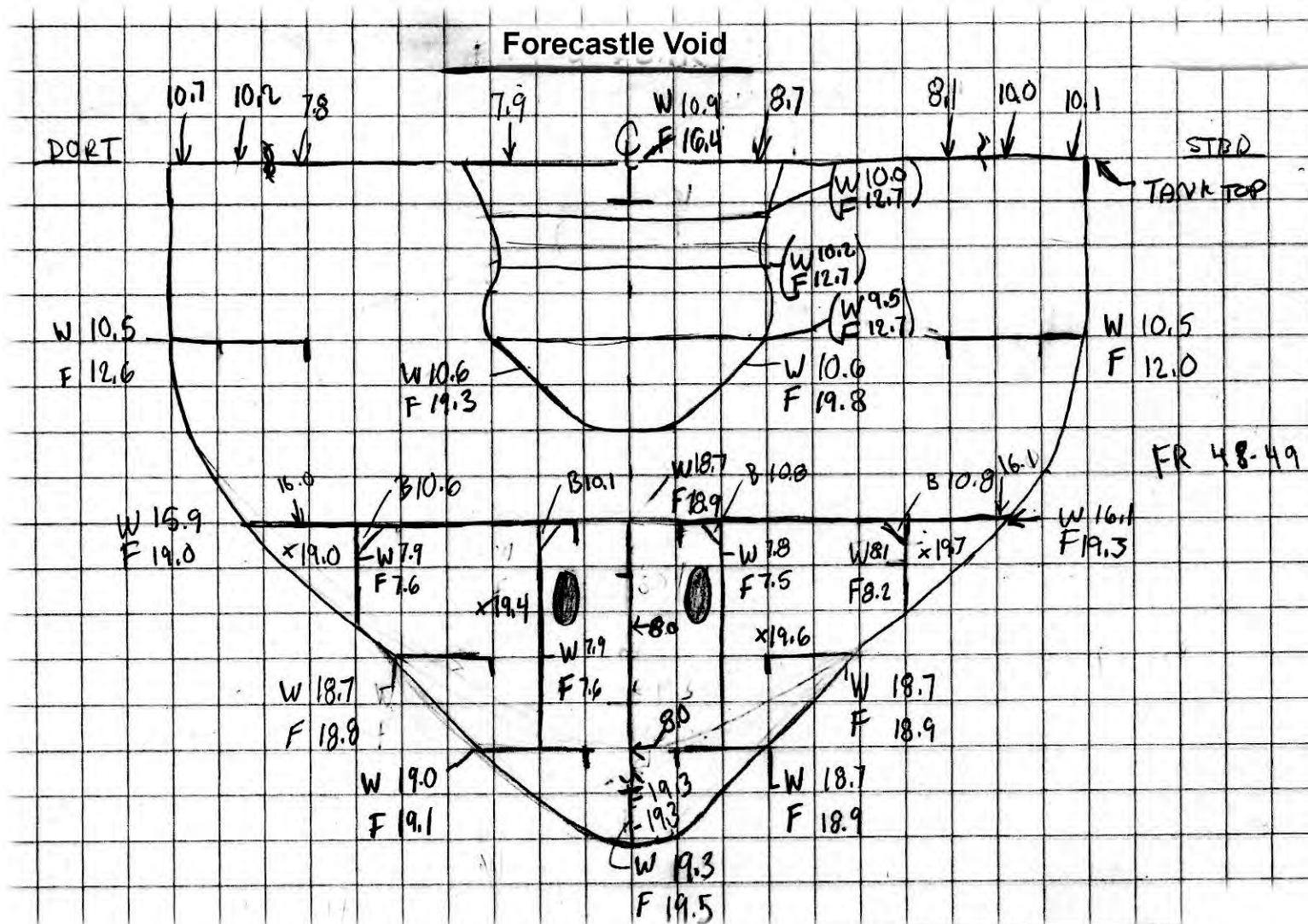


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October to December, 2013

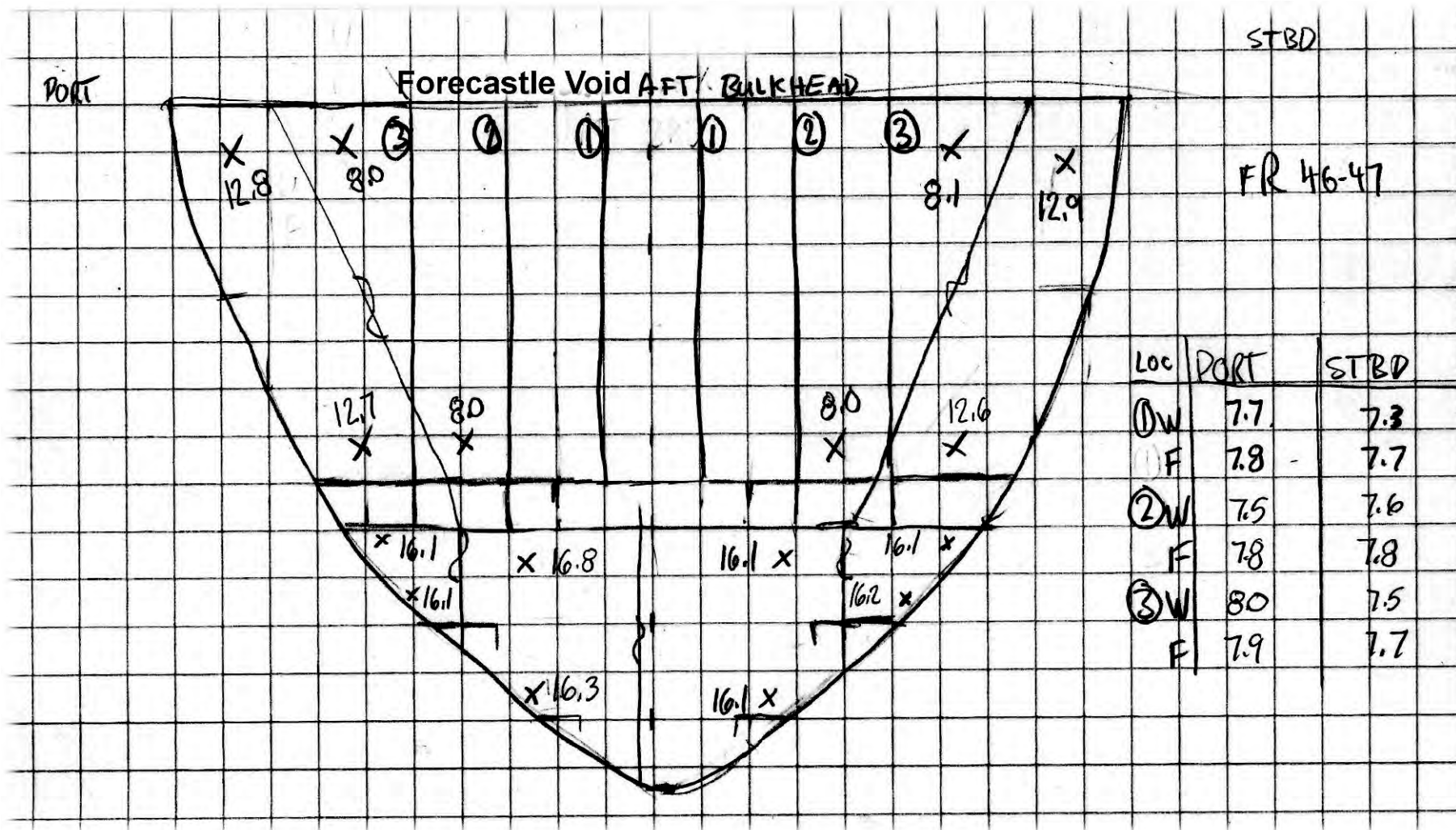


Operator's Signature:

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Passmore Inspection Report #: 13-7160  
October to December, 2013



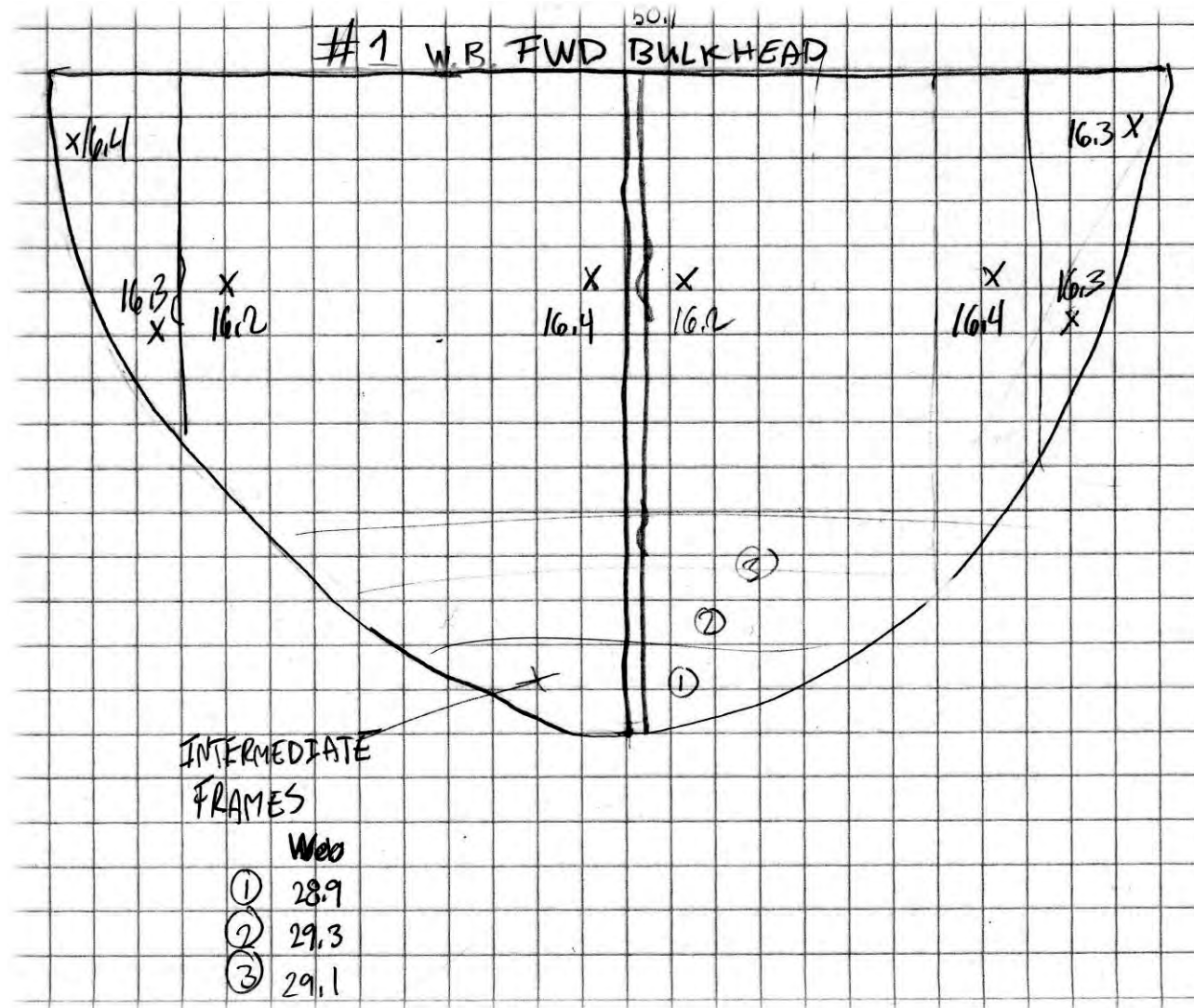
Operator's Signature:

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Surveyor's Signature:

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 October to December, 2013



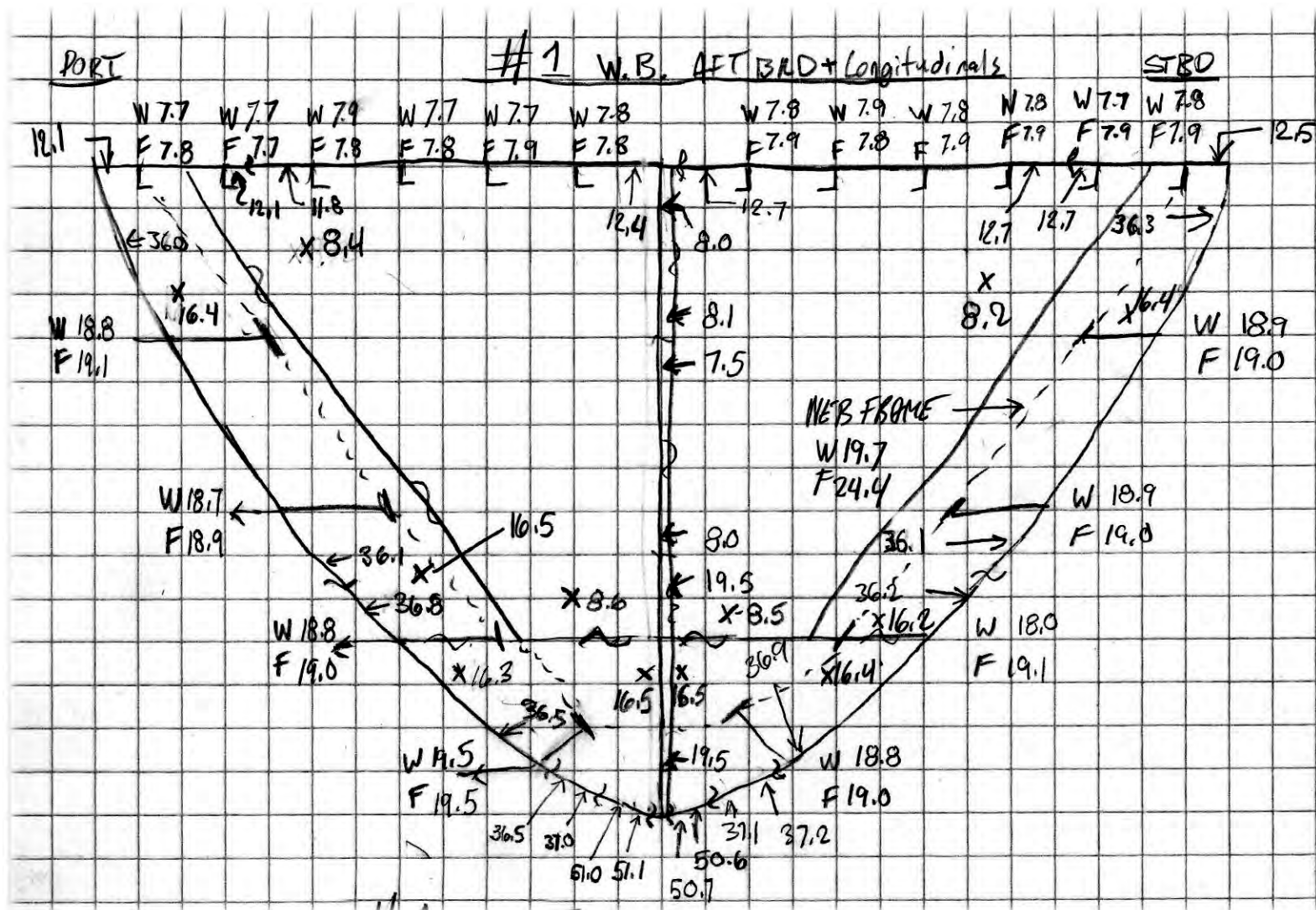


Operator's Signature:

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Surveyor's Signature:

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October to December, 2013

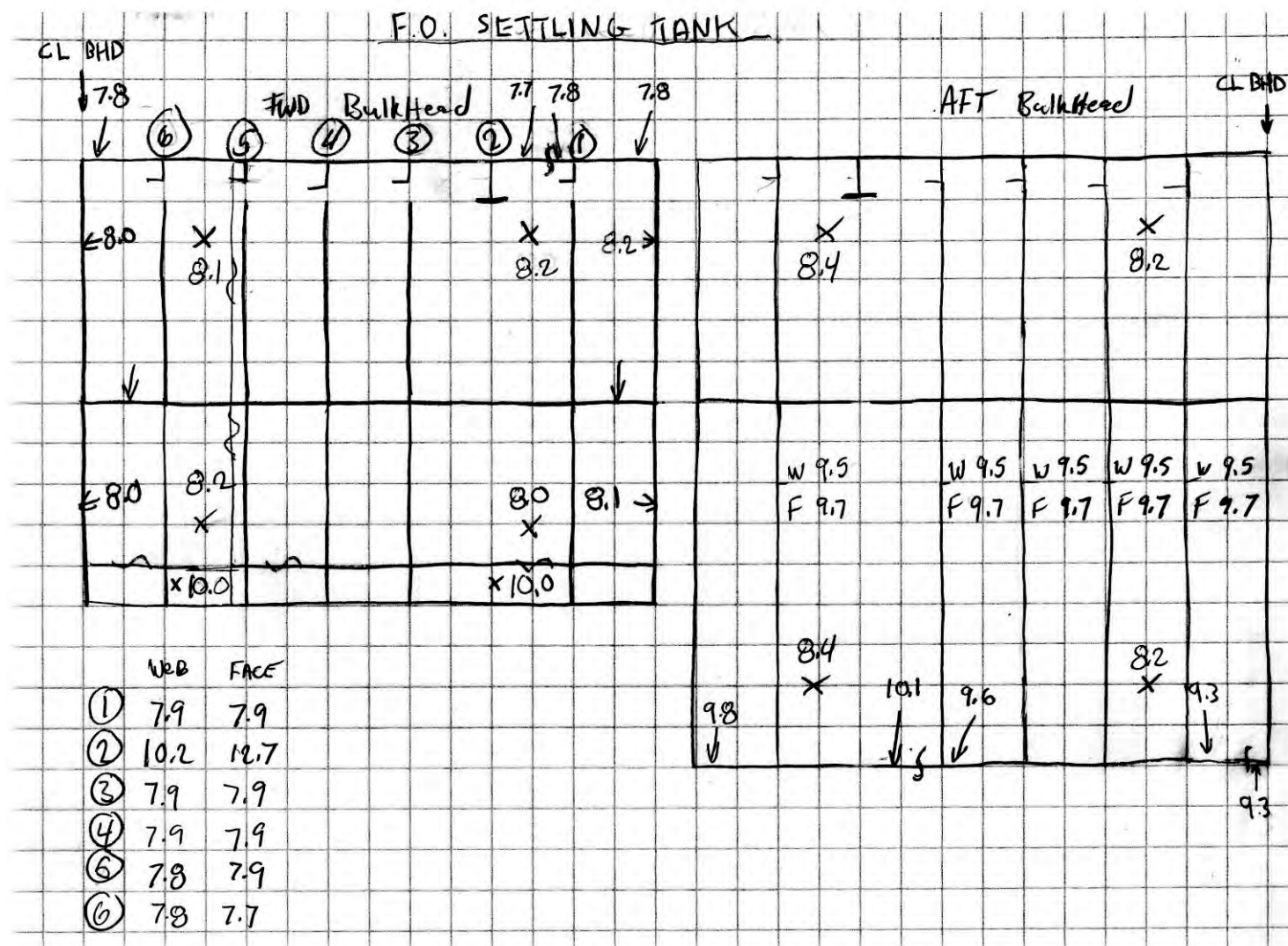


Operator's Signature:

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**Surveyor's Signature:**

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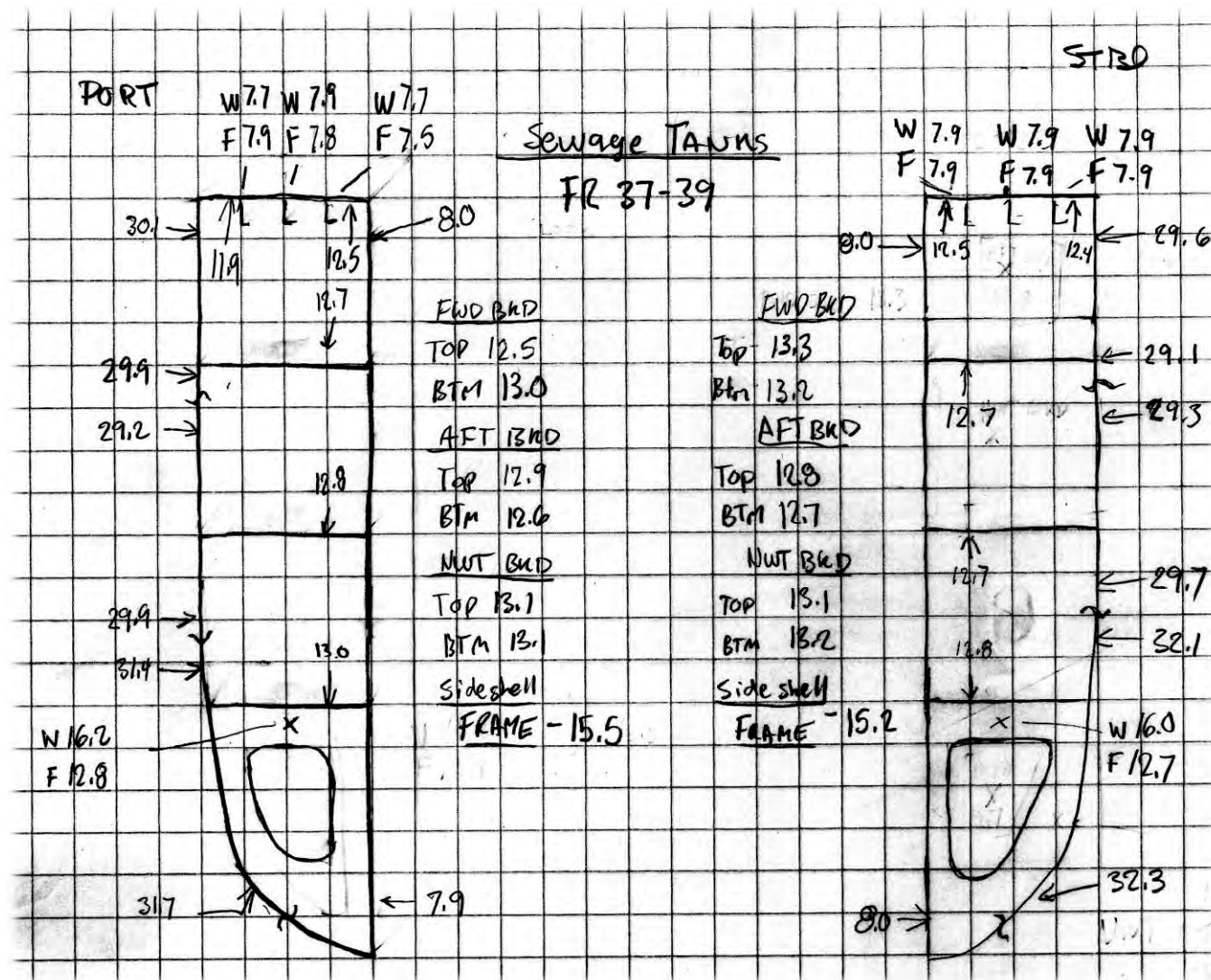
Operator's Signature:

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Surveyor's Signature:

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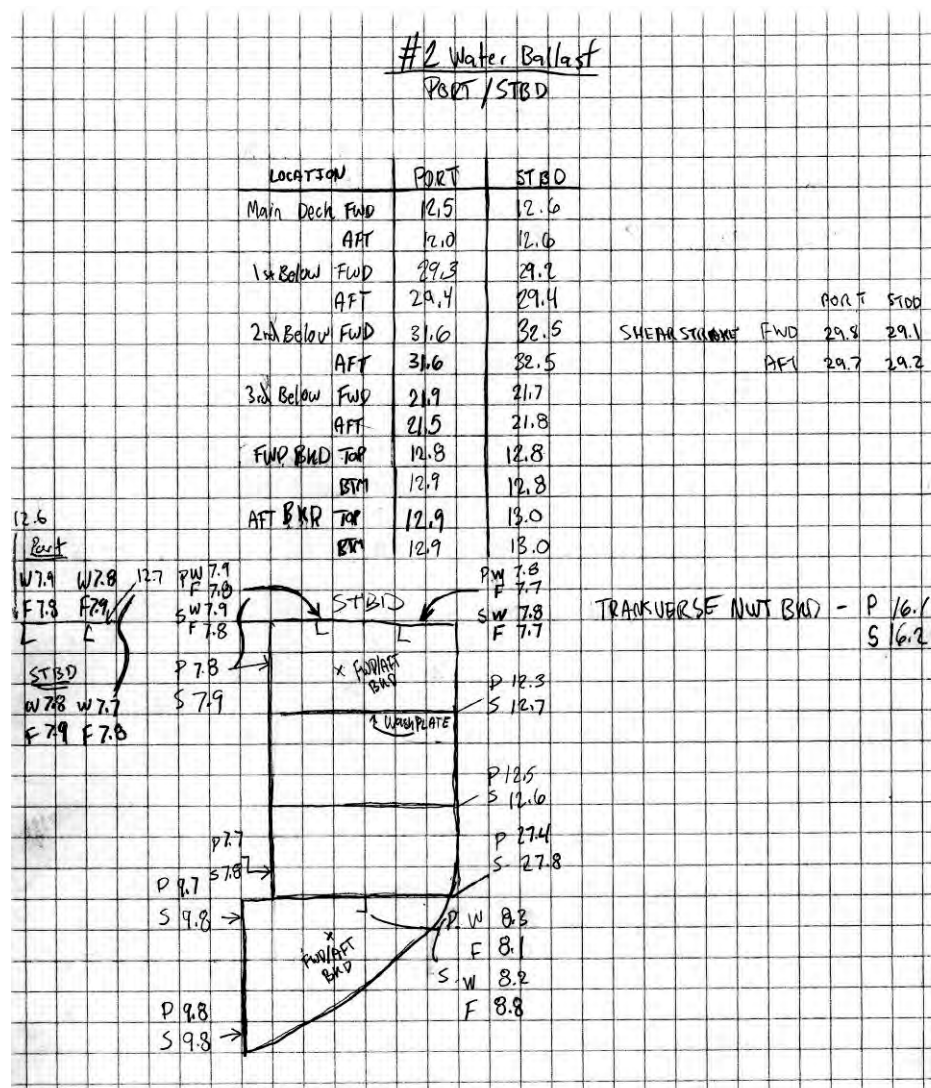


Operator's Signature:

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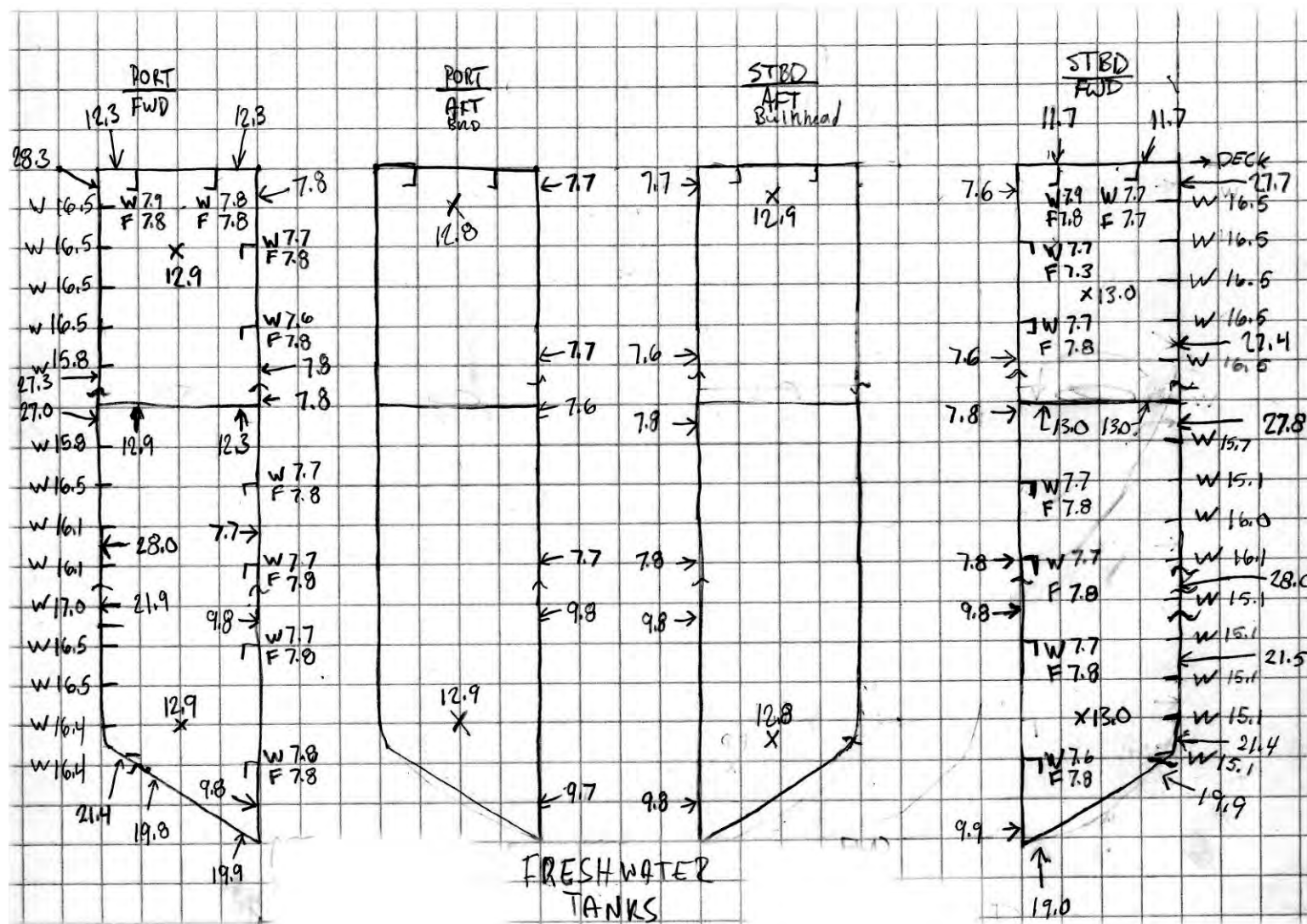


Operator's Signature:

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Surveyor's Signature:

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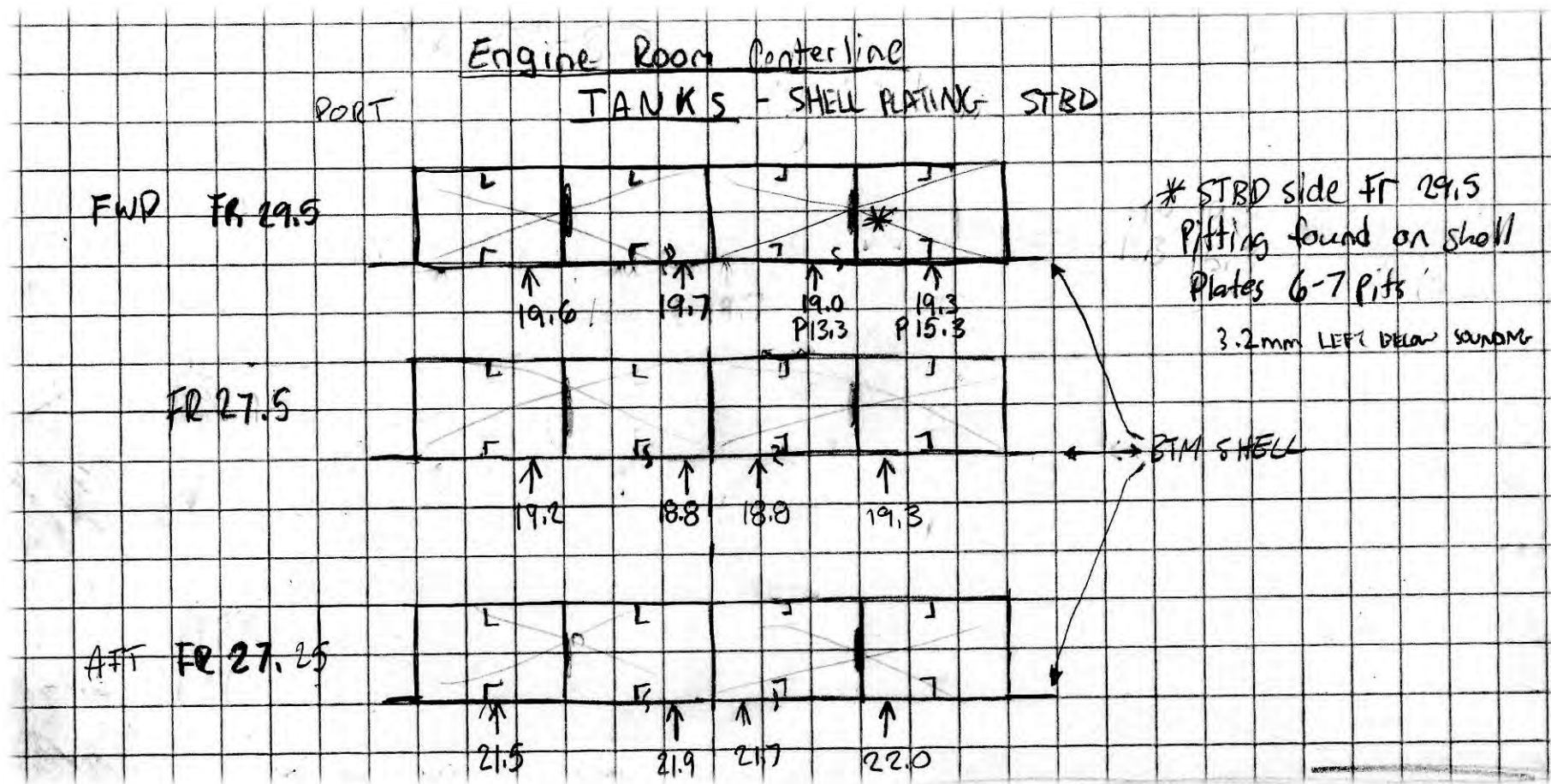


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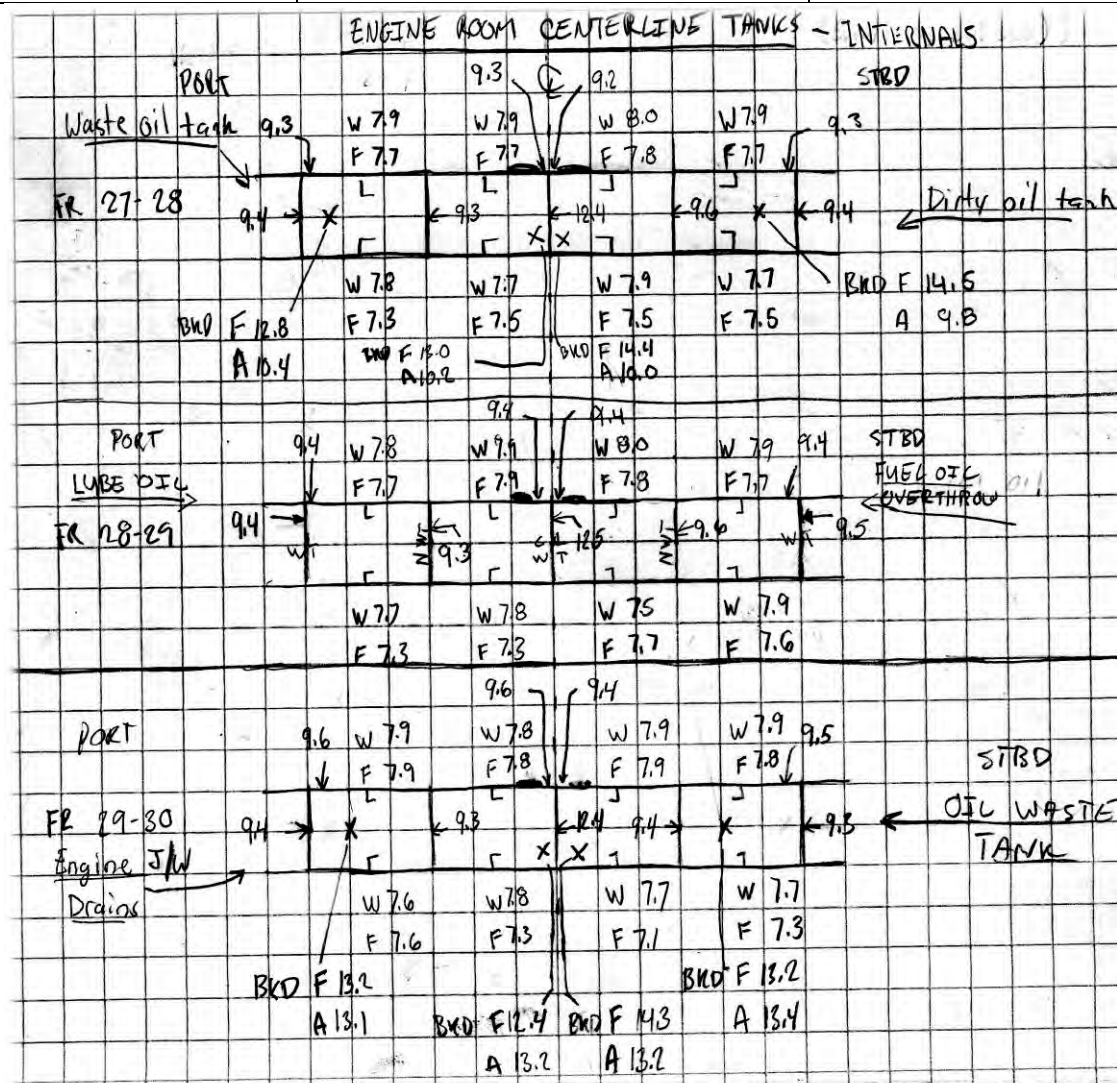


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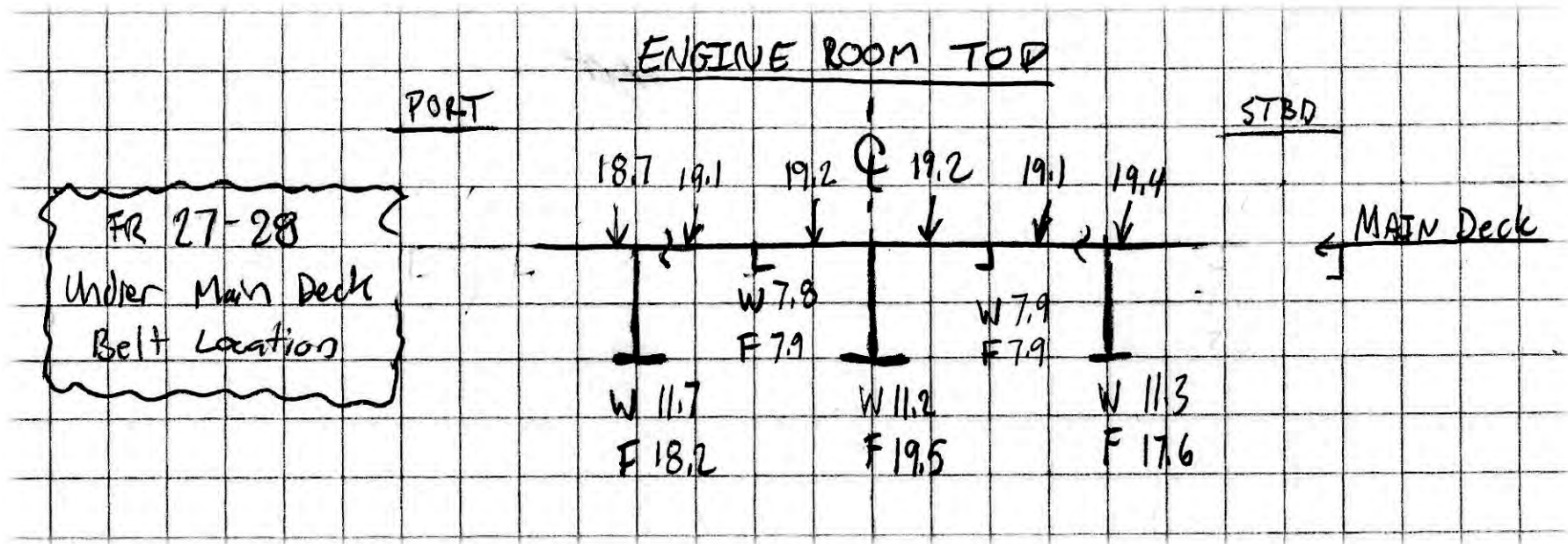
**Operator's Signature:**

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## Engine Room Deckhead



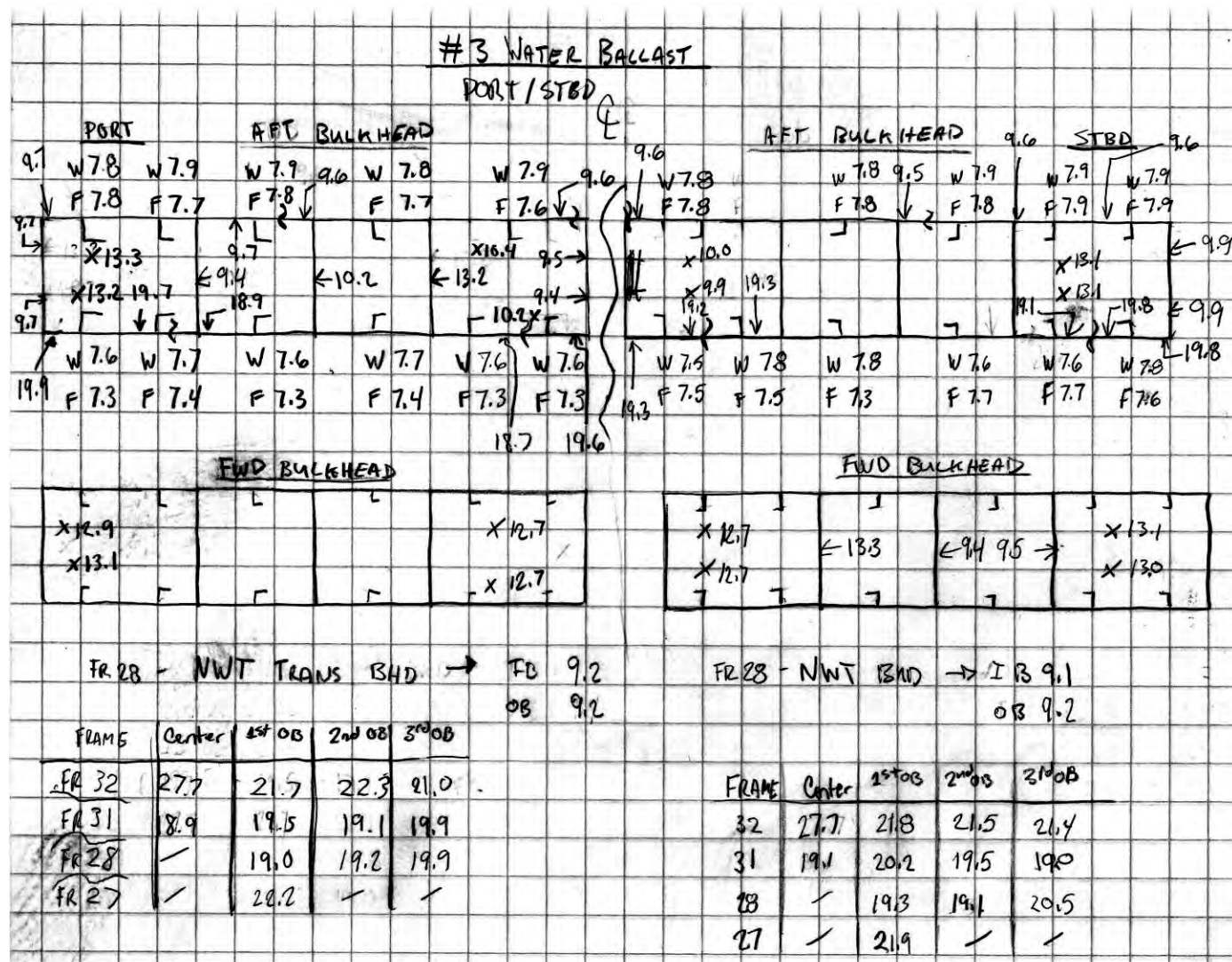
Operator's Signature:

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Surveyor's Signature:

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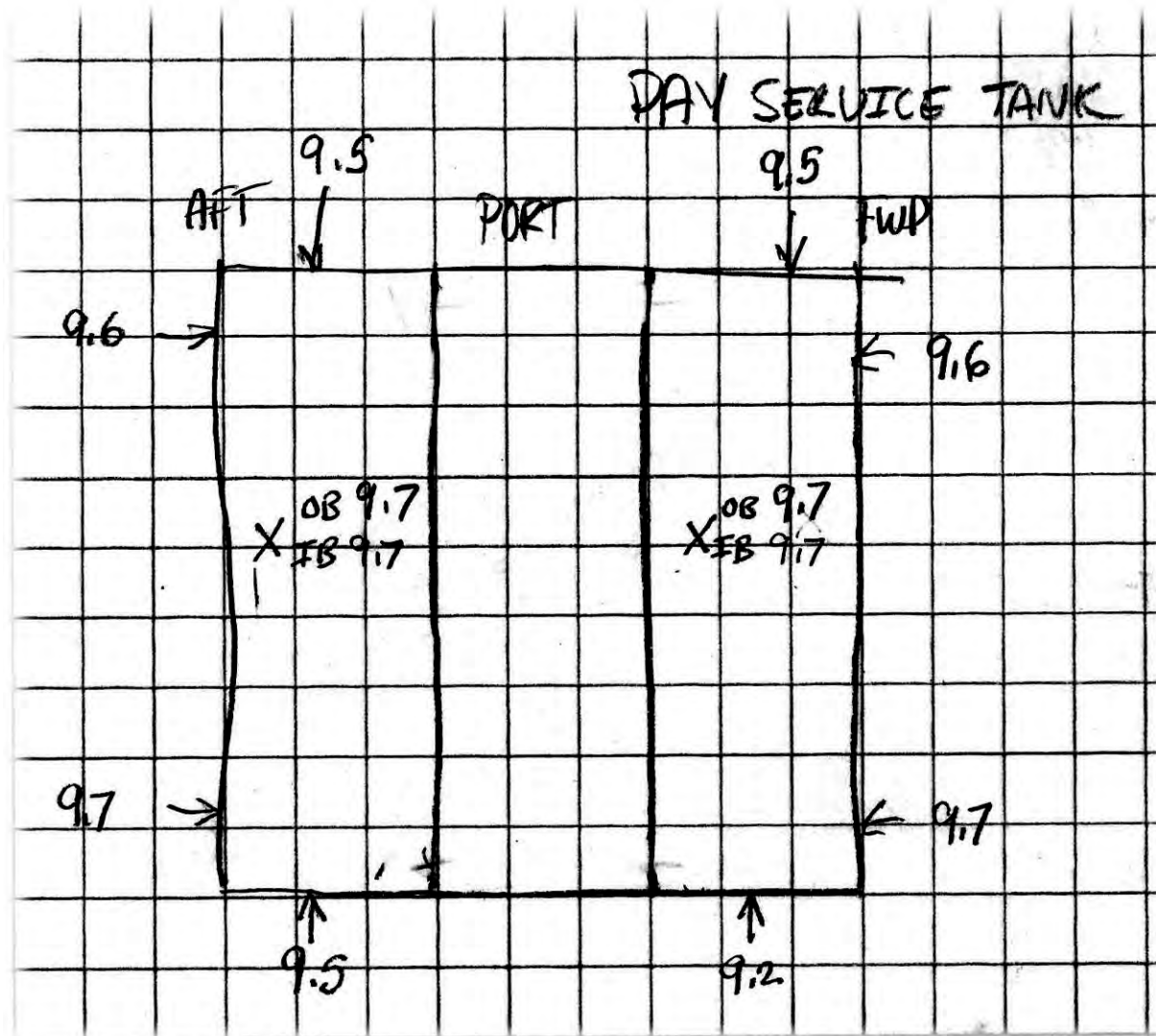


Operator's Signature:

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Surveyor's Signature:

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October to December, 2013



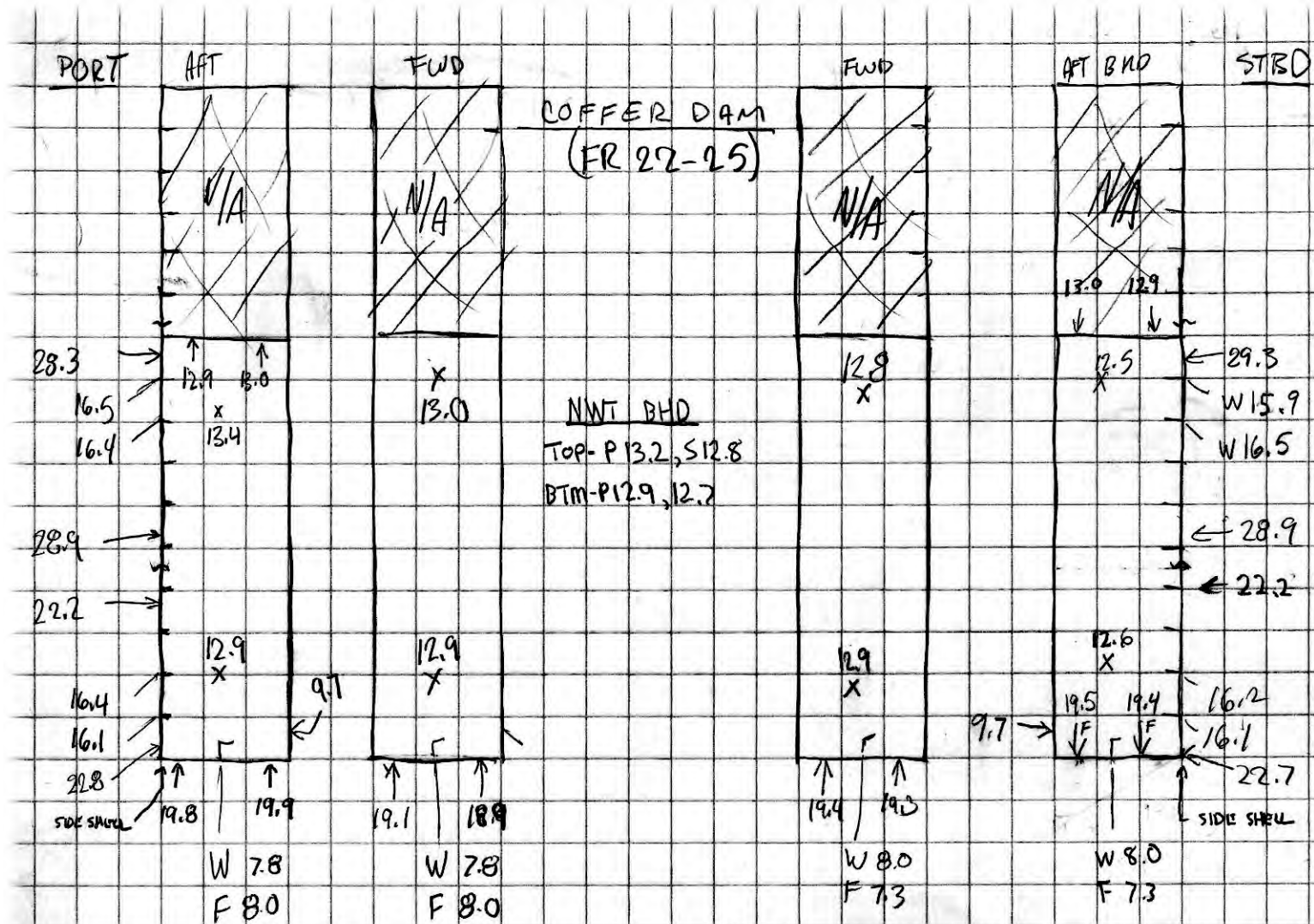
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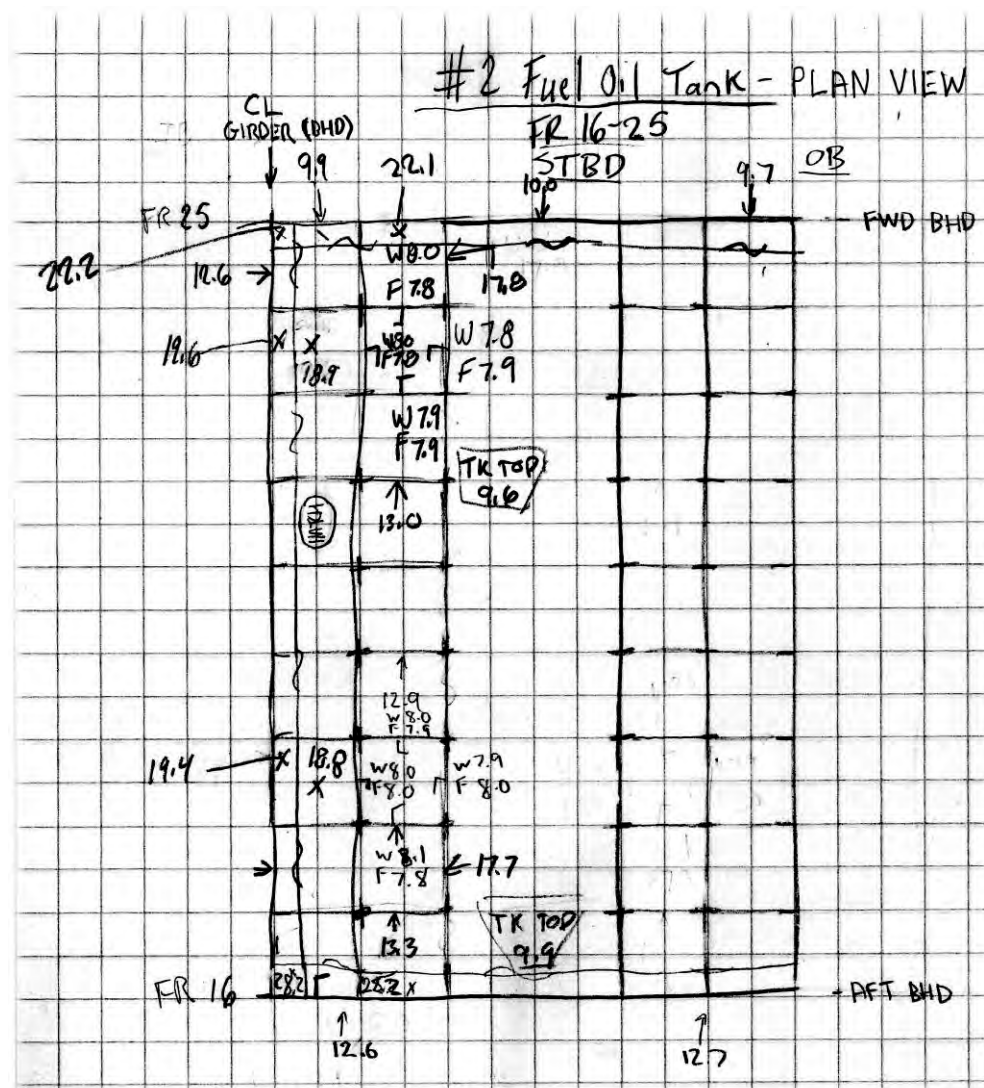


Operator's Signature:

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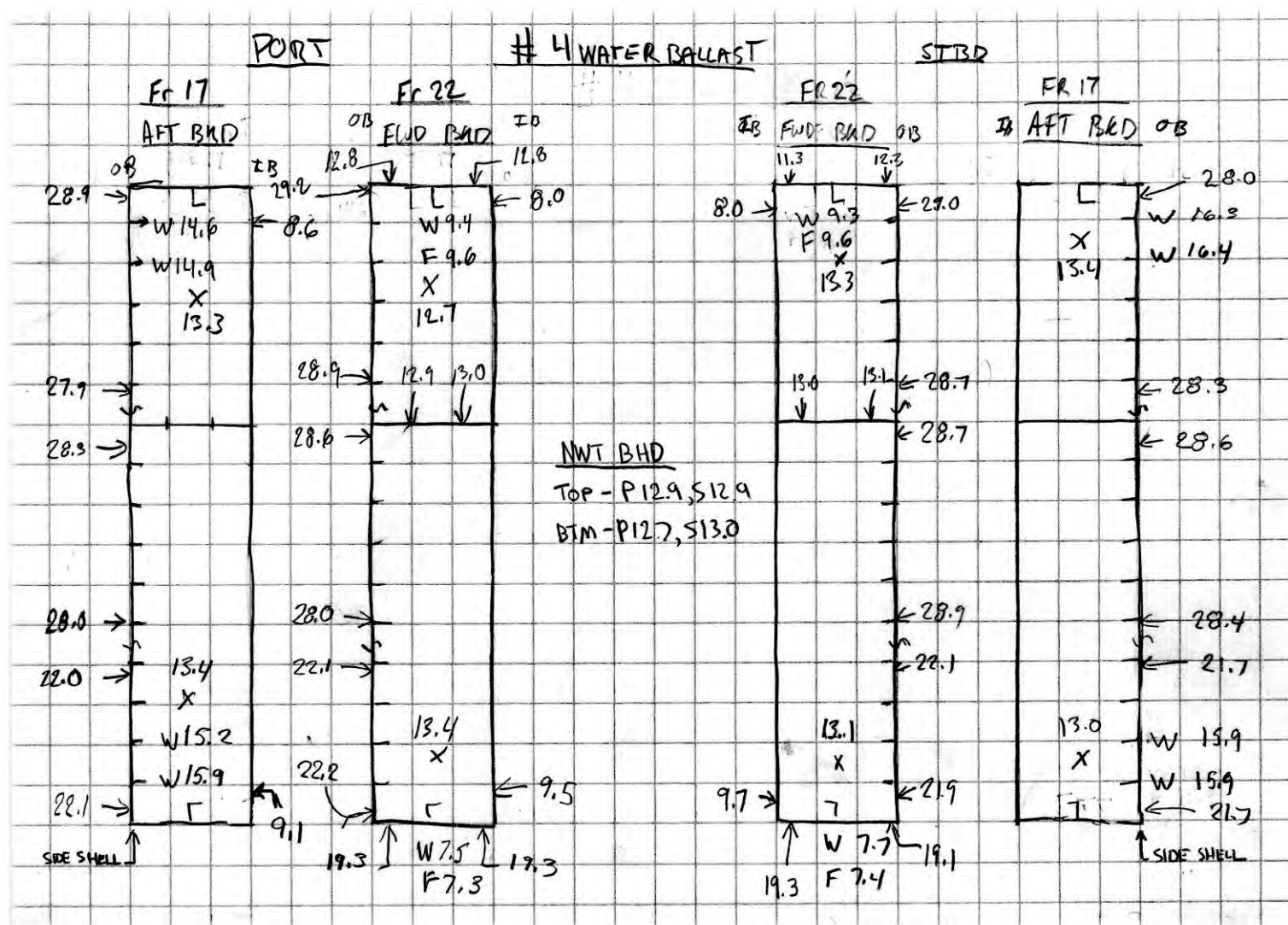


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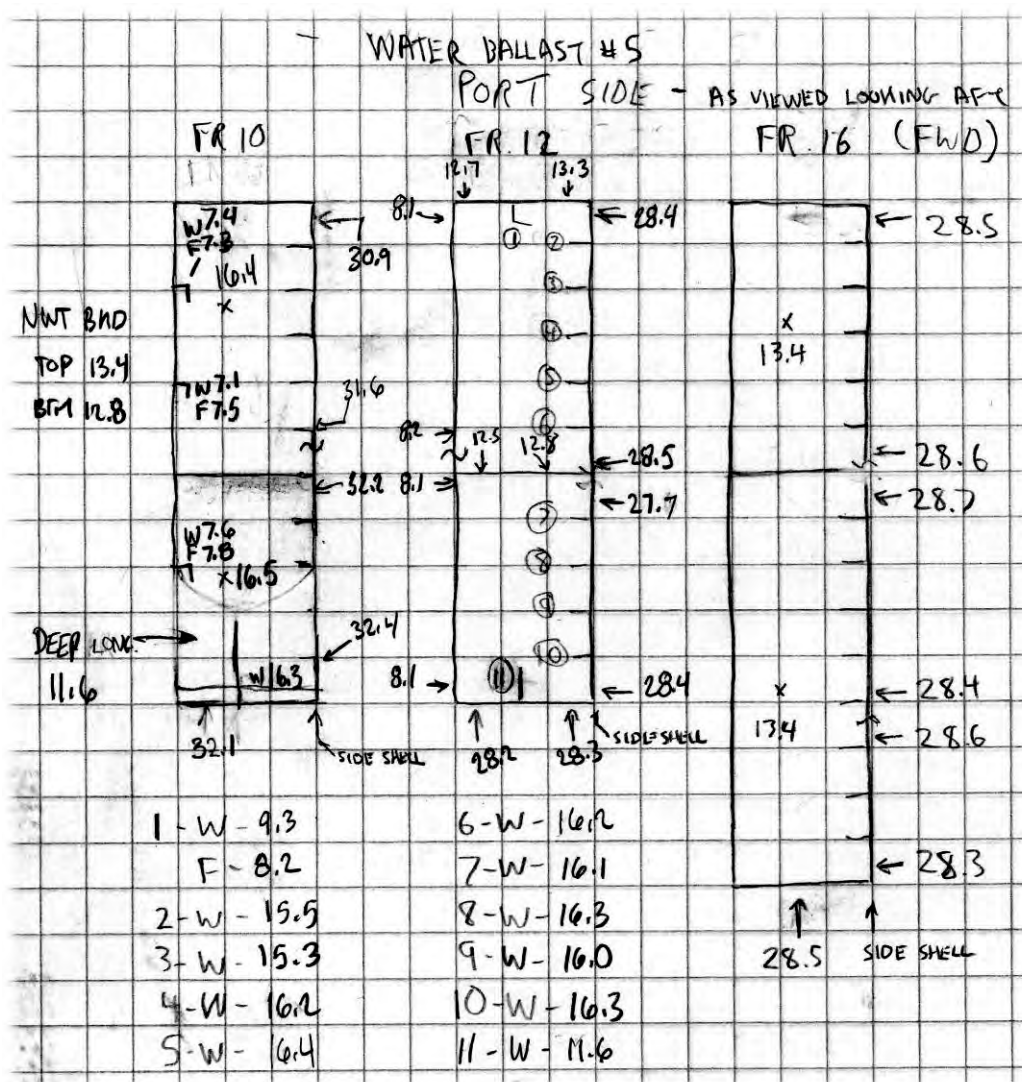


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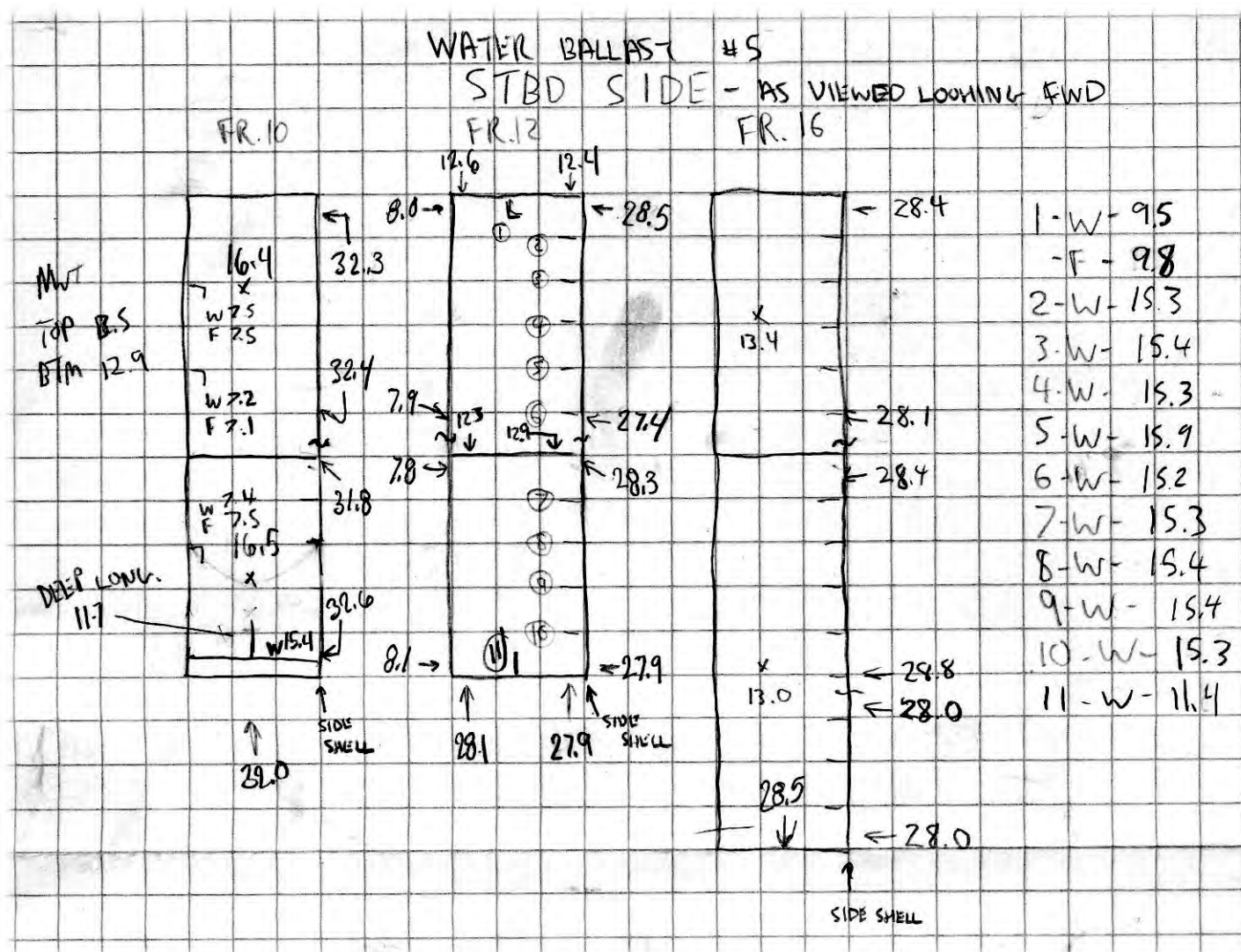


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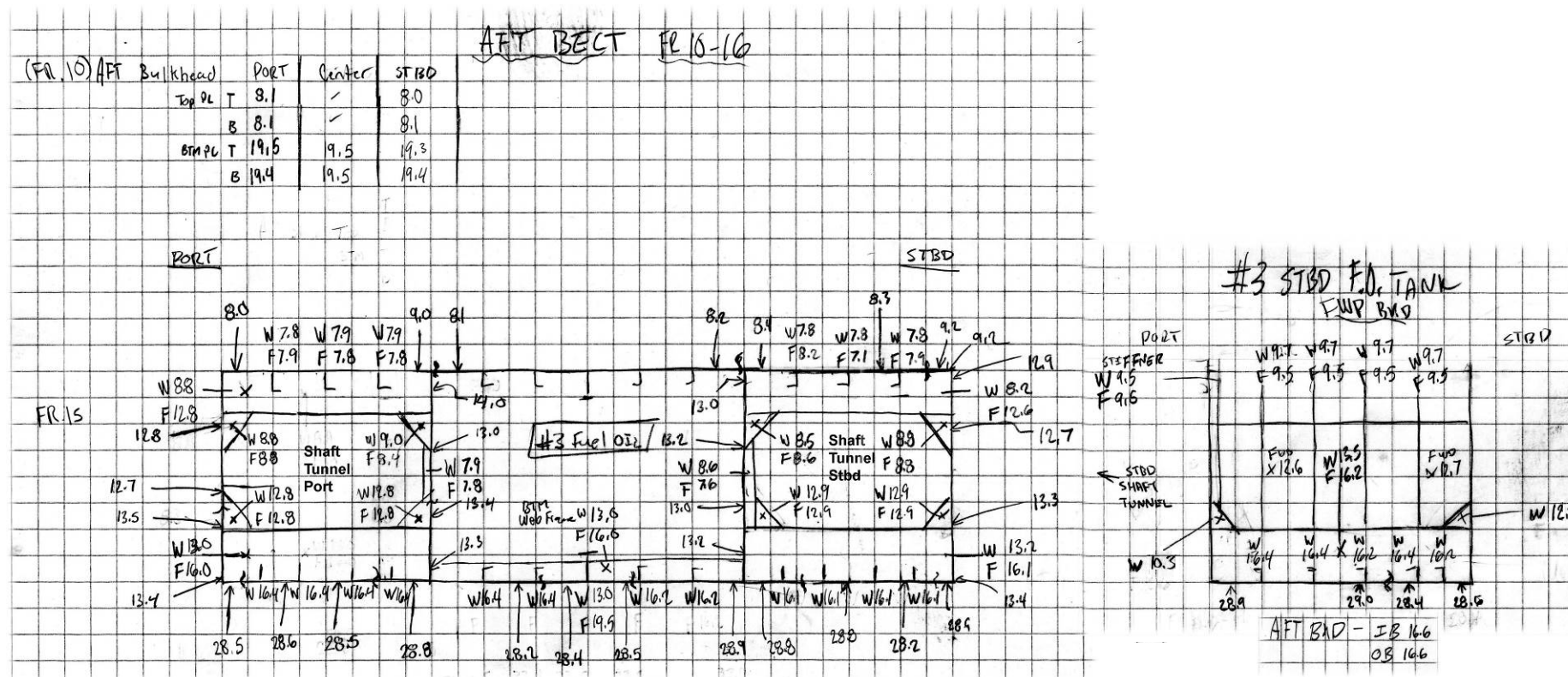


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October to December, 2013



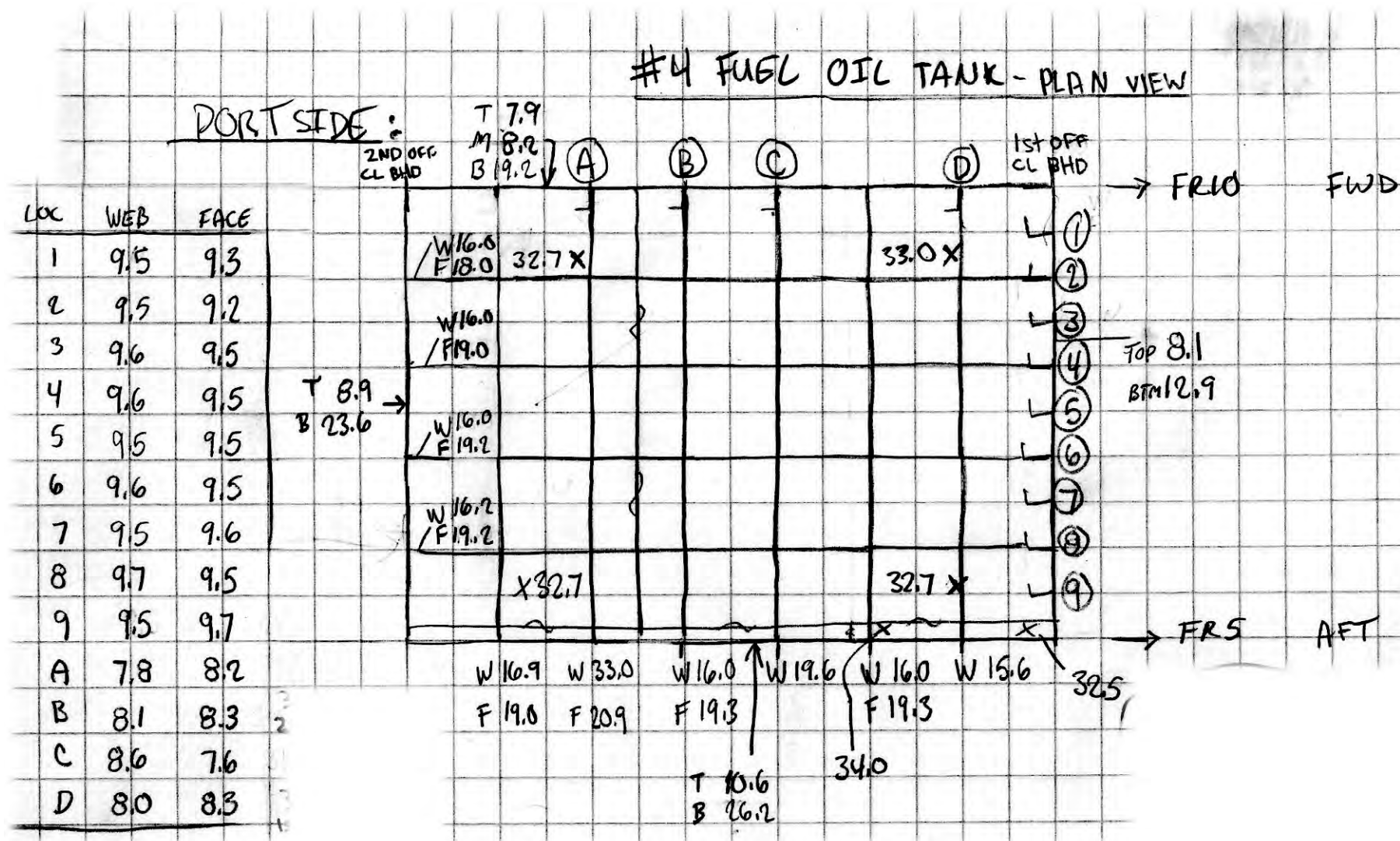
Operator's Signature:

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October to December, 2013



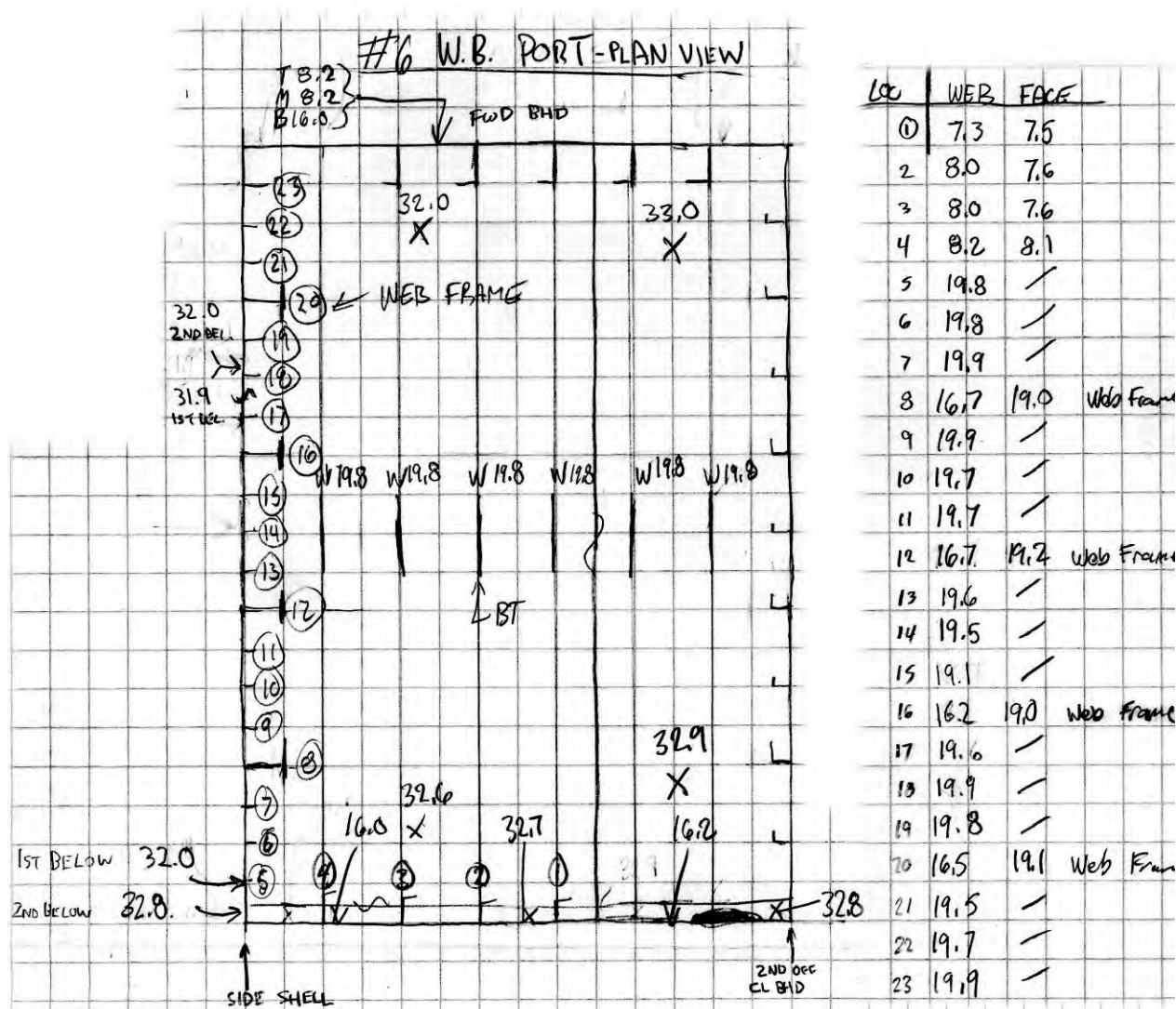


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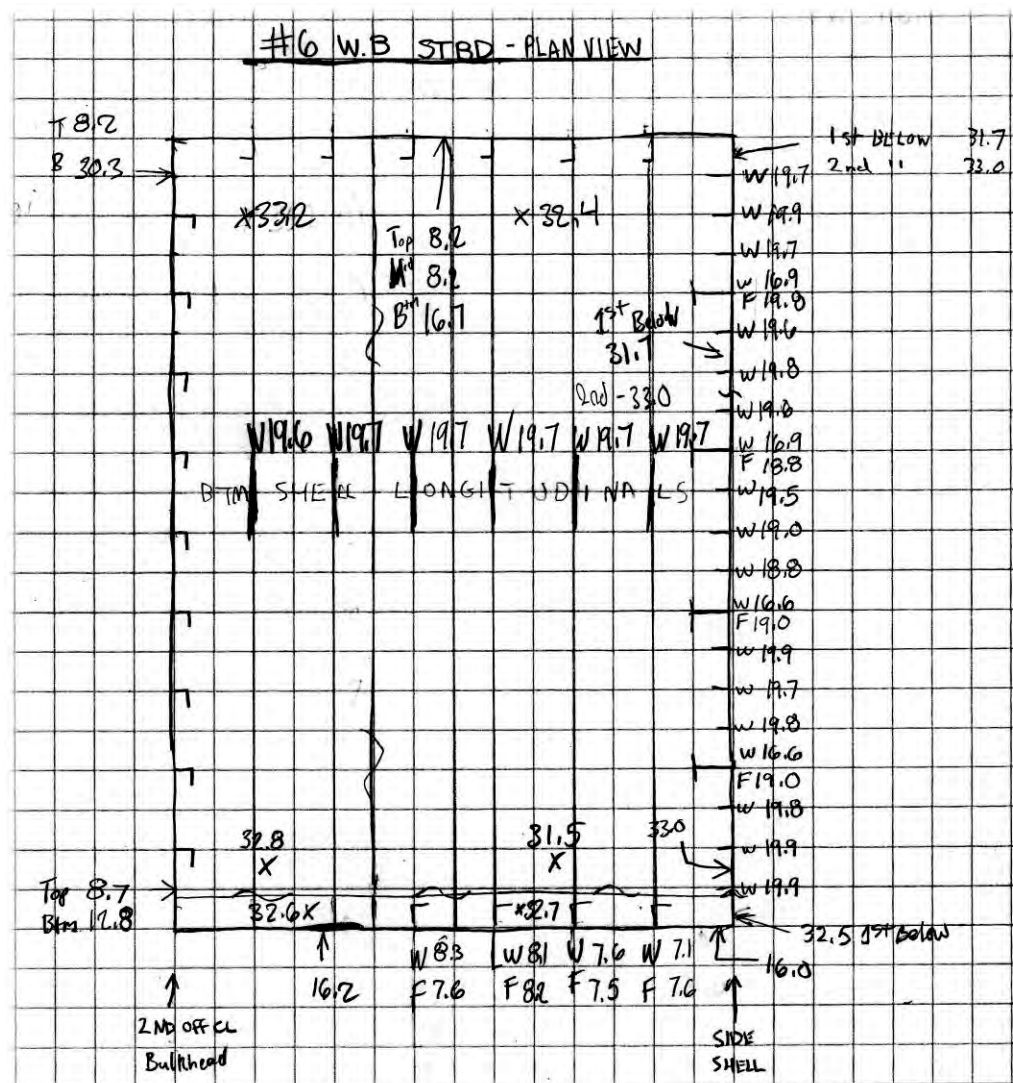
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 October to December, 2013



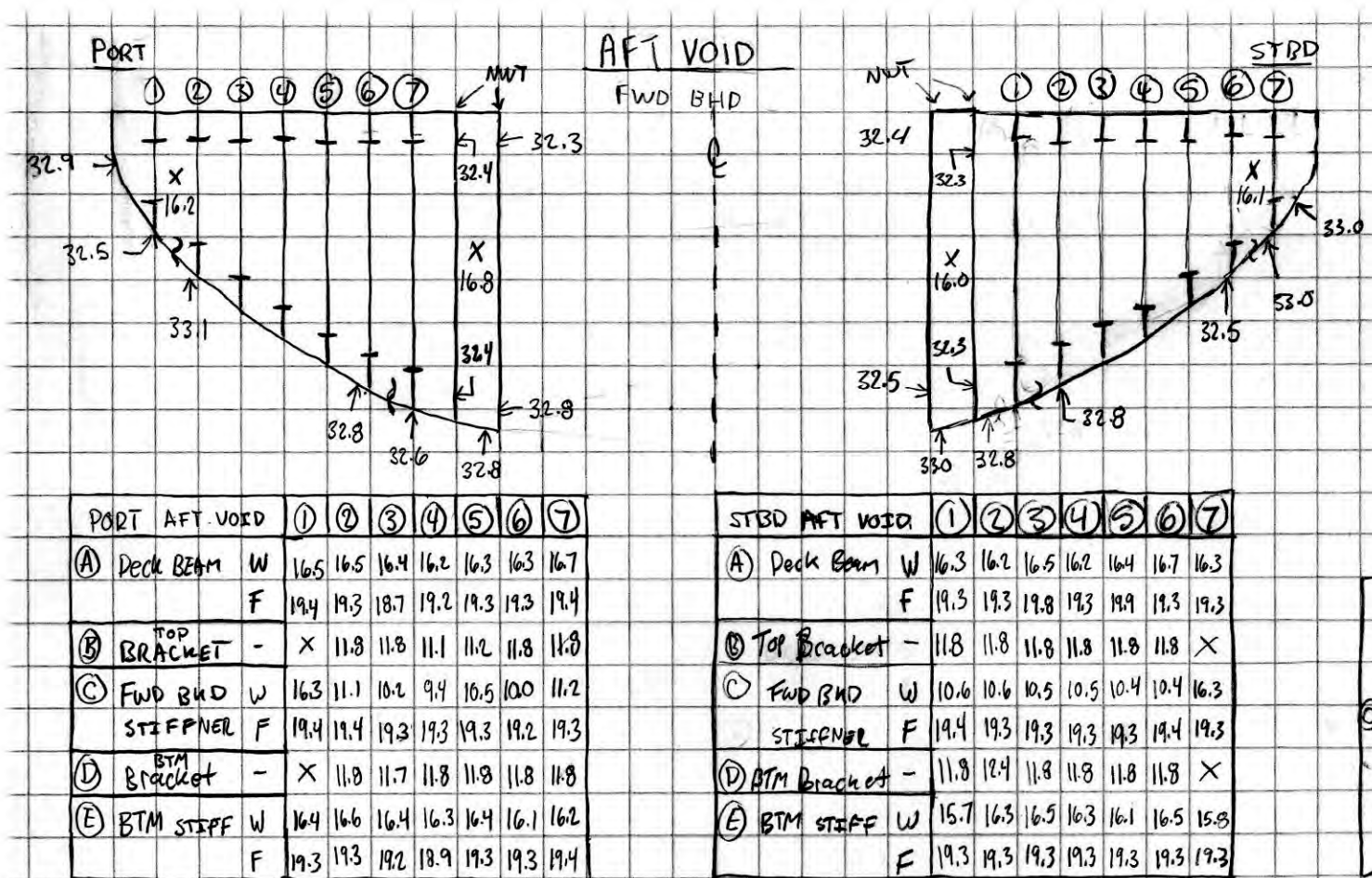


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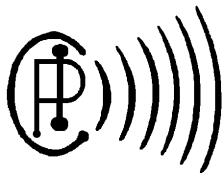


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**Surveyor's Signature:**

<b>Passmore Inspection Report #: 13-7160</b> <b>October to December, 2013</b>
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# PASSMORE INSPECTION & CONSULTING LIMITED

NONDESTRUCTIVE TESTING, CONSULTANCY & INSPECTION SERVICES

*Marine φ Aerospace φ Oilfield φ Industry*

10 FAULKNER STREET  
DARTMOUTH, NOVA SCOTIA  
B3A 3A3  
BUS: (902) 463-7378  
FAX: (902) 461-1520

## ULTRASONIC THICKNESS MEASUREMENT REPORT

Page 1 of 1

Client:	KMS Marine Services	Report # :	13-7160-1
		Inspection Date(s):	October 16, 2013
Address:	92 Simmonds Drive Dartmouth, N.S. B3B 1T6	Client Order # :	943367
		Job Location:	B.I.O., Dartmouth
Job Description:	<b>C.C.G.S. Earl Grey</b> Item: Oil Waste Tank – Fr. 30, Starboard, Inner Bottom Tank		
Procedure Code:	<input checked="" type="checkbox"/> PIC-NDT/UT-001 <input type="checkbox"/> PIC-NDT/UT-002 <input type="checkbox"/>	Acceptance Code:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Thickness Meter:	<input type="checkbox"/> KB DMS 2TC, 01Y1CD, T-8023 <input checked="" type="checkbox"/> KB DMS 2TC, 01Y1CJ, T-8024	Calibration Block:	<input checked="" type="checkbox"/> AML CS 5-Step, 6847, T-8018
Transducer:	<input checked="" type="checkbox"/> KBA560 <input type="checkbox"/> FH2E		
Material Examined:	<input checked="" type="checkbox"/> Carbon Steel <input type="checkbox"/> Aluminium <input type="checkbox"/> Stainless Steel <input type="checkbox"/> Copper Nickel	Couplant Used:	<input checked="" type="checkbox"/> Ultragel II <input type="checkbox"/> <input type="checkbox"/>

Were other NDE performed? ☐ YES ☒ NO If yes, reference report numbers:

The items examined (including locations) and the results are as follows:

Oil Waste Tank – Fr. 30, Starboard, Double Bottom Tank – Several pits were detected visually in the bottom shell plating. Ultrasonic thickness measurements were performed on the pits where possible.

Eight (8) pits were gauged in the inboard section of the tank and were found to have from 13.3mm-15.3mm plate thickness remaining, 31% - 19.5% diminution.

One (1) pit located under the sounding tube was gauged and was found to have 3.2mm of plate thickness remaining, 83% diminution.

Measurements are recorded in millimetres.

Original thicknesses: 19mm bottom shell plating

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**F** +852 2526 2921

**E** [asia@lr.org](mailto:asia@lr.org)

Suite 3501 China Merchants Tower  
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168-200 Connaught Road Central  
Hong Kong, SAR of PRC

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**E** [americas@lr.org](mailto:americas@lr.org)

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Houston, Texas, 77077, USA

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January 2014

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