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Rpt. C.11.

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# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Em. Rpt. 18556

Computation of Freeboard for Steamer, <del>Sailing Ship, Tug</del> having <u>POOP, BRIDGE &amp; FORECASTLE.</u>					Port of Survey <u>LIMMINGTON.</u>
(Type of Superstructures.)					Date of Survey <u>28<sup>th</sup> AUGUST 1933.</u>
Ship's Name <u>"DESPINA"</u>	Nationality and Port of Registry <u>GREEK.</u> <u>British STRA.</u>	Official Number <u>129,030.</u>	Gross Tonnage <u>4,461.</u>	Date of Build <u>1909-8.</u>	Name of Surveyor <u>D. TURNER</u>
Moulded Dimensions: Length <u>380.0'</u> Breadth <u>52.00'</u> Depth <u>28.00'</u>					Particulars of Classification <u>+ 100 A.1.</u>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>10840</u> tons					
Coefficient of fineness for use with Tables <u>807</u> <u>46</u> <u>available.</u>					

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... .. <u>28.00'</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(28.04 - 25.33) × 2.923 = + 7.92</u>	Moulded Breadth (B) <u>52.00'</u>
Stringer plate ... <u>.50'</u> ... <u>.04'</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>12.48</u>
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <u>13</u>
Depth for Freeboard (D) = <u>28.04</u>		Difference <u>.52</u>
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.52}{4} \times 5392 = -.07$

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..	<u>45'-10"</u>	<u>45.08</u>	<u>4'-11"</u>	-	<u>45.08</u>
" overhang ... ..					
R.Q.D. enclosed ... ..					
" overhang ... ..					
Bridge enclosed ... <u>45'-10"</u>	<u>95'-8.03</u>	<u>95.03</u>	<u>4'-11"</u>	-	<u>95.03</u>
" overhang aft ... ..	<u>.64</u>	<u>.48</u>			<u>.48</u>
" overhang forward ... ..					
F'cle enclosed ... ..	<u>34'-8.50</u>	<u>34.50</u>	<u>4'-11"</u>	-	<u>34.50</u>
" overhang ... ..					
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..					
" " forward ... ..					
Total ... ..	<u>175.25</u>	<u>175.09</u>			<u>175.09</u>

Standard Height of Superstructure <u>7.30'</u>
" " R.Q.D. <u>  </u>
Deduction for complete superstructure <u>40.67</u>
Percentage covered $\frac{S}{L} =$ <u>46.12</u>
" $\frac{S_1}{L} =$ <u>46.08</u>
" $\frac{E}{L} =$ <u>46.08</u>
Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Percentage from Table, Line B. <u>32.66</u> (corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required)
Deduction = <u>40.67 × 32.66 = -13.28</u>

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	<u>48.00</u>	1		<u>48.00</u>	<u>61.0"</u>	<u>61.0</u>	1		<u>61.0</u>
$\frac{1}{8}$ L from A.P. ... ..	<u>21.36</u>	4		<u>85.44</u>	<u>26.0"</u>	<u>26.0</u>	4		<u>104.0</u>
$\frac{2}{8}$ L " ... ..	<u>5.28</u>	2		<u>10.56</u>	<u>6.5"</u>	<u>6.5</u>	2		<u>13.0</u>
Amidships ... ..		4					4		
$\frac{2}{8}$ L from F.P. ... ..	<u>10.56</u>	2		<u>21.12</u>	<u>12.5"</u>	<u>12.5</u>	2		<u>25.0</u>
$\frac{1}{8}$ L " ... ..	<u>42.72</u>	4		<u>170.88</u>	<u>50.0"</u>	<u>50.0</u>	4		<u>200.0</u>
F.P. ... ..	<u>96.00</u>	1		<u>96.00</u>	<u>111.0"</u>	<u>111.0</u>	1		<u>111.0</u>
Total ... ..				<u>432.00</u>					<u>514.0</u>

Mean actual sheer aft = Excess  
Mean standard sheer aft =   

Mean actual sheer forward = Excess  
Mean standard sheer forward =   

Length of enclosed superstructure forward of amidships = .134  
  " " aft of " = .176 116

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{82}{18} (-.75 - .2306) = -2.37$

If limited on account of midship superstructure. ☒

If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft.

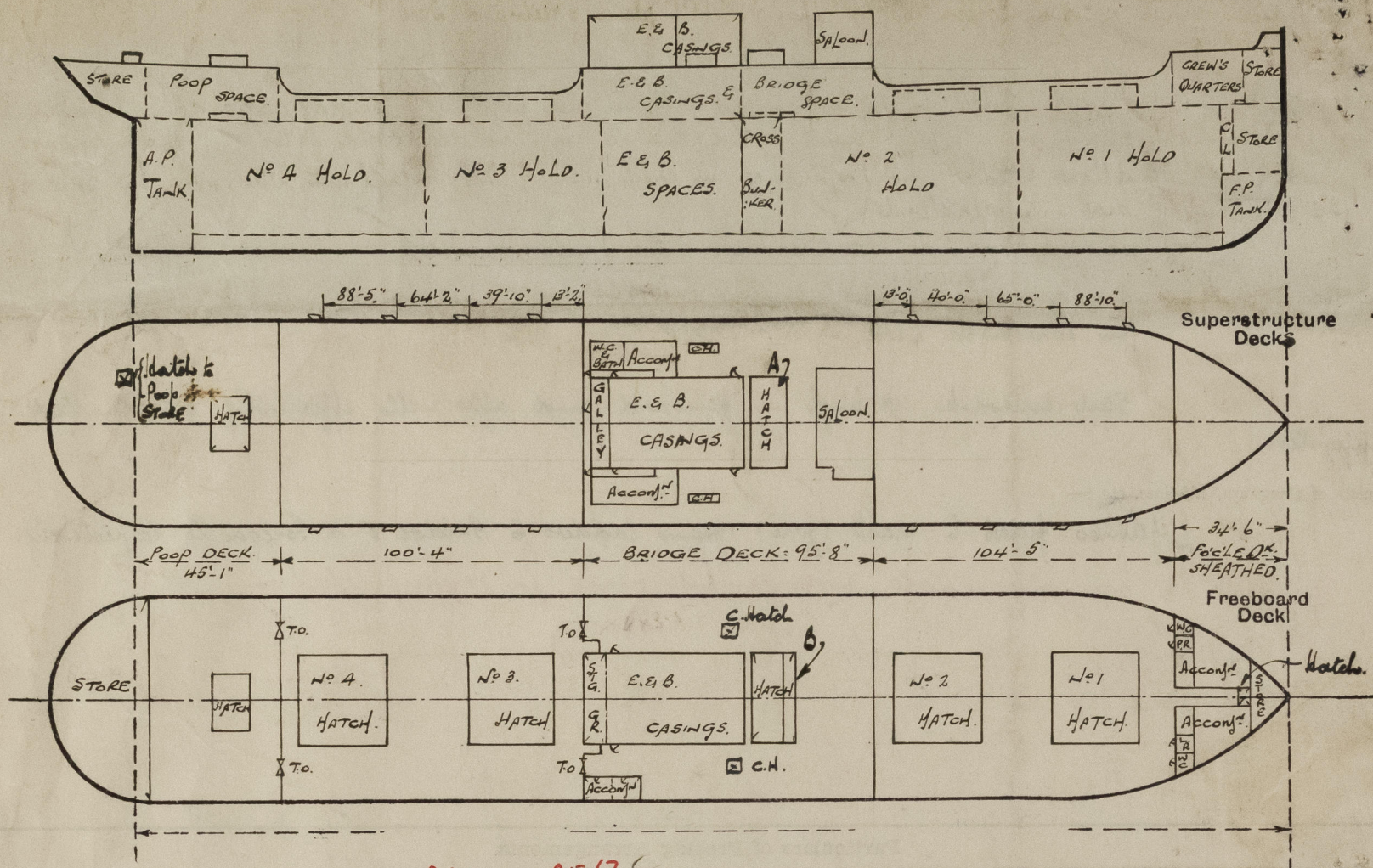
Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	<u>65.40</u>
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.807 + .68}{1.36} = \frac{1.487}{1.36}$	<u>71.51</u>
Depth to Freeboard Deck =	$\Delta =$	Depth Correction ... ..	<u>7.92</u>
Summer freeboard =	Tons per inch immersion at summer load water line	Deduction for superstructures ... ..	<u>-13.28</u>
Moulded draught (d) =	T =	Sheer correction ... ..	<u>-2.37</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction ... ..	<u>-0.07</u>
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships ... ..	<u>-</u>
		Other corrections, scantlings, etc. ... ..	<u>-</u>
			<u>7.92</u> <u>15.72</u> <u>-7.80</u>
			Summer Freeboard = <u>63.71</u>

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck: 5'-3 $\frac{3}{4}$ "

Tropical Fresh Water Line above Centre of Disc ... ..	Tropical Fresh Water Freeboard ... ..
Fresh Water Line " " ... ..	Fresh Water " " ... ..
Tropical Line " " ... ..	Tropical " " ... ..
Winter Line below " " ... ..	Winter " " ... ..
Winter North Atlantic Line " " ... ..	Winter North Atlantic " " ... ..



Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



$$\begin{array}{r} \text{Bridge } 95.67 \\ \text{Run } 2 \times 4.5 \times 3.5 = .64 \\ \hline 49.5 \quad 95.03 \end{array}$$

State any special features in the construction of the ship:—

*Note!* Survey held afloat and confined to an examination of the means for closing the openings in the deck and sides of the ship.

No parts of a Special Survey have been held at this time.

Please add the following to the list of items to be done:—

- ① All hatch covers and fore and afters to be found or placed in good condition, also tarpaulins.
- ② Steel webs on Bridge Deck & Freeboard Deck to be placed in good condition.
- ③ Hatches to Tween Deck and Cross Bunker - marked 'A' & 'B'.

Builder's name and yard number NORTHUMBERLAND SHIPBUILDING CO. LTD.

*Number not available*

Names of sister ships

Owners P. GEORGILIS & A. COSMAS.

Fee £ 12 : 15 : 0.

Received by me

*[Signature]*



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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS													
ON FREEBOARD DECK													
Description of Hatchway	No 1	No 2	No 3	No 4	IN BRIDGE SPACE	POOP SPACE	IN ROCKET	AT POOP DECK	AT POOP DECK	AT POOP DECK	AT POOP DECK	AT POOP DECK	AT POOP DECK
Dimensions of Hatchway	29' 2" x 18' 6"	29' 2" x 18' 6"	29' 2" x 18' 6"	29' 2" x 18' 6"	12' 6" x 18' 0"	12' 6" x 18' 0"	4' 3" x 4' 0"	12' 6" x 12' 0"	2' 8" x 2' 8"	10' 6" x 18' 1/2"	2' 0" x 3' 0"	6' 8" x 16' 6"	
COAMINGS	Height above Deck	45"	48"	39"	36"	9 1/2" B.A.	10" B.A.	9"	18"	9 1/2" B.A.	18"	9 1/2" B.A.	3' 3" L
	Thickness	50"	50"	50"	50"	50"	50"	50"	50"	50"	50"	50"	50"
	Sides	40"	40"	40"	40"	50"	50"	50"	50"	50"	50"	50"	50"
	Stiffeners	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
	Brackets, Stays	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
HATCH BEAMS	Number	5	5	5	5	1	NONE	NONE	NONE	NONE	NONE	NONE	NONE
	Spacing	4' 10"				6' 3"							
	Scantling and Sketch					J							
	DOUBLE ANGLES	4" x 3" x 40"											
	WEB	20" x 25"											
FORE AND AFTERS	WEB FLANGED	6"											
	Bearing Surface	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2						
	Number	NONE	NONE	NONE	NONE	3	3	NONE	3	NONE	NONE	NONE	NONE
	Spacing					4' 6"	3' 0"		3' 0"				
	Unsupported Lengths					5' 9"	12' 6"		12' 6"				
HATCH COVERS	Scantling and Sketch					CR. 7x7	8x8		8x8				
	CR.					2 7x7	8x8		8x8				
	SIDES					3	3		3 1/4				
	Bearing Surface					3	3		3 1/4				
	Material	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.
HATCH COVERS	Thickness	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
	How fitted	F. & A.	F. & A.	F. & A.	F. & A.	THWART	THWART	THWART	THWART	THWART	THWART	THWART	THWART
	Bearing Surface	4' 5" 2' 0" ENDS	4' 5" 2' 0" ENDS	4' 5" 2' 0" ENDS	4' 5" 2' 0" ENDS	2"	2"	2"	2"	2"	2"	2"	2"
	Spacing of Cleats	23"	23"	24"	24"	24"	26"	30"	26"	22"	23"	26"	24"
	Number of Tarpaulins	3	3	3	3	1	1	2	2	2	2	1	
<p>*Are wood fore and afters steel shod at all bearing surfaces? <i>Yes</i></p> <p>Are battens and wedges efficient and in good condition? <i>Yes</i></p> <p>Are tarpaulins in good condition and in accordance with rule requirements? <i>Yes to be examined</i></p> <p>Are lashings provided in accordance with rule requirements? <i>King bolts attached to Hatch coamings</i></p>													

Particulars of fiddle, funnel and ventilator coamings:—

Stokehold gratings covered by strong steel hinged covers.  
Fiddle, funnel and ventilator coamings in efficient condition.  
Engine room skylight of steel, strongly constructed.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

None.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

Ventilators on FREEBOARD DECK									
2	24" dia.	36" HIGH	34" THK.	COAMING	LED TO	No 1 HOLD.			
2	24"	36"	36"			No 1			
2	24"	36"	36"			No 2			
4	24"	36"	34"			No 3			
2	24"	36"	35"			No 4			
2	18"	DER'S POSTS	BKT TO POOP DECK			TUNNEL			
1	18"	33"	25"			BRIDGE TWIN DECKS			
4	24"	24"	18-20"						

2 Vents on Bridge Deck 18" dia. x 40" (Derrick posts) led to Bridge Tunnels. Also 2 Vents on Poop Deck 9" x 15" high x 20" dia. led to Poop Tunnels.

All vents constructed in accordance with rules & coamings closed with wood plugs & canvas covers.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

1 W.I. Air pipe on Fore Deck 26" high x 2" dia. from F.P. Tank. Air pipe closed with wood plug.  
Air pipes from No 1, 2 and 4 double bottom tanks extend to but not above Freeboard Deck and are each fitted with brass screw caps on Deck.

Particulars of Gangway Cargo and Coaling Ports:—

None.



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