

Lloyd's Register of Shipping

SURVEYS FOR FREEBOARD - STEAMERS

(Under the Provisions of the U. S. A. Load Line Act of March 2, 1929)

New York Office Index No. 127...

Port of Survey... New York...

Date of Survey... 1st March 1934

Name of Surveyor... John S. Heck

Ship's Name.	Port of Registry and Nationality.	Official Number.	Gross Tonnage.	Date of Build.	Particulars of Classification.
SS. <i>Columbia</i>	New York	233677	24578	1917	+10071
M.S. <i>Belgoland</i>	Belgium	233677	24578	1917	
Number in Register Book... 72364					Hull No. 391

Owner... *Atlantic Transport Co. of N. Virginia* Builder... *Harland & Wolff, Ltd.*

Moulded dimensions $670 \times 78 \times 49$ (85% = $41.65'$) 42.340 tons at $37' 11\frac{1}{2}"$ draft

Moulded displacement at a moulded draught of 85 per cent. of moulded depth...

Coefficient of fineness for use with tables... 761

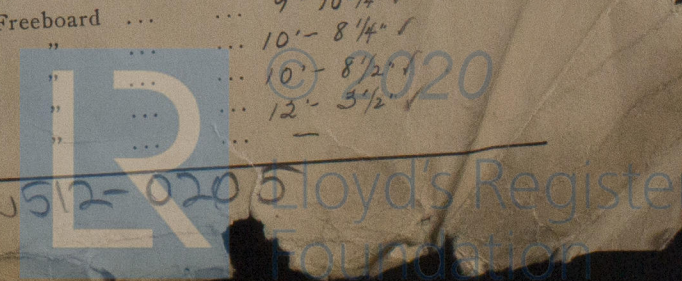
DEPTH FOR FREEBOARD.	CORRECTION FOR DEPTH.	CAMBER
Moulded depth ... 49.00	(a) When D is greater than $\frac{L}{15}$ $\frac{L}{15} = 44.66$	Standard $\frac{78 \times 12}{50} = \dots 18.72$
Stringer plate ... 0.4	$(D - \frac{L}{15}) \times R = (49.00 - 44.66) \times 3 = +13.20$	Ship ... 6.00
Sheathing in wells $\left\{ \begin{array}{l} 2" \text{ bitumastic} \\ \text{freboards deck} \end{array} \right.$	(b) When D is less than $\frac{L}{15}$ (if allowed).	Difference ... 12.72
$T(\frac{L-S}{L}) = 25 \times 1439$	$(\frac{L}{15} - D) \times R = \dots$	Restricted to ...
Depth $D = 49.08$	If restricted by height of superstructures ...	Allowance = $\frac{\text{Difference}}{4} \times (1 - \frac{S}{L}) = +46$

SUPERSTRUCTURES.					
	Mean Covered Length S.	Effective Length S _e (Uncorrected for Height)	Height.	Correction for Height.	Effective Length.
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	573.50	572.73	9' 5"	✓	572.73
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...					
" overhang ...					
Trunks forward ...					
" aft ...					
Tonnage opening ...					
TOTAL =	573.50	572.73			572.73
Length of ship (L) =	670	670			670
% Covered ... =	85.26	85.48			85.48
Corresponding %, corrected for absence of forecastle if required } A =		B = 82.24		Correction for Bridge less than 2 L if required } = -34.56	
Allowance ... =	42.1	x 82.24			

SHEER.					
Station.	Actual Sheer.	Standard Sheer.	Allowed Sheer.	S. M.	Products.
A.P. 1	57.00	77.00	57.00	1	57.00
2	17.50	34.26	17.50	4	70.00
3	1.50	8.47	1.50	2	3.00
4				4	33.00
5	16.50	16.94	16.50	2	240.00
6	60.00	68.52	60.00	4	141.50
F.P. 7	141.50	154.00	141.50	1	
Mean effective sheer ...					18) 544.52
Standard sheer .05 L + 5 =					30.25
Difference (Df) ...					38.50
Allowance = Df x $(.75 - \frac{S}{2L}) = 8.25$					8.25
If limited on account of amidship superstructure ...					+2.62
If limited on account of excess sheer (1 1/2 in. per 100 ft.) ...					✓

DRAFTS.	F. W. ALLOWANCE	TABULAR FREEBOARD
Moulded Depth $D = 49.08$	Displacement = 42430	Corrected for Coefficient $\frac{761 + 68}{1.36} = 1441$
Stringer Plate = $2\frac{1}{2}"$ (or Wood Deck) $49.12\frac{1}{2}"$	Tons per inch = 107.6	Correction for Depth ...
Freeboard $11.6"$		" Superstructures ...
Moulded draught $37.8\frac{1}{2}"$	$\frac{42430}{40 \times 107.6} = 9.85$	" Sheer ...
Addition for keel below base line $3"$		" Camber ...
Extreme draught $37.9"$	Say $9\frac{3}{4}"$	" Thickness of deck ...
		" Scantlings, etc. ...
		Summer Freeboard = 138.02

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:-	
Tropical Fresh Water Line (above center of Disc) $19\frac{1}{4}"$	Tropical Fresh Water Freeboard ... $9'-10\frac{3}{4}"$
Fresh Water Line " " $9\frac{3}{4}"$	Fresh Water " " $10'-8\frac{1}{4}"$
Tropical Line " " $9\frac{1}{2}"$	Tropical " " $10'-8\frac{1}{2}"$
Winter Line (below " ") $9\frac{1}{2}"$	Winter " " $12'-3\frac{1}{2}"$
Winter North Atlantic Line " " "	Winter North Atlantic " " "



Note:—The Rules referred to below are the Load Line Regulations of the United States Department of Commerce.
(These should be consulted when completing the report.)

Is the poop or raised quarter deck connected with the bridge? *no poop*
Has the poop or raised quarter deck an efficient steel bulkhead at the fore end? *yes*
Give particulars of the means of closing the openings in this bulkhead (Rules 43 and 44) *connected with fore-castle*
Has the bridge an efficient steel bulkhead at the fore end? *yes*
Give particulars of the means of closing the openings in this bulkhead *Steel hinged doors & wood hinged doors*
Has the bridge an efficient steel bulkhead at the after end? *constructed with bridge*
Give particulars of the means of closing the openings in this bulkhead
Are the engine and boiler openings covered by a bridge, poop, raised quarter-deck, or enclosed by a strong steel deckhouse? *By the bridge*
If the openings are not so protected, are the exposed parts of the casing efficiently constructed?
Give thickness of plating, scantlings and spacing of stiffeners
Are Rules Nos. 19, 20, 21 and 22 complied with (where applicable)? *yes*

Particulars of bulkheads of erections:

	Poop or Raised Quarter-Deck bulkhead	Bridge front bulkhead	Bridge after bulkhead	Forecastle bulkhead
Thickness of bulkhead plating			44	
Scantlings of stiffeners			L 7" x 3" x 1/2"	
Spacing of stiffeners, and if bracketed	✓	✓	31" 40	✓
Height of sills of openings above deck			10"	

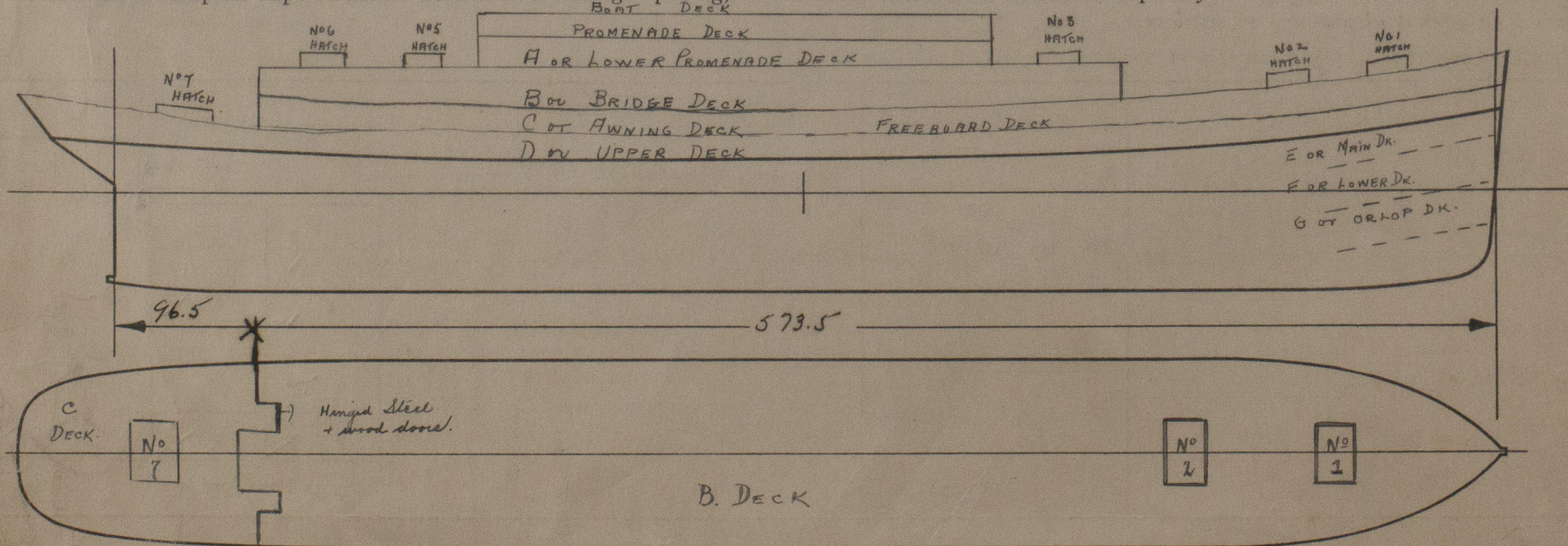
Particulars of weather deck hatchways. (In case of complete superstructure vessels having tonnage openings, give, in addition, particulars of 2nd deck hatchways, and also of those in bridge spaces closed by Class 2 appliances, or in open bridges).

Position and Size.		No. 1		No. 2		No. 3, 4, 5, 6 Above deck		No. 7			
Item.		Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.
COAMING. Height above top of DECK		30	30	30	30			30	30		
Thickness	Sides.....	44	44	44	44			44	44		
	Ends.....	40	40	40	40			40	40		
SHIFTING BEAMS OR WEB PLATES.	Number.....	Steel 11.5 arches cover	approved	4	4			3	3		
	Section and Scantlings.....	40		18 1/2" x 11 1/2" x 11 1/2"	12 x 6 x 11 1/2"			12 x 6 x 11 1/2"	12 x 6 x 11 1/2"		
	Material.....	Suppliers		Steel	Approved			Steel	Approved		
* FORE AND AFTERS.	Number.....										
	Section and Scantlings.....			None							
	Material.....										
HATCHES Thickness		40		3"	3"			3"	3"		
Remarks.....		Steel		Wood	Wood			Wood	Wood		

* The depth of Fore and Afters should be stated from the underside of the hatches in all cases.

Are Rules 12, 13, 14, 15, 16, 17, 18 complied with as far as practicable? *yes*
Are hatchway coamings stiffened in accordance with Rule 9? *yes*
Length of bulwarks in wells—forward: _____ feet; aft: _____ feet. *Open Rails*
Area of freeing ports required by regulations (Rules 30 and 100) forward: _____ sq. ft.; aft: _____ sq. ft.
No. Ft. x Ft.
Particulars of freeing ports fitted { forward well } _____ = _____ sq. ft. ✓
on each side of vessel { after well } _____ = _____ sq. ft. ✓
Are Rules 23 and 24 complied with as far as practicable? *yes*
Are air pipes to tanks in accordance with Rule 25? *yes*
Are all scuppers and sanitary discharge pipes in accordance with Rule 27? *yes*
In oil tankers, what is the extent of the fore and aft gangway? *yes* Are the crew berthed in the fore-castle? (Rule 96) *yes*
Is the gangway strong and efficiently braced fore and aft? *yes* State spacing of supports _____ feet. ✓
In oil tankers, are the bulwarks open for at least half the length of the exposed portion of the weather deck? (Rule 100) *yes*
Are Rules Nos. 95, 97, 98 and 99 complied with as far as practicable? *yes*

If the vessel has a complete superstructure deck with a tonnage opening, is the latter fitted with efficient temporary covers?



Indicate thickness and extent of any deck covering, and extent of erections, with dimensions, showing overhang (if any).
Indicate position of scuppers from tonnage-exempted spaces above freeboard deck.

Sister vessels: *None*

Fee: *\$130.00*

Expenses (if any): *\$900*

Signed *John D. Heck*
Surveyor to Lloyd's Register of Shipping.

Enclosure

Dear Sir

F.

as below
steamer

original

letter of

Cablegrams

COLUMBIA
PLEASE
OF SUPER
FOR REPO

Cablegrams

COLUMBIA
6 FORECA
5 SHEERS
141 POIN
42430 TO
OF TWO

James F.

NEW