

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Index. No. **30684**
 (For London Office only.)

23 JUN 1932

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~
 having closed bridge

(Type of Superstructures.)

Port of Survey Rio de Janeiro

Date of Survey May 1932

Name of Surveyor H.E. Inman

Particulars of Classification 100A1
with freeboard
Limited for oil fuel 5.74%

Ship's Name "CABLE ENTERPRISE" Nationality and Port of Registry British London Official Number 147639 Gross Tonnage 943 Date of Build 1924-5

Moulded Dimensions: Length 190'-0" Breadth 30'-0" Depth 21'-4"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 2220 tons

Coefficient of fineness for use with Tables 752

Depth for Freeboard (D)

Moulded depth ... 21'-3 3/4" 21'-4"

Stringer plate 3/4" ... 0.3 1/2"

Sheathing on exposed deck 2-1/4"

$T \left(\frac{L-S}{L} \right) = 191.7899 \cdot 15$

Depth for Freeboard (D) = 21'-5 1/4"

Depth correction

(a) Where D is greater than Table depth
 (D - Table depth) R = (21.56 - 12.67) 1.461 = 12.91

(b) Where D is less than Table depth (if allowed)
 (Table depth - D) R =

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) 30'-0"

Standard Round of Beam = $\frac{B \times 12}{50} = 7.2$

Ship's Round of Beam = 7.5

Difference 0.3

Restricted to

Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.3^2}{4} \times 79.51 = .06$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...						Standard Height of Superstructure <u>G</u>
" overhang ...						" " R.Q.D.
R.Q.D. enclosed ...						Deduction for complete superstructure <u>21.01</u>
" overhang ...						Percentage covered $\frac{S}{L} = 21.01$
Bridge enclosed <u>36'-37"</u>	<u>36.37</u>	<u>36.37</u>	<u>7'-0"</u>		<u>36.37</u>	" " $\frac{S_1}{L} = 20.49$
" overhang aft ...	<u>3.13</u>	<u>2.35</u>			<u>2.35</u>	" " $\frac{E}{L} = 20.49$
" overhang forward <u>42.5"</u>	<u>42.5</u>	<u>21</u>			<u>21</u>	Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Fore enclosed ...						Percentage from Table, Line B. (corrected for absence of forecastle (if required))
" overhang ...						Interpolation for bridge less than 2L (if required)
Trunk aft ...						Deduction = <u>8.01% x 25 =</u>
" forward ...						
Tonnage opening aft ...						
" forward ...						
Total ...	<u>39'-11"</u>	<u>38.93</u>			<u>38.93</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<u>29.00</u>	1	29.00	<u>28.00</u>	<u>28.00</u>	1	<u>28.00</u>			Mean actual sheer aft = <u>14.92</u>
1/4 L from A.P. ...	<u>12.90</u>	4	<u>51.60</u>	<u>13.50</u>	<u>13.50</u>	4	<u>54.00</u>			Mean standard sheer aft = <u>15.03</u> = <u>.99 Excess</u>
1/2 L " ...	<u>3.19</u>	2	<u>6.38</u>	<u>3.25</u>	<u>3.25</u>	2	<u>6.50</u>			Mean actual sheer forward = <u>21.67</u>
Amidships ...	<u>0.00</u>	4	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	4	<u>0.00</u>			Mean standard sheer forward = <u>30.06</u> = <u>.72 Defc</u>
3/4 L from F.P. ...	<u>6.38</u>	2	<u>12.76</u>	<u>5.50</u>	<u>5.50</u>	2	<u>11.00</u>			Length of enclosed superstructure forward of amidships = <u>19</u>
1/4 L " ...	<u>25.81</u>	4	<u>103.24</u>	<u>17.50</u>	<u>17.50</u>	4	<u>70.00</u>			" " aft of = <u>109.5</u>
F.P. ...	<u>58.00</u>	1	<u>58.00</u>	<u>42.00</u>	<u>42.00</u>	1	<u>42.00</u>			
Total ...			<u>18 260.98</u>				<u>18 211.50</u>			

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

If limited on account of midship superstructure.

$$\frac{50.24}{18} (.75 - 10.50) = + 1.80$$

If limited to maximum allowance of 1 1/2 ins. per 100

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient <u>752+68</u> <u>1.36</u>
Depth to Freeboard Deck = <u>21.55</u>	$\Delta = 1600$	Depth Correction ... <u>12.91</u>
Summer freeboard = <u>7.44</u>	Tons per inch immersion at summer load water line	Deduction for superstructures ... <u>2.00</u>
Moulded draught (d) = <u>14.11</u>	T = <u>11.14</u>	Sheer correction ... <u>1.80</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>3.53 3/4</u>	Deduction = $\frac{\Delta}{40T}$ inches = <u>3.6 = 3 1/2</u>	Round of Beam correction ... <u>.06</u>
Addition for Winter North Atlantic Freeboard (if required) = <u>2</u>		Correction for Thickness of Deck amidships ... <u>.10</u>
		Other corrections, scantlings, etc. ... <u>.05</u>
		Summer Freeboard = <u>22.25</u>

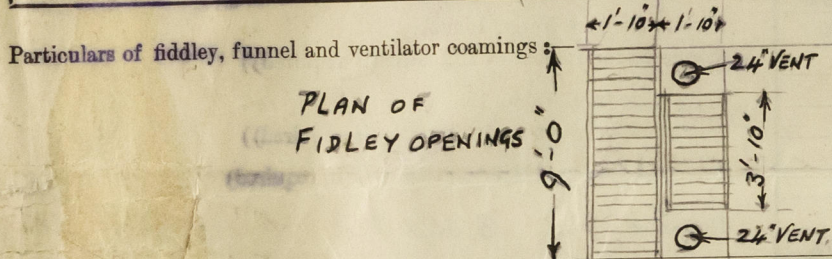
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, ~~Steel~~ Deck

24 JUN 1932	Tropical Fresh Water Line above Centre of Disc ... <u>7</u>	Tropical Fresh Water Freeboard ... <u>7</u>
	Fresh Water Line " " ... <u>3 1/2</u>	Fresh Water " " ... <u>3 1/2</u>
	Tropical Line " " ... <u>3 1/2</u>	Tropical " " ... <u>3 1/2</u>
	Winter Line below " " ... <u>3 1/2</u>	Winter " " ... <u>3 1/2</u>
	Winter North Atlantic Line " " ... <u>5 1/2</u>	Winter North Atlantic " " ... <u>5 1/2</u>

 MARKING FORM
 RECEIVED 2 JUL 1932
 RECEIVED 10 FEB 1932

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS							
Description of Hatchway	F. Peak	No. 1	2 cable gear hatches	2 cable drum hatches circular	Hatch to store Room, abaft E.R. for p. & s. side casing	Hatch inside Bridge oil tanks.	Hatch inside Bridge
Dimensions of Hatchway	1'-8" x 2'-0"	6'-11" x 6'-11"	7'-9" x 5'-6 1/2"	5'-0" diam.	3'-0" x 3'-0"	3'-3" x 2'-6"	
COAMINGS	Height above Deck	10"	15 3/4"	25 1/2"	16"	10"	7 1/2"
	Thickness	5/20"	9/20"	8/20"	8/20"	5/20"	7/20"
	Stiffeners	none	none	none	none	none	none
	Brackets, Stays	"	"	"	"	"	"
HATCH BEAMS	Number	none	one	none	none	none	none
	Spacing		3'-5 1/2"				
	Scantling and Sketch		7/8" x 5'0" / 5.3" x 5'0"				
	Bearing Surface		3 1/2" x 1 1/2"				
FORE AND AFTERS	Number	none	none	none	none	none	none
	Spacing						
	Unsupported Lengths						
	Scantling* and Sketch						
HATCH COVERS	Material	steel	pine	pine	pine	steel	steel
	Thickness	5/20"	2 1/2"	2 1/2"	2 1/2"	5/20"	7/20"
	How fitted	hinged & toggles	F. & A. Thwartships	Thwartships	Thwartships	hinged & toggles	jointed, with spaced
	Bearing Surface	3" x 3" x 8/20" angles	3" x 3" x 8/20" angles	3" x 3" x 8/20" angles	3" x 3" x 8/20" angles	2 hinges & 2 toggles	—
Spacing of Cleats	2 hinges & 2 toggles	19"	21"	16"			
Number of Tarpaulins	3	3	3				
*Are wood fore and afters steel shod at all bearing surfaces? No fore and afters fitted Are battens and wedges efficient and in good condition? yes Are tarpaulins in good condition and in accordance with rule requirements? yes Are lashings provided in accordance with rule requirements? yes							



Fidley gratings 9'-0" x 1'-10" plus 3'-10" x 1'-10", coamings 4" high, no storm covers fitted, situated on bridge deck. Four 18" vents to engine room, two 24" vents to boiler room.

Particulars of Flush Bunker Scuttles:— One 18" diam. on port and starboard sides at after end of bridge, material cast iron with bayonet joints but no chain attachment, opening trunked to lower deck.

Particulars of Companionways:— One forward 4'-0" x 2'-6" x 4'-0" high, sill at opening 10 1/2" high. One aft 4'-9" x 2'-6" x 4'-1" high, sill at opening 10 1/2" high. Formed of 5/20" steel plate, with teak sliding tops and entrance doors capable of being closed from both sides.

Particulars of Ventilator positions on freeboard and superstructure decks:— On freeboard deck:— forward, port and starboard sides, four 6" cowl vents, coamings 2'-6" above wood deck; four 6" goose necks, lips 8" above wood deck; four 6" cowl vents, coamings 2'-6" above wood deck, port side six 8" and starboard side six 8" and one 6" cowl vents, coamings 2'-6" above wood deck. Also four 6" goose necks on each side, lips 8" above wood deck. On bridge deck: four 18" vents to engine room and two 24" ditto to boiler room, with cowls. Coamings of cowl vents forward have plate steel and canvas covers, aft they have wooden plugs and canvas covers. Goose necks have canvas covers which have to be kept permanently in position forward when closed.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— On freeboard deck: forward, four with goose necks on each of the port and starboard sides, lips 27 1/2" above wood deck, with canvas covers. Aft, three ditto on each side, lips 27 1/2" above wood deck, with canvas covers.

Particulars of Canvas Cover and Opening Ports:— One coaling port door on port and starboard sides in bridge space, 5'-0" x 2'-0" steel door with two hinges and two toggles.



Particulars of Scuppers and Sanitary Discharge Pipes — ~~Two~~ 1" port and three 4 1/2" starboard with brass storm valves, Two of those on starboard side discharge from W.C.s on lower deck and have screw down valves, the upper ends of remaining pipes have screwed plugs.

Particulars of Side Scuttles: Below freeboard deck: 28 starboard and 27 port, 15" diam. brass hinged scuttles, with hinged steel deadlights, centres 1'-6" below freeboard deck. In bridge space, 6 starboard and 4 port, 15" diam. brass hinged scuttles without deadlights, centres 1'-6" below bridge deck.
Note:- Side scuttles in way of cable buoys have protecting bars.

Particulars of Guard Rails:— Stanchions and open rails.

Particulars of Gangways, Lifelines, etc.:—

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well			Open rails and stanchions ✓			
Forward Well			Open rails and stanchions ✓			
State position of each freeing port } After Well:— (F. and A. position and height above deck edge) } Forward Well:— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead	7/20"	5/20"	plate flanged 2 1/2"		none ✓	3'-0" - weather boards ✓		7'-0"
Bridge, Forward Bulkhead	7/20"	6/20"	6"x3"x 1/2" bulb angles ✓	30"	5"x5"x 1/2" lugs, top & bottom ✓	2:5'x 2'-6" doors 2:23 1/2"x 16 1/2" lights 2:13" diam round lights.	10"	7'-0"
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	5/20"	5/20"	3"x3"x 1/4"	30"	none	none		4'-5"
Exposed Machinery Casings on Superstructure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships ...								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	Full height weather boards in rivetted channels ✓
Bridge, Forward Bulkhead	2 steel doors 5'-0"x 2'-6"x 8/20" with 2 hinges & 2 toggles, can be closed or deadlights ✓
Forecastle Bulkhead	2 brass square lights 23 1/2"x 16 1/2", without covers ✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	2 " round " 13" diam., " " " " ✓
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships ...	Steel deck house has wood doors, sills 1 1/2" above wood deck. ✓

002442-002448-0146 2/2

Cable Enterprise.



Cable Ship

Yolow length
39-11
overha. fr. 5
39-6

145 ✓
34 92 ✓
 36.37 Eggs enclosed

39.5
36 37
 3.13 overhang aft

Note:- This survey has been held in dry dock when the vessel was undergoing her Special Survey No.2.

Om 17

Received by me