

Rpt. C.11.

Index. No. **29796**
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

No 30946

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having

Raised Quarter Deck, Bridge, & Forecastle.

(Type of Superstructures.)

Port of Survey

Sunderland.

Date of Survey

10th June 1932.

Name of Surveyor

D. J. Paton.

Particulars of Classification

+100 A.I.

Ship's Name

"EDENSIDE"

Nationality and Port of Registry

*British
Sunderland.*

Official Number

144833

Gross Tonnage

366

Date of Build

*1921
G Mo.*

Moulded Dimensions: Length

135.0'

Breadth

23.5'

Depth

11.0'

Moulded displacement

*13.3 draught = 85 per cent. of moulded depth**637*

tons

Coefficient of fineness for use with Tables

782

Depth for Freeboard (D)

Moulded depth *11.0'*Stringer plate *30* *04*

Sheathing on exposed deck

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

Depth for Freeboard (D) =

11.04

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R =*(11.04 - 9.00) 1.038 = +2.12*(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) *23.5*Standard Round of Beam = $\frac{B \times 12}{50} =$ *5.64*Ship's Round of Beam = *6"*Difference *.36*

Restricted to

Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ *.36 / 4 (1 - .5283) = -.04*

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>✓</i>				
" overhang ...	<i>✓</i>				
R.Q.D. enclosed ...	<i>44.00</i>	<i>44.00</i>	<i>3.25'</i>		<i>44.00</i>
" overhang ...	<i>✓</i>		<i>2.25'</i>		
Bridge enclosed ...	<i>8.0'</i>	<i>8.00</i>	<i>7.0</i>		<i>8.00</i>
" overhang aft ...	<i>✓</i>				
" overhang forward ...	<i>19.31</i>		<i>4.85'</i>	<i>4.71</i>	<i>15.16</i>
Fore enclosed ...	<i>18.25'</i>	<i>19.31</i>	<i>4.5</i>	<i>6.00</i>	<i>14.87</i>
" overhang ...	<i>✓</i>				
Trunk aft ...	<i>✓</i>				
" forward ...	<i>✓</i>				
Tonnage opening aft ...	<i>✓</i>				
" forward ...	<i>✓</i>				
Total ...	<i>71.31</i>	<i>71.31</i>			<i>67.16</i> <i>66.87</i>

Standard Height of Superstructure

6.0

" " R.Q.D.

3.24

Deduction for complete superstructure

*19.50*Percentage covered $\frac{S}{L} =$ *.5283*" " $\frac{S_1}{L} =$ *.5283*" " $\frac{E}{L} =$ *.4954*

Percentage from Table, Line A.

(corrected for absence of forecastle (if required))

Percentage from Table, Line B.

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = *19.5 + .36 / 4 = -6.75*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>23.50</i>	1		<i>23.50</i>	<i>27.0</i>	<i>27.0</i>	1		<i>27.00</i>
$\frac{1}{8}$ L from A.P. ...	<i>10.46</i>	4		<i>41.84</i>	<i>11.65</i>	<i>11.65</i>	4		<i>46.60</i>
$\frac{3}{8}$ L " ...	<i>2.59</i>	2		<i>5.18</i>	<i>2.90</i>	<i>2.90</i>	2		<i>5.82</i>
Amidships ...		4			<i>0</i>		4		
$\frac{5}{8}$ L from F.P. ...	<i>5.17</i>	2		<i>10.34</i>	<i>5.86</i>	<i>5.86</i>	2		<i>11.72</i>
$\frac{7}{8}$ L " ...	<i>20.92</i>	4		<i>83.68</i>	<i>23.50</i>	<i>23.46</i>	4		<i>93.84</i>
F.P. ...	<i>47.00</i>	1		<i>47.00</i>	<i>54.00</i>	<i>54.00</i>	1		<i>54.00</i>
Total ...				<i>211.54</i>					<i>238.98</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ *$\frac{27.44}{18} (.75 - .2641) = -.74$*

If limited on account of midship superstructure.

14.1

If limited to maximum allowance of 1½ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *11.04'*Summer freeboard = *.85*Moulded draught (d) = *10.19'*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *2.54 = 2½"*Addition for Winter North Atlantic Freeboard (if required) = *2"*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ *715*

Tons per inch immersion at summer load water line

 $T =$ *625*Deduction = $\frac{\Delta}{40 T}$ inches $=$ *2.86* $=$ *2¾"*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

 $\frac{782 + 68}{1.36} = \frac{1432}{1.36}$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

*13.60**14.32**2.12**6.75**.04**4**12**2.12**6.20**4.28**10.24*

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

Tropical Fresh Water Line above Centre of Disc ...

Fresh Water Line " " ...

Tropical Line " " ...

Winter Line below " " ...

Winter North Atlantic Line " " ...

Tropical Fresh Water Freeboard ...

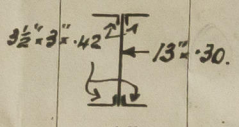
Fresh Water " " ...

Tropical " " ...

Winter " " ...

Winter North Atlantic " " ...

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	ON. UPPER DK.						
Dimensions of Hatchway	...	...	50'-0" x 15'-0"						
COAMINGS	{	Height above Deck	...	3'-0"					
		Thickness	Sides	...	.444				
			Ends	...	.444				
		Stiffeners	...	7 x 3 - 44 BA					
		Brackets, Stays	...	6 x 3 1/2 x 24 PLATE. Spaced 10' & 14' apart.					
HATCH BEAMS	{	Number	...	9					
		Spacing	...	5'-0"					
		Scantling and Sketch	...						
		Bearing Surface	...	3"					
		FORE AND AFTERS	{	Number	...				
Spacing	...								
Unsupported Lengths	...								
Scantling* and Sketch	...								
Bearing Surface	...								
HATCH COVERS	{	Material	...	S.P.					
		Thickness	...	2 1/2"					
		How fitted	...	F&A					
		Bearing Surface	...	3"					
Spacing of Cleats	...	...	...	24"					
Number of Tarpaulins	...	...	...	3.					

*Are wood fore and afters steel shod at all bearing surfaces? *NONE.*
 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.*

Particulars of fiddle, funnel and ventilator coamings:—

*Stokehold gratings covered by strong steel hinged covers.
 Engine & Boiler Room Ventilators in efficient condition
 Engine room skylight of steel, strongly constructed.*

Particulars of Flush Bunker Scuttles:—

*Two on Raised Quarter deck.
 17" dia. with cast steel screwed covers.*

Particulars of Companionways:—

NONE.

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

*One on Forecastle Deck. 4 1/2" dia. boaming 12" high x .22. To brass space.
 Two on Upper Deck. forward well. 10" dia. boaming 20" high x .30 To Hold.
 Wood plugs & Canvas covers fitted.*

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

*one Air Pipe 2 1/2" dia. x 6" high to mouth. on Fore Deck. to fore Peak tank.
 one " " 2" " x 10" 30" " " " R.Q. Dk. to after " "
 Efficient means of closing provided*

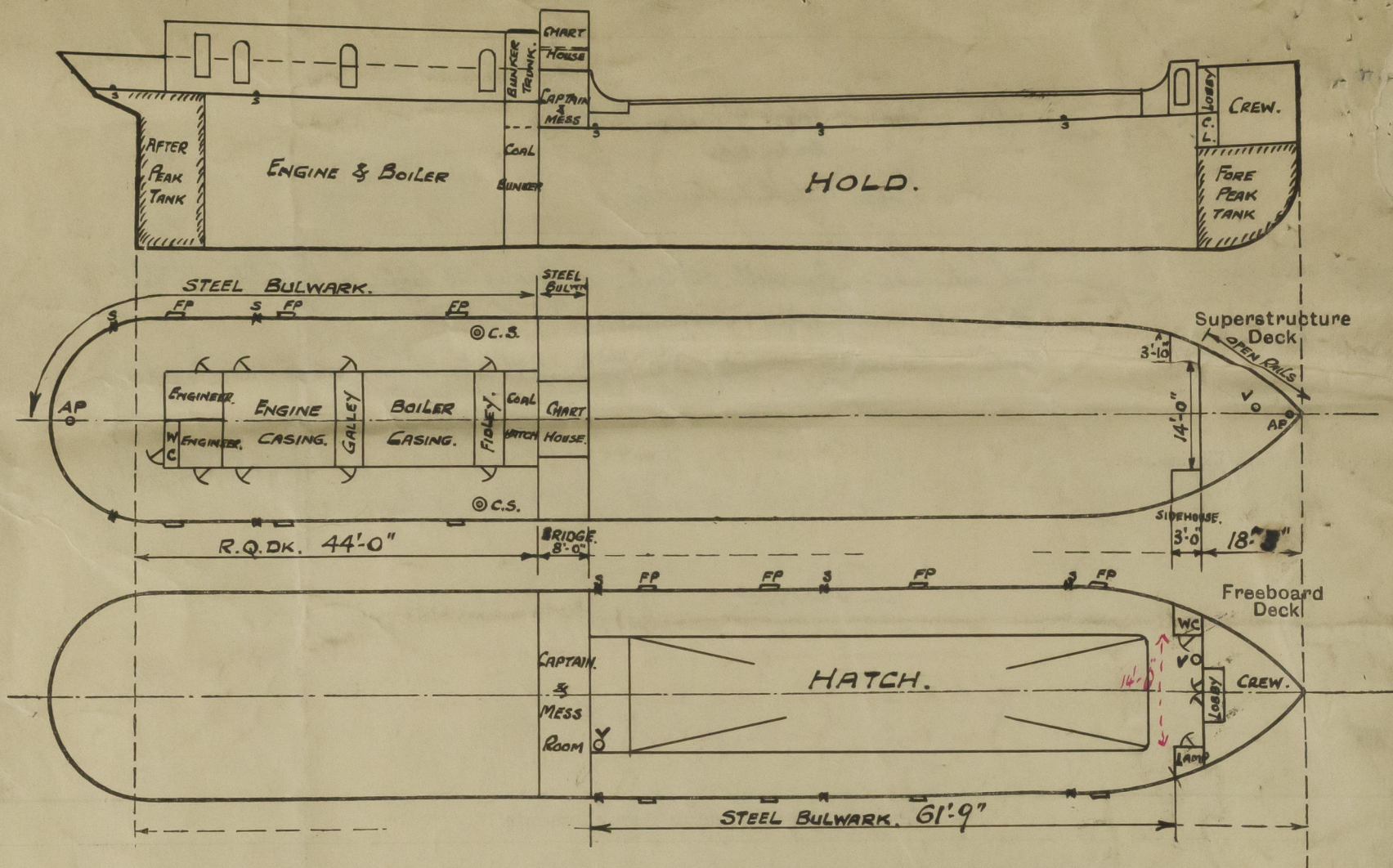
Particulars of Gangway Cargo and Coaling Ports:—

NONE.



Edenside

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



Bridge & Fore 3 1/2" P.P. sheathing

*Fals:- 21.25 - 7+3
10.83
= 21.25 - 1.94
= 19.31*

V = VENTILATOR.
AP = AIR PIPE.
CS = COAL SCUTTLE
S = SCUPPER
FP = FREEING PORT.

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

*The vessel has been examined afloat.
The decks, hatchways & hatches, ventilators & Cunnings,
Air pipes, bulwarks, & General equipment have been found
in good condition. [with exceptions of items on accompanying letters].
The holds have been examined & generally found satisfactory.*

Builder's name and yard number

James S.D. Morris Ltd. Newcastle. No 70.

Names of sister ships

Rose line Ltd.

Owners

Sunrise Shipping Coy. Ltd. (J. Rose Manager).

Fee £

5 : 2

Received by me

[Signature]



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Foundation