

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, ~~SAILING SHIP, TANKER.~~)

Ship's Name EMPIRE KINGSWAY.	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build 1946	Port of Survey GREENOCK
Moulded Dimensions: Length 202'0" Breadth 32'7" Depth 15'1 7/8" <small>To CR. OF RUDDER STOCK. To UPPER DECK LINE PRODUCED TO DECK</small>					Date of Survey WHILST BUILDING.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1760 tons					Surveyor's Signature <i>Wharmillan</i>
Coefficient of fineness for use with Tables 726					Particulars of Classification

Depth for Freeboard (D). Moulded depth ... 15.16 Stringer plate ... 3/8"03 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ NONE. Depth for Freeboard (D) = 15.19	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(15.19 - 13.47) \times 1.553 = + 2.67"$ (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) 32.58' Standard Round of Beam = $\frac{B \times 12}{50} =$ 7.82 Ship's Round of Beam = $7 \frac{1}{8} =$ 7.88 Difference EXUN .06 Restricted to Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) =$ $\frac{.06 \times 16.43}{4} =$ NIL
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	38.75	38.75			38.75	Standard Height of Superstructure 6.00
.. overhang R.Q.D. 3.680
R.Q.D. enclosed ...	94.00	94.00			94.00	Deduction for complete superstructure 26.2
.. overhang ...						Percentage covered $\frac{S}{L} =$ 83.82
Bridge enclosed. EQUIVA..	13.33	13.33	7.50		13.33 $\frac{S_1}{L} =$ 83.07
.. overhang aft ...						Percentage from Table, Line A. 79.10
.. overhang forward						(corrected for absence of forecastle (if required))
Fore enclosed OPEN ...	23.25	21.72	4.00		21.72	Percentage from Table, Line B. -
.. overhang ...						(corrected for absence of forecastle (if required))
Trunk aft ...						Interpolation for bridge less than 2L (if required) -
.. forward ...						Deduction = $26.2 \times .7910 =$ 20.72
Tonnage opening aft ...						
.. forward						
Total ...	169.33	167.80			167.80	

SHEER CORRECTION.

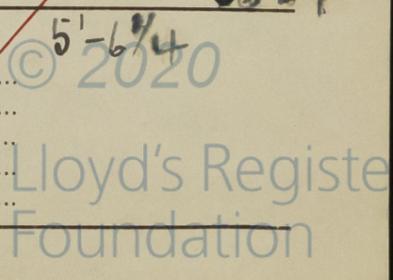
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	30.20	1		30.20	45.99	45.99	1		45.99	Mean actual sheer aft = > 1
1/4 L from A.P. ...	13.44	4		53.76	20.46	20.46	4		81.84	Mean actual sheer forward = > 1
1/2 L ..	3.32	2		6.64	5.06	5.06	2		10.12	Mean standard sheer forward = > 1
Amidships ...		4					4			Length of enclosed superstructure forward of amidships = > 1
3/4 L from F.P. ...	6.64	2		13.28	7.50	7.50	2		15.00 aft of .. = > 1
1/4 L ..	26.88	4		107.52	31.87	31.87	4		127.48	
F.P. ...	60.40	1		60.40	73.62	73.62	1		73.62	
Total ...				271.80					354.05	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ $\frac{82.25}{18} \times \left(.75 - \frac{.4191}{2L} \right) = -1.51$
 If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = _____ Ft. Summer freeboard = _____ Moulded draught (d) = _____ Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = _____ Addition for Winter North Atlantic Freeboard (if required) = _____	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ _____ Tons per inch immersion at summer load water line $T =$ _____ Deduction = $\frac{\Delta}{40T}$ inches = _____ SEE OVER.	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.726 + .68}{1.36} = 1.406 / 1.36$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">+</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Depth Correction ...</td> <td style="text-align: center;">2.67</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Deduction for superstructures ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">20.72</td> </tr> <tr> <td>Sheer correction ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Round of Beam correction ...</td> <td style="text-align: center;">20.</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td style="text-align: center;">64.29</td> <td style="text-align: center;">22.23</td> </tr> <tr> <td>Other corrections, scantlings, etc. ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Summer Freeboard =</td> <td style="text-align: center;">64.29</td> <td style="text-align: center;">22.23</td> </tr> </table> Total Summer Freeboard = 64.29 + 42.06 = 106.35 RAISED QUARTER		+	-	Depth Correction ...	2.67	-	Deduction for superstructures ...	-	20.72	Sheer correction ...	-	-	Round of Beam correction ...	20.	-	Correction for Thickness of Deck amidships ...	64.29	22.23	Other corrections, scantlings, etc. ...	-	-	Summer Freeboard =	64.29	22.23
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:

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 ..



A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

20-3 1/2
4.7
15-8 1/2 ✓

EXTREME DRAUGHTS	EXTREME Δ SW.
15'-0"	2116 TONS
14'-0"	1958 "
13'-0"	1795 "
12'-0"	1642 "

KEEL ALLOWANCE = 7/8"

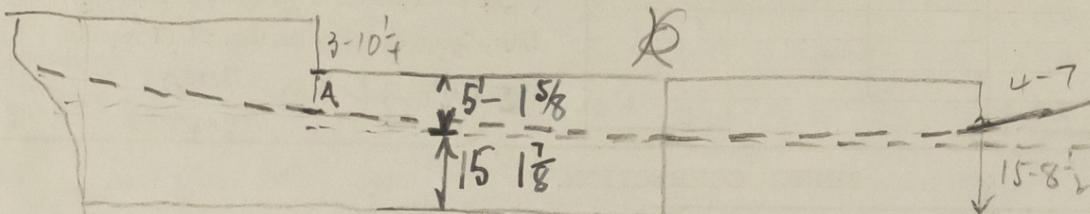
Bridge equis 12 + 2/3 x 2
1.33
13.33

Forecastle 23-25
4/10 20.2
3 0 5
2

20.2
1.52
21.72

M/S Sheer

20-3 1/2
15-1 7/8
5-1 5/8



Waterline A = 3.68'

$$\frac{44.16}{61.63} \times \frac{101^2}{62.25^2} = 46.97 = \frac{3.92'}{15.13}$$

$$\frac{44.16}{17.84} \times \frac{101^2}{62.25^2} = 45.99 = \frac{3.83}{15.16}$$

$$\frac{44.16}{17.47} \times \frac{101^2}{62.25^2} = 45.99 = \frac{3.83}{15.16}$$

Keel Deck 15-8 1/2
15-1 7/8
6 5/8 = .55

24.11
5.06 is less than standard height.
5.17 is greater than standard height.

Trade of ship

Names of sister ships **EMPIRE LEWISHAM. YARD N° 234.**

Builder's name and yard number **GEO. BROWN & CO (MARINE) LD. YARD N° 235**

Owners **J. HAY & SONS. LD.**

Fee £



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