

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No.
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having Free, Bridge, R.Q.D. & Poop.

Port of Survey

(Type of Superstructures.)

Date of Survey

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

ENGLAND.

Name of Surveyor

Moulded Dimensions: Length 283.0 Breadth 41.83 Depth 20.33
Moulded displacement at moulded draught = 85 per cent. of moulded depth 4490. tons
Coefficient of fineness for use with Tables 768.

Particulars of Classification +100 A.1.

Depth for Freeboard (D)

Moulded depth

Stringer plate

Heating on exposed deck

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

Depth for Freeboard (D) = 20.36

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R =

+3.24

(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)

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

$$\text{Ship's Round of Beam} =$$

Difference

Restricted to

$$\text{Correction} = \frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$$

NIL.

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed... ..					
" overhang aft					
" overhang forward					
F'cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total					

Standard Height of Superstructure

" " R.Q.D.

Deduction for complete superstructure

$$\text{Percentage covered} \frac{S}{L} =$$

$$\frac{S_1}{L} =$$

$$\frac{E}{L} =$$

64.96

Percentage from Table, Line A.

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. 78.48

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

$$\text{Deduction} = 34.20 \times 78.48 = -26.84.$$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
... ..		1				1	
from A.P.		4				4	
"		2				2	
amidships		4				4	
from F.P.		2				2	
"		4				4	
... ..		1				1	
Total							

$$\frac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}} =$$

$$\frac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}} =$$

$$\text{Length of enclosed superstructure forward of amidships} =$$

$$\text{aft of } =$$

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

-2.33

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.

Correction for Winter and Winter North Atlantic Freeboard.

$$\text{Depth to Freeboard Deck} = \frac{\text{Ft.}}{20.36}$$

$$\text{Summer freeboard} = \frac{1.33}{20.36}$$

$$\text{Moulded draught (d)} = \frac{19.03}{20.36}$$

Correction for Tropical freeboard and addition for

$$\text{Winter freeboard} = \frac{d}{4} \text{ inches} = 4.76$$

$$\text{Addition for Winter North Atlantic Freeboard (if required)} = \frac{2}{3} = 6.34$$

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 5006$$

Tons per inch immersion at summer load water line

$$T = 24.02$$

$$\text{Deduction} = \frac{\Delta}{40T} \text{ inches}$$

$$= 5.21$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	3.24	-
Deduction for superstructures	-	26.84
Sheer correction	-	2.33
Round of Beam correction	-	-
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc.	-	-
	3.24	29.17

$$\text{Summer Freeboard} = 16.01$$

TIMBER. SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:-

TIMBER Tropical Fresh Water Line above Centre of Disc

" Fresh Water Line

" Tropical Line

" Winter Line

" Winter North Atlantic Line

" SUMMER

$$18.19 = 462$$

$$13.43 = 341$$

$$12.98 = 330$$

$$11.88 = 48$$

$$6.59 = 167$$

$$8.22 = 209$$

Tropical Fresh Water Freeboard

" Fresh Water

" Tropical

" Winter

" Winter North Atlantic

$$16.01 = 407 \text{ METRES}$$

$$6.04 = 153$$

$$10.80 = 274$$

$$11.25 = 285$$

$$22.35 = 567$$

$$30.82 = 782$$

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Steamer 'England'.Load lines for Timber Deck Cargoes.

Superstructures and Machinery Casings. The vessel is fitted with a fore-castle 28'-1 $\frac{3}{4}$ " x 7'-7", a bridge 52'-6" x 7'-6", Raised Quarter-deck 92'-6" x 4'-0" and a ~~stern~~ Poop 18'-7 $\frac{1}{4}$ " x 3'-6" (above R.A.D.), aft on the poop is placed a steel companionway riveted to the deck. Machinery Casings (7'-6" high) on bridge-deck protected by steel houses. Timber-deck cargo is stated never to be carried on bridge-deck and poop-deck.

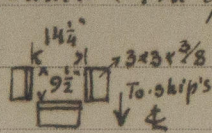
Double bottom tanks. For subdivision please see sketch on page 4 on Freeboard Report CII. ←

Bulwark. The ship is fitted with a steel bulwark in well-forew and on R.A. deck. For particulars of bulwark and freeing ports in same please see page 3 on Freeboard Report CII.

Deck Openings. Openings to spaces below freeboard deck, all hatchway beams & covers are stated to be securely closed, battened down & in place respectively before timber-deck cargo is loaded.

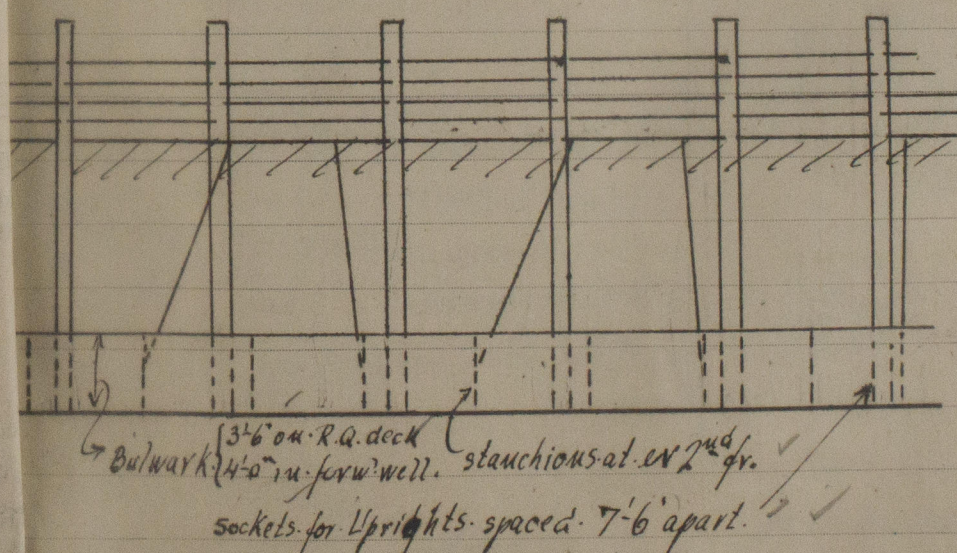
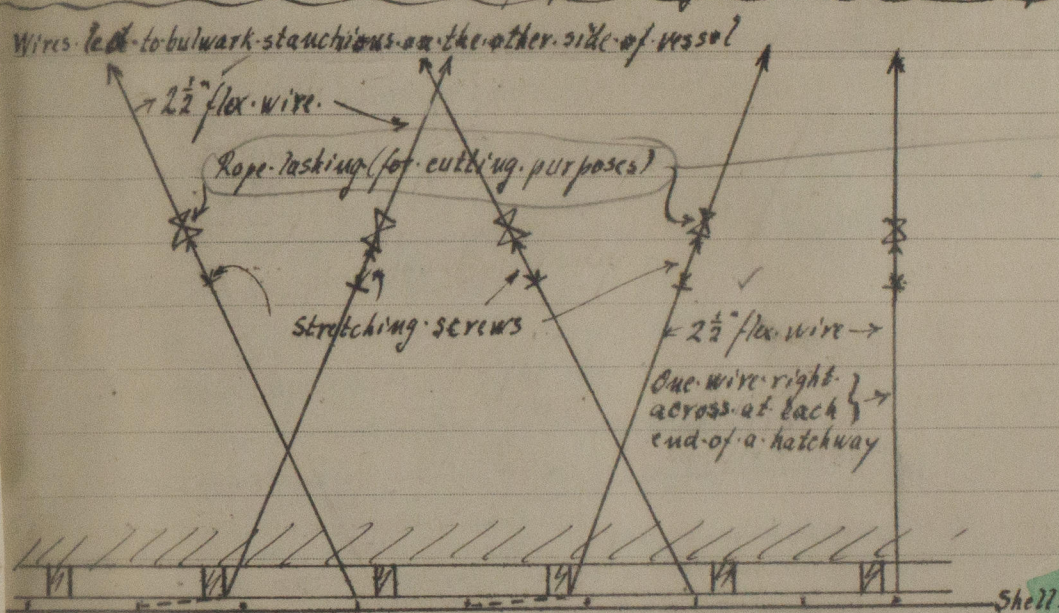
Lifelines. on top of timber-deck cargo is stated to be arranged as shown on the sketch below.

Steering Gear. The lead from the steering engine aft of engine casing across the deck & along the bulwark on R.A. deck is not provided with any special protection other than that protection given by special disposition of cargo to form tunnels. An efficient hand steering gear is placed aft on poop-deck for emergency purposes.

Uprights. Steel angles shoes  to take wood uprights are permanently secured to the deck alongside the bulwark in well-forew and on R.A. deck and spaced 7'-6" apart.

Lashings. No eyeplates are fitted to the deck, but the lashings are taken under the bulwark stanchions or secured thereto. For further particulars please see sketch below.

The sketch below is stated to be the way of securing the timber-deck cargo on board 'England'.



Ropes for lifelines stated to be about 4'-0" above timber. Rule not > 12" apart.

Timber-deck cargo ab. 13' high.

hatchway.

Steering chains & rods protected by the cargo made into a tunnel.

It is stated that the arrangement of the timber-deck cargo do not interfere with the navigation, and a sufficient margin of stability is provided for access to crew's quarters forew & aft being always arranged in the safest way.

W. J. H. Hydram.



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