

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker
 having Complete Superstructure with Tonnage Opening
 (Type of Superstructures.)
 Ship's Name: Messrs. J. L. Thomson's No. 584
 Nationality and Port of Registry: _____ Official Number: _____ Gross Tonnage: _____ Date of Build: _____
 Moulded Dimensions: Length 415.0 Breadth 58.08 Depth 26.75
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 11,708 tons
 Coefficient of fineness for use with Tables .748
 Port of Survey: _____ Date of Survey: _____ Name of Surveyor: _____
 Particulars of Classification 100A1 with freeboard (contemplated)

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	26.75	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	58.08
Stringer plate	.04	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	(27.67 - 26.79) 3 = - 2.64	Standard Round of Beam = $\frac{B \times 12}{50}$	13.94
Sheathing on exposed deck		If restricted by superstructures		Ship's Round of Beam	=
$T \left(\frac{L-S}{L} \right) =$				Difference	
Depth for Freeboard (D) =	26.79			Restricted to	Assumed Standard
				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 ...	35.87	35.87	8.92		35.87
„ overhang ...	.50	.25			.25
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...	374.13	374.13	8.92		374.13
„ overhang aft ...	.50	.37			.37
„ overhang forward ...					
F'cle enclosed ...					
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...	4.00	2.19 = 1/2 diff.			2.19
„ „ forward ...					
Total ...	415.00	412.81			412.81

Standard Height of Superstructure 7.5'
 „ „ R.Q.D. _____
 Deduction for complete superstructure 42.00"
 Percentage covered $\frac{S}{L} = 100$
 „ „ $\frac{S_1}{L} = 99.46$
 „ „ $\frac{E}{L} = 99.46$
 Percentage from Table, Line A. (corrected for absence of forecastle (if required)) 99.33
 Percentage from Table, Line B. (corrected for absence of forecastle (if required)) _____
 Interpolation for bridge less than 2L (if required) _____
 Deduction = $42.00 \times .9933 = 41.72$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	51.50	1		51.50	78.00	95.04	1		51.50
1/4 L from A.P. ...	22.915	4		91.66	34.67	42.30	4		91.66
3/8 L „ ...	5.665	2		11.33	8.67	10.45	2		11.33
Amidships ...		4					4		
3/8 L from F.P. ...	11.33	2		22.66	8.67	10.45	2		20.90
1/4 L „ ...	45.83	4		183.32	34.67	42.30	4		169.20
F.P. ...	103.00	1		103.00	78.00	95.04	1		95.04
Total ...				463.47	+17.04				439.63

Mean actual sheer aft = excess
 Mean standard sheer aft = 17.04
 Mean actual sheer forward = Deficient
 Mean standard sheer forward = _____
 Length of enclosed superstructure forward of amidships = _____
 „ „ aft of „ = _____

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{23.84}{18} \times .25 = + .33$

If limited on account of midship superstructure.

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

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 $\frac{.748 + .68}{1.36} = \frac{1.428}{1.36}$
Depth to Freeboard Deck = <u>26.79</u> Ft.	Δ =	Depth Correction 2.64
Summer freeboard = <u>3.00</u>	Tons per inch immersion at summer load water line	Deduction for superstructures 41.72
Moulded draught (d) = <u>23.79</u>	T =	Sheer correction ... .. .33
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>5.95 = 6</u>	Deduction = $\frac{\Delta}{40T}$ inches	Round of Beam correction -
Addition for Winter North Atlantic Freeboard (if required) =	$\frac{d}{4} = 6$	Correction for Thickness of Deck amidships -
		Other corrections, scantlings, etc. -
		.33 44.36 - 44.03
		Summer Freeboard = <u>35.99</u>

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

Tropical Fresh Water Line above Centre of Disc 12"	Tropical Fresh Water Freeboard 2'-0"
Fresh Water Line „ „ 6"	Fresh Water „ „ 2'-6"
Tropical Line „ „ 6"	Tropical „ „ 2'-6"
Winter Line below „ „ 6"	Winter „ „ 3'-6"
Winter North Atlantic Line „ „ ✓	Winter North Atlantic „ „ ✓

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS.									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...
	Thickness	Sides	...	...	...	...	...	...	...
		Ends	...	...	...	...	...	...	...
	Stiffeners	...	...	...	...	...	...	...	...
	Brackets, Stays	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
FORE AND AFTERS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...
	Scantling* and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
Spacing of Cleats	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...

*Are wood fore and afters steel shod at all bearing surfaces?
 Are battens and wedges efficient and in good condition?
 Are tarpaulins in good condition and in accordance with rule requirements?
 Are lashings provided in accordance with rule requirements?

Particulars of fiddle, funnel and ventilator coamings :—

Particulars of Flush Bunker Scuttles :—

Particulars of Companionways :—

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

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

Particulars of Gangway Cargo and Coaling Ports :—

Particulars of Scuppers and Sanitary Discharge Pipes :—

Particulars of Side Scuttles :—

Particulars of Guard 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
Forward Well

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
Bridge, Forward Bulkhead
Forecastle Bulkhead
Trunk, Aft
Trunk, Forward
Exposed Machinery Casings on Freeboard or Raised Quarter Decks
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	...
Bridge, Forward Bulkhead	...
Forecastle Bulkhead	...
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...
Exposed Machinery Casings on Superstructure Decks	...
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...
Deckhouses on Flush Deck Ships	...

