

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

GLASGOW REPORT No. 56351

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~
having Raised Quarter Deck, Bridge & Lock.

(Type of Superstructures.)

Ship's Name "NAHOON" Nationality and Port of Registry BRITISH Official Number 157928 Gross Tonnage 787.90 Date of Build

Moulded Dimensions: Length 189.5 Breadth 30.75 Depth 13.75

Moulded displacement at moulded draught = 85 per cent. of moulded depth 1386 tons

Coefficient of fineness for use with Tables 71.2

Port of Survey Glasgow

Date of Survey while building

Name of Surveyor R. Dunsmuir

Particulars of Classification *100 A1
(Contemplated)

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	13.75	(a) Where D is greater than Table depth	1.15	Moulded Breadth (B)	30.75
Stringer plate	0.39	(D-Table depth) R =	(13.75 - 12.63) 1.12	Standard Round of Beam = $\frac{B \times 12}{50}$	7.38
Sheathing on exposed deck				Ship's Round of Beam	9
$T \left(\frac{L-S}{L} \right) =$	NIL	(b) Where D is less than Table depth (if allowed)		Difference	Excess 1.62
		(Table depth-D) R =		Restricted to	
Depth for Freeboard (D) =	13.78	If restricted by superstructures	✓	Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{1.62}{4} \times .2058 = .08$

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	Standard Height of Superstructure
Roop enclosed ...					6.00
overhang ...					R.Q.D. 3.596
R.Q.D. enclosed ...	106.33	106.33	4'-0"	✓	106.33
overhang ...					Deduction for complete superstructure 24.95
Bridge enclosed ...	12.83	12.83	4'-0"	✓	12.83
overhang aft ...					Percentage covered $\frac{S}{L} = 80.66\%$
overhang forward ...	29.00	29.00	4'-0"	✓	$\frac{S_1}{L} = 79.42$
Fore enclosed (SEE SKETCH)	33.67	29.00	4'-0"	✓	$\frac{E}{L} = 79.42$
overhang ...	4.67	2.33		✓	Percentage from Table, Line A. 74.58
Trunk aft ...					(corrected for absence of forecastle (if required))
forward ...					Percentage from Table, Line B. ✓
Tonnage opening aft ...					(corrected for absence of forecastle (if required))
forward ...					Interpolation for bridge less than 2L (if required)
Total ...	152.83	150.49		150.49	Deduction = 24.95 × .7458 = 18.60

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft
A.P. ...	28.95	1		28.95	36.0	40.84	1		40.84	Mean standard sheer aft
1/2 L from A.P. ...	12.88	4		51.52	15.6	18.17	4		72.68	Mean actual sheer forward
2/3 L " ...	3.185	2		6.37	4.4	4.49	2		8.98	Mean standard sheer forward
Amidships ...	✓	4		0	0	0	4		0	Length of enclosed superstructure forward of amidships = 7.1
2/3 L from F.P. ...	6.37	2		12.74	8.25	8.25	2		16.50	" " aft of " = 7.1
1/2 L " ...	25.76	4		103.04	32.0	32.00	4		128.00	
F.P. ...	57.90	1		57.90	68.0	68.00	1		68.00	
Total ...	260.55			260.52					335.00	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{74.48}{18} (.75 - .4033) = -1.43$

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
Depth to Freeboard Deck = 17.78	Δ = 1621 1631	Depth Correction ...
Summer freeboard = 4.29	Tons per inch immersion at summer load water line	Deduction for superstructures ...
Moulded draught (d) = 13.49	T = 11.2	Sheer correction ...
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 3.37 = 3 3/4	Deduction = $\frac{\Delta}{40 T}$ inches = 3.64 = 3 3/4	Round of Beam correction ...
Addition for Winter North Atlantic Freeboard (if required) = 5 1/4	Full Draught. Full Disp (SW). T.P.I. 13.6 1621 11.2	Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc. ...
		49.68 20.11 + 29.57
		Summer Freeboard = 51.39

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

Tropical Fresh Water Line above Centre of Disc ...	5 1/4	Tropical Fresh Water Freeboard ...	4 3 1/2
Fresh Water Line " " ...	3 3/4	Fresh Water " " ...	3 10 1/4
Tropical Line " " ...	1 1/2	Tropical " " ...	3 11 3/4
Winter Line below " " ...	3 1/4	Winter " " ...	4 2 (limited)
Winter North Atlantic Line " " ...	5 1/4	Winter North Atlantic " " ...	4 6 3/4

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
UPPER DECK RAISED Q^d DECK									
Description of Hatchway	N ^o 1 HATCH	HATCH TO CHAIN LOCKER	N ^o 2 HATCH	COAL HATCH ON CASING TOP					
Dimensions of Hatchway	31'-2" x 18'-0"	1'-11" x 1'-11"	33'-0" x 18'-0"	10'-0" x 14'-0"					
COAMINGS	Height above Deck ... 39" Thickness { Sides ... 43" Ends ... 43" Stiffeners ... B.A. 7 x 3 x 40 Brackets, Stays ... 10 x 38 FL ^o	24" 40" 40" ✓ ✓	30" 43" 43" 7 x 3 x 40 10 x 38 FL ^o	CASING 9'-9" ABOVE Q ^d DECK. COAMING 30' PLATING 26'					
HATCH BEAMS	Number ... 5 Spacing ... 5'-2 1/2" Scantling and Sketch ... W PLATE 16 3/4 x 36 J L ANG ^s 4 x 3 x 44 Bearing Surface ... 3" ✓		5 5'-6" 13 x 33 4 x 3 x 44 3" ✓	1 5'-0" 12 x 31 3 1/2 x 3 x 42 3" ✓					
FORE AND AFTERS	Number ... Spacing ... Unsupported Lengths ... Scantling* and Sketch ... Bearing Surface ...								
HATCH COVERS	Material ... 2 1/2" W.P. Thickness ... 2 1/2" W.P. How fitted ... F & A Bearing Surface ... 3" ✓	2 1/2" W.P. PLUG 3" ✓	2 1/2" W.P. F & A 3" ✓	2 1/2" W.P. F & A 3" ✓					
Spacing of Cleats	24"	18"	24"	24"					
Number of Tarpaulins	2	2	2	2					

*Are wood fore and afters steel shod at all bearing surfaces? ✓
 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:—

*Fidley, Funnel & Ventilators in efficient condition.
 Engine Skylight of steel, strongly constructed.
 Fidley openings fitted with hinged steel covers.*

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

None.

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

*FORECASTLE D^e 5-6" V^s to Fore Space. Coamings 36" x 30"
 FOR^d WELL. 2-10" V^s to Hold. Coamings 36" x 32."
 QUARTER D^e 2-10" V^s to Hold. Coamings 36" x 32."
 BRIDGE D^e 2-6" V^s to Bridge Space Coamings 9" x 30"
 All vents in accordance with Rule requirements & fitted with wood plugs & canvas covers.*

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

*FOR^d WELL. 1-4" M1 to Fore Peak & 1-6" M1 to N^o 1 D.B. Tank, at Fore BH^d. 36" High.
 QUARTER D^e 1-4" M1 (P&S) to N^o 2 D.B. Tank, at after end of Bridge BH^d. 36" High.
 1-3 1/2" M1 to after Peak Tank. 36" High.
 all Air Pipes fitted with canvas covers.*

Particulars of Gangway Cargo and Coaling Ports:—

None.



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Particulars of Scuppers and Sanitary Discharge Pipes:— Sanitary discharge from Bath & W.C. (S) in House at aft end of Engine casing, carried through Ship's Side below Quarter Deck, & fitted with Storm valve.

iculars of Side Scuttles :—

Particulars of Guard Rails:—

rticulars of Gangways, Lifelines, etc. :—

Langway with lifeline on top of Hatch in forward well. 1

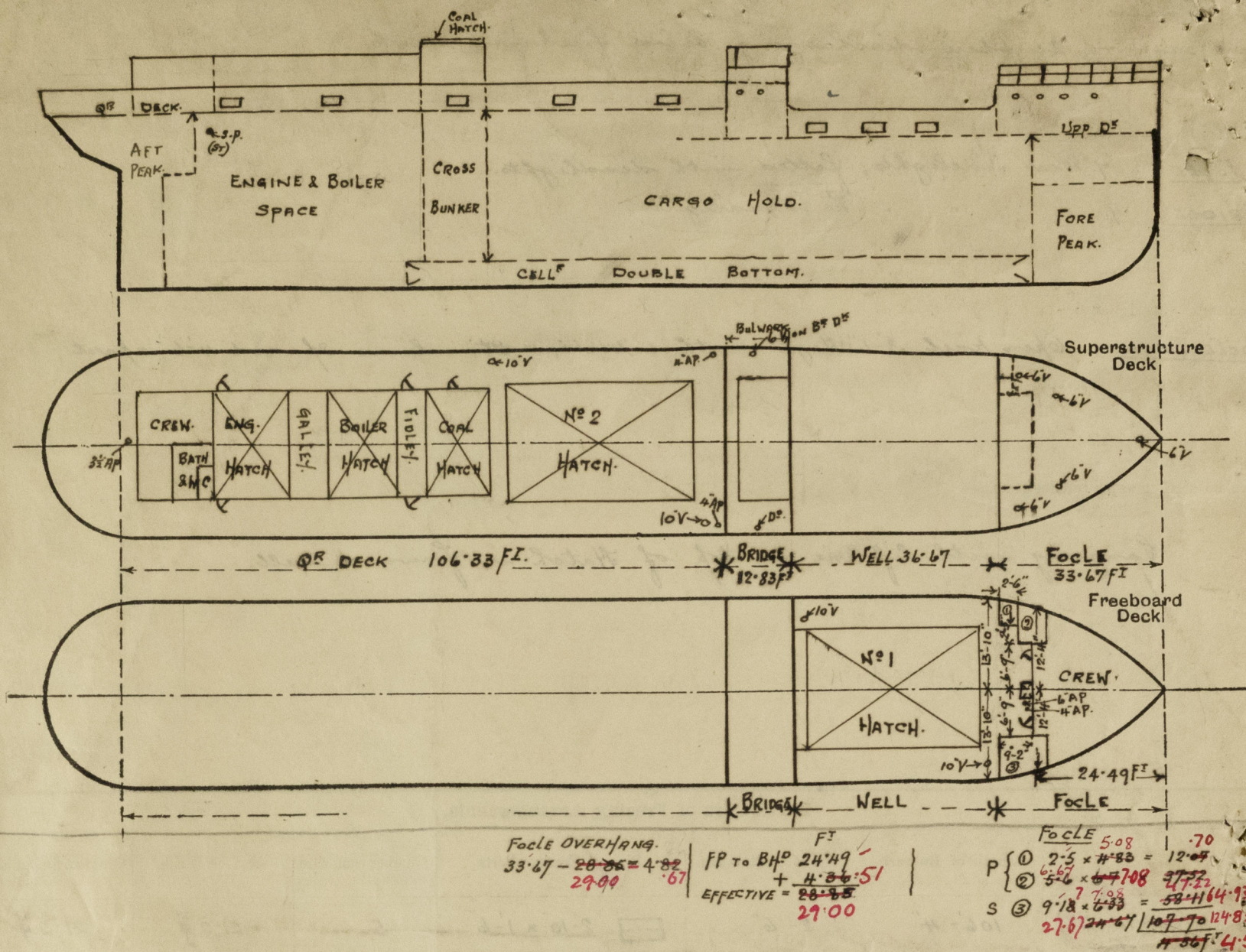
te position of each freeing port ... { After Well:— 9'-6"; 28'-0"; 48'-0"; 69'-9"; 84'-0" from Bridge Bl^d aft. 4" above deck.
and A. position and height above deck edge) { Forward Well:— 2'-6"; 13'-6"; 27'-6" from Bridge Bl^d forward. 8" above deck
te whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Rod fitted half depth.

ditional area where sheer is less than standard.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Bulkhead								
1 Quarter Deck Bulkhead } AND 2, After Bulkhead ... }	30 PLATING	ANGLE 3 1/2 x 3 x 38	36"	NONE	NONE	✓	7'-0"	
3, Forward Bulkhead ...	30 PLATING	B.A. 5 1/2 x 3 x 32 6 1/2 x 3 x 34	30" (AT/ARCH) 30	LUAS AT TOP. " Top & BOTT"	NONE	✓	7'-0"	
4, Main Bulkhead ...	21 PLATING	ANGLE 3 1/2 x 2 1/2 x 25	24" x 30"	NONE	4'-6" x 2'-0"	18"	7'-0"	
Aft								
Forward								
5 Machinery Casings on Free- board or Raised Quarter Decks ...	30	26	ANGLE 3 x 3 x 30	30"	BKT ² AT TOP.	2(P&S) 4'-6" x 1'-10" 1(P) 1'-9" x 1'-9"	18" 36"	6'-9"
6 Machinery Casings on Super- structure Decks ...								
7 Machinery Casings within Superstruc- ture ...								
8 Machinery Casings within Superstruc- ture ...								
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68 Machinery Casings within Superstruc- ture ...								
69 Machinery Casings								

Bulkhead	
d Quarter Deck Bulkhead ...	No openings ✓
e, After Bulkhead	No openings ✓
e, Forward Bulkhead	No openings
astle Bulkhead	Hinged Solid Teak Doors. Workable from both sides. ✓
ed Machinery Casings on Free- rd or Raised Quarter Decks ...	Hinged Steel Doors. Workable from both sides ✓
ed Machinery Casings on Super- structure Decks	
inery Casings within Superstruc- es not fitted with Class I Closing pliances	
ouses on Flush Deck Ships ...	

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 shewn on the following sketches:—



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

This vessel has been built in accordance with the approved Plans & in general conformity with the Society's Rules for the class contemplated.

The vessel is for coasting service & is to be engaged on International Trade. Freeboard request attached.

Approved Plans of Midship Section & Profile & Decks are forwarded for reference.

A preliminary freeboard was issued.

Builder's name and yard number

Scott & Sons (Bowling).

N^o 334.

Names of sister ships

Owners

James Smith's Coasters (Pty) Ltd.

Durban.

South Africa.

Est Fee £ 8 0 0

Received by me



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