

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having Poop and Forecastle.

(Type of Superstructures.)

Ship's Name HEBE Nationality and Port of Registry Dutch Batavia Official Number 1994 Gross Tonnage 635 Date of Build 1916-4.

Moulded Dimensions: Length 180'-0" Breadth 30'-0" Depth 13'-0"  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1250 tons  
Coefficient of fineness for use with Tables .733

Port of Survey Singapore  
Date of Survey 24<sup>th</sup> March 32  
Name of Surveyor John Findlay  
Particulars of Classification +100 A1.  
(Case oil while without cauling)

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	13'-0"	(a) Where D is greater than Table depth (D-Table depth) R = $(13'-0" - 12'-0") 1.385$ = +1.44"		Moulded Breadth (B)	30'-0"
Super plate	.48	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = —		Standard Round of Beam = $\frac{B \times 12}{50}$	7.2"
ing on exposed deck $\left(\frac{L-S}{L}\right) =$		If restricted by superstructures —		Ship's Round of Beam	7.5"
Depth for Freeboard (D) =	13'-04"			Difference	.3
				Restricted to —	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right)$	.075 (.6669) = .05

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
poop enclosed ...	38.5		7'-3 1/2"		
" overhang ...					
Q.D. enclosed ...					
" overhang ...					
ridge enclosed ...	38.5	38.5	7'-3 1/2"		38.5
" overhang aft ...					
" overhang forward ...	20.75	20.75	7'-0"		20.75
le enclosed ...	1.75	.875	7'-0"		.875
" overhang ...					
unk aft ...					
" forward ...					
nnage opening aft ...					
" " forward					
Total ...	61.00	60.125			60.125

Standard Height of Superstructure	6'-0"
" " R.Q.D.	
Deduction for complete superstructure	24'-0"
Percentage covered $\frac{S}{L} = \frac{61.00}{180} =$	33.89
" " $\frac{S_1}{L} = \frac{60.125}{180} =$	33.40
" " $\frac{E}{L} =$	33.40
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	—
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	21.89
Interpolation for bridge less than .2L (if required)	—
Deduction = $24 \times 21.89$	5.25

## SHEER CORRECTION.

Position	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
...	28.0	1		28.00	55.24	24.00	1		24.00
A.P. ...	12.46	4		49.84	21.10	9.68	4		38.72
" ...	3.08	2		6.16	4.23	2.41	2		4.82
ips ...	—	4		—	—	—	4		—
F.P. ...	6.16	2		12.32	3.45	5.47	2		10.94
" ...	24.92	4		99.68	10.21	21.92	4		87.68
" ...	56.0	1		56.00	24.55	54.50	1		54.50
Total ...				252.00					220.66

Mean actual sheer aft = Deficient ✓  
Mean standard sheer aft =

Mean actual sheer forward = Deficient ✓  
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = ✓  
" " aft of " = ✓

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{31.34}{18} \left( \frac{75-1695}{5865} \right) = +1.04$   
limited on account of midship superstructure. Nil

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

Correction for Tropical Freeboard.  
Correction for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 13'-04"  
Summer freeboard = 1'-48"  
Moulded draught (d) = 11'-56"

Correction for Tropical freeboard and addition for winter freeboard =  $\frac{d}{4}$  inches = 2.89" = 3"

Correction for Winter North Atlantic Freeboard (if required) = 5"

Deduction for Fresh Water.

Displacement in salt water at summer load water line  
 $\Delta = 1300 \text{ Tons}$   
Tons per inch immersion at summer load water line  
 $T = 11.33$   
Deduction =  $\frac{\Delta}{40T}$  inches = 2.91" = 3"

TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient  $\frac{.733 + .67}{1.36} = 1.04$

	+	-
Depth Correction	1.44	—
Deduction for superstructures	—	5.25
Sheer correction	1.01	—
Round of Beam correction	—	.05
Correction for Thickness of Deck amidships	—	—
Other corrections, scantlings, etc.	—	—
	2.45	5.30

Summer Freeboard = 17'-72"

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

Tropical Fresh Water Line above Centre of Disc	6"	Tropical Fresh Water Freeboard	11'-5 1/2"
Fresh Water Line	3"	Fresh Water	1'-2 1/2"
Tropical Line	3"	Tropical	1'-2 1/2"
Winter Line below	3"	Winter	1'-8 1/2"
Winter North Atlantic Line	5"	Winter North Atlantic	1'-10 1/2"

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# 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	...	...	...	...	...	...	...	...
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:— *Stokehold and Engine Room ventilators of strong construction*  
*Engine Room casing enclosed in poop superstructure of strong construction*

Particulars of Flush Bunker Scuttles:— *none.*

Particulars of Companionways:— *only on superstructure above poop.*

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

*Incasale Deck: 2 vents. 12" dia. coamings 48" high strong construction*  
*Poop Deck aft 1 " " " " " " " " " " " "*

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

*Gooseneck air pipes fitted on Incasale Deck 2" dia C1.*  
*" " " to Bunkers on Auto-rail 2" dia x 6'0" high C1.*

Particulars of Gangway Cargo and Coaling Ports:—

*none.*

Particulars of Scuppers and Sanitary Discharge Pipes —

*bullets all well above load line.*  
*Discharge pipes from spaces on freeboard deck all fitted with Cym. non return valves.*

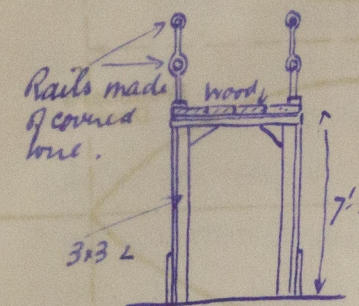
Particulars of Side Scuttles:

*Side lights fitted in Roops Incasale spaces. Strong construction 9m fittings. all fitted with hinged deadlights 12" dia. Above load line = 8'6"*

Particulars of Guard Rails:—

*Guardrail fitted on freeboard deck - on Incasale deck round bridge house amidships and on poop deck after end. Rails 40" high with intermediate rail. Stanchions spaced about 4'6" apart.*

Particulars of Gangways, Lifelines, etc.:—



*Gangway from Roops to Bridge amidships height = 7'3". Efficiently supported having angle stanchions with brackets to deck. Stanchions fitted each side on top and double tier of strong lifelines fitted through stanchions.*

*Gangway from Deckhouse to Yell.*

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	54'6"	39"	open rails for 60'3" each side	—	—	—
Forward Well						

State position of each freeing port (F. and A. position and height above deck edge) } After 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
Bridge Deck?								
Poop Bulkhead	Hor. Plating	26	5'2 1/2" x 36	28"	Brackets	25 1/2" x 61"	18"	7'3 1/2"
Raised Quarter Deck Bulkhead	—	—	—	—	—	—	—	—
Bridge, After Bulkhead	—	—	—	—	—	—	—	—
Bridge, Forward Bulkhead	—	—	—	—	—	—	—	—
Forecastle Bulkhead	Hor. Plating	26	4'2 1/2" x 36	36"	Brackets	24" x 58"	15"	7'0"
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).

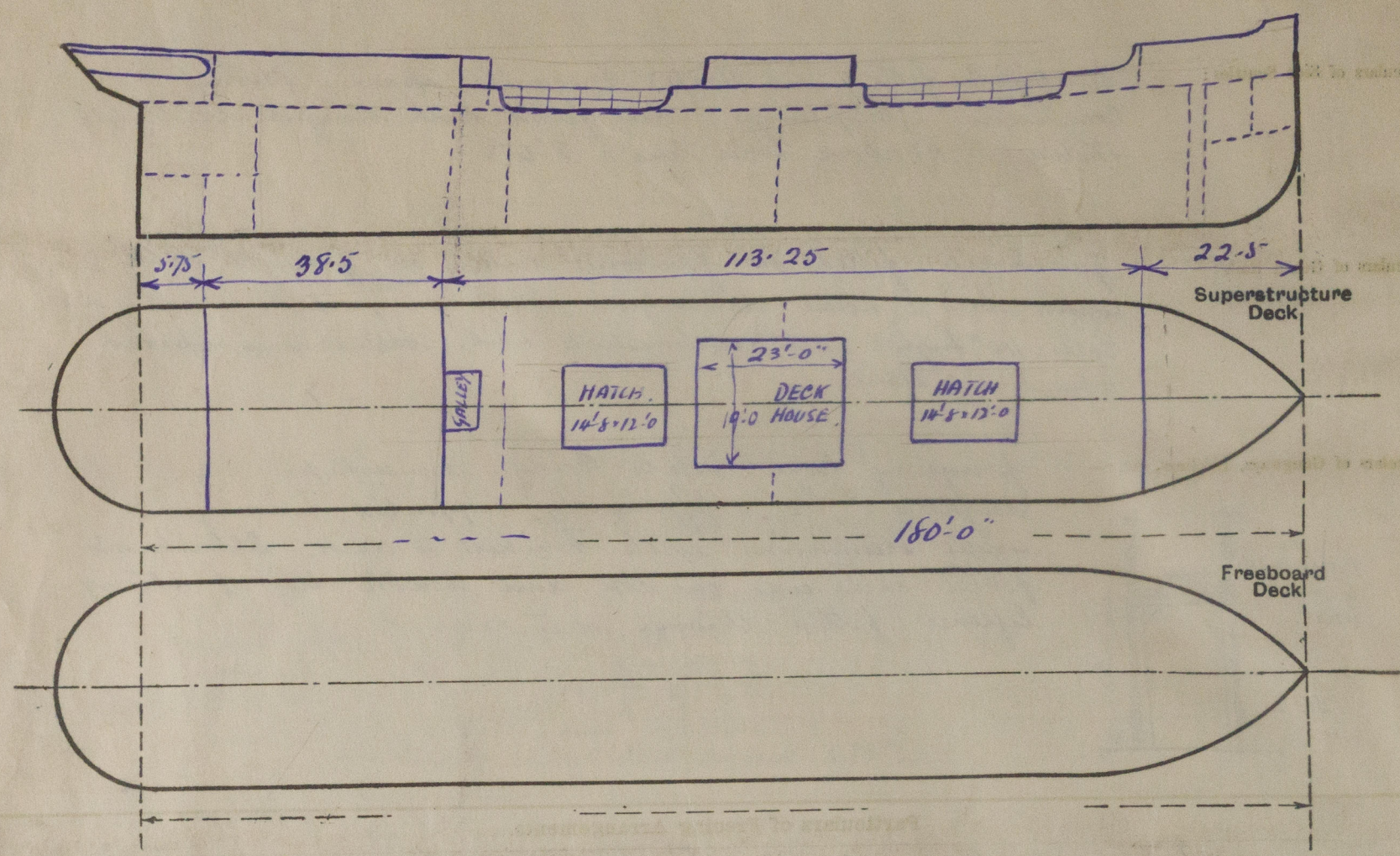
*Poop Bulkhead W.T. Steel hinged door, manipulated from both sides.*

*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*

*Teak door 1 1/8" thick, manipulated from both sides.*



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:—



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

Builder's name and yard number N. V. Schips . Dordrecht.

Names of sister ships

Owners Ned. Indische Tankstoomboot Maats.

Fee \$50/-  
tips \$10/-

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