

Rpt. C.11.

Index. No. 19864  
(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, ~~Sailing Ship~~, Tanker  
having (Complete shade deck) poop & bridge.

Port of Survey Singapore

Date of Survey 4 Aug 32.

Name of Surveyor John Lindley

Ship's Name MINDEROO.

Nationality and Port of Official Number British Japanese 124994

Gross Tonnage 2720

Date of Build 1909-4

Moulded Dimensions: Length 319.7 Breadth 43.92 Depth 20.5

Moulded displacement at moulded draught = 85 per cent. of moulded depth 5185 tons

Coefficient of fineness for use with Tables .742

Particulars of Classification +10041

S.S. Sing. No. 3-12.21. Shade deck

S.S. Sing. No. 2-31.

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	20.50	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	43.92
Stringer plate	.50	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	(21.31 - 20.54) 2.459	Standard Round of Beam = $\frac{B \times 12}{50}$	10.54
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		If restricted by superstructures	Yes.	Ship's Round of Beam	11"
Depth for Freeboard (D) =	20.54			Difference	Less .46
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{.46}{4} \left( 1 - \frac{.509}{.491} \right) = -.06$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed	40.83	40.83			40.83
" overhang	46.85	3.00	7'-6"		3.00
R.Q.D. enclosed					
" overhang					
Bridge enclosed	183.625	91.81	7'-6"		91.81
" overhang aft					
" overhang forward	31.97				
Fore enclosed	23.62	23.62			23.62
" overhang	38.45	3.45	7'-6"		3.45
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	269.32	162.71			162.71

Standard Height of Superstructure 6.697

" " R.Q.D. ✓

Deduction for complete superstructure 36.649

Percentage covered  $\frac{S}{L} = 84.24$

" "  $\frac{S_1}{L} = 50.90$

" "  $\frac{E}{L} = 50.90$

Percentage from Table, Line A. —

(corrected for absence of forecastle (if required)) —

Percentage from Table, Line B. 36.90

(corrected for absence of forecastle (if required)) —

Interpolation for bridge less than 2L (if required) —

Deduction =  $36.649 \times .369 = 13.52$

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	41.97	1		41.97	63"	21.00	1		21.00
$\frac{1}{2}$ L from A.P.	18.68	4		74.72	27"	9.28	4		37.12
$\frac{2}{3}$ L	4.62	2		9.24	7"	2.32	2		4.64
Amidships	—	4		—	—	—	4		—
$\frac{2}{3}$ L from F.P.	9.23	2		18.46	27.5"	6.81	2		13.62
$\frac{1}{2}$ L	37.35	4		149.40	9"	27.26	4		109.04
F.P.	83.94	1		83.94	20"	63.00	1		63.00
Total				377.73					248.42

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 " =

STAND	ACTUAL
9.23 3 27.49	6.81 3 20.43
37.35 3 112.05	27.26 3 81.78
83.94 1 83.94	63.00 1 63.00
223.68	165.21

70.73-87

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - S}{2L} \right) = \frac{129.31}{18} \left( \frac{.75 - .4212}{.277} \right) = + 2.36$

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Ft.

Depth to Freeboard Deck = 20.54

Summer freeboard = 3.27

Moulded draught (d) = 17.24

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 4.31

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

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	—	—
Deduction for superstructures	—	13.52
Sheer correction	—	2.36
Round of Beam correction	—	.06
Correction for Thickness of Deck amidships	—	—
Other corrections, scantlings, etc.	—	—
	2.36	13.58

Summer Freeboard = 39.30SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc	...
Fresh Water Line	"
Tropical Line	"
Winter Line	below
Winter North Atlantic Line	"

Tropical Fresh Water Freeboard	...
Fresh Water	"
Tropical	"
Winter	"
Winter North Atlantic	"



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
Description of Hatchway			Superstructure Deck			Freeboard Deck					
Dimensions of Hatchway			No 1	No 2	No 3	No 1	No 2	No 3			
COAMINGS	Height above Deck		30"	30"	30"	10" BA	10" BA	10" BA	Small steel hatch on freeboard deck to sternward of 4-0 x 3-8" 18" high flat hatch. Steel hinges dia 3/8" with ordinary padlock.		
	Thickness Sides		40"	40"	40"	45"	45"	45"			
	Thickness Ends		33"	40"	35"	45"	45"	45"			
	Stiffeners		✓	✓	✓	✓	✓	✓			
	Brackets, Stays		✓	✓	✓	✓	✓	✓			
HATCH BEAMS	Number		3	4	3	3	4	3			
	Spacing		3' 4"	4' 6"	6' 6"	16' 7/10"	16' 7/10"	16' 7/10"			
	Scantling and Sketch		18" x 7/16"	18" x 7/16"	18" x 7/16"	16" x 7/16"	16" x 7/16"	16" x 7/16"			
	Bearing Surface		3"	3"	3"	3"	3"	3"			
			14" x 7/16"	14" x 7/16"	14" x 7/16"	14" x 7/16"	14" x 7/16"	14" x 7/16"			
FORE AND AFTERS	Number		hil	hil	hil	hil	hil	hil			
	Spacing										
	Unsupported Lengths										
	Scantling and Sketch										
	Bearing Surface										
HATCH COVERS	Material		Wood	Wood	Wood	Wood	Wood	Wood			
	Thickness		2 1/2"	2 1/2"	2 1/2"	2"	2"	2"			
	How fitted		4 sections per hatch	2 sections full width	2 sections full width	2 sections full width	2 sections full width	2 sections full width			
	Bearing Surface		3"	3"	3"	3"	3"	3"			
			22"	22"	22"	21"	24"	24"			
Spacing of Cleats			22"	22"	22"	21"	24"	24"			
Number of Tarpaulins			2	2	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? *no lashings provided on freeboard*

Particulars of fiddle, funnel and ventilator coamings: *Stokehold, fiddle, gratings not fitted with covers but enclosed with wooden screens round fiddle.*  
*4 ventilators 23" dia x 3'0" coamings x 3/8" to engine room.*  
*2 large stokehold ventilators of apparent strong construction.*

Particulars of Flush Bunker Scuttles: *Four flush bunker scuttles on freeboard deck covered with steel plates 50 thick and secured with bolt rings, not watertight.*

Particulars of Companionways: *On superstructure deck and leading down to Crew Quarters Fore.*  
*Steel construction, plating 5/16" thick.*  
*Companionway 4'6" deep x 6'0" high x 3'0" door 28" x 4'7" steel hinged, operated from outside by 17" oil.*  
*On poop to after accommodation. Wooden companionway on poop to 2nd class saloon.*  
*5'6" x 2'9" x 4'0" 5'6" deep x 4'6" wide x 6'0" high.*  
*wood door with ordinary lock. teak wood doors with ordinary lock.*  
*Plating 3/16" till 6"*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks: *on freeboard deck. 2-12" dia to 10" diam x 1/2" Bunkers.*  
*4-24" dia x 31" coam x 3/8" to No 1 Hold.*  
*4-24" dia x 31" coam x 3/8" to No 2 "*  
*4-24" dia x 31" coam x 3/8" to No 3 "*  
*4-24" dia x 31" coam x 3/8" to No 4 "*  
*1-12" dia x 36" coam x 3/8" to Tunnel*  
*Poop Deck 5-18" dia x 21" coam x 3/16" to accom.*  
*2-12" dia x 21" coam x 3/16" to accom.*  
*wood plugs & Canvas Covers.*

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks: *All air pipes are flush with superstructure deck and fitted with screwed caps.*

Particulars of Gangway Cargo and Coaling Ports: *Three cargo doors each side 5'6" x 4'0", hinged steel door, suitably stiffened secured with wing bolts.*  
*Three coaling doors each side 18" x 24" stiffened. Steel hinged doors secured with wing bolts & strong dogs.*

Particulars of Scuppers and Sanitary Discharge Pipes: *All scupper and sanitary discharge pipes below freeboard deck are fitted with non return or storm valves.*

Particulars of Side Scuttles: *All sidelights fitted with strong hinged deadlights.*

Particulars of Guard Rails: *from forward to 3rd deck on superstructure deck and on after deck too.*  
*Height of rails 3' 7 1/2". Three tiers of rails spaced 10" apart.*  
*Stanchions spaced about 4'0" apart.*

Particulars of Gangways, Lifelines, etc.: *None.*

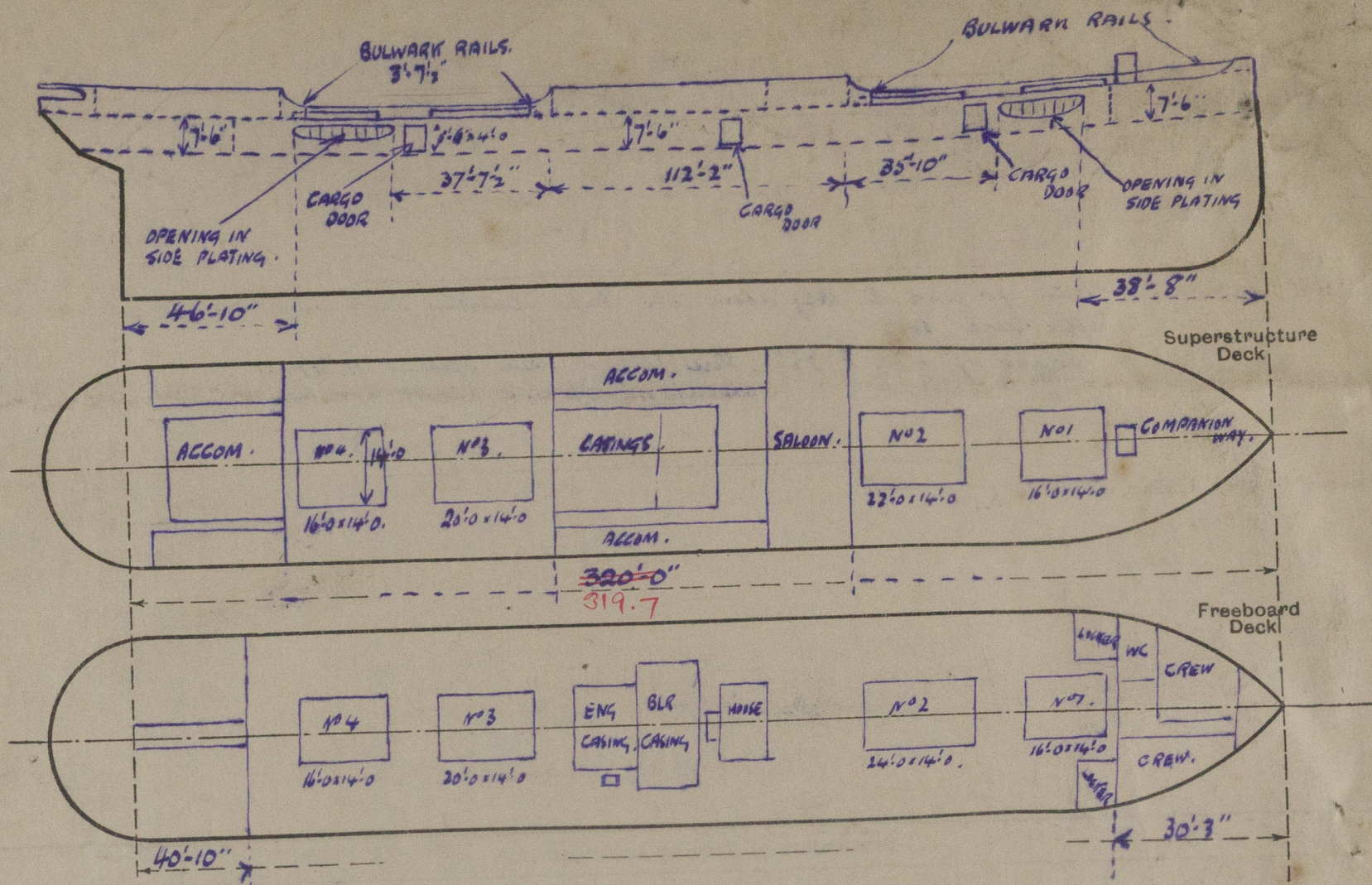
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	✓					
Forward Well	✓					
State position of each freeing port (F and A. position and height above deck edge) After Well:— Forward Well:—						
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	5/16"	5/16"	Hinged plates 4" flange 40.	36"	none	28" x 5'0"	18"	7'6"
Raised Quarter Deck Bulkhead	✓							
Bridge, After Bulkhead	✓							
Bridge, Forward Bulkhead	✓							
Forecastle Bulkhead	5/16"	5/16"	3" x 3" x 1/4"	34"	none	28" x 5'0"	18"	7'6"
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	5/16"	5/16"	Hinged plates 3 1/2" x 40	38"	none	28" x 5'0"	16"	7'6"
Bunker Casings, Fore Deck	5/16"	5/16"	✓	✓	✓	34" x 5'0"	18"	7'6"

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	wood door 13/8" ordinary lock.
Raised Quarter Deck Bulkhead	✓
Bridge, After Bulkhead	✓ open
Bridge, Forward Bulkhead	✓ open
Forecastle Bulkhead	wood door 13/8" ordinary lock. open passageway.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓
Exposed Machinery Casings on Superstructure Decks	✓ enclosed by deckhouse
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Steel W.T doors - to 2nd room - no fastenings. Capable of being securely closed.
Bunker Casings, Fore Deck	Steel hinged doors operated outside.



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:—

The examination for International Convention Load Line was held with the vessel in dry dock in conjunction with the examination for annual docking, and afterwards completed afloat and consisted of—

Sheers measured, examination made of hulls & hulls, decks, casings, bulkheads, bulkhead openings and means of closing same, ventilators & their coverings, air pipes, cargo & coaling ports, sidelights, scuppers, bunker scuttles & means of closing same, companionways & guardrails.

Builder's name and yard number *C Connell & Co Ltd. Glasgow.*

Names of sister ships

Owners *West Australian S. N. Co Ltd. Perth & Co*

Fee *\$220/-*  
*sup \$10/-*

Received by me



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