

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Index No. **30064**
 (For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

 having *a complete superstructure with a tonnage opening.*
Port of Survey **Kobe**

(Type of Superstructures.)

 Ship's Name
MI ONE
Maranoa

 Nationality and Port of Registry
Norwegian
Bergen

Official Number

Gross Tonnage

Date of Build

3359**1921 - 4**Date of Survey **18, 19, 21 Jan 1935**Name of Surveyor **L. H. Parker**
 Moulded Dimensions: Length **330.5** Breadth **47.75** Depth **26.08**

 Moulded displacement at moulded draught = 85 per cent. of moulded depth **7868** tons

 Coefficient of fineness for use with Tables **787**
Particulars of Classification **+100A1***"with freeboard"*

Depth for Freeboard (D)

Moulded depth ... **26.08**String plate ... **0.03**

Shear on exposed deck

T ... **✓**Depth for Freeboard (D) = **26.11**

Depth correction

(a) Where D is greater than Table depth

(D - Table depth) R =

(26.11 - 22.63) × 2.542 = +10.37

(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) **47.75**Standard Round of Beam = $\frac{B \times 12}{50} = 11.46$ Ship's Round of Beam = **12.00**Difference **0.54**Restricted to **✓**Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{0.54}{4} (1 - 0.9932) = 0.004$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
enclosed ...	28.00	28.00	-	✓	28.00
overhang ...	1.00	0.50	✓		0.50
R enclosed ...					
overhang ...					
enclosed ...	271.50	271.50	7.562	✓	271.50
overhang aft ...					
overhang forward ...					
enclosed ...	26.00	26.00	7.08	✓	26.00
overhang ...					
Trunk aft ...					
forward ...					
Tonnage opening aft ...	4.00	2.25			2.25
forward ...					
Total ...	330.50	328.25			328.25

Standard Height of Superstructure **6.805**R.Q.D. **✓**Deduction for complete superstructure **37.37**Percentage covered $\frac{S}{L} = 100.00$ $\frac{S_1}{L} = 99.32$ $\frac{E}{L} = 99.32$ Percentage from Table, Line A. **99.16**
(corrected for absence of forecastle (if required))Percentage from Table, Line B.
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = **37.37 × 99.16 = 37.06**

SHEER CORRECTION.

 Actual height of superstructure = **7.562**
 Standard = **6.805**
 Difference = **0.757**
 = **90.8**

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A ...	43.05	1		43.05	67.75	71.33	1		71.33
1/4 An A.P. ...	19.16	4		76.64	62.25	76.81	4		307.24
1/2 " ...	4.74	2		9.48	12.00	21.08	2		42.16
3/4 " ...									
amidships ...		4				84.5	4		338.0
1/4 An F.P. ...	9.48	2		18.96		9.08	2		18.16
3/4 " ...	38.32	4		153.28	22.75	31.83	4		127.32
F ...	86.10	1		86.10	105.75	109.09	1		109.09
Total ...				387.51		448.1			471.92

 Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - S}{2L} \right) = \frac{81.41}{18} \times 2.5 = -1.17$
If limited on account of midship superstructure. **✓**If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.

Deduction for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **26.11**

Summer freeboard =

Moulded draught (d) =

Deduction for Tropical freeboard and addition for

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

Deduction 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

T =

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

=

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

 $\frac{787 + 68}{1.36} = \frac{1.467}{1.36} =$ Depth Correction ... **10.37**

Deduction for superstructures ...

Shear correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. ...

Summer Freeboard =

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, **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 " " ...

 W460-0211
 25 FEB 1935

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
Subboard Deck											
Description of Hatchway	h ^o 1	h ^o 2	h ^o 3	h ^o 4	h ^o 5	h ^o 1	h ^o 2	h ^o 3	h ^o 4	h ^o 5	Tonnage opening aft.
Dimensions of Hatchway	24' x 23'	33' 6" x 23'	8' 7" x 23'	38' 4" x 23'	22' 3" x 23'	24' x 23'	33' 4" x 23'	11' 1" x 18' 6"	33' 4" x 23'	24' x 23'	4' x 23' 5"
COAMINGS	Height above Deck	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"
	Thickness Sides	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
	Thickness Ends	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
	Stiffeners	7" BA	8" BA	7" BA	8" BA	7" BA	8" BA	7" BA	8" BA	7" BA	8" BA
	Brackets, Stays	none	none	none	none	none	none	none	none	none	none
HATCH BEAMS	Number	4	5	1	5	4	5	1	5	4	4
	Spacing	4' 6"	5' 5" 1/2	4' 3" 1/2	5' 5" 1/2	4' 6"	5' 5" 1/2	5' 5" 1/2	5' 5" 1/2	4' 6"	4' 6"
	Scantling and Sketch	3 1/2" x 8 1/2" x 16'	3 1/2" x 8 1/2" x 16'	3 1/2" x 8 1/2" x 16'	3 1/2" x 8 1/2" x 16'	3 1/2" x 8 1/2" x 16'	3 1/2" x 8 1/2" x 16'	3 1/2" x 8 1/2" x 16'	3 1/2" x 8 1/2" x 16'	3 1/2" x 8 1/2" x 16'	3 1/2" x 8 1/2" x 16'
	Bearing Surface	21" x 40"	21" x 40"	16" x 40"	21" x 40"	21" x 40"	21" x 40"	18" x 40"	21" x 40"	21" x 40"	21" x 40"
		3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"
FORE AND AFTERS	Number										
	Spacing										
	Unsupported Lengths										
	Scantling and Sketch										
	Bearing Surface										
HATCH COVERS	Material	Pine 2 3/8"	Pine 2 3/8"	Pine 2 3/8"	Pine 2 3/8"	Pine 2 3/8"	Pine 2 3/8"	Pine 2 3/8"	Pine 2 3/8"	Pine 2 3/8"	Pine 2 3/8"
	Thickness	2 3/8"	2 3/8"	2 3/8"	2 3/8"	2 3/8"	2 3/8"	2 3/8"	2 3/8"	2 3/8"	2 3/8"
	How fitted	for raft	for raft	for raft	for raft	for raft	for raft	for raft	for raft	for raft	for raft
	Bearing Surface	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
		24"	22"	17 1/2"	23"	19 1/2"	24"	23"	24"	24"	24"
Spacing of Cleats		24"	22"	17 1/2"	23"	19 1/2"	24"	23"	24"	24"	24"
Number of Tarpaulins		2	2	2	2	2	1	1	1	1	2
*Are wood fore and afters steel shod at all bearing surfaces? <i>none</i> Are battens and wedges efficient and in good condition? <i>yes</i> Are tarpaulins in good condition and in accordance with rule requirements? <i>yes</i> Are lashings provided in accordance with rule requirements? <i>yes</i>											

Particulars of fiddle, funnel and ventilator coamings:

Doorhold gratings covered by strong steel hinged covers. Fiddle & funnel ventilators are in efficient condition.
 Engine skylight of steel, strongly constructed.

Particulars of Flush Bunker Scuttles:

none.

Particulars of Companionways:

One steel companion way on superstructure deck, aft, leading to accommodation. Sill 16" high, tank doors operable from both sides; opening 3' 6" x 4' 4".

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

Height of coaming 36". Deck ring riveted with nuts at 4 diameters. All in good condition & efficiently constructed. Wood plugs & canvas covers fitted as per Rules.

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

Air pipes are 25" to 28" above deck & generally 3" diam. Canvas storm cover fitted.

Particulars of Gangway Cargo and Coaling Ports:

Four cargo ports, as shown on sketch, efficiently constructed & watertight. Opening 5' 5" x 3' 6".

Particulars of Scuppers and Sanitary Discharge Pipes:

no openings from space below freeboard deck. Two scupper consist of 4" bent pipe with no valves. These are plugged in the ship's side with wood & cement and plugged at the deck with wood plug. Sanitary discharge according to Rules.

Particulars of Side Scuttles:

no side scuttles below freeboard deck. Side scuttles to crew space aft & store forward are efficiently constructed fitted with hinged deadlights.

Particulars of Guard Rails:

Guard rails on superstructure deck 40" high having three rails supported by stanchions spaced 4'-1" apart.

Particulars of Gangways, Lifelines, etc.:

Temporary lifelines can be rigged between midships and crew companionway aft.

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	4'-11"	7'-2 1/2" (turn deck)	2'-10" x 1'-25"	one	2.7 ft ²	
Forward Well	none					
State position of each freeing port (F. and A. position and height above deck edge) { After Well: at tonnage opening 13" above deck Forward Well: — State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: — steel shutters secured by dogs. 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	18" x 42"	.34	4 x 3 x 40	48"	Top Brackets Bottom Flange	nom.	18"	7'-1 1/2"
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	16" x 40"	.35	4 x 3 x 48	35"	free	3'-6" x 4'-7"	16"	7'-2"
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	.28	.28	3 x 3 x 40	36"	free	2' x 4.5'	18"	7'
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	21" x 50"	.36	3 x 3 x 34 and hot stiff.	36"	free	2' x 4.5'	21"	7'-6"
Deckhouses on Flush Deck Ships								

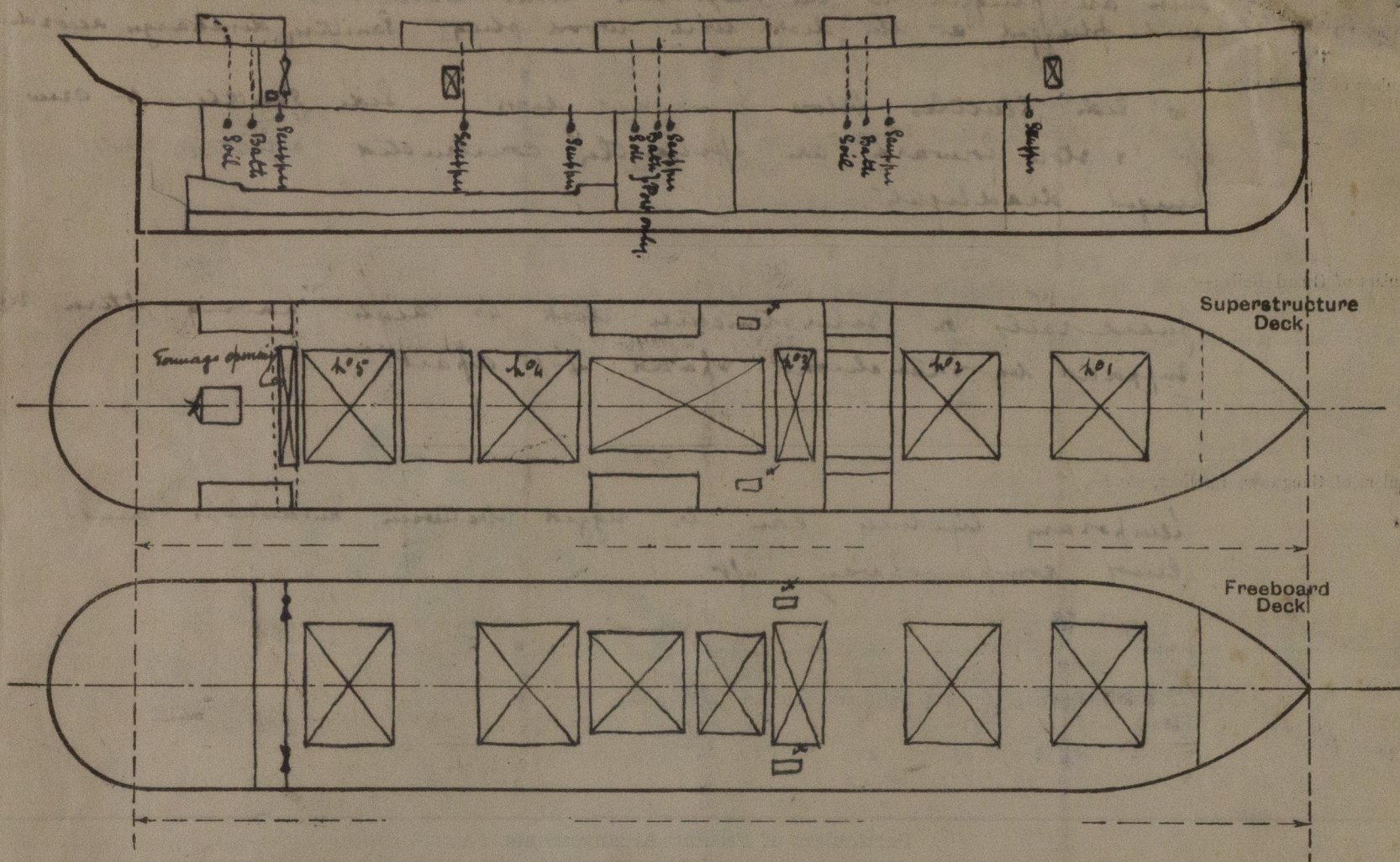
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	intact
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	full height storm board, riveted channels.
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	

Tank door to P.R.: steel door to fiddle; both operated from both sides.

Hinged steel doors with handle on 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 shewn on the following sketches:—



* Small bunker hatches are efficiently constructed with 30" steel coaming, 2 3/8" cover, wedge battens & tarpaulins in accordance with Regulation.

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

The vessel has been examined in dry dock and minor repairs effected on account of wear & tear.

The holds, tween decks, bunkers (as far as practicable) machinery space, decks, hatches, ventilators and general equipment have been examined and the vessel generally found to be in good condition.

The double bottom tanks and peak tanks were full.

The present freeboard certificate is attached for cancellation and a copy of the temporary certificate issued from the Kato Office is also attached.

The two freeboards, provisionally assigned, have been marked on the vessel's side and verified; the verification form is forwarded herewith.

Builder's name and yard number Government Dockyard, Newcastle, N.S.W.

Names of sister ships Large M class built for Australian Government.

Owners Pacific Shipping Company.

Johan Leon Bergin

Fee £

Received by me



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Foundation