

26.8.40.

Form LL. 4.C. Revised

LLAC/D for B/T ✓  
LLAD for owners ✓THE BRITISH CORPORATION REGISTER OF  
SHIPPING AND AIRCRAFT

1747

"ST. ELWYN" SURVEY FOR FREEBOARD

STEAMER, ~~TANKER, SALES~~ E. 55 CHARLTON HALL.

WITHOUT TIMBER DECK CARGO

Nationality BRITISH

Builders' Name and No. of Ship SIR JAMES LAING &amp; SONS LTD.,

Port of Registry LIVERPOOL.

SUNDERLAND. No. 731

Official Number 166803

Owners SHAKESPEARE SHIPPING CO LTD CARDIFF  
GAS. G. BOND & CO & CO. LTD.,

Gross Tonnage 5200.

LIVERPOOL.

Date of Build 9/1940.

Port and Date of survey SUNDERLAND (DURING CONSTRUCTION)

Name of Surveyor Jas. L. Greenhalgh.

Particulars of Classification B.S. X (WITH FREEBOARD).

Names of Sister Ships

(Dual class)

American Bureau

Type of Superstructures COMPLETE SUPERSTRUCTURE WITH TONNAGE WELL AFT.

permanently closed

Trade of Ship

Service Endorsement if any

Reassigned (in Red) 25-8-41 in accordance with M3387/41  
Increase in draught 12"

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (.....wood.....steel) ✓ 10'-10" 2'-11 1/2"

TROPICAL FRESH WATER LINE above centre of disc

12 1/2" ✓

Corresponding Freeboard 9'-9 1/2" 1' - 11"

FRESH WATER LINE " " "

6 1/2" ✓

" " 10'-3 1/2" 2' - 5"

TROPICAL LINE " " "

6" ✓

" " 10'-4" 2' - 5 1/2"

WINTER LINE below " " "

6" ✓

" " 11'-4" 3' - 5 1/2"

WINTER NORTH ATLANTIC LINE " " "

- ✓

" " -

SUMMER TIMBER FREEBOARD recommended amidships from top of deck line

TROPICAL FRESH WATER Timber line above L.S.

Corresponding Freeboard

FRESH WATER " " " "

" "

TROPICAL " " " "

" "

WINTER " " below "

" "

WINTER NORTH ATLANTIC " " " "

" "

Number of years recommended for load line certificate

The scantlings and protective arrangements being in accordance with the Load Line Rules it is submitted that the freeboards be assigned

J. L. Greenhalgh Chief Surveyor

Passed at a meeting of the Committee of Management of the British Corporation Register of Shipping and Aircraft

on the 4<sup>th</sup> September 1940  
1<sup>st</sup> October 1941

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## COMPUTATION OF FREEBOARD

Length on summer load line 426'-6" Moulded Breadth 50'-11" Moulded Depth 36'-3 1/2" Depth of Keel 1'-2 1/2"  
 Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth 11858 Tons  
 Co-efficient of fineness for use with tables  $\frac{\Delta \times 35}{L \times B \times D \times 85} = .7225$   
 Displacement and tons per inch immersion in salt water at summer load line 12415 2 Tons 48.6 at 24.5"  
 Moulded depth 27'-5 1/2" To Upper Deck 27.458 Deduction for Fresh Water  $\frac{\Delta}{40T} = 6.386 = 6 1/2$  inches  
 Stringer Plate .30" .033 Round of Beam Correction  
 Sheathing on exposed deck T  $(\frac{L-S}{L})$  Ships Round of Beam 6 inches  
 Rise of floor (in sailers) Standard Round of Beam  $\frac{B \times 12}{50} = 13.66$   
 Depth for Freeboard (D) 27.491 Difference 7.66  
 Table Depth 4/5 28.432 Restricted to  
 Depth Correction 3 0.941 Correction  $\frac{\text{Difference}}{4} \times (1 - \frac{E}{L}) = 1.915 \times .00538 = .01$   
 If restricted by superstructures 2.82

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)	
Poop	43.25'	0.92	8'-10"	44.17		43.71	Standard Height of Superstructure 7'-6"
Raised Quarter Deck							" " R.Q.D.
Bridge	357.16' F 378.25' A		8'-10"	378.25		378.25	Percentage covered S/L = 100%
Forecastle	30.42'						" " E/L = 99.462%
Trunk Aft							" from Table line B, (corrected for absence of forecastle if required) 99.838%
" Forward							Percentage from Table by interpolation for Bridge less than .2L if required =
Tonnage Opening Aft	5.0'			4.08	4.54	2.21	Deduction = 42 x .99338 = 41.72
" " Forward	4.08'						Percentage from Table for Tankers (or Timber ships) =
Totals				426.50		424.23	Deduction =

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product	Mean Actual sheer aft	Mean Actual sheer forward
16 A.P.	36.555"	52.65	72.5	1	72.5		
7.11 L from A.P.	30.286"	37.1125	24	4	148.45		
1.78 L from A.P.	7.2"	10.0925	28	2	20.06		
- Amidships				4			
1.78 L from F.P.	14.5"	16.2816	54	2	32.56		
7.11 L " "	57.5"	64.6162	86	4	258.4625		
16 F.P.	110"	84.30	131.25	1	131.25		
				18	645.02		
Effective Mean Sheer					35.834		
Standard " " .05L + 5					26.325		
Difference					9.509		

Sheer Correction = Difference  $\times (.75 - \frac{S}{L}) = 9.509 \times .25 = 2.38$   
 If limited on account of midship superstructure to maximum allowance of 1 1/2 ins. per 100 ft. = 2.44

TABULAR FREEBOARD corrected for flush deck if required = 79.815

Correction for co-efficient =  $\frac{1.4125}{1.36} = 82.90$  DRAUGHTS AND SEASONAL CORRECTIONS

	+	-		Sailer, Tanker, Steamer	Timber
Depth correction	-	2.82	Depth to Freeboard Deck in feet	27.491	
Deduction for superstructures	-	41.72	Summer Freeboard in feet	24.958	
Sheer correction	-	2.38	Moulded Draught (d)	24'-6 1/2"	24.533 (d1)
Round of Beam correction	.01	2.64	Addition for Keel		
Correction for thickness of deck amidships	-		Extreme draught		
Other corrections, scantlings, etc.	-				
		47.18	Deduction for Tropical and addition for Winter freeboard $d/4 = 6.133$ ins.		
		46.92	Addition for Winter North Atlantic (if required)		
Summer Freeboard in inches	5	35.94	Deduction for Tropical Timber Freeboard $\frac{d}{4}$		
Additional allowance for superstructures on Timber carrying ships		35.73	Addition for Winter " " $\frac{d}{3}$		
Summer Timber Freeboard in inches			N.A. Timber Freeboard (if required)		

MODIFIED IN RED TO SUIT NEW SHEER HEIGHTS.

Form LL. 4.C. Revised

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT  
SURVEY FOR FREEBOARD

1747

STEAMER, TANKER, SAILER:

S.S. "CHARLTON HALL"

WITH WITHOUT TIMBER DECK CARGO

Nationality BRITISH

Builders' Name and No. of Ship SIR JAMES LAING &amp; SONS LTD.,

Port of Registry LIVERPOOL

SUNDERLAND No 731

Official Number 166303

Owners CHAS. G. DUNN &amp; CO. LTD.,

Gross Tonnage 5200

LIVERPOOL.

Date of Build 9/1940

Port and Date of survey SUNDERLAND (DURING CONSTRUCTION)

Particulars of Classification B.S. \* (WITH FREEBOARD)

Name of Surveyor JAMES. H. GREENHALGH

Names of Sister Ships -

Type of Superstructures

COMPLETE SUPERSTRUCTURE WITH TONNAGE WELL AFT.

Trade of Ship

Service Endorsement if any

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (.....wood.....steel)

TROPICAL FRESH WATER LINE above centre of disc 12 1/2" Corresponding Freeboard 2'-11 1/2"

FRESH WATER LINE " " " 6 1/2" " " 1'-11"

TROPICAL LINE " " " 6" " " 2'-5"

WINTER LINE below " " " 6" " " 2'-5 1/2"

WINTER NORTH ATLANTIC LINE " " " " " " 3'-5 1/2"

SUMMER TIMBER FREEBOARD recommended amidships from top of deck line

TROPICAL FRESH WATER Timber line above L.S.

Corresponding Freeboard

FRESH WATER " " " " " " "

TROPICAL " " " " " " "

WINTER " " below " " " " "

WINTER NORTH ATLANTIC " " " " " " "

Number of years recommended for load line certificate

(1b) The scantlings and protective arrangements being in accordance with the Load Line Rules it is submitted that the freeboards be assigned

(INT.) J.F.K. Chief Surveyor

Passed at a meeting of the Committee of Management of the British Corporation Register of Shipping and Aircraft

on the 1<sup>st</sup> September 1940.

(SIGNED) W.H. CARSLAW

Secretary

Lloyd's Register Foundation

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## COMPUTATION OF FREEBOARD

Length on summer load line  $426'-6"$  Moulded Breadth  $56'-11"$  Moulded Depth  $36'-2\frac{1}{2}"$  Depth of Keel  $1'-29"$   
 Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth 11858 Tons  
 Co-efficient of fineness for use with tables  $\frac{\Delta \times 35}{L \times B \times D \times .85} = .7325$   
 Displacement and tons per inch immersion in salt water at summer load line 12415  $\pm$  T.P.1 = 48.6 at 24'S  
 Moulded depth  $27'-5\frac{1}{2}"$  To UPPER DECK 27.458 Deduction for Fresh Water  $\frac{\Delta}{40 T} = 6.386 = 6\frac{1}{2}"$  inches  
 Stringer Plate '39" .033 Round of Beam Correction  
 Sheathing on exposed deck T  $(\frac{L-S}{L})$  - Ships Round of Beam 6 inches  
 Rise of floor (in sailers) - Standard Round of Beam  $\frac{B \times 12}{50} = 13.66$   
 Depth for Freeboard (D) 27.491 Difference 7.66  
 Table Depth  $\frac{1}{5}$  28.432 Restricted to  
 Depth Correction  $3 \times .0941$  Correction  $\frac{\text{Difference}}{4} \times (1 - \frac{E}{L}) = 1.915 \times .00538$   
 If restricted by superstructures 2.82 OFF = .01 ON

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)
Poop	43.25'	0.92'	8'-10"	44.17		43.71
Raised Quarter Deck						
Bridge	378.25'	F -	8'-10"	378.25		378.25
Forecastle						
Trunk Aft						
Forward						
Tonnage Opening Aft	4.08			4.08	4.54 x .5	2.27
Forward						
Totals				426.50		424.23

Standard Height of Superstructure 7.6"  
 " " R.Q.D. -  
 Percentage covered S/L = 100%  
 " " E/L = 99.462%  
 " from Table line A, B, (corrected for absence of forecastle if required) 99.338%  
 Percentage from Table by interpolation for Bridge less than .2L if required = -  
 Deduction =  $42 \times .99338 = 41.72$   
 Percentage from Table for Tankers (or Timber ships) = -  
 Deduction = ✓

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product
16 A.P.	56 1/2"	52.65	725	1	725
7.1 1/2 L from A.P.	30"		37.11	4	148.44
1.78 1/2 L from A.P.	8 1/4"		10.03	2	20.06
Amidships	-		-	4	-
1.78 1/2 L from F.P.	14 1/2"		16.28	2	32.56
7.11 1/2 L " "	57 1/2"		64.6	4	258.44
16 F.P.	110	84.30	132.0	1	132.0
				18	664.00
Effective Mean Sheer					36.890
Standard " "		.05L + 5			26.325
Difference					10.565

Mean Actual sheer aft = ✓  
 " Standard " "  
 Mean Actual sheer forward = ✓  
 " Standard " "  
 Length of enclosed superstructure forward of amidships = ✓  
 Length of Ship  
 Length of enclosed superstructure aft of amidships = ✓  
 Length of Ship  
 Sheer Correction = Difference  $\times (\frac{75}{2L}) = 10.565 \times .25 = 2.64$  OFF.  
 If limited on account of midship superstructure = -  
 " to maximum allowance of 1 1/2 ins. per 100 ft. = -

TABULAR FREEBOARD corrected for flush deck if required = 79.815

Correction for co-efficient =  $\frac{1.4125}{1.36} = .82.90$  DRAUGHTS AND SEASONAL CORRECTIONS

	+	-	Sailer, Tanker, Steamer	Timber
Depth correction	-	2.82		
Deduction for superstructures	-	41.72	Depth to Freeboard Deck in feet 27.491	
Sheer correction	-	2.64	Summer Freeboard in feet 2.958	
Round of Beam correction	.01	-	Moulded Draught (d) 24'-6 1/2" 24.533	(d1)
Correction for thickness of deck amidships	-	-	Addition for Keel 1 1/4"	
Other corrections, scantlings, etc.	-	-	Extreme draught 24 1/4"	
	.01	47.18	Deduction for Tropical and addition for Winter freeboard d/4 = 6.133 ins.	1s.
Summer Freeboard in Inches $S = 2'-11 1/2"$			Addition for Winter North Atlantic (if required)	1s.
Additional allowance for superstructures on			Deduction for Tropical Timber Freeboard $\frac{d}{d}$	1s.
Timber carrying ships			Addition for Winter " " $\frac{d}{3}$	1s.
Summer Timber Freeboard in inches			" " N.A. Timber Freeboard (if required)	1s.

Form LL. 4.D.

## THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

SURVEY FOR FREEBOARD

CONDITIONS OF ASSIGNMENT

SHIPS NAME *OCEAN ENDURANCE* CHARLTON HALL

OFFICIAL NUMBER 166503

Nationality and Port of Registry *BRITISH*

LIVERPOOL

PARTICULARS OF SUPERSTRUCTURES, TRUNKS, CASINGS, DECKHOUSES

	Coaming	Plating	Stiffeners	Spacing	End Attachments	No. and size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	✓	.36"	5" x 3" x 30" O.A.	2'-0" To 2'-6"	RIVTS. TO BOUNDARY BAR			
R.Q.D. "								
Bridge Aft Bulkhead	✓	.26"	5" x 3" x 30" B.A.	2'-6"	RIVTS. TO BOUNDARY BAR	2 @ 5'0" x 3'-1"	18"	
Forward								
Forecastle Bulkhead ON SHELTER DECK	✓	.32"	4" x 3" x 32" O.A.	2'-2 1/2" To 2'-6"	RIVTS. TO BOUNDARY BAR	1 @ 4'-6 1/2" x 4'-6 1/2" P.S. 4'-6" x 2'-2 1/2"	18"	4'-6"
Trunk Aft								
Forward								
Exposed Machinery Casings on Freeboard or R.Q. Decks								
Exposed Machinery Casings on superstructure decks	.40"	.26"	3" x 3" x 30"	2'-4"-2'-7"	RIVTS. TO CASING TOP	1 P.S. 5'-0" x 2'-0"	18"	4'-9"
Machinery Casings within Superstructures not fitted with Cl. 1 closing appliances	.40"	.26"	3" x 3" x 30"	2'-4"-2'-7"	RIVTS. TO BOUNDARY BAR		18"	
Deckhouses on flush deck ships								

PARTICULARS OF CLOSING APPLIANCES (state if capable of being manipulated from both sides)

Poop Bulkhead	no openings ✓
R.Q.D. "	
Bridge Aft Bulkhead	Riveted channels full height weatherboards.
Forward	
Forecastle Bulkhead ON SHELTER DECK	Riveted channels full height weatherboards
Exposed Machinery Casings on Freeboard or R.Q. decks	NOT REQUIRED - OPEN shelter deck; see letters 25/28/48
Exposed Machinery Casings on superstructure decks	Cast-iron steel door p.s. operated from both sides.
Machinery Casings within superstructures not fitted with Cl. 1 Closing Appliances	
Deckhouses on Flush Deck ships	

PARTICULARS OF FREEING ARRANGEMENTS

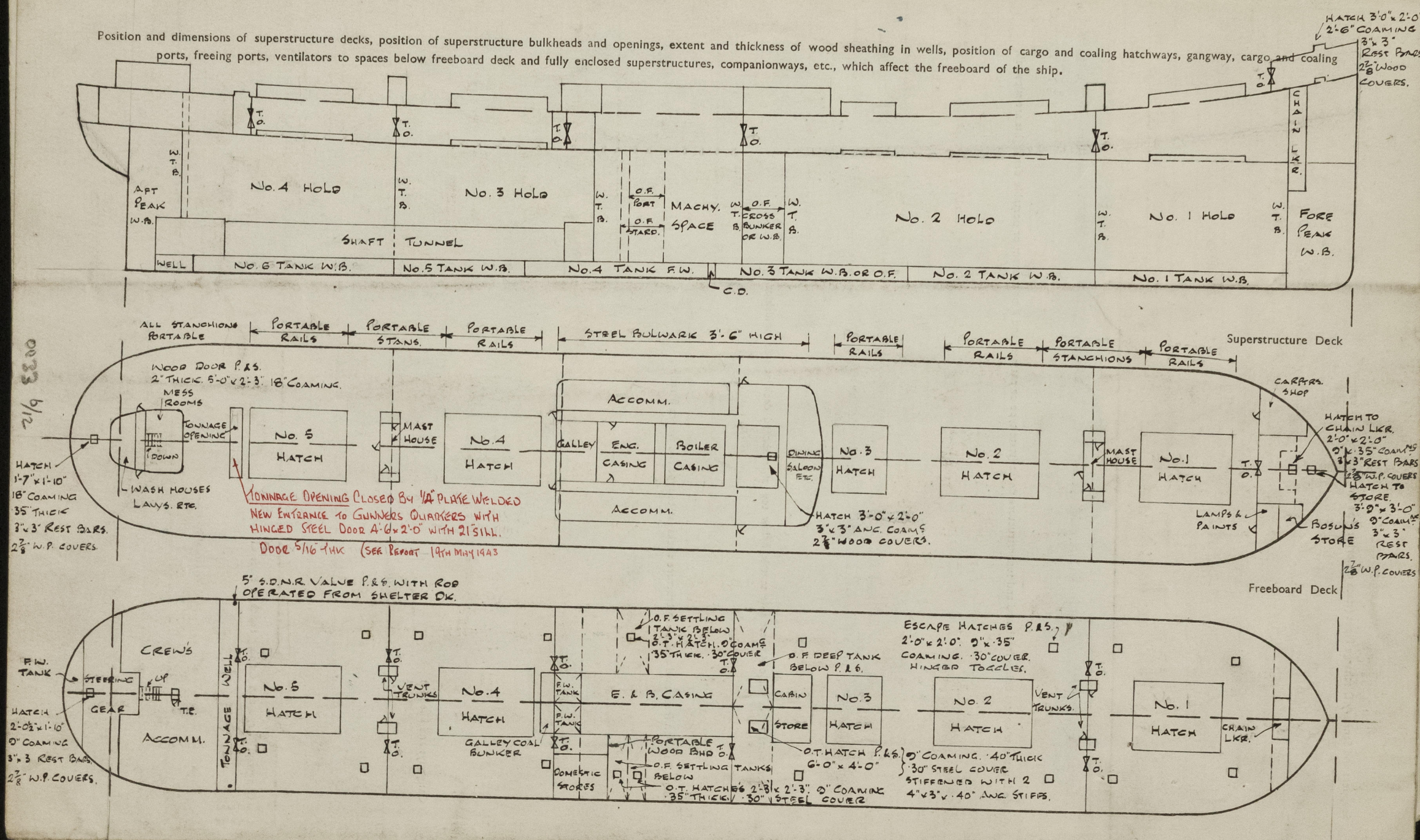
	Length of Bulwark	Height of Bulwark	No. and size of Freeing Ports each side	Area each side	Rule Area
After Well					
Forward Well					
State fore and aft position and height above deck to bottom of port, for each port			After Well no freeing ports in Vonnage opening. 5" S.A.N.R. scupper p.s. with rod operated from shelter dk.		
			Forward Well		
State whether freeing ports are fitted with shutters, bars or rails, and give particulars			Open rails.		
Give particulars of freeing port area, etc., on superstructure decks					

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Position and dimensions of superstructure decks, position of superstructure bulkheads and openings, extent and thickness of wood sheathing in wells, position of cargo and coaling hatchways, gangway, cargo and coaling ports, freeing ports, ventilators to spaces below freeboard deck and fully enclosed superstructures, companionways, etc., which affect the freeboard of the ship.



PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Number and description of Hatchway from forward	No. 1.					TONNAGE HATCH	No. 1.				
	No. 1.	No. 2	No. 3	No. 4	No. 5		No. 1.	No. 2	No. 3	No. 4	No. 5
Dimensions of Hatchway	29'-3" x 20'-0"	35'-0" x 20'-0"	20'-0" x 20'-0"	30'-0" x 20'-0"	30'-0" x 20'-0"	4'-1" x 20'-0"	29'-3" x 20'-0"	35'-0" x 20'-0"	20'-0" x 20'-0"	30'-0" x 20'-0"	30'-0" x 20'-0"
COAMINGS	Height steel above deck	36"	36"	36"	36"	9" x 3'	10" x 35"	10" x 35"	10" x 35"	10" x 35"	10" x 35"
	Thickness sides	.44"	.44"	.44"	.44"	.44"	.44"	.44"	.44"	.44"	.44"
	Thickness ends	.44"	.44"	.44"	.44"	.44"	.44"	.44"	.44"	.44"	.44"
	Stiffeners	10" x 3 1/2" x 44" B.A. (BOTH ENDS) 4" x 3" x 40" B.A. (BOTH ENDS) 40" THICK 3" x 40" FLAT ON EDGE 30 OFF P&S.	9" x 3 1/2" x 42" B.A. (BOTH ENDS) AS NO. 1.	RECESSED TYPE HATCH SIDE COAMINGS AT NOS. 1, 2, 3, 4, & 5 HATCHES AS SHOWN	4" x 3" x 40" B.A. (BOTH ENDS) 40" THICK 3" x 40" FLAT ON EDGE 30 OFF P&S.	4" x 3" x 40" B.A. (BOTH ENDS) 40" THICK 3" x 40" FLAT ON EDGE 30 OFF P&S.	4" x 3" x 40" B.A. (BOTH ENDS) 40" THICK 3" x 40" FLAT ON EDGE 30 OFF P&S.	4" x 3" x 40" B.A. (BOTH ENDS) 40" THICK 3" x 40" FLAT ON EDGE 30 OFF P&S.	4" x 3" x 40" B.A. (BOTH ENDS) 40" THICK 3" x 40" FLAT ON EDGE 30 OFF P&S.	4" x 3" x 40" B.A. (BOTH ENDS) 40" THICK 3" x 40" FLAT ON EDGE 30 OFF P&S.	4" x 3" x 40" B.A. (BOTH ENDS) 40" THICK 3" x 40" FLAT ON EDGE 30 OFF P&S.
HATCH BEAMS	Number	4	5	3	4	4	4	5	3	4	4
	Spacing	5'-10"-5'-10 1/2"	5'-10"-5'-9 1/4"	5'-0"-4'-11 1/4"	6'-0"-5'-11 1/4"	6'-0"-5'-11 1/4"	5'-10"-5'-11"	5'-10"	5'-0"	6'-0"	6'-0"
	Scantling and Sketch	2 1/4" x 38	15 1/2" x 35	15 1/2" x 30	15 1/2" x 36	15 1/2" x 36	25 1/4" x 40	22 1/2" x 38	22" x 38	21 1/2" x 38	21 1/2" x 38
		2 FLATS 8" x 60	2 FLATS 8" x 60	2 FLATS 8" x 60	2 FLATS 9" x 60	2 FLATS 9" x 60	2 FLATS 9" x 60	2 FLATS 9" x 60	2 FLATS 8" x 60	2 FLATS 9" x 60	2 FLATS 9" x 60
FORE AND AFTERS	Bearing Surface and thickness of carriers or sockets	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"
	Number										
	Spacing										
	Unsupported lengths										
HATCH COVERS	Scantling and Sketch										
	Bearing Surface and thickness of carriers or sockets										
	Material	Steel (SHERWOOD PATENT INTERCHANGEABLE TYPE)	Steel	Steel	Steel	W.P.	W.P. (FITTED WITH COCKS PATENT OPEN ENDS)	W.P.	W.P.	W.P.	W.P.
	Thickness	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
	How Fitted	Y. ca.	Y. ca.	Y. ca.	Y. ca.	Y. ca.	Y. ca.	Y. ca.	Y. ca.	Y. ca.	Y. ca.
	Bearing Surface	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
	Spacing of Cleats	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"
	Number of Tarpaulins	2	2	2	2	2	1	1	1	1	1

Are tarpaulins in good condition and in accordance with rule requirements? *Yes*

Are lashings provided in accordance with rule requirements? *Yes*

Are wood fore and afters steel shod at all bearing surfaces? *Yes*

Are battens and wedges efficient and in good condition? *Yes*



Give full particulars of the following :—

Fiddley, Funnel and Vent Coamings, Engine Room skylight and other openings in Machinery Casing tops and their means of closing (state height of coamings, type of fiddley covers, and if these are permanently attached in their proper positions)

Steel casing 4'-9" high.  
E.R. Skylight:- Steel covers with 10" dia. bullseyes.  
Fiddley:- Steel hinged covers, permanently attached.

Flush Bunker Scuttles on freeboard and superstructure decks (state material, type of joints, etc., and if secured by hinge or permanent chain attachment)

1-18" dia. flush scuttle on Shell deck to Galley Coal Bunker.  
Bayonet joint with permanent chain attachment.

Companionways on freeboard and superstructure decks (state material, height of doorway sills, type of doors, and if these can be closed and secured from both sides)

In Aft Deckhouse. See sketch.

Companionway on top of Tonnage Opening to Gunners Accommodation. (See sketch)

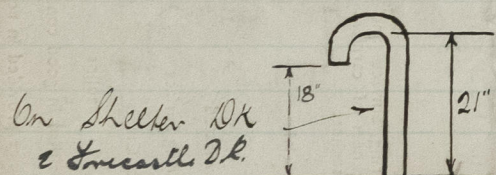
Ventilators in exposed positions on freeboard, raised quarter and superstructure decks to spaces below freeboard decks and fully enclosed superstructures enclosed by Class 1 appliances (state height of steel coamings, pitch of rivets in deck connection, type of closing arrangements)

2-18" Vents to No. 1 Hold 30"x 40" coamings  
2-30" " " No. 1 & 2 Holds on forward Mast House top 21" coamings  
2-18" " " No. 2 Hold 30"x 40" coamings.  
2-8" " " Deep Tank 30"x 30" coamings. Wine gauge on mouth.  
3-8" " " Oil Fuel Settling Tanks (1 & 2) 30"x 30" coamings.  
with wine gauge on mouth.  
2-18" Vents to No. 3 Hold 30"x 40" coamings.  
2-30" " " No. 3 & 4 Holds on aft Mast House top 21" coamings.  
2-18" " " No. 4 Hold 30"x 40" coamings.  
1-12" Vent. to Tunnel Escape 30"x 34" coaming.

Welded to OK.

Openings closed with wood plugs and canvas covers

1-12" & 1-6"x4" G.M.V. to Gunners Accommodation (112143)  
Airpipes in exposed positions on freeboard, raised quarter and superstructure decks (state height to opening and if satisfactory closing arrangements are provided)



Wood plugs fitted.

Wine gauge fitted where provision is made in Double bottom for Oil Fuel  
also O.F. Settling Tanks & Deep Tanks. (No. 3 Tank)

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Scuppers and Sanitary Discharge Pipes (state material, type and number of valves)

Scuppers:- Above Shell Deck in gunwale bar.  
Below upper " 3 @ 2", and 1 @ 1 1/2". Galv'd. steel tube  
(steam quality) with brass check valves.

Comms. Deck

Sanitary Discharge Pipes:- 3 @ 2", 1 @ 1 1/2", 5 @ 3", 3 @ 4", and 4 @ 5".  
all above upper dk. of Galv'd. steel tube  
(steam quality) with brass check valves.

GUNNERS ACCOMMODATION 2" BOTH DISCHARGE & A" W.C. DISCHARGE, BOTH DISCHARGING ABOVE 2ND DECK. (112143)

Side Scuttles to spaces below freeboard and superstructure decks (state type or pattern, and if permanent or portable deadlights are supplied)

In Crew's Accommodation aft:-  
12" dia. with brass frames and G.I. deadlights.  
2-12" DIA TO GUNNERS ACCOMMODATION AFT.

Vertical distance of sill of lowest side scuttle below top of freeboard deck at side amidships

None

Guard Rails on freeboard and superstructure decks (state type and where fitted)

Three rods. Top rail 1 1/4" dia. tube. Lower rails 1/2" dia. solid iron.  
3'-6" above dk.

Gangways and Lifelines

None

Gangway, Cargo and Coaling Ports in sides of ship

None

SUPPLEMENTARY REQUIREMENTS FOR STEAMER CARRYING TIMBER DECK CARGOES

Do Superstructure and Machinery Casings comply with rules?

Is provision made for protection of steering gear?

Is emergency steering gear provided?

Are efficient sockets and eyes for lashings provided and properly spaced?

State particulars of longitudinal subdivision in double bottom

State particulars of Bulwarks and Rails

Particulars of any Special Features in the construction of the Ship

Endorsement at first survey and at surveys for Renewal of Certificate:—

The fittings and appliances are in accordance with the particulars shown in the form and are in good condition

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# THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

## SURVEY FOR FREEBOARD

STEAMER, TANKER, SAILER: S.S. ST. ELWYN E. CHARLTON HALL ~~WITH~~ WITHOUT TIMBER DECK CARGO  
 Nationality BRITISH Builders' Name and No. of Ship SIR JAMES LAING & SONS LTD.  
 Port of Registry LIVERPOOL. NEWPORT. MON. No 731.  
 Official Number 166303 Owners SHAKESPEARE SHIPPING CO LTD CARDIFF.  
 Gross Tonnage 5200  
 Date of Build 9/1940 Port and Date of survey LONDON. JUNE 1948.  
 Name of Surveyor  
 Particulars of Classification BS \* Names of Sister Ships  
 Type of Superstructures COMPLETE SUPERSTRUCTURE WITH TONNAGE OPENING AFT.

Trade of Ship.

Service Endorsement If any

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (~~wood~~ steel)

TROPICAL FRESH WATER LINE above centre of disc

FRESH WATER LINE

TROPICAL LINE

WINTER LINE

WINTER NORTH ATLANTIC LINE

12 1/2"

6 1/2"

6"

6"

-

Corresponding Freeboard

2' - 11 1/2"

1' - 11"

2' - 5"

2' - 5 1/2"

3' - 5 1/2"

SUMMER TIMBER FREEBOARD recommended amidships from top of deck line

TROPICAL FRESH WATER Timber line above L.S.

FRESH WATER

TROPICAL

WINTER

WINTER NORTH ATLANTIC

Corresponding Freeboard

Number of years recommended for load line certificate

1 year.

The scantlings and protective arrangements being in accordance with the Load Line Rules it is submitted that the freeboards be assigned

Chief Surveyor

Passed at a meeting of the Committee of Management of the British Corporation Register of Shipping and Aircraft

on the

7th July 1948



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Lloyd's Register  
Foundation  
Secretary

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# COMPUTATION OF FREEBOARD

Length on summer load line	Moulded Breadth	Moulded Depth	Depth of Keel
Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth			Tons
Co-efficient of fineness for use with tables	$\frac{\Delta \times 35}{L \times B \times D \times .85} =$		
Displacement and tons per inch immersion in salt water at summer load line			
Moulded depth		Deduction for Fresh Water	$\frac{\Delta}{40 T} =$ inches
Stringer Plate		Round of Beam Correction	
Sheathing on exposed deck T $\left(\frac{L-S}{L}\right)$		Ships Round of Beam	inches
Rise of floor (in sailers)		Standard Round of Beam	$\frac{B \times 12}{50}$
Depth for Freeboard (D)		Difference	
Table Depth		Restricted to	
Depth Correction		Correction	$\frac{\text{Difference}}{4} \times \left(1 - \frac{E}{L}\right) =$
If restricted by superstructures			

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)
Poop						
Raised Quarter Deck						
Bridge		F				
		A				
Forecastle						
Trunk Aft						
„ Forward						
Tonnage Opening Aft						
„ „ Forward						
Totals						

Standard Height of Superstructure

„ „ R.Q.D.

Percentage covered S/L =

„ „ E/L =

„ from Table line A, B, (corrected for absence of forecastle if required)

Percentage from Table by interpolation for Bridge less than .2L if required =

Deduction =

Percentage from Table for Tankers (or Timber ships) =

Deduction =

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product
A.P.				1	
$\frac{1}{8}$ L from A.P.				4	
$\frac{1}{8}$ L from A.P.				2	
Amidships				4	
$\frac{1}{8}$ L from F.P.				2	
$\frac{1}{8}$ L „ „				4	
F.P.				1	
				18	
Effective Mean Sheer					
Standard „ „ .05L + 5					
Difference					

Mean Actual sheer aft =

„ Standard „ „

Mean Actual sheer forward =

„ Standard „ „

Length of enclosed superstructure forward of amidships =

Length of Ship

Length of enclosed superstructure aft of amidships =

Length of Ship

Sheer Correction = Difference X  $\left(75 - \frac{S}{2 L}\right) =$

„ to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft. =

TABULAR FREEBOARD corrected for flush deck if required =

Correction for co-efficient =

	+	-
Depth correction		
Deduction for superstructures		
Sheer correction		
Round of Beam correction		
Correction for thickness of deck amidships		
Other corrections, scantlings, etc.		

Summer Freeboard in inches =

Additional allowance for superstructures on

Timber carrying ships =

Summer Timber Freeboard in inches =

## DRAUGHTS AND SEASONAL CORRECTIONS

	Sailer, Tanker, Steamer	Timber
Depth to Freeboard Deck in feet		
Summer Freeboard in feet		
Moulded Draught (d)		(d1)
Addition for Keel		
Extreme draught		
Deduction for Tropical and addition for Winter freeboard $d/4 =$		ins.
Addition for Winter North Atlantic (if required) =		ins.
Deduction for Tropical Timber Freeboard $d/4 =$		ins.
Addition for Winter „ „ $d/3 =$		ins.
„ „ N.A. Timber Freeboard (if required) =		ins.