

B.T. COPY WRITTEN.

Rpt. C.11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **20527.**
(For London Office only.)

14648

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having RAISED QUARTER DECK, BRIDGE & FORECASTLE.

Port of Survey MIDDLESBROUGH.

Date of Survey MAY 25th/32.

Name of Surveyor Capt. B. Seaver.

Particulars of Classification 100 A.1.

DUNMOIR (Type of Superstructures.)

Ship's Name OK S. LOWICK.

Nationality and Port of Registry BRITISH STOCKTON

Official Number 129046

Gross Tonnage 562.2

Date of Build 1909-10

Moulded Dimensions: Length 170'0" Breadth 27'42" Depth 13'0"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 1070 tons 8.85 T.P. tons

Coefficient of fineness for use with Tables .687.

9.0 790 8.65
10.0 700 8.75
12.0 1165 7.00

Depth for Freeboard (D) Moulded depth ... 13.00

Stringer plate ... 35.03

Sheathing on exposed deck

T $\frac{L-S}{L}$ =

Depth for Freeboard (D) = 13.03

Depth correction

(a) Where D is greater than Table depth (D-Table depth) R = $(13.03 - 11.33) / 1.307 = + 2.22"$

(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) 27.38

Standard Round of Beam = $\frac{B \times 12}{50} = 6.57$

Ship's Round of Beam $\frac{63}{4} = 6.75$

Difference .18

Restricted to

Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S}{L}) = \frac{.18}{4} \times .3208 = -.01"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Per closed ...					
Overhang ...					
Enclosed ...	79'10"	79.83	4'0"		79.83
Overhang ...					
Enclosed ...	14'3"	14.25	7'6"		14.25
Overhang aft ...	5'				
Overhang forward ...	6'	.25			.25
Fore enclosed ...	21'09"	21.09	7'0"		21.09
Overhang ...	5'				
Trunk aft ...					
Forward ...					
Tonnage opening aft ...					
Forward ...					
Total ...	115.67	115.42			115.42

Standard Height of Superstructure 6.00

R.Q.D. 3.467

Deduction for complete superstructure 23.00

Percentage covered $\frac{S}{L} = 68.04\%$

$\frac{S_1}{L} = 67.92\%$

$\frac{E}{L} = 67.92\%$

Percentage from Table, Line A. 59.46

(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 = $23.00 \times .5946 = -13.68"$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	27.00	1		27.00	24.00	24.00	1		30.40
$\frac{1}{8}L$ from A.P. ...	12.01	4		48.04	10.64	10.27	4		54.12
$\frac{2}{8}L$ " ...	2.97	2		5.94	2.66	2.56	2		6.76
Amidships ...		4			00		4		
$\frac{3}{8}L$ from F.P. ...	5.94	2		11.88	6.00	6.12	2		12.24
$\frac{4}{8}L$ " ...	24.02	4		96.08	24.00	24.49	4		97.96
F.P. ...	54.00	1		54.00	54.00	54.00	1		54.00
Total ...	243			242.94					255.48

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{12.54}{18} = .696$

limited on account of midship superstructure. $.28 \times \frac{1.53}{2.00} = -.22"$

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

Mean actual sheer aft = Excess

Mean standard sheer aft = Excess

Mean actual sheer forward = Excess

Mean standard sheer forward = Excess

Length of enclosed superstructure forward of amidships = $\frac{7.08}{170.00} = .053 L$

" aft of " = .5L

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 13.03

Summer freeboard = .56

Moulded draught (d) = 12.47

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $\frac{12.47}{4} = 3.12 = 3"$

Addition for Winter North Atlantic Freeboard (if required) = 2"

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 1169$

Tons per inch immersion at summer load water line

T = 9.00

Deduction = $\frac{\Delta}{40 T}$ inches = $\frac{1169}{40 \times 9.00} = 3.25 = 3\frac{1}{4}"$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{1367}{1360}$

	+	-
Depth Correction ...	2.22	
Deduction for superstructures ...		13.68
Sheer correction ...		.22
Round of Beam correction ...		.01
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		
	2.22	13.91

Summer Freeboard = 6.70

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

Tropical Fresh Water Line above Centre of Disc ...	67	Tropical Fresh Water Freeboard ...	0' - 6 3/4"
Fresh Water Line " " ...	37	Fresh Water " " ...	0' - 0 1/2"
Tropical Line " " ...	3	Tropical " " ...	0' - 3 1/2"
Winter Line below " " ...	3	Winter " " ...	0' - 9 3/4"
Winter North Atlantic Line " " ...	5	Winter North Atlantic " " ...	0' - 11 3/4"

31 MAY 1932

10m, 231

MARKING FORM

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10 AUG 1936

10 OCT 1934

29 NOV 1932

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	Stiffeners	...	...	...	...	...	...	...	...
	Brackets, Stays	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
FORE AND AFTERS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...
	Scantling* and Sketch	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
Spacing of Cleats	...	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...	...

Particulars of fiddle, funnel and ventilator coamings:—

STONE HOLD GRATING COVERED BY STRONG STEEL HINGED COVERS.
FIDDLER AND FUNNEL VENTILATORS IN EFFICIENT CONDITION.
ENGINE SKYLIGHT OF STEEL WITH STRONG WOOD FLAPS.

Particulars of Flush Bunker Scuttles:—

NONE FITTED.

Particulars of Companionways:—

COMPANION RFT TO ENGINEERS QUARTERS. 4'3" x 3'0" 25 PLATING 7'6" HIGH. SOLID WOOD DOOR 4'8" x 2'0" 5'11" 19" AND DOOR OPERATED FROM BOTH SIDES.

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

COWL VENTS ON UPPER DECK FORWARD. 10'0" COAMING 36" x 25" 12" DIA TO HOLD.
RAISED 2 DECK 10'0" - 36" x 25" 12" -
2'0" - 12" x 25" 6" - TO ENGINEERS RECOMMENDATION.

VENTILATOR COAMINGS CLOSED BY WOOD PLUGS & CANVAS COVERS.

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

40000 NICK AIR PIPE TO FORE DECK 10'0" DIA. ON FORECASTLE DECK.
D.B.T. 31" - 2" DIA ON UPPER DECK FORE WALL. with snifting hole
NO CLOSING APPLIANCES OR SNIFTING HOLES FITTED. Wood plugs provided for all air pipes
SOUNDING PIPES FLUSH WITH DECK WITH BRASS SCREEN CAPS.

Particulars of Gangway Cargo and Coaling Ports:—

NONE FITTED.

Particulars of Scuppers and Sanitary Discharge Pipes:—

SAINTLY DISCHARGE PIPES FITTED WITH GUNMETAL NON RETURN STORM VALVES ON SHIP'S SIDES & EFFICIENT TRAPS ON INNER END.
NO SCUPPERS.

Particulars of Side Scuttles:—

SIDE SCUTTLES IN FORECASTLE CREW SPACE FITTED WITH HINGED DEADLIGHTS.
BRIDGE
BELOW RAISED QUARTER DECK RFT TO ENGINEERS RECOMMENDATION FITTED WITH HINGED DEADLIGHTS.

Particulars of Guard Rails:—

GUARD RAILS ON FORECASTLE DECK. 36" HIGH 2 ROOS WITH STANCHIONS 4'7" APART.
STEEL BULWARK ON UPPER DECK FORWARD. 4'0" HIGH EFFICIENTLY CONSTRUCTED & SUPPORTED.
RAISED 2 DECK RFT. 3'2"
WOOD ON BRIDGE DECK 3'0"

Particulars of Gangways, Lifelines, etc.:—

Life lines fitted port and starboard
from bridge to forecastle.

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	79'10"	3'2"	2'5" x 1'2" 2'6" x 1'6"	3 2	8'57 16	15'96
Forward Well	54'0"	4'0"	2'11" x 1'82"	3	15'00 16'32	11'90

State position of each freeing port ... After Well:— 12" ABOVE DECK
(F. and A. position and height above deck edge) Forward Well:— 16"
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— STEEL SHUTTERS & 1 ROOS.
Additional area where sheer is less than standard.

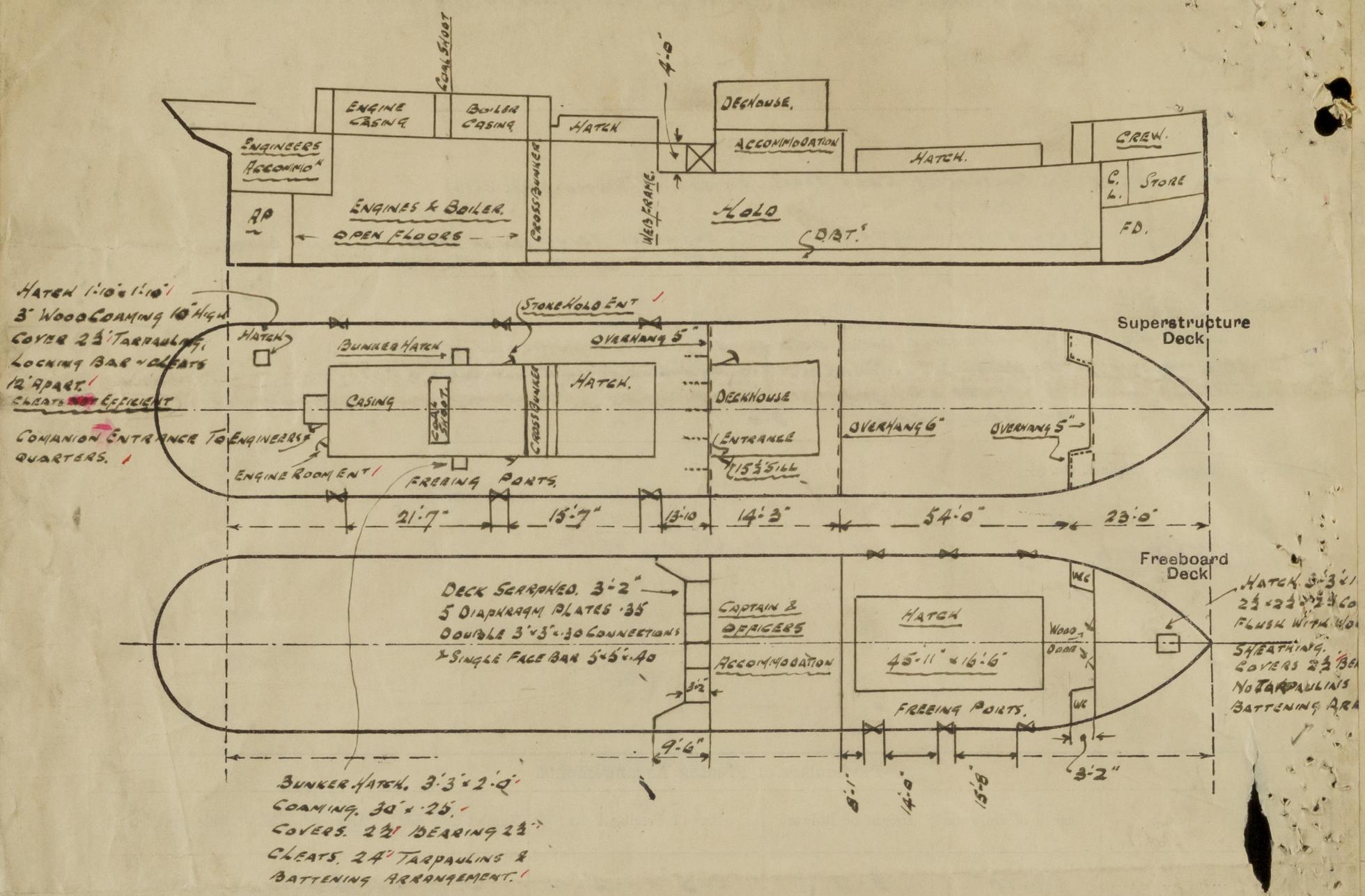
Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	...	...	...	...	...	...	...	...
Raised Quarter Deck Bulkhead	...	...	...	...	...	...	...	...
Bridge, After Bulkhead	PLATED VERTICALLY	30'	52' x 34' x 35' 7"	30"	ON DIAPHRAGMS BETWEEN DIAPHRAGMS	NONE	✓	✓
Bridge, Forward Bulkhead	18' x 25'	25'	52' x 34' x 35' 7"	30"	BRACKETS T-B	NONE	✓	✓
Forecastle Bulkhead	PLATED VERTICALLY	25'	44' x 24' x 25'	38"	NONE	2 OFF. 54' x 24'	17'	✓
Trunk, Aft	...	...	...	...	...	...	...	...
Trunk, Forward	...	...	...	...	...	...	...	...
Exposed Machinery Casings on Freeboard & Raised Quarter Decks	18' x 35'	25'	22' x 22' x 25'	30"	ALT BRACKETS ON TOP	3 OFF. 4'6" x 2'0"	21'	7'6"
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	✓
Raised Quarter Deck Bulkhead	✓ no opening
Bridge, After Bulkhead	no openings
Bridge, Forward Bulkhead	no openings
Forecastle Bulkhead	2 WOOD DOOR OPERATED FROM BOTH SIDES.
Exposed Machinery Casings on Freeboard & Raised Quarter Decks	ENTRANCE TO ENGINEER ROOM AFTER END OF CASING WOOD DOOR OPERATED FROM BOTH SIDES.
Exposed Machinery Casings on Superstructure Decks	STONE HOLD, P & S SIDE IRON DOOR OPERATED FROM BOTH SIDES.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓
Deckhouses on Flush Deck Ships	✓

Dunbar

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:—

SURVEY HELD ABOARD. ALL DECKS, FORECASTLE & BRIDGE SPACES, HOLD ABOVE CEILING, MACHINERY SPACE ABOVE FLOORING HATCH COAMINGS COVERS & SUPPORTS, CASINGS ETC EXAMINED

Builder's name and yard number MESSES WOOD SKINNER & CO. LTD. No 162.

Names of sister ships _____

Owners TYNE-TEES STEAM SHIPPING CO. LTD.

Fee £ 6 : 16 : -

Received by me _____