

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

RETAIN

Computation of Freeboard for Steamer, Flashlight, British Registry, London, 144598 Gross Tonnage 934 Date of Build 1920

having Raised Quarter Deck, Bridge & Forecastle Port of Survey Newcastle-on-Tyne

(Type of Superstructures.)

Ship's Name FLASHLIGHT Nationality and Port of Registry British London Official Number 144598 Gross Tonnage 934 Date of Build 1920

Date of Survey 15th August 1932

Name of Surveyor Alex. E. Stevenson

Particulars of Classification +100A1

Moulded Dimensions: Length 216.16 Breadth 31.75 Depth 15.5

Moulded displacement at moulded draught = 85 per cent. of moulded depth 1953 tons

Coefficient of fineness for use with Tables .756

S.S. No. 2-29

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	15.5	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	31.75
Stringer plate	.04	(15.5 - 14.4) x 1.663 = 1.88		Standard Round of Beam = $\frac{B \times 12}{50}$	4.62
Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	8
$T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures		Difference	Excess .38
Depth for Freeboard (D) =	15.54			Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S}{L} \right)$	$\frac{.38}{4} \times .321 = .03$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed	105.5	105.50	3'-0"	$\frac{3}{3.774}$	83.86
" overhang					
Bridge enclosed	16.87	16.87	7'-0"	$\frac{7}{3.21}$	16.87
" overhang aft					
" overhang forward					
Fore enclosed	24.42	24.42	3'-2"	$\frac{3.2}{3.21}$	13.07
" overhang	5.62		7'-0"		
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	146.79	146.79			113.80

Standard Height of Superstructure	6.0
" " R.Q.D.	3.774
Deduction for complete superstructure	27.62
Percentage covered $\frac{S}{L} =$	67.90
" " $\frac{S_1}{L} =$	67.90
" " $\frac{E}{L} =$	52.64
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	35.70
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction = .357 x 27.62 =	9.86

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	31.62	1		31.62	21"	21.00	1		21.00
$\frac{1}{4}L$ from A.P.	14.07	4		56.28	9.2"	9.48	4		37.92
$\frac{2}{4}L$ from A.P.	3.48	2		6.96	2.4"	2.34	2		4.74
Amidships		4					4		
$\frac{3}{4}L$ from F.P.	6.96	2		13.92	4.4"	4.74	2		9.48
$\frac{1}{4}L$ from F.P.	28.14	4		112.56	19"	18.96	4		75.84
F.P.	63.24	1		63.24	43"	43.00	1		43.00
Total				284.58					191.98

Correction = Difference between sums of products $\left(\frac{75-S}{18} \right) = \frac{92.60}{18} (.75 - .3395) = (+) 2.11$

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.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck =
Summer freeboard =
Moulded draught (d) =

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

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

Δ =
Tons per inch immersion at summer load water line

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ... 1.88
Deduction for superstructures ... 9.86
Sheer correction ... 2.11
Round of Beam correction03
Correction for Thickness of Deck amidships ...
Other corrections, scantlings, etc. ...

Summer Freeboard = 21.46

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Flashlight, 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									
--- Freebd. dk ---> R.O.D. ---									
Description of Hatchway	N° 1	N° 2	N° 3	Bunker Hatch on Casing Top.	Hatches to chain locker & store, on Fld. dk.	Deep Tank H. on Fld. dk. in Bridge.	Trimming hatches on R.O.D.	off peak H. on R.O.D.	
Dimensions of Hatchway	26'-3" x 20'-6"	28'-0" x 20'-6"	39'-3" x 20'-6"	5'-3" x 14'-3"	1'-10" x 2'-2"	18" x 23"	19" x 26"	1'-9" x 2'-3"	
COAMINGS	Height above Deck	42"	42"	36"	6"	15"	15"	18"	
	Thickness	50"	50"	50"	6" x 3 1/2" BA	32"	36"	38"	
	Stiffeners	7" x 3" BA	7" x 3" BA	7" x 3" BA	-	32"	36"	38"	
	Brackets, Stays	2 off 7 1/2" BA	2 off 7 1/2" BA	4 at 2 1/4" dia.	-	-	-	-	
HATCH BEAMS	Number	5	5	7	-	-	-	-	
	Spacing	4'-4 1/2"	4'-8"	4'-11"	-	-	-	-	
	Scantling and Sketch	18 1/2" x 34" plate	19 1/2" x 34"	19 1/2" x 34"	2 off	2 off	2 off	2 off	Hatch to Fore Peak Tank on Sunk freebd. dk. W.T. manhole 18" x 13"
	Bearing Surface	3 1/2"	3 1/2"	3 1/2"	-	-	-	-	
FORE AND AFTERS	Number	-	-	-	-	-	-	-	
	Spacing	-	-	-	-	-	-	-	
	Unsupported Lengths	-	-	-	-	-	-	-	
	Scantling* and Sketch	-	-	-	-	-	-	-	
HATCH COVERS	Material	w.p.	w.p.	w.p.	w.p.	w.p.	steel riveted	w.p.	steel riveted
	Thickness	3"	3"	3"	3"	3"	1/2"	3"	1/2"
	How fitted	ft. a.	ft. a.	ft. a.	ft. a.	ft. a.	1 1/2"	1 1/2"	1 1/2"
	Bearing Surface	4" x 3"	4" x 3"	4" x 3"	3"	1 1/2"	18" x 13"	18" x 13"	18" x 13"
Spacing of Cleats	24"/27"	24"	24"	24"	10"/15"	10"/15"	10"/15"	18" x 13"	
Number of Tarpaulins	1	1	1	1	2	2	1	1	

*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?

yes.

yes.

yes.

yes.

Particulars of fiddley, funnel and ventilator coamings:—

Fidley gratings covered by strong steel hinged covers.

Funnel & lidley ventilators in efficient condition.

Engine skylight steel, strongly constructed.

Particulars of Flush Bunker Scuttles:—

none

Particulars of ^{steel} Companionways:—

Particulars of Companionways:—
Compⁿ to Fld. ^{Steel} 4'-0" x 2'-6" x 6'-0" high above fld. dr. opening 4'-5" x 2'-0", sill 16 1/2" above fld. dr. Hinged teak door (1 1/2" frame 1" panel), operated both sides.
Compⁿ to Bridge, on Bridge dr. steel 3'-9" x 3'-0" x 3'-1 1/2" high, sill 10" above wd. dr. with double teak doors (1 1/2" fr. 1" panel), operated both sides, w/ wood sliding top.
Compⁿ to Bridge, on Bridge dr. steel 3'-9" x 3'-0" x 3'-1 1/2" high with wood framed pivoted top, glass protected by metal grids.

Skylight on Bridge dk. steel coam. 3'-6" x 5'-0", x 2 1/2" high, with wood framed hinged top, glass bottom.

Compⁿ to Engine Room. steel 2'-6" x 3'-8" x 5'-6" high. opening 3'-11" x 2'-0", sill 15" above R.A.D. Hinged look door (1 1/2" fr. 1" panel) operated both sides. ✓

Comp. is Engineers' accom. in steel S.W. house. opening 4'-3" x 1'-10", sill 13" above R.O.D. (1/2" from floor).
(below R.O.D.)
S.W. 1/2' x 5' 1/2' x 2'-5" x 2'-5" x 4'-10" high. opening 3'-5" x 2'-0", sill 15" above R.O.D. Hinged leaf door (1 3/8" x 1" pane) operated both sides.

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

on F'de dk. 3 off 6" dia. coram 18"x.25" led to F'de space.

1 goose-neck 6" dia x 7" to opening led to Fide store.

on Freebd. dk. f. well. 2 off 12" dia. coam. 36" x 32" led to hold.

* Bridge dk 5" 6" " 18" x 25" " " bridge space.

1 goose neck 6" dia x 7" long

R.Q.D. 2 off 12" dia. coram. 36" - 32" led to hold.
6" - 18" - 25" led to accom? below R.Q.D.

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

on Ficle dk. 1. c.t. gossamer $4\frac{1}{2}$ " dia x 8" w opening from fore scale.

on F. de dk. 1 " " 3 1/2 " x 22 " " " " deep tanks.

Abd. dk. f. weil | " " 32 " " "

B. das dk | " " 4 " x 4 " " " "

Bridge etc 1 " " 4 " " 4 " " " double bot
2 " " 2 1/2 " " 30 " " " double bot

R.Q.D. 2 " " 22 " " "
" 1 " " 2 " x 20 " " " - aft peak

Remainder, have flush portable screw down brass caps.

Particulars of Gangway Cargo and Coaling Ports :—

none

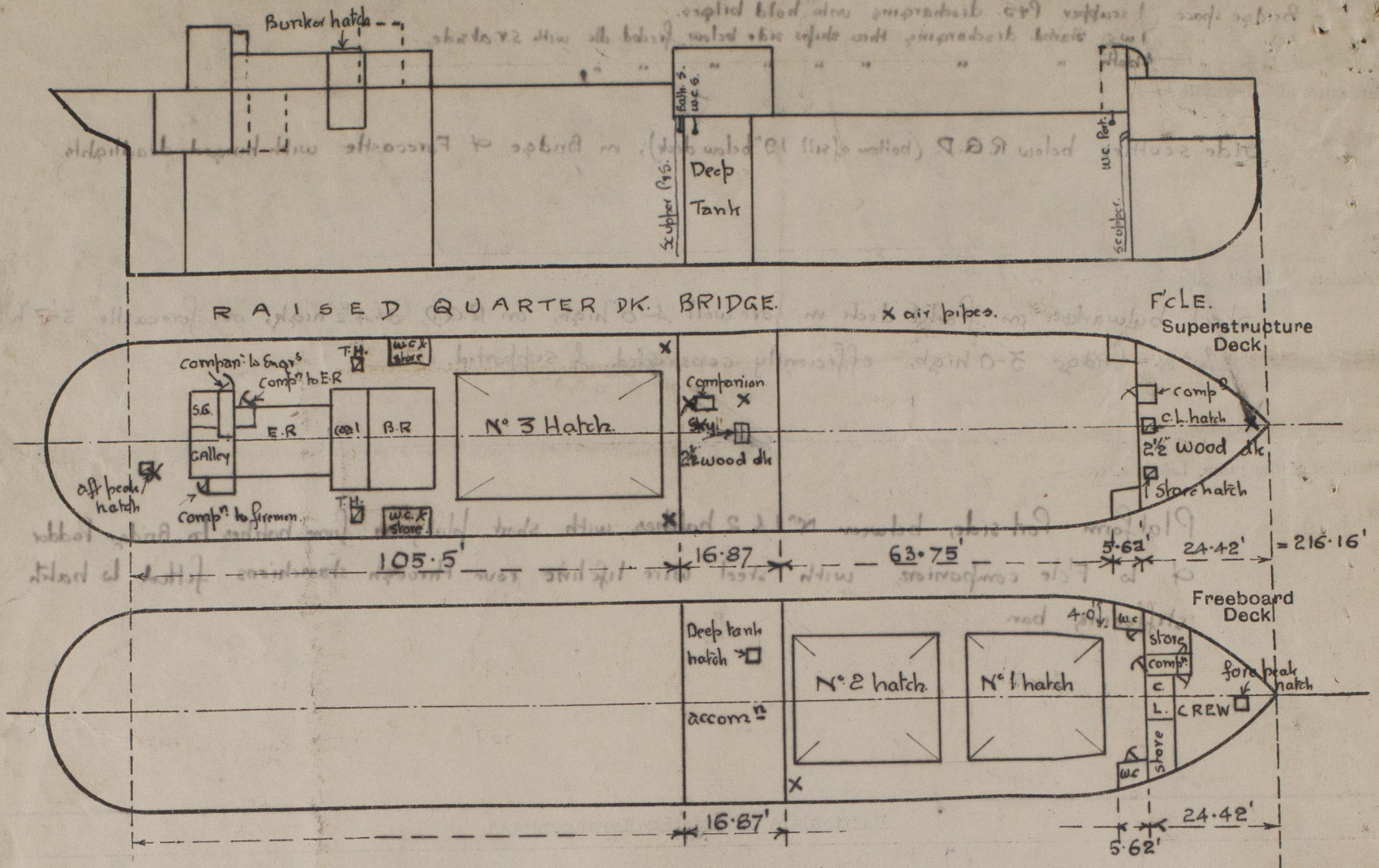
Ventilators constructed in accordance with rules.

Coaming closed with wood plugs & canvas covers.

wood plugs as
the closing appliances.

Flashlight

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:—

Timber assignment not required.

Vessel surveyed in Dry Dock, for Docking only,
(Nothing done in S.S. N° 3 due 6, 32.)

OUT.

Builder's name and yard number. S.P. Austin & Son Ltd. Sunderland.

Names of sister ships

Owners

Gas Light & Coke Co.

Fee £ 6 : 16 : 0

Received by me

OUT.



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