Wreck 114

Rpt. C.11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 23510
(For London Office only.)

26 SEP 1932 114

14737

Computation of Freeboard for Steamer, ~~Sailing~~ Ship, ~~Tanker~~

having POOP BRIDGE & FORECASTLE.

(Type of Superstructures.) K.B.T. 2/3/34

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
S/S CARNARVONSHIRE.	BRITISH. BELFAST.	132049.	9385 ~~9406~~.	1914-3.

Moulded Dimensions: Length 499.5 ✓ Breadth 62.0 ✓ Depth 37.6 5/8"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 22185 tons

Coefficient of fineness for use with Tables .786 ✓

Port of Survey MIDDLESBROUGH.

Date of Survey 22, 23 Sept/32

Name of Surveyor Capt B. Scorer.

Particulars of Classification ✠ 100 A.1.
SS. Hans No. 3-4, 26
SURVEY AFLOAT
SS. Hans. No 1-30

Depth for Freeboard (D)

Moulded depth	37.55
Stringer plate	~~Nil~~ .05
Sheathing on exposed deck ~~Wood Deck 3"~~ $T\left(\frac{L-S}{L}\right)$ =	✓
Depth for Freeboard (D) =	37.60

Depth correction

(a) Where D is greater than Table depth
(D—Table depth) R = (37.60 − 33.30) 3.00
= +12.9" ✓

(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) 62.00

Standard Round of Beam = $\frac{B \times 12}{50}$ = 14.88"

Ship's Round of Beam = 15" ✓

Difference .12 excess

Restricted to

Correction = $\frac{\text{Diff}^{e}}{4} \times \left(1-\frac{S_1}{L}\right)$ = $\frac{.12}{4} \times .2562$ = −.01"

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S_1)	Height	Height Correction	Effective Length (E)
Poop enclosed	107.2 14	105.53	7'9"		105.53
„ overhang	~~Incl 44"~~	.82			.82
R.Q.D. enclosed ...					
„ overhang ...	174.07				
Bridge enclosed	~~180.0~~	174.07	8'0"		174.07
„ overhang aft ...	~~Incl 2.93~~	2.20			2.20
„ overhang forward	~~3.93~~ 3.93	1.50			1.50
F'cle enclosed	~~87.70~~ 88.9	87.02	7'6"		87.02
„ overhang	~~None~~	.40			.40
Trunk aft					
„ forward					
Tonnage opening aft ...					
„ „ forward					
Total	375.00	371.54 ✓			371.54

Standard Height of Superstructure 7'-6"

„ „ R.Q.D. ✓

Deduction for complete superstructure 42.00"

Percentage covered $\frac{S}{L}$ = 75.08% ✓

„ „ $\frac{S_1}{L}$ = 74.38% ✓

„ „ $\frac{E}{L}$ = 74.38% ✓

Percentage from Table, Line A. -
(corrected for absence of forecastle (if required))

Percentage from Table, Line B. 68.39
(~~corrected for absence of forecastle (if~~ required))

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

Deduction = 42.00 × .6839 = − 28.72"

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate (Plotted)		S M	Product
A.P.	59.95	1	59.95	~~58.75~~	58.75	58.75	1	58.75
$\frac{1}{6}$L from A.P. ...	26.67	4	106.68	26.08	26.00	26.00	4	104.00
$\frac{2}{6}$L „ ...	6.59	2	13.18	6.52	4.50	4.50	2	9.00
Amidships ...	✓	4	✓		✓	✓	4	✓
$\frac{2}{6}$L from F.P. ...	13.19	2	26.38	13.15	15.50	15.50	2	31.00
$\frac{1}{6}$L „ ...	53.35	4	213.40	52.60	53.25	53.25	4	213.00
F.P.	119.90	1	119.90	118.375	118.37	118.37	1	118.37
Total ...			539.49 ✓					534.12

Mean actual sheer aft / Mean standard sheer aft = Deficient > 75%. ✓

Mean actual sheer forward / Mean standard sheer forward = Excess ✓

Length of enclosed superstructure / L forward of amidships = >.1L

„ „ aft of „ = >.1L.

Correction = $\frac{\text{Difference between sums of products}}{18}\left(.75-\frac{S}{2L}\right) = \frac{5.37}{18}(.75-.3754) = +.11"$ .3746

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 =	37.81
Summer freeboard =	8.08
Moulded draught (d) =	29.73

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.43" − 7½"

Addition for Winter North Atlantic Freeboard (if required) = ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line
Δ = 20970

Tons per inch immersion at summer load water line
T = 62.86

Deduction = $\frac{\Delta}{40\,T}$ inches
= 8.34 = 8¼"

TABULAR FREEBOARD ~~corrected for Flush Deck (if required)~~ 102.15

Correction for coefficient $\frac{.786+.68}{1.36} = \frac{1466}{1360}$ 110.10

	+	−
Depth Correction	12.90	−
Deduction for superstructures	−	28.72
Sheer correction	.11	−
Round of Beam correction	−	.01
Correction for Thickness of Deck amidships ...	2.50	−
Other corrections, scantlings, etc.	−	−
	15.51	28.73 − 13.22

Summer Freeboard = 96.88

S.T.B. 28.9.32

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, 2½" Wood, ~~Steel~~, Deck:—

Tropical Fresh Water Line above Centre of Disc			15-3/4"	Tropical Fresh Water Freeboard	8'-1"
Fresh Water Line	„	„	8¼"	Fresh Water „	6'-9¼"
Tropical Line	„	„	7½"	Tropical „	7'-4¾"
Winter Line	below	„	7½"	Winter „	7'-5½"
~~Winter North Atlantic Line~~	„	„	✓	~~Winter North Atlantic~~ „	8'-8½" ✓

19 SEP 1932

6m.3.32.

MARKING FORM RECEIVED 18 OCT 1935

MARKING FORM RECEIVED -6 APR 1935

MARKING FORM RECEIVED 7 OCT 1935

S.S. CARNARVONSHIRE

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

		No 1 F.D.	No 2 U.D.	No 3 B.D.	No 3 U.D. IN BRIDGE	No 4 U.D.	No 5 U.D.	No 6 P.D.	No 6 U.D.	No 7 P.D.	No 7 U.D.
Description of Hatchway											
Dimensions of Hatchway		24'×18'	33'×18'	24'×18'	24'×18'	15'×18'	33'×18'	15'×18'	15'×18'	18·3×18·0	18·3×18·0
COAMINGS	Height above Deck	30"	33"	30"	18"	33"	33"	30"	18"	30"	18"
	Thickness Sides	·48"	·50"	·44"	·44"	·40"	·50"	·40"	·44"	·44"	·44"
	Thickness Ends	·40"	·40"	·40"	·40"	·36"	·40"	·36"	·40"	·40"	·40"
	Stiffeners	NONE.	NONE.	NONE.	NONE	NONE.	NONE.	NONE	NONE.	NONE	NONE.
	Brackets, Stays										
HATCH BEAMS	Number	2]C-3 T	3]C 4 T	2]C 3 T	2]C 3 T	1]C 2 T	3]C 4 T	1]C 2 T	1]C 2 T	1]C 2 T	1]C 2 T
	Spacing	4·0"	4·1½"	4·0"	4·0"	3·9"	4·1½"	3·9"	3·9"	4·7"	4·7"
	Scantling and Sketch	33-27"×38 4×3×·45	33-27"×40 4×3×·45	33-27"×38 4×3×·45	81-33×38 4×3×45	33-39"×40 4×3×·45	33-39"×40 4×3×·45	33-27"×38 4×3×·45	33-83×38 4×3×45	33-27"×38 4×3×45	33-183×38 4×3×·45
		B.T.s 12×·55	B.T.s 12×·55	B.T.s 12×·55	B.T.s 12×·55	B.T.s 12×·55	B.T.s 12×·55	B.T.s 12×·55	B.T.s 12×·55	B.T.s 12×·55	B.T.s 12×·55
	Bearing Surface	3½"	3½"	3½"	3½"	3½"	3½"	3½"	3½"	3½"	3½"
FORE AND AFTERS	Number										
	Spacing										
	Unsupported Lengths										
	Scantling* and Sketch										
	Bearing Surface										
HATCH COVERS	Material					W.P.					
	Thickness	←	←	←	←	3"	→	←	←	←	→
	How fitted					SOLID:					
	Bearing Surface					3"					
Spacing of Cleats		←	24"→		26":	←		24"→			
Number of Tarpaulins		←	3"→		2.	3"	3"	3"	2.	3"	2.

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

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? Yes.

Particulars of fiddley, funnel and ventilator coamings: ~~with permanently attached steel covers~~

Stoke hold pratneys ~~not covered and not efficiently supported~~.

Fiddley and funnel ventilators in efficient condition.

Engine skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:—

None fitted.

Particulars of Companionways:—

Companionway on Forecastle deck 5·8×3·2: 6'2" high plating 25 thick Solid teak door operated from both side door sill 12"

Companionway on poop deck built on Hatch. Hatch 4·0×3·8 Coaming 15×30. Comp 5·4×3·1: 6·0 high steel door 4·8×2·6 manipulated from both sides sill 28"

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

1 off	Ventilator on Forecastle deck	12"	dia Coaming	32½×25.	to fore peak.		
1 off	- - -	15	" "	31½×30	to Hold.		
1 off	- - Upper Deck Fwd	15	" "	28 × 30	to hold.		
6 off	- - - - -	12"	" "	33 × 30	to hold.		
2 off	- - - - -	16"	" "	33 × 35	to hold.		
2 off	- - Bridge deck	12"	" "	27½ × 30	to hold.		
4 off	- - - -	16"	" "	27½ × 35	to hold.		
2 off	Ventilator on Upper deck	16	dia Coaming	33×35	to dup tank		
2 off	- - -	16	" "	33×35	to hold.		
2 off	- - Poop deck	14"	" "	28½×30	to hold.		
1 off	- - -	10"	" "	27×25	to hold.		
1 off	- - -	16"	" "	117×25	to trunk on top of escape trunk door to trunk 3·0×2·0 Steel hinged and manipulated from both sides sill 62"		

All ventilators constructed in accordance with rules and coamings closed with wood plugs and canvas covers.

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

Air pipes on	Forecastle deck	1 off	C.I. 26½"	high 32	dia to fore peak.	
- -	Upper deck fore well	4 off	C.I. 25"	" 32	" " D.B.T.s	
- - - -	- -	2 off	C.I. 33"	" 32	" " D.B.T.s	
- -	Bridge deck	6 off	C.I. 27"	" 32	" "	
- -	Upper deck Aft well	2 off	C.I. 26-35"	" 32	" "	
- -	Poop deck	1 off	C.I. 27½"	" 32	" Aft peak	

Canvas covers fitted to all air pipes

Particulars of Gangway Cargo and Coaling Ports:—

3 Watertight coaling doors. P+S. Sides between bridge + Upper Deck 4·0×5·0 efficiently constructed.

Particulars of Scuppers and Sanitary Discharge Pipes:—

5 Scuppers from Bridge space open pipes with wood plugs on inner end.

Sanitary discharge pipes fitted with storm valves at ships side and efficient traps on inner end.

Particulars of Side Scuttles:—

All side Scuttles below freeboard deck fitted with hinged deadlights.

All side scuttles in crew space in Poop + Bridge + Forecastle fitted with hinged deadlights.

- - - Cargo spaces -

All Scuttles of substantial construction.

Particulars of Guard Rails:—

Guard rails on Forecastle deck 3·9" high having 6 rods, and Stanchions 3·10" apart.

- - - Bridge deck 3·9" - - 5 - - - 3·10" -

- - - Poop deck 3·9" - - 6 - - - 3·10" -

Steel bulwarks on freeboard deck in fore and after wells 4·9 6·0 high efficiently constructed and supported.

Particulars of Gangways, Lifelines, etc.:—

None fitted

Suitable provision made for rigging lifelines in any part of the ship which might have to be used by the crew in the regular working of the ship.

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	~~64·0~~ 69·0	4·9"	2 off 4'-6" × 1'-3½" 2 off 2'-9" × 1'-1½" 1 off 2'-2" × 1'-1½"	2 1 1	~~5·6~~ 2·42	~~13·72~~ 13·8
Forward Well	~~57·5~~ 60·6"	5·0"	2 off 4'-3" × 1'-1½" 2 off 2'-9" × 1'-1½"	1 2	~~12·3~~ 6·16	~~12·85~~ 13·0

State position of each freeing port (F. and A. position and height above deck edge) ... After Well:— B.E. 6'2" 16'8" 30'3" 16" FROM DK. Forward Well:— B.F. 16'3" 19·10 13½ FROM DK

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— SHUTTERS IN AFTER WELL. BAR IN FORE WELL

Additional area where sheer is less than standard.

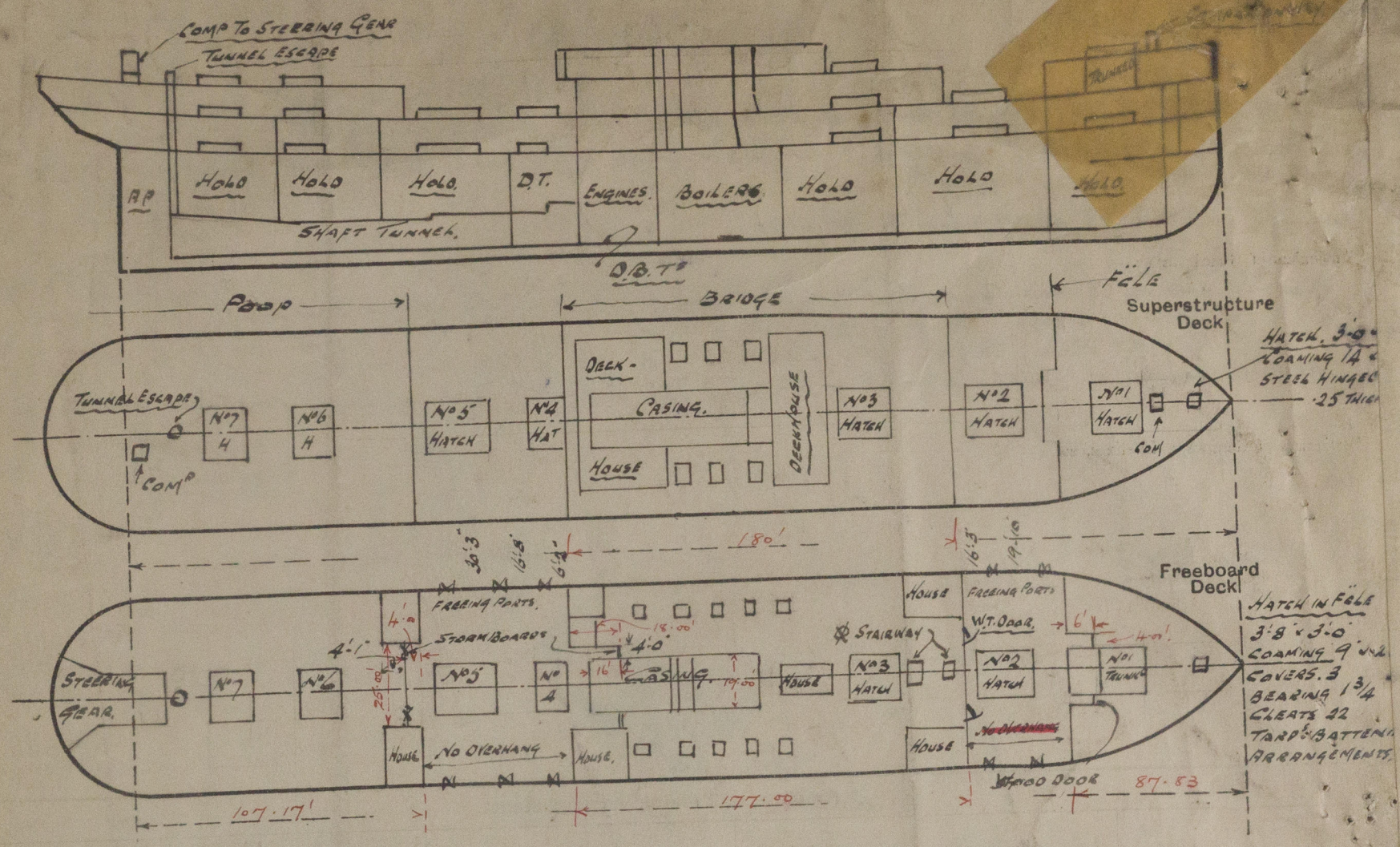
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	40½×·40	·35"	7×3½×·50	33"	NONE.	5'7½"×4'0"	14"	
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	40"×·40	·35"	3½×3½×·35	30"	NONE.	46½" HOSE FULL H?	1·3"	
Bridge, Forward Bulkhead	43½×·40	·40"	9×3½×·35	30"	BRACKETS T.B.	36"×66"	15"	
Forecastle Bulkhead	42"×·35	·35"	4"×3"×·35	36"	NONE.	3'9"×5'6"	14"	
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	3·3"×·45	·40"	4"×3½×·40	36"	NONE.	2. 5'4"×2'4" 2 P.S. 4'10"×3'10	14½" 15"	9'-4½"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	1·5"×·45	·40"	4"×3½×·40	35"	NONE.	2. P.S. 5'4"×2'4 2 P.S. 4'10"×3'10"	14½ 15.	
Deckhouses on Flush Deck Ships								

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

Poop Bulkhead	3·5" Storm boards in riveted channels full height with bolted plate over.
Raised Quarter Deck Bulkhead	✓
Bridge, After Bulkhead	Storm boards in riveted channels 3" thick full height.
Bridge, Forward Bulkhead	Water tight steel hinged doors P+S. manipulated from both sides.
Forecastle Bulkhead	Hinged wood doors. manipulated from both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	
Exposed Machinery Casings on Superstructure Decks	Wood doors (Solid) to Engine room P+S. Sides. manipulated from both sides. Steel doors to coal shoots. manipulated from outside only.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Steel hinged doors to coal shoots manipulated from outside only.
Deckhouses on Flush Deck Ships	

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, [illegible] coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches :—



BUNKER HATCHES ON BRIDGE D.K
2 OFF 4'·8" x 4'·0" R.S.
1 OFF. 4'·0" x 4'·0" R.S.
COAMINGS 30" x 35"
COVERS 3" BEARING 2"
CLEATS 24" APART
TARPS & BATTENING ARRT.

BUNKER HATCH IN BRIDGE
4 OFF 5'·0" x 4'·0"
1 OFF. 4'·10" x 2'·9"
9" x 3½ x ·5 B.A. COAMING. (6" ABOVE D.K)
COVERS. 3" BEARING. 2" CLEATS. 2'·3"
TARPAULINS & BATTENING ARRT.

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

STAIR WAYS IN BRIDGE
1 OFF. 7'·6" x 7'·0"
1 OFF. 6'·8" x 3'·8"
3½ x 3½ ANGLE COAMING
PLANKED OVER WITH 3" HATCH COVERS & CAULKED.
NO SUPPORTS.

Survey held afloat and confined to obtaining the above particulars.

Poop
Recess $\frac{25 \times 4}{61}$ — 107·17 − 1·64 O.H. = 105·53 equiv.

Bridge
Recess $\frac{18 \times 4}{21}$ − 2·32 — 177·00 − 2·93 O.H. aft. = 174·07 Eqmt.

$\frac{19 \times 2}{62}$ ·61 — 2·93

Forecastle
Recess $\frac{6 \times 4}{29·75}$ — 87·83 − O.H. = 87·02 equiv.

Builder's name and yard number Workman Clark & Co Ltd No 325.

Names of sister ships

Owners Royal mail steam Packet Co. (Glentanner Ld)

Fee £ 17 : — : — Received by me