

B.T. COPY WRITTEN

18 JUL 1932

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey	NEWCASTLE
having Poop Bridge & Forecastle					Date of Survey	15 th JULY 1932
(Type of Superstructures.)						
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build	Name of Surveyor	
DORIC STAR	BRITISH LONDON	146193	10441	1921. 10mo	J. Young	
Moulded Dimensions: Length		499.0	Breadth	63.75	Depth	40.6
Moulded displacement at moulded draught = 85 per cent. of moulded depth		24183 tons				
Coefficient of fineness for use with Tables		.473				
Particulars of Classification + 100A.1. S.S. Nwc 110.2-29						

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	40.50	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	63.75
Stringer plate	.04	(40.63 - 33.27) 3 =	+ 22.08	Standard Round of Beam = $\frac{B \times 12}{50}$	15.30
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = 2.5 \times \frac{216.5}{499} = 1.03$.09	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	8.50
Depth for Freeboard (D) =	40.63	If restricted by superstructures		Difference	6.8 deficient
				Restricted to	
				Correction = $\frac{\text{Diff}^e}{4} \times (1 - \frac{S_1}{L})$	$\frac{6.8}{4} \times .4799 = + .82$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	40.44	40.44	8'		40.77
" overhang	6.23	3.12			3.12
R.Q.D. enclosed					
" overhang					
Bridge enclosed	192.00	192.00	8'		192.00
" overhang aft					
" overhang forward					
Forecastle enclosed	43.50	23.61	8'		23.61
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	282.50	259.50			259.50

Standard Height of Superstructure	7.5'
" " R.Q.D.	"
Deduction for complete superstructure	42.0"
Percentage covered $\frac{S}{L} =$	56.62%
" " $\frac{S_1}{L} =$	52.01%
" " $\frac{E}{L} =$	52.01%
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	38.01%
Interpolation for bridge less than 2L (if required)	
Deduction =	42.0 x .3801 = 15.96

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	59.90	1	59.90	42.00	42.00	1	42.00
1/2 L from A.P.	26.653	4	106.62	18.25	18.25	4	73.00
3/4 L	6.59	2	13.18	4.5	4.55	2	9.10
Amidships		4		0		4	
3/4 L from F.P.	13.18	2	26.36	7	7.14	2	14.28
1/2 L	53.31	4	213.24	28.5	28.63	4	114.52
F.P.	119.80	1	119.80	66.00	66.00	1	66.00
Total			539.10				318.90

Mean actual sheer aft	Deficient	Standard	Actual
Mean standard sheer aft		1318.13	39.54
Mean actual sheer forward	Deficient	5331.3	159.93
Mean standard sheer forward		119.80	119.80
Length of enclosed superstructure forward of amidships	> .10	319.27	143.31
" aft of	> .10		5423

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{220.2}{18} \left(\frac{75-2831}{2} \right) = + 5.41$$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 40.54
Summer freeboard = 10.04
Moulded draught (d) = 30.50

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.62 7 1/2"

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{7734.68}{1.76} - \frac{1.453}{1.36}$

	+	-
Depth Correction	22.08	
Deduction for superstructures		15.96
Sheer correction	5.71	
Round of Beam correction	.82	
Correction for Thickness of Deck amidships		1.08
Other corrections, scantlings, etc.		

Summer Freeboard = 120.55

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

Tropical Fresh Water Line above Centre of Disc	...
Fresh Water Line	"
Tropical Line	"
Winter Line below	7 1/2"
Winter North Atlantic Line	"

Tropical Fresh Water Freeboard	...
Fresh Water	...
Tropical	...
Winter	...
Winter North Atlantic	...

W468-0024(112)

Report
1906
Lloyd's Register
Foundation

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

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

Sidley Gratings protected by hinged steel covers (~~hinges to repair~~)
Tunnel & Vents in efficient condition. ✓
E.R. Skylight well constructed of steel ✓

None

on Poop Deck to Steering Gear and Crew Space.
Strongly built of steel 3'-0" x 4'-0" x 5'-10" high
opening 2'-3" x 4'-10" Door Jack 1 1/4" Solid. operated both sides.

On freeboard and superstructure decks			
Fore Dk to Peak	12"	diam.	2'-10" high ✓
" " to Hold	20"	"	3'-0" " ✓
Upper Dk to Hold	20"	"	4'-0" = 4'-0" high. ✓
Bridge " "	20"	"	4'-0" high ✓
Deck " "	20"	"	3'-9" " ✓
Post " "	20"	"	2'-6" " ✓
" " to Cross	14" x 9"		

Vents are all well constructed
in accordance with Rule
requirements
Wood Plugs & Canvas Covers
are on board. ✓

Accords, raised trestles, or superstructure decks:—			
Joyle Dk + Joyle Peak	3/2	deam.	10" high.
" " No 1 D.B.	3"	"	20" "
Upper Dk + D.B.	2 1/2"	"	37" "
Bridge Dk + D.B.	2 1/2"	"	28" "
Post Dk + A.P.	2 1/2"	"	20" "

Efficient closing appliances
are provided

Bridge Town Dks. P. & S.

Coaling Door, 4'-0" x 4'-6" secured by 1 Strongback with 1-1 $\frac{1}{8}$ " Bolt
also, 16-1" Bolts and stepped dogs. ✓

Sanitary Discharges are iron pipe and C.I. Storm Valves. ✓

Crew Space. 10" diam. all fitted with hinged iron deadlights. ✓

Joile Dk. 3'-7" high Stanchions 4'-6" apart 3 Rails -
 Post " 3'-6" " " 5'-0" " 3 " -
 upper Dk Bulwark 4'-0" high. Stays 7" B.P. 5'-0" " Rail 6" x 3" B.A.
 Bridge " " 3'-3" " " 2 1/4" diam. 5'-4" " " 6" x 3" "

~~None.~~ Suitable provision is made for rigging
lifelines where required for use & crew.

State position of each freeing port ... } After Well:—
(P. and A. position and height above deck edge) } Forward Well:— SEE SKETCH PAGE 4. SILLS 13 1/2

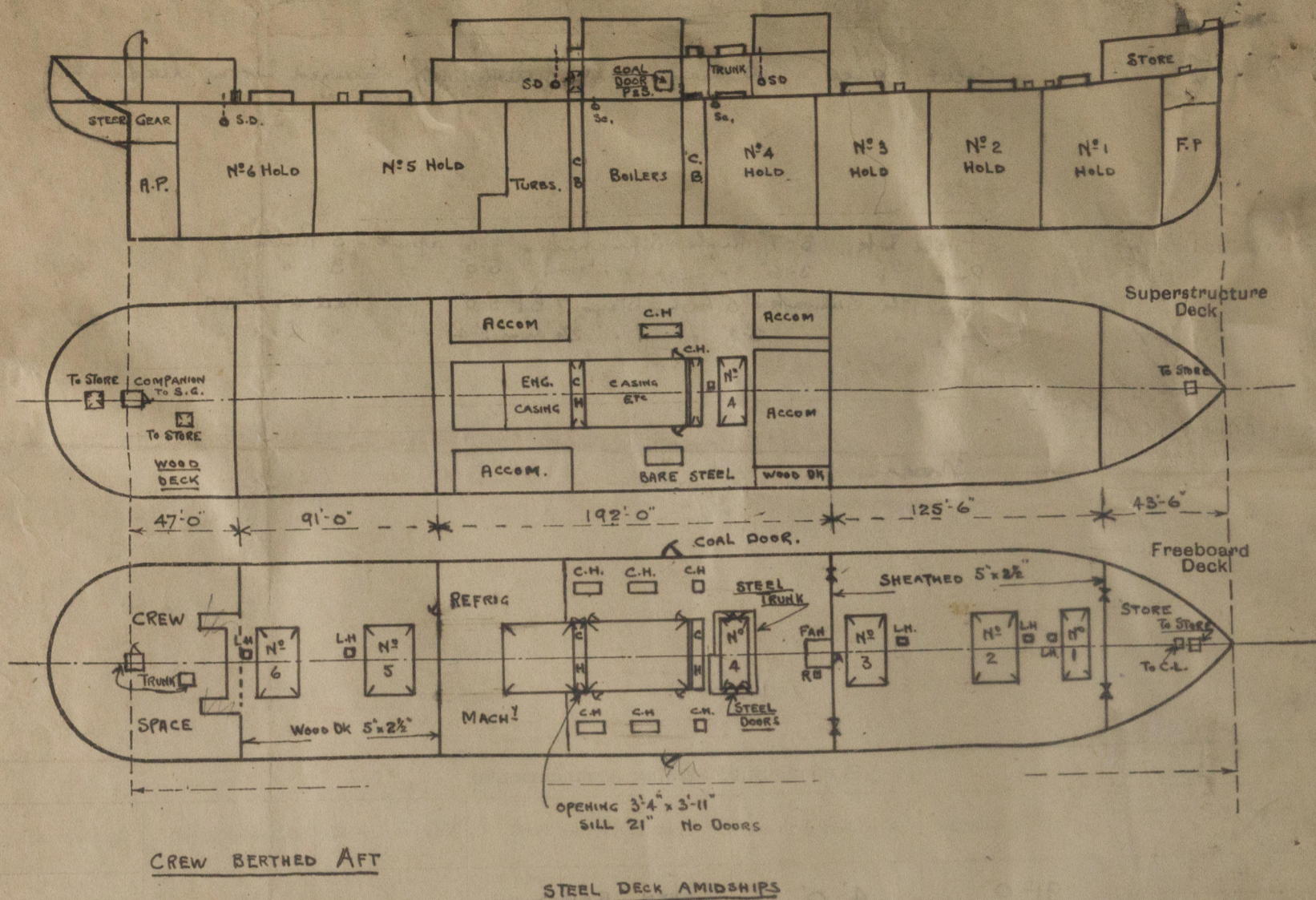
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— 2 RAILS.

Additional area where sheer is less than standard.

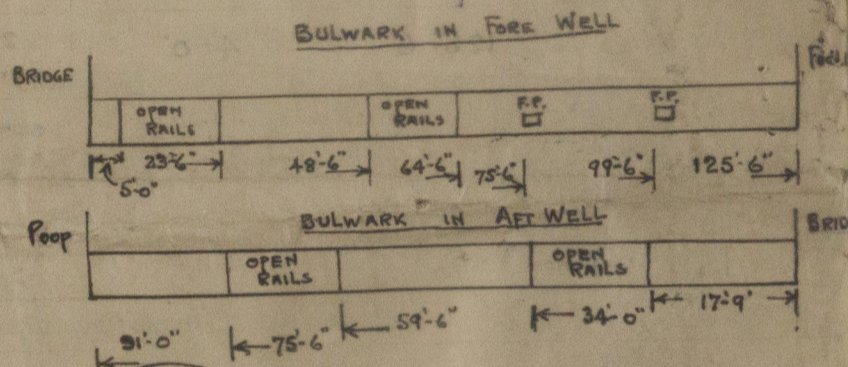
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	✓	Leak Doors 1 1/4" Solid operated both sides. ✓
Raised Quarter Deck Bulkhead ...	✓	
Bridge, After Bulkhead		Hinged Steel Door. operated both sides. (Ent. to Ref. Machy. Space) ✓
Bridge, Forward Bulkhead		{ Steel Plate secured by 7/8" Bolts 9" apart through bulkhead. ✓ Hinged Steel W.T. Door ^{on Rubber} operated both sides (Ent. to San Room) ✓ Wood grating doors..
Forecastle Bulkhead		
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...		Hinged steel doors operated both sides ✓
Exposed Machinery Casings on Superstructure Decks		Hinged steel doors operated both sides. ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓	
Deckhouses on Flush Deck Ships ...	✓	

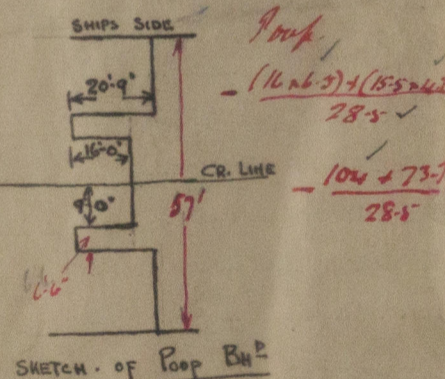
Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



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



	FOCLE DK TO STORE	U. DK UNDER FOCLE TO STORE	U. D. TO CHAIN LKR.	LADDER HATCHES TO HOLDS	POOP DK TO STORE	POOP DK TO LOWER STORE	U. DK CROSS BKR.
SIZE	4'-2" x 2'-9"	3'-6" x 2'-10"	2'-0" x 2'-0"	2'-9" x 3'-0"	2'-8" x 3'-11"	3'-10" x 4'-0"	7'-3" x 20'-0" 16'-11" x 4'-0"
HEIGHT	1'-3"	9 1/2" B.A.	9 1/2" B.A.	2'-6"	1'-3"	1'-3"	10' 8" x 9" B.A.
THICK.	.40			.44	.40	.40	.40
COVERS	3" W.P.	2 1/2" W.P.	2 1/2" W.P.	3" W.P.	2 3/4" W.P.	3" W.P.	3" W.P. 2 1/2" W.P.
B.S.	3"	3"	3 1/2"	3"	3"	3"	3" 3 1/2"
CLEATS	24"	24"	NONE	20"	23"	18" x 28"	25" 18"
TARPS.	3.	2.	1 Locking BAR	3	3	3	2 1 BEAM .15 x .35 4 x 3 x .44



Builder's name and yard number LITHGOW'S LTD PORT GLASGOW. (THE VESSEL WAS SURVEYED AFLOAT WHEN LAID UP.)

Names of sister ships _____

Owners EASTMANS LTD (BLUE STAR LINE)

Fee £ 17 : 0 : 0 Received by me _____



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