

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index. No. 32770  
(For London Office only.)

No 100472.

Computation of Freeboard for ~~Steamer~~ *Sailing Ship*, Tanker  
having *Fore + Poop + Expansion Trunk*

Port of Survey *Liverpool*

Date of Survey *3<sup>rd</sup> May - 1<sup>st</sup> June 1922*

Name of Surveyor *T.R. McIlvenna*

Particulars of Classification *+ 100 A.I.  
Carrying molasses or  
Petroleum in Bulk.*

CREOFIELD (Type of Superstructures.)

Ship's Name *ATHELSTONE*

Nationality and Port of Registry *British  
Liverpool Newcastle*

Official Number *161078*

Gross Tonnage *838*

Date of Build *1928  
12. Mo.*

Moulded Dimensions: Length *185'* Breadth *31'-3"* Depth *14'-0"*

Moulded displacement at moulded draught = 85 per cent. of moulded depth *1417* tons

Coefficient of fineness for use with Tables *721*

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	14'-0"	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	31'-3"
Stringer plate	4'-0"	(14-03-12-33) 1.423 = 2.42		Standard Round of Beam = $\frac{B \times 12}{50}$	7.50
Sheathing on exposed deck	0'-3"	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	7 1/2"
$T \left( \frac{L-S}{L} \right) =$				Difference	NIL
Depth for Freeboard (D) =	14.03	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right)$	NIL

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed	61'-0"	61'-00"	7'-0"		61'-00	Standard Height of Superstructure <i>6'-0"</i>
" overhang						" " R.Q.D. <i>3'-57"</i>
R.Q.D. enclosed						Deduction for complete superstructure <i>24'-50"</i>
" overhang						Percentage covered $\frac{S}{L} = 51.82$
Bridge enclosed	12'-0"	7'-00"			7'-00	" " $\frac{S_1}{L} = 73.51$
" overhang aft						" " $\frac{E}{L} = 60.47$
" overhang forward						Percentage from Table, Line A. (corrected for absence of forecastle (if required))
F'cle enclosed	20'-10 1/2"	20'-87"	7'-0"		20'-87	Percentage from Table, Line B. <i>Tanker</i> <i>52.52</i> (corrected for absence of forecastle (if required))
" overhang						Interpolation for bridge less than 2L (if required)
Trunk aft	9'-12 1/2"	4'-15"	3'-3"	$\times \frac{3.25}{6.00} \times 90$	22'-99	Deduction = <i>24.50 × 52.52 = -12.87</i>
" forward	10'-3 1/2"					
Tonnage opening aft						
" forward						
Total	95'-87"	136'-02"			111'-86"	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	28.50	1		28.50	42.00	42.00	1		42.00
1/4 L from A.P.	12.68	4		50.72	17.18	17.18	4		68.72
1/2 L	3.13	2		6.26	4.29	4.29	2		8.58
Amidships		4					4		
3/4 L from F.P.	6.27	2		12.54	8.29	8.29	2		16.58
1/4 L	25.36	4		101.44	33.18	33.18	4		132.72
F.P.	57.00	1		57.00	75.00	75.00	1		75.00
Total				256.46					343.60

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{87.14}{18} (.75 - .2591) = -2.37$

If limited on account of midship superstructure.

Mean actual sheer aft = *Excess*  
Mean standard sheer aft =Mean actual sheer forward = *Excess*  
Mean standard sheer forward =Length of enclosed superstructure forward of amidships = } *Tanker*  
" " aft of " = }Deduction for Tropical Freeboard.  
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *14.03* Ft.

Summer freeboard = *71*

Moulded draught (d) = *13.32*

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = *3.33 3/4"*Addition for Winter North Atlantic Freeboard (if required) = *1.85 1 3/4"*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 1636$

Tons per inch immersion at summer load water line

$T = 11.6$

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

$= 3.53$

$= 3 1/2"$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient *721 + 68 = 1401*  
*136*

Depth Correction ... *2.42*

Deduction for superstructures ... *12.87*

Sheer correction ... *2.37*

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

2.42 15.24 - 12.82  
Summer Freeboard = *8.40*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ... *6 3/4"*

Fresh Water Line " " ... *3 1/2"*

Tropical Line " " ... *3 1/4"*

Winter Line below " " ... *3 1/4"*

Winter North Atlantic Line " " ... *5"*

Tropical Fresh Water Freeboard ... *0 - 8 1/2"*

Fresh Water " " ... *0 - 1 3/4"*

Tropical " " ... *0 - 5 1/4"*

Winter " " ... *0 - 5 1/4"*

Winter North Atlantic " " ... *0 - 11 3/4"*



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

TOP OF EXPANSION TRUNK HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECK									
Description of Hatchway	NO 1	NO 2	NO 3	NO 4	NO 5	NO 6	CARGO HATCH FOR HOLE	COAL HATCH ON CASING TOP	
Dimensions of Hatchway	4' x 3-6 1/2	4' x 3-6 1/2	4' x 3-6 1/2	4' x 3-6 1/2	4' x 3-6 1/2	4' x 3-6 1/2	4' x 3-5	7-3 x 19-2	
COAMINGS	Height above Deck	8 x 3 x 40 L	8 x 3 x 40 L	8 x 3 x 40 L	8 x 3 x 40 L	8 x 3 x 40 L	24	12	
	Thickness	✓	✓	✓	✓	✓	5/16	3/8	
	Sides	✓	✓	✓	✓	✓	✓	✓	
	Stiffeners	✓	✓	✓	✓	✓	✓	✓	
HATCH BEAMS	Number	✓	✓	✓	✓	✓	✓	✓	
	Spacing	✓	✓	✓	✓	✓	✓	✓	
	Scantling and Sketch	✓	✓	✓	✓	✓	✓	✓	
	Bearing Surface	✓	✓	✓	✓	✓	✓	✓	
FORE AND AFTERS	Number	✓	✓	✓	✓	✓	✓	✓	
	Spacing	✓	✓	✓	✓	✓	✓	✓	
	Unsupported Lengths	✓	✓	✓	✓	✓	✓	✓	
	Scantling* and Sketch	✓	✓	✓	✓	✓	✓	✓	
HATCH COVERS	Material	Steel	as No. 1	as No. 1	as No. 1	as No. 1	Pine 2 1/2	Pine 3	
	Thickness	3/8	as No. 1	as No. 1	as No. 1	as No. 1	3	3	
	How fitted	Efficiently secured	as No. 1	as No. 1	as No. 1	as No. 1	✓	✓	
	Bearing Surface	✓	✓	✓	✓	✓	✓	✓	
Spacing of Cleats	✓	✓	✓	✓	✓	✓	15"	24"	
Number of Tarpaulins	✓	✓	✓	✓	✓	✓	2	2	
*Are wood fore and afters steel shod at all bearing surfaces? ✓ Are battens and wedges efficient and in good condition? ✓ (when fitted) Are tarpaulins in good condition and in accordance with rule requirements? ✓ (when fitted) Are lashings provided in accordance with rule requirements? ✓									

Particulars of fiddle, funnel and ventilator coamings:— Fiddle, funnel & vent. Coamings are in efficient condition. Strong steel covers are fitted over fiddle gratings. F.R. Skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:— None.

Particulars of Companionways:— One at after end Poop Deckhouse leading to Crews quarters below opening 4-4 x 2-0" sill 23" wood door operated from both sides. One in Fore Bld from top of Expansion Trunk with steel hood above fore deck line opening 5-9 x 3-0 sill 16" above top of Ex. Trunk. Steel double door operated from both sides.

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

TOP OF EX. TRUNK:—

2 @ 12" dia 36 x 3/8 Cmg to Pump Room  
1 @ 9" " 36 x 5/16 " " Fore Hold.

Wood plugs & canvas covers provided for closing.

FOGLE DECK:—

4 @ 6" dia 36 x 1/4 Cmg to Crews quarters.

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

FOGLE DECK:—

1 @ 3" dia 14 x 1/8 lip to Fore Peak  
1 @ 3" " 14 x 1/2 " " Deep Tank

POOP DECK:—

1 @ 1 1/2" dia 5 1/2" lip to A. Peak.  
1 @ 3" " 12 1/2" " " "

TOP OF EX. TRUNK:—

2 @ 3" dia 8 1/2 x 1/8 lip to C/Dam  
1 @ 1 1/2" " 14" " " Domestic Tank

Wood plugs provided for closing

Particulars of Gangway Cargo and Coaling Ports:— None.

PARTICULARS OF SMALL HATCHES:—

One on Fore Deck to Store  
22 1/2 x 20 1/2 18 x 1/4 Cmg  
3" wood cover 2" bearing  
Cleats 12" apart 2 Tarpaulins

One on Poop Deck to Store  
24" x 20" 18 x 5/16 Cmg  
2 1/2 wood cover 2" bearing  
Cleats 15" apart 2 Tarpaulins.



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NOV 24 1938

Rpt. C. 11 (Contd.)

Index No.

## Lloyd's Register of Shipping.

Ship's Name

"CREOFIELD"

Official No.

161078.

Memorandum of alterations reported since ship was surveyed for assignment of Load Lines in

Access Hatch to Fore Hold

Wood covers have previously been dispensed with, and steel top plate  $\frac{1}{2}$ " thick bolted on to coamings now fitted. Access hatch fitted on top of cover plate,  $20" \times 20"$ , coaming  $6" \times 3" \times \frac{1}{2}"$  angle, W. T. hinged steel cover  $\frac{1}{2}"$  thick secured by hinged bolts & wing nuts.

Boat Hatch on Casing Top has been dispensed with at this time, (conversion to oil fuel,) & opening in casing top plated over & beams fitted.

17" x 13" manhole with bolted plate cover on trunk top, for access to fore cofferdam.

Ventilator on forecaskle deck to forecaskle W. C. port side, 3" dia GNV.  $14\frac{1}{2}"$  to mouth, wood plug provided for closing.

The  $1\frac{1}{2}"$  dia air pipe to after peak has previously been altered from  $5\frac{1}{2}"$  to  $20"$  to mouth.

The hinged steel doors to bunker (see "Exposed Machinery Basings on Superstructure Decks") are now giving access to deckhouse over oil fuel bunker.

M. Campbell. 23<sup>rd</sup> Nov. 1938.

(A copy of the above has not been placed on board.)

Noted WOB  
24/11/38.



Creofield

Particulars of Scuppers and Sanitary Discharge Pipes —

All sanitary discharges have storm valves at  
Ship's side  
Scuppers are cut through Gunwale (for position see sketch)

Particulars of Side Scuttles:

all side scuttles are of Substantiating Construction  
& fitted with Steel Hinged Deadlights

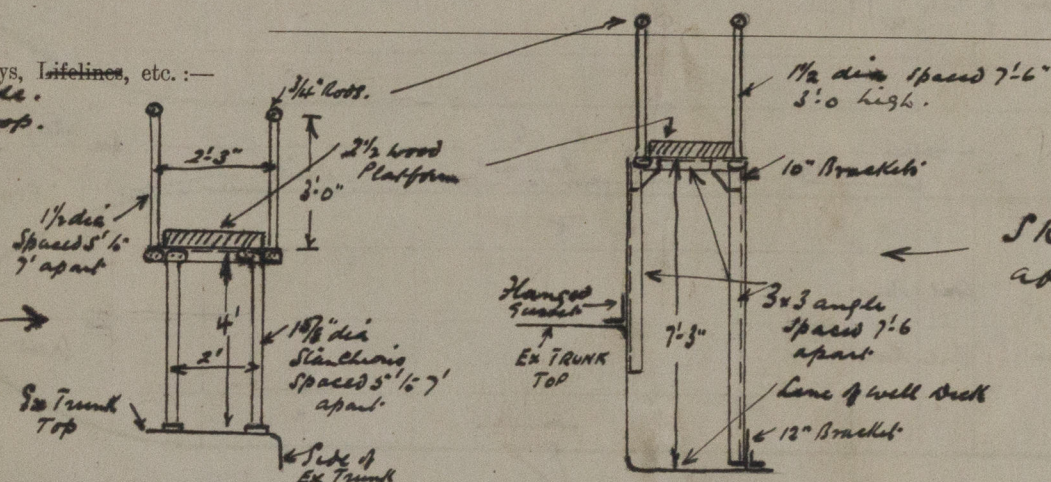
Particulars of Guard Rails:—

Poop Deck 3'-3" high 2 Rails Stanchions 5'-0" apart  
Well. 3'-6" " 3 " " "  
Fore Deck 3'-0" (above wood deck) 2 Rails " " "

Particulars of Gangways, Lifelines, etc.:

on Port Side.  
between Deck & Poop.

Sketch of  
gangway  
forward of  
bridge deck



Sketch of Gangway  
aft of Bridge deck

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 ...	✓					
Forward Well ...	✓					

State position of each freeing port ... } After Well:—  
(R. and A. position and height above deck edge) } Forward Well:—

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

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 ...	3/8	5/16	7" B.A. clean of 3/4" Trunk	2'-0"	Lugs at Top	None	✓	7'-0"
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ...	✓		Open					
<del>PUMP ROOM ON EX TRUNK</del> Bridge, Forward Bulkhead ...	✓	5/16	3x2 1/2 x 30	2'-6"	None	4'-6" x 3'-0"	24"	7'-6" above Ex Trunk to Cas etc.
Forecastle Bulkhead ...	5/16	5/16	2 1/2 x 2 1/2 x 35	3'-0"	None	4' x 1'-10" See also "Companionways"	21"	7'-0"
Trunk, Aft ...								
Trunk, Forward ...	5/32	7/32	5 x 3 Longitudinal 12" Transverse	as approved		See "Hatches"	✓	3'-3"
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓							
Exposed Machinery Casings on Superstructure Decks ...	3/8	5/16	3 x 2 1/2 x 30	2'-6"	Brackets at Top	3'-11" x 1'-10" 3'-0" x 2'-0"	24" 39"	7'-0" B.R. & Fiddle Bunkers
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).

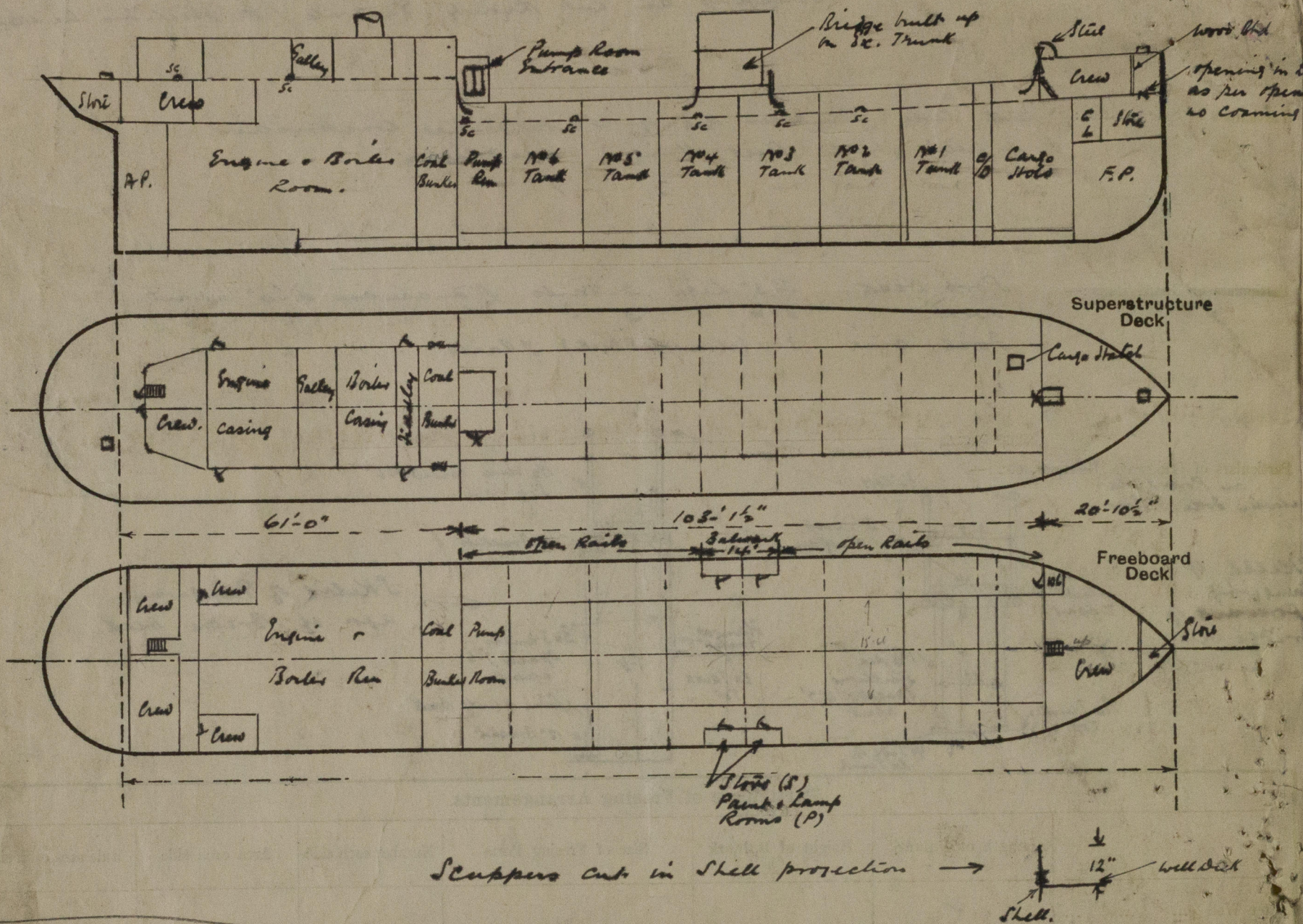
Poop Bulkhead ...	Strong Steel, Doors operated from both sides -
Raised Quarter Deck Bulkhead ...	✓
<del>PUMP ROOM</del> Bridge, After Bulkhead ...	Strong Steel Hinged Doors operated from both sides -
Bridge, Forward Bulkhead ...	Open
Forecastle Bulkhead ...	Strong Steel Hinged Doors operated from both sides -
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Strong Steel Hinged Doors to S.R. & Fiddle operated from both sides
Exposed Machinery Casings on Superstructure Decks ...	Strong Steel Hinged Doors to Bunkers operated from outside casing ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	✓
Deckhouses on Flush Deck Ships ...	✓

W432-0176(313)



Creofield

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:—

This vessel has been measured afloat for freeboard assessment only.

Builder's name and yard number

Goole Shipbuilding & Repairing Co (1927) No 284

Names of sister ships

Owners

United Molasses Co Ltd.

Fee £

6 : 16 : 0

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