

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

11 MAY 1943

Computation of Freeboard for Steamer, Sailing Ship, Tanker (TUG)

having FreecastlePort of Survey HullDate of Survey During constructionName of Surveyor J. M. M. M.Particulars of Classification 100 A.1."FOR TOWING SERVICES"
(CONTEMPLATED)KOWLOON DOCKS

(Type of Superstructures.)

Ship's Name

"ALLEGIANCE"

Nationality and Port of

Registry

BRITISH

Official Number

191430

Gross Tonnage

597.

Date of Build

1943.Moulded Dimensions: Length 142'6" Breadth 33'0" Depth 16'0"Moulded displacement at moulded draught = 85 per cent. of moulded depth 1010 tonsCoefficient of fineness for use with Tables .68 (Actual .553) T.P.I. 8.5

Depth for Freeboard (D)

Moulded depth 16'0"Stringer plate 03

Sheathing on exposed deck

 $T \left(\frac{L-S}{L} \right) =$ NONEDepth for Freeboard (D) = 16'03"

Depth correction

(a) Where D is greater than Table depth

(D - Table depth) R = (16.03 - 9.50) 1.096 = +7.16"

(b) Where D is less than Table depth (if allowed)

(Table depth - D) R = 6.53If restricted by superstructures ✓

Round of Beam correction

Moulded Breadth (B) 33'Standard Round of Beam = $\frac{B \times 12}{50} =$ 7.92Ship's Round of Beam = 9"Difference 1.08Restricted to ✓Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.08}{4} \times .6327 = -.17"$

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 ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...	<u>52.33</u>	<u>52.33</u>	<u>7'0"</u>	<u>✓</u>	<u>52.33</u>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	<u>52.33</u>	<u>52.33</u>			<u>52.33</u>

Standard Height of Superstructure 6.00" " R.Q.D. ✓Deduction for complete superstructure 20.25Percentage covered $\frac{S}{L} =$
" " $\frac{S_1}{L} =$ 36.73
" " $\frac{E}{L} =$ Percentage from Table, Line A. 20.72
(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 = 20.25 x .2072 = -4.20"

SHEER CORRECTION.

Sheers measured from a line parallel to the designed trim waterline.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>24.25</u>	1		<u>24.25</u>	<u>29.50</u>	<u>29.50</u>	1		<u>29.50</u>
$\frac{1}{6}L$ from A.P. ...	<u>10.79</u>	4		<u>43.16</u>	<u>12.33</u>	<u>12.33</u>	4		<u>49.32</u>
$\frac{2}{6}L$ " ...	<u>2.67</u>	2		<u>5.34</u>	<u>2.92</u>	<u>2.92</u>	2		<u>5.84</u>
Amidships ...	-	4		-	-	-	4		-
$\frac{3}{6}L$ from F.P. ...	<u>5.34</u>	2		<u>10.68</u>	<u>8.08</u>	<u>8.08</u>	2		<u>16.16</u>
$\frac{4}{6}L$ " ...	<u>21.58</u>	4		<u>86.32</u>	<u>29.67</u>	<u>29.67</u>	4		<u>118.68</u>
F.P. ...	<u>48.50</u>	1		<u>48.50</u>	<u>73.75</u>	<u>73.75</u>	1		<u>73.75</u>
Total ...				<u>218.25</u>					<u>293.25</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{75}{18} (.75 - .1836) = -2.36"$ If limited on account of midship superstructure. Yes, Nil.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 = 16.03 Ft.Summer freeboard = 1.87Moulded draught (d) = 14.16

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 3.54 = 3 $\frac{1}{2}$ "Addition for Winter North Atlantic Freeboard (if required) = 2"

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 1078

Tons per inch immersion at summer load water line

 $T =$ 8.69Deduction = $\frac{\Delta}{40T}$ inches = 3"

MLD DRAFT. EXT. DISP. T.P.I.

14' 4 $\frac{1}{2}$ " 1100 8.7513' 2 $\frac{1}{2}$ " 996 8.4512' 4 $\frac{1}{2}$ " 892 8.20

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient Nil.Depth Correction 7.16Deduction for superstructures 4.20Sheer correction -Round of Beam correction17Correction for Thickness of Deck amidships -Other corrections, scantlings, etc. to correspond to position of lowest side scuttle. 5.18Summer Freeboard = 22.50"SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-Tropical Fresh Water Line above Centre of Disc ... 3"Fresh Water Line " " ... 3"Tropical Line " " ... Nil.Winter Line below " " ... Nil.Winter North Atlantic Line " " ... 2"Tropical Fresh Water Freeboard ... 10 $\frac{1}{2}$ "Fresh Water " " ... 7 $\frac{1}{2}$ "Tropical " " ... 10 $\frac{1}{2}$ " (limited)Winter " " ... 10 $\frac{1}{2}$ "Winter North Atlantic " " ... 20 $\frac{1}{2}$ "

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		TRUNK TOP 4 O.T. HATCHWAYS TO AFTER OIL FUEL TANKS		UPPER DECK HATCH TO HOLD AFT.		UPPER DECK 2 O.T. HATCHWAYS TO SIDE OIL FUEL TANKS		FORECASTLE DECK HATCH TO BOYS STORE	
Dimensions of Hatchway		20' 2'-6" x 2'-6" ✓ 20' 2'-6" x 1'-9" ✓		8'-0" x 6'-0"		11½" x 9½"		2'-9" x 2'-9"	
COAMINGS	Height above Deck ... Thickness { Sides ... Ends ... Stiffeners ... Brackets, Stays ...	48" ✓	27" ✓	15" ✓	12" ✓				
		30 ✓	40 ✓	30 ✓	375 ✓				
		30 ✓	40 ✓	30 ✓	375 ✓				
		} NONE	NONE ✓	NONE ✓	NONE ✓	NONE ✓	NONE ✓	NONE ✓	NONE ✓
HATCH BEAMS	Number ... Spacing ... Scantling and Sketch ... Bearing Surface ...	NONE ✓	NONE ✓	NONE ✓	NONE ✓				
FORE AND AFTERS	Number ... Spacing ... Unsupported Lengths ... Scantling* and Sketch ... Bearing Surface ...	NONE ✓	NONE ✓	NONE ✓	NONE ✓				
HATCH COVERS	Material ... Thickness ... How fitted ... Bearing Surface ...	STEEL COVER PLATE .50 ✓	PINE ✓	STEEL PLATE .375 THICK ✓	STEEL W.T. COVER PLATE ✓				
		SECURED BY 7/8" DIAR. ✓	3" ✓	SECURED BY 7/8" DIAR. ✓	SECURED BY 7/8" DIAR. ✓				
		EYEBOLTS WITH ✓	F. & A. ✓	EYEBOLTS WITH ✓	EYEBOLTS WITH ✓				
		GUNMETAL TOGGLES ✓	3" ✓	GUNMETAL TOGGLES ✓	GUNMETAL TOGGLES. ✓				
Spacing of Cleats		✓	24" ✓	✓	✓				
Number of Tarpaulins		✓	2 ✓	✓	✓				

*Are wood fore and afters steel shod at all bearing surfaces? yco. ✓
 Are battens and wedges efficient and in good condition? yco. ✓
 Are tarpaulins in good condition and in accordance with rule requirements? yco. ✓
 Are lashings provided in accordance with rule requirements? yco. ✓

CASING TOP PLATED OVER .26 THICK. FUNNEL 1/4" PLATING. 2 STOKEHOLD VENTILATORS 24" DIAR. ✓
4 FIDDLEY GRATINGS WITH STRONG STEEL STORM COVERS (HINGED). ✓
ENGINE ROOM SKYLIGHT (STEEL) STRONGLY CONSTRUCTED & FITTED WITH 6 HINGED STEEL COVERS - 2 LIGHTS IN EACH COVER.

MANHOLE TO FORE PEAK 18" x 14" - 3" COAMING & FITTED WITH STEEL PLATE COVER SECURED TO FLANGE OF COAMING ANGLE BY 5/8" DIAR. STUDS.
" " AFTER " 18" x 14" WITH STEEL PLATE COVER SECURED TO DECK BY 5/8" DIAR. STUDS SPACED 3 1/2" APART. ✓

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

	FORECASTLE DECK.	
CHIEF ENGINEER'S ROOM & BOYS' STORE.	2-6" DIA. FRENCH HEAD MUSHROOM VENTS. 3'-10" x 2'-0" TO BOTTOM OF OPENING - COAMING 5/16" THICK.	✓
FORWARD PASSAGES.	2-8" " " " " " 5'-0" TO BOTTOM OF OPENING 5/16" THK. BRACKETED TO SIDE OF SKYLIGHT.	✓
FIREMENS & SEAMEN'S MESS	2-8" " " " " " 2'-2" " " " "	✓
STEWARD, COOK & PANTRY.	3-5" " GOOSENECK VENTS - 1'-3" FROM DECK TO OPENING.	✓
SIGNALMAN & ASSISTANT STEWARDS ROOM.	6"x4" " " VENT. 20" HIGH IN PASSAGE (PORT SIDE).	✓
SALON.	2-6" DIA. MUSHROOM VENTS. ON SKYLIGHT TOP FORWARD.	✓
SIDE CABINS IN FORECASTLE SPACE.	6" " " " " " GALLEY 7" DIA. FRENCH TYPE MUSHROOM VENT.	✓

GALLEY. "7" DIAR * FRENCH TYPE MUSHROOM VENT. 2'10" TO BOTTOM OF OPENING - COAMING 5/8" THICK (INLET VENT). ✓
 GALLEY. "7" DIAR * FRENCH TYPE MUSHROOM VENT. 3'0" TO BOTTOM OF OPENING. COAMING 5/8" THICK (EXHAUST VENT). ✓

MAIN SUPPLY VENTILATORS TO FIREMENS & SEAMENS ACCOMMODATION. 2-13" DIAR. FRENCH TYPE MUSHROOM VENTS. 3'0" TO OPENING - COAMING 5/16" THICK.
UPPER DECK. TO ENGINE ROOM - 2-12" DIAR. FRENCH TYPE VENTS. 2'0" TO BOTTOM OF OPENING - 5/16" COAMING.

" " " 16" " 3'7" " " " " PROTECTED BY E.R. CASING
" HOLD AFT 1-6" " FRENCH TYPE MUST+ROOM VENT. (PORT SIDE) 3'2" TO BOTTOM OF OPENING. " " BULWARK.
" " " 1-6" " COAL VENT (STARBOARD) COAMING 1'-9" HIGH x 5/16" THICK. ✓

Particulars of Gangway Cargo and Coaling Ports. — " STEERING GEAR RECESS. 6" DIAM. FRENCH TYPE HEAD. 3'0" TO BOTTOM OF OPENING - COAMING 5/16" THICK.

PARTICULARS OF AIR PIPES IN EXPOSED POSITIONS ON FREEBOARD & SUPERSTRUCTURE DECKS.

UPPER DECK. TO BOILER FEED TANK (P & S) 2" DIAR. 3'5" TO MOUTH. PROTECTED BY BULWARK. ✓
 " LAMP ROOM (S-S) 1 1/2" " 3'6" " " " " " ✓
 " AFTER PEAK TANK (P & S) 3" " 3'2" " " " " " ✓
 AIR PIPES TO TANKS SUPPLIED WITH WOOD PLUGS.
 " " " OIL FUEL TANKS SUPPLIED WITH
 2 GAUZE.

TRUNK TOP. " AFTER OIL FUEL TANKS. 4 OFF 3" " 3 1/6" TO MOUTH. " " " ✓

FORECASTLE DECK TO FORE PEAK TANK. 3" DIAR. 3'-3" TO MOUTH. PROTECTED BY BULWARK. ✓

" SIDE OIL FUEL TANKS. (P & S). 3" DIAR. 5" TO MOUTH.

W.B. TANK, F.W. TANK, FEED WATER TANK & COFFERDAM (P.R.S.) 8 OFF. 2" DIAR. 5" ID MOUTH.

DISCHARGES - " CHIEF ENGRS WASH BASIN (PORT) 1 1/2" DIA. WITH STORM VALVE ON SHIP'S SIDE - 16" TO OPENING. ✓

[illegible]

Particulars of Side Scuttles: IN FORECASTLE SPACE 6 (PORT) & 5 (STBD) - 8" DIAM. SIDELIGHTS WITH HINGED W.I. DEADLIGHTS. ✓

BELOW UPPER DECK FORWARD. 6 (PORT) & 5 (STARBOARD) 8" DIAM. FIXED SIDELIGHTS WITH HINGED W.I. DEADLIGHTS.

ON BOAT DECK SIDE PLATING. 4-8" DIAR. FIXED SIDELIGHTS (P. & S) WITH HINGED W.I. DEADLIGHTS.

BOILER CASING SIDE. 2-18" DIAR. SIDELIGHTS (P. & S) WITH HINGED W.I. DEADLIGHTS - 4'6" FROM UPPER DECK TO BOTTOM OF OPENING. ✓

ON FORECASTLE DECK. 3'-10" HIGH WITH 3 RODS. STANCHIONS SPACED 3'-9" APART. ✓

ON BOAT DECK (AFTER END) 3'3" HIGH WITH 3 RODS. " " 4'0" " ✓

" " " (AT SIDES) 2 1/4" " " 2 RDS. " " 3 1/6" " ✓

NONE.

VERTICAL DISTANCE OF SILL OF LOWEST SIDE SCUTTLE ABOVE TOP OF KEEL 13'-10". 42'0" FROM F.P. ✓

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	65'-0"	4'-0"	28" x 16 1/2"	5	16.0 sq	13.0 sq
Forward Well	✓					

State position of each freeing port } After Well:— FOR POSITION SEE SKETCH ON PAGE 4. 7 1/2" ABOVE DECK EDGE. ✓
(F. 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:— BALANCED STEEL SHUTTERS. ✓

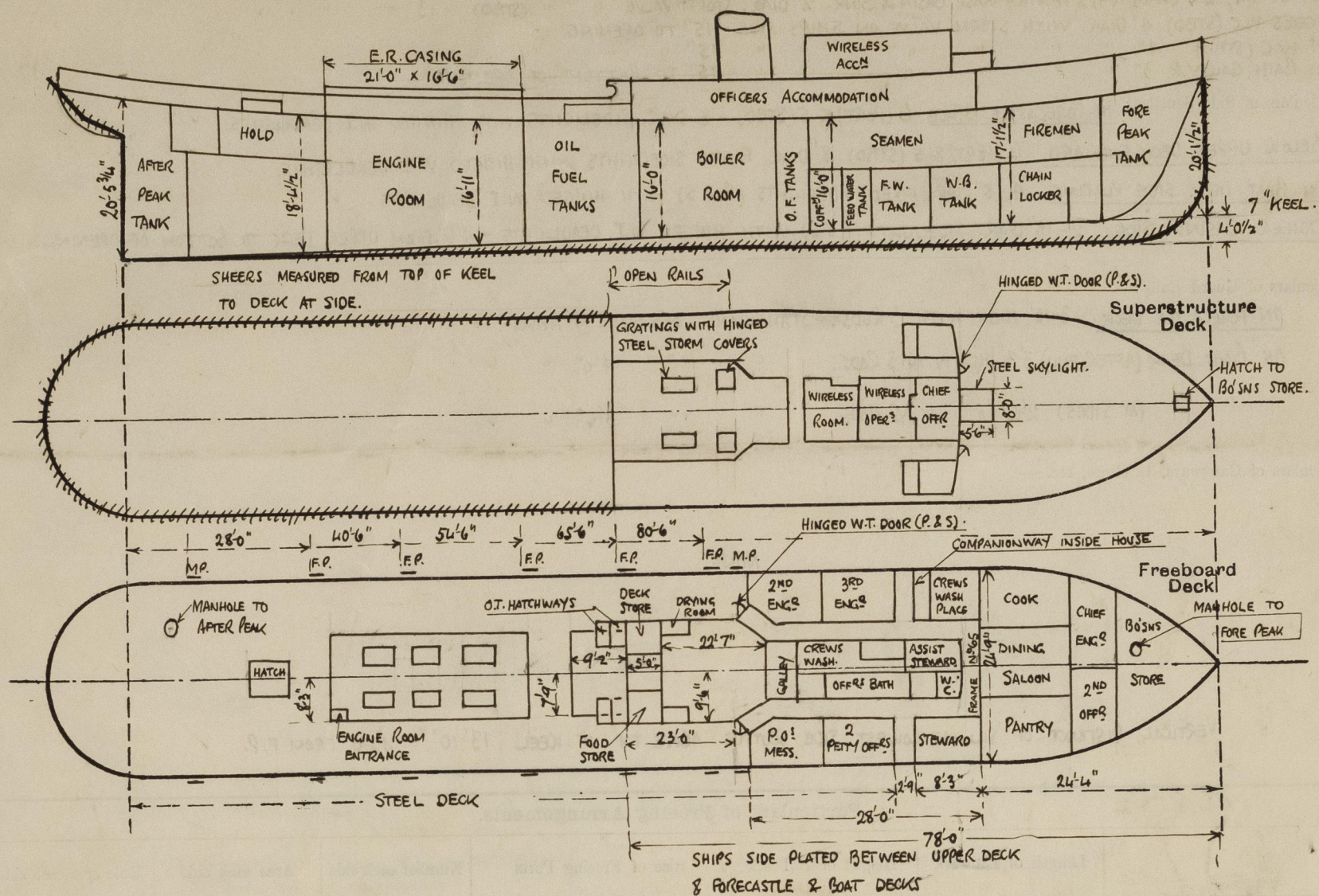
Additional area where sheer is less than standard.

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	✓							
Bridge, Forward Bulkhead	✓							
Forecastle Bulkhead ... FRAME NO 65.	✓	25	2½ x 2½ x 25 L	30"	NONE	4'10" x 1'9"	15"	7'3"
Trunk, Aft ... (FRAME NO 31-36).	30	30	3 x 2½ x 30 L	30"	NONE	4 OT. HATCHWAYS ON TOP OF TRUNK	✓	3'0"
Trunk, Forward	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Deck ...	18" x 32	28	3½ x 2½ x 30 L 7" x 3" x 40 L	APPROX 24"	BUTTS AT TOP.	4'0" x 1'9"	24"	7'3"
Exposed Machinery Casings on Super-structure Decks	✓							
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓							
Deckhouses on Flush Deck Ships ...	✓							

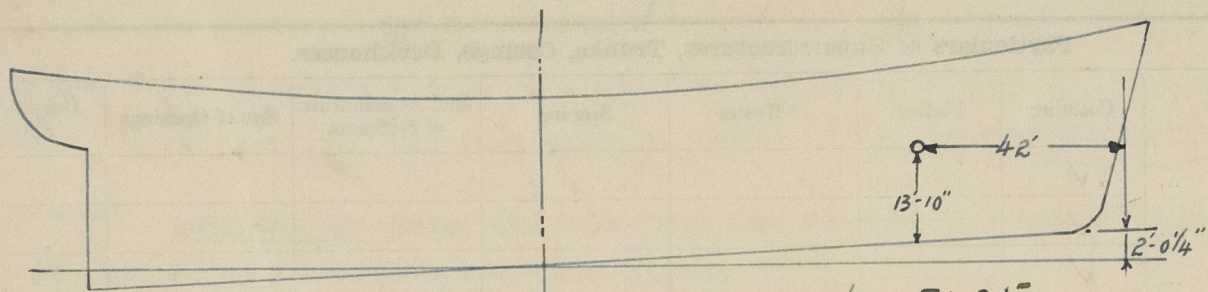
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	✓	
Raised Quarter Deck Bulkhead ...	✓	
Bridge, After Bulkhead	✓	
Bridge, Forward Bulkhead	✓	
Forecastle Bulkhead		TO SALOON ACCOMMODATION & WASH PLACES ETC. WOOD DOORS 4'10" x 1'9" x 1 7/8" THICK WITH 15" SILLS. TO DECK STORE (PORT) STEEL DOOR 4'6" x 1'9" x 2 1/2" SILL. TO DRYING ROOM (P. & S) STEEL DOORS 4'3" x 1'9" x 2 1/2" SILL. TO GALLEY (P. & S) STEEL DOORS (ON HALVES) 5'0" x 1'9" x 15" SILL. TO FOOD STORE (STBD) W.T. DOOR 4'6" x 2'3" x 2 1/2" SILL.
Exposed Machinery Casings on Free-board or Raised Quarter Deck ...		TO BOILER ROOM (P. & S) STEEL DOOR 4'0" x 1'9" x 2 1/2" SILL.
Exposed Machinery Casings on Super-structure Decks		ENTRANCE DOOR OF COMPANION ON UPPER DECK FORWARD (PORT) WOOD DOOR 4'7" x 1'9" x 1 3/4" THICK WITH 18" SILL.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓	ALL DOORS FITTED WITH SPRING LOCKS OPERATED FROM BOTH SIDES.
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 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:—



$$L = 142.5; \quad \frac{1}{2} = \frac{71.25}{42.00} \times \frac{29.25}{71.25} \times 2.02 = 0.83$$

$$\begin{array}{r} 13.83 \\ 14.66 \\ \hline 14.16 \end{array}$$

limiting draft 14.16

Builder's name and yard number COCHRANE & SONS LTD. YARD No 1263.

Names of sister ships "STORMKING" - "SAUCY"

Owners THE ADMIRALTY.

Fee £ TO BE CHARGED WITH FIRST ENTRY. Received by me



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