

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having Pop. Bridge + Forecastle

Port of Survey Newcastle-on-Tyne

Date of Survey 26<sup>th</sup> - 27<sup>th</sup> Oct 1932

Name of Surveyor W. Craig

Particulars of Classification +100 A.1. carrying petroleum in bulk

Ship's Name "CYMBELINE"

Nationality and Port of Registry British Liverpool

Official Number 149647

Gross Tonnage 6300  
6317

Date of Build 1927-12

Moulded Dimensions: Length 419'0" Breadth 54'3" Depth 32'8 1/2"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 114400 tons

Coefficient of fineness for use with Tables 798

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	32.71	(a) Where D is greater than Table depth (D - Table depth) R = $(32.76 - 27.93) 3 = 14.49$		Moulded Breadth (B)	54.25
Stringer plate	.05	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	13.02
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		If restricted by superstructures		Ship's Round of Beam	13 1/2
Depth for Freeboard (D) =	32.76			Difference	.48
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{.48}{4} \left( 1 - \frac{44.15}{44.92} \right) = .07$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Pop enclosed	107.75	107.75	7.5		107.75	Standard Height of Superstructure <u>7.5</u>
" overhang						" " R.Q.D.
R.Q.D. enclosed						Deduction for complete superstructure <u>42.00</u>
" overhang						Percentage covered $\frac{S}{L} = 44.92$
Bridge enclosed	29.0	29.00	7.5		29.00	" $\frac{S_1}{L} = 44.15$
" overhang aft	2.5	1.88			1.88	" $\frac{E}{L} = 44.15$
" overhang forward	2.5	1.25			1.25	Percentage from Table, Line A.
F'cle enclosed	43.73	43.73	7.5		43.73	(corrected for absence of forecastle (if required))
" overhang	2.77	1.38			1.38	Percentage from Table, Line B. <u>Tanker 35.15%</u>
Trunk aft						(corrected for absence of forecastle (if required))
" forward						Interpolation for bridge less than 2L (if required)
Tonnage opening aft						Deduction = <u>14.76</u>
" forward						
Total	188.25	184.99			184.99	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P.	51.90	1	51.90	52	52.00	52.00	1	52.00		Mean actual sheer aft = Deficient > 45%.
1/2 L from A.P.	23.09	4	92.36	21 1/2	21.33	21.33	4	85.32		Mean actual sheer forward = Excess
3/4 L	5.71	2	11.42	5 1/2	5.33	5.33	2	10.66		Mean standard sheer forward
Amidships		4					4			Length of enclosed superstructure forward of amidships =
3/4 L from F.P.	11.42	2	22.84	11 1/4	11.85	11.85	2	23.70		" " aft of " =
1/2 L	46.19	4	184.76	47 1/2	47.46	47.46	4	189.60		
F.P.	103.80	1	103.80	111	111.00	111.00	1	111.00		
Total			467.08					472.28		

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75 - S}{2L} \right) = \frac{5.2}{18} \left( \frac{75 - 2246}{2} \right) = .15$

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 = 32.76

Summer freeboard = 6.04

Moulded draught (d) = 26.72

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches =  $\frac{26.72}{4}$  inches = 6.68 = 6 3/4

Addition for Winter North Atlantic Freeboard (if required) = 4.19 = 4 1/4

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 13,865$

Tons per inch immersion at summer load water line

$T = 46.51$

Deduction =  $\frac{\Delta}{40T}$  inches = 7.45

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	14.49	
Deduction for superstructures		14.76
Sheer correction		.15
Round of Beam correction		.07
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	14.49	14.98

Summer Freeboard = 72.49

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

Tropical Fresh Water Line above Centre of Disc	14 1/4
Fresh Water Line	7 1/2
Tropical Line	6 3/4
Winter Line below	6 3/4
Winter North Atlantic Line	11

Tropical Fresh Water Freeboard	6 - 0 1/2
Fresh Water	4 - 10 1/4
Tropical	5 - 5
Winter	5 - 5 3/4
Winter North Atlantic	6 - 7 1/4
	6 - 11 1/2



### PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS														
FELEK UPPER D <sup>14</sup> POOF D <sup>14</sup> BRIDGES														
Description of Hatchway ... ..														
Dimensions of Hatchway ... ..														
COAMINGS														
HATCH BEAMS														
FORE AND AFTERS														
HATCH COVERS														
Spacing of Cleats ... ..														
Number of Tarpaulins ... ..														
<p>*Are wood fore and afters steel shod at all bearing surfaces ?</p> <p>Are battens and wedges efficient and in good condition ?</p> <p>Are tarpaulins in good condition and in accordance with rule requirements ?</p> <p>Are lashings provided in accordance with rule requirements ?</p>														

Particulars of fiddley, funnel and ventilator coamings :—

Funnel + vent coamings on casing top in good condition.  
Engine casing of steel & strong construction.  
Slaps to fiddle openings permanently attached.

Particulars of Flush Bunker Scuttles :—

none.

Particulars of Companionways :—

Companionways:—

<u>Pump Room Entrance</u>	7'-0" x 20'-6" x 6'-6"	Slit hinged door 54" x 36" with 2 clips
Plating	.36	operated from outside only.
Stiffeners	3 x 2½ x .32 angle	Sill 18"
	Spaced 30" apart	2 skylights of slit on top of house.
<u>Companion to Engg</u>	Door 5'-0" x 2'-1", 1¾" solid hardwood door operated from both sides	
<u>accommodation aft.</u>	1½" sill. House Casings of solid construction.	

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

particulars of Ventilators in exposed positions on freeboard and superstructure decks :-

<u>Forecastle deck</u> :-	1-8" dia	to Fore Peak	40" high	unsupported
	1-15" "	" " " "	34" "	"
<u>upper deck</u> :-	1-15" "	" " " "	36" "	"
	2-11" "	" " Pump Room	60" "	one top of Pump Room Entrance & unsupported
<u>Poof deck</u> :-	2-7" "	" " bunkers	67" "	unsupported
	2-7" "	" " Settling tanks	67" "	supported
	2-15" "	" " Bunkers	30" "	"

Vents have wood plugs  
& canvas covers.

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

Articulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks.				
Forecastle deck:-	1 C-9	air pipe to Fore Peak tank	2 1/2"	dia and 22" to opening
	2 C-9	" " Fore Deck tank	4"	" " 18" to opening
Upper deck:-	6 C-9	" " " Cofferdams	6"	" " 32" to opening
Port deck:-	4 C-9	" " " Tanks	4"	" " 18" to opening
	2 C-9	" " " "	2 1/2"	" " 18" " "
	1 C-9	" " " A.R Tank	3 1/2"	" " 15" " "

Prop deck continued  
4 - C.D. air pipes on top of O.T. hatches  
2" dia + 20" above hatch top to opening.

the closing appliances fitted for  
air pipes, were gauge to air pipes  
to oil compartments wood plugs  
to all others

Particulars of Gangway Cargo and Coaling Ports:—

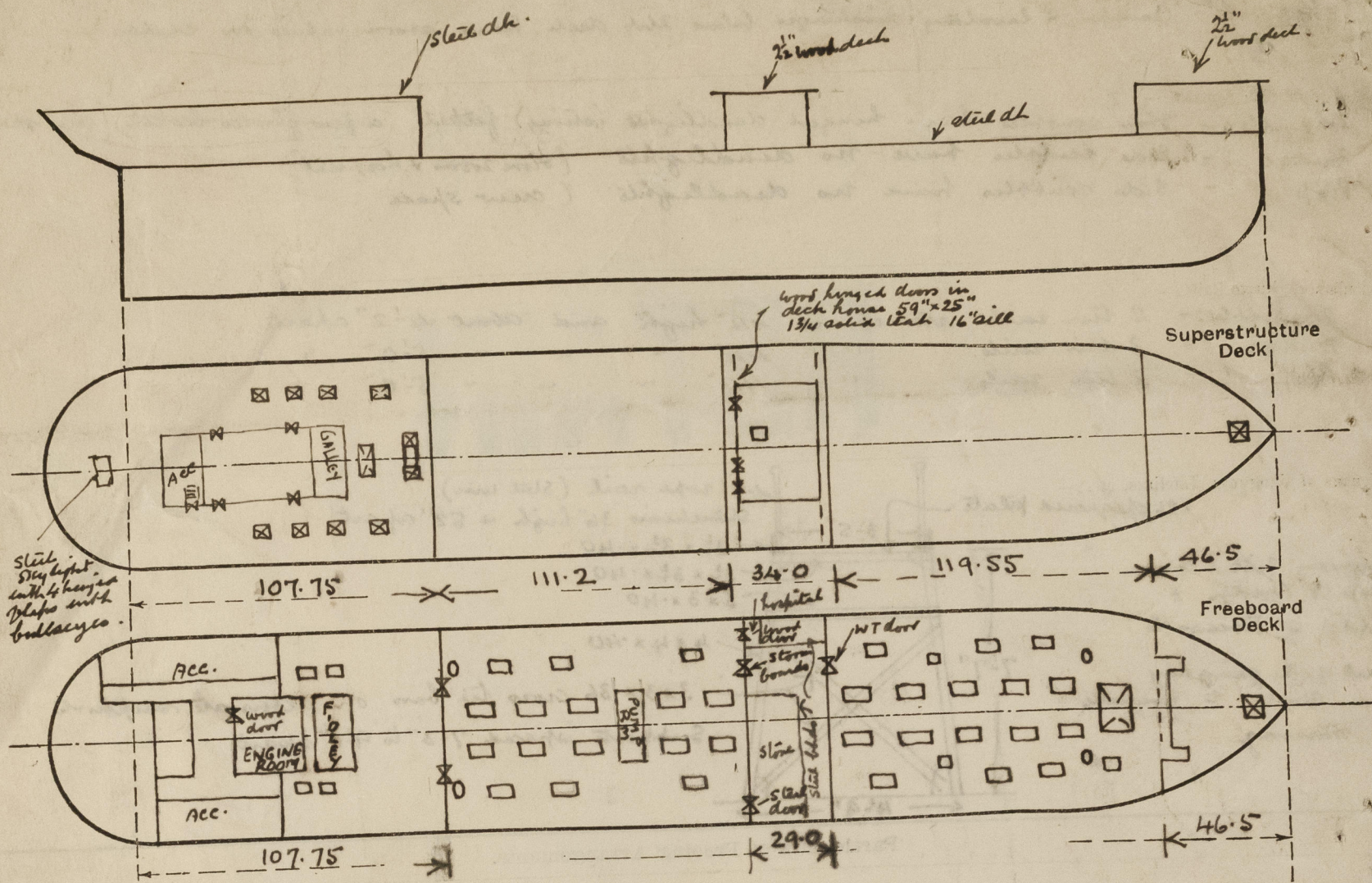
None.



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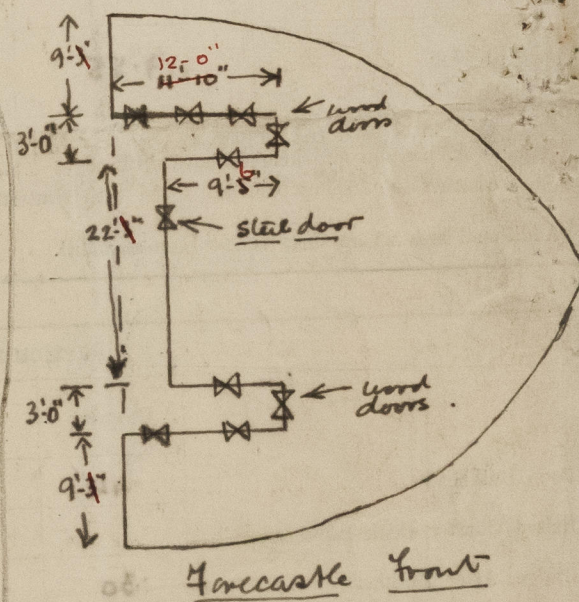
Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



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

*Vessel surveyed afloat*

FORECASTLE.  
 $46.5 - \frac{3 \times 12 + 11 \times 25}{23}$   
 $- 2.77 = 43.73$



Builder's name and yard number

*W. Hamilton Port Glasgow.*

Names of sister ships

Owners

*oil Tank S.S. C. Ltd (C.T. Bowring & Co)*

Fee £

*14 : 9 : 0*

Received by me



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