

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

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

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having SHELTER DECK FULL LENGTH OF VESSEL AND
BRIDGE EFFECTIVELY CLOSED AT ENDS.
 (Type of Superstructures.)

Port of Survey PEMBROKE DOCK

Date of Survey 21st AUGUST 1955

Ship's Name OCEAN LAYER Nationality and Port of Registry BRITISH LONDON Official Number 181837 Gross Tonnage 6525 Date of Build 1948 CONVERTED 1955

Name of Surveyor A. Hemmings

Particulars of Classification BS*

Moulded Dimensions: Length 335'-0" Breadth 50'-10" Depth 21'-2"
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 18'-6 3/4" 6525 tons
 Coefficient of fineness for use with Tables .766 ESTD

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	30.33	(a) Where D is greater than Table depth (D - Table depth) R =	21.06"	Moulded Breadth (B)	50'-10"
Stringer plate	21.93	(30.49 - 22.31) 2.54 = 21.06"		Standard Round of Beam = $\frac{B \times 12}{50}$	12.20
Sheathing on exposed deck	2.50	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	-	Ship's Round of Beam <u>310 mm</u>	12.20
$T \left(\frac{L-S}{L} \right) = \frac{2.5}{12} \times .5369 = .11$	.11			Difference	NIL
Depth for Freeboard (D) =	30.49	If restricted by superstructures	-	Restricted to	
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$			NIL

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 ...	155'-0"	139'-50"	8'-0"		139'-50"
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	155'-00"	139'-50"			139'-50"

Standard Height of Superstructure 6'-85"

" " R.Q.D. ✓

Deduction for complete superstructure 37'-65"

Percentage covered $\frac{S}{L} =$ 46.31

" " $\frac{S_1}{L} =$ 41.63

" " $\frac{E}{L} =$ 41.63

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

Percentage from Table, Line B. 28.93 - 5.00 = 23.93
 (corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = .2393 × 37.65 = 9.01"

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	43.47	1		43.47	3'-11"	47.00	1		47.0
$\frac{1}{8}$ L from A.P. ...	19.34	4		77.36	1'-6"	18.00	4		72.0
$\frac{2}{8}$ L " ...	4.78	2		9.56	3"	3.00	2		6.0
Amidships ...	-	4		-	✓	✓	4		✓
$\frac{3}{8}$ L from F.P. ...	9.56	2		19.12	10"	10.0	2		20.0
$\frac{4}{8}$ L " ...	38.69	4		154.76	3'-0"	36.0	4		144.0
F.P. ...	86.93	1		86.93	7'-0"	84.0	1		84.0
Total ...				391.20					373.0

Mean actual sheer aft = DEFICIENT
 Mean standard sheer aft

Mean actual sheer forward = DEFICIENT
 Mean standard sheer forward

Length of enclosed superstructure forward of amidships = DEFICIENT SHEER.
 " " aft of " =

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{18.20}{18} \left(.75 - \frac{51.84}{236} \right) = + .52"$$

If limited on account of midship superstructure. ✓If limited to maximum allowance of 1½ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.		Deduction for Fresh Water.		TABULAR FREEBOARD corrected for Flush Deck (if required)	
Addition for Winter and Winter North Atlantic Freeboard.		Displacement in salt water at summer load water line		Correction for coefficient	<u>52.26</u>
Depth to Freeboard Deck = <u>30.38</u>		Δ = <u>✓</u>		$\frac{.68 \times .766}{1.36} = \frac{1.446}{1.36}$	<u>55.57</u>
Summer freeboard = <u>9.19</u>		Tons per inch immersion at summer load water line		Depth Correction ...	<u>21.06</u>
Moulded draught (d) = <u>21.19</u>		T = <u>✓</u>		Deduction for superstructures ...	<u>9.01</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>5.30 - 5.4</u>		Deduction = $\frac{\Delta}{40T}$ inches = <u>5.4</u>		Sheer correction ...	<u>.52</u>
Addition for Winter North Atlantic Freeboard (if required) = <u>✓</u>				Round of Beam correction ...	<u>1.32</u>
				Correction for Thickness of Deck amidships ...	<u>43.43</u>
				Other corrections, scantlings, etc. <u>TA CORRESPOND</u>	<u>65.01</u>
				To a summer moulded draught of 21.19 ft.	<u>10.33 + 54.68</u>
				Summer Freeboard =	<u>110.25</u>

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

Tropical Fresh Water Line above Centre of Disc ...	10.5"
Fresh Water Line " " ...	5.4"
Tropical Line " " ...	5.4"
Winter Line below " " ...	5.4"
Winter North Atlantic Line " " ...	✓

Tropical Fresh Water Freeboard ...	8'-3 3/4"
Fresh Water " " ...	8'-9"
Tropical " " ...	8'-9"
Winter " " ...	9'-7 1/2"
Winter North Atlantic " " ...	✓

Ocean Layer.

Particulars of fiddle, funnel and ventilator coamings:—

8 AT 24" D. 3'-0" ABOVE DECK.

FUNNEL, VENTILATOR COAMINGS AND ENGINE ROOM SKYLIGHT STRONGLY CONSTRUCTED.

SKYLIGHT FITTED WITH HINGED STEEL FLAPS WITH STONG GLASS LIGHTS.

NO FIDDLEY OPENINGS.

Particulars of Companionways :-

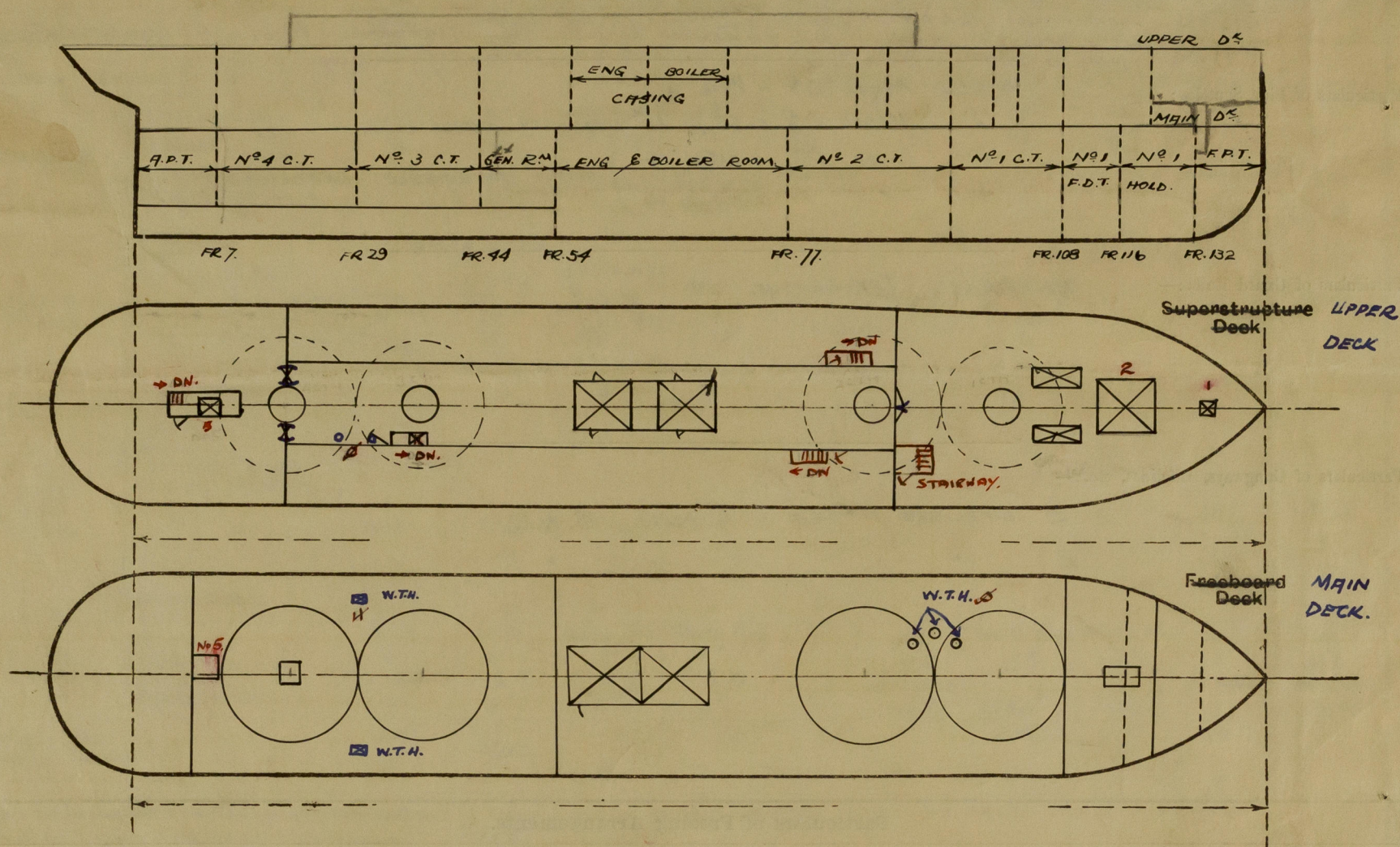
N ^o 1	- BOOBY HATCH FORD	3/8 PLATE, CAPABLE OF BEING CLOSED FROM BOTH SIDES
N ^o 2	- P. SIDE FORD IN BRIDGE	
N ^o 3	- S " " "	ALL TEAK WEATHER DOOR WITH 3/8 OORNING 18" ABOVE WOOD DECK
N ^o 4	- S " AFT " "	
N ^o 5	- S " IN HOUSE AFT	

PORT DECK - 36 @ 8" x 4", 18" CORNING.

particulars of Gangway Cargo and Coaling Ports:—

Particulars of Closing Appliances (state if capable of being manipulated from both sides).			
Poop Bulkhead	...	...	...
Raised Quarter Deck Bulkhead	...		
Bridge, After Bulkhead	...	...	3" W.P. STORM BOARDS.
Bridge, Forward Bulkhead	...	...	STEEL WEATHER TIGHT DOORS CAPABLE OF BEING OPENED BOTH SIDES.
Forecastle Bulkhead	...	...	...
Exposed Machinery Casings on Free-board or Raised Quarter Decks	...	...	...
Exposed Machinery Casings on Super-structure Decks	...	...	...
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 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:—

Builder's name and yard number FLENSBURGER SCHIFFSBAN GESELLSCHAFT FLENSBURG N° 508.
CONVERTERS. 1955. R.S. HAYES (P.D.) LTD, THE DOCKYARD, PEMBROKE DOCK, WALES
 Names of sister ships NONE

Owners MESSRS. SUBMARINE CABLES LTD, 22, OLD BROAD ST., LONDON E.C.2.

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