

13/10/44

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Form LL. 4.C. Revised

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

SURVEY FOR FREEBOARD

23 OCT 1944

~~STEAMER TANKER SAHER~~ ^{MOTORSHIP} "FLEXITY" ~~EMPIRE FACILITY~~

Nationality BRITISH Builders' Name and No. of Ship MESSRS. RICHARD OUNSTON 670.

Port of Registry HULL ~~WILLOW~~ MESSLE, E. YOKES. NO. 453.

Official Number 180308. Owners MINISTRY OF WAR TRANSPORT

Gross Tonnage 411.05 (MANAGERS) GENERAL STEAM NAVIGATION CO. LTD.

Date of Build 10/44. Port and Date of survey HULL (DURING CONSTRUCTION)

Particulars of Classification B. 3 + (COASTING SERVICE) Name of Surveyor W. J. MOBLE.

Names of Sister Ships "FABRIC" TYPE.

Type of Superstructures POOP AND FORECASTLE

Trade of Ship

Service Endorsement if any

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (.....wood.....steel)		
TROPICAL FRESH WATER LINE above centre of disc	<u>2 1/2"</u>	Corresponding Freeboard <u>1'-6"</u>
FRESH WATER LINE " " "	<u>2 1/2"</u>	" " <u>1'-3 1/2"</u>
TROPICAL LINE " " "	<u>0</u>	" " <u>1'-3 1/2"</u>
WINTER LINE below " "	<u>2 1/2"</u>	" " <u>1'-6"</u>
WINTER NORTH ATLANTIC LINE " " "	<u>4 1/2"</u>	" " <u>1'-8 1/2"</u>
		" " <u>1'-10 1/2"</u>

SUMMER TIMBER FREEBOARD recommended amidships from top of deck line		
TROPICAL FRESH WATER Timber line above L.S.		Corresponding Freeboard
FRESH WATER " " " "		" "
TROPICAL " " " "		" "
WINTER " " below "		" "
WINTER NORTH ATLANTIC " " " "		" "

Number of years recommended for load line certificate

The scantlings and protective arrangements being in accordance with the Load Line Rules it is submitted that the freeboards be assigned

[Signature]
Chief Surveyor

Passed at a meeting of the Committee of Management of the British Corporation Register of Shipping and Aircraft
on the 1st NOVEMBER, 1944

[Signature]
Secretary

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COMPUTATION OF FREEBOARD

(REVISED SECTION)

Length on summer load line 141'0" Moulded Breadth 27'0" Moulded Depth 11'0" Depth of Keel 1"
 Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth 775 Tons @ 9'4 3/16"
 Co-efficient of fineness for use with tables $\frac{\Delta \times 35}{L \times B \times D \times .85} = .713$
 Displacement and tons per inch immersion in salt water at summer load line 742 @ 7.95 T.P.I.
 Moulded depth 11.000 Deduction for Fresh Water $\frac{\Delta}{40T} = 2\frac{1}{2}$ inches
 Stringer Plate 3/8" .031 Round of Beam Correction
 Sheathing on exposed deck T $(\frac{L-S}{L})$ Ships Round of Beam 0.00 inches
 Rise of floor (in sailers) Standard Round of Beam $\frac{B \times 12}{50} = 6.48$
 Depth for Freeboard (D) 11.031 Difference 6.48
 Table Depth 4/15 9.400 Restricted to
 Depth Correction 4/130 1.631 Correction $\frac{\text{Difference}}{4} \times (1 - \frac{d}{L}) = 1.62 \times .2262 = .3665$
 If restricted by superstructures 1.769 dm 3.3665 ov.

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)
Poop	37'6 3/4		7'0"	41.26	-	41.26
Raised Quarter Deck						
Bridge		F				
		A				
Forecastle	13'8 1/8"	1'10"	8'0"	15.63		14.83
Trunk Aft	35'1"		7'0"		18/27	23.39
" Forward	27'10"		3'4"		27x6	8.26
Tonnage Opening Aft	18'10"		3'4"		1471x267	4.56
" Forward					27x6	
Totals	2.67 on Account of Low Hatch Coamings.	23.39		56.89		92.30
		18.56				
		10.26				
		52.21		52.21		
		S		109.10		
						77.38%

Standard Height of Superstructure 6'0"
 " " R.Q.D.
 Percentage covered S/L = 40.34 %
 " " E/L = 65.46 %
 " from Table line A, B, (corrected for absence of forecastle if required) 55.28 %
 Percentage from Table by interpolation for Bridge less than .2L if required =
 Deduction = 20% x 55.28 = 11.11 OFF
 Percentage from Table for Tankers (or Timber ships) =
 Deduction =

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product
A.P.	0	24.1	-	1	-
1/2 L from A.P.	0	10.72	-	4	-
1/3 L from A.P.	0	2.61	-	2	-
Amidships	0	-	-	4	-
1/3 L from F.P.	0	5.22	-	2	-
1/2 L " "	0	21.44	-	4	-
F.P.	0	48.20	-	1	-
				18	

Mean Actual sheer aft = less than 1
 " Standard " "
 Mean Actual sheer forward = less than 1
 " Standard " "
 Length of enclosed superstructure forward of amidships =
 Length of Ship
 Length of enclosed superstructure aft of amidships =
 Length of Ship
 Sheer Correction = Difference X $(.75 - \frac{S}{2L}) = 12.05 \times .5483 = 6.607$ dm
 If limited on account of midship superstructure =
 " to maximum allowance of 1 1/2 ins. per 100 ft. =

TABULAR FREEBOARD corrected for flush deck if required = 14.33
 Correction for co-efficient = 1393/136 = 14.68 DRAUGHTS AND SEASONAL CORRECTIONS

	+	-	Setter, Tanker, Steamer	Timber
Depth correction	1.77	-		
Deduction for superstructures		11.11		
Sheer correction	6.61			
Round of Beam correction	.37			
Correction for thickness of deck amidships				
Other corrections, scantlings, etc.	5.68			
	14.43	11.11	3.32	
Summer Freeboard In Inches	1.6		18.06	
Additional allowance for superstructures on Timber carrying ships				
Summer Timber Freeboard in Inches				

Deduction for Tropical and addition for Winter freeboard $d/4 = 2\frac{1}{2}$ ins.
 Addition for Winter North Atlantic (if required) = 4 1/2 ins.
 Deduction for Tropical Timber Freeboard $\frac{d}{4} = -$ ins.
 Addition for Winter " " $\frac{d}{3} = -$ ins.
 " " N.A. Timber Freeboard (if required) = - ins.

X Draught in S.W. Restricted

Form LL. 4.D.

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT
 SURVEY FOR FREEBOARD
 CONDITIONS OF ASSIGNMENT

SHIPS NAME "EMPIRE FACILITY" OFFICIAL NUMBER 180308
 Nationality and Port of Registry BRITISH HULL

23 OCT 1964

PARTICULARS OF SUPERSTRUCTURES, TRUNKS, CASINGS, DECKHOUSES

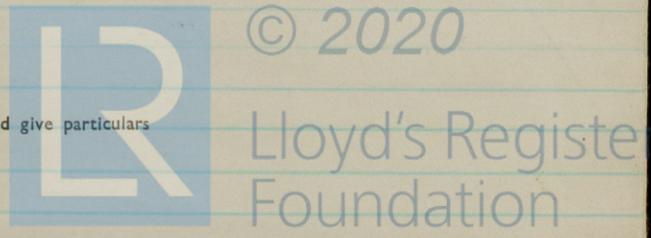
	Coaming	Plating	Stiffeners	Spacing	End Attachments	No. and size of Openings	Height of Sills	Height of Casings
Poop Bulkhead		5/16"	5" x 5/16"	2' 3"	WELDED	2 @ 10" dia.	5' 1"	7' 0"
R.Q.D. "								
Bridge Aft Bulkhead								
" Forward "								
Forecastle Bulkhead		5/16"	3" x 3" 1/4"	2' 0" 2' 6"	WELDED	2 @ 4' 1" x 1' 10"	1' 3"	8' 0"
Trunk, Aft		5/16"	3 1/2" x 5/16"	1' 10"	"			7' 0"
" Forward		5/16"	4" x 5/16"	1' 8"	"			3' 4"
Exposed Machinery Casings on Freeboard or R.Q. Decks								
Exposed Machinery Casings on superstructure decks	5/16"	1/4"	4" x 5/16"	1' 9"	WELDED AT TOP BUT AT BOTTOM			8' 3" 8' 5"
Machinery Casings within Superstructures not fitted with Cl. 1 closing appliances								
Deckhouses on flush deck ships								

PARTICULARS OF CLOSING APPLIANCES (state if capable of being manipulated from both sides)

Poop Bulkhead	
R.Q.D. "	
Bridge Aft Bulkhead	
" Forward "	
Forecastle Bulkhead	STEEL DOORS OPERATED BOTH SIDES.
Exposed Machinery Casings on Freeboard or R.Q. decks	
Exposed Machinery Casings on superstructure decks	
Machinery Casings within superstructures not fitted with Cl. 1 Closing Appliances	
Deck houses on Flush Deck ships	

PARTICULARS OF FREEING ARRANGEMENTS

	Length of Bulwark	Height of Bulwark	No. and size of Freeing Ports each side	Area each side	Rule Area
After Well					
Forward Well					
State fore and aft position and height above deck to bottom of port, for each port					
State whether freeing ports are fitted with shutters, bars or rails, and give particulars					
Give particulars of freeing port area, etc., on superstructure decks					



20 x 14 MANHOLE
BOLTED

MOTOR ROOM CASING

9'-0"

ESCAPE HATCH
20 x 20"

1°

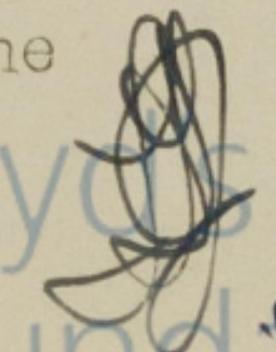
19-5

As this vessel is less than 250'-0" in length
the Freeboard Report has not been compared with the
approved plans.

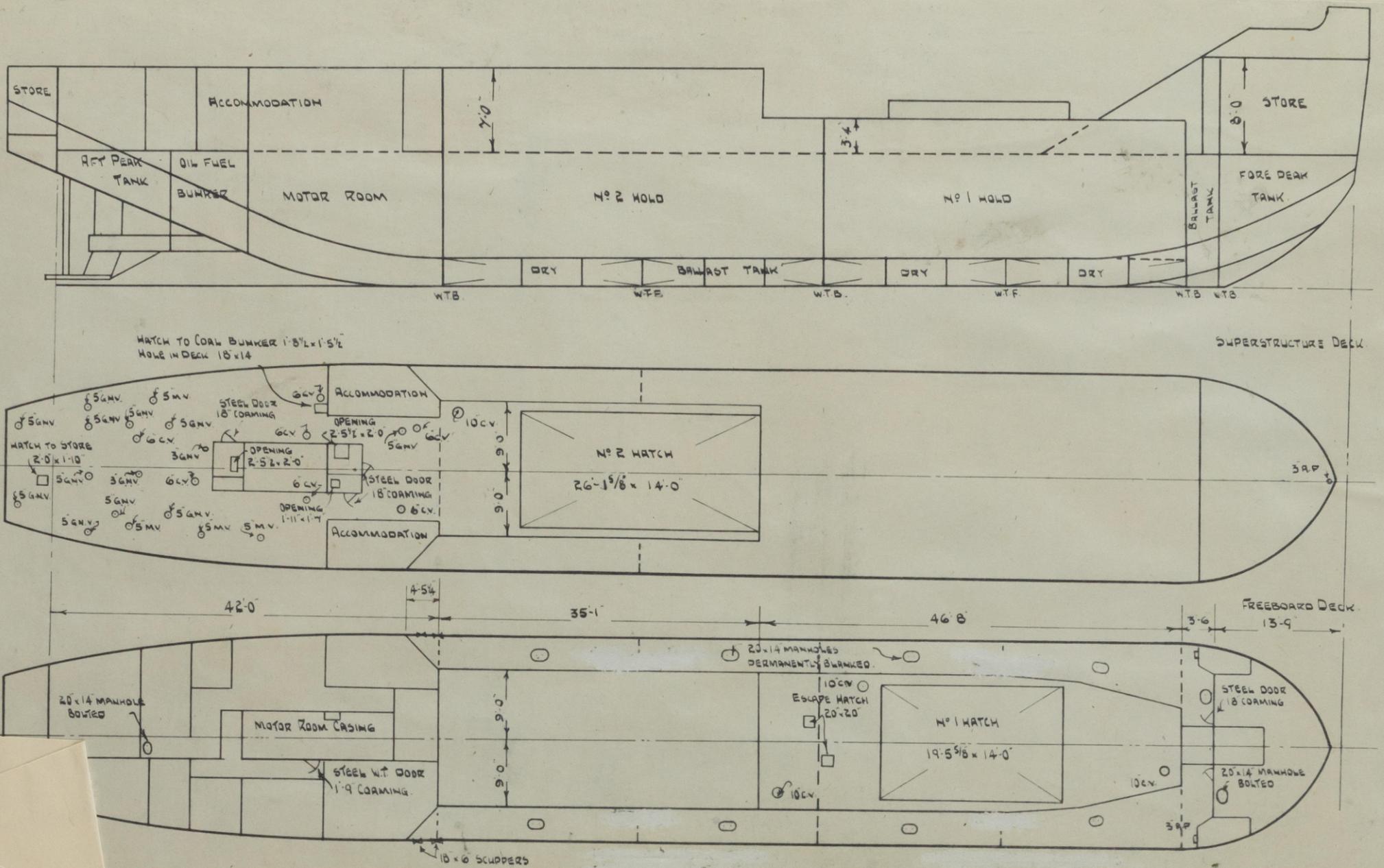
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1 JUN 1950



PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Number and description of Hatchway from forward	UPPER DECK		POOP DECK		HATCH TO AFTER STORE
	Nº 1 HATCH	Nº 1 & 2 HOLD ESCAPE HATCHES	Nº 2 HATCH	HATCH TO GALLEY BUNKER	
Dimensions of Hatchway	19' 11 5/8" x 14' 8 3/4"	1' 8" x 1' 8"	26' 7 5/8" x 14' 8 3/4"	1' 8 1/2" x 1' 5 1/2"	2' 0" x 1' 10"
COAMINGS	Height above steel deck	4' 2" ABOVE OK	7' 10" ABOVE OK	1' 4 1/2"	1' 6"
	Thickness	10" COAMING	10" COAMING	5/16"	5/16"
HATCH BEAMS	Number	2	3		
	Spacing	6' 8"	6' 8"		
FORE AND AFTERS	Bearing Surface and thickness of carriers or sockets	3"	3"		
	Material	WOOD	WOOD	STEEL	WOOD
HATCH COVERS	Thickness	2 7/8"	2 7/8"	5/16"	2 5/8"
	How Fitted	F.E.A.	F.E.A.	1" PACKING	F.E.A.
Number of Tarpaulins	2		2		2 EACH SIDE

Are tarpaulins in good condition and in accordance with rule requirements? YES

Are lashings provided in accordance with rule requirements? YES

Are wood fore and afters steel shod at all bearing surfaces? NONE FITTED

Are battens and wedges efficient and in good condition? YES

