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R621

THE BRITISH CORPORATION REGISTER OF
SHIPPING AND AIRCRAFT

MERSAMATRUH. SURVEY FOR FREEBOARD

STEAMER, TANKER, SAILER: ^{S.M.} ~~EMPIRE~~ SEAFLOWER~~WITH~~ WITHOUT TIMBER DECK CARGO

Nationality BRITISH

Builders' Name and No. of Ship GOOLIE SHIPBUILDING & REPAIRING

Port of Registry GOOLIE

Official Number 180383

Owners FISHER JAMES & SONS LTD. N: 446.

Gross Tonnage 521.99

MARR MELL LONDON & ROCHESTER TRADING CO LTD

Date of Build NOV. 1945

Port and Date of survey HULL DURING CONSTRUCTION

Name of Surveyor E. HENDERSON.

Particulars of Classification BS* (WITH FREEBOARD)

Names of Sister Ships "SHELT" TYPE

Type of Superstructures CLOSED SHUTTER DECK

Trade of Ship

Service Endorsement if any

ALL SEASONS

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (.....wood..... steel)

8' 6 1/2"

TROPICAL FRESH WATER LINE above centre of disc

Corresponding Freeboard

FRESH WATER LINE

2 1/2"

8' 4"

TROPICAL LINE

WINTER LINE

below

WINTER NORTH ATLANTIC LINE

SUMMER TIMBER FREEBOARD recommended amidships from top of deck line

TROPICAL FRESH WATER Timber line above L.S.

Corresponding Freeboard

FRESH WATER

TROPICAL

WINTER

WINTER NORTH ATLANTIC

Number of years recommended for load line certificate

Date of Issue 15.11.45
Date of Expiry 14.11.50

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

Chief Surveyor

Passed at a meeting of the Committee of Management of the British Corporation Register of Shipping and Aircraft

on the 5th December, 1945



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Asst. Secretary

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COMPUTATION OF FREEBOARD

Length on summer load line $140' 4\frac{1}{8}"$ Moulded Breadth $27' 0"$ Moulded Depth $18' 0"$ Depth of Keel $\frac{1}{2}"$
 Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth 1323 Tons
 Co-efficient of fineness for use with tables $\frac{\Delta \times 35}{L \times B \times D \times 85} = .7984$
 Displacement and tons per inch immersion in salt water at summer load line $743 @ 7.9 T.P.I.$
 Moulded depth 18.000 Deduction for Fresh Water $\frac{\Delta}{40T} = 2\frac{1}{2}$ inches
 Stringer Plate $4\frac{1}{2}$ $.021$ Round of Beam Correction $STRAIGHT$ 6
 Sheathing on exposed deck T $(L-S)$ 60 7.29 inches
 Rise of floor (in sailers) $-$ Standard Round of Beam $\frac{B \times 12}{50} = 6.48$
 Depth for Freeboard (D) 18.021 Difference $.81$
 Table Depth 715 9.358 Restricted to
 Depth Correction 6130 8.663 Correction $\frac{\text{Difference}}{4} \times (1 - \frac{E}{L}) = .2025 \times .8842$
 If restricted by superstructures $= 9.3502$ $= .179$ OFF

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)
Poop	32.5					
Raised Quarter Deck						
Bridge	32.5	7.0	32.5	5	16.25	
Forecastle						
Trunk Aft						
Forward						
Tonnage Opening Aft						
Forward						
Totals	32.5				16.25	

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product	Mean Actual sheer aft
A.P.				1		Standard
1/2 L from A.P.				4		Mean Actual sheer forward
1/4 L from A.P.				2		Standard
Amidships				4		Length of enclosed superstructure forward of amidships
1/2 L from F.P.				2		Length of Ship
1/4 L				4		Length of enclosed superstructure aft of amidships
F.P.				1		Length of Ship
				18		Sheer Correction = Difference $\times (75 - \frac{S}{2L}) = 12.02 \times .6342$
Effective Mean Sheer						$= 7.623$ ON
Standard						If limited on account of midship superstructure
Difference						to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

TABULAR FREEBOARD corrected for flush deck if required = $14' 25"$
 Correction for co-efficient = $1.478/136 = 15.49$ DRAUGHTS AND SEASONAL CORRECTIONS

	+	-	Steamer	Timber
Depth correction	9.35			
Deduction for superstructures		33		
Sheer correction	7.62			
Round of Beam correction		18		
Correction for thickness of deck amidships				
Other corrections, scantlings, etc.	70.55			
ALL SEASONS	87.52	51	87.01	
Summer Freeboard in inches	87.62		102.50	
Additional allowance for superstructures on				
Timber carrying ships				
Summer Timber Freeboard in inches				

Form LL. 4.D.

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

SHIPS NAME **EMPIRE SEAFLOWER** OFFICIAL NUMBER **180383**
 Nationality and Port of Registry **BRITISH GOOLE**

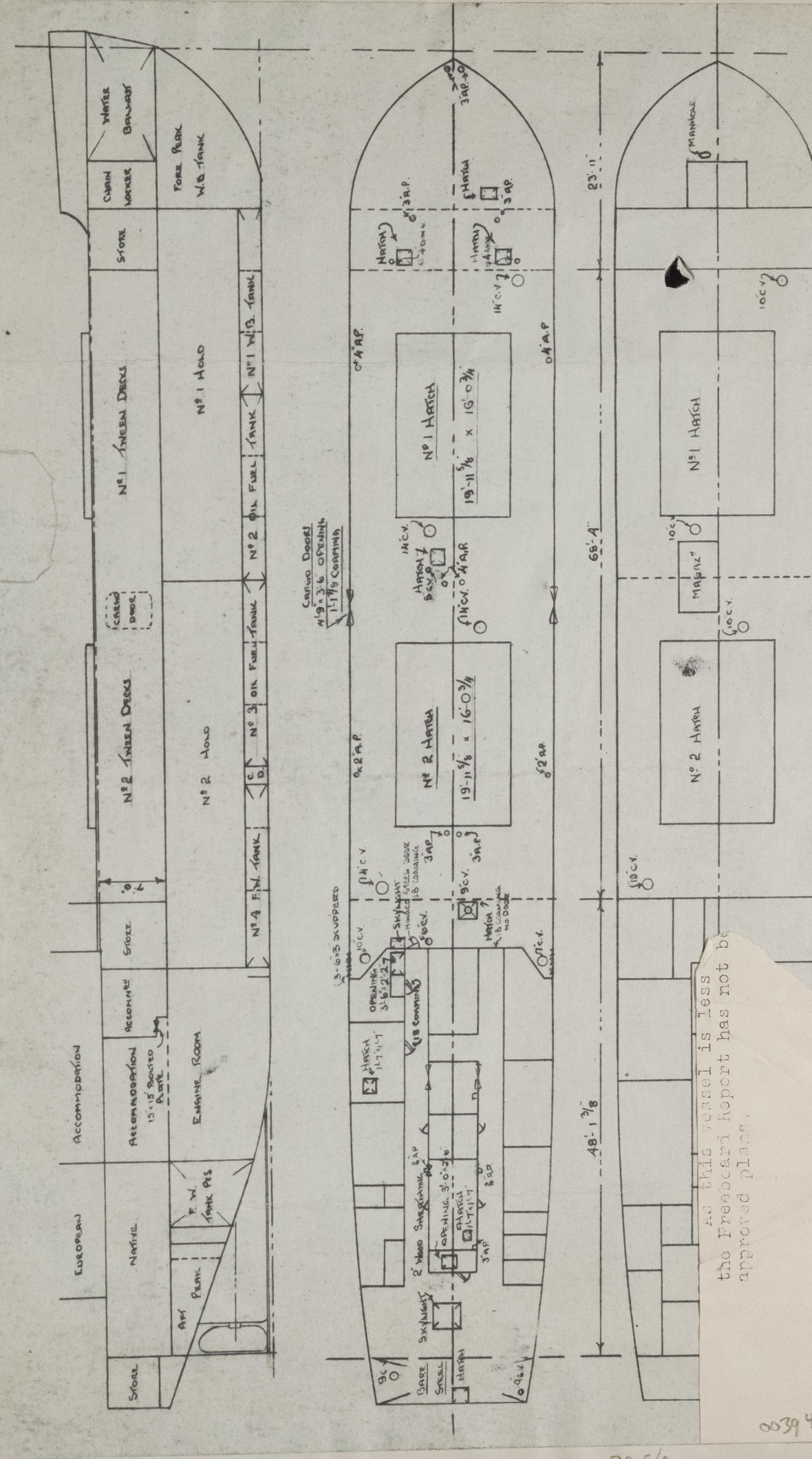
	Coaming	Plating	Stiffeners	Spacing	End Attachments	No. and size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
R.Q.D. "								
Bridge Aft Bulkhead								
Forward "								
Forecastle Bulkhead								
Trunk, Aft								
Forward								
Exposed Machinery Casings on Freeboard or R.Q. Decks	28	25	4" x 3/8"	1'-0"	GUSSET WELDED TOP & BOTTOM	10' 10" x 10" 10' 3' 0" x 2' 7"	1'-6"	7'-6"
Exposed Machinery Casings on superstructure decks								
Machinery Casings within Superstructures not fitted with Cl. 1 closing appliances								
Deckhouses on flush deck ships	28	25	4" x 3/8"	1'-0"	GUSSET WELDED AT TOP	10' 10" x 10" 10' 3' 5" x 2' 2"	1'-6"	7'-3"

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

Poop Bulkhead	
R.Q.D. "	
Bridge Aft Bulkhead	
Forward "	
Forecastle Bulkhead	
Exposed Machinery Casings on Freeboard or R.Q. decks	STEEL DOORS OPERATED BOTH SIDES.
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					



Length on summer load line	140' 4 1/8"	Moulded Breadth	27' 0"	Moulded Depth	18' 0"	Depth of Keel	1/2'
Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth	1323	Tons					
Co-efficient of fineness for use with tables	$\frac{\Delta \times 35}{L \times B \times D \times .85} = .7984$						
Displacement and tons per inch immersion in salt water at summer load line	743 @ 7.9 T.P.I.						
Moulded depth	18.000	Deduction for Fresh Water	$\frac{\Delta}{40 T} = 2 1/2$				inches
Stringer Plate	1/4"	Round of Beam Correction	STANDARD				
Sheathing on exposed deck	$\frac{L-S}{L}$	Ships Round of Beam	FOR 6"				inches
Rise of floor (in sailers)	-	Standard Round of Beam	$\frac{B \times 12}{50}$				
Depth for Freeboard (D)	18.021	Difference	81				
Table Depth	7/15	Restricted to					
Depth Correction	6/130	Correction	$\frac{\text{Difference}}{4} \times \left(1 - \frac{E}{L}\right) = .2025 \times .8842$				
If restricted by superstructures	8.663						
	8.350						

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)	
Poop	70.5	-	7.22	15		70.5	Standard Height of Superstructure 6'0"
Raised Quarter Deck							" " R.Q.D. -
Bridge	196.0	32.6	7'0"	32.5	1.5	16.28	Percentage covered S/L = 23.16 %
		A					" " E/L = 11.58 %
Forecastle						24.93	" from Table line A, B, (corrected for absence of forecastle if required)
Trunk Aft							Percentage from Table by interpolation for Bridge
" Forward							less than .2L if required = 1.67 %
Tonnage Opening Aft							Deduction = 20.04 x .0167 = 33470
" Forward							Percentage from Table for Tankers (or Timber ships)
Totals				32.5		16.25	Deduction =

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product	
A.P.				1	Mean Actual sheer aft	=
					" Standard " "	
$\frac{1}{2}$ L from A.P.				4	Mean Actual sheer forward	=
$\frac{1}{2}$ L from A.P.				2	" Standard " "	
Amidships				4	Length of enclosed superstructure forward of amidships	=
$\frac{1}{2}$ L from F.P.				2	Length of Ship	
$\frac{1}{2}$ L " "				4	Length of enclosed superstructure aft of amidships	=
F.P.				1	Length of Ship	
				18		
Effective Mean Sheer					Sheer Correction = Difference X $(75 - \frac{S}{2L})$	=
Standard " " .05L + S						=
					If limited on account of midship superstructure	=
					" to maximum allowance of $\frac{1}{4}$ ins. per 100 ft.	=

ABULAL FREEBOARD corrected for flush deck if required = 14.25'

Correction for co-efficient = $1.478/36 = 15.49$ DRAUGHTS AND SEASONAL CORRECTIONS

				Sailed, Tanker, Steamer		Timber
Depth correction	9.35	+	-			
Deduction for superstructures	-	33				
Other correction	7.02					
Round of Beam correction						
Correction for thickness of deck amidships		18				
Other corrections, scantlings, etc. (WATCH LOADING ETC.)	70.55					
	87.52	51				
ALL SEASONS						
Summer Freeboard in feet						
Moulded Draught (d)						
Addition for Keel						
Extreme draught						
Deduction for Tropical and addition for Winter freeboard d/4 =						
Addition for Winter North Atlantic (if required)						
Deduction for Tropical Timber Freeboard						
Addition for Winter " " "						
N.A. Timber Freeboard (if required)						

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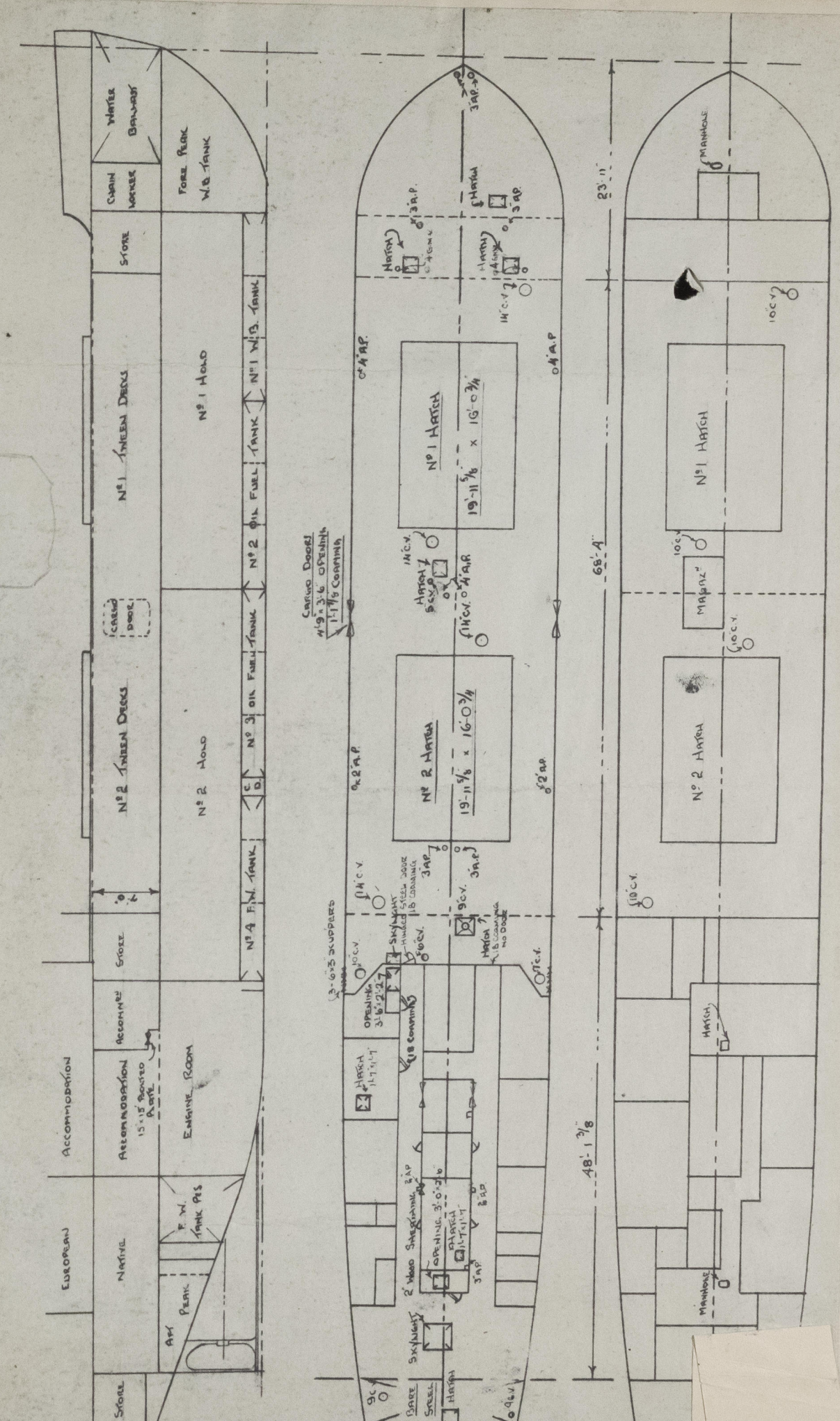
SHIPS NAME	EMPIRE SEAFLOWER	OFFICIAL NUMBER	180383
Nationality and Port of Registry	BRITISH	GOOLE	

	Coaming	Plating	Stiffeners	Spacing	End Attachments	No. and size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
R.Q.D. "								
Bridge Aft Bulkhead								
" Forward "								
Forecastle Bulkhead								
Trunk, Aft								
" Forward								
Exposed Machinery Casings on } Freeboard or R.Q. Decks }	.28	.25	4" x 3/8"	1'-0"	GUSSET WELDED TOP & BOTTOM	1 @ 10" x 10" 1 @ 3'-0" x 2'-7"	1'-6"	7'-6" 7'-5"
Exposed Machinery Casings on } superstructure decks }								
Machinery Casings within Super- structures not fitted with Cl. 1 closing appliances }								
Deckhouses on flush deck ships	.28	.25	4" x 5/16" 3" x 5/16"	1'-0"	GUSSET WELDED AT TOP	1 @ 10" x 10" 1 @ 3'-5" x 2'-2"	1'-6"	7'-3"

Poop Bulkhead R.Q.D. „ Bridge Aft Bulkhead „ Forward „ Forecastle Bulkhead Exposed Machinery Casings on Freeboard or R.Q. decks Exposed Machinery Casings on superstructure decks Machinery Casings within super- structures not fitted with Cl. 1 Closing Appliances Deck houses on Flush Deck ships	STEEL DOORS OPERATED BOTH SIDES.
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	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		<div style="display: flex; justify-content: space-between;"> <div style="border-left: 1px solid black; border-right: 1px solid black; padding: 0 10px;">After Well</div> <div style="border-left: 1px solid black; border-right: 1px solid black; padding: 0 10px;">Forward Well</div> </div>			
State whether freeing ports are fitted with shutters, bars or rails, and give particulars					
Give particulars of freeing port area, etc., on superstructure decks					

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PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Number and description of Hatchway from forward	No. 1 HATCH	No. 2 HATCH	HATCH TO FORE PEAK	HATCH TO FWD. STORE PORT	HATCH TO FWD. STORE STARBOARD	HATCH TO STORE AT FR. 2G	HATCH TO HATCH TO HATCH TO	HATCH TO HATCH TO HATCH TO	HATCH TO HATCH TO HATCH TO
	20'-0" x 16'-0 3/4"	20' x 16'-0 3/4"	2'-5" x 1'-0"	2'-7" x 2'-2 1/2"	2'-7" x 2'-2 1/2"	2'-6" x 2'-6"	2'-1" x 1'-10"	2'-0" x 1'-10"	2'-0" x 1'-10"
Dimensions of Hatchway									
Height of steel deck above wood	10'-3 1/2 BA	10'-3 1/2 BA	2'-0"	2'-0"	2'-0"	1'-6"	1'-6"	1'-6"	1'-6"
Thickness of sides	1/2"	1/2"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Stiffeners	-	-	-	-	-	-	-	-	-
Brackets or Stays	-	-	-	-	-	-	-	-	-
Number	2	2	-	-	-	-	-	-	-
Spacing	6'-8"	6'-8"	-	-	-	-	-	-	-
Scantling and Slew	10" x 6" x 40lb	10" x 6" x 40lb	10" x 6" x 40lb	10" x 6" x 40lb	10" x 6" x 40lb	10" x 6" x 40lb	10" x 6" x 40lb	10" x 6" x 40lb	10" x 6" x 40lb
Bearing Surface and thickness of carriers or sockets	R.S.J.	R.S.J.	-	-	-	-	-	-	-
Number	-	-	-	-	-	-	-	-	-
Spacing	-	-	-	-	-	-	-	-	-
Unsupported lengths	-	-	-	-	-	-	-	-	-
Scantling and Slew	-	-	-	-	-	-	-	-	-
Bearing Surface and thickness of carriers or sockets	WOOD, 2x8	WOOD, 2x8	STEEL 3/8"	STEEL 3/8"	STEEL 3/8"	STEEL 3/8"	STEEL 3/8"	STEEL 3/8"	STEEL 3/8"
Material	F.B.A.	F.B.A.	HINGED WITH HEMP PACKING	HINGED WITH HEMP PACKING	HINGED WITH HEMP PACKING	HINGED WITH HEMP PACKING	HINGED WITH HEMP PACKING	HINGED WITH HEMP PACKING	HINGED WITH HEMP PACKING
Thickness	2 1/2"	2 1/2"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
How Fixed	1-11"	1-11"	SECURED BY BUTTERFLY BOLTS	SECURED BY BUTTERFLY BOLTS	SECURED BY BUTTERFLY BOLTS	SECURED BY BUTTERFLY BOLTS	SECURED BY BUTTERFLY BOLTS	SECURED BY BUTTERFLY BOLTS	SECURED BY BUTTERFLY BOLTS
Bearing Surface	-	-	-	-	-	-	-	-	-
Spacing of Cleats	-	-	-	-	-	-	-	-	-
Number of Tarpaulins	2	2	2	2	2	2	2	2	2

Are Tarpaulins in good condition and in accordance with rule requirements?

Are lashings provided in accordance with rule requirements?

YES

YES

Are wood fore and afters steel shod at all bearing surfaces?

Are battens and wedges efficient and in good condition?

YES

YES

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?	NO
Are battens and wedges efficient and in good condition?	YES

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Give full particulars of the following:—

Fiddle, Funnel and Vent Coamings, Engine Room skylight and other openings in Machinery Casing tops and their means of closing (state height of coamings, type of fiddle covers, and if these are permanently attached in their proper positions)

2- HINGED STEEL FLAPS TO E.R. SKYLT. P.S. 2'-0 1/4" x 2'-5 1/2" NO BULL EYES ON CASING TOP. 8'-0" ABOVE DECK
4- HINGED STEEL GALLEY SKYLIGHT FLAPS P.S. 15" x 10" ON CASING TOP 8'-0" ABOVE DECK.

Flush Bunker Scuttles on freeboard and superstructure decks (state material, type of joints, etc., and if secured by hinge or permanent chain attachment)

NONE.

Companionways on freeboard and superstructure decks (state material, height of doorway sills, type of doors, and if these can be closed and secured from both sides)

ENTRANCE TO OFFICER'S ACCOMM.	18"	COAMING - WOOD DOOR - OPERATED BOTH SIDES
" " ENGINE ROOM	18"	" " STEEL DOORS " " "
" " GALLEY	18"	" " " " " " "

Ventilators in exposed positions on freeboard, raised quarter and superstructure decks to spaces below freeboard decks and fully enclosed superstructures enclosed by Class 1 appliances (state height of steel coamings, pitch of rivets in deck connection, type of closing arrangements)

POOP DECK.

1- 0" COWL VENT PORT	3'-0"	COAMING WELDED TO DECK	TO AFTER STORE				
1- 0" M. VENT STBD	"	" STUDDED TO DECK	" " "				
1- 8" COWL ON. Φ	"	" WELDED " "	EXHAUST FROM ACCOMM.				
1- 8" " VENT STBD	"	" " " "	" FROM MAIN DK.				
1- 10" " " PORT	"	" " " "	" MAIN DK. CABINS				
1- 7" " " STBD.	"	" " " "	" ENGRS CABINS				
1- 0" " " "	"	" " " "	PROVISION STORE HATCH.				
2- 14" " " PORT & STBD.	2'-6"	" " " "	TO NO. 2 HOLD				
1- 14" " " PORT	2'-6"	" " " "	" NO. 1 "				
1- 14" " " STABD	3'-0"	" " " "	" NO. 1 "				

WOOD PLUGS & CANVAS COVERS SUPPLIED.

Airpipes in exposed positions on freeboard, raised quarter and superstructure decks (state height to opening and if satisfactory closing arrangements are provided)

1- 3" G.N. AIRPIPE	ST. SIDE	3'-0" ABOVE POOP DK. WELDED TO DK.	TO AFTER PEAK				
1- 3" " "	P.S.	" " " " " " "	TO NO. 4 D.B. TANK				
1- 3" " "	"	" " " " " " "	- COFFERDAM D.B.				
1- 4" " "	"	" " " " " " "	- NO. 3 D.B. TANK				
1- 4" " "	"	" " " " " " "	- NO. 2 D.B. TANK				
1- 3" " "	"	" " " " " " "	- NO. 1 D.B. TANK				
1- 3" " "	Φ	" " FORE DK STUDDED TO DK	- LOWER FORE PEAK				
1- 3" " "	Φ	" " " " " " "	- UPPER FORE PEAK				

ALL AIR PIPES FITTED WITH PLUGS & CANVAS COVERS.

Scuppers and Sanitary Discharge Pipes (state material, type and number of valves)

PORT	1- 4"	GUNMETAL	BALANCED	CHECK VALVE.
"	1- 1 1/2"	"	"	"
"	1- 4"	"	"	"
"	1- 3 1/2"	"	"	"
STARBD	1- 4"	"	"	"
"	1- 5"	"	"	"

SCUPPERS IN ACCOMMODATION DRAINED INTO ENGINE ROOM BILGES.

Side Scuttles to spaces below freeboard and superstructure decks (state type or pattern, and if permanent or portable deadlights are supplied)

10" DIAM CLEAR GLASS SIDELIGHTS IN POOP SIDES WITH PERMANENT DEADLIGHTS.

Vertical distance of sill of lowest side scuttle below top of freeboard deck at side amidships

Guard Rails on freeboard and superstructure decks (state type and where fitted)

3" x 2 1/2" STANCHIONS FITTED AROUND SIDES & AFTER END OF POOP DECK (RAILS 13' APART)
" x " " " ON SHELTER DECK FROM POOP FRONT TO FORE BULWARK
" x " " " ON BOAT DECK.

Gangways and Lifelines

1/2" STEEL WIRE LIFELINE FROM POOP TO FORECASTLE ON STARBD. SIDE ONLY.
1/2" " " " FITTED AROUND EACH HATCH.

Gangway, Cargo and Coaling Ports in sides of ship

OPENING IN SHELL PORT & STBD. TO TWEEN DECKS 4'-0" x 3'-6" BETWEEN FRAMES 30-31.

SUPPLEMENTARY REQUIREMENTS FOR STEAMER CARRYING TIMBER DECK CARGOES

Do Superstructure and Machinery Casings comply with rules?

Is provision made for protection of steering gear?

Is emergency steering gear provided?

Are efficient sockets and eyes for lashings provided and properly spaced?

State particulars of longitudinal subdivision in double bottom

State particulars of Bulwarks and Rails

Particulars of any Special Features in the construction of the Ship

Endorsement at first survey and at surveys for Renewal of Certificate:—

The fittings and appliances are in accordance with the particulars shown in the form and are in good condition



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