

3/4/42

Form LL. 4.C. Revised

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LLHD. OWNERS ✓

# THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

1888

"FLYING SPITFIRE" SURVEY FOR FREEBOARD

STEAMER, TANKER, SAILER: EXS S EMPIRE BRACKEN TUG GOOLE WITHOUT TIMBER DECK CARGONationality BRITISH Builders' Name and No. of Ship GOOLE SHIPBUILDING &Port of Registry GOOLE GLASGOW REPAIRING CO LTD Nº 372Official Number 168781 Owners MINISTRY OF WAR TRANSPORTGross Tonnage 263 MRS. CLYDE SHIPPING CO LTDDate of Build 4/42 Port and Date of survey GOOLEParticulars of Classification B5K (TOWING PURPOSES) Name of Surveyor ROBERT L. GREIGNames of Sister Ships "Warrior" & "Empire Pine" Gray  
& "Pixie"Type of Superstructures COMBINED BRIDGE & BULKHEAD CASING Flush DeckTrade of Ship TOWING PURPOSES

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>5 1/2"</u>	Corresponding Freeboard <u>0'-10"</u>
FRESH WATER LINE	"	"	<u>2 1/2"</u>	" " <u>1'-1"</u>
TROPICAL LINE	"	"	<u>3"</u>	" " <u>1'-0 1/2"</u>
WINTER LINE	below	"	<u>3"</u>	" " <u>1'-6 1/2"</u>
WINTER NORTH ATLANTIC LINE	"	"	<u>5"</u>	" " <u>1'-8 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

Expiry 15 April 47  
Issue 16 April 42  
123

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

6th May 1942

Secretary

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## COMPUTATION OF FREEBOARD

Length on summer load line  $107'-0"$  Moulded Breadth  $26'-0"$  Moulded Depth  $13'-6"$  Depth of Keel  $7'$   
 Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth  $512$  Tons  
 Co-efficient of fineness for use with tables  $\frac{\Delta \times 35}{L \times B \times D \times .85} = .5614$  (USE .68 MIN.)  
 Displacement and tons per inch immersion in salt water at summer load line  $575 \text{ Tons}$   $5.3 \text{ TON/INCH}$   
 Moulded depth  $13'-6"$   $13.5$  Deduction for Fresh Water  $\frac{\Delta}{40T} = 2.712$  inches  
 Stringer Plate  $.37"$   $.031$  Round of Beam Correction  
 Sheathing on exposed deck T  $\left(\frac{L-S}{L}\right)$  - Ships Round of Beam  $7'$  inches  
 Rise of floor (in sailers) - Standard Round of Beam  $\frac{B \times 12}{50} = 6.24$   
 Depth for Freeboard (D)  $14'-13.5"$   $13.531$  Difference  $.76$   
 Table Depth  $L/15$   $7.133$  Restricted to  
 Depth Correction  $L/130 \times$   $6.398$  Correction  $\frac{\text{Difference}}{4} \times \left(1 - \frac{E}{L}\right) = .19 \text{ off}$   
 If restricted by superstructures  $= 5.266 \text{ on}$

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)
Poop						
Raised Quarter Deck						
Bridge		F				
		A				
Forecastle						
Trunk Aft						
„ Forward						
Tonnage Opening Aft						
„ „ Forward						
Totals						

Standard Height of Superstructure  
 „ „ R.Q.D.  
 Percentage covered S/L =  
 „ „ E/L =  
 „ from Table line A, B, (corrected for absence of forecastle if required)  
 Percentage from Table by interpolation for Bridge  
 less than .2L if required =  
 Deduction = NIL  
 Percentage from Table for Tankers (or Timber ships) =  
 Deduction =

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product
44 A.P.	17'-3"	20.7	44	1	44
24 1/2 L from A.P.	15'-6"	9.21	24	4	96
9 1/2 L from A.P.	14'-2"	2.28	9	2	18
- Amidships	13'-6"	-	-	4	-
4.5 1/2 L from F.P.	13'-9"	11.55	4.5	2	9
19 1/2 L „ „	15'-11 1/2"	18.42	19	4	76
42 F.P.	17'-0"	41.4	42	1	42
			18		285

Mean Actual sheer aft = more than 1  
 „ Standard „ „  
 Mean Actual sheer forward =  
 „ Standard „ „  
 Length of enclosed superstructure forward of amidships =  
 Length of Ship  
 Length of enclosed superstructure aft of amidships =  
 Length of Ship  
 Sheer Correction = Difference  $\times \left(75 - \frac{S}{L}\right) = 5.483 \times .75 = 4.112$

Effective Mean Sheer =  $15.833$   
 Standard „ „ .05L + 5 =  $10.350$   
 Difference =  $5.483$

If limited on account of midship superstructure =  
 „ to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft. = 1.6 off

TABULAR FREEBOARD corrected for flush deck if required = 12.30

Correction for co-efficient =

DRAUGHTS AND SEASONAL CORRECTIONS

	+	-
Depth correction	5.27	
Deduction for superstructures		
Sheer correction		1.60
Round of Beam correction		.19
Correction for thickness of deck amidships		
Other corrections, scantlings, etc.		
	5.27	1.79
		3.48

Summer Freeboard in Inches  $(1.33) = 15.98$   
 Additional allowance for superstructures on  
 Timber carrying ships =  
 Summer Timber Freeboard in inches =

	Sailer, Tanker, Steamer	Timber
Depth to Freeboard Deck in feet	13.531	
Summer Freeboard in feet	1.292	
Moulded Draught (d)	12.239	(d1)
Addition for Keel	.583	
Extreme draught $(12'-9\frac{7}{8}" )$	12.822	
Deduction for Tropical and addition for Winter freeboard $d/43.509$ ins.		
Addition for Winter North Atlantic (if required)	5.509	
Deduction for Tropical Timber Freeboard $\frac{d}{1}$ ins.		
Addition for Winter „ „ $\frac{d}{3}$ ins.		
N.A. Timber Freeboard (if required)		



# THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

SURVEY FOR FREEBOARD

CONDITIONS OF ASSIGNMENT

SHIPS NAME **95 "EMPIRE BRACKEN" (TUG)** OFFICIAL NUMBER **168781**  
 Nationality and Port of Registry **BRITISH. GDDLE.**

## 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	-	-	-	-	-	-	-	-
R.Q.D. "	-	-	-	-	-	-	-	-
Bridge Aft Bulkhead	40"	80"	3" x 3" x 3"	30"	-	-	-	-
" Forward "	-	25"	3" x 2 1/2" x 25"	24"	-	-	-	7'-0"
Forecastle Bulkhead	-	-	-	-	-	-	-	-
Trunk, Aft	-	-	-	-	-	-	-	-
" Forward	-	-	-	-	-	-	-	-
Exposed Machinery Casings on } Freeboard on R.Q. Decks	-	25"	3" x 2 1/2" x 3"	30"	-	2-3'-0" x 2'-0"	24"	5'-6"
Exposed Machinery Casings on } superstructure decks	-	-	-	-	-	-	-	-
Machinery Casings within Super- structures 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	-
Exposed Machinery Casings on } Freeboard on R.Q. decks	STEEL DOORS (HINGED) OPERATED BOTH SIDES.
Exposed Machinery Casings on } superstructure decks	-
Machinery Casings within super- structures 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
<del>After Well</del> FORE PART	107'-0"	3'-0"	4 - 7'-0" x 6"	14 $\frac{1}{2}$	
<del>Forward Well</del>					

	FR.Nos	FR.Nos.	FR.Nos	FR.Nos.
State fore and aft position and height above } deck to bottom of port, for each port	After Well 1-39/43	8" 1-31/35	1-21/25	1-12/16
	Forward Well			

State whether freeing ports are fitted with shutters, bars or rails, and give particulars

NONE

Give particulars of freeing port area, etc., on superstructure decks

NONE

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

24 JUL 1950

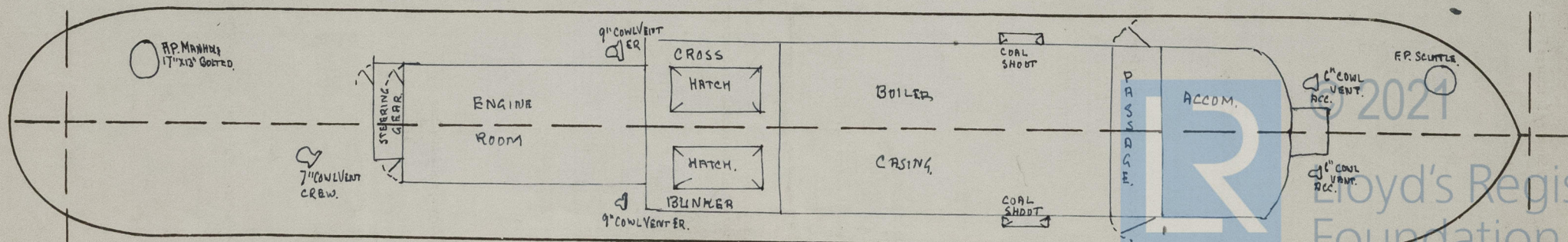
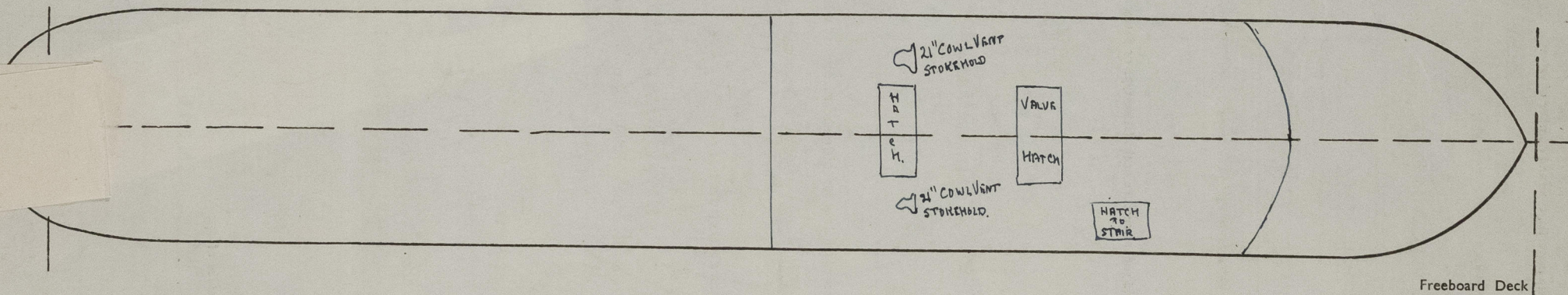
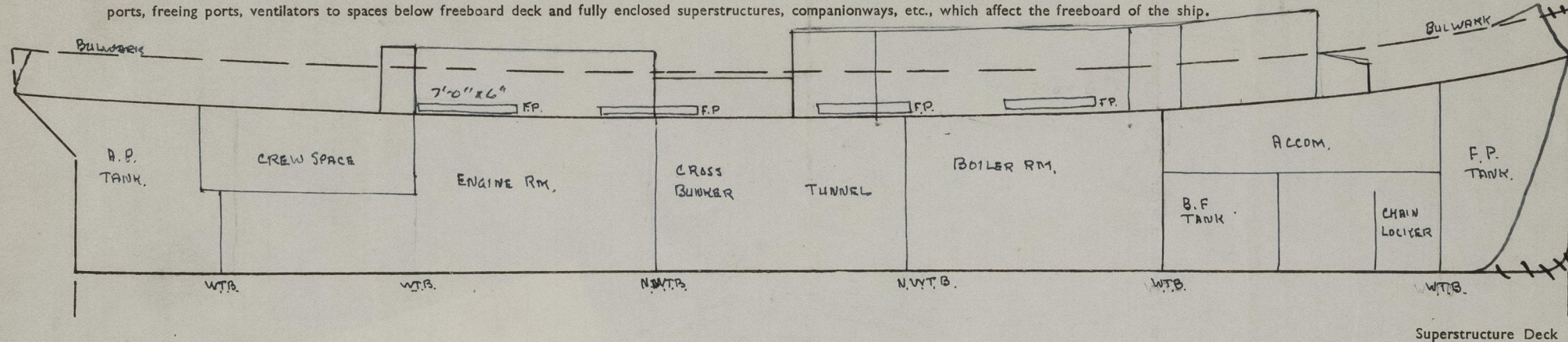
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S.H.

2" COWL VENT  
STOREHOLD.



Position and dimensions of superstructure decks, position of superstructure bulkheads and openings, extent and thickness of wood sheathing in wells, position of cargo and coaling hatchways, gangway, cargo and coaling ports, freeing ports, ventilators to spaces below freeboard deck and fully enclosed superstructures, companionways, etc., which affect the freeboard of the ship.





## PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Number and description of Hatchway from forward		PORT & STAR.	PORT & STAR.										
Dimensions of Hatchway		SIDE BUNKERS	CROSS BUNKER.										
COAMINGS	Height } steel { deck	3'-6" X 1'-9"	8'-6" X 5'-3"										
	above } <del>wood</del> {	24"	3' 9"										
	Thickness { sides	.3"	.38"										
	ends												
HATCH BEAMS	Stiffeners	—	3" X 2 1/2" X .25										
	Brackets or Stays	—	26" SPACING										
	Number	—	—										
	Spacing	—	—										
FORE AND AFTERS	Scantling and Sketch	—	—										
	Bearing Surface and thickness of carriers or sockets	—	—										
	Number	—	—										
	Spacing	—	—										
HATCH COVERS	Unsuported lengths	—	—										
	Scantling and Sketch	—	—										
	Bearing Surface and thickness of carriers or sockets	—	—										
	Material	W. PINE	W. PINE										
HATCH COVERS	Thickness	3"	3"										
	How Fitted	F. & A.	THWARTSHIPS										
	Bearing Surface	2 1/2"	2 1/2"										
	Spacing of Cleats	24"	24"										
Number of Tarpaulins		2	2										

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? —

Are battens and wedges efficient and in good condition? YES.



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Give full particulars of the following :—

Fiddley, 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 fiddley covers, and if these are permanently attached in their proper positions)

	HEIGHT	OPENINGS	CLOSING ARRGS
FIDDLEY	7'-0"	4'-6" x 1'-6"	HINGED STEEL COVERS WITH FASTENING.
ER CASING	5'-6"	6'-6" x 3'-3" 5'-9" x 5'-0"	BOLTED PLATE

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)

	MATERIAL	HEIGHT OF SILL	OPERATED
UPPER DECK	STEEL	2'-4"	LOCKS BOTH SIDES.
"	STEEL	9"	BUTTERFLY NUTS. SCUTTLE TO F.P. TANK
"	"	9"	BOLTED MANHOLE TO APTANK.
BRIDGE	TEAK	4"	LOCKS BOTH SIDES TO PASSAGE.

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)

		COAMING HEIGHT	PITCH OF RIVETS	TYPE OF CLOSING
BRIDGE DECK	2- STOREHOLD	3'-9"	3"	
UPPER DECK	2-6" ACCUM FORD	3'-1"	3"	WOOD PLUGS & CANVAS COVERS
	2-9" ER.	3'-0"	3"	" " " "
	1-7" CREW AFT.	3'-1"	3"	" " " "

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

		HEIGHT	CLOSING ARRGS.
UPPER DECK	FORE PEAK	2'-6"	WOOD PLUGS
	AFT PEAK	2'-6"	" "



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

	<u>MATERIAL</u>	<u>TYPE</u>	<u>Nº OF VALVES</u>
PORT	GUNMETAL	CLACK VALVE	1 - 1 1/2" STORM VALVE FROM BASIN & GALLEY SCUPPERS
	"	"	1 - 1 1/4" " " " "
STAR.	GUNMETAL	"	2 - 4" SOIL PIPES CONTROLLED FROM DK. 1 - 1 1/2" STORM VALVE FROM BASIN.

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

<u>ACCOMMODATION</u> (UPPER DECK)	<u>TYPE</u>	<u>DEADLIGHTS</u>	
		YES	HINGED
ER. CASING	10" BRASS HINGED	"	"

NONE ON SHELL PLATING BELOW UPPER DECK

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

NONE

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

UPPER DECK BULWARKS.  
BRIDGE DECK. AFT STANCHIONS & TWO RAILS.

Gangways and Lifelines

GANGWAYS NONE  
STORM RAILS ROUND CASINGS.

Gangway, Cargo and Coaling Ports in sides of ship

NONE.



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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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