

8/2/43

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1952.

Form LL. 4.C. Revised

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

SURVEY FOR FREEBOARD

"*ESSEX GENESEE*"

~~STEAMER~~, TANKER, ~~SAILER~~ **EMPIRE HARBOUR** ~~WITHOUT~~ **TIMBER DECK CARGO**

Nationality **BRITISH** Builders' Name and No. of Ship **GRANGEMOUTH DRYD CO. LTD. NO 446.**

Port of Registry **GRANGEMOUTH.** Owners **Ministry of War Transport.**

Official Number **169098.** **F.T. EVERARD & SONS LTD 68 Finchburgh St^{OS} (Managers)**

Gross Tonnage **797.46.** Port and Date of survey **Grangemouth. DURING CONSTRUCTION**

Date of Build **28.4.43** Name of Surveyor **R. H. Hunter**

Particulars of Classification **BS. Bulk Oil Carrier.** Names of Sister Ships **Emp. Arthur, Gaurain, Damsel.**

Type of Superstructures **Pods & Forecastle.**

Trade of Ship **—**

Service Endorsement if any **—**

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (..... wood..... steel)			TANKER
TROPICAL FRESH WATER LINE above centre of disc	6 1/2"	Corresponding Freeboard	0'-11 1/2"
FRESH WATER LINE " " "	3 1/2"	" "	0'-5"
TROPICAL LINE " " "	3"	" "	0'-8"
WINTER LINE below " "	3"	" "	1'-2 1/2"
WINTER NORTH ATLANTIC LINE " " "	5"	" "	1'-4 1/2"

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

Number of years recommended for load line certificate

June 28-4-43
July 27-4-43
D.L. Endorsement

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 *3rd March 1943*

[Signature] Secretary

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COMPUTATION OF FREEBOARD

Length on summer load line $190'-0"$ Moulded Breadth $30'-6"$ Moulded Depth $13'-11\frac{7}{8}"$ Depth of Keel $.48$
 Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth 1387 Tons
 Co-efficient of fineness for use with tables $\frac{\Delta \times 35}{L \times B \times D \times .85} = .7047$

Displacement and tons per inch immersion in salt water at summer load line $1556 @ 11.40 T.P.I.$
 Moulded depth 13.990 Deduction for Fresh Water $\frac{\Delta}{40T} = 3\frac{1}{2}"$ inches
 Stringer Plate $.40$ $.033$ Round of Beam Correction
 Sheathing on exposed deck T $\left(\frac{L-S}{L}\right)$ - Ships Round of Beam 7.5 inches
 Rise of floor (in sailers) - Standard Round of Beam $\frac{B \times 12}{50} = 7.32$
 Depth for Freeboard (D) 14.023 Difference $.18$
 Table Depth $\frac{1}{15}$ 12.667 Restricted to
 Depth Correction $\frac{1}{130} \times$ 1.356 Correction $\frac{\text{Difference}}{4} \times \left(1 - \frac{S_1}{L}\right) = .045 \times 2948$
 If restricted by superstructures $= 1.987 \text{ on } (1.987) = .01 \text{ off.}$

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)
Poop	$67'-8\frac{1}{4}"$	-	$7'-6"$	65.81		67.06
Raised Quarter Deck	$65'-9\frac{3}{4}"$	-				
Bridge	-	F				
	-	A				
Forecastle	$20'-8\frac{1}{4}"$	-	$6'-10"$	20.69		20.69
Trunk Aft						
„ Forward	$101'-7\frac{1}{2}"$	-	$3'-6"$	$\frac{3.5 \times 14.25}{6 \times 30.5}$		27.70
Tonnage Opening Aft						
„ „ Forward						
Totals				86.50		115.45

Standard Height of Superstructure $6'-0"$
 „ „ R.Q.D. -
 Percentage covered S/L = 45.525%
 „ „ E/L = 60.76%
 „ 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 = 52.836
 Percentage from Table for Tankers (or Timber ships) = 7
 Deduction = $25 \times 52.836 = 13.21 \text{ off}$

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product
A.P.	$29\frac{1}{16}$	29.0	29.06	1	29.06
$\frac{1}{2}$ L from A.P.	$10\frac{7}{16}$	12.91	10.44	4	41.76
$\frac{1}{2}$ L from A.P.	-	3.19	-	2	-
Amidships	-	-	-	4	-
$\frac{1}{2}$ L from F.P.	-	6.38	-	2	-
$\frac{1}{2}$ L „ „	$23\frac{3}{8}$	25.81	23.38	4	93.52
F.P.	$57\frac{1}{2}$	58.0	57.50	1	57.50
				18	221.84
Effective Mean Sheer					12.324
Standard „ „ .05L + 5					14.500
Difference					2.176

$S_1 = \frac{47.49}{133.99} = 70.52\%$
 Mean Actual sheer aft = LESS 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 $\times \left(.75 - \frac{S}{2L}\right) = 2.176 \times 52.24 = 1.14 \text{ on.}$
 If limited on account of midship superstructure = -
 „ to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. = -

TABULAR FREEBOARD corrected for flush deck if required = 21.5
 Correction for co-efficient = $\frac{1.3847}{1.36} \times = 21.89$

DRAUGHTS AND SEASONAL CORRECTIONS

	+	-	Sailor, Tanker, Steamer	Timber
Depth correction	1.98	-		
Deduction for superstructures	-	13.21		
Sheer correction	1.14	-		
Round of Beam correction	-	$.01$		
Correction for thickness of deck amidships	-	-		
Other corrections, scantlings, etc.				
	3.12	13.22		
Summer Freeboard in Inches $S = 0'-11\frac{1}{2}" = 11.79$			Depth to Freeboard Deck in feet 14.023	
Additional allowance for superstructures on Timber carrying ships = -			Summer Freeboard in feet $.958$	
Summer Timber Freeboard in inches = -			Moulded Draught (d) 13.065	(d1)
			Addition for Keel $.040$	
			Extreme draught $13'-1\frac{3}{16}"$ 13.105	
			Deduction for Tropical and addition for Winter freeboard $d/4 = 3.266$ ins.	
			Addition for Winter North Atlantic (if required) $.5166$ ins.	
			Deduction for Tropical Timber Freeboard $\frac{d}{1} =$ ins.	
			Addition for Winter „ „ $\frac{d}{3} =$ ins.	
			„ „ N.A. Timber Freeboard (if required) = ins.	

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

SURVEY FOR FREEBOARD

CONDITIONS OF ASSIGNMENT

SHIPS NAME *EMPIRE HARBOUR*,

OFFICIAL NUMBER *169098*

Nationality and Port of Registry *BRITISH GRANGE MOUTH*

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	-	<i>30</i>	<i>7" x 3" x 380A</i>	<i>30"</i>	<i>B&G</i>	-	-	<i>7'6"</i>
R.Q.D. "								
Bridge Aft Bulkhead								
" Forward "								
Forecastle Bulkhead	-	<i>28"</i>	<i>3" x 2 1/2" x 280A</i>	<i>27"</i>	-	<i>2 @ 46" x 26"</i>	<i>15"</i>	<i>6'10"</i>
Trunk, Aft								
" Forward		<i>28"</i>						
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								
Deckhouses on flush deck ships								

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

Poop Bulkhead	<i>No openings</i>
R.Q.D. "	-
Bridge Aft Bulkhead	-
" Forward "	-
Forecastle Bulkhead	<i>12" T. Hinged Steel Door.</i>
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

} After Well

} Forward Well

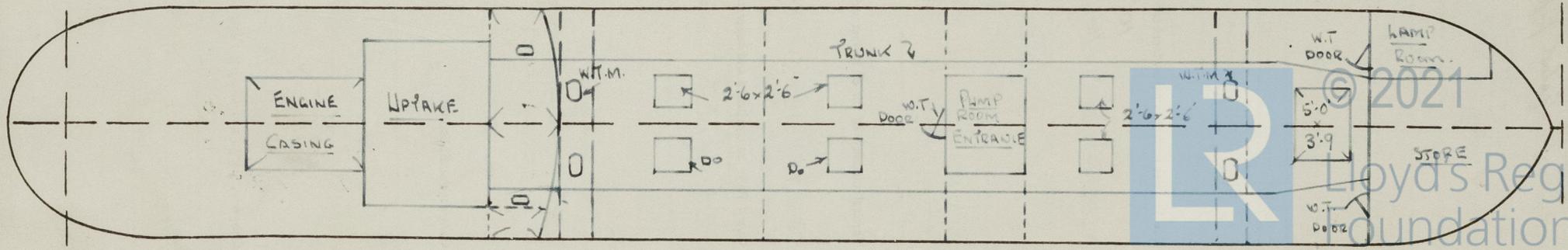
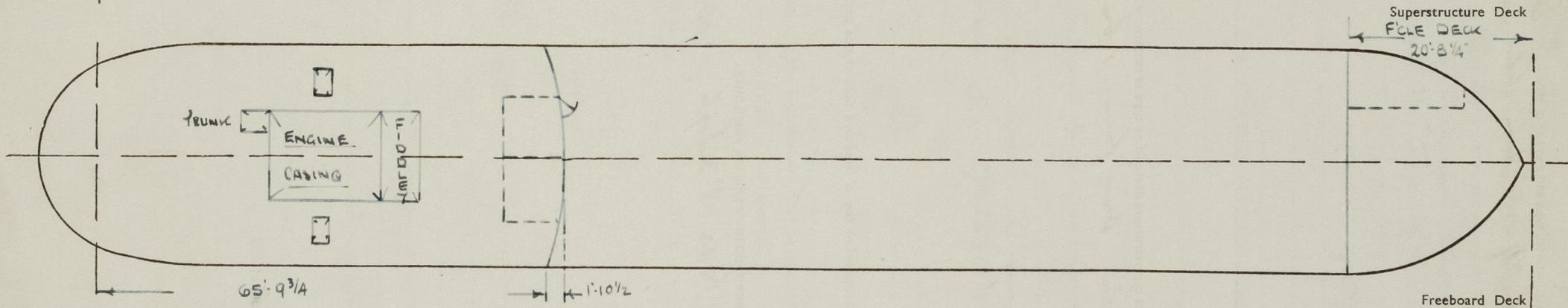
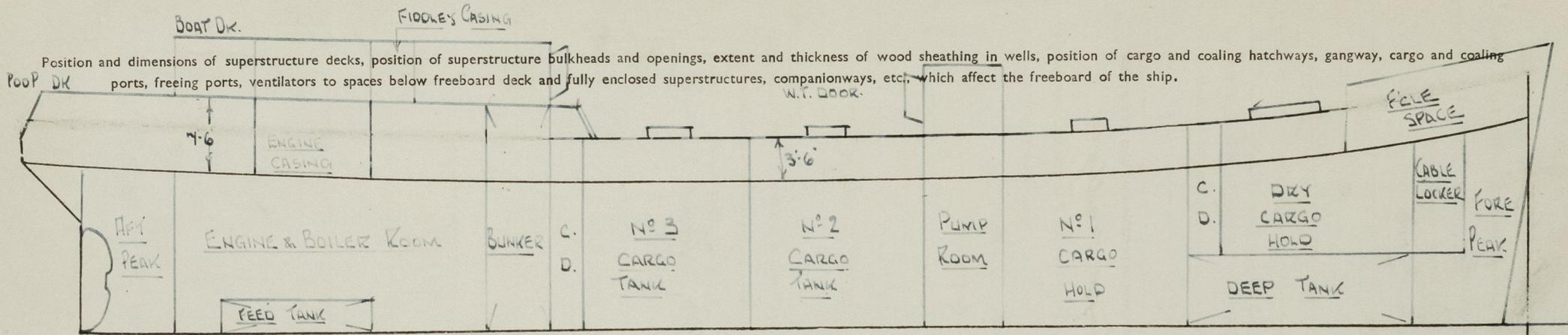
State whether freeing ports are fitted with shutters, bars or rails, and give particulars

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

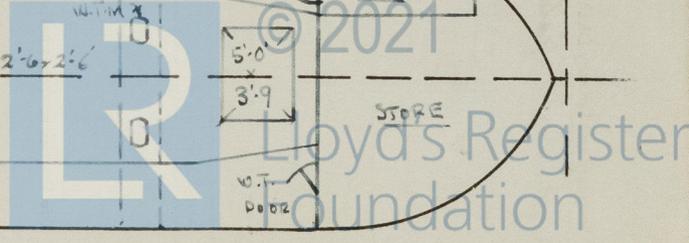


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PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

		RBS										
Number and description of Hatchway from forward		Cargo Hold.	61 Tank	11 ⁰² Tank	703 Tank							
Dimensions of Hatchway		5'0" x 3'9"	2'6" x 2'6"	-	-							
COAMINGS	Height above steel wood deck	9"	9	-	-							
	Thickness sides ends	9" x 3" x 3/8" BA	9" x 3" x 3/8" BA	-	-							
	Stiffeners			-	-							
Brackets or Stays												
HATCH BEAMS	Number											
	Spacing											
	Scantling and Sketch											
Bearing Surface and thickness of carriers or sockets												
FORE AND AFTERS	Number											
	Spacing											
	Unsupported lengths											
	Scantling and Sketch											
Bearing Surface and thickness of carriers or sockets												
HATCH COVERS	Material	3/8 Steel	-	-	-							
	Thickness	Cover secured	-	-	-							
	How Fitted	by 8 toggles	-	-	-							
	Bearing Surface	2" which act	-	-	-							
Spacing of Cleats		as hinges	-	-	-							
Number of Tarpaulins												

815

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

Are lashings provided in accordance with rule requirements?

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

Are battens and wedges efficient and in good condition?



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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)

Eng. Room Skylight: 12' Coaming. Hinged Steel Covers operated by Quadrants.

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

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)

N.T. Hinged Steel Doors to pump Room & Bridge Space aft. Operate both sides.

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)

Vents to Acc. in Bridge Deck Space 6" dia. 18" x 30 coaming welded to deck.

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

F.R.	18"	18"	Wood Plug
A.P.	"	"	" "
Offenders.	48"	24"	" "

Air pipes to cargo tanks in Common Main with relief Valve and led to mast.



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

Sanitary Discharge

Galad pipes with Brass down valves.

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

10' dia Brass frames & brass hinged deadlights
10 " " " " " "

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 Rods 3'3 high - upper on Trunk & Tiste

Gangways and Lifelines

Gangway, Cargo and Coaling Ports in sides of ship



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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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