

Liverpool
23rd June 1

Copy sent to B. O. T. on 21 APR. 1932

LL. 4.C.

THE BRITISH CORPORATION REGISTER OF
SHIPPING AND AIRCRAFT

327

Completi

SURVEY FOR FREEBOARD

STEAMER, TANKER , SAILER:	CELTIC MONARCH		S.S.	WITH WITHOUT	TIMBER DECK CARGO
Nationality	British		Builders' Name and No. of Ship D. W. Henderson & Co. Ltd		
Port of Registry	Glasgow.		N ^o 837.		
Official Number	160233		Owners Monarch Steamship Co. Ltd.		
Gross Tonnage	5808 5824 6012 ltc 161449		Port and Date of Survey Barry Dock 12-7-32		
Date of Build	1/1929		Name of Surveyor Joseph Ballant		
Particulars of Classification	B.S.*		Names of Sister Ships		

Type of Superstructures *Post, Bridge and Forecastle*

Give full particulars of the following :—

Fiddley and Funnel Coamings (state height of coamings, type of fiddley covers, and if these are permanently attached in their proper positions)

on casing top.
No. 1. Lorry coaming with hinges and plates
No. 2. General coaming

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)

None

Ventilators in exposed positions on freeboard, raised quarter and superstructure decks (state height of steel coamings, pitch of rivets in deck connection, type of closing arrangements) In wells 36", on deck 15", on roof 18", on bridge 30" x 10"

with self plug & canvas cover; mesh & bolts spaced $3\frac{1}{2}$.

Airpipes in exposed positions on freeboard, raised quarter and superstructure decks (state height to opening and if satisfactory closing arrangements are provided), *on fore deck 15", on poop deck 18", on bridge deck 29", in wells 34"*

all have wood plugs & canvas covers

Scuppers and Sanitary Discharge Pipes (state material, type and number of valves) Scupper and sanitary discharge pipes are all leaded.

~~of bottom~~ - 3 muffs earth nls from board cut in bridge & each side of road at day
then held 3' 4" below ground level with each cable & set pipe. Set filter in
holes near 3' earth nl discharge above floor deck. 1' earth nl 5' below that d/c. Soil
types & earth values, in 1' only. One earth nl distance 5' below ground level
& remainder 18" above that deck. Each discharge has one stand valve & steel
pipe.

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

9. Stele nr 9" dia + lungel de alieft
1. Bridge " 10" " + lungel de alieft

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

3 red type, 3' 6" high.

light
light

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COMPUTATION OF FREEBOARD.

Length on summer load line 429.25 Moulded Breadth 56' Moulded Depth 30'-6" Depth of Keel 2 1/4' per Δ curves
 Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth 13870 Tons
 Co-efficient of fineness for use with tables $\frac{\Delta \times 35}{L \times B \times D \times .85} = .719$ (T.C. 76)
 Displacement and tons per inch immersion in salt water at summer load line 13010 $\div 48$ TPI
 Moulded depth 30.5
 Stringer Plate .64 = .053
 Sheathing on exposed deck T $\left(\frac{L-S}{L}\right)$ = -
 Rise of floor (in sailers) = -
 Depth for Freeboard (D) 30.553
 Table Depth 28.617
 Depth Correction 3 \times 1.936 = 5.808
 If restricted by superstructures

Deduction for Fresh Water $\frac{\Delta}{40 T} = \frac{13010}{40 \times 13870} = .6776 = .6776$ inches
 Round of Beam Correction
 Ships Round of Beam 14 inches
 Standard Round of Beam $\frac{B \times 12}{50} = \frac{56 \times 12}{50} = 13.44$
 Difference .56
 Restricted to
 Correction $\frac{\text{Difference}}{4} \times \left(1 - \frac{E}{L}\right) = \frac{.56}{4} \times \left(1 - \frac{7.5}{429.25}\right) = .14 \times .464 = .06493$

	Enclosed Length	Length of Overhang	Height	Mean Covered Length (S)	Height Correction	Effective Length (E)	Standard Height of Superstructure
Poop	49.87	.3	8'	50.17		50.02	7.5'
Raised Quarter Deck							R.Q.D.
Bridge	133	F 2.33 A .83	8'	136.16		134.79	Percentage covered S/L = 54.17 E/L = 53.6
Forecastle	46.29	7.5 overhang	8'	46.21		45.78	from Table line A, B, (corrected for absence of forecastle if required) 39.6
Trunk Aft	45.71						Percentage from Table by interpolation for Bridge less than .2L if required =
Forward							Deduction = 42 \times .396 = 16.632
Tonnage Opening Aft							Percentage from Table for Tankers (or Timber ships) =
Forward							Deduction =
Totals				232.54		230.09	

Station	Actual Sheer	Standard Sheer	Effective Sheer	S.M.	Product	Mean Actual sheer aft
A.P.	57	52.92	57	1	57	" Standard " "
1/4 L from A.P.	23	23.53	23	4	92	Mean Actual sheer forward
1/4 L from A.P.	55	5.82	5.5	2	11	" Standard " "
Amidships	0	0	0	4	0	Length of enclosed superstructure forward of amidships = over .1L
1/4 L from F.P.	13	11.64	13	2	26	Length of Ship
1/4 L	52	47.10	52	4	208	Length of enclosed superstructure aft of amidships
F.P.	108	105.85	108	1	108	Length of Ship
				18	502	Sheer Correction = Difference $\times \left(75 - \frac{S}{2L}\right) = 1.426 \times .47915 = .683$
Effective Mean Sheer					27.988	if limited on account of midship superstructure
Standard " " .05L + 5					26.462	to maximum allowance of 1 1/2 ins. per 100 ft.
Difference					1.426	

TABULAR FREEBOARD 80.667
 Correction for co-efficient = 1.459 \times 1.459 \times 80.667 = 86.54

	+	-		
Depth correction	5.81		Depth to Freeboard Deck in feet	30.553
Deduction for superstructures		16.63	Summer Freeboard in feet	6.248
Sheer correction		.68	Moulded Draught (d)	24.305 = 24.358 (d1.)
Round of Beam correction		.06	Addition for Keel	2 1/4"
Correction for thickness of deck amidships			Extreme draught	24.568
Other corrections, scantlings, etc.			Deduction for Tropical and addition for Winter freeboard $d/4 = 6.076$ ins.	
Summer Freeboard in inches			Addition for Winter North Atlantic (if required)	
Additional allowance for superstructures on Timber carrying ships			Deduction for Tropical Timber Freeboard $\frac{d}{4} = 6.076$ ins.	
Summer Timber Freeboard in inches			Addition for Winter " " $\frac{d}{3} = 8.101$ ins.	
			" " N.A. Timber Freeboard (if required)	

assigned 20/7/32

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (— wood — .64 steel)

TROPICAL FRESH WATER LINE above centre of disc 12 1/2"

Corresponding Freeboard

FRESH WATER LINE " " " 6 1/2"

TROPICAL LINE " " " 6'

WINTER LINE below " " " 6'

WINTER NORTH ATLANTIC LINE " " " —

6'-3"
5'-2 1/2"
5'-8 1/2"
5'-9"
6'-9"

+1/2
-1/2
+1/2

SUMMER TIMBER FREEBOARD recommended amidships from centre of disc to top of deck line

TROPICAL FRESH WATER Timber line above centre of disc

Corresponding Freeboard

FRESH WATER " " " " "

TROPICAL " " " " "

WINTER " " below " " "

WINTER NORTH ATLANTIC " " " " "

	Coaming	Plating	Stiffeners	Spacing	End Attachments	No. and size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	.4"	.38"	6 x 30 x .46"	30"	lugged top	1 @ 5' x 4'	20"	—
R.Q.D. "	—	—	—	—	—	—	—	—
Bridge Aft Bulkhead	—	.4"	4 1/2 x 30 x .32"	36"	overlap boundary	2 @ 4'-6" x 3'-1"	21"	—
" Forward "	.44"	.44"	9 x 30 x .44 BA	30"	lugged top	2 @ 5' x 3'-1"	18"	—
Forecastle Bulkhead	.3"	.3"	3 x 2 1/2 x .25"	30"	new	4 @ 4'-9" x 2'	19"	—
Trunk, Aft	—	—	—	—	—	—	—	—
" Forward	—	—	—	—	—	—	—	—
Exposed Machinery Casings on Freeboard or R.Q. Decks	—	—	—	—	—	—	—	—
Exposed Machinery Casings on superstructure decks	.4"	.3"	3 x 2 1/2 x .25"	28"	Blubs at top	2 each side 5' x 2'	18"	7'-6"
Machinery Casings within Superstructures not fitted with Cl. 1. closing appliances	.3"	.25"	3 x 2 1/2 x .25"	28"	riveted to beam at top	2 each side 5'-2" @ 3'-6" x 3'	18" 42"	8'-0"
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 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



Weather boards full height in channels riveted to shell

Weather boards full height in channels riveted to shell
2 Hinged Steel Doors, operated outside only
Open inwards & tight strong deck doors, manipulated each side

Hinged Steel door operated each side

Hinged Steel doors operated each side, one operated outside of
casings only

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	96'-8 1/2"	4'-6"	5 @ 3'-6" x 1'-4" 	21.36	17.37
Forward Well	99'-8 1/2"	4'-6"	6 @ 3'-6" x 1'-4" 	25.56	19.97
State fore and aft position and height above deck to bottom of port, for each port	After Well 16' x 13", 32' x 13", 49' x 15", 64' x 15", 81' x 17" above deck Forward Well 17' x 13", 29' x 13", 44' x 14", 63' x 15", 74' x 15", 85' x 15" above deck				

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

guard bar fitted horizontally

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

no freeing ports, open rails aft.

Steel doors hinged at top & 1

Bulkheads on sides & ends of bridge deck 3'-6" high

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PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Number and description of Hatchway from forward		1	2	3	3	4	5	6	7	on upper D.
Dimensions of Hatchway		upper D. 30' 4" x 20' ✓	upper D. 32' 8" x 20' ✓	Bridge D. 16' 4" x 20' ✓	upper D. 18' 8" x 20' ✓	upper D. 35' x 20' ✓	upper D. 28' x 20' ✓	Poof D. 14' 6" x 10'	Poof D. 4' x 5'	in Poof 4' x 4'
COAMINGS	Height above steel { deck	3' 6" ✓	3' 6" ✓	2' 6" ✓	2' 6" ✓	3' 6" ✓	3' 6" ✓	2' 6"	2' 6"	10'
	Thickness { sides ends	.44 ✓	.44 ✓	.44 ✓	.44 ✓	.44 ✓	.44 ✓	.4"	.4"	10' 10' x 3 1/2' x 3'
	Stiffeners	13 x 7" x 3" x 4" under ends	13 x 7" x 3" x 4" under ends	13 x 7" x 3" x 4" under ends	13 x 7" x 3" x 4" under ends	13 x 7" x 3" x 4" under ends	13 x 7" x 3" x 4" under ends	none	none	—
	Brackets or Stays	2 each side 13 x 6" x 3" x 35"	2 each side 13 x 6" x 3" x 35"	none	As 3	2 each side 13 x 6" x 3" x 35"	2 each side 13 x 6" x 3" x 35"	none	none	—
HATCH BEAMS	Number	6 ✓	6 ✓	3 ✓	3 ✓	3 3	5 ✓			
	Spacing	4' 4 7/8" ✓	4' 8 7/8" ✓	4' 2 1/2" ✓	4' 9 1/2" ✓	4' 1 3/4" 4' 8 3/4"	4' 9" ✓			
	Scantling and Sketch	7" 4 x 3" x 44" 16 x 36" ✓	7" 18 x 36" ✓	7" 4 x 3" x 44" 16 x 34" 13" ✓	7" 18 x 34" ✓	7" 4 x 3" x 44" 16 x 34" 18 x 34" ✓	as N:3 upper ✓	None	None	—
	Bearing Surface and thickness of carriers or sockets	3" x 3" x 5" Double angle	As No 1	As No 1	As No 1	As No 1	As No 1			
FORE AND AFTERS	Number							5 ✓		
	Spacing							3" x 3" x 4" 7" 12" x 36" ✓		
	Unsupported lengths							14' ✓		
	Scantling and Sketch	None		None		None		None	None	—
HATCH COVERS	Bearing Surface and thickness of carriers or sockets							2 x 3" x 3" x 5" ✓		
	Material	W. L. W. Wood	W. L. W.	W. L. W.	W. L. W.	W. L. W.	W. L. W.	W. L. W.	W. L. W.	W. L. W.
	Thickness	3" ✓	3" ✓	3" ✓	3" ✓	3" ✓	3" ✓	3" ✓	3" ✓	3" ✓
	How Fitted	F + A ✓	F + A ✓	F + A ✓	F + A ✓	F + A ✓	F + A ✓	Shwarstrops	Shwarstrops	Shwarstrops
HATCH COVERS	Bearing Surface	3" ✓	3" ✓	3" ✓	3" ✓	3" ✓	3" ✓	3" ✓	3" ✓	3" ✓
	Spacing of Cleats	24" ✓	24" ✓	24" ✓	24" ✓	24" ✓	24" ✓	24" ✓	24" ✓	30" ✓
	Number of Tarpaulins	3	3	3	2	3	3	3	3	2

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

[Surveyors are to note that wood fore and afters are to be steel shod at all bearing surfaces.]

Are battens and wedges efficient and in good condition?

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

Are lashings provided in accordance with rule requirements?

Small & cooling hatchways have efficient lashing arrangements.

Gangways and Lifelines

*Life line ~~to be~~ fitted on each side of fore well
crew in fire*

Gangway, Cargo and Coaling Ports in sides of ship

None

SUPPLEMENTARY REQUIREMENTS FOR STEAMER CARRYING TIMBER DECK CARGOES

Do Superstructures and Machinery Casings comply with rules ?

Is provision made for protection of steering gear, and is emergency steering gear provided ?

Are efficient uprights, sockets and lashings provided according to rules ?

State particulars of longitudinal subdivision in double bottom

State particulars of Bulwarks and Rails

Approval date of plans and full particulars of arrangements for stowing and securing timber

The scantlings and protective arrangements being in accordance with the Freeboard rules it is submitted that the freeboard be assigned

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

on the

8 AUG 1932



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Chief Surveyor.

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