

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **26128**
(For London Office only.)No. **100991.**

-3 SEP 1932

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~
 Having Raised Quarter Deck, Bridge & Forecastle Port of Survey Birkenhead

(Type of Superstructures.)

Ship's Name 'BEN SEYR' Nationality and Port of Registry British Ramsey Id. M. Official Number 87585 Gross Tonnage 265 Date of Build 1920 4mo

Date of Survey 21st August 1932
subsequently
 Name of Surveyor Ch. Sem.

Moulded Dimensions: Length 120.0' Breadth 22.0' Depth 10.0'
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 456 tons
 Coefficient of fineness for use with Tables .711

Particulars of Classification H100A.1.
5.5 Bkn. No. 2-28

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth ...	<u>10.0'</u>	(a) Where D is greater than Table depth (D - Table depth) R = $(10.04 - 8.00) \cdot 923$ = <u>+1.58"</u>	Moulded Breadth (B)	<u>22.0'</u>	
Stringer plate ...	<u>.04</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>✓</u>	Standard Round of Beam = $\frac{B \times 12}{50}$ =	<u>5.28"</u>	
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	<u>✓</u>	If restricted by superstructures <u>✓</u>	Ship's Round of Beam	=	<u>5.2'</u>
Depth for Freeboard (D) =	<u>10.04</u>		Difference		<u>.22" Excess</u>
			Restricted to		
			Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	= $\frac{.22}{4} \times .4304$	= <u>-.02"</u>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	-	-	-	-	-
" overhang ...	-	-	-	-	-
R.Q.D. enclosed ...	<u>40.75</u>	<u>40.75</u>	<u>3.0'</u>	<u>3.00</u> <u>3.133</u>	<u>39.02</u>
" overhang ...	-	-	-	-	-
Bridge enclosed...	<u>8.75</u>	<u>8.75</u>	<u>7.0'</u>	-	<u>8.75</u>
" overhang aft ...	-	-	-	-	-
" overhang forward	-	-	-	-	-
F'cle enclosed ...	<u>17.96</u> <u>16.3</u>	<u>17.96</u>	<u>6.3"</u>	<u>✓</u>	<u>17.96</u>
" overhang ...	<u>3.6</u> <u>1.79</u>	<u>.89</u>	-	-	<u>.89</u>
Trunk aft ...	-	-	-	-	-
" forward ...	-	-	-	-	-
Tonnage opening aft ...	-	-	-	-	-
" forward ...	-	-	-	-	-
Total ...	<u>69.25</u>	<u>68.35</u>	-	-	<u>66.62</u>

Standard Height of Superstructure 6.00
 " " R.Q.D. 3.133
 Deduction for complete superstructure 18.00
 Percentage covered $\frac{S}{L} = 57.71\%$
 " " $\frac{S_1}{L} = 56.96\%$
 " " $\frac{E}{L} = 55.52\%$
 Percentage from Table, Line A. 39.73
 (corrected for absence of forecastle (if required))
 Percentage from Table, Line B.
 (corrected for absence of forecastle (if required))
 Interpolation for bridge less than .2L (if required)
 Deduction = $18.00 \times .3973 = -7.15"$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>22.00</u>	1		<u>22.00</u>	<u>21.0</u>	<u>21.00</u>	1		<u>21.00</u>
$\frac{1}{2}$ L from A.P. ...	<u>9.79</u>	4		<u>39.16</u>	<u>9.0</u>	<u>9.08</u>	4		<u>36.32</u>
$\frac{3}{8}$ L " ...	<u>2.42</u>	2		<u>4.84</u>	<u>3.0</u>	<u>2.27</u>	2		<u>4.54</u>
Amidships ...	<u>✓</u>	4		<u>✓</u>	<u>✓</u>	<u>✓</u>	4		<u>✓</u>
$\frac{3}{8}$ L from F.P. ...	<u>4.84</u>	2		<u>9.68</u>	<u>5.0</u>	<u>4.54</u>	2		<u>9.08</u>
$\frac{1}{2}$ L " ...	<u>19.58</u>	4		<u>78.32</u>	<u>18.0</u>	<u>18.17</u>	4		<u>72.68</u>
F.P. ...	<u>44.00</u>	1		<u>44.00</u>	<u>42.0</u>	<u>42.00</u>	1		<u>42.00</u>
Total ...				<u>198.00</u>					<u>185.62</u>

Mean actual sheer aft = Deficient
 Mean standard sheer aft

Mean actual sheer forward = Deficient
 Mean standard sheer forward

Length of enclosed superstructure forward of amidships = ✓
 " " aft of " = ✓
 Does not apply

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{12.38}{18} \left(\frac{.75 - .2885}{.4615} \right) = +.32"$
 If limited on account of midship superstructure.

Deduction for Tropical Freeboard.		Deduction for Fresh Water.		TABULAR FREEBOARD corrected for Flush Deck (if required)	
Addition for Winter and Winter North Atlantic Freeboard.		Displacement in salt water at summer load water line		Correction for coefficient $\frac{.711 + .68}{1.36} = \frac{1.391}{1.360}$	
Depth to Freeboard Deck = <u>10.04</u> Ft.	$\Delta = .4218$	Tons per inch immersion at summer load water line	T =	Depth Correction ...	<u>1.88</u>
Summer freeboard = <u>.60</u>				Deduction for superstructures ...	<u>7.15</u>
Moulded draught (d) = <u>9.44</u>				Sheer correction ...	<u>.32</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>2.36</u> = <u>2 3/8"</u>		Deduction = $\frac{\Delta}{40T}$ inches =		Round of Beam correction ...	<u>.02</u>
Addition for Winter North Atlantic Freeboard (if required) =				Correction for Thickness of Deck amidships ...	<u>-</u>
				Other corrections, scantlings, etc. ...	<u>-</u>
				Summer Freeboard =	<u>7.30</u>

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:— 0' - 7 1/4"

Tropical Fresh Water Line above Centre of Disc ...	Tropical Fresh Water Freeboard ...
Fresh Water Line " " ...	Fresh Water " " ...
Tropical Line " " ...	Tropical " " ...
Winter Line below " " ...	Winter " " ...
Winter North Atlantic Line " " ...	Winter North Atlantic " " ...

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway				No 1 Fire hold 2 1/2					
Dimensions of Hatchway				38'-6" x 12'-6"					
COAMINGS	{	Height above Deck	...	30"					
		Thickness	Sides	...	1/4"				
			Ends	...	1/4"				
		Stiffeners	...	...	7" B.A.				
		Brackets, Stays	...	...	8" B. PLATE				
HATCH BEAMS	{	Number	...	7					
		Spacing	...	5'-2", 3'-4", 3'-6"					
		Scantling and Sketch	...						
			...	20" CR. X 32"					
			...	ANGLES 3x3x42					
	Bearing Surface	...	...	3"					
FORE AND AFTERS	{	Number	...						
		Spacing	...						
		Unsupported Lengths	...						
		Scantling* and Sketch	...						
		Bearing Surface	...						
HATCH COVERS	{	Material	...	W.P.					
		Thickness	...	2 1/2"					
		How fitted	...	F.R.A.					
		Bearing Surface	...	2 1/2"					
Spacing of Cleats				24"					
Number of Tarpaulins				3					

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

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

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

Are lashings provided in accordance with rule requirements? **YES**

Particulars of fiddle, funnel and ventilator coamings - THE FIDLEY GRATING IS COVERED BY A HINGED STEEL COVER. THE FIDLEY VENTS ARE GOOD. THE FUNNEL IS GOOD. THE ENGINE ROOM SKYLIGHT IS OF STEEL & IS IN GOOD CONDITION. BUNKER HATCH - 12'4" x 4'5" - 12" STEEL COAMING. CLEATS, BATTENS, WOOD COVERS & TARPULINS ARE FITTED.

Particulars of Flush Bunker Scuttles :—

1- PORT & STARBOARD ON R.F.DK - 19 DIA. C.I. BAYONET JOINT. NO PERMANENT ATTACHMENT.

Particulars of Companionways :—

- NONE -

Particulars of Ventilators in exposed positions on freeboard and superstructure decks : 7

2-VENTS ON FO'LE HEAD TO FO'LE SPACE -18" HIGH.-6" DIA.
1-S.N.Y. " " " " " " 9" " 6" DIA.
2-VENTS ON FORE WELL DECK TO HOLD 36" HIGH.-9" DIA.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks :—

1- C.I. AIR PIPE ON FOGLE HEAD TO FORE PEAK TANK - 18" HIGH - 2" DIA.
1- " " " " R.Q. DE TO AFT " " 30" " - 2" DIA. CLOSED BY CANVAS COVERS. ✓

Particulars of Gangway Cargo and Coaling Ports :—

- NONE -

Particulars of Scuppers and Sanitary Discharge Pipes :—

SANITARY DISCHARGE PIPES ARE FITTED WITH CLACK VALVES AT SHIPS SIDE. ✓

Particulars of Side Scuttles:—

SIDE SCUTTLES IN FORECASTLE ARE OF SUBSTANTIAL CONSTRUCTION AND ARE FITTED WITH C.I. DEADLIGHTS.

Particulars of Guard Rails :—

ROUND FOCLE HEAD - 2'-10" HIGH - 3'-6" APART - 3 RAILS.

Particulars of Gangways, Lifelines, etc. :—

FOR LIFELINES
NECESSARY STANCHIONS & PLATFORMS FITTED TO ENABLE CREW TO REACH FOLG
WHERE THEY ARE ACCOMMODATED.

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	40'-9"	3'-6"	2'-0" x 1'-6" 2'-0" x 1'-3"	2 } 4	11.0 52.0 f	10.6 f
Forward Well	50'-9"	3'-6"	2'-0" x 1'-6"	4	12.8 f ✓	11.58 f

State position of each freeing port (F. and A. position and height above deck edge) } After Well: —
 } Forward Well: —

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: —

Additional area where sheer is less than standard.

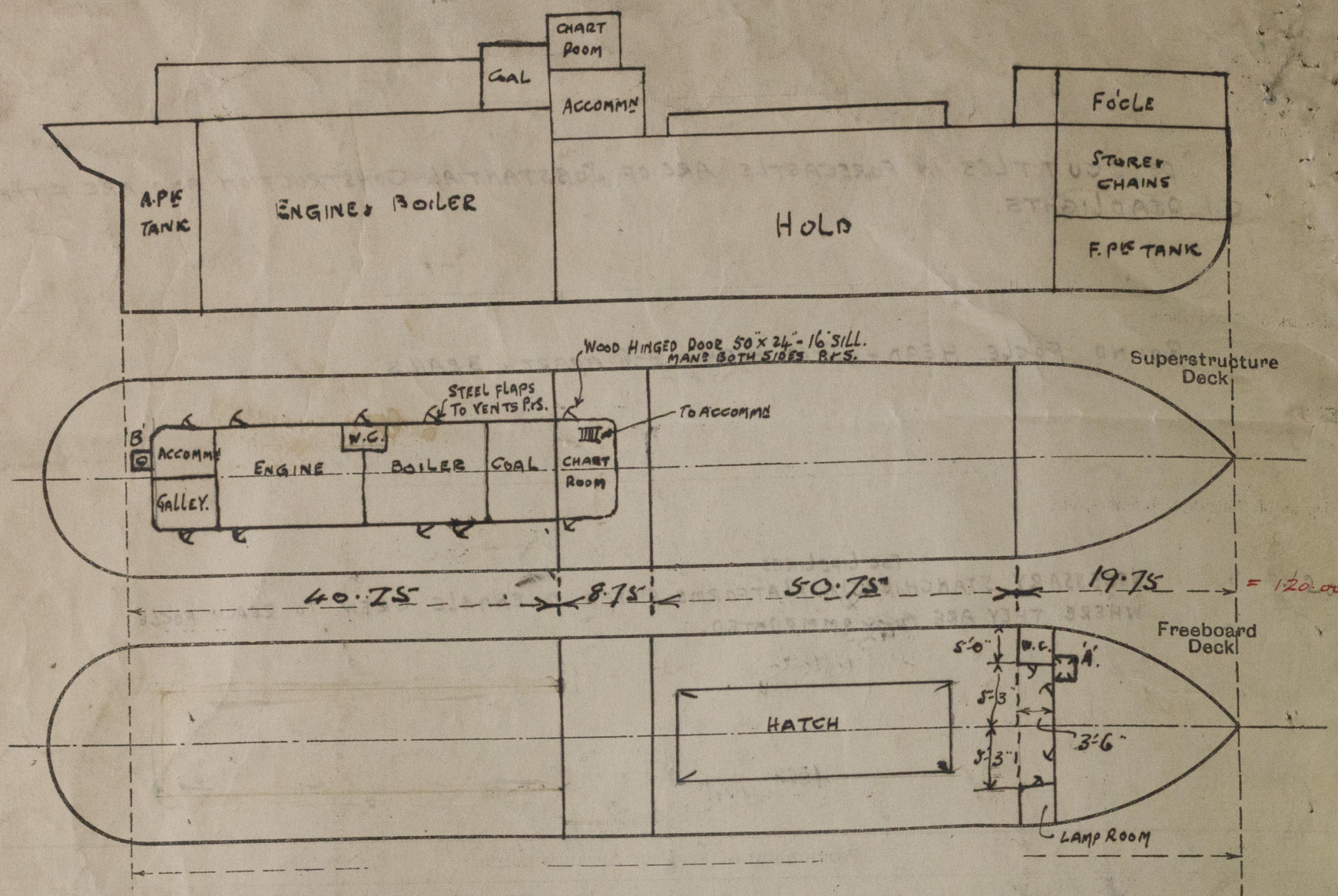
BOGE END — 1'-9" — 23'-10" — 2'-0" —
 BARGE PLANT —
 1'-0" 8'-11" 1'-2" 11'-9" 2'-10"
 FREEING PORTS ARE FITTED WITH HINGED PLAYS.

	Particulars of Superstructures, Trunks, Casings, Deckhouses.							
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	-	-	-	-	-	-	-	-
Raised Quarter Deck Bulkhead ...	30"	30"	5½" x 3" x 32"	30"	BKTD. TOP & BOTTOM	NONE	NONE	3'-0"
Bridge, After Bulkhead	30"	30"	5½" x 3" x 32"	30"	BKTD. TOP & BOTTOM	NONE	NONE	7'-0"
Bridge, Forward Bulkhead	28"	25"	4 x 3" x 30"	30"	BKID. BOTTOM ONLY	NONE	NONE	7'-0"
Forecastle Bulkhead	25"	25"	2½" x 2½" x 25"	19"		2- WOOD DOORS 47"x24" 2 " " 50"x24"	16" 14"	6'-3"
Trunk, Aft	-	-	-	-	-	-	-	-
Trunk, Forward	-	-	-	-	-	-	-	-
Exposed Machinery Casings on Freeboard Raised Quarter Decks ...	30"	24"	2½" x 2½" x 25"	30"	BKTD. TOP	3- STEEL DOORS 50"x18" 2- PLAYS 31"x16" 2- WOOD DOORS 50"x25" 1- STEEL " 52"x25"	19" 14" 19" 19"	6'-6"
Exposed Machinery Casings on Superstructure Decks	-	-	-	-	- X	-	-	-
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	-	-	-	-	-	-	-	-
Deckhouses on Flush Deck Ships ...	-	-	-	-	-	-	-	-

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	... ..		- NONE -	
Raised Quarter Deck Bulkhead	... ..	No openings	- NONE -	
Bridge, After Bulkhead	... ..	- 0 -	- NONE -	
Bridge, Forward Bulkhead	... ..	- 0 -	- NONE -	
Forecastle Bulkhead	... ..		
Exposed Machinery Casings on Fore- castle or Raised Quarter Decks	... ..		
Exposed Machinery Casings on Super- structure Decks	... ..		
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	... ..		
Deckhouses on Flush Deck Ships	... ..		

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



HATCH 'A' TO STORE 2'-0" x 2'-0" - 3" x 3" ANGLE COAMING, WOOD PLUG HATCH.
 " B" TO A PEAK 2'-2" x 2'-0" - 8" STEEL COAMING - STEEL COVER WITH W.T. MANHOLE COVER 18" DIA.

Forecastle 19.75
 Recas 10.5 x 3.5 = 1.79
 20.5 17.96 equi. C.H. = 1.79

State any special features in the construction of the ship:—

PARTICULARS FROM DISPLACEMENT SCALE.

DRAFT.	DISPL.
11'-0"	575 TONS
10'-6"	530 "
Load Draft 10'-0 1/2"	519 "
9'-6"	485 "
9'-0"	453 "
8'-6"	419 "
8'-0"	391 "

VESSEL PLACED IN DRYDOCK FOR S.S. No 3 COMPLETE & FREEBOARD SURVEY

Builder's name and yard number

The Manchester Dry Docks Co. Ltd. No 71

Names of sister ships

Owners

Ramsay Steam Ship Co. Ltd.

Fee £

3 : 8 : 0

Received by me