

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Me. No. 7699.

Computation of Freeboard for Steamer, ~~Sailing Ship~~, ~~Panzer~~  
having SAELTER DECK WITH TONNAGE OPENING AFT.  
Under Star  
AVON COAST (Type of Superstructures.)

Ship's Name SAELTER Nationality and Port of Registry BRITISH MANCHESTER Official Number 144391 Gross Tonnage 1037 Date of Build 1913.1

Moulded Dimensions: Length 230.35 Breadth 34.83 Depth 14.0  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 2262 tons  
Coefficient of fineness for use with Tables .683

Port of Survey MANCHESTER  
Date of Survey 29<sup>th</sup> NOVEMBER 1932  
Name of Surveyor A. R. Pitts  
Particulars of Classification + 100 A1  
S.S. Me. No. 2.32. SAELTER DECK WITH FREEBOARD

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... .. 17.00	(a) Where D is greater than Table depth (D - Table depth) R = (17.03 - 15.35) 1.772 = 1.68 x 1.772 = 2.98	Moulded Breadth (B) 34.83 Standard Round of Beam = $\frac{B \times 12}{50} = 8.36$ Ship's Round of Beam = <u>8.5</u> Difference = <u>.14</u> Restricted to Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S}{L}) = \frac{.14}{4} (.0088) = .0003$
stringer plate ... .. .03	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		
Depth for Freeboard (D) = <u>17.03</u>	If restricted by superstructures	

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>i</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..	23.00	23.00	4.00		23.00
„ overhang ... ..	✓				
R.Q.D. enclosed ... ..	✓				
„ overhang ... ..	✓				
Bridge enclosed ... ..					
„ overhang aft ... ..					
„ overhang forward ... ..	203.35	203.35	4.00		203.35
„ enclosed ... ..					
„ overhang ... ..					
Trunk aft ... ..	✓				
„ forward ... ..	✓				
Tonnage opening aft ... ..	4.00	2.00			2.00
„ „ forward ... ..	✓				
Total ... ..	230.35	228.35			228.35

Standard Height of Superstructure	6.0
„ „ R.Q.D.	3.87
Deduction for complete superstructure	29.035
Percentage covered $\frac{S}{L} = 100.00\%$	
„ $\frac{S_i}{L} = 99.12$	
„ $\frac{E}{L} = 99.12$	
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	98.91
Interpolation for bridge less than 2L (if required)	
Deduction =	28.72

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	33.04	1		33.04	33.04	39.00	1		39.00
$\frac{1}{2}$ L from A.P. ... ..	14.70	4		58.80	11.85	17.36	4		69.44
$\frac{2}{3}$ L „ ... ..	3.63	2		7.26	2.96	4.29	2		8.58
Amidships ... ..	✓	4		✓	✓	✓	4		✓
$\frac{2}{3}$ L from F.P. ... ..	7.27	2		14.54	6.51	7.92	2		15.84
$\frac{1}{2}$ L „ ... ..	29.40	4		117.60	26.07	32.04	4		128.16
F.P. ... ..	66.08	1		66.08	66.00	72.00	1		72.00
Total ... ..	297.36			297.32					333.02

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{297.32}{18} \left( .75 - \frac{.75}{2} \right) = .50$

If limited on account of midship superstructure.

Mean actual sheer aft = Excess  
Mean standard sheer aft

Mean actual sheer forward = Excess  
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = 288  
„ „ „ aft of „ =

Deduction for Tropical Freeboard.  
Addition for Winter and Winter North Atlantic Freeboard.

Ft.  
Depth to Freeboard Deck = 17.03  
Summer freeboard = 2.9  
Moulded draught (d) = 16.82

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 4.20 + 4.4

Addition for Winter North Atlantic Freeboard (if required) = + 2

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$   
Tons per inch immersion at summer load water line

T = 14.6 Tons

Deduction =  $\frac{\Delta}{40 T}$  inches

= 4.4

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{.683 + .68}{1.36} = \frac{1.363}{1.36}$

Depth Correction ... .. 2.98

Deduction for superstructures ... .. 28.72

Sheer correction ... .. .50

Round of Beam correction ... .. ✓

Correction for Thickness of Deck amidships ... .. ✓

Other corrections, scantlings, etc. ... .. ✓

2.98 29.22 26.24  
Summer Freeboard = 2.38

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~W~~, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ... .. 4.4	Tropical Fresh Water Freeboard ... .. minus
Fresh Water Line „ „ ... .. 4.4	Fresh Water „ „ .. minus
Tropical Line „ „ ... .. 4.4	Tropical „ „ .. limited
Winter Line below „ „ ... .. 4.4	Winter „ „ ... ..
Winter North Atlantic Line „ „ ... .. 6.14	Winter North Atlantic „ „ ... ..

0 - 2.1  
0 - 2.1  
0 - 1.3/4  
0 - 2  
0 - 6.3/4  
0 - 8.3/4

3 DEC 1932



## PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
Freeboard Deck					Superstructure Deck						
Description of Hatchway	No. 1	No. 2	No. 3	CROSS BUNKER	No. 1	No. 2	No. 3	COAL HATCHES	HATCH TO ROOF SPACE	HATCH TO FORE PEAK	
Dimensions of Hatchway	19'2" x 13'0"	23'0" x 14'0"	26'10" x 14'0"	4'0" x 14'0"	19'2" x 13'0"	23'0" x 14'0"	26'10" x 14'0"	20'3'9" x 4'0"	3'6" x 4'0"	2'0" x 1'6"	
COAMINGS	Height above Deck	9'3 1/2" L	9'3 1/2" L	9'3 1/2" L	30"	30"	30"	24 1/2"	21" STEEL	5 1/2" L	
	Thickness	✓	✓	✓	✓	44	44	44	30	BULKHEAD 35 Sides	
	Stiffeners	✓	✓	✓	✓	4' x 3" L	4' x 3" L	4' x 3" L	6' x 3" L	✓	
	Brackets, Stays	✓	✓	✓	✓	1-2' ROLLING	2-2' ROLLING	2-2' ROLLING	✓	✓	
HATCH BEAMS	Number	3	4	5		3	4	5			
	Spacing	4'-9 1/2"	4'-7"	4'-5 1/2"		4'-9 1/2"	4'-7"	4'-5 1/2"			
	Scantling and Sketch	3 x 3 x 44 PLATE 11 x 30 3 x 1 1/2" SOLID	3 x 3 x 34 10 1/2 x 30 3 x 1 1/2" SOLID	3 x 3 x 44 11 x 30 3 x 1 1/2" SOLID	NONE	3 x 3 x 44 11 x 30 3 x 1 1/2" SOLID	3 x 3 x 34 10 1/2 x 30 3 x 1 1/2" SOLID	3 x 3 x 44 10 1/2 x 30 3 x 1 1/2" SOLID	NONE	NONE	
	Bearing Surface	3" ✓	3" ✓	3" ✓		3" ✓	3" ✓	3" ✓			
FORE AND AFTERS	Number										
	Spacing										
	Unsupported Lengths										
	Scantling* and Sketch	No FORE AND AFTERS FITTED									
	Bearing Surface										
HATCH COVERS	Material	W.P.		NONE	W.P.			W.P.	W.P.	HINGED	
	Thickness	3"		2 3/4"	2 3/4"			2 1/2"	2 1/2"	STEEL	
	How fitted	F.C.A.		F.C.A.	F.C.A.			F.C.A.	F.C.A.	WATER	
	Bearing Surface	3" ✓	AS NO. 1 HATCH	24"	3" ✓	AS NO. 1 HATCH		2"	2"	TIGHT	
Spacing of Cleats	24"			24"				15" TO 18"	8 CLEATS	COVER ✓	
Number of Tarpaulins	1			NONE	2			2	2	SECURED BY 6 BOLTS	
*Are wood fore and afters steel shod at all bearing surfaces? ✓											
Are battens and wedges efficient and in good condition? YES - EXCEPT AT BUNKER HATCH											
Are tarpaulins in good condition and in accordance with rule requirements? YES - EXCEPT AT BUNKER HATCH											
Are lashings provided in accordance with rule requirements? NINE BOLTS FOR LASHINGS ARE PROVIDED AT NOS. 1, 2, 3 ALWAYS ON SUPERSTRUCTURE DECK ✓											
Efficient temporary covers are provided for the bonnage hatch											

Particulars of fiddley, funnel and ventilator coamings :—

Stokerhold Gratings are covered by Strong Hinged Steel covers ✓  
Funnel and Fedley Ventilators are in efficient condition ✓  
E. R. Skylight of Steel strongly constructed ✓

Particulars of Flush Bunker Scuttles:—

NONE.

Particulars of Companionways :—

NONE.

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

On Superstructure Deck

1	Ventilator to Fore Peak	6 1/2 dia.	x 36	x 25	coaming
1	" "	Store 6 1/2	x 36	x 25	
6	" "	Holds	12	x 36	x 32
1	" "	Tunnel	6	x 36	x 25
1	" "	Peep	6	x 36	x 25

} All ventilators are strongly constructed and are closed by galvanised iron and canvas covers.

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

All air pipe openings are fitted with flush brass deck sockets and screened caps.

Particulars of Gangway Cargo and Coaling Ports :—

NONE



Particulars of Scuppers and Sanitary Discharge Pipes:—

Scuppers draining Tonnage Well led overboard immediately below Freeboard Deck and fitted with Storm Valves at Ship's Side.

Scuppers draining Freeboard Deck led overboard immediately below Freeboard Deck and fitted with Storm Valves at Ship's Side and closed at inner ends with wood plugs and cement.

Particulars of Side Scuttles:—

The scupper pipes from the Shell to the tween decks are now permanently closed by riveted plates, and the original scuppers on each side of the well are now replaced by screw down non-return valves 5" diam, operated from the Shell etc.

All accommodation situated on Superstructure Deck.

Particulars of Guard Rails:—

Strong Steel Bulwarks fitted round Superstructure Deck 3'-6" high supported by 6x3" angle stays about 6'-0" apart.

Particulars of Gangways, Lifelines, etc.:—

NONE

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Forward Well	FULL LENGTH SUPERSTRUCTURE DECK 78.0	3'-6"	<del>2'-3" x 1'-6"</del> permanently closed	<del>5</del>	16.74	<del>7.8</del> 15.60
Forward Well	127.35	"	2'-3" x 1'-6"	3	10.10	<del>25.47</del> 12.7

State position of each freeing port (E. and A. position and height above deck edge)

After Well:— SUPERSTRUCTURE DECK FOR POSITION SEE SKETCH ON PAGE 4  
4 1/2' ABOVE DECK.

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— HINGED STEEL DOORS - NO BARS OR RAILS

Additional area where sheer is less than standard.

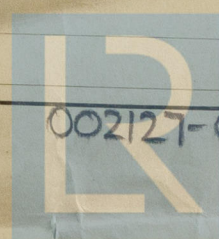
TONNAGE WELL:— HINGED STEEL DOORS - 4 1/2' ABOVE DECK - 1'-10" x 1'-6" SECURED FROM INSIDE BY STRONG BACK.

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	✓	25	3 1/2 x 3 x 32 L	ABOUT 24"	NONE	1-4'-8" x 3'-0"	22 1/2"	4'-0" ✓
Raised Quarter Deck Bulkhead				✓				
Bridge, After Bulkhead	✓	25	4 x 3 x 32 L	29"	NONE	2-4'-4" x 3'-1"	22"	4'-0" ✓
Bridge, Forward Bulkhead				✓				
Forecastle Bulkhead				✓				
Trunk, Aft				✓				
Trunk, Forward				✓				
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	35	30	3 1/2 x 3 x 32	30" TO 42"	BRACKETS AT TOP ALTERNATELY	2 @ 4'-9" x 1'-9" F 22"		4'-0" ✓
Exposed Machinery Casings on Superstructure Decks	✓	30	3 1/2 x 3 x 32	48" BOLLER RIV.	NONE	2 @ 4'-5" x 1'-11" C.R. 22"		4'-0" ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances				✓		NONE	✓	4'-0" ✓
Deckhouses on Flush Deck Ships				✓				

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

Poop Bulkhead	2 1/2" S.B.s. Full height in riveted channels.
Raised Quarter Deck Bulkhead	✓
Bridge, After Bulkhead	2 1/2" S.B.s. full height in riveted channels. ✓
Bridge, Forward Bulkhead	✓
Forecastle Bulkhead	✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓
Exposed Machinery Casings on Superstructure Decks	Strong Hinged Steel Doors operated from both Sides - Tidley
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Strong Hinged Wood Doors operated from both Sides - Engine Room
Deckhouses on Flush Deck Ships	No openings ✓



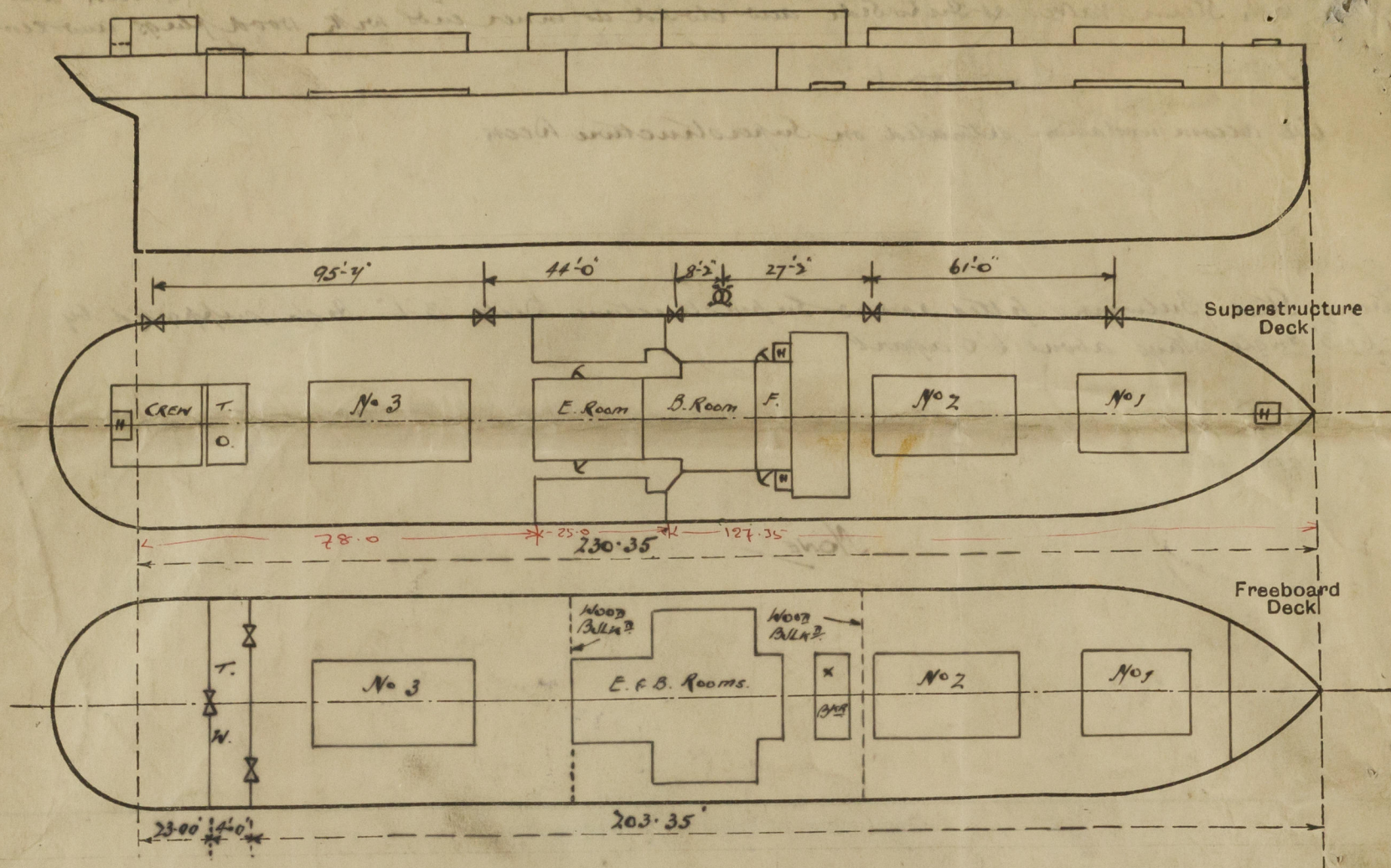
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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the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



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

VESSEL SURVEYED AFLOAT FOR CONVENTION FREEBOARD PURPOSES ONLY.

*The Master states that this vessel burns approximately 150 by the stern when down to her marks*

Builder's name and yard number N. DOBSON & Co. Ltd NEWCASTLE

Names of sister ships

Owners Fisher Renwick Manchester-London Steamers Ltd

Fee £ 8 : 10 : 0

Received by me