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6 JAN 1933

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29.8.32

Index. No. 30520
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Mch. No. 77214.

Computation of Freeboard for Steamer, Sailing Ship, Tugboat

having **SHELTER DECK WITH TONNAGE OPENING AFT**

Port of Survey **Manchester**

Date of Survey **30 & 4th JANUARY 1933**

Name of Surveyor **A.R. Gibbs**

Particulars of Classification *** 100 A1
SHELTER DECK
HULL FREEBOARD**

Ship's Name **"MANCHESTER REGIMENT"**

Nationality and Port of Registry **BRITISH MANCHESTER**

Official Number **146830**

Gross Tonnage **5989**

Date of Build **3.22.**

Moulded Dimensions: Length **450.00'** Breadth **54.45'** Depth **31.00'**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **14430** tons

Coefficient of fineness for use with Tables **738**

Depth for Freeboard (D) **31.00**

Depth correction (a) Where D is greater than Table depth (D - Table depth) R = **(31.04 - 30.00) 3.0 = 3.12**

(b) Where D is less than Table depth (if allowed) (Table depth - D) R =

Round of Beam correction

Moulded Breadth (B) **54.45**

Standard Round of Beam = $\frac{B \times 12}{50} = \frac{54.45 \times 12}{50} = 13.27$

Ship's Round of Beam = **14**

Difference **13**

Restricted to

Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S}{L}) = \frac{13}{4} \times 0.006 = 0.015$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	30.00	30.00	10.0	-	30.00	Standard Height of Superstructure 7.50
" overhang ...	1.45	1.45	7.1	-	1.45	" " R.Q.D.
R.Q.D. enclosed ...	✓	✓	✓	✓	✓	Deduction for complete superstructure 42.00
" overhang ...	✓	✓	✓	✓	✓	Percentage covered $\frac{S}{L} = \frac{100.0}{100.0}$
Bridge enclosed ...	✓	✓	✓	✓	✓	" " $\frac{S}{L} = \frac{99.40}{100.0}$
" overhang aft ...	✓	✓	✓	✓	✓	" " $\frac{E}{L} = \frac{99.40}{100.0}$
" overhang forward ...	414.00	414.00	10.0	-	414.00	Percentage from Table, Line A. (corrected for absence of forecastle (if required)) 99.26
F'cle enclosed ...	✓	✓	✓	✓	✓	Percentage from Table, Line B. (corrected for absence of forecastle (if required))
" overhang ...	✓	✓	✓	✓	✓	Interpolation for bridge less than 2L (if required)
Trunk aft ...	✓	✓	✓	✓	✓	Deduction = -41.69
" forward ...	✓	✓	✓	✓	✓	
Tonnage opening aft ...	6.58	2.64	10.0	-	2.64	
" forward ...	✓	✓	✓	✓	✓	
Total ...	450.00	447.35			447.35	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft	Mean standard sheer aft
A.P. ...	55.00	1	55.00	9	39.06	1	39.00			Standard	7.5' = 30"
1/2 L from A.P. ...	24.47	4	97.88	0	17.36	4	69.44			Deficient	
1/2 L " ...	6.05	2	12.10	0	4.29	2	8.58			Deficient	
Amidships ...		4		0		4					
1/2 L from P.P. ...	12.10	2	24.20	1	4.84	2	9.68				
1/2 L " ...	48.95	4	195.80	5	19.58	4	78.32				
P.P. ...	110.00	1	110.00	14	44.00	1	44.00				
Total ...			494.98		+30		249.02				

Length of enclosed superstructure forward of amidships = 1. c. 85'

" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(75 - \frac{S}{2L} \right) = \frac{245.96}{18} (75 - 50) = +3.42$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **31.04**

Summer freeboard = **4.65**

Moulded draught (d) = **26.39**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **6.59 6 1/2**

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta = 14527$

Tons per inch immersion at summer load water line **50.5**

Deduction = $\frac{\Delta}{40T}$ inches = **7.18**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{738 + 68}{136} = 1.418$

Depth Correction ... **3.12**

Deduction for superstructures ... **41.69**

Sheer correction ... **3.42**

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:-

Tropical Fresh Water Line above Centre of Disc ...	13 3/4	Tropical Fresh Water Freeboard ...	4 - 7 3/4
Fresh Water Line " " ...	14	Fresh Water " " ...	3 - 6
Tropical Line " " ...	14 1/2	Tropical " " ...	4 - 0 1/2
Winter Line below " " ...	6 1/2	Winter " " ...	4 - 1 1/4
Winter North Atlantic Line " " ...	-	Winter North Atlantic " " ...	5 - 2 1/4

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
SUPERSTRUCTURE DECK						Freeboard Deck					
Description of Hatchway	No. 1	No. 2	No. 3	No. 6	No. 4	T. OPENING HATCH	No. 1	No. 2	No. 3	No. 6	
Dimensions of Hatchway	24'0" x 16'0"	26'0" x 20'0"	15'0" x 20'0"	24'0" x 20'0"	12'0" x 20'0"	1'4" x 20'0"	24'0" x 16'0"	26'0" x 20'0"	15'0" x 20'0"	27'0" x 20'0"	
COAMINGS	Height above Deck	31"	As No. 1 HATCH				9'3 1/2"	9'3 1/2"	As No. 1 HATCH		
	Thickness	50					✓	✓			
	Stiffeners	9-3 1/2" L.S.	9-3 1/2" L.S.	10-3 1/2" L.S.	9-3 1/2" L.S.	4-3 1/2" L.S.	✓	✓			
	Brackets, Stays	4-3 1/2" L.S.	4-3 1/2" L.S.	5-3 1/2" L.S.	5-3 1/2" L.S.	5-3 1/2" L.S.	✓	✓			
HATCH BEAMS	Number	5	4	2	5	2	5	4	2	5	
	Spacing	4'6"	5'2"	5'0"	4'6"	4'0"	4'6"	5'2"	5'0"	4'6"	
	Scantling and Sketch						None				
	Bearing Surface	3"	3"	3"	3"	3"	3"	3"	3"	3"	
FORE AND AFTERS	Number										
	Spacing										
	Unsupported Lengths										
	Scantling and Sketch	No FORE AND AFTERS FITTED									
HATCH COVERS	Material	N.P.	SAME AS NO. 1 HATCH				N.P.	SAME AS NO. 1 HATCH			
	Thickness	2 1/4"					2 1/4"				
	How fitted	F.A.					F.A.				
	Bearing Surface	3"					3"				
Spacing of Cleats	24"						24"				
Number of Tarpanlins	2						2				

*Are wood fore and afters steel shod at all bearing surfaces? ✓
 Are battens and wedges efficient and in good condition? *Yes - some steel shod*
 Are tarpaulins in good condition and in accordance with rule requirements? *Yes - exception - steel*
 Are lashings provided in accordance with rule requirements? *Strength of lashings as provided in all hatchways on superstructure decks.*

Particulars of fiddle, funnel and ventilator coamings:—

*Storehold Gratings covered by Strong Angled Steel covers.
 Funnel and Fiddle Vents in efficient condition.
 E. R. Sky light of Steel Strongly constructed.*

Particulars of Flush Banker Scuttles:—

None.

Particulars of Companionways:—

Steel trunk to Tunnel on Superstructure Deck with Angled Steel Door opens from both sides - opening 4'4" x 2'3" - 20" fill.

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

*On Superstructure Deck:—
 4 Ventilators 24" dia. x 36" framing x 35 to 40 lbs.
 6 " 18" " " 36 " " 35 " Deep Tanks.
 1 " 32 1/2" " " 36 " " 40 " Holes.
 1 " 12" " " 36 " " 30 " from DECK* } *All Ventilators are strongly constructed and are closed by wood plugs and canvas covers.*

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

*On Superstructure Deck:
 2-4 A.P.S. to No. 1 aft. Tank T
 2-4 " " " " " " T
 2-4 " " " " " " T
 2-4 " " " " " " T
 2-6 AIR P. DECK Tank 18" to mouth
 2-4 " " " " " " T
 2-4 " " " " " " T
 2-4 " " " " " " T
 2-4 A.P. " " " " " " T* } *Air pipes marked T are Tiro's patent valves.
 All other air pipes are closed by wood plugs.*

Particulars of Gangway Cargo and Coaling Ports:—

4 Angled N.T. Cargo Doors (2 P. 125) in Shelter from R.S. Scuppern inside by Strongbacks each 6'0" x 4'0" (1 P. 15)

Particulars of Scuppers and Sanitary Discharge Pipes:—

Foreboard Deck drained by 4 clow valves (2 P. 25) operates from Shelter Deck, fitted with 9. m.
Storm Valves at Ship's Side and discharging 2'0" below deck. For location see sketch.
Seven 3 1/2" scuppers fitted each side and one 3 1/2" scupper
on each side of foreboard well fitted with grommet storm valves

Particulars of Side Scuttles:—

All accommodation situated in Deckhouses above Superstructure Deck.

Particulars of Guard Rails:—

Strong Steel Bulwarks are fitted round Shelter Deck full length 3'8" high and are supported
by 6" B.P. Stays spaced about 5'6" apart

Particulars of Gangways, Lifelines, etc.:—

Lifelines are provided on the Shelter Deck for the protection of the crew in getting
to and from their quarters.

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Shelter Deck Foreboard Well	Full length of Shelter Deck	3'8"	4'0" x 9"	21	630 sq. feet.	31.5
Forward Well Damage bulk	—	—	70" x 15"	1	—	—

State position of each freeing port ... After Well:—
(F. and A. position and height above deck edge) Forward Well:—
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— None
Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

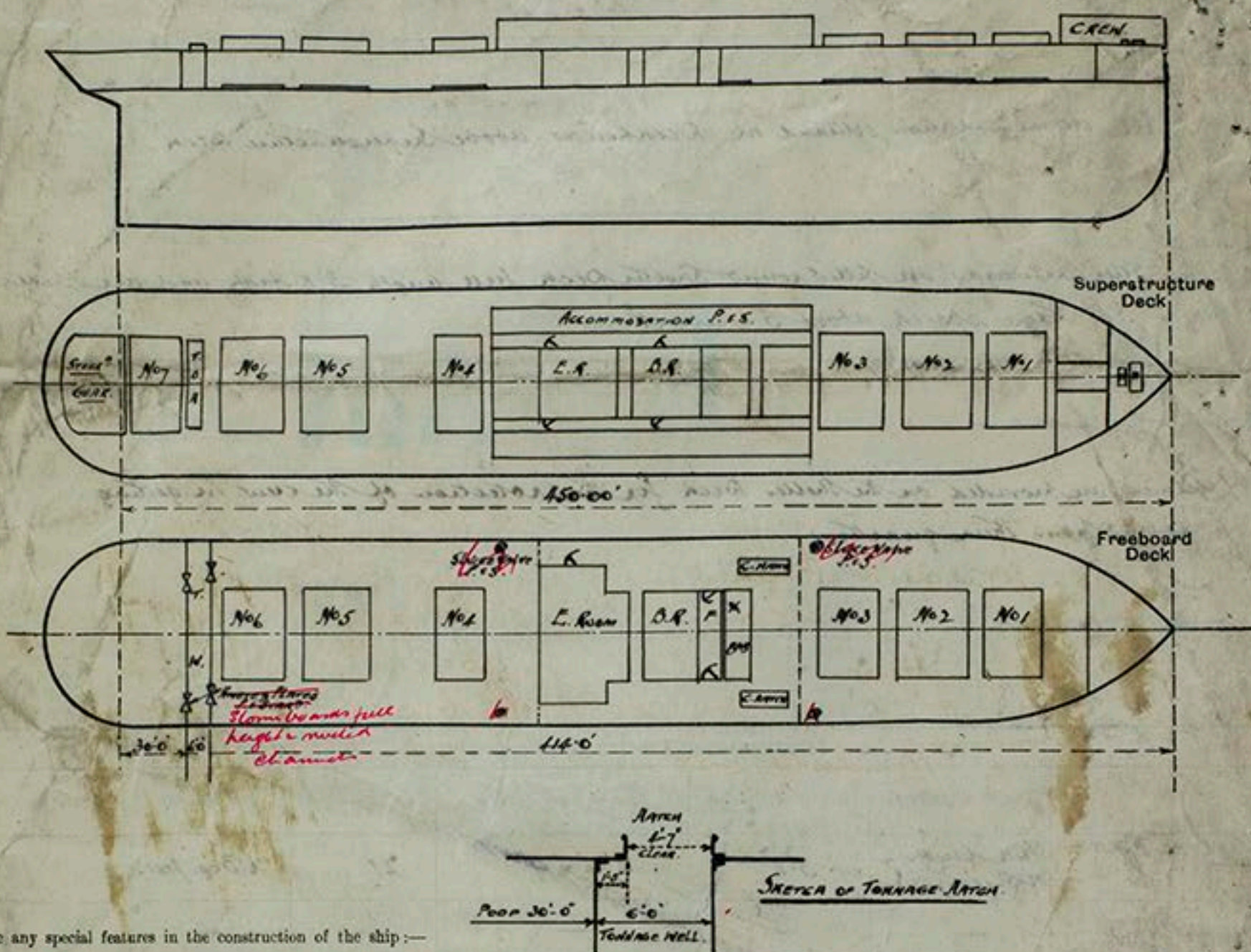
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	✓	26 -	As plating Ranges 3 -	30 -	None -	2'-6"0" - 3'-0"	18 1/2"	10'-0"
Raised Quarter Deck Bulkhead ...				✓				
Bridge, After Bulkhead	✓	26 -	As plating Ranges 3 1/2 -	30 -	None -	2'-6"0" - 3'-0"	17"	10'-0"
Bridge, Forward Bulkhead				✓				
Forecastle Bulkhead				✓				
Trunk, Aft				✓				
Trunk, Forward				✓				
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...				✓				
Exposed Machinery Casings on Super- structure Decks	35 -	35 -	4 x 3 = 32	36 -	Bars as per B.A. Bars as per B.A.	1-2'8" x 1'8" 4-2'9" x 2'0"	19"	4'6"
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	40 -	35 -	4 x 3 = 38 -	36 -	Bars as per B.A. Bars as per B.A.	2 at 1'8 1/2" x 1'8" 1 at 4'10" x 1'10"	4'0" 13"	10'-0"
Deckhouses on Flush Deck Ships ...				✓				

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

Poop Bulkhead	✓	Openings closed by riveted plates - 3' storm boards, full height in riveted channels
Raised Quarter Deck Bulkhead	✓	Openings closed by riveted plates - 3' storm boards full height in riveted channels
Bridge, After Bulkhead	✓	Openings closed by riveted plates - 3' storm boards full height in riveted channels
Bridge, Forward Bulkhead	✓	Openings closed by riveted plates - 3' storm boards full height in riveted channels
Forecastle Bulkhead	✓	Openings closed by riveted plates - 3' storm boards full height in riveted channels
Exposed Machinery Casings on Fore- board or Raised Quarter Decks	✓	Angus Steel Doors operated from both sides
Exposed Machinery Casings on Super- structure Decks	✓	2 Angus Steel Doors to Fwdly operated from inside only
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	✓	1 Angus Steel Door to Engine Room operated from inside only
Deckhouses on Flush Deck Ships	✓	Openings closed by riveted plates - 3' storm boards, full height in riveted channels

Manchester Regiment

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 shown on the following sketches:—



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

Vessel Surveyed afloat for amended Freeboard Assignment only

ON HATCHWAYS.

Superstructure Deck.

Hatch to Fore hold: 5'-9"-5'-9"-8'-3" Looming
2" N.P. Cover: 2" B.S. - No cleats or battens

Hatch to Main hold: 5'-6"-5'-8"-5'-3" Looming
2" N.P. Cover: 2" B.S. - No cleats or battens

Freeboard Deck.

Coal Hatches: 2 at 14'-0"-5'-0"-9'-3" Looming
Wood frame battens not complete - no tarpaulins
cleats spaced 24" apart - efficient batten arrangement

Grain Hatch: 6'-0"-3'-0"-9'-3" Looming
Wood frame battens not complete - no tarpaulins
cleats spaced 18" to 24" apart - efficient batten arrangement

Builder's name and yard number: Furness S. B. Coy. Ltd. - Haverton - Hull-on-Yard No. 18.

Names of sister ships:

Owners: Manchester Lines

Fee £ 4 : 5 : 0

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