

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index. No.

32058

(For London Office only.)

West Liverpool  
Report 17/90.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having

Poop; Bridge &amp; Forecastle

Port of Survey

West Hartlepool

(Type of Superstructures.)

Ship's Name

s/s.

"FIRBY"

Nationality and Port of Registry

British

West Hartlepool

Official Number

139238

Gross Tonnage

4868

Date of Build

1926-6m.

Date of Survey

September 1932

Name of Surveyor

C. Millan

Particulars of Classification

8100A1.

S.S. Sub. No. 1-30.

Moulded Dimensions: Length 390.00 Breadth 54.79 Depth 28.75  
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 11721. tons  
 Coefficient of fineness for use with Tables 786

Depth for Freeboard (D)

Moulded depth ... 28.75

Stringer plate ... 03

Sheathing on exposed deck

T  $\left(\frac{L-S}{L}\right)$ 

Depth for Freeboard (D) = 28.78

Depth correction

(a) Where D is greater than Table depth  
(D-Table depth) R =

(28.78 - 26.90) 3 = + 8.34

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

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) 54.79

Standard Round of Beam =  $\frac{B \times 12}{50}$  = 13.15

Ship's Round of Beam = 13.75

Difference 60

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right)$  =  $\frac{60}{4} \times 0.2564 = 3.846$ 

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	29.62	29.62	7.5		29.62
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	220.00	220.00	7.5		220.00
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...	39.42	39.92	7.5		39.92
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	290.37	289.95			289.95

Standard Height of Superstructure

7.40

R.Q.D.

Deduction for complete superstructure

41.33

Percentage covered  $\frac{S}{L} =$ 

74.46

 $\frac{S_1}{L} =$ 

74.36

 $\frac{E}{L} =$ 

74.36

Percentage from Table, Line A.

(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 =

41.33 x 68.36 = 28.25

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	49.00	1		49.00	48.0	48.00	1		48.00
$\frac{1}{2}$ L from A.P. ...	21.80	4		87.20	21.5	20.93	4		83.72
$\frac{3}{4}$ L " ...	5.39	2		10.78	6.2	5.23	2		10.46
Amidships ...		4					4		
$\frac{3}{4}$ L from F.P. ...	10.78	2		21.56	12.5	11.10	2		22.20
$\frac{1}{2}$ L " ...	43.61	4		174.44	45.5	44.43	4		177.72
F.P. ...	98.00	1		98.00	102.0	102.0	1		102.00
Total ...				440.98					444.10

Correction =  $\frac{\text{Difference between sums of products}}{18} \left(75 - \frac{S}{2L}\right) =$  $\frac{3.12}{18} \left(75 - \frac{3723}{2 \times 390}\right) = -0.07$ 

If limited on account of midship superstructure.

If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 28.78

Summer freeboard = 4.48

Moulded draught (d) = 24.30

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 6.08 = 6

Addition for Winter North Atlantic Freeboard (if required =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 11746$ 

Tons per inch immersion at summer load water line

T = 44.17

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

= 6.65

=  $6\frac{3}{4}$ 

TABULAR FREEBOARD corrected for Plank Deck (if required)

Correction for coefficient

 $\frac{786 + 68}{1.36} = \frac{1.466}{1.36}$ 

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

68.40

73.73

8.34

28.25

.07

.04

8.34

28.36

- 20.02

Summer Freeboard = 53.71

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

Tropical Fresh Water Line above Centre of Disc ... 12  $\frac{3}{4}$ Fresh Water Line " " ... 6  $\frac{3}{4}$ 

Tropical Line " " ... 6

Winter Line below " " ... 6

Winter North Atlantic Line " " ...

Tropical Fresh Water Freeboard ... 4 - 5  $\frac{3}{4}$ 

Fresh Water " " ... 3 - 5

Tropical " " ... 3 - 11

Winter " " ... 3 - 11  $\frac{3}{4}$ Winter North Atlantic " " ... 4 - 11  $\frac{3}{4}$ 

MARKING FORM

1-8 NOV 1932

RECEIVED - SEP 1932



## PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
Freeboard deck * Bridge Deck → Poop											
Description of Hatchway	No.1	No.2	No.3	No.4	No.5	No.6	No.2	No.3	No.4	No.7	
Dimensions of Hatchway	27-6 x 20	27-6 x 20	16' x 20'	27-6 x 20	27-6 x 20	16-0 1/2 x 20	27-6 x 20	18-4 x 20	27-6 x 20	10' x 10'	
COAMINGS	Height above Deck	39 1/2"	14"	14"	14"	31"	31"	31"	31"	31"	
	Thickness { Sides	48	44	44	44	48	44	48	44	44	
	{ Ends	44	44	44	44	44	44	44	48	44	
	Stiffeners ...	B.A. 7 x 3 x 40	None	✓	✓	7 x 3 x 40	7 x 3 x 40	7 x 3 x 40	7 x 3 x 40	7 x 3 x 40	✓
	Brackets, Stays	2	✓	✓	✓	2	1	2	1	2	✓
HATCH BEAMS	Number	4	4	3	4	4	2	4	3	4	1
	Spacing	5'-5"	5'-5"	5'-2" max.	5'-5"	5'-5"	5'-3"	5'-5"	5'-1 max	5'-5"	5'-0"
	Scantling and Sketch	19 x 37	19 x 35	19 x 35	19 x 35	19 x 37	19 x 37	14 1/2 x 34	14 x 34	14 1/2 x 34	9 x 30
	Bearing Surface	4 x 3 x 44	4 x 3 x 44	4 x 3 x 44	4 x 3 x 44	4 x 3 x 44	4 x 3 x 44	4 x 3 x 44	4 x 3 x 44	4 x 3 x 44	3 x 3 x 40
FORE AND AFTERS	Number	12 Trimming hatches on U.D.					2 Bunker Hatches on Bridge Deck each side				
	Spacing	2' x 2' x 9" B.A. Coaming					7' x 3' x 2'-6" x 44 Coaming				
	Unsupported Lengths	2 1/2 Hinges W.P. Covers secured with 4 toggles.					2 1/2 W.P. Covers 2" Rest.				
	Scantling* and Sketch	2 Bunker Hatches on U.D.					24" spaced cleats.				
	Bearing Surface	5'-10 x 3' x 9" B.A. Coaming					2 Tarpaulins				
HATCH COVERS	Material	WP	WP	WP	WP	WP	WP	WP	WP	WP	
	Thickness	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	
	How fitted	F.A.	F.A.	F.A.	F.A.	F.A.	F.A.	F.A.	F.A.	F.A.	
	Bearing Surface	3"	3"	3"	3"	3"	3"	3"	3"	3"	
Spacing of Cleats	24	30-35	30-35	30-35	24	24	24	24	24	24	
Number of Tarpaulins	2	2	2	2	2	2	2	2	2	2	
*Are wood fore and afters 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?											

Particulars of fiddley, funnel and ventilator coamings :—

Engine Room Skylight is of steel of strong construction  
Fidley openings are closed with hinged steel covers.  
Funnel + ventilators are in good condition

Particulars of Flush Bunker Scuttles:—

none

Particulars of Companionways :—

None

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

4	Ventilators on Fcfe.	18" diam	x 3/8" thick	x 2-10" high	to Fcfe	1 Vent. in after well 16" diam x 3/8" x 3-0" high
1	"	16"	" x 3/8"	" x 2-10"	to Hold	
2	"	4"	"	C.I.	6" high to mouth, 12" to top	
5	"	Bridge	16"	" x 3/8" thick	x 3-0" high	All ventilators have flaps and canvas covers.
2	"	"	12"	" x 5/16"	" x 2-10"	
3	"	"	18"	" x 3/8"	" x 2-9"	
1	"	Poof	10"	" x 1/4"	" x 2-6" to tunnel	

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

Articulations of main pipes in exposed positions of necessity, raised quarter, or superstructure valves:										
1	av	pipe	on	7 cl.	3" clear	C.I.	12" to mouth	18" to	top of swan neck	-
2	"	"	"		2 1/2"	C.I.	7"	"	"	-
5	"	"	"	Bridge	3"	C.I.	7"	"	"	-
2	"	"	"	"	3"	C.I.	11"	"	"	-
1	"	"	"	Poop	3"	C.I.	7" with screw plug.			-

Air pipes have canvas covers

Particulars of Gangway Cargo and Coaling Ports :—

none



Sanitary discharges 9' above freeboard deck, in way of Forecastle, with brass storm valves  
" " " " " " " " Bridge

culars of Side Scuttles:

4 side scuttles, each side, of fore-castle 9" diam. with deadlights hinged in position

peculiarities of Guard Rails :—

Guard rails on Prop, Bridge + Ice 3-2' high, 2 rods. slanchions spaced about 4' apart

Bulwarks in wells 25" steel plates 6½ Rail bar, 7" B.P. stays spaced 5' to 6' apart

iculars of Gangways, Lifelines, etc. :—

Steil wire life lines in forward and aft wells on each side

Particulars of Freeing Arrangements.

Late position of each freeing port ... } After Well:— *From Bridge Bldg 8', 20', 32' + 44'* *14" above deck*  
 F. and A. position and height above deck edge) } Forward Well:— *6', 16' + 28'*  
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— *2 Horizontal rods in after well*  
 Additional area where sheer is less than standard. *Forward "*

Particulars of Superstructures, Trunks, Casings, Deckhouses.

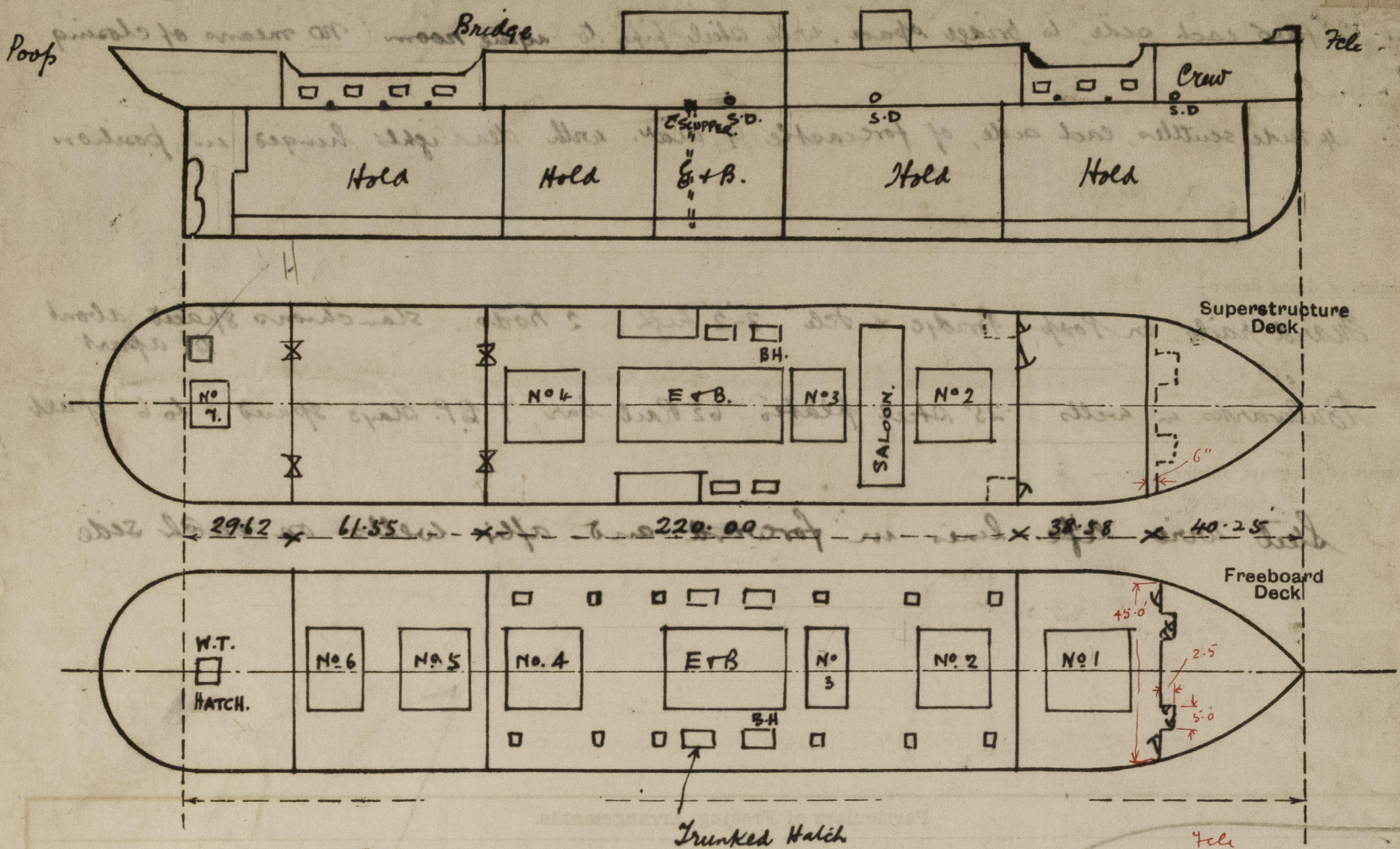
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
oop Bulkhead ... ..	.38	.34	5½ BA.	32"	Brackets top lugs bottom	5-0 x 3-1	24"	-
aised Quarter Deck Bulkhead ...	.26	.26	3 x 3 x .30	30"	Brackets top lugs bottom	4-6 x 2-0 4-6 x 2-9	23"	-
ridge, After Bulkhead ... ..	.26	.26	3 x 3 x .30	30"	Brackets top lugs bottom	4-6 x 2-0 4-6 x 2-9	23"	-
ridge, Forward Bulkhead ...	.30	.30	3 x 3 x .30	30"	Brackets top lugs bottom	4-6 x 2-0 4-6 x 2-9	23"	-
orecastle Bulkhead ... ..	.30	.30	3 x 3 x .30	30"	Brackets top lugs bottom	4-6 x 2-0 4-6 x 2-9	23"	-
trunk, Aft ... ..	.26	.26	3 x 3 x .30	30"	Brackets top lugs bottom	4-6 x 2-0 4-6 x 2-9	23"	-
trunk, Forward ... ..	.26	.26	3 x 3 x .30	30"	Brackets top lugs bottom	4-6 x 2-0 4-6 x 2-9	23"	-
xposed Machinery Casings on Free- board or Raised Quarter Decks ...	.34	.30	3 x 3 x .30	27"	Brackets top lugs bottom	4-9 x 2-0	19"	7-6
xposed Machinery Casings on Super- structure Decks ... ..	.26	.26	3 x 3 x .30	36"	Brackets top lugs bottom	4-9 x 2-0	18"	-
achinery Casings within Superstruc- tures not fitted with Class I Closing Appliances ... ..	.26	.26	3 x 3 x .30	36"	Brackets top lugs bottom	4-9 x 2-0	18"	-
eekhouses on Flush Deck Ships ...	.26	.26	3 x 3 x .30	36"	Brackets top lugs bottom	4-9 x 2-0	18"	-

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

Poop Bulkhead	...	...	2 openings: closed with 2½" stormboards full height in twisted channels
Raised Quarter Deck Bulkhead	...	...	<del>5 Hinged steel doors operated from both sides</del>
Bridge, After Bulkhead	...	...	2 openings, closed with 2½" stormboards full height in twisted channels
Bridge, Forward Bulkhead	...	...	5 Hinged steel w.T. doors secured with 8 bolts nuts from outside
Forecastle Bulkhead	...	...	2 doors operate from both sides
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...	...	6 Hinged steel doors
Exposed Machinery Casings on Superstructure Decks	...	...	5 Hinged steel doors, operated from both sides
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...	3 Hinged steel doors, operated from both sides
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:—



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

There are no special features

The vessel has now been examined in dry dock for damage repairs, & means of closing the openings in the decks & sides.

The following particulars have been provided by the Builders:—

Displacement at	24' Draught	11,470 Tons	Tons per inch	44.05
25' do. 06	12,000	87	46	44.30

Builder's name and yard number *Messrs Wm Gray & Co. Yard No 979*

Names of sister ships *1/5 "Anderby"*

Owners *Messrs Ropner Shipping Co. Ltd.*

Fee £ *12 : 15 : 0*

Received by me



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