

3 JUN 1932

Index. No. 3258  
(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

No 100489.

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~

having poop, bridge and false

(Type of Superstructures.) 134 T. 29-12-34

Ship's Name <b>"STAFFORDSHIRE"</b>	Nationality and Port of Registry <b>British Liverpool</b>	Official Number <b>161082</b>	Gross Tonnage <b>10595</b>	Date of Build <b>1929-1m</b>
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Port of Survey Liverpool

Date of Survey May 1932

Name of Surveyor A. W. Jackson.

Particulars of Classification 100A1.

Moulded Dimensions: Length 482.0' Breadth 62.0' Depth 36.5' 31.925

Moulded displacement at moulded draught = 85 per cent. of moulded depth 19766 tons

Coefficient of fineness for use with Tables .746

<p>Depth for Freeboard (D)</p> <p>Moulded depth ... <u>36.5</u></p> <p>Stringer plate <u>.46"</u> ... <u>.04</u></p> <p>Sheathing on exposed deck <u>3" P.P.</u></p> <p><math>T \left( \frac{L-S}{L} \right) = .25 \left( \frac{482-36.5}{482} \right) = .05</math></p> <p>Depth for Freeboard (D) = <u>36.59</u></p>	<p>Depth correction</p> <p>(a) Where D is greater than Table depth (D-Table depth) R = <math>(36.59-32.13)3 = 13.38</math></p> <p>(b) Where D is less than Table depth (if allowed) (Table depth-D) R =</p> <p>If restricted by superstructures</p>	<p>Round of Beam correction</p> <p>Moulded Breadth (B) <u>62.0'</u></p> <p>Standard Round of Beam = <math>\frac{B \times 12}{50} = 14.88</math></p> <p>Ship's Round of Beam = <u>9"</u></p> <p>Difference <u>5.88</u></p> <p>Restricted to</p> <p>Correction = <math>\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{5.88}{4} \times \left( 1 - \frac{36.5}{482} \right) = 1.27</math></p>
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## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	<u>51.25</u>	<u>51.25</u>	<u>7'-9"</u>		<u>51.25</u>	Standard Height of Superstructure <u>7.5</u>
" overhang ...						" " R.Q.D.
R.Q.D. enclosed ...						Deduction for complete superstructure <u>42.00</u>
" overhang ...						Percentage covered $\frac{S}{L} = 81.79$
Bridge enclosed ...	<u>265.0</u>	<u>265.00</u>	<u>8'-6"</u>		<u>265.00</u>	" " $\frac{S_1}{L} = 81.79$
" overhang aft ...						" " $\frac{E}{L} = 81.79$
" overhang forward ...						Percentage from Table, Line A. <u>77.52</u>
Fore enclosed ...	<u>78.0</u>	<u>78.00</u>	<u>7'-9"</u>		<u>78.00</u>	(corrected for absence of forecastle (if required))
" overhang ...						Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...						Deduction = <u>32.56</u>
" " forward ...						
Total ...	<u>394.25</u>	<u>394.25</u>			<u>394.25</u>	

## SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product	
A.P. ...	<u>58.20</u>	1	<u>58.20</u>	<u>36.0</u>	<u>36.0</u>	1	<u>36.00</u>	Mean actual sheer aft = <u>Deficient</u>
$\frac{1}{2}$ L from A.P. ...	<u>25.90</u>	4	<u>103.60</u>	<u>16.0</u>	<u>15.8</u>	4	<u>63.20</u>	Mean actual sheer forward = <u>Deficient</u>
$\frac{2}{3}$ L " ...	<u>6.40</u>	2	<u>12.80</u>	<u>5.25</u>	<u>3.95</u>	2	<u>7.90</u>	Mean standard sheer forward
Amidships ...	<u>✓</u>	4	<u>✓</u>	<u>-</u>	<u>-</u>	4	<u>✓</u>	Length of enclosed superstructure forward of amidships =
$\frac{2}{3}$ L from F.P. ...	<u>12.80</u>	2	<u>25.60</u>	<u>10.13</u>	<u>10.86</u>	2	<u>21.72</u>	" " aft of " =
$\frac{1}{2}$ L " ...	<u>51.80</u>	4	<u>207.20</u>	<u>42.63</u>	<u>43.45</u>	4	<u>173.80</u>	
F.P. ...	<u>116.40</u>	1	<u>116.40</u>	<u>96.0</u>	<u>96.0</u>	1	<u>96.00</u>	
Total ...			<u>523.80</u>				<u>398.62</u>	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{523.80 - 398.62}{18} \left( .75 - \frac{341}{2 \times 482} \right) = 2.37$

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.

2 1/2" sheathing onDepth to Freeboard Deck = 36.73Summer freeboard = 7.74Moulded draught (d) = 29.54

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 7.38

Addition for Winter North Atlantic Freeboard (if

required) = 7.74

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 18786$ 

Tons per inch immersion at summer load water line

T = 60.65Deduction =  $\frac{\Delta}{40 T}$  inches= 7.747.71

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

1.4261.36Depth Correction ... 13.83Deduction for superstructures ... 32.56Sheer correction ... 2.37Round of Beam correction ... 2.27Correction for Thickness of Deck amidships ... 1.65

Other corrections, scantlings, etc. ...

+ -

13.83

32.56

2.37

2.27

1.65

18.12

32.56

14.44

Summer Freeboard = 87.16SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:-Tropical Fresh Water Line above Centre of Disc ... 15.15Fresh Water Line " " ... 7.74Tropical Line " " ... 7.74Winter Line below " " ... 7.74Winter North Atlantic Line " " ... 7.74Tropical Fresh Water Freeboard ... 6.0Fresh Water " " ... 6.0Tropical " " ... 6.0Winter " " ... 6.0Winter North Atlantic " " ... 6.07.346.046.746.87.10 1/2

a passenger line to be marked 5 1/2 below the upper of disc.

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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

		HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
		Fejle DK.	Upper DK.		Bridge DK.		Up. DK.						
		Nº 1	Nº 2	Nº 3	Nº 4	Nº 5	Nº 6						
Description of Hatchway		...	...	...	...	...	...						
Dimensions of Hatchway		...	...	...	...	...	...						
COAMINGS	Height above Deck	...	...	...	...	...	...						
	Thickness	...	...	...	...	...	...						
	Sides	...	...	...	...	...	...						
	Ends	...	...	...	...	...	...						
Stiffeners		...	...	...	...	...	...						
Brackets, Stays		...	...	...	...	...	...						
HATCH BEAMS	Number	...	...	...	...	...	...						
	Spacing	...	...	...	...	...	...						
	Scantling and Sketch	...	...	...	...	...	...						
	Bearing Surface	...	...	...	...	...	...						
FORE AND AFTERS	Number	...	...	...	...	...	...						
	Spacing	...	...	...	...	...	...						
	Unsupported Lengths	...	...	...	...	...	...						
	Scantling* and Sketch	...	...	...	...	...	...						
Bearing Surface		...	...	...	...	...	...						
HATCH COVERS	Material	...	...	...	...	...	...						
	Thickness	...	...	...	...	...	...						
	How fitted	...	...	...	...	...	...						
	Bearing Surface	...	...	...	...	...	...						
Spacing of Cleats		...	...	...	...	...	...						
Number of Tarpaulins		...	...	...	...	...	...						
*Are wood fore and afters steel shod at all bearing surfaces? <input checked="" type="checkbox"/> Are battens and wedges efficient and in good condition? <input checked="" type="checkbox"/> Are tarpaulins in good condition and in accordance with rule requirements? <input checked="" type="checkbox"/> Are lashings provided in accordance with rule requirements? <input checked="" type="checkbox"/>													

Particulars of fiddle, funnel and ventilator coamings:— *Motor casing ventilator coamings in efficient condition*  
*Funnel used as ventilator and discharge of gas from main engines.*  
*Motor room skylight of steel, strongly constructed.*

Particulars of Flush Bunker Scuttles:— *None fitted.*

Particulars of Companionways:— *1— Steel companion 5'-0" x 6'-6" x 7'-9" high on Bridge DK. in deck house amidships S side leading to crew's accommodation, door of heavy teak with 11" sill above wood deck sheathing, door operated from both sides.*  
*1— Steel companion 3'-0" x 9'-0" x 7'-9" high on Poop DK in deckhouse P side leading to native crew's quarters, door of heavy teak with sill 11" above wood deck sheathing, door operated from both sides.*

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

No	Position	Dia.	Ht.	Thk.	Service	
1	Fejle Head	21"	32"	4"	Fore Peak Space	✓
5	"	18"	36"	50"	Nº 1 H2 Holds.	✓
2	Forward Well	30"	36"	50"	Nº 2 Hold.	✓
2	Forward Well	18"	36"	50"	Nº 3 Hold.	✓
6	Bridge DK.	8"	30"	C.S.	Baggage, Spirit Rm. etc.	✓
2	"	18"	36"	50"	Nº 5 Hold.	✓

*All heights of coamings measured from top of wood deck*  
*Ventilators marked X Fyfe's Patent.*  
*All ventilators other than Fyfe's Patent fitted with mushroom tops.*  
*Ventilator coamings closed with wood plugs and canvas covers.*

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

Nº	Position	Dia.	Ht.	Thk.	Service	Nº	Position	Dia.	Ht.	Thk.	Service
2	Fejle Head	4"	40"	4"	Fore Peak.	3	Poop DK.	3"	21"	4"	Nº 10 DB and A Peak.
5	"	4"	40"	4"	Nº 1 + 2 O.B. Tanks.						
4	For. Well	4"	36"	4"	Nº 2 + 3 O.B. Tanks.						
14	Bridge DK.	4"	18"	4"	Nº 3, 4, 5 + 6 O.B. Tanks.						
2	"	3"	18"	4"	Lubricating Oil Tank.						
14	"	3"	21"	4"	Cofferdam - Nº 7, 8 + 9 O.B.						

*Air Pipes marked ✓ fitted with Tyros Valves.*  
*Gooseneck air pipes marked X fitted with canvas covers.*

Particulars of Gangway Cargo and Coaling Ports:— *4 W.T. cargo door P + S. between freeboard and second deck in way of Nº 2, 3, 4 + 5 Holds, 2'-6" x 2'-3" efficiently constructed.*  
*1 W.T. gangway door P in bridge side 3'-10" x 5'-9" efficiently constructed.*  
*1 W.T. " " S " " 5'-0" x 5'-9" "*



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Particulars of Scuppers and Sanitary Discharge Pipes:— *Scuppers in wells led overboard through ship's sides*

Sanitary discharge pipes fitted with gunmetal storm valves at ship's sides. ✓

See Ellcartel

Particulars of Side Scuttles:— Side scuttles to crew spaces in fore, poop, and upper tween deck below poop fitted with hinged deadlights. ✓

Side scuttles to passengers accommodation in bridge tween deck provided with portable deadlights. ✓

Particulars of Guard Rails:— *Fc's l'e head 3'-0" above top of sheerstrake, three rods and stanchions 4'-8" apart.*

<i>Bridge OK</i>	3'-0"	"	"	"	, four rods and teak rail "	"	3'-9"	"	.
<i>Poop OK</i>	3'-0"	"	"	"	, " "	"	5'-0"	"	.

Particulars of Gangways, Lifelines, etc.:— Lifelines fitted p.s.s. in forward well, strongly constructed and adequately supported.

Gangway of wood with steel rods and stanchions each side, strongly constructed from bridge to poop decks. ✓ -

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 ... ..	20.0' ✓	4'-8"	3'-0" x 1'-6"	2	✓ 9 $\phi$	8.5 $\phi$ ✓
Forward Well ... ..	67.75' ✓	4'-8"	3'-0" x 1'-6"	3	✓ 13.5 $\phi$	13.55 $\phi$ ✓

State position of each freeing port ... .. } After Well:—  
(E, 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:—

Additional area where sheer is less than standard.

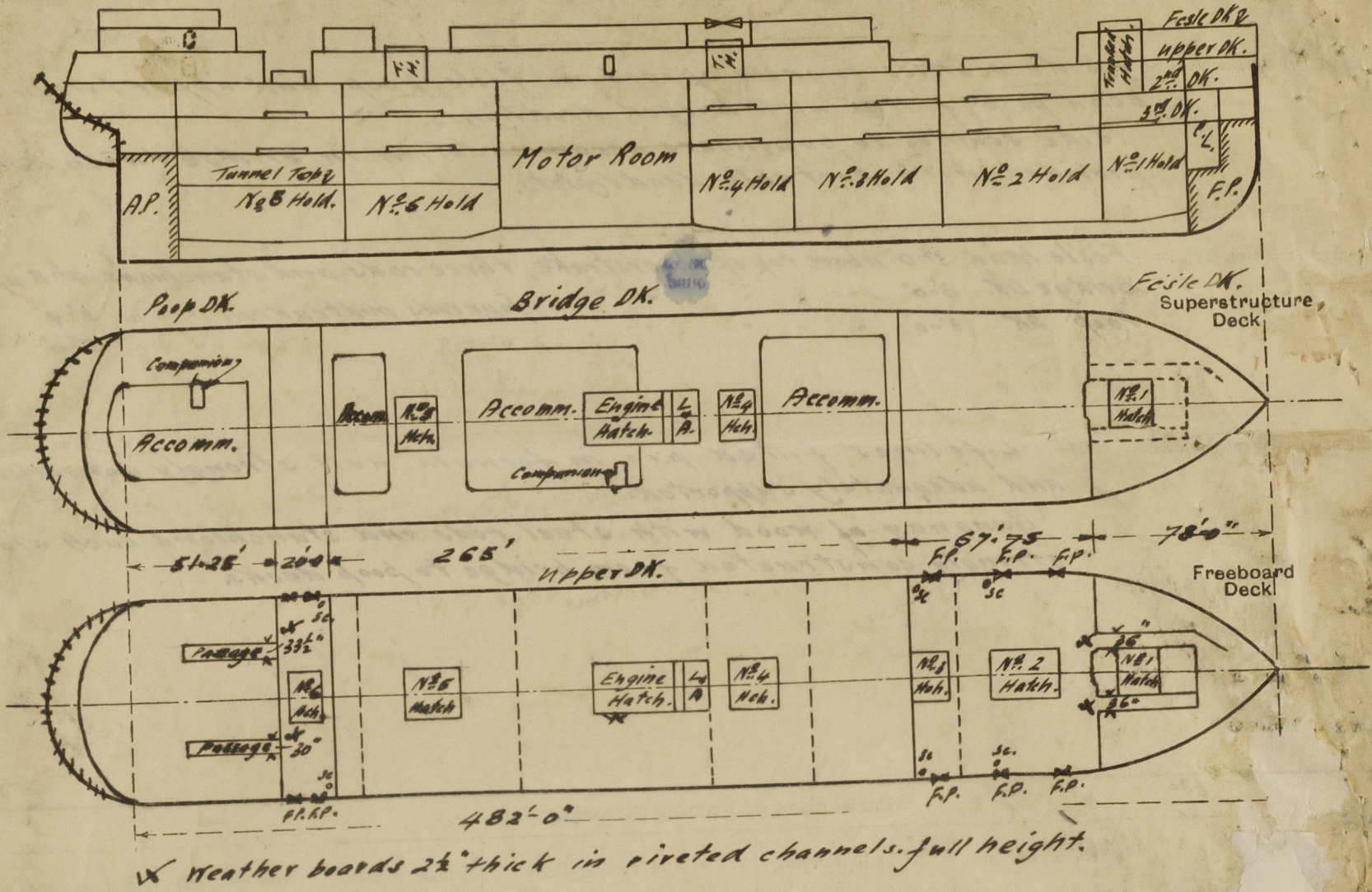
~~3'-0" x 4'-6"~~ 3'-0" x 3'-9" ✓ Ford.  
~~3'-0" x 4'-5"~~ 3'-0" x 2'-0" ✓ 3'-0" x 10'-5" ✓ Ford.  
Shutters hinged at top, two horizontal bars. Lower edge of freeing ports at top of upper deck sheerstrake.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	.40"	.36"	5½"x3"x .49 B.R.	30"	Lugs top and bottom	Passages P+S, 30" and 33" wide	Nil	7'-9"
Raised Quarter Deck Bulkhead ...	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, After Bulkhead ... ..	.36"	.32"	4½"x3"x .34 O.R.	30"	End rivets thro' deck bars	1 @ 3'-7"x5'-7" 1 @ 2'-0"x3'-7"	10" ab. m.d. " " "	8'-6"
Bridge, Forward Bulkhead ... ..	.44"	.40"	9½"x3½"x .50 B.R.	30"	Lugs top and bottom	Nil	Nil	8'-6"
Forecastle Bulkhead ... ..	.36"	.32"	4½"x3"x .34 O.R.	30"	End rivets thro' deck bars.	passages P+S 36" wide	Nil	7'-9"
Trunk, Aft ... ..	✓	✓	✓	✓	✓	✓	✓	✓
Trunk, Forward ... ..	✓	✓	✓	✓	✓	✓	✓	-
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓	✓	✓	✓	✓	✓	✓	-
Exposed Machinery Casings on Super-structure Decks ... ..	✓	✓	✓	✓	✓	✓	✓	-
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	.50"	.38"	4"x3"x .46	30"	Nil	3'-0"x5'-6"	12" above composition	9'-0"
Deckhouses on Flush Deck Ships ...	✓	✓	✓	✓	✓	✓	✓	-

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead ... ..	Weather boards in riveted channels, full height. ✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ... ..	Heavy teak doors capable of being manipulated from both sides. ✓
Bridge, Forward Bulkhead ... ..	Nil
Forecastle Bulkhead ... ..	Weather boards in riveted channels, full height. ✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓
Exposed Machinery Casings on Super-structure Decks ... ..	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	Steel doors capable of being manipulated 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 shown on the following sketches:—



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

*This vessel has been examined afloat for freeboard only.*

Extreme Draft	Displacement Tons
29'-0"	19298
28'-0"	17523
27'-0"	16803
26'-0"	16073

*Tons per inch at 29'-0" = 60.65.*

Builder's name and yard number:

*Fairfield Co. No. 630.*

Names of sister ships:

Owners:

*Bibby Steam Ship Co Ltd.*

Fee £

*17 : 0 : 0*

Received by me



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