

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

23 MAY 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having

Raised Quarter Deck and Forecastle.

Port of Survey Newcastle-on-Tyne

Date of Survey 19th May 1932

(Type of Superstructures.)

Ship's Name

JAMES DUNFORD

Nationality and Port of Registry

British 148083

Gross Tonnage

1226

Date of Build

1924.8

Name of Surveyor Stephenson

Moulded Dimensions: Length 235'-0" Breadth 35'-83" Depth 16'-1"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 18'-8" 2464 tons

Coefficient of fineness for use with Tables

749

Particulars of Classification +100A1.

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... .. 16.08	(a) Where D is greater than Table depth (D - Table depth) R = (16.12 - 15.67) 1.807 = +.81"	Moulded Breadth (B) Standard Round of Beam = $\frac{B \times 12}{50} = 8.60$
Stringer plate ... .. .04	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Ship's Round of Beam = 9'
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Difference = .40
Depth for Freeboard (D) = 16.12		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.40}{4} \times .273 = -.03$

## DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..				
" overhang ... ..				
R.Q.D. enclosed ... ..	145.25	8'-0" Fore End. x 3.00/3.90		111.73
" overhang ... ..	5'-3"			
Bridge enclosed ... ..				
" overhang aft ... ..				
" overhang forward ... ..				
Fore enclosed ... ..	25.25	7'-0" +		25.25
" overhang ... ..	.62	3' Wood. dk		.31
Trunk aft ... ..				
" forward ... ..				
Tonnage opening aft ... ..				
" forward ... ..				
Total ... ..	171.12			137.29

Standard Height of Superstructure	6.00
" " R.Q.D.	3.90
Deduction for complete superstructure	29.5
Percentage covered $\frac{S}{L} =$	72.84%
" " $\frac{S_1}{L} =$	72.70%
" " $\frac{E}{L} =$	58.42%
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	43.79%
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction = 29.50 x 43.79 =	12.92"

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ... ..	33.50	1	33.50	25.5	25.50	1	25.50
$\frac{1}{4}$ L from A.P. ... ..	14.90	4	59.60	11.2	11.26	4	45.04
$\frac{3}{4}$ L " ... ..	3.69	2	7.38	3	2.81	2	5.62
Amidships ... ..		4				4	
$\frac{3}{4}$ L from F.P. ... ..	7.37	2	14.74	8	7.30	2	14.60
$\frac{1}{4}$ L " ... ..	29.81	4	119.24	29.2	29.23	4	116.92
F.P. ... ..	67.00	1	67.00	66	66.00	1	66.00
Total ... ..			301.46				273.68

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{27.78}{18} \left( .75 - .3642 \right) = +.60"$ 

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 = 19.12'

Summer freeboard = 4.60'

Moulded draught (d) = 14.52'

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 3.63 = 3 $\frac{3}{4}$ 

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

Deduction for Fresh Water.

Displacement in salt water at summer-load water line

 $\Delta = 2615$ 

Tons per inch immersion at summer load water line

T = 16.7

Deduction =  $\frac{\Delta}{40T}$  inches=  $\frac{2615}{40 \times 16.7} = 3.92 = 4"$ Draft 14'-0" 2502 16.62  
15'-0" 2704 16.79

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

 $\frac{.681 \times 749}{1.36} = \frac{1.429}{1.36}$ 

Depth Correction ... ..

Deduction for superstructures ... ..

Sheer correction ... ..

Round of Beam correction ... ..

Correction for Thickness of Deck amidships ... ..

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

Summer Freeboard = 55.35"

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:— 4'-7 $\frac{1}{4}$ "

Tropical Fresh Water Line above Centre of Disc ... .. 7 $\frac{3}{4}$ "

Fresh Water Line " " " " 4"

Tropical Line " " " " 3 $\frac{3}{4}$ "

Winter Line below " " " " 3 $\frac{3}{4}$ "

Winter North Atlantic Line " " " " 5 $\frac{3}{4}$ "

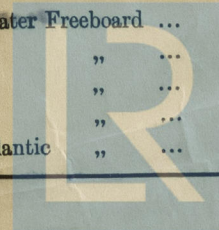
Tropical Fresh Water Freeboard ... .. 3'-11 $\frac{1}{2}$ "

Fresh Water " " " " 4'-3 $\frac{3}{4}$ "

Tropical " " " " 4'-3 $\frac{1}{2}$ "

Winter " " " " 4'-11"

Winter North Atlantic " " " " 5'-9 $\frac{1}{2}$ "





## PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS												
FORE WALL.				R. Q. DECK.		FORE DECK.		R. Q. DECK.		BASING TOP.		
Description of Hatchway				No. 1.	No. 2.	No. 3.	No. 4.	FORE DECK.	FORE DECK.	BUNKER HATCHES.	AFT PEAK STORE.	COAL HATCH.
Dimensions of Hatchway				30'-7 1/2" x 24' x 18'	28'-10 1/2" x 24'-0"	26'-3" x 24'-0"	28'-4" x 24'-0"	24' x 24'	24' x 24'	20' 1'-11" x 2'-5"	3'-11" x 4'-2"	5'-4" x 18'-0"
COAMINGS	{	Height above Deck	...	30"	45"	30"	30"	18"	3 1/2 x 3 1/2 x 36"	9 x 3 x 40" B.A.	18"	9 x 3 x 40" B.A.
		Thickness	...	50"	50"	50"	50"	38"			38"	38"
		Sides	...	44"	44"	44"	44"					
		Ends	...	44"	44"	44"	44"					
Stiffeners				...	8 x 3 x 50 B.A.							
Brackets, Stays				...	1 @ 2 1/2 x 2 1/2 x 38"	2 @ 2 1/2 x 2 1/2 x 40"						6" above wood deck.
HATCH BEAMS	{	Number	...	3	5	5	5					
		Spacing	...	5'-2"	4'-9 1/4"	4'-4 1/2"	4'-8 3/4"					
		Scantling and Sketch	...	1 @ 10' x 10 1/2" x 38" double angles.	19 1/2' x 10 1/2" x 38" plate	18 1/2' x 9 1/2" x 38" plate	19 1/2' x 10 1/2" x 38" plate					
		Bearing Surface	...	3 1/2"	3 1/2"	3 1/2"	3 1/2"					
FORE AND AFTERS	{	Number	...									
		Spacing	...									
		Unsupported Lengths	...									
		Scantling* and Sketch	...									
Bearing Surface				...								
HATCH COVERS	{	Material	...	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	3/4 Mang'd Steel w. T. corner. 4 toggles.	W.P.	W.P.
		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"
		How fitted	...	F. + A.	F. + A.	F. + A.	F. + A.	T.	T.		T.	F. + A.
		Bearing Surface	...	3' 4" x 9"	3' 5" x 10 1/2"	3' 5" x 10 1/2"	3' 5" x 10 1/2"	2 1/4"	3"		2 1/4"	2 1/4"
Spacing of Cleats				...	22"	21"	22"	22"	13"	none	18"	26"
Number of Tarpaulins				...	2	2.	2.	2	2	none	2	2.
*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 —

Fiddle gratings fitted with hinged steel covers.
Funnel and Ventilators in good condition.
Steel Engine Room Skylight strongly constructed.

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways :—

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

In Fore Well. 1 @ 14 1/2" dia. 36" high. 34 to Holdn.  
On R. Quarter deck 1 @ 14 1/2" dia. 36" high. 34. 15 Holdn.  
" " " 2 @ 16 1/2" " 36" " 38 " "

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

On Forecastle decks. 1 @ 4" dia. C.I. 12" to mouth above deck 1 to Fore Peak. No snifting holes.  
In Fore Well. 2 @ 3 1/2" dia. 16" to underside of bench. W.I. to C.O.B.  
On Raised quarter deck 2 @ 3 1/2" dia. 32" to mouth. W.I. to C.O.B.  
" " " " 2 @ 2" dia. 16" " underside of bench. W.I. to C.O.B. with snifting hole in  
wood plugs supplied to all upper bench,  
air pipes.

Particulars of Gangway Cargo and Coaling Ports:—



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Particulars of Scuppers and Sanitary Discharge Pipes

3 W.C. discharges, 1 Port, 2 Starboard, discharged below Raised quarter deck and upper deck. See diagram on back page. *The discharge from No. 16 in fore-castle is fitted with a storm valve at ship's side.*  
1 Scupper P+S from Crews quarters led down into Chain locker with open end on upper deck. Scupper at present cemented up.

Particulars of Side Scuttles:

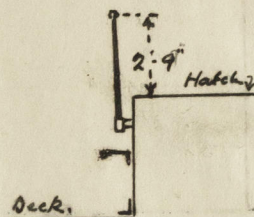
Side lights in crew quarters in Fore-castle fitted with hinged deadlights.

Particulars of Guard Rails:—

On Fore-castle deck, rails 3'-3" high, 2 rods. Stanchions spaced 4'-6" apart.

Particulars of Gangways, Lifelines, etc.:

Portable iron stanchions fitted on hatch coverings in Well on Port side only from Raised Quarter deck to Fore-castle Bulkhead.  
Permanent Wood gangway fitted between No. 1 & No. 2 hatches. Lifeline 2 1/2" manilla rope.  
Stanchions 2'-9" high above hatch covers, spaced about 8'-0" apart.  
~~Bottom stanchion sockets require renewal.~~



Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Raised Quarter Deck.						
Well ...	145'-4"	3'-6"	4'-4" x 1'-0" 3'-7 1/2" x 1'-0" 4'-0" x 1'-0"	6 } 137	30.4 21.75	29.08
Forward Well ...	64'-6"	4'-1 1/2"	4'-6 1/2" x 1'-6"	4.	27.3	12.95
State position of each freeing port ... (F. and A. position and height above deck edge)						
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.						

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 ...	✓	.32	7x3x40 B.F.	36"	Bkts. at Top.			3'-0"
Bridge, After Bulkhead ...								
Bridge, Forward Bulkhead ...								
Fore-castle Bulkhead ...	✓	.25	2 1/2 x 2 1/2 x 30	26"	none	4 @ 4'-11" x 2'-0"	20"	7'-0"
Trunk, Aft ...								
Trunk, Forward ...								
Exposed Machinery Casings on Deck-board or Raised Quarter Decks ...	.40	.36	4 1/2 x 3 x 38	3 1/2" at sides 22" at end.	Bkts. Top at sides.	2 @ 4'-6" x 2'-0" 2 @ 4'-7" x 2'-0"	19" 18 1/2"	7'-0"
Exposed Machinery Casings on Super-structure Decks ...								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...								
Deckhouses on Flush Deck Ships ...								

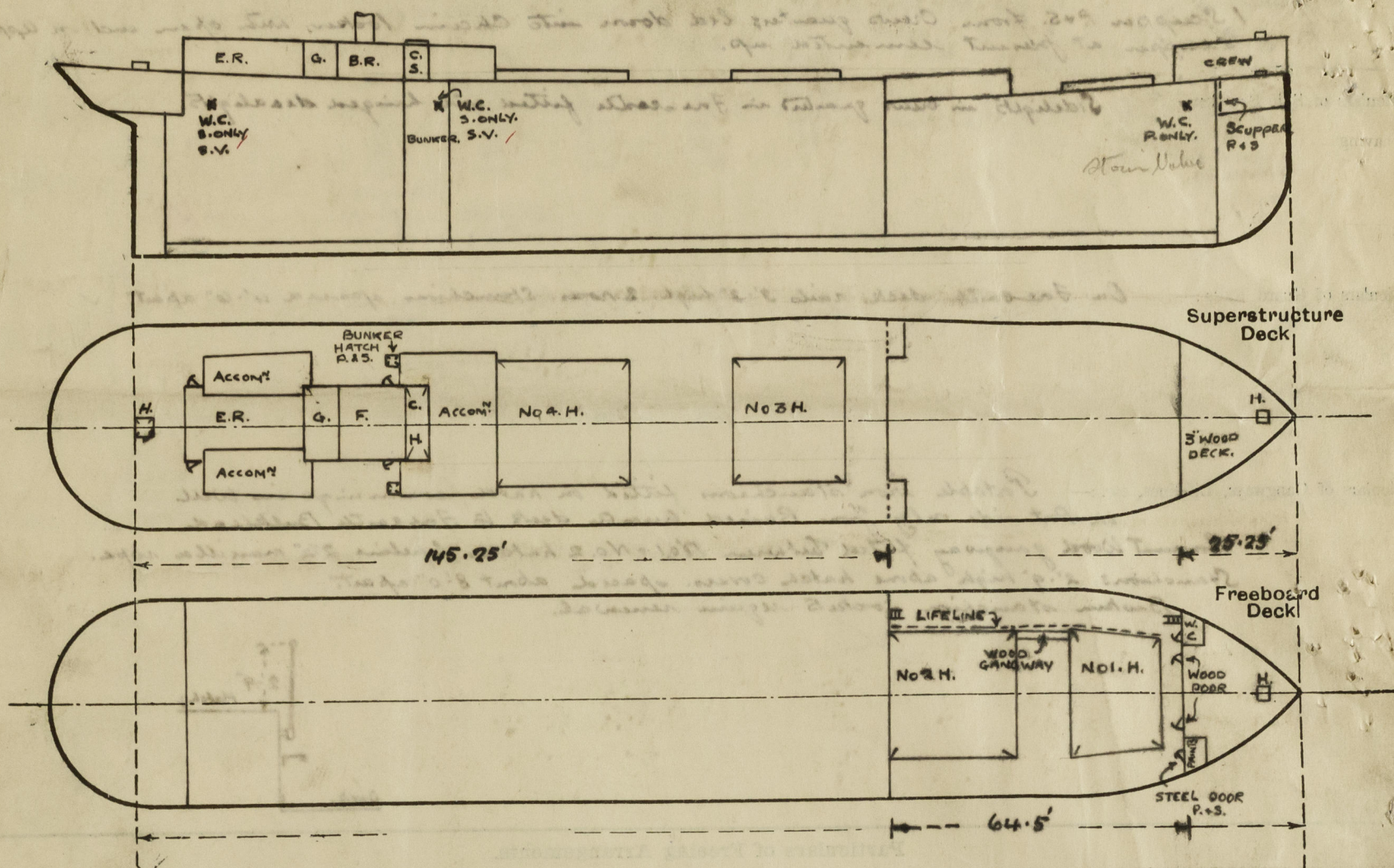
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead ...	
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead ...	
Bridge, Forward Bulkhead ...	
Fore-castle Bulkhead ...	2 Ordinary steel hinged doors, operated from both sides: 2-1 1/2" solid oak doors operated both sides.
Exposed Machinery Casings on Deck-board or Raised Quarter Decks ...	4 Ordinary steel hinged doors operated from both sides.
Exposed Machinery Casings on Super-structure Decks ...	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	
Deckhouses on Flush Deck Ships ...	



James Whitley

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:—

No timber assignment required.  
~~Locks on steel doors to Fiddley casing defective.~~  
 Ship measured afloat.

*[Handwritten signature]*

Builder's name and yard number: *Swan Hunter & Wigham Richardson Co. Ltd. Sunderland.* No 1243.

Names of sister ships:

Owners: *Punford Steamship Co. Ltd.*

Fee £ 8 : 10 : - Received by me *[Handwritten signature]*



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