

12 OCT 1932

Index. No. 14839  
(For London Office only.)

# Clond's Register of Shipping. SURVEYS FOR FREEBOARD.

33331

Computation of Freeboard for Steamer, Sailing Ship, Tanker *Hopper DREDGER*

having

*Fourth*Port of Survey *Southampton**MIDIA*Date of Survey *30 Apr 1932 - 10 Oct 1932**SAN JUAN*

(Type of Superstructures.)

Name of Surveyor *L.R. Horne*

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

*FOREMOST CHIEF**Romanian**BRITISH**161311**1031**1929**London*Moulded Dimensions: Length *190.39* Breadth *38.0* Depth *16.54*Moulded displacement at moulded draught = 85 per cent. of moulded depth *2290* tonsCoefficient of fineness for use with Tables *.788*Particulars of Classification *+100 A1**Hopper Dredger*

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	16.54	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	38.0
Stringer plate	.04	(16.58-12.69) 1.464 = +5.69 ✓		Standard Round of Beam = $\frac{B \times 12}{50}$	9.12
Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	9.12
$T \left( \frac{L-S}{L} \right) =$				Difference	.38
Depth for Freeboard (D) =	16.58	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{.38}{4} \left( 1 - \frac{2994}{7006} \right) = -.07$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ...						Standard Height of Superstructure <i>6.0</i>
" overhang ...						" " R.Q.D. <i>✓</i>
R.Q.D. enclosed ...						Deduction for complete superstructure <i>25.04</i>
" overhang ...						Percentage covered $\frac{S}{L} = 29.94$
Bridge enclosed ...						" " $\frac{S_1}{L} = 29.94$
" overhang aft ...						" " $\frac{E}{L} = 14.97$
" overhang forward						Percentage from Table, Line A. <i>7.48</i>
Fore enclosed ...	57 ✓	57.00	3'-0"	$\frac{3.0}{6.0}$	28.50 ✓	(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) <i>NO BRIDGE.</i>
Tonnage opening aft ...						Deduction = $25.04 \times .0748 = -1.87$ ✓
" " forward						
Total ...	57.00	57.00			28.50	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	29.04	1		29.04	39	39.50	1		29.04	Mean actual sheer aft = <i>EXCESS</i>
$\frac{1}{2}$ L from A.P. ...	12.92	4		51.68	14	13.00	4		51.68	Mean actual sheer forward = <i>DEFICIENT.</i>
$\frac{3}{4}$ L " ...	3.19	2		6.38	3	2.00	2		6.38	Mean standard sheer aft
Amidships ...	-	4		-	0	-	4		-	Length of enclosed superstructure
$\frac{3}{4}$ L from F.P. ...	6.39	2		12.78	4	2.00	2		4.00	forward of amidships =
$\frac{1}{2}$ L " ...	25.85	4		103.40	20	19.50	4		78.00	" " aft of " =
F.P. ...	58.08	1		58.08	79.12	78.50	1		78.50	
Total ...				261.36					245.60	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - S}{2L} \right) = \frac{15.76}{18} \left( \frac{.75 - .1497}{.6003} \right) = +.5346$

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 = *16.58* Ft.  
 Summer freeboard = *2.29*  
 Moulded draught (d) = *14.29*

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = *3.57 = 3 $\frac{1}{2}$* Addition for Winter North Atlantic Freeboard (if required) = *2"*

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 2363$ 

Tons per inch immersion at summer load water line

 $T = 15.96$ Deduction =  $\frac{\Delta}{40T}$  inches $= \frac{2363}{638.4} = 3.70 = 3\frac{3}{4}$ 

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

Correction for coefficient  $\frac{788+.68}{1.36} = \frac{1.468}{1.36}$ 

Depth Correction ... *5.69* ✓  
 Deduction for superstructures ... *1.87* ✓  
 Sheer correction ... *.52* ✓  
 Round of Beam correction ... *.07* ✓  
 Correction for Thickness of Deck amidships ...  
 Other corrections, scantlings, etc. ...

Summer Freeboard = *27.4538*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ... *7 $\frac{1}{2}$*  184  
 Fresh Water Line " " ... *3 $\frac{1}{2}$*  95  
 Tropical Line " " ... *3 $\frac{1}{2}$*  89  
 Winter Line below " " ... *3 $\frac{1}{2}$*  89  
 Winter North Atlantic Line " " ... *5 $\frac{1}{2}$*  140

Tropical Fresh Water Freeboard ... *1'-8 $\frac{1}{2}$ "* 514  
 Fresh Water " " ... *1'-11 $\frac{1}{4}$ "* 603  
 Tropical " " ... *2'-0"* 609  
 Winter " " ... *2'-7"* 767  
 Winter North Atlantic " " ... *2'-9"* 838



PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	P+S. 0.5 Bunkers	Store	9 manholes				
Dimensions of Hatchway	...	...	3'10" x 3'0"	7'0" x 3'9"	18" x 15"				
COAMINGS	Height above Deck	...	8"	24"	flush				
	Thickness	Sides	5/16"	5/16"					
		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	...	Steel	Wood	both				
	Thickness	...	2 1/2"	2 1/2"					
	How fitted	...	Butt	Butt	Shel				
	Bearing Surface	...		1 1/2"	cons				
		...							
Spacing of Cleats	...	...	✓	2'3"					
Number of Tarpaulins	...	...	✓	X2					

\*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 fiddle, funnel and ventilator coamings:—  
Funnel & ventilator coamings in efficient condition.  
Fiddle covers - 2000 flanged steel plates.  
permanently attached.

Particulars of Flush Bunker Scuttles:—  
Foremost Gally Bunkers 11" dia strongly constructed  
cut in scuttle.

Particulars of Companionways:—  
In Foremost house the coaming & plating are 1/4".  
The doors 178" Trunk, 22" x 4'-4", with 19" falls.

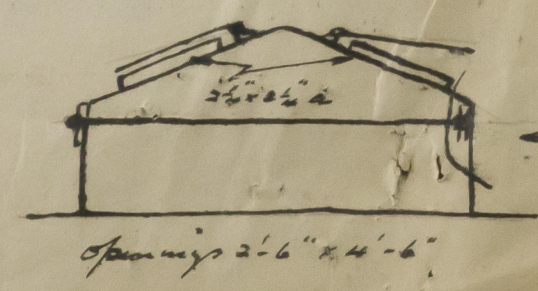
Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—  
Foremost P+S. 6, 9" Yents with 2'10" coamings.  
P+S. 4 1/2" G.N.V. 2'-1" high.  
P+S. 4 1/2" p.s. 5" G.N.V. 2'-3" high.

Efficient means of closing provided

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—  
Foremost: 7' high, 5" G.N.V. 24" high.  
Deck Tank P+S. 8" G.N.V. 2' high.  
O.F. Bunkers P+S. 7" G.N.V. 6" high above hatch cover.  
P+S. 4 1/2" " " 2'1" high.  
O.F. Bulk Tank 1. 3" G.N.V. 21" high.

Efficient means of closing provided

Particulars of Gangway Cargo and Coaling Ports:—



Particulars of Scuppers and Sanitary Discharge Pipes:—

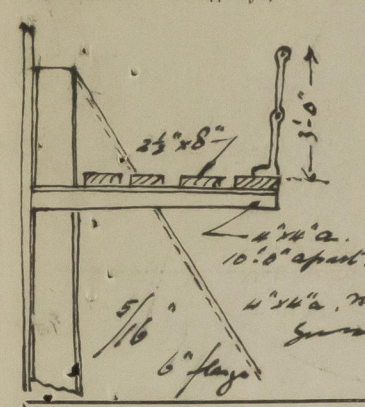
P. Sills. 2nd & 3rd ships V.C. 2  
2" iron pipes leading to C.I. storm valves.

Particulars of Side Scuttles:—

Particulars of Guard Rails:—

Foremost 2" wire on 3'-0" high standards 5'-0" apart.

Particulars of Gangways, Lifelines, etc.:—



Gangway attached to stanchion in hatch.  
Two wires run through hinged standards 5'-0" spaced 5'-0" along each side deck.

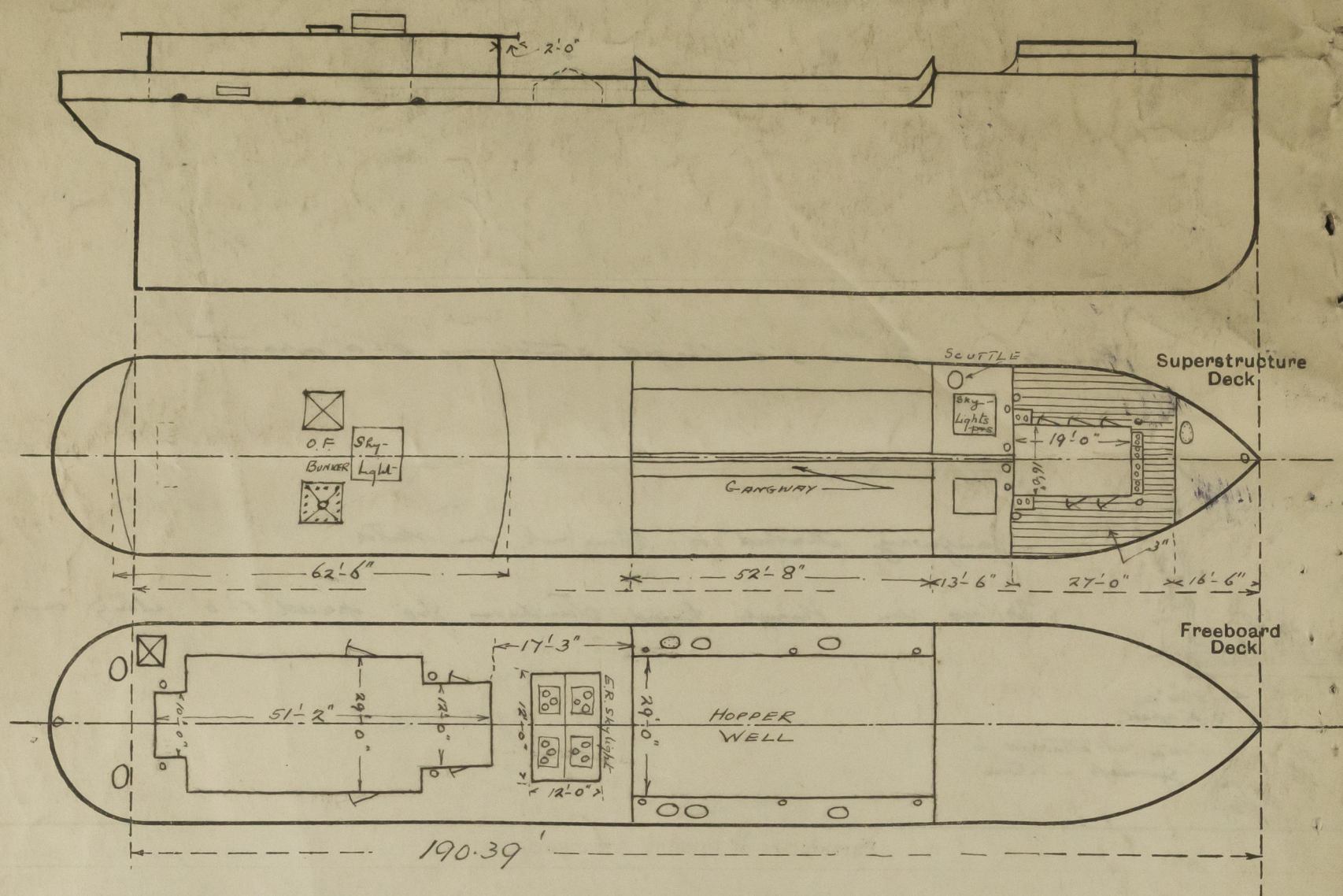
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	90'-0"	3'-0"	2'-6" x 1'-6"	1		
Forward Well		Open rails abreast Hopperwell.				
State position of each freeing port (F. and A. position and height above deck edge) After Well:— 6'4" above Hopper well Forward Well:— 9"						
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Shutter (hinged), no bars.						
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								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead	8'50"	4'50"	4'3" x 2"	29"	hatched 2' x 6"	✓	✓	3'-0"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	5/16"	5/16"	4' x 3" x 2"	30"	none	22' x 4' x 6"	19"	7'-0"
Exposed Machinery Casings on Superstructure Decks	5/16"	5/16"	✓	✓	✓	✓	✓	24"
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	✓
Forecastle Bulkhead	no openings
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Deck Doors 178", 22" x 4'-6", 11'6" both sides. Hinged windows 24" x 24" plate glass ✓
Exposed Machinery Casings on Superstructure Decks	Hinged covers fitted with hinged covers to smaller skylights. The main cover can be closely bolted down. ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
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:—

Builder's name and yard number

Names of sister ships

*"Foremost Scot"*

Owners

*James Dredging Towing & Transport Co. Ltd.*

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