

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Grimsby report.
No 17979

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having

a Poop, Bridge and a Forecastle.

Port of Survey

Grimsby

Date of Survey

26-5-32

Name of Surveyor

A.R. Palmer

Particulars of Classification

100A1

Ship's Name

DEWSBURY

Nationality and Port of Registry

British Grimsby

Official Number

127859

Gross Tonnage

1686

Date of Build

1910-6

Moulded Dimensions: Length

265.0

Breadth

35.82

Depth

18.5

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

2850

tons

Coefficient of fineness for use with Tables

.6769

Depth for Freeboard (D)

Moulded depth ... 18.50

Stringer plate ... 104

Sheathing on exposed deck

$$T \left(\frac{L-S}{L} \right) = \frac{(57.5 \times 29) + (17.5 \times 32)}{264.66} = .09$$

Depth for Freeboard (D) =

18.63

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R = (18.63 - 17.65) 2.035

= +1.99

(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)

35.82

Standard Round of Beam = $\frac{B \times 12}{50} = 8.599$

Ship's Round of Beam = 9.00

Difference

.48

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.48}{4} \times .3/32 = -.03$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	31.75	31.75	7'-9"		31.75
" overhang ...	none				
R.Q.D. enclosed ...	✓				
" overhang ...	✓				
Bridge enclosed ...	115.00	115.00	7'-9"		115.00
" overhang aft ...	none				
" overhang forward ...	2.66	1.33			1.33
F'cle enclosed ...	27.96	27.96	7'-9"		27.96
" overhang ...	5.69	5.69			5.69
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	188.75	181.73			181.73

Standard Height of Superstructure

6.15

" " R.Q.D.

Deduction for complete superstructure $34 - \frac{15 \times 20}{200} = 32.47$ Percentage covered $\frac{S}{L} = 71.17\%$ " $\frac{S_1}{L} = 68.68\%$ " $\frac{E}{L} = 68.68\%$

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 = $32.47 \times .6076 = -19.73$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	36.47	1	36.47	48.00	48.00	1	48.00
$\frac{1}{2}$ L from A.P. ...	16.23	4	64.92	20.50	20.54	4	82.06
$\frac{2}{2}$ L " ...	4.01	2	8.02	5.00	5.12	2	10.24
Amidships ...	0.00	4	0.00	0.00	✓	4	0.00
$\frac{2}{2}$ L from F.P. ...	8.02	2	16.04	8.25	8.27	2	16.54
$\frac{1}{2}$ L " ...	32.46	4	129.84	34.00	33.18	4	132.72
F.P. ...	72.94	1	72.94	75.00	75.00	1	75.00
Total ...			328.23				367.50

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{36.43}{18} (.75 - .356) = -.80$

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 = 18.79

Summer freeboard = 1.56

Moulded draught (d) = 17.23

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = $\frac{17.23}{4} = 4.31 = 4\frac{1}{4}$

Addition for Winter North Atlantic Freeboard (if required =

2"

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 320$

Tons per inch immersion at summer load water line

T = 17.8

Deduction = $\frac{\Delta}{40T}$ inches= $\frac{320}{40 \times 17.8} = 4\frac{1}{2}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction ...	1.99	-
Deduction for superstructures ...	-	19.73
Sheer correction ...	-	.80
Round of Beam correction ...	-	.03
Correction for Thickness of Deck amidships ...	1.92	-
Other corrections, scantlings, etc. ...	-	-
Summer Freeboard	3.91	20.56

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

Tropical Fresh Water Line above Centre of Disc ...	8 $\frac{3}{4}$ "
Fresh Water Line " " ...	4 $\frac{1}{2}$ "
Tropical Line " " ...	
Winter Line below " " ...	
Winter North Atlantic Line " " ...	

Tropical Fresh Water Freeboard ...	1-6 $\frac{3}{4}$ "
Fresh Water " " ...	0-10"
Tropical " " ...	1-24"
Winter " " ...	1-2 $\frac{1}{2}$ "
Winter North Atlantic " " ...	1-11"

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS		Freeboard decks								
Description of Hatchway		No 1	No 2	No 3						
Dimensions of Hatchway		16'-0" x 8'-0"	21'-7" x 13'-0"	11'-6" x 13'-6"						
COAMINGS	Height above Deck ... Thickness { Sides ... { Ends ... Stiffeners ... Brackets, Stays ...	3 1/4" 8/30 7/20 None	3 1/4" 9/20 8/20 None	3 1/4" 8/30 7/20 None						
HATCH BEAMS	Number ... Spacing ... Scantling and Sketch ... Bearing Surface ...	3 4'-0" 11/8 x 6/20 3 1/2"	5 3'-6" 14/10 x 7/20 3 1/2"	5 5'-9" 16/12 x 7/20 3 1/2"						
FORE AND AFTERS	Number ... Spacing ... Unsupported Lengths ... Scantling* and Sketch ... Bearing Surface ...	/								
HATCH COVERS	Material ... Thickness ... How fitted ... Bearing Surface ...	Plating 2 1/2" fore raft 3"								
Spacing of Cleats		24"	24"	24"						
Number of Tarpaulins		3	3	3						

*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:—
All gratings to stokehold and boiler space are covered by strong steel plates. The stokehold and engine room ventilators are in good and efficient condition. The engine room skylight is strongly constructed of steel coaming and wood top.

Particulars of Flush Bunker Scuttles:—
None.

Particulars of Companionways:— *Two companionways in fore and two in deck strongly constructed of steel plates and angles.*
One 5'-0" x 6'-0" x 7'-9". Two wood doors at fore end. 4'-3" x 28" x 1 1/2". Side 16"
5'-0" x 2'-9" x 7'-9". One " " after " operated from both sides.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—				All ventilators are constructed in accordance with rule and coamings closed with wood plugs and canvas cover.			
Roof deck	1-5'	Coaming 24" x 30"	led to poop space	Freeboard deck	2-12"	Coaming 36" x 34"	led to hold space
"	1-12"	" 24" x 34"	" hold	"	" 1-16"	" 36" x 38"	" "
Bridge	2-9"	" 24" x 32"	" bridge	"	" 1-10"	" 36" x 32"	" "
"	1-5 1/2"	" 24" x 30"	" "	Forecastle	2-10"	" 24" x 32"	" fore space
"	2-9"	" 24" x 32"	" "	"	" 4-5 1/2"	" 24" x 30"	" fore peak
"	2-7 1/2"	" 24" x 30"	" "	"	" 1-9"	" 24" x 32"	" fore peak
"	1-6"	" 24" x 30"	" "	"	" 1-16"	" 24" x 38"	" fore peak

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
Air pipes on poop deck 16" high x 2" diam in steering gear house from after peak.
" " bridge " 18" " x 2" " from No 3 & 4 D 13. Tanks.
" " foreboard " 5 1/4" " x 2" " " 2 " "
" " " 8 1/4" " x 2" " " 1 " "

Plugs and canvas cover are fitted for closing the openings.

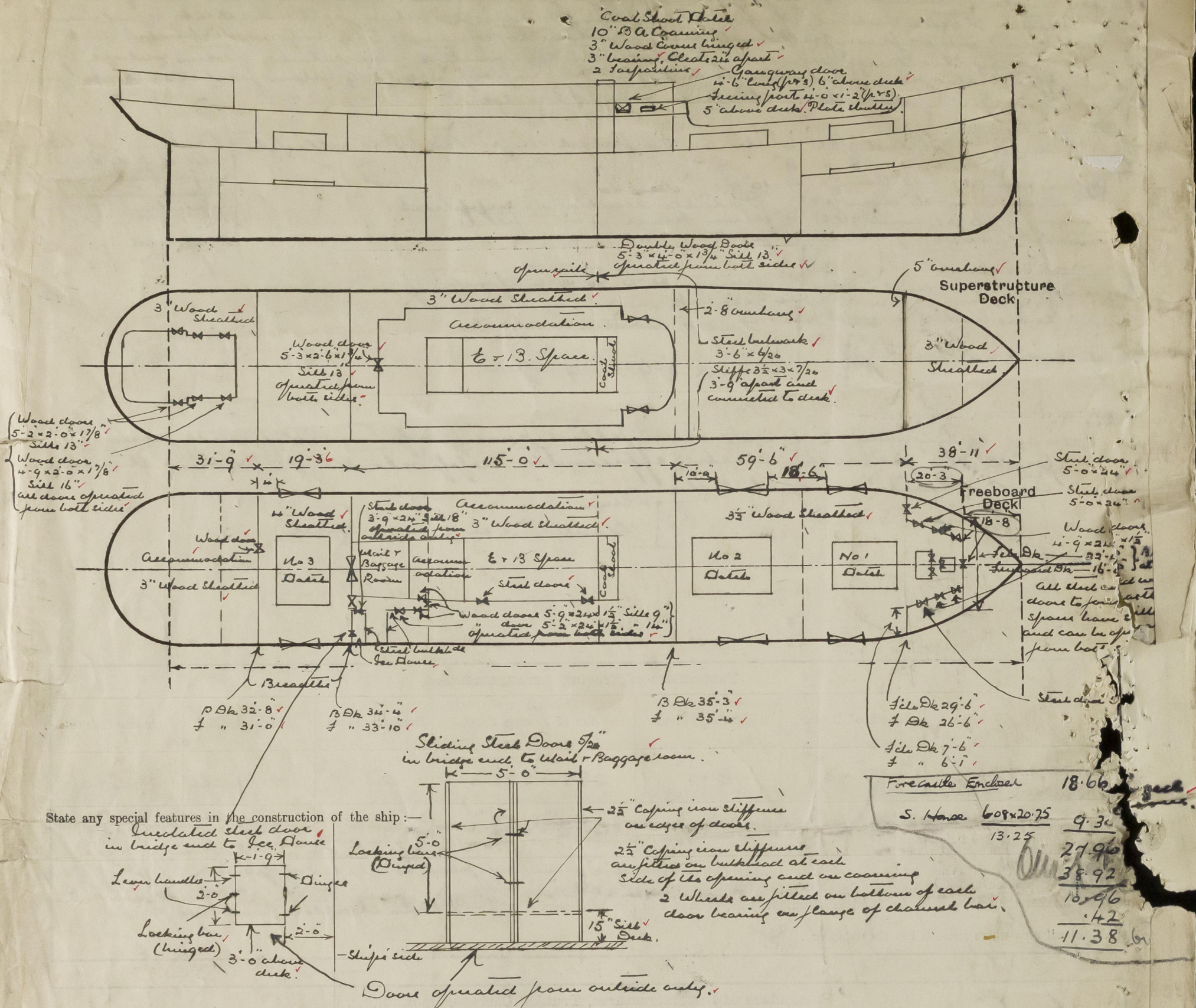
Particulars of Gangway Cargo and Coaling Ports:—
Gangway door ports in after well 10'-0" in length.
" " " fore " 12'-3" " "
" " " " " 10'-3" " "
Efficiently supported and stiffened.

Each ejector (Tremont & Proctor's) on starboard side each about midships, discharging through ship's side 11" x 12" opening 20" above top of (wood) foreboard deck.

See Summary Letter 28/2/36.

It will be noted that 2 wood doors operated from both sides, ~~are to be~~ ^{have been} fitted to the bridge end bulkhead. The existing sliding steel doors ~~are to be~~ ^{have been} removed. The opening in the way ~~to be~~ ^{now being} closed by riveted steel plates .30" in thickness, and angle stiffeners fitted in accordance with the Rule requirements.

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:—



The bulkhead plating in fore and after well is supported by efficient web plates at each edge of the gangway door openings. These 2 1/8" round iron stanchions efficiently connected to bulkhead and deck plating are fitted each side in forward well in way of the rigging.

The survey has been held in dry dock.
Vessel examined for animal survey. ✓

Survey Request form attached.

Builder's name and yard number Earle Co Ltd, Dull. No 564.

Names of sister ships *"Stockport" No 35/51 in 12. Bk.*

Owners London & North Eastern Ry.

Fee £ 9 : 7 : 0 Received by me