

Rpt. 0.11.

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Computation of Freeboard for <u>Steamer, Sailing Ship, Tanker</u>					Port of Survey <u>Newcastle</u>
having <u>1 DK (SH) and Shelter DK (SH)</u>					Date of Survey <u>5th 16th April '32</u>
(Type of Superstructures.)					Name of Surveyor <u>J. H. Lowden</u>
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build	Particulars of Classification <u>+100 A1 Shelter DK with freeboard carrying petroleum in cylindrical tanks.</u>
<u>DAGHESTAN</u>	<u>British Newcastle</u>	<u>145471</u>	<u>5741</u>	<u>1921-12</u>	
Moulded Dimensions: Length <u>405.0</u> Breadth <u>51.66</u> Depth <u>34.6</u> <u>Shl Deck</u>					
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>13948.6</u> tons					
Coefficient of fineness for use with Tables <u>.995</u>					

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth ...	<u>34.50</u>	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	<u>51.66</u>
Stringer plate ...	<u>04</u>	$(34.54 - 26.98) \times 3 = +22.68$		Standard Round of Beam = $\frac{B \times 12}{50}$	<u>12.40</u>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	<u>12.50</u>
Depth for Freeboard (D) =	<u>34.54</u>	If restricted by superstructures		Difference	<u>.10</u>
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	<u>.10 \times .848 = -.08</u>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
<u>After Bridge.</u>					
Prop enclosed House	<u>61.50</u>	<u>61.50</u>	<u>7'-6"</u>	<u>✓</u>	<u>61.50</u>
" overhang ...					
R.Q.D. enclosed					
" overhang					
Bridge enclosed...	<u>Complete Shelter dk with prop deck house on top closed steel bulkhead fore and closed by stormboards at after end</u>				
" overhang aft					
" overhang forward					
F'cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	<u>61.50</u>	<u>61.50</u>			<u>61.50</u>

Standard Height of Superstructure	<u>7.50</u>
" " R.Q.D.	<u>✓</u>
Deduction for complete superstructure	<u>42.00</u>
Percentage covered $\frac{S}{L} =$	<u>15.20</u>
" $\frac{S_1}{L} =$	<u>15.20</u>
" $\frac{E}{L} =$	<u>15.20</u>
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	<u>7.60 - 5 = 2.60</u>
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	
Deduction =	<u>42.00 \times .026 = - 1.09</u>

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>50.44</u>	1		<u>50.44</u>	<u>61</u>	<u>61.00</u>	1		<u>61.00</u>
$\frac{1}{2}$ L from A.P.	<u>22.46</u>	4		<u>89.84</u>	<u>26.5</u>	<u>26.86</u>	4		<u>107.44</u>
$\frac{2}{3}$ L	<u>5.55</u>	2		<u>11.10</u>	<u>6.60</u>	<u>6.71</u>	2		<u>13.42</u>
Amidships	<u>-</u>	4		<u>-</u>	<u>Nul</u>	<u>-</u>	4		<u>-</u>
$\frac{2}{3}$ L from F.P.	<u>11.11</u>	2		<u>22.22</u>	<u>14.0</u>	<u>13.23</u>	2		<u>26.46</u>
$\frac{1}{2}$ L	<u>44.92</u>	4		<u>179.68</u>	<u>52.2</u>	<u>52.93</u>	4		<u>211.72</u>
F.P.	<u>100.95</u>	1		<u>100.95</u>	<u>120</u>	<u>120.00</u>	1		<u>120.00</u>
Total				<u>454.26</u>					<u>540.04</u>

Mean actual sheer aft =	
Mean standard sheer aft =	
Mean actual sheer forward =	
Mean standard sheer forward =	
Length of enclosed superstructure forward of amidships =	<u>no midship</u>
" " aft of " =	<u>Superstructure</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{85.78}{18} \times (.45 - .046)$
If limited on account of midship superstructure. no allowance for excess sheer If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	<u>72.94</u>
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient	<u>49.14</u>
Depth to Freeboard Deck = <u>34.54</u>	$\Delta =$	Depth Correction ...	<u>22.68</u>
Summer freeboard = <u>8.40</u>	Tons per inch immersion at summer load water line	Deduction for superstructures ...	<u>1.09</u>
Moulded draught (d) = <u>26.14</u>	T =	Sheer correction ...	<u>✓</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>6.53 - 6.5</u>	Deduction = $\frac{\Delta}{40T}$ inches =	Round of Beam correction ...	<u>.02</u>
Addition for Winter North Atlantic Freeboard (if required) = <u>✓</u>		Correction for Thickness of Deck amidships ...	<u>✓</u>
		Other corrections, scantlings, etc. ...	<u>✓</u>
		Summer Freeboard =	<u>100.41</u>

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

Tropical Fresh Water Line above Centre of Disc	...	Tropical Fresh Water Freeboard	...
Fresh Water Line	"	Fresh Water	"
Tropical Line	"	Tropical	"
Winter Line below	"	Winter	"
Winter North Atlantic Line	"	Winter North Atlantic	"

W447-0076(112)

8'-24 3/4"
assigned
under
Lloyd's Register
Regulations.
Foundation

11.0.11.

Particulars of fiddle, funnel and ventilator coamings:— Stokhold and pump room gratings covered by steel hinged covers (~~requiring overhaul~~) and clips ✓
Fadley and funnel ventilators are in efficient condition ✓
The engine room skylight is of steel strongly constructed ✓

✓

Particulars of Companionways:—
One steel companion to
fore hatch space 4'-3" x 3'-0" x 6'-4"
on shelter deck with steel
hinged door operated
from both sides Sell 18" ✓

Steel pump room houses
6'-0" x 9'-6" x 7'-1" ht.
with steel hinged door
operated both sides
Sill 18" Plating .38 flanges
flanges 40" apart
grating - steel hinged covers
over ventilator 17" diam and
33" as shown below

Two companion ladders in steering house aft. One to poop stern the other to crews quarters. Doors to house of steel hinged operated both sides Sill 18" ✓

[illegible]

VENTS ARE TO RULE REQUIREMENTS
COAM⁶⁵ CLOSED with wood plugs + canvas covers

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

Particulars	Size	Height	Location
One 5" DIAM iron air pipe	3 1/2"	12"	to lip to bend } from cofferdam
Four 3 1/2" " " "	3 1/2"	12"	to lip to bend } from wing spaces outside main tanks
SHELTER DK Two 4" " " "	3 1/2"	12"	to lip to bend } from O F bunker
POOP DK Two 5" " " "	4"	9"	to lip to bend } from FW tanks
FIDLEY One 4 1/2" " " "	4 1/2"	12"	to lip to bend } from db tank
SHELTER DK AFT Two 3 1/2" DIAM	3 1/2"	10"	height } after pealt. tank

AIR
- APES
HAVE
OPEN *Gangs*
ENDS *filled*

NONE ✓

Swan neck air pipes on hatch covers ^{all} having efficient closing appliances
 Forward oil fuel bunker wing spaces 2 off C1 pipe 2" diam 2" to lip ~~13" to bend~~
 Main tank 5 off C1 pipe 2 1/2" diam 2" to lip ~~13" to bend~~
 " wing spaces 4 off C1 " 2 1/2 " 2 " " ~~13" to bend~~
 Forward summer tank 2 off C1 pipe 2" diam 2" to lip ~~13" to bend~~
 After summer tank 2 off C1 " 2 " " ~~13" to bend~~
 After oil fuel bunker wing spaces 2 off C1 pipes 2" diam 2" to lip ~~13" to bend~~
 Height of these air pipes above deck is therefore ^{36"} ~~42 1/2"~~ added to above figures

Dagestan

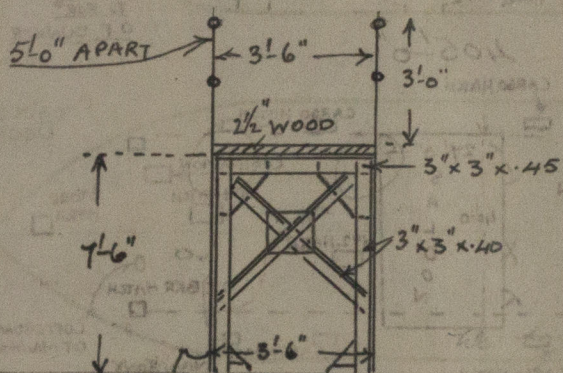
Particulars of Scuppers and Sanitary Discharge Pipes — The shelter deck scuppers have open ends and are 2'-0" below shelter deck at shell. ✓
 All sanitary discharge pipes have storm valves fitted except small discharges from galley pantry etc discharging just below shelter deck. ✓

Particulars of Side Scuttles:

All side scuttles to crews + officers accommodation are of substantial construction
~~A number of hinged deadlights to same are missing.~~ ✓

Particulars of Guard Rails:— Guard rails on weather deck all fore + aft (except a short length of bulwark at stem (42'-0") 3'-6" high having three rods. Stanchions spaced 5'-3" apart

Particulars of Gangways, Lifelines, etc.:



Gangway fitted from saloon house amidships to steering house aft via poop deck. with angle supports as per sketch spaced 7'-0" to 12'-6" apart ✓
 Fore and aft diagonal stays to deck fitted at every 3rd support ✓
 Platform is of wood ✓
 Stanchions 3'-0" high are fitted with two steel wires ✓
~~No gangway or lifelines fitted forward of saloon house.~~

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	} NO BULWARKS ✓					
Forward Well						
State position of each freeing port } After Well :— (F. 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.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.

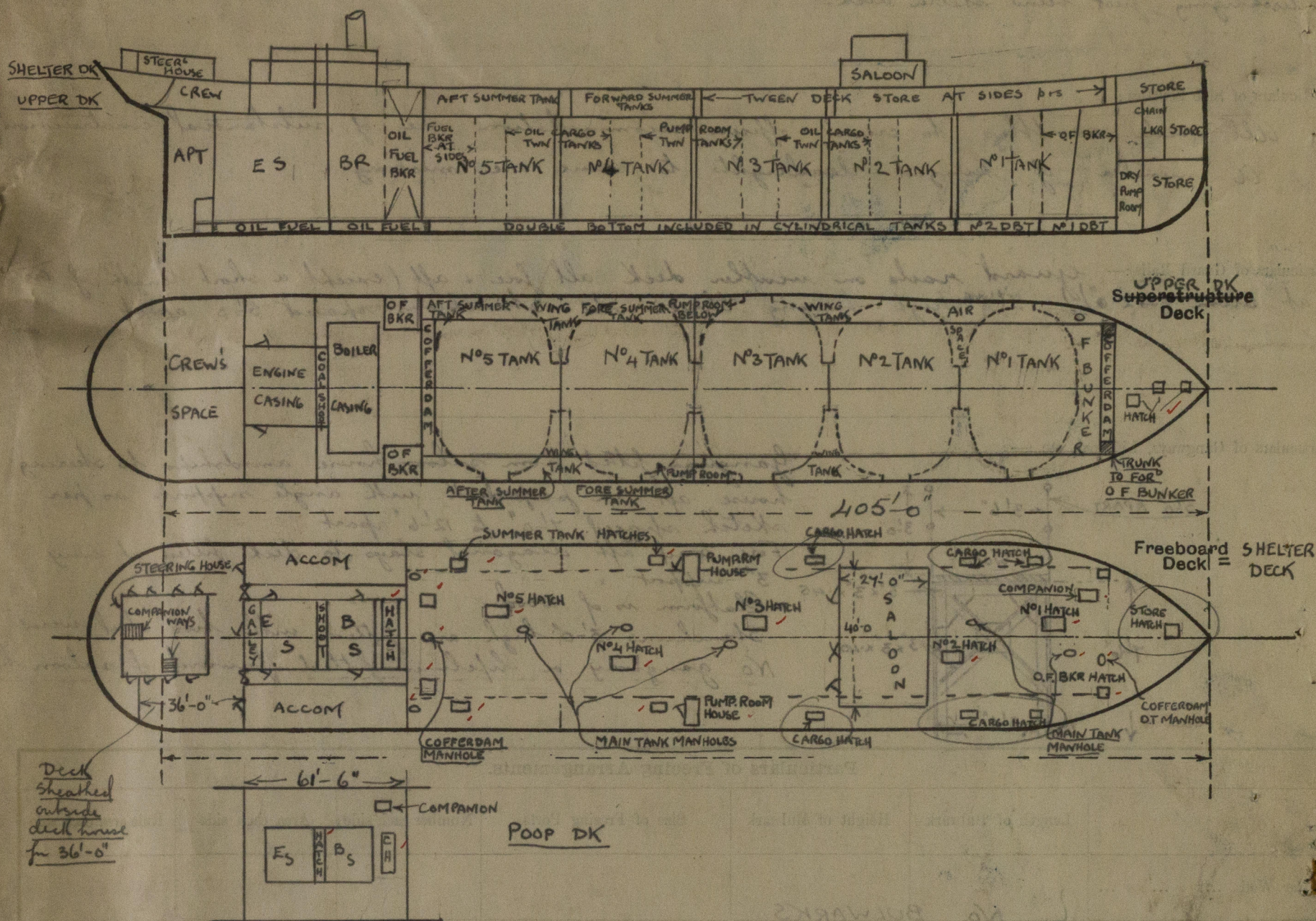
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
FORWARD Poop Bulkhead ON SHELTER DK..	40	38	10 x 3 1/2 BA	3'-6"	Brackets	Intact	✓	7'-6"
Poop after bulkhead Raised Quarter Deck Bulkhead ...	42 ✓	36 ✓	3 1/2 x 3 x 44 L	3'-0"	Brackets on 1th only	7'-6" x 3'-8" @ 4'-9" x 2'-0"	NO SILL 15"	7'-6"
Bridge, After Bulkhead ...	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, Forward Bulkhead ...	✓	✓	✓	✓	✓	✓	✓	✓
Forecastle Bulkhead ...	No forecastle fitted on shelter deck ✓					✓	✓	✓
Trunk, Aft ...	✓	✓	✓	✓	✓	✓	✓	✓
Trunk, Forward ...	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	36 ✓	36 ✓	BR 3 x 3 1/2 x 5 L ER do 2 x 3 1/2 BA	36"	Brackets at 1th in ER	4'-6" x 2'-0" 40ft	18" ✓	7'-6"
Exposed Machinery Casings on Super-structure Decks ...	36 ✓	36 ✓	BR 3 x 3 1/2 x 5 L ER do 2 x 3 1/2 BA	36"	Bracket at 1th in ER	NONE	✓	3'-3"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	✓	✓	✓	✓	✓	✓	✓	✓
SALOON Deckhouses on Flush Deck Ships ...	30 ✓	30 ✓	BA's 9 x 3 1/2 x 54 ANGLES 3 1/2 x 3 1/2 x 50	36" to 48"	Brackets 1th and bottom	AT AFTER END OF HOUSE 2 off 4'-9" x 2'-0" 1 off 4'-9" x 3'-10" 9 off 4'-9" x 2'-0" 2 off 4'-6" x 2'-0"	18" ✓	7'-6"
STEER HOUSE 2 off PUMP ROOM HOUSES ...	36 ✓	36 ✓	3 x 3 x 38 FLANGED PLATES	36"	BRK 1th BKTs 1th bottom	18" ✓	18" ✓	7'-6"

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

FOR Poop Bulkhead ON SHELTER DK	Intact ✓
Raised Quarter Deck Bulkhead ...	✓
POOP Bridge, After Bulkhead ...	Wood boards 3" in riveted channels, full height (2 off) and steel hinged and two wood hinged doors operated from both side ✓
Bridge, Forward Bulkhead ...	✓
Forecastle Bulkhead ...	✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Ordinary steel hinged doors operated 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 ...	Saloon House Three wood doors operated from both sides Steering House Nine steel doors operated from both sides PUMP ROOM HOUSES Two steel doors operated from both sides

Dagaton

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:—

The vessel has longitudinal framing and carries petroleum in five cylindrical tanks, four wing tanks outside cylindrical tanks and four summer tanks.
 Don't put much at summer draft 42
 J.M.V.

Builder's name and yard number

Short Bros Ltd Sunderland. No. 2113

Names of sister ships

Owners

Hindustan Steamer Shipping Co Ltd. (Gammie Bros Ltd Mgrs)

Dec 13 12

Received by me

APPLIED FOR - 7 APR 1932



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