

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

No. 31810

Computation of Freeboard for **MOTOR VESSEL**
 having complete superstructure with tonnage opening

Port of Survey Sunderland

Date of Survey Whilst building

Name of Surveyor Colin Bartlett

Particulars of Classification

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"PEEBLES"	British Newcastle	161594	4982	1936

Moulded Dimensions: Length 416.83 Breadth 53.96 Depth 28.67

Moulded displacement at moulded draught = 85 per cent. of moulded depth 11,705 tons

Coefficient of fineness for use with Tables .748

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	28.67	(a) Where D is greater than Table depth .91 (D-Table depth) R = (28.70 - 27.79) 3.00		Moulded Breadth (B)	53.11 1/2
Stringer plate	41.03	= + 2.73"		Standard Round of Beam = $\frac{B \times 12}{50}$	12.95"
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	13 1/2
Depth for Freeboard (D) =	28.70	If restricted by superstructures		Difference	Excess .55"
				Restricted to	
				Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{.55}{4} \times .0075 = \text{Nil}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	25.00	25.00	8.5	✓	25.00
" overhang ...	2.62	1.31			1.31
R.Q.D. enclosed ...	✓				
" overhang ...	✓				
Bridge enclosed ...	383.96	383.96	8.5	✓	383.96
" overhang aft ...	.33	.25			.25
" overhang forward ...					
Fore enclosed ...					
" overhang ...					
Fore aft ...					
" forward ...					
Tonnage opening aft ...	4.92	3.15 = 1/2 def.			3.15
" " forward ...					
Total ...	416.83	413.67			413.67

Standard Height of Superstructure	7'-6"
" " R.Q.D.	✓
Deduction for complete superstructure	42.00"
Percentage covered $\frac{S}{L} =$	100%
" " $\frac{S_1}{L} =$	99.25%
" " $\frac{E}{L} =$	99.25%
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	99.07%
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction =	42.00 x .9907 = -41.60"

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	51.68	1	51.68	50.75	62.75	1	62.75
1/2 L from A.P. ...	22.995	4	91.98	23.50	27.92	4	111.68
3/4 L " ...	5.685	2	11.37	6.50	6.90	2	13.80
Amidships ...	✓	4	✓	✓	✓	4	✓
3/4 L from F.P. ...	11.37	2	22.74	12.76	13.20	2	26.40
1/2 L " ...	45.99	4	183.96	49.00	53.40	4	213.60
F.P. ...	103.36	1	103.36	108.00	120.00	1	120.00
Total ...			465.09	+12"			548.23

Mean actual sheer aft = Excess
 Mean standard sheer aft

Mean actual sheer forward = Excess
 Mean standard sheer forward

Length of enclosed superstructure forward of amidships = } C.S.S.
 " " aft of " = }

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{83.14}{18} (.75 - .50) = -1.15"$$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

Deduction for Tropical Freeboard.
 Addition for Winter and Winter North Atlantic Freeboard.

Ft.
 Depth to Freeboard Deck = 28.70
 Summer freeboard = 3.37
 Moulded draught (d) = 25.33

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.33" = 6 1/4"
 Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 12320$

Tons per inch immersion at summer load water line

 $T = 46.28$ Deduction = $\frac{\Delta}{40T}$ inches $= 6.65$ $= 6 \frac{3}{4}"$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$$\frac{748 + .68}{1.36} = \frac{1428}{1360}$$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

76.79
 80.62

+	-
2.73	-
-	41.60
-	1.15
-	-
-	-
-	-
2.73	42.75
Summer Freeboard = 40.60	

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

Tropical Fresh Water Line above Centre of Disc ...	13"
Fresh Water Line " " ...	6 3/4"
Tropical Line " " ...	6 1/4"
Winter Line below " " ...	6 1/4"
Winter North Atlantic Line " " ...	✓

Tropical Fresh Water Freeboard ...

Fresh Water " " ...

Tropical " " ...

Winter " " ...

Winter North Atlantic " " ...

3'-4 1/2"

2'-3 1/2"

2'-9 3/4"

2'-10 1/4"

3'-10 3/4"

1-1 MAY 1936

Particulars of Scuppers and Sanitary Discharge Pipes :—

from shelter tween decks. Three 3½" scuppers each side
fitted with brass storm valves.

Particulars of Side Scuttles :—

Ten 12" side scuttles in shelter tween decks aft
with substantial sprung deadlights.

Particulars of Guard Rails :—

3 Rds, total height 42 ins, stanchions 5 ft apart on Shelter Deck
except in way of midskip houses where solid bulwarks fitted.
One 30" x 18" washport each side with two rails.

Particulars of Gangways, Lifelines, etc. :—

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	20mmage Opening		30" x 18½"	One	3.85	
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 :— 40 steel shutter.

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 ... ..	.30	.30	4 x 3 x .32	27" + 32"	nil	none	✓	✓
Raised Quarter Deck Bulkhead ...	✓	✓	✓					
Bridge, After Bulkhead ... ..	.30	.30	4 x 3 x .32	27"	132 b. tops bottom	37" x 42"	18"	✓
Bridge, Forward Bulkhead	✓							
Forecastle Bulkhead	✓							
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	None exposed.							
Exposed Machinery Casings on Super- structure Decks	None exposed.							
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances ... ..	.28	.28	3½ x 3 x .30	31½"	continuous past deck	none		8'-6"
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead	✓ No openings
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead	3" storm boards in full height riveted channels.
Bridge, Forward Bulkhead	✓
Forecastle Bulkhead	✓
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	✓
Exposed Machinery Casings on Super- structure Decks	✓
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	✓
Deckhouses on Flush Deck Ships ...	✓

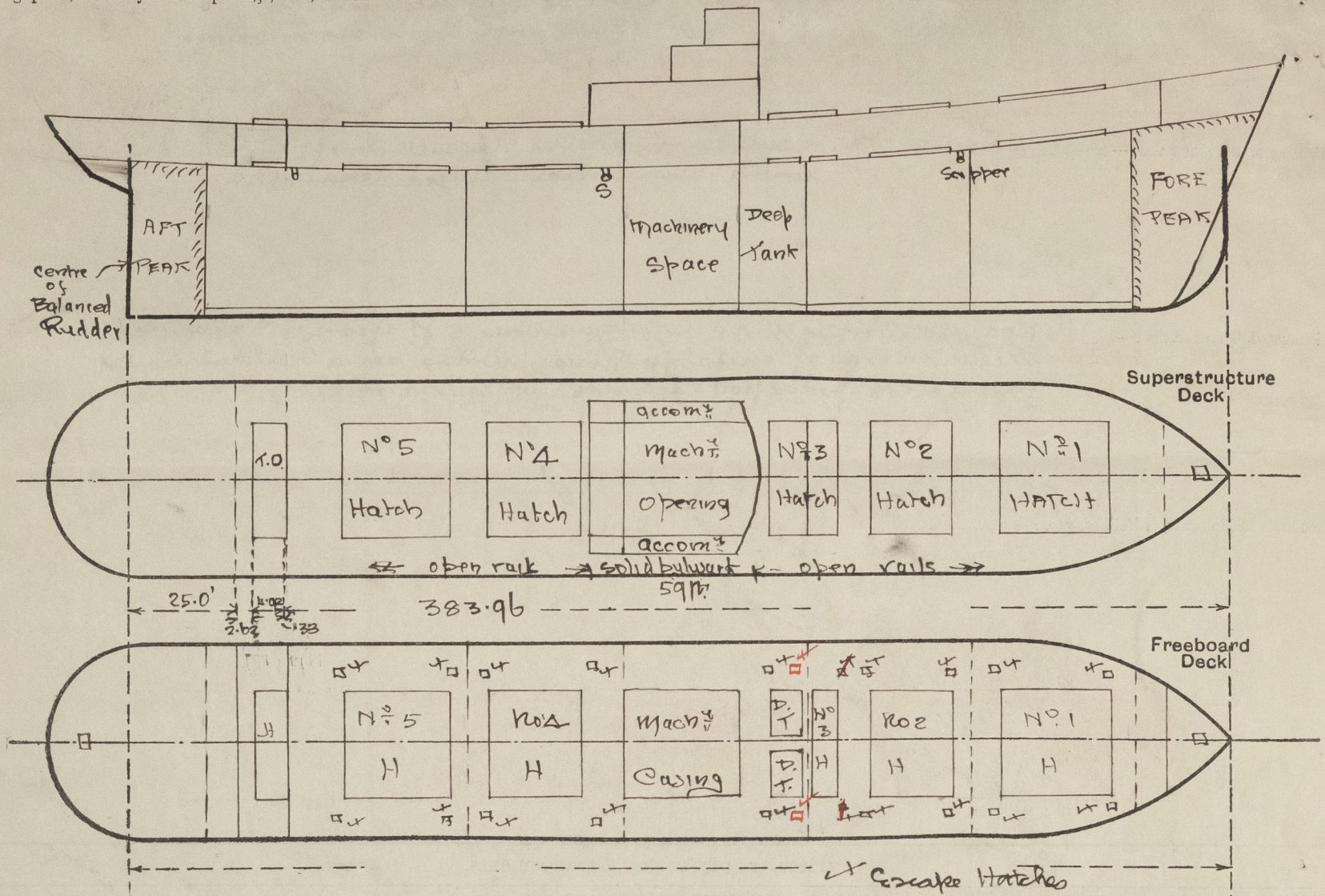


© 2020

Lloyd's Register
Foundation

Reckles

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:—



The sheer of the superstructure deck is parallel to that of the freeboard deck.
 — actual displacement at actual draught 25' 6" = 12,320 Tons
 Tons per inch " " " = 46.28.

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

This vessel is a sister vessel to Messrs Dorland No 618. M.V. "RUGELEY"
 with raked stem and balanced rudder. Sea R/L No. 31740.

Builder's name and yard number Messrs W. Dorland & Co Ltd No 625.

Names of sister ships "RUGELEY" Sea R/L No 31740

Owners B. J. Sutherland & Co Ltd, Newcastle-on-Tyne.

Fee £ 15 0 0 Received by me.

Will be charged on completion



© 2020

Lloyd's Register
Foundation