

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having POOP-BRIDGE & FOULE

(Type of Superstructures.)

Ship's Name "PEGAWAY"	Nationality and Registry BRITISH NEWCASTLE	Port of Official Number 148067	Gross Tonnage 1826	Date of Build 1924
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Moulded Dimensions: Length 262'-0" Breadth 39'-10" Depth 21'-0"
Moulded displacement at moulded draught = 85 per cent. of moulded depth 4045 tons
Coefficient of fineness for use with Tables .778

Port of Survey NEWCASTLE
Date of Survey 8TH MARCH, 1932.
Name of Surveyor P. H. Croucher
Particulars of Classification +100A1.

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>21.00</u>	(a) Where D is greater than Table depth (D-Table depth) R = $(21.04 - 17.44) \times 2.011 = +7.24$	Moulded Breadth (B) <u>39.0</u> Standard Round of Beam = $\frac{B \times 12}{50} = \frac{39 \times 12}{50} = 9.36$ Ship's Round of Beam = <u>9.75</u> Difference <u>0.39</u>
Stringer plate <u>0.04</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Restricted to
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.39 \times 4.455}{4} = -.06$
Depth for Freeboard (D) = <u>21.04</u>		

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed <i>equivalent</i>	<u>20.9</u>	<u>21.44</u>	<u>7'-6"</u>	<u>✓</u>	<u>21.44</u>	Standard Height of Superstructure <u>6.12</u> R.Q.D. <u>✓</u>
" overhang	<u>+ .5</u>					Deduction for complete superstructure <u>32.15</u>
R.Q.D. enclosed	<u>- .33</u>					Percentage covered $\frac{S}{L} = \frac{36.30}{L} = 35.45$
" overhang	<u>- .33</u>					" $\frac{S_1}{L} = 35.45$
Bridge enclosed	<u>46.4</u>	<u>46.33</u>	<u>7'-6"</u>	<u>✓</u>	<u>46.33</u>	" $\frac{E}{L} = 35.45$
" overhang aft	<u>- .42</u>					Percentage from Table, Line A. <u>19.63</u> (corrected for absence of forecastle (if required))
" overhang forward	<u>+ 4.5</u>	<u>2.21</u>			<u>2.21</u>	Percentage from Table, Line B. <u>23.63</u> (corrected for absence of forecastle (if required))
Forecastle enclosed <i>open</i>	<u>22.9</u>	<u>22.45</u>	<u>7'-6"</u>	<u>✓</u>	<u>22.45</u>	Interpolation for bridge less than 2L (if required) $19.63 + \left(\frac{1.35}{2} \times 4 \right) = 23.33$
" overhang	<u>SKETCH</u>					Deduction = $32.15 \times .2333 = -7.50$
Trunk aft	<u>-</u>					
" forward	<u>-</u>					
Tonnage opening aft	<u>-</u>					
" forward	<u>-</u>					
Total	<u>94.94</u>	<u>92.43</u>			<u>92.43</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>36.15</u>	<u>1</u>	<u>36.15</u>	<u>33.00</u>	<u>53.02</u>	<u>53.02</u>	<u>1</u>	<u>53.02</u>	
$\frac{1}{2}$ L from A.P.	<u>16.09</u>	<u>4</u>	<u>64.36</u>	<u>21.25</u>	<u>21.40</u>	<u>21.40</u>	<u>4</u>	<u>85.60</u>	
$\frac{2}{3}$ L "	<u>3.98</u>	<u>2</u>	<u>7.96</u>	<u>5.25</u>	<u>5.35</u>	<u>5.35</u>	<u>2</u>	<u>10.70</u>	
Amidships	<u>-</u>	<u>4</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>4</u>	<u>-</u>	
$\frac{2}{3}$ L from F.P.	<u>4.95</u>	<u>2</u>	<u>9.90</u>	<u>9.50</u>	<u>9.69</u>	<u>9.69</u>	<u>2</u>	<u>19.38</u>	
$\frac{1}{2}$ L "	<u>32.18</u>	<u>4</u>	<u>128.72</u>	<u>38.50</u>	<u>38.76</u>	<u>38.76</u>	<u>4</u>	<u>155.04</u>	
F.P.	<u>72.31</u>	<u>1</u>	<u>72.31</u>	<u>83.00</u>	<u>83.02</u>	<u>83.02</u>	<u>1</u>	<u>83.02</u>	
Total			<u>325.40</u>					<u>406.76</u>	

Mean actual sheer aft = Excess
Mean standard sheer aft = Excess
Mean actual sheer forward = Excess
Mean standard sheer forward = Excess
Length of enclosed superstructure forward of amidships = 109.2 L
aft of " = 108.5 L
superstructure allowance

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{21} \right) = \frac{81.36}{18} \times \left(\frac{75-1815}{21} \right) = 2.54$
If limited on account of midship superstructure. $2.54 \times \frac{1.77}{20} = -2.24$ 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)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient
Depth to Freeboard Deck = <u>21.04</u>	$\Delta = 4386$	<u>1.36</u>
Summer freeboard = <u>2.90</u>	Tons per inch immersion at summer load water line	<u>1.36</u>
Moulded draught (d) = <u>18.14</u>	T = <u>20.25</u>	Depth Correction <u>7.24</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>4.53</u>	Deduction = $\frac{\Delta}{40T}$ inches = <u>5.41</u>	Deduction for superstructures <u>✓</u> <u>4.50</u>
Addition for Winter North Atlantic Freeboard (if required) = <u>2</u>		Sheer correction <u>✓</u> <u>2.24</u>
		Round of Beam correction <u>✓</u> <u>.06</u>
		Correction for Thickness of Deck amidships <u>✓</u>
		Other corrections, scantlings, etc. <u>✓</u>
		<u>7.24</u> <u>9.83</u> <u>- 2.59</u>
		Summer Freeboard = <u>34.63</u>

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

Tropical Fresh Water Line above Centre of Disc	<u>10</u>	Tropical Fresh Water Freeboard	<u>2'-10"</u>
Fresh Water Line " "	<u>5</u>	Fresh Water " "	<u>2'-0"</u>
Tropical Line " "	<u>4</u>	Tropical " "	<u>2'-5"</u>
Winter Line below " "	<u>4</u>	Winter " "	<u>3'-3"</u>
Winter North Atlantic Line " "	<u>6</u>	Winter North Atlantic " "	<u>3'-5"</u>

Particulars of fiddle, funnel and ventilator coverings:-
FIDDLE GRATINGS FITTED WITH HINGED STEEL COVERS. ✓
E.R. SKYLIGHTS STEEL. ✓
FIDDLEY & FUNNEL VENTS GOOD. ✓

Particulars of Flush Bunker Scuttles:—
TWO ON BRIDGE DECK 20 DIA. BAYONET JOINTS. ✓

Particulars of Companionways:—

POOP DECK:—	STEEL COMPANION WITH 1 1/2" WOOD DOOR OPERATING BOTH SIDES. SILL 17' ✓
BRIDGE DECK:—	ENTRANCES TO BRIDGE SPACE ACCOMMODATION ENCLOSED IN STRONG STEEL ✓ HOUSES WITH SOLID 1 5/8" TEAK DOORS OPERATING BOTH SIDES. SILL 18'

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

POOP DECK 1.	4. C.1. @ 6" DIA LED TO POOP.	HEIGHT TO MOUTH	8 1/2
AFT WELL	2. M.1. @ 3"	" " DB. TANKS	26
BRIDGE	4. M.1. @ 2 1/2"	" " " "	3
FORE WELL	3. M.1. @ 3"	" " " "	24
FO'LE DECK	1. M.1. @ 3"	" " FORE PEAK.	3

Particulars of Gangway Cargo and Coaling Ports:—

NOTE.

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

