

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <i>Denny's 1460-128</i>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <i>461.0</i> Breadth <i>63.0</i> Depth <i>40.25</i>					Date of Survey <i>13.7.51</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature _____
Coefficient of fineness for use with Tables <i>Annex 70</i>					Particulars of Classification <i>100 A / contemplated</i>

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... <i>40.25</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>(40.31 - 30.73) 3 = +28.74</i> ✓	Moulded Breadth (B) <i>63.00</i> ✓
Stringer plate ... <i>73</i> ... <i>06</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <i>9.58</i> ✓	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{63 \times 12}{50} = 15.12$ ✓
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = <i>15.75</i> ✓
Depth for Freeboard (D) = <i>40.31</i> ✓		Difference = <i>0.63</i> ✓
		Restricted to
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{0.63}{4} \times 0.8406 = -0.13$ ✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>41.00</i>	<i>41.00</i>	<i>7.75</i>	-	<i>41.00</i>
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed ...	<i>32.50</i>	<i>32.50</i>	<i>7.50</i>	-	<i>32.50</i>
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	<i>73.50</i>	<i>73.50</i>			<i>73.50</i>

Standard Height of Superstructure *7.5* ✓
R.Q.D. *42.00* ✓
Deduction for complete superstructure *42.00* ✓
Percentage covered $\frac{S}{L} = \frac{73.50}{42.00} = 1.75$ ✓
Percentage from Table, Line A. *7.97* ✓
(corrected for absence of forecastle (if required))
Percentage from Table, Line B. *15.94* ✓
(corrected for absence of forecastle (if required))
Interpolation for bridge less than .2L (if required) ✓
Deduction = $42.00 \times 0.0797 = -3.35$ ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>56.10</i>	1			<i>60.0</i>		1		
$\frac{1}{8}L$ from A.P. ...		4					4		
$\frac{3}{8}L$ „ ...		2					2		
Amidships ...		4					4		
$\frac{3}{8}L$ from F.P. ...		2					2		
$\frac{1}{8}L$ „ ...		4					4		
F.P. ...	<i>112.20</i>	1			<i>120.0</i>		1		
Total ...				<i>504.90</i>					<i>540.00</i>

Mean actual shear aft = *60.0*
Mean standard shear aft = *60.0*
Mean actual shear forward = *120.0*
Mean standard shear forward = *120.0*
Length of enclosed superstructure forward of amidships = *Nil*
„ „ aft of „ = *Nil*
Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{540.00 - 504.90}{18} \left(\frac{.75 - 1.75}{2 \times 42.00} \right) = -1.31$ ✓
If limited on account of midship superstructure. *Yes. Nil* ✓
If limited to maximum allowance of 1½ ins. per 100 ft. *67.03* ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *40.31* Ft.
Summer freeboard = *9.77*
Moulded draught (d) = *30.54*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches =

Addition for Winter North Atlantic Freeboard (if required)=

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T =

Deduction = $\frac{\Delta}{40 T}$ inches

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

	+	-
Depth Correction	<i>28.74</i>	
Deduction for superstructures		<i>3.35</i>
Sheer correction		
Round of Beam correction		<i>0.13</i>
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
Summer Freeboard	17.11	

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	...