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(For London Office only).

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

21350

Ship's Name <b>M.S. "STORK"</b>	Official Number <b>180541</b>	Nationality and Port of Registry <b>U. K. LONDON</b>	Gross Tonnage <b>493</b>	Date of Build <b>1945</b>	Port of Survey <b>LEITH</b>
Moulded Dimensions: Length <b>160.33</b> Breadth <b>27.00</b> Depth <b>10.50</b> " <b>R.Q. DK.</b>					Date of Survey <b>WHILE BUILDING</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>778</b> tons					Surveyor's Signature <b>J.H. Bell</b>
Coefficient of fineness for use with Tables <b>.706</b>					Particulars of Classification <b>+100A1</b>

Depth for Freeboard (D).		Depth correction.		Round of Beam correction.	
Moulded depth	10.50	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	27.00
Stringer plate	.03	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	6.48
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		(10.69 - 10.53) $\times 1.233 = -.20$		Ship's Round of Beam	6.75
Depth for Freeboard (D) =	10.53	If restricted by superstructures <b>4 ft. Nil.</b>		Difference	.27
				Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$= \frac{.27^2}{4} \times .217 = -.01$

## DEDUCTION FOR SUPERSTRUCTURES.

SHEER AT POOP FRONT

FR. 26 = 4 13/16"

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poep enclosed	48.50	48.50	7.50	-	48.50
" overhang					
R.Q.D. enclosed	55.00	55.00	3.50	-	55.00
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
Fore enclosed	18.45	18.45	6.75 @ FR. 73	-	18.45
" overhang	7.22	3.61	7.50 @ STEM		3.61
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	129.17	125.56			125.56

Standard Height of Superstructure	6.0
" " R.Q.D.	3.402
Deduction for complete superstructure	22.03
Percentage covered $\frac{S}{L} =$	80.56
" " $\frac{S_1}{L} =$	
" " $\frac{E}{L} =$	78.30
Percentage from Table, Line A.	73.21
(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 =	22.03 $\times$ .7321 = -16.13

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	26.03	1		26.03	27.00	38.40	1		38.40
1/8 L from A.P.	11.58	4		46.32	14.42	17.09	4		68.36
3/8 L	2.86	2		5.72	3.37	4.22	2		8.44
Amidships	-	4		-	-	-	4		-
3/8 L from F.P.	5.73	2		11.46	6.87	6.87	2		13.74
1/8 L	23.17	4		92.68	26.75	26.75	4		107.00
F.P.	52.07	1		52.07	60.00	60.00	1		60.00
Total				234.28					295.94

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{61.66}{18} (.75 - .4028) = -1.19$$

If limited on account of midship superstructure.

DRAFT	10.6"	946 TONS	T.P.I.	8.9
	10.3"	919 1/2 "		8.8
Mean actual sheer aft =				
Mean standard sheer aft =				
Mean actual sheer forward =				
Mean standard sheer forward =				

Length of enclosed superstructure forward of amidships =	145
" " aft of " =	500

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

Depth to Freeboard Deck =	14.03
Summer freeboard =	3.67
Moulded draught (d) =	10.36

Deduction for Tropical freeboard and Addition for

Winter freeboard =  $\frac{d}{4}$  inches = 2.59 = 2 1/2

Addition for Winter North Atlantic Freeboard (if required) = 4 1/2

X Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 934.5$

Tons per inch immersion at summer load water line

$T = 8.86$

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

$= \frac{934.5}{40 \times 8.86} = 2.64$

$= 2 3/4$

TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient  $\frac{.705 + .68}{1.36} = \frac{1.385}{1.36}$

	+	-
Depth Correction	-	-
Deduction for superstructures	-	16.13
Sheer correction	-	1.19
Round of Beam correction	-	.01
Correction for Thickness of Deck amidships	42.00	-
Other corrections, scantlings, etc.	-	-

42.00 17.33 +24.67

Summer Freeboard = 41.93

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

Tropical Fresh Water Line above Centre of Disc	2 3/4	Tropical Fresh Water Freeboard	3 5/4
Fresh Water Line	2 3/4	Fresh Water	3 5/4
Tropical Line	Nil.	Tropical	3 5/4
Winter Line below	2 1/2	Winter	3 10 1/2
Winter North Atlantic Line	4 1/2	Winter North Atlantic	4 0 1/2



File.

$$\begin{array}{r} 25.67 \\ - 11.00 \\ \hline 14.67 \end{array}$$

hous.  
 $2 \times 5 \times 6 = 60$   
 $6 \times 5 \times 6 = \frac{33}{93} \div 24.58 = \frac{3.78}{18.45}$   
 $\frac{25.67}{7.22 \text{ overhang}}$

Shur

actual shear at post front =  $\frac{4.81}{1.18} = 4.08$

Virtual shear at A.P.  
 $= 5.99 \left( \frac{80.16}{31.66} \right)^2 = 38.40.$

Actual height Rd. = 3.500  
Standard " " = 3.402  
                                    .098  
                                    = 1.18'

200

Names of sister ships. M.V. "ORIOLE" LTH. RPT. N° 19902 M.V. "EDINA" LTH. RPT. N° 19953 M.V. "KINGFISHER" LTH. RPT. N° 21321

Owners GENERAL STEAM NAVIGATION CO. LTD.

Fee £ TO BE CHARGED WITH FIRST ENTRY

Lloyd's Register  
Foundation