

11 JAN 1950

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name JOHN CROWN & SONS LTD. YARD N° 230 "FELIPES"	Official Number	Nationality and Port of Registry DUTCH S-GRAVENHAGE.	Gross Tonnage APPROX 2830 2992.	Date of Build 1950	Port of Survey SUNDERLAND
Moulded Dimensions: Length 96,393 m Breadth 14,021 m Depth 5,334 m TO CENTRE OF RUDDER STOCK					Date of Survey WHILE BUILDING
Moulded displacement at moulded draught = 85 per cent. of moulded depth 4736.6 METRIC tons					Surveyor's Signature Alfred T. S. Sheffer
Coefficient of fineness for use with Tables .7542					Particulars of Classification * 100 A.I. CARRYING PETROLEUM IN BULK. (CLASSIFICATION CONTEMPLATE).

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth ...	5,334 m	(a) Where D is greater than Table depth (D-Table depth) R =	✓	Moulded Breadth (B)	14,021 m
Stringer plate012	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	8.33(6.426-5.346) 24.342-219 mm.	Standard Round of Beam = $\frac{B \times 12}{50}$	= 280 mm.
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures	✓	Ship's Round of Beam	= 279 mm.
Depth for Freeboard (D) =	5,346			Difference	1
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right)$	= $\frac{1}{4} \times 2132$ Nil.

DEDUCTION FOR SUPERSTRUCTURES.					
	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	28,423 m	28.423	2,134 m	✓	28.423
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed	11,582 m	11.582	2,134 m	✓	11.582
" overhang					
Trunk aft	56,388 m	35.847	2,134 m	✓	35.847
" forward					
Tonnage opening aft					
" forward	40.005				
Total	96,393 m	75.852			75.852

Standard Height of Superstructure **2.033 m.**
" " R.Q.D. **✓**
Deduction for complete superstructure **925 mm.**
Percentage covered $\frac{S}{L} =$ **41.50** ✓
" " $\frac{S_1}{L} =$ **78.68** ✓
" " $\frac{E}{L} =$ **73.68** ✓
Percentage from Table, Line A. **Tanker** **73.68** ✓
(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 = **925 × .7368 = - 682 mm.** ✓

SHEER CORRECTION.							
Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	1057	1	1057	914	914	1	914
$\frac{1}{2}$ L from A.P.	470	4	1880	451	451	4	1804
$\frac{2}{3}$ L	117	2	234	137	137	2	274
Amidships	-	4	-	0	-	4	-
$\frac{2}{3}$ L from F.P.	235	2	470	235	235	2	470
$\frac{1}{2}$ L	939	4	3756	965	965	4	3860
F.P.	2114	1	2114	2144	2144	1	2144
Total			9511				9466

Mean actual sheer aft = **Deficient > 75% standard.**
Mean standard sheer aft
Mean actual sheer forward = **EXCESS.**
Mean standard sheer forward
Length of enclosed superstructure forward of amidships = **Tanker.**
" " aft of " = **Tanker.**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{45}{18} \left(.75 - \frac{2075}{5425} \right) = +1 \text{ mm.}$
If limited on account of midship superstructure. **✓**
If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. **✓**

Deduction for Tropical Freeboard.	SEE ATTACHED PLAN	Tanker
Addition for Winter and Winter North Atlantic Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Depth to Freeboard Deck = 5.346	Displacement in salt water at summer load water line $\Delta =$ 5250 Tons.	Correction for coefficient $\frac{.754 \times .68}{1.36} = \frac{1.434}{1.36}$ ✓
Summer freeboard = .290	Tons per inch immersion at summer load water line T = 29.76	Depth Correction ... 219 ✓
Moulded draught (d) = 5.056	Deduction = $\frac{\Delta}{40 T}$ inches = 4.41 = 4 1/2"	Deduction for superstructures ... 682 ✓
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d \text{ mm.}}{25.4} = \frac{10 \text{ cm.}}{25.4} = 4 1/4"$	= 11 cm.	Sheer correction ... ✓
Addition for Winter North Atlantic Freeboard (if required) = $105 + 79 = 184 \text{ mm} = 18 \text{ cm.} = 7 1/4"$		Round of Beam correction ... 2.250
		Correction for Thickness of Deck amidships ... ✓
		Other corrections, scantlings, etc. ... ✓
		Summer Freeboard = 288 = 11 1/4"

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

Tropical Fresh Water Line above Centre of Disc	...	8 3/4"	Tropical Fresh Water Freeboard	0' - 11 1/4"
Fresh Water Line	"	4 1/2"	Fresh Water	0' - 2 1/2"
Tropical Line	"	4 1/4"	Tropical	0' - 6 3/4"
Winter Line below	"	4 1/4"	Winter	0' - 7"
Winter North Atlantic Line	"	7 1/4"	Winter North Atlantic	1' - 3 1/2"

Felipes.

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Trunk:-

$$3.962 \times \frac{13.717 + 9.169}{2 \times 14.021} = 3.233 \text{ m.}$$

$$42.672 \times \frac{8.865}{14.021} = 26.977 \text{ m.}$$

$$9.754 \times \frac{8.865 + 7.341}{2 \times 14.021} = 5.637 \text{ m.}$$

$$\text{Equiv. Length} = \underline{\underline{35.847 \text{ m.}}}$$

Trade of ship INTERNATIONAL

Names of sister ships ☒

Builder's name and yard number JOHN CROWN & SONS LIMITED YARD NO 230

Owners N.V. NEDERLANDSCH - INDISCHE TANK - STOOMBOOT MAATSCHAPPIJ.

Fee £

will be charged on TE



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