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Rpt. Q.11 (Comp.).

OWNERS' C.11 ISSUED

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SUNDERLAND RPT. NO. 35122

Index No. 40192
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

MARITZA

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

ex Ship's Name "BJØRN STANGE"	Official Number ✓	Nationality and Port of Registry NORWEGIAN OSLO VARNA	Gross Tonnage ✓	Date of Build 1949	Port of Survey Sunderland
Moulded Dimensions: Length 475.0' ✓ Breadth 67.375' ✓ Depth 37.388' ✓ To & OF RUDDER STOCK				Date of Survey During Construction	
Moulded displacement at moulded draught = 85 per cent. of moulded depth 22,200 ✓ tons				Surveyor's Signature R. M. Wilson	
Coefficient of fineness for use with Tables 76.5				Particulars of Classification 100 A.1. Carrying Petroleum in Bulk (Contemplated)	

DEPTH FOR FREEBOARD (D).

Moulded depth ... 37.388'
Stringer plate : 7/8" ... 0.063'
Sheathing on exposed deck ✓
 $T \left(\frac{L-S}{L} \right) =$
Depth for Freeboard (D) = 37.45'

DEPTH CORRECTION.

- (a) Where D is greater than Table depth
(D - Table depth) R =
 $(37.45 - 37.67) 3 = +17.34"$
5.78
(b) Where D is less than Table depth (if allowed)
(Table depth - D) R = ✓
If restricted by superstructures ✓

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) 67.375'
Standard Round of Beam = $\frac{B \times 12}{50} = 16.17$
Ship's Round of Beam (SEE SKETCH) = 16.89 (equivalent)
Difference + 72.
Restricted to
Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{72^2}{4} \times 0.6266 = -11"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	99.17	99.17	7.75'	✓	99.17
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	39.02	39.02	7.50'		39.02
" overhang aft	3.89	2.92			2.92
" overhang forward					
F'cle enclosed	36.25	36.25	7.50'		36.25
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	178.33	177.36			177.36

Standard Height of Superstructure 7.50'
" " R.Q.D. ✓
Deduction for complete superstructure 42.00"
Percentage covered $\frac{S}{L} = 37.54$
" " $\frac{S_1}{L} =$
" " $\frac{E}{L} =$ } 37.34
Percentage from Table, Line A. Tanker 28.34
(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 = $42.00 \times 28.34 = 11.90"$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	57.50	1		57.50	48.00	48.00	1		48.00
1/8 L from A.P.	25.59	4		102.36	2.88	2.88	4		11.52
3/8 L	6.325	2		12.65	-	-	2		-
Amidships	-	4		-	-	-	4		-
3/8 L from F.P.	12.65	2		25.30	-	-	2		-
1/8 L	51.18	4		204.72	6.00	6.00	4		24.00
F.P.	115.00	1		115.00	72.00	72.00	1		72.00
Total				517.53					155.52

Mean actual sheer aft
Mean standard sheer aft =

Mean actual sheer forward
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =
L
" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{362.01}{18} \left(.75 - \frac{1877}{2 \times 475} \right) = +11.31"$
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.

Depth to Freeboard Deck = 37.45'
Summer freeboard = 8.58'
Moulded draught (d) = 28.87'

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 7.22 = 7 1/4"

Addition for Winter North Atlantic Freeboard (if required) = 7.22 + 4.75 = 11.97 = 12"

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 19683$
Tons per inch immersion at summer load water line
T = 65.52
Deduction = $\frac{\Delta}{40 T}$ inches
= 7.51
= 7 1/2"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	17.34	-
Deduction for superstructures	-	11.90
Sheer correction	11.31	-
Round of Beam correction	-	11
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc.	-	-
	28.65	12.01

Summer Freeboard = 103.12

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

Tropical Fresh Water Line above Centre of Disc	14 3/4" = 37 1/4" surface	Tropical Fresh Water Freeboard	7' - 4 1/4" = 22 1/2"
Fresh Water Line	7 1/2" = 190	Fresh Water	7' - 11 1/2" = 24 1/2"
Tropical Line	7 1/4" = 184	Tropical	7' - 11 3/4" = 24 3/4"
Winter Line below	7 1/4" = 184	Winter	9' - 2 1/4" = 28 1/4"
Winter North Atlantic Line	12" = 305	Winter North Atlantic	9' - 7 1/4" = 29 1/4"

Bjorn Stange

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.

Displacement at 29'-0" draught = 19683 tons

Tons per inch = 65.52 tons.

Loop length. 93.50' (at side)

$$\frac{2}{3} \times 8.50 = \frac{5.67'}{99.17'} = \text{equivt.}$$

Bridge length at side = 36.33'

$$\frac{2}{3} \times 5.67 = \frac{3.78'}{40.11'} \times \frac{65.545}{67.375} = 39.02'$$

$$\frac{1}{2} \text{hang } 4.0 \times \frac{65.545}{67.375} = 3.89'$$

Lambert :-

$$24.58 \times 16.50 = 405.56$$

$$21.40 \times 16.50 = 353.09$$

$$\frac{758.65}{67.375} \times \frac{3}{2} = 16.89" \text{ equivt.}$$

Trade of ship

Tanker

Names of sister ships

"HØEGH ROVER" Sunderland Rpt No 35068

Builder's name and yard number

Sir James Laing & Sons Ltd

Yard No 782

Owners

Skibs A/s Arnstein

Fee £

Will be charged on F.E



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Foundation