

NORAVIND
53389 Etc.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR ~~STEAMER, SAILING SHIP~~, TANKER.)

Index. No. 33990
(For London Office only).

3 AUG 1943

RPT. N° F132

Ship's Name STEEL TWIN SC. "MIT. SKOTARS"	Official Number -	Nationality and Port of Registry NORWEGIAN LARVIK	Gross Tonnage 8190	Date of Build 1931-4	Port of Survey GALVESTON
Moulded Dimensions: Length 449.83' Breadth 59.0' Depth 35.5'					Date of Survey 30 June 1943
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18650 tons					Surveyor's Signature Wm Rennie
Coefficient of fineness for use with Tables .815					Particulars of Classification +100A1 "CARRYING PETROLEUM IN BULK"

Depth for Freeboard (D).
Moulded depth ... **35.5**
Stringer plate ... **.87'** ... **.072**
Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$
Depth for Freeboard (D) = **35.57**

Depth correction.
(a) Where D is greater than Table depth
(D-Table depth) R =
 $(35.57 - 29.99) 3 = +16.74''$
5.58
(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) **59'**
Standard Round of Beam = $\frac{B \times 12}{50} = 14.16$
Ship's Round of Beam = **14.75''**
Difference **.59**
Restricted to ☒
Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.59}{4} \times .7068 = -.10''$

TONS DISP. TONS

776 16,096
420 15,740
090 15,411
incl 54.8

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Coop enclosed ...	95.7'	95.70	8.21	<input checked="" type="checkbox"/>	95.70
.. overhang ...					
Q.D. enclosed ...					
.. overhang ...					
Bridge enclosed ...					
.. overhang aft ...					
.. overhang forward ...					
.. enclosed ...	36.2'	36.20	7.11 1/2	<input checked="" type="checkbox"/>	36.20
.. overhang ...					
.. aft ...					
.. forward ...					
.. opening aft ...					
.. forward ...					
Total ...	131.9	131.90			131.90

Standard Height of Superstructure **7.5'**
" " R.Q.D. ☒
Deduction for complete superstructure **42''**
Percentage covered $\frac{S}{L} =$
" " $\frac{S_1}{L} =$ } **29.32**
" " $\frac{E}{L} =$
Percentage from Table, Line A. Tanker: **20.52**
(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 = $42 \times .2052 = -8.62''$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
...	54.98	1		54.98	36.0"	36.0	1		36.0
... A.P. ...	24.465	4		97.86	4.3"	4.3	4		17.2
...	6.05	2		12.10	nil	-	2		-
... ips ...	-	4		-	nil	-	4		-
... F.P. ...	12.10	2		24.20	nil	-	2		-
...	48.93	4		195.72	17.1"	17.1	4		68.4
...	109.97	1		109.97	72.0"	72.0	1		72.0
Total ...				494.83					193.6

Mean actual sheer aft =
Mean standard sheer aft =
Mean actual sheer forward = } **Deficient**
Mean standard sheer forward =
Length of enclosed superstructure forward of amidships =
" " aft of " = } **Def. sheer.**

TOTAL

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{301.23}{18} \left(\frac{.75 - .1466}{2} \right) = +10.10''$
6034 If limited to maximum allowance of 1 1/2 ins. per 100 ft. ☒

on for Tropical Freeboard.
for Winter and Winter North
Atlantic Freeboard.

2m.l. Depth to Freeboard Deck = **35.57**
Summer freeboard = **8.37**
Moulded draught (d) = **27.20**

Deduction for Tropical freeboard and addition for
Winter freeboard = $\frac{d}{4}$ inches = **6.8 = 6 3/4**
Addition for Winter North Atlantic Freeboard (if
required) = **6.8 + 4.50 = 11.30 = 11 3/4**

Deduction for Fresh
Water.

Displacement in salt water at
summer load water line
 $\Delta = 16685$
Tons per inch immersion at
summer load water line
 $T = 55.2$
Deduction = $\frac{\Delta}{40T}$ inches
= **7.56**
= **7 1/2**

TABULAR FREEBOARD corrected for Flush Deck (if required)
Correction for coefficient $\frac{.815 + .68}{1.36} = 1.495/1.36$

	+	-
Depth Correction ...	16.74	-
Deduction for superstructures ...	-	8.62
Sheer correction ...	10.10	-
Round of Beam correction ...	-	.10
Correction for Thickness of Deck amidships ...	-	-
Other corrections, scantlings, etc. ...	-	-
	26.84	8.72
Summer Freeboard =	100.62	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck			
Tropical Fresh Water Line above Centre of Disc ...	14 1/4" = 361 mm	Tropical Fresh Water Freeboard ...	8' 4 1/2" = 2553 mm
Fresh Water Line " " ...	7 1/2" = 190 mm	Fresh Water " " ...	7' 2 1/4" = 2192 mm
Tropical Line " " ...	6 3/4" = 171 mm	Tropical " " ...	7' 9 3/4" = 2363 mm
Winter Line below " " ...	6 3/4" = 171 mm	Winter " " ...	7' 9 3/4" = 2382 mm
Winter North Atlantic Line " " ...	11 1/4" = 286 mm	Winter North Atlantic " " ...	8' 11 1/4" = 2724 mm
			9' 3 3/4" = 2839 mm

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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.

SURVEYOR'S FOR FREEBOARD

(COMPUTATION FOR STEEL-TANKER, TANKER, RO-RO, etc.)

Part of Survey	Ship's Name	Steel Tanker
Date of Survey	Registration Number	MT SKOTARS
Surveyor's Signature	Length	290'
Particulars of Classification	Breadth	44' 8"
Classification	Depth	32' 5"
Round of Beam correction	Depth correction	Depth for Freeboard
Standard Round of Beam	(a) Where D is greater than Table depth	32' 0"
Ship's Round of Beam	(b) Table depth D =	32' 5"
Difference	(c) Where D is less than Table depth (if allowed)	
Excess to	(d) Table depth - D =	
Correction =	If restricted by superstructure	

DEDUCTION FOR SUPERSTRUCTURES

Standard Height of Superstructure	Height	Excess	Length	Mean (over) Length
Loop enclosed				92.7
overhang				
B.O.L. enclosed				
overhang				
Bridge enclosed				
overhang at				
overhang forward				
overhang				
Trunk at				
forward				
Tonnage opening at				
forward				
Trunk				

SHEER CORRECTION

Station	Standard Ordinate	Product	Excess Ordinate	Product	Mean actual sheer forward	Mean actual sheer aft
A.L. ...						
1/2 from A.L. ...						
1/2 " " " " " "						
amidships ...						
1/2 from B.L. ...						
1/2 " " " " " "						
B.L. ...						
Total						

It is limited to the maximum allowance of 1/2 inch per foot of length.

Trade of ship	Foreign
Names of sister ships	✓
Builder's name and yard number	Caledon S.B. & E. Co. Ltd.
Owners	Ships A/S. Namset.
Fee	\$110.00 (for assign Survey) WR. 25.00 Deeper loading Survey
Signature	Wm Rennie



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