

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name **SCOT**  
**ex "EMPIRE LUNDY"**

Official Number **180121**

Nationality and Port of Registry **BRITISH NORWEGIAN**  
**HULL GOOLE**  
**KRISTIANSTAD S.**

Gross Tonnage **288**

Date of Build **1944**

Port of Survey **Hull**

Date of Survey **During construction**

Surveyor's Signature **M. Macleod**

Moulded Dimensions: Length **135'-0"** Breadth **21'-6"** Depth **9'-0"**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **481** tons  
**6098 T.P.I.**

Coefficient of fineness for use with Tables **.758**

Particulars of Classification **\* 100 A.1.**  
**CARRYING PETROLEUM IN BULK**  
**LIMITING PORTS BREIT - ELBE**  
**(CONTEMPLATED)**

Depth for Freeboard (D).

Moulded depth ... **9'-0"**

Stringer plate **.30** ... **.03**

Sheathing on exposed deck

$T \left( \frac{L-S}{L} \right) =$  **NONE**

Depth for Freeboard (D) = **9'-03"**

Depth correction.

(a) Where D is greater than Table depth  
(D - Table depth) R = **(9.03 - 9.00) x 1.038 = +.03**

(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) **21'-6"**

Standard Round of Beam =  $\frac{B \times 12}{50} =$  **5'-16"**

Ship's Round of Beam = **6"**

Difference **.841**

Restricted to

Correction =  $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.84^2}{4} \times .3796 =$  **-.07**

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<b>40'-9"</b>	<b>40'-75"</b>	<b>7'-0"</b>	<b>✓</b>	<b>40'-75"</b>
" overhang ...	<b>1'-9"</b>	<b>.88</b>			<b>.88</b>
R.Q.D. enclosed ...	<b>✓</b>				
" overhang ...	<b>✓</b>				
Bridge enclosed ...	<b>✓</b>				
" overhang aft ...	<b>✓</b>				
" overhang forward ...	<b>✓</b>				
Forecastle enclosed ...	<b>13'-9"</b>	<b>13'-75"</b>	<b>6'-6"</b>	<b>✓</b>	<b>13'-75"</b>
" overhang ...	<b>1'-9" AT SIDES</b>	<b>.87</b>		<b>✓</b>	<b>.87</b>
Trunk aft ...	<b>6'-6"</b>	<b>32'-90"</b>	<b>2'-6"</b>	<b>x 2.5/6</b>	<b>13'-71"</b>
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<b>58'-00"</b>	<b>89'-15"</b>			<b>69'-96"</b>

Standard Height of Superstructure **6.0**

" " R.Q.D. **✓**

Deduction for complete superstructure **19.5**

Percentage covered  $\frac{S}{L} =$  **42.96**

" "  $\frac{S_1}{L} =$  **66.04**

" "  $\frac{E}{L} =$  **51.82**

Percentage from Table, Line A. Tanker **43.00**  
(corrected for absence of fore-castle (if required))

Percentage from Table, Line B. **✓**  
(corrected for absence of fore-castle (if required))

Interpolation for bridge less than 2L (if required) **✓**

Deduction = **19.5 x .43 = -8.39**

SHEER PARALLEL WITH KEEL FOR 33'-9" EACH SIDE MIDSHIPS.

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	<b>23.50</b>	<b>1</b>	<b>23.50</b>	<b>27'</b>	<b>27.00</b>	<b>1</b>	<b>27.00</b>
$\frac{1}{2}$ L from A.P. ...	<b>10.455</b>	<b>4</b>	<b>41.82</b>	<b>5'-8"</b>	<b>5.625</b>	<b>4</b>	<b>22.50</b>
$\frac{3}{4}$ L " ...	<b>2.585</b>	<b>2</b>	<b>5.17</b>	<b>0</b>	<b>-</b>	<b>2</b>	<b>-</b>
Amidships ...	<b>-</b>	<b>4</b>	<b>-</b>	<b>0</b>	<b>-</b>	<b>4</b>	<b>-</b>
$\frac{3}{4}$ L from F.P. ...	<b>5.17</b>	<b>2</b>	<b>10.34</b>	<b>0</b>	<b>-</b>	<b>2</b>	<b>-</b>
$\frac{1}{2}$ L " ...	<b>20.91</b>	<b>4</b>	<b>83.64</b>	<b>9'</b>	<b>9.00</b>	<b>4</b>	<b>36.00</b>
F.P. ...	<b>47.00</b>	<b>1</b>	<b>47.00</b>	<b>42'</b>	<b>42.00</b>	<b>1</b>	<b>42.00</b>
Total ...			<b>211.47</b>				<b>127.50</b>

Mean actual sheer aft =  
Mean standard sheer aft =Mean actual sheer forward =  
Mean standard sheer forward =Length of enclosed superstructure forward of amidships =  
" " aft of " =

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{83.97}{18} \left( .75 - \frac{214.8}{5352} \right) = +2.50$

If limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft. ✓

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

Depth to Freeboard Deck = **9'-03"**

Summer freeboard = **.71**

Moulded draught (d) = **8'-32"**

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = **2'-08" = 2"**Addition for Winter North Atlantic Freeboard (if required) = **✓**

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$  **536**

Tons per inch immersion at summer load water line

 $T =$  **6.19**Deduction =  $\frac{\Delta}{40T}$  inches $= \frac{536}{40 \times 6.19} = 2.17 = 2\frac{1}{4}"$ DRAFT EXT  $\Delta$  T.

8'-6" 545 6'-2"

7'-6" 470 6'-078"

6'-6" 401 5'-92"

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{758 + .68}{1.36} = \frac{1.438}{1.36}$ Depth Correction ... **.03**Deduction for superstructures ... **8.39**Sheer correction ... **2.50**Round of Beam correction ... **107**

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

Summer Freeboard = **8.45**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line " **108** **4'-4 1/4"**Tropical Line " **57** **2'-2 1/4"**Winter Line below " **51** **2'**Winter North Atlantic Line NOT ASSIGNED **102** **4'**Tropical Fresh Water Freeboard ... **108** **4'-4 1/4"**Fresh Water " ... **159** **0'-6 1/4"**Tropical " ... **162** **0'-6 1/2"**Winter " ... **167** **0'-10 1/2"**Winter North Atlantic " ... **318** **1'-0 1/2"**



the Surveyor should endorse the form on this side with his signature and the date.

Will  
being construction  
Holladay  
of 100 A.  
MEET IN BURE  
BEST - ELSE  
(WED)

Shells: Bivalve with keel for 37-40, each side midline.

omit

Names of sister ships "EMARE ALDERNEY"

Owners THE MINISTRY OF WAR TRANSPORT

T	$\Delta T_{AB}$	$T_{AB}/T_0$
20	2m2	0.8
270.0	07m	0.7
29.2	10m	0.0