

14 SEP 1932

B.T. COPY.

Rpt. C.11.

Index. No. 30718  
(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

No. 19469

Computation of Freeboard for Steamer, Sailing Ship, Tanker

Having *R.Q. Deck, Short Bridge & 2' 6" Decks.*Port of Survey *Llanelli.*

(Type of Superstructures.)

Date of Survey *12<sup>th</sup> Sept. 1932.*

Ship's Name *S.S. RUNNELSTONE*  
*ALGEBRA*  
 Nationality and Port of Registry *British London*  
 Official Number *146685*  
 Gross Tonnage *869*  
 Date of Build *1923.1*

Name of Surveyor *R.H. Armstrong*

Moulded Dimensions: Length *189'-6"* Breadth *30'-0"* Depth *14'-6"*  
 Moulded displacement at moulded draught = 85 per cent. of moulded depth *1545* tons  
 Coefficient of fineness for use with Tables *772*

Particulars of Classification *+100 A.I.**S.S. Gov. No. 2.31.*

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <i>14'-6"</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>(14.54 - 12.63) 1.457 = 2.78</i>	Moulded Breadth (B) <i>30'-0"</i>
Stringer plate ... <i>0.04</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 7.2$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <i>7.5</i>
Depth for Freeboard (D) = <i>14.54</i>		Difference <i>30</i>
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{30^2}{4} \times \left( 1 - \frac{23.56}{30} \right) = 1.02$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...	<i>106'-0"</i>	<i>106.00</i>	<i>4'-0"</i>		<i>106.00</i>
" overhang ...			<i>4</i>		
Bridge enclosed ...	<i>13'-6"</i>	<i>13.50</i>	<i>7'-0"</i>		<i>13.50</i>
" overhang aft ...	<i>5.5</i>		<i>5.5</i>		
" overhang forward ...	<i>6.5</i>	<i>27</i>	<i>6.5</i>		<i>27</i>
F'cle enclosed ...	<i>26'-0"</i>	<i>23.60</i>	<i>7'-6"</i>		<i>23.60</i>
" overhang ...	<i>23.65</i>	<i>1.47</i>	<i>6.5</i>		<i>1.47</i>
Trunk aft ...	<i>2.94</i>				
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<i>146.58</i>	<i>144.84</i>			<i>144.84</i>

Standard Height of Superstructure	<i>6.00</i>
" " R.Q.D.	<i>3.596</i>
Deduction for complete superstructure	<i>24.95</i>
Percentage covered $\frac{S}{L} =$	<i>77.34</i>
" " $\frac{S_1}{L} =$	<i>76.44</i>
" " $\frac{E}{L} =$	<i>76.44</i>
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	<i>70.92</i>
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	
Deduction = <i>24.95</i> × <i>70.92</i> =	<i>17.70</i>

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>28.95</i>	1		<i>28.95</i>	<i>33" + 4.85</i>	<i>33.85</i>	1		<i>33.85</i>
$\frac{1}{2}$ L from A.P. ...	<i>12.88</i>	4		<i>51.52</i>	<i>13.5</i>	<i>13.43</i>	4		<i>53.72</i>
$\frac{2}{3}$ L " ...	<i>3.18</i>	2		<i>6.36</i>	<i>3.5</i>	<i>3.36</i>	2		<i>6.72</i>
Amidships ...		4					4		
$\frac{2}{3}$ L from F.P. ...	<i>6.36</i>	2		<i>12.72</i>	<i>10"</i>	<i>8.49</i>	2		<i>16.98</i>
$\frac{1}{2}$ L " ...	<i>25.76</i>	4		<i>103.04</i>	<i>34"</i>	<i>33.97</i>	4		<i>135.88</i>
F.P. ...	<i>57.90</i>	1		<i>57.90</i>	<i>77"</i>	<i>76.00</i>	1		<i>76.00</i>
Total ...				<i>260.49</i>					<i>342.39</i>

Mean actual sheer aft = <i>Excess</i>	<i>4.04</i>
Mean standard sheer aft	<i>12</i>
	<i>4.85</i>
Mean actual sheer forward = <i>Excess</i>	
Mean standard sheer forward	
Length of enclosed superstructure forward of amidships = <i>5.1L</i>	
" " aft of " = <i>.5L</i>	

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{81.90}{18} \left( .75 - \frac{3867}{2 \times 189.6} \right) = -1.65$$

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.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *14.54*  
 Summer freeboard = *.52*  
 Moulded draught (d) = *14.02*

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = *3.5*  $3\frac{1}{2}$ Addition for Winter North Atlantic Freeboard (if required) = *2"*

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 1785$ 

Tons per inch immersion at summer load water line

 $T = 11.68$ Deduction =  $\frac{\Delta}{40T}$  inches $= 3.82$ *3 3/4*

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

Correction for coefficient *772+68* *1458*  
*1.36*

	+	-
Depth Correction ...	<i>278</i>	<i>-</i>
Deduction for superstructures ...	<i>-</i>	<i>17.70</i>
Sheer correction ...	<i>-</i>	<i>1.65</i>
Round of Beam correction ...	<i>-</i>	<i>.02</i>
Correction for Thickness of Deck amidships ...	<i>-</i>	<i>-</i>
Other corrections, scantlings, etc. ...	<i>48.00</i>	<i>-</i>
	<i>50.78</i>	<i>19.37</i>
Summer Freeboard =	<i>54.17</i>	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *R.Q.D.* Steel Deck :-

Tropical Fresh Water Line above Centre of Disc ...	<i>7 1/4</i>
Fresh Water Line " " ...	<i>3 3/4</i>
Tropical Line " " ...	<i>3 1/2</i>
Winter Line below " " ...	<i>3 1/2</i>
Winter North Atlantic Line " " ...	<i>5 1/2</i>

Tropical Fresh Water Freeboard ...	<i>4 - 6 1/4</i>
Fresh Water " " ...	<i>3 - 11</i>
Tropical " " ...	<i>4 2 1/2</i>
Winter " " ...	<i>4 2 3/4</i>
Winter North Atlantic " " ...	<i>4 - 2</i>
	<i>4</i>

RECEIVED  
11 MAR 1940RECEIVED  
MARKINLloyd's Register  
Foundation



## PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
FREEB <sup>o</sup> DK FREEB <sup>o</sup> DK FREEB <sup>o</sup> DK										
Description of Hatchway	...	...	...	N <sup>o</sup> 1	N <sup>o</sup> 2	ESCAPE N <sup>o</sup> 1 HOLD	ESCAPE N <sup>o</sup> 2 HOLD	TO FORE PEAK		
Dimensions of Hatchway	...	...	...	34'-10" x 18'-0"	31'-1" x 18'-0"	27" x 19"	30" x 16"	23 1/2" x 21 1/2"		
COAMINGS	Height above Deck	...	...	34 1/2"	35"	37"	34"	6"		
	Thickness	Sides Ends	...	.44"	.44	.44	.32"	.32"		
	Stiffeners		...	.44	.44	.44	.32	.32		
	Brackets, Stays	...	...	7 x 3 x 1/4 B.A. 3-8 1/2 x 5 1/2	44 ✓ ASN <sup>o</sup> 1	44 ✓	.32 ✓	✓		
HATCH BEAMS	Number	...	...	6	6					
	Spacing	...	...	5'-0"						
	Scantling and Sketch	...	...	16 1/2 x 36 4 x 3 x 36 4 x 3 x 36 4 x 3 x 36 3 1/2	ASN <sup>o</sup> 1					
	Bearing Surface	...	...	✓	✓					
FORE AND AFTERS	Number	...	...							
	Spacing	...	...							
	Unsupported Lengths	...	...							
	Scantling* and Sketch	...	...							
	Bearing Surface	...	...							
HATCH COVERS	Material	...	...	W.W.		W.W.	W.W.	W.W.		
	Thickness	...	...	2 3/4"		3"	2 1/2"	2 1/2"		
	How fitted	...	...	F-A.	ASN <sup>o</sup> 1	F-A	P-S.	P-S.		
	Bearing Surface	...	...	3 x 4" ✓	✓	2 1/2"	2 1/4"	1 1/2"		
Spacing of Cleats	...	...	...	23" x 25"		13"	8 1/2" x 15 1/2"	NIL		
Number of Tarpaulins	...	...	...	3	ASN <sup>o</sup> 1	2	2	NIL.		

\*Are wood fore and afters steel shod at all bearing surfaces? **Yes**

Are battens and wedges efficient and in good condition? **Yes**

Are tarpaulins in good condition and in accordance with rule requirements? **Yes**

Are lashings provided in accordance with rule requirements? **Yes**

Particulars of fiddley, funnel and ventilator coamings :—

Steel skylight over steering gear  
strongly constructed, 1 hinged flap  
each side. 8" dia. glass circles  
(frames of circles broken)

Fidley top plated. Main funnel coaming riveted to casing top  $12' \times 25'$   
 Engine & Boiler Rm. Vents in efficient condition.  
 Engine Room Skylight of steel strongly constructed. 3 hinged flaps each  
 8" dia. glass circles (~~several broken~~)  
 Fidley gratings covered by strong steel hinged covers.  
 X Bunker Hatch on casing top  $18'0'' \times 5'6''$  coaming  $26' \times 32'$  bearing  $1\frac{1}{2}$   
 $2\frac{1}{2}$ " W.W. Covers, cleats  $3'0''$  exs. Wood Wedges & Steel battens. 2 Tarpsaulins.

Particulars of Flush Bunker Scuttles:— *NONE*

Particulars of Companionways:— *NONE.*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :—

2-Tent. on F'ble. Sk: 8½" dia; coaming 3'-0" x 36" 1.P. & 1.S. To Accom.

1 -	"	"	6"	"	"	x .75	
2 -	"	"	4"	"	28 1/2" high	(Goosenecks) TO W.C & STORE.	
1 -	"	Freeboard	15	"	coaming	3'-0" x 4'4" $\frac{1}{2}$	TO NO 1 HOLD
2 -	"	"	9	"	"	3'-3" x 3'6"	" " " 1 P&S
2 -	"	"	14	"	"	3'-0" x 3'6"	" " 2 "
5 -	"	Bridge	6	"	"	5' x 25'	TO ACCOM.

Bamboo covers &  
Wood plugs provided.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks :—

1- Steel air pipe on F Ble. Dk: 16" high x 4" dia. from Fore Peak.

2- " " " " " " 13 " x 2 " " N°1 O.B.TANK.  
" " " " " " 17 1/2 " " " N°2

Freeb. = 222 " x 2' " " N<sup>o</sup> 2 " " S.  
 1-51 " " " " 29' " x 2½' " " P

" " " " " " " " " "  
2 - " " " " " " " " " " AFTER PEAK (one missing)

~~The wood plugs or~~ <sup>Chamois</sup> canvas covers provided.

Particulars of Gangway Cargo and Coaling Ports:— *NONE.*



366. W.C.P. 4" dia. Discharge Valve on Ships side. Below Free<sup>2</sup> Lk.  
 Captain's " " " " " " " " " " " "  
 " Bath " 1 1/2 " " " " " " " "  
 Engineer's W.C.S. 4" " " " " " " " " "

Particulars of Side Scuttles:—

In Fble: 7' Dia:	fitted with C.I. deadlights	
Bridge front B.H. 9 1/2	No	"
" Side Houses 8	"	"

Scuttles strongly constructed.

Particulars of Guard Rails:— On 7' Cle. Deck. 2 Tier steel 3'-0" high stanchions 4'-6" apart.  
" Bridge " " " " " " " " " " 4'-10 " "

Particulars of Gangways, Lifelines, etc.:— ~~NONE~~

Eyebolts provided in fore-castle & bridge front bulkheads for lifelines, port & Starboard

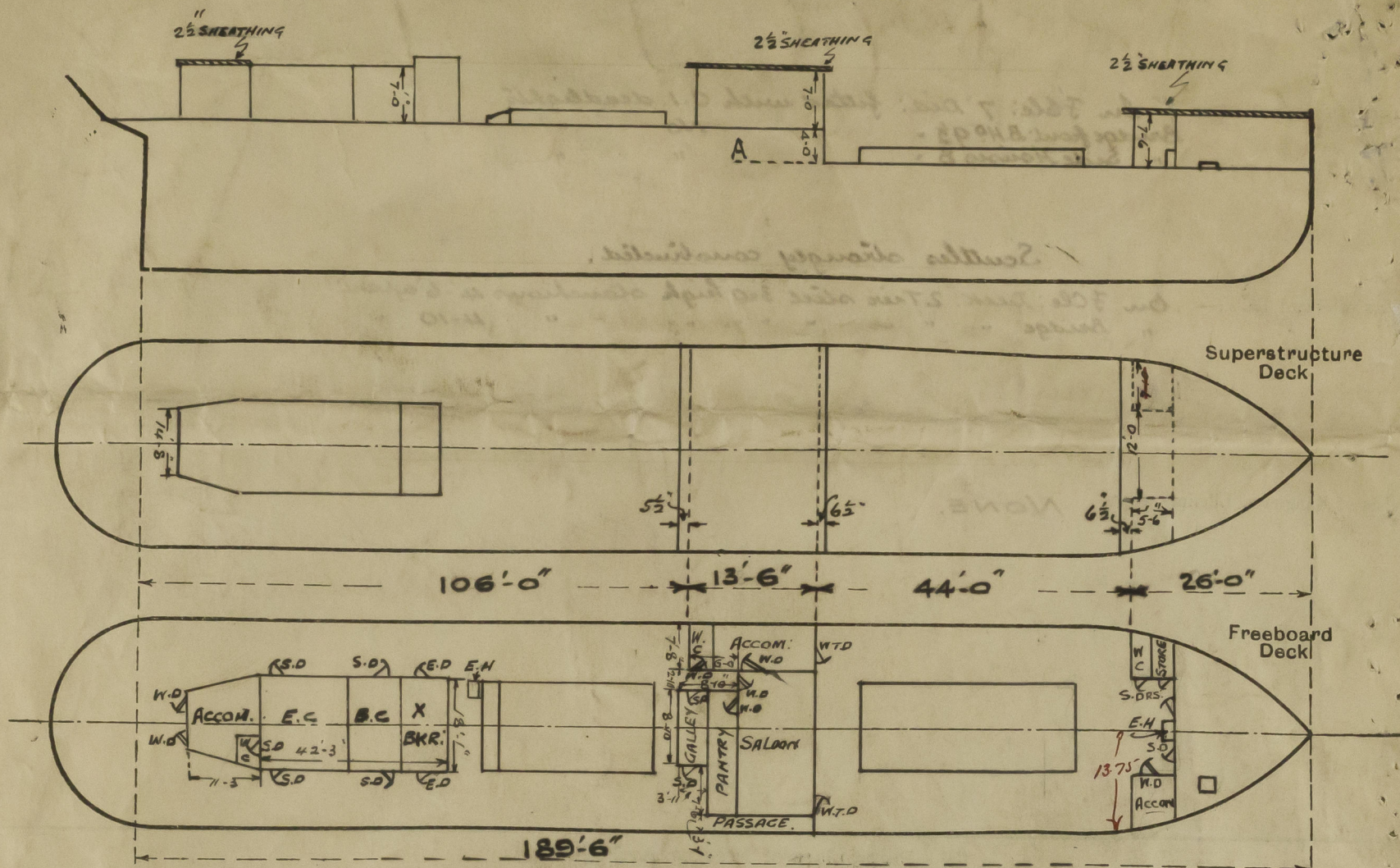
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well ... ..	106'-0	3'-3"	3'-0" x 18"	4	18 ft. ✓	21.2
Forward Well ... ..	44'-0"	3'-7	3'-0" x 18"	3	13.5 ft. ✓	10.9
State position of each freeing port ... .. (E. and A. position and height above deck edge)			{ After Well:— { Forward Well:— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—			
Additional area where sheer is less than standard.						

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..								
Raised Quarter Deck Bulkhead ...		36"	L. 4" x 3" x 36"	21"	BKTS. T&B	H.W.T.O 21" x 21" x 36"	15"	4'-0"
Bridge, After Bulkhead ... ..		31"	" " "	18½"	—	H.W.O 4'-8" x 23" x 1½"	18"	7'-0"
Bridge, Forward Bulkhead ... ..	56" x 37"	37"	5½" x 3" x 44 B.A.	29"	BKTS. T&B	—	—	4'-0" & 7'-0"
Forecastle Bulkhead ... ..	13½" x 37"	37"	L. 2½" x 2½" x 31"	21"	—	H.S.O <sup>5</sup> 5'-0" x 22" x 36"	15"	7'-6"
Trunk, Aft ... ..								
Trunk, Forward ... ..								
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	18" x 36"	31"	L. 2½" x 2½" x 31"	22"	BKTS. TOP.	H.S.O <sup>5</sup> 5'-0" x 23½" x 31" ESCAPE 30" x 16½" x 28" DOORS	18" 3'-3"	7'-0"
Exposed Machinery Casings on Super- structure Decks ... ..								
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances ... ..								
Deckhouses on Flush Deck Ships ...								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead ... ..	
Raised Quarter Deck Bulkhead ...	Hinged W.T. Doors 21" x 21" x 36" to F.W. Spaces. 1.P & 1.S. 5 Clips Butterflys & Nuts. 5/8" hinged bolts. Rubber joints <sup>open from outside.</sup>
Bridge, After Bulkhead ... ..	Hinged Wood Doors to W.C.F. No Lock " " Door " Saloon. Open both sides 2 Hinged Steel doors to Gallery. ( <del>Locks &amp; bolts</del> )
Bridge, Forward Bulkhead ... ..	Hinged W.T. Doors (as above to F.W. SPACES) ✓
Forecastle Bulkhead ... ..	Hinged steel doors 1.P & 1.S. <del>Locks &amp; bolts Port too</del> Side Houses W.C & Store. Locks useless PORT " " ACCOM: H.W. DOOR. Open both sides. S789
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Hinged " " To Eng: & Blr: casing Open both sides ( <del>Require overhauling</del> ) Escape Doors to X Bunker 1.P & 1.S 2-Double clips Open both sides.
Exposed Machinery Casings on Super-structure Decks ... ..	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	
Deckhouses on Flush Deck Ships ...	



Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—

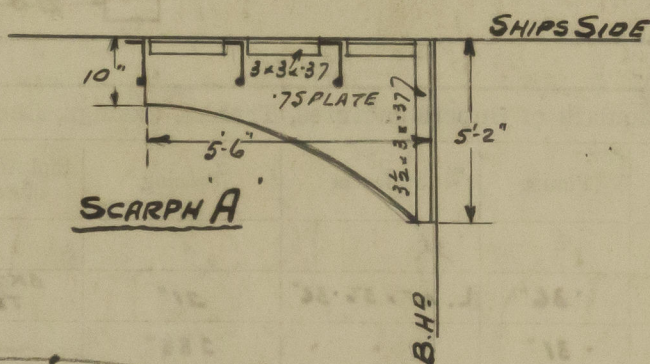


State any special features in the construction of the ship:—

Particulars taken when vessel was afloat

$$\begin{array}{r} \text{Tele} \quad 26 \\ \text{Enclosed} \quad 5.5 \\ \hline 26 - 12.5.5 = 26 \\ \quad 1375 + 2 = 2 \\ \hline 23 \end{array}$$

$$\begin{array}{r} 26.5 \\ 23.6 \\ \hline 2.94 \end{array}$$
 Discharge



Vessel similar to S.S. Hubbards

Builder's name and yard number Hansen S.A. Ship Repg. Co Ltd.

Names of sister ships

OWDERS S.A.R. Steamships Ltd. (Stone & Koff Ltd.)

Fee £ 6 : 16 : 0  
Expenses 5 - 6.

Received by me



© 2021

Lloyd's Register  
Foundation