

Rpt. C.11.

Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.Index. No. 22632  
(For London Office only.)

20 NOV 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
havi *Paup Bridge & Zouale*

Port of Survey *Newcastle*

Date of Survey *28th Nov 1932*

Name of Surveyor *A. B. B. B.*

Particulars of Classification *100A*  
*S.S. Sec. No. 3. 6. 24*  
*S.S. Sec. No. 1-29*

Ship's Name *WESTCOVE (S. COVE)*

Nationality and Port of Registry *British Sunderland*

Official Number *135160*

Gross Tonnage *2734*

Date of Build *1912-11*

Moulded Dimensions: Length *311.4* Breadth *45* Depth *23.12*

Moulded displacement at moulded draught = 85 per cent. of moulded depth *617.5* tons

Coefficient of fineness for use with Tables *.785*

Depth for Freeboard (D) *23.12*

Depth correction (a) Where D is greater than Table depth (D-Table depth) R = *(23.16 - 20.76) 2.395 = +5.75*

(b) Where D is less than Table depth (if allowed) (Table depth-D) R =

Round of Beam correction

Moulded Breadth (B) *45*

Standard Round of Beam =  $\frac{B \times 12}{50}$  = *10.80*

Ship's Round of Beam = *11.20*

Difference *.40*

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L})$  =  $\frac{.40}{4} (1 - \frac{.3507}{.6493})$  = *.03*

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	22-3	22.25	7-6	✓	22.25
„ overhang ...	6	.25			.25
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...	56-4	56.33	7-6	✓	56.33
„ overhang aft ...	2-6	1.87			1.87
„ overhang forward ...	2-0	1.00			1.00
„ enclosed ...	27-1	27.08	7-6	✓	27.08
„ overhang ...	8-5	.42			.42
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ forward ...					
Total ...	111.08	109.20			109.20

Standard Height of Superstructure *6.61*

„ „ R.Q.D. *✓*

Deduction for complete superstructure *36.09*

Percentage covered  $\frac{S}{L} = 35.67$

„ „  $\frac{S_1}{L} = 35.07$

„ „  $\frac{E}{L} = 35.07$

Percentage from Table, Line A. *19.31*

(corrected for absence of forecastle (if required)) *19.31 + (4 x  $\frac{12}{20}$ )*

Percentage from Table, Line B. *23.31*

(corrected for absence of forecastle (if required)) *19.31 + 3.8 = 23.11*

Interpolation for bridge less than 2L (if required) *.19*

Deduction = *36.09 x 23.11 = -8.34*

## SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate (S.E.O.)	S	Product
A.P. ...	41.14	1	41.14	42.42	42.00	1	42.00
$\frac{1}{8}$ L from A.P. ...	18.31	4	73.24	19.18	18.96	4	75.84
$\frac{3}{8}$ L „ ...	4.52	2	9.04	4.47	4.74	2	9.48
Amidships ...	-	4	-	-	-	4	-
$\frac{5}{8}$ L from F.P. ...	9.04	2	18.08	10.10	10.07	2	20.14
$\frac{7}{8}$ L „ ...	36.62	4	146.48	40.40	40.28	4	161.12
F.P. ...	82.28	1	82.28	90.90	90.00	1	90.00
Total ...			370.26				398.58

Mean actual sheer aft = *EXCESS*

Mean standard sheer aft

Mean actual sheer forward = *EXCESS*

Mean standard sheer forward

Length of enclosed superstructure forward of amidships = *.093*

„ „ aft of „ = *.75.088*

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - \frac{S}{2L}}{.75 - \frac{S}{2L}} \right) = \frac{28.32}{18} \left( \frac{.75 - .5717}{.75 - .5717} \right) = -.90 \times \frac{18.1}{20} = -.85.81$

If limited on account of midship superstructure. *.12*

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 = *23.16*

Summer freeboard = *3.85*

Moulded draught (d) = *19.31*

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = *4.83 = 4 $\frac{3}{4}$*

Addition for Winter North Atlantic Freeboard (if required) =

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta$  =

Tons per inch immersion at summer load water line

T =

Deduction =  $\frac{\Delta}{40T}$  inches

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

Correction for coefficient  $\frac{.785 + .68}{1.36} \frac{1.465}{1.36}$

Depth Correction ... *5.75*

Deduction for superstructures ... *8.34*

Sheer correction ... *.85*

Round of Beam correction ... *.03*

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

+	-
5.75	
-	8.34
-	.85
-	.03
-	-
-	-
5.75	9.22

Summer Freeboard = *46.359*

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

Tropical Fresh Water Line above Centre of Disc ...	Tropical Fresh Water Freeboard ...
Fresh Water Line „ „ ...	Fresh Water „ „ ...
Tropical Line „ „ ...	Tropical „ „ ...
Winter Line below „ „ ...	Winter „ „ ...
Winter North Atlantic Line „ „ ...	Winter North Atlantic „ „ ...



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Fore and Afters Deck										
Description of Hatchway	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	Two to Br Bks	Two to Br Bks	on Gangway	on Deck
Dimensions of Hatchway	35' x 22'	25' x 28'	23' x 28'	17' x 28'	23' x 28'	44' x 27'-3"	3'-8" x 2'-5"	8'-2" x 2'-6"	14'-3" x 5'-0"	2'-6" x 2'-6"
COAMINGS	Height above Deck	4'3"	4'3"	4'3"	4'3"	4'3"	15" x 40"	15" x 40"	6" BA	12" x 40"
	Thickness	50	50	50	50	50	40	40		40
	Sides	40	40	40	40	40				
	Stiffeners	6x3	6x3	6x3	6x3	6x3				
Brackets, Stays										
8 Butts										
HATCH BEAMS	Number	4	2	2	1	2				
	Spacing	7'-7"	8'-6"	7'-8"	8'-6"	7'-9"				
	Scantling and Sketch	5" x 10" pl	5" x 10" pl	5" x 10" pl	5" x 10" pl	5" x 10" pl				
	Some info	37' x 38" x 40"	40' x 40"	40' x 40"	40' x 40"	40' x 40"				
FORE AND AFTERS	Number	5	5	5	5	5				
	Spacing	4'-4" to 4'-10"	4'-7" to 4'-8"	4'-8"	4'-8"	4'-8"				
	Unsupported Lengths	7'-1"	8'-0"	7'-2"	8'-0"	7'-3"				
	Scantling and Sketch	10' x 8" (10' x 8" (10' x 8" (10' x 8" (10' x 8" (10' x 8"	11' x 8"	11' x 8"	10' x 8"	10' x 8"				
HATCH COVERS	Material	WP	WP	WP	WP	WP	WP	WP	WP	WP
	Thickness	3"	3"	3"	3"	3"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
	How fitted	all	all	all	all	all	all	all	all	all
	Bearing Surface	3"	3"	3"	3"	3"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Spacing of Cleats										
22'										
Number of Tarpaulins										
2										
*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 in some cases. New wires being prepared										

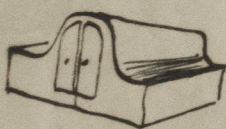
Particulars of fiddle, funnel and ventilator coamings:—

Stokehold gratings covered by strong steel hinged covers. Fiddle & funnel covers in excellent condition. Engine Room skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways:—



On poop deck giving access to enclosed poop. Of deck strongly constructed 2 1/2" thick. 2 track doors. Opening 4'-9" x 2'-8". Set 9 1/2" above wood deck opening both sides. 1/4" 1 1/2" panelled doors.

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

On poop Two 10" dia x 18" high to poop. After well deck one 6" dia x 24" high to tunnel. 12" x 20" to hold. After trunk (31" high) 12" dia x 22" high. On Fore Deck 12" dia x 24" high to hold. Fiddle deck to hold one 12" x 20". To Peak one 6" dia x 24". Only some fixed with steel covers. but all could be opened or to free & examine. Efficient closing appliances provided.

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

2 on poop 3" dia x 9" to main. Gaseous vent to aft. 2 on Br 3" x 24" to top open end to E.R.T. 1 on 3" x 8" to Main on 1 on deck to Fore. 3" dia x 12" to M. on. No plugs or covers provided. Remains flush on deck with screwed caps.

Particulars of Gangway Cargo and Coaling Ports:—

None



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Foundation



Particulars of Scuppers and Sanitary Discharge Pipes :-

Scuppers in corner of hull led overboard below up Dk. 2nd valve  
Wcs apt led this ship side below up Dk with valve  
Both - - - - - no valve  
Emp wcs below upper dk with valve  
Cms we below - - - - -

Particulars of Side Scuttles :-

Side scuttles fitted in Poop Br & Fdh & deadlights fitted  
Strong Construction / ~~Some glass broken~~

Particulars of Guard Rails :-

On Poop Deck 3-2 high: 2 Rds. stanchions 4-0 apart  
- Br. " 3-2 - " 3-2 -  
- Fdh. " 3-1 - 2 Rds - 4-0 -

Particulars of Gangways, Lifelines, etc. :-

~~None.~~  
Lifelines rigged in forward & after well

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 ... ..	103-0 <del>106-0</del>	4-0	30"x12" 12"R 34x21 6"R 14"up	1 off } 5. 4 off }	2.28 } Total 19.60 } 21.88 sq.	20.6 sq.
Forward Well ... ..	97-10 <del>100-3</del>	4-0	30x12 12"R 34x21 6"R 14"up	1 off } 5. 4 off }	2.28 } 19.60 } 21.88 sq.	19.4 sq.
State position of each freeing port ... .. } After Well:- 5-8: 24-3: 40: 56-3: 88-4 (F. and A. position and height above deck edge) } Forward Well:- 8-0: 25-4: 41-6: 57-8: 75-8: Flap doors 1 high each.						
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.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..						no opening		7-6.
Raised Quarter Deck Bulkhead ... ..								
Bridge, After Bulkhead ... ..	8/16	7/16	3 1/2 x 3 1/2 x 7/16 L	38	none	5-0 x 4-0. 4-6 x 2-0.	1-8 1-6	7-6.
Bridge, Forward Bulkhead ... ..	8/16	7/16	7 1/2 x 3 1/2 x 7/16 L	24	Plt. TTB	none	none	7-6.
Forecastle Bulkhead ... ..	7/16	7/16	3 x 3 x 7/16 L	25	none	4-6 x 2-0 1/2	18	7-6.
Trunk, Aft ... ..								
Trunk, Forward ... ..								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ... ..								
Exposed Machinery Casings on Super-structure Decks ... ..	7/16	7/16	none in way of BR ER. 3 1/2 x 3 1/2 x 7/16 L	40	none	none	✓	3-7. BR 7-0 ER
Machinery Casings within Superstruc-tures not fitted with Class I Closing Appliances ... ..	7/16	7/16	3 1/2 x 3 1/2 x 7/16 L	40	do	do		7-6.
Deckhouses on Flush Deck Ships ... ..								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead ... ..	no openings
Raised Quarter Deck Bulkhead ... ..	
Bridge, After Bulkhead ... ..	2 steel hinged doors to each house (no locks): Rth ch full ht no W. boards but new plates with hinges and door 2
Bridge, Forward Bulkhead ... ..	no openings
Forecastle Bulkhead ... ..	3 steel panelled doors 34" x 17 1/2" thick not all opened both sides 12" open space above each door
Exposed Machinery Casings on Free-board or Raised Quarter Decks ... ..	no openings
Exposed Machinery Casings on Super-structure Decks ... ..	no openings into BR except thru porthole to gratings: 3rd entrance protected by steel dk house
Machinery Casings within Superstruc-tures not fitted with Class I Closing Appliances ... ..	2 steel panelled doors 34" x 17 1/2" thick. both sides. sill 20" to Rth No. 1 with 3rd. Two 4-0 x 1-11 1/2" sill 12" x 14" steel panelled. op. both sides
Deckhouses on Flush Deck Ships ... ..	



