

SURVEYS FOR FREEBOARD.—STEAM SHIPS.

PARTICULARS RELATING TO ALL STEAM SHIPS EITHER FLUSH DECKED, OR WITH TOP GALLANT FORECASTLES, SHORT POOPS AND BRIDGE HOUSES DISCONNECTED, OR WITH TOP GALLANT FORECASTLES HAVING LONG POOPS, OR RAISED QUARTER DECKS CONNECTED WITH BRIDGE HOUSES, OR OTHERWISE.
on complete shelter deck, with tonnage opening aft.

Port of Survey *Sunderland*
Date of Survey *Whilst building, 1926*
Name of Surveyor *W.P. Collings*

Ship's Name.	Port of Registry and Nationality.	Official Number.	Gross Tonnage.	Date of Build.	Particulars of Classification.
<i>s/s "Bairnglen"</i>	<i>Newcastle British</i>	<i>149417</i>	<i>5018.80</i>	<i>1926</i>	<i>100 A1 Shelter dk with fbd. (Contemplated)</i>
Number in Register Book					

Registered dimensions from Ship's Register.	LENGTH.	BREADTH.	DEPTH.	UNDER DECK TONNAGE.
	<i>401.8</i>	<i>55.3</i>	<i>26.3</i>	<i>4486.64</i>
Length on LOADLINE.	<i>400.0</i>	Frame Depth Rule <i>7 6 2</i>	Ceiling Fitted Sheer <i>+ 53</i>	Peak Tanks <i>Incl 3rd & after. 88 tanks raised at ends + 43.43</i>
CORRECTED DIMENSIONS.	<i>400.0</i>	<i>55.2</i>	<i>26.83</i>	<i>4530.10</i>

Co-efficient of fineness..... *.766*
Any modification necessary [Para. 4 (a) to (e)]* *.02 - (C.B.)*
Co-efficient as corrected *.75*

Sheer {Stem..... *84* } *135* ÷ 2 = *67.5* ...Mean
at {Sternpost ... *51* }
Sheer at 1/2 of the length from {Stem *48* } *76* ÷ 2 = *38* ...Mean
{Sternpost *28* }
Gradual mean Sheer *69.09 + 67.5* = *68.29*
Standard mean Sheer [Table, Para. 18] *50.00* Correction
Difference..... *18.29* ÷ 4 = *4.57*
§ If limited as Para. 18 (f) *- 4.2*

Rise in Sheer { At front of bridge house.....
from amidships {
[Para. 18 (e)] { At after end of forecastle

Fall in Sheer {
Para. 18 (d) } ÷ 2 =
Length uncovered Correction

ALLOWANCE FOR DECK ERECTIONS:—

Freeboard, Table C..... *3' 10"*
Correction for Length, if required (Para. 12, 13, and 14)
Freeboard by Table A, corrected for sheer, and for length, if required (Para. 12, 13, and 14) (1) } *6' 7 1/4"*
Difference *2' 9 1/4"*
Percentage as below..... *94.43%*
31.39"

Correction for R. Q. Dk. if engine and boiler openings not covered by bridge house (Para. 11) }
Allowance for Deck Erections *2' 4 1/2"*

	Length.	Length allowed.	Height.
Forecastle.....	<i>35' 4 1/2"</i>	<i>35' 4 3/4"</i>	<i>8' 6"</i>
Bridge House	<i>4' 6"</i>		
Popo.....	<i>41' 1 1/2"</i>	<i>41' 12"</i>	<i>8' 6"</i>
Total	<i>400.0</i>	<i>395.49</i>	
Length of Ship	<i>400.0</i>	<i>397.74</i>	
Corresponding percentage { (Para. 11, 12, 13, or 14) } <i>94.43%</i>		<i>400.0</i>	<i>= 99.43</i>

FREEBOARD recommended amidships from centre of Disc to top of Statutory Deck Line, ~~Wood~~ (Steel) Deck:—

27 AUG 1926
Fresh Water Line above centre of Disc
Indian Summer Line " " "
Winter Line below " " "
Winter North Atlantic Line " " "

Moulded Depth as measured..... *28' 9"*

Addition for Keel below base line for draught record..... *1 1/2* inches.

CORRECTION FOR LENGTH.

Length of Ship on Loadline..... *400.0*
Length in Table *345.0*
Difference *55.0*
Correction for 10ft., Table A. *1.5* Table C.
× Difference divided by 10 *8.25* (if required.)
If 1/10ths length covered divide by 2 *4.125* *+ 4"*

CORRECTION FOR IRON DECK.

Proportion covered, if less than 1/10ths length covered
Thickness of usual wood deck, less stringer *3 1/2"* *- 3 1/2"*

CORRECTION FOR ROUND OF BEAM.

Breadth at Gunwale amidships..... *54.6*
Round of Beam *13 1/2*
Normal round..... *13 5/8*
Difference *1/8* ÷ 2 =
Proportion of Deck uncovered (Para. 19)

Freeboard, Table A *6' 11 3/4"*
Correction for Sheer *- 4 1/2"*
Correction for Length *+ 4"*
Allowance for Deck Erections *- 2' 4 1/2"*
Correction for Round of Beam..... *4' 33/4"*
Correction for fall in Sheer (if any).....
Correction for Iron Deck (if required) *- 3 1/2"*
Additions for non-compliance with provisions of Para. 11 (d) and (e) †
Other Corrections (if any)

Winter Freeboard *4' 0 1/4"*
Summer Freeboard *3' 6 1/4"*
Indian Summer Freeboard *3' 0 1/4"*
N. A. Winter Freeboard

Correction necessary because clearside amidships, measured in accordance with the Statute is not taken at the intersection of the wood or steel deck with side. *1 3/4"*

Winter Freeboard from deck line *4' 2"*
Summer " " " *3' 8"*
Indian Summer " " " *3' 2"*
N. A. Winter " " "

Winter Freeboard from deck line *3' 8"*

Fresh Water Line *6 3/4"*
Indian Summer Line *6"*
Winter Line *6"*
Winter North Atlantic Line

† If the frames, skin planking, or ceiling are of unusual thickness the breadth of vessel to inside of ceiling should be reported if possible.
† In vessels obtaining an allowance for deck erections under Para. 11 where the sheer drops abaft amidships the height of the R.Q.D. is to be taken from the level of the top of the amidship beam.
§ In flush-decked vessels the total standard mean sheer means the sheer measured at the stem and sternpost. In vessels having poops and forecastles, it means the sheer measured at points distant one-eighth of the vessel's length from stem and sternpost.

† State dimensions of freeing port area on back of this form.
† The Surveyor should state whether the fall in sheer as reported is measured relatively to the straight line of keel or to the water line. If measured relatively to water line the vessel's draft at time of survey, and also the usual load draft forward and aft, should be reported.

RECEIVED 5-SEP-1926

Tonnage Opening Fitted.

Do all the Frames extend to the top height in the Poop? *yes* Raised Quarter Deck? *yes* Bridge House? *yes* Forecastle? *yes*
 To what height do the Reverse Frames extend? *to 3rd deck*
 Has the Poop or Raised Quarter Deck an efficient Iron Bulkhead at the fore end? *Complete Shelter deck with tonnage opening aft.*
 Give particulars of the means for closing the openings in Bulkhead *Efficient temporary covers are provided for closing the tonnage opening in the shelter deck & are fitted with eye plates & lashings.*
 Is the Poop or Raised Quarter Deck connected with the Bridge House? *yes* Has the Bridge House an efficient Bulkhead at the fore end? *The forward steel bld in the well aft has two openings closed with shifting boards in riveted channels full height, no opening in after bld.*
 Give particulars of the means for closing the openings in Bulkhead
 What is the thickness of the Bridge Front plating? and Coaming plate?
 Give scantlings and spacing of the Stiffeners
 Are bracket plates fitted at each end of the Stiffeners? Are hor'l. brackets fitted connecting Bridge Bulk'd. with Bulwarks?
 Has the Bridge House an efficient Iron Bulkhead at the after end?
 How are the openings closed?
 Is the Forecastle at least as high as the main or top-gallant rail? Has the Forecastle an efficient Iron or Wood Bulk'd. at after end?
 Are the Engine and Boiler openings covered by a Bridge, Poop, Raised Quarter Deck, or enclosed by a Strong Iron or Steel Deckhouse?
 If the openings are not so protected are the exposed parts of the Casings efficiently constructed?
 Give thickness of plating; scantlings and spacing of Stiffeners
 What is the height of the exposed Casings? Are suitable means provided for closing all openings in them in bad weather? *yes*
 Are the Weather Deck Hatchways efficiently constructed and at least equal to the requirements of Section 28 of the Rules for 1904-5? Give particulars below:— *yes*

Position and Size.		N°1 - 26'0" x 18'0"		N°2 - 31'6" x 18'0"		N°3, Gun Bunker 20'3" x 18'0"		N°4 - 31'6" x 18'0"		N°5 - 24'0" x 18'0"	
Item.		Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.
COAMING.	Height above top of DECK	3'0"	24	3'0"	18	3'0"	18	3'0"	18	3'0"	18
	Sides	44	44	44	44	44	44	44	44	44	44
	Ends	44	44	44	44	44	44	44	44	44	44
SHIFTING BEAMS OR WEB PLATES.	Number	4	4	5	5	1 web & 2 divisions	1 web & 2 divisions	5	5	4	4
	Section and Scantlings	10 1/2 x 36	10 1/2 x 36	12 1/2 x 37	12 1/2 x 37	12 x 31	12 x 31	12 1/2 x 37	12 1/2 x 37	12 3/4 x 37	12 3/4 x 37
	Material	Steel	SR.	Steel	SR.	Steel	SR.	Steel	SR.	Steel	SR.
* FORE AND AFTERS.	Number										
	Section and Scantlings	✓		✓		✓		✓		✓	
	Material										
HATCHES Thickness		3"	3	3	3	3	3	3	3	3	3
Remarks		Good.		good		Good		Good		Good	

* The depth of Fore and Afters should be stated from the underside of the hatches in all cases.

(If the sill of the lowest side scuttle will be less than 6 inches above the Indian Summer Load Line if assigned under the tables, state vertical distance from top of deck at side amidships to lower edge of lowest side scuttle.)

The following information is to be given in all Cases of vessels dealt with under Paras. 11, 12 (under 15 feet Moulded depth) and under Shelter Deck Rules.

What is the thickness of the Bridge Sheerstrake? Strake between Main and Bridge Sheerstrakes?

Delete the words *The Crew are, are not, berthed in the bridge house.*
 that do not apply *The arrangements to enable them to get backwards and forwards from their quarters are, are not satisfactory.*

Length of Bulwarks in well

Area of Freeing Ports required by Para. 11 (e) each side of vessel =

Sq. ft.

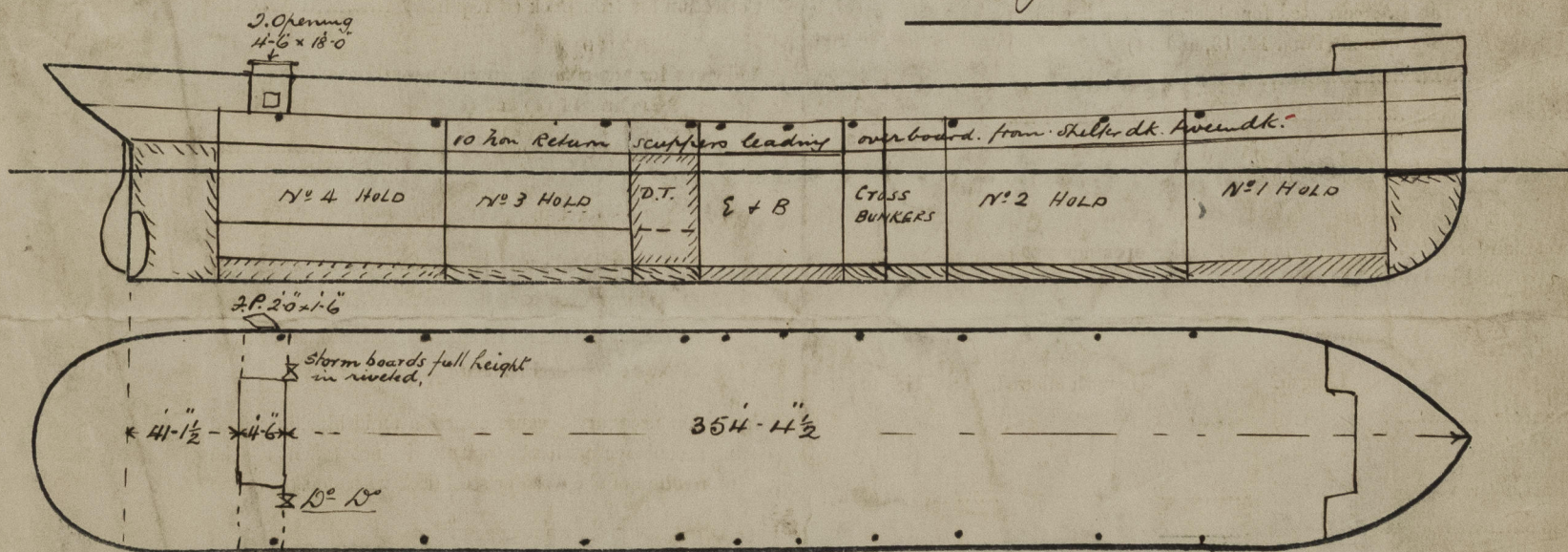
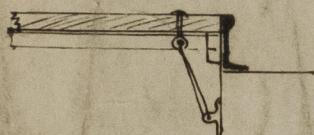
Ft. Tenth. Ft. Tenth. No.

Freeing Ports (each side of vessel) =

Sq. ft.

Total deficiency or excess =

Sq. ft.



Show hereon line of Floors or Tank Top with position of any Breaks in same; also height of Peak Tank tops, &c., &c.

State any special features in the construction of the Vessel

This vessel is strengthened for ice forward & the Shelter deck has refrigerated.

Builder's name and yard number

Wm Pickersgill & Sons Ltd. N° 217.

Names of sister vessels

S.S. "Cairnes" R/N° 29271

Owners

The Cairns Line Steamship Ltd., Cairns Noble Mgrs.

"

Address Akenside House, Newcastle on Tyne.

See

11 : 0 : 0

Received by me

See 7 & Report.

will be charged on Completion

The request form Displ. scale Same as Cairnes herewith enclosed.

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