

20 JUN 1932

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Index No.
(For London Office only.)

Rpt. C.11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

4957

W993A-0234 1/2

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having POOP BRIDGE FORECASTLE

Port of Survey DUBLIN

Date of Survey 14th 15th 16th JUNE 1932

Name of Surveyor R. B. GRIER

Particulars of Classification +100 A1.

Ship's Name "KENBANE HEAD"

Nationality and Port of Registry BRITISH, BELFAST

Official Number 142492

Gross Tonnage 5225

Date of Build 1919-11

Moulded Dimensions: Length 399.5 Breadth 52.0 Depth 31.0 tons 12010

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

Coefficient of fineness for use with Tables .468

Depth for Freeboard (D)

Moulded depth ... 31.0

Stringer plate ... 5

Sheathing on exposed deck none

$T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = 31.04

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R = (31.04 - 26.63) x 3 = 13.23

(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) 52

Standard Round of Beam = $\frac{B \times 12}{50} = \frac{52 \times 12}{50} = 12.48$

Ship's Round of Beam = 13

Difference 0.52

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.52}{4} \times .378 = .05$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	49.25	49.25	7' 11 1/2"	-	49.25
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...	121.33	121.33	7' 11 1/2"	-	121.33
Bridge enclosed ...					
" overhang aft ...	2.16	1.08			1.08
" overhang forward ...	77.25	77.25	7' 11 1/2"	-	77.25
Table enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	249.99	248.91			248.91

Standard Height of Superstructure 4.495

" " R.Q.D. 41.96

Deduction for complete superstructure 41.96

Percentage covered $\frac{S}{L} = \frac{62.54}{100} = 62.54$

" " $\frac{S_1}{L} = \frac{62.30}{100} = 62.30$

" " $\frac{E}{L} = \frac{62.30}{100} = 62.30$

Percentage from Table, Line A.
(corrected for absence of forecastle (if required))

Percentage from Table, Line B.
(corrected for absence of forecastle (if required)) 49.91

Interpolation for bridge less than 2L (if required)

Deduction = $.4991 \times 41.96 = 20.94$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate USED	S	M	Product
A.P. ...	49.95	1		49.95	60.60	60.00	1		60.00
1/4 L from A.P. ...	22.42	4		89.68	26.52	26.46	4		105.84
1/2 L " ...	5.49	2		10.98	6.5	6.60	2		13.20
Amidships ...		4					4		
3/4 L from F.P. ...	10.98	2		21.96	13.0	13.20	2		26.40
1/4 L " ...	44.43	4		177.72	53.5	52.93	4		211.72
F.P. ...	99.9	1		99.9	120.0	120.00	1		120.00
Total ...				448.23					537.16

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{87.63}{18} \left(.75 - \frac{31.28}{2 \times 399.5} \right) = 2.13$

If limited on account of midship superstructure.

Mean actual sheer aft = excessMean actual sheer forward = excessLength of enclosed superstructure forward of amidships = > .10" " aft of " = > .10

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 31.04

Summer freeboard = 5.50

Moulded draught (d) = 25.54

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.38

Addition for Winter North Atlantic Freeboard (if required) = 4

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 11691$$

Tons per inch immersion at summer load water line

$$T = 41.39$$

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

$$= 4.06$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.468 + .68}{1.36} = \frac{1.148}{1.36}$

	+	-
Depth Correction ...	13.23	
Deduction for superstructures ...		20.94
Sheer correction ...		2.13
Round of Beam correction05
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		
	13.23	23.12
Summer Freeboard =		66.04

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, 5'-6", Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ...	13 1/2"
Fresh Water Line " " ...	4"
Tropical Line " " ...	6 1/2"
Winter Line below " " ...	6 1/2"

Tropical Fresh Water Freeboard ...	4'-4 1/2"
Fresh Water " " ...	4'-11"
Tropical " " ...	4'-11 1/2"
Winter " " ...	6'-0 1/2"

23 JUN 1932

MARKING FORM
28 JAN 1939
RECEIVEDMARKING FORM
29/3/35
RECEIVEDMARKING FORM
5 SEP 1932
RECEIVED

1874

hinged

none

one steel companion 6' x 7' x 6'-5" high on

all Ventilators constructed in
accordance with the

accordance with Rules and
Coatings closed with wood
plugs and canvas covers.

Deck } secured to bridge by stays.
MIDSHIPS BETWEEN WINCHES.

none of these air pipes have
smoking holes on top of bend. all
air pipes on forward deck in
~~wells~~ are closed with wood
plugs. ~~curvas covers~~

S. between freeboard and

S. in way of No. Hatch
 acted. "
 5' x 2'-10" } secured by strong bracks
 x 5'-10" } and effectively constructed.

[illegible]

Particulars of Side Scuttles: *no side scuttles "below" foreward deck.*

Side scuttles to crew spaces in forecabin and poop are provided with hinged deadlights.

all scuttles of substantial construction.

particulars of Guard Rails:— Guard rails on fore-castle bridge and poop 3'-6" high with 3 rods and stanchions spaced 4'. Bulwarks on fore-board deck in wells 4'-6" high, steel efficiently constructed and supported.

particulars of Gangways, Lifelines, etc. :— *None.*

Efficient steel wire lifelines have been fitted on each side of the fore and aft wells, being secured to the bulkheads by eyebolts, shackles and stretching screws.

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	91	4'-5"	3'-6" x 18"	4	21 4	18 ¹ / ₄
Foreward Well	^{58.5'} 60'-6"	4'-6"	3'-6" x 18"	3	15.75 4	12 ¹ / ₂

State position of each freeing port { After Well:— No 1 fore and No 4 HATCH. No 2 aft do. No 3. IN WAY MAIN MAST. No 4 FORE END No 5 HATCH.
(F. and A. position and height above deck edge) { Forward Well:— No 1 = 10' from FILE. No 2 FORE END No 2 HATCH No 3 AFT. OTTO. ALL 16".

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— None.

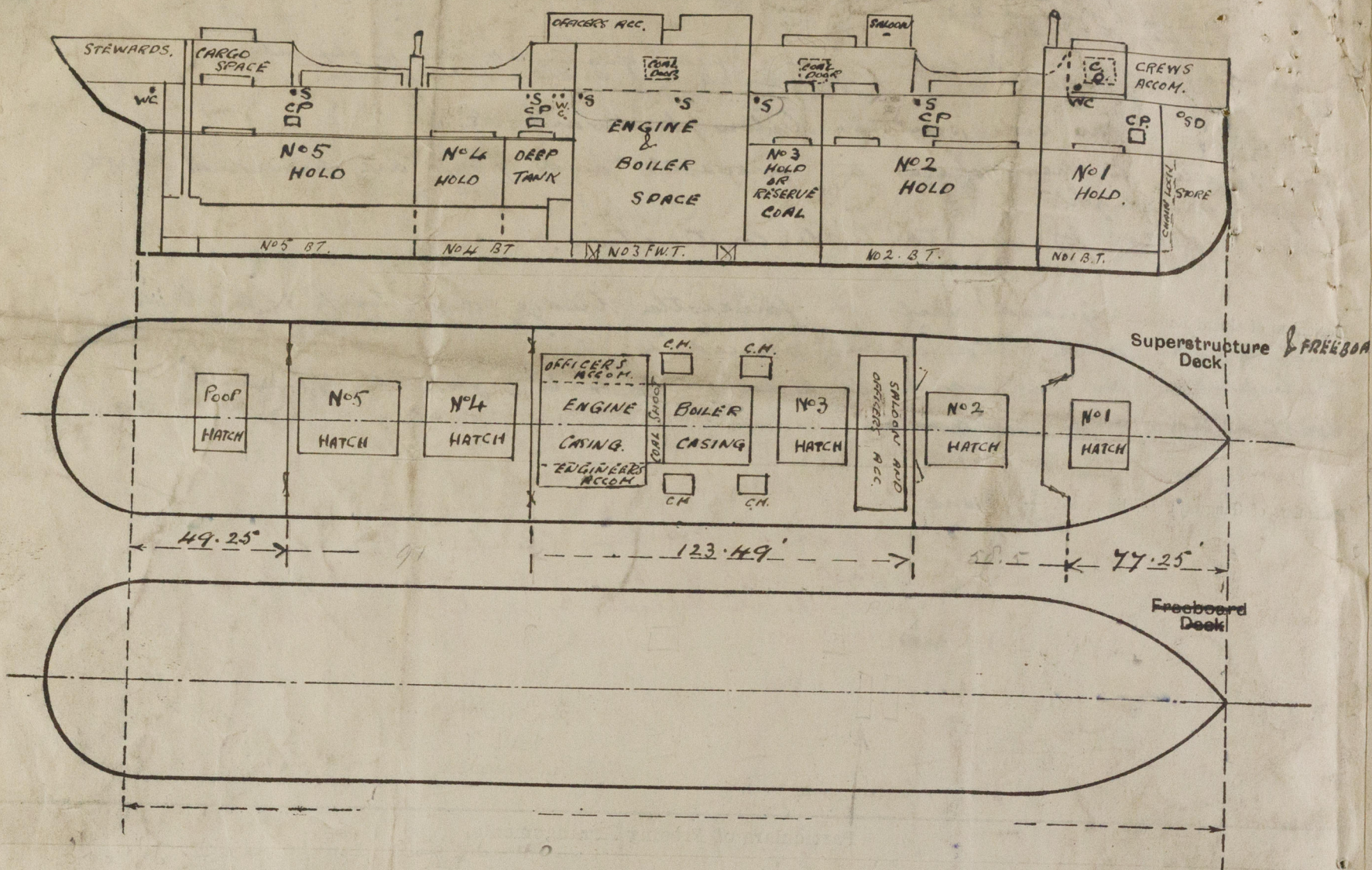
Additional area where sheer is less than standard.

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	3'-9" x .45	.4	6" x 3½" x .4"	2'-6"	BRACKETS ALT. TOP & BOTT.	3' x 5' /	15½"	7'-11½"
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead	3'-6" x .36	.27	3¾" x 3¾" x .4"	2'-6"	none	3'-1" x 5' /	16"	7'-11½"
Bridge, Forward Bulkhead	3'-7" x .48	.40	4" x 3½" x .6 BA.	2'-2½"	BRACKETS TOP & BOTT	3' x 5' /	19½"	7'-11½"
Forecastle Bulkhead	3'-6" x ⅜	.3	3" x 3" x .3"	2'-9"	none	none /	none	7'-11½"
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	✓							
Exposed Machinery Casings on Super- structure Decks	3'-7" x .35	.25	3½" x 3½" x .4"	3'	BRACKETS TOP.	2'-1" x 5' /	14½"	7'-6"
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	3'-8" x .32	.3	3½" x 3½" x .4"	AVERAGE 3'-2"	"	2'-3" x 5'-4" 2'-2" x 5'-4" 3'-7" x 5'-3"	12" 10" 10"	7'-11"
Deckhouses on Flush Deck Ships ...	✓							

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	3" shifting boards ^{full height} in riveted channels.
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead	3" shifting boards ^{full height} in riveted channels.
Bridge, Forward Bulkhead	steel doors on hinges secured by dogs. see sketch.
Forecastle Bulkhead	none. note:- opening in casing i.e. extension aft of forec. 3'7" x 5'11". 3" shifting boards ^{full height} in riveted channels.
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓
Exposed Machinery Casings on Super-structure Decks	steel doors 3 to stokehold & E.R. operated from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	steel doors 3 to E.R. operated from both sides. " " 3 to stokehold secured by bolts. " " in way of saddle bulkhead and secured by turnbuckles.
Deckhouses on Flush Deck Ships ...	✓

Renbanc Head.

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 shown on the following sketches:—



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

Vessel examined afloat whilst discharging part cargo. Survey confined to an examination of the means for closing the openings in the deck and sides of the ship, Decks, casings, hatchways, Ventilators and their coverings, equipment generally all found in efficient condition.

Moulded displacement at 85% moulded depth 12010 Tons.

External	"	extreme draft	25'	11320.
"	"	"	26'	11815.
Tons per inch. at	"	"	25'	41.2.
"	"	"	26'	41.45.

Approach

Ships

Boiler 1 inch

P.P. Layer 1 inch

Boiler 3 cracked plates

1 frame 1/2 inch

26 11815 41.45

25 11320 41.20

495 25

371 19

25.9 11691 41.39

12 Hatch Cover below

33 on Top

Cleat 33 below

Cleat 44 on Top

Builder's name and yard number **WORKMAN CLARK & Co. LTD.** No. 445.

Names of sister ships

Owners **ULSTER S. S. Co. LTD.**

Fee £ 13 : 12 : 0

Received by me



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