

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

31474
14539

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having RAISED QUARTER DECK BRIDGE & FORECASTLE.
(Type of Superstructures.)

Port of Survey MIDDLESBROUGH.

Date of Survey 16 DEC. 1931.

Name of Surveyor Cyril B. Sower.

Particulars of Classification 100 A.1.

Ship's Name KYLEBANK EX (CORSEWOOD) Nationality and Port of Registry BRITISH MIDDLESBROUGH. Official Number 147777 Gross Tonnage 969. Date of Build 1915-4.

Moulded Dimensions: Length 198.0 Breadth 32.04. Depth 14.7"
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1670 + 370 *See Surveyor's Letter 6/4/32 tons*
Coefficient of fineness for use with Tables .744

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>14.58</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(14.62 - 13.20) 1.523 = +2.16</u>	Moulded Breadth (B) <u>32.04</u>
Stringer plate <u>.035</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 7.69$
Heating on exposed deck <u>NONE.</u>	If restricted by superstructures	Ship's Round of Beam <u>8"</u> = <u>8.00</u>
$T \left(\frac{L-S}{L} \right) =$		Difference <u>.31</u>
Depth for Freeboard (D) = <u>14.62</u>		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.31}{4} \times \left(1 - \frac{8.67}{13.33} \right) = -.01$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop closed						Standard Height of Superstructure <u>6.00</u>
" overhang						" " R.Q.D. <u>3.653</u>
R.Q.D. enclosed ...	<u>132.75</u>	<u>132.75</u>	<u>4.5</u>	<u>✓</u>	<u>132.75</u>	Deduction for complete superstructure <u>25.8</u>
" overhang						Percentage covered $\frac{S}{L} = 86.90$
Bridge enclosed ...	<u>13.42</u>	<u>13.42</u>	<u>7.25</u>	<u>✓</u>	<u>13.42</u>	" " $\frac{S_1}{L} = 86.67$
" overhang aft ...						" " $\frac{E}{L} = 86.67$
" overhang forward	<u>.37</u>	<u>.18</u>			<u>.18</u>	Percentage from Table, Line A. <u>✓</u>
Fore enclosed	<u>25.00</u>	<u>25.00</u>	<u>7.00</u>	<u>✓</u>	<u>25.00</u>	(corrected for absence of forecastle (if required)) <u>✓</u>
" overhang	<u>.50</u>	<u>.25</u>			<u>.25</u>	Percentage from Table, Line B. <u>83.57</u> <u>✓</u>
Trunk aft	<u>✓</u>					(corrected for absence of forecastle (if required)) <u>✓</u>
" forward	<u>✓</u>					Interpolation for bridge less than .2L (if required) <u>✓</u>
Tonnage opening aft ...	<u>✓</u>					Deduction = <u>25.8</u> \times <u>83.57</u> = <u>21.56</u> <u>✓</u>
" forward	<u>✓</u>					
Total	<u>172.04</u>	<u>171.60</u>			<u>171.60</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft =	Mean standard sheer aft =
A.P.	<u>29.80</u>	1		<u>29.80</u>	<u>39.00</u>	<u>49.16</u>	1		<u>49.16</u>	<u>excess</u>	
L from A.P. ...	<u>13.26</u>	4		<u>53.04</u>	<u>17.38</u>	<u>31.88</u>	4		<u>67.52</u>		
L "	<u>3.28</u>	2		<u>6.56</u>	<u>4.34</u>	<u>5.41</u>	2		<u>8.68</u>	<u>excess</u>	
Amidships	-	4		-	<u>.00</u>	-	4		-		
L from F.P. ...	<u>6.56</u>	2		<u>13.12</u>	<u>8.89</u>	<u>8.89</u>	2		<u>17.78</u>		
L "	<u>26.52</u>	4		<u>106.08</u>	<u>35.55</u>	<u>35.55</u>	4		<u>142.20</u>		
F.P.	<u>59.60</u>	1		<u>59.60</u>	<u>81.00</u>	<u>81.00</u>	1		<u>81.00</u>		
Total				<u>268.20</u>					<u>358.18</u>		

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{120.28}{18} \left(.75 - \frac{.4345}{31.55} \right) = -1.58$

If limited on account of midship superstructure. ✓

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. ✓

Length of enclosed superstructure forward of amidships = .238

" " aft of " = to A.P.

NOTE. Sheer aft increased by virtue of inter-
Raised Quarter deck having a height
in excess of standard.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.744 + .68}{1.36} = \frac{1.424}{1.36}$
Depth to Freeboard Deck = <u>14.62</u>	$\Delta = 2000$	Depth Correction <u>2.16</u>
Summer freeboard = <u>22</u>	Tons per inch immersion at summer load water line	Deduction for superstructures <u>21.56</u>
Moulded draught (d) = <u>14.39</u>	$T = 12.75$	Sheer correction <u>2.11</u>
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40T}$ inches	Round of Beam correction <u>.01</u>
Winter freeboard = $\frac{d}{4}$ inches = <u>3.68</u>	= <u>3.92</u> = <u>4"</u>	Correction for Thickness of Deck amidships <u>54.00</u>
Addition for Winter North Atlantic Freeboard (if required) = <u>2.00</u>		Other corrections, scantlings, etc. <u>23.68</u>
		Summer Freeboard = <u>32.48</u>

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Raised Quarter Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc <u>7 1/2"</u>	Tropical Fresh Water Freeboard <u>4' 8 1/4"</u>
Fresh Water Line " " <u>3 3/4"</u>	Fresh Water " " <u>4' 0 1/4"</u>
Tropical Line " " <u>3 1/2"</u>	Tropical " " <u>4' 4 1/4"</u>
Winter Line below " " <u>3 3/4"</u>	Winter " " <u>5' 0 1/4"</u>
Winter North Atlantic Line " " <u>5 1/2"</u>	Winter North Atlantic " " <u>5' 1 1/4"</u>

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RECEIVED 26 AUG 1940

MARKING FORM

RECEIVED 21 MAR 1934

5 APR 1932

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FOUNDATION

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
N ^O 1. MAIN DECK N ^O 2. R.Q DECK N ^O 3. R.Q DECK. 2.W.T. ESCAPE HATCHES									
Description of Hatchway 			STEEL COAMINGS.		WOOD COVERS.		ON R.Q.DK TO BUNKERS. STEEL HINGED COVERS STEEL COAMINGS.		
Dimensions of Hatchway 			23'-11" x 19'-9"-16'-5"		28'-9" x 19'-6"		28'-9" x 19'-6"		2'-6" x 2'-0"
COAMINGS	{	Height above Deck ...	42"		48"		48"		12"
		Thickness { Sides ...	44"		44"		44"		35"
		Ends ...	8'-3" 40 BA. 12 Down		8'-3" 40 BA. 12 Down		8'-3" 40 BA. 12 Down		
		Stiffeners ...	2. BA. STAYS 6' x 3" 40		2. BA. 6' x 3" 40		2. BA. 6' x 3" 40.		
HATCH BEAMS	{	Brackets, Stays ...	2. BA. STAYS 6' x 3" 40		2. BA. 6' x 3" 40		2. BA. 6' x 3" 40.		
		Number 	4		5		5		
		Spacing 	4'-9 1/2"		4'-9 1/2"		4'-9 1/2"		
		Scantling and Sketch ...	7" PLATE 18'-9" x 36"		7" PLATE 18'-9" x 36"		7" PLATE 18'-9" x 36"		
FORE AND AFTERS	{	7" PLATE 18'-9" x 36"	7" PLATE 18'-9" x 36"		7" PLATE 18'-9" x 36"				
		4" x 3" x 44"	4" x 3" x 44"		4" x 3" x 44"				
		Bearing Surface 	3 1/2"		3 1/2"		3 1/2"		
		Number 	✓		✓		✓		
HATCH COVERS	{	Spacing 	✓		✓		✓		
		Unsupported Lengths ...	✓		✓		✓		
		Scantling* and Sketch ...	✓		✓		✓		
		Bearing Surface 	✓		✓		✓		
HATCH COVERS	{	Material 	WOOD.		WOOD.		WOOD		STEEL.
		Thickness 	2 1/2"		2 1/2"		2 1/2"		35"
		How fitted 	FORE & AFT.		FORE & AFT		FORE & AFT.		HINGED.
		Bearing Surface 	3"		3"		3"		
Spacing of Cleats 			21"		21"-24"		21"-24"		
Number of Tarpaulins 			3		3		3.		
*Are wood fore and afters steel shod at all bearing surfaces ? Are battens and wedges efficient and in good condition ? Are tarpaulins in good condition and in accordance with rule requirements ? Are lashings provided in accordance with rule requirements ?									
YES. YES. YES. YES.									

Particulars of fiddle, funnel and ventilator coamings:—

FIDDLE CASING 7'-3" HIGH.
COAMING 30" x 7/16"
GRATINGS ON TOP OF CASING CLOSED BY STRONG STEEL COVERS ON HINGES.
ENGINE ROOM SKYLIGHT STEEL WITH STEEL FLAPS AND LIGHTS. TARPULIN

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

None.

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

FORECASTLE DECK.	7 OFF	6" DIA COAMINGS	25' x 6/16"	BOLTED TO WOOD DECK.	TO CREW SPACE.	WOOD PLUGS & CANVAS SUPPLIED	
	1 OFF	11" "	"	36' x 6/16"	RIVETED TO DECK.		TO HOLD.
MAIN DECK FOREWELL.	1 OFF	11" "	"	36' x 6/16"	RIVETED TO DECK		TO HOLD.
RAISED 1/2 DECK.	2 OFF	11" "	"	36' x 6/16"	"		TO HOLD.
TRUNK BETWEEN HATCHES	2 OFF	11" "	"	30' x 6/16"	"	TRUNK DECK	TO HOLD.

BRIDGE DECK. MUSHROOM VENTS. 7 OFF. 6" DIA 8" HIGH. TO ACCOMMODATION.

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

FOREWELL.	ONE EACH SIDE ON BULWARK	2" GOOSE NECK	27" HIGH	TO OPENING.	TO TANK
RAISED 1/2 DECK.	ONE	"	21"	"	"
"	TWO	"	15"	"	TO BUNKERS.
"	ONE ON BULWARK AFT.	2"	28"	"	TO AFTER PEAK TANK.

SOUNDING PIPES TO TANKS FLUSH WITH DECK WITH SCREW PLUGS.

Air pipes provided with wood plugs as means of closing - See Surveyor's letter 5/1/32.

Particulars of Gangway Cargo and Coaling Ports:—
1/2" sampling holes drilled in the upper part of the head of all air pipe on the raised quarter and upper decks.

None.



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Copsewood

1 JAN 1932

Particulars of Scuppers and Sanitary Discharge Pipes —

NO DECK SCUPPERS BELOW DECK.

SANITARY DISCHARGE PIPES FROM ENGINEERS ACCOMMODATION AFT 4'5" FROM DN TO UNDER SIDE. P.S. } 2 VALVES.
MIDSHIP 1'3" - MAIN DECK - P.S.

DISTANCE FROM BASE TO UNDER SIDE OF LOWEST DISCHARGE 13'6"

Particulars of Side Scuttles:

Side scuttles in fore-castle and Bridge are provided with efficient deadlights
See Surveyor's letter 5/1/32.

Particulars of Guard Rails:—

OPEN HAND RAILS ON BRIDGE & FORECASTLE
37" HIGH. 2 RAILS.

Particulars of Gangways, Lifelines, etc.:—

Lifelines fitted in forward well, port and starboard side.
NONE FITTED.
Composed of 3/4" steel wire, stretching from ladder to ladder
and fitted with lightening screw and shackles.

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 ...	132'75" 133'0"	3' 3 1/2"	2'3" x 1'3" 2-4 x 1-3	6. 3	16'86." 26'6"	26'6" ✓
Forward Well ...	26'0"	4' 0"	3'9" x 1'3"	2.	9'36."	9'10" ✓

State position of each freeing port ... { After Well:— 5'
(F. and A. position and height above deck edge) { Forward Well:— 15'

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— SHUTTERS, HINGED ON CENTRE.

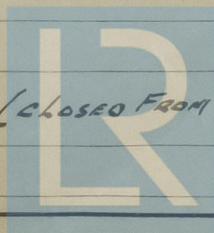
Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
oop Bulkhead ...								
aised Quarter Deck Bulkhead ...	33' 6 1/2"	6' 20"	4 x 3 x 35 A.	30"	BRACKETS ON TOP.	NONE.	✓	2' 9" above R.O.D.
ridge, After Bulkhead ...								
ridge, Forward Bulkhead ...	34"	30"	7 x 3 x 32 B.A.	30"	LUGS ON ENDS	NONE	✓	7' 3" ✓
orecastle Bulkhead ...	PLATED VERTICALLY 6' 20"	4 x 3 x 30 A.	36"	NOT ATTACHED.	3 HINGED STEEL DOORS, 23" WIDE (NON WT)	18" ✓	7' 0" ✓	
runk, Aft ...								
runk, Forward ...								
posed Machinery Casings on Free-board or Raised Quarter Decks ...	30' 8 1/2"	5' 20"	5 x 3 x 8 1/2"	48"	BRACKETS ON TOP.	HINGED STEEL DOOR 23" WIDE (NON WT)	18" ✓	7' 3" ✓
posed Machinery Casings on Super-structure Decks ...								
achinery Casings within Superstruc-tures not fitted with Class I Closing Appliances ...								
ckhouses on Flush Deck Ships ...								

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

op Bulkhead ...	
aised Quarter Deck Bulkhead ...	NO OPENINGS ✓
idge, After Bulkhead ...	
idge, Forward Bulkhead ...	NO OPENINGS ✓
recastle Bulkhead ...	3 HINGED STEEL DOORS. (NON WT.) (CLOSED FROM BOTH SIDES) ✓
posed Machinery Casings on Free-board or Raised Quarter Decks ...	
posed Machinery Casings on Super-structure Decks ...	
achinery Casings within Superstruc-tures not fitted with Class I Closing Appliances ...	HINGED STEEL DOORS 24" 18" (NON WT.) (CLOSED FROM BOTH SIDES)
ckhouses on Flush Deck Ships ...	

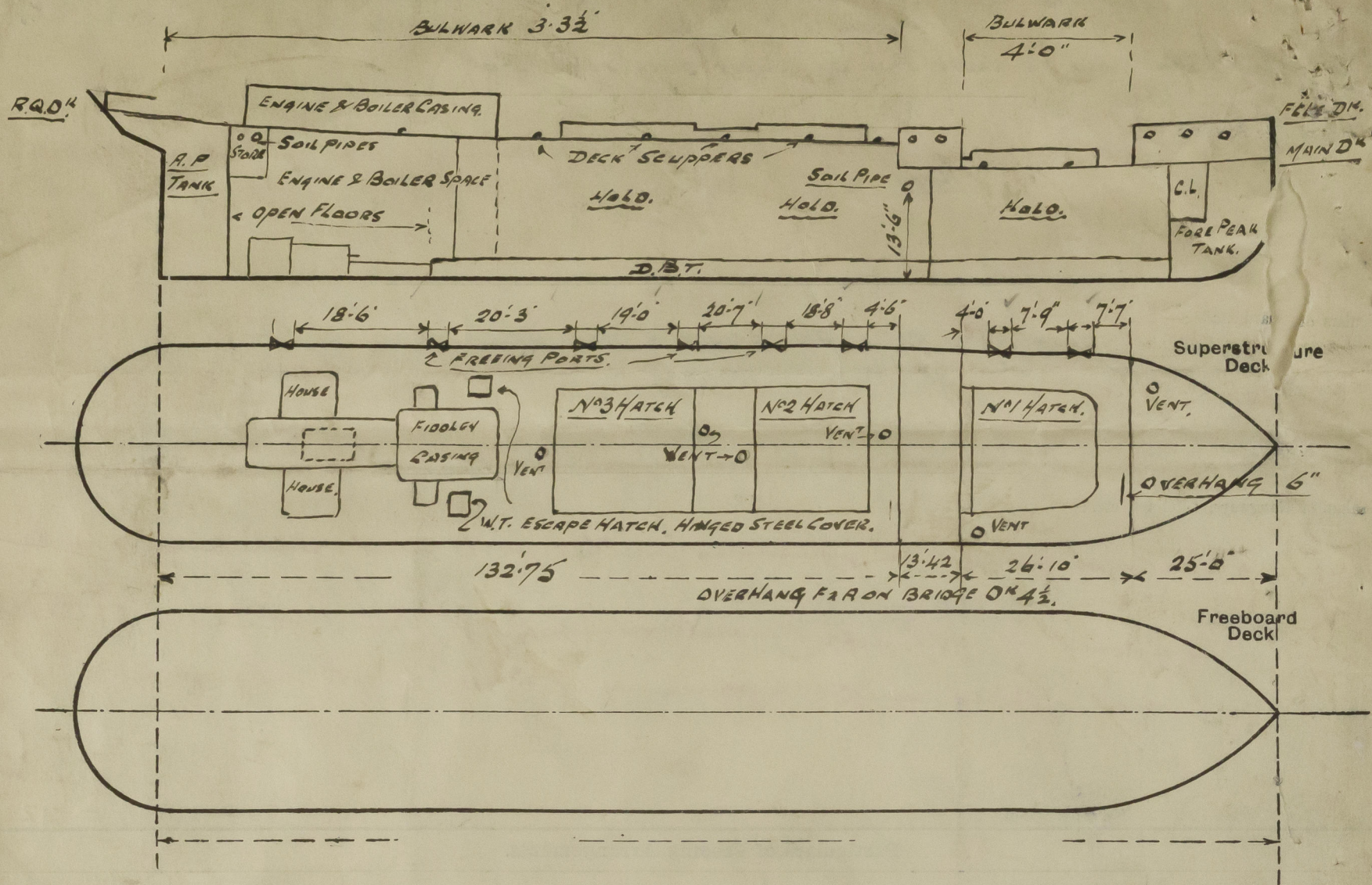


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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the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



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

Builder's name and yard number

Names of sister ships

Owners

Fee £ 6 : 16 :

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