

11 APR 1932

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Rpt. C.11.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having Pooh Bridge & Forecastle detached Newcastle-on-Tyne

Port of Survey 7+8 April 32

Date of Survey 7+8 April 32

Name of Surveyor J. H. Lowden

Particulars of Classification +100 A1

Ship's Name SS "CHEVYCHASE" Nationality and Port of Registry British Newcastle Official Number 149418 Gross Tonnage 2719 Date of Build 1926-10

Moulded Dimensions: Length 304.6 Breadth 45.3 1/2 Depth 23.6

Moulded displacement at moulded draught = 85 per cent. of moulded depth 6110 tons

Coefficient of fineness for use with Tables .776

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	23.5	(a) Where D is greater than Table depth (D-Table depth) R =	23.54 - 20.31 = +7.57"	Moulded Breadth (B)	45.3 ft
Stringer plate	.04	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	10.87
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		If restricted by superstructures		Ship's Round of Beam	11
Depth for Freeboard (D) =	23.54			Difference	.13
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{.13}{4} (1 - .757) = -.01$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Pooh enclosed	23.00	23.00	7.6"	✓	23.00
" overhang	2.5				
R.Q.D. enclosed					
" overhang					
Bridge enclosed	44.50	44.55	7.6"	✓	44.55
" overhang aft					
" overhang forward		1.5			
Fore enclosed	27.50	27.50	7.6"	✓	27.50
" overhang		65.74	2.75		
Trunk aft		2.75	2.75		2.75
" forward		2.75	2.75		2.75
Tonnage opening aft		70.01	2.75		
" forward					
Total	100.00	230.80			149.14

Standard Height of Superstructure	6.546
" " R.Q.D.	
Deduction for complete superstructure	35.64
Percentage covered $\frac{S}{L} =$	32.83 %
" " $\frac{S_1}{L} =$	75.70 %
" " $\frac{E}{L} =$	48.96 %
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	31.11 %
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	35.11 %
Interpolation for bridge less than 2L (if required)	$31.11 + (400 \times \frac{146}{200})$
Deduction =	$35.64 \times 34.03 = -12.13"$

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	40.46	1		40.46	60.75	60.75	1		60.75
1/2 L from A.P.	18.00	4		72.00	24.9	24.88	4		99.52
1/2 L "	4.45	2		8.90	6.2	6.22	2		12.44
Amidships		4					4		
1/2 L from F.P.	8.90	2		17.80	10.05	10.07	2		20.14
1/2 L "	36.01	4		144.04	40.29	40.28	4		161.12
F.P.	80.92	1		80.92	102.75	102.75	1		102.75
Total				364.12					456.72

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{92.60}{18} \left( \frac{75-164}{2} \right) = -3.01" \times .812 = -2.45"$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 23.54 Ft.

Summer freeboard = 3.39

Moulded draught (d) = 20.15

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches =  $5.04 = 5"$ Addition for Winter North Atlantic Freeboard (if required) = 2"

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 6210$ 

Tons per inch immersion at summer load water line

T = 27.4Deduction =  $\frac{\Delta}{40T}$  inches=  $5.67 = 5 3/4"$ 

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

 $\frac{.68 + .776}{1.36} = \frac{1.456}{1.36} = 1.07$ 

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

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

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line

Tropical Line

Winter Line below

Winter North Atlantic Line

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic



PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS												
← UPPER DECK →												
Description of Hatchway	No 1	No 2	No 3	No 4	CROSS BUNKER HATCH	ON UPPER DECK		ON FIDLEY		ON BIDGE		
						FP STORE HATCH	ESCAPE HATCH	COAL HATCH	POOP DECK HATCH	DK COAL HATCH		
Dimensions of Hatchway	36'-0"	33'-9"	38'-3"	42'-9"	7'-6"	20'	20'	20'	20'	20'	20'	
COAMINGS	25'-0"	30'-0"	30'-0"	25'-8"	30'-0"	20'	20'	20'	20'	20'	20'	
	Height above Deck	4'	4'	SEE SKETCH	4'	15'	6'	9'	9'	10'	5'	
	Thickness	44	44	44	44	32	X	X	X	X	X	
	Stiffeners	44	44	44	44	32	3"	3"	3"	3"	3"	
HATCH BEAMS	Brackets, Stays	8"x3"	62 BA	SEE SKETCH	44	32	3"	3"	3"	3"	3"	
	Number	6	6	6	7	1	2	2	2	2	2	
	Spacing	5'-1 1/2"	2'-10"	5'-5 1/2"	5'-1"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	
	Scantling and Sketch	Plate 20"x40" Angles 6x3 1/2"x40" Bolt Angles 11x3 1/2"x42"	Plate 23"x40" Angles 6x3 1/2"x40" BA	Plate 23"x44" Angles 6x3 1/2"x40" BA	Plate 23"x44" Angles 6x3 1/2"x40" BA	Plate 23"x44" Angles 6x3 1/2"x40" BA	Plate 23"x44" Angles 6x3 1/2"x40" BA	Plate 23"x44" Angles 6x3 1/2"x40" BA	Plate 23"x44" Angles 6x3 1/2"x40" BA	Plate 23"x44" Angles 6x3 1/2"x40" BA	Plate 23"x44" Angles 6x3 1/2"x40" BA	
FORE AND AFTERS	Bearing Surface	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	
	Number											
	Spacing											
	Unsupported Lengths											
HATCH COVERS	Scantling* and Sketch											
	Bearing Surface											
	Material	WP	WP	WP	WP	WP	WP	WP	WP	WP	WP	
	Thickness	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	
Spacing of Cleats	How fitted	F+A	F+A	F+A	F+A	F+A	F+A	F+A	F+A	F+A	F+A	
	Bearing Surface	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	
	Number of Tarpaulins	20"	22"	22"	22"	22"	20"	24"	20"	25"	16"	

THREE SETS TO EACH HATCH

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

Taylor Palmers locking bars

HALF SECTION THRU HATCH

Particulars of fiddley, funnel and ventilator coamings:—

Fridley grating fitted with steel hinged covers.  
The E R skylight is of steel.  
Fridley & funnel ventilators are in good order.

Particulars of Flush Bunker Scuttles:—

One on bridge deck port side of steel of substantial construction having screw joint.

Particulars of Companionways :—

Entrance on Poop deck to crew space  
enclosed in strong steel house with solid  $2\frac{1}{8}$ " teak door operating  
both sides Sill 16" to wood deck.

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

Forecastle deck One at 15" DIAM COAM<sup>6</sup> 36" x .38 LED TO HOLD  
Forward well ON TRUNK DK Two at 15" DIAM COAM<sup>6</sup> 30" x .36 TO HOLDS  
Bridge deck One 12" V 9" 6" HT SUPPORTED X .40 TO CROSS BUNKER  
Two 12" V 30" " X .40 TO TWIN DK BUNKERS  
After well on TRUNK One 15" 0" SUPPORTED X 15" DIAM X .40 Two 15" DIAM 36" HT x .34  
Poop deck One 15" DIAM COAM<sup>6</sup> 34" x .34 TO HOLD One 9" DIAM TO TUNNEL COAM<sup>6</sup> 33" x .32  
" " Four 10" " COAM 34" x .30 + Two 6" DIAM HT 5" (MUSHROOM SCREWDOWN TYPE) TO CREWS SPACES

Ventilations are to rule  
Requirements  
Closing wood plugs & canvas  
covers /

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

Particulars	Number	Size	Material	Remarks
Forecastle	One	M 1	4" diam	4 1/2" to lip 6" to bend to F.P.T.
Fore Well	Two	M 1	4"	36" height to db tanks
Bridge deck	Four	M 1/2	2 3/4"	2" to lip 5" to bend to db tanks
After Well	Two	M 1	2 1/2"	3 1/2" " " 7" " " " fitted outside bulkheads
Poof deck	One	M 1	3"	HEIGHT 36" + Two 2 1/2" diam 36" high to db tanks
	One	M 1	6"	6" to lip 10" to bend

AIR PIPES <sup>provided</sup> HAVE OPEN  
~~ENDS~~ and work place

Particulars of Gangway Cargo and Coaling Ports:—

NONE



Rpt. C. 11 (Contd.)

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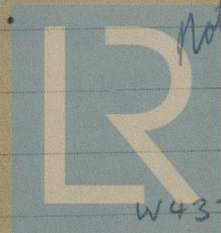
# Lloyd's Register of Shipping.

Ship's Name "CHEVYCHASE"

Official No. 149418

Memorandum of alterations reported since ship was surveyed for assignment of Load Lines  
in APRIL, 1932.

"Taylor Pallister Type" channel locking bars have been <sup>dispensed</sup> ~~displaced~~  
with for all cargo and cross bunker hatchways and wire lashings,  
screws, etc., substituted. (Nwc. Dec., 1937).



Lloyd's Register  
Foundation

ridge, Forward Bulkhead ...	... .34'	.34'	Flanged plates 4"	42"	NONE AT BOTTOM	2 TO 4'-3"x3'-1 2 off 4'-11"x1'-9"	19"	7'-6"
... Bulkhead	.28'	.28'			None			



Particulars of Scuppers and Sanitary Discharge Pipes - All well deck scuppers are led thro' stringer angle. All wc's pipes have storm valves fitted. Gallery pipe led just below freeboard deck has open end. Tween deck scupper pipes have storm valve at shell and screw down valve at deck.

Particulars of Side Scuttles:  
Deadlights fitted to side scuttles in poop.

Particulars of Guard Rails :-

<u>Roof deck</u>	2 Tier rails 3'-0" high stanchions spaced 4'-6" apart
	(rods)
<u>Wells</u>	Bulwarks 3'-10" high stanchions 6" x 34 I hull spaced 6'-6" apart
<u>Bulwarks</u>	on <u>Bridge Deck</u> 3'-0" high " 6" x 34 I " 6'-0" + side houses
<u>Forecastle deck</u>	2 Tier (chains) rail 3'-0" high stanchion spaced 4'-6" apart

Lifelines are supplied for the protection of the crew on the trunk

~~No gangways or lifelines fitted~~

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Well ... ..	103.75	3'-10"	6'-9" x 9"	6	30.4 ✓	21.15 #
Forward Well ... ..	99.0	3'-10"	6'-9" x 8.8"	6	29.7 ✓	19.8 #

te position of each freeing port ... .. { After Well :— } *from ledge* ① 19'-2" ② 32'-6" ③ 46'-2" ④ 62'-6" ⑤ 73'-0" ⑥ 86'-6"  
 and A. position and height above deck edge) { Forward Well :— } *bulkhead* ① 14'-8" ② 28'-2" ③ 41'-8" ④ 55'-2" ⑤ 68'-8" ⑥ 82'-2"  
 te whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :— NONE *Height above deck edge "4"*  
 ditional area where sheer is less than standard. ✓

to position of each freeing port ... } After Well :— } *from hidge*  
and A. position and height above deck edge) } Forward Well :— } *bulkhead* ① 14'-8" ② 28'-2" ③ 41'-8" ④ 55'-2" ⑤ 68'-8" ⑥ 82'-2"  
te whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :— *NONE* *Height above deck edge 44"*  
ditional area where sheer is less than standard. ✓

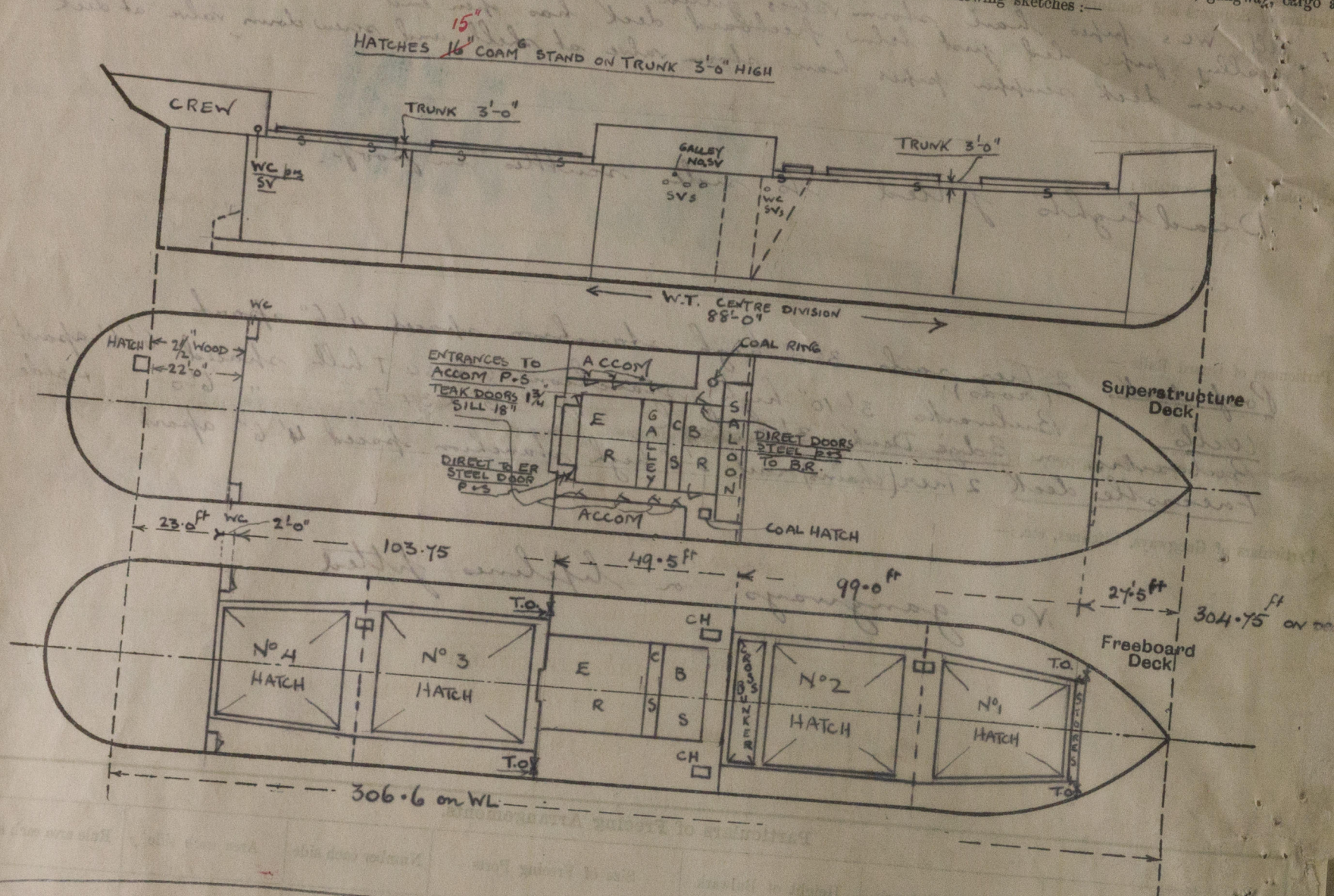
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
op Bulkhead ... ..	.34	.34	Flanged plates 3"	27" to 33"	None	2 off 4' 11" x 1'-9"	21"	7'-6"
Raised Quarter Deck Bulkhead ...	✓	✓	✓	✓	✓	✓	✓	✓
Bulkhead, After Bulkhead ... ..	.32	.32	4 1/2 x 3 x .36	32"	None	2 TOS 4' 3" x 3' 1"	23"	7'-6"
Bulkhead, Forward Bulkhead ... ..	.34	.34	8 x 3 x .508A	27"	BKTS AT TOP NONE AT BOTTOM	✓ ✓	✓	7'-6"
Forecastle Bulkhead ... ..	.28	.28	Flanged plates 4"	42"	None	2 TO 4' 3" x 3' 1" 2 off 4' 11" x 1'-9"	19"	7'-6"
Trunk, Aft ... ..	.56	.56	Flanged brackets	54"	✓	✓	✓	3'-0"
Trunk, Forward ... ..	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Superstructure Decks ... ..	.32	.32	3 x 2 1/2 x .34 OA + 5" flange all T	27"	BRACKETS AT TOP	2 off 5' 0" x 2'-0"	19"	7'-4"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	.32	.32	3 x 2 1/2 x .34 OA + 5" flange all T	27"	—	None	✓	7'-6"
Deckhouses on Flush Deck Ships ...	✓	✓	✓	✓	✓	✓	✓	—

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead ... ..	Two steel hinged doors operating both sides ✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ... ..	Two Full height riveted channels with 3" weather board ✓
Bridge, Forward Bulkhead ... ..	INTACT ✓
Forecastle Bulkhead ... ..	Two Full height riveted channels with 3" weather boards ✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Two steel hinged door operating both sides ✓
Exposed Machinery Casings on Super-structure Decks ... ..	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	Four steel hinged doors operating both sides ✓
✓	INTACT ✓
✓ Deckhouses on Flush Deck Ships ...	✓



# Cherchase

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:—

Rule LXXX The vessel has a forecabin and poop  
 Rule LXXXII No 2 3 4 db spaces (length 88'-0" incl) have long sub-div  
 Rule LXXXIII Bulkheads in wells 3'-10" in height supported by 6" x 32 BA  
 Rule LXXXVII S. team steering gear is in after end of ER casing The leads  
 are led behind the bulkhead stays No hand steering gear, the alternative  
 method of steering being tackle led to poop  
 Rule LXXXVIII + IX No sockets for uprights nor eye plates for lashings are  
 fitted

$$\begin{aligned} \text{Forward Trunk} & \frac{60.75 \times 32}{45.29} = 42.93 \\ & \frac{38.25 \times 27}{45.29} = 22.81 \\ \text{After Trunk} & \frac{60.75 \times 32}{45.29} = 42.93 \\ & \frac{45.00 \times 27.25}{45.29} = 27.08 \\ & \frac{45.00 \times 27.25}{70.01} \times 90 = 63.01 \times \frac{2.75}{6.546} = 26.47 \end{aligned}$$

Builder's name and yard number

Smiths Dock

Middlesbrough

No 818

Names of sister ships

S. S. Granta

Owners

Hill Steam Ship Co Ltd (Wetherington & Everett Mgrs)

Fee £

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Received by me

APPLIED FOR - 8 APR 1932



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