

No. 2053

THE BRITISH CORPORATION FOR THE SURVEY
AND
2618
REGISTRY OF SHIPPING.



Report No. 1989 No. in Register Book 3321.

S.S. "WINNIPEG"

Makers of Engines *Richardsons Westgarth & Co.*

Works No. 2654.

Makers of Main Boilers *Richardsons Westgarth & Co.*

Works No. 2654.

Makers of Donkey Boiler

Works No.

RETAIN
MACHINERY.

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005061-005068-0106

No.

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. No. in Register Book

Received at Head Office

Surveyor's Report on the New Engines, Boilers, and Auxiliary
Machinery of the ^{Single Triple} ~~Cabin Quadruple~~ Screw Steamer.

Official No.

Port of Registry

Registered Owners

Engines Built by

at

Main Boilers Built by

at

Donkey

at

Date of Completion

First Visit

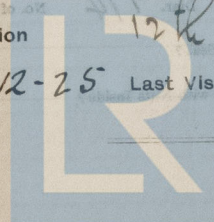
19-12-25

Last Visit

12-8-26

Total Visits

44



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RECIPROCATING ENGINES

Works No. 2654 No. of Sets 1 Description Triple expansion.
S.C. Berks.

No. of Cylinders each Engine 3 No. of Cranks 3
Diars. of Cylinders 18"-30"-50" Stroke 36"
Cubic feet in each L.P. Cylinder 40.9

Are Spring-loaded Relief Valves fitted to Top and Bottom of each Cylr? yls.

" " " each Receiver? yls.

Type of H.P. Valves,

" 1st I.P. "

" 2nd I.P. "

" L.P. "

" Valve Gear

" Condenser

Diameter of Piston Rods (plain part)

Material

Diar. of Connecting Rods (smallest part)

" Crosshead Gudgeons

Length of Bearing

Material

No. of Crosshead Bolts (each)

Diar. over Thrd.

Thrds. per inch

Material

" Crank Pin

"

"

"

"

"

"

"

" Main Bearings

"

"

"

"

"

"

"

" Bolts in each

"

"

"

"

"

"

"

" Holding Down Bolts, each Engine

Diar.

Thrds. per inch

"

"

"

No. of Metal Chocks

Are the Engines bolted to the Tank Top or to a Built Seat?

Are the Bolts tapped through the Tank Top and fitted with Nuts Inside?

If not, how are they fitted?

Connecting Rods, Forged by

Piston

Crossheads,

Connecting Rods, Finished by

Piston

Crossheads,

Date of Harbour Trial

" Trial Trip

Trials run at

Were the Engines tested to full power under Sea-going conditions?

If so, what was the I.H.P.?

Pressure in 1st I.P. Receiver,

lbs., 2nd I.P.,

lbs., L.P.,

lbs., Vacuum,

ins.

Speed on Trial

If the Conditions on Trial were such that full power records were not obtained give the following estimated

data:—

Builders' estimated I.H.P.

Estimated Speed

Revs. per min.

Darlington Forge Eng. Co. Ltd.

R.W. Co. Ltd.

12.8.76
St. Lawrence River off Quebec.

no records.

Revs. per min.

Piston
slide.
slide.
Stephenson Link.
Surface.

Cooling Surface 1300 sq. ft.

Screwed part (bottom of thread) 3.536

Material

Material

Material

Material

No. of Metal Chocks



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TURBINE ENGINES.

Works No. Type of Turbines
 No. of H.P. Turbines No. of I.P. No. of L.P. No. of Astern

Are the Propeller Shafts driven direct by the Turbines or through Gearing?

Is Single or Double Reduction Gear employed?

Diam. of 1st Reduction Pinion } Width Pitch of Teeth
 " 1st " Wheel

Estimated Pressure per lineal inch

Diam. of 2nd Reduction Pinion } Width Pitch of Teeth
 " 2nd " Wheel

Estimated Pressure per lineal inch

Revs. per min. of H.P. Turbines at Full Power S.H.P.

" " I.P. " "

" " L.P. " "

" " 1st Reduction Shaft

" " 2nd " "

" " Propeller Shaft

Total Shaft Horse Power

Date of Harbour Trial

" Trial Trip

Trials run at

Speed on Trial Knots. Propeller Revs. per min. S.H.P.

Turbine Spindles forged by

" Wheels forged or cast by

Reduction Gear Shafts forged by

" Wheels forged or cast by

DESCRIPTION OF INSTALLATION.

No. of Turbine-Engines per Shaft

Type of Turbine employed

Description of Gearings

No. of Motors driving Propeller Shafts

Are the Propeller Shafts driven direct by the Motors or through Gearing?

Is Single or Double Reduction Gear employed?

Description of Motors

Diam. of 1st Reduction Pinion

" 1st " Wheel

Estimated Pressure per lineal inch

Diam. of 2nd Reduction Pinion

" 2nd " Wheel

Estimated Pressure per lineal inch

Revs. per min. of Engines at Full Power

" " " "

" " " "

" " " "

" " " "

" " " "

" " " "

" " " "

" " " "

" " " "



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Description of Generators

Description of Motors

Estimated Pressure per lineal inch

Diar. of 2nd Reduction Pinion

“ 2nd “ Wheel

Estimated Pressure per lineal inch

Revol. per min. of Generators at Full Power

" Motors "

" " 1st Reduction Shaft

" " 2nd "

" " Propellers at Full Power

Total Shaft Horse Power

Date of Harbour Trial

“ Trial Trip

Trials run at

Speed on Trial	Knots.	Propeller Revols. per min.	S.H.P.
10.0	10.0	100	100
11.0	11.0	110	121
12.0	12.0	120	144
13.0	13.0	130	169
14.0	14.0	140	196
15.0	15.0	150	225
16.0	16.0	160	256
17.0	17.0	170	289
18.0	18.0	180	324
19.0	19.0	190	361
20.0	20.0	200	400
21.0	21.0	210	441
22.0	22.0	220	484
23.0	23.0	230	529
24.0	24.0	240	576
25.0	25.0	250	625
26.0	26.0	260	676
27.0	27.0	270	729
28.0	28.0	280	784
29.0	29.0	290	841
30.0	30.0	300	900
31.0	31.0	310	961
32.0	32.0	320	1024
33.0	33.0	330	1089
34.0	34.0	340	1156
35.0	35.0	350	1225
36.0	36.0	360	1296
37.0	37.0	370	1369
38.0	38.0	380	1444
39.0	39.0	390	1521
40.0	40.0	400	1600
41.0	41.0	410	1681
42.0	42.0	420	1764
43.0	43.0	430	1849
44.0	44.0	440	1936
45.0	45.0	450	2025
46.0	46.0	460	2116
47.0	47.0	470	2209
48.0	48.0	480	2304
49.0	49.0	490	2401
50.0	50.0	500	2500
51.0	51.0	510	2601
52.0	52.0	520	2704
53.0	53.0	530	2809
54.0	54.0	540	2916
55.0	55.0	550	3025
56.0	56.0	560	3136
57.0	57.0	570	3249
58.0	58.0	580	3364
59.0	59.0	590	3481
60.0	60.0	600	3600
61.0	61.0	610	3721
62.0	62.0	620	3844
63.0	63.0	630	3969
64.0	64.0	640	4096
65.0	65.0	650	4225
66.0	66.0	660	4356
67.0	67.0	670	4489
68.0	68.0	680	4624
69.0	69.0	690	4761
70.0	70.0	700	4900
71.0	71.0	710	5041
72.0	72.0	720	5184
73.0	73.0	730	5329
74.0	74.0	740	5476
75.0	75.0	750	5625
76.0	76.0	760	5776
77.0	77.0	770	5929
78.0	78.0	780	6084
79.0	79.0	790	6241
80.0	80.0	800	6400
81.0	81.0	810	6561
82.0	82.0	820	6724
83.0	83.0	830	6889
84.0	84.0	840	7056
85.0	85.0	850	7225
86.0	86.0	860	7396
87.0	87.0	870	7569
88.0	88.0	880	7744
89.0	89.0	890	7921
90.0	90.0	900	8100
91.0	91.0	910	8281
92.0	92.0	920	8464
93.0	93.0	930	8649
94.0	94.0	940	8836
95.0	95.0	950	9025
96.0	96.0	960	9216
97.0	97.0	970	9409
98.0			

Makers of Turbines

Generators

Meters

Reduction Gear

Turbine Spindles forged by

Wheels forged or cast by

Reduction Gear Shafts forged by

Wheels forged or cast by

DESCRIPTION OF INSTALLATION.

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SHAFTING.

Are the Crank Shafts Built or Solid?

built.

No. of Lengths in each

6

Angle of Cranks

120°

Diar. by Rule

9.7"

Actual

10"

In Way of Webs

10 1/2"

,, of Crank Pins

10 1/2"

Length between Webs

9 13/16"

Greatest Width of Crank Webs

20"

Thickness

6 1/2"

Least

,,

16"

,,

6 1/2"

Diar. of Keys in Crank Webs

2 1/4"

Length

5 1/2"

,, Dowels in Crank Pins

☒

Length

☒ Screwed or Plain☒

No. of Bolts each Coupling

6

Diar. at Mid Length

2 1/2"

Diar. of Pitch Circle

14 1/2"

Greatest Distance from Edge of Main Bearing to Crank Web

1/4"

Type of Thrust Blocks

Horsehoe

No. ,, Rings

5

Diar. of Thrust Shafts at bottom of Collars

10 7/8"

No. of Collars

5

,, ,, Forward Coupling

10"

At Aft Coupling

10"

Diar. of Intermediate Shafting by Rule

☒

Actual

☒

No. of Lengths

☒

No. of Bolts, each Coupling

☒

Diar. at Mid Length

☒

Diar. of Pitch Circle

☒

Diar. of Propeller Shafts by Rule

10.93"

Actual

11"

At Couplings

10"

Are Propeller Shafts fitted with Continuous Brass Liners?

yes.

Diar. over Liners

12 3/8"

Length of After Bearings

3' 8 1/2" + 1' 0 1/2"

Of what Material are the After Bearings composed?

Lignum Vitae

Are Means provided for lubricating the After Bearings with Oil?

no

,, ,, to prevent Sea Water entering the Stern Tubes?

no.

If so, what Type is adopted?

☒

SKETCH OF CRANK SHAFT.

Same as s/s City of Kingston

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No. of Blades each Propeller

4

Fitted or Solid?

Yitts

Material of Blades

C.S.

Boss

C.S.

Diam. of Propellers

12'-9"

Pitch

12'-3"

Surface (each)

56

S. ft.

Coefficient of Displacement of Vessel at $\frac{1}{2}$ Moulded Depth

Crank Shafts Forged by

Darlington Forge & Eng. Co.

Material

I.S.

Pins

Webs

Thrust Shafts

David Colville & Sons

Darlington Forge & Eng. Co.

Intermed.,

Propeller

Darlington Forge & Eng. Co.

Crank Finished by

R.W. & Co. Ltd.

Thrust

Intermed.,

Propeller

R.W. & Co. Ltd.

STAMP MARKS ON SHAFTS.

Crank Shaft:-

BC
NOM 446
3-3-26
J. D. S

Thrust Shaft:-

BC
NOM 481
24-3-26
J. D. S

Tail Shaft:-

BC
NOM 480
24-3-26
J. D. S

SKETCH OF PROPELLER SHAFT.

Same as sps "City of Kingston"

Sketch of Propeller Shaft

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

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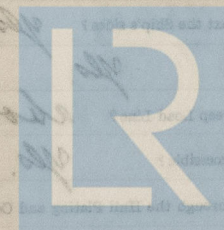
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PUMPS, ETC.

No. of Air Pumps *one.* Diar. *15 1/2"* Stroke *20"*

Worked by Main or Independent Engines?

main.

No. of Circulating Pumps

one

Diar.

Stroke

Type of

„

Centrifugal

Diar. of

„

Suction from Sea

Has each Pump a Bilge Suction with Non-return Valve?

yes.

Diar.

4"

What other Pumps can circulate through Condenser?

Ballast pump.

No. of Feed Pumps on Main Engine

Diar.

Stroke

Are Spring-loaded Relief Valves fitted to each Pump?

Can one Pump be overhauled while the others are at work?

No. of Independent Feed Pumps

One pair.

Diar.

5"

Stroke

12"

What other Pumps can feed the Boilers?

Aux.

Feed pump.

No. of Bilge Pumps on Main Engine

2

Diar.

3 1/2"

Stroke

20"

Can one Pump be overhauled while the others are at work?

yes.

No. of Independent Bilge Pumps

What other Pumps can draw from the Bilges?

Ballast pump.

Are all Bilge Suctions fitted with Roses?

yes.

Are the Valves, etc., so arranged as to prevent unintentional connection between Sea and Bilges?

yes.

Are all Sea Connections made with Valves or Cocks next the Ship's sides?

yes.

Are they placed so as to be easily accessible?

yes.

Are the Discharge Chests placed above or below the Deep Load Line?

above.

Are they fitted direct to the Hull Plating and easily accessible?

yes.

Are all Blow-off Cocks or Valves fitted with Spigots through the Hull Plating and Covering Plates or Flanges

on the Outside?

yes.

BOILERS



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BOILERS.

Works No. *2654*

No. of Boilers *2* Type *Cylindrical multitubular*

Single or Double-ended *single*

No. of Furnaces in each *3*

Type of Furnaces *Slighton*

Date when Plan approved *12-26*

Approved Working Pressure *185 lbs*

Hydraulic Test Pressure *328 lbs*

Date of Hydraulic Test *18-3-26*

„ when Safety Valves set *11-8-26*

Pressure at which Valves were set *185 lbs*

Date of Accumulation Test *11-8-26*

Maximum Pressure under Accumulation Test *185 lbs*

System of Draught *natural*

Can Boilers be worked separately? *The Boilers are Scotland*

Makers of Plates *D. Colville & Sons Ltd.*

„ Stay Bars *Steel Co. Scotland*

„ Rivets *R. B. Gals.*

„ Furnaces *Leeds Forge Co.*

Greatest Internal Diam. of Boilers *13'-3 13/16"*

„ „ Length „ *10'-10 5/16"*

Square Feet of Heating Surface each Boiler *1730 sq*

„ „ Grate „ „ *57.5 sq*

No. of Safety Valves each Boiler *2* Rule Diam. *2 1/2* Actual *2 3/4*

Are the Safety Valves fitted with Easing Gear? *Yls.*

No. of Pressure Gauges, each Boiler *2* No. of Water Gauges *1*

„ Test Cocks „ *3* „ Salinometer Cocks *1*



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Are the Water Gauges fitted direct to the Boiler Shells or mounted on Pillars?

Are the Water Gauge Pillars fitted direct to the Boiler Shells or connected by Pipes?

Are these Pipes connected to Boilers by Cocks or Valves?

Are Blow-off Cocks or Valves fitted on Boiler Shells?

No. of Strakes of Shell Plating in each Boiler

Plates in each Strake

Thickness of Shell Plates Approved

in Boilers

Are the Rivets Iron or Steel?

Are the Longitudinal Seams Butt or Lap Joints?

Are the Butt Straps Single or Double?

Are the Double Butt Straps of equal width?

Thickness of outside Butt Straps

inside

Are Longitudinal Seams Hand or Machine Riveted?

Are they Single, Double, or Treble Riveted?

No. of Rivets in a Pitch

Diam. of Rivet Holes Pitch

No. of Rows of Rivets in Centre Circumferential Seams

Are these Seams Hand or Machine Riveted?

Diam. of Rivet Holes Pitch

No. of Rows of Rivets in Front End Circumferential Seams

Are these Seams Hand or Machine Riveted?

Diam. of Rivet Holes Pitch

No. of Rows of Rivets in Back End Circumferential Seams

Are these Seams Hand or Machine Riveted?

Diam. of Rivet Holes Pitch

Size of Manholes in Shell

Dimensions of Compensating Rings

*pillars
by pipes*

cocks

ybs.

one.

2

1 3/32"

1 3/32"

steel

butt.

double.

ybs.

1"

1"

machine.

treble.

5

8 1/8"

2

hand.

3 3/8"

2

machine.

3 3/8"

16" x 12"

2'-10" x 2'-4" x 1 3/32"



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Thickness of End Plates in Steam Space Approved

" " " " " in Boilers

Pitch of Steam Space Stays

Diar. " " " " Approved $3\frac{1}{2} \times 2\frac{7}{8}$ Threads per Inch 6" " " " " in Boilers $3\frac{1}{2} \times 2\frac{7}{8}$ " 6

Material of " " "

How are Stays Secured?

Diar. and Thickness of Loose Washers on End Plates

" " Riveted " " "

Width " " Doubling Strips "

Thickness of Middle Back End Plates Approved

" " " " " in Boilers

Thickness of Doublings in Wide Spaces between Fireboxes

Pitch of Stays at

Diar. of Stays Approved 2" Threads per Inch 9

" " in Boilers 2" " 9

Material "

Are Stays fitted with Nuts outside?

Thickness of Back End Plates at Bottom Approved

" " " " " in Boilers

Pitch of Stays at Wide Spaces between Fireboxes

Thickness of Doublings in " "

Thickness of Front End Plates at Bottom Approved

" " " " " in Boilers

No. of Longitudinal Stays in Spaces between Furnaces

Threads per Inch

Dist. of Stays & Approved

" " " " in Boilers

Material

Thickness of Front End Plates Approved

" " " " in Boilers

Pitch of Stay Tubes at Space between Heads of Tubes

Thickness of Doublings in

Stay Tubes at

Are Stay Tubes fitted with Nuts at Front End?

Thickness of Back End Plates Approved

" " " " in Boilers

Pitch of Stay Tubes in Back End Plates

" " " "

Thickness of Stay Tubes

" " " "

External Dist. of Tubes

Material

Thickness of Bottom Plates Approved

" " " " in Boilers

Smallest outside Dist. of Fireboxes

Length between Tubes in

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Diar. of Stays Approved $2\frac{1}{4}"$ Threads per Inch 6
 " " in Boilers $2\frac{1}{4}"$ 6
 Material *stainless*

Thickness of Front Tube Plates Approved $\frac{3}{8}"$

" " " " in Boilers $\frac{3}{8}"$

Pitch of Stay Tubes at Spaces between Stacks of Tubes $14\frac{1}{4}" \times 8\frac{3}{4}"$

Thickness of Doublings in " " "

" Stay Tubes at " " " $\frac{5}{16}" \times \frac{3}{8}"$

Are Stay Tubes fitted with Nuts at Front End?

yes.

Thickness of Back Tube Plates Approved

" " " in Boilers

Pitch of Stay Tubes in Back Tube Plates

" Plain "

Thickness of Stay Tubes

" Plain "

External Diar. of Tubes

Material "

Thickness of Furnace Plates Approved

" " " in Boilers

Smallest outside Diar. of Furnaces

Length between Tube Plates

Width of Combustion Chambers (Front to Back)

Thickness of " " Tops Approved

" " " in Boilers

Pitch of Screwed Stays in C.O. Tops

*Centre $\frac{3}{4}"$ wings $2\frac{7}{32}"$
 $\frac{3}{4}"$ $2\frac{7}{32}"$
 $13\frac{1}{2}" \times 8\frac{1}{4}"$
 $4\frac{1}{2}" \times 4\frac{3}{8}"$
 $\frac{5}{16}" \times \frac{3}{8}" + \frac{1}{16}"$
stainless
 $3\frac{1}{4}"$
*iron.**

$\frac{7}{32}"$
 $\frac{7}{32}"$
 $3' - 3\frac{13}{16}"$
 $2' - 9"$

$2' - 5\frac{5}{16}"$
*Centre $2\frac{7}{32}"$ wings $\frac{1}{16}"$
 $2\frac{7}{32}"$ $\frac{1}{16}"$
 $10\frac{1}{2}" \times 8\frac{5}{8}"$*

Diar. of Screwed Stays Approved $\frac{3}{4}"$ Threads per Inch 6
 " " in Boilers $\frac{3}{4}"$ 6
 Material *stainless*

Thickness of Combustion Chambers (Front to Back) Approved $\frac{3}{8}"$
 " " in Boilers $\frac{3}{8}"$
 Pitch of Stay Tubes at Spaces between Stacks of Tubes $14\frac{1}{4}" \times 8\frac{3}{4}"$
 Thickness of Doublings in " " " $\frac{5}{16}" \times \frac{3}{8}"$
 Are Stay Tubes fitted with Nuts at Front End? *yes.*

Thickness of Back Tube Plates Approved $\frac{3}{8}"$
 " " " in Boilers $\frac{3}{8}"$
 Pitch of Stay Tubes in Back Tube Plates $13\frac{1}{2}" \times 8\frac{1}{4}"$
 " Plain " $4\frac{1}{2}" \times 4\frac{3}{8}"$
 Thickness of Stay Tubes $\frac{5}{16}" \times \frac{3}{8}" + \frac{1}{16}"$
 " Plain " *stainless*
 External Diar. of Tubes $3\frac{1}{4}"$
 Material *iron.*



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Diar. of Screwed Stays Approved

 $1\frac{3}{4}"$ Threads per Inch 9

" " " in Boilers

 $1\frac{3}{4}"$
stud.

Material " "

Thickness of Combustion Chamber Sides Approved

Ratio $2\frac{1}{32}"$ wings $1\frac{1}{16}"$
 $2\frac{1}{32}"$ " $1\frac{1}{16}"$
 $8\frac{5}{8}" \times 8"$

" " " " in Boilers

Pitch of Screwed Stays in C.C. Sides

Diar. " " Approved

 $1\frac{3}{4}"$ Threads per Inch 9

" " " in Boilers

 $1\frac{3}{4}"$
stud.

Material " "

Thickness of Combustion Chamber Backs Approved

 $1\frac{1}{16}"$
 $1\frac{1}{16}"$

" " " " in Boilers

Pitch of Screwed Stays in C.C. Backs

Diar. " " Approved

 $2\frac{1}{8}"$, $2\frac{1}{8}"$, $1\frac{7}{8}"$, $1\frac{3}{4}"$
 $10" \times 8"$
Threads per Inch 9

" " " in Boilers

 $2\frac{1}{8}"$, $2\frac{1}{8}"$, $1\frac{7}{8}"$, $1\frac{3}{4}"$
stud.

Material " "

Are all Screwed Stays fitted with Nuts inside C.C.?

yes.
 $3\frac{3}{4}"$

Thickness of Combustion Chamber Bottoms

No. of Girders over each Wing Chamber

4

" " " Centre "

2

Depth and Thickness of Girders

 $8" \times 1\frac{7}{8}"$
stud.

Material of Girders

No. of Stays in each

2

No. of Tubes, each Boiler

208

Size of Lower Manholes

 $16" \times 12"$

VERTICAL DONKEY BOILERS

No. of Boilers	Type	Height	Distance Int. Diar.	Height of Boiler Crown above Fire Grate	Are Boiler Crowns Flat or Dished?	Internal Radius of Dished Boilers	Thickness of Plates	Description of Stays in Boiler Crown	Place of Rivet Heads	Width of Girders	Height of Rivet Crown above Fire Grate	Are Rivet Crowns Flat or Dished?	External Radius of Dished Crowns	No. of Crown Stays	Diagonal	Thickness of Plates	Internal Diagonal of Rivet at Top	No. of Water Tubes	Material of Water Tubes	Size of Flange in Shell	Dimensions of Compression Ring	Location Rivet on Boiler	Grade Rivets

SUPERHEATERS



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VERTICAL DONKEY BOILERS.

No. of Boilers Type *1 1/2*

Greatest Int. Diar. Height *10 1/2*

Height of Boiler Crown above Fire Grate *10 1/2*

Are Boiler Crowns Flat or Dished? *Flat*

Internal Radius of Dished Ends Thickness of Plates *8 1/8 x 3 1/4*

Description of Seams in Boiler Crowns

Diar. of Rivet Holes Pitch Width of Overlap

Height of Firebox Crowns above Fire Grate

Are Firebox Crowns Flat or Dished? *Flat*

External Radius of Dished Crowns Thickness of Plates

No. of Crown Stays Diar. Material

External Diar. of Firebox at Top Bottom Thickness of Plates

No. of Water Tubes Ext. Diar. Thickness

Material of Water Tubes *2 1/2 x 1/4*

Size of Manhole in Shell *2 1/2 x 1 1/2*

Dimensions of Compensating Ring *10 1/2*

Heating Surface, each Boiler Grate Surface

SUPERHEATERS.

Description of Superheaters

Where situated? *10 1/2*

Which Boilers are connected to Superheaters?

Can Superheaters be shut off while Boilers are working?

No. of Safety Valves on each Superheater Diar.

Are " " fitted with Easing Gear?

Date of Hydraulic Test Test Pressure

Date when Safety Valves set Pressure on Valves

MAIN STEAM PIPES



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MAIN STEAM PIPES.

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diam.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diam.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diam.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

FEED WATER HEATERS

Ballast pump 9" x 10" x 10" Horizontal No.

General Engineering Co. Ltd. Test Pressure

Cast iron, pump 12" x 12" x 12" Horizontal

FEED WATER HEATERS

Ballast pump 9" x 10" x 10" Horizontal No. 1

General Engineering Co. Ltd. Test Pressure 432

FEED WATER FILTERS



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EVAPORATORS.

No.	Type	Makers	Working Pressure	Test Pressure	Date of Test	Tons per Day

Date of Test of Safety Valves under Steam

FEED WATER HEATERS.

No.	Type	Makers	Working Pressure	Test Pressure	Date of Test
1	Live steam Surface Feed Heater.	R.W.V. Co. Ltd.	185 lbs.	432	10-3-26

FEED WATER FILTERS.

No.	Type	Makers	Working Pressure	Test Pressure	Date of Test	Size

LIST OF DONKEY PUMPS.

Ballast pump. 9" x 10" x 10" Henry Watson Co.
 General Service pump 8" x 5" x 8" Thos. Lamont.
 Camilar pump. 4" x 2 3/4" x 5" Thos. Lamont.



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REFRIGERATORS.

No. of Machines

Capacity of each

Makers

Description

No. of Steam Cylinders, each Machine

No. of Compressors

No. of Cranks

Particulars of Pumps in connection with Refrigerating Plant and whether worked by Refrigerating Machines or Independently

System of Refrigeration

,, Insulation

Are Brine and other Regulating Valves placed so as to be accessible without entering the Insulated Spaces?

Are all Pipes, Air Trunks, &c., well secured and protected from risk of damage?

Are all Bilge, Sounding, and Air Pipes in Insulated Spaces properly insulated?

Are Thermometer Tubes so arranged that Water cannot enter and freeze in them?

Date of Test under Working Conditions

RESULTS OF TRIALS.

COMPARTMENT.	Temp. at beginning of Trial.	Temp. at end of Trial.	Time required to obtain this Result.	Rise of Temp. after hours.
Capacity				
Current Alternating or Continuous				
Single or Double Wire System				
Position of Pressure				
How Weight Boats				
No. of Cylinders to which Valves are connected on Main Pressure Head				
Particulars of Steam Cylinders				
Cylinders				
Boilers				
Condensers				
Compressors				
Pumps				
Valves				
Other				

Articles of Spare Gear for Refrigerating Plant carried on board:—



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No. of Circuits	No. of Heaters	No. of Motors	No. of Fans	No. of Lights
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Particulars of these Circuits:-

Circuit.	Number of Lights.	Candle Power.	Current Required. Amps.	Size of Conductor.	Current Density.	Conductivity of Conductor.	Insulation Resistance per Mile.
Hold	8	50 W	4	14 B.S.	15 AWG	98%	
Hold	4	50 W	2	14 "	15 "	98%	
Upper deck	8	50 W	4	14 "	15 "	98%	
Upper deck	4	50 W	2	14 "	15 "	98%	
g. & B.	75	50 W	12½	10 "	75 "	98%	
g. & B. plug	10	50 W	5	14 "	15 "	98%	
A below space	29	75 W	7¼	10 "	75 "	98%	
F	31	75 W	7¼	10 "	75 "	98%	
low. lights	6	50 W	3	10 "	75 "	98%	

ELECTRIC LIGHTING.

Installation Fitted by

Davis Shipbuilding & Repairing Co. Ltd.

No. and Description of Dynamos

Compound wound 10 K.W.

Makers of Dynamos

General Electric Co.

Capacity

85 Amperes at 115 Volts, 480 Revs. per Min.

Current Alternating or Continuous

Continuous

Single or Double Wire System

Double

Position of Dynamos

Port Side upper deck, engine room.

Main Switch Board

near Dynamos

No. of Circuits to which Switches are provided on Main Switch Board

9

Particulars of these Circuits:-

Circuit.	Number of Lights.	Candle Power.	Current Required. Amps.	Size of Conductor.	Current Density.	Conductivity of Conductor.	Insulation Resistance per Mile.
Hold	8	50 W	4	14 B.S.	15 AWG	98%	
Hold	4	50 W	2	14 "	15 "	98%	
Upper deck	8	50 W	4	14 "	15 "	98%	
Upper deck	4	50 W	2	14 "	15 "	98%	
g. & B.	75	50 W	12½	10 "	75 "	98%	
g. & B. plug	10	50 W	5	14 "	15 "	98%	
A below space	29	75 W	7¼	10 "	75 "	98%	
F	31	75 W	7¼	10 "	75 "	98%	
low. lights	6	50 W	3	10 "	75 "	98%	

Total No. of Lights

125

No. of Motors driving Fans, &c.

No. of Heaters

Current required for Motors and Heaters

Positions of Auxiliary Switch Boards with No. of Switches on each

1 Pilot House 5 circuit
1 Forecastle 6 circuit
1 Dining Room 6 circuit
1 Engine Room 4 circuit

Are Out-outs fitted as follows?—

On Main Switch Board, to Cables of Main Circuits

On Aux. " " each Auxiliary Circuit

Wherever a Cable is reduced in size

To each Lamp Circuit

To both Flow and Return Wires of all Circuits when the Double-Wire System is adopted

Are the Fuses of Standard Sizes?

Are all Switches and Out-outs constructed of Non-inflammable Material?

Are they placed so as to be always and easily accessible?

Smallest Single Wire used, No. 14 B.S. S.W.G., Largest, No. 00 B.S. S.W.G.

How are Conductors in Engine and Boiler Spaces protected?

" Saloons, State Rooms, &c., " ?

What special protection is provided in the following cases?—

(1) Conductors exposed to Heat or Damp

(2) " " passing through Bunkers or Cargo Spaces

(3) " " Deck Beams or Bulkheads

Are all Joints in Cables properly soldered and thoroughly Insulated so that the efficiency of the Cables

is unimpaired?

Are all Joints in accessible positions, none being made in Bunkers or Cargo Spaces?

Are all Hull Connections for Single-Wire Systems made with Screws of large Surface?

Are the Dynamos, Motors, Main and Branch Cables, so placed that the Compasses are not injuriously

affected by them?

Have Tests been made to prove that this condition has been satisfactorily fulfilled?

Has the Insulation Resistance over the whole system been tested?

What does the Resistance amount to?

Ohms.

Is the Installation supplied with a Voltmeter?

" " " an Ampere Meter?

Date of Trial of complete Installation

Duration of Trial

Have all the requirements of Section 42 been satisfactorily carried out?



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GENERAL CONSTRUCTION.

Have the Machinery and Boilers been constructed in accordance with the requirements of the Rules and the

Approved Plans? *yes.*

If not, give details of the points of difference, and state when these were sanctioned by the Chief

Surveyor.

Are the Materials used in the Construction of Engines and Boilers, so far as could be seen, sound and trustworthy? *yes.*

Is the Workmanship throughout thoroughly satisfactory? *yes.*

The above correctly describes the Machinery of the S.S.

as ascertained by ^{us} from personal examination

Winnipeg
Duncan M. Arden
A. Stephenson

Engineer Surveyor to the British Corporation for the
Survey and Registry of Shipping.

Fees—

MAIN BOILERS.

	£	s.	d.
H.S. 3460 Sq. ft.	:	:	
G.S. 115 "	:	:	

Installing \$ 32.00

DONKEY BOILERS.

H.S. ✓ Sq. ft.	:	:
G.S. ✓ "	:	:
£	:	:

ENGINES.

L.P.C. 440.9 Cub. ft.	:	:
£	:	:

Installing \$ 30.00
\$ 62.00

Testing, &c. :

£ : :

Expenses :

Total ... £ : :

It is submitted that this Report be approved,

Chief Surveyor.

Approved by the Committee for the Class of M.B.S.* on the

Fees advised

Fees paid



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Secretary.

GENERAL CONSTRUCTION

Form

MAIN TOWER. The cost of the main tower, including the cost of the foundation, is \$2400.00. The cost of the main tower, including the cost of the foundation, is \$2400.00. The cost of the main tower, including the cost of the foundation, is \$2400.00.

DOCKERY BARRACKS

P.S. 1

P.S. 1

ENGINEER

L.D.C. W.O.P. 112

L.D.C. W.O.P. 112

L.D.C. W.O.P. 112

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