

No. 2054

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. 1990 No. in Register Book 3322

S.S. "SELKIRK"

Makers of Engines Richardson Westgarth & Co. Ltd.

Works No. 2655

Makers of Main Boilers Richardson Westgarth & Co. Ltd.

Works No. 2655

Makers of Donkey Boiler

Works No.

MACHINERY.

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004852-004860-0114

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 Screw Steamer*

Official No.

Port of Registry

Registered Owners

Canada Steamship Lines Ltd.

Engines Built by

Richardson Westgarth & Co. Ltd.

at

Northfleet

Main Boilers Built by

Richardson Westgarth & Co. Ltd.

at

Northfleet

Donkey

at

Date of Completion

First Visit

19-12-25

Last Visit

11-9-26

Total Visits

44

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RECIPROCATING ENGINES

Works No. *2656* No. of Sets *1* Description *Triple expansion. S.P. 3 crks.*

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? *yes*

" " " each Receiver? *yes.*

Type of H.P. Valves, *lift & slide.*

" 1st I.P. "

" 2nd I.P. "

" L.P. "

" Valve Gear *slide Stephenson link.*

" Condenser *Surface.*

Diameter of Piston Rods (plain part) *4 3/4"* Screwed part (bottom of thread) *3.53"*

Material " *S.P.*

Diar. of Connecting Rods (smallest part) *5 1/4"* Material *S.P.*

" Crosshead Gudgeons *5 1/2"* Length of Bearing *8"* Material "

No. of Crosshead Bolts (each) *2* Diar. over Thrd. *2 3/4"* Threads per inch *6* Material *stee.*

" Crank Pin " *2* " *2 3/4"* " *6* " "

" Main Bearings *6* Lengths *10 1/2"*

" Bolts in each *2* Diar. over Thread *3 1/4"* Threads per inch *6* Material *stee.*

" Holding Down Bolts, each Engine *8 1/2"* Diar. *1 1/4"* No. of Metal Checks *8 1/2"*

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 *Darlington Forge & Eng Co. Ltd.*

Piston " " " " " "

Crossheads, " " " " " "

Connecting Rods, Finished by *R.W. Co. Ltd.*

Piston " " " " " "

Crossheads, " " " " " "

Date of Harbour Trial

" Trial Trip

Trials run at *St. Lawrence River at Quebec*

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

If so, what was the I.H.P.? *no records taken.* Revols. per min.

Pressure in 1st I.P. Receiver, lbs., 2nd I.P., lbs., L.P., lbs., Vacuum, ins.

Speed on Trial *no speed 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. *1100*

Revol. per min. *100*

Estimated Speed *9.5 knots*



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TURBO-ELECTRIC PROPELLING MACHINERY.

No. of Turbo-Generating Sets Capacity of each

Type of Turbines employed

Description of Generators

No. of Motors driving Propeller Shafting

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

Is Single or Double Reduction Gear employed?

Description of Motors

Diap. of 1st Reduction Pinion } Width Pitch of Teeth
 „ 1st „ Wheel }

Estimated Pressure per lineal inch

Diap. of 2nd Reduction Pinion } Width Pitch of Teeth
 „ 2nd „ Wheel }

Estimated Pressure per lineal inch

Revs. 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 Revs. per min. S.H.P.

Makers of Turbines

Generators
 Motors
 Reduction Gear
 Turbine Spindles forged by
 „ Wheels forged or cast by
 Reduction Gear Shafts forged by
 „ Wheels forged or cast by

DESCRIPTION OF INSTALLATION.

Type of Turbine Blocks
 „ Rings
 Diap. of Turbine Shafts at bottom of Collars
 „ Forward Coupling
 „ At 1st Coupling
 „ At 2nd Coupling
 „ At 3rd Coupling
 „ At 4th Coupling
 „ At 5th Coupling
 „ At 6th Coupling
 „ At 7th Coupling
 „ At 8th Coupling
 „ At 9th Coupling
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 „ At 94th Coupling
 „ At 95th Coupling
 „ At 96th Coupling
 „ At 97th Coupling
 „ At 98th Coupling
 „ At 99th Coupling
 „ At 100th Coupling

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SHAFTING

Are the Crank Shafts Built or Solid?

built:

No. of Lengths in each

6

Angle of Cranks

120°

Diam. by Rule

Actual

10"

In Way of Webs

10 1/2"

" of Crank Pins

10 1/2"

Length between Webs

9 1/16"

Greatest Width of Crank Webs

20"

Thickness

6 1/2"

Least

16"

"

6 1/2"

Diam. 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

Diam. at Mid Length

2 1/2"

Diam. of Pitch Circle

14 1/2"

Greatest Distance from Edge of Main Bearing to Crank Web

1/4"

Type of Thrust Blocks

Kandachal

No. " Rings

5

Diam. of Thrust Shafts at bottom of Collars

10 7/8"

No. of Collars

5

" " Forward Coupling

10"

At Aft Coupling

10"

Diam. of Intermediate Shafting by Rule

Actual

No. of Lengths

No. of Bolts, each Coupling

Diam. at Mid Length

Diam. of Pitch Circle

Diam. of Propeller Shafts by Rule

10.33"

Actual

11"

At Couplings

10"

Are Propeller Shafts fitted with Continuous Brass Liners?

yes.

Diam. over Liners

12 7/8"

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?

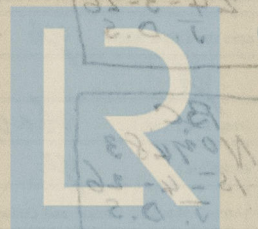
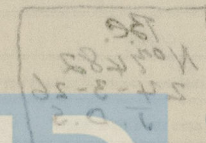
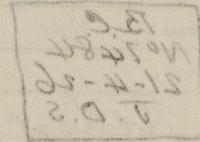
no

If so, what Type is adopted?

SKETCH OF CRANK SHAFT.

Came as s/s City of Kingston

STAMP MARKS ON SHAFTS



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Material of Blades

Fitted or Solid ?

Boss

Diar. 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

Sarlington Forge.

Material

J. P.

" Pins "

13 Webs

David Colville Esq.

Thrust Shafts

Darlington Forge.

Intermed. „ „

Propeller " "

Crank " Finished by

Saxlington Forge
Rw. Co. Ltd.

Thrust "

Intermed. „

Propeller „

STAMP MARKS ON SHAFTS.

Crank Shaft:-

B.C.
N^o 7484
21-4-26
J. D. S

Thrust Shaft:.

Be.
Nov 482
24-3-26
J. D. S

Tail Shaft:-

BC.
NO 483
15-4-26
J. D. S

Same as s/s City of Kingston

PUMPS, ETC.

No. of Air Pumps

1

Diar.

15 1/2"

Stroke

20"

Worked by Main or Independent Engines?

main.

No. of Circulating Pumps

1

Diar.

Stroke

Type of

"

Centrifugal.

Diar. of

"

Suction from Sea

8"

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

yes.

Diar.

7"

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

1 can.

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

No. of Boilers

2

Type of Boilers

Double-ended

No. of Furnaces in each

3

Type of Furnaces

Water-tube

Date when first approved

18-2-20

Approved Working Pressure

358

Hydraulic Test Pressure

450

Date of Hydraulic Test

11-9-20

When Safety Valves set

185 lbs.

Pressure at which Valves were set

185 lbs.

Date of Accumulation Test

18-2-20

Maximum Pressure under Accumulation Test

185 lbs.

Pressure of Steam

185 lbs.

Can Boilers be worked separately

No

Makers of Boilers

Babcock & Wilcox

No. of Safety Valves

4

Date when first approved

18-2-20

Approved Working Pressure

358

Hydraulic Test Pressure

450

Date of Hydraulic Test

11-9-20

When Safety Valves set

185 lbs.

Pressure at which Valves were set

185 lbs.



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BOILERS.

Works No.

No. of Boilers

2

Type

2655
Cylindrical multitubular
single.

Single or Double-ended

No. of Furnaces in each

3

Type of Furnaces

slighton.

Date when Plan approved

12-25

Approved Working Pressure

185-lbs.

Hydraulic Test Pressure

328

Date of Hydraulic Test

15-4-26.

" when Safety Valves set

11-9-26

Pressure at which Valves were set

185 lbs.

Date of Accumulation Test

Maximum Pressure under Accumulation Test

System of Draught

natural.

Can Boilers be worked separately?

Makers of Plates

The Steel Works Scotland Ltd.
D. Colville Sons Ltd.

Can one Pump be connected while the other is running?

" Stay Bars

The Steel Works Scotland Ltd.
D. Colville Sons Ltd.

" Rivets

R. B. Co Ltd.

" Furnaces

Wells Forge Coy.

Greatest Internal Diam. of Boilers

13'-3 13/16"

" Length "

10'-10 5/16"

Square Feet of Heating Surface each Boiler

1736 #

" " Grate "

54.5 #

No. of Safety Valves each Boiler

2

Rule Diam.

2 1/2

Actual

2 3/4

Are the Safety Valves fitted with Easing Gear?

Yes.

No. of Pressure Gauges, each Boiler

2

No. of Water Gauges

1

" Test Cocks

3

" Salinometer Cocks

1

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

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

Are Lines Pipes connected to Boilers by Cocks or Valves?

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

No. of Stitches of Shell Plating in each Boiler

Plates in each Stave

Thickness of Shell Plates Approved

in Boilers

Are the Rivets Iron or Steel?

Are the Longitudinal Seams Joint or Lap Joints?

Are the Butt Joints Single or Double?

Are the Double Butt Joints of equal width?

Thickness of outside Butt Straps

inside

Are Longitudinal Seams Hand or Machine Riveted?

Are they Single, Double or Triple Riveted?

No. of Rivets in a Pitch

Pitch of Rivet Holes

No. of Rows of Rivets in Centre Circumferential Seams

Are these Seams Hand or Machine Riveted?

Pitch of Rivet Holes

No. of Rows of Rivets in Front and Circumferential Seams

Are these Seams Hand or Machine Riveted?

Pitch of Rivet Holes

No. of Rows of Rivets in Back End Circumferential Seams

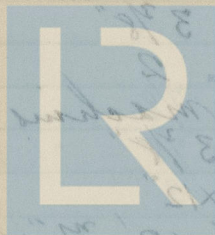
Are these Seams Hand or Machine Riveted?

Pitch of Rivet Holes

No. of Rows of Rivets in Front and Circumferential Seams

Are these Seams Hand or Machine Riveted?

Pitch of Rivet Holes



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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 $1 \frac{3}{16}$ " 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 $1 \frac{3}{16}$ " Pitch

No. of Rows of Rivets in Back End Circumferential Seams

Are these Seams Hand or Machine Riveted?

Diam. of Rivet Holes $1 \frac{3}{16}$ " Pitch

Size of Manholes in Shell

Dimensions of Compensating Rings

*pillars
by pipes
cocks*

*yes.
one.*

*2
 $1 \frac{3}{16}$ "
 $1 \frac{3}{16}$ "*

*stat.
butt.
double.*

*yes.
1"
1"*

*machine:
treble.*

*5
 $8 \frac{1}{8}$ "*

*2
hand.
 $3 \frac{3}{8}$ "*

*2
machine
 $3 \frac{3}{8}$ "*

*16" x 12"
2' - 10" x 2' - 7" x $1 \frac{3}{16}$ "*

Thickness of End Plates in Steam Space Approved

" " in Boilers

Pitch of Steam Space Straps

Diam. of Straps Approved

" " in Boilers

Material of " "

How are Straps Secured?

Pitch and Thickness of Loose Washers on End Plates

" " Riveted

" " Doubling Straps

Thickness of Middle Back End Plates Approved

" " in Boilers

Thickness of Doublings in Wide Spaces between Fireboxes

Pitch of Straps as

Diam. of Straps Approved

" " in Boilers

Material of " "

Are Straps fitted with Nuts outside?

Thickness of Back End Plates as Bottom Approved

" " in Boilers

Pitch of Straps at Wide Spaces between Fireboxes

Thickness of Doublings in

Thickness of Front and Back End Plates as Bottom Approved

" " in Boilers

No. of Doublings in Wide Spaces between Fireboxes



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Thickness of End Plates in Steam Space Approved

1 3/16"

" " " " " in Boilers

1 1/16"

Pitch of Steam Space Stays

19" x 18"

Diar. " " " " Approved

3 1/2 7/8" Threads per Inch 6

" " " " " in Boilers

3 1/2 7/8" 6

Material of " " "

steel.

How are Stays Secured?

double-nuts & washers.

Diar. and Thickness of Loose Washers on End Plates

✓

" " " " Riveted " " "

✓

Width " " Doubling Strips " "

✓

Thickness of Middle Back End Plates Approved

1 3/16"

" " " " " in Boilers

1 3/16"

Thickness of Doublings in Wide Spaces between Fireboxes

✓

Pitch of Stays at

15" x 8"

Diar. of Stays Approved

2" Threads per Inch 9

" " " " in Boilers

2" 9

Material " "

steel.

Are Stays fitted with Nuts outside?

ybs.

Thickness of Back End Plates at Bottom Approved

1 3/16"

" " " " " in Boilers

1 3/16"

Pitch of Stays at Wide Spaces between Fireboxes

15 1/2" x 8"

Thickness of Doublings in " "

✓

Thickness of Front End Plates at Bottom Approved

3/8"

" " " " " in Boilers

3/8"

No. of Longitudinal Stays in Spaces between Furnaces

3

Diar. of stays Approved

" " " " in Boilers

Material "

Thickness of Front End Plates Approved

" " " " in Boilers

Pitch of stay tubes at spaces between Seams of Tubes

Thickness of Doublings in

Stay Tubes at

Are Stay Tubes fitted with Nuts at Front End?

Thickness of Back Tube Plates Approved

" " " " in Boilers

Pitch of stay tubes in Back Tube Plates

" " " "

Thickness of Stay Tubes

" " " "

External Diam. of Tubes

Material "

Thickness of Furnace Plates Approved

" " " " in Boilers

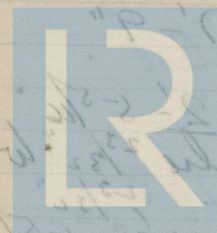
Smallest outside Diam. of Furnaces

Length between stays (from top to bottom)

Width of Compensating Rings (from top to bottom)

Thickness of " "

Pitch of Stayed Stays in C.O. Tubes



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Diar. of Stays Approved $2\frac{1}{4}"$ Threads per Inch 6
 " " in Boilers $2\frac{1}{4}"$ 6
 Material " *steel*
 Thickness of Front Tube Plates Approved $\frac{7}{8}"$ 6
 " " " in Boilers $\frac{7}{8}"$
 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 " " "
 Are Stay Tubes fitted with Nuts at Front End? *yes.*
 Thickness of Back Tube Plates Approved *Centre $\frac{3}{4}"$ wings $2\frac{1}{32}"$*
 " " " in Boilers $\frac{3}{4}"$ $2\frac{2}{32}"$
 Pitch of Stay Tubes in Back Tube Plates $13\frac{1}{2}" \times 8\frac{3}{4}"$
 " Plain " $14\frac{1}{2}" \times 4\frac{3}{8}"$
 Thickness of Stay Tubes $5\frac{1}{16}"$ $\frac{3}{8}"$ $\frac{1}{16}"$
 " Plain " *well*
 External Diar. of Tubes $3\frac{1}{4}"$
 Material " *Iron.*
 Thickness of Furnace Plates Approved $1\frac{7}{32}"$
 " " " in Boilers $1\frac{7}{32}"$
 Smallest outside Diar. of Furnaces $3\frac{1}{2}"$ $3\frac{13}{16}"$
 Length between Tube Plates $7'-9"$
 Width of Combustion Chambers (Front to Back) $2'-5\frac{5}{16}"$
 Thickness of " " Tops Approved *Centre $2\frac{3}{32}"$ wings $\frac{1}{16}"$*
 " " " in Boilers $2\frac{2}{32}"$ $\frac{1}{16}"$
 Pitch of Screwed Stays in C.C. Tops $10\frac{1}{2}" \times 8\frac{5}{8}"$



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Diar. of Screwed Stays Approved

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

" " " in Boilers

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

Material " "

Thickness of Combustion Chamber Sides Approved

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

Pitch of Screwed Stays in C.O. Sides

Diar. " " Approved

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

" " " in Boilers

 $1\frac{3}{4}"$ 9

Material " "

steel.

Thickness of Combustion Chamber Backs Approved

 $\frac{1}{16}"$

" " " in Boilers

 $\frac{1}{16}"$

Pitch of Screwed Stays in C.O. Backs

10 \times 8"

Diar. " " Approved

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

" " " in Boilers

 $2\frac{1}{8}" \times 1\frac{3}{8}" \times 1\frac{3}{4}"$ 9

Material " "

steel.

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

Yes.

Thickness of Combustion Chamber Bottoms

 $\frac{3}{4}"$

No. of Girders over each Wing Chamber

14

" " " Centre "

2

Depth and Thickness of Girders

 $8" \times 1\frac{1}{8}"$

Material of Girders

steel.

No. of Stays in each

2

No. of Tubes, each Boiler

208

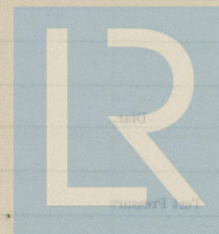
Size of Lower Manholes

 $16" \times 12"$

VERTICAL DONKEY BOILERS

No. of Boilers	Type
Greatest Int. Diam.	Height
Height of Boiler Crown above Fire Grate	Are Boiler Crowns Flat or Dish'd?
Internal Radius of Dish'd Ends	Thickness of Plates
Description of Seams in Boiler Crowns	Width of Overlap
Diam. of Rivet Holes	Pitch
Height of Rivet Crowns above Fire Grate	Are Rivet Crowns Flat or Dish'd?
Internal Radius of Dish'd Crowns	Thickness of Plates
No. of Crown Stays	Material
Internal Diam. of Rivet at Top	Bottom
No. of Water Tubes	First Diam.
Material of Water Tubes	Thickness
Size of Manhole in Shell	Dimensions of Compensating Ring
Dimensions of Compensating Ring	Grate Surface
Heating Surface, each Boiler	Grate Surface

SUPERHEATERS



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VERTICAL DONKEY BOILERS.

No. of Boilers *1* Type *Vertical*

Greatest Int. Diar. *36"* Height *12'*

Height of Boiler Crown above Fire Grate *4'*

Are Boiler Crowns Flat or Dished? *Flat*

Internal Radius of Dished Ends *18"* Thickness of Plates *3/8"*

Description of Seams in Boiler Crowns *Butt*

Diar. of Rivet Holes *3/8"* Pitch *2"* Width of Overlap *1"*

Height of Firebox Crowns above Fire Grate *3'*

Are Firebox Crowns Flat or Dished? *Flat*

External Radius of Dished Crowns *18"* Thickness of Plates *3/8"*

No. of Crown Stays *12* Diar. *10"* Material *Steel*

External Diar. of Firebox at Top *36"* Bottom *36"* Thickness of Plates *3/8"*

No. of Water Tubes *10* Ext. Diar. *10"* Thickness *3/8"*

Material of Water Tubes *Steel*

Size of Manhole in Shell *24"*

Dimensions of Compensating Ring *24"*

Heating Surface, each Boiler *144* Grate Surface *144*

SUPERHEATERS.

Description of Superheaters

Where situated? *On top of boiler*Which Boilers are connected to Superheaters? *1*Can Superheaters be shut off while Boilers are working? *Yes*No. of Safety Valves on each Superheater *2* Diar. *2"*Are " " fitted with Easing Gear? *Yes*Date of Hydraulic Test *16/1/1911* Test Pressure *160 lbs*Date when Safety Valves set *16/1/1911* Pressure on Valves *160 lbs*

MAIN STEAM PIPES.

No. of Pipes *1*

Material *Steel*

Joined, Welded or Seamed *Welded*

Internal Diar. *36"*

Thickness *3/8"*

How are Flanges secured? *By bolts*

Date of Hydraulic Test *16/1/1911*

Test Pressure *160 lbs*

No. of Pipes *1*Material *Steel*Joined, Welded or Seamed *Welded*Internal Diar. *36"*Thickness *3/8"*How are Flanges secured? *By bolts*Date of Hydraulic Test *16/1/1911*Test Pressure *160 lbs*

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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

2
Copper
Seamless
4 1/2"
5 w.s.
Brazed
9-76
370 lb.

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diam.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

SUPERHEATERS

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diam.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

EVAPORATORS

Ball pump 9" x 10" diameter
General pump 8" x 10" diameter
Crank pump 8" x 10" diameter
Date of Test of Safety Valve under steam

FEED WATER HEATERS

185 lb. Test Pressure
10-4-02 Date of Test
Type 1
No. 1

FEED WATER FILTERS

Working Pressure
Test Pressure
Date of Test
Type 1
No. 1



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EVAPORATORS.

No.	Type	Tons per Day
Makers		
Working Pressure	Test Pressure	Date of Test
Date of Test of Safety Valves under Steam		

FEED WATER HEATERS.

No.	Type	Makers	Working Pressure	Test Pressure	Date of Test
1	Low steam Surface Feed Heats.	A. L. Co. Ltd.	185 lbs.	432 lbs.	15-4-26

FEED WATER FILTERS.

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

LIST OF DONKEY PUMPS.

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



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No. of Top End Bolts.	No. of Bot. End Bolts.	No. of Cylinder Cover Studs
" Coupling Bolts	" Main Bearing Bolts	" Valve Chest "
" Junk Ring Bolts	" Feed Pump Valves	" Bilge Pump Valves
" H.P. Piston Rings	" I.P. Piston Rings	" L.P. Piston Rings
" " Springs	" " Springs	" " Springs
" Safety Valve "	" Fire Bars	" Feed Check Valves
" Piston Rods	" Connecting Rods	" Valve Spindles
" Air Pump Rods	" Air Pump Buckets	" Air Pump Valves
" Clr. "	" Clr. "	" Clr. "
" Crank Shafts	" Crank Pin Bushes	" Crosshead Bushes
" Propeller Shafts	" Propellers	" Propeller Blades
" Boiler Tubes	" Condenser Tubes	" Condenser Ferrules

OTHER ARTICLES OF SPARE GEAR:—

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.

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

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ELECTRIC LIGHTING.

No. of Lamps	Time required to obtain full light	Time as in book	Time as in book	Time as in book
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Description

No. of Motors, Cylinders, with Machine

Size of Compressor

No. of Circuits

Particulars of Plants in connection with Refrigerating Plant and whether worked by the Refrigerating Machinery

or independently

States of Refrigeration

Insulation

Are there any other Refrigerating Plants placed in or in connection with the building?

Articles of Spare Gear for Refrigerating Plant carried on board—

Are all Pipes, Air Tanks, &c., with correct and proper insulation?

Are all Rigs, Scavengers, and Air Pipes in Uninsulated Spaces properly insulated?

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

Date at last under Working Conditions

ELECTRIC LIGHTING.

Installation Fitted by

Davis Shipbuilding Repairing Co. Ltd.

No. and Description of Dynamos

1 Compound wound

Makers of Dynamos

General Electric Co.

Capacity

"

Amperes, at

Volts,

Revolts. per Min.

Current Alternating or Continuous

Single or Double Wire System

Position of Dynamos

Main Switch Board

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

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.
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1	10	100	10	1/2"	10	10	10
2	10	100	10	1/2"	10	10	10
3	10	100	10	1/2"	10	10	10
4	10	100	10	1/2"	10	10	10
5	10	100	10	1/2"	10	10	10
6	10	100	10	1/2"	10	10	10
7	10	100	10	1/2"	10	10	10
8	10	100	10	1/2"	10	10	10
9	10	100	10	1/2"	10	10	10
10	10	100	10	1/2"	10	10	10

Total No. of Lights

No. of Motors driving Fans, &c.

No. of Heaters

Current required for Motors and Heaters

Dark Rooms or Bulkheads

"

"

(8)

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

Particulars of these Circuits—	Circuit	Number of Lamps	Cable Size	Current (Amps.)	Conductivity (Ohms)	Insulation (Mils)
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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. S.W.G., Largest, No. 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 not impaired?

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

11. 9. 76

Duration of Trial

6 hours

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

Yes

It is submitted that this Report be approved.

and the same shall be the basis of the Construction of Engines and Boilers, so far as can be seen, noted and

Approved by the Committee for the



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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. *yes.*

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

Has the Installation been made in accordance with the whole system been tested?

What does the Inspection amount to?

Is the Installation complete with a View to the

Date of trial of complete installation

Have all the requirements of Section 22 been satisfactorily carried out?

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.*

Are they placed so as to be always ready for use?

Wherever a Cable is referred to in the

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

as ascertained by *us* from personal examination

What special protection is provided in the following

(1) Conductors exposed to Heat or Damage

(2) ... passing through Bulkheads

(3) ... Deck Beams or Bulkheads

Selkirk
James Watson
J. B. Henderson
Engineer Surveyor to the British Corporation for the
Survey and Registry of Shipping.

Fees—

MAIN BOILERS.

H.S. 3460 Sq. ft. : : *installing \$ 32.00*

G.S. 115 " : :

DONKEY BOILERS.

H.S. ✓ Sq. ft. : :

G.S. ✓ " : :

£ : :

ENGINES.

L.P.C. 40.9 Cub. ft. : : *installing \$ 30.00*

£ : :

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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