

No. 1809

TRANSFERRED TO:
L. R. SYSTEM

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. 2105 No. in Register Book 3457

S.S. "May" ^{now} "BALLYARDS"

Makers of Engines Ailsa Shipbuilding Co. Ltd

Works No. 139

Makers of Main Boilers Barclay Curle & Co. Ltd

Works No. A.7

Makers of Donkey Boiler

Works No.

MACHINERY.



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002051-002061-0060

No.

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. No. in Register Book

Received at Head Office 31st January 1928.

Surveyor's Report on the New Engines, Boilers, and Auxiliary
Machinery of the ~~Single Triple~~ Screw ~~Twin Quadruple~~ **Steamer**
"May"

Official No.

Port of Registry

Registered Owners

British & Continental S.S. Co.

Engines Built by

Ailsa Shipbuilding Co. Ltd

at

Troon.

Main Boilers Built by

Barclay Curle & Co. Ltd

at

Kelvinhaugh, Glasgow.

Donkey " "

at

Date of Completion

18/1/28

First Visit

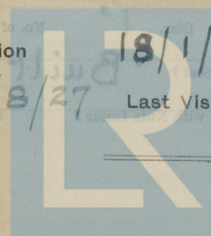
29/8/27

Last Visit

18/1/28

Total Visits

19



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RECIPROCATING ENGINES.

Works No. **139**
 vertical.

No. of Sets **One** Description **Triple expansion**

No. of Cylinders each Engine **3** No. of Cranks **3**
 Diars. of Cylinders **9½", 15½" and 26"** Stroke **18"**
 Cubic feet in each L.P. Cylinder **5.53**

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

" " each Receiver? **"**

Type of H.P. Valves,

" I.P. "

" L.P. "

" Valve Gear

" Condenser

Piston
Single-ported slide.

Stephenson's Link Motion
Surface (c.i.)

Cooling Surface **320** sq. ft.

Diameter of Piston Rods (plain part) **2¾"** Screwed part (bottom of thread) **2.53"**

Material **S.M. Steel.**

Diars. of Connecting Rods (smallest part) **2¾"** Material **S.M. Steel.**

" Crosshead Gudgeons **2¾"** Length of Bearing **2¾"** Material **"**

No. of Crosshead Bolts (each) **4** Diars. over Thrd. **1¼"** Thrds. per inch **7** Material **M. Steel**

" Crank Pin " **2** " **1½"** " **6** " **"**

" Main Bearings **6** Lengths **5½" (all)**

" Bolts in each **2** Diars. over Thread **1½"** Threads per inch **6** Material **"**

" Holding Down Bolts, each Engine **38** Diars. **1"** No. of Metal Chocks **38**

Are the Engines bolted to the Tank Top or to a Built Seat? **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 **M.W. Robertson & Coy. Ltd.**

Piston " " " " " "

Crossheads, " " " " " "

Connecting Rods, Finished by **Ailsa Shipbuilding Co., Ltd.**

Piston " " " " " "

Crossheads, " " " " " "

Date of ^{Pumping} Trial **16/1/28**

" Trial Trip **18/1/28**

Trials run at **Troon to Skelmorlie mile & Tail of the Bank.**

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

If so, what was the I.H.P.? **340** Revols. per min. **160½**

Pressure in ^{H.P.} Receiver, **175** lbs., ^{L.P.} **75½** lbs., ^{L.P.} **13½** lbs., Vacuum, **26¾** ins.

Speed on Trial **9.147** Knots.

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

data:—

Builders' estimated I.H.P. **290 (in line.)** Revols. per min. **150**

Estimated Speed **8** Knots.

H.P. cylinder tested to **270 lb/□** hydraulic pressure,
3 Oct. 1927 (JW H)

Condensers tested to **15 lb/□** hyd. press. **28 Nov. 1927** (JW H)



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TURBINE ENGINES

Works No. Type of Turbines (None.)
 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

" 1st " Wheel

Estimated Pressure per lineal inch

Diam. of 2nd Reduction Pinion

" 2nd " Wheel

Estimated Pressure per lineal inch

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

S.H.P.

If the Conditions on the above were such that full power could be obtained, the estimated

" " 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

TURBO-ELECTRIC MACHINERY DESCRIPTION OF INSTALLATION.

No. of Turbines installed in each

Type of Turbines employed

Description of Installation

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 Motors at Full Power

" " Motors

" 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.



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TURBO-ELECTRIC PROPELLING MACHINERY.

No. of Turbo-Generating Sets Capacity of each

Type of Turbines employed

Description of Generators

(None.)

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

Diar. of 1st Reduction Pinion

,, 1st ,, Wheel

Width

Pitch of Teeth

Estimated Pressure per lineal inch

Diar. of 2nd Reduction Pinion

,, 2nd ,, Wheel

Width

Pitch of Teeth

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 Gears

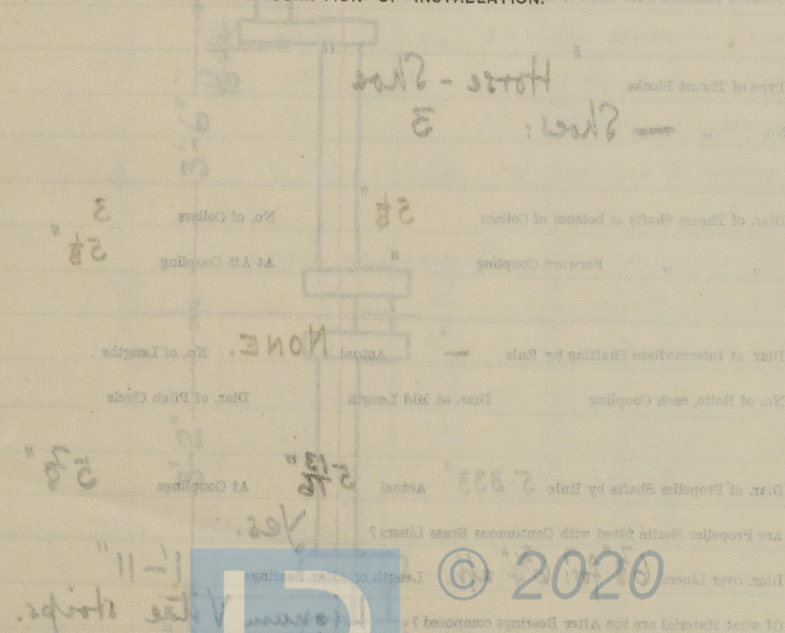
Turbine Spindles forged by

,, 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

One

Angle of Cranks

120°

Diar. by Rule

4.987"

Actual

5 1/8"

In Way of Webs

5 1/4"

" of Crank Pins

5 1/8"

Length between Webs

5 1/8"

Greatest Width of Crank Webs

9 3/4"

Thickness

3 1/4"

Least

"

"

"

"

Diar. of Keys in Crank Webs

—

Length

—

" Dowels in Crank

Webs 1"

Length

2"

Screwed or Plain

Plain.

No. of Bolts each Coupling

4

Diar. at Mid Length

1 3/8"

Diar. of Pitch Circle

9"

Greatest Distance from Edge of Main Bearing to Crank Web

Type of Thrust Blocks

" Horse - Shoe "

No.

"

Shoes:

3

Diar. of Thrust Shafts at bottom of Collars

5 1/8"

No. of Collars

3

" "

Forward Coupling

"

At Aft Coupling

5 1/8"

Diar. of Intermediate Shafting by Rule

—

Actual

NONE.

No. of Lengths

No. of Bolts, each Coupling

Diar. at Mid Length

Diar. of Pitch Circle

Diar. of Propeller Shafts by Rule

5.333"

Actual

5 13/16"

At Couplings

5 3/8"

Are Propeller Shafts fitted with Continuous Brass Liners?

Yes.

Diar. over Liners

6 3/8" for: 6 3/4" aft.

Length of After Bearings

1'-11"

Of what Material are the After Bearings composed?

Lignum Vitae strips.

Are Means provided for lubricating the After Bearings with Oil?

No.

" "

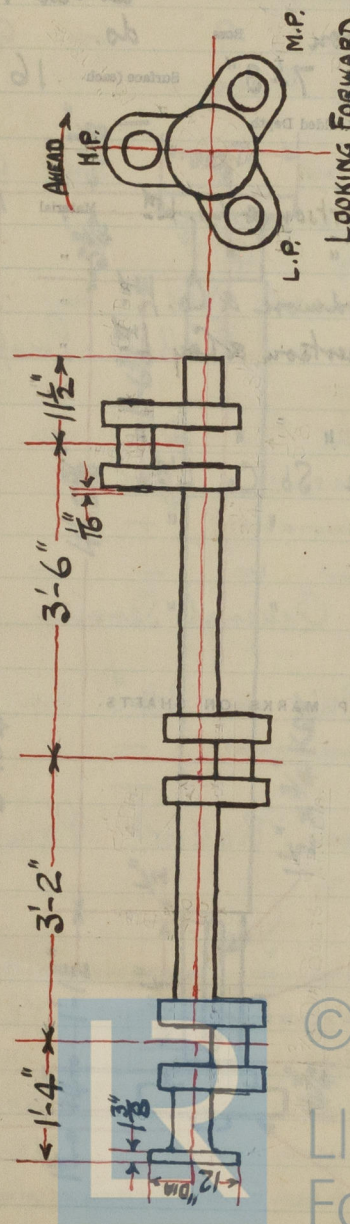
to prevent Sea Water entering the Stern Tubes?

"

If so, what Type is adopted?

—

SKETCH OF CRANK SHAFT.



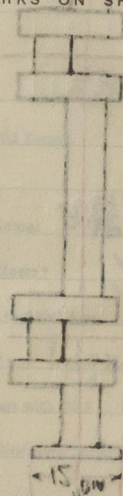
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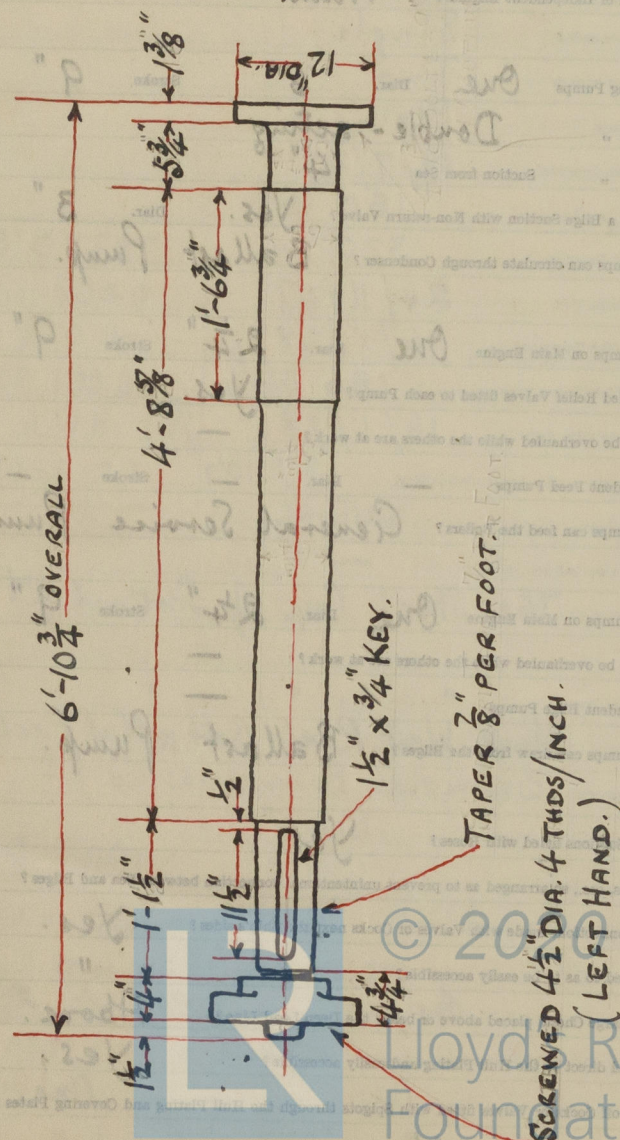
No. of Blades each Propeller **4** Fitted or Solid? **Solid.**
 Material of Blades **Cast Iron** Boss **do.**
 Diam. of Propellers **7'-0"** Pitch **7'-3"** Surface (each **16** S. ft.
 Coefficient of Displacement of Vessel at $\frac{3}{4}$ Moulded Depth

Crank Shafts Forged by **M.W. Robertson & Co. Ltd** Material **I.S.**
 " Pins " " " " " "
 " Webs " **Wm Beardmore & Co. Ltd** " " "
 Thrust Shafts " **M.W. Robertson & Coy. Ltd** " " "
 Interned. " **(none)** " " "
 Propeller " " " " " "
 Crank " Finished by **Ailsa Sb. Co. Ltd** " " "
 Thrust " " " " " "
 Interned. " **(none.)** " " "
 Propeller " " " " " "

STAMP MARKS ON SHAFTS.



SKETCH OF PROPELLER SHAFT.



PUMPS, ETC.

No. of Air Pumps *One* Diar. *9"* Stroke *9"*

Worked by Main or Independent Engines? *Main.*

No. of Circulating Pumps *One* Diar. *6"* Stroke *9"*

Type of " *Double-acting*

Diar. of " *Suction from Sea*

Has each Pump a Bilge Suction with Non-return Valve? *Yes.* Diar. *3"*

What other Pumps can circulate through Condenser? *Ballast Pump.*

No. of Feed Pumps on Main Engine *One* Diar. *2 1/4"* Stroke *9"*

Are Spring-loaded Relief Valves fitted to each Pump? *Yes.*

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

No. of Independent Feed Pumps *—* Diar. *—* Stroke *—*

What other Pumps can feed the Boilers? *General Service Pump.*

No. of Bilge Pumps on Main Engine *One* Diar. *2 1/4"* Stroke *9"*

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

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? *"*

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 *One* Type *Cylindrical Multitubular*

Single or Double ended

No. of Tubes in each

Type of Tubes

Date when last approved

Approved Working Pressure

Hydraulic Test Pressure

Date of Hydraulic Test

When Safety Valves set

Pressures at which Valves were set

Date of Examination Test

Maximum Pressure under Examination Test

System of Drafting

Can Boilers be worked separately

Material of Plates

Weight of Plates

Weight of Rivets

Process

Given and Intended Direction of Boilers

Length

Width

Thickness of Plates

Thickness of Rivets

Thickness of Flanges

Thickness of Stays

Thickness of Cocks

Thickness of Bolts

B.C. TEST
No. 5040
220 lb.
WP 180 lb.
J.W.H.
24-11-27

24/11/27
16/1/28
18/1/28
16/1/28
18/1/28
18/1/28

The Steel Coy. of Scotland Ltd.

North West River, Boat & Ship Factory Ltd.
Broomside Boiler Works Co. Ltd.

Safety valves

940 x 1/2"

Weight of plates

6.25 x 1/2"

One

"



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BOILERS.

Works No. **A.7**

No. of Boilers **One** Type **Cylindrical Multitubular**

Single or Double-ended **Single**

No. of Furnaces in each **Two**

Type of Furnaces **Plain**

Date when Plan approved **19/7/27**

Approved Working Pressure **180 lb/a"**

Hydraulic Test Pressure **320 "**

Date of Hydraulic Test **24/11/27**

" when Safety Valves set **16/1/28**

Pressure at which Valves were set **186 lb/a"**

Date of Accumulation Test **16/1/28**

Maximum Pressure under Accumulation Test **187 lb/a"**

System of Draught **Natural**

Can Boilers be worked separately? **—**

Makers of Plates **The Steel Coy. of Scotland Ltd**

" Stay Bars **" " " "**

" Rivets **North West Rivet, Bolt & Nut Factory Ltd**

" Furnaces **Broomside Boiler Works Co. Ltd**

Greatest Internal Diam. of Boilers **10'-6"**

" " Length **10'-10"**

Square Feet of Heating Surface each Boiler **940**

" " Grate **33.25**

No. of Safety Valves each Boiler **One pair** Rule Diam. **1.96"** Actual **2"**

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

No. of Pressure Gauges, each Boiler **One.** No. of Water Gauges **One.**

" Test Cocks **3** " Salinometer Cocks **"**

B.C. TEST

No. 5040

320 lb.

W.P. 180 lb.

J.W.H.



24-11-27

Safety valves:

$$940 \times \frac{1.25}{195} = 6.025 \text{ sq. in.}$$

$$\frac{6.025}{2} = 3.0125 \text{ sq. in.}$$

$$\text{equivalent diameter} = 1.957 \text{ in.}$$

Waste steam pipe:

$$6.025 \times 1.1 = 6.63 \text{ sq. in.}$$

$$\text{made } 7.068 \text{ sq. in.}$$

$$\text{equiv. dia.} = 3 \text{ in.}$$

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

Pillars.

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

Pipes.

Are these Pipes connected to Boilers by Cocks or Valves?

Cocks.

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

Valves on back end plate.

No. of Strakes of Shell Plating in each Boiler

One

Plates in each Strake

"

Thickness of Shell Plates Approved

$\frac{7}{8}$ "

" in Boilers

$\frac{29}{32}$ "

Are the Rivets Iron or Steel?

Steel

Are the Longitudinal Seams Butt or Lap Joints?

Butt

Are the Butt Straps Single or Double?

Double

Are the Double Butt Straps of equal width?

Yes.

Thickness of outside Butt Straps

$\frac{11}{16}$ "

" inside

$\frac{25}{32}$ "

Are Longitudinal Seams Hand or Machine Riveted?

Machine.

Are they Single, Double, or Treble Riveted?

Treble.

No. of Rivets in a Pitch

5

Diam. of Rivet Holes

$\frac{15}{16}$ "

Pitch

6.875"

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

Two.

Are these Seams Hand or Machine riveted?

Hand.

Diam. of Rivet Holes

$\frac{15}{16}$ "

Pitch

2.768"

No. of Rows of Rivets in Back End Circumferential Seams

Two.

Are these Seams Hand or Machine Riveted?

Machine.

Diam. of Rivet Holes

$\frac{15}{16}$ "

Pitch

2.768"

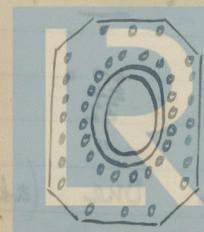
Size of Manholes in Shell

16" x 12"

Dimensions of Compensating Rings

2'-11½" x 2'-7½" x ⅞"

T&T.C.B.
No. 2040
350 lb.
W.P. 9.1
H.W. 6
25-11-25



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Thickness of End Plates in Steam Space Approved $\frac{27}{32}$ "

" " " " in Boilers "

Pitch of Steam Space Stays $15" \times 13"$

Diar. " " " " Approved $2\frac{3}{8}"$ Threads per Inch 6

" " " " in Boilers " "

Material of " " " Steel

How are Stays Secured? Nuts inside; nuts & washers outside.

Diar. and Thickness of Loose Washers on End Plates $8\frac{1}{2}" \times \frac{3}{4}"$

" " Riveted " " " "

Width " " Doubling Strips " "

Thickness of Middle Back End Plates Approved $\frac{27}{32}$ "

" " " " in Boilers "

Thickness of Doublings in Wide Spaces between Fireboxes $13\frac{1}{2}" \times 8\frac{1}{2}"$

Pitch of Stays at " " " "

Diar. of Stays Approved $1\frac{3}{4}"$ Threads per Inch 9

" " in Boilers " "

Material " Steel.

Are Stays fitted with Nuts outside? Yes.

Thickness of Back End Plates at Bottom Approved $\frac{27}{32}$ "

" " " " in Boilers "

Pitch of Stays at Wide Spaces between Fireboxes (widening.)

Thickness of Doublings in " "

Thickness of Front End Plates at Bottom Approved $\frac{27}{32}$ "

" " " " in Boilers "

No. of Longitudinal Stays in Spaces between Furnaces One, (above manhole)

Disc of Stays Approved $2\frac{3}{8}"$

" " " " in Boilers "

Thickness of Front End Plates Approved $2\frac{3}{8}"$

" " " " in Boilers "

Thickness of Stay Tubes as Space between Stays of Tubes $2\frac{3}{8}"$

Thickness of Doublings in " " " "

Stay Tubes at " " " "

are Stay Tubes fitted with Nuts at Front and at Space between Stays of Tubes $2\frac{3}{8}"$

Thickness of Back End Plates Approved $2\frac{3}{8}"$

" " " " in Boilers "

Pitch of Stay Tubes in Back End Plates $2\frac{3}{8}"$

" " " " in Boilers "

Thickness of Stay Tubes $2\frac{3}{8}"$

" " " " in Boilers "

External Diam. of Tubes $2\frac{3}{8}"$

Materials $2\frac{3}{8}"$

Thickness of Furnace Plates Approved $2\frac{3}{8}"$

" " " " in Boilers "

Doublings outside Diam. of Furnaces $2\frac{3}{8}"$

Length between Tubes $2\frac{3}{8}"$

Width of Doublings (Front to Back) $2\frac{3}{8}"$

" " " " " " " "

Pitch of Stays in C.O. Tube $2\frac{3}{8}"$



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Diar. of Stays Approved $2\frac{3}{8}"$ Threads per Inch 6

" " in Boilers "

Material "

Steel.

Thickness of Front Tube Plates Approved

$\frac{27}{32}"$

" " " in Boilers

Pitch of Stay Tubes at Spaces between Stacks of Tubes $13\frac{1}{2}"$ horizontal \times $8\frac{3}{4}"$ vertical.

Thickness of Doublings in

" " "

" Stay Tubes at

" " "

$\frac{3}{8}"$

Are Stay Tubes fitted with Nuts at Front End?

Yes, (except bottom ones)

at spaces between stacks of tubes.

Thickness of Back Tube Plates Approved

$\frac{25}{32}"$

" " " in Boilers

Pitch of Stay Tubes in Back Tube Plates

$8"$ horizontal \times $8\frac{3}{4}"$ vertical

" Plain "

$4"$ " \times $4\frac{3}{8}"$ "

Thickness of Stay Tubes

$\frac{1}{4}"$ (bottom row $\frac{5}{16}"$)

" Plain "

9 w.g.

External Diar. of Tubes

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

Material

Lapwelded Wrought Iron.

Thickness of Furnace Plates Approved

$\frac{23}{32}"$

" " " in Boilers

Smallest outside Diar. of Furnaces

$3'-3\frac{7}{8}"$

Length between Tube Plates

$6'-6"$

Width of Combustion Chambers (Front to Back)

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

Thickness of " " Tops Approved

$\frac{21}{32}"$

" " " in Boilers

$\frac{11}{16}"$

Pitch of Screwed Stays in C.O. Tops

$10" \times 7\frac{1}{2}"$ between girders.

(not marked on blue print)

(not marked on blue print.)



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Diar. of Screwed Stays Approved

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

Threads per Inch

9

" " " in Boilers

"

Material " "

Steel.

Thickness of Combustion Chamber Sides Approved

 $\frac{21}{32}"$ $\frac{11}{16}"$

" " " " in Boilers

Pitch of Screwed Stays in C.O. Sides

 $10" \times 8"$

Diar. " " Approved

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

Threads per Inch

9

" " " in Boilers

"

Material " "

Steel.

Thickness of Combustion Chamber Backs Approved

 $\frac{21}{32}"$

" " " " in Boilers

"

Pitch of Screwed Stays in C.O. Backs

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

Diar. " " Approved

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

Threads per Inch

9

" " " in Boilers

"

Material " "

Steel.

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

Yes.

Thickness of Combustion Chamber Bottoms

 $\frac{21}{32}"$

No. of Girders over each Wing Chamber

Five.

" " " Centre "

Depth and Thickness of Girders

 $7\frac{3}{4}" \times \frac{5}{8}"$ double plates.

Material of Girders

Steel.

No. of Stays in each

Two.

No. of Tubes, each Boiler

132

Size of Lower Manholes

 $15" \times 11"$

VERTICAL DONKEY BOILERS

No. of Boilers	Type
Greatest Int. Diam.	Height
Height of Boiler Crown above Fire Grate	Are Boiler Crown Plates riveted?
Internal Radius of Linked Boilers	Thickness of Plates
Description of Stays in Boiler Crown	Width of Overlap
Diam. of Rivet Holes	Height of Firebox Crown above Fire Grate
Are Firebox Crown Plates riveted?	Internal Radius of Linked Crown
No. of Crown Stays	Diam.
External Diam. of Firebox at Top	Bottom
No. of Water Tubes	Thickness
Material of Water Tubes	Size of Manhole in Shell
Thickness of Combustion Ring	Height of Combustion Ring
Height of Boiler, each Boiler	Are all Boilers

SUPERHEATERS



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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

One
 Copper
 Seamless
 3"

8 w.g.

Brazed.

11/1/28

360 lb/□"

Aux. DO. DO.

No. of Lengths
 Material
 Brazed, Welded or Seamless
 Internal Diam.
 Thickness
 How are Flanges secured?
 Date of Hydraulic Test
 Test Pressure

One
 Copper.
 Seamless
 2"

11 w.g.

Brazed.

11/1/28

360 lb/□"

MAIN FEED.

No. of Lengths
 Material
 Brazed, Welded or Seamless
 Internal Diam.
 Thickness
 How are Flanges secured?
 Date of Hydraulic Test
 Test Pressure

One
 Copper
 Seamless
 1 3/4"

10 w.g.

Brazed.

11/1/28

450 lb/□"

Aux. DO.

One.

Copper.
 Seamless.

2"

9 w.g.

Brazed.

11/1/28

450 lb/□"

LIST OF EVAPORATORS

Ballast 5 x 5 x 6
 Section from Fore & After (Ketchikan) & Separate do. Same
 Discharge to Deck, Condenser, & Board.
 - made by Thom. Lawton & Co. Ltd.

General Services

Section from Aft Peak, Sea, Boiler, Hottell.
 Discharge to Deck, Boiler, & feed, & Overboard.
 - made by Thom. Lawton & Co. Ltd.

FEED WATER FILTERS

(over)



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EVAPORATORS.

No.	Type	Makers	Tons per Day	Working Pressure	Test Pressure	Date of Test
		(None.)				

Date of Test of Safety Valves under Steam

FEED WATER HEATERS.

No.	Type	Makers	Working Pressure	Test Pressure	Date of Test
		(None.)			

FEED WATER FILTERS.

No.	Type	Makers	Working Pressure	Test Pressure	Date of Test	Size
		(None.)				

MAIN FEED.

One

Copper

Seamless

1 1/2"

10 W.P.

Brayed.

11/1/28

450 lb/sq

Aux. Do.

One.

Copper

Seamless

2"

9 W.P.

Brayed.

11/1/28

450 lb/sq

LIST OF DONKEY PUMPS.

Ballast: 5" x 5" x 6"

Suction from Fore & After Peaks, Bilge & Separate do., Sea.

Discharge to Peaks, Condenser, Overboard.

- made by Thom, Lamont & Co., Ltd.

General Service: 4 1/2" x 3" x 6"

Suction from Aft Peak, Sea, Boiler, Hotwell.

Discharge to Deck, Boilers, (aux. feed), Overboard.

- made by Thom, Lamont & Co., Ltd.

Two & three
and four
etc.



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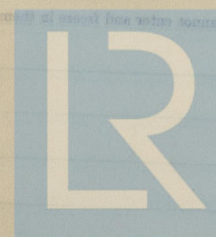
SPARE GEAR.

No. of Top End Bolts.	2	No. of Bot. End Bolts.	2	No. of Cylinder Cover Studs	6
" Coupling Bolts	4	" Main Bearing Bolts	2	" Valve Chest "	6
" Junk Ring Bolts		" Feed Pump Valves	1 set	" Bilge Pump Valves	1 set
" H.P. Piston Rings		" L.P. Piston Rings		" L.P. Piston Rings	
" " Springs		" " Springs		" " Springs	
" Safety Valve "	One	" Fire Bars	1/2 total	" Feed Check Valves	
" Piston Rods		" Connecting Rods		" Valve Spindles	
" Air Pump Rods		" Air Pump Buckets		" Air Pump Valves	1 set
" Cir. "		" Cir. "		" Cir. "	1 set
" Crank Shafts		" Crank Pin Bushes		" Crosshead Bushes	
" Propeller Shafts		" Propellers		" Propeller Blades	
" Boiler Tubes	3	" Condenser Tubes	4	" Condenser Ferrules	20

OTHER ARTICLES OF SPARE GEAR:—

Assorted bolts & nuts
 " iron bars
 " plates

REFRIGERATORS



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REFRIGERATORS.

No. of Machines

Capacity of each

Makers

Description

(None.)

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

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 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. —

Fees—

MAIN BOILERS.

MAIN BOILERS.		£	s.	d.
H.S.	Sq. ft.	5	13	0
G.S.	"	:	:	

DONKEY BOILERS.

	Sq. ft.	£	s.	d.
H.S.				
G.S.	"	:	:	

ENGINES.

	Cub. ft.	£	s.	d.
L.P.O.	12	10	0	
Testing, &c. ...		:	:	
Expenses ...		:	:	
Total ...	£	18	3	0

It is submitted that this Report be approved.

W. Foster King
Chief Surveyor.

Approved by the Committee for the Class of M.B.S.* on the 22nd February 1928

Fees advised

Fees paid



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Secretary.

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 sound as to be strong and duly assembled?

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

as ascertained by me from personal examination

"May"

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

2:18:00

12:10:00

18:3:00

It is submitted that this Report is approved

May

Harrington



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