

No. 2039

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. 1933 No. in Register Book 3256

ESTRELLA

S.S.

BARON HAIG

Makers of Engines

& Rowan & Co Ltd

Works No. 828

Makers of Main Boilers

& Rowan & Co Ltd

Works No. 828

Makers of Donkey Boiler

Works No. —

MACHINERY.



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No.

THE BRITISH CORPORATION FOR THE SURVEY
AND
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Report No. *1933* No. in Register Book *3256*

Received at Head Office *12th March 1926*

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

"BARON HAIG"

Official No.

Port of Registry

Ardrossan

Registered Owners

H. Hogarth & Sons (Managers)

Engines Built by

David Rowan & Co Ltd

at

Elliot Stn Glasgow.

Main Boilers Built by

David Rowan & Co Ltd

at

Elliot Stn Glasgow

Donkey

at

Date of Completion

27/2/26

First Visit

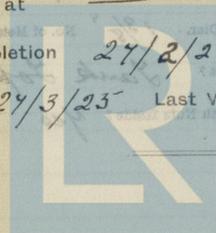
24/3/25

Last Visit

27/2/26

Total Visits

41.



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RECIPROCATING ENGINES.

Works No. 828 No. of Sets 1 Description Triple Expansion

Surface condensing, three crank steam engine

No. of Cylinders each Engine 3 No. of Cranks 3
 Diars. of Cylinders $2\frac{1}{2}$ " $3\frac{1}{2}$ " and 60" Stroke 39"
 Cubic feet in each L.P. Cylinder 63.81.
 Are Spring-loaded Relief Valves fitted to Top and Bottom of each Cylr.?
 " " " each Receiver? H.P. and L.P.
 Type of H.P. Valves, Piston - inside steam
 " 1st L.P. " Andrews and Cameron
 " 2nd L.P. " —
 " L.P. " Double-ported D slide valve
 " Valve Gear Stephenson's link motion
 " Condenser Surface Cooling Surface 1800 sq. ft.
 Diameter of Piston Rods (plain part) 6" Screwed part (bottom of thread)
 Material " M. Steel
 Diar. of Connecting Rods (smallest part) $5\frac{1}{2}$ " Material M. Steel
 " Crosshead Gudgeons $6\frac{1}{2}$ " Length of Bearing 9" Material "
 No. of Crosshead Bolts (each) 2 Diar. over Thrd. $3\frac{1}{4}$ " Thrds. per inch 4 Material Steel
 " Crank Pin " " 2 " $3\frac{1}{4}$ " " 4 " "
 " Main Bearings 6 Lengths 5 @ $1\frac{1}{2}$ " and 1 @ $1\frac{1}{4}$ "
 " Bolts in each 2 Diar. over Thread $2\frac{1}{2}$ " Threads per inch 4 Material Steel
 " Holding Down Bolts, each Engine 45 Diar. $1\frac{3}{8}$ " No. of Metal Chocks 75
 Are the Engines bolted to the Tank Top or to a Built Seat? Tank Top.
 Are the Bolts tapped through the Tank Top and fitted with Nuts Inside? Yes
 If not, how are they fitted? —

Connecting Rods, Forged by Sukhoffnungshutte Oberhausen
 Piston " " } S. Rowan & Co Ltd
 Crossheads, " " }
 Connecting Rods, Finished by S. Rowan & Co Ltd
 Piston " " "
 Crossheads, " " "
 Date of Harbour Trial 19/2/26
 " Trial Trip 24/2/26.
 Trials run at Skelmorlie
 Were the Engines tested to full power under Sea-going conditions? Yes.
 If so, what was the I.H.P.? 1484 Revols. per min. 73.
 Pressure in 1st I.P. Receiver, 42 lbs., 2nd L.P., — lbs., L.P., 12 lbs., Vacuum, 28 ins.
 Speed on Trial 11.17 max 11.6
 If the Conditions on Trial were such that full power records were not obtained, give the following estimated data:—
 Builders' estimated I.H.P. 1500 Revols. per min. 73.
 Estimated Speed " " "



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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 Stern _____

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

Is Single or Double Reduction Gear employed? _____

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 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 Turbo-Generating Sets _____ Capacity of each _____
 Type of Turbines employed _____
 Description of Generators _____

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 _____

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

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 " _____

" " Propeller 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. _____



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No. of Blades each Propeller *4* Fitted or Solid? *Solid*
 Material of Blades *Bronze* Boss *Bronze*
 Diam. of Propellers *16'-0"* Pitch *16'-0"* Surface (each) *91* S. ft.
 Coefficient of Displacement of Vessel at $\frac{1}{2}$ Moulded Depth

Crank Shafts Forged by		Material
	<i>Gutthoffnungshutte</i>	<i>I.S.</i>
" Pins "	" "	" "
" Webs "	<i>M^r Beardmore & Co Ltd</i>	" "
Thrust Shafts		
	<i>Gutthoffnungshutte</i>	" "
Intermed. "	" "	" "
Propeller "	" "	" "
Crank " Finished by		
	<i>S. Rowan & Co Ltd</i>	" "
Thrust "	" "	" "
Intermed. "	" "	" "
Propeller "	" "	" "

STAMP MARKS ON SHAFTS.

B.C. No
3267
J. W. H.
19.11.25.

1 crank shaft
1 Thrust "
5 Interim. shafts
1 Tail shaft.

SKETCH OF PROPELLER SHAFT.

Same as $\frac{1}{2}$ "BARRON GRAHAM" (No 827)



PUMPS, ETC.

No. of Air Pumps *One* Diar. *18"* Stroke *21"*
 Worked by Main or Independent Engines? *Main engines*

No. of Circulating Pumps *One* Diar. *9"* Stroke *—*
 Type of " *Centrifugal, Henry Watson & Sons Ltd*
 Diar. of " Suction from Sea *9"*

Has each Pump a Bilge Suction with Non-return Valve? *Yes* Diar. *6"*
 What other Pumps can circulate through Condenser? *Ballast.*

No. of Feed Pumps on Main Engine *2* Diar. *3 1/4"* Stroke *21"*
 Are Spring-loaded Relief Valves fitted to each Pump? *Yes*
 Can one Pump be overhauled while the others are at work? *Yes.*
 No. of Independent Feed Pumps *One* Diar. *8 1/2" x 6" x 18"* Stroke, by *Geo J. Weir*
 What other Pumps can feed the Boilers? *General Service Pump.*

No. of Bilge Pumps on Main Engine *2* Diar. *3 1/2"* Stroke *21"*
 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 (main & independent)*

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? *Below*
 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

— Ballast & bilge piping —

28/1/26:— Exd arrangement of fore and after ballast & bilge piping so far as completed.

12/2/26:— Exd above when completed.

19/2/26:— Tried hold bilges, not satisfactory.

24/2/26:— Tried hold bilges, satisfactory.

Ballast piping in tanks W.I lapwelded with lead expansion bends, secured by flat straps on angles.



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BOILERS.

Works No. **828**

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

Single or Double-ended **Single**

No. of Furnaces in each **3**

Type of Furnaces **Saughton**

Date when Plan approved **26/2/25**

Approved Working Pressure **200 lbs/p^o**

Hydraulic Test Pressure **350 lbs/p^o**

Date of Hydraulic Test **11/12/25**

„ when Safety Valves set **19/2/26**

Pressure at which Valves were set **206 lbs/p^o**

Date of Accumulation Test **19/2/26**

Maximum Pressure under Accumulation Test **206 lbs/p^o**

System of Draught **Natural**

Can Boilers be worked separately? **yes**

Makers of Plates **Fried Krupp, Essen, Germany**

„ Stay Bars **Lanarkshire Steel Co Ltd**

„ Rivets **Rivet, bolt, & nut Co Ltd**

„ Furnaces **Saughton's Patent Blue & Lule Co**

Greatest Internal Diar. of Boilers **15'-10⁹/₁₆''**

„ „ Length „ **11'-6''**

Square Feet of Heating Surface each Boiler **2563**

„ „ Grate „ „ **58.75**

No. of Safety Valves each Boiler **2** Rule Diar. **2⁷/₈ F** Actual **3¹/₄''**

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

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

„ Test Cocks „ **3** „ Salinometer Cocks **One**

B.C. No
4931
TEST 350 lbs/p^o
W.P. 200 " "
G.H.L.
11/12/25



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Thickness of End Plates in Steam Space Approved

" " " " " in Boilers

Pitch of Steam Space Stays

Diar. " " " " Approved Threads per Inch

" " " " " in Boilers

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 Threads per Inch

" " in Boilers

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

20 9/8 "BARON GRAHAM" (No 817)

Threads per Inch

Thickness of End Plates Approved

" " " " " in Boilers

Thickness of Front Tube Plates Approved

" " " " " in Boilers

Pitch of Stay Tubes at Space between Stacks 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

" " " " " Plan "

Thickness of Stay Tubes

" " " " " Plan "

External Diam. of Tubes

Material

Are Stay Tubes fitted with Nuts outside?

Thickness of Furnace Plates Approved

" " " " " in Boilers

External diam. of Tubes

Length between Stays

Width of Corners between Corners (Front to Back)

Thickness of " " " " " Tubes Approved

" " " " " Plan "

Pitch of Stayed Stays in O.G. Tubes



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Diar. of Stays Approved Threads per Inch

" " in Boilers

Material

Thickness of Front Tube Plates Approved

" " " " in Boilers

Pitch of Stay Tubes at Spaces between Stacks 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

" 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 O.O. Tops

"BARON GRAHAM" (No 824)

Threads per Inch

Diar. of Screwed Stays Approved

" " " in Boilers

Material

Thickness of Combustion Chamber Tops Approved

" " " in Boilers

Pitch of screwd stays in O.O. tops

Threads per Inch

Diar. of Stays Approved

" " " in Boilers

Material

Thickness of Combustion Chamber Tops Approved

" " " in Boilers

Pitch of screwd stays in O.O. tops

Threads per Inch

Diar. of Stays Approved

" " " in Boilers

Material

Are all screwd stays fitted with Nuts made U.S.

Thickness of Combustion Chamber Bottoms

No. of Rivets over each Wing Center

Center

Depth and Thickness of Rivets

Material of Rivets

No. of Stays in each

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Diar. of Screwed Stays Approved Threads per Inch

" " " in Boilers

Material " "

Thickness of Combustion Chamber Sides Approved

" " " " in Boilers

Pitch of Screwed Stays in C.C. Sides

Diar. " " Approved Threads per Inch

" " " in Boilers

Material " "

Thickness of Combustion Chamber Backs Approved

" " " " in Boilers

Pitch of Screwed Stays in C.C. Backs

Diar. " " Approved Threads per Inch

" " " in Boilers

Material " "

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

Thickness of Combustion Chamber Bottoms

No. of Girders over each Wing Chamber

" " " Centre "

Depth and Thickness of Girders

Material of Girders

No. of Stays in each

No. of Tubes, each Boiler

Size of Lower Manholes

as 3/8" BARRON GRAHAM " (No 827)

VERTICAL DONKEY BOILERS

No. of Boilers

Height

Height of Boiler Crown above Fire Grate

Are Boiler Crown Flat or Ribbed?

External Radius of Ribbed Boilers

Description of Forms in Boiler Crown

Diag. of Fire Hole

Height of Firebox Crown above Fire Grate

Are Firebox Crown Flat or Ribbed?

External Radius of Ribbed Crowns

No. of Crown Stays

External Dia. of Firebox as for

No. of Water Tubes

Material of Water Tubes

Size of Manhole in Shell

Dimensions of Compression Ring

Location of each Boiler

SUPERHEATERS

Description of Superheaters

When installed?

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VERTICAL DONKEY BOILERS.

No. of Boilers	Type		
Greatest Int. Diar.		Height	
Height of Boiler Crown above Fire Grate			
Are Boiler Crowns Flat or Dished?			
Internal Radius of Dished Ends		Thickness of Plates	
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?			
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	Bxt. Diar.	Thickness	
Material of Water Tubes			
Size of Manhole in Shell			
Dimensions of Compensating Ring			
Heating Surface, each Boiler		Grate Surface	

SUPERHEATERS.

Description of Superheaters

Where situated?

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

No. of Lengths

Material

Greatest Weight or Diameter

Internal Diar.

Thickness

How are Joints secured?

Date of Hydraulic Test

Test Pressure

No. of Lengths

Material

Greatest Weight or Diameter

Internal Diar.

Thickness

How are Joints secured?

Date of Hydraulic Test

Test Pressure

No. of Lengths

Material

Greatest Weight or Diameter

Internal Diar.

Thickness

How are Joints secured?

Date of Hydraulic Test

Test Pressure



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MAIN STEAM PIPES.

No. of Lengths	2		
Material	Iron		
Brazed, Welded or Seamless	Lap-welded		
Internal Diam.	4 1/2"		
Thickness	1/4"		
How are Flanges secured?	Screwed cap.		
Date of Hydraulic Test	9/2/26		
Test Pressure	600 lbs/sq"		
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			

LIST OF EVAPORATORS.

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			



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EVAPORATORS.

No. *One* Type *Copper coil heating* Tons per Day *20*
 Makers *G. & J. Weir Ltd*
 Working Pressure *25* Test Pressure *50* Date of Test *10.9.25*
 Date of Test of Safety Valves under Steam

FEED WATER HEATERS.

No. *One* Type *Direct Contact*
 Makers *G. & J. Weir Ltd*
 Working Pressure *15-20* Test Pressure *Shell 40* Date of Test *10.9.25*
Coils 400

FEED WATER FILTERS.

No. *One* Type *High Pressure* Size
 Makers *Savie & Horne Ltd*
 Working Pressure *200* Test Pressure *400* Date of Test *17.12.25*

Steering Engine

Macgregor's Port Glasgow Eng. Works Ltd.

LIST OF DONKEY PUMPS.

One Duplex Ballast pump: makers D. Rowan; 8" x 10" x 8"
 Suctions: - *Indep. bilge, main bilge, tanks, sea.*
 Discharges: - *Tanks, condenser, overboard.*

One Independent Feed: - G. & J. Weir 8 1/2" x 6" x 18"
 Suctions: - *Hotwell, heater.*
 Discharges: - *to main and aux feed.*

General Service: - Thom. Lamont & Co 8" x 5" x 8"
 Suctions: - *Sea, hotwell, ballast, boiler, float tank.*
 Discharges: - *deck, overboard, boiler (main & aux.)*

Winch Cond. pump: - Thom. Lamont, 5 1/2" x 5" x 6"
 Suctions: - *Sea.*
 Discharges: - *deck and winch condenser.*



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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	6 crank 6 tunnel	" Main Bearing Bolts	2	" Valve Chest "	6.
" Junk Ring Bolts	12 studs	" Feed Pump Valves	2	" Bilge Pump Valves	2
" H.P. Piston Rings	1	" I.P. Piston Rings	1	" L.P. Piston Rings	1
" Springs	—	" Springs	—	" Springs	—
" Safety Valve "	1	" Fire Bars	1/4 total	" Feed Check Valves	2 main 2 aux
" Piston Rods	—	" Connecting Rods	—	" Valve Spindles	—
" Air Pump Rods	—	" Air Pump Buckets	—	" Air Pump Valves	—
" Cir. "	—	" Cir. "	—	" Cir. "	—
" Crank Shafts	—	" Crank Pin Bushes	—	" Crosshead Bushes	—
" Propeller Shafts	—	" Propellers	1 spare	" Propeller Blades	—
" Boiler Tubes	—	" Condenser Tubes	—	" Condenser Ferrules	—

OTHER ARTICLES OF SPARE GEAR:—

6 holding down bolts
6 tube stoppers
Quantity of assorted bolts nuts studs plates and
round bars.

REFRIGERATORS



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REFRIGERATORS.

No. of Machines *2* Capacity of each *2*
 Makers *General*
 Description *2*
 No. of Steam Cylinders, each Machine *2* No. of Compressors *2* No. of Cranks *2*
 Particulars of Pumps in connection with Refrigerating Plant and whether worked by Refrigerating Machines
 or Independently

None fitted

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.
<i>Forward</i>	<i>21</i>	<i>20</i>	<i>7 hrs</i>	<i>0.02</i>
<i>Aft</i>	<i>26</i>	<i>20</i>	<i>7 hrs</i>	<i>0.02</i>
<i>Widlar</i>	<i>26</i>	<i>20</i>	<i>7 hrs</i>	<i>0.02</i>
<i>Navigation</i>	<i>13</i>	<i>13</i>	<i>7 hrs</i>	<i>0.02</i>
<i>Accommodation</i>	<i>30</i>	<i>20</i>	<i>7 hrs</i>	<i>0.02</i>
<i>Engine Room</i>	<i>21</i>	<i>20</i>	<i>7 hrs</i>	<i>0.02</i>

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



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No. of Dynamos
 No. of Circuits
 Description

ELECTRIC LIGHTING.

Installation Fitted by *Messrs Salford, Grier, and Mackay Ltd*
 No. and Description of Dynamos *One protected type Compound Wound.*
 Makers of Dynamos *W. H. Allen Sons & Co*
 Capacity .. *8 K.W.* Amperes, at *110* Volts. *330* Revols. per Min.
 Current Alternating or Continuous *Continuous.*
 Single or Double Wire System *Double.*
 Position of Dynamos *Starboard keelson, mid platform eng. room.*
 .. Main Switch Board *On after bulkhead near dynamo.*
 No. of Circuits to which Switches are provided on Main Switch Board *6.*
 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.
<i>Forward</i>	<i>21</i>	<i>20w</i>	<i>4</i>	<i>7/029</i>	<i>889</i>	<i>100%</i>	<i>600 m.</i>
<i>Aft.</i>	<i>36</i>	<i>20w</i>	<i>4</i>	<i>7/029</i>	<i>1556</i>	<i>100%</i>	<i>600 m.</i>
<i>Wireless</i>	<i>—</i>	<i>—</i>	<i>14</i>	<i>7/036</i>	<i>2000</i>	<i>100%</i>	<i>600 m.</i>
<i>Navigation</i>	<i>13</i>	<i>various</i>	<i>6</i>	<i>7/029</i>	<i>1333</i>	<i>100%</i>	<i>600 m.</i>
<i>Accommodation</i>	<i>38</i>	<i>20w</i>	<i>4</i>	<i>7/029</i>	<i>1556</i>	<i>100%</i>	<i>600 m.</i>
<i>Engine Room</i>	<i>21</i>	<i>20w</i>	<i>4</i>	<i>7/029</i>	<i>889</i>	<i>100%</i>	<i>600 m.</i>

Total No. of Lights *129* No. of Motors driving Fans, etc. *—* No. of Heaters *—*

Current required for Motors and Heaters *W. T. O. 14 amps.*

Positions of Auxiliary Switch Boards, with No. of Switches on each *None.*

Installation fitted by *Warranted*
 No. and Description of Dynamos *See Particulars of Equipment*
 Make of Dynamos *W. H. Allen Co. - D.C.*
 Capacity *8 K.W. 110 Volts 230 Amps per Min.*
 Current Alternating or Continuous *Continuous*
 Single or Double Wire System *Double*
 Location of Dynamos *Stair cases with platform and room*
 Main Switch Board *On open bulkhead near dynamos*
 No. of Circuits to which Switches are provided on Main Switch Board *2*

Particulars of these Circuits:—

Circuit	Number of Lights	Watts	Current in Amps	Wires of Circuit	Material
---------	------------------	-------	-----------------	------------------	----------

Are Out-outs fitted as follows?—

On Main Switch Board, to Cables of Main Circuits *Yes.*

On Aux. " " each Auxiliary Circuit *—*

Wherever a Cable is reduced in size *Yes.*

To each Lamp Circuit *Yes.*

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

Are the Fuses of Standard Sizes? *Yes.*

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

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

Smallest Single Wire used, No. $\frac{1}{16}$ S.W.G., Largest, No. $\frac{1}{16}$ S.W.G.

How are Conductors in Engine and Boiler Spaces protected? *Lead covered & armoured.*

" Saloons, State Rooms, &c., " ? *Lead covered*

What special protection is provided in the following cases?—

- (1) Conductors exposed to Heat or Damp *Lead covered & armoured.*
- (2) " " passing through Bunkers or Cargo Spaces *Armoured & in tubing where necessary.*
- (3) " " Deck Beams or Bulkheads *Briefed hole or W.T. Glond.*

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

is unimpaired? *None*

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

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? *Yes*

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

Has the Insulation Resistance over the whole system been tested? *Yes*

What does the Resistance amount to? *400*

1.4 megohms.

Ohms.

Is the Installation supplied with a Voltmeter? *Yes.*

" " " an Ampere Meter? *Yes.*

Date of Trial of complete Installation *24th Feb/26*

Duration of Trial *6 hours.*

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



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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 the condition has been satisfactorily fulfilled? *Yes.*

Has the Installation Resistance over the whole system been tested? *Yes.*

What does the Resistance amount to? *100 lbs.*

Is the Installation supplied with a Thermometer? *Yes.*

as Ampere Meter? *Yes.*

Date of trial of complete Installation *24th March 1926*

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

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. "*BARON HAIG*" *moned.*

as ascertained by ^{HS}me from personal examination *Yes, correct.*

Geo. W. Luke.

J. Wood Harrington.

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

Fees—

MAIN BOILERS.		£	s.	d.
H.S.	Sq. ft.	29	2	0
G.S.	"	:	:	
DONKEY BOILERS.				
H.S.	Sq. ft.	:	:	
G.S.	"	:	:	
ENGINES.				
L.P.C.	Cub. ft.	41	18	0
Testing, &c.		:	:	
Expenses		8	0	0
Total ...		79	0	0

It is submitted that this Report be approved,

George King
Chief Surveyor.

Approved by the Committee for the Class of M.B.S.* on the *24th March 1926*

Fees advised

Fees paid



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Secretary.

GENERAL CONSTRUCTION

MAN DOLLARS

NO. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

DOCKET NUMBER

U.S. ...

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Visits.

27/3/25

27/4/25



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