

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

S. Rowan & Co Ltd

Works No. 828

Makers of Main Boilers

S. Rowan & Co Ltd

Works No. 828

Makers of Donkey Boiler

Works No. —

MACHINERY.



© 2020

Lloyd's Register
Foundation

003649-003658-0139

No.

THE BRITISH CORPORATION FOR THE SURVEY

AND

REGISTRY OF SHIPPING.

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* Screw *STEAMSHIP*
Twin Quadruple

"*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

27/3/25

Last Visit

27/2/26

Total Visits

41

Lloyd's Register
Foundation

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 $21\frac{1}{2}$ " $35\frac{1}{2}$ " 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, *Pistons - inside steam*

" 1st I.P. " *Andrews and Cameron*

" 2nd I.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	"	Steel
----------	---	-------

Diam. of Connecting Rods (smallest part) $5\frac{1}{2}$ " Material *M. Steel*

„ Crosshead Gudgeons $6\frac{1}{2}$ " Length of Bearing 9" Material 11

No. of Crosshead Bolts (each) *2* Diar. over Thrd. *3 1/4"* Thrds. per inch *4* Material *Steel*

„ Crank Pin „ „ 2 „ $3\frac{1}{4}$ „ 4 „ „

„ Main Bearings 6 Lengths 5 @ 11 1/2" and 1 @ 11 1/4"

„ Bolts in each 2 Diam. over Thread 2 1/2" Threads per inch 4 Material Steel

„ Holding Down Bolts, each Engine 43- Diar. 13/8- No. of Metal Chocks 73-

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 *L. H. Bassett* *W. H. Bassett*

Piston	"	"	1	"	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
--------	---	---	---	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Crossheads,	No. of L.P.	No. of L.P.	No. of L.P.	No. of H.P. Turbines
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
18	18	18	18	18
19	19	19	19	19
20	20	20	20	20
21	21	21	21	21
22	22	22	22	22
23	23	23	23	23
24	24	24	24	24
25	25	25	25	25
26	26	26	26	26
27	27	27	27	27
28	28	28	28	28
29	29	29	29	29
30	30	30	30	30
31	31	31	31	31
32	32	32	32	32
33	33	33	33	33
34	34	34	34	34
35	35	35	35	35
36	36	36	36	36
37	37	37	37	37
38	38	38	38	38
39	39	39	39	39
40	40	40	40	40
41	41	41	41	41
42	42	42	42	42
43	43	43	43	43
44	44	44	44	44
45	45	45	45	45
46	46	46	46	46
47	47	47	47	47
48	48	48	48	48
49	49	49	49	49
50	50	50	50	50
51	51	51	51	51
52	52	52	52	52
53	53	53	53	53
54	54	54	54	54
55	55	55	55	55
56	56	56	56	56
57	57	57	57	57
58	58	58	58	58
59	59	59	59	59
60	60	60	60	60
61	61	61	61	61
62	62	62	62	62
63	63	63	63	63
64	64	64	64	64
65	65	65	65	65
66	66	66	66	66
67	67	67	67	67
68	68	68	68	68
69	69	69	69	69
70	70	70	70	70
71	71	71	71	71
72	72	72	72	72
73	73	73	73	73
74	74	74	74	74
75	75	75	75	75
76	76	76	76	76
77	77	77	77	77
78	78	78	78	78
79	79	79	79	79
80	80	80	80	80
81	81	81	81	81
82	82	82	82	82
83	83	83	83	83
84	84	84	84	84
85	85	85	85	85
86	86	86	86	86
87	87	87</		

Connecting Rods, Finished by *S. Rowan & Co Ltd*

Piston	"	"	"	"
--------	---	---	---	---

Crossheads, " "

Date of Harbour Trial 19/2/26

" Trial Trip 24/2/28

Trials run at *S. balsamifera*

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, 47 lbs., 2nd I.P., — lbs., L.P., 12 lbs., Vacuum, 28 in.

Speed on Trial **11.74**

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

data:—

Builders' estimated I.H.P. *15.70* Revols. per min. *43*

Estimated Speed	at	base	at	at
-----------------	----	------	----	----

© 2020

Lloyd's Register
Foundation

No. of Turbo-Generating Sets	Capacity of each
1	1000
2	1000
3	1000
4	1000
5	1000
6	1000
7	1000
8	1000
9	1000
10	1000
11	1000
12	1000
13	1000
14	1000
15	1000
16	1000
17	1000
18	1000
19	1000
20	1000
21	1000
22	1000
23	1000
24	1000
25	1000
26	1000
27	1000
28	1000
29	1000
30	1000
31	1000
32	1000
33	1000
34	1000
35	1000
36	1000
37	1000
38	1000
39	1000
40	1000
41	1000
42	1000
43	1000
44	1000
45	1000
46	1000
47	1000
48	1000
49	1000
50	1000
51	1000
52	1000
53	1000
54	1000
55	1000
56	1000
57	1000
58	1000
59	1000
60	1000
61	1000
62	1000
63	1000
64	1000
65	1000
66	1000
67	1000
68	1000
69	1000
70	1000
71	1000
72	1000
73	1000
74	1000
75	1000
76	1000
77	1000
78	1000
79	1000
80	1000
81	1000
82	1000
83	1000
84	1000
85	1000
86	1000
87	1000
88	1000
89	1000
90	1000
91	1000
92	1000
93	1000
94	1000
95	1000
96	1000
97	1000
98	1000
99	1000
100	1000

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

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

Estimated Pressure per lineal inch

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

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

32 Trial Trip

Trials run at

Speed on Trial	Knots.	Propeller Revols. per min.	S.H.P.
10	10.0	1,200	1,200
12	12.0	1,440	1,728
14	14.0	1,680	2,419
16	16.0	1,920	3,312
18	18.0	2,160	4,407
20	20.0	2,400	5,704
22	22.0	2,640	7,203
24	24.0	2,880	8,904
26	26.0	3,120	10,807
28	28.0	3,360	12,912
30	30.0	3,600	15,219
32	32.0	3,840	17,728
34	34.0	4,080	20,439
36	36.0	4,320	23,352
38	38.0	4,560	26,467
40	40.0	4,800	29,784
42	42.0	5,040	33,303
44	44.0	5,280	37,024
46	46.0	5,520	40,947
48	48.0	5,760	45,072
50	50.0	6,000	49,400
52	52.0	6,240	53,931
54	54.0	6,480	58,666
56	56.0	6,720	63,606
58	58.0	6,960	68,751
60	60.0	7,200	74,101
62	62.0	7,440	79,656
64	64.0	7,680	85,417
66	66.0	7,920	91,384
68	68.0	8,160	97,557
70	70.0	8,400	103,936
72	72.0	8,640	110,521
74	74.0	8,880	117,312
76	76.0	9,120	124,309
78	78.0	9,360	131,513
80	80.0	9,600	138,924
82	82.0	9,840	146,542
84	84.0	10,080	154,367
86	86.0	10,320	162,400
88	88.0	10,560	170,641
90	90.0	10,800	179,090
92	92.0	11,040	187,747
94	94.0	11,280	196,613
96	96.0	11,520	205,688
98	98.0	11,760	214,973
100	100.0	12,000	224,468

Generators

Meters

29 Reduction Gear

Turbine Spindles forged by

Wheels forged or cast by

Reduction Gear Shafts forged by

Wheels forged or cast by

DESCRIPTION OF INSTALLATION.

© 2020

Lloyd's Register
Foundation

SHAFTING.

SKETCH OF CRANK SHAFT.

Are the Crank Shafts Built or Solid?

Built

No. of Lengths in each

3

Angle of Cranks

120°

Diar. by Rule *11.56"*

Actual

11.625"

In Way of Webs

11 7/8"

" of Crank Pins

11.625"

Length between Webs

12"

Greatest Width of Crank Webs

22 1/2"

Thickness

4 1/4"

Least

"

"

14 1/2"

"

"

"

Diar. of Keys in Crank Webs

2"

Length

5"

" Dowels in Crank Pins

1"

Length

2 1/2"

Screwed or Plain

Plain

No. of Bolts each Coupling

6

Diar. at Mid Length

2 7/8"

Diar. of Pitch Circle

17 1/2"

Greatest Distance from Edge of Main Bearing to Crank Web

1/4"

Type of Thrust Blocks

Horse shoe

No.

"

Rings

4

Diar. of Thrust Shafts at bottom of Collars

11 7/8"

No. of Collars

4

"

"

Forward Coupling

11 7/8"

At Aft Coupling

11 7/8"

Diar. of Intermediate Shafting by Rule *11.008"*

Actual

11.125"

No. of Lengths

5

No. of Bolts, each Coupling

6

Diar. at Mid Length

2 7/8"

Diar. of Pitch Circle

14 1/2"

Diar. of Propeller Shafts by Rule *12.34*

Actual

13.5 F.

At Couplings

11 7/8"

Are Propeller Shafts fitted with Continuous Brass Liners?

Yes.

Diar. over Liners

14 1/16"

Length of After Bearings

5'-6"

Of what Material are the After Bearings composed?

Lignum Vitae

Are Means provided for lubricating the After Bearings with Oil?

No

"

"

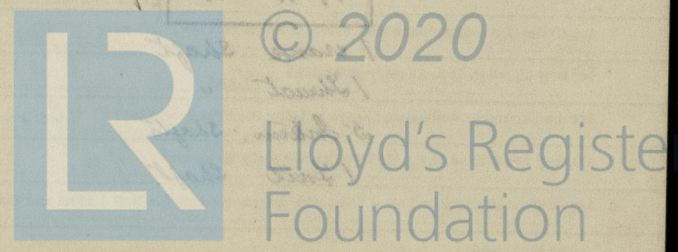
to prevent Sea Water entering the Stern Tubes?

"

If so, what Type is adopted?

Sea-water lubrication.

Same as 9/6 BARON CARNEGIE (Bourne No 815)



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 *Gutchoffnungshutte* Material *I. S.*
 " Pins " " " "
 " Webs " *Mr Beardmore & Co Ltd* " "
 Thrust Shafts " *Gutchoffnungshutte* " "
 Interned. " " " " "
 Propeller " " " " "
 Crank " Finished by *S. Rowan & Co Ltd*
 Thrust " " " "
 Interned. " " " "
 Propeller " " " "

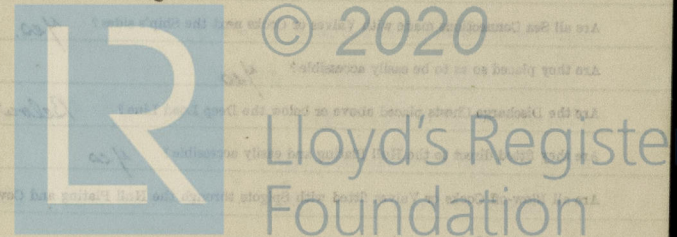
STAMP MARKS ON SHAFTS.

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

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

SKETCH OF PROPELLER SHAFT.

Same as *1/2* "BARN GRAHAM" (No 822)



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 *0"*

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 —

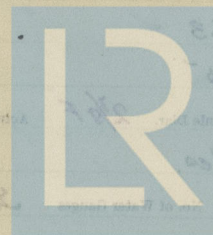
28/1/26:— Exd arrangement of fore and after ballast & bilge piping so far as completed.

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.



© 2020

Lloyd's Register
Foundation

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 **Brighton**

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

Approved Working Pressure **200 lbs/p"**

Hydraulic Test Pressure **350 lbs/p"**

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

" when Safety Valves set **19/2/26**

Pressure at which Valves were set **206 lbs/p"**

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

Maximum Pressure under Accumulation Test **206 lbs/p"**

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 **Brighton's Patent & Lule Co**

Greatest Internal Diam. of Boilers **15'-10 3/16"**

" " Length " **11'-6"**

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

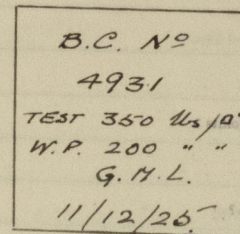
" " Grate " " **58.75**

No. of Safety Valves each Boiler **2** Rule Diam. **2 7/8 F** Actual **3 1/4"**

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**



© 2020

Lloyd's Register
Foundation

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?

Direct

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

Scantlings as per "BARON GRAHAM" (No 821)



© 2020

Lloyd's Register
Foundation

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

"BARON GRAHAM" (No 817)

20 9/16



© 2020

Lloyd's Register
Foundation

Diam. 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 Diam. of Tubes

Material

Thickness of Furnace Plates Approved

" " " in Boilers

Smallest outside Diam. 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) 20 5/8

Threads per Inch

Diam. of Screwed Stays Approved

" " " in Boilers

Material

Thickness of Combustion Chamber Walls Approved

" " " in Boilers

Pitch of screw stays in O.O. tops

Threads per Inch

Diam. of screw stays in O.O. tops

" " " in Boilers

Material

Thickness of Combustion Chamber Walls Approved

" " " in Boilers

Pitch of screw stays in O.O. tops

Threads per Inch

Diam. of screw stays in O.O. tops

" " " in Boilers

Material

Are all screw stays fitted with nuts made U.O.

Thickness of Combustion Chamber Walls

No. of stays over each Wing Chamber

Centre

© 2020



Lloyd's Register
Foundation

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 9/8 "BARON GRAHAM" (No 820)

VERTICAL DONKEY BOILERS

No. of Boilers

Height of Boilers

Height of Boilers above the Grate

Are Boilers Crowned Flat or Rished?

Internal Radius of Rished Boilers

Description of Stays in Boiler Crown

Diar. of Stays

Height of Rished Crown above the Grate

Are Rished Crown Flats or Rished?

External Radius of Rished Crown

No. of Crown Stays

External Diar. of Rished as for

No. of Water Tubes

Material of Water Tubes

Size of Manhole in Shell

Dimensions of Combustion Flue

Heating surface each Boiler

SUPERHEATERS

Description of Superheaters

When installed

Which Boiler are connected

One Superheater per set of water heaters

No. of Water Tubes in each Superheater

Date of Installation

Date when built



© 2020

Lloyd's Register
Foundation

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	Ext. 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



© 2020

Lloyd's Register
Foundation

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*
Coil 400 Date of Test *10.9.25*

FEED WATER FILTERS.

No. *One* Type *High Pressure* Size
 Makers *Lavie & 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.



© 2020

Lloyd's Register
Foundation

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



© 2020

Lloyd's Register
Foundation

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.
Forward	21	22	7	100
Aft	26	27	7	100
Midships	—	—	—	—
Navigation	13	14	7	100
Accommodation	38	39	7	100
Engine Room	81	82	7	100

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



© 2020

Lloyd's Register
Foundation

ELECTRIC LIGHTING.

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

No. of Dynamos
 No. of Circuits
 Description

ELECTRIC LIGHTING.

Installation Fitted by *Messrs Selford, Brier, 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 dynamos.*
 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>7</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>7</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 Messrs. J. & W. ...
No. and Description of Dynamos ...
Capacity ...
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:

Location	Number of Lamps	Power Watts	Notes
Engine Room	12	200	Lead covered
Saloon	24	400	Lead covered
Stateroom	12	200	Lead covered
Galley	12	200	Lead covered
Deck	12	200	Lead covered

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. gland.*

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.*



© 2020

Lloyd's Register
Foundation

GENERAL CONSTRUCTION

Have the Machinery and Bollers 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? *Yes.*

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

Has the Installation been supplied with a Voltmeter? *Yes.*

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

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

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

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

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

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

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

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

Are the Materials used in the Construction of Engines and Bollers, so far as could be seen, sound and

trustworthy? *Yes.*

Is the Workmanship throughout thoroughly satisfactory? *Yes.*

Is the Workmanship throughout thoroughly satisfactory? *Yes.*

Is the Workmanship throughout thoroughly satisfactory? *Yes.*

The above correctly describes the Machinery of the S.S. "BARON HAIG" *imposed.*

as ascertained by ^{me} from personal examination

What special test or tests is provided in the following cases?

(1) Construction exposed to Heat or Frost

(2) Construction exposed to Frost or Heat

(3) Construction exposed to Frost or Heat

Geo. M. 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.

	£	s.	d.
H.S.	Sq. ft.	:	:
G.S.	"	:	:

ENGINES.

	£	s.	d.
L.P.C.	Cub. ft.	:	:
		:	:

Testing, &c. : :

Expenses *E.L.* 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



© 2020

Lloyd's Register
Foundation
Secretary.

GENERAL CONSTRUCTION

MAN DONNER

ES. 10 : 2 : 22

ES. 10 : 2 : 22

ES. 10 : 2 : 22

ES. 10 : 2 : 22

ES. 10 : 2 : 22

ES. 10 : 2 : 22

ES. 10 : 2 : 22

ES. 10 : 2 : 22

ES. 10 : 2 : 22

ES. 10 : 2 : 22

ES. 10 : 2 : 22

It is submitted that this Report be approved.

John T. ...

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

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

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

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

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

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

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

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

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

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

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

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

Visits.

27/3/25

27/4/25



© 2020

Lloyd's Register
Foundation

July
1897/1898
1898/1899



© 2020

Lloyd's Register
Foundation



© 2020

Lloyd's Register
Foundation



© 2020

Lloyd's Register
Foundation