

Date of writing Report 14th Oct 1920 When handed in at Local Office 23. 10. 20 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 19th May 1920 Last Survey 18th Oct 1920
 Reg. Book. on the Books to "B135" for S.S. CLARA MONKS. (Number of Visits 10.) Gross 577
 Tons { Net 232
 Master Built at Ayr By whom built Ailsa S.B. Co. Ltd 375 When built 1920
 Engines made at Luton By whom made Ailsa S.B. Co. Ltd Engs to 110 When made 1920
 Boilers made at Glasgow By whom made Burns & Mather Jackson. B135 When made 1920
 Registered Horse Power Owners Jas H. Monks (Preston) Ltd Port belonging to Liverpool.

-Manufacturers of Steel, D. Colville & Sons, Spencer House

(Letter for record)	Total Heating Surface of Boilers	Is forced draft fitted	No. and Description of
Boilers 1 Single ended multitubular	1872 # Working Pressure 180	Tested by hydraulic pressure to 360 lbs	Date of test 18-10-20

No. of Certificate	Can each boiler be worked separately	Area of fire grate in each boiler	No. and Description of
15541		56.5 #	

safety valves to each boiler _____ Area of each valve _____ Pressure to which they are adjusted _____

Are they fitted with easing gear In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Smallest distance between boilers or uptakes and bunkers or woodwork Min dia. of boilers 14-3 ✓ Length 10-6 ✓

Material of shell plates *S* ✓ Thickness *15/32"* Range of tensile strength *28/32* *lbs* ✓ Are the shell plates welded or flanged *No* ✓

Descrip. of riveting: cir. seams *L.D.R* long. seams *T.R. D.S.* Diameter of rivet holes in long. seams $1\frac{3}{16}$ Pitch of rivets $8\frac{1}{16}$

~~Imp. plates~~ width of butt straps 18" ✓ Per centages of strength of longitudinal joint rivets 85.5
plate 85.6 Working pressure of shell by

rules	Size of manhole in shell	Size of compensating ring	No. and Description of Furnaces in each
181 lbs	16" x 12"	36 1/4" x 30 1/4"	

boiler 3 Corrugated Material S ✓ Outside diameter 45" ✓ Length of plain part top ✓ Thickness of plates crown } 1 1/2" bottom ✓ bottom } 3/32"

Description of longitudinal joint *weld* No. of strengthening rings *none* Working pressure of furnace by the rules *162* Combustion chamber *8'8" x 8'8"*

plates: Material *S* ✓ Thickness: Sides $\frac{5}{8}$ " ✓ Back $\frac{5}{8}$ " Top $\frac{5}{8}$ " ✓ Bottom $\frac{26}{32}$ " ✓ Pitch of stays to ditto: Sides $9 \times 7\frac{1}{16}$ Back $8\frac{3}{4} \times 8\frac{1}{2}$

Top $9\frac{1}{4} \times 7\frac{3}{8}$ " If stays are fitted with nuts or riveted heads nuts Working pressure by rules 184 Material of stays S Area at

smallest part 1/4" x 23" Area supported by each stay 727 Working pressure by rules 186 End plates in steam space: Material 8 Thickness 1/32

Pitch of stays $20 \times 17 \frac{3}{8}$ How are stays secured *D. huts* Working pressure by rules 208 Material of stays S Area at smallest part 6.09

Area supported by each stay 343 Working pressure by rules 182 Material of Front plates at bottom ✓ Thickness 1/2" Material of 1/2"

Lower back plate S Thickness $\frac{29}{32}$ " Greatest pitch of stays $14\frac{3}{4} \times 8\frac{5}{8}$ " Working pressure of plate by rules 194 Diameter of tubes $3\frac{1}{2}$ "

Pitch of tubes $4\frac{3}{4} \times 4\frac{5}{8}$ Material of tube plates S Thickness: Front $1\frac{1}{32}$ Back $27/32$ Mean pitch of stays $12\frac{9}{12}$ Pitch across wide

water spaces 14 1/2" Working pressures by rules 181 Girders to Chamber tops: Material Iron ✓ Depth and thickness of

girder at centre 9×2 Length as per rule $33 \frac{17}{32}$ Distance apart $9 \frac{1}{4}$ Number and pitch of Stays in each $3 @ 7 \frac{1}{8}$

Working pressure by rules 182 Steam dome: description of joint to shell ✓ % of strength of joint ✓

Diameter ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes ✓

Pitch of rivets ✓ *Working pressure of shell by rules* ✓ *Crown plates* ✓ *Thickness* ✓ *How stayed* ✓

SUPERHEATER. Type ☒ Date of Approval of Plan ☒ Tested by Hydraulic Pressure to ☒

Date of Test _____ ☒ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler _____ ☒

Diameter of Safety Valve ☒ Pressure to which each is adjusted ☒ Is Lasing Gear fitted ☒

No.	Description	Manufacturers of steel
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Made at _____ By whom made _____ When made _____ Where fixed _____ ~~Working pressure~~ _____

tested by hydraulic pressure to	Date of test	No. of Certificate	Wire grate area	Description of safety valves
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No. of safety valves	Area of each	Pressure to which they are adjusted	If fitted with easing gear	If steam from main boilers can

enter the donkey boiler	Dia. of donkey boiler	Length	Material of shell plates	Thickness	Range of tensile

strength	Descrip. of riveting long. seams	Dia. of rivet holes	Whether punched or drilled	Pitch of rivets

Lap of plating	Per centage of strength of joint	Rivets Plates	Working pressure of shell by rules	Thickness of shell crown plates
12	75	12	100	1/2
14	80	14	110	5/8
16	85	16	120	3/4
18	90	18	130	7/8
20	95	20	140	1
22	100	22	150	1 1/8
24	105	24	160	1 1/4
26	110	26	170	1 1/2
28	115	28	180	1 3/4
30	120	30	190	1 7/8
32	125	32	200	2
34	130	34	210	2 1/8
36	135	36	220	2 1/4
38	140	38	230	2 1/2
40	145	40	240	2 3/4
42	150	42	250	2 7/8
44	155	44	260	3
46	160	46	270	3 1/8
48	165	48	280	3 1/4
50	170	50	290	3 1/2
52	175	52	300	3 3/4
54	180	54	310	3 7/8
56	185	56	320	4
58	190	58	330	4 1/8
60	195	60	340	4 1/4
62	200	62	350	4 1/2
64	205	64	360	4 3/4
66	210	66	370	4 7/8
68	215	68	380	5
70	220	70	390	5 1/8
72	225	72	400	5 1/4
74	230	74	410	5 1/2
76	235	76	420	5 3/4
78	240	78	430	5 7/8
80	245	80	440	6
82	250	82	450	6 1/8
84	255	84	460	6 1/4
86	260	86	470	6 1/2
88	265	88	480	6 3/4
90	270	90	490	6 7/8
92	275	92	500	7
94	280	94	510	7 1/8
96	285	96	520	7 1/4
98	290	98	530	7 1/2
100	295	100	540	7 3/4
102	300	102	550	7 7/8
104	305	104	560	8
106	310	106	570	8 1/8
108	315	108	580	8 1/4
110	320	110	590	8 1/2
112	325	112	600	8 3/4
114	330	114	610	8 7/8
116	335	116	620	9
118	340	118	630	9 1/8
120	345	120	640	9 1/4
122	350	122	650	9 1/2
124	355	124	660	9 3/4
126	360	126	670	9 7/8
128	365	128	680	10
130	370	130	690	10 1/8
132	375	132	700	10 1/4
134	380	134	710	10 1/2
136	385	136	720	10 3/4
138	390	138	730	10 7/8
140	395	140	740	11
142	400	142	750	11 1/8
144	405	144	760	11 1/4
146	410	146	770	11 1/2
148	415	148	780	11 3/4
150	420	150	790	11 7/8
152	425	152	800	12
154	430	154	810	12 1/8
156	435	156	820	12 1/4
158	440	158	830	12 1/2
160	445	160	840	12 3/4
162	450	162	850	12 7/8
164	455	164	860	1

<i>Radius of do.</i>	<i>No. of Stays to do.</i>	<i>Dia. of stays</i>	<i>Diameter of furnace Top</i>	<i>Bottom</i>	<i>Length of furnace</i>
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Thickness of furnace plates	Description of joint	Working pressure of furnace by rules	Thickness of furnace crown

plates	Radius of do.	Stayed by	Diameter of uptake	Thickness of uptake plates
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	87</	

Survey request form

Thickness of boiler tubes _____

No. 2445 attached _____

1 2 _____

WILLIAMS & JACKSON, Limited. *Manufacturers.*

James S. White, Director.

Dates of Surrender: During progress of work in shops - - 1920 May 19 Jun 4, 9, 17, 29 July 14, 27 Sep 17. Oct 6, 18.

of Survey while building	During erection on board vessel - - -	Is the approved plan of main boiler forwarded herewith	Yes
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Total No. of visits 10. Is the approved plan of main cover for the area?

003006-003012-0085



GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been built under special survey and in accordance with the Rules; the materials and workmanship are sound and good, on completion it was tested to 360 lbs per sq inch water pressure and found tight and satisfactory in all respects.

It has been securely fitted on board and tried under steam with satisfactory results.

Certificate (if required) to be sent to

22.10.20

The amount of Entry Fee .. £	6 : 5	When applied for,	25.10.20
Special	£		
Donkey Boiler Fee	£	When received,	30.10.20
Travelling Expenses (if any) £			

Committee's Minute

Assigned

J. Selles *D. C. Barr*
Engineer Surveyor to Lloyd's Register of Shipping

Glasgow 28 OCT 1920

See Spec. Rpt. 40715

