

# REPORT ON BOILERS.

No. 7464

WED. NOV. 11. 1914

Received at London Office  
Date of writing Report 7<sup>th</sup> Nov 1914 When handed in at Local Office 7<sup>th</sup> Nov 1914 Port of Belfast  
No. in Survey held at Belfast Date, First Survey 14<sup>th</sup> Oct 1913 Last Survey 5<sup>th</sup> Nov 1914  
on the S.S. Essequibo (Number of Visits 99) Tons { Gross 8464 Net 5178  
Built at Belfast By whom built Workman Clark & Co. Ltd When built 1914  
Engines made at Belfast By whom made - when made -  
Boilers made at - By whom made - when made -  
Registered Horse Power Owners Royal Mail S. P. Coy Port belonging to Belfast

MULTITUBULAR BOILERS - MAIN, AUXILIARY OR DONKEY - Manufacturers of Steel Beardmore & Co.  
Letter for record 5<sup>th</sup> Total Heating Surface of Boilers 5860 sq ft. Is forced draft fitted Yes No. and Description of  
Boilers 2 Single End Cylindrical Working Pressure 215 lbs tested by hydraulic pressure to 430 lbs Date of test 26-6-14  
No. of Certificate 463 Can each boiler be worked separately Yes Area of fire grate in each boiler 7 1/2 sq ft No. and Description of  
Safety valves to each boiler 2 - Direct Spring Area of each valve 11.04 sq Pressure to which they are adjusted 215 lbs  
Are they fitted with easing gear Yes 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 15" Mean dia. of boilers 16'-0" Length 11'-9"  
Material of shell plates Steel Thickness 1/8" Range of tensile strength 80 1/2 to 33 3/4 Tons Are the shell plates welded or flanged No  
Descrip. of riveting: cir. seams Lap B & T, long. seams B Butt & Lap Diameter of rivet holes in long. seams 1/8" Pitch of rivets 10 1/2"  
Pitch of plates or width of butt straps 23 1/2" Per centages of strength of longitudinal joint rivets 90.5 plate 84.5 Working pressure of shell by  
rules 253 lbs Size of manhole in shell 16" x 12" Size of compensating ring No. No. and Description of Furnaces in each  
Boiler 4 Morrison Material Steel Outside diameter 44 1/2" Length of plain part top 4' bottom 8' Thickness of plates crown 3/4" bottom 3/4"  
Description of longitudinal joint Weld No. of strengthening rings Working pressure of furnace by the rule 248 lbs Combustion chamber  
plates: Material Steel Thickness: Sides 3/32" Back 3/32" Top 3/32" Bottom 3/32" Pitch of stays to ditto: Sides 8 1/4 x 7 1/8 Back Various  
- 1 - 1/8 1/2 x 7 1/8 If stays are fitted with nuts or riveted heads No inside Working pressure by rules 219 lbs Material of stays Steel Diameter at  
- 1/4 - smallest part 2' 0" to 2' 6" Area supported by each stay 63' 9" Working pressure by rule 271 lbs plates in steam space: Material Steel Thickness 1/16"  
Pitch of stays 20" x 15 1/4" How are stays secured B Butts & Lap Working pressure by rule 216 lbs Material of stays Steel Diameter at smallest part 6' 0" to 23 1/2"  
Area supported by each stay 305 sq Working pressure by rules 246 lbs Material of Front plates at bottom Steel Thickness 1" Material of  
Lower back plate Steel Thickness 3/32" Greatest pitch of stays 4 1/8 x 9 1/4 Working pressure of plate by rules 227 lbs Diameter of tubes 2 1/2"  
Pitch of tubes 3 3/4 x 3 5/8 Material of tube plates Steel Thickness: Front 1/64" Back 1/16" Mean pitch of stays 7 1/2 x 7 1/4 Pitch across wide  
Water spaces 13 1/2" Working pressures by rules 219 lbs Girders to Chamber tops: Material Steel Depth and thickness of  
Order at centre 10" x (3/4 x 2) Length as per rule 33" Distance apart 8 1/2" Number and pitch of Stays in each 3 - 7 1/8"  
Working pressure by rules 224 lbs Superheater or Steam chest: how connected to boiler Can the superheater be shut off and the boiler worked  
separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet  
Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness  
If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed  
Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

The foregoing is a correct description,  
FOR WORKMAN, CLARK & CO., LIMITED.  
M H Bell Manufacturer.

14  
Dates of Survey During progress of work in shops - - -  
while During erection on board vessel - - -  
building  
See other sheet  
Is the approved plan of boiler forwarded herewith Yes  
Total No. of visits Returned 12/11/14

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

Survey Fee ... £ See other sheet When applied for 19  
Travelling Expenses (if any) £ : : When received, 19  
R. J. Beveridge  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute FRI. NOV. 20. 1914  
Assigned  
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## List of Donkey Pumps

2 New Main Feed	14" x 10 1/2" x 26"
General	11" x 7 1/2" x 12"
Ash Ejector	11" x 7 1/2" x 12"
Surf. Air	8" x 12" x 12"
Surf. Feed	8" x 5" x 15"
Sanitary	6" x 7" x 8"
Fresh Water	5" x 5" x 8"
Ballast	8" x 10" x 10"

## Spare Gear

- 2 Propeller Blades
- 1 Thomson Breakdown coupling
- 1 Piston rod complete
- 1 head eccentric rod, pulley and strap, complete
- 2 Valve spindles
- 1 Pair crank pin bushes
- 2 - top end -
- 2 - main bearing -
- 2 Sets H.P. piston rings
- 1 - H.P. M.P. M.P. 2 -
- 1 - piston valve packing rings
- 1 - blocks, rings & springs for H.P. & M.P. piston rods and valve spindle metallic packings
- 1 - blocks and springs for M.P. 2 & L.P. piston rod metallic packings
- 1 Air pump bucket rod & head valve seat
- 50 Main Condenser tubes
- 4 Safety valve springs
- 1 Centrifugal pump impeller & spindle
- 12 Barler tubes
- 2 Eccentric strap bolts & nuts
- Set fire bars, junk ring & other bolts etc.
- and all gear to Lloyd's Rules extra.

R. F. Beveridge



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