

REPORT ON BOILERS.

No. 8447
SAT. NOV. 27 1920

Date of writing Report *23rd Nov 1920* When handed in at Local Office
 No. in Survey held at *Belfast* Port of *Belfast*
 Req. Book. *S.S. Roswell* Date, First Survey *4th Sep 1914* Last Survey *19th Nov 1920*
 on the *S.S. Roswell* (Number of Visits *79*) Gross *5327*
 Master *C. Bulley* Built at *Belfast* By whom built *Harland & Wolff L^{td}* Tons } Net *3169*
 Engines made at *Belfast* By whom made *-* When built *1920*
 Boilers made at *-* By whom made *-* When made *-*
 Registered Horse Power *2* Owners *Superior Pyralis & Rennie Plate* Port belonging to *Liverpool*

MULTITUBULAR BOILERS - MAIN, AUXILIARY OR DONKEY. - Manufacturers of Steel *R. Colville & Sons L^{td}*

(Letter for record *S*) Total Heating Surface of Boilers *1432 sq ft* Is forced draft fitted *No* No. and Description of Boilers *One Single End by line* Working Pressure *120 lbs* Tested by hydraulic pressure to *240 lbs* Date of test *21-5-20*
 No. of Certificate *539* Can each boiler be worked separately *Y* Area of fire grate in each boiler *Art fuel* and Description of safety valves to each boiler *2 Direct Spring* Area of each valve *7.07 sq"* Pressure to which they are adjusted *125 lbs*
 Are they fitted with easing gear *Yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *No*
 Smallest distance between boilers or uptakes and bunkers or woodwork *About 22"* dia. of boilers *2'-6"* Length *10'-6"*
 Material of shell plates *Steel* Thickness *3/4"* Range of tensile strength *28-32 tons* Are the shell plates welded or flanged *No*
 Descrip. of riveting: cir. seams *Top & Bottom* long. seams *W Butt* Diameter of rivet holes in long. seams *15/16"* Pitch of rivets *5 3/8"*
 Top of plates or width of butt straps *14 1/2"* Per centages of strength of longitudinal joint rivets *116.6* Working pressure of shell by rules *122 lbs* Size of manhole in shell *16" x 12"* Size of compensating ring *M^o Steels* No. and Description of Furnaces in each boiler *2 Daylight* Material *Steel* Outside diameter *44 1/2"* Length of plain part top *4"* Thickness of plates crown *3 7/8"* bottom *8"* Description of longitudinal joint *Weld* No. of strengthening rings *5* Working pressure of furnace by the rules *128 lbs* combustion chamber plates: Material *Steel* Thickness: Sides *9/16"* Back *9/16"* Top *9/16"* Bottom *3/4"* Pitch of stays to ditto: Sides *10 x 8 3/4"* Back *9 3/4 x 9"*
 Top *10 x 8 3/4"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *125 lbs* Material of stay *Steel* Diameter at smallest part *1 1/8"* supported by *each stay* *87 1/2 sq"* Working pressure by rules *29 lbs* End plates in steam space: Material *Steel* Thickness *5/16"*
 Pitch of stay *17 1/2 x 19 1/2"* How are stays secured *Nuts & screwed into plates* Working pressure by rules *29 lbs* Material of stay *Steel* Diameter at smallest part *5 1/8"*
 Area supported by *each stay* *34 1/4 sq"* Working pressure by rules *153 lbs* Material of Front plates at bottom *Steel* Thickness *13/16"* Material of Lower back plate *Steel* Thickness *3/4"* Greatest pitch of stays *13 1/2"* Working pressure of plate by rules *39 lbs* Diameter of tubes *3 1/4"*
 Pitch of tubes *4 1/2 x 4 1/2"* Material of tube plate *Steel* Thickness: Front *13/16"* Back *3/4"* Mean pitch of stays *9 x 9"* Pitch across wide water spaces *14 1/2"* Working pressures by rules *125 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *6" x (8 x 2)* Length as per rule *28 1/2"* Distance apart *8 1/4"* Number and pitch of Stays in each *2-10"*
 Working pressure by rules *141 lbs* Superheater or Steam chest; how connected to boiler *Y* 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
 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 HARLAND & WOLFF Ltd.
F. Hebbbeck Manufacturer.

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

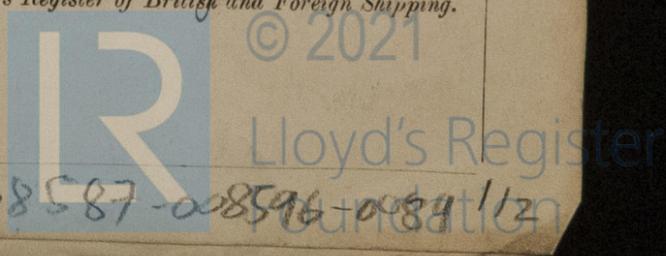
GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
See other sheet

Survey Fee ... £ : : } When applied for, 191
 Travelling Expenses (if any) £ : : } When received, 191

FRI. DEC. 3 1920

R. J. Bennett
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute
 Assigned



S.S. Roswell.

List of Pumps

1 Pair Weirs Main Feed	11 1/2" x 8" x 24"
1 Main Dual. Air, Weirs	11" x 20" x 15"
1 Ballast	10 1/2" x 14" x 24"
1 Bilge	8" x 9" x 18"
1 General	9 1/2" x 7" x 18"
1 Sanitary	6 1/2" x 6 1/2" x 15"
1 Fresh Water	4" x 4" x 5"
1 D. Boiler Feed	6 1/2" x 4 1/2" x 10"
1 Main Circulating	11" x 16" Branches x 10"
3 Forced Lubrication	6 1/2" x 6 1/2" x 15"
1 oil fuel Transfer	7" x 8" x 18"
2 - - delivery	5 1/2" x 3 1/2" x 9"

Spare Gear, (principal items).

- 1 Propeller Shaft
- 1 - - - - - blade bronze
- 1 Thomson's shaft coupling
- 1 Set coupling bolts & nuts for each size coupling used ✓
- 1 Escape valve spring each size used ✓
- 10 Condenser tubes x 50 ferrules
- 1 Whistle, each size reducing valve
- 200 fire bars, 12 boiler tubes
- 1 Valve spindle for Main boiler stop valve ✓
- 1 - - - - - Dunkey - - - ✓
- 4 Spindles for Check valves
- Circulating Pump: - Set piston rings + Impeller + Spindle
- Air Pump: - Full set valves + piston rings ✓
- Main Feed pump: - - - - - + pump rod ✓
- Ballast Pump: - Set steam & water piston rings ✓
- Bilge - - - - - + Suct & deliv valves ✓
- Sets & spare gear for all other pumps ✓
- Bolts, nuts, wire etc ✓
- All spare gear for Lubrication and Gearings, as per Rules.

R. B. Bennett