

REPORT ON BOILERS.

No. 9828

Received at London Office 30 SEP 1927

Date of writing Report *28th Sept. 1927* When handed in at Local Office *29th Sept. 1927* Port of *Belfast*
 No. in Survey held at *Belfast* Date, First Survey *5th July* Last Survey *23rd Sept. 1927*
 Reg. Book. *42165* on the *STEEL TW. SC. ORANJESTAD* (Number of Visits *8*) } Gross *2402*
 } Net *1242*
 Master *Built at Belfast* By whom built *Harland & Wolff Ltd. 809* When built *1927*
 Engines made at *Belfast* By whom made *Harland & Wolff Ltd. No 809.* When made *1927*
 Boilers made at *Belfast* By whom made *Harland & Wolff Ltd. No 809.* When made *1927*
 Registered Horse Power Owners *A. WEIR & Co.* Port belonging to *LONDON*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel P. COLVILLE & SONS LTD.

(Letter for record *S.*) Total Heating Surface of Boilers *3702 sq ft* Is forced draft fitted *No* No. and Description of Boilers *Two single-ended cylindrical* Working Pressure *180 lbs.* Tested by hydraulic pressure to *320 lbs.* Date of test *17.8.27*
 No. of Certificate *905* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *49 sq ft* No. and Description of safety valves to each boiler *Two SPRING-LOADED* Area of each valve *9.62 sq in* Pressure to which they are adjusted *180 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 *22"* Int. Mean dia. of boilers *14'-0 1/16"* Length *10'-6"*
 Material of shell plates *Steel* Thickness *1 5/32"* Range of tensile strength *28-32 tons* Are the shell plates welded or flanged *No.*
 Descrip. of riveting: cir. seams *double* long. seams *hebble d.b.s.* Diameter of rivet holes in long. seams *1 1/4"* Pitch of rivets *8 3/8"*
 Size of plates or width of butt straps *18 3/8"* Per centages of strength of longitudinal joint *97.5* Working pressure of shell by rules *180 lbs.* Size of manhole in shell *16" x 12"* Size of compensating ring *36 x 32 x 1 1/8" double* No. and Description of Furnaces in each boiler *3 normal* Material *Steel* Outside diameter *40 1/16"* Length of plain part *17'* Thickness of plates *17' 32"*
 Description of longitudinal joint *weld* No. of strengthening rings *1* Working pressure of furnace by the rules *191 lbs.* Combustion chamber plates: Material *Steel* Thickness: Sides *5/8"* Back *5/8"* Top *5/8"* Bottom *3/4"* Pitch of stays to ditto: Sides *8 1/2" x 8 1/2"* Back *9 1/4" x 7 1/2"*
 If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *187 lbs.* Material of stays *Steel* Area at smallest part *1.760 sq in* Area supported by each stay *72.25 sq in* Working pressure by rules *210 lbs.* End plates in steam space: Material *Steel* Thickness *1 1/8"*
 How are stays secured *D.n. washers* Working pressure by rules *184 lbs.* Material of stays *Steel* at smallest part *2.747 sq in*
 Area supported by each stay *295 sq in* Working pressure by rules *242 lbs.* Material of Front plates at bottom *Steel* Thickness *3/8"* Material of lower back plate *Steel* Thickness *13/16"* Greatest pitch of stays *13 1/2" x 7 1/2"* Working pressure of plate by rules *225 lbs.* Diameter of tubes *3 1/4"*
 Material of tube plates *Steel* Thickness: Front *7/8"* Back *13/16"* Mean pitch of stays *10.27"* Pitch across wide water spaces *14 1/4"* Working pressures by rules *front 188 lbs back 225 lbs.* Girders to Chamber tops: Material *Steel* Depth and thickness of order at centre *8 1/4" x 1 1/2"* Length as per rule *30 5/8"* Distance apart *8 1/8"* Number and pitch of Stays in each *Three 8"*
 Working pressure by rules *215 lbs* Steam dome: description of joint to shell % of strength of joint
 Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
 Working pressure of shell by rules Crown plates Thickness How stayed

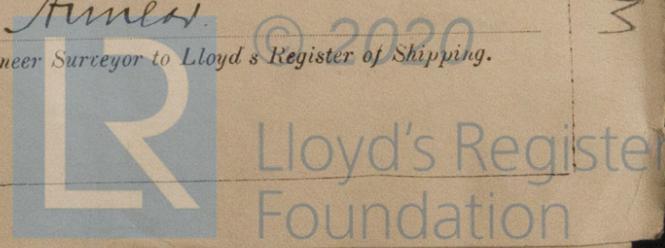
The foregoing is a correct description,
 For HARLAND AND WOLFF, LIMITED,
 78, Tottenham Court Road, London, W.1.
 Manufacturer.

PERHEATER. Type *Water Tube* Date of Approval of Plan *July 5 Aug 1-10-15-24 Sept* Tested by Hydraulic Pressure to *320 lbs.*
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Is Easing Gear fitted
 Diameter of Safety Valve Pressure to which each is adjusted

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
These boilers have been constructed under special survey. The materials and workmanship are sound and good. They have been satisfactorily tested by hydraulic pressure in accordance with the rules, efficiently installed and fastened on the vessel. The safety valves have been adjusted under steam. In my opinion the vessel is now eligible for notation L.M.C. 9.27.

Survey Fee ... £ *See Report* When applied for, ... 191
 Travelling Expenses (if any) £ *See Report* When received, ... 191

Committee's Minute *See Report attached*
 signed *R. J. Ames*
 TUES. 4 OCT 1927
 Engineer Surveyor to Lloyd's Register of Shipping.



W203-0247