

REPORT ON BOILERS.

No. 9760.

Received at London Office 25 JUN 1927

Date of writing Report 191 When handed in at Local Office 14th June 1927 Port of Belfast
 No. in Survey held at Belfast Date, First Survey 14th March Last Survey 13th June 1927
 Reg. Book. on the Tw. Sc. LAGUNILLA (Number of Visits 13) Gross Tons } Net
 Master Built at Belfast By whom built Harland & Wolff Ltd. No. 792 When built 1927
 Engines made at Belfast By whom made Harland & Wolff Ltd. No. 792 When made 1927
 Boilers made at Belfast By whom made Harland & Wolff Ltd. No. 792 When made 1927
 Registered Horse Power Owners Andrew Weir & Co. Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *D. Colville & Sons Ltd.*
 (Letter for record 5. ✓) 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 220 lbs ✓ Date of test 18.5.27
 No. of Certificate 891 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 and bunkers 22" ✓ Inter-Mean dia. of boilers 14'-0 1/16" Length 10'-6" ✓
 Material of shell plates Steel ✓ Thickness 1 3/32" Range of tensile strength 28-32 tons ✓ Are the shell plates welded or flanged No. ✓
 Descrip. of riveting: cir. seams *double* long. seams *lieble D.O.S.* Diameter of rivet holes in long. seams 1 1/4" ✓ Pitch of rivets 8 3/8" ✓
 Lap of plates or width of butt straps 18 3/8" ✓ Per centages of strength of longitudinal joint rivets 97.5 plate 85.07 ✓ Working pressure of shell by rules 180 lbs. Size of manhole in shell 16x12" ✓ Size of compensating ring 36x32x18" double No. and Description of Furnaces in each boiler *3 masonry* Material Steel ✓ Outside diameter 40 1/16" ✓ Length of plain part top bottom ✓ Thickness of plates crown bottom } 17" 32" ✓
 Description of longitudinal joint *weld* No. of strengthening rings ✓ 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 1/2 x 7 1/2" Top 8 1/2 x 8" ✓ If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules 187 lbs. Material of stays Steel ✓ Diameter at smallest part 1 7/16" 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" ✓
 Pitch of stays 17 1/2 x 20 1/2" How are stays secured *DN washers* Working pressure by rules 184 lbs Material of stays Steel ✓ Diameter at smallest part 2 7/16" Area supported by each stay 295 sq in Working pressure by rules 212 lbs Material of Front plates at bottom Steel ✓ Thickness 7/8" Material of Lower back plate Steel ✓ Thickness 1 3/16" 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" ✓
 Pitch of tubes 14 1/2 x 4 3/8" Material of tube plates Steel Thickness: Front 7/8" Back 1 1/16" 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 girder at centre 8 1/4 - 1 1/2" ✓ Length as per rule 30 5/8" ✓ Distance apart 8 8" ✓ Number and pitch of Stays in each *Three 8"* ✓
 Working pressure by rules 215 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 holes ✓ 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 HARLAND AND WOLFF LIMITED,
Salzbeck Manufacturer.

Dates of Survey } During progress of work in shops - - } 1927 Mar 14-18-24-28-31 Apr 2-27 May 2 Is the approved plan of boiler forwarded herewith Yes
 while building } During erection on board vessel - - - } 5. 11. 18. June 6. 13 Total No. of visits 13

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *The Boilers of this vessel have been constructed under special survey and to approved plans. The material and workmanship are sound and good. They were tested by hydraulic pressure with satisfactory results, efficiently installed and fastened on the vessel and the safety valves adjusted under steam.*

Survey Fee ... £ *see memo Rpt.* : When applied for, 191
 Travelling Expenses (if any) £ : : When received, 191

R. Lee Ames
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES, 28 JUN 1927
 Assigned *See Rpt. attached*

