

REPORT ON BOILERS.

Received at London Office

New No. 54399

No. 5334

WED. 1 JAN 1908

SAT. 21 MAR 1908

Date of writing Report 19 When handed in at Local Office 19 Port of *Middlesbrough*
 No. in Survey held at *Middlesbrough* Date, First Survey *August 30* Last Survey *21 Feb.* 1908
 Reg. Book. *9th Sup. on the Main Boiler No. 3190 of "Arfon" 113* (Number of Visits) Tons { Gross } Net {
 Master *Goole* Built at *Goole* By whom built *Goole S.B. Co. Ltd* When built *1908*
 Engines made at *Goole* By whom made *Ridgerwoods' No 283* when made *1908*
 Boilers made at *Middlesbrough* By whom made *Richardsons Westgarth & Co. Ltd* when made *1907-8*
 Registered Horse Power *70* Owners *Peter S. Hawling & Co. Ltd* Port belonging to *Milford*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Clyde Bridge Steel Co. Ltd*
 (Letter for record *P.*) Total Heating Surface of Boilers *1227 1/2* Is forced draft fitted *no* No. and Description of

Boilers *One Cyl. Multi Single ended Working Pressure 180 lb.* Tested by hydraulic pressure to *360 lb.* Date of test *6.12.07*
 No. of Certificate *4067* Can each boiler be worked separately *✓* Area of fire grate in each boiler *374 1/2* No. and Description of

safety valves to each boiler *two direct spring* Area of each valve *4.90* Pressure to which they are adjusted *185 lb*
 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 *9"* Mean dia. of boilers *12'-6"* Length *10'-6"*
 Material of shell plates *Steel* Thickness *1 3/4* Range of tensile strength *28/32* Are the shell plates welded or flanged *no*
 Descrip. of riveting: cir. seams *D.R.L.* long. seams *J.R.D.B.S.* Diameter of rivet holes in long. seams *1 1/16* Pitch of rivets *3 3/8* 2 rows

Lap of plates or width of butt straps *16 1/4 x 1 1/8* Per centages of strength of longitudinal joint rivets *88* Working pressure of shell by
 rules *184* Size of manhole in shell *12 x 16* Size of compensating ring *8 1/2 x 1 3/4* No. and Description of Furnaces in each
 boiler *2 plain* Material *Steel* Outside diameter *3'-6 1/4* Length of plain part *6'-3"* Thickness of plates *4 9/16*
 Description of longitudinal joint *welded* No. of strengthening rings *✓* Working pressure of furnace by the rules *183* Combustion chamber

plates: Material *Steel* Thickness: Sides *4 1/16* Back *4 1/16* Top *4 1/16* Bottom *13 1/16* Pitch of stays to ditto: Sides *9 3/4 x 9* Back *10 1/2 x 8*
 Top *9 3/4 x 9 3/4* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *181* Material of stays *Steel* Diameter at
 smallest part *2.096* Area supported by each stay *84* Working pressure by rules *186* End plates in steam space: Material *Steel* Thickness *1 3/16*

Pitch of stays *19 x 19* How are stays secured *Dr. & W.* Working pressure by rules *185* Material of stays *Steel* Diameter at smallest part *4.9*
 Area supported by each stay *272* Working pressure by rules *180* Material of Front plates at bottom *Steel* Thickness *1"* Material of

Lower back plate *Steel* Thickness *5 1/16* Greatest pitch of stays *16 1/2 x 8* Working pressure of plate by rules *182* Diameter of tubes *3 1/2*
 Pitch of tubes *5 x 5* Material of tube plates *Steel* Thickness: Front *1"* Back *3 3/4* Mean pitch of stays *10"* Pitch across wide

water spaces *14 1/2* Working pressures by rules *182* Girders to Chamber tops: Material *Steel* Depth and thickness of
 girder at centre *9 1/2 x 1 3/4* Length as per rule *2'-9"* Distance apart *9 1/4* Number and pitch of Stays in each *2 9 3/4*

Working pressure by rules *236* Superheater or Steam chest: how connected to boiler *None* 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 *RICHARDSONS, WESTGARTH & Co. Ltd* Manufacturer.

Sent with
 Is the approved plan of boiler forwarded herewith *duplicate No. 3189*
 Total No. of visits *15*

Dates of Survey During progress of 1907 Aug 30 Sept 14 Oct 4 16 21 Nov 9 14 21 Dec 9 16
 while building During erection on board vessel 1908 Feb 22 24 27 28

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built
 under Special Survey. The materials and workmanship are good
 The boiler fitted upon board tested under steam and found
 efficient.

Survey Fee ... £ *3 : 10* : } When applied for, 1908
 Travelling Expenses (if any) £ : : } When received, 10.1.1908

R.D. Shilston - Leonard Shalleross.
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute
 Assigned *Send Hull.*

1UES. 24 MAR 1908

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