

REPORT ON BOILERS.

No. 63192

TUE. OCT. 29. 1912

Received at London Office

Date of writing Report *8th Oct 1912* When handed in at Local Office *8th Oct 1912* Port of *Newcastle on Tyne*
 No. in Survey held at *S Shields* Date, First Survey *Jun 21* Last Survey *7th Oct 1912*
 Reg. Book. on the *S S R. "Robert Haste"* (Number of Visits *12*) Gross *210* Tons Net *81*
 Master *J. Hay* Built at *S Shields* By whom built *J. S. Eltringham & Co* When built *1912*
 Engines made at *S Shields* By whom made *C. J. Grey* When made *1912*
 Boilers made at *S Shields* By whom made *J. S. Eltringham & Co* (No. *1764*) When made *1912*
 Registered Horse Power Owners *R Haste & Son* Port belonging to *S Shields*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY. Manufacturers of Steel *H. Beadmore & Co Ltd*

(Letter for record *5*) Total Heating Surface of Boilers *1439 sq ft* Is forced draft fitted *No* No. and Description of Boilers *One, Single Ended* Working Pressure *180 lb* Tested by hydraulic pressure to *360 lb* Date of test *26/9/12*
 No. of Certificate *8381* Can each boiler be worked separately *Yes* Area of fire grate in each boiler No. and Description of safety valves to each boiler

Are they fitted with easing gear 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 *Inside* dia. of boilers *12-10 15/16"* Length *10-3"*

Material of shell plates *Steel* Thickness *1 1/16"* Range of tensile strength *29/33 tons* Are the shell plates welded or flanged *No*
 Descrip. of riveting: cir. seams *2 R Lap* long. seams *4 R Butt* Diameter of rivet holes in long. seams *1 1/8"* Pitch of rivets *6 5/8"*

Gap of plates or width of butt straps *17"* Per centages of strength of longitudinal joint rivets *83.4* Working pressure of shell by plate *83.0*
 rules *183 lb* Size of manhole in shell *16" x 12"* Size of compensating ring *31 x 27 x 1 1/32"* No. and Description of Furnaces in each boiler *3. Plain* Material *Steel* Outside diameter *40"* Length of plain part top *74"* Thickness of plates crown *3 1/4"* bottom *71"*

Description of longitudinal joint *Welded* No. of strengthening rings *one L* Working pressure of furnace by the rules *188* Combustion chamber plates: Material *Steel* Thickness: Sides *2 1/32"* Back *2 1/32"* Top *2 1/32"* Bottom *3/4"* Pitch of stays to ditto: Side *9 1/4" x 9 1/2"* Back *9 1/2" x 9 1/4"*

Top *10 x 9 1/4"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *184* Material of stays *Steel* Diameter at smallest part *2-3 1/4"* Area supported by each stay *97.5 sq in* Working pressure by rules *183* End plates in steam space: Material *Steel* Thickness *1 1/32"*

Pitch of stays *18 x 17 1/4"* How are stays secured *Nuts* Working pressure by rules *192* Material of stay *Steel* Diameter at smallest part *5.56 sq in*
 Area supported by each stay *311 sq in* Working pressure by rules *186* Material of Front plates at bottom *Steel* Thickness *1"* Material of

Lower back plate *Steel* Thickness *2 1/32"* Greatest pitch of stays *15 x 9 3/8"* Working pressure of plate by rules *181* Diameter of tubes *3 1/4"*
 Pitch of tubes *4 1/2"* Material of tube plate *Steel* Thickness: Front *1 1/32"* Back *1 1/32"* Mean pitch of stays *11 1/4"* Pitch across wide

water spaces *1 1/4"* Working pressures by rules *187 lb* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *8" x 1 5/16"* Length as per rule *28 1/2"* Distance apart *10"* Number and pitch of Stays in each *Two, 9 3/4"*

Working pressure by rules *184 lb* 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 Job. *J. S. ELTRINGHAM & CO.* Manufacturer. *J. Donovan*

Dates of Survey During progress of work in shops -- Jun. 21, Jul. 9, 22, 30, Aug. 2, 19, Sep. 2, 5, 6, 23, 26 Is the approved plan of boiler forwarded herewith for Agnes H. Haste
 while building During erection on board vessel --- see machinery report Total No. of visits *12* +

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under special survey, the materials & workmanship are of good quality & on completion was tested by hydraulic pressure to 360 pounds per square inch & was found tight & sound at that pressure. It is now fitted on board the Steamer Robert Haste.*

Survey Fee *£ 19 4 6* When applied for, 1912
 Travelling Expenses (if any) £ *19 4 6* When received, 1912

George Murdoch
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute *21 NOV. 1 - 1912*
 Assigned

