

Rpt. 5a.

REPORT ON BOILERS.

No. 63/92

TUE. OCT. 29. 1912

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 Shields Date, First Survey Jun. 21 Last Survey 7th Oct. 1912
Reg. Book. on the R. "Robert Hastie" (Number of Visits 12) Gross 210 Tons Net 81
Master J. Hayz Built at Shields By whom built J. Eltringham & Co When built 1912
Engines made at Shields By whom made C. J. Grey When made 1912
Boilers made at Shields By whom made J. Eltringham & Co When made 1912
Registered Horse Power Owners R. Hastie & Son Port belonging to Shields

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY. Manufacturers of Steel H. Bradmore & 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 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 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

Top of plates or width of butt straps 17 Per centages of strength of longitudinal joint rivets 83.4 Working pressure of shell by rules 183 lb

Size of manhole in shell 16" x 12" Size of compensating ring 31 x 27 x 1 3/32 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 23/32 Back 21/32 Top 23/32 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 5.560

Pitch of stays 18 1/2 How are stays secured Nuts Working pressure by rules 192 Material of stay Steel Diameter at smallest part 5.560

Area supported by each stay 311 Working pressure by rules 186 Material of Front plates at bottom Steel Thickness 1 Material of Lower back plate Steel Thickness 29/32

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 13/16 Mean pitch of stays 11 1/4 Pitch across wide water spaces 14 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 No, 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 J. Eltringham & Co., J. Donovan Manufacturer.

Is the approved plan of boiler forwarded herewith for Agnes H. Hastie

Dates of Survey During progress of work in shops -- Jun. 21, Jul. 9, 22, 30, Aug. 2, 19, Sep. 2, 5, 6, 23, 26

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 Gravel Robert Hastie.

Survey Fee ... When applied for, 191 ...

Travelling Expenses (if any) £ ... When received, 191 ...

Committee's Minute ...

Assigned ...

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

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