

REPORT ON BOILERS.

No. 58334

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Date of writing Report 18th Apr 1910 When handed in at Local Office 26 APR 1910 Port of NEWCASTLE ON TYNE.

No. in Survey held at South Shields Date, First Survey 10th Nov. 1909 Last Survey 15th April 1910
 Reg. Book. 25 Boiler of the Steam Tug "Flying Kestrel" (Number of Visits) Gross 391 Net 139
 Master Boiler of the Steam Tug "Flying Kestrel" Built at South Shields By whom built J. T. Eltringham & Co. When built 1910
 Engines made at North Shields By whom made Shields Engineering Co. Ltd. when made 1910
 Boilers made at South Shields By whom made J. T. Eltringham & Co. Ltd. when made 1910
 Registered Horse Power 108 Owners Spaniards Towing Co. Ltd. Port belonging to Liverpool

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel J. Spencer & Sons

(Letter for record S) Total Heating Surface of Boilers 1922 Is forced draft fitted No No. and Description of Boilers One single multitub. Working Pressure 120 lbs Tested by hydraulic pressure to 240 lbs Date of test 24/1/10

No. of Certificate 7927 Can each boiler be worked separately ✓ Area of fire grate in each boiler 61 No. and Description of safety valves to each boiler 2 direct spring Area of each valve 9.6 Pressure to which they are adjusted 125 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 12 1/2" Mean dia. of boilers 15'-10" Length 10'-6"

Material of shell plates steel Thickness 3/32" Range of tensile strength 28 3/4 - 32 Are the shell plates welded or flanged flanged

Descrip. of riveting: cir. seams double long. seams triple, double butt Diameter of rivet holes in long. seams 1/8" Pitch of rivets 6 3/4"

Gap of plates or width of butt straps 1 7/8" Per centages of strength of longitudinal joint rivets 90% Working pressure of shell by rules 133 lbs Size of manhole in shell 12" x 16" Size of compensating ring 7 1/2" x 3 1/2" No. and Description of Furnaces in each boiler 3 corrugated Material steel Outside diameter 50" Length of plain part top ✓ Thickness of plates crown 7/16" bottom ✓ bottom 7/16"

Description of longitudinal joint welded No. of strengthening rings ✓ Working pressure of furnace by the rules 126 lbs Combustion chamber plates: Material steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 3/4" Pitch of stays to ditto: Sides 8 3/4" x 10" Back 9 1/2" x 9 1/4"

Top 8 1/2" x 10 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 123 lbs Material of stays steel Diameter at smallest part 1 1/32" Area supported by each stay 87.5 Working pressure by rules 128 lbs End plates in steam space: Material steel Thickness 1 5/32"

Pitch of stays 21 3/4" x 23 1/4" How are stays secured nuts & washers Working pressure by rules 123 lbs Material of stays steel Diameter at smallest part 3 1/32"

Area supported by each stay 511.7 Working pressure by rules 147 lbs Material of Front plates at bottom steel Thickness 7/8" Material of Lower back plate steel Thickness 7/8" Greatest pitch of stays 15 1/4" x 9 1/4" Working pressure of plate by rules 166 lbs Diameter of tubes 3 1/2"

Pitch of tubes 4 3/4" Material of tube plates steel Thickness: Front 7/8" Back 7/16" Mean pitch of stays 11 7/8" Pitch across wide water spaces 14 1/2" Working pressures by rules 120 lbs Girders to Chamber tops: Material steel Depth and thickness of girder at centre 8" x 1 1/8" Length as per rule 36" Distance apart 10 1/2" Number and pitch of Stays in each three 8"

Working pressure by rules 124 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, J. T. Eltringham & Co. Manufacturer.

Dates of Survey 1909 During progress of work in shops: Nov. 10, 18, 24, 29, Dec. 3, 9, 21 1910 Jan 5, 12, 22, 24 Is the approved plan of boiler forwarded herewith Yes

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 constructed under special survey, the materials used are good and the workmanship is satisfactory.

Survey Fee ... £ See machinery report When applied for. 19
Travelling Expenses (if any) £ See machinery report When received. 19

Charles Cooper
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

FRI. 29 APL 1910

Assigned

See minute on first entry report

