

REPORT ON BOILERS.

No. 59872
THUR. 30 MAR 1911
MON. 6 MAR 1911

Date of writing Report 1st March 1911 When handed in at Local Office 1st March 1911 Port of Newcastle on Tyne
 No. in Survey held at S Shields Date, First Survey 26 Aug. 1910 Last Survey 19
 Reg. Book. Boiler for Smith Dock Co Ltd No 463. (Number of Visits) Gross Tons }
 Net Tons }
 Master S Shields Built at Widalebro By whom built Smith Dock Co Ltd When built 1911
 Engines made at S Shields By whom made S Shields Engineering Co Ltd when made 1911
 Boilers made at S Shields By whom made Jos. J. Eltringham & Co (Bros 1680) when made 1910
 Registered Horse Power _____ Owners _____ Port belonging to _____

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~—Manufacturers of Steel John Spencer & Sons Ltd

(Letter for record 5) Total Heating Surface of Boilers 1620 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 17/10/10
 No. of Certificate 8047 Can each boiler be worked separately ✓ Area of fire grate in each boiler 51 sq ft No. and Description of safety valves to each boiler _____ Area of each valve _____ Pressure to which they are adjusted _____
 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 13-6" Length 11-6"
 Material of shell plates Steel Thickness 1 3/32" Range of tensile strength 29/32 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 1/4" Pitch of rivets 7 3/4"
 Lap of plates or width of butt straps 17 1/2" Per centages of strength of longitudinal joint _____ rivets 86.1 Working pressure of shell by rules 83.8
 Size of manhole in shell 16" x 12" Size of compensating ring 7 1/2" x 1 3/32" No. and Description of Furnaces in each boiler Three, plain Material Steel Outside diameter 40" Length of plain part _____ top 84" Thickness of plates _____ crown 49/64" bottom 122"
 Description of longitudinal joint Butt straps No. of strengthening rings one Working pressure of furnace by the rules 182 Combustion chamber plates: Material Steel Thickness: Sides 2 1/32" Back 1/16" Top 2 1/32" Bottom 4 9/64" Pitch of stays to ditto: Sides 9 x 8 1/2" Back 9 1/4 x 9 1/4"
 Top 9 x 9" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 184 Material of stays Steel Diameter at smallest part 1 9/16" Area supported by each stay 86 sq in Working pressure by rules 208 End plates in steam space: Material Steel Thickness 1 5/32"
 Pitch of stays 19 x 18 1/2" How are stays secured D. Nuts Working pressure by rules 182 Material of stays Steel Diameter at smallest part 6.10"
 Area supported by each stay 346 sq in Working pressure by rules 183 Material of Front plates at bottom Steel Thickness 1" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 14 1/4" Working pressure of plate by rules 220 Diameter of tubes 3 1/2"
 Pitch of tubes 4 3/4" Material of tube plate Steel Thickness: Front 1" Back 27/32" Mean pitch of stays 11 7/8" Pitch across wide water spaces 14 1/2" Working pressures by rules 197 lb Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 10 1/2" x 1 1/2" Length as per rule 38" Distance apart 9" Number and pitch of Stays in each Three, 9"
 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,
Jos. J. Eltringham & Co Manufacturer.

Dates of Survey 1910
 During progress of work in shops Aug. 26. Sep. 2. 5. 14. 15. 19. 27. Oct. 3. 17. 20. 21. 24. 31 Is the approved plan of boiler forwarded herewith Yes. 2 Invoices
 while building See machy report Total No. of visits 13 + Please return plan for duplicate (boiler)

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 and on completion was tested by hydraulic pressure to 360 lb per sq inch & was found tight & sound at that pressure. It has been fitted on board Smith Dock Co Ltd No 463.

Survey Fee ... £ _____ When applied for. _____ 19 _____
 Travelling Expenses (if any) £ _____ When received. _____ 19 _____

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

Committee's Minute _____
 Assigned _____

FR 31 MAR 1911

