

REPORT ON BOILERS.

No. 61924
WED. MAR. 13. 1912

Received at London Office

Date of writing Report 21st Feb 1912 When handed in of Local Office 21st Feb 1912 Port of Newcastle on Tyne
 No. in Survey held at South Shields Date, First Survey 14th Dec 1911 Last Survey 5th March 1912
 Reg. Book. 112 on the Tug "Central. No 2." (Number of Visits) Gross 137 Net -
 Master S Shields Built at S Shields By whom built Jos. J. Eltringham & Co When built 1912
 Engines made at S Shields By whom made Baird Bros When made 1912
 Boilers made at S Shields By whom made Jos. J. Eltringham & Co When made 1912
 Registered Horse Power - Owners Great Central Railway Port belonging to Grimsby

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

(Letter for record S) Total Heating Surface of Boilers 1746 sq ft Is forced draft fitted No No. and Description of Boilers One, Single Ended Working Pressure 150 lb Tested by hydraulic pressure to 300 lb Date of test 3/2/12
 No. of Certificate 8269 Can each boiler be worked separately ✓ Area of fire grate in each boiler 50 sq ft No. and Description of safety valves to each boiler Two, spring loaded Area of each valve 5.94 sq in Pressure to which they are adjusted 155 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 1-7" Inside Mean dia. of boilers 14-0" Length 10-3"
 Material of shell plates Steel Thickness 3/32" 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 A.R Butt Diameter of rivet holes in long. seams 1/16" Pitch of rivets 6 1/4"
 Gap of plates or width of butt straps 14 7/8" Per centages of strength of longitudinal joint rivets 87 Working pressure of shell by rules 152 lb Size of manhole in shell 16" x 12" Size of compensating ring 7 1/2" x 3/32" No. and Description of Furnaces in each boiler 3. Morrison's Material Steel Outside diameter 44 1/2" Length of plain part - Thickness of plates crown 15 1/32" bottom -
 Description of longitudinal joint Welded No. of strengthening rings ✓ Working pressure of furnace by the rules 155 Combustion chamber plates: Material Steel Thickness: Sides 19/32" Back 19/32" Top 19/32" Bottom 11/16" Pitch of stays to ditto: Sides 8 1/2" x 9 1/4" Back 8 1/2" x 9 1/4" Top 9" x 9" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 150 Material of stay Steel Diameter at smallest part 1 3/8" Area supported by each stay 111 sq in Working pressure by rules 156 End plates in steam space: Material Steel Thickness 1 3/32" Pitch of stays 19 1/4" How are stays secured Nuts Working pressure by rules 163 Material of stays Steel Diameter at smallest part 5.05" Area supported by each stay 347 sq in Working pressure by rules 151 Material of Front plates at bottom Steel Thickness 29/32" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 15 1/2" x 9 1/4" Working pressure of plate by rules 162 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" Material of tube plate Steel Thickness: Front 29/32" Back 3/4" Mean pitch of stays 11 1/4" Pitch across wide water spaces 15 1/4" Working pressures by rules 154 lb Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 7" x 15/8" Length as per rule 30" Distance apart 9" Number and pitch of Stays in each Two, 9" Working pressure by rules 155 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
 Stays: Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell by rules
 Stays: Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell 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 Jos. J. Eltringham & Co. Manufacturer.
 J. Donovan General Manager

Dates of Survey: During progress of work in shops - - - 1911 Dec. 14, 15, 18, 25. 1912 Jan. 10, 15, 19, 24, 26 Feb. 3, 21. Is the approved plan of boiler forwarded herewith Yes - Innes
 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 and workmanship are of good quality and on completion was tested by hydraulic pressure to 300 pounds per square inch & found tight & sound at that pressure. It is now fitted on board Tug "Central No 2". This boiler has now been efficiently secured on board.
 Survey Fee ... £ ... When applied for, 191
 Travelling Expenses (if any) £ ... When received, 191

Committee's Minute
 Assigned
 George Spurdock
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.
 J. Hudson
 FRI. MAR. 15. 1912
 Lloyd's Register Foundation
 003895-003905-0089