

REPORT ON BOILERS.

No. 66085

MON. MAY. 18 1914

Received at London Office

Date of writing Report 14th May 1914 When handed in at Local Office 15th May 1914 Port of Newcastle on Tyne
 No. in Survey held at Newcastle Date, First Survey 17th Oct. 1913 Last Survey 6th May 1914
 Reg. Book. 138 the Donkey Boiler of S.S. Springwell (Number of Visits 33) Gross 5593 Tons Net 3552
 Master Built at Newcastle By whom built Wood Skinner & Co When built 1914
 Engines made at Newcastle By whom made N.E. Marine Eng. Co When made 1914
 Boilers made at " By whom made " When made 1914
 Registered Horse Power " Owners Well Line Co Port belonging to Newcastle

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

(Letter for record B) Total Heating Surface of Boilers 942.5 Is forced draft fitted no No. and Description of Boilers 1 Single-ended Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 4/3/14
 No. of Certificate 8624 Can each boiler be worked separately ✓ Area of fire grate in each boiler 29.5 No. and Description of safety valves to each boiler 2 direct spring Area of each valve 3.97 Pressure to which they are adjusted 180 lbs
 Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no
 Smallest distance between boilers or uptakes and bunkers or woodwork on deck Mean dia. of boilers 10'-4 1/4" Length 10'-0"
 Material of shell plates Steel Thickness 7/8" Range of tensile strength 28 3/4-32 tons Are the shell plates welded or flanged no
 Descrip. of riveting: cir. seams d. r. lap long. seams E. r. d. butt Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 7/8"
 Lap of plates or width of butt straps 1 3/4" Per centages of strength of longitudinal joint rivets 84.85 Working pressure of shell by rules 181 lbs Size of manhole in shell 16" x 12" Size of compensating ring flanged No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 36" Length of plain part top 73" Thickness of plates crown 2 3/32" bottom 80 1/2" bottom 2 3/32"
 Description of longitudinal joint welded No. of strengthening rings ✓ Working pressure of furnace by the rules 182 lbs Combustion chamber plates: Material Steel Thickness: Sides 2 3/32" Back 2 3/32" Top 2 3/32" Bottom 7/8" Pitch of stays to ditto: Sides 0 1/2" x 9 3/4" Back 8 1/4" x 7 3/4"
 Top 10 1/2" x 9 3/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 80.5 lbs Material of stays Steel Diameter at smallest part 2.03 Area supported by each stay 98 Working pressure by rules 185 lbs End plates in steam space: Material Steel Thickness 1 3/16"
 Pitch of stays 22" x 15 1/2" How are stays secured d. n. on Working pressure by rules 84.5 lbs Material of stays Steel Diameter at smallest part 5.93
 Area supported by each stay 349 Working pressure by rules 80.5 lbs Material of Front plates at bottom Steel Thickness 1" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 14 1/2" x 9 3/8" Working pressure of plate by rules 190 lbs Diameter of tubes 3 1/4"
 Pitch of tubes 4 1/2" x 4 3/8" Material of tube plates Steel Thickness: Front 1" Back 1 3/16" Mean pitch of stays 9" x 8 3/4" Pitch across wide water spaces 14 1/2" Working pressures by rules 182 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8" x 1 3/4" Length as per rule 27" Distance apart 10 1/2" Number and pitch of Stays in each 2 of 9 3/8"
 Working pressure by rules 194 lbs Superheater or Steam chest; how connected to boiler now 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,
 NORTH EASTERN MARINE ENGINEERING Co., LTD.
 Manufacturer.

G. J. Harrison
 Secretary

Is the approved plan of boiler forwarded herewith ✓
 Total No. of visits 33

Dates of Survey } During progress of work in shops -- }
 while building } During erection on board vessel -- }
See Weekly Report

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been built under special survey the materials used are good, and the workmanship is satisfactory.

Survey Fee ... £ 2.2 When applied for. See Weekly Report
 Travelling Expenses (if any) £ : : When received, 191

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

FRI. MAY. 22. 1914

Committee's Minute
 Assigned See minute on file attached

