

REPORT ON BOILERS.

No. 9918.

Received at London Office THU OCT 25 1917.

Date of writing Report 1917 When handed in at Local Office 23.10.17 1917 Port of Middlesbrough
 No. in Survey held at Stockton-on-Tees Date, First Survey 10th May/17 Last Survey 18th Oct 1917
 Reg. Book. on the Donkey Boiler for S.S. Bryntawe (Number of Visits 9) (S.S. No. 654) Gross Tons }
 Master Built at Stockton By whom built Richardson Duck & Co When built }
 Engines made at Stockton By whom made Messrs Blair & Co When made }
 Boilers made at Stockton By whom made Thos Hudson & Co Lim. (No 3676) When made 1917
 Registered Horse Power Owners Port belonging to

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

(Letter for record (A)) Total Heating Surface of Boilers 948 sq ft Is forced draft fitted no No. and Description of Boilers One single ended Working Pressure 90 Tested by hydraulic pressure to 180 Date of test 18.10.17
 No. of Certificate 5817 Can each boiler be worked separately yes Area of fire grate in each boiler 30 1/2 sq ft No. and Description of safety valves to each boiler 2 direct spring Area of each valve 7.07 Pressure to which they are adjusted 95 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 upper deck External $\text{Steam dia. of boilers } 10'-6"$ Length 10'-0"
 Material of shell plates Steel Thickness 1 1/2" Range of tensile strength 29-33 Are the shell plates welded or flanged no
 Descrip. of riveting: cir. seams S. lap long. seams S. Riv. lap Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 3 1/4"
 Lap of plates or width of butt straps 6 1/2" Per centages of strength of longitudinal joint rivets 80.9 Working pressure of shell by rules 96 Size of manhole in shell 16" x 12" Size of compensating ring 5 1/2" x 1 1/4" No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 38" Length of plain part top 78 1/2" Thickness of plates crown 2 3/8" bottom 1 1/2"
 Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 96 Combustion chamber plates: Material Steel Thickness: Sides 1 1/2" Back 1/2" Top 1 1/2" Bottom 2 1/2" Pitch of stays to ditto: Sides 9 1/2" on Back 8 1/2" x 9
 Top 8 1/2" on If stays are fitted with nuts or riveted heads nuts Working pressure by rules 98 Material of stays iron Diameter at smallest part 1.45 Area supported by each stay 76.5 Working pressure by rules 114 End plates in steam space: Material Steel Thickness 2 3/32"
 Pitch of stays 19 1/2" x 18 1/4" How are stays secured nuts & washers Working pressure by rules 99 Material of stays iron Diameter at smallest part 5.27
 Area supported by each stay 375 Working pressure by rules 103 Material of Front plates at bottom Steel Thickness 2 7/32" Material of Lower back plate Steel Thickness 2 7/32" Greatest pitch of stays 14" x 9" Working pressure of plate by rules 177 Diameter of tubes 3 1/4"
 Pitch of tubes 4 7/8" x 4 5/8" Material of tube plates Steel Thickness: Front 2 7/32" Back 1 9/32" Mean pitch of stays 11 15/32" Pitch across wide water spaces 13 3/4" Working pressures by rules 96 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 5 3/4" x 1 1/4" Length as per rule 24 7/32" Distance apart 8 1/2" Number and pitch of Stays in each on
 Working pressure by rules 104 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

SURVEY REQUEST
 NO. 2676 ATTACHED.
1183.

The foregoing is a correct description,

THOMAS HUDSON & CO. LIMITED. Manufacturer.

Dates of Survey } During progress of } 1917 May 10.17. Sep 3.21.25. Oct 4.10.17.18 Is the approved plan of boiler forwarded herewith yes
 while } work in shops - - }
 building } During erection on }
 board vessel - - }

Total No. of visits 9.

GENERAL REMARKS

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

This boiler has been built under special survey: is of good material and workmanship and on completion was tested by hydraulic pressure with satisfactory results. The boiler is to be fitted on board at this port. The boiler has now been satisfactorily secured on board, examined under steam and safety valves adjusted.

Survey Fee £ 3-0-0 When applied for Monthly A/c
 Travelling Expenses (if any) £ When received, 1917

Committee's Minute

FRI. DEC. 14 1917.

Assigned

Wm Morrison

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register
Foundation

W12-0127