

Rpt. 5a.

REPORT ON BOILERS.

No. 6820.

Received at London Office THUR. 18 MAY 1911
SAT. OCT. 7-1911

Date of writing Report 17.5.11 When handed in at Local Office 17.5.11 Port of MIDDLESBROUGH-ON-TEES

No. in Survey held at Stockton-on-Tees Date, First Survey 10th Dec. 1910 Last Survey 12th May 1911

Reg. Book. on the S. ROTHLEY, Blyth S.S. & D.D. Co's S.S. 159 (Number of Visits 17) (Gross 3942) (Net 2487) Tons

Master Built at Blyth By whom built Blyth AB Dry Sk to Fin When built 1911

Engines made at Newcastle By whom made North Eastern Marine when made 1911

Boilers made at Stockton By whom made Thomas Hudron & Co (No 2829) when made 1911

Registered Horse Power Owners Port belonging to Newcastle

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

Letter for record (5) Total Heating Surface of Boilers 820 sq ft Is forced draft fitted No. and Description of Boilers One single ended Working Pressure 120 Tested by hydraulic pressure to 240 Date of test 12.5.11

No. of Certificate 4647 Can each boiler be worked separately Yes Area of fire grate in each boiler 29 sq ft No. and Description of Safety valves to each boiler Two spring dia of each valve 2 1/2" Pressure to which they are adjusted 120 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 18" Mean dia. of boilers 10'-0" Length 10'-0"

Material of shell plates steel Thickness 2 1/2 Range of tensile strength 29-33 Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams 2 Riv lap long. seams Quad Riv lap Diameter of rivet holes in long. seams 15/16 Pitch of rivets 4 1/2"

Gap of plates or width of butt straps 9/16 Per centages of strength of longitudinal joint rivets 79.11 Working pressure of shell by rules 120 Size of manhole in shell 16" x 12" Size of compensating ring 5 1/2 x 7/8 No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 36" Length of plain part top 78 7/8 Thickness of plates crown 5/8 bottom 3 1/2

Description of longitudinal joint welded No. of strengthening rings none Working pressure of furnace by the rules 124 Combustion chamber plates: Material steel Thickness: Sides 1/2" Back 7/8" Top 1/2" Bottom 3/4" Pitch of stays to ditto: Sides 8 3/4 x 6 1/2 Back 9 1/2 x 9

Top 8 1/2 x 6 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 128 Material of stays steel Diameter at smallest part 1.36" Area supported by each stay 85.5 Working pressure by rules 136 End plates in steam space: Material steel Thickness 7/8"

Pitch of stays 17" x 16 1/2 to tubes 11 1/2 x 7 1/2 at 2 center stays (16 1/2) Working pressure by rules 120 Material of stays steel Diameter at smallest part 2.34

Area supported by each stay 326.7 Working pressure by rules 139 Material of Front plates at bottom steel Thickness 7/8 Material of lower back plate steel Thickness 7/8 Greatest pitch of stays 13 1/2 x 9 Working pressure of plate by rules 124 Diameter of tubes 3 1/4"

Pitch of tubes 4 3/4 x 4 3/8 Material of tube plates steel Thickness: Front 7/8" Back 3 1/2" Mean pitch of stays 11.3" Pitch across wide water spaces 14" Working pressures by rules 140 Girders to Chamber tops: Material steel Depth and thickness of order at centre 6" x 1 1/4" Length as per rule 25" Distance apart 8 1/2" Number and pitch of Stays in each 2 @ 6 1/2"

Working pressure by rules 122 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

Boilers Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

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,
THOMAS HUDRON & CO. LIMITED. Manufacturer.

Dates of Survey During progress of work in shops - 1910 Dec. 20, 1911 May 24, Feb. 1, 7, 9, Mar. 2, 9, 11
During erection on board vessel - Apr. 11, 19, 21, 25, May 1, 4, 5, 9, 11
See Newcastle Report 61138

Is the approved plan of boiler forwarded herewith Yes

Total No. of visits 17

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. Now fitted on board & all mountings fitted & valves adjusted.

SURVEY REQUEST NO. 328 ATTACHED MONTHLY A/c.

Survey Fee ... £ 2-15-0 When applied for, 1911

Travelling Expenses (if any) £ : : When received, 1911

Wm Morrison, J. Seller.
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute FRI. OCT. 13. 1911

Shipping Assigned

Lloyd's Register Foundation W52-0188