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REPORT ON BOILERS.

No. 27960

Received at London Office

TUE. 4 FEB. 1921

of writing Report 20-10-20 When handed in at Local Office 21-10-20 Port of Sunderland
 in Survey held at Sunderland Date, First Survey 25 Feb. 20 Last Survey 14 Oct. 1920
 Book. (Number of Visits 5) Gross Tons }
 on the Steel S.S. INSTON. Net
 Built at South Shields By whom built Messrs. G. Penfoldson & Co. (N° 185) When built 1920.
 Made at Sunderland By whom made Messrs. Macboll & Pollock, Ltd. (N° 311) when made 1920
 Made at do. By whom made do. (N° 668) when made 1920
 Registered Horse Power Owners S. Lawton & Co. Ltd. Port belonging to London

WATER TUBULAR BOILERS ~~MAIN, AUXILIARY OR~~ **DONKEY.** — Manufacturers of Steel John Spencer & Sons, Ltd.
 for record S Total Heating Surface of Boilers 874 Is forced draft fitted No No. and Description of
 ers One Single ended Working Pressure 100 Tested by hydraulic pressure to 200 Date of test 7-7-20
 of Certificate 3699 Can each boiler be worked separately ✓ Area of fire grate in each boiler 28 No. and Description of
 valves to each boiler 2 spring loaded Area of each valve 4.9 Pressure to which they are adjusted 105
 they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No
 least distance between boilers or uptakes and bunkers or woodwork 1-6 Mean dia. of boilers 11-0 Length 9-0
 Material of shell plates Steel Thickness 21 Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged No
 Grip. of riveting: cir. seams S.R. long. seams T.R. lap Diameter of rivet holes in long. seams 15 Pitch of rivets 4.153
 of plates or width of butt straps 6 3/4 Per centages of strength of longitudinal joint rivets 86.5 Working pressure of shell by
 102.2 Size of manhole in shell 16 x 12 Size of compensating ring 6" x 3" No. and Description of Furnaces in each
Two plain Material Steel Outside diameter 39 Length of plain part 5-5 Thickness of plates 17
 Description of longitudinal joint Welded No. of strengthening rings 1 Working pressure of furnace by the rules 108 Combustion chamber
 Material Steel Thickness: Sides 17 Back 17 Top 35 Bottom 3 Pitch of stays to ditto: Sides 9 3/4 x 8 1/4 Back 9 3/4 x 8 5/8
 stays are fitted with nuts or riveted heads nuts Working pressure by rules 106 Material of stays Steel Area at
 test part 1.02 Area supported by each stay 80.4 Working pressure by rules 101.4 End plates in steam space: Material Steel Thickness 3
 of stays 16 1/4 x 15 1/4 How are stays secured D.N. & W. Working pressure by rules 101.4 Material of stays Steel Area at smallest part 2.5
 supported by each stay 247.8 Working pressure by rules 105 Material of Front plates at bottom Steel Thickness 47 Material of
 or back plate Steel Thickness 5 1/8 Greatest pitch of stays 12 1/4 Working pressure of plate by rules 121 Diameter of tubes 3 1/4
 of tubes 4 1/2 x 4 7/16 Material of tube plates Steel Thickness: Front 47 Back 5 1/8 Mean pitch of stays 13 5/16 x 9 Pitch across wide
 spaces 14 1/4 Working pressures by rules 102 Girders to Chamber tops: Material Steel Depth and thickness of
 at centre 6 x 1 1/2 Length as per rule 25 1/2 Distance apart 10 1/4 Number and pitch of Stays in each 2 @ 8 1/4
 Working pressure by rules 118 Superheater or Steam chest: how connected to boiler Can the superheater be shut off and the boiler worked
 Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
 Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 fitted 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.

Ed. W. Hutter Manufacturer.
 Managing Director.

During progress of work in shops - - - 1920 Feb. 25 Apr. 27 May 21 July 7 Oct 14 Is the approved plan of boiler forwarded herewith Yes
 During erection on board vessel - - - Total No. of visits 5

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

The Materials and workmanship are good. The Boiler has been Constructed under special survey, satisfactorily fixed in the vessel, and its safety valves adjusted under steam. Thickness of adjusting washers - 5/16 each.

Survey Fee ... £ 2 : 18 : When applied for. 22 OCT 1920
 Travelling Expenses (if any) £ : : When received. as per return 19 Nov 1920

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

Committee's Minute

FRI. 11 FEB. 1921

Signed