

# REPORT ON BOILERS.

No. 52893

Received at London Office THUR. 28 NOV 1907

Date of writing Report 19 When handed in at Local Office 26 NOV 1907 Port of Newcastle on Tyne

No. in Survey held at S. Shields Date, First Survey Last Survey 19 Nov 1907

Reg. Book. on the s.s. Harport (Number of Visits) Gross 3986 Net 2503

Master J. H. Holman Built at S. Shields By whom built J. Readhead & Sons When built 1907.11

Engines made at S. Shields By whom made J. Readhead & Sons when made 1907

Boilers made at do By whom made do when made 1907

Registered Horse Power Owners J. C. Harrison Esq. Port belonging to London

## MULTITUBULAR BOILERS MAIN, AUXILIARY OR DONKEY. — Manufacturers of Steel Spycer. Newburn

(Letter for record v. ✓) Total Heating Surface of Boilers 852 sq ft Is forced draft fitted h

Boilers One cyl. built S. Lond. Working Pressure 90 lb Tested by hydraulic pressure to 180 lb Date of test 30 9 07

No. of Certificate 7602 Can each boiler be worked separately Area of fire grate in each boiler 24 sq ft No. and Description of safety valves to each boiler Two Spring Area of each valve 7 sq in Pressure to which they are adjusted 90 lb

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 0.24 Mean dia. of boilers 10'-0" Length 10'-0"

Material of shell plates Steel Thickness 5/8 Range of tensile strength 28/32 T. Are the shell plates welded or flanged h

Descrip. of riveting: cir. seams L. D. R. long. seams L. D. R. Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 4 1/2

Lap of plates or width of butt straps 5 1/2 Per centages of strength of longitudinal joint rivets 71. Working pressure of shell by rules 97 lb. Size of manhole in shell 16 x 12 Size of compensating ring 8 x 5/8 No. and Description of Furnaces in each boiler 2. Main. Material S. Outside diameter 36 Length of plain part top 6-6 Thickness of plates crown 1/2 bottom 5/8

Description of longitudinal joint L. D. R. No. of strengthening rings 1 Working pressure of furnace by the rules 95 lb. Combustion chamber plates: Material S. Thickness: Sides 1/2 Back 1/2 Top 1/2 Bottom 5/8 Pitch of stays to ditto: Sides 8 1/2 Back 8 1/2

Top 9 1/2 7 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 105 lb. Material of stays I. Diameter at smallest part 1.99 Area supported by each stay 72 End plates in steam space: Material S. Thickness 3/4

Pitch of stays 16 How are stays secured D. N. W. Working pressure by rules 106 Material of stays S. Diameter at smallest part 2.57

Area supported by each stay 256 Working pressure by rules 112 Material of Front plates at bottom S. Thickness 1/16 Material of Lower back plate S. Thickness 1/16 Greatest pitch of stays 15 x 11 Working pressure of plate by rules 95 lb. Diameter of tubes 3 1/4

Pitch of tubes 4 1/2 Material of tube plates S. Thickness: Front 1/16 Back 1/16 Mean pitch of stays 13 1/2 Pitch across wide water spaces 13 1/2 Working pressures by rules 93 lb. Girders to Chamber tops: Material S. Depth and thickness of girder at centre 7 x 1 3/8 Length as per rule 22 3/4 Distance apart 9 1/2 Number and pitch of Stays in each 2 - 7 1/2

Working pressure by rules 215 lb Superheater or Steam chest: how connected to boiler h 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,

John Readhead & Sons Manufacturer.

Dates of Survey } During progress of } Please see Machinery report } Is the approved plan of boiler forwarded herewith } Yes.

while } work in shops - - } } Total No. of visits

building } During erection on } board vessel - - }

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

The above Donkey Boiler has been constructed under special survey. The material and workmanship employed therein are sound and good. The Boiler has now been satisfactorily fitted in the above vessel.

Survey Fee ... £ 2 : 0 : } When applied for, 26 NOV 1907

Travelling Expenses (if any) £ : : } When received, 28 11 07

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

Committee's Minute FRI. 29 NOV 1907

Assigned All minute on attached report

