

Ms. no. 12815.

Rpt. 5.

REPORT ON BOILERS.

No. 49.769

Port of Newcastle on Tyne

Received at London Office

SAT. 3 FEB 1966

| | | | | | | | |
|------------------------|----------------------------|--------------|----------------------------------|---------------|----------------------------------|-------------------|-----------|
| No. in | Survey held at | New castle. | Date, first Survey | July 19 | Last Survey | Oct 14 | 1905 |
| Reg. Book. | | | | | (Number of Visits // |) | |
| Mt Sub on the | Shue S.S. "Clan Macintosh" | | | | Tons { Gross | 1850 1/2 | 1905 |
| | | | | | Net | 5043 | |
| Master | B. Jones | Built at | West Hartlepool | By whom built | Messrs Furness, Withy & Co. Ltd. | When built | 1906 7906 |
| Engines made at | West Hartlepool | By whom made | Richardson, Westgarth & Co. Ltd. | | | when made | 1905 76 |
| Donkey | | | | | | | |
| Boilers made at | New castle | By whom made | R ^t Stephenson & Co. | | | when made | 1905 |
| Registered Horse Power | | Owners | Messrs. Bayzer, Irvine & Co. | | | Port belonging to | Glasgow. |

MULTITUBULAR BOILERS—~~MAIN, AUXILIARY OR~~ DONKEY.—Manufacturers of Steel *John Spencer &*

(Letter for record)) Total Heating Surface of Boilers 1250 $\frac{1}{2}$ Is forced draft fitted No No. and Description of Boilers One Cyl. S end Working Pressure 100 Tested by hydraulic pressure to 200 Date of test 14/10/05 No. of Certificate 7104 Can each boiler be worked separately ☒ Area of fire grate in each boiler 30 $\frac{1}{2}$ No. and Description of safety valves to each boiler Two Spring Area of each valve 5.94 \square Pressure to which they are adjusted 100 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 1-2" Mean dia. of boilers 11-3 Length 9-1 $\frac{7}{16}$ Material of shell plates S Thickness $\frac{11}{16}$ Range of tensile strength $\frac{28}{32}$ Are the shell plates welded or flanged No Descrip. of riveting: cir. seams S & d lap long. seams ~~S & d~~ lap Diameter of rivet holes in long. seams $\frac{15}{16}$ Pitch of rivets 4 $\frac{1}{4}$ Lap of plates or width of butt straps 6 $\frac{7}{8}$ Per centages of strength of longitudinal joint rivets 79 Working pressure of shell by rules 104 Size of manhole in shell 16 x 12 Size of compensating ring 7 $\frac{1}{2}$ x $\frac{11}{16}$ plate 77-9 No. and Description of Furnaces in each boiler Two plain Material S Outside diameter 36 $\frac{5}{8}$ Length of plain part top 70 Thickness of plates crown 1 $\frac{1}{2}$ bottom 66 Description of longitudinal joint d shape No. of strengthening rings $\frac{1}{2}$ Working pressure of furnace by the rules 104 Combustion chamber plates: Material S Thickness: Sides 9 $\frac{1}{16}$ Back 9 $\frac{1}{16}$ Top 9 $\frac{1}{16}$ Bottom $\frac{11}{16}$ Pitch of stays to ditto: Sides 8 $\frac{1}{2}$ x 9 $\frac{1}{2}$ Back 8 $\frac{1}{2}$ x 8 $\frac{3}{4}$ Top 9 $\frac{1}{2}$ x 9 $\frac{1}{2}$ If stays are fitted with nuts & riveted heads riv. heads at back Working pressure by rules 108 Material of stays Lion area Diameter at smallest part 1-5 Area supported by each stay 90-25 Working pressure by rules 100 End plates in steam space: Material S Thickness 23 Pitch of stays 15 x 15 How are stays secured d & w Working pressure by rules 108 Material of stays Lion area Diameter at smallest part 3-26 Area supported by each stay 225 Working pressure by rules 108 Material of Front plates at bottom S Thickness $\frac{23}{32}$ Material of Lower back plate S Thickness $\frac{23}{32}$ Greatest pitch of stays as per plan Working pressure of plate by rules 100 Diameter of tubes 3 Pitch of tubes 4 $\frac{1}{4}$ x 4 $\frac{1}{4}$ Material of tube plates S Thickness: Front $\frac{23}{32}$ Back $\frac{11}{16}$ Mean pitch of stays 10 $\frac{5}{8}$ Pitch across wide water spaces 13 $\frac{1}{2}$ Working pressures by rules 101 Girders to Chamber tops: Material S Depth and thickness of girder at centre 6 $\frac{1}{2}$ x 13 $\frac{3}{8}$ Length as per rule 25 Distance apart 9 $\frac{1}{2}$ Number and pitch of Stays in each 1-9 $\frac{1}{2}$ Working pressure by rules 104 Superheater or Steam chest: how connected to boiler 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

~~VERTICAL DONKEY BOILER~~— No. _____ Description _____ Manufacturers of steel _____

| | | | | | |
|----------------------------------|----------------------------------|--------------------------------------|------------------------------------|--|-------------------|
| Made at | By whom made | When made | Where fixed | | |
| Working pressure | tested by hydraulic pressure to | No. of Certificate | Fire grate area | Description of safety valves | |
| No. of safety valves | Area of each | Pressure to which they are adjusted | If fitted with easing gear | If steam from main boilers can enter the donkey boiler | |
| Di. of donkey boiler | Length | Material of shell plates | Thickness | Range of tensile strength | |
| Descrip. of riveting long. seams | Di. of rivet holes | Whether punched or drilled | Pitch of rivets | | |
| Lap of plating | Per centage of strength of joint | Rivets Plates | Working pressure of shell by rules | Thickness of shell crown plates | |
| Radius of do. | No. of Stays to do. | Di. of stays | Diameter of furnace Top | Bottom | Length of furnace |
| Thickness of furnace plates | Description of joint | Working pressure of furnace by rules | Thickness of furnace crown plates | | |
| Stayed by | Diameter of uptake | Thickness of uptake plates | Thickness of water tubes | | |

The foregoing is a correct description,

FOR ROBERT STEPHENSON & CO. *Manufacturers.*

Dates of Survey while building { During progress of work in shops - - } 1905: July 19. Aug. 28. 1621. 28. Sep. 8. Oct. 3. 6. 13. 14.
 { During erection on board vessel - - - }
 Total No. of visits //

Is the approved plan of main boiler forwarded herewith yes

→ standard size
donkey " " " " No

Foundation

W673-0070

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

The material & workmanship is good -
The boiler has been built under special survey -
The boiler has been sent to West Hartlepool.

John H Heck.

This boiler has been securely fitted on board & the safety valves
have been adjusted under steam to the working pressure

Certificate (if required) to be sent to

The amount of Entry Fee... £ : :
Special £ : :
Donkey Boiler Fee ... £ 2 : 2
Travelling Expenses (if any) £ :

When applied for,

Oct. 26 1905

When received,

Nov 15 1905

John H Heck Thos. L. Thornton
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

TUES. 6 FEB 1906

Committee's Minute

Assigned



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Foundation