

Messrs Furness Withey & Co S.S. No 289
Messrs R^o Stephenson & Co Boiler No 520

Hpl. No. 12864
No. 49770

Rpt. 5.

REPORT ON BOILERS.

Port of Newcastle on Tyne Received at London Office 14th 20 MAR 1906

No. in Survey held at Newcastle Date, first Survey July 19 Last Survey Oct 14 1905.
Reg. Book. on the Shel S.S. "Clan Matheson" (Number of Visits //) Tons } Gross }
Master West Harklewood By whom built Messrs. Furness Withey & Co. Ltd. When built 1905 } Net }
Engines made at _____ By whom made _____ when made _____
Boilers made at Newcastle By whom made R^o Stephenson & Co when made 1905
Registered Horse Power _____ Owners _____ Port belonging to _____

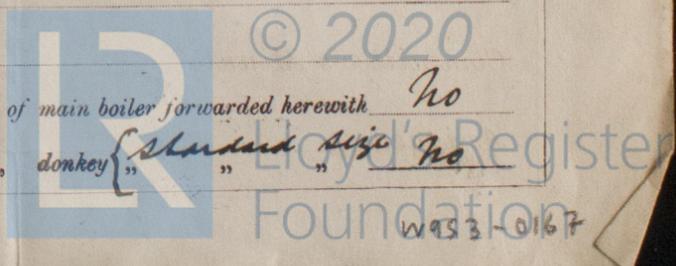
MULTITUBULAR BOILER ~~MAIN, AUXILIARY OR~~ **DONKEY**.—Manufacturers of Steel John Spencer &
(Letter for record) Total Heating Surface of Boilers 1250 ϕ Is forced draft fitted no No. and Description of
Boilers One Cyl. S End Working Pressure 100 Tested by hydraulic pressure to 200 Date of test 14-10-05
No. of Certificate 7105 Can each boiler be worked separately Area of fire grate in each boiler 30 ϕ No. and Description of
safety valves to each boiler 2 Spring Area of each valve 5.94 ϕ^2 Pressure to which they are adjusted 105 ϕ
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 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 T & X 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 $7\frac{1}{2} \times \frac{11}{16}$ 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 $\frac{1}{2}$
Description of longitudinal joint d strap No. of strengthening rings $\frac{1}{2}$ Working pressure of furnace by the rules 104 Combustion chamber
plates: Material S Thickness: Sides $\frac{9}{16}$ Back $\frac{9}{16}$ Top $\frac{9}{16}$ Bottom $\frac{11}{16}$ Pitch of stays to ditto: Sides $8\frac{1}{2} \times 9\frac{1}{2}$ Back $8\frac{1}{2} \times 8\frac{3}{4}$
Top $9\frac{1}{2} \times 9\frac{1}{2}$ If stays are fitted with nuts yes riveted heads yes at back Working pressure by rules 108 Material of stays Iron 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 $\frac{23}{32}$
Pitch of stays 15×15 How are stays secured d & l Working pressure by rules 108 Material of stays Iron 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 $4\frac{1}{4} \times 4\frac{1}{4}$ 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 $6\frac{1}{2} \times 13\frac{3}{8}$ 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 _____ Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile
strength _____ Descrip. of riveting long. seams _____ Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
Lap of plating _____ Per centage of strength of joint Rivets _____ Working pressure of shell by rules _____ Thickness of shell crown plates _____
Radius of do. _____ No. of Stays to do. _____ Dia. 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. LIMITED,
Manchester.

Dates of Survey while building { During progress of work in shops - - - 1905 July 19, Aug 28, 16, 21, 28 Sep 8, Oct 26, 1905 }
{ During erection on board vessel - - - }
Total No. of visits //

Is the approved plan of main boiler forwarded herewith no
" " " donkey no



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

The material & workmanship is good.
 The boiler has been built under special survey.
 This boiler has been sent to West Hartlepool
 J. H. Heck.

Certificate (if required) to be sent to

The amount of Entry Fee...	£	:	:	When applied for,
Special	£	:	:	Oct 26 1905
Donkey Boiler Fee ...	£	2	2	When received,
Travelling Expenses (if any) £	:	:	:	Nov 15 1905

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

H. W. G.

Committee's Minute

TUES. 20 MAR 1906

Assigned



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 Foundation