

REPORT ON BOILERS

Mult. No. 4645
Ser. No. 22864

Port of MIDDLESBROUGH-ON-TEES.

Received at London MON. 15 JUL 1906

No. in Survey held at Stockton Date, first Survey May 1 Last Survey 23 June 1906

Book. on the Donkey Boiler (No 3683) J. J. Foster
(Number of Visits 31) Tons } Gross 1755.38
Net 1081.18

Builder B. Hutcheon Built at Liverpool By whom built J. P. Austin & Son Ltd When built 1906

Lines made at Liverpool By whom made G. Clark Ltd when made do

Boilers made at Stockton By whom made Riley Bros (Boilermakers) Ltd when made 1906

Registered Horse Power Owners Petter Steamship Co. Ltd. Port belonging to Newcastle

ULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel J. Spencer & Sons Ltd

Letter for record (S) Total Heating Surface of Boilers 815 sq ft Is forced draft fitted no No. and Description of

Boilers One cyl. double single ended Working Pressure 100 lbs Tested by hydraulic pressure to 200 lbs Date of test 9.6.06

No. of Certificate 3687 Can each boiler be worked separately ✓ Area of fire grate in each boiler 24.8 sq ft No. and Description of

Safety valves to each boiler Two spring loaded Area of each valve 4.91 sq in Pressure to which they are adjusted

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 12" Mean dia. of boilers 9'-6" Length 9'-6"

Material of shell plates Steel Thickness 5/8" Range of tensile strength 28/32 Are the shell plates welded or flanged no

Description of riveting: cir. seams S R Lap long. seams Int. riv lap Diameter of rivet holes in long. seams 15/16" Pitch of rivets 3 3/4"

Gap of plates or width of butt straps 6 1/2" Per centages of strength of longitudinal joint rivets 75 Working pressure of shell by plate 75

Area of manhole in shell 102.5 Size of manhole in shell 16"x21" Size of compensating ring 9"x3/4" No. and Description of Furnaces in each

Boiler 2 plain Material Steel Outside diameter 2'-10" Length of plain part top 5'-9 3/4" Thickness of plates crown } 9" bottom } 7/16"

Description of longitudinal joint welded No. of strengthening rings ✓ Working pressure of furnace by the rules 101.5 Combustion chamber

Material Steel Thickness: Sides 1/2" Back 9/16" Top 15/32" Bottom 5/8" Pitch of stays to ditto: Sides 9"x8" Back 9"x10"

Top 8"x6 3/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 120 Material of stays Steel Diameter at

smallest part 1 1/8" Area supported by each stay 72 sq in Working pressure by rules 110 End plates in steam space: Material Steel Thickness 27/32"

Pitch of stays 16"x18" How are stays secured Draw stay Working pressure by rules 116 Material of stays Steel Diameter at smallest part 2 1/4"

Area supported by each stay 288 sq in Working pressure by rules 138 Material of Front plates at bottom Steel Thickness 27/32" Material of

Lower back plate Steel Thickness 27/32" Greatest pitch of stays 11"x9" Working pressure of plate by rules 243 Diameter of tubes 3 1/4"

Pitch of tubes 1 1/4"x1 1/2" Material of tube plates Steel Thickness: Front 27/32" Back 9/16" Mean pitch of stays 8 3/8" Pitch across wide

water spaces 13 1/2" Working pressures by rules 148 Girders to Chamber tops: Material Steel Depth and thickness of

girder at centre 5 1/2"x1 1/2" Length as per rule 30" Distance apart 6 3/4" Number and pitch of Stays in each Two 8"

Working pressure by rules 101 Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked

separately no 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,

Manufacturer.

A. Ford

1906 May 1. 10. 16. 18. June 2. 7. 9.

Dates of Survey while building } During progress of work in shops - - }
During erection on board vessel - - - }

Total No. of visits

Is the approved plan of main boiler forwarded herewith

donkey

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

This boiler has been built under Special Survey.
 The materials and workmanship are good and efficient
 After satisfactorily withstanding the hydraulic test
 it has been despatched for fitting on board.
 Fitted in stockhold & tested under steam.

Certificate (if required) to be sent to

The amount of Entry Fee...	£	:	:	When applied for,
Special	£	:	:	19
Donkey Boiler Fee ...	£	2	2	When received,
Travelling Expenses (if any) £	:	:	:	19

R.D. Philston *P. J. Stoddart*
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

TUES. 17 JUL 1906

Assigned



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