

REPORT ON MACHINERY.

No. 46795

Port of Newcastle on Tyne

Received at London Office 10.12.1904

No. in Survey held at S. Shields

Date, first Survey Sep. 22nd '03 Last Survey March 28 1904

Reg. Book.

(Number of Visits 48)

on the S.T. Kingfisher

Tons ^{Gross} 185.71
_{Net} 6.84

Master S. Shields Built at S. Shields By whom built J. P. Remondson & Sons When built 1904. 3.

Engines made at S. Shields By whom made J. P. Remondson & Sons when made 1904. 3.

Boilers made at S. Shields By whom made J. S. Eltringham and Co. when made 1904. 1.

Registered Horse Power 107 Owners Limpool Steam Eng. Co. Ltd. Port belonging to Limpool

Nom. Horse Power as per Section 28 107 Is Refrigerating Machinery fitted No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Compound. No. of Cylinders 3. No. of Cranks 3.

Dia. of Cylinders 16 - 26 - 43 Length of Stroke 27 Revs. per minute 98 Dia. of Screw shaft ^{as per rule} 8.47 Material of screw shaft Steel
_{as fitted} 9

Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight

in the propeller boss Yes If the liner is in more than one length are the joints burned One length, the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive ✓ If two

liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 36

Dia. of Tunnel shaft ^{as per rule} 7.76 Dia. of Crank shaft journals ^{as per rule} 8.15 Dia. of Crank pin 8 3/8 Size of Crank webs 15 1/2 x 5 Dia. of thrust shaft under

collars 8 1/2 Dia. of screw 10 - 0 Pitch of screw 14 - 0 No. of blades 4 State whether moveable No Total surface 36.8 ^{sq ft}

No. of Feed pumps 2 Diameter of ditto 2 1/2 Stroke 13 1/2 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 2 3/8 Stroke 13 1/2 Can one be overhauled while the other is at work Yes

No. of Donkey Engines One Sizes of Pumps 5 1/2 - 4 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room One 2" Bore In Holds, &c. Four hold. One 2" Bore

Four Compartment. One 2" Bore

No. of bilge injections 1 sizes 3 Connected to condenser, or to circulating pump C.P. Is a separate donkey suction fitted in Engine room & size Yes 2 1/2

Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the discharge pipes above or below the deep water line Above

Are they each fitted with a discharge valve always accessible on the plating of the vessel Yes Are the blow off cocks fitted with a spigot and brass covering plate Yes

What pipes are carried through the bunkers None How are they protected ✓

Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges Yes

When were stern tube, propeller, screw shaft, and all connections examined in dry dock how used Is the screw shaft tunnel watertight

Is it fitted with a watertight door Yes worked from Deck level

OILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 1695 ^{sq ft} Is forced draft fitted No

No. and Description of Boilers One Cyl. Mult. Single end. Working Pressure 180 ^{lb} Tested by hydraulic pressure to 360 ^{lb}

Date of test 19. 1. 04 Can each boiler be worked separately ✓ Area of fire grate in each boiler 48.7 ^{sq ft} No. and Description of safety valves to

each boiler 2 Spring load. Area of each valve 5.9 ^{sq in} Pressure to which they are adjusted 185 ^{lb} Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 9 Mean dia. of boilers 13 - 4 1/2 Length 10 - 3 Material of shell plates S

Thickness 1 1/2 Range of tensile strength 25/32 Are they welded or flanged ✓ Descrip. of riveting: cir. seams L. D. R. long. seams D. B. T. R.

Diameter of rivet holes in long. seams 1 3/8 Pitch of rivets 8 1/2 (4. p. p.) Lap of plates or width of butt straps 2 1/4

Per centages of strength of longitudinal joint ^{rivets} 87 Working pressure of shell by rules 201 ^{lb} Size of manhole in shell 16 x 12

Size of compensating ring 7 1/2 x 1 1/2 No. and Description of Furnaces in each boiler 3 Diagonal Material S Outside diameter 40 1/2

Length of plain part ^{top} 1 Thickness of plates ^{bottom} 1 1/2 Description of longitudinal joint N.A. No. of strengthening rings ✓

Working pressure of furnace by the rules 187 ^{lb} Combustion chamber plates: Material S Thickness: Sides 1 1/16 Back 1 1/16 Top 1 1/16 Bottom 7/8

Pitch of stays to ditto: Sides 9 1/2 - 9 Back 9 1/2 - 9 Top 9 1/2 - 9 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 191 ^{lb}

Material of stays S Diameter at smallest part 1 19/32 Area supported by each stay 85.5 ^{sq in} Working pressure by rules 200 ^{lb} End plates in steam space:

Material S Thickness 3 1/2 + 1 1/2 Pitch of stays 18 1/2 - 17 How are stays secured D. N. W. Working pressure by rules 284 ^{lb} Material of stays S

Diameter at smallest part 8 3/16 Area supported by each stay 314 ^{sq in} Working pressure by rules 210 ^{lb} Material of Front plates at bottom S

Thickness 1 Material of Lower back plate S Thickness 3 1/2 Greatest pitch of stays 14 1/2 - 9 1/2 Working pressure of plate by rules 216 ^{lb}

Diameter of tubes 3 1/2 Pitch of tubes 4 3/8 - 4 1/2 Material of tube plates S Thickness: Front 1 Back 1 1/16 Mean pitch of stays 9 1/2 x 9 1/2

Pitch across wide water spaces 14 1/2 Working pressures by rules 183 ^{lb} Girders to Chamber tops: Material S Depth and

thickness of girder at centre 5 7/8 x 3 Length as per rule 30 Distance apart 9 Number and pitch of Stays in each 2 - 9 1/2

Working pressure by rules 183 ^{lb} Superheater or Steam chest; how connected to boiler None 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 ✓

W311-0266

Lloyd's Register Foundation

DONKEY BOILER— No. *None fitted* Description *None fitted*

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 _____ 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 _____

Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____

Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *2 Connecting Rods bottom end bolts, 2 ditto top end, 2 main bearing bolts, 1 set coupling bolts, 1 set feed & bilge valves, Assorted bolts, nuts, and iron, Patent piston springs fitted*

The foregoing is a correct description,
J. Pennington & Sons Manufacturers of engines, *Jos. D. Ellingham & Co* Manufacturers of Boilers.

Dates of Survey while building	During progress of work in shops—	EN 9: 1903. Sep. 22. Oct. 22	Nov. 25. 9. 17. 24. 27	Dec. 4. 9. 11. 15. 18. 1904	Jan. 4. 11. 16. 18. 26. 28	Feb. 9. 12. 16. 22. 26. 29	Mar. 17. 22. 25.	
		During erection on board vessel—	36: 1903. Sep. 30. Oct. 5. 14. 20. 23. 29	Nov. 5. 10. 17. 23. 26.	Dec. 4. 9. 15. 21. 1904	Jan. 6. 11. 18. 19		
			Total No. of	s. 48				

Is the approved plan of main boiler forwarded herewith *Yes*

" " " donkey " " " _____

General Remarks (State quality of workmanship, opinions as to class, &c. *The above engines and boiler have been constructed and fitted under special survey, the material used in their construction is good, and workmanship sound. The vessel is eligible, in my opinion, for record. + d.M.C. 3.04 in Register Book of this Society*

It is submitted that this vessel is eligible for THE RECORD H.L.M.C. 3.04

J.S.
 12.4.04

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 12.4.04

Certificate (if required) to be sent to Newcastle-on-Tyne.

The amount of Entry Fee. . . £ *2* : . . . : When applied for, *11 APR 1904*

Special £ *16* : 1 :

Donkey Boiler Fee £

Travelling Expenses (if any) £

When received, *15.4.04*

W. Lane.
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *FRI. 15 APL 1904*

Assigned *+ Lane 3.04*

MACHINERY CERTIFICATE WRITTEN.

