

# REPORT ON MACHINERY.

Port of Newcastle-on-Tyne Received at London Office TUES. 24 JUN 1902

No. in Survey held at South Shields Date, first Survey Dec 13 Last Survey June 10 1902

Book. 5 on the S.S. STATIA (Number of Visits 28)

ster Lindas Built at South Shields By whom built Messrs J. Readhead & Son When built 1902

ines made at South Shields By whom made Messrs J. Readhead & Son when made 1902.6

lers made at South Shields By whom made Messrs J. Readhead & Son when made 1902.6

istered Horse Power 316 Owners Sutton Sons & Co Port belonging to London

Hor Power as per Section 28 257 Is Refrigerating Machinery fitted No Is Electric Light fitted No

INES, &c.—Description of Engines Triple Expansion Surface Condensing No. of Cylinders 3 No. of Cranks 3

of Cylinders 25 1/2 x 42 x 68 Length of Stroke 45 Revs. per minute 65 Dia. of Screw shaft 13 1/2 as per rule 13 1/2 as fitted 14 1/4 Lgth. of stern bush 4.8

of Tunnel shaft 12 3/4 Dia. of Crank shaft journals 13 3/8 as per rule 13 3/8 as fitted 13 1/2 Dia. of Crank pin 13 1/2 Size of Crank webs 9 x 18 1/2 Dia. of thrust shaft under 14 1/2

Dia. of screw 16.3 Pitch of screw 12.6 No. of blades 4 State whether moveable No Total surface 75.5

of Feed pumps 2 Diameter of ditto 3 1/2 Stroke 24 Can one be overhauled while the other is at work Yes

of Bilge pumps 2 Diameter of ditto 4 3/8 Stroke 24 Can one be overhauled while the other is at work Yes

of Donkey Engines Two Sizes of Pumps 6 x 4 x 6 Duplex No. and size of Suctions connected to both Bilge and Donkey pumps 7 1/2 x 8 1/4 x 6 Duplex

Engine Room 2 Wing 3" diam 1 centre 3 1/2" diam In Holds, &c. Fore hold 2 Wing 3" diam Main hold Wing 3" diam, After hold 2 Wing 3" diam, After well one 2 1/2" diam

of bilge injections 1 sizes 5 1/2" Connected to condenser or to circulating pump Pump Is a separate donkey suction fitted in Engine room & size Yes 3 1/2" diam

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 Yes

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

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

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

it pipes are carried through the bunkers None How are they protected Yes

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

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

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

fitted with a watertight door Yes worked from Engine room grating Is forced draft fitted Yes

ELERS, &c.— (Letter for record 7) Total Heating Surface of Boilers 3679.5 Is forced draft fitted Yes

and Description of Boilers 2 Multitubular Cyl. Single ended Working Pressure 180 Tested by hydraulic pressure to 360 lbs

of tes 8.5.02 Can each boiler be worked separately Yes Area of fire grate in each boiler 367.9 No. and Description of safety valves to 360 lbs

boiler 2 Spring loaded Area of each valve 9.62 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

least distance between boilers or uptakes and bunkers or woodwork 1.6 Mean dia. of boilers 13' 3" Length 11.6 Material of shell plates Steel

ness / 9/32 Range of tensile strength 28-32 Are they welded or flanged No Descrip. of riveting: cir. seams Lap Joints long. seams Butt Straps 10 runs

eter of rivet holes in long. seams 1 5/16 Pitch of rivets 8 3/4 Lap of plates or width of butt straps 18 3/4

entages of strength of longitudinal joint 86.5 Working pressure of shell by rules 207 Size of manhole in shell 12" x 16"

f compensating ring 8 1/2 x 1 3/32 No. and Description of Furnaces in each boiler 3 Morrison Material Steel Outside diameter 36"

h of plain part top Thickness of plates 1/2 Description of longitudinal joint L No. of strengthening rings 1

ing pressure of furnace by the rules 209 Combustion chamber plates: Material Steel Thickness: Sides 5/8 Back 5/8 Top 5/8 Bottom 7/8

of stays to ditto: Sides 8 x 8 1/2 Back 9 x 8 Top 9 x 8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 187

ial of stays Iron Diameter at smallest part 1 9/16 Area supported by each stay 72" Working pressure by rules 197 End plates in steam space: Steel

ial Steel Thickness 1 3/16 Pitch of stays 19 1/2 x 16" How are stays secured D. Nuts & washers Working pressure by rules 214 Material of stays Steel

ter at smallest part 3" Area supported by each stay 312 Working pressure by rules 224 Material of Front plates at bottom Steel

ess 3/4 Material of Lower back plate Steel Thickness 1 1/16 Greatest pitch of stays 12" Working pressure of plate by rules 237

ter of tubes 2 1/2 Pitch of tubes 3 3/4 Material of tube plates Steel Thickness: Front 3/4 Back 1 1/16 Mean pitch of stays 7 1/2"

across wide water spaces 13 1/8 Working pressures by rules 267 Girders to Chamber tops: Material Steel Depth and 3 8"

ess of girder at centre 9 1/2 x 1 1/2 Length as per rule 33" Distance apart 9" Number and pitch of Stays in each 3 8"

ing pressure by rules 180 Superheater or Steam chest; how connected to boiler ← Can the superheater be shut off and the boiler worked Yes

ely Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

ened with rings Distance between rings Working pressure by rules End plates: Thickness 1/2 How stayed Yes

ing pressure of end plates Area of safety valves to superheater Are they fitted with easing gear Yes

**DONKEY BOILER—** No. Description *Multitubular Cylindrical (Marine Type)*  
 Made at *South Shields* By whom made *Messrs J. Readhead & Sons* When made *1901* Where fixed *Above Main Boilers*  
 Working pressure *80* tested by hydraulic pressure to *160* No. of Certificate *6298* Fire grate area *24.5* Description of safety valves *1 Spring loaded*  
 No. of safety valves *1* Area of each *12.56* Pressure to which they are adjusted *80* If fitted with easing gear *Yes* If steam from main boilers can enter the donkey boiler *No* Dia. of donkey boiler *10'-0"* Length *9'-6"* Material of shell plates *Steel* Thickness *5/8* Range of tensile strength *27 3/4* Descrip. of riveting long. seams *Lap South* Dia. of rivet holes *1 1/2* Whether punched or drilled *Drilled* Pitch of rivets *3 1/2*  
 Lap of plating *5 1/8* Per centage of strength of joint *69.5* Thickness of shell crown plates *3/4* Radius of do. *L* No. of Stays to do. *80*  
 Dia. of stays *1 5/16* Diameter of furnace *12'-0"* Bottom *Conc. Chambers* Length of furnace *6'-0"* Thickness of furnace plates *1 1/2 + 1/2* Description of joint *Lap* Thickness of *Comb. Chambers* plates *1/2* Stayed by *Screwed Stays 1 1/4 x 8 1/2 pils* Working pressure of shell by rules *88*  
 Working pressure of furnace by rules *116* Diameter of *tube* *3 1/4* Thickness of *plate* plates *1 1/2 + 1/2* Thickness of water tubes *1/4*

**SPARE GEAR.** State the articles supplied:— *Spare Propeller shaft & Propeller, 1 set feed, 1 set bilge pump valves, 1 set Air Pump valves, 1 set feed check valves. 2 Safety Valve springs, 6 coupling 2 bottom 2 top end, 2 Main Bearing bolts & nuts. 1 set feed donkey, 1 set ballast donkey valves, 1 set H.P. Piston rings, 1 set H.P. Piston Valve rings, Assorted iron & bolts*

The foregoing is a correct description,

Manufacturer.

Dates { During progress of work in shops— *1901 Dec. 13, 1902 Jan. 8, 1902 Feb. 12, 1902 March 12, 1902 April 12, 1902 May 2, 1902 June 9, 1902*  
 of Survey { During erection on board vessel—  
 while building { Total No. of visits *23* Is the approved plan of main boiler forwarded herewith *No*  
 " " " donkey " " " *No*

**General Remarks** (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been built under special survey & is in my opinion eligible to have record of L.M.C 6.02*

**Material of screw shaft** *Iron* 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 —  
 If 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 —

It is submitted that this vessel is eligible for THE RECORD — L M C 6.02 F. D.

*P.H.A.*  
25.6.02

*R.S.*  
25.6.02

The amount of Entry Fee £ *2* : : : When applied for, *21 JUN 1902*  
 Special £ *22.14.0* : : : When received, *27.6.02*  
 Donkey Boiler Fee £ : : :  
 Travelling Expenses (if any) £ : : :

Committee's Minute

WED. 25 JUN 1902

Assigned

*+ L M C 6.02 F. D.*

MACHINERY CERTIFICATE  
 WRITTEN



© 2019

Lloyd's Register  
 Foundation

Newcastle-on-Tyne.

Certificate (if required) to be sent to Committee's Minute.