

## REPORT ON MACHINERY.

Port of SunderlandNo. in Survey held at SunderlandDate, first Survey 5th Febry

Received at London Office

Last Survey 1st August 1894

Reg. Book.

on the S.S. Rosetti ("Rossetti")Number of Visits 29Gross 2049Tons Net 1304Master Griffiths Built at Sunderland By whom built J. L. Thompson & SonsWhen built 1894Engines made at Sunderland By whom made John Dickinsonwhen made 1894Boilers made at Sunderland By whom made John Dickinsonwhen made 1894Registered Horse Power 200Owners H. BoltonPort belonging to LondonNom. Horse Power as per Section 28 219

## ENGINES, &amp;c.—

Description of Engines

Triple compoundNo. of Cylinders 3Diameter of Cylinders 21½, 35, 58Length of Stroke 39"Revolutions per minute 45

Diameter of Screw shaft

as per rule 10¾

Diameter of Tunnel shaft

as fitted 10½Diameter of Crank shaft journals 11"Diameter of Crank pin 11"

Size of Crank webs

as fitted patentDiameter of screw 15-0"Pitch of screw 16-9"No. of blades 4

State whether moveable

not

Total surface

65½ sq ftNo. of Feed pumps 2Diameter of ditto 3"Stroke 19½"

Can one be overhauled while the other is at work

yesNo. of Bilge pumps 2Diameter of ditto 4½"Stroke 19½"

Can one be overhauled while the other is at work

yesNo. of Donkey Engines 2Sizes of Pumps 8" x 9" 10" x 6" 3½" x 6" duplex

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4 1/2 in 3"In Holds, &c. Fore. main. after main. + after holds

two of 2½" diam after well 2½" after peak 2" Yanks centre 2½" wings 2"

No. of bilge injections 1sizes 4"Connected to condenser, or to circulating pump C.P.

Is a separate donkey suction fitted in Engine room &amp; size

yes 4"

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

yes

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 bilge

yes

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

new vessel

Is the screw shaft tunnel watertight

yes

Is it fitted with a watertight door

yesworked from top platform

## BOILERS, &amp;c.—

(Letter for record S)Total Heating Surface of Boilers 3443 sq ftNo. and Description of Boilers two single ended ordinary typeWorking Pressure 160Tested by hydraulic pressure to 320Date of test 8-5-94 Can each boiler be worked separatelyyesArea of fire grate in each boiler 54 sq ft

No. and Description of safety valves to

each boiler two direct springArea of each valve 7.07 sq inPressure to which they are adjusted 160 lbs

Are they fitted

with easing gear

yesSmallest distance between boilers or uptakes and bunkers or woodwork 20"Mean diameter of boilers 13-9"Length 10-0"Material of shell plates SteelThickness 1¾"

Description of riveting: circum. seams

double riv-lap

long. seams

t.r.d. b.s.Diameter of rivet holes in long. seams 1¾"

Pitch of rivets

8¾"Gap of plates or width of butt straps 14¾"

Per centages of strength of longitudinal joint

rivets 91plate 85.4%Working pressure of shell by rules 160 lbsSize of manhole in shell 16" x 12"Size of compensating ring 8½" x 1¾"No. and Description of Furnaces in each boiler 3 1/2 cores ofMaterial Steel Outside diameter 3-5"

Length of plain part

top

Thickness of plates

crown 15"bottom 32"Description of longitudinal joint weldedNo. of strengthening rings noneWorking pressure of furnace by the rules 168 lbsCombustion chamber plates: Material SteelThickness: Sides 5/8"Back 5/8"Top 5/8"Bottom 1/8"Pitch of stays to ditto: Sides 9½"Back 9½" x 8½"Top 9½" x 9"

If stays are fitted with nuts or riveted heads

nutsWorking pressure by rules 163 lbsMaterial of stays SteelDiameter at smallest part 1.48"Area supported by each stay 83 sq inWorking pressure by rules 166 lbs

End plates in steam space:

Material SteelThickness 1¾"Pitch of stays 18½" x 18"

How are stays secured

nutsWorking pressure by rules 140 lbsMaterial of stays SteelDiameter at smallest part 2.18"Area supported by each stay 330Working pressure by rules 168 lbsMaterial of Front plates at bottom SteelThickness ¾"Material of Lower back plate SteelThickness 11/16"Greatest pitch of stays 14"Working pressure of plate by rules 160 lbsDiameter of tubes 3¾"Pitch of tubes 4½"Material of tube plates SteelThickness: Front ¾"Back ¾"Mean pitch of stays 9"Pitch across wide water spaces 14½"Working pressures by rules 160 lbsGirders to Chamber tops: Material Steel

Depth and

thickness of girder at centre 4½" x 3¼" x 2"Length as per rule 2-5½"Distance apart 9"

Number and pitch of Stays in each

2 stays 9½" pitchWorking pressure by rules 164 lbs

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

How stayed

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



DONKEY BOILER Description *Vertical Cochran's patent*  
 Made at *Birkenhead* By whom made *Cochran & Co* When made *-5-94* Where fixed *Stokehold*  
 Working pressure *80 lbs* Tested by hydraulic pressure to *160 lbs* No. of Certificate *1236* Fire grate area *24 sq ft* Description of safety valves *direct spring*  
 No. of safety valves *2* Area of each *4.04* Pressure to which they are adjusted *80 lbs* If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no*  
 Diameter of donkey boiler *6-6* Length *14-0* Material of shell plates *steel* Thickness *15/32*  
 Description of riveting long. seams *double rivet lap* Diameter of rivet holes *7/8* Whether punched or drilled *drilled* Pitch of rivets *3*  
 Lap of plating *4* Per centage of strength of joint *62.6* Thickness of shell crown plates *9/16* Radius of do. *3-3* No. of Stays to do hemispherical  
 Dia. of stays *none* Diameter of furnace Top *spherical* Length of furnace *2-8* Thickness of furnace plates *9/16* Description of joint *single rivet lap*  
 Thickness of furnace crown plates *9/16* Stayed by *hemispherical* Working pressure of shell by rules *82 lbs*  
 Working pressure of furnace by rules *105 lbs* Diameter of uptake *19 1/4* Thickness of uptake plates *19/32* Thickness of water tubes *none*

SPARE GEAR. State the articles supplied:—*Top & bottom end connecting rod bolts & nuts two main bearing bolts & nuts. one set of coupling bolts. fuel & bilge pump valves, bolts, nuts & iron.*

The foregoing is a correct description,  
 FOR JOHN DICKINSON Manufacturer of main engines & boilers.

General Remarks (State quality of workmanship, opinions as to class, &c.)  
*The machinery of this Vessel has been constructed under special survey. the material & workmanship are good & efficient and the engines when tried under steam worked satisfactorily. The main steam pipes have been tested by hydraulic pressure to 320 lbs & the pumps sluices & watertight doors are in good working condition. In my opinion this Vessel is eligible for the notification in the Register Book of LMC 8-94.*

It is submitted that  
 this vessel is eligible for  
 THE RECORD LMC 8,94

*9-8-94*  
*W. P. Salmon*

Certificate (if required) to be sent to  
 The amount of Entry Fee. £ *2* : : When applied for.  
 Special .. .. £ *30* : *19* : :  
 Donkey Boiler Fee .. .. £ : : :  
 Travelling Expenses (if any) £ : : :  
 When received *10/8/94*  
*W. P. Salmon*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *FRIDAY 10 AUG 1894*  
 Assigned  
 + LMC 8,94  
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