

# REPORT ON MACHINERY.

No. 8135

Port of *Rosetta*

Received at London Office

18

No. in Survey held at

Reg. Book.

on the

Date, first Survey

(Number of Visits

Tons

Gross 1515  
Net 1151

When built

1892

Master *A. Borreguero*

Built at

*Rosetta*

By whom built

*R. Bolton & Co*

Engines made at

*Rosetta*

By whom made

*North Eastern Marine Engine Co*

When made

1892

Boilers made at

*do*

By whom made

*do*

*do*

when made

1892

Registered Horse Power

110

Owners

*J. Barra & Co*

Port belonging to

*Seville*

Horse Power as per Section 28

128

## ENGINES, &c.

Description of Engine

*Triple expansion surface condensing*

No. of Cylinders

3

Diameter of Cylinders

*18" 29" 44"*

Length of Stroke

*33"*

Revolutions per minute

*80*

Diameter of Screw shaft

*as per rule 8.56*

Diameter of Tunnel shaft

*as per rule 8.13*

Diameter of Crank shaft journals

*8 1/2"*

Diameter of Crank pin

*8 1/2"*

Size of Crank webs

*57" x 17"*

Diameter of screw

*12 1/2"*

Pitch of screw

*12 1/2"*

No. of blades

*4*

State whether moveable

*no*

Total surface

*42 1/2*

No. of Feed pumps

*2*

Diameter of ditto

*3"*

Stroke

*16 1/2"*

Can one be overhauled while the other is at work

*yes*

No. of Bilge pumps

*2*

Diameter of ditto

*3"*

Stroke

*16 1/2"*

Can one be overhauled while the other is at work

*yes*

No. of Donkey Engines

*2*

Sizes of Pumps

*6 x 9 & 2 1/2 x 4*

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

In Engine Room

*5 Suctions 2 1/2" diameter*

In Holds, &c.

*2 Suctions 2 1/2" in fore hold*

No. of bilge injections

*1*

sizes

*4*

Connected to condenser, or to circulating pump

*Pumps a separate donkey suction fitted in Engine room & size 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

*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

*yes*

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

*yes*

Is the screw shaft tunnel watertight

*yes*

Is it fitted with a watertight door

*yes*

worked from

*Upper platform*

## BOILERS, &c.

(Letter for record)

Total Heating Surface of Boilers

*1930 1/2*

and Description of Boilers

*2 Cylindrical single ended*

Working Pressure

*160*

Tested by hydraulic pressure to

*320*

Year of test

*20.10.92*

Can each boiler be worked separately

*yes*

Area of fire grate in each boiler

*29 1/2*

No. and Description of safety valves to

*2 Spring*

boiler

*2 Spring*

Area of each valve

*4.0*

Pressure to which they are adjusted

*165*

Are they fitted

*yes*

Easing gear

*yes*

Smallest distance between boilers or uptakes and bunkers or woodwork

*12"*

Mean diameter of boilers

*10.3"*

Length

*10.3"*

Material of shell plates

*Steel*

Thickness

*2 1/2"*

Description of riveting: circum. seams

*Lap double*

long. seams

*Stitch*

Diameter of rivet holes in long. seams

*1 1/4"*

Pitch of rivets

*7 1/4"*

Lap of plates or width of butt straps

*13"*

Percentage of strength of longitudinal joint

*83.33*

Working pressure of shell by rules

*168*

Size of manhole in shell

*ends 16" x 12"*

of compensating ring

*Stamped*

No. and Description of Furnaces in each boiler

*2 Plain*

Material

*Steel*

Outside diameter

*3.0"*

Length of plain part

*6.9"*

Thickness of plates

*4 1/2"*

Description of longitudinal joint

*Stitch*

No. of strengthening rings

*1*

Working pressure of furnace by the rules

*168*

Combustion chamber plates: Material

*Steel*

Thickness of sides

*8"*

Back

*9 x 8 1/2"*

Top

*8 x 7 1/2"*

Bottom

*4 1/2"*

If stays are fitted with nuts or riveted heads

*none*

Working pressure by rules

*160*

Material of stays

*Steel*

Diameter at smallest part

*1 1/2"*

Area supported by each stay

*64*

Working pressure by rules

*181*

End plates in steam space:

*yes*

Working pressure by rules

*160*

Material of stays

*Steel*

Diameter at smallest part

*2 1/2"*

Area supported by each stay

*249*

Working pressure by rules

*181*

Material of Front plates at bottom

*Steel*

Thickness

*3 1/4"*

Greatest pitch of stays

*11"*

Working pressure of plate by rules

*160*

Diameter of tubes

*3 1/4"*

Pitch of tubes

*4 1/2"*

Material of tube plates

*Steel*

Thickness: Front

*3 1/4"*

Back

*3 1/4"*

Mean pitch of stays

*9"*

across wide water spaces

*14"*

Working pressures by rules

*146*

Girders to Chamber tops: Material

*Steel*

Depth and

*4 1/2" x 1 1/4"*

Length as per rule

*2.1"*

Distance apart

*7 1/4"*

Number and pitch of Stays in each

*2, 8" pitch*

Working pressure by rules

*140*

Superheater or Steam chest; how connected to boiler

*none*

Can the superheater be shut off and the boiler worked

*yes*

Diameter

*—*

Length

*—*

Thickness of shell plates



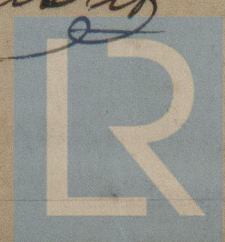
**DONKEY BOILER—** Description *Vertical with four crop tubes*  
 Made at *Stockton* By whom made *J. Hudson & Co* When made *16.11.92* Where fixed *On deck*  
 Working pressure *100 lb* tested by hydraulic pressure to *200 lb* No. of Certificate *536* Fire grate area *268* Description of safety valves *Spring*  
 No. of safety valves *2* Area of each *5.94* Pressure to which they are adjusted *100 lb* fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no* Diameter of donkey boiler *6' 6"* Length *13' 6"* Material of shell plates *Steel* Thickness *1 1/2"*  
 Description of riveting long. seams *Lap double* Diameter of rivet holes *7/8"* Whether punched or drilled *Punched* Pitch of rivets *2 1/4"*  
 Lap of plating *4 1/4"* Per centage of strength of joint *68.2* Thickness of shell crown plates *9/16"* Radius of do. *5' 9"* No. of Stays to do. *Six*  
 Dia. of stays *1 3/8"* Diameter of furnace Top *5' 4"* Bottom *5' 10"* Length of furnace *6' 4"* Thickness of furnace plates *5/8"* Description of joint *Lap Single* Thickness of furnace crown plates *3/8"* Stayed by *Same as shell crown* Working pressure of shell by *17 lb*  
 Working pressure of furnace by rules *100 lb* Diameter of uptake *14"* Thickness of uptake plates *7/16"* Thickness of water tubes *3/8"*

**SPARE GEAR.** State the articles supplied:—*2 Main bearing bolts & nuts. 2 top & 2 bottom end bolts & nuts. 1 Set of Shaft coupling + 2 nuts & bolts. 1 Set of feed valves. 1 Set of bilge valves. Spare propeller. Nuts bolts & iron.*

The foregoing is a correct description,  
 FOR AND ON BEHALF OF THE NORTH EASTERN  
 MARINE ENGINEERING COMPANY, LIMITED. Manufacturer.

*M. Livingston.*  
**General Remarks** (State quality of workmanship, opinions as to class, &c.) *The machinery has been specially surveyed during construction the material and workmanship good and renders the vessel eligible in my opinion to have the Record + Lmc 12.92 in the Register Book of the Society.*

Certificate (if required) to be sent to *NEWCASTLE-ON-TYNE office.*  
 The amount of Entry Fee... £ *2 : 0 : 0* When applied for, *24 DEC 92*  
 Special ... £ *19 : 10 : 0*  
 Donkey Boiler Fee ... £ *10 : 0 : 0* When received, *24 DEC 92*  
 Travelling Expenses (if any) £ *10 : 0 : 0*  
 Committee's Minute *FFI 30 DEC 1892*  
 Assigned *+ Lmc 12.92*



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