

# REPORT ON MACHINERY.

No. 67622

Received at London Office FRI JUN 11 1915

Date of writing Report 3<sup>rd</sup> June 1915 on board ship at Local Office 6<sup>th</sup> June 1915 Port of **NEWCASTLE-ON-TYNE**

No. in Survey held at *Newcastle* Date, First Survey *Sept. 25 1914* Last Survey *June 2 1915*  
Reg. Book. (Number of Visits 33)

*Report on the Machinery of the S.S. "Boucan"*

Master \_\_\_\_\_ Built at *Newcastle* By whom built *Wood & Skinner 86* Tons Gross \_\_\_\_\_ Net \_\_\_\_\_ When built *1915*

Engines made at *Newcastle* By whom made *North Eastern Marine Eng. Co.* when made *1915*

Boilers made at \_\_\_\_\_ By whom made \_\_\_\_\_ when made *1915*

Registered Horse Power \_\_\_\_\_ Owners *Cie des Chargeurs Francais* Port belonging to *Bayonne*

Nom. Horse Power as per Section 28 *178* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *No*

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

Dia. of Cylinders *18 1/2", 30", 50"* Length of Stroke *33"* Revs. per minute *86* Dia. of Screw shaft *10 1/4"* 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 *Yes* 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 *Yes* If two liners are fitted, is the shaft lapped or protected between the liners \_\_\_\_\_ Length of stern bush *4'-5"*

Dia. of Tunnel shaft *9-132"* Dia. of Crank shaft journals *9-58"* Dia. of Crank pin *10"* Size of Crank webs *16" x 6"* Dia. of thrust shaft under collars *10"* Dia. of screw *13-0"* Pitch of Screw *13-0"* No. of Blades *4* State whether moceable *no* Total surface *51.5*

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 *7" x 8" x 8" 6 1/4" x 4" x 6"* No. and size of Suctions connected to both Bilge and Donkey pumps \_\_\_\_\_

In Engine Room *5 of 3"* In Holds, &c. *2 of 3" in fore hold 3 of 3" in after hold and 1 of 2 1/2" in tunnel well*

No. of Bilge Injections *1* sizes *4"* Connected to condenser, or to circulating pump *no* Is a separate Donkey Suction fitted in Engine room & 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 *none*

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*

Dates of examination of completion of fitting of Sea Connections *17/3/15* of Stern Tube *17/3/15* Screw shaft and Propeller *12/5/15*

Is the Screw Shaft Tunnel watertight *Yes* Is it fitted with a watertight door *Yes* worked from *Top platform*

## BOILERS, &c.—(Letter for record *8*) Manufacturers of Steel *J. Spencer & Sons*

Total Heating Surface of Boilers *3052* Is Forced Draft fitted *no* No. and Description of Boilers *2 Single-ended*

Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* Date of test *19/3/15* No. of Certificate *8769*

Can each boiler be worked separately *Yes* Area of fire grate in each boiler *40.5* No. and Description of Safety Valves to each boiler *2 direct spring* Area of each valve *9.62* Pressure to which they are adjusted *185 lbs* Are they fitted with easing gear *Yes*

Smallest distance between boilers or uptakes and bunkers or woodwork *21"* Mean dia. of boilers *12'-9 7/8"* Length *10'-6"* Material of shell plates *Steel*

Thickness *1 1/16"* Range of tensile strength *28 3/4-32 tons* Are the shell plates welded or flanged *no* Descrip. of riveting: cir. seams *d.t. lap* long. seams *d.t. butt* Diameter of rivet holes in long. seams *1 1/8"* Pitch of rivets *8"* Lap of plates or width of butt straps *16 7/8"*

Per centages of strength of longitudinal joint rivets *86.9* Working pressure of shell by rules *184.7 lbs* Size of manhole in shell *16" x 12"* plate *85.9*

Size of compensating ring *flanged* No. and Description of Furnaces in each boiler *2 Leightons* Material *Steel* Outside diameter *47 1/2"*

Length of plain part top \_\_\_\_\_ bottom \_\_\_\_\_ Thickness of plates crown *9/16"* Description of longitudinal joint *welded* No. of strengthening rings \_\_\_\_\_

Working pressure of furnace by the rules *185 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *3/4"* Back *3/4"* Top *3/4"* Bottom *1"*

Pitch of stays to ditto: Sides *10 1/2" x 9 3/8"* Back *10 1/2" x 9 3/8"* Top *10 1/2" x 9 3/8"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *196 lbs*

Material of stays *Steel* Diameter at smallest part *2.36* Area supported by each stay *98.4* Working pressure by rules *215 lbs* End plates in steam space: \_\_\_\_\_

Material *Steel* Thickness *1 3/8"* Pitch of stays *25 1/2" x 18 1/4"* How are stays secured *d.n.w.* Working pressure by rules *183 lbs* Material of stays *Steel*

Diameter at smallest part *8.29* Area supported by each stay *465* Working pressure by rules *186 lbs* Material of Front plates at bottom *Steel*

Thickness *1"* Material of Lower back plate *Steel* Thickness *1 5/16"* Greatest pitch of stays *14 1/2" x 10 1/2"* Working pressure of plate by rules *90 lbs*

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

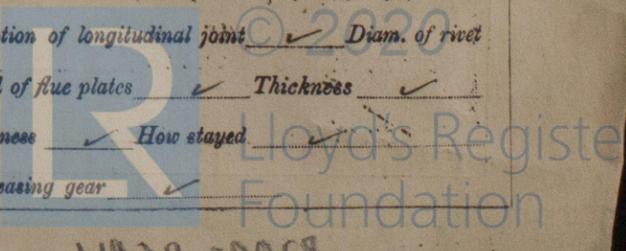
Pitch across wide water spaces *14 1/2"* Working pressures by rules *183 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *9 5/8" x 1 3/4"* Length as per rule *33"* Distance apart *10 1/2"* Number and pitch of stays in each *2 of 9 3/8"*

Working pressure by rules *186 lbs* Superheater or Steam chest; how connected to boiler *none* Can the superheater be shut off and the boiler worked separately *Yes* 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 *Yes* 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 \_\_\_\_\_

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the ship?



W939-0068

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied :-

*Two top end & 2 bottom end bolts, 2 main bearing bolts, 1 set of coupling bolts, 1 set of piston rings for each piston, 1 set of fuel & bilge pump valves, a quantity of assorted bolts nuts & iron, spare propeller & minor details.*

The foregoing is a correct description,  
per pro NORTH EASTERN MARINE ENGINEERING Co., LTD.

*J. Harrison*  
Secretary

Manufacturer.

Dates of Survey while building: During progress of work in shops - *1914 Sept 25 Oct 23 28 30 Nov 5 Dec 3 4 9 11 22* *1915 Jan 8 12 26 27 29 Feb 4 5 22 23 Mar 5 12 16 17*  
During erection on board vessel - *19 31 Apr 16 26 27 May 12 26 27 Jun 1 2*  
Total No. of visits *33*

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

" " " donkey " " " *Yes*

Dates of Examination of principal parts - Cylinders *8/1/15* Slides *16/4/15* Covers *3/12/14* Pistons *27/1/15* Rods *27/1/15*  
Connecting rods *27/1/15* Crank shaft *3/2/15* Thrust shaft *11/12/14* Tunnel shafts *28/10/14* Screw shaft *27/1/15* Propeller *12/3/15*  
Stern tube *31/3/15* Steam pipes tested *15/4, 26/5/15* Engine and boiler seatings *17/3/15* Engines holding down bolts *12/5/15*  
Completion of pumping arrangements *1/6/15* Boilers fixed *12/5/15* Engines tried under steam *1/6/15*  
Main boiler safety valves adjusted *1/6/15* Thickness of adjusting washers *P.P. 3/8" S. 7/16" S.P. 1/2" S. 7/16" 11*  
Material of Crank shaft *Steel* Identification Mark on Do. *22/2/15* Material of Thrust shaft *Steel* Identification Mark on Do. *11/12/14*  
Material of Tunnel shafts *iron* Identification Marks on Do. *5/11/14* Material of Screw shafts *iron* Identification Marks on Do. *29/1/15*  
Material of Steam Pipes *Loop welded iron* Test pressure *540 lbs.*

Is an installation fitted for burning oil fuel *no* Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case *no* If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

*The machinery of this vessel has been built under special survey, the materials used are good and the workmanship is satisfactory, it has been properly fitted on board and secured and the engines have been tried under full power. In my opinion this vessel is eligible for the record of L.M.C. 6, 15.*

*It is submitted that this vessel is eligible for THE RECORD + L.M.C. 6 15.*

*J.P.S.*

*J.W.D. 11/6/15*

The amount of Entry Fee ... £ *2*  
Special ... £ *26.14*  
Donkey Boiler Fee ... £  
Travelling Expenses (if any) £

When applied for, JUN 10 1915

When received, 12/6/15 15/6/15

*Charles Cooper*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUE JUN 15 1915

Assigned + L.M.C. 6 15

MACHINERY CERTIFICATE  
WRITTEN 11-6-15



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Lloyd's Register  
Foundation

NEWCASTLE-ON-TYNE

Certificate (if required) to be sent to  
The Surveyors are required not to write on or below the space for Committee's Minute.