

# REPORT ON MACHINERY.

No. 62102

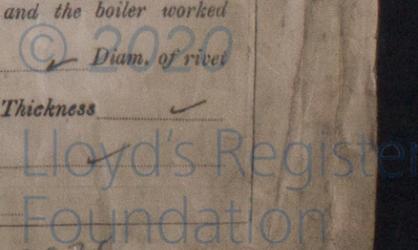
Received at London Office FRI. APR. 19. 1912

Date of writing Report 19 When handed in at Local Office 19 Port of NEWCASTLE - ON - TYNE  
 No. in Survey held at Newcastle Date, First Survey 15<sup>th</sup> Sept 1911 Last Survey 30<sup>th</sup> March 1912  
 Reg. Book. 5 on the Machinery of the S.S. Queen Louise (Number of Visits 47)  
 Master McDonald Built at Newcastle By whom built Northumbrians S.B.C. Tons { Gross 4852 Net 3139  
 Engines made at Newcastle By whom made North Eastern Marine Eng. Co. When built 1912  
 Builders made at " By whom made " when made 1912  
 Registered Horse Power " Owners J. Dunlop & Sons Port belonging to Glasgow  
 Nom. Horse Power as per Section 28 436 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

**ENGINES, &c.**—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 26" 42" & 42" Length of Stroke 48" Revs. per minute 69 Dia. of Screw shaft as per rule 14.55" 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 ✓ Length of stern bush 5-6"  
 Dia. of Tunnel shaft as per rule 13.0" Dia. of Crank shaft journals as per rule 13.65" Dia. of Crank pin 14" Size of Crank webs 27/8" X 8 3/4" Dia. of thrust shaft under collars 14" Dia. of screw 17-9" Pitch of Screw 17-9" No. of Blades 4 State whether moveable no Total surface 100 sq  
 No. of Feed pumps 2 Diameter of ditto 4" Stroke 26" Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 26" Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines 3 Sizes of Pumps 8 1/2" X 11" X 10"; 7 1/2" X 4 1/2" X 10"; 5 1/4" X 3 1/2" X 5" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room 4 of 3 1/2" In Holds, &c. 2 of 3 1/2" in each hold & 1 of 2 1/2" in tunnel well.  
 No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size Yes 3 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 no  
 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 2/2/12 of Stern Tube 2/2/12 Screw shaft and Propeller 19/3/12  
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper deck

**BOILERS, &c.**—(Letter for record (R)) Manufacturers of Steel J. J. Spencer & Sons  
 Total Heating Surface of Boilers 4356 Is Forced Draft fitted no No. and Description of Boilers 3 Single-ended  
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 14/2/12 No. of Certificate 8272  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 67 1/2 sq No. and Description of Safety Valves to each boiler 2 direct spring Area of each valve 4.068 sq 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 1-9" Mean dia. of boilers 15-4 2/3" Length 11-9" Material of shell plates steel  
 Thickness 1 1/32" Range of tensile strength 28 1/2 - 32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double lap long. seams 2 rivet d. butt Diameter of rivet holes in long. seams 19/32" Pitch of rivets 8 1/16" Lap of plates or width of butt straps 18 1/8"  
 Per centages of strength of longitudinal joint rivets 88 plate 85.6 Working pressure of shell by rules 183 lbs Size of manhole in shell 16" X 12"  
 Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 Doughtons Material steel Outside diameter 49"  
 Length of plain part top ✓ bottom ✓ Thickness of plates crown 9/16" bottom ✓ Description of longitudinal joint welded No. of strengthening rings ✓  
 Working pressure of furnace by the rules 180 lbs Combustion chamber plates: Material steel Thickness: Sides 2 3/32" Back 2 3/32" Top 2 3/32" Bottom 1"  
 Pitch of stays to ditto: Sides 1 1/2" X 8 1/8" Back 1 1/4" X 9 1/4" Top 1 1/2" X 8 1/8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180 lbs  
 Material of stays iron Diameter at smallest part 2.36" Area supported by each stay 97.37 sq Working pressure by rules 181 lbs End plates in steam space: Material steel Thickness 1 1/32" Pitch of stays 22" X 2 1/4" How are stays secured d. nuts w Working pressure by rules 180 lbs Material of stays steel  
 Diameter at smallest part 8.29" Area supported by each stay 47.3 sq Working pressure by rules 182 lbs Material of Front plates at bottom steel Thickness 1" Material of Lower back plate steel Thickness 2 1/32" Greatest pitch of stays 14 1/2" X 9 1/2" Working pressure of plate by rules 189 lbs  
 Diameter of tubes 3 1/4" Pitch of tubes 4 3/8" X 4 1/2" Material of tube plates steel Thickness: Front 1" Back 1 1/16" Mean pitch of stays 9" X 13 1/8"  
 Pitch across wide water spaces 14 1/2" Working pressures by rules 182 lbs Girders to Chamber tops: Material steel Depth and thickness of girder at centre 9 3/4" X 2 1/2" Length as per rule 39" Distance apart 11 1/2" Number and pitch of stays in each 3; 8 1/8"  
 Working pressure by rules 182.5 lbs Superheater or Steam chest; how connected to boiler no 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 ✓

W632-0076



**VERTICAL DONKEY BOILER—** Manufacturers of Steel

No.	Description		
Made at	By whom made	When made	Where fixed
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted
If fitted with casing gear	If steam from main boilers can enter the donkey boiler		Date of adjustment
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
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.
Diameter of furnace	Top	Bottom	Length of furnace
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey

**SPARE GEAR.** State the articles supplied:— *2 top end & 2 bottom end bolts, 2 main bearing bolts, 1 set of coupling bolts, 1 set of feed & bilge pump valves, a quantity of bolts nuts and assorted iron, 1 propeller & 1 propeller shaft and minor details.*

The foregoing is a correct description,

**NORTH EASTERN MARINE ENGINEERING CO., LTD.**

Manufacturer. *J. Morrison*

Dates of Survey while building	During progress of work in shops	During erection on board vessel	Total No. of visits	Is the approved plan of main boiler forwarded herewith
			<i>47</i>	<i>Yes</i>

Dates of Examination of principal parts—Cylinders *11/12/11* Slides *22/2/12* Covers *27/12/11* Pistons *27/12/11* Rods *8/12/11*

Connecting rods *17/11/11* Crank shaft *3/1/12* Thrust shaft *4/1/12* Tunnel shafts *1/2/12* Screw shaft *27/11/11* Propeller *12/2/12*

Stern tube *28/1/12* Steam pipes tested *16/2/12* Engine and boiler seatings *21/2/12* Engines holding down bolts *21/3/12*

Completion of pumping arrangements *26/3/12* Boilers fixed *21/3/12* Engines tried under steam *26/3/12*

Main boiler safety valves adjusted *26/3/12* Thickness of adjusting washers *Steel P 3/4" S 1/2" Centre P 5/16" S 7/16" Port P 7/16" S 7/16"*

Material of Crank shaft *Steel* Identification Mark on Do. *4/1/12* Material of Thrust shaft *Steel* Identification Mark on Do. *4/1/12*

Material of Tunnel shafts *Steel* Identification Marks on Do. *1/2/12* Material of Screw shafts *Iron* Identification Marks on Do. *28/12/11*

Material of Steam Pipes *Solid drawn copper* Test pressure *360 lbs.*

**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 steam.*

*In my opinion this vessel is eligible to have the record of L.M.C. 3.12.*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 3.12.

*J.W.D. 19/4/12*

The amount of Entry Fee	£ 3	When applied for,
Special	£ 41:16	<b>APR 18 1912</b>
Donkey Boiler Fee	£	When received,
Traveling Expenses (if any)	£	<i>25/4/12</i>

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

Committee's Minute TUE. APR 23 1912

Assigned *Home 3.12*

MACHINERY CERTIFICATE



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Lloyd's Register Foundation

NEWCASTLE ON TYNE

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

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