

REPORT ON MACHINERY.

July 4 1900

Port of *Newcastle on Tyne*

Received at London Office

No. in Survey held at *Newcastle* Date, first Survey *May 29* Last Survey *July 18* 19*00*

g. Book. on the *S.S. Lord Panmure* (Number of Visits *8*)

Master Built at By whom built When built

Engines made at By whom made when made

Boilers made at *Newcastle* By whom made *R. Stephenson & Co.* when made *1900*

Registered Horse Power Owners *Bain Son & Co.* Port belonging to

nom. Horse Power as per Section 28 Is Refrigerating Machinery fitted Is Electric Light fitted

ENGINES, &c.—Description of Engines

No. of Cylinders	Description of Engines	No. of Cylinders	No. of Cranks
	Length of Stroke	Revs. per minute	Dia. of Screw shaft as per rule as fitted
	Dia. of Crank shaft journals as per rule as fitted	Dia. of Crank pin	Size of Crank webs
	Dia. of thrust shaft under		
	Dia. of screw	Pitch of screw	No. of blades
			State whether moceable
			Total surface
	No. of Feed pumps	Diameter of ditto	Stroke
			Can one be overhauled while the other is at work
	No. of Bilge pumps	Diameter of ditto	Stroke
			Can one be overhauled while the other is at work
	No. of Donkey Engines	Sizes of Pumps	No. and size of Suctions connected to both Bilge and Donkey pumps
			In Holds, &c.
	No. of bilge injections	sizes	Connected to condenser, or to circulating pump
			Is a separate donkey suction fitted in Engine room & size
	Are all the bilge suction pipes fitted with roses	Are the roses in Engine room always accessible	Are the stucces on Engine room bulkheads always accessible
	Are all connections with the sea direct on the skin of the ship	Are they Valves or Cocks	
	Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates	Are the discharge pipes above or below the deep water line	
	Are they each fitted with a discharge valve always accessible on the plating of the vessel	Are the blow off cocks fitted with a spigot and brass covering plate	
	What pipes are carried through the bunkers	How are they protected	
	Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times		
	Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges		
	When were stern tube, propeller, screw shaft, and all connections examined in dry dock	Is the screw shaft tunnel watertight	
	Is it fitted with a watertight door	worked from	

BOILERS, &c.— (Letter for record *(S)*) Total Heating Surface of Boilers *1350* Is forced draft fitted

No. and Description of Boilers *One, Cyl. Single Ended Working Pressure 80* Tested by hydraulic pressure to *160*

Date of test *18-7-00* Can each boiler be worked separately Area of fire grate in each boiler *50* No. and Description of safety valves to each boiler *2* Area of each valve *10.521* Pressure to which they are adjusted *71* Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork *3"* Mean dia. of boilers *12-6* Length *10-0* Material of shell plates *Steel*

Thickness *5/8* Range of tensile strength *27/32* Are they welded or flanged *no* Descrip. of riveting: cir. seams *d/c* long. seams *D/Shape*

Diameter of rivet holes in long. seams *13/16* Pitch of rivets *4-39* Lap of plates or width of butt straps *12 7/8*

Per centages of strength of longitudinal joint plate *81-5* Working pressure of shell by rules *90.9* Size of manhole in shell *16 x 12*

Size of compensating ring *7 x 5/8* No. and Description of Furnaces in each boiler *3 plain* Material *Steel* Outside diameter *36 5/8*

Length of plain part top *6-3* bottom *8-10* Thickness of plates crown *3/2* bottom *3/2* Description of longitudinal joint *d/Shape* No. of strengthening rings *1 half*

Working pressure of furnace by the rules *98* Combustion chamber plates: Material *Steel* Thickness: Sides *1/2* Back *1/2* Top *1/2* Bottom *5/8*

Pitch of stays to ditto: Sides *9 1/2 x 9* Back *9 1/2 x 9 1/2* Top *9 x 9* If stays are fitted with nuts or riveted heads *nut.* Working pressure by rules *85*

Material of stays *Steel* Diameter at smallest part *7/8* Area supported by each stay *90.25* Working pressure by rules *87* End plates in steam space:

Material *Steel* Thickness *3/4* Pitch of stays *17 1/2 x 17 1/2* How are stays secured *d & w* Working pressure by rules *87* Material of stays *Steel*

Diameter at smallest part *1 1/8* Area supported by each stay *306* Working pressure by rules *90* Material of Front plates at bottom *Steel*

Thickness *1/8* Material of Lower back plate *Steel* Thickness *3/4* Greatest pitch of stays *as per plan* Working pressure of plate by rules *4 1/2 80*

Diameter of tubes *3 1/4* Pitch of tubes *4 1/2* Material of tube plates *Steel* Thickness: Front *1/8* Back *1/8* Mean pitch of stays *10 1/8*

Pitch across wide water spaces *14 1/2* Working pressures by rules *86* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *7 1/2 x 1* Length as per rule *27 3/8* Distance apart *9* Number and pitch of Stays in each *2 - 9*

Working pressure by rules *122*. Superheater or Steam chest: how connected to boiler 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

DONKEY BOILER— No. Description

Made at By whom made When made Where fixed

Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves

No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boiler

enter the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of te

strength Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Lap of plating Per centage of strength of joint Rivets Thickness of shell crown plates Radius of do. No. of Stays to do.

Dia. of stays Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Descripti

joint Thickness of furnace crown plates Stayed by Working pressure of shell by rules

Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

For **ROBERT STEPHENSON & CO., LIMITED.**

John M. Campbell

Dates of Survey while building

During progress of work in shops: 1900 May 29, June 6, 12, 15, July 5, 10, 11, 18

During erection on board vessel

Total No. of visits 8

Is the approved plan of main boiler forwarded herewith

“ “ “ donkey “ “ “

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

This boiler has been built under special Survey the material & workmanship is good. This vessel does not appear to be classed. The boiler has been sent to Messrs. Bain Sons & Co. Portreath, Redruth Cornwall

It is submitted that as this boiler is intended for an unclassified vessel no further action need be taken

Handwritten notes and calculations, including '3.8.00' and '3.8-00'.

The amount of Entry Fee. . . £ . . .

Special £ . . .

Donkey Boiler Fee £ . . .

Travelling Expenses (if any) £ . . .

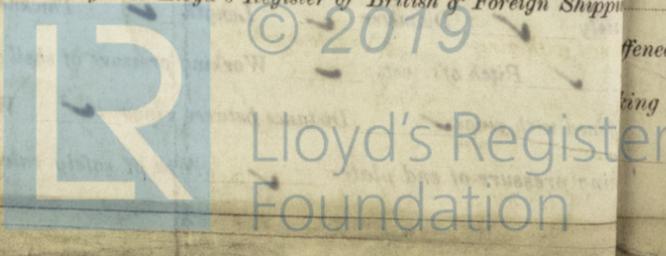
When applied for, 2 AUG 1900

When received, 7 8 1900

John H Heck
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute TUES. 30 OCT 1900

Assigned *not for classing Committee*



Certificate (if required) to be sent to