

REPORT ON MACHINERY.

N.W.C. No. 52996

Port of Newcastle

Received at London Office WED. 29 MAY 1907

No. in Survey held at Newcastle
Reg. Book. No. 190
on the

Date, first Survey June 22 '06 Last Survey 23 May 1907

(Number of Visits 23)

Master Wallsend
Engines made at Wallsend

Built at Wallsend By whom built Parsons Marine Steam Turbine Co

Tons } Gross
 } Net
When built

By whom made Parsons Marine Steam Turbine Co when made 1904

Boilers made at _____ By whom made _____ when made _____

Registered Horse Power _____ Owners _____ Port belonging to _____

^{HP} Horse Power as per Section 28 16800 Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____

ENGINES, &c.—Description of Engines Turbine No. of Cylinders 3 No. of Cranks ✓

Drum. HP 6 1/2" casing 6 1/2" outer 7 3/4" casing 7 1/2" to 7 3/4" Revs. per minute 290 Dia. of Screw shaft _____ Material of screw shaft _____

Is the screw shaft fitted with a continuous liner the whole length of the stern tube _____ Is the after end of the liner made water tight _____

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 _____

Dia. of Tunnel shaft _____ Dia. of Crank shaft journals _____ Dia. of Crank pin _____ Size of Crank webs _____ Dia. of thrust shaft under _____

Collars 13 1/2" Dia. of screw 9 1/4" Pitch of Screw 105" No. of Blades 3 State whether moveable f Total surface 1132 sq.

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 _____

Engine Room _____ 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 sluices 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 _____

Notes of examination of completion of fitting of Sea Connections _____ of Stern Tube _____ Screw shaft and Propeller _____

Is the Screw Shaft Tunnel watertight _____ Is it fitted with a watertight door _____ worked from _____

VALVES, &c.—(Letter for record _____) Manufacturers of Steel _____

Working Pressure _____ Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____

Is Forced Draft fitted _____ No. and Description of Boilers _____

Can each boiler be worked separately _____ Area of fire grate in each boiler _____ No. and Description of Safety Valves to _____

boiler _____ Area of each valve _____ Pressure to which they are adjusted _____ Are they fitted with easing gear _____

Least distance between boilers or uptakes and bunkers or woodwork _____ Mean dia. of boilers _____ Length _____ Material of shell plates _____

Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams _____

Range of tensile strength _____ Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____

Percentages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell _____

No. and Description of Furnaces in each boiler _____ Material _____ Outside diameter _____

Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings _____

Working pressure of furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____

No. of stays to ditto: Sides _____ Back _____ Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____

Material of stays _____ Diameter at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space: _____

Material _____ Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of stays _____

Diameter at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____

Material of Lower back plate _____ Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules _____

Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____

Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and _____

Length as per rule _____ Distance apart _____ Number and pitch of stays in each _____

Superheater or Steam chest; how connected to boiler _____ Can the superheater be shut off and the boiler worked _____

Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet _____

Pitch of rivets _____ Working pressure of shell by rules _____ Diameter of flue _____ Material of flue plates _____ Thickness _____

Distance between rings _____ Working pressure by rules _____ End plates: Thickness _____ How stayed _____

Area of safety valves to superheater _____ Are they fitted with easing gear _____

Pressure of end plates _____

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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 _____ Fire grate area _____ Description of Safety _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____

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 _____ Lay of plating _____ Per centage of strength of joint _____ Rivets _____ Plates _____

Working pressure of shell by rules _____ 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 _____ Description of joint _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

FOR THE PARSONS MARINE STEAM TURBINE CO., LIMITED.

Manufacturer. *Turbines only.*

R. Walker

DIRECTOR.

Dates of Survey while building { During progress of work in shops - - - - - } *Nov. 1906 June 22 Aug 16 Sep 14 Oct 22 24 29 30 Nov 5 7 19 23 29 Dec 3 10 19 1907 Jan 25 Feb 5 7 21 Mar 7*

{ During erection on board vessel - - - } *Apr 10 21 23 24 25 26 27 28 29 30*

Total No. of visits _____

Is the approved plan of main boiler forwarded herewith _____

Dates of Examination of principal parts—Cylinders _____ Slides _____ Covers _____ Pistons _____ Rods _____

Connecting rods _____ Crank shaft _____ Thrust shaft _____ Tunnel shafts _____ Screw shaft _____ Propeller _____

Stern tube _____ Steam pipes tested _____ Engine and boiler seatings _____ Engines holding down bolts _____

Completion of pumping arrangements _____ Boilers fixed _____ Engines tried under steam _____

Main boiler safety valves adjusted _____ Thickness of adjusting washers _____

Material of Crank shaft _____ Identification Mark on Do. _____ Material of Thrust shaft _____ Identification Mark on Do. _____

Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts _____ Identification Marks on Do. _____

Material of Steam Pipes _____ Test pressure _____

General Remarks (State quality of workmanship, opinions as to class, &c. *The turbines for this vessel have been constructed under special survey. Materials and workmanship good and efficient. The casings have all been subjected to hydraulic test & found sound & afterwards tried in factory under steam & found satisfactory. They have now been shipped to the shipbuilder C. M. Japan where the shafting boiler & auxiliary machinery is to be fitted. In our opinion this vessel is eligible for the record of L. M. C.*)

HP drum 6' 4" Casings 6' 7 1/4" - to 7' 1"
LP drums 8' 10" Casings 9' 1 1/4" to 10' 4"
Astern drums 7' 3" Casings 7' 4 1/4" to 7' 8"
Astern turbines incorporated in L.P

| | | | | |
|--------------------------------|---|------|---|-------------------|
| The amount of Entry Fee.. | £ | : | : | When applied for, |
| Special | £ | 50.- | : | 19.. |
| Donkey Boiler Fee | £ | : | : | When received, |
| Travelling Expenses (if any) £ | : | : | : | 13/6 1914 |

M. J. Studley
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **WED. 10 JUN 1908**

Assigned *See minute on Reg. Rpt 603*



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