

REPORT ON MACHINERY.

No. 53760

Port of *Newcastle on Tyne*

Received at London Office

MON. 4 NOV 1907

No. in Survey held at *South Shields* Date, first Survey *July 9* Last Survey *Oct 30* 1907
Reg. Book. on the *Paddle tug "Old Trafford"* (Number of Visits *19*)
Master Built at *South Shields* By whom built *Jos. T. Eltringham & Co Ltd* Tons { Gross *156*
Engines made at *South Shields* By whom made *Hepple & Co Ltd (Engs)* when made *1907* Net *2*
Boilers made at *South Shields* By whom made *Jos. T. Eltringham & Co (Boiler)* when made *1907*
Registered Horse Power Owners *Manchester Ship Canal Co* Port belonging to *Manchester*
Nom. Horse Power as per Section 28 *87* Is Refrigerating Machinery fitted for cargo purposes ☒ Is Electric Light fitted ☒

ENGINES, &c.—Description of Engines *Side lever, disconnecting surface condensing* No. of Cylinders *2* No. of Cranks *2*
Dia. of Cylinders *30"* Length of Stroke *54"* Revs. per minute *45* Dia. of *Paddle* as per rule *9 1/8"* Material of *Iron*
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
in the propeller boss ☒ 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 as per rule *14"* Dia. of Crank shaft journals as per rule *5 1/4"* Dia. of Crank pin *5 1/4"* Size of Crank webs *9 1/2" x 4 1/2"* Dia. of thrust shaft under
collars ☒ Dia. of *14"* as fitted *14"* Pitch of *6"* as fitted *6"* No. of *8* State whether moveable ☒ Total surface
No. of Feed pumps *1* Diameter of ditto *4 1/2"* Stroke *13 1/2"* Can one be overhauled while the other is at work *one each engine*
No. of Bilge pumps *1* Diameter of ditto *4 1/2"* Stroke *13 1/2"* Can one be overhauled while the other is at work *do*
No. of Donkey Engines *1* Sizes of Pumps *5 1/4" x 5" x 3 1/2"* No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room *3* *2" dia* In Holds, &c. *1 fore hold 2" dia*
1 aft " 2" "
No. of Bilge Injections *2* sizes *3/4"* Connected to condenser, or to circulating pump *C.P.* Is a separate Donkey Suction fitted in Engine room & size *2"*
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 *both*
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 *above*
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 *air & bilge pump discharges* How are they protected *Iron recess*
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 ☒
Dates of examination of completion of fitting of Sea Connections *25-7-07* of Stern Tube ☒ Screw shaft and Propeller ☒
Is the Screw Shaft Tunnel watertight ☒ Is it fitted with a watertight door ☒ worked from ☒

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

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers
Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to
each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
bottom Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
Pitch 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
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
Working pressure by rules 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

007100-007115-0092

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 _____ Lap 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:— 2 Tail frame bolts, 2 crank, 4 piston, 2 main bearing 12 float, 12 wheel bolts, 6 wheel pins, assorted bolts & nuts.

The foregoing is a correct description,

J. HEPPL & CO. LTD

W. J. Hepple

Manufacturer.

MANAGING DIRECTOR

Dates of Survey while building { During progress of work in shops - 1907 July 9, 15, 22 Aug 15, 22, 26, 30 Sep 6, 12, 23, 27, 30 Oct 1, 4, 8, 11, 16, 25, 30
During erection on board vessel - -
Total No. of visits 19

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 19-9-07 Slides 19-9-07 Covers 19-9-07 Pistons 24-9-07 Rods 19-9-07
Connecting rods 28-10-07 Crank shaft 8-10-07 Thrust shaft — Tunnel shafts — Screw shaft — Paddles 18-10-07
Stern tube — Steam pipes tested 21-23-10-07 Engine and boiler seatings 25-7-07 Engines holding down bolts 19-9-07
Completion of pumping arrangements 28-10-07 Boilers fixed 1-10-04 Engines tried under steam 28-10-07
Main boiler safety valves adjusted 28-10-07 Thickness of adjusting washers P.B. P.1 3/32 S.Y. 17/32 S.B. P.Y 1/4 S.Y 1/16
Material of Crank shaft Iron Identification Mark on Do. 110108 JES Material of Thrust shaft — Identification Mark on Do. —
Material of Tunnel shafts — Identification Marks on Do. 8-10-07 Material of Screw shafts — Identification Marks on Do. —
Material of Steam Pipes Copper seamed joint pipes 10 W.G. Test pressure 90 lbs

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

The machinery and boilers of this vessel have been built under special survey, the material and workmanship is sound and good, and eligible in my opinion to be classed with record of **L.M.C. 10-07**.

It is submitted that this vessel is eligible for THE RECORD. **L.M.C. 10.07**

J.C. 4-11-07

R.S.
4.11.07

The amount of Entry Fee. £ 1 : : : When applied for, 2 NOV 1907
Special BLA 14 0.0 } £ 3 : 1 : :
Donkey Boiler Fee £ : : : When received, 29.11.07
Travelling Expenses (if any) £ : : : 4.11.07

Committee's Minute

Assigned

TUES. 5 NOV 1907

+ Lmb 10.07

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



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Surveyed on - Type.

Certificate (if required) to be sent to Committee's Minute.

Vertical Donkey Boiler