

REPORT ON MACHINERY.

Port of Newcastle-on-Tyne Received at London Office TUES. JUL 2 1901
 No. in Survey held at North Shields Date, first Survey Nov. 1900 Last Survey June 1901
 Reg. Book. 290 on the S.S. Pioneer (Number of Visits 29)
 Master Eastwood Built at Hull By whom built H. Seave Tons Gross 121.49
Net 53.36
 Engines made at North Shields By whom made Messrs. Hedley & Boyd when made 1900
 Boilers made at South Shields By whom made Messrs. Eltringham & Co. Ld. when made 1900
 Registered Horse Power ✓ Owners Wetherall Steam Shipping Co. Ltd. Port belonging to Goole
 Nom. Horse Power as per Section 28 25 Is Refrigerating Machinery fitted No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Compound Surface Condensing No. of Cylinders 2 No. of Cranks 2
 Dia. of Cylinders 11" 4 2 2" Length of Stroke 16" Revs. per minute 120 Dia. of Screw shaft as per rule 4.4" Lgth. of stern bush 1.7"
 Dia. of Tunnel shaft as per rule 4.2" Dia. of Crank shaft journals as per rule 4.4" Dia. of Crank pin 4 7/8" Size of Crank webs 27x8 1/2" Dia. of thrust shaft under collars 4 5/8" Dia. of screw 5.6" Pitch of screw 2.0" No. of blades 4 State whether moveable No Total surface 11.6 sq. ft.
 No. of Feed pumps 1 Diameter of ditto 2" Stroke 4" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps 1 Diameter of ditto 2" Stroke 4" Can one be overhauled while the other is at work ✓
 No. of Donkey Engines 1 Sizes of Pumps Duplex 4x2 3/4" x 4" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2" Two In Holds, &c. 2" Two in Fore Hold, one in F. Peak
 No. of bilge injections 1 sizes 2" Connected to condenser, or to circulating pump Pump Is a separate donkey suction fitted in Engine room & size 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 Yes
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Cocks
 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 spigot
 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
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock not docked Is the screw shaft tunnel watertight No tunnel
 Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record —) Total Heating Surface of Boilers 493 sq. ft. Is forced draft fitted No
 No. and Description of Boilers 1 Single ended Multitubular Working Pressure 120 Tested by hydraulic pressure to 240 lbs
 Date of test 13.3.07 Can each boiler be worked separately ✓ Area of fire grate in each boiler 22 sq. ft. No. and Description of safety valves to each boiler 2 Spring loaded Area of each valve 3.1416" Pressure to which they are adjusted 120 Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 10" Mean dia. of boilers 8.5 1/2" Length 8.0" Material of shell plates Steel
 Thickness 5/8" Range of tensile strength 29/32 Are they welded or flanged No Descrip. of riveting: cir. seams D.R. Lap long. seams True lap
 Diameter of rivet holes in long. seams 1" Pitch of rivets 4 1/8" Lap of plates or width of butt straps 7"
 Per centages of strength of longitudinal joint 76 7/8% Working pressure of shell by rules 120 Size of manhole in shell 12" x 16"
 Size of compensating ring 7 x 5 1/8" No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 30"
 Length of plain part top 5.4" bottom 6.4" Thickness of plates top 15/32" bottom 17/32" Description of longitudinal joint S.R. lap No. of strengthening rings ✓
 Working pressure of furnace by the rules 128 Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 7/32"
 Pitch of stays to ditto: Sides 9 x 9 1/4" Back 10 x 9" Top 10 x 9" Are stays fitted with nuts or riveted heads Nuts Working pressure by rules 121
 Material of stays Iron Diameter at smallest part 1 1/32" Area supported by each stay 90" Working pressure by rules 165 End plates in steam space: Material Steel Thickness 3/32" x 1/16" Pitch of stays 15" x 16 1/2" How are stays secured D.N. & W. Working pressure by rules 121 Material of stays Steel
 Diameter at smallest part 2 1/16" Area supported by each stay 247.5" Working pressure by rules 135 Material of Front plates at bottom Steel
 Thickness 7/32" Material of Lower back plate Steel Thickness 1/16" Greatest pitch of stays 14 x 9" Working pressure of plate by rules 120
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" Material of tube plates Steel Thickness: Front 27/32" Back 3/4" Mean pitch of stays 13 1/2" x 9"
 Pitch across wide water spaces 13 3/4" Working pressures by rules 134 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 ✓

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 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

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

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:—

1 Set of coupling Bolts. 2 Bottom end bolts
2 Top End & 2 Main Bearing bolts. 1 Set of Feed & 1 set of Bidge Pump Valves
1 H.P. & 1 L.P. Piston Packing ring
Assorted bolts & nuts & iron of various sizes

The foregoing is a correct description,

H. R. Thompson

Manufacturer.

Hedley & Poyl

Main Works

Engineers

Dates
of Survey
while
buildingDuring progress of
work in shops—
During erection on
board vessel—
Total No. of visits

Engs. 1901. Jan. 10. 15. 24. 30. Feb. 12. 26. Mch. 14. 24. 29. May. 12. 16. 21. June 10. 14. 19.
Blvs. 1900. Nov. 16. 20. 22. 27. Dec. 7. 10. 12. 14. 1901. Jan. 16. 22. Feb. 1. 8. 15. 25. Mch. 15

Is the approved plan of main boiler forwarded herewith

Yes

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

The Machinery of this vessel has
been constructed & fitted on board under Special Survey. The workmanship
is sound & good. The machinery has been tried under steam & found satisfactory &
in my opinion is eligible to be classed **L.M.C 6.07**, in the Register Book

Material of screw shaft *Forged Scrap Iron* Is the screw shaft fitted with a continuous liner the whole length of the stern tube *No liner*Is the after end of the liner made water tight in the propeller boss *No* If the liner is in more than one length are the joints burnedIf 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 *✓*

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C 6.01

C.M.
2.7.01

The amount of Entry Fee...

Special

Donkey Boiler Fee

Travelling Expenses (if any)

When applied for,

1 JUL 1901

When received,

29/1/01

Committee's Minute

FRI. JUL 5 1901

Assigned

+ L.M.C 6.01

G. A. Dryden Toyns. A.E. Larminer
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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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.)Machinery Certificate
WRITTEN