

REPORT ON MACHINERY.

Port of MIDDLESBROUGH-ON-TEES.

FRI. 28 MAY 1897

Received at London Office

Survey held at Stockton & Middlesbrough Date, first Survey 10th Dec^r 1896 Last Survey 24th May 1897(Number of Visits 18)

the

S. S. "Garnet."Tons { Gross 356.
Net 226.When built 1870.Built at BelfastBy whom built Harland & WolffGreenock

By whom made

Greenock Foundry Cowhen made 1870.Stockton

By whom made

Riley Brotherswhen made 1897.Power 70.

Owners

Mathew & LuffPort belonging to London.

as per Section 28

Is Electric Light fitted —

Description of Engines

CompoundNo. of Cylinders 2.No. of Cranks 2.Diameter of screw shaft 18" & 38 3/8"Length of Stroke 24" Revolutions per minuteDiameter of Screw shaft as per rule 6.43Diameter of Crank shaft journals 6 1/2"Diameter of Crank pin 6 1/2"

Size of Crank webs

Pitch of screw

No. of blades

State whether moveable

Total surface

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

Engines

Sizes of Pumps

No. and size of Suctions connected to both Bilge and Donkey pumps

In Holds, &c.

Is

sizes

Connected to condenser, or to circulating pump

Is a separate donkey suction fitted in Engine room & size

Discharge pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

Discharge pipes with the sea direct on the skin of the ship

Are they Valves or Cocks

Discharge pipes 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

Discharge pipes 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

Discharge pipes carried through the bunkers

How are they protected

Discharge pipes, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times

Discharge pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges

Discharge pipes, tube, propeller, screw shaft, and all connections examined in dry dock

Is the screw shaft tunnel watertight

Discharge pipes watertight door

worked from

(Letter for record 0 (5))

Total Heating Surface of Boilers

712.7Is forced draft fitted no

Description of Boilers

2. S. & E. MultitubularWorking Pressure 100 lbsTested by hydraulic pressure to 200 lbsCan each boiler be worked separately yesArea of fire grate in each boiler 18

No. and Description of safety valves to

direct springArea of each valve oldPressure to which they are adjusted 90 lbs

Are they fitted

yesSmallest distance between boilers or uptakes and bunkers or woodwork 2'-6"Mean diameter of boilers 9'-6"Material of shell plates steelThickness 19/32Description of riveting: circum. seams d.r. laplong. seams d. butt str.

Holes in long. seams

15/16

Pitch of rivets

4"Lap of plates or width of butt straps 10"

Length of longitudinal joint

rivets 86plate 76.7Working pressure of shell by rules 107 lbsSize of manhole in shell 12" x 16"

Girth ring

7" x 19/32

No. and Description of Furnaces in each boiler

1. plain

Material

steel

Outside diameter

46"

Girth ring

5-10 1/2"

Thickness of plates

3 9/16

Description of longitudinal joint

welded

No. of strengthening rings

—

Furnace by the rules

100 lbs

Combustion chamber plates: Material

steel

Thickness: Sides

5/8

Back

1/2

Top

1/2

Bottom

5/8

Furnace by the rules

7 3/4

Back

7 3/4 x 8

Top

7 3/4 x 7 3/4

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

120 lbs

Furnace by the rules

steel

Diameter at smallest part

1 1/8

Eff

supported by each stay

62"

Working pressure by rules

94 lbs

End plates in steam space:

Thickness

1/16

Pitch of stays

14 3/4 x 14 3/4

How are stays secured

d. nuts

Working pressure by rules

103 lbs

Material of stays

iron

Test part

2 8/16

Area supported by each stay

2138

Working pressure by rules

210 lbs

Material of Front plates at bottom

steel

Material of Lower back plate

steel

Thickness

1/16

Greatest pitch of stays

9"

Working pressure of plate by rules

200 lbs

Pitch of tubes

3 1/2

Material of tube plates

steel

Thickness: Front

1/16

Back

3/4

Mean pitch of stays

13 1/4"

Discharge water spaces

13 1/4"

Working pressures by rules

104 lbs

Girders to Chamber tops: Material

steel

Depth and

at centre

5" x 1 1/4"

Length as per rule

24"

Distance apart

7 1/4"

Number and pitch of Stays in each

2. 7 1/2"

Furnace by the rules

108 lbs

Superheater or Steam chest; how connected to boiler

none

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

—

End plates: Thickness

—

How stayed

—

Pitch of rivets

—

Distance between rings

—

Working pressure by rules

—

End plates: Thickness

—

How stayed

—

Pitch of rivets

—

Distance between rings

—

Working pressure by rules

—

End plates: Thickness

—

How stayed

—

Pitch of rivets

—

Distance between rings

—

Working pressure by rules

—

End plates: Thickness

—

How stayed

—

Pitch of rivets

—

Distance between rings

—

Working pressure by rules

—

End plates: Thickness

—

How stayed

—

Pitch of rivets

—

Distance between rings

—

Working pressure by rules

—

End plates: Thickness

—

How stayed

—

Pitch of rivets

—

Distance between rings

—

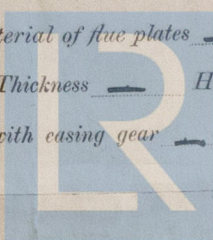
Working pressure by rules

—

End plates: Thickness

—

How stayed

—Lloyd's Register
Foundation

DONKEY BOILER— 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 _____

Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____

Description of riveting long seams _____ Diameter 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 _____ 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:—

The foregoing is a correct description,

Griley 130P.

Manufacturer.

Spain Boilers

Dates _____
of Survey _____
while _____
building _____

During progress of work in shops—
During erection on board vessel—
Total No. of visits _____

See him list

General Remarks (State quality of workmanship, opinions as to class, &c. *The old boilers have been taken*

out of the vessel and new ones of the description given on other side have been fitted. These boilers were built under Special Survey and are of good workmanship & material. They have been properly fitted and secured on board the vessel and on completion tried under steam and safety valves adjusted to 90 lbs per square inch, this being the pressure the shafting is good for.

The Engines were all opened up and there were examined: Cylinders, pistons, rods, slides and valve gear. Crank and tunnel shafting. Condenser partly retubed and afterwards tested. Air, feed, bilge and Circulating pumps overhauled and examined and a new donkey pump fitted with direct suction from engine bilge.

On account of damage the vessel was placed in dry dock and the tail shaft recommended to be drawn. On examination found same in good order. Wood renewed in stern bush. Universal joint on shaft as well as the raise and lowering of the propeller, with which the vessel fitted, overhauled and adjusted. — All sea connections examined and found in good order. —

The machinery is now in good working order and in our opinion eligible to the following notations: L.M.C. 5.

H.N.B. 5.47.

The amount of Entry Fee. £ _____

Special Damage. £ _____

Donkey Boiler Fee (2). £ _____

Travelling Expenses (if any) £ _____

When applied for. 24. 5. 97
5. 4. 1894

When received. 24. 5. 97
22. 4. 1894

Wm Sanderson & Sidney Towell
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **FRI. 4 JUN 1897**

Assigned

*L.M.C. 5.97
+ H.N.B. 5.97*

note on limit

It is submitted that this vessel is eligible for THE RECORD.

L.M.C. 5,97 + H.N.B. 5,97

and the vessels name expunged from the limit list

1/6/97

Certificate (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

© 2020

Lloyd's Register Foundation