

REPORT ON MACHINERY

No. 24687
19 JAN 1911
MON. 2 JAN 1911

pt. 4.

Port of Sunderland

Received at London Office

No. in Survey held at Sunderland

Date, first Survey May 4th

Last Survey 9th Dec 1910

Reg. Book.

on the

S/S Wearbridge

(Number of Visits 40)

Tons } Gross 4012
Net 2602

Master

Built at Newcastle

By whom built Northumberland Ship Co. Ltd.

When built 1910

Engines made at S. land

By whom made

Richardson's Westgarth & Co.

when made 1910

Boilers made at

Owners

Brookly Magers & Co.

Port belonging to West Hartlepool

Registered Horse Power

Nom. Horse Power as per Section 28 372

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted no

ENGINES, &c.—Description of Engines

Tri. C.P.D.

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 26" 41.69"

Length of Stroke 48"

Revs. per minute 65

Dia. of Screw shaft

as per rule 14.85"

Material of W. I.

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no

Is the after end of the liner made water tight

in the propeller boss yes If the liner is in more than one length are the joints burned yes

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 yes

Length of stern bush 5' 1"

liners are fitted, is the shaft lapped or protected between the liners yes

Dia. of Tunnel shaft

as per rule 13.3"

Dia. of Crank pin 14"

Size of Crank webs 8 1/2" x 2 1/2"

Dia. of thrust shaft under

collars 14 1/2"

Dia. of screw 17 1/4"

Pitch of Screw 17 1/4"

No. of Blades 4

State whether moceable f.

Total surface 88 sq.

No. of Feed pumps 2

Diameter of ditto 3 3/4"

Stroke 27"

Can one be overhauled while the other is at work yes

No. of Bilge pumps 2

Diameter of ditto 3 3/4"

Stroke 27"

Can one be overhauled while the other is at work yes

No. of Donkey Engines two

Sizes of Pumps 6 1/2 x 4 x 6; 9 x 11 x 10

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

In Holds, &c. 2 of 3 1/2 in each hold

In Engine Room 4 of 3 1/2

tunnel well 2 1/2

No. of Bilge Injections 1

sizes 5"

Connected to condenser, or to circulating pump C.P.D.

Is a separate Donkey Suction fitted in Engine room & size yes

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 both

Are all connections with the sea direct on the skin of the ship yes

Are the Discharge Pipes above or below the deep water line above

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes

Are the Blow Off Cocks fitted with a spigot and brass covering plate yes

How are they protected yes

What pipes are carried through the bunkers

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

Dates of examination of completion of fitting of Sea Connections 11/1/10

of Stern Tube 2/12/10

Screw shaft and Propeller 2.12.10

Is the Screw Shaft Tunnel watertight yes

Is it fitted with a watertight door yes

worked from above lower line (top platform)

BOILERS, &c.—(Letter for record S.)

Manufacturers of Steel Spencer & Sons Ltd.

Total Heating Surface of Boilers 5940 sq.

Is Forced Draft fitted no

No. and Description of Boilers 3 S.S.C.

Working Pressure 180 lb

Tested by hydraulic pressure to 360

Date of test 7.9.10

No. of Certificate 2859

Can each boiler be worked separately yes

Area of fire grate in each boiler 50 sq.

No. and Description of Safety Valves to

each boiler 2 Spring

Area of each valve 7.66

Pressure to which they are adjusted 185 lb

Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 21"

Mean dia. of boilers 14-0

Length 10-9

Thickness 1 1/2"

Range of tensile strength 28-32

Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams A.R.

long. seams 7. butt

Diameter of rivet holes in long. seams 1 1/10"

Pitch of rivets 8 3/8"

Lap of plates or width of butt straps 16"

Per centages of strength of longitudinal joint

rivets 87.5

plate 85.8

Size of compensating ring flanged

No. and Description of Furnaces in each boiler 3 Monitors

Material S.

Outside diameter 3 1/4"

Length of plain part

top 7 1/2"

Thickness of plates

bottom 3 1/2"

Description of longitudinal joint weld

No. of strengthening rings

Working pressure of furnace by the rules 189

Pitch of stays to ditto: Sides 10 1/2"

Back 10 1/8"

Top 10 1/8"

If stays are fitted with nuts or riveted heads nuts

Working pressure by rules 181 1/2

End plates in steam space:

Material of stays S.

Diameter at smallest part 1 1/2"

Area supported by each stay 88.7 sq.

Working pressure by rules 181 1/2

Material of Front plates at bottom S.

Diameter at smallest part 3.03"

Area supported by each stay 38.5

Working pressure by rules 195

Material of Front plates at bottom

Thickness 3 1/2"

Greatest pitch of stays 13 1/2"

Working pressure of plate by rules 298

Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 1/2"

Material of tube plates S.

Thickness: Front 3 1/2"

Pitch across wide water spaces 14 1/2"

Working pressures by rules 204

Girders to Chamber tops: Material S.

Depth and

thickness of girder at centre 8 1/2" x 1 1/2"

Length as per rule 29 1/2"

Distance apart 10"

Number and pitch of stays in each 2 @ 8 1/2"

Working pressure by rules 186 1/2

Superheater or Steam chest; how connected to boiler none

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diameter of flue

Material of flue plates

Thickness

End plates: Thickness

How stayed

If stiffened with rings

Distance between rings

Working pressure of shell by rules

Diameter of flue

Material of flue plates

End plates: Thickness

How stayed

Working pressure by rules

Are they fitted with easing gear

Working pressure of end plates

Area of safety valves to superheater

Working pressure of end plates

Area of safety valves to superheater

Working pressure by rules

End plates: Thickness

How stayed

Working pressure by rules

Are they fitted with easing gear

Working pressure of end plates

Area of safety valves to superheater

Working pressure by rules

End plates: Thickness

How stayed



