

REPORT ON MACHINERY.

No. 46349.

Port of *Newcastle-on-Tyne*Received at London Office *10.12.1904*

No. in Survey held at

South Shields

Date, first Survey

May 14

Last Survey

11th Dec 1903

Reg. Book.

235

on the

S. S. TAPTON

Master

Sanderson

Built at

South Shields

By whom built

Messrs J. Readhead & Sons

When built

1903

Engines made at

South Shields

By whom made

Messrs J. Readhead & Sons

when made

1903

Boilers made at

do

By whom made

do

when made

1903

Registered Horse Power

305

Owners

Steele Young & Noble

Port belonging to

London

Nom. Horse Power as per Section 28

247.7

Is Refrigerating Machinery fitted

no

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines

Tri-compound

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

24"-40"-65"

Length of Stroke

45"

Revs. per minute

60

Dia. of Screw shaft

as per rule 13.44

Material of

scaphron

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

yes

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

1 length

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

fits tightly

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

Length of stern bush

4'-6"

Dia. of Tunnel shaft

as per rule 12.116

Dia. of Crank shaft journals

as per rule 12.72

Dia. of Crank pin

12 3/4"

Size of Crank webs

17x8 1/2"

Dia. of thrust shaft under

collars

12 3/4"

Dia. of screw

16'-5"

Pitch of screw

15' to 17' 6"

No. of blades

4

State whether moveable

no

Total surface

71.5 sq ft

No. of Feed pumps

2

Diameter of ditto

3 1/2"

Stroke

24"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

4 3/8"

Stroke

24"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2

Sizes of Pumps

13 1/2 x 9 x 13 1/2 x 6 x 4 x 6

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

In Engine Room

3 of 3 1/2" diam.

In Holds, &c.

Fore hold 700 of 3 1/2" diam

No. of bilge injections

1

sizes

5 1/2"

Connected to condenser, or to circulating pump

Pump

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

No sluices

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

yes

Are they Valves or Cocks

Both

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

yes &

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

yes

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

New Year

Is the screw shaft tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

Engine Room Top platform

BOILERS, &c.—

(Letter for record

2)

Total Heating Surface of Boilers

4723.32

Is forced draft fitted

no

No. and Description of Boilers

Two single ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

8.10.03

Can each boiler be worked separately

yes

Area of fire grate in each boiler

60 sq ft

No. and Description of safety valves to

each boiler

Two spring loaded

Area of each valve

7.07

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

22"

Mean dia. of boilers

15'-10"

Length

10'-6"

Thickness

1 3/8"

Range of tensile strength

27/32

Are they welded or flanged

no

Descrip. of riveting: cir. seams

Double lap

long. seams

D.B. 5 triple riv.

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

9 1/16"

Lap of plates or width of butt straps

1'-10 1/2"

Per centages of strength of longitudinal joint

84.39

Working pressure of shell by rules

185

Size of manhole in shell

16 x 12"

Size of compensating ring

7' x 1 3/8"

No. and Description of Furnaces in each boiler

3

Material

steel

Outside diameter

3'-10"

Length of plain part

top

Thickness of plates

9/16"

Description of longitudinal joint

Welded

No. of strengthening rings

none

Working pressure of furnace by the rules

191.5

Combustion chamber plates: Material

steel

Thickness: Sides

5/8"

Back

5/8"

Top

5/8"

Bottom

1 5/16"

Pitch of stays to ditto: Sides

8' x 8"

Back

8' x 8"

Top

8' x 8"

If stays are fitted with nuts or riveted heads

Nuts

Material of stays

iron

Diameter at smallest part

1 9/16"

Area supported by each stay

68 sq in

Working pressure by rules

204

Material

steel

Thickness

1 5/16"

Pitch of stays

17 1/4 x 17 1/4"

How are stays secured

D. Nuts

Diameter at smallest part

3"

Area supported by each stay

315 sq in

Working pressure by rules

202

Material of Front plates at bottom

steel

Thickness

3/4"

Material of Lower back plate

steel

Thickness

1 1/16"

Greatest pitch of stays

13"

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4 x 4 3/4"

Material of tube plates

steel

Thickness: Front

3/4"

Pitch across wide water spaces

14"

Working pressures by rules

182 lbs

Girders to Chamber tops: Material

steel

Depth and

thickness

Working pressure by rules

225

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

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 of end plates

Area of safety valves to superheater

Are they fitted with easing gear

yes

End plates: Thickness

How stayed

Lloyd's Register

Foundation

W635-0206

DONKEY BOILER— No. 1 Description Vertical "Meredith Patent"
 Made at Stockton By whom made Riley Bros When made 1903 Where fixed stock hold
 Working pressure 80 tested by hydraulic pressure to 160 No. of Certificate 3051 Fire grate area 288 Description of safety valves spring loaded
 No. of safety valves 1 Area of each 15.9 Pressure to which they are adjusted 80 lbs If fitted with casing gear Yes If steam from main boilers can enter the donkey boiler No Dia. of donkey boiler 7.6" Length 15'-0" Material of shell plates steel Thickness 15/32 Range of tensile strength 27-32 Descrip. of riveting long. seams S.R. Lap Dia. of rivet holes 15/16 Whether punched or drilled drilled Pitch of rivets 3 1/4
 Lap of plating 4 3/4 Per centage of strength of joint 77 Rivets 77 Thickness of shell crown plates 15/32 Radius of do. hemis. 2' No. of Stays to do. none
 Dia. of stays. 5 Diameter of furnace Top 5'-0" Bottom 6'-5" Length of furnace 2'-7" Thickness of furnace plates 17/32 Description of joint S.R. Lap Thickness of furnace crown plates 17/32 Stayed by ✓ Working pressure of shell by rules 88.7
 Working pressure of furnace by rules 83 lbs Diameter of uptake 3" Thickness of uptake plates 5/8 with 9/16 doubling plate Thickness of water tubes 5/16

SPARE GEAR. State the articles supplied:— 2 Top end 2 bottom end, 2 main bearing bolts & nuts
1 set coupling bolts & piston bolts, 1 set feed & bilge pump valves assorted iron
bolts & nuts

The foregoing is a correct description,

Manufacturer.

Dates { During progress of work in shops - - 1903 May 11 July 13 Aug 6 18 24 27 31 Sep 12 17 19 16 17 25 Oct 28 9 13 21 27 Nov 4 11 23 30 Dec 11
 of Survey { During erection on board vessel - -
 while building { Total No. of s 25

Is the approved plan of main boiler forwarded herewith Yes
 " " " donkey " " " No

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

The machinery of this vessel has been built under special survey & in my opinion is eligible for record FLM.C 12.03

It is submitted that
 this vessel is eligible for
 THE RECORD FLM.C 12.03

12.1.04

12.1.04

The amount of Entry Fee. £ 2 : : : When applied for, 11 JAN 1904
 Special £ 34.16 : : :
 Donkey Boiler Fee £ : : : : When received, 13/11/04
 Travelling Expenses (if any) £ : : : :

Committee's Minute

File 15 JAN 1904

Assigned

+ 12 03

MACHINERY CERTIFICATE
 WRITTEN.

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



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 Foundation

Newcastle-on-Tyne.