

# REPORT ON MACHINERY.

10962

No. 10962

Port of

Glasgow

No. 21 SEP 1891

No. in Survey held at

Dumbarton

Date, first Survey

March 14

Last Survey

Sept 10

1891

Reg. Book.

on the

"S. S. Guide"

Master

Savage

Built at

Dumbarton

By whom built

M. J. Dunn & Co.

When built

1891

Engines made at

Dumbarton

By whom made

M. Paul & Co.

when made

1891

Boilers made at

"

By whom made

"

when made

1891

Registered Horse Power

24

Owners

Corporation of the Trinity House Port belonging to London

Gross 155.97  
Net 81.66

## ENGINES, &c.

Description of Engines

Compound

No. of Cylinders

Two

Diam. of Cylinders

12 1/2" x 24"

Length of Stroke

10"

Rev. per minute

120

Point of Cut off, High Pressure

Low Pressure

Diameter of Screw shaft

4 1/4"

Diam. of Tunnel shaft

4 1/2"

Diam. of Crank shaft journals

4 1/4"

Diam. of Crank pin

1 1/4"

size of Crank webs 2 1/2" x 6"

Diameter of screw

6" x 6"

Pitch of screw

9" x 6"

No. of blades

4

state whether movable or not

No. of Feed pumps

One

diameter of ditto

2 1/2"

Stroke

4"

Can one be overhauled while the other is at work

No. of Bilge pumps

One

diameter of ditto

2 1/2"

Stroke

4"

Can one be overhauled while the other is at work

Where do they pump from

All compartments

No. of Donkey Engines

One

Size of Pumps

3 1/2" x 2" x 4 1/2"

Where do they pump from

Sea, Bilges, Hotwell

Donkey Engine with pumps for Corporation

Are all the bilge suction pipes fitted with roses

Yes

Are the roses always accessible

Yes

Are the sluices on Engine room bulkheads always accessible

No. of bilge injections

One

and size

2 1/2"

Are they connected to condenser or to circulating pump

To Circulating

How are the pumps worked

By Levers

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

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

What pipes are carried through the bunkers

None

How are they protected

None

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times

Yes

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges

Yes

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

On ship before launching

Is the screw shaft tunnel watertight

Yes

and fitted with a sluice door

Yes

worked from

Above

## BOILERS, &c.

No. of Boilers

One

Description

Round Horizontal

Material

Steel

Letter (for record)

Steel

Working Pressure

110 lbs

Tested by hydraulic pressure to

220 lbs

Date of test

13th July 1891

Description of superheating apparatus or steam chest

None

Can each boiler be worked separately

Yes

Can the superheater be shut off and the boiler worked separately

Yes

No. of square feet of fire grate surface in each boiler

20 ft

Description of safety valves

Direct Spring

No. to each boiler

Area of each valve

3.14"

Are they fitted with easing gear

Yes

No. of safety valves to superheater

None

area of each valve

Are they fitted with easing gear

Yes

Smallest distance between boilers and bunkers or woodwork

about 9"

Diameter of boilers

Length of boilers

8 ft

description of riveting of shell long. seams

double flange

circum. seams

Double

Thickness of shell plates

Diameter of rivet holes

7/16"

whether punched or drilled

83% of shell

pitch of rivets

Two

Lap of plating

Per centage of strength of longitudinal joint

83%

working pressure of shell by rules

128 lbs

size of manholes in shell

16" x 12"

Size of compensating ring

Double flange

No. of Furnaces in each boiler

Two

Description of Furnaces

Plain

Outside diameter

2' 9"

length

6 ft

thickness of plates

1/16"

Description of joint

Welded

if rings are fitted

Greatest length between rings

None

working pressure of furnace by the rules

119 lbs

combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"

Pitch of stays to ditto, sides

8 1/2" x 8 1/2"

back

8 1/2" x 7"

top

8 1/2" x 6 1/2"

stays are fitted with nuts or riveted heads

rules

113 lbs

Diameter of stays at smallest part

1 1/2"

working pressure of ditto by rules

144 lbs

and plates in steam space, thickness

Pitch of stays to ditto

14" x 12 1/2"

how stays are secured

by double nut

working pressure by rules

125 lbs

diameter of stays at

smallest part

2" solid = 2.58

working pressure by rules

132 lbs

Front plates at bottom, thickness

7/16"

Back plates, thickness

Greatest pitch of stays

12 1/4" x 7"

working pressure by rules

None

Diameter of tubes

2 1/2"

pitch of tubes

3 3/8" x 3 3/8"

thickness of tube

plates, front

2 3/32"

back

1 1/16"

how stayed

by tube

pitch of stays

1 1/2" x 1 1/2"

width of water spaces

Diameter of Superheater or Steam chest

None

length

None

thickness of plates

None

Description of longitudinal joint

None

diam. of rivet holes

Pitch of rivets

None

working pressure of shell by rules

None

diameter of flue

None

thickness of plates

None

If stiffened with rings

Distance between rings

None

working pressure by rules

None

end plates of superheater, or steam chest; thickness

None

how stayed

Superheater or steam chest; how connected to boiler

(State of Report is also sent on the Hull of the Ship)

[142—L.R.P.H.—2,000.—Form No. 8.—Copyright Ink.]

GLS163-0083

Lloyd's Register Foundation



10962 gl.

DONKEY BOILER—

Description

No Donkey Boilers

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 \_\_\_\_\_ if fitted with easing gear \_\_\_\_\_ if steam from main boilers can  
enter the donkey boiler \_\_\_\_\_ diameter of donkey boiler \_\_\_\_\_ length \_\_\_\_\_ description of riveting \_\_\_\_\_  
Thickness of shell plates \_\_\_\_\_ diameter of rivet holes \_\_\_\_\_ whether punched or drilled \_\_\_\_\_ pitch of rivets \_\_\_\_\_ lap of plating \_\_\_\_\_  
percentage of strength of joint \_\_\_\_\_ thickness of crown plates \_\_\_\_\_ stayed by \_\_\_\_\_  
Diameter of furnace, top \_\_\_\_\_ bottom \_\_\_\_\_ length of furnace \_\_\_\_\_ thickness of 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 plates \_\_\_\_\_ thickness of water tubes \_\_\_\_\_

SPARE GEAR.

State the articles supplied:—

2 Connect Rod bolts (top & bottom) 2 main  
bearing bolts, 1 set Coupling bolts, 1 set of valves for pumps  
assortment of bolts, nuts, springs &c. (3) Propeller blades one  
crank shaft one piston & one Cyto cover for each Engine

The foregoing is a correct description,

Manufacturer.

Matthew Pank G. (Lith. Kessel "Pioneer")

General Remarks

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

These Engines & Boilers

have been built under survey. They are of good  
workmanship & materials and are now in good  
order & safe working condition and eligible in our  
opinion to be noted in the Register Book  
Lloyds M. C. 9/91

Boiler, Locomotive & Locomotive Report attached herewith  
M

Certificate (if required) to be sent to

The amount of Entry Fee .. £ / : : received by me,  
Special .. £ 8 : :  
Donkey Boiler Fee .. £ : :

(Travelling Expenses, if any, £ )

Committee's Minute

10th Sept 1891

James Morrison R. J. Boveridge  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping  
Clyde District

TUES. 22 SEP 1891

+ Lmb 9/91