

REPORT ON MACHINERY.

No. *6460*

Received at London Office MONDAY 8 DEC

No. in Survey held at

Glasgow

Date, first Survey *23 June*

Last Survey *14 November 1884*

Reg. Book.

on the

S.S. "Rossgull"

(Number of Vests *23*)

226.23

Tons *86.43*

Master *Peter Mitchell* Built at

Paisley

By whom built

Messrs J. McArthur & Co When built *1884*

Engines made at

Glasgow

By whom made

Messrs Muir & Houston

when made

Boilers made at

"

By whom made

"

"

"

when made

Registered Horse Power

55

Owners

The Earl of Leikinn

Port belonging to

Londonderry

ENGINES, &c.—

Description of Engines

Compound Inverted direct acting Surface Condensing

Diameter of Cylinders

18" & 36"

Length of Stroke

24"

No. of Rev. per minute

95

Point of Cut off, High Pressure

1 1/4"

Low Pressure *1 1/2"*

Diameter of Screw shaft

6"

Diam. of Tunnel shaft

6"

Diam. of Crank shaft journals

6"

Diam. of Crank pin

6"

size of Crank webs

4" x 1/2"

Diameter of screw

8" & 6"

Pitch of screw

12 ft

No. of blades

3

state whether moveable

No

total surface

250 sq ft

No. of Feed pumps

One

diameter of ditto

2 1/4"

Stroke

13 1/2"

Can one be overhauled while the other is at work

✓

No. of Bilge pumps

One

diameter of ditto

2 1/4"

Stroke

13 1/2"

Can one be overhauled while the other is at work

✓

Where do they pump from

each compartment

No. of Donkey Engines

One

Size of Pumps

3" cyl 5"

stroke 6"

Where do they pump from

Sea, Ballast tanks

bilges of each compartment

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

Yes

No. of bilge injections

One

and sizes

2 1/2 dia

Are they connected to condenser, or to circulating pump

sea pump

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

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

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 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

previous to launching

Is the screw shaft tunnel watertight

No tunnel

and fitted with a sluice door

✓

worked from

✓

BOILERS, &c.—

Number of Boilers

One

Description

Cyl Mult Single ended

Whether Steel or Iron

Steel

Working Pressure

80 lbs

Tested by hydraulic pressure to

160 lbs

Date of test

October 14th 1884

Description of superheating apparatus or steam chest

Vertical dome

Can each boiler be worked separately

✓

Can the superheater be shut off and the boiler worked separately

✓

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

29 sq ft

Description of safety valves

direct spring

No. to each boiler

two

Area of each valve

4.07 sq"

Are they fitted with easing gear

Yes

No. of safety valves to superheater

✓

area of each valve

✓

Are they fitted with easing gear

✓

Smallest distance between boilers and bunkers or woodwork

6"

Diameter of boilers

10' 10 3/4"

Length of boilers

9' 0"

description of riveting of shell long. seams

treb riv lap

circum. seams

dbl riv ends pgt

thickness of shell plates

5/8"

Diameter of rivet holes

1 3/4"

whether punched or drilled

drilled

pitch of rivets

4 3/4"

Lap of plating

1 1/2"

Percentage of strength of longitudinal joint

75%

working pressure of shell by rules

82 lbs

size of manholes in shell

16 3/4" x 11 3/4"

Size of compensating rings

5 1/4" x 5 1/8"

No. of Furnaces in each boiler

two

Outside diameter

39"

length, top

5' 8"

bottom

5' 8"

thickness of plates

15/32"

description of joint

S. riv butt

if rings are fitted

✓

Greatest length between rings

✓

working pressure of furnace by the rules

89 lbs

combustion chamber plating, thickness, sides

7/16"

back

7/16"

top

7/16"

pitch of stays to ditto, sides

4 1/4" x 7/4"

back

4 1/4" x 7/4"

top

8" x 8 1/2"

Are stays fitted with nuts or riveted heads

riveted

working pressure of plating by

rules

85 lbs

Diameter of stays at smallest part

1 1/4"

working pressure of ditto by rules

114 lbs

end plates in steam space, thickness

3/4"

Pitch of stays to ditto

15" x 15"

how stays are secured

double nuts

working pressure by rules

89 lbs

diameter of stays at

smallest part

2"

working pressure by rules

83 lbs

Front plates at bottom, thickness

9/16"

Back plates, thickness

9/16"

Greatest pitch of stays

✓

working pressure by rules

✓

Diameter of tubes

3 1/2"

pitch of tubes

4 3/4" x 4 3/4"

thickness of tube

plates, front

5/8"

back

5/8"

how stayed

stay tubes

pitch of stays

12"

width of water spaces

4 1/2" & 8"

Diameter of Superheater or Steam chest

2' 6"

length

3' 9"

thickness of plates

3/8"

description of longitudinal joint

S. riv lap

diam. of rivet holes

15/16"

Pitch of rivets

3 1/2"

6760 lbs

DONKEY BOILER— Description *Vertical*
Made at *Glasgow* by whom made *Messrs Muir & Houston* when made *1884* where fixed *Stokehold*
Working pressure *100 lbs* tested by hydraulic pressure to *160 lbs* No. of Certificate *1521* fire grate area *4 1/2 sq ft* description of safety
valves *direct spring* No. of safety valves *One* area of each *7.0 sq in* if fitted with easing gear *if steam from main boilers can*
enter the donkey boiler *No* diameter of donkey boiler *3.9* length *9.0* description of riveting *double pin lap*
Thickness of shell plates *3/8* diameter of rivet holes *5/16* whether punched or drilled *drilled* pitch of rivets *3 1/2* lap of plating *4 1/2*
per centage of strength of joint *71%* thickness of crown plates *1/2* stayed by *Uptake & dished*
Diameter of furnace, top *2.10* bottom *3.4* length of furnace *4.2* thickness of plates *13/32* description of joint *S. pin lap*
Thickness of furnace crown plates *1/2* stayed by *as above* working pressure of shell by rules *118 lbs*
Working pressure of furnace by rules *81 lbs* diameter of uptake *9 3/4* thickness of plates *5/8* thickness of water tubes *3/8*

SPARE GEAR. State the articles supplied:— *2 con rod top end bolts & nuts 2 con rod bottom end bolts & nuts 2 main bearing bolts 1 set of coupling bolts 1 set of feed & bilge pump valves a quantity of assorted bolts & nuts and iron of various sizes*

The foregoing is a correct description,
Muir & Houston Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.)
The Engines and Boilers of this vessel have been constructed under special survey they are of good material and workmanship and are now in good order and safe working condition and eligible in my opinion to be noted in the Register Book L M 11-84
The Shafting was examined at the works of the Engineers and appeared to be sound and satisfactory

It is submitted that this vessel is eligible to have the notification + 2m 2 11-84 recorded.

W.F. 8/12/84

[Large blue handwritten signature]

The amount of Entry Fee .. £ 1 : - : - received by me,
Special *W.F.* .. £ 8 : 5 : -
Donkey Boiler Fee .. £ : : : -
Certificate (if required) .. £ : : : - *5/12/1884*
To be sent as per margin.

(Travelling Expenses, if any, £)
Committee's Minute **TUESDAY 9 DEC 1884**

G. L. Hindmarsh
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.