

REPORT ON MACHINERY.

No. 4911

No. in Survey held at

Glasgow

Date, first Survey

10th 1886

Received at London Office

Last Survey

April 18th 1887

Reg. Book.

on the

S. S. "Yarmouth"

(Number of Visits)

52

1432.16

Tons 445.84

Master

E. Holger

Built at

Dumbarton

By whom built

A. McMillan & Son

When built

1884

Engines made at

Glasgow

By whom made

David Rowan & Son

when made

1884

Boilers made at

"

By whom made

"

when made

1884

Registered Horse Power

260

Owners

The Yarmouth Steam Ship Co. (Lim)

Port belonging to

Yarmouth

ENGINES, &c.

Description of Engines

Triple Expansion

Diameter of Cylinders

26" 41" 65"

Length of Stroke

42"

No. of Rev. per minute

93

Point of Cut off, High Pressure

29"

Low Pressure 26"

Diameter of Screw shaft

13"

Diam. of Tunnel shaft

12 1/2"

Diam. of Crank shaft journals

13"

Diam. of Crank pin 13" size of Crank webs

built shaft

Diameter of screw

18" 6"

Pitch of screw

14 1/2"

No. of blades

four

state whether moveable

Yes

total surface 62 ft²

No. of Feed pumps

Two

diameter of ditto

3 1/2"

Stroke

21"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

Two

diameter of ditto

3 1/2"

Stroke

21"

Can one be overhauled while the other is at work

Yes

Where do they pump from

All Compartments

No. of Donkey Engines

Two

Size of Pumps

Double pump 4" x 4" x 8"

Where do they pump from

Sea Bilge Hotwell

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

4 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

near to

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

bilge pipes to fresh water

How are they protected

By wood casing

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

Upper platform

BOILERS, &c.

Number of Boilers

Two

Description

Round Horizontal

Whether Steel or Iron

Steel

Working Pressure

160 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

18th March 1887

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

99 ft²

Description of safety valves

Direct Spring

No. to each boiler

Two

Area of each valve

16.8"

Are they fitted with easing gear

Yes

No. of safety valves to superheater

Yes

area of each valve

Yes

Are they fitted with easing gear

Yes

Smallest distance between boilers and bunkers or woodwork

About 12"

Diameter of boilers

13 ft

Length of boilers

16" 6"

description of riveting of shell long. seams

double butt strapping

seams

Double riveted

Thickness of shell plates

1 1/4"

Diameter of rivet holes

19/32"

whether punched or drilled

Drilled

pitch of rivets

4.14" + 3.58"

Lap of plating

20" x 1 1/2" Staps

Percentage of strength of longitudinal joint

82%

working pressure of shell by rules

160 lbs

size of manholes in shell

16" x 12"

Size of compensating rings

Double plate

No. of Furnaces in each boiler

Six

Outside diameter

3' - 1"

length, top

6' 9"

bottom

thickness of plates

3/16"

description of joint

Corrugated

if rings are fitted

Greatest length between rings

Yes

working pressure of furnace by the rules

162 lbs

combustion chamber plating, thickness, sides

3/16"

back

top 3/16"

Pitch of stays to ditto, sides

4 1/2" x 4 1/2" back

top

4 1/2" x 4 1/2"

stays are fitted with nuts or riveted heads

Nuts

working pressure of plating by rules

160 lbs

diameter of stays at

smallest part

Pitch of stays to ditto

16" x 15"

how stays are secured

by double nuts

working pressure by rules

168 lbs

Front plates at bottom, thickness

3/16"

Back plates, thickness

Yes

Greatest pitch of stays

Yes

working pressure by rules

Yes

Diameter of tubes

3 1/2"

pitch of tubes

5" x 5"

thickness of tube

plates, front

Diameter of Superheater or Steam chest

None

length

Yes

thickness of plates

Yes

description of longitudinal joint

Yes

diam. of rivet holes

Yes

Pitch of rivets

Yes

working pressure of shell by rules

Yes

diameter of flue

Yes

thickness of plates

Yes

If stiffened with rings

Yes

Distance between rings

Yes

working pressure by rules

Yes

end plates of superheater, or steam chest; thickness

Yes

how stayed

Yes

Superheater or steam chest; how connected to boiler

Yes

Lloyd's Register Foundation
645153-0271

7911

DONKEY BOILER—

Description *Round vertical*

Made at *Elrington* by whom made *Lindsay Burnett & Co* when made *1887* where fixed *In Stothold*

Working pressure *80 lbs* tested by hydraulic pressure to *1160 lbs* No. of Certificate *1453* fire grate area *9.67* description of safety

valves *Direct Spring* No. of safety valves *One* area of each *4"* if fitted with easing gear *Yes* if steam from main boilers can

enter the donkey boiler *No* diameter of donkey boiler *4' 6"* length *8' 6"* description of riveting *Double lap*

Thickness of shell plates *5/16"* diameter of rivet holes *13/16"* whether punched or drilled *Drilled* pitch of rivets *2 3/4"* lap of plating *4 7/8"*

per centage of strength of joint *40%* thickness of crown plates *7/16"* stayed by *4 stays & 1 plate*

Diameter of furnace, top *3' 5"* bottom *3' 11"* length of furnace *3' 10"* thickness of plates *7/16"* description of joint *Single riveted*

Thickness of furnace crown plates *7/16"* stayed by *As above* working pressure of shell by rules *100*

Working pressure of furnace by rules *110 lbs* diameter of uptake *12"* thickness of plates *5/16"* thickness of water tubes *5/16"*

SPARE GEAR. State the articles supplied:— *1/3 Crank Shaft, 1 pair Connecting rod brasses, 1 Air pump bucket & rod with guide, 1 Circulating pump bucket & rod, 2 main bearing bolts & nuts, 2 Connecting rod bolts top & bottom with nuts, Eccentric rod bolts & nuts, 1 set Coupling bolts, 1 set Piston Springs, 1 set Feed & bilge pump valves with seats, 1 set S. R. Valves for all pumps, and a Considerable quantity of assorted bolts & nuts, Iron Boiler & Condenser tubes &c*

The foregoing is a correct description, *quantity of assorted bolts & nuts, Iron Boiler & Condenser tubes &c*

David Rowan & Son Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *These Engines & Boilers are of good workmanship & materials and are now in good order & safe working condition and eligible in my opinion to be noted in the Register Book* Lloyds M.C. 4/87

It is submitted that this vessel is eligible to have the entry fee recorded 16/4/87

Lloyd

The amount of Entry Fee ... £ 2 : - : - received by me,)

Special ... £ 33 : - : -

Donkey Boiler Fee ... £ - : - : -

Certificate (if required) ... £ - : - : - 16/4/1887

To be sent as per margin.

(Travelling Expenses, if any, £ - 8/-)

Committee's Minute

TUESDAY 19 APRIL 1887

L M C

James Morrison
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Clyde District