

REPORT ON MACHINERY.

110.
5165-

MON. APR 13 1896

Port of

aburdeen

Received at London Office

18

No. in Survey held at

aburdeen

Date, first Survey

Dec 18 1895

Last Survey

April 11 1896

eg. Book.

on the

Screw steamer "Agnes"

(Number of Visits *25*)

Ton

Gross *124.79*
Net *41.22*

When built

1896

Master

John Rott

Built at

aburdeen

By whom built

A. Hall & Co

Engines made at

aburdeen

By whom made

A. Hall & Co

when made

1896

Boilers made at

aburdeen

By whom made

A. Hall & Co

when made

1896

Registered Horse Power

45

Owners

George Mitchell Chalmers

Port belonging to

aburdeen

Nom. Horse Power as per Section 28

42 HP

ENGINES, &c.—

Description of Engines

Compound

No. of Cylinders

2

Diameter of Cylinders

13 1/2" x 30"

Length of Stroke

21"

Revolutions per minute

110

Diameter of Screw shaft

as per rule *5.4*
as fitted *6"*

Diameter of Tunnel shaft

as per rule *5.32*
as fitted *5 3/4"*

Diameter of Crank shaft journals

6"

Diameter of Crank pin

6"

Size of Crank webs

4 1/2" x 12"

Diameter of screw

7-2"

Pitch of screw

11-6"

No. of blades

4

State whether moveable

No

Total surface

21 ft²

No. of Feed pumps

One

Diameter of ditto

2 1/4"

Stroke

11"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

One

Diameter of ditto

2 1/4"

Stroke

11"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

One

Sizes of Pumps

4 1/2" x 2 1/2" Pump

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

In Engine Room

One 2" x One 2" to ejector

In Holds, &c.

One 2" fore hold + one 2" to ejector in this hold

No. of bilge injections

One

sizes

2 1/4"

Connected to condenser or to circulating pump

Yes

Is a separate donkey suction fitted in Engine room & size

Yes 2"

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 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

Two to the fore hold

How are they protected

Wooden casing

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

before launching

in dry dock

Is the screw shaft tunnel watertight

No tunnel

Is it fitted with a watertight door

Yes

worked from

—

BOILERS, &c.—

(Letter for record *S*)

Total Heating Surface of Boilers

737.2 ft²

No. and Description of Boilers

One Ordinary Marine Type

Working Pressure

125

Tested by hydraulic pressure to

250

Date of test

31.3.96

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

30 ft²

No. and Description of safety valves to

each boiler

2 Spring

Area of each valve

4.90"

Pressure to which they are adjusted

125-lb

Are they fitted

Yes

with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

9"

Mean diameter of boilers

10'-0"

Length

9'-0"

Material of shell plates

2 3/32"

Thickness

Steel

Description of riveting: circum. seams

Double

long. seams

8. Riveted & built in a patch.

Diameter of rivet holes in long. seams

15/16"

Pitch of rivets

4 7/8"

Top of plates or

width of butt straps

10"

Per centages of strength of longitudinal joint

88

Working pressure of shell by rules

127

Size of manhole in shell

16 1/2" x 12 1/2"

Size of compensating ring

28" dia

No. and Description of Furnaces in each boiler

2 Plain

Material

Steel

Outside diameter

36"

Length of plain part

5.75 ft

Thickness of plates

2 3/32"

Description of longitudinal joint

Double butt straps

single riveted

No. of strengthening rings

—

Working pressure of furnace by the rules

125

Combustion chamber plates: Material

Steel

Thickness: Sides

7/16"

Back

7/16"

Top

7/16"

Bottom

7/8"

Pitch of stays to ditto: Sides

8 1/2"

Back

8 1/2"

Top

8 1/2"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

151

Material of stays

Steel

Diameter at smallest part

1.246"

Area supported by each stay

4.5"

Working pressure by rules

128.5-lb

End plates in steam space:

152

Material

Steel

Thickness

3/4"

Pitch of stays

14"

How are stays secured

185-lb

Working pressure by rules

135.7

Material of stays

Steel

Diameter at smallest part

2.96"

Area supported by each stay

196"

Working pressure by rules

151

Material of Front plates at bottom

Steel

Thickness

3/8"

Material of Lower back plate

Steel

Thickness

2 3/32"

Greatest pitch of stays

11 1/2"

Working pressure of plate by rules

135

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4"

Material of tube plates

Steel

Thickness: Front

7/8"

Back

7/16"

R. B. Agnes

at No 516

DONKEY BOILER— Description None

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 _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____

Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____

Description of riveting long. seams _____ Diameter of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____

Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____

Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace 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 uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied :—

as per rule

The foregoing is a correct description,
At. Hall Manufacturer.

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

Dates of Survey while building
During progress of work in shops— 1895— Decr 18. 24. 27— 1896— Jan 11. 17. 22. 27— Feb 1. 6. 12. 17. 19. 25. 28— Mar 4. 6. 11. 21
During erection on board vessel— 1896— March 30th April 1. 6. 8. 9. 11
Total No. of visits 25

This vessel's machinery has been built under special survey—
The materials and workmanship appear to be good and in accordance with the rules requirements. On completion, the engines were seen running under steam with satisfactory results. The safety valves were adjusted at that time under steam. She is therefore eligible in my opinion to be classed as regards the machinery and to have the notation of +L.M.C. 4. 96 Referred in the Regt Book.

The plan of the Main Boiler, & Pumping Arrangements and the Engine Reports are herewith enclosed—

It is submitted that this vessel is eligible for THE RECORD.

+ L.M.C. 4. 96.

At. Hall
13. 4. 96

At. Hall
13. 4. 96

Certificate (if required) to be sent to This office

The amount of Entry Fee.. £ 1 : 0 :
Special £ 8 : 0 :
Donkey Boiler Fee £ : :
Travelling Expenses (if any) £ : :
When applied for, April 11th 1896
When received, 15. 4. 1896

Maurice Paton
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUES. APR 14 1896

Assigned

+ L.M.C. 4. 96

MACHINERY CERTIFICATE
WRITTEN



© 2019

Lloyd's Register Foundation