

REPORT ON MACHINERY.

No. 12931.

Port of *Glasgow*

Received at London Office

VED. 9 MAY 1894

No. in Survey held at *Glasgow*
Reg. Book.

Date, first Survey *28th Dec 1893* Last Survey *3rd May 1894*

(Number of Visits *39*)

on the

S. P. "Mourne"

Tons { Gross *228*
Net *40*

Master *J. Kidd*

Built at *Paisley*

By whom built *Gallatin & Co*

When built *1894*

Engines made at *Glasgow*

By whom made *Hall Brown & Buttery & Co*

when made *1894*

Boilers made at *Glasgow*

By whom made *James Anderson & Co*

when made *1894*

Registered Horse Power *45*

Owners *Newry Milne & S. & Co. Ltd*

Port belonging to *Newry*

Nom. Horse Power as per Section 28

ENGINES, &c.—

Description of Engines

Compound surface condensing

No. of Cylinders

Two

Diameter of Cylinders

16" & 32"

Length of Stroke

22

Revolutions per minute

105

Diameter of Screw shaft

as per rule 5.9

Diameter of Tunnel shaft

as per rule 5.6

Diameter of Crank shaft journals

6 1/4"

Diameter of Crank pin

6 1/4"

Size of Crank webs

11 1/2" x 4"

Diameter of screw

9" - 9"

Pitch of screw

10" 6"

No. of blades

four

State whether moveable

yes

Total surface

18 sq ft

No. of Feed pumps

one

Diameter of ditto

2 3/8"

Stroke

11"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

one

Diameter of ditto

2 3/8"

Stroke

11"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

one

Sizes of Pumps

5" x 2 3/4" x 5"

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

In Engine Room

Two 2"

In Holds, &c.

Three 2"

No. of bilge injections

one

sizes

3"

Connected to condenser, or to circulating pump

Is a separate donkey suction fitted in Engine room & size 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

none

How are they protected

yes

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

before launch

Is the screw shaft tunnel watertight

none

Is it fitted with a watertight door

yes

worked from

yes

BOILERS, &c.—

(Letter for record *S*)

Total Heating Surface of Boilers

925.62 sq ft

No. and Description of Boilers

one cylindrical multitubular

Working Pressure

100

Tested by hydraulic pressure to

200 lbs

Date of test

1/3/94

Can each boiler be worked separately

yes

Area of fire grate in each boiler

29.8 sq ft

No. and Description of safety valves to

each boiler

one pair direct spring

Area of each valve

4.9 sq ft

Pressure to which they are adjusted

100 lbs

Are they fitted

with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

12"

Mean diameter of boilers

11.0

Length

9-6"

Material of shell plates

steel

Thickness

1/2"

Description of riveting: circum. seams

lapping riv long. seams

Butt double riv

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

4" & 2 3/4"

Lap of plates or width of butt straps

10"

Per centages of strength of longitudinal joint

74.4

Working pressure of shell by rules

101 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

8" x 8"

No. and Description of Furnaces in each boiler

Two plain

Material

steel

Outside diameter

42"

Length of plain part

top 6-0"

Thickness of plates

1/2"

Description of longitudinal joint

welded

No. of strengthening rings

none

Working pressure of furnace by the rules

100 lbs

Combustion chamber plates: Material

steel

Thickness: Sides

1/2"

Back

1/2"

Top

1/2"

Bottom

1/2"

Pitch of stays to ditto: Sides

8 3/4" x 8 3/4"

Back

8 3/4" x 8 3/4"

Top

8 3/4" x 8 3/4"

Bottom

8 3/4" x 8 3/4"

If stays are fitted with nuts or riveted heads

none

Material of stays

steel

Diameter at smallest part

1 1/8"

Area supported by each stay

76 1/2 sq ft

Working pressure by rules

103 lbs

End plates in steam space:

Material

steel

Thickness

1/2"

Pitch of stays

14 3/4" x 14 3/4"

How are stays secured

none

Working pressure by rules

110 lbs

Material of stays

steel

Diameter at smallest part

1 1/8"

Area supported by each stay

203 sq ft

Working pressure by rules

118 lbs

Material of Front plates at bottom

steel

Thickness

1/2"

Material of Lower back plate

steel

Thickness

1/2"

Greatest pitch of stays

12 3/4"

Working pressure of plate by rules

100 lbs

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

steel

Thickness: Front

3/32"

Back

1/8"

Mean pitch of stays

11 1/4"

Pitch across wide water spaces

13 1/4" x 12 3/4"

Working pressures by rules

101 & 100 lbs

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

6" x 9"

Length as per rule

27"

Distance apart

8 3/4" x 7 1/2"

Number and pitch of Stays in each

Two 8 3/4"

Working pressure by rules

109 lbs

Superheater or Steam chest; how connected to boiler

none

1894

12931 gcs

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 boiler _____
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:— 2. Connecting rod bolts & nuts, 2 Piston rod bolts & nuts, 2 Main bearing bolts & nuts, 1 set of coupling bolts & nuts, 4 circulating pump valves, A quantity of assorted bolts & nuts, Bundle of bar iron. one set of bidge feed pump valves
The foregoing is a correct description,

Manufacturer. *Hall-Brown, Buttery & Co*

General Remarks (State quality of workmanship, opinions as to class, &c. *Engines & boiler a description of which are given on the other side have been constructed under special survey. The materials & workmanship are of good description, they have been well fitted on board steam has been raised on the boiler the safety valves adjusted, & the engines tried under steam*
It is submitted that in my opinion this machinery is eligible to be noted **+ L.M.C. 5-94**

It is submitted that this vessel is eligible for
THE RECORD + L.M.C. 5, 94
APPR
9-5-94

MACHINERY CERTIFICATE
WRITTEN.

Certificate (if required) to be sent to *Glasgow*

The amount of Entry Fee.. £ 1 : " : " When applied for, _____
Special £ 8 : " : " *4/5 1894*
Donkey Boiler Fee £ " : " : " When received, _____
Travelling Expenses (if any) £ " : " : " *4/5 1894*

James Mollison & A. McHard
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI 11 MAY 1894

Assigned

+ L.M.C. 5, 94



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Foundation