

REPORT ON MACHINERY.

No. 24207

Received at London Office

SAT SEP 13 1911

Date of writing Report

10

When handed in at Local Office

14th Sept 1911 Port of Hull

No. in Survey held at

Goole & Hull

Date, First Survey

Jan 3rd

Last Survey

7th Sept 1911

Reg. Book.

540-P on the

Se.

Moreno

(Number of Visits 55)

Gross 204

Net 9

Master

Built at

Goole

By whom built

Goole S. B. & R. 674

When built

1911

Engines made at

By whom made

Messrs

when made

1911

Boilers made at

Hull

By whom made

Earle's Co. Ltd

when made

1911

Registered Horse Power

Owners Compania Argentina de Nav.

Port belonging to Buenos Ayres

Nom. Horse Power as per Section 28

93

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

13 $\frac{1}{2}$ " - 22" - 37"

Length of Stroke

24"

Revs. per minute

110

Dia. of Screw shaft

as per rule 7.6"

Material of screw shaft

S

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

No

Is the after end of the liner made water tight

in the propeller boss Yes If the liner is in more than one length are the joints burned

Two separate liners

If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two

liners are fitted, is the shaft lapped or protected between the liners

No

Length of stern bush

34 $\frac{1}{2}$ "

Dia. of Tunnel shaft

as per rule 6.6 $\frac{1}{2}$ "

Dia. of Crank shaft journals

as per rule 7.0"

Dia. of Crank pin

7 $\frac{1}{2}$ "

Size of Crank webs

14" x 4 $\frac{1}{2}$ "

Dia. of thrust shaft under

collars

7.25"

Dia. of screw

8" - 6"

Pitch of Screw

12" - 0"

No. of Blades

4

State whether moveable

No

Total surface

36 sq ft

No. of Feed pumps

Two

Diameter of ditto

2 $\frac{1}{4}$ "

Stroke

15"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

Two

Diameter of ditto

2 $\frac{1}{4}$ "

Stroke

15"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

One

Sizes of Pumps

6" x 4" x 6"

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

In Engine Room

Two 2 $\frac{1}{2}$ "One 3 $\frac{1}{2}$ "

In Holds, &c.

One 2" to hold

One 2 $\frac{1}{2}$ " to

No. of Bilge Injections

1

sizes

3 $\frac{1}{2}$ "

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

Yes 2 $\frac{1}{2}$ "

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

None

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

hold suction

How are they protected

Wood 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

Dates of examination of completion of fitting of Sea Connections

12. 6. 11

of Stern Tube

12. 6. 11

Screw shaft and Propeller

12. 6. 11

Is the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

Yes

worked from

Yes

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

Phoenix St. Geo.

Hoerde

Total Heating Surface of Boilers

1700 sq ft

Is Forced Draft fitted

No

No. and Description of Boilers

One cyl. Multi S. End

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

19. 5. 11

No. of Certificate

1814

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

47 sq ft

No. and Description of Safety Valves to

each boiler

Two Spring

Area of each valve

4. 9 sq in

Smallest distance between boilers or uptakes and bunkers or woodwork

6"

Mean dia. of boilers

13" - 3"

Length

11' - 6"

Material of shell plates

S

Thickness

1 $\frac{3}{32}$ "

Range of tensile strength

28 - 32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

L. O.

long. seams

D. A. S. J. R.

Diameter of rivet holes in long. seams

1 $\frac{1}{4}$ "

Pitch of rivets

8 $\frac{5}{16}$ "

Lap of plates or width of butt straps

18 $\frac{1}{8}$ "

Per centages of strength of longitudinal joint

rivets 100%

plate 84.9%

Working pressure of shell by rules

181 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

7 $\frac{1}{2}$ " x 1 $\frac{3}{32}$ "

No. and Description of Furnaces in each boiler

2

Deighton's

Material

S

Outside diameter

4' - 3 $\frac{1}{4}$ "

Length of plain part

top 7 $\frac{1}{2}$ "

Thickness of plates

crown 5"

Description of longitudinal joint

Welded

No. of strengthening rings

0

Working pressure of furnace by the rules

196 lbs

Combustion chamber plates: Material

S

Thickness: Sides

23/32"

Back

11/16"

Top

23/32"

Bottom

23/32"

Pitch of stays to ditto: Sides

10 $\frac{1}{4}$ " x 9 $\frac{1}{2}$ "

Back

9 $\frac{3}{8}$ " x 8 $\frac{1}{2}$ "

Top

10 $\frac{1}{4}$ " x 9 $\frac{1}{2}$ "

If stays are fitted with nuts or riveted heads

No

Working pressure by rules

182 lbs

Material of stays

S

Diameter at smallest part

1 $\frac{5}{8}$ "

Area supported by each stay

103.125

Working pressure by rules

180 lbs

End plates in steam space:

Material

S

Thickness

1 $\frac{5}{32}$ "

Pitch of stays

18 $\frac{1}{2}$ " x 17 $\frac{1}{2}$ "

How are stays secured

D. R.

Working pressure by rules

184 lbs

Material of stays

S

Diameter at smallest part

6.23"

Area supported by each stay

323.75

Working pressure by rules

200 lbs

Material of Front plates at bottom

S

Thickness

29/32"

Material of Lower back plate

S

Thickness

7/8"

Greatest pitch of stays

13 $\frac{3}{4}$ " x 9 $\frac{3}{8}$ "

Working pressure of plate by rules

191 lbs

Diameter of tubes

3 $\frac{1}{2}$ "

Pitch of tubes

4 $\frac{1}{8}$ " x 4 $\frac{1}{8}$ "

Material of tube plates

S

Thickness: Front

23/32"

Back

13/16"

Mean pitch of stays

9 $\frac{3}{4}$ "

Pitch across wide water spaces

13 $\frac{1}{2}$ "

Working pressures by rules

196 lbs

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

9" x 1 $\frac{1}{2}$ "

Length as per rule

2' - 6 $\frac{1}{32}$ "

Distance apart

10 $\frac{1}{4}$ "

Working pressure by rules

194 lbs

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Yes

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

VERTICAL DONKEY BOILER—Manufacturers of Steel.

No.	Description				
Made at	By whom made	When made	Where fixed		
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from main boilers can enter the donkey boiler	Dia. of donkey boiler	Length		
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets Plates
Working pressure of shell by rules	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	
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:—Two each top and bottom end bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set feed and bilge pump valves, one propeller, a quantity of assorted bolts and nuts, Iron various sizes.

The foregoing is a correct description,

F. L. Dalhousie Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1911 Jan 3. 10. 12. 14. 18. 31 Feb 2. 3. 8. 10. 11. 13. 15. 20. 21. 22. 24 Mar 2. 6. 8. 13. 21. 22. 23 Apr 5. 7
During erection on board vessel - - - Apr 13. 20. 27. May 1. 4. 9. 16. 19. 24. 27. 30 Jun 8. 12. 19. 26. 28. July 3. 19. 22. 25. 27. 29. 31. Aug 2. 11. 24. 30
Total No. of visits 55

Is the approved plan of main boiler forwarded herewith *No it was sent on with Fuel Rpt 8. 23829.*

Dates of Examination of principal parts—Cylinders 9. 5. 11 Slides 19. 6. 11 Covers 9. 5. 11 Pistons 13. 14. 11 Rods 3. 1. 11
Connecting rods 22. 2. 11 Crank shaft 28. 6. 11 Thrust shaft 28. 6. 11 Tunnel shafts 31. 7. 11 Screw shaft 8. 6. 11 Propeller 8. 6. 11
Stern tube 30. 5. 11 Steam pipes tested 31. 7. 11 Engine and boiler seatings 19. 6. 11 Engines holding down bolts 2. 8. 11
Completion of pumping arrangements 7. 9. 11 Boilers fixed 2. 8. 11 Engines tried under steam 7. 9. 11
Main boiler safety valves adjusted 7. 9. 11 Thickness of adjusting washers 3/8" 3/8"
Material of Crank shaft 5 Identification Mark on Do. 699 W. 89 Material of Thrust shaft 5 Identification Mark on Do. 699 W. 89
Material of Tunnel shafts 5 Identification Marks on Do. 699 W. 89 Material of Screw shafts 8 Identification Marks on Do. 699 W. 89
Material of Steam Pipes Solid drawn Copper Test pressure 400 lbs per sq. inch

General Remarks (State quality of workmanship, opinions as to class, &c. The engines and boilers) of this vessel have been constructed under special survey in accordance with the Rules. The workmanship and materials are good. The boiler tested by hydraulic pressure, and with the engines secured on board & tested under steam, they are now in good order and safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of *L. M. B. 9. 11* in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + LMC 9. 11.

JWR 18/9/11

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

The amount of Entry Fee .. £ 1 : : When applied for, 15-9-1911
Special .. £ 13 : :
Donkey Boiler Fee .. £ : :
Travelling Expenses (if any) £ : 11 : : When received, 30-9-1911

Committee's Minute TUE SEP 19 1911

Assigned *thmc 9. 11*



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