

Rpt. 4.

REPORT ON MACHINERY.

No. 26958

Received at London Office

SAT. NOV. 29, 1913

Date of writing Report

19

When handed in at Local Office

28-11-13 Port of Hull.

No. in Survey held at
Reg. Book.

Hull.

Date, First Survey

Aug 19th

Last Survey

Nov. 17th 1913

31. Supp. on the

Steel S.S.K. "MACLEAY."

(Number of Visits 22)

Master

Built at

Sully

By whom built

Cochrane & Sons Ltd.

Tons

Gross 317

Net 127

When built

1913.

Engines made at

By whom made

when made

1913.

Boilers made at

Hull

By whom made

Messrs. Charles D. Thomas & Co. Ltd.

when made

1913.

Registered Horse Power

Owners

Tupling Steam Towing Co. Ltd.

Port belonging to

Hull.

Nom. Horse Power as per Section 28

83

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

No.

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

No. of Cranks

Dia. of Cylinders

13"-23"-27"

Length of Stroke

24"

Revs. per minute

Dia. of Screw shaft

as per rule 4.13

Material of

Iron

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

Yes

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

Yes

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

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

Length of stern bush

36"

Dia. of Tunnel shaft

as per rule 6.84

Dia. of Crank shaft journals

as per rule 4.19

Dia. of Crank pin

4 1/2"

Size of Crank webs

14" x 4 1/2"

Dia. of thrust shaft under

collars

4 1/2"

Dia. of screw

9 1/2"

Pitch of Screw

10 1/2"-11 1/2"

No. of Blades

4

State whether moveable

No.

Total surface

32 sq

No. of Feed pumps

1

Diameter of ditto

2 1/2"

Stroke

14 1/2"

Can one be overhauled while the other is at work

No. of Bilge pumps

1

Diameter of ditto

2 1/2"

Stroke

14 1/2"

Can one be overhauled while the other is at work

No. of Donkey Engines

1

Sizes of Pumps

6" x 3 1/2" x 6"

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

In Engine Room

Two 2"-one forward & one aft.

In Holds, &c.

One 2 1/2" for hold, one 2 1/2" for main hold,

one 2 1/2" for oil tank, one 2 1/2" for oil tank.

Epilator suction from all bilges with discharge on deck.

No. of Bilge Injections

1

sizes

3 1/2"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

2 1/2" dia.

Are all the bilge suction pipes fitted with roses

Yes

Are the roses in Engine room always accessible

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

Both

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

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

16.10.13

of Stern Tube

16.10.13

Screw shaft and Propeller

16.10.13

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

BOILERS, &c.—(Letter for record S.)

Manufacturers of Steel Phoenix Ltd. Works Union of Works

Total Heating Surface of Boilers

1350 sq

Is Forced Draft fitted

No.

No. and Description of Boilers

One cyl. mult. effect mtd.

Working Pressure

200 lbs.

Tested by hydraulic pressure to

400 lbs.

Date of test

18.10.13

No. of Certificate

2024.

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

5.8 sq

No. and Description of Safety Valves to

each boiler

Two Spring.

Area of each valve

4.90"

Smallest distance between boilers or uptakes and bunkers or woodwork

6"

Mean dia. of boilers

14'-0"

Length

10'-9"

Material of shell plates

S.

Thickness

1/32"

Range of tensile strength

29,000 lbs.

Are the shell plates welded or flanged

No.

Descrip. of riveting: cir. seams

20.8.2.

long. seams

20.8.5.7.9

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

8 1/2"

Lap of plates on width of butt straps

1 1/2"

Per centages of strength of longitudinal joint

rivets 89

plate 85

Working pressure of shell by rules

204 lbs.

Size of manhole in shell

16" x 12"

Size of compensating ring

4" x 1 1/2"

No. and Description of Furnaces in each boiler

3 Plain

Material

S.

Outside diameter

40"

Length of plain part

top 6'-5"

bottom 6'-5"

Thickness of plates

crown 5/16"

bottom 1/4"

Description of longitudinal joint

Weld.

No. of strengthening rings

0

Working pressure of furnace by the rules

202 lbs.

Combustion chamber plates: Material

S.

Thickness: Sides

3/32"

Back

3/32"

Top

3/32" + 1/4"

Pitch of stays to ditto: Sides

9 x 8 1/2"

Back

8 x 10 1/2"

Top

10 1/2 x 8 1/2"

If stays are fitted with nuts or riveted heads

Yes

Working pressure by rules

205 lbs.

Material of stays

S.

Diameter at smallest part

2 1/4"

Area supported by each stay

10' 0"

Working pressure by rules

214 lbs.

End plates in steam space:

Material

S.

Material

S.

Thickness

1 1/16"

Pitch of stays

20 x 20"

How are stays secured

20.8.5.7.9

Working pressure by rules

203 lbs.

Material of stays

Diameter at smallest part

8 7/16"

Area supported by each stay

400 0"

Working pressure by rules

221 lbs.

Material of Front plates at bottom

S.

Thickness

1/16"

Material of Lower back plate

Thickness

1/16"

Material of Lower back plate

S.

Thickness

3/32"

Greatest pitch of stays

14 1/2 x 8"

Working pressure of plate by rules

202 lbs.

Diameter of tubes

3 1/2"

Pitch of tubes

5 x 5 1/2"

Material of tube plates

S.

Thickness: Front

1/16"

Back

3/32"

Mean pitch of stays

10 1/2"

Pitch across wide water spaces

14" 3/4"

Working pressures by rules

314 lbs.

Girders to Chamber tops: Material

S.

Depth and

thickness of girder at centre

11 1/2" x 1 1/2"

Length as per rule

Working pressure by rules

206 lbs.

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Working pressure of end plates

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— *Two sets 10" & 12" bottom and connecting rod bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set each fuel & life pump valves, iron of various sizes, a quantity of assorted bolts, nuts etc.*

The foregoing is a correct description,

p. pro CHARLES D. HOLMES & CO. LTD.

Arthur Holmes

DIRECTOR

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } *19/3, Aug 19, 21, 25, 30, Sep 3, 10, 18, 23, 26, 30, Oct 2, 8, 13, 15, 16, 18, 22, 28, Nov 5, 6, 12*
{ During erection on board vessel - - } *Nov 17*
Total No. of visits *22*

Is the approved plan of main boiler forwarded herewith *yes.*

" " " donkey " " " *✓*

Dates of Examination of principal parts—Cylinders *2.10.13* Slides *28.10.13* Covers *28.10.13* Pistons *28.10.13* Rods *18.10.13*

Connecting rods *18.10.13* Crank shaft *22.10.13* Thrust shaft *22.10.13* Tunnel shafts *✓* Screw shaft *21.8.13* Propeller *21.8.13*

Stern tube *21.8.13* Steam pipes tested *6.11.13* Engine and boiler seatings *16.10.13* Engines holding down bolts *6.11.13*

Completion of pumping arrangements *17.11.13* Boilers fixed *12.11.13* Engines tried under steam *12.11.13*

Main boiler safety valves adjusted *12.11.13* Thickness of adjusting washers *Found 1/4" & 1/2"*

Material of Crank shaft *Iron* Identification Mark on Do. *1178 T.6 D.* Material of Thrust shaft *Steel* Identification Mark on Do. *1178 T.4 D.*

Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Iron* Identification Marks on Do. *1178 & 6.11.*

Material of Steam Pipes *Solid drawn copper* Test pressure *400 lbs. per sq. inch hydraulic*

Is an installation fitted for burning oil fuel *No.*

Is the flash point of the oil to be used over 150° F. *✓*

Have the requirements of Section 49 of the Rules been complied with. *✓*

Is this machinery duplicate of a previous case *No.* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines & boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials & workmanship are sound & good. The boiler tested by hydraulic pressure & with the engines secured on board & tested under steam they are now in good order & safe working condition & respectfully submitted as being eligible in my opinion to be classed with the notation of T.L.M.C. 11.13 in the Register Book.*

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 11.13.

The amount of Entry Fee ... £ *1 : 0 :* When applied for, *28/11/19.13*
Special ... £ *12 : 9 :*
Donkey Boiler Fee ... £ *2/9 :* When received, *29.11.13*
Travelling Expenses (if any) £ *2/9 :*

Committee's Minute TUE. DEC. 2-1913

Assigned *thmc 11.13*

J.W.D.
1/12/13
A.R.S.
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



© 2021

Lloyd's Register
Foundation