

REPORT ON MACHINERY.

No. 27271

Received at London Office SAT. MAR. -7. 1914

Date of writing Report

19

When handed in at Local Office

2-3 1914 Port of Hull

No. in Survey held at Reg. Book.

Hull.

Date, First Survey

Nov. 11

Last Survey

Feb. 25 1914

(Number of Visits) 19

25 sup. on the

Steam S.S. K. "JACINTH."

Tons } Gross 248
 } Net 98

Master

Built at

Hull.

By whom built

Cooper & Sons Ltd.

When built

1913

Engines made at

By whom made

when made

1914.

Boilers made at

Hull.

By whom made

Messrs. Charles D. Thomas & Co. Ltd.

when made

1914.

Registered Horse Power

Owners

Tripling Steam Traction Co. Ltd. Port belonging to Hull.

Nom. Horse Power as per Section 28

45.

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

No.

ENGINES, &c.—Description of Engines

Trip & Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

13" - 21 1/2" - 35"

Length of Stroke

24"

Revs. per minute

Dia. of Screw shaft

as per rule 2.48
as fitted 2 1/2"

Material of screw shaft

Steel

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 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

Length of stern bush

36"

Dia. of Tunnel shaft

as per rule 6.74
as fitted

Dia. of Crank shaft journals

as per rule 4.08
as fitted 4 1/4"

Dia. of Crank pin

4 1/4"

Size of Crank webs

4 3/8" x 1 1/4"

Dia. of thrust shaft under

collars

4 1/4"

Dia. of screw

9'-0"

Pitch of Screw

10'-6"

No. of Blades

4

State whether moveable

No.

Total surface

31 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

Yes

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

Yes

No. of Donkey Engines

1

Sizes of Pumps

6" x 4 1/2" x 6"

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

In Engine Room

Two 2 1/2" One forward & one aft.

In Holds, &c. One 2 1/2" fore hold, one 2 1/2" fore wing,

one 2 1/2" fore aft hold, one 2 1/2" fore aft wing. 5" fore suction, four all bilges with discharge on deck.

No. of Bilge Injections

1

sizes

3 1/2"

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & size

3" fore

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

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

29.11.13

of Stern Tube

29.11.13

Screw shaft and Propeller

29.11.13

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Yes

BOILERS, &c.—(Letter for record S.)

Manufacturers of Steel Phoenix & Co. Ltd. of Hull

Total Heating Surface of Boilers

1250 sq

Is Forced Draft fitted

No.

No. and Description of Boilers

One up. mult. cylinder mtd.

Working Pressure

200 lbs.

Tested by hydraulic pressure to

400 lbs.

Date of test

6.2.14

No. of Certificate

2054

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

43 sq

No. and Description of Safety Valves to

each boiler

Two Spring

Area of each valve

4.9 sq

Smallest distance between boilers or uptakes and bunkers or woodwork

6"

Mean dia. of boilers

12'-6"

Length

10'-3"

Material of shell plates

S

Thickness

1 1/8"

Range of tensile strength

29/0.5

Are the shell plates welded or flanged

No.

Descrip. of riveting: cir. seams

D. 9.2.

long. seams

D. B. S. T. P.

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

4 5/8"

Lap of plates or width of butt straps

14"

Per centages of strength of longitudinal joint

rivets 86.16
plate 85.24

Size of compensating ring

4" x 1 1/8"

No. and Description of Furnaces in each boiler

3 plain

Material

S

Outside diameter

36"

Length of plain part

top 6'-4 1/2"
bottom

Thickness of plates

13"
bottom 16"

Description of longitudinal joint

Weld

No. of strengthening rings

0

Working pressure of furnace by the rules

232 lbs.

Pitch of stays to ditto: Sides

9 1/2" x 8"

Back

8" x 10"

Top

8" x 8 1/2"

If stays are fitted with nuts or riveted heads

Yes

Material of stays

S

Diameter at smallest part

2 1/4"

Area supported by each stay

920 sq

Working pressure by rules

234 lbs.

End plates in steam space:

Material S

Thickness

1 1/2"

Pitch of stays

16 1/2" x 14"

How are stays secured

D. B. S. T. P.

Working pressure by rules

226 lbs.

Material of stays

S

Diameter at smallest part

6 1/8"

Area supported by each stay

280.5 sq

Working pressure by rules

236 lbs.

Material of Front plates at bottom

S

Thickness

1"

Material of Lower back plate

S

Thickness

1 1/8"

Greatest pitch of stays

13" x 8"

Working pressure of plate by rules

200 lbs.

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4" x 5"

Material of tube plates

S

Thickness: Front

1"

Back

3/8"

Mean pitch of stays

9 1/2"

Pitch across wide water spaces

13 1/2"

Working pressures by rules

202 lbs.

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

10" - 1 1/2"

Length as per rule

2-9 3/8"

Working pressure by rules

220 lbs.

Superheater or Steam chest; how connected to boiler

None

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

Pitch of rivets

Working pressure of shell by rules

IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—*Two each top & bottom end connecting rods bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set each feed & bilge 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 - - } 1913:—*Nov 11. 14. 20. 29 Dec 23. 1914: Jan 1. 6. 12. 14. 15. 21. 27. 29 Feb 6*
{ During erection on board vessel - - - } *Feb 10. 13. 14. 19. 25*
{ Total No. of visits } *19*

Is the approved plan of main boiler forwarded herewith *RM 27083*

Dates of Examination of principal parts—Cylinders *6.1.14* Slides *27.1.14* Covers *21.1.14* Pistons *21.1.14* Rods *21.1.14*
Connecting rods *27.1.14* Crank shaft *15.1.14* Thrust shaft *20.11.13* Tunnel shafts *-* Screw shaft *20.11.13* Propeller *20.11.13*
Stern tube *20.11.13* Steam pipes tested *14.2.14* Engine and boiler seatings *29.11.13* Engines holding down bolts *14.2.14*
Completion of pumping arrangements *25.2.14* Boilers fixed *19.2.14* Engines tried under steam *19.2.14*
Main boiler safety valves adjusted *19.2.14* Thickness of adjusting washers *Found $\frac{3}{16}$ "all" $\frac{4}{16}$ "*
Material of Crank shaft *Steel* Identification Mark on Do. *109874D* Material of Thrust shaft *Steel* Identification Mark on Do. *109874D*
Material of Tunnel shafts *-* Identification Marks on Do. *-* Material of Screw shafts *Iron* Identification Marks on Do. *109874D*
Material of Steam Pipes *Solid drawn copper* Test pressure *40 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 *Yes.* If so, state name of vessel *S/S "ONYX" "AGATE" & "BERYL"*

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 strain they are now in good order & safe working condition & respectfully submitted as being eligible in my opinion to be classed with the notation of "L.M.C. 2.14" in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD, + LMC 2.14.

J.W.D.
9/3/14
A.F.R.S.

The amount of Entry Fee ... £ *1 : 0 :* } When applied for, *6/31 1914*
Special ... £ *11 : 5 :* }
Donkey Boiler Fee ... £ : : }
Travelling Expenses (if any) £ *8/2 :* } When received, *31/3/14*

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

Committee's Minute TUE. MAR. 10. 1914

Assigned

+ L.M.C. 2.14.

MACHINERY CERTIFICATE WRITTEN.



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

The Signatories are requested not to write on or below the space for Committee's Minute.