

REPORT ON MACHINERY.

No. 26150

Received at London Office

MAY 5-1913

Date of writing Report

19

When handed in at Local Office

1457 13 Port of Hull

Date, First Survey

Jan 30

Last Survey

Apr 25 1913

No. in Survey held at

Hull

Reg. Book.

78 enpl. on the

Steel S.K. "EMERALD"

Master

Built at

Sully

By whom built

Cochrane & Sons

When built

1913

Engines made at

By whom made

when made

1913

Boilers made at

Hull

By whom made

Charles R. Holmes & Co. Ltd.

when made

1913

Registered Horse Power

Owners

Timplon Miam Hawking 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

3

No. of Cranks

3

Dia. of Cylinders

13"-22½"-34"

Length of Stroke

24"

Revs. per minute

Dia. of Screw shaft

as per rule

Material of

screw shaft

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

If two

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

Length of stern bush

38"

Dia. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

collars

No. of Feed pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Bilge pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Donkey Engines

SIZES of Pumps

6" 4½" 6" duplex

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

In Engine Room

Two 2½" on forward & one aft

In Holds, &c.

One 2½" on forward, one 2½" on main hold, one 2½" on aft

No. of Bilge Injections

1 size 3½"

Connected to condenser, or to circulating pump

Pump

Is a separate Donkey Suction fitted in Engine room & size 3" ½"

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

0

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

8.2.13

of Stern Tube

8.2.13

Screw shaft and Propeller

8.2.13

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

Phoenix A.S. Ltd. Nidan Union of Nidan

Total Heating Surface of Boilers

1350 sq ft

Is Forced Draft fitted

No.

No. and Description of Boilers

One up. mult. single m. d. d.

Working Pressure

200 lbs.

Tested by hydraulic pressure to

400 lbs.

Date of test

31.3.13

No. of Certificate

1941

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

47.3 sq ft

No. and Description of Safety Valves to

each boiler

Two

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

6"

Mean dia. of boilers

13'-0"

Length

16'-6"

Material of shell plates

S

Thickness

1 3/16"

Range of tensile strength

28 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D. P. L.

long. seams

D. B. S. I. P.

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

8 5/8"

Lap of plates or width of butt straps

18"

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

205 lbs.

Size of manhole in shell

16" x 12"

Size of compensating ring

1 3/16" x 4"

No. and Description of Furnaces in each boiler

3 plain

Material

S

Outside diameter

37 1/2"

Length of plain part

top

Thickness of plates

bottom

Description of longitudinal joint

Weld

No. of strengthening rings

0

Working pressure of furnace by the rules

221 lbs.

Combustion chamber plates: Material

S

Thickness: Sides

1 1/16"

Back

1 1/16"

Top

Bottom

Pitch of stays to ditto: Sides

8 3/4" x 8"

Back

8 3/4" x 8"

Top

8 3/4" x 8"

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

89 sq in

Working pressure by rules

242 lbs.

Material

S

Thickness

1 3/16"

Pitch of stays

19" x 18"

How are stays secured

2 1/2" x 1/2"

Diameter at smallest part

2 1/4"

Area supported by each stay

342 sq in

Working pressure by rules

228 lbs.

Material of stays

S

Thickness

1 3/16"

Material of Lower back plate

S

Thickness

1 1/16"

Greatest pitch of stays

13" x 8 3/4"

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4" x 4 3/4"

Material of tube plates

S

Thickness: Front

1 1/16"

Back

Mean pitch of stays

Pitch across wide water spaces

13 3/4"

Working pressures by rules

203 lbs.

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

10" - 1 1/2"

Working pressure by rules

205 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

Diameter

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

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

How stayed

End plates: Thickness

Material of flue plates

Thickness

Lloyd's Register

Foundation

VERTICAL DONKEY BOILER—Manufacturers of Steel

No. _____ Description _____
 Made at _____ By whom made _____ When made _____ Where fired _____
 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 & bottom end connecting rods bolts & nuts, two main beam bolts & nuts, one set of coupling bolts & nuts, one set each fore & aft pump valves, one of various sizes, a quantity of assorted bolts, nuts etc.*

The foregoing is a correct description,

Harold L. Shuardon Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1913: - Jan 30. Feb 6. 8. 12. 17. 26. 28. Mar 5. 7. 10. 17. 20. 27. 31. Apr 3. 7. 10. 17. }
 { During erection on board vessel - - Apr 22. 25. }
 Total No. of visits 21

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

Dates of Examination of principal parts—Cylinders 7.3.13 Slides 11.4.13 Covers 11.4.13 Pistons 2.4.13 Rods 2.4.13
 Connecting rods 10.4.13 Crank shaft 26.2.13 Thrust shaft 3.4.13 Tunnel shafts ✓ Screw shaft 30.1.13 Propeller 30.1.13
 Stern tube 30.1.13 Steam pipes tested 18.4.13 Engine and boiler seatings 8.2.13 Engines holding down bolts 19.4.13
 Completion of pumping arrangements 25.4.13 Boilers fixed 19.4.13 Engines tried under steam 19.4.13
 Main boiler safety valves adjusted 19.4.13 Thickness of adjusting washers *Found 3" 2 1/2" 2 1/2"*
 Material of Crank shaft *Steel* Identification Mark on Do. *Nº 995 T.G.* Material of Thrust shaft *Steel* Identification Mark on Do. *Nº 995 T.G.*
 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. *Nº 995 T.G.*
 Material of Steam Pipes *Solid drawn copper* Test pressure *400 lbs per sq inch hydraulic*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The engine & boiler of this vessel have been constructed under special survey in accordance with the Rules. The material & workmanship are sound & good. The boiler tested by hydraulic pressure & with the engine 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 "I.L.M.C. 4.13" in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. I.L.M.C. 4.13.

Wm. S. 13

The amount of Entry Fee .. £ 1 : 0 :
 Special .. £ 12 : 9 :
 Donkey Boiler Fee .. £ : :
 Travelling Expenses (if any) £ 4/1 :
 When applied for, 3/5/13
 When received, 31/5/13

Committee's Minute THE MAY 6—1913

Assigned

Home 4.13

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



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Lloyd's Register Foundation

PR 1913

These p

Signal Let

Official

1334

No., Date, and

Whether British Foreign Bu

British

Number of De

Number of Ma

Rigged

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Build

Galleries

Head

Framework an

vessel

Number of Bu

Number of wa

and their ca

Total to quarter the d

to bottom of kee

No. of sets of

Engines.

Descript

Triple

Direct

Invert

No. of Shafts.

Particular

Description

Number

Iron or Ste

Loaded Pro

Under Tonnage

Space or spaces

Turret or Trunk

Forecastle

Bridge space

Peep or Break

St. Houses

Deck Houses

Chart House

Spaces for machi

Section 78 (2)

1894

Excess of Hatch

Gross T

Deductions, as pe

Register

NOTE 1.—The tonnag

Deck for p

NOTE 2.—The under

Open for

Less Co

Name of

No. of Owners

Name, Residence,

The King

whose pr

Andrews

Things to

Manage

Dated 16th

(830) (69862) Wt. 2898

Certificate (if required) to be sent to Committee's Minute.