

REPORT ON MACHINERY.

No. 34226.

WED. JUL. 15. 1914

Date of writing Report

13. 7. 14

When handed in at Local Office

13. 7. 14

Port of Glasgow.

No. in Survey held at

Glasgow.

Date, First Survey

22-1-14

Last Survey

11. 7. 1914

Reg. Book.

10 Sep. the

S.S. "BIDDY"

(Number of Visits 17.)

Master

Richardson

Built at

Larne

By whom built

Larne Shipbuilding Co (Nº 126)

Tons

Gross

Net

When built

1914

Engines made at

Glasgow.

By whom made

Gauldie, Gillespie & Co (Nº 126)

when made

1914

Boilers made at

do.

By whom made

James Neilson & Son Ltd (Nº 3359)

when made

1914

Registered Horse Power

Owners

The Premier Lys Co. Ltd.

Port belonging to

Hull

Nom. Horse Power as per Section 28

64.

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Compound surface condensing

No. of Cylinders

2

No. of Cranks

2

Dia. of Cylinders

14" 35"

Length of Stroke

24"

Revs. per minute

126

Dia. of Screw shaft

as per rule

1 1/2"

Material of

screw shaft

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

2'-6"

Dia. of Tunnel shaft

as per rule

1 1/2"

Dia. of Crank shaft journals

as per rule

1 1/2"

Dia. of Crank pin

1 1/2"

Size of Crank webs

10 1/2" x 5"

Dia. of thrust shaft under

collars

Dia. of screw

8'-0"

Pitch of Screw

10'-0"

No. of Blades

4

State whether moveable

No

Total surface

26 sq. ft.

No. of Feed pumps

1

Diameter of ditto

2 1/8"

Stroke

12"

Can one be overhauled while the other is at work

No. of Bilge pumps

1

Diameter of ditto

2 1/8"

Stroke

12"

Can one be overhauled while the other is at work

No. of Donkey Engines

1

Sizes of Pumps

5 1/2" x 3 1/2" x 5"

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

In Engine Room

1-2" E.P., 1-2" special, 1-2" stokehold

In Holds, &c.

1-2" 1st cabin, 1-2" 2nd Cabin

No. of Bilge Injections

1

sizes

3"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

Yes - 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

Feed and steam pipes

How are they protected

Steel tubes

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

See Belfast Report

Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

worked from

Yes

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Steel Company of Scotland

Total Heating Surface of Boilers

1230 sq. ft.

Is Forced Draft fitted

No

No. and Description of Boilers

One single ended marine

Working Pressure

130 lbs.

Tested by hydraulic pressure to

260 lbs.

Date of test

1.5.14

No. of Certificate

12691

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

49 sq. ft.

No. and Description of Safety Valves to

each boiler

Pair spring loaded

Area of each valve

4.04 sq. in.

Pressure to which they are adjusted

135 lbs.

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

6'-8"

Mean dia. of boilers

12'-0"

Length

10'-0"

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Description of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

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

holes

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

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:— 2 top end bolts & nuts; 2 bottom end bolts & nuts; 2 main bearing bolts & nuts; 1 set coupling bolts; 1 set feed and bilge pump valves; quantity assorted bolts & nuts and a variety of various sizes.

The foregoing is a correct description,

Manufacturer.

Sauldie Gillespie & Co

Dates of Survey while building

During progress of work in shops --
During erection on board vessel ---
Total No. of visits

1913. Jan'y 22. Mar 11. Apr 16. May 1. 6. June 2. 4. 5. 10. 16. 22. 23. 25. 30. July 1. 8. 11.

17.

Is the approved plan of main boiler forwarded herewith Yes.

Dates of Examination of principal parts—Cylinders 2. 6. 14 Slides 1. 5. 14 Covers 2. 6. 14 Pistons 1. 5. 14 Rods 1. 5. 14

Connecting rods 1. 5. 14 Crank shaft 10. 6. 14 Thrust shaft 16. 4. 14 Tunnel shafts 16. 4. 14 Screw shaft 16. 4. 14 Propeller 16. 4. 14

Stern tube 16. 4. 14 Steam pipes tested 23. 6. 14 Engine and boiler seatings 16. 6. 14 Engines holding down bolts 25. 6. 14

Completion of pumping arrangements 25. 6. 14. Boilers fixed 22. 6. 14. Engines tried under steam 11. 7. 14

Main boiler safety valves adjusted 1. 7. 14. Thickness of adjusting washers 13/32 P, 11/32 S.

Material of Crank shaft Iron Identification Mark on Do. LLOYDS No 454 16. 4. 14 P.T.B. Material of Thrust shaft Steel Identification Mark on Do. LLOYDS No 126 16. 4. 14 P.T.B.

Material of Tunnel shafts Steel Identification Marks on Do. LLOYDS No 126 16. 4. 14 P.T.B. Material of Screw shafts Iron Identification Marks on Do. LLOYDS No 126 16. 4. 14 P.T.B.

Material of Steam Pipes Copper Test pressure 300 lbs.

General Remarks (State quality of workmanship, opinions as to class, &c.

The materials and workmanship

are good.

The construction of these engines was begun in 1906 by the Caledonian Engineering Co., Preston and finished by Messrs Stevenson & Co Preston. The crank shaft was made under survey at the Inch Forge Co. Ligan.

The proposed classification of this machinery was dealt with in Lman letters E 11/20th. The boiler, thrust, intermediate and tail shafts, stern tube, propeller, sea cocks & valves &c have been built under special survey and the main engines have been opened out and all parts examined. found satisfactory & do have supplied no deterioration.

The machinery & boiler have been securely fitted aboard and tried with satisfactory results under steam & are, in my opinion, suitable for classification with record L.M.C. 4/14

It is submitted that this vessel is eligible for THE RECORD. LMC 7. 14.

The amount of Entry Fee .. £ 1:-0-0 When applied for,
Special £ 5-19-6 19/7/14
Donkey Boiler Fee £ : : When received, 15/7/14
Travelling Expenses (if any) £ : : 19/7/14

Committee's Minute

GLASGOW

14 JUL 1914

Assigned

* L.M.C. 7. 14 subject to classification of hull

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

FRI JUL 24 1914

Lloyd's Register Foundation