

REPORT ON MACHINERY.

No. 71687

Received at London Office

SAT. JUL. 11. 1914

Date of writing Report

10 JUL 1914

When handed in at Local Office

10 JUL 1914

Port of

LIVERPOOL

No. in Survey held at

Queensferry

Date, First Survey

9 Dec 13

Last Survey

27 June 1914

Reg. Book.

535 on the

Twin Motor Barge "Kingsholm"

(Number of Visits

10)

Gross

109

Tons

Net

53

Master

Built at

Queensferry

By whom built

J. J. Abdala & Mitchell Ltd.

When built

1914

Engines made at

Stockholm

By whom made

J. G. Bolander & Co. Ltd.

when made

1913

Boilers made at

Baker

By whom made

when made

Registered Horse Power 100.

Owners

William Butler

Port belonging to Bristol.

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

No.

ENGINES, &c.—Description of Engines

Twin 2 cyl 2 stroke cycle

No. of Cylinders

4

No. of Cranks

4

Dia. of Cylinders

270 mm

Length of Stroke

280 mm

Revs. per minute

375

Dia. of Screw shaft

as per rule

as fitted

Material of

steel

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

no liner

Is the after end of the liner made water tight

in the propeller boss

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

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

Dated 27 June 1914

Dia. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

as fitted

100 mm

Dia. of Crank pin

115

Size of Crank webs

150 x 57

Dia. of thrust shaft under

collars

92

Dia. of screw

3-6

Pitch of Screw

2-7 1/2

No. of Blades

3

State whether moveable

no

Total surface

4.5 sq

No. of Feed pumps

1

Diameter of ditto

100 mm

Stroke

70 mm

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

1

Diameter of ditto

—

Stroke

—

Can one be overhauled while the other is at work

—

No. of Donkey Engines

One

Sizes of Pumps

Drum pump 3-7

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

In Engine Room

Drum pump Com. 1-3

Eng. pp. 1-2

In Holds, &c.

Drum pp. 2-3

Eng. pp. 1-2

Crews space 1-2

H. Tank 1-3

A.P. 1-3

No. of Bilge Injections

none

sizes

Connected to condenser, or to circulating pump

yes

Is a separate Donkey Suction fitted in Engine room & size

1-3

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

Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the scotch plates

yes

Are the Discharge Pipes above or below the deep water line

yes

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

none

What pipes are carried through the bunkers

none

How are they protected

yes

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

27-4-14

of Stern Tube

14-11-14

Screw shaft and Propeller

11-5-14

Is the Screw Shaft Tunnel watertight

none

Is it fitted with a watertight door

yes

worked from

yes

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. 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.

plate

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

End plates in steam space:

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of stays

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of Front plates at bottom

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Working pressure of plate by rules

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

yes

Lloyd's Register

Foundation

W872-0109

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 _____ Rivets _____

Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____ 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:— Each Cyl.— 4 piston rings, 2 fuel injection nozzles, valve springs, 2 ball valves fuel, &c. 2 bottom end bearings, 4 ignition bulbs, 2 lamp burners, springs + valves for fuel pumps, + details.

The foregoing is a correct description,
Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1913. Dec 9.	1914. Feb 5.	Apr 24.	May 1. 11. 18.	June 19. 23. 25. 27.
	During erection on board vessel - - -					
	Total No. of visits	10.				

Is the approved plan of main boiler forwarded herewith?

(Total No. of Vessels) See Stockholm Rpts Re 12434 "donkey" " " " " " "

Dates of Examination of principal parts—Cylinders _____ Slides _____ Covers _____ Pistons _____ Rods _____

Connecting rods _____ Crank shaft _____ Thrust shaft _____ Tunnel shafts _____ Screw shaft Don. Rpt. 3.2.14 Propeller 11-5-14

Stern tube Don. Rpt 7/6/14 Steam pipes tested _____ Engine and boiler seatings 29-4-14 Engines holding down bolts 14-11-5-14

Completion of pumping arrangements 25-27-6-14 Boilers fixed _____ Engines tried under steam 27-6-14

Main boiler safety valves adjusted _____ Thickness of adjusting washers _____

Material of Crank shaft _____ Identification Mark on Do. _____ Material of Thrust shaft _____ Identification Mark on Do. _____

Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts steel Identification Marks on Do. _____

Material of Steam Pipes _____ Test pressure _____

LLOYDS 3.2.14

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

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The fuel tanks have been tested & found tight, & 3 air containers satisfactorily tested by hyd. pressure to 300 lbs.².
A CO₂ fire extinguisher & a sand box have been placed on board.
These engines with fuel tanks, trays, & connections have been fitted on board in accordance with the rules, & found satisfactory under full working conditions.
A mean speed of 7.2 knots was attained at 350 revs. the lowest revs. being about 200.

This machinery is in our opinion eligible
to be classed & to have notation of \boxplus Cmb 6. 14.
It is submitted that

It is submitted that
this vessel is eligible for

THE RECORD. + LMC 6.14

Oil engines 4 Cy. 10 $\frac{5}{8}$ " - 11" 250. SA
J & C.G. Bolinders 8" C^d Ld. SKM. RR

The amount of Entry Fee .. £ 2 : 0 : 0

Special £ .. : ..

Donkey Boiler Fee £ .. : ..

Travelling Expenses (if any) £ 2 : 1 : 4

Committee's Minute

Assigned

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

MACHINERY CERTIFICATE
WRITTEN. 11/7/11