

REPORT ON MACHINERY.

No. 15605

Received at London Office

TUE 15 JUL 1919

Date of writing Report

19

When handed in at Local Office

13/7/19 to 19 Port of Leith

No. in Survey held at
Reg. Book.

Date, First Survey 11/6/18

Last Survey 21/6/19

(Number of Visits 36)

19 19

on the

H. Kirbeck & George Clines

Master

Built at

Leith

By whom built

Hawthorn & Co.

Tons } Gross
Net

When built 1919

Engines made at

Leith

By whom made

Hawthorn & Co.

when made

1919

Boilers made at

Glasgow

By whom made

D. Rowan & Co. Ltd. (No. 3286)

when made

1919

Registered Horse Power

Owners

Baton Duplex & Co. Ltd.

Port belonging to

Baton.

Nom. Horse Power as per Section 28

97-74

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines

Triple Interlocked

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 12.20.34

Length of Stroke 23

Revs. per minute 110

Dia. of Screw shaft

as per rule 6.8

Material of screw shaft

I

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

✓

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

30

Dia. of Tunnel shaft

as per rule 6.1

as fitted 6.5

Dia. of Crank shaft journals

as per rule 6.41

as fitted 6.75

Dia. of Crank pin

6 3/4

Size of Crank web

4 3/4 x 10 1/4

Dia. of thrust shaft under

collars

6 3/4

Dia. of screw

8-4"

Pitch of Screw

11-6"

No. of Blades 4

State whether moveable

no

Total surface

290'

No. of Feed pumps

1

Diameter of ditto

2 7/8

Stroke

12"

Can one be overhauled while the other is at work

✓

No. of Bilge pumps

1

Diameter of ditto

2 7/8

Stroke

12"

Can one be overhauled while the other is at work

✓

No. of Donkey Engines

one

Sizes of Pumps

5 1/4 x 3 1/2 x 5

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

In Engine Room

two 2" engine bilge, one sea chest

In Holds, &c.

one 2" to line tank.

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

none

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

rich steam exhaust.

How are they protected

wood casings

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

Is the Screw Shaft Tunnel watertight

✓

Is it fitted with a watertight door

✓

worked from

✓

BOILERS, &c.—(Letter for record

Manufacturers of Steel

Total Heating Surface of Boilers

1347

Is Forced Draft fitted

no

No. and Description of Boilers

one SE return tube

Working Pressure

180 lb.

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

✓

Area of fire grate in each boiler

39-25

No. and Description of Safety Valves to

each boiler

2 direct spring

Area of each valve

5.94

Pressure to which they are adjusted

180 lb.

Are they fitted with easing gear

yes

Smallest distance between boilers

on uptakes and bunkers on woodwork

9"

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

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

Area 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

Area 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

Steam dome: description of joint to shell

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

20. SUPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

005518-005528-0059

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

✓

SPARE GEAR. State the articles supplied:—

Two top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, a set of coupling bolts and nuts, one set of feed and bilge pump valves, assorted bolts and nuts, and iron of various sizes.

The foregoing is a correct description,

C. J. Harris.

for Messrs Hawthorn & Co. Ltd. Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1918 June 11. 14. 28 July 5. 12. Sep 10 Oct 7. 11. 23. 30 Nov 1. 4. Dec 10. 1919 Jan 6. 14. 31 Feb 6. 25 Mar 12 Apr 2. 11. 16 May 1. 7.
During erection on board vessel -- May 13. 14. 21. 28. 3. 4. 5. 6. 21.
Total No. of visits 36

Is the approved plan of main boiler forwarded herewith yes

Dates of Examination of principal parts—Cylinders 12/3/19 Slides 16/4/19 Covers 12/3/19 Pistons 12/3/19 Rods 12/3/19
Connecting rods 12/3/19 Crank shaft 6/1/19 Thrust shaft 14/5/19 Tunnel shafts 14/5/19 Screw shaft 14/5/19 Propeller 14/5/19
Stern tube 10/12/18 Steam pipes tested 30/5/19 Engine and boiler seatings 19/11/18 Engines holding down bolts 4/6/19
Completion of pumping arrangements 4/6/19 Boilers fixed 4/6/19 Engines tried under steam 4/6/19
Completion of fitting sea connections 19/11/18 Stern tube 19/11/18 Screw shaft and propeller 26/5/19
Main boiler safety valves adjusted 5/6 Thickness of adjusting washers P 1/4" S 1/2"

Material of Crank shaft S Identification Mark on Do. 4945 cm Material of Thrust shaft S Identification Mark on Do. 4945 cm
Material of Tunnel shafts I Identification Marks on Do. 4945 cm Material of Screw shafts I Identification Marks on Do. 4945 cm
Material of Steam Pipes Solid drawn copper. Test pressure 360 lbs. per sq. inch.

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 Isaac Harris. No 15582

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

This vessel's machinery has been built under special survey. The material and workmanship are good, and in my opinion entitle the vessel to records of + LMC 6.19.

It is submitted that this vessel is eligible for THE RECORD + LMC 6.19.

Rel. 15.7.19
JWD. JIM

The amount of Entry Fee ... £ 2 : :
Special ... £ 22 : 4 :
Donkey Boiler Fee ... £ 16 : 1 : 6
Travelling Expenses (if any) £ : :
When applied for, 12/7/19
When received, 29/11/19

C. Harris.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI JUL 18 1919

+ LMC 6.19

MACHINERY CERTIFICATE WRITTEN.



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