

REPORT ON MACHINERY.

No. 31317

Received at London Office

SAT. 13 SEP. 1919

4.

Writing Report

10

When handed in at Local Office

11/9/19 Port of Hull.

Last Survey 8-9-1919.

Survey held at Hull
Book. S.T. on the GRANT FLEET EX JAMES McDONALD

Date, First Survey Dec 6/18

(Number of Vessels) (1003)

Tons { Gross 324
Net 148

When built 1919.

Built at Hull

By whom built Buchanan & Co Ltd

when made 1919.

By whom made

By whom made

when made 1919.

By whom made

By whom made

Port belonging to Hull.

Registered Horse Power

Owners W.A. Mather & Sons

Is Electric Light fitted

Horse Power as per Section 28 87.

Is Refrigerating Machinery fitted for cargo purposes No.

No. of Cylinders 3

No. of Cranks 3

INES, &c.—Description of Engines

Triple expansion

as per rule 8.22

Material of screw shaft

of Cylinders 13"-23"-37"

Length of Stroke 26"

Revs. per minute 115

Dia. of Screw shaft

as fitted 8.22

Is the after end of the liner made water tight

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

If the liner does not fit tightly at the part

the propeller boss

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

If two

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

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

as per rule 7.10

Length of stern bush 36"

of Tunnel shaft

as fitted 7.10

Dia. of Crank shaft journals

as fitted 7.10

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

State whether moveable

of Feed pumps

one

Diameter of ditto

Stroke 14 1/2"

Can one be overhauled while the other is at work

of Bilge pumps

one

Diameter of ditto

Stroke 14 1/2"

Can one be overhauled while the other is at work

of Donkey Engines

one

Sizes of Pumps

6" 4 1/2" x 6" duplex

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

In Holds, &c. one 2" dia in each compartment

Engine Room

two 2 1/2" dia

all motions also connected to governor

Is a separate Donkey Suction fitted in Engine room & size 3 1/2" dia

of Bilge Injections

one sizes 3 1/2"

Connected to condenser, or to circulating pump

Are the sluices on Engine room bulkheads always accessible

Are they Valves or Cocks

Both

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are they Valves or Cocks

Both

Are the Discharge Pipes above or below the deep water line

above

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

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Are they protected

How are they protected

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Discharge Pipes above or below the deep water line

above

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

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Are they protected

How are they protected

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Discharge Pipes above or below the deep water line

above

That pipes are carried through the bunkers

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Are they protected

How are they protected

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Discharge Pipes above or below the deep water line

above

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

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Are they protected

How are they protected

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Discharge Pipes above or below the deep water line

above

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

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

Manufacturers of Steel

Port Talbot & J. & J. & Co. Ltd.

Is Forced Draft fitted

No. and Description of Boilers

one single ended water.

No. of Certificate

3372

Total Heating Surface of Boilers

1440 sq ft

Is Forced Draft fitted

No. and Description of Boilers

one single ended water.

No. of Certificate

3372

Working Pressure

200 lbs

Tested by hydraulic pressure to

Can each boiler be worked separately

Area of fire grate in each boiler

48 sq ft

Pressure to which they are adjusted

205 lbs

Are they fitted with easing gear

Yes

Area of each valve

4.9 sq ft

Pressure to which they are adjusted

Smallest distance between boilers or uptakes and bunkers or woodwork

8" all round

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

Double

Thickness

1 1/2"

Range of tensile strength

28-36 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

Double

Thickness

1 1/2"

Range of tensile strength

28-36 tons

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

8"

Lap of plates or width of butt straps

18"

Size of manhole in shell

16" x 12"

Material

Steel

Outside diameter

40"

No. and Description of Furnaces in each boiler

Three plain

No. of strengthening rings

—

Description of longitudinal joint

welded

Thickness: Sides

3/4"

Back

3/4"

Length of plain part

top 10 1/2"

Thickness of plates

bottom 1 1/2"

Combustion chamber plates: Material

Steel

Thickness: Sides

3/4"

Back

3/4"

Working pressure of furnace by the rules

206 lbs

Area supported by each stay

2.07 sq ft

How are stays secured

by nuts or riveted heads

Working pressure by rules

210 lbs

Material of stays

Steel

Pitch of stays to ditto: Sides

10 x 8

Back

9 1/2 x 8 1/2

Top

11 x 8

Working pressure by rules

210 lbs

Material of stays

Steel

Material of stays

Steel

Thickness

1 1/2"

Pitch of stays

19 x 17 1/2

Working pressure by rules

235 lbs

Material of Front plates at bottom

Steel

Area at smallest part

7.5 sq ft

Area supported by each stay

3.35 sq ft

Greatest pitch of stays

15 x 9 1/2

Working pressure of plate by rules

216 lbs

Material of stays

Steel

Thickness

1 1/2"

Material of Lower back plate

Steel

Thickness

1 1/2"

Greatest pitch of stays

15 x 9 1/2

Working pressure of plate by rules

216 lbs

Diameter of tubes

3 1/2"

Pitch of tubes

4 1/2"

Material of tube plates

Steel

Thickness: Front

5/8"

Back

5/8"

Pitch across wide water spaces

14"

Working pressures by rules

275 lbs

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

11 x 1 1/2"

Length as per rule

Working pressure by rules

201 lbs

Steam dome: description of joint to shell

—

Diam. of rivet holes

—

Description of longitudinal joint

—

Thickness

—

Diameter

—

Thickness of shell plates

—

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:—

Two top end bolts & nuts, two main bearing bolts & nuts, two bottom end bolts & nuts, one set coupling bolts & nuts, one set air, feed, & bilge pump valves, one main & one donkey check valve, two valves for donkey pump. One safety valve spring. Three condenser tubes, one set firebars, and a quantity of bolts & nuts & iron of various sizes.

The foregoing is a correct description,

CHARLES D. HOLMES & CO. LTD.

Manufacturer.

Dates of Survey while building

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

1918: Dec 6, 10, 17, 24. 1919: Feb 16, 30. Mar 1, 10, 19. Apr 10, 30. May 14, 20, 30. Jun 3, 12, 16, 17, 19, 20, 23. Jul 3, 9, 11. Aug 1, 15. Sep 8.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 15/5/19 Slides 15/5/19 Covers 15/5/19 Pistons 30/5/19 Rods 30/5/19
Connecting rods 30/5/19 Crank shaft 1/3/19 Thrust shaft 16/6/19 Tunnel shafts Screw shaft 16/12/18 Propeller 16/12/18
Stern tube 17/12/18 Steam pipes tested 15/8/19 Engine and boiler seatings 17/12/18 Engines holding down bolts 28/8/19
Completion of pumping arrangements 8/9/19 Boilers fixed 28/8/19 Engines tried under steam 9/9/19
Completion of fitting sea connections 17/12/18 Stern tube 17/12/18 Screw shaft and propeller 17/12/18
Main boiler safety valves adjusted 28/8/19 Thickness of adjusting washers 1/8" F.F.
Material of Crank shaft Steel Identification Mark on Do. 2311 Material of Thrust shaft Steel Identification Mark on Do. 2350
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do. 2189
Material of Steam Pipes Copper Test pressure 400 lbs

Is an installation fitted for burning oil fuel

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

Mace class.

General Remarks

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

The engines & boiler of this vessel have been built under special survey & the materials & workmanship are good. On completion they were examined while running full power trials in the Humber & found satisfactory. The machinery throughout is now in good & efficient condition & eligible in my opinion to have the record LMC-9-19 marked in Red in the Society's Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 9. 19.

The amount of Entry Fee ... £ 2-0-0
Special ... £ 26-2-0
Donkey Boiler Fee ... £
Travelling Expenses (if any) £

When applied for, 12/9/19
When received, 4/10/19

Committee's Minute

Assigned

+ Lmc 9. 19

Engineer Surveyor to Lloyd's Register of Shipping.



© 2019

Lloyd's Register Foundation