

REPORT ON MACHINERY.

No. 77854

Received at London Office

Date of writing Report

19

When handed in at Local Office

13/57

Port of

WFO. 14 MAY. 1924

No. in Survey held at
Reg. Book.

Date, First Survey Oct. 23. 1922 Last Survey

12/5/1924

(Number of Visits 101)

Gross

Net

When built 1924

Master

Built at

Hull and Land

By whom built

J. L. Thompson & Co.

Engines made at

Newcastle

By whom made

Palmer & Co. Ltd. by No. 276.

when made

1924

Boilers made at

do

By whom made

do

when made

1924

Registered Horse Power

Owners

British Tankers Co. Ltd.

Port belonging to

Nom. Horse Power as per Section 28

581

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

28"-46"-76"

Length of Stroke

51"

Revs. per minute

70

Dia. of Screw shaft

as per rule

15.72

Material of

Steel

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

5'-5"

Dia. of Tunnel shaft

as per rule

13.958

Dia. of Crank shaft journals

as per rule

14.65

Dia. of Crank pin

15"

Size of Crank webs

28 1/2" x 10"

Dia. of thrust shaft under

collars

15"

Dia. of screw

14'-3"

Pitch of Screw

17'-9"

No. of Blades

4

State whether moveable

Yes

Total surface

105 sq

No. of Feed pumps

2

Diameter of ditto

4 1/2"

Stroke

27"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

4 1/2"

Stroke

27"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

1 1/2" x 4 1/2" x 8"

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

In Engine Room

3 @ 3 1/2"

In Holds, &c.

No. of Bilge Injections

1

sizes

9 1/2"

Connected to condenser, or to circulating pump

Air Pump

Is a separate Donkey Suction fitted in Engine room & size

6"

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

None

How are they protected

—

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

5 (7))

Manufacturers of Steel

J. Spencer & Co.

Total Heating Surface of Boilers

8634 sq

Is Forced Draft fitted

Yes

No. and Description of Boilers

3 S.E. Smith

Working Pressure

180 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

31/1/23

No. of Certificate

9722

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

oil fuel

No. and Description of Safety Valves to

each boiler

2 Spring loaded

Area of each valve

12.568

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

1'-6"

Mean dia. of boilers

15'-9 3/8"

Length

12'-3 1/2"

Material of shell plates

Steel

Thickness

1 1/8"

Range of tensile strength

28/32 TONS

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R.L.

long. seams

T.R. D.B.S.

Diameter of rivet holes in long. seams

1 3/8"

Pitch of rivets

9 1/2"

Lap of plates or width of butt straps

1'-8 3/4"

Per centages of strength of longitudinal joint

rivets 91.74%

plate 85.52%

Working pressure of shell by rules

183.9 lbs

Size of manhole in shell

18" x 12"

Size of compensating ring

2'-1 1/2" x 2'-9" x 1 1/2"

No. and Description of Furnaces in each boiler

3

Description of longitudinal joint

Welded

Material

Steel

Outside diameter

4'-1 1/2"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

Welded

No. of strengthening rings

—

Working pressure of furnace by the rules

186

Combustion chamber plates: Material

Steel

Thickness: Sides

3 1/2"

Back

1 3/8"

Top

3 1/2"

Bottom

1 3/8"

Pitch of stays to ditto: Sides

9 3/8" x 10 3/8"

Back

9" x 9 1/2"

Top

1 1/2" x 8"

If stays are fitted with nuts or riveted heads

Sides 9 TOP

ROWS, NUTS.

Working pressure by rules

184.8

Material of stays

Steel

Area at smallest part

2.71 sq

Area supported by each stay

133.2 sq

Working pressure by rules

182.7

End plates in steam space:

Material

Steel

Thickness

1 3/8"

Pitch of stays

23" x 22 1/2"

How are stays secured

None

Material of stays

Steel

Thickness

1 3/8"

Pitch of stays

23" x 22 1/2"

How are stays secured

None

Working pressure by rules

183

Material of Front plates at bottom

Steel

Thickness

1 3/8"

Greatest pitch of stays

14 1/2" x 9 1/2"

Working pressure of plate by rules

298

Diameter of tubes

3 1/2"

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

Steel

Thickness: Front

1 5/8"

Back

1 5/8"

Mean pitch of stays

14.125"

Pitch across wide water spaces

14 1/2"

Working pressures by rules

211 lbs

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

9 1/2" x 1 1/2"

Length as per rule

2'-10 1/8"

Distance apart

8"

Number and pitch of stays in each

Two @ 1 1/2"

Working pressure by rules

194

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

—

SUPERHEATER. Type

None

Date of Approval of Plan

—

Feb. ✓

State the articles supplied :-

The foregoing is a correct description,

Manufacturer.

General Manager, Engine Works.

Is the approved plan of main boiler forwarded herewith

“ “ “ *donkey* “

Dates of Examination of principal parts—Cylinders 22/2/23 Slides 16/2/23 Covers 16/2/23 Pistons 14/2/23 Rods 5/3/23

Connecting rods 12/2/23 Crank shaft 7/2/23 Thrust shaft 25/5/23 ^{Bottom} Tunnel shafts 28/3/23 Screw shaft 29/5/23 Propeller 26/3/23

Stern tube 26/3/23 Steam pipes tested 25/7/23 Engine and boiler seatings 4/5/24 Engines holding down bolts 10/5/24

Completion of pumping arrangements 12/5/24 Boilers fixed 16/5/24 Engines tried under steam 12/5/24

Completion of fitting sea connections 1/3/24. Stern tube 1/3/24 Screw shaft and propeller 1/3/24
PORT BOLLER CENTRE POPE STAR BOLLER

Main boiler safety valves adjusted 16/5/24 Thickness of adjusting washers $S\frac{3}{8}$ $P\frac{3}{8}$ $P\frac{3}{8}$ $S\frac{3}{8}$ $S\frac{3}{8}$ $P\frac{3}{8}$
 Tanker valves $S\frac{3}{8}$ $P\frac{3}{8}$

Material of Crank shaft Steel Identification Mark on Do. 6327/142 Material of Thrust shaft Steel Identification Mark on Do. 6327/142

Material of ^{Iron} Tunnel shafts Steel Identification Marks on Do. 632710 Material of Screw shafts Steel Identification Marks on Do. 632710

Material of Steam Pipes *S. J. Hook* ✓ Test pressure *540 lbs.* ✓

Is an installation fitted for burning oil fuel yes Is the flash point of the oil to be used over 150 F. yes

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 Wanda

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines & valves of this vehicle*

have been built under Special Laws. The materials & workmanship

are good. By combustion these were examined while running full

have tried it up & find satisfactory

Shall be the most valuable and efficient

1st. I will call it the number 5-2.

3. I am to write to the Bishop of Exeter

marked in Dec. in the Chicago Register book, and found for

oil just F.P above 150°F. The requirements of section 49 of the

Rules fully complied with.

It is submitted that

THE RECORD. + LMC 5. 24. FD. CL.

Fitted for oil Fuel 5 24 EP above 150°F.

1785

16/5/24

The amount of Entry Fee ... 00-00 When applied for.

Donkey Boiler Fee	£	When received	Engineer Surrender to Lloyd's Register of Shipping.
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Travelling Expenses (if any) £ : : 2005-26

Committee's Signature _____

Assigned * L.M.C. 3.24

7. D. C. D.
Michigan 1991

7 P above $150^{\circ} 7'$

