

REPORT ON MACHINERY.

No. 33268

Date of writing Report

19

When handed in at Local Office

14/2-22 Port of Hull

Received at London Office

SAT. 4 MAR. 1922

No. in Survey held at
Reg. Book.

Date, First Survey 22/4/20

Last Survey 3/2/1922

(Number of Visits 75)

on the (Guthrie SS no 459) S.S. "TRURO"

Master

Built at Aberdeen

By whom built J. Guthrie & Co. Ltd.

Gross
Tons

Net

When built 1912

Engines made at Hull

By whom made Bakers & Co. Ltd.

when made 1912

Boilers made at Hull

By whom made do

when made 1912

Registered Horse Power

Owners Ellerman Wilson Line Ltd.

Port belonging to

Nom. Horse Power as per Section 28 120

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 14 1/2 - 24 1/2 - 41

Length of Stroke 36

Revs. per minute 75

Dia. of Screw shaft

as per rule 9 1/2

Material of

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

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

If two

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

Length of stern bush 10

Dia. of Tunnel shaft

as per rule 7 1/2

Dia. of Crank shaft journals

as per rule 8 1/2

Dia. of Crank pin 8 1/2

Size of Crank webs 14 x 5 1/2

Dia. of thrust shaft under

collars 8 1/2

Dia. of screw 11-6

Pitch of Screw 10-9

No. of Blades 4

State whether moveable No

Total surface 40 sq

No. of Feed pumps 2

Diameter of ditto 2 1/2

Stroke 18

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2

Diameter of ditto 3

Stroke 18

Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2

Sizes of Pumps 6 1/2 x 4 1/2 x 6

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

In Engine Room 4 @ 2 1/2

In Holds, &c. 1 @ 3 1/2

Ballast

In Holds, &c. 1 @ 2 1/2

In Holds, &c. 1 @ 2 1/2

No. of Bilge Injections 2

sizes 3 1/2

Connected to condenser, or to circulating pump

As a separate Donkey Suction fitted in Engine room & size 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

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

Yes

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

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

eng room

Yes

BOILERS, &c.—(Letter for record 5)

Manufacturers of Steel J. Francis & Co. Ltd.

Total Heating Surface of Boilers 2280 sq

Is Forced Draft fitted No

No. and Description of Boilers 2 S.E. of 1000 h.p.

Working Pressure 200 lbs

Tested by hydraulic pressure to 400 lbs

Date of test 22/9/20

No. of Certificate 3451

Can each boiler be worked separately

Yes

Area of fire grate in each boiler 35 sq

No. and Description of Safety Valves to

each boiler 2 double spring loaded

Area of each valve 3 1/4 sq

Pressure to which they are adjusted 205 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 15"

Mean dia. of boilers 11-3

Length 10-3

Material of shell plates

Steel

Thickness 1 1/2"

Range of tensile strength 28/32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

J.R.L.

long. seams

T.R.O.B.S.

Diameter of rivet holes in long. seams 1 1/8"

Pitch of rivets 7-8"

Top of plates or

width of butt straps 1 1/2"

Per centages of strength of longitudinal joint

85%

Working pressure of shell by rules 20/250

Size of manhole in shell 18 x 12

Size of compensating ring 40 x 30 x 1 1/2"

No. and Description of Furnaces in each boiler 2 Plain

Material

Steel

Outside diameter 40.5"

Length of plain part

top 36-8

Thickness of plates

crown 3 1/2"

Description of longitudinal joint

Welded

No. of strengthening rings

-

Working pressure of furnace by the rules 213 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides 3 1/2"

Back 4"

Top 4"

Bottom 3 1/2"

Pitch of stays to ditto: Sides 8 1/2 x 7 1/2

Back 8 1/2 x 7 1/2

Top 8 1/2 x 7 1/2

If stays are fitted with nuts or riveted heads

Both

Working pressure by rules 205 lbs

Material of stays

Steel

Area at smallest part 2.07 sq

Area supported by each stay 79.3 sq

Working pressure by rules 234 lbs

End plates in steam space:

Material

Steel

Material

Steel

Thickness 1 1/2"

Pitch of stays 15 x 15 1/2"

How are stays secured

J.R.

Working pressure by rules 20/250

Material of stays

Steel

Area at smallest part 5.157 sq

Area supported by each stay 236 sq

Working pressure by rules 228 lbs

Material of Front plates at bottom

Steel

Thickness 4"

Material of Lower back plate

Steel

Thickness 4"

Greatest pitch of stays 14 x 9 1/2"

Working pressure of plate by rules 215 lbs

Diameter of tubes 3 1/2"

Pitch of tubes 19 x 4 1/2"

Material of tube plates

Steel

Thickness: Front 5"

Back 5"

Mean pitch of stays 11-2"

Pitch across wide water spaces 13 1/2"

Working pressures by rules 202 lbs

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre 8 1/2 x 1 1/2"

Length as per rule 2-8 1/2"

Distance apart 7 1/2"

Number and pitch of stays in each 3 @ 7 1/2"

Working pressure by rules 205 lbs

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

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

W416-0133

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—Two connecting rod top end, two connecting rod bottom end, two main bearing & one set coupling bolts & nuts, & set feed & set bilge pump valves, 3 funk ring studs & set air, & set circulating pump valves, one main & one donkey check valve, one safety valve spring, one propeller, 3 cylinder cover studs & nuts, 6 gauge glasses & washers, a quantity of assorted bolts & nuts, iron of various sizes, one set fuses for one boiler, &c.

The foregoing is a correct description,

SHIPBUILDING & ENGINEERING CO. LTD.

Manufacturer.

ASSISTANT MANAGER

Dates of Survey while building { During progress of work in shops -- 1920 Apr 22/20 to 3/2/22
During erection on board vessel -- 75
Total No. of visits

Is the approved plan of main boiler forwarded herewith

Yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 2/7/30 Slides 2/7/20 Covers 2/7/20 Pistons 9/9/20 Rods 10/5/20

Connecting rods 10/5/20 Crank shaft 16/9/20 Thrust shaft 16/9/20 Tunnel shafts 16/9/20 Screw shaft 16/9/20 Propeller 16/1/22

Stern tube 16/9/20 Steam pipes tested 31/1/22 Engine and boiler seatings 27/1/22 Engines holding down bolts 27/1/22

Completion of pumping arrangements 3/2/22 Boilers fixed 1/2/22 Engines tried under steam 3/2/22

Completion of fitting sea connections 18/1/22 Stern tube 18/1/22 Screw shaft and propeller 18/1/22

Main boiler safety valves adjusted 27/1/22 Thickness of adjusting washers PORT BOILER 27/1/22 STAR BOILER 27/1/22

Material of Crank shaft Steel Identification Mark on Do. 2501 Material of Thrust shaft Steel Identification Mark on Do. 2502

Material of Tunnel shafts Steel Identification Marks on Do. 2504 Material of Screw shafts Steel Identification Marks on Do. 2503

Material of Steam Pipes Lap welded iron Test pressure 600 lbs.

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 No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The engines & boilers of this vessel have been built under special survey & the materials & workmanship are good.

On completion the machinery was tried under full working conditions at sea and found satisfactory.

The machinery of this vessel is now in a good & efficient condition & eligible in my opinion to have the word L.M.C.-2-22 marked in Red in the Society's Register Book.

It is submitted that this vessel is eligible for THE RECORD.

L.M.C.-2-22.

L. J. 7/3/22.

The amount of Entry Fee ... £ 3-0-0 When applied for, 16/2/22
Special ... £ 32-0-0
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : : 24/3/22

Signature of Engineer Surveyor

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 10 MAR 1922

Assigned

+ L.M.C.-2-22.



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