

REPORT ON MACHINERY.

No. 11152.

MON. FEB. 13 1922

Date of writing Report 10th Feb 1922. When handed in at Local Office 11th Feb 1922 Port of Southampton.No. in Survey held at Southampton
Reg. Book.Date, First Survey 5th May 1920 Last Survey Jan 19th 1922

36467 on the SS "BELLASCO."

No. 994.

(Number of Visits 63.)

Master

Built at Southampton By whom built J. L. Thornycroft & Co.

Engines made at Southampton

By whom made J. L. Thornycroft & Co.

when made 1922.

Boilers made at Greenock

By whom made John Kincaid & Co. Ltd

when made 1921

Registered Horse Power

Owners Dover Shg Co. (T. Bull & Co.)

Port belonging to

Stull.

Nom. Horse Power as per Section 28

240

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

21" 34" 57"

Length of Stroke

36.

Revs. per minute

81

Dia. of Screw shaft

as per rule 11" 11.84"

Material of

S

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

4' 0"

Dia. of Tunnel shaft

as per rule 10 1/2"

Dia. of Crank shaft journals

as per rule 10 3/4"

Dia. of Crank pin

1 1/2"

Size of Crank webs

21" 3"

Dia. of thrust shaft under

collars

11"

Dia. of screw

15"

Pitch of Screw

13' 11"

No. of Blades

4.

State whether moveable

No.

Total surface

71 ft²

No. of Feed pumps

2.

Diameter of ditto

3"

Stroke

21"

Can one be overhauled while the other is at work

Yes.

No. of Bilge pumps

2.

Diameter of ditto

3 1/2"

Stroke

21"

Can one be overhauled while the other is at work

Yes.

No. of Donkey Engines

one

Ballast

one

General Service

one

Aux. feed

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

In Engine Room

one

3-3"

2-3 in

Stokehold

1-2 1/2"

Tunnel well

2-3" No 1 Hold

2-3" No 2 Hold

In Holds, &c.

No. of Bilge Injections

one

size

6"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

Yes 3 1/2"

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

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

below.

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

Yes

Is it fitted with a watertight door

Yes

worked from ER floor & Engine casing.

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

17746.

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

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

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

W369-0061

Lloyd's Register
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IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two Connecting Rod Top end bolts & nuts
Two Connecting Rod bottom end bolts & nuts. Two Main Bearing Bolts
Six Coupling bolts, one set feed pump valves. One set bilge pump valves.
One set piston Springs. Two main feed check valves. Two Auxiliary feed
check valves. Two Safety valve springs assorted bolts & nuts Six Con-
densation blank Condenser ferrules. Fifty tube packings Twenty boiler tubes
Two feed pump escape valve springs. One propeller one tail shaft. 12
Boiler gauge glasses. Iron of various sizes. two junk ring studs.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building	During progress of work in shops --	7-17 5-20	3-11-21 8-20	12-24 7-20	18-23-30 8-20	2-16-29 9-20	13 10-20	1-9-16-24-30 11-20	9-14-22 12-20	3-11-20-25 1-21	10-17-23 2-21	4-14-19 3-21
	During erection on board vessel --	9-23-25 8-21	14-16-27-30 9-21	34-8-10-22-24-26 10-21	17-9-17-28-29 11-21	14-15-22-23-30 12-21	13-14-17-19 1-22					
	Total No. of visits	63										

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 23.8.21. Slides 7.11.22. Covers 7.11.22. Pistons 7.11.22. Rods 9.11.22
Connecting rods 9.11.22. Crank shaft 16.9.21. Thrust shaft 16.9.21. Tunnel shafts 16.9.21. Screw shaft 30.9.21. Propeller 30.9.21
Stern tube 30.9.21. Steam pipes tested 8.10.21. Engine and boiler seatings 3.10.21. Engines holding down bolts 14.12.22
Completion of pumping arrangements 19.1.22. Boilers fixed 14.12.22. Engines tried under steam 13.1.22.
Completion of fitting sea connections 3.10.21. Stern tube 3.10.21. Screw shaft and propeller 3.10.21.
Main boiler safety valves adjusted 29.11.22. Thickness of adjusting washers PBF $\frac{9}{32}$ " A $\frac{15}{32}$ " SBF $\frac{7}{16}$ " A $\frac{3}{8}$ "
Material of Crank shaft S. Identification Mark on Do. 4319 Material of Thrust shaft S. Identification Mark on Do. 4178.
Material of Tunnel shafts S. Identification Marks on Do. 4322 Material of Screw shafts S. Identification Marks on Do. 4318.
Material of Steam Pipes Copper cold drawn 4324 Test pressure 360 lbs. hyd. press.
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. "Elizabeth Stoner"

General Remarks (State quality of workmanship, opinions as to class, &c.) The engines, boilers and oil fuel installation have been constructed in accordance with the Rules and approved plans. The materials and workmanship are sound & good (except the L.P. cylinder) The Boilers tested by hydraulic pressure and with the engines secured on board and tested under full working conditions and respectfully submitted as being eligible in my opinion to be classed with the notation of +Lmc(2.22) in the Register book.

The vessel has at present been converted to coal fuel.

L.P. cylinder:— In consequence of the slight porosity on the Port hand side of the L.P. cylinder, it has been recommended to and agreed by the owners representative that this cylinder be again examined in six months from date.

The amount of Entry Fee ... £ 4 : 0
Special ... £ 60 : 0
Donkey Boiler Fee ... £ 11 : 5
Travelling Expenses (if any) ... £ 48 : 15

When applied for,

11/2/1922

When received,

3.3.1922

J.G. Mackillop

Engineer Surveyor to Lloyd's Register of Shipping.

FRI. AUG. 11 1922

Committee's Minute

Assigned

+ L.M.C. 1.22. C.L.

Fixed for oil fuel 1.22. F.P. above 150°F.

not limits

Certificate (if required) to be sent to

The Surveyors are requested to write on or below the space for Committee's Minute.

CERTIFICATE

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