

REPORT ON MACHINERY.

No. 2914

WED. AUG. 18 1920

Date of writing Report 10 Aug 1920 When handed in at Local Office

Received at London Office

Survey held at *Mayors Haven*

Date, First Survey 1st June

Last Survey 11 June 1920

on the *ST "Cherwell" & Thomas Roberts*

Master *W H Francham* Built at *Middlesbrough*

By whom built *Smiths Dock Co Ltd*

Gross Tons 275

Engines made at *Middlesbrough*

By whom made *Smiths Dock Co Ltd*

When built 1917

Boilers made at

By whom made *Palmer's S & I Co Ltd*

When made 1917

Registered Horse Power

Owners

Port belonging to

Net Horse Power as per Section 28 87

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted No

GINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders 3

No. of Cranks 3

No. of Cylinders 12 1/2 x 21 x 35

Length of Stroke 26

Revs. per minute 110

Dia. of Screw shaft as per rule 7 5/8

Material of screw shaft Iron

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

Is the propeller boss

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

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 Yes

If two

Are the shafts fitted, is the shaft lapped or protected between the liners

Length of stern bush 34"

Dia. of Tunnel shaft as per rule 6.5

Dia. of Crank shaft journals as per rule 6.9

Dia. of Crank pin 7 3/8

Size of Crank webs 14 1/2 x 4 1/2

Dia. of thrust shaft under

Dia. of screw 9.6

Pitch of Screw 11-12

No. of Blades 4

State whether moveable No

Total surface 35.5 sq ft

No. of Feed pumps 2

Diameter of ditto 2 1/2

Stroke 12"

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2

Diameter of ditto 2 1/2

Stroke 12"

Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2, 8 Gectors

Sizes of Pumps 6x3x6, 8x4x6

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

Engine Room 1.2' x 2' 8" x 2' 8" 2' 8" x 2' 8" 2' 8" x 2' 8"

Holds, &c. one from fore hold, 1 stoke

also separate ejector from air ports

Bilge Injections 1 size 3 1/2

Connected to condenser, or to circulating pump pump

Is a separate Donkey Suction fitted in Engine room & size Yes ejector

Are 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 connections with the sea direct on the skin of the ship Yes

Are they Valves or Cocks Both

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

Are pipes carried through the bunkers Forward Suctions

How are they protected Wood Casings

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

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

Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

ERS, &c.—(Letter for record S)

Manufacturers of Steel

Heating Surface of Boilers 1619

Is Forced Draft fitted No

No. and Description of Boilers Cylindrical, Mus?

No. of Certificate 25-21

Working Pressure 180 lb

Tested by hydraulic pressure to 360

Date of test 26-4-17

No. of Certificate 25-21

Can boiler be worked separately

Area of fire grate in each boiler 50 sq ft

No. and Description of Safety Valves to

Are they fitted with easing gear Yes

Area of each valve 4.9

Pressure to which they are adjusted 183

Are they fitted with easing gear Yes

Distance between boilers or uptakes and bunkers or woodwork 7

Range of tensile strength 28.32

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams double

Material of shell plates S

Diameter of rivet holes in long. seams 1 5/32

Pitch of rivets 8"

Lap of plates or width of butt straps 17"

Size of manhole in shell 16" x 12"

Working pressure of shell by rules 180 lb

Size of manhole in shell 16" x 12"

Material of shell plates S

Range of tensile strength 28.32

Area of strength of longitudinal joint

Working pressure of shell by rules 180 lb

Size of manhole in shell 16" x 12"

Material of shell plates S

Compensating ring 9 3/32

No. and Description of Furnaces in each boiler 3 plain

Material S

Outside diameter 40 9/16

Top 8 1/2

Thickness of plates crown 25

Description of longitudinal joint Welded

No. of strengthening rings

Bottom 7 6

Thickness of plates bottom 32

Description of longitudinal joint Welded

No. of strengthening rings

Pressure of furnace by the rules 188

Combustion chamber plates: Material S

Thickness: Sides 11/16

Back 21/32

Stays to ditto: Sides 9 1/2 x 9 3/8

Back 9 x 9

Top 9 1/2 x 9 1/2

If stays are fitted with nuts or riveted heads Nuts

Area at smallest part 2.07

Area supported by each stay 90.25

Working pressure by rules 206

End plates in steam space: S

Thickness 1 1/16

Pitch of stays 17 3/8 x 17

How are stays secured D.N.W.

Working pressure by rules 181

Area supported by each stay 295

Working pressure by rules 215

Material of Front plates at bottom S

Material of Lower back plate S

Thickness 1 5/16

Greatest pitch of stays 14 x 9

Working pressure of plate by rules 219

Pitch of tubes 5 x 4 3/4

Material of tube plates S

Thickness: Front 31/32

Back 7/8

Mean pitch of stays 10"

Working pressures by rules 184

Girders to Chamber tops: Material S

Depth and

Distance apart 9 1/2

Number and pitch of stays in each 2 9 1/2

Steam dome: description of joint to shell

% of strength of joint

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Working pressure of shell by rules

Crown plates

Thickness

How stayed

Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

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

Pressure to which each is adjusted

Is Easing Gear fitted

W531-0078

Lloyd's Register

Foundation

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

4 top end bolts, and nuts
2 bottom end bolts, and nuts 2 main bearing
bolts, and nuts 1 Set of Coupling bolts & nuts
1 Set of air feet, and large pump valves
1 Set of piston studs, and nuts 3 Condenser
tubes 3 boiler tubes, and 2 escape valve springs
2 donkey pump suction valves, & delivery

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops - -
During erection on board vessel - -
Total No. of visits

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders

Slides

Covers

Pistons

Rods

Connecting rods

Crank shaft

Thrust shaft

Tunnel shafts

Screw shaft

Propeller

Stern tube

Steam pipes tested

Engine and boiler seatings

Engines holding down bolts

Completion of pumping arrangements

Boilers fixed

Engines tried under steam

Completion of fitting sea connections

Stern tube

Screw shaft and propeller

Main boiler safety valves adjusted

181 lbs

Thickness of adjusting washers

P 1/4 S 3/8"

Material of Crank shaft Iron Identification Mark on Do.

Material of Thrust shaft Iron Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do.

Material of Screw shafts Iron Identification Marks on Do.

Material of Steam Pipes

S D Copper

Test pressure

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

Yes

Is this machinery duplicate of a previous case Yes If so, state name of vessel

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

The machinery of

this vessel has been built under British Corporation
Survey to plans, and specifications mutually
approved by this Society, and B.C. The
workmanship throughout appears to be good
, and efficient, and in my opinion is eligible
to have Class assigned Lmc. 6. 20

The amount of Entry Fee ... £ 10 : 10 :

When applied for,

Special

Donkey Fee

Travelling Expenses (if any)

When received,

4. 8

Committee's Minute

FRI. SEP. 3 1920

Assigned

Lmc 6. 20

CERTIFICATE WRITTEN.

J. W. Johnstone

Engineer Surveyor to Lloyd's Register of Shipping.



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