

REPORT ON MACHINERY.

No. 9122

Received at London Office

FRI. 30 MAY 1924

Date of writing Report

19

When handed in at Local Office

29

5

19

24

Port of

Belfast

No. in Survey held at
Re. Book.

Belfast

Date, First Survey 1923. Nov. 20.

Last Survey May 27th

1924

on the New Steel S.S. Atlantida

(Number of Visits 63)

Gross 4190.94

Net 2446.49

When built 1924

Master

Built at

Belfast

By whom built

Workman Clark & Co Ltd

Engines made at

Belfast

By whom made

Workman Clark & Co Ltd

55412

when made

1924

Boilers made at

Belfast

By whom made

Workman Clark & Co Ltd

when made

1924

Registered Horse Power

Owners

Standard Fruit & Steamship Coy

Port belonging to

Cuba

Nom. Horse Power as per Section 28

669

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Four Cylinders Triple Expansion

No. of Cylinders

4

No. of Cranks

4

Dia. of Cylinders

24" x 44" x 54" x 54"

Length of Stroke

45"

Revs. per minute

103

Dia. of Screw shaft

15.32

Material of

Steel

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

No

Is the after end of the liner made water tight

Yes

in the propeller boss

Yes

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

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

Yes

Length of stern bush

5'-6"

Dia. of Tunnel shaft

13.4

Dia. of Crank shaft journals

14.0

Dia. of Crank pin

14.0

Size of Crank webs

24" x 9"

Dia. of thrust shaft under

collar

14.0

Dia. of screw

16'-0"

Pitch of Screw

16'-3"

No. of Feed pumps

2

Diameter of ditto

9"

Stroke

24"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

14"

Stroke

24"

No. of Donkey Engines

See list

Sizes of Pumps

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

In Engine Room

2 @ 3"

4 @ 2"

1 @ 1 1/2" Special

In Holds, &c.

2 @ 3"

2 @ 2"

No. of Bilge Injections

1

sizes

11"

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & size

Yes

4"

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

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

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

Top Platform

No.

Description of Boilers

4

Single Ended

No. of Certificate

834

BOILERS, &c.—(Letter for record

5)

Manufacturers of Steel

W Beardmore & Co Ltd

Total Heating Surface of Boilers

10548 sq ft

Is Forced Draft fitted

Yes

No. and Description of Boilers

4

Single Ended

No. of Certificate

834

Working Pressure

200 lbs

Tested by hydraulic pressure to

350 lbs

Date of test

8-4-24

No. of Certificate

834

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

Oil fired

No. and Description of Safety Valves to

each boiler

Two high lift

Area of each valve

4.0 sq ft

Pressure to which they are adjusted

205 lbs

Are they fitted with easing gear

Yes

Smallest distance between boiler or uptakes and bunkers or woodwork

1'-4"

Mean dia. of boilers

16'-0"

Length

11'-9"

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

D.R.

long. seams

T.R.D.B.S.

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

10 1/2"

Lap of plates or width of butt straps

1'-9"

Per centages of strength of longitudinal joint

85.4

Working pressure of shell by rules

200.2 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

x 1 1/2" dia

No. and Description of Furnaces in each boiler

4

Corrugated Material

Steel

Outside diameter

3'-8 1/2"

Length of plain part

top

Thickness of plates

19"

Description of longitudinal joint

Weld

No. of strengthening rings

4

Working pressure of furnace by the rules

209 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

2 1/2"

Back

4 1/2"

Top

2 1/2"

Bottom

4 1/2"

Pitch of stays to ditto: Sides

8" x 9"

Back

9" x 4"

Top

1" x 9"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

201.6 lbs

Material of stays

Steel

Area at smallest part

14 1/2 x 2.36

Area supported by each stay

45 sq in

Working pressure by rules

203 lbs

End plates in steam space:

Material

Steel

Thickness

1 1/2"

Pitch of stays

20" x 16"

How are stays secured

D.N. Wash

Working pressure by rules

207 lbs

Material of stays

Steel

Area at smallest part

6.096 sq in

Area supported by each stay

330 sq in

Working pressure by rules

203.6 lbs

Material of Front plates at bottom

Steel

Thickness

1"

Material of Lower back plate

Steel

Thickness

1 1/2"

Greatest pitch of stays

13" x 9 1/2"

Working pressure of plate by rules

241 lbs

Diameter of tubes

2 1/2"

Pitch of tubes

3 1/4" x 3 1/4"

Material of tube plates

Steel

Thickness: Front

1"

Back

1 1/2"

Mean pitch of stays

9 1/4"

Pitch across wide water spaces

13 1/2" x 1 1/4"

Working pressures by rules

254 lbs

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

20 1/2" x 3 1/4"

Length as per rule

2'-10 1/2"

Distance apart

9"

Number and pitch of stays in each

3 @ 8"

Working pressure by rules

206 lbs

Steam dome: description of joint to shell

None

% of strength of joint

None

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

None

SUPERHEATER. Type

None

Date of

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— one cast iron propeller, one tail shaft complete, 1 pair sp & bottom end connecting rod brasses, one air pump bucket rod & head valve, one air pump impeller shaft, 2 main bearing bolts & nuts, 2 Com rod bottom end bolts & nuts, 1 Com rod top end bolts & nuts, one set coupling bolts, one set valves, springs & seats for feed & bilge pumps, 100 tubes & 200 ferrules for Condenser. Quantity of assorted bolts nuts & rivs.

Pumps:— 2 Weirs Feed 9" x 12" x 7 1/2", 106 Pulsometer 4 1/2" Bilge Suct; 1 Duplex Ballast 12 x 12 x 12; 1 W.P. 4 1/2 x 3 x 6; 1 O.F. Transfer pp 8 x 4 x 15; 2 Weirs O.F. (burning) pp 4 x 6 x 5; 1 Centrifugal Cir pp. 16" x 4 1/2" Impeller.

The foregoing is a correct description,
FOR WORKMAN, CLARK & CO., LIMITED.

F. Cunningham

Manufacturer.

Dates of Survey while building: During progress of work in shops: 1923 Nov 20, 26, 27, Dec 4, 7, 12, 13, 20. 1924 Jan 2, 9, 10, 16, 17, 23, 25, 30, Feb 11, 12, 27, 29, Mar 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 17, 18, 20, 21, 25, 26, 27, 28, 31, Apr 1, 2, 5, 9, 11, 15, 18, 23, 24, 30, May 2, 3, 5, 6, 9, 12, 13, 15, 16, 18, 22, 24, 30, 31, 1924 Jun 2, 3, 5, 6, 9, 12, 13, 15, 16, 17, 21, 26, 27.
Total No. of visits: 63.

Is the approved plan of main boiler forwarded herewith: yes

" " " donkey " " " "

Dates of Examination of principal parts: Cylinders 24-2-24 Slides 13-5-24 Covers 4-12-23 Pistons 13-3-24 Rods 24-2-24
Connecting rods 24-2-24 Crank shaft 12-2-24 Thrust shaft 15-4-24 Tunnel shafts 8-4-24 Screw shaft 11-4-24 Propeller 11-4-24
Stern tube 16-3-24 Steam pipes tested 11-3-24 to 15-4-24 Engine and boiler seatings 13-4-24 Engines holding down bolts 13-5-24
Completion of pumping arrangements 16-6-24 Boilers fixed 13-5-24 Engines tried under steam 24-5-24
Completion of fitting sea connections 23-4-24 Stern tube 23-4-24 Screw shaft and propeller 23-4-24
Main boiler safety valves adjusted 14-5-24 Thickness of adjusting washers 5 F 1/2, A 3/4, P 3/4, A 1/2, 5 and 1 1/2, F 3/4, A 1/2, F 3/4, A 1/2
Material of Crank shaft Steel Identification Mark on Do. 6866, 6870, 6921, 6914, 6918 Material of Thrust shaft Steel Identification Mark on Do. 6921, 6918
Material of Tunnel shafts Steel Identification Marks on Do. 6919, 6918 Material of Screw shafts Steel Identification Marks on Do. 6916, 6918
Material of Steam Pipes Lapwelded Steel Test pressure 600 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: yes

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.)

This Machinery has been built under Special Survey. Materials and Workmanship good. Hydraulic Tests satisfactory. The whole of the machinery has been satisfactorily installed & fixed in the vessel and tried under steam & is in good & safe working condition & eligible in my opinion to be classed and have records **LMC 5-24**.
Fitted for oil fuel 5-24 flash point above 150°F. "Tail Shaft" Oil Gland. Electric Light.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 5.24. FD. OG.
Fitted for oil fuel 5.24. F.P. above 150°F.

The amount of Entry Fee ... £ 6 : 0 :
Special ... £ 108 : 9 :
Electric Light ... £ 24 : 5 :
Donkey Boiler Fee ...
Travelling Expenses (if any) £ :
When applied for, May 24 1924
When received, 14/6/24

Committee's Minute WED. 11 JUN 1924

Assigned + L.M.C. 5.24. F.D. O.G.

Fitted for oil fuel 5.24
F.P. above 150°F.

CERTIFICATE WRITTEN

TUES. 23 MAY 1925



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Foundation