

## REPORT ON MACHINERY

No. 39589.

WED. FEB. 4 1920

Received at London Office

Date of writing Report

When handed in at Local Office 31.1.1920

Port of Glasgow

No. in Survey held at Reg. Book.

Date, First Survey 11/12/18. Last Survey 24 Jan 1920

(Number of Visits 38)

on the

S.S. ALGERIER

Master

Built at Glasgow

By whom built Lloyd Royal Belg. (No 12)

When built 1920

Engines made at

Glasgow

By whom made

Do Rowan &amp; Co. Ltd (No 730)

when made 1920

Boilers made at

Do

By whom made

Do

when made 1920

Registered Horse Power

Owners

Port belonging to Antwerp

Nom. Horse Power as per Section 28 359

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

## ENGINES, &amp;c.—Description of Engines

Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 25"-41"-68"

Length of Stroke 45"

Revs. per minute 76

Dia. of Screw shaft

as per rule 13.58

Material of screw shaft

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

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

Yes

If two

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

—

Length of stern bush 60"

Dia. of Tunnel shaft

as per rule 12.41

Dia. of Crank shaft journals

as per rule 13.02

Dia. of Crank pin 13 1/4"

Size of Crank webs 27 1/2 x 8 3/4"

Dia. of thrust shaft under

collars 13 1/4"

Dia. of screw 16-0"

Pitch of Screw 16-3"

No. of Blades 4

State whether moveable No

No. of Feed pumps 2

Diameter of ditto 3 1/2"

Stroke 24"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps 2

Diameter of ditto 3 1/2"

Stroke 24"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines 3

Sizes of Pumps

Ballast 10 1/2 x 12 1/2 x 21"

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

In Engine Room (3) 3"

Stokehold (2) 3"

In Holds, &amp;c. No 1-2-3 two each 3"

No 4 one 3 1/2"

Tunnel well one 3"

No. of Bilge Injections 1

sizes 11"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room &amp; size

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

None

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

Fuel &amp; Suction

How are they protected

Wood casing

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

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

Main deck in E.R.

No. of Certificate 14987

BOILERS, &amp;c.—(Letter for record)

Manufacturers of Steel

Steel 60 of Scotland &amp; Co.

3.S.B.

Total Heating Surface of Boilers 5844 sq ft

Is Forced Draft fitted

No

No. and Description of Boilers 3

Single ended

Working Pressure 180 lb

Tested by hydraulic pressure to

360 lb

Date of test 14.11.19

No. of Certificate 14987

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

50.8 sq ft

No. and Description of Safety Valves to

each boiler 2 spring loaded

Area of each valve

4.90 sq in

Pressure to which they are adjusted

185 lb

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

3-0"

Mean dia. of boilers

13.9 3/4"

Length

11-8 1/2"

Material of shell plates

Steel

Thickness

1/8"

Range of tensile strength

28 3/4 to 33 ton

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

do R

long. seams

TR D D S

Diameter of rivet holes in long. seams

1 7/16"

Pitch of rivets

8 1/2"

Gap of plates or width of butt straps

1.8"

Per centages of strength of longitudinal joint

rivets 86.1

Size of compensating ring

flanged

No. and Description of Furnaces in each boiler

3 corrugated

Material

Steel

Outside diameter

3-7"

Length of plain part

top

Thickness of plates

crown 1.7

Description of longitudinal joint

weld

No. of strengthening rings

bottom 13

Working pressure of furnace by the rules

90

Combustion chamber plates: Material

Steel

Thickness: Sides

13/16"

Back

3/4"

Top

13/16"

Pitch of stays to ditto: Sides

9 3/8" x 2 1/8"

Back

10 3/8" x 9 1/2"

Top

9 3/8" x 12 1/8"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

228

Material of stays

Steel

Area at smallest part

2.4

Area supported by each stay

98.50

Working pressure by rules

219

End plates in steam space:

Material

Steel

Thickness

1 3/32"

Area at smallest part

8.29 sq ft

Area supported by each stay

4630

Working pressure by rules

186

Material of Front plates at bottom

Steel

Thickness

31/32"

Material of lower back plate

Steel

Thickness

27/32"

Greatest pitch of stays

13 1/2" x 9"

Working pressure of plate by rules

203

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4" x 4 3/4"

Material of tube plates

Steel

Thickness: Front

31/32"

Back

3/4"

Mean pitch of stays

9 1/2"

Pitch across wide water spaces

14 1/4"

Working pressures by rules

189

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

10 1/4" x 3 3/4" (2)

Length as per rule

2.11 1/2"

Distance apart

10"

Number and pitch of stays in each

(2) 12 3/8"

Working pressure by rules

197

Steam dome: description of joint to shell

None

% of strength of joint

100

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

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

Pressure to which each is adjusted

Is Easing Gear fitted

Diameter of Safety Valve

Lloyd's Register

Foundation

672/20

1149

1149

1149

1149

1149



IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 top end bolts and nuts, 2 bottom end bolts and nuts, 2 main bearing bolts and nuts, 6 coupling bolts and nuts, set of feed and barge Pump Valves, assorted Iron bolts and nuts and other articles

The foregoing is a correct description,

David Rowan & Co. Ltd. Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1918 Dec 11, 1919 Jan 22, Feb 11, Mar 11, Apr 16, May 16, June 3, 18, 23, July 14, 16, Aug 11, 25, 29, Sept 10, 16, 21, 25, Oct 1, 9, 15, 16, 27, Nov 3, 5, 14, 20, Dec 1, 3, 4, 11, 16, 24, 1920 Jan 8, 12, 13, 19, 24  
During erection on board vessel ---  
Total No. of visits 38.

Is the approved plan of main boiler forwarded herewith

Yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 16.4.19 Slides 3.6.19 Covers 3.6.19 Pistons 25.8.19 Rods 25.8.19 Connecting rods 25.9.19 Crank shaft 23.6.19 Thrust shaft 27.10.19 Tunnel shafts 4.12.19 Screw shaft 17.9.19 Propeller 17.9.19 Stern tube 5.11.19 Steam pipes tested 11.12.19/13.1.20 Engine and boiler seatings 4.12.19 Engines holding down bolts 13.1.20.

Completion of pumping arrangements 29.1.20 Boilers fixed 13.1.20 Engines tried under steam 29.1.20 24.1.20

Completion of fitting sea connections 4.12.19 Stern tube 16.12.19 Screw shaft and propeller 16.12.19

Main boiler safety valves adjusted 29.1.20 Thickness of adjusting washers Pt 15 1/2" 1/8" Centre 15 1/2" 1/4" Stars 15 1/2" 1/8" 2642 AF

Material of Crank shaft Steel Identification Mark on Do. TM 236.19 Material of Thrust shaft Steel Identification Mark on Do. GLS 17.9.19

Material of Tunnel shafts Steel Identification Marks on Do. \* Material of Screw shafts Steel Identification Marks on Do. Q.S. 27.10.19

Material of Steam Pipes Iron Test pressure 540 lb

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? Yes If so, state name of vessel Tunisian

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

\* (4) 2669 AF 730 TM 4.12.19 (1) 2642 AF 730 TM 4.12.19

The machinery of this vessel has been constructed under special survey in accordance with the Rules and approved plans and has been seen working satisfactorily under steam. Materials and workmanship are good.

The machinery is eligible in our opinion to be classed + L M C 1-20

It is submitted that this vessel is eligible for THE RECORD. + L M C 1-20.

The amount of Entry Fee ... £ 3 : 0 :  
Special ... £ 37 : 19 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 2/2/1920  
When received, 4/2/1920

Committee's Minute GLASGOW 8-FEB 1920

Assigned + L M C 1, 20.

MACHINERY CERT. WRITTEN 4.2.20

Jas Easthope J.S. Murray  
Engineer-Surveyor to Lloyd's Register of Shipping.



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