

REPORT ON MACHINERY.

No. 27346

Received at London Office

MON. 7-OCT. 1918

Date of writing Report

19

When handed in at Local Office

4 OCT 1918

Port of

SUNDERLAND.

No. in Survey held at

Sunderland

Date, First Survey

28 Jan'y

Last Survey

27 Oct'r 1918

Reg. Book.

on the 95 "WAR JEMADAR"

Number of Visits

35

Gross 5563

Tons

Net 3476

When built 1918

Master

Jackson

Built at

Sunderland

By whom built

Jas. Laing & Sons Ltd

Engines made at

Sunderland

By whom made

G. Clark Ltd

when made 1918

Boilers made at

Sunderland

By whom made

G. Clark Ltd

when made 1918

Registered Horse Power

Owners

Shipping Controller

Port belonging to

London

Nom. Horse Power as per Section 28

517

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

27, 44, 73

Length of Stroke

48

Revs. per minute

78

Dia. of Screw shaft

as per rule 14.69

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

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

No

If two

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

Yes

Length of stern bush

5'-0 1/2"

Dia. of Tunnel shaft

as per rule 13-32

13-32

Dia. of Crank shaft journals

as per rule 14

14

Dia. of Crank pin

14 1/2

Size of Crank webs

22 1/2 x 9

Dia. of thrust shaft under

collars

14 3/4

Dia. of screw

17-6"

Pitch of Screw

16-6"

No. of Blades

4

State whether moveable

No

Total surface

98.29

No. of Feed pumps

2

Diameter of ditto

4"

Stroke

24"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

4"

Stroke

24"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

3

Sizes of Pumps

10 1/2 x 14 x 24

9 1/2 x 7 x 16

9 1/2 x 7 x 16

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

In Engine Room

4 @ 3 1/2"

In Holds, &c. 1 8" in each oil tank, 2 @ 2 1/2 in aft hold

on tunnel flat, 1 @ 2 1/2 in tunnel well, 2 @ 3 1/2 in fore

any cargo hold to be used pump in fore pump room

No. of Bilge Injections

1

sizes

9

Connected to condenser, or to circulating pump

Yes

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

No

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

No

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

No

worked from access by trunk

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel

J. Spenser Sims

Total Heating Surface of Boilers

7668 sq

Is Forced Draft fitted

Yes

No. and Description of Boilers

3 Single Ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

23.8.18

No. of Certificate

3493

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

63 sq

No. and Description of Safety Valves to

each boiler

2 Spring valves

Area of each valve

9.6 sq

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

Thickness

1 1/4

Range of tensile strength

28-32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

Lap & St.

long. seams

A 1 1/2 riv

Diameter of rivet holes in long. seams

1 5/16

Pitch of rivets

9 1/8

Top of plates on width of butt straps

19 1/2

Per centages of strength of longitudinal joint

rivets 85.3

plate 85.6

Working pressure of shell by rules

182

Size of manhole in shell

16 x 12

Size of compensating ring

Hinged

No. and Description of Furnaces in each boiler

3 Single

Material

S

Outside diameter

4-2 3/16

Length of plain part

top

bottom

Thickness of plates

crown 1 1/4

bottom 3/2

Description of longitudinal joint

Welded

No. of strengthening rings

Working pressure of furnace by the rules

187

Combustion chamber plates: Material

S

Thickness: Sides

23/32

Back

7/16

Top

23/32

Bottom

3/2

Pitch of stays to ditto: Sides

10 5/8 x 9 1/4

Back

8 3/4 x 10 1/4

Top

10 5/8 x 9 1/4

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

180

Material of stays

S

Area at smallest part

2.36 sq

Area supported by each stay

98.2 sq

Working pressure by rules

216

End plates in steam space:

Material

S

Thickness

1 1/2

Pitch of stays

21 3/4 x 20 1/2

How are stays secured

A. 2 x 4

Working pressure by rules

190

Material of stays

S

Area at smallest part

8.24 sq

Area supported by each stay

432 sq

Working pressure by rules

186

Material of Front plates at bottom

S

Thickness

3/2

Material of Lower back plate

S

Thickness

2 1/2

Greatest pitch of stays

13 5/8 x 8 3/4

Working pressure of plate by rules

183

Diameter of tubes

2 3/4

Pitch of tubes

4 x 3 3/8

Material of tube plates

S

Thickness: Front

3/2

Back

3/4

Mean pitch of stays

9 7/8

Pitch across wide water spaces

13 5/8

Working pressures by rules

181

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

10 x 1 3/4

Length as per rule

2-11 9/16

Distance apart

10 5/8

Number and pitch of stays in each

3, 9 1/4

Working pressure by rules

187

Steam dome: description of joint to shell

No

% of strength of joint

No

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

No

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

IS A DONKEY BOILER FITTED? *NO*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two top end & two bottom end connecting rod bolts & nuts, two main turning bolts, one set of coupling bolts, one set fuel & bilge pump valves, assorted bolts and nuts, Iron of various sizes, one propeller.*

The foregoing is a correct description,
FOR GEORGE CLARK LIMITED.

James C. Clark Manufacturer.
Dates of Survey while building { During progress of work in shops - - 1918 Jan 28 Apr 4. 9. 15. 18 22. 25 May 6. 14. 27 Jun 3. 6. 9. 13. 14. 24 Jul 5. 8. 10. 16. 20. 29 Aug 1. 2. 19. 23.
During erection on board vessel - - - 26 Sep 6. 13. 14. 21. 24. 26. 27
Total No. of visits *33* Is the approved plan of main boiler forwarded herewith *YES*

Dates of Examination of principal parts—Cylinders 29. 7. 18 Slides 29. 7. 18 Covers 29. 7. 18 Pistons 29. 7. 18 Rods 16. 7. 18
Connecting rods 29. 7. 18 Crank shaft 5. 7. 18 Thrust shaft 24. 6. 18 Tunnel shafts 26. 8. 18 Screw shaft 26. 8. 18 Propeller 24. 6. 18
Stern tube 16. 7. 18 Steam pipes tested 4. 9. 18 Engine and boiler seatings 13. 9. 18 Engines holding down bolts 13. 9. 18
Completion of pumping arrangements 21. 9. 18 Boilers fixed 13. 9. 18 Engines tried under steam 21. 9. 18
Completion of fitting sea connections 14. 8. 18 Stern tube 6. 9. 18 Screw shaft and propeller 6. 9. 18
Main boiler safety valves adjusted 21. 9. 18 Thickness of adjusting washers *St. B. P. 7/8 5/16 L. 1 1/2 P. 7/8 5/16 P. 7/8 5/16 P. 7/8 5/16*
Material of Crank shaft *Iron* Identification Mark on Do. *1074 L.D.* Material of Thrust shaft *Iron* Identification Mark on Do. *8499 G.H.B.*
Material of Tunnel shafts *Iron* Identification Marks on Do. *3192 W.C.* Material of Screw shafts *Iron* Identification Marks on Do. *1024 D.D.W.*
Material of Steam Pipes *Iron* Test pressure *540 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 — If so, state name of vessel *A. Type*

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

The Machinery of this vessel has been constructed under special survey. The materials and workmanship are sound and good and under the vessel eligible to have record of + L.M.C. 9.18 "Fitted for oil fuel F.P. above 150°F"

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 9.18 F.D.
FITTED FOR OIL FUEL 9.18 F.P. ABOVE 150°F.

9.10.18
11.10.18
11.10.18

The amount of Entry Fee ... £ : : When applied for,
Special ... £ 146. 11 : : 1. 10. 18
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 4. 10. 18

W. H. H. H. H.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 8 - OCT. 1918
Assigned *+ L.M.C. 9.18. F.D.*
Fitted for oil fuel 9.18
F.P. above 150°F.

MACHINERY CERTIFICATE
WRITTEN

