

REPORT ON MACHINERY.

No. 38442

Received at London Office

WED. JAN. 15. 1919

Date of writing Report

19

When handed in at Local Office

19

Port of

Glasgow

Survey held at

Glasgow

Date, First Survey

8th May 1918

Last Survey

2nd Jan 1919

g. Book.

on the

S.S. WARJASMINE

Master

Built at Glasgow

By whom built

Harland & Wolff (No 548) When built 1918

Engines made at

Glasgow

By whom made

Harland & Wolff (No 549) when made 1918

Milers made at

Greenock

By whom made

Caird & Co (No 538) when made 1918

Registered Horse Power

Owners

The Shipping Controller

Port belonging to London

Horse Power as per Section 28

517

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

GINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

No. of Cylinders

27-44-73

Length of Stroke

48

Revs. per minute

77

Dia. of Screw shaft

as per rule 14.7

Material of

Steel

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

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

yes

If two

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

-

Length of stern bush

60 1/2

Dia. of Tunnel shaft

as per rule 13.33

as fitted 13 1/2

Dia. of Crank shaft journals

as per rule 14

as fitted 14 1/2

Dia. of Crank pin

14 1/2

Size of Crank webs

28x9

Dia. of thrust shaft under

bars

14 1/2

Dia. of screw

17-6

Pitch of Screw

16-6

No. of Blades

4

State whether moveable

no

Total surface

102 1/4

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

1 fed with 9 1/2 x 7 x 1 1/8

General 9 1/2 x 7 x 1 1/8

Ballast 10 1/2 x 14 x 2 1/4

Landing 10 1/2 x 14 x 2 1/4

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

Engine Room

Two of 3 1/2"

Stroke hold a two of 3 1/2"

In Holds, &c.

No 1 Two of 3 1/2"

No 2 Two of 3 1/2"

No 3 Two of 3 1/2"

No 4 Two of 3 1/2"

Lumme well one of 3 1/2"

No. of Bilge Injections

1

size 12"

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

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

1 & suction

How are they protected

wood casings

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

Dates of examination of completion of fitting of Sea Connections

10.12.18

of Stern Tube

10.12.18

Screw shaft and Propeller

10.12.18

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

no

worked from entry by trunkway

MILERS, &c.—(Letter for record

S)

Manufacturers of Steel

See separate G.R.K. Rpt No 17395

Total Heating Surface of Boilers

7684

Is Forced Draft fitted

yes

No. and Description of Boilers

3

Simple ended

Working Pressure

180

Tested by hydraulic pressure to

-

Date of test

7-10-18

No. of Certificate

1362

Can each boiler be worked separately

yes

Area of fire grate in each boiler

63.34

No. and Description of Safety Valves to

No. of boiler

2

spring loaded

Area of each valve

9.624

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

1-9

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

No. of seams

-

Diameter of rivet holes in long. seams

-

Pitch of rivets

-

Lap of plates or width of butt straps

Percentages of strength of longitudinal joint

-

Working pressure of shell by rules

-

Size of manhole in shell

No. of compensating ring

-

No. and Description of Furnaces in each boiler

3

weight ton

Material

-

Length of plain part

-

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

-

No. of strengthening rings

-

Working pressure of furnace by the rules

-

Combustion chamber plates: Material

-

Thickness: Sides

-

Back

Top

Bottom

No. of stays to ditto: Sides

-

Back

-

Top

-

If stays are fitted with nuts or riveted heads

-

Working pressure by rules

-

Material of stays

-

Diameter 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

-

Diameter 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

-

Girders 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

-

Superheater or Steam chest; how connected to boiler

-

Can the superheater be shut off and the boiler worked

Diameter

-

Length

-

Thickness of shell plates

-

Material

-

Description of longitudinal joint

-

Diam. of rivet

-

Pitch of rivets

-

Working pressure of shell by rules

-

Diameter of flue

-

Material of flue plates

-

Thickness

-

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. <i>1110</i>	Description	Made at	By whom made	When made	Where fixed
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from main boilers can enter the donkey boiler	Dia. of donkey boiler	Length		
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets Plates
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:— 2 top end 2 bottom and 2 main bearings and 6 coupling bolts and nuts, set of feed and bilge Pump valves assorted iron, bolts and nuts and other spares as required by specification

The foregoing is a correct description,
H. E. Beck
 GENERAL MANUFACTURER.

Dates of Survey while building
 During progress of work in shops -- 1918. May 8. 16. 21. 23. 28. 30. June 3. 5. 12. 19. 24. 27. July 1. 3. 5. 8. 10. 11. 24. 27. 30. 31. Aug 2. 19. 22. 26. 27. 28. Sept 6. 9. 11. 14.
 During erection on board vessel --- 19. 24. 26. Oct 2. 4. 9. 14. 16. 17. 29. Nov 4. 6. 20. Dec 3. 6. 10. 16. 18. 24. 27. 28. 30. Jan 2.
 Total No. of visits 54.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 14. 10. 18 Slides 14. 10. 18 Covers 14. 10. 18 Pistons 4. 10. 18 Rods 14. 10. 18
 Connecting rods 14. 10. 18 Crank shaft 6. 11. 18 Thrust shaft 14. 10. 18 Tunnel shafts 6. 12. 18 Screw shaft 6. 12. 18 Propeller 6. 12. 18
 Stern tube 6. 12. 18 Steam pipes tested 15. 10. 18 Engine and boiler seatings 24. 12. 18 Engines holding down bolts 28. 12. 18
 Completion of pumping arrangements 28. 12. 18 Boilers fixed 30. 12. 18 Engines tried under steam 30. 12. 18. 2. 1. 19
 Main boiler safety valves adjusted 28. 12. 18 Thickness of adjusting washers Sta B₂ S₃₂ Pt 7/8 Centre Sta 3/4 Pt 3/4
 Material of Crank shaft *Steel* Identification Mark on Do. 549 JE Material of Thrust shaft *Steel* Identification Mark on Do. 11553 A
 10242473 JP 1053. 19 WGH 12032472 JP 1251. 2475 JP 11385 849 JP 1029
 Material of Tunnel shafts *Steel* Identification Marks on Do. A Material of Screw shafts *Steel* Identification Marks on Do. 11523 A
 Material of Steam Pipes *Iron* Test pressure 540 lb

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been constructed under special survey in accordance with the Rules and approved plans and has been seen working under steam satisfactorily. Materials and workmanship are good

The machinery is eligible in my opinion to be
 Classed + LMC 1-19.

It is submitted that
 this vessel is eligible for
 THE RECORD. + LMC 1-19. F.D.

JWD.
 16/1/19

FRB

The amount of Entry Fee .. £ : :
 Special .. £ 84 . 14 : 3
 Donkey Boiler Fee .. £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 8-1-19
 When received, 8-3-19

Committee's Minute GLASGOW 14 JAN 1919

Assigned + LMC 1-19

Jas Easthope
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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Lloyd's Register
 Foundation

Rpt. 5a.

Date of writing

No. in

Reg. Book.

Master

Engines made

Boilers made

Registered

MULTIT

(Letter for

Boilers

No. of Certi

safety valves

Are they fitte

Smallest dist

Material of s

Descrip. of r

Lap of plates

rules 182

boilers

Description of

plates: Mater

Top 104. 91

smallest part

Pitch of stays

Area supporte

Lower back pl

Pitch of tubes

water spaces

girder at centr

Working press

separately

holes P

If stiffened with

Working press

GENERAL

Accord

Survey Fee

Travelling

Hean

WHL

Committee

Assigned