

# REPORT ON MACHINERY

No. 73377

Received at London Office WED. AUG. 4 1920

t. 4.

of writing Report

19

When handed in at Local Office

3 AUG 1920

Port of Newcastle on Tyne

in Survey held at

South Shields

Date, First Survey 16<sup>th</sup> Sept. 19, Last Survey 16<sup>th</sup> July 1920

Book

(Number of Visits 22)

on the S.S. "Homecliffe"

Tons { Gross 4914  
Net 3011

ter

Built at South Shields By whom built J. Readhead & Sons

When built 1920

ines made at

South Shields

By whom made J. Readhead & Sons

when made 1920

ers made at

South Shields

By whom made J. Readhead & Sons

when made 1920

istered Horse Power

Owners Cliff S.S. Co. Ltd (J. Readhead & Co. Eng.)

Port belonging to South Shields

Horse Power as per Section 28 433

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

INES, &c.—Description of Engines

Triple Expansion

No. of Cylinders 3

No. of Cranks 3

of Cylinders 26 1/2, 44, 73

Length of Stroke 48

Revs. per minute

Dia. of Screw shaft

Material of screw shaft Scrap Iron

he 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

he 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

een the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two

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

Length of stern bush 5'-0"

of Tunnel shaft

as per rule 13.21

Dia. of Crank shaft journals

as per rule 13.87

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

rs 14 1/2

Dia. of screw

Pitch of Screw

No. of Blades

State whether moveable

Total surface

96 sq ft

of Feed pumps

2

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

Yes

of Bilge pumps

2

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

Yes

of Donkey Engines

3

Sizes of Pumps

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

Eight 3 1/2" dia, and one 2 1/2" dia in

Engine Room

Four 3 1/2" dia

In Holds, &c. Eight 3 1/2" dia, and one 2 1/2" dia in

tunnel well.

of Bilge Injections

one size 6 3/4" dia

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room of size Yes 3 1/2" dia

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

all 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

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

How are they protected

Yes

at pipes are carried through the bunkers

None

How are they protected

Yes

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

Yes

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

Yes

Are they fitted with a watertight door

Yes

worked from

Top platform

ELERS, &c.—(Letter for record)

Manufacturers of Steel

al Heating Surface of Boilers

57100 sq ft

Is Forced Draft fitted

No

No. and Description of Boilers

3 Single ended

rking Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

31.3.20

No. of Certificate

9380

each boiler be worked separately

Yes

Area of fire grate in each boiler

60.15 sq ft

No. and Description of Safety Valves to

boiler

Two spring loaded

Area of each valve

7.06 sq in

Pressure to which they are adjusted

180 lbs

Are they fitted with easing gear

Yes

llest distance between boilers or uptakes and bunkers or woodwork

4'-0"

Mean dia. of boilers

15'-7 3/4"

Length

11'-0"

Material of shell plates

Steel

ickness

1/4"

Range of tensile strength

28/32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

DR Lap

. seams

TR.D.B. 3/4"

Diameter of rivet holes in long. seams

1 1/16"

Pitch of rivets

9 3/8"

Lap of plates or width of butt straps

1'-8"

centages of strength of longitudinal joint

rivets 85.9%

plate 86%

Working pressure of shell by rules

181.3 lbs

Size of manhole in shell

16" x 12"

of compensating ring

7" x 1 1/2"

No. and Description of Furnaces in each boiler

3 Brighton

Material

Steel

ngth of plain part

top

Thickness of plates

bottom

Description of longitudinal joint

Welded

No. of strengthening rings

4

rking pressure of furnace by the rules

183.6 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

Back

Top

Bottom

Working pressure by rules

192.7 lbs

ch of stays to ditto: Sides

10" x 9 1/4"

Back

10" x 9"

Top

10 1/2" x 9 1/2"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

197.7 lbs

aterial of stays

Iron

Area at smallest part

2.31

Area supported by each stay

90 sq in

Working pressure by rules

205.6 lbs

End plates in steam space:

aterial

Steel

Thickness

1 1/16"

Pitch of stays

21 1/2" x 20 1/2"

How are stays secured

DN & W

Working pressure by rules

197.7 lbs

Material of stays

Steel

a at smallest part

8.48

Area supported by each stay

445.8

Working pressure by rules

197.7 lbs

Material of Front plates at bottom

Steel

Thickness

7/8"

ickness

7/8"

Material of Lower back plate

Steel

Thickness

7/8"

Greatest pitch of stays

14" x 9"

Working pressure of plate by rules

191 lbs

Material of tube plates

Steel

eter of tubes

3 1/2"

Pitch of tubes

4 3/8" x 4 3/8"

Material of tube plates

Steel

Thickness: Front

Back

Mean pitch of stays

9 1/2"

Material

Steel

ch across wide water spaces

14"

Working pressures by rules

257 lbs

Girders to Chamber tops: Material

Steel

Depth and

Thickness of girder at centre

8 1/4" x 1 1/4"

Length as per rule

2'-6 1/2"

rking pressure by rules

193 lbs

Steam dome: description of joint to shell

None

% of strength of joint

100%

meter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Thickness

How stayed

Working pressure of shell by rules

Crown plates

Thickness

How stayed

ch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

Working pressure of shell by rules

Crown plates

Thickness

How stayed

Working pressure of shell by rules

Crown plates

PERHEATER. Type

None

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

Is Easing Gear fitted

Pressure to which each is adjusted

Working pressure of shell by rules

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

*Propeller, Propeller shaft, 7 boiler tubes, 6 Condenser tubes, 100 Condenser ferrules, one set of feed pump Valves, one set of Air pump Valves, one set of feed check Valves, 2 Safety valves springs, 6 shaft Coupling bolts, 2 top end connecting rod bolts, 2 bottom end connecting rod bolts, 2 main bearing bolts, 6 junk ring bolts, one set of firebars for one boiler, 6 Winch Condenser tubes, 50 Winch Condenser ferrules, 2 balls of condenser packing, 3 Hough's springs for check valves.*

The foregoing is a correct description,  
FOR JOHN READHEAD & SONS, LIMITED.

*W. P. Newry* Engineer-Manager Manufacturer.

Dates of Survey while building: During progress of work in shops -- *1919* Sep 16. Nov 7. Dec 5. *1920* Jan 7. 20. 22. Feb 13. 18. 20. 23. Mar 8. 26. 31. Apr 7. 12. 19. During erection on board vessel -- *27* May 12. Jun 7. 30. Jul 8. 16. Total No. of visits *22*

Is the approved plan of main boiler forwarded herewith *No* forwarded for *S/S Ronda* " donkey " " "

Dates of Examination of principal parts—Cylinders *20/4/20* Slides *26/3/20* Covers *8/3/20* Pistons *26/3/20* Rods *20/2/20* Connecting rods *20/2/20* Crank shaft *6/4/19* Thrust shaft *26/3/20* Tunnel shafts *26/3/20* Screw shaft *26/5/20* Propeller *12/4/20* Stern tube *26/3/20* Steam pipes tested *2/7/20* Engine and boiler seatings *7/4/20* Engines holding down bolts *8/7/20* Completion of pumping arrangements *8/7/20* Boilers fixed *27/5/20* Engines tried under steam *8/7/20* Completion of fitting sea connections *19/4/20* Stern tube *26/3/20* Screw shaft and propeller *27/5/20* Main boiler safety valves adjusted *8/7/20* Thickness of adjusting washers *1/2" 5/16" 5/16" 7/16" 5/16" 7/16"* Material of Crank shaft *Steel* Identification Mark on Do. *LLOYD'S No. 3111 D MR* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYD'S No. 3111 D 26.3.20 W.L.H.* Material of Tunnel shafts *Iron* Identification Marks on Do. *LLOYD'S No. 1957 26.3.20 W.L.H.* Material of Screw shafts *Iron* Identification Marks on Do. *LLOYD'S No. 1957 26.3.20 W.L.H.* Material of Steam Pipes *Copper* Test pressure *360 lbs*

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 *SS "Ronda"*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been constructed under special survey, the material and workmanship are of good quality, it has been securely fitted on board and satisfactorily tried under steam at anchorings for 2 1/2 hours.*

*The machinery of this vessel is now in my opinion eligible for record of + L.M.C. 7.20. (in red) in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 7.20

*Reck* 4/8/20 *ARK*

The amount of Entry Fee ... £ *3* : : : When applied for, *3 AUG 1920*  
Special ... £ *41* : *13* : :  
Donkey Boiler Fee ... £ : : :  
Travelling Expenses (if any) £ : : :  
When received, *11/8/20*

*N. L. Hall*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

*+ L.M.C. 7.20*

MACHINERY CERT. WRITTEN



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Certificate (if required) to be sent to NEWCASTLE-ON-TYNE. The Surveyors are requested not to write on or below the space for Committee's Minute.