

## REPORT ON MACHINERY

No. 27180

THU. 14 MAR. 1918

Received at London Office

Date of writing Report

18

When handed in at Local Office

12 MAR 1918

Port of

SUNDERLAND.

No. in Survey held at  
Reg. Book.

SUNDERLAND.

Date, First Survey

28 Apr. 17

Last Survey

2 March 1918

(Number of Visits)

App 65 on the new steel 915" WAR RAMBLER.

Master

Peterson

Built at

Sunderland

By whom built

Sir J. Laing &amp; Sons Ltd

When built

1918

Engines made at

Sunderland

By whom made

North Eastern Marine Eng. Co. Ltd (No. 2319)

when made

1918

Boilers made at

Sunderland

By whom made

North Eastern Marine Eng. Co. Ltd (No. 2319)

when made

1918

Registered Horse Power

Owners

The 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, &amp;c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

27-44-75

Length of Stroke

48

Revs. per minute

75

Dia. of Screw shaft

as per rule 14.69

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 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

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

Length of stern bush

Dia. of Tunnel shaft

as per rule 13.32

as fitted 13.32

Dia. of Crank shaft journals

as per rule 14

as fitted 14

Dia. of Crank pin

14.2

Size of Crank webs

collars 14.2

Dia. of screw

17.6

Pitch of Screw

16.6

No. of Blades

4

State whether moveable

no

Total surface

No. of Feed pumps

2

Diameter of ditto

4

Stroke

2-0

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

4

Stroke

2-0

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

3

Sizes of Pumps

10.2, 14.2, 24.2

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

In Engine Room

4 @ 3.2

In Holds, &amp;c.

No. 1 hold - 2 @ 3.2, No. 2 hold - 2 @ 3.2

No. of Bilge Injections

1

size

9

Connected to condenser, or to circulating pump

no

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

yes 3.2

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

none

How are they protected

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

24-10-17

of Stern Tube

2-11-17

Screw shaft and Propeller

2-11-17

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

no

worked from Access by trunk from deck

OILERS, &amp;c.—(Letter for record)

(5)

Manufacturers of Steel

John Spence &amp; Sons Ltd

Total Heating Surface of Boilers

7668

Is Forced Draft fitted

yes

No. and Description of Boilers

three single ended marine

Working Pressure

180

Tested by hydraulic pressure to

360

Date of test

25-8-17

No. of Certificate

3422

Can each boiler be worked separately

yes

Area of fire grate in each boiler

63.4

No. and Description of Safety Valves to

each boiler

two direct spring

Area of each valve

9.60

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

1-6

Mean dia. of boilers

15-6

Length

11-8 5/16

Material of shell plates

Thickness

1 1/2

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

BR

long. seams

DBS. TR

Diameter of rivet holes in long. seams

1 1/8

Pitch of rivets

9 1/8

Lap of plates or width of butt straps

1-7 1/2

Per centages of strength of longitudinal joint

88.2

Working pressure of shell by rules

182

Size of manhole in shell

16 x 12

Size of compensating ring

flanges

No. and Description of Furnaces in each boiler

3 Deighton

Material

steel

Outside diameter

Length of plain part

top

Thickness of plates

crown

1 1/2

Description of longitudinal joint

welded

No. of strengthening rings

Working pressure of furnace by the rules

188

Combustion chamber plates: Material

steel

Thickness: Sides

3 3/8

Back

1 1/2

Top

2 3/8

Pitch of stays to ditto: Sides

10 5/8 x 9 1/2

Back

10 5/8 x 8 3/4

Top

10 5/8 x 9 1/2

If stays are fitted with nuts or riveted heads

nut

Working pressure by rules

180

Material of stays

steel

Diameter at smallest part

2 3/8

Area supported by each stay

98.50

Working pressure by rules

216

End plates in steam space

Material

steel

Thickness

1 1/2

Pitch of stays

2 1/4 x 2 1/4

How are stays secured

BN &amp; Wash

Working pressure by rules

180

Diameter at smallest part

8 29/32

Area supported by each stay

4730

Working pressure by rules

182

Material of Front plates at bottom

steel

Thickness

3 1/2

Material of Lower back plate

steel

Thickness

2 1/2

Greatest pitch of stays

3 5/8 x 8 3/4

Working pressure of plate by rules

188

Diameter of tubes

2 3/4

Pitch of tubes

4 x 3 3/8

Material of tube plates

steel

Thickness: Front

3 1/2

Back

3/4

Mean pitch of stays

11 5/8 x 8

Pitch across wide water spaces

13 5/8

Working pressures by rules

181

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

10 x 1 1/2

Length as per rule

35 9/16

Distance apart

10 5/8

Number and pitch of stays in each

3 @ 9 1/4

Working pressure by rules

188

Superheater or Steam chest; how connected to boiler

none

Can the superheater, be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

yes

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

yes

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

yes



IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied: *Two connecting rod top and bottom end bolts and nuts two main bearing bolts one set of coupling bolts one set of feed and bilge pump valves iron and bolts of various sizes one propeller*

FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD

The foregoing is a correct description,

*Geo. D. Neer*

Manager.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- *1917 Apr 28 May 16 17 23 Jun 9 14 19 25 Jul 6 7 10 12 18 19 20 25 27 30 Aug 1 2 9 10 12 14 20 21 22*  
During erection on board vessel --- *27 28 29 31 Sep 12 25 27 Oct 1 2 3 9 14 22 24 Nov 9 13 Dec 4 Jan 10 24 Feb 26 27 28 Mar 1 5 8*  
Total No. of visits *(54)* Is the approved plan of main boiler forwarded herewith *Yls*

Dates of Examination of principal parts—Cylinders *28-8-17* Slides *27-9-17* Covers *19-7-17* Pistons *10-8-17* Rods *15-6-17*

Connecting rods *15-6-17* Crank shaft *25-9-17* Thrust shaft *25-9-17* Tunnel shafts *25-9-17* Screw shaft *25-9-17* Propeller *2-10-17*

Stern tube *19-10-17* Steam pipes tested *16-11-17* Engine and boiler seatings *2-11-17* Engines holding down bolts *4-12-17*

Completion of pumping arrangements *1-3-18* Boilers fixed *13-11-17* Engines tried under steam *4-12-17*

Main boiler safety valves adjusted *4-12-17* Thickness of adjusting washers *P- $\frac{3}{8}$ "  $\frac{5}{16}$ " C- $\frac{1}{2}$ "  $\frac{5}{16}$ " S- $\frac{1}{2}$ "  $\frac{5}{16}$ "*

Material of Crank shaft *Steel* Identification Mark on Do *25-9-17* Material of Thrust shaft *Steel* Identification Mark on Do *25-9-17*

Material of Tunnel shafts *Steel* Identification Marks on Do *25-9-17* Material of Screw shafts *Steel* Identification Marks on Do *25-9-17*

Material of Steam Pipes *Lapwelded wrought iron* Test pressure *540 lbs per sq in*

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 *✓* If so, state name of vessel *Standard Type A*

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

*The workmanship and materials are good.*

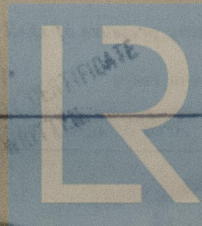
*The machinery has been constructed under special survey and is eligible in my opinion for classification and the record + LMC 3, 18.*

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 3, 18. E.D.

*JWD*  
*14/3/18*

The amount of Entry Fee ... £ : : When applied for.  
Special ... £122: 2: *12 MAR 1918*  
Donkey Boiler Fee ... £ : : When received.  
Travelling Expenses (if any) £ : : *28 3 1918*

Committee's Minute *FRI MAR 15 1918*  
Assigned *+ LMC 3, 18. J.D.*



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