

Date of writing Report

When handed in at Local Office

21st Oct 1914 Port of

WEST HARTLEPOOL

No. in Survey held at

West Hartlepool

Date, First Survey

5th March 1914 Last Survey12th Oct 1914

Reg. Book.

on the Steel Screw Steamer "Cheviot Range"

(Number of Visits)

Gross 3691

Net 2308

Master J. Fell

Built at West Hartlepool By whom built James D.B. & Co. Ltd.

When built 1914

Engines made at Hartlepool

By whom made Richardsons, Westgarth & Co. Ltd.

when made 1914

Boilers made at Hartlepool

By whom made Richardsons, Westgarth & Co. Ltd.

when made 1914

Registered Horse Power

Owners Neptune Steam Nav. Co. Ltd.

Port belonging to West Hartlepool

Nom. Horse Power as per Section 28 341

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Expansion (Inverted)

No. of Cylinders Three

No. of Cranks Three

Dia. of Cylinders 25-40-64

Length of Stroke 45

Revs. per minute 65

Dia. of Screw shaft

as per rule 13.83

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

In 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

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

Length of stern bush 4-10

Dia. of Tunnel shaft as per rule 12.36

Dia. of Crank shaft journals as per rule 12.94

Dia. of Crank pin 13 1/2

Size of Crank webs 8x20 1/2

Dia. of thrust shaft under

collars 13 1/2

Dia. of screw 16-9

Pitch of Screw 16-6

No. of Blades four

State whether moveable no

Total surface 88.9 sq ft

No. of Feed pumps two

Diameter of ditto 3 1/4

Stroke 24

Can one be overhauled while the other is at work yes

No. of Bilge pumps two

Diameter of ditto 3 1/4

Stroke 24

Can one be overhauled while the other is at work yes

No. of Donkey Engines two

Sizes of Pumps Ballast 11x10 (1/2 wheel)

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

In Engine Room four 3 1/2, one 2 1/2, Main Engine Direct 4x6

In Holds, &c. two 3 1/2 in each Hold and

one 2 1/2 tunnel well

No. of Bilge Injections one size 5

Connected to condenser, or to circulating pump pump

Is a separate Donkey Suction fitted in Engine room of 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 above

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 4/9/14

of Stern Tube 15/9/14

Screw shaft and Propeller 17/9/14

Is the Screw Shaft Tunnel watertight yes

Is it fitted with a watertight door yes

worked from top platform

OILERS, &c.—(Letter for record S)

Manufacturers of Steel Thyssen & Co., Duisburg & Co. Ltd.

Total Heating Surface of Boilers 5450 sq ft

Is Forced Draft fitted no

No. and Description of Boilers two Single Ended Cyl. Mult.

Working Pressure 180 lb

Tested by hydraulic pressure to 360 lb

Date of test 7/4/14

No. of Certificate 3342

Can each boiler be worked separately yes

Area of fire grate in each boiler 59.1 sq ft

No. and Description of Safety Valves to

each boiler two, direct spring

Area of each valve 8.29 sq ft

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 18

Mean dia. of boilers 16-6

Length 11-0

Material of shell plates steel

Thickness 1 1/2

Range of tensile strength 29-32.4 lb

Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams lap 5R.

ong. seams DRB = FR

Diameter of rivet holes in long. seams 1 1/2

Pitch of rivets 8 3/4

Lap of plates or width of butt straps 18 1/2

Per centages of strength of longitudinal joint

rivets 89.6%

Working pressure of shell by rules 180 lb

Size of manhole in shell 13x16 1/2

Size of compensating ring 8 1/4 x 1 1/2

No. and Description of Furnaces in each boiler three Bull

Material steel

Outside diameter 48 1/2

Length of plain part top

Thickness of plates crown 19

Description of longitudinal joint welded

No. of strengthening rings

Working pressure of furnace by the rules 195 lb

Combustion chamber plates: Material steel

Thickness: Sides 19

Back 5

Top 19

Bottom 7

Pitch of stays to ditto: Sides 1/4 x 1/8

Back 1/4 x 1/8

Top 1/4 x 1/8

If stays are fitted with nuts or riveted heads nuts

Working pressure by rules 211 lb

Material of stays steel

Diameter at smallest part 1 3/8

Area supported by each stay 8 1/4 x 1 3/4

Working pressure by rules 185.5 lb

End plates in steam space

Material steel

Thickness 1 3/8

Pitch of stays 16 1/2 x 19 1/2

How are stays secured 5N + 11

Working pressure by rules 204.5 lb

Material of stays steel

Diameter at smallest part 3.05

Area supported by each stay 16 1/2 x 19 1/2

Working pressure by rules 234 lb

Material of Front plates at bottom steel

Thickness 1 5/16

Material of Lower back plate steel

Thickness 1 3/8

Greatest pitch of stays 13 1/2 x 8 1/4

Working pressure of plate by rules 182.5 lb

Diameter of tubes 3 1/2

Pitch of tubes 4 1/2 x 4 5/8

Material of tube plates steel

Thickness: Front 1 1/2

Back 3/2

Mean pitch of stays 11.65

Pitch across wide water spaces 14 1/2

Working pressures by rules 181 lb

Girders to Chamber tops: Material steel

Depth and

Thickness of girder at centre 8 1/4 x 1 3/4

Length as per rule 32.8

Distance apart 4 1/8

Number and pitch of stays in each three 1/4

Working pressure by rules 182.5 lb

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivets

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

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

IS A DONKEY BOILER FITTED? Yes.If so, is a report now forwarded? yes.

SPARE GEAR. State the articles supplied:—

Two Top End, two Bottom End & two Main bearing bolts and nuts, one set of coupling bolts, one propeller shaft & set for & vice, pump & screw, 50 condenser tubes, one set of H.P. piston rings & pump, & a set of feed & bridge pump valves
see Npl. Ltr. 23/10/14.

The foregoing is a correct description,
 FOR R. & S. JARDSONS, WESTGARTH & CO. LIMITED

W. J. J. J.
 ASSISTANT GENERAL MANAGER

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1914. Mar 5. 6. 16. April 16. 20 May 20. 25. 27. 28. 29. June 8. 10. 11. 15. 18. 19. 23. 25. 30
 { During erection on board vessel -- July 2. 3. 6. 7. 8. 21. 22. 23. 28. August 10. 11. 12. 17. 18. 20. 24. 26. Sep. 4. 15. 16. 19. 23. 24. 26. 29 Oct. 12
 Total No. of visits 45

Is the approved plan of main boiler forwarded herewith? yes." " " donkey " " " yes.

Dates of Examination of principal parts—Cylinders 20/6/14 Slides 11/6/14 Covers 30/6/14 Pistons 27/7/14 Rods 25/8/14

Connecting rods 16/8/14 Crank shaft 25/7/14 Thrust shaft 3/7/14 Tunnel shafts 27/7/14 Screw shaft 20/8/14 Propeller 3/7/14

Stern tube 24/8/14 Steam pipes tested 24/9/14 Engine and boiler settings 19/9/14 Engines holding down bolts 19/9/14

Completion of pumping arrangements 12/10/14 Boilers fixed 29/9/14 Engines tried under steam 29/9/14

Main boiler safety valves adjusted 29/9/14 Thickness of adjusting washers $\frac{3}{8}$ $\frac{3}{8}$ $\frac{3}{8}$ $\frac{3}{8}$ $\frac{3}{8}$ $\frac{3}{8}$ $\frac{3}{8}$ $\frac{3}{8}$

Material of Crank shaft steel Identification Mark on Do. (5576) 2/6/14 Material of Thrust shaft steel Identification Mark on Do. (5576) 3/7/14

Material of Tunnel shafts steel Identification Marks on Do. (5576) 19/9/14 Material of Screw shafts steel Identification Marks on Do. (5576) 20/8/14 (5576) 20/8/14

Material of Steam Pipes Copper Test pressure 360 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 Hambleton Range

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

Evaporator body tested to 50th & steam coils to 400th Hydraulic pressure, Marked 523. 29/5/14

The Machinery of this Vessel has been constructed under special survey the material & workmanship sound & good the Boilers and steam pipes have been tested by Hydraulic pressure in accordance with the Requirements of the Rules, the whole of the machinery worked well and the safety valves have been adjusted to their working pressure under steam & Sailing gear fitted.

+ LMC 10. 14. see Npl. Ltr. 23/10/14.

It is submitted that
 this vessel is eligible for
 THE RECORD. + LMC 10. 14.

The amount of Entry Fee ... £ 3 : 0 :
 Special ... £ 34 : 1 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 21/10/14
 When received, 27/10/14

Committee's Minute FRI. OCT. 23. 1914

Assigned + LMC 10. 14

MACHINERY CERTIFICATE
 WRITTEN.



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Lloyd's Register
 Foundation

Date of writing Report

No. in Survey

Reg. Book.

on the

Master

Engines made at

Boilers made at

Registered Horse

MULTITUBULAR

(Letter for record)

Boilers On

No. of Certificate

safety valves to each

Are they fitted with

Smallest distance

Material of shell

Descrip. of riveting

Lap of plates on

rules 100

boiler 2 ft

Description of long

plates: Material

Top 84 x 7 ft

smallest part 9

Pitch of stays 17 1/2

Area supported by

Lower back plate

Pitch of tubes 4 1/2

water spaces

girder at centre

Working pressure

separately

holes Pitch

If stiffened with

Working pressure

Dates of Survey

while work

building During

board

GENERAL

Special

by hydraulic

Boiler

Steam

Survey Fee

Travelling

Committee's

Assigned