

# REPORT ON MACHINERY.

No. 14972

Received at London Office

MON. AUG. 10. 1914

Writing Report

10

When handed in at Local Office

7/8/14

in 14 Port of

WEST HARTLEPOOL

Survey held at

West Hartlepool

Date, First Survey

19th Feb/14

Last Survey

25th July 1914

Book.

on the steel screw steamer HAMBLETON RANGE

(Number of Visits)

41

Tons

Gross 3682

Net 2293

When built 1914

ter J. H. Canham

Built at

West Hartlepool

By whom built

James & Sons & Co. Ltd.

ines made at

Hartlepool

By whom made

Richardson, Westgarth & Co. Ltd.

when made 1914

ers made at

Hartlepool

By whom made

Richardson, Westgarth & Co. Ltd.

when made 1914

istered Horse Power

Owners Neptune Steam Navigation Co. Ltd.

Port belonging to WEST HARTLEPOOL

Horse Power as per Section 28

341

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

INES, &c.—Description of Engines

Triple Expansion (inverted)

No. of Cylinders

Three

No. of Cranks

Three

of Cylinders

25-40-67

Length of Stroke

45

Revs. per minute

65

Dia. of Screw shaft

as per rule 13.82

Material of screw shaft

steel

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

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

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

Length of stern bush

4-10

of Tunnel shaft

as per rule 12.36

Dia. of Crank shaft journals

as per rule 12.98

Dia. of Crank pin

13 1/8

Size of Crank webs

20 3/8 x 8

Dia. of thrust shaft under

ers

13 1/4

Dia. of screw

16-9

Pitch of Screw

16-6

No. of Blades

four

State whether moveable

no

Total surface

88.9

of Feed pumps

no

Diameter of ditto

3 1/4

Stroke

24

Can one be overhauled while the other is at work

yes

of Bilge pumps

no

Diameter of ditto

3 3/4

Stroke

24

Can one be overhauled while the other is at work

yes

of Donkey Engines

no

Sizes of Pumps

General 4x6 duplex

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

Engine Room

four 3 1/2 in one 2 1/2 in direct

In Holds, &c.

Two 3 1/2 in each hold

2 1/2 in Tunnel well

of Bilge Injections

one size 5

Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size

yes 3 1/2

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

all connections with the sea direct on the skin of the ship

yes

Are they Valves or Cocks

both

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

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

that pipes are carried through the bunkers

none

How are they protected

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

dates of examination of completion of fitting of Sea Connections

8/6/14

of Stern Tube

26/6/14

Screw shaft and Propeller

26/6/14

the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from top platform

ILERS, &c.—(Letter for record

S)

Manufacturers of Steel

Wm. D. & Co. Ltd.

total Heating Surface of Boilers

5450

Is Forced Draft fitted

no

No. and Description of Boilers

Two High Ended G.L. & Co. Ltd.

orking Pressure

180 lb

Tested by hydraulic pressure to

360 lb

Date of test

29/5/14

No. of Certificate

3368

in each boiler be worked separately

yes

Area of fire grate in each boiler

59.1

No. and Description of Safety Valves to

h boiler

no, direct spring

Area of each valve

8.29

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

ickness

1 1/2

Range of tensile strength

295-324

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

45 R.

g. seams

WMS-TR

Diameter of rivet holes in long. seams

1 1/2

Pitch of rivets

8 1/2

Lap of plates or width of butt straps

18 1/2

centages of strength of longitudinal joint

89.6

Working pressure of shell by rules

180 lb

Size of manhole in shell

15 x 16 1/2

ie of compensating ring

8 1/2 x 1 1/2

No. and Description of Furnaces in each boiler

Three Bull

Material

steel

Outside diameter

48 1/2

ngth of plain part

top

bottom

Thickness of plates

19

bottom

Description of longitudinal joint

Weld.

No. of strengthening rings

4

orking pressure of furnace by the rules

195 lb

Combustion chamber plates: Material

steel

Thickness: Sides

19

Back

5

Top

19

Bottom

19

Bottom

19

19

itch of stays to ditto: Sides

7/4 x 7/8

Back

7/4 x 7/8

Top

7/4 x 7/8

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

211 lb

aterial of stays

steel

Diameter at smallest part

1 3/8

Area supported by each stay

8 1/4 x 7 1/4

Working pressure by rules

185.5 lb

End plates in steam space:

aterial

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

diameter at smallest part

3-0

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



IS A DONKEY BOILER FITTED?

yes.

If so, is a report now forwarded?

yes.

SPARE GEAR.

State the articles supplied:—

Two each top End, Bottom End & Main Bearing Bolts  
one set of coupling Bolts. one set H.P. piston rings one feed check valve one safety valve  
one set feed pump valves, one set bilge pump valves. One propeller & propeller shaft.  
Half set Air pump valves, Half set of circulating pump valves. Assorted Bolts nuts & washers.

The foregoing is a correct description,  
FOR RICHARDSON, WESTGARTH & CO. LIMITED

*S. H. Hingle*

ASSISTANT GENERAL MANAGER

Manufacturer.

Dates of Survey while building  
During progress of work in shops - -  
During erection on board vessel - - -  
Total No. of visits

1914. Feb 19. 20. March 18. 19. 20. 23. 24. 27. 30. 31. April 2. 7. 16. 20. 23. 24. 27. May 1.

8. 11. 21. 22. 25. 29. June 3. 5. 8. 10. 11. 12. 15. 24. 26. July 7. 8. 9. 15. 23. 25.

41.

Is the approved plan of main boiler forwarded herewith

yes.

" " " donkey " " "

yes.

Dates of Examination of principal parts—Cylinders 16/4/14 Slides 25/5/14 Covers 25/5/14 Pistons 2/4/14 Rods 8/5/14

Connecting rods 16/4/14 Crank shaft 1/5/14 Thrust shaft 19/5/14 Tunnel shafts 23/4/14 Screw shaft 7/4/14 Propeller 8/6/14

Stern tube 11/5/14 Steam pipes tested 25/5/14 Engine and boiler seatings 7/7/14 Engines holding down bolts 7/7/14

Completion of pumping arrangements 9/7/14 Boilers fixed 15/7/14 Engines tried under steam 9/7/14

Main boiler safety valves adjusted 9/7/14 Thickness of adjusting washers 7/6 3/8 1 13/32 3/8

Material of Crank shaft steel Identification Mark on Do. (5569) Material of Thrust shaft steel Identification Mark on Do. (5569)

Material of Tunnel shafts steel Identification Marks on Do. (5569) Material of Screw shafts steel Identification Marks on Do. (5569)

Material of Steam Pipes Copper rolled drawn 5" bore 17.5 w.g. Test pressure 540 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 "Tania" - Boilers previously examined

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

Engines & Boilers tested by Hyd pressure to 50 lbs + steam coils to 400 lbs marked.

The Machinery of this Vessel has been built under Special Survey, the Material & workmanship found 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 at the morning & the safety valves have been adjusted under steam to their working pressure & during gear testing rendering this Vessel eligible in my opinion to sign the Notation \* L M C 7/14 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L M C 7/14

The amount of Entry Fee ... £ 3 : 0 :  
Special ... £ 54 : 1 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 7/8/14  
When received, 11/8/14

Committee's Minute  
Assigned  
FRI. AUG. 14. 1914  
+ L M C 7/14

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