

Port of WEST HARTLEPOOL.

Received at London Office

SAT. 28

JUL 1906

No. in Survey held at

Hartlepool.

Date, first Survey

19th Mar, 1905.

Last Survey

20th July,

1906.

Reg. Book.

1220

on the

L. S. Snowden Range.

Master W. J. Bath.

Built at

W. Hartlepool

By whom built

Messrs. J. & S. 58 & 27 1/2

Tons

Gross

3059.84

Net

1939.31

Engines made at

Hartlepool

By whom made

Richardsons, Westgate & Co.

When made

1906

Boilers made at

By whom made

when made

1906

Registered Horse Power

Owners

Chepture & Co. Ltd.

Port belonging to

Sunderland.

Nom. Horse Power as per Section 28

275

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

24 x 38 x 64

Length of Stroke

42

Revs. per minute

60

Dia. of Screw shaft

as per rule 13.43

Material of

Screw

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

No

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

Yes

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

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

Yes

Length of stern bush

4' 7"

Dia. of Tunnel shaft

as per rule 11.2

Dia. of Crank shaft journals

as per rule 11.8

Dia. of Crank pin

12 1/2

Size of Crank webs

7 1/2 x 2 1/2

Dia. of thrust shaft under

collars

12 1/2

Dia. of screw

16.0

Pitch of Screw

16.6

No. of Blades

4

State whether moveable

No

Total surface

79.8 sq

No. of Feed pumps

2

Diameter of ditto

2 3/4

Stroke

27

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

3 3/4

Stroke

27

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

6 x 4 x 6

4 x 8 1/2 x 7

9 x 11 1/2

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

In Engine Room

2

3" x 1 from boiler room

3 1/2

In Holds, &c.

No 1 Hold 2-3

No 2 Hold 2-3

No 3 Hold 2-3

Jennellwell 1-2 1/2

No. of Bilge Injections

1

sizes

5

Connected to condenser, or to circulating pump

Yes

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

Yes

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

26/6/06

of Stern Tube

26/6/06

Screw shaft and Propeller

28/6/06

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Top platform

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

Blyth & Co. Ltd.

Total Heating Surface of Boilers

4264

Is Forced Draft fitted

No

No. and Description of Boilers

Two

Single ended

Working Pressure

160 lbs.

Tested by hydraulic pressure to

320 lbs.

Date of test

31/5/06

No. of Certificate

3858

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

50.06 sq

No. and Description of Safety Valves to

each boiler

Two

Spring

Area of each valve

7.06

Pressure to which they are adjusted

165 lbs.

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

24"

Mean dia. of boilers

15.6"

Length

10.0"

Material of shell plates

Thickness

1 1/8"

Range of tensile strength

29/32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

long. seams

TR DBS

Diameter of rivet holes in long. seams

1 7/32"

Pitch of rivets

7 1/4"

Lap of plates or width of butt straps

17 1/2"

Per centages of strength of longitudinal joint

rivets 85

plate 83.2

Working pressure of shell by rules

161.4 lbs

Size of manhole in shell

12 1/4"

16 1/4"

Size of compensating ring

1 1/8"

No. and Description of Furnaces in each boiler

3

Material

S

Outside diameter

48 3/4"

Length of plain part

top 9'

bottom 9'

Thickness of plates

top 1 1/32"

bottom 1 1/32"

Description of longitudinal joint

Welded

No. of strengthening rings

Yes

Working pressure of furnace by the rules

168 lbs

Combustion chamber plates: Material

S

Thickness: Sides

9/16"

Back

9/16"

Top

9/16"

Bottom

3/4"

Pitch of stays to ditto: Sides

8 x 8 1/4"

Back

8 x 8 1/4"

Top

8 1/4"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

160 lbs

Material of stays

S

Diameter at smallest part

1 3/8"

Area supported by each stay

680"

Working pressure by rules

175 lbs

End plates in steam space:

Material

S

Thickness

1"

Pitch of stays

Diameter at smallest part

2 3/8"

Area supported by each stay

2920"

Working pressure by rules

167 lbs

Material of Front plates at bottom

S

Thickness

1 1/16"

Material of Lower back plate

S

Thickness

3/4"

Greatest pitch of stays

13'

Working pressure of plate by rules

162 lbs

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2"

Material of tube plates

S

Thickness: Front

1 5/16"

Back

3/4"

Mean pitch of stays

9"

Pitch across wide water spaces

14 1/4"

Working pressures by rules

166 lbs

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

7 x 17 1/8"

Length as per rule

28 1/2"

Distance apart

8 1/4"

Working pressure by rules

165 lbs

Superheater or Steam chest; how connected to boiler

Yes

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

If stiffened with rings

Yes

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 by rules

End plates: Thickness

How stayed

Working pressure by rules

VERTICAL DONKEY BOILER—Manufacturers of Steel

No. 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
 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 Stayed by
 Diameter of uptake Thickness of uptake plates Thickness of water tubes Dates of survey

SPARE GEAR. State the articles supplied:— 1 Spare propeller + spare gear as per rule requirements

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

Dates of Survey while building During progress of work in shops - During erection on board vessel - Total No. of visits
 1905. Mar. 17. 18. 20. 22. 23 July 3. 6. Aug. 25. Oct. 10. Nov. 21. Dec. 7. 11. 1906 Feb. 23. 26
 Mar. 5. 7. 8. 13. 22. Apr. 3. 5. 6. 10. 24. 27. 28. May. 3. 14. 16. 24. 30. 31. June 14. 15. 19. 20. 23. 26. 28. July 2. 4.
 10. 13. 20. 45. Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 14/5/06 Slides 26/6/06 Covers 26/6/06 Pistons 26/6/06 Rods 26/6/06
 Connecting rods 26/6/06 Crank shaft 16/5/06 Thrust shaft 18/5/06 Tunnel shafts 5/4/06 Screw shaft 15/5/06 Propeller 4/7/06
 Stern tube 4/7/06 Steam pipes tested 2/7/06 Engine and boiler seatings 28/6/06 Engines holding down bolts 28/6/06
 Completion of pumping arrangements 4/7/06 Boilers fixed 28/6/06 Engines tried under steam 4/7/06
 Main boiler safety valves adjusted 4/7/06 Thickness of adjusting washers 3 B 3 5 6 4 4 P B 4 4 P B P 5 6 4 4 S 6 1 6
 Material of Crank shaft 3 Identification Mark on Do. 4435 Material of Thrust shaft 3 Identification Mark on Do. 4435
 Material of Tunnel shafts 3 Identification Marks on Do. 4435 Material of Screw shafts 3 Iron Identification Marks on Do. 4435
 Material of Steam Pipes W Iron Test pressure 500 lbs sq"

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

The Engines & Boilers of this vessel have been constructed under special survey & the materials & workmanship are found to be good. The engines have been tried under steam & the safety valves of the Main & Donkey Boilers have been adjusted to the working pressure.

The Machinery is now in good order & safe working condition & eligible in my opinion to have the notation of + L M C 7.05 (illegible) in the Register Book.

It is submitted that this vessel is eligible for THE RECORD L M C 7.05

The amount of Entry Fee. £ 1 : : When applied for. 21. 4. 06
 Special £ 33. 15 : :
 Donkey Boiler Fee £ : : When received. 28. 7. 06
 Travelling Expenses (if any) £ : : 28. 7. 06

Sho. L. Shorton. Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

TUES. 31 JUL 1906

Assigned

MACHINERY CERTIFICATE
 WRITTEN.