

## REPORT ON MACHINERY.

No. 12925.

Port of WEST HARTLEPOOL.

IUES. 1 MAY 1906

Received at London Office

19

No. in Survey held at

HARTLEPOOL

Date, first Survey

11th Sept 1905

Last Survey

27th April 1906

(Number of Visits 43)

Reg. Book.

on the

S. J. Bessborough

Master

Raggett

Built at

W. Hartlepool

By whom built

Turner, W. &amp; Co. Ltd.

Tons

Gross 3807.22

Net 2469.98

When built

1906

Engines made at

Hartlepool

By whom made

Richardson, W. &amp; Co. Ltd.

when made

1906

Boilers made at

By whom made

when made

1906

Registered Horse Power

Owners

Hull Steam Shipping Co. Ltd.

Port belonging to

Hull

Nom. Horse Power as per Section 28

317

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

## ENGINES, &amp;c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

24, 39, 66

Length of Stroke

45

Revs. per minute

60

Dia. of Screw shaft

as per rule 14.3

Material of

screw shaft

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

Continuous

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 12.05

Dia. of Crank shaft journals

as per rule 12.65

Dia. of Crank pin

13

Size of Crank webs

8x25

Dia. of thrust shaft under

collars

13

Dia. of screw

16'-9"

Pitch of Screw

16'-6"

No. of Blades

4

State whether moveable

No

Total surface

87.5 sq'

No. of Feed pumps

2

Diameter of ditto

3 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

(6x4x6) 8 1/2 x 7

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

In Engine Room

4

3 1/2"

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

In Holds, &amp;c.

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

No. of Bilge Injections

1

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

Are all the bilge suction pipes fitted with roses

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

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

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

What pipes are carried through the bunkers

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

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

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

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

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Dates of examination of completion of fitting of Sea Connections

3/3/06

3/3/06

3/3/06

3/3/06

3/3/06

3/3/06

3/3/06

3/3/06



# 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 \_\_\_\_\_ Plates \_\_\_\_\_

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 tail and shaft 1 anvil & set of tools 1 Tube expander 1 Box Laps & dies 50 Firebars &c. & Spare gear as per rule requirement

The foregoing is a correct description,  
for RICHARDSONS, WESTGARH & CO., LIMITED.

Dates of Survey of Survey while building { During progress of work in shops - - 1905. Sept. 6. 27. Oct. 3. Nov. 15. 16. 20. 24. 27. 28. 29. Dec. 1. 4. 5. 6. 7. 8. 11. 12. 13. 15. 18. 29. 1906 Jan. 5. 9. 10. 19. 23. 26. Feb. 1. 2. 5. 6. 8. 12. 14. 14. 24. 27. 28. Mar. 2. 3. Apr. 23. 27. }  
Total No. of visits 48

Is the approved plan of main boiler forwarded herewith *Yes please for duplicate*  
" " " donkey " " "

Dates of Examination of principal parts—Cylinders 5/1/06 Slides 2/2/06 Covers 2/3/06 Pistons 3/2/06 Rods 10/1/06  
Connecting rods 8/2/05 Crank shaft 31/1/06 Thrust shaft 13/2/05 Tunnel shafts 6/12/05 Screw shaft 14/2/06 Propeller 3/3/06  
Stern tube 13/2/06 Steam pipes tested 2/3/06 Engine and boiler seatings 28/2/06 Engines holding down bolts 28/2/06  
Completion of pumping arrangements 3/3/06 Boilers fixed 3/3/06 Engines tried under steam 3/3/06  
Main boiler safety valves adjusted 3/3/06 Thickness of adjusting washers 83.8 5/16 P 5/16 P 83.8 5/16 P 5/16  
Material of Crank shaft *Forged S* Identification Mark on Do. 4346747 Material of Thrust shaft *Forged S* Identification Mark on Do. 4346747  
Material of Tunnel shafts " Identification Marks on Do. " Material of Screw shafts *Forged S* Identification Marks on Do. "  
Material of Steam Pipes *W Iron* Test pressure 630 lbo.

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 sound & good. The engines have been tried under steam & the safety valves of the Main & Donkey Boilers have been adjusted under steam to the working pressure. The Machinery of this vessel is now in good order & safe working condition & eligible in my opinion to have the notation of + LMC 4.06 (in red) in the Register Book.

It is submitted that this vessel is eligible for THE RECORD L.M.C. 4.06

The amount of Entry Fee. £ 3 : : When applied for, 27. 4. 1906  
Special .. £ 35. 17 : :  
Donkey Boiler Fee .. £ : : When received, 1. 5. 06  
Travelling Expenses (if any) £ : : 1. 5. 06

*Thos L Thornton*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. 4 MAY 1906

Assigned

+ LMC 4.06

MACHINERY CERTIFICATE WRITTEN.



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